MEMORANDUM

DRAFT

MULLER ENGINEERING COMPANY

Project: Southbound I-225 VISSIM Analysis: Parker to I-25

To: Paul Scherner, PE – Colorado Department of Transportation

From: Kenneth Ryan, PE, PTOE – Muller Engineering Co.
Karl Buchholz, PE, PTOE – Muller Engineering Co.

Date: May 22, 2017

Subject: Preliminary Results Summary

Two scenarios, outlined by CDOT staff, are under consideration to address the recurring congestion problem on southbound I-225 between the Parker Road and I-25 interchanges. An updated VISSIM model was requested as a secondary study, focusing on the freeway modeling, to provide results in accordance with Federal Highway Administration (FHWA) guidelines for microsimulation modeling.

ANALYSIS OVERVIEW

The two scenarios selected by CDOT staff for modeling are based on conceptual layouts evaluated as a part of previous work efforts. These scenarios are described as follows:

- **Scenario 2**: Southbound I-225 hard shoulder lane starting north of Yosemite; Reconfigure DTC Boulevard on-ramp traffic to provide access to northbound I-25 only. DTC Boulevard travel to SB I-25 would occur via the local street system.
- **Scenario 3**: Southbound I-225 hard shoulder lane starting north of Yosemite; Reconfigure DTC Boulevard on-ramp traffic to provide access to northbound I-25 only; Remove DTC Boulevard off-ramp, add Yosemite on-ramp.

CALIBRATION SUMMARY

Detailed information regarding model calibration is provided in the April 17, 2017 *Calibration Report* memorandum. The VISSIM model provides a reasonable approximation of current traffic conditions during the AM and PM peak periods for the purpose of evaluating the proposed construction alternatives with the following caveats:

- While the AM peak period calibration targets were met above the 85% level, there remain some concerns regarding the correlation to the speed data at specific locations.
- The calibration targets were not fully met during the PM peak period on I-225.
  - The model does indicate similar fluctuations in queue length, but due to the nature of unstable flow these do not align consistently with the data collected in the field.

- The calibration targets were not fully met during the PM peak period on northbound I-25.
  - The field conditions responsible for the traffic patterns on northbound I-25 were not observed in the field; the model was therefore calibrated in a conservative manner, showing more congestion near the I-225 merge than was shown in the data.

CONCEPT MODEL DEVELOPMENT

The Concept 2 and Concept 3 scenarios were modeled in VISSIM by altering the calibrated model as necessary to provide the new lane geometry. The analysis results are based on the average results after 11 simulation runs with different random seeds.

Redirected Traffic

Concept 2 will eliminate the connection between the Yosemite Street and DTC Boulevard interchanges with I-225 and southbound I-25 (barrier separation). As a result, this traffic will divert to alternative locations. Due to the significant reduction in congestion along southbound I-225 observed in the initial model runs, some of this traffic was diverted to the Parker Road interchange and therefore accounted for explicitly in the VISSIM model. The remaining traffic was routed through the Denver Tech Center and assumed to split between the Belleview Avenue and Orchard Road interchanges to access I-25.

A macro-level analysis using Synchro and data provided by DRCOG regarding historic peak period travel time through the Denver Tech Center was used to estimate the travel time and delay accrued by this traffic. The travel time and delay estimate was then added back into the network-wide performance evaluation results to account for the delay experienced by the diverted traffic in the Concept 2 scenario.

In Concept 3, while a connection will be provided between the Yosemite Street interchange and southbound I-25 by the reconfigured ramp, similar to Concept 2 some traffic will likely still divert to southbound I-225 at Parker Road in direct response to the reduction in congestion. Therefore, the Yosemite Street on-ramp would not be expected to accommodate all traffic from the combined DTC Boulevard/Yosemite Street interchanges.

Latent Demand on I-225

The recurring congestion on southbound I-225 inevitably leads drivers to seek alternative routes, who may then return to southbound I-225 should conditions improve. This would have a positive benefit on the surrounding arterial street system, at the possible expense of operations on southbound I-225 even after the improvement.

The effect of this potential latent demand is uncertain, but for the purpose of this analysis a sensitivity analysis was performed to evaluate the impact of this additional traffic at several levels. At this preliminary stage, this includes a scenario where an additional 10% traffic is added to the volume inputs from Parker Road and southbound I-225 (from Iliff).

PRELIMINARY RESULTS

The following is a brief overview of the model results to-date:

Concept 2

PROS	Under Current Traffic Volumes	CONS
• AM Peak - 16% reduction in network-wide travel time. - 31% reduction in network-wide delay. - 67% travel time reduction for SB I-225. • PM Peak - 5% reduction in network-wide travel time. - 11% reduction in network-wide delay. - 34% travel time reduction for SB I-225.		• I-225 to SB I-25 traffic diverted through DTC. - Affects Belleview and Orchard interchanges. • AM Peak - 6% travel time increase NB I-25. • PM Peak - 4% travel time increase NB I-25.
PROS	**With Additional 10% Traffic on SB I-225 versus Current Conditions**	**CONS**
• AM Peak - 9% reduction in network-wide travel time. - 12% reduction in network-wide delay. - 52% travel time reduction for SB I-225. • PM Peak - 22% travel time reduction for SB I-225.		• AM Peak - 12% travel time increase for NB I-25. • PM Peak - 2% increase in network-wide travel time. - 8% increase in network-wide delay. - 12% travel time increase for NB I-25.

Concept 3

PROS	Under Current Traffic Volumes	CONS
• I-225 to SB I-25 via Yosemite on-ramp. • AM Peak - 14% reduction in network-wide travel time. - 28% reduction in network-wide delay. - 57% travel time reduction for SB I-225. • PM Peak - 4% reduction in network-wide travel time. - 10% reduction in network-wide travel time. - 33% travel time reduction for SB I-225.		• DTC Pkwy to SB I-25 diverted to Yosemite. - Affects Belleview and Orchard interchanges. • AM Peak - 4% travel time increase NB I-25. • PM Peak - 6% travel time increase NB I-25.
PROS	**With Additional 10% Traffic on SB I-225 versus Current Conditions**	**CONS**
• AM Peak - 10% travel time reduction for SB I-225. • PM Peak - 19% travel time reduction for SB I-225.		• AM Peak - 7% increase in network-wide travel time. - 13% increase in network-wide delay. - 8% travel time increase NB I-25. • PM Peak - 3% increase in network-wide travel time. - 8% increase in network-wide delay. - 12% travel time increase NB I-25.

CONCLUSION

The preliminary results indicate that both Concept 2 and Concept 3 are expected to provide an overall reduction in congestion within the study network when compared to existing conditions. However, both Concepts show an increase in network travel time compared to existing conditions (Concept 2 in the PM peak period and Concept 3 in the AM and PM peak periods) when traffic volumes on southbound I-225 are increased by 10% to account for potential latent demand traffic diversion. It's worth noting that this increase in travel time for Concepts 2 and 3 is relative to the existing traffic conditions which do not include the 10% increase in traffic volumes. The increase in latent demand on I-225 will very likely draw traffic from the adjacent street network, which is expected to have an overall positive benefit to the street system and is not reflected in the above analysis due to the limited scope of this modeling effort. Also, it is likely that an equilibrium will occur whereby the latent demand increase is less than 10% because the improvements on I-225 will only draw new traffic to the corridor up to a point where traffic flow does not degrade beyond existing conditions.

APPENDICES

- **Appendix A:** Summary Tables and Charts – By Peak Period
  - *Global Network Performance Results*: Based on the Network Performance output from VISSIM comparing the travel time, delay, and stops for Existing Conditions to Concept 2 and Concept 3 results.
  - *Travel Time Segment Analysis Charts*: Based on the Travel Time and Delay output from VISSIM for key origin-destination pairs through the network comparing the travel time, delay, and stops for Existing Conditions to Concept 2 and Concept 3 results.
  - *Heat Maps*: Based on the Link Segment Evaluation output from VISSIM showing the link speed along southbound I-225 and northbound I-25 in 5 minute intervals for segments approximately 0.25 miles in length for Existing, Concept 2, and Concept 3.
- **Appendix B:** Traffic Volumes – By Link
  - Reports the traffic volumes at each of the field data collection locations and select COGNOS data locations are provided for each of the 11 simulation runs.
- **Appendix C:** Speeds – By Link
  - Reports the vehicle speeds at the 20 COGNOS locations for each of the 11 simulation runs.

GLOBAL NETWORK PERFORMANCE RESULTS: AM PEAK

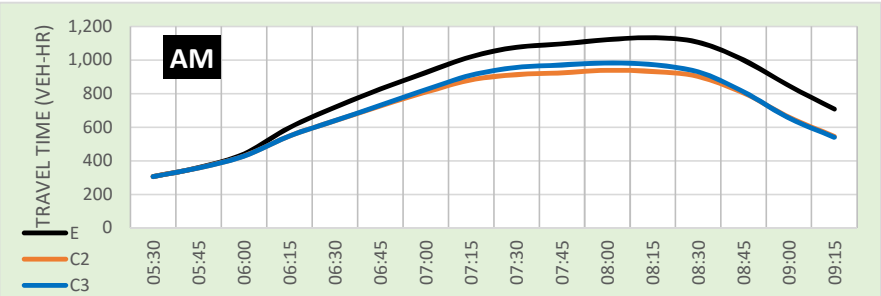
AM	TRAVEL TIME (VEH-HR)			DELAY (VEH-HR)			STOPS		
TIME	E	C2	C3	E	C2	C3	E	C2	C3
05:30	306	307	306	12	11	11	266	233	292
05:45	360	358	358	19	16	15	375	292	344
06:00	441	429	428	44	22	22	434	331	413
06:15	598	548	548	117	56	52	2,223	1,095	1,193
06:30	719	638	639	218	125	127	12,770	5,801	5,815
06:45	827	726	731	343	237	241	24,303	11,029	10,657
07:00	925	808	823	469	351	362	39,794	19,193	19,287
07:15	1,020	882	910	582	457	477	62,251	35,988	34,114
07:30	1,076	913	956	665	521	556	76,077	46,813	45,746
07:45	1,096	924	970	730	561	598	87,908	46,951	48,902
08:00	1,121	939	983	774	590	625	103,088	56,357	61,236
08:15	1,133	932	972	783	600	624	102,997	63,793	62,692
08:30	1,106	902	930	750	580	585	86,713	45,872	46,860
08:45	1,000	804	811	653	469	463	67,866	27,023	27,517
09:00	847	660	655	502	322	315	39,537	14,590	14,119
09:15	708	545	540	352	201	196	22,189	6,737	6,910
Hour 1	1,705	1,642	1,640	192	105	100	3,298	1,951	2,242
Hour 2	3,491	3,054	3,103	1,612	1,170	1,207	139,118	72,011	69,873
Hour 3	4,426	3,708	3,881	2,952	2,272	2,403	370,070	213,914	218,576
Hour 4	3,661	2,911	2,936	2,257	1,572	1,559	216,305	94,222	95,406
TOTAL	13,283	11,315	11,560	7,013	5,119	5,269	728,791	382,098	386,097
		-16%	-14%		-31%	-28%		-62%	-61%

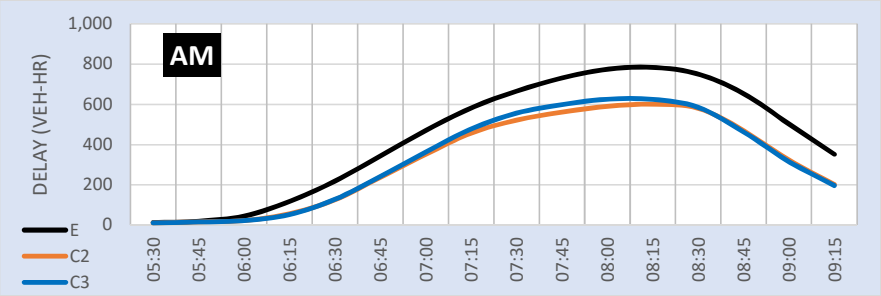
DTC REDIRECT	
Hour 1	20
Hour 2	53
Hour 3	63
Hour 4	52
TOTAL	188

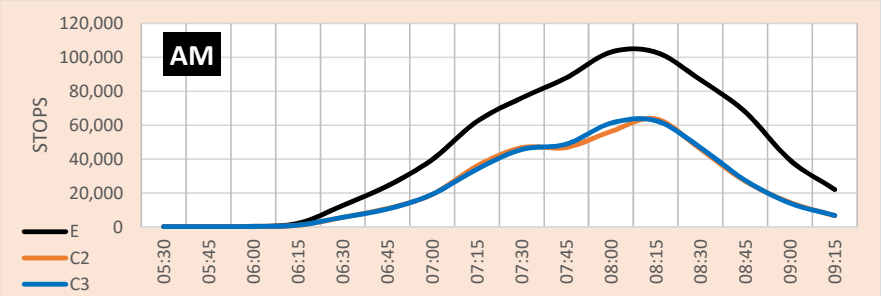
DTC REDIRECT	
Hour 1	11
Hour 2	30
Hour 3	37
Hour 4	30
TOTAL	108

Travel Time and Delay results include the prorated values from the DTC Redirect Traffic.

Delay values include Latent Delay







GLOBAL NETWORK PERFORMANCE RESULTS: PM PEAK

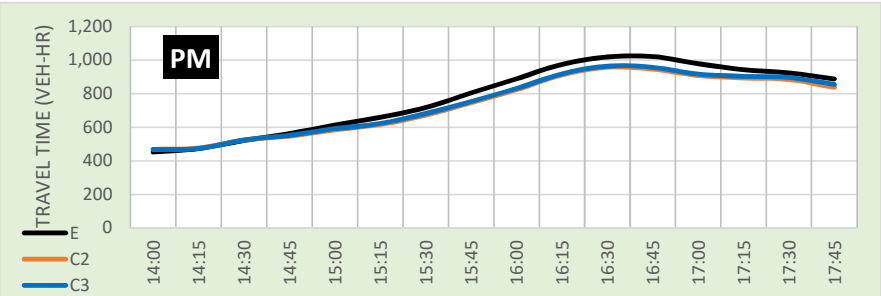
PM	TRAVEL TIME (VEH-HR)			DELAY (VEH-HR)			STOPS		
TIME	E	C2	C3	E	C2	C3	E	C2	C3
14:00	452	468	467	26	31	29	501	655	663
14:15	473	476	473	33	33	31	1,538	1,526	1,585
14:30	521	524	524	49	50	48	3,120	2,901	2,763
14:45	562	547	552	88	77	77	9,197	7,092	6,901
15:00	612	585	591	149	111	116	12,154	9,025	9,418
15:15	659	616	622	220	174	180	16,353	11,696	11,554
15:30	717	672	682	306	252	260	22,045	13,786	14,898
15:45	804	746	753	423	364	365	34,568	22,225	23,399
16:00	888	823	831	527	454	460	47,104	37,207	38,172
16:15	974	912	917	640	566	571	77,565	67,456	69,927
16:30	1,018	957	964	715	641	646	95,318	82,264	85,501
16:45	1,021	947	956	743	676	681	106,749	94,032	96,231
17:00	978	908	916	730	676	681	90,760	83,910	89,799
17:15	943	894	903	718	666	674	80,067	76,205	79,286
17:30	923	884	896	701	653	663	72,378	72,766	77,269
17:45	888	837	854	670	615	628	58,458	50,526	59,419
Hour 1	2,008	2,015	2,016	196	191	185	14,356	12,174	11,912
Hour 2	2,792	2,619	2,648	1,098	901	921	85,120	56,732	59,269
Hour 3	3,901	3,639	3,668	2,625	2,337	2,358	326,736	280,959	289,831
Hour 4	3,732	3,523	3,569	2,819	2,610	2,646	301,663	283,407	305,773
TOTAL	12,433	11,796	11,901	6,738	6,039	6,110	727,875	633,272	666,785
		-5%	-4%		-11%	-10%		-14%	-9%

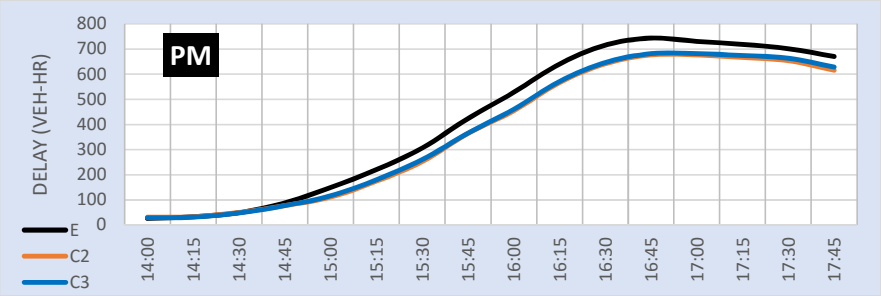
DTC REDIRECT	
Hour 1	44
Hour 2	61
Hour 3	78
Hour 4	79
TOTAL	262

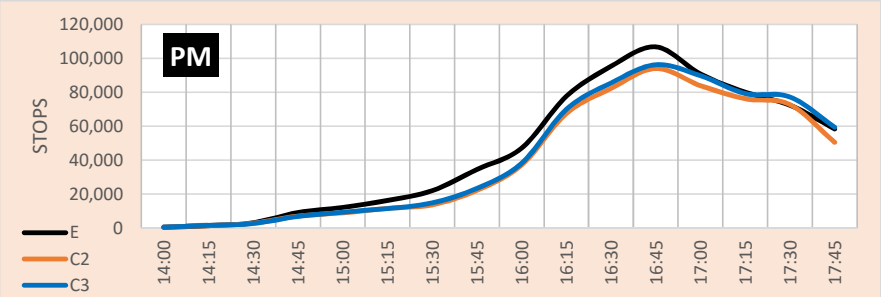
DTC REDIRECT	
Hour 1	24
Hour 2	33
Hour 3	44
Hour 4	45
TOTAL	146

Travel Time and Delay results include the prorated values from the DTC Redirect Traffic.

Delay values include Latent Delay

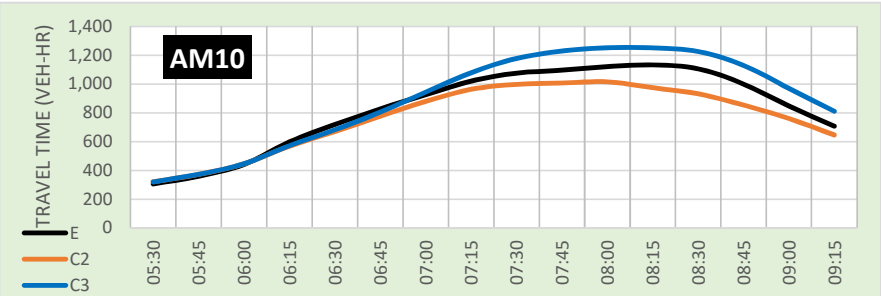


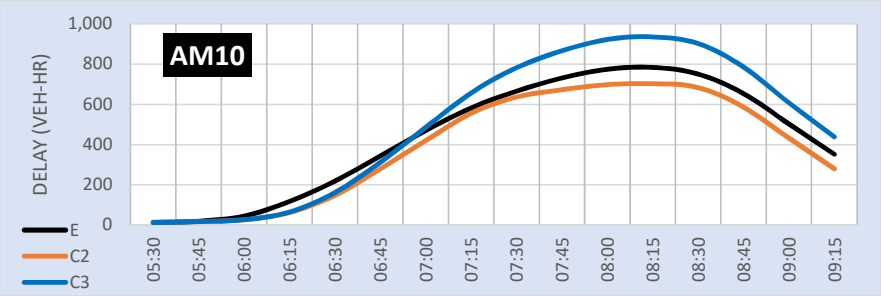


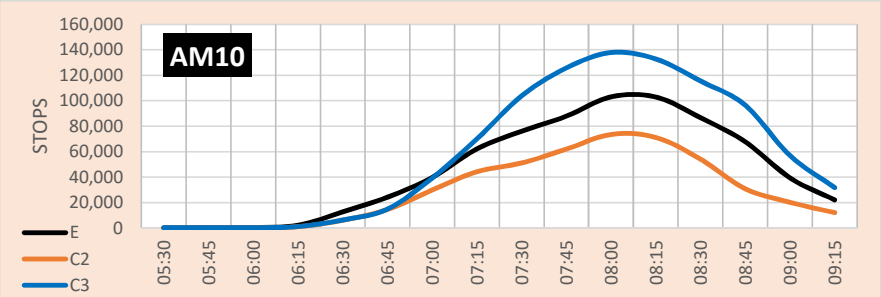


GLOBAL NETWORK PERFORMANCE RESULTS: AM PEAK + 10% TRAFFIC ON SB I-225

AM10	TRAVEL TIME (VEH-HR)			DELAY (VEH-HR)			STOPS		
TIME	E	C2	C3	E	C2	C3	E	C2	C3
05:30	306	321	320	12	12	13	266	260	324
05:45	360	372	373	19	17	17	375	318	398
06:00	441	446	446	44	26	26	434	371	454
06:15	598	568	572	117	62	64	2,223	1,125	1,276
06:30	719	671	682	218	147	161	12,770	6,209	6,405
06:45	827	777	805	343	279	311	24,303	14,580	14,960
07:00	925	879	943	469	419	485	39,794	29,902	39,344
07:15	1,020	963	1,079	582	555	656	62,251	44,314	69,994
07:30	1,076	998	1,178	665	636	782	76,077	51,092	103,827
07:45	1,096	1,007	1,229	730	672	865	87,908	62,032	125,757
08:00	1,121	1,015	1,252	774	697	922	103,088	73,612	137,930
08:15	1,133	974	1,251	783	702	935	102,997	71,297	132,855
08:30	1,106	932	1,226	750	683	902	86,713	54,162	115,573
08:45	1,000	854	1,130	653	586	785	67,866	30,964	96,487
09:00	847	760	969	502	432	607	39,537	20,316	56,985
09:15	708	646	811	352	279	438	22,189	12,152	31,835
Hour 1	1,705	1,707	1,711	192	117	120	3,298	2,074	2,452
Hour 2	3,491	3,290	3,509	1,612	1,400	1,613	139,118	95,005	130,703
Hour 3	4,426	3,994	4,910	2,952	2,707	3,504	370,070	258,033	500,369
Hour 4	3,661	3,192	4,136	2,257	1,980	2,732	216,305	117,594	300,880
TOTAL	13,283	12,183	14,266	7,013	6,204	7,969	728,791	472,706	934,404
		-9%	7%		-12%	13%		-43%	25%







DTC REDIRECT	
Hour 1	20
Hour 2	53
Hour 3	63
Hour 4	52
TOTAL	188

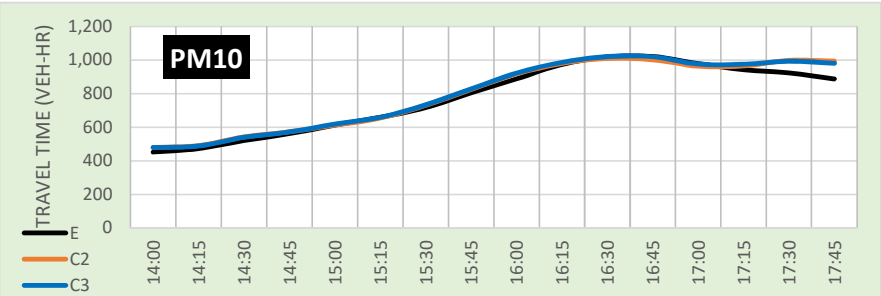
DTC REDIRECT	
Hour 1	11
Hour 2	30
Hour 3	37
Hour 4	30
TOTAL	108

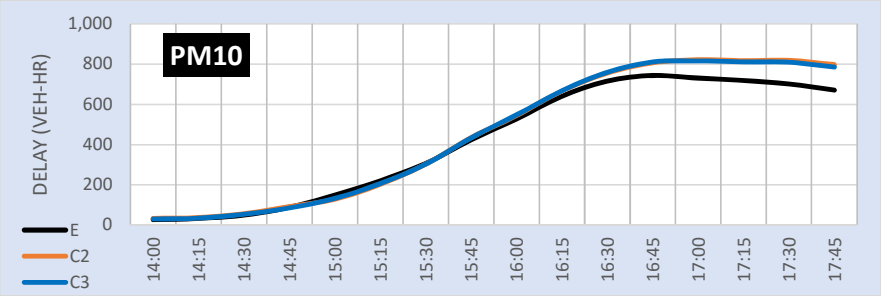
Travel Time and Delay results include the prorated values from the DTC Redirect Traffic.

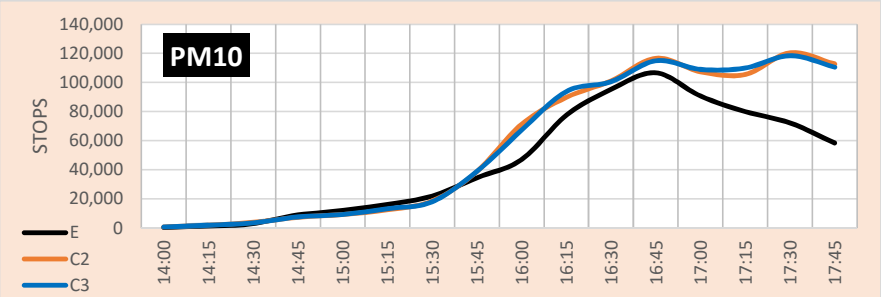
Delay values include Latent Delay

GLOBAL NETWORK PERFORMANCE RESULTS: PM PEAK + 10% TRAFFIC ON SB I-225

PM10	TRAVEL TIME (VEH-HR)			DELAY (VEH-HR)			STOPS		
TIME	E	C2	C3	E	C2	C3	E	C2	C3
14:00	452	480	479	26	33	30	501	728	775
14:15	473	491	488	33	37	34	1,538	2,047	2,028
14:30	521	542	540	49	56	53	3,120	3,986	3,655
14:45	562	573	572	88	92	85	9,197	7,511	7,733
15:00	612	613	618	149	128	132	12,154	9,379	9,393
15:15	659	654	659	220	202	206	16,353	12,639	13,379
15:30	717	731	733	306	302	302	22,045	18,642	18,171
15:45	804	824	828	423	434	433	34,568	38,862	38,922
16:00	888	917	922	527	543	547	47,104	71,406	67,348
16:15	974	980	987	640	666	667	77,565	89,882	93,903
16:30	1,018	1,010	1,020	715	755	759	95,318	101,147	100,585
16:45	1,021	1,002	1,020	743	806	810	106,749	116,733	115,000
17:00	978	963	976	730	821	815	90,760	107,448	109,064
17:15	943	965	975	718	817	811	80,067	105,553	110,013
17:30	923	998	993	701	818	809	72,378	120,500	118,515
17:45	888	993	981	670	797	785	58,458	112,848	110,579
Hour 1	2,008	2,086	2,079	196	218	202	14,356	14,272	14,191
Hour 2	2,792	2,822	2,838	1,098	1,066	1,073	85,120	79,522	79,865
Hour 3	3,901	3,909	3,949	2,625	2,770	2,783	326,736	379,168	376,836
Hour 4	3,732	3,919	3,925	2,819	3,253	3,220	301,663	446,349	448,171
TOTAL	12,433	12,736	12,791	6,738	7,307	7,278	727,875	919,311	919,063
		2%	3%		8%	8%		23%	23%







DTC REDIRECT	
Hour 1	44
Hour 2	61
Hour 3	78
Hour 4	79
TOTAL	262

DTC REDIRECT	
Hour 1	24
Hour 2	33
Hour 3	44
Hour 4	45
TOTAL	146

Travel Time and Delay results include the prorated values from the DTC Redirect Traffic.

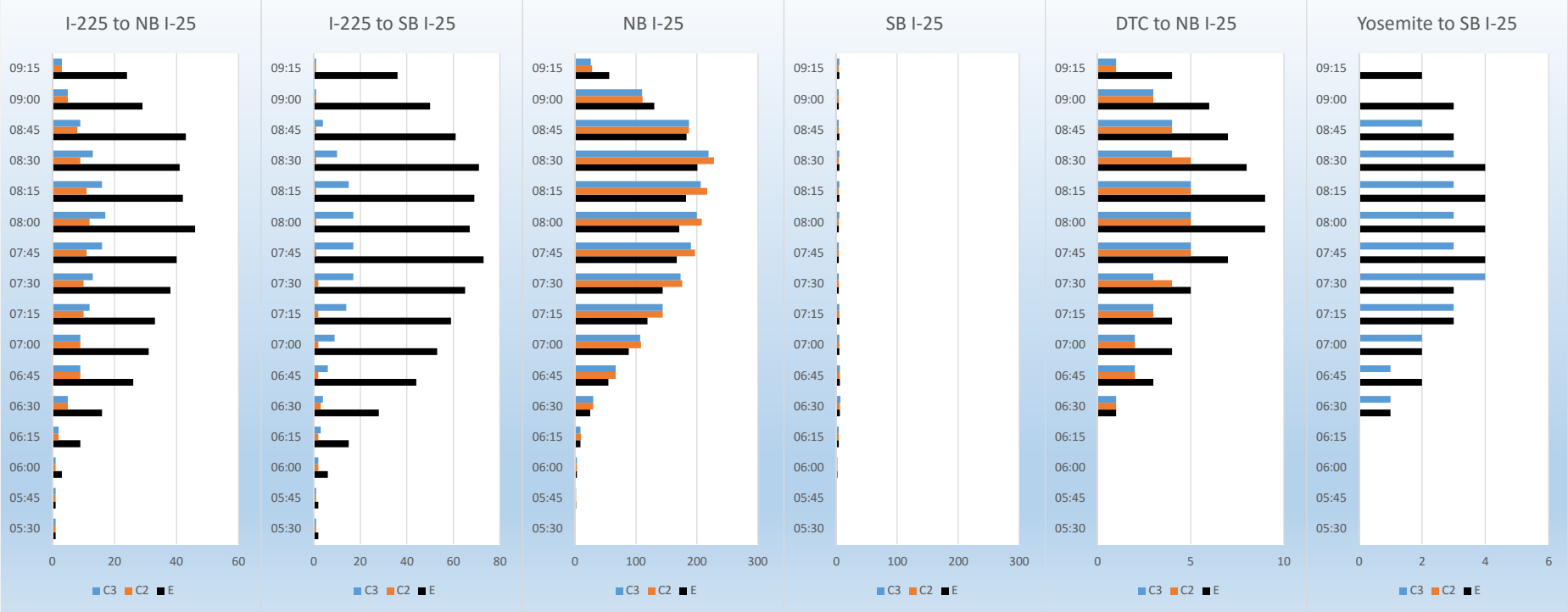
Delay values include Latent Delay

TRAVEL TIME SEGMENT ANALYSIS RESULTS

AM	TRAVEL TIME (VEH-HR)																	
	I-225 to NB I-25			I-225 to SB I-25			NB I-25			SB I-25			DTC to NB I-25			Yosemite to SB I-25		
TIME	E	C2	C3	E	C2	C3	E	C2	C3	E	C2	C3	E	C2	C3	E	C2	C3
05:30	21	21	21	35	34	34	53	52	52	45	45	45	1	1	1	1	0	1
05:45	24	23	23	38	36	37	64	63	63	52	53	53	2	1	1	1	0	2
06:00	27	26	26	43	41	42	79	77	77	67	67	67	2	2	1	1	0	2
06:15	31	26	26	51	43	43	106	105	104	83	84	84	2	2	2	2	0	3
06:30	36	27	27	65	45	46	133	136	136	94	94	95	4	4	3	4	0	5
06:45	46	33	32	86	48	50	161	171	171	92	92	93	6	5	5	6	0	6
07:00	52	30	30	93	45	50	192	211	211	86	86	87	7	6	5	6	0	7
07:15	51	31	32	96	41	50	220	242	244	80	80	81	8	6	6	7	0	9
07:30	55	27	29	99	35	49	240	272	269	76	76	77	9	7	6	7	0	10
07:45	55	26	31	106	29	46	264	294	288	74	73	73	11	9	8	8	0	10
08:00	61	26	31	96	29	45	268	306	298	76	76	76	12	9	8	9	0	9
08:15	56	26	31	98	28	43	281	316	304	78	78	78	13	9	8	9	0	9
08:30	55	22	27	101	25	37	300	330	320	80	79	80	11	8	7	8	0	9
08:45	59	22	23	90	23	28	277	285	284	80	79	80	11	8	7	7	0	8
09:00	42	18	17	79	22	23	231	213	211	80	79	79	9	6	6	6	0	6
09:15	39	16	15	63	20	21	151	118	116	85	85	85	8	5	4	5	0	5
Hour 1	103	96	96	167	154	156	302	297	296	247	249	249	7	6	5	5	0	8
Hour 2	185	121	121	340	179	196	706	760	762	352	352	356	25	21	19	23	0	27
Hour 3	227	105	122	399	121	183	1053	1188	1159	304	303	304	45	34	30	33	0	38
Hour 4	195	78	82	333	90	109	959	946	931	325	322	324	39	27	24	26	0	28
TOTAL	710	400	421	1239	544	644	3020	3191	3148	1228	1226	1233	116	88	78	87	0	101
		-56%	-51%		-78%	-63%		6%	4%		0%	0%		-27%	-39%		-200%	15%

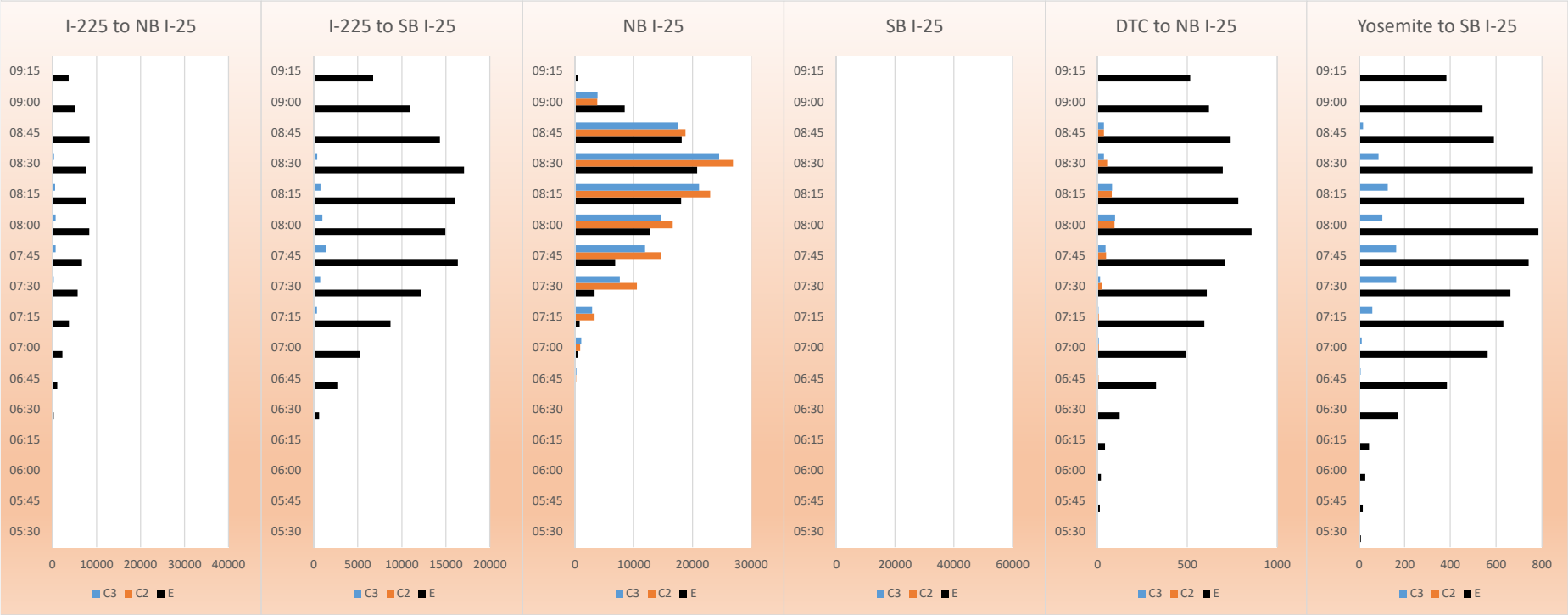
TRAVEL TIME SEGMENT ANALYSIS RESULTS

AM	DELAY (VEH-HR)																	
	I-225 to NB I-25			I-225 to SB I-25			NB I-25			SB I-25			DTC to NB I-25			Yosemite to SB I-25		
TIME	E	C2	C3	E	C2	C3	E	C2	C3	E	C2	C3	E	C2	C3	E	C2	C3
05:30	1	1	1	2	1	1	1	1	1	1	1	1	0	0	0	0	0	0
05:45	1	1	1	2	1	1	2	2	2	1	1	1	0	0	0	0	0	0
06:00	3	1	1	6	2	2	3	3	3	2	2	2	0	0	0	0	0	0
06:15	9	2	2	15	2	3	9	10	9	4	4	4	0	0	0	0	0	0
06:30	16	5	5	28	3	4	25	30	30	6	6	7	1	1	1	1	0	1
06:45	26	9	9	44	2	6	55	67	67	6	6	6	3	2	2	2	0	1
07:00	31	9	9	53	2	9	88	108	107	5	5	5	4	2	2	2	0	2
07:15	33	10	12	59	2	14	119	144	144	5	5	5	4	3	3	3	0	3
07:30	38	10	13	65	2	17	144	176	173	4	4	4	5	4	3	3	0	4
07:45	40	11	16	73	1	17	167	197	190	4	4	4	7	5	5	4	0	3
08:00	46	12	17	67	1	17	171	208	200	4	4	5	9	5	5	4	0	3
08:15	42	11	16	69	1	15	182	217	206	5	4	5	9	5	5	4	0	3
08:30	41	9	13	71	1	10	201	228	219	5	4	5	8	5	4	4	0	3
08:45	43	8	9	61	1	4	183	187	187	5	4	4	7	4	4	3	0	2
09:00	29	5	5	50	1	1	130	111	110	4	4	4	6	3	3	3	0	0
09:15	24	3	3	36	1	1	56	28	26	5	4	5	4	1	1	2	0	0
Hour 1	14	5	5	25	6	7	15	16	15	8	8	8	0	0	0	0	0	0
Hour 2	106	33	35	184	9	33	287	349	348	22	22	23	12	8	8	8	0	7
Hour 3	166	44	62	274	5	66	664	798	769	17	16	18	30	19	18	15	0	13
Hour 4	137	25	30	218	4	16	570	554	542	19	16	18	25	13	12	12	0	5
TOTAL	423	107	132	701	24	122	1536	1717	1674	66	62	67	67	40	38	35	0	25
		-119%	-105%		-187%	-141%		11%	9%		-6%	2%		-50%	-55%		-	-33%



TRAVEL TIME SEGMENT ANALYSIS RESULTS

AM	STOPS (TOTAL)																	
	I-225 to NB I-25			I-225 to SB I-25			NB I-25			SB I-25			DTC to NB I-25			Yosemite to SB I-25		
TIME	E	C2	C3	E	C2	C3	E	C2	C3	E	C2	C3	E	C2	C3	E	C2	C3
05:30	5	5	5	9	0	0	0	0	0	0	0	0	2	0	0	9	0	0
05:45	12	4	6	16	0	0	0	0	0	0	0	0	12	0	0	17	0	0
06:00	14	7	9	28	0	0	0	0	0	0	0	0	19	0	0	28	0	0
06:15	19	8	11	26	4	7	0	0	0	0	0	0	42	0	0	45	0	1
06:30	267	25	21	623	4	12	13	24	12	10	10	10	123	3	1	170	0	2
06:45	1097	34	40	2687	4	57	61	168	227	0	0	0	326	5	4	385	0	8
07:00	2264	35	51	5274	0	90	492	867	1075	0	0	0	491	6	7	563	0	12
07:15	3714	38	199	8726	4	376	769	3332	2893	0	0	0	595	6	5	632	0	59
07:30	5705	77	322	12160	0	743	3351	10539	7614	0	0	0	608	26	14	663	0	163
07:45	6691	127	709	16357	8	1344	6842	14638	11935	0	0	0	711	47	45	742	0	163
08:00	8363	259	747	14927	0	970	12779	16636	14642	0	0	0	857	94	97	785	0	103
08:15	7535	183	608	16092	0	779	18067	23009	21109	8	0	0	783	79	81	722	0	127
08:30	7670	128	357	17061	0	412	20774	26885	24557	0	0	0	698	54	36	761	0	86
08:45	8445	92	130	14327	0	31	18177	18803	17528	0	0	0	741	36	35	591	0	18
09:00	5044	17	26	10952	0	0	8436	3811	3859	0	0	0	620	2	3	541	0	2
09:15	3663	15	18	6734	0	0	497	62	84	0	0	0	516	1	2	383	0	1
Hour 1	50	24	31	79	4	7	0	0	0	0	0	0	75	0	0	99	0	1
Hour 2	7342	132	311	17310	12	535	1335	4391	4207	10	10	10	1535	20	17	1750	0	81
Hour 3	28294	646	2386	59536	8	3836	41039	64822	55300	8	0	0	2959	246	237	2912	0	556
Hour 4	24822	252	531	49074	0	443	47884	49561	46028	0	0	0	2575	93	76	2276	0	107
TOTAL	60508	1054	3259	125999	24	4821	90258	118774	105535	18	10	10	7144	359	330	7037	0	745

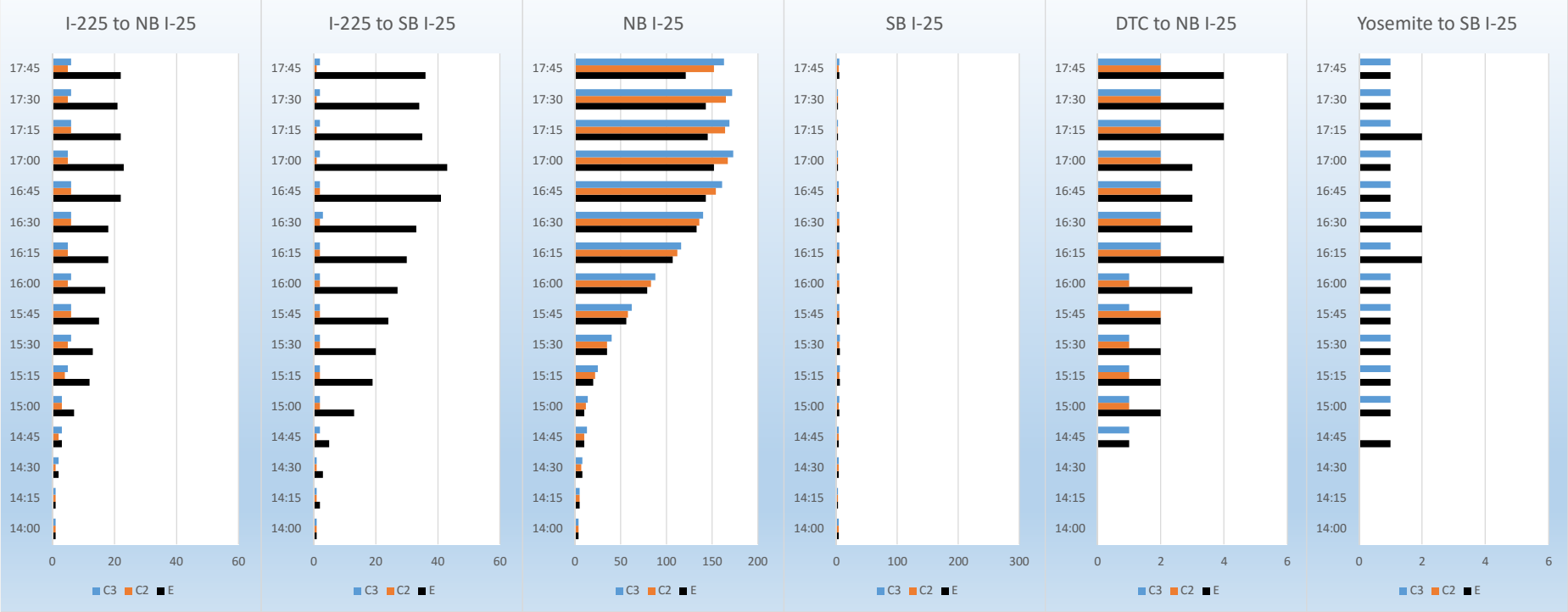


TRAVEL TIME SEGMENT ANALYSIS RESULTS

PM	TRAVEL TIME (VEH-HR)																	
	I-225 to NB I-25			I-225 to SB I-25			NB I-25			SB I-25			DTC to NB I-25			Yosemite to SB I-25		
TIME	E	C2	C3	E	C2	C3	E	C2	C3	E	C2	C3	E	C2	C3	E	C2	C3
14:00	16	17	17	30	29	29	85	85	85	81	81	81	2	3	3	1	0	5
14:15	19	19	19	31	30	30	87	87	87	79	79	79	2	3	3	1	0	4
14:30	21	20	20	37	34	35	95	95	94	83	83	83	3	3	3	1	0	5
14:45	23	23	24	41	39	39	98	98	101	84	84	85	5	4	3	2	0	5
15:00	27	25	25	51	42	43	97	99	100	84	83	84	5	4	4	3	0	7
15:15	33	26	27	59	42	42	107	109	111	85	85	85	5	5	4	2	0	6
15:30	34	27	28	59	43	43	122	123	127	86	86	86	6	5	5	3	0	6
15:45	35	30	29	63	42	43	142	143	147	83	82	83	6	5	5	3	0	7
16:00	36	27	27	64	41	42	163	166	170	82	82	82	7	5	5	4	0	7
16:15	37	26	26	67	41	41	191	195	199	83	83	83	8	6	5	4	0	8
16:30	35	28	28	68	44	45	216	217	219	82	83	83	8	6	6	4	0	9
16:45	40	28	28	78	43	44	223	231	239	79	79	79	8	6	6	3	0	9
17:00	43	26	26	84	40	40	233	246	253	75	74	74	7	6	6	3	0	9
17:15	42	27	27	72	37	37	226	244	249	65	65	65	9	7	7	4	0	8
17:30	40	25	26	68	37	38	224	246	252	72	72	72	8	6	6	3	0	8
17:45	40	25	26	72	38	38	203	232	243	82	82	82	8	7	6	3	0	8
Hour 1	79	79	80	139	132	133	365	365	367	327	327	328	12	13	12	5	0	19
Hour 2	129	108	109	232	169	171	468	474	485	338	336	338	22	19	18	11	0	26
Hour 3	148	109	109	277	169	172	793	809	827	326	327	327	31	23	22	15	0	33
Hour 4	165	103	105	296	152	153	886	968	997	294	293	293	32	26	25	13	0	33
TOTAL	521	399	403	944	622	629	2512	2616	2676	1285	1283	1286	97	81	77	44	0	111
		-27%	-26%		-41%	-40%		4%	6%		0%	0%		-18%	-23%		-200%	86%

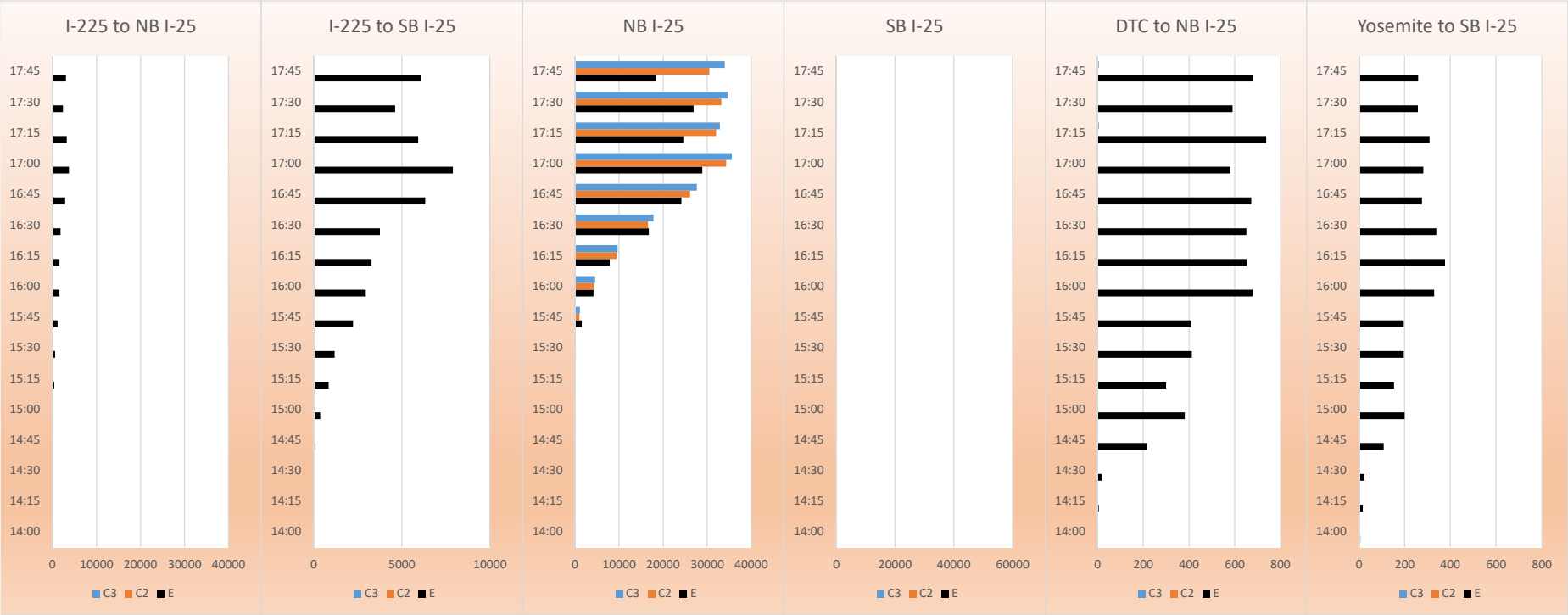
TRAVEL TIME SEGMENT ANALYSIS RESULTS

PM	DELAY (VEH-HR)																	
	I-225 to NB I-25			I-225 to SB I-25			NB I-25			SB I-25			DTC to NB I-25			Yosemite to SB I-25		
TIME	E	C2	C3	E	C2	C3	E	C2	C3	E	C2	C3	E	C2	C3	E	C2	C3
14:00	1	1	1	1	1	1	4	4	4	4	4	4	0	0	0	0	0	0
14:15	1	1	1	2	1	1	5	5	5	3	3	3	0	0	0	0	0	0
14:30	2	1	2	3	1	1	8	7	8	4	4	4	0	0	0	0	0	0
14:45	3	2	3	5	1	2	10	10	13	4	4	4	1	0	1	1	0	0
15:00	7	3	3	13	2	2	10	12	14	5	4	5	2	1	1	1	0	1
15:15	12	4	5	19	2	2	20	22	25	6	5	6	2	1	1	1	0	1
15:30	13	5	6	20	2	2	35	35	40	6	5	6	2	1	1	1	0	1
15:45	15	6	6	24	2	2	56	58	62	5	5	5	2	2	1	1	0	1
16:00	17	5	6	27	2	2	79	83	88	5	5	5	3	1	1	1	0	1
16:15	18	5	5	30	2	2	107	112	116	5	5	5	4	2	2	2	0	1
16:30	18	6	6	33	2	3	133	136	140	5	5	5	3	2	2	2	0	1
16:45	22	6	6	41	2	2	143	154	161	4	4	4	3	2	2	1	0	1
17:00	23	5	5	43	1	2	152	167	173	3	3	3	3	2	2	1	0	1
17:15	22	6	6	35	1	2	145	164	169	3	2	3	4	2	2	2	0	1
17:30	21	5	6	34	1	2	143	165	172	3	3	3	4	2	2	1	0	1
17:45	22	5	6	36	1	2	121	152	163	5	4	5	4	2	2	1	0	1
Hour 1	7	5	7	11	4	5	27	26	30	15	15	15	1	0	1	1	0	0
Hour 2	47	18	20	76	8	8	121	127	141	22	19	22	8	5	4	4	0	4
Hour 3	75	22	23	131	8	9	462	485	505	19	19	19	13	7	7	6	0	4
Hour 4	88	21	23	148	4	8	561	648	677	14	12	14	15	8	8	5	0	4
TOTAL	217	66	73	366	24	30	1171	1286	1353	70	65	70	37	20	20	16	0	12
		-107%	-99%		-175%	-170%		9%	14%		-7%	0%		-60%	-60%		-	-29%



TRAVEL TIME SEGMENT ANALYSIS RESULTS

PM	STOPS (TOTAL)																	
	I-225 to NB I-25			I-225 to SB I-25			NB I-25			SB I-25			DTC to NB I-25			Yosemite to SB I-25		
TIME	E	C2	C3	E	C2	C3	E	C2	C3	E	C2	C3	E	C2	C3	E	C2	C3
14:00	7	6	11	10	0	0	0	0	0	0	0	0	1	0	0	7	0	1
14:15	9	10	9	14	0	0	0	0	0	0	0	0	5	0	0	17	0	0
14:30	10	10	13	19	0	0	0	0	0	0	0	0	18	0	0	24	0	1
14:45	45	9	13	63	0	3	0	0	0	0	0	0	216	1	1	109	0	2
15:00	189	12	15	370	0	0	0	10	0	0	0	0	381	1	1	200	0	1
15:15	438	12	18	851	0	0	20	30	30	0	0	0	300	1	2	154	0	1
15:30	607	16	24	1188	0	0	162	71	141	0	0	0	412	1	3	197	0	1
15:45	1148	23	21	2225	4	0	1574	1016	1104	9	9	9	408	3	3	196	0	1
16:00	1576	17	21	2949	0	0	4213	4332	4560	0	0	0	678	3	1	329	0	1
16:15	1608	17	22	3277	0	0	7874	9453	9673	0	0	0	652	3	2	377	0	1
16:30	1825	25	30	3751	4	4	16765	16583	17814	0	0	0	651	3	3	339	0	2
16:45	2901	26	29	6334	4	4	24155	26125	27671	9	0	0	672	3	3	276	0	2
17:00	3724	23	20	7895	0	0	28891	34334	35595	0	0	0	581	2	3	282	0	1
17:15	3240	23	27	5925	0	0	24568	32033	32921	0	0	0	738	3	5	309	0	1
17:30	2374	20	27	4617	7	0	26946	33213	34624	0	8	8	590	3	3	258	0	1
17:45	3083	19	32	6085	3	0	18345	30472	33984	9	9	9	679	3	5	259	0	1
Hour 1	71	35	46	106	0	3	0	0	0	0	0	0	240	1	1	157	0	4
Hour 2	2382	63	78	4634	4	0	1756	1127	1275	9	9	9	1501	6	9	747	0	4
Hour 3	7910	85	102	16311	8	8	53007	56493	59718	9	0	0	2653	12	9	1321	0	6
Hour 4	12421	85	106	24522	10	0	98750	130052	137124	9	17	17	2588	11	16	1108	0	4
TOTAL	22784	268	332	45573	22	11	153513	187672	198117	27	26	26	6982	30	35	3333	0	18

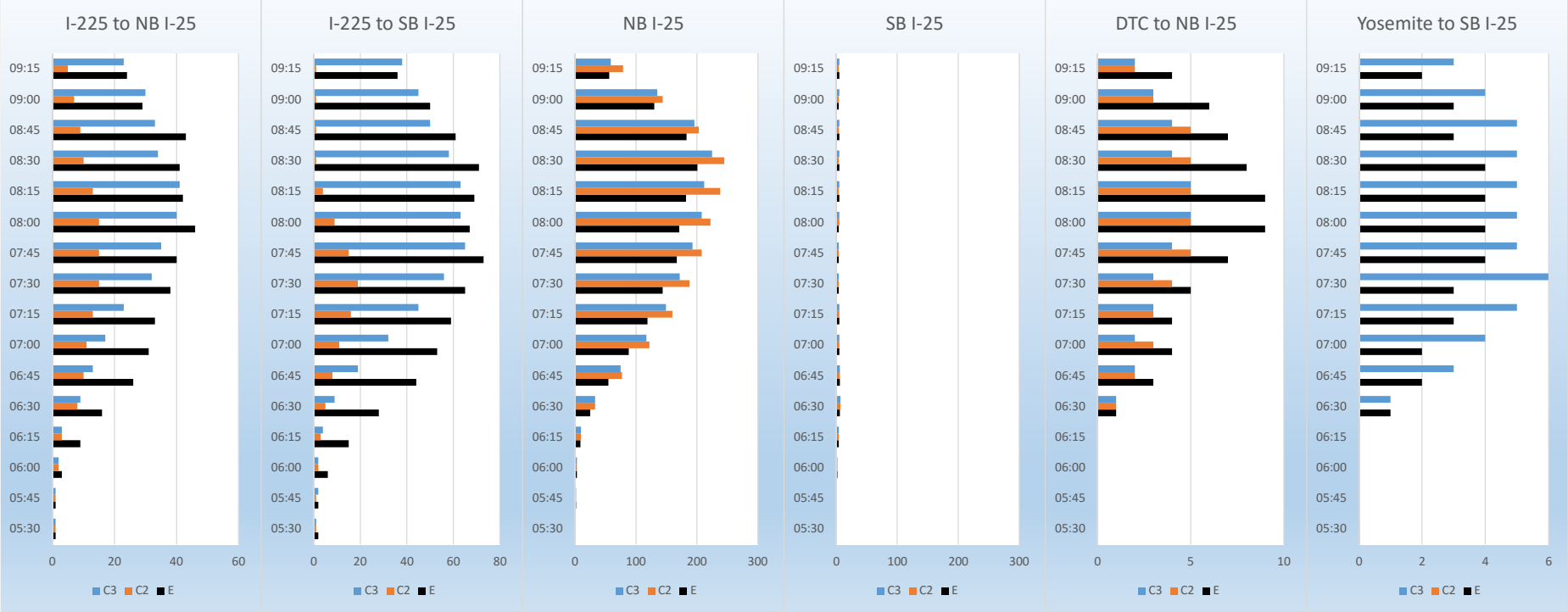


TRAVEL TIME SEGMENT ANALYSIS RESULTS

AM10	TRAVEL TIME (VEH-HR)																	
	I-225 to NB I-25			I-225 to SB I-25			NB I-25			SB I-25			DTC to NB I-25			Yosemite to SB I-25		
TIME	E	C2	C3	E	C2	C3	E	C2	C3	E	C2	C3	E	C2	C3	E	C2	C3
05:30	21	23	23	35	38	38	53	52	52	45	45	45	1	1	1	1	0	1
05:45	24	26	26	38	40	41	64	63	63	52	53	53	2	1	1	1	0	2
06:00	27	29	28	43	46	45	79	77	77	67	67	67	2	2	2	1	0	2
06:15	31	29	29	51	48	48	106	104	104	83	84	84	2	2	2	2	0	4
06:30	36	32	33	65	50	52	133	136	137	94	95	95	4	4	4	4	0	5
06:45	46	36	37	86	56	63	161	179	178	92	93	93	6	5	5	6	0	7
07:00	52	35	39	93	55	71	192	222	221	86	87	87	7	6	5	6	0	10
07:15	51	34	41	96	57	82	220	257	250	80	81	81	8	7	5	7	0	11
07:30	55	35	49	99	56	89	240	282	269	76	76	76	9	8	6	7	0	12
07:45	55	31	51	106	49	97	264	303	290	74	73	73	11	9	7	8	0	12
08:00	61	31	56	96	42	94	268	318	306	76	76	77	12	9	8	9	0	11
08:15	56	28	58	98	35	94	281	334	310	78	78	78	13	9	8	9	0	11
08:30	55	24	49	101	27	87	300	345	325	80	79	80	11	8	8	8	0	11
08:45	59	24	48	90	25	77	277	298	290	80	79	80	11	8	7	7	0	11
09:00	42	20	46	79	25	72	231	246	233	80	79	80	9	6	7	6	0	9
09:15	39	17	38	63	23	63	151	178	153	85	85	86	8	6	6	5	0	8
Hour 1	103	107	106	167	172	172	302	296	296	247	249	249	7	6	6	5	0	9
Hour 2	185	137	150	340	218	268	706	794	786	352	356	356	25	22	19	23	0	33
Hour 3	227	125	214	399	182	374	1053	1237	1175	304	303	304	45	35	29	33	0	46
Hour 4	195	85	181	333	100	299	959	1067	1001	325	322	326	39	28	28	26	0	39
TOTAL	710	454	651	1239	672	1113	3020	3394	3258	1228	1230	1235	116	91	82	87	0	127
		-44%	-9%		-59%	-11%		12%	8%		0%	1%		-24%	-34%		-200%	37%

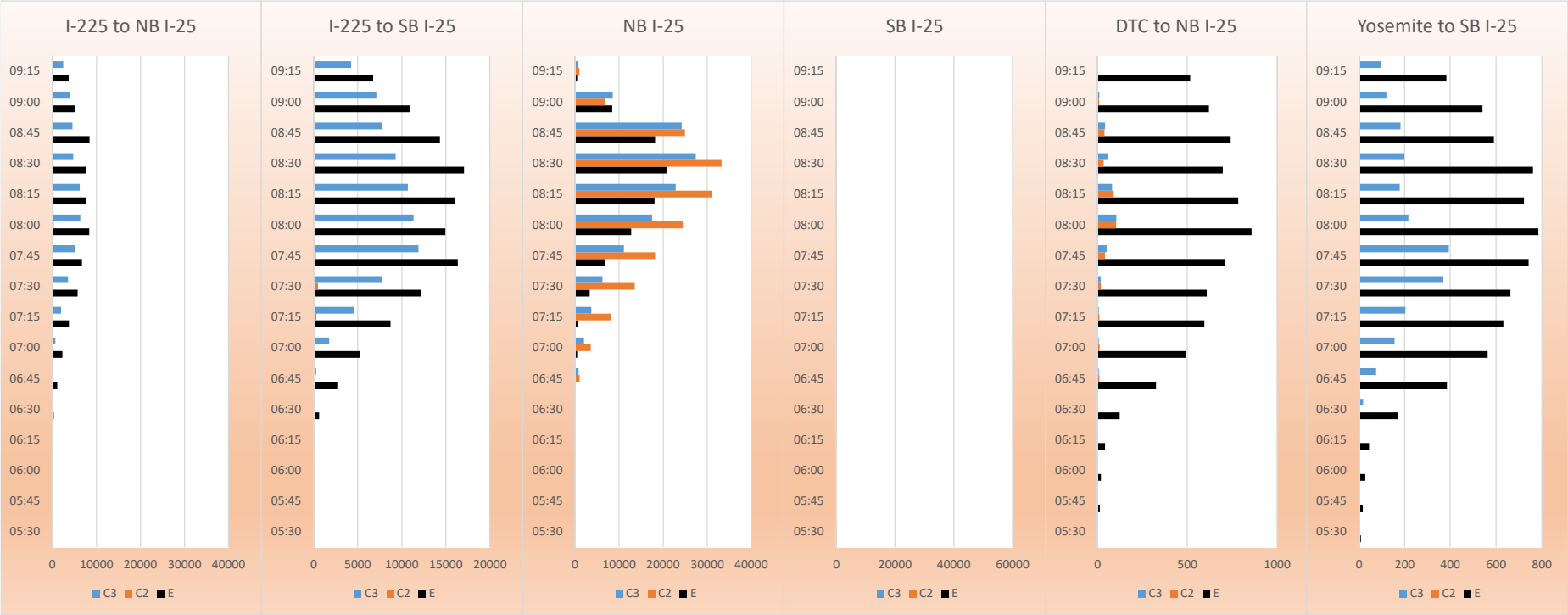
TRAVEL TIME SEGMENT ANALYSIS RESULTS

AM10	DELAY (VEH-HR)																	
	I-225 to NB I-25			I-225 to SB I-25			NB I-25			SB I-25			DTC to NB I-25			Yosemite to SB I-25		
TIME	E	C2	C3	E	C2	C3	E	C2	C3	E	C2	C3	E	C2	C3	E	C2	C3
05:30	1	1	1	2	1	1	1	1	1	1	1	1	0	0	0	0	0	0
05:45	1	1	1	2	1	2	2	2	2	1	1	1	0	0	0	0	0	0
06:00	3	2	2	6	2	2	3	3	3	2	2	2	0	0	0	0	0	0
06:15	9	3	3	15	3	4	9	10	10	4	4	4	0	0	0	0	0	0
06:30	16	8	9	28	5	9	25	33	33	6	7	7	1	1	1	1	0	1
06:45	26	10	13	44	8	19	55	77	75	6	6	6	3	2	2	2	0	3
07:00	31	11	17	53	11	32	88	122	117	5	5	5	4	3	2	2	0	4
07:15	33	13	23	59	16	45	119	160	149	5	5	5	4	3	3	3	0	5
07:30	38	15	32	65	19	56	144	188	172	4	4	4	5	4	3	3	0	6
07:45	40	15	35	73	15	65	167	208	193	4	4	4	7	5	4	4	0	5
08:00	46	15	40	67	9	63	171	222	208	4	5	5	9	5	5	4	0	5
08:15	42	13	41	69	4	63	182	238	212	5	4	5	9	5	5	4	0	5
08:30	41	10	34	71	1	58	201	245	225	5	4	5	8	5	4	4	0	5
08:45	43	9	33	61	1	50	183	203	196	5	4	5	7	5	4	3	0	5
09:00	29	7	30	50	1	45	130	144	135	4	4	5	6	3	3	3	0	4
09:15	24	5	23	36	1	38	56	79	59	5	4	5	4	2	2	2	0	3
Hour 1	14	7	7	25	7	9	15	16	16	8	8	8	0	0	0	0	0	0
Hour 2	106	42	62	184	40	105	287	392	374	22	23	23	12	9	8	8	0	13
Hour 3	166	58	148	274	47	247	664	856	785	17	17	18	30	19	17	15	0	21
Hour 4	137	31	120	218	4	191	570	671	615	19	16	20	25	15	13	12	0	17
TOTAL	423	138	337	701	98	552	1536	1935	1790	66	64	69	67	43	38	35	0	51
		-102%	-23%		-151%	-24%		23%	15%		-3%	4%		-44%	-55%		-	37%



TRAVEL TIME SEGMENT ANALYSIS RESULTS

AM10	STOPS (TOTAL)																	
	I-225 to NB I-25			I-225 to SB I-25			NB I-25			SB I-25			DTC to NB I-25			Yosemite to SB I-25		
TIME	E	C2	C3	E	C2	C3	E	C2	C3	E	C2	C3	E	C2	C3	E	C2	C3
05:30	5	6	6	9	0	0	0	0	0	0	0	0	2	0	0	9	0	0
05:45	12	7	11	16	4	7	0	0	0	0	0	0	12	0	0	17	0	0
06:00	14	7	9	28	4	4	0	0	0	0	0	0	19	0	0	28	0	1
06:15	19	12	16	26	8	12	0	0	11	0	0	0	42	0	1	45	0	5
06:30	267	24	32	623	13	40	13	36	36	10	10	10	123	3	3	170	0	19
06:45	1097	52	78	2687	75	271	61	1056	807	0	0	0	326	10	7	385	0	76
07:00	2264	54	663	5274	166	1738	492	3570	2016	0	0	0	491	11	7	563	0	156
07:15	3714	57	1949	8726	294	4563	769	8071	3721	0	0	0	595	9	6	632	0	204
07:30	5705	151	3586	12160	486	7750	3351	13564	6233	0	0	0	608	18	17	663	0	370
07:45	6691	206	5128	16357	229	11900	6842	18188	11091	0	0	0	711	41	51	742	0	394
08:00	8363	323	6308	14927	66	11329	12779	24465	17531	0	0	0	857	104	105	785	0	217
08:15	7535	248	6185	16092	11	10673	18067	31175	22888	8	0	0	783	90	81	722	0	179
08:30	7670	103	4732	17061	2	9295	20774	33244	27439	0	0	0	698	34	58	761	0	199
08:45	8445	91	4552	14327	0	7742	18177	24975	24210	0	0	0	741	38	42	591	0	182
09:00	5044	31	4055	10952	0	7100	8436	6874	8569	0	0	0	620	8	9	541	0	120
09:15	3663	17	2464	6734	0	4262	497	978	759	0	0	0	516	1	3	383	0	97
Hour 1	50	32	42	79	16	23	0	0	11	0	0	0	75	0	1	99	0	6
Hour 2	7342	187	2722	17310	548	6612	1335	12733	6580	10	10	10	1535	33	23	1750	0	455
Hour 3	28294	928	21207	59536	792	41652	41039	87392	57743	8	0	0	2959	253	254	2912	0	1160
Hour 4	24822	242	15803	49074	2	28399	47884	66071	60977	0	0	0	2575	81	112	2276	0	598
TOTAL	60508	1389	39774	125999	1358	76686	90258	166196	125311	18	10	10	7144	367	390	7037	0	2219

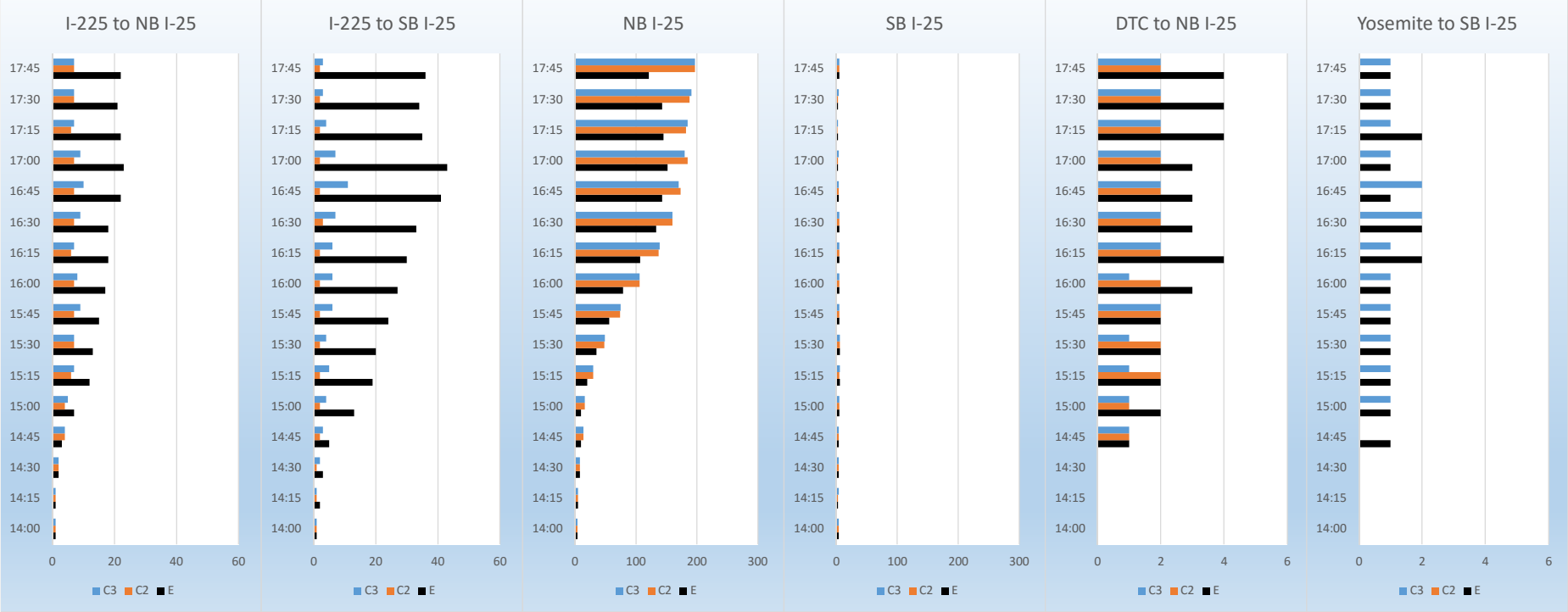


TRAVEL TIME SEGMENT ANALYSIS RESULTS

PM10	TRAVEL TIME (VEH-HR)																	
	I-225 to NB I-25			I-225 to SB I-25			NB I-25			SB I-25			DTC to NB I-25			Yosemite to SB I-25		
TIME	E	C2	C3	E	C2	C3	E	C2	C3	E	C2	C3	E	C2	C3	E	C2	C3
14:00	16	19	19	30	32	33	85	85	85	81	82	81	2	3	3	1	0	5
14:15	19	20	20	31	33	33	87	87	87	79	79	79	2	3	3	1	0	4
14:30	21	23	22	37	38	38	95	95	95	83	83	83	3	3	3	1	0	5
14:45	23	27	27	41	43	43	98	101	101	84	84	84	5	4	4	2	0	5
15:00	27	28	28	51	47	48	97	102	102	84	84	84	5	4	4	3	0	7
15:15	33	31	32	59	46	50	107	114	114	85	85	85	5	5	5	2	0	7
15:30	34	31	32	59	48	48	122	133	134	86	86	86	6	5	5	3	0	7
15:45	35	32	33	63	47	50	142	155	156	83	82	83	6	5	5	3	0	7
16:00	36	31	33	64	44	48	163	186	185	82	82	83	7	5	5	4	0	8
16:15	37	29	30	67	47	50	191	216	218	83	83	84	8	6	6	4	0	8
16:30	35	31	32	68	48	51	216	237	237	82	83	83	8	7	6	4	0	9
16:45	40	31	34	78	47	56	223	248	246	79	79	79	8	6	6	3	0	10
17:00	43	31	34	84	45	51	233	263	256	75	74	75	7	6	6	3	0	10
17:15	42	28	29	72	41	44	226	261	264	65	65	65	9	7	7	4	0	9
17:30	40	30	29	68	41	42	224	267	270	72	72	72	8	7	6	3	0	9
17:45	40	30	29	72	42	43	203	276	275	82	82	82	8	7	6	3	0	8
Hour 1	79	89	88	139	146	147	365	368	368	327	328	327	12	13	13	5	0	19
Hour 2	129	122	125	232	188	196	468	504	506	338	337	338	22	19	19	11	0	28
Hour 3	148	122	129	277	186	205	793	887	886	326	327	329	31	24	23	15	0	35
Hour 4	165	119	121	296	169	180	886	1067	1065	294	293	294	32	27	25	13	0	36
TOTAL	521	452	463	944	689	728	2512	2826	2825	1285	1285	1288	97	83	80	44	0	118
		-14%	-12%		-31%	-26%		12%	12%		0%	0%		-16%	-19%		-200%	91%

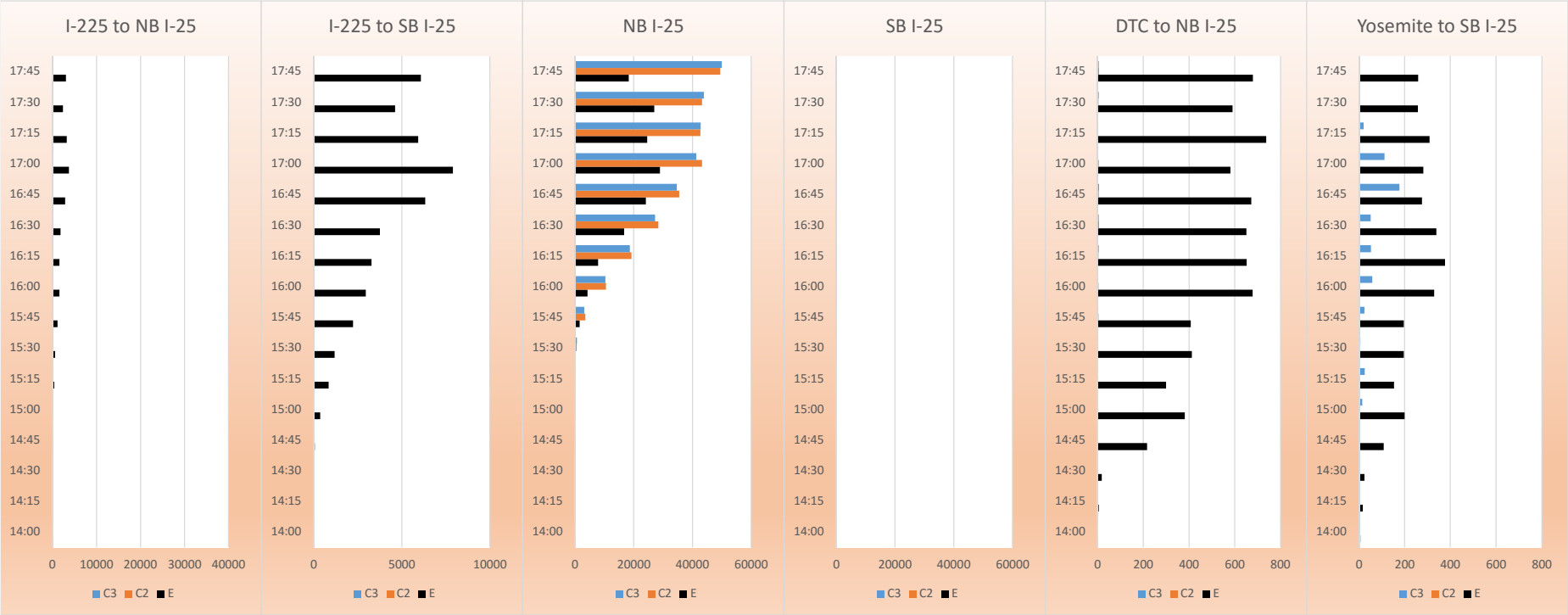
TRAVEL TIME SEGMENT ANALYSIS RESULTS

PM10	DELAY (VEH-HR)																	
	I-225 to NB I-25			I-225 to SB I-25			NB I-25			SB I-25			DTC to NB I-25			Yosemite to SB I-25		
TIME	E	C2	C3	E	C2	C3	E	C2	C3	E	C2	C3	E	C2	C3	E	C2	C3
14:00	1	1	1	1	1	1	4	4	4	4	4	4	0	0	0	0	0	0
14:15	1	1	1	2	1	1	5	5	5	3	3	4	0	0	0	0	0	0
14:30	2	2	2	3	1	2	8	8	8	4	4	4	0	0	0	0	0	0
14:45	3	4	4	5	2	3	10	14	14	4	4	4	1	1	1	1	0	0
15:00	7	4	5	13	2	4	10	16	16	5	5	5	2	1	1	1	0	1
15:15	12	6	7	19	2	5	20	30	30	6	5	6	2	2	1	1	0	1
15:30	13	7	7	20	2	4	35	48	49	6	6	6	2	2	1	1	0	1
15:45	15	7	9	24	2	6	56	74	75	5	5	5	2	2	2	1	0	1
16:00	17	7	8	27	2	6	79	106	106	5	5	5	3	2	1	1	0	1
16:15	18	6	7	30	2	6	107	137	139	5	5	5	4	2	2	2	0	1
16:30	18	7	9	33	3	7	133	160	160	5	5	5	3	2	2	2	0	2
16:45	22	7	10	41	2	11	143	173	170	4	4	4	3	2	2	1	0	2
17:00	23	7	9	43	2	7	152	185	180	3	3	4	3	2	2	1	0	1
17:15	22	6	7	35	2	4	145	182	185	3	2	3	4	2	2	2	0	1
17:30	21	7	7	34	2	3	143	188	191	3	3	4	4	2	2	1	0	1
17:45	22	7	7	36	2	3	121	197	197	5	5	5	4	2	2	1	0	1
Hour 1	7	8	8	11	5	7	27	31	31	15	15	16	1	1	1	1	0	0
Hour 2	47	24	28	76	8	19	121	168	170	22	21	22	8	7	5	4	0	4
Hour 3	75	27	34	131	9	30	462	576	575	19	19	19	13	8	7	6	0	6
Hour 4	88	27	30	148	8	17	561	752	753	14	13	16	15	8	8	5	0	4
TOTAL	217	86	100	366	30	73	1171	1527	1529	70	68	73	37	24	21	16	0	14
		-86%	-74%		-170%	-133%		26%	27%		-3%	4%		-43%	-55%		-	-13%



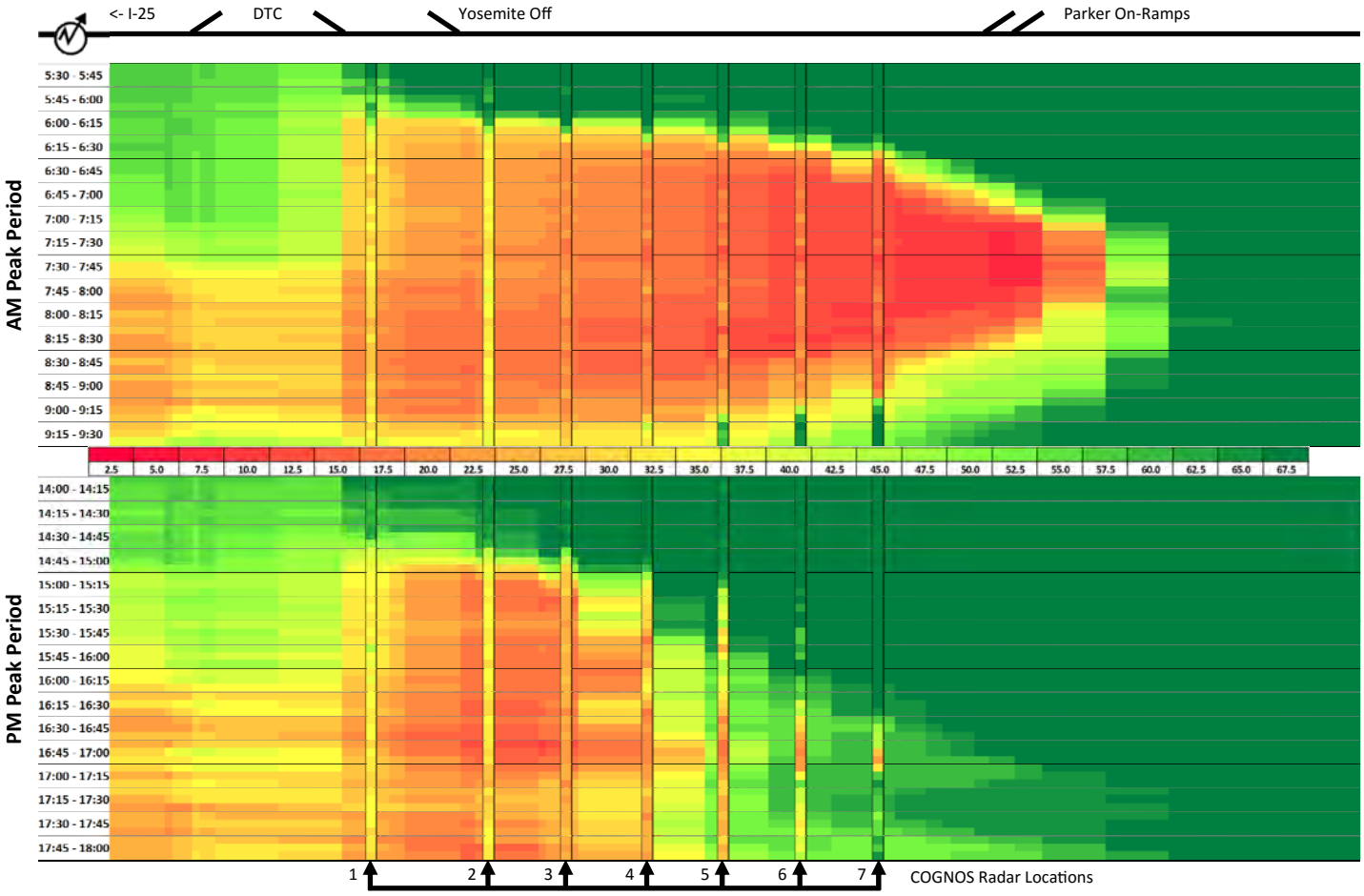
TRAVEL TIME SEGMENT ANALYSIS RESULTS

PM10	STOPS (TOTAL)																	
	I-225 to NB I-25			I-225 to SB I-25			NB I-25			SB I-25			DTC to NB I-25			Yosemite to SB I-25		
TIME	E	C2	C3	E	C2	C3	E	C2	C3	E	C2	C3	E	C2	C3	E	C2	C3
14:00	7	6	11	10	0	0	0	0	0	0	0	0	1	1	0	7	0	0
14:15	9	10	12	14	0	0	0	0	0	0	0	0	5	0	0	17	0	1
14:30	10	7	11	19	0	0	0	0	0	0	0	0	18	0	0	24	0	0
14:45	45	14	16	63	4	0	0	10	10	0	0	0	216	1	2	109	0	1
15:00	189	15	20	370	0	4	0	10	30	0	0	0	381	1	1	200	0	15
15:15	438	24	29	851	20	4	20	68	107	0	0	0	300	3	2	154	0	25
15:30	607	24	31	1188	4	8	162	519	649	0	0	0	412	3	2	197	0	7
15:45	1148	33	35	2225	4	8	1574	3503	3148	9	9	9	408	4	3	196	0	24
16:00	1576	24	41	2949	0	20	4213	10564	10387	0	0	0	678	4	3	329	0	59
16:15	1608	26	34	3277	4	12	7874	19243	18663	0	0	0	652	4	5	377	0	53
16:30	1825	32	48	3751	0	20	16765	28335	27254	0	0	0	651	6	5	339	0	52
16:45	2901	32	53	6334	0	37	24155	35537	34672	9	0	0	672	5	6	276	0	178
17:00	3724	30	49	7895	4	33	28891	43234	41334	0	0	0	581	5	3	282	0	112
17:15	3240	24	32	5925	4	7	24568	42700	42821	0	0	0	738	3	3	309	0	21
17:30	2374	29	35	4617	0	11	26946	43247	43856	0	8	8	590	4	5	258	0	3
17:45	3083	32	34	6085	0	4	18345	49477	50020	9	9	9	679	6	5	259	0	2
Hour 1	71	37	50	106	4	0	0	10	10	0	0	0	240	2	2	157	0	2
Hour 2	2382	96	115	4634	28	24	1756	4100	3934	9	9	9	1501	11	8	747	0	71
Hour 3	7910	114	176	16311	4	89	53007	93679	90976	9	0	0	2653	19	19	1321	0	342
Hour 4	12421	115	150	24522	8	55	98750	178658	178031	9	17	17	2588	18	16	1108	0	138
TOTAL	22784	362	491	45573	44	168	153513	276447	272951	27	26	26	6982	50	45	3333	0	553

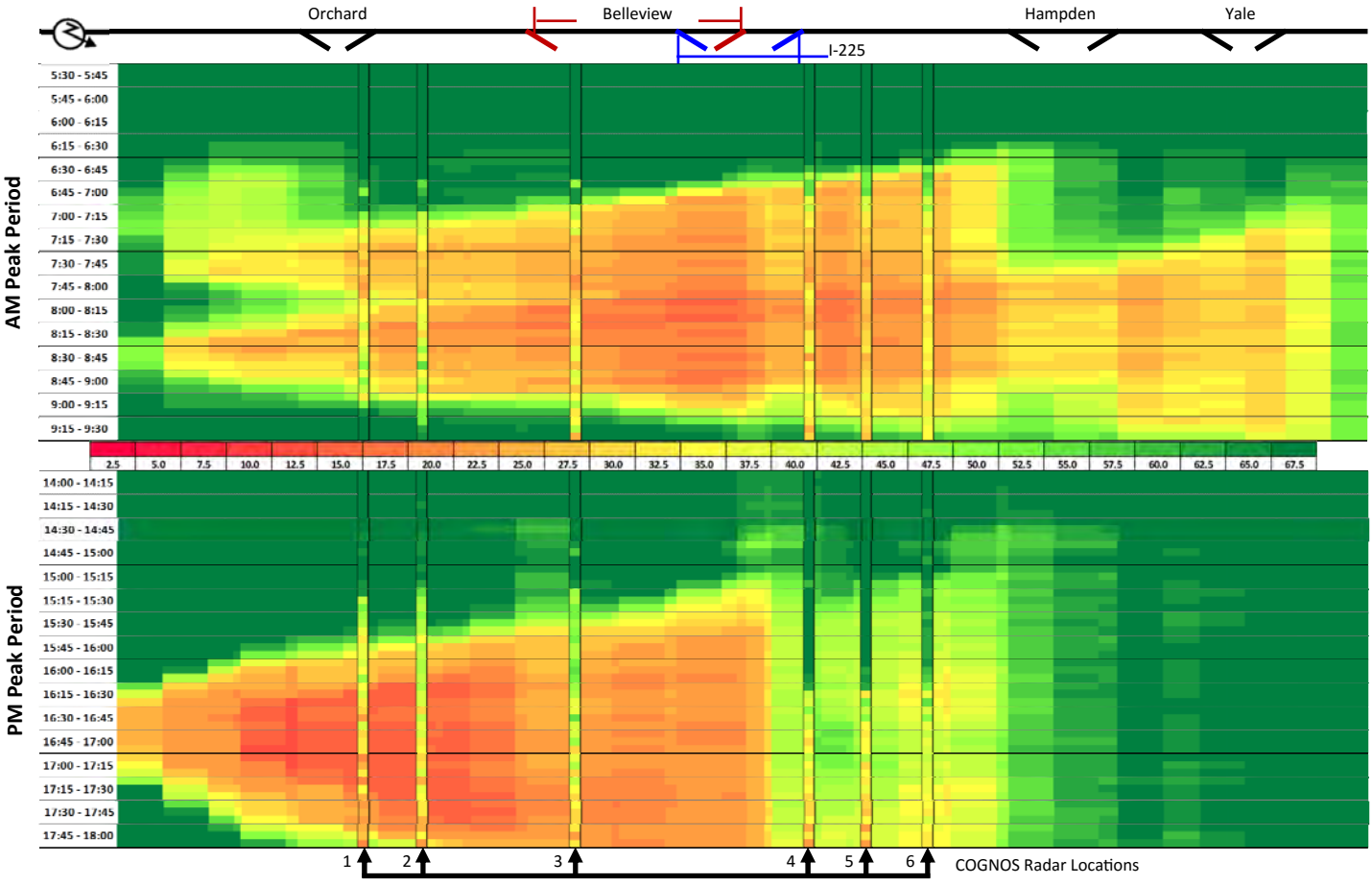


LINK SEGMENT ANALYSIS (HEAT MAPS)

Southbound I-225

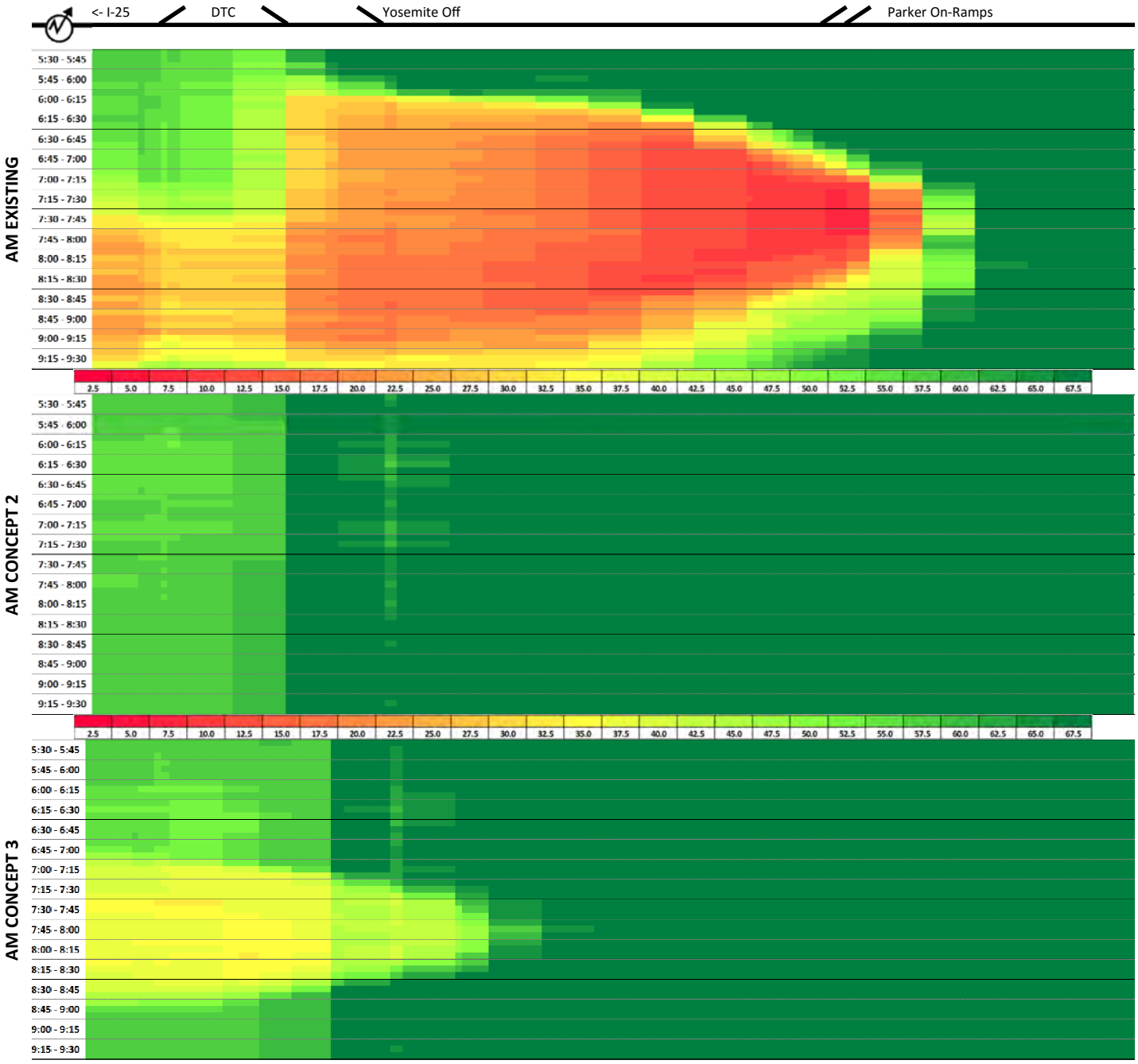


Northbound I-25



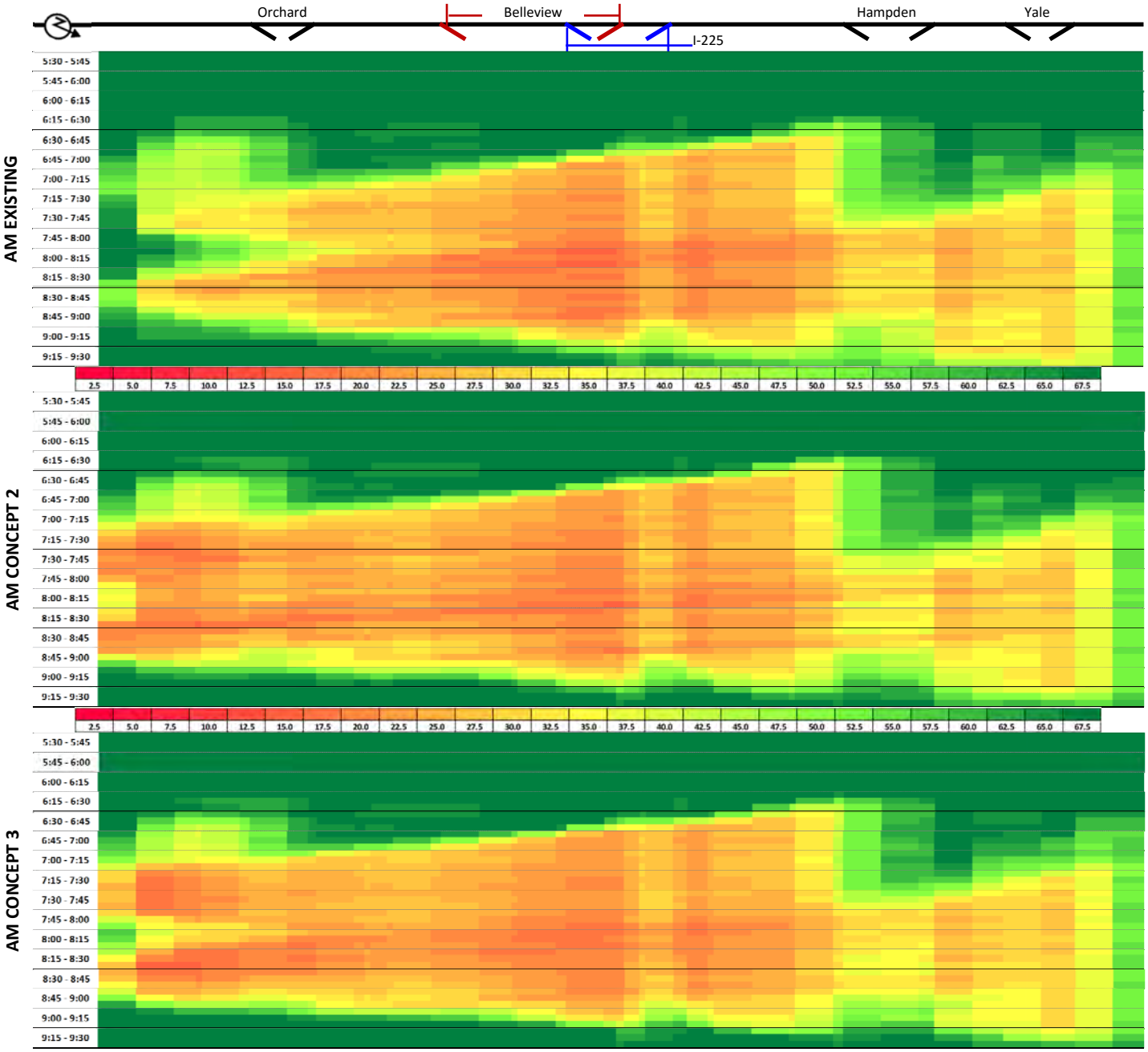
LINK SEGMENT ANALYSIS (HEAT MAPS)

Southbound I-225



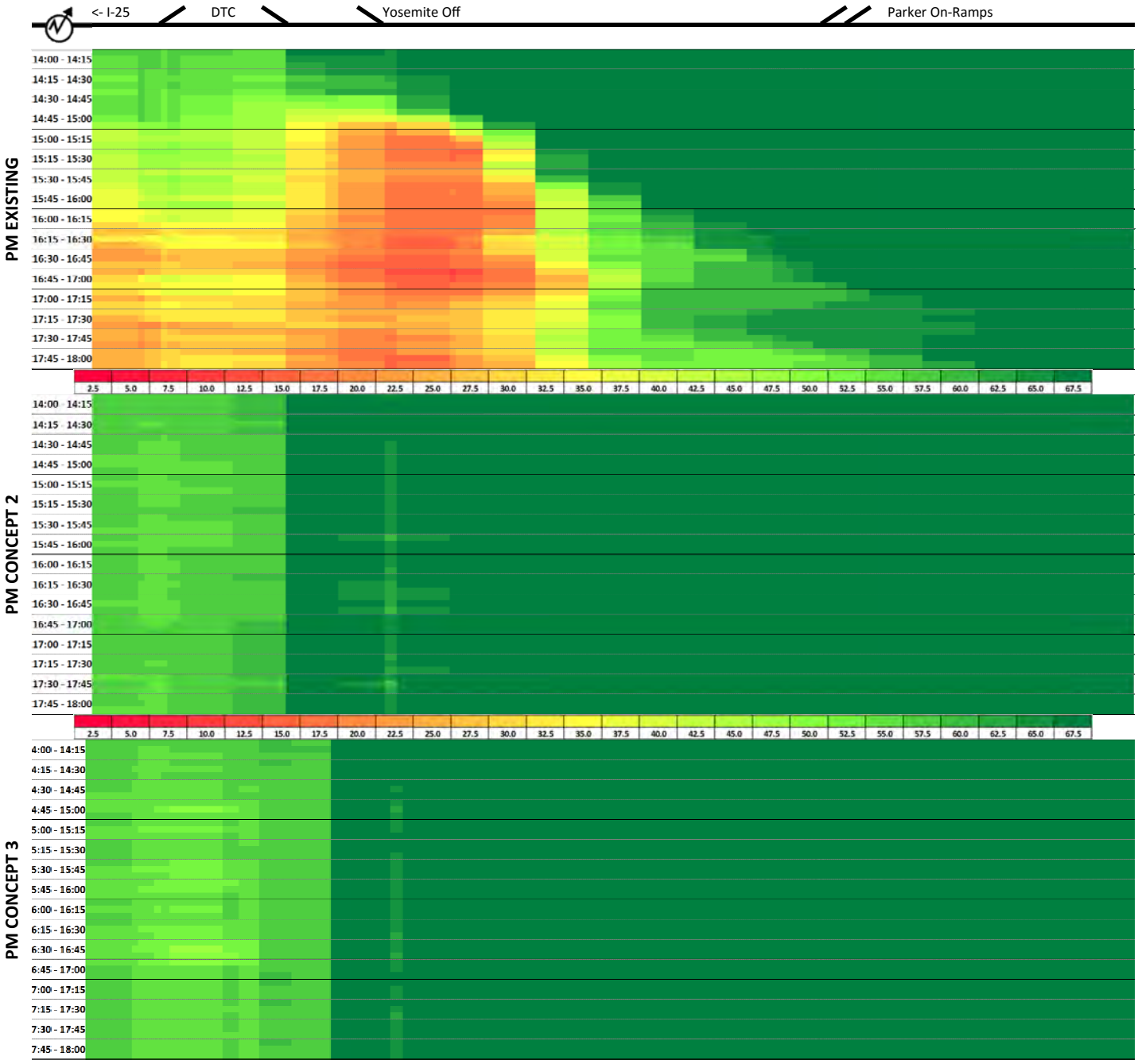
LINK SEGMENT ANALYSIS (HEAT MAPS)

Northbound I-25



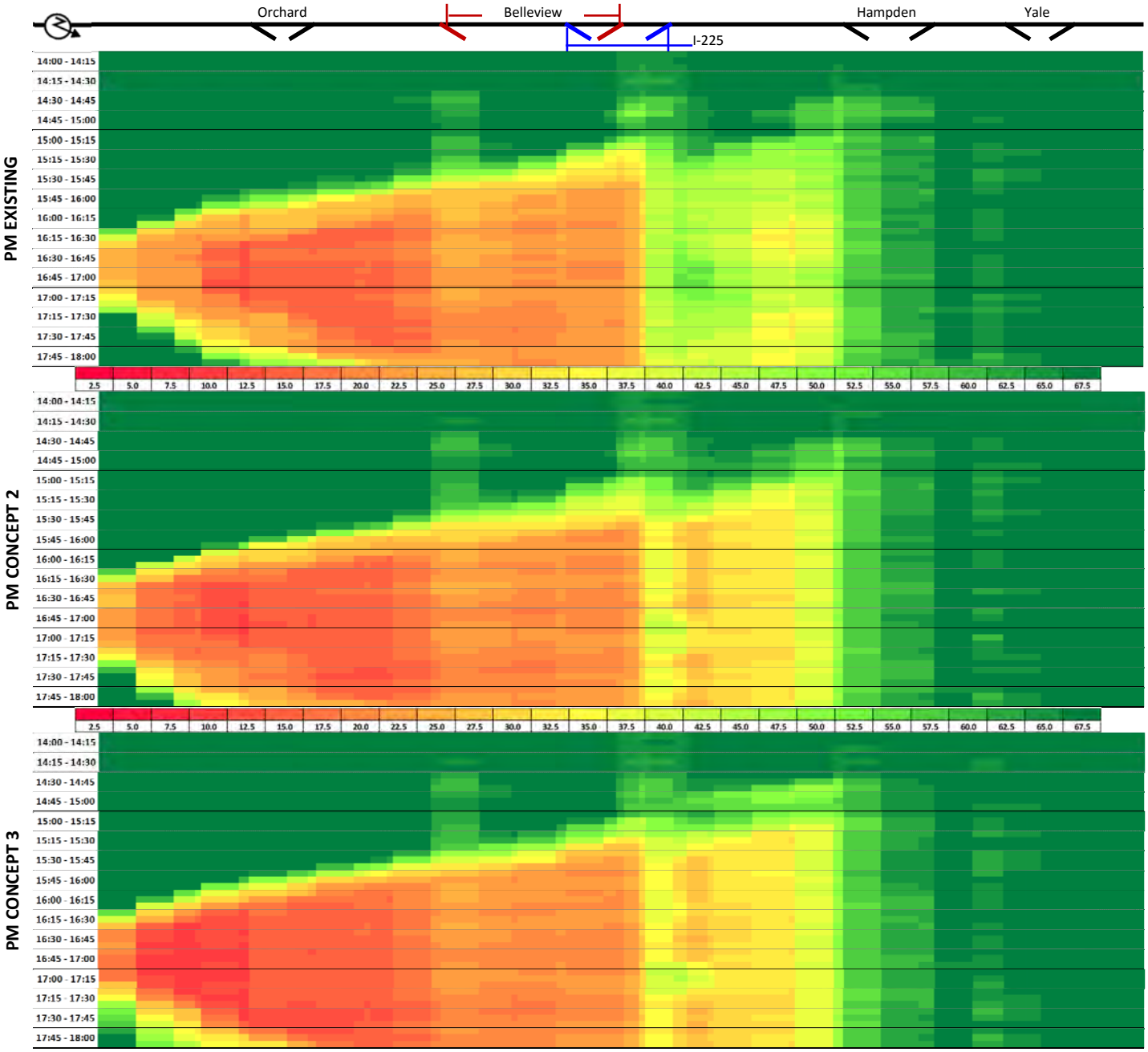
LINK SEGMENT ANALYSIS (HEAT MAPS)

Southbound I-225



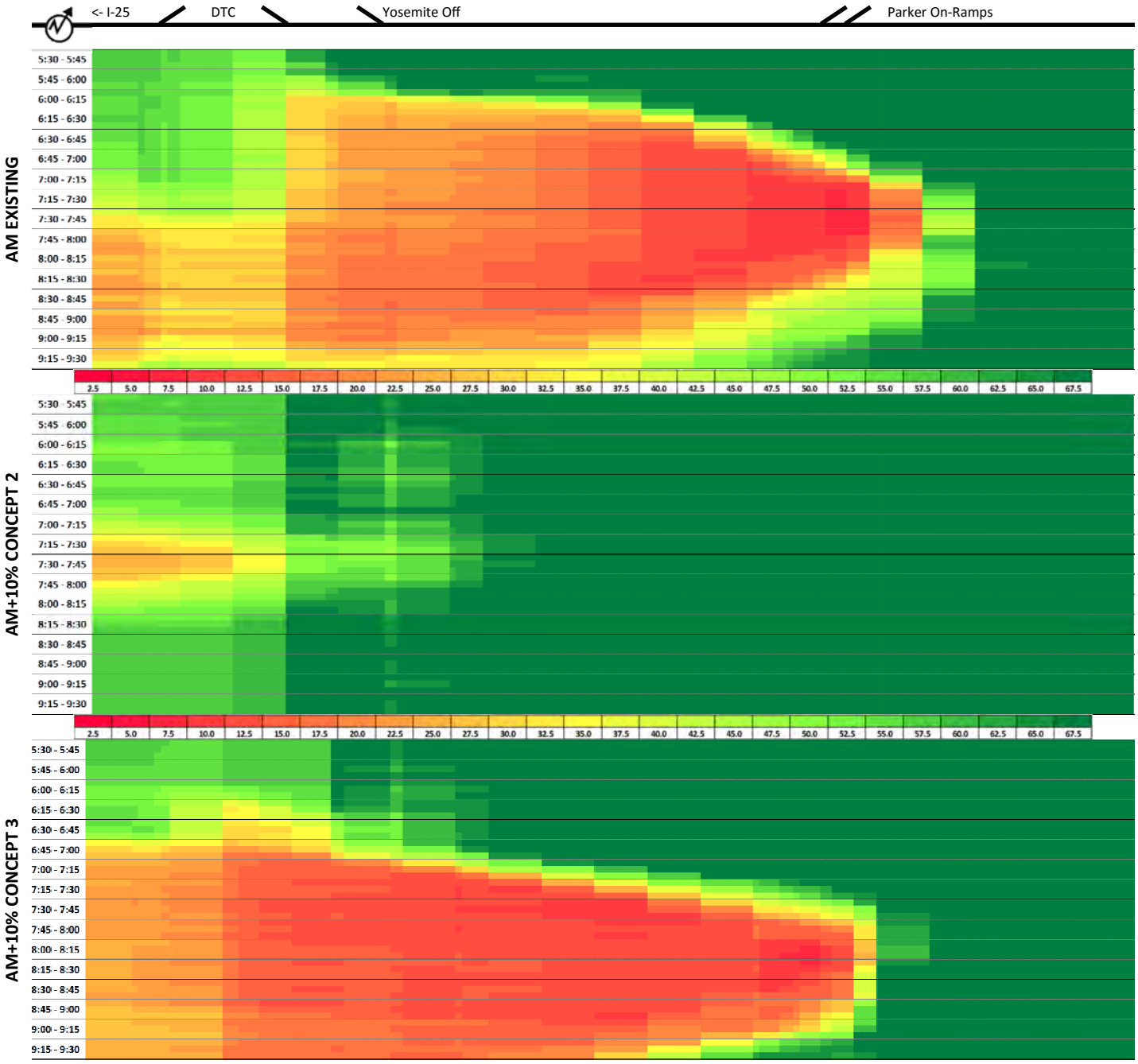
LINK SEGMENT ANALYSIS (HEAT MAPS)

Northbound I-25



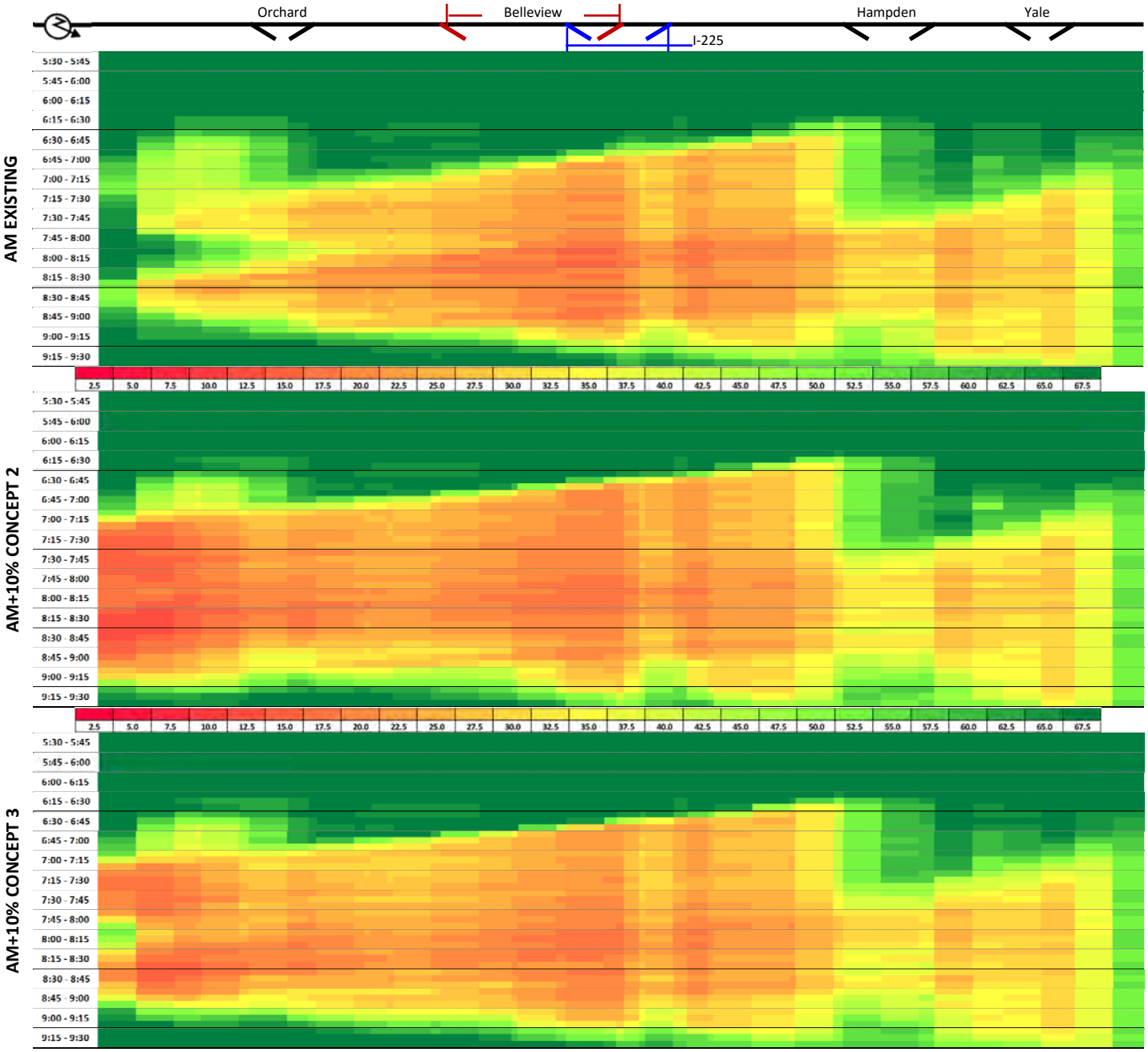
LINK SEGMENT ANALYSIS (HEAT MAPS)

Southbound I-225



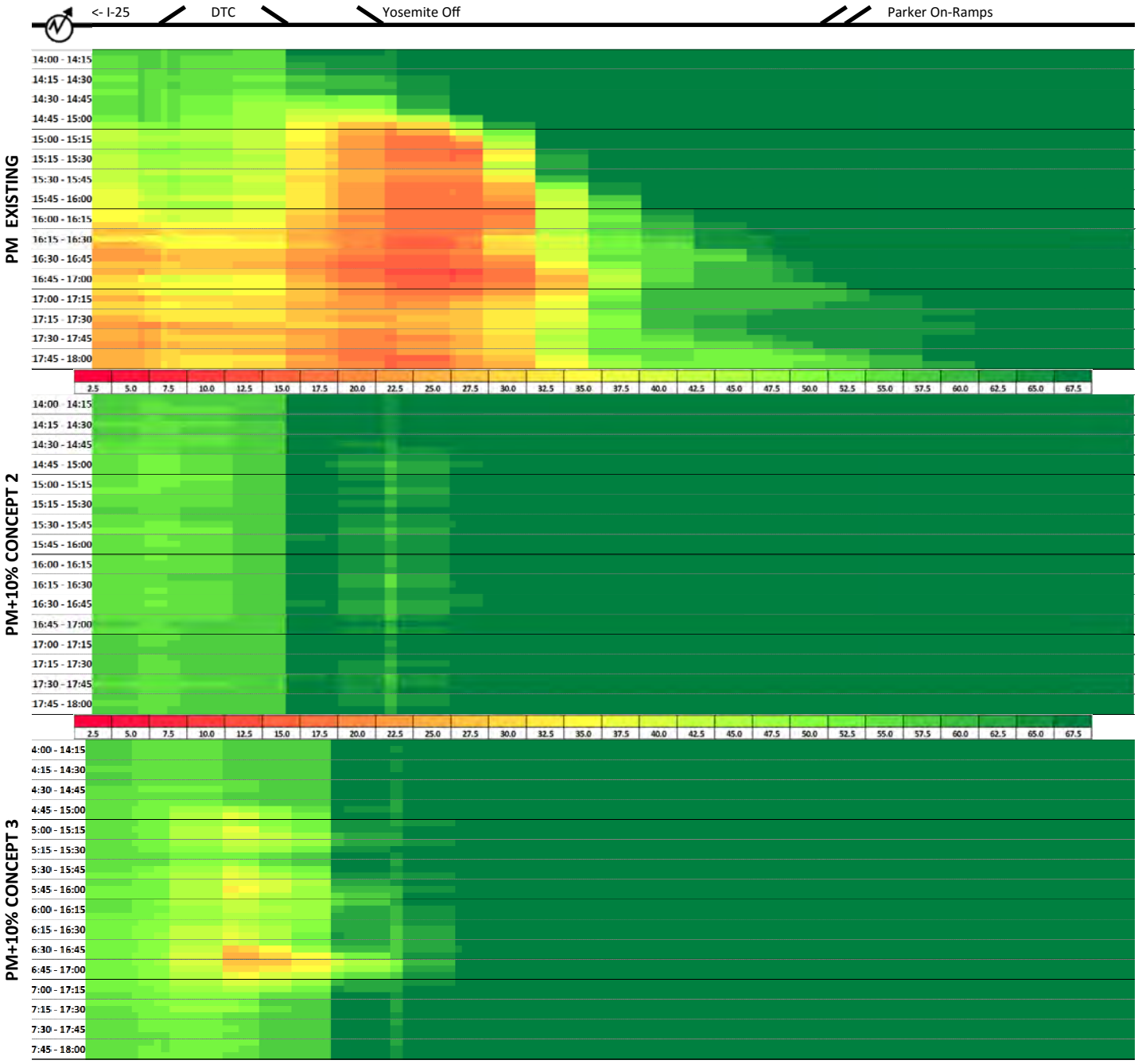
LINK SEGMENT ANALYSIS (HEAT MAPS)

Northbound I-25



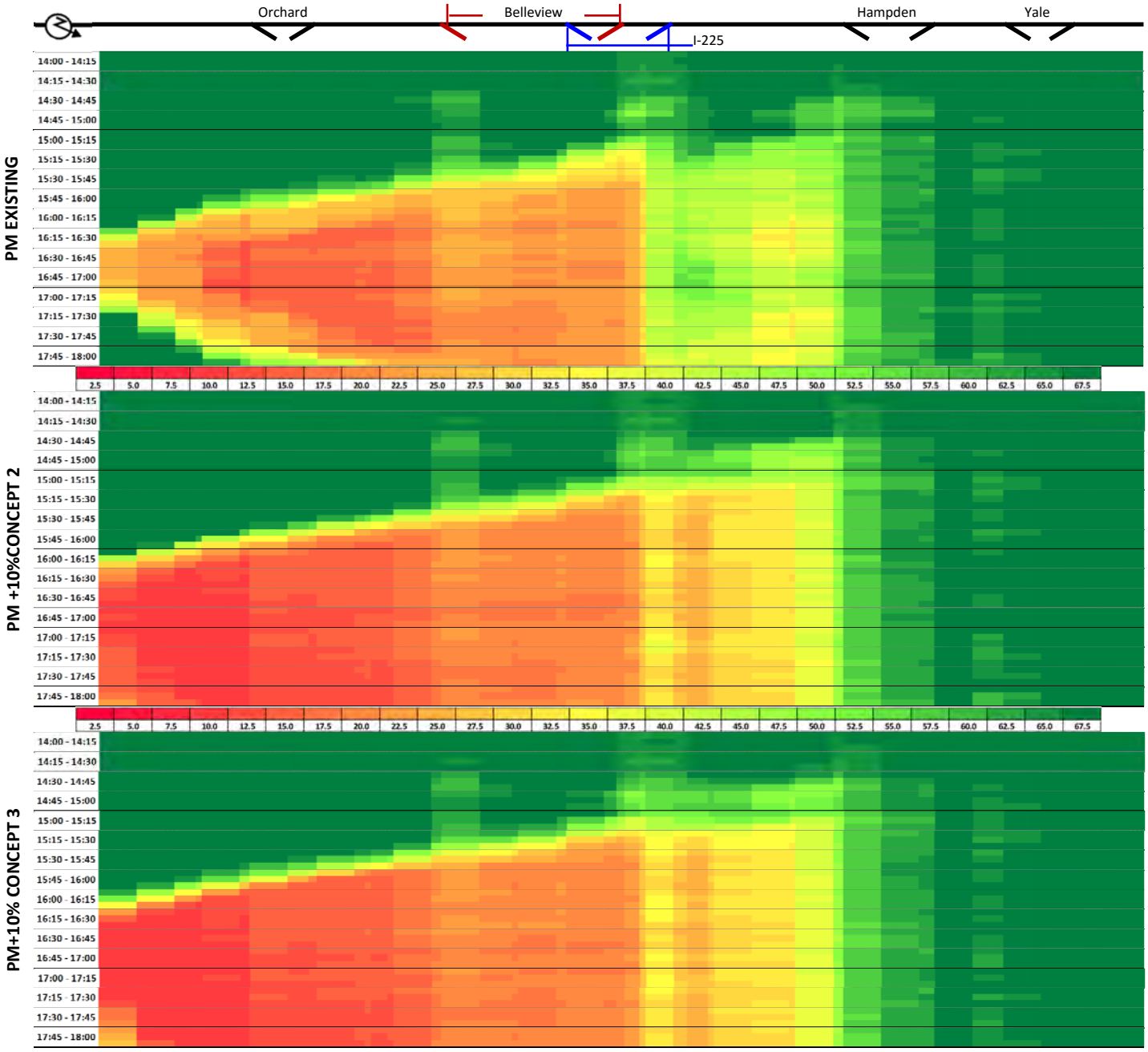
LINK SEGMENT ANALYSIS (HEAT MAPS)

Southbound I-225



LINK SEGMENT ANALYSIS (HEAT MAPS)

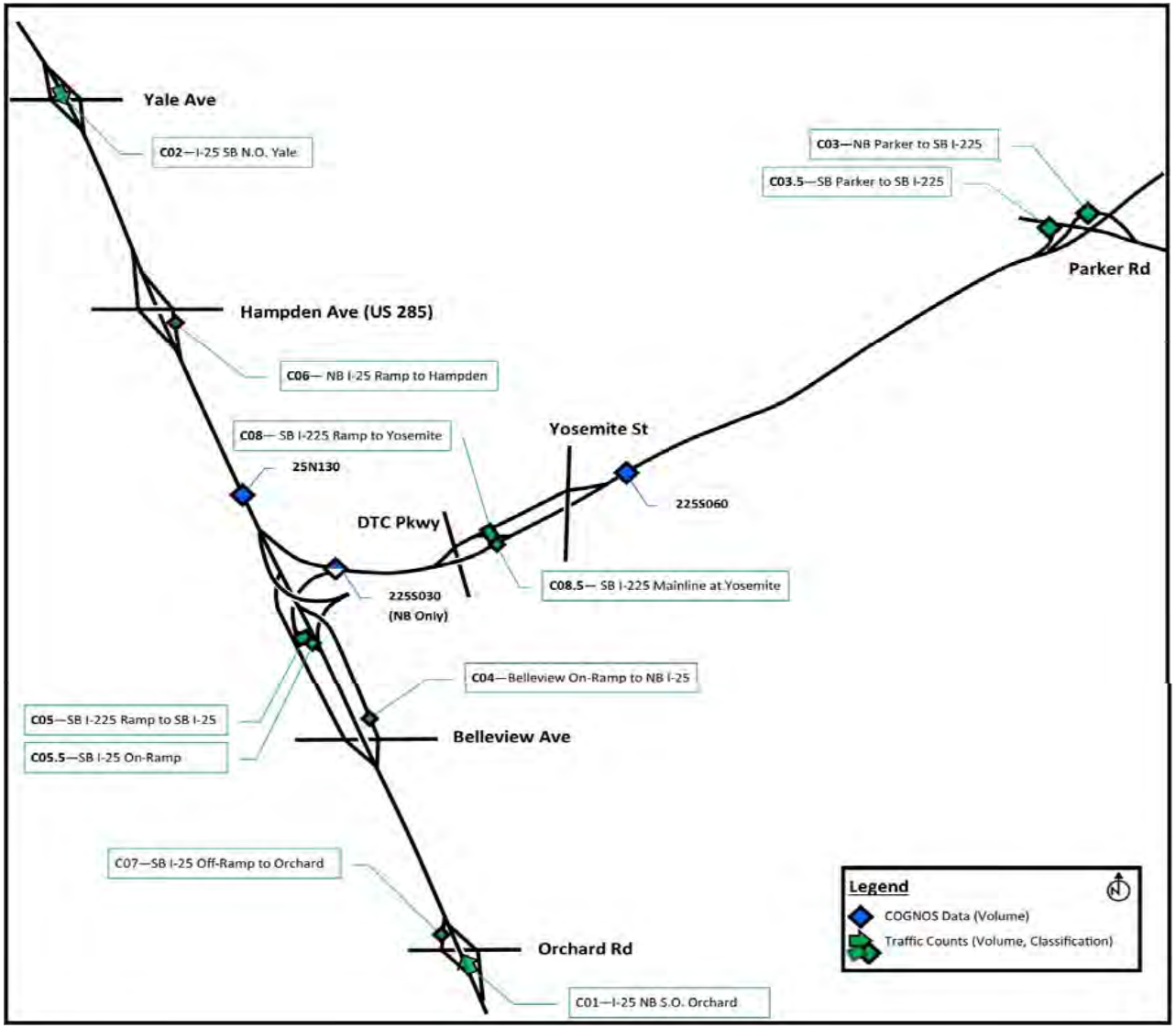
Northbound I-25



TRAFFIC VOLUMES - BY LINK

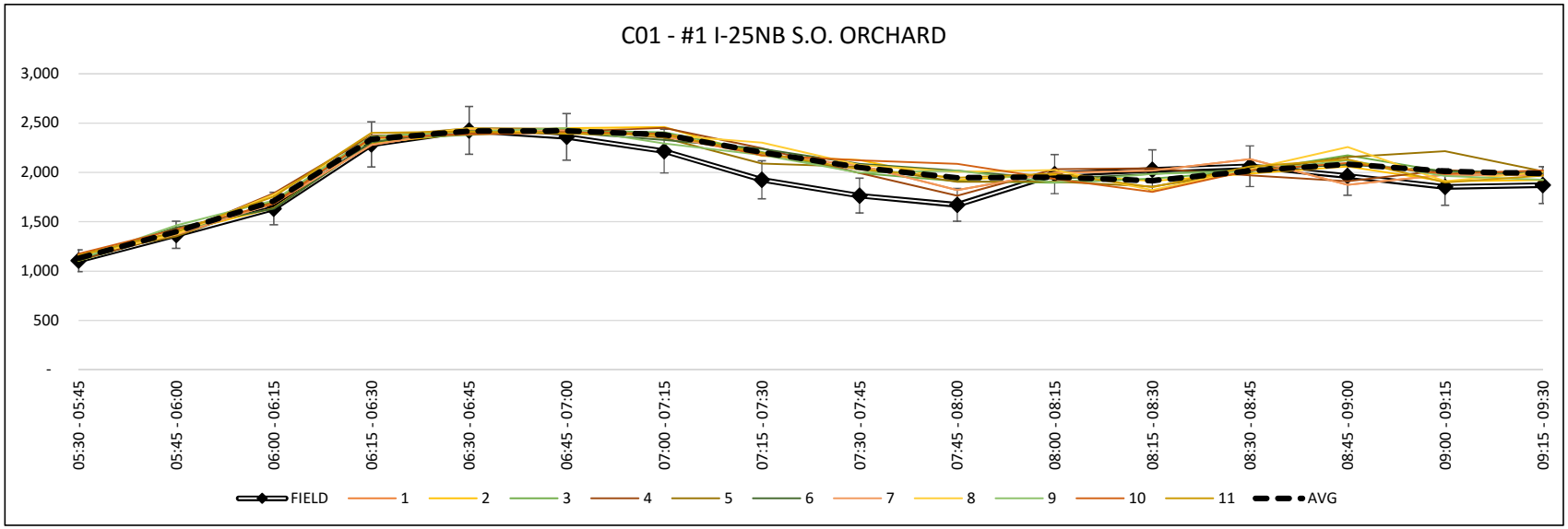
EXISTING

PERIOD: AM

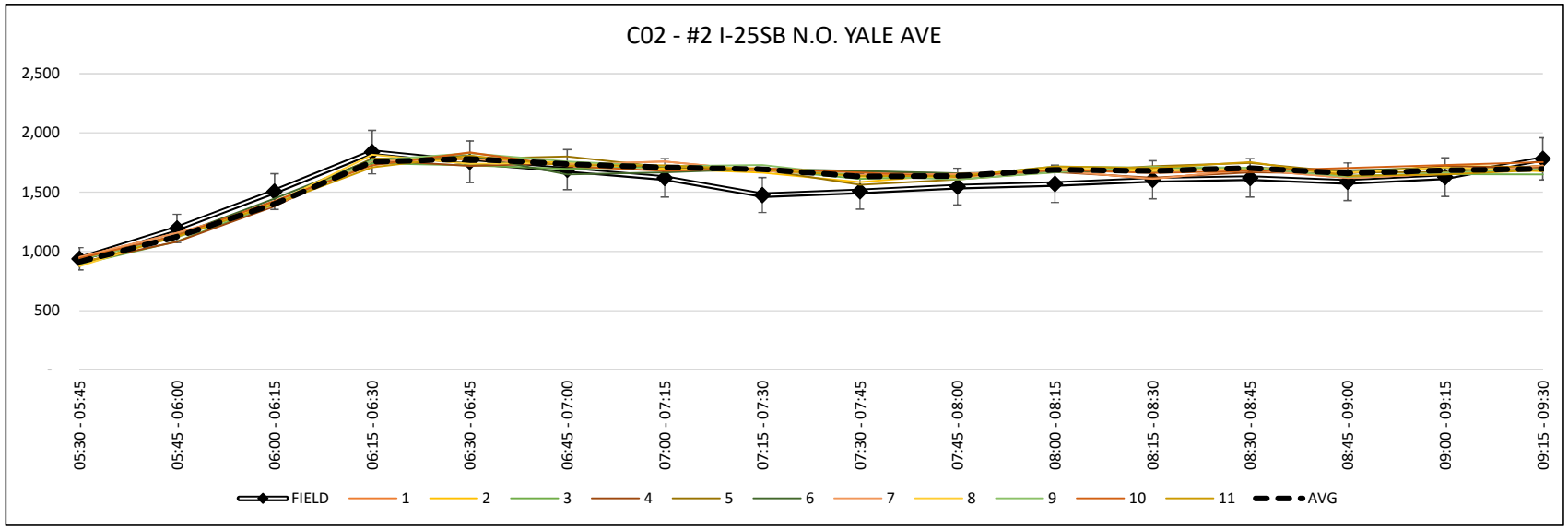


ID	DESCRIPTION
C01	NB I-25 S.O. Orchard
C02	SB I-25 N.O. Yale
C03	NB Parker to SB I-225
C03.5	SB Parker to SB I-225
C04	Belleview On-Ramp to NB I-25
C05	SB I-225 Ramp to SB I-25
C06	NB I-25 Ramp to Hampden
C07	SB I-25 Off-Ramp to Orchard
C08	SB I-225 Ramp to Yosemite
C08.5	SB I-225 Mainline at Yosemite
225S060	225S001 PARKER RD TO YOSEMITE ST (176)
25N130	025N201 0.2MI N OF I-225
225S030	225S000 I-225 SB TO I-25 NB (144)
C05.5	#5 SB I-225 to SB I-25 On-Ramp Only

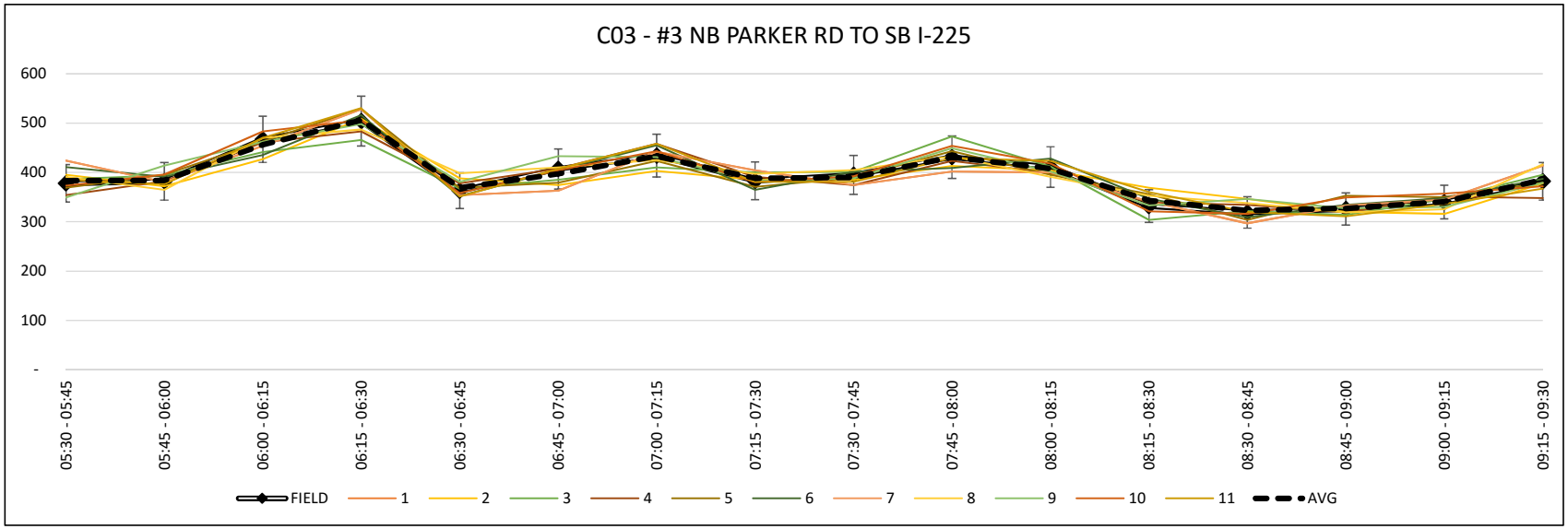
EXISTING		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																										
AM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C01	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	1,106	1,163	5%	1,106	0%	1,108	0%	1,114	1%	1,164	5%	1,119	1%	1,163	5%	1,143	3%	1,118	1%	1,176	6%	1,161	5%	1,131	2%	0.7	32	2
05:45 - 06:00	1,368	1,370	0%	1,390	2%	1,383	1%	1,376	1%	1,353	1%	1,441	5%	1,370	0%	1,377	1%	1,461	7%	1,424	4%	1,398	2%	1,398	2%	0.8	32	2
06:00 - 06:15	1,634	1,686	3%	1,637	0%	1,695	4%	1,788	9%	1,706	4%	1,633	0%	1,686	3%	1,776	8%	1,717	5%	1,683	3%	1,756	7%	1,711	5%	1.9	52	3
06:15 - 06:30	2,284	2,278	0%	2,298	1%	2,336	2%	2,373	4%	2,358	3%	2,304	1%	2,278	0%	2,336	2%	2,363	3%	2,350	3%	2,400	5%	2,337	2%	1.1	36	1
06:30 - 06:45	2,426	2,441	1%	2,394	1%	2,378	2%	2,390	1%	2,449	1%	2,435	0%	2,441	1%	2,449	1%	2,416	0%	2,385	2%	2,414	0%	2,417	0%	0.2	27	0
06:45 - 07:00	2,361	2,425	3%	2,447	4%	2,424	3%	2,416	2%	2,441	3%	2,402	2%	2,425	3%	2,392	1%	2,449	4%	2,405	2%	2,395	1%	2,422	3%	1.2	22	0
07:00 - 07:15	2,216	2,364	6%	2,459	10%	2,405	8%	2,451	10%	2,350	6%	2,328	5%	2,364	6%	2,380	7%	2,293	3%	2,391	8%	2,379	7%	2,382	7%	3.5	49	1
07:15 - 07:30	1,926	2,179	12%	2,166	12%	2,206	14%	2,245	15%	2,089	8%	2,238	15%	2,179	12%	2,301	18%	2,175	12%	2,173	12%	2,198	13%	2,203	13%	6.1	57	2
07:30 - 07:45	1,765	2,072	16%	2,126	19%	1,995	12%	1,994	12%	2,058	15%	2,087	17%	2,072	16%	2,074	16%	1,998	12%	2,123	18%	2,029	14%	2,051	15%	6.5	50	2
07:45 - 08:00	1,672	1,820	8%	1,922	14%	1,911	13%	1,765	5%	1,905	13%	2,019	19%	1,820	8%	2,007	18%	2,017	19%	2,087	22%	1,946	15%	1,946	15%	6.4	94	9
08:00 - 08:15	1,983	1,997	1%	1,978	0%	1,896	4%	2,034	3%	1,907	4%	1,935	2%	1,997	1%	2,023	2%	1,897	4%	1,934	3%	1,989	0%	1,951	2%	0.7	55	2
08:15 - 08:30	2,026	2,017	0%	1,912	6%	1,936	5%	2,043	1%	1,858	9%	1,984	2%	2,017	0%	1,822	11%	1,984	2%	1,802	12%	1,852	9%	1,915	6%	2.5	83	5
08:30 - 08:45	2,063	2,134	3%	1,989	4%	2,015	2%	1,969	5%	2,008	3%	2,031	2%	2,134	3%	2,033	1%	2,012	3%	2,021	2%	2,059	0%	2,016	2%	1	56	2
08:45 - 09:00	1,964	1,874	5%	2,060	5%	2,172	10%	1,910	3%	2,155	9%	2,077	6%	1,874	5%	2,256	14%	2,121	8%	2,097	7%	2,131	8%	2,085	6%	2.7	110	9
09:00 - 09:15	1,853	1,977	6%	1,910	3%	2,007	8%	2,024	9%	2,216	18%	2,016	8%	1,977	6%	1,909	3%	1,964	6%	1,986	7%	1,899	2%	2,013	8%	3.6	114	11
09:15 - 09:30	1,871	1,971	5%	1,922	3%	1,973	5%	1,980	6%	2,011	7%	1,995	6%	1,971	5%	2,007	7%	1,926	3%	2,022	8%	1,967	5%	1,989	6%	2.7	51	2
Hour 1	6,392	6,497	2%	6,431	1%	6,522	2%	6,651	4%	6,581	3%	6,497	2%	6,497	2%	6,632	4%	6,659	4%	6,633	4%	6,715	5%	6,577	3%	2.3	39	0
Hour 2	8,929	9,409	5%	9,466	6%	9,413	5%	9,502	6%	9,329	4%	9,403	5%	9,409	5%	9,522	6%	9,333	4%	9,354	5%	9,386	5%	9,424	5%	5.2	41	0
Hour 3	7,446	7,906	6%	7,938	6%	7,738	4%	7,836	5%	7,728	4%	8,025	7%	7,906	6%	7,926	6%	7,896	6%	7,946	6%	7,816	5%	7,863	5%	4.8	73	0
Hour 4	7,751	7,956	3%	7,881	2%	8,167	5%	7,883	2%	8,390	8%	8,119	5%	7,956	3%	8,205	6%	8,023	3%	8,126	5%	8,056	4%	8,103	4%	4	88	0
11	30,518	31,768	4%	31,716	4%	31,840	4%	31,872	4%	32,028	5%	32,044	5%	31,768	4%	32,285	6%	31,911	4%	32,059	5%	31,973	5%	31,967	5%	8.2	127	0



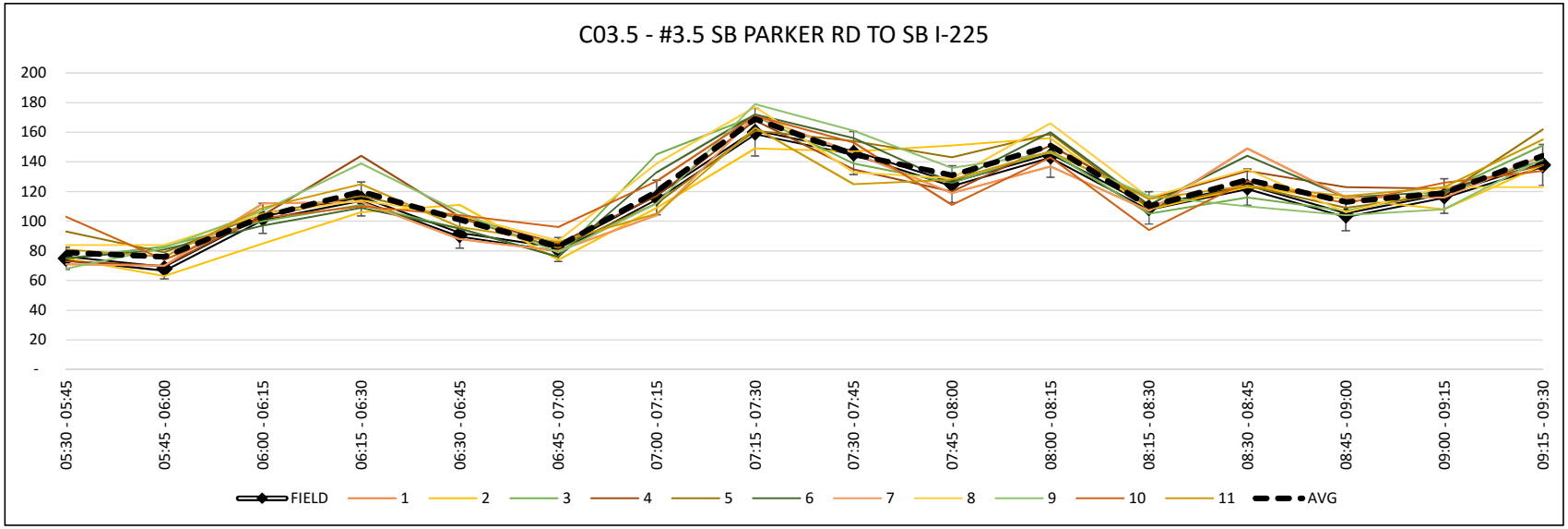
EXISTING		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																											
AM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C02	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	938	951	1%	889	5%	889	5%	906	3%	930	1%	927	1%	951	1%	875	7%	935	0%	943	1%	898	4%	912	3%	0.9	26	2
05:45 - 06:00	1,194	1,156	3%	1,136	5%	1,084	10%	1,081	10%	1,128	6%	1,136	5%	1,156	3%	1,134	5%	1,119	6%	1,134	5%	1,125	6%	1,124	6%	2.1	23	1
06:00 - 06:15	1,505	1,387	8%	1,419	6%	1,400	7%	1,381	9%	1,410	7%	1,445	4%	1,387	8%	1,406	7%	1,395	8%	1,425	5%	1,401	7%	1,400	7%	2.8	28	1
06:15 - 06:30	1,838	1,763	4%	1,768	4%	1,745	5%	1,771	4%	1,784	3%	1,773	4%	1,763	4%	1,816	1%	1,768	4%	1,726	6%	1,709	7%	1,756	5%	1.9	35	1
06:30 - 06:45	1,757	1,781	1%	1,783	1%	1,727	2%	1,722	2%	1,780	1%	1,809	3%	1,781	1%	1,739	1%	1,829	4%	1,835	4%	1,808	3%	1,781	1%	0.6	39	1
06:45 - 07:00	1,690	1,735	3%	1,749	3%	1,696	0%	1,743	3%	1,802	6%	1,649	2%	1,735	3%	1,749	3%	1,758	4%	1,720	2%	1,725	2%	1,736	3%	1.1	40	2
07:00 - 07:15	1,620	1,758	8%	1,696	5%	1,714	6%	1,717	6%	1,711	5%	1,666	3%	1,758	8%	1,721	6%	1,719	6%	1,680	4%	1,727	6%	1,710	5%	2.2	24	1
07:15 - 07:30	1,476	1,678	13%	1,665	12%	1,692	14%	1,682	13%	1,689	13%	1,696	14%	1,678	13%	1,701	14%	1,729	16%	1,701	14%	1,690	14%	1,694	14%	5.5	17	0
07:30 - 07:45	1,508	1,642	9%	1,585	5%	1,612	7%	1,673	10%	1,561	3%	1,678	11%	1,642	9%	1,629	8%	1,637	8%	1,664	10%	1,637	8%	1,632	8%	3.1	36	2
07:45 - 08:00	1,547	1,654	7%	1,652	7%	1,634	5%	1,656	7%	1,608	4%	1,658	7%	1,654	7%	1,621	5%	1,607	4%	1,630	5%	1,633	5%	1,636	6%	2.2	18	0
08:00 - 08:15	1,570	1,681	7%	1,672	6%	1,716	9%	1,670	6%	1,668	6%	1,674	6%	1,681	7%	1,705	8%	1,666	6%	1,689	7%	1,716	9%	1,689	7%	2.9	22	1
08:15 - 08:30	1,605	1,611	0%	1,699	6%	1,706	6%	1,623	1%	1,718	7%	1,675	4%	1,611	0%	1,677	4%	1,713	7%	1,661	3%	1,703	6%	1,678	4%	1.8	35	1
08:30 - 08:45	1,620	1,688	4%	1,707	5%	1,697	5%	1,666	3%	1,746	7%	1,707	5%	1,688	4%	1,703	5%	1,706	5%	1,679	4%	1,753	8%	1,705	5%	2.1	26	1
08:45 - 09:00	1,588	1,620	2%	1,667	5%	1,638	3%	1,660	4%	1,667	5%	1,683	6%	1,620	2%	1,663	5%	1,629	3%	1,704	7%	1,637	3%	1,660	4%	1.8	27	1
09:00 - 09:15	1,627	1,654	2%	1,721	6%	1,651	1%	1,720	6%	1,669	3%	1,704	5%	1,654	2%	1,710	5%	1,664	2%	1,728	6%	1,649	1%	1,685	4%	1.4	31	1
09:15 - 09:30	1,781	1,725	3%	1,711	4%	1,650	8%	1,707	4%	1,723	3%	1,682	6%	1,725	3%	1,674	6%	1,695	5%	1,753	2%	1,687	5%	1,697	5%	2	31	1
Hour 1	5,475	5,257	4%	5,212	5%	5,118	7%	5,139	6%	5,252	4%	5,281	4%	5,257	4%	5,231	5%	5,217	5%	5,228	5%	5,133	6%	5,192	5%	3.9	28	0
Hour 2	6,543	6,952	6%	6,893	5%	6,829	4%	6,864	5%	6,982	6%	6,820	4%	6,952	6%	6,910	5%	7,035	7%	6,936	6%	6,950	6%	6,921	6%	4.6	32	0
Hour 3	6,230	6,588	6%	6,608	6%	6,668	7%	6,622	6%	6,555	5%	6,685	7%	6,588	6%	6,632	6%	6,623	6%	6,644	6%	6,689	7%	6,635	6%	5	29	0
Hour 4	6,616	6,687	1%	6,806	3%	6,636	0%	6,753	2%	6,805	3%	6,776	2%	6,687	1%	6,750	2%	6,694	1%	6,864	4%	6,726	2%	6,747	2%	1.6	29	0
11	24,864	25,484	2%	25,519	3%	25,251	2%	25,378	2%	25,594	3%	25,562	3%	25,484	2%	25,523	3%	25,569	3%	25,672	3%	25,498	3%	25,495	3%	4	59	0



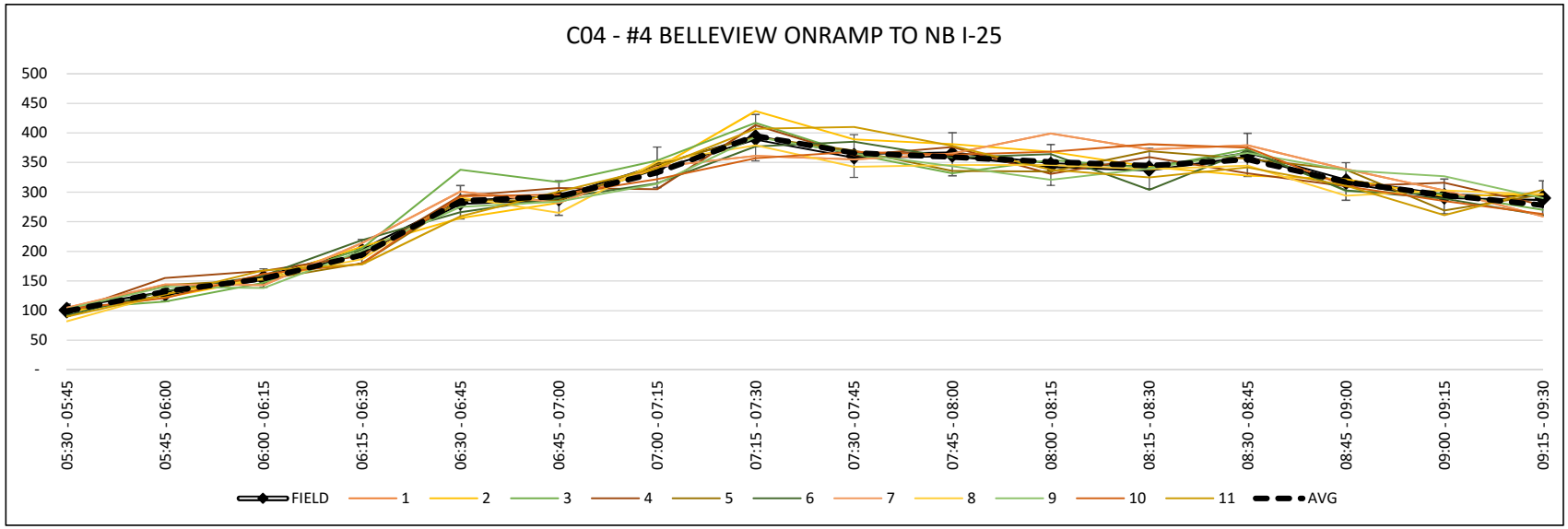
EXISTING		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																											
AM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C03	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	378	424	11%	395	4%	386	2%	354	7%	369	2%	411	8%	424	11%	391	3%	349	8%	373	1%	385	2%	383	1%	0.3	22	9
05:45 - 06:00	382	380	1%	372	3%	394	3%	382	0%	395	3%	391	2%	380	1%	365	5%	414	8%	396	4%	376	2%	384	1%	0.1	16	5
06:00 - 06:15	467	454	3%	427	9%	441	6%	461	1%	463	1%	435	7%	454	3%	470	1%	462	1%	483	3%	470	1%	456	2%	0.5	17	4
06:15 - 06:30	504	528	5%	509	1%	466	8%	483	4%	529	5%	516	2%	528	5%	487	3%	498	1%	506	0%	530	5%	506	0%	0.1	21	5
06:30 - 06:45	363	354	3%	388	7%	367	1%	378	4%	369	2%	352	3%	354	3%	398	9%	381	5%	358	1%	351	3%	369	2%	0.3	16	5
06:45 - 07:00	407	363	11%	374	8%	385	6%	408	0%	379	7%	405	0%	363	11%	410	1%	433	6%	404	1%	407	0%	397	2%	0.5	20	7
07:00 - 07:15	434	442	2%	403	7%	410	6%	458	5%	423	3%	455	5%	442	2%	425	2%	431	1%	443	2%	458	5%	433	0%	0	20	6
07:15 - 07:30	383	404	5%	385	1%	400	4%	391	2%	371	3%	365	5%	404	5%	397	4%	383	0%	380	1%	381	1%	388	1%	0.3	13	3
07:30 - 07:45	395	374	5%	385	3%	401	2%	374	5%	389	2%	401	2%	374	5%	405	3%	388	2%	392	1%	381	4%	390	1%	0.3	11	2
07:45 - 08:00	431	402	7%	413	4%	473	9%	423	2%	443	3%	409	5%	402	7%	433	0%	449	4%	454	5%	429	0%	431	0%	0	22	7
08:00 - 08:15	411	400	3%	404	2%	412	0%	399	3%	395	4%	428	4%	400	3%	391	5%	402	2%	418	2%	423	3%	408	1%	0.1	12	2
08:15 - 08:30	332	341	3%	369	11%	304	9%	339	2%	356	7%	347	4%	341	3%	353	6%	333	0%	321	3%	360	8%	343	3%	0.6	19	9
08:30 - 08:45	319	297	7%	346	8%	322	1%	334	5%	304	5%	309	3%	297	7%	338	6%	346	8%	316	1%	320	0%	323	1%	0.2	16	7
08:45 - 09:00	326	333	2%	320	2%	314	4%	319	2%	353	8%	334	2%	333	2%	319	2%	327	0%	349	7%	311	5%	327	0%	0.1	14	5
09:00 - 09:15	340	345	1%	316	7%	346	2%	351	3%	350	3%	348	2%	345	1%	325	5%	330	3%	357	5%	336	1%	341	0%	0.1	12	3
09:15 - 09:30	382	414	8%	378	1%	395	3%	348	9%	379	1%	387	1%	414	8%	416	9%	379	1%	372	3%	367	4%	385	1%	0.2	20	8
Hour 1	1,731	1,786	3%	1,703	2%	1,687	3%	1,680	3%	1,756	1%	1,753	1%	1,786	3%	1,713	1%	1,723	0%	1,758	2%	1,761	2%	1,729	0%	0	19	0
Hour 2	1,587	1,563	2%	1,550	2%	1,562	2%	1,635	3%	1,542	3%	1,577	1%	1,563	2%	1,630	3%	1,628	3%	1,585	0%	1,597	1%	1,587	0%	0	18	0
Hour 3	1,569	1,517	3%	1,571	0%	1,590	1%	1,535	2%	1,583	1%	1,585	1%	1,517	3%	1,582	1%	1,572	0%	1,585	1%	1,593	2%	1,572	0%	0.1	17	0
Hour 4	1,367	1,389	2%	1,360	1%	1,377	1%	1,352	1%	1,386	1%	1,378	1%	1,389	2%	1,398	2%	1,382	1%	1,394	2%	1,334	2%	1,376	1%	0.2	16	0
11	6,254	6,255	0%	6,184	1%	6,216	1%	6,202	1%	6,267	0%	6,293	1%	6,255	0%	6,323	1%	6,305	1%	6,322	1%	6,285	0%	6,264	0%	0.1	35	0



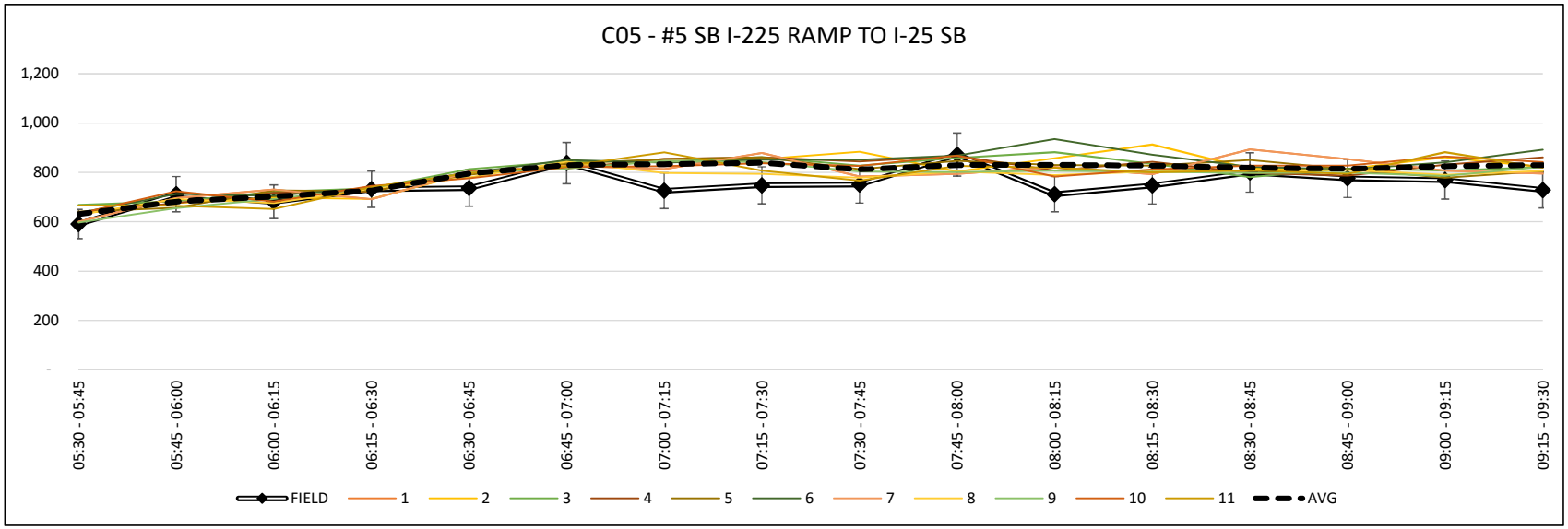
EXISTING		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																										
AM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C03.5	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	75	71	5%	75	0%	75	0%	73	3%	93	21%	75	0%	71	5%	84	11%	68	10%	103	31%	81	8%	79	5%	0.5	10	49
05:45 - 06:00	68	70	3%	63	8%	83	20%	70	3%	79	15%	81	17%	70	3%	84	21%	82	19%	74	8%	76	11%	76	11%	0.9	7	29
06:00 - 06:15	102	112	9%	85	18%	100	2%	104	2%	105	3%	97	5%	112	9%	105	3%	107	5%	102	0%	109	7%	103	1%	0.1	7	13
06:15 - 06:30	115	113	2%	106	8%	111	4%	144	22%	117	2%	109	5%	113	2%	114	1%	139	19%	110	4%	125	8%	120	4%	0.5	13	35
06:30 - 06:45	91	88	3%	111	20%	95	4%	103	12%	102	11%	95	4%	88	3%	104	13%	106	15%	104	13%	96	5%	101	10%	1	7	16
06:45 - 07:00	81	80	1%	74	9%	76	6%	85	5%	82	1%	76	6%	80	1%	87	7%	79	3%	96	17%	86	6%	83	2%	0.2	7	21
07:00 - 07:15	116	104	11%	109	6%	145	22%	117	1%	112	4%	133	14%	104	11%	139	18%	112	4%	127	9%	105	10%	120	3%	0.4	14	40
07:15 - 07:30	160	171	7%	149	7%	171	7%	168	5%	161	1%	172	7%	171	7%	177	10%	179	11%	171	7%	163	2%	169	5%	0.7	9	9
07:30 - 07:45	146	146	0%	147	1%	139	5%	135	8%	154	5%	156	7%	146	0%	133	9%	161	10%	153	5%	125	15%	145	1%	0.1	11	16
07:45 - 08:00	125	119	5%	151	19%	126	1%	120	4%	143	13%	126	1%	119	5%	129	3%	136	8%	111	12%	128	2%	131	5%	0.5	13	30
08:00 - 08:15	144	137	5%	156	8%	147	2%	151	5%	159	10%	160	11%	137	5%	166	14%	146	1%	143	1%	147	2%	151	5%	0.6	8	9
08:15 - 08:30	109	107	2%	108	1%	105	4%	115	5%	109	0%	111	2%	107	2%	116	6%	117	7%	94	15%	115	5%	110	1%	0.1	7	11
08:30 - 08:45	123	149	19%	123	0%	116	6%	134	9%	124	1%	144	16%	149	19%	135	9%	110	11%	127	3%	124	1%	128	4%	0.4	11	22
08:45 - 09:00	104	116	11%	115	10%	107	3%	123	17%	109	5%	116	11%	116	11%	106	2%	104	0%	112	7%	117	12%	113	8%	0.9	6	9
09:00 - 09:15	117	116	1%	108	8%	120	3%	122	4%	118	1%	120	3%	116	1%	123	5%	108	8%	126	7%	123	5%	119	2%	0.2	6	7
09:15 - 09:30	138	144	4%	138	0%	151	9%	138	0%	162	16%	141	2%	144	4%	123	11%	142	3%	134	3%	155	12%	144	4%	0.5	11	18
Hour 1	360	366	2%	329	9%	369	2%	391	8%	394	9%	362	1%	366	2%	387	7%	396	10%	389	8%	391	8%	378	5%	0.9	10	2
Hour 2	448	443	1%	443	1%	487	8%	473	5%	457	2%	476	6%	443	1%	507	12%	476	6%	498	11%	450	0%	473	5%	1.2	10	1
Hour 3	524	509	3%	562	7%	517	1%	521	1%	565	8%	553	5%	509	3%	544	4%	560	7%	501	4%	515	2%	537	2%	0.6	10	1
Hour 4	482	525	9%	484	0%	494	2%	517	7%	513	6%	521	8%	525	9%	487	1%	464	4%	499	3%	519	7%	504	4%	1	9	1
11	1,814	1,843	2%	1,818	0%	1,867	3%	1,902	5%	1,929	6%	1,912	5%	1,843	2%	1,925	6%	1,896	4%	1,887	4%	1,875	3%	1,892	4%	1.8	19	0



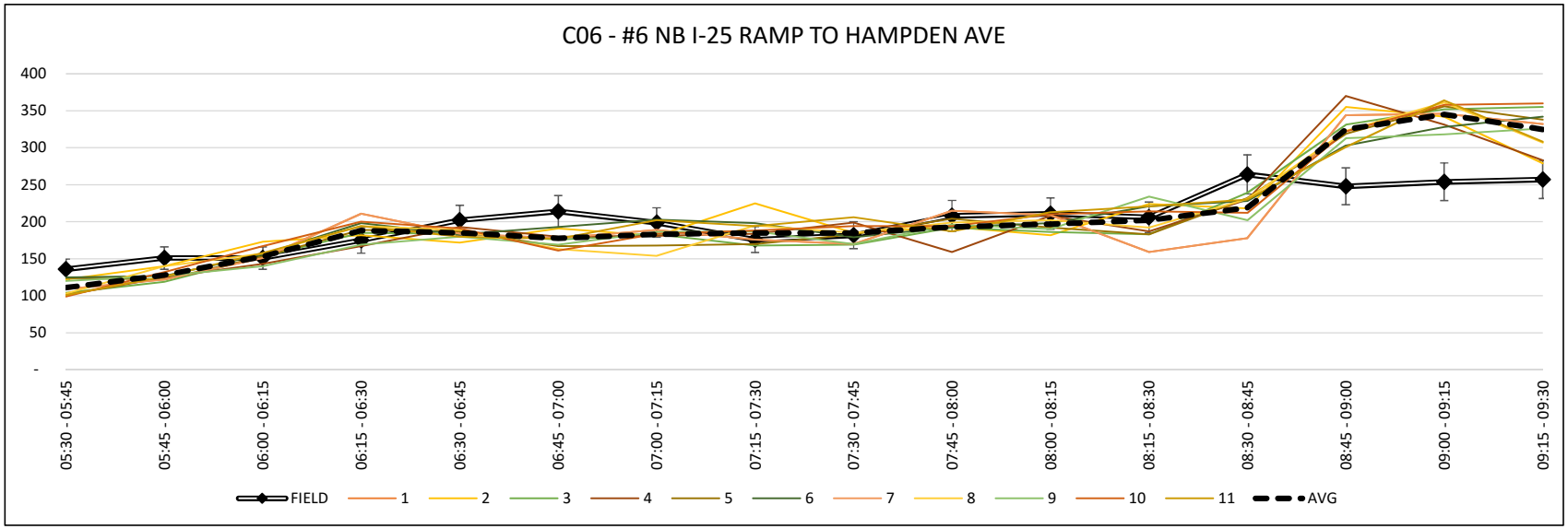
EXISTING		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																											
AM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C04	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	101	105	4%	98	3%	103	2%	98	3%	104	3%	92	9%	105	4%	82	21%	103	2%	102	1%	90	12%	99	2%	0.2	8	17
05:45 - 06:00	129	144	11%	122	6%	115	11%	155	18%	143	10%	133	3%	144	11%	128	1%	140	8%	121	6%	127	2%	132	2%	0.3	12	24
06:00 - 06:15	155	143	8%	154	1%	147	5%	167	7%	152	2%	159	3%	143	8%	154	1%	138	12%	162	4%	168	8%	154	1%	0.1	9	9
06:15 - 06:30	200	214	7%	208	4%	205	2%	193	4%	180	11%	219	9%	214	7%	187	7%	201	0%	179	11%	178	12%	194	3%	0.4	16	18
06:30 - 06:45	283	301	6%	256	10%	338	18%	294	4%	286	1%	266	6%	301	6%	291	3%	275	3%	293	3%	259	9%	285	1%	0.1	23	18
06:45 - 07:00	290	282	3%	282	3%	317	9%	307	6%	286	1%	290	0%	282	3%	265	9%	284	2%	296	2%	301	4%	293	1%	0.2	16	8
07:00 - 07:15	342	343	0%	341	0%	353	3%	305	11%	347	1%	315	8%	343	0%	351	3%	314	9%	322	6%	341	0%	333	3%	0.5	17	7
07:15 - 07:30	392	361	8%	437	11%	417	6%	413	5%	393	0%	377	4%	361	8%	379	3%	393	0%	357	9%	407	4%	395	1%	0.2	25	11
07:30 - 07:45	361	355	2%	389	7%	364	1%	362	0%	370	2%	385	6%	355	2%	343	5%	365	1%	368	2%	410	13%	366	1%	0.3	24	12
07:45 - 08:00	364	365	0%	381	5%	332	9%	376	3%	336	8%	358	2%	365	0%	346	5%	344	6%	363	0%	378	4%	359	1%	0.3	17	6
08:00 - 08:15	346	399	14%	368	6%	354	2%	331	4%	335	3%	364	5%	399	14%	346	0%	321	7%	368	6%	338	2%	351	1%	0.3	22	11
08:15 - 08:30	340	372	9%	343	1%	341	0%	359	5%	369	8%	304	11%	372	9%	339	0%	340	0%	381	11%	325	5%	345	1%	0.3	23	13
08:30 - 08:45	363	379	4%	328	10%	372	2%	332	9%	356	2%	370	2%	379	4%	345	5%	366	1%	375	3%	342	6%	355	2%	0.4	19	8
08:45 - 09:00	318	339	6%	322	1%	302	5%	310	3%	338	6%	303	5%	339	6%	294	8%	337	6%	310	3%	311	2%	317	0%	0.1	16	7
09:00 - 09:15	293	303	3%	293	0%	297	1%	316	8%	269	9%	289	1%	303	3%	303	3%	327	11%	285	3%	261	12%	295	1%	0.1	19	12
09:15 - 09:30	290	259	11%	297	2%	270	7%	278	4%	296	2%	261	11%	259	11%	296	2%	290	0%	263	10%	304	5%	278	4%	0.7	19	12
Hour 1	585	606	4%	582	1%	570	3%	613	5%	579	1%	603	3%	606	4%	551	6%	582	1%	564	4%	563	4%	579	1%	0.2	12	1
Hour 2	1,307	1,287	2%	1,316	1%	1,425	9%	1,319	1%	1,312	0%	1,248	5%	1,287	2%	1,286	2%	1,266	3%	1,268	3%	1,308	0%	1,306	0%	0	21	1
Hour 3	1,411	1,491	6%	1,481	5%	1,391	1%	1,428	1%	1,410	0%	1,411	0%	1,491	6%	1,374	3%	1,370	3%	1,480	5%	1,451	3%	1,421	1%	0.3	22	1
Hour 4	1,264	1,280	1%	1,240	2%	1,241	2%	1,236	2%	1,259	0%	1,223	3%	1,280	1%	1,238	2%	1,320	4%	1,233	2%	1,218	4%	1,245	2%	0.5	18	1
11	4,567	4,664	2%	4,619	1%	4,627	1%	4,596	1%	4,560	0%	4,485	2%	4,664	2%	4,449	3%	4,538	1%	4,545	0%	4,540	1%	4,551	0%	0.2	37	0



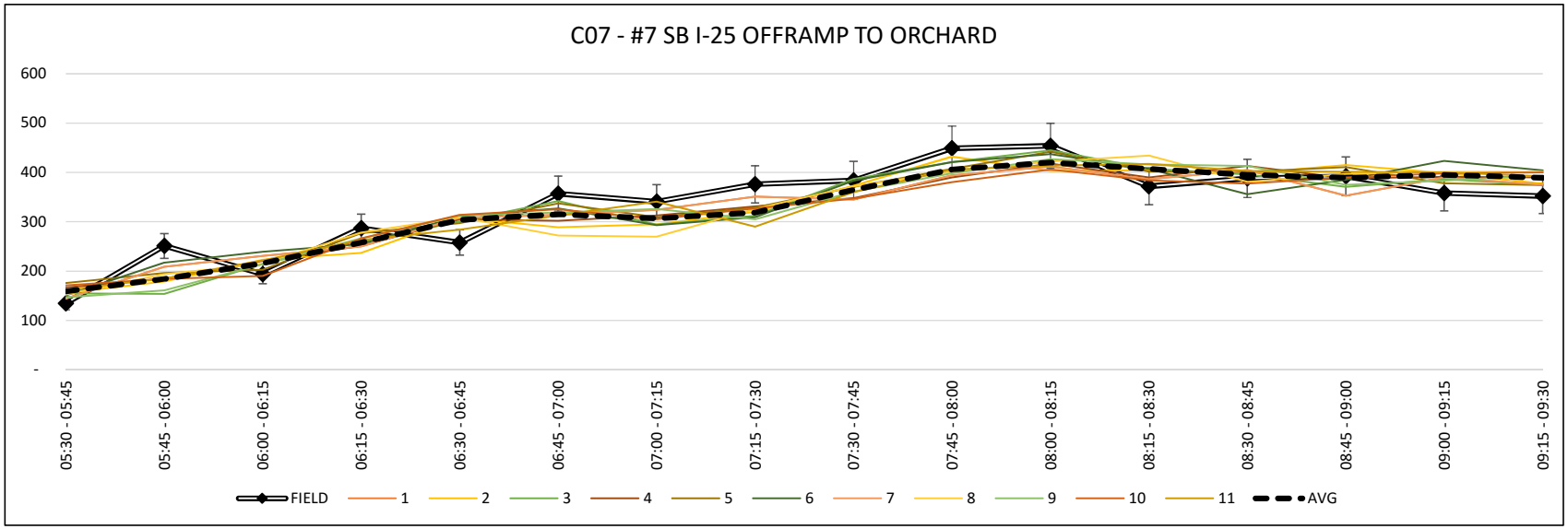
EXISTING		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																											
AM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C05	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	591	600	2%	632	7%	668	12%	635	7%	641	8%	635	7%	600	2%	629	6%	597	1%	633	7%	666	12%	631	7%	1.6	23	4
05:45 - 06:00	712	696	2%	676	5%	683	4%	676	5%	657	8%	713	0%	696	2%	693	3%	655	8%	723	2%	665	7%	682	4%	1.1	22	3
06:00 - 06:15	681	731	7%	698	2%	721	6%	717	5%	727	7%	705	3%	731	7%	676	1%	693	2%	682	0%	652	4%	702	3%	0.8	24	3
06:15 - 06:30	732	691	6%	693	5%	736	1%	722	1%	724	1%	738	1%	691	6%	734	0%	738	1%	745	2%	740	1%	727	1%	0.2	18	2
06:30 - 06:45	737	801	8%	798	8%	813	10%	804	9%	791	7%	797	8%	801	8%	780	6%	799	8%	776	5%	798	8%	795	8%	2.1	10	1
06:45 - 07:00	838	828	1%	820	2%	844	1%	815	3%	836	0%	850	1%	828	1%	843	1%	815	3%	822	2%	825	2%	830	1%	0.3	12	1
07:00 - 07:15	726	813	11%	845	15%	843	15%	855	16%	854	16%	839	14%	813	11%	797	9%	846	15%	825	13%	881	19%	833	14%	3.8	31	5
07:15 - 07:30	748	879	16%	854	13%	862	14%	861	14%	861	14%	851	13%	879	16%	794	6%	842	12%	837	11%	807	8%	839	11%	3.2	31	5
07:30 - 07:45	751	783	4%	884	16%	827	10%	844	12%	813	8%	851	12%	783	4%	779	4%	804	7%	826	10%	767	2%	812	8%	2.2	39	7
07:45 - 08:00	872	794	9%	804	8%	859	2%	867	1%	846	3%	868	0%	794	9%	803	8%	801	8%	868	0%	826	5%	830	5%	1.4	32	4
08:00 - 08:15	712	821	14%	857	18%	882	21%	807	13%	830	15%	935	27%	821	14%	789	10%	807	13%	783	9%	819	14%	831	15%	4.3	45	11
08:15 - 08:30	747	793	6%	913	20%	835	11%	843	12%	828	10%	872	15%	793	6%	803	7%	802	7%	812	8%	800	7%	827	10%	2.9	37	7
08:30 - 08:45	800	893	11%	816	2%	781	2%	797	0%	850	6%	823	3%	893	11%	806	1%	798	0%	828	3%	808	1%	819	2%	0.7	31	4
08:45 - 09:00	776	854	10%	814	5%	815	5%	787	1%	813	5%	812	5%	854	10%	810	4%	799	3%	828	6%	794	2%	814	5%	1.3	18	1
09:00 - 09:15	769	807	5%	861	11%	807	5%	831	8%	779	1%	840	9%	807	5%	790	3%	786	2%	865	12%	882	14%	825	7%	2	35	6
09:15 - 09:30	729	795	9%	821	12%	821	12%	861	17%	805	10%	892	20%	795	9%	806	10%	823	12%	842	14%	819	12%	830	13%	3.6	28	4
Hour 1	2,716	2,718	0%	2,699	1%	2,808	3%	2,750	1%	2,749	1%	2,791	3%	2,718	0%	2,732	1%	2,683	1%	2,783	2%	2,723	0%	2,742	1%	0.5	22	0
Hour 2	3,049	3,321	9%	3,317	8%	3,362	10%	3,335	9%	3,342	9%	3,337	9%	3,321	9%	3,214	5%	3,302	8%	3,260	7%	3,311	8%	3,297	8%	4.4	23	0
Hour 3	3,082	3,191	3%	3,458	11%	3,403	10%	3,361	9%	3,317	7%	3,526	13%	3,191	3%	3,174	3%	3,214	4%	3,289	6%	3,212	4%	3,300	7%	3.9	39	0
Hour 4	3,074	3,349	9%	3,312	7%	3,224	5%	3,276	6%	3,247	5%	3,367	9%	3,349	9%	3,212	4%	3,206	4%	3,363	9%	3,303	7%	3,288	7%	3.8	29	0
11	11,921	12,579	5%	12,786	7%	12,797	7%	12,722	7%	12,655	6%	13,021	9%	12,579	5%	12,332	3%	12,405	4%	12,695	6%	12,549	5%	12,627	6%	6.4	58	0



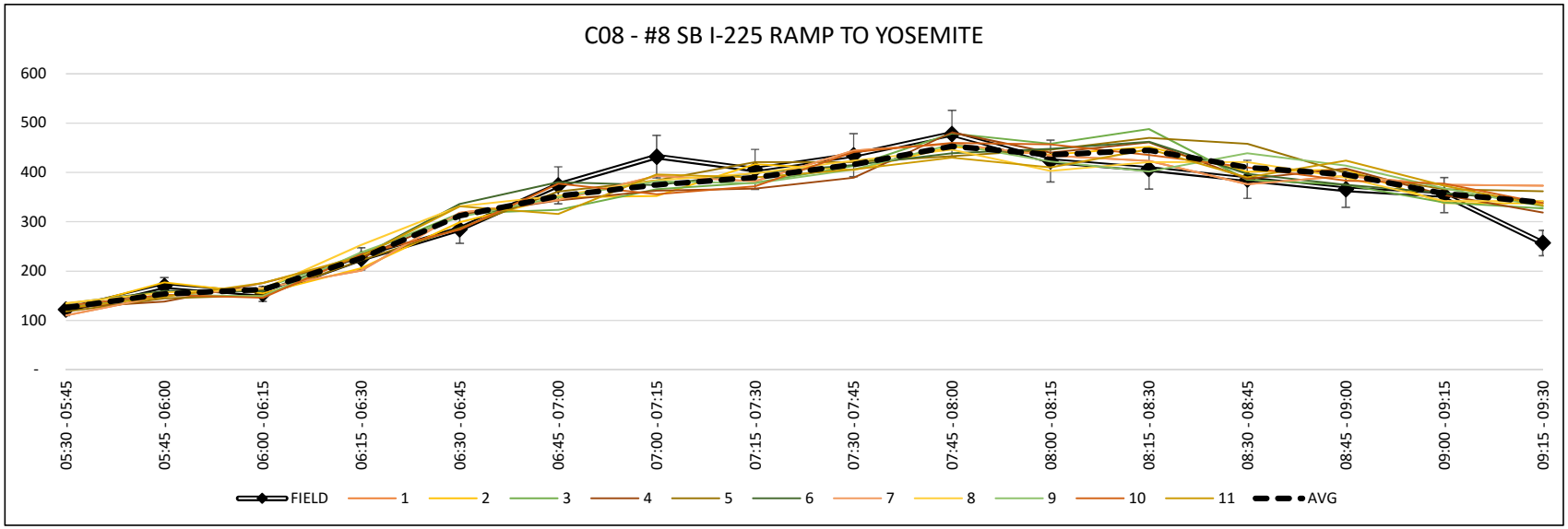
EXISTING		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																										
AM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C06	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	136	109	22%	122	11%	104	27%	101	30%	124	9%	125	8%	109	22%	103	28%	120	13%	99	31%	101	30%	111	20%	2.2	10	15
05:45 - 06:00	151	122	21%	140	8%	119	24%	125	19%	122	21%	127	17%	122	21%	140	8%	127	17%	132	13%	126	18%	128	16%	1.9	7	6
06:00 - 06:15	151	151	0%	173	14%	153	1%	143	5%	153	1%	156	3%	151	0%	157	4%	140	8%	167	10%	158	5%	153	1%	0.2	11	15
06:15 - 06:30	175	211	19%	182	4%	185	6%	167	5%	189	8%	198	12%	211	19%	194	10%	169	3%	200	13%	194	10%	188	7%	1	13	15
06:30 - 06:45	202	184	9%	172	16%	184	9%	193	5%	187	8%	183	10%	184	9%	189	7%	180	12%	191	6%	180	12%	185	9%	1.2	7	3
06:45 - 07:00	214	178	18%	191	11%	176	19%	180	17%	167	25%	193	10%	178	18%	163	27%	169	23%	161	28%	177	19%	178	18%	2.6	13	10
07:00 - 07:15	199	189	5%	181	9%	183	8%	181	9%	168	17%	203	2%	189	5%	154	25%	186	7%	184	8%	202	1%	183	8%	1.2	14	14
07:15 - 07:30	176	176	0%	225	24%	168	5%	184	4%	170	3%	198	12%	176	0%	195	10%	187	6%	188	7%	194	10%	185	5%	0.7	19	32
07:30 - 07:45	182	170	7%	185	2%	169	7%	199	9%	183	1%	179	2%	170	7%	185	2%	170	7%	194	6%	206	12%	185	2%	0.2	13	14
07:45 - 08:00	208	215	3%	193	7%	192	8%	159	27%	204	2%	193	7%	215	3%	199	4%	196	6%	194	7%	187	11%	193	7%	1.1	14	13
08:00 - 08:15	211	209	1%	182	15%	186	13%	208	1%	192	9%	198	6%	209	1%	202	4%	190	10%	210	0%	213	1%	197	7%	1	13	11
08:15 - 08:30	206	159	26%	224	8%	183	12%	187	10%	183	12%	221	7%	159	26%	192	7%	234	13%	214	4%	221	7%	202	2%	0.3	23	35
08:30 - 08:45	264	178	39%	218	19%	239	10%	230	14%	232	13%	228	15%	178	39%	231	13%	202	27%	212	22%	230	14%	219	19%	2.9	18	13
08:45 - 09:00	248	344	32%	355	35%	331	29%	370	39%	319	25%	303	20%	344	32%	323	26%	313	23%	322	26%	301	19%	325	27%	4.5	23	24
09:00 - 09:15	254	346	31%	342	30%	352	32%	331	26%	356	33%	328	25%	346	31%	361	35%	318	22%	358	34%	364	36%	345	30%	5.3	15	10
09:15 - 09:30	257	332	25%	279	8%	355	32%	283	10%	338	27%	342	28%	332	25%	307	18%	326	24%	360	33%	308	18%	325	23%	4	28	33
Hour 1	613	593	3%	617	1%	561	9%	536	13%	588	4%	606	1%	593	3%	594	3%	556	10%	598	2%	579	6%	580	6%	1.4	10	1
Hour 2	791	727	8%	769	3%	711	11%	738	7%	692	13%	777	2%	727	8%	701	12%	722	9%	724	9%	753	5%	731	8%	2.2	14	1
Hour 3	807	753	7%	784	3%	730	10%	753	7%	762	6%	791	2%	753	7%	778	4%	790	2%	812	1%	827	2%	777	4%	1.1	16	1
Hour 4	1,023	1,200	16%	1,194	15%	1,277	22%	1,214	17%	1,245	20%	1,201	16%	1,200	16%	1,222	18%	1,159	12%	1,252	20%	1,203	16%	1,214	17%	5.7	22	1
11	3,234	3,273	1%	3,364	4%	3,279	1%	3,241	0%	3,287	2%	3,375	4%	3,273	1%	3,295	2%	3,227	0%	3,386	5%	3,362	4%	3,302	2%	1.2	32	0



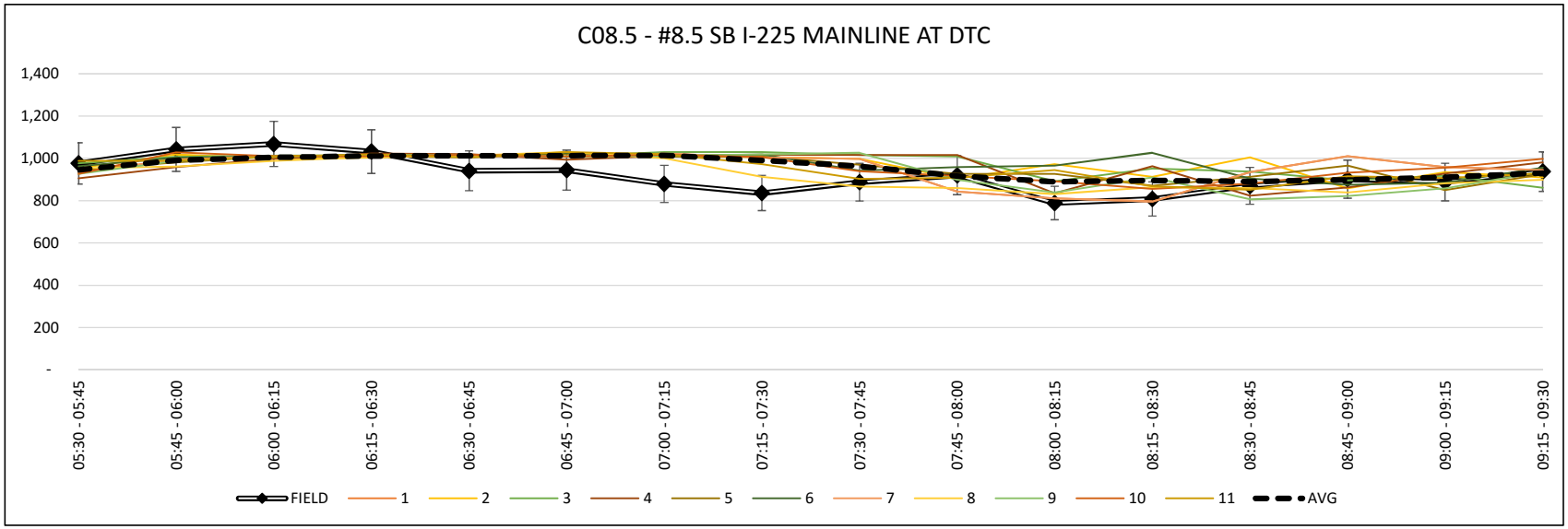
EXISTING		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																										
AM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C07	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	135	144	6%	156	14%	155	14%	167	21%	176	26%	151	11%	144	6%	153	13%	147	9%	171	24%	162	18%	159	16%	2	10	15
05:45 - 06:00	251	209	18%	179	33%	154	48%	185	30%	196	25%	217	15%	209	18%	194	26%	161	44%	184	31%	185	30%	184	31%	4.5	20	18
06:00 - 06:15	194	231	17%	223	14%	215	10%	221	13%	203	5%	239	21%	231	17%	215	10%	214	10%	190	2%	222	13%	216	11%	1.5	14	14
06:15 - 06:30	287	250	14%	237	19%	259	10%	251	13%	277	4%	255	12%	250	14%	278	3%	266	8%	266	8%	263	9%	258	11%	1.8	13	6
06:30 - 06:45	258	308	18%	308	18%	301	15%	305	17%	297	14%	311	19%	308	18%	309	18%	313	19%	314	20%	284	10%	304	16%	2.7	9	3
06:45 - 07:00	357	314	13%	289	21%	342	4%	302	17%	337	6%	327	9%	314	13%	272	27%	319	11%	325	9%	313	13%	315	13%	2.3	21	10
07:00 - 07:15	341	324	5%	295	14%	294	15%	313	9%	309	10%	293	15%	324	5%	270	23%	326	4%	305	11%	341	0%	307	10%	1.9	19	9
07:15 - 07:30	376	351	7%	320	16%	312	19%	331	13%	329	13%	309	20%	351	7%	326	14%	305	21%	327	14%	290	26%	319	16%	3.1	16	5
07:30 - 07:45	384	345	11%	373	3%	387	1%	348	10%	371	3%	383	0%	345	11%	372	3%	361	6%	347	10%	360	6%	365	5%	1	14	4
07:45 - 08:00	449	394	13%	432	4%	421	6%	390	14%	407	10%	421	6%	394	13%	401	11%	398	12%	380	17%	406	10%	406	10%	2.1	15	3
08:00 - 08:15	454	412	10%	403	12%	445	2%	418	8%	442	3%	437	4%	412	10%	422	7%	427	6%	406	11%	414	9%	420	8%	1.6	16	3
08:15 - 08:30	372	386	4%	404	8%	408	9%	390	5%	402	8%	407	9%	386	4%	434	15%	416	11%	384	3%	417	11%	407	9%	1.8	16	5
08:30 - 08:45	388	405	4%	398	3%	396	2%	413	6%	401	3%	356	9%	405	4%	381	2%	413	6%	377	3%	403	4%	395	2%	0.4	17	5
08:45 - 09:00	392	353	10%	415	6%	371	6%	388	1%	411	5%	385	2%	353	10%	397	1%	375	4%	390	1%	401	2%	389	1%	0.2	18	6
09:00 - 09:15	358	390	9%	399	11%	386	8%	391	9%	378	5%	423	17%	390	9%	401	11%	383	7%	398	11%	400	11%	395	10%	1.9	12	3
09:15 - 09:30	352	375	6%	377	7%	375	6%	390	10%	374	6%	404	14%	375	6%	401	13%	394	11%	400	13%	392	11%	389	10%	1.9	11	3
Hour 1	867	834	4%	795	9%	783	10%	824	5%	852	2%	862	1%	834	4%	840	3%	788	10%	811	7%	832	4%	817	6%	1.7	15	1
Hour 2	1,332	1,297	3%	1,212	9%	1,249	6%	1,251	6%	1,272	5%	1,240	7%	1,297	3%	1,177	12%	1,263	5%	1,271	5%	1,228	8%	1,245	7%	2.4	17	0
Hour 3	1,659	1,537	8%	1,612	3%	1,661	0%	1,546	7%	1,622	2%	1,648	1%	1,537	8%	1,629	2%	1,602	3%	1,517	9%	1,597	4%	1,598	4%	1.5	15	0
Hour 4	1,490	1,523	2%	1,589	6%	1,528	3%	1,582	6%	1,564	5%	1,568	5%	1,523	2%	1,580	6%	1,565	5%	1,565	5%	1,596	7%	1,568	5%	2	15	0
11	5,348	5,191	3%	5,208	3%	5,221	2%	5,203	3%	5,310	1%	5,318	1%	5,191	3%	5,226	2%	5,218	2%	5,164	4%	5,253	2%	5,228	2%	1.7	31	0



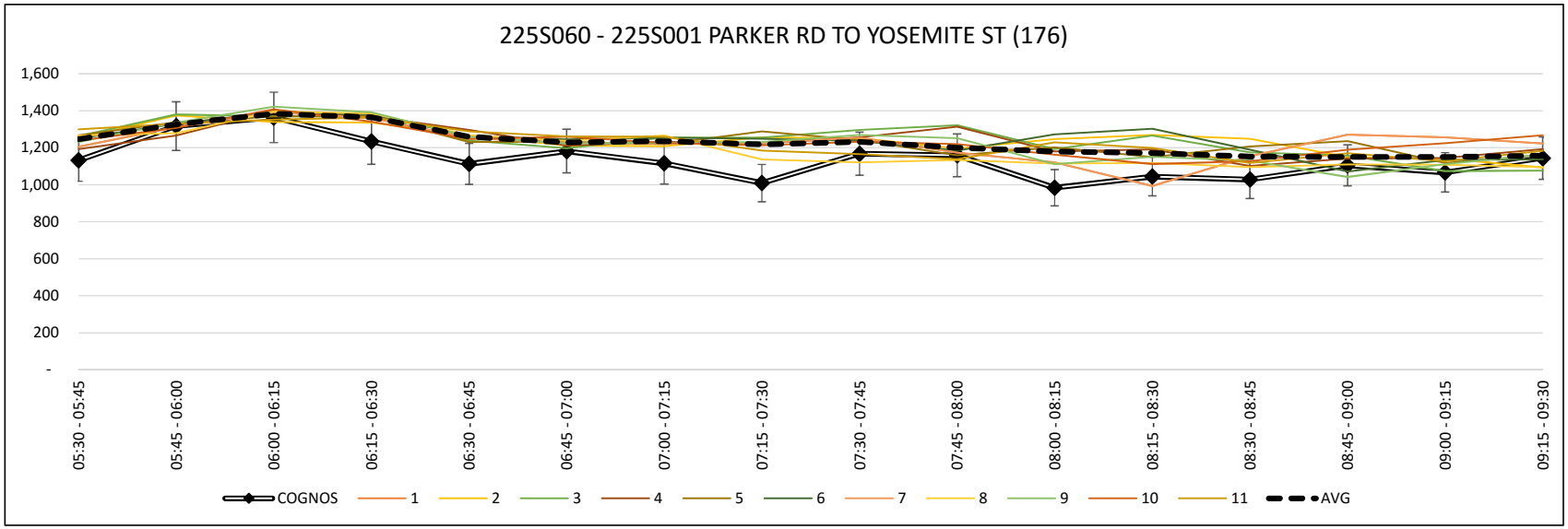
EXISTING		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																										
AM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C08	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	122	110	10%	123	1%	127	4%	126	3%	118	3%	134	9%	110	10%	135	10%	129	6%	130	6%	125	2%	126	3%	0.4	7	9
05:45 - 06:00	170	150	13%	177	4%	150	13%	138	21%	145	16%	160	6%	150	13%	157	8%	152	11%	152	11%	148	14%	154	10%	1.3	11	12
06:00 - 06:15	154	166	8%	155	1%	166	8%	176	13%	151	2%	159	3%	166	8%	164	6%	149	3%	146	5%	176	13%	163	6%	0.7	12	17
06:15 - 06:30	225	201	11%	206	9%	234	4%	227	1%	222	1%	230	2%	201	11%	253	12%	238	6%	234	4%	230	2%	226	0%	0.1	15	12
06:30 - 06:45	285	318	11%	299	5%	317	11%	314	10%	287	1%	336	16%	318	11%	331	15%	310	8%	284	0%	331	15%	312	9%	1.6	17	10
06:45 - 07:00	374	344	8%	349	7%	324	14%	343	9%	361	4%	380	2%	344	8%	353	6%	350	7%	377	1%	316	17%	352	6%	1.2	21	9
07:00 - 07:15	432	393	9%	352	20%	366	17%	363	17%	384	12%	374	14%	393	9%	384	12%	382	12%	356	19%	396	9%	375	14%	2.8	15	3
07:15 - 07:30	406	382	6%	417	3%	379	7%	367	10%	421	4%	399	2%	382	6%	398	2%	378	7%	372	9%	390	4%	390	4%	0.8	17	5
07:30 - 07:45	435	444	2%	405	7%	413	5%	389	11%	421	3%	415	5%	444	2%	424	3%	406	7%	441	1%	406	7%	416	4%	0.9	16	4
07:45 - 08:00	478	458	4%	452	6%	479	0%	481	1%	433	10%	439	9%	458	4%	446	7%	457	4%	460	4%	430	11%	453	5%	1.2	17	4
08:00 - 08:15	423	434	3%	436	3%	458	8%	440	4%	446	5%	448	6%	434	3%	403	5%	422	0%	457	8%	410	3%	436	3%	0.6	18	5
08:15 - 08:30	407	423	4%	452	10%	488	18%	461	12%	470	14%	462	13%	423	4%	421	3%	402	1%	435	7%	447	9%	445	9%	1.8	25	10
08:30 - 08:45	386	376	3%	401	4%	385	0%	387	0%	458	17%	397	3%	376	3%	421	9%	439	13%	410	6%	390	1%	410	6%	1.2	28	15
08:45 - 09:00	366	393	7%	406	10%	375	2%	408	11%	399	9%	375	2%	393	7%	389	6%	414	12%	383	5%	424	15%	396	8%	1.5	16	5
09:00 - 09:15	354	375	6%	338	5%	339	4%	354	0%	366	3%	358	1%	375	6%	342	3%	368	4%	377	6%	373	5%	357	1%	0.2	16	6
09:15 - 09:30	257	373	37%	337	27%	327	24%	319	22%	362	34%	341	28%	373	37%	342	28%	331	25%	338	27%	333	26%	339	28%	4.8	16	11
Hour 1	671	627	7%	661	2%	677	1%	667	1%	636	5%	683	2%	627	7%	709	6%	668	0%	662	1%	679	1%	669	0%	0.1	12	1
Hour 2	1,497	1,437	4%	1,417	5%	1,386	8%	1,387	8%	1,453	3%	1,489	1%	1,437	4%	1,466	2%	1,420	5%	1,389	7%	1,433	4%	1,429	5%	1.8	18	0
Hour 3	1,743	1,759	1%	1,745	0%	1,838	5%	1,771	2%	1,770	2%	1,764	1%	1,759	1%	1,694	3%	1,687	3%	1,793	3%	1,693	3%	1,750	0%	0.2	19	0
Hour 4	1,363	1,517	11%	1,482	8%	1,426	5%	1,468	7%	1,585	15%	1,471	8%	1,517	11%	1,494	9%	1,552	13%	1,508	10%	1,520	11%	1,502	10%	3.7	20	1
11	5,274	5,340	1%	5,305	1%	5,327	1%	5,293	0%	5,444	3%	5,407	2%	5,340	1%	5,363	2%	5,327	1%	5,352	1%	5,325	1%	5,350	1%	1	35	0



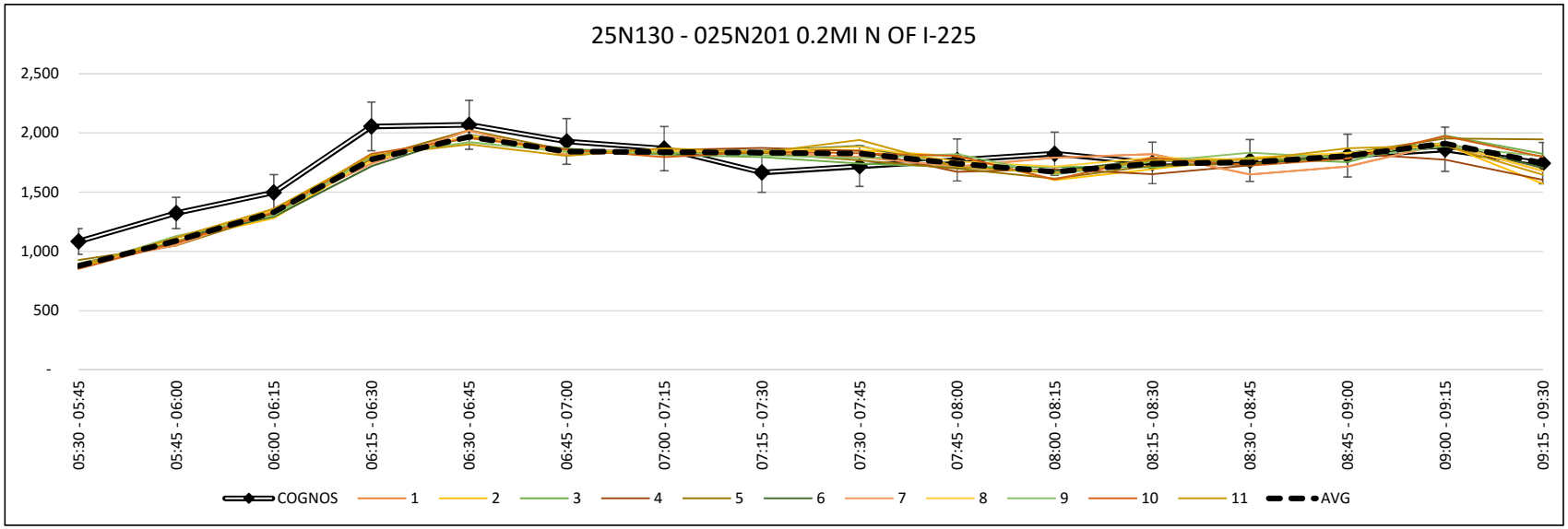
EXISTING		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																										
AM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C08.5	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	976	932	5%	953	2%	977	0%	905	8%	945	3%	962	1%	932	5%	953	2%	926	5%	926	5%	988	1%	946	3%	1	24	2
05:45 - 06:00	1,042	994	5%	1,018	2%	1,007	3%	959	8%	980	6%	1,003	4%	994	5%	961	8%	988	5%	1,028	1%	989	5%	991	5%	1.6	22	1
06:00 - 06:15	1,068	1,010	6%	999	7%	1,013	5%	998	7%	1,008	6%	1,007	6%	1,010	6%	987	8%	1,007	6%	1,010	6%	1,009	6%	1,005	6%	2	7	0
06:15 - 06:30	1,032	1,010	2%	1,003	3%	1,014	2%	1,022	1%	1,010	2%	1,017	1%	1,010	2%	1,006	3%	1,015	2%	1,010	2%	1,018	1%	1,012	2%	0.6	5	0
06:30 - 06:45	941	1,011	7%	1,016	8%	1,017	8%	1,020	8%	1,004	6%	1,010	7%	1,011	7%	1,013	7%	1,016	8%	1,017	8%	1,004	6%	1,013	7%	2.3	5	0
06:45 - 07:00	944	1,008	7%	1,009	7%	1,010	7%	993	5%	1,022	8%	1,026	8%	1,008	7%	1,030	9%	1,008	7%	1,009	7%	1,030	9%	1,013	7%	2.2	12	0
07:00 - 07:15	879	1,022	15%	1,009	14%	1,030	16%	1,012	14%	1,008	14%	1,010	14%	1,022	15%	1,000	13%	1,013	14%	1,017	15%	1,020	15%	1,014	14%	4.4	8	0
07:15 - 07:30	836	1,005	18%	1,006	18%	1,030	21%	1,017	20%	1,008	19%	1,019	20%	1,005	18%	912	9%	1,018	20%	1,006	18%	972	15%	990	17%	5.1	44	8
07:30 - 07:45	887	997	12%	997	12%	1,016	14%	1,016	14%	969	9%	941	6%	997	12%	867	2%	1,026	15%	939	6%	902	2%	963	8%	2.5	52	10
07:45 - 08:00	920	843	9%	904	2%	1,008	9%	1,016	10%	927	1%	958	4%	843	9%	860	7%	899	2%	916	0%	908	1%	917	0%	0.1	58	11
08:00 - 08:15	789	811	3%	972	21%	891	12%	835	6%	926	16%	965	20%	811	3%	831	5%	838	6%	892	12%	944	18%	889	12%	3.5	57	14
08:15 - 08:30	808	796	1%	913	12%	952	16%	963	18%	870	7%	1,026	24%	796	1%	863	7%	909	12%	855	6%	868	7%	896	10%	3	65	18
08:30 - 08:45	870	935	7%	1,005	14%	938	8%	823	6%	913	5%	904	4%	935	7%	860	1%	806	8%	880	1%	852	2%	890	2%	0.7	57	12
08:45 - 09:00	901	1,010	11%	858	5%	896	1%	862	4%	966	7%	875	3%	1,010	11%	838	7%	822	9%	932	3%	915	2%	899	0%	0.1	56	11
09:00 - 09:15	888	958	8%	935	5%	918	3%	928	4%	850	4%	885	0%	958	8%	882	1%	858	3%	956	7%	907	2%	911	3%	0.8	38	5
09:15 - 09:30	937	944	1%	910	3%	861	8%	980	4%	925	1%	955	2%	944	1%	899	4%	937	0%	998	6%	929	1%	931	1%	0.2	38	5
Hour 1	4,118	3,946	4%	3,973	4%	4,011	3%	3,884	6%	3,943	4%	3,989	3%	3,946	4%	3,907	5%	3,936	5%	3,974	4%	4,004	3%	3,954	4%	2.6	17	0
Hour 2	3,600	4,046	12%	4,040	12%	4,087	13%	4,042	12%	4,042	12%	4,065	12%	4,046	12%	3,955	9%	4,055	12%	4,049	12%	4,026	11%	4,030	11%	7	23	0
Hour 3	3,404	3,447	1%	3,786	11%	3,867	13%	3,830	12%	3,692	8%	3,890	13%	3,447	1%	3,421	0%	3,672	8%	3,602	6%	3,622	6%	3,665	7%	4.4	58	1
Hour 4	3,596	3,847	7%	3,708	3%	3,613	0%	3,593	0%	3,654	2%	3,619	1%	3,847	7%	3,479	3%	3,423	5%	3,766	5%	3,603	0%	3,631	1%	0.6	48	0
11	14,718	15,286	4%	15,507	5%	15,578	6%	15,349	4%	15,331	4%	15,563	6%	15,286	4%	14,762	0%	15,086	2%	15,391	4%	15,255	4%	15,280	4%	4.6	81	0



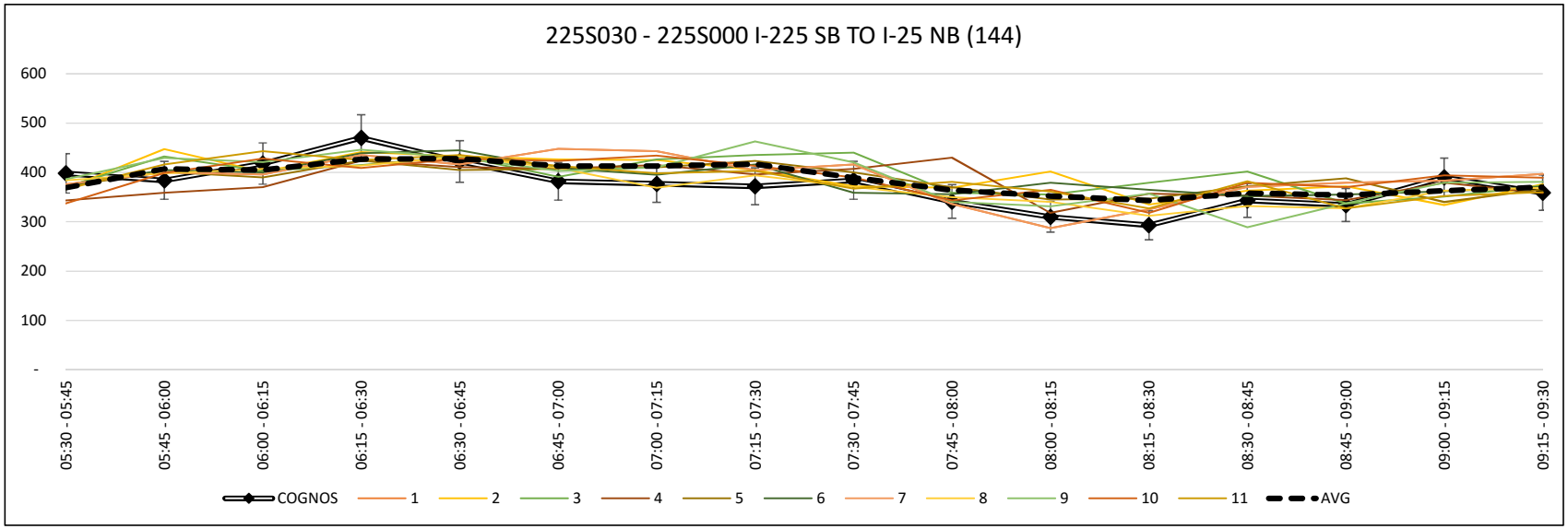
EXISTING		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																										
AM	COGNOS	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	225S060	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	1,132	1,205	6%	1,250	10%	1,263	11%	1,193	5%	1,268	11%	1,250	10%	1,205	6%	1,266	11%	1,230	8%	1,238	9%	1,299	14%	1,247	10%	3.3	30	2
05:45 - 06:00	1,317	1,312	0%	1,374	4%	1,380	5%	1,265	4%	1,338	2%	1,330	1%	1,312	0%	1,278	3%	1,336	1%	1,308	1%	1,329	1%	1,326	1%	0.2	35	2
06:00 - 06:15	1,364	1,392	2%	1,339	2%	1,370	0%	1,400	3%	1,369	0%	1,390	2%	1,392	2%	1,396	2%	1,422	4%	1,408	3%	1,352	1%	1,384	1%	0.5	24	1
06:15 - 06:30	1,234	1,359	10%	1,336	8%	1,369	10%	1,369	10%	1,372	11%	1,381	11%	1,359	10%	1,385	12%	1,392	12%	1,341	8%	1,364	10%	1,364	10%	3.6	20	1
06:30 - 06:45	1,113	1,253	12%	1,265	13%	1,238	11%	1,296	15%	1,231	10%	1,263	13%	1,253	12%	1,267	13%	1,260	12%	1,246	11%	1,288	15%	1,260	12%	4.3	20	1
06:45 - 07:00	1,182	1,224	3%	1,211	2%	1,198	1%	1,212	3%	1,233	4%	1,245	5%	1,224	3%	1,237	5%	1,222	3%	1,260	6%	1,261	6%	1,229	4%	1.4	20	1
07:00 - 07:15	1,116	1,222	9%	1,208	8%	1,255	12%	1,232	10%	1,219	9%	1,254	12%	1,222	9%	1,265	13%	1,227	9%	1,226	9%	1,259	12%	1,236	10%	3.5	19	1
07:15 - 07:30	1,009	1,225	19%	1,256	22%	1,254	22%	1,223	19%	1,288	24%	1,248	21%	1,225	19%	1,137	12%	1,230	20%	1,214	18%	1,185	16%	1,218	19%	6.3	47	6
07:30 - 07:45	1,168	1,254	7%	1,252	7%	1,296	10%	1,257	7%	1,242	6%	1,237	6%	1,254	7%	1,121	4%	1,269	8%	1,233	5%	1,166	0%	1,232	5%	1.8	49	5
07:45 - 08:00	1,159	1,173	1%	1,195	3%	1,321	13%	1,313	12%	1,159	0%	1,185	2%	1,173	1%	1,133	2%	1,252	8%	1,220	5%	1,138	2%	1,201	4%	1.2	68	10
08:00 - 08:15	984	1,120	13%	1,247	24%	1,193	19%	1,180	18%	1,202	20%	1,272	26%	1,120	13%	1,115	12%	1,112	12%	1,162	17%	1,229	22%	1,180	18%	6	54	8
08:15 - 08:30	1,045	993	5%	1,269	19%	1,265	19%	1,191	13%	1,150	10%	1,303	22%	993	5%	1,117	7%	1,151	10%	1,112	6%	1,199	14%	1,172	11%	3.8	88	20
08:30 - 08:45	1,028	1,155	12%	1,248	19%	1,175	13%	1,102	7%	1,207	16%	1,189	15%	1,155	12%	1,095	6%	1,130	9%	1,127	9%	1,118	8%	1,153	11%	3.8	47	6
08:45 - 09:00	1,105	1,270	14%	1,149	4%	1,158	5%	1,142	3%	1,236	11%	1,071	3%	1,270	14%	1,109	0%	1,042	6%	1,190	7%	1,170	6%	1,150	4%	1.3	67	10
09:00 - 09:15	1,067	1,256	16%	1,141	7%	1,074	1%	1,145	7%	1,118	5%	1,134	6%	1,256	16%	1,108	4%	1,111	4%	1,225	14%	1,127	5%	1,150	7%	2.5	56	8
09:15 - 09:30	1,144	1,223	7%	1,093	5%	1,076	6%	1,192	4%	1,160	1%	1,136	1%	1,223	7%	1,095	4%	1,164	2%	1,268	10%	1,183	3%	1,157	1%	0.4	58	7
Hour 1	5,047	5,268	4%	5,299	5%	5,382	6%	5,227	4%	5,347	6%	5,351	6%	5,268	4%	5,325	5%	5,380	6%	5,295	5%	5,344	6%	5,321	5%	3.8	28	0
Hour 2	4,420	4,924	11%	4,940	11%	4,945	11%	4,963	12%	4,971	12%	5,010	13%	4,924	11%	4,906	10%	4,939	11%	4,946	11%	4,993	12%	4,943	11%	7.6	29	0
Hour 3	4,356	4,540	4%	4,963	13%	5,075	15%	4,941	13%	4,753	9%	4,997	14%	4,540	4%	4,486	3%	4,784	9%	4,727	8%	4,732	8%	4,785	9%	6.3	66	1
Hour 4	4,344	4,904	12%	4,631	6%	4,483	3%	4,581	5%	4,721	8%	4,530	4%	4,904	12%	4,407	1%	4,447	2%	4,810	10%	4,598	6%	4,610	6%	4	57	0
11	18,167	19,636	8%	19,833	9%	19,885	9%	19,712	8%	19,792	9%	19,888	9%	19,636	8%	19,124	5%	19,550	7%	19,778	8%	19,667	8%	19,659	8%	10.8	97	0



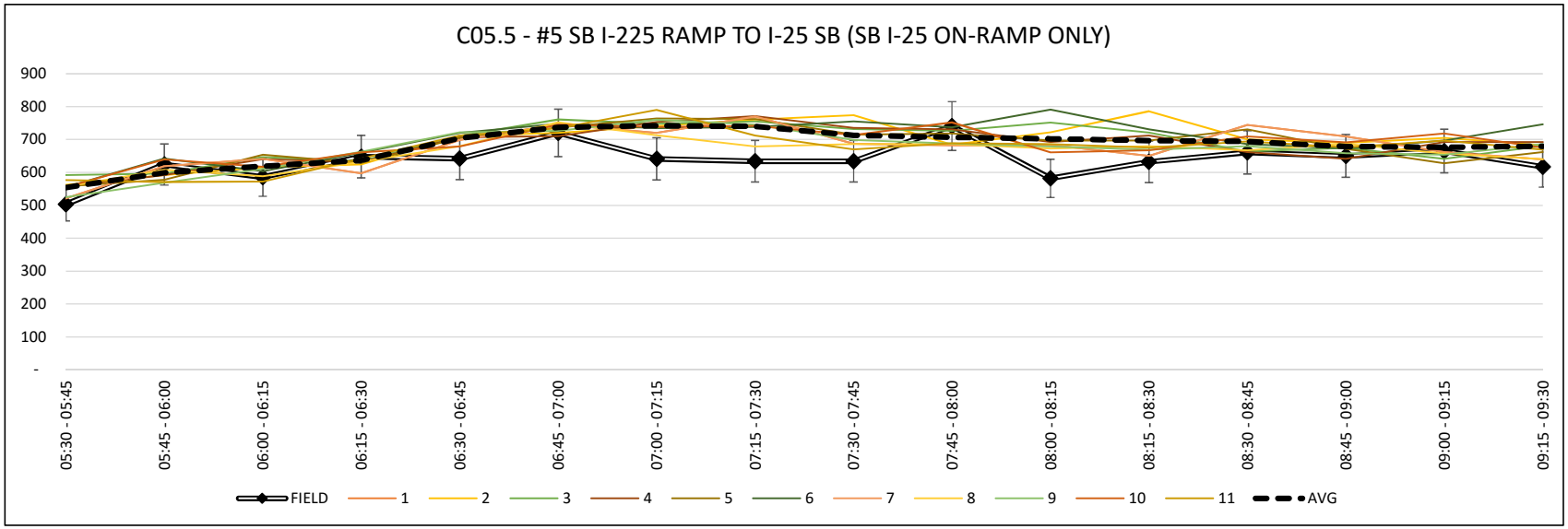
EXISTING		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																										
AM	COGNOS	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	25N130	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	1,084	892	19%	864	23%	898	19%	890	20%	927	16%	870	22%	892	19%	871	22%	869	22%	852	24%	873	22%	877	21%	6.6	23	1
05:45 - 06:00	1,324	1,052	23%	1,091	19%	1,078	20%	1,069	21%	1,049	23%	1,117	17%	1,052	23%	1,115	17%	1,130	16%	1,075	21%	1,116	17%	1,088	20%	6.8	28	1
06:00 - 06:15	1,498	1,344	11%	1,280	16%	1,347	11%	1,361	10%	1,316	13%	1,294	15%	1,344	11%	1,348	11%	1,302	14%	1,327	12%	1,359	10%	1,330	12%	4.5	28	1
06:15 - 06:30	2,055	1,741	17%	1,775	15%	1,796	13%	1,770	15%	1,788	14%	1,719	18%	1,741	17%	1,763	15%	1,799	13%	1,823	12%	1,810	13%	1,776	15%	6.4	31	1
06:30 - 06:45	2,069	2,020	2%	1,965	5%	1,959	5%	1,976	5%	2,022	2%	1,986	4%	2,020	2%	1,980	4%	1,922	7%	1,955	6%	1,902	8%	1,967	5%	2.3	36	1
06:45 - 07:00	1,928	1,813	6%	1,836	5%	1,869	3%	1,845	4%	1,853	4%	1,849	4%	1,813	6%	1,844	4%	1,841	5%	1,860	4%	1,807	6%	1,844	4%	1.9	20	0
07:00 - 07:15	1,868	1,855	1%	1,832	2%	1,817	3%	1,856	1%	1,832	2%	1,845	1%	1,855	1%	1,847	1%	1,837	2%	1,796	4%	1,870	0%	1,838	2%	0.7	20	0
07:15 - 07:30	1,666	1,838	10%	1,846	10%	1,796	8%	1,872	12%	1,832	9%	1,851	11%	1,838	10%	1,846	10%	1,812	8%	1,840	10%	1,835	10%	1,833	10%	4	24	1
07:30 - 07:45	1,720	1,796	4%	1,853	7%	1,741	1%	1,848	7%	1,768	3%	1,891	9%	1,796	4%	1,884	9%	1,787	4%	1,829	6%	1,941	12%	1,826	6%	2.5	64	4
07:45 - 08:00	1,772	1,716	3%	1,804	2%	1,712	3%	1,671	6%	1,700	4%	1,709	4%	1,716	3%	1,758	1%	1,820	3%	1,805	2%	1,714	3%	1,741	2%	0.7	49	2
08:00 - 08:15	1,825	1,792	2%	1,601	13%	1,715	6%	1,694	7%	1,614	12%	1,679	8%	1,792	2%	1,717	6%	1,649	10%	1,606	13%	1,661	9%	1,672	9%	3.7	57	3
08:15 - 08:30	1,747	1,821	4%	1,695	3%	1,710	2%	1,651	6%	1,723	1%	1,776	2%	1,821	4%	1,792	3%	1,757	1%	1,790	2%	1,769	1%	1,741	0%	0.1	55	3
08:30 - 08:45	1,767	1,650	7%	1,791	1%	1,785	1%	1,727	2%	1,740	2%	1,724	2%	1,650	7%	1,777	1%	1,834	4%	1,724	2%	1,772	0%	1,750	1%	0.4	49	2
08:45 - 09:00	1,809	1,716	5%	1,830	1%	1,754	3%	1,828	1%	1,826	1%	1,833	1%	1,716	5%	1,831	1%	1,785	1%	1,784	1%	1,870	3%	1,806	0%	0.1	43	2
09:00 - 09:15	1,862	1,910	3%	1,901	2%	1,979	6%	1,774	5%	1,953	5%	1,915	3%	1,910	3%	1,913	3%	1,889	1%	1,973	6%	1,893	2%	1,911	3%	1.1	55	2
09:15 - 09:30	1,745	1,680	4%	1,572	10%	1,824	4%	1,604	8%	1,945	11%	1,705	2%	1,680	4%	1,679	4%	1,803	3%	1,798	3%	1,646	6%	1,747	0%	0	129	15
Hour 1	5,961	5,029	17%	5,010	17%	5,119	15%	5,090	16%	5,080	16%	5,000	18%	5,029	17%	5,097	16%	5,100	16%	5,077	16%	5,158	14%	5,071	16%	12	28	0
Hour 2	7,531	7,526	0%	7,479	1%	7,441	1%	7,549	0%	7,539	0%	7,531	0%	7,526	0%	7,517	0%	7,412	2%	7,451	1%	7,414	2%	7,482	1%	0.6	26	0
Hour 3	7,064	7,125	1%	6,953	2%	6,878	3%	6,864	3%	6,805	4%	7,055	0%	7,125	1%	7,151	1%	7,013	1%	7,030	0%	7,085	0%	6,980	1%	1	57	0
Hour 4	7,183	6,956	3%	7,094	1%	7,342	2%	6,933	4%	7,464	4%	7,177	0%	6,956	3%	7,200	0%	7,311	2%	7,279	1%	7,181	0%	7,214	0%	0.4	77	0
11	27,739	26,636	4%	26,536	4%	26,780	4%	26,436	5%	26,888	3%	26,763	4%	26,636	4%	26,965	3%	26,836	3%	26,837	3%	26,838	3%	26,747	4%	6	103	0



EXISTING		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																											
AM	COGNOS	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	225S030	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	398	376	6%	367	8%	371	7%	343	15%	372	7%	374	6%	376	6%	384	4%	386	3%	337	17%	366	8%	369	8%	1.5	23	9
05:45 - 06:00	384	400	4%	447	15%	432	12%	359	7%	401	4%	405	5%	400	4%	398	4%	429	11%	399	4%	416	8%	407	6%	1.2	29	16
06:00 - 06:15	418	396	5%	401	4%	403	4%	370	12%	390	7%	400	4%	396	5%	407	3%	421	1%	428	2%	443	6%	405	3%	0.6	14	3
06:15 - 06:30	470	435	8%	441	6%	415	12%	424	10%	424	10%	439	7%	435	8%	414	13%	446	5%	409	14%	425	10%	427	10%	2	18	4
06:30 - 06:45	422	416	1%	433	3%	433	3%	411	3%	405	4%	445	5%	416	1%	432	2%	430	2%	428	1%	435	3%	428	1%	0.3	13	3
06:45 - 07:00	382	448	16%	426	11%	391	2%	408	7%	407	6%	409	7%	448	16%	409	7%	403	5%	423	10%	413	8%	413	8%	1.6	17	5
07:00 - 07:15	377	443	16%	425	12%	426	12%	415	10%	410	8%	395	5%	443	16%	369	2%	410	8%	434	14%	398	5%	413	9%	1.8	25	12
07:15 - 07:30	372	404	8%	405	8%	435	16%	396	6%	423	13%	416	11%	404	8%	394	6%	463	22%	413	10%	403	8%	417	11%	2.3	38	29
07:30 - 07:45	384	416	8%	372	3%	440	14%	407	6%	400	4%	359	7%	416	8%	371	3%	420	9%	390	2%	367	5%	389	1%	0.3	64	77
07:45 - 08:00	341	336	1%	369	8%	359	5%	430	23%	370	8%	356	4%	336	1%	350	3%	340	0%	343	1%	381	11%	364	7%	1.2	43	44
08:00 - 08:15	310	287	8%	402	26%	355	14%	318	3%	345	11%	379	20%	287	8%	340	9%	331	7%	365	16%	361	15%	352	13%	2.3	73	154
08:15 - 08:30	293	325	10%	335	13%	379	26%	357	20%	347	17%	365	22%	325	10%	312	6%	357	20%	318	8%	327	11%	343	16%	2.8	52	87
08:30 - 08:45	343	371	8%	363	6%	402	16%	353	3%	372	8%	352	3%	371	8%	332	3%	289	17%	379	10%	382	11%	358	4%	0.8	47	52
08:45 - 09:00	334	379	13%	372	11%	337	1%	344	3%	388	15%	355	6%	379	13%	327	2%	337	1%	370	10%	327	2%	354	6%	1.1	42	44
09:00 - 09:15	390	383	2%	334	15%	351	11%	379	3%	340	14%	362	7%	383	2%	363	7%	379	3%	394	1%	352	10%	363	7%	1.4	44	35
09:15 - 09:30	359	397	10%	376	5%	373	4%	358	0%	366	2%	371	3%	397	10%	369	3%	381	6%	389	8%	360	0%	370	3%	0.6	33	23
Hour 1	1,670	1,607	4%	1,656	1%	1,621	3%	1,496	11%	1,587	5%	1,618	3%	1,607	4%	1,603	4%	1,682	1%	1,573	6%	1,650	1%	1,608	4%	1.5	22	0
Hour 2	1,553	1,711	10%	1,689	8%	1,685	8%	1,630	5%	1,645	6%	1,665	7%	1,711	10%	1,604	3%	1,706	9%	1,698	9%	1,649	6%	1,671	7%	2.9	25	1
Hour 3	1,328	1,364	3%	1,478	11%	1,533	14%	1,512	13%	1,462	10%	1,459	9%	1,364	3%	1,373	3%	1,448	9%	1,416	6%	1,436	8%	1,448	9%	3.2	59	5
Hour 4	1,426	1,530	7%	1,445	1%	1,463	3%	1,434	1%	1,466	3%	1,440	1%	1,530	7%	1,391	2%	1,386	3%	1,532	7%	1,421	0%	1,445	1%	0.5	42	2
11	5,977	6,212	4%	6,268	5%	6,302	5%	6,072	2%	6,160	3%	6,182	3%	6,212	4%	5,971	0%	6,222	4%	6,219	4%	6,156	3%	6,172	3%	2.5	80	0



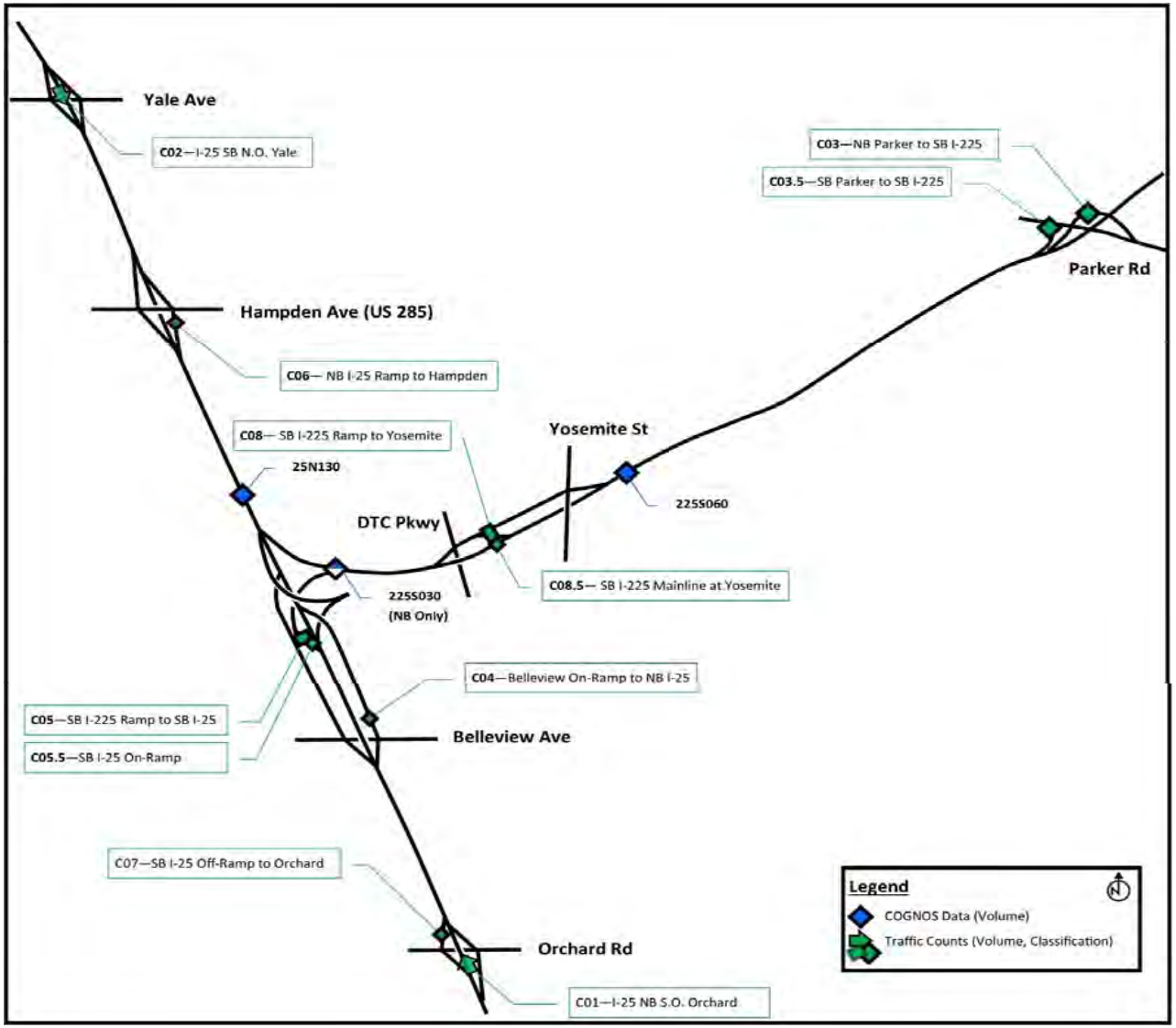
EXISTING		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																											
AM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C05.5	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	503	521	4%	562	11%	592	16%	556	10%	558	10%	555	10%	521	4%	556	10%	525	4%	555	10%	577	14%	554	10%	2.2	-	0
05:45 - 06:00	624	619	1%	592	5%	596	5%	592	5%	578	8%	642	3%	619	1%	608	3%	569	9%	639	2%	571	9%	599	4%	1	-	0
06:00 - 06:15	586	641	9%	615	5%	647	10%	640	9%	654	11%	604	3%	641	9%	588	0%	611	4%	617	5%	572	2%	619	5%	1.3	-	0
06:15 - 06:30	648	597	8%	624	4%	634	2%	631	3%	629	3%	660	2%	597	8%	632	3%	663	2%	661	2%	642	1%	637	2%	0.4	-	0
06:30 - 06:45	642	699	9%	711	10%	711	10%	707	10%	705	9%	720	11%	699	9%	680	6%	722	12%	679	6%	712	10%	704	9%	2.4	-	0
06:45 - 07:00	720	746	4%	720	0%	761	6%	710	1%	736	2%	748	4%	746	4%	752	4%	726	1%	745	3%	734	2%	737	2%	0.6	-	0
07:00 - 07:15	641	720	12%	741	14%	748	15%	753	16%	764	18%	734	14%	720	12%	713	11%	760	17%	738	14%	790	21%	742	15%	3.8	-	0
07:15 - 07:30	634	770	19%	760	18%	755	17%	771	20%	762	18%	738	15%	770	19%	679	7%	745	16%	742	16%	712	12%	740	15%	4	-	0
07:30 - 07:45	634	687	8%	774	20%	732	14%	735	15%	715	12%	755	17%	687	8%	686	8%	699	10%	714	12%	670	6%	713	12%	3	-	0
07:45 - 08:00	741	682	8%	684	8%	726	2%	731	1%	718	3%	737	1%	682	8%	686	8%	688	7%	752	1%	689	7%	707	5%	1.3	-	0
08:00 - 08:15	582	683	16%	722	21%	751	25%	692	17%	697	18%	791	30%	683	16%	673	15%	679	15%	661	13%	686	16%	702	19%	4.7	-	0
08:15 - 08:30	632	650	3%	786	22%	721	13%	712	12%	697	10%	731	15%	650	3%	680	7%	669	6%	667	5%	675	7%	697	10%	2.5	-	0
08:30 - 08:45	661	744	12%	700	6%	664	0%	662	0%	731	10%	686	4%	744	12%	667	1%	680	3%	709	7%	694	5%	694	5%	1.3	-	0
08:45 - 09:00	650	709	9%	690	6%	674	4%	641	1%	672	3%	673	3%	709	9%	687	6%	658	1%	691	6%	676	4%	679	4%	1.1	-	0
09:00 - 09:15	665	662	0%	705	6%	641	4%	692	4%	628	6%	697	5%	662	0%	657	1%	654	2%	718	8%	697	5%	676	2%	0.4	-	0
09:15 - 09:30	617	639	4%	682	10%	681	10%	692	11%	662	7%	746	19%	639	4%	640	4%	686	11%	675	9%	669	8%	680	10%	2.5	-	0
Hour 1	2,361	2,378	1%	2,393	1%	2,469	4%	2,419	2%	2,419	2%	2,461	4%	2,378	1%	2,384	1%	2,368	0%	2,472	5%	2,362	0%	2,409	2%	1	-	0
Hour 2	2,637	2,935	11%	2,932	11%	2,975	12%	2,941	11%	2,967	12%	2,940	11%	2,935	11%	2,824	7%	2,953	11%	2,904	10%	2,948	11%	2,923	10%	5.4	-	0
Hour 3	2,589	2,702	4%	2,966	14%	2,930	12%	2,870	10%	2,827	9%	3,014	15%	2,702	4%	2,725	5%	2,735	5%	2,794	8%	2,720	5%	2,819	9%	4.4	-	0
Hour 4	2,593	2,754	6%	2,777	7%	2,660	3%	2,687	4%	2,693	4%	2,802	8%	2,754	6%	2,651	2%	2,678	3%	2,793	7%	2,736	5%	2,729	5%	2.6	-	0
11	10,180	10,769	6%	11,068	8%	11,034	8%	10,917	7%	10,906	7%	11,217	10%	10,769	6%	10,584	4%	10,734	5%	10,963	7%	10,766	6%	10,880	7%	6.8	-	0



TRAFFIC VOLUMES - BY LINK

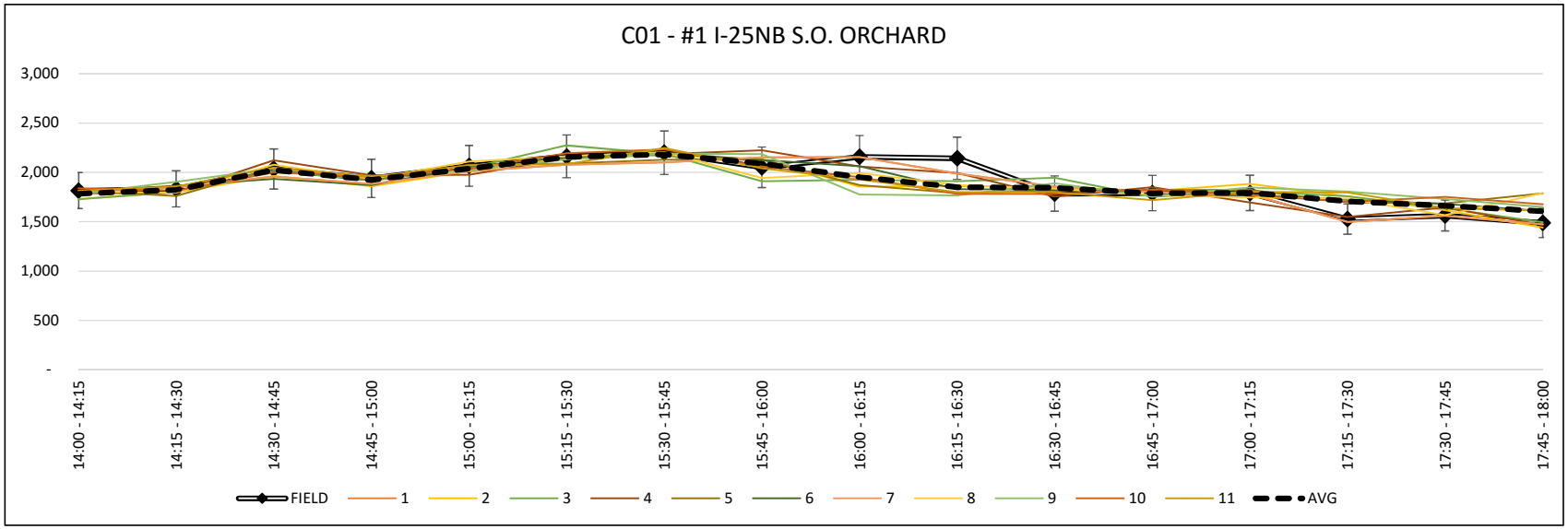
EXISTING

PERIOD: PM

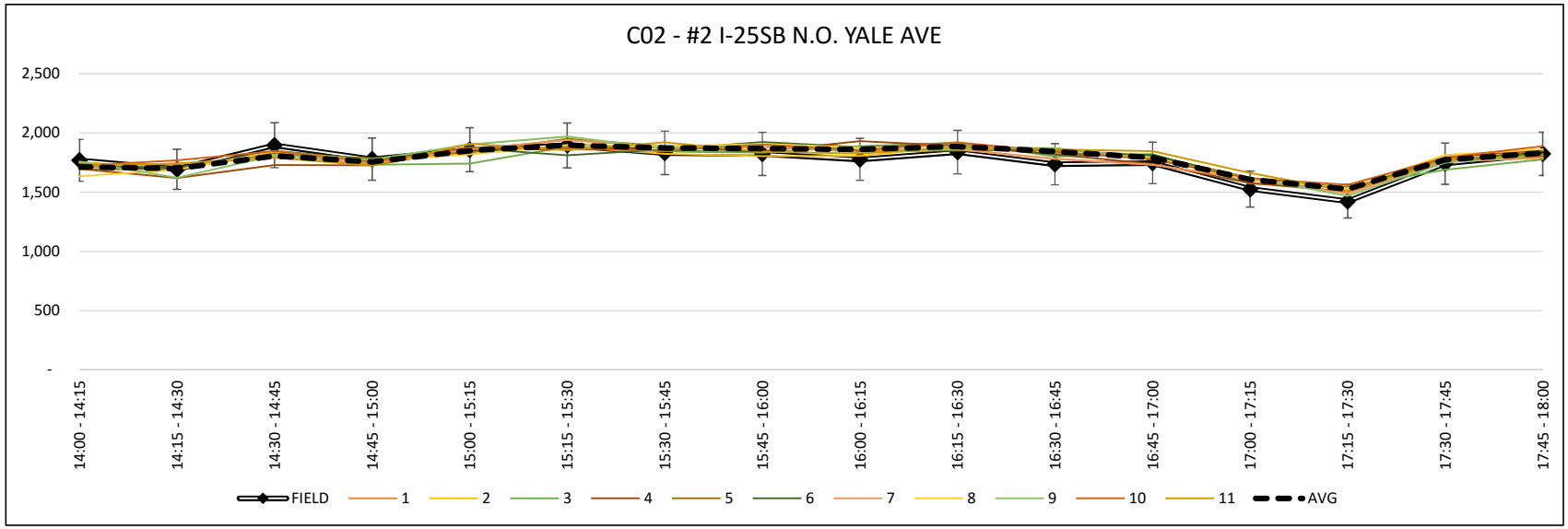


ID	DESCRIPTION
C01	NB I-25 S.O. Orchard
C02	SB I-25 N.O. Yale
C03	NB Parker to SB I-225
C03.5	SB Parker to SB I-225
C04	Belleview On-Ramp to NB I-25
C05	SB I-225 Ramp to SB I-25
C06	NB I-25 Ramp to Hampden
C07	SB I-25 Off-Ramp to Orchard
C08	SB I-225 Ramp to Yosemite
C08.5	SB I-225 Mainline at Yosemite
225S060	225S001 PARKER RD TO YOSEMITE ST (176)
25N130	025N201 0.2MI N OF I-225
225S030	225S000 I-225 SB TO I-25 NB (144)
C05.5	#5 SB I-225 to SB I-25 On-Ramp Only

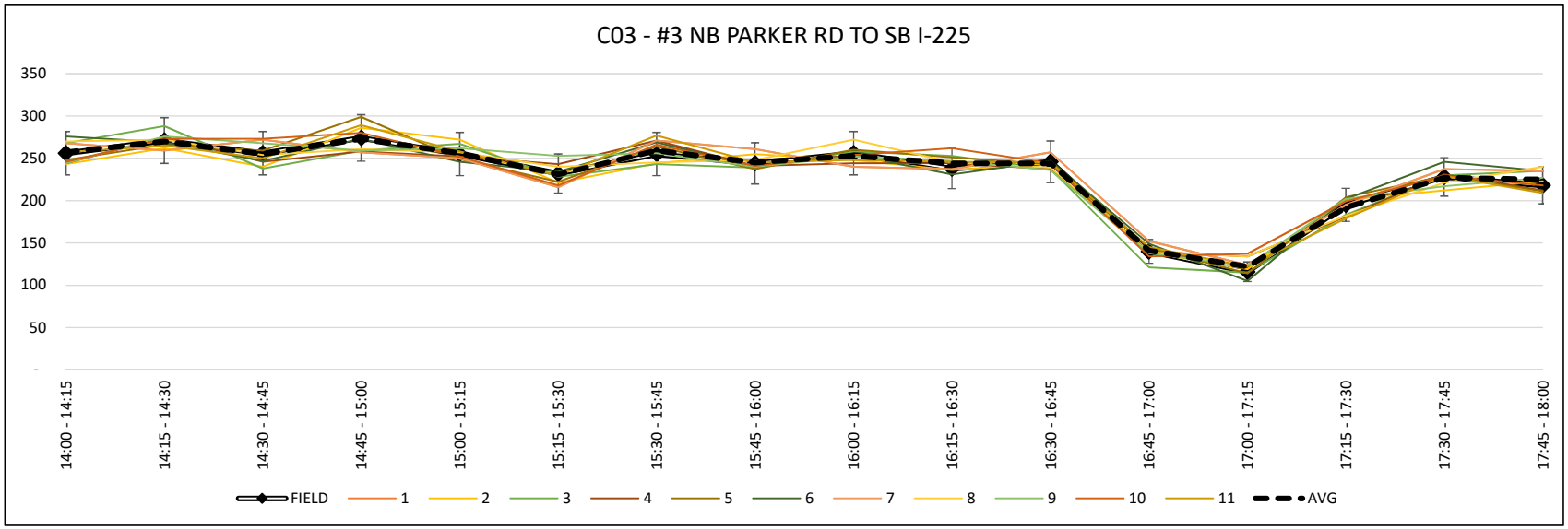
EXISTING		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																										
PM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C01	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	1,816	1,788	2%	1,730	5%	1,729	5%	1,787	2%	1,816	0%	1,803	1%	1,788	2%	1,810	0%	1,785	2%	1,838	1%	1,816	0%	1,786	2%	0.7	37	1
14:15 - 14:30	1,834	1,848	1%	1,800	2%	1,801	2%	1,793	2%	1,761	4%	1,864	2%	1,848	1%	1,795	2%	1,905	4%	1,815	1%	1,858	1%	1,824	1%	0.2	41	1
14:30 - 14:45	2,035	1,958	4%	1,964	4%	2,017	1%	2,122	4%	2,044	0%	1,934	5%	1,958	4%	2,078	2%	2,038	0%	2,000	2%	2,047	1%	2,023	1%	0.3	56	2
14:45 - 15:00	1,940	1,883	3%	1,859	4%	1,915	1%	1,971	2%	1,925	1%	1,871	4%	1,883	3%	1,934	0%	1,961	1%	1,954	1%	1,954	1%	1,924	1%	0.4	38	1
15:00 - 15:15	2,066	2,011	3%	2,013	3%	2,044	1%	1,976	4%	2,078	1%	2,059	0%	2,011	3%	2,109	2%	2,023	2%	2,036	1%	2,071	0%	2,038	1%	0.6	39	1
15:15 - 15:30	2,163	2,078	4%	2,151	1%	2,274	5%	2,144	1%	2,091	3%	2,155	0%	2,078	4%	2,164	0%	2,130	2%	2,193	1%	2,085	4%	2,155	0%	0.2	62	2
15:30 - 15:45	2,199	2,101	5%	2,174	1%	2,188	1%	2,184	1%	2,128	3%	2,198	0%	2,101	5%	2,206	0%	2,190	0%	2,233	2%	2,247	2%	2,182	1%	0.4	42	1
15:45 - 16:00	2,052	2,153	5%	2,133	4%	1,909	7%	2,225	8%	2,129	4%	2,125	3%	2,153	5%	1,943	5%	2,185	6%	2,060	0%	2,041	1%	2,090	2%	0.8	97	6
16:00 - 16:15	2,158	2,155	0%	1,857	15%	1,924	11%	2,061	5%	1,872	14%	2,064	4%	2,155	0%	1,994	8%	1,777	19%	1,951	10%	1,929	11%	1,953	10%	4.5	108	7
16:15 - 16:30	2,143	1,988	8%	1,859	14%	1,911	11%	1,994	7%	1,790	18%	1,829	16%	1,988	8%	1,872	13%	1,768	19%	1,781	18%	1,800	17%	1,852	15%	6.5	82	4
16:30 - 16:45	1,786	1,858	4%	1,853	4%	1,945	9%	1,755	2%	1,812	1%	1,823	2%	1,858	4%	1,837	3%	1,888	6%	1,783	0%	1,799	1%	1,845	3%	1.4	62	3
16:45 - 17:00	1,791	1,800	1%	1,812	1%	1,753	2%	1,850	3%	1,820	2%	1,805	1%	1,800	1%	1,769	1%	1,758	2%	1,827	2%	1,718	4%	1,787	0%	0.1	41	1
17:00 - 17:15	1,792	1,780	1%	1,883	5%	1,809	1%	1,695	6%	1,825	2%	1,774	1%	1,780	1%	1,745	3%	1,847	3%	1,772	1%	1,802	1%	1,794	0%	0	50	2
17:15 - 17:30	1,528	1,499	2%	1,757	14%	1,757	14%	1,548	1%	1,695	10%	1,723	12%	1,499	2%	1,734	13%	1,805	17%	1,701	11%	1,796	16%	1,706	11%	4.4	97	11
17:30 - 17:45	1,564	1,560	0%	1,617	3%	1,637	5%	1,644	5%	1,687	8%	1,680	7%	1,560	0%	1,568	0%	1,732	10%	1,751	11%	1,639	5%	1,661	6%	2.4	68	5
17:45 - 18:00	1,489	1,474	1%	1,442	3%	1,496	0%	1,469	1%	1,787	18%	1,609	8%	1,474	1%	1,792	18%	1,649	10%	1,678	12%	1,613	8%	1,607	8%	3	124	19
Hour 1	7,625	7,477	2%	7,353	4%	7,462	2%	7,673	1%	7,546	1%	7,472	2%	7,477	2%	7,617	0%	7,689	1%	7,607	0%	7,675	1%	7,557	1%	0.8	44	0
Hour 2	8,480	8,343	2%	8,471	0%	8,415	1%	8,529	1%	8,426	1%	8,537	1%	8,343	2%	8,422	1%	8,528	1%	8,522	0%	8,444	0%	8,465	0%	0.2	64	0
Hour 3	7,878	7,801	1%	7,381	7%	7,533	4%	7,660	3%	7,294	8%	7,521	5%	7,801	1%	7,472	5%	7,191	9%	7,342	7%	7,246	8%	7,437	6%	5	77	0
Hour 4	6,373	6,313	1%	6,699	5%	6,699	5%	6,356	0%	6,994	9%	6,786	6%	6,313	1%	6,839	7%	7,033	10%	6,902	8%	6,850	7%	6,768	6%	4.9	89	1
11	30,356	29,934	1%	29,904	2%	30,109	1%	30,218	0%	30,260	0%	30,316	0%	29,934	1%	30,350	0%	30,441	0%	30,373	0%	30,215	0%	30,227	0%	0.7	141	0



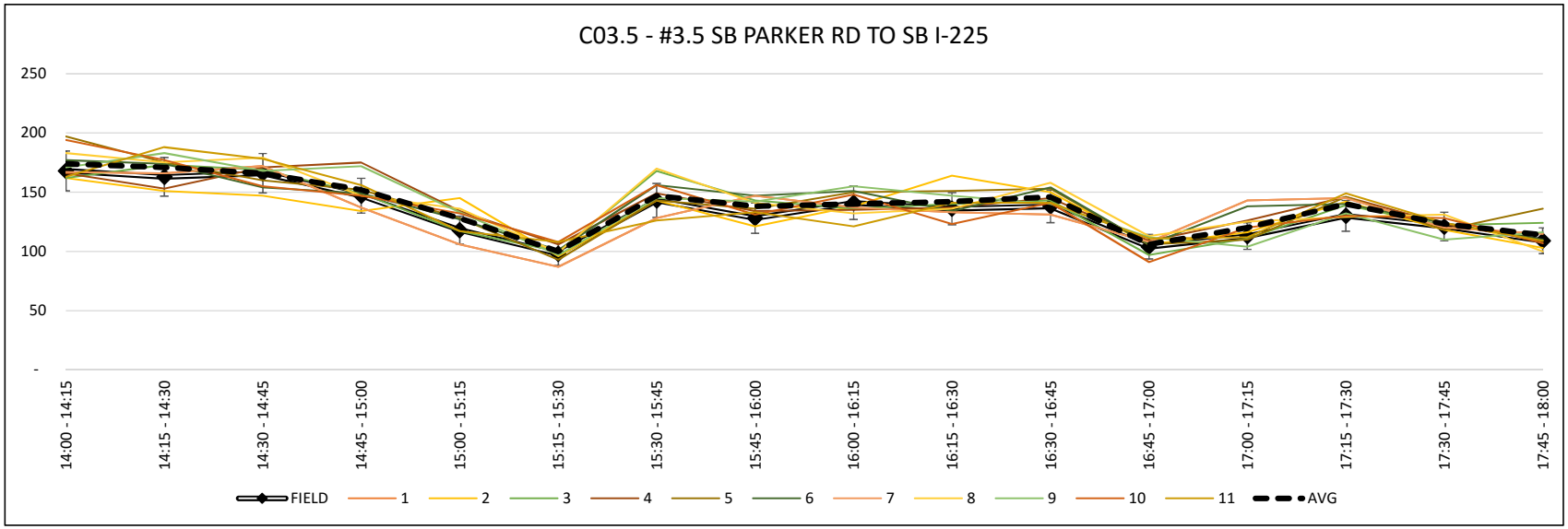
EXISTING		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																										
PM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C02	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	1,769	1,719	3%	1,750	1%	1,735	2%	1,696	4%	1,694	4%	1,720	3%	1,719	3%	1,634	8%	1,758	1%	1,725	3%	1,732	2%	1,714	3%	1.3	34	1
14:15 - 14:30	1,693	1,742	3%	1,704	1%	1,701	0%	1,620	4%	1,694	0%	1,706	1%	1,742	3%	1,688	0%	1,622	4%	1,769	4%	1,740	3%	1,700	0%	0.2	46	2
14:30 - 14:45	1,896	1,790	6%	1,832	3%	1,837	3%	1,730	9%	1,828	4%	1,849	3%	1,790	6%	1,843	3%	1,809	5%	1,845	3%	1,791	6%	1,805	5%	2.1	48	2
14:45 - 15:00	1,779	1,748	2%	1,780	0%	1,732	3%	1,727	3%	1,786	0%	1,773	0%	1,748	2%	1,765	1%	1,776	0%	1,756	1%	1,725	3%	1,755	1%	0.6	23	0
15:00 - 15:15	1,858	1,862	0%	1,833	1%	1,741	7%	1,868	1%	1,837	1%	1,870	1%	1,862	0%	1,818	2%	1,902	2%	1,877	1%	1,908	3%	1,851	0%	0.2	46	2
15:15 - 15:30	1,895	1,940	2%	1,883	1%	1,883	1%	1,859	2%	1,951	3%	1,811	5%	1,940	2%	1,898	0%	1,969	4%	1,871	1%	1,855	2%	1,897	0%	0	49	2
15:30 - 15:45	1,832	1,884	3%	1,823	0%	1,847	1%	1,884	3%	1,888	3%	1,861	2%	1,884	3%	1,887	3%	1,867	2%	1,848	1%	1,920	5%	1,874	2%	1	28	1
15:45 - 16:00	1,823	1,879	3%	1,804	1%	1,833	1%	1,846	1%	1,881	3%	1,924	5%	1,879	3%	1,906	4%	1,902	4%	1,901	4%	1,842	1%	1,869	2%	1.1	37	1
16:00 - 16:15	1,777	1,856	4%	1,805	2%	1,888	6%	1,931	8%	1,846	4%	1,881	6%	1,856	4%	1,879	6%	1,830	3%	1,853	4%	1,825	3%	1,862	5%	2	36	1
16:15 - 16:30	1,838	1,861	1%	1,887	3%	1,919	4%	1,891	3%	1,851	1%	1,897	3%	1,861	1%	1,883	2%	1,866	2%	1,920	4%	1,883	2%	1,886	3%	1.1	22	0
16:30 - 16:45	1,736	1,780	3%	1,825	5%	1,802	4%	1,818	5%	1,856	7%	1,819	5%	1,780	3%	1,874	8%	1,871	7%	1,841	6%	1,861	7%	1,843	6%	2.5	40	1
16:45 - 17:00	1,747	1,731	1%	1,801	3%	1,821	4%	1,739	0%	1,809	3%	1,817	4%	1,731	1%	1,778	2%	1,781	2%	1,776	2%	1,845	5%	1,792	3%	1.1	35	1
17:00 - 17:15	1,526	1,606	5%	1,623	6%	1,573	3%	1,577	3%	1,619	6%	1,601	5%	1,606	5%	1,604	5%	1,621	6%	1,618	6%	1,661	8%	1,607	5%	2	27	1
17:15 - 17:30	1,424	1,493	5%	1,528	7%	1,546	8%	1,505	6%	1,537	8%	1,535	8%	1,493	5%	1,533	7%	1,469	3%	1,563	9%	1,509	6%	1,526	7%	2.7	29	1
17:30 - 17:45	1,741	1,755	1%	1,814	4%	1,690	3%	1,794	3%	1,753	1%	1,778	2%	1,755	1%	1,812	4%	1,748	0%	1,790	3%	1,778	2%	1,773	2%	0.8	36	1
17:45 - 18:00	1,824	1,792	2%	1,852	2%	1,775	3%	1,857	2%	1,855	2%	1,826	0%	1,792	2%	1,864	2%	1,814	1%	1,888	3%	1,812	1%	1,830	0%	0.1	35	1
Hour 1	7,137	6,999	2%	7,066	1%	7,005	2%	6,773	5%	7,002	2%	7,048	1%	6,999	2%	6,930	3%	6,965	2%	7,095	1%	6,988	2%	6,974	2%	1.9	39	0
Hour 2	7,408	7,565	2%	7,343	1%	7,304	1%	7,457	1%	7,557	2%	7,466	1%	7,565	2%	7,509	1%	7,640	3%	7,497	1%	7,525	2%	7,491	1%	1	41	0
Hour 3	7,098	7,228	2%	7,318	3%	7,430	5%	7,379	4%	7,362	4%	7,414	4%	7,228	2%	7,414	4%	7,348	3%	7,390	4%	7,414	4%	7,383	4%	3.3	34	0
Hour 4	6,515	6,646	2%	6,817	5%	6,584	1%	6,733	3%	6,764	4%	6,740	3%	6,646	2%	6,813	4%	6,652	2%	6,859	5%	6,760	4%	6,736	3%	2.7	32	0
11	28,158	28,438	1%	28,544	1%	28,323	1%	28,342	1%	28,685	2%	28,668	2%	28,438	1%	28,666	2%	28,605	2%	28,841	2%	28,687	2%	28,584	2%	2.5	73	0



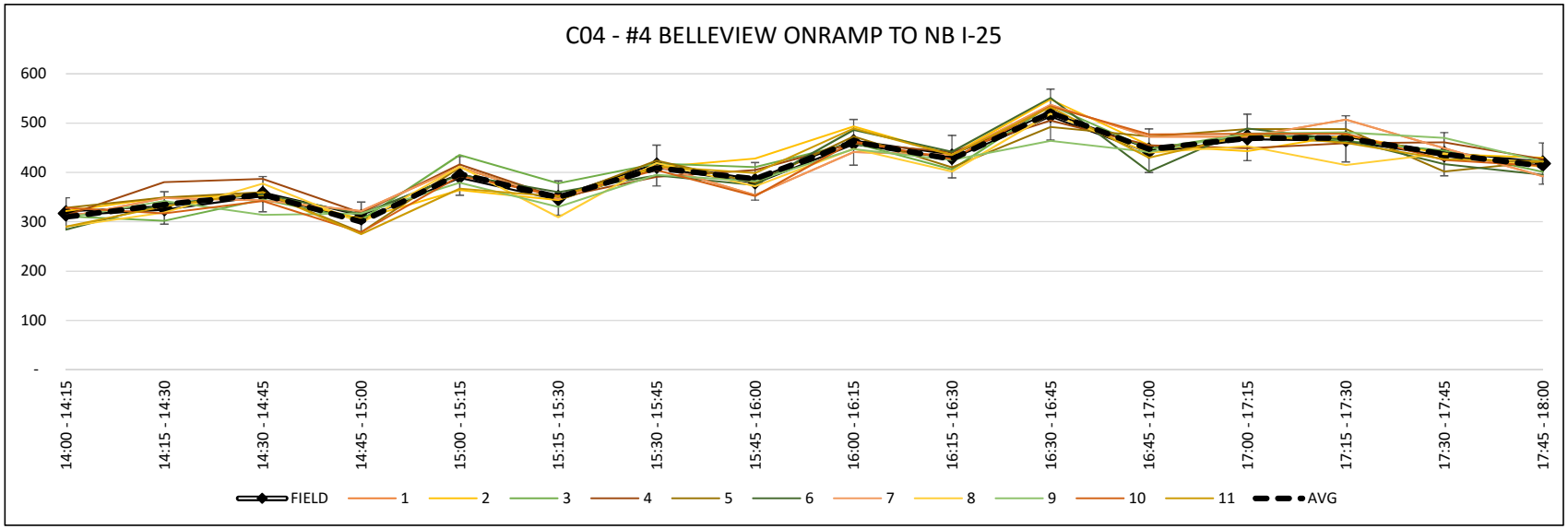
EXISTING		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																											
PM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C03	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	256	268	5%	243	5%	268	5%	244	5%	248	3%	276	8%	268	5%	270	5%	244	5%	246	4%	257	0%	257	0%	0.1	12	6
14:15 - 14:30	271	259	5%	262	3%	288	6%	275	1%	266	2%	269	1%	259	5%	272	0%	276	2%	273	1%	265	2%	270	0%	0.1	8	2
14:30 - 14:45	256	272	6%	240	6%	238	7%	246	4%	259	1%	247	4%	272	6%	254	1%	268	5%	273	6%	250	2%	255	0%	0.1	12	6
14:45 - 15:00	274	257	6%	286	4%	259	6%	258	6%	299	9%	273	0%	257	6%	261	5%	259	6%	280	2%	289	5%	273	0%	0.1	15	8
15:00 - 15:15	255	250	2%	272	6%	267	5%	252	1%	249	2%	246	4%	250	2%	257	1%	262	3%	252	1%	258	1%	256	0%	0.1	8	3
15:15 - 15:30	232	216	7%	221	5%	228	2%	243	5%	222	4%	234	1%	216	7%	240	3%	253	9%	218	6%	230	1%	231	0%	0.1	12	7
15:30 - 15:45	255	271	6%	244	4%	243	5%	271	6%	264	3%	269	5%	271	6%	245	4%	256	0%	266	4%	277	8%	259	2%	0.2	14	8
15:45 - 16:00	244	261	7%	255	4%	239	2%	241	1%	237	3%	240	2%	261	7%	248	2%	240	2%	241	1%	245	0%	245	0%	0.1	7	2
16:00 - 16:15	256	240	6%	248	3%	258	1%	244	5%	260	2%	254	1%	240	6%	272	6%	252	2%	254	1%	248	3%	253	1%	0.2	9	3
16:15 - 16:30	238	237	0%	236	1%	253	6%	244	2%	251	5%	231	3%	237	0%	245	3%	247	4%	262	10%	246	3%	244	2%	0.4	10	5
16:30 - 16:45	246	257	4%	244	1%	237	4%	237	4%	243	1%	247	0%	257	4%	239	3%	236	4%	244	1%	245	0%	244	1%	0.1	6	2
16:45 - 17:00	140	152	8%	139	1%	121	15%	140	0%	144	3%	149	6%	152	8%	139	1%	138	1%	134	4%	145	4%	141	1%	0.1	9	11
17:00 - 17:15	116	124	7%	119	3%	115	1%	134	14%	114	2%	105	10%	124	7%	134	14%	123	6%	137	17%	122	5%	122	5%	0.6	10	21
17:15 - 17:30	195	195	0%	201	3%	183	6%	181	7%	204	5%	202	4%	195	0%	182	7%	202	4%	199	2%	179	9%	192	2%	0.2	10	7
17:30 - 17:45	228	237	4%	212	7%	230	1%	231	1%	229	0%	246	8%	237	4%	221	3%	217	5%	229	0%	229	0%	227	0%	0.1	10	5
17:45 - 18:00	218	235	8%	223	2%	235	8%	212	3%	211	3%	235	8%	235	8%	240	10%	227	4%	218	0%	209	4%	225	3%	0.5	11	7
Hour 1	1,057	1,056	0%	1,031	2%	1,053	0%	1,023	3%	1,072	1%	1,065	1%	1,056	0%	1,057	0%	1,047	1%	1,072	1%	1,061	0%	1,055	0%	0.1	12	0
Hour 2	986	998	1%	992	1%	977	1%	1,007	2%	972	1%	989	0%	998	1%	990	0%	1,011	3%	977	1%	1,010	2%	991	1%	0.2	11	0
Hour 3	880	886	1%	867	1%	869	1%	865	2%	898	2%	881	0%	886	1%	895	2%	873	1%	894	2%	884	0%	882	0%	0.1	9	0
Hour 4	757	791	4%	755	0%	763	1%	758	0%	758	0%	788	4%	791	4%	777	3%	769	2%	783	3%	739	2%	766	1%	0.3	10	0
11	3,680	3,731	1%	3,645	1%	3,662	0%	3,653	1%	3,700	1%	3,723	1%	3,731	1%	3,719	1%	3,700	1%	3,726	1%	3,694	0%	3,694	0%	0.2	21	0



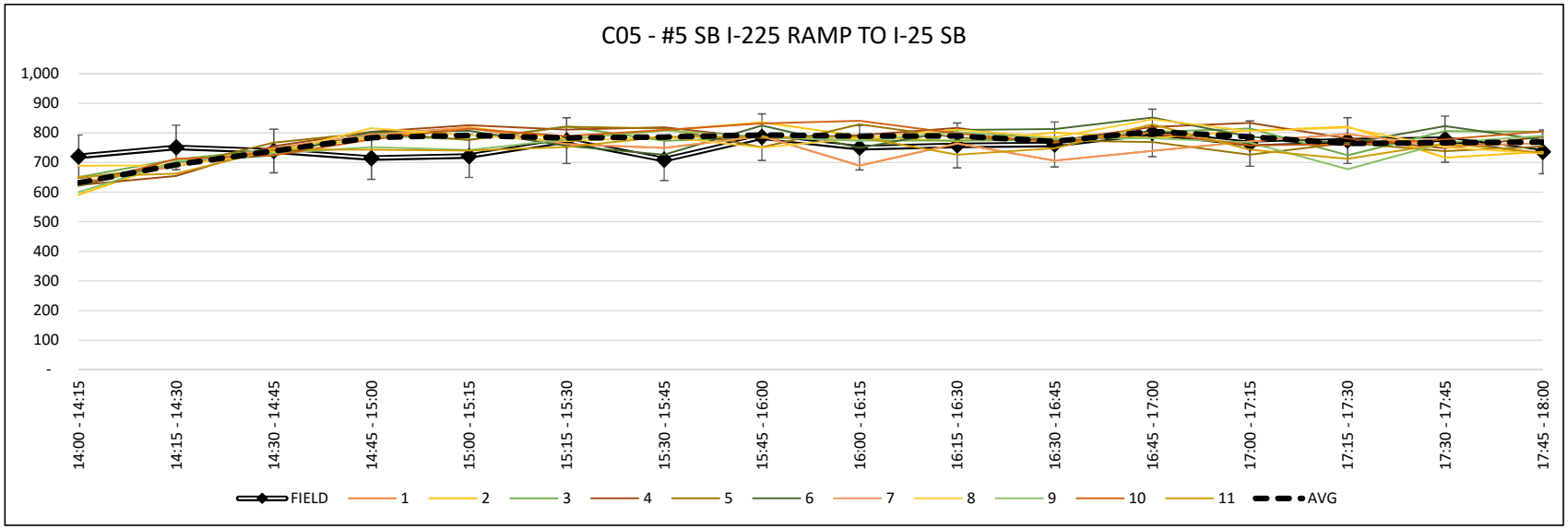
EXISTING		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																										
PM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C03.5	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	168	167	1%	162	4%	162	4%	166	1%	197	16%	177	5%	167	1%	183	9%	171	2%	194	14%	163	3%	174	4%	0.5	12	14
14:15 - 14:30	163	166	2%	151	8%	173	6%	153	6%	175	7%	174	7%	166	2%	175	7%	183	12%	177	8%	188	14%	171	5%	0.6	11	13
14:30 - 14:45	166	172	4%	147	12%	169	2%	171	3%	160	4%	154	8%	172	4%	179	8%	168	1%	155	7%	178	7%	166	0%	0	10	10
14:45 - 15:00	147	137	7%	134	9%	149	1%	175	17%	152	3%	149	1%	137	7%	147	0%	172	16%	147	0%	156	6%	152	3%	0.4	13	22
15:00 - 15:15	118	106	11%	145	21%	117	1%	134	13%	128	8%	127	7%	106	11%	136	14%	133	12%	132	11%	117	1%	128	8%	0.9	11	24
15:15 - 15:30	98	87	12%	96	2%	100	2%	106	8%	93	5%	101	3%	87	12%	99	1%	97	1%	108	10%	108	10%	100	2%	0.2	6	10
15:30 - 15:45	143	128	11%	143	0%	168	16%	149	4%	143	0%	156	9%	128	11%	170	17%	145	1%	156	9%	126	13%	147	3%	0.3	14	27
15:45 - 16:00	128	147	14%	121	6%	143	11%	134	5%	136	6%	147	14%	147	14%	141	10%	142	10%	131	2%	133	4%	138	8%	0.9	8	11
16:00 - 16:15	141	137	3%	138	2%	136	4%	135	4%	150	6%	151	7%	137	3%	132	7%	155	9%	148	5%	121	15%	140	1%	0.1	10	14
16:15 - 16:30	136	133	2%	164	19%	140	3%	137	1%	151	10%	134	1%	133	2%	136	0%	147	8%	123	10%	141	4%	142	4%	0.5	12	22
16:30 - 16:45	138	131	5%	150	8%	143	4%	145	5%	153	10%	154	11%	131	5%	158	14%	140	1%	141	2%	141	2%	146	6%	0.7	8	9
16:45 - 17:00	104	108	4%	106	2%	97	7%	109	5%	106	2%	106	2%	108	4%	113	8%	112	7%	91	13%	111	7%	106	2%	0.2	7	13
17:00 - 17:15	113	143	23%	116	3%	111	2%	126	11%	110	3%	138	20%	143	23%	125	10%	104	8%	120	6%	112	1%	120	6%	0.6	12	31
17:15 - 17:30	130	145	11%	142	9%	139	7%	146	12%	146	12%	140	7%	145	11%	129	1%	132	2%	130	0%	149	14%	140	7%	0.9	7	8
17:30 - 17:45	121	120	1%	118	3%	122	1%	123	2%	118	3%	124	2%	120	1%	131	8%	110	10%	128	6%	124	2%	123	2%	0.2	6	7
17:45 - 18:00	109	115	5%	103	6%	124	13%	109	0%	136	22%	110	1%	115	5%	100	9%	116	6%	107	2%	109	0%	114	4%	0.5	10	23
Hour 1	644	642	0%	594	8%	653	1%	665	3%	684	6%	654	2%	642	0%	684	6%	694	7%	673	4%	685	6%	663	3%	0.7	12	1
Hour 2	487	468	4%	505	4%	528	8%	523	7%	500	3%	531	9%	468	4%	546	11%	517	6%	527	8%	484	1%	513	5%	1.2	10	1
Hour 3	519	509	2%	558	7%	516	1%	526	1%	560	8%	545	5%	509	2%	539	4%	554	7%	503	3%	514	1%	534	3%	0.7	9	1
Hour 4	473	523	10%	479	1%	496	5%	504	6%	510	8%	512	8%	523	10%	485	3%	462	2%	485	3%	494	4%	497	5%	1.1	9	1
11	2,123	2,142	1%	2,136	1%	2,193	3%	2,218	4%	2,254	6%	2,242	5%	2,142	1%	2,254	6%	2,227	5%	2,188	3%	2,177	3%	2,207	4%	1.8	20	0



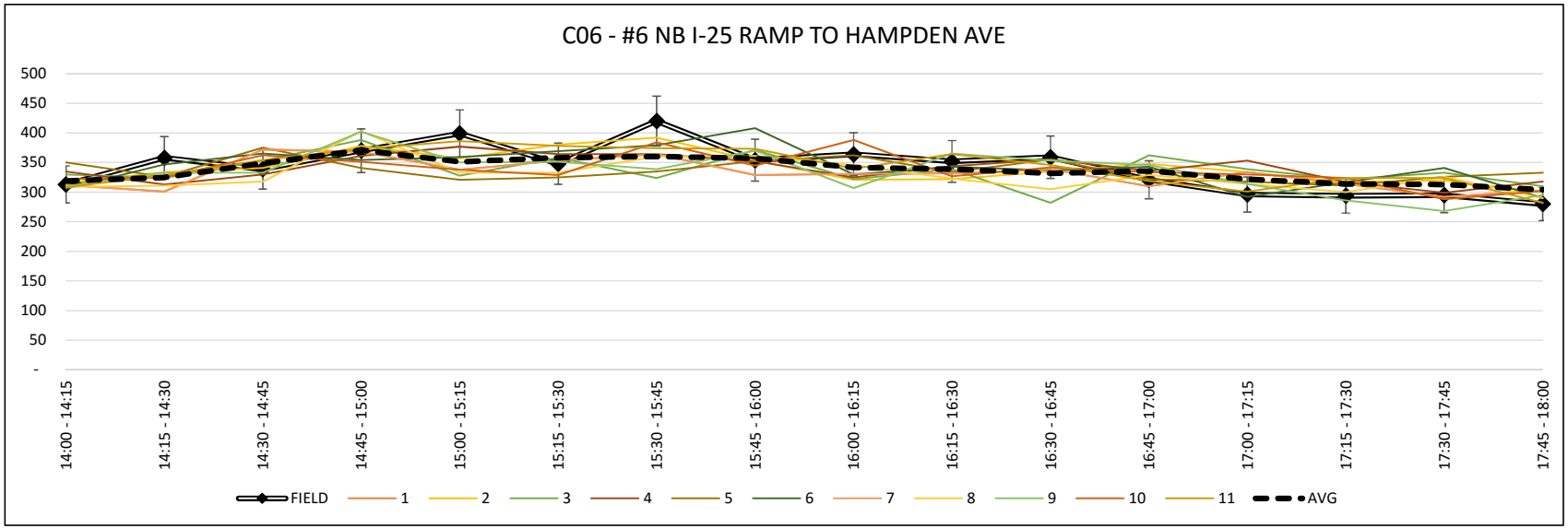
EXISTING		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																											
PM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C04	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	317	309	3%	322	2%	311	2%	313	1%	328	3%	284	11%	309	3%	290	9%	308	3%	328	3%	290	9%	310	2%	0.4	17	8
14:15 - 14:30	328	348	6%	349	6%	302	8%	380	15%	349	6%	336	2%	348	6%	319	3%	342	4%	317	3%	331	1%	335	2%	0.4	22	12
14:30 - 14:45	356	343	4%	354	1%	345	3%	387	8%	360	1%	356	0%	343	4%	377	6%	314	13%	342	4%	360	1%	355	0%	0.1	20	9
14:45 - 15:00	309	322	4%	306	1%	304	2%	318	3%	279	10%	316	2%	322	4%	298	4%	317	3%	279	10%	275	12%	300	3%	0.5	18	9
15:00 - 15:15	393	411	4%	364	8%	435	10%	416	6%	410	4%	395	1%	411	4%	412	5%	379	4%	393	0%	367	7%	397	1%	0.2	22	9
15:15 - 15:30	348	346	1%	344	1%	378	8%	349	0%	348	0%	360	3%	346	1%	309	12%	330	5%	353	1%	351	1%	350	1%	0.1	20	9
15:30 - 15:45	414	413	0%	411	1%	418	1%	391	6%	424	2%	394	5%	413	0%	419	1%	395	5%	405	2%	412	0%	409	1%	0.2	11	2
15:45 - 16:00	382	354	8%	428	11%	411	7%	405	6%	379	1%	374	2%	354	8%	372	3%	382	0%	352	8%	399	4%	387	1%	0.3	24	11
16:00 - 16:15	461	441	4%	493	7%	460	0%	459	0%	473	3%	486	5%	441	4%	448	3%	447	3%	463	0%	489	6%	462	0%	0	23	7
16:15 - 16:30	432	435	1%	436	1%	406	6%	441	2%	410	5%	442	2%	435	1%	402	7%	425	2%	427	1%	435	1%	427	1%	0.2	15	3
16:30 - 16:45	517	537	4%	548	6%	536	4%	505	2%	492	5%	551	6%	537	4%	519	0%	464	11%	534	3%	532	3%	521	1%	0.2	26	7
16:45 - 17:00	444	472	6%	455	2%	447	1%	455	2%	473	6%	402	10%	472	6%	440	1%	441	1%	477	7%	430	3%	447	1%	0.1	22	7
17:00 - 17:15	471	472	0%	443	6%	479	2%	449	5%	488	4%	489	4%	472	0%	453	4%	479	2%	478	1%	476	1%	469	0%	0.1	17	4
17:15 - 17:30	468	507	8%	475	1%	464	1%	459	2%	488	4%	466	0%	507	8%	415	12%	481	3%	478	2%	460	2%	470	0%	0.1	23	7
17:30 - 17:45	437	449	3%	437	0%	444	2%	461	5%	402	8%	417	5%	449	3%	439	0%	470	7%	425	3%	427	2%	437	0%	0	19	5
17:45 - 18:00	418	392	6%	430	3%	401	4%	427	2%	422	1%	395	6%	392	6%	411	2%	422	1%	413	1%	422	1%	413	1%	0.2	13	3
Hour 1	1,310	1,322	1%	1,331	2%	1,262	4%	1,398	6%	1,316	0%	1,292	1%	1,322	1%	1,284	2%	1,281	2%	1,266	3%	1,256	4%	1,300	1%	0.3	19	1
Hour 2	1,537	1,524	1%	1,547	1%	1,642	7%	1,561	2%	1,561	2%	1,523	1%	1,524	1%	1,512	2%	1,486	3%	1,503	2%	1,529	1%	1,543	0%	0.2	20	0
Hour 3	1,854	1,885	2%	1,932	4%	1,849	0%	1,860	0%	1,848	0%	1,881	1%	1,885	2%	1,809	2%	1,777	4%	1,901	3%	1,886	2%	1,857	0%	0.1	22	0
Hour 4	1,794	1,820	1%	1,785	1%	1,788	0%	1,796	0%	1,800	0%	1,767	2%	1,820	1%	1,718	4%	1,852	3%	1,794	0%	1,785	1%	1,789	0%	0.1	18	0
11	6,495	6,551	1%	6,595	2%	6,541	1%	6,615	2%	6,525	0%	6,463	0%	6,551	1%	6,323	3%	6,396	2%	6,464	0%	6,456	1%	6,489	0%	0.1	40	0



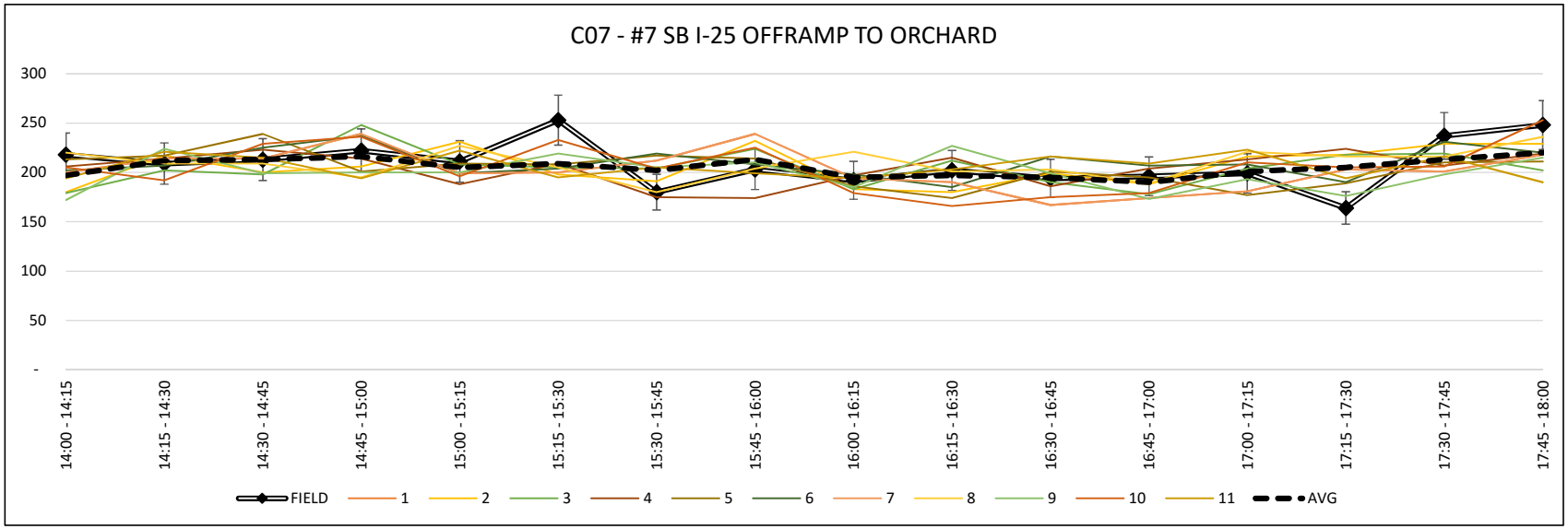
EXISTING		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																										
PM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C05	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	721	632	13%	591	20%	651	10%	624	14%	648	11%	621	15%	632	13%	689	5%	600	18%	623	15%	652	10%	632	13%	3.4	27	4
14:15 - 14:30	751	689	9%	703	7%	710	6%	655	14%	687	9%	701	7%	689	9%	691	8%	703	7%	712	5%	663	12%	693	8%	2.2	19	2
14:30 - 14:45	739	748	1%	737	0%	745	1%	755	2%	767	4%	724	2%	748	1%	732	1%	730	1%	724	2%	744	1%	739	0%	0	14	1
14:45 - 15:00	715	794	10%	784	9%	792	10%	804	12%	801	11%	803	12%	794	10%	816	13%	752	5%	778	8%	743	4%	784	9%	2.5	24	3
15:00 - 15:15	722	818	12%	819	13%	777	7%	826	13%	776	7%	807	11%	818	12%	792	9%	742	3%	814	12%	740	2%	792	9%	2.5	30	5
15:15 - 15:30	774	762	2%	780	1%	822	6%	811	5%	821	6%	756	2%	762	2%	772	0%	778	1%	789	2%	752	3%	783	1%	0.3	25	3
15:30 - 15:45	710	749	5%	808	13%	773	8%	819	14%	815	14%	726	2%	749	5%	787	10%	808	13%	810	13%	787	10%	786	10%	2.8	30	5
15:45 - 16:00	786	789	0%	836	6%	785	0%	782	1%	751	5%	825	5%	789	0%	750	5%	787	0%	832	6%	786	0%	793	1%	0.2	29	4
16:00 - 16:15	750	690	8%	789	5%	774	3%	792	5%	829	10%	749	0%	690	8%	782	4%	773	3%	841	11%	786	5%	789	5%	1.4	48	11
16:15 - 16:30	758	764	1%	771	2%	774	2%	817	7%	784	3%	810	7%	764	1%	811	7%	803	6%	798	5%	726	4%	790	4%	1.2	29	4
16:30 - 16:45	761	706	7%	801	5%	776	2%	772	1%	774	2%	813	7%	706	7%	785	3%	780	2%	767	1%	748	2%	771	1%	0.4	28	4
16:45 - 17:00	800	739	8%	783	2%	803	0%	820	2%	769	4%	852	6%	739	8%	846	6%	782	2%	801	0%	829	4%	805	1%	0.2	35	5
17:00 - 17:15	764	771	1%	808	6%	815	6%	834	9%	726	5%	787	3%	771	1%	806	5%	767	0%	758	1%	743	3%	787	3%	0.8	37	7
17:15 - 17:30	774	796	3%	821	6%	724	7%	781	1%	766	1%	764	1%	796	3%	818	6%	678	13%	761	2%	712	8%	764	1%	0.4	44	9
17:30 - 17:45	779	754	3%	716	8%	806	3%	748	4%	738	5%	823	5%	754	3%	751	4%	767	2%	778	0%	764	2%	767	2%	0.4	31	4
17:45 - 18:00	736	765	4%	736	0%	804	9%	787	7%	754	2%	776	5%	765	4%	730	1%	790	7%	805	9%	733	0%	769	4%	1.2	27	4
Hour 1	2,926	2,863	2%	2,815	4%	2,898	1%	2,838	3%	2,903	1%	2,849	3%	2,863	2%	2,928	0%	2,785	5%	2,837	3%	2,802	4%	2,848	3%	1.5	22	0
Hour 2	2,992	3,118	4%	3,243	8%	3,157	5%	3,238	8%	3,163	6%	3,114	4%	3,118	4%	3,101	4%	3,115	4%	3,245	8%	3,065	2%	3,154	5%	2.9	29	0
Hour 3	3,069	2,899	6%	3,144	2%	3,127	2%	3,201	4%	3,156	3%	3,224	5%	2,899	6%	3,224	5%	3,138	2%	3,207	4%	3,089	1%	3,155	3%	1.5	36	0
Hour 4	3,053	3,086	1%	3,081	1%	3,149	3%	3,150	3%	2,984	2%	3,150	3%	3,086	1%	3,105	2%	3,002	2%	3,102	2%	2,952	3%	3,087	1%	0.6	35	0
11	12,040	11,966	1%	12,283	2%	12,331	2%	12,427	3%	12,206	1%	12,337	2%	11,966	1%	12,358	3%	12,040	0%	12,391	3%	11,908	1%	12,244	2%	1.9	62	0



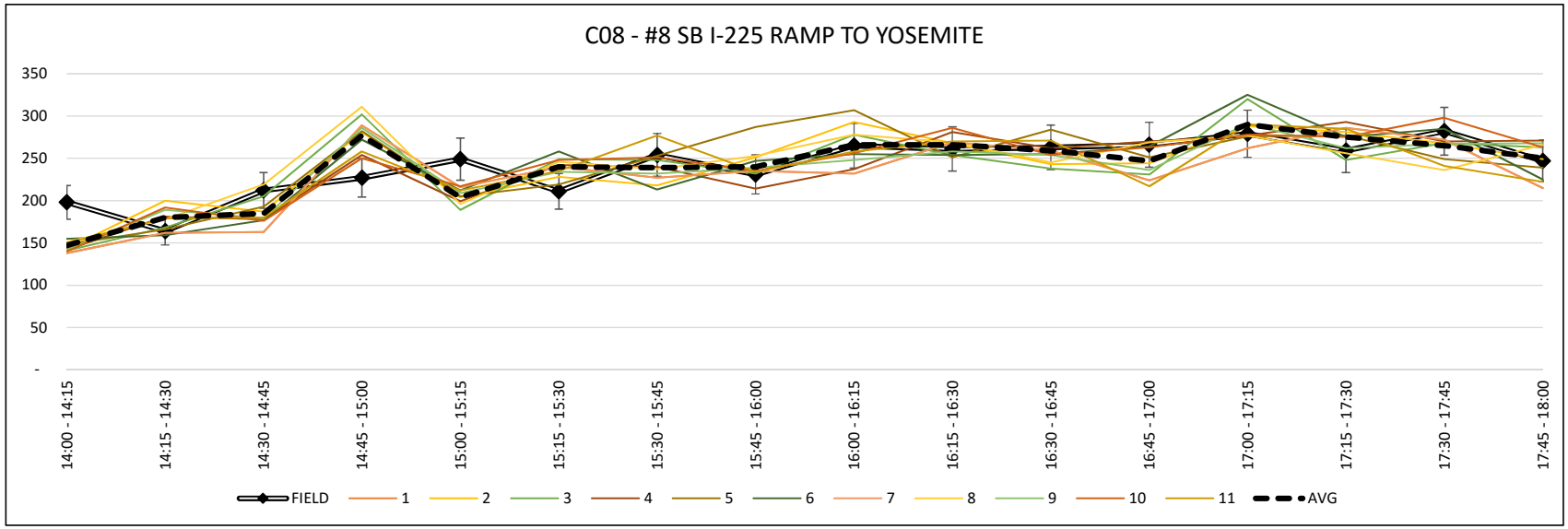
EXISTING		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																										
PM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C06	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	313	312	0%	315	1%	330	5%	335	7%	350	11%	306	2%	312	0%	309	1%	310	1%	322	3%	308	2%	319	2%	0.3	14	6
14:15 - 14:30	358	301	17%	334	7%	324	10%	313	13%	326	9%	347	3%	301	17%	311	14%	333	7%	325	10%	329	8%	325	10%	1.8	13	4
14:30 - 14:45	339	372	9%	341	1%	353	4%	330	3%	375	10%	365	7%	372	9%	318	6%	333	2%	362	7%	354	4%	349	3%	0.5	18	8
14:45 - 15:00	370	368	1%	378	2%	388	5%	361	2%	341	8%	354	4%	368	1%	403	9%	402	8%	351	5%	373	1%	371	0%	0.1	20	8
15:00 - 15:15	399	338	17%	357	11%	328	20%	377	6%	321	22%	359	11%	338	17%	333	18%	350	13%	338	17%	386	3%	351	13%	2.5	22	8
15:15 - 15:30	348	353	1%	380	9%	358	3%	364	4%	325	7%	369	6%	353	1%	333	4%	351	1%	329	6%	378	8%	358	3%	0.5	23	12
15:30 - 15:45	420	364	14%	392	7%	324	26%	364	14%	335	23%	379	10%	364	14%	360	15%	339	21%	384	9%	374	12%	360	15%	3	22	8
15:45 - 16:00	354	329	7%	353	0%	371	5%	352	1%	352	1%	408	14%	329	7%	361	2%	370	4%	345	3%	373	5%	357	1%	0.2	25	14
16:00 - 16:15	364	331	9%	321	13%	322	12%	325	11%	362	1%	330	10%	331	9%	346	5%	307	17%	388	6%	340	7%	342	6%	1.2	27	15
16:15 - 16:30	352	332	6%	322	9%	339	4%	344	2%	334	5%	343	3%	332	6%	323	9%	365	4%	327	7%	364	3%	339	4%	0.7	15	5
16:30 - 16:45	359	339	6%	335	7%	282	24%	355	1%	355	1%	337	6%	339	6%	305	16%	353	2%	342	5%	346	4%	332	8%	1.5	24	12
16:45 - 17:00	321	310	3%	348	8%	362	12%	336	5%	322	0%	343	7%	310	3%	329	2%	346	7%	334	4%	319	1%	336	5%	0.8	15	6
17:00 - 17:15	296	334	12%	334	12%	339	14%	353	18%	318	7%	292	1%	334	12%	314	6%	314	6%	330	11%	301	2%	322	8%	1.5	18	10
17:15 - 17:30	294	314	7%	317	8%	322	9%	317	8%	311	6%	317	8%	314	7%	300	2%	286	3%	324	10%	324	10%	314	7%	1.1	12	5
17:30 - 17:45	295	292	1%	320	8%	333	12%	299	1%	326	10%	341	14%	292	1%	326	10%	268	10%	288	2%	324	9%	313	6%	1	23	17
17:45 - 18:00	280	303	8%	300	7%	310	10%	318	13%	333	17%	290	4%	303	8%	290	4%	295	5%	302	8%	282	1%	304	8%	1.4	16	9
Hour 1	1,380	1,353	2%	1,368	1%	1,395	1%	1,339	3%	1,392	1%	1,372	1%	1,353	2%	1,341	3%	1,378	0%	1,360	1%	1,364	1%	1,364	1%	0.4	17	0
Hour 2	1,521	1,384	9%	1,482	3%	1,381	10%	1,457	4%	1,333	13%	1,515	0%	1,384	9%	1,387	9%	1,410	8%	1,396	9%	1,511	1%	1,426	6%	2.5	23	1
Hour 3	1,396	1,312	6%	1,326	5%	1,305	7%	1,360	3%	1,373	2%	1,353	3%	1,312	6%	1,303	7%	1,371	2%	1,391	0%	1,369	2%	1,349	3%	1.3	21	1
Hour 4	1,165	1,243	6%	1,271	9%	1,304	11%	1,287	10%	1,288	10%	1,240	6%	1,243	6%	1,230	5%	1,163	0%	1,244	7%	1,231	6%	1,253	7%	2.5	18	1
11	5,462	5,292	3%	5,447	0%	5,385	1%	5,443	0%	5,386	1%	5,480	0%	5,292	3%	5,261	4%	5,322	3%	5,391	1%	5,475	0%	5,392	1%	1	39	0



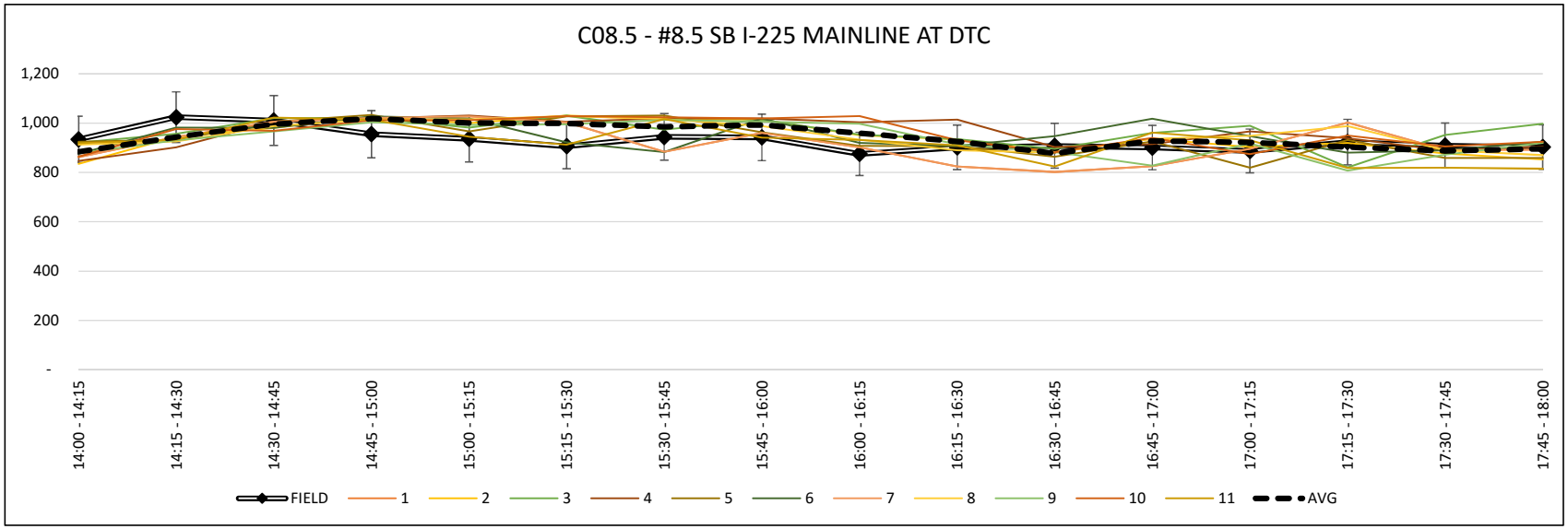
EXISTING		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																										
PM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C07	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	218	200	9%	180	19%	179	20%	206	6%	213	2%	202	8%	200	9%	220	1%	172	24%	205	6%	194	12%	197	10%	1.5	15	13
14:15 - 14:30	209	214	2%	217	4%	202	3%	214	2%	217	4%	207	1%	214	2%	209	0%	224	7%	192	8%	221	6%	212	1%	0.2	9	5
14:30 - 14:45	213	214	0%	200	6%	198	7%	223	5%	239	12%	225	5%	214	0%	209	2%	199	7%	229	7%	215	1%	213	0%	0	14	12
14:45 - 15:00	222	239	7%	206	7%	248	11%	214	4%	201	10%	237	7%	239	7%	195	13%	200	10%	236	6%	194	13%	216	3%	0.4	20	23
15:00 - 15:15	211	199	6%	231	9%	208	1%	188	12%	209	1%	199	6%	199	6%	227	7%	200	5%	196	7%	222	5%	205	3%	0.4	16	16
15:15 - 15:30	253	200	23%	198	24%	205	21%	209	19%	208	20%	204	21%	200	23%	205	21%	219	14%	233	8%	195	26%	209	19%	2.9	12	6
15:30 - 15:45	180	212	16%	191	6%	204	13%	175	3%	217	19%	219	20%	212	16%	180	0%	205	13%	204	13%	205	13%	202	12%	1.6	14	17
15:45 - 16:00	203	239	16%	232	13%	224	10%	174	15%	214	5%	208	2%	239	16%	204	0%	210	3%	225	10%	199	2%	213	5%	0.7	18	22
16:00 - 16:15	192	194	1%	183	5%	183	5%	197	3%	186	3%	198	3%	194	1%	221	14%	185	4%	179	7%	194	1%	195	2%	0.2	14	15
16:15 - 16:30	202	190	6%	180	12%	212	5%	215	6%	174	15%	185	9%	190	6%	201	0%	227	12%	166	20%	203	0%	197	3%	0.4	20	27
16:30 - 16:45	194	167	15%	199	3%	190	2%	186	4%	201	4%	216	11%	167	15%	203	5%	199	3%	175	10%	216	11%	195	1%	0.1	15	17
16:45 - 17:00	196	174	12%	188	4%	178	10%	204	4%	195	1%	207	5%	174	12%	189	4%	173	12%	179	9%	209	6%	190	3%	0.4	13	12
17:00 - 17:15	199	181	9%	216	8%	204	2%	213	7%	177	12%	208	4%	181	9%	221	10%	193	3%	210	5%	223	11%	201	1%	0.1	20	28
17:15 - 17:30	164	203	21%	218	28%	218	28%	224	31%	189	14%	190	15%	203	21%	216	27%	176	7%	205	22%	194	17%	205	22%	3	17	30
17:30 - 17:45	237	201	16%	229	3%	219	8%	207	14%	210	12%	231	3%	201	16%	216	9%	198	18%	206	14%	216	9%	213	11%	1.6	11	6
17:45 - 18:00	248	218	13%	229	8%	202	20%	219	12%	211	16%	220	12%	218	13%	236	5%	215	14%	253	2%	190	26%	220	12%	1.8	17	13
Hour 1	862	867	1%	803	7%	827	4%	857	1%	870	1%	871	1%	867	1%	833	3%	795	8%	862	0%	824	5%	838	3%	0.8	15	1
Hour 2	847	850	0%	852	1%	841	1%	746	13%	848	0%	830	2%	850	0%	816	4%	834	2%	858	1%	821	3%	829	2%	0.6	15	1
Hour 3	784	725	8%	750	4%	763	3%	802	2%	756	4%	806	3%	725	8%	814	4%	784	0%	699	11%	822	5%	777	1%	0.3	16	1
Hour 4	848	803	5%	892	5%	843	1%	863	2%	787	7%	849	0%	803	5%	889	5%	782	8%	874	3%	823	3%	839	1%	0.3	17	1
11	3,341	3,245	3%	3,297	1%	3,274	2%	3,268	2%	3,261	2%	3,356	0%	3,245	3%	3,352	0%	3,195	4%	3,293	1%	3,290	2%	3,283	2%	1	31	0



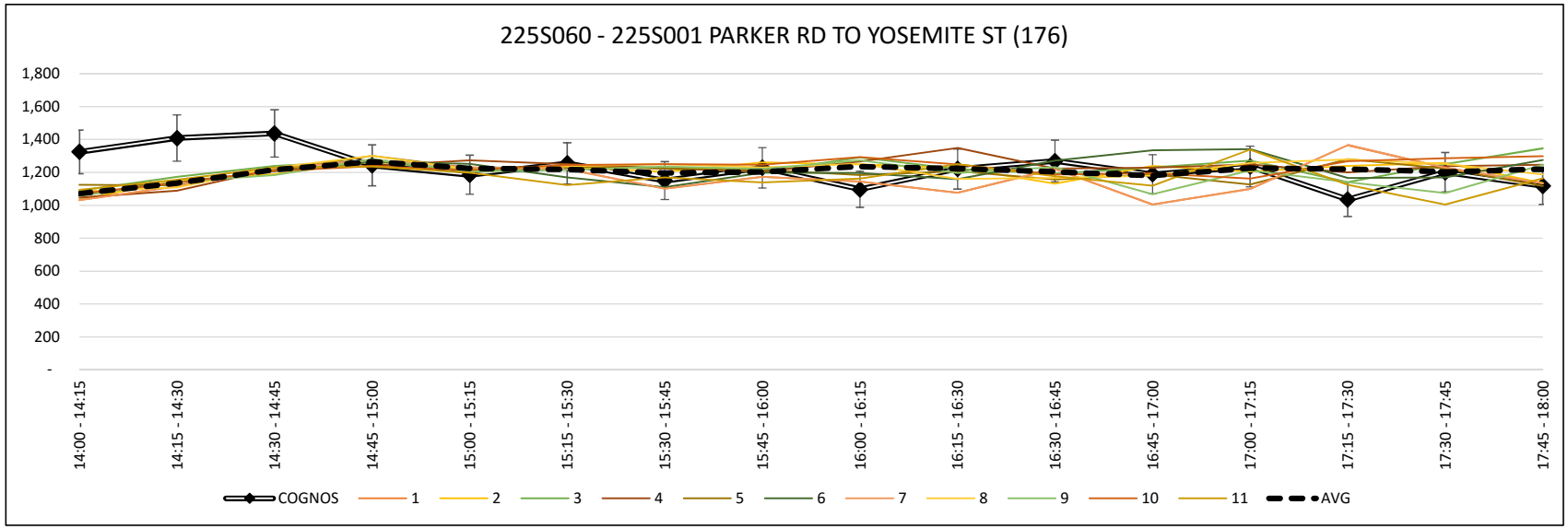
EXISTING		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																										
PM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C08	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	198	138	36%	143	32%	141	34%	142	33%	148	29%	155	24%	138	36%	151	27%	142	33%	140	34%	150	28%	147	30%	3.9	8	5
14:15 - 14:30	164	162	1%	200	20%	168	2%	181	10%	166	1%	159	3%	162	1%	178	8%	189	14%	192	16%	179	9%	180	9%	1.2	16	26
14:30 - 14:45	212	163	26%	187	13%	205	3%	178	17%	193	9%	177	18%	163	26%	219	3%	179	17%	176	19%	180	16%	185	14%	1.9	15	14
14:45 - 15:00	227	289	24%	281	21%	302	28%	254	11%	282	22%	272	18%	289	24%	311	31%	286	23%	250	10%	258	13%	277	20%	3.1	19	19
15:00 - 15:15	249	216	14%	204	20%	189	27%	199	22%	205	19%	212	16%	216	14%	196	24%	209	17%	217	14%	212	16%	204	20%	3	11	5
15:15 - 15:30	211	240	13%	228	8%	249	17%	242	14%	219	4%	258	20%	240	13%	246	15%	234	10%	248	16%	235	11%	240	13%	1.9	11	8
15:30 - 15:45	254	227	11%	218	15%	248	2%	240	6%	253	0%	213	18%	227	11%	237	7%	232	9%	251	1%	277	9%	239	6%	1	18	14
15:45 - 16:00	231	235	2%	251	8%	232	0%	214	8%	287	22%	247	7%	235	2%	253	9%	239	3%	235	2%	234	1%	240	4%	0.6	20	21
16:00 - 16:15	265	232	13%	293	10%	278	5%	237	11%	307	15%	255	4%	232	13%	278	5%	248	7%	256	3%	258	3%	266	0%	0.1	24	23
16:15 - 16:30	261	269	3%	268	3%	254	3%	281	7%	251	4%	254	3%	269	3%	269	3%	258	1%	286	9%	270	3%	266	2%	0.3	11	5
16:30 - 16:45	263	259	2%	243	8%	238	10%	262	0%	284	8%	255	3%	259	2%	245	7%	254	3%	254	3%	271	3%	259	2%	0.2	15	9
16:45 - 17:00	266	224	17%	244	9%	231	14%	270	1%	251	6%	264	1%	224	17%	269	1%	236	12%	263	1%	217	20%	247	7%	1.2	19	14
17:00 - 17:15	279	262	6%	288	3%	320	14%	277	1%	276	1%	325	15%	262	6%	277	1%	291	4%	278	0%	290	4%	290	4%	0.7	19	13
17:15 - 17:30	259	286	10%	281	8%	248	4%	293	12%	277	7%	275	6%	286	10%	256	1%	262	1%	275	6%	285	10%	275	6%	1	14	8
17:30 - 17:45	282	272	4%	268	5%	268	5%	270	4%	249	12%	285	1%	272	4%	236	18%	267	5%	298	6%	241	16%	265	6%	1	18	11
17:45 - 18:00	247	215	14%	249	1%	263	6%	271	9%	239	3%	225	9%	215	14%	266	7%	268	8%	263	6%	222	11%	250	1%	0.2	21	20
Hour 1	801	752	6%	811	1%	816	2%	755	6%	789	2%	763	5%	752	6%	859	7%	796	1%	758	6%	767	4%	789	2%	0.4	15	1
Hour 2	945	918	3%	901	5%	918	3%	895	5%	964	2%	930	2%	918	3%	932	1%	914	3%	951	1%	958	1%	923	2%	0.7	16	1
Hour 3	1,055	984	7%	1,048	1%	1,001	5%	1,050	0%	1,093	4%	1,028	3%	984	7%	1,061	1%	996	6%	1,059	0%	1,016	4%	1,038	2%	0.5	18	1
Hour 4	1,067	1,035	3%	1,086	2%	1,099	3%	1,111	4%	1,041	2%	1,110	4%	1,035	3%	1,035	3%	1,088	2%	1,114	4%	1,038	3%	1,080	1%	0.4	18	1
11	3,868	3,689	5%	3,846	1%	3,834	1%	3,811	1%	3,887	0%	3,831	1%	3,689	5%	3,887	0%	3,794	2%	3,882	0%	3,779	2%	3,830	1%	0.6	33	0



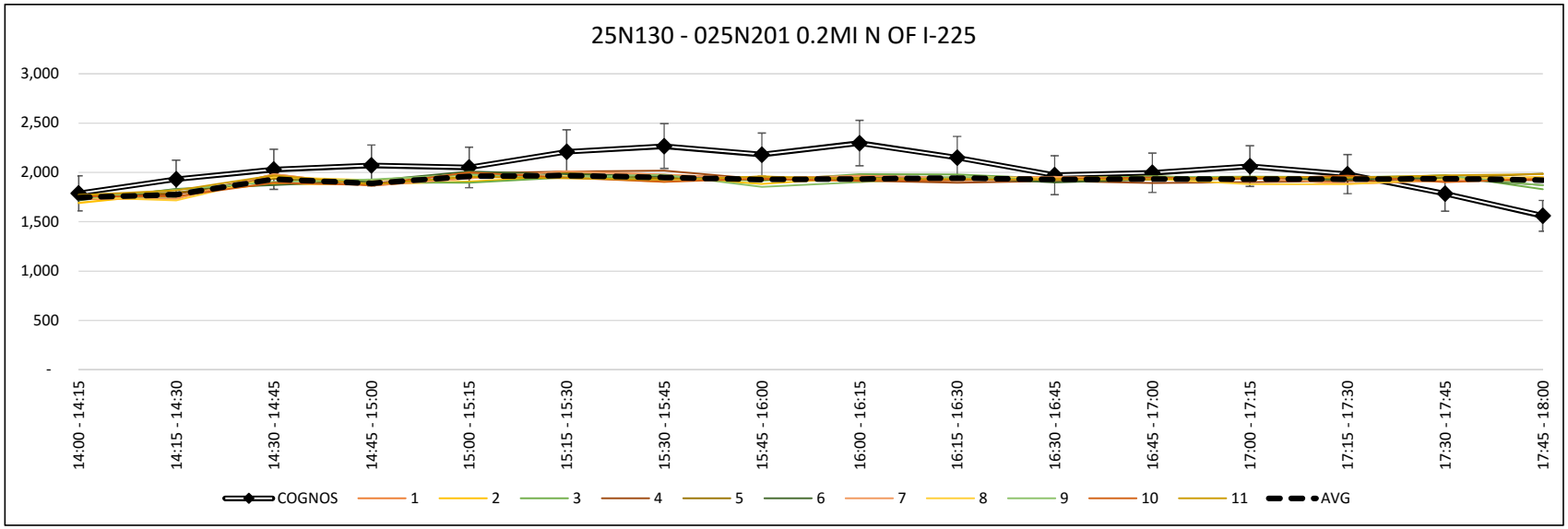
EXISTING		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																										
PM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C08.5	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	934	862	8%	835	11%	921	1%	847	10%	924	1%	875	7%	862	8%	912	2%	878	6%	864	8%	918	2%	884	6%	1.7	31	3
14:15 - 14:30	1,024	943	8%	945	8%	956	7%	902	13%	933	9%	982	4%	943	8%	926	10%	930	10%	976	5%	933	9%	943	8%	2.6	23	1
14:30 - 14:45	1,010	1,005	0%	981	3%	1,020	1%	1,006	0%	1,005	0%	980	3%	1,005	0%	988	2%	966	4%	969	4%	1,022	1%	996	1%	0.4	20	1
14:45 - 15:00	955	1,021	7%	1,026	7%	1,021	7%	1,019	6%	1,033	8%	1,027	7%	1,021	7%	1,015	6%	1,003	5%	1,011	6%	1,014	6%	1,018	6%	2	9	0
15:00 - 15:15	936	1,027	9%	999	7%	982	5%	1,031	10%	966	3%	1,019	8%	1,027	9%	1,015	8%	992	6%	1,011	8%	945	1%	1,001	7%	2.1	28	2
15:15 - 15:30	906	1,003	10%	1,030	13%	1,030	13%	1,006	10%	1,027	13%	922	2%	1,003	10%	1,028	13%	995	9%	1,028	13%	912	1%	998	10%	3	42	6
15:30 - 15:45	944	884	7%	1,016	7%	973	3%	1,019	8%	1,031	9%	883	7%	884	7%	1,016	7%	1,013	7%	1,023	8%	1,016	7%	985	4%	1.3	54	9
15:45 - 16:00	942	960	2%	1,014	7%	1,014	7%	1,019	8%	963	2%	1,019	8%	960	2%	988	5%	1,006	7%	1,019	8%	941	0%	992	5%	1.6	29	3
16:00 - 16:15	875	902	3%	950	8%	953	9%	1,003	14%	907	4%	920	5%	902	3%	933	6%	997	13%	1,028	16%	932	6%	959	9%	2.8	47	8
16:15 - 16:30	902	824	9%	934	3%	935	4%	1,014	12%	906	0%	908	1%	824	9%	890	1%	913	1%	930	3%	910	1%	925	3%	0.8	53	10
16:30 - 16:45	908	802	12%	883	3%	895	1%	903	1%	863	5%	947	4%	802	12%	880	3%	883	3%	881	3%	824	10%	877	3%	1	38	5
16:45 - 17:00	901	825	9%	936	4%	960	6%	915	2%	925	3%	1,018	12%	825	9%	936	4%	828	8%	940	4%	961	6%	928	3%	0.9	57	11
17:00 - 17:15	887	896	1%	903	2%	989	11%	966	9%	819	8%	947	7%	896	1%	948	7%	917	3%	874	1%	930	5%	922	4%	1.2	48	8
17:15 - 17:30	923	1,002	8%	919	0%	820	12%	939	2%	931	1%	880	5%	1,002	8%	988	7%	807	13%	949	3%	818	12%	903	2%	0.7	68	15
17:30 - 17:45	909	891	2%	876	4%	952	5%	888	2%	859	6%	889	2%	891	2%	890	2%	872	4%	905	0%	819	10%	887	2%	0.7	33	4
17:45 - 18:00	903	892	1%	852	6%	997	10%	905	0%	859	5%	924	2%	892	1%	870	4%	919	2%	924	2%	815	10%	895	1%	0.3	48	8
Hour 1	3,923	3,831	2%	3,787	4%	3,918	0%	3,774	4%	3,895	1%	3,864	2%	3,831	2%	3,841	2%	3,777	4%	3,820	3%	3,887	1%	3,841	2%	1.3	22	0
Hour 2	3,728	3,874	4%	4,059	9%	3,999	7%	4,075	9%	3,987	7%	3,843	3%	3,874	4%	4,047	8%	4,006	7%	4,081	9%	3,814	2%	3,976	6%	4	40	0
Hour 3	3,586	3,353	7%	3,703	3%	3,743	4%	3,835	7%	3,601	0%	3,793	6%	3,353	7%	3,639	1%	3,621	1%	3,779	5%	3,627	1%	3,689	3%	1.7	49	1
Hour 4	3,622	3,681	2%	3,550	2%	3,758	4%	3,698	2%	3,468	4%	3,640	0%	3,681	2%	3,696	2%	3,515	3%	3,652	1%	3,382	7%	3,607	0%	0.2	51	1
11	14,859	14,739	1%	15,099	2%	15,418	4%	15,382	3%	14,951	1%	15,140	2%	14,739	1%	15,223	2%	14,919	0%	15,332	3%	14,710	1%	15,113	2%	2.1	84	0



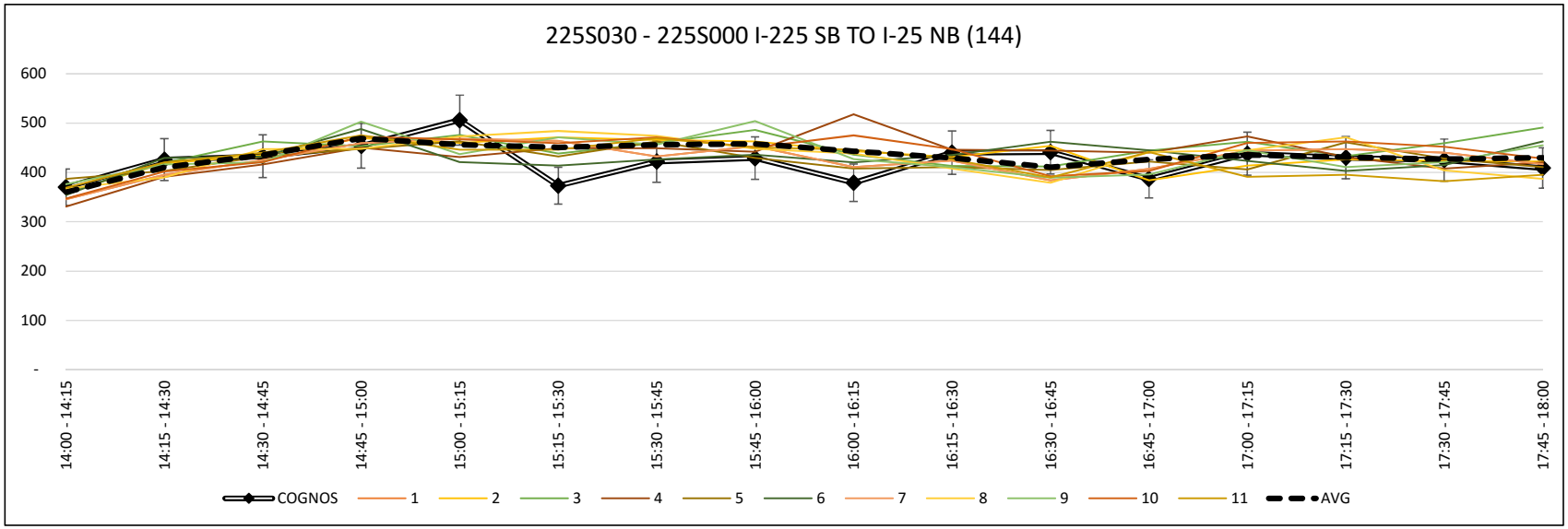
EXISTING		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																										
PM	COGNOS	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	225S060	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	1,325	1,031	25%	1,033	25%	1,089	20%	1,047	23%	1,125	16%	1,066	22%	1,031	25%	1,085	20%	1,057	23%	1,070	21%	1,094	19%	1,071	21%	7.3	28	1
14:15 - 14:30	1,409	1,115	23%	1,151	20%	1,173	18%	1,088	26%	1,121	23%	1,139	21%	1,115	23%	1,108	24%	1,143	21%	1,138	21%	1,155	20%	1,136	21%	7.7	25	1
14:30 - 14:45	1,437	1,225	16%	1,190	19%	1,239	15%	1,222	16%	1,214	17%	1,208	17%	1,225	16%	1,228	16%	1,184	19%	1,209	17%	1,230	16%	1,216	17%	6.1	17	0
14:45 - 15:00	1,243	1,275	3%	1,267	2%	1,269	2%	1,240	0%	1,300	4%	1,265	2%	1,275	3%	1,301	5%	1,280	3%	1,237	0%	1,236	1%	1,265	2%	0.6	23	1
15:00 - 15:15	1,186	1,230	4%	1,213	2%	1,205	2%	1,273	7%	1,227	3%	1,252	5%	1,230	4%	1,217	3%	1,206	2%	1,214	2%	1,199	1%	1,225	3%	1.1	22	1
15:15 - 15:30	1,255	1,220	3%	1,234	2%	1,244	1%	1,250	0%	1,235	2%	1,169	7%	1,220	3%	1,237	1%	1,214	3%	1,244	1%	1,122	11%	1,218	3%	1.1	39	3
15:30 - 15:45	1,150	1,102	4%	1,203	5%	1,228	7%	1,223	6%	1,223	6%	1,110	4%	1,102	4%	1,250	8%	1,235	7%	1,250	8%	1,170	2%	1,196	4%	1.3	53	6
15:45 - 16:00	1,228	1,173	5%	1,260	3%	1,202	2%	1,206	2%	1,216	1%	1,198	2%	1,173	5%	1,230	0%	1,222	0%	1,247	2%	1,139	8%	1,204	2%	0.7	37	3
16:00 - 16:15	1,097	1,145	4%	1,248	13%	1,291	16%	1,267	14%	1,183	8%	1,196	9%	1,145	4%	1,252	13%	1,273	15%	1,294	16%	1,163	6%	1,236	12%	4.1	54	7
16:15 - 16:30	1,221	1,077	13%	1,228	1%	1,219	0%	1,349	10%	1,208	1%	1,158	5%	1,077	13%	1,161	5%	1,196	2%	1,249	2%	1,250	2%	1,223	0%	0.1	81	12
16:30 - 16:45	1,269	1,222	4%	1,131	12%	1,193	6%	1,224	4%	1,157	9%	1,272	0%	1,222	4%	1,166	8%	1,233	3%	1,187	7%	1,177	8%	1,203	5%	1.9	46	4
16:45 - 17:00	1,189	1,005	17%	1,240	4%	1,231	3%	1,228	3%	1,188	0%	1,334	11%	1,005	17%	1,181	1%	1,068	11%	1,194	0%	1,120	6%	1,180	1%	0.3	89	16
17:00 - 17:15	1,236	1,100	12%	1,206	2%	1,271	3%	1,248	1%	1,126	9%	1,342	8%	1,100	12%	1,258	2%	1,212	2%	1,163	6%	1,339	8%	1,227	1%	0.3	78	11
17:15 - 17:30	1,036	1,366	27%	1,240	18%	1,141	10%	1,200	15%	1,281	21%	1,165	12%	1,366	27%	1,279	21%	1,141	10%	1,268	20%	1,124	8%	1,220	16%	5.5	75	15
17:30 - 17:45	1,201	1,228	2%	1,257	5%	1,251	4%	1,237	3%	1,223	2%	1,169	3%	1,228	2%	1,252	4%	1,074	11%	1,286	7%	1,005	18%	1,203	0%	0.1	87	15
17:45 - 18:00	1,118	1,134	1%	1,135	2%	1,346	19%	1,247	11%	1,118	0%	1,276	13%	1,134	1%	1,188	6%	1,246	11%	1,299	15%	1,164	4%	1,220	9%	3	76	13
Hour 1	5,414	4,646	15%	4,641	15%	4,770	13%	4,597	16%	4,760	13%	4,678	15%	4,646	15%	4,722	14%	4,664	15%	4,654	15%	4,715	14%	4,688	14%	10.2	24	0
Hour 2	4,819	4,725	2%	4,910	2%	4,879	1%	4,952	3%	4,901	2%	4,729	2%	4,725	2%	4,934	2%	4,877	1%	4,955	3%	4,630	4%	4,843	0%	0.3	39	0
Hour 3	4,776	4,449	7%	4,847	1%	4,934	3%	5,068	6%	4,736	1%	4,960	4%	4,449	7%	4,760	0%	4,770	0%	4,924	3%	4,710	1%	4,842	1%	1	70	1
Hour 4	4,591	4,828	5%	4,838	5%	5,009	9%	4,932	7%	4,748	3%	4,952	8%	4,828	5%	4,977	8%	4,673	2%	5,016	9%	4,632	1%	4,870	6%	4.1	79	1
11	19,600	18,648	5%	19,236	2%	19,592	0%	19,549	0%	19,145	2%	19,319	1%	18,648	5%	19,393	1%	18,984	3%	19,549	0%	18,687	5%	19,243	2%	2.6	115	0



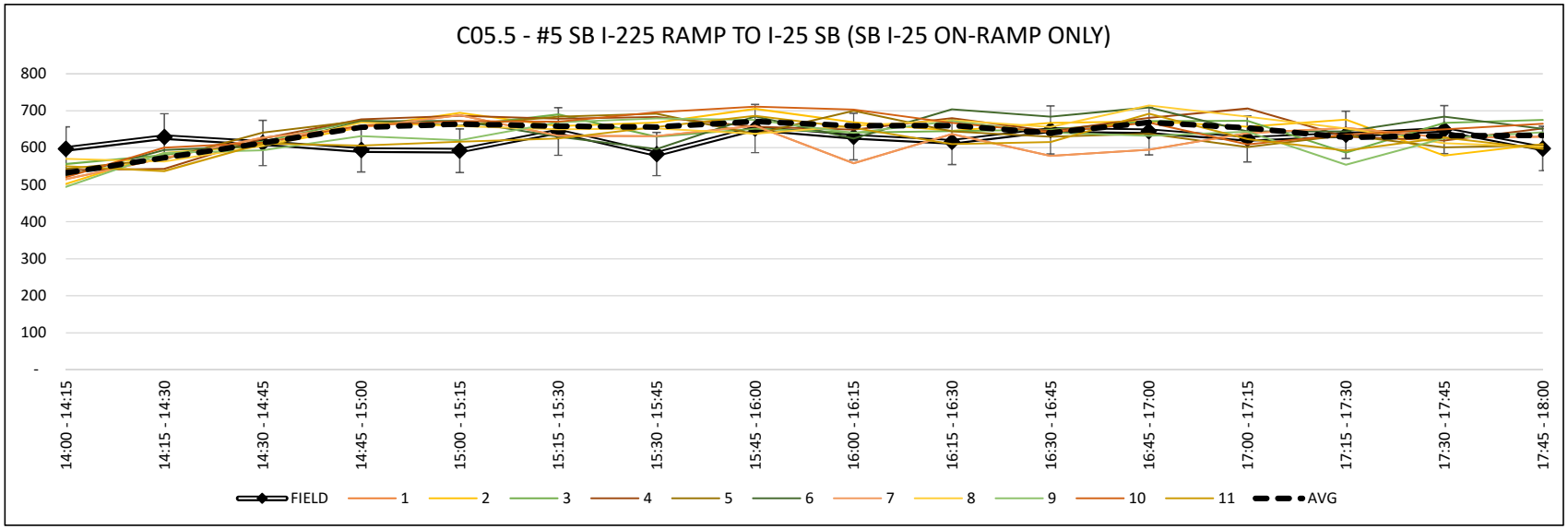
EXISTING		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																										
PM	COGNOS	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	25N130	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	1,788	1,732	3%	1,691	6%	1,753	2%	1,758	2%	1,773	1%	1,717	4%	1,732	3%	1,750	2%	1,735	3%	1,759	2%	1,769	1%	1,746	2%	1	25	1
14:15 - 14:30	1,932	1,735	11%	1,790	8%	1,752	10%	1,780	8%	1,793	7%	1,832	5%	1,735	11%	1,716	12%	1,827	6%	1,759	9%	1,817	6%	1,777	8%	3.6	38	1
14:30 - 14:45	2,031	1,982	2%	1,884	8%	1,937	5%	1,962	3%	1,937	5%	1,870	8%	1,982	2%	1,951	4%	1,905	6%	1,896	7%	1,971	3%	1,931	5%	2.2	37	1
14:45 - 15:00	2,071	1,865	10%	1,881	10%	1,899	9%	1,885	9%	1,872	10%	1,917	8%	1,865	10%	1,922	7%	1,927	7%	1,872	10%	1,879	10%	1,889	9%	4.1	24	0
15:00 - 15:15	2,050	1,941	5%	1,906	7%	1,896	8%	1,992	3%	1,958	5%	2,010	2%	1,941	5%	1,975	4%	1,978	4%	2,000	2%	1,954	5%	1,960	4%	2	36	1
15:15 - 15:30	2,210	2,012	9%	1,962	12%	1,950	13%	2,009	10%	1,997	10%	1,983	11%	2,012	9%	1,954	12%	1,952	12%	1,946	13%	1,939	13%	1,968	12%	5.3	28	0
15:30 - 15:45	2,267	1,976	14%	1,952	15%	1,942	15%	2,019	12%	1,936	16%	1,961	14%	1,976	14%	1,905	17%	1,975	14%	1,904	17%	1,926	16%	1,949	15%	6.9	33	1
15:45 - 16:00	2,181	1,936	12%	1,883	15%	1,916	13%	1,931	12%	1,928	12%	1,947	11%	1,936	12%	1,961	11%	1,855	16%	1,936	12%	1,959	11%	1,927	12%	5.6	32	1
16:00 - 16:15	2,297	1,968	15%	1,948	16%	1,981	15%	1,916	18%	1,930	17%	1,940	17%	1,968	15%	1,903	19%	1,900	19%	1,912	18%	1,936	17%	1,933	17%	7.9	26	0
16:15 - 16:30	2,150	1,942	10%	1,942	10%	1,979	8%	1,896	13%	1,940	10%	1,950	10%	1,942	10%	1,951	10%	1,956	9%	1,918	11%	1,932	11%	1,944	10%	4.6	24	0
16:30 - 16:45	1,972	1,954	1%	1,942	2%	1,936	2%	1,914	3%	1,924	2%	1,898	4%	1,954	1%	1,941	2%	1,923	3%	1,931	2%	1,927	2%	1,929	2%	1	15	0
16:45 - 17:00	1,997	1,931	3%	1,957	2%	1,962	2%	1,892	5%	1,926	4%	1,929	3%	1,931	3%	1,934	3%	1,949	2%	1,948	2%	1,928	4%	1,935	3%	1.4	19	0
17:00 - 17:15	2,064	1,944	6%	1,939	6%	1,939	6%	1,902	8%	1,933	7%	1,937	6%	1,944	6%	1,881	9%	1,958	5%	1,935	6%	1,955	5%	1,933	7%	2.9	23	0
17:15 - 17:30	1,983	1,886	5%	1,947	2%	1,923	3%	1,913	4%	1,936	2%	1,932	3%	1,886	5%	1,881	5%	1,953	2%	1,968	1%	1,946	2%	1,932	3%	1.2	29	1
17:30 - 17:45	1,786	1,917	7%	1,945	9%	1,973	10%	1,917	7%	1,940	8%	1,941	8%	1,917	7%	1,931	8%	1,968	10%	1,900	6%	1,971	10%	1,937	8%	3.5	25	1
17:45 - 18:00	1,560	1,951	22%	1,934	21%	1,830	16%	1,923	21%	1,987	24%	1,871	18%	1,951	22%	1,954	22%	1,868	18%	1,934	21%	1,982	24%	1,921	21%	8.7	49	3
Hour 1	7,822	7,314	7%	7,246	8%	7,341	6%	7,385	6%	7,375	6%	7,336	6%	7,314	7%	7,339	6%	7,394	6%	7,286	7%	7,436	5%	7,343	6%	5.5	32	0
Hour 2	8,708	7,865	10%	7,703	12%	7,704	12%	7,951	9%	7,819	11%	7,901	10%	7,865	10%	7,795	11%	7,760	12%	7,786	11%	7,778	11%	7,804	11%	9.9	32	0
Hour 3	8,416	7,795	8%	7,789	8%	7,858	7%	7,618	10%	7,720	9%	7,717	9%	7,795	8%	7,729	9%	7,728	9%	7,709	9%	7,723	9%	7,741	8%	7.5	21	0
Hour 4	7,393	7,698	4%	7,765	5%	7,665	4%	7,655	3%	7,796	5%	7,681	4%	7,698	4%	7,647	3%	7,747	5%	7,737	5%	7,854	6%	7,723	4%	3.8	33	0
11	32,339	30,672	5%	30,503	6%	30,568	6%	30,609	5%	30,710	5%	30,635	5%	30,672	5%	30,510	6%	30,629	5%	30,518	6%	30,791	5%	30,611	5%	9.7	60	0



EXISTING		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																										
PM	COGNOS	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	225S030	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	370	346	7%	360	3%	360	3%	331	11%	387	4%	354	4%	346	7%	367	1%	376	2%	347	6%	369	0%	360	3%	0.5	36	26
14:15 - 14:30	426	395	8%	418	2%	419	2%	391	9%	403	6%	429	1%	395	8%	390	9%	416	2%	402	6%	420	1%	410	4%	0.8	30	14
14:30 - 14:45	433	425	2%	435	0%	463	7%	416	4%	432	0%	432	0%	425	2%	447	3%	420	3%	421	3%	440	2%	435	0%	0.1	20	6
14:45 - 15:00	454	459	1%	469	3%	453	0%	450	1%	448	1%	488	7%	459	1%	448	1%	503	10%	472	4%	475	5%	469	3%	0.7	16	3
15:00 - 15:15	506	468	8%	460	10%	476	6%	431	16%	463	9%	421	18%	468	8%	473	7%	437	15%	467	8%	446	13%	456	10%	2.3	37	15
15:15 - 15:30	373	464	22%	471	23%	438	16%	449	18%	432	15%	414	10%	464	22%	484	26%	471	23%	459	21%	446	18%	451	19%	3.8	32	20
15:30 - 15:45	422	432	2%	466	10%	460	9%	449	6%	463	9%	426	1%	432	2%	474	12%	456	8%	471	11%	469	11%	456	8%	1.6	44	30
15:45 - 16:00	429	453	5%	463	8%	486	12%	442	3%	429	0%	436	2%	453	5%	448	4%	504	16%	451	5%	451	5%	458	7%	1.4	37	21
16:00 - 16:15	379	411	8%	443	16%	436	14%	518	31%	408	7%	420	10%	411	8%	438	14%	427	12%	475	22%	446	16%	443	16%	3.2	67	87
16:15 - 16:30	440	424	4%	431	2%	413	6%	446	1%	411	7%	435	1%	424	4%	408	8%	411	7%	447	2%	426	3%	429	3%	0.5	43	27
16:30 - 16:45	441	384	14%	454	3%	412	7%	444	1%	405	9%	462	5%	384	14%	379	15%	389	13%	392	12%	390	12%	411	7%	1.5	54	42
16:45 - 17:00	387	407	5%	384	1%	444	14%	440	13%	422	9%	445	14%	407	5%	441	13%	396	2%	403	4%	441	13%	426	10%	1.9	57	60
17:00 - 17:15	438	444	1%	414	6%	462	5%	473	8%	406	8%	423	3%	444	1%	445	2%	445	2%	460	5%	391	11%	435	1%	0.1	52	39
17:15 - 17:30	430	447	4%	426	1%	433	1%	431	0%	461	7%	403	6%	447	4%	471	9%	411	5%	463	7%	395	8%	431	0%	0	61	56
17:30 - 17:45	425	440	3%	423	0%	459	8%	408	4%	428	1%	415	2%	440	3%	404	5%	421	1%	452	6%	382	11%	427	0%	0.1	47	34
17:45 - 18:00	409	417	2%	422	3%	491	18%	420	3%	411	0%	463	12%	417	2%	387	6%	455	11%	428	5%	395	3%	430	5%	1	54	48
Hour 1	1,683	1,625	4%	1,682	0%	1,695	1%	1,588	6%	1,670	1%	1,703	1%	1,625	4%	1,652	2%	1,715	2%	1,642	2%	1,704	1%	1,674	1%	0.2	27	1
Hour 2	1,730	1,817	5%	1,860	7%	1,860	7%	1,771	2%	1,787	3%	1,697	2%	1,817	5%	1,879	8%	1,868	8%	1,848	7%	1,812	5%	1,821	5%	2.2	38	1
Hour 3	1,647	1,626	1%	1,712	4%	1,705	3%	1,848	12%	1,646	0%	1,762	7%	1,626	1%	1,666	1%	1,623	1%	1,717	4%	1,703	3%	1,709	4%	1.5	56	3
Hour 4	1,702	1,748	3%	1,685	1%	1,845	8%	1,732	2%	1,706	0%	1,704	0%	1,748	3%	1,707	0%	1,732	2%	1,803	6%	1,563	9%	1,723	1%	0.5	54	3
11	6,762	6,816	1%	6,939	3%	7,105	5%	6,939	3%	6,809	1%	6,866	2%	6,816	1%	6,904	2%	6,938	3%	7,010	4%	6,782	0%	6,927	2%	2	90	0



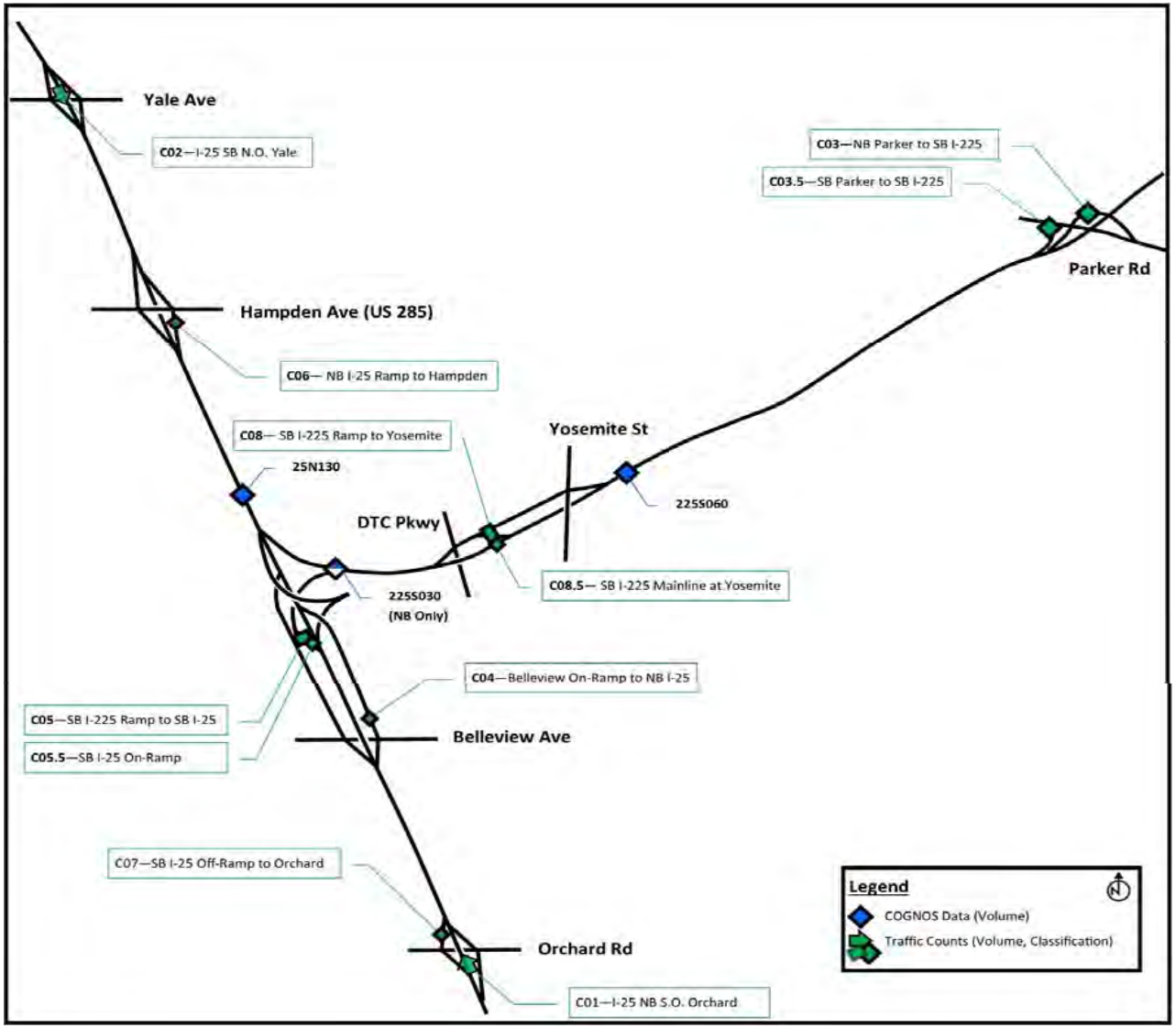
EXISTING		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																										
PM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C05.5	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	597	515	15%	502	17%	556	7%	540	10%	543	9%	523	13%	515	15%	570	5%	494	19%	521	14%	550	8%	532	12%	2.7	-	0
14:15 - 14:30	629	572	9%	586	7%	580	8%	543	15%	569	10%	594	6%	572	9%	563	11%	586	7%	600	5%	537	16%	573	9%	2.3	-	0
14:30 - 14:45	613	627	2%	606	1%	617	1%	625	2%	641	4%	604	1%	627	2%	605	1%	593	3%	614	0%	611	0%	613	0%	0	-	0
14:45 - 15:00	594	655	10%	655	10%	674	13%	677	13%	673	12%	671	12%	655	10%	668	12%	631	6%	660	11%	606	2%	655	10%	2.4	-	0
15:00 - 15:15	592	688	15%	694	16%	659	11%	686	15%	659	11%	673	13%	688	15%	658	11%	620	5%	672	13%	616	4%	664	11%	2.9	-	0
15:15 - 15:30	644	632	2%	658	2%	690	7%	678	5%	684	6%	630	2%	632	2%	650	1%	669	4%	670	4%	625	3%	658	2%	0.5	-	0
15:30 - 15:45	583	631	8%	668	14%	630	8%	683	16%	692	17%	596	2%	631	8%	652	11%	679	15%	696	18%	656	12%	656	12%	2.9	-	0
15:45 - 16:00	652	659	1%	705	8%	651	0%	657	1%	637	2%	685	5%	659	1%	638	2%	675	3%	711	9%	686	5%	671	3%	0.7	-	0
16:00 - 16:15	630	558	12%	669	6%	641	2%	649	3%	700	11%	625	1%	558	12%	659	4%	640	2%	703	11%	654	4%	659	4%	1.1	-	0
16:15 - 16:30	616	637	3%	646	5%	645	5%	680	10%	644	4%	704	13%	637	3%	674	9%	672	9%	667	8%	610	1%	660	7%	1.7	-	0
16:30 - 16:45	648	578	11%	667	3%	649	0%	645	0%	630	3%	684	5%	578	11%	656	1%	641	1%	642	1%	615	5%	640	1%	0.3	-	0
16:45 - 17:00	645	595	8%	671	4%	672	4%	681	5%	638	1%	709	9%	595	8%	714	10%	632	2%	668	4%	692	7%	669	4%	0.9	-	0
17:00 - 17:15	624	639	2%	657	5%	673	8%	706	12%	602	4%	644	3%	639	2%	684	9%	643	3%	609	2%	623	0%	654	5%	1.2	-	0
17:15 - 17:30	635	654	3%	676	6%	587	8%	630	1%	634	0%	644	1%	654	3%	652	3%	554	14%	635	0%	592	7%	628	1%	0.3	-	0
17:30 - 17:45	649	627	3%	579	11%	667	3%	619	5%	601	8%	684	5%	627	3%	612	6%	626	4%	650	0%	627	3%	632	3%	0.7	-	0
17:45 - 18:00	598	630	5%	610	2%	675	12%	652	9%	607	1%	651	8%	630	5%	603	1%	642	7%	665	11%	597	0%	634	6%	1.5	-	0
Hour 1	2,433	2,369	3%	2,349	4%	2,427	0%	2,385	2%	2,426	0%	2,392	2%	2,369	3%	2,406	1%	2,304	5%	2,395	2%	2,304	5%	2,373	2%	1.2	-	0
Hour 2	2,471	2,610	5%	2,725	10%	2,630	6%	2,704	9%	2,672	8%	2,584	4%	2,610	5%	2,598	5%	2,643	7%	2,749	11%	2,583	4%	2,649	7%	3.5	-	0
Hour 3	2,539	2,368	7%	2,653	4%	2,607	3%	2,655	4%	2,612	3%	2,722	7%	2,368	7%	2,703	6%	2,585	2%	2,680	5%	2,571	1%	2,628	3%	1.8	-	0
Hour 4	2,506	2,550	2%	2,522	1%	2,602	4%	2,607	4%	2,444	3%	2,623	5%	2,550	2%	2,551	2%	2,465	2%	2,559	2%	2,439	3%	2,548	2%	0.8	-	0
11	9,949	9,897	1%	10,249	3%	10,266	3%	10,351	4%	10,154	2%	10,321	4%	9,897	1%	10,258	3%	9,997	0%	10,383	4%	9,897	1%	10,198	2%	2.5	-	0



TRAFFIC VOLUMES - BY LINK

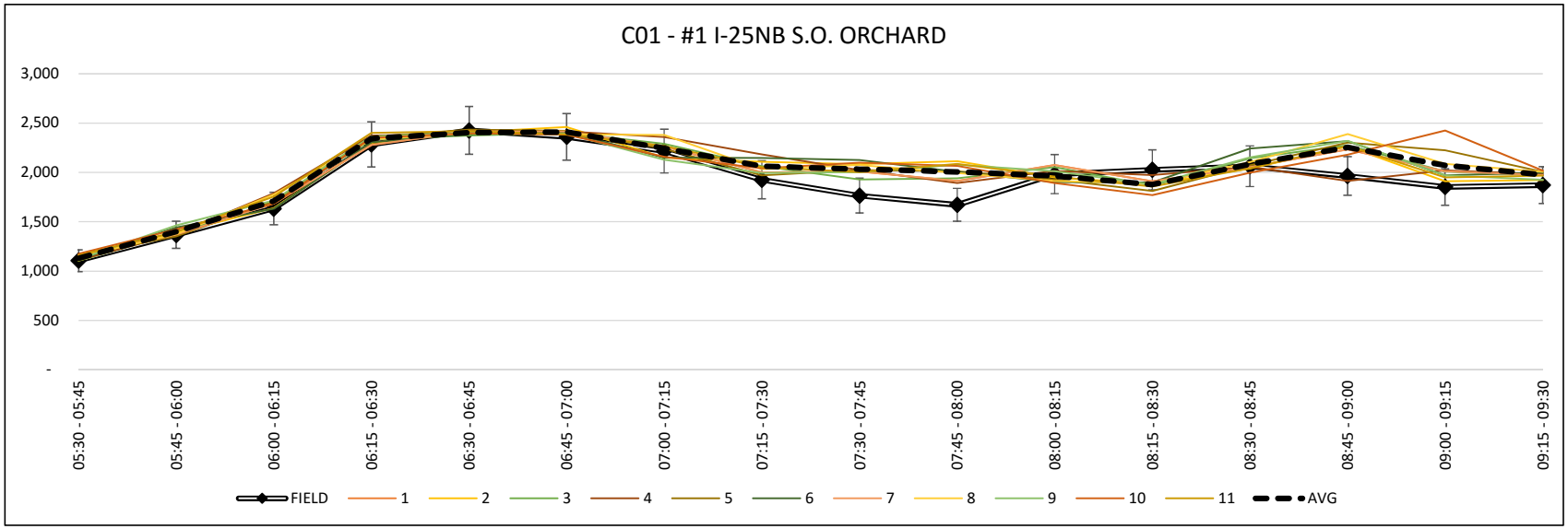
CONCEPT 2

PERIOD: AM

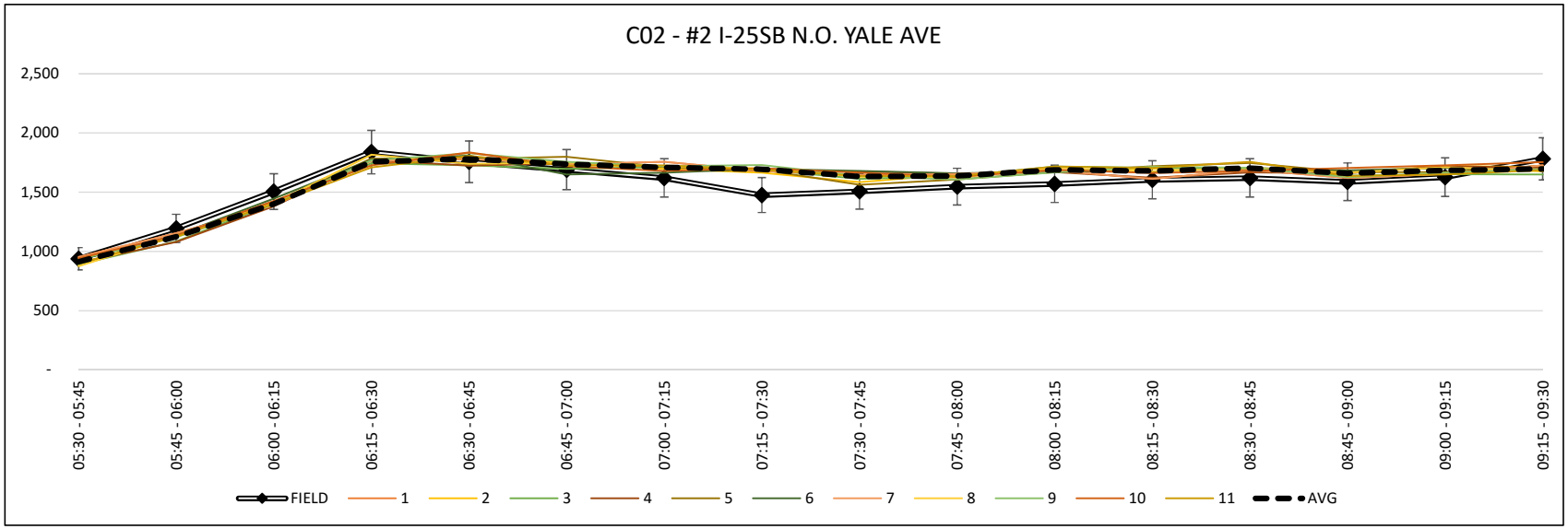


ID	DESCRIPTION
C01	NB I-25 S.O. Orchard
C02	SB I-25 N.O. Yale
C03	NB Parker to SB I-225
C03.5	SB Parker to SB I-225
C04	Belleview On-Ramp to NB I-25
C05	SB I-225 Ramp to SB I-25
C06	NB I-25 Ramp to Hampden
C07	SB I-25 Off-Ramp to Orchard
C08	SB I-225 Ramp to Yosemite
C08.5	SB I-225 Mainline at Yosemite
225S060	225S001 PARKER RD TO YOSEMITE ST (176)
25N130	025N201 0.2MI N OF I-225
225S030	225S000 I-225 SB TO I-25 NB (144)
C05.5	#5 SB I-225 to SB I-25 On-Ramp Only

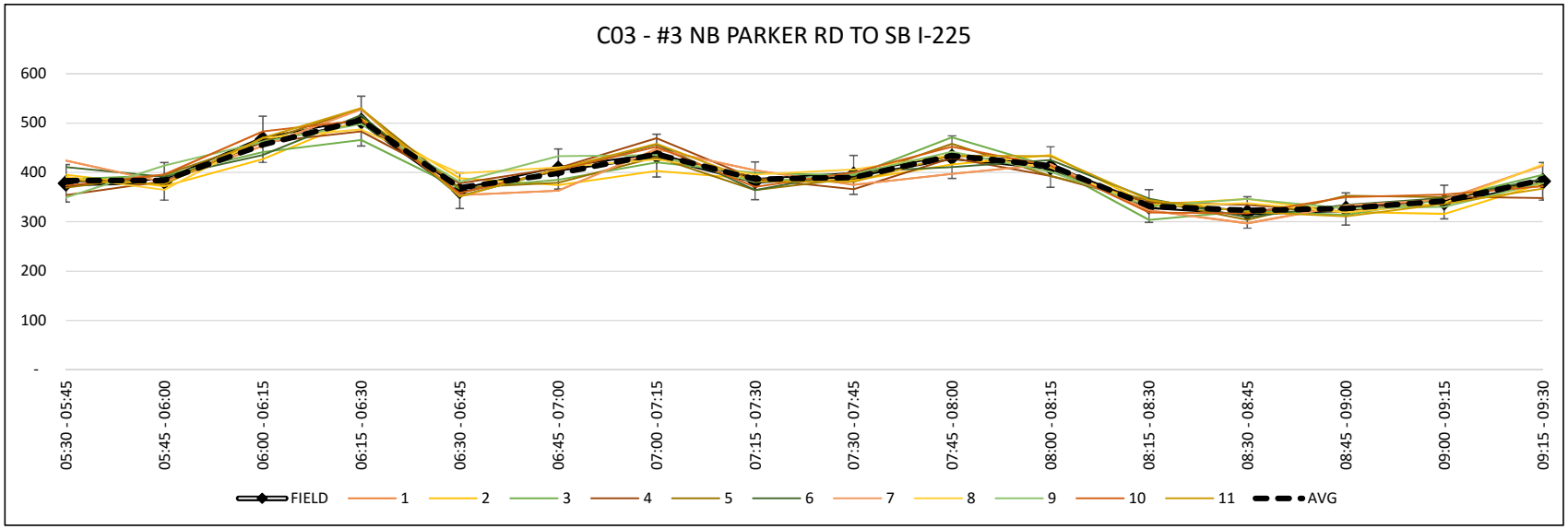
CONCEPT 2		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																										
AM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C01	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	1,106	1,163	5%	1,106	0%	1,108	0%	1,114	1%	1,164	5%	1,119	1%	1,163	5%	1,143	3%	1,118	1%	1,176	6%	1,161	5%	1,131	2%		32	2
05:45 - 06:00	1,368	1,370	0%	1,390	2%	1,383	1%	1,376	1%	1,353	1%	1,441	5%	1,370	0%	1,377	1%	1,461	7%	1,424	4%	1,398	2%	1,398	2%		32	2
06:00 - 06:15	1,634	1,686	3%	1,637	0%	1,695	4%	1,788	9%	1,706	4%	1,633	0%	1,686	3%	1,776	8%	1,717	5%	1,683	3%	1,756	7%	1,711	5%		52	3
06:15 - 06:30	2,284	2,278	0%	2,298	1%	2,336	2%	2,373	4%	2,358	3%	2,304	1%	2,278	0%	2,336	2%	2,363	3%	2,350	3%	2,400	5%	2,343	3%		37	1
06:30 - 06:45	2,426	2,414	0%	2,405	1%	2,374	2%	2,390	1%	2,433	0%	2,387	2%	2,414	0%	2,399	1%	2,404	1%	2,398	1%	2,418	0%	2,402	1%		16	0
06:45 - 07:00	2,361	2,416	2%	2,460	4%	2,402	2%	2,415	2%	2,421	3%	2,409	2%	2,416	2%	2,385	1%	2,390	1%	2,382	1%	2,384	1%	2,409	2%		24	0
07:00 - 07:15	2,216	2,264	2%	2,149	3%	2,291	3%	2,359	6%	2,240	1%	2,150	3%	2,264	2%	2,378	7%	2,128	4%	2,158	3%	2,269	2%	2,246	1%		88	4
07:15 - 07:30	1,926	2,001	4%	2,107	9%	2,063	7%	2,183	13%	1,970	2%	2,147	11%	2,001	4%	2,034	5%	1,994	3%	2,041	6%	2,054	6%	2,063	7%		66	3
07:30 - 07:45	1,765	2,009	13%	2,084	17%	1,929	9%	2,023	14%	2,024	14%	2,126	19%	2,009	13%	2,076	16%	2,002	13%	2,099	17%	2,004	13%	2,032	14%		59	3
07:45 - 08:00	1,672	1,913	13%	2,112	23%	1,940	15%	1,891	12%	2,013	19%	2,007	18%	1,913	13%	1,995	18%	2,078	22%	2,066	21%	2,088	22%	2,006	18%		74	5
08:00 - 08:15	1,983	2,075	5%	1,950	2%	2,054	4%	2,016	2%	1,927	3%	1,900	4%	2,075	5%	1,912	4%	2,013	2%	1,891	5%	1,958	1%	1,964	1%		65	3
08:15 - 08:30	2,026	1,910	6%	1,882	7%	1,866	8%	1,973	3%	1,813	11%	1,897	7%	1,910	6%	1,886	7%	1,878	8%	1,770	13%	1,857	9%	1,877	8%		53	2
08:30 - 08:45	2,063	2,053	0%	2,039	1%	2,143	4%	2,056	0%	2,073	0%	2,243	8%	2,053	0%	2,105	2%	2,151	4%	1,997	3%	2,041	1%	2,084	1%		71	3
08:45 - 09:00	1,964	2,232	13%	2,264	14%	2,275	15%	1,912	3%	2,301	16%	2,317	16%	2,232	13%	2,389	20%	2,319	17%	2,179	10%	2,269	14%	2,253	14%		126	11
09:00 - 09:15	1,853	2,013	8%	1,909	3%	2,008	8%	2,022	9%	2,225	18%	1,969	6%	2,013	8%	2,088	12%	1,969	6%	2,425	27%	1,948	5%	2,073	11%		157	20
09:15 - 09:30	1,871	1,972	5%	1,923	3%	1,973	5%	1,981	6%	2,007	7%	1,997	7%	1,972	5%	2,005	7%	1,926	3%	2,018	8%	1,967	5%	1,977	6%		31	1
Hour 1	6,392	6,497	2%	6,431	1%	6,522	2%	6,651	4%	6,581	3%	6,497	2%	6,497	2%	6,632	4%	6,659	4%	6,633	4%	6,715	5%	6,583	3%		39	0
Hour 2	8,929	9,095	2%	9,121	2%	9,130	2%	9,347	5%	9,064	2%	9,093	2%	9,095	2%	9,196	3%	8,916	0%	8,979	1%	9,125	2%	9,120	2%		57	0
Hour 3	7,446	7,907	6%	8,028	8%	7,789	5%	7,903	6%	7,777	4%	7,930	6%	7,907	6%	7,869	6%	7,971	7%	7,826	5%	7,907	6%	7,879	6%		63	0
Hour 4	7,751	8,270	6%	8,135	5%	8,399	8%	7,971	3%	8,606	10%	8,526	10%	8,270	6%	8,587	10%	8,365	8%	8,619	11%	8,225	6%	8,387	8%		108	1
11	30,518	31,769	4%	31,715	4%	31,840	4%	31,872	4%	32,028	5%	32,046	5%	31,769	4%	32,284	6%	31,911	4%	32,057	5%	31,972	5%	31,969	5%		143	0



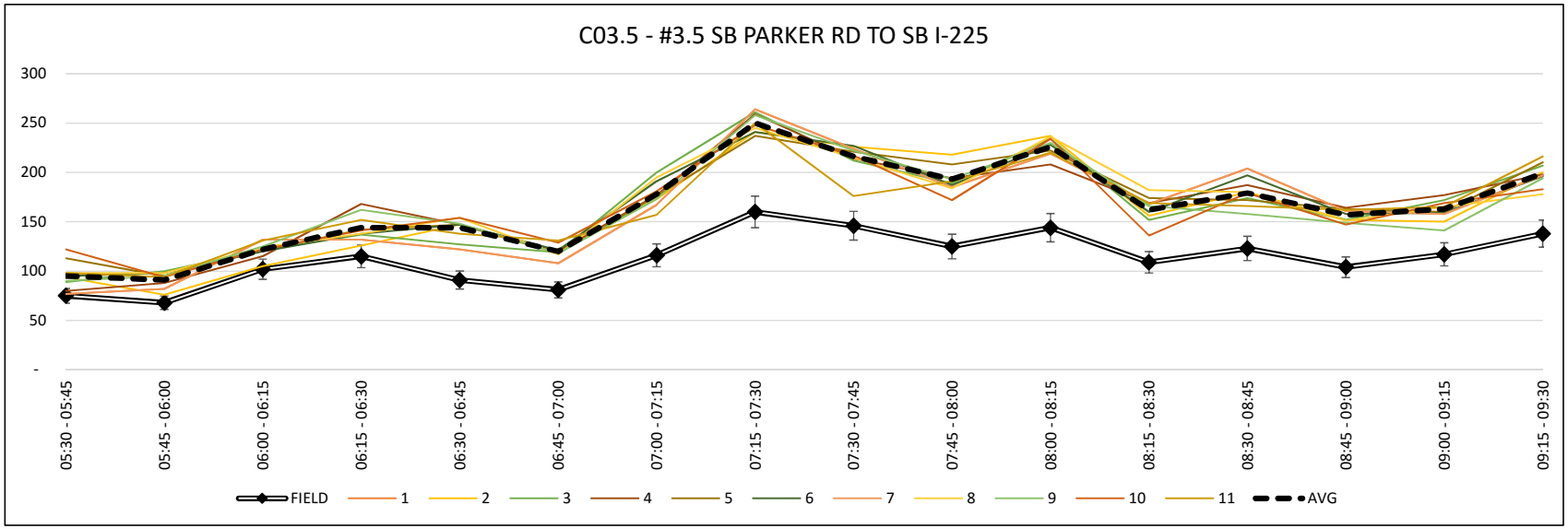
CONCEPT 2		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																											
AM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C02	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	938	951	1%	889	5%	889	5%	905	4%	930	1%	927	1%	951	1%	875	7%	935	0%	943	1%	898	4%	912	3%		26	2
05:45 - 06:00	1,194	1,155	3%	1,136	5%	1,084	10%	1,080	10%	1,128	6%	1,136	5%	1,155	3%	1,134	5%	1,119	6%	1,134	5%	1,125	6%	1,124	6%		23	1
06:00 - 06:15	1,505	1,387	8%	1,419	6%	1,400	7%	1,380	9%	1,410	7%	1,445	4%	1,387	8%	1,406	7%	1,395	8%	1,425	5%	1,401	7%	1,400	7%		28	1
06:15 - 06:30	1,838	1,763	4%	1,768	4%	1,745	5%	1,771	4%	1,783	3%	1,773	4%	1,763	4%	1,816	1%	1,768	4%	1,726	6%	1,709	7%	1,756	5%		35	1
06:30 - 06:45	1,757	1,781	1%	1,783	1%	1,726	2%	1,723	2%	1,780	1%	1,809	3%	1,781	1%	1,739	1%	1,829	4%	1,835	4%	1,807	3%	1,781	1%		39	1
06:45 - 07:00	1,690	1,734	3%	1,750	3%	1,696	0%	1,743	3%	1,799	6%	1,649	2%	1,734	3%	1,749	3%	1,757	4%	1,720	2%	1,724	2%	1,736	3%		40	2
07:00 - 07:15	1,620	1,757	8%	1,696	5%	1,714	6%	1,717	6%	1,712	6%	1,665	3%	1,757	8%	1,719	6%	1,720	6%	1,679	4%	1,727	6%	1,710	5%		24	1
07:15 - 07:30	1,476	1,678	13%	1,665	12%	1,692	14%	1,682	13%	1,689	13%	1,696	14%	1,678	13%	1,702	14%	1,729	16%	1,702	14%	1,690	14%	1,694	14%		17	0
07:30 - 07:45	1,508	1,642	9%	1,585	5%	1,612	7%	1,673	10%	1,561	3%	1,678	11%	1,642	9%	1,629	8%	1,637	8%	1,664	10%	1,637	8%	1,632	8%		36	2
07:45 - 08:00	1,547	1,654	7%	1,652	7%	1,634	5%	1,656	7%	1,608	4%	1,658	7%	1,654	7%	1,621	5%	1,607	4%	1,630	5%	1,633	5%	1,636	6%		18	0
08:00 - 08:15	1,570	1,681	7%	1,672	6%	1,716	9%	1,670	6%	1,668	6%	1,674	6%	1,681	7%	1,705	8%	1,666	6%	1,689	7%	1,716	9%	1,689	7%		22	1
08:15 - 08:30	1,605	1,611	0%	1,699	6%	1,706	6%	1,623	1%	1,718	7%	1,675	4%	1,611	0%	1,677	4%	1,713	7%	1,661	3%	1,703	6%	1,678	4%		35	1
08:30 - 08:45	1,620	1,689	4%	1,706	5%	1,696	5%	1,666	3%	1,746	7%	1,705	5%	1,689	4%	1,703	5%	1,707	5%	1,678	4%	1,755	8%	1,705	5%		26	1
08:45 - 09:00	1,588	1,620	2%	1,667	5%	1,638	3%	1,659	4%	1,668	5%	1,684	6%	1,620	2%	1,663	5%	1,628	2%	1,705	7%	1,637	3%	1,660	4%		28	1
09:00 - 09:15	1,627	1,655	2%	1,721	6%	1,651	1%	1,720	6%	1,669	3%	1,704	5%	1,655	2%	1,711	5%	1,664	2%	1,726	6%	1,648	1%	1,685	4%		31	1
09:15 - 09:30	1,781	1,726	3%	1,711	4%	1,650	8%	1,707	4%	1,723	3%	1,682	6%	1,726	3%	1,674	6%	1,695	5%	1,753	2%	1,687	5%	1,697	5%		31	1
Hour 1	5,475	5,256	4%	5,212	5%	5,118	7%	5,136	6%	5,251	4%	5,281	4%	5,256	4%	5,231	5%	5,217	5%	5,228	5%	5,133	6%	5,192	5%		28	0
Hour 2	6,543	6,950	6%	6,894	5%	6,828	4%	6,865	5%	6,980	6%	6,819	4%	6,950	6%	6,909	5%	7,035	7%	6,936	6%	6,948	6%	6,921	6%		32	0
Hour 3	6,230	6,588	6%	6,608	6%	6,668	7%	6,622	6%	6,555	5%	6,685	7%	6,588	6%	6,632	6%	6,623	6%	6,644	6%	6,689	7%	6,635	6%		29	0
Hour 4	6,616	6,690	1%	6,805	3%	6,635	0%	6,752	2%	6,806	3%	6,775	2%	6,690	1%	6,751	2%	6,694	1%	6,862	4%	6,727	2%	6,747	2%		29	0
11	24,864	25,484	2%	25,519	3%	25,249	2%	25,375	2%	25,592	3%	25,560	3%	25,484	2%	25,523	3%	25,569	3%	25,670	3%	25,497	3%	25,495	3%		59	0



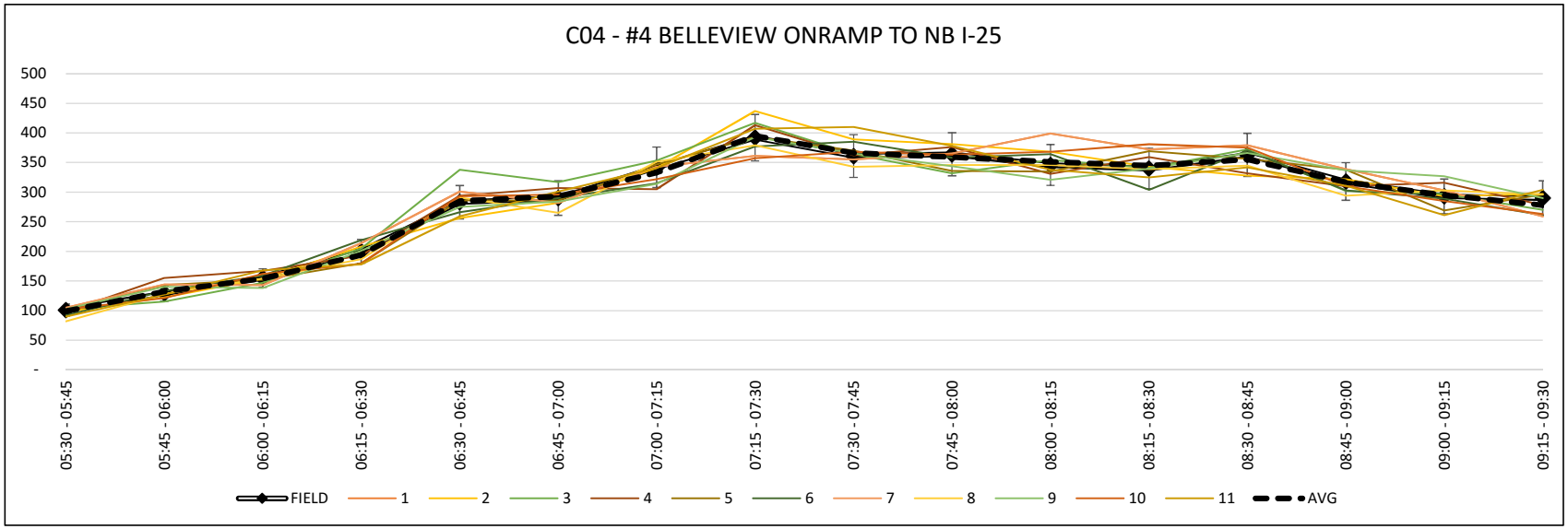
CONCEPT 2		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																											
AM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C03	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	378	424	11%	395	4%	386	2%	354	7%	369	2%	411	8%	424	11%	391	3%	349	8%	373	1%	385	2%	383	1%		22	9
05:45 - 06:00	382	380	1%	372	3%	394	3%	382	0%	395	3%	391	2%	380	1%	365	5%	414	8%	396	4%	376	2%	384	1%		16	5
06:00 - 06:15	467	454	3%	427	9%	441	6%	461	1%	463	1%	435	7%	454	3%	470	1%	462	1%	483	3%	470	1%	456	2%		17	4
06:15 - 06:30	504	528	5%	509	1%	466	8%	483	4%	529	5%	516	2%	528	5%	487	3%	498	1%	506	0%	530	5%	506	0%		21	5
06:30 - 06:45	363	354	3%	388	7%	367	1%	378	4%	369	2%	352	3%	354	3%	398	9%	381	5%	358	1%	351	3%	369	2%		16	5
06:45 - 07:00	407	363	11%	374	8%	385	6%	409	0%	379	7%	405	0%	363	11%	410	1%	433	6%	405	0%	407	0%	398	2%		20	7
07:00 - 07:15	434	447	3%	403	7%	420	3%	469	8%	431	1%	457	5%	447	3%	426	2%	435	0%	452	4%	458	5%	437	1%		21	6
07:15 - 07:30	383	404	5%	386	1%	399	4%	387	1%	364	5%	364	5%	404	5%	396	3%	380	1%	371	3%	382	0%	386	1%		15	4
07:30 - 07:45	395	375	5%	384	3%	394	0%	366	8%	388	2%	401	2%	375	5%	406	3%	397	1%	400	1%	381	4%	390	1%		13	3
07:45 - 08:00	431	397	8%	416	4%	471	9%	429	0%	458	6%	411	5%	397	8%	435	1%	442	3%	452	5%	434	1%	434	1%		22	7
08:00 - 08:15	411	417	1%	435	6%	412	0%	393	4%	393	4%	425	3%	417	1%	410	0%	401	2%	413	0%	433	5%	414	1%		14	3
08:15 - 08:30	332	323	3%	335	1%	304	9%	339	2%	343	3%	347	4%	323	3%	331	0%	331	0%	319	4%	344	4%	332	0%		13	4
08:30 - 08:45	319	297	7%	346	8%	322	1%	334	5%	304	5%	309	3%	297	7%	338	6%	346	8%	317	1%	320	0%	323	1%		16	7
08:45 - 09:00	326	333	2%	320	2%	314	4%	319	2%	353	8%	334	2%	333	2%	319	2%	327	0%	350	7%	311	5%	327	0%		14	5
09:00 - 09:15	340	345	1%	316	7%	346	2%	351	3%	350	3%	348	2%	345	1%	338	1%	330	3%	355	4%	336	1%	342	1%		11	3
09:15 - 09:30	382	414	8%	378	1%	395	3%	348	9%	379	1%	387	1%	414	8%	416	9%	379	1%	372	3%	367	4%	385	1%		20	8
Hour 1	1,731	1,786	3%	1,703	2%	1,687	3%	1,680	3%	1,756	1%	1,753	1%	1,786	3%	1,713	1%	1,723	0%	1,758	2%	1,761	2%	1,729	0%		19	0
Hour 2	1,587	1,568	1%	1,551	2%	1,571	1%	1,643	3%	1,543	3%	1,578	1%	1,568	1%	1,630	3%	1,629	3%	1,586	0%	1,598	1%	1,590	0%		18	0
Hour 3	1,569	1,512	4%	1,570	0%	1,581	1%	1,527	3%	1,582	1%	1,584	1%	1,512	4%	1,582	1%	1,571	0%	1,584	1%	1,592	1%	1,570	0%		16	0
Hour 4	1,367	1,389	2%	1,360	1%	1,377	1%	1,352	1%	1,386	1%	1,378	1%	1,389	2%	1,411	3%	1,382	1%	1,394	2%	1,334	2%	1,377	1%		16	0
11	6,254	6,255	0%	6,184	1%	6,216	1%	6,202	1%	6,267	0%	6,293	1%	6,255	0%	6,336	1%	6,305	1%	6,322	1%	6,285	0%	6,266	0%		35	0



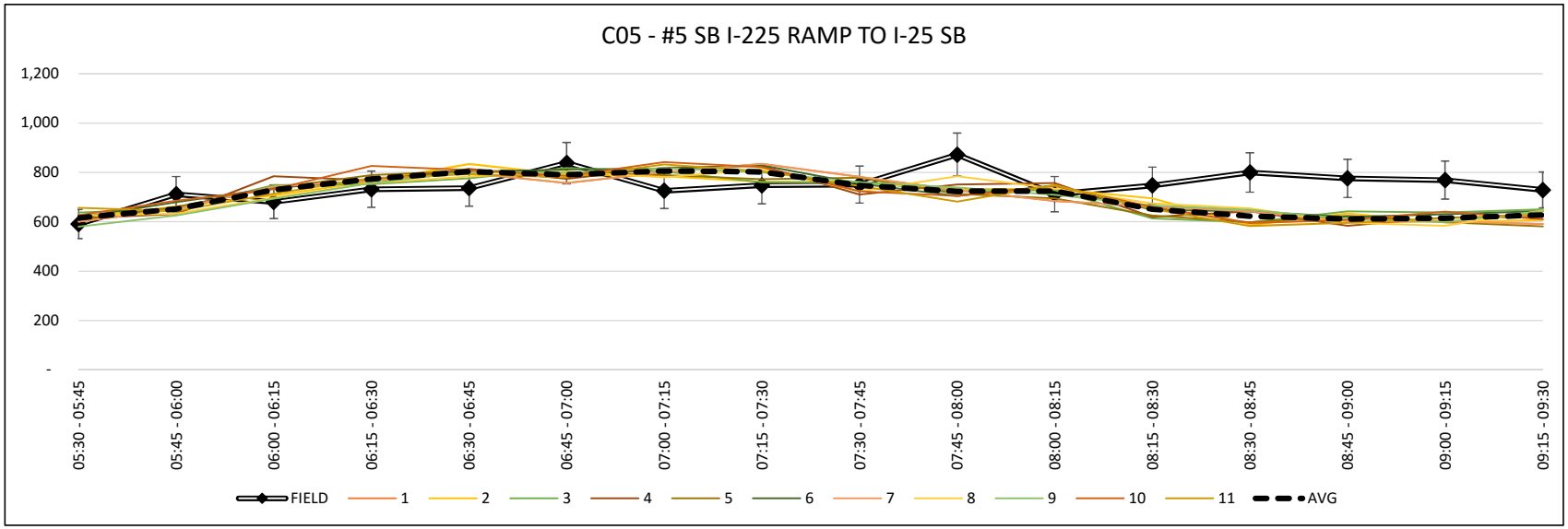
CONCEPT 2		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																											
AM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C03.5	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	75	77	3%	94	22%	89	17%	80	6%	113	40%	95	24%	77	3%	98	27%	90	18%	122	48%	98	27%	95	24%		13	83
05:45 - 06:00	68	82	19%	76	11%	100	38%	88	26%	95	33%	98	36%	82	19%	98	36%	95	33%	94	32%	94	32%	91	29%		8	38
06:00 - 06:15	102	132	26%	105	3%	121	17%	115	12%	121	17%	120	16%	132	26%	124	19%	125	20%	122	18%	131	25%	122	18%		7	13
06:15 - 06:30	115	132	14%	126	9%	137	17%	168	37%	142	21%	138	18%	132	14%	138	18%	162	34%	141	20%	152	28%	144	22%		13	35
06:30 - 06:45	91	122	29%	147	47%	127	33%	147	47%	147	47%	147	47%	122	29%	154	51%	148	48%	154	51%	138	41%	144	45%		11	41
06:45 - 07:00	81	108	29%	119	38%	119	38%	120	39%	118	37%	121	40%	108	29%	117	36%	118	37%	129	46%	131	47%	120	39%		6	15
07:00 - 07:15	116	167	36%	173	39%	200	53%	177	42%	176	41%	191	49%	167	36%	195	51%	173	39%	181	44%	157	30%	178	42%		13	35
07:15 - 07:30	160	264	49%	241	40%	261	48%	259	47%	237	39%	241	40%	264	49%	245	42%	258	47%	248	43%	250	44%	250	44%		9	9
07:30 - 07:45	146	224	42%	226	43%	212	37%	214	38%	221	41%	227	43%	224	42%	215	38%	222	41%	217	39%	176	19%	216	39%		14	26
07:45 - 08:00	125	185	39%	218	54%	189	41%	194	43%	208	50%	187	40%	185	39%	184	38%	193	43%	172	32%	191	42%	193	43%		13	30
08:00 - 08:15	144	219	41%	237	49%	234	48%	208	36%	222	43%	228	45%	219	41%	236	48%	230	46%	234	48%	220	42%	226	44%		9	11
08:15 - 08:30	109	168	43%	156	35%	152	33%	169	43%	174	46%	160	38%	168	43%	182	50%	166	41%	136	22%	169	43%	162	39%		12	34
08:30 - 08:45	123	204	50%	180	38%	174	34%	187	41%	172	33%	197	46%	204	50%	180	38%	158	25%	179	37%	166	30%	179	37%		13	31
08:45 - 09:00	104	161	43%	152	38%	152	38%	164	45%	163	44%	158	41%	161	43%	151	37%	149	36%	147	34%	162	44%	157	41%		7	13
09:00 - 09:15	117	158	30%	150	25%	172	38%	177	41%	160	31%	159	30%	158	30%	165	34%	141	19%	169	36%	165	34%	163	33%		11	25
09:15 - 09:30	138	197	35%	200	37%	207	40%	198	36%	210	41%	196	35%	197	35%	178	25%	194	34%	183	28%	216	44%	199	36%		11	18
Hour 1	360	423	16%	401	11%	447	22%	451	22%	471	27%	451	22%	423	16%	458	24%	472	27%	479	28%	475	28%	452	23%		11	3
Hour 2	448	661	38%	680	41%	707	45%	703	44%	678	41%	700	44%	661	38%	711	45%	697	43%	712	46%	676	41%	692	43%		10	1
Hour 3	524	796	41%	837	46%	787	40%	785	40%	825	45%	802	42%	796	41%	817	44%	811	43%	759	37%	756	36%	797	41%		12	1
Hour 4	482	720	40%	682	34%	705	38%	726	40%	705	38%	710	38%	720	40%	674	33%	642	28%	678	34%	709	38%	698	37%		11	1
11	1,814	2,600	36%	2,600	36%	2,646	37%	2,665	38%	2,679	39%	2,663	38%	2,600	36%	2,660	38%	2,622	36%	2,628	37%	2,616	36%	2,639	37%		22	0



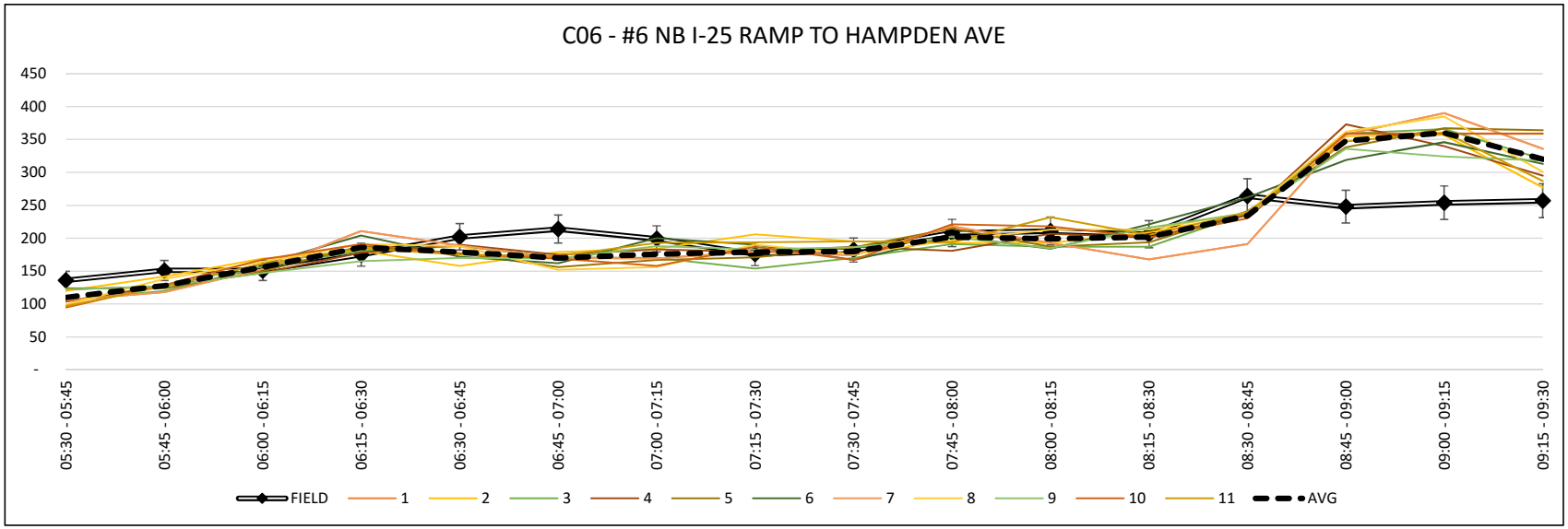
CONCEPT 2		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																											
AM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C04	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	101	105	4%	98	3%	103	2%	98	3%	104	3%	92	9%	105	4%	82	21%	103	2%	102	1%	90	12%	99	2%		8	17
05:45 - 06:00	129	144	11%	122	6%	115	11%	155	18%	143	10%	133	3%	144	11%	128	1%	140	8%	121	6%	127	2%	132	2%		12	24
06:00 - 06:15	155	143	8%	154	1%	147	5%	167	7%	152	2%	159	3%	143	8%	154	1%	138	12%	162	4%	168	8%	154	1%		9	9
06:15 - 06:30	200	214	7%	208	4%	205	2%	193	4%	180	11%	219	9%	214	7%	187	7%	201	0%	179	11%	178	12%	194	3%		16	18
06:30 - 06:45	283	301	6%	256	10%	338	18%	294	4%	286	1%	266	6%	301	6%	291	3%	275	3%	293	3%	259	9%	285	1%		23	18
06:45 - 07:00	290	282	3%	282	3%	317	9%	307	6%	286	1%	290	0%	282	3%	265	9%	284	2%	296	2%	301	4%	293	1%		16	8
07:00 - 07:15	342	343	0%	341	0%	353	3%	305	11%	347	1%	315	8%	343	0%	351	3%	314	9%	322	6%	341	0%	333	3%		17	7
07:15 - 07:30	392	361	8%	437	11%	417	6%	413	5%	393	0%	377	4%	361	8%	379	3%	393	0%	357	9%	407	4%	395	1%		25	11
07:30 - 07:45	361	355	2%	389	7%	364	1%	362	0%	370	2%	385	6%	355	2%	343	5%	365	1%	368	2%	410	13%	366	1%		24	12
07:45 - 08:00	364	365	0%	381	5%	332	9%	376	3%	336	8%	358	2%	365	0%	346	5%	344	6%	363	0%	378	4%	359	1%		17	6
08:00 - 08:15	346	399	14%	368	6%	354	2%	331	4%	335	3%	364	5%	399	14%	346	0%	321	7%	368	6%	338	2%	351	1%		22	11
08:15 - 08:30	340	372	9%	343	1%	341	0%	359	5%	369	8%	304	11%	372	9%	339	0%	340	0%	381	11%	325	5%	345	1%		23	13
08:30 - 08:45	363	379	4%	328	10%	372	2%	332	9%	356	2%	370	2%	379	4%	345	5%	366	1%	375	3%	342	6%	355	2%		19	8
08:45 - 09:00	318	339	6%	322	1%	302	5%	310	3%	338	6%	303	5%	339	6%	294	8%	337	6%	310	3%	311	2%	317	0%		16	7
09:00 - 09:15	293	303	3%	293	0%	297	1%	316	8%	269	9%	289	1%	303	3%	303	3%	327	11%	285	3%	261	12%	295	1%		19	12
09:15 - 09:30	290	259	11%	297	2%	270	7%	278	4%	296	2%	261	11%	259	11%	296	2%	290	0%	263	10%	304	5%	278	4%		19	12
Hour 1	585	606	4%	582	1%	570	3%	613	5%	579	1%	603	3%	606	4%	551	6%	582	1%	564	4%	563	4%	579	1%		12	1
Hour 2	1,307	1,287	2%	1,316	1%	1,425	9%	1,319	1%	1,312	0%	1,248	5%	1,287	2%	1,286	2%	1,266	3%	1,268	3%	1,308	0%	1,306	0%		21	1
Hour 3	1,411	1,491	6%	1,481	5%	1,391	1%	1,428	1%	1,410	0%	1,411	0%	1,491	6%	1,374	3%	1,370	3%	1,480	5%	1,451	3%	1,421	1%		22	1
Hour 4	1,264	1,280	1%	1,240	2%	1,241	2%	1,236	2%	1,259	0%	1,223	3%	1,280	1%	1,238	2%	1,320	4%	1,233	2%	1,218	4%	1,245	2%		18	1
11	4,567	4,664	2%	4,619	1%	4,627	1%	4,596	1%	4,560	0%	4,485	2%	4,664	2%	4,449	3%	4,538	1%	4,545	0%	4,540	1%	4,551	0%		37	0



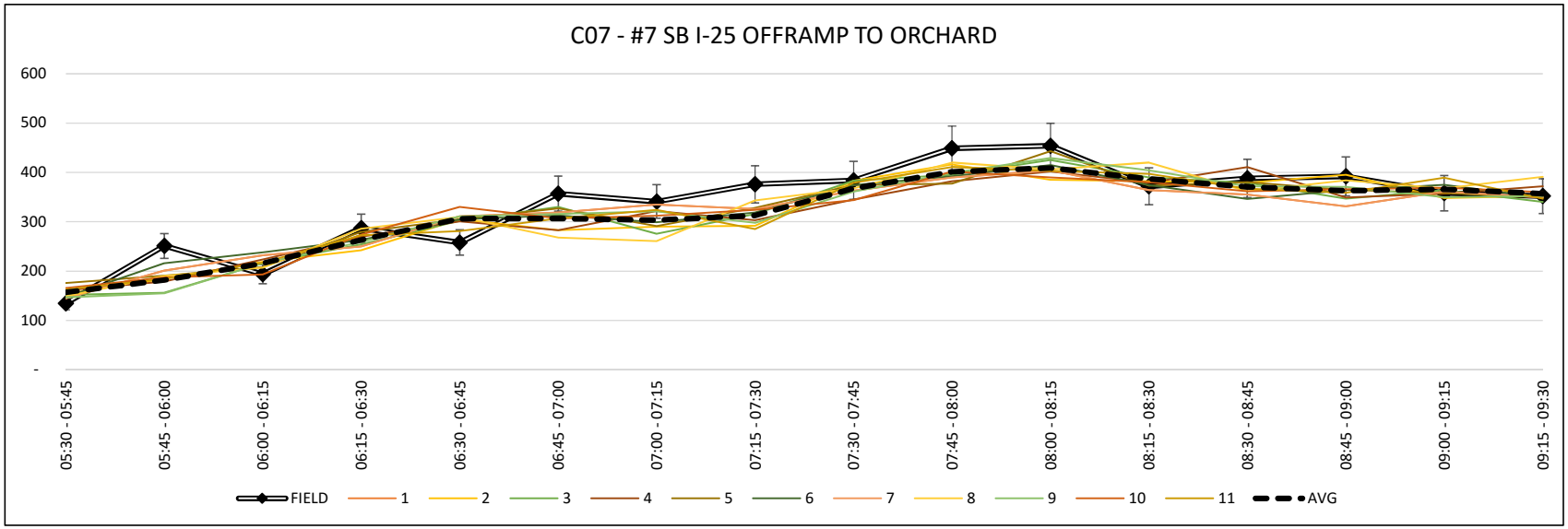
CONCEPT 2		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																											
AM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C05	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	591	601	2%	614	4%	637	7%	613	4%	606	3%	617	4%	601	2%	626	6%	580	2%	627	6%	656	10%	616	4%		20	3
05:45 - 06:00	712	650	9%	663	7%	652	9%	632	12%	660	8%	679	5%	650	9%	633	12%	625	13%	685	4%	644	10%	652	9%		19	2
06:00 - 06:15	681	743	9%	707	4%	749	10%	785	14%	737	8%	737	8%	743	9%	697	2%	694	2%	732	7%	714	5%	730	7%		26	4
06:15 - 06:30	732	767	5%	764	4%	752	3%	768	5%	789	7%	768	5%	767	5%	757	3%	757	3%	826	12%	777	6%	774	6%		21	2
06:30 - 06:45	737	797	8%	834	12%	776	5%	814	10%	806	9%	802	8%	797	8%	783	6%	802	8%	809	9%	793	7%	803	9%		16	1
06:45 - 07:00	838	757	10%	791	6%	818	2%	774	8%	801	5%	812	3%	757	10%	804	4%	799	5%	786	6%	780	7%	790	6%		19	1
07:00 - 07:15	726	801	10%	784	8%	804	10%	819	12%	789	8%	816	12%	801	10%	780	7%	818	12%	842	15%	832	14%	806	10%		22	3
07:15 - 07:30	748	835	11%	762	2%	760	2%	826	10%	773	3%	829	10%	835	11%	814	8%	800	7%	821	9%	805	7%	802	7%		27	4
07:30 - 07:45	751	782	4%	759	1%	761	1%	710	6%	778	4%	754	0%	782	4%	724	4%	761	1%	724	4%	745	1%	747	1%		24	3
07:45 - 08:00	872	728	18%	733	17%	724	19%	751	15%	713	20%	704	21%	728	18%	785	11%	739	17%	704	21%	682	24%	723	19%		29	3
08:00 - 08:15	712	684	4%	733	3%	728	2%	757	6%	695	2%	747	5%	684	4%	734	3%	709	0%	745	5%	749	5%	725	2%		25	3
08:15 - 08:30	747	663	12%	695	7%	613	20%	620	19%	625	18%	648	14%	663	12%	674	10%	666	11%	660	12%	652	14%	650	14%		25	3
08:30 - 08:45	800	642	22%	586	31%	598	29%	642	22%	598	29%	642	22%	642	22%	654	20%	648	21%	595	29%	583	31%	623	25%		30	4
08:45 - 09:00	776	599	26%	634	20%	642	19%	584	28%	624	22%	620	22%	599	26%	596	26%	611	24%	608	24%	596	26%	611	24%		18	1
09:00 - 09:15	769	602	24%	597	25%	637	19%	617	22%	598	25%	630	20%	602	24%	584	27%	599	25%	641	18%	613	23%	615	22%		22	2
09:15 - 09:30	729	591	21%	607	18%	650	11%	620	16%	581	23%	644	12%	591	21%	646	12%	642	13%	610	18%	630	15%	628	15%		31	5
Hour 1	2,716	2,761	2%	2,748	1%	2,790	3%	2,798	3%	2,792	3%	2,801	3%	2,761	2%	2,713	0%	2,656	2%	2,870	6%	2,791	3%	2,772	2%		22	0
Hour 2	3,049	3,190	5%	3,171	4%	3,158	4%	3,233	6%	3,169	4%	3,259	7%	3,190	5%	3,181	4%	3,219	5%	3,258	7%	3,210	5%	3,201	5%		21	0
Hour 3	3,082	2,857	8%	2,920	5%	2,826	9%	2,838	8%	2,811	9%	2,853	8%	2,857	8%	2,917	6%	2,875	7%	2,833	8%	2,828	9%	2,845	8%		26	0
Hour 4	3,074	2,434	23%	2,424	24%	2,527	20%	2,463	22%	2,401	25%	2,536	19%	2,434	23%	2,480	21%	2,500	21%	2,454	22%	2,422	24%	2,477	22%		26	0
11	11,921	11,242	6%	11,263	6%	11,301	5%	11,332	5%	11,173	6%	11,449	4%	11,242	6%	11,291	5%	11,250	6%	11,415	4%	11,251	6%	11,295	5%		48	0



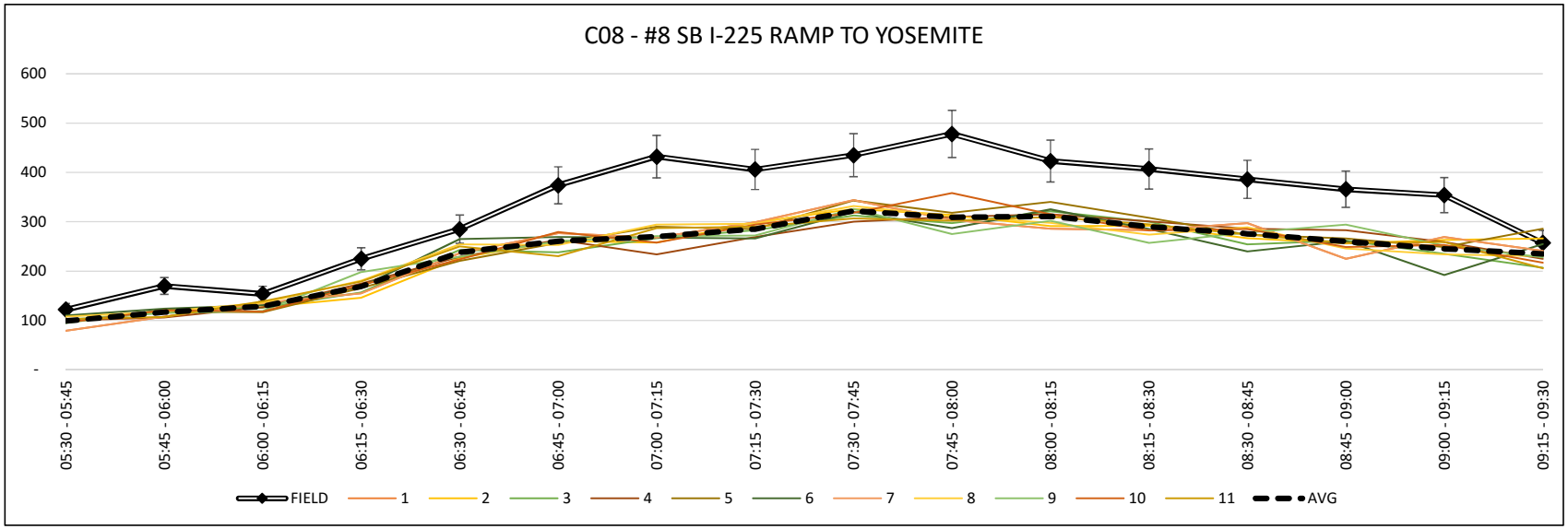
CONCEPT 2		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																											
AM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C06	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	136	106	25%	120	13%	106	25%	104	27%	124	9%	122	11%	106	25%	99	31%	122	11%	95	35%	97	33%	110	21%		11	18
05:45 - 06:00	151	118	25%	142	6%	120	23%	128	16%	124	20%	127	17%	118	25%	138	9%	127	17%	129	16%	127	17%	128	16%		7	6
06:00 - 06:15	151	153	1%	169	11%	157	4%	147	3%	150	1%	161	6%	153	1%	164	8%	147	3%	168	11%	161	6%	156	3%		10	12
06:15 - 06:30	175	211	19%	181	3%	181	3%	178	2%	188	7%	204	15%	211	19%	191	9%	165	6%	191	9%	185	6%	186	6%		13	15
06:30 - 06:45	202	189	7%	158	24%	188	7%	190	6%	177	13%	172	16%	189	7%	188	7%	170	17%	176	14%	175	14%	179	12%		10	7
06:45 - 07:00	214	170	23%	179	18%	171	22%	175	20%	156	31%	162	28%	170	23%	152	34%	169	23%	169	23%	173	21%	170	23%		12	9
07:00 - 07:15	199	169	16%	184	8%	170	16%	183	8%	167	17%	200	1%	169	16%	156	24%	188	6%	158	23%	193	3%	176	12%		15	16
07:15 - 07:30	176	180	2%	206	16%	154	13%	179	2%	171	3%	190	8%	180	2%	190	8%	183	4%	187	6%	194	10%	179	2%		19	32
07:30 - 07:45	182	174	4%	195	7%	170	7%	187	3%	186	2%	167	9%	174	4%	176	3%	186	2%	167	9%	195	7%	180	1%		10	8
07:45 - 08:00	208	218	5%	193	7%	191	9%	181	14%	215	3%	203	2%	218	5%	197	5%	202	3%	221	6%	194	7%	202	3%		12	9
08:00 - 08:15	211	193	9%	193	9%	187	12%	207	2%	187	12%	184	14%	193	9%	213	1%	185	13%	218	3%	232	9%	199	6%		16	16
08:15 - 08:30	206	168	20%	209	1%	187	10%	201	2%	194	6%	221	7%	168	20%	213	3%	216	5%	201	2%	205	0%	202	2%		15	15
08:30 - 08:45	264	191	32%	236	11%	238	10%	235	12%	241	9%	262	1%	191	32%	239	10%	238	10%	230	14%	239	10%	234	12%		17	12
08:45 - 09:00	248	358	36%	355	35%	359	37%	373	40%	338	31%	319	25%	358	36%	362	37%	336	30%	359	37%	347	33%	348	34%		17	13
09:00 - 09:15	254	390	42%	357	34%	366	36%	340	29%	367	36%	346	31%	390	42%	385	41%	324	24%	359	34%	361	35%	360	35%		19	16
09:15 - 09:30	257	336	27%	277	7%	320	22%	295	14%	364	34%	313	20%	336	27%	301	16%	318	21%	359	33%	287	11%	320	22%		30	38
Hour 1	613	588	4%	612	0%	564	8%	557	10%	586	5%	614	0%	588	4%	592	3%	561	9%	583	5%	570	7%	580	6%		10	1
Hour 2	791	708	11%	727	8%	683	15%	727	8%	671	16%	724	9%	708	11%	686	14%	710	11%	690	14%	735	7%	704	12%		14	1
Hour 3	807	753	7%	790	2%	735	9%	776	4%	782	3%	775	4%	753	7%	799	1%	789	2%	807	0%	826	2%	783	3%		13	1
Hour 4	1,023	1,275	22%	1,225	18%	1,283	23%	1,243	19%	1,310	25%	1,240	19%	1,275	22%	1,287	23%	1,216	17%	1,307	24%	1,234	19%	1,262	21%		21	1
11	3,234	3,324	3%	3,354	4%	3,265	1%	3,303	2%	3,349	3%	3,353	4%	3,324	3%	3,364	4%	3,276	1%	3,387	5%	3,365	4%	3,329	3%		31	0



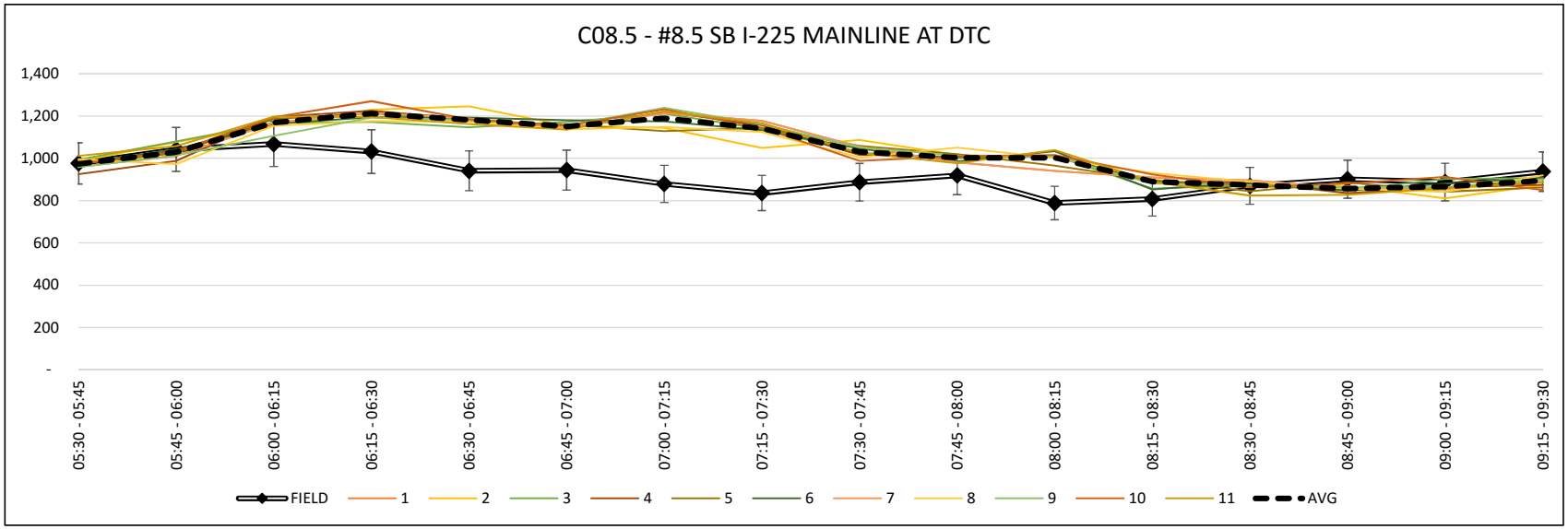
CONCEPT 2		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																										
AM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C07	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	135	145	7%	154	13%	152	12%	161	18%	176	26%	147	9%	145	7%	149	10%	147	9%	166	21%	163	19%	157	15%		10	15
05:45 - 06:00	251	201	22%	184	31%	156	47%	179	33%	191	27%	216	15%	201	22%	190	28%	155	47%	187	29%	184	31%	182	32%		19	16
06:00 - 06:15	194	232	18%	219	12%	216	11%	224	14%	208	7%	238	20%	232	18%	207	6%	216	11%	193	1%	217	11%	216	11%		13	12
06:15 - 06:30	287	250	14%	242	17%	254	12%	270	6%	279	3%	263	9%	250	14%	286	0%	259	10%	274	5%	273	5%	263	9%		14	7
06:30 - 06:45	258	311	19%	305	17%	302	16%	301	15%	305	17%	305	17%	311	19%	310	18%	311	19%	330	24%	281	9%	306	17%		11	5
06:45 - 07:00	357	319	11%	283	23%	330	8%	283	23%	327	9%	313	13%	319	11%	268	28%	316	12%	307	15%	307	15%	307	15%		20	9
07:00 - 07:15	341	335	2%	290	16%	276	21%	322	6%	291	16%	299	13%	335	2%	261	27%	321	6%	312	9%	324	5%	303	12%		23	13
07:15 - 07:30	376	326	14%	292	25%	316	17%	303	22%	328	14%	319	16%	326	14%	343	9%	298	23%	324	15%	285	28%	313	18%		17	6
07:30 - 07:45	384	363	6%	383	0%	383	0%	345	11%	374	3%	374	3%	363	6%	368	4%	361	6%	344	11%	379	1%	368	4%		14	4
07:45 - 08:00	449	390	14%	416	8%	395	13%	382	16%	377	17%	392	14%	390	14%	420	7%	399	12%	402	11%	411	9%	401	11%		16	4
08:00 - 08:15	454	404	12%	385	16%	425	7%	402	12%	443	2%	415	9%	404	12%	406	11%	429	6%	390	15%	403	12%	409	10%		17	4
08:15 - 08:30	372	364	2%	382	3%	390	5%	379	2%	373	0%	374	1%	364	2%	420	12%	404	8%	380	2%	397	7%	387	4%		16	5
08:30 - 08:45	388	355	9%	379	2%	379	2%	411	6%	380	2%	346	11%	355	9%	362	7%	372	4%	362	7%	367	6%	371	4%		17	5
08:45 - 09:00	392	331	17%	395	1%	347	12%	349	12%	365	7%	364	7%	331	17%	384	2%	371	6%	366	7%	359	9%	363	8%		17	5
09:00 - 09:15	358	361	1%	348	3%	364	2%	357	0%	358	0%	375	5%	361	1%	368	3%	350	2%	369	3%	389	8%	366	2%		13	4
09:15 - 09:30	352	349	1%	352	0%	340	3%	372	6%	350	1%	349	1%	349	1%	391	10%	352	0%	360	2%	347	1%	357	1%		15	5
Hour 1	867	828	5%	799	8%	778	11%	834	4%	854	2%	864	0%	828	5%	832	4%	777	11%	820	6%	837	4%	818	6%		14	1
Hour 2	1,332	1,291	3%	1,170	13%	1,224	8%	1,209	10%	1,251	6%	1,236	7%	1,291	3%	1,182	12%	1,246	7%	1,273	5%	1,197	11%	1,229	8%		18	1
Hour 3	1,659	1,521	9%	1,566	6%	1,593	4%	1,508	10%	1,567	6%	1,555	6%	1,521	9%	1,614	3%	1,593	4%	1,516	9%	1,590	4%	1,565	6%		16	0
Hour 4	1,490	1,396	7%	1,474	1%	1,430	4%	1,489	0%	1,453	3%	1,434	4%	1,396	7%	1,505	1%	1,445	3%	1,457	2%	1,462	2%	1,457	2%		16	0
11	5,348	5,036	6%	5,009	7%	5,025	6%	5,040	6%	5,125	4%	5,089	5%	5,036	6%	5,133	4%	5,061	6%	5,066	5%	5,086	5%	5,069	5%		32	0



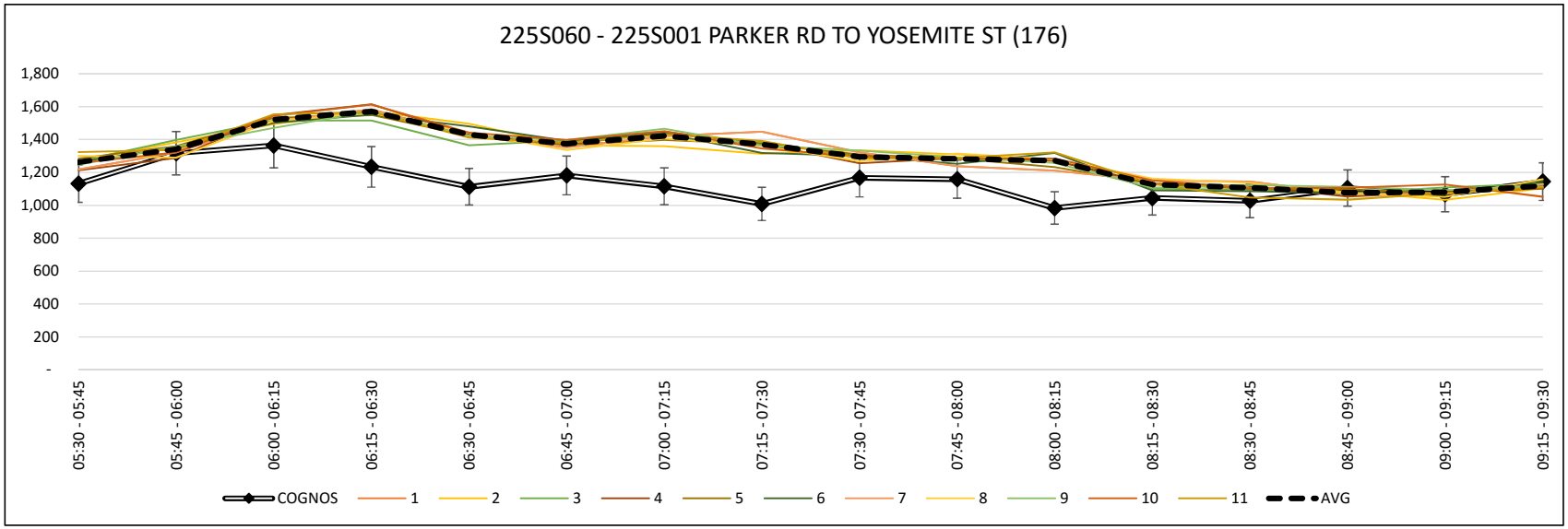
CONCEPT 2		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																											
AM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C08	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	122	79	43%	99	21%	95	25%	100	20%	97	23%	110	10%	79	43%	108	12%	102	18%	96	24%	103	17%	99	21%		8	12
05:45 - 06:00	170	108	45%	121	34%	122	33%	106	46%	118	36%	124	31%	108	45%	118	36%	115	39%	121	34%	107	45%	117	37%		7	5
06:00 - 06:15	154	135	13%	127	19%	126	20%	127	19%	117	27%	131	16%	135	13%	136	12%	119	26%	118	26%	139	10%	129	18%		10	12
06:15 - 06:30	225	155	37%	146	43%	157	36%	175	25%	166	30%	168	29%	155	37%	181	22%	198	13%	172	27%	179	23%	169	28%		14	11
06:30 - 06:45	285	236	19%	227	23%	243	16%	229	22%	221	25%	265	7%	236	19%	254	12%	229	22%	224	24%	250	13%	238	18%		14	7
06:45 - 07:00	374	277	30%	261	36%	238	44%	263	35%	257	37%	269	33%	277	30%	253	39%	261	36%	279	29%	230	48%	261	36%		16	5
07:00 - 07:15	432	268	47%	258	50%	267	47%	234	59%	290	39%	268	47%	268	47%	294	38%	271	46%	258	50%	287	40%	270	46%		17	4
07:15 - 07:30	406	299	30%	299	30%	283	36%	269	41%	285	35%	266	42%	299	30%	296	31%	272	40%	294	32%	290	33%	285	35%		12	2
07:30 - 07:45	435	344	23%	326	29%	313	33%	300	37%	343	24%	320	30%	344	23%	332	27%	326	29%	318	31%	307	35%	322	30%		14	3
07:45 - 08:00	478	304	45%	314	41%	297	47%	310	43%	318	40%	287	50%	304	45%	311	42%	275	54%	358	29%	302	45%	309	43%		21	5
08:00 - 08:15	423	286	39%	291	37%	321	27%	315	29%	340	22%	325	26%	286	39%	298	35%	302	33%	315	29%	310	31%	311	31%		16	4
08:15 - 08:30	407	283	36%	292	33%	300	30%	301	30%	308	28%	285	35%	283	36%	274	39%	257	45%	282	36%	295	32%	290	34%		15	4
08:30 - 08:45	386	297	26%	267	36%	254	41%	286	30%	274	34%	240	47%	297	26%	289	29%	278	33%	285	30%	274	34%	276	33%		17	5
08:45 - 09:00	366	225	48%	256	35%	262	33%	283	26%	266	32%	261	33%	225	48%	246	39%	294	22%	249	38%	257	35%	260	34%		18	7
09:00 - 09:15	354	269	27%	263	29%	235	40%	259	31%	249	35%	192	59%	269	27%	234	41%	252	34%	253	33%	259	31%	245	36%		22	11
09:15 - 09:30	257	241	6%	266	3%	207	22%	225	13%	286	11%	255	1%	241	6%	230	11%	228	12%	217	17%	206	22%	235	9%		25	26
Hour 1	671	477	34%	493	31%	500	29%	508	28%	498	30%	533	23%	477	34%	543	21%	534	23%	507	28%	528	24%	514	26%		10	1
Hour 2	1,497	1,080	32%	1,045	36%	1,031	37%	995	40%	1,053	35%	1,068	33%	1,080	32%	1,097	31%	1,033	37%	1,055	35%	1,057	34%	1,054	35%		15	0
Hour 3	1,743	1,217	36%	1,223	35%	1,231	34%	1,226	35%	1,309	28%	1,217	36%	1,217	36%	1,215	36%	1,160	40%	1,273	31%	1,214	36%	1,232	34%		17	0
Hour 4	1,363	1,032	28%	1,052	26%	958	35%	1,053	26%	1,075	24%	948	36%	1,032	28%	999	31%	1,052	26%	1,004	30%	996	31%	1,016	29%		21	1
11	5,274	3,806	32%	3,813	32%	3,720	35%	3,782	33%	3,935	29%	3,766	33%	3,806	32%	3,854	31%	3,779	33%	3,839	31%	3,795	33%	3,816	32%		32	0



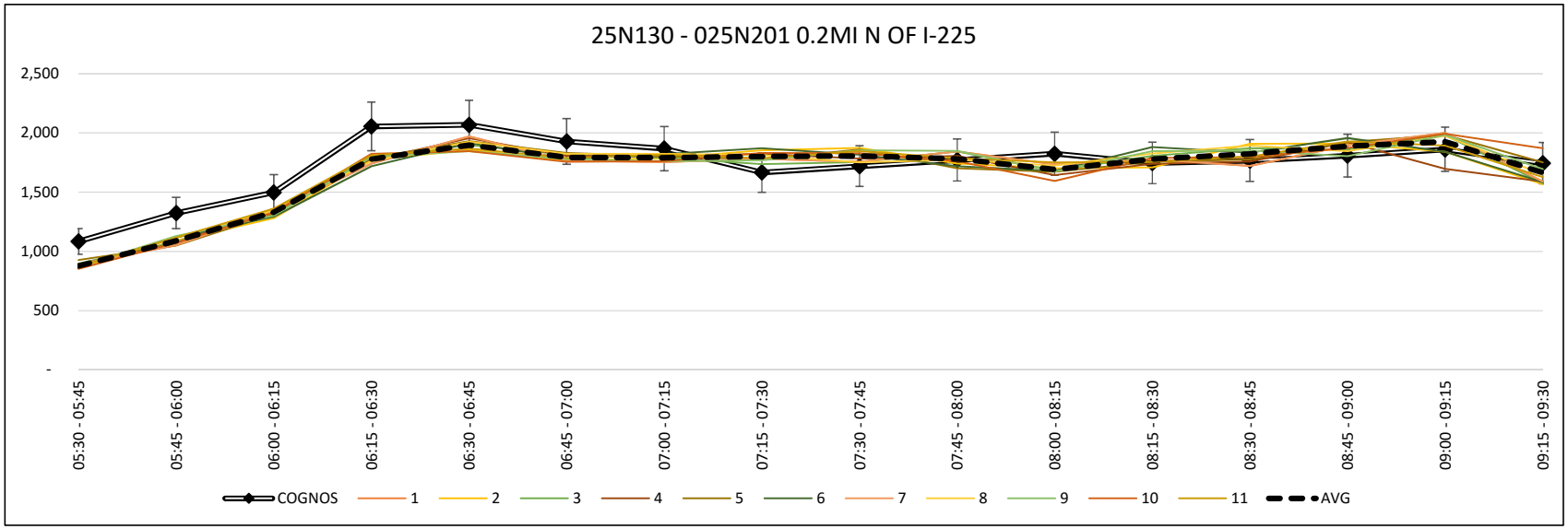
CONCEPT 2		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																										
AM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C08.5	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	976	960	2%	985	1%	993	2%	925	5%	975	0%	977	0%	960	2%	996	2%	958	2%	972	0%	1,012	4%	974	0%		24	2
05:45 - 06:00	1,042	1,012	3%	1,077	3%	1,079	3%	988	5%	1,024	2%	1,042	0%	1,012	3%	973	7%	1,014	3%	1,032	1%	1,057	1%	1,030	1%		33	3
06:00 - 06:15	1,068	1,167	9%	1,153	8%	1,167	9%	1,195	11%	1,185	10%	1,164	9%	1,167	9%	1,154	8%	1,106	3%	1,194	11%	1,197	11%	1,169	9%		26	2
06:15 - 06:30	1,032	1,215	16%	1,230	18%	1,171	13%	1,225	17%	1,214	16%	1,194	15%	1,215	16%	1,176	13%	1,193	14%	1,270	21%	1,196	15%	1,212	16%		30	2
06:30 - 06:45	941	1,188	23%	1,246	28%	1,147	20%	1,186	23%	1,177	22%	1,193	24%	1,188	23%	1,173	22%	1,180	23%	1,184	23%	1,162	21%	1,182	23%		25	2
06:45 - 07:00	944	1,142	19%	1,155	20%	1,172	22%	1,138	19%	1,159	20%	1,180	22%	1,142	19%	1,137	19%	1,155	20%	1,153	20%	1,135	18%	1,151	20%		16	1
07:00 - 07:15	879	1,214	32%	1,144	26%	1,211	32%	1,221	33%	1,128	25%	1,174	29%	1,214	32%	1,148	27%	1,239	34%	1,232	33%	1,222	33%	1,190	30%		40	6
07:15 - 07:30	836	1,177	34%	1,049	23%	1,140	31%	1,157	32%	1,144	31%	1,132	30%	1,177	34%	1,124	29%	1,160	32%	1,144	31%	1,166	33%	1,141	31%		34	5
07:30 - 07:45	887	1,054	17%	1,086	20%	1,027	15%	1,016	14%	1,059	18%	1,046	16%	1,054	17%	1,004	12%	1,052	17%	988	11%	1,025	14%	1,031	15%		31	3
07:45 - 08:00	920	981	6%	1,015	10%	1,000	8%	1,007	9%	1,020	10%	985	7%	981	6%	1,051	13%	1,013	10%	1,010	9%	977	6%	1,003	9%		23	2
08:00 - 08:15	789	940	17%	1,006	24%	1,013	25%	1,013	25%	966	20%	1,034	27%	940	17%	1,002	24%	1,010	25%	1,016	25%	1,039	27%	1,003	24%		28	3
08:15 - 08:30	808	910	12%	898	11%	856	6%	886	9%	897	10%	852	5%	910	12%	930	14%	881	9%	923	13%	889	10%	890	10%		26	3
08:30 - 08:45	870	896	3%	863	1%	873	0%	888	2%	844	3%	889	2%	896	3%	889	2%	875	1%	864	1%	824	5%	873	0%		23	2
08:45 - 09:00	901	858	5%	869	4%	850	6%	835	8%	886	2%	847	6%	858	5%	857	5%	863	4%	880	2%	827	9%	857	5%		18	1
09:00 - 09:15	888	854	4%	811	9%	902	2%	862	3%	842	5%	881	1%	854	4%	842	5%	864	3%	913	3%	860	3%	867	2%		31	3
09:15 - 09:30	937	898	4%	873	7%	907	3%	875	7%	862	8%	908	3%	898	4%	920	2%	901	4%	850	10%	887	5%	894	5%		28	2
Hour 1	4,118	4,354	6%	4,445	8%	4,410	7%	4,333	5%	4,398	7%	4,377	6%	4,354	6%	4,299	4%	4,271	4%	4,468	8%	4,462	8%	4,385	6%		28	0
Hour 2	3,600	4,721	27%	4,594	24%	4,670	26%	4,702	27%	4,608	25%	4,679	26%	4,721	27%	4,582	24%	4,734	27%	4,713	27%	4,685	26%	4,664	26%		30	0
Hour 3	3,404	3,885	13%	4,005	16%	3,896	13%	3,922	14%	3,942	15%	3,917	14%	3,885	13%	3,987	16%	3,956	15%	3,937	15%	3,930	14%	3,927	14%		27	0
Hour 4	3,596	3,506	3%	3,416	5%	3,532	2%	3,460	4%	3,434	5%	3,525	2%	3,506	3%	3,508	2%	3,503	3%	3,507	3%	3,398	6%	3,491	3%		25	0
11	14,718	16,466	11%	16,460	11%	16,508	11%	16,417	11%	16,382	11%	16,498	11%	16,466	11%	16,376	11%	16,464	11%	16,625	12%	16,475	11%	16,467	11%		56	0



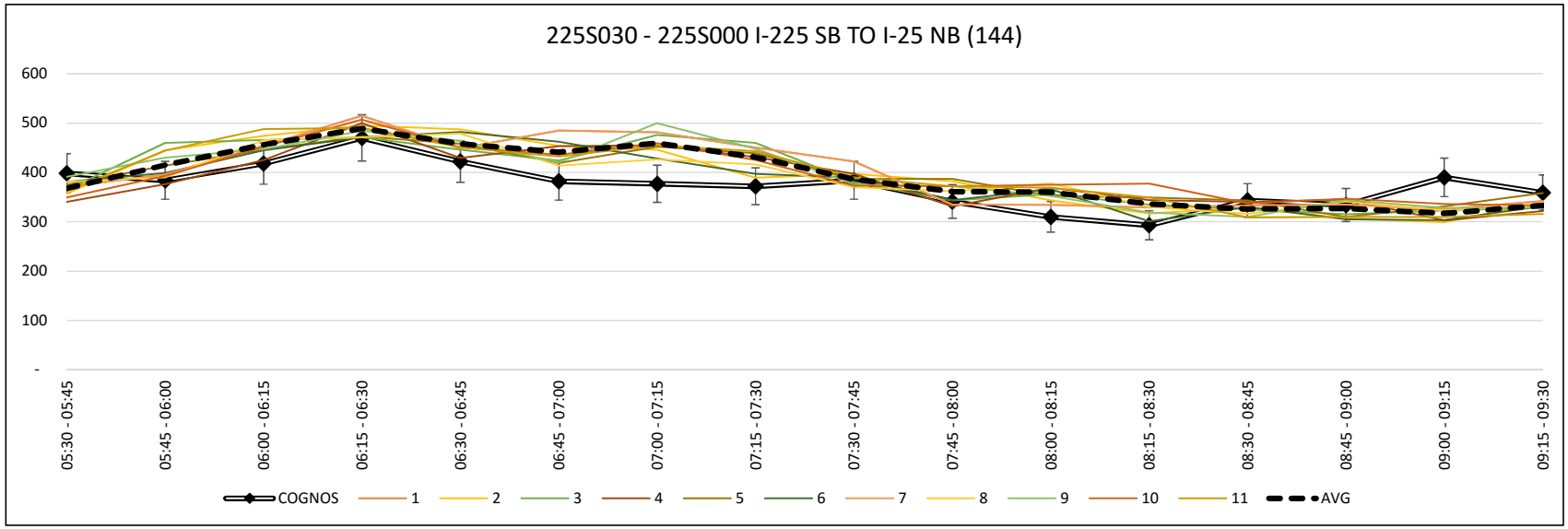
CONCEPT 2		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																										
AM	COGNOS	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	225S060	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	1,132	1,217	7%	1,270	11%	1,268	11%	1,212	7%	1,284	13%	1,264	11%	1,217	7%	1,300	14%	1,247	10%	1,258	11%	1,324	16%	1,263	11%		33	2
05:45 - 06:00	1,317	1,321	0%	1,382	5%	1,398	6%	1,288	2%	1,360	3%	1,351	3%	1,321	0%	1,289	2%	1,358	3%	1,322	0%	1,337	2%	1,342	2%		35	2
06:00 - 06:15	1,364	1,511	10%	1,494	9%	1,516	11%	1,547	13%	1,531	12%	1,501	10%	1,511	10%	1,513	10%	1,470	7%	1,544	12%	1,553	13%	1,521	11%		26	1
06:15 - 06:30	1,234	1,583	25%	1,572	24%	1,516	21%	1,614	27%	1,549	23%	1,551	23%	1,583	25%	1,561	23%	1,571	24%	1,612	27%	1,567	24%	1,571	24%		28	1
06:30 - 06:45	1,113	1,422	24%	1,495	29%	1,364	20%	1,429	25%	1,422	24%	1,480	28%	1,422	24%	1,440	26%	1,423	24%	1,442	26%	1,411	24%	1,429	25%		36	3
06:45 - 07:00	1,182	1,353	13%	1,364	14%	1,393	16%	1,366	14%	1,366	14%	1,391	16%	1,353	13%	1,337	12%	1,398	17%	1,398	17%	1,379	15%	1,373	15%		20	1
07:00 - 07:15	1,116	1,420	24%	1,360	20%	1,439	25%	1,447	26%	1,398	22%	1,436	25%	1,420	24%	1,406	23%	1,465	27%	1,450	26%	1,432	25%	1,423	24%		30	2
07:15 - 07:30	1,009	1,447	36%	1,312	26%	1,384	31%	1,374	31%	1,372	30%	1,319	27%	1,447	36%	1,361	30%	1,363	30%	1,345	29%	1,392	32%	1,371	30%		39	4
07:30 - 07:45	1,168	1,322	12%	1,334	13%	1,299	11%	1,255	7%	1,310	11%	1,300	11%	1,322	12%	1,268	8%	1,332	13%	1,296	10%	1,285	10%	1,295	10%		29	2
07:45 - 08:00	1,159	1,237	7%	1,310	12%	1,278	10%	1,288	11%	1,284	10%	1,252	8%	1,237	7%	1,314	13%	1,291	11%	1,285	10%	1,287	10%	1,282	10%		22	1
08:00 - 08:15	984	1,211	21%	1,273	26%	1,283	26%	1,270	25%	1,232	22%	1,319	29%	1,211	21%	1,279	26%	1,258	24%	1,284	26%	1,321	29%	1,271	25%		33	3
08:15 - 08:30	1,045	1,149	9%	1,130	8%	1,101	5%	1,131	8%	1,130	8%	1,091	4%	1,149	9%	1,163	11%	1,107	6%	1,151	10%	1,130	8%	1,127	8%		22	1
08:30 - 08:45	1,028	1,145	11%	1,100	7%	1,095	6%	1,118	8%	1,101	7%	1,085	5%	1,145	11%	1,136	10%	1,123	9%	1,104	7%	1,048	2%	1,107	7%		27	2
08:45 - 09:00	1,105	1,071	3%	1,083	2%	1,074	3%	1,054	5%	1,098	1%	1,074	3%	1,071	3%	1,072	3%	1,113	1%	1,107	0%	1,034	7%	1,077	3%		23	1
09:00 - 09:15	1,067	1,069	0%	1,033	3%	1,108	4%	1,081	1%	1,073	1%	1,067	0%	1,069	0%	1,051	2%	1,092	2%	1,126	5%	1,075	1%	1,079	1%		26	2
09:15 - 09:30	1,144	1,129	1%	1,103	4%	1,132	1%	1,102	4%	1,107	3%	1,148	0%	1,129	1%	1,159	1%	1,116	2%	1,052	8%	1,111	3%	1,120	2%		31	2
Hour 1	5,047	5,632	11%	5,718	12%	5,698	12%	5,661	11%	5,724	13%	5,667	12%	5,632	11%	5,663	12%	5,646	11%	5,736	13%	5,781	14%	5,697	12%		31	0
Hour 2	4,420	5,642	24%	5,531	22%	5,580	23%	5,616	24%	5,558	23%	5,626	24%	5,642	24%	5,544	23%	5,649	24%	5,635	24%	5,614	24%	5,596	23%		32	0
Hour 3	4,356	4,919	12%	5,047	15%	4,961	13%	4,944	13%	4,956	13%	4,962	13%	4,919	12%	5,024	14%	4,988	14%	5,016	14%	5,023	14%	4,975	13%		27	0
Hour 4	4,344	4,414	2%	4,319	1%	4,409	1%	4,355	0%	4,379	1%	4,374	1%	4,414	2%	4,418	2%	4,444	2%	4,389	1%	4,268	2%	4,383	1%		27	0
11	18,167	20,607	13%	20,615	13%	20,648	13%	20,576	12%	20,617	13%	20,629	13%	20,607	13%	20,649	13%	20,727	13%	20,776	13%	20,686	13%	20,651	13%		58	0



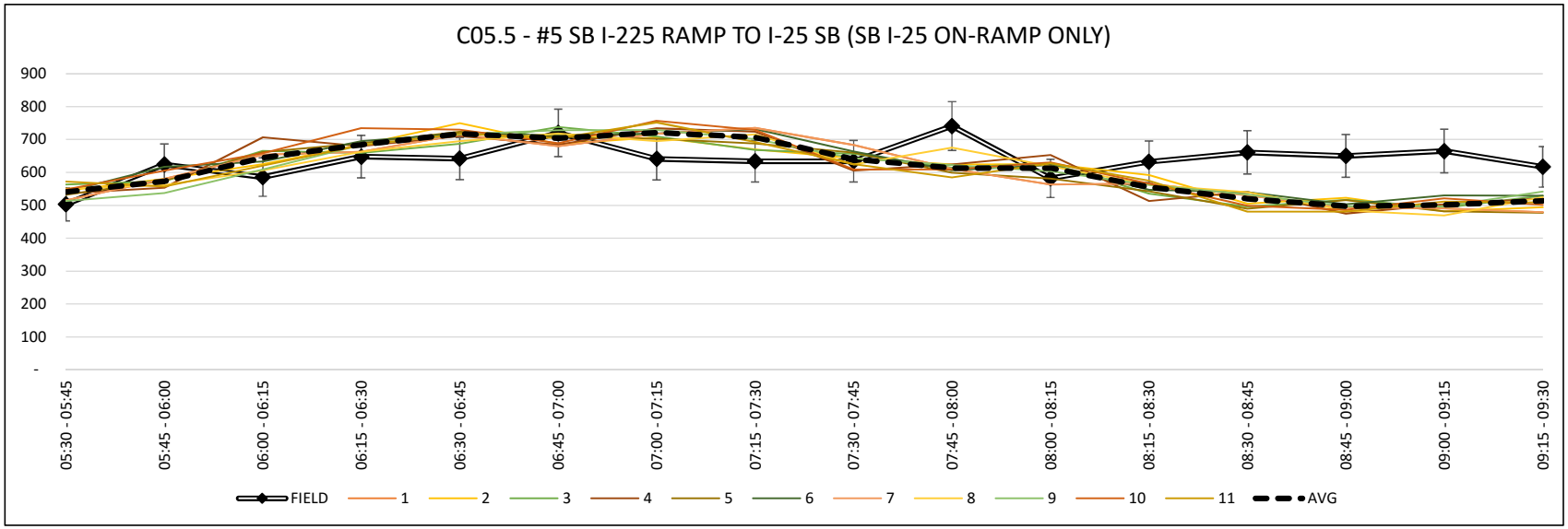
CONCEPT 2		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																										
AM	COGNOS	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	25N130	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	1,084	892	19%	864	23%	898	19%	890	20%	927	16%	870	22%	892	19%	871	22%	869	22%	853	24%	873	22%	877	21%		23	1
05:45 - 06:00	1,324	1,052	23%	1,091	19%	1,078	20%	1,069	21%	1,048	23%	1,117	17%	1,052	23%	1,116	17%	1,130	16%	1,075	21%	1,116	17%	1,088	20%		28	1
06:00 - 06:15	1,498	1,344	11%	1,280	16%	1,347	11%	1,361	10%	1,315	13%	1,294	15%	1,344	11%	1,348	11%	1,303	14%	1,327	12%	1,360	10%	1,330	12%		28	1
06:15 - 06:30	2,055	1,742	16%	1,774	15%	1,797	13%	1,770	15%	1,788	14%	1,719	18%	1,742	16%	1,763	15%	1,799	13%	1,823	12%	1,810	13%	1,779	14%		30	1
06:30 - 06:45	2,069	1,970	5%	1,855	11%	1,897	9%	1,956	6%	1,930	7%	1,915	8%	1,970	5%	1,925	7%	1,845	11%	1,845	11%	1,868	10%	1,899	9%		44	1
06:45 - 07:00	1,928	1,767	9%	1,769	9%	1,816	6%	1,807	6%	1,832	5%	1,781	8%	1,767	9%	1,823	6%	1,778	8%	1,755	9%	1,789	7%	1,794	7%		26	1
07:00 - 07:15	1,868	1,754	6%	1,787	4%	1,791	4%	1,804	3%	1,804	3%	1,821	3%	1,754	6%	1,824	2%	1,762	6%	1,760	6%	1,816	3%	1,791	4%		25	0
07:15 - 07:30	1,666	1,781	7%	1,853	11%	1,736	4%	1,824	9%	1,775	6%	1,870	12%	1,781	7%	1,814	9%	1,768	6%	1,830	9%	1,786	7%	1,801	8%		41	2
07:30 - 07:45	1,720	1,755	2%	1,874	9%	1,754	2%	1,783	4%	1,860	8%	1,816	5%	1,755	2%	1,752	2%	1,854	7%	1,828	6%	1,845	7%	1,807	5%		48	2
07:45 - 08:00	1,772	1,844	4%	1,741	2%	1,843	4%	1,806	2%	1,702	4%	1,720	3%	1,844	4%	1,774	0%	1,849	4%	1,761	1%	1,786	1%	1,782	1%		50	2
08:00 - 08:15	1,825	1,735	5%	1,702	7%	1,682	8%	1,643	10%	1,671	9%	1,679	8%	1,735	5%	1,724	6%	1,673	9%	1,594	14%	1,751	4%	1,692	8%		49	2
08:15 - 08:30	1,747	1,777	2%	1,710	2%	1,805	3%	1,739	0%	1,755	0%	1,881	7%	1,777	2%	1,825	4%	1,847	6%	1,788	2%	1,755	0%	1,778	2%		61	3
08:30 - 08:45	1,767	1,722	3%	1,908	8%	1,871	6%	1,758	1%	1,777	1%	1,833	4%	1,722	3%	1,893	7%	1,850	5%	1,796	2%	1,802	2%	1,824	3%		59	3
08:45 - 09:00	1,809	1,895	5%	1,911	5%	1,860	3%	1,920	6%	1,922	6%	1,957	8%	1,895	5%	1,845	2%	1,804	0%	1,873	3%	1,929	6%	1,888	4%		45	2
09:00 - 09:15	1,862	2,001	7%	1,840	1%	1,982	6%	1,697	9%	1,982	6%	1,841	1%	2,001	7%	1,976	6%	1,983	6%	1,993	7%	1,893	2%	1,926	3%		98	8
09:15 - 09:30	1,745	1,590	9%	1,567	11%	1,577	10%	1,589	9%	1,752	0%	1,584	10%	1,590	9%	1,650	6%	1,693	3%	1,871	7%	1,628	7%	1,664	5%		104	10
Hour 1	5,961	5,030	17%	5,009	17%	5,120	15%	5,090	16%	5,078	16%	5,000	18%	5,030	17%	5,098	16%	5,101	16%	5,078	16%	5,159	14%	5,074	16%		27	0
Hour 2	7,531	7,272	3%	7,264	4%	7,240	4%	7,391	2%	7,341	3%	7,387	2%	7,272	3%	7,386	2%	7,153	5%	7,190	5%	7,259	4%	7,285	3%		35	0
Hour 3	7,064	7,111	1%	7,027	1%	7,084	0%	6,971	1%	6,988	1%	7,096	0%	7,111	1%	7,075	0%	7,223	2%	6,971	1%	7,137	1%	7,059	0%		52	0
Hour 4	7,183	7,208	0%	7,226	1%	7,290	1%	6,964	3%	7,433	3%	7,215	0%	7,208	0%	7,364	2%	7,330	2%	7,533	5%	7,252	1%	7,302	2%		81	0
11	27,739	26,621	4%	26,526	4%	26,734	4%	26,416	5%	26,840	3%	26,698	4%	26,621	4%	26,923	3%	26,807	3%	26,772	4%	26,807	3%	26,720	4%		106	0



CONCEPT 2		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																										
AM	COGNOS	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	225S030	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	398	371	7%	357	11%	365	9%	340	16%	375	6%	381	4%	371	7%	381	4%	391	2%	349	13%	362	9%	368	8%		20	7
05:45 - 06:00	384	396	3%	445	15%	460	18%	376	2%	414	8%	399	4%	396	3%	390	2%	430	11%	393	2%	444	14%	415	8%		32	19
06:00 - 06:15	418	454	8%	474	13%	466	11%	425	2%	446	6%	445	6%	454	8%	465	11%	447	7%	452	8%	488	15%	456	9%		22	8
06:15 - 06:30	470	515	9%	495	5%	471	0%	500	6%	473	1%	471	0%	515	9%	471	0%	484	3%	507	8%	490	4%	489	4%		30	11
06:30 - 06:45	422	449	6%	487	14%	446	6%	429	2%	458	8%	482	13%	449	6%	479	13%	464	9%	451	7%	451	7%	458	8%		29	13
06:45 - 07:00	382	485	24%	454	17%	424	10%	453	17%	419	9%	462	19%	485	24%	414	8%	420	9%	436	13%	432	12%	441	14%		15	4
07:00 - 07:15	377	481	24%	446	17%	476	23%	455	19%	452	18%	428	13%	481	24%	426	12%	500	28%	459	20%	455	19%	459	20%		33	21
07:15 - 07:30	372	450	19%	389	4%	460	21%	431	15%	439	17%	397	7%	450	19%	416	11%	448	19%	425	13%	443	17%	431	15%		35	25
07:30 - 07:45	384	422	9%	397	3%	380	1%	397	3%	387	1%	389	1%	422	9%	370	4%	376	2%	373	3%	390	2%	386	1%		34	22
07:45 - 08:00	341	335	2%	382	11%	343	1%	331	3%	387	13%	344	1%	335	2%	362	6%	372	9%	372	9%	372	9%	361	6%		29	20
08:00 - 08:15	310	334	7%	343	10%	356	14%	369	17%	353	13%	366	17%	334	7%	378	20%	352	13%	375	19%	369	17%	360	15%		32	30
08:15 - 08:30	293	329	12%	317	8%	335	13%	344	16%	349	17%	301	3%	329	12%	330	12%	319	8%	377	25%	349	17%	336	14%		28	25
08:30 - 08:45	343	333	3%	328	4%	325	5%	340	1%	343	0%	330	4%	333	3%	316	8%	310	10%	337	2%	309	10%	326	5%		27	17
08:45 - 09:00	334	335	0%	307	8%	315	6%	345	3%	310	7%	305	9%	335	0%	341	2%	344	3%	347	4%	310	7%	327	2%		14	5
09:00 - 09:15	390	325	18%	299	26%	323	19%	303	25%	331	16%	303	25%	325	18%	323	19%	328	17%	336	15%	310	23%	317	21%		25	11
09:15 - 09:30	359	342	5%	339	6%	329	9%	322	11%	358	0%	332	8%	342	5%	333	8%	328	9%	333	8%	316	13%	333	8%		25	13
Hour 1	1,670	1,736	4%	1,771	6%	1,762	5%	1,641	2%	1,708	2%	1,696	2%	1,736	4%	1,707	2%	1,752	5%	1,701	2%	1,784	7%	1,728	3%		26	1
Hour 2	1,553	1,865	18%	1,776	13%	1,806	15%	1,768	13%	1,768	13%	1,769	13%	1,865	18%	1,735	11%	1,832	16%	1,771	13%	1,781	14%	1,789	14%		29	1
Hour 3	1,328	1,420	7%	1,439	8%	1,414	6%	1,441	8%	1,476	11%	1,400	5%	1,420	7%	1,440	8%	1,419	7%	1,497	12%	1,480	11%	1,443	8%		31	2
Hour 4	1,426	1,335	7%	1,273	11%	1,292	10%	1,310	8%	1,342	6%	1,270	12%	1,335	7%	1,313	8%	1,310	8%	1,353	5%	1,245	14%	1,303	9%		23	1
11	5,977	6,356	6%	6,259	5%	6,274	5%	6,160	3%	6,294	5%	6,135	3%	6,356	6%	6,195	4%	6,313	5%	6,322	6%	6,290	5%	6,263	5%		55	0



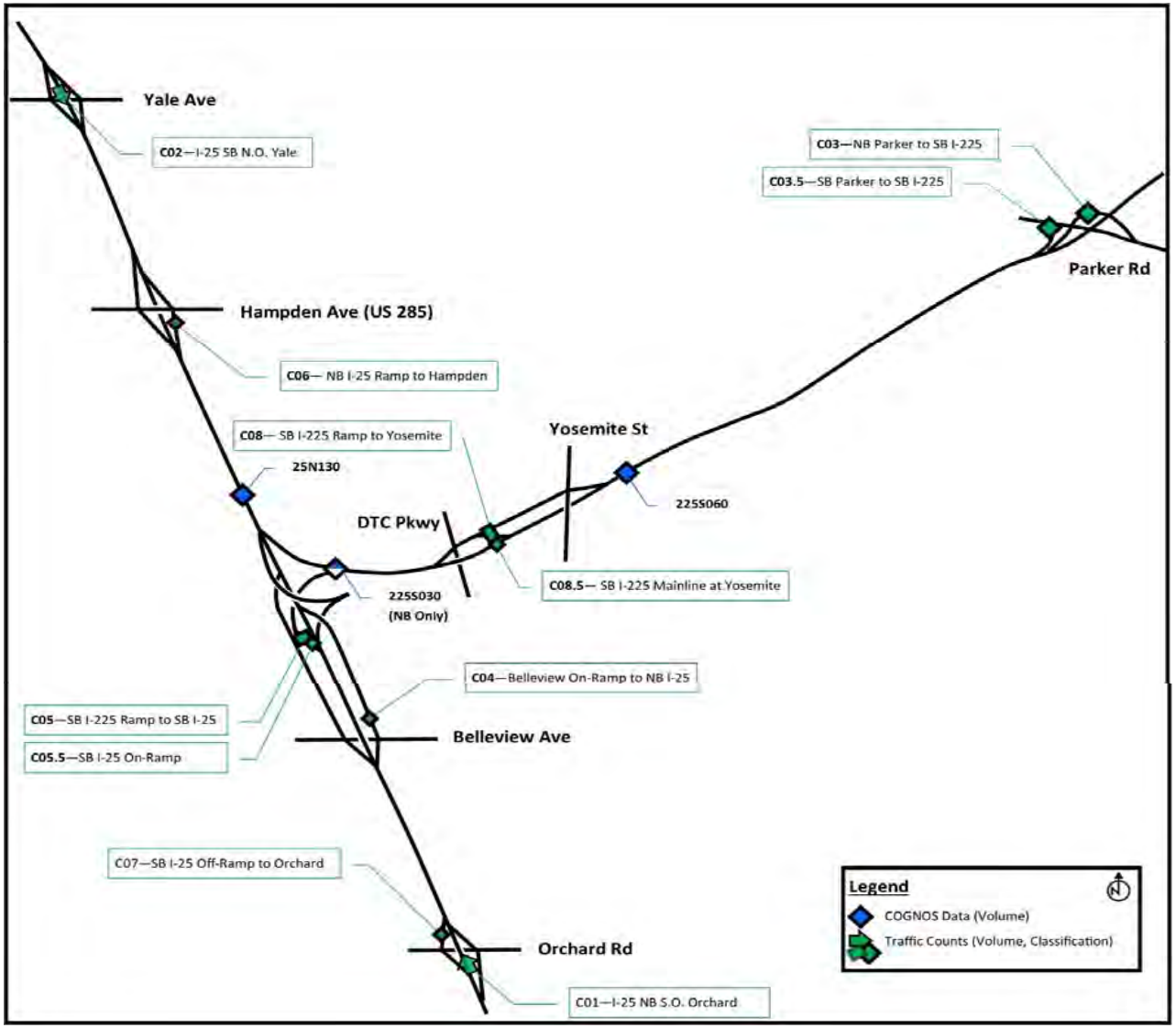
CONCEPT 2		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																											
AM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C05.5	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	503	515	2%	544	8%	563	11%	536	6%	532	6%	542	7%	515	2%	551	9%	513	2%	548	9%	572	13%	541	7%		-	0
05:45 - 06:00	624	580	7%	580	7%	573	9%	553	12%	575	8%	617	1%	580	7%	561	11%	537	15%	605	3%	557	11%	573	9%		-	0
06:00 - 06:15	586	654	11%	625	6%	665	13%	707	19%	662	12%	633	8%	654	11%	606	3%	609	4%	658	12%	621	6%	645	10%		-	0
06:15 - 06:30	648	663	2%	684	5%	659	2%	680	5%	689	6%	695	7%	663	2%	663	2%	683	5%	734	12%	682	5%	684	5%		-	0
06:30 - 06:45	642	715	11%	750	16%	687	7%	710	10%	724	12%	718	11%	715	11%	695	8%	716	11%	730	13%	717	11%	717	11%		-	0
06:45 - 07:00	720	680	6%	686	5%	738	2%	684	5%	708	2%	713	1%	680	6%	718	0%	728	1%	689	4%	704	2%	704	2%		-	0
07:00 - 07:15	641	717	11%	707	10%	709	10%	734	14%	702	9%	718	11%	717	11%	695	8%	729	13%	757	17%	752	16%	721	12%		-	0
07:15 - 07:30	634	735	15%	670	6%	668	5%	724	13%	688	8%	732	14%	735	15%	716	12%	701	10%	729	14%	692	9%	707	11%		-	0
07:30 - 07:45	634	683	7%	643	1%	656	3%	605	5%	660	4%	664	5%	683	7%	624	2%	643	1%	609	4%	625	1%	640	1%		-	0
07:45 - 08:00	741	611	19%	624	17%	614	19%	624	17%	599	21%	606	20%	611	19%	675	9%	622	17%	609	20%	585	24%	613	19%		-	0
08:00 - 08:15	582	563	3%	625	7%	628	8%	653	11%	581	0%	622	7%	563	3%	619	6%	604	4%	630	8%	628	8%	613	5%		-	0
08:15 - 08:30	632	566	11%	592	7%	535	17%	513	21%	543	15%	547	14%	566	11%	562	12%	562	12%	566	11%	575	9%	555	13%		-	0
08:30 - 08:45	661	530	22%	505	27%	496	29%	541	20%	490	30%	540	20%	530	22%	540	20%	533	21%	499	28%	481	32%	520	24%		-	0
08:45 - 09:00	650	493	27%	523	22%	517	23%	475	31%	516	23%	503	25%	493	27%	484	29%	497	27%	486	29%	481	30%	497	27%		-	0
09:00 - 09:15	665	491	30%	482	32%	493	30%	503	28%	482	32%	530	23%	491	30%	469	35%	497	29%	521	24%	511	26%	501	28%		-	0
09:15 - 09:30	617	479	25%	494	22%	529	15%	521	17%	477	26%	529	15%	479	25%	525	16%	542	13%	501	21%	509	19%	514	18%		-	0
Hour 1	2,361	2,412	2%	2,433	3%	2,460	4%	2,476	5%	2,458	4%	2,487	5%	2,412	2%	2,381	1%	2,342	1%	2,545	8%	2,432	3%	2,443	3%		-	0
Hour 2	2,637	2,847	8%	2,813	6%	2,802	6%	2,852	8%	2,822	7%	2,881	9%	2,847	8%	2,824	7%	2,874	9%	2,905	10%	2,865	8%	2,849	8%		-	0
Hour 3	2,589	2,423	7%	2,484	4%	2,433	6%	2,395	8%	2,383	8%	2,439	6%	2,423	7%	2,480	4%	2,431	6%	2,414	7%	2,413	7%	2,421	7%		-	0
Hour 4	2,593	1,993	26%	2,004	26%	2,035	24%	2,040	24%	1,965	28%	2,102	21%	1,993	26%	2,018	25%	2,069	22%	2,007	25%	1,982	27%	2,032	24%		-	0
11	10,180	9,675	5%	9,734	4%	9,730	5%	9,763	4%	9,628	6%	9,909	3%	9,675	5%	9,703	5%	9,716	5%	9,871	3%	9,692	5%	9,745	4%		-	0



TRAFFIC VOLUMES - BY LINK

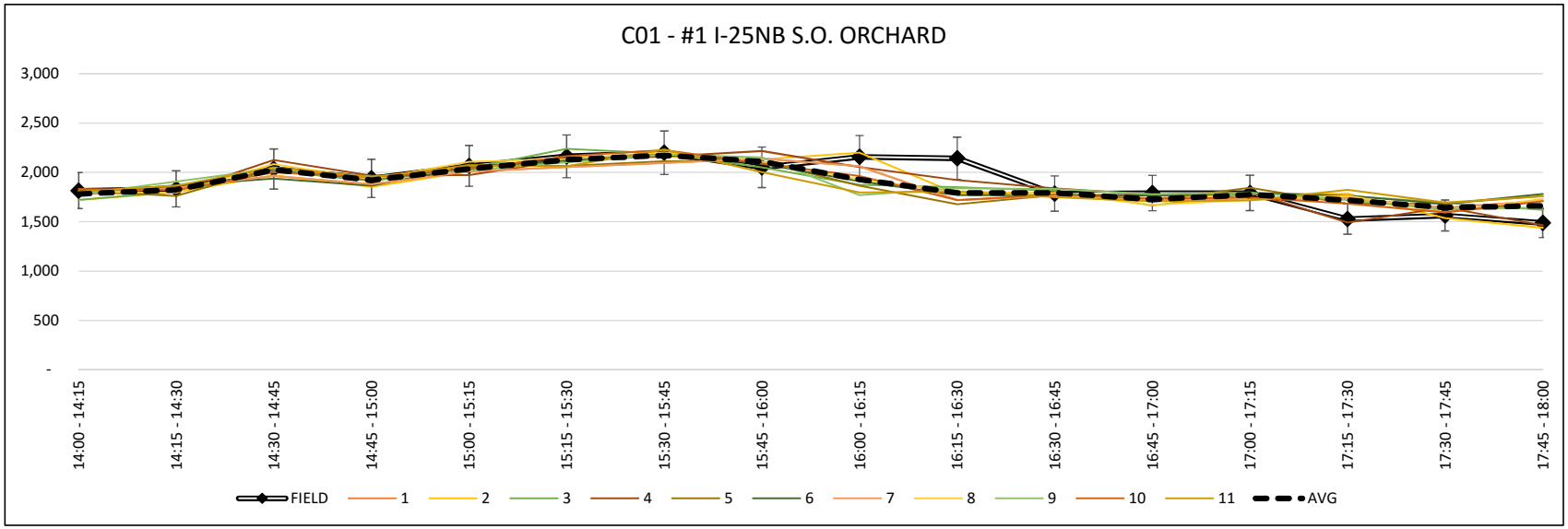
CONCEPT 2

PERIOD: PM

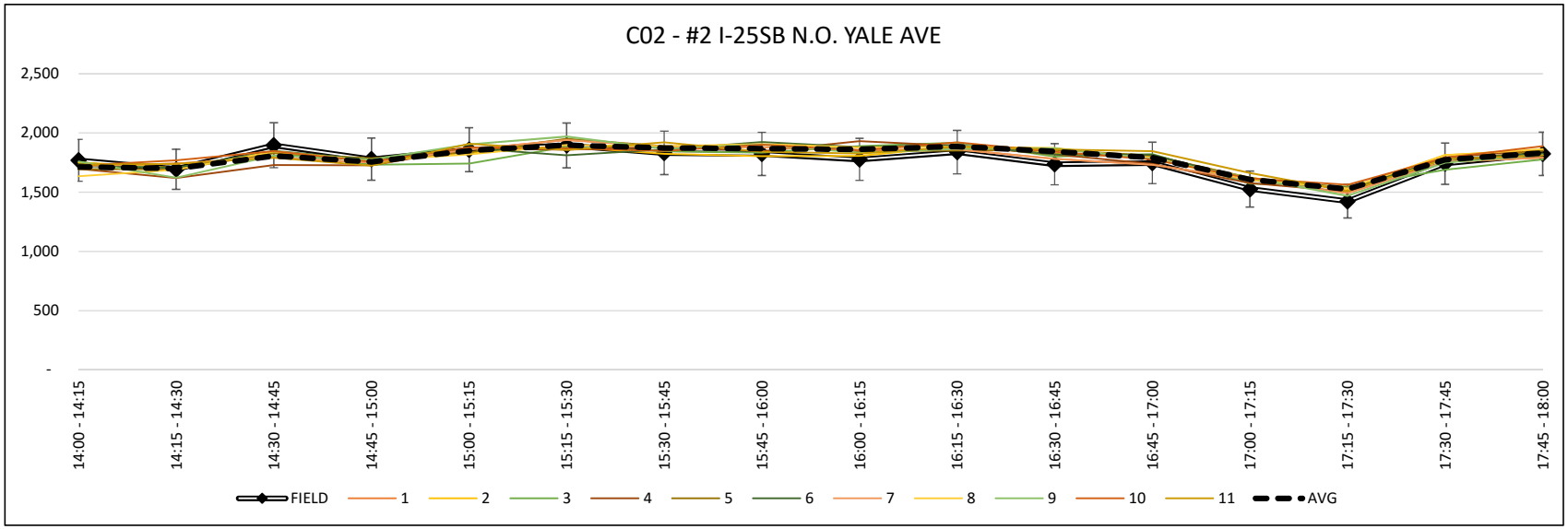


ID	DESCRIPTION
C01	NB I-25 S.O. Orchard
C02	SB I-25 N.O. Yale
C03	NB Parker to SB I-225
C03.5	SB Parker to SB I-225
C04	Belleview On-Ramp to NB I-25
C05	SB I-225 Ramp to SB I-25
C06	NB I-25 Ramp to Hampden
C07	SB I-25 Off-Ramp to Orchard
C08	SB I-225 Ramp to Yosemite
C08.5	SB I-225 Mainline at Yosemite
225S060	225S001 PARKER RD TO YOSEMITE ST (176)
25N130	025N201 0.2MI N OF I-225
225S030	225S000 I-225 SB TO I-25 NB (144)
C05.5	#5 SB I-225 to SB I-25 On-Ramp Only

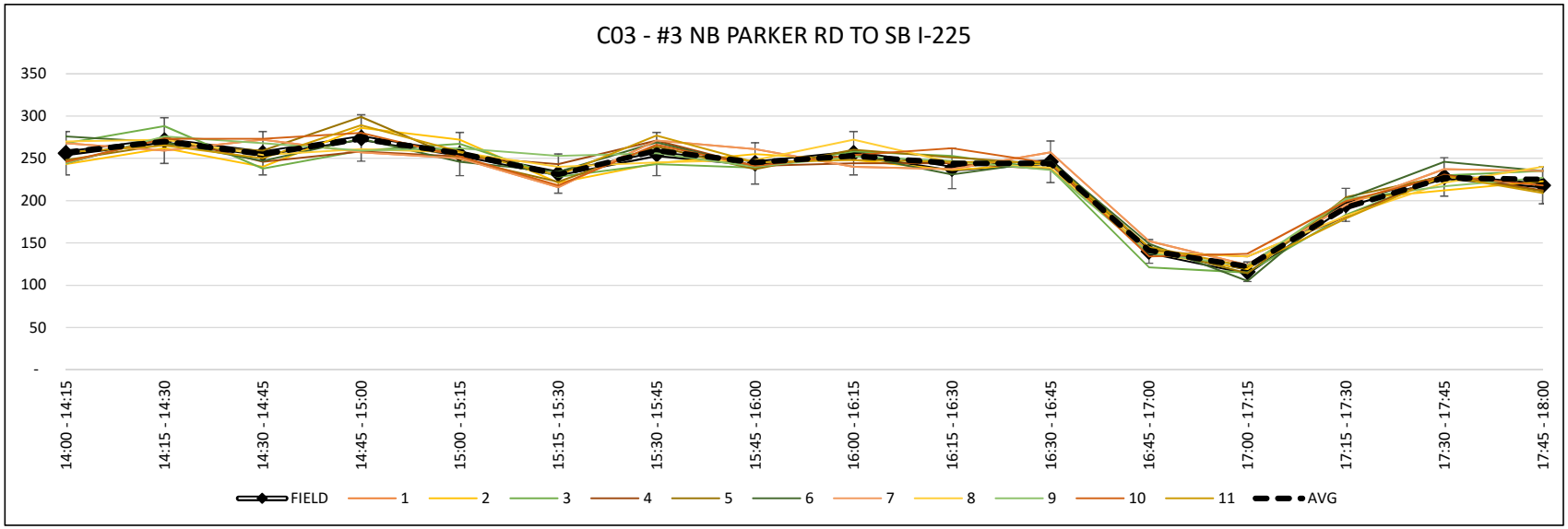
CONCEPT 2		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																											
PM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C01	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	1,816	1,784	2%	1,719	5%	1,722	5%	1,788	2%	1,816	0%	1,796	1%	1,784	2%	1,806	1%	1,779	2%	1,832	1%	1,805	1%	1,781	2%		38	1
14:15 - 14:30	1,834	1,844	1%	1,800	2%	1,802	2%	1,793	2%	1,761	4%	1,868	2%	1,844	1%	1,795	2%	1,907	4%	1,822	1%	1,866	2%	1,825	0%		42	1
14:30 - 14:45	2,035	1,963	4%	1,969	3%	2,017	1%	2,126	4%	2,047	1%	1,936	5%	1,963	4%	2,083	2%	2,038	0%	2,000	2%	2,052	1%	2,026	0%		56	2
14:45 - 15:00	1,940	1,880	3%	1,855	4%	1,914	1%	1,967	1%	1,924	1%	1,866	4%	1,880	3%	1,932	0%	1,958	1%	1,953	1%	1,952	1%	1,921	1%		39	1
15:00 - 15:15	2,066	2,008	3%	2,009	3%	2,041	1%	1,973	5%	2,077	1%	2,059	0%	2,008	3%	2,106	2%	2,021	2%	2,033	2%	2,070	0%	2,035	2%		40	1
15:15 - 15:30	2,163	2,055	5%	2,127	2%	2,240	3%	2,124	2%	2,065	5%	2,120	2%	2,055	5%	2,136	1%	2,100	3%	2,165	0%	2,062	5%	2,128	2%		60	2
15:30 - 15:45	2,199	2,096	5%	2,163	2%	2,192	0%	2,162	2%	2,114	4%	2,196	0%	2,096	5%	2,202	0%	2,181	1%	2,228	1%	2,232	1%	2,173	1%		44	1
15:45 - 16:00	2,052	2,141	4%	2,130	4%	2,051	0%	2,217	8%	2,110	3%	2,087	2%	2,141	4%	2,106	3%	2,152	5%	2,091	2%	2,003	2%	2,111	3%		56	2
16:00 - 16:15	2,158	2,062	5%	2,201	2%	1,875	14%	2,054	5%	1,865	15%	1,911	12%	2,062	5%	1,929	11%	1,769	20%	1,964	9%	1,798	18%	1,929	11%		133	11
16:15 - 16:30	2,143	1,718	22%	1,782	18%	1,851	15%	1,921	11%	1,677	24%	1,769	19%	1,718	22%	1,809	17%	1,838	15%	1,720	22%	1,806	17%	1,795	18%		72	3
16:30 - 16:45	1,786	1,763	1%	1,793	0%	1,816	2%	1,839	3%	1,769	1%	1,767	1%	1,763	1%	1,785	0%	1,832	3%	1,776	1%	1,748	2%	1,794	0%		33	1
16:45 - 17:00	1,791	1,723	4%	1,741	3%	1,664	7%	1,775	1%	1,718	4%	1,770	1%	1,723	4%	1,670	7%	1,778	1%	1,733	3%	1,706	5%	1,726	4%		39	1
17:00 - 17:15	1,792	1,726	4%	1,779	1%	1,781	1%	1,801	1%	1,846	3%	1,794	0%	1,726	4%	1,722	4%	1,795	0%	1,747	3%	1,715	4%	1,777	1%		45	2
17:15 - 17:30	1,528	1,739	13%	1,786	16%	1,763	14%	1,492	2%	1,683	10%	1,765	14%	1,739	13%	1,765	14%	1,720	12%	1,684	10%	1,825	18%	1,720	12%		88	9
17:30 - 17:45	1,564	1,641	5%	1,538	2%	1,693	8%	1,643	5%	1,687	8%	1,680	7%	1,641	5%	1,597	2%	1,625	4%	1,595	2%	1,694	8%	1,644	5%		52	3
17:45 - 18:00	1,489	1,714	14%	1,440	3%	1,620	8%	1,466	2%	1,760	17%	1,781	18%	1,714	14%	1,731	15%	1,644	10%	1,708	14%	1,757	17%	1,662	11%		115	17
Hour 1	7,625	7,471	2%	7,343	4%	7,455	2%	7,674	1%	7,548	1%	7,466	2%	7,471	2%	7,616	0%	7,682	1%	7,607	0%	7,675	1%	7,553	1%		44	0
Hour 2	8,480	8,300	2%	8,429	1%	8,524	1%	8,476	0%	8,366	1%	8,462	0%	8,300	2%	8,550	1%	8,454	0%	8,517	0%	8,367	1%	8,447	0%		51	0
Hour 3	7,878	7,266	8%	7,517	5%	7,206	9%	7,589	4%	7,029	11%	7,217	9%	7,266	8%	7,193	9%	7,217	9%	7,193	9%	7,058	11%	7,244	8%		80	0
Hour 4	6,373	6,820	7%	6,543	3%	6,857	7%	6,402	0%	6,976	9%	7,020	10%	6,820	7%	6,815	7%	6,784	6%	6,734	6%	6,991	9%	6,803	7%		80	0
11	30,356	29,857	2%	29,832	2%	30,042	1%	30,141	1%	29,919	1%	30,165	1%	29,857	2%	30,174	1%	30,137	1%	30,051	1%	30,091	1%	30,047	1%		132	0



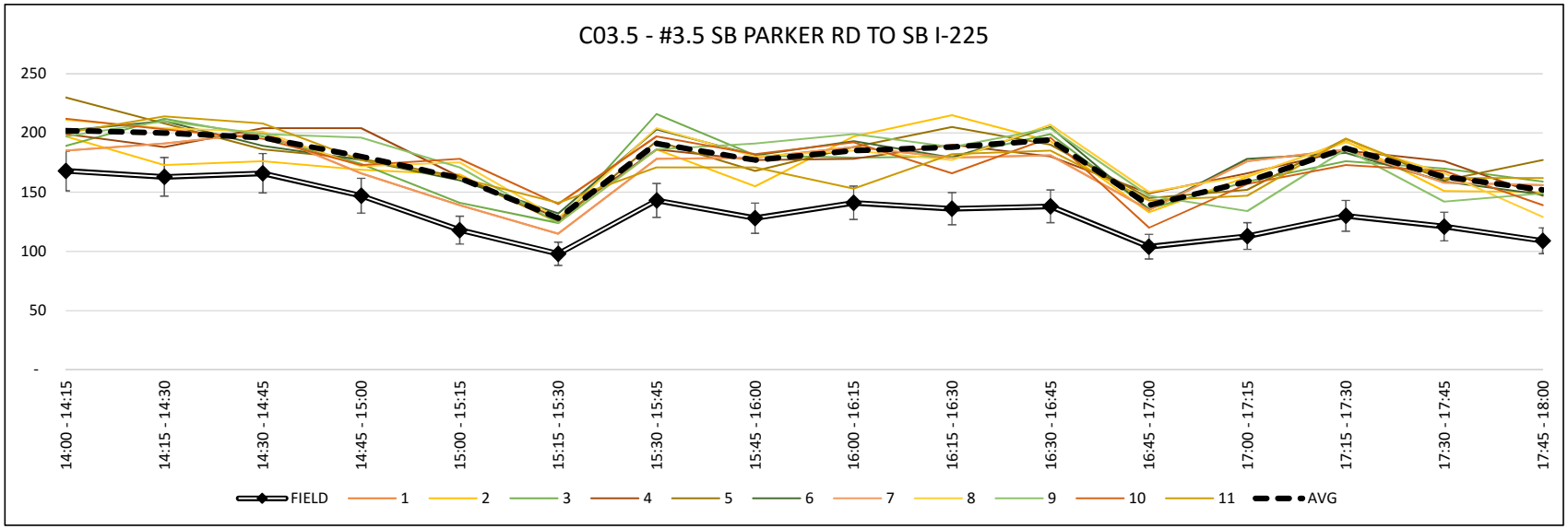
CONCEPT 2		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																										
PM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C02	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	1,769	1,719	3%	1,750	1%	1,735	2%	1,696	4%	1,694	4%	1,720	3%	1,719	3%	1,634	8%	1,758	1%	1,725	3%	1,732	2%	1,714	3%		34	1
14:15 - 14:30	1,693	1,742	3%	1,704	1%	1,701	0%	1,620	4%	1,694	0%	1,706	1%	1,742	3%	1,688	0%	1,622	4%	1,769	4%	1,740	3%	1,700	0%		46	2
14:30 - 14:45	1,896	1,790	6%	1,832	3%	1,837	3%	1,730	9%	1,828	4%	1,849	3%	1,790	6%	1,843	3%	1,809	5%	1,845	3%	1,791	6%	1,805	5%		48	2
14:45 - 15:00	1,779	1,748	2%	1,780	0%	1,732	3%	1,727	3%	1,786	0%	1,773	0%	1,748	2%	1,765	1%	1,776	0%	1,756	1%	1,725	3%	1,755	1%		23	0
15:00 - 15:15	1,858	1,862	0%	1,833	1%	1,741	7%	1,868	1%	1,837	1%	1,870	1%	1,862	0%	1,818	2%	1,902	2%	1,877	1%	1,908	3%	1,851	0%		46	2
15:15 - 15:30	1,895	1,940	2%	1,883	1%	1,883	1%	1,859	2%	1,951	3%	1,811	5%	1,940	2%	1,898	0%	1,969	4%	1,871	1%	1,855	2%	1,897	0%		49	2
15:30 - 15:45	1,832	1,884	3%	1,823	0%	1,847	1%	1,884	3%	1,888	3%	1,861	2%	1,884	3%	1,887	3%	1,867	2%	1,848	1%	1,920	5%	1,874	2%		28	1
15:45 - 16:00	1,823	1,879	3%	1,804	1%	1,833	1%	1,846	1%	1,881	3%	1,924	5%	1,879	3%	1,906	4%	1,902	4%	1,901	4%	1,842	1%	1,869	2%		37	1
16:00 - 16:15	1,777	1,856	4%	1,805	2%	1,888	6%	1,931	8%	1,846	4%	1,881	6%	1,856	4%	1,879	6%	1,830	3%	1,853	4%	1,825	3%	1,862	5%		36	1
16:15 - 16:30	1,838	1,861	1%	1,887	3%	1,919	4%	1,891	3%	1,851	1%	1,897	3%	1,861	1%	1,883	2%	1,866	2%	1,920	4%	1,883	2%	1,886	3%		22	0
16:30 - 16:45	1,736	1,780	3%	1,825	5%	1,802	4%	1,818	5%	1,856	7%	1,819	5%	1,780	3%	1,874	8%	1,871	7%	1,841	6%	1,861	7%	1,843	6%		40	1
16:45 - 17:00	1,747	1,731	1%	1,801	3%	1,821	4%	1,739	0%	1,809	3%	1,817	4%	1,731	1%	1,778	2%	1,781	2%	1,776	2%	1,845	5%	1,792	3%		35	1
17:00 - 17:15	1,526	1,606	5%	1,623	6%	1,573	3%	1,577	3%	1,619	6%	1,601	5%	1,606	5%	1,604	5%	1,621	6%	1,618	6%	1,661	8%	1,607	5%		27	1
17:15 - 17:30	1,424	1,493	5%	1,528	7%	1,546	8%	1,505	6%	1,537	8%	1,535	8%	1,493	5%	1,533	7%	1,469	3%	1,563	9%	1,509	6%	1,526	7%		29	1
17:30 - 17:45	1,741	1,755	1%	1,814	4%	1,690	3%	1,794	3%	1,753	1%	1,778	2%	1,755	1%	1,812	4%	1,748	0%	1,790	3%	1,778	2%	1,773	2%		36	1
17:45 - 18:00	1,824	1,792	2%	1,852	2%	1,775	3%	1,857	2%	1,855	2%	1,826	0%	1,792	2%	1,864	2%	1,814	1%	1,888	3%	1,812	1%	1,830	0%		35	1
Hour 1	7,137	6,999	2%	7,066	1%	7,005	2%	6,773	5%	7,002	2%	7,048	1%	6,999	2%	6,930	3%	6,965	2%	7,095	1%	6,988	2%	6,974	2%		39	0
Hour 2	7,408	7,565	2%	7,343	1%	7,304	1%	7,457	1%	7,557	2%	7,466	1%	7,565	2%	7,509	1%	7,640	3%	7,497	1%	7,525	2%	7,491	1%		41	0
Hour 3	7,098	7,228	2%	7,318	3%	7,430	5%	7,379	4%	7,362	4%	7,414	4%	7,228	2%	7,414	4%	7,348	3%	7,390	4%	7,414	4%	7,383	4%		34	0
Hour 4	6,515	6,646	2%	6,817	5%	6,584	1%	6,733	3%	6,764	4%	6,740	3%	6,646	2%	6,813	4%	6,652	2%	6,859	5%	6,760	4%	6,736	3%		32	0
11	28,158	28,438	1%	28,544	1%	28,323	1%	28,342	1%	28,685	2%	28,668	2%	28,438	1%	28,666	2%	28,605	2%	28,841	2%	28,687	2%	28,584	2%		73	0



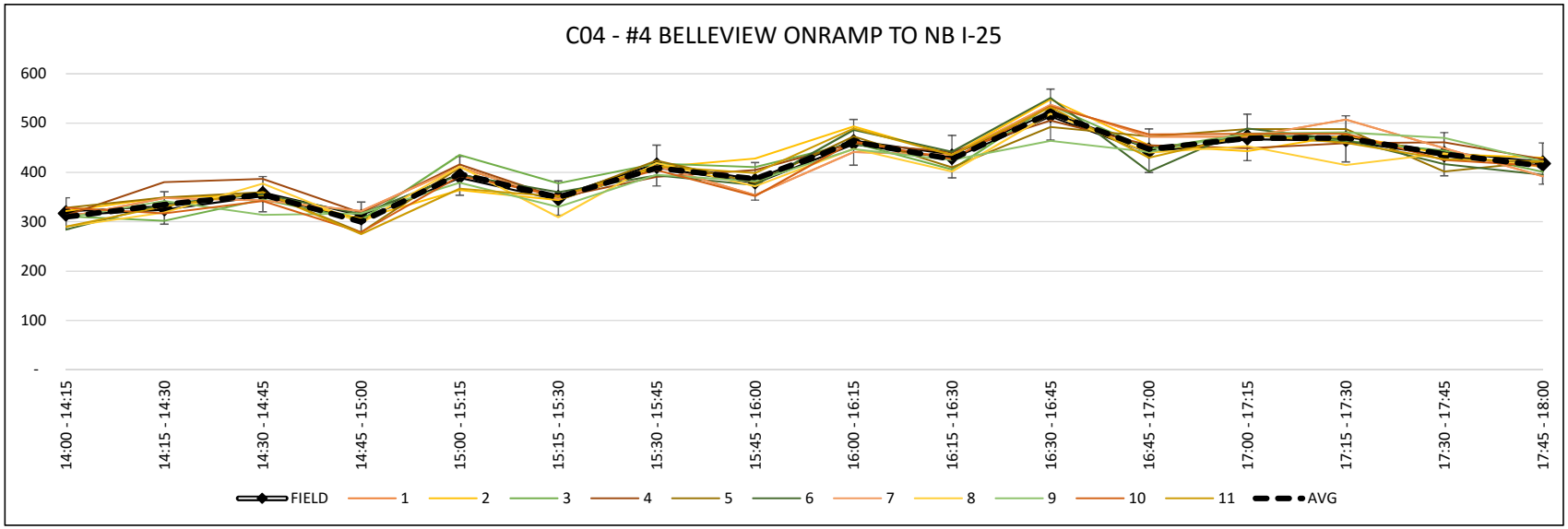
CONCEPT 2		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																											
PM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C03	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	256	268	5%	243	5%	268	5%	244	5%	248	3%	276	8%	268	5%	270	5%	244	5%	246	4%	257	0%	257	0%		12	6
14:15 - 14:30	271	259	5%	262	3%	288	6%	275	1%	266	2%	269	1%	259	5%	272	0%	276	2%	273	1%	265	2%	270	0%		8	2
14:30 - 14:45	256	272	6%	240	6%	238	7%	246	4%	259	1%	247	4%	272	6%	254	1%	268	5%	273	6%	250	2%	255	0%		12	6
14:45 - 15:00	274	257	6%	286	4%	259	6%	258	6%	299	9%	273	0%	257	6%	261	5%	259	6%	280	2%	289	5%	273	0%		15	8
15:00 - 15:15	255	250	2%	272	6%	267	5%	252	1%	249	2%	246	4%	250	2%	257	1%	262	3%	252	1%	258	1%	256	0%		8	3
15:15 - 15:30	232	216	7%	221	5%	228	2%	243	5%	222	4%	234	1%	216	7%	240	3%	253	9%	218	6%	230	1%	231	0%		12	7
15:30 - 15:45	255	271	6%	244	4%	243	5%	271	6%	264	3%	269	5%	271	6%	245	4%	256	0%	266	4%	277	8%	259	2%		14	8
15:45 - 16:00	244	261	7%	255	4%	239	2%	241	1%	237	3%	240	2%	261	7%	248	2%	240	2%	241	1%	245	0%	245	0%		7	2
16:00 - 16:15	256	240	6%	248	3%	258	1%	244	5%	260	2%	254	1%	240	6%	272	6%	252	2%	254	1%	248	3%	253	1%		9	3
16:15 - 16:30	238	237	0%	236	1%	253	6%	244	2%	251	5%	231	3%	237	0%	245	3%	247	4%	262	10%	246	3%	244	2%		10	5
16:30 - 16:45	246	257	4%	244	1%	237	4%	237	4%	243	1%	247	0%	257	4%	239	3%	236	4%	244	1%	245	0%	244	1%		6	2
16:45 - 17:00	140	152	8%	139	1%	121	15%	140	0%	144	3%	149	6%	152	8%	139	1%	138	1%	134	4%	145	4%	141	1%		9	11
17:00 - 17:15	116	124	7%	119	3%	115	1%	134	14%	114	2%	105	10%	124	7%	134	14%	123	6%	137	17%	122	5%	122	5%		10	21
17:15 - 17:30	195	195	0%	201	3%	183	6%	181	7%	204	5%	202	4%	195	0%	182	7%	202	4%	199	2%	179	9%	192	2%		10	7
17:30 - 17:45	228	237	4%	212	7%	230	1%	231	1%	229	0%	246	8%	237	4%	221	3%	217	5%	229	0%	229	0%	227	0%		10	5
17:45 - 18:00	218	235	8%	223	2%	235	8%	212	3%	211	3%	235	8%	235	8%	240	10%	227	4%	218	0%	209	4%	225	3%		11	7
Hour 1	1,057	1,056	0%	1,031	2%	1,053	0%	1,023	3%	1,072	1%	1,065	1%	1,056	0%	1,057	0%	1,047	1%	1,072	1%	1,061	0%	1,055	0%		12	0
Hour 2	986	998	1%	992	1%	977	1%	1,007	2%	972	1%	989	0%	998	1%	990	0%	1,011	3%	977	1%	1,010	2%	991	1%		11	0
Hour 3	880	886	1%	867	1%	869	1%	865	2%	898	2%	881	0%	886	1%	895	2%	873	1%	894	2%	884	0%	882	0%		9	0
Hour 4	757	791	4%	755	0%	763	1%	758	0%	758	0%	788	4%	791	4%	777	3%	769	2%	783	3%	739	2%	766	1%		10	0
11	3,680	3,731	1%	3,645	1%	3,662	0%	3,653	1%	3,700	1%	3,723	1%	3,731	1%	3,719	1%	3,700	1%	3,726	1%	3,694	0%	3,694	0%		21	0



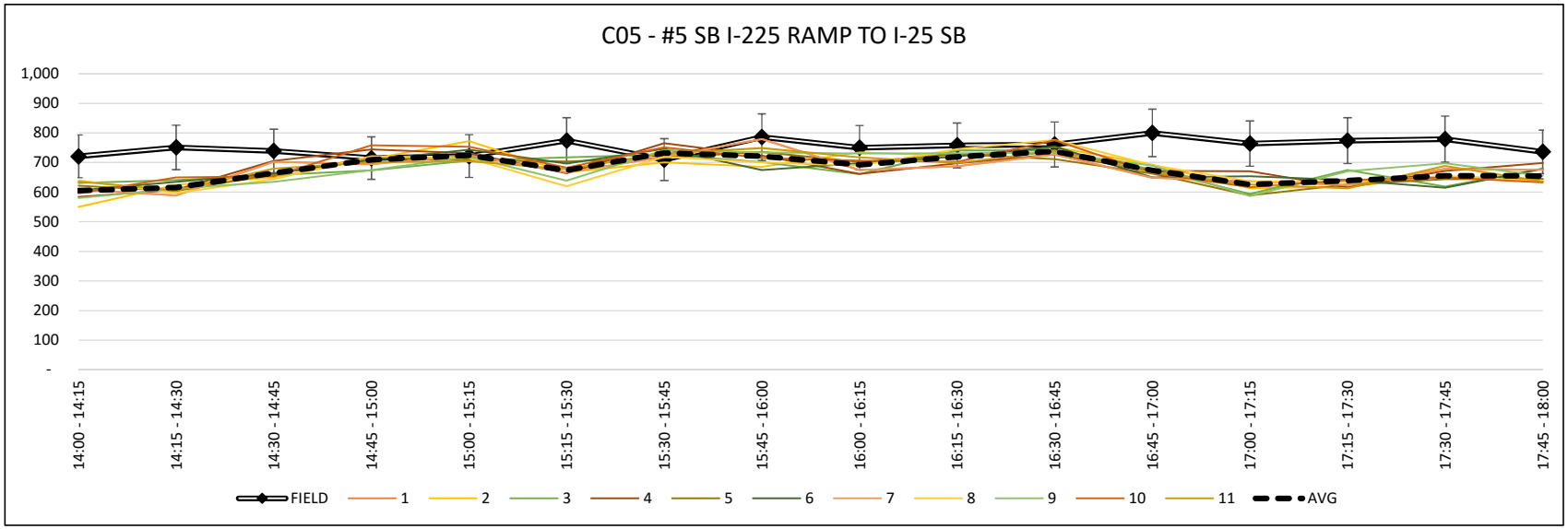
CONCEPT 2		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																											
PM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C03.5	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	168	185	10%	197	16%	189	12%	199	17%	230	31%	202	18%	185	10%	211	23%	197	16%	212	23%	200	17%	202	18%		12	14
14:15 - 14:30	163	191	16%	173	6%	212	26%	188	14%	208	24%	210	25%	191	16%	204	22%	210	25%	203	22%	214	27%	200	20%		13	18
14:30 - 14:45	166	200	19%	176	6%	197	17%	204	21%	186	11%	189	13%	200	19%	201	19%	199	18%	195	16%	208	22%	196	17%		9	8
14:45 - 15:00	147	166	12%	169	14%	174	17%	204	32%	178	19%	177	19%	166	12%	172	16%	196	29%	173	16%	177	19%	180	20%		12	18
15:00 - 15:15	118	139	16%	165	33%	141	18%	163	32%	163	32%	160	30%	139	16%	175	39%	171	37%	178	41%	162	31%	162	31%		12	29
15:15 - 15:30	98	115	16%	124	23%	124	23%	128	27%	125	24%	132	30%	115	16%	128	27%	124	23%	140	35%	141	36%	128	27%		7	14
15:30 - 15:45	143	178	22%	186	26%	216	41%	186	26%	193	30%	203	35%	178	22%	204	35%	186	26%	197	32%	171	18%	191	29%		13	23
15:45 - 16:00	128	179	33%	155	19%	181	34%	177	32%	168	27%	181	34%	179	33%	180	34%	191	39%	182	35%	171	29%	177	32%		10	17
16:00 - 16:15	141	188	29%	197	33%	179	24%	178	23%	188	29%	193	31%	188	29%	185	27%	199	34%	192	31%	153	8%	185	27%		13	24
16:15 - 16:30	136	179	27%	215	45%	180	28%	190	33%	205	40%	179	27%	179	27%	177	26%	188	32%	166	20%	182	29%	188	32%		15	34
16:30 - 16:45	138	181	27%	193	33%	199	36%	180	26%	190	32%	205	39%	181	27%	207	40%	204	39%	196	35%	185	29%	194	34%		9	12
16:45 - 17:00	104	135	26%	133	24%	136	27%	149	36%	145	33%	135	26%	135	26%	150	36%	147	34%	120	14%	143	32%	139	29%		9	21
17:00 - 17:15	113	176	44%	163	36%	159	34%	166	38%	152	29%	178	45%	176	44%	164	37%	134	17%	157	33%	147	26%	159	34%		13	37
17:15 - 17:30	130	186	35%	193	39%	176	30%	185	35%	195	40%	183	34%	186	35%	192	39%	186	35%	173	28%	195	40%	187	36%		7	8
17:30 - 17:45	121	158	27%	151	22%	170	34%	176	37%	160	28%	159	27%	158	27%	166	31%	142	16%	168	33%	162	29%	163	30%		11	23
17:45 - 18:00	109	156	35%	150	32%	159	37%	147	30%	177	48%	148	30%	156	35%	129	17%	149	31%	139	24%	162	39%	152	33%		13	39
Hour 1	644	742	14%	715	10%	772	18%	795	21%	802	22%	778	19%	742	14%	788	20%	802	22%	783	19%	799	21%	778	19%		12	1
Hour 2	487	611	23%	630	26%	662	30%	654	29%	649	29%	676	33%	611	23%	687	34%	672	32%	697	35%	645	28%	658	30%		11	1
Hour 3	519	683	27%	738	35%	694	29%	697	29%	728	34%	712	31%	683	27%	719	32%	738	35%	674	26%	663	24%	706	31%		12	1
Hour 4	473	676	35%	657	33%	664	34%	674	35%	684	36%	668	34%	676	35%	651	32%	611	25%	637	30%	666	34%	661	33%		11	2
11	2,123	2,712	24%	2,740	25%	2,792	27%	2,820	28%	2,863	30%	2,834	29%	2,712	24%	2,845	29%	2,823	28%	2,791	27%	2,773	27%	2,803	28%		23	0



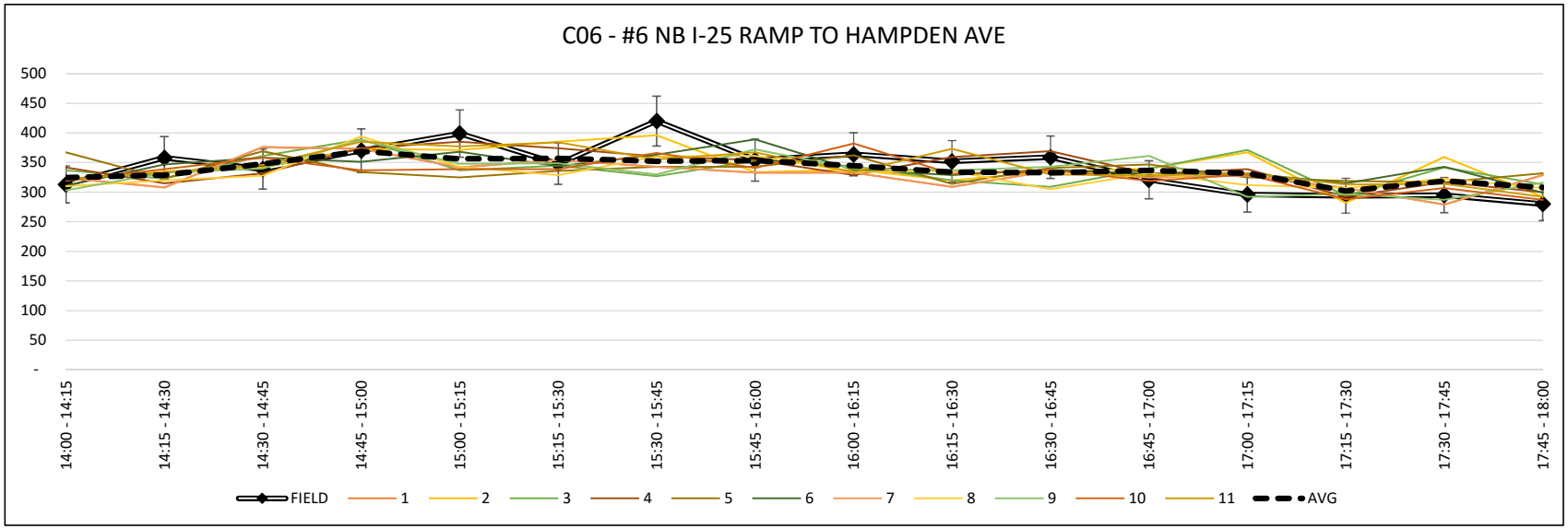
CONCEPT 2		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																										
PM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C04	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	317	309	3%	322	2%	311	2%	313	1%	328	3%	284	11%	309	3%	290	9%	308	3%	328	3%	290	9%	310	2%		17	8
14:15 - 14:30	328	348	6%	349	6%	302	8%	380	15%	349	6%	336	2%	348	6%	319	3%	342	4%	317	3%	331	1%	335	2%		22	12
14:30 - 14:45	356	343	4%	354	1%	345	3%	387	8%	360	1%	356	0%	343	4%	377	6%	314	13%	342	4%	360	1%	355	0%		20	9
14:45 - 15:00	309	322	4%	306	1%	304	2%	318	3%	279	10%	316	2%	322	4%	298	4%	317	3%	279	10%	275	12%	300	3%		18	9
15:00 - 15:15	393	411	4%	364	8%	435	10%	416	6%	410	4%	395	1%	411	4%	412	5%	379	4%	393	0%	367	7%	397	1%		22	9
15:15 - 15:30	348	346	1%	344	1%	378	8%	349	0%	348	0%	360	3%	346	1%	309	12%	330	5%	353	1%	351	1%	350	1%		20	9
15:30 - 15:45	414	413	0%	411	1%	418	1%	391	6%	424	2%	394	5%	413	0%	419	1%	395	5%	405	2%	412	0%	409	1%		11	2
15:45 - 16:00	382	354	8%	428	11%	411	7%	405	6%	379	1%	374	2%	354	8%	372	3%	382	0%	352	8%	399	4%	387	1%		24	11
16:00 - 16:15	461	441	4%	493	7%	460	0%	459	0%	473	3%	486	5%	441	4%	448	3%	447	3%	463	0%	489	6%	462	0%		23	7
16:15 - 16:30	432	435	1%	436	1%	406	6%	441	2%	410	5%	442	2%	435	1%	402	7%	425	2%	427	1%	435	1%	427	1%		15	3
16:30 - 16:45	517	537	4%	548	6%	536	4%	505	2%	492	5%	551	6%	537	4%	519	0%	464	11%	534	3%	532	3%	521	1%		26	7
16:45 - 17:00	444	472	6%	455	2%	447	1%	455	2%	473	6%	402	10%	472	6%	440	1%	441	1%	477	7%	430	3%	447	1%		22	7
17:00 - 17:15	471	472	0%	443	6%	479	2%	449	5%	488	4%	489	4%	472	0%	453	4%	479	2%	478	1%	476	1%	469	0%		17	4
17:15 - 17:30	468	507	8%	475	1%	464	1%	459	2%	488	4%	466	0%	507	8%	415	12%	481	3%	478	2%	460	2%	470	0%		23	7
17:30 - 17:45	437	449	3%	437	0%	444	2%	461	5%	402	8%	417	5%	449	3%	439	0%	470	7%	425	3%	427	2%	437	0%		19	5
17:45 - 18:00	418	392	6%	430	3%	401	4%	427	2%	422	1%	395	6%	392	6%	411	2%	422	1%	413	1%	422	1%	413	1%		13	3
Hour 1	1,310	1,322	1%	1,331	2%	1,262	4%	1,398	6%	1,316	0%	1,292	1%	1,322	1%	1,284	2%	1,281	2%	1,266	3%	1,256	4%	1,300	1%		19	1
Hour 2	1,537	1,524	1%	1,547	1%	1,642	7%	1,561	2%	1,561	2%	1,523	1%	1,524	1%	1,512	2%	1,486	3%	1,503	2%	1,529	1%	1,543	0%		20	0
Hour 3	1,854	1,885	2%	1,932	4%	1,849	0%	1,860	0%	1,848	0%	1,881	1%	1,885	2%	1,809	2%	1,777	4%	1,901	3%	1,886	2%	1,857	0%		22	0
Hour 4	1,794	1,820	1%	1,785	1%	1,788	0%	1,796	0%	1,800	0%	1,767	2%	1,820	1%	1,718	4%	1,852	3%	1,794	0%	1,785	1%	1,789	0%		18	0
11	6,495	6,551	1%	6,595	2%	6,541	1%	6,615	2%	6,525	0%	6,463	0%	6,551	1%	6,323	3%	6,396	2%	6,464	0%	6,456	1%	6,489	0%		40	0



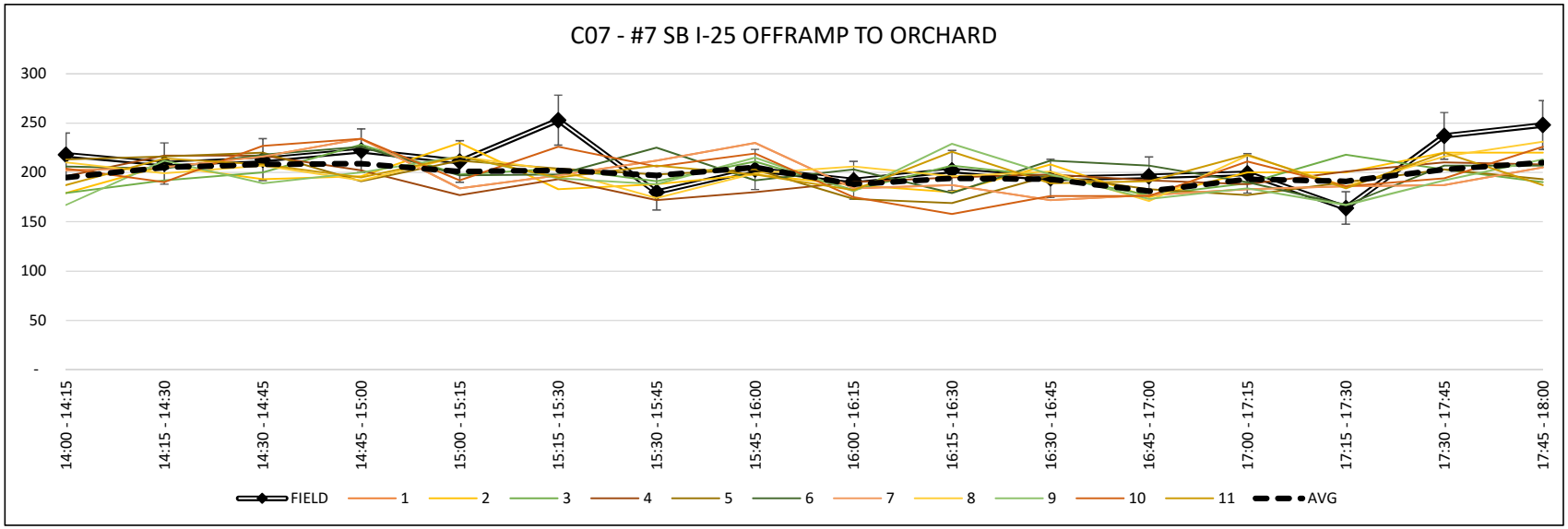
CONCEPT 2		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																											
PM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C05	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	721	609	17%	550	27%	631	13%	584	21%	622	15%	606	17%	609	17%	640	12%	580	22%	596	19%	636	13%	605	17%		27	4
14:15 - 14:30	751	589	24%	625	18%	641	16%	608	21%	604	22%	635	17%	589	24%	597	23%	612	20%	650	14%	606	21%	616	20%		19	2
14:30 - 14:45	739	702	5%	650	13%	658	12%	705	5%	661	11%	664	11%	702	5%	644	14%	635	15%	654	12%	680	8%	665	11%		22	2
14:45 - 15:00	715	695	3%	712	0%	674	6%	744	4%	716	0%	708	1%	695	3%	721	1%	675	6%	758	6%	700	2%	709	1%		26	4
15:00 - 15:15	722	724	0%	772	7%	706	2%	731	1%	707	2%	743	3%	724	0%	714	1%	719	0%	753	4%	704	3%	724	0%		24	3
15:15 - 15:30	774	667	15%	667	15%	717	8%	664	15%	703	10%	697	10%	667	15%	620	22%	639	19%	683	12%	678	13%	674	14%		28	4
15:30 - 15:45	710	719	1%	700	1%	727	2%	765	7%	716	1%	746	5%	719	1%	719	1%	741	4%	751	6%	730	3%	732	3%		18	2
15:45 - 16:00	786	779	1%	686	14%	701	11%	723	8%	736	7%	675	15%	779	1%	700	12%	734	7%	715	9%	749	5%	721	9%		30	4
16:00 - 16:15	750	675	11%	734	2%	661	13%	662	12%	701	7%	698	7%	675	11%	690	8%	730	3%	706	6%	717	4%	693	8%		28	4
16:15 - 16:30	758	688	10%	722	5%	741	2%	698	8%	728	4%	720	5%	688	10%	745	2%	731	4%	702	8%	699	8%	719	5%		19	2
16:30 - 16:45	761	727	5%	752	1%	741	3%	727	5%	711	7%	754	1%	727	5%	776	2%	733	4%	775	2%	738	3%	738	3%		27	3
16:45 - 17:00	800	649	21%	693	14%	677	17%	672	17%	663	19%	650	21%	649	21%	691	15%	690	15%	665	18%	667	18%	674	17%		17	1
17:00 - 17:15	764	637	18%	613	22%	594	25%	671	13%	589	26%	654	16%	637	18%	637	18%	587	26%	617	21%	626	20%	626	20%		29	4
17:15 - 17:30	774	624	21%	619	22%	675	14%	616	23%	626	21%	641	19%	624	21%	634	20%	671	14%	641	19%	613	23%	639	19%		23	2
17:30 - 17:45	779	679	14%	653	18%	619	23%	672	15%	644	19%	615	24%	679	14%	655	17%	698	11%	650	18%	689	12%	656	17%		26	3
17:45 - 18:00	736	676	8%	645	13%	680	8%	699	5%	645	13%	679	8%	676	8%	637	14%	655	12%	633	15%	636	15%	655	12%		25	3
Hour 1	2,926	2,595	12%	2,537	14%	2,604	12%	2,641	10%	2,603	12%	2,613	11%	2,595	12%	2,602	12%	2,502	16%	2,658	10%	2,622	11%	2,595	12%		24	0
Hour 2	2,992	2,889	4%	2,825	6%	2,851	5%	2,883	4%	2,862	4%	2,861	4%	2,889	4%	2,753	8%	2,833	5%	2,902	3%	2,861	4%	2,851	5%		25	0
Hour 3	3,069	2,739	11%	2,901	6%	2,820	8%	2,759	11%	2,803	9%	2,822	8%	2,739	11%	2,902	6%	2,884	6%	2,848	7%	2,821	8%	2,824	8%		23	0
Hour 4	3,053	2,616	15%	2,530	19%	2,568	17%	2,658	14%	2,504	20%	2,589	16%	2,616	15%	2,563	17%	2,611	16%	2,541	18%	2,564	17%	2,576	17%		26	0
11	12,040	10,839	10%	10,793	11%	10,843	10%	10,941	10%	10,772	11%	10,885	10%	10,839	10%	10,820	11%	10,830	11%	10,949	9%	10,868	10%	10,846	10%		49	0



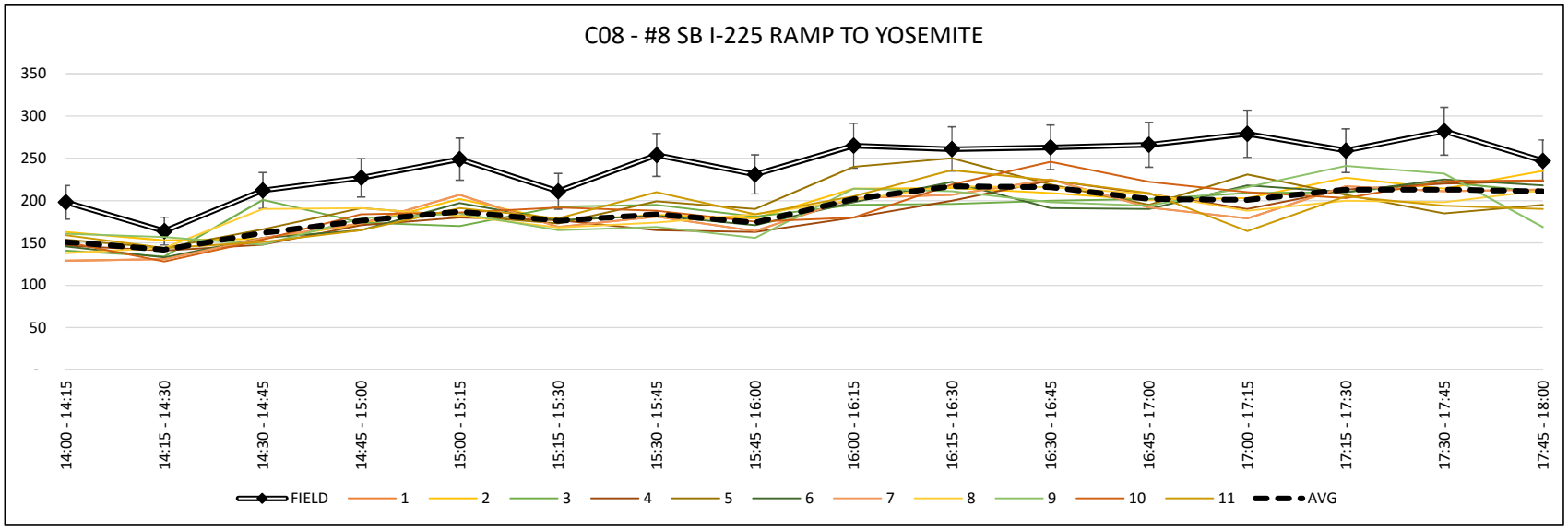
CONCEPT 2		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																											
PM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C06	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	313	324	3%	320	2%	337	7%	342	9%	367	16%	311	1%	324	3%	310	1%	303	3%	320	2%	322	3%	325	4%		18	9
14:15 - 14:30	358	308	15%	335	7%	323	10%	315	13%	323	10%	347	3%	308	15%	320	11%	333	7%	339	5%	334	7%	329	8%		12	3
14:30 - 14:45	339	376	10%	342	1%	361	6%	332	2%	369	8%	358	5%	376	10%	328	3%	340	0%	358	5%	346	2%	348	3%		17	7
14:45 - 15:00	370	373	1%	373	1%	389	5%	374	1%	334	10%	351	5%	373	1%	394	6%	388	5%	337	9%	385	4%	369	0%		21	9
15:00 - 15:15	399	342	15%	371	7%	337	17%	385	4%	325	20%	368	8%	342	15%	343	15%	348	14%	339	16%	377	6%	356	11%		21	8
15:15 - 15:30	348	354	2%	385	10%	345	1%	374	7%	336	4%	344	1%	354	2%	329	6%	349	0%	339	3%	384	10%	357	3%		22	11
15:30 - 15:45	420	343	20%	396	6%	327	25%	360	15%	343	20%	363	15%	343	20%	360	15%	330	24%	366	14%	355	17%	352	18%		20	6
15:45 - 16:00	354	333	6%	334	6%	353	0%	354	0%	343	3%	389	9%	333	6%	361	2%	372	5%	341	4%	367	4%	353	0%		18	7
16:00 - 16:15	364	333	9%	338	7%	344	6%	329	10%	362	1%	338	7%	333	9%	334	9%	340	7%	382	5%	334	9%	345	5%		17	6
16:15 - 16:30	352	309	13%	320	10%	320	10%	359	2%	314	11%	329	7%	309	13%	336	5%	337	4%	331	6%	373	6%	334	5%		19	8
16:30 - 16:45	359	336	7%	335	7%	309	15%	369	3%	341	5%	338	6%	336	7%	305	16%	343	5%	338	6%	330	8%	333	8%		18	7
16:45 - 17:00	321	325	1%	340	6%	340	6%	331	3%	347	8%	331	3%	325	1%	332	3%	361	12%	319	1%	328	2%	337	5%		13	5
17:00 - 17:15	296	328	10%	367	21%	371	22%	339	14%	325	9%	332	11%	328	10%	312	5%	292	1%	330	11%	332	11%	332	11%		22	15
17:15 - 17:30	294	307	4%	282	4%	294	0%	292	1%	319	8%	315	7%	307	4%	307	4%	297	1%	288	2%	313	6%	302	3%		12	5
17:30 - 17:45	295	279	6%	359	20%	342	15%	317	7%	317	7%	343	15%	279	6%	323	9%	287	3%	307	4%	314	6%	319	8%		24	18
17:45 - 18:00	280	329	16%	292	4%	313	11%	300	7%	332	17%	299	7%	329	16%	307	9%	316	12%	287	2%	292	4%	308	10%		15	8
Hour 1	1,380	1,381	0%	1,370	1%	1,410	2%	1,363	1%	1,393	1%	1,367	1%	1,381	0%	1,352	2%	1,364	1%	1,354	2%	1,387	1%	1,371	1%		17	0
Hour 2	1,521	1,372	10%	1,486	2%	1,362	11%	1,473	3%	1,347	12%	1,464	4%	1,372	10%	1,393	9%	1,399	8%	1,385	9%	1,483	3%	1,418	7%		20	0
Hour 3	1,396	1,303	7%	1,333	5%	1,313	6%	1,388	1%	1,364	2%	1,336	4%	1,303	7%	1,307	7%	1,381	1%	1,370	2%	1,365	2%	1,349	3%		17	0
Hour 4	1,165	1,243	6%	1,300	11%	1,320	12%	1,248	7%	1,293	10%	1,289	10%	1,243	6%	1,249	7%	1,192	2%	1,212	4%	1,251	7%	1,261	8%		19	1
11	5,462	5,299	3%	5,489	0%	5,405	1%	5,472	0%	5,397	1%	5,456	0%	5,299	3%	5,301	3%	5,336	2%	5,321	3%	5,486	0%	5,399	1%		37	0



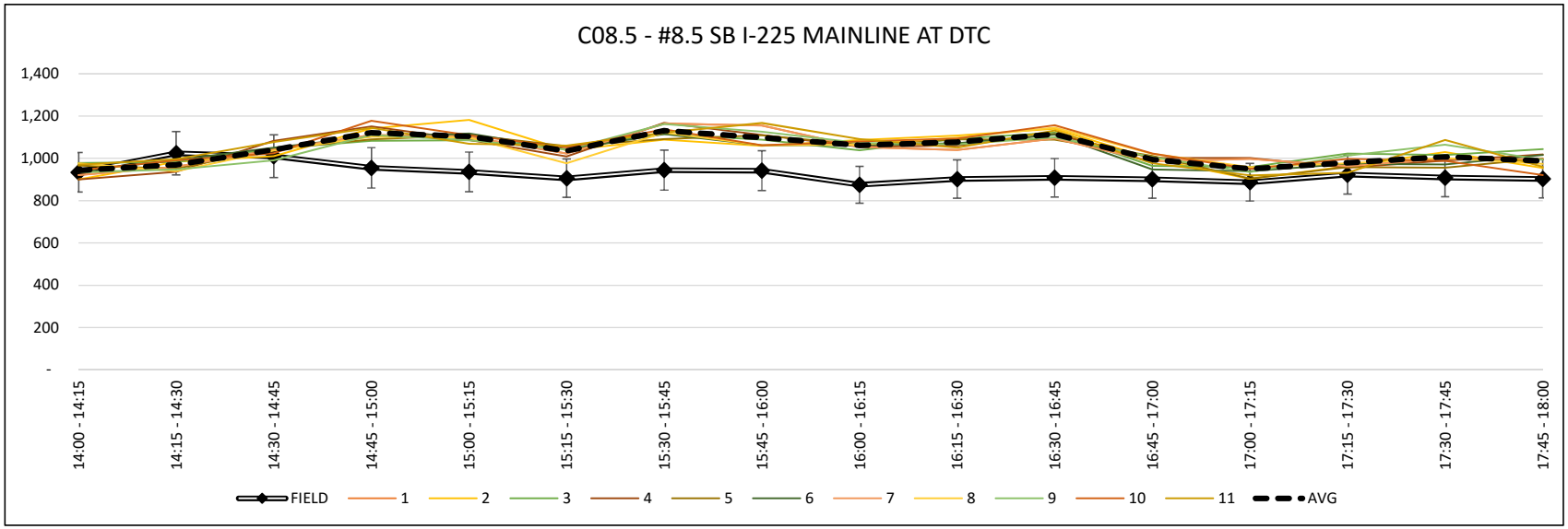
CONCEPT 2		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																										
PM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C07	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	218	202	8%	179	20%	179	20%	196	11%	213	2%	206	6%	202	8%	210	4%	167	26%	204	7%	187	15%	195	11%		15	13
14:15 - 14:30	209	205	2%	207	1%	192	8%	217	4%	216	3%	204	2%	205	2%	199	5%	212	1%	190	10%	214	2%	205	2%		9	5
14:30 - 14:45	213	216	1%	193	10%	200	6%	217	2%	220	3%	218	2%	216	1%	207	3%	189	12%	227	6%	208	2%	208	2%		13	10
14:45 - 15:00	222	234	5%	196	12%	228	3%	202	9%	191	15%	226	2%	234	5%	192	14%	200	10%	234	5%	195	13%	209	6%		18	18
15:00 - 15:15	211	184	14%	230	9%	198	6%	177	18%	212	0%	197	7%	184	14%	216	2%	216	2%	192	9%	216	2%	201	5%		19	22
15:15 - 15:30	253	197	25%	183	32%	204	21%	193	27%	204	21%	198	24%	197	25%	202	22%	194	26%	226	11%	195	26%	202	22%		13	7
15:30 - 15:45	180	212	16%	188	4%	191	6%	172	5%	198	10%	225	22%	212	16%	174	3%	188	4%	206	13%	207	14%	197	9%		16	22
15:45 - 16:00	203	230	12%	198	2%	211	4%	180	12%	203	0%	192	6%	230	12%	199	2%	215	6%	219	8%	198	2%	205	1%		14	13
16:00 - 16:15	192	184	4%	187	3%	182	5%	190	1%	173	10%	203	6%	184	4%	206	7%	181	6%	175	9%	182	5%	188	2%		11	9
16:15 - 16:30	202	187	8%	180	12%	207	2%	195	4%	169	18%	179	12%	187	8%	196	3%	229	13%	158	24%	221	9%	194	4%		22	33
16:30 - 16:45	194	172	12%	208	7%	196	1%	198	2%	197	2%	212	9%	172	12%	201	4%	198	2%	176	10%	189	3%	193	1%		13	12
16:45 - 17:00	196	177	10%	175	11%	177	10%	192	2%	183	7%	207	5%	177	10%	171	14%	173	12%	176	11%	191	3%	181	8%		12	10
17:00 - 17:15	199	183	8%	200	1%	189	5%	188	6%	177	12%	190	5%	183	8%	217	9%	184	8%	211	6%	218	9%	193	3%		17	20
17:15 - 17:30	164	186	13%	200	20%	218	28%	201	20%	190	15%	167	2%	186	13%	186	13%	167	2%	186	13%	184	11%	191	15%		17	30
17:30 - 17:45	237	187	24%	220	7%	203	15%	210	12%	203	15%	207	14%	187	24%	216	9%	192	21%	194	20%	220	7%	203	15%		12	7
17:45 - 18:00	248	205	19%	220	12%	190	26%	208	18%	193	25%	207	18%	205	19%	231	7%	213	15%	226	9%	187	28%	210	17%		15	10
Hour 1	862	857	1%	775	11%	799	8%	832	4%	840	3%	854	1%	857	1%	808	6%	768	12%	855	1%	804	7%	817	5%		14	1
Hour 2	847	823	3%	799	6%	804	5%	722	16%	817	4%	812	4%	823	3%	791	7%	813	4%	843	0%	816	4%	805	5%		16	1
Hour 3	784	720	9%	750	4%	762	3%	775	1%	722	8%	801	2%	720	9%	774	1%	781	0%	685	13%	783	0%	756	4%		15	1
Hour 4	848	761	11%	840	1%	800	6%	807	5%	763	11%	771	10%	761	11%	850	0%	756	11%	817	4%	809	5%	797	6%		15	1
11	3,341	3,161	6%	3,164	5%	3,165	5%	3,136	6%	3,142	6%	3,238	3%	3,161	6%	3,223	4%	3,118	7%	3,200	4%	3,212	4%	3,175	5%		30	0



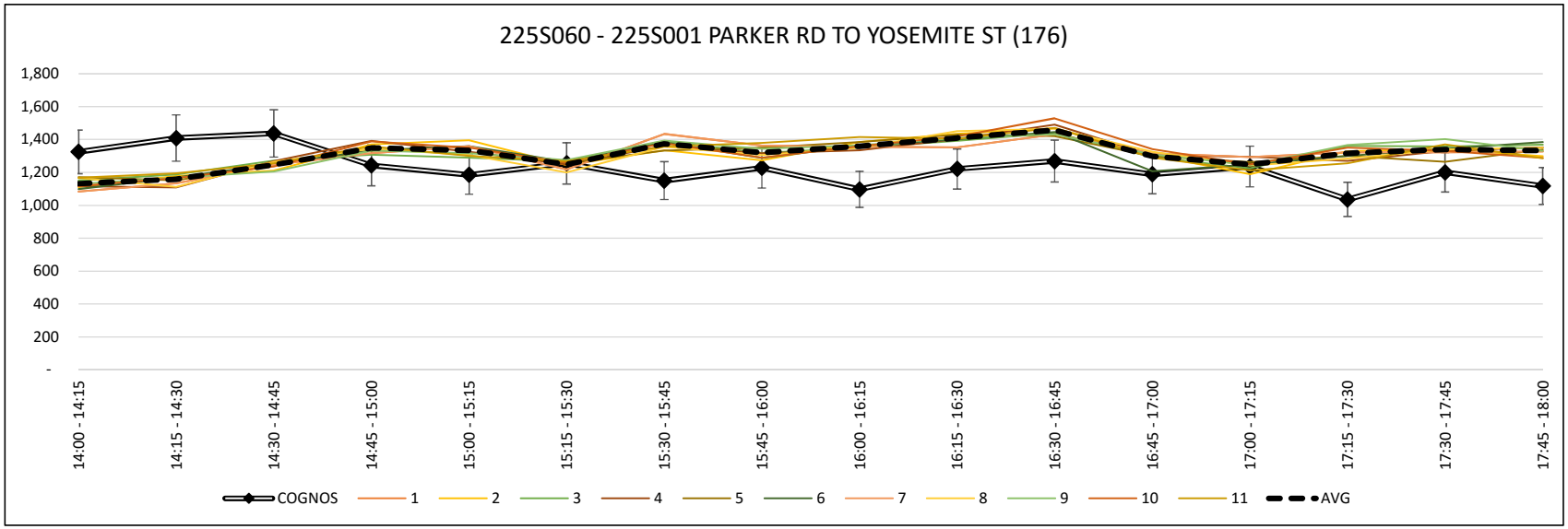
CONCEPT 2		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																											
PM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C08	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	198	129	42%	163	19%	141	34%	147	30%	154	25%	146	30%	129	42%	138	36%	161	21%	151	27%	159	22%	151	27%		12	10
14:15 - 14:30	164	131	22%	153	7%	134	20%	141	15%	144	13%	133	21%	131	22%	144	13%	157	4%	128	25%	144	13%	142	14%		9	8
14:30 - 14:45	212	156	30%	155	31%	201	5%	148	36%	166	24%	156	30%	156	30%	190	11%	148	36%	154	32%	151	34%	162	27%		17	18
14:45 - 15:00	227	173	27%	172	28%	174	26%	171	28%	191	17%	165	32%	173	27%	191	17%	179	24%	184	21%	165	32%	176	25%		9	4
15:00 - 15:15	249	207	18%	202	21%	170	38%	180	32%	182	31%	197	23%	207	18%	182	31%	185	29%	186	29%	191	26%	187	28%		11	5
15:15 - 15:30	211	169	22%	176	18%	193	9%	177	18%	173	20%	177	18%	169	22%	168	23%	165	24%	192	9%	179	16%	176	18%		10	6
15:30 - 15:45	254	181	34%	183	32%	195	26%	165	42%	199	24%	182	33%	181	34%	174	37%	169	40%	188	30%	210	19%	184	32%		13	7
15:45 - 16:00	231	164	34%	179	25%	181	24%	163	35%	190	19%	171	30%	164	34%	184	23%	156	39%	175	28%	184	23%	174	28%		10	5
16:00 - 16:15	265	203	26%	214	21%	195	30%	180	38%	240	10%	198	29%	203	26%	201	27%	214	21%	180	38%	205	26%	202	27%		17	11
16:15 - 16:30	261	207	23%	215	19%	196	28%	200	26%	250	4%	222	16%	207	23%	217	18%	211	21%	219	18%	236	10%	217	18%		15	9
16:30 - 16:45	263	225	16%	209	23%	200	27%	224	16%	219	18%	191	32%	225	16%	216	20%	198	28%	246	7%	224	16%	216	20%		16	10
16:45 - 17:00	266	192	32%	201	28%	202	27%	208	24%	195	31%	190	33%	192	32%	208	24%	194	31%	222	18%	209	24%	202	27%		9	3
17:00 - 17:15	279	179	44%	203	32%	209	29%	190	38%	231	19%	218	25%	179	44%	188	39%	216	25%	210	28%	164	52%	201	33%		19	13
17:15 - 17:30	259	217	18%	227	13%	210	21%	213	19%	207	22%	210	21%	217	18%	200	26%	241	7%	203	24%	205	23%	213	19%		12	6
17:30 - 17:45	282	211	29%	214	27%	222	24%	220	25%	185	42%	225	22%	211	29%	198	35%	232	19%	223	23%	194	37%	213	28%		15	8
17:45 - 18:00	247	213	15%	235	5%	210	16%	223	10%	195	24%	218	12%	213	15%	212	15%	169	38%	224	10%	190	26%	211	16%		20	18
Hour 1	801	589	31%	643	22%	650	21%	607	28%	655	20%	600	29%	589	31%	663	19%	645	22%	617	26%	619	26%	631	24%		12	1
Hour 2	945	721	27%	740	24%	739	24%	685	32%	744	24%	727	26%	721	27%	708	29%	675	33%	741	24%	764	21%	721	27%		11	0
Hour 3	1,055	827	24%	839	23%	793	28%	812	26%	904	15%	801	27%	827	24%	842	22%	817	25%	867	20%	874	19%	837	23%		15	1
Hour 4	1,067	820	26%	879	19%	851	23%	846	23%	818	26%	871	20%	820	26%	798	29%	858	22%	860	21%	753	35%	838	24%		17	1
11	3,868	2,957	27%	3,101	22%	3,033	24%	2,950	27%	3,121	21%	2,999	25%	2,957	27%	3,011	25%	2,995	25%	3,085	23%	3,010	25%	3,027	24%		28	0



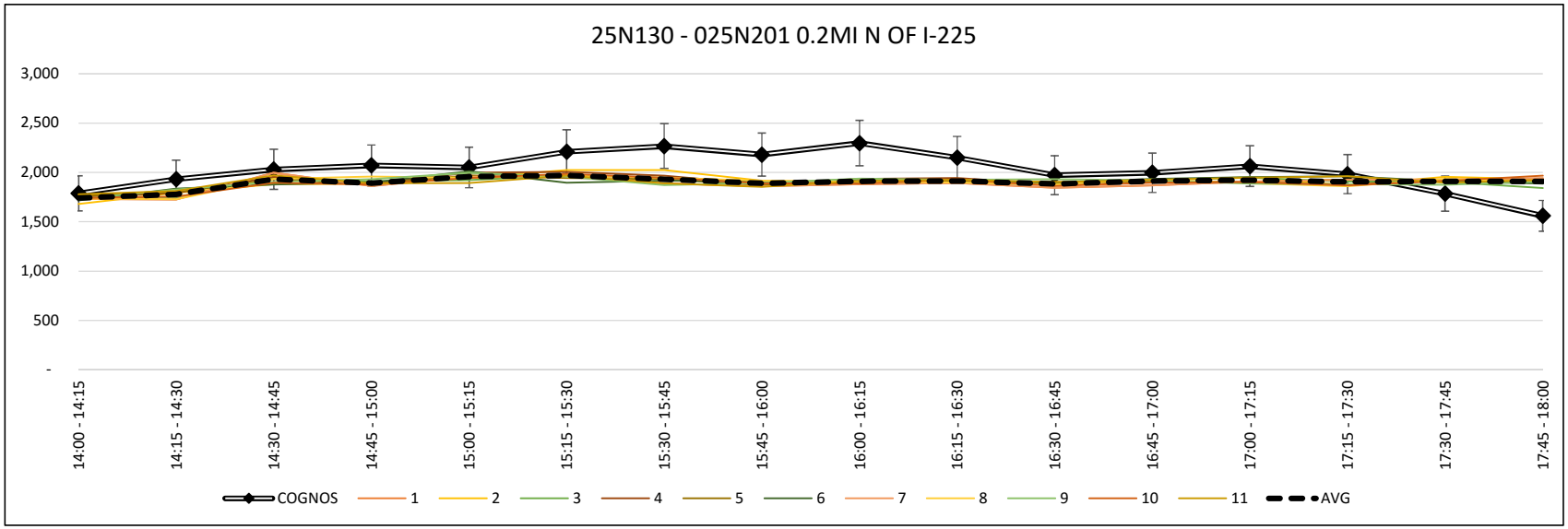
CONCEPT 2		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																										
PM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C08.5	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	934	921	1%	900	4%	978	5%	900	4%	966	3%	939	1%	921	1%	976	4%	934	0%	943	1%	969	4%	943	1%		28	2
14:15 - 14:30	1,024	960	6%	983	4%	982	4%	936	9%	951	7%	992	3%	960	6%	939	9%	947	8%	990	3%	996	3%	969	6%		22	1
14:30 - 14:45	1,010	1,040	3%	1,010	0%	1,046	4%	1,082	7%	1,043	3%	1,050	4%	1,040	3%	1,036	3%	991	2%	1,024	1%	1,077	6%	1,041	3%		27	2
14:45 - 15:00	955	1,110	15%	1,141	18%	1,083	13%	1,151	19%	1,089	13%	1,103	14%	1,110	15%	1,102	14%	1,111	15%	1,177	21%	1,144	18%	1,122	16%		29	3
15:00 - 15:15	936	1,102	16%	1,182	23%	1,085	15%	1,087	15%	1,110	17%	1,117	18%	1,102	16%	1,098	16%	1,085	15%	1,109	17%	1,069	13%	1,103	16%		30	3
15:15 - 15:30	906	1,022	12%	1,038	14%	1,058	15%	1,009	11%	1,058	15%	1,042	14%	1,022	12%	976	7%	1,041	14%	1,052	15%	1,060	16%	1,035	13%		25	2
15:30 - 15:45	944	1,164	21%	1,088	14%	1,114	17%	1,168	21%	1,091	14%	1,115	17%	1,164	21%	1,122	17%	1,162	21%	1,137	19%	1,122	17%	1,131	18%		29	3
15:45 - 16:00	942	1,155	20%	1,059	12%	1,088	14%	1,110	16%	1,109	16%	1,062	12%	1,155	20%	1,062	12%	1,126	18%	1,061	12%	1,167	21%	1,098	15%		39	5
16:00 - 16:15	875	1,053	18%	1,087	22%	1,038	17%	1,054	19%	1,064	19%	1,063	19%	1,053	18%	1,065	20%	1,073	20%	1,079	21%	1,091	22%	1,061	19%		25	2
16:15 - 16:30	902	1,039	14%	1,108	20%	1,092	19%	1,060	16%	1,090	19%	1,072	17%	1,039	14%	1,098	20%	1,066	17%	1,093	19%	1,051	15%	1,077	18%		21	2
16:30 - 16:45	908	1,094	19%	1,140	23%	1,122	21%	1,115	20%	1,088	18%	1,112	20%	1,094	19%	1,145	23%	1,099	19%	1,157	24%	1,131	22%	1,115	20%		27	2
16:45 - 17:00	901	985	9%	998	10%	964	7%	1,001	11%	1,012	12%	947	5%	985	9%	1,021	12%	1,006	11%	1,023	13%	977	8%	994	10%		24	2
17:00 - 17:15	887	997	12%	902	2%	959	8%	1,002	12%	904	2%	939	6%	997	12%	959	8%	935	5%	950	7%	919	4%	950	7%		35	4
17:15 - 17:30	923	962	4%	962	4%	1,023	10%	955	3%	959	4%	974	5%	962	4%	976	6%	1,013	9%	997	8%	932	1%	979	6%		29	3
17:30 - 17:45	909	997	9%	1,030	12%	1,015	11%	989	8%	956	5%	971	7%	997	9%	1,001	10%	1,065	16%	988	8%	1,087	18%	1,007	10%		40	5
17:45 - 18:00	903	996	10%	954	5%	1,043	14%	1,019	12%	999	10%	1,016	12%	996	10%	974	8%	993	9%	921	2%	960	6%	987	9%		34	4
Hour 1	3,923	4,031	3%	4,034	3%	4,089	4%	4,069	4%	4,049	3%	4,084	4%	4,031	3%	4,053	3%	3,983	2%	4,134	5%	4,186	6%	4,075	4%		27	0
Hour 2	3,728	4,443	18%	4,367	16%	4,345	15%	4,374	16%	4,368	16%	4,336	15%	4,443	18%	4,258	13%	4,414	17%	4,359	16%	4,418	17%	4,367	16%		31	0
Hour 3	3,586	4,171	15%	4,333	19%	4,216	16%	4,230	16%	4,254	17%	4,194	16%	4,171	15%	4,329	19%	4,244	17%	4,352	19%	4,250	17%	4,247	17%		24	0
Hour 4	3,622	3,952	9%	3,848	6%	4,040	11%	3,965	9%	3,818	5%	3,900	7%	3,952	9%	3,910	8%	4,006	10%	3,856	6%	3,898	7%	3,923	8%		35	0
11	14,859	16,597	11%	16,582	11%	16,690	12%	16,638	11%	16,489	10%	16,514	11%	16,597	11%	16,550	11%	16,647	11%	16,701	12%	16,752	12%	16,612	11%		59	0



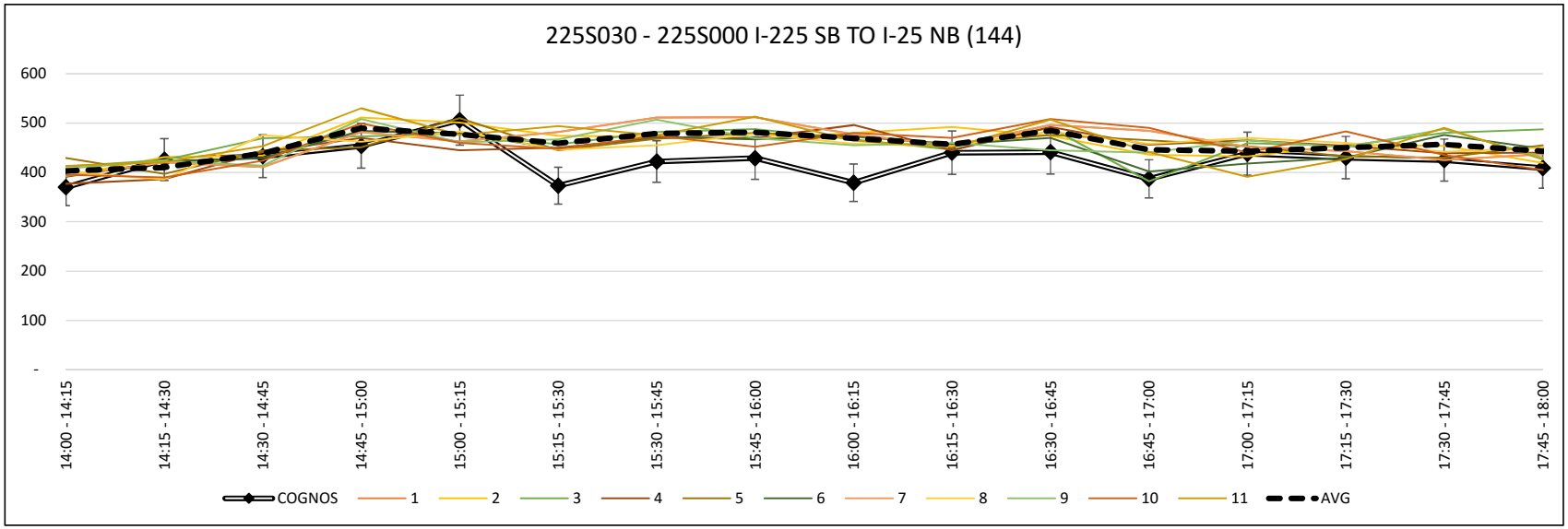
CONCEPT 2		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																										
PM	COGNOS	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	225S060	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	1,325	1,084	20%	1,110	18%	1,151	14%	1,116	17%	1,171	12%	1,099	19%	1,084	20%	1,166	13%	1,130	16%	1,118	17%	1,167	13%	1,132	16%		29	1
14:15 - 14:30	1,409	1,133	22%	1,178	18%	1,187	17%	1,109	24%	1,152	20%	1,170	19%	1,133	22%	1,112	24%	1,167	19%	1,165	19%	1,194	17%	1,159	19%		29	1
14:30 - 14:45	1,437	1,247	14%	1,211	17%	1,272	12%	1,268	12%	1,248	14%	1,250	14%	1,247	14%	1,265	13%	1,205	18%	1,235	15%	1,255	14%	1,246	14%		22	1
14:45 - 15:00	1,243	1,316	6%	1,371	10%	1,308	5%	1,392	11%	1,331	7%	1,335	7%	1,316	6%	1,343	8%	1,333	7%	1,389	11%	1,358	9%	1,349	8%		28	1
15:00 - 15:15	1,186	1,360	14%	1,396	16%	1,290	8%	1,325	11%	1,355	13%	1,360	14%	1,360	14%	1,306	10%	1,317	10%	1,350	13%	1,301	9%	1,334	12%		32	2
15:15 - 15:30	1,255	1,217	3%	1,245	1%	1,267	1%	1,249	0%	1,257	0%	1,264	1%	1,217	3%	1,200	4%	1,275	2%	1,259	0%	1,268	1%	1,249	0%		23	1
15:30 - 15:45	1,150	1,434	22%	1,334	15%	1,390	19%	1,361	17%	1,332	15%	1,383	18%	1,434	22%	1,356	16%	1,393	19%	1,378	18%	1,358	17%	1,373	18%		29	2
15:45 - 16:00	1,228	1,363	10%	1,273	4%	1,318	7%	1,317	7%	1,351	10%	1,287	5%	1,363	10%	1,305	6%	1,343	9%	1,289	5%	1,380	12%	1,320	7%		35	2
16:00 - 16:15	1,097	1,356	21%	1,385	23%	1,351	21%	1,335	20%	1,384	23%	1,361	21%	1,356	21%	1,351	21%	1,365	22%	1,359	21%	1,415	25%	1,359	21%		32	2
16:15 - 16:30	1,221	1,353	10%	1,434	16%	1,391	13%	1,403	14%	1,429	16%	1,401	14%	1,353	10%	1,451	17%	1,410	14%	1,419	15%	1,404	14%	1,409	14%		25	1
16:30 - 16:45	1,269	1,432	12%	1,469	15%	1,440	13%	1,491	16%	1,421	11%	1,445	13%	1,432	12%	1,465	14%	1,431	12%	1,529	19%	1,471	15%	1,457	14%		32	2
16:45 - 17:00	1,189	1,316	10%	1,305	9%	1,294	8%	1,304	9%	1,298	9%	1,207	2%	1,316	10%	1,326	11%	1,309	10%	1,342	12%	1,289	8%	1,299	9%		34	2
17:00 - 17:15	1,236	1,293	5%	1,190	4%	1,225	1%	1,295	5%	1,263	2%	1,248	1%	1,293	5%	1,241	0%	1,244	1%	1,249	1%	1,212	2%	1,249	1%		32	2
17:15 - 17:30	1,036	1,321	24%	1,329	25%	1,361	27%	1,269	20%	1,301	23%	1,300	23%	1,321	24%	1,285	21%	1,366	27%	1,350	26%	1,255	19%	1,317	24%		38	4
17:30 - 17:45	1,201	1,322	10%	1,341	11%	1,358	12%	1,330	10%	1,265	5%	1,344	11%	1,322	10%	1,339	11%	1,402	15%	1,330	10%	1,370	13%	1,339	11%		34	2
17:45 - 18:00	1,118	1,327	17%	1,299	15%	1,368	20%	1,352	19%	1,339	18%	1,384	21%	1,327	17%	1,350	19%	1,330	17%	1,288	14%	1,286	14%	1,332	17%		32	2
Hour 1	5,414	4,780	12%	4,870	11%	4,918	10%	4,885	10%	4,902	10%	4,854	11%	4,780	12%	4,886	10%	4,835	11%	4,907	10%	4,974	8%	4,886	10%		27	0
Hour 2	4,819	5,374	11%	5,248	9%	5,265	9%	5,252	9%	5,295	9%	5,294	9%	5,374	11%	5,167	7%	5,328	10%	5,276	9%	5,307	10%	5,276	9%		30	0
Hour 3	4,776	5,457	13%	5,593	16%	5,476	14%	5,533	15%	5,532	15%	5,414	13%	5,457	13%	5,593	16%	5,515	14%	5,649	17%	5,579	16%	5,524	15%		31	0
Hour 4	4,591	5,263	14%	5,159	12%	5,312	15%	5,246	13%	5,168	12%	5,276	14%	5,263	14%	5,215	13%	5,342	15%	5,217	13%	5,123	11%	5,237	13%		34	0
11	19,600	20,874	6%	20,870	6%	20,971	7%	20,916	6%	20,897	6%	20,838	6%	20,874	6%	20,861	6%	21,020	7%	21,049	7%	20,983	7%	20,923	7%		61	0



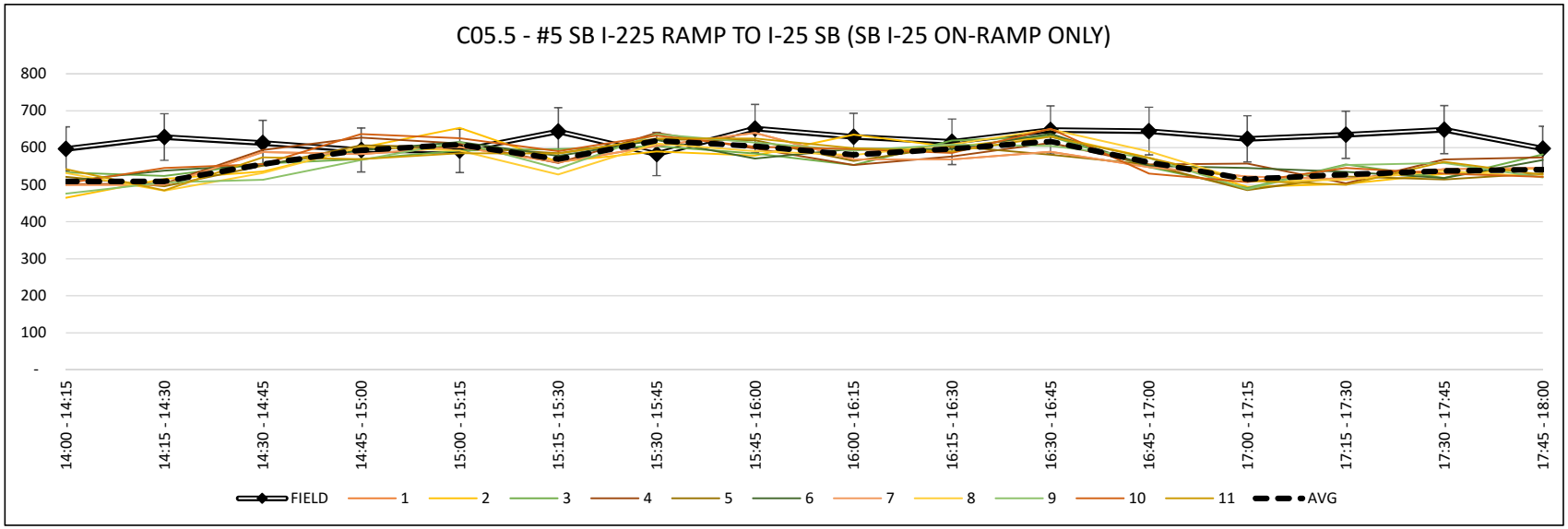
CONCEPT 2		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																										
PM	COGNOS	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	25N130	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	1,788	1,730	3%	1,681	6%	1,752	2%	1,751	2%	1,766	1%	1,717	4%	1,730	3%	1,738	3%	1,732	3%	1,742	3%	1,778	1%	1,741	3%		27	1
14:15 - 14:30	1,932	1,726	11%	1,793	7%	1,750	10%	1,791	8%	1,800	7%	1,837	5%	1,726	11%	1,728	11%	1,826	6%	1,754	10%	1,812	6%	1,779	8%		39	1
14:30 - 14:45	2,031	1,996	2%	1,879	8%	1,940	5%	1,955	4%	1,931	5%	1,876	8%	1,996	2%	1,933	5%	1,905	6%	1,895	7%	1,970	3%	1,930	5%		38	1
14:45 - 15:00	2,071	1,862	11%	1,886	9%	1,910	8%	1,890	9%	1,880	10%	1,899	9%	1,862	11%	1,959	6%	1,932	7%	1,877	10%	1,890	9%	1,893	9%		32	1
15:00 - 15:15	2,050	1,954	5%	1,944	5%	1,923	6%	1,998	3%	1,971	4%	2,011	2%	1,954	5%	1,947	5%	1,996	3%	1,943	5%	1,891	8%	1,957	5%		35	1
15:15 - 15:30	2,210	1,977	11%	2,025	9%	1,972	11%	2,006	10%	1,944	13%	1,894	15%	1,977	11%	1,968	12%	1,958	12%	1,986	11%	1,967	12%	1,969	12%		34	1
15:30 - 15:45	2,267	1,888	18%	2,024	11%	1,947	15%	1,968	14%	1,931	16%	1,917	17%	1,888	18%	1,947	15%	1,871	19%	1,947	15%	1,890	18%	1,931	16%		43	1
15:45 - 16:00	2,181	1,859	16%	1,916	13%	1,896	14%	1,881	15%	1,869	15%	1,911	13%	1,859	16%	1,916	13%	1,892	14%	1,888	14%	1,854	16%	1,889	14%		22	0
16:00 - 16:15	2,297	1,881	20%	1,905	19%	1,928	17%	1,933	17%	1,890	19%	1,897	19%	1,881	20%	1,903	19%	1,936	17%	1,885	20%	1,912	18%	1,911	18%		22	0
16:15 - 16:30	2,150	1,892	13%	1,898	12%	1,900	12%	1,942	10%	1,910	12%	1,900	12%	1,892	13%	1,898	12%	1,924	11%	1,927	11%	1,926	11%	1,914	12%		17	0
16:30 - 16:45	1,972	1,845	7%	1,877	5%	1,874	5%	1,881	5%	1,903	4%	1,894	4%	1,845	7%	1,877	5%	1,932	2%	1,862	6%	1,900	4%	1,884	5%		23	0
16:45 - 17:00	1,997	1,869	7%	1,920	4%	1,925	4%	1,914	4%	1,898	5%	1,933	3%	1,869	7%	1,927	4%	1,919	4%	1,894	5%	1,924	4%	1,914	4%		19	0
17:00 - 17:15	2,064	1,908	8%	1,952	6%	1,947	6%	1,901	8%	1,901	8%	1,953	6%	1,908	8%	1,888	9%	1,886	9%	1,902	8%	1,947	6%	1,922	7%		28	1
17:15 - 17:30	1,983	1,926	3%	1,867	6%	1,908	4%	1,878	5%	1,928	3%	1,962	1%	1,926	3%	1,859	6%	1,879	5%	1,867	6%	1,962	1%	1,905	4%		38	1
17:30 - 17:45	1,786	1,928	8%	1,954	9%	1,905	6%	1,917	7%	1,922	7%	1,911	7%	1,928	8%	1,933	8%	1,875	5%	1,912	7%	1,894	6%	1,911	7%		24	1
17:45 - 18:00	1,560	1,941	22%	1,932	21%	1,843	17%	1,906	20%	1,920	21%	1,886	19%	1,941	22%	1,905	20%	1,908	20%	1,968	23%	1,923	21%	1,910	20%		33	1
Hour 1	7,822	7,314	7%	7,239	8%	7,352	6%	7,387	6%	7,377	6%	7,329	7%	7,314	7%	7,358	6%	7,395	6%	7,268	7%	7,450	5%	7,343	6%		34	0
Hour 2	8,708	7,678	13%	7,909	10%	7,738	12%	7,853	10%	7,715	12%	7,733	12%	7,678	13%	7,778	11%	7,717	12%	7,764	11%	7,602	14%	7,746	12%		34	0
Hour 3	8,416	7,487	12%	7,600	10%	7,627	10%	7,670	9%	7,601	10%	7,624	10%	7,487	12%	7,605	10%	7,711	9%	7,568	11%	7,662	9%	7,623	10%		20	0
Hour 4	7,393	7,703	4%	7,705	4%	7,603	3%	7,602	3%	7,671	4%	7,712	4%	7,703	4%	7,585	3%	7,548	2%	7,649	3%	7,726	4%	7,648	3%		31	0
11	32,339	30,182	7%	30,453	6%	30,320	6%	30,512	6%	30,364	6%	30,398	6%	30,182	7%	30,326	6%	30,371	6%	30,249	7%	30,440	6%	30,360	6%		61	0



CONCEPT 2		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																											
PM	COGNOS	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	225S030	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	370	393	6%	392	6%	412	11%	377	2%	429	15%	391	6%	393	6%	402	8%	408	10%	395	7%	413	11%	403	9%		38	29
14:15 - 14:30	426	420	1%	431	1%	425	0%	386	10%	397	7%	422	1%	420	1%	386	10%	423	1%	390	9%	421	1%	410	4%		26	10
14:30 - 14:45	433	411	5%	434	0%	469	8%	441	2%	444	3%	429	1%	411	5%	475	9%	414	4%	424	2%	453	5%	439	1%		34	17
14:45 - 15:00	454	482	6%	511	12%	473	4%	470	3%	451	1%	484	6%	482	6%	462	2%	508	11%	499	9%	530	15%	490	8%		33	15
15:00 - 15:15	506	463	9%	501	1%	479	5%	445	13%	510	1%	479	5%	463	9%	483	5%	461	9%	460	10%	476	6%	477	6%		31	10
15:15 - 15:30	373	482	25%	474	24%	457	20%	450	19%	445	18%	448	18%	482	25%	446	18%	467	22%	448	18%	494	28%	459	21%		33	22
15:30 - 15:45	422	511	19%	472	11%	482	13%	470	11%	468	10%	472	11%	511	19%	455	8%	507	18%	474	12%	475	12%	479	13%		26	11
15:45 - 16:00	429	512	18%	467	8%	488	13%	470	9%	480	11%	467	8%	512	18%	478	11%	469	9%	452	5%	513	18%	481	11%		48	35
16:00 - 16:15	379	477	23%	480	24%	467	21%	496	27%	472	22%	474	22%	477	23%	458	19%	455	18%	480	24%	464	20%	469	21%		33	21
16:15 - 16:30	440	454	3%	492	11%	446	1%	445	1%	458	4%	457	4%	454	3%	453	3%	460	4%	470	7%	451	2%	457	4%		24	8
16:30 - 16:45	441	496	12%	474	7%	491	11%	492	11%	476	8%	470	6%	496	12%	483	9%	445	1%	508	14%	507	14%	485	10%		30	13
16:45 - 17:00	387	484	22%	436	12%	382	1%	456	16%	465	18%	402	4%	484	22%	458	17%	440	13%	490	23%	441	13%	446	14%		36	24
17:00 - 17:15	438	452	3%	432	1%	459	5%	465	6%	453	3%	418	5%	452	3%	470	7%	465	6%	440	0%	391	11%	443	1%		35	18
17:15 - 17:30	430	443	3%	456	6%	454	5%	454	5%	432	0%	430	0%	443	3%	460	7%	451	5%	483	12%	427	1%	450	5%		28	12
17:30 - 17:45	425	425	0%	454	7%	480	12%	439	3%	430	1%	476	11%	425	0%	442	4%	488	14%	435	2%	490	14%	457	7%		37	21
17:45 - 18:00	409	437	7%	419	2%	487	17%	440	7%	455	11%	448	9%	437	7%	450	10%	430	5%	405	1%	426	4%	443	8%		40	27
Hour 1	1,683	1,706	1%	1,768	5%	1,779	6%	1,674	1%	1,721	2%	1,726	3%	1,706	1%	1,725	2%	1,753	4%	1,708	1%	1,817	8%	1,742	3%		33	1
Hour 2	1,730	1,968	13%	1,914	10%	1,906	10%	1,835	6%	1,903	10%	1,866	8%	1,968	13%	1,862	7%	1,904	10%	1,834	6%	1,958	12%	1,896	9%		35	1
Hour 3	1,647	1,911	15%	1,882	13%	1,786	8%	1,889	14%	1,871	13%	1,803	9%	1,911	15%	1,852	12%	1,800	9%	1,948	17%	1,863	12%	1,857	12%		31	1
Hour 4	1,702	1,757	3%	1,761	3%	1,880	10%	1,798	5%	1,770	4%	1,772	4%	1,757	3%	1,822	7%	1,834	7%	1,763	4%	1,734	2%	1,793	5%		35	1
11	6,762	7,342	8%	7,325	8%	7,351	8%	7,196	6%	7,265	7%	7,167	6%	7,342	8%	7,261	7%	7,291	8%	7,253	7%	7,372	9%	7,288	7%		68	0



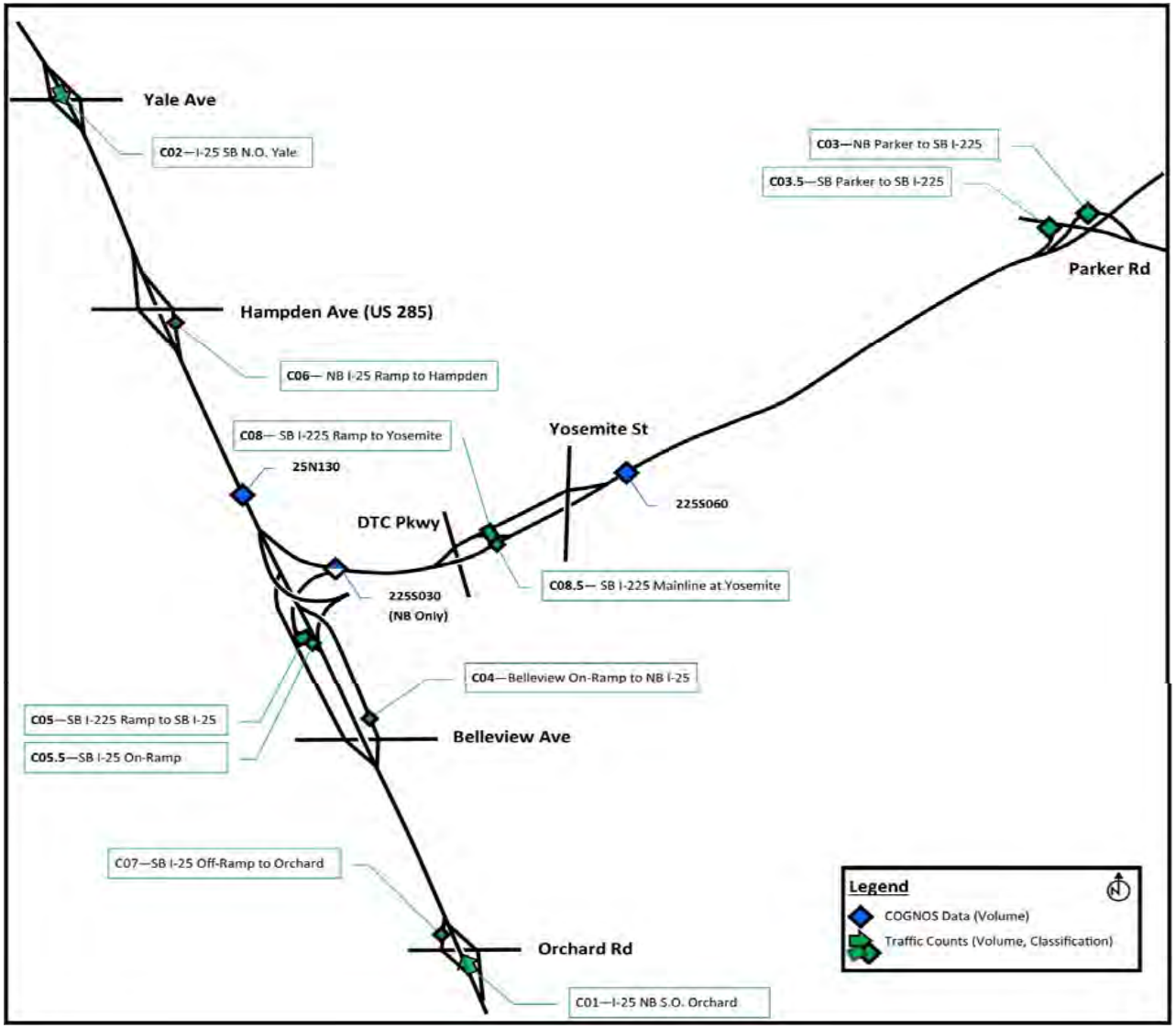
CONCEPT 2		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																											
PM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C05.5	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	597	500	18%	465	25%	533	11%	501	17%	521	14%	510	16%	500	18%	532	12%	476	23%	504	17%	542	10%	509	16%		-	0
14:15 - 14:30	629	500	23%	516	20%	524	18%	503	22%	496	24%	538	16%	500	23%	484	26%	506	22%	545	14%	485	26%	509	21%		-	0
14:30 - 14:45	613	588	4%	536	13%	557	10%	594	3%	552	10%	554	10%	588	4%	532	14%	513	18%	556	10%	574	7%	556	10%		-	0
14:45 - 15:00	594	583	2%	600	1%	569	4%	627	5%	607	2%	593	0%	583	2%	603	2%	567	5%	637	7%	569	4%	594	0%		-	0
15:00 - 15:15	592	602	2%	654	10%	592	0%	611	3%	601	2%	615	4%	602	2%	592	0%	615	4%	626	6%	585	1%	608	3%		-	0
15:15 - 15:30	644	560	14%	562	14%	596	8%	559	14%	585	10%	578	11%	560	14%	528	20%	544	17%	591	9%	584	10%	569	12%		-	0
15:30 - 15:45	583	605	4%	590	1%	604	4%	640	9%	623	7%	621	6%	605	4%	611	5%	637	9%	633	8%	625	7%	619	6%		-	0
15:45 - 16:00	652	640	2%	579	12%	584	11%	598	9%	620	5%	571	13%	640	2%	591	10%	614	6%	603	8%	625	4%	604	8%		-	0
16:00 - 16:15	630	568	10%	635	1%	553	13%	553	13%	564	11%	597	5%	568	10%	580	8%	592	6%	596	6%	599	5%	581	8%		-	0
16:15 - 16:30	616	568	8%	602	2%	619	0%	576	7%	604	2%	596	3%	568	8%	609	1%	608	1%	586	5%	590	4%	597	3%		-	0
16:30 - 16:45	648	589	10%	632	3%	631	3%	613	6%	581	11%	638	2%	589	10%	650	0%	605	7%	651	0%	630	3%	617	5%		-	0
16:45 - 17:00	645	548	16%	573	12%	548	16%	555	15%	554	15%	551	16%	548	16%	590	9%	572	12%	530	20%	572	12%	560	14%		-	0
17:00 - 17:15	624	522	18%	494	23%	491	24%	557	11%	486	25%	545	14%	522	18%	509	20%	488	24%	507	21%	511	20%	515	19%		-	0
17:15 - 17:30	635	515	21%	502	23%	555	13%	504	23%	522	20%	535	17%	515	21%	513	21%	553	14%	545	15%	500	24%	528	18%		-	0
17:30 - 17:45	649	542	18%	529	20%	518	22%	568	13%	514	23%	518	22%	542	18%	537	19%	559	15%	530	20%	562	14%	537	19%		-	0
17:45 - 18:00	598	545	9%	545	9%	582	3%	574	4%	531	12%	567	5%	545	9%	521	14%	520	14%	521	14%	527	13%	541	10%		-	0
Hour 1	2,433	2,171	11%	2,117	14%	2,183	11%	2,225	9%	2,176	11%	2,195	10%	2,171	11%	2,151	12%	2,062	17%	2,242	8%	2,170	11%	2,168	12%		-	0
Hour 2	2,471	2,407	3%	2,385	4%	2,376	4%	2,408	3%	2,429	2%	2,385	4%	2,407	3%	2,322	6%	2,410	2%	2,453	1%	2,419	2%	2,400	3%		-	0
Hour 3	2,539	2,273	11%	2,442	4%	2,351	8%	2,297	10%	2,303	10%	2,382	6%	2,273	11%	2,429	4%	2,377	7%	2,363	7%	2,391	6%	2,355	8%		-	0
Hour 4	2,506	2,124	17%	2,070	19%	2,146	15%	2,203	13%	2,053	20%	2,165	15%	2,124	17%	2,080	19%	2,120	17%	2,103	17%	2,100	18%	2,121	17%		-	0
11	9,949	8,975	10%	9,014	10%	9,056	9%	9,133	9%	8,961	10%	9,127	9%	8,975	10%	8,982	10%	8,969	10%	9,161	8%	9,080	9%	9,044	10%		-	0



TRAFFIC VOLUMES - BY LINK

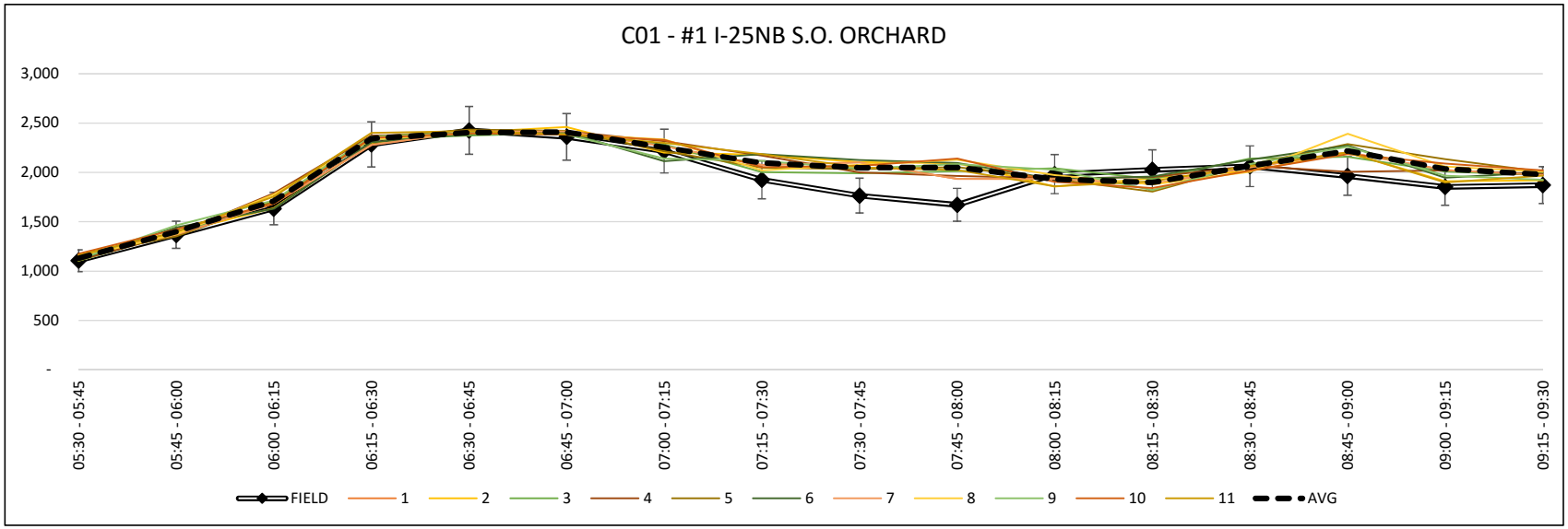
CONCEPT 3

PERIOD: AM

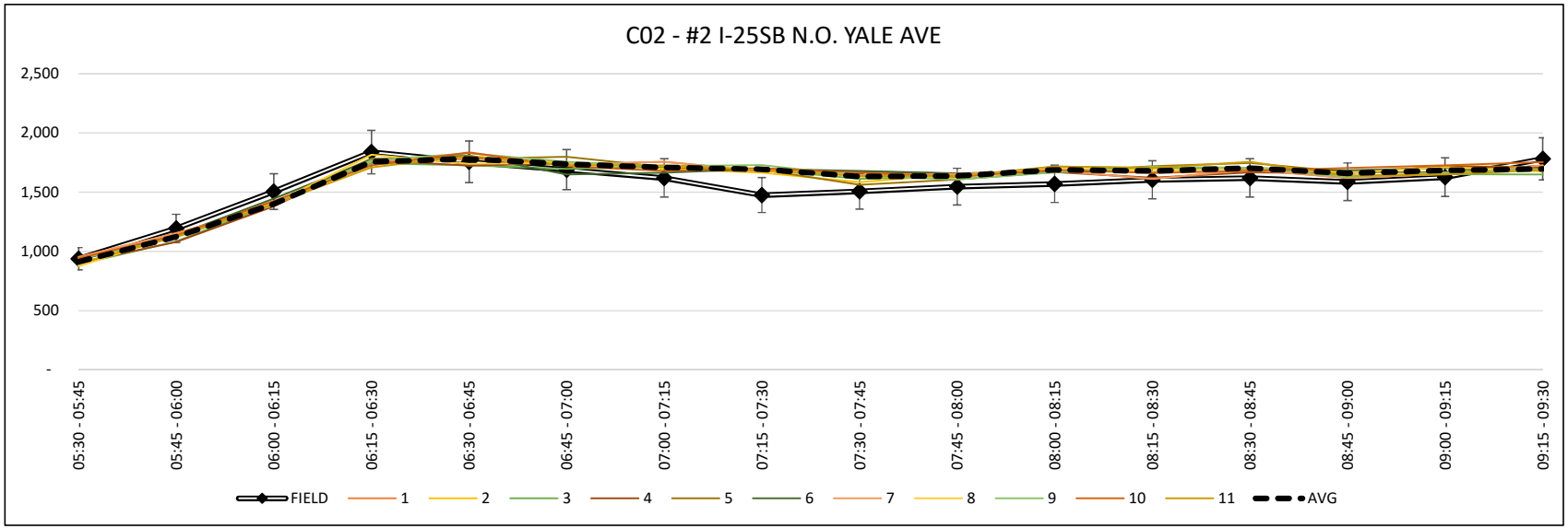


ID	DESCRIPTION
C01	NB I-25 S.O. Orchard
C02	SB I-25 N.O. Yale
C03	NB Parker to SB I-225
C03.5	SB Parker to SB I-225
C04	Belleview On-Ramp to NB I-25
C05	SB I-225 Ramp to SB I-25
C06	NB I-25 Ramp to Hampden
C07	SB I-25 Off-Ramp to Orchard
C08	SB I-225 Ramp to Yosemite
C08.5	SB I-225 Mainline at Yosemite
225S060	225S001 PARKER RD TO YOSEMITE ST (176)
25N130	025N201 0.2MI N OF I-225
225S030	225S000 I-225 SB TO I-25 NB (144)
C05.5	#5 SB I-225 to SB I-25 On-Ramp Only

CONCEPT 3		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																										
AM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C01	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	1,106	1,163	5%	1,106	0%	1,108	0%	1,114	1%	1,164	5%	1,119	1%	1,163	5%	1,143	3%	1,118	1%	1,176	6%	1,161	5%	1,131	2%		32	2
05:45 - 06:00	1,368	1,370	0%	1,390	2%	1,383	1%	1,376	1%	1,353	1%	1,441	5%	1,370	0%	1,377	1%	1,461	7%	1,424	4%	1,398	2%	1,398	2%		32	2
06:00 - 06:15	1,634	1,686	3%	1,637	0%	1,695	4%	1,788	9%	1,706	4%	1,633	0%	1,686	3%	1,776	8%	1,717	5%	1,683	3%	1,756	7%	1,711	5%		52	3
06:15 - 06:30	2,284	2,278	0%	2,298	1%	2,336	2%	2,373	4%	2,358	3%	2,304	1%	2,278	0%	2,336	2%	2,363	3%	2,350	3%	2,400	5%	2,343	3%		37	1
06:30 - 06:45	2,426	2,414	0%	2,405	1%	2,374	2%	2,390	1%	2,433	0%	2,387	2%	2,414	0%	2,399	1%	2,404	1%	2,398	1%	2,418	0%	2,402	1%		16	0
06:45 - 07:00	2,361	2,416	2%	2,461	4%	2,402	2%	2,415	2%	2,421	3%	2,407	2%	2,416	2%	2,385	1%	2,385	1%	2,383	1%	2,384	1%	2,408	2%		24	0
07:00 - 07:15	2,216	2,266	2%	2,201	1%	2,284	3%	2,318	4%	2,216	0%	2,112	5%	2,266	2%	2,334	5%	2,141	3%	2,328	5%	2,300	4%	2,255	2%		76	3
07:15 - 07:30	1,926	2,074	7%	2,180	12%	2,002	4%	2,169	12%	2,047	6%	2,186	13%	2,074	7%	2,020	5%	2,115	9%	2,054	6%	2,184	13%	2,097	9%		72	4
07:30 - 07:45	1,765	2,101	17%	2,103	17%	1,990	12%	1,999	12%	2,032	14%	2,126	19%	2,101	17%	2,077	16%	2,039	14%	2,066	16%	2,051	15%	2,047	15%		57	3
07:45 - 08:00	1,672	1,935	15%	2,093	22%	2,012	18%	1,963	16%	2,053	20%	2,095	22%	1,935	15%	2,127	24%	2,083	22%	2,139	25%	2,023	19%	2,051	20%		65	4
08:00 - 08:15	1,983	1,934	3%	1,856	7%	2,041	3%	1,939	2%	1,930	3%	1,931	3%	1,934	3%	1,972	1%	2,027	2%	1,904	4%	1,859	6%	1,931	3%		65	3
08:15 - 08:30	2,026	1,883	7%	1,940	4%	1,935	5%	1,951	4%	1,805	12%	1,959	3%	1,883	7%	1,876	8%	1,821	11%	1,841	10%	1,909	6%	1,897	7%		56	2
08:30 - 08:45	2,063	2,050	1%	2,016	2%	2,140	4%	2,067	0%	2,081	1%	2,129	3%	2,050	1%	2,006	3%	2,084	1%	2,017	2%	2,062	0%	2,065	0%		43	1
08:45 - 09:00	1,964	2,203	11%	2,200	11%	2,157	9%	2,007	2%	2,287	15%	2,271	14%	2,203	11%	2,392	20%	2,261	14%	2,185	11%	2,202	11%	2,219	12%		95	6
09:00 - 09:15	1,853	2,024	9%	1,910	3%	2,008	8%	2,022	9%	2,135	14%	1,947	5%	2,024	9%	2,059	11%	1,966	6%	2,091	12%	1,898	2%	2,036	9%		123	12
09:15 - 09:30	1,871	1,972	5%	1,919	3%	1,973	5%	1,981	6%	2,007	7%	1,999	7%	1,972	5%	2,005	7%	1,926	3%	2,020	8%	1,967	5%	1,978	6%		32	1
Hour 1	6,392	6,497	2%	6,431	1%	6,522	2%	6,651	4%	6,581	3%	6,497	2%	6,497	2%	6,632	4%	6,659	4%	6,633	4%	6,715	5%	6,583	3%		39	0
Hour 2	8,929	9,170	3%	9,247	3%	9,062	1%	9,292	4%	9,117	2%	9,092	2%	9,170	3%	9,138	2%	9,045	1%	9,163	3%	9,286	4%	9,162	3%		54	0
Hour 3	7,446	7,853	5%	7,992	7%	7,978	7%	7,852	5%	7,820	5%	8,111	9%	7,853	5%	8,052	8%	7,970	7%	7,950	7%	7,842	5%	7,926	6%		61	0
Hour 4	7,751	8,249	6%	8,045	4%	8,278	7%	8,077	4%	8,510	9%	8,346	7%	8,249	6%	8,462	9%	8,237	6%	8,313	7%	8,129	5%	8,298	7%		82	0
11	30,518	31,769	4%	31,715	4%	31,840	4%	31,872	4%	32,028	5%	32,046	5%	31,769	4%	32,284	6%	31,911	4%	32,059	5%	31,972	5%	31,969	5%		122	0



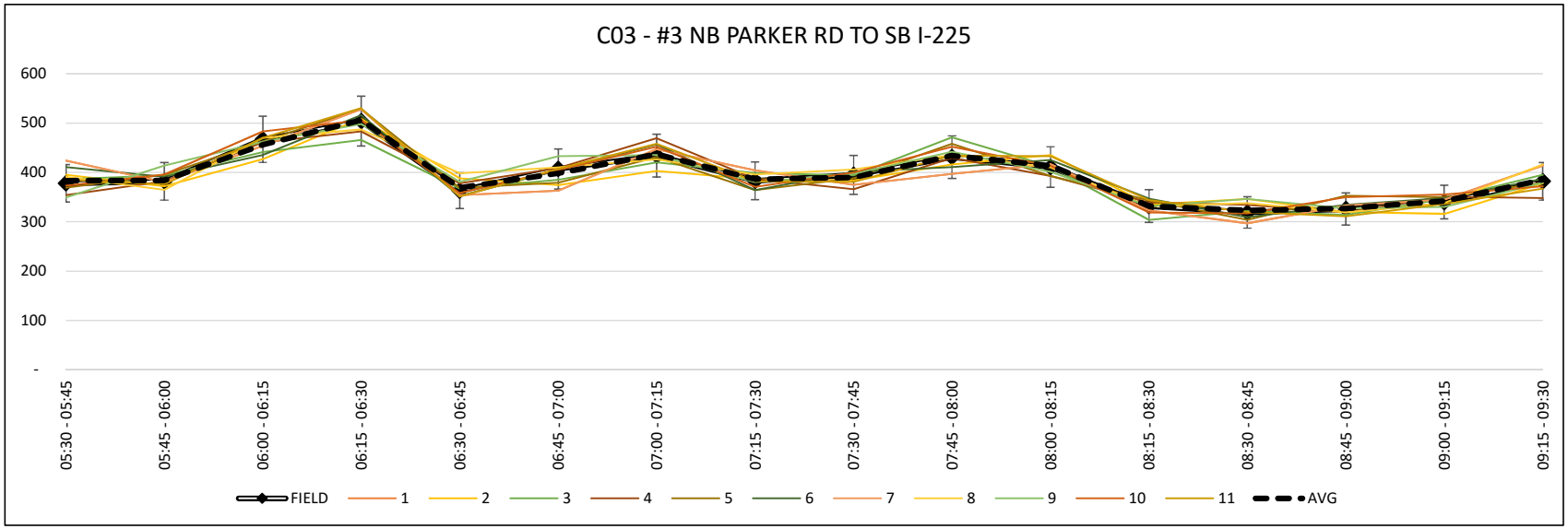
CONCEPT 3		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																											
AM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C02	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	938	951	1%	889	5%	889	5%	905	4%	930	1%	927	1%	951	1%	875	7%	935	0%	943	1%	898	4%	912	3%		26	2
05:45 - 06:00	1,194	1,155	3%	1,136	5%	1,084	10%	1,080	10%	1,128	6%	1,136	5%	1,155	3%	1,134	5%	1,119	6%	1,134	5%	1,125	6%	1,124	6%		23	1
06:00 - 06:15	1,505	1,387	8%	1,419	6%	1,400	7%	1,380	9%	1,410	7%	1,445	4%	1,387	8%	1,406	7%	1,395	8%	1,425	5%	1,401	7%	1,400	7%		28	1
06:15 - 06:30	1,838	1,763	4%	1,768	4%	1,745	5%	1,771	4%	1,783	3%	1,773	4%	1,763	4%	1,816	1%	1,768	4%	1,726	6%	1,709	7%	1,756	5%		35	1
06:30 - 06:45	1,757	1,781	1%	1,783	1%	1,726	2%	1,723	2%	1,780	1%	1,809	3%	1,781	1%	1,739	1%	1,829	4%	1,835	4%	1,807	3%	1,781	1%		39	1
06:45 - 07:00	1,690	1,734	3%	1,750	3%	1,696	0%	1,743	3%	1,799	6%	1,649	2%	1,734	3%	1,749	3%	1,757	4%	1,720	2%	1,724	2%	1,736	3%		40	2
07:00 - 07:15	1,620	1,757	8%	1,696	5%	1,714	6%	1,717	6%	1,712	6%	1,665	3%	1,757	8%	1,719	6%	1,720	6%	1,679	4%	1,727	6%	1,710	5%		24	1
07:15 - 07:30	1,476	1,678	13%	1,665	12%	1,692	14%	1,682	13%	1,689	13%	1,696	14%	1,678	13%	1,702	14%	1,729	16%	1,702	14%	1,690	14%	1,694	14%		17	0
07:30 - 07:45	1,508	1,642	9%	1,585	5%	1,612	7%	1,673	10%	1,561	3%	1,678	11%	1,642	9%	1,629	8%	1,637	8%	1,664	10%	1,637	8%	1,632	8%		36	2
07:45 - 08:00	1,547	1,654	7%	1,652	7%	1,634	5%	1,656	7%	1,608	4%	1,658	7%	1,654	7%	1,621	5%	1,607	4%	1,630	5%	1,633	5%	1,636	6%		18	0
08:00 - 08:15	1,570	1,681	7%	1,672	6%	1,716	9%	1,670	6%	1,668	6%	1,674	6%	1,681	7%	1,705	8%	1,666	6%	1,689	7%	1,716	9%	1,689	7%		22	1
08:15 - 08:30	1,605	1,611	0%	1,699	6%	1,706	6%	1,623	1%	1,718	7%	1,675	4%	1,611	0%	1,677	4%	1,713	7%	1,661	3%	1,703	6%	1,678	4%		35	1
08:30 - 08:45	1,620	1,689	4%	1,706	5%	1,696	5%	1,666	3%	1,746	7%	1,705	5%	1,689	4%	1,703	5%	1,707	5%	1,678	4%	1,755	8%	1,705	5%		26	1
08:45 - 09:00	1,588	1,620	2%	1,667	5%	1,638	3%	1,659	4%	1,668	5%	1,684	6%	1,620	2%	1,663	5%	1,628	2%	1,705	7%	1,637	3%	1,660	4%		28	1
09:00 - 09:15	1,627	1,655	2%	1,721	6%	1,651	1%	1,720	6%	1,669	3%	1,704	5%	1,655	2%	1,711	5%	1,664	2%	1,726	6%	1,648	1%	1,685	4%		31	1
09:15 - 09:30	1,781	1,726	3%	1,711	4%	1,650	8%	1,707	4%	1,723	3%	1,682	6%	1,726	3%	1,674	6%	1,695	5%	1,753	2%	1,687	5%	1,697	5%		31	1
Hour 1	5,475	5,256	4%	5,212	5%	5,118	7%	5,136	6%	5,251	4%	5,281	4%	5,256	4%	5,231	5%	5,217	5%	5,228	5%	5,133	6%	5,192	5%		28	0
Hour 2	6,543	6,950	6%	6,894	5%	6,828	4%	6,865	5%	6,980	6%	6,819	4%	6,950	6%	6,909	5%	7,035	7%	6,936	6%	6,948	6%	6,921	6%		32	0
Hour 3	6,230	6,588	6%	6,608	6%	6,668	7%	6,622	6%	6,555	5%	6,685	7%	6,588	6%	6,632	6%	6,623	6%	6,644	6%	6,689	7%	6,635	6%		29	0
Hour 4	6,616	6,690	1%	6,805	3%	6,635	0%	6,752	2%	6,806	3%	6,775	2%	6,690	1%	6,751	2%	6,694	1%	6,862	4%	6,727	2%	6,747	2%		29	0
11	24,864	25,484	2%	25,519	3%	25,249	2%	25,375	2%	25,592	3%	25,560	3%	25,484	2%	25,523	3%	25,569	3%	25,670	3%	25,497	3%	25,495	3%		59	0



CONCEPT 3

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

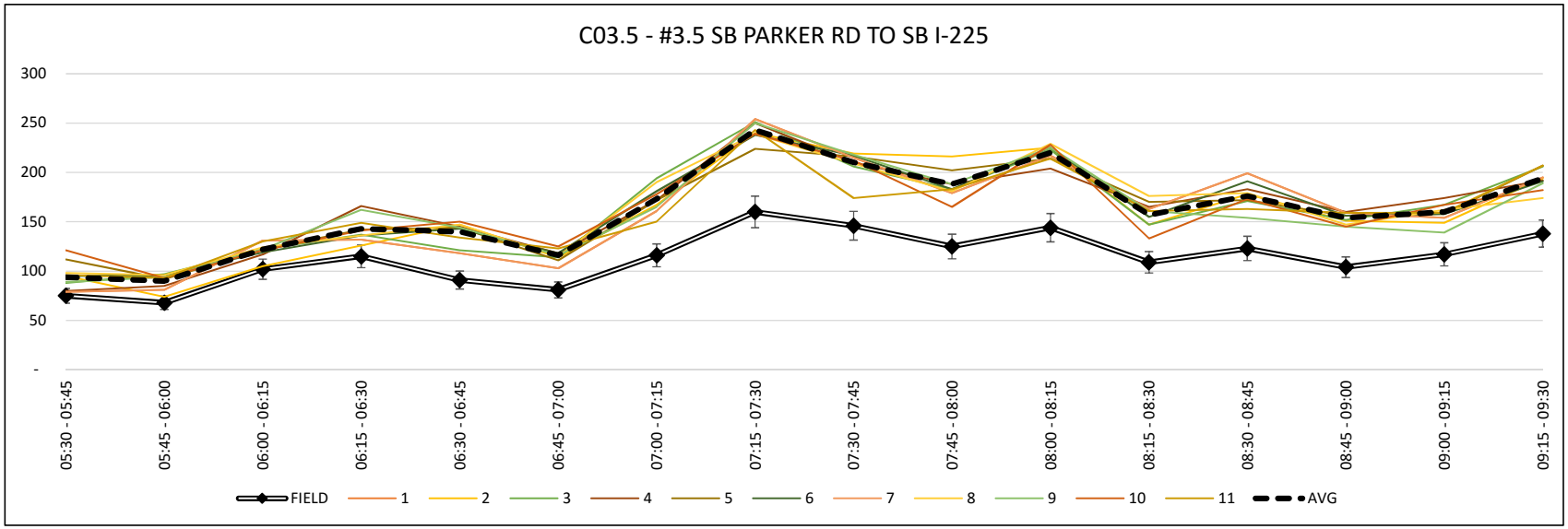
AM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C03	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	378	424	11%	395	4%	386	2%	354	7%	369	2%	411	8%	424	11%	391	3%	349	8%	373	1%	385	2%	383	1%		22	9
05:45 - 06:00	382	380	1%	372	3%	394	3%	382	0%	395	3%	391	2%	380	1%	365	5%	414	8%	396	4%	376	2%	384	1%		16	5
06:00 - 06:15	467	454	3%	427	9%	441	6%	461	1%	463	1%	435	7%	454	3%	470	1%	462	1%	483	3%	470	1%	456	2%		17	4
06:15 - 06:30	504	528	5%	509	1%	466	8%	483	4%	529	5%	516	2%	528	5%	487	3%	498	1%	506	0%	530	5%	506	0%		21	5
06:30 - 06:45	363	354	3%	388	7%	367	1%	378	4%	369	2%	352	3%	354	3%	398	9%	381	5%	358	1%	351	3%	369	2%		16	5
06:45 - 07:00	407	363	11%	374	8%	385	6%	409	0%	379	7%	405	0%	363	11%	410	1%	433	6%	405	0%	407	0%	398	2%		20	7
07:00 - 07:15	434	447	3%	403	7%	420	3%	469	8%	431	1%	457	5%	447	3%	426	2%	435	0%	452	4%	458	5%	437	1%		21	6
07:15 - 07:30	383	404	5%	386	1%	399	4%	387	1%	364	5%	364	5%	404	5%	396	3%	380	1%	371	3%	382	0%	386	1%		15	4
07:30 - 07:45	395	375	5%	384	3%	394	0%	366	8%	388	2%	401	2%	375	5%	406	3%	397	1%	400	1%	381	4%	390	1%		13	3
07:45 - 08:00	431	397	8%	416	4%	471	9%	429	0%	458	6%	411	5%	397	8%	435	1%	442	3%	452	5%	434	1%	434	1%		22	7
08:00 - 08:15	411	417	1%	435	6%	412	0%	393	4%	393	4%	425	3%	417	1%	410	0%	401	2%	413	0%	433	5%	414	1%		14	3
08:15 - 08:30	332	323	3%	335	1%	304	9%	339	2%	343	3%	347	4%	323	3%	331	0%	331	0%	319	4%	344	4%	332	0%		13	4
08:30 - 08:45	319	297	7%	346	8%	322	1%	334	5%	304	5%	309	3%	297	7%	338	6%	346	8%	317	1%	320	0%	323	1%		16	7
08:45 - 09:00	326	333	2%	320	2%	314	4%	319	2%	353	8%	334	2%	333	2%	319	2%	327	0%	350	7%	311	5%	327	0%		14	5
09:00 - 09:15	340	345	1%	316	7%	346	2%	351	3%	350	3%	348	2%	345	1%	338	1%	330	3%	355	4%	336	1%	342	1%		11	3
09:15 - 09:30	382	414	8%	378	1%	395	3%	348	9%	379	1%	387	1%	414	8%	416	9%	379	1%	372	3%	367	4%	385	1%		20	8
Hour 1	1,731	1,786	3%	1,703	2%	1,687	3%	1,680	3%	1,756	1%	1,753	1%	1,786	3%	1,713	1%	1,723	0%	1,758	2%	1,761	2%	1,729	0%		19	0
Hour 2	1,587	1,568	1%	1,551	2%	1,571	1%	1,643	3%	1,543	3%	1,578	1%	1,568	1%	1,630	3%	1,629	3%	1,586	0%	1,598	1%	1,590	0%		18	0
Hour 3	1,569	1,512	4%	1,570	0%	1,581	1%	1,527	3%	1,582	1%	1,584	1%	1,512	4%	1,582	1%	1,571	0%	1,584	1%	1,592	1%	1,570	0%		16	0
Hour 4	1,367	1,389	2%	1,360	1%	1,377	1%	1,352	1%	1,386	1%	1,378	1%	1,389	2%	1,411	3%	1,382	1%	1,394	2%	1,334	2%	1,377	1%		16	0
11	6,254	6,255	0%	6,184	1%	6,216	1%	6,202	1%	6,267	0%	6,293	1%	6,255	0%	6,336	1%	6,305	1%	6,322	1%	6,285	0%	6,266	0%		35	0



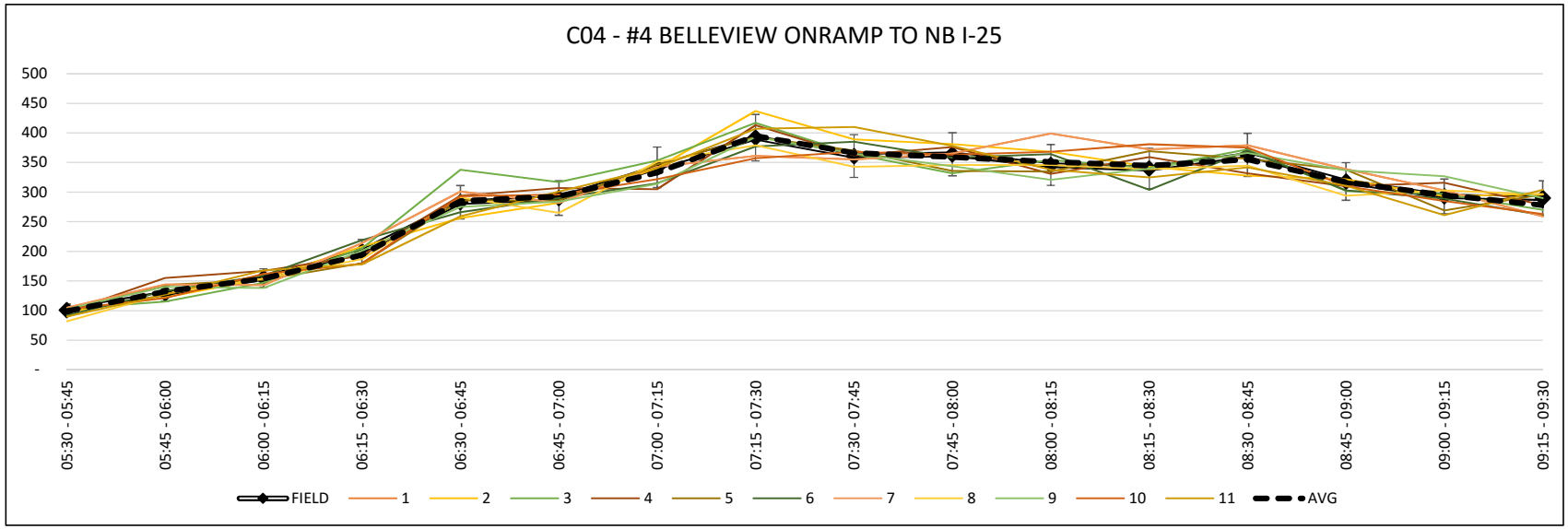
CONCEPT 3

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

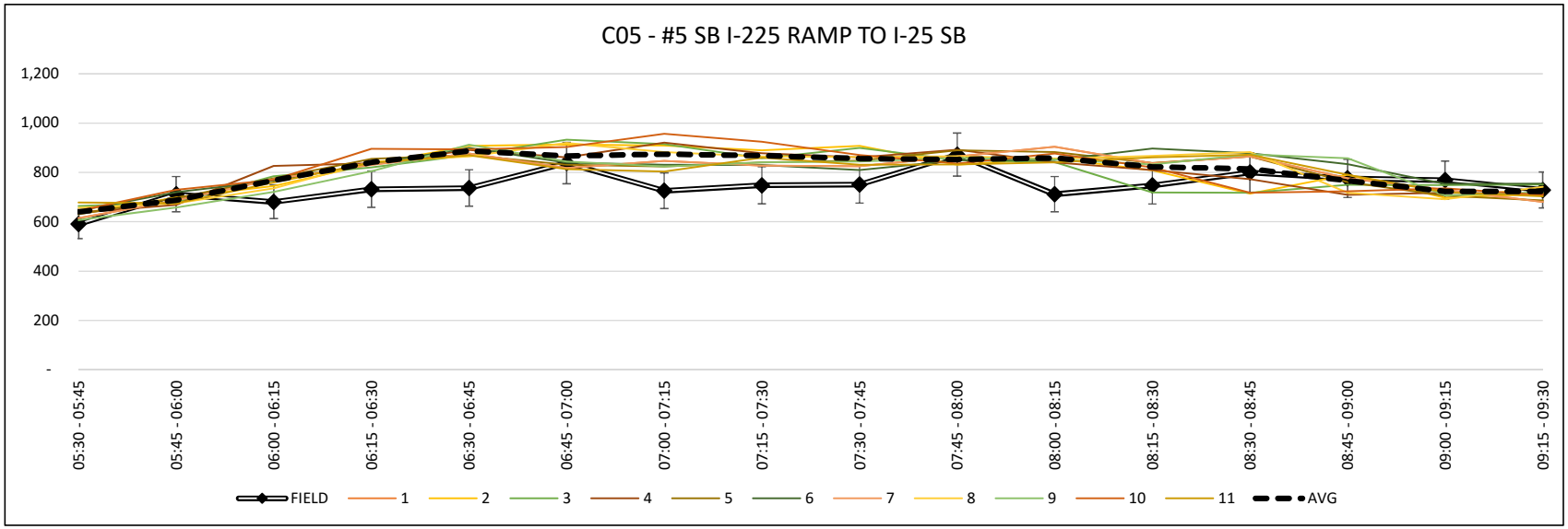
AM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C03.5	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	75	79	5%	95	24%	88	16%	80	6%	112	40%	95	24%	79	5%	98	27%	89	17%	121	47%	96	25%	94	22%		13	83
05:45 - 06:00	68	81	17%	74	8%	97	35%	85	22%	92	30%	96	34%	81	17%	96	34%	94	32%	93	31%	93	31%	90	28%		7	29
06:00 - 06:15	102	131	25%	105	3%	122	18%	117	14%	122	18%	119	15%	131	25%	124	19%	122	18%	121	17%	130	24%	122	18%		7	13
06:15 - 06:30	115	132	14%	126	9%	137	17%	166	36%	142	21%	136	17%	132	14%	136	17%	162	34%	141	20%	149	26%	143	22%		12	30
06:30 - 06:45	91	118	26%	147	47%	121	28%	145	46%	144	45%	143	44%	118	26%	147	47%	144	45%	150	49%	134	38%	140	42%		11	41
06:45 - 07:00	81	103	24%	114	34%	114	34%	118	37%	111	31%	118	37%	103	24%	115	35%	116	36%	125	43%	123	41%	116	36%		6	15
07:00 - 07:15	116	161	32%	167	36%	194	50%	172	39%	172	39%	181	44%	161	32%	190	48%	165	35%	178	42%	150	26%	173	39%		13	35
07:15 - 07:30	160	254	45%	240	40%	251	44%	250	44%	224	33%	238	39%	254	45%	239	40%	250	44%	239	40%	243	41%	243	41%		8	7
07:30 - 07:45	146	215	38%	219	40%	206	34%	210	36%	216	39%	217	39%	215	38%	209	35%	218	40%	212	37%	174	18%	210	36%		13	22
07:45 - 08:00	125	179	36%	216	53%	183	38%	188	40%	202	47%	183	38%	179	36%	181	37%	188	40%	165	28%	183	38%	188	40%		14	35
08:00 - 08:15	144	217	40%	225	44%	223	43%	204	34%	214	39%	225	44%	217	40%	229	46%	225	44%	228	45%	214	39%	220	42%		8	9
08:15 - 08:30	109	163	40%	147	30%	147	30%	165	41%	170	44%	155	35%	163	40%	176	47%	161	39%	133	20%	161	39%	157	36%		12	34
08:30 - 08:45	123	199	47%	178	37%	171	33%	183	39%	172	33%	191	43%	199	47%	179	37%	154	22%	173	34%	163	28%	176	35%		12	26
08:45 - 09:00	104	159	42%	151	37%	152	38%	160	42%	156	40%	156	40%	159	42%	147	34%	145	33%	145	33%	159	42%	154	39%		6	9
09:00 - 09:15	117	154	27%	149	24%	167	35%	174	39%	158	30%	158	30%	154	27%	162	32%	139	17%	167	35%	159	30%	160	31%		11	25
09:15 - 09:30	138	195	34%	194	34%	206	40%	192	33%	207	40%	191	32%	195	34%	174	23%	189	31%	182	28%	207	40%	194	34%		11	18
Hour 1	360	423	16%	400	11%	444	21%	448	22%	468	26%	446	21%	423	16%	454	23%	467	26%	476	28%	468	26%	449	22%		10	2
Hour 2	448	636	35%	668	39%	680	41%	685	42%	651	37%	680	41%	636	35%	691	43%	675	40%	692	43%	650	37%	672	40%		10	1
Hour 3	524	774	39%	807	43%	759	37%	767	38%	802	42%	780	39%	774	39%	795	41%	792	41%	738	34%	732	33%	775	39%		12	1
Hour 4	482	707	38%	672	33%	696	36%	709	38%	693	36%	696	36%	707	38%	662	31%	627	26%	667	32%	688	35%	684	35%		10	1
11	1,814	2,540	33%	2,547	34%	2,579	35%	2,609	36%	2,614	36%	2,602	36%	2,540	33%	2,602	36%	2,561	34%	2,573	35%	2,538	33%	2,580	35%		21	0



CONCEPT 3		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																											
AM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C04	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	101	105	4%	98	3%	103	2%	98	3%	104	3%	92	9%	105	4%	82	21%	103	2%	102	1%	90	12%	99	2%		8	17
05:45 - 06:00	129	144	11%	122	6%	115	11%	155	18%	143	10%	133	3%	144	11%	128	1%	140	8%	121	6%	127	2%	132	2%		12	24
06:00 - 06:15	155	143	8%	154	1%	147	5%	167	7%	152	2%	159	3%	143	8%	154	1%	138	12%	162	4%	168	8%	154	1%		9	9
06:15 - 06:30	200	214	7%	208	4%	205	2%	193	4%	180	11%	219	9%	214	7%	187	7%	201	0%	179	11%	178	12%	194	3%		16	18
06:30 - 06:45	283	301	6%	256	10%	338	18%	294	4%	286	1%	266	6%	301	6%	291	3%	275	3%	293	3%	259	9%	285	1%		23	18
06:45 - 07:00	290	282	3%	282	3%	317	9%	307	6%	286	1%	290	0%	282	3%	265	9%	284	2%	296	2%	301	4%	293	1%		16	8
07:00 - 07:15	342	343	0%	341	0%	353	3%	305	11%	347	1%	315	8%	343	0%	351	3%	314	9%	322	6%	341	0%	333	3%		17	7
07:15 - 07:30	392	361	8%	437	11%	417	6%	413	5%	393	0%	377	4%	361	8%	379	3%	393	0%	357	9%	407	4%	395	1%		25	11
07:30 - 07:45	361	355	2%	389	7%	364	1%	362	0%	370	2%	385	6%	355	2%	343	5%	365	1%	368	2%	410	13%	366	1%		24	12
07:45 - 08:00	364	365	0%	381	5%	332	9%	376	3%	336	8%	358	2%	365	0%	346	5%	344	6%	363	0%	378	4%	359	1%		17	6
08:00 - 08:15	346	399	14%	368	6%	354	2%	331	4%	335	3%	364	5%	399	14%	346	0%	321	7%	368	6%	338	2%	351	1%		22	11
08:15 - 08:30	340	372	9%	343	1%	341	0%	359	5%	369	8%	304	11%	372	9%	339	0%	340	0%	381	11%	325	5%	345	1%		23	13
08:30 - 08:45	363	379	4%	328	10%	372	2%	332	9%	356	2%	370	2%	379	4%	345	5%	366	1%	375	3%	342	6%	355	2%		19	8
08:45 - 09:00	318	339	6%	322	1%	302	5%	310	3%	338	6%	303	5%	339	6%	294	8%	337	6%	310	3%	311	2%	317	0%		16	7
09:00 - 09:15	293	303	3%	293	0%	297	1%	316	8%	269	9%	289	1%	303	3%	303	3%	327	11%	285	3%	261	12%	295	1%		19	12
09:15 - 09:30	290	259	11%	297	2%	270	7%	278	4%	296	2%	261	11%	259	11%	296	2%	290	0%	263	10%	304	5%	278	4%		19	12
Hour 1	585	606	4%	582	1%	570	3%	613	5%	579	1%	603	3%	606	4%	551	6%	582	1%	564	4%	563	4%	579	1%		12	1
Hour 2	1,307	1,287	2%	1,316	1%	1,425	9%	1,319	1%	1,312	0%	1,248	5%	1,287	2%	1,286	2%	1,266	3%	1,268	3%	1,308	0%	1,306	0%		21	1
Hour 3	1,411	1,491	6%	1,481	5%	1,391	1%	1,428	1%	1,410	0%	1,411	0%	1,491	6%	1,374	3%	1,370	3%	1,480	5%	1,451	3%	1,421	1%		22	1
Hour 4	1,264	1,280	1%	1,240	2%	1,241	2%	1,236	2%	1,259	0%	1,223	3%	1,280	1%	1,238	2%	1,320	4%	1,233	2%	1,218	4%	1,245	2%		18	1
11	4,567	4,664	2%	4,619	1%	4,627	1%	4,596	1%	4,560	0%	4,485	2%	4,664	2%	4,449	3%	4,538	1%	4,545	0%	4,540	1%	4,551	0%		37	0



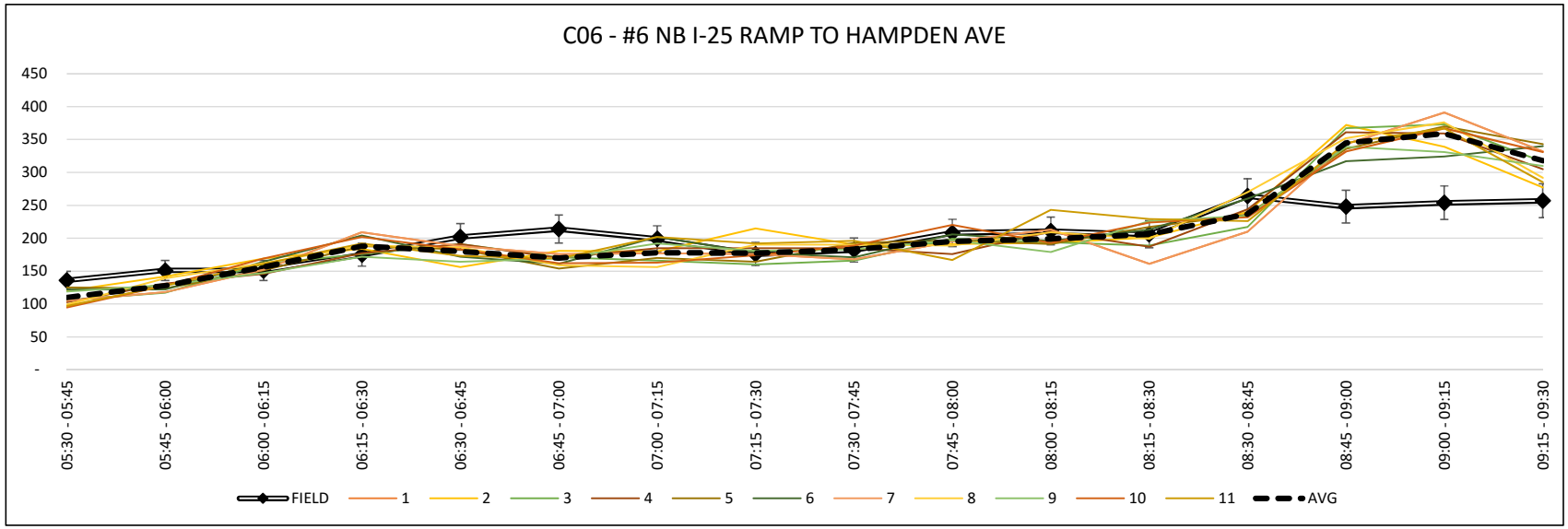
CONCEPT 3		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																										
AM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C05	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	591	615	4%	633	7%	664	12%	637	7%	630	6%	645	9%	615	4%	657	11%	607	3%	644	9%	678	14%	640	8%		21	4
05:45 - 06:00	712	686	4%	698	2%	678	5%	669	6%	696	2%	720	1%	686	4%	675	5%	658	8%	729	2%	675	5%	688	3%		21	2
06:00 - 06:15	681	772	13%	745	9%	784	14%	826	19%	776	13%	766	12%	772	13%	736	8%	721	6%	770	12%	759	11%	768	12%		29	5
06:15 - 06:30	732	831	13%	835	13%	820	11%	837	13%	855	16%	835	13%	831	13%	843	14%	805	9%	896	20%	839	14%	841	14%		23	3
06:30 - 06:45	737	877	17%	908	21%	871	17%	891	19%	871	17%	899	20%	877	17%	865	16%	912	21%	893	19%	869	16%	887	18%		17	1
06:45 - 07:00	838	818	2%	913	9%	933	11%	861	3%	831	1%	839	0%	818	2%	919	9%	844	1%	903	7%	813	3%	867	3%		43	7
07:00 - 07:15	726	847	15%	909	22%	915	23%	921	24%	824	13%	831	13%	847	15%	882	19%	824	13%	957	27%	803	10%	874	19%		50	13
07:15 - 07:30	748	827	10%	889	17%	857	14%	878	16%	841	12%	830	10%	827	10%	865	15%	840	12%	924	21%	860	14%	868	15%		36	6
07:30 - 07:45	751	825	9%	907	19%	899	18%	861	14%	848	12%	810	8%	825	9%	862	14%	844	12%	870	15%	831	10%	856	13%		29	4
07:45 - 08:00	872	864	1%	831	5%	850	3%	892	2%	890	2%	849	3%	864	1%	866	1%	859	2%	836	4%	832	5%	853	2%		25	2
08:00 - 08:15	712	904	24%	856	18%	842	17%	840	16%	882	21%	850	18%	904	24%	855	18%	853	18%	877	21%	841	17%	859	19%		20	2
08:15 - 08:30	747	837	11%	808	8%	719	4%	809	8%	838	11%	897	18%	837	11%	867	15%	832	11%	820	9%	861	14%	823	10%		49	12
08:30 - 08:45	800	864	8%	714	11%	717	11%	772	4%	864	8%	878	9%	864	8%	882	10%	873	9%	717	11%	872	9%	814	2%		72	22
08:45 - 09:00	776	776	0%	791	2%	750	3%	709	9%	761	2%	833	7%	776	0%	717	8%	857	10%	724	7%	791	2%	767	1%		48	11
09:00 - 09:15	769	729	5%	697	10%	749	3%	718	7%	705	9%	753	2%	729	5%	691	11%	707	8%	736	4%	720	7%	723	6%		22	2
09:15 - 09:30	729	680	7%	714	2%	751	3%	714	2%	686	6%	754	3%	680	7%	741	2%	720	1%	708	3%	703	4%	724	1%		32	5
Hour 1	2,716	2,904	7%	2,911	7%	2,946	8%	2,969	9%	2,957	8%	2,966	9%	2,904	7%	2,911	7%	2,791	3%	3,039	11%	2,951	8%	2,937	8%		24	0
Hour 2	3,049	3,369	10%	3,619	17%	3,576	16%	3,551	15%	3,367	10%	3,399	11%	3,369	10%	3,531	15%	3,420	11%	3,677	19%	3,345	9%	3,496	14%		39	0
Hour 3	3,082	3,430	11%	3,402	10%	3,310	7%	3,402	10%	3,458	11%	3,406	10%	3,430	11%	3,450	11%	3,388	9%	3,403	10%	3,365	9%	3,391	10%		33	0
Hour 4	3,074	3,049	1%	2,916	5%	2,967	4%	2,913	5%	3,016	2%	3,218	5%	3,049	1%	3,031	1%	3,157	3%	2,885	6%	3,086	0%	3,028	2%		47	1
11	11,921	12,752	7%	12,848	7%	12,799	7%	12,835	7%	12,798	7%	12,989	9%	12,752	7%	12,923	8%	12,756	7%	13,004	9%	12,747	7%	12,852	8%		73	0



CONCEPT 3

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

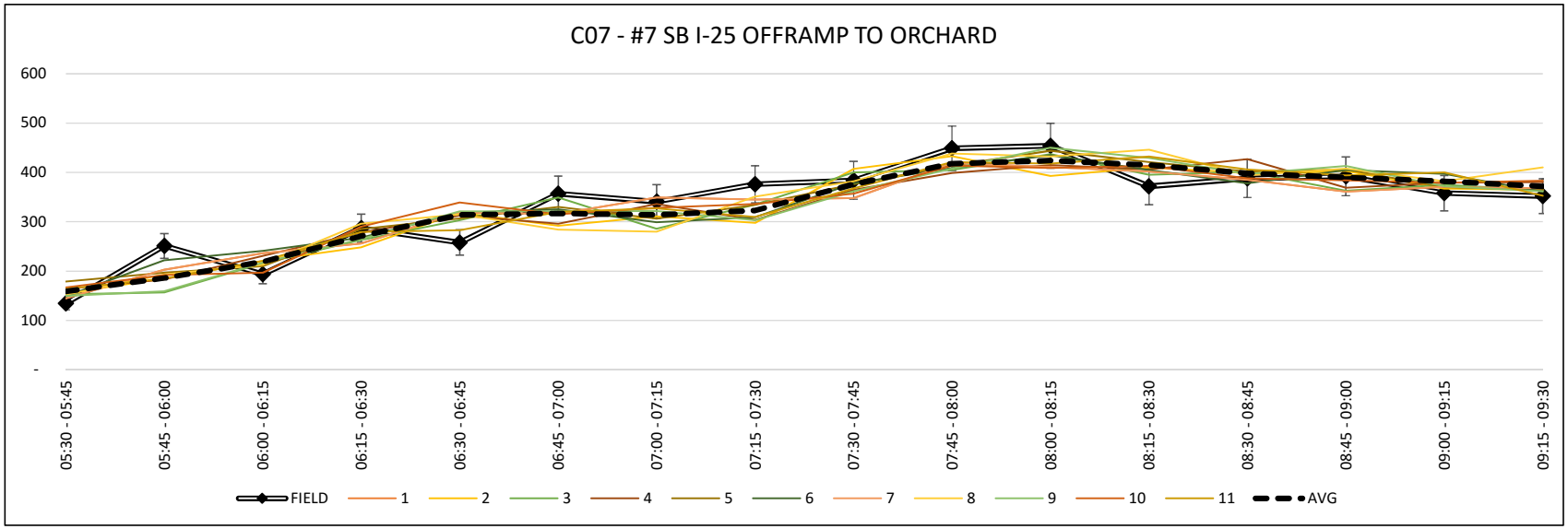
AM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C06	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	136	105	26%	120	13%	106	25%	103	28%	125	8%	122	11%	105	26%	99	31%	119	13%	95	35%	97	33%	110	21%		11	18
05:45 - 06:00	151	118	25%	142	6%	117	25%	131	14%	124	20%	122	21%	118	25%	139	8%	129	16%	128	16%	128	16%	128	16%		8	8
06:00 - 06:15	151	152	1%	169	11%	161	6%	146	3%	151	0%	164	8%	152	1%	162	7%	147	3%	169	11%	161	6%	156	3%		10	12
06:15 - 06:30	175	209	18%	184	5%	176	1%	177	1%	188	7%	204	15%	209	18%	189	8%	172	2%	202	14%	192	9%	188	7%		13	15
06:30 - 06:45	202	188	7%	156	26%	191	6%	191	6%	183	10%	172	16%	188	7%	186	8%	164	21%	183	10%	173	15%	180	12%		12	10
06:45 - 07:00	214	176	19%	181	17%	171	22%	170	23%	154	33%	161	28%	176	19%	159	29%	169	23%	162	28%	169	23%	170	23%		11	7
07:00 - 07:15	199	177	12%	180	10%	166	18%	185	7%	170	16%	202	1%	177	12%	156	24%	192	4%	163	20%	202	1%	178	11%		15	16
07:15 - 07:30	176	176	0%	215	20%	160	10%	185	5%	164	7%	178	1%	176	0%	190	8%	181	3%	174	1%	192	9%	177	1%		20	36
07:30 - 07:45	182	168	8%	190	4%	166	9%	185	2%	193	6%	171	6%	168	8%	190	4%	183	1%	189	4%	196	7%	183	1%		10	8
07:45 - 08:00	208	195	6%	191	9%	199	4%	176	17%	197	5%	206	1%	195	6%	189	10%	197	5%	220	6%	167	22%	195	6%		15	14
08:00 - 08:15	211	213	1%	193	9%	194	8%	210	0%	191	10%	196	7%	213	1%	209	1%	179	16%	193	9%	243	14%	199	6%		19	22
08:15 - 08:30	206	161	25%	201	2%	189	9%	187	10%	217	5%	213	3%	161	25%	199	3%	226	9%	224	8%	229	11%	206	0%		21	29
08:30 - 08:45	264	210	23%	240	10%	217	20%	244	8%	236	11%	260	2%	210	23%	270	2%	234	12%	232	13%	226	16%	237	11%		17	12
08:45 - 09:00	248	343	32%	372	40%	367	39%	361	37%	336	30%	317	24%	343	32%	352	35%	339	31%	332	29%	345	33%	345	33%		17	13
09:00 - 09:15	254	391	42%	339	29%	373	38%	359	34%	370	37%	324	24%	391	42%	376	39%	331	26%	367	36%	367	36%	359	34%		21	19
09:15 - 09:30	257	332	25%	277	7%	316	21%	305	17%	343	29%	340	28%	332	25%	292	13%	310	19%	331	25%	285	10%	318	21%		27	31
Hour 1	613	584	5%	615	0%	560	9%	557	10%	588	4%	612	0%	584	5%	589	4%	567	8%	594	3%	578	6%	582	5%		11	1
Hour 2	791	717	10%	732	8%	688	14%	731	8%	671	16%	713	10%	717	10%	691	13%	706	11%	682	15%	736	7%	705	11%		15	1
Hour 3	807	737	9%	775	4%	748	8%	758	6%	798	1%	786	3%	737	9%	787	3%	785	3%	826	2%	835	3%	783	3%		17	1
Hour 4	1,023	1,276	22%	1,228	18%	1,273	22%	1,269	21%	1,285	23%	1,241	19%	1,276	22%	1,290	23%	1,214	17%	1,262	21%	1,223	18%	1,259	21%		21	1
11	3,234	3,314	2%	3,350	4%	3,269	1%	3,315	2%	3,342	3%	3,352	4%	3,314	2%	3,357	4%	3,272	1%	3,364	4%	3,372	4%	3,329	3%		32	0



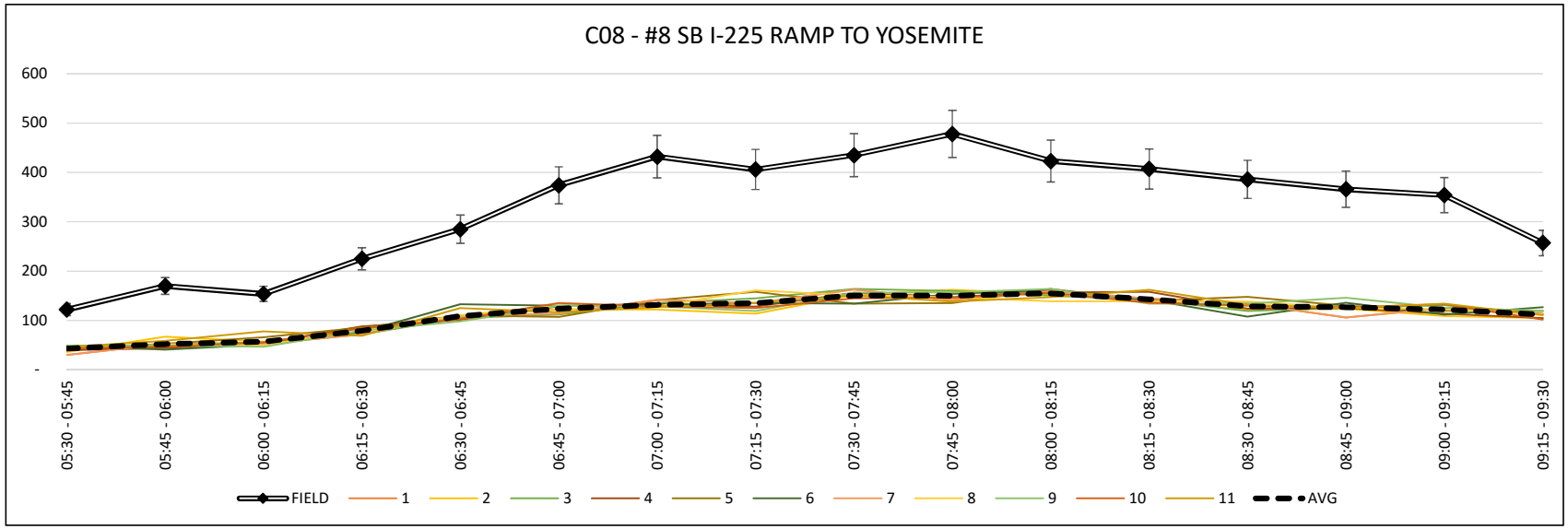
CONCEPT 3

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

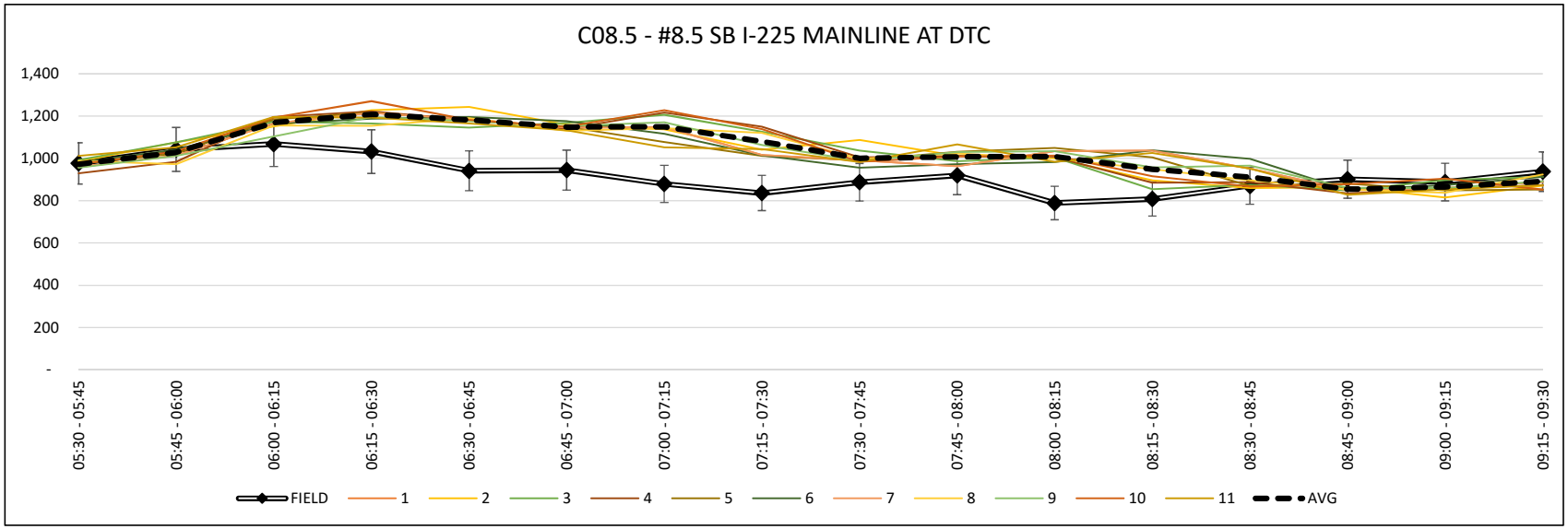
AM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C07	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	135	145	7%	155	14%	153	13%	164	19%	179	28%	149	10%	145	7%	152	12%	150	11%	167	21%	164	19%	159	16%		11	18
05:45 - 06:00	251	203	21%	185	30%	157	46%	183	31%	197	24%	222	12%	203	21%	193	26%	159	45%	192	27%	185	30%	186	30%		20	18
06:00 - 06:15	194	236	20%	221	13%	216	11%	231	17%	210	8%	241	22%	236	20%	213	9%	217	11%	197	2%	221	13%	219	12%		13	12
06:15 - 06:30	287	256	11%	248	15%	263	9%	278	3%	285	1%	268	7%	256	11%	296	3%	265	8%	290	1%	279	3%	271	6%		16	9
06:30 - 06:45	258	319	21%	319	21%	303	16%	313	19%	307	17%	318	21%	319	21%	315	20%	321	22%	339	27%	283	9%	314	20%		14	8
06:45 - 07:00	357	316	12%	292	20%	349	2%	296	19%	330	8%	325	9%	316	12%	284	23%	321	11%	315	13%	320	11%	317	12%		20	9
07:00 - 07:15	341	349	2%	311	9%	286	18%	336	1%	306	11%	299	13%	349	2%	280	20%	322	6%	328	4%	327	4%	314	8%		21	11
07:15 - 07:30	376	345	9%	298	23%	335	12%	304	21%	334	12%	309	20%	345	9%	351	7%	303	22%	336	11%	310	19%	323	15%		19	7
07:30 - 07:45	384	348	10%	407	6%	400	4%	365	5%	376	2%	378	2%	348	10%	382	1%	362	6%	357	7%	368	4%	376	2%		18	6
07:45 - 08:00	449	419	7%	433	4%	405	10%	399	12%	414	8%	409	9%	419	7%	438	2%	408	10%	414	8%	421	6%	418	7%		13	2
08:00 - 08:15	454	411	10%	393	14%	437	4%	415	9%	444	2%	435	4%	411	10%	432	5%	450	1%	409	10%	418	8%	424	7%		17	4
08:15 - 08:30	372	402	8%	410	10%	395	6%	406	9%	421	12%	405	8%	402	8%	446	18%	429	14%	413	10%	432	15%	415	11%		15	5
08:30 - 08:45	388	385	1%	399	3%	401	3%	427	10%	402	4%	378	3%	385	1%	394	2%	397	2%	388	0%	406	5%	398	3%		13	3
08:45 - 09:00	392	361	8%	403	3%	363	8%	369	6%	406	4%	405	3%	361	8%	408	4%	413	5%	384	2%	394	1%	390	1%		19	7
09:00 - 09:15	358	371	4%	367	2%	375	5%	379	6%	370	3%	397	10%	371	4%	382	6%	372	4%	379	6%	400	11%	382	6%		13	4
09:15 - 09:30	352	368	4%	365	4%	364	3%	380	8%	365	4%	361	3%	368	4%	410	15%	362	3%	383	8%	353	0%	372	6%		16	6
Hour 1	867	840	3%	809	7%	789	9%	856	1%	871	0%	880	1%	840	3%	854	2%	791	9%	846	2%	849	2%	835	4%		15	1
Hour 2	1,332	1,329	0%	1,220	9%	1,273	5%	1,249	6%	1,277	4%	1,251	6%	1,329	0%	1,230	8%	1,267	5%	1,318	1%	1,240	7%	1,268	5%		19	1
Hour 3	1,659	1,580	5%	1,643	1%	1,637	1%	1,585	5%	1,655	0%	1,627	2%	1,580	5%	1,698	2%	1,649	1%	1,593	4%	1,639	1%	1,633	2%		16	0
Hour 4	1,490	1,485	0%	1,534	3%	1,503	1%	1,555	4%	1,543	3%	1,541	3%	1,485	0%	1,594	7%	1,544	4%	1,534	3%	1,553	4%	1,542	3%		15	0
11	5,348	5,234	2%	5,206	3%	5,202	3%	5,245	2%	5,346	0%	5,299	1%	5,234	2%	5,376	1%	5,251	2%	5,291	1%	5,281	1%	5,278	1%		33	0



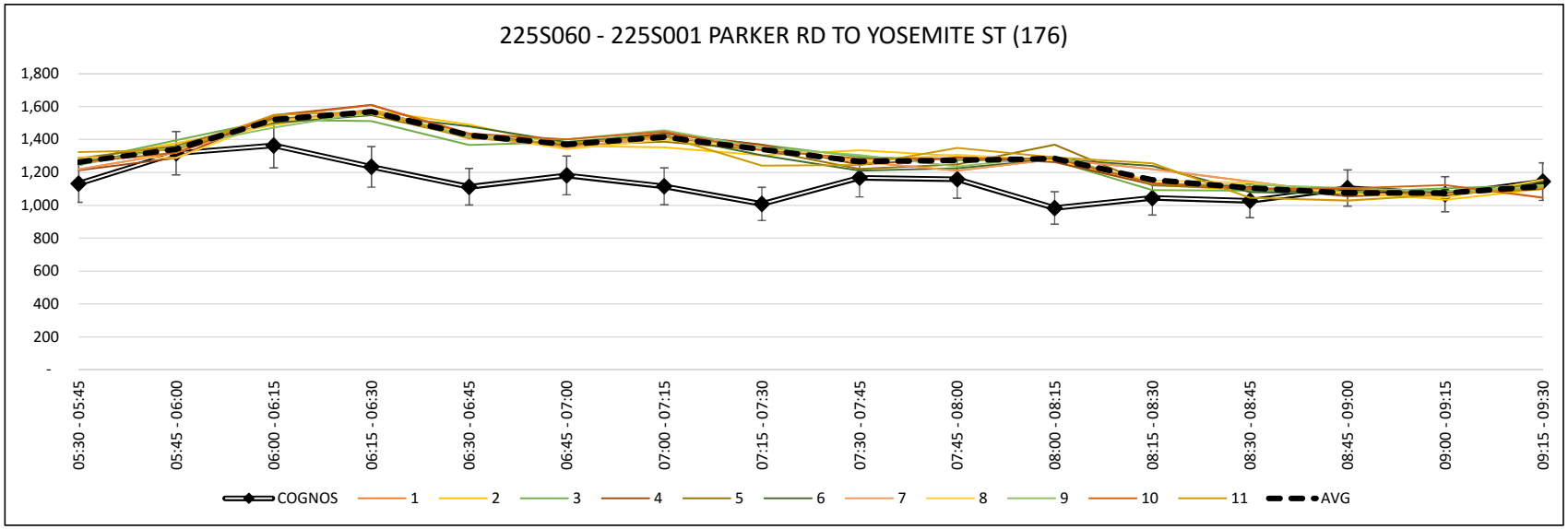
CONCEPT 3		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																											
AM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C08	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	122	30	###	36	###	41	99%	40	###	42	98%	49	85%	30	###	44	94%	49	85%	44	94%	46	90%	43	96%		6	7
05:45 - 06:00	170	52	###	67	87%	52	###	44	###	53	###	41	###	52	###	51	###	49	###	47	###	59	97%	52	###		7	5
06:00 - 06:15	154	52	99%	57	92%	55	95%	54	96%	66	80%	51	###	52	99%	50	###	47	###	56	93%	78	66%	57	92%		9	9
06:15 - 06:30	225	72	###	72	###	72	###	88	88%	86	89%	77	98%	72	###	80	95%	79	96%	84	91%	69	###	79	96%		7	3
06:30 - 06:45	285	110	89%	109	89%	105	92%	101	95%	110	89%	133	73%	110	89%	111	88%	98	98%	103	94%	125	78%	109	89%		11	4
06:45 - 07:00	374	114	###	123	###	112	###	129	97%	107	###	130	97%	114	###	130	97%	130	97%	135	94%	117	###	124	###		10	2
07:00 - 07:15	432	142	###	122	###	135	###	134	###	141	###	132	###	142	###	129	###	129	###	129	###	127	###	132	###		6	1
07:15 - 07:30	406	135	###	114	###	145	95%	128	###	158	88%	135	###	135	###	161	86%	119	###	125	###	135	###	135	###		15	4
07:30 - 07:45	435	163	91%	152	96%	164	90%	156	94%	134	###	134	###	163	91%	151	97%	156	94%	145	###	151	97%	151	97%		10	1
07:45 - 08:00	478	141	###	162	99%	160	###	148	###	135	###	154	###	141	###	147	###	157	###	146	###	138	###	150	###		10	1
08:00 - 08:15	423	160	90%	153	94%	150	95%	157	92%	164	88%	162	89%	160	90%	139	###	164	88%	156	92%	147	97%	155	93%		8	1
08:15 - 08:30	407	144	95%	142	97%	142	97%	158	88%	140	98%	142	97%	144	95%	139	98%	134	###	136	###	162	86%	143	96%		9	1
08:30 - 08:45	386	134	97%	121	###	119	###	124	###	148	89%	108	###	134	97%	138	95%	134	97%	130	99%	132	98%	129	###		11	2
08:45 - 09:00	366	106	###	124	99%	126	98%	125	98%	130	95%	136	92%	106	###	126	98%	146	86%	127	97%	125	98%	127	97%		10	2
09:00 - 09:15	354	125	96%	109	###	131	92%	114	###	120	99%	112	###	125	96%	123	97%	126	95%	133	91%	134	90%	122	97%		9	2
09:15 - 09:30	257	113	78%	105	84%	113	78%	105	84%	119	73%	127	68%	113	78%	112	79%	120	73%	102	86%	111	79%	112	79%		8	3
Hour 1	671	206	###	232	97%	220	###	226	99%	247	92%	218	###	206	###	225	###	224	###	231	98%	252	91%	231	98%		7	0
Hour 2	1,497	501	###	468	###	497	###	492	###	516	97%	530	95%	501	###	531	95%	476	###	492	###	504	99%	500	###		11	0
Hour 3	1,743	608	97%	609	96%	616	96%	619	95%	573	###	592	99%	608	97%	576	###	611	96%	583	###	598	98%	599	98%		9	0
Hour 4	1,363	478	96%	459	99%	489	94%	468	98%	517	90%	483	95%	478	96%	499	93%	526	89%	492	94%	502	92%	490	94%		10	0
11	5,274	1,793	99%	1,768	###	1,822	97%	1,805	98%	1,853	96%	1,823	97%	1,793	99%	1,831	97%	1,837	97%	1,798	98%	1,856	96%	1,820	97%		19	0



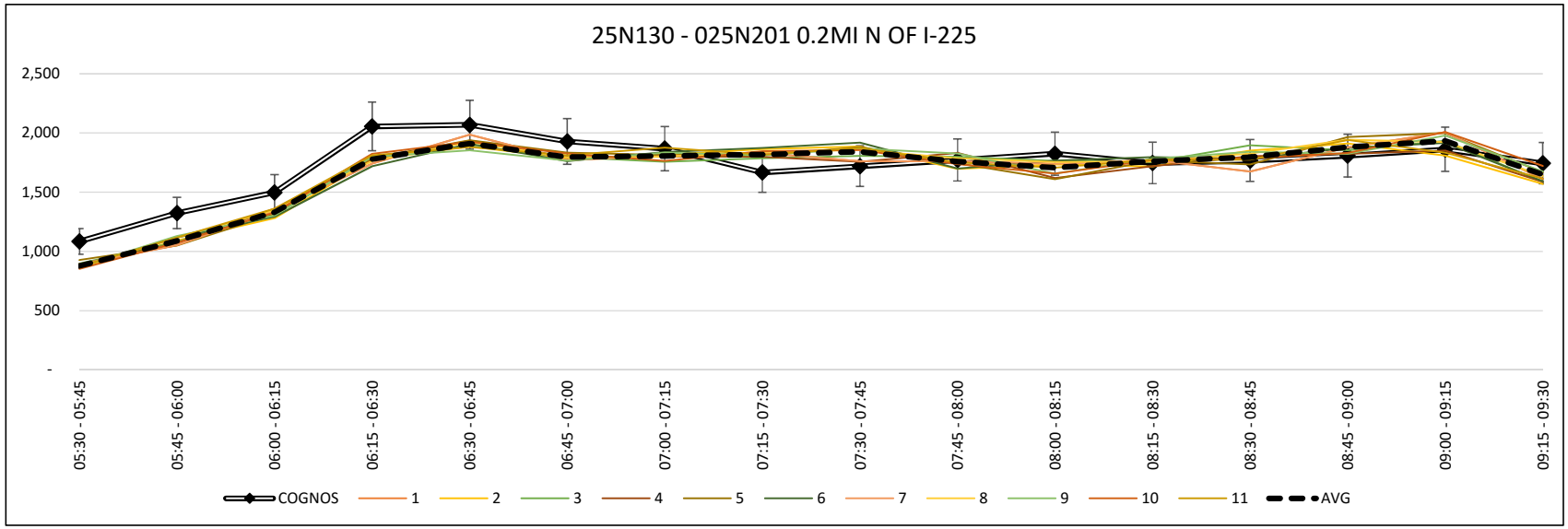
CONCEPT 3		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																										
AM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C08.5	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	976	959	2%	985	1%	992	2%	929	5%	974	0%	980	0%	959	2%	987	1%	955	2%	972	0%	1,012	4%	973	0%		22	1
05:45 - 06:00	1,042	1,013	3%	1,075	3%	1,075	3%	984	6%	1,022	2%	1,040	0%	1,013	3%	973	7%	1,011	3%	1,032	1%	1,052	1%	1,028	1%		33	3
06:00 - 06:15	1,068	1,165	9%	1,151	7%	1,173	9%	1,196	11%	1,184	10%	1,164	9%	1,165	9%	1,155	8%	1,104	3%	1,192	11%	1,195	11%	1,169	9%		27	2
06:15 - 06:30	1,032	1,215	16%	1,228	17%	1,165	12%	1,222	17%	1,216	16%	1,187	14%	1,215	16%	1,154	11%	1,196	15%	1,270	21%	1,193	14%	1,208	16%		34	3
06:30 - 06:45	941	1,184	23%	1,243	28%	1,145	20%	1,182	23%	1,180	23%	1,196	24%	1,184	23%	1,190	23%	1,176	22%	1,181	23%	1,165	21%	1,182	23%		24	2
06:45 - 07:00	944	1,145	19%	1,159	20%	1,167	21%	1,140	19%	1,149	20%	1,176	22%	1,145	19%	1,130	18%	1,152	20%	1,150	20%	1,133	18%	1,148	20%		16	1
07:00 - 07:15	879	1,147	26%	1,137	26%	1,206	31%	1,217	32%	1,077	20%	1,116	24%	1,147	26%	1,142	26%	1,170	28%	1,227	33%	1,052	18%	1,150	27%		55	11
07:15 - 07:30	836	1,016	19%	1,041	22%	1,126	30%	1,150	32%	1,011	19%	1,014	19%	1,016	19%	1,120	29%	1,063	24%	1,138	31%	1,044	22%	1,080	25%		59	14
07:30 - 07:45	887	991	11%	1,086	20%	1,036	15%	1,004	12%	991	11%	956	7%	991	11%	998	12%	988	11%	983	10%	982	10%	1,000	12%		34	4
07:45 - 08:00	920	963	5%	1,011	9%	986	7%	1,012	10%	1,031	11%	972	5%	963	5%	1,023	11%	1,030	11%	1,008	9%	1,066	15%	1,007	9%		31	3
08:00 - 08:15	789	1,034	27%	1,000	24%	1,004	24%	1,006	24%	1,049	28%	982	22%	1,034	27%	999	23%	1,033	27%	1,013	25%	984	22%	1,009	24%		21	2
08:15 - 08:30	808	1,036	25%	895	10%	854	6%	884	9%	1,005	22%	1,038	25%	1,036	25%	948	16%	957	17%	915	12%	1,025	24%	948	16%		70	21
08:30 - 08:45	870	951	9%	860	1%	875	1%	887	2%	869	0%	998	14%	951	9%	895	3%	965	10%	866	0%	952	9%	911	5%		47	8
08:45 - 09:00	901	849	6%	864	4%	848	6%	834	8%	880	2%	850	6%	849	6%	853	5%	861	5%	878	3%	828	8%	854	5%		16	1
09:00 - 09:15	888	860	3%	815	9%	897	1%	857	4%	848	5%	874	2%	860	3%	837	6%	859	3%	904	2%	852	4%	865	3%		29	3
09:15 - 09:30	937	888	5%	871	7%	912	3%	874	7%	852	10%	913	3%	888	5%	923	2%	892	5%	852	10%	874	7%	891	5%		30	3
Hour 1	4,118	4,352	6%	4,439	8%	4,405	7%	4,331	5%	4,396	7%	4,371	6%	4,352	6%	4,269	4%	4,266	4%	4,466	8%	4,452	8%	4,378	6%		29	0
Hour 2	3,600	4,492	22%	4,580	24%	4,644	25%	4,689	26%	4,417	20%	4,502	22%	4,492	22%	4,582	24%	4,561	24%	4,696	26%	4,394	20%	4,560	24%		43	0
Hour 3	3,404	4,024	17%	3,992	16%	3,880	13%	3,906	14%	4,076	18%	3,948	15%	4,024	17%	3,968	15%	4,008	16%	3,919	14%	4,057	18%	3,964	15%		43	0
Hour 4	3,596	3,548	1%	3,410	5%	3,532	2%	3,452	4%	3,449	4%	3,635	1%	3,548	1%	3,508	2%	3,577	1%	3,500	3%	3,506	3%	3,521	2%		32	0
11	14,718	16,416	11%	16,421	11%	16,461	11%	16,378	11%	16,338	10%	16,456	11%	16,416	11%	16,327	10%	16,412	11%	16,581	12%	16,409	11%	16,423	11%		75	0



CONCEPT 3		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																										
AM	COGNOS	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	225S060	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	1,132	1,218	7%	1,274	12%	1,268	11%	1,213	7%	1,286	13%	1,261	11%	1,218	7%	1,293	13%	1,245	10%	1,260	11%	1,323	16%	1,262	11%		32	2
05:45 - 06:00	1,317	1,320	0%	1,377	4%	1,395	6%	1,287	2%	1,361	3%	1,352	3%	1,320	0%	1,288	2%	1,356	3%	1,320	0%	1,336	1%	1,341	2%		34	2
06:00 - 06:15	1,364	1,510	10%	1,489	9%	1,520	11%	1,547	13%	1,529	11%	1,501	10%	1,510	10%	1,513	10%	1,472	8%	1,543	12%	1,550	13%	1,520	11%		26	1
06:15 - 06:30	1,234	1,581	25%	1,578	24%	1,511	20%	1,611	27%	1,548	23%	1,549	23%	1,581	25%	1,554	23%	1,567	24%	1,609	26%	1,569	24%	1,569	24%		29	2
06:30 - 06:45	1,113	1,415	24%	1,491	29%	1,366	20%	1,428	25%	1,414	24%	1,480	28%	1,415	24%	1,434	25%	1,420	24%	1,437	25%	1,406	23%	1,426	25%		35	3
06:45 - 07:00	1,182	1,352	13%	1,361	14%	1,384	16%	1,367	15%	1,365	14%	1,385	16%	1,352	13%	1,341	13%	1,400	17%	1,400	17%	1,377	15%	1,371	15%		20	1
07:00 - 07:15	1,116	1,415	24%	1,353	19%	1,436	25%	1,436	25%	1,386	22%	1,424	24%	1,415	24%	1,399	23%	1,456	26%	1,447	26%	1,420	24%	1,415	24%		30	2
07:15 - 07:30	1,009	1,357	29%	1,304	26%	1,369	30%	1,368	30%	1,337	28%	1,304	26%	1,357	29%	1,352	29%	1,351	29%	1,335	28%	1,242	21%	1,339	28%		43	5
07:30 - 07:45	1,168	1,265	8%	1,335	13%	1,295	10%	1,246	6%	1,221	4%	1,210	4%	1,265	8%	1,270	8%	1,306	11%	1,284	9%	1,245	6%	1,266	8%		37	3
07:45 - 08:00	1,159	1,211	4%	1,300	11%	1,276	10%	1,291	11%	1,249	7%	1,225	6%	1,211	4%	1,307	12%	1,236	6%	1,286	10%	1,348	15%	1,273	9%		40	3
08:00 - 08:15	984	1,280	26%	1,270	25%	1,269	25%	1,262	25%	1,368	33%	1,280	26%	1,280	26%	1,272	26%	1,298	28%	1,285	27%	1,292	27%	1,284	26%		31	3
08:15 - 08:30	1,045	1,219	15%	1,126	7%	1,093	4%	1,127	8%	1,121	7%	1,239	17%	1,219	15%	1,152	10%	1,132	8%	1,136	8%	1,256	18%	1,156	10%		55	8
08:30 - 08:45	1,028	1,145	11%	1,091	6%	1,088	6%	1,113	8%	1,100	7%	1,079	5%	1,145	11%	1,137	10%	1,124	9%	1,103	7%	1,046	2%	1,105	7%		28	2
08:45 - 09:00	1,105	1,069	3%	1,083	2%	1,079	2%	1,055	5%	1,099	1%	1,071	3%	1,069	3%	1,070	3%	1,105	0%	1,103	0%	1,029	7%	1,075	3%		22	1
09:00 - 09:15	1,067	1,067	0%	1,033	3%	1,104	3%	1,074	1%	1,069	0%	1,065	0%	1,067	0%	1,047	2%	1,085	2%	1,123	5%	1,066	0%	1,075	1%		25	2
09:15 - 09:30	1,144	1,121	2%	1,100	4%	1,125	2%	1,100	4%	1,100	4%	1,145	0%	1,121	2%	1,156	1%	1,114	3%	1,047	9%	1,107	3%	1,116	2%		32	2
Hour 1	5,047	5,629	11%	5,718	12%	5,694	12%	5,658	11%	5,724	13%	5,663	12%	5,629	11%	5,648	11%	5,640	11%	5,732	13%	5,778	14%	5,692	12%		30	0
Hour 2	4,420	5,539	22%	5,509	22%	5,555	23%	5,599	24%	5,502	22%	5,593	23%	5,539	22%	5,526	22%	5,627	24%	5,619	24%	5,445	21%	5,551	23%		33	0
Hour 3	4,356	4,975	13%	5,031	14%	4,933	12%	4,926	12%	4,959	13%	4,954	13%	4,975	13%	5,001	14%	4,972	13%	4,991	14%	5,141	17%	4,979	13%		42	0
Hour 4	4,344	4,402	1%	4,307	1%	4,396	1%	4,342	0%	4,368	1%	4,360	0%	4,402	1%	4,410	2%	4,428	2%	4,376	1%	4,248	2%	4,371	1%		27	0
11	18,167	20,545	12%	20,565	12%	20,578	12%	20,525	12%	20,553	12%	20,570	12%	20,545	12%	20,585	12%	20,667	13%	20,718	13%	20,612	13%	20,593	13%		67	0



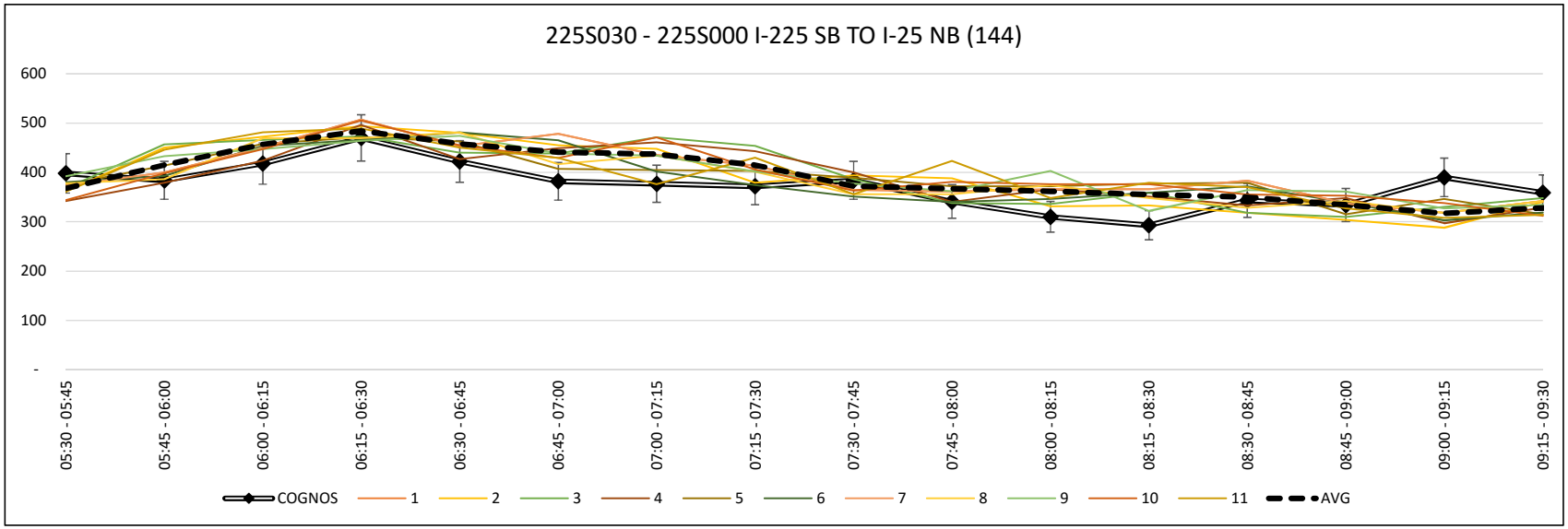
CONCEPT 3		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																										
AM	COGNOS	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	25N130	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	1,084	892	19%	864	23%	898	19%	890	20%	927	16%	870	22%	892	19%	871	22%	869	22%	853	24%	873	22%	877	21%		23	1
05:45 - 06:00	1,324	1,052	23%	1,091	19%	1,078	20%	1,069	21%	1,048	23%	1,117	17%	1,052	23%	1,116	17%	1,130	16%	1,075	21%	1,116	17%	1,088	20%		28	1
06:00 - 06:15	1,498	1,344	11%	1,280	16%	1,347	11%	1,361	10%	1,315	13%	1,294	15%	1,344	11%	1,348	11%	1,303	14%	1,327	12%	1,360	10%	1,330	12%		28	1
06:15 - 06:30	2,055	1,742	16%	1,774	15%	1,797	13%	1,770	15%	1,788	14%	1,719	18%	1,742	16%	1,763	15%	1,799	13%	1,823	12%	1,810	13%	1,779	14%		30	1
06:30 - 06:45	2,069	1,985	4%	1,886	9%	1,889	9%	1,936	7%	1,939	6%	1,909	8%	1,985	4%	1,924	7%	1,854	11%	1,925	7%	1,881	10%	1,910	8%		37	1
06:45 - 07:00	1,928	1,770	9%	1,785	8%	1,796	7%	1,797	7%	1,834	5%	1,761	9%	1,770	9%	1,794	7%	1,767	9%	1,825	5%	1,811	6%	1,796	7%		24	0
07:00 - 07:15	1,868	1,803	4%	1,816	3%	1,756	6%	1,802	4%	1,813	3%	1,839	2%	1,803	4%	1,798	4%	1,834	2%	1,763	6%	1,875	0%	1,805	3%		38	1
07:15 - 07:30	1,666	1,832	9%	1,864	11%	1,786	7%	1,799	8%	1,812	8%	1,872	12%	1,832	9%	1,838	10%	1,811	8%	1,845	10%	1,815	9%	1,819	9%		39	2
07:30 - 07:45	1,720	1,762	2%	1,885	9%	1,805	5%	1,755	2%	1,880	9%	1,918	11%	1,762	2%	1,857	8%	1,869	8%	1,857	8%	1,873	9%	1,841	7%		54	3
07:45 - 08:00	1,772	1,760	1%	1,696	4%	1,799	2%	1,832	3%	1,743	2%	1,699	4%	1,760	1%	1,785	1%	1,825	3%	1,737	2%	1,750	1%	1,758	1%		47	2
08:00 - 08:15	1,825	1,738	5%	1,733	5%	1,763	3%	1,620	12%	1,610	13%	1,766	3%	1,738	5%	1,754	4%	1,656	10%	1,656	10%	1,707	7%	1,707	7%		61	3
08:15 - 08:30	1,747	1,770	1%	1,717	2%	1,754	0%	1,719	2%	1,765	1%	1,797	3%	1,770	1%	1,758	1%	1,781	2%	1,772	1%	1,774	2%	1,760	1%		24	1
08:30 - 08:45	1,767	1,674	5%	1,852	5%	1,896	7%	1,804	2%	1,733	2%	1,782	1%	1,674	5%	1,826	3%	1,842	4%	1,785	1%	1,774	0%	1,797	2%		60	3
08:45 - 09:00	1,809	1,878	4%	1,911	5%	1,853	2%	1,823	1%	1,966	8%	1,873	3%	1,878	4%	1,942	7%	1,823	1%	1,831	1%	1,941	7%	1,880	4%		52	2
09:00 - 09:15	1,862	2,006	7%	1,808	3%	1,933	4%	1,851	1%	1,999	7%	1,915	3%	2,006	7%	1,922	3%	1,979	6%	2,007	7%	1,834	2%	1,933	4%		74	4
09:15 - 09:30	1,745	1,613	8%	1,569	11%	1,587	9%	1,588	9%	1,667	5%	1,591	9%	1,613	8%	1,637	6%	1,674	4%	1,721	1%	1,615	8%	1,648	6%		87	7
Hour 1	5,961	5,030	17%	5,009	17%	5,120	15%	5,090	16%	5,078	16%	5,000	18%	5,030	17%	5,098	16%	5,101	16%	5,078	16%	5,159	14%	5,074	16%		27	0
Hour 2	7,531	7,390	2%	7,351	2%	7,227	4%	7,334	3%	7,398	2%	7,381	2%	7,390	2%	7,354	2%	7,266	4%	7,358	2%	7,382	2%	7,330	3%		35	0
Hour 3	7,064	7,030	0%	7,031	0%	7,121	1%	6,926	2%	6,998	1%	7,180	2%	7,030	0%	7,154	1%	7,131	1%	7,022	1%	7,104	1%	7,066	0%		49	0
Hour 4	7,183	7,171	0%	7,140	1%	7,269	1%	7,066	2%	7,365	3%	7,161	0%	7,171	0%	7,327	2%	7,318	2%	7,344	2%	7,164	0%	7,258	1%		70	0
11	27,739	26,621	4%	26,531	4%	26,737	4%	26,416	5%	26,839	3%	26,722	4%	26,621	4%	26,933	3%	26,816	3%	26,802	3%	26,809	3%	26,728	4%		96	0



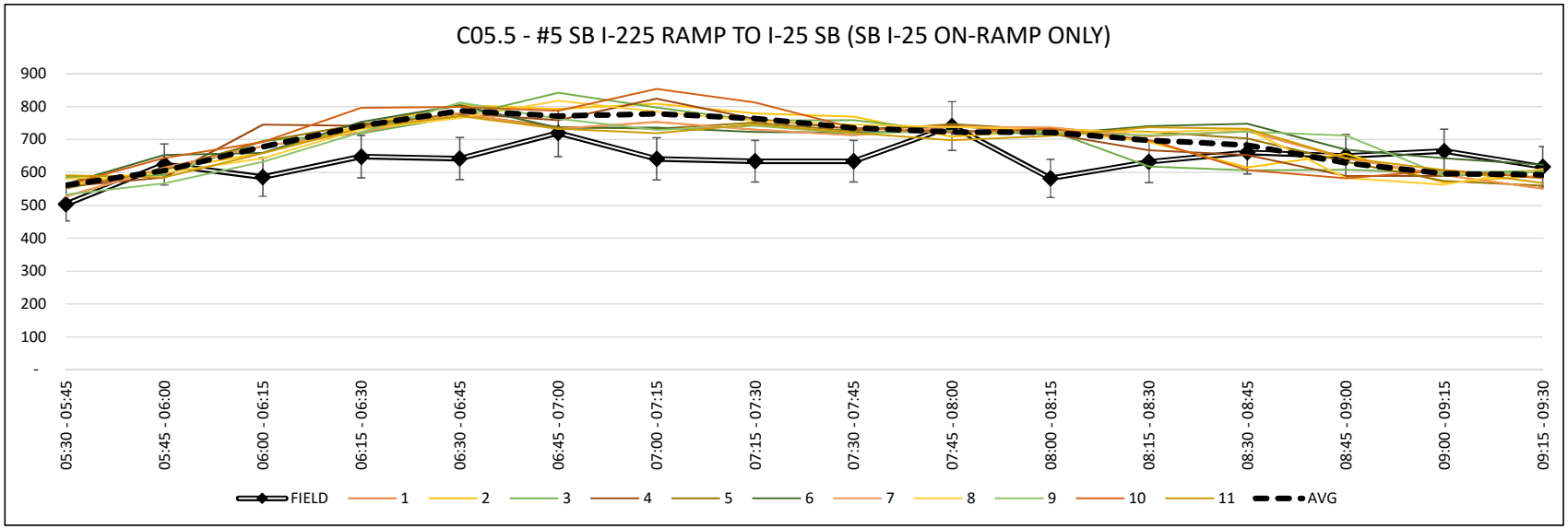
CONCEPT 3

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

AM	COGNOS	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	225S030	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	398	373	6%	362	9%	368	8%	342	15%	375	6%	380	5%	373	6%	378	5%	392	2%	344	15%	361	10%	368	8%		22	8
05:45 - 06:00	384	400	4%	450	16%	457	17%	379	1%	414	8%	393	2%	400	4%	386	1%	433	12%	398	4%	446	15%	415	8%		30	17
06:00 - 06:15	418	451	8%	472	12%	466	11%	424	1%	458	9%	454	8%	451	8%	469	11%	447	7%	447	7%	481	14%	457	9%		26	11
06:15 - 06:30	470	507	8%	494	5%	473	1%	496	5%	471	0%	466	1%	507	8%	469	0%	464	1%	505	7%	489	4%	484	3%		32	13
06:30 - 06:45	422	453	7%	480	13%	440	4%	427	1%	463	9%	481	13%	453	7%	481	13%	474	12%	455	8%	450	6%	458	8%		30	14
06:45 - 07:00	382	478	22%	455	17%	438	14%	449	16%	407	6%	465	20%	478	22%	417	9%	438	14%	429	12%	429	12%	441	14%		32	19
07:00 - 07:15	377	435	14%	448	17%	471	22%	461	20%	405	7%	402	6%	435	14%	434	14%	434	14%	471	22%	376	0%	437	15%		80	125
07:15 - 07:30	372	414	11%	379	2%	454	20%	443	17%	403	8%	374	1%	414	11%	401	8%	402	8%	406	9%	430	14%	415	11%		57	65
07:30 - 07:45	384	365	5%	394	3%	386	1%	400	4%	389	1%	351	9%	365	5%	356	8%	377	2%	363	6%	356	8%	372	3%		44	36
07:45 - 08:00	341	361	6%	388	13%	338	1%	340	0%	372	9%	340	0%	361	6%	356	4%	362	6%	381	11%	423	21%	367	7%		26	16
08:00 - 08:15	310	366	17%	331	7%	336	8%	366	17%	372	18%	346	11%	366	17%	374	19%	403	26%	376	19%	348	12%	362	15%		31	28
08:15 - 08:30	293	366	22%	333	13%	359	20%	351	18%	377	25%	359	20%	366	22%	348	17%	322	9%	376	25%	379	26%	355	19%		64	132
08:30 - 08:45	343	383	11%	318	8%	318	8%	333	3%	379	10%	372	8%	383	11%	328	4%	364	6%	355	3%	370	8%	350	2%		83	162
08:45 - 09:00	334	337	1%	304	9%	310	7%	348	4%	315	6%	339	1%	337	1%	342	2%	361	8%	353	6%	327	2%	334	0%		36	32
09:00 - 09:15	390	318	20%	288	30%	330	17%	297	27%	346	12%	303	25%	318	20%	318	20%	327	18%	338	14%	308	23%	317	21%		33	20
09:15 - 09:30	359	342	5%	340	5%	348	3%	329	9%	315	13%	319	12%	342	5%	342	5%	334	7%	312	14%	314	13%	328	9%		35	26
Hour 1	1,670	1,731	4%	1,778	6%	1,764	5%	1,641	2%	1,718	3%	1,693	1%	1,731	4%	1,702	2%	1,736	4%	1,694	1%	1,777	6%	1,724	3%		28	1
Hour 2	1,553	1,780	14%	1,762	13%	1,803	15%	1,780	14%	1,678	8%	1,722	10%	1,780	14%	1,733	11%	1,748	12%	1,761	13%	1,685	8%	1,751	12%		54	3
Hour 3	1,328	1,458	9%	1,446	9%	1,419	7%	1,457	9%	1,510	13%	1,396	5%	1,458	9%	1,434	8%	1,464	10%	1,496	12%	1,506	13%	1,456	9%		44	3
Hour 4	1,426	1,380	3%	1,250	13%	1,306	9%	1,307	9%	1,355	5%	1,333	7%	1,380	3%	1,330	7%	1,386	3%	1,358	5%	1,319	8%	1,329	7%		51	4
11	5,977	6,349	6%	6,236	4%	6,292	5%	6,185	3%	6,261	5%	6,144	3%	6,349	6%	6,199	4%	6,334	6%	6,309	5%	6,287	5%	6,260	5%		91	1



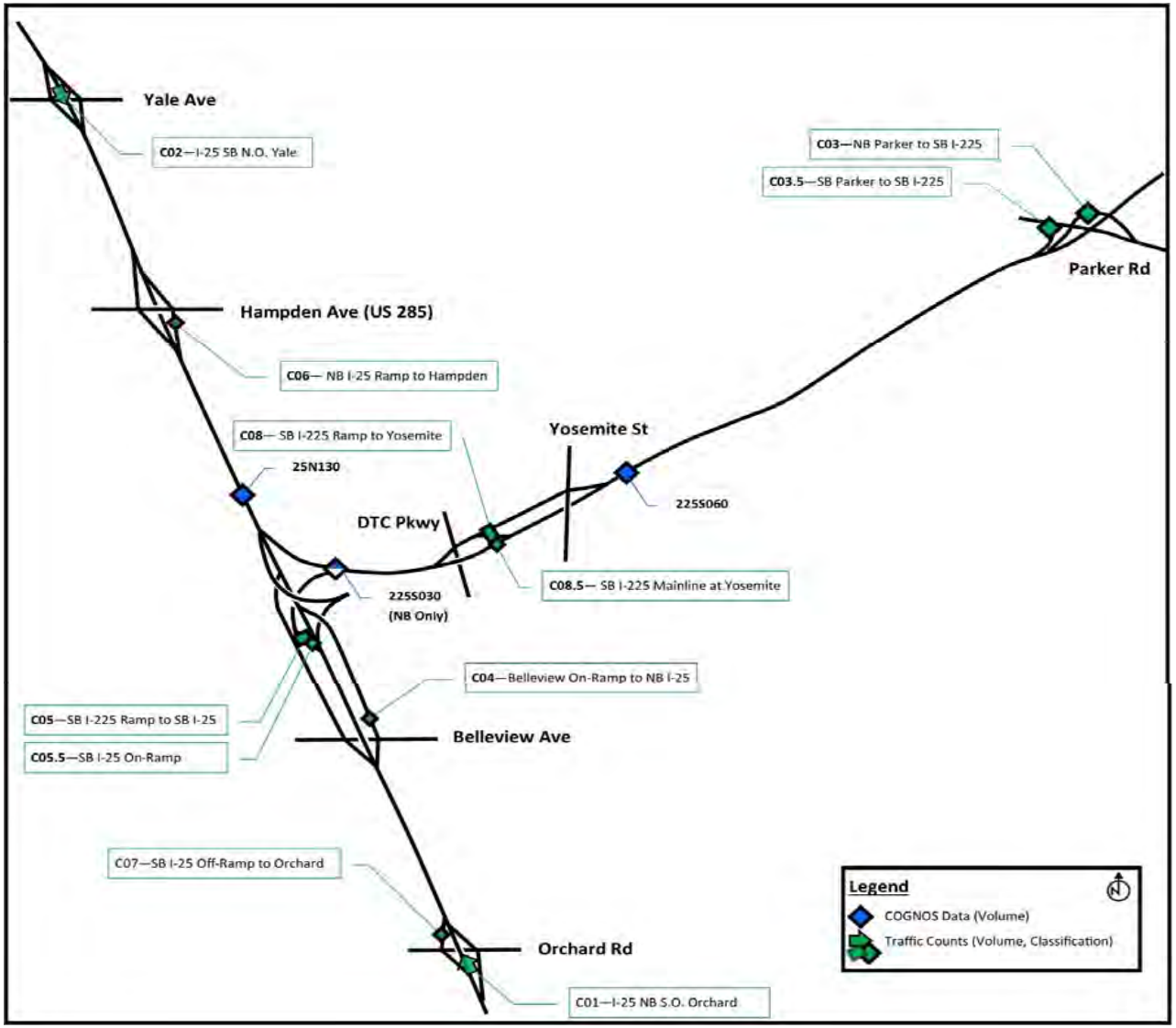
CONCEPT 3		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																										
AM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C05.5	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	503	527	5%	561	11%	586	15%	557	10%	552	9%	565	12%	527	5%	580	14%	533	6%	562	11%	591	16%	561	11%		-	0
05:45 - 06:00	624	614	2%	608	3%	592	5%	585	6%	608	3%	653	5%	614	2%	598	4%	567	10%	644	3%	585	6%	605	3%		-	0
06:00 - 06:15	586	680	15%	659	12%	696	17%	745	24%	694	17%	659	12%	680	15%	643	9%	632	8%	692	17%	658	12%	678	15%		-	0
06:15 - 06:30	648	722	11%	743	14%	718	10%	742	14%	747	14%	753	15%	722	11%	732	12%	722	11%	796	20%	735	13%	742	14%		-	0
06:30 - 06:45	642	780	19%	805	23%	770	18%	779	19%	777	19%	804	22%	780	19%	765	17%	812	23%	799	22%	771	18%	787	20%		-	0
06:45 - 07:00	720	733	2%	793	10%	842	16%	759	5%	738	2%	735	2%	733	2%	818	13%	763	6%	787	9%	733	2%	771	7%		-	0
07:00 - 07:15	641	753	16%	809	23%	797	22%	824	25%	733	13%	736	14%	753	16%	785	20%	729	13%	854	28%	719	11%	778	19%		-	0
07:15 - 07:30	634	730	14%	779	21%	758	18%	762	18%	751	17%	723	13%	730	14%	757	18%	742	16%	812	25%	746	16%	764	19%		-	0
07:30 - 07:45	634	713	12%	769	19%	759	18%	732	14%	725	13%	721	13%	713	12%	745	16%	718	12%	735	15%	720	13%	735	15%		-	0
07:45 - 08:00	741	739	0%	708	5%	725	2%	742	0%	747	1%	727	2%	739	0%	738	0%	725	2%	722	3%	698	6%	723	2%		-	0
08:00 - 08:15	582	736	23%	729	22%	727	22%	717	21%	729	22%	716	21%	736	23%	731	23%	720	21%	733	23%	711	20%	722	21%		-	0
08:15 - 08:30	632	710	12%	692	9%	618	2%	667	5%	724	14%	741	16%	710	12%	722	13%	713	12%	699	10%	737	15%	698	10%		-	0
08:30 - 08:45	661	725	9%	615	7%	606	9%	653	1%	703	6%	748	12%	725	9%	731	10%	724	9%	607	9%	733	10%	683	3%		-	0
08:45 - 09:00	650	643	1%	656	1%	608	7%	589	10%	632	3%	669	3%	643	1%	583	11%	712	9%	582	11%	644	1%	629	3%		-	0
09:00 - 09:15	665	592	12%	569	16%	598	11%	589	12%	574	15%	643	3%	592	12%	563	17%	590	12%	607	9%	607	9%	596	11%		-	0
09:15 - 09:30	617	551	11%	591	4%	605	2%	603	2%	560	10%	623	1%	551	11%	611	1%	603	2%	582	6%	568	8%	593	4%		-	0
Hour 1	2,361	2,543	7%	2,571	9%	2,592	9%	2,629	11%	2,601	10%	2,630	11%	2,543	7%	2,553	8%	2,454	4%	2,694	13%	2,569	8%	2,586	9%		-	0
Hour 2	2,637	2,996	13%	3,186	19%	3,167	18%	3,124	17%	2,999	13%	2,998	13%	2,996	13%	3,125	17%	3,046	14%	3,252	21%	2,969	12%	3,100	16%		-	0
Hour 3	2,589	2,898	11%	2,898	11%	2,829	9%	2,858	10%	2,925	12%	2,905	12%	2,898	11%	2,936	13%	2,876	11%	2,889	11%	2,866	10%	2,878	11%		-	0
Hour 4	2,593	2,511	3%	2,431	6%	2,417	7%	2,434	6%	2,469	5%	2,683	3%	2,511	3%	2,488	4%	2,629	1%	2,378	9%	2,552	2%	2,501	4%		-	0
11	10,180	10,948	7%	11,086	9%	11,005	8%	11,045	8%	10,994	8%	11,216	10%	10,948	7%	11,102	9%	11,005	8%	11,213	10%	10,956	7%	11,065	8%		-	0



TRAFFIC VOLUMES - BY LINK

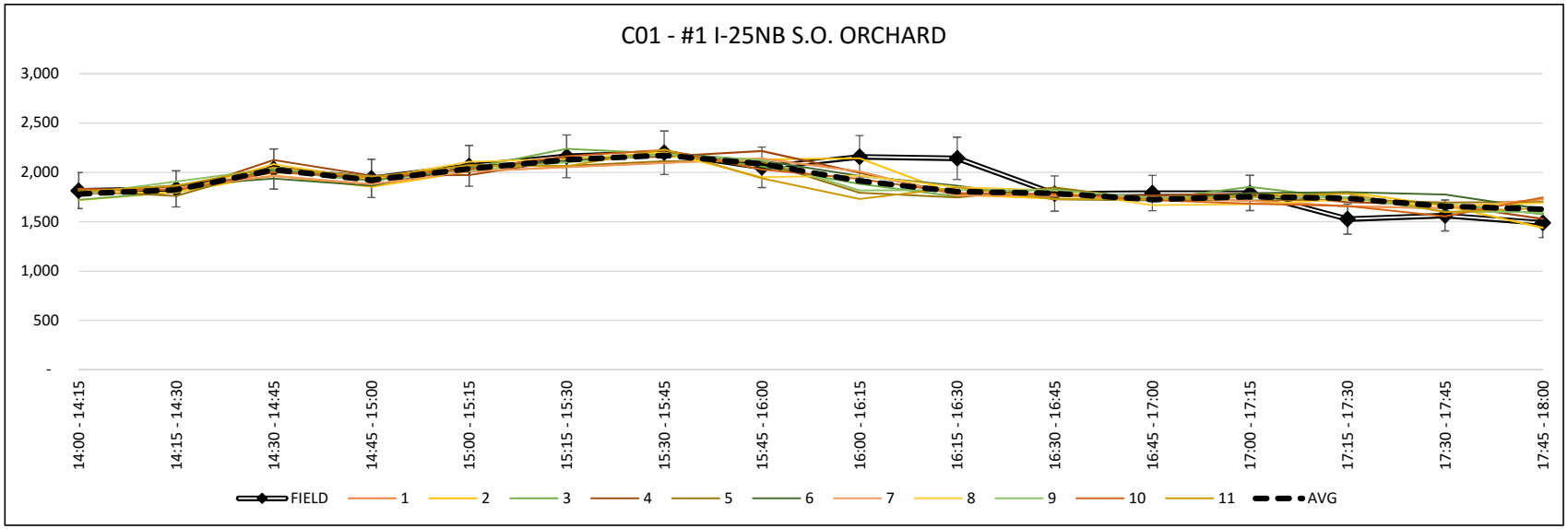
CONCEPT 3

PERIOD: PM

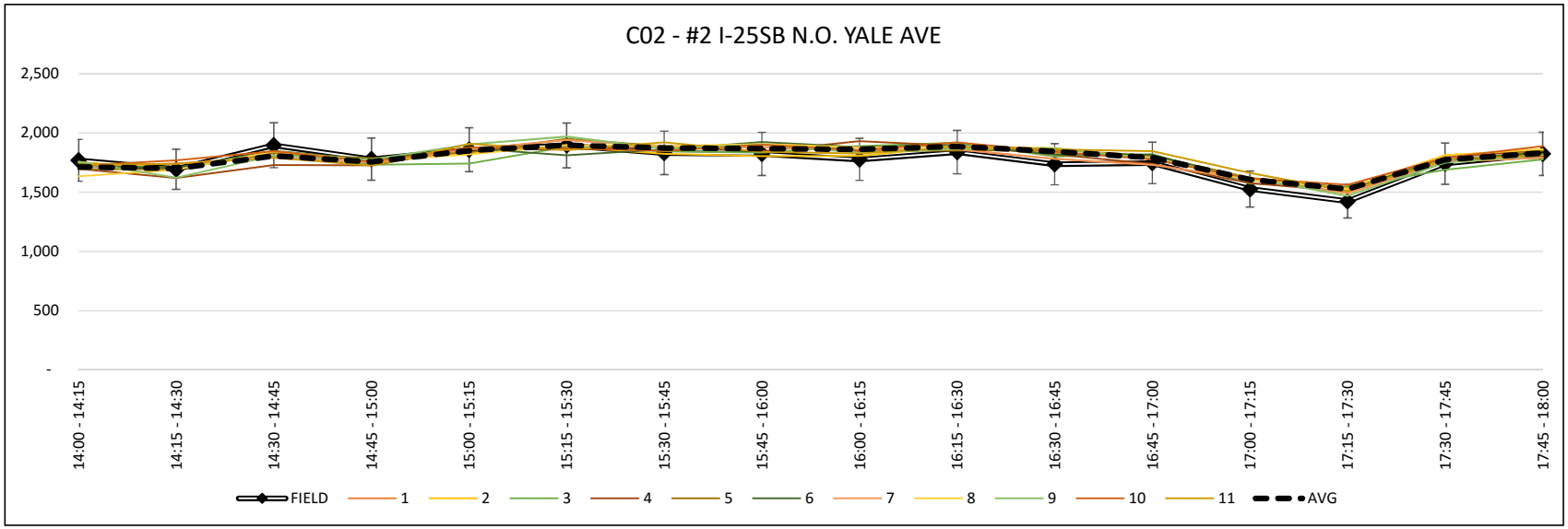


ID	DESCRIPTION
C01	NB I-25 S.O. Orchard
C02	SB I-25 N.O. Yale
C03	NB Parker to SB I-225
C03.5	SB Parker to SB I-225
C04	Belleview On-Ramp to NB I-25
C05	SB I-225 Ramp to SB I-25
C06	NB I-25 Ramp to Hampden
C07	SB I-25 Off-Ramp to Orchard
C08	SB I-225 Ramp to Yosemite
C08.5	SB I-225 Mainline at Yosemite
225S060	225S001 PARKER RD TO YOSEMITE ST (176)
25N130	025N201 0.2MI N OF I-225
225S030	225S000 I-225 SB TO I-25 NB (144)
C05.5	#5 SB I-225 to SB I-25 On-Ramp Only

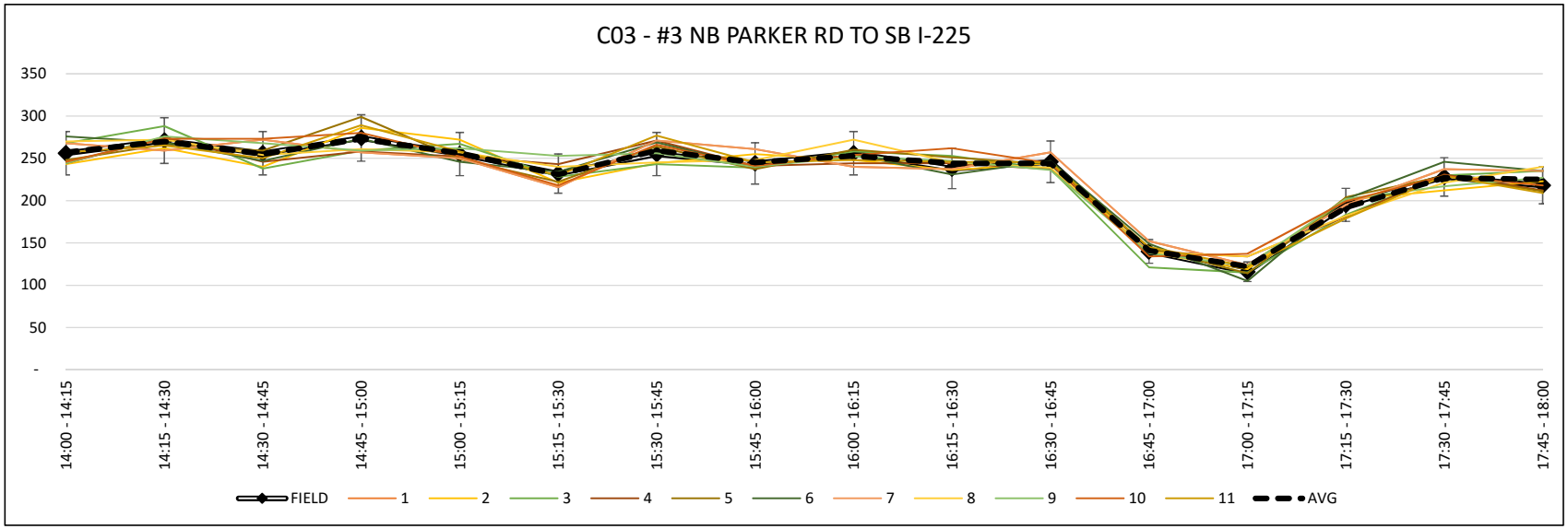
CONCEPT 3		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																										
PM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C01	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	1,816	1,784	2%	1,719	5%	1,722	5%	1,788	2%	1,816	0%	1,796	1%	1,784	2%	1,806	1%	1,779	2%	1,832	1%	1,805	1%	1,781	2%		38	1
14:15 - 14:30	1,834	1,844	1%	1,800	2%	1,802	2%	1,793	2%	1,761	4%	1,868	2%	1,844	1%	1,795	2%	1,907	4%	1,822	1%	1,866	2%	1,825	0%		42	1
14:30 - 14:45	2,035	1,963	4%	1,969	3%	2,017	1%	2,126	4%	2,047	1%	1,936	5%	1,963	4%	2,083	2%	2,038	0%	2,000	2%	2,052	1%	2,026	0%		56	2
14:45 - 15:00	1,940	1,880	3%	1,855	4%	1,914	1%	1,967	1%	1,924	1%	1,866	4%	1,880	3%	1,932	0%	1,958	1%	1,953	1%	1,952	1%	1,921	1%		39	1
15:00 - 15:15	2,066	2,008	3%	2,009	3%	2,041	1%	1,973	5%	2,077	1%	2,059	0%	2,008	3%	2,106	2%	2,021	2%	2,033	2%	2,070	0%	2,035	2%		40	1
15:15 - 15:30	2,163	2,055	5%	2,127	2%	2,240	3%	2,124	2%	2,065	5%	2,120	2%	2,055	5%	2,136	1%	2,100	3%	2,165	0%	2,062	5%	2,128	2%		60	2
15:30 - 15:45	2,199	2,096	5%	2,163	2%	2,192	0%	2,162	2%	2,114	4%	2,196	0%	2,096	5%	2,202	0%	2,181	1%	2,228	1%	2,232	1%	2,173	1%		44	1
15:45 - 16:00	2,052	2,141	4%	2,130	4%	2,059	0%	2,217	8%	2,108	3%	2,118	3%	2,141	4%	1,951	5%	2,125	3%	2,031	1%	1,939	6%	2,088	2%		85	5
16:00 - 16:15	2,158	2,008	7%	2,142	1%	1,884	14%	1,997	8%	1,793	18%	1,965	9%	2,008	7%	1,967	9%	1,819	17%	1,934	11%	1,731	22%	1,914	12%		119	8
16:15 - 16:30	2,143	1,766	19%	1,774	19%	1,756	20%	1,778	19%	1,747	20%	1,864	14%	1,766	19%	1,852	15%	1,820	16%	1,791	18%	1,847	15%	1,806	17%		46	1
16:30 - 16:45	1,786	1,763	1%	1,734	3%	1,840	3%	1,761	1%	1,849	3%	1,728	3%	1,763	1%	1,818	2%	1,821	2%	1,781	0%	1,728	3%	1,788	0%		49	2
16:45 - 17:00	1,791	1,748	2%	1,730	3%	1,725	4%	1,767	1%	1,723	4%	1,715	4%	1,748	2%	1,667	7%	1,742	3%	1,720	4%	1,726	4%	1,724	4%		26	1
17:00 - 17:15	1,792	1,713	5%	1,779	1%	1,855	3%	1,789	0%	1,717	4%	1,792	0%	1,713	5%	1,677	7%	1,747	3%	1,682	6%	1,752	2%	1,755	2%		55	3
17:15 - 17:30	1,528	1,655	8%	1,799	16%	1,736	13%	1,697	10%	1,726	12%	1,800	16%	1,655	8%	1,724	12%	1,749	13%	1,660	8%	1,785	16%	1,738	13%		52	3
17:30 - 17:45	1,564	1,637	5%	1,662	6%	1,682	7%	1,672	7%	1,696	8%	1,775	13%	1,637	5%	1,662	6%	1,602	2%	1,556	1%	1,597	2%	1,656	6%		58	4
17:45 - 18:00	1,489	1,729	15%	1,440	3%	1,576	6%	1,530	3%	1,700	13%	1,628	9%	1,729	15%	1,690	13%	1,598	7%	1,746	16%	1,637	9%	1,628	9%		90	10
Hour 1	7,625	7,471	2%	7,343	4%	7,455	2%	7,674	1%	7,548	1%	7,466	2%	7,471	2%	7,616	0%	7,682	1%	7,607	0%	7,675	1%	7,553	1%		44	0
Hour 2	8,480	8,300	2%	8,429	1%	8,532	1%	8,476	0%	8,364	1%	8,493	0%	8,300	2%	8,395	1%	8,427	1%	8,457	0%	8,303	2%	8,424	1%		60	0
Hour 3	7,878	7,285	8%	7,380	7%	7,205	9%	7,303	8%	7,112	10%	7,272	8%	7,285	8%	7,304	8%	7,202	9%	7,226	9%	7,032	11%	7,232	9%		70	0
Hour 4	6,373	6,734	6%	6,680	5%	6,849	7%	6,688	5%	6,839	7%	6,995	9%	6,734	6%	6,753	6%	6,696	5%	6,644	4%	6,771	6%	6,777	6%		66	0
11	30,356	29,790	2%	29,832	2%	30,041	1%	30,141	1%	29,863	2%	30,226	0%	29,790	2%	30,068	1%	30,007	1%	29,934	1%	29,781	2%	29,986	1%		121	0



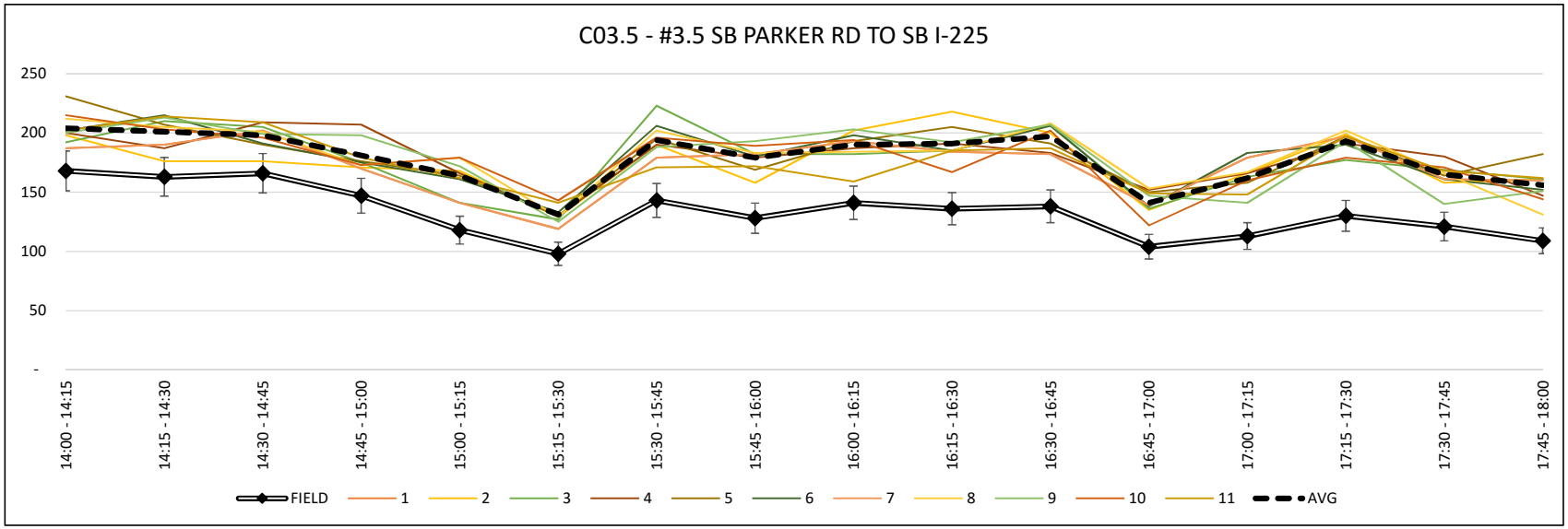
CONCEPT 3		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																										
PM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C02	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	1,769	1,719	3%	1,750	1%	1,735	2%	1,696	4%	1,694	4%	1,720	3%	1,719	3%	1,634	8%	1,758	1%	1,725	3%	1,732	2%	1,714	3%		34	1
14:15 - 14:30	1,693	1,742	3%	1,704	1%	1,701	0%	1,620	4%	1,694	0%	1,706	1%	1,742	3%	1,688	0%	1,622	4%	1,769	4%	1,740	3%	1,700	0%		46	2
14:30 - 14:45	1,896	1,790	6%	1,832	3%	1,837	3%	1,730	9%	1,828	4%	1,849	3%	1,790	6%	1,843	3%	1,809	5%	1,845	3%	1,791	6%	1,805	5%		48	2
14:45 - 15:00	1,779	1,748	2%	1,780	0%	1,732	3%	1,727	3%	1,786	0%	1,773	0%	1,748	2%	1,765	1%	1,776	0%	1,756	1%	1,725	3%	1,755	1%		23	0
15:00 - 15:15	1,858	1,862	0%	1,833	1%	1,741	7%	1,868	1%	1,837	1%	1,870	1%	1,862	0%	1,818	2%	1,902	2%	1,877	1%	1,908	3%	1,851	0%		46	2
15:15 - 15:30	1,895	1,940	2%	1,883	1%	1,883	1%	1,859	2%	1,951	3%	1,811	5%	1,940	2%	1,898	0%	1,969	4%	1,871	1%	1,855	2%	1,897	0%		49	2
15:30 - 15:45	1,832	1,884	3%	1,823	0%	1,847	1%	1,884	3%	1,888	3%	1,861	2%	1,884	3%	1,887	3%	1,867	2%	1,848	1%	1,920	5%	1,874	2%		28	1
15:45 - 16:00	1,823	1,879	3%	1,804	1%	1,833	1%	1,846	1%	1,881	3%	1,924	5%	1,879	3%	1,906	4%	1,902	4%	1,901	4%	1,842	1%	1,869	2%		37	1
16:00 - 16:15	1,777	1,856	4%	1,805	2%	1,888	6%	1,931	8%	1,846	4%	1,881	6%	1,856	4%	1,879	6%	1,830	3%	1,853	4%	1,825	3%	1,862	5%		36	1
16:15 - 16:30	1,838	1,861	1%	1,887	3%	1,919	4%	1,891	3%	1,851	1%	1,897	3%	1,861	1%	1,883	2%	1,866	2%	1,920	4%	1,883	2%	1,886	3%		22	0
16:30 - 16:45	1,736	1,780	3%	1,825	5%	1,802	4%	1,818	5%	1,856	7%	1,819	5%	1,780	3%	1,874	8%	1,871	7%	1,841	6%	1,861	7%	1,843	6%		40	1
16:45 - 17:00	1,747	1,731	1%	1,801	3%	1,821	4%	1,739	0%	1,809	3%	1,817	4%	1,731	1%	1,778	2%	1,781	2%	1,776	2%	1,845	5%	1,792	3%		35	1
17:00 - 17:15	1,526	1,606	5%	1,623	6%	1,573	3%	1,577	3%	1,619	6%	1,601	5%	1,606	5%	1,604	5%	1,621	6%	1,618	6%	1,661	8%	1,607	5%		27	1
17:15 - 17:30	1,424	1,493	5%	1,528	7%	1,546	8%	1,505	6%	1,537	8%	1,535	8%	1,493	5%	1,533	7%	1,469	3%	1,563	9%	1,509	6%	1,526	7%		29	1
17:30 - 17:45	1,741	1,755	1%	1,814	4%	1,690	3%	1,794	3%	1,753	1%	1,778	2%	1,755	1%	1,812	4%	1,748	0%	1,790	3%	1,778	2%	1,773	2%		36	1
17:45 - 18:00	1,824	1,792	2%	1,852	2%	1,775	3%	1,857	2%	1,855	2%	1,826	0%	1,792	2%	1,864	2%	1,814	1%	1,888	3%	1,812	1%	1,830	0%		35	1
Hour 1	7,137	6,999	2%	7,066	1%	7,005	2%	6,773	5%	7,002	2%	7,048	1%	6,999	2%	6,930	3%	6,965	2%	7,095	1%	6,988	2%	6,974	2%		39	0
Hour 2	7,408	7,565	2%	7,343	1%	7,304	1%	7,457	1%	7,557	2%	7,466	1%	7,565	2%	7,509	1%	7,640	3%	7,497	1%	7,525	2%	7,491	1%		41	0
Hour 3	7,098	7,228	2%	7,318	3%	7,430	5%	7,379	4%	7,362	4%	7,414	4%	7,228	2%	7,414	4%	7,348	3%	7,390	4%	7,414	4%	7,383	4%		34	0
Hour 4	6,515	6,646	2%	6,817	5%	6,584	1%	6,733	3%	6,764	4%	6,740	3%	6,646	2%	6,813	4%	6,652	2%	6,859	5%	6,760	4%	6,736	3%		32	0
11	28,158	28,438	1%	28,544	1%	28,323	1%	28,342	1%	28,685	2%	28,668	2%	28,438	1%	28,666	2%	28,605	2%	28,841	2%	28,687	2%	28,584	2%		73	0



CONCEPT 3		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																											
PM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C03	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	256	268	5%	243	5%	268	5%	244	5%	248	3%	276	8%	268	5%	270	5%	244	5%	246	4%	257	0%	257	0%		12	6
14:15 - 14:30	271	259	5%	262	3%	288	6%	275	1%	266	2%	269	1%	259	5%	272	0%	276	2%	273	1%	265	2%	270	0%		8	2
14:30 - 14:45	256	272	6%	240	6%	238	7%	246	4%	259	1%	247	4%	272	6%	254	1%	268	5%	273	6%	250	2%	255	0%		12	6
14:45 - 15:00	274	257	6%	286	4%	259	6%	258	6%	299	9%	273	0%	257	6%	261	5%	259	6%	280	2%	289	5%	273	0%		15	8
15:00 - 15:15	255	250	2%	272	6%	267	5%	252	1%	249	2%	246	4%	250	2%	257	1%	262	3%	252	1%	258	1%	256	0%		8	3
15:15 - 15:30	232	216	7%	221	5%	228	2%	243	5%	222	4%	234	1%	216	7%	240	3%	253	9%	218	6%	230	1%	231	0%		12	7
15:30 - 15:45	255	271	6%	244	4%	243	5%	271	6%	264	3%	269	5%	271	6%	245	4%	256	0%	266	4%	277	8%	259	2%		14	8
15:45 - 16:00	244	261	7%	255	4%	239	2%	241	1%	237	3%	240	2%	261	7%	248	2%	240	2%	241	1%	245	0%	245	0%		7	2
16:00 - 16:15	256	240	6%	248	3%	258	1%	244	5%	260	2%	254	1%	240	6%	272	6%	252	2%	254	1%	248	3%	253	1%		9	3
16:15 - 16:30	238	237	0%	236	1%	253	6%	244	2%	251	5%	231	3%	237	0%	245	3%	247	4%	262	10%	246	3%	244	2%		10	5
16:30 - 16:45	246	257	4%	244	1%	237	4%	237	4%	243	1%	247	0%	257	4%	239	3%	236	4%	244	1%	245	0%	244	1%		6	2
16:45 - 17:00	140	152	8%	139	1%	121	15%	140	0%	144	3%	149	6%	152	8%	139	1%	138	1%	134	4%	145	4%	141	1%		9	11
17:00 - 17:15	116	124	7%	119	3%	115	1%	134	14%	114	2%	105	10%	124	7%	134	14%	123	6%	137	17%	122	5%	122	5%		10	21
17:15 - 17:30	195	195	0%	201	3%	183	6%	181	7%	204	5%	202	4%	195	0%	182	7%	202	4%	199	2%	179	9%	192	2%		10	7
17:30 - 17:45	228	237	4%	212	7%	230	1%	231	1%	229	0%	246	8%	237	4%	221	3%	217	5%	229	0%	229	0%	227	0%		10	5
17:45 - 18:00	218	235	8%	223	2%	235	8%	212	3%	211	3%	235	8%	235	8%	240	10%	227	4%	218	0%	209	4%	225	3%		11	7
Hour 1	1,057	1,056	0%	1,031	2%	1,053	0%	1,023	3%	1,072	1%	1,065	1%	1,056	0%	1,057	0%	1,047	1%	1,072	1%	1,061	0%	1,055	0%		12	0
Hour 2	986	998	1%	992	1%	977	1%	1,007	2%	972	1%	989	0%	998	1%	990	0%	1,011	3%	977	1%	1,010	2%	991	1%		11	0
Hour 3	880	886	1%	867	1%	869	1%	865	2%	898	2%	881	0%	886	1%	895	2%	873	1%	894	2%	884	0%	882	0%		9	0
Hour 4	757	791	4%	755	0%	763	1%	758	0%	758	0%	788	4%	791	4%	777	3%	769	2%	783	3%	739	2%	766	1%		10	0
11	3,680	3,731	1%	3,645	1%	3,662	0%	3,653	1%	3,700	1%	3,723	1%	3,731	1%	3,719	1%	3,700	1%	3,726	1%	3,694	0%	3,694	0%		21	0



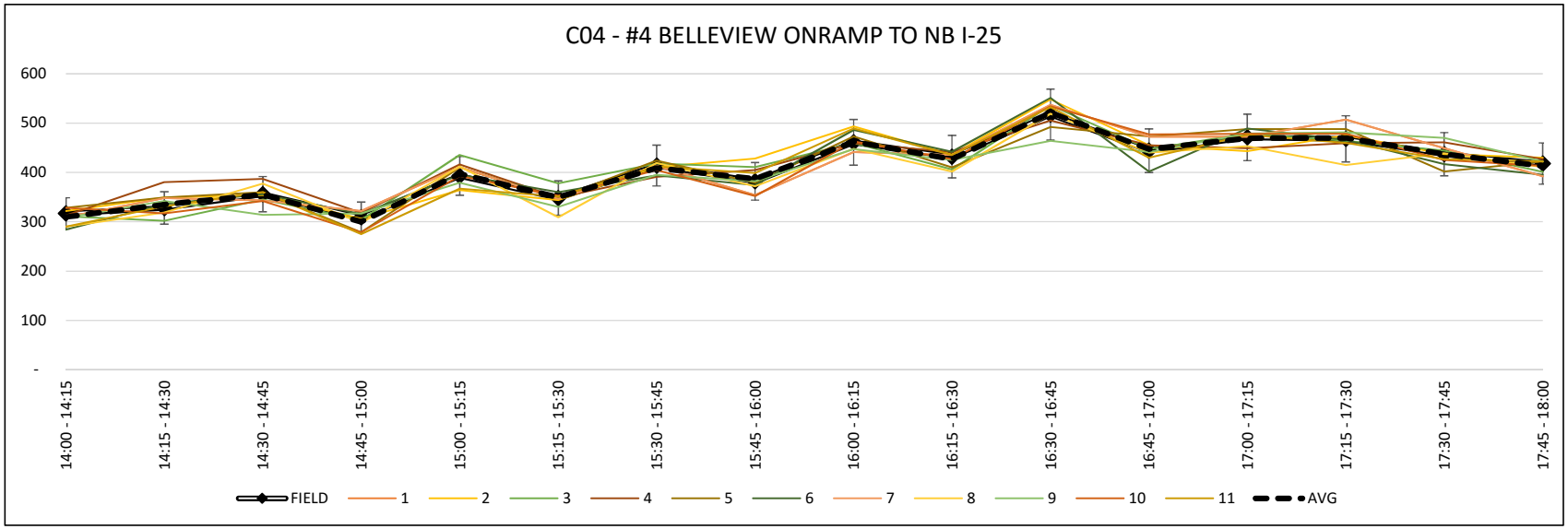
CONCEPT 3		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																											
PM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C03.5	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	168	187	11%	198	16%	192	13%	200	17%	231	32%	202	18%	187	11%	212	23%	200	17%	215	25%	202	18%	204	19%		12	14
14:15 - 14:30	163	190	15%	176	8%	210	25%	187	14%	207	24%	215	28%	190	15%	205	23%	213	27%	203	22%	214	27%	201	21%		13	18
14:30 - 14:45	166	202	20%	176	6%	205	21%	209	23%	190	13%	191	14%	202	20%	201	19%	199	18%	196	17%	209	23%	198	18%		10	10
14:45 - 15:00	147	170	15%	171	15%	175	17%	207	34%	176	18%	175	17%	170	15%	173	16%	198	30%	173	16%	179	20%	181	21%		12	18
15:00 - 15:15	118	141	18%	168	35%	141	18%	166	34%	164	33%	161	31%	141	18%	179	41%	172	37%	179	41%	162	31%	164	33%		13	34
15:15 - 15:30	98	119	19%	129	27%	127	26%	130	28%	130	28%	133	30%	119	19%	129	27%	125	24%	143	37%	141	36%	131	29%		7	14
15:30 - 15:45	143	179	22%	190	28%	223	44%	190	28%	195	31%	206	36%	179	22%	202	34%	188	27%	196	31%	171	18%	194	30%		14	27
15:45 - 16:00	128	182	35%	158	21%	182	35%	179	33%	169	28%	180	34%	182	35%	183	35%	193	40%	189	38%	172	29%	179	33%		10	17
16:00 - 16:15	141	193	31%	202	36%	182	25%	187	28%	193	31%	198	34%	193	31%	184	26%	203	36%	194	32%	159	12%	190	30%		12	20
16:15 - 16:30	136	184	30%	218	46%	185	31%	191	34%	205	40%	185	31%	184	30%	185	31%	192	34%	167	20%	185	31%	191	34%		14	29
16:30 - 16:45	138	182	28%	200	37%	207	40%	183	28%	191	32%	206	40%	182	28%	208	40%	207	40%	202	38%	187	30%	197	35%		10	15
16:45 - 17:00	104	139	29%	135	26%	136	27%	152	38%	150	36%	138	28%	139	29%	153	38%	147	34%	122	16%	149	36%	141	30%		10	26
17:00 - 17:15	113	179	45%	166	38%	163	36%	166	38%	158	33%	183	47%	179	45%	167	39%	141	22%	160	34%	148	27%	162	36%		12	31
17:15 - 17:30	130	197	41%	199	42%	177	31%	191	38%	197	41%	190	38%	197	41%	202	43%	193	39%	179	32%	197	41%	193	39%		8	11
17:30 - 17:45	121	161	28%	158	27%	169	33%	180	39%	164	30%	161	28%	161	28%	166	31%	140	15%	171	34%	168	33%	165	31%		11	23
17:45 - 18:00	109	160	38%	161	39%	161	39%	147	30%	182	50%	152	33%	160	38%	131	18%	151	32%	144	28%	162	39%	156	35%		13	39
Hour 1	644	749	15%	721	11%	782	19%	803	22%	804	22%	783	19%	749	15%	791	20%	810	23%	787	20%	804	22%	784	20%		12	1
Hour 2	487	621	24%	645	28%	673	32%	665	31%	658	30%	680	33%	621	24%	693	35%	678	33%	707	37%	646	28%	668	31%		11	1
Hour 3	519	698	29%	755	37%	710	31%	713	31%	739	35%	727	33%	698	29%	730	34%	749	36%	685	28%	680	27%	719	32%		12	1
Hour 4	473	697	38%	684	36%	670	34%	684	36%	701	39%	686	37%	697	38%	666	34%	625	28%	654	32%	675	35%	676	35%		11	2
11	2,123	2,765	26%	2,805	28%	2,835	29%	2,865	30%	2,902	31%	2,876	30%	2,765	26%	2,880	30%	2,862	30%	2,833	29%	2,805	28%	2,847	29%		23	0



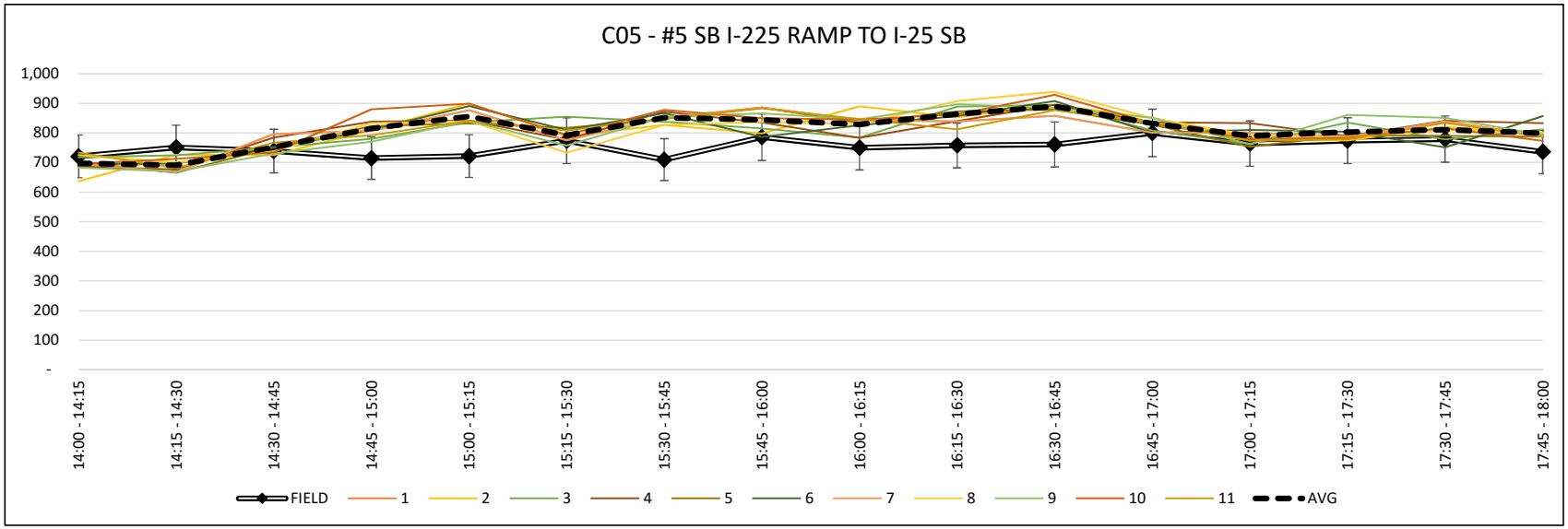
CONCEPT 3

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

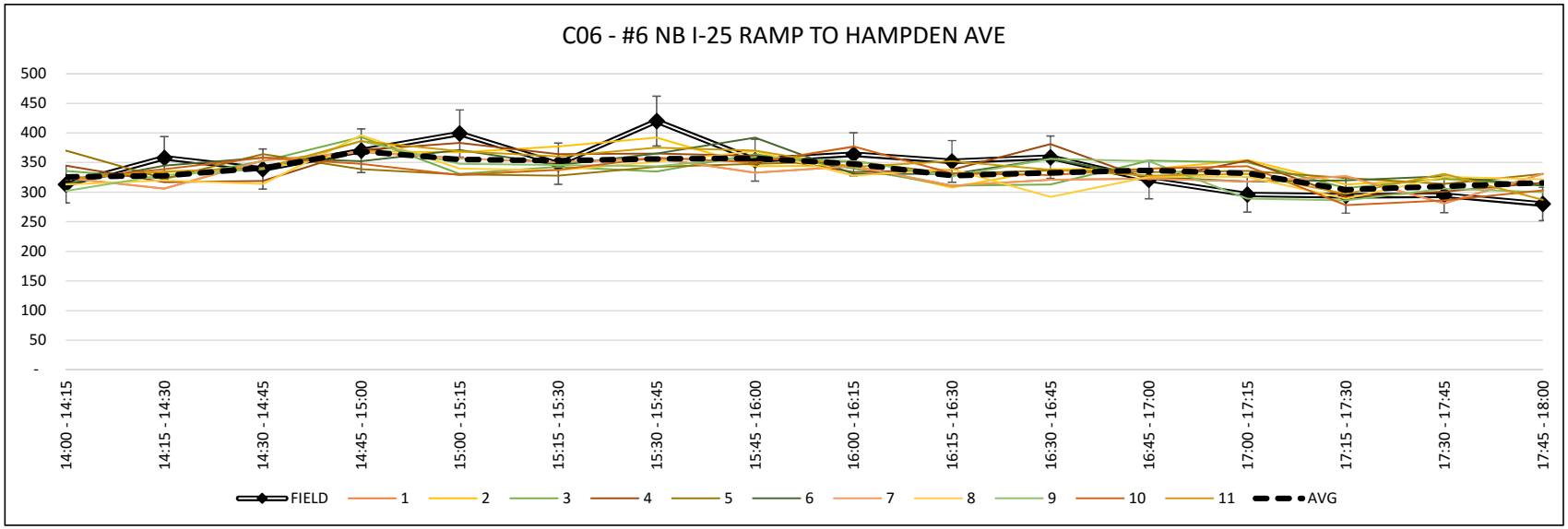
PM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C04	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	317	309	3%	322	2%	311	2%	313	1%	328	3%	284	11%	309	3%	290	9%	308	3%	328	3%	290	9%	310	2%		17	8
14:15 - 14:30	328	348	6%	349	6%	302	8%	380	15%	349	6%	336	2%	348	6%	319	3%	342	4%	317	3%	331	1%	335	2%		22	12
14:30 - 14:45	356	343	4%	354	1%	345	3%	387	8%	360	1%	356	0%	343	4%	377	6%	314	13%	342	4%	360	1%	355	0%		20	9
14:45 - 15:00	309	322	4%	306	1%	304	2%	318	3%	279	10%	316	2%	322	4%	298	4%	317	3%	279	10%	275	12%	300	3%		18	9
15:00 - 15:15	393	411	4%	364	8%	435	10%	416	6%	410	4%	395	1%	411	4%	412	5%	379	4%	393	0%	367	7%	397	1%		22	9
15:15 - 15:30	348	346	1%	344	1%	378	8%	349	0%	348	0%	360	3%	346	1%	309	12%	330	5%	353	1%	351	1%	350	1%		20	9
15:30 - 15:45	414	413	0%	411	1%	418	1%	391	6%	424	2%	394	5%	413	0%	419	1%	395	5%	405	2%	412	0%	409	1%		11	2
15:45 - 16:00	382	354	8%	428	11%	411	7%	405	6%	379	1%	374	2%	354	8%	372	3%	382	0%	352	8%	399	4%	387	1%		24	11
16:00 - 16:15	461	441	4%	493	7%	460	0%	459	0%	473	3%	486	5%	441	4%	448	3%	447	3%	463	0%	489	6%	462	0%		23	7
16:15 - 16:30	432	435	1%	436	1%	406	6%	441	2%	410	5%	442	2%	435	1%	402	7%	425	2%	427	1%	435	1%	427	1%		15	3
16:30 - 16:45	517	537	4%	548	6%	536	4%	505	2%	492	5%	551	6%	537	4%	519	0%	464	11%	534	3%	532	3%	521	1%		26	7
16:45 - 17:00	444	472	6%	455	2%	447	1%	455	2%	473	6%	402	10%	472	6%	440	1%	441	1%	477	7%	430	3%	447	1%		22	7
17:00 - 17:15	471	472	0%	443	6%	479	2%	449	5%	488	4%	489	4%	472	0%	453	4%	479	2%	478	1%	476	1%	469	0%		17	4
17:15 - 17:30	468	507	8%	475	1%	464	1%	459	2%	488	4%	466	0%	507	8%	415	12%	481	3%	478	2%	460	2%	470	0%		23	7
17:30 - 17:45	437	449	3%	437	0%	444	2%	461	5%	402	8%	417	5%	449	3%	439	0%	470	7%	425	3%	427	2%	437	0%		19	5
17:45 - 18:00	418	392	6%	430	3%	401	4%	427	2%	422	1%	395	6%	392	6%	411	2%	422	1%	413	1%	422	1%	413	1%		13	3
Hour 1	1,310	1,322	1%	1,331	2%	1,262	4%	1,398	6%	1,316	0%	1,292	1%	1,322	1%	1,284	2%	1,281	2%	1,266	3%	1,256	4%	1,300	1%		19	1
Hour 2	1,537	1,524	1%	1,547	1%	1,642	7%	1,561	2%	1,561	2%	1,523	1%	1,524	1%	1,512	2%	1,486	3%	1,503	2%	1,529	1%	1,543	0%		20	0
Hour 3	1,854	1,885	2%	1,932	4%	1,849	0%	1,860	0%	1,848	0%	1,881	1%	1,885	2%	1,809	2%	1,777	4%	1,901	3%	1,886	2%	1,857	0%		22	0
Hour 4	1,794	1,820	1%	1,785	1%	1,788	0%	1,796	0%	1,800	0%	1,767	2%	1,820	1%	1,718	4%	1,852	3%	1,794	0%	1,785	1%	1,789	0%		18	0
11	6,495	6,551	1%	6,595	2%	6,541	1%	6,615	2%	6,525	0%	6,463	0%	6,551	1%	6,323	3%	6,396	2%	6,464	0%	6,456	1%	6,489	0%		40	0



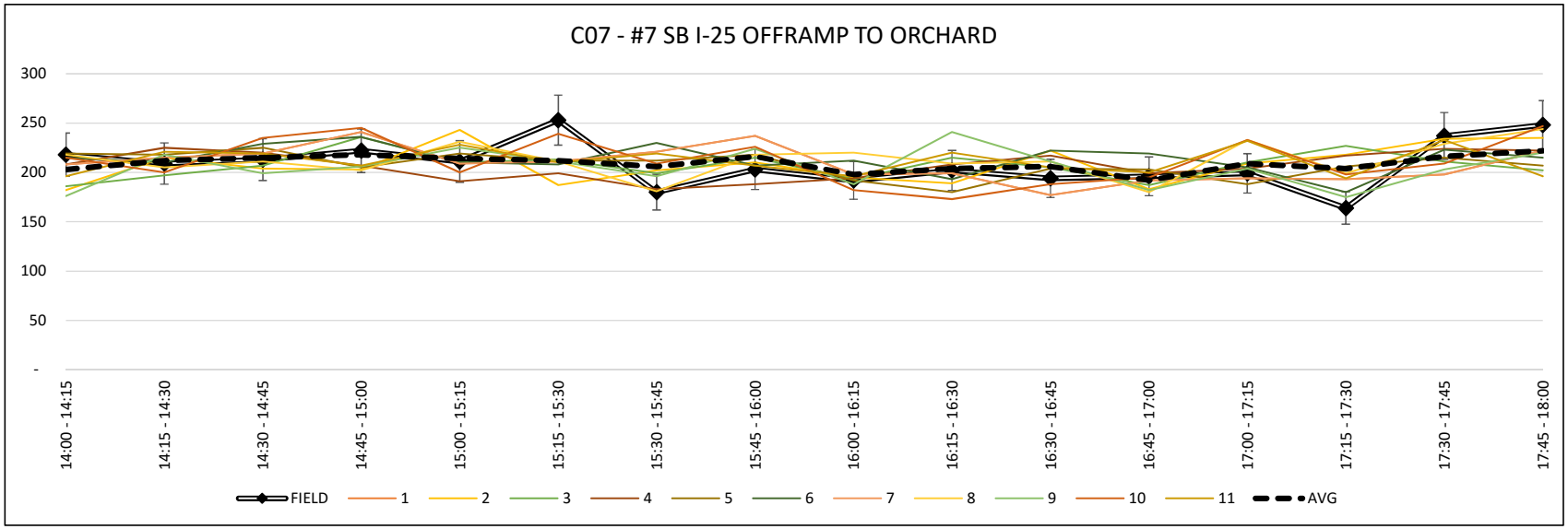
CONCEPT 3		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																										
PM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C05	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	721	698	3%	637	12%	718	0%	687	5%	702	3%	695	4%	698	3%	725	1%	683	5%	695	4%	733	2%	698	3%		25	3
14:15 - 14:30	751	667	12%	726	3%	724	4%	677	10%	666	12%	697	7%	667	12%	700	7%	670	11%	712	5%	682	10%	691	8%		22	2
14:30 - 14:45	739	796	7%	725	2%	751	2%	784	6%	751	2%	750	1%	796	7%	738	0%	730	1%	734	1%	767	4%	752	2%		22	2
14:45 - 15:00	715	807	12%	810	12%	780	9%	838	16%	823	14%	810	12%	807	12%	833	15%	770	7%	880	21%	792	10%	815	13%		30	5
15:00 - 15:15	722	877	19%	900	22%	836	15%	842	15%	832	14%	891	21%	877	19%	840	15%	841	15%	899	22%	841	15%	856	17%		30	5
15:15 - 15:30	774	775	0%	789	2%	855	10%	777	0%	817	5%	810	5%	775	0%	733	5%	757	2%	793	2%	808	4%	792	2%		32	5
15:30 - 15:45	710	852	18%	827	15%	838	17%	872	20%	847	18%	867	20%	852	18%	827	15%	855	19%	878	21%	848	18%	852	18%		17	2
15:45 - 16:00	786	886	12%	798	2%	815	4%	835	6%	886	12%	786	0%	886	12%	837	6%	866	10%	850	8%	883	12%	844	7%		35	6
16:00 - 16:15	750	843	12%	890	17%	784	4%	783	4%	834	11%	826	10%	843	12%	830	10%	846	12%	845	12%	847	12%	829	10%		32	5
16:15 - 16:30	758	839	10%	853	12%	889	16%	840	10%	873	14%	857	12%	839	10%	908	18%	897	17%	863	13%	812	7%	864	13%		28	4
16:30 - 16:45	761	858	12%	895	16%	895	16%	895	16%	879	14%	908	18%	858	12%	939	21%	884	15%	929	20%	877	14%	890	16%		30	4
16:45 - 17:00	800	801	0%	851	6%	808	1%	836	4%	828	3%	800	0%	801	0%	850	6%	851	6%	832	4%	837	5%	832	4%		20	2
17:00 - 17:15	764	801	5%	781	2%	763	0%	833	9%	753	1%	810	6%	801	5%	792	4%	761	0%	779	2%	773	1%	790	3%		30	4
17:15 - 17:30	774	787	2%	774	0%	835	8%	789	2%	792	2%	804	4%	787	2%	786	2%	861	11%	784	1%	779	1%	803	4%		29	4
17:30 - 17:45	779	839	7%	820	5%	778	0%	841	8%	790	1%	751	4%	839	7%	809	4%	851	9%	816	5%	834	7%	811	4%		31	4
17:45 - 18:00	736	790	7%	801	8%	812	10%	833	12%	787	7%	857	15%	790	7%	801	8%	793	7%	773	5%	787	7%	799	8%		28	4
Hour 1	2,926	2,968	1%	2,898	1%	2,973	2%	2,986	2%	2,942	1%	2,952	1%	2,968	1%	2,996	2%	2,853	3%	3,021	3%	2,974	2%	2,956	1%		25	0
Hour 2	2,992	3,390	12%	3,314	10%	3,344	11%	3,326	11%	3,382	12%	3,354	11%	3,390	12%	3,237	8%	3,319	10%	3,420	13%	3,380	12%	3,344	11%		29	0
Hour 3	3,069	3,341	8%	3,489	13%	3,376	10%	3,354	9%	3,414	11%	3,391	10%	3,341	8%	3,527	14%	3,478	12%	3,469	12%	3,373	9%	3,415	11%		28	0
Hour 4	3,053	3,217	5%	3,176	4%	3,188	4%	3,296	8%	3,122	2%	3,222	5%	3,217	5%	3,188	4%	3,266	7%	3,152	3%	3,173	4%	3,203	5%		30	0
11	12,040	12,916	7%	12,877	7%	12,881	7%	12,962	7%	12,860	7%	12,919	7%	12,916	7%	12,948	7%	12,916	7%	13,062	8%	12,900	7%	12,918	7%		56	0



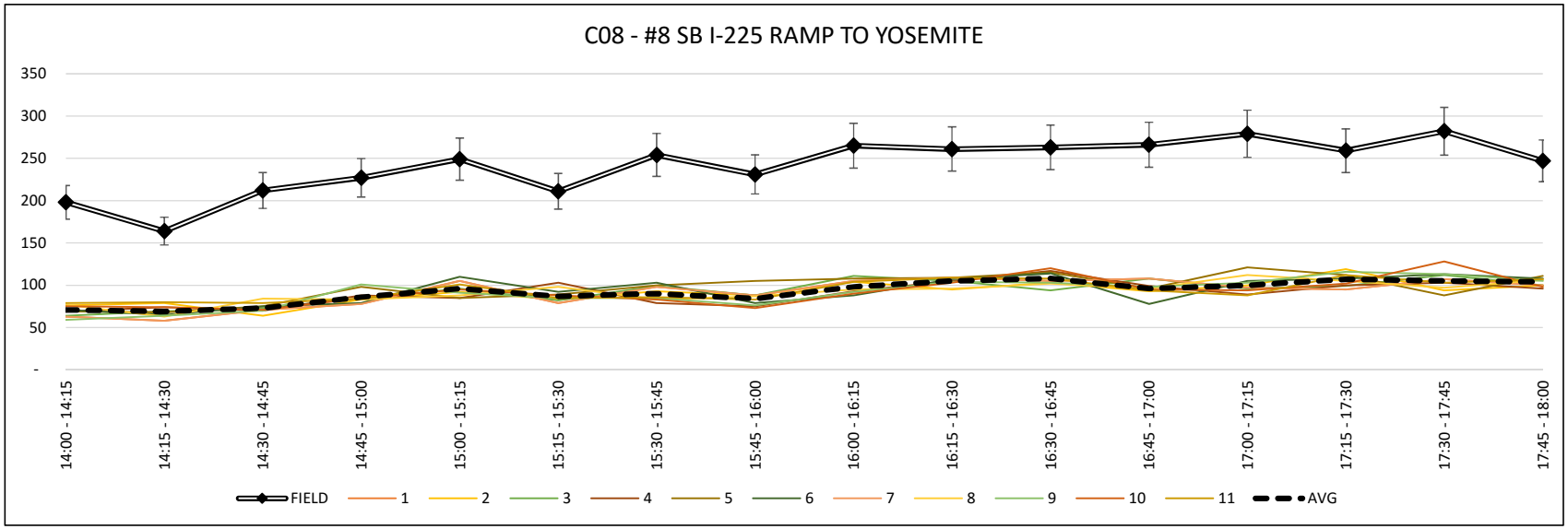
CONCEPT 3		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																											
PM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C06	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	313	324	3%	324	3%	336	7%	345	10%	370	17%	314	0%	324	3%	313	0%	302	4%	322	3%	322	3%	326	4%		19	10
14:15 - 14:30	358	306	16%	334	7%	323	10%	317	12%	323	10%	345	4%	306	16%	320	11%	329	8%	339	5%	335	7%	328	9%		12	3
14:30 - 14:45	339	353	4%	340	0%	352	4%	319	6%	364	7%	358	5%	353	4%	314	8%	339	0%	358	5%	341	1%	341	1%		18	8
14:45 - 15:00	370	368	1%	369	0%	393	6%	371	0%	339	9%	352	5%	368	1%	396	7%	386	4%	348	6%	386	4%	369	0%		19	7
15:00 - 15:15	399	357	11%	367	8%	331	19%	383	4%	330	19%	371	7%	357	11%	340	16%	348	14%	329	19%	369	8%	355	12%		21	8
15:15 - 15:30	348	350	1%	377	8%	343	1%	364	4%	328	6%	346	1%	350	1%	337	3%	346	1%	338	3%	360	3%	353	1%		19	8
15:30 - 15:45	420	357	16%	392	7%	335	23%	365	14%	343	20%	365	14%	357	16%	351	18%	344	20%	358	16%	375	11%	356	16%		18	5
15:45 - 16:00	354	333	6%	344	3%	364	3%	361	2%	348	2%	392	10%	333	6%	369	4%	359	1%	350	1%	370	4%	357	1%		17	6
16:00 - 16:15	364	344	6%	345	5%	340	7%	334	9%	352	3%	331	9%	344	6%	328	10%	352	3%	377	4%	343	6%	348	4%		17	6
16:15 - 16:30	352	311	12%	308	13%	311	12%	338	4%	331	6%	331	6%	311	12%	339	4%	327	7%	332	6%	352	0%	328	7%		13	4
16:30 - 16:45	359	321	11%	339	6%	313	14%	381	6%	337	6%	356	1%	321	11%	292	21%	356	1%	329	9%	338	6%	333	8%		25	13
16:45 - 17:00	321	323	1%	339	5%	353	9%	321	0%	334	4%	326	2%	323	1%	326	2%	352	9%	340	6%	328	2%	337	5%		14	5
17:00 - 17:15	296	318	7%	354	18%	350	17%	353	18%	336	13%	318	7%	318	7%	326	10%	289	2%	344	15%	331	11%	332	11%		19	11
17:15 - 17:30	294	327	11%	313	6%	307	4%	292	1%	324	10%	320	8%	327	11%	289	2%	286	3%	278	6%	297	1%	304	3%		17	9
17:30 - 17:45	295	281	5%	322	9%	323	9%	301	2%	314	6%	327	10%	281	5%	326	10%	306	4%	286	3%	331	12%	310	5%		17	9
17:45 - 18:00	280	331	17%	312	11%	311	10%	316	12%	331	17%	311	10%	331	17%	322	14%	300	7%	303	8%	287	2%	316	12%		17	10
Hour 1	1,380	1,351	2%	1,367	1%	1,404	2%	1,352	2%	1,396	1%	1,369	1%	1,351	2%	1,343	3%	1,356	2%	1,367	1%	1,384	0%	1,364	1%		17	0
Hour 2	1,521	1,397	8%	1,480	3%	1,373	10%	1,473	3%	1,349	12%	1,474	3%	1,397	8%	1,397	8%	1,397	8%	1,375	10%	1,474	3%	1,421	7%		19	0
Hour 3	1,396	1,299	7%	1,331	5%	1,317	6%	1,374	2%	1,354	3%	1,344	4%	1,299	7%	1,285	8%	1,387	1%	1,378	1%	1,361	3%	1,346	4%		18	0
Hour 4	1,165	1,257	8%	1,301	11%	1,291	10%	1,262	8%	1,305	11%	1,276	9%	1,257	8%	1,263	8%	1,181	1%	1,211	4%	1,246	7%	1,262	8%		18	1
11	5,462	5,304	3%	5,479	0%	5,385	1%	5,461	0%	5,404	1%	5,463	0%	5,304	3%	5,288	3%	5,321	3%	5,331	2%	5,465	0%	5,393	1%		36	0



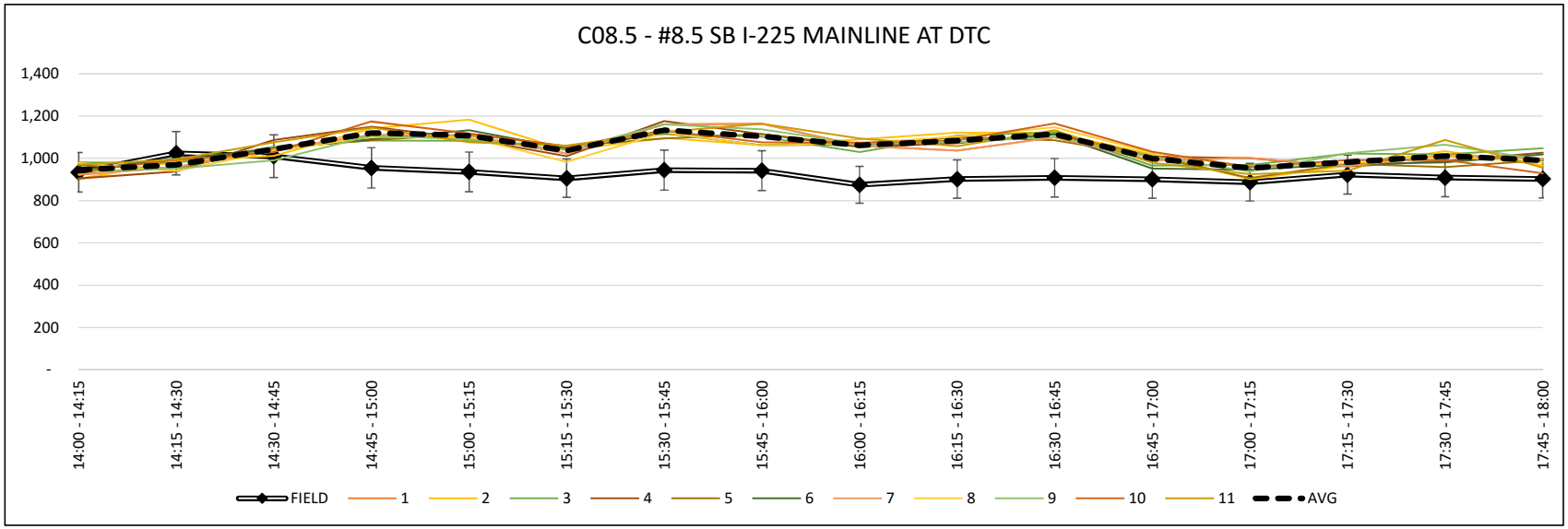
CONCEPT 3		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																										
PM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C07	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	218	208	5%	182	18%	186	16%	208	5%	219	0%	215	1%	208	5%	218	0%	176	21%	215	1%	196	11%	203	7%		15	13
14:15 - 14:30	209	215	3%	215	3%	197	6%	225	7%	218	4%	210	0%	215	3%	205	2%	218	4%	200	4%	221	6%	212	1%		9	5
14:30 - 14:45	213	219	3%	204	4%	207	3%	220	3%	225	5%	229	7%	219	3%	211	1%	199	7%	235	10%	219	3%	215	1%		12	9
14:45 - 15:00	222	241	8%	203	9%	236	6%	207	7%	205	8%	236	6%	241	8%	202	9%	206	7%	245	10%	207	7%	218	2%		17	16
15:00 - 15:15	211	209	1%	243	14%	210	0%	191	10%	219	4%	210	0%	209	1%	231	9%	225	6%	200	5%	228	8%	214	1%		18	20
15:15 - 15:30	253	211	18%	187	30%	213	17%	199	24%	212	18%	208	20%	211	18%	211	18%	211	18%	239	6%	210	19%	212	18%		14	8
15:30 - 15:45	180	221	20%	202	12%	199	10%	183	2%	212	16%	230	24%	221	20%	181	1%	196	9%	209	15%	219	20%	206	13%		15	19
15:45 - 16:00	203	237	15%	210	3%	215	6%	188	8%	218	7%	207	2%	237	15%	218	7%	224	10%	226	11%	207	2%	216	6%		13	11
16:00 - 16:15	192	198	3%	195	2%	193	1%	194	1%	192	0%	212	10%	198	3%	220	14%	188	2%	182	5%	196	2%	198	3%		11	9
16:15 - 16:30	202	199	1%	189	7%	215	6%	208	3%	180	12%	193	5%	199	1%	209	3%	241	18%	173	15%	220	9%	204	1%		20	27
16:30 - 16:45	194	177	9%	222	13%	205	6%	217	11%	204	5%	222	13%	177	9%	211	8%	211	8%	188	3%	205	6%	206	6%		14	14
16:45 - 17:00	196	192	2%	183	7%	187	5%	199	2%	203	4%	219	11%	192	2%	180	9%	182	7%	195	1%	200	2%	192	2%		13	12
17:00 - 17:15	199	194	3%	209	5%	210	5%	204	2%	188	6%	205	3%	194	3%	233	16%	204	2%	233	16%	232	15%	209	5%		18	23
17:15 - 17:30	164	193	16%	218	28%	227	32%	217	28%	206	23%	180	9%	193	16%	199	19%	175	6%	198	19%	194	17%	204	22%		19	37
17:30 - 17:45	237	198	18%	234	1%	211	12%	224	6%	215	10%	223	6%	198	18%	229	3%	203	15%	209	13%	233	2%	216	9%		13	8
17:45 - 18:00	248	222	11%	235	5%	202	20%	222	11%	207	18%	215	14%	222	11%	244	2%	220	12%	247	0%	196	23%	222	11%		17	13
Hour 1	862	883	2%	804	7%	826	4%	860	0%	867	1%	890	3%	883	2%	836	3%	799	8%	895	4%	843	2%	848	2%		14	1
Hour 2	847	878	4%	842	1%	837	1%	761	11%	861	2%	855	1%	878	4%	841	1%	856	1%	874	3%	864	2%	848	0%		15	1
Hour 3	784	766	2%	789	1%	800	2%	818	4%	779	1%	846	8%	766	2%	820	4%	822	5%	738	6%	821	5%	800	2%		15	1
Hour 4	848	807	5%	896	6%	850	0%	867	2%	816	4%	823	3%	807	5%	905	7%	802	6%	887	4%	855	1%	851	0%		17	1
11	3,341	3,334	0%	3,331	0%	3,313	1%	3,306	1%	3,323	1%	3,414	2%	3,334	0%	3,402	2%	3,279	2%	3,394	2%	3,383	1%	3,347	0%		30	0



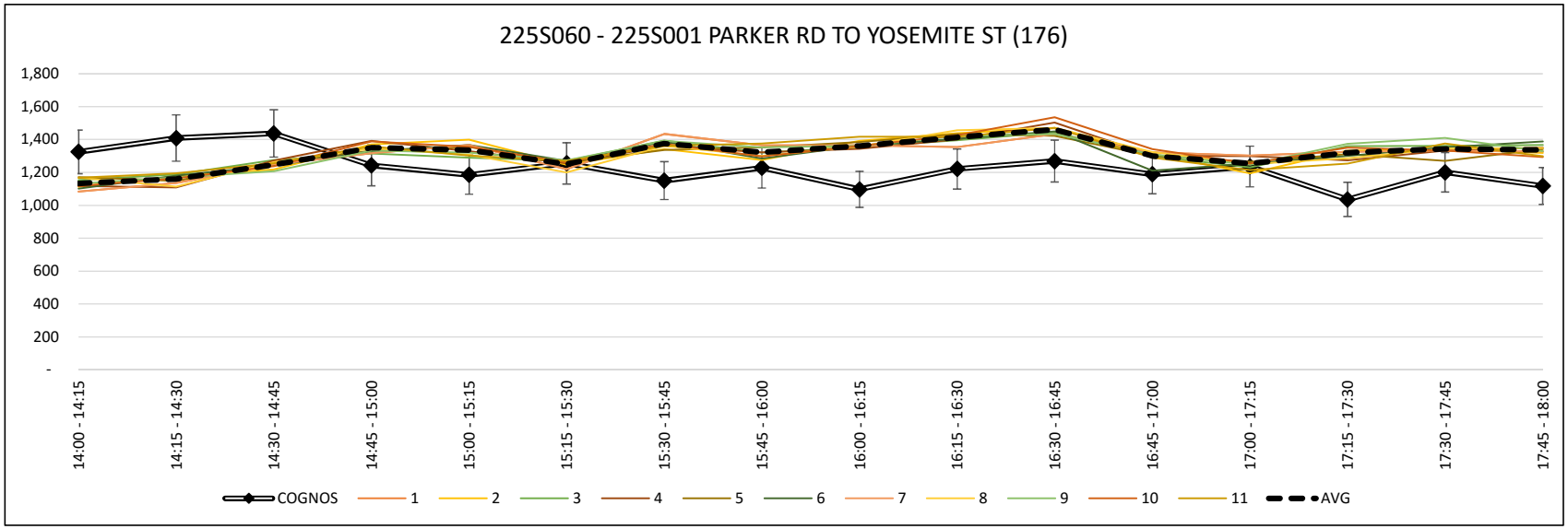
CONCEPT 3		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																											
PM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C08	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	198	63	###	76	89%	64	###	69	97%	69	97%	71	94%	63	###	77	88%	59	###	75	90%	79	86%	71	94%		6	3
14:15 - 14:30	164	58	95%	79	70%	69	82%	74	76%	68	83%	65	86%	58	95%	63	89%	64	88%	74	76%	80	69%	69	82%		7	5
14:30 - 14:45	212	71	###	64	###	73	98%	70	###	75	95%	75	95%	71	###	84	86%	70	###	71	###	79	91%	73	98%		5	2
14:45 - 15:00	227	78	98%	83	93%	84	92%	88	88%	98	79%	79	97%	78	98%	83	93%	101	77%	85	91%	84	92%	86	90%		7	3
15:00 - 15:15	249	105	81%	92	92%	96	89%	85	98%	85	98%	110	77%	105	81%	88	96%	91	93%	95	90%	101	85%	96	89%		9	4
15:15 - 15:30	211	79	91%	83	87%	82	88%	103	69%	89	81%	92	79%	79	91%	98	73%	85	85%	88	82%	85	85%	87	83%		9	5
15:30 - 15:45	254	98	89%	93	93%	99	88%	79	###	100	87%	103	85%	98	89%	83	###	85	###	83	###	86	99%	90	95%		8	3
15:45 - 16:00	231	88	90%	88	90%	88	90%	75	###	105	75%	79	98%	88	90%	87	91%	76	###	73	###	83	94%	84	93%		9	4
16:00 - 16:15	265	105	86%	104	87%	111	82%	93	96%	108	84%	88	###	105	86%	95	94%	92	97%	90	99%	104	87%	98	92%		8	3
16:15 - 16:30	261	109	82%	95	93%	105	85%	105	85%	109	82%	107	84%	109	82%	96	92%	104	86%	103	87%	109	82%	105	85%		5	1
16:30 - 16:45	263	105	86%	103	87%	94	95%	117	77%	115	78%	114	79%	105	86%	102	88%	103	87%	120	75%	108	84%	108	84%		8	3
16:45 - 17:00	266	108	84%	93	96%	108	84%	99	92%	96	94%	78	###	108	84%	96	94%	98	92%	95	95%	94	96%	96	94%		8	3
17:00 - 17:15	279	97	97%	100	94%	96	98%	89	###	121	79%	105	91%	97	97%	112	85%	103	92%	94	99%	88	###	100	94%		10	4
17:15 - 17:30	259	95	93%	119	74%	99	89%	100	89%	112	79%	108	82%	95	93%	105	85%	116	76%	102	87%	112	79%	107	83%		8	3
17:30 - 17:45	282	107	90%	94	###	112	86%	103	93%	88	###	113	86%	107	90%	97	98%	113	86%	128	75%	103	93%	105	91%		11	4
17:45 - 18:00	247	100	85%	100	85%	100	85%	96	88%	111	76%	108	78%	100	85%	106	80%	105	81%	98	86%	107	79%	104	81%		5	1
Hour 1	801	270	99%	302	90%	290	94%	301	91%	310	88%	290	94%	270	99%	307	89%	294	93%	305	90%	322	85%	299	91%		6	0
Hour 2	945	370	87%	356	91%	365	89%	342	94%	379	85%	384	84%	370	87%	356	91%	337	95%	339	94%	355	91%	357	90%		9	0
Hour 3	1,055	427	85%	395	91%	418	86%	414	87%	428	85%	387	93%	427	85%	389	92%	397	91%	408	88%	415	87%	407	89%		7	0
Hour 4	1,067	399	91%	413	88%	407	90%	388	93%	432	85%	434	84%	399	91%	420	87%	437	84%	422	87%	410	89%	416	88%		9	0
11	3,868	1,466	90%	1,466	90%	1,480	89%	1,445	91%	1,549	86%	1,495	88%	1,466	90%	1,472	90%	1,465	90%	1,474	90%	1,502	88%	1,479	89%		16	0



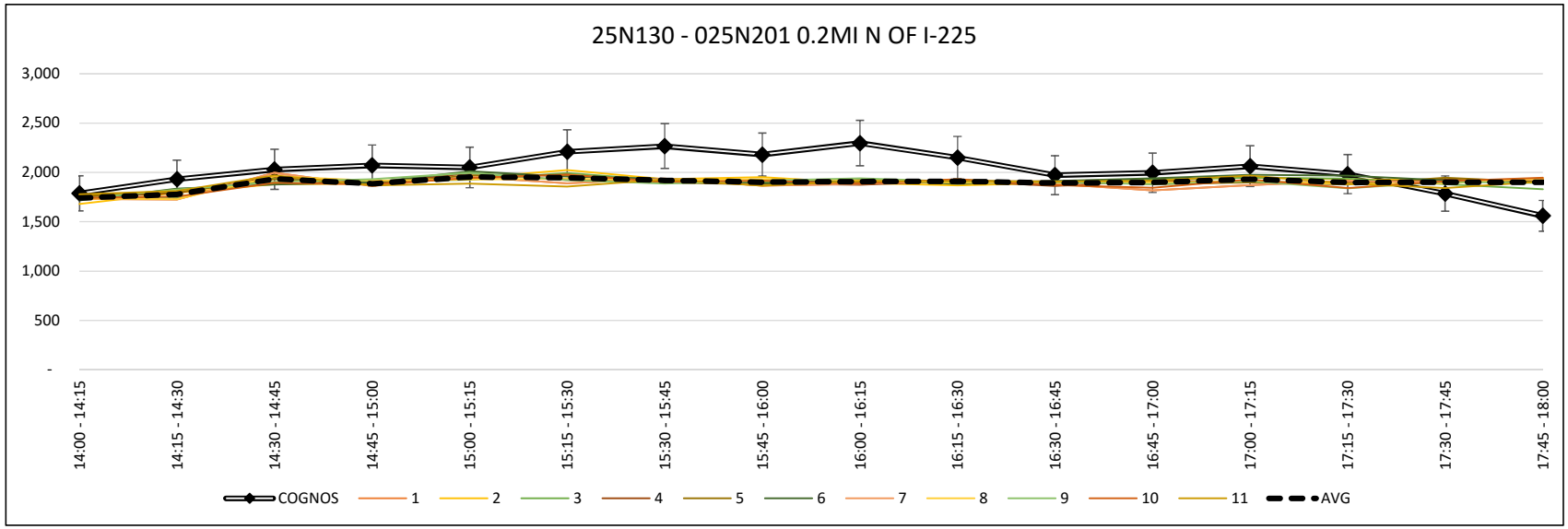
CONCEPT 3		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																										
PM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C08.5	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	934	923	1%	902	3%	980	5%	905	3%	967	3%	944	1%	923	1%	978	5%	938	0%	938	0%	969	4%	945	1%		27	2
14:15 - 14:30	1,024	959	7%	985	4%	978	5%	937	9%	951	7%	999	2%	959	7%	940	9%	952	7%	992	3%	995	3%	970	5%		23	1
14:30 - 14:45	1,010	1,042	3%	1,012	0%	1,055	4%	1,087	7%	1,049	4%	1,043	3%	1,042	3%	1,035	2%	990	2%	1,029	2%	1,075	6%	1,043	3%		27	2
14:45 - 15:00	955	1,111	15%	1,141	18%	1,084	13%	1,150	19%	1,085	13%	1,091	13%	1,111	15%	1,100	14%	1,108	15%	1,174	21%	1,145	18%	1,120	16%		30	3
15:00 - 15:15	936	1,107	17%	1,183	23%	1,083	15%	1,092	15%	1,115	17%	1,133	19%	1,107	17%	1,099	16%	1,090	15%	1,117	18%	1,075	14%	1,107	17%		30	3
15:15 - 15:30	906	1,022	12%	1,038	14%	1,059	16%	1,010	11%	1,057	15%	1,046	14%	1,022	12%	983	8%	1,039	14%	1,056	15%	1,060	16%	1,036	13%		24	2
15:30 - 15:45	944	1,161	21%	1,096	15%	1,115	17%	1,176	22%	1,093	15%	1,119	17%	1,161	21%	1,121	17%	1,161	21%	1,131	18%	1,124	17%	1,133	18%		29	3
15:45 - 16:00	942	1,163	21%	1,062	12%	1,102	16%	1,114	17%	1,115	17%	1,061	12%	1,163	21%	1,060	12%	1,137	19%	1,075	13%	1,164	21%	1,104	16%		39	5
16:00 - 16:15	875	1,059	19%	1,089	22%	1,030	16%	1,053	18%	1,061	19%	1,066	20%	1,059	19%	1,072	20%	1,069	20%	1,074	20%	1,094	22%	1,061	19%		26	2
16:15 - 16:30	902	1,037	14%	1,122	22%	1,107	20%	1,072	17%	1,101	20%	1,075	18%	1,037	14%	1,104	20%	1,075	18%	1,085	18%	1,057	16%	1,084	18%		24	2
16:30 - 16:45	908	1,099	19%	1,120	21%	1,123	21%	1,115	20%	1,085	18%	1,113	20%	1,099	19%	1,147	23%	1,102	19%	1,165	25%	1,132	22%	1,115	20%		28	3
16:45 - 17:00	901	991	10%	1,019	12%	966	7%	1,009	11%	1,009	11%	951	5%	991	10%	1,027	13%	1,009	11%	1,031	13%	979	8%	999	10%		25	2
17:00 - 17:15	887	1,001	12%	902	2%	968	9%	1,000	12%	907	2%	946	6%	1,001	12%	960	8%	938	6%	959	8%	925	4%	954	7%		35	4
17:15 - 17:30	923	963	4%	966	5%	1,023	10%	961	4%	974	5%	973	5%	963	4%	976	6%	1,024	10%	992	7%	941	2%	982	6%		27	2
17:30 - 17:45	909	1,016	11%	1,034	13%	1,018	11%	987	8%	959	5%	980	8%	1,016	11%	1,007	10%	1,064	16%	992	9%	1,086	18%	1,012	11%		37	5
17:45 - 18:00	903	998	10%	967	7%	1,047	15%	1,027	13%	990	9%	1,019	12%	998	10%	982	8%	992	9%	929	3%	956	6%	990	9%		33	4
Hour 1	3,923	4,035	3%	4,040	3%	4,097	4%	4,079	4%	4,052	3%	4,077	4%	4,035	3%	4,053	3%	3,988	2%	4,133	5%	4,184	6%	4,078	4%		27	0
Hour 2	3,728	4,453	18%	4,379	16%	4,359	16%	4,392	16%	4,380	16%	4,359	16%	4,453	18%	4,263	13%	4,427	17%	4,379	16%	4,423	17%	4,380	16%		31	0
Hour 3	3,586	4,186	15%	4,350	19%	4,226	16%	4,249	17%	4,256	17%	4,205	16%	4,186	15%	4,350	19%	4,255	17%	4,355	19%	4,262	17%	4,259	17%		26	0
Hour 4	3,622	3,978	9%	3,869	7%	4,056	11%	3,975	9%	3,830	6%	3,918	8%	3,978	9%	3,925	8%	4,018	10%	3,872	7%	3,908	8%	3,938	8%		33	0
11	14,859	16,652	11%	16,638	11%	16,738	12%	16,695	12%	16,518	11%	16,559	11%	16,652	11%	16,591	11%	16,688	12%	16,739	12%	16,777	12%	16,655	11%		59	0



CONCEPT 3		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																										
PM	COGNOS	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	225S060	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	1,325	1,084	20%	1,113	17%	1,153	14%	1,118	17%	1,171	12%	1,102	18%	1,084	20%	1,167	13%	1,132	16%	1,118	17%	1,167	13%	1,133	16%		29	1
14:15 - 14:30	1,409	1,135	22%	1,177	18%	1,187	17%	1,109	24%	1,149	20%	1,181	18%	1,135	22%	1,114	23%	1,169	19%	1,164	19%	1,194	17%	1,161	19%		30	1
14:30 - 14:45	1,437	1,249	14%	1,217	17%	1,276	12%	1,272	12%	1,252	14%	1,242	15%	1,249	14%	1,263	13%	1,208	17%	1,237	15%	1,256	13%	1,247	14%		21	1
14:45 - 15:00	1,243	1,317	6%	1,370	10%	1,315	6%	1,392	11%	1,333	7%	1,329	7%	1,317	6%	1,345	8%	1,333	7%	1,388	11%	1,358	9%	1,350	8%		27	1
15:00 - 15:15	1,186	1,366	14%	1,399	16%	1,289	8%	1,329	11%	1,354	13%	1,367	14%	1,366	14%	1,307	10%	1,320	11%	1,356	13%	1,302	9%	1,337	12%		34	2
15:15 - 15:30	1,255	1,219	3%	1,246	1%	1,270	1%	1,255	0%	1,260	0%	1,269	1%	1,219	3%	1,200	4%	1,274	2%	1,261	0%	1,270	1%	1,251	0%		24	1
15:30 - 15:45	1,150	1,434	22%	1,341	15%	1,393	19%	1,361	17%	1,336	15%	1,387	19%	1,434	22%	1,361	17%	1,392	19%	1,374	18%	1,362	17%	1,376	18%		28	2
15:45 - 16:00	1,228	1,364	10%	1,276	4%	1,320	7%	1,321	7%	1,352	10%	1,285	5%	1,364	10%	1,301	6%	1,353	10%	1,297	5%	1,376	11%	1,322	7%		34	2
16:00 - 16:15	1,097	1,365	22%	1,391	24%	1,354	21%	1,344	20%	1,385	23%	1,363	22%	1,365	22%	1,357	21%	1,361	21%	1,361	21%	1,416	25%	1,362	22%		33	3
16:15 - 16:30	1,221	1,354	10%	1,439	16%	1,395	13%	1,401	14%	1,433	16%	1,404	14%	1,354	10%	1,456	18%	1,420	15%	1,425	15%	1,416	15%	1,414	15%		27	1
16:30 - 16:45	1,269	1,433	12%	1,470	15%	1,444	13%	1,503	17%	1,422	11%	1,449	13%	1,433	12%	1,470	15%	1,434	12%	1,535	19%	1,471	15%	1,461	14%		34	2
16:45 - 17:00	1,189	1,321	11%	1,312	10%	1,299	9%	1,302	9%	1,301	9%	1,210	2%	1,321	11%	1,324	11%	1,309	10%	1,341	12%	1,290	8%	1,301	9%		33	2
17:00 - 17:15	1,236	1,302	5%	1,194	3%	1,230	0%	1,299	5%	1,265	2%	1,254	1%	1,302	5%	1,250	1%	1,246	1%	1,253	1%	1,215	2%	1,253	1%		33	2
17:15 - 17:30	1,036	1,326	25%	1,333	25%	1,360	27%	1,273	21%	1,311	23%	1,300	23%	1,326	25%	1,286	22%	1,374	28%	1,351	26%	1,254	19%	1,320	24%		39	4
17:30 - 17:45	1,201	1,332	10%	1,339	11%	1,362	13%	1,333	10%	1,270	6%	1,352	12%	1,332	10%	1,346	11%	1,409	16%	1,333	10%	1,375	14%	1,344	11%		34	2
17:45 - 18:00	1,118	1,327	17%	1,319	16%	1,366	20%	1,351	19%	1,341	18%	1,388	22%	1,327	17%	1,349	19%	1,329	17%	1,294	15%	1,298	15%	1,336	18%		28	2
Hour 1	5,414	4,785	12%	4,877	10%	4,931	9%	4,891	10%	4,905	10%	4,854	11%	4,785	12%	4,889	10%	4,842	11%	4,907	10%	4,975	8%	4,891	10%		27	0
Hour 2	4,819	5,383	11%	5,262	9%	5,272	9%	5,266	9%	5,302	10%	5,308	10%	5,383	11%	5,169	7%	5,339	10%	5,288	9%	5,310	10%	5,286	9%		30	0
Hour 3	4,776	5,473	14%	5,612	16%	5,492	14%	5,550	15%	5,541	15%	5,426	13%	5,473	14%	5,607	16%	5,524	15%	5,662	17%	5,593	16%	5,538	15%		32	0
Hour 4	4,591	5,287	14%	5,185	12%	5,318	15%	5,256	14%	5,187	12%	5,294	14%	5,287	14%	5,231	13%	5,358	15%	5,231	13%	5,142	11%	5,253	13%		34	0
11	19,600	20,928	7%	20,936	7%	21,013	7%	20,963	7%	20,935	7%	20,882	6%	20,928	7%	20,896	6%	21,063	7%	21,088	7%	21,020	7%	20,968	7%		62	0



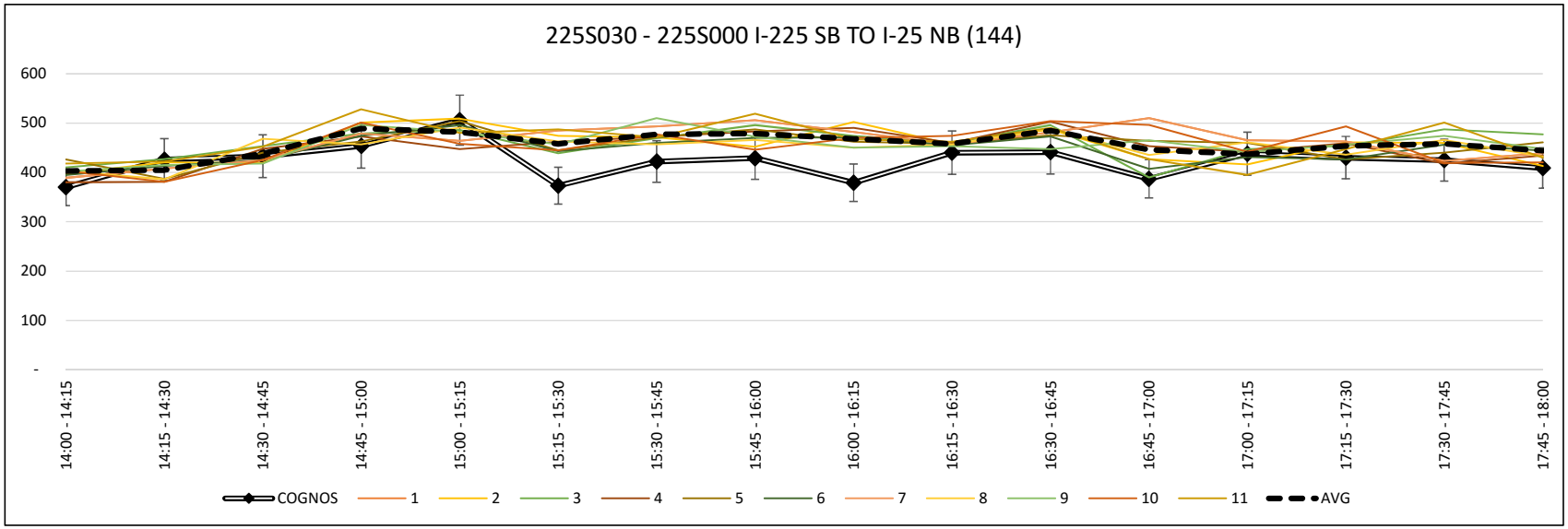
CONCEPT 3		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																										
PM	COGNOS	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	25N130	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	1,788	1,730	3%	1,681	6%	1,752	2%	1,751	2%	1,766	1%	1,717	4%	1,730	3%	1,738	3%	1,732	3%	1,742	3%	1,778	1%	1,741	3%		27	1
14:15 - 14:30	1,932	1,726	11%	1,793	7%	1,750	10%	1,791	8%	1,800	7%	1,837	5%	1,726	11%	1,728	11%	1,826	6%	1,754	10%	1,812	6%	1,779	8%		39	1
14:30 - 14:45	2,031	1,996	2%	1,879	8%	1,940	5%	1,955	4%	1,931	5%	1,876	8%	1,996	2%	1,961	4%	1,905	6%	1,895	7%	1,970	3%	1,933	5%		39	1
14:45 - 15:00	2,071	1,862	11%	1,886	9%	1,910	8%	1,890	9%	1,880	10%	1,899	9%	1,862	11%	1,915	8%	1,932	7%	1,877	10%	1,868	10%	1,887	9%		26	0
15:00 - 15:15	2,050	1,954	5%	1,944	5%	1,926	6%	1,991	3%	1,971	4%	2,011	2%	1,954	5%	1,927	6%	1,996	3%	1,943	5%	1,885	8%	1,954	5%		36	1
15:15 - 15:30	2,210	1,889	16%	2,024	9%	1,995	10%	1,922	14%	1,973	11%	1,959	12%	1,889	16%	1,936	13%	1,921	14%	1,978	11%	1,857	17%	1,946	13%		48	1
15:30 - 15:45	2,267	1,937	16%	1,932	16%	1,920	17%	1,924	16%	1,899	18%	1,934	16%	1,937	16%	1,919	17%	1,886	18%	1,903	17%	1,928	16%	1,919	17%		16	0
15:45 - 16:00	2,181	1,864	16%	1,951	11%	1,903	14%	1,887	14%	1,877	15%	1,888	14%	1,864	16%	1,932	12%	1,917	13%	1,917	13%	1,864	16%	1,900	14%		28	0
16:00 - 16:15	2,297	1,882	20%	1,891	19%	1,880	20%	1,874	20%	1,898	19%	1,926	18%	1,882	20%	1,919	18%	1,940	17%	1,887	20%	1,913	18%	1,906	19%		26	0
16:15 - 16:30	2,150	1,916	12%	1,867	14%	1,927	11%	1,914	12%	1,912	12%	1,882	13%	1,916	12%	1,895	13%	1,908	12%	1,931	11%	1,909	12%	1,911	12%		26	0
16:30 - 16:45	1,972	1,884	5%	1,892	4%	1,887	4%	1,863	6%	1,910	3%	1,913	3%	1,884	5%	1,895	4%	1,901	4%	1,870	5%	1,906	3%	1,891	4%		16	0
16:45 - 17:00	1,997	1,818	9%	1,931	3%	1,929	3%	1,917	4%	1,879	6%	1,940	3%	1,818	9%	1,899	5%	1,880	6%	1,844	8%	1,916	4%	1,897	5%		38	1
17:00 - 17:15	2,064	1,872	10%	1,947	6%	1,945	6%	1,905	8%	1,898	8%	1,976	4%	1,872	10%	1,910	8%	1,910	8%	1,928	7%	1,967	5%	1,931	7%		35	1
17:15 - 17:30	1,983	1,912	4%	1,932	3%	1,937	2%	1,899	4%	1,878	5%	1,967	1%	1,912	4%	1,883	5%	1,840	7%	1,841	7%	1,887	5%	1,899	4%		39	1
17:30 - 17:45	1,786	1,902	6%	1,919	7%	1,879	5%	1,928	8%	1,946	9%	1,920	7%	1,902	6%	1,888	6%	1,903	6%	1,910	7%	1,842	3%	1,901	6%		29	1
17:45 - 18:00	1,560	1,933	21%	1,932	21%	1,830	16%	1,897	19%	1,901	20%	1,897	19%	1,933	21%	1,940	22%	1,891	19%	1,946	22%	1,906	20%	1,900	20%		40	2
Hour 1	7,822	7,314	7%	7,239	8%	7,352	6%	7,387	6%	7,377	6%	7,329	7%	7,314	7%	7,342	6%	7,395	6%	7,268	7%	7,428	5%	7,340	6%		33	0
Hour 2	8,708	7,644	13%	7,851	10%	7,744	12%	7,724	12%	7,720	12%	7,792	11%	7,644	13%	7,714	12%	7,720	12%	7,741	12%	7,534	14%	7,719	12%		34	0
Hour 3	8,416	7,500	12%	7,581	10%	7,623	10%	7,568	11%	7,599	10%	7,661	9%	7,500	12%	7,608	10%	7,629	10%	7,532	11%	7,644	10%	7,605	10%		28	0
Hour 4	7,393	7,619	3%	7,730	4%	7,591	3%	7,629	3%	7,623	3%	7,760	5%	7,619	3%	7,621	3%	7,544	2%	7,625	3%	7,602	3%	7,631	3%		36	0
11	32,339	30,077	7%	30,401	6%	30,310	6%	30,308	6%	30,319	6%	30,542	6%	30,077	7%	30,285	7%	30,288	7%	30,166	7%	30,208	7%	30,295	7%		66	0



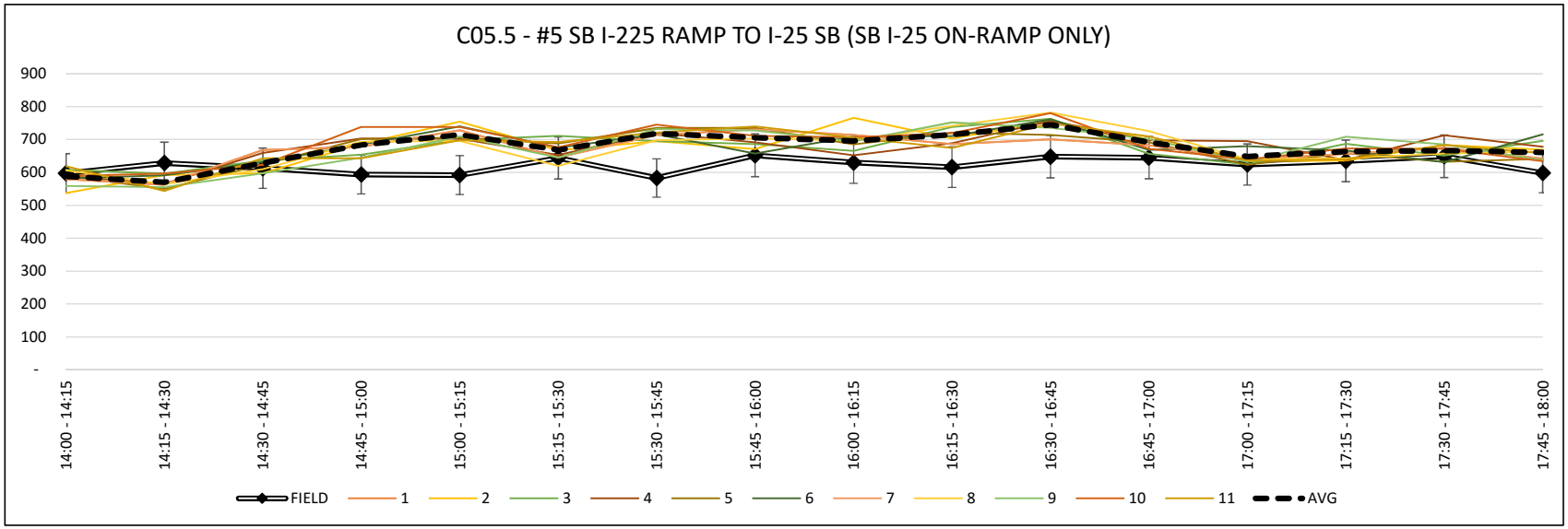
CONCEPT 3

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

PM	COGNOS	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	225S030	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	370	389	5%	397	7%	410	10%	380	3%	426	14%	395	7%	389	5%	403	9%	402	8%	403	9%	418	12%	403	9%		34	23
14:15 - 14:30	426	408	4%	420	1%	427	0%	381	11%	387	10%	413	3%	408	4%	386	10%	415	3%	381	11%	422	1%	405	5%		31	15
14:30 - 14:45	433	425	2%	419	3%	453	5%	448	3%	440	2%	425	2%	425	2%	468	8%	418	4%	425	2%	452	4%	438	1%		33	16
14:45 - 15:00	454	479	5%	501	10%	479	5%	473	4%	463	2%	474	4%	479	5%	457	1%	496	9%	501	10%	528	15%	489	7%		37	18
15:00 - 15:15	506	464	9%	509	1%	486	4%	447	12%	504	0%	496	2%	464	9%	491	3%	482	5%	458	10%	480	5%	482	5%		35	13
15:15 - 15:30	373	485	26%	474	24%	439	16%	462	21%	445	18%	443	17%	485	26%	463	22%	457	20%	445	18%	487	27%	458	20%		32	20
15:30 - 15:45	422	493	16%	471	11%	469	11%	472	11%	471	11%	460	9%	493	16%	457	8%	510	19%	477	12%	471	11%	477	12%		28	12
15:45 - 16:00	429	506	16%	452	5%	496	14%	483	12%	487	13%	470	9%	506	16%	466	8%	472	10%	446	4%	519	19%	479	11%		54	44
16:00 - 16:15	379	482	24%	502	28%	474	22%	490	26%	462	20%	471	22%	482	24%	450	17%	450	17%	470	21%	467	21%	468	21%		42	34
16:15 - 16:30	440	457	4%	457	4%	460	4%	460	4%	458	4%	455	3%	457	4%	456	4%	453	3%	474	7%	462	5%	458	4%		25	9
16:30 - 16:45	441	481	9%	487	10%	496	12%	503	13%	475	7%	473	7%	481	9%	489	10%	447	1%	504	13%	490	11%	485	10%		32	15
16:45 - 17:00	387	510	27%	427	10%	390	1%	453	16%	464	18%	407	5%	510	27%	435	12%	465	18%	496	25%	427	10%	446	14%		41	31
17:00 - 17:15	438	465	6%	416	5%	447	2%	442	1%	460	5%	431	2%	465	6%	461	5%	441	1%	442	1%	395	10%	437	0%		35	18
17:15 - 17:30	430	463	7%	461	7%	454	5%	459	7%	426	1%	426	1%	463	7%	436	1%	456	6%	493	14%	447	4%	454	5%		37	21
17:30 - 17:45	425	423	0%	460	8%	487	14%	418	2%	440	3%	456	7%	423	0%	466	9%	474	11%	419	1%	501	16%	458	7%		37	21
17:45 - 18:00	409	439	7%	413	1%	477	15%	434	6%	461	12%	444	8%	439	7%	432	5%	448	9%	420	3%	430	5%	444	8%		34	19
Hour 1	1,683	1,701	1%	1,737	3%	1,769	5%	1,682	0%	1,716	2%	1,707	1%	1,701	1%	1,714	2%	1,731	3%	1,710	2%	1,820	8%	1,735	3%		34	1
Hour 2	1,730	1,948	12%	1,906	10%	1,890	9%	1,864	7%	1,907	10%	1,869	8%	1,948	12%	1,877	8%	1,921	10%	1,826	5%	1,957	12%	1,896	9%		39	1
Hour 3	1,647	1,930	16%	1,873	13%	1,820	10%	1,906	15%	1,859	12%	1,806	9%	1,930	16%	1,830	11%	1,815	10%	1,944	17%	1,846	11%	1,857	12%		36	1
Hour 4	1,702	1,790	5%	1,750	3%	1,865	9%	1,753	3%	1,787	5%	1,757	3%	1,790	5%	1,795	5%	1,819	7%	1,774	4%	1,773	4%	1,793	5%		36	1
11	6,762	7,369	9%	7,266	7%	7,344	8%	7,205	6%	7,269	7%	7,139	5%	7,369	9%	7,216	6%	7,286	7%	7,254	7%	7,396	9%	7,281	7%		72	0



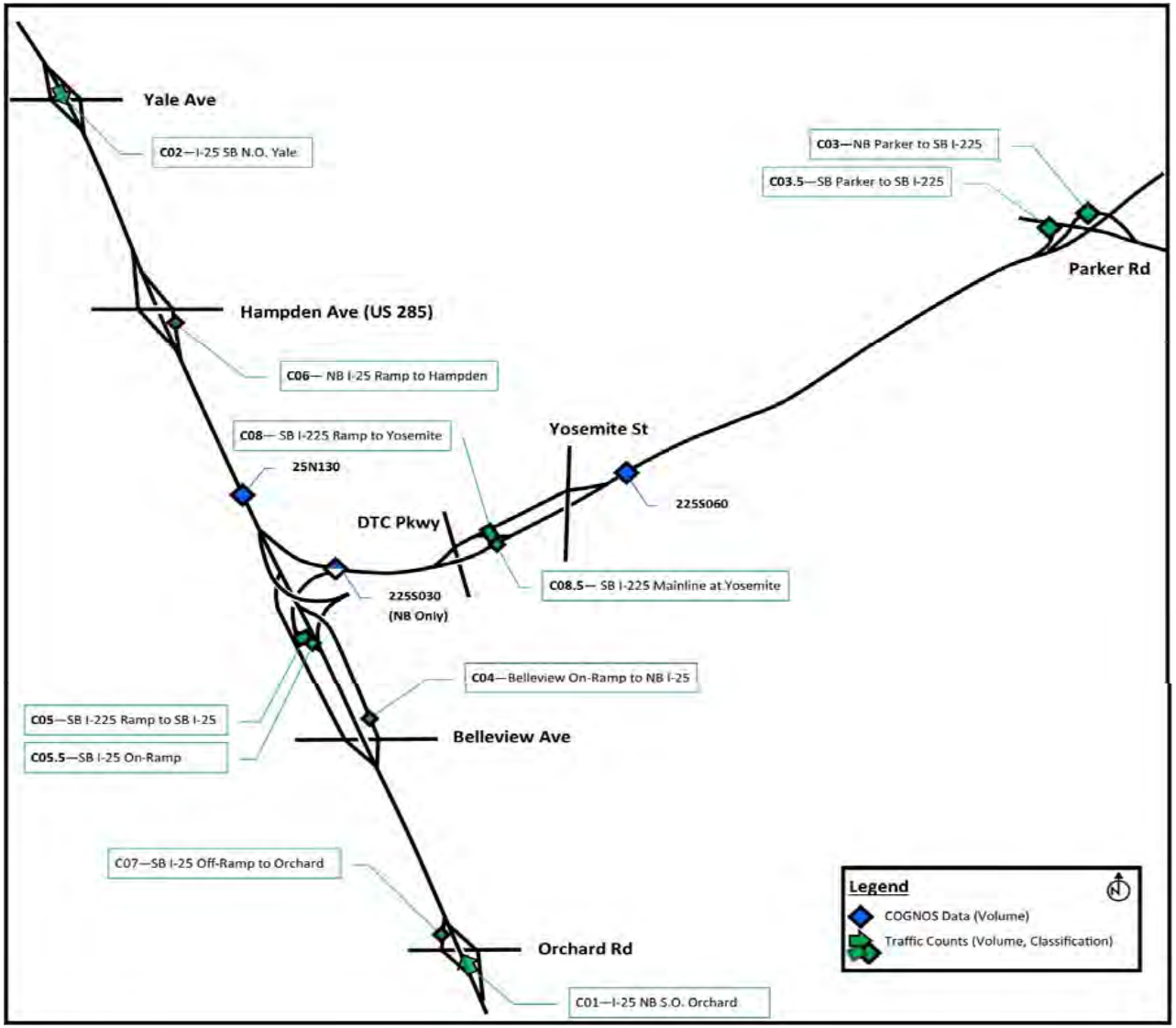
CONCEPT 3		Modeled Traffic Volumes versus Field Data Collected November 2, 2016																										
PM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C05.5	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	597	579	3%	537	11%	608	2%	589	1%	589	1%	582	3%	579	3%	606	1%	559	7%	589	1%	619	4%	588	2%		-	0
14:15 - 14:30	629	563	11%	592	6%	596	5%	565	11%	550	13%	591	6%	563	11%	564	11%	555	13%	596	5%	544	14%	570	10%		-	0
14:30 - 14:45	613	668	9%	597	3%	636	4%	659	7%	624	2%	631	3%	668	9%	610	0%	597	3%	623	2%	643	5%	629	3%		-	0
14:45 - 15:00	594	678	13%	687	15%	654	10%	703	17%	701	17%	684	14%	678	13%	693	15%	645	8%	738	22%	643	8%	683	14%		-	0
15:00 - 15:15	592	728	21%	754	24%	699	17%	702	17%	706	18%	740	22%	728	21%	696	16%	709	18%	738	22%	698	16%	715	19%		-	0
15:15 - 15:30	644	646	0%	667	4%	711	10%	653	1%	688	7%	675	5%	646	0%	620	4%	645	0%	676	5%	692	7%	668	4%		-	0
15:30 - 15:45	583	714	20%	695	18%	695	18%	719	21%	735	23%	716	20%	714	20%	698	18%	732	23%	745	24%	721	21%	718	21%		-	0
15:45 - 16:00	652	731	11%	671	3%	686	5%	691	6%	735	12%	657	1%	731	11%	703	8%	727	11%	711	9%	740	13%	706	8%		-	0
16:00 - 16:15	630	714	13%	766	19%	665	5%	652	3%	685	8%	709	12%	714	13%	697	10%	694	10%	707	12%	706	11%	696	10%		-	0
16:15 - 16:30	616	686	11%	703	13%	738	18%	689	11%	721	16%	710	14%	686	11%	742	19%	752	20%	719	15%	674	9%	715	15%		-	0
16:30 - 16:45	648	700	8%	756	15%	763	16%	756	15%	714	10%	761	16%	700	8%	782	19%	735	13%	780	18%	749	14%	745	14%		-	0
16:45 - 17:00	645	682	6%	701	8%	656	2%	698	8%	691	7%	668	4%	682	6%	725	12%	701	8%	672	4%	709	9%	691	7%		-	0
17:00 - 17:15	624	639	2%	634	2%	624	0%	695	11%	623	0%	680	9%	639	2%	639	2%	631	1%	639	2%	636	2%	648	4%		-	0
17:15 - 17:30	635	656	3%	636	0%	687	8%	638	0%	658	4%	666	5%	656	3%	643	1%	708	11%	673	6%	639	1%	664	4%		-	0
17:30 - 17:45	649	674	4%	683	5%	651	0%	713	9%	632	3%	631	3%	674	4%	657	1%	685	5%	672	3%	683	5%	666	3%		-	0
17:45 - 18:00	598	642	7%	669	11%	696	15%	678	13%	641	7%	716	18%	642	7%	664	10%	637	6%	634	6%	658	10%	661	10%		-	0
Hour 1	2,433	2,488	2%	2,413	1%	2,494	2%	2,516	3%	2,464	1%	2,488	2%	2,488	2%	2,473	2%	2,356	3%	2,546	5%	2,449	1%	2,470	2%		-	0
Hour 2	2,471	2,819	13%	2,787	12%	2,791	12%	2,765	11%	2,864	15%	2,788	12%	2,819	13%	2,717	9%	2,813	13%	2,870	15%	2,851	14%	2,807	13%		-	0
Hour 3	2,539	2,782	9%	2,926	14%	2,822	11%	2,795	10%	2,811	10%	2,848	11%	2,782	9%	2,946	15%	2,882	13%	2,878	13%	2,838	11%	2,847	11%		-	0
Hour 4	2,506	2,611	4%	2,622	5%	2,658	6%	2,724	8%	2,554	2%	2,693	7%	2,611	4%	2,603	4%	2,661	6%	2,618	4%	2,616	4%	2,639	5%		-	0
11	9,949	10,700	7%	10,748	8%	10,765	8%	10,800	8%	10,693	7%	10,817	8%	10,700	7%	10,739	8%	10,712	7%	10,912	9%	10,754	8%	10,763	8%		-	0



TRAFFIC VOLUMES - BY LINK

CONCEPT 2: +10% I-225

PERIOD: AM

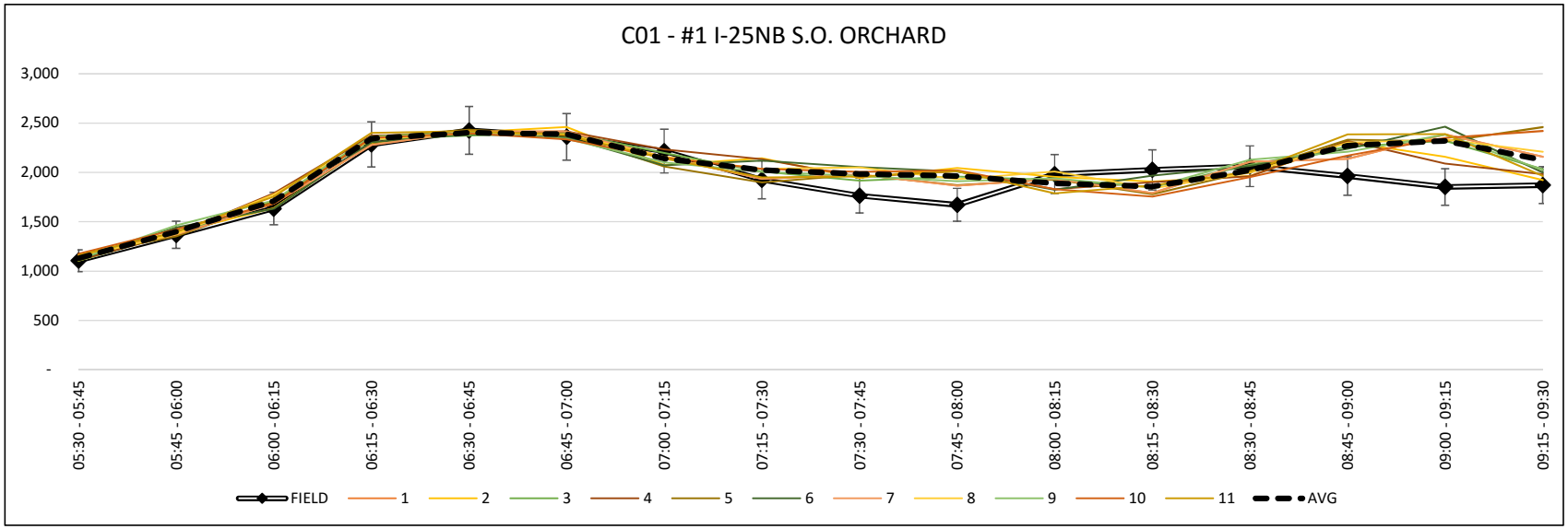


ID	DESCRIPTION
C01	NB I-25 S.O. Orchard
C02	SB I-25 N.O. Yale
C03	NB Parker to SB I-225
C03.5	SB Parker to SB I-225
C04	Belleview On-Ramp to NB I-25
C05	SB I-225 Ramp to SB I-25
C06	NB I-25 Ramp to Hampden
C07	SB I-25 Off-Ramp to Orchard
C08	SB I-225 Ramp to Yosemite
C08.5	SB I-225 Mainline at Yosemite
225S060	225S001 PARKER RD TO YOSEMITE ST (176)
25N130	025N201 0.2MI N OF I-225
225S030	225S000 I-225 SB TO I-25 NB (144)
C05.5	#5 SB I-225 to SB I-25 On-Ramp Only

CONCEPT 2: +10% I-225

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

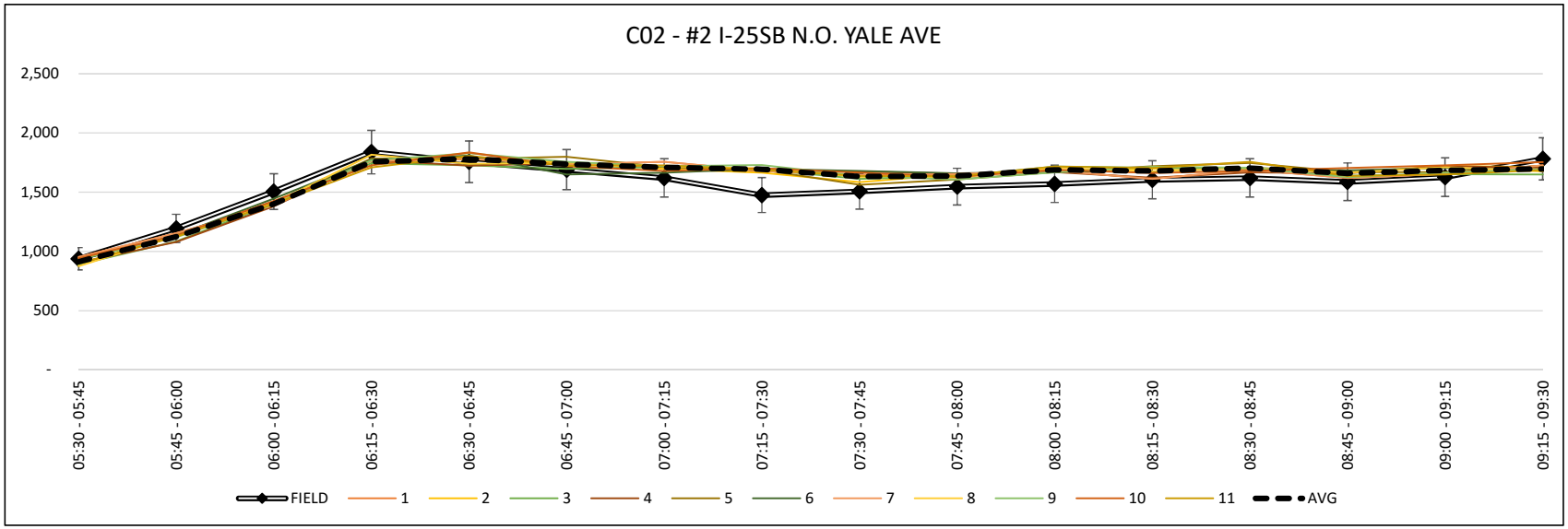
AM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C01	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	1,106	1,163	5%	1,106	0%	1,108	0%	1,114	1%	1,164	5%	1,119	1%	1,163	5%	1,143	3%	1,118	1%	1,176	6%	1,161	5%	1,131	2%		32	2
05:45 - 06:00	1,368	1,370	0%	1,390	2%	1,383	1%	1,376	1%	1,353	1%	1,441	5%	1,370	0%	1,377	1%	1,461	7%	1,424	4%	1,398	2%	1,398	2%		32	2
06:00 - 06:15	1,634	1,686	3%	1,637	0%	1,695	4%	1,788	9%	1,706	4%	1,633	0%	1,686	3%	1,776	8%	1,717	5%	1,683	3%	1,756	7%	1,711	5%		52	3
06:15 - 06:30	2,284	2,278	0%	2,298	1%	2,336	2%	2,373	4%	2,358	3%	2,304	1%	2,278	0%	2,336	2%	2,363	3%	2,350	3%	2,400	5%	2,343	3%		37	1
06:30 - 06:45	2,426	2,414	0%	2,405	1%	2,374	2%	2,390	1%	2,433	0%	2,387	2%	2,414	0%	2,399	1%	2,404	1%	2,398	1%	2,418	0%	2,402	1%		16	0
06:45 - 07:00	2,361	2,416	2%	2,461	4%	2,402	2%	2,415	2%	2,386	1%	2,354	0%	2,416	2%	2,385	1%	2,340	1%	2,336	1%	2,375	1%	2,387	1%		37	1
07:00 - 07:15	2,216	2,154	3%	2,076	7%	2,197	1%	2,232	1%	2,061	7%	2,073	7%	2,154	3%	2,157	3%	2,100	5%	2,149	3%	2,141	3%	2,141	3%		58	2
07:15 - 07:30	1,926	1,935	0%	2,143	11%	2,008	4%	2,133	10%	1,898	1%	2,118	9%	1,935	0%	2,037	6%	2,006	4%	2,037	6%	1,949	1%	2,024	5%		81	5
07:30 - 07:45	1,765	1,978	11%	1,944	10%	1,916	8%	1,956	10%	1,975	11%	2,053	15%	1,978	11%	2,052	15%	1,965	11%	2,006	13%	1,958	10%	1,986	12%		46	2
07:45 - 08:00	1,672	1,865	11%	2,044	20%	1,958	16%	2,012	18%	1,871	11%	2,008	18%	1,865	11%	1,932	14%	1,909	13%	2,021	19%	2,011	18%	1,963	16%		62	4
08:00 - 08:15	1,983	1,934	3%	1,954	1%	1,921	3%	1,830	8%	1,927	3%	1,824	8%	1,934	3%	2,010	1%	1,939	2%	1,830	8%	1,789	10%	1,888	5%		73	4
08:15 - 08:30	2,026	1,791	12%	1,907	6%	1,850	9%	1,902	6%	1,780	13%	1,966	3%	1,791	12%	1,838	10%	1,847	9%	1,756	14%	1,867	8%	1,858	9%		66	3
08:30 - 08:45	2,063	2,106	2%	1,965	5%	2,079	1%	1,960	5%	2,013	2%	2,066	0%	2,106	2%	1,996	3%	2,129	3%	1,951	6%	2,009	3%	2,020	2%		65	3
08:45 - 09:00	1,964	2,136	8%	2,307	16%	2,259	14%	2,320	17%	2,332	17%	2,238	13%	2,136	8%	2,301	16%	2,208	12%	2,171	10%	2,386	19%	2,272	15%		77	4
09:00 - 09:15	1,853	2,384	25%	2,157	15%	2,319	22%	2,090	12%	2,313	22%	2,463	28%	2,384	25%	2,336	23%	2,382	25%	2,349	24%	2,387	25%	2,319	22%		107	9
09:15 - 09:30	1,871	2,159	14%	1,921	3%	2,034	8%	1,981	6%	2,459	27%	1,999	7%	2,159	14%	2,208	17%	2,023	8%	2,420	26%	1,964	5%	2,125	13%		183	27
Hour 1	6,392	6,497	2%	6,431	1%	6,522	2%	6,651	4%	6,581	3%	6,497	2%	6,497	2%	6,632	4%	6,659	4%	6,633	4%	6,715	5%	6,583	3%		39	0
Hour 2	8,929	8,919	0%	9,085	2%	8,981	1%	9,170	3%	8,778	2%	8,932	0%	8,919	0%	8,978	1%	8,850	1%	8,920	0%	8,883	1%	8,954	0%		54	0
Hour 3	7,446	7,568	2%	7,849	5%	7,645	3%	7,700	3%	7,553	1%	7,851	5%	7,568	2%	7,832	5%	7,660	3%	7,613	2%	7,625	2%	7,695	3%		63	0
Hour 4	7,751	8,785	13%	8,350	7%	8,691	11%	8,351	7%	9,117	16%	8,766	12%	8,785	13%	8,841	13%	8,742	12%	8,891	14%	8,746	12%	8,736	12%		117	1
11	30,518	31,769	4%	31,715	4%	31,839	4%	31,872	4%	32,029	5%	32,046	5%	31,769	4%	32,283	6%	31,911	4%	32,057	5%	31,969	5%	31,968	5%		149	0



CONCEPT 2: +10% I-225

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

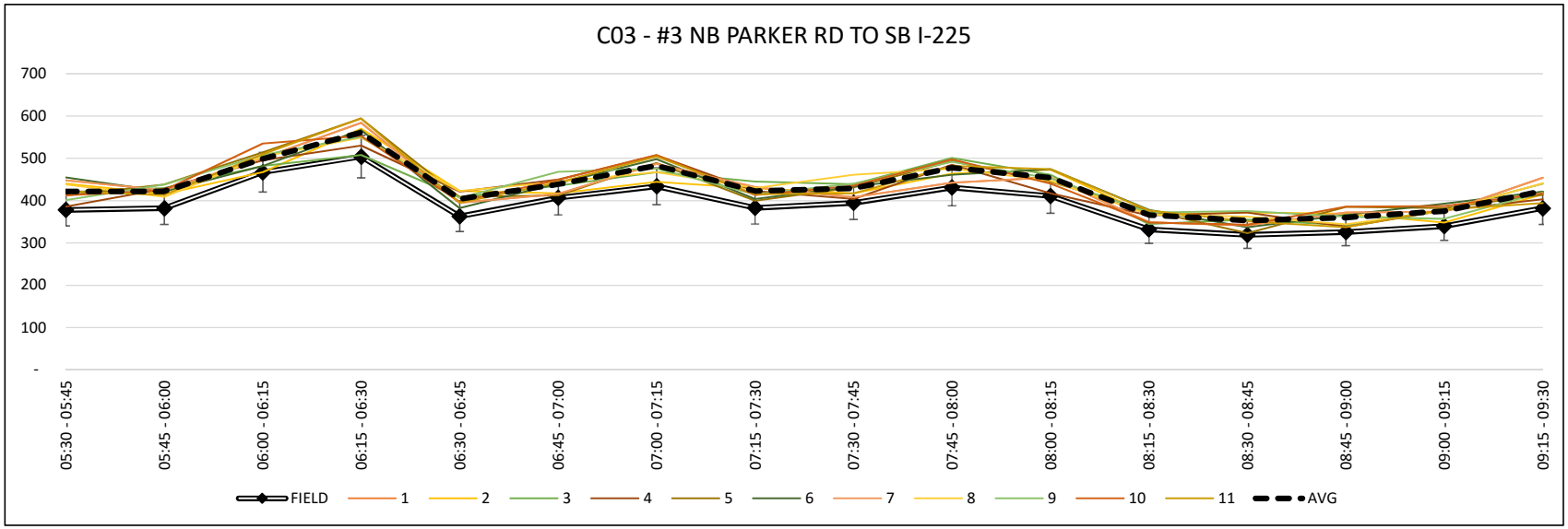
AM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C02	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	938	951	1%	889	5%	889	5%	905	4%	930	1%	927	1%	951	1%	875	7%	935	0%	943	1%	898	4%	912	3%		26	2
05:45 - 06:00	1,194	1,155	3%	1,136	5%	1,084	10%	1,080	10%	1,128	6%	1,136	5%	1,155	3%	1,134	5%	1,119	6%	1,134	5%	1,125	6%	1,124	6%		23	1
06:00 - 06:15	1,505	1,387	8%	1,419	6%	1,400	7%	1,380	9%	1,410	7%	1,445	4%	1,387	8%	1,406	7%	1,395	8%	1,425	5%	1,401	7%	1,400	7%		28	1
06:15 - 06:30	1,838	1,763	4%	1,768	4%	1,745	5%	1,771	4%	1,783	3%	1,773	4%	1,763	4%	1,816	1%	1,768	4%	1,726	6%	1,709	7%	1,756	5%		35	1
06:30 - 06:45	1,757	1,781	1%	1,783	1%	1,726	2%	1,723	2%	1,780	1%	1,809	3%	1,781	1%	1,739	1%	1,829	4%	1,835	4%	1,807	3%	1,781	1%		39	1
06:45 - 07:00	1,690	1,734	3%	1,750	3%	1,696	0%	1,743	3%	1,799	6%	1,649	2%	1,734	3%	1,749	3%	1,757	4%	1,720	2%	1,724	2%	1,736	3%		40	2
07:00 - 07:15	1,620	1,757	8%	1,696	5%	1,714	6%	1,717	6%	1,712	6%	1,665	3%	1,757	8%	1,719	6%	1,720	6%	1,679	4%	1,727	6%	1,710	5%		24	1
07:15 - 07:30	1,476	1,678	13%	1,665	12%	1,692	14%	1,682	13%	1,689	13%	1,696	14%	1,678	13%	1,702	14%	1,729	16%	1,702	14%	1,690	14%	1,694	14%		17	0
07:30 - 07:45	1,508	1,642	9%	1,585	5%	1,612	7%	1,673	10%	1,561	3%	1,678	11%	1,642	9%	1,629	8%	1,637	8%	1,664	10%	1,637	8%	1,632	8%		36	2
07:45 - 08:00	1,547	1,654	7%	1,652	7%	1,634	5%	1,656	7%	1,608	4%	1,658	7%	1,654	7%	1,621	5%	1,607	4%	1,630	5%	1,633	5%	1,636	6%		18	0
08:00 - 08:15	1,570	1,681	7%	1,672	6%	1,716	9%	1,670	6%	1,668	6%	1,674	6%	1,681	7%	1,705	8%	1,666	6%	1,689	7%	1,716	9%	1,689	7%		22	1
08:15 - 08:30	1,605	1,611	0%	1,699	6%	1,706	6%	1,623	1%	1,718	7%	1,675	4%	1,611	0%	1,677	4%	1,713	7%	1,661	3%	1,703	6%	1,678	4%		35	1
08:30 - 08:45	1,620	1,689	4%	1,706	5%	1,696	5%	1,666	3%	1,746	7%	1,705	5%	1,689	4%	1,703	5%	1,707	5%	1,678	4%	1,755	8%	1,705	5%		26	1
08:45 - 09:00	1,588	1,620	2%	1,667	5%	1,638	3%	1,659	4%	1,668	5%	1,684	6%	1,620	2%	1,663	5%	1,628	2%	1,705	7%	1,637	3%	1,660	4%		28	1
09:00 - 09:15	1,627	1,655	2%	1,721	6%	1,651	1%	1,720	6%	1,669	3%	1,704	5%	1,655	2%	1,711	5%	1,664	2%	1,726	6%	1,648	1%	1,685	4%		31	1
09:15 - 09:30	1,781	1,726	3%	1,711	4%	1,650	8%	1,707	4%	1,723	3%	1,682	6%	1,726	3%	1,674	6%	1,695	5%	1,753	2%	1,687	5%	1,697	5%		31	1
Hour 1	5,475	5,256	4%	5,212	5%	5,118	7%	5,136	6%	5,251	4%	5,281	4%	5,256	4%	5,231	5%	5,217	5%	5,228	5%	5,133	6%	5,192	5%		28	0
Hour 2	6,543	6,950	6%	6,894	5%	6,828	4%	6,865	5%	6,980	6%	6,819	4%	6,950	6%	6,909	5%	7,035	7%	6,936	6%	6,948	6%	6,921	6%		32	0
Hour 3	6,230	6,588	6%	6,608	6%	6,668	7%	6,622	6%	6,555	5%	6,685	7%	6,588	6%	6,632	6%	6,623	6%	6,644	6%	6,689	7%	6,635	6%		29	0
Hour 4	6,616	6,690	1%	6,805	3%	6,635	0%	6,752	2%	6,806	3%	6,775	2%	6,690	1%	6,751	2%	6,694	1%	6,862	4%	6,727	2%	6,747	2%		29	0
11	24,864	25,484	2%	25,519	3%	25,249	2%	25,375	2%	25,592	3%	25,560	3%	25,484	2%	25,523	3%	25,569	3%	25,670	3%	25,497	3%	25,495	3%		59	0



CONCEPT 2: +10% I-225

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

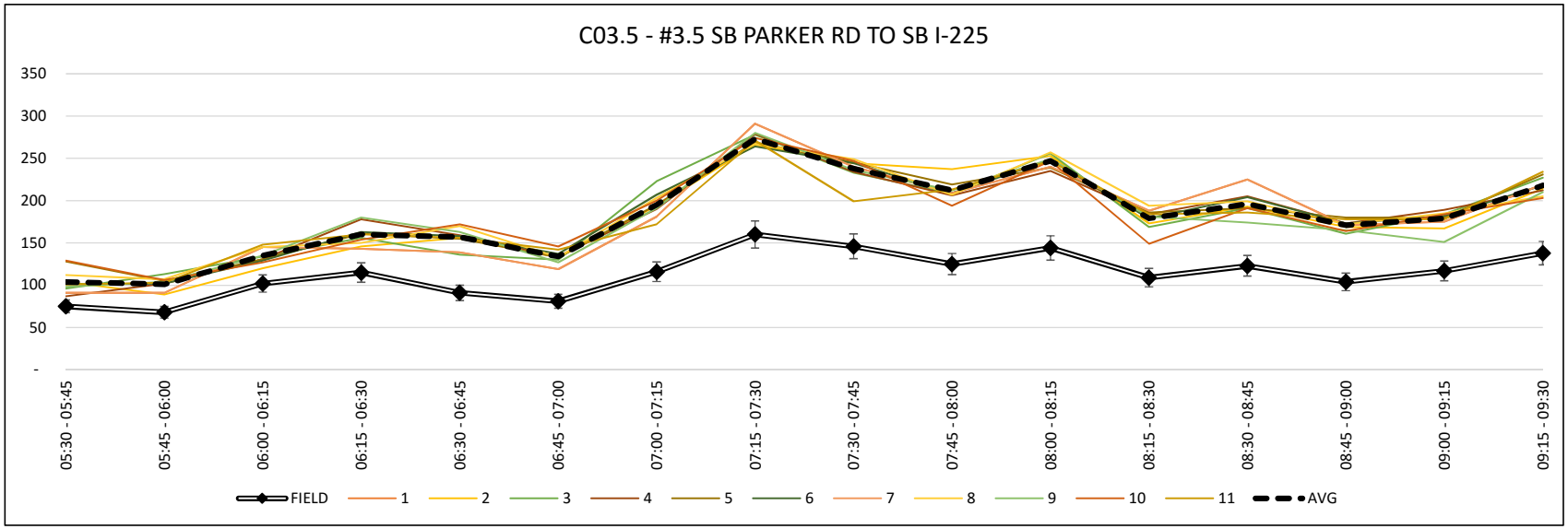
AM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C03	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	378	448	17%	440	15%	420	11%	386	2%	412	9%	455	18%	448	17%	438	15%	401	6%	412	9%	422	11%	422	11%		21	9
05:45 - 06:00	382	425	11%	416	9%	430	12%	428	11%	438	14%	421	10%	425	11%	409	7%	438	14%	425	11%	414	8%	422	10%		12	3
06:00 - 06:15	467	501	7%	467	0%	482	3%	495	6%	514	10%	482	3%	501	7%	504	8%	508	8%	535	14%	510	9%	499	7%		18	4
06:15 - 06:30	504	584	15%	570	12%	508	1%	530	5%	594	16%	567	12%	584	15%	549	9%	551	9%	553	9%	594	16%	561	11%		27	8
06:30 - 06:45	363	395	8%	423	15%	408	12%	421	15%	409	12%	382	5%	395	8%	423	15%	406	11%	397	9%	395	8%	404	11%		15	5
06:45 - 07:00	407	416	2%	417	2%	435	7%	450	10%	412	1%	441	8%	416	2%	444	9%	468	14%	449	10%	443	8%	439	8%		17	5
07:00 - 07:15	434	487	12%	444	2%	467	7%	507	16%	489	12%	498	14%	487	12%	467	7%	476	9%	508	16%	504	15%	483	11%		21	6
07:15 - 07:30	383	432	12%	429	11%	445	15%	423	10%	400	4%	404	5%	432	12%	430	12%	415	8%	413	8%	415	8%	423	10%		15	4
07:30 - 07:45	395	408	3%	417	5%	439	11%	404	2%	431	9%	433	9%	408	3%	461	15%	440	11%	435	10%	417	5%	429	8%		16	5
07:45 - 08:00	431	442	3%	464	7%	501	15%	485	12%	493	13%	461	7%	442	3%	476	10%	492	13%	497	14%	482	11%	478	10%		18	5
08:00 - 08:15	411	455	10%	473	14%	461	11%	417	1%	444	8%	474	14%	455	10%	447	8%	453	10%	440	7%	474	14%	454	10%		17	5
08:15 - 08:30	332	349	5%	366	10%	345	4%	365	9%	376	12%	378	13%	349	5%	367	10%	372	11%	348	5%	377	13%	366	10%		13	4
08:30 - 08:45	319	341	7%	372	15%	355	11%	372	15%	323	1%	337	5%	341	7%	362	13%	375	16%	343	7%	351	10%	353	10%		16	7
08:45 - 09:00	326	372	13%	369	12%	342	5%	338	4%	385	17%	366	12%	372	13%	344	5%	362	10%	386	17%	337	3%	360	10%		18	8
09:00 - 09:15	340	374	10%	348	2%	378	11%	377	10%	382	12%	393	14%	374	10%	376	10%	357	5%	387	13%	379	11%	375	10%		13	4
09:15 - 09:30	382	454	17%	415	8%	440	14%	403	5%	414	8%	421	10%	454	17%	441	14%	419	9%	417	9%	394	3%	423	10%		18	6
Hour 1	1,731	1,958	12%	1,893	9%	1,840	6%	1,839	6%	1,958	12%	1,925	11%	1,958	12%	1,900	9%	1,898	9%	1,925	11%	1,940	11%	1,904	10%		20	0
Hour 2	1,587	1,730	9%	1,713	8%	1,755	10%	1,801	13%	1,710	7%	1,725	8%	1,730	9%	1,764	11%	1,765	11%	1,767	11%	1,757	10%	1,749	10%		17	0
Hour 3	1,569	1,654	5%	1,720	9%	1,746	11%	1,671	6%	1,744	11%	1,746	11%	1,654	5%	1,751	11%	1,757	11%	1,720	9%	1,750	11%	1,727	10%		16	0
Hour 4	1,367	1,541	12%	1,504	10%	1,515	10%	1,490	9%	1,504	10%	1,517	10%	1,541	12%	1,523	11%	1,513	10%	1,533	11%	1,461	7%	1,511	10%		16	0
11	6,254	6,883	10%	6,830	9%	6,856	9%	6,801	8%	6,916	10%	6,913	10%	6,883	10%	6,938	10%	6,933	10%	6,945	10%	6,908	10%	6,891	10%		35	0



CONCEPT 2: +10% I-225

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

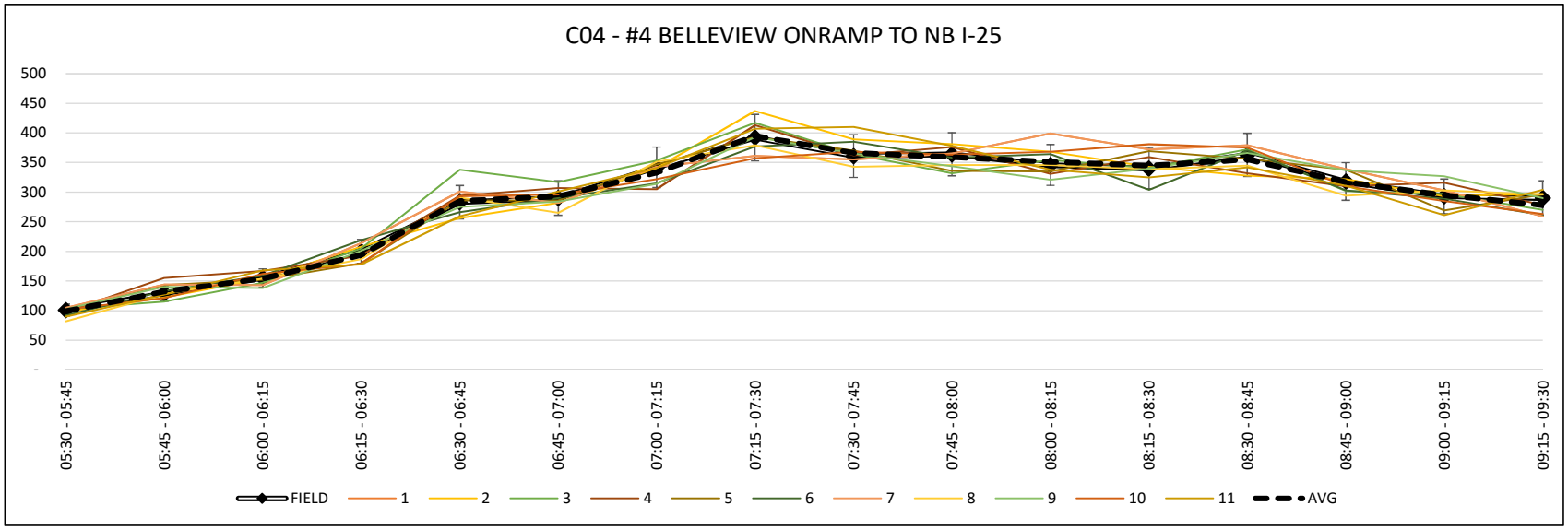
AM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C03.5	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	75	91	19%	104	32%	96	25%	87	15%	128	52%	101	30%	91	19%	112	40%	98	27%	129	53%	101	30%	104	32%		14	97
05:45 - 06:00	68	91	29%	89	27%	113	50%	102	40%	105	43%	102	40%	91	29%	107	45%	104	42%	106	44%	103	41%	101	39%		8	38
06:00 - 06:15	102	145	35%	120	16%	134	27%	131	25%	131	25%	129	23%	145	35%	145	35%	135	28%	127	22%	148	37%	135	28%		9	22
06:15 - 06:30	115	143	22%	146	24%	156	30%	178	43%	161	33%	163	35%	143	22%	150	26%	180	44%	154	29%	160	33%	160	33%		12	30
06:30 - 06:45	91	139	42%	156	53%	136	40%	159	54%	155	52%	158	54%	139	42%	170	61%	163	57%	172	62%	156	53%	157	53%		11	41
06:45 - 07:00	81	119	38%	133	49%	130	46%	134	49%	133	49%	137	51%	119	38%	133	49%	127	44%	146	57%	142	55%	134	49%		7	21
07:00 - 07:15	116	181	44%	194	50%	223	63%	190	48%	195	51%	207	56%	181	44%	203	55%	191	49%	200	53%	172	39%	195	51%		13	35
07:15 - 07:30	160	291	58%	266	50%	278	54%	279	54%	269	51%	264	49%	291	58%	267	50%	280	55%	274	53%	271	52%	273	52%		8	7
07:30 - 07:45	146	240	49%	244	50%	233	46%	234	46%	245	51%	244	50%	240	49%	249	52%	236	47%	247	51%	199	31%	238	48%		14	26
07:45 - 08:00	125	209	50%	237	62%	208	50%	206	49%	219	55%	209	50%	209	50%	207	49%	212	52%	194	43%	213	52%	212	52%		11	21
08:00 - 08:15	144	240	50%	253	55%	256	56%	235	48%	239	50%	248	53%	240	50%	257	56%	249	53%	247	53%	247	53%	247	53%		7	7
08:15 - 08:30	109	188	53%	173	45%	169	43%	184	51%	186	52%	179	49%	188	53%	194	56%	181	50%	149	31%	184	51%	179	49%		12	34
08:30 - 08:45	123	225	59%	193	44%	191	43%	205	50%	191	43%	204	50%	225	59%	199	47%	174	34%	191	43%	186	41%	196	46%		13	31
08:45 - 09:00	104	171	49%	169	48%	161	43%	173	50%	180	54%	173	50%	171	49%	172	49%	165	45%	164	45%	178	52%	171	49%		6	9
09:00 - 09:15	117	175	40%	167	35%	184	45%	189	47%	180	42%	182	43%	175	40%	185	45%	151	25%	184	45%	178	41%	179	42%		12	29
09:15 - 09:30	138	219	45%	214	43%	227	49%	212	42%	231	50%	218	45%	219	45%	205	39%	210	41%	203	38%	234	52%	218	45%		10	15
Hour 1	360	470	27%	459	24%	499	32%	498	32%	525	37%	495	32%	470	27%	514	35%	517	36%	516	36%	512	35%	500	33%		11	3
Hour 2	448	730	48%	749	50%	767	53%	762	52%	752	51%	766	52%	730	48%	773	53%	761	52%	792	55%	741	49%	759	52%		10	1
Hour 3	524	877	50%	907	54%	866	49%	859	48%	889	52%	880	51%	877	50%	907	54%	878	50%	837	46%	843	47%	876	50%		11	1
Hour 4	482	790	48%	743	43%	763	45%	779	47%	782	47%	777	47%	790	48%	761	45%	700	37%	742	42%	776	47%	764	45%		11	1
11	1,814	2,867	45%	2,858	45%	2,895	46%	2,898	46%	2,948	48%	2,918	47%	2,867	45%	2,955	48%	2,856	45%	2,887	46%	2,872	45%	2,899	46%		21	0



CONCEPT 2: +10% I-225

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

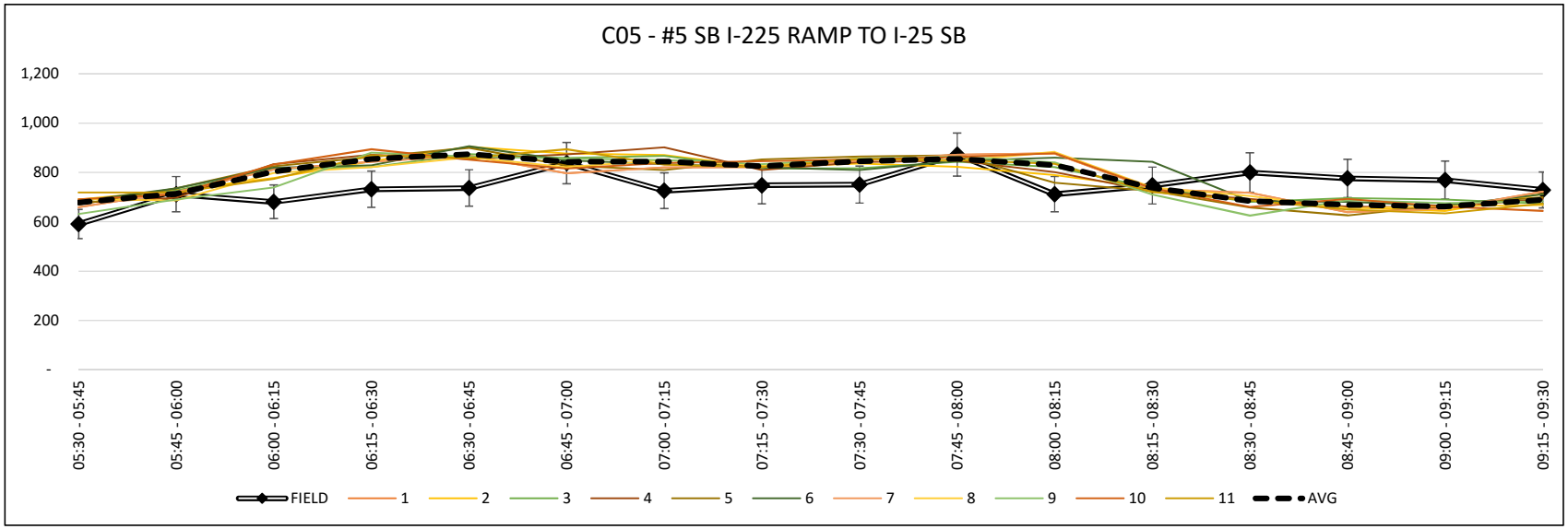
AM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C04	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	101	105	4%	98	3%	103	2%	98	3%	104	3%	92	9%	105	4%	82	21%	103	2%	102	1%	90	12%	99	2%		8	17
05:45 - 06:00	129	144	11%	122	6%	115	11%	155	18%	143	10%	133	3%	144	11%	128	1%	140	8%	121	6%	127	2%	132	2%		12	24
06:00 - 06:15	155	143	8%	154	1%	147	5%	167	7%	152	2%	159	3%	143	8%	154	1%	138	12%	162	4%	168	8%	154	1%		9	9
06:15 - 06:30	200	214	7%	208	4%	205	2%	193	4%	180	11%	219	9%	214	7%	187	7%	201	0%	179	11%	178	12%	194	3%		16	18
06:30 - 06:45	283	301	6%	256	10%	338	18%	294	4%	286	1%	266	6%	301	6%	291	3%	275	3%	293	3%	259	9%	285	1%		23	18
06:45 - 07:00	290	282	3%	282	3%	317	9%	307	6%	286	1%	290	0%	282	3%	265	9%	284	2%	296	2%	301	4%	293	1%		16	8
07:00 - 07:15	342	343	0%	341	0%	353	3%	305	11%	347	1%	315	8%	343	0%	351	3%	314	9%	322	6%	341	0%	333	3%		17	7
07:15 - 07:30	392	361	8%	437	11%	417	6%	413	5%	393	0%	377	4%	361	8%	379	3%	393	0%	357	9%	407	4%	395	1%		25	11
07:30 - 07:45	361	355	2%	389	7%	364	1%	362	0%	370	2%	385	6%	355	2%	343	5%	365	1%	368	2%	410	13%	366	1%		24	12
07:45 - 08:00	364	365	0%	381	5%	332	9%	376	3%	336	8%	358	2%	365	0%	346	5%	344	6%	363	0%	378	4%	359	1%		17	6
08:00 - 08:15	346	399	14%	368	6%	354	2%	331	4%	335	3%	364	5%	399	14%	346	0%	321	7%	368	6%	338	2%	351	1%		22	11
08:15 - 08:30	340	372	9%	343	1%	341	0%	359	5%	369	8%	304	11%	372	9%	339	0%	340	0%	381	11%	325	5%	345	1%		23	13
08:30 - 08:45	363	379	4%	328	10%	372	2%	332	9%	356	2%	370	2%	379	4%	345	5%	366	1%	375	3%	342	6%	355	2%		19	8
08:45 - 09:00	318	339	6%	322	1%	302	5%	310	3%	338	6%	303	5%	339	6%	294	8%	337	6%	310	3%	311	2%	317	0%		16	7
09:00 - 09:15	293	303	3%	293	0%	297	1%	316	8%	269	9%	289	1%	303	3%	303	3%	327	11%	285	3%	261	12%	295	1%		19	12
09:15 - 09:30	290	259	11%	297	2%	270	7%	278	4%	296	2%	261	11%	259	11%	296	2%	290	0%	263	10%	304	5%	278	4%		19	12
Hour 1	585	606	4%	582	1%	570	3%	613	5%	579	1%	603	3%	606	4%	551	6%	582	1%	564	4%	563	4%	579	1%		12	1
Hour 2	1,307	1,287	2%	1,316	1%	1,425	9%	1,319	1%	1,312	0%	1,248	5%	1,287	2%	1,286	2%	1,266	3%	1,268	3%	1,308	0%	1,306	0%		21	1
Hour 3	1,411	1,491	6%	1,481	5%	1,391	1%	1,428	1%	1,410	0%	1,411	0%	1,491	6%	1,374	3%	1,370	3%	1,480	5%	1,451	3%	1,421	1%		22	1
Hour 4	1,264	1,280	1%	1,240	2%	1,241	2%	1,236	2%	1,259	0%	1,223	3%	1,280	1%	1,238	2%	1,320	4%	1,233	2%	1,218	4%	1,245	2%		18	1
11	4,567	4,664	2%	4,619	1%	4,627	1%	4,596	1%	4,560	0%	4,485	2%	4,664	2%	4,449	3%	4,538	1%	4,545	0%	4,540	1%	4,551	0%		37	0



CONCEPT 2: +10% I-225

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

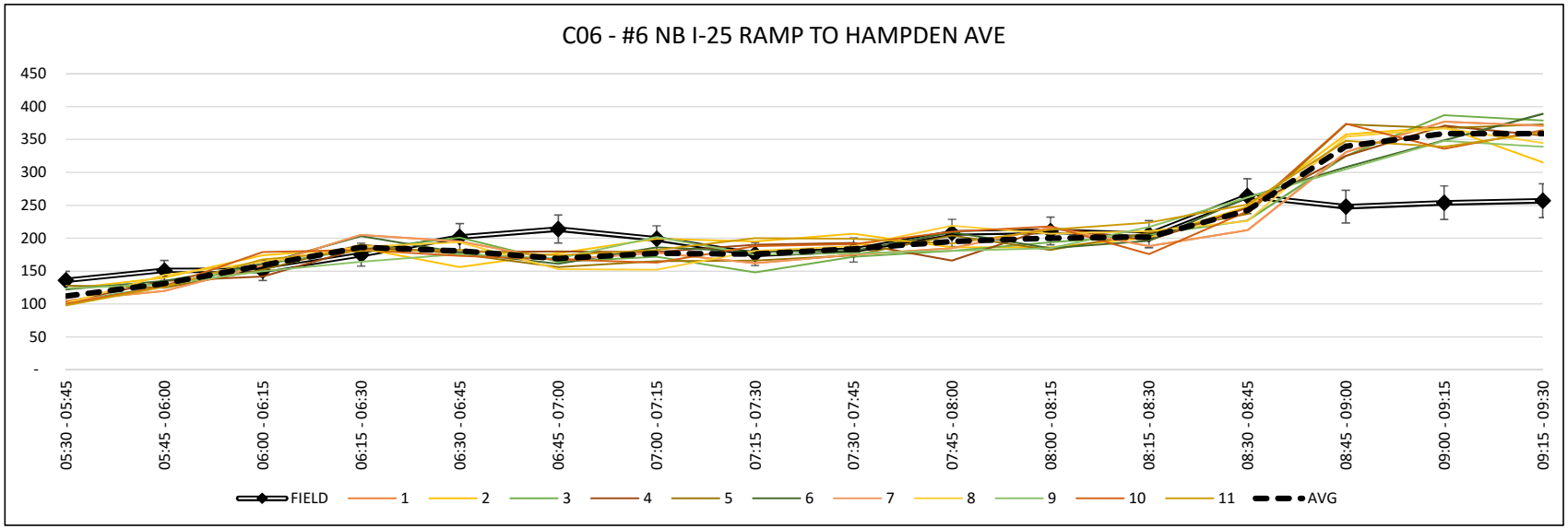
AM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C05	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	591	659	11%	690	15%	685	15%	677	14%	670	13%	683	14%	659	11%	691	16%	631	7%	691	16%	719	20%	678	14%		23	4
05:45 - 06:00	712	721	1%	728	2%	726	2%	697	2%	735	3%	736	3%	721	1%	686	4%	690	3%	710	0%	719	1%	714	0%		17	2
06:00 - 06:15	681	812	18%	777	13%	816	18%	833	20%	825	19%	819	18%	812	18%	798	16%	739	8%	832	20%	774	13%	803	16%		29	5
06:15 - 06:30	732	843	14%	845	14%	822	12%	872	17%	862	16%	829	12%	843	14%	822	12%	880	18%	894	20%	869	17%	855	16%		24	3
06:30 - 06:45	737	868	16%	904	20%	874	17%	854	15%	900	20%	906	21%	868	16%	861	16%	865	16%	851	14%	858	15%	874	17%		20	2
06:45 - 07:00	838	796	5%	876	4%	859	2%	873	4%	827	1%	849	1%	796	5%	822	2%	856	2%	815	3%	894	6%	843	1%		32	4
07:00 - 07:15	726	820	12%	871	18%	867	18%	902	22%	810	11%	833	14%	820	12%	850	16%	850	16%	838	14%	831	13%	844	15%		28	4
07:15 - 07:30	748	821	9%	822	9%	816	9%	810	8%	853	13%	820	9%	821	9%	828	10%	834	11%	845	12%	822	9%	825	10%		14	1
07:30 - 07:45	751	848	12%	836	11%	817	8%	842	11%	865	14%	810	8%	848	12%	857	13%	856	13%	853	13%	854	13%	845	12%		18	2
07:45 - 08:00	872	872	0%	823	6%	843	3%	848	3%	869	0%	847	3%	872	0%	847	3%	864	1%	862	1%	850	3%	855	2%		16	1
08:00 - 08:15	712	877	21%	789	10%	822	14%	801	12%	758	6%	860	19%	877	21%	883	21%	841	17%	878	21%	835	16%	830	15%		43	10
08:15 - 08:30	747	732	2%	737	1%	737	1%	723	3%	725	3%	843	12%	732	2%	739	1%	710	5%	735	2%	720	4%	738	1%		36	6
08:30 - 08:45	800	718	11%	685	15%	681	16%	692	14%	658	19%	684	16%	718	11%	704	13%	625	25%	660	19%	686	15%	684	16%		29	4
08:45 - 09:00	776	639	19%	658	16%	696	11%	661	16%	626	21%	681	13%	639	19%	654	17%	688	12%	693	11%	649	18%	669	15%		28	4
09:00 - 09:15	769	653	16%	644	18%	690	11%	658	16%	667	14%	665	15%	653	16%	664	15%	676	13%	661	15%	634	19%	662	15%		15	1
09:15 - 09:30	729	722	1%	713	2%	673	8%	694	5%	700	4%	711	3%	722	1%	667	9%	683	7%	644	12%	673	8%	689	6%		24	3
Hour 1	2,716	3,035	11%	3,040	11%	3,049	12%	3,079	13%	3,092	13%	3,067	12%	3,035	11%	2,997	10%	2,940	8%	3,127	14%	3,081	13%	3,050	12%		24	0
Hour 2	3,049	3,305	8%	3,473	13%	3,416	11%	3,439	12%	3,390	11%	3,408	11%	3,305	8%	3,361	10%	3,405	11%	3,349	9%	3,405	11%	3,386	10%		25	0
Hour 3	3,082	3,329	8%	3,185	3%	3,219	4%	3,214	4%	3,217	4%	3,360	9%	3,329	8%	3,326	8%	3,271	6%	3,328	8%	3,259	6%	3,268	6%		31	0
Hour 4	3,074	2,732	12%	2,700	13%	2,740	11%	2,705	13%	2,651	15%	2,741	11%	2,732	12%	2,689	13%	2,672	14%	2,658	15%	2,642	15%	2,704	13%		25	0
11	11,921	12,401	4%	12,398	4%	12,424	4%	12,437	4%	12,350	4%	12,576	5%	12,401	4%	12,373	4%	12,288	3%	12,462	4%	12,387	4%	12,408	4%		52	0



CONCEPT 2: +10% I-225

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

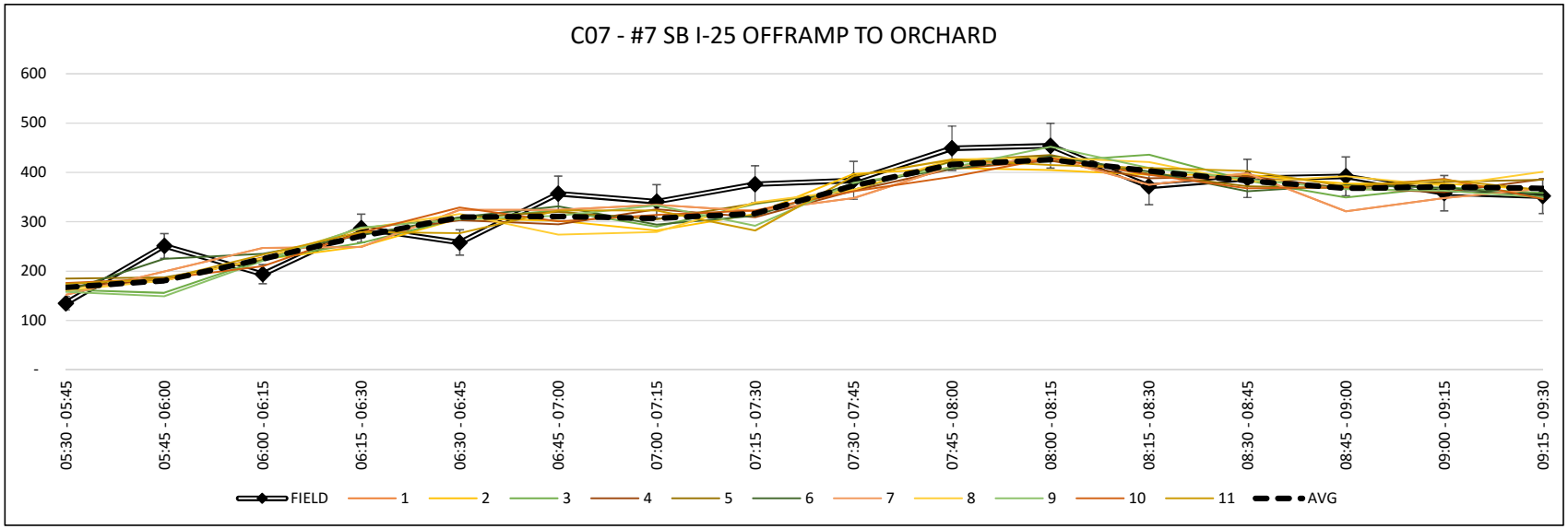
AM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C06	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	136	105	26%	123	10%	103	28%	103	28%	128	6%	122	11%	105	26%	101	30%	124	9%	100	31%	98	32%	112	19%		12	22
05:45 - 06:00	151	120	23%	140	8%	127	17%	135	11%	125	19%	135	11%	120	23%	144	5%	130	15%	127	17%	126	18%	131	14%		7	6
06:00 - 06:15	151	159	5%	174	14%	160	6%	142	6%	152	1%	161	6%	159	5%	164	8%	150	1%	179	17%	168	11%	159	5%		12	18
06:15 - 06:30	175	205	16%	185	6%	183	4%	185	6%	190	8%	203	15%	205	16%	187	7%	164	6%	182	4%	181	3%	186	6%		11	11
06:30 - 06:45	202	195	4%	156	26%	201	0%	179	12%	176	14%	178	13%	195	4%	194	4%	176	14%	173	15%	182	10%	181	11%		12	10
06:45 - 07:00	214	167	25%	177	19%	164	26%	180	17%	156	31%	161	28%	167	25%	153	33%	169	23%	168	24%	174	21%	169	23%		11	7
07:00 - 07:15	199	178	11%	199	0%	172	15%	179	11%	165	19%	186	7%	178	11%	152	27%	202	1%	163	20%	182	9%	177	12%		15	16
07:15 - 07:30	176	162	8%	195	10%	148	17%	190	8%	166	6%	180	2%	162	8%	181	3%	175	1%	188	7%	200	13%	176	0%		17	26
07:30 - 07:45	182	175	4%	207	13%	172	6%	193	6%	174	4%	181	1%	175	4%	188	3%	177	3%	191	5%	199	9%	184	1%		13	14
07:45 - 08:00	208	185	12%	186	11%	181	14%	166	22%	204	2%	209	0%	185	12%	219	5%	181	14%	210	1%	192	8%	195	6%		17	19
08:00 - 08:15	211	216	2%	186	13%	194	8%	216	2%	182	15%	185	13%	216	2%	207	2%	185	13%	218	3%	213	1%	200	5%		14	12
08:15 - 08:30	206	188	9%	201	2%	205	0%	197	4%	208	1%	196	5%	188	9%	211	2%	217	5%	176	16%	224	8%	202	2%		13	11
08:30 - 08:45	264	212	22%	248	6%	227	15%	246	7%	237	11%	262	1%	212	22%	226	16%	262	1%	241	9%	251	5%	242	9%		16	10
08:45 - 09:00	248	331	29%	358	36%	325	27%	325	27%	373	40%	308	22%	331	29%	354	35%	305	21%	374	41%	348	34%	340	31%		24	26
09:00 - 09:15	254	377	39%	369	37%	387	41%	371	37%	367	36%	349	32%	377	39%	367	36%	348	31%	336	28%	339	29%	359	34%		18	14
09:15 - 09:30	257	371	36%	315	20%	379	38%	356	32%	373	37%	389	41%	371	36%	345	29%	339	28%	364	34%	361	34%	359	33%		21	19
Hour 1	613	589	4%	622	1%	573	7%	565	8%	595	3%	621	1%	589	4%	596	3%	568	8%	588	4%	573	7%	588	4%		11	1
Hour 2	791	702	12%	727	8%	685	14%	728	8%	663	18%	705	11%	702	12%	680	15%	722	9%	692	13%	738	7%	703	12%		14	1
Hour 3	807	764	5%	780	3%	752	7%	772	4%	768	5%	771	5%	764	5%	825	2%	760	6%	795	1%	828	3%	781	3%		14	1
Hour 4	1,023	1,291	23%	1,290	23%	1,318	25%	1,298	24%	1,350	28%	1,308	24%	1,291	23%	1,292	23%	1,254	20%	1,315	25%	1,299	24%	1,300	24%		20	1
11	3,234	3,346	3%	3,419	6%	3,328	3%	3,363	4%	3,376	4%	3,405	5%	3,346	3%	3,393	5%	3,304	2%	3,390	5%	3,438	6%	3,372	4%		30	0



CONCEPT 2: +10% I-225

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

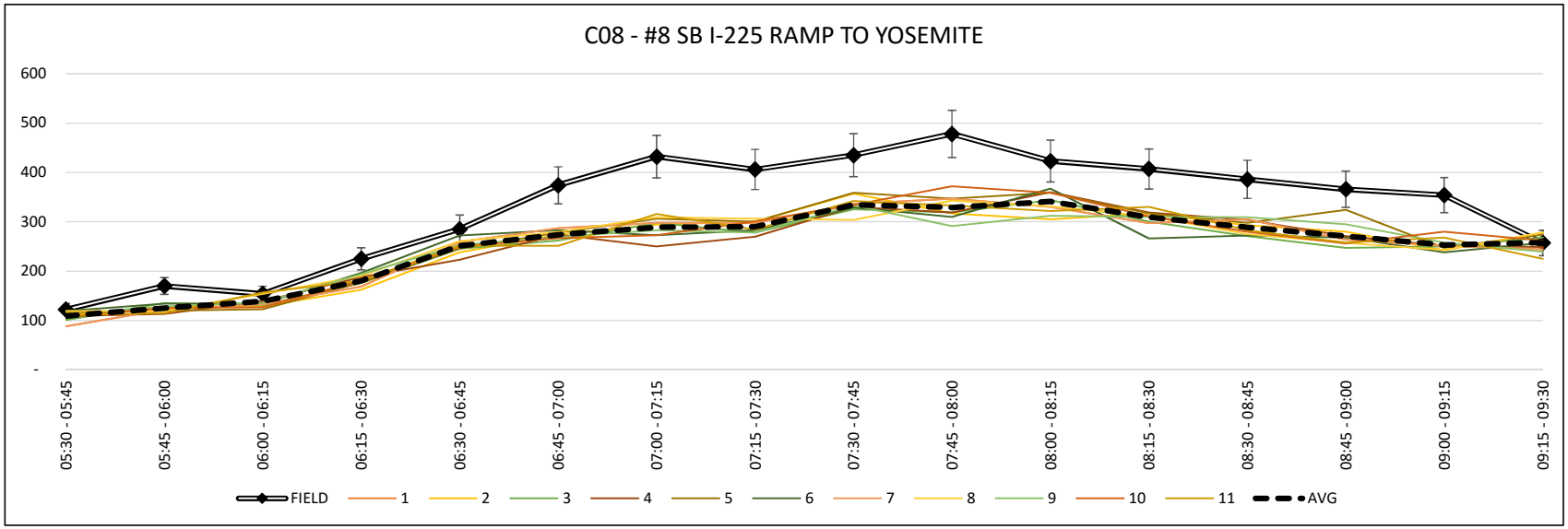
AM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C07	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	135	152	12%	166	21%	162	18%	169	22%	185	31%	160	17%	152	12%	161	18%	158	16%	176	26%	174	25%	167	21%		10	15
05:45 - 06:00	251	199	23%	185	30%	156	47%	181	32%	187	29%	225	11%	199	23%	181	32%	149	51%	185	30%	184	31%	181	32%		21	19
06:00 - 06:15	194	247	24%	224	14%	224	14%	228	16%	222	13%	235	19%	247	24%	227	16%	221	13%	210	8%	233	18%	225	15%		11	9
06:15 - 06:30	287	249	14%	250	14%	257	11%	275	4%	287	0%	273	5%	249	14%	286	0%	288	0%	278	3%	279	3%	271	6%		15	8
06:30 - 06:45	258	324	23%	307	17%	307	17%	303	16%	308	18%	309	18%	324	23%	316	20%	305	17%	329	24%	277	7%	309	18%		13	7
06:45 - 07:00	357	324	10%	302	17%	323	10%	295	19%	320	11%	331	8%	324	10%	274	26%	312	13%	301	17%	323	10%	311	14%		17	6
07:00 - 07:15	341	334	2%	282	19%	290	16%	325	5%	305	11%	294	15%	334	2%	279	20%	333	2%	314	8%	323	5%	307	10%		20	10
07:15 - 07:30	376	322	15%	316	17%	336	11%	309	20%	337	11%	312	19%	322	15%	339	10%	292	25%	323	15%	282	29%	317	17%		18	6
07:30 - 07:45	384	348	10%	397	3%	364	5%	363	6%	365	5%	378	2%	348	10%	365	5%	379	1%	362	6%	393	2%	373	3%		15	4
07:45 - 08:00	449	412	9%	409	9%	422	6%	407	10%	423	6%	407	10%	412	9%	426	5%	410	9%	391	14%	426	5%	416	8%		14	3
08:00 - 08:15	454	430	5%	405	11%	422	7%	424	7%	435	4%	433	5%	430	5%	430	5%	452	0%	429	6%	415	9%	426	6%		13	2
08:15 - 08:30	372	375	1%	395	6%	436	16%	388	4%	397	7%	402	8%	375	1%	421	12%	409	9%	395	6%	409	9%	403	8%		16	5
08:30 - 08:45	388	398	3%	395	2%	383	1%	392	1%	372	4%	362	7%	398	3%	381	2%	386	1%	368	5%	403	4%	383	1%		13	3
08:45 - 09:00	392	321	20%	377	4%	349	12%	368	6%	368	6%	374	5%	321	20%	392	0%	366	7%	370	6%	372	5%	368	6%		19	7
09:00 - 09:15	358	348	3%	377	5%	370	3%	360	1%	381	6%	369	3%	348	3%	373	4%	363	1%	387	8%	385	7%	371	4%		11	3
09:15 - 09:30	352	367	4%	365	4%	358	2%	386	9%	385	9%	352	0%	367	4%	401	13%	349	1%	346	2%	364	3%	368	4%		17	6
Hour 1	867	847	2%	825	5%	799	8%	853	2%	881	2%	893	3%	847	2%	855	1%	816	6%	849	2%	870	0%	844	3%		15	1
Hour 2	1,332	1,304	2%	1,207	10%	1,256	6%	1,232	8%	1,270	5%	1,246	7%	1,304	2%	1,208	10%	1,242	7%	1,267	5%	1,205	10%	1,244	7%		17	0
Hour 3	1,659	1,565	6%	1,606	3%	1,644	1%	1,582	5%	1,620	2%	1,620	2%	1,565	6%	1,642	1%	1,650	1%	1,577	5%	1,643	1%	1,618	3%		15	0
Hour 4	1,490	1,434	4%	1,514	2%	1,460	2%	1,506	1%	1,506	1%	1,457	2%	1,434	4%	1,547	4%	1,464	2%	1,471	1%	1,524	2%	1,490	0%		15	0
11	5,348	5,150	4%	5,152	4%	5,159	4%	5,173	3%	5,277	1%	5,216	2%	5,150	4%	5,252	2%	5,172	3%	5,164	4%	5,242	2%	5,196	3%		31	0



CONCEPT 2: +10% I-225

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

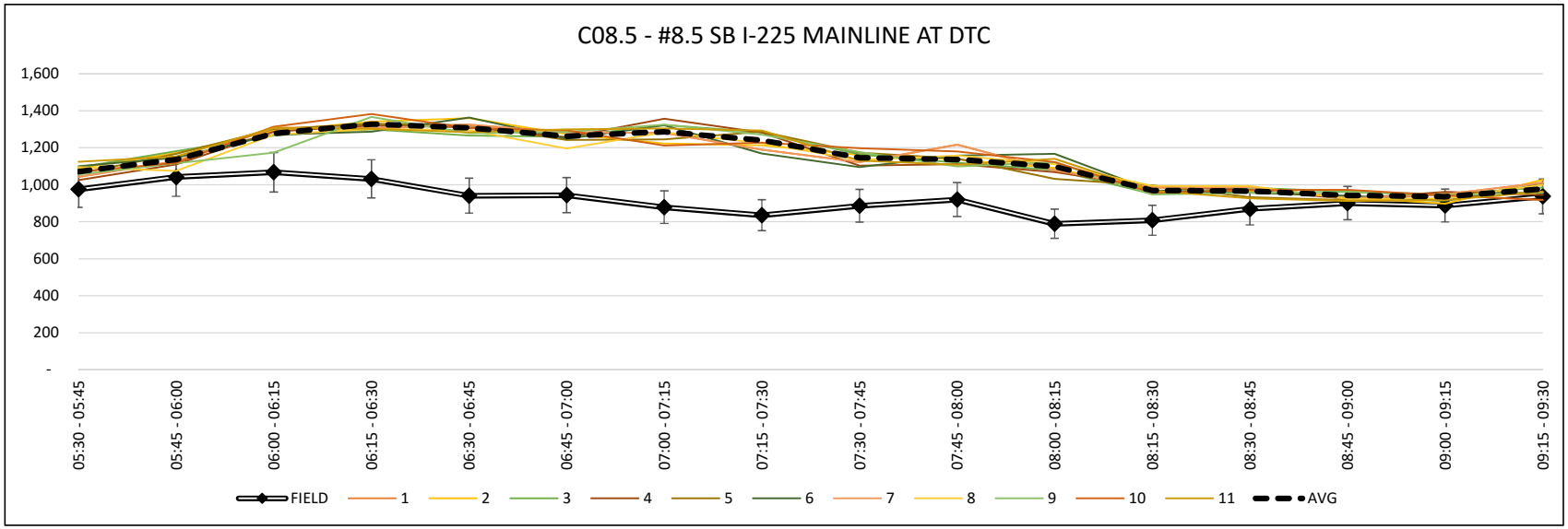
AM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C08	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	122	88	32%	110	10%	101	19%	109	11%	116	5%	119	2%	88	32%	119	2%	106	14%	107	13%	111	9%	109	11%		9	15
05:45 - 06:00	170	122	33%	128	28%	135	23%	113	40%	120	34%	134	24%	122	33%	119	35%	129	27%	125	31%	115	39%	125	31%		7	5
06:00 - 06:15	154	133	15%	129	18%	132	15%	139	10%	123	22%	134	14%	133	15%	154	0%	136	12%	127	19%	157	2%	139	10%		13	20
06:15 - 06:30	225	169	28%	162	33%	176	24%	188	18%	177	24%	196	14%	169	28%	190	17%	194	15%	181	22%	181	22%	180	22%		11	7
06:30 - 06:45	285	259	10%	238	18%	245	15%	223	24%	246	15%	272	5%	259	10%	261	9%	253	12%	250	13%	252	12%	251	13%		14	7
06:45 - 07:00	374	287	26%	274	31%	262	35%	274	31%	278	29%	283	28%	287	26%	279	29%	269	33%	267	33%	251	39%	274	31%		11	2
07:00 - 07:15	432	298	37%	294	38%	298	37%	250	53%	306	34%	273	45%	298	37%	309	33%	283	42%	273	45%	316	31%	289	40%		19	5
07:15 - 07:30	406	298	31%	300	30%	278	37%	270	40%	300	30%	283	36%	298	31%	306	28%	278	37%	301	30%	284	35%	290	33%		12	2
07:30 - 07:45	435	336	26%	357	20%	325	29%	330	27%	359	19%	329	28%	336	26%	304	35%	333	27%	334	26%	342	24%	334	26%		15	3
07:45 - 08:00	478	347	32%	317	41%	319	40%	319	40%	347	32%	310	43%	347	32%	343	33%	291	49%	372	25%	333	36%	329	37%		22	6
08:00 - 08:15	423	330	25%	305	32%	344	21%	360	16%	359	16%	367	14%	330	25%	331	24%	312	30%	359	16%	322	27%	341	21%		22	8
08:15 - 08:30	407	297	31%	317	25%	300	30%	319	24%	317	25%	266	42%	297	31%	311	27%	310	27%	311	27%	330	21%	309	27%		17	5
08:30 - 08:45	386	305	23%	293	27%	271	35%	304	24%	298	26%	272	35%	305	23%	275	34%	309	22%	280	32%	283	31%	289	29%		14	4
08:45 - 09:00	366	264	32%	280	27%	247	39%	271	30%	324	12%	268	31%	264	32%	257	35%	295	21%	256	35%	258	35%	271	30%		22	10
09:00 - 09:15	354	251	34%	242	38%	250	34%	251	34%	247	36%	238	39%	251	34%	243	37%	258	31%	280	23%	268	28%	253	33%		12	3
09:15 - 09:30	257	244	5%	278	8%	268	4%	249	3%	274	6%	257	0%	244	5%	278	8%	239	7%	262	2%	225	13%	258	0%		17	12
Hour 1	671	512	27%	529	24%	544	21%	549	20%	536	22%	583	14%	512	27%	582	14%	565	17%	540	22%	564	17%	553	19%		10	1
Hour 2	1,497	1,142	27%	1,106	30%	1,083	32%	1,017	38%	1,130	28%	1,111	30%	1,142	27%	1,155	26%	1,083	32%	1,091	31%	1,103	30%	1,104	30%		14	0
Hour 3	1,743	1,310	28%	1,296	29%	1,288	30%	1,328	27%	1,382	23%	1,272	31%	1,310	28%	1,289	30%	1,246	33%	1,376	24%	1,327	27%	1,313	28%		19	0
Hour 4	1,363	1,064	25%	1,093	22%	1,036	27%	1,075	24%	1,143	18%	1,035	27%	1,064	25%	1,053	26%	1,101	21%	1,078	23%	1,034	27%	1,071	24%		17	0
11	5,274	4,028	27%	4,024	27%	3,951	29%	3,969	28%	4,191	23%	4,001	27%	4,028	27%	4,079	26%	3,995	28%	4,085	25%	4,028	27%	4,041	26%		31	0



CONCEPT 2: +10% I-225

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

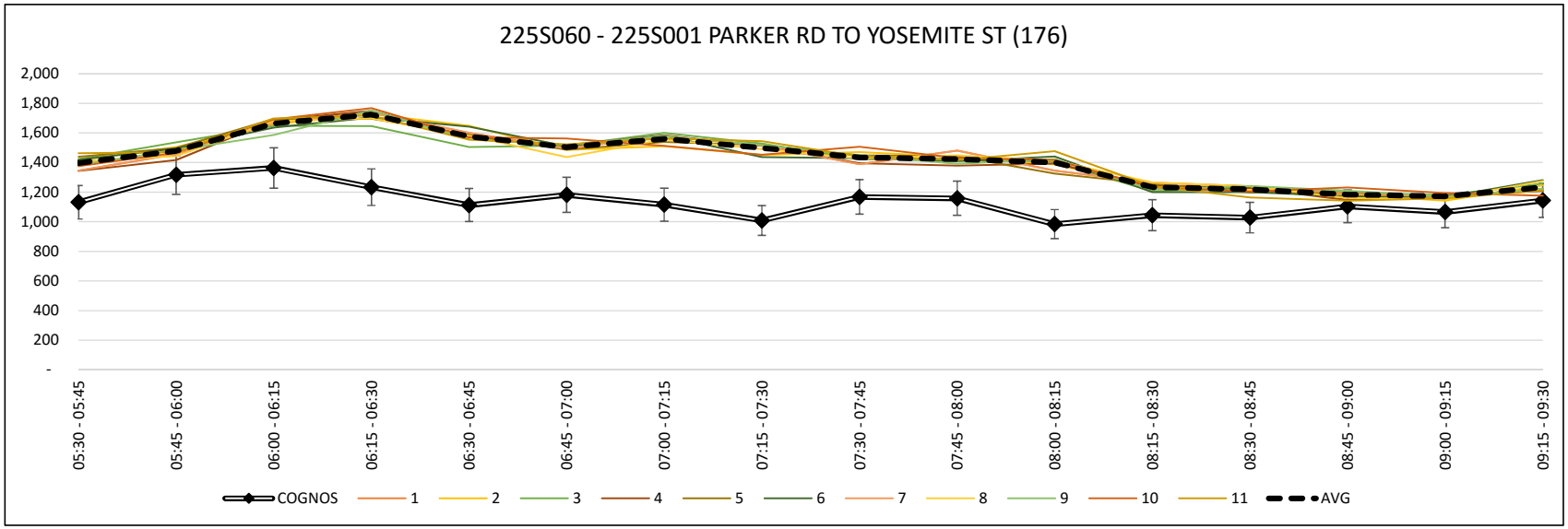
AM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C08.5	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	976	1,043	7%	1,089	11%	1,094	11%	1,025	5%	1,060	8%	1,100	12%	1,043	7%	1,095	11%	1,056	8%	1,071	9%	1,124	14%	1,071	9%		33	3
05:45 - 06:00	1,042	1,127	8%	1,171	12%	1,181	13%	1,110	6%	1,167	11%	1,146	10%	1,127	8%	1,075	3%	1,116	7%	1,117	7%	1,152	10%	1,137	9%		31	2
06:00 - 06:15	1,068	1,308	20%	1,291	19%	1,265	17%	1,287	19%	1,301	20%	1,271	17%	1,308	20%	1,270	17%	1,174	9%	1,313	21%	1,308	20%	1,277	18%		39	4
06:15 - 06:30	1,032	1,305	23%	1,340	26%	1,300	23%	1,320	24%	1,329	25%	1,286	22%	1,305	23%	1,302	23%	1,366	28%	1,382	29%	1,303	23%	1,328	25%		34	3
06:30 - 06:45	941	1,324	34%	1,360	36%	1,266	29%	1,311	33%	1,321	34%	1,363	37%	1,324	34%	1,294	32%	1,278	30%	1,305	32%	1,284	31%	1,308	33%		32	3
06:45 - 07:00	944	1,283	30%	1,273	30%	1,259	29%	1,256	28%	1,242	27%	1,249	28%	1,283	30%	1,196	24%	1,285	31%	1,295	31%	1,299	32%	1,262	29%		30	3
07:00 - 07:15	879	1,280	37%	1,223	33%	1,323	40%	1,357	43%	1,245	34%	1,321	40%	1,280	37%	1,284	37%	1,324	40%	1,211	32%	1,304	39%	1,287	38%		46	8
07:15 - 07:30	836	1,189	35%	1,213	37%	1,283	42%	1,282	42%	1,286	42%	1,168	33%	1,189	35%	1,225	38%	1,271	41%	1,227	38%	1,293	43%	1,241	39%		44	8
07:30 - 07:45	887	1,122	23%	1,160	27%	1,164	27%	1,104	22%	1,174	28%	1,095	21%	1,122	23%	1,134	24%	1,176	28%	1,198	30%	1,130	24%	1,147	26%		32	4
07:45 - 08:00	920	1,216	28%	1,136	21%	1,119	20%	1,111	19%	1,141	21%	1,158	23%	1,216	28%	1,157	23%	1,099	18%	1,180	25%	1,108	19%	1,137	21%		39	5
08:00 - 08:15	789	1,077	31%	1,090	32%	1,079	31%	1,068	30%	1,032	27%	1,167	39%	1,077	31%	1,112	34%	1,122	35%	1,123	35%	1,140	36%	1,099	33%		38	6
08:15 - 08:30	808	983	20%	964	18%	951	16%	988	20%	996	21%	969	18%	983	20%	993	21%	947	16%	957	17%	968	18%	970	18%		18	1
08:30 - 08:45	870	987	13%	963	10%	983	12%	973	11%	933	7%	956	9%	987	13%	993	13%	957	10%	971	11%	927	6%	967	11%		23	2
08:45 - 09:00	901	926	3%	933	3%	963	7%	923	2%	917	2%	940	4%	926	3%	923	2%	960	6%	972	8%	913	1%	942	4%		26	2
09:00 - 09:15	888	949	7%	898	1%	948	7%	962	8%	951	7%	913	3%	949	7%	926	4%	944	6%	942	6%	917	3%	936	5%		20	1
09:15 - 09:30	937	1,011	8%	1,026	9%	986	5%	945	1%	959	2%	1,005	7%	1,011	8%	1,000	7%	956	2%	918	2%	963	3%	978	4%		32	3
Hour 1	4,118	4,783	15%	4,891	17%	4,840	16%	4,742	14%	4,857	16%	4,803	15%	4,783	15%	4,742	14%	4,712	13%	4,883	17%	4,887	17%	4,813	16%		34	0
Hour 2	3,600	5,076	34%	5,069	34%	5,131	35%	5,206	36%	5,094	34%	5,101	35%	5,076	34%	4,999	33%	5,158	36%	5,038	33%	5,180	36%	5,098	34%		39	0
Hour 3	3,404	4,398	25%	4,350	24%	4,313	24%	4,271	23%	4,343	24%	4,389	25%	4,398	25%	4,396	25%	4,344	24%	4,458	27%	4,346	24%	4,353	24%		33	0
Hour 4	3,596	3,873	7%	3,820	6%	3,880	8%	3,803	6%	3,760	4%	3,814	6%	3,873	7%	3,842	7%	3,817	6%	3,803	6%	3,720	3%	3,823	6%		26	0
11	14,718	18,130	21%	18,130	21%	18,164	21%	18,022	20%	18,054	20%	18,107	21%	18,130	21%	17,979	20%	18,031	20%	18,182	21%	18,133	21%	18,087	21%		66	0



CONCEPT 2: +10% I-225

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

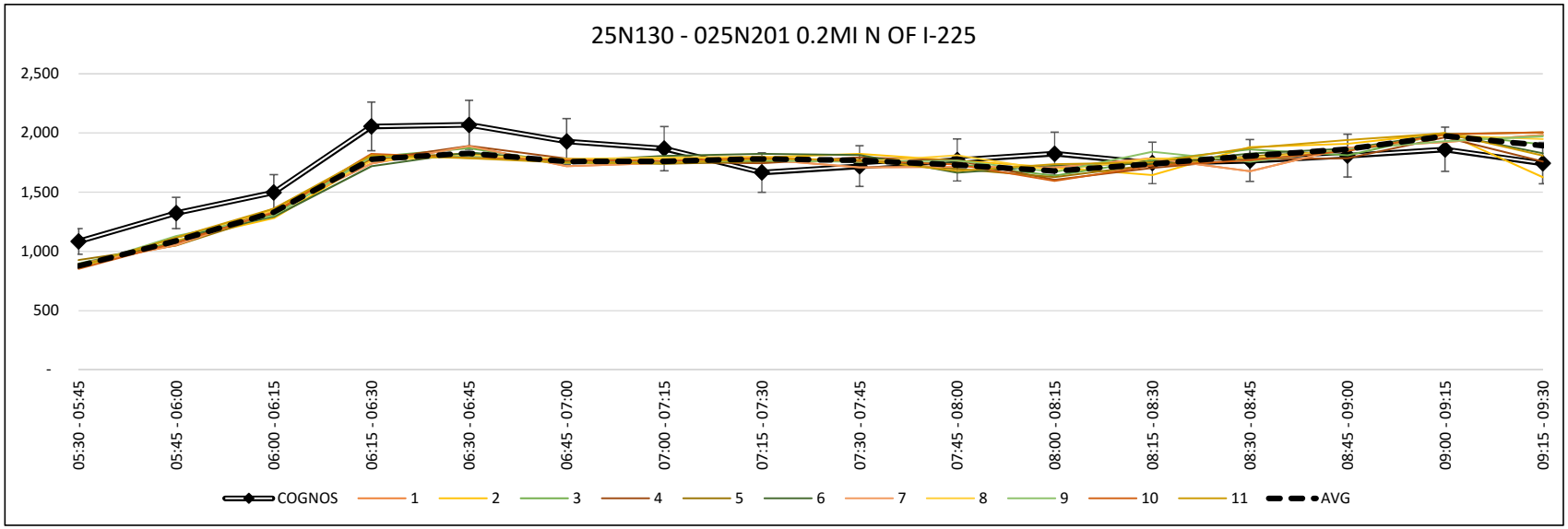
AM	COGNOS	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	225S060	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	1,132	1,346	17%	1,416	22%	1,423	23%	1,344	17%	1,438	24%	1,418	22%	1,346	17%	1,408	22%	1,385	20%	1,375	19%	1,462	25%	1,398	21%		39	3
05:45 - 06:00	1,317	1,456	10%	1,505	13%	1,536	15%	1,417	7%	1,498	13%	1,494	13%	1,456	10%	1,443	9%	1,482	12%	1,467	11%	1,470	11%	1,478	12%		32	2
06:00 - 06:15	1,364	1,668	20%	1,657	19%	1,648	19%	1,685	21%	1,693	22%	1,637	18%	1,668	20%	1,680	21%	1,587	15%	1,691	21%	1,697	22%	1,664	20%		32	2
06:15 - 06:30	1,234	1,737	34%	1,728	33%	1,645	29%	1,749	35%	1,696	32%	1,705	32%	1,737	34%	1,698	32%	1,751	35%	1,768	36%	1,718	33%	1,724	33%		36	2
06:30 - 06:45	1,113	1,600	36%	1,647	39%	1,505	30%	1,571	34%	1,588	35%	1,642	38%	1,600	36%	1,580	35%	1,556	33%	1,570	34%	1,555	33%	1,576	34%		43	4
06:45 - 07:00	1,182	1,494	23%	1,484	23%	1,514	25%	1,516	25%	1,487	23%	1,510	24%	1,494	23%	1,437	19%	1,520	25%	1,562	28%	1,523	25%	1,505	24%		31	2
07:00 - 07:15	1,116	1,578	34%	1,511	30%	1,601	36%	1,585	35%	1,538	32%	1,583	35%	1,578	34%	1,556	33%	1,578	34%	1,512	30%	1,563	33%	1,560	33%		30	2
07:15 - 07:30	1,009	1,515	40%	1,451	36%	1,528	41%	1,512	40%	1,518	40%	1,436	35%	1,515	40%	1,491	39%	1,519	40%	1,452	36%	1,544	42%	1,499	39%		36	4
07:30 - 07:45	1,168	1,389	17%	1,470	23%	1,421	20%	1,396	18%	1,449	21%	1,428	20%	1,389	17%	1,426	20%	1,448	21%	1,506	25%	1,440	21%	1,434	20%		35	2
07:45 - 08:00	1,159	1,481	24%	1,438	21%	1,427	21%	1,380	17%	1,442	22%	1,408	19%	1,481	24%	1,448	22%	1,392	18%	1,431	21%	1,417	20%	1,423	20%		30	2
08:00 - 08:15	984	1,345	31%	1,387	34%	1,402	35%	1,394	34%	1,326	30%	1,440	38%	1,345	31%	1,413	36%	1,422	36%	1,417	36%	1,477	40%	1,400	35%		42	5
08:15 - 08:30	1,045	1,263	19%	1,240	17%	1,205	14%	1,245	17%	1,256	18%	1,199	14%	1,263	19%	1,265	19%	1,215	15%	1,232	16%	1,239	17%	1,233	17%		24	1
08:30 - 08:45	1,028	1,240	19%	1,214	17%	1,227	18%	1,228	18%	1,197	15%	1,200	15%	1,240	19%	1,239	19%	1,242	19%	1,203	16%	1,164	12%	1,219	17%		26	2
08:45 - 09:00	1,105	1,190	7%	1,184	7%	1,199	8%	1,147	4%	1,194	8%	1,172	6%	1,190	7%	1,161	5%	1,210	9%	1,231	11%	1,142	3%	1,184	7%		27	2
09:00 - 09:15	1,067	1,170	9%	1,143	7%	1,179	10%	1,175	10%	1,172	9%	1,166	9%	1,170	9%	1,155	8%	1,170	9%	1,193	11%	1,159	8%	1,172	9%		19	1
09:15 - 09:30	1,144	1,222	7%	1,245	8%	1,257	9%	1,207	5%	1,221	7%	1,281	11%	1,222	7%	1,276	11%	1,224	7%	1,176	3%	1,211	6%	1,234	8%		32	2
Hour 1	5,047	6,207	21%	6,306	22%	6,252	21%	6,195	20%	6,325	22%	6,254	21%	6,207	21%	6,229	21%	6,205	21%	6,301	22%	6,347	23%	6,264	22%		35	0
Hour 2	4,420	6,187	33%	6,093	32%	6,148	33%	6,184	33%	6,131	32%	6,171	33%	6,187	33%	6,064	31%	6,173	33%	6,096	32%	6,185	33%	6,140	33%		35	0
Hour 3	4,356	5,478	23%	5,535	24%	5,455	22%	5,415	22%	5,473	23%	5,475	23%	5,478	23%	5,552	24%	5,477	23%	5,586	25%	5,573	25%	5,490	23%		33	0
Hour 4	4,344	4,822	10%	4,786	10%	4,862	11%	4,757	9%	4,784	10%	4,819	10%	4,822	10%	4,831	11%	4,846	11%	4,803	10%	4,676	7%	4,809	10%		26	0
11	18,167	22,694	22%	22,720	22%	22,717	22%	22,551	22%	22,713	22%	22,719	22%	22,694	22%	22,676	22%	22,701	22%	22,786	23%	22,781	23%	22,703	22%		65	0



CONCEPT 2: +10% I-225

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

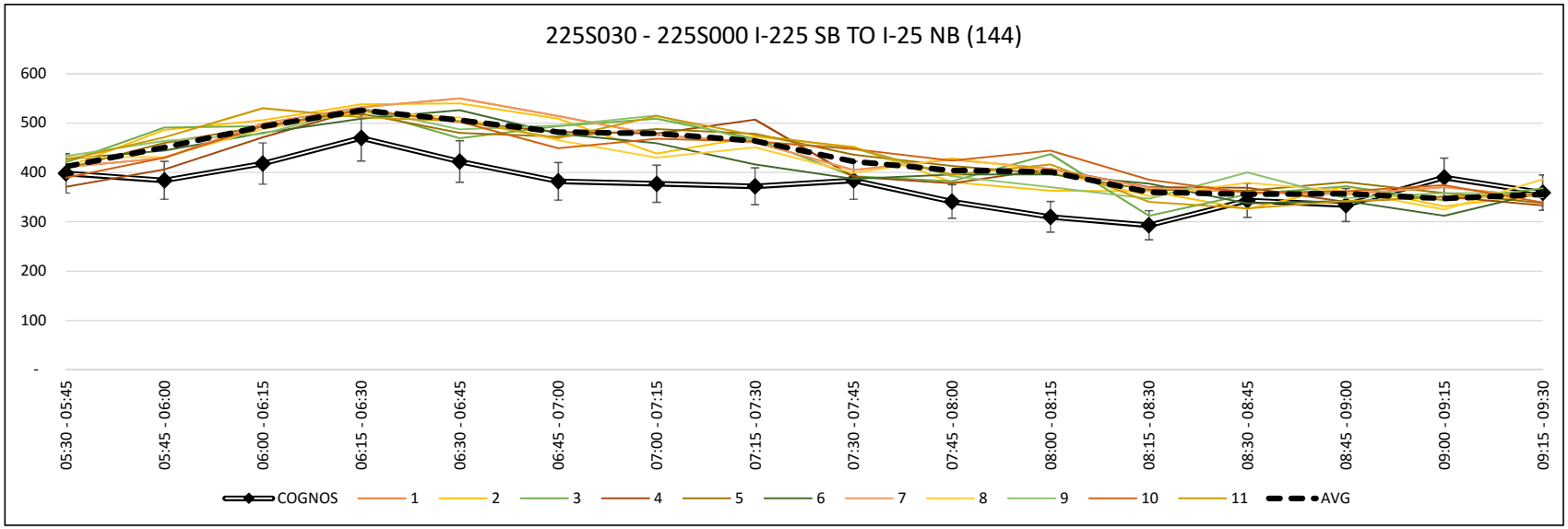
AM	COGNOS	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	25N130	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	1,084	892	19%	864	23%	898	19%	890	20%	927	16%	870	22%	892	19%	871	22%	869	22%	853	24%	873	22%	877	21%		23	1
05:45 - 06:00	1,324	1,052	23%	1,091	19%	1,078	20%	1,069	21%	1,048	23%	1,117	17%	1,052	23%	1,116	17%	1,130	16%	1,075	21%	1,116	17%	1,088	20%		28	1
06:00 - 06:15	1,498	1,344	11%	1,280	16%	1,347	11%	1,361	10%	1,315	13%	1,294	15%	1,344	11%	1,348	11%	1,303	14%	1,327	12%	1,360	10%	1,330	12%		28	1
06:15 - 06:30	2,055	1,742	16%	1,774	15%	1,797	13%	1,770	15%	1,788	14%	1,719	18%	1,742	16%	1,763	15%	1,799	13%	1,823	12%	1,810	13%	1,779	14%		30	1
06:30 - 06:45	2,069	1,888	9%	1,825	13%	1,870	10%	1,891	9%	1,825	13%	1,836	12%	1,888	9%	1,810	13%	1,802	14%	1,788	15%	1,785	15%	1,829	12%		38	1
06:45 - 07:00	1,928	1,719	11%	1,752	10%	1,746	10%	1,783	8%	1,770	9%	1,760	9%	1,719	11%	1,782	8%	1,747	10%	1,770	9%	1,749	10%	1,759	9%		19	0
07:00 - 07:15	1,868	1,747	7%	1,784	5%	1,742	7%	1,754	6%	1,738	7%	1,806	3%	1,747	7%	1,792	4%	1,753	6%	1,764	6%	1,745	7%	1,760	6%		24	0
07:15 - 07:30	1,666	1,775	6%	1,793	7%	1,766	6%	1,745	5%	1,758	5%	1,823	9%	1,775	6%	1,802	8%	1,765	6%	1,788	7%	1,782	7%	1,781	7%		22	0
07:30 - 07:45	1,720	1,709	1%	1,823	6%	1,759	2%	1,793	4%	1,766	3%	1,813	5%	1,709	1%	1,757	2%	1,756	2%	1,764	3%	1,773	3%	1,768	3%		32	1
07:45 - 08:00	1,772	1,715	3%	1,765	0%	1,738	2%	1,765	0%	1,697	4%	1,664	6%	1,715	3%	1,812	2%	1,765	0%	1,734	2%	1,679	5%	1,729	2%		45	2
08:00 - 08:15	1,825	1,709	7%	1,708	7%	1,638	11%	1,604	13%	1,626	12%	1,723	6%	1,709	7%	1,682	8%	1,670	9%	1,595	13%	1,737	5%	1,679	8%		58	3
08:15 - 08:30	1,747	1,785	2%	1,644	6%	1,769	1%	1,705	2%	1,731	1%	1,742	0%	1,785	2%	1,784	2%	1,840	5%	1,725	1%	1,750	0%	1,740	0%		55	3
08:30 - 08:45	1,767	1,676	5%	1,880	6%	1,861	5%	1,778	1%	1,803	2%	1,825	3%	1,676	5%	1,789	1%	1,757	1%	1,769	0%	1,872	6%	1,806	2%		61	3
08:45 - 09:00	1,809	1,875	4%	1,908	5%	1,811	0%	1,786	1%	1,850	2%	1,868	3%	1,875	4%	1,856	3%	1,860	3%	1,849	2%	1,940	7%	1,863	3%		43	2
09:00 - 09:15	1,862	1,922	3%	1,999	7%	1,996	7%	1,963	5%	1,989	7%	1,992	7%	1,922	3%	1,980	6%	1,931	4%	1,988	7%	1,997	7%	1,974	6%		27	1
09:15 - 09:30	1,745	1,983	13%	1,627	7%	1,902	9%	1,758	1%	2,004	14%	1,829	5%	1,983	13%	1,948	11%	1,972	12%	2,005	14%	1,809	4%	1,892	8%		122	14
Hour 1	5,961	5,030	17%	5,009	17%	5,120	15%	5,090	16%	5,078	16%	5,000	18%	5,030	17%	5,098	16%	5,101	16%	5,078	16%	5,159	14%	5,074	16%		27	0
Hour 2	7,531	7,129	5%	7,154	5%	7,124	6%	7,173	5%	7,091	6%	7,225	4%	7,129	5%	7,186	5%	7,067	6%	7,110	6%	7,061	6%	7,129	5%		27	0
Hour 3	7,064	6,918	2%	6,940	2%	6,904	2%	6,867	3%	6,820	4%	6,942	2%	6,918	2%	7,035	0%	7,031	0%	6,818	4%	6,939	2%	6,916	2%		49	0
Hour 4	7,183	7,456	4%	7,414	3%	7,570	5%	7,285	1%	7,646	6%	7,514	5%	7,456	4%	7,573	5%	7,520	5%	7,611	6%	7,618	6%	7,535	5%		73	0
11	27,739	26,533	4%	26,517	5%	26,718	4%	26,415	5%	26,635	4%	26,681	4%	26,533	4%	26,892	3%	26,719	4%	26,617	4%	26,777	4%	26,654	4%		96	0



CONCEPT 2: +10% I-225

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

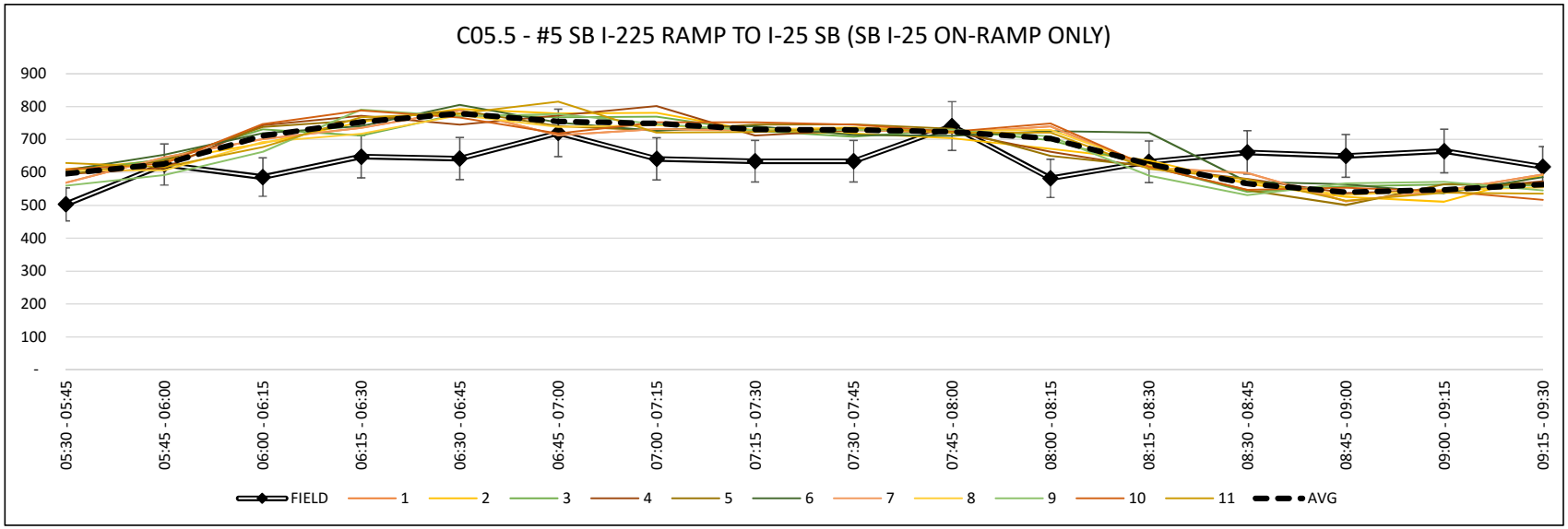
AM	COGNOS	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	225S030	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	398	411	3%	410	3%	420	5%	371	7%	408	2%	427	7%	411	3%	431	8%	433	8%	389	2%	425	7%	412	3%		33	19
05:45 - 06:00	384	429	11%	486	23%	491	24%	406	6%	460	18%	444	14%	429	11%	431	12%	464	19%	430	11%	471	20%	451	16%		36	24
06:00 - 06:15	418	499	18%	506	19%	494	17%	471	12%	493	16%	480	14%	499	18%	488	15%	478	13%	494	17%	530	24%	493	16%		31	15
06:15 - 06:30	470	532	12%	538	13%	527	11%	528	12%	519	10%	509	8%	532	12%	524	11%	530	12%	526	11%	512	9%	526	11%		31	12
06:30 - 06:45	422	550	26%	540	25%	469	11%	503	18%	480	13%	526	22%	550	26%	511	19%	487	14%	503	18%	504	18%	506	18%		37	21
06:45 - 07:00	382	514	29%	509	29%	494	26%	482	23%	472	21%	478	22%	514	29%	465	20%	495	26%	449	16%	469	20%	482	23%		33	21
07:00 - 07:15	377	476	23%	438	15%	509	30%	479	24%	488	26%	459	20%	476	23%	430	13%	515	31%	468	22%	514	31%	479	24%		53	55
07:15 - 07:30	372	461	21%	472	24%	468	23%	507	31%	478	25%	416	11%	461	21%	451	19%	463	22%	463	22%	475	24%	464	22%		29	17
07:30 - 07:45	384	405	5%	452	16%	392	2%	391	2%	436	13%	387	1%	405	5%	399	4%	449	16%	447	15%	450	16%	422	9%		38	27
07:45 - 08:00	341	426	22%	380	11%	382	11%	378	10%	413	19%	396	15%	426	22%	429	23%	392	14%	424	22%	395	15%	404	17%		34	28
08:00 - 08:15	310	407	27%	363	16%	437	34%	407	27%	397	25%	396	24%	407	27%	402	26%	370	18%	444	36%	416	29%	401	26%		57	94
08:15 - 08:30	293	369	23%	362	21%	312	6%	370	23%	365	22%	377	25%	369	23%	352	18%	347	17%	385	27%	340	15%	360	21%		36	42
08:30 - 08:45	343	360	5%	326	5%	356	4%	369	7%	363	6%	337	2%	360	5%	379	10%	400	15%	359	5%	327	5%	356	4%		24	14
08:45 - 09:00	334	356	6%	372	11%	372	11%	340	2%	380	13%	342	2%	356	6%	362	8%	348	4%	362	8%	342	2%	357	7%		27	18
09:00 - 09:15	390	370	5%	331	16%	343	13%	351	11%	358	9%	312	22%	370	5%	325	18%	358	9%	374	4%	349	11%	347	12%		23	10
09:15 - 09:30	359	350	3%	355	1%	368	2%	333	8%	338	6%	360	0%	350	3%	386	7%	357	1%	339	6%	358	0%	356	1%		29	18
Hour 1	1,670	1,871	11%	1,940	15%	1,932	15%	1,776	6%	1,880	12%	1,860	11%	1,871	11%	1,874	12%	1,905	13%	1,839	10%	1,938	15%	1,882	12%		33	1
Hour 2	1,553	2,001	25%	1,959	23%	1,940	22%	1,971	24%	1,918	21%	1,879	19%	2,001	25%	1,857	18%	1,960	23%	1,883	19%	1,962	23%	1,931	22%		39	2
Hour 3	1,328	1,607	19%	1,557	16%	1,523	14%	1,546	15%	1,611	19%	1,556	16%	1,607	19%	1,582	17%	1,558	16%	1,700	25%	1,601	19%	1,587	18%		42	3
Hour 4	1,426	1,436	1%	1,384	3%	1,439	1%	1,393	2%	1,439	1%	1,351	5%	1,436	1%	1,452	2%	1,463	3%	1,434	1%	1,376	4%	1,416	1%		26	1
11	5,977	6,915	15%	6,840	13%	6,834	13%	6,686	11%	6,848	14%	6,646	11%	6,915	15%	6,765	12%	6,886	14%	6,856	14%	6,877	14%	6,816	13%		71	0



CONCEPT 2: +10% I-225

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

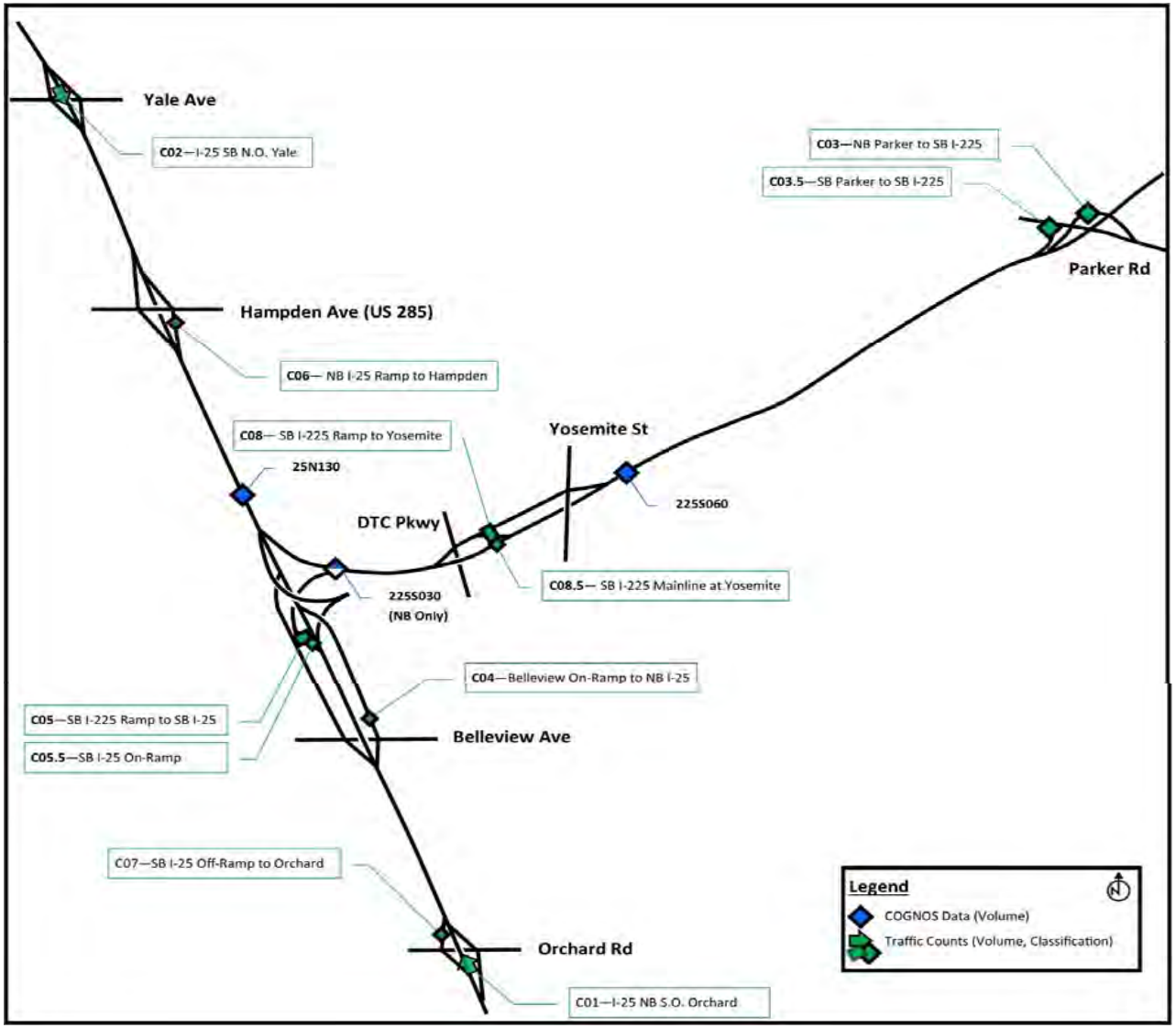
AM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C05.5	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	503	569	12%	610	19%	601	18%	595	17%	593	16%	606	19%	569	12%	607	19%	560	11%	609	19%	629	22%	596	17%		-	0
05:45 - 06:00	624	646	3%	637	2%	640	3%	613	2%	636	2%	654	5%	646	3%	606	3%	592	5%	627	0%	616	1%	626	0%		-	0
06:00 - 06:15	586	701	18%	689	16%	731	22%	743	24%	738	23%	719	20%	701	18%	692	17%	663	12%	747	24%	677	14%	711	19%		-	0
06:15 - 06:30	648	735	13%	753	15%	712	9%	772	17%	759	16%	741	13%	735	13%	717	10%	791	20%	788	19%	768	17%	753	15%		-	0
06:30 - 06:45	642	788	20%	793	21%	778	19%	745	15%	788	20%	805	23%	788	20%	774	19%	770	18%	767	18%	779	19%	779	19%		-	0
06:45 - 07:00	720	713	1%	779	8%	768	6%	773	7%	741	3%	751	4%	713	1%	738	2%	777	8%	718	0%	815	12%	755	5%		-	0
07:00 - 07:15	641	732	13%	781	20%	769	18%	802	22%	727	13%	726	12%	732	13%	743	15%	747	15%	752	16%	721	12%	749	16%		-	0
07:15 - 07:30	634	727	14%	726	14%	726	14%	712	12%	745	16%	741	16%	727	14%	730	14%	727	14%	752	17%	723	13%	731	14%		-	0
07:30 - 07:45	634	730	14%	718	12%	708	11%	728	14%	746	16%	714	12%	730	14%	737	15%	729	14%	745	16%	735	15%	729	14%		-	0
07:45 - 08:00	741	720	3%	704	5%	729	2%	724	2%	733	1%	711	4%	720	3%	726	2%	730	1%	724	2%	721	3%	724	2%		-	0
08:00 - 08:15	582	740	24%	672	14%	698	18%	663	13%	650	11%	725	22%	740	24%	729	22%	709	20%	749	25%	721	21%	703	19%		-	0
08:15 - 08:30	632	614	3%	637	1%	620	2%	615	3%	619	2%	721	13%	614	3%	622	2%	590	7%	617	2%	611	3%	625	1%		-	0
08:30 - 08:45	661	598	10%	565	16%	541	20%	580	13%	546	19%	571	15%	598	10%	570	15%	531	22%	547	19%	579	13%	566	15%		-	0
08:45 - 09:00	650	512	24%	526	21%	558	15%	537	19%	501	26%	564	14%	512	24%	531	20%	567	14%	553	16%	514	23%	540	18%		-	0
09:00 - 09:15	665	544	20%	511	26%	563	17%	545	20%	564	16%	537	21%	544	20%	547	19%	571	15%	543	20%	538	21%	547	19%		-	0
09:15 - 09:30	617	594	4%	593	4%	560	10%	573	7%	565	9%	586	5%	594	4%	554	11%	545	12%	517	18%	535	14%	563	9%		-	0
Hour 1	2,361	2,651	12%	2,689	13%	2,684	13%	2,723	14%	2,726	14%	2,720	14%	2,651	12%	2,622	10%	2,606	10%	2,771	16%	2,690	13%	2,686	13%		-	0
Hour 2	2,637	2,960	12%	3,079	15%	3,041	14%	3,032	14%	3,001	13%	3,023	14%	2,960	12%	2,985	12%	3,021	14%	2,989	13%	3,038	14%	3,014	13%		-	0
Hour 3	2,589	2,804	8%	2,731	5%	2,755	6%	2,730	5%	2,748	6%	2,871	10%	2,804	8%	2,814	8%	2,758	6%	2,835	9%	2,788	7%	2,781	7%		-	0
Hour 4	2,593	2,248	14%	2,195	17%	2,222	15%	2,235	15%	2,176	17%	2,258	14%	2,248	14%	2,202	16%	2,214	16%	2,160	18%	2,166	18%	2,216	16%		-	0
11	10,180	10,663	5%	10,694	5%	10,702	5%	10,720	5%	10,651	5%	10,872	7%	10,663	5%	10,623	4%	10,599	4%	10,755	5%	10,682	5%	10,697	5%		-	0



TRAFFIC VOLUMES - BY LINK

CONCEPT 2: +10% I-225

PERIOD: PM

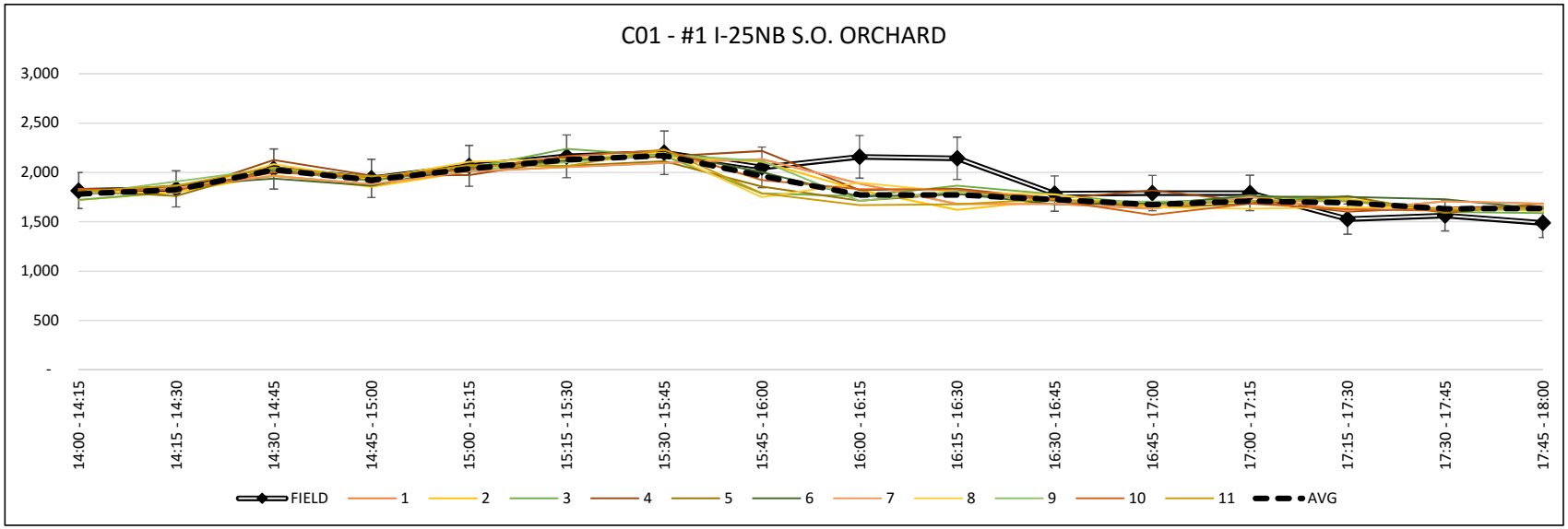


ID	DESCRIPTION
C01	NB I-25 S.O. Orchard
C02	SB I-25 N.O. Yale
C03	NB Parker to SB I-225
C03.5	SB Parker to SB I-225
C04	Belleview On-Ramp to NB I-25
C05	SB I-225 Ramp to SB I-25
C06	NB I-25 Ramp to Hampden
C07	SB I-25 Off-Ramp to Orchard
C08	SB I-225 Ramp to Yosemite
C08.5	SB I-225 Mainline at Yosemite
225S060	225S001 PARKER RD TO YOSEMITE ST (176)
25N130	025N201 0.2MI N OF I-225
225S030	225S000 I-225 SB TO I-25 NB (144)
C05.5	#5 SB I-225 to SB I-25 On-Ramp Only

CONCEPT 2: +10% I-225

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

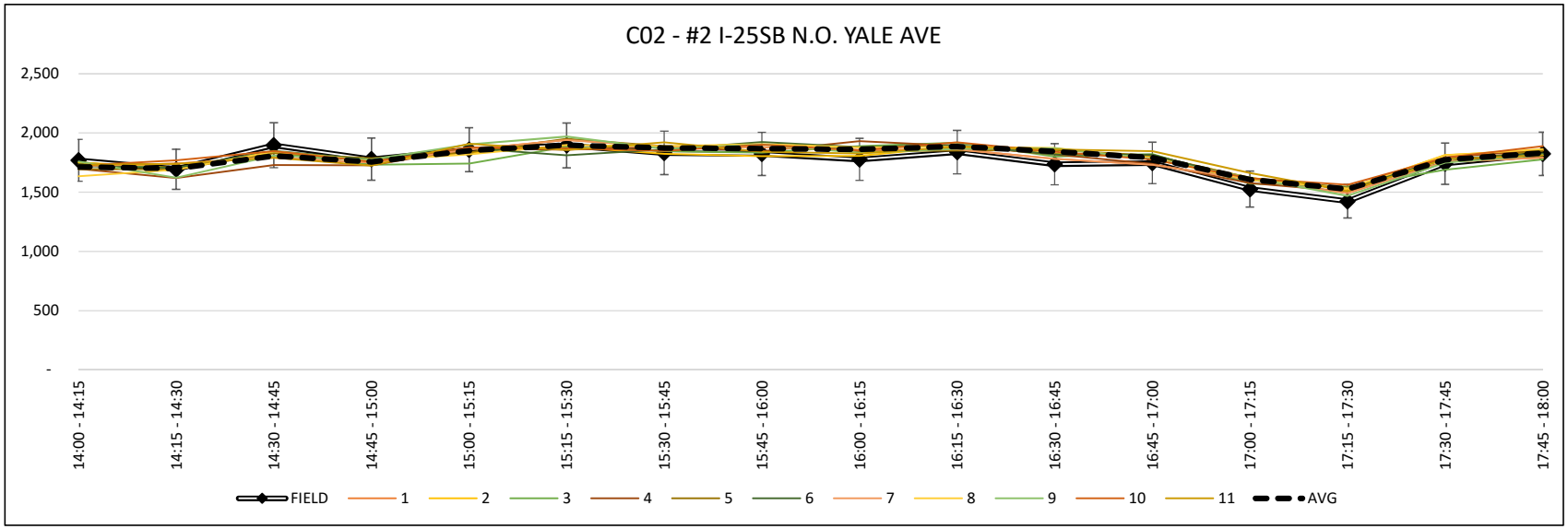
PM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C01	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	1,816	1,784	2%	1,719	5%	1,722	5%	1,788	2%	1,816	0%	1,796	1%	1,784	2%	1,806	1%	1,779	2%	1,832	1%	1,805	1%	1,781	2%		38	1
14:15 - 14:30	1,834	1,844	1%	1,800	2%	1,802	2%	1,793	2%	1,761	4%	1,868	2%	1,844	1%	1,795	2%	1,907	4%	1,822	1%	1,866	2%	1,825	0%		42	1
14:30 - 14:45	2,035	1,963	4%	1,969	3%	2,017	1%	2,126	4%	2,047	1%	1,936	5%	1,963	4%	2,083	2%	2,038	0%	2,000	2%	2,052	1%	2,026	0%		56	2
14:45 - 15:00	1,940	1,880	3%	1,855	4%	1,914	1%	1,967	1%	1,924	1%	1,866	4%	1,880	3%	1,932	0%	1,958	1%	1,953	1%	1,952	1%	1,921	1%		39	1
15:00 - 15:15	2,066	2,008	3%	2,009	3%	2,041	1%	1,973	5%	2,077	1%	2,059	0%	2,008	3%	2,106	2%	2,021	2%	2,033	2%	2,070	0%	2,035	2%		40	1
15:15 - 15:30	2,163	2,055	5%	2,127	2%	2,240	3%	2,124	2%	2,065	5%	2,120	2%	2,055	5%	2,136	1%	2,100	3%	2,165	0%	2,062	5%	2,128	2%		60	2
15:30 - 15:45	2,199	2,096	5%	2,163	2%	2,166	2%	2,162	2%	2,114	4%	2,196	0%	2,096	5%	2,201	0%	2,181	1%	2,228	1%	2,232	1%	2,171	1%		43	1
15:45 - 16:00	2,052	2,134	4%	2,107	3%	1,789	14%	2,217	8%	1,857	10%	2,003	2%	2,134	4%	1,748	16%	2,116	3%	1,923	6%	1,788	14%	1,965	4%		161	17
16:00 - 16:15	2,158	1,886	13%	1,821	17%	1,758	20%	1,821	17%	1,712	23%	1,754	21%	1,886	13%	1,894	13%	1,709	23%	1,831	16%	1,667	26%	1,773	20%		84	4
16:15 - 16:30	2,143	1,680	24%	1,621	28%	1,866	14%	1,837	15%	1,783	18%	1,781	18%	1,680	24%	1,799	17%	1,809	17%	1,827	16%	1,677	24%	1,772	19%		78	4
16:30 - 16:45	1,786	1,681	6%	1,720	4%	1,778	0%	1,735	3%	1,722	4%	1,678	6%	1,681	6%	1,775	1%	1,709	4%	1,715	4%	1,732	3%	1,726	3%		32	1
16:45 - 17:00	1,791	1,631	9%	1,671	7%	1,674	7%	1,818	1%	1,640	9%	1,686	6%	1,631	9%	1,644	9%	1,703	5%	1,570	13%	1,666	7%	1,674	7%		62	3
17:00 - 17:15	1,792	1,752	2%	1,750	2%	1,766	1%	1,707	5%	1,682	6%	1,754	2%	1,752	2%	1,633	9%	1,713	5%	1,684	6%	1,709	5%	1,711	5%		42	2
17:15 - 17:30	1,528	1,613	5%	1,731	12%	1,710	11%	1,602	5%	1,761	14%	1,752	14%	1,613	5%	1,648	8%	1,717	12%	1,625	6%	1,708	11%	1,692	10%		59	4
17:30 - 17:45	1,564	1,706	9%	1,608	3%	1,601	2%	1,645	5%	1,588	2%	1,728	10%	1,706	9%	1,640	5%	1,623	4%	1,613	3%	1,624	4%	1,632	4%		47	3
17:45 - 18:00	1,489	1,682	12%	1,638	10%	1,588	6%	1,656	11%	1,685	12%	1,630	9%	1,682	12%	1,607	8%	1,623	9%	1,655	11%	1,641	10%	1,634	9%		35	2
Hour 1	7,625	7,471	2%	7,343	4%	7,455	2%	7,674	1%	7,548	1%	7,466	2%	7,471	2%	7,616	0%	7,682	1%	7,607	0%	7,675	1%	7,553	1%		44	0
Hour 2	8,480	8,293	2%	8,406	1%	8,236	3%	8,476	0%	8,113	4%	8,378	1%	8,293	2%	8,191	3%	8,418	1%	8,349	2%	8,152	4%	8,299	2%		91	0
Hour 3	7,878	6,878	14%	6,833	14%	7,076	11%	7,211	9%	6,857	14%	6,899	13%	6,878	14%	7,112	10%	6,930	13%	6,943	13%	6,742	16%	6,945	13%		67	0
Hour 4	6,373	6,753	6%	6,727	5%	6,665	4%	6,610	4%	6,716	5%	6,864	7%	6,753	6%	6,528	2%	6,676	5%	6,577	3%	6,682	5%	6,669	5%		47	0
11	30,356	29,395	3%	29,309	4%	29,432	3%	29,971	1%	29,234	4%	29,607	2%	29,395	3%	29,447	3%	29,706	2%	29,476	3%	29,251	4%	29,466	3%		130	0



CONCEPT 2: +10% I-225

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

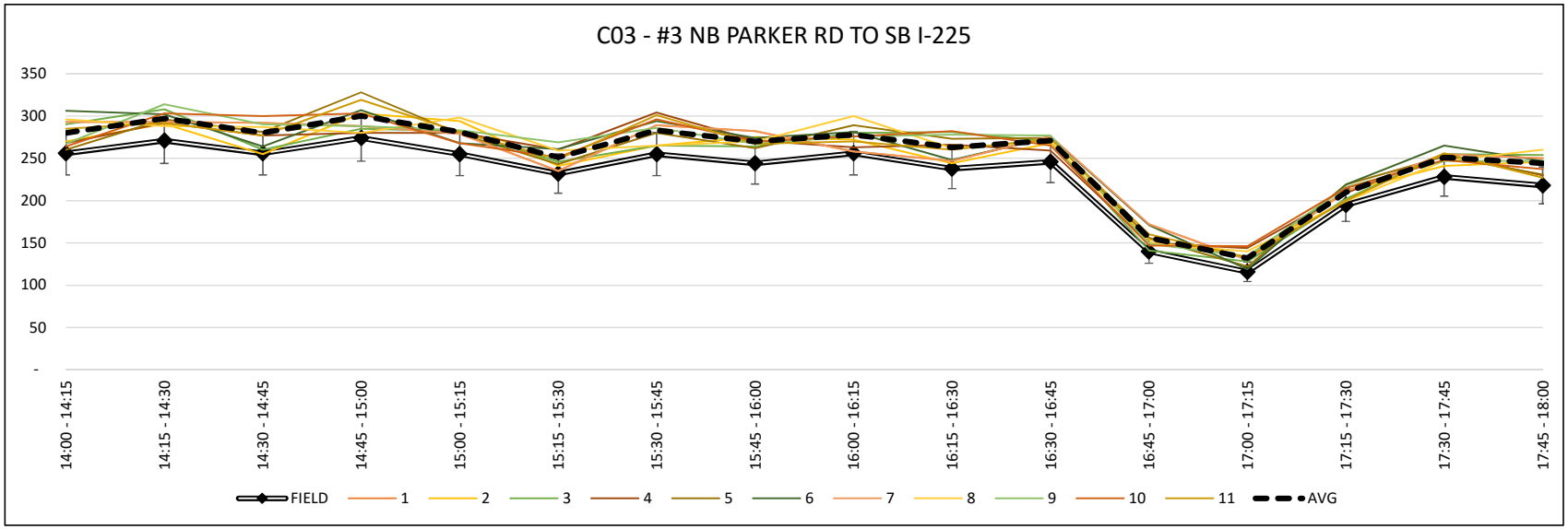
PM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C02	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	1,769	1,719	3%	1,750	1%	1,735	2%	1,696	4%	1,694	4%	1,720	3%	1,719	3%	1,634	8%	1,758	1%	1,725	3%	1,732	2%	1,714	3%		34	1
14:15 - 14:30	1,693	1,742	3%	1,704	1%	1,701	0%	1,620	4%	1,694	0%	1,706	1%	1,742	3%	1,688	0%	1,622	4%	1,769	4%	1,740	3%	1,700	0%		46	2
14:30 - 14:45	1,896	1,790	6%	1,832	3%	1,837	3%	1,730	9%	1,828	4%	1,849	3%	1,790	6%	1,843	3%	1,809	5%	1,845	3%	1,791	6%	1,805	5%		48	2
14:45 - 15:00	1,779	1,748	2%	1,780	0%	1,732	3%	1,727	3%	1,786	0%	1,773	0%	1,748	2%	1,765	1%	1,776	0%	1,756	1%	1,725	3%	1,755	1%		23	0
15:00 - 15:15	1,858	1,862	0%	1,833	1%	1,741	7%	1,868	1%	1,837	1%	1,870	1%	1,862	0%	1,818	2%	1,902	2%	1,877	1%	1,908	3%	1,851	0%		46	2
15:15 - 15:30	1,895	1,940	2%	1,883	1%	1,883	1%	1,859	2%	1,951	3%	1,811	5%	1,940	2%	1,898	0%	1,969	4%	1,871	1%	1,855	2%	1,897	0%		49	2
15:30 - 15:45	1,832	1,884	3%	1,823	0%	1,847	1%	1,884	3%	1,888	3%	1,861	2%	1,884	3%	1,887	3%	1,867	2%	1,848	1%	1,920	5%	1,874	2%		28	1
15:45 - 16:00	1,823	1,879	3%	1,804	1%	1,833	1%	1,846	1%	1,881	3%	1,924	5%	1,879	3%	1,906	4%	1,902	4%	1,901	4%	1,842	1%	1,869	2%		37	1
16:00 - 16:15	1,777	1,856	4%	1,805	2%	1,888	6%	1,931	8%	1,846	4%	1,881	6%	1,856	4%	1,879	6%	1,830	3%	1,853	4%	1,825	3%	1,862	5%		36	1
16:15 - 16:30	1,838	1,861	1%	1,887	3%	1,919	4%	1,891	3%	1,851	1%	1,897	3%	1,861	1%	1,883	2%	1,866	2%	1,920	4%	1,883	2%	1,886	3%		22	0
16:30 - 16:45	1,736	1,780	3%	1,825	5%	1,802	4%	1,818	5%	1,856	7%	1,819	5%	1,780	3%	1,874	8%	1,871	7%	1,841	6%	1,861	7%	1,843	6%		40	1
16:45 - 17:00	1,747	1,731	1%	1,801	3%	1,821	4%	1,739	0%	1,809	3%	1,817	4%	1,731	1%	1,778	2%	1,781	2%	1,776	2%	1,845	5%	1,792	3%		35	1
17:00 - 17:15	1,526	1,606	5%	1,623	6%	1,573	3%	1,577	3%	1,619	6%	1,601	5%	1,606	5%	1,604	5%	1,621	6%	1,618	6%	1,661	8%	1,607	5%		27	1
17:15 - 17:30	1,424	1,493	5%	1,528	7%	1,546	8%	1,505	6%	1,537	8%	1,535	8%	1,493	5%	1,533	7%	1,469	3%	1,563	9%	1,509	6%	1,526	7%		29	1
17:30 - 17:45	1,741	1,755	1%	1,814	4%	1,690	3%	1,794	3%	1,753	1%	1,778	2%	1,755	1%	1,812	4%	1,748	0%	1,790	3%	1,778	2%	1,773	2%		36	1
17:45 - 18:00	1,824	1,792	2%	1,852	2%	1,775	3%	1,857	2%	1,855	2%	1,826	0%	1,792	2%	1,864	2%	1,814	1%	1,888	3%	1,812	1%	1,830	0%		35	1
Hour 1	7,137	6,999	2%	7,066	1%	7,005	2%	6,773	5%	7,002	2%	7,048	1%	6,999	2%	6,930	3%	6,965	2%	7,095	1%	6,988	2%	6,974	2%		39	0
Hour 2	7,408	7,565	2%	7,343	1%	7,304	1%	7,457	1%	7,557	2%	7,466	1%	7,565	2%	7,509	1%	7,640	3%	7,497	1%	7,525	2%	7,491	1%		41	0
Hour 3	7,098	7,228	2%	7,318	3%	7,430	5%	7,379	4%	7,362	4%	7,414	4%	7,228	2%	7,414	4%	7,348	3%	7,390	4%	7,414	4%	7,383	4%		34	0
Hour 4	6,515	6,646	2%	6,817	5%	6,584	1%	6,733	3%	6,764	4%	6,740	3%	6,646	2%	6,813	4%	6,652	2%	6,859	5%	6,760	4%	6,736	3%		32	0
11	28,158	28,438	1%	28,544	1%	28,323	1%	28,342	1%	28,685	2%	28,668	2%	28,438	1%	28,666	2%	28,605	2%	28,841	2%	28,687	2%	28,584	2%		73	0



CONCEPT 2: +10% I-225

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

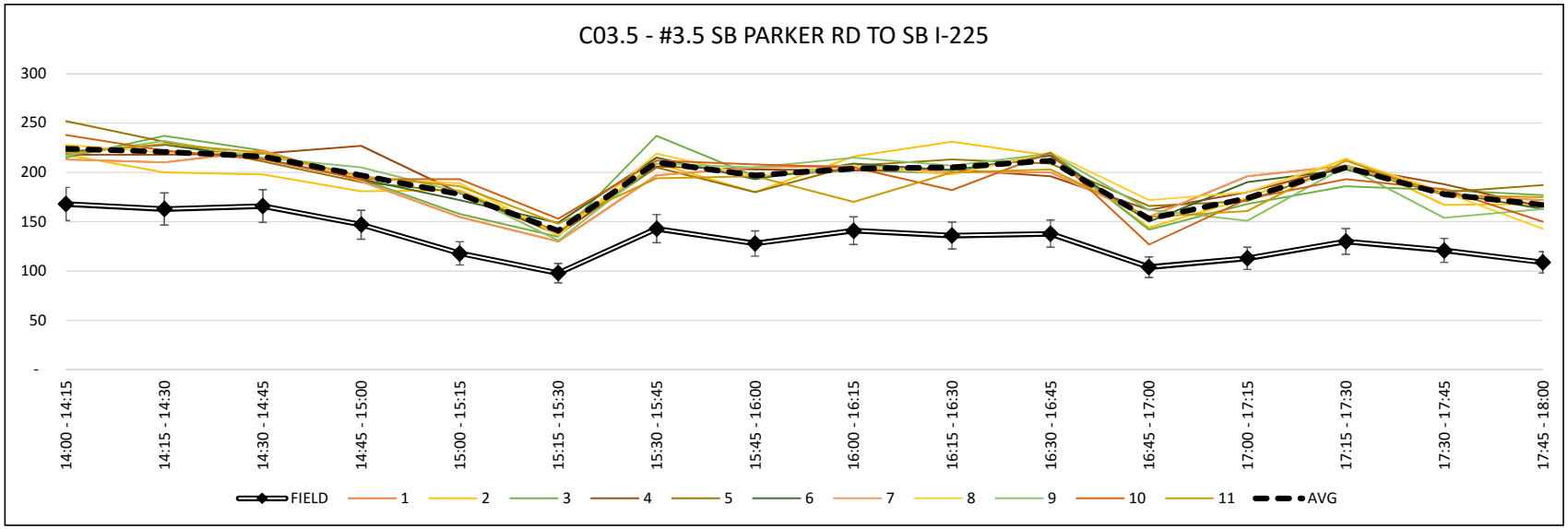
PM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C03	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	256	293	13%	270	5%	290	12%	268	5%	260	2%	306	18%	293	13%	296	14%	267	4%	264	3%	285	11%	280	9%		15	10
14:15 - 14:30	271	293	8%	291	7%	308	13%	292	7%	296	9%	302	11%	293	8%	288	6%	314	15%	303	11%	292	7%	297	9%		8	2
14:30 - 14:45	256	292	13%	255	0%	260	2%	277	8%	281	9%	264	3%	292	13%	287	11%	290	12%	300	16%	277	8%	280	9%		15	10
14:45 - 15:00	274	288	5%	303	10%	285	4%	280	2%	328	18%	307	11%	288	5%	280	2%	288	5%	303	10%	319	15%	300	9%		17	11
15:00 - 15:15	255	279	9%	294	14%	282	10%	280	9%	279	9%	268	5%	279	9%	298	16%	283	10%	268	5%	281	10%	281	10%		9	3
15:15 - 15:30	232	235	1%	241	4%	246	6%	260	11%	243	5%	261	12%	235	1%	259	11%	269	15%	251	8%	249	7%	251	8%		10	5
15:30 - 15:45	255	289	13%	265	4%	265	4%	304	18%	280	9%	294	14%	289	13%	265	4%	286	11%	296	15%	301	17%	283	10%		15	10
15:45 - 16:00	244	282	14%	275	12%	264	8%	271	10%	262	7%	274	12%	282	14%	270	10%	267	9%	270	10%	267	9%	270	10%		6	2
16:00 - 16:15	256	258	1%	272	6%	280	9%	263	3%	289	12%	281	9%	258	1%	300	16%	276	8%	276	8%	270	5%	278	8%		13	7
16:15 - 16:30	238	247	4%	244	2%	281	17%	266	11%	273	14%	248	4%	247	4%	262	10%	278	16%	282	17%	260	9%	263	10%		14	10
16:30 - 16:45	246	276	11%	268	9%	270	9%	259	5%	274	11%	275	11%	276	11%	270	9%	277	12%	265	7%	273	10%	271	10%		5	1
16:45 - 17:00	140	172	21%	154	10%	141	1%	150	7%	156	11%	171	20%	172	21%	150	7%	149	6%	147	5%	160	13%	156	11%		10	14
17:00 - 17:15	116	130	11%	133	14%	128	10%	144	22%	122	5%	119	3%	130	11%	140	19%	134	14%	146	23%	133	14%	132	13%		9	17
17:15 - 17:30	195	211	8%	211	8%	202	4%	209	7%	219	12%	219	12%	211	8%	199	2%	216	10%	215	10%	200	3%	210	7%		7	4
17:30 - 17:45	228	255	11%	241	6%	255	11%	255	11%	252	10%	265	15%	255	11%	247	8%	247	8%	248	8%	256	12%	251	10%		7	3
17:45 - 18:00	218	250	14%	246	12%	254	15%	230	5%	231	6%	247	12%	250	14%	260	18%	247	12%	237	8%	227	4%	244	11%		11	7
Hour 1	1,057	1,166	10%	1,119	6%	1,143	8%	1,117	6%	1,165	10%	1,179	11%	1,166	10%	1,151	9%	1,159	9%	1,170	10%	1,173	10%	1,157	9%		14	0
Hour 2	986	1,085	10%	1,075	9%	1,057	7%	1,115	12%	1,064	8%	1,097	11%	1,085	10%	1,092	10%	1,105	11%	1,085	10%	1,098	11%	1,085	10%		11	0
Hour 3	880	953	8%	938	6%	972	10%	938	6%	992	12%	975	10%	953	8%	982	11%	980	11%	970	10%	963	9%	968	10%		11	0
Hour 4	757	846	11%	831	9%	839	10%	838	10%	824	8%	850	12%	846	11%	846	11%	844	11%	846	11%	816	8%	837	10%		9	0
11	3,680	4,050	10%	3,963	7%	4,011	9%	4,008	9%	4,045	9%	4,101	11%	4,050	10%	4,071	10%	4,088	11%	4,071	10%	4,050	10%	4,047	9%		23	0



CONCEPT 2: +10% I-225

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

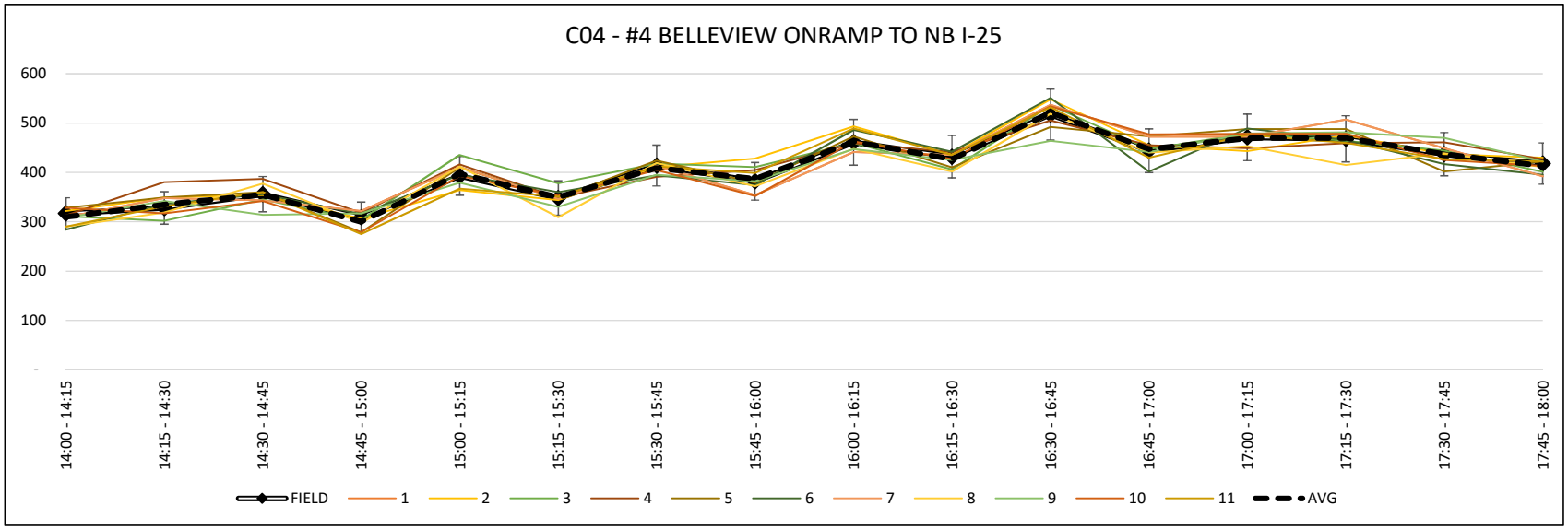
PM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C03.5	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	168	213	24%	218	26%	215	25%	218	26%	252	40%	221	27%	213	24%	228	30%	217	25%	238	34%	219	26%	224	29%		12	14
14:15 - 14:30	163	210	25%	200	20%	237	37%	218	29%	231	35%	228	33%	210	25%	220	30%	232	35%	222	31%	229	34%	221	30%		12	15
14:30 - 14:45	166	222	29%	198	18%	222	29%	219	28%	211	24%	214	25%	222	29%	220	28%	215	26%	213	25%	220	28%	216	26%		7	5
14:45 - 15:00	147	191	26%	181	21%	193	27%	227	43%	190	26%	193	27%	191	26%	194	28%	205	33%	193	27%	196	29%	197	29%		12	18
15:00 - 15:15	118	155	27%	182	43%	158	29%	179	41%	180	42%	172	37%	155	27%	189	46%	180	42%	193	48%	186	45%	178	41%		12	29
15:15 - 15:30	98	130	28%	140	35%	135	32%	137	33%	139	35%	149	41%	130	28%	136	32%	131	29%	153	44%	148	41%	141	36%		8	18
15:30 - 15:45	143	197	32%	209	38%	237	49%	206	36%	205	36%	215	40%	197	32%	219	42%	209	38%	212	39%	194	30%	210	38%		12	20
15:45 - 16:00	128	205	46%	180	34%	196	42%	203	45%	180	34%	193	40%	205	46%	196	42%	205	46%	208	48%	196	42%	197	42%		10	17
16:00 - 16:15	141	207	38%	216	42%	202	36%	202	36%	207	38%	209	39%	207	38%	207	38%	215	42%	205	37%	170	19%	204	37%		12	20
16:15 - 16:30	136	200	38%	231	52%	199	38%	203	40%	213	44%	202	39%	200	38%	198	37%	207	41%	182	29%	200	38%	205	40%		13	25
16:30 - 16:45	138	200	37%	217	45%	220	46%	196	35%	209	41%	217	45%	200	37%	220	46%	219	45%	220	46%	203	38%	212	42%		9	12
16:45 - 17:00	104	155	39%	144	32%	142	31%	162	44%	166	46%	150	36%	155	39%	172	49%	162	44%	127	20%	155	39%	153	38%		13	43
17:00 - 17:15	113	196	54%	174	43%	168	39%	180	46%	171	41%	190	51%	196	54%	180	46%	151	29%	173	42%	161	35%	174	43%		13	37
17:15 - 17:30	130	207	46%	214	49%	186	35%	206	45%	207	46%	203	44%	207	46%	213	48%	206	45%	193	39%	212	48%	205	45%		9	13
17:30 - 17:45	121	177	38%	167	32%	182	40%	188	43%	180	39%	180	39%	177	38%	180	39%	154	24%	183	41%	177	38%	178	38%		10	19
17:45 - 18:00	109	172	45%	168	43%	177	48%	165	41%	187	53%	163	40%	172	45%	143	27%	163	40%	150	32%	175	46%	167	42%		12	34
Hour 1	644	836	26%	797	21%	867	30%	882	31%	884	31%	856	28%	836	26%	862	29%	869	30%	866	29%	864	29%	858	28%		11	1
Hour 2	487	687	34%	711	37%	726	39%	725	39%	704	36%	729	40%	687	34%	740	41%	725	39%	766	45%	724	39%	726	39%		11	1
Hour 3	519	762	38%	808	44%	763	38%	763	38%	795	42%	778	40%	762	38%	797	42%	803	43%	734	34%	728	34%	774	39%		12	1
Hour 4	473	752	46%	723	42%	713	40%	739	44%	745	45%	736	44%	752	46%	716	41%	674	35%	699	39%	725	42%	724	42%		11	2
11	2,123	3,037	35%	3,039	35%	3,069	36%	3,109	38%	3,128	38%	3,099	37%	3,037	35%	3,115	38%	3,071	37%	3,065	36%	3,041	36%	3,082	37%		22	0



CONCEPT 2: +10% I-225

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

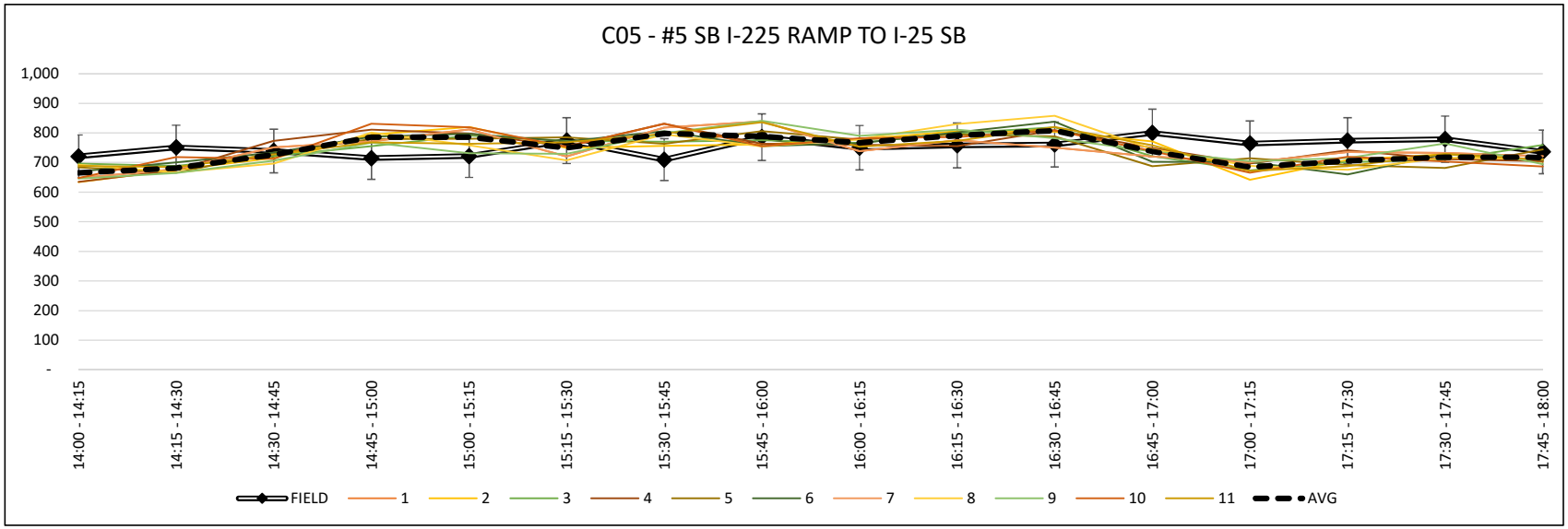
PM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C04	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	317	309	3%	322	2%	311	2%	313	1%	328	3%	284	11%	309	3%	290	9%	308	3%	328	3%	290	9%	310	2%		17	8
14:15 - 14:30	328	348	6%	349	6%	302	8%	380	15%	349	6%	336	2%	348	6%	319	3%	342	4%	317	3%	331	1%	335	2%		22	12
14:30 - 14:45	356	343	4%	354	1%	345	3%	387	8%	360	1%	356	0%	343	4%	377	6%	314	13%	342	4%	360	1%	355	0%		20	9
14:45 - 15:00	309	322	4%	306	1%	304	2%	318	3%	279	10%	316	2%	322	4%	298	4%	317	3%	279	10%	275	12%	300	3%		18	9
15:00 - 15:15	393	411	4%	364	8%	435	10%	416	6%	410	4%	395	1%	411	4%	412	5%	379	4%	393	0%	367	7%	397	1%		22	9
15:15 - 15:30	348	346	1%	344	1%	378	8%	349	0%	348	0%	360	3%	346	1%	309	12%	330	5%	353	1%	351	1%	350	1%		20	9
15:30 - 15:45	414	413	0%	411	1%	418	1%	391	6%	424	2%	394	5%	413	0%	419	1%	395	5%	405	2%	412	0%	409	1%		11	2
15:45 - 16:00	382	354	8%	428	11%	411	7%	405	6%	379	1%	374	2%	354	8%	372	3%	382	0%	352	8%	399	4%	387	1%		24	11
16:00 - 16:15	461	441	4%	493	7%	460	0%	459	0%	473	3%	486	5%	441	4%	448	3%	447	3%	463	0%	489	6%	462	0%		23	7
16:15 - 16:30	432	435	1%	436	1%	406	6%	441	2%	410	5%	442	2%	435	1%	402	7%	425	2%	427	1%	435	1%	427	1%		15	3
16:30 - 16:45	517	537	4%	548	6%	536	4%	505	2%	492	5%	551	6%	537	4%	519	0%	464	11%	534	3%	532	3%	521	1%		26	7
16:45 - 17:00	444	472	6%	455	2%	447	1%	455	2%	473	6%	402	10%	472	6%	440	1%	441	1%	477	7%	430	3%	447	1%		22	7
17:00 - 17:15	471	472	0%	443	6%	479	2%	449	5%	488	4%	489	4%	472	0%	453	4%	479	2%	478	1%	476	1%	469	0%		17	4
17:15 - 17:30	468	507	8%	475	1%	464	1%	459	2%	488	4%	466	0%	507	8%	415	12%	481	3%	478	2%	460	2%	470	0%		23	7
17:30 - 17:45	437	449	3%	437	0%	444	2%	461	5%	402	8%	417	5%	449	3%	439	0%	470	7%	425	3%	427	2%	437	0%		19	5
17:45 - 18:00	418	392	6%	430	3%	401	4%	427	2%	422	1%	395	6%	392	6%	411	2%	422	1%	413	1%	422	1%	413	1%		13	3
Hour 1	1,310	1,322	1%	1,331	2%	1,262	4%	1,398	6%	1,316	0%	1,292	1%	1,322	1%	1,284	2%	1,281	2%	1,266	3%	1,256	4%	1,300	1%		19	1
Hour 2	1,537	1,524	1%	1,547	1%	1,642	7%	1,561	2%	1,561	2%	1,523	1%	1,524	1%	1,512	2%	1,486	3%	1,503	2%	1,529	1%	1,543	0%		20	0
Hour 3	1,854	1,885	2%	1,932	4%	1,849	0%	1,860	0%	1,848	0%	1,881	1%	1,885	2%	1,809	2%	1,777	4%	1,901	3%	1,886	2%	1,857	0%		22	0
Hour 4	1,794	1,820	1%	1,785	1%	1,788	0%	1,796	0%	1,800	0%	1,767	2%	1,820	1%	1,718	4%	1,852	3%	1,794	0%	1,785	1%	1,789	0%		18	0
11	6,495	6,551	1%	6,595	2%	6,541	1%	6,615	2%	6,525	0%	6,463	0%	6,551	1%	6,323	3%	6,396	2%	6,464	0%	6,456	1%	6,489	0%		40	0



CONCEPT 2: +10% I-225

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

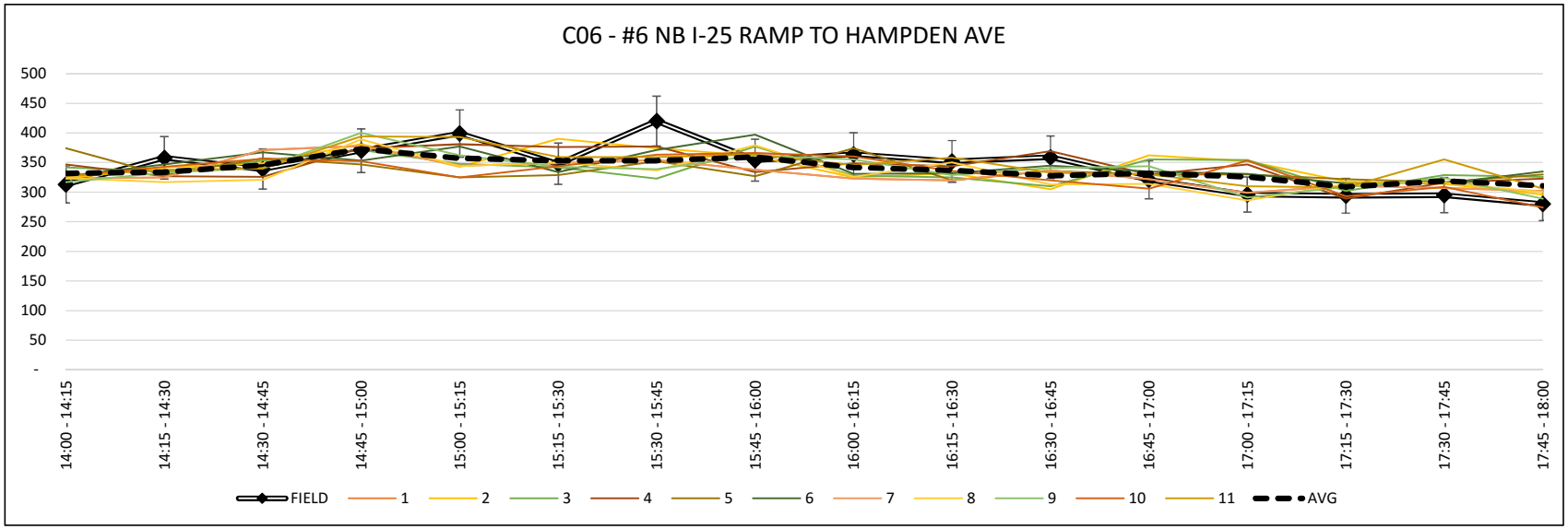
PM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C05	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	721	648	11%	634	13%	697	3%	635	13%	684	5%	670	7%	648	11%	693	4%	646	11%	648	11%	689	5%	665	8%		24	3
14:15 - 14:30	751	678	10%	676	11%	689	9%	675	11%	666	12%	700	7%	678	10%	667	12%	665	12%	718	4%	685	9%	682	10%		16	1
14:30 - 14:45	739	751	2%	715	3%	722	2%	773	4%	733	1%	733	1%	751	2%	697	6%	706	5%	712	4%	727	2%	726	2%		21	2
14:45 - 15:00	715	771	8%	794	10%	755	5%	811	13%	779	9%	787	10%	771	8%	801	11%	767	7%	831	15%	768	7%	786	9%		22	3
15:00 - 15:15	722	812	12%	820	13%	791	9%	798	10%	780	8%	797	10%	812	12%	758	5%	731	1%	819	13%	763	6%	786	8%		28	4
15:15 - 15:30	774	720	7%	749	3%	773	0%	754	3%	785	1%	771	0%	720	7%	707	9%	729	6%	753	3%	768	1%	749	3%		25	3
15:30 - 15:45	710	818	14%	756	6%	770	8%	831	16%	763	7%	806	13%	818	14%	795	11%	799	12%	831	16%	797	12%	798	12%		26	4
15:45 - 16:00	786	839	7%	761	3%	775	1%	763	3%	806	3%	755	4%	839	7%	754	4%	841	7%	755	4%	836	6%	788	0%		36	6
16:00 - 16:15	750	738	2%	778	4%	766	2%	760	1%	777	4%	765	2%	738	2%	779	4%	790	5%	782	4%	753	0%	767	2%		16	1
16:15 - 16:30	758	775	2%	806	6%	799	5%	755	0%	795	5%	802	6%	775	2%	830	9%	811	7%	786	4%	773	2%	791	4%		22	2
16:30 - 16:45	761	750	1%	804	5%	819	7%	809	6%	788	3%	838	10%	750	1%	858	12%	782	3%	809	6%	820	7%	808	6%		29	4
16:45 - 17:00	800	720	11%	771	4%	721	10%	749	7%	688	15%	702	13%	720	11%	745	7%	737	8%	738	8%	758	5%	737	8%		28	3
17:00 - 17:15	764	700	9%	642	17%	674	13%	697	9%	714	7%	701	9%	700	9%	689	10%	704	8%	666	14%	672	13%	685	11%		21	2
17:15 - 17:30	774	735	5%	708	9%	701	10%	741	4%	692	11%	660	16%	735	5%	676	14%	715	8%	719	7%	688	12%	705	9%		24	3
17:30 - 17:45	779	732	6%	728	7%	709	9%	711	9%	682	13%	729	7%	732	6%	716	8%	764	2%	703	10%	729	7%	718	8%		23	2
17:45 - 18:00	736	721	2%	702	5%	759	3%	704	4%	744	1%	708	4%	721	2%	711	3%	695	6%	687	7%	709	4%	717	3%		23	3
Hour 1	2,926	2,848	3%	2,819	4%	2,863	2%	2,894	1%	2,862	2%	2,890	1%	2,848	3%	2,858	2%	2,784	5%	2,909	1%	2,869	2%	2,859	2%		21	0
Hour 2	2,992	3,189	6%	3,086	3%	3,109	4%	3,146	5%	3,134	5%	3,129	4%	3,189	6%	3,014	1%	3,100	4%	3,158	5%	3,164	6%	3,121	4%		29	0
Hour 3	3,069	2,983	3%	3,159	3%	3,105	1%	3,073	0%	3,048	1%	3,107	1%	2,983	3%	3,212	5%	3,120	2%	3,115	1%	3,104	1%	3,103	1%		24	0
Hour 4	3,053	2,888	6%	2,780	9%	2,843	7%	2,853	7%	2,832	8%	2,798	9%	2,888	6%	2,792	9%	2,878	6%	2,775	10%	2,798	9%	2,825	8%		23	0
11	12,040	11,908	1%	11,844	2%	11,920	1%	11,966	1%	11,876	1%	11,924	1%	11,908	1%	11,876	1%	11,882	1%	11,957	1%	11,935	1%	11,908	1%		49	0



CONCEPT 2: +10% I-225

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

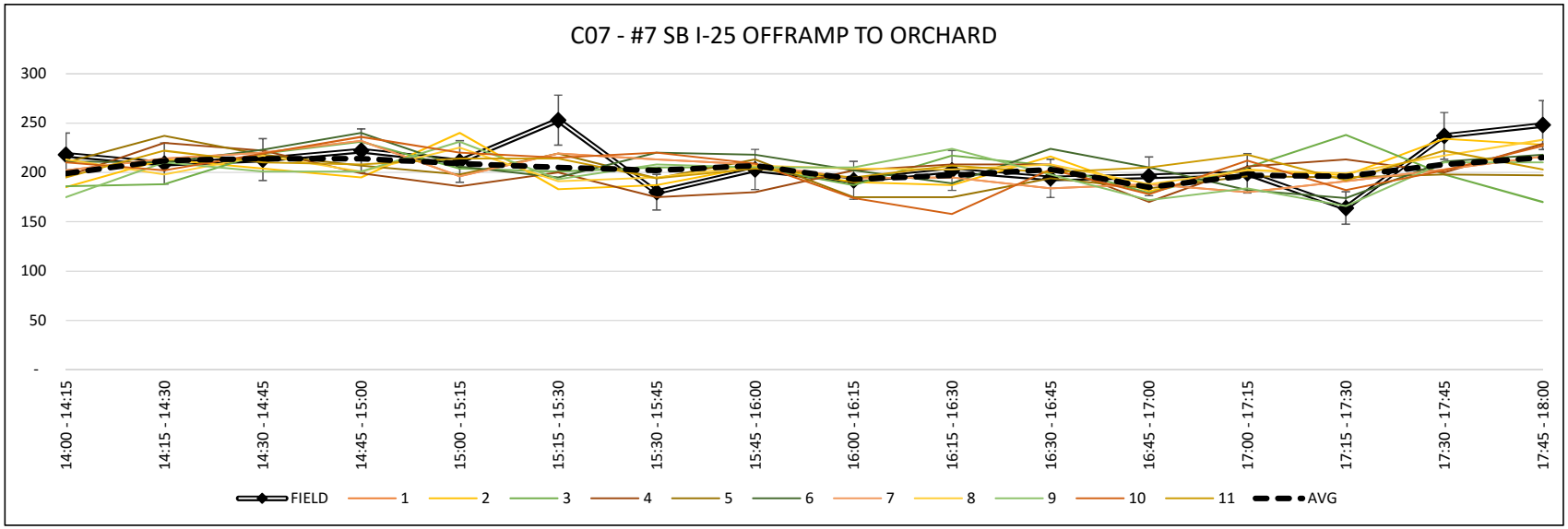
PM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C06	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	313	323	3%	323	3%	342	9%	347	10%	374	18%	327	4%	323	3%	324	3%	317	1%	327	4%	327	4%	332	6%		16	7
14:15 - 14:30	358	325	10%	342	5%	335	7%	327	9%	329	8%	347	3%	325	10%	317	12%	333	7%	343	4%	338	6%	334	7%		9	2
14:30 - 14:45	339	371	9%	349	3%	353	4%	326	4%	357	5%	367	8%	371	9%	321	5%	341	1%	356	5%	340	0%	346	2%		17	7
14:45 - 15:00	370	378	2%	381	3%	371	0%	374	1%	347	6%	353	5%	378	2%	389	5%	400	8%	352	5%	394	6%	373	1%		18	7
15:00 - 15:15	399	345	15%	343	15%	348	14%	381	5%	325	20%	377	6%	345	15%	344	15%	362	10%	325	20%	393	2%	357	11%		24	10
15:15 - 15:30	348	349	0%	390	11%	342	2%	376	8%	329	6%	334	4%	349	0%	350	1%	343	1%	344	1%	359	3%	353	1%		19	8
15:30 - 15:45	420	354	17%	374	12%	323	26%	377	11%	352	18%	371	12%	354	17%	337	22%	339	21%	363	15%	359	16%	353	17%		18	5
15:45 - 16:00	354	338	5%	361	2%	377	6%	334	6%	327	8%	397	11%	338	5%	379	7%	362	2%	366	3%	363	3%	359	1%		21	10
16:00 - 16:15	364	323	12%	325	11%	328	10%	349	4%	374	3%	331	9%	323	12%	326	11%	355	3%	360	1%	346	5%	342	6%		17	6
16:15 - 16:30	352	320	10%	332	6%	325	8%	344	2%	320	10%	332	6%	320	10%	350	1%	329	7%	336	5%	358	2%	337	4%		15	5
16:30 - 16:45	359	337	6%	305	16%	310	15%	369	3%	336	7%	345	4%	337	6%	313	14%	341	5%	320	11%	333	8%	328	9%		21	9
16:45 - 17:00	321	322	0%	362	12%	355	10%	330	3%	330	3%	335	4%	322	0%	314	2%	344	7%	306	5%	330	3%	332	3%		17	8
17:00 - 17:15	296	299	1%	352	17%	354	18%	347	16%	330	11%	331	11%	299	1%	286	3%	291	2%	353	18%	310	5%	326	10%		26	21
17:15 - 17:30	294	311	6%	318	8%	302	3%	289	2%	322	9%	315	7%	311	6%	314	7%	309	5%	293	0%	308	5%	309	5%		11	4
17:30 - 17:45	295	307	4%	314	6%	329	11%	316	7%	317	7%	315	7%	307	4%	316	7%	324	9%	309	5%	355	18%	319	8%		13	5
17:45 - 18:00	280	302	8%	296	6%	326	15%	323	14%	330	16%	335	18%	302	8%	300	7%	289	3%	274	2%	306	9%	311	10%		21	16
Hour 1	1,380	1,397	1%	1,395	1%	1,401	2%	1,374	0%	1,407	2%	1,394	1%	1,397	1%	1,351	2%	1,391	1%	1,378	0%	1,399	1%	1,385	0%		15	0
Hour 2	1,521	1,386	9%	1,468	4%	1,390	9%	1,468	4%	1,333	13%	1,479	3%	1,386	9%	1,410	8%	1,406	8%	1,398	8%	1,474	3%	1,422	7%		21	1
Hour 3	1,396	1,302	7%	1,324	5%	1,318	6%	1,392	0%	1,360	3%	1,343	4%	1,302	7%	1,303	7%	1,369	2%	1,322	5%	1,367	2%	1,339	4%		18	0
Hour 4	1,165	1,219	5%	1,280	9%	1,311	12%	1,275	9%	1,299	11%	1,296	11%	1,219	5%	1,216	4%	1,213	4%	1,229	5%	1,279	9%	1,265	8%		19	1
11	5,462	5,304	3%	5,467	0%	5,420	1%	5,509	1%	5,399	1%	5,512	1%	5,304	3%	5,280	3%	5,379	2%	5,327	3%	5,519	1%	5,411	1%		36	0



CONCEPT 2: +10% I-225

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

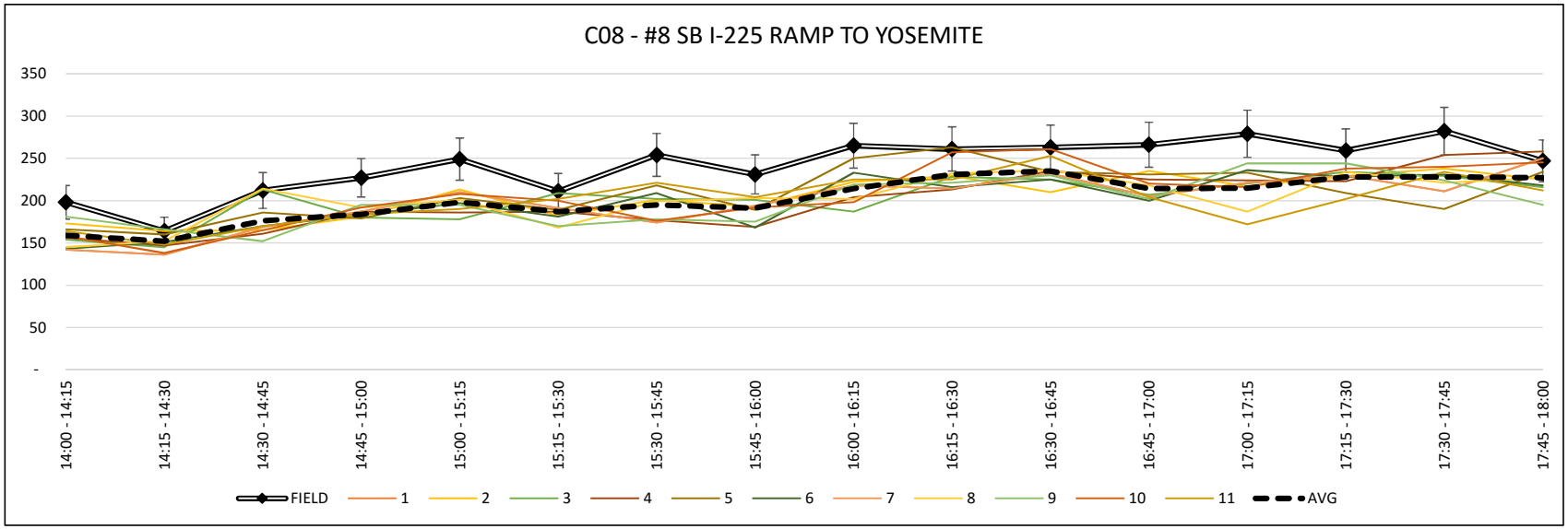
PM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C07	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	218	202	8%	185	16%	186	16%	196	11%	210	4%	211	3%	202	8%	213	2%	175	22%	210	4%	195	11%	199	9%		13	10
14:15 - 14:30	209	214	2%	213	2%	188	11%	230	10%	237	13%	210	0%	214	2%	198	5%	210	0%	202	3%	222	6%	212	1%		14	12
14:30 - 14:45	213	220	3%	204	4%	219	3%	222	4%	218	2%	223	5%	220	3%	217	2%	201	6%	219	3%	210	1%	214	0%		9	5
14:45 - 15:00	222	232	4%	195	13%	231	4%	199	11%	207	7%	240	8%	232	4%	201	10%	201	10%	236	6%	208	7%	214	4%		17	16
15:00 - 15:15	211	196	7%	240	13%	204	3%	186	13%	198	6%	206	2%	196	7%	225	6%	231	9%	220	4%	214	1%	209	1%		19	22
15:15 - 15:30	253	219	14%	183	32%	201	23%	200	23%	219	14%	195	26%	219	14%	191	28%	193	27%	215	16%	214	17%	205	21%		15	10
15:30 - 15:45	180	213	17%	187	4%	205	13%	175	3%	194	7%	220	20%	213	17%	195	8%	208	14%	220	20%	194	7%	202	12%		14	17
15:45 - 16:00	203	208	2%	206	1%	205	1%	180	12%	213	5%	218	7%	208	2%	207	2%	205	1%	209	3%	204	0%	207	2%		10	7
16:00 - 16:15	192	194	1%	190	1%	187	3%	202	5%	175	9%	202	5%	194	1%	204	6%	205	7%	174	10%	195	2%	193	1%		11	9
16:15 - 16:30	202	195	4%	187	8%	217	7%	208	3%	175	14%	189	7%	195	4%	203	0%	224	10%	158	24%	207	2%	197	3%		19	25
16:30 - 16:45	194	184	5%	216	11%	207	6%	208	7%	194	0%	224	14%	184	5%	208	7%	198	2%	203	5%	200	3%	203	5%		12	11
16:45 - 17:00	196	188	4%	181	8%	179	9%	170	14%	184	6%	205	4%	188	4%	188	4%	172	13%	178	10%	205	4%	185	6%		12	10
17:00 - 17:15	199	180	10%	203	2%	205	3%	206	3%	196	2%	182	9%	180	10%	202	1%	184	8%	212	6%	218	9%	197	1%		14	14
17:15 - 17:30	164	191	15%	197	18%	238	37%	213	26%	195	17%	174	6%	191	15%	199	19%	166	1%	182	10%	192	16%	196	18%		20	41
17:30 - 17:45	237	203	15%	234	1%	198	18%	200	17%	198	18%	211	12%	203	15%	217	9%	210	12%	202	16%	222	7%	208	13%		12	7
17:45 - 18:00	248	216	14%	228	8%	170	37%	229	8%	197	23%	218	13%	216	14%	233	6%	210	17%	227	9%	203	20%	215	14%		19	16
Hour 1	862	868	1%	797	8%	824	5%	847	2%	872	1%	884	3%	868	1%	829	4%	787	9%	867	1%	835	3%	839	3%		14	1
Hour 2	847	836	1%	816	4%	815	4%	741	13%	824	3%	839	1%	836	1%	818	3%	837	1%	864	2%	826	3%	823	3%		15	1
Hour 3	784	761	3%	774	1%	790	1%	788	1%	728	7%	820	4%	761	3%	803	2%	799	2%	713	9%	807	3%	778	1%		14	1
Hour 4	848	790	7%	862	2%	811	4%	848	0%	786	8%	785	8%	790	7%	851	0%	770	10%	823	3%	835	2%	816	4%		17	1
11	3,341	3,255	3%	3,249	3%	3,240	3%	3,224	4%	3,210	4%	3,328	0%	3,255	3%	3,301	1%	3,193	5%	3,267	2%	3,303	1%	3,256	3%		30	0



CONCEPT 2: +10% I-225

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

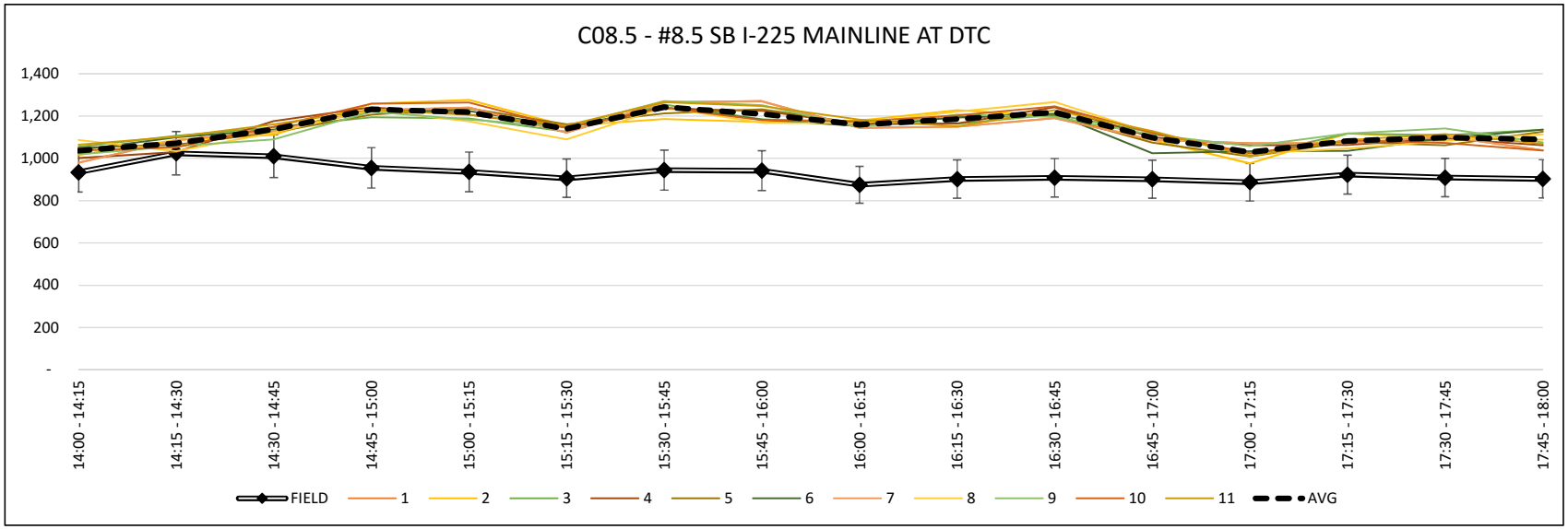
PM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C08	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	198	142	33%	173	13%	154	25%	156	24%	166	18%	143	32%	142	33%	145	31%	181	9%	158	22%	164	19%	159	22%		13	12
14:15 - 14:30	164	136	19%	164	0%	145	12%	147	11%	160	2%	151	8%	136	19%	152	8%	166	1%	138	17%	148	10%	152	8%		11	12
14:30 - 14:45	212	169	23%	165	25%	213	0%	161	27%	186	13%	170	22%	169	23%	214	1%	152	33%	165	25%	170	22%	176	19%		20	25
14:45 - 15:00	227	187	19%	181	23%	180	23%	187	19%	179	24%	183	21%	187	19%	192	17%	195	15%	192	17%	184	21%	184	21%		8	3
15:00 - 15:15	249	210	17%	213	16%	178	33%	186	29%	203	20%	197	23%	210	17%	201	21%	195	24%	208	18%	190	27%	198	23%		11	5
15:15 - 15:30	211	191	10%	182	15%	209	1%	187	12%	189	11%	181	15%	191	10%	168	23%	170	22%	200	5%	202	4%	187	12%		13	11
15:30 - 15:45	254	174	37%	201	23%	202	23%	177	36%	218	15%	209	19%	174	37%	199	24%	178	35%	176	36%	221	14%	195	26%		17	12
15:45 - 16:00	231	194	17%	193	18%	201	14%	169	31%	189	20%	168	32%	194	17%	203	13%	175	28%	192	18%	204	12%	191	19%		14	10
16:00 - 16:15	265	218	19%	222	18%	187	35%	204	26%	250	6%	233	13%	218	19%	202	27%	219	19%	198	29%	225	16%	214	21%		19	14
16:15 - 16:30	261	214	20%	229	13%	228	13%	213	20%	263	1%	216	19%	214	20%	232	12%	221	17%	257	2%	225	15%	231	12%		17	12
16:30 - 16:45	263	232	13%	210	22%	225	16%	235	11%	234	12%	225	16%	232	13%	236	11%	230	13%	261	1%	253	4%	235	11%		14	8
16:45 - 17:00	266	205	26%	235	12%	207	25%	225	17%	231	14%	200	28%	205	26%	218	20%	202	27%	220	19%	204	26%	214	22%		12	6
17:00 - 17:15	279	221	23%	217	25%	220	24%	224	22%	233	18%	236	17%	221	23%	187	39%	244	13%	216	25%	172	47%	215	26%		22	17
17:15 - 17:30	259	230	12%	229	12%	234	10%	223	15%	209	21%	228	13%	230	12%	234	10%	244	6%	238	8%	202	25%	228	13%		13	7
17:30 - 17:45	282	211	29%	238	17%	229	21%	254	10%	190	39%	231	20%	211	29%	221	24%	224	23%	240	16%	234	19%	228	21%		17	10
17:45 - 18:00	247	250	1%	225	9%	216	13%	258	4%	234	5%	218	12%	250	1%	227	8%	195	24%	245	1%	212	15%	227	8%		18	15
Hour 1	801	634	23%	683	16%	692	15%	651	21%	691	15%	647	21%	634	23%	703	13%	694	14%	653	20%	666	18%	671	18%		14	1
Hour 2	945	769	21%	789	18%	790	18%	719	27%	799	17%	755	22%	769	21%	771	20%	718	27%	776	20%	817	15%	771	20%		14	1
Hour 3	1,055	869	19%	896	16%	847	22%	877	18%	978	8%	874	19%	869	19%	888	17%	872	19%	936	12%	907	15%	894	17%		16	1
Hour 4	1,067	912	16%	909	16%	899	17%	959	11%	866	21%	913	16%	912	16%	869	20%	907	16%	939	13%	820	26%	898	17%		18	1
11	3,868	3,184	19%	3,277	17%	3,228	18%	3,206	19%	3,334	15%	3,189	19%	3,184	19%	3,231	18%	3,191	19%	3,304	16%	3,210	19%	3,234	18%		31	0



CONCEPT 2: +10% I-225

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

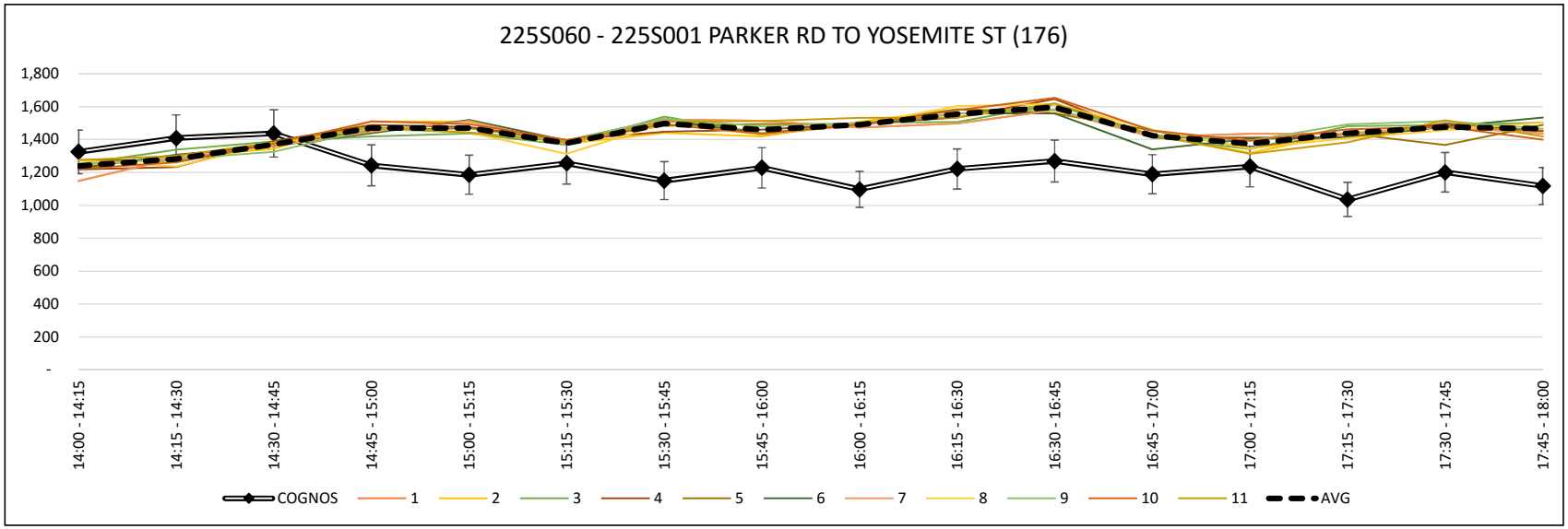
PM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C08.5	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	934	980	5%	1,015	8%	1,054	12%	1,001	7%	1,050	12%	1,039	11%	980	5%	1,086	15%	1,019	9%	1,036	10%	1,065	13%	1,037	10%		31	3
14:15 - 14:30	1,024	1,085	6%	1,087	6%	1,106	8%	1,030	1%	1,064	4%	1,099	7%	1,085	6%	1,034	1%	1,057	3%	1,052	3%	1,102	7%	1,071	4%		27	2
14:30 - 14:45	1,010	1,130	11%	1,111	10%	1,146	13%	1,176	15%	1,123	11%	1,136	12%	1,130	11%	1,122	11%	1,090	8%	1,149	13%	1,160	14%	1,137	12%		26	2
14:45 - 15:00	955	1,227	25%	1,258	27%	1,194	22%	1,242	26%	1,206	23%	1,223	25%	1,227	25%	1,227	25%	1,220	24%	1,258	27%	1,230	25%	1,231	25%		21	1
15:00 - 15:15	936	1,240	28%	1,276	31%	1,189	24%	1,207	25%	1,236	28%	1,223	27%	1,240	28%	1,174	23%	1,183	23%	1,264	30%	1,205	25%	1,218	26%		33	3
15:15 - 15:30	906	1,121	21%	1,153	24%	1,125	22%	1,145	23%	1,160	25%	1,149	24%	1,121	21%	1,090	18%	1,149	24%	1,144	23%	1,155	24%	1,140	23%		20	1
15:30 - 15:45	944	1,265	29%	1,186	23%	1,254	28%	1,235	27%	1,212	25%	1,241	27%	1,265	29%	1,240	27%	1,271	30%	1,240	27%	1,266	29%	1,242	27%		25	2
15:45 - 16:00	942	1,270	30%	1,172	22%	1,184	23%	1,225	26%	1,232	27%	1,183	23%	1,270	30%	1,168	21%	1,251	28%	1,180	22%	1,247	28%	1,210	25%		36	4
16:00 - 16:15	875	1,144	27%	1,178	30%	1,173	29%	1,161	28%	1,165	28%	1,152	27%	1,144	27%	1,166	29%	1,148	27%	1,174	29%	1,183	30%	1,159	28%		23	2
16:15 - 16:30	902	1,149	24%	1,227	31%	1,164	25%	1,165	25%	1,192	28%	1,194	28%	1,149	24%	1,220	30%	1,206	29%	1,203	29%	1,151	24%	1,185	27%		28	3
16:30 - 16:45	908	1,190	27%	1,199	28%	1,207	28%	1,241	31%	1,203	28%	1,211	29%	1,190	27%	1,266	33%	1,195	27%	1,245	31%	1,228	30%	1,218	29%		24	2
16:45 - 17:00	901	1,087	19%	1,086	19%	1,123	22%	1,099	20%	1,074	18%	1,024	13%	1,087	19%	1,118	21%	1,112	21%	1,120	22%	1,128	22%	1,098	20%		30	3
17:00 - 17:15	887	1,071	19%	976	10%	1,013	13%	1,061	18%	1,009	13%	1,033	15%	1,071	19%	1,023	14%	1,057	17%	1,024	14%	1,009	13%	1,029	15%		28	3
17:15 - 17:30	923	1,071	15%	1,117	19%	1,118	19%	1,063	14%	1,077	15%	1,035	11%	1,071	15%	1,046	12%	1,118	19%	1,085	16%	1,086	16%	1,083	16%		28	3
17:30 - 17:45	909	1,103	19%	1,096	19%	1,109	20%	1,094	18%	1,062	16%	1,095	19%	1,103	19%	1,082	17%	1,141	23%	1,073	17%	1,115	20%	1,098	19%		22	2
17:45 - 18:00	903	1,038	14%	1,088	19%	1,136	23%	1,061	16%	1,125	22%	1,136	23%	1,038	14%	1,113	21%	1,076	17%	1,037	14%	1,069	17%	1,090	19%		37	5
Hour 1	3,923	4,422	12%	4,471	13%	4,500	14%	4,449	13%	4,443	12%	4,497	14%	4,422	12%	4,469	13%	4,386	11%	4,495	14%	4,557	15%	4,476	13%		26	0
Hour 2	3,728	4,896	27%	4,787	25%	4,752	24%	4,812	25%	4,840	26%	4,796	25%	4,896	27%	4,672	22%	4,854	26%	4,828	26%	4,873	27%	4,810	25%		29	0
Hour 3	3,586	4,570	24%	4,690	27%	4,667	26%	4,666	26%	4,634	25%	4,581	24%	4,570	24%	4,770	28%	4,661	26%	4,742	28%	4,690	27%	4,660	26%		26	0
Hour 4	3,622	4,283	17%	4,277	17%	4,376	19%	4,279	17%	4,273	16%	4,299	17%	4,283	17%	4,264	16%	4,392	19%	4,219	15%	4,279	17%	4,300	17%		29	0
11	14,859	18,171	20%	18,225	20%	18,295	21%	18,206	20%	18,190	20%	18,173	20%	18,171	20%	18,175	20%	18,293	21%	18,284	21%	18,399	21%	18,246	20%		56	0



CONCEPT 2: +10% I-225

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

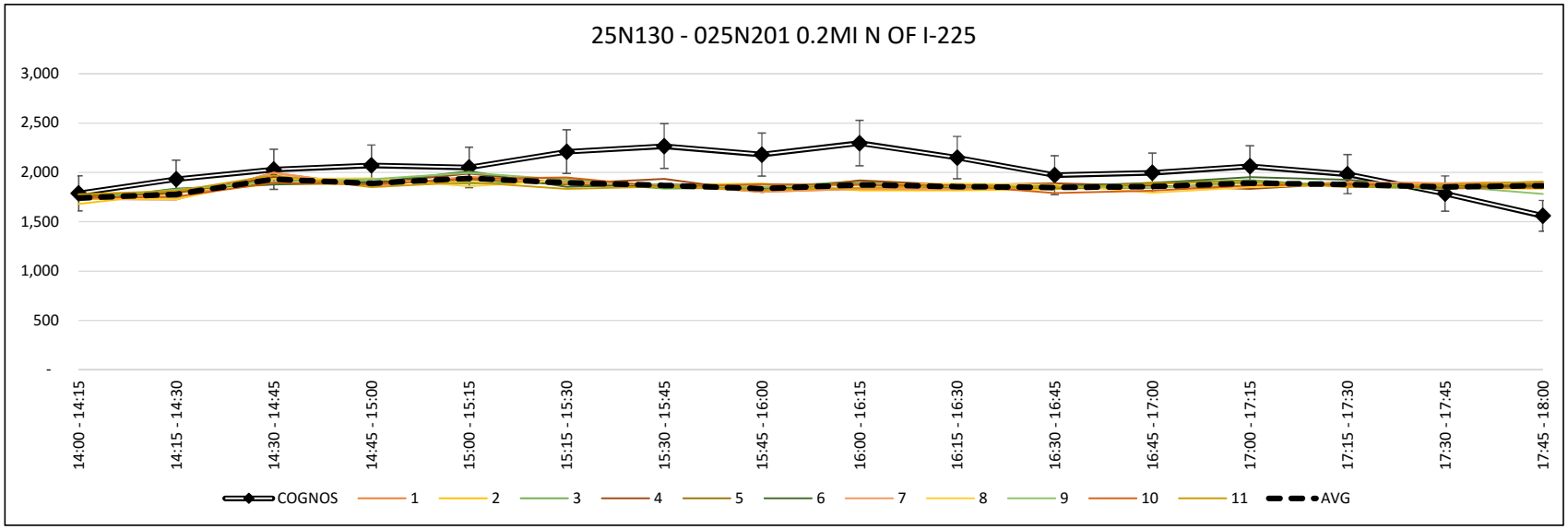
PM	COGNOS	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	225S060	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	1,325	1,148	14%	1,235	7%	1,251	6%	1,218	8%	1,276	4%	1,225	8%	1,148	14%	1,274	4%	1,251	6%	1,222	8%	1,275	4%	1,239	7%		37	2
14:15 - 14:30	1,409	1,288	9%	1,293	9%	1,338	5%	1,233	13%	1,272	10%	1,308	7%	1,288	9%	1,236	13%	1,280	10%	1,261	11%	1,301	8%	1,282	9%		31	1
14:30 - 14:45	1,437	1,360	6%	1,343	7%	1,388	3%	1,390	3%	1,378	4%	1,361	5%	1,360	6%	1,374	4%	1,325	8%	1,375	4%	1,383	4%	1,370	5%		21	1
14:45 - 15:00	1,243	1,448	15%	1,510	19%	1,418	13%	1,488	18%	1,457	16%	1,438	15%	1,448	15%	1,473	17%	1,466	16%	1,510	19%	1,476	17%	1,471	17%		29	2
15:00 - 15:15	1,186	1,513	24%	1,508	24%	1,437	19%	1,476	22%	1,469	21%	1,519	25%	1,513	24%	1,442	19%	1,442	19%	1,494	23%	1,442	19%	1,471	21%		33	2
15:15 - 15:30	1,255	1,370	9%	1,374	9%	1,366	8%	1,398	11%	1,393	10%	1,394	10%	1,370	9%	1,312	4%	1,393	10%	1,398	11%	1,385	10%	1,378	9%		25	1
15:30 - 15:45	1,150	1,521	28%	1,440	22%	1,538	29%	1,447	23%	1,484	25%	1,524	28%	1,521	28%	1,498	26%	1,527	28%	1,493	26%	1,508	27%	1,497	26%		32	2
15:45 - 16:00	1,228	1,513	21%	1,418	14%	1,439	16%	1,459	17%	1,494	20%	1,429	15%	1,513	21%	1,430	15%	1,480	19%	1,434	15%	1,512	21%	1,459	17%		35	2
16:00 - 16:15	1,097	1,473	29%	1,508	32%	1,503	31%	1,495	31%	1,494	31%	1,491	30%	1,473	29%	1,490	30%	1,499	31%	1,491	30%	1,532	33%	1,490	30%		28	2
16:15 - 16:30	1,221	1,497	20%	1,584	26%	1,506	21%	1,533	23%	1,583	26%	1,559	24%	1,497	20%	1,604	27%	1,557	24%	1,578	26%	1,534	23%	1,555	24%		34	2
16:30 - 16:45	1,269	1,578	22%	1,577	22%	1,614	24%	1,647	26%	1,559	21%	1,558	20%	1,578	22%	1,616	24%	1,584	22%	1,653	26%	1,620	24%	1,596	23%		36	2
16:45 - 17:00	1,189	1,415	17%	1,431	18%	1,415	17%	1,412	17%	1,455	20%	1,339	12%	1,415	17%	1,459	20%	1,427	18%	1,454	20%	1,427	18%	1,424	18%		33	2
17:00 - 17:15	1,236	1,435	15%	1,319	6%	1,341	8%	1,412	13%	1,347	9%	1,405	13%	1,435	15%	1,346	9%	1,394	12%	1,391	12%	1,312	6%	1,373	11%		41	3
17:15 - 17:30	1,036	1,434	32%	1,442	33%	1,482	35%	1,415	31%	1,436	32%	1,411	31%	1,434	32%	1,407	30%	1,493	36%	1,461	34%	1,382	29%	1,439	33%		34	3
17:30 - 17:45	1,201	1,477	21%	1,473	20%	1,486	21%	1,497	22%	1,367	13%	1,477	21%	1,477	21%	1,457	19%	1,512	23%	1,477	21%	1,518	23%	1,476	21%		40	3
17:45 - 18:00	1,118	1,437	25%	1,455	26%	1,502	29%	1,451	26%	1,489	28%	1,534	31%	1,437	25%	1,503	29%	1,466	27%	1,399	22%	1,419	24%	1,465	27%		40	4
Hour 1	5,414	5,244	3%	5,381	1%	5,395	0%	5,329	2%	5,383	1%	5,332	2%	5,244	3%	5,357	1%	5,322	2%	5,368	1%	5,435	0%	5,362	1%		30	0
Hour 2	4,819	5,917	20%	5,740	17%	5,780	18%	5,780	18%	5,840	19%	5,866	20%	5,917	20%	5,682	16%	5,842	19%	5,819	19%	5,847	19%	5,805	19%		31	0
Hour 3	4,776	5,963	22%	6,100	24%	6,038	23%	6,087	24%	6,091	24%	5,947	22%	5,963	22%	6,169	25%	6,067	24%	6,176	26%	6,113	25%	6,065	24%		33	0
Hour 4	4,591	5,783	23%	5,689	21%	5,811	23%	5,775	23%	5,639	20%	5,827	24%	5,783	23%	5,713	22%	5,865	24%	5,728	22%	5,631	20%	5,753	22%		39	0
11	19,600	22,907	16%	22,910	16%	23,024	16%	22,971	16%	22,953	16%	22,972	16%	22,907	16%	22,921	16%	23,096	16%	23,091	16%	23,026	16%	22,985	16%		67	0



CONCEPT 2: +10% I-225

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

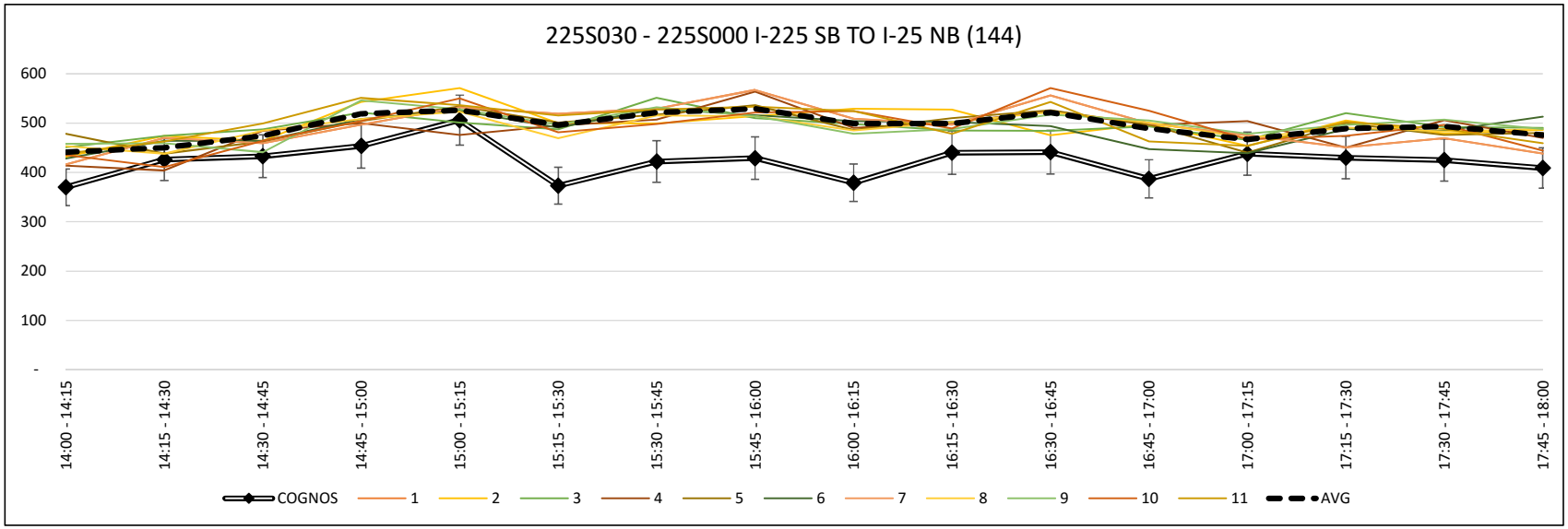
PM	COGNOS	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	25N130	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	1,788	1,730	3%	1,681	6%	1,752	2%	1,751	2%	1,766	1%	1,717	4%	1,730	3%	1,738	3%	1,732	3%	1,742	3%	1,778	1%	1,741	3%		27	1
14:15 - 14:30	1,932	1,726	11%	1,793	7%	1,750	10%	1,791	8%	1,800	7%	1,837	5%	1,726	11%	1,728	11%	1,826	6%	1,754	10%	1,812	6%	1,779	8%		39	1
14:30 - 14:45	2,031	1,996	2%	1,879	8%	1,940	5%	1,955	4%	1,931	5%	1,876	8%	1,996	2%	1,933	5%	1,905	6%	1,895	7%	1,970	3%	1,930	5%		38	1
14:45 - 15:00	2,071	1,862	11%	1,886	9%	1,909	8%	1,890	9%	1,880	10%	1,899	9%	1,862	11%	1,941	6%	1,932	7%	1,877	10%	1,852	11%	1,888	9%		31	1
15:00 - 15:15	2,050	1,954	5%	1,926	6%	1,885	8%	1,989	3%	1,927	6%	2,011	2%	1,954	5%	1,860	10%	1,996	3%	1,936	6%	1,901	8%	1,940	6%		47	1
15:15 - 15:30	2,210	1,893	15%	1,905	15%	1,910	15%	1,885	16%	1,877	16%	1,854	18%	1,893	15%	1,921	14%	1,926	14%	1,948	13%	1,833	19%	1,895	15%		33	1
15:30 - 15:45	2,267	1,874	19%	1,873	19%	1,835	21%	1,933	16%	1,854	20%	1,879	19%	1,874	19%	1,863	20%	1,869	19%	1,854	20%	1,856	20%	1,867	19%		26	0
15:45 - 16:00	2,181	1,804	19%	1,886	15%	1,847	17%	1,801	19%	1,820	18%	1,841	17%	1,804	19%	1,855	16%	1,858	16%	1,879	15%	1,821	18%	1,836	17%		32	1
16:00 - 16:15	2,297	1,833	22%	1,817	23%	1,912	18%	1,919	18%	1,893	19%	1,877	20%	1,833	22%	1,878	20%	1,882	20%	1,874	20%	1,846	22%	1,875	20%		31	1
16:15 - 16:30	2,150	1,831	16%	1,817	17%	1,868	14%	1,872	14%	1,855	15%	1,841	15%	1,831	16%	1,885	13%	1,854	15%	1,869	14%	1,863	14%	1,857	15%		20	0
16:30 - 16:45	1,972	1,854	6%	1,829	8%	1,845	7%	1,889	4%	1,839	7%	1,862	6%	1,854	6%	1,875	5%	1,855	6%	1,791	10%	1,846	7%	1,849	6%		25	0
16:45 - 17:00	1,997	1,849	8%	1,898	5%	1,883	6%	1,865	7%	1,841	8%	1,891	5%	1,849	8%	1,795	11%	1,844	8%	1,815	10%	1,887	6%	1,857	7%		33	1
17:00 - 17:15	2,064	1,861	10%	1,916	7%	1,922	7%	1,834	12%	1,902	8%	1,953	6%	1,861	10%	1,852	11%	1,892	9%	1,868	10%	1,908	8%	1,892	9%		35	1
17:15 - 17:30	1,983	1,900	4%	1,864	6%	1,856	7%	1,888	5%	1,861	6%	1,926	3%	1,900	4%	1,876	6%	1,881	5%	1,879	5%	1,852	7%	1,877	5%		22	0
17:30 - 17:45	1,786	1,889	6%	1,877	5%	1,832	3%	1,854	4%	1,861	4%	1,841	3%	1,889	6%	1,843	3%	1,863	4%	1,843	3%	1,874	5%	1,854	4%		22	0
17:45 - 18:00	1,560	1,902	20%	1,867	18%	1,870	18%	1,870	18%	1,883	19%	1,862	18%	1,902	20%	1,832	16%	1,782	13%	1,846	17%	1,907	20%	1,864	18%		35	1
Hour 1	7,822	7,314	7%	7,239	8%	7,351	6%	7,387	6%	7,377	6%	7,329	7%	7,314	7%	7,340	6%	7,395	6%	7,268	7%	7,412	5%	7,338	6%		34	0
Hour 2	8,708	7,525	15%	7,590	14%	7,477	15%	7,608	13%	7,478	15%	7,585	14%	7,525	15%	7,499	15%	7,649	13%	7,617	13%	7,411	16%	7,538	14%		35	0
Hour 3	8,416	7,367	13%	7,361	13%	7,508	11%	7,545	11%	7,428	12%	7,471	12%	7,367	13%	7,433	12%	7,435	12%	7,349	14%	7,442	12%	7,438	12%		28	0
Hour 4	7,393	7,552	2%	7,524	2%	7,480	1%	7,446	1%	7,507	2%	7,582	3%	7,552	2%	7,403	0%	7,418	0%	7,436	1%	7,541	2%	7,487	1%		29	0
11	32,339	29,758	8%	29,714	8%	29,816	8%	29,986	8%	29,790	8%	29,967	8%	29,758	8%	29,675	9%	29,897	8%	29,670	9%	29,806	8%	29,801	8%		64	0



CONCEPT 2: +10% I-225

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

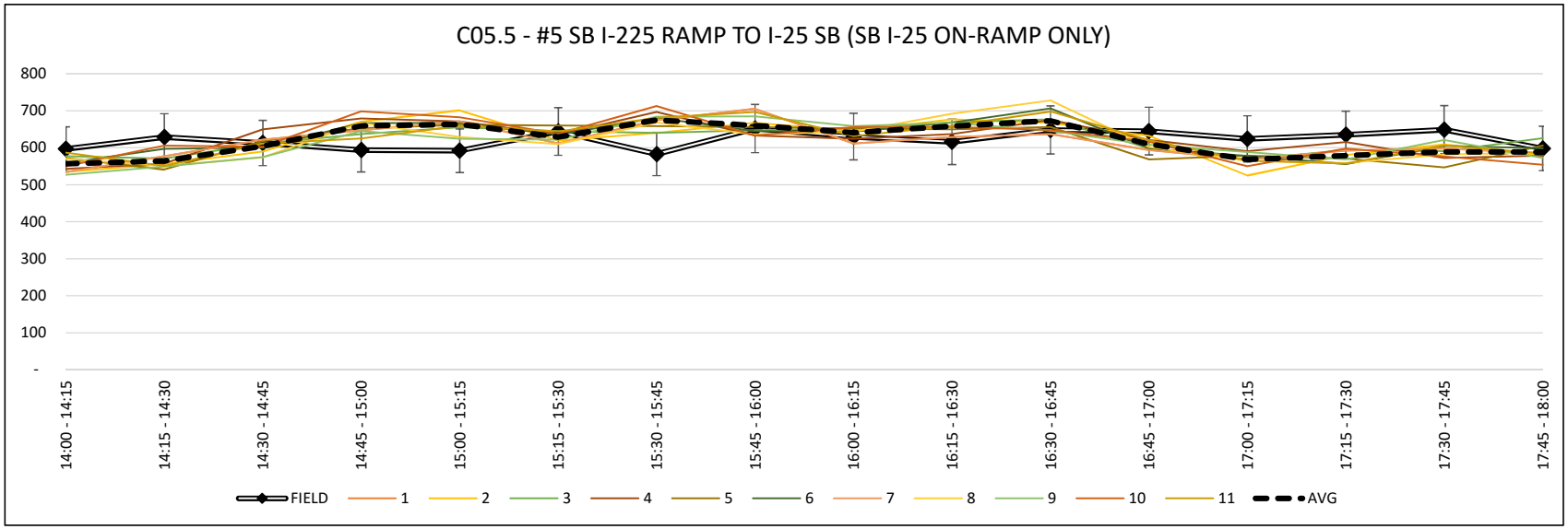
PM	COGNOS	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	225S030	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	370	416	12%	432	15%	451	20%	414	11%	478	25%	428	15%	416	12%	453	20%	458	21%	435	16%	438	17%	441	18%		35	25
14:15 - 14:30	426	470	10%	474	11%	474	11%	404	5%	438	3%	464	9%	470	10%	438	3%	459	7%	411	4%	463	8%	450	5%		30	14
14:30 - 14:45	433	459	6%	464	7%	487	12%	484	11%	463	7%	464	7%	459	6%	485	11%	441	2%	464	7%	499	14%	474	9%		28	12
14:45 - 15:00	454	497	9%	543	18%	521	14%	500	10%	504	10%	508	11%	497	9%	508	11%	546	18%	504	10%	551	19%	519	13%		26	9
15:00 - 15:15	506	532	5%	571	12%	501	1%	476	6%	534	5%	525	4%	532	5%	523	3%	528	4%	550	8%	536	6%	526	4%		40	17
15:15 - 15:30	373	519	33%	500	29%	487	27%	495	28%	501	29%	491	27%	519	33%	469	23%	497	29%	481	25%	515	32%	496	28%		30	18
15:30 - 15:45	422	529	23%	499	17%	551	27%	507	18%	517	20%	529	23%	529	23%	515	20%	532	23%	498	17%	527	22%	521	21%		26	11
15:45 - 16:00	429	567	28%	514	18%	510	17%	564	27%	536	22%	516	18%	567	28%	514	18%	514	18%	521	19%	533	22%	529	21%		42	27
16:00 - 16:15	379	509	29%	529	33%	498	27%	490	26%	486	25%	504	28%	509	29%	485	25%	478	23%	524	32%	524	32%	499	27%		25	12
16:15 - 16:30	440	497	12%	527	18%	485	10%	501	13%	510	15%	502	13%	497	12%	502	13%	488	10%	489	11%	478	8%	499	13%		31	14
16:30 - 16:45	441	556	23%	475	7%	484	9%	525	17%	526	18%	494	11%	556	23%	522	17%	517	16%	571	26%	543	21%	521	17%		28	11
16:45 - 17:00	387	499	25%	498	25%	493	24%	496	25%	497	25%	447	14%	499	25%	501	26%	505	26%	525	30%	463	18%	489	23%		34	21
17:00 - 17:15	438	475	8%	454	4%	466	6%	504	14%	440	0%	439	0%	475	8%	470	7%	478	9%	467	6%	454	4%	467	6%		31	14
17:15 - 17:30	430	451	5%	505	16%	520	19%	450	5%	500	15%	488	13%	451	5%	491	13%	496	14%	474	10%	502	15%	489	13%		25	9
17:30 - 17:45	425	469	10%	479	12%	492	15%	506	17%	476	11%	484	13%	469	10%	483	13%	507	18%	496	15%	488	14%	493	15%		27	11
17:45 - 18:00	409	438	7%	486	17%	490	18%	470	14%	480	16%	513	23%	438	7%	488	18%	488	18%	444	8%	459	12%	476	15%		39	25
Hour 1	1,683	1,842	9%	1,913	13%	1,933	14%	1,802	7%	1,883	11%	1,864	10%	1,842	9%	1,884	11%	1,904	12%	1,814	7%	1,951	15%	1,884	11%		30	1
Hour 2	1,730	2,147	22%	2,084	19%	2,049	17%	2,042	17%	2,088	19%	2,061	17%	2,147	22%	2,021	16%	2,071	18%	2,050	17%	2,111	20%	2,072	18%		35	1
Hour 3	1,647	2,061	22%	2,029	21%	1,960	17%	2,012	20%	2,019	20%	1,947	17%	2,061	22%	2,010	20%	1,988	19%	2,109	25%	2,008	20%	2,008	20%		30	1
Hour 4	1,702	1,833	7%	1,924	12%	1,968	14%	1,930	13%	1,896	11%	1,924	12%	1,833	7%	1,932	13%	1,969	15%	1,881	10%	1,903	11%	1,925	12%		31	1
11	6,762	7,883	15%	7,950	16%	7,910	16%	7,786	14%	7,886	15%	7,796	14%	7,883	15%	7,847	15%	7,932	16%	7,854	15%	7,973	16%	7,889	15%		63	0



CONCEPT 2: +10% I-225

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

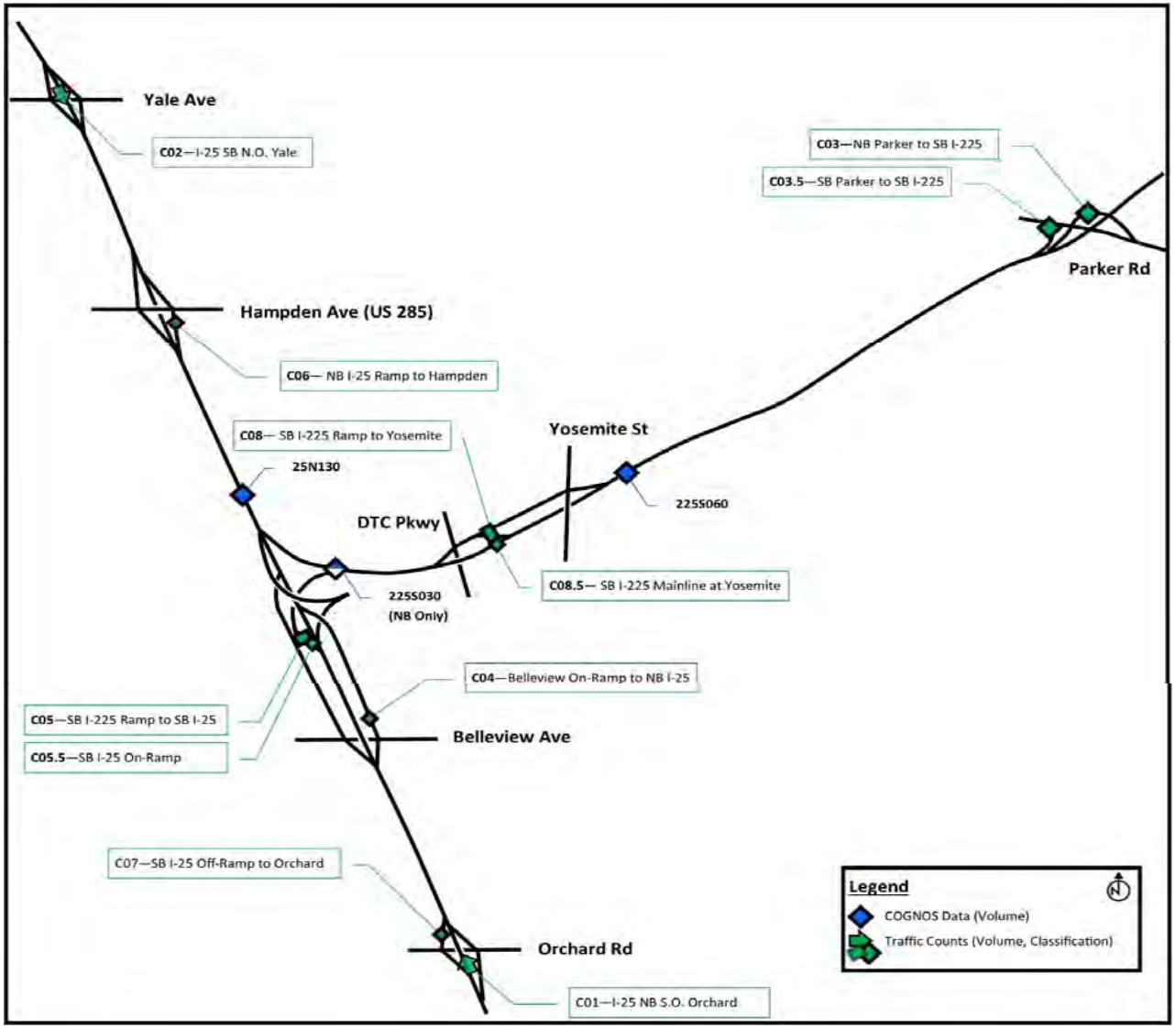
PM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C05.5	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	597	534	11%	535	11%	577	3%	543	9%	572	4%	559	7%	534	11%	570	5%	527	12%	550	8%	587	2%	557	7%		-	0
14:15 - 14:30	629	577	9%	556	12%	571	10%	557	12%	541	15%	597	5%	577	9%	551	13%	549	14%	606	4%	551	13%	564	11%		-	0
14:30 - 14:45	613	622	1%	590	4%	611	0%	650	6%	618	1%	600	2%	622	1%	574	7%	575	6%	603	2%	611	0%	604	1%		-	0
14:45 - 15:00	594	647	9%	670	12%	637	7%	679	13%	653	9%	666	11%	647	9%	667	12%	645	8%	698	16%	625	5%	659	10%		-	0
15:00 - 15:15	592	671	13%	701	17%	655	10%	671	13%	662	11%	667	12%	671	13%	629	6%	624	5%	682	14%	659	11%	663	11%		-	0
15:15 - 15:30	644	611	5%	619	4%	645	0%	635	1%	660	2%	635	1%	611	5%	610	5%	622	3%	638	1%	644	0%	629	2%		-	0
15:30 - 15:45	583	674	14%	640	9%	640	9%	697	18%	658	12%	681	16%	674	14%	668	14%	684	16%	713	20%	681	16%	675	15%		-	0
15:45 - 16:00	652	705	8%	667	2%	647	1%	633	3%	656	1%	645	1%	705	8%	636	2%	685	5%	633	3%	697	7%	660	1%		-	0
16:00 - 16:15	630	611	3%	646	3%	653	4%	624	1%	652	3%	643	2%	611	3%	643	2%	658	4%	656	4%	631	0%	641	2%		-	0
16:15 - 16:30	616	629	2%	677	9%	669	8%	637	3%	650	5%	668	8%	629	2%	692	12%	667	8%	656	6%	659	7%	658	7%		-	0
16:30 - 16:45	648	637	2%	667	3%	677	4%	675	4%	656	1%	706	9%	637	2%	728	12%	646	0%	648	0%	698	7%	673	4%		-	0
16:45 - 17:00	645	594	8%	632	2%	599	7%	621	4%	568	13%	598	8%	594	8%	602	7%	608	6%	616	5%	620	4%	610	6%		-	0
17:00 - 17:15	624	568	9%	525	17%	568	9%	591	5%	579	7%	578	8%	568	9%	564	10%	588	6%	550	13%	565	10%	568	9%		-	0
17:15 - 17:30	635	592	7%	580	9%	594	7%	615	3%	571	11%	556	13%	592	7%	559	13%	568	11%	598	6%	557	13%	579	9%		-	0
17:30 - 17:45	649	598	8%	609	6%	591	9%	572	13%	547	17%	605	7%	598	8%	582	11%	621	4%	576	12%	607	7%	589	10%		-	0
17:45 - 18:00	598	585	2%	579	3%	626	5%	579	3%	606	1%	599	0%	585	2%	587	2%	572	4%	554	8%	584	2%	588	2%		-	0
Hour 1	2,433	2,380	2%	2,351	3%	2,396	2%	2,429	0%	2,384	2%	2,422	0%	2,380	2%	2,362	3%	2,296	6%	2,457	1%	2,374	2%	2,384	2%		-	0
Hour 2	2,471	2,661	7%	2,627	6%	2,587	5%	2,636	6%	2,636	6%	2,628	6%	2,661	7%	2,543	3%	2,615	6%	2,666	8%	2,681	8%	2,627	6%		-	0
Hour 3	2,539	2,471	3%	2,622	3%	2,598	2%	2,557	1%	2,526	1%	2,615	3%	2,471	3%	2,665	5%	2,579	2%	2,576	1%	2,608	3%	2,582	2%		-	0
Hour 4	2,506	2,343	7%	2,293	9%	2,379	5%	2,357	6%	2,303	8%	2,338	7%	2,343	7%	2,292	9%	2,349	6%	2,278	10%	2,313	8%	2,324	8%		-	0
11	9,949	9,855	1%	9,893	1%	9,960	0%	9,979	0%	9,849	1%	10,003	1%	9,855	1%	9,862	1%	9,839	1%	9,977	0%	9,976	0%	9,917	0%		-	0



TRAFFIC VOLUMES - BY LINK

CONCEPT 3: +10% I-225

PERIOD: AM

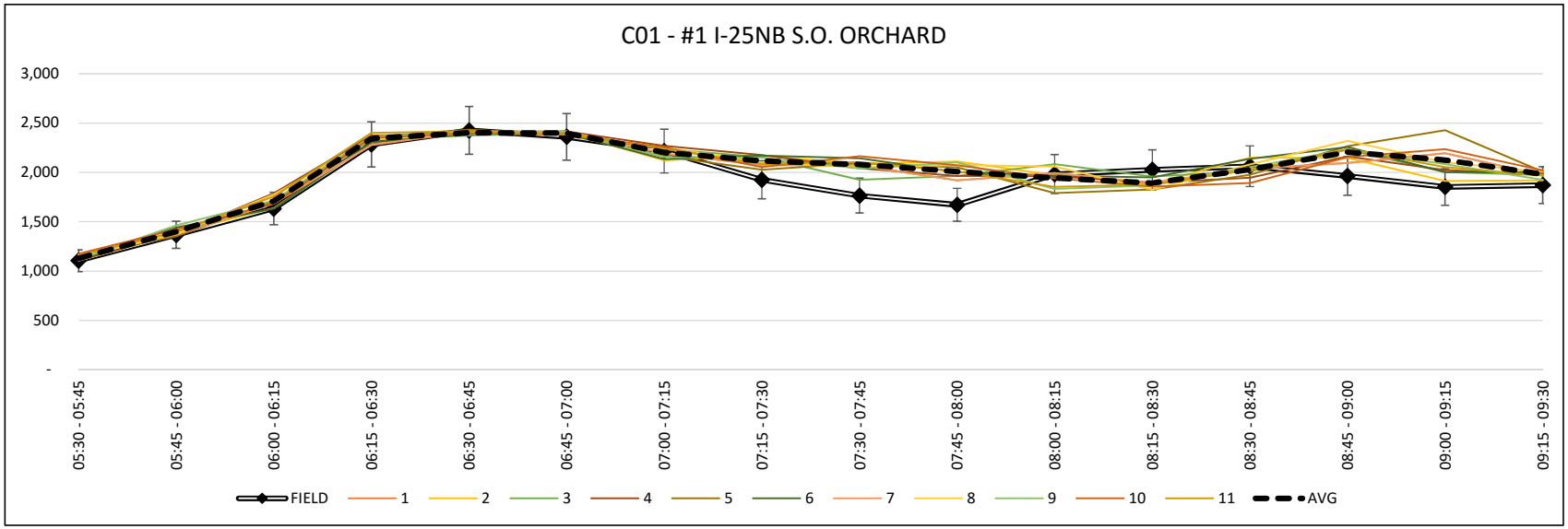


ID	DESCRIPTION
C01	NB I-25 S.O. Orchard
C02	SB I-25 N.O. Yale
C03	NB Parker to SB I-225
C03.5	SB Parker to SB I-225
C04	Belleview On-Ramp to NB I-25
C05	SB I-225 Ramp to SB I-25
C06	NB I-25 Ramp to Hampden
C07	SB I-25 Off-Ramp to Orchard
C08	SB I-225 Ramp to Yosemite
C08.5	SB I-225 Mainline at Yosemite
225S060	225S001 PARKER RD TO YOSEMITE ST (176)
25N130	025N201 0.2MI N OF I-225
225S030	225S000 I-225 SB TO I-25 NB (144)
C05.5	#5 SB I-225 to SB I-25 On-Ramp Only

CONCEPT 2: +10% I-225

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

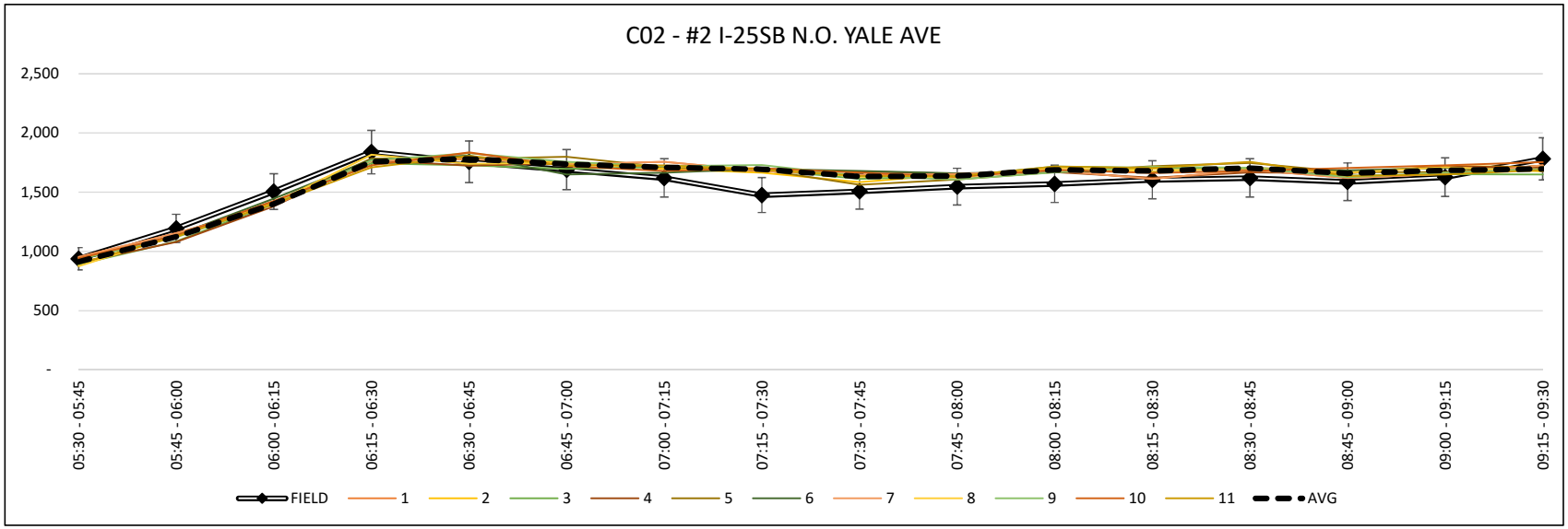
AM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C01	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	1,106	1,163	5%	1,106	0%	1,108	0%	1,114	1%	1,164	5%	1,119	1%	1,163	5%	1,143	3%	1,118	1%	1,176	6%	1,161	5%	1,131	2%		32	2
05:45 - 06:00	1,368	1,370	0%	1,390	2%	1,383	1%	1,376	1%	1,353	1%	1,441	5%	1,370	0%	1,377	1%	1,461	7%	1,424	4%	1,398	2%	1,398	2%		32	2
06:00 - 06:15	1,634	1,686	3%	1,637	0%	1,695	4%	1,788	9%	1,706	4%	1,633	0%	1,686	3%	1,776	8%	1,717	5%	1,683	3%	1,756	7%	1,711	5%		52	3
06:15 - 06:30	2,284	2,278	0%	2,298	1%	2,336	2%	2,373	4%	2,358	3%	2,304	1%	2,278	0%	2,336	2%	2,363	3%	2,350	3%	2,400	5%	2,343	3%		37	1
06:30 - 06:45	2,426	2,414	0%	2,405	1%	2,374	2%	2,390	1%	2,433	0%	2,387	2%	2,414	0%	2,399	1%	2,404	1%	2,398	1%	2,418	0%	2,402	1%		16	0
06:45 - 07:00	2,361	2,416	2%	2,403	2%	2,402	2%	2,415	2%	2,383	1%	2,399	2%	2,416	2%	2,385	1%	2,408	2%	2,383	1%	2,384	1%	2,398	2%		13	0
07:00 - 07:15	2,216	2,191	1%	2,122	4%	2,236	1%	2,269	2%	2,163	2%	2,135	4%	2,191	1%	2,251	2%	2,155	3%	2,253	2%	2,240	1%	2,203	1%		52	2
07:15 - 07:30	1,926	2,076	7%	2,171	12%	2,154	11%	2,175	12%	2,026	5%	2,171	12%	2,076	7%	2,101	9%	2,148	11%	2,055	6%	2,087	8%	2,115	9%		52	2
07:30 - 07:45	1,765	2,069	16%	2,088	17%	1,926	9%	2,042	15%	2,094	17%	2,142	19%	2,069	16%	2,050	15%	2,040	14%	2,164	20%	2,104	18%	2,080	16%		67	4
07:45 - 08:00	1,672	1,919	14%	2,110	23%	1,965	16%	1,964	16%	2,052	20%	2,002	18%	1,919	14%	2,075	22%	2,101	23%	2,073	21%	2,010	18%	2,008	18%		88	8
08:00 - 08:15	1,983	1,993	1%	1,973	1%	2,083	5%	1,962	1%	1,792	10%	1,968	1%	1,993	1%	2,061	4%	1,833	8%	1,940	2%	1,855	7%	1,944	2%		90	6
08:15 - 08:30	2,026	1,891	7%	1,885	7%	1,959	3%	1,894	7%	1,828	10%	1,948	4%	1,891	7%	1,825	10%	1,867	8%	1,856	9%	1,877	8%	1,892	7%		52	2
08:30 - 08:45	2,063	2,040	1%	2,148	4%	2,013	2%	1,946	6%	1,976	4%	2,137	4%	2,040	1%	2,080	1%	2,054	0%	1,893	9%	2,025	2%	2,029	2%		76	4
08:45 - 09:00	1,964	2,097	7%	2,147	9%	2,229	13%	2,160	10%	2,265	14%	2,257	14%	2,097	7%	2,319	17%	2,233	13%	2,156	9%	2,236	13%	2,207	12%		65	3
09:00 - 09:15	1,853	2,194	17%	1,913	3%	2,004	8%	2,023	9%	2,428	27%	2,004	8%	2,194	17%	2,101	13%	2,083	12%	2,235	19%	2,054	10%	2,125	14%		156	20
09:15 - 09:30	1,871	1,972	5%	1,919	3%	1,973	5%	1,981	6%	2,007	7%	1,999	7%	1,972	5%	2,005	7%	1,926	3%	2,020	8%	1,967	5%	1,982	6%		36	1
Hour 1	6,392	6,497	2%	6,431	1%	6,522	2%	6,651	4%	6,581	3%	6,497	2%	6,497	2%	6,632	4%	6,659	4%	6,633	4%	6,715	5%	6,583	3%		39	0
Hour 2	8,929	9,097	2%	9,101	2%	9,166	3%	9,249	4%	9,005	1%	9,092	2%	9,097	2%	9,136	2%	9,115	2%	9,089	2%	9,129	2%	9,118	2%		38	0
Hour 3	7,446	7,872	6%	8,056	8%	7,933	6%	7,862	5%	7,766	4%	8,060	8%	7,872	6%	8,011	7%	7,841	5%	8,033	8%	7,846	5%	7,924	6%		76	0
Hour 4	7,751	8,303	7%	8,127	5%	8,219	6%	8,110	5%	8,676	11%	8,397	8%	8,303	7%	8,505	9%	8,296	7%	8,304	7%	8,282	7%	8,343	7%		94	0
11	30,518	31,769	4%	31,715	4%	31,840	4%	31,872	4%	32,028	5%	32,046	5%	31,769	4%	32,284	6%	31,911	4%	32,059	5%	31,972	5%	31,968	5%		133	0



CONCEPT 2: +10% I-225

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

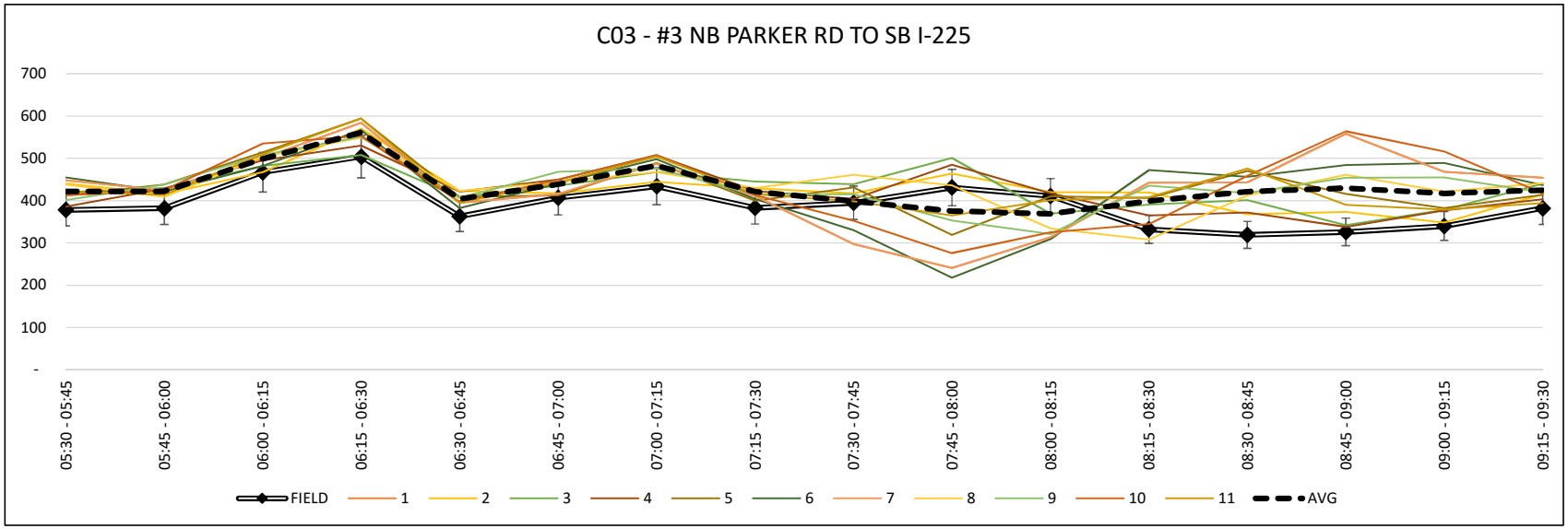
AM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C02	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	938	951	1%	889	5%	889	5%	905	4%	930	1%	927	1%	951	1%	875	7%	935	0%	943	1%	898	4%	912	3%		26	2
05:45 - 06:00	1,194	1,155	3%	1,136	5%	1,084	10%	1,080	10%	1,128	6%	1,136	5%	1,155	3%	1,134	5%	1,119	6%	1,134	5%	1,125	6%	1,124	6%		23	1
06:00 - 06:15	1,505	1,387	8%	1,419	6%	1,400	7%	1,380	9%	1,410	7%	1,445	4%	1,387	8%	1,406	7%	1,395	8%	1,425	5%	1,401	7%	1,400	7%		28	1
06:15 - 06:30	1,838	1,763	4%	1,768	4%	1,745	5%	1,771	4%	1,783	3%	1,773	4%	1,763	4%	1,816	1%	1,768	4%	1,726	6%	1,709	7%	1,756	5%		35	1
06:30 - 06:45	1,757	1,781	1%	1,783	1%	1,726	2%	1,723	2%	1,780	1%	1,809	3%	1,781	1%	1,739	1%	1,829	4%	1,835	4%	1,807	3%	1,781	1%		39	1
06:45 - 07:00	1,690	1,734	3%	1,750	3%	1,696	0%	1,743	3%	1,799	6%	1,649	2%	1,734	3%	1,749	3%	1,757	4%	1,720	2%	1,724	2%	1,736	3%		40	2
07:00 - 07:15	1,620	1,757	8%	1,696	5%	1,714	6%	1,717	6%	1,712	6%	1,665	3%	1,757	8%	1,719	6%	1,720	6%	1,679	4%	1,727	6%	1,710	5%		24	1
07:15 - 07:30	1,476	1,678	13%	1,665	12%	1,692	14%	1,682	13%	1,689	13%	1,696	14%	1,678	13%	1,702	14%	1,729	16%	1,702	14%	1,690	14%	1,694	14%		17	0
07:30 - 07:45	1,508	1,642	9%	1,585	5%	1,612	7%	1,673	10%	1,561	3%	1,678	11%	1,642	9%	1,629	8%	1,637	8%	1,664	10%	1,637	8%	1,632	8%		36	2
07:45 - 08:00	1,547	1,654	7%	1,652	7%	1,634	5%	1,656	7%	1,608	4%	1,658	7%	1,654	7%	1,621	5%	1,607	4%	1,630	5%	1,633	5%	1,636	6%		18	0
08:00 - 08:15	1,570	1,681	7%	1,672	6%	1,716	9%	1,670	6%	1,668	6%	1,674	6%	1,681	7%	1,705	8%	1,666	6%	1,689	7%	1,716	9%	1,689	7%		22	1
08:15 - 08:30	1,605	1,611	0%	1,699	6%	1,706	6%	1,623	1%	1,718	7%	1,675	4%	1,611	0%	1,677	4%	1,713	7%	1,661	3%	1,703	6%	1,678	4%		35	1
08:30 - 08:45	1,620	1,689	4%	1,706	5%	1,696	5%	1,666	3%	1,746	7%	1,705	5%	1,689	4%	1,703	5%	1,707	5%	1,678	4%	1,755	8%	1,705	5%		26	1
08:45 - 09:00	1,588	1,620	2%	1,667	5%	1,638	3%	1,659	4%	1,668	5%	1,684	6%	1,620	2%	1,663	5%	1,628	2%	1,705	7%	1,637	3%	1,660	4%		28	1
09:00 - 09:15	1,627	1,655	2%	1,721	6%	1,651	1%	1,720	6%	1,669	3%	1,704	5%	1,655	2%	1,711	5%	1,664	2%	1,726	6%	1,648	1%	1,685	4%		31	1
09:15 - 09:30	1,781	1,726	3%	1,711	4%	1,650	8%	1,707	4%	1,723	3%	1,682	6%	1,726	3%	1,674	6%	1,695	5%	1,753	2%	1,687	5%	1,697	5%		31	1
Hour 1	5,475	5,256	4%	5,212	5%	5,118	7%	5,136	6%	5,251	4%	5,281	4%	5,256	4%	5,231	5%	5,217	5%	5,228	5%	5,133	6%	5,192	5%		28	0
Hour 2	6,543	6,950	6%	6,894	5%	6,828	4%	6,865	5%	6,980	6%	6,819	4%	6,950	6%	6,909	5%	7,035	7%	6,936	6%	6,948	6%	6,921	6%		32	0
Hour 3	6,230	6,588	6%	6,608	6%	6,668	7%	6,622	6%	6,555	5%	6,685	7%	6,588	6%	6,632	6%	6,623	6%	6,644	6%	6,689	7%	6,635	6%		29	0
Hour 4	6,616	6,690	1%	6,805	3%	6,635	0%	6,752	2%	6,806	3%	6,775	2%	6,690	1%	6,751	2%	6,694	1%	6,862	4%	6,727	2%	6,747	2%		29	0
11	24,864	25,484	2%	25,519	3%	25,249	2%	25,375	2%	25,592	3%	25,560	3%	25,484	2%	25,523	3%	25,569	3%	25,670	3%	25,497	3%	25,495	3%		59	0



CONCEPT 2: +10% I-225

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

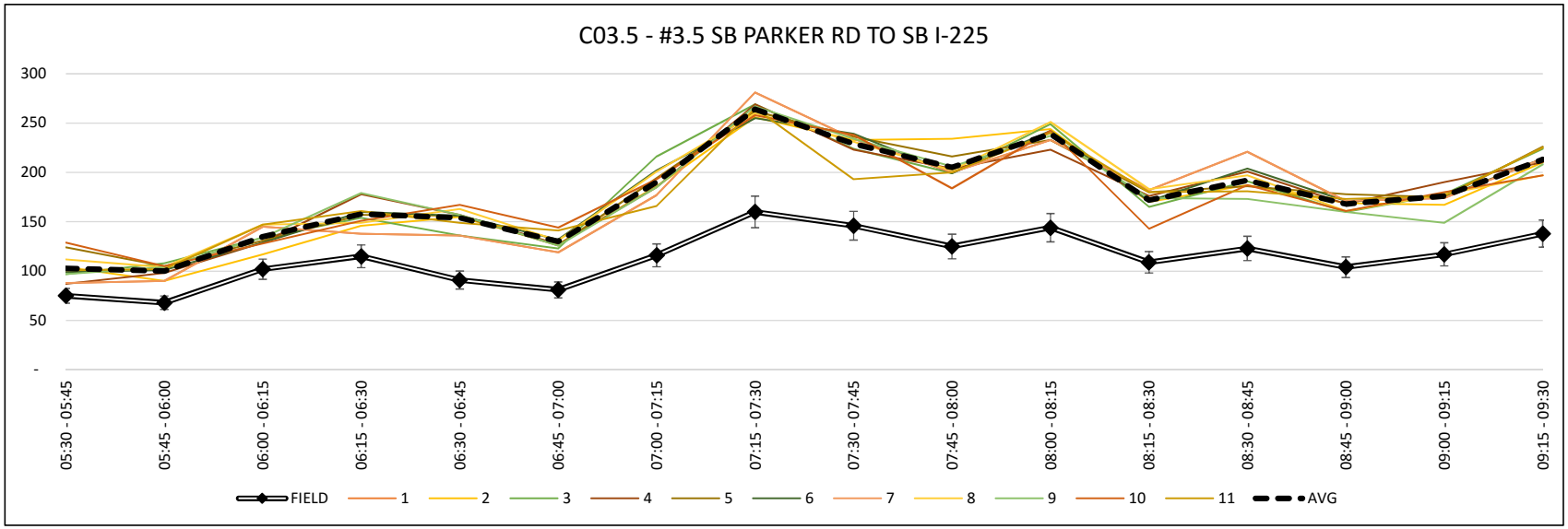
AM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C03	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	378	448	17%	440	15%	420	11%	386	2%	412	9%	455	18%	448	17%	438	15%	401	6%	412	9%	422	11%	422	11%		21	9
05:45 - 06:00	382	425	11%	416	9%	430	12%	428	11%	438	14%	421	10%	425	11%	409	7%	438	14%	425	11%	414	8%	422	10%		12	3
06:00 - 06:15	467	501	7%	467	0%	482	3%	495	6%	514	10%	482	3%	501	7%	504	8%	508	8%	535	14%	510	9%	499	7%		18	4
06:15 - 06:30	504	584	15%	570	12%	508	1%	530	5%	594	16%	567	12%	584	15%	549	9%	551	9%	553	9%	594	16%	561	11%		27	8
06:30 - 06:45	363	395	8%	423	15%	408	12%	421	15%	409	12%	382	5%	395	8%	423	15%	406	11%	397	9%	395	8%	404	11%		15	5
06:45 - 07:00	407	416	2%	417	2%	435	7%	450	10%	412	1%	441	8%	416	2%	444	9%	468	14%	449	10%	443	8%	439	8%		17	5
07:00 - 07:15	434	487	12%	444	2%	467	7%	507	16%	489	12%	498	14%	487	12%	467	7%	476	9%	508	16%	504	15%	483	11%		21	6
07:15 - 07:30	383	411	7%	429	11%	445	15%	423	10%	400	4%	404	5%	411	7%	430	12%	415	8%	413	8%	415	8%	421	9%		15	4
07:30 - 07:45	395	297	28%	417	5%	439	11%	404	2%	431	9%	330	18%	297	28%	461	15%	415	5%	352	12%	398	1%	398	1%		50	44
07:45 - 08:00	431	241	57%	464	7%	501	15%	485	12%	319	30%	218	66%	241	57%	436	1%	353	20%	276	44%	365	17%	375	14%		102	155
08:00 - 08:15	411	313	27%	420	2%	369	11%	417	1%	410	0%	309	28%	313	27%	334	21%	321	25%	325	23%	401	2%	369	11%		50	41
08:15 - 08:30	332	442	28%	419	23%	391	16%	365	9%	406	20%	472	35%	442	28%	308	8%	435	27%	345	4%	408	21%	399	18%		46	53
08:30 - 08:45	319	443	33%	368	14%	401	23%	372	15%	470	38%	456	35%	443	33%	412	25%	418	27%	458	36%	476	39%	421	28%		43	50
08:45 - 09:00	326	558	52%	373	13%	342	5%	338	4%	416	24%	484	39%	558	52%	461	34%	454	33%	564	53%	390	18%	430	28%		81	171
09:00 - 09:15	340	468	32%	348	2%	378	11%	377	10%	382	12%	489	36%	468	32%	421	21%	455	29%	516	41%	379	11%	417	20%		56	75
09:15 - 09:30	382	454	17%	415	8%	440	14%	403	5%	414	8%	437	13%	454	17%	441	14%	419	9%	417	9%	394	3%	425	11%		18	6
Hour 1	1,731	1,958	12%	1,893	9%	1,840	6%	1,839	6%	1,958	12%	1,925	11%	1,958	12%	1,900	9%	1,898	9%	1,925	11%	1,940	11%	1,904	10%		20	0
Hour 2	1,587	1,709	7%	1,713	8%	1,755	10%	1,801	13%	1,710	7%	1,725	8%	1,709	7%	1,764	11%	1,765	11%	1,767	11%	1,757	10%	1,747	10%		17	0
Hour 3	1,569	1,293	19%	1,720	9%	1,700	8%	1,671	6%	1,566	0%	1,329	17%	1,293	19%	1,539	2%	1,524	3%	1,298	19%	1,572	0%	1,541	2%		66	5
Hour 4	1,367	1,923	34%	1,504	10%	1,561	13%	1,490	9%	1,682	21%	1,866	31%	1,923	34%	1,735	24%	1,746	24%	1,955	35%	1,639	18%	1,693	21%		54	4
11	6,254	6,883	10%	6,830	9%	6,856	9%	6,801	8%	6,916	10%	6,845	9%	6,883	10%	6,938	10%	6,933	10%	6,945	10%	6,908	10%	6,885	10%		90	1



CONCEPT 2: +10% I-225

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

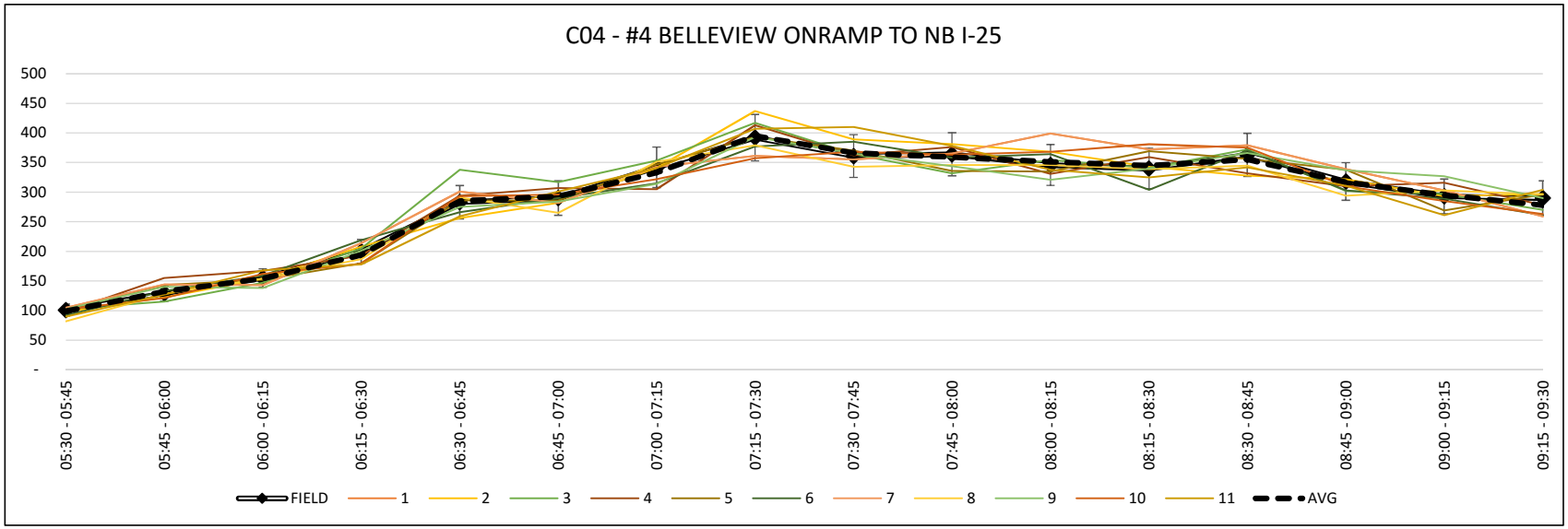
AM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C03.5	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	75	88	16%	104	32%	97	26%	87	15%	124	49%	99	28%	88	16%	112	40%	97	26%	129	53%	101	30%	103	31%		14	97
05:45 - 06:00	68	90	28%	90	28%	108	45%	98	36%	105	43%	101	39%	90	28%	104	42%	104	42%	105	43%	102	40%	100	38%		6	22
06:00 - 06:15	102	145	35%	117	14%	134	27%	129	23%	131	25%	129	23%	145	35%	147	36%	134	27%	128	23%	147	36%	135	28%		10	27
06:15 - 06:30	115	138	18%	146	24%	154	29%	178	43%	157	31%	160	33%	138	18%	149	26%	179	44%	151	27%	161	33%	158	32%		13	35
06:30 - 06:45	91	136	40%	155	52%	136	40%	157	53%	156	53%	156	53%	136	40%	163	57%	157	53%	167	59%	149	48%	154	51%		10	34
06:45 - 07:00	81	119	38%	127	44%	123	41%	127	44%	126	43%	132	48%	119	38%	131	47%	126	43%	144	56%	141	54%	130	46%		7	21
07:00 - 07:15	116	177	42%	186	46%	216	60%	185	46%	194	50%	202	54%	177	42%	201	54%	185	46%	193	50%	166	35%	190	48%		13	35
07:15 - 07:30	160	281	55%	256	46%	269	51%	269	51%	262	48%	255	46%	281	55%	260	48%	267	50%	258	47%	265	49%	264	49%		7	5
07:30 - 07:45	146	234	46%	233	46%	224	42%	223	42%	236	47%	239	48%	234	46%	231	45%	234	46%	238	48%	193	28%	229	44%		13	22
07:45 - 08:00	125	200	46%	234	61%	199	46%	204	48%	216	53%	199	46%	200	46%	202	47%	206	49%	184	38%	200	46%	205	48%		13	30
08:00 - 08:15	144	233	47%	244	52%	249	53%	223	43%	233	47%	242	51%	233	47%	251	54%	237	49%	242	51%	240	50%	239	50%		8	9
08:15 - 08:30	109	182	50%	170	44%	165	41%	176	47%	180	49%	171	44%	182	50%	183	51%	174	46%	143	27%	180	49%	172	45%		11	28
08:30 - 08:45	123	221	57%	187	41%	191	43%	201	48%	186	41%	204	50%	221	57%	197	46%	173	34%	187	41%	181	38%	192	44%		13	31
08:45 - 09:00	104	171	49%	169	48%	160	42%	168	47%	178	52%	171	49%	171	49%	161	43%	160	42%	161	43%	173	50%	168	47%		7	13
09:00 - 09:15	117	174	39%	167	35%	178	41%	190	48%	175	40%	175	40%	174	39%	178	41%	149	24%	180	42%	176	40%	176	40%		11	25
09:15 - 09:30	138	214	43%	210	41%	224	48%	210	41%	226	48%	214	43%	214	43%	197	35%	208	40%	197	35%	225	48%	213	43%		10	15
Hour 1	360	461	25%	457	24%	493	31%	492	31%	517	36%	489	30%	461	25%	512	35%	514	35%	513	35%	511	35%	496	32%		11	3
Hour 2	448	713	46%	724	47%	744	50%	738	49%	738	49%	745	50%	713	46%	755	51%	735	49%	762	52%	721	47%	738	49%		10	1
Hour 3	524	849	47%	881	51%	837	46%	826	45%	865	49%	851	48%	849	47%	867	49%	851	48%	807	43%	813	43%	845	47%		11	1
Hour 4	482	780	47%	733	41%	753	44%	769	46%	765	45%	764	45%	780	47%	733	41%	690	35%	725	40%	755	44%	749	43%		10	1
11	1,814	2,803	43%	2,795	43%	2,827	44%	2,825	44%	2,885	46%	2,849	44%	2,803	43%	2,867	45%	2,790	42%	2,807	43%	2,800	43%	2,828	44%		21	0



CONCEPT 2: +10% I-225

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

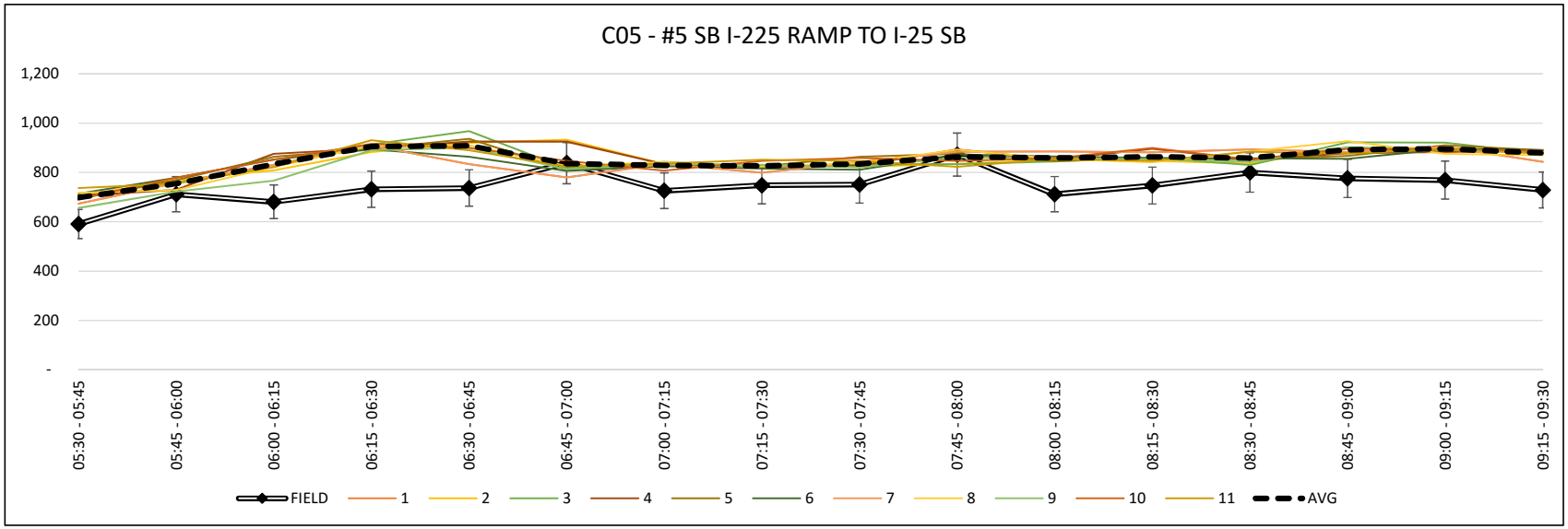
AM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C04	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	101	105	4%	98	3%	103	2%	98	3%	104	3%	92	9%	105	4%	82	21%	103	2%	102	1%	90	12%	99	2%		8	17
05:45 - 06:00	129	144	11%	122	6%	115	11%	155	18%	143	10%	133	3%	144	11%	128	1%	140	8%	121	6%	127	2%	132	2%		12	24
06:00 - 06:15	155	143	8%	154	1%	147	5%	167	7%	152	2%	159	3%	143	8%	154	1%	138	12%	162	4%	168	8%	154	1%		9	9
06:15 - 06:30	200	214	7%	208	4%	205	2%	193	4%	180	11%	219	9%	214	7%	187	7%	201	0%	179	11%	178	12%	194	3%		16	18
06:30 - 06:45	283	301	6%	256	10%	338	18%	294	4%	286	1%	266	6%	301	6%	291	3%	275	3%	293	3%	259	9%	285	1%		23	18
06:45 - 07:00	290	282	3%	282	3%	317	9%	307	6%	286	1%	290	0%	282	3%	265	9%	284	2%	296	2%	301	4%	293	1%		16	8
07:00 - 07:15	342	343	0%	341	0%	353	3%	305	11%	347	1%	315	8%	343	0%	351	3%	314	9%	322	6%	341	0%	333	3%		17	7
07:15 - 07:30	392	361	8%	437	11%	417	6%	413	5%	393	0%	377	4%	361	8%	379	3%	393	0%	357	9%	407	4%	395	1%		25	11
07:30 - 07:45	361	355	2%	389	7%	364	1%	362	0%	370	2%	385	6%	355	2%	343	5%	365	1%	368	2%	410	13%	366	1%		24	12
07:45 - 08:00	364	365	0%	381	5%	332	9%	376	3%	336	8%	358	2%	365	0%	346	5%	344	6%	363	0%	378	4%	359	1%		17	6
08:00 - 08:15	346	399	14%	368	6%	354	2%	331	4%	335	3%	364	5%	399	14%	346	0%	321	7%	368	6%	338	2%	351	1%		22	11
08:15 - 08:30	340	372	9%	343	1%	341	0%	359	5%	369	8%	304	11%	372	9%	339	0%	340	0%	381	11%	325	5%	345	1%		23	13
08:30 - 08:45	363	379	4%	328	10%	372	2%	332	9%	356	2%	370	2%	379	4%	345	5%	366	1%	375	3%	342	6%	355	2%		19	8
08:45 - 09:00	318	339	6%	322	1%	302	5%	310	3%	338	6%	303	5%	339	6%	294	8%	337	6%	310	3%	311	2%	317	0%		16	7
09:00 - 09:15	293	303	3%	293	0%	297	1%	316	8%	269	9%	289	1%	303	3%	303	3%	327	11%	285	3%	261	12%	295	1%		19	12
09:15 - 09:30	290	259	11%	297	2%	270	7%	278	4%	296	2%	261	11%	259	11%	296	2%	290	0%	263	10%	304	5%	278	4%		19	12
Hour 1	585	606	4%	582	1%	570	3%	613	5%	579	1%	603	3%	606	4%	551	6%	582	1%	564	4%	563	4%	579	1%		12	1
Hour 2	1,307	1,287	2%	1,316	1%	1,425	9%	1,319	1%	1,312	0%	1,248	5%	1,287	2%	1,286	2%	1,266	3%	1,268	3%	1,308	0%	1,306	0%		21	1
Hour 3	1,411	1,491	6%	1,481	5%	1,391	1%	1,428	1%	1,410	0%	1,411	0%	1,491	6%	1,374	3%	1,370	3%	1,480	5%	1,451	3%	1,421	1%		22	1
Hour 4	1,264	1,280	1%	1,240	2%	1,241	2%	1,236	2%	1,259	0%	1,223	3%	1,280	1%	1,238	2%	1,320	4%	1,233	2%	1,218	4%	1,245	2%		18	1
11	4,567	4,664	2%	4,619	1%	4,627	1%	4,596	1%	4,560	0%	4,485	2%	4,664	2%	4,449	3%	4,538	1%	4,545	0%	4,540	1%	4,551	0%		37	0



CONCEPT 2: +10% I-225

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

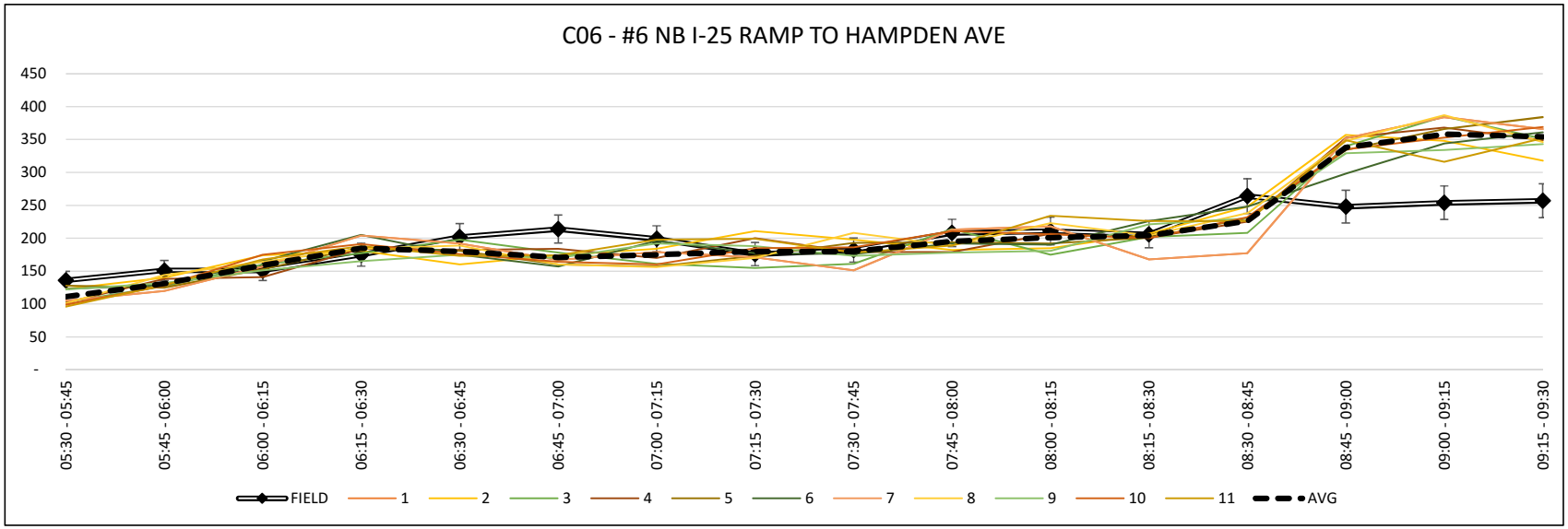
AM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C05	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	591	673	13%	704	17%	702	17%	705	18%	694	16%	714	19%	673	13%	718	19%	656	10%	692	16%	737	22%	698	17%		22	4
05:45 - 06:00	712	757	6%	770	8%	761	7%	730	2%	769	8%	778	9%	757	6%	728	2%	722	1%	778	9%	755	6%	754	6%		20	2
06:00 - 06:15	681	831	20%	808	17%	823	19%	875	25%	863	24%	853	22%	831	20%	823	19%	767	12%	851	22%	822	19%	834	20%		30	5
06:15 - 06:30	732	909	22%	883	19%	913	22%	897	20%	896	20%	893	20%	909	22%	907	21%	889	19%	916	22%	930	24%	905	21%		14	1
06:30 - 06:45	737	833	12%	919	22%	967	27%	925	23%	936	24%	863	16%	833	12%	910	21%	900	20%	899	20%	889	19%	908	21%		38	7
06:45 - 07:00	838	780	7%	933	11%	817	3%	925	10%	809	4%	806	4%	780	7%	826	1%	813	3%	846	1%	824	2%	836	0%		49	9
07:00 - 07:15	726	835	14%	834	14%	843	15%	833	14%	836	14%	825	13%	835	14%	842	15%	835	14%	807	11%	836	14%	829	13%		14	1
07:15 - 07:30	748	799	7%	826	10%	822	9%	824	10%	825	10%	816	9%	799	7%	824	10%	831	11%	846	12%	851	13%	826	10%		14	1
07:30 - 07:45	751	842	11%	823	9%	832	10%	827	10%	863	14%	811	8%	842	11%	838	11%	820	9%	859	13%	846	12%	835	11%		16	1
07:45 - 08:00	872	884	1%	835	4%	834	4%	893	2%	875	0%	873	0%	884	1%	892	2%	861	1%	847	3%	823	6%	863	1%		24	2
08:00 - 08:15	712	885	22%	851	18%	844	17%	853	18%	847	17%	864	19%	885	22%	855	18%	856	18%	857	18%	855	18%	859	19%		13	1
08:15 - 08:30	747	881	16%	847	13%	860	14%	895	18%	855	13%	858	14%	881	16%	840	12%	854	13%	899	18%	847	13%	863	14%		20	2
08:30 - 08:45	800	893	11%	836	4%	830	4%	851	6%	854	7%	857	7%	893	11%	885	10%	843	5%	853	6%	884	10%	858	7%		21	2
08:45 - 09:00	776	882	13%	898	15%	922	17%	878	12%	867	11%	855	10%	882	13%	927	18%	903	15%	895	14%	877	12%	892	14%		23	2
09:00 - 09:15	769	904	16%	900	16%	921	18%	883	14%	910	17%	895	15%	904	16%	875	13%	891	15%	892	15%	894	15%	896	15%		13	1
09:15 - 09:30	729	843	15%	877	18%	877	18%	890	20%	890	20%	891	20%	843	15%	869	18%	879	19%	888	20%	876	18%	879	19%		15	1
Hour 1	2,716	3,170	15%	3,165	15%	3,199	16%	3,207	17%	3,222	17%	3,238	18%	3,170	15%	3,176	16%	3,034	11%	3,237	18%	3,244	18%	3,191	16%		22	0
Hour 2	3,049	3,247	6%	3,512	14%	3,449	12%	3,507	14%	3,406	11%	3,310	8%	3,247	6%	3,402	11%	3,379	10%	3,398	11%	3,400	11%	3,399	11%		33	0
Hour 3	3,082	3,492	12%	3,356	9%	3,370	9%	3,468	12%	3,440	11%	3,406	10%	3,492	12%	3,425	11%	3,391	10%	3,462	12%	3,371	9%	3,420	10%		19	0
Hour 4	3,074	3,522	14%	3,511	13%	3,550	14%	3,502	13%	3,521	14%	3,498	13%	3,522	14%	3,556	15%	3,516	13%	3,528	14%	3,531	14%	3,525	14%		18	0
11	11,921	13,431	12%	13,544	13%	13,568	13%	13,684	14%	13,589	13%	13,452	12%	13,431	12%	13,559	13%	13,320	11%	13,625	13%	13,546	13%	13,535	13%		47	0



CONCEPT 2: +10% I-225

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

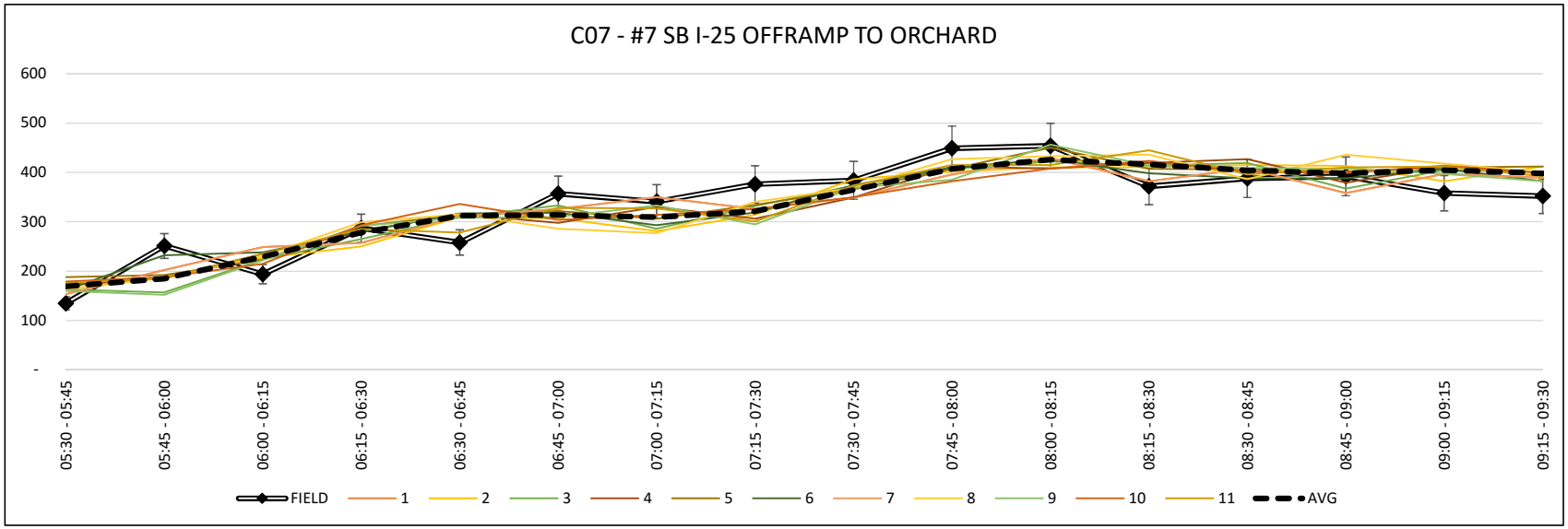
AM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C06	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	136	105	26%	123	10%	103	28%	102	29%	128	6%	123	10%	105	26%	101	30%	122	11%	99	31%	96	34%	111	20%		12	22
05:45 - 06:00	151	120	23%	140	8%	127	17%	138	9%	125	19%	129	16%	120	23%	144	5%	132	13%	128	16%	129	16%	131	14%		7	6
06:00 - 06:15	151	157	4%	174	14%	160	6%	141	7%	153	1%	165	9%	157	4%	164	8%	151	0%	175	15%	168	11%	159	5%		11	15
06:15 - 06:30	175	204	15%	181	3%	177	1%	184	5%	186	6%	205	16%	204	15%	184	5%	165	6%	191	9%	188	7%	185	6%		12	13
06:30 - 06:45	202	192	5%	160	23%	198	2%	182	10%	181	11%	175	14%	192	5%	189	7%	175	14%	176	14%	173	15%	180	12%		10	7
06:45 - 07:00	214	167	25%	174	21%	178	18%	184	15%	160	29%	157	31%	167	25%	160	29%	170	23%	164	26%	174	21%	171	22%		11	7
07:00 - 07:15	199	179	11%	184	8%	161	21%	170	16%	157	24%	196	2%	179	11%	156	24%	192	4%	160	22%	198	1%	175	13%		16	18
07:15 - 07:30	176	171	3%	211	18%	155	13%	200	13%	173	2%	177	1%	171	3%	170	3%	188	7%	185	5%	199	12%	180	2%		19	32
07:30 - 07:45	182	151	19%	198	8%	161	12%	179	2%	193	6%	176	3%	151	19%	208	13%	173	5%	186	2%	178	2%	180	1%		16	21
07:45 - 08:00	208	213	2%	182	13%	214	3%	179	15%	194	7%	192	8%	213	2%	189	10%	178	16%	211	1%	189	10%	195	6%		13	11
08:00 - 08:15	211	218	3%	185	13%	175	19%	207	2%	192	9%	190	10%	218	3%	223	6%	181	15%	206	2%	234	10%	201	5%		19	22
08:15 - 08:30	206	168	20%	207	0%	202	2%	201	2%	201	2%	226	9%	168	20%	204	1%	221	7%	200	3%	226	9%	204	1%		17	19
08:30 - 08:45	264	177	39%	248	6%	208	24%	225	16%	230	14%	248	6%	177	39%	238	10%	230	14%	232	13%	226	16%	226	16%		20	16
08:45 - 09:00	248	352	35%	357	36%	340	31%	353	35%	334	30%	298	18%	352	35%	348	34%	329	28%	335	30%	349	34%	338	31%		17	13
09:00 - 09:15	254	384	41%	348	31%	385	41%	368	37%	366	36%	344	30%	384	41%	387	41%	334	27%	353	33%	316	22%	358	34%		23	23
09:15 - 09:30	257	366	35%	318	21%	351	31%	349	30%	384	40%	361	34%	366	35%	346	30%	343	29%	369	36%	352	31%	354	32%		17	12
Hour 1	613	586	5%	618	1%	567	8%	565	8%	592	3%	622	1%	586	5%	593	3%	570	7%	593	3%	581	5%	586	5%		11	1
Hour 2	791	709	11%	729	8%	692	13%	736	7%	671	16%	705	11%	709	11%	675	16%	725	9%	685	14%	744	6%	706	11%		14	1
Hour 3	807	750	7%	772	4%	752	7%	766	5%	780	3%	784	3%	750	7%	824	2%	753	7%	803	0%	827	2%	780	3%		16	1
Hour 4	1,023	1,279	22%	1,271	22%	1,284	23%	1,295	23%	1,314	25%	1,251	20%	1,279	22%	1,319	25%	1,236	19%	1,289	23%	1,243	19%	1,276	22%		19	1
11	3,234	3,324	3%	3,390	5%	3,295	2%	3,362	4%	3,357	4%	3,362	4%	3,324	3%	3,411	5%	3,284	2%	3,370	4%	3,395	5%	3,348	3%		31	0



CONCEPT 2: +10% I-225

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

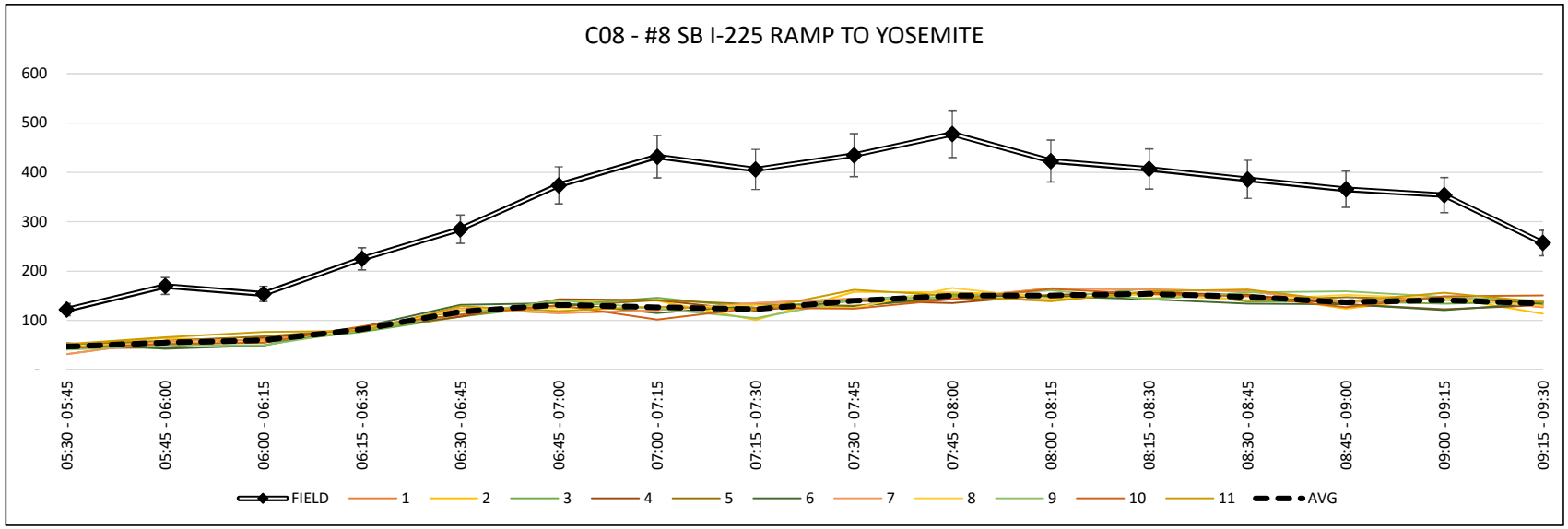
AM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C07	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	135	153	13%	168	22%	163	19%	172	24%	188	33%	162	18%	153	13%	163	19%	160	17%	179	28%	176	26%	169	22%		10	15
05:45 - 06:00	251	202	22%	188	29%	157	46%	186	30%	192	27%	232	8%	202	22%	186	30%	152	49%	188	29%	185	30%	185	30%		22	21
06:00 - 06:15	194	249	25%	227	16%	224	14%	235	19%	223	14%	238	20%	249	25%	230	17%	222	13%	215	10%	235	19%	229	17%		10	7
06:15 - 06:30	287	257	11%	250	14%	265	8%	281	2%	291	1%	279	3%	257	11%	299	4%	292	2%	293	2%	285	1%	278	3%		17	10
06:30 - 06:45	258	311	19%	310	18%	310	18%	315	20%	314	20%	317	21%	311	19%	315	20%	308	18%	336	26%	278	7%	312	19%		14	8
06:45 - 07:00	357	326	9%	307	15%	333	7%	298	18%	322	10%	318	12%	326	9%	286	22%	310	14%	304	16%	328	8%	314	13%		14	4
07:00 - 07:15	341	350	3%	281	19%	286	18%	330	3%	306	11%	293	15%	350	3%	277	21%	333	2%	314	8%	327	4%	309	10%		24	14
07:15 - 07:30	376	326	14%	314	18%	332	12%	306	21%	334	12%	319	16%	326	14%	340	10%	295	24%	326	14%	301	22%	321	16%		15	4
07:30 - 07:45	384	349	10%	386	1%	373	3%	349	10%	366	5%	374	3%	349	10%	369	4%	369	4%	350	9%	373	3%	365	5%		12	3
07:45 - 08:00	449	396	13%	402	11%	407	10%	412	9%	407	10%	410	9%	396	13%	427	5%	385	15%	382	16%	415	8%	407	10%		17	4
08:00 - 08:15	454	429	6%	410	10%	422	7%	408	11%	450	1%	426	6%	429	6%	433	5%	456	0%	408	11%	415	9%	426	6%		16	3
08:15 - 08:30	372	382	3%	411	10%	414	11%	419	12%	407	9%	398	7%	382	3%	436	16%	414	11%	423	13%	445	18%	416	11%		17	6
08:30 - 08:45	388	408	5%	415	7%	419	8%	427	10%	406	5%	388	0%	408	5%	386	1%	409	5%	401	3%	396	2%	404	4%		14	4
08:45 - 09:00	392	358	9%	413	5%	367	7%	379	3%	402	3%	388	1%	358	9%	436	11%	408	4%	399	2%	410	4%	398	2%		23	10
09:00 - 09:15	358	397	10%	382	6%	405	12%	412	14%	410	14%	407	13%	397	10%	418	15%	397	10%	414	15%	412	14%	405	12%		10	2
09:15 - 09:30	352	389	10%	412	16%	401	13%	400	13%	412	16%	382	8%	389	10%	400	13%	382	8%	399	13%	392	11%	398	12%		10	2
Hour 1	867	861	1%	833	4%	809	7%	874	1%	894	3%	911	5%	861	1%	878	1%	826	5%	875	1%	881	2%	861	1%		16	1
Hour 2	1,332	1,313	1%	1,212	9%	1,261	5%	1,249	6%	1,276	4%	1,247	7%	1,313	1%	1,218	9%	1,246	7%	1,280	4%	1,234	8%	1,256	6%		17	0
Hour 3	1,659	1,556	6%	1,609	3%	1,616	3%	1,588	4%	1,630	2%	1,608	3%	1,556	6%	1,665	0%	1,624	2%	1,563	6%	1,648	1%	1,614	3%		16	0
Hour 4	1,490	1,552	4%	1,622	8%	1,592	7%	1,618	8%	1,630	9%	1,565	5%	1,552	4%	1,640	10%	1,596	7%	1,613	8%	1,610	8%	1,605	7%		15	0
11	5,348	5,282	1%	5,276	1%	5,278	1%	5,329	0%	5,430	2%	5,331	0%	5,282	1%	5,401	1%	5,292	1%	5,331	0%	5,373	0%	5,336	0%		32	0



CONCEPT 2: +10% I-225

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

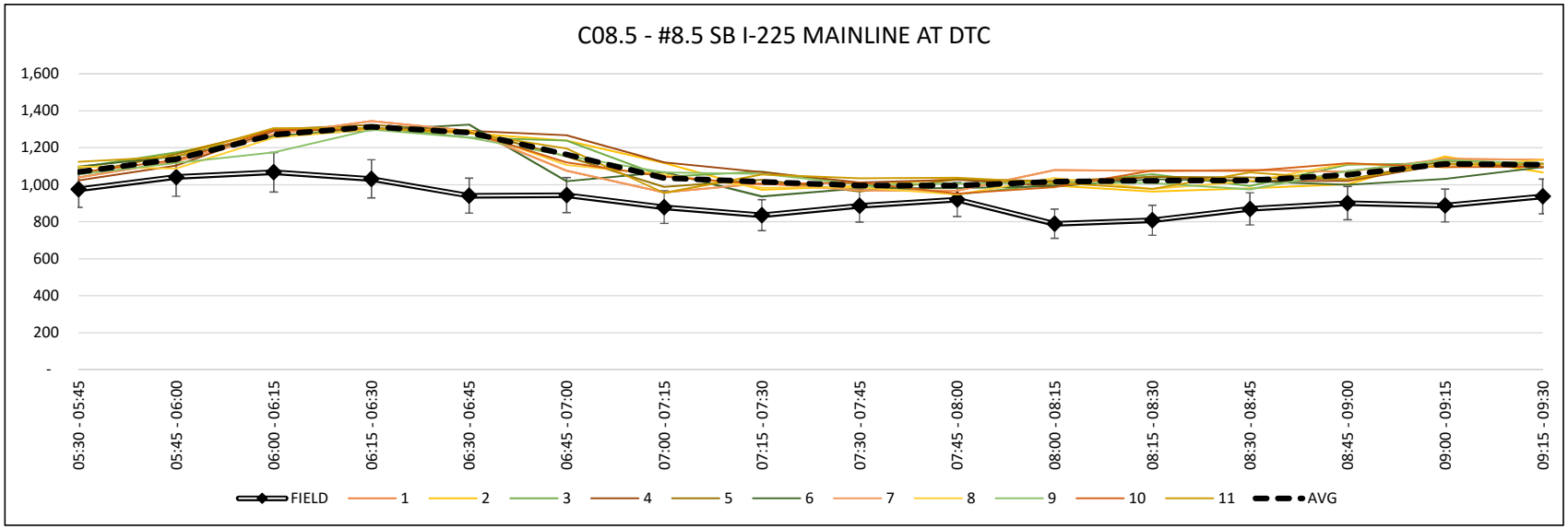
AM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C08	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	122	32	###	51	82%	50	84%	44	94%	51	82%	54	77%	32	###	49	85%	41	99%	45	92%	52	80%	47	89%		6	7
05:45 - 06:00	170	59	97%	64	91%	54	###	45	###	59	97%	43	###	59	97%	53	###	50	###	52	###	66	88%	55	###		8	6
06:00 - 06:15	154	61	87%	59	89%	55	95%	65	81%	68	77%	49	###	61	87%	57	92%	50	###	55	95%	77	67%	60	88%		8	7
06:15 - 06:30	225	80	95%	79	96%	77	98%	83	92%	82	93%	87	88%	80	95%	83	92%	81	94%	88	88%	79	96%	82	93%		3	0
06:30 - 06:45	285	124	79%	108	90%	108	90%	108	90%	121	81%	132	73%	124	79%	122	80%	112	87%	112	87%	129	75%	118	83%		9	3
06:45 - 07:00	374	115	###	140	91%	131	96%	143	89%	129	97%	135	94%	115	###	125	###	141	90%	131	96%	119	###	132	96%		9	2
07:00 - 07:15	432	121	###	140	###	146	99%	141	###	141	###	115	###	121	###	126	###	124	###	102	###	128	###	127	###		14	3
07:15 - 07:30	406	135	###	101	###	126	###	120	###	133	###	131	###	135	###	131	###	105	###	126	###	122	###	123	###		11	2
07:30 - 07:45	435	144	###	158	93%	143	###	140	###	130	###	128	###	144	###	126	###	142	###	124	###	162	91%	140	###		12	2
07:45 - 08:00	478	146	###	157	###	153	###	135	###	145	###	150	###	146	###	166	97%	148	###	143	###	150	###	150	###		8	1
08:00 - 08:15	423	165	88%	151	95%	146	97%	152	94%	141	###	149	96%	165	88%	144	98%	161	90%	164	88%	139	###	151	95%		9	1
08:15 - 08:30	407	163	86%	145	95%	165	85%	157	89%	155	90%	143	96%	163	86%	153	91%	143	96%	154	90%	159	88%	154	90%		8	1
08:30 - 08:45	386	159	83%	153	86%	138	95%	152	87%	140	94%	134	97%	159	83%	141	93%	157	84%	149	89%	163	81%	148	89%		10	2
08:45 - 09:00	366	137	91%	124	99%	139	90%	133	93%	147	85%	133	93%	137	91%	152	83%	159	79%	127	97%	139	90%	137	91%		12	3
09:00 - 09:15	354	147	83%	147	83%	134	90%	123	97%	142	85%	121	98%	147	83%	144	84%	148	82%	149	82%	156	78%	141	86%		11	3
09:15 - 09:30	257	127	68%	114	77%	138	60%	131	65%	137	61%	135	62%	127	68%	130	66%	140	59%	151	52%	137	61%	134	63%		9	3
Hour 1	671	232	97%	253	90%	236	96%	237	96%	260	88%	233	97%	232	97%	242	94%	222	###	240	95%	274	84%	244	93%		7	0
Hour 2	1,497	495	###	489	###	511	98%	512	98%	524	96%	513	98%	495	###	504	99%	482	###	471	###	498	###	500	###		11	0
Hour 3	1,743	618	95%	611	96%	607	97%	584	###	571	###	570	###	618	95%	589	99%	594	98%	585	99%	610	96%	595	98%		9	0
Hour 4	1,363	570	82%	538	87%	549	85%	539	87%	566	83%	523	89%	570	82%	567	82%	604	77%	576	81%	595	78%	560	84%		11	0
11	5,274	1,915	93%	1,891	94%	1,903	94%	1,872	95%	1,921	93%	1,839	97%	1,915	93%	1,902	94%	1,902	94%	1,872	95%	1,977	91%	1,899	94%		19	0



CONCEPT 2: +10% I-225

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

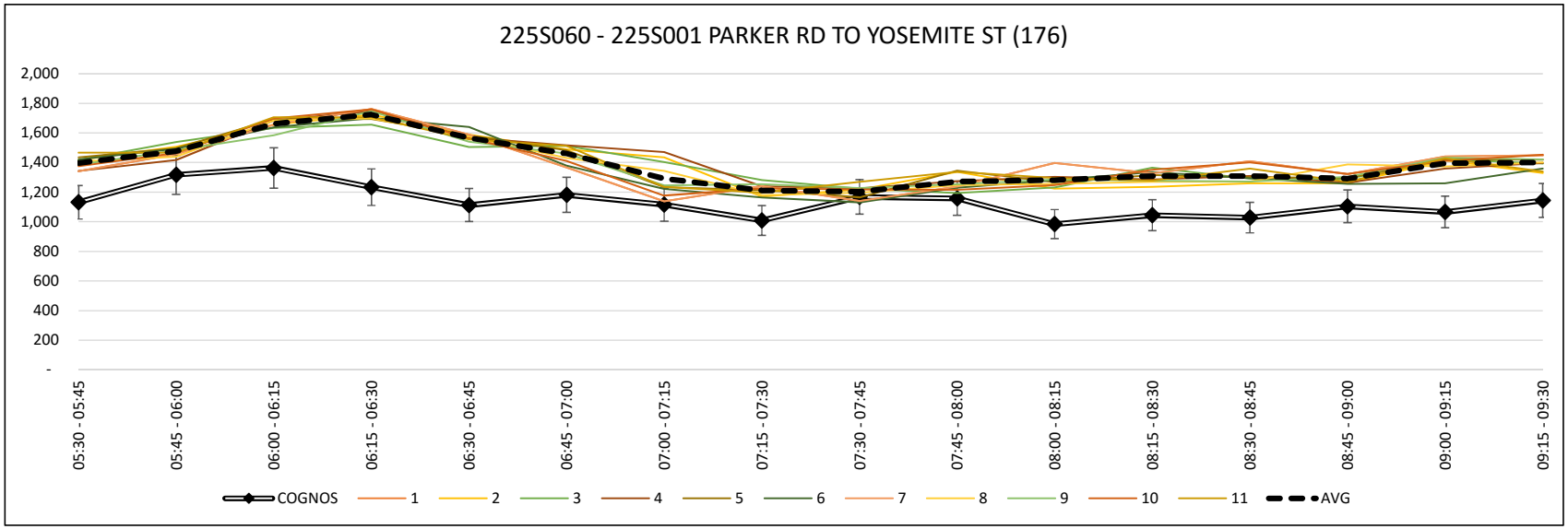
AM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C08.5	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	976	1,039	6%	1,091	11%	1,094	11%	1,024	5%	1,059	8%	1,098	12%	1,039	6%	1,098	12%	1,055	8%	1,067	9%	1,124	14%	1,070	9%		34	3
05:45 - 06:00	1,042	1,126	8%	1,172	12%	1,175	12%	1,103	6%	1,165	11%	1,152	10%	1,126	8%	1,088	4%	1,118	7%	1,133	8%	1,153	10%	1,139	9%		28	2
06:00 - 06:15	1,068	1,272	17%	1,291	19%	1,258	16%	1,290	19%	1,299	20%	1,265	17%	1,272	17%	1,254	16%	1,175	10%	1,295	19%	1,306	20%	1,270	17%		36	3
06:15 - 06:30	1,032	1,344	26%	1,300	23%	1,312	24%	1,301	23%	1,323	25%	1,295	23%	1,344	26%	1,299	23%	1,298	23%	1,306	23%	1,306	23%	1,313	24%		21	1
06:30 - 06:45	941	1,292	31%	1,278	30%	1,255	29%	1,291	31%	1,293	32%	1,325	34%	1,292	31%	1,295	32%	1,254	29%	1,285	31%	1,278	30%	1,282	31%		21	1
06:45 - 07:00	944	1,076	13%	1,238	27%	1,239	27%	1,267	29%	1,153	20%	1,019	8%	1,076	13%	1,107	16%	1,156	20%	1,120	17%	1,195	23%	1,164	21%		78	19
07:00 - 07:15	879	958	9%	1,117	24%	1,043	17%	1,121	24%	988	12%	1,068	19%	958	9%	1,055	18%	1,067	19%	1,044	17%	956	8%	1,037	16%		57	12
07:15 - 07:30	836	1,007	19%	972	15%	1,071	25%	1,068	24%	1,027	21%	937	11%	1,007	19%	983	16%	1,058	23%	1,003	18%	1,056	23%	1,015	19%		45	8
07:30 - 07:45	887	970	9%	994	11%	999	12%	1,012	13%	963	8%	981	10%	970	9%	985	10%	1,001	12%	1,012	13%	1,034	15%	996	12%		20	1
07:45 - 08:00	920	968	5%	1,033	12%	947	3%	1,026	11%	1,028	11%	982	7%	968	5%	947	3%	1,006	9%	952	3%	1,038	12%	996	8%		37	4
08:00 - 08:15	789	1,080	31%	995	23%	1,004	24%	993	23%	1,020	26%	992	23%	1,080	31%	1,036	27%	1,013	25%	987	22%	1,011	25%	1,017	25%		29	4
08:15 - 08:30	808	1,075	28%	963	18%	1,057	27%	1,045	26%	1,043	25%	1,030	24%	1,075	28%	978	19%	1,009	22%	1,076	28%	978	19%	1,022	23%		41	7
08:30 - 08:45	870	1,079	21%	981	12%	994	13%	1,021	16%	1,039	18%	1,019	16%	1,079	21%	1,019	16%	975	11%	1,074	21%	1,067	20%	1,023	16%		38	5
08:45 - 09:00	901	1,070	17%	1,003	11%	1,108	21%	1,021	12%	1,028	13%	1,000	10%	1,070	17%	1,114	21%	1,074	18%	1,116	21%	1,028	13%	1,054	16%		44	7
09:00 - 09:15	888	1,140	25%	1,153	26%	1,116	23%	1,111	22%	1,128	24%	1,032	15%	1,140	25%	1,094	21%	1,134	24%	1,096	21%	1,112	22%	1,113	22%		32	4
09:15 - 09:30	937	1,135	19%	1,067	13%	1,094	15%	1,095	16%	1,115	17%	1,096	16%	1,135	19%	1,135	19%	1,115	17%	1,097	16%	1,109	17%	1,108	17%		21	1
Hour 1	4,118	4,781	15%	4,854	16%	4,839	16%	4,718	14%	4,846	16%	4,810	16%	4,781	15%	4,739	14%	4,646	12%	4,801	15%	4,889	17%	4,792	15%		30	0
Hour 2	3,600	4,333	18%	4,605	24%	4,608	25%	4,747	27%	4,461	21%	4,349	19%	4,333	18%	4,440	21%	4,535	23%	4,452	21%	4,485	22%	4,498	22%		54	1
Hour 3	3,404	4,093	18%	3,985	16%	4,007	16%	4,076	18%	4,054	17%	3,985	16%	4,093	18%	3,946	15%	4,029	17%	4,027	17%	4,061	18%	4,031	17%		33	0
Hour 4	3,596	4,424	21%	4,204	16%	4,312	18%	4,248	17%	4,310	18%	4,147	14%	4,424	21%	4,362	19%	4,298	18%	4,383	20%	4,316	18%	4,298	18%		35	0
11	14,718	17,631	18%	17,648	18%	17,766	19%	17,789	19%	17,671	18%	17,291	16%	17,631	18%	17,487	17%	17,508	17%	17,663	18%	17,751	19%	17,619	18%		78	0



CONCEPT 2: +10% I-225

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

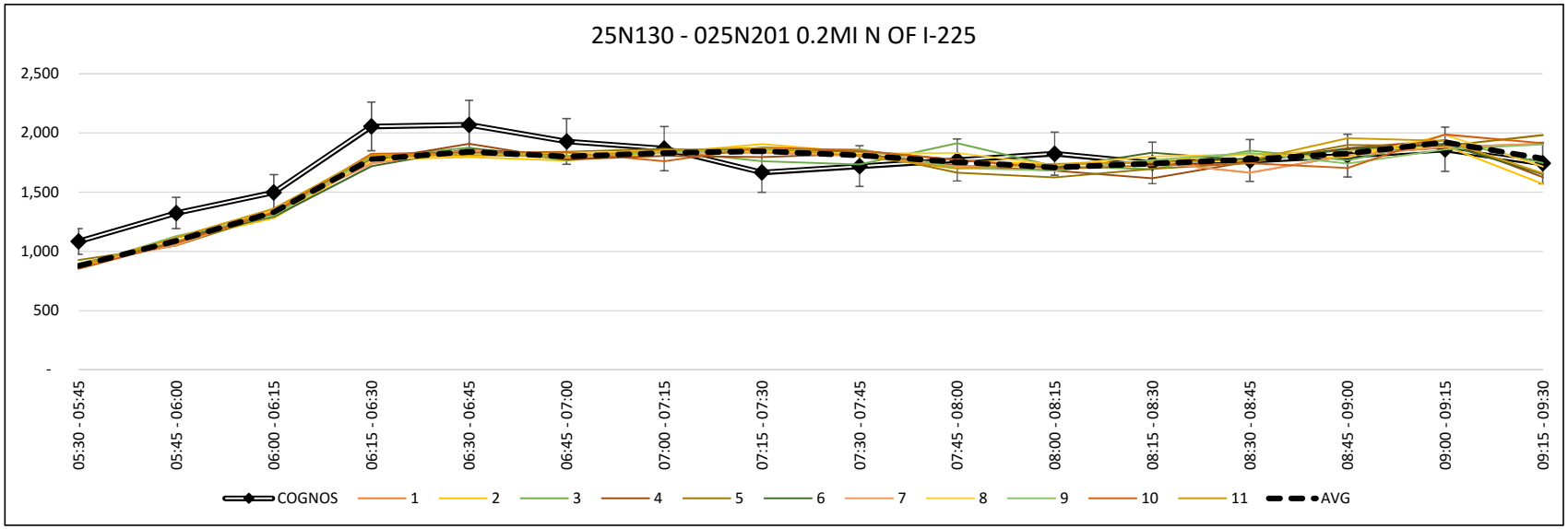
AM	COGNOS	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	225S060	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	1,132	1,341	17%	1,416	22%	1,417	22%	1,343	17%	1,434	24%	1,420	23%	1,341	17%	1,407	22%	1,385	20%	1,375	19%	1,466	26%	1,397	21%		40	3
05:45 - 06:00	1,317	1,457	10%	1,507	13%	1,538	15%	1,417	7%	1,497	13%	1,492	12%	1,457	10%	1,439	9%	1,482	12%	1,464	11%	1,466	11%	1,477	11%		33	2
06:00 - 06:15	1,364	1,655	19%	1,656	19%	1,635	18%	1,683	21%	1,692	21%	1,638	18%	1,655	19%	1,683	21%	1,585	15%	1,698	22%	1,705	22%	1,662	20%		35	2
06:15 - 06:30	1,234	1,762	35%	1,724	33%	1,656	29%	1,747	34%	1,695	31%	1,701	32%	1,762	35%	1,699	32%	1,747	34%	1,759	35%	1,706	32%	1,724	33%		35	2
06:30 - 06:45	1,113	1,589	35%	1,588	35%	1,504	30%	1,568	34%	1,585	35%	1,639	38%	1,589	35%	1,574	34%	1,540	32%	1,563	34%	1,556	33%	1,566	34%		37	3
06:45 - 07:00	1,182	1,367	15%	1,489	23%	1,512	24%	1,516	25%	1,483	23%	1,380	15%	1,367	15%	1,431	19%	1,460	21%	1,411	18%	1,513	25%	1,460	21%		55	6
07:00 - 07:15	1,116	1,138	2%	1,435	25%	1,403	23%	1,471	27%	1,234	10%	1,221	9%	1,138	2%	1,344	19%	1,246	11%	1,177	5%	1,236	10%	1,292	15%		109	26
07:15 - 07:30	1,009	1,241	21%	1,170	15%	1,282	24%	1,240	21%	1,214	18%	1,164	14%	1,241	21%	1,180	16%	1,254	22%	1,226	19%	1,197	17%	1,212	18%		40	4
07:30 - 07:45	1,168	1,140	2%	1,217	4%	1,224	5%	1,226	5%	1,165	0%	1,131	3%	1,140	2%	1,195	2%	1,228	5%	1,217	4%	1,270	8%	1,203	3%		42	4
07:45 - 08:00	1,159	1,237	7%	1,338	14%	1,194	3%	1,273	9%	1,346	15%	1,230	6%	1,237	7%	1,247	7%	1,253	8%	1,215	5%	1,337	14%	1,272	9%		55	6
08:00 - 08:15	984	1,397	35%	1,223	22%	1,231	22%	1,303	28%	1,267	25%	1,282	26%	1,397	35%	1,256	24%	1,285	27%	1,248	24%	1,296	27%	1,281	26%		48	7
08:15 - 08:30	1,045	1,327	24%	1,235	17%	1,366	27%	1,285	21%	1,315	23%	1,336	24%	1,327	24%	1,269	19%	1,277	20%	1,351	26%	1,277	20%	1,309	22%		43	5
08:30 - 08:45	1,028	1,409	31%	1,259	20%	1,291	23%	1,309	24%	1,301	23%	1,293	23%	1,409	31%	1,272	21%	1,272	21%	1,400	31%	1,360	28%	1,309	24%		58	9
08:45 - 09:00	1,105	1,322	18%	1,260	13%	1,290	15%	1,263	13%	1,295	16%	1,256	13%	1,322	18%	1,387	23%	1,303	16%	1,324	18%	1,270	14%	1,292	16%		41	4
09:00 - 09:15	1,067	1,441	30%	1,415	28%	1,422	29%	1,360	24%	1,420	28%	1,260	17%	1,441	30%	1,374	25%	1,432	29%	1,410	28%	1,429	29%	1,395	27%		52	7
09:15 - 09:30	1,144	1,448	23%	1,330	15%	1,394	20%	1,398	20%	1,418	21%	1,359	17%	1,448	23%	1,401	20%	1,421	22%	1,453	24%	1,340	16%	1,400	20%		42	4
Hour 1	5,047	6,215	21%	6,303	22%	6,246	21%	6,190	20%	6,318	22%	6,251	21%	6,215	21%	6,228	21%	6,199	20%	6,296	22%	6,343	23%	6,260	21%		36	0
Hour 2	4,420	5,335	19%	5,682	25%	5,701	25%	5,795	27%	5,516	22%	5,404	20%	5,335	19%	5,529	22%	5,500	22%	5,377	20%	5,502	22%	5,530	22%		67	1
Hour 3	4,356	5,101	16%	5,013	14%	5,015	14%	5,087	15%	5,093	16%	4,979	13%	5,101	16%	4,967	13%	5,043	15%	5,031	14%	5,180	17%	5,065	15%		47	0
Hour 4	4,344	5,620	26%	5,264	19%	5,397	22%	5,330	20%	5,434	22%	5,168	17%	5,620	26%	5,434	22%	5,428	22%	5,587	25%	5,399	22%	5,396	22%		49	0
11	18,167	22,271	20%	22,262	20%	22,359	21%	22,402	21%	22,361	21%	21,802	18%	22,271	20%	22,158	20%	22,170	20%	22,291	20%	22,424	21%	22,251	20%		102	0



CONCEPT 2: +10% I-225

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

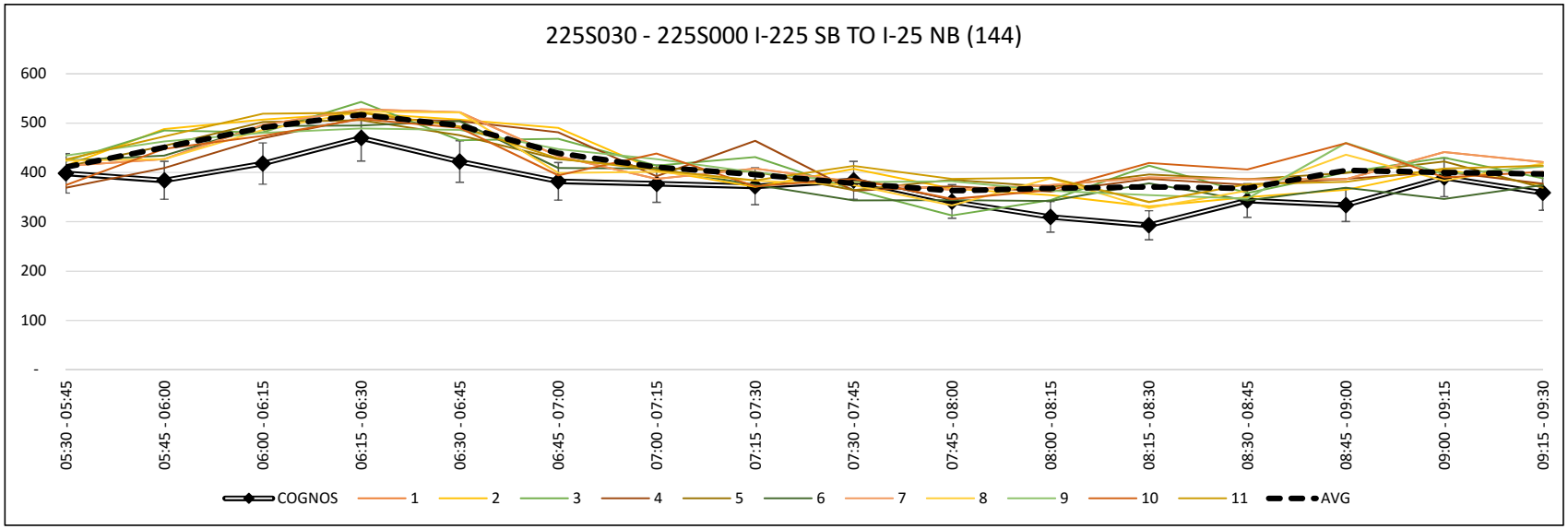
AM	COGNOS	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	25N130	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	1,084	892	19%	864	23%	898	19%	890	20%	927	16%	870	22%	892	19%	871	22%	869	22%	853	24%	873	22%	877	21%		23	1
05:45 - 06:00	1,324	1,052	23%	1,091	19%	1,078	20%	1,069	21%	1,048	23%	1,117	17%	1,052	23%	1,116	17%	1,130	16%	1,075	21%	1,116	17%	1,088	20%		28	1
06:00 - 06:15	1,498	1,344	11%	1,280	16%	1,347	11%	1,361	10%	1,315	13%	1,294	15%	1,344	11%	1,348	11%	1,303	14%	1,327	12%	1,360	10%	1,330	12%		28	1
06:15 - 06:30	2,055	1,742	16%	1,774	15%	1,797	13%	1,770	15%	1,788	14%	1,719	18%	1,742	16%	1,763	15%	1,799	13%	1,823	12%	1,810	13%	1,779	14%		30	1
06:30 - 06:45	2,069	1,858	11%	1,796	14%	1,876	10%	1,909	8%	1,828	12%	1,866	10%	1,858	11%	1,820	13%	1,834	12%	1,837	12%	1,810	13%	1,842	12%		33	1
06:45 - 07:00	1,928	1,790	7%	1,766	9%	1,769	9%	1,775	8%	1,841	5%	1,805	7%	1,790	7%	1,833	5%	1,806	7%	1,837	5%	1,800	7%	1,800	7%		28	1
07:00 - 07:15	1,868	1,837	2%	1,831	2%	1,848	1%	1,807	3%	1,867	0%	1,843	1%	1,837	2%	1,840	2%	1,835	2%	1,762	6%	1,857	1%	1,832	2%		28	1
07:15 - 07:30	1,666	1,833	10%	1,905	13%	1,762	6%	1,795	7%	1,838	10%	1,860	11%	1,833	10%	1,848	10%	1,855	11%	1,878	12%	1,872	12%	1,846	10%		39	2
07:30 - 07:45	1,720	1,806	5%	1,835	6%	1,734	1%	1,824	6%	1,842	7%	1,852	7%	1,806	5%	1,825	6%	1,863	8%	1,852	7%	1,804	5%	1,812	5%		53	3
07:45 - 08:00	1,772	1,716	3%	1,773	0%	1,913	8%	1,723	3%	1,665	6%	1,771	0%	1,716	3%	1,831	3%	1,704	4%	1,773	0%	1,700	4%	1,754	1%		70	4
08:00 - 08:15	1,825	1,734	5%	1,728	5%	1,718	6%	1,682	8%	1,624	12%	1,704	7%	1,734	5%	1,729	5%	1,682	8%	1,696	7%	1,739	5%	1,708	7%		36	1
08:15 - 08:30	1,747	1,752	0%	1,759	1%	1,695	3%	1,616	8%	1,697	3%	1,834	5%	1,752	0%	1,800	3%	1,772	1%	1,726	1%	1,751	0%	1,742	0%		58	3
08:30 - 08:45	1,767	1,665	6%	1,822	3%	1,851	5%	1,758	1%	1,746	1%	1,766	0%	1,665	6%	1,819	3%	1,831	4%	1,744	1%	1,770	0%	1,777	1%		52	2
08:45 - 09:00	1,809	1,811	0%	1,848	2%	1,768	2%	1,870	3%	1,899	5%	1,864	3%	1,811	0%	1,793	1%	1,742	4%	1,704	6%	1,955	8%	1,826	1%		72	4
09:00 - 09:15	1,862	1,881	1%	1,890	1%	1,940	4%	1,939	4%	1,891	2%	1,907	2%	1,881	1%	1,983	6%	1,860	0%	1,987	6%	1,932	4%	1,921	3%		40	1
09:15 - 09:30	1,745	1,908	9%	1,569	11%	1,746	0%	1,628	7%	1,982	13%	1,651	6%	1,908	9%	1,716	2%	1,903	9%	1,914	9%	1,660	5%	1,783	2%		148	20
Hour 1	5,961	5,030	17%	5,009	17%	5,120	15%	5,090	16%	5,078	16%	5,000	18%	5,030	17%	5,098	16%	5,101	16%	5,078	16%	5,159	14%	5,074	16%		27	0
Hour 2	7,531	7,318	3%	7,298	3%	7,255	4%	7,286	3%	7,374	2%	7,374	2%	7,318	3%	7,341	3%	7,330	3%	7,314	3%	7,339	3%	7,320	3%		32	0
Hour 3	7,064	7,008	1%	7,095	0%	7,060	0%	6,845	3%	6,828	3%	7,161	1%	7,008	1%	7,185	2%	7,021	1%	7,047	0%	6,994	1%	7,016	1%		56	0
Hour 4	7,183	7,265	1%	7,129	1%	7,305	2%	7,195	0%	7,518	5%	7,188	0%	7,265	1%	7,311	2%	7,336	2%	7,349	2%	7,317	2%	7,307	2%		89	0
11	27,739	26,621	4%	26,531	4%	26,740	4%	26,416	5%	26,798	3%	26,723	4%	26,621	4%	26,935	3%	26,788	3%	26,788	3%	26,809	3%	26,717	4%		113	0



CONCEPT 2: +10% I-225

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

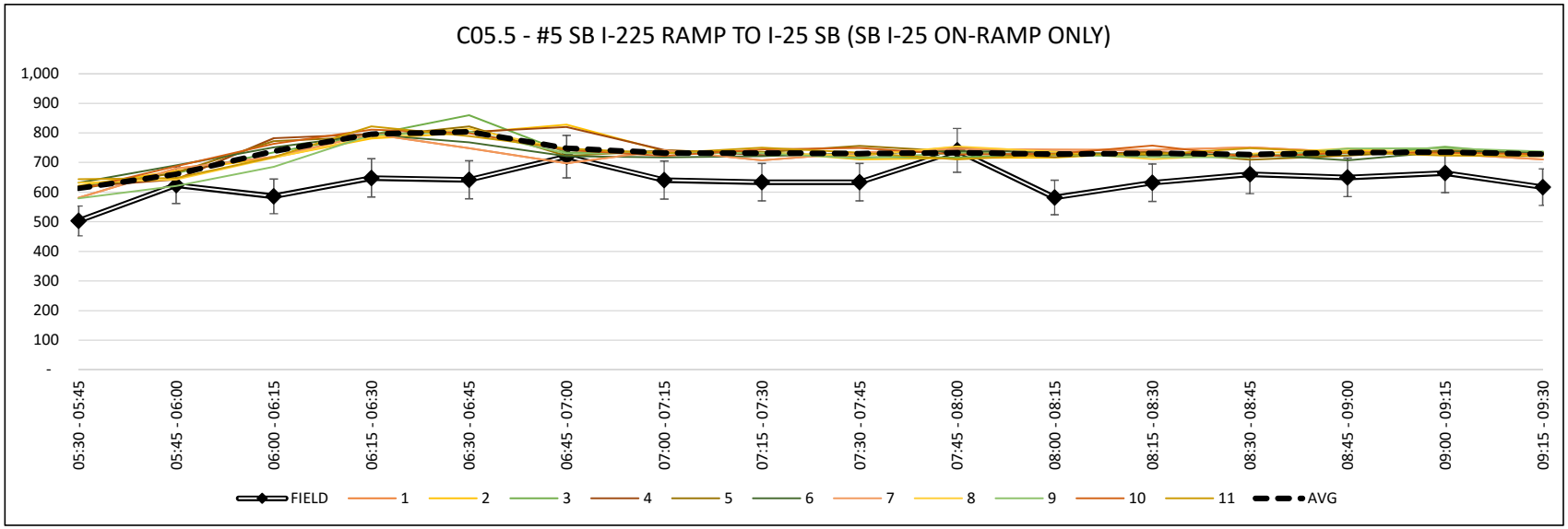
AM	COGNOS	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	225S030	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	398	413	4%	414	4%	423	6%	369	8%	412	3%	424	6%	413	4%	424	6%	434	9%	374	6%	426	7%	411	3%		36	23
05:45 - 06:00	384	427	11%	488	24%	485	23%	409	6%	454	17%	434	12%	427	11%	427	11%	463	19%	448	15%	473	21%	451	16%		34	22
06:00 - 06:15	418	496	17%	507	19%	481	14%	469	11%	502	18%	494	17%	496	17%	486	15%	480	14%	474	13%	519	22%	491	16%		32	16
06:15 - 06:30	470	528	12%	520	10%	543	14%	510	8%	506	7%	495	5%	528	12%	523	11%	489	4%	508	8%	521	10%	517	10%		24	7
06:30 - 06:45	422	522	21%	507	18%	465	10%	504	18%	475	12%	504	18%	522	21%	521	21%	486	14%	490	15%	493	16%	495	16%		21	7
06:45 - 07:00	382	433	13%	490	25%	468	20%	481	23%	427	11%	409	7%	433	13%	399	4%	447	16%	394	3%	428	11%	439	14%		84	134
07:00 - 07:15	377	387	3%	404	7%	414	9%	392	4%	409	8%	408	8%	387	3%	401	6%	427	12%	438	15%	405	7%	411	9%		19	7
07:15 - 07:30	372	408	9%	371	0%	431	15%	464	22%	401	8%	375	1%	408	9%	383	3%	400	7%	372	0%	384	3%	396	6%		34	23
07:30 - 07:45	384	381	1%	407	6%	365	5%	363	6%	364	5%	343	11%	381	1%	374	3%	380	1%	387	1%	413	7%	378	2%		29	16
07:45 - 08:00	341	365	7%	367	7%	313	9%	372	9%	385	12%	344	1%	365	7%	333	2%	382	11%	346	1%	387	13%	363	6%		38	34
08:00 - 08:15	310	374	19%	354	13%	344	10%	361	15%	371	18%	342	10%	374	19%	388	22%	363	16%	364	16%	389	23%	368	17%		32	30
08:15 - 08:30	293	390	28%	331	12%	414	34%	387	28%	396	30%	378	25%	390	28%	328	11%	354	19%	419	35%	340	15%	371	23%		53	91
08:30 - 08:45	343	386	12%	350	2%	358	4%	375	9%	386	12%	343	0%	386	12%	363	6%	347	1%	406	17%	376	9%	368	7%		31	23
08:45 - 09:00	334	386	14%	365	9%	400	18%	387	15%	399	18%	369	10%	386	14%	436	26%	460	32%	459	32%	381	13%	404	19%		53	70
09:00 - 09:15	390	441	12%	406	4%	430	10%	401	3%	422	8%	346	12%	441	12%	383	2%	396	2%	390	0%	408	5%	400	3%		34	21
09:15 - 09:30	359	421	16%	375	4%	388	8%	377	5%	369	3%	374	4%	421	16%	418	15%	412	14%	401	11%	414	14%	397	10%		16	6
Hour 1	1,670	1,864	11%	1,929	14%	1,932	15%	1,757	5%	1,874	12%	1,847	10%	1,864	11%	1,860	11%	1,866	11%	1,804	8%	1,939	15%	1,870	11%		32	1
Hour 2	1,553	1,750	12%	1,772	13%	1,778	14%	1,841	17%	1,712	10%	1,696	9%	1,750	12%	1,704	9%	1,760	12%	1,694	9%	1,710	10%	1,741	11%		47	3
Hour 3	1,328	1,510	13%	1,459	9%	1,436	8%	1,483	11%	1,516	13%	1,407	6%	1,510	13%	1,423	7%	1,479	11%	1,516	13%	1,529	14%	1,480	11%		39	2
Hour 4	1,426	1,634	14%	1,496	5%	1,576	10%	1,540	8%	1,576	10%	1,432	0%	1,634	14%	1,600	12%	1,615	12%	1,656	15%	1,579	10%	1,569	10%		36	2
11	5,977	6,758	12%	6,656	11%	6,722	12%	6,621	10%	6,678	11%	6,382	7%	6,758	12%	6,587	10%	6,720	12%	6,670	11%	6,757	12%	6,660	11%		78	0



CONCEPT 2: +10% I-225

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

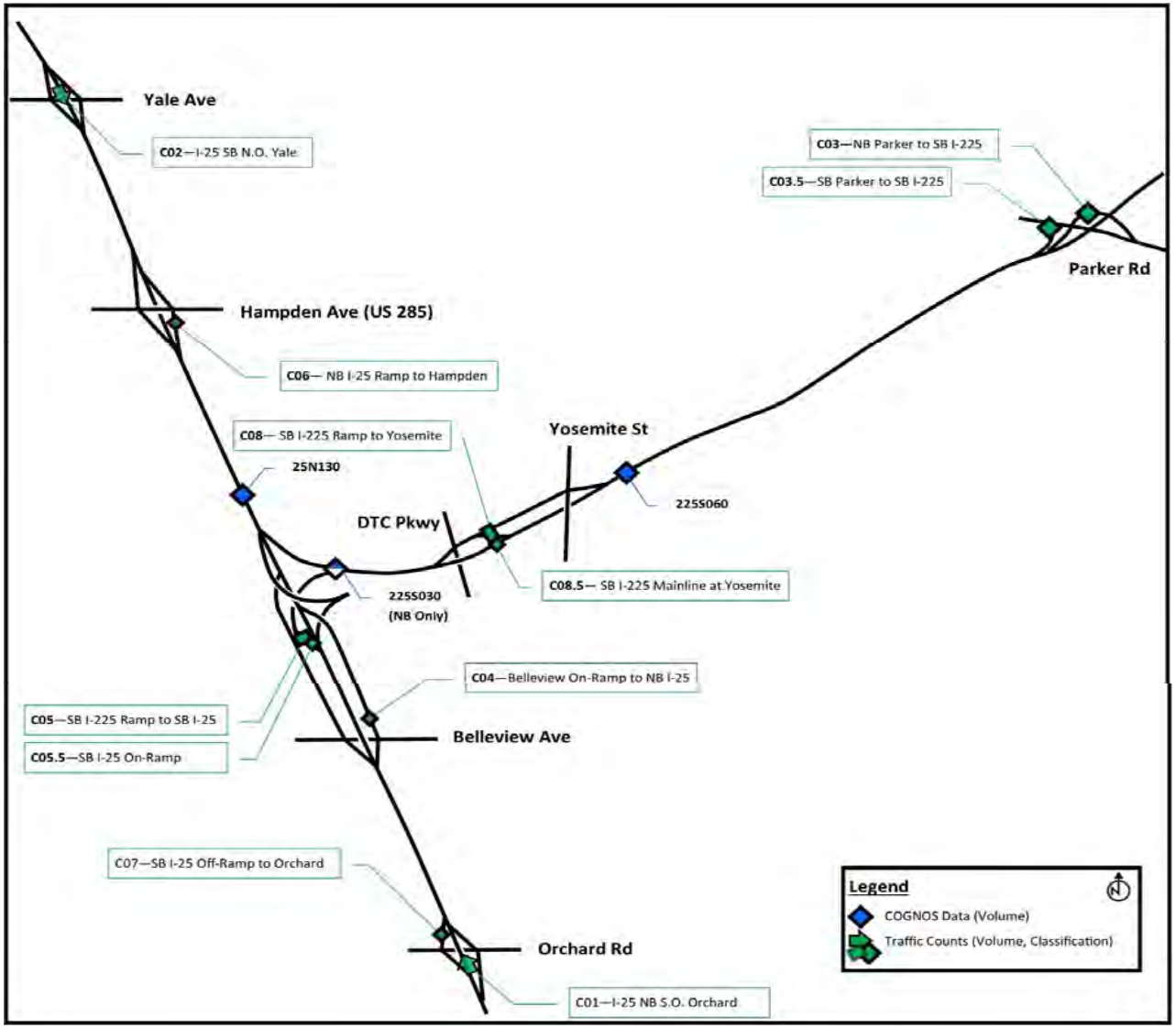
AM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C05.5	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
05:30 - 05:45	503	581	14%	622	21%	617	20%	618	21%	611	19%	632	23%	581	14%	632	23%	579	14%	609	19%	644	25%	613	20%		-	0
05:45 - 06:00	624	680	9%	672	7%	665	6%	643	3%	666	7%	691	10%	680	9%	643	3%	621	0%	688	10%	648	4%	661	6%		-	0
06:00 - 06:15	586	719	20%	717	20%	734	22%	782	29%	772	27%	751	25%	719	20%	716	20%	686	16%	763	26%	718	20%	738	23%		-	0
06:15 - 06:30	648	796	20%	781	19%	794	20%	796	20%	787	19%	794	20%	796	20%	786	19%	793	20%	811	22%	822	24%	796	20%		-	0
06:30 - 06:45	642	748	15%	800	22%	860	29%	803	22%	822	25%	768	18%	748	15%	814	24%	805	23%	799	22%	789	21%	804	22%		-	0
06:45 - 07:00	720	698	3%	828	14%	733	2%	820	13%	722	0%	721	0%	698	3%	743	3%	730	1%	742	3%	747	4%	748	4%		-	0
07:00 - 07:15	641	741	14%	739	14%	738	14%	742	15%	740	14%	717	11%	741	14%	731	13%	732	13%	722	12%	731	13%	732	13%		-	0
07:15 - 07:30	634	707	11%	736	15%	734	15%	725	13%	734	15%	721	13%	707	11%	732	14%	731	14%	744	16%	750	17%	732	14%		-	0
07:30 - 07:45	634	733	14%	710	11%	718	12%	723	13%	756	18%	731	14%	733	14%	723	13%	714	12%	749	17%	733	14%	730	14%		-	0
07:45 - 08:00	741	746	1%	715	4%	717	3%	752	1%	737	1%	738	0%	746	1%	754	2%	732	1%	727	2%	710	4%	733	1%		-	0
08:00 - 08:15	582	743	24%	716	21%	729	22%	725	22%	718	21%	736	23%	743	24%	736	23%	726	22%	729	22%	727	22%	728	22%		-	0
08:15 - 08:30	632	742	16%	734	15%	725	14%	736	15%	735	15%	724	14%	742	16%	711	12%	718	13%	757	18%	727	14%	731	15%		-	0
08:30 - 08:45	661	751	13%	721	9%	720	9%	720	9%	709	7%	728	10%	751	13%	729	10%	717	8%	719	8%	748	12%	727	10%		-	0
08:45 - 09:00	650	735	12%	740	13%	724	11%	733	12%	723	11%	707	8%	735	12%	747	14%	747	14%	733	12%	734	12%	733	12%		-	0
09:00 - 09:15	665	729	9%	737	10%	753	12%	732	10%	741	11%	736	10%	729	9%	728	9%	748	12%	733	10%	723	8%	735	10%		-	0
09:15 - 09:30	617	710	14%	724	16%	724	16%	735	17%	735	17%	734	17%	710	14%	729	17%	737	18%	728	17%	721	16%	728	17%		-	0
Hour 1	2,361	2,776	16%	2,792	17%	2,810	17%	2,839	18%	2,836	18%	2,868	19%	2,776	16%	2,777	16%	2,679	13%	2,871	19%	2,832	18%	2,808	17%		-	0
Hour 2	2,637	2,894	9%	3,103	16%	3,065	15%	3,090	16%	3,018	13%	2,927	10%	2,894	9%	3,020	14%	2,998	13%	3,007	13%	3,017	13%	3,016	13%		-	0
Hour 3	2,589	2,964	14%	2,875	10%	2,889	11%	2,936	13%	2,946	13%	2,929	12%	2,964	14%	2,924	12%	2,890	11%	2,962	13%	2,897	11%	2,922	12%		-	0
Hour 4	2,593	2,925	12%	2,922	12%	2,921	12%	2,920	12%	2,908	11%	2,905	11%	2,925	12%	2,933	12%	2,949	13%	2,913	12%	2,926	12%	2,923	12%		-	0
11	10,180	11,559	13%	11,692	14%	11,685	14%	11,785	15%	11,708	14%	11,629	13%	11,559	13%	11,654	14%	11,516	12%	11,753	14%	11,672	14%	11,669	14%		-	0



TRAFFIC VOLUMES - BY LINK

CONCEPT 3: +10% I-225

PERIOD: PM

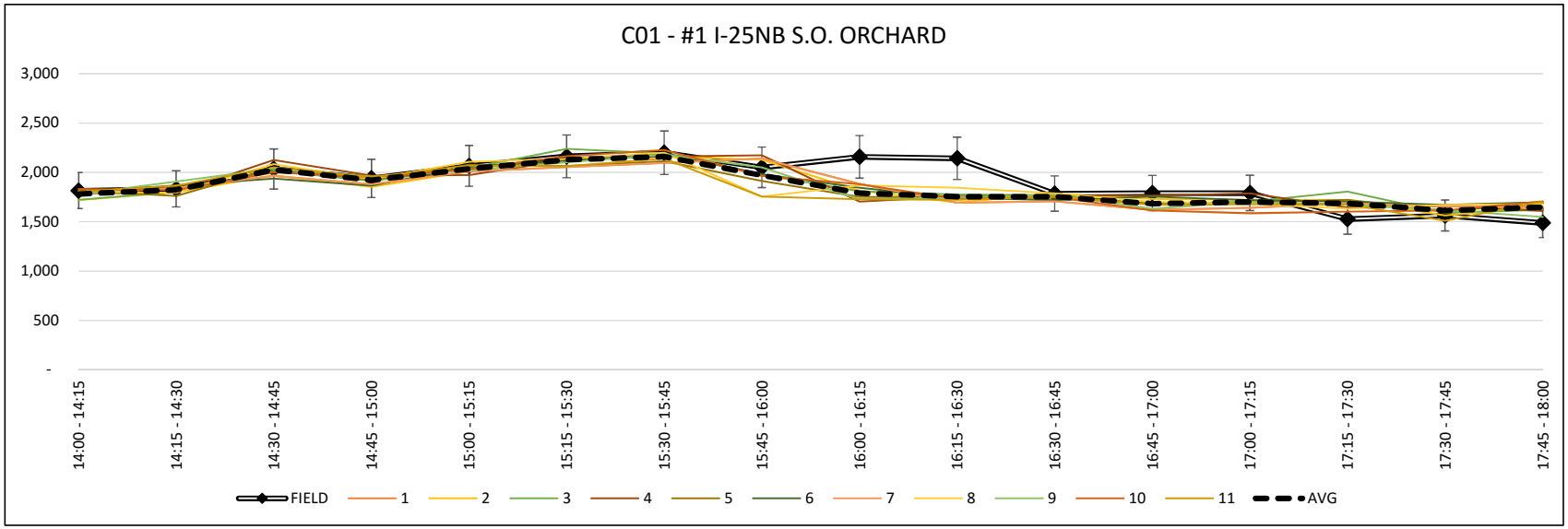


ID	DESCRIPTION
C01	NB I-25 S.O. Orchard
C02	SB I-25 N.O. Yale
C03	NB Parker to SB I-225
C03.5	SB Parker to SB I-225
C04	Belleview On-Ramp to NB I-25
C05	SB I-225 Ramp to SB I-25
C06	NB I-25 Ramp to Hampden
C07	SB I-25 Off-Ramp to Orchard
C08	SB I-225 Ramp to Yosemite
C08.5	SB I-225 Mainline at Yosemite
225S060	225S001 PARKER RD TO YOSEMITE ST (176)
25N130	025N201 0.2MI N OF I-225
225S030	225S000 I-225 SB TO I-25 NB (144)
C05.5	#5 SB I-225 to SB I-25 On-Ramp Only

CONCEPT 2: +10% I-225

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

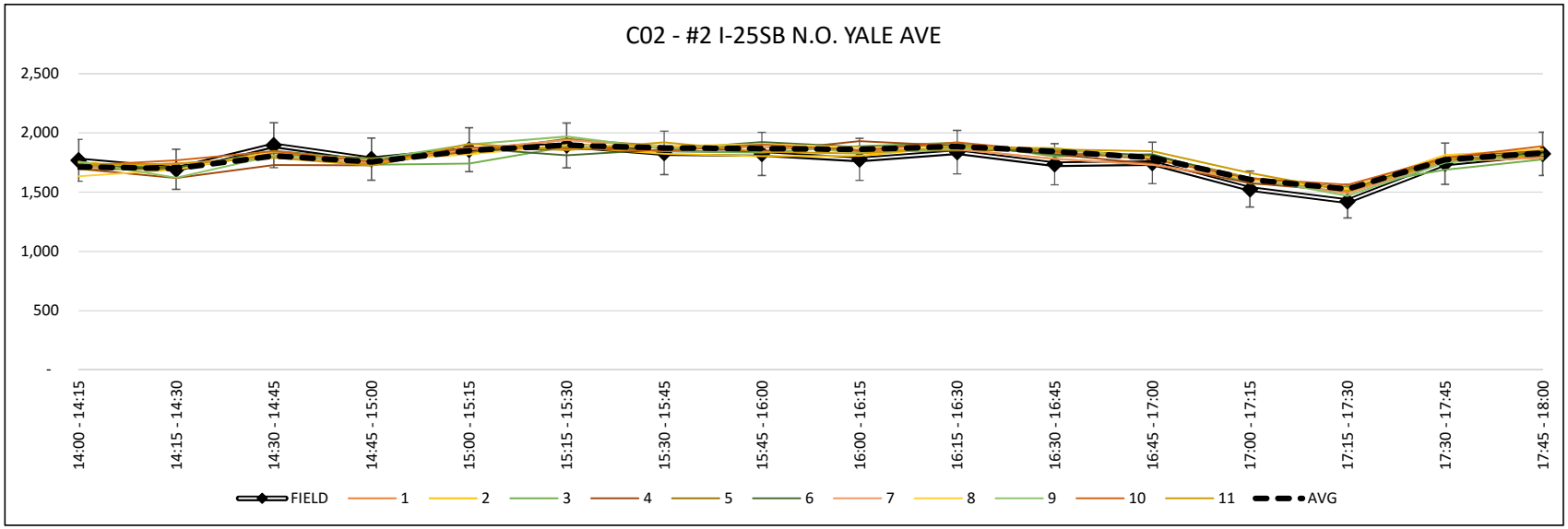
PM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C01	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	1,816	1,784	2%	1,719	5%	1,722	5%	1,788	2%	1,816	0%	1,796	1%	1,784	2%	1,806	1%	1,779	2%	1,832	1%	1,805	1%	1,781	2%		38	1
14:15 - 14:30	1,834	1,844	1%	1,800	2%	1,802	2%	1,793	2%	1,761	4%	1,868	2%	1,844	1%	1,795	2%	1,907	4%	1,822	1%	1,866	2%	1,825	0%		42	1
14:30 - 14:45	2,035	1,963	4%	1,969	3%	2,017	1%	2,126	4%	2,047	1%	1,936	5%	1,963	4%	2,083	2%	2,038	0%	2,000	2%	2,052	1%	2,026	0%		56	2
14:45 - 15:00	1,940	1,880	3%	1,855	4%	1,914	1%	1,967	1%	1,924	1%	1,866	4%	1,880	3%	1,932	0%	1,958	1%	1,953	1%	1,952	1%	1,921	1%		39	1
15:00 - 15:15	2,066	2,008	3%	2,009	3%	2,041	1%	1,973	5%	2,077	1%	2,059	0%	2,008	3%	2,106	2%	2,021	2%	2,033	2%	2,070	0%	2,035	2%		40	1
15:15 - 15:30	2,163	2,055	5%	2,127	2%	2,240	3%	2,124	2%	2,065	5%	2,120	2%	2,055	5%	2,136	1%	2,100	3%	2,165	0%	2,062	5%	2,128	2%		60	2
15:30 - 15:45	2,199	2,096	5%	2,163	2%	2,192	0%	2,162	2%	2,114	4%	2,196	0%	2,096	5%	2,201	0%	2,181	1%	2,228	1%	2,140	3%	2,160	2%		45	1
15:45 - 16:00	2,052	2,140	4%	2,128	4%	1,976	4%	2,173	6%	1,912	7%	1,982	3%	2,140	4%	1,756	16%	2,050	0%	1,963	4%	1,756	16%	1,971	4%		146	14
16:00 - 16:15	2,158	1,884	14%	1,816	17%	1,809	18%	1,704	24%	1,752	21%	1,846	16%	1,884	14%	1,869	14%	1,729	22%	1,880	14%	1,728	22%	1,791	19%		74	3
16:15 - 16:30	2,143	1,692	24%	1,695	23%	1,775	19%	1,755	20%	1,746	20%	1,743	21%	1,692	24%	1,845	15%	1,746	20%	1,730	21%	1,723	22%	1,755	20%		54	2
16:30 - 16:45	1,786	1,707	5%	1,786	0%	1,770	1%	1,769	1%	1,742	2%	1,718	4%	1,707	5%	1,787	0%	1,774	1%	1,750	2%	1,755	2%	1,755	2%		26	1
16:45 - 17:00	1,791	1,620	10%	1,732	3%	1,679	6%	1,763	2%	1,687	6%	1,754	2%	1,620	10%	1,700	5%	1,632	9%	1,614	10%	1,671	7%	1,684	6%		51	2
17:00 - 17:15	1,792	1,641	9%	1,723	4%	1,705	5%	1,789	0%	1,696	6%	1,718	4%	1,641	9%	1,683	6%	1,700	5%	1,586	12%	1,677	7%	1,700	5%		57	3
17:15 - 17:30	1,528	1,685	10%	1,723	12%	1,807	17%	1,645	7%	1,721	12%	1,703	11%	1,685	10%	1,632	7%	1,674	9%	1,603	5%	1,677	9%	1,687	10%		54	3
17:30 - 17:45	1,564	1,655	6%	1,565	0%	1,592	2%	1,658	6%	1,610	3%	1,671	7%	1,655	6%	1,671	7%	1,617	3%	1,614	3%	1,511	3%	1,614	3%		49	3
17:45 - 18:00	1,489	1,641	10%	1,657	11%	1,621	8%	1,610	8%	1,683	12%	1,699	13%	1,641	10%	1,681	12%	1,550	4%	1,706	14%	1,704	13%	1,648	10%		54	4
Hour 1	7,625	7,471	2%	7,343	4%	7,455	2%	7,674	1%	7,548	1%	7,466	2%	7,471	2%	7,616	0%	7,682	1%	7,607	0%	7,675	1%	7,553	1%		44	0
Hour 2	8,480	8,299	2%	8,427	1%	8,449	0%	8,432	1%	8,168	4%	8,357	1%	8,299	2%	8,199	3%	8,352	2%	8,389	1%	8,028	5%	8,294	2%		84	0
Hour 3	7,878	6,903	13%	7,029	11%	7,033	11%	6,991	12%	6,927	13%	7,061	11%	6,903	13%	7,201	9%	6,881	14%	6,974	12%	6,877	14%	6,985	12%		54	0
Hour 4	6,373	6,622	4%	6,668	5%	6,725	5%	6,702	5%	6,710	5%	6,791	6%	6,622	4%	6,667	5%	6,541	3%	6,509	2%	6,569	3%	6,649	4%		54	0
11	30,356	29,295	4%	29,467	3%	29,662	2%	29,799	2%	29,353	3%	29,675	2%	29,295	4%	29,683	2%	29,456	3%	29,479	3%	29,149	4%	29,481	3%		122	0



CONCEPT 2: +10% I-225

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

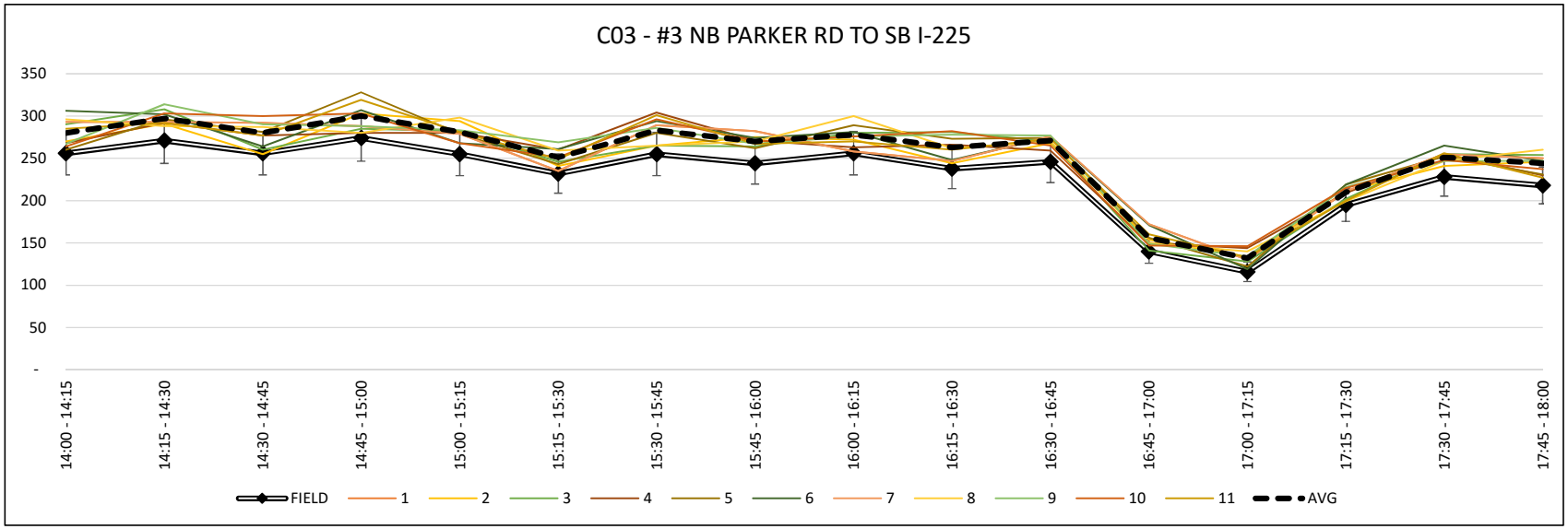
PM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C02	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	1,769	1,719	3%	1,750	1%	1,735	2%	1,696	4%	1,694	4%	1,720	3%	1,719	3%	1,634	8%	1,758	1%	1,725	3%	1,732	2%	1,714	3%		34	1
14:15 - 14:30	1,693	1,742	3%	1,704	1%	1,701	0%	1,620	4%	1,694	0%	1,706	1%	1,742	3%	1,688	0%	1,622	4%	1,769	4%	1,740	3%	1,700	0%		46	2
14:30 - 14:45	1,896	1,790	6%	1,832	3%	1,837	3%	1,730	9%	1,828	4%	1,849	3%	1,790	6%	1,843	3%	1,809	5%	1,845	3%	1,791	6%	1,805	5%		48	2
14:45 - 15:00	1,779	1,748	2%	1,780	0%	1,732	3%	1,727	3%	1,786	0%	1,773	0%	1,748	2%	1,765	1%	1,776	0%	1,756	1%	1,725	3%	1,755	1%		23	0
15:00 - 15:15	1,858	1,862	0%	1,833	1%	1,741	7%	1,868	1%	1,837	1%	1,870	1%	1,862	0%	1,818	2%	1,902	2%	1,877	1%	1,908	3%	1,851	0%		46	2
15:15 - 15:30	1,895	1,940	2%	1,883	1%	1,883	1%	1,859	2%	1,951	3%	1,811	5%	1,940	2%	1,898	0%	1,969	4%	1,871	1%	1,855	2%	1,897	0%		49	2
15:30 - 15:45	1,832	1,884	3%	1,823	0%	1,847	1%	1,884	3%	1,888	3%	1,861	2%	1,884	3%	1,887	3%	1,867	2%	1,848	1%	1,920	5%	1,874	2%		28	1
15:45 - 16:00	1,823	1,879	3%	1,804	1%	1,833	1%	1,846	1%	1,881	3%	1,924	5%	1,879	3%	1,906	4%	1,902	4%	1,901	4%	1,842	1%	1,869	2%		37	1
16:00 - 16:15	1,777	1,856	4%	1,805	2%	1,888	6%	1,931	8%	1,846	4%	1,881	6%	1,856	4%	1,879	6%	1,830	3%	1,853	4%	1,825	3%	1,862	5%		36	1
16:15 - 16:30	1,838	1,861	1%	1,887	3%	1,919	4%	1,891	3%	1,851	1%	1,897	3%	1,861	1%	1,883	2%	1,866	2%	1,920	4%	1,883	2%	1,886	3%		22	0
16:30 - 16:45	1,736	1,780	3%	1,825	5%	1,802	4%	1,818	5%	1,856	7%	1,819	5%	1,780	3%	1,874	8%	1,871	7%	1,841	6%	1,861	7%	1,843	6%		40	1
16:45 - 17:00	1,747	1,731	1%	1,801	3%	1,821	4%	1,739	0%	1,809	3%	1,817	4%	1,731	1%	1,778	2%	1,781	2%	1,776	2%	1,845	5%	1,792	3%		35	1
17:00 - 17:15	1,526	1,606	5%	1,623	6%	1,573	3%	1,577	3%	1,619	6%	1,601	5%	1,606	5%	1,604	5%	1,621	6%	1,618	6%	1,661	8%	1,607	5%		27	1
17:15 - 17:30	1,424	1,493	5%	1,528	7%	1,546	8%	1,505	6%	1,537	8%	1,535	8%	1,493	5%	1,533	7%	1,469	3%	1,563	9%	1,509	6%	1,526	7%		29	1
17:30 - 17:45	1,741	1,755	1%	1,814	4%	1,690	3%	1,794	3%	1,753	1%	1,778	2%	1,755	1%	1,812	4%	1,748	0%	1,790	3%	1,778	2%	1,773	2%		36	1
17:45 - 18:00	1,824	1,792	2%	1,852	2%	1,775	3%	1,857	2%	1,855	2%	1,826	0%	1,792	2%	1,864	2%	1,814	1%	1,888	3%	1,812	1%	1,830	0%		35	1
Hour 1	7,137	6,999	2%	7,066	1%	7,005	2%	6,773	5%	7,002	2%	7,048	1%	6,999	2%	6,930	3%	6,965	2%	7,095	1%	6,988	2%	6,974	2%		39	0
Hour 2	7,408	7,565	2%	7,343	1%	7,304	1%	7,457	1%	7,557	2%	7,466	1%	7,565	2%	7,509	1%	7,640	3%	7,497	1%	7,525	2%	7,491	1%		41	0
Hour 3	7,098	7,228	2%	7,318	3%	7,430	5%	7,379	4%	7,362	4%	7,414	4%	7,228	2%	7,414	4%	7,348	3%	7,390	4%	7,414	4%	7,383	4%		34	0
Hour 4	6,515	6,646	2%	6,817	5%	6,584	1%	6,733	3%	6,764	4%	6,740	3%	6,646	2%	6,813	4%	6,652	2%	6,859	5%	6,760	4%	6,736	3%		32	0
11	28,158	28,438	1%	28,544	1%	28,323	1%	28,342	1%	28,685	2%	28,668	2%	28,438	1%	28,666	2%	28,605	2%	28,841	2%	28,687	2%	28,584	2%		73	0



CONCEPT 2: +10% I-225

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

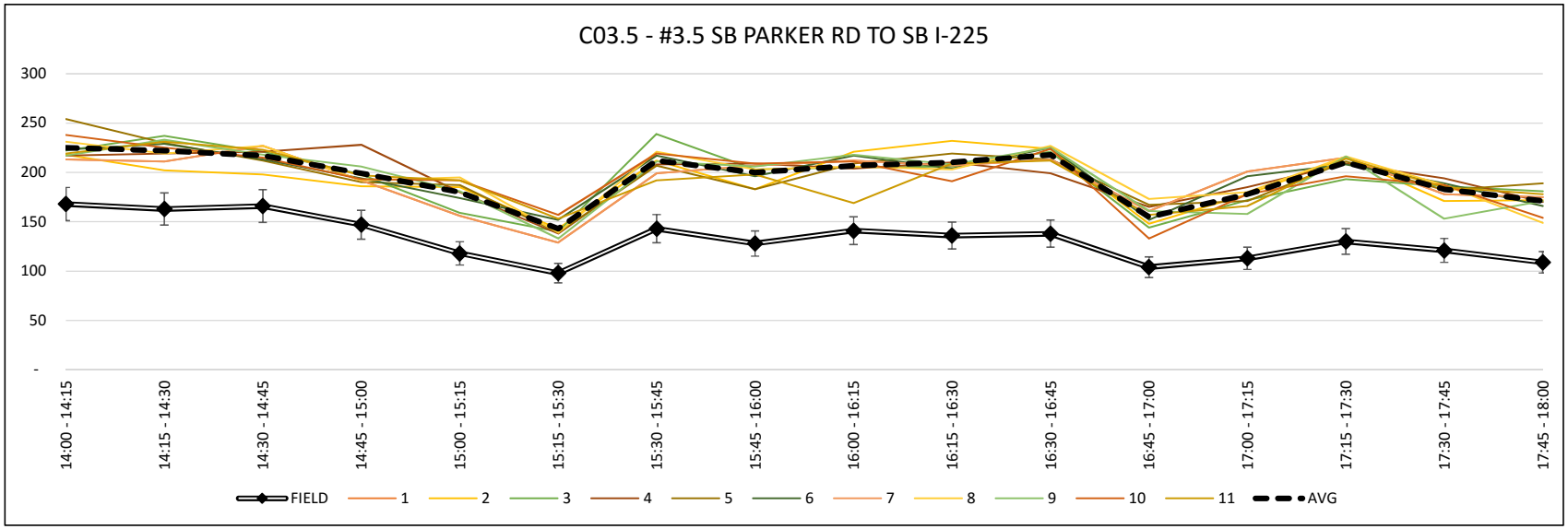
PM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C03	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	256	293	13%	270	5%	290	12%	268	5%	260	2%	306	18%	293	13%	296	14%	267	4%	264	3%	285	11%	280	9%		15	10
14:15 - 14:30	271	293	8%	291	7%	308	13%	292	7%	296	9%	302	11%	293	8%	288	6%	314	15%	303	11%	292	7%	297	9%		8	2
14:30 - 14:45	256	292	13%	255	0%	260	2%	277	8%	281	9%	264	3%	292	13%	287	11%	290	12%	300	16%	277	8%	280	9%		15	10
14:45 - 15:00	274	288	5%	303	10%	285	4%	280	2%	328	18%	307	11%	288	5%	280	2%	288	5%	303	10%	319	15%	300	9%		17	11
15:00 - 15:15	255	279	9%	294	14%	282	10%	280	9%	279	9%	268	5%	279	9%	298	16%	283	10%	268	5%	281	10%	281	10%		9	3
15:15 - 15:30	232	235	1%	241	4%	246	6%	260	11%	243	5%	261	12%	235	1%	259	11%	269	15%	251	8%	249	7%	251	8%		10	5
15:30 - 15:45	255	289	13%	265	4%	265	4%	304	18%	280	9%	294	14%	289	13%	265	4%	286	11%	296	15%	301	17%	283	10%		15	10
15:45 - 16:00	244	282	14%	275	12%	264	8%	271	10%	262	7%	274	12%	282	14%	270	10%	267	9%	270	10%	267	9%	270	10%		6	2
16:00 - 16:15	256	258	1%	272	6%	280	9%	263	3%	289	12%	281	9%	258	1%	300	16%	276	8%	276	8%	270	5%	278	8%		13	7
16:15 - 16:30	238	247	4%	244	2%	281	17%	266	11%	273	14%	248	4%	247	4%	262	10%	278	16%	282	17%	260	9%	263	10%		14	10
16:30 - 16:45	246	276	11%	268	9%	270	9%	259	5%	274	11%	275	11%	276	11%	270	9%	277	12%	265	7%	273	10%	271	10%		5	1
16:45 - 17:00	140	172	21%	154	10%	141	1%	150	7%	156	11%	171	20%	172	21%	150	7%	149	6%	147	5%	160	13%	156	11%		10	14
17:00 - 17:15	116	130	11%	133	14%	128	10%	144	22%	122	5%	119	3%	130	11%	140	19%	134	14%	146	23%	133	14%	132	13%		9	17
17:15 - 17:30	195	211	8%	211	8%	202	4%	209	7%	219	12%	219	12%	211	8%	199	2%	216	10%	215	10%	200	3%	210	7%		7	4
17:30 - 17:45	228	255	11%	241	6%	255	11%	255	11%	252	10%	265	15%	255	11%	247	8%	247	8%	248	8%	256	12%	251	10%		7	3
17:45 - 18:00	218	250	14%	246	12%	254	15%	230	5%	231	6%	247	12%	250	14%	260	18%	247	12%	237	8%	227	4%	244	11%		11	7
Hour 1	1,057	1,166	10%	1,119	6%	1,143	8%	1,117	6%	1,165	10%	1,179	11%	1,166	10%	1,151	9%	1,159	9%	1,170	10%	1,173	10%	1,157	9%		14	0
Hour 2	986	1,085	10%	1,075	9%	1,057	7%	1,115	12%	1,064	8%	1,097	11%	1,085	10%	1,092	10%	1,105	11%	1,085	10%	1,098	11%	1,085	10%		11	0
Hour 3	880	953	8%	938	6%	972	10%	938	6%	992	12%	975	10%	953	8%	982	11%	980	11%	970	10%	963	9%	968	10%		11	0
Hour 4	757	846	11%	831	9%	839	10%	838	10%	824	8%	850	12%	846	11%	846	11%	844	11%	846	11%	816	8%	837	10%		9	0
11	3,680	4,050	10%	3,963	7%	4,011	9%	4,008	9%	4,045	9%	4,101	11%	4,050	10%	4,071	10%	4,088	11%	4,071	10%	4,050	10%	4,047	9%		23	0



CONCEPT 2: +10% I-225

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

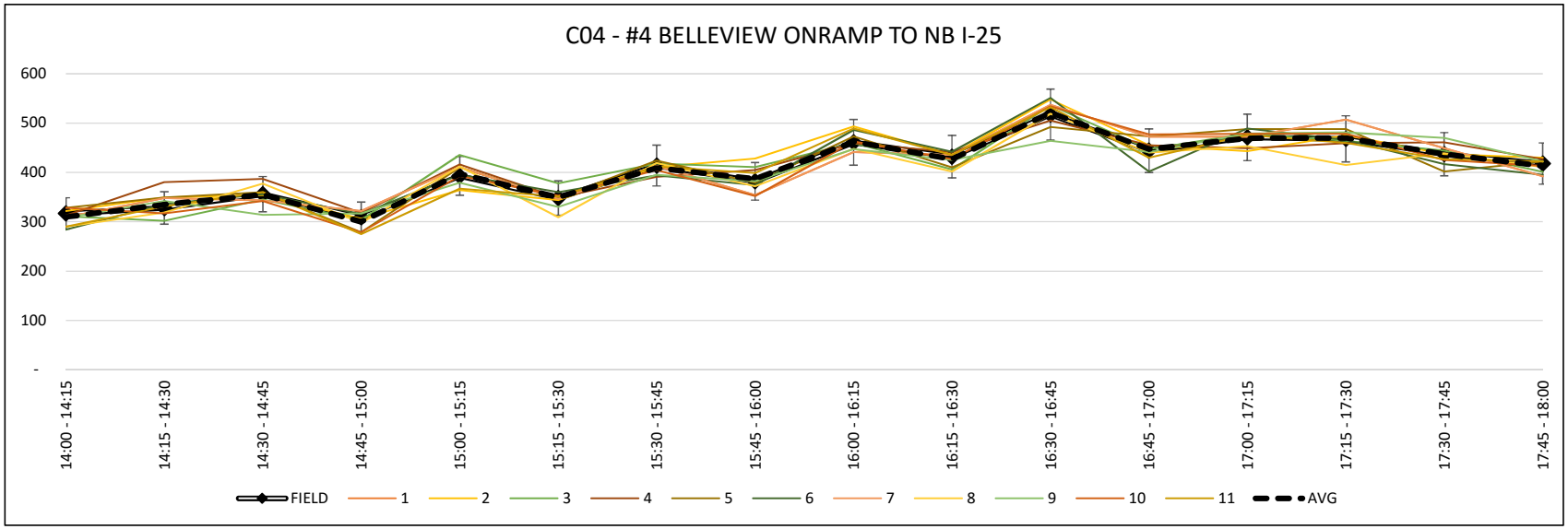
PM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C03.5	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	168	213	24%	218	26%	222	28%	217	25%	254	41%	223	28%	213	24%	231	32%	217	25%	238	34%	219	26%	225	29%		12	14
14:15 - 14:30	163	211	26%	202	21%	237	37%	219	29%	230	34%	229	34%	211	26%	219	29%	233	35%	225	32%	231	35%	222	31%		11	13
14:30 - 14:45	166	227	31%	198	18%	221	28%	221	28%	212	24%	213	25%	227	31%	227	31%	218	27%	215	26%	223	29%	217	27%		8	6
14:45 - 15:00	147	192	27%	186	23%	198	30%	228	43%	190	26%	194	28%	192	27%	192	27%	206	33%	193	27%	197	29%	199	30%		12	18
15:00 - 15:15	118	156	28%	185	44%	159	30%	180	42%	187	45%	174	38%	156	28%	195	49%	181	42%	192	48%	192	48%	180	42%		13	34
15:15 - 15:30	98	129	27%	143	37%	140	35%	138	34%	139	35%	152	43%	129	27%	139	35%	133	30%	157	46%	153	44%	143	37%		9	23
15:30 - 15:45	143	199	33%	212	39%	239	50%	208	37%	207	37%	217	41%	199	33%	221	43%	211	38%	219	42%	192	29%	212	39%		12	20
15:45 - 16:00	128	207	47%	183	35%	203	45%	209	48%	183	35%	196	42%	207	47%	203	45%	206	47%	209	48%	198	43%	200	44%		9	14
16:00 - 16:15	141	212	40%	221	44%	205	37%	204	37%	209	39%	217	42%	212	40%	206	37%	218	43%	211	40%	169	18%	207	38%		14	27
16:15 - 16:30	136	207	41%	232	52%	206	41%	210	43%	219	47%	204	40%	207	41%	203	40%	208	42%	191	34%	209	42%	210	43%		11	18
16:30 - 16:45	138	213	43%	224	48%	221	46%	199	36%	213	43%	225	48%	213	43%	227	49%	225	48%	224	48%	212	42%	218	45%		8	9
16:45 - 17:00	104	161	43%	148	35%	144	32%	165	45%	167	46%	152	38%	161	43%	173	50%	161	43%	133	24%	157	41%	155	39%		12	37
17:00 - 17:15	113	201	56%	178	45%	172	41%	185	48%	171	41%	196	54%	201	56%	180	46%	158	33%	178	45%	166	38%	178	45%		12	31
17:15 - 17:30	130	215	49%	215	49%	193	39%	209	47%	211	48%	208	46%	215	49%	216	50%	216	50%	196	40%	214	49%	210	47%		8	11
17:30 - 17:45	121	178	38%	171	34%	186	42%	194	46%	182	40%	189	44%	178	38%	187	43%	153	23%	187	43%	185	42%	183	41%		12	27
17:45 - 18:00	109	175	46%	172	45%	181	50%	170	44%	189	54%	166	41%	175	46%	149	31%	171	44%	154	34%	178	48%	171	44%		12	34
Hour 1	644	843	27%	804	22%	878	31%	885	32%	886	32%	859	29%	843	27%	869	30%	874	30%	871	30%	870	30%	863	29%		11	1
Hour 2	487	691	35%	723	39%	741	41%	735	41%	716	38%	739	41%	691	35%	758	44%	731	40%	777	46%	735	41%	735	41%		11	1
Hour 3	519	793	42%	825	46%	776	40%	778	40%	808	44%	798	42%	793	42%	809	44%	812	44%	759	38%	747	36%	790	41%		11	1
Hour 4	473	769	48%	736	44%	732	43%	758	46%	753	46%	759	46%	769	48%	732	43%	698	38%	715	41%	743	44%	742	44%		11	2
11	2,123	3,096	37%	3,088	37%	3,127	38%	3,156	39%	3,163	39%	3,155	39%	3,096	37%	3,168	40%	3,115	38%	3,122	38%	3,095	37%	3,130	38%		22	0



CONCEPT 2: +10% I-225

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

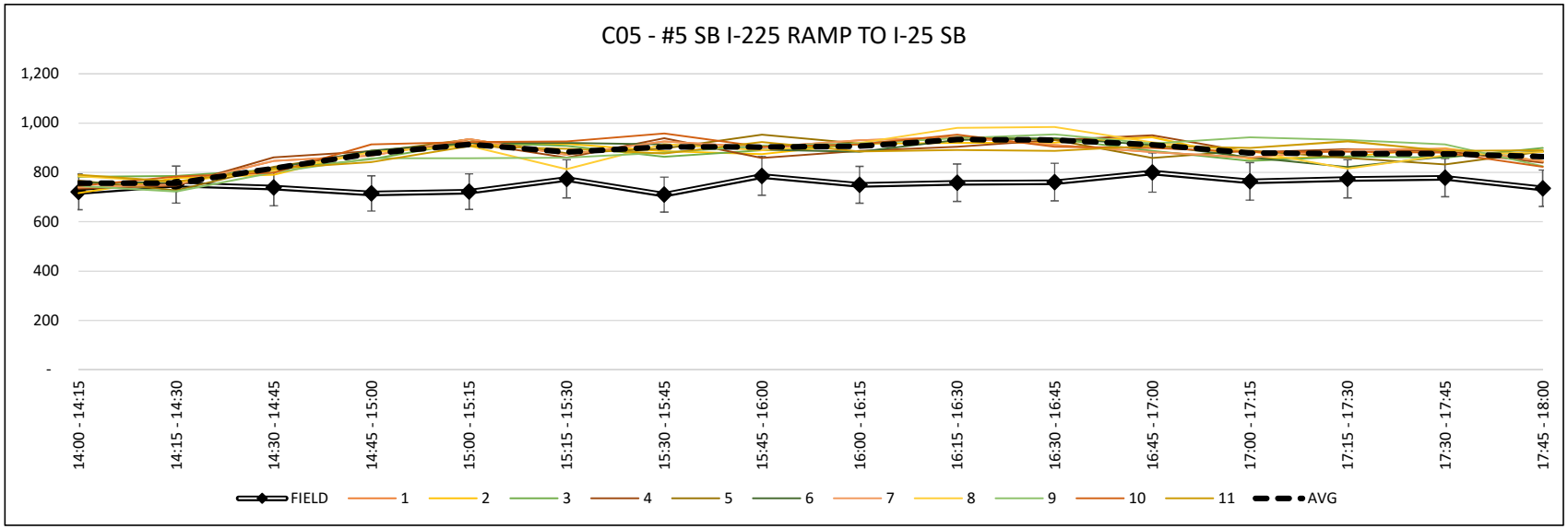
PM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C04	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	317	309	3%	322	2%	311	2%	313	1%	328	3%	284	11%	309	3%	290	9%	308	3%	328	3%	290	9%	310	2%		17	8
14:15 - 14:30	328	348	6%	349	6%	302	8%	380	15%	349	6%	336	2%	348	6%	319	3%	342	4%	317	3%	331	1%	335	2%		22	12
14:30 - 14:45	356	343	4%	354	1%	345	3%	387	8%	360	1%	356	0%	343	4%	377	6%	314	13%	342	4%	360	1%	355	0%		20	9
14:45 - 15:00	309	322	4%	306	1%	304	2%	318	3%	279	10%	316	2%	322	4%	298	4%	317	3%	279	10%	275	12%	300	3%		18	9
15:00 - 15:15	393	411	4%	364	8%	435	10%	416	6%	410	4%	395	1%	411	4%	412	5%	379	4%	393	0%	367	7%	397	1%		22	9
15:15 - 15:30	348	346	1%	344	1%	378	8%	349	0%	348	0%	360	3%	346	1%	309	12%	330	5%	353	1%	351	1%	350	1%		20	9
15:30 - 15:45	414	413	0%	411	1%	418	1%	391	6%	424	2%	394	5%	413	0%	419	1%	395	5%	405	2%	412	0%	409	1%		11	2
15:45 - 16:00	382	354	8%	428	11%	411	7%	405	6%	379	1%	374	2%	354	8%	372	3%	382	0%	352	8%	399	4%	387	1%		24	11
16:00 - 16:15	461	441	4%	493	7%	460	0%	459	0%	473	3%	486	5%	441	4%	448	3%	447	3%	463	0%	489	6%	462	0%		23	7
16:15 - 16:30	432	435	1%	436	1%	406	6%	441	2%	410	5%	442	2%	435	1%	402	7%	425	2%	427	1%	435	1%	427	1%		15	3
16:30 - 16:45	517	537	4%	548	6%	536	4%	505	2%	492	5%	551	6%	537	4%	519	0%	464	11%	534	3%	532	3%	521	1%		26	7
16:45 - 17:00	444	472	6%	455	2%	447	1%	455	2%	473	6%	402	10%	472	6%	440	1%	441	1%	477	7%	430	3%	447	1%		22	7
17:00 - 17:15	471	472	0%	443	6%	479	2%	449	5%	488	4%	489	4%	472	0%	453	4%	479	2%	478	1%	476	1%	469	0%		17	4
17:15 - 17:30	468	507	8%	475	1%	464	1%	459	2%	488	4%	466	0%	507	8%	415	12%	481	3%	478	2%	460	2%	470	0%		23	7
17:30 - 17:45	437	449	3%	437	0%	444	2%	461	5%	402	8%	417	5%	449	3%	439	0%	470	7%	425	3%	427	2%	437	0%		19	5
17:45 - 18:00	418	392	6%	430	3%	401	4%	427	2%	422	1%	395	6%	392	6%	411	2%	422	1%	413	1%	422	1%	413	1%		13	3
Hour 1	1,310	1,322	1%	1,331	2%	1,262	4%	1,398	6%	1,316	0%	1,292	1%	1,322	1%	1,284	2%	1,281	2%	1,266	3%	1,256	4%	1,300	1%		19	1
Hour 2	1,537	1,524	1%	1,547	1%	1,642	7%	1,561	2%	1,561	2%	1,523	1%	1,524	1%	1,512	2%	1,486	3%	1,503	2%	1,529	1%	1,543	0%		20	0
Hour 3	1,854	1,885	2%	1,932	4%	1,849	0%	1,860	0%	1,848	0%	1,881	1%	1,885	2%	1,809	2%	1,777	4%	1,901	3%	1,886	2%	1,857	0%		22	0
Hour 4	1,794	1,820	1%	1,785	1%	1,788	0%	1,796	0%	1,800	0%	1,767	2%	1,820	1%	1,718	4%	1,852	3%	1,794	0%	1,785	1%	1,789	0%		18	0
11	6,495	6,551	1%	6,595	2%	6,541	1%	6,615	2%	6,525	0%	6,463	0%	6,551	1%	6,323	3%	6,396	2%	6,464	0%	6,456	1%	6,489	0%		40	0



CONCEPT 2: +10% I-225

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

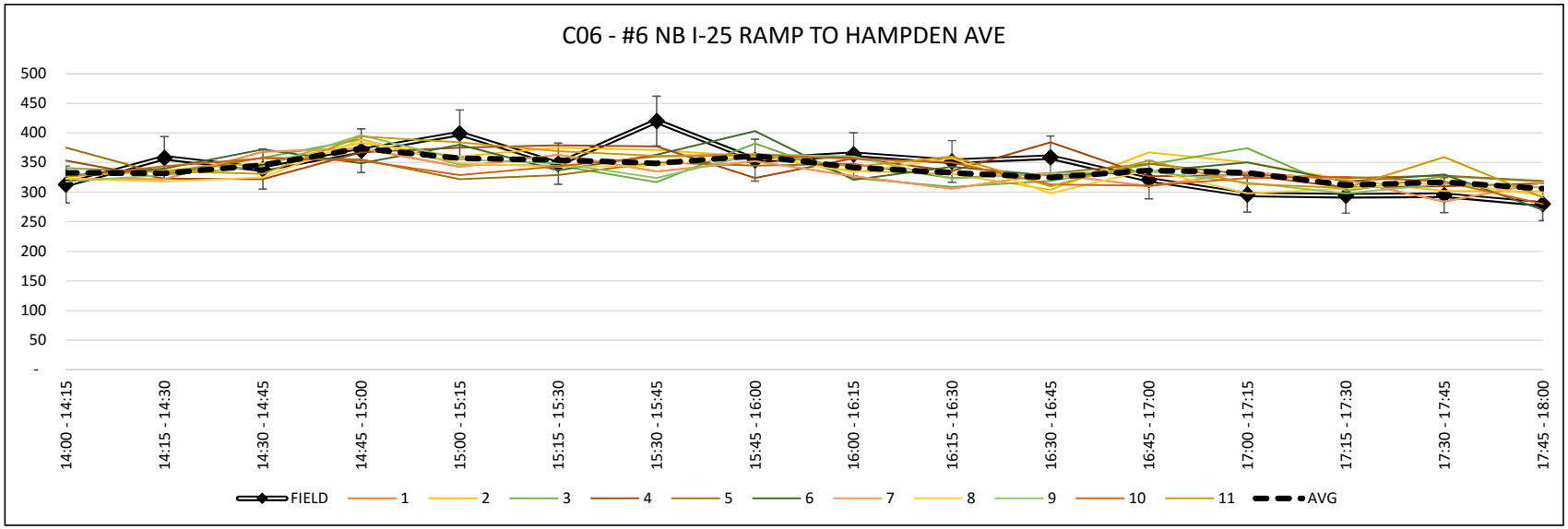
PM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C05	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	721	739	2%	716	1%	782	8%	735	2%	766	6%	757	5%	739	2%	785	8%	745	3%	745	3%	790	9%	757	5%		24	3
14:15 - 14:30	751	751	0%	777	3%	786	5%	746	1%	727	3%	760	1%	751	0%	761	1%	723	4%	783	4%	763	2%	756	1%		21	2
14:30 - 14:45	739	846	14%	791	7%	812	9%	861	15%	823	11%	817	10%	846	14%	807	9%	800	8%	799	8%	816	10%	817	10%		21	2
14:45 - 15:00	715	868	19%	887	21%	854	18%	886	21%	883	21%	888	22%	868	19%	883	21%	857	18%	914	24%	842	16%	877	20%		20	2
15:00 - 15:15	722	935	26%	910	23%	922	24%	921	24%	934	26%	919	24%	935	26%	908	23%	857	17%	923	24%	906	23%	913	23%		21	2
15:15 - 15:30	774	872	12%	916	17%	908	16%	860	11%	878	13%	919	17%	872	12%	813	5%	860	11%	926	18%	896	15%	882	13%		34	5
15:30 - 15:45	710	925	26%	886	22%	863	19%	939	28%	897	23%	914	25%	925	26%	915	25%	880	21%	958	30%	876	21%	904	24%		29	5
15:45 - 16:00	786	902	14%	874	11%	890	12%	859	9%	953	19%	892	13%	902	14%	890	12%	909	15%	904	14%	923	16%	903	14%		27	3
16:00 - 16:15	750	930	21%	916	20%	914	20%	887	17%	917	20%	884	16%	930	21%	919	20%	917	20%	914	20%	885	17%	906	19%		18	2
16:15 - 16:30	758	942	22%	919	19%	944	22%	904	18%	942	22%	932	21%	942	22%	980	26%	938	21%	953	23%	891	16%	933	21%		25	3
16:30 - 16:45	761	911	18%	921	19%	936	21%	931	20%	931	20%	939	21%	911	18%	984	26%	954	23%	904	17%	887	15%	931	20%		26	3
16:45 - 17:00	800	882	10%	943	16%	887	10%	951	17%	858	7%	911	13%	882	10%	922	14%	917	14%	899	12%	908	13%	912	13%		30	4
17:00 - 17:15	764	860	12%	855	11%	846	10%	881	14%	888	15%	861	12%	860	12%	886	15%	942	21%	882	14%	899	16%	879	14%		26	3
17:15 - 17:30	774	892	14%	865	11%	865	11%	894	14%	859	10%	822	6%	892	14%	816	5%	931	18%	884	13%	926	18%	877	12%		37	6
17:30 - 17:45	779	895	14%	898	14%	860	10%	886	13%	832	7%	865	10%	895	14%	869	11%	913	16%	880	12%	887	13%	875	12%		25	3
17:45 - 18:00	736	845	14%	845	14%	899	20%	839	13%	885	18%	885	18%	845	14%	882	18%	825	11%	823	11%	890	19%	864	16%		28	4
Hour 1	2,926	3,204	9%	3,171	8%	3,234	10%	3,228	10%	3,199	9%	3,222	10%	3,204	9%	3,236	10%	3,125	7%	3,241	10%	3,211	9%	3,207	9%		22	0
Hour 2	2,992	3,634	19%	3,586	18%	3,583	18%	3,579	18%	3,662	20%	3,644	20%	3,634	19%	3,526	16%	3,506	16%	3,711	21%	3,601	18%	3,602	19%		28	0
Hour 3	3,069	3,665	18%	3,699	19%	3,681	18%	3,673	18%	3,648	17%	3,666	18%	3,665	18%	3,805	21%	3,726	19%	3,670	18%	3,571	15%	3,682	18%		25	0
Hour 4	3,053	3,492	13%	3,463	13%	3,470	13%	3,500	14%	3,464	13%	3,433	12%	3,492	13%	3,453	12%	3,611	17%	3,469	13%	3,602	16%	3,495	14%		29	0
11	12,040	13,995	15%	13,919	14%	13,968	15%	13,980	15%	13,973	15%	13,965	15%	13,995	15%	14,020	15%	13,968	15%	14,091	16%	13,985	15%	13,986	15%		52	0



CONCEPT 2: +10% I-225

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

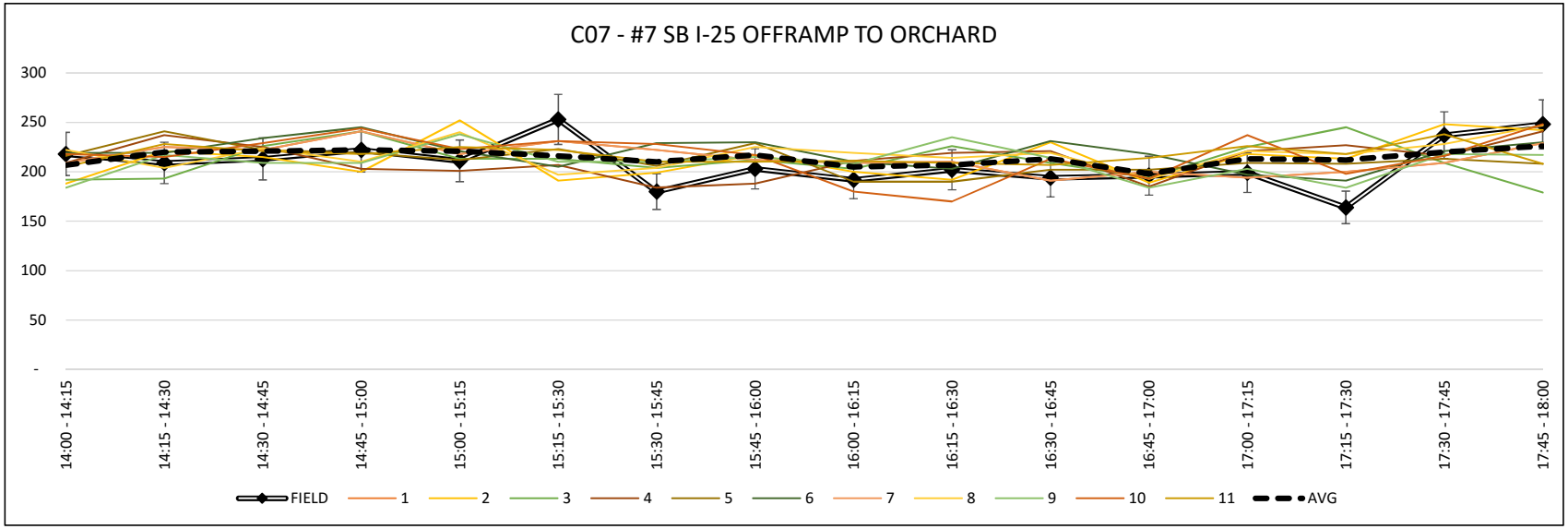
PM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C06	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	313	323	3%	328	5%	341	9%	353	12%	375	18%	328	5%	323	3%	323	3%	318	2%	326	4%	327	4%	333	6%		17	8
14:15 - 14:30	358	322	11%	337	6%	334	7%	323	10%	330	8%	340	5%	322	11%	318	12%	329	8%	344	4%	336	6%	332	8%		8	1
14:30 - 14:45	339	368	8%	349	3%	358	5%	322	5%	358	5%	372	9%	368	8%	325	4%	344	1%	357	5%	331	2%	346	2%		18	8
14:45 - 15:00	370	374	1%	383	3%	389	5%	367	1%	355	4%	349	6%	374	1%	388	5%	396	7%	353	5%	394	6%	374	1%		17	6
15:00 - 15:15	399	343	15%	360	10%	347	14%	375	6%	322	21%	380	5%	343	15%	349	13%	355	12%	329	19%	384	4%	357	11%		21	8
15:15 - 15:30	348	363	4%	375	7%	345	1%	379	9%	329	6%	337	3%	363	4%	343	1%	349	0%	344	1%	369	6%	354	2%		16	6
15:30 - 15:45	420	335	23%	371	12%	317	28%	377	11%	350	18%	363	15%	335	23%	345	20%	324	26%	360	15%	361	15%	349	18%		19	6
15:45 - 16:00	354	352	1%	360	2%	382	8%	324	9%	345	3%	403	13%	352	1%	361	2%	364	3%	363	3%	364	3%	361	2%		20	9
16:00 - 16:15	364	327	11%	336	8%	324	12%	357	2%	348	4%	321	13%	327	11%	334	9%	360	1%	356	2%	343	6%	342	6%		14	4
16:15 - 16:30	352	306	14%	331	6%	309	13%	336	5%	324	8%	343	3%	306	14%	357	1%	323	9%	350	1%	360	2%	333	6%		18	7
16:30 - 16:45	359	331	8%	304	17%	319	12%	384	7%	332	8%	328	9%	331	8%	298	19%	332	8%	313	14%	310	15%	325	10%		23	11
16:45 - 17:00	321	310	3%	367	13%	347	8%	327	2%	348	8%	335	4%	310	3%	338	5%	335	4%	311	3%	353	9%	337	5%		17	8
17:00 - 17:15	296	334	12%	350	17%	374	23%	329	11%	330	11%	350	17%	334	12%	298	1%	316	7%	324	9%	314	6%	333	12%		21	14
17:15 - 17:30	294	321	9%	321	9%	302	3%	308	5%	324	10%	318	8%	321	9%	306	4%	298	1%	326	10%	307	4%	312	6%		10	3
17:30 - 17:45	295	284	4%	302	2%	327	10%	310	5%	328	11%	330	11%	284	4%	317	7%	314	6%	318	8%	359	20%	317	7%		20	13
17:45 - 18:00	280	316	12%	301	7%	318	13%	315	12%	319	13%	270	4%	316	12%	294	5%	308	10%	280	0%	291	4%	306	9%		23	19
Hour 1	1,380	1,387	1%	1,397	1%	1,422	3%	1,365	1%	1,418	3%	1,389	1%	1,387	1%	1,354	2%	1,387	1%	1,380	0%	1,388	1%	1,385	0%		16	0
Hour 2	1,521	1,393	9%	1,466	4%	1,391	9%	1,455	4%	1,346	12%	1,483	3%	1,393	9%	1,398	8%	1,392	9%	1,396	9%	1,478	3%	1,421	7%		19	0
Hour 3	1,396	1,274	9%	1,338	4%	1,299	7%	1,404	1%	1,352	3%	1,327	5%	1,274	9%	1,327	5%	1,350	3%	1,330	5%	1,366	2%	1,337	4%		18	0
Hour 4	1,165	1,255	7%	1,274	9%	1,321	13%	1,262	8%	1,301	11%	1,268	8%	1,255	7%	1,215	4%	1,236	6%	1,248	7%	1,271	9%	1,268	8%		19	1
11	5,462	5,309	3%	5,475	0%	5,433	1%	5,486	0%	5,417	1%	5,467	0%	5,309	3%	5,294	3%	5,365	2%	5,354	2%	5,503	1%	5,411	1%		36	0



CONCEPT 2: +10% I-225

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

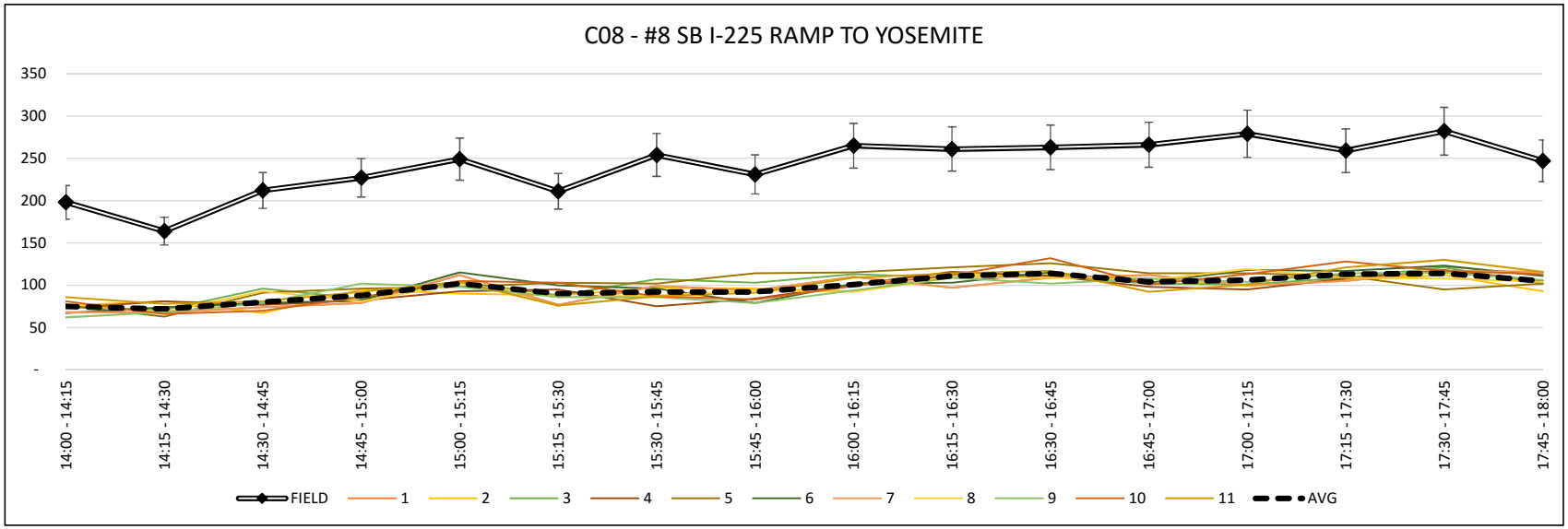
PM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C07	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	218	209	4%	188	15%	192	13%	209	4%	216	1%	219	0%	209	4%	222	2%	184	17%	218	0%	205	6%	207	5%		13	10
14:15 - 14:30	209	225	7%	221	6%	193	8%	237	13%	241	14%	219	5%	225	7%	204	2%	217	4%	215	3%	228	9%	220	5%		14	12
14:30 - 14:45	213	222	4%	215	1%	226	6%	225	5%	222	4%	234	9%	222	4%	224	5%	209	2%	229	7%	221	4%	221	4%		8	4
14:45 - 15:00	222	241	8%	200	10%	241	8%	203	9%	219	1%	245	10%	241	8%	210	6%	209	6%	244	9%	218	2%	222	0%		17	16
15:00 - 15:15	211	218	3%	252	18%	213	1%	201	5%	212	0%	221	5%	218	3%	240	13%	238	12%	223	6%	225	6%	221	5%		18	20
15:15 - 15:30	253	231	9%	191	28%	213	17%	207	20%	223	13%	205	21%	231	9%	197	25%	210	19%	231	9%	222	13%	216	16%		15	10
15:30 - 15:45	180	222	21%	199	10%	204	13%	184	2%	206	13%	229	24%	222	21%	204	13%	210	15%	228	24%	210	15%	210	15%		13	14
15:45 - 16:00	203	212	4%	217	7%	212	4%	188	8%	229	12%	230	12%	212	4%	225	10%	215	6%	217	7%	210	3%	217	7%		12	10
16:00 - 16:15	192	209	8%	200	4%	203	6%	211	9%	190	1%	210	9%	209	8%	219	13%	208	8%	180	6%	211	9%	205	7%		11	9
16:15 - 16:30	202	210	4%	192	5%	226	11%	219	8%	190	6%	203	0%	210	4%	214	6%	235	15%	170	17%	209	3%	207	2%		18	22
16:30 - 16:45	194	191	2%	230	17%	209	7%	221	13%	202	4%	231	17%	191	2%	219	12%	214	10%	213	9%	207	6%	213	9%		12	11
16:45 - 17:00	196	200	2%	189	4%	194	1%	185	6%	202	3%	218	11%	200	2%	193	2%	184	6%	193	2%	214	9%	198	1%		11	9
17:00 - 17:15	199	194	3%	218	9%	225	12%	221	10%	209	5%	197	1%	194	3%	221	10%	203	2%	237	17%	226	13%	213	7%		15	16
17:15 - 17:30	164	200	20%	213	26%	245	40%	227	32%	208	24%	191	15%	200	20%	218	28%	184	11%	198	19%	218	28%	212	26%		18	33
17:30 - 17:45	237	209	13%	248	5%	209	13%	216	9%	213	11%	221	7%	209	13%	228	4%	218	8%	216	9%	238	0%	220	7%		13	8
17:45 - 18:00	248	229	8%	242	2%	179	32%	241	3%	208	18%	230	8%	229	8%	247	0%	217	13%	248	0%	208	18%	226	9%		21	20
Hour 1	862	897	4%	824	5%	852	1%	874	1%	898	4%	917	6%	897	4%	860	0%	819	5%	906	5%	872	1%	870	1%		13	1
Hour 2	847	883	4%	859	1%	842	1%	780	8%	870	3%	885	4%	883	4%	866	2%	873	3%	899	6%	867	2%	864	2%		15	1
Hour 3	784	810	3%	811	3%	832	6%	836	6%	784	0%	862	9%	810	3%	845	7%	841	7%	756	4%	841	7%	823	5%		13	1
Hour 4	848	832	2%	921	8%	858	1%	905	7%	838	1%	839	1%	832	2%	914	7%	822	3%	899	6%	890	5%	871	3%		17	1
11	3,341	3,422	2%	3,415	2%	3,384	1%	3,395	2%	3,390	1%	3,503	5%	3,422	2%	3,485	4%	3,355	0%	3,460	3%	3,470	4%	3,428	3%		29	0



CONCEPT 2: +10% I-225

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

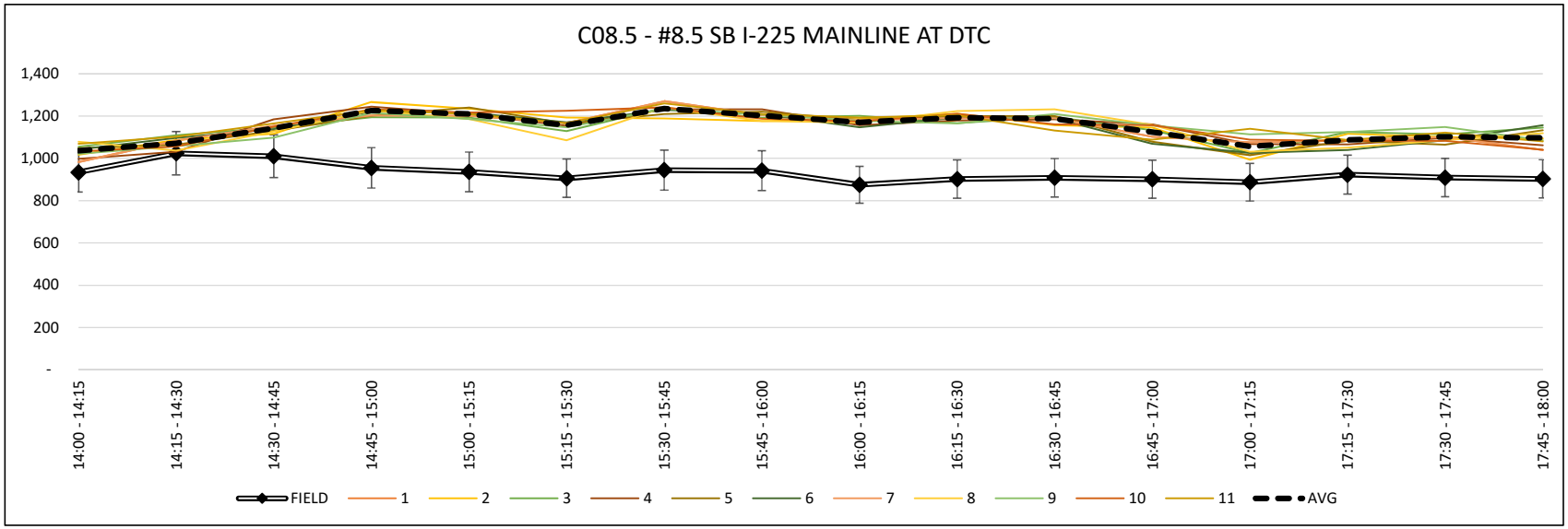
PM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C08	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	198	68	98%	76	89%	74	91%	73	92%	76	89%	67	99%	68	98%	78	87%	62	###	81	84%	86	79%	75	90%		7	3
14:15 - 14:30	164	68	83%	81	68%	71	79%	81	68%	63	89%	74	76%	68	83%	68	83%	68	83%	66	85%	78	71%	72	78%		6	4
14:30 - 14:45	212	74	97%	67	###	96	75%	77	93%	91	80%	79	91%	74	97%	93	78%	79	91%	70	###	81	89%	80	90%		9	5
14:45 - 15:00	227	79	97%	95	82%	84	92%	82	94%	96	81%	82	94%	79	97%	81	95%	102	76%	86	90%	92	85%	88	88%		7	3
15:00 - 15:15	249	112	76%	90	94%	104	82%	93	91%	98	87%	115	74%	112	76%	102	84%	98	87%	105	81%	104	82%	102	84%		7	2
15:15 - 15:30	211	77	93%	88	82%	88	82%	95	76%	103	69%	100	71%	77	93%	86	84%	86	84%	103	69%	76	94%	90	80%		9	5
15:30 - 15:45	254	99	88%	97	89%	107	81%	75	###	102	85%	96	90%	99	88%	88	97%	86	99%	87	98%	87	98%	92	94%		9	3
15:45 - 16:00	231	94	84%	96	83%	103	77%	84	93%	114	68%	79	98%	94	84%	94	84%	79	98%	83	94%	91	87%	92	86%		11	6
16:00 - 16:15	265	110	83%	93	96%	113	80%	101	90%	115	79%	102	89%	110	83%	92	97%	94	95%	99	91%	109	83%	101	90%		10	4
16:15 - 16:30	261	97	92%	112	80%	109	82%	116	77%	121	73%	103	87%	97	92%	109	82%	109	82%	112	80%	114	78%	111	81%		7	2
16:30 - 16:45	263	109	83%	112	81%	111	81%	111	81%	126	70%	115	78%	109	83%	109	83%	102	88%	132	66%	117	77%	114	79%		8	3
16:45 - 17:00	266	112	81%	108	84%	102	89%	98	92%	114	80%	103	88%	112	81%	106	86%	108	84%	101	90%	92	97%	104	88%		7	2
17:00 - 17:15	279	100	94%	99	95%	101	94%	95	98%	114	84%	118	81%	100	94%	119	80%	104	91%	113	85%	101	94%	106	90%		8	2
17:15 - 17:30	259	105	85%	106	84%	109	82%	108	82%	111	80%	117	76%	105	85%	109	82%	114	78%	128	68%	121	73%	113	78%		7	2
17:30 - 17:45	282	117	83%	112	86%	121	80%	118	82%	95	99%	123	79%	117	83%	108	89%	115	84%	117	83%	130	74%	114	85%		10	3
17:45 - 18:00	247	116	72%	93	91%	102	83%	105	81%	102	83%	111	76%	116	72%	104	81%	106	80%	113	74%	116	72%	105	81%		8	3
Hour 1	801	289	94%	319	86%	325	85%	313	88%	326	84%	302	90%	289	94%	320	86%	311	88%	303	90%	337	82%	315	87%		7	0
Hour 2	945	382	85%	371	87%	402	81%	347	93%	417	78%	390	83%	382	85%	370	87%	349	92%	378	86%	358	90%	376	86%		9	0
Hour 3	1,055	428	85%	425	85%	435	83%	426	85%	476	76%	423	86%	428	85%	416	87%	413	87%	444	82%	432	84%	430	84%		8	0
Hour 4	1,067	438	84%	410	89%	433	85%	426	86%	422	87%	469	78%	438	84%	440	83%	439	83%	471	78%	468	78%	438	84%		8	0
11	3,868	1,537	86%	1,525	87%	1,595	83%	1,512	88%	1,641	81%	1,584	84%	1,537	86%	1,546	86%	1,512	88%	1,596	83%	1,595	83%	1,559	85%		16	0



CONCEPT 2: +10% I-225

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

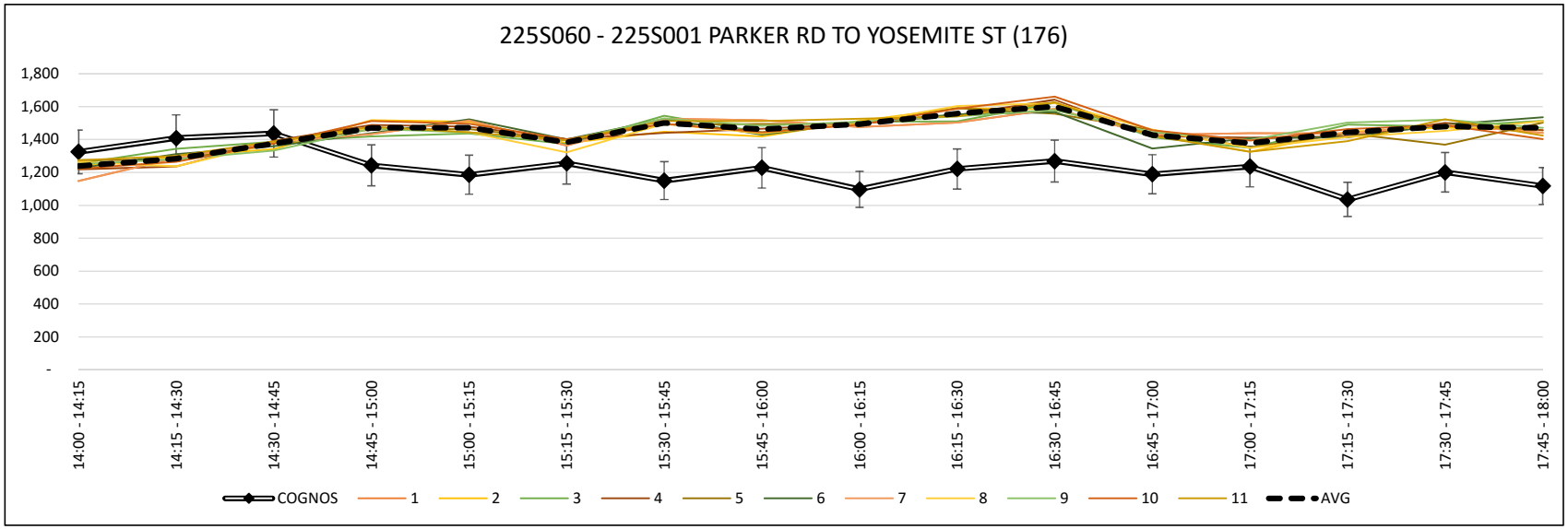
PM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C08.5	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	934	983	5%	1,017	9%	1,055	12%	998	7%	1,047	11%	1,042	11%	983	5%	1,078	14%	1,021	9%	1,032	10%	1,069	13%	1,036	10%		29	3
14:15 - 14:30	1,024	1,084	6%	1,087	6%	1,109	8%	1,031	1%	1,065	4%	1,097	7%	1,084	6%	1,036	1%	1,058	3%	1,056	3%	1,102	7%	1,072	5%		26	2
14:30 - 14:45	1,010	1,153	13%	1,116	10%	1,145	13%	1,184	16%	1,130	11%	1,138	12%	1,153	13%	1,127	11%	1,098	8%	1,149	13%	1,165	14%	1,143	12%		25	2
14:45 - 15:00	955	1,203	23%	1,266	28%	1,194	22%	1,244	26%	1,201	23%	1,221	24%	1,203	23%	1,226	25%	1,215	24%	1,231	25%	1,228	25%	1,226	25%		23	2
15:00 - 15:15	936	1,201	25%	1,234	27%	1,193	24%	1,209	25%	1,240	28%	1,216	26%	1,201	25%	1,185	23%	1,185	23%	1,216	26%	1,209	25%	1,209	25%		18	1
15:15 - 15:30	906	1,166	25%	1,193	27%	1,128	22%	1,153	24%	1,165	25%	1,170	25%	1,166	25%	1,085	18%	1,146	23%	1,225	30%	1,166	25%	1,157	24%		36	4
15:30 - 15:45	944	1,270	29%	1,188	23%	1,239	27%	1,232	26%	1,210	25%	1,229	26%	1,270	29%	1,241	27%	1,235	27%	1,241	27%	1,260	29%	1,235	27%		22	2
15:45 - 16:00	942	1,204	24%	1,176	22%	1,191	23%	1,231	27%	1,221	26%	1,210	25%	1,204	24%	1,176	22%	1,207	25%	1,187	23%	1,209	25%	1,203	24%		19	1
16:00 - 16:15	875	1,181	30%	1,185	30%	1,201	31%	1,157	28%	1,181	30%	1,146	27%	1,181	30%	1,169	29%	1,177	29%	1,175	29%	1,192	31%	1,170	29%		26	2
16:15 - 16:30	902	1,190	28%	1,211	29%	1,166	26%	1,179	27%	1,200	28%	1,193	28%	1,190	28%	1,223	30%	1,165	25%	1,211	29%	1,204	29%	1,192	28%		20	1
16:30 - 16:45	908	1,190	27%	1,156	24%	1,195	27%	1,184	26%	1,199	28%	1,188	27%	1,190	27%	1,231	30%	1,209	28%	1,160	24%	1,131	22%	1,187	27%		28	3
16:45 - 17:00	901	1,102	20%	1,145	24%	1,133	23%	1,160	25%	1,078	18%	1,068	17%	1,102	20%	1,158	25%	1,155	25%	1,156	25%	1,088	19%	1,124	22%		35	4
17:00 - 17:15	887	1,075	19%	994	11%	1,025	14%	1,067	18%	1,015	13%	1,026	15%	1,075	19%	1,031	15%	1,113	23%	1,088	20%	1,140	25%	1,056	17%		45	7
17:15 - 17:30	923	1,084	16%	1,116	19%	1,124	20%	1,066	14%	1,083	16%	1,039	12%	1,084	16%	1,050	13%	1,124	20%	1,083	16%	1,086	16%	1,087	16%		28	3
17:30 - 17:45	909	1,101	19%	1,100	19%	1,113	20%	1,096	19%	1,064	16%	1,085	18%	1,101	19%	1,085	18%	1,148	23%	1,082	17%	1,121	21%	1,102	19%		23	2
17:45 - 18:00	903	1,039	14%	1,094	19%	1,145	24%	1,062	16%	1,133	23%	1,157	25%	1,039	14%	1,119	21%	1,085	18%	1,040	14%	1,079	18%	1,097	19%		40	5
Hour 1	3,923	4,423	12%	4,486	13%	4,503	14%	4,457	13%	4,443	12%	4,498	14%	4,423	12%	4,467	13%	4,392	11%	4,468	13%	4,564	15%	4,477	13%		26	0
Hour 2	3,728	4,841	26%	4,791	25%	4,751	24%	4,825	26%	4,836	26%	4,825	26%	4,841	26%	4,687	23%	4,773	25%	4,869	27%	4,844	26%	4,804	25%		25	0
Hour 3	3,586	4,663	26%	4,697	27%	4,695	27%	4,680	26%	4,658	26%	4,595	25%	4,663	26%	4,781	29%	4,706	27%	4,702	27%	4,615	25%	4,673	26%		28	0
Hour 4	3,622	4,299	17%	4,304	17%	4,407	20%	4,291	17%	4,295	17%	4,307	17%	4,299	17%	4,285	17%	4,470	21%	4,293	17%	4,426	20%	4,342	18%		35	0
11	14,859	18,226	20%	18,278	21%	18,356	21%	18,253	21%	18,232	20%	18,225	20%	18,226	20%	18,220	20%	18,341	21%	18,332	21%	18,449	22%	18,296	21%		57	0



CONCEPT 2: +10% I-225

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

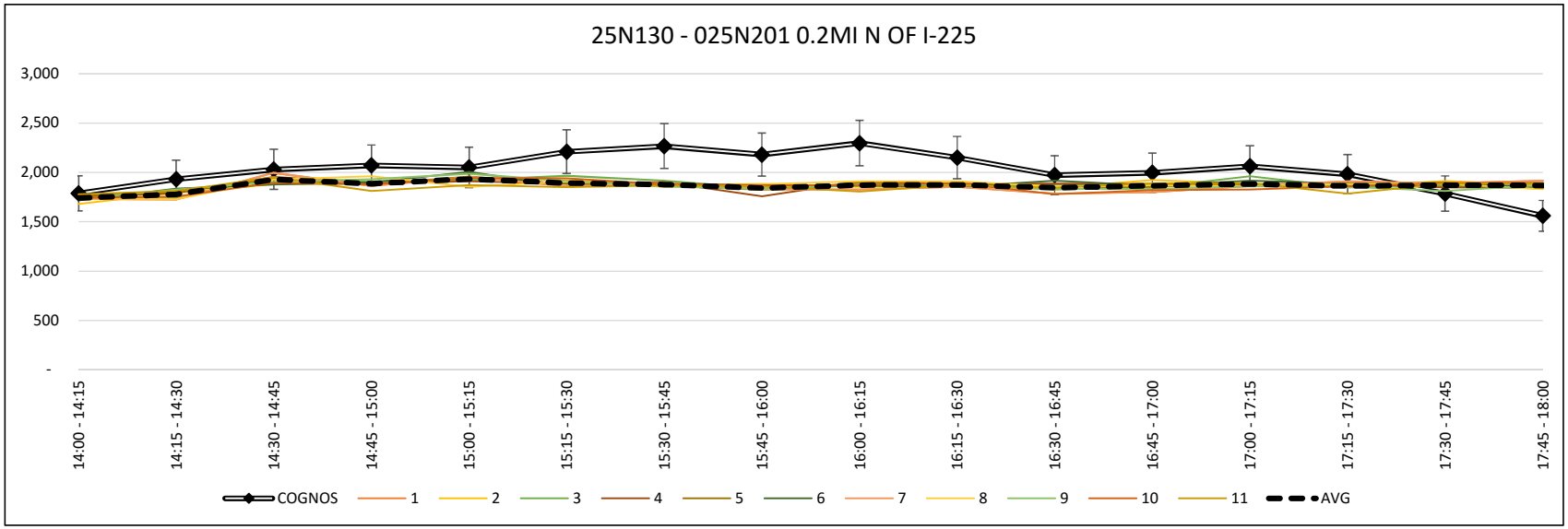
PM	COGNOS	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	225S060	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	1,325	1,148	14%	1,235	7%	1,254	6%	1,219	8%	1,275	4%	1,225	8%	1,148	14%	1,264	5%	1,250	6%	1,223	8%	1,274	4%	1,238	7%		36	2
14:15 - 14:30	1,409	1,287	9%	1,296	8%	1,344	5%	1,235	13%	1,276	10%	1,311	7%	1,287	9%	1,237	13%	1,281	10%	1,265	11%	1,301	8%	1,284	9%		31	1
14:30 - 14:45	1,437	1,382	4%	1,342	7%	1,387	4%	1,391	3%	1,378	4%	1,360	6%	1,382	4%	1,379	4%	1,333	8%	1,375	4%	1,389	3%	1,375	4%		22	1
14:45 - 15:00	1,243	1,433	14%	1,517	20%	1,418	13%	1,489	18%	1,462	16%	1,438	15%	1,433	14%	1,473	17%	1,465	16%	1,511	19%	1,477	17%	1,470	17%		31	2
15:00 - 15:15	1,186	1,516	24%	1,509	24%	1,436	19%	1,478	22%	1,464	21%	1,523	25%	1,516	24%	1,444	20%	1,442	19%	1,495	23%	1,444	20%	1,472	22%		34	2
15:15 - 15:30	1,255	1,363	8%	1,377	9%	1,372	9%	1,403	11%	1,397	11%	1,401	11%	1,363	8%	1,321	5%	1,394	10%	1,400	11%	1,395	11%	1,382	10%		24	1
15:30 - 15:45	1,150	1,527	28%	1,448	23%	1,544	29%	1,441	22%	1,491	26%	1,525	28%	1,527	28%	1,496	26%	1,528	28%	1,495	26%	1,512	27%	1,501	26%		32	2
15:45 - 16:00	1,228	1,517	21%	1,418	14%	1,443	16%	1,466	18%	1,494	20%	1,430	15%	1,517	21%	1,437	16%	1,483	19%	1,444	16%	1,512	21%	1,461	17%		36	2
16:00 - 16:15	1,097	1,476	29%	1,514	32%	1,508	32%	1,496	31%	1,496	31%	1,502	31%	1,476	29%	1,500	31%	1,509	32%	1,491	30%	1,526	33%	1,494	31%		28	2
16:15 - 16:30	1,221	1,502	21%	1,590	26%	1,510	21%	1,548	24%	1,591	26%	1,553	24%	1,502	21%	1,603	27%	1,540	23%	1,587	26%	1,540	23%	1,558	24%		34	2
16:30 - 16:45	1,269	1,585	22%	1,583	22%	1,623	24%	1,642	26%	1,557	20%	1,567	21%	1,585	22%	1,621	24%	1,579	22%	1,661	27%	1,626	25%	1,600	23%		36	2
16:45 - 17:00	1,189	1,428	18%	1,431	18%	1,414	17%	1,421	18%	1,458	20%	1,345	12%	1,428	18%	1,460	20%	1,444	19%	1,457	20%	1,422	18%	1,428	18%		32	2
17:00 - 17:15	1,236	1,439	15%	1,325	7%	1,349	9%	1,412	13%	1,353	9%	1,407	13%	1,439	15%	1,348	9%	1,398	12%	1,394	12%	1,325	7%	1,378	11%		39	3
17:15 - 17:30	1,036	1,436	32%	1,447	33%	1,490	36%	1,418	31%	1,437	32%	1,414	31%	1,436	32%	1,415	31%	1,503	37%	1,464	34%	1,390	29%	1,444	33%		35	3
17:30 - 17:45	1,201	1,490	21%	1,473	20%	1,480	21%	1,501	22%	1,368	13%	1,491	22%	1,490	21%	1,453	19%	1,520	23%	1,486	21%	1,522	24%	1,480	21%		42	3
17:45 - 18:00	1,118	1,441	25%	1,457	26%	1,514	30%	1,456	26%	1,502	29%	1,536	31%	1,441	25%	1,511	30%	1,471	27%	1,402	23%	1,424	24%	1,471	27%		41	4
Hour 1	5,414	5,250	3%	5,390	0%	5,403	0%	5,334	1%	5,391	0%	5,334	1%	5,250	3%	5,353	1%	5,329	2%	5,374	1%	5,441	0%	5,367	1%		30	0
Hour 2	4,819	5,923	21%	5,752	18%	5,795	18%	5,788	18%	5,846	19%	5,879	20%	5,923	21%	5,698	17%	5,847	19%	5,834	19%	5,863	20%	5,816	19%		32	0
Hour 3	4,776	5,991	23%	6,118	25%	6,055	24%	6,107	24%	6,102	24%	5,967	22%	5,991	23%	6,184	26%	6,072	24%	6,196	26%	6,114	25%	6,080	24%		33	0
Hour 4	4,591	5,806	23%	5,702	22%	5,833	24%	5,787	23%	5,660	21%	5,848	24%	5,806	23%	5,727	22%	5,892	25%	5,746	22%	5,661	21%	5,773	23%		39	0
11	19,600	22,970	16%	22,962	16%	23,086	16%	23,016	16%	22,999	16%	23,028	16%	22,970	16%	22,962	16%	23,140	17%	23,150	17%	23,079	16%	23,036	16%		67	0



CONCEPT 2: +10% I-225

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

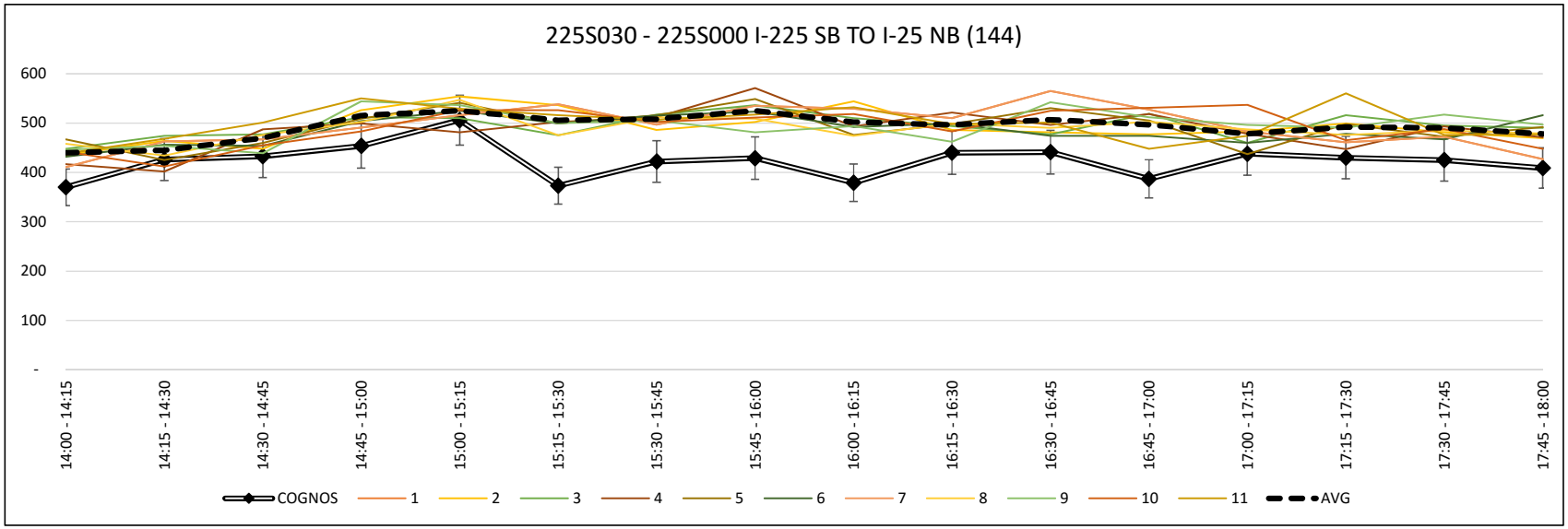
PM	COGNOS	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	25N130	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	1,788	1,730	3%	1,681	6%	1,752	2%	1,751	2%	1,766	1%	1,717	4%	1,730	3%	1,738	3%	1,732	3%	1,742	3%	1,778	1%	1,741	3%		27	1
14:15 - 14:30	1,932	1,726	11%	1,793	7%	1,750	10%	1,791	8%	1,800	7%	1,837	5%	1,726	11%	1,728	11%	1,826	6%	1,754	10%	1,812	6%	1,779	8%		39	1
14:30 - 14:45	2,031	1,996	2%	1,879	8%	1,940	5%	1,955	4%	1,931	5%	1,876	8%	1,996	2%	1,927	5%	1,905	6%	1,895	7%	1,951	4%	1,928	5%		37	1
14:45 - 15:00	2,071	1,862	11%	1,886	9%	1,910	8%	1,889	9%	1,880	10%	1,899	9%	1,862	11%	1,962	5%	1,932	7%	1,877	10%	1,813	13%	1,887	9%		40	1
15:00 - 15:15	2,050	1,954	5%	1,944	5%	1,922	6%	1,910	7%	1,958	5%	2,006	2%	1,954	5%	1,854	10%	1,987	3%	1,943	5%	1,872	9%	1,933	6%		45	1
15:15 - 15:30	2,210	1,859	17%	1,921	14%	1,966	12%	1,887	16%	1,882	16%	1,856	17%	1,859	17%	1,909	15%	1,914	14%	1,941	13%	1,850	18%	1,892	16%		43	1
15:30 - 15:45	2,267	1,894	18%	1,869	19%	1,915	17%	1,902	18%	1,865	19%	1,887	18%	1,894	18%	1,853	20%	1,857	20%	1,880	19%	1,867	19%	1,876	19%		21	0
15:45 - 16:00	2,181	1,826	18%	1,884	15%	1,839	17%	1,757	22%	1,825	18%	1,864	16%	1,826	18%	1,880	15%	1,833	17%	1,871	15%	1,859	16%	1,842	17%		36	1
16:00 - 16:15	2,297	1,828	23%	1,854	21%	1,866	21%	1,906	19%	1,893	19%	1,867	21%	1,828	23%	1,910	18%	1,878	20%	1,867	21%	1,805	24%	1,871	20%		34	1
16:15 - 16:30	2,150	1,853	15%	1,858	15%	1,852	15%	1,887	13%	1,876	14%	1,855	15%	1,853	15%	1,909	12%	1,871	14%	1,892	13%	1,873	14%	1,873	14%		18	0
16:30 - 16:45	1,972	1,786	10%	1,845	7%	1,881	5%	1,887	4%	1,826	8%	1,916	3%	1,786	10%	1,859	6%	1,832	7%	1,780	10%	1,846	7%	1,846	7%		41	1
16:45 - 17:00	1,997	1,801	10%	1,922	4%	1,847	8%	1,884	6%	1,857	7%	1,865	7%	1,801	10%	1,868	7%	1,832	9%	1,820	9%	1,889	6%	1,864	7%		38	1
17:00 - 17:15	2,064	1,863	10%	1,886	9%	1,962	5%	1,876	10%	1,879	9%	1,915	7%	1,863	10%	1,862	10%	1,859	10%	1,826	12%	1,893	9%	1,883	9%		35	1
17:15 - 17:30	1,983	1,911	4%	1,859	6%	1,849	7%	1,890	5%	1,884	5%	1,886	5%	1,911	4%	1,882	5%	1,855	7%	1,860	6%	1,784	11%	1,863	6%		35	1
17:30 - 17:45	1,786	1,888	6%	1,913	7%	1,866	4%	1,848	3%	1,882	5%	1,894	6%	1,888	6%	1,886	5%	1,811	1%	1,892	6%	1,886	5%	1,871	5%		32	1
17:45 - 18:00	1,560	1,917	21%	1,872	18%	1,836	16%	1,847	17%	1,885	19%	1,849	17%	1,917	21%	1,831	16%	1,870	18%	1,895	19%	1,886	19%	1,869	18%		26	1
Hour 1	7,822	7,314	7%	7,239	8%	7,352	6%	7,386	6%	7,377	6%	7,329	7%	7,314	7%	7,355	6%	7,395	6%	7,268	7%	7,354	6%	7,335	6%		36	0
Hour 2	8,708	7,533	14%	7,618	13%	7,642	13%	7,456	15%	7,530	15%	7,613	13%	7,533	14%	7,496	15%	7,591	14%	7,635	13%	7,448	16%	7,543	14%		37	0
Hour 3	8,416	7,268	15%	7,479	12%	7,446	12%	7,564	11%	7,452	12%	7,503	11%	7,268	15%	7,546	11%	7,413	13%	7,359	13%	7,413	13%	7,454	12%		34	0
Hour 4	7,393	7,579	2%	7,530	2%	7,513	2%	7,461	1%	7,530	2%	7,544	2%	7,579	2%	7,461	1%	7,395	0%	7,473	1%	7,449	1%	7,486	1%		32	0
11	32,339	29,694	9%	29,866	8%	29,953	8%	29,867	8%	29,889	8%	29,989	8%	29,694	9%	29,858	8%	29,794	8%	29,735	8%	29,664	9%	29,818	8%		70	0



CONCEPT 2: +10% I-225

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

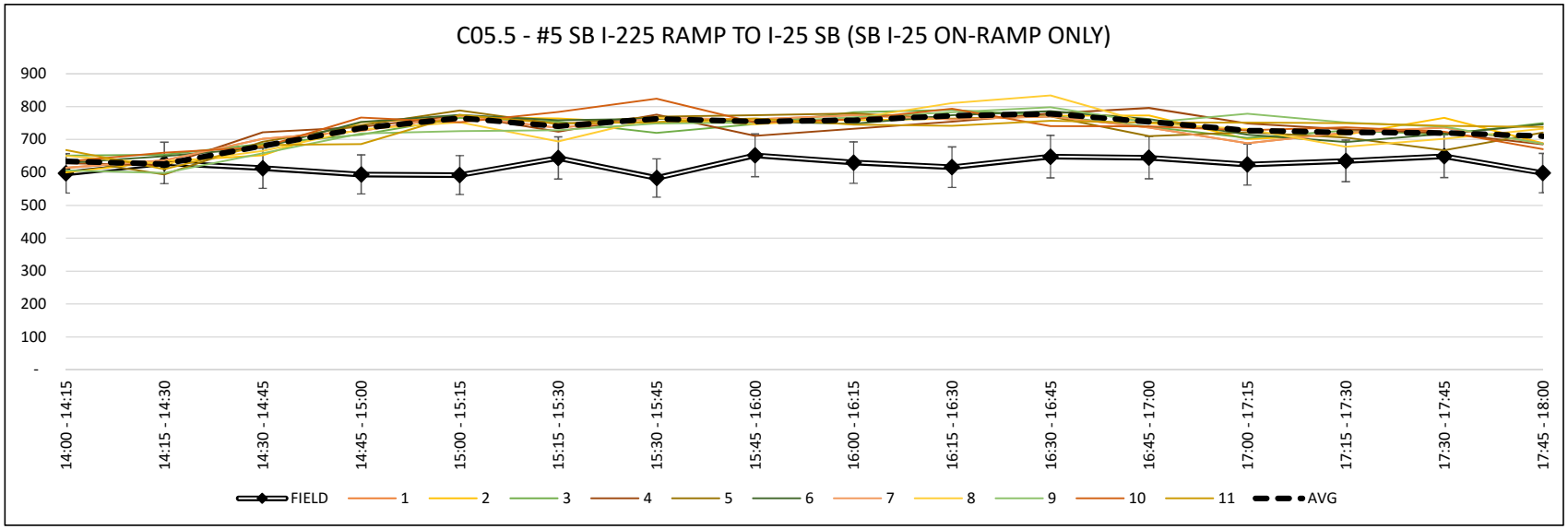
PM	COGNOS	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	225S030	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	370	411	10%	435	16%	448	19%	417	12%	467	23%	432	15%	411	10%	458	21%	446	19%	442	18%	438	17%	440	17%		29	17
14:15 - 14:30	426	463	8%	464	9%	474	11%	402	6%	425	0%	456	7%	463	8%	434	2%	454	6%	412	3%	468	9%	445	4%		37	21
14:30 - 14:45	433	467	8%	448	3%	477	10%	487	12%	460	6%	454	5%	467	8%	476	9%	439	1%	455	5%	501	15%	470	8%		29	12
14:45 - 15:00	454	491	8%	526	15%	512	12%	499	9%	509	11%	504	10%	491	8%	502	10%	544	18%	483	6%	550	19%	515	13%		19	5
15:00 - 15:15	506	516	2%	554	9%	510	1%	481	5%	541	7%	525	4%	516	2%	547	8%	536	6%	526	4%	529	4%	525	4%		24	6
15:15 - 15:30	373	538	36%	536	36%	475	24%	502	29%	499	29%	499	29%	538	36%	475	24%	500	29%	526	34%	516	32%	506	30%		49	48
15:30 - 15:45	422	497	16%	486	14%	517	20%	512	19%	516	20%	515	20%	497	16%	512	19%	505	18%	502	17%	507	18%	508	18%		29	13
15:45 - 16:00	429	535	22%	502	16%	536	22%	571	28%	549	25%	523	20%	535	22%	509	17%	481	11%	511	17%	517	19%	525	20%		35	18
16:00 - 16:15	379	529	33%	544	36%	510	29%	493	26%	476	23%	492	26%	529	33%	474	22%	494	26%	518	31%	532	34%	502	28%		36	25
16:15 - 16:30	440	510	15%	486	10%	494	12%	521	17%	498	12%	499	13%	510	15%	499	13%	462	5%	483	9%	498	12%	496	12%		29	12
16:30 - 16:45	441	565	25%	481	9%	477	8%	496	12%	530	18%	474	7%	565	25%	490	11%	542	21%	525	17%	501	13%	507	14%		33	16
16:45 - 17:00	387	527	31%	477	21%	519	29%	518	29%	505	26%	474	20%	527	31%	503	26%	512	28%	531	31%	448	15%	497	25%		30	17
17:00 - 17:15	438	483	10%	483	10%	460	5%	478	9%	437	0%	460	5%	483	10%	487	11%	496	12%	537	20%	474	8%	478	9%		45	29
17:15 - 17:30	430	461	7%	499	15%	516	18%	447	4%	498	15%	478	11%	461	7%	476	10%	491	13%	465	8%	560	26%	492	13%		54	44
17:30 - 17:45	425	472	10%	481	12%	495	15%	493	15%	472	10%	467	9%	472	10%	485	13%	517	20%	488	14%	476	11%	490	14%		31	15
17:45 - 18:00	409	427	4%	469	14%	490	18%	471	14%	492	18%	516	23%	427	4%	479	16%	497	19%	448	9%	477	15%	478	16%		44	32
Hour 1	1,683	1,832	8%	1,873	11%	1,911	13%	1,805	7%	1,861	10%	1,846	9%	1,832	8%	1,870	11%	1,883	11%	1,792	6%	1,957	15%	1,870	11%		29	1
Hour 2	1,730	2,086	19%	2,078	18%	2,038	16%	2,066	18%	2,105	20%	2,062	18%	2,086	19%	2,043	17%	2,022	16%	2,065	18%	2,069	18%	2,064	18%		36	1
Hour 3	1,647	2,131	26%	1,988	19%	2,000	19%	2,028	21%	2,009	20%	1,939	16%	2,131	26%	1,966	18%	2,010	20%	2,057	22%	1,979	18%	2,002	19%		32	1
Hour 4	1,702	1,843	8%	1,932	13%	1,961	14%	1,889	10%	1,899	11%	1,921	12%	1,843	8%	1,927	12%	2,001	16%	1,938	13%	1,987	15%	1,938	13%		44	2
11	6,762	7,892	15%	7,871	15%	7,910	16%	7,788	14%	7,874	15%	7,768	14%	7,892	15%	7,806	14%	7,916	16%	7,852	15%	7,992	17%	7,874	15%		71	0



CONCEPT 2: +10% I-225

Modeled Traffic Volumes versus Field Data Collected November 2, 2016

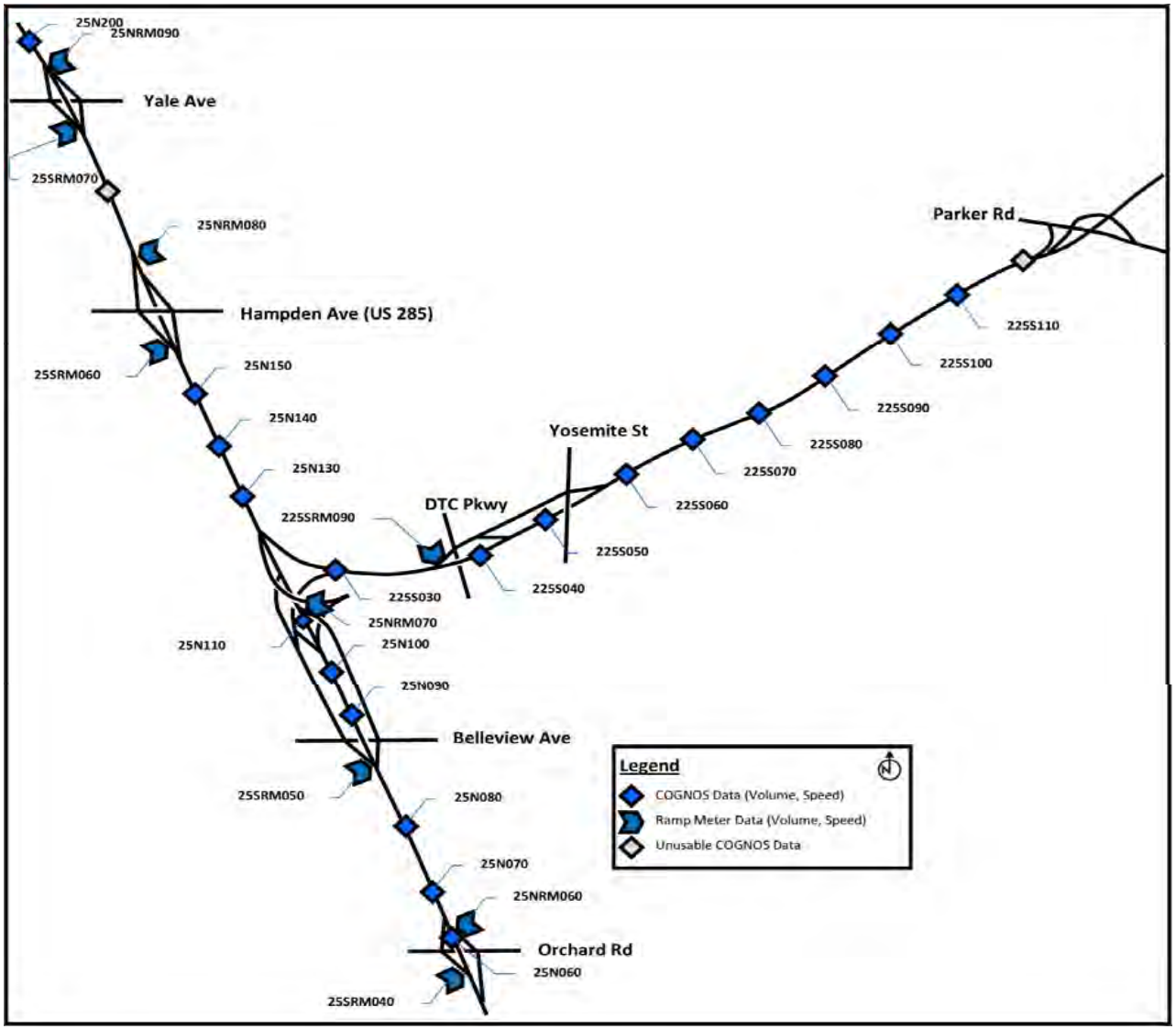
PM	FIELD	INDIVIDUAL MODEL RUNS																						AGGREGATE				
TIME	C05.5	1	Δ%	2	Δ%	3	Δ%	4	Δ%	5	Δ%	6	Δ%	7	Δ%	8	Δ%	9	Δ%	10	Δ%	11	Δ%	AVG	Δ%	GEH	STDEV	N
14:00 - 14:15	597	614	3%	600	1%	651	9%	628	5%	640	7%	629	5%	614	3%	650	9%	606	1%	633	6%	668	11%	634	6%		-	0
14:15 - 14:30	629	637	1%	634	1%	654	4%	622	1%	594	6%	649	3%	637	1%	626	0%	598	5%	660	5%	610	3%	626	0%		-	0
14:30 - 14:45	613	702	14%	652	6%	687	11%	722	16%	693	12%	675	10%	702	14%	665	8%	658	7%	677	10%	683	11%	681	11%		-	0
14:45 - 15:00	594	726	20%	752	23%	715	18%	738	22%	743	22%	753	24%	726	20%	731	21%	718	19%	767	25%	686	14%	734	21%		-	0
15:00 - 15:15	592	771	26%	768	26%	766	26%	774	27%	788	28%	775	27%	771	26%	752	24%	725	20%	752	24%	775	27%	765	25%		-	0
15:15 - 15:30	644	735	13%	764	17%	754	16%	724	12%	747	15%	759	16%	735	13%	694	7%	728	12%	784	20%	748	15%	741	14%		-	0
15:30 - 15:45	583	765	27%	749	25%	720	21%	776	28%	769	28%	763	27%	765	27%	766	27%	749	25%	824	34%	753	25%	763	27%		-	0
15:45 - 16:00	652	761	15%	760	15%	747	14%	711	9%	774	17%	754	15%	761	15%	746	13%	751	14%	751	14%	764	16%	755	15%		-	0
16:00 - 16:15	630	774	21%	759	19%	783	22%	733	15%	779	21%	748	17%	774	21%	764	19%	768	20%	761	19%	745	17%	759	19%		-	0
16:15 - 16:30	616	761	21%	763	21%	790	25%	754	20%	763	21%	774	23%	761	21%	811	27%	783	24%	794	25%	742	19%	772	22%		-	0
16:30 - 16:45	648	770	17%	772	17%	772	17%	779	18%	770	17%	786	19%	770	17%	834	25%	798	21%	741	13%	757	16%	778	18%		-	0
16:45 - 17:00	645	736	13%	773	18%	739	14%	796	21%	710	10%	762	17%	736	13%	749	15%	751	15%	740	14%	751	15%	754	16%		-	0
17:00 - 17:15	624	689	10%	701	12%	705	12%	749	18%	722	15%	715	14%	689	10%	732	16%	778	22%	728	15%	751	18%	727	15%		-	0
17:15 - 17:30	635	721	13%	715	12%	727	14%	731	14%	706	11%	692	9%	721	13%	678	7%	751	17%	737	15%	750	17%	722	13%		-	0
17:30 - 17:45	649	736	13%	766	17%	716	10%	719	10%	667	3%	717	10%	736	13%	702	8%	739	13%	724	11%	742	13%	720	10%		-	0
17:45 - 18:00	598	688	14%	689	14%	750	23%	685	14%	721	19%	746	22%	688	14%	733	20%	687	14%	671	12%	738	21%	710	17%		-	0
Hour 1	2,433	2,679	10%	2,638	8%	2,707	11%	2,710	11%	2,670	9%	2,706	11%	2,679	10%	2,672	9%	2,580	6%	2,737	12%	2,647	8%	2,675	9%		-	0
Hour 2	2,471	3,032	20%	3,041	21%	2,987	19%	2,985	19%	3,078	22%	3,051	21%	3,032	20%	2,958	18%	2,953	18%	3,111	23%	3,040	21%	3,024	20%		-	0
Hour 3	2,539	3,041	18%	3,067	19%	3,084	19%	3,062	19%	3,022	17%	3,070	19%	3,041	18%	3,158	22%	3,100	20%	3,036	18%	2,995	16%	3,063	19%		-	0
Hour 4	2,506	2,834	12%	2,871	14%	2,898	15%	2,884	14%	2,816	12%	2,870	14%	2,834	12%	2,845	13%	2,955	16%	2,860	13%	2,981	17%	2,879	14%		-	0
11	9,949	11,586	15%	11,617	15%	11,676	16%	11,641	16%	11,586	15%	11,697	16%	11,586	15%	11,633	16%	11,588	15%	11,744	17%	11,663	16%	11,641	16%		-	0



AVERAGE VEHICLE SPEEDS - BY LINK

EXISTING

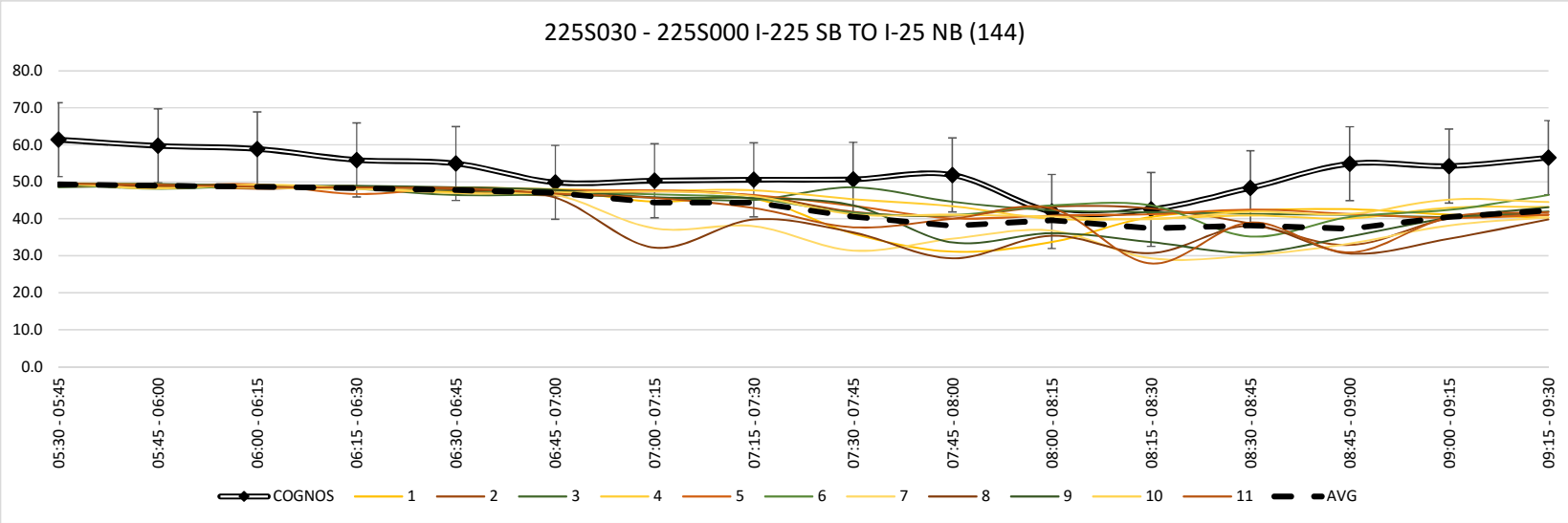
ROUTE: I-225
PERIOD: AM



LOCATION	COGNOS DESCRIPTION
225S030	225S000 I-225 SB TO I-25 NB (144)
225SRM090	225S001 TAMARAC
225S040	225S001 YOSEMITE ST TO DTC BLVD (172)
225S050	225S001 YOSEMITE ST (174)
225S060	225S001 PARKER RD TO YOSEMITE ST (176)
225S070	225S001 PARKER RD TO YOSEMITE ST (181)
225S080	225S002 PARKER RD TO YOSEMITE ST (182)
225S090	225S002 PARKER RD TO YOESMEITE ST (183)
225S100	225S002 PARKER RD TO YOSEMITE ST (184)
225S110	225S003 PARKER RD TO YOSEMITE ST (191)

EXISTING																									
AM	COGNOS	MODEL																						AGGREGATE	
TIME	225S030	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	61.4	49.5	11.9	49.6	11.8	48.5	12.9	49.1	12.3	48.9	12.5	49.3	12.1	49.6	11.8	49.6	11.8	49.4	12.0	49.6	11.8	49.5	11.9	49.3	12.1
05:45 - 06:00	59.7	49.3	10.4	49.0	10.7	48.9	10.8	48.6	11.1	48.9	10.8	48.1	11.6	49.3	10.4	48.9	10.8	49.4	10.3	48.2	11.5	49.2	10.5	48.9	10.8
06:00 - 06:15	58.9	48.3	10.6	48.1	10.8	49.0	9.9	48.4	10.5	49.3	9.6	48.9	10.0	48.4	10.5	48.7	10.2	48.9	10.0	49.2	9.7	48.7	10.2	48.7	10.2
06:15 - 06:30	55.9	48.8	7.1	48.7	7.2	48.1	7.8	48.3	7.6	46.7	9.2	48.5	7.4	48.0	7.9	48.6	7.3	48.9	7.0	48.3	7.6	48.4	7.5	48.3	7.6
06:30 - 06:45	54.9	47.2	7.7	47.6	7.3	46.4	8.5	48.5	6.4	48.4	6.5	47.7	7.2	48.1	6.8	47.9	7.0	48.5	6.4	46.9	8.0	48.3	6.6	47.8	7.1
06:45 - 07:00	49.8	47.6	2.2	46.3	3.5	46.5	3.3	48.0	1.8	47.7	2.1	47.0	2.8	46.5	3.3	45.7	4.1	47.8	2.0	47.0	2.8	46.8	3.0	47.0	2.8
07:00 - 07:15	50.3	44.6	5.7	47.4	2.9	45.7	4.6	47.6	2.7	47.7	2.6	46.6	3.7	37.4	12.9	32.2	18.1	45.8	4.5	47.4	2.9	45.6	4.7	44.4	5.9
07:15 - 07:30	50.5	45.4	5.1	46.3	4.2	45.1	5.4	47.7	2.8	46.4	4.1	45.5	5.0	38.0	12.5	39.8	10.7	45.6	4.9	46.1	4.4	42.9	7.6	44.4	6.1
07:30 - 07:45	50.7	36.0	14.7	41.9	8.8	48.5	2.2	45.3	5.4	43.5	7.2	41.6	9.1	31.4	19.3	36.3	14.4	43.6	7.1	41.2	9.5	37.7	13.0	40.6	10.1
07:45 - 08:00	51.8	31.1	20.7	40.8	11.0	44.6	7.2	43.4	8.4	40.1	11.7	41.0	10.8	34.6	17.2	29.3	22.5	33.6	18.2	41.1	10.7	40.0	11.8	38.1	13.7
08:00 - 08:15	42.0	33.7	8.3	43.3	- 1.3	42.3	- 0.3	40.0	2.0	40.9	1.1	43.6	- 1.6	36.8	5.2	35.4	6.6	36.1	5.9	40.6	1.4	42.8	- 0.8	39.6	2.4
08:15 - 08:30	42.5	40.5	2.0	42.8	- 0.3	41.8	0.7	40.0	2.5	41.2	1.3	43.6	- 1.1	29.3	13.2	30.7	11.8	33.7	8.8	39.9	2.6	27.9	14.6	37.4	5.1
08:30 - 08:45	48.4	42.2	6.2	38.7	9.7	41.3	7.1	40.9	7.5	42.5	5.9	35.2	13.2	30.1	18.3	38.1	10.3	30.8	17.6	41.9	6.5	39.0	9.4	38.2	10.2
08:45 - 09:00	54.9	42.6	12.3	32.9	22.0	41.1	13.8	40.1	14.8	41.3	13.6	40.5	14.4	33.3	21.6	30.6	24.3	35.2	19.7	41.3	13.6	30.9	24.0	37.3	17.6
09:00 - 09:15	54.3	41.1	13.2	40.1	14.2	40.5	13.8	43.0	11.3	40.2	14.1	42.4	11.9	38.2	16.1	34.6	19.7	40.3	14.0	45.2	9.1	40.4	13.9	40.5	13.8
09:15 - 09:30	56.5	40.3	16.2	41.1	15.4	42.0	14.5	43.2	13.3	41.1	15.4	46.4	10.1	40.4	16.1	39.8	16.7	43.1	13.4	44.5	12.0	41.8	14.7	42.2	14.3
Hour 1	59.0	49.0	10.0	48.9	10.1	48.6	10.3	48.6	10.4	48.5	10.5	48.7	10.3	48.8	10.1	49.0	10.0	49.2	9.8	48.8	10.1	49.0	10.0	48.8	10.2
Hour 2	51.4	46.2	5.2	46.9	4.5	45.9	5.5	48.0	3.5	47.6	3.9	46.7	4.7	42.5	8.9	41.4	10.0	46.9	4.5	46.9	4.6	45.9	5.5	45.9	5.5
Hour 3	46.8	35.3	11.4	42.2	4.6	44.3	2.5	42.2	4.6	41.4	5.3	42.5	4.3	33.0	13.7	32.9	13.8	36.8	10.0	40.7	6.1	37.1	9.7	38.9	7.8
Hour 4	53.5	41.6	12.0	38.2	15.3	41.2	12.3	41.8	11.7	41.3	12.2	41.1	12.4	35.5	18.0	35.8	17.7	37.4	16.2	43.2	10.3	38.0	15.5	39.6	14.0
11	52.7	43.0	9.6	44.0	8.6	45.0	7.6	45.1	7.5	44.7	8.0	44.7	7.9	40.0	12.7	39.8	12.9	42.5	10.1	44.9	7.8	42.5	10.2	43.3	9.4

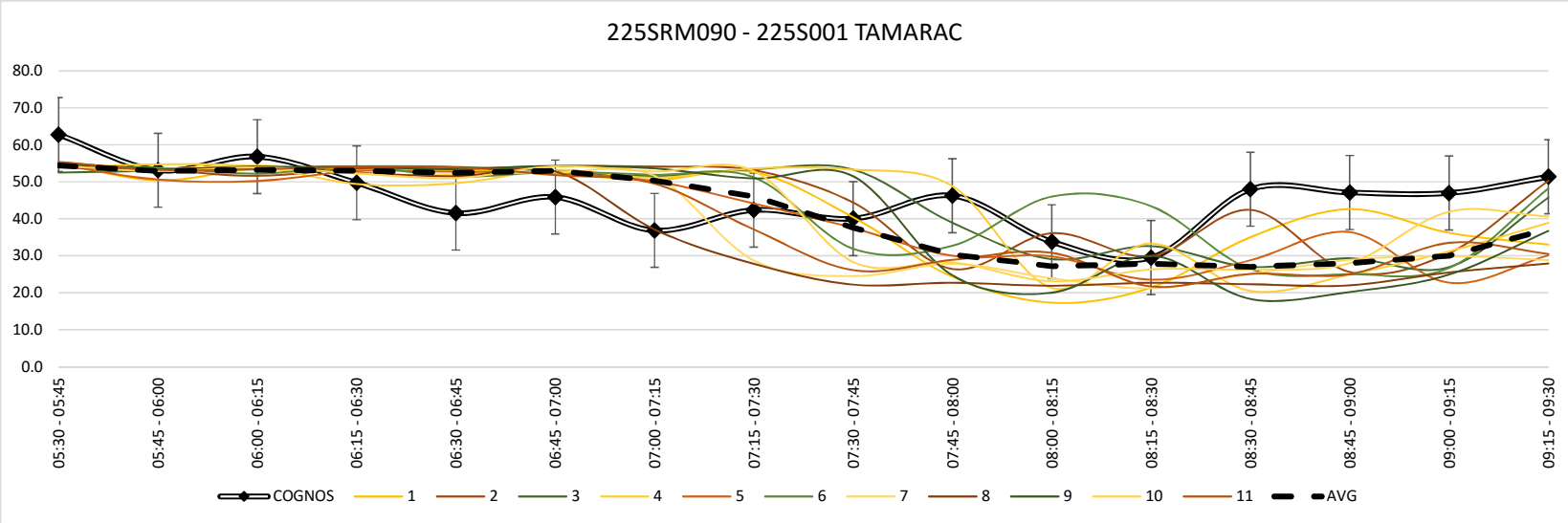
Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run



EXISTING

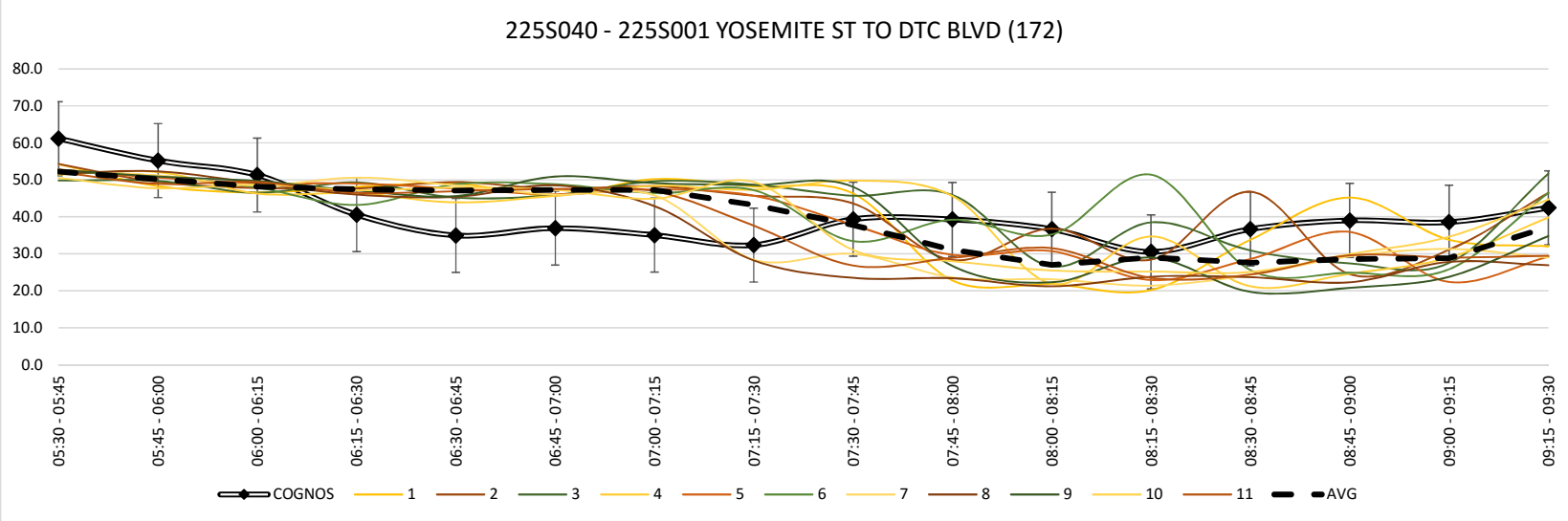
Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

AM	COGNOS	MODEL																						AGGREGATE	
TIME	225SRM090	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	62.8	55.0	7.8	55.2	7.6	52.5	10.3	53.9	8.9	54.6	8.2	54.3	8.5	54.7	8.1	54.0	8.8	54.8	8.0	54.3	8.5	55.4	7.4	54.4	8.4
05:45 - 06:00	53.1	50.4	2.7	53.3	- 0.2	53.0	0.1	54.7	- 1.6	50.6	2.5	53.8	- 0.7	53.5	- 0.4	53.2	- 0.1	53.5	- 0.4	52.9	0.2	53.2	- 0.1	52.9	0.2
06:00 - 06:15	56.8	53.6	3.2	51.6	5.2	53.4	3.4	54.1	2.7	50.2	6.6	52.2	4.6	54.5	2.3	54.1	2.7	54.0	2.8	53.9	2.9	53.4	3.4	53.2	3.6
06:15 - 06:30	49.7	53.4	- 3.7	53.6	- 3.9	54.2	- 4.5	49.4	0.3	52.9	- 3.2	54.1	- 4.4	52.2	- 2.5	52.5	- 2.8	54.0	- 4.3	52.3	- 2.6	54.0	- 4.3	53.0	- 3.3
06:30 - 06:45	41.6	53.1	-11.6	53.6	-12.1	54.0	-12.5	49.6	- 8.1	52.7	-11.2	51.4	- 9.9	52.0	-10.5	51.5	-10.0	53.4	-11.9	51.0	- 9.5	53.9	-12.4	52.4	-10.9
06:45 - 07:00	45.9	52.2	- 6.3	54.2	- 8.3	52.9	- 7.0	53.2	- 7.3	52.3	- 6.4	52.6	- 6.7	52.5	- 6.6	52.8	- 6.9	54.3	- 8.4	54.2	- 8.3	51.8	- 5.9	53.0	- 7.1
07:00 - 07:15	36.9	50.5	-13.7	54.1	-17.3	51.5	-14.7	51.1	-14.3	50.1	-13.3	51.9	-15.1	51.6	-14.8	37.1	- 0.3	53.6	-16.8	52.8	-16.0	49.5	-12.7	50.3	-13.5
07:15 - 07:30	42.4	52.6	-10.3	53.1	-10.8	53.4	-11.1	53.6	-11.3	44.1	- 1.8	51.2	- 8.9	28.7	13.7	27.8	14.6	50.9	- 8.6	52.9	-10.6	37.1	5.3	46.0	- 3.7
07:30 - 07:45	40.0	40.4	- 0.4	44.4	- 4.4	53.3	-13.3	53.3	-13.3	37.5	2.5	31.9	8.1	24.5	15.5	22.2	17.8	51.5	-11.5	28.3	11.7	26.1	13.9	37.6	2.4
07:45 - 08:00	46.2	24.3	21.9	26.4	19.8	38.9	7.3	48.8	- 2.6	30.0	16.2	32.7	13.5	27.8	18.4	22.7	23.5	24.7	21.5	28.2	18.0	28.9	17.3	30.3	15.9
08:00 - 08:15	33.8	17.3	16.5	36.1	- 2.3	29.1	4.7	21.3	12.5	29.8	4.0	46.0	-12.2	23.9	9.9	21.9	11.9	20.0	13.8	23.1	10.7	30.8	3.0	27.2	6.6
08:15 - 08:30	29.5	21.4	8.1	29.9	- 0.4	32.6	- 3.1	33.3	- 3.8	23.5	6.0	43.4	-13.9	21.2	8.3	22.7	6.8	30.0	- 0.5	26.3	3.2	21.7	7.8	27.8	1.7
08:30 - 08:45	48.0	35.0	13.0	42.4	5.6	27.0	21.0	20.5	27.5	28.8	19.2	26.4	21.6	25.1	22.9	22.3	25.7	18.3	29.7	26.3	21.7	25.1	22.9	27.0	21.0
08:45 - 09:00	47.1	42.6	4.5	25.6	21.5	29.3	17.8	24.9	22.2	36.4	10.7	25.0	22.1	28.9	18.2	22.0	25.1	20.2	26.9	28.0	19.1	25.0	22.1	28.0	19.1
09:00 - 09:15	47.0	36.2	10.8	30.7	16.3	26.9	20.1	31.2	15.8	22.7	24.3	26.7	20.3	29.9	17.1	25.5	21.5	24.9	22.1	41.9	5.1	33.5	13.5	30.0	17.0
09:15 - 09:30	51.4	33.0	18.4	50.3	1.1	45.7	5.7	38.9	12.5	30.1	21.3	48.2	3.2	28.8	22.6	27.9	23.5	36.7	14.7	40.6	10.8	30.5	20.9	37.3	14.1
Hour 1	55.6	53.1	2.5	53.4	2.2	53.3	2.3	53.0	2.6	52.1	3.5	53.6	2.0	53.7	1.9	53.5	2.1	54.1	1.5	53.4	2.3	54.0	1.6	53.4	2.2
Hour 2	41.7	52.1	-10.4	53.8	-12.1	53.0	-11.3	51.9	-10.2	49.8	- 8.1	51.8	-10.1	46.2	- 4.5	42.3	- 0.6	53.1	-11.4	52.7	-11.1	48.1	- 6.4	50.4	- 8.8
Hour 3	37.4	25.9	11.5	34.2	3.2	38.5	- 1.1	39.2	- 1.8	30.2	7.2	38.5	- 1.1	24.4	13.0	22.4	15.0	31.6	5.8	26.5	10.9	26.9	10.5	30.7	6.7
Hour 4	48.4	36.7	11.7	37.3	11.1	32.2	16.1	28.9	19.5	29.5	18.9	31.6	16.8	28.2	20.2	24.4	23.9	25.0	23.3	34.2	14.2	28.5	19.8	30.6	17.8
11	45.7	41.9	3.8	44.7	1.1	44.2	1.5	43.2	2.5	40.4	5.4	43.9	1.9	38.1	7.6	35.6	10.1	40.9	4.8	41.7	4.1	39.4	6.4	41.3	4.5



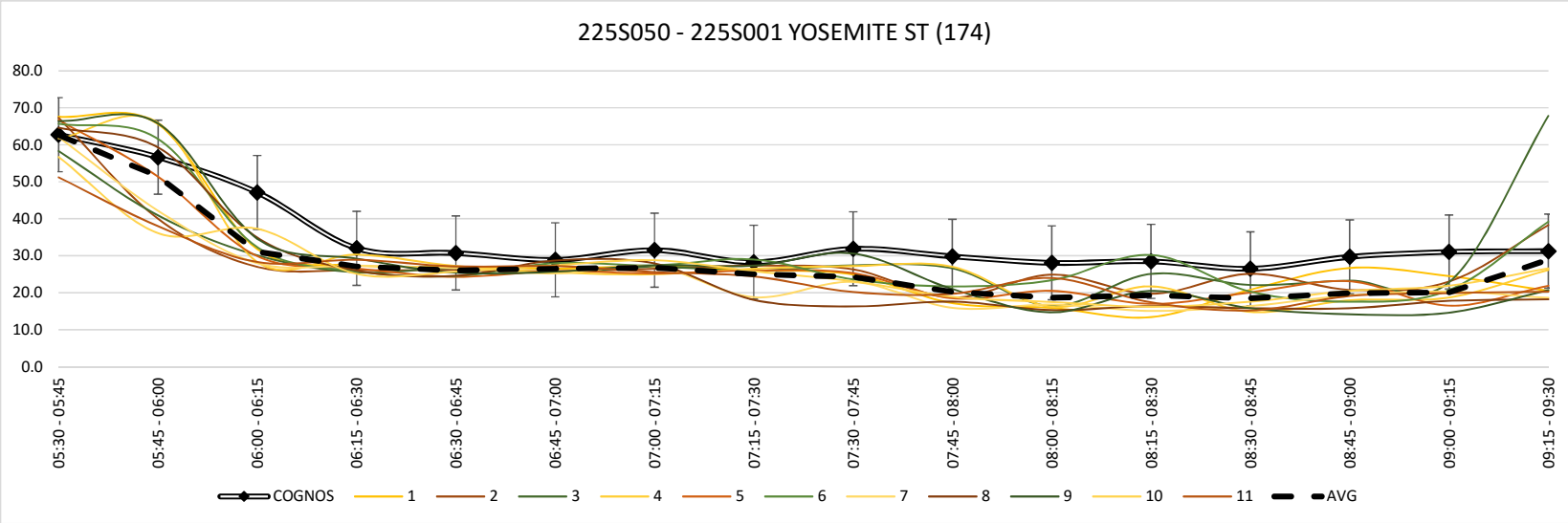
EXISTING																									
AM	COGNOS	MODEL																						AGGREGATE	
TIME	225S040	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	61.1	54.2	6.9	54.3	6.8	49.8	11.3	51.4	9.7	52.8	8.3	52.1	9.0	52.4	8.7	51.7	9.4	52.7	8.4	50.5	10.6	52.1	9.0	52.2	8.9
05:45 - 06:00	55.2	48.3	6.9	49.4	5.8	49.7	5.5	52.1	3.1	50.6	4.6	51.1	4.1	51.2	4.0	52.3	2.9	50.9	4.3	47.7	7.5	48.9	6.3	50.2	5.0
06:00 - 06:15	51.3	46.6	4.7	47.8	3.5	46.5	4.8	46.3	5.0	49.1	2.2	47.9	3.4	48.5	2.8	49.1	2.2	49.7	1.6	48.7	2.6	49.4	1.9	48.2	3.1
06:15 - 06:30	40.6	48.1	- 7.5	47.7	- 7.1	49.3	- 8.7	46.4	- 5.8	49.0	- 8.4	43.2	- 2.6	50.6	-10.0	46.0	- 5.4	47.1	- 6.5	47.2	- 6.6	46.5	- 5.9	47.4	- 6.8
06:30 - 06:45	35.0	49.0	-14.0	49.4	-14.4	45.2	-10.2	43.9	- 8.9	47.6	-12.6	48.8	-13.8	48.5	-13.5	45.4	-10.4	45.6	-10.6	47.9	-12.9	46.9	-11.9	47.1	-12.1
06:45 - 07:00	36.9	45.7	- 8.8	47.5	-10.6	45.9	- 9.0	45.7	- 8.8	46.1	- 9.2	48.8	-11.9	46.0	- 9.1	48.5	-11.6	50.9	-14.0	47.3	-10.4	47.5	-10.6	47.3	-10.4
07:00 - 07:15	35.1	50.2	-15.2	48.3	-13.3	49.6	-14.6	48.4	-13.4	47.4	-12.4	46.4	-11.4	45.8	-10.8	42.9	- 7.9	49.1	-14.1	44.9	- 9.9	46.9	-11.9	47.3	-12.3
07:15 - 07:30	32.4	48.2	-15.8	45.7	-13.3	48.7	-16.3	47.3	-14.9	45.7	-13.3	47.2	-14.8	28.4	4.0	28.2	4.2	48.6	-16.2	49.4	-17.0	37.6	- 5.2	43.2	-10.8
07:30 - 07:45	39.4	46.3	- 7.0	43.6	- 4.3	45.7	- 6.4	49.8	-10.5	37.8	1.6	33.4	6.0	30.0	9.4	23.5	15.9	48.1	- 8.8	31.0	8.4	26.8	12.6	37.8	1.6
07:45 - 08:00	39.3	22.8	16.5	28.3	11.0	45.9	- 6.6	45.6	- 6.3	29.7	9.6	39.2	0.1	23.6	15.7	23.4	15.9	26.7	12.6	28.0	11.3	28.9	10.4	31.1	8.2
08:00 - 08:15	36.7	21.8	14.9	36.8	- 0.1	26.6	10.1	21.9	14.8	30.7	6.0	35.2	1.5	23.1	13.6	21.2	15.5	22.3	14.4	25.5	11.2	31.5	5.2	27.0	9.7
08:15 - 08:30	30.5	20.2	10.3	28.4	2.1	38.5	- 8.0	34.7	- 4.2	22.9	7.6	51.4	-20.9	21.4	9.1	23.8	6.7	29.0	1.5	25.2	5.3	23.5	7.0	29.0	1.5
08:30 - 08:45	36.7	33.8	2.9	46.8	-10.1	30.9	5.8	21.2	15.5	28.6	8.1	25.6	11.1	24.3	12.4	23.7	13.0	19.7	17.0	25.1	11.6	24.4	12.3	27.6	9.1
08:45 - 09:00	39.0	45.2	- 6.2	24.5	14.5	27.4	11.6	24.6	14.4	35.9	3.1	24.9	14.1	29.3	9.7	22.3	16.7	20.8	18.2	29.9	9.1	29.6	9.4	28.6	10.4
09:00 - 09:15	38.6	33.8	4.8	31.1	7.5	27.5	11.1	29.0	9.6	22.4	16.2	25.8	12.8	31.3	7.3	27.8	10.8	23.8	14.8	34.6	4.0	29.0	9.6	28.8	9.8
09:15 - 09:30	42.4	32.0	10.4	46.5	- 4.1	51.7	- 9.3	39.8	2.6	29.2	13.2	46.5	- 4.1	29.0	13.4	26.9	15.5	34.8	7.6	44.7	- 2.3	29.5	12.9	37.3	5.1
Hour 1	52.1	49.3	2.8	49.8	2.3	48.8	3.2	49.1	3.0	50.4	1.7	48.6	3.5	50.7	1.4	49.8	2.3	50.1	2.0	48.5	3.5	49.2	2.8	49.5	2.6
Hour 2	34.8	48.3	-13.4	47.7	-12.9	47.4	-12.5	46.3	-11.5	46.7	-11.9	47.8	-13.0	42.2	- 7.3	41.3	- 6.4	48.6	-13.7	47.4	-12.5	44.7	- 9.9	46.2	-11.4
Hour 3	36.5	27.8	8.7	34.3	2.2	39.2	- 2.7	38.0	- 1.6	30.3	6.2	39.8	- 3.3	24.5	11.9	23.0	13.5	31.5	4.9	27.4	9.0	27.7	8.8	31.2	5.2
Hour 4	39.2	36.2	3.0	37.2	2.0	34.4	4.8	28.7	10.5	29.0	10.2	30.7	8.5	28.5	10.7	25.2	14.0	24.8	14.4	33.6	5.6	28.1	11.1	30.6	8.6
11	40.6	40.4	0.2	42.3	- 1.6	42.4	- 1.8	40.5	0.1	39.1	1.5	41.7	- 1.1	36.5	4.2	34.8	5.8	38.7	1.9	39.2	1.4	37.4	3.2	39.4	1.2

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run



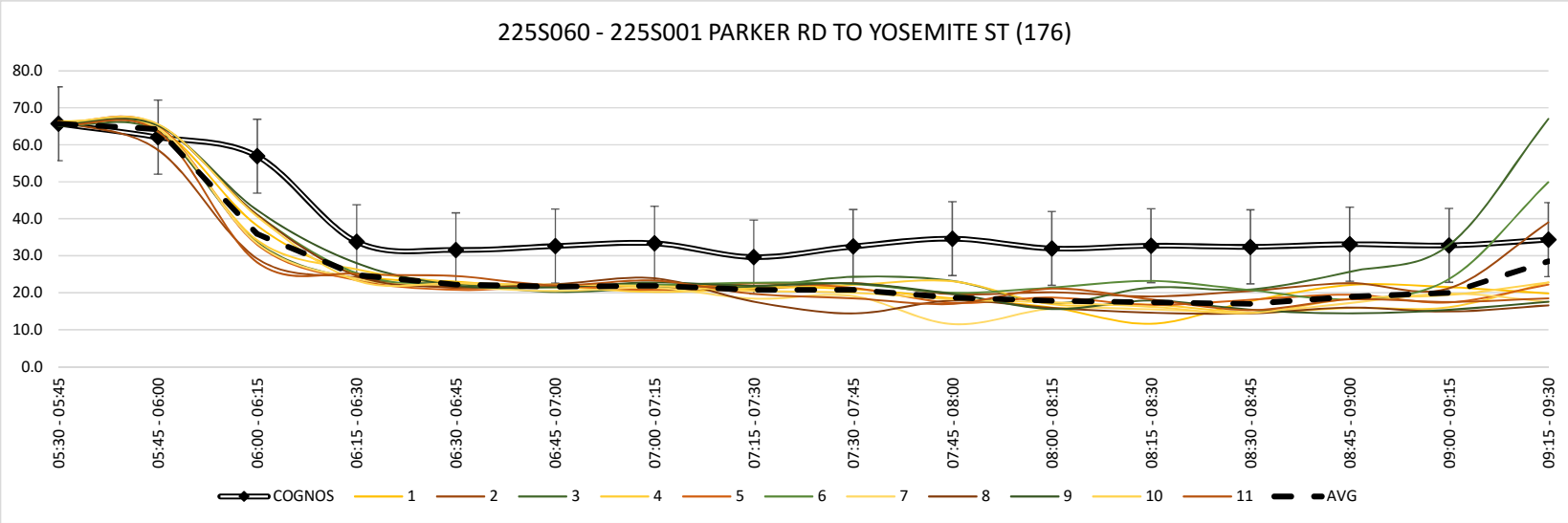
EXISTING																									
AM	COGNOS	MODEL																						AGGREGATE	
TIME	225S050	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	62.7	67.6	- 4.9	67.3	- 4.6	58.3	4.4	61.7	1.0	66.7	- 4.0	65.7	- 3.0	62.1	0.6	64.6	- 1.9	66.4	- 3.7	56.7	6.0	51.2	11.5	62.6	0.1
05:45 - 06:00	56.7	65.6	- 9.0	40.0	16.7	40.9	15.8	66.0	- 9.4	51.4	5.3	61.6	- 5.0	42.2	14.5	59.3	- 2.7	65.8	- 9.2	36.1	20.6	38.0	18.7	51.5	5.2
06:00 - 06:15	47.1	31.8	15.3	27.0	20.1	30.1	17.0	28.3	18.8	29.9	17.2	32.3	14.8	28.0	19.1	34.9	12.2	34.6	12.5	37.3	9.8	28.3	18.8	31.1	16.0
06:15 - 06:30	32.0	27.4	4.6	26.1	5.9	25.5	6.5	30.3	1.7	26.6	5.4	25.8	6.2	27.3	4.7	26.0	6.0	29.2	2.8	25.1	6.9	28.9	3.1	27.1	4.9
06:30 - 06:45	30.7	27.1	3.6	26.2	4.5	26.7	4.0	27.2	3.5	24.3	6.4	24.5	6.2	26.7	4.0	24.6	6.1	25.4	5.3	25.7	5.0	27.1	3.6	26.0	4.7
06:45 - 07:00	28.9	26.5	2.4	25.8	3.1	25.4	3.5	25.5	3.4	25.9	3.0	28.0	0.9	25.2	3.7	28.7	0.2	25.7	3.2	27.4	1.5	27.2	1.7	26.5	2.4
07:00 - 07:15	31.5	27.2	4.3	26.5	5.0	27.0	4.5	25.0	6.5	25.2	6.3	27.4	4.1	27.1	4.4	27.9	3.6	27.4	4.1	28.8	2.7	25.6	5.9	26.8	4.7
07:15 - 07:30	28.3	26.1	2.2	27.3	0.9	25.9	2.4	26.5	1.8	26.0	2.3	29.0	- 0.8	18.8	9.5	18.1	10.2	27.3	0.9	25.8	2.5	24.4	3.9	25.0	3.3
07:30 - 07:45	31.9	24.9	7.0	26.3	5.6	27.4	4.5	27.2	4.7	25.3	6.6	23.6	8.3	22.9	9.0	16.3	15.6	30.6	1.3	23.1	8.8	20.2	11.7	24.3	7.6
07:45 - 08:00	29.8	17.2	12.6	18.7	11.1	26.6	3.2	27.0	2.8	18.5	11.3	21.7	8.1	15.9	13.9	17.6	12.2	21.0	8.8	18.9	10.9	19.7	10.1	20.2	9.6
08:00 - 08:15	28.1	15.9	12.2	24.9	3.2	16.4	11.7	16.2	11.9	20.5	7.6	23.4	4.7	16.8	11.3	15.3	12.8	14.7	13.4	17.5	10.6	24.0	4.1	18.7	9.4
08:15 - 08:30	28.5	13.4	15.1	19.7	8.8	25.1	3.4	21.7	6.8	17.0	11.5	30.2	- 1.7	15.1	13.4	16.4	12.1	20.5	8.0	16.2	12.3	17.4	11.1	19.3	9.2
08:30 - 08:45	26.5	20.8	5.7	25.1	1.4	22.1	4.4	14.8	11.7	20.1	6.4	20.3	6.2	16.4	10.1	15.8	10.7	15.8	10.7	17.6	8.9	15.2	11.3	18.5	8.0
08:45 - 09:00	29.7	26.7	3.0	20.8	8.9	23.3	6.4	18.0	11.7	23.1	6.6	17.6	12.1	19.3	10.4	15.8	13.9	14.2	15.5	20.5	9.2	19.1	10.6	19.9	9.8
09:00 - 09:15	31.0	24.5	6.5	23.0	8.0	22.8	8.2	18.7	12.3	16.5	14.5	20.7	10.3	20.3	10.7	17.8	13.2	14.6	16.4	21.9	9.1	19.9	11.1	20.1	10.9
09:15 - 09:30	31.2	20.5	10.7	38.3	- 7.1	67.8	-36.6	26.2	5.0	21.9	9.3	39.2	- 8.0	18.6	12.6	18.2	13.0	20.7	10.5	26.6	4.6	20.3	10.9	28.9	2.3
Hour 1	49.6	48.1	1.5	40.1	9.5	38.7	10.9	46.6	3.1	43.7	6.0	46.4	3.3	39.9	9.7	46.2	3.4	49.0	0.6	38.8	10.8	36.6	13.0	43.1	6.6
Hour 2	29.8	26.7	3.1	26.5	3.4	26.3	3.6	26.1	3.8	25.4	4.5	27.2	2.6	24.5	5.4	24.8	5.0	26.5	3.4	26.9	2.9	26.1	3.8	26.1	3.8
Hour 3	29.6	17.9	11.7	22.4	7.2	23.9	5.7	23.0	6.5	20.3	9.2	24.7	4.8	17.7	11.9	16.4	13.2	21.7	7.9	18.9	10.6	20.3	9.2	20.6	8.9
Hour 4	29.6	23.1	6.5	26.8	2.8	34.0	- 4.4	19.4	10.2	20.4	9.2	24.5	5.2	18.7	11.0	16.9	12.7	16.3	13.3	21.7	8.0	18.6	11.0	21.9	7.8
11	34.7	29.0	5.7	28.9	5.7	30.7	4.0	28.8	5.9	27.4	7.2	30.7	4.0	25.2	9.5	26.1	8.6	28.4	6.3	26.6	8.1	25.4	9.3	27.9	6.8

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run



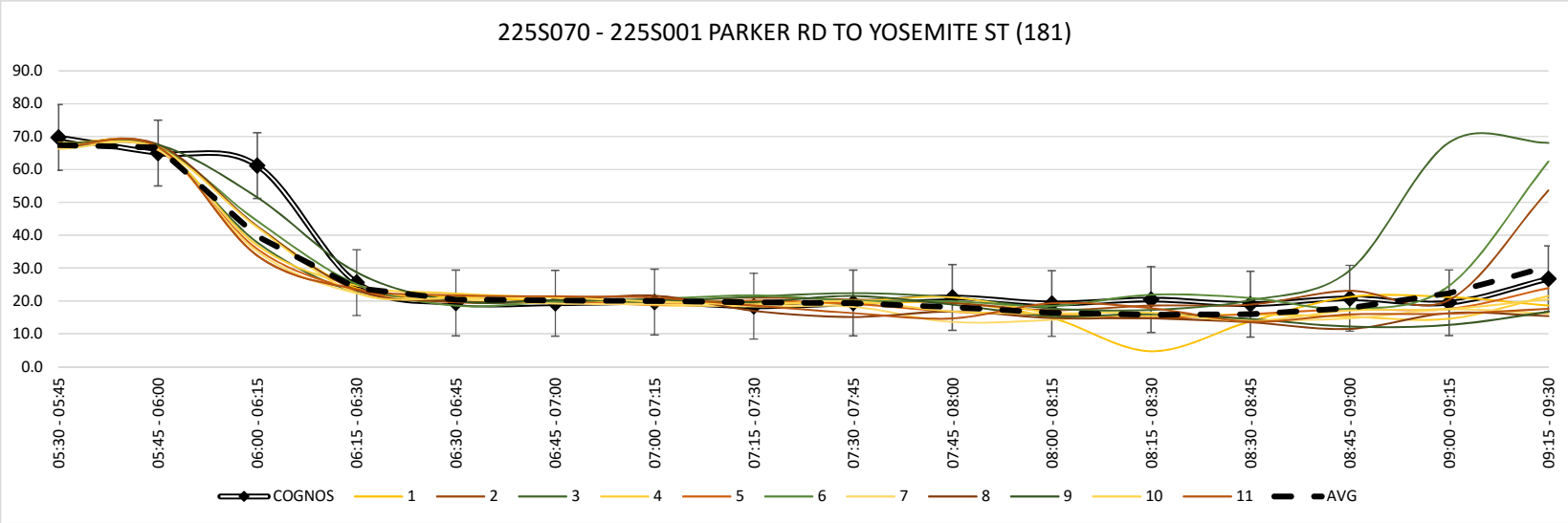
EXISTING																									
AM	COGNOS	MODEL																						AGGREGATE	
TIME	225S060	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	65.7	66.4	- 0.7	66.4	- 0.7	65.1	0.6	65.3	0.4	65.8	- 0.1	65.6	0.1	65.4	0.3	65.5	0.2	65.7	- 0.0	66.1	- 0.4	65.3	0.4	65.7	- 0.0
05:45 - 06:00	62.1	64.7	- 2.6	58.6	3.5	63.5	- 1.4	64.3	- 2.2	65.1	- 3.0	65.4	- 3.3	64.6	- 2.5	65.4	- 3.3	65.2	- 3.1	65.6	- 3.5	63.6	- 1.5	64.2	- 2.1
06:00 - 06:15	56.9	38.1	18.8	29.2	27.7	33.6	23.3	34.2	22.7	33.0	23.9	41.1	15.8	33.3	23.6	41.0	15.9	42.3	14.6	40.6	16.3	28.2	28.7	35.9	21.0
06:15 - 06:30	33.8	25.1	8.7	24.1	9.7	23.7	10.1	26.3	7.5	23.4	10.4	25.3	8.5	23.8	10.0	24.6	9.2	28.0	5.8	23.3	10.5	25.1	8.7	24.8	9.0
06:30 - 06:45	31.6	23.0	8.6	21.3	10.3	22.4	9.2	22.7	8.9	20.8	10.8	21.7	9.9	21.6	10.0	21.5	10.1	22.0	9.6	22.6	9.0	24.5	7.1	22.2	9.4
06:45 - 07:00	32.6	21.5	11.1	22.2	10.4	20.2	12.4	21.7	10.9	21.7	10.9	22.1	10.5	20.5	12.1	22.3	10.3	21.5	11.1	22.2	10.4	22.0	10.6	21.6	11.0
07:00 - 07:15	33.4	22.0	11.4	20.8	12.6	21.3	12.1	20.2	13.2	20.8	12.6	22.1	11.3	21.3	12.1	23.9	9.5	22.8	10.6	21.8	11.6	23.3	10.1	21.9	11.5
07:15 - 07:30	29.6	21.6	8.0	20.9	8.7	21.6	8.0	21.2	8.4	22.5	7.1	22.7	6.9	18.4	11.2	17.6	12.0	21.9	7.7	20.5	9.1	19.7	9.9	20.8	8.8
07:30 - 07:45	32.5	21.0	11.5	22.6	9.9	24.3	8.2	22.1	10.4	21.3	11.2	22.4	10.1	19.1	13.4	14.4	18.1	22.5	10.0	20.0	12.5	18.5	14.0	20.8	11.7
07:45 - 08:00	34.6	18.5	16.1	19.6	15.0	23.2	11.4	23.1	11.5	17.3	17.3	20.0	14.6	11.5	23.1	17.9	16.7	19.7	14.9	18.2	16.4	17.0	17.6	18.7	15.9
08:00 - 08:15	32.0	16.0	16.0	20.1	11.9	17.2	14.8	16.9	15.1	18.7	13.3	21.4	10.6	15.7	16.3	15.9	16.1	15.6	16.4	17.4	14.6	21.1	10.9	17.8	14.2
08:15 - 08:30	32.7	11.6	21.1	19.0	13.7	21.4	11.3	16.8	15.9	16.7	16.0	23.2	9.5	15.5	17.2	14.6	18.1	17.9	14.8	16.2	16.5	18.2	14.5	17.4	15.3
08:30 - 08:45	32.4	17.7	14.7	20.5	11.9	20.9	11.5	14.7	17.7	18.1	14.3	20.7	11.7	14.7	17.7	14.4	18.0	15.4	17.0	14.5	17.9	15.3	17.1	17.0	15.4
08:45 - 09:00	33.1	22.1	11.0	22.6	10.5	25.7	7.4	15.9	17.2	19.5	13.6	18.3	14.8	17.2	15.9	16.0	17.1	14.4	18.7	18.4	14.7	18.2	14.9	18.9	14.2
09:00 - 09:15	32.8	21.5	11.3	21.2	11.6	32.9	- 0.1	16.1	16.7	17.4	15.4	23.7	9.1	19.8	13.0	14.9	17.9	15.4	17.4	19.4	13.4	17.5	15.3	20.0	12.8
09:15 - 09:30	34.4	19.8	14.6	39.0	- 4.7	67.0	-32.7	22.8	11.6	22.2	12.2	49.9	-15.6	17.5	16.9	16.6	17.8	17.6	16.8	22.8	11.6	18.5	15.9	28.5	5.9
Hour 1	54.6	48.6	6.0	44.6	10.0	46.5	8.1	47.5	7.1	46.8	7.8	49.4	5.3	46.8	7.8	49.1	5.5	50.3	4.3	48.9	5.7	45.6	9.1	47.7	7.0
Hour 2	31.8	22.0	9.8	21.3	10.5	21.4	10.4	21.5	10.3	21.5	10.3	22.2	9.6	20.5	11.3	21.3	10.5	22.1	9.7	21.8	10.0	22.4	9.4	21.6	10.2
Hour 3	33.0	16.8	16.2	20.3	12.6	21.5	11.4	19.7	13.2	18.5	14.5	21.8	11.2	15.5	17.5	15.7	17.3	18.9	14.0	18.0	15.0	18.7	14.3	18.7	14.3
Hour 4	33.2	20.3	12.9	25.8	7.3	36.6	- 3.5	17.4	15.8	19.3	13.9	28.2	5.0	17.3	15.9	15.5	17.7	15.7	17.5	18.8	14.4	17.4	15.8	21.1	12.1
11	38.1	26.9	11.2	28.0	10.1	31.5	6.6	26.5	11.6	26.5	11.6	30.4	7.8	25.0	13.1	25.4	12.7	26.7	11.4	26.9	11.3	26.0	12.1	27.3	10.9

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run



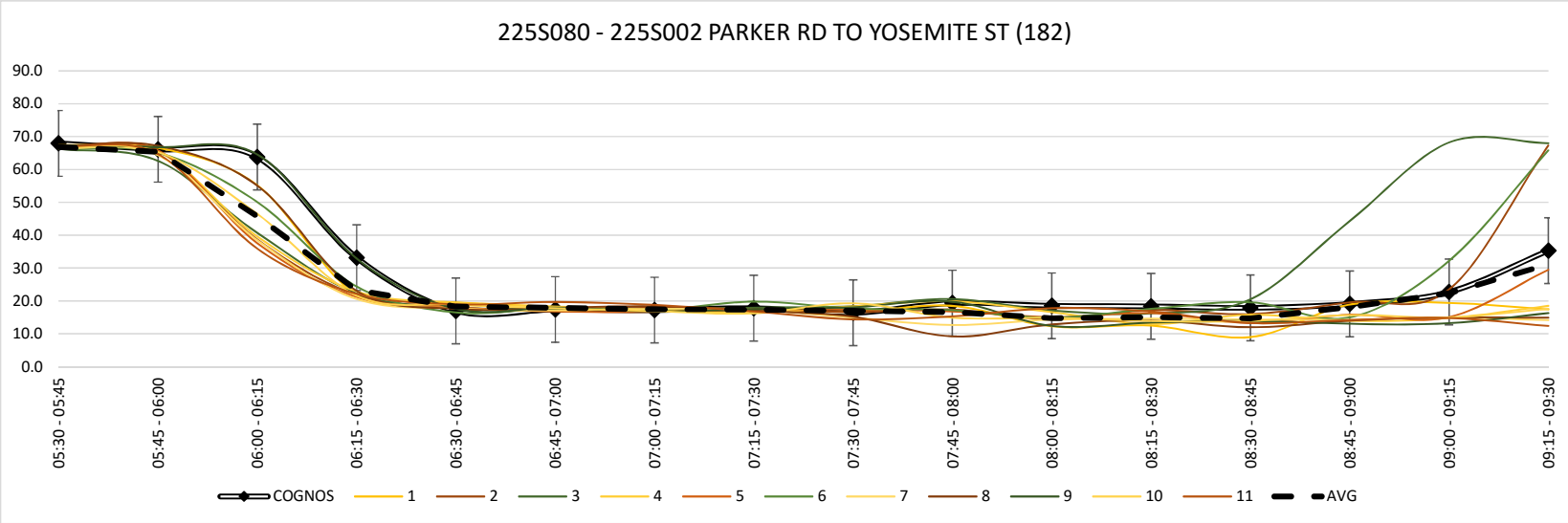
EXISTING																									
AM	COGNOS	MODEL																						AGGREGATE	
TIME	225S070	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	69.7	68.1	1.6	67.6	2.1	66.9	2.8	67.7	2.0	67.4	2.3	67.7	2.0	66.3	3.4	67.0	2.7	68.0	1.7	67.4	2.3	66.9	2.8	67.4	2.3
05:45 - 06:00	65.0	67.0	- 2.0	66.8	- 1.8	66.1	- 1.1	66.9	- 1.9	65.9	- 0.9	66.8	- 1.8	66.0	- 1.0	67.6	- 2.6	67.5	- 2.5	66.6	- 1.6	66.9	- 1.9	66.7	- 1.7
06:00 - 06:15	61.2	42.6	18.6	33.8	27.4	37.8	23.4	36.9	24.3	35.8	25.4	44.3	16.9	35.0	26.2	42.7	18.5	51.5	9.7	42.4	18.8	33.8	27.4	39.7	21.5
06:15 - 06:30	25.6	23.8	1.8	23.4	2.2	22.6	3.0	24.7	0.9	23.3	2.3	25.1	0.5	22.4	3.2	23.3	2.3	28.7	- 3.1	22.4	3.2	23.6	2.0	23.9	1.7
06:30 - 06:45	19.4	21.3	- 1.9	19.7	- 0.3	20.0	- 0.6	22.3	- 2.9	19.6	- 0.2	18.6	0.8	20.5	- 1.1	19.8	- 0.4	20.0	- 0.6	20.9	- 1.5	21.7	- 2.3	20.4	- 1.0
06:45 - 07:00	19.3	20.1	- 0.8	19.8	- 0.5	19.5	- 0.2	21.0	- 1.7	19.9	- 0.6	19.8	- 0.5	19.2	0.1	20.2	- 0.9	20.2	- 0.9	21.0	- 1.7	21.4	- 2.1	20.2	- 0.9
07:00 - 07:15	19.7	19.8	- 0.1	19.9	- 0.2	19.9	- 0.2	18.7	1.0	18.9	0.8	20.6	- 0.9	19.0	0.7	21.6	- 1.9	20.3	- 0.6	19.8	- 0.1	21.0	- 1.3	20.0	- 0.3
07:15 - 07:30	18.4	19.8	- 1.4	21.0	- 2.6	21.3	- 2.9	18.8	- 0.4	20.1	- 1.7	21.7	- 3.3	18.3	0.1	17.0	1.4	19.7	- 1.3	19.0	- 0.6	18.6	- 0.2	19.6	- 1.2
07:30 - 07:45	19.4	19.2	0.2	20.4	- 1.0	22.4	- 3.0	19.9	- 0.5	19.1	0.3	20.1	- 0.7	18.2	1.2	15.1	4.3	21.5	- 2.1	19.9	- 0.5	16.3	3.1	19.3	0.1
07:45 - 08:00	21.1	19.5	1.6	19.4	1.7	21.1	- 0.0	21.1	- 0.0	16.7	4.4	19.9	1.2	13.6	7.5	16.8	4.3	18.9	2.2	16.8	4.3	14.7	6.4	18.1	3.0
08:00 - 08:15	19.2	14.8	4.4	17.2	2.0	17.7	1.5	16.4	2.8	15.7	3.5	18.5	0.7	14.3	4.9	14.8	4.4	15.4	3.8	16.2	3.0	19.3	- 0.1	16.4	2.8
08:15 - 08:30	20.4	4.7	15.7	18.6	1.8	17.3	3.1	15.4	5.0	14.8	5.6	21.9	- 1.5	16.2	4.2	14.7	5.7	16.0	4.4	16.4	4.0	17.8	2.6	15.8	4.6
08:30 - 08:45	19.0	13.8	5.2	18.9	0.1	20.2	- 1.2	15.9	3.1	16.0	3.0	20.9	- 1.9	14.3	4.7	13.5	5.5	14.5	4.5	13.9	5.1	13.7	5.3	16.0	3.0
08:45 - 09:00	20.8	21.2	- 0.4	23.1	- 2.3	29.3	- 8.5	15.2	5.6	17.5	3.3	17.6	3.2	14.7	6.1	11.5	9.3	12.2	8.6	17.1	3.7	15.9	4.9	17.8	3.0
09:00 - 09:15	19.5	21.2	- 1.8	20.3	- 0.9	68.2	-48.8	14.6	4.9	17.6	1.9	24.6	- 5.2	17.4	2.1	16.3	3.2	12.7	6.8	17.6	1.9	16.1	3.4	22.4	- 3.0
09:15 - 09:30	26.7	18.6	8.1	53.6	-26.9	68.1	-41.4	21.5	5.2	23.9	2.8	62.4	-35.7	16.1	10.6	15.4	11.3	16.7	10.0	20.5	6.2	17.6	9.1	30.4	- 3.7
Hour 1	55.4	50.4	5.0	47.9	7.5	48.4	7.0	49.1	6.3	48.1	7.3	51.0	4.4	47.4	7.9	50.2	5.2	53.9	1.4	49.7	5.7	47.8	7.6	49.4	5.9
Hour 2	19.2	20.3	- 1.1	20.1	- 0.9	20.2	- 1.0	20.2	- 1.0	19.6	- 0.4	20.2	- 1.0	19.3	- 0.1	19.7	- 0.5	20.1	- 0.9	20.2	- 1.0	20.7	- 1.5	20.1	- 0.9
Hour 3	20.0	14.6	5.5	18.9	1.1	19.6	0.4	18.2	1.8	16.6	3.5	20.1	- 0.1	15.6	4.5	15.4	4.7	18.0	2.1	17.3	2.7	17.0	3.0	17.4	2.6
Hour 4	21.5	18.7	2.8	29.0	- 7.5	46.5	-24.9	16.8	4.7	18.8	2.8	31.4	- 9.9	15.6	5.9	14.2	7.3	14.0	7.5	17.3	4.2	15.8	5.7	21.7	- 0.1
11	29.0	26.0	3.1	29.0	0.1	33.7	- 4.6	26.1	3.0	25.8	3.3	30.7	- 1.6	24.5	4.6	24.8	4.2	26.5	2.5	26.1	2.9	25.3	3.7	27.1	1.9

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run



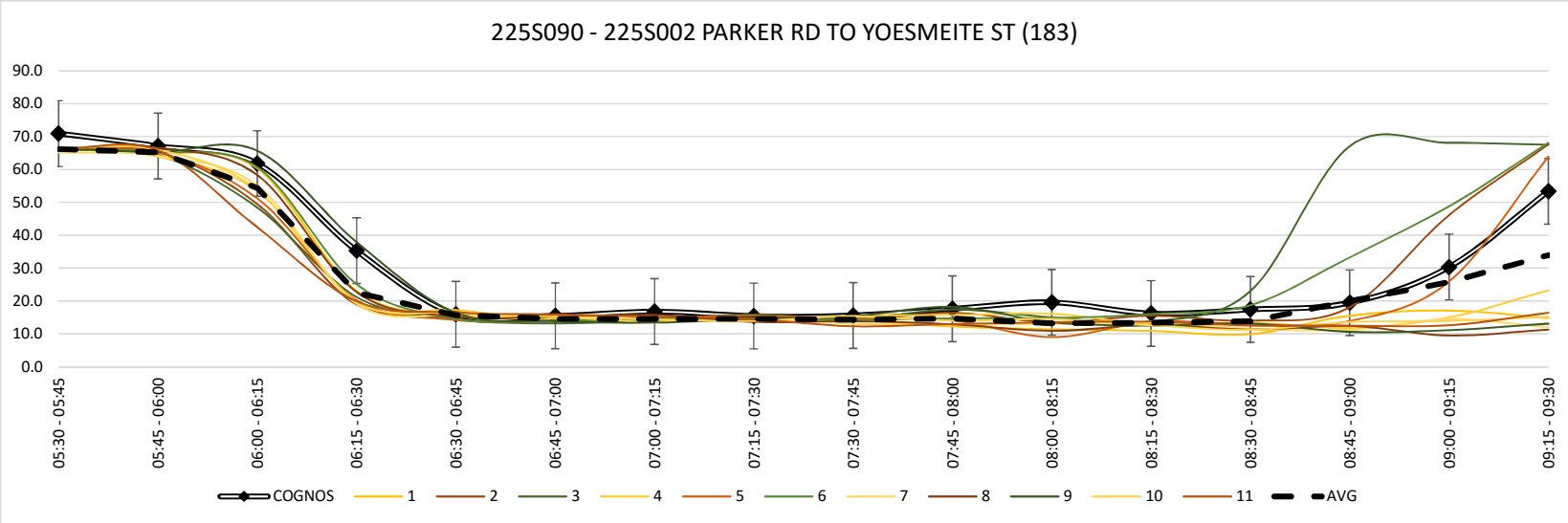
EXISTING																									
AM	COGNOS	MODEL																						AGGREGATE	
TIME	225S080	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	67.9	67.4	0.5	66.4	1.5	66.3	1.6	66.3	1.6	66.8	1.1	66.3	1.6	66.6	1.3	67.2	0.7	67.3	0.6	67.0	0.9	67.2	0.7	66.8	1.1
05:45 - 06:00	66.1	66.6	- 0.5	65.6	0.5	62.6	3.5	65.4	0.7	65.8	0.3	65.1	1.0	64.3	1.8	67.2	- 1.1	66.8	- 0.7	65.3	0.8	64.7	1.4	65.4	0.7
06:00 - 06:15	63.8	55.2	8.6	38.7	25.1	40.7	23.1	39.6	24.2	37.6	26.2	50.1	13.7	38.5	25.3	55.1	8.7	64.6	- 0.8	46.5	17.3	35.9	27.9	45.7	18.1
06:15 - 06:30	33.2	21.9	11.3	21.8	11.4	22.3	10.9	22.9	10.3	21.2	12.0	24.4	8.8	20.6	12.6	23.1	10.1	32.9	0.3	21.6	11.6	22.2	11.0	23.2	10.0
06:30 - 06:45	17.0	19.6	- 2.6	18.1	- 1.1	18.0	- 1.0	19.5	- 2.5	18.1	- 1.1	16.5	0.5	17.8	- 0.8	17.6	- 0.6	17.6	- 0.6	18.9	- 1.9	19.0	- 2.0	18.3	- 1.3
06:45 - 07:00	17.4	18.2	- 0.8	17.0	0.4	17.7	- 0.3	18.3	- 0.9	16.8	0.6	17.8	- 0.4	17.1	0.3	17.9	- 0.5	18.0	- 0.6	17.8	- 0.4	19.7	- 2.3	17.9	- 0.5
07:00 - 07:15	17.2	17.1	0.1	18.0	- 0.8	17.4	- 0.2	17.3	- 0.1	16.7	0.5	17.2	0.0	17.6	- 0.4	18.4	- 1.2	16.8	0.4	16.9	0.3	18.8	- 1.6	17.5	- 0.3
07:15 - 07:30	17.8	17.3	0.5	17.6	0.2	18.0	- 0.2	16.4	1.4	17.4	0.4	19.8	- 2.0	17.3	0.5	17.1	0.7	17.5	0.3	16.2	1.6	16.8	1.0	17.4	0.4
07:30 - 07:45	16.4	16.7	- 0.3	16.6	- 0.2	18.4	- 2.0	18.4	- 2.0	17.4	- 1.0	17.7	- 1.3	14.9	1.5	15.2	1.2	18.1	- 1.7	19.3	- 2.9	14.4	2.0	17.0	- 0.6
07:45 - 08:00	19.4	18.5	0.9	17.4	2.0	20.6	- 1.3	19.9	- 0.5	16.8	2.6	17.2	2.2	12.7	6.7	9.2	10.2	19.8	- 0.4	14.9	4.5	15.3	4.1	16.6	2.8
08:00 - 08:15	18.5	12.3	6.2	14.4	4.1	17.1	1.4	16.6	1.9	15.1	3.4	14.9	3.6	14.3	4.2	12.9	5.6	12.4	6.1	14.9	3.6	17.8	0.7	14.8	3.7
08:15 - 08:30	18.4	12.5	5.9	17.2	1.2	16.2	2.2	13.0	5.4	16.3	2.1	17.6	0.8	14.6	3.8	14.0	4.4	13.4	5.0	13.9	4.5	16.8	1.6	15.0	3.4
08:30 - 08:45	17.9	9.0	8.9	16.0	1.9	20.5	- 2.6	15.8	2.1	13.3	4.6	19.6	- 1.7	14.4	3.5	12.0	5.9	13.9	4.0	13.9	4.0	13.3	4.6	14.7	3.2
08:45 - 09:00	19.1	18.9	0.2	19.6	- 0.5	44.3	-25.2	13.9	5.2	15.8	3.3	15.0	4.1	14.3	4.8	14.0	5.1	13.1	6.0	15.7	3.4	14.2	4.9	18.1	1.0
09:00 - 09:15	22.7	19.4	3.3	23.5	- 0.8	68.2	-45.5	14.8	7.9	15.1	7.6	32.2	- 9.5	14.9	7.8	15.0	7.7	13.2	9.5	15.0	7.7	14.8	7.9	22.4	0.3
09:15 - 09:30	35.3	17.4	17.9	67.3	-32.0	68.0	-32.7	18.5	16.8	29.5	5.8	65.8	-30.5	14.2	21.1	14.9	20.4	16.3	19.0	17.6	17.7	12.4	22.9	31.1	4.2
Hour 1	57.7	52.8	5.0	48.1	9.6	48.0	9.8	48.6	9.2	47.9	9.9	51.5	6.3	47.5	10.2	53.2	4.6	57.9	- 0.2	50.1	7.6	47.5	10.2	50.3	7.5
Hour 2	17.3	18.1	- 0.7	17.7	- 0.3	17.8	- 0.4	17.9	- 0.5	17.3	0.1	17.8	- 0.5	17.5	- 0.1	17.8	- 0.4	17.5	- 0.1	17.5	- 0.1	18.6	- 1.2	17.8	- 0.4
Hour 3	18.2	15.0	3.2	16.4	1.8	18.1	0.1	17.0	1.2	16.4	1.8	16.9	1.3	14.1	4.0	12.8	5.3	15.9	2.2	15.8	2.4	16.1	2.1	15.9	2.3
Hour 4	23.8	16.2	7.6	31.6	- 7.8	50.3	-26.5	15.8	8.0	18.4	5.3	33.2	- 9.4	14.5	9.3	14.0	9.8	14.1	9.6	15.6	8.2	13.7	10.1	21.6	2.2
11	29.3	25.5	3.8	28.5	0.8	33.5	- 4.3	24.8	4.5	25.0	4.3	29.8	- 0.6	23.4	5.9	24.4	4.8	26.4	2.9	24.7	4.5	24.0	5.3	26.4	2.9

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run



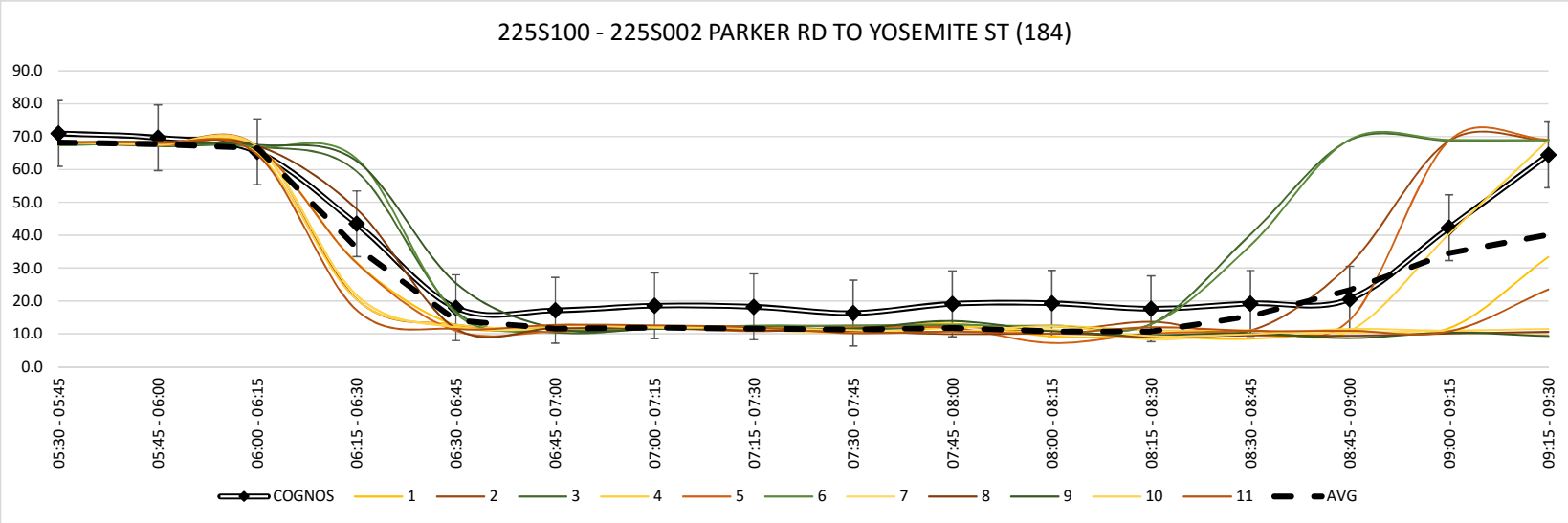
EXISTING																									
AM	COGNOS	MODEL																						AGGREGATE	
TIME	225S090	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	70.9	65.9	5.0	66.1	4.8	66.3	4.6	66.6	4.3	65.8	5.1	66.1	4.8	65.2	5.7	66.6	4.3	66.4	4.5	66.5	4.4	66.2	4.7	66.2	4.7
05:45 - 06:00	67.1	65.3	1.8	65.3	1.8	64.4	2.7	63.9	3.2	65.1	2.0	65.4	1.7	64.1	3.0	66.6	0.5	65.3	1.8	66.0	1.1	65.8	1.3	65.2	1.9
06:00 - 06:15	61.8	60.3	1.5	49.5	12.3	48.4	13.4	53.4	8.4	51.2	10.6	60.7	1.1	55.1	6.7	58.3	3.5	65.7	- 3.9	53.8	8.0	42.4	19.4	54.4	7.4
06:15 - 06:30	35.3	23.0	12.3	18.9	16.4	21.2	14.1	19.7	15.6	20.3	15.0	25.1	10.2	19.1	16.2	22.7	12.6	37.9	- 2.6	19.9	15.4	19.9	15.4	22.5	12.8
06:30 - 06:45	15.9	15.6	0.3	16.5	- 0.6	14.4	1.5	17.2	- 1.3	14.2	1.7	14.6	1.3	15.7	0.2	15.2	0.7	16.4	- 0.5	16.4	- 0.5	16.5	- 0.6	15.7	0.2
06:45 - 07:00	15.5	14.8	0.7	14.7	0.8	13.2	2.3	14.6	0.9	13.9	1.6	14.0	1.5	15.2	0.3	15.3	0.2	13.9	1.6	15.3	0.2	15.9	- 0.4	14.6	0.9
07:00 - 07:15	16.8	14.2	2.6	14.5	2.3	14.2	2.6	14.6	2.2	14.8	2.0	14.8	2.0	13.6	3.2	15.8	1.0	13.4	3.4	14.4	2.4	15.2	1.6	14.5	2.3
07:15 - 07:30	15.4	14.2	1.2	15.6	- 0.2	15.9	- 0.5	13.8	1.6	15.5	- 0.1	14.3	1.1	14.6	0.8	13.6	1.8	14.6	0.8	13.9	1.5	14.4	1.0	14.6	0.8
07:30 - 07:45	15.6	14.2	1.4	14.2	1.4	14.5	1.1	15.5	0.1	14.8	0.8	14.3	1.3	13.1	2.5	13.8	1.8	15.4	0.2	15.3	0.3	12.3	3.3	14.3	1.3
07:45 - 08:00	17.6	12.2	5.4	16.4	1.2	17.4	0.2	15.7	1.9	14.1	3.5	14.7	2.9	12.8	4.8	12.9	4.7	18.2	- 0.6	14.0	3.6	13.0	4.6	14.7	2.9
08:00 - 08:15	19.6	11.4	8.2	13.5	6.1	15.0	4.6	16.1	3.5	9.0	10.6	14.8	4.8	13.0	6.6	10.9	8.7	13.5	6.1	14.5	5.1	13.5	6.1	13.2	6.4
08:15 - 08:30	16.2	10.9	5.3	15.5	0.7	13.8	2.4	12.9	3.3	13.7	2.5	16.0	0.2	13.5	2.7	12.7	3.5	12.5	3.7	12.6	3.6	13.7	2.5	13.4	2.8
08:30 - 08:45	17.4	9.9	7.5	14.0	3.4	23.0	- 5.6	13.4	4.0	12.9	4.5	18.7	- 1.3	11.6	5.8	11.3	6.1	13.1	4.3	11.2	6.2	12.5	4.9	13.8	3.6
08:45 - 09:00	19.5	15.5	4.0	18.1	1.4	67.1	-47.7	11.8	7.7	13.9	5.6	33.3	-13.9	11.2	8.3	12.4	7.1	10.6	8.9	13.6	5.9	12.5	7.0	20.0	- 0.6
09:00 - 09:15	30.3	17.1	13.2	46.1	-15.8	68.1	-37.8	15.0	15.3	25.9	4.4	48.8	-18.5	14.5	15.8	9.5	20.8	11.1	19.2	13.9	16.4	12.6	17.7	25.7	4.6
09:15 - 09:30	53.4	14.8	38.6	67.6	-14.2	67.5	-14.1	23.2	30.2	63.9	-10.5	68.1	-14.7	12.0	41.4	11.3	42.1	13.1	40.3	15.2	38.2	16.4	37.0	33.9	19.5
Hour 1	58.8	53.6	5.1	50.0	8.8	50.1	8.7	50.9	7.9	50.6	8.2	54.3	4.4	50.9	7.9	53.6	5.2	58.8	- 0.1	51.6	7.2	48.6	10.2	52.1	6.7
Hour 2	15.9	14.7	1.2	15.3	0.6	14.4	1.5	15.1	0.9	14.6	1.3	14.4	1.5	14.8	1.1	15.0	0.9	14.6	1.3	15.0	0.9	15.5	0.4	14.9	1.1
Hour 3	17.2	12.2	5.1	14.9	2.3	15.2	2.1	15.1	2.2	12.9	4.3	15.0	2.3	13.1	4.1	12.6	4.7	14.9	2.3	14.1	3.1	13.1	4.1	13.9	3.3
Hour 4	30.1	14.3	15.8	36.5	- 6.3	56.4	-26.3	15.9	14.3	29.2	1.0	42.2	-12.1	12.3	17.8	11.1	19.0	12.0	18.2	13.5	16.7	13.5	16.6	23.4	6.8
11	30.5	23.7	6.8	29.2	1.4	34.0	- 3.5	24.2	6.3	26.8	3.7	31.5	- 1.0	22.8	7.7	23.1	7.5	25.1	5.4	23.5	7.0	22.7	7.8	26.0	4.5

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run



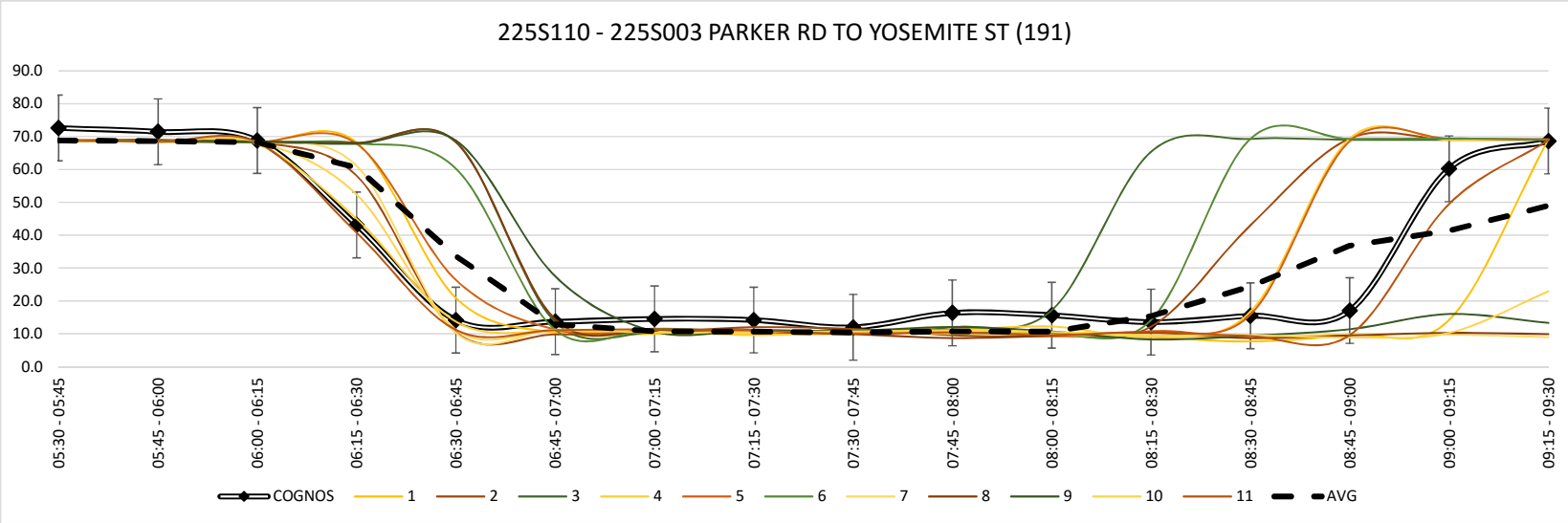
EXISTING																									
AM	COGNOS	MODEL																						AGGREGATE	
TIME	225S100	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	71.0	68.3	2.7	68.2	2.8	68.2	2.8	68.6	2.4	68.1	2.9	67.3	3.7	68.4	2.6	68.3	2.7	68.1	2.9	68.1	2.9	68.2	2.8	68.2	2.8
05:45 - 06:00	69.6	67.7	1.9	67.7	1.9	67.1	2.5	67.4	2.2	67.3	2.3	68.1	1.5	67.5	2.1	68.4	1.2	67.9	1.7	67.6	2.0	68.1	1.5	67.7	1.9
06:00 - 06:15	65.4	66.7	- 1.4	67.0	- 1.7	66.9	- 1.6	65.0	0.3	66.4	- 1.1	66.9	- 1.6	66.5	- 1.2	67.2	- 1.9	67.5	- 2.2	67.0	- 1.7	64.5	0.8	66.5	- 1.2
06:15 - 06:30	43.5	31.7	11.8	20.5	23.0	59.4	-15.9	20.4	23.1	31.5	12.0	63.3	-19.8	21.6	21.9	48.0	- 4.5	62.6	-19.1	21.8	21.7	17.2	26.3	36.2	7.3
06:30 - 06:45	17.9	12.6	5.3	12.8	5.1	16.8	1.1	12.8	5.1	10.9	7.0	16.2	1.7	12.1	5.8	11.6	6.3	25.4	- 7.5	12.0	5.9	11.5	6.4	14.1	3.8
06:45 - 07:00	17.1	11.8	5.3	11.6	5.5	10.4	6.7	11.7	5.4	10.7	6.4	11.4	5.7	11.5	5.6	11.7	5.4	11.7	5.4	12.6	4.5	12.7	4.4	11.6	5.5
07:00 - 07:15	18.6	11.6	7.0	12.4	6.2	11.5	7.1	12.3	6.3	11.7	6.9	11.7	6.9	12.4	6.2	11.8	6.8	11.5	7.1	11.9	6.7	12.6	6.0	11.9	6.7
07:15 - 07:30	18.2	11.4	6.8	12.1	6.1	11.6	6.6	11.2	7.0	10.8	7.4	12.5	5.7	11.2	7.0	11.0	7.2	11.9	6.3	11.8	6.4	12.0	6.2	11.6	6.6
07:30 - 07:45	16.3	11.7	4.6	12.5	3.8	11.4	4.9	10.3	6.0	11.9	4.4	12.5	3.8	10.4	5.9	10.8	5.5	11.6	4.7	11.1	5.2	10.2	6.1	11.3	5.0
07:45 - 08:00	19.1	13.1	6.0	12.3	6.8	12.1	7.0	11.9	7.2	11.8	7.3	12.8	6.3	10.8	8.3	9.9	9.2	13.9	5.2	10.6	8.5	10.7	8.4	11.8	7.3
08:00 - 08:15	19.3	9.2	10.1	10.9	8.4	12.5	6.8	12.5	6.8	7.2	12.1	12.3	7.0	11.4	7.9	10.1	9.2	10.8	8.5	12.3	7.0	10.1	9.2	10.8	8.5
08:15 - 08:30	17.6	9.1	8.5	13.7	3.9	13.0	4.6	11.1	6.5	10.1	7.5	12.9	4.7	8.3	9.3	9.1	8.5	9.6	8.0	9.3	8.3	12.0	5.6	10.7	6.9
08:30 - 08:45	19.2	8.5	10.7	11.0	8.2	40.2	-21.0	11.1	8.1	11.0	8.2	36.9	-17.7	10.0	9.2	9.5	9.7	10.2	9.0	9.9	9.3	10.9	8.3	15.4	3.8
08:45 - 09:00	20.5	10.8	9.7	31.1	-10.6	68.9	-48.4	10.9	9.6	14.2	6.3	69.1	-48.6	10.3	10.2	9.4	11.1	8.7	11.8	11.5	9.0	10.9	9.6	23.3	- 2.8
09:00 - 09:15	42.3	11.7	30.6	68.7	-26.4	68.8	-26.5	40.3	2.0	68.7	-26.4	69.0	-26.7	10.7	31.6	10.1	32.2	10.4	31.9	11.0	31.3	10.7	31.6	34.6	7.7
09:15 - 09:30	64.4	33.4	31.0	68.9	- 4.5	68.9	- 4.5	69.0	- 4.6	69.1	- 4.7	68.9	- 4.5	9.5	54.9	10.6	53.8	9.3	55.1	11.5	52.9	23.5	40.9	40.2	24.2
Hour 1	62.4	58.6	3.8	55.9	6.5	65.4	- 3.0	55.4	7.0	58.3	4.0	66.4	- 4.0	56.0	6.4	63.0	- 0.6	66.5	- 4.2	56.1	6.2	54.5	7.9	59.7	2.7
Hour 2	18.0	11.9	6.1	12.2	5.7	12.6	5.4	12.0	6.0	11.0	6.9	13.0	5.0	11.8	6.2	11.5	6.4	15.1	2.8	12.1	5.9	12.2	5.8	12.3	5.7
Hour 3	18.1	10.8	7.3	12.4	5.7	12.3	5.8	11.5	6.6	10.3	7.8	12.6	5.5	10.2	7.9	10.0	8.1	11.5	6.6	10.8	7.3	10.8	7.3	11.2	6.9
Hour 4	36.6	16.1	20.5	44.9	- 8.3	61.7	-25.1	32.8	3.8	40.8	- 4.1	61.0	-24.4	10.1	26.5	9.9	26.7	9.7	27.0	11.0	25.7	14.0	22.6	28.4	8.3
11	33.8	24.3	9.4	31.3	2.4	38.0	- 4.2	27.9	5.9	30.1	3.7	38.2	- 4.5	22.0	11.7	23.6	10.2	25.7	8.1	22.5	11.3	22.9	10.9	27.9	5.9

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run



EXISTING																									
AM	COGNOS	MODEL																						AGGREGATE	
TIME	225S110	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	72.6	68.9	3.7	68.9	3.7	68.6	4.0	68.7	3.9	68.8	3.8	68.7	3.9	68.8	3.8	68.7	3.9	68.8	3.8	68.8	3.8	69.0	3.6	68.8	3.8
05:45 - 06:00	71.5	68.9	2.6	68.8	2.7	68.4	3.1	68.3	3.2	68.5	3.0	68.7	2.8	68.8	2.7	69.0	2.5	68.7	2.8	68.5	3.0	68.4	3.1	68.6	2.9
06:00 - 06:15	68.8	68.2	0.6	68.3	0.5	68.2	0.6	67.7	1.1	68.4	0.4	68.2	0.6	68.4	0.4	68.4	0.4	68.5	0.3	68.4	0.4	68.2	0.6	68.3	0.5
06:15 - 06:30	43.1	68.2	-25.1	58.1	-15.0	67.8	-24.7	45.0	- 1.9	67.8	-24.7	68.0	-24.9	61.1	-18.0	68.1	-25.0	67.9	-24.8	52.4	- 9.3	40.8	2.3	60.5	-17.4
06:30 - 06:45	14.2	20.9	- 6.7	10.5	3.7	68.4	-54.2	13.7	0.5	26.4	-12.2	60.3	-46.1	10.3	3.9	68.3	-54.1	68.8	-54.6	11.2	3.0	11.2	3.0	33.6	-19.4
06:45 - 07:00	13.7	10.3	3.4	9.8	3.9	13.6	0.1	10.7	3.0	11.3	2.4	11.2	2.5	11.3	2.4	14.4	- 0.7	27.5	-13.8	11.2	2.5	11.1	2.6	12.9	0.8
07:00 - 07:15	14.6	10.0	4.6	10.5	4.1	10.4	4.2	10.7	3.9	10.9	3.7	11.6	3.0	10.9	3.7	11.3	3.3	10.7	3.9	10.4	4.2	11.4	3.2	10.8	3.8
07:15 - 07:30	14.2	10.1	4.1	12.0	2.2	11.1	3.1	9.6	4.6	11.0	3.2	10.7	3.5	10.3	3.9	10.6	3.6	11.1	3.1	10.6	3.6	11.0	3.2	10.7	3.5
07:30 - 07:45	12.0	10.0	2.0	11.5	0.5	10.0	2.0	10.4	1.6	10.3	1.7	11.1	0.9	10.2	1.8	9.9	2.1	10.9	1.1	10.7	1.3	10.0	2.0	10.4	1.6
07:45 - 08:00	16.4	12.0	4.4	9.6	6.8	12.0	4.4	11.2	5.2	10.9	5.5	11.1	5.3	10.1	6.3	8.7	7.7	12.1	4.3	11.0	5.4	10.4	6.0	10.8	5.6
08:00 - 08:15	15.6	9.8	5.8	9.4	6.2	17.2	- 1.6	12.2	3.4	9.2	6.4	10.0	5.6	9.7	5.9	9.5	6.1	10.7	4.9	10.6	5.0	9.6	6.0	10.7	4.9
08:15 - 08:30	13.6	9.0	4.6	12.2	1.4	65.4	-51.8	9.2	4.4	10.8	2.8	14.2	- 0.6	9.4	4.2	10.4	3.2	8.3	5.3	9.6	4.0	10.6	3.0	15.4	- 1.8
08:30 - 08:45	15.5	7.7	7.8	43.0	-27.5	69.3	-53.8	16.7	- 1.2	15.8	- 0.3	69.3	-53.8	9.0	6.5	8.7	6.8	9.4	6.1	9.6	5.9	9.3	6.2	24.4	- 8.9
08:45 - 09:00	17.1	9.7	7.4	69.4	-52.3	69.0	-51.9	69.4	-52.3	68.6	-51.5	69.3	-52.2	9.9	7.2	9.5	7.6	11.4	5.7	8.9	8.2	9.6	7.5	36.8	-19.7
09:00 - 09:15	60.2	14.2	46.0	69.1	- 8.9	69.0	- 8.8	69.0	- 8.8	69.4	- 9.2	69.4	- 9.2	9.8	50.4	10.3	49.9	16.0	44.2	10.3	49.9	49.5	10.7	41.4	18.8
09:15 - 09:30	68.7	69.1	- 0.4	69.3	- 0.6	69.0	- 0.3	69.1	- 0.4	69.0	- 0.3	69.0	- 0.3	9.0	59.7	9.9	58.8	13.3	55.4	22.9	45.8	68.9	- 0.3	49.0	19.7
Hour 1	64.0	68.6	- 4.6	66.0	- 2.0	68.3	- 4.3	62.4	1.6	68.4	- 4.4	68.4	- 4.4	66.8	- 2.8	68.6	- 4.6	68.5	- 4.5	64.5	- 0.5	61.6	2.4	66.6	- 2.6
Hour 2	14.2	12.8	1.3	10.7	3.5	25.9	-11.7	11.2	3.0	14.9	- 0.7	23.5	- 9.3	10.7	3.5	26.2	-12.0	29.5	-15.4	10.9	3.3	11.2	3.0	17.0	- 2.8
Hour 3	14.4	10.2	4.2	10.7	3.7	26.2	-11.8	10.8	3.6	10.3	4.1	11.6	2.8	9.9	4.5	9.6	4.8	10.5	3.9	10.5	3.9	10.2	4.2	11.8	2.6
Hour 4	40.4	25.2	15.2	62.7	-22.3	69.1	-28.7	56.1	-15.7	55.7	-15.3	69.3	-28.9	9.4	30.9	9.6	30.8	12.5	27.8	12.9	27.4	34.3	6.0	37.9	2.5
11	33.2	29.2	4.0	37.5	- 4.3	47.3	-14.1	35.1	- 1.9	37.3	- 4.1	43.2	- 9.9	24.2	9.0	28.5	4.7	30.3	3.0	24.7	8.5	29.3	3.9	33.3	- 0.1

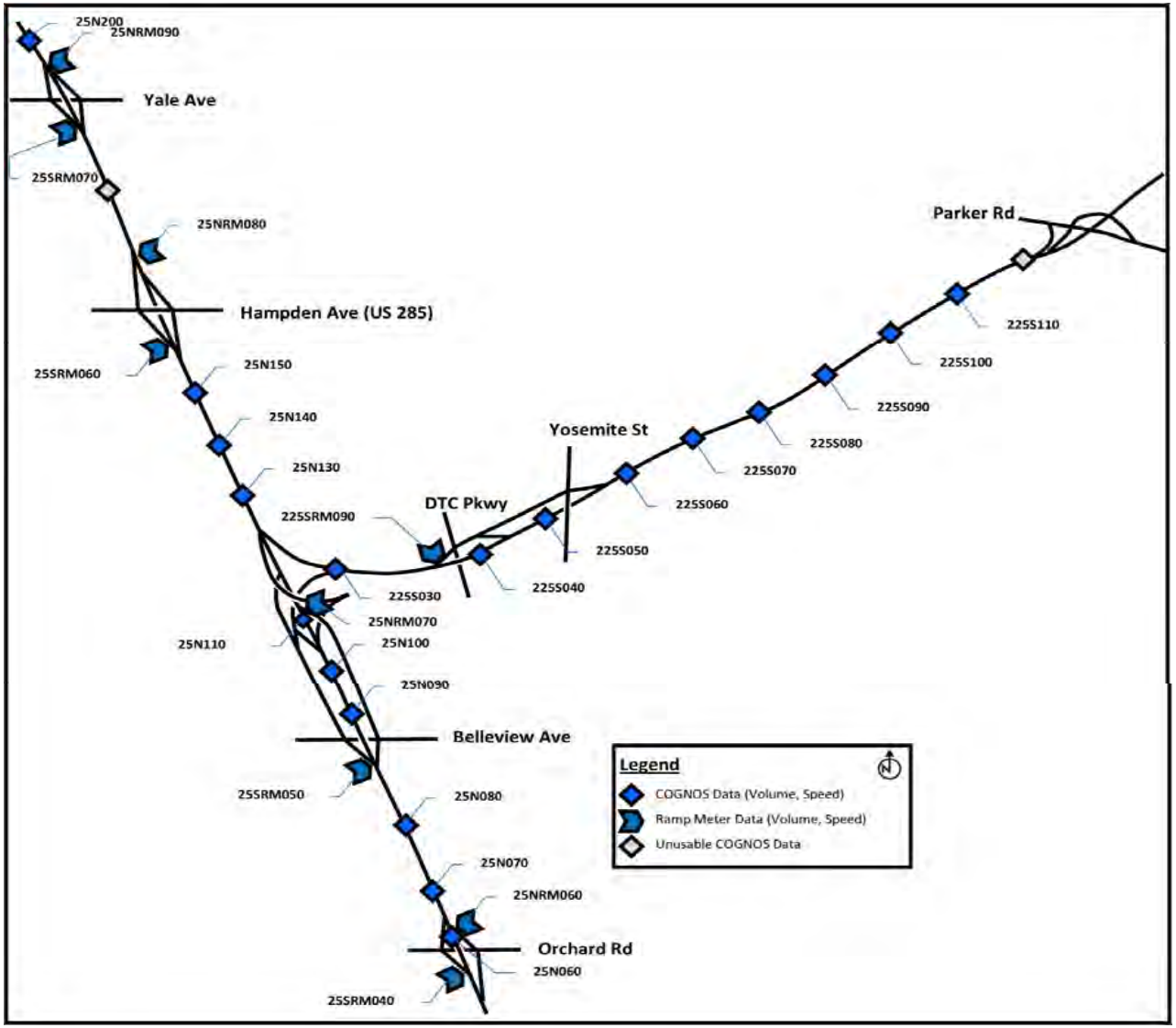
Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run



AVERAGE VEHICLE SPEEDS - BY LINK

EXISTING

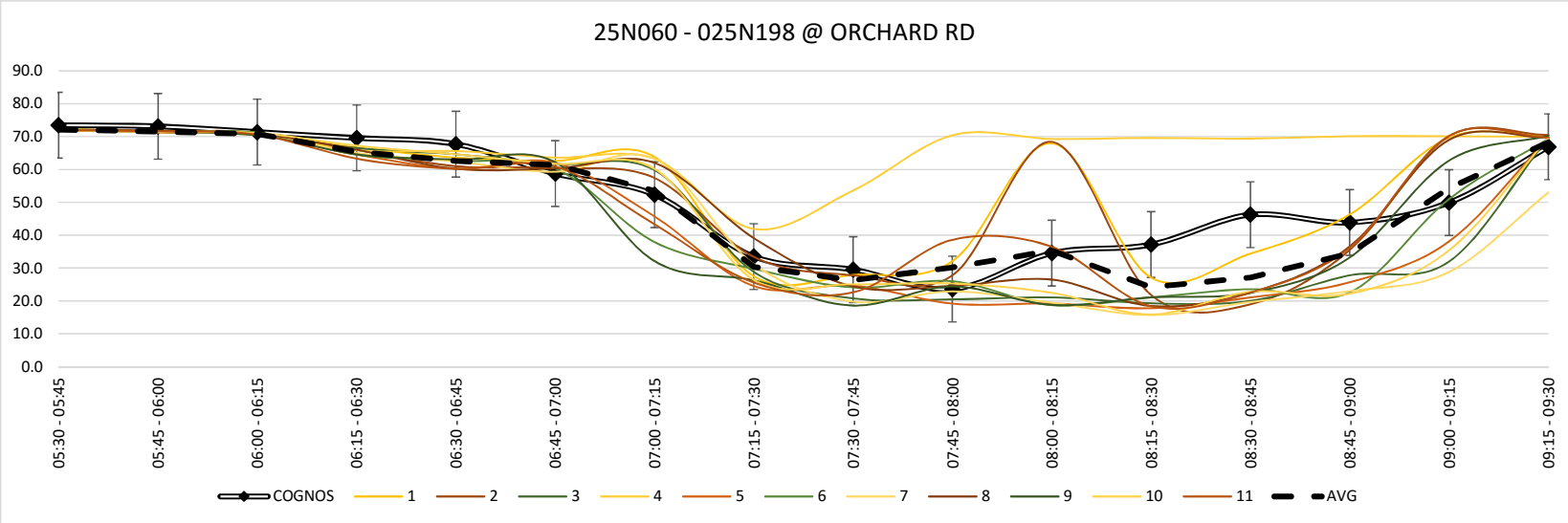
ROUTE: I-25
PERIOD: AM



LOCATION	COGNOS DESCRIPTION
25N060	025N198 @ ORCHARD RD
25N070	025N199 0.4MI N OF ORCHARD RD
25N080	025N199 0.4MI S OF BELLEVIEW AVE
25N090	025S199 @ BELLVIEW AVE
25N100	025N200 BELLVIEW AVE TO I-25 NB (153)
25N110	025N200 @ I-225
25N130	025N201 0.2MI N OF I-225
25N140	025N201 I-225 TO HAMPDEN AVE 2 (132)
25N150	025N201 0.6MI S OF HAMPDEN AVE
25N200	025N203 0.4MI N OF YALE AVE (124)

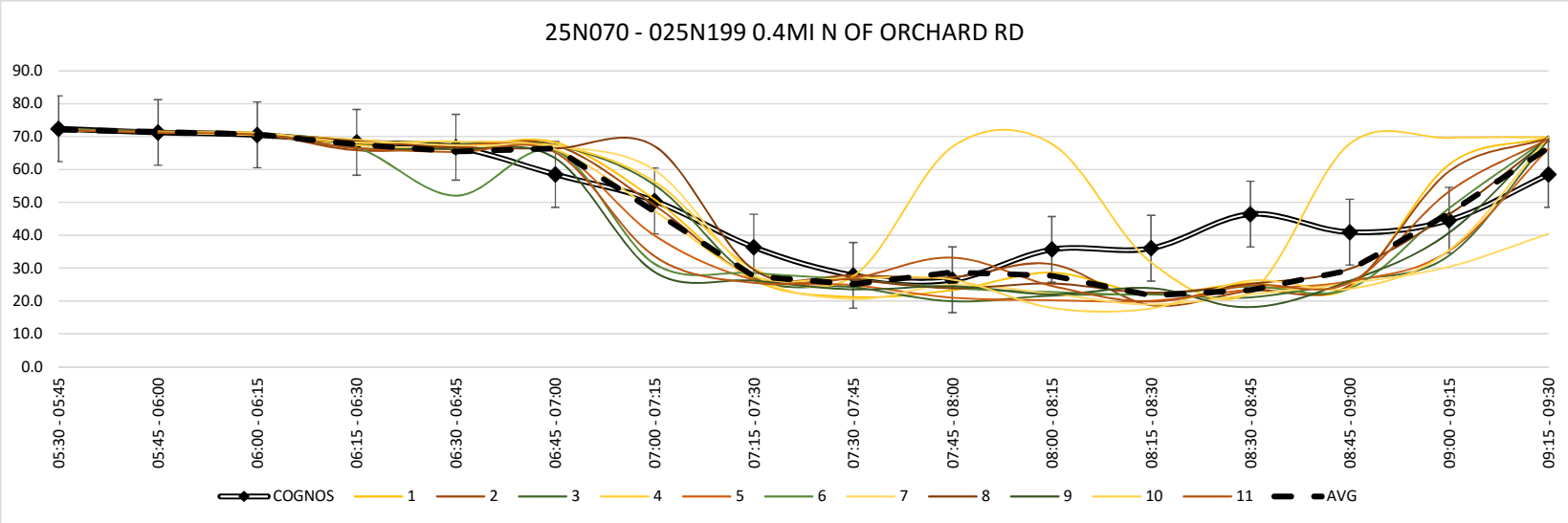
EXISTING																									
AM	COGNOS	MODEL																						AGGREGATE	
TIME	25N060	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	73.5	71.9	1.6	72.3	1.2	72.1	1.4	72.3	1.2	72.0	1.5	72.3	1.2	72.2	1.3	72.0	1.5	71.9	1.6	71.9	1.6	71.9	1.6	72.1	1.4
05:45 - 06:00	73.1	71.7	1.4	71.7	1.4	71.6	1.5	71.5	1.6	71.2	1.9	71.4	1.7	71.3	1.8	71.8	1.3	71.4	1.7	71.4	1.7	71.6	1.5	71.5	1.6
06:00 - 06:15	71.4	70.6	0.8	71.1	0.3	70.4	0.9	70.8	0.5	70.6	0.8	71.2	0.1	70.7	0.6	70.8	0.5	70.5	0.8	71.1	0.3	70.6	0.8	70.8	0.5
06:15 - 06:30	69.6	66.7	2.9	65.9	3.7	66.5	3.1	65.8	3.8	64.5	5.1	64.5	5.1	65.0	4.6	66.0	3.6	64.6	5.0	67.2	2.4	63.3	6.3	65.4	4.2
06:30 - 06:45	67.7	63.6	4.1	61.0	6.7	64.6	3.1	65.6	2.1	60.3	7.4	62.7	5.0	62.4	5.3	60.2	7.5	63.0	4.7	64.6	3.1	60.2	7.5	62.6	5.1
06:45 - 07:00	58.8	62.6	- 3.8	60.4	- 1.6	61.6	- 2.8	63.6	- 4.8	62.0	- 3.2	60.3	- 1.5	59.3	- 0.5	60.3	- 1.5	62.2	- 3.4	61.7	- 2.9	60.9	- 2.1	61.4	- 2.6
07:00 - 07:15	52.3	63.8	-11.5	57.4	- 5.1	59.8	- 7.5	63.2	-10.9	45.7	6.6	37.9	14.4	63.2	-10.9	62.0	- 9.7	32.1	20.2	60.2	- 7.9	43.3	9.0	53.5	- 1.2
07:15 - 07:30	33.5	27.5	6.0	33.4	0.1	28.8	4.7	41.9	- 8.4	24.5	9.0	29.8	3.7	31.2	2.3	39.1	- 5.6	26.3	7.2	26.4	7.1	25.6	7.9	30.4	3.1
07:30 - 07:45	29.5	27.9	1.6	27.8	1.7	20.8	8.7	53.6	-24.1	24.7	4.8	24.1	5.4	19.8	9.7	24.4	5.1	18.6	10.9	25.1	4.4	22.6	6.9	26.3	3.2
07:45 - 08:00	23.6	32.1	- 8.5	27.8	- 4.2	20.5	3.1	70.4	-46.8	19.2	4.4	26.0	- 2.4	22.9	0.7	24.6	- 1.0	24.4	- 0.8	25.3	- 1.7	38.6	-15.0	30.2	- 6.6
08:00 - 08:15	34.5	68.0	-33.5	68.4	-33.9	21.1	13.4	69.3	-34.8	19.2	15.3	18.7	15.8	19.5	15.0	26.5	8.0	18.8	15.7	22.5	12.0	36.5	- 2.0	35.3	- 0.8
08:15 - 08:30	37.2	27.1	10.1	21.8	15.4	19.3	17.9	69.6	-32.5	17.8	19.4	21.1	16.1	15.7	21.5	18.5	18.7	21.1	16.1	15.9	21.3	18.4	18.8	24.2	13.0
08:30 - 08:45	46.2	34.4	11.8	19.0	27.2	20.0	26.2	69.4	-23.2	21.1	25.1	23.6	22.6	19.7	26.5	22.5	23.7	22.5	23.7	22.8	23.4	22.6	23.6	27.1	19.1
08:45 - 09:00	43.9	46.3	- 2.4	35.5	8.4	27.8	16.1	70.1	-26.2	25.7	18.2	22.6	21.3	23.0	20.9	36.6	7.3	33.2	10.7	22.2	21.7	36.2	7.7	34.5	9.4
09:00 - 09:15	49.9	69.7	-19.8	70.1	-20.2	32.0	17.9	70.1	-20.2	38.1	11.8	51.0	- 1.1	28.8	21.1	69.0	-19.1	62.7	-12.8	35.4	14.5	70.2	-20.3	54.3	- 4.4
09:15 - 09:30	66.9	70.2	- 3.3	70.5	- 3.6	69.7	- 2.8	69.9	- 3.0	69.6	- 2.7	69.3	- 2.4	53.0	13.9	69.7	- 2.8	70.3	- 3.4	69.6	- 2.7	69.7	- 2.8	68.3	- 1.4
Hour 1	71.9	70.2	1.6	70.3	1.6	70.2	1.7	70.1	1.8	69.6	2.3	69.9	2.0	69.8	2.1	70.2	1.7	69.6	2.3	70.4	1.5	69.4	2.5	70.0	1.9
Hour 2	53.1	54.4	- 1.3	53.1	0.0	53.7	- 0.6	58.6	- 5.5	48.1	4.9	47.7	5.4	54.0	- 1.0	55.4	- 2.3	45.9	7.2	53.2	- 0.2	47.5	5.6	52.0	1.1
Hour 3	31.2	38.8	- 7.6	36.5	- 5.2	20.4	10.8	65.7	-34.5	20.2	11.0	22.5	8.7	19.5	11.7	23.5	7.7	20.7	10.5	22.2	9.0	29.0	2.2	29.0	2.2
Hour 4	51.7	55.2	- 3.4	48.8	3.0	37.4	14.4	69.9	-18.1	38.6	13.1	41.6	10.1	31.1	20.6	49.5	2.3	47.2	4.6	37.5	14.2	49.7	2.1	46.1	5.7
11	52.0	54.6	- 2.7	52.1	- 0.2	45.4	6.6	66.1	-14.1	44.1	7.8	45.4	6.6	43.6	8.4	49.6	2.3	45.9	6.1	45.8	6.1	48.9	3.1	49.2	2.7

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

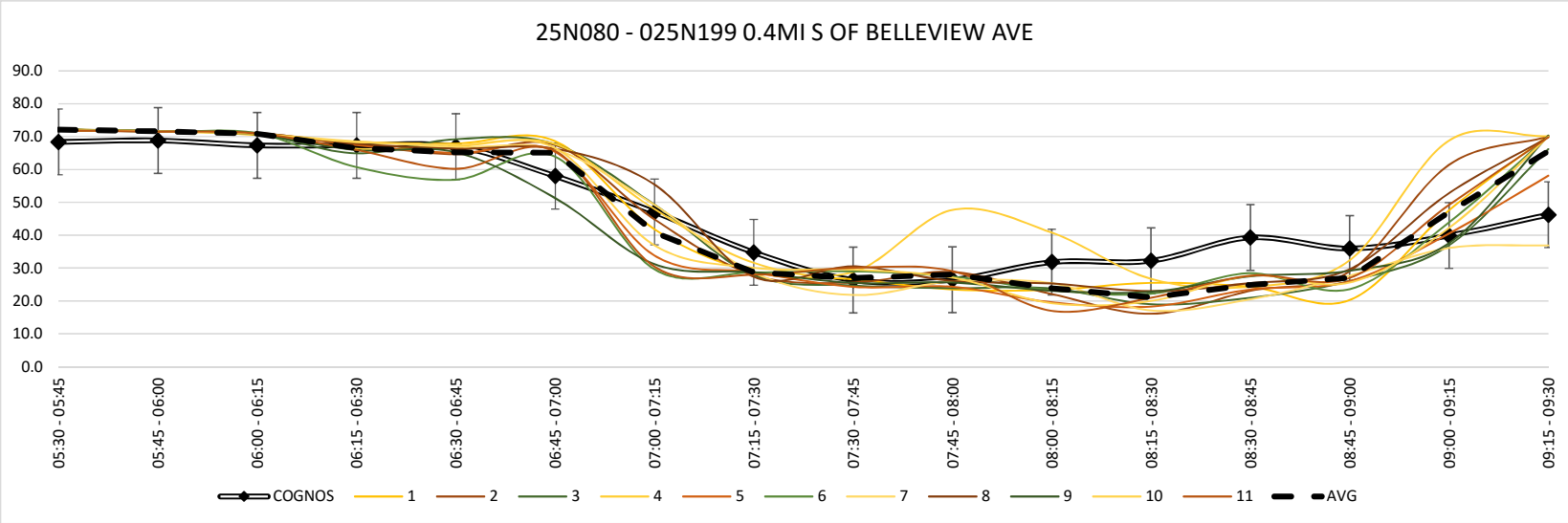


EXISTING																									
AM	COGNOS	MODEL																						AGGREGATE	
TIME	25N070	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	72.4	71.8	0.6	72.2	0.2	72.2	0.2	72.1	0.3	72.0	0.4	72.2	0.2	72.2	0.2	72.0	0.4	72.1	0.3	72.0	0.4	72.0	0.4	72.1	0.3
05:45 - 06:00	71.3	71.6	- 0.3	71.7	- 0.5	71.6	- 0.3	71.4	- 0.2	71.5	- 0.3	71.4	- 0.2	71.2	0.0	71.4	- 0.2	71.3	- 0.0	71.3	- 0.0	71.1	0.2	71.4	- 0.2
06:00 - 06:15	70.5	70.6	- 0.1	70.9	- 0.4	70.5	0.0	71.1	- 0.6	70.4	0.1	71.0	- 0.5	70.4	0.1	70.7	- 0.2	70.7	- 0.2	71.1	- 0.6	70.6	- 0.1	70.7	- 0.2
06:15 - 06:30	68.3	69.1	- 0.8	65.8	2.5	67.7	0.6	67.4	0.9	68.1	0.2	66.7	1.6	68.9	- 0.6	68.6	- 0.3	66.5	1.8	68.2	0.1	66.5	1.8	67.6	0.7
06:30 - 06:45	66.7	66.9	- 0.2	66.7	0.0	67.8	- 1.1	66.2	0.5	67.4	- 0.7	52.0	14.7	67.3	- 0.6	66.7	0.0	66.1	0.6	68.5	- 1.8	65.3	1.4	65.5	1.2
06:45 - 07:00	58.5	68.2	- 9.7	67.4	- 8.9	67.3	- 8.8	67.3	- 8.8	66.0	- 7.5	65.7	- 7.2	67.0	- 8.5	66.4	- 7.9	63.4	- 4.9	66.1	- 7.6	65.2	- 6.7	66.4	- 7.9
07:00 - 07:15	50.4	50.9	- 0.5	49.1	1.3	55.3	- 4.9	56.3	- 5.9	39.9	10.5	31.3	19.1	59.8	- 9.4	67.1	-16.7	28.8	21.6	47.4	3.0	33.6	16.8	47.2	3.2
07:15 - 07:30	36.4	26.4	10.0	27.4	9.0	27.1	9.3	29.8	6.6	26.5	9.9	28.5	7.9	28.0	8.4	29.5	6.9	26.2	10.2	27.5	8.9	25.5	10.9	27.5	8.9
07:30 - 07:45	27.8	21.2	6.6	27.8	- 0.0	24.2	3.6	27.5	0.3	24.8	3.0	26.5	1.3	20.6	7.2	26.5	1.3	23.5	4.3	27.0	0.8	27.0	0.8	25.1	2.7
07:45 - 08:00	26.4	23.3	3.1	27.2	- 0.8	19.9	6.5	66.9	-40.5	21.0	5.4	23.9	2.5	25.0	1.4	23.9	2.5	24.5	1.9	26.5	- 0.1	33.2	- 6.8	28.7	- 2.3
08:00 - 08:15	35.7	28.6	7.1	31.2	4.5	21.6	14.1	67.8	-32.1	20.2	15.5	22.7	13.0	22.2	13.5	25.3	10.4	22.0	13.7	17.9	17.8	24.6	11.1	27.7	8.0
08:15 - 08:30	36.0	22.2	13.8	18.7	17.3	22.0	14.0	31.7	4.3	20.0	16.0	22.0	14.0	18.9	17.1	22.5	13.5	23.9	12.1	17.7	18.3	19.8	16.2	21.7	14.3
08:30 - 08:45	46.4	25.4	21.0	23.1	23.3	21.1	25.3	22.7	23.7	23.5	22.9	24.4	22.0	22.0	24.4	25.2	21.2	18.1	28.3	26.2	20.2	24.8	21.6	23.3	23.1
08:45 - 09:00	40.9	24.1	16.8	24.7	16.2	26.1	14.8	67.8	-26.9	26.0	14.9	23.8	17.1	25.4	15.5	29.8	11.1	26.1	14.8	23.7	17.2	25.6	15.3	29.4	11.5
09:00 - 09:15	44.6	61.5	-16.9	59.4	-14.8	33.8	10.8	69.6	-25.0	35.2	9.4	48.2	- 3.6	30.4	14.2	46.3	- 1.7	40.7	3.9	35.4	9.2	53.3	- 8.7	46.7	- 2.1
09:15 - 09:30	58.5	69.7	-11.2	69.5	-11.0	69.0	-10.5	69.8	-11.3	66.3	- 7.8	69.6	-11.1	40.4	18.1	69.0	-10.5	70.1	-11.6	69.8	-11.3	69.3	-10.8	66.6	- 8.1
Hour 1	70.6	70.8	- 0.2	70.2	0.4	70.5	0.1	70.5	0.1	70.5	0.1	70.3	0.3	70.7	- 0.1	70.7	- 0.1	70.2	0.5	70.7	- 0.1	70.1	0.5	70.5	0.2
Hour 2	53.0	53.1	- 0.1	52.7	0.4	54.4	- 1.4	54.9	- 1.9	50.0	3.1	44.4	8.6	55.5	- 2.5	57.4	- 4.4	46.1	6.9	52.4	0.6	47.4	5.6	51.7	1.4
Hour 3	31.5	23.8	7.7	26.2	5.3	21.9	9.6	48.5	-17.0	21.5	10.0	23.8	7.7	21.7	9.8	24.6	6.9	23.5	8.0	22.3	9.2	26.2	5.3	25.8	5.7
Hour 4	47.6	45.2	2.4	44.2	3.4	37.5	10.1	57.5	- 9.9	37.8	9.8	41.5	6.1	29.6	18.0	42.6	5.0	38.8	8.8	38.8	8.8	43.3	4.3	41.5	6.1
11	50.7	48.2	2.5	48.3	2.4	46.1	4.6	57.8	- 7.2	44.9	5.7	45.0	5.7	44.4	6.3	48.8	1.9	44.6	6.0	46.0	4.7	46.7	4.0	47.4	3.3

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

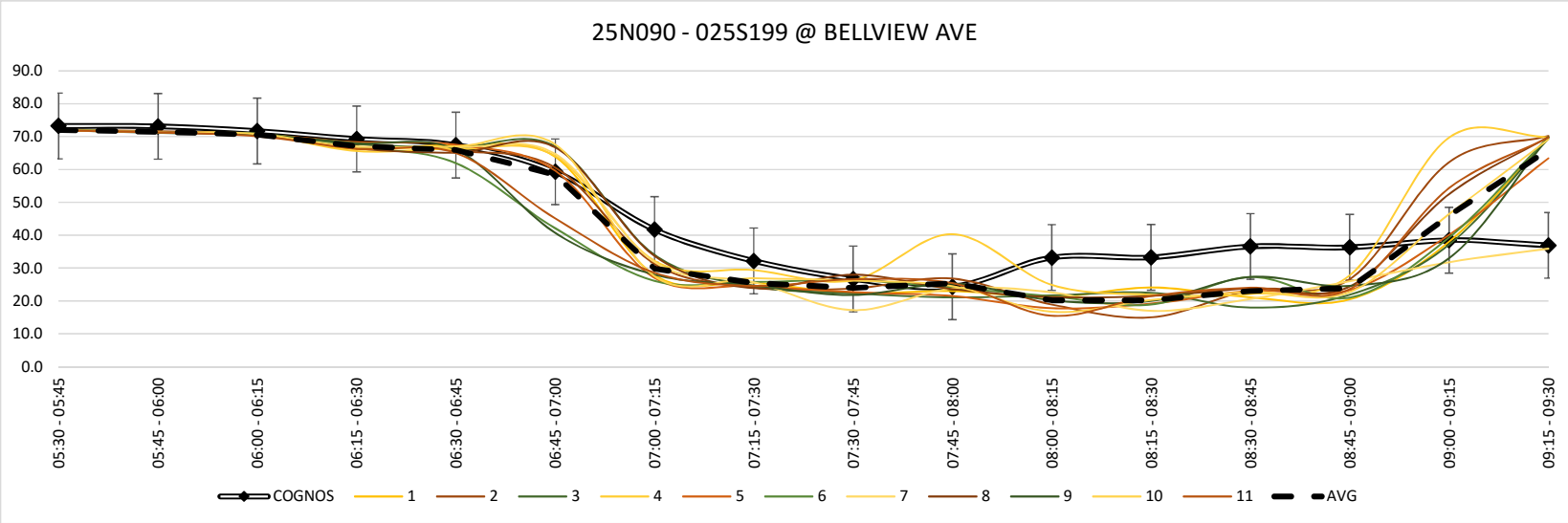


EXISTING		Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run																							
AM	COGNOS	MODEL																						AGGREGATE	
TIME	25N080	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	68.4	71.9	- 3.5	72.1	- 3.7	72.1	- 3.7	72.3	- 3.9	72.0	- 3.6	72.2	- 3.8	72.2	- 3.8	71.8	- 3.4	72.2	- 3.8	72.0	- 3.6	71.9	- 3.5	72.1	- 3.7
05:45 - 06:00	68.8	71.7	- 2.9	71.6	- 2.8	71.6	- 2.8	71.5	- 2.7	71.6	- 2.8	71.4	- 2.6	71.5	- 2.7	71.5	- 2.7	71.7	- 2.9	71.6	- 2.8	71.5	- 2.7	71.6	- 2.8
06:00 - 06:15	67.3	70.5	- 3.2	71.1	- 3.8	70.8	- 3.5	71.0	- 3.7	70.9	- 3.6	71.0	- 3.7	70.8	- 3.5	71.0	- 3.7	70.6	- 3.3	70.8	- 3.5	70.9	- 3.6	70.9	- 3.6
06:15 - 06:30	67.3	68.4	- 1.1	67.7	- 0.4	64.9	2.4	66.3	1.0	67.4	- 0.1	60.7	6.6	68.5	- 1.2	67.8	- 0.5	65.9	1.4	68.3	- 1.0	65.9	1.4	66.5	0.8
06:30 - 06:45	67.0	67.9	- 0.9	64.6	2.4	69.2	- 2.2	67.1	- 0.1	65.0	2.0	56.9	10.1	66.8	0.2	66.3	0.7	65.2	1.8	67.5	- 0.5	60.2	6.8	65.2	1.8
06:45 - 07:00	58.0	68.6	-10.6	67.4	- 9.4	67.7	- 9.7	67.7	- 9.7	65.3	- 7.3	63.9	- 5.9	66.0	- 8.0	66.3	- 8.3	51.3	6.7	66.5	- 8.5	65.6	- 7.6	65.1	- 7.1
07:00 - 07:15	47.1	41.8	5.3	44.8	2.3	49.3	- 2.2	47.9	- 0.8	33.8	13.3	29.6	17.5	49.2	- 2.1	55.4	- 8.3	31.2	15.9	36.9	10.2	30.4	16.7	40.9	6.2
07:15 - 07:30	34.8	28.8	6.0	27.9	6.9	27.8	7.0	31.6	3.2	28.7	6.1	28.7	6.1	28.6	6.2	27.3	7.5	28.7	6.1	30.1	4.7	28.0	6.8	28.7	6.1
07:30 - 07:45	26.4	26.6	- 0.2	25.6	0.8	24.7	1.7	28.8	- 2.4	24.3	2.1	29.0	- 2.6	21.8	4.6	30.5	- 4.1	25.5	0.9	29.5	- 3.1	30.1	- 3.7	26.9	- 0.5
07:45 - 08:00	26.5	23.5	3.0	28.8	- 2.4	23.9	2.6	47.7	-21.3	24.3	2.2	27.4	- 0.9	26.0	0.4	26.1	0.3	25.6	0.8	27.1	- 0.7	29.1	- 2.7	28.1	- 1.7
08:00 - 08:15	31.8	23.4	8.4	22.1	9.7	23.8	8.0	40.8	- 9.0	19.6	12.2	23.3	8.5	25.4	6.4	25.3	6.5	23.1	8.7	19.3	12.5	17.0	14.8	23.9	7.9
08:15 - 08:30	32.2	25.5	6.7	16.1	16.1	19.0	13.2	26.7	5.5	18.3	13.9	22.2	10.0	17.1	15.1	23.0	9.2	22.8	9.4	20.0	12.2	21.0	11.2	21.1	11.1
08:30 - 08:45	39.3	24.3	15.0	23.1	16.2	21.0	18.3	24.3	15.0	23.5	15.8	28.4	10.9	20.5	18.8	25.4	13.9	27.5	11.8	27.7	11.6	27.7	11.6	24.9	14.4
08:45 - 09:00	35.9	20.3	15.6	29.0	6.9	26.1	9.8	32.4	3.5	26.0	9.9	23.6	12.3	27.7	8.2	29.7	6.2	29.2	6.7	25.6	10.3	27.0	8.9	27.0	8.9
09:00 - 09:15	39.9	47.6	- 7.7	61.4	-21.5	36.9	3.0	68.8	-28.9	40.5	- 0.6	43.9	- 4.0	36.1	3.8	52.8	-12.9	37.6	2.3	42.2	- 2.3	49.2	- 9.3	47.0	- 7.1
09:15 - 09:30	46.2	70.3	-24.1	70.0	-23.8	66.2	-20.0	70.1	-23.9	58.1	-11.9	70.1	-23.9	36.9	9.3	69.8	-23.6	70.3	-24.1	70.0	-23.8	69.8	-23.6	65.6	-19.4
Hour 1	68.0	70.6	- 2.7	70.6	- 2.7	69.9	- 1.9	70.3	- 2.3	70.5	- 2.5	68.8	- 0.9	70.8	- 2.8	70.5	- 2.6	70.1	- 2.1	70.7	- 2.7	70.1	- 2.1	70.3	- 2.3
Hour 2	51.7	51.8	- 0.1	51.2	0.5	53.5	- 1.8	53.6	- 1.9	48.2	3.5	44.8	6.9	52.7	- 1.0	53.8	- 2.1	44.1	7.6	50.3	1.4	46.1	5.6	50.0	1.7
Hour 3	29.2	24.8	4.5	23.2	6.1	22.9	6.4	36.0	- 6.8	21.6	7.6	25.5	3.7	22.6	6.6	26.2	3.0	24.3	5.0	24.0	5.2	24.3	4.9	25.0	4.2
Hour 4	40.3	40.6	- 0.3	45.9	- 5.5	37.6	2.8	48.9	- 8.6	37.0	3.3	41.5	- 1.2	30.3	10.0	44.4	- 4.1	41.2	- 0.8	41.4	- 1.0	43.4	- 3.1	41.1	- 0.8
11	47.3	46.9	0.4	47.7	- 0.4	45.9	1.4	52.2	- 4.9	44.3	3.0	45.1	2.2	44.1	3.2	48.8	- 1.5	44.9	2.4	46.6	0.7	46.0	1.3	46.6	0.7

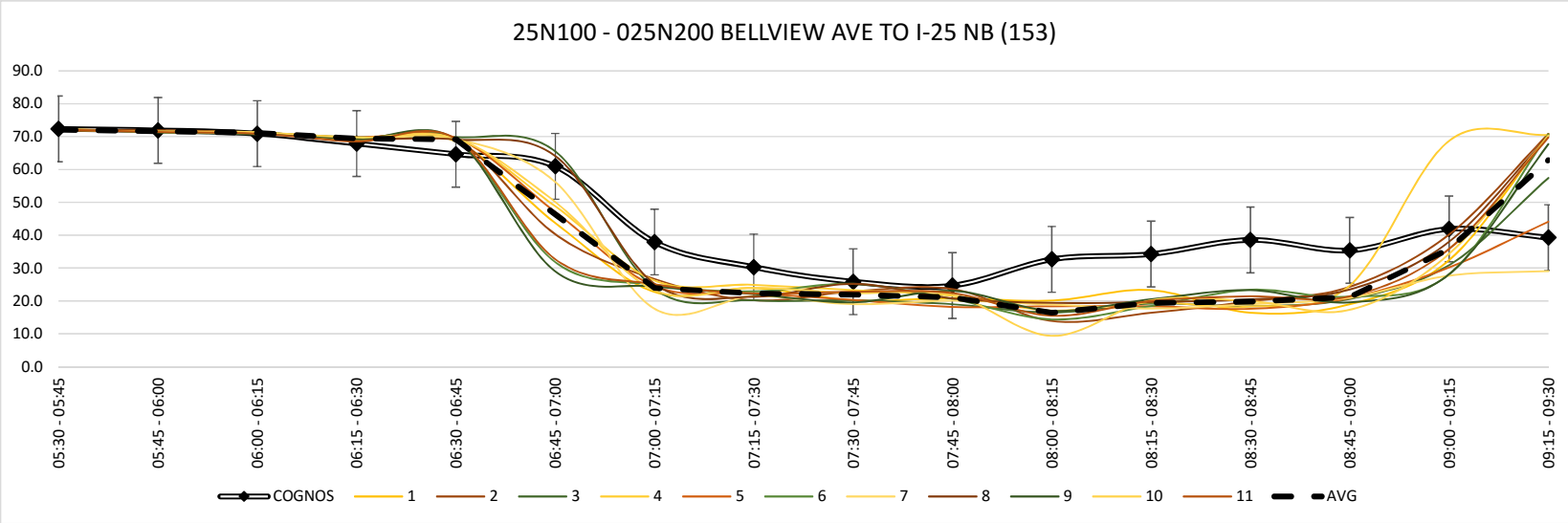


EXISTING																									
AM	COGNOS	MODEL																						AGGREGATE	
TIME	25N090	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	73.2	71.9	1.3	72.1	1.1	72.1	1.1	71.9	1.3	71.9	1.3	72.2	1.0	72.0	1.2	71.8	1.4	72.0	1.2	71.9	1.3	71.9	1.3	72.0	1.2
05:45 - 06:00	73.1	71.4	1.7	71.6	1.5	71.4	1.7	71.3	1.8	71.4	1.7	71.2	1.9	71.5	1.6	71.5	1.6	71.1	2.0	71.3	1.8	71.2	1.9	71.4	1.7
06:00 - 06:15	71.7	70.5	1.2	70.7	1.0	70.4	1.3	70.7	1.0	70.7	1.0	70.9	0.8	70.4	1.3	70.5	1.2	70.6	1.1	70.8	0.9	70.1	1.6	70.6	1.1
06:15 - 06:30	69.3	66.2	3.1	67.8	1.5	67.7	1.6	65.6	3.7	68.3	1.0	66.9	2.4	67.0	2.3	66.4	2.9	68.0	1.3	66.5	2.8	66.3	3.0	67.0	2.3
06:30 - 06:45	67.4	67.3	0.1	65.7	1.7	66.6	0.8	66.2	1.2	67.5	- 0.1	61.9	5.5	66.8	0.6	65.1	2.3	66.0	1.4	67.0	0.4	65.0	2.4	65.9	1.5
06:45 - 07:00	59.3	63.8	- 4.5	60.6	- 1.3	67.0	- 7.7	64.1	- 4.8	59.6	- 0.3	42.1	17.2	64.7	- 5.4	66.7	- 7.4	40.7	18.6	67.6	- 8.3	45.1	14.2	58.4	0.9
07:00 - 07:15	41.7	27.8	13.9	31.3	10.4	34.0	7.7	32.2	9.5	27.0	14.7	26.1	15.6	31.8	9.9	33.7	8.0	28.0	13.7	27.5	14.2	28.6	13.1	29.8	11.9
07:15 - 07:30	32.2	25.6	6.6	24.1	8.1	24.5	7.7	29.4	2.8	24.6	7.6	25.8	6.4	25.7	6.5	23.9	8.3	24.7	7.5	26.9	5.3	24.6	7.6	25.5	6.7
07:30 - 07:45	26.7	22.4	4.3	23.8	2.9	22.3	4.4	26.3	0.4	22.7	4.0	26.3	0.4	17.2	9.5	28.0	- 1.3	21.8	4.9	26.2	0.5	26.6	0.1	24.0	2.7
07:45 - 08:00	24.3	23.0	1.3	26.8	- 2.5	21.1	3.2	40.3	-16.0	21.5	2.8	24.0	0.3	23.8	0.5	23.6	0.7	25.3	- 1.0	24.5	- 0.2	25.4	- 1.1	25.4	- 1.1
08:00 - 08:15	33.2	21.2	12.0	18.9	14.3	21.7	11.5	24.9	8.3	17.8	15.4	21.4	11.8	22.6	10.6	21.2	12.0	20.2	13.0	16.7	16.5	15.5	17.7	20.2	13.0
08:15 - 08:30	33.3	24.1	9.2	15.0	18.3	22.5	10.8	21.9	11.4	19.2	14.1	18.9	14.4	17.0	16.3	21.5	11.8	20.0	13.3	20.3	13.0	21.5	11.8	20.2	13.1
08:30 - 08:45	36.6	21.1	15.5	23.3	13.3	18.0	18.6	22.1	14.5	23.1	13.5	27.3	9.3	20.6	16.0	23.8	12.8	27.3	9.3	22.7	13.9	24.0	12.6	23.0	13.6
08:45 - 09:00	36.3	20.5	15.8	26.6	9.7	21.9	14.4	27.8	8.5	23.3	13.0	21.0	15.3	26.0	10.3	24.4	11.9	24.6	11.7	22.7	13.6	23.6	12.7	23.9	12.4
09:00 - 09:15	38.5	38.0	0.5	62.2	-23.7	37.1	1.4	69.7	-31.2	40.1	- 1.6	39.3	- 0.8	31.8	6.7	52.5	-14.0	33.0	5.5	46.4	- 7.9	54.3	-15.8	45.9	- 7.4
09:15 - 09:30	36.9	69.8	-32.9	70.2	-33.3	69.4	-32.5	69.8	-32.9	63.4	-26.5	69.8	-32.9	35.9	1.0	69.9	-33.0	69.8	-32.9	69.1	-32.2	69.7	-32.8	66.0	-29.1
Hour 1	71.8	70.0	1.8	70.6	1.3	70.4	1.4	69.9	1.9	70.6	1.2	70.3	1.5	70.2	1.6	70.1	1.8	70.4	1.4	70.1	1.7	69.9	1.9	70.3	1.6
Hour 2	50.1	46.1	4.0	45.4	4.7	48.0	2.1	48.0	2.2	44.7	5.5	39.0	11.2	47.3	2.9	47.4	2.8	39.9	10.3	47.3	2.9	40.8	9.3	44.9	5.2
Hour 3	29.4	22.7	6.7	21.1	8.2	21.9	7.5	28.4	1.0	20.3	9.1	22.7	6.7	20.2	9.2	23.6	5.8	21.8	7.5	21.9	7.4	22.3	7.1	22.5	6.9
Hour 4	37.1	37.4	- 0.3	45.6	- 8.5	36.6	0.5	47.4	-10.3	37.5	- 0.4	39.4	- 2.3	28.6	8.5	42.7	- 5.6	38.7	- 1.6	40.2	- 3.2	42.9	- 5.8	39.7	- 2.6
11	47.1	44.0	3.1	45.7	1.4	44.2	2.9	48.4	- 1.3	43.3	3.8	42.8	4.3	41.6	5.5	45.9	1.2	42.7	4.4	44.9	2.2	44.0	3.1	44.3	2.8

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

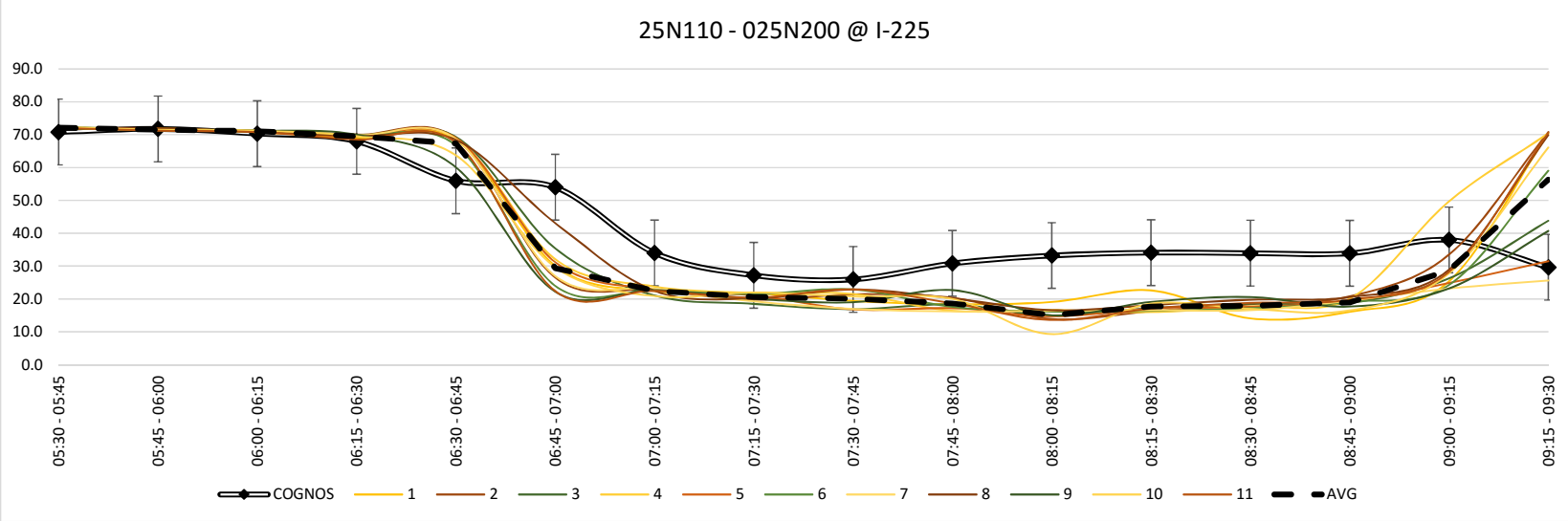


EXISTING		Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run																							
AM	COGNOS	MODEL																						AGGREGATE	
TIME	25N100	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	72.3	72.1	0.2	72.1	0.2	72.2	0.1	72.3	0.0	72.2	0.1	72.3	0.0	72.2	0.1	71.8	0.5	72.1	0.2	72.0	0.3	72.1	0.2	72.1	0.2
05:45 - 06:00	71.9	71.8	0.1	71.7	0.2	71.4	0.5	71.4	0.5	71.6	0.3	71.3	0.6	71.6	0.3	72.0	- 0.1	71.5	0.4	71.6	0.3	71.4	0.5	71.6	0.3
06:00 - 06:15	70.9	71.2	- 0.3	71.1	- 0.2	70.7	0.2	71.1	- 0.2	71.0	- 0.1	71.2	- 0.3	71.0	- 0.1	71.1	- 0.2	71.1	- 0.2	71.3	- 0.4	70.9	- 0.0	71.1	- 0.2
06:15 - 06:30	67.9	69.6	- 1.8	69.6	- 1.8	69.8	- 2.0	69.1	- 1.3	69.7	- 1.9	69.3	- 1.5	69.4	- 1.6	69.3	- 1.5	69.3	- 1.5	69.7	- 1.9	68.5	- 0.7	69.4	- 1.6
06:30 - 06:45	64.6	68.5	- 3.9	69.1	- 4.5	69.8	- 5.2	69.4	- 4.8	69.6	- 5.0	68.9	- 4.3	69.2	- 4.6	69.1	- 4.5	69.0	- 4.4	69.4	- 4.8	69.3	- 4.7	69.2	- 4.6
06:45 - 07:00	61.0	43.7	17.3	40.3	20.7	65.5	- 4.6	48.8	12.2	47.1	13.9	31.8	29.2	56.2	4.8	64.1	- 3.1	29.0	32.0	50.1	10.9	32.7	28.3	46.3	14.7
07:00 - 07:15	37.9	22.7	15.2	26.7	11.2	23.7	14.2	26.2	11.7	24.5	13.4	24.9	13.0	17.6	20.3	25.2	12.7	24.4	13.5	23.2	14.7	25.1	12.8	24.0	13.9
07:15 - 07:30	30.3	23.9	6.4	20.2	10.1	20.2	10.1	24.9	5.4	22.4	7.9	22.9	7.4	21.5	8.8	21.3	9.0	22.1	8.2	24.0	6.3	22.3	8.0	22.3	8.0
07:30 - 07:45	25.9	20.2	5.7	22.9	3.0	20.2	5.7	23.3	2.6	20.3	5.6	25.2	0.7	19.0	6.9	25.2	0.7	19.6	6.3	22.4	3.5	22.8	3.1	21.9	4.0
07:45 - 08:00	24.7	20.8	3.9	23.6	1.1	19.0	5.7	21.6	3.1	18.2	6.5	20.6	4.1	20.1	4.6	20.8	3.9	23.1	1.6	21.9	2.8	22.4	2.3	21.1	3.6
08:00 - 08:15	32.7	20.1	12.6	13.9	18.8	16.5	16.2	17.1	15.6	18.4	14.3	14.4	18.3	18.9	13.8	19.4	13.3	17.0	15.7	9.4	23.3	15.5	17.2	16.4	16.3
08:15 - 08:30	34.3	23.3	11.0	16.4	17.9	19.2	15.1	19.6	14.7	18.4	15.9	18.5	15.8	17.7	16.6	19.7	14.6	20.5	13.8	20.2	14.1	20.0	14.3	19.4	14.9
08:30 - 08:45	38.6	16.4	22.2	19.9	18.7	18.4	20.2	18.3	20.3	17.6	21.0	23.4	15.2	19.0	19.6	20.5	18.1	23.3	15.3	19.9	18.7	21.4	17.2	19.8	18.8
08:45 - 09:00	35.4	19.0	16.4	24.3	11.1	20.6	14.8	24.7	10.7	20.9	14.5	21.3	14.1	21.0	14.4	23.5	11.9	19.6	15.8	17.3	18.1	21.4	14.0	21.2	14.2
09:00 - 09:15	41.9	32.4	9.5	40.2	1.7	30.9	11.0	68.7	-26.8	30.2	11.7	28.1	13.8	27.7	14.2	38.0	3.9	28.1	13.8	34.3	7.6	35.8	6.1	35.8	6.1
09:15 - 09:30	39.3	70.8	-31.5	70.8	-31.5	57.4	-18.1	70.5	-31.2	44.1	- 4.8	70.7	-31.4	29.1	10.2	70.2	-30.9	67.7	-28.4	70.3	-31.0	69.7	-30.4	62.9	-23.6
Hour 1	70.7	71.2	- 0.4	71.1	- 0.4	71.0	- 0.3	71.0	- 0.2	71.1	- 0.4	71.0	- 0.3	71.1	- 0.3	71.1	- 0.3	71.0	- 0.3	71.2	- 0.4	70.7	0.0	71.1	- 0.3
Hour 2	48.5	39.7	8.8	39.1	9.4	44.8	3.7	42.3	6.1	40.9	7.6	37.1	11.3	41.1	7.3	44.9	3.5	36.1	12.3	41.7	6.8	37.4	11.1	40.5	8.0
Hour 3	29.4	21.1	8.3	19.2	10.2	18.7	10.6	20.4	9.0	18.8	10.5	19.7	9.7	18.9	10.4	21.3	8.1	20.1	9.3	18.5	10.9	20.2	9.2	19.7	9.7
Hour 4	38.8	34.7	4.1	38.8	- 0.0	31.8	7.0	45.6	- 6.8	28.2	10.6	35.9	2.9	24.2	14.6	38.1	0.7	34.7	4.1	35.5	3.3	37.1	1.7	34.9	3.9
11	46.8	41.7	5.2	42.1	4.8	41.6	5.2	44.8	2.0	39.8	7.1	40.9	5.9	38.8	8.0	43.8	3.0	40.5	6.4	41.7	5.1	41.3	5.5	41.5	5.3



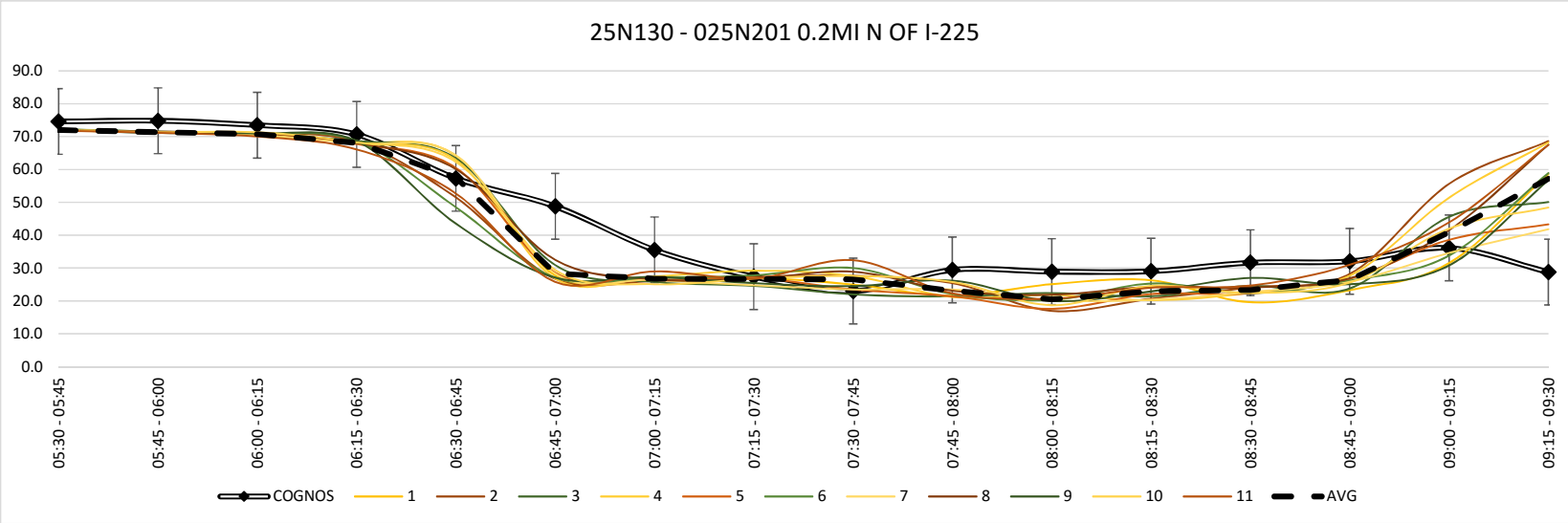
EXISTING																									
AM	COGNOS	MODEL																						AGGREGATE	
TIME	25N110	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	70.8	71.8	- 1.0	72.2	- 1.4	72.1	- 1.3	72.1	- 1.3	72.1	- 1.3	72.4	- 1.6	72.2	- 1.4	71.9	- 1.1	72.1	- 1.3	72.2	- 1.4	72.1	- 1.3	72.1	- 1.3
05:45 - 06:00	71.7	71.9	- 0.2	71.5	0.2	71.5	0.2	71.3	0.4	71.6	0.1	71.4	0.3	71.7	0.0	72.0	- 0.3	71.4	0.3	71.5	0.2	71.2	0.5	71.5	0.2
06:00 - 06:15	70.3	70.8	- 0.5	71.2	- 0.9	70.8	- 0.5	70.9	- 0.6	70.9	- 0.6	71.2	- 0.9	71.2	- 0.9	70.8	- 0.5	71.2	- 0.9	71.2	- 0.9	70.8	- 0.5	71.0	- 0.7
06:15 - 06:30	68.0	69.0	- 1.0	70.0	- 2.0	69.8	- 1.8	69.5	- 1.5	69.4	- 1.4	69.8	- 1.8	69.8	- 1.8	69.6	- 1.6	70.0	- 2.0	69.5	- 1.5	68.5	- 0.5	69.5	- 1.5
06:30 - 06:45	56.0	68.5	-12.5	68.9	-12.9	69.3	-13.3	68.9	-12.9	69.0	-13.0	66.8	-10.8	68.7	-12.7	68.4	-12.4	60.1	- 4.1	63.7	- 7.7	67.6	-11.6	67.3	-11.3
06:45 - 07:00	54.0	30.1	23.9	26.5	27.5	35.4	18.6	32.1	21.9	31.2	22.8	24.0	30.0	27.0	27.0	43.1	10.9	22.2	31.8	29.7	24.3	22.4	31.6	29.4	24.6
07:00 - 07:15	34.0	22.4	11.6	22.8	11.2	21.1	12.9	23.8	10.2	22.9	11.1	22.6	11.4	23.1	10.9	22.5	11.5	22.7	11.3	20.9	13.1	22.5	11.5	22.5	11.5
07:15 - 07:30	27.2	21.8	5.4	19.8	7.4	18.5	8.7	21.9	5.3	21.1	6.1	21.5	5.7	19.3	7.9	20.2	7.0	20.1	7.1	22.0	5.2	20.4	6.8	20.6	6.6
07:30 - 07:45	26.0	19.4	6.6	21.4	4.6	16.9	9.1	21.5	4.5	16.8	9.2	22.9	3.1	17.0	9.0	22.9	3.1	19.0	7.0	20.7	5.3	22.9	3.1	20.1	5.9
07:45 - 08:00	30.8	18.4	12.4	20.4	10.4	18.3	12.5	16.4	14.4	17.2	13.6	17.6	13.2	16.2	14.6	20.2	10.6	22.7	8.1	20.0	10.8	18.7	12.1	18.7	12.1
08:00 - 08:15	33.2	19.1	14.1	13.9	19.3	15.0	18.2	16.7	16.5	14.7	18.5	16.1	17.1	16.4	16.8	16.6	16.6	15.0	18.2	9.3	23.9	13.6	19.6	15.1	18.1
08:15 - 08:30	34.1	22.6	11.5	16.3	17.8	17.2	16.9	16.0	18.1	17.1	17.0	16.4	17.7	16.6	17.5	18.1	16.0	19.1	15.0	18.6	15.5	17.1	17.0	17.7	16.4
08:30 - 08:45	33.9	14.1	19.8	18.4	15.5	18.6	15.3	17.8	16.1	17.6	16.3	17.2	16.7	16.6	17.3	19.8	14.1	20.6	13.3	17.0	16.9	18.8	15.1	17.9	16.0
08:45 - 09:00	33.9	16.1	17.8	20.8	13.1	18.8	15.1	20.1	13.8	19.3	14.6	19.1	14.8	19.5	14.4	20.6	13.3	17.7	16.2	16.5	17.4	19.8	14.1	18.9	15.0
09:00 - 09:15	38.0	25.4	12.6	33.5	4.5	26.3	11.7	49.7	-11.7	24.9	13.1	24.3	13.7	23.2	14.8	28.9	9.1	23.2	14.8	27.8	10.2	28.3	9.7	28.7	9.3
09:15 - 09:30	29.7	70.4	-40.7	70.8	-41.1	43.8	-14.1	70.4	-40.7	31.5	- 1.8	59.0	-29.3	25.6	4.1	69.9	-40.2	40.7	-11.0	66.1	-36.4	70.6	-40.9	56.3	-26.6
Hour 1	70.2	70.9	- 0.7	71.2	- 1.0	71.1	- 0.9	71.0	- 0.8	71.0	- 0.8	71.2	- 1.0	71.2	- 1.0	71.1	- 0.9	71.2	- 1.0	71.1	- 0.9	70.7	- 0.5	71.0	- 0.8
Hour 2	42.8	35.7	7.1	34.5	8.3	36.1	6.7	36.7	6.1	36.1	6.7	33.7	9.1	34.5	8.3	38.6	4.2	31.3	11.5	34.1	8.7	33.2	9.6	35.0	7.8
Hour 3	31.0	19.9	11.1	18.0	13.0	16.9	14.2	17.7	13.4	16.5	14.6	18.3	12.8	16.6	14.5	19.5	11.6	19.0	12.1	17.2	13.9	18.1	12.9	17.9	13.1
Hour 4	33.9	31.5	2.4	35.9	- 2.0	26.9	7.0	39.5	- 5.6	23.3	10.5	29.9	4.0	21.2	12.6	34.8	- 0.9	25.6	8.3	31.9	2.0	34.4	- 0.5	30.5	3.4
11	44.5	39.5	5.0	39.9	4.6	37.7	6.8	41.2	3.3	36.7	7.8	38.3	6.2	35.9	8.6	41.0	3.5	36.7	7.7	38.5	5.9	39.1	5.4	38.6	5.9

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run



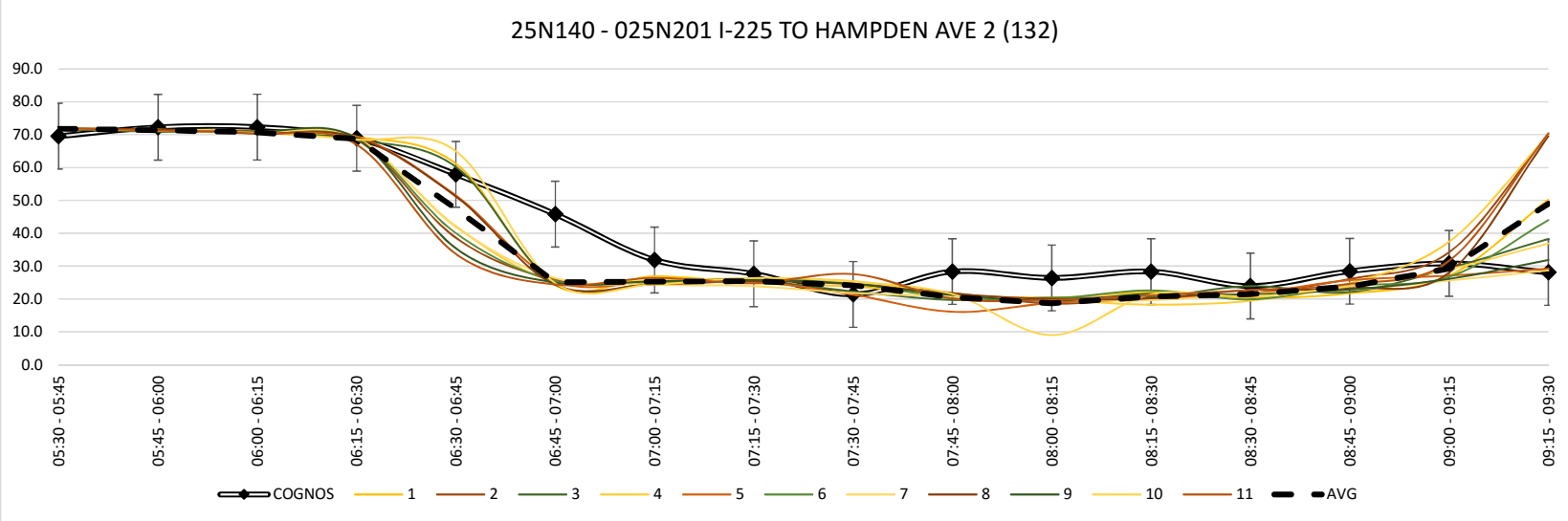
EXISTING																									
AM	COGNOS	MODEL																						AGGREGATE	
TIME	25N130	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	74.6	72.0	2.6	72.1	2.5	72.1	2.5	71.8	2.8	71.9	2.7	72.2	2.4	72.1	2.5	71.9	2.7	72.0	2.6	72.0	2.6	71.8	2.8	72.0	2.6
05:45 - 06:00	74.8	71.3	3.5	71.2	3.6	71.5	3.3	71.4	3.4	71.3	3.5	71.5	3.3	71.4	3.4	71.5	3.3	71.1	3.7	71.3	3.5	71.1	3.7	71.3	3.5
06:00 - 06:15	73.5	70.8	2.7	71.0	2.5	70.5	3.0	70.4	3.1	70.9	2.6	71.0	2.5	70.5	3.0	71.0	2.5	70.9	2.6	71.3	2.2	70.0	3.5	70.8	2.7
06:15 - 06:30	70.7	68.4	2.3	68.4	2.3	68.7	2.0	68.0	2.7	67.7	3.0	68.7	2.0	67.9	2.8	68.0	2.7	68.6	2.1	68.2	2.5	66.1	4.6	68.1	2.6
06:30 - 06:45	57.3	64.2	- 6.9	51.5	5.8	63.4	- 6.1	62.9	- 5.6	60.5	- 3.2	48.5	8.8	64.3	- 7.0	60.1	- 2.8	43.5	13.8	62.3	- 5.0	52.7	4.6	57.6	- 0.3
06:45 - 07:00	48.8	27.7	21.1	26.7	22.1	30.9	17.9	26.8	22.0	28.6	20.2	27.1	21.7	28.3	20.5	32.5	16.3	27.1	21.7	29.4	19.4	25.8	23.0	28.3	20.5
07:00 - 07:15	35.5	27.2	8.3	26.1	9.4	25.8	9.7	27.5	8.0	26.5	9.0	27.1	8.4	26.4	9.1	26.6	8.9	27.3	8.2	25.1	10.4	29.0	6.5	26.8	8.7
07:15 - 07:30	27.4	27.1	0.3	27.3	0.1	24.6	2.8	29.2	- 1.8	27.0	0.4	27.8	- 0.4	24.8	2.6	26.8	0.6	25.4	2.0	26.8	0.6	26.8	0.6	26.7	0.7
07:30 - 07:45	23.0	25.0	- 2.0	27.7	- 4.7	22.0	1.0	27.6	- 4.6	23.5	- 0.5	30.0	- 7.0	23.5	- 0.5	28.9	- 5.9	24.5	- 1.5	27.6	- 4.6	32.4	- 9.4	26.6	- 3.6
07:45 - 08:00	29.4	21.6	7.8	25.4	4.0	21.4	8.0	21.2	8.2	21.4	8.0	22.1	7.3	23.5	5.9	23.1	6.3	26.2	3.2	25.8	3.6	22.3	7.1	23.1	6.3
08:00 - 08:15	28.9	25.1	3.8	17.0	11.9	22.4	6.5	21.8	7.1	17.6	11.3	20.3	8.6	20.2	8.7	21.9	7.0	20.0	8.9	18.7	10.2	20.7	8.2	20.5	8.4
08:15 - 08:30	29.0	26.3	2.7	20.7	8.3	21.4	7.6	20.2	8.8	22.1	6.9	25.3	3.7	20.4	8.6	24.3	4.7	22.9	6.1	24.6	4.4	24.0	5.0	22.9	6.1
08:30 - 08:45	31.6	19.6	12.0	24.1	7.5	24.6	7.0	22.5	9.1	22.3	9.3	22.4	9.2	22.7	8.9	24.1	7.5	27.0	4.6	22.5	9.1	24.7	6.9	23.3	8.3
08:45 - 09:00	32.1	23.3	8.8	28.2	3.9	23.8	8.3	27.7	4.4	26.7	5.4	26.2	5.9	25.8	6.3	26.9	5.2	25.1	7.0	25.6	6.5	31.0	1.1	26.4	5.7
09:00 - 09:15	36.1	31.5	4.6	55.6	-19.5	45.6	- 9.5	51.4	-15.3	38.6	- 2.5	33.8	2.3	34.6	1.5	41.5	- 5.4	30.8	5.3	42.0	- 5.9	43.9	- 7.8	40.9	- 4.8
09:15 - 09:30	28.8	58.6	-29.8	68.6	-39.8	50.1	-21.3	68.2	-39.4	43.3	-14.5	58.9	-30.1	41.8	-13.0	67.5	-38.7	56.7	-27.9	48.4	-19.6	67.5	-38.7	57.2	-28.4
Hour 1	73.4	70.6	2.8	70.7	2.7	70.7	2.7	70.4	3.0	70.5	2.9	70.9	2.5	70.5	2.9	70.6	2.8	70.7	2.7	70.7	2.7	69.8	3.6	70.6	2.8
Hour 2	42.2	36.6	5.7	32.9	9.3	36.2	6.1	36.6	5.6	35.7	6.6	32.6	9.6	36.0	6.3	36.5	5.7	30.8	11.4	35.9	6.3	33.6	8.7	34.9	7.4
Hour 3	27.6	24.5	3.1	22.7	4.9	21.8	5.8	22.7	4.9	21.2	6.5	24.4	3.2	21.9	5.7	24.6	3.1	23.4	4.2	24.2	3.4	24.9	2.8	23.3	4.3
Hour 4	32.2	33.3	- 1.1	44.1	-12.0	36.0	- 3.9	42.5	-10.3	32.7	- 0.6	35.3	- 3.2	31.2	0.9	40.0	- 7.8	34.9	- 2.7	34.6	- 2.5	41.8	- 9.6	37.0	- 4.8
11	43.8	41.2	2.6	42.6	1.2	41.2	2.7	43.0	0.8	40.0	3.8	40.8	3.0	39.9	4.0	42.9	0.9	39.9	3.9	41.4	2.5	42.5	1.4	41.4	2.4

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run



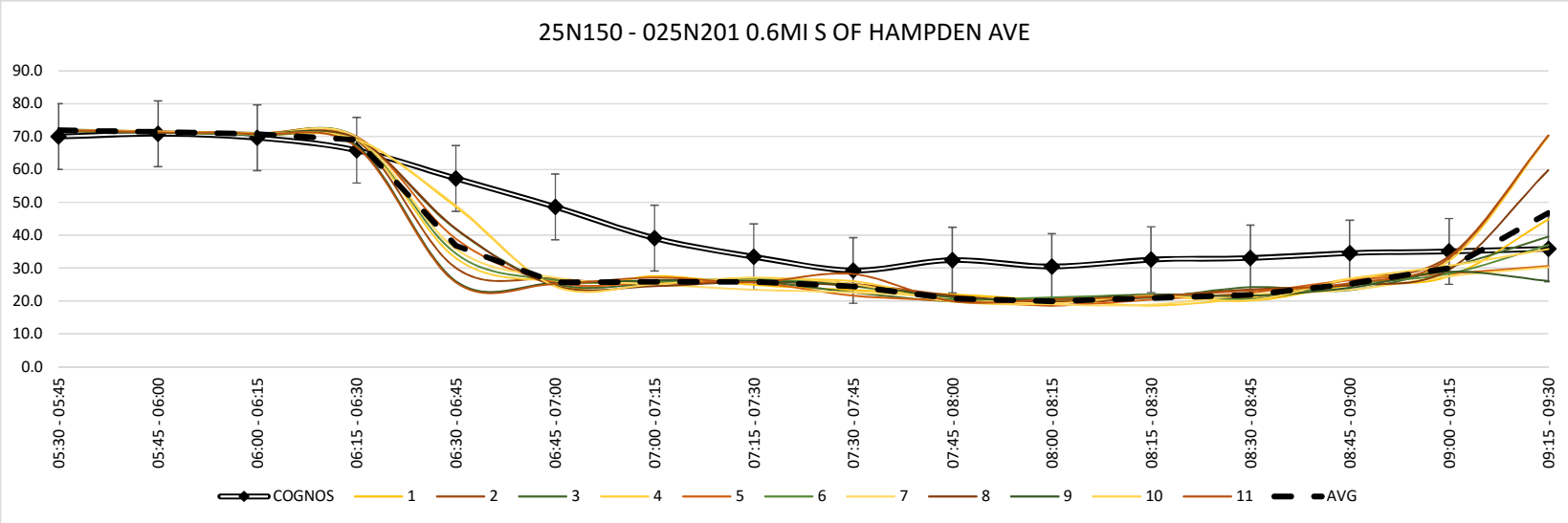
EXISTING																									
AM	COGNOS	MODEL																						AGGREGATE	
TIME	25N140	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	69.5	71.7	- 2.2	71.7	- 2.2	72.0	- 2.5	71.9	- 2.4	71.7	- 2.2	71.7	- 2.2	71.9	- 2.4	71.9	- 2.4	71.7	- 2.2	71.9	- 2.4	71.9	- 2.4	71.8	- 2.3
05:45 - 06:00	72.2	71.4	0.8	71.1	1.1	71.2	1.0	71.5	0.7	71.2	1.0	71.2	1.0	71.5	0.7	71.5	0.7	70.9	1.3	71.1	1.1	71.2	1.0	71.3	0.9
06:00 - 06:15	72.3	70.5	1.8	71.1	1.2	70.6	1.7	70.9	1.4	70.9	1.4	70.3	2.0	70.7	1.6	70.4	1.9	70.9	1.4	70.6	1.7	70.3	2.0	70.7	1.6
06:15 - 06:30	68.9	69.3	- 0.4	68.5	0.4	68.4	0.5	68.7	0.2	69.5	- 0.6	68.7	0.2	69.1	- 0.2	69.1	- 0.2	68.9	0.0	68.5	0.4	67.0	1.9	68.7	0.2
06:30 - 06:45	57.9	61.2	- 3.3	38.6	19.3	60.2	- 2.3	42.1	15.8	51.5	6.4	40.0	17.9	41.9	16.0	51.2	6.7	35.4	22.5	65.0	- 7.1	33.7	24.2	47.4	10.5
06:45 - 07:00	45.8	24.2	21.6	25.9	19.9	24.6	21.2	25.1	20.7	25.6	20.2	25.5	20.3	26.4	19.4	24.3	21.5	25.0	20.8	24.8	21.0	24.4	21.4	25.1	20.7
07:00 - 07:15	31.9	26.9	5.0	24.8	7.1	24.8	7.1	25.8	6.1	25.3	6.6	25.1	6.8	24.4	7.5	24.5	7.4	25.4	6.5	24.5	7.4	26.4	5.5	25.3	6.6
07:15 - 07:30	27.7	24.8	2.9	26.1	1.6	25.5	2.2	26.2	1.5	25.3	2.4	26.2	1.5	23.9	3.8	25.4	2.3	25.8	1.9	26.4	1.3	24.8	2.9	25.5	2.2
07:30 - 07:45	21.4	23.8	- 2.4	24.7	- 3.3	22.3	- 0.9	25.4	- 4.0	21.3	0.1	24.9	- 3.5	21.8	- 0.4	24.5	- 3.1	24.6	- 3.2	25.2	- 3.8	27.6	- 6.2	24.2	- 2.8
07:45 - 08:00	28.4	21.3	7.1	21.9	6.5	19.7	8.7	21.4	7.0	16.1	12.3	20.2	8.2	20.9	7.5	21.6	6.8	21.2	7.2	21.5	6.9	20.1	8.3	20.5	7.9
08:00 - 08:15	26.4	20.4	6.0	18.6	7.8	20.4	6.0	19.8	6.6	18.8	7.6	20.1	6.3	19.8	6.6	20.0	6.4	19.5	6.9	9.0	17.4	19.7	6.7	18.7	7.7
08:15 - 08:30	28.3	22.0	6.3	20.5	7.8	20.6	7.7	18.3	10.0	20.1	8.2	22.6	5.7	19.6	8.7	20.2	8.1	21.6	6.7	21.4	6.9	21.1	7.2	20.7	7.6
08:30 - 08:45	23.9	20.4	3.5	21.7	2.2	23.9	0.0	19.5	4.4	21.7	2.2	19.9	4.0	21.6	2.3	22.7	1.2	21.4	2.5	20.8	3.1	22.7	1.2	21.5	2.4
08:45 - 09:00	28.4	21.7	6.7	26.1	2.3	22.1	6.3	24.8	3.6	25.7	2.7	24.0	4.4	22.8	5.6	23.3	5.1	22.9	5.5	23.9	4.5	24.6	3.8	23.8	4.6
09:00 - 09:15	30.8	27.0	3.8	34.2	- 3.4	29.4	1.4	37.4	- 6.6	27.1	3.7	26.7	4.1	25.6	5.2	28.0	2.8	26.1	4.7	29.1	1.7	31.6	- 0.8	29.3	1.5
09:15 - 09:30	28.1	50.2	-22.1	70.2	-42.1	38.3	-10.2	69.9	-41.8	29.2	- 1.1	44.0	-15.9	28.7	- 0.6	69.5	-41.4	31.9	- 3.8	36.9	- 8.8	70.4	-42.3	49.0	-20.9
Hour 1	70.7	70.7	0.0	70.6	0.1	70.6	0.2	70.8	- 0.0	70.8	- 0.1	70.5	0.3	70.8	- 0.1	70.7	0.0	70.6	0.1	70.5	0.2	70.1	0.6	70.6	0.1
Hour 2	40.8	34.3	6.5	28.9	12.0	33.8	7.0	29.8	11.0	31.9	8.9	29.2	11.6	29.2	11.7	31.4	9.5	27.9	12.9	35.2	5.6	27.3	13.5	30.8	10.0
Hour 3	26.1	21.9	4.2	21.4	4.7	20.8	5.4	21.2	4.9	19.1	7.0	22.0	4.2	20.5	5.6	21.6	4.5	21.7	4.4	19.3	6.8	22.1	4.0	21.0	5.1
Hour 4	27.8	29.8	- 2.0	38.1	-10.2	28.4	- 0.6	37.9	-10.1	25.9	1.9	28.7	- 0.8	24.7	3.1	35.9	- 8.1	25.6	2.2	27.7	0.1	37.3	- 9.5	30.9	- 3.1
11	41.4	39.2	2.2	39.7	1.6	38.4	3.0	39.9	1.5	36.9	4.4	37.6	3.8	36.3	5.1	39.9	1.5	36.5	4.9	38.2	3.2	39.2	2.2	38.3	3.0

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run



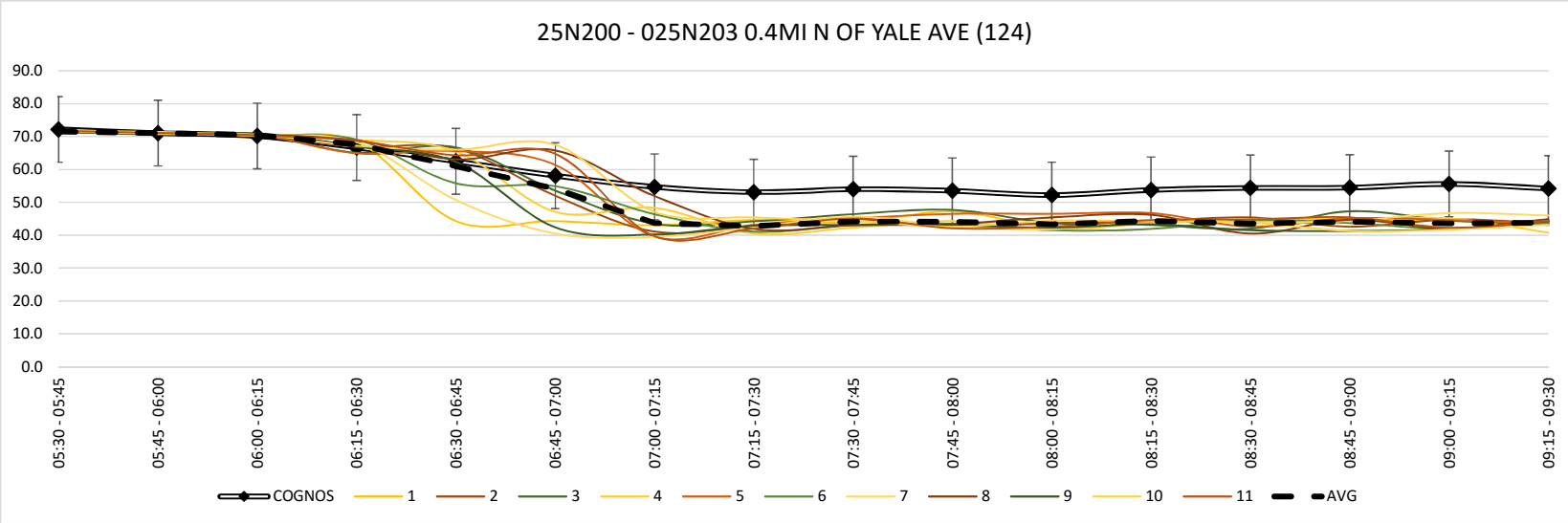
EXISTING																									
AM	COGNOS	MODEL																						AGGREGATE	
TIME	25N150	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	70.0	71.8	- 1.8	71.9	- 1.9	72.1	- 2.1	71.7	- 1.7	71.7	- 1.7	72.2	- 2.2	72.0	- 2.0	71.9	- 1.9	71.7	- 1.7	72.0	- 2.0	72.0	- 2.0	71.9	- 1.9
05:45 - 06:00	70.8	71.2	- 0.4	71.3	- 0.5	71.3	- 0.5	71.5	- 0.7	71.3	- 0.5	71.5	- 0.7	71.6	- 0.8	71.6	- 0.8	71.1	- 0.3	71.5	- 0.7	71.3	- 0.5	71.4	- 0.6
06:00 - 06:15	69.6	70.5	- 0.9	70.9	- 1.3	70.4	- 0.8	71.0	- 1.4	71.0	- 1.4	70.7	- 1.1	70.7	- 1.1	70.8	- 1.2	71.0	- 1.4	71.0	- 1.4	70.8	- 1.2	70.8	- 1.2
06:15 - 06:30	65.9	69.1	- 3.3	68.9	- 3.1	69.0	- 3.2	69.3	- 3.5	70.0	- 4.2	69.8	- 4.0	69.8	- 4.0	69.4	- 3.6	67.3	- 1.5	69.1	- 3.3	66.8	- 1.0	69.0	- 3.2
06:30 - 06:45	57.3	48.7	8.6	30.0	27.3	41.8	15.5	33.0	24.3	38.9	18.4	34.4	22.9	35.8	21.5	42.0	15.3	26.0	31.3	49.0	8.3	25.6	31.7	36.8	20.5
06:45 - 07:00	48.6	24.7	23.9	26.8	21.8	25.2	23.4	26.0	22.6	25.6	23.0	26.4	22.2	27.1	21.5	24.6	24.0	25.4	23.2	24.4	24.2	25.2	23.4	25.6	23.0
07:00 - 07:15	39.1	27.6	11.5	25.0	14.1	25.2	13.9	26.2	12.9	25.5	13.6	25.8	13.3	25.1	14.0	24.5	14.6	26.3	12.8	25.1	14.0	27.1	12.0	25.8	13.3
07:15 - 07:30	33.5	24.9	8.6	26.5	7.0	25.9	7.6	26.4	7.1	25.6	7.9	26.8	6.7	23.4	10.1	25.8	7.7	26.1	7.4	27.1	6.4	25.7	7.8	25.8	7.7
07:30 - 07:45	29.3	23.3	6.0	25.2	4.1	22.6	6.7	26.0	3.3	21.6	7.7	24.5	4.8	22.6	6.7	24.6	4.7	24.8	4.5	25.1	4.2	28.2	1.1	24.4	4.9
07:45 - 08:00	32.4	22.0	10.4	21.6	10.8	19.9	12.5	20.3	12.1	20.1	12.3	20.5	11.9	21.1	11.3	21.6	10.8	21.1	11.3	19.8	12.6	19.9	12.5	20.7	11.7
08:00 - 08:15	30.5	20.5	10.0	18.6	11.9	20.9	9.6	20.3	10.2	18.7	11.8	21.1	9.4	19.0	11.5	19.8	10.7	20.3	10.2	19.2	11.3	20.5	10.0	19.9	10.6
08:15 - 08:30	32.6	21.5	11.1	21.4	11.2	21.0	11.6	18.6	14.0	20.4	12.2	21.8	10.8	18.9	13.7	21.3	11.3	22.0	10.6	21.7	10.9	21.4	11.2	20.9	11.7
08:30 - 08:45	33.1	20.1	13.0	21.1	12.0	24.2	8.9	21.1	12.0	22.5	10.6	20.6	12.5	21.9	11.2	23.5	9.6	21.6	11.5	20.2	12.9	23.2	9.9	21.8	11.3
08:45 - 09:00	34.5	24.8	9.7	26.6	7.9	23.3	11.2	26.8	7.7	26.3	8.2	25.1	9.4	23.4	11.1	24.8	9.7	24.0	10.5	26.7	7.8	25.4	9.1	25.2	9.3
09:00 - 09:15	35.1	27.5	7.6	33.6	1.5	30.2	4.9	32.2	2.9	28.3	6.8	28.3	6.8	27.5	7.6	29.5	5.6	28.9	6.2	30.7	4.4	33.0	2.1	30.0	5.1
09:15 - 09:30	35.9	44.8	- 9.0	70.3	-34.5	39.6	- 3.8	70.0	-34.2	30.6	5.3	37.0	- 1.2	30.3	5.6	59.8	-24.0	26.1	9.8	35.8	0.1	70.3	-34.5	46.8	-11.0
Hour 1	69.1	70.7	- 1.6	70.8	- 1.7	70.7	- 1.6	70.9	- 1.8	71.0	- 1.9	71.1	- 2.0	71.0	- 1.9	70.9	- 1.8	70.3	- 1.2	70.9	- 1.8	70.2	- 1.1	70.8	- 1.7
Hour 2	44.6	31.5	13.1	27.1	17.5	29.5	15.1	27.9	16.7	28.9	15.7	28.4	16.3	27.9	16.8	29.2	15.4	26.0	18.7	31.4	13.2	25.9	18.7	28.5	16.1
Hour 3	31.2	21.8	9.4	21.7	9.5	21.1	10.1	21.3	9.9	20.2	11.0	22.0	9.2	20.4	10.8	21.8	9.4	22.1	9.1	21.5	9.7	22.5	8.7	21.5	9.7
Hour 4	34.6	29.3	5.3	37.9	- 3.3	29.3	5.3	37.5	- 2.9	26.9	7.7	27.8	6.9	25.8	8.9	34.4	0.2	25.2	9.5	28.4	6.3	38.0	- 3.3	31.0	3.7
11	44.9	38.3	6.6	39.4	5.5	37.7	7.2	39.4	5.5	36.8	8.1	37.3	7.6	36.3	8.6	39.1	5.8	35.9	9.0	38.0	6.8	39.2	5.7	37.9	7.0

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run



EXISTING																									
AM	COGNOS	MODEL																						AGGREGATE	
TIME	25N200	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	72.2	71.6	0.6	71.7	0.5	71.4	0.8	71.4	0.8	71.3	0.9	71.4	0.8	71.5	0.7	71.4	0.8	71.6	0.6	71.6	0.6	71.7	0.5	71.5	0.7
05:45 - 06:00	71.1	71.4	- 0.3	71.1	- 0.0	70.7	0.4	70.8	0.3	70.9	0.2	71.1	- 0.0	71.4	- 0.3	70.9	0.2	70.7	0.4	70.9	0.2	71.1	- 0.0	71.0	0.1
06:00 - 06:15	70.2	70.1	0.1	70.5	- 0.3	70.7	- 0.5	70.4	- 0.2	70.5	- 0.3	70.4	- 0.2	70.4	- 0.2	70.6	- 0.4	70.9	- 0.7	70.6	- 0.4	70.4	- 0.2	70.5	- 0.3
06:15 - 06:30	66.7	68.5	- 1.8	66.9	- 0.2	65.1	1.6	69.0	- 2.3	64.9	1.8	69.1	- 2.4	68.3	- 1.6	68.8	- 2.1	66.9	- 0.2	67.2	- 0.5	68.7	- 2.0	67.6	- 0.9
06:30 - 06:45	62.5	44.3	18.2	66.4	- 4.0	66.7	- 4.3	65.5	- 3.1	65.6	- 3.1	55.8	6.7	50.7	11.8	63.1	- 0.6	62.3	0.2	66.0	- 3.6	64.3	- 1.8	61.0	1.5
06:45 - 07:00	58.1	44.3	13.8	52.0	6.1	53.6	4.5	47.1	11.0	61.4	- 3.3	54.9	3.2	40.5	17.6	65.8	- 7.7	42.4	15.7	67.5	- 9.4	64.8	- 6.7	54.1	4.0
07:00 - 07:15	54.7	43.0	11.7	41.1	13.6	43.5	11.2	48.3	6.4	39.6	15.1	46.4	8.3	39.5	15.2	51.9	2.8	40.2	14.5	47.1	7.6	39.7	15.0	43.7	11.0
07:15 - 07:30	53.1	44.6	8.5	42.8	10.3	44.2	8.9	40.5	12.6	43.1	10.0	41.1	12.0	42.4	10.7	41.9	11.2	42.9	10.2	45.4	7.7	42.0	11.1	42.8	10.3
07:30 - 07:45	54.0	43.9	10.1	44.9	9.1	46.4	7.6	42.3	11.7	45.1	8.9	43.1	10.9	45.6	8.4	43.0	11.0	43.1	10.9	44.3	9.7	45.1	8.9	44.2	9.8
07:45 - 08:00	53.5	47.2	6.3	42.5	11.0	47.7	5.8	44.3	9.2	46.5	7.0	43.5	10.0	42.7	10.8	43.4	10.1	43.1	10.4	42.6	10.9	42.1	11.4	44.1	9.4
08:00 - 08:15	52.2	42.4	9.8	43.7	8.5	43.7	8.5	41.6	10.6	46.5	5.7	41.5	10.7	41.8	10.4	45.4	6.8	42.3	9.9	44.4	7.8	42.6	9.6	43.3	8.9
08:15 - 08:30	53.8	44.2	9.6	44.3	9.5	43.1	10.7	43.6	10.2	46.7	7.1	41.9	11.9	44.6	9.2	46.2	7.6	43.3	10.5	44.2	9.6	44.6	9.2	44.3	9.5
08:30 - 08:45	54.4	44.2	10.2	45.4	9.0	42.0	12.4	44.9	9.5	42.6	11.8	44.6	9.8	43.8	10.6	40.5	13.9	41.5	12.9	43.8	10.6	44.8	9.6	43.5	10.9
08:45 - 09:00	54.5	44.7	9.8	42.6	11.9	47.3	7.2	45.0	9.5	45.2	9.3	43.7	10.8	44.4	10.1	44.7	9.8	41.3	13.2	41.3	13.2	45.4	9.1	44.1	10.4
09:00 - 09:15	55.6	44.4	11.2	44.8	10.8	44.5	11.1	45.1	10.5	44.6	11.0	41.9	13.7	46.7	8.9	42.0	13.6	41.9	13.7	41.7	13.9	42.3	13.3	43.6	12.0
09:15 - 09:30	54.2	43.6	10.6	43.7	10.5	43.1	11.1	40.8	13.4	43.6	10.6	43.9	10.3	46.0	8.2	44.9	9.3	44.2	10.0	43.2	11.0	44.3	9.9	43.8	10.4
Hour 1	70.0	70.4	- 0.4	70.1	- 0.0	69.5	0.5	70.4	- 0.4	69.4	0.6	70.5	- 0.5	70.4	- 0.4	70.4	- 0.4	70.0	- 0.0	70.1	- 0.1	70.5	- 0.5	70.2	- 0.1
Hour 2	57.1	44.1	13.0	50.6	6.5	52.0	5.1	50.4	6.7	52.4	4.7	49.6	7.5	43.3	13.8	55.7	1.4	47.0	10.1	56.5	0.6	52.7	4.4	50.4	6.7
Hour 3	53.4	44.4	8.9	43.9	9.5	45.2	8.1	43.0	10.4	46.2	7.2	42.5	10.9	43.7	9.7	44.5	8.9	43.0	10.4	43.9	9.5	43.6	9.8	44.0	9.4
Hour 4	54.6	44.2	10.4	44.1	10.5	44.2	10.4	44.0	10.7	44.0	10.6	43.5	11.1	45.2	9.4	43.0	11.6	42.2	12.4	42.5	12.1	44.2	10.4	43.8	10.9
11	58.8	50.8	8.0	52.2	6.6	52.7	6.0	51.9	6.9	53.0	5.8	51.5	7.3	50.6	8.1	53.4	5.4	50.5	8.2	53.2	5.5	52.7	6.0	52.1	6.7

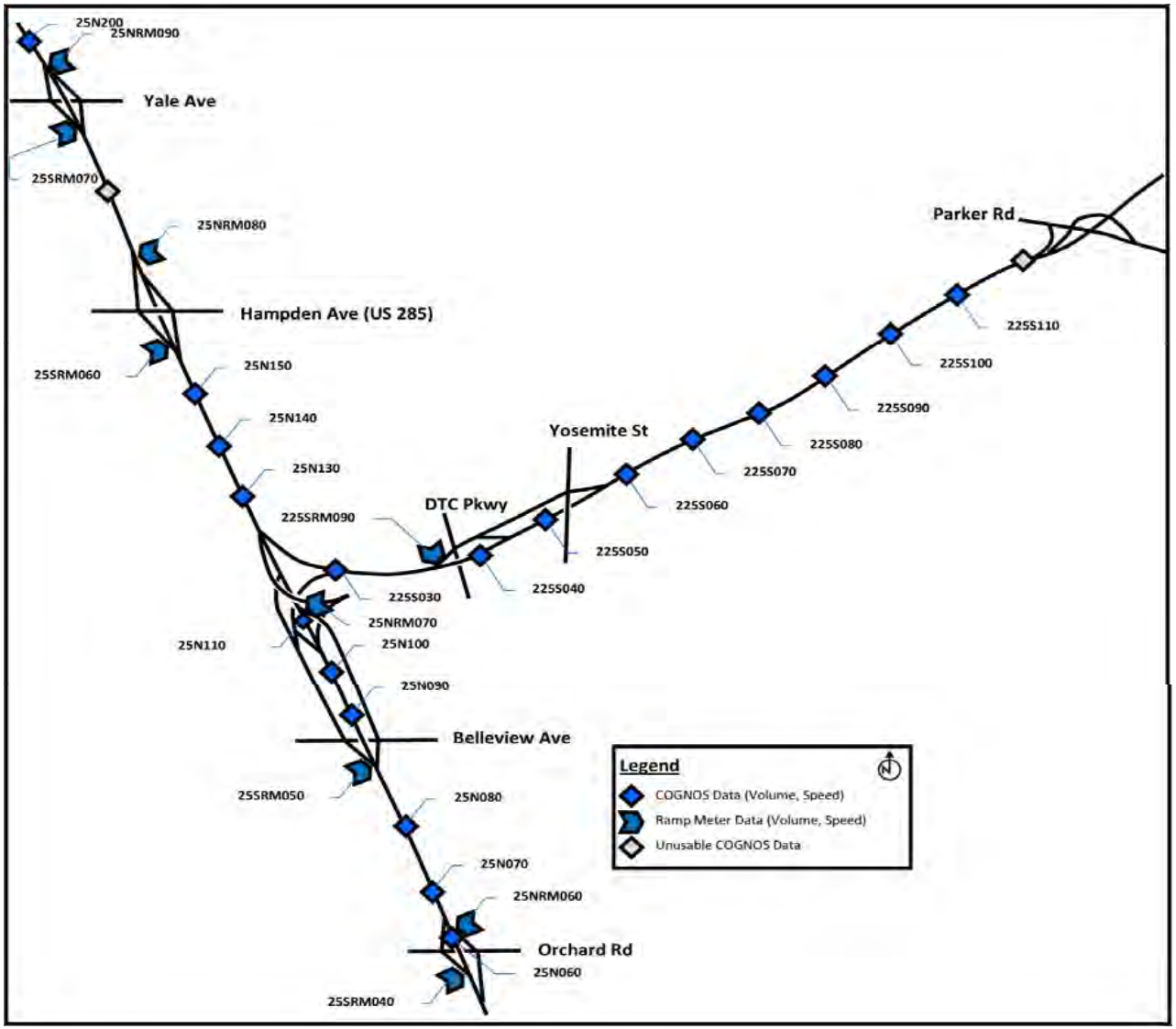
Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run



AVERAGE VEHICLE SPEEDS - BY LINK

EXISTING

ROUTE: I-225
PERIOD: PM

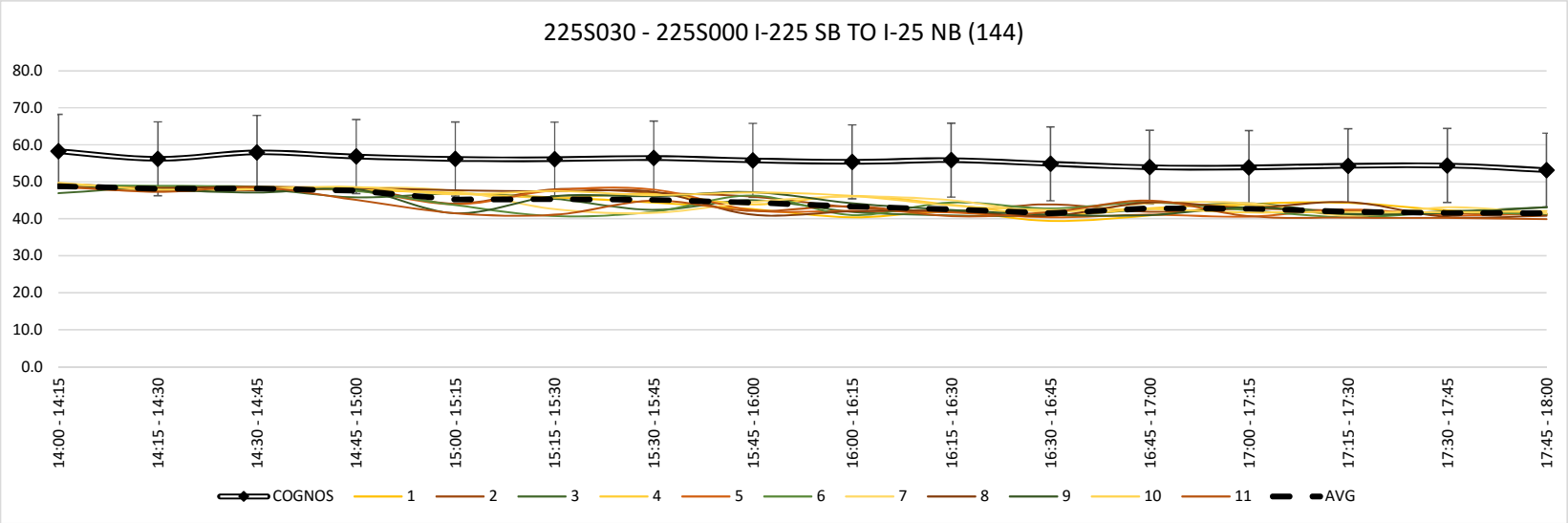


LOCATION	COGNOS DESCRIPTION
225S030	225S000 I-225 SB TO I-25 NB (144)
225SRM090	225S001 TAMARAC
225S040	225S001 YOSEMITE ST TO DTC BLVD (172)
225S050	225S001 YOSEMITE ST (174)
225S060	225S001 PARKER RD TO YOSEMITE ST (176)
225S070	225S001 PARKER RD TO YOSEMITE ST (181)
225S080	225S002 PARKER RD TO YOSEMITE ST (182)
225S090	225S002 PARKER RD TO YOESMEITE ST (183)
225S100	225S002 PARKER RD TO YOSEMITE ST (184)
225S110	225S003 PARKER RD TO YOSEMITE ST (191)

EXISTING

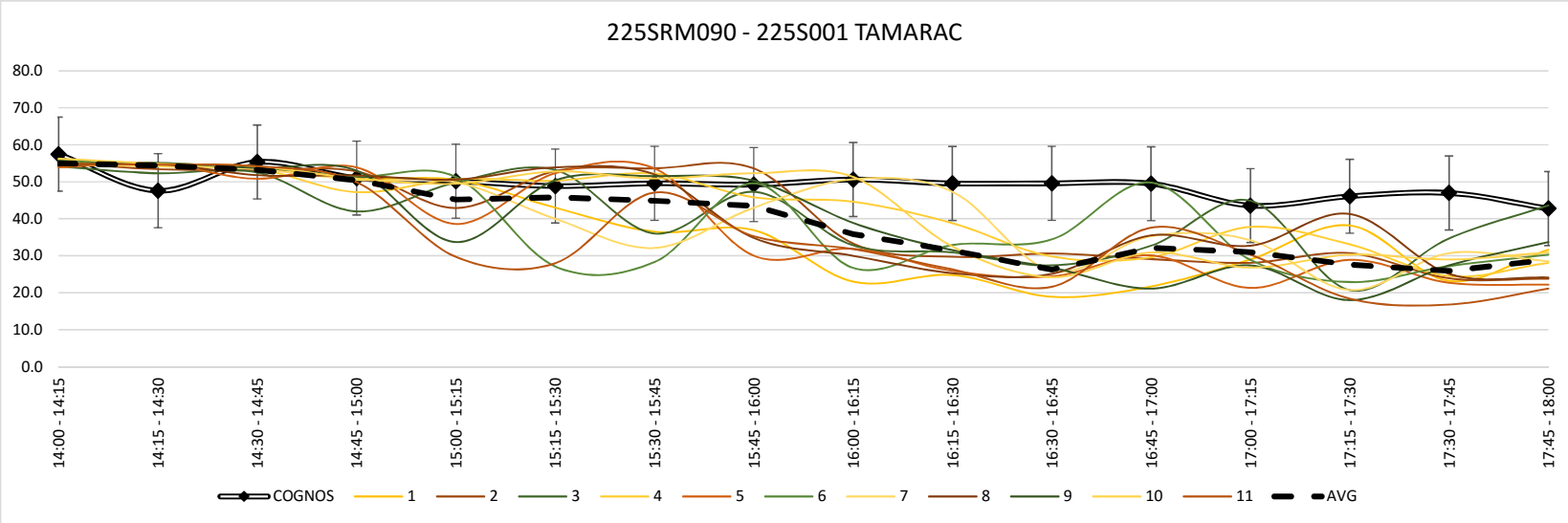
Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

PM	COGNOS	MODEL																						AGGREGATE	
TIME	225S030	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	58.3	49.1	9.2	49.5	8.8	46.9	11.4	49.0	9.3	48.6	9.7	49.1	9.2	49.1	9.2	48.5	9.8	48.8	9.5	49.7	8.6	48.9	9.4	48.8	9.5
14:15 - 14:30	56.2	48.0	8.2	48.3	7.9	48.5	7.7	48.4	7.8	47.4	8.8	48.9	7.3	47.7	8.5	48.3	7.9	47.9	8.3	47.9	8.3	47.3	8.9	48.1	8.1
14:30 - 14:45	58.0	48.6	9.4	47.7	10.3	48.1	9.9	48.1	9.9	48.0	10.0	48.7	9.3	48.0	10.0	48.6	9.4	47.1	10.9	48.2	9.8	48.5	9.5	48.2	9.8
14:45 - 15:00	56.8	48.0	8.8	48.2	8.6	45.8	11.0	47.9	8.9	47.6	9.2	47.5	9.3	48.5	8.3	48.3	8.5	48.0	8.8	48.6	8.2	45.1	11.7	47.6	9.2
15:00 - 15:15	56.2	46.8	9.4	44.1	12.1	46.8	9.4	46.9	9.3	43.9	12.3	43.7	12.5	47.5	8.7	47.7	8.5	41.5	14.7	46.6	9.6	41.5	14.7	45.2	11.0
15:15 - 15:30	56.1	45.8	10.3	48.0	8.1	45.4	10.7	45.7	10.4	47.7	8.4	40.7	15.4	42.6	13.5	47.4	8.7	46.1	10.0	47.5	8.6	41.1	15.0	45.3	10.8
15:30 - 15:45	56.4	44.4	12.0	47.0	9.4	42.4	14.0	46.7	9.7	47.9	8.5	41.9	14.5	41.6	14.8	47.3	9.1	46.1	10.3	46.4	10.0	44.9	11.5	45.1	11.3
15:45 - 16:00	55.8	42.6	13.2	46.0	9.8	45.0	10.8	43.9	11.9	42.3	13.5	46.3	9.5	44.5	11.3	41.1	14.7	47.2	8.6	47.1	8.7	42.1	13.7	44.4	11.4
16:00 - 16:15	55.4	40.4	15.0	43.1	12.3	41.9	13.5	46.2	9.2	42.1	13.3	41.0	14.4	46.0	9.4	42.0	13.4	44.2	11.2	46.2	9.2	43.4	12.0	43.3	12.1
16:15 - 16:30	55.8	41.9	13.9	42.1	13.7	40.9	14.9	43.8	12.0	41.7	14.1	44.4	11.4	45.0	10.8	42.1	13.7	42.4	13.4	43.6	12.2	40.7	15.1	42.6	13.2
16:30 - 16:45	54.9	39.4	15.5	43.9	11.0	40.9	14.0	41.0	13.9	40.4	14.5	42.8	12.1	41.8	13.1	40.8	14.1	41.1	13.8	42.4	12.5	41.8	13.1	41.5	13.4
16:45 - 17:00	53.9	40.9	13.0	41.9	12.0	42.6	11.3	42.8	11.1	41.1	12.8	44.4	9.5	44.2	9.7	44.4	9.5	41.0	12.9	42.6	11.3	44.9	9.0	42.8	11.1
17:00 - 17:15	53.9	43.9	10.0	42.7	11.2	44.2	9.7	43.7	10.2	40.6	13.3	42.3	11.6	44.2	9.7	43.0	10.9	43.1	10.8	41.7	12.2	40.7	13.2	42.7	11.2
17:15 - 17:30	54.3	44.3	10.0	42.1	12.2	41.4	12.9	41.0	13.3	42.5	11.8	40.4	13.9	40.8	13.5	44.5	9.8	41.2	13.1	41.9	12.4	40.3	14.0	41.9	12.4
17:30 - 17:45	54.4	42.3	12.1	41.6	12.8	42.0	12.4	41.8	12.6	41.0	13.4	41.7	12.7	43.1	11.3	40.5	13.9	41.6	12.8	41.7	12.7	40.2	14.2	41.6	12.8
17:45 - 18:00	53.1	41.2	11.9	41.2	11.9	43.1	10.0	41.1	12.0	41.4	11.7	41.2	11.9	41.5	11.6	40.8	12.3	43.1	10.0	42.1	11.0	39.9	13.2	41.5	11.6
Hour 1	57.3	48.4	8.9	48.4	8.9	47.3	10.0	48.4	9.0	47.9	9.4	48.6	8.8	48.3	9.0	48.4	8.9	48.0	9.4	48.6	8.7	47.5	9.9	48.2	9.1
Hour 2	56.1	44.9	11.2	46.3	9.8	44.9	11.2	45.8	10.3	45.5	10.7	43.2	13.0	44.1	12.1	45.9	10.2	45.2	10.9	46.9	9.2	42.4	13.7	45.0	11.1
Hour 3	55.0	40.7	14.4	42.8	12.3	41.6	13.4	43.5	11.6	41.3	13.7	43.2	11.9	44.3	10.8	42.3	12.7	42.2	12.8	43.7	11.3	42.7	12.3	42.6	12.5
Hour 4	53.9	42.9	11.0	41.9	12.0	42.7	11.3	41.9	12.0	41.4	12.6	41.4	12.5	42.4	11.5	42.2	11.7	42.3	11.7	41.9	12.1	40.3	13.7	41.9	12.0
11	55.6	44.2	11.4	44.8	10.8	44.1	11.5	44.9	10.7	44.0	11.6	44.1	11.5	44.8	10.8	44.7	10.9	44.4	11.2	45.3	10.3	43.2	12.4	44.4	11.2



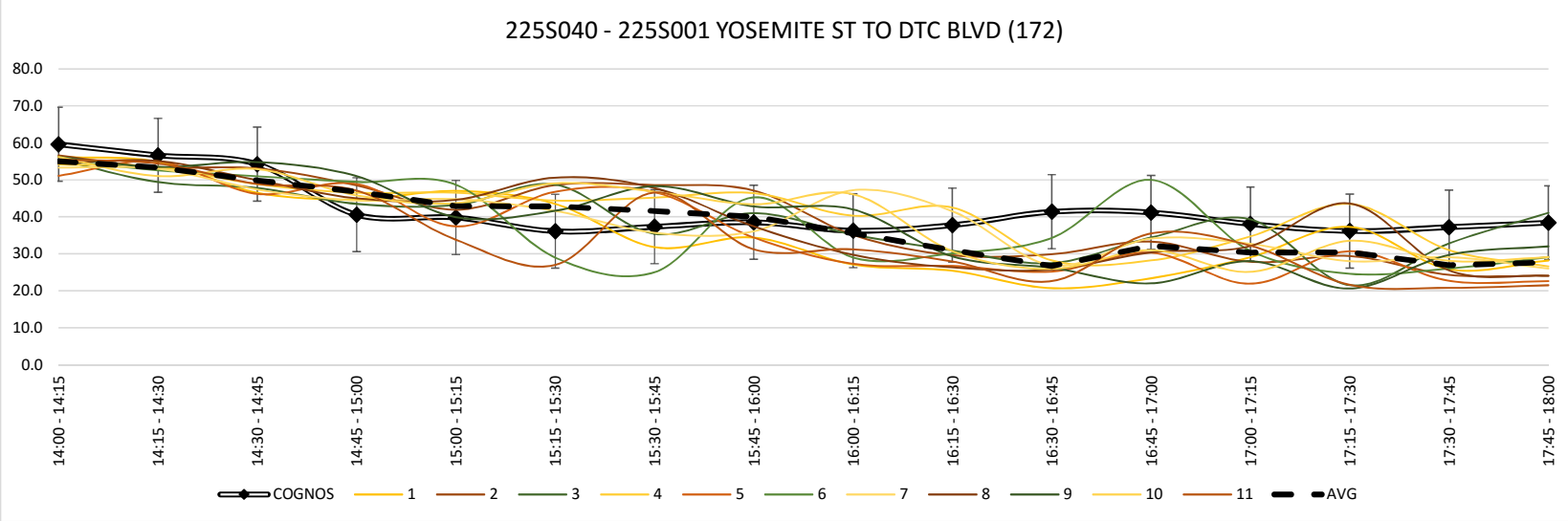
EXISTING																									
PM	COGNOS	MODEL																						AGGREGATE	
TIME	225SRM090	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	57.5	55.2	2.3	55.3	2.2	54.1	3.4	56.0	1.5	53.9	3.6	55.7	1.8	54.8	2.7	54.4	3.1	54.7	2.8	56.3	1.2	54.9	2.6	55.0	2.5
14:15 - 14:30	47.6	54.7	- 7.1	53.4	- 5.8	52.3	- 4.7	54.4	- 6.8	54.9	- 7.3	54.9	- 7.3	54.1	- 6.5	54.9	- 7.3	55.1	- 7.5	54.9	- 7.3	54.6	- 7.0	54.4	- 6.8
14:30 - 14:45	55.4	53.9	1.5	53.1	2.3	52.5	2.9	53.5	1.9	50.8	4.6	53.9	1.5	53.4	2.0	51.8	3.6	53.7	1.7	54.2	1.2	54.2	1.2	53.2	2.2
14:45 - 15:00	51.0	50.8	0.2	52.8	- 1.8	42.0	9.0	47.2	3.8	53.9	- 2.9	51.4	- 0.4	50.5	0.5	51.7	- 0.7	53.0	- 2.0	50.9	0.1	49.9	1.1	50.4	0.6
15:00 - 15:15	50.2	50.5	- 0.3	42.9	7.3	49.8	0.4	50.7	- 0.5	38.6	11.6	51.3	- 1.1	49.9	0.3	50.6	- 0.4	33.7	16.5	49.5	0.7	29.7	20.5	45.2	5.0
15:15 - 15:30	48.8	43.0	5.8	52.9	- 4.1	53.2	- 4.4	50.3	- 1.5	52.3	- 3.5	27.1	21.7	40.0	8.8	53.9	- 5.1	50.4	- 1.6	52.8	- 4.0	28.0	20.8	45.8	3.0
15:30 - 15:45	49.6	36.5	13.1	53.6	- 4.0	36.0	13.6	52.2	- 2.6	53.6	- 4.0	28.3	21.3	32.1	17.5	52.0	- 2.4	51.5	- 1.9	50.9	- 1.3	47.1	2.5	44.9	4.7
15:45 - 16:00	49.2	36.9	12.3	53.6	- 4.4	47.3	1.9	45.8	3.4	30.0	19.2	49.6	- 0.4	43.0	6.2	34.8	14.4	50.3	- 1.1	52.3	- 3.1	35.3	13.9	43.5	5.7
16:00 - 16:15	50.6	23.0	27.6	33.3	17.3	32.8	17.8	44.6	6.0	31.9	18.7	26.7	23.9	50.7	- 0.1	30.0	20.6	38.9	11.7	51.3	- 0.7	31.8	18.8	35.9	14.7
16:15 - 16:30	49.5	24.8	24.7	29.7	19.8	30.9	18.6	38.8	10.7	25.9	23.6	32.9	16.6	47.3	2.2	25.3	24.2	31.5	18.0	32.5	17.0	26.3	23.2	31.4	18.1
16:30 - 16:45	49.6	18.9	30.7	30.6	19.0	27.4	22.2	29.8	19.8	24.4	25.2	34.4	15.2	25.9	23.7	25.1	24.5	26.8	22.8	24.2	25.4	21.6	28.0	26.3	23.3
16:45 - 17:00	49.5	21.7	27.8	29.1	20.4	32.7	16.8	29.6	19.9	30.1	19.4	49.8	- 0.3	35.3	14.2	35.5	14.0	21.1	28.4	30.9	18.6	37.6	11.9	32.1	17.4
17:00 - 17:15	43.6	29.0	14.6	28.1	15.5	44.9	- 1.3	37.8	5.8	21.3	22.3	28.9	14.7	34.2	9.4	32.7	10.9	27.4	16.2	26.8	16.8	30.3	13.3	31.0	12.6
17:15 - 17:30	46.1	38.2	7.9	30.7	15.4	20.7	25.4	33.1	13.0	28.9	17.2	22.9	23.2	20.7	25.4	41.3	4.8	18.0	28.1	30.3	15.8	18.4	27.7	27.6	18.5
17:30 - 17:45	47.0	23.2	23.8	23.9	23.1	34.7	12.3	24.5	22.5	22.7	24.3	27.2	19.8	30.7	16.3	25.1	21.9	27.4	19.6	29.0	18.0	16.8	30.2	25.9	21.1
17:45 - 18:00	42.8	31.6	11.2	23.8	19.0	43.6	- 0.8	28.1	14.7	22.2	20.6	30.3	12.5	28.5	14.3	24.1	18.7	33.7	9.1	30.9	11.9	21.1	21.7	28.9	13.9
Hour 1	52.9	53.7	- 0.8	53.7	- 0.8	50.2	2.6	52.8	0.1	53.4	- 0.5	54.0	- 1.1	53.2	- 0.4	53.2	- 0.4	54.1	- 1.3	54.1	- 1.2	53.4	- 0.5	53.3	- 0.4
Hour 2	49.5	41.7	7.7	50.8	- 1.3	46.6	2.9	49.8	- 0.3	43.6	5.8	39.1	10.4	41.3	8.2	47.8	1.6	46.5	3.0	51.4	- 1.9	35.0	14.4	44.9	4.6
Hour 3	49.8	22.1	27.7	30.7	19.1	31.0	18.9	35.7	14.1	28.1	21.7	36.0	13.9	39.8	10.0	29.0	20.8	29.6	20.2	34.7	15.1	29.3	20.5	31.4	18.4
Hour 4	44.8	30.5	14.3	26.6	18.2	36.0	8.9	30.9	14.0	23.8	21.1	27.3	17.5	28.5	16.3	30.8	14.0	26.6	18.2	29.3	15.6	21.7	23.2	28.4	16.5
11	49.2	37.0	12.2	40.4	8.8	40.9	8.3	42.3	7.0	37.2	12.0	39.1	10.2	40.7	8.5	40.2	9.0	39.2	10.0	42.4	6.9	34.9	14.4	39.5	9.8

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run



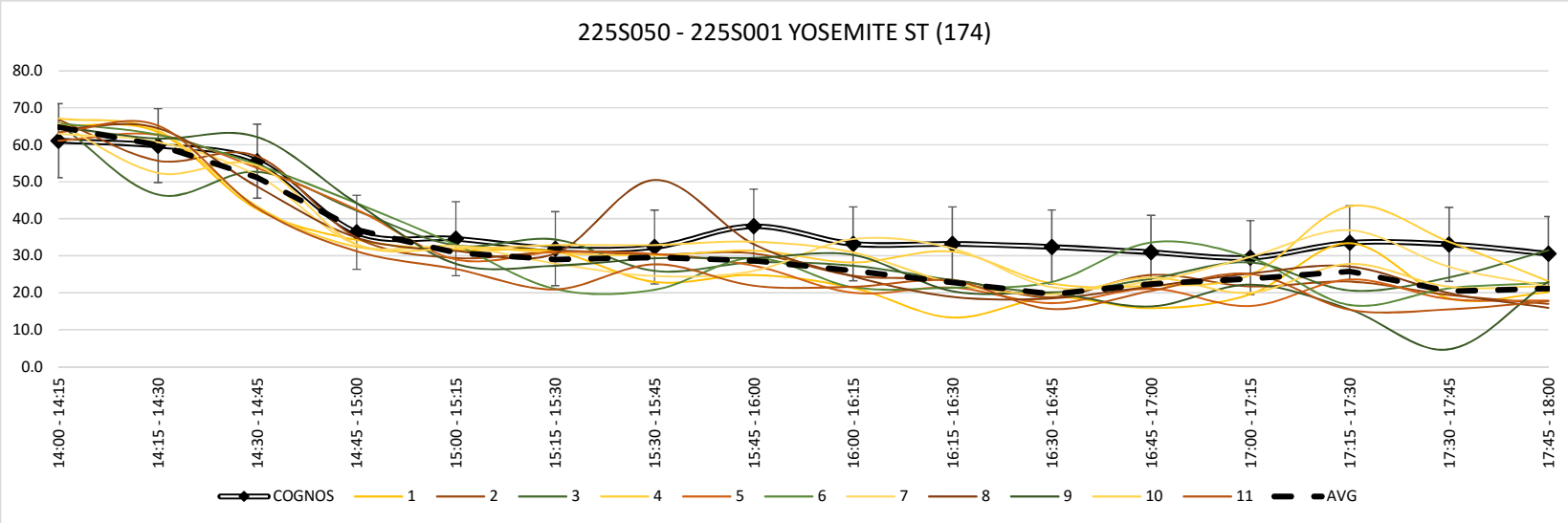
EXISTING																									
PM	COGNOS	MODEL																						AGGREGATE	
TIME	225S040	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	59.6	56.2	3.4	56.6	3.0	55.5	4.1	54.1	5.5	51.1	8.5	55.3	4.3	53.3	6.3	54.5	5.1	56.2	3.4	56.2	3.4	55.5	4.1	55.0	4.6
14:15 - 14:30	56.6	54.9	1.7	53.4	3.2	49.4	7.2	53.5	3.1	55.0	1.6	52.6	4.0	53.0	3.6	55.1	1.5	53.5	3.1	51.0	5.6	54.4	2.2	53.3	3.3
14:30 - 14:45	54.3	46.5	7.8	53.1	1.2	47.8	6.5	48.8	5.5	46.2	8.1	51.0	3.3	47.4	6.9	49.9	4.4	54.8	- 0.5	52.9	1.4	48.9	5.4	49.8	4.5
14:45 - 15:00	40.6	44.7	- 4.1	48.5	- 7.9	43.5	- 2.9	46.5	- 5.9	48.9	- 8.3	49.4	- 8.8	44.4	- 3.8	45.0	- 4.4	51.0	-10.4	45.8	- 5.2	47.1	- 6.5	46.8	- 6.2
15:00 - 15:15	39.8	47.0	- 7.2	41.9	- 2.1	43.2	- 3.4	46.5	- 6.7	37.4	2.4	48.7	- 8.9	44.8	- 5.0	44.6	- 4.8	39.9	- 0.1	43.7	- 3.9	33.8	6.0	42.9	- 3.1
15:15 - 15:30	36.1	43.5	- 7.4	48.6	-12.5	48.7	-12.6	44.4	- 8.3	46.8	-10.7	29.0	7.1	41.6	- 5.5	50.6	-14.5	41.6	- 5.5	49.1	-13.0	27.0	9.1	42.8	- 6.7
15:30 - 15:45	37.3	31.8	5.5	48.6	-11.3	35.4	1.9	45.2	- 7.9	46.7	- 9.4	25.0	12.3	35.7	1.6	47.8	-10.5	48.3	-11.0	46.8	- 9.5	46.6	- 9.3	41.6	- 4.3
15:45 - 16:00	38.5	34.4	4.1	47.1	- 8.6	41.0	- 2.5	46.4	- 7.9	34.4	4.1	45.3	- 6.8	36.1	2.4	37.4	1.1	42.8	- 4.3	43.4	- 4.9	31.2	7.3	40.0	- 1.5
16:00 - 16:15	36.2	27.1	9.1	35.1	1.1	35.2	1.0	40.3	- 4.1	27.3	8.9	29.0	7.2	47.2	-11.0	29.7	6.5	42.0	- 5.8	46.1	- 9.9	31.2	5.0	35.5	0.7
16:15 - 16:30	37.7	25.4	12.3	29.6	8.1	30.9	6.8	42.5	- 4.8	26.7	11.0	30.1	7.6	41.5	- 3.8	26.3	11.4	29.3	8.4	30.7	7.0	27.9	9.8	31.0	6.7
16:30 - 16:45	41.4	20.7	20.7	29.9	11.5	27.5	13.9	28.2	13.2	25.2	16.2	34.3	7.1	26.9	14.5	25.7	15.7	26.2	15.2	25.9	15.5	22.6	18.8	26.7	14.7
16:45 - 17:00	41.2	23.4	17.8	33.3	7.9	34.4	6.8	28.2	13.0	30.3	10.9	50.0	- 8.8	34.1	7.1	30.4	10.8	22.0	19.2	31.0	10.2	35.5	5.7	32.1	9.1
17:00 - 17:15	38.1	29.1	9.0	27.8	10.3	39.3	- 1.3	34.7	3.3	21.9	16.2	30.8	7.3	32.7	5.3	32.1	6.0	28.0	10.1	25.1	13.0	32.2	5.8	30.3	7.8
17:15 - 17:30	36.1	37.3	- 1.2	29.4	6.7	21.5	14.6	43.5	- 7.4	30.7	5.4	24.6	11.5	28.0	8.1	43.6	- 7.5	20.6	15.5	33.5	2.6	21.6	14.5	30.4	5.7
17:30 - 17:45	37.2	25.8	11.4	24.3	12.9	32.8	4.4	31.0	6.2	22.7	14.5	26.0	11.2	29.1	8.1	25.5	11.7	29.7	7.5	28.1	9.1	20.8	16.4	26.9	10.3
17:45 - 18:00	38.4	28.2	10.2	24.1	14.3	41.1	- 2.7	26.6	11.8	22.6	15.8	29.1	9.3	26.0	12.4	24.0	14.4	32.0	6.4	29.1	9.3	21.5	16.9	27.7	10.7
Hour 1	52.8	50.6	2.2	52.9	- 0.1	49.1	3.7	50.7	2.0	50.3	2.5	52.1	0.7	49.5	3.2	51.1	1.6	53.9	- 1.1	51.5	1.3	51.5	1.3	51.2	1.5
Hour 2	37.9	39.2	- 1.2	46.6	- 8.6	42.1	- 4.1	45.6	- 7.7	41.3	- 3.4	37.0	0.9	39.6	- 1.6	45.1	- 7.2	43.2	- 5.2	45.8	- 7.8	34.7	3.3	41.8	- 3.9
Hour 3	39.1	24.2	15.0	32.0	7.2	32.0	7.1	34.8	4.3	27.4	11.8	35.9	3.3	37.4	1.7	28.0	11.1	29.9	9.3	33.4	5.7	29.3	9.8	31.3	7.8
Hour 4	37.4	30.1	7.3	26.4	11.0	33.7	3.8	34.0	3.5	24.5	13.0	27.6	9.8	29.0	8.5	31.3	6.1	27.6	9.9	29.0	8.5	24.0	13.4	28.8	8.6
11	41.8	36.0	5.8	39.5	2.4	39.2	2.6	41.3	0.5	35.9	6.0	38.1	3.7	38.9	3.0	38.9	2.9	38.6	3.2	39.9	1.9	34.9	7.0	38.3	3.5

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run



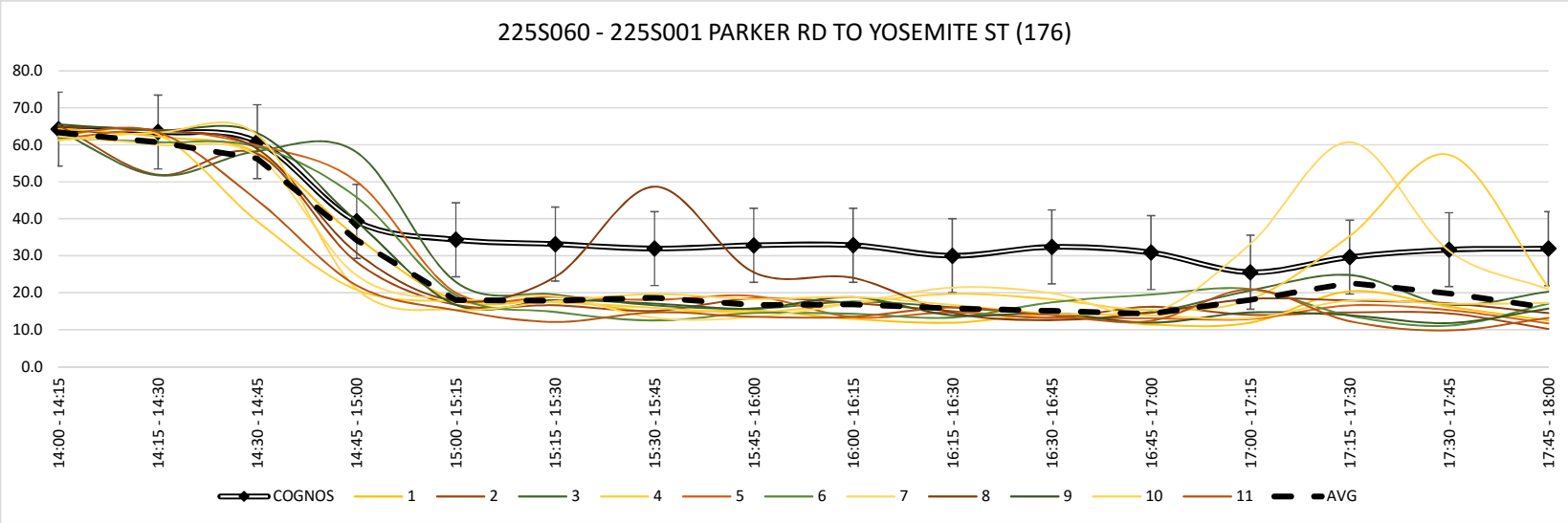
EXISTING																									
PM	COGNOS	MODEL																						AGGREGATE	
TIME	225S050	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	61.1	65.3	- 4.2	66.8	- 5.7	65.7	- 4.6	67.1	- 6.0	61.1	0.0	65.8	- 4.7	63.0	- 1.9	64.3	- 3.2	64.9	- 3.8	65.7	- 4.6	63.4	- 2.3	64.8	- 3.7
14:15 - 14:30	59.8	63.4	- 3.6	55.7	4.1	46.5	13.3	63.9	- 4.1	62.7	- 2.9	62.7	- 2.9	60.7	- 0.9	64.5	- 4.7	61.7	- 1.9	52.4	7.4	65.2	- 5.4	59.9	- 0.1
14:30 - 14:45	55.6	42.5	13.1	56.9	- 1.3	52.7	2.9	43.3	12.3	53.7	1.9	54.6	1.0	51.7	3.9	48.7	6.9	62.1	- 6.5	54.4	1.2	42.9	12.7	51.2	4.4
14:45 - 15:00	36.3	34.3	2.0	34.9	1.4	42.2	- 5.9	32.4	3.9	42.5	- 6.2	44.2	- 7.9	33.0	3.3	34.9	1.4	44.2	- 7.9	33.1	3.2	31.2	5.1	37.0	- 0.7
15:00 - 15:15	34.6	31.6	3.0	29.4	5.2	32.8	1.8	32.6	2.0	29.0	5.6	33.0	1.6	32.6	2.0	31.3	3.3	27.8	6.8	32.0	2.6	26.4	8.2	30.8	3.8
15:15 - 15:30	31.9	31.1	0.8	31.1	0.8	34.4	- 2.5	30.8	1.1	31.0	0.9	21.0	10.9	27.9	4.0	30.6	1.3	27.3	4.6	32.9	- 1.0	20.9	11.0	29.0	2.9
15:30 - 15:45	32.4	22.9	9.5	30.3	2.1	25.9	6.5	30.1	2.3	30.5	1.9	20.8	11.6	24.5	7.9	50.5	-18.1	29.3	3.1	32.9	- 0.5	27.7	4.7	29.6	2.8
15:45 - 16:00	38.0	24.8	13.2	30.6	7.4	28.2	9.8	31.4	6.6	27.3	10.7	29.4	8.6	25.9	12.1	33.1	4.9	29.4	8.6	33.8	4.2	21.9	16.1	28.7	9.3
16:00 - 16:15	33.2	21.3	11.9	24.6	8.6	27.3	5.9	28.2	5.0	20.0	13.2	21.5	11.7	34.5	- 1.3	24.4	8.8	30.2	3.0	30.9	2.3	21.6	11.6	25.9	7.3
16:15 - 16:30	33.2	13.3	19.9	23.5	9.7	23.4	9.8	31.1	2.1	21.4	11.8	21.4	11.8	32.0	1.2	18.9	14.3	20.4	12.8	22.6	10.6	23.2	10.0	22.8	10.4
16:30 - 16:45	32.4	18.8	13.6	18.8	13.6	20.1	12.3	22.5	9.9	17.2	15.2	22.9	9.5	21.5	10.9	18.5	13.9	19.9	12.5	19.6	12.8	15.6	16.8	19.6	12.8
16:45 - 17:00	30.9	15.8	15.1	24.8	6.1	23.8	7.1	21.9	9.0	21.1	9.8	33.6	- 2.7	23.1	7.8	21.7	9.2	16.3	14.6	24.1	6.8	20.5	10.4	22.4	8.5
17:00 - 17:15	29.5	19.6	9.9	21.7	7.8	28.2	1.3	24.8	4.7	16.4	13.1	29.5	- 0.0	29.7	- 0.2	25.2	4.3	22.2	7.3	20.0	9.5	25.1	4.4	23.8	5.7
17:15 - 17:30	33.5	33.4	0.1	23.0	10.5	20.6	12.9	43.4	- 9.9	23.6	9.9	16.7	16.8	36.9	- 3.4	27.1	6.4	15.5	18.0	27.8	5.7	15.4	18.1	25.8	7.7
17:30 - 17:45	33.1	18.5	14.6	19.4	13.7	24.1	9.0	33.8	- 0.7	18.3	14.8	21.2	11.9	27.0	6.1	19.9	13.2	4.7	28.4	21.6	11.5	15.5	17.6	20.4	12.7
17:45 - 18:00	30.6	20.1	10.5	17.0	13.6	31.5	- 0.9	23.1	7.5	17.9	12.7	22.7	7.9	21.7	8.9	15.9	14.7	23.0	7.6	21.8	8.8	17.7	12.9	21.1	9.5
Hour 1	53.2	51.4	1.8	53.6	- 0.4	51.8	1.4	51.7	1.5	55.0	- 1.8	56.8	- 3.6	52.1	1.1	53.1	0.1	58.2	- 5.0	51.4	1.8	50.7	2.5	53.2	- 0.0
Hour 2	34.2	27.6	6.6	30.4	3.9	30.3	3.9	31.2	3.0	29.5	4.8	26.1	8.2	27.7	6.5	36.4	- 2.2	28.5	5.8	32.9	1.3	24.2	10.0	29.5	4.7
Hour 3	32.4	17.3	15.1	22.9	9.5	23.7	8.8	25.9	6.5	19.9	12.5	24.9	7.6	27.8	4.7	20.9	11.6	21.7	10.7	24.3	8.1	20.2	12.2	22.7	9.8
Hour 4	31.7	22.9	8.8	20.3	11.4	26.1	5.6	31.3	0.4	19.1	12.6	22.5	9.1	28.8	2.8	22.0	9.6	16.4	15.3	22.8	8.9	18.4	13.2	22.8	8.9
11	37.9	29.8	8.1	31.8	6.1	33.0	4.9	35.0	2.9	30.9	7.0	32.6	5.3	34.1	3.8	33.1	4.8	31.2	6.7	32.9	5.0	28.4	9.5	32.1	5.8

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run



EXISTING																									
PM	COGNOS	MODEL																						AGGREGATE	
TIME	225S060	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	64.2	64.4	- 0.2	65.2	- 1.0	63.7	0.5	62.7	1.5	61.6	2.6	61.9	2.3	62.3	1.9	64.9	- 0.7	65.5	- 1.3	61.2	3.0	62.9	1.3	63.3	0.9
14:15 - 14:30	63.5	62.2	1.3	51.9	11.6	51.7	11.8	62.8	0.7	64.0	- 0.5	60.7	2.8	60.0	3.5	63.9	- 0.4	63.9	- 0.4	63.3	0.2	63.4	0.1	60.7	2.8
14:30 - 14:45	60.8	57.8	3.0	57.5	3.3	58.3	2.5	39.3	21.5	59.8	1.0	59.5	1.3	56.9	3.9	58.9	1.9	63.2	- 2.4	62.7	- 1.9	45.0	15.8	56.3	4.5
14:45 - 15:00	39.3	35.1	4.2	28.3	11.0	58.0	-18.7	20.8	18.5	50.1	-10.8	45.8	- 6.5	24.7	14.6	30.8	8.5	39.3	- 0.0	21.0	18.3	22.0	17.3	34.2	5.1
15:00 - 15:15	34.3	18.0	16.3	16.7	17.6	22.9	11.4	17.6	16.7	20.0	14.3	19.3	15.0	18.2	16.1	17.8	16.5	16.7	17.6	15.4	18.9	15.3	19.0	18.0	16.3
15:15 - 15:30	33.1	17.9	15.2	16.6	16.5	19.5	13.6	17.4	15.7	18.9	14.2	14.8	18.3	19.1	14.0	24.3	8.8	18.0	15.1	17.7	15.4	12.1	21.0	17.8	15.3
15:30 - 15:45	31.9	14.8	17.1	15.1	16.8	16.6	15.3	15.9	16.0	18.1	13.8	12.5	19.4	13.2	18.7	48.7	-16.8	17.1	14.8	19.6	12.3	14.7	17.2	18.7	13.2
15:45 - 16:00	32.8	15.2	17.6	18.5	14.3	15.7	17.1	14.7	18.1	19.1	13.7	14.5	18.3	13.4	19.4	25.5	7.3	15.7	17.1	18.3	14.5	13.5	19.3	16.7	16.1
16:00 - 16:15	32.8	12.9	19.9	17.2	15.6	17.6	15.2	17.2	15.6	13.4	19.4	14.3	18.5	17.2	15.6	24.0	8.8	18.8	14.0	18.8	14.0	13.5	19.3	16.8	16.0
16:15 - 16:30	30.0	11.9	18.1	15.0	15.0	16.1	13.9	19.7	10.3	14.7	15.3	13.3	16.7	21.4	8.6	14.6	15.4	13.9	16.1	16.7	13.3	16.0	14.0	15.8	14.2
16:30 - 16:45	32.4	14.1	18.3	13.3	19.1	14.3	18.1	18.2	14.2	13.2	19.2	17.4	15.0	19.9	12.5	12.6	19.8	14.5	17.9	14.4	18.0	13.9	18.5	15.1	17.3
16:45 - 17:00	30.9	11.4	19.5	16.2	14.7	14.8	16.1	15.3	15.6	13.1	17.8	19.5	11.4	14.6	16.3	14.6	16.3	11.9	19.0	13.9	17.0	12.4	18.5	14.3	16.6
17:00 - 17:15	25.5	11.9	13.6	14.0	11.5	20.6	4.9	18.2	7.3	12.9	12.6	21.0	4.5	33.2	- 7.7	18.3	7.2	14.7	10.8	13.1	12.4	20.9	4.6	18.1	7.4
17:15 - 17:30	29.6	20.4	9.2	14.7	14.9	24.8	4.8	35.3	- 5.7	16.6	13.0	13.8	15.8	60.7	-31.1	17.9	11.7	13.9	15.7	17.9	11.7	12.3	17.3	22.6	7.0
17:30 - 17:45	31.6	16.2	15.4	14.4	17.2	16.8	14.8	57.3	-25.7	15.3	16.3	11.1	20.5	31.3	0.3	17.1	14.5	11.8	19.8	17.0	14.6	9.8	21.8	19.8	11.8
17:45 - 18:00	31.9	12.5	19.4	10.2	21.7	20.3	11.6	21.5	10.4	11.7	20.2	17.0	14.9	20.9	11.0	14.5	17.4	15.7	16.2	17.2	14.7	13.2	18.7	15.9	16.0
Hour 1	57.0	54.9	2.1	50.7	6.2	57.9	- 1.0	46.4	10.6	58.9	- 1.9	57.0	- 0.0	51.0	6.0	54.6	2.3	58.0	- 1.0	52.1	4.9	48.3	8.6	53.6	3.3
Hour 2	33.1	16.5	16.6	16.7	16.3	18.7	14.4	16.4	16.7	19.0	14.0	15.3	17.8	16.0	17.1	29.1	4.0	16.9	16.2	17.8	15.3	13.9	19.2	17.8	15.3
Hour 3	31.5	12.6	18.9	15.4	16.1	15.7	15.8	17.6	13.9	13.6	17.9	16.1	15.4	18.3	13.2	16.5	15.1	14.8	16.7	16.0	15.6	14.0	17.6	15.5	16.0
Hour 4	29.7	15.3	14.4	13.3	16.4	20.6	9.1	33.1	- 3.4	14.1	15.6	15.7	14.0	36.5	- 6.8	17.0	12.7	14.0	15.7	16.3	13.4	14.1	15.6	19.1	10.6
11	37.8	24.8	13.0	24.1	13.8	28.2	9.6	28.4	9.4	26.4	11.4	26.0	11.8	30.4	7.4	29.3	8.5	25.9	11.9	25.5	12.3	22.6	15.2	26.5	11.3

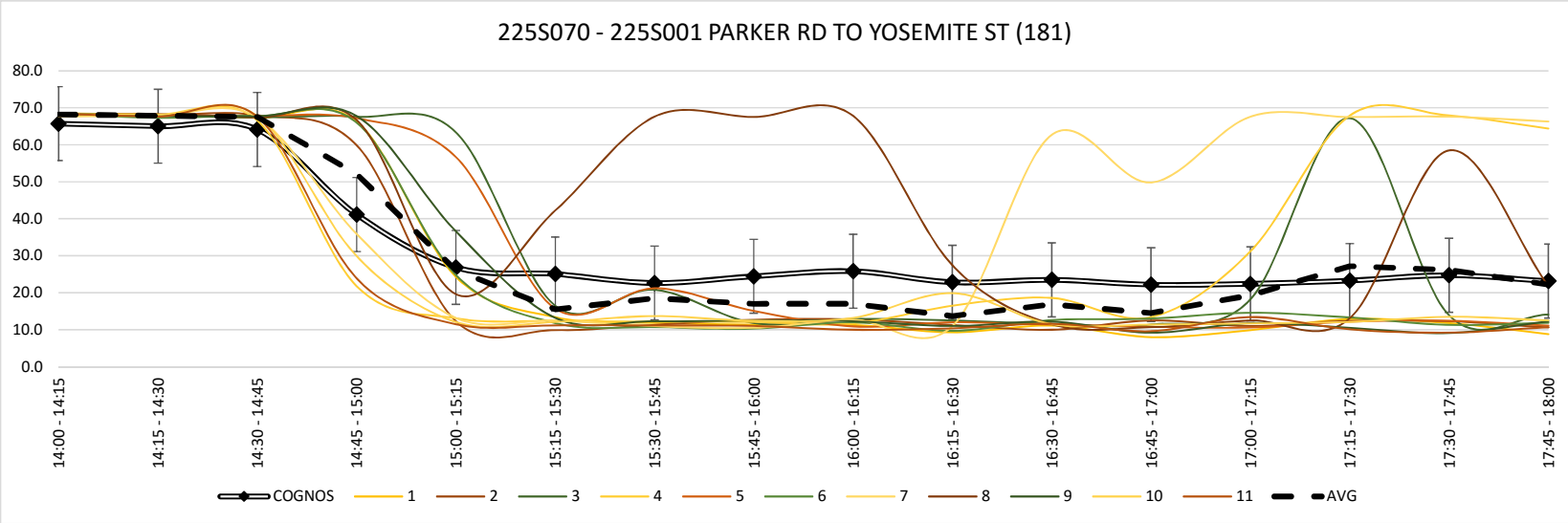
Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run



EXISTING

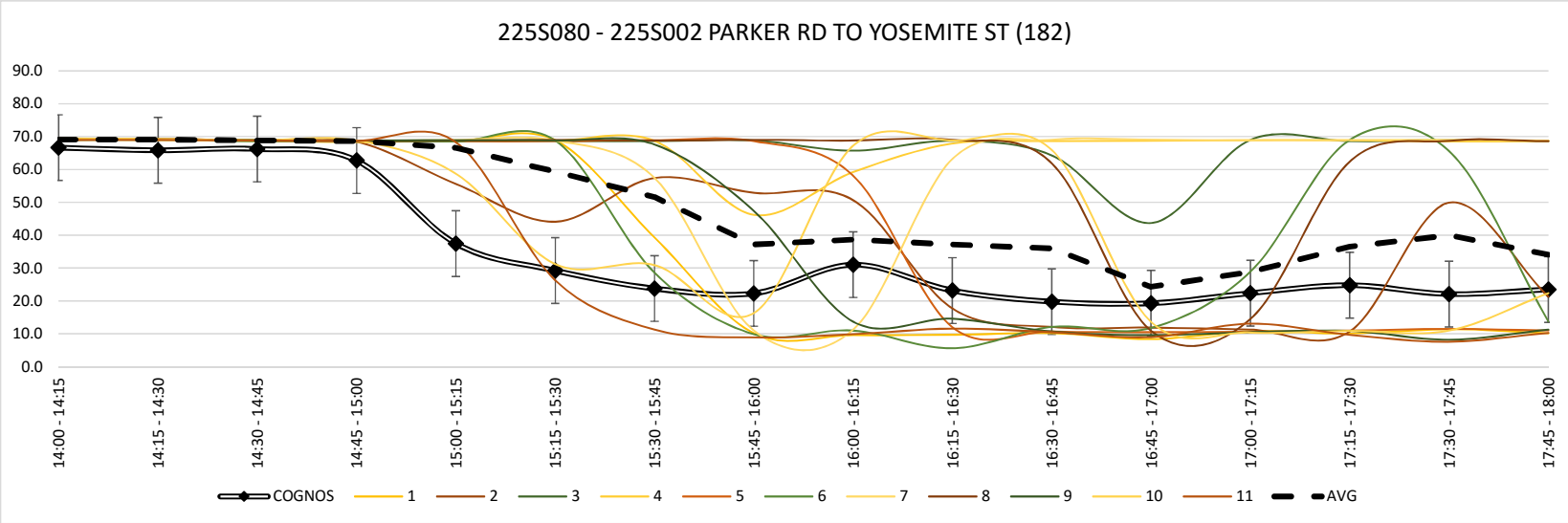
Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

PM	COGNOS	MODEL																						AGGREGATE	
TIME	225S070	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	65.7	68.5	- 2.8	68.3	- 2.6	68.0	- 2.3	68.0	- 2.3	67.9	- 2.2	68.2	- 2.5	67.6	- 1.9	68.2	- 2.5	68.6	- 2.9	68.3	- 2.6	68.4	- 2.7	68.2	- 2.5
14:15 - 14:30	65.0	68.2	- 3.2	68.0	- 3.0	67.9	- 2.9	68.0	- 3.0	68.0	- 3.0	67.3	- 2.3	67.9	- 2.9	68.3	- 3.3	67.8	- 2.8	68.2	- 3.2	67.6	- 2.6	67.9	- 2.9
14:30 - 14:45	64.1	67.3	- 3.2	68.0	- 3.9	67.4	- 3.3	66.6	- 2.5	67.8	- 3.7	67.8	- 3.7	67.4	- 3.3	67.4	- 3.3	67.7	- 3.6	67.8	- 3.7	67.6	- 3.5	67.5	- 3.4
14:45 - 15:00	41.1	66.3	-25.2	59.9	-18.8	67.6	-26.5	21.8	19.3	67.2	-26.1	66.0	-24.9	35.9	5.2	66.7	-25.6	67.8	-26.7	29.9	11.2	23.9	17.2	52.1	-11.0
15:00 - 15:15	26.9	24.3	2.6	12.3	14.6	63.4	-36.6	13.1	13.8	56.7	-29.9	24.8	2.1	13.2	13.7	19.6	7.3	36.6	- 9.8	12.1	14.8	11.5	15.4	26.1	0.8
15:15 - 15:30	25.1	13.4	11.7	9.9	15.2	16.5	8.6	12.4	12.7	15.7	9.4	11.8	13.3	12.5	12.6	42.2	-17.1	13.2	11.9	12.1	13.0	11.2	13.9	15.5	9.6
15:30 - 15:45	22.6	11.9	10.7	11.3	11.3	20.8	1.8	12.2	10.4	21.2	1.4	10.7	11.9	11.0	11.6	67.6	-45.0	12.3	10.3	13.7	8.9	11.2	11.4	18.5	4.1
15:45 - 16:00	24.5	11.4	13.1	12.7	11.8	11.8	12.7	12.1	12.4	15.1	9.4	10.3	14.2	10.5	14.0	67.5	-43.1	12.5	12.0	12.4	12.1	11.0	13.5	17.0	7.5
16:00 - 16:15	25.8	11.3	14.5	12.8	13.0	12.9	12.9	11.7	14.1	10.9	14.9	12.0	13.8	12.7	13.1	67.8	-42.0	12.3	13.5	13.2	12.6	10.0	15.8	17.0	8.8
16:15 - 16:30	22.8	9.3	13.5	11.3	11.5	12.5	10.3	16.5	6.3	12.0	10.8	9.7	13.1	11.0	11.8	27.4	- 4.6	11.0	11.8	19.9	2.9	10.4	12.4	13.7	9.1
16:30 - 16:45	23.5	11.1	12.4	10.0	13.5	11.6	11.9	18.6	4.9	11.4	12.1	12.6	10.9	62.7	-39.2	11.5	12.0	12.2	11.3	11.5	12.0	11.6	11.9	16.8	6.7
16:45 - 17:00	22.2	8.0	14.2	12.5	9.7	11.4	10.8	13.4	8.8	10.8	11.4	13.0	9.2	49.8	-27.6	10.7	11.5	9.2	13.0	11.4	10.8	9.6	12.6	14.5	7.7
17:00 - 17:15	22.4	9.9	12.5	11.0	11.4	18.2	4.2	31.2	- 8.8	10.6	11.8	14.6	7.8	67.6	-45.2	12.5	9.9	11.8	10.6	11.7	10.7	13.4	9.0	19.3	3.1
17:15 - 17:30	23.3	12.9	10.4	12.4	10.9	67.2	-43.9	67.9	-44.6	12.2	11.1	13.3	10.0	67.5	-44.2	13.1	10.2	10.5	12.8	12.1	11.2	10.1	13.2	27.2	- 3.9
17:30 - 17:45	24.7	11.8	12.9	12.3	12.4	13.9	10.8	67.9	-43.2	12.4	12.3	11.3	13.4	67.6	-42.9	58.5	-33.8	9.1	15.6	13.5	11.2	9.2	15.5	26.2	- 1.5
17:45 - 18:00	23.2	8.8	14.4	10.6	12.6	14.1	9.1	64.4	-41.3	11.1	12.1	11.9	11.3	66.3	-43.2	21.8	1.4	12.3	10.9	12.5	10.7	10.7	12.5	22.2	0.9
Hour 1	59.0	67.6	- 8.6	66.1	- 7.0	67.7	- 8.7	56.1	2.9	67.7	- 8.7	67.3	- 8.3	59.7	- 0.7	67.7	- 8.6	68.0	- 9.0	58.6	0.5	56.9	2.1	63.9	- 4.9
Hour 2	24.7	15.3	9.5	11.6	13.2	28.1	- 3.4	12.5	12.3	27.2	- 2.4	14.4	10.3	11.8	12.9	49.2	-24.5	18.7	6.1	12.6	12.2	11.2	13.5	19.3	5.5
Hour 3	23.6	9.9	13.7	11.7	11.9	12.1	11.5	15.1	8.5	11.3	12.3	11.8	11.8	34.1	-10.5	29.4	- 5.8	11.2	12.4	14.0	9.6	10.4	13.2	15.5	8.1
Hour 4	23.4	10.9	12.5	11.6	11.8	28.4	- 5.0	57.9	-34.5	11.6	11.8	12.8	10.6	67.3	-43.9	26.5	- 3.1	10.9	12.5	12.5	10.9	10.9	12.5	23.7	- 0.3
11	32.7	25.9	6.8	25.2	7.5	34.1	- 1.4	35.4	- 2.7	29.4	3.2	26.6	6.1	43.2	-10.5	43.2	-10.5	27.2	5.5	24.4	8.3	22.3	10.3	30.6	2.1



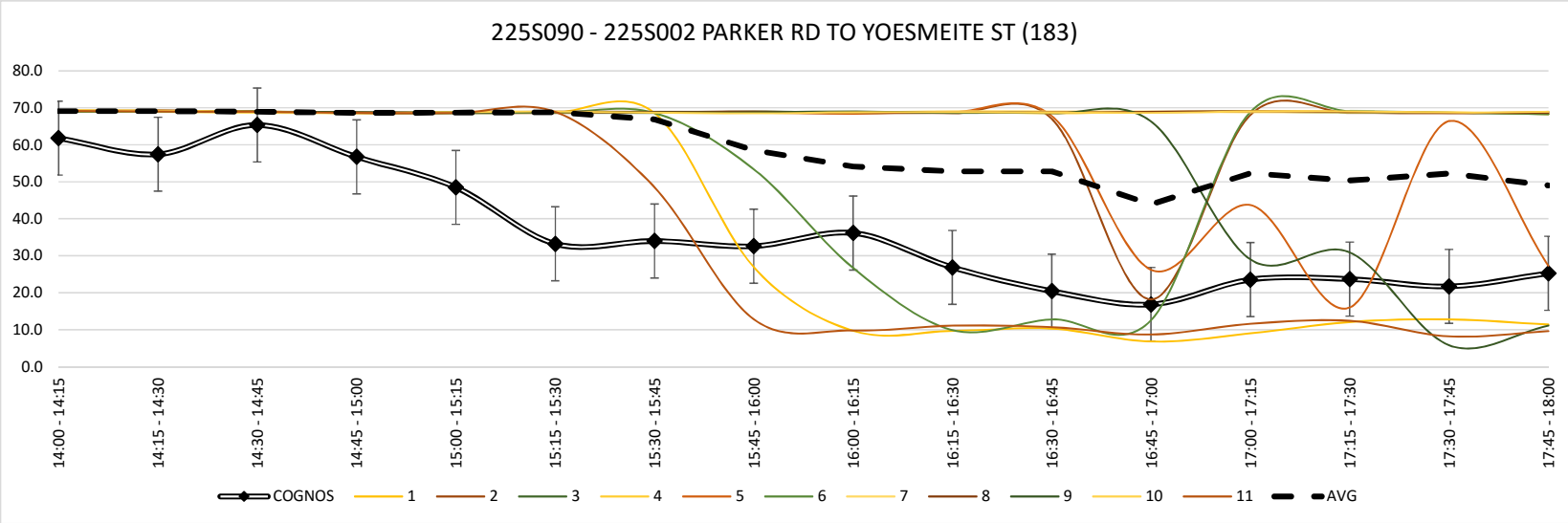
EXISTING																									
PM	COGNOS	MODEL																						AGGREGATE	
TIME	225S080	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	66.6	69.4	- 2.8	69.2	- 2.6	68.9	- 2.3	69.0	- 2.4	69.0	- 2.4	69.0	- 2.4	69.0	- 2.4	69.0	- 2.4	69.2	- 2.6	69.3	- 2.7	69.0	- 2.4	69.1	- 2.5
14:15 - 14:30	65.8	69.2	- 3.4	69.0	- 3.2	69.0	- 3.2	69.2	- 3.4	69.2	- 3.4	69.2	- 3.4	68.9	- 3.1	69.3	- 3.5	69.1	- 3.3	69.3	- 3.5	69.0	- 3.2	69.1	- 3.3
14:30 - 14:45	66.2	68.8	- 2.6	68.8	- 2.6	68.7	- 2.5	68.7	- 2.5	68.9	- 2.7	68.5	- 2.3	68.7	- 2.5	68.8	- 2.6	69.0	- 2.8	68.9	- 2.7	68.8	- 2.6	68.8	- 2.6
14:45 - 15:00	62.7	68.7	- 6.0	68.4	- 5.7	68.7	- 6.0	68.3	- 5.6	68.7	- 6.0	68.6	- 5.9	68.6	- 5.9	68.6	- 5.9	68.8	- 6.1	68.8	- 6.1	68.7	- 6.0	68.6	- 5.9
15:00 - 15:15	37.5	68.6	-31.1	55.6	-18.1	68.6	-31.1	68.8	-31.3	68.6	-31.1	68.5	-31.0	69.0	-31.5	68.8	-31.3	68.9	-31.4	58.7	-21.2	68.3	-30.8	66.6	-29.1
15:15 - 15:30	29.3	68.9	-39.7	44.1	-14.9	68.6	-39.4	68.8	-39.6	68.6	-39.4	68.8	-39.6	68.8	-39.6	69.0	-39.8	68.8	-39.6	31.2	- 2.0	26.3	3.0	59.3	-30.1
15:30 - 15:45	23.8	39.3	-15.5	57.4	-33.6	68.6	-44.8	68.7	-44.9	68.9	-45.1	28.6	- 4.8	57.4	-33.6	68.8	-45.0	67.6	-43.8	30.9	- 7.1	11.3	12.5	51.6	-27.8
15:45 - 16:00	22.3	10.2	12.1	52.9	-30.6	68.8	-46.5	46.2	-23.9	68.6	-46.3	9.9	12.4	11.0	11.3	69.0	-46.7	47.4	-25.1	16.3	6.0	8.9	13.4	37.2	-14.9
16:00 - 16:15	31.1	9.6	21.5	50.7	-19.7	65.7	-34.7	59.2	-28.2	58.1	-27.1	11.0	20.1	11.3	19.8	68.8	-37.8	13.7	17.4	67.2	-36.2	9.9	21.2	38.7	- 7.7
16:15 - 16:30	23.2	9.7	13.5	17.7	5.5	68.7	-45.5	67.9	-44.7	12.0	11.2	5.6	17.6	63.2	-40.0	69.0	-45.8	14.6	8.6	68.8	-45.6	11.6	11.6	37.2	-14.0
16:30 - 16:45	19.8	10.2	9.6	12.1	7.7	64.3	-44.5	68.6	-48.8	10.7	9.1	12.1	7.7	69.0	-49.2	61.9	-42.1	10.7	9.1	65.9	-46.1	10.5	9.3	36.0	-16.2
16:45 - 17:00	19.3	8.4	10.9	11.9	7.4	43.7	-24.4	68.7	-49.4	10.5	8.8	11.8	7.5	69.0	-49.7	10.9	8.4	9.6	9.7	13.6	5.7	9.0	10.3	24.3	- 5.0
17:00 - 17:15	22.4	10.8	11.6	11.3	11.1	69.0	-46.6	68.9	-46.5	10.6	11.8	28.9	- 6.5	68.9	-46.5	14.5	7.9	10.5	11.9	10.4	12.0	13.1	9.3	28.8	- 6.4
17:15 - 17:30	24.8	10.1	14.7	10.7	14.1	68.6	-43.8	68.9	-44.1	11.0	13.8	69.0	-44.2	68.9	-44.1	62.4	-37.6	10.9	13.9	10.9	13.9	9.7	15.1	36.5	-11.7
17:30 - 17:45	22.1	11.4	10.7	49.9	-27.8	68.9	-46.8	68.5	-46.4	11.5	10.6	65.6	-43.5	69.0	-46.9	68.7	-46.6	8.2	13.9	11.0	11.1	7.6	14.5	40.0	-17.9
17:45 - 18:00	23.5	10.2	13.3	21.3	2.2	68.6	-45.1	68.6	-45.1	11.0	12.5	13.8	9.7	68.8	-45.3	68.6	-45.1	11.3	12.2	22.4	1.1	10.3	13.2	34.1	-10.6
Hour 1	65.4	69.0	- 3.7	68.9	- 3.5	68.8	- 3.5	68.8	- 3.5	69.0	- 3.6	68.8	- 3.5	68.8	- 3.5	68.9	- 3.6	69.0	- 3.7	69.1	- 3.7	68.9	- 3.5	68.9	- 3.6
Hour 2	28.2	46.8	-18.6	52.5	-24.3	68.7	-40.5	63.1	-34.9	68.7	-40.5	44.0	-15.8	51.6	-23.4	68.9	-40.7	63.2	-35.0	34.3	- 6.1	28.7	- 0.5	53.7	-25.5
Hour 3	23.3	9.5	13.9	23.1	0.2	60.6	-37.3	66.1	-42.8	22.8	0.5	10.1	13.2	53.1	-29.8	52.7	-29.3	12.2	11.2	53.9	-30.6	10.3	13.1	34.1	-10.7
Hour 4	23.2	10.6	12.6	23.3	- 0.1	68.8	-45.6	68.7	-45.5	11.0	12.2	44.3	-21.1	68.9	-45.7	53.6	-30.4	10.2	13.0	13.7	9.5	10.2	13.0	34.9	-11.7
11	35.0	34.0	1.0	41.9	- 6.9	66.7	-31.7	66.7	-31.7	42.9	- 7.9	41.8	- 6.8	60.6	-25.6	61.0	-26.0	38.6	- 3.6	42.7	- 7.7	29.5	5.5	47.9	-12.9

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run



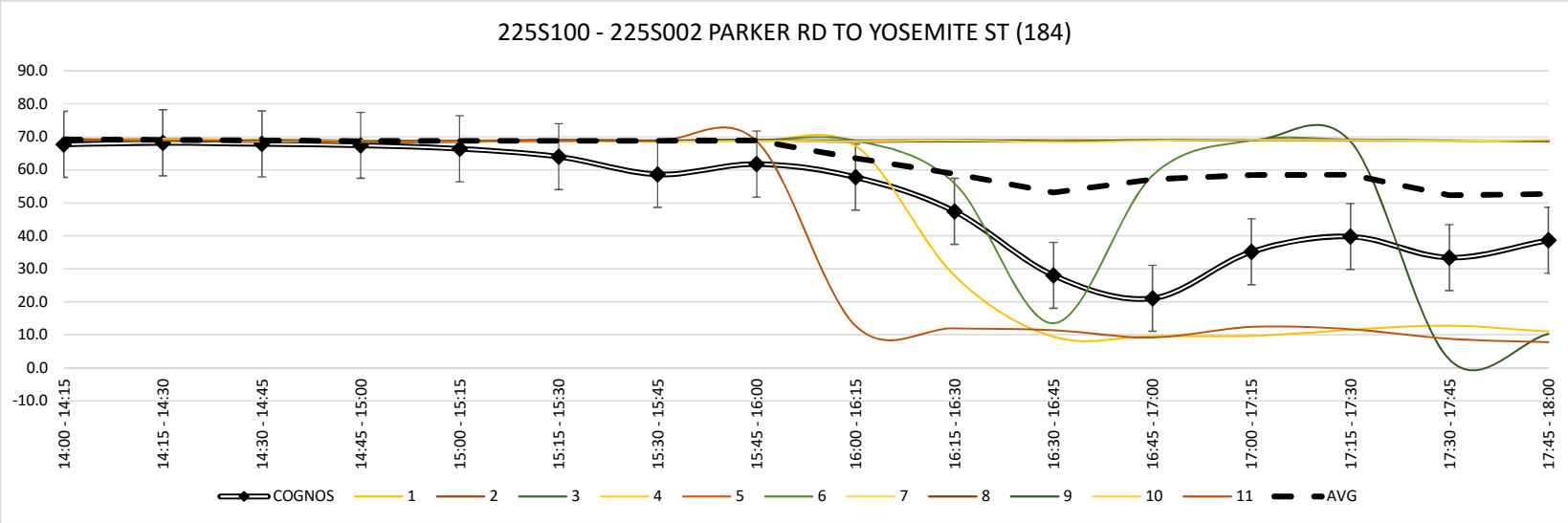
EXISTING																									
PM	COGNOS	MODEL																						AGGREGATE	
TIME	225S090	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	61.8	69.3	- 7.5	69.3	- 7.5	69.0	- 7.2	68.9	- 7.1	69.0	- 7.2	69.0	- 7.2	69.1	- 7.3	69.1	- 7.3	69.0	- 7.2	69.4	- 7.6	69.2	- 7.4	69.1	- 7.3
14:15 - 14:30	57.4	69.1	-11.7	69.0	-11.6	68.9	-11.5	68.9	-11.5	69.2	-11.8	69.0	-11.6	68.9	-11.5	69.3	-11.9	69.0	-11.6	69.3	-11.9	69.0	-11.6	69.1	-11.7
14:30 - 14:45	65.4	69.0	- 3.7	69.0	- 3.7	68.9	- 3.6	68.7	- 3.4	69.0	- 3.7	68.9	- 3.6	68.8	- 3.5	68.9	- 3.6	69.0	- 3.7	68.9	- 3.6	68.9	- 3.6	68.9	- 3.6
14:45 - 15:00	56.7	68.7	-12.0	68.5	-11.8	68.7	-12.0	68.5	-11.8	68.7	-12.0	68.6	-11.9	68.5	-11.8	68.8	-12.1	68.8	-12.1	68.6	-11.9	68.6	-11.9	68.6	-11.9
15:00 - 15:15	48.5	68.7	-20.2	68.6	-20.1	68.7	-20.2	68.7	-20.2	68.6	-20.1	68.5	-20.0	68.9	-20.4	68.7	-20.2	68.8	-20.3	68.8	-20.3	68.6	-20.1	68.7	-20.2
15:15 - 15:30	33.2	68.8	-35.6	68.8	-35.6	68.6	-35.4	68.9	-35.7	68.6	-35.4	68.7	-35.5	68.8	-35.6	69.0	-35.8	68.8	-35.6	69.0	-35.8	68.9	-35.7	68.8	-35.6
15:30 - 15:45	34.0	68.6	-34.6	68.8	-34.8	68.6	-34.6	68.8	-34.8	68.8	-34.8	68.6	-34.6	68.9	-34.9	68.9	-34.9	68.8	-34.8	68.7	-34.7	48.5	-14.5	66.9	-32.9
15:45 - 16:00	32.6	26.9	5.7	68.8	-36.2	69.0	-36.4	68.8	-36.2	68.7	-36.1	53.4	-20.8	68.8	-36.2	69.0	-36.4	68.8	-36.2	68.5	-35.9	12.8	19.8	58.5	-25.9
16:00 - 16:15	36.2	9.7	26.5	68.5	-32.4	68.6	-32.5	68.6	-32.5	68.4	-32.3	26.7	9.5	68.7	-32.6	68.7	-32.6	69.0	-32.9	68.8	-32.7	9.8	26.4	54.1	-18.0
16:15 - 16:30	26.9	9.7	17.2	68.5	-41.7	68.8	-42.0	68.9	-42.1	68.9	-42.1	9.9	17.0	69.1	-42.3	68.8	-42.0	68.6	-41.8	68.8	-42.0	11.1	15.8	52.8	-26.0
16:30 - 16:45	20.4	10.3	10.1	67.0	-46.6	68.8	-48.4	68.5	-48.1	67.8	-47.4	12.8	7.6	69.0	-48.6	68.7	-48.3	68.5	-48.1	68.7	-48.3	10.7	9.7	52.8	-32.4
16:45 - 17:00	16.8	6.8	10.0	18.2	- 1.4	68.8	-52.0	68.9	-52.1	26.2	- 9.4	12.6	4.2	69.0	-52.2	68.9	-52.1	66.3	-49.5	68.6	-51.8	8.7	8.1	43.9	-27.1
17:00 - 17:15	23.6	9.0	14.6	68.1	-44.5	69.0	-45.4	69.0	-45.4	43.7	-20.1	68.9	-45.3	68.8	-45.2	69.1	-45.5	29.0	- 5.4	69.0	-45.4	11.6	12.0	52.3	-28.7
17:15 - 17:30	23.7	12.1	11.6	68.6	-44.9	68.7	-45.0	69.0	-45.3	16.0	7.7	69.1	-45.4	68.8	-45.1	68.9	-45.2	30.9	- 7.2	69.1	-45.4	12.4	11.3	50.3	-26.6
17:30 - 17:45	21.7	12.8	8.9	68.5	-46.8	68.7	-47.0	68.8	-47.1	66.4	-44.7	68.7	-47.0	68.7	-47.0	68.6	-46.9	5.8	15.9	68.7	-47.0	8.2	13.5	52.2	-30.5
17:45 - 18:00	25.3	11.4	13.9	68.9	-43.6	68.3	-43.0	68.3	-43.0	27.3	- 2.0	68.3	-43.0	68.7	-43.4	68.6	-43.3	11.1	14.2	68.9	-43.6	9.6	15.7	49.0	-23.7
Hour 1	60.3	69.0	- 8.7	69.0	- 8.6	68.9	- 8.5	68.8	- 8.4	69.0	- 8.6	68.9	- 8.5	68.8	- 8.5	69.0	- 8.7	69.0	- 8.6	69.1	- 8.7	68.9	- 8.6	68.9	- 8.6
Hour 2	37.1	58.3	-21.2	68.8	-31.7	68.7	-31.7	68.8	-31.7	68.7	-31.6	64.8	-27.7	68.9	-31.8	68.9	-31.8	68.8	-31.7	68.8	-31.7	49.7	-12.6	65.7	-28.7
Hour 3	25.1	9.1	15.9	55.6	-30.5	68.8	-43.7	68.7	-43.7	57.8	-32.8	15.5	9.6	69.0	-43.9	68.8	-43.7	68.1	-43.0	68.7	-43.7	10.1	15.0	50.9	-25.8
Hour 4	23.6	11.3	12.2	68.5	-45.0	68.7	-45.1	68.8	-45.2	38.4	-14.8	68.8	-45.2	68.8	-45.2	68.8	-45.2	19.2	4.4	68.9	-45.4	10.5	13.1	51.0	-27.4
11	36.5	36.9	- 0.4	65.4	-28.9	68.8	-32.2	68.8	-32.3	58.5	-21.9	54.5	-18.0	68.8	-32.3	68.9	-32.4	56.3	-19.8	68.9	-32.4	34.8	1.7	59.1	-22.6

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run



EXISTING																									
PM	COGNOS	MODEL																						AGGREGATE	
TIME	225S100	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	67.7	69.5	- 1.8	69.2	- 1.5	69.1	- 1.4	69.3	- 1.6	69.0	- 1.3	69.1	- 1.4	69.3	- 1.6	69.0	- 1.3	69.1	- 1.4	69.4	- 1.7	69.3	- 1.6	69.2	- 1.5
14:15 - 14:30	68.2	69.3	- 1.1	69.1	- 0.9	69.1	- 0.9	69.1	- 0.9	69.2	- 1.0	69.0	- 0.8	68.9	- 0.7	69.4	- 1.2	69.0	- 0.8	69.3	- 1.1	68.9	- 0.7	69.1	- 0.9
14:30 - 14:45	67.8	68.9	- 1.1	69.1	- 1.3	68.7	- 0.9	68.6	- 0.8	69.0	- 1.2	68.9	- 1.1	68.8	- 1.0	69.0	- 1.2	69.1	- 1.3	69.1	- 1.3	68.9	- 1.1	68.9	- 1.1
14:45 - 15:00	67.4	68.8	- 1.4	68.5	- 1.1	68.7	- 1.3	68.5	- 1.1	68.6	- 1.2	68.5	- 1.1	68.6	- 1.2	68.8	- 1.4	68.9	- 1.5	68.7	- 1.3	68.6	- 1.2	68.7	- 1.3
15:00 - 15:15	66.4	68.8	- 2.4	68.4	- 2.0	68.8	- 2.4	69.0	- 2.6	68.7	- 2.3	68.7	- 2.3	68.8	- 2.4	68.8	- 2.4	68.7	- 2.3	68.7	- 2.3	68.8	- 2.4	68.8	- 2.4
15:15 - 15:30	64.0	68.9	- 4.9	69.0	- 5.0	68.6	- 4.6	68.7	- 4.7	68.5	- 4.5	69.0	- 5.0	68.8	- 4.8	69.1	- 5.1	68.9	- 4.9	68.8	- 4.8	68.9	- 4.9	68.8	- 4.8
15:30 - 15:45	58.6	68.5	- 9.9	68.8	-10.2	68.8	-10.2	68.8	-10.2	68.8	-10.2	68.8	-10.2	68.9	-10.3	68.9	-10.3	68.8	-10.2	68.5	- 9.9	68.7	-10.1	68.8	-10.2
15:45 - 16:00	61.7	68.6	- 6.9	69.0	- 7.3	69.1	- 7.4	68.8	- 7.1	68.8	- 7.1	69.1	- 7.4	68.6	- 6.9	69.1	- 7.4	68.9	- 7.2	68.8	- 7.1	68.7	- 7.0	68.9	- 7.2
16:00 - 16:15	57.8	67.3	- 9.5	68.4	-10.6	68.6	-10.8	68.8	-11.0	68.6	-10.8	68.9	-11.1	68.8	-11.0	68.9	-11.1	68.9	-11.1	68.7	-10.9	12.7	45.1	63.5	- 5.7
16:15 - 16:30	47.4	27.9	19.5	68.7	-21.3	68.8	-21.4	69.0	-21.6	68.7	-21.3	55.9	- 8.5	69.0	-21.6	69.1	-21.7	68.6	-21.2	68.9	-21.5	12.0	35.4	58.8	-11.4
16:30 - 16:45	28.0	9.4	18.6	69.0	-41.0	68.8	-40.8	68.6	-40.6	69.1	-41.1	13.5	14.5	69.0	-41.0	68.7	-40.7	68.6	-40.6	68.4	-40.4	11.4	16.6	53.1	-25.1
16:45 - 17:00	21.1	9.6	11.5	68.9	-47.8	68.9	-47.8	69.0	-47.9	68.9	-47.8	58.3	-37.2	69.1	-48.0	69.0	-47.9	69.0	-47.9	68.8	-47.7	9.2	11.9	57.1	-36.0
17:00 - 17:15	35.2	9.7	25.5	69.0	-33.8	68.9	-33.7	68.9	-33.7	69.1	-33.9	68.9	-33.7	68.9	-33.7	69.1	-33.9	68.9	-33.7	69.1	-33.9	12.4	22.8	58.4	-23.2
17:15 - 17:30	39.8	11.5	28.3	68.9	-29.1	68.8	-29.0	69.2	-29.4	68.9	-29.1	69.2	-29.4	68.8	-29.0	68.9	-29.1	68.6	-28.8	69.0	-29.2	11.7	28.1	58.5	-18.7
17:30 - 17:45	33.4	12.8	20.6	68.9	-35.5	68.8	-35.4	68.7	-35.3	68.9	-35.5	69.0	-35.6	69.0	-35.6	68.9	-35.5	2.5	30.9	68.8	-35.4	8.8	24.6	52.3	-18.9
17:45 - 18:00	38.7	11.0	27.7	68.9	-30.2	68.5	-29.8	68.8	-30.1	68.8	-30.1	68.7	-30.0	68.8	-30.1	68.8	-30.1	10.3	28.4	69.1	-30.4	7.8	30.9	52.7	-14.0
Hour 1	67.8	69.1	- 1.3	69.0	- 1.2	68.9	- 1.1	68.9	- 1.1	69.0	- 1.2	68.9	- 1.1	68.9	- 1.1	69.1	- 1.3	69.0	- 1.2	69.1	- 1.3	68.9	- 1.1	69.0	- 1.2
Hour 2	62.7	68.7	- 6.0	68.8	- 6.1	68.8	- 6.1	68.8	- 6.1	68.7	- 6.0	68.9	- 6.2	68.8	- 6.1	69.0	- 6.3	68.8	- 6.1	68.7	- 6.0	68.8	- 6.1	68.8	- 6.1
Hour 3	38.6	28.6	10.0	68.8	-30.2	68.8	-30.2	68.9	-30.3	68.8	-30.3	49.2	-10.6	69.0	-30.4	68.9	-30.4	68.8	-30.2	68.7	-30.1	11.3	27.2	58.1	-19.6
Hour 4	36.7	11.3	25.5	68.9	-32.2	68.8	-32.0	68.9	-32.2	68.9	-32.2	69.0	-32.2	68.9	-32.1	68.9	-32.2	37.6	- 0.8	69.0	-32.3	10.2	26.6	55.5	-18.7
11	51.4	44.4	7.0	68.9	-17.4	68.8	-17.4	68.9	-17.4	68.9	-17.4	64.0	-12.5	68.9	-17.4	69.0	-17.5	61.1	- 9.6	68.9	-17.4	39.8	11.6	62.9	-11.4

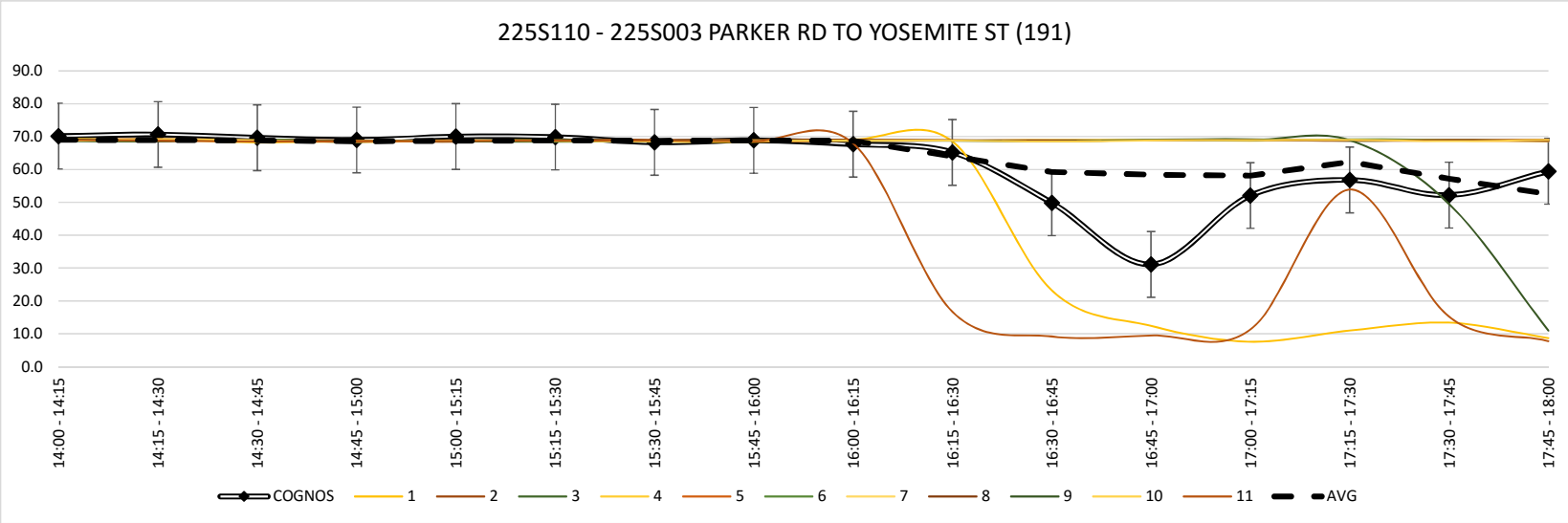
Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run



EXISTING

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

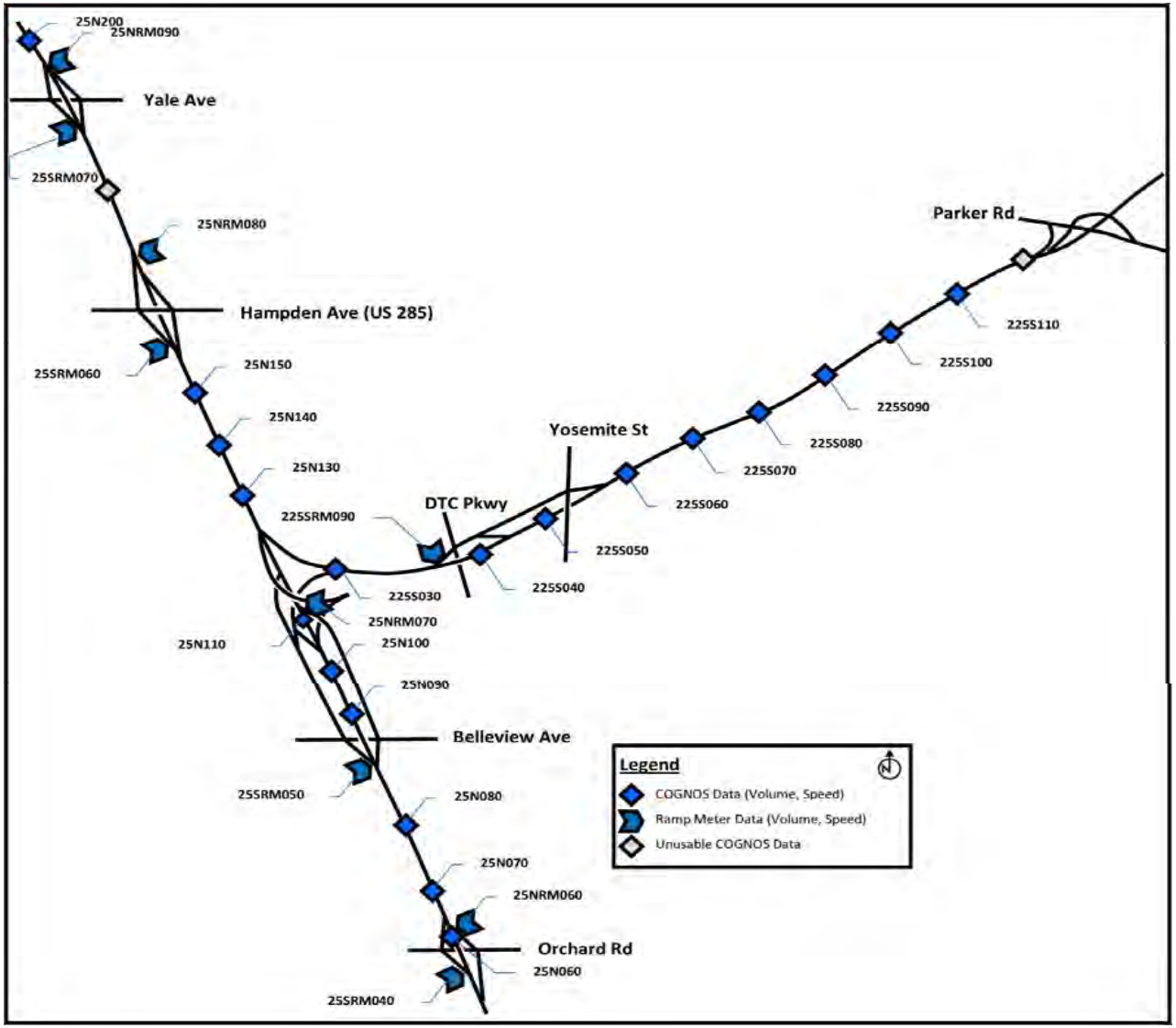
PM	COGNOS	MODEL																						AGGREGATE	
TIME	225S110	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	70.1	69.4	0.7	68.9	1.2	68.6	1.5	68.8	1.3	69.0	1.1	68.9	1.2	69.3	0.8	68.8	1.3	69.1	1.0	68.7	1.4	69.0	1.1	69.0	1.1
14:15 - 14:30	70.6	69.0	1.6	68.5	2.1	68.6	2.0	69.1	1.5	69.2	1.4	68.8	1.8	68.8	1.8	69.3	1.3	68.9	1.7	69.2	1.4	68.8	1.8	68.9	1.7
14:30 - 14:45	69.6	68.7	0.9	69.1	0.5	69.1	0.5	68.2	1.4	68.8	0.8	68.8	0.8	68.7	0.9	68.9	0.7	68.7	0.9	68.9	0.7	68.5	1.1	68.8	0.8
14:45 - 15:00	69.0	68.7	0.3	68.8	0.2	68.6	0.4	68.6	0.4	68.6	0.4	68.5	0.5	68.5	0.5	68.5	0.5	68.5	0.5	68.3	0.7	68.5	0.5	68.5	0.5
15:00 - 15:15	70.0	68.6	1.4	68.4	1.6	68.6	1.4	68.7	1.3	68.9	1.1	68.7	1.3	68.8	1.2	68.7	1.3	68.8	1.2	68.8	1.2	68.6	1.4	68.7	1.3
15:15 - 15:30	69.9	69.1	0.8	69.1	0.8	68.4	1.4	68.7	1.1	68.8	1.1	68.8	1.1	68.8	1.1	69.0	0.8	69.0	0.8	68.7	1.1	68.8	1.1	68.8	1.1
15:30 - 15:45	68.3	68.5	- 0.2	68.7	- 0.4	68.7	- 0.4	68.7	- 0.4	69.0	- 0.7	68.7	- 0.4	68.8	- 0.5	68.9	- 0.6	68.7	- 0.4	68.5	- 0.2	68.7	- 0.4	68.7	- 0.4
15:45 - 16:00	68.9	68.4	0.5	68.7	0.2	68.7	0.2	68.7	0.2	68.6	0.3	69.0	- 0.1	68.8	0.1	69.1	- 0.2	68.9	- 0.0	68.7	0.2	68.6	0.3	68.8	0.1
16:00 - 16:15	67.7	69.1	- 1.4	68.6	- 0.9	68.6	- 0.9	68.8	- 1.1	68.7	- 1.0	68.9	- 1.2	69.0	- 1.3	69.1	- 1.4	68.7	- 1.0	68.8	- 1.1	67.9	- 0.2	68.7	- 1.0
16:15 - 16:30	65.2	68.5	- 3.3	68.8	- 3.6	68.8	- 3.6	68.9	- 3.7	68.8	- 3.6	68.8	- 3.6	68.8	- 3.6	68.9	- 3.7	68.8	- 3.6	68.8	- 3.6	16.7	48.5	64.0	1.2
16:30 - 16:45	49.9	23.2	26.7	69.0	-19.1	68.8	-18.9	68.6	-18.7	68.8	-18.9	68.7	-18.8	69.0	-19.1	68.8	-18.9	68.5	-18.6	68.5	-18.6	9.2	40.7	59.2	- 9.3
16:45 - 17:00	31.1	12.4	18.7	68.8	-37.7	69.1	-38.0	69.0	-37.9	69.0	-37.9	69.0	-37.9	69.0	-37.9	68.8	-37.7	69.0	-37.9	68.8	-37.7	9.5	21.6	58.4	-27.3
17:00 - 17:15	52.1	7.6	44.5	68.9	-16.8	69.2	-17.1	68.7	-16.6	69.1	-17.0	68.8	-16.7	68.9	-16.8	69.0	-16.9	68.9	-16.8	68.9	-16.8	11.3	40.8	58.1	- 6.0
17:15 - 17:30	56.8	11.0	45.8	68.7	-11.9	68.7	-11.9	69.0	-12.2	68.9	-12.1	69.2	-12.4	68.9	-12.1	68.8	-12.0	68.9	-12.1	69.0	-12.2	53.9	2.9	62.3	- 5.5
17:30 - 17:45	52.2	13.4	38.8	68.8	-16.6	68.9	-16.7	68.9	-16.7	68.8	-16.6	68.9	-16.7	68.8	-16.6	69.0	-16.8	49.5	2.7	68.6	-16.4	15.2	37.0	57.2	- 5.0
17:45 - 18:00	59.4	8.7	50.7	69.1	- 9.7	68.6	- 9.2	68.8	- 9.4	68.6	- 9.2	68.8	- 9.4	68.6	- 9.2	68.7	- 9.3	11.0	48.4	69.0	- 9.6	7.8	51.6	52.5	6.9
Hour 1	69.8	69.0	0.9	68.8	1.0	68.7	1.1	68.7	1.2	68.9	0.9	68.8	1.1	68.8	1.0	68.9	1.0	68.8	1.0	68.8	1.1	68.7	1.1	68.8	1.0
Hour 2	69.2	68.7	0.6	68.7	0.5	68.6	0.6	68.7	0.5	68.8	0.4	68.8	0.4	68.8	0.4	68.9	0.3	68.9	0.4	68.7	0.6	68.7	0.6	68.8	0.5
Hour 3	53.5	43.3	10.2	68.8	-15.3	68.8	-15.4	68.8	-15.4	68.8	-15.4	68.9	-15.4	69.0	-15.5	68.9	-15.4	68.8	-15.3	68.7	-15.3	25.8	27.6	62.6	- 9.1
Hour 4	55.1	10.2	45.0	68.9	-13.7	68.9	-13.7	68.9	-13.7	68.9	-13.7	68.9	-13.8	68.8	-13.7	68.9	-13.7	49.6	5.6	68.9	-13.7	22.1	33.1	57.5	- 2.4
11	61.9	47.8	14.2	68.8	- 6.9	68.8	- 6.8	68.8	- 6.8	68.9	- 6.9	68.8	- 6.9	68.8	- 6.9	68.9	- 7.0	64.0	- 2.1	68.8	- 6.8	46.3	15.6	64.4	- 2.5



AVERAGE VEHICLE SPEEDS - BY LINK

EXISTING

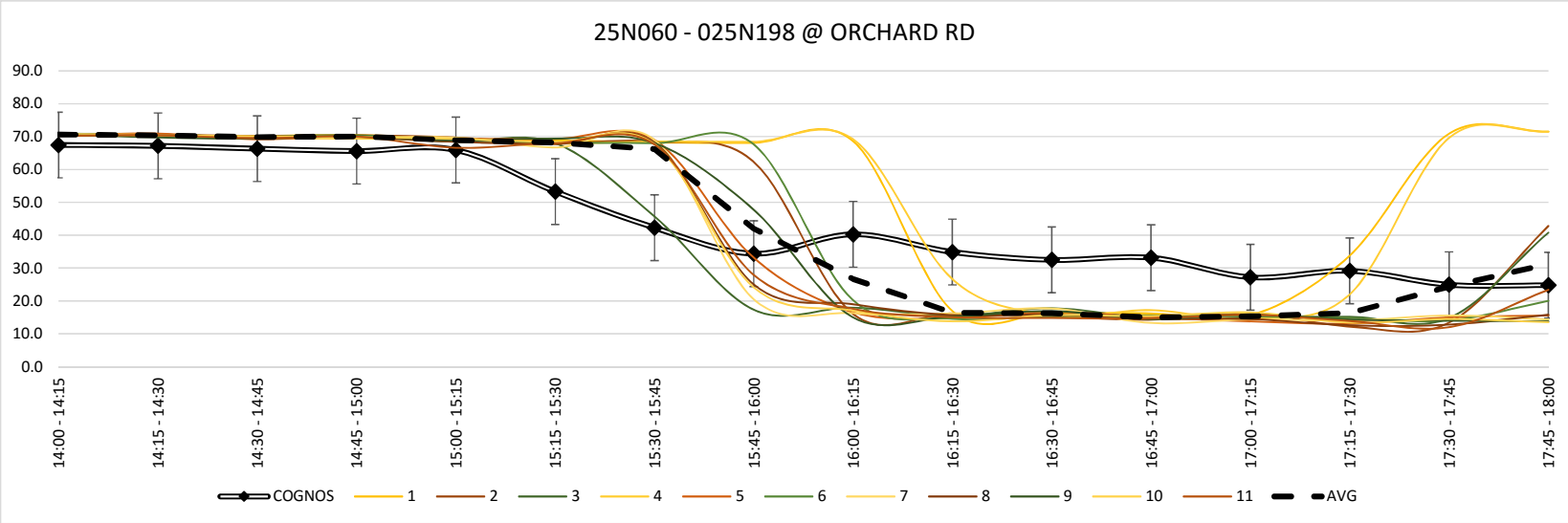
ROUTE: I-25
PERIOD: PM



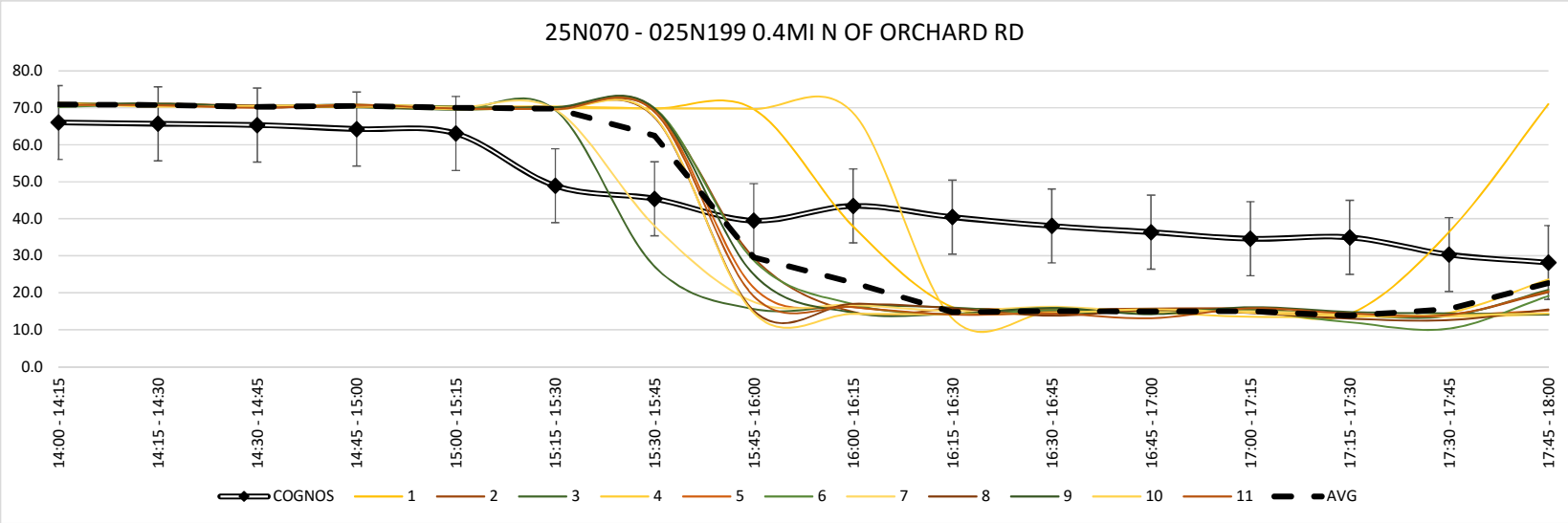
LOCATION	COGNOS DESCRIPTION
25N060	025N198 @ ORCHARD RD
25N070	025N199 0.4MI N OF ORCHARD RD
25N080	025N199 0.4MI S OF BELLEVIEW AVE
25N090	025S199 @ BELLVIEW AVE
25N100	025N200 BELLVIEW AVE TO I-25 NB (153)
25N110	025N200 @ I-225
25N130	025N201 0.2MI N OF I-225
25N140	025N201 I-225 TO HAMPDEN AVE 2 (132)
25N150	025N201 0.6MI S OF HAMPDEN AVE
25N200	025N203 0.4MI N OF YALE AVE (124)

EXISTING																									
PM	COGNOS	MODEL																						AGGREGATE	
TIME	25N060	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	67.4	70.6	- 3.2	70.7	- 3.3	70.9	- 3.5	70.6	- 3.2	70.4	- 3.0	70.7	- 3.3	70.8	- 3.4	70.2	- 2.8	70.8	- 3.4	70.5	- 3.1	70.2	- 2.8	70.6	- 3.2
14:15 - 14:30	67.2	70.4	- 3.2	70.6	- 3.4	70.7	- 3.5	70.3	- 3.1	70.9	- 3.7	70.1	- 2.9	70.5	- 3.3	70.5	- 3.3	69.7	- 2.5	70.4	- 3.2	70.4	- 3.2	70.4	- 3.2
14:30 - 14:45	66.3	70.2	- 3.9	70.2	- 3.9	69.7	- 3.4	69.6	- 3.3	69.2	- 2.9	70.0	- 3.7	69.7	- 3.4	70.0	- 3.7	69.4	- 3.1	70.1	- 3.8	69.5	- 3.2	69.8	- 3.5
14:45 - 15:00	65.6	70.5	- 4.9	70.4	- 4.8	69.8	- 4.2	69.4	- 3.8	70.1	- 4.5	70.4	- 4.8	69.7	- 4.1	69.9	- 4.3	70.1	- 4.5	69.9	- 4.3	70.0	- 4.4	70.0	- 4.4
15:00 - 15:15	65.9	69.3	- 3.4	69.7	- 3.8	68.4	- 2.5	69.0	- 3.1	69.3	- 3.4	68.9	- 3.0	69.7	- 3.8	68.4	- 2.5	68.8	- 2.9	69.3	- 3.4	66.6	- 0.7	68.9	- 3.0
15:15 - 15:30	53.3	68.9	-15.6	68.0	-14.7	68.0	-14.7	67.9	-14.6	69.3	-16.0	68.2	-14.9	66.7	-13.4	67.7	-14.4	69.4	-16.1	68.3	-15.0	68.0	-14.7	68.2	-14.9
15:30 - 15:45	42.3	68.2	-25.9	68.5	-26.2	45.7	- 3.4	68.5	-26.2	69.0	-26.7	68.0	-25.7	69.0	-26.7	68.2	-25.9	68.0	-25.7	67.7	-25.4	67.6	-25.3	66.2	-23.9
15:45 - 16:00	34.4	68.1	-33.7	62.3	-27.9	17.3	17.1	68.4	-34.0	33.1	1.3	67.6	-33.2	20.5	13.9	25.0	9.4	47.7	-13.3	24.1	10.3	27.9	6.5	42.0	- 7.6
16:00 - 16:15	40.3	68.6	-28.3	16.0	24.3	18.0	22.3	69.2	-28.9	16.6	23.7	20.2	20.1	16.3	24.0	19.0	21.3	15.0	25.3	17.1	23.2	17.6	22.7	26.7	13.6
16:15 - 16:30	34.9	16.9	18.0	16.2	18.7	15.5	19.4	26.6	8.3	14.8	20.1	14.6	20.3	16.2	18.7	15.7	19.2	15.3	19.6	13.8	21.1	15.1	19.8	16.4	18.5
16:30 - 16:45	32.5	16.4	16.1	15.3	17.2	17.8	14.7	15.8	16.7	16.6	15.9	15.4	17.1	17.7	14.8	15.9	16.6	16.9	15.6	15.7	16.8	14.8	17.7	16.2	16.3
16:45 - 17:00	33.2	16.2	17.0	14.3	18.9	14.7	18.5	17.2	16.0	15.1	18.1	15.6	17.6	13.3	19.9	14.6	18.6	14.5	18.7	15.4	17.8	14.7	18.5	15.0	18.2
17:00 - 17:15	27.2	15.6	11.6	16.4	10.8	15.0	12.2	14.6	12.6	13.8	13.4	15.3	11.9	14.4	12.8	14.5	12.7	16.0	11.2	16.5	10.7	15.8	11.4	15.3	11.9
17:15 - 17:30	29.1	33.8	- 4.7	12.2	16.9	15.2	13.9	22.0	7.1	13.1	16.0	14.8	14.3	14.0	15.1	12.6	16.5	14.4	14.7	13.4	15.7	13.9	15.2	16.3	12.8
17:30 - 17:45	24.9	70.9	-46.0	13.4	11.5	14.8	10.1	69.6	-44.7	15.0	9.9	14.1	10.8	15.6	9.3	12.8	12.1	14.0	10.9	14.5	10.4	12.0	12.9	24.3	0.6
17:45 - 18:00	24.8	71.5	-46.7	42.8	-18.0	40.8	-16.0	71.5	-46.7	15.6	9.2	20.0	4.8	14.4	10.4	15.8	9.0	13.8	11.0	13.5	11.3	23.4	1.4	31.2	- 6.4
Hour 1	66.6	70.4	- 3.8	70.5	- 3.8	70.3	- 3.6	70.0	- 3.3	70.2	- 3.5	70.3	- 3.7	70.2	- 3.5	70.2	- 3.5	70.0	- 3.4	70.2	- 3.6	70.0	- 3.4	70.2	- 3.6
Hour 2	49.0	68.6	-19.7	67.1	-18.2	49.9	- 0.9	68.5	-19.5	60.2	-11.2	68.2	-19.2	56.5	- 7.5	57.3	- 8.4	63.5	-14.5	57.4	- 8.4	57.5	- 8.6	61.3	-12.4
Hour 3	35.2	29.5	5.7	15.5	19.8	16.5	18.7	32.2	3.0	15.8	19.4	16.5	18.8	15.9	19.3	16.3	18.9	15.4	19.8	15.5	19.7	15.6	19.7	18.6	16.6
Hour 4	26.5	48.0	-21.4	21.2	5.3	21.5	5.1	44.4	-17.9	14.4	12.1	16.1	10.5	14.6	11.9	13.9	12.6	14.6	12.0	14.5	12.0	16.3	10.2	21.8	4.7
11	44.3	54.1	- 9.8	43.6	0.8	39.5	4.8	53.8	- 9.4	40.1	4.2	42.7	1.6	39.3	5.0	39.4	4.9	40.9	3.5	39.4	4.9	39.8	4.5	43.0	1.4

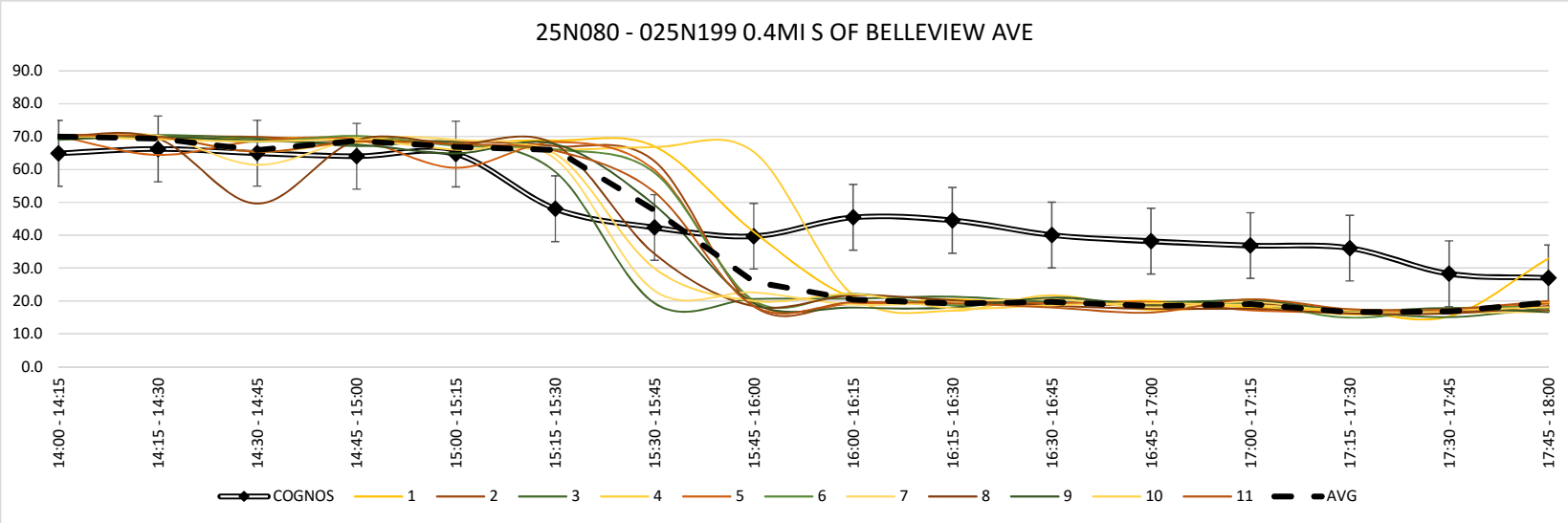
Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run



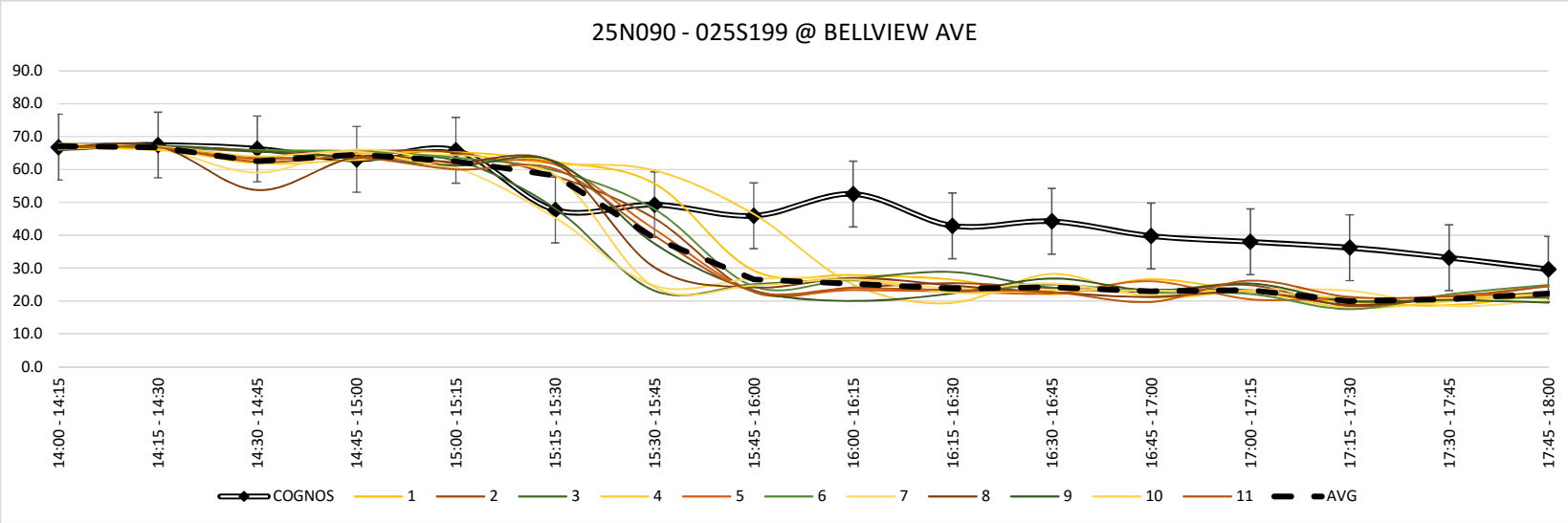
EXISTING		Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run																							
PM	COGNOS	MODEL																						AGGREGATE	
TIME	25N070	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	66.0	71.3	- 5.3	71.1	- 5.1	70.8	- 4.8	70.8	- 4.8	70.7	- 4.7	70.2	- 4.2	70.7	- 4.7	70.9	- 4.9	71.0	- 5.0	71.2	- 5.2	70.8	- 4.8	70.9	- 4.9
14:15 - 14:30	65.7	70.7	- 5.0	70.9	- 5.2	71.1	- 5.4	70.8	- 5.1	71.1	- 5.4	70.9	- 5.2	70.9	- 5.2	70.9	- 5.2	71.1	- 5.4	70.3	- 4.6	70.7	- 5.0	70.8	- 5.1
14:30 - 14:45	65.3	70.4	- 5.1	70.7	- 5.4	70.3	- 5.0	70.3	- 5.0	70.4	- 5.1	70.5	- 5.2	70.3	- 5.0	70.1	- 4.8	70.4	- 5.1	70.5	- 5.2	70.0	- 4.7	70.3	- 5.0
14:45 - 15:00	64.3	70.8	- 6.5	70.2	- 5.9	70.1	- 5.8	70.2	- 5.9	70.5	- 6.2	70.6	- 6.3	70.7	- 6.4	70.4	- 6.1	70.8	- 6.5	70.6	- 6.3	70.8	- 6.5	70.5	- 6.2
15:00 - 15:15	63.1	70.3	- 7.2	70.2	- 7.1	69.5	- 6.4	70.1	- 7.0	70.3	- 7.2	70.3	- 7.2	70.1	- 7.0	69.7	- 6.6	69.5	- 6.4	69.6	- 6.5	69.8	- 6.7	70.0	- 6.9
15:15 - 15:30	48.9	70.3	-21.4	69.8	-20.9	69.4	-20.5	69.9	-21.0	69.9	-21.0	69.9	-21.0	69.5	-20.6	70.0	-21.1	70.2	-21.3	69.6	-20.7	69.6	-20.7	69.8	-20.9
15:30 - 15:45	45.4	69.8	-24.4	69.5	-24.1	27.1	18.3	69.8	-24.4	69.5	-24.1	69.9	-24.5	38.1	7.3	67.4	-22.0	69.8	-24.4	67.6	-22.2	68.9	-23.5	62.5	-17.1
15:45 - 16:00	39.5	69.6	-30.1	29.4	10.1	15.6	23.9	69.7	-30.2	21.3	18.2	28.7	10.8	17.5	22.0	15.1	24.4	24.9	14.6	14.5	25.0	19.0	20.5	29.6	9.9
16:00 - 16:15	43.5	37.9	5.6	14.8	28.7	16.5	27.0	68.6	-25.1	16.2	27.3	16.9	26.6	16.7	26.8	17.0	26.5	14.6	28.9	14.3	29.2	16.1	27.4	22.7	20.8
16:15 - 16:30	40.4	16.1	24.3	15.6	24.8	16.0	24.4	13.0	27.4	14.1	26.3	14.2	26.2	15.1	25.3	15.8	24.6	14.3	26.1	14.2	26.2	14.1	26.3	14.8	25.6
16:30 - 16:45	38.1	15.2	22.9	15.5	22.6	14.6	23.5	14.9	23.2	15.1	23.0	15.3	22.8	16.2	21.9	13.8	24.3	15.9	22.2	14.5	23.6	14.4	23.7	15.0	23.1
16:45 - 17:00	36.4	15.5	20.9	15.7	20.7	15.0	21.4	14.6	21.8	15.4	21.0	14.9	21.5	14.8	21.6	15.3	21.1	14.2	22.2	15.5	20.9	13.1	23.3	14.9	21.5
17:00 - 17:15	34.6	15.2	19.4	15.7	18.9	15.4	19.2	13.5	21.1	14.6	20.0	14.9	19.7	15.0	19.6	14.5	20.1	16.1	18.5	14.6	20.0	15.8	18.8	15.0	19.6
17:15 - 17:30	35.0	14.3	20.7	13.8	21.2	13.9	21.1	13.6	21.4	14.1	20.9	12.0	23.0	14.2	20.8	13.0	22.0	14.8	20.2	13.8	21.2	14.4	20.6	13.8	21.2
17:30 - 17:45	30.3	36.4	- 6.1	14.0	16.3	13.7	16.6	14.6	15.7	13.9	16.4	10.3	20.0	13.5	16.8	12.6	17.7	14.4	15.9	13.9	16.4	14.0	16.3	15.6	14.7
17:45 - 18:00	28.2	71.0	-42.8	20.1	8.1	20.8	7.4	23.6	4.6	15.2	13.0	19.1	9.1	14.1	14.1	15.5	12.7	14.1	14.1	14.4	13.8	20.4	7.8	22.6	5.6
Hour 1	65.3	70.8	- 5.5	70.7	- 5.4	70.6	- 5.3	70.5	- 5.2	70.7	- 5.4	70.6	- 5.2	70.7	- 5.3	70.6	- 5.3	70.8	- 5.5	70.7	- 5.3	70.6	- 5.3	70.6	- 5.3
Hour 2	49.2	70.0	-20.8	59.7	-10.5	45.4	3.8	69.9	-20.7	57.8	- 8.5	59.7	-10.5	48.8	0.4	55.6	- 6.3	58.6	- 9.4	55.3	- 6.1	56.8	- 7.6	58.0	- 8.8
Hour 3	39.6	21.2	18.4	15.4	24.2	15.5	24.1	27.8	11.8	15.2	24.4	15.3	24.3	15.7	23.9	15.5	24.1	14.8	24.8	14.6	25.0	14.4	25.2	16.9	22.7
Hour 4	32.0	34.2	- 2.2	15.9	16.1	16.0	16.1	16.3	15.7	14.5	17.6	14.1	17.9	14.2	17.8	13.9	18.1	14.9	17.2	14.2	17.8	16.2	15.9	16.8	15.3
11	46.5	49.1	- 2.5	40.4	6.1	36.9	9.7	46.1	0.4	39.5	7.0	39.9	6.6	37.3	9.2	38.9	7.7	39.8	6.8	38.7	7.8	39.5	7.0	40.6	6.0



EXISTING		Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run																							
PM	COGNOS	MODEL																						AGGREGATE	
TIME	25N080	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	64.9	70.2	- 5.3	70.6	- 5.7	70.2	- 5.3	70.2	- 5.3	70.1	- 5.2	69.0	- 4.1	69.9	- 5.0	70.3	- 5.4	69.2	- 4.3	70.4	- 5.5	70.3	- 5.4	70.0	- 5.1
14:15 - 14:30	66.2	69.3	- 3.1	70.2	- 4.0	70.5	- 4.3	69.9	- 3.7	64.4	1.8	70.2	- 4.0	70.3	- 4.1	69.4	- 3.2	69.9	- 3.7	69.2	- 3.0	69.9	- 3.7	69.4	- 3.2
14:30 - 14:45	65.0	69.6	- 4.6	69.9	- 5.0	69.4	- 4.5	65.4	- 0.5	68.7	- 3.8	68.4	- 3.5	61.4	3.6	49.6	15.4	68.8	- 3.8	68.5	- 3.6	65.4	- 0.5	65.9	- 1.0
14:45 - 15:00	64.0	69.5	- 5.5	68.5	- 4.5	67.1	- 3.1	68.2	- 4.2	69.1	- 5.1	70.2	- 6.2	69.1	- 5.1	68.9	- 4.9	67.6	- 3.6	69.0	- 5.0	68.5	- 4.5	68.7	- 4.7
15:00 - 15:15	64.7	68.4	- 3.7	68.6	- 3.9	68.2	- 3.5	67.7	- 3.0	60.5	4.2	67.2	- 2.5	69.0	- 4.3	67.7	- 3.0	64.9	- 0.2	66.0	- 1.3	67.7	- 3.0	66.9	- 2.2
15:15 - 15:30	48.1	68.8	-20.7	67.1	-19.0	59.3	-11.2	66.0	-17.9	68.3	-20.2	66.1	-18.0	63.2	-15.1	67.6	-19.5	67.7	-19.6	64.8	-16.7	65.7	-17.6	65.9	-17.8
15:30 - 15:45	42.3	67.0	-24.7	62.5	-20.2	19.3	23.0	66.8	-24.5	59.8	-17.5	59.0	-16.7	23.1	19.2	34.3	8.0	49.2	- 6.9	29.9	12.4	53.1	-10.8	47.6	- 5.3
15:45 - 16:00	39.7	41.0	- 1.3	18.4	21.3	20.6	19.1	65.3	-25.6	19.6	20.1	20.1	19.6	22.6	17.1	18.4	21.3	19.3	20.4	20.0	19.7	18.4	21.3	25.8	13.9
16:00 - 16:15	45.4	21.0	24.4	19.4	26.0	20.7	24.7	21.7	23.7	19.1	26.3	22.2	23.2	18.9	26.5	21.7	23.7	18.0	27.4	22.1	23.3	19.6	25.8	20.4	25.0
16:15 - 16:30	44.5	20.5	24.0	19.8	24.7	21.3	23.2	17.0	27.5	19.2	25.3	18.7	25.8	19.6	24.9	20.2	24.3	18.0	26.5	17.8	26.7	19.3	25.2	19.2	25.3
16:30 - 16:45	40.1	19.2	20.9	19.4	20.7	19.7	20.4	21.7	18.4	19.3	20.8	20.6	19.5	20.6	19.5	18.6	21.5	21.0	19.1	18.7	21.4	18.0	22.1	19.7	20.4
16:45 - 17:00	38.2	20.0	18.2	18.5	19.7	19.6	18.6	17.2	21.0	19.7	18.5	18.1	20.1	18.0	20.2	17.6	20.6	18.9	19.3	19.3	18.9	16.5	21.7	18.5	19.7
17:00 - 17:15	36.9	18.1	18.8	19.3	17.6	19.9	17.0	18.5	18.4	17.2	19.7	19.1	17.8	19.8	17.1	17.6	19.3	20.3	16.6	18.7	18.2	20.5	16.4	19.0	17.9
17:15 - 17:30	36.1	16.9	19.2	17.1	19.0	16.9	19.2	15.9	20.2	16.5	19.6	14.9	21.2	16.7	19.4	16.2	19.9	17.1	19.0	17.2	18.9	17.5	18.6	16.6	19.5
17:30 - 17:45	28.3	15.3	13.0	17.0	11.3	15.1	13.2	17.0	11.3	17.1	11.2	17.7	10.6	16.4	11.9	16.2	12.1	17.8	10.5	17.3	11.0	17.5	10.8	16.8	11.5
17:45 - 18:00	27.0	32.9	- 5.9	17.2	9.8	17.9	9.1	19.6	7.4	19.2	7.8	18.3	8.7	16.7	10.3	18.5	8.5	16.6	10.4	18.1	8.9	20.0	7.0	19.5	7.5
Hour 1	65.0	69.7	- 4.6	69.8	- 4.8	69.3	- 4.3	68.4	- 3.4	68.1	- 3.0	69.5	- 4.4	67.7	- 2.6	64.6	0.5	68.9	- 3.8	69.3	- 4.2	68.5	- 3.5	68.5	- 3.5
Hour 2	48.7	61.3	-12.6	54.2	- 5.5	41.9	6.8	66.5	-17.8	52.1	- 3.4	53.1	- 4.4	44.5	4.2	47.0	1.7	50.3	- 1.6	45.2	3.5	51.2	- 2.5	51.6	- 2.9
Hour 3	42.0	20.2	21.9	19.3	22.8	20.3	21.7	19.4	22.6	19.3	22.7	19.9	22.1	19.3	22.8	19.5	22.5	19.0	23.1	19.5	22.6	18.4	23.7	19.5	22.6
Hour 4	32.1	20.8	11.3	17.7	14.4	17.5	14.6	17.8	14.3	17.5	14.6	17.5	14.6	17.4	14.7	17.1	14.9	18.0	14.1	17.8	14.2	18.9	13.2	18.0	14.1
11	47.0	43.0	4.0	40.2	6.7	37.2	9.7	43.0	3.9	39.2	7.7	40.0	7.0	37.2	9.7	37.1	9.9	39.0	7.9	37.9	9.0	39.2	7.7	39.4	7.6

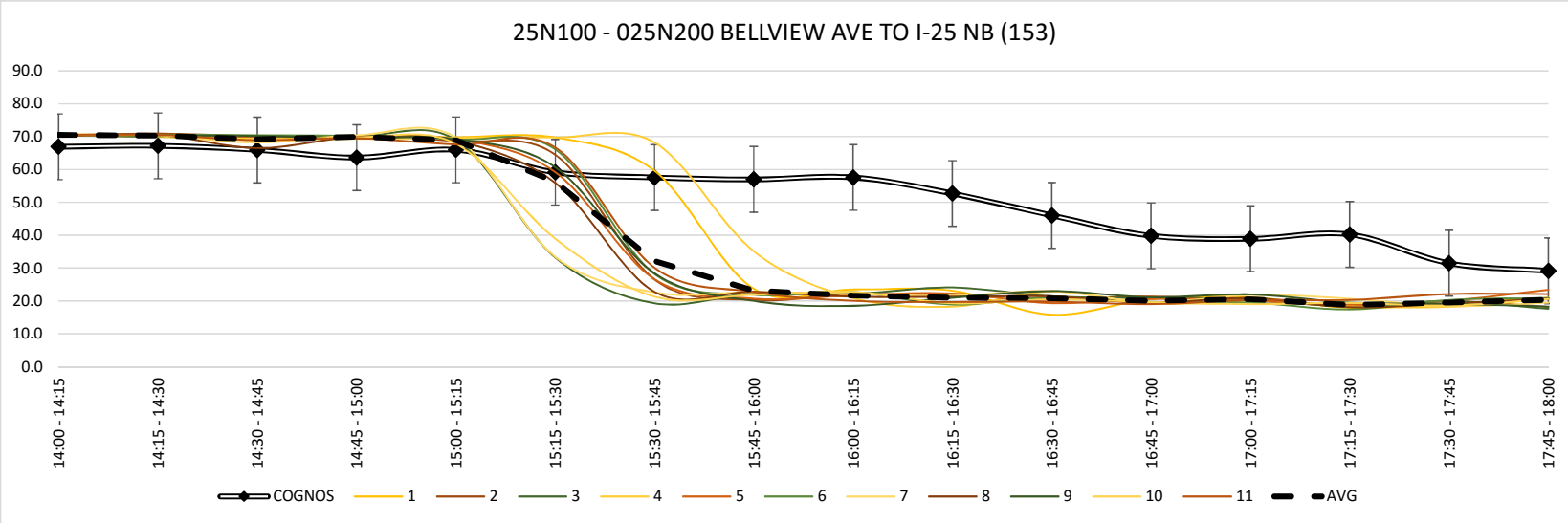


EXISTING		Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run																							
PM	COGNOS	MODEL																						AGGREGATE	
TIME	25N090	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	66.8	67.0	- 0.2	67.7	- 0.9	67.9	- 1.1	67.0	- 0.2	67.3	- 0.5	67.5	- 0.7	67.8	- 1.0	66.7	0.1	65.8	1.0	66.3	0.5	66.7	0.1	67.1	- 0.3
14:15 - 14:30	67.4	65.9	1.5	67.0	0.4	67.0	0.4	66.2	1.2	66.4	1.0	66.8	0.6	66.3	1.1	67.1	0.3	67.2	0.2	66.9	0.5	66.7	0.7	66.7	0.7
14:30 - 14:45	66.3	63.0	3.3	65.4	0.8	63.7	2.6	61.9	4.4	63.2	3.1	65.9	0.3	59.0	7.3	53.7	12.6	65.5	0.8	64.0	2.3	62.3	4.0	62.5	3.8
14:45 - 15:00	63.1	64.7	- 1.6	65.6	- 2.5	63.6	- 0.5	62.9	0.2	64.0	- 0.9	65.5	- 2.4	66.0	- 2.9	63.8	- 0.7	63.7	- 0.6	65.4	- 2.3	63.7	- 0.6	64.5	- 1.4
15:00 - 15:15	65.8	65.3	0.5	65.1	0.7	62.7	3.1	64.3	1.5	61.8	4.0	63.6	2.2	60.6	5.2	62.2	3.6	61.2	4.6	60.2	5.6	60.0	5.8	62.5	3.3
15:15 - 15:30	47.7	62.3	-14.6	58.0	-10.3	48.1	- 0.4	61.7	-14.0	61.5	-13.8	59.6	-11.9	45.3	2.4	62.0	-14.3	62.4	-14.7	58.3	-10.6	60.1	-12.4	58.1	-10.4
15:30 - 15:45	49.3	55.7	- 6.4	45.1	4.2	23.1	26.2	59.7	-10.4	41.8	7.5	47.9	1.4	24.6	24.7	30.2	19.1	37.4	11.9	24.2	25.1	39.8	9.5	39.0	10.3
15:45 - 16:00	45.9	29.2	16.7	22.7	23.2	25.1	20.8	46.4	- 0.5	23.0	22.9	24.4	21.5	26.7	19.2	24.1	21.8	23.2	22.7	24.7	21.2	22.9	23.0	26.6	19.3
16:00 - 16:15	52.5	27.9	24.6	24.1	28.4	26.8	25.7	25.0	27.5	23.3	29.2	26.3	26.2	26.8	25.7	27.0	25.5	20.0	32.5	26.5	26.0	23.9	28.6	25.2	27.3
16:15 - 16:30	42.9	26.5	16.4	25.4	17.5	28.8	14.1	19.4	23.5	22.9	20.0	22.7	20.2	23.8	19.1	24.7	18.2	22.3	20.6	22.5	20.4	23.3	19.6	23.8	19.1
16:30 - 16:45	44.2	22.0	22.2	23.9	20.3	24.0	20.2	28.2	16.0	22.3	21.9	25.0	19.2	25.3	18.9	22.6	21.6	26.8	17.4	23.4	20.8	22.7	21.5	24.2	20.0
16:45 - 17:00	39.8	26.6	13.2	22.8	17.0	23.4	16.4	21.1	18.7	26.0	13.8	22.6	17.2	21.7	18.1	21.2	18.6	23.2	16.6	23.1	16.7	19.7	20.1	22.9	16.9
17:00 - 17:15	38.0	22.7	15.3	24.8	13.2	23.3	14.7	22.7	15.3	20.5	17.5	22.1	15.9	23.3	14.7	22.9	15.1	25.3	12.7	22.9	15.1	26.2	11.8	23.3	14.7
17:15 - 17:30	36.2	19.7	16.5	18.4	17.8	20.0	16.2	17.9	18.3	20.9	15.3	17.5	18.7	23.1	13.1	18.8	17.4	20.0	16.2	20.9	15.3	21.2	15.0	19.9	16.3
17:30 - 17:45	33.2	18.7	14.5	21.2	12.0	20.8	12.4	19.9	13.3	20.7	12.5	22.0	11.2	18.5	14.7	20.8	12.4	20.3	12.9	20.9	12.3	21.5	11.7	20.5	12.7
17:45 - 18:00	29.6	22.1	7.5	21.4	8.2	21.0	8.6	22.2	7.4	24.7	4.9	24.9	4.7	20.1	9.5	22.6	7.0	19.5	10.1	22.2	7.4	24.4	5.2	22.3	7.3
Hour 1	65.9	65.2	0.7	66.4	- 0.5	65.6	0.3	64.5	1.4	65.2	0.7	66.4	- 0.5	64.8	1.1	62.8	3.1	65.6	0.3	65.7	0.2	64.9	1.0	65.2	0.7
Hour 2	52.2	53.1	- 1.0	47.7	4.4	39.8	12.4	58.0	- 5.9	47.0	5.1	48.9	3.3	39.3	12.9	44.6	7.5	46.1	6.1	41.9	10.3	45.7	6.5	46.6	5.6
Hour 3	44.8	25.8	19.1	24.1	20.8	25.8	19.1	23.4	21.4	23.6	21.2	24.2	20.7	24.4	20.4	23.9	21.0	23.1	21.8	23.9	21.0	22.4	22.4	24.0	20.8
Hour 4	34.2	20.8	13.4	21.5	12.8	21.3	13.0	20.7	13.6	21.7	12.5	21.6	12.6	21.3	13.0	21.3	13.0	21.3	13.0	21.7	12.5	23.3	10.9	21.5	12.7
11	49.3	41.2	8.1	39.9	9.4	38.1	11.2	41.7	7.6	39.4	9.9	40.3	9.0	37.4	11.9	38.2	11.1	39.0	10.3	38.3	11.0	39.1	10.2	39.3	10.0



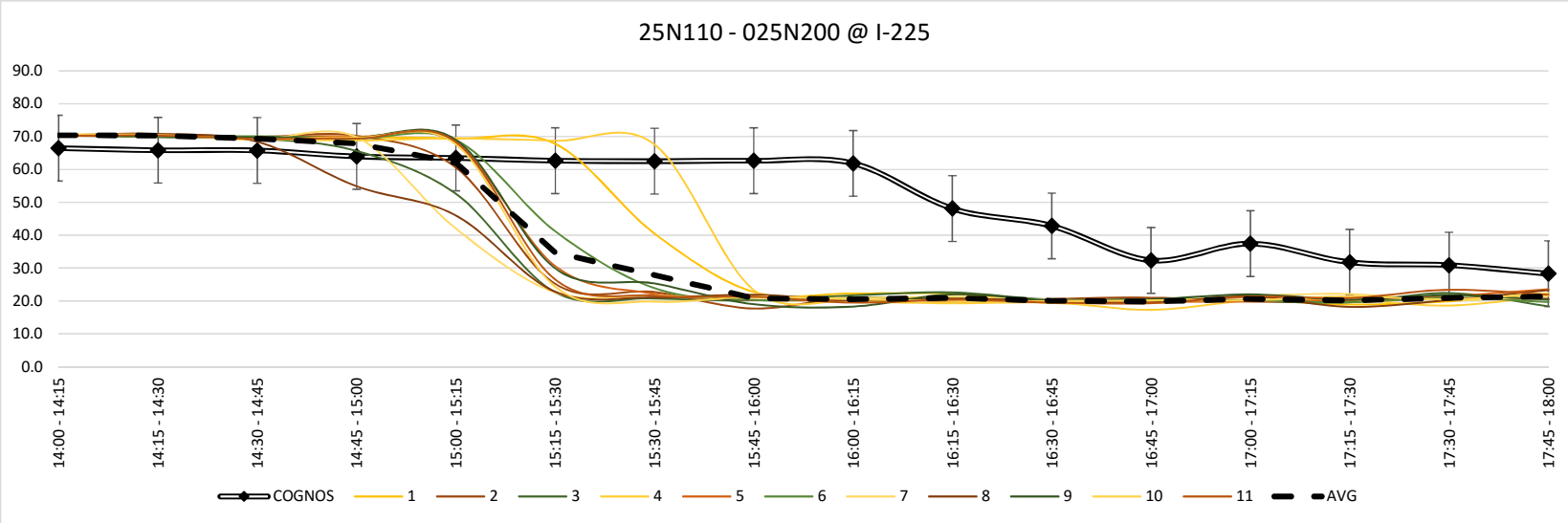
EXISTING																									
PM	COGNOS	MODEL																						AGGREGATE	
TIME	25N100	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	66.9	70.5	- 3.6	70.4	- 3.5	70.4	- 3.5	70.8	- 3.9	70.2	- 3.3	70.5	- 3.6	70.4	- 3.5	70.2	- 3.3	70.6	- 3.7	70.6	- 3.7	70.5	- 3.6	70.5	- 3.6
14:15 - 14:30	67.2	69.9	- 2.7	70.9	- 3.7	69.9	- 2.7	70.1	- 2.9	70.4	- 3.2	70.6	- 3.4	70.2	- 3.0	70.5	- 3.3	70.3	- 3.1	70.4	- 3.2	70.5	- 3.3	70.3	- 3.1
14:30 - 14:45	65.9	69.0	- 3.1	70.1	- 4.2	70.0	- 4.1	69.4	- 3.5	69.9	- 4.0	70.4	- 4.5	68.2	- 2.3	66.5	- 0.6	70.2	- 4.3	68.8	- 2.9	68.9	- 3.0	69.2	- 3.3
14:45 - 15:00	63.6	70.3	- 6.7	70.1	- 6.5	70.0	- 6.4	69.3	- 5.7	69.7	- 6.1	70.2	- 6.6	70.4	- 6.8	69.9	- 6.3	69.5	- 5.9	69.8	- 6.2	69.5	- 5.9	69.9	- 6.3
15:00 - 15:15	66.0	69.8	- 3.8	68.6	- 2.6	69.0	- 3.0	69.6	- 3.6	69.2	- 3.2	69.1	- 3.1	69.7	- 3.7	68.7	- 2.7	69.2	- 3.2	67.8	- 1.8	67.6	- 1.6	68.9	- 2.9
15:15 - 15:30	59.2	69.7	-10.6	64.5	- 5.4	33.2	26.0	69.7	-10.6	59.2	- 0.1	66.1	- 7.0	33.4	25.8	55.9	3.3	60.7	- 1.6	39.0	20.2	66.7	- 7.6	56.2	3.0
15:30 - 15:45	57.6	59.6	- 2.0	26.5	31.1	19.3	38.3	68.2	-10.6	26.6	31.0	28.2	29.4	22.6	35.0	22.8	34.8	28.4	29.2	21.3	36.3	30.1	27.5	32.2	25.4
15:45 - 16:00	57.0	23.7	33.3	20.3	36.7	22.4	34.6	35.1	21.9	20.7	36.3	21.9	35.1	22.7	34.3	22.8	34.2	20.0	37.0	21.9	35.1	22.7	34.3	23.1	33.9
16:00 - 16:15	57.6	23.5	34.1	22.1	35.5	22.2	35.4	20.9	36.7	21.7	35.9	22.7	34.9	22.1	35.5	21.3	36.3	18.5	39.1	22.7	34.9	20.0	37.6	21.6	36.0
16:15 - 16:30	52.7	23.1	29.6	21.6	31.1	24.1	28.6	18.3	34.4	22.3	30.4	18.9	33.8	21.6	31.1	21.3	31.4	21.0	31.7	19.3	33.4	19.7	33.0	21.0	31.7
16:30 - 16:45	46.0	15.8	30.2	20.8	25.2	21.4	24.6	22.9	23.1	19.3	26.7	21.1	24.9	23.0	23.0	21.4	24.6	23.0	23.0	20.5	25.5	19.8	26.2	20.8	25.2
16:45 - 17:00	39.8	20.6	19.2	21.3	18.5	20.9	18.9	19.2	20.6	20.6	19.2	19.7	20.1	19.6	20.2	19.4	20.4	21.1	18.7	19.6	20.2	19.0	20.8	20.1	19.7
17:00 - 17:15	38.9	21.1	17.8	20.1	18.8	20.5	18.4	20.1	18.8	20.2	18.7	19.5	19.4	21.8	17.1	20.9	18.0	22.0	16.9	19.0	19.9	20.3	18.6	20.5	18.4
17:15 - 17:30	40.2	17.9	22.3	18.5	21.7	18.3	21.9	18.5	21.7	18.8	21.4	17.4	22.8	20.7	19.5	18.1	22.1	19.5	20.7	19.4	20.8	20.3	19.9	18.8	21.4
17:30 - 17:45	31.5	19.1	12.4	19.9	11.6	19.9	11.6	18.2	13.3	20.1	11.4	20.3	11.2	18.4	13.1	19.2	12.3	19.1	12.4	18.6	12.9	22.1	9.4	19.5	12.0
17:45 - 18:00	29.2	21.0	8.2	18.2	11.0	17.6	11.6	20.7	8.5	23.4	5.8	20.9	8.3	19.5	9.7	20.7	8.5	18.3	10.9	20.6	8.6	22.1	7.1	20.3	8.9
Hour 1	65.9	69.9	- 4.0	70.4	- 4.5	70.1	- 4.2	69.9	- 4.0	70.1	- 4.1	70.4	- 4.5	69.8	- 3.9	69.3	- 3.4	70.2	- 4.2	69.9	- 4.0	69.9	- 3.9	70.0	- 4.1
Hour 2	59.9	55.7	4.2	45.0	14.9	36.0	23.9	60.7	- 0.7	43.9	16.0	46.3	13.6	37.1	22.8	42.6	17.4	44.6	15.3	37.5	22.4	46.8	13.1	45.1	14.8
Hour 3	49.0	20.8	28.3	21.5	27.6	22.2	26.9	20.3	28.7	21.0	28.0	20.6	28.4	21.6	27.4	20.9	28.2	20.9	28.1	20.5	28.5	19.6	29.4	20.9	28.1
Hour 4	34.9	19.8	15.2	19.2	15.8	19.1	15.9	19.4	15.6	20.6	14.3	19.5	15.4	20.1	14.8	19.7	15.2	19.7	15.2	19.4	15.5	21.2	13.7	19.8	15.2
11	52.4	41.5	10.9	39.0	13.4	36.8	15.6	42.6	9.9	38.9	13.5	39.2	13.2	37.1	15.3	38.1	14.3	38.8	13.6	36.8	15.6	39.4	13.1	38.9	13.5

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run



EXISTING																									
PM	COGNOS	MODEL																						AGGREGATE	
TIME	25N110	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	66.5	70.6	- 4.1	70.5	- 4.0	70.4	- 3.9	70.4	- 3.9	70.3	- 3.8	70.5	- 4.0	70.3	- 3.8	70.4	- 3.9	70.5	- 4.0	70.7	- 4.2	70.2	- 3.7	70.4	- 3.9
14:15 - 14:30	65.9	70.4	- 4.6	70.5	- 4.7	69.8	- 4.0	70.3	- 4.5	70.2	- 4.4	69.9	- 4.1	70.5	- 4.7	70.8	- 5.0	70.1	- 4.3	70.5	- 4.7	70.3	- 4.5	70.3	- 4.5
14:30 - 14:45	65.8	69.1	- 3.3	69.9	- 4.1	69.4	- 3.6	69.4	- 3.6	69.8	- 4.0	70.1	- 4.3	69.1	- 3.3	68.4	- 2.6	69.7	- 3.9	69.2	- 3.4	69.3	- 3.5	69.4	- 3.6
14:45 - 15:00	64.0	69.7	- 5.7	70.2	- 6.2	65.6	- 1.6	68.8	- 4.8	70.0	- 6.0	69.4	- 5.4	69.8	- 5.8	54.9	9.1	69.7	- 5.7	69.7	- 5.7	69.4	- 5.4	67.9	- 3.9
15:00 - 15:15	63.5	69.4	- 5.9	60.6	2.9	52.6	10.9	69.5	- 6.0	68.0	- 4.5	68.9	- 5.4	42.0	21.5	46.0	17.5	69.0	- 5.5	67.7	- 4.2	68.4	- 4.9	62.0	1.5
15:15 - 15:30	62.7	67.8	- 5.1	25.2	37.5	22.6	40.1	68.7	- 6.0	30.6	32.1	41.2	21.5	22.6	40.1	22.8	39.9	29.9	32.8	24.3	38.4	26.5	36.2	34.7	28.0
15:30 - 15:45	62.5	40.5	22.0	22.7	39.8	20.8	41.7	67.6	- 5.1	22.2	40.3	23.9	38.6	21.6	40.9	21.1	41.4	25.3	37.2	19.8	42.7	21.6	40.9	27.9	34.6
15:45 - 16:00	62.6	22.7	39.9	17.7	44.9	20.2	42.4	23.3	39.3	20.3	42.3	20.3	42.3	21.0	41.6	21.9	40.7	19.0	43.6	21.3	41.3	21.3	41.3	20.8	41.8
16:00 - 16:15	61.9	22.3	39.6	21.1	40.8	21.7	40.2	20.1	41.8	20.2	41.7	21.0	40.9	20.9	41.0	20.1	41.8	18.3	43.6	20.5	41.4	19.5	42.4	20.5	41.4
16:15 - 16:30	48.1	22.2	25.9	19.8	28.3	22.6	25.5	19.3	28.8	20.8	27.3	21.0	27.1	21.3	26.8	20.7	27.4	22.0	26.1	20.0	28.1	20.4	27.7	20.9	27.2
16:30 - 16:45	42.8	19.4	23.4	20.6	22.2	20.4	22.4	19.5	23.3	20.3	22.5	20.3	22.5	20.4	22.4	20.1	22.7	20.2	22.6	19.9	22.9	19.5	23.3	20.1	22.7
16:45 - 17:00	32.3	19.9	12.4	21.0	11.3	20.5	11.8	17.3	15.0	19.7	12.6	20.3	12.0	20.0	12.3	19.5	12.8	20.5	11.8	20.2	12.1	19.3	13.0	19.8	12.5
17:00 - 17:15	37.4	20.3	17.1	19.9	17.5	20.0	17.4	20.1	17.3	19.9	17.5	20.2	17.2	21.5	15.9	21.4	16.0	22.0	15.4	20.2	17.2	21.3	16.1	20.6	16.8
17:15 - 17:30	31.8	18.9	12.9	19.9	11.9	19.6	12.2	20.4	11.4	20.3	11.5	19.6	12.2	22.1	9.7	18.2	13.6	20.4	11.4	21.4	10.4	20.9	10.9	20.2	11.6
17:30 - 17:45	30.9	19.9	11.0	20.8	10.1	22.4	8.5	18.6	12.3	21.4	9.5	21.0	9.9	20.2	10.7	20.3	10.6	21.8	9.1	20.5	10.4	23.4	7.5	20.9	10.0
17:45 - 18:00	28.3	22.2	6.1	20.7	7.6	18.4	9.9	21.6	6.7	23.6	4.7	19.7	8.6	21.6	6.7	23.3	5.0	20.4	7.9	22.4	5.9	21.9	6.4	21.4	6.9
Hour 1	65.5	70.0	- 4.4	70.3	- 4.8	68.8	- 3.3	69.7	- 4.2	70.1	- 4.6	70.0	- 4.5	69.9	- 4.4	66.1	- 0.6	70.0	- 4.5	70.0	- 4.5	69.8	- 4.3	69.5	- 4.0
Hour 2	62.8	50.1	12.7	31.6	31.3	29.1	33.8	57.3	5.6	35.3	27.6	38.6	24.3	26.8	36.0	28.0	34.9	35.8	27.0	33.3	29.6	34.5	28.4	36.4	26.5
Hour 3	46.3	21.0	25.3	20.6	25.7	21.3	25.0	19.1	27.2	20.3	26.0	20.7	25.6	20.7	25.6	20.1	26.2	20.3	26.0	20.2	26.1	19.7	26.6	20.3	26.0
Hour 4	32.1	20.3	11.8	20.3	11.8	20.1	12.0	20.2	11.9	21.3	10.8	20.1	12.0	21.4	10.7	20.8	11.3	21.2	10.9	21.1	11.0	21.9	10.2	20.8	11.3
11	51.7	40.3	11.3	35.7	16.0	34.8	16.9	41.6	10.1	36.7	15.0	37.3	14.3	34.7	17.0	33.7	17.9	36.8	14.9	36.1	15.5	36.5	15.2	36.7	14.9

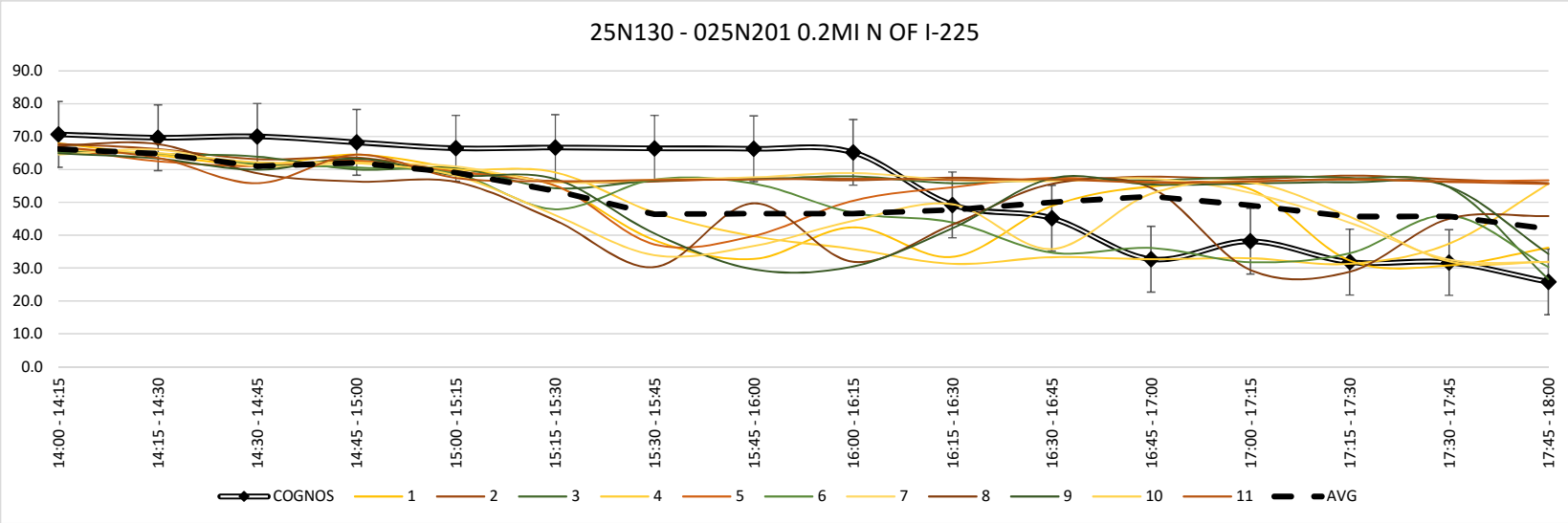
Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run



EXISTING

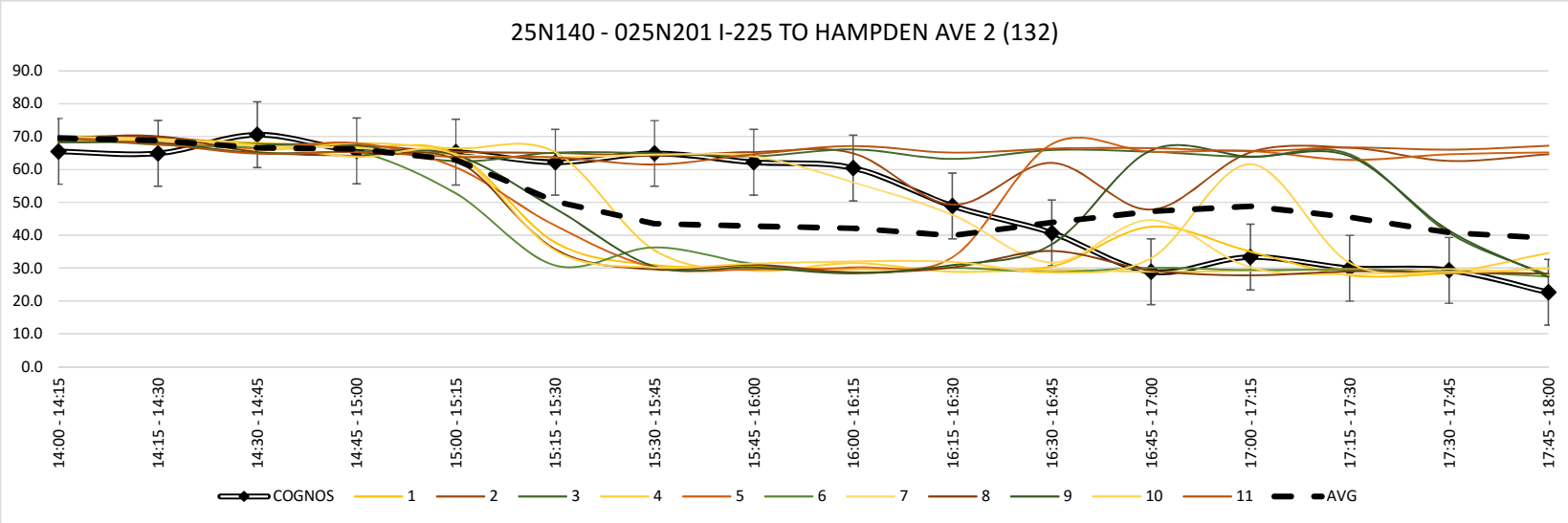
Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

PM	COGNOS	MODEL																						AGGREGATE	
TIME	25N130	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	70.7	68.0	2.7	67.8	2.9	66.2	4.5	65.3	5.4	66.4	4.3	65.3	5.4	64.5	6.2	67.3	3.4	64.9	5.8	66.1	4.6	66.9	3.8	66.2	4.5
14:15 - 14:30	69.7	64.3	5.4	66.2	3.5	64.7	5.0	64.6	5.1	62.5	7.2	64.9	4.8	66.0	3.7	67.7	2.0	63.3	6.4	65.0	4.7	63.5	6.2	64.8	4.9
14:30 - 14:45	70.1	61.4	8.7	63.1	7.0	63.9	6.2	61.9	8.2	61.0	9.1	61.6	8.5	61.0	9.1	58.8	11.3	59.9	10.2	62.2	7.8	55.8	14.3	61.0	9.1
14:45 - 15:00	68.3	64.5	3.8	63.6	4.7	60.0	8.3	62.3	6.0	62.7	5.6	60.6	7.7	61.9	6.4	56.3	12.0	63.3	5.0	61.9	6.4	64.5	3.8	62.0	6.3
15:00 - 15:15	66.4	60.3	6.1	59.5	6.9	60.4	6.0	60.0	6.4	59.2	7.2	58.7	7.7	60.9	5.5	56.2	10.2	58.2	8.2	58.1	8.3	57.4	9.0	59.0	7.4
15:15 - 15:30	66.7	55.0	11.7	56.4	10.3	54.3	12.4	59.1	7.6	55.1	11.6	47.9	18.8	56.1	10.6	44.5	22.2	57.1	9.6	46.1	20.6	56.4	10.3	53.5	13.2
15:30 - 15:45	66.4	38.5	27.9	56.3	10.1	56.6	9.8	46.9	19.5	37.2	29.2	56.9	9.5	56.9	9.5	30.3	36.1	40.5	25.9	33.9	32.5	56.8	9.6	46.4	20.0
15:45 - 16:00	66.3	32.8	33.5	57.4	8.9	57.0	9.3	39.7	26.6	39.8	26.5	55.7	10.6	57.6	8.7	49.7	16.6	29.6	36.7	36.7	29.6	56.9	9.4	46.6	19.7
16:00 - 16:15	65.2	42.4	22.8	56.7	8.5	57.9	7.3	35.8	29.4	50.5	14.7	46.8	18.4	58.9	6.3	31.9	33.3	30.5	34.7	44.4	20.8	57.2	8.0	46.6	18.6
16:15 - 16:30	49.2	33.4	15.8	57.5	- 8.3	55.8	- 6.6	31.3	17.9	54.6	- 5.4	43.9	5.3	56.8	- 7.6	43.2	6.0	42.1	7.1	49.4	- 0.2	56.8	- 7.6	47.7	1.5
16:30 - 16:45	45.2	48.9	- 3.7	56.7	-11.5	56.9	-11.7	33.3	11.9	57.4	-12.2	34.7	10.5	56.4	-11.2	55.6	-10.4	57.3	-12.1	35.8	9.4	57.0	-11.8	50.0	- 4.8
16:45 - 17:00	32.7	54.8	-22.1	57.8	-25.1	56.7	-24.0	32.7	0.0	56.2	-23.5	36.1	- 3.4	57.2	-24.5	54.4	-21.7	55.4	-22.7	52.6	-19.9	56.0	-23.3	51.8	-19.1
17:00 - 17:15	38.2	54.0	-15.8	57.1	-18.9	57.7	-19.5	33.0	5.2	56.4	-18.2	31.8	6.4	52.9	-14.7	29.4	8.8	55.7	-17.5	56.0	-17.8	56.3	-18.1	49.1	-10.9
17:15 - 17:30	31.8	32.3	- 0.5	58.1	-26.3	57.4	-25.6	31.3	0.5	56.9	-25.1	34.5	- 2.7	43.8	-12.0	28.9	2.9	56.1	-24.3	45.6	-13.8	57.1	-25.3	45.6	-13.8
17:30 - 17:45	31.7	30.8	0.9	57.0	-25.3	54.6	-22.9	37.4	- 5.7	56.4	-24.7	46.0	-14.3	32.6	- 0.9	45.0	-13.3	54.8	-23.1	32.0	- 0.3	56.2	-24.5	45.7	-14.0
17:45 - 18:00	25.8	36.2	-10.4	55.9	-30.1	26.6	- 0.8	55.6	-29.8	56.7	-30.9	30.3	- 4.5	31.8	- 6.0	45.8	-20.0	34.3	- 8.5	31.9	- 6.1	55.6	-29.8	41.9	-16.1
Hour 1	69.7	64.6	5.1	65.2	4.5	63.7	6.0	63.5	6.1	63.2	6.5	63.1	6.6	63.4	6.3	62.5	7.1	62.9	6.8	63.8	5.9	62.7	7.0	63.5	6.2
Hour 2	66.5	46.7	19.8	57.4	9.1	57.1	9.4	51.4	15.0	47.8	18.6	54.8	11.7	57.9	8.6	45.2	21.3	46.4	20.1	43.7	22.8	56.9	9.6	51.4	15.1
Hour 3	48.1	44.9	3.2	57.2	- 9.1	56.8	- 8.8	33.3	14.8	54.7	- 6.6	40.4	7.7	57.3	- 9.3	46.3	1.8	46.3	1.7	45.6	2.5	56.8	- 8.7	49.0	- 1.0
Hour 4	31.9	38.3	- 6.5	57.0	-25.2	49.1	-17.2	39.3	- 7.5	56.6	-24.7	35.7	- 3.8	40.3	- 8.4	37.3	- 5.4	50.2	-18.4	41.4	- 9.5	56.3	-24.4	45.6	-13.7
11	54.0	48.6	5.4	59.2	- 5.2	56.7	- 2.7	46.9	7.1	55.6	- 1.6	48.5	5.5	54.7	- 0.7	47.8	6.2	51.4	2.6	48.6	5.4	58.2	- 4.1	52.4	1.6



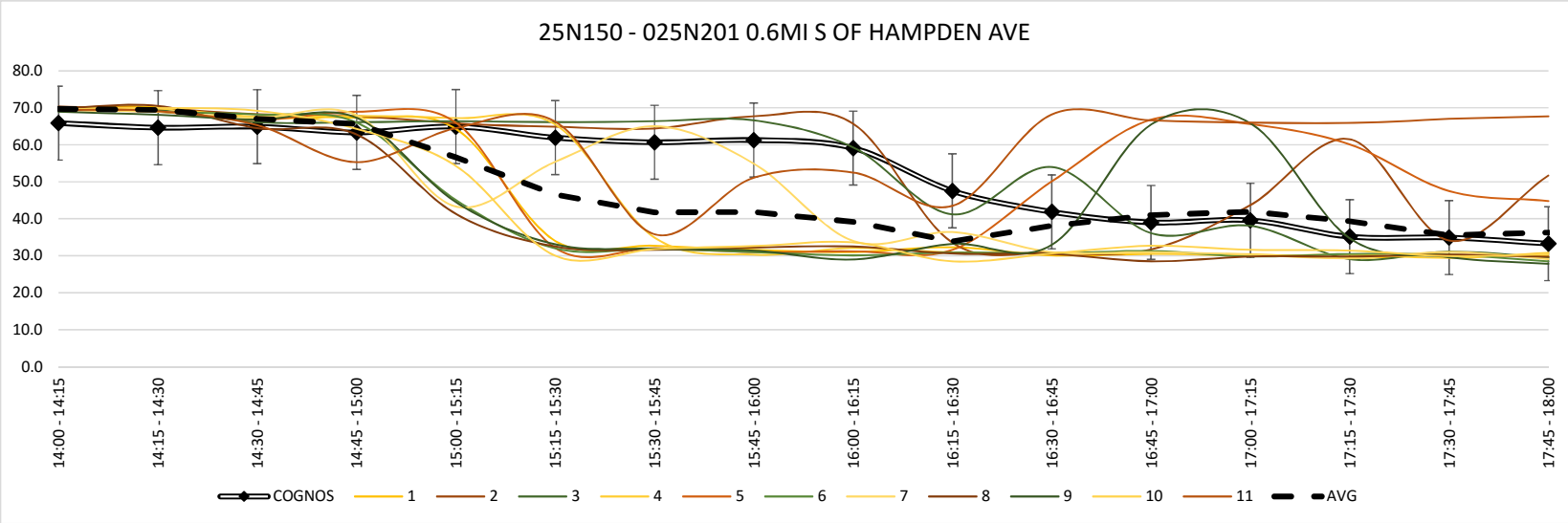
EXISTING																									
PM	COGNOS	MODEL																						AGGREGATE	
TIME	25N140	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	65.5	69.7	- 4.2	70.0	- 4.5	70.1	- 4.6	69.9	- 4.4	69.8	- 4.3	69.7	- 4.2	68.5	- 3.0	69.5	- 4.0	68.3	- 2.8	70.0	- 4.5	69.5	- 4.0	69.5	- 4.0
14:15 - 14:30	64.9	69.4	- 4.5	69.8	- 4.9	69.1	- 4.2	69.0	- 4.1	68.2	- 3.3	67.5	- 2.6	69.0	- 4.1	70.1	- 5.2	68.0	- 3.1	69.3	- 4.4	67.7	- 2.8	68.8	- 3.9
14:30 - 14:45	70.6	68.1	2.5	67.4	3.1	67.7	2.8	65.9	4.6	66.5	4.1	66.8	3.8	67.1	3.5	65.3	5.3	65.0	5.6	67.4	3.1	64.8	5.8	66.6	4.0
14:45 - 15:00	65.7	66.8	- 1.1	67.3	- 1.6	67.4	- 1.7	68.0	- 2.3	68.0	- 2.3	65.5	0.2	66.5	- 0.8	64.1	1.6	65.4	0.3	63.8	1.9	65.3	0.4	66.2	- 0.5
15:00 - 15:15	65.3	64.8	0.5	65.4	- 0.1	62.5	2.8	66.4	- 1.1	60.6	4.7	52.7	12.6	64.4	0.9	62.9	2.4	64.3	1.0	64.4	0.9	63.8	1.5	62.9	2.4
15:15 - 15:30	62.2	37.8	24.4	65.0	- 2.8	65.1	- 2.9	65.3	- 3.1	42.9	19.3	30.8	31.4	63.7	- 1.5	35.7	26.5	48.1	14.1	35.3	26.9	63.7	- 1.5	50.3	11.9
15:30 - 15:45	64.9	30.9	34.0	64.2	0.7	64.9	- 0.0	35.4	29.5	30.2	34.7	36.3	28.6	64.5	0.4	29.6	35.3	30.5	34.4	30.2	34.7	61.5	3.4	43.5	21.4
15:45 - 16:00	62.2	30.5	31.7	65.3	- 3.1	64.0	- 1.8	29.2	33.0	29.6	32.6	31.2	31.0	64.0	- 1.8	31.0	31.2	30.2	32.0	31.4	30.8	64.6	- 2.4	42.8	19.4
16:00 - 16:15	60.5	29.6	30.9	64.9	- 4.5	66.1	- 5.6	31.5	29.0	30.2	30.3	28.5	32.0	56.1	4.4	28.7	31.8	28.4	32.1	32.0	28.5	67.1	- 6.6	42.1	18.4
16:15 - 16:30	48.9	30.2	18.7	49.3	- 0.4	63.2	-14.3	28.9	20.0	33.3	15.6	30.0	18.9	46.2	2.7	30.2	18.7	30.9	18.0	31.9	17.0	65.1	-16.2	39.9	9.0
16:30 - 16:45	40.7	30.5	10.2	62.0	-21.3	65.9	-25.2	29.5	11.2	67.7	-27.0	28.8	11.9	31.7	9.0	35.2	5.5	37.2	3.5	28.6	12.1	66.3	-25.6	43.9	- 3.2
16:45 - 17:00	28.9	42.6	-13.7	47.8	-18.9	65.4	-36.5	28.9	0.0	65.4	-36.5	30.1	- 1.2	44.6	-15.7	29.3	- 0.4	65.8	-36.9	33.0	- 4.1	66.5	-37.6	47.2	-18.3
17:00 - 17:15	33.4	35.0	- 1.6	65.2	-31.8	63.8	-30.4	29.2	4.2	65.6	-32.2	29.4	4.0	30.2	3.2	27.8	5.6	63.9	-30.5	61.6	-28.2	65.6	-32.2	48.8	-15.4
17:15 - 17:30	30.0	27.8	2.2	66.6	-36.6	64.6	-34.6	29.7	0.3	62.9	-32.9	29.5	0.5	28.1	1.9	29.0	1.0	64.0	-34.0	31.6	- 1.6	66.7	-36.7	45.5	-15.5
17:30 - 17:45	29.3	28.4	0.9	62.6	-33.3	40.7	-11.4	28.9	0.4	64.6	-35.3	29.0	0.3	29.7	- 0.4	28.7	0.6	41.4	-12.1	28.8	0.5	66.0	-36.7	40.8	-11.5
17:45 - 18:00	22.7	29.9	- 7.3	64.6	-42.0	27.8	- 5.2	34.6	-12.0	65.2	-42.6	27.4	- 4.8	28.0	- 5.4	28.3	- 5.7	27.3	- 4.7	29.9	- 7.3	67.2	-44.6	39.1	-16.5
Hour 1	66.7	68.5	- 1.8	68.6	- 2.0	68.6	- 1.9	68.2	- 1.6	68.1	- 1.5	67.4	- 0.7	67.8	- 1.1	67.3	- 0.6	66.7	- 0.0	67.6	- 1.0	66.8	- 0.2	67.8	- 1.1
Hour 2	63.6	41.0	22.6	65.0	- 1.3	64.1	- 0.5	49.1	14.6	40.8	22.8	37.8	25.9	64.2	- 0.5	39.8	23.8	43.3	20.4	40.3	23.3	63.4	0.2	49.9	13.8
Hour 3	44.7	33.2	11.5	56.0	-11.3	65.2	-20.4	29.7	15.0	49.2	- 4.4	29.4	15.4	44.7	0.1	30.9	13.9	40.6	4.2	31.4	13.4	66.3	-21.5	43.3	1.5
Hour 4	28.8	30.3	- 1.5	64.8	-35.9	49.2	-20.4	30.6	- 1.8	64.6	-35.8	28.8	- 0.0	29.0	- 0.2	28.5	0.4	49.2	-20.3	38.0	- 9.2	66.4	-37.6	43.6	-14.7
11	51.0	43.3	7.7	63.6	-12.6	61.8	-10.8	44.4	6.6	55.7	- 4.7	40.8	10.1	51.4	- 0.4	41.6	9.4	49.9	1.0	44.3	6.6	65.7	-14.8	51.1	- 0.2

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run



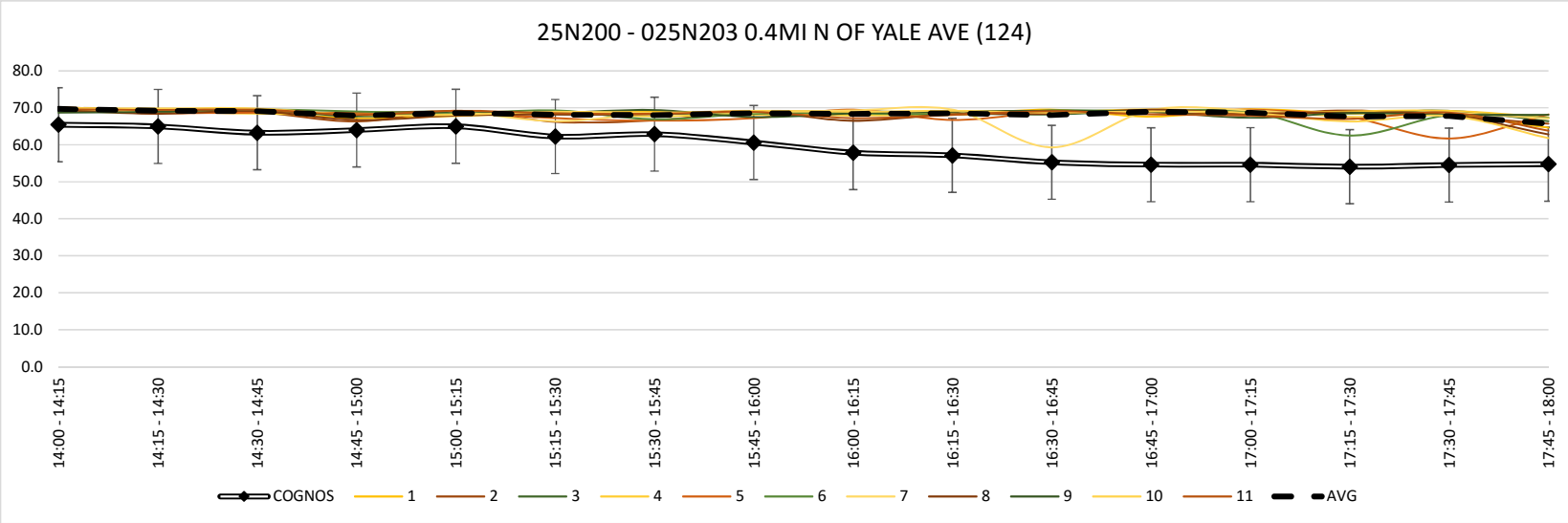
EXISTING																									
PM	COGNOS	MODEL																						AGGREGATE	
TIME	25N150	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	65.9	70.1	- 4.2	70.3	- 4.4	70.1	- 4.2	69.8	- 3.9	69.4	- 3.5	70.0	- 4.1	69.4	- 3.5	69.9	- 4.0	68.9	- 3.0	69.6	- 3.7	69.4	- 3.5	69.7	- 3.8
14:15 - 14:30	64.6	70.1	- 5.5	69.8	- 5.2	69.4	- 4.8	69.8	- 5.2	68.9	- 4.3	68.9	- 4.3	68.9	- 4.3	70.5	- 5.9	68.1	- 3.5	69.9	- 5.3	69.1	- 4.5	69.4	- 4.8
14:30 - 14:45	64.9	67.3	- 2.4	68.3	- 3.4	66.1	- 1.2	67.6	- 2.7	66.7	- 1.8	68.2	- 3.3	67.3	- 2.4	64.5	0.4	66.8	- 1.9	69.2	- 4.3	65.3	- 0.4	67.0	- 2.1
14:45 - 15:00	63.4	67.3	- 4.0	67.8	- 4.5	66.1	- 2.7	67.8	- 4.5	68.9	- 5.6	66.0	- 2.7	68.0	- 4.7	62.8	0.6	67.3	- 4.0	64.3	- 0.9	55.3	8.1	65.6	- 2.2
15:00 - 15:15	64.9	64.3	0.6	65.8	- 0.9	66.4	- 1.5	67.2	- 2.3	66.0	- 1.1	45.1	19.8	43.3	21.6	41.3	23.6	44.5	20.4	54.3	10.6	64.5	0.4	56.6	8.3
15:15 - 15:30	61.9	34.0	27.9	64.9	- 3.0	66.1	- 4.2	65.5	- 3.6	32.1	29.8	32.0	29.9	55.4	6.5	32.5	29.4	33.1	28.8	30.0	31.9	66.3	- 4.4	46.5	15.4
15:30 - 15:45	60.7	32.7	28.0	64.4	- 3.7	66.4	- 5.7	34.9	25.8	32.0	28.7	31.8	28.9	65.0	- 4.3	31.6	29.1	31.9	28.8	31.8	28.9	35.8	24.9	41.7	19.0
15:45 - 16:00	61.3	31.6	29.7	67.7	- 6.4	66.6	- 5.3	30.3	31.0	31.0	30.3	31.0	30.3	54.9	6.4	32.2	29.1	31.4	29.9	32.6	28.7	51.1	10.2	41.8	19.5
16:00 - 16:15	59.1	31.0	28.1	65.7	- 6.6	59.3	- 0.2	32.1	27.0	31.2	27.9	30.1	29.0	34.0	25.1	32.5	26.6	29.0	30.1	33.6	25.5	52.5	6.6	39.2	19.9
16:15 - 16:30	47.6	32.3	15.3	33.5	14.1	41.2	6.3	30.9	16.7	31.6	16.0	30.9	16.7	36.4	11.2	30.6	17.0	33.2	14.4	28.5	19.1	43.5	4.1	33.9	13.7
16:30 - 16:45	41.9	30.1	11.8	30.9	11.0	54.0	-12.1	30.7	11.2	50.1	- 8.2	30.6	11.3	31.0	10.9	30.5	11.4	32.9	9.0	30.6	11.3	68.2	-26.3	38.1	3.8
16:45 - 17:00	39.0	30.5	8.5	31.7	7.3	36.1	2.9	30.6	8.4	66.8	-27.8	31.3	7.7	31.0	8.0	28.5	10.5	65.5	-26.5	32.7	6.3	66.6	-27.6	41.0	- 2.0
17:00 - 17:15	39.6	30.4	9.2	43.7	- 4.1	38.1	1.5	30.0	9.6	65.6	-26.0	29.8	9.8	30.3	9.3	29.8	9.8	65.8	-26.2	31.6	8.0	66.0	-26.4	41.9	- 2.3
17:15 - 17:30	35.2	29.4	5.8	61.5	-26.3	29.1	6.1	30.3	4.9	60.1	-24.9	30.5	4.7	29.3	5.9	29.8	5.4	34.7	0.5	31.4	3.8	65.9	-30.7	39.3	- 4.1
17:30 - 17:45	34.9	30.2	4.7	34.1	0.8	31.1	3.8	29.4	5.5	47.5	-12.6	30.3	4.6	31.0	3.9	30.3	4.6	29.6	5.3	29.9	5.0	67.0	-32.1	35.5	- 0.6
17:45 - 18:00	33.3	29.8	3.5	51.7	-18.4	29.5	3.8	30.8	2.5	44.8	-11.5	28.5	4.8	29.1	4.2	29.7	3.6	27.8	5.5	30.4	2.9	67.7	-34.4	36.3	- 3.0
Hour 1	64.7	68.7	- 4.0	69.1	- 4.4	67.9	- 3.2	68.8	- 4.1	68.5	- 3.8	68.3	- 3.6	68.4	- 3.7	66.9	- 2.2	67.8	- 3.1	68.3	- 3.6	64.8	- 0.1	67.9	- 3.2
Hour 2	62.2	40.7	21.6	65.7	- 3.5	66.4	- 4.2	49.5	12.7	40.3	21.9	35.0	27.2	54.7	7.6	34.4	27.8	35.2	27.0	37.2	25.0	54.4	7.8	46.7	15.6
Hour 3	46.9	31.0	15.9	40.5	6.4	47.7	- 0.8	31.1	15.8	44.9	2.0	30.7	16.2	33.1	13.8	30.5	16.4	40.2	6.7	31.4	15.5	57.7	-10.8	38.1	8.8
Hour 4	35.7	30.0	5.8	47.8	-12.0	32.0	3.8	30.1	5.6	54.5	-18.8	29.8	6.0	29.9	5.8	29.9	5.8	39.5	- 3.7	30.8	4.9	66.7	-30.9	38.3	- 2.5
11	52.4	42.6	9.8	55.7	- 3.4	53.5	- 1.1	44.9	7.5	52.0	0.3	40.9	11.4	46.5	5.9	40.4	11.9	45.7	6.7	41.9	10.5	60.9	- 8.5	47.7	4.7

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run



EXISTING																									
PM	COGNOS	MODEL																						AGGREGATE	
TIME	25N200	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	65.4	70.1	- 4.7	70.2	- 4.8	69.8	- 4.4	70.1	- 4.7	69.9	- 4.5	69.4	- 4.0	69.7	- 4.3	69.4	- 4.0	68.7	- 3.3	69.9	- 4.5	69.6	- 4.2	69.7	- 4.3
14:15 - 14:30	65.0	69.4	- 4.4	69.2	- 4.2	69.5	- 4.5	69.1	- 4.1	68.6	- 3.6	69.4	- 4.4	69.0	- 4.0	68.4	- 3.4	68.9	- 3.9	69.8	- 4.8	69.4	- 4.4	69.2	- 4.2
14:30 - 14:45	63.3	68.7	- 5.4	68.8	- 5.5	68.8	- 5.5	68.4	- 5.1	68.7	- 5.4	69.6	- 6.3	69.5	- 6.2	69.1	- 5.8	69.5	- 6.2	69.8	- 6.5	69.5	- 6.2	69.1	- 5.8
14:45 - 15:00	64.0	67.2	- 3.2	66.3	- 2.3	68.7	- 4.7	68.3	- 4.3	68.7	- 4.7	69.0	- 5.0	68.0	- 4.0	66.7	- 2.7	67.7	- 3.7	68.1	- 4.1	68.1	- 4.1	67.9	- 3.9
15:00 - 15:15	65.0	67.8	- 2.8	69.2	- 4.2	69.0	- 4.0	68.4	- 3.4	68.6	- 3.6	68.5	- 3.5	68.8	- 3.8	67.9	- 2.9	69.0	- 4.0	68.1	- 3.1	69.2	- 4.2	68.6	- 3.6
15:15 - 15:30	62.2	68.6	- 6.4	66.2	- 4.0	68.3	- 6.1	68.8	- 6.6	67.2	- 5.0	69.3	- 7.1	66.4	- 4.2	68.2	- 6.0	68.7	- 6.5	68.9	- 6.7	68.5	- 6.3	68.1	- 5.9
15:30 - 15:45	62.9	68.9	- 6.0	66.6	- 3.7	68.3	- 5.4	67.7	- 4.8	66.5	- 3.6	66.9	- 4.0	68.5	- 5.6	68.3	- 5.4	69.4	- 6.5	68.7	- 5.8	68.4	- 5.5	68.0	- 5.1
15:45 - 16:00	60.6	68.2	- 7.6	69.0	- 8.4	68.8	- 8.2	68.5	- 7.9	67.2	- 6.6	68.4	- 7.8	68.8	- 8.2	69.0	- 8.4	67.5	- 6.9	69.2	- 8.6	68.9	- 8.3	68.5	- 7.9
16:00 - 16:15	57.9	68.5	-10.6	68.8	-10.9	69.1	-11.2	67.9	-10.0	69.5	-11.6	68.5	-10.6	69.3	-11.4	66.5	- 8.6	68.5	-10.6	68.9	-11.0	67.2	- 9.3	68.4	-10.5
16:15 - 16:30	57.1	68.1	-11.0	68.9	-11.8	68.5	-11.4	68.4	-11.3	66.7	- 9.6	68.2	-11.1	69.5	-12.4	68.3	-11.2	69.0	-11.9	69.2	-12.1	68.1	-11.0	68.5	-11.4
16:30 - 16:45	55.3	69.5	-14.2	68.7	-13.4	68.2	-12.9	68.7	-13.4	68.9	-13.6	69.3	-14.0	59.3	- 4.0	68.4	-13.1	69.2	-13.9	68.7	-13.4	69.1	-13.8	68.0	-12.7
16:45 - 17:00	54.6	67.6	-13.0	68.8	-14.2	69.3	-14.7	69.6	-15.0	68.9	-14.3	69.1	-14.5	69.4	-14.8	69.5	-14.9	68.9	-14.3	69.0	-14.4	68.2	-13.6	68.9	-14.3
17:00 - 17:15	54.6	69.6	-15.0	68.1	-13.5	69.2	-14.6	68.6	-14.0	69.5	-14.9	68.9	-14.3	69.3	-14.7	68.5	-13.9	67.3	-12.7	68.6	-14.0	67.9	-13.3	68.7	-14.1
17:15 - 17:30	54.1	68.5	-14.4	69.3	-15.2	68.5	-14.4	69.0	-14.9	67.5	-13.4	62.5	- 8.4	67.6	-13.5	68.7	-14.6	68.6	-14.5	66.3	-12.2	67.0	-12.9	67.6	-13.5
17:30 - 17:45	54.5	68.3	-13.8	67.8	-13.3	69.2	-14.7	69.2	-14.7	61.7	- 7.2	68.0	-13.5	68.5	-14.0	68.1	-13.6	68.1	-13.6	67.8	-13.3	68.7	-14.2	67.8	-13.3
17:45 - 18:00	54.8	64.6	- 9.8	65.7	-10.9	66.4	-11.6	67.4	-12.6	68.2	-13.4	67.3	-12.5	67.1	-12.3	62.8	- 8.0	68.1	-13.3	61.8	- 7.0	63.8	- 9.0	65.7	-10.9
Hour 1	64.4	68.9	- 4.4	68.6	- 4.2	69.2	- 4.8	69.0	- 4.6	69.0	- 4.6	69.4	- 4.9	69.1	- 4.6	68.4	- 4.0	68.7	- 4.3	69.4	- 5.0	69.2	- 4.7	69.0	- 4.6
Hour 2	62.7	68.4	- 5.7	67.8	- 5.1	68.6	- 5.9	68.4	- 5.7	67.4	- 4.7	68.3	- 5.6	68.1	- 5.4	68.4	- 5.7	68.7	- 6.0	68.7	- 6.0	68.8	- 6.1	68.3	- 5.6
Hour 3	56.2	68.4	-12.2	68.8	-12.6	68.8	-12.6	68.7	-12.4	68.5	-12.3	68.8	-12.6	66.9	-10.7	68.2	-12.0	68.9	-12.7	69.0	-12.7	68.2	-11.9	68.5	-12.2
Hour 4	54.5	67.8	-13.3	67.7	-13.2	68.3	-13.8	68.6	-14.1	66.7	-12.2	66.7	-12.2	68.1	-13.6	67.0	-12.5	68.0	-13.5	66.1	-11.6	66.9	-12.4	67.5	-13.0
11	59.5	68.4	- 8.9	68.2	- 8.8	68.7	- 9.3	68.6	- 9.2	67.9	- 8.4	68.3	- 8.8	68.0	- 8.6	68.0	- 8.5	68.6	- 9.1	68.3	- 8.8	68.2	- 8.8	68.3	- 8.8

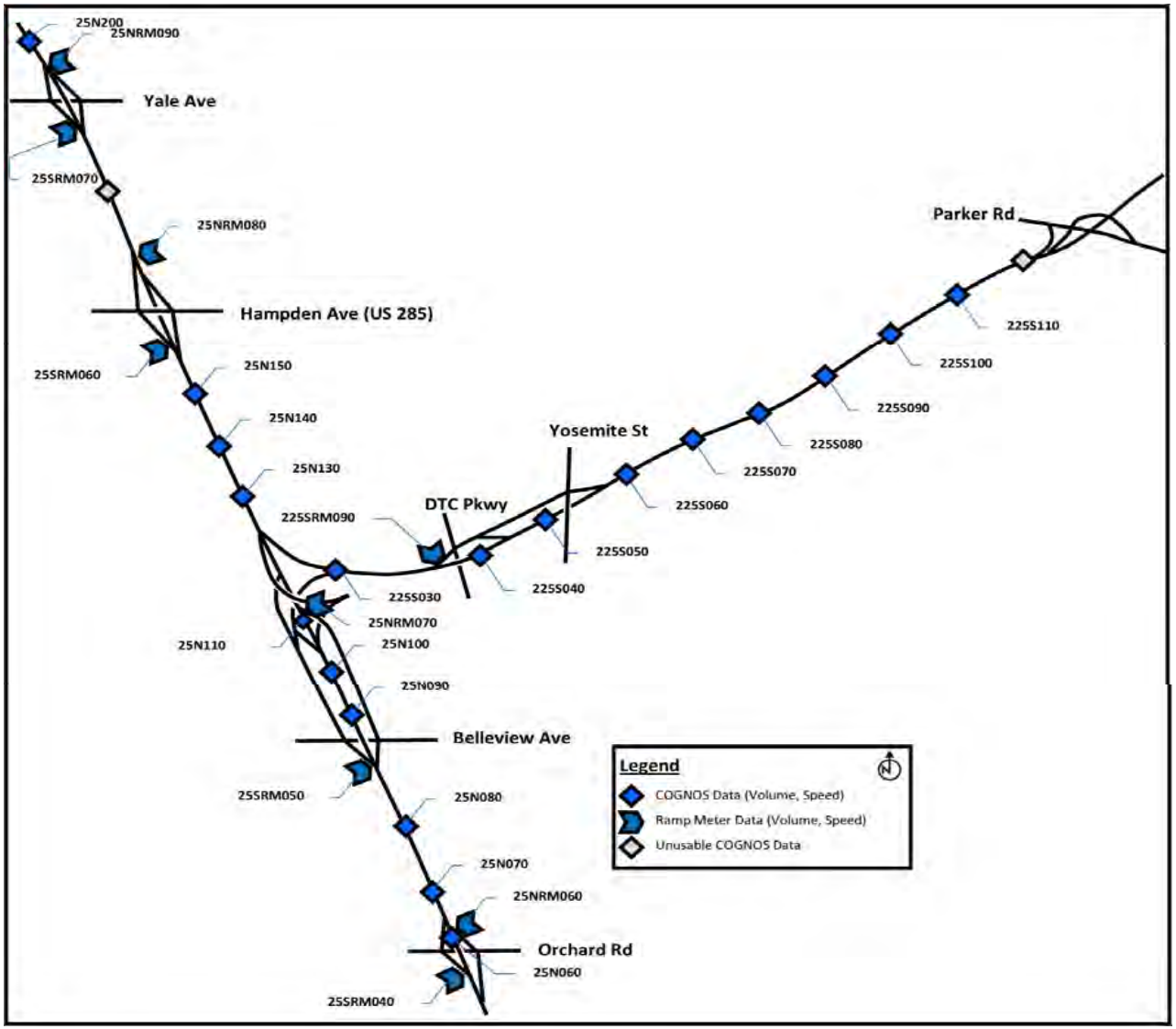
Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run



AVERAGE VEHICLE SPEEDS - BY LINK

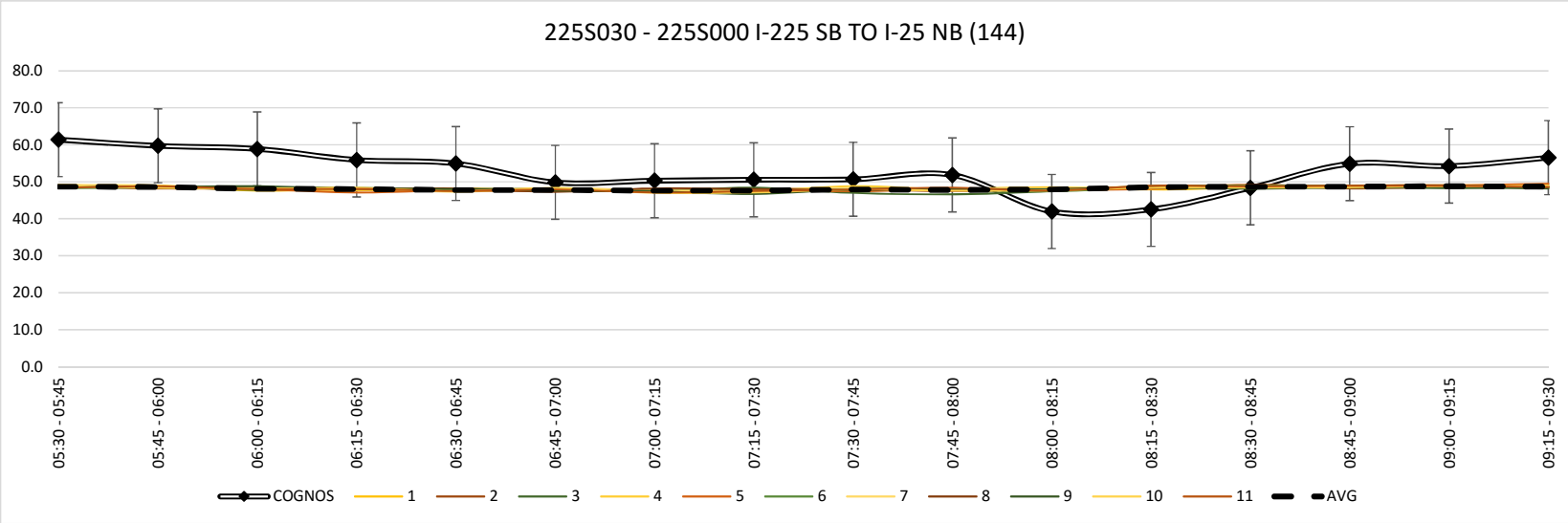
CONCEPT 2

ROUTE: I-225
PERIOD: AM

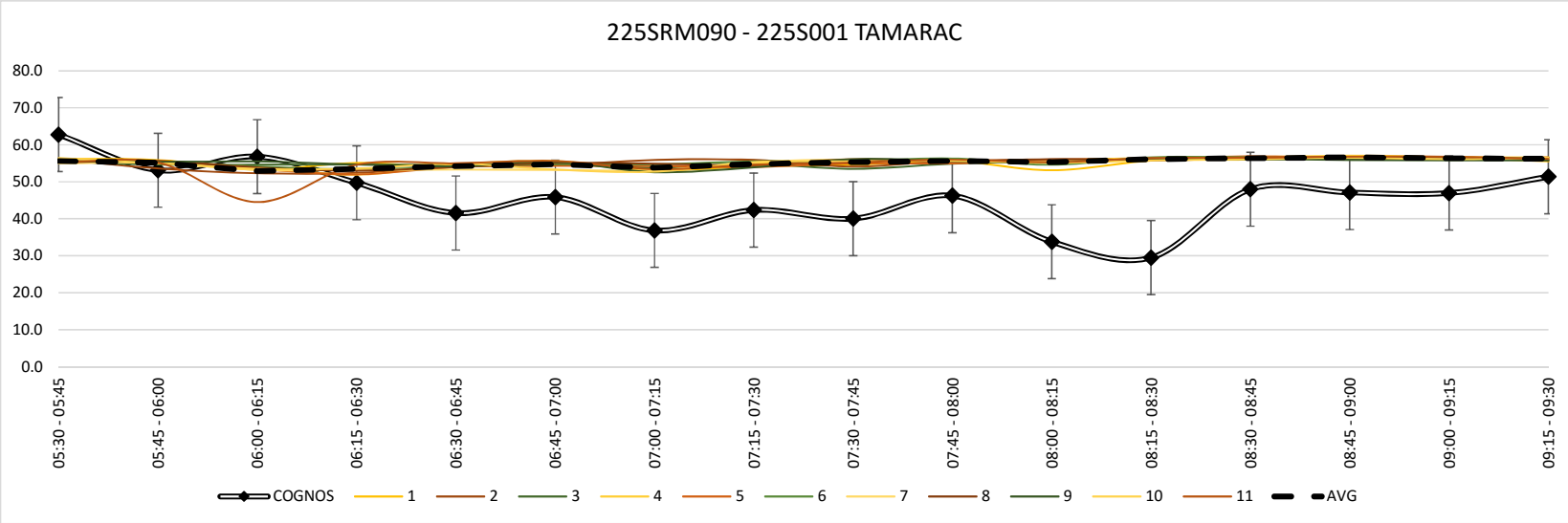


LOCATION	COGNOS DESCRIPTION
225S030	225S000 I-225 SB TO I-25 NB (144)
225SRM090	225S001 TAMARAC
225S040	225S001 YOSEMITE ST TO DTC BLVD (172)
225S050	225S001 YOSEMITE ST (174)
225S060	225S001 PARKER RD TO YOSEMITE ST (176)
225S070	225S001 PARKER RD TO YOSEMITE ST (181)
225S080	225S002 PARKER RD TO YOSEMITE ST (182)
225S090	225S002 PARKER RD TO YOESMEITE ST (183)
225S100	225S002 PARKER RD TO YOSEMITE ST (184)
225S110	225S003 PARKER RD TO YOSEMITE ST (191)

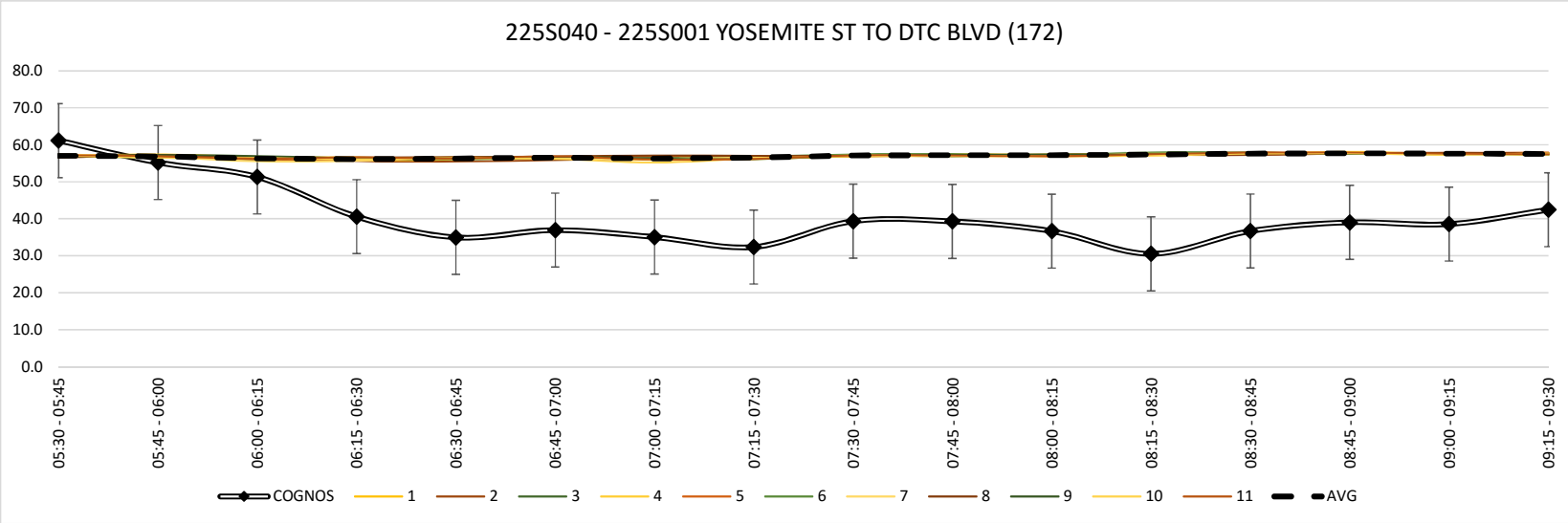
CONCEPT 2		Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run																							
AM	COGNOS	MODEL																						AGGREGATE	
TIME	225S030	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	61.4	48.9	12.5	48.8	12.6	48.4	13.0	48.7	12.7	49.0	12.4	48.3	13.1	49.2	12.2	48.6	12.8	48.8	12.6	48.8	12.6	48.4	13.0	48.7	12.7
05:45 - 06:00	59.7	49.0	10.7	48.2	11.5	48.6	11.1	48.6	11.1	48.3	11.4	48.4	11.3	48.9	10.8	48.7	11.0	48.6	11.1	48.4	11.3	48.8	10.9	48.6	11.1
06:00 - 06:15	58.9	47.6	11.3	48.4	10.5	47.8	11.1	48.0	10.9	48.0	10.9	48.1	10.8	48.4	10.5	48.3	10.6	48.8	10.1	48.2	10.7	48.0	10.9	48.1	10.8
06:15 - 06:30	55.9	48.1	7.8	47.8	8.1	48.1	7.8	47.7	8.2	47.1	8.8	48.4	7.5	48.4	7.5	48.1	7.8	48.2	7.7	48.3	7.6	48.1	7.8	48.0	7.9
06:30 - 06:45	54.9	48.2	6.7	47.7	7.2	48.1	6.8	48.0	6.9	47.8	7.1	47.7	7.2	47.3	7.6	48.2	6.7	48.0	6.9	47.5	7.4	47.5	7.4	47.8	7.1
06:45 - 07:00	49.8	47.8	2.0	47.4	2.4	48.0	1.8	47.8	2.0	48.0	1.8	47.9	1.9	48.3	1.5	47.3	2.5	47.6	2.2	48.3	1.5	47.9	1.9	47.8	2.0
07:00 - 07:15	50.3	47.3	3.0	47.6	2.7	47.5	2.8	47.8	2.5	47.9	2.4	47.7	2.6	47.6	2.7	48.2	2.1	47.4	2.9	47.0	3.3	47.1	3.2	47.6	2.7
07:15 - 07:30	50.5	47.4	3.1	48.1	2.4	48.4	2.1	47.5	3.0	47.7	2.8	47.7	2.8	47.7	2.8	48.0	2.5	46.7	3.8	47.1	3.4	47.5	3.0	47.6	2.9
07:30 - 07:45	50.7	48.1	2.6	47.9	2.8	47.0	3.7	48.8	1.9	47.4	3.3	47.7	3.0	48.2	2.5	47.8	2.9	48.0	2.7	47.9	2.8	47.9	2.8	47.9	2.8
07:45 - 08:00	51.8	48.1	3.7	47.5	4.3	46.6	5.2	47.9	3.9	48.0	3.8	47.8	4.0	48.2	3.6	47.7	4.1	48.1	3.7	47.6	4.2	48.4	3.4	47.8	4.0
08:00 - 08:15	42.0	48.5	- 6.5	47.9	- 5.9	47.5	- 5.5	47.8	- 5.8	47.8	- 5.8	47.4	- 5.4	48.3	- 6.3	48.0	- 6.0	48.0	- 6.0	47.7	- 5.7	47.6	- 5.6	47.9	- 5.9
08:15 - 08:30	42.5	47.9	- 5.4	48.7	- 6.2	48.9	- 6.4	48.1	- 5.6	48.1	- 5.6	48.7	- 6.2	48.6	- 6.1	48.6	- 6.1	48.4	- 5.9	48.4	- 5.9	48.9	- 6.4	48.5	- 6.0
08:30 - 08:45	48.4	48.5	- 0.1	49.0	- 0.6	48.7	- 0.3	48.8	- 0.4	49.2	- 0.8	49.0	- 0.6	48.3	0.1	48.7	- 0.3	48.1	0.3	48.4	- 0.0	48.8	- 0.4	48.7	- 0.3
08:45 - 09:00	54.9	49.0	5.9	48.2	6.7	48.8	6.1	49.0	5.9	48.5	6.4	48.9	6.0	48.8	6.1	48.9	6.0	48.4	6.5	48.5	6.4	48.9	6.0	48.7	6.2
09:00 - 09:15	54.3	48.8	5.5	48.6	5.7	48.3	6.0	49.1	5.2	49.0	5.3	48.8	5.5	48.7	5.6	49.1	5.2	48.4	5.9	48.8	5.5	48.9	5.4	48.8	5.5
09:15 - 09:30	56.5	48.7	7.8	48.8	7.7	48.7	7.8	48.9	7.6	49.5	7.0	48.5	8.0	48.3	8.2	48.5	8.0	48.2	8.3	48.9	7.6	48.6	7.9	48.7	7.8
Hour 1	59.0	48.4	10.6	48.3	10.7	48.2	10.7	48.3	10.7	48.1	10.9	48.3	10.7	48.7	10.2	48.4	10.5	48.6	10.4	48.4	10.5	48.3	10.6	48.4	10.6
Hour 2	51.4	47.7	3.7	47.7	3.7	48.0	3.4	47.8	3.6	47.9	3.6	47.8	3.7	47.7	3.7	47.9	3.5	47.4	4.0	47.5	3.9	47.5	3.9	47.7	3.7
Hour 3	46.8	48.2	- 1.4	48.0	- 1.3	47.5	- 0.8	48.2	- 1.4	47.8	- 1.1	47.9	- 1.2	48.3	- 1.6	48.0	- 1.3	48.1	- 1.4	47.9	- 1.2	48.2	- 1.5	48.0	- 1.3
Hour 4	53.5	48.8	4.8	48.7	4.9	48.6	4.9	49.0	4.6	49.1	4.5	48.8	4.7	48.5	5.0	48.8	4.7	48.3	5.2	48.7	4.9	48.8	4.7	48.7	4.8
11	52.7	48.2	4.4	48.2	4.5	48.1	4.6	48.3	4.4	48.2	4.5	48.2	4.5	48.3	4.3	48.3	4.4	48.1	4.6	48.1	4.5	48.2	4.5	48.2	4.5



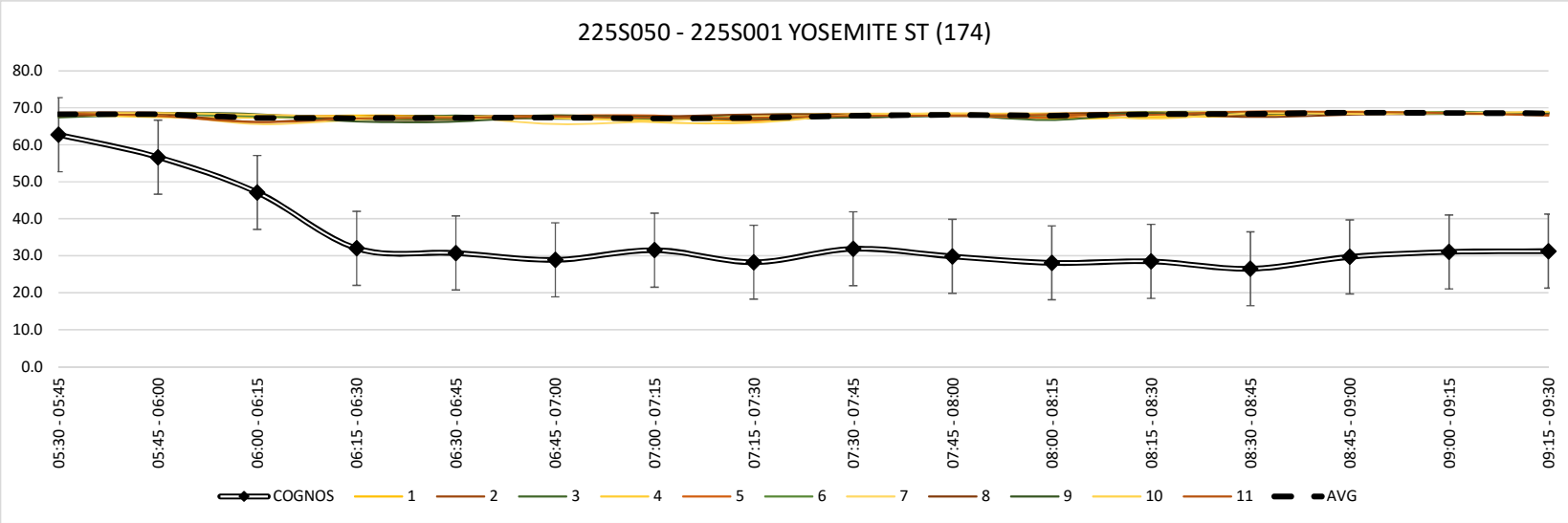
CONCEPT 2		Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run																							
AM	COGNOS	MODEL																						AGGREGATE	
TIME	225SRM090	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	62.8	56.2	6.6	56.1	6.7	55.5	7.3	55.8	7.0	55.3	7.5	55.3	7.5	55.0	7.8	55.2	7.6	55.7	7.1	56.4	6.4	55.3	7.5	55.6	7.2
05:45 - 06:00	53.1	55.9	- 2.8	53.6	- 0.5	54.6	- 1.5	55.1	- 2.0	55.7	- 2.6	55.5	- 2.4	55.1	- 2.0	55.6	- 2.5	55.4	- 2.3	55.0	- 1.9	55.2	- 2.1	55.1	- 2.0
06:00 - 06:15	56.8	53.3	3.5	52.3	4.5	54.6	2.2	54.0	2.8	53.5	3.3	54.1	2.7	53.2	3.6	53.9	2.9	55.5	1.3	53.5	3.3	44.5	12.3	52.9	3.9
06:15 - 06:30	49.7	55.1	- 5.4	52.4	- 2.7	54.6	- 4.9	51.9	- 2.2	52.0	- 2.3	53.4	- 3.7	53.2	- 3.5	53.0	- 3.3	54.7	- 5.0	53.6	- 3.9	54.6	- 4.9	53.5	- 3.8
06:30 - 06:45	41.6	54.0	-12.5	54.0	-12.5	54.7	-13.2	54.7	-13.2	54.0	-12.5	54.1	-12.6	53.3	-11.8	54.0	-12.5	54.2	-12.7	54.9	-13.4	55.0	-13.5	54.2	-12.7
06:45 - 07:00	45.9	55.1	- 9.2	54.5	- 8.6	54.8	- 8.9	55.6	- 9.7	54.3	- 8.4	54.8	- 8.9	53.2	- 7.3	55.1	- 9.2	55.4	- 9.5	53.3	- 7.4	55.6	- 9.7	54.7	- 8.8
07:00 - 07:15	36.9	53.1	-16.3	55.9	-19.1	53.8	-17.0	53.2	-16.4	54.3	-17.5	54.7	-17.9	53.1	-16.3	54.9	-18.1	52.6	-15.8	52.7	-15.9	53.4	-16.6	53.8	-17.0
07:15 - 07:30	42.4	54.2	-11.9	55.9	-13.6	54.8	-12.5	54.9	-12.6	54.0	-11.7	55.5	-13.2	55.3	-13.0	54.5	-12.2	53.9	-11.6	55.3	-13.0	54.6	-12.3	54.8	-12.5
07:30 - 07:45	40.0	54.6	-14.6	54.1	-14.1	53.5	-13.5	56.0	-16.0	55.0	-15.0	55.7	-15.7	56.0	-16.0	56.1	-16.1	56.1	-16.1	55.5	-15.5	55.2	-15.2	55.3	-15.3
07:45 - 08:00	46.2	55.6	- 9.4	55.7	- 9.5	54.9	- 8.7	55.6	- 9.4	55.0	- 8.8	56.3	-10.1	55.5	- 9.3	55.5	- 9.3	55.6	- 9.4	55.7	- 9.5	56.0	- 9.8	55.6	- 9.4
08:00 - 08:15	33.8	53.1	-19.3	56.0	-22.2	55.6	-21.8	55.8	-22.0	56.0	-22.2	54.6	-20.8	55.5	-21.7	56.1	-22.3	55.2	-21.4	55.1	-21.3	55.3	-21.5	55.3	-21.5
08:15 - 08:30	29.5	55.7	-26.2	56.3	-26.8	56.3	-26.8	56.5	-27.0	56.0	-26.5	56.6	-27.1	56.0	-26.5	55.8	-26.3	56.0	-26.5	55.8	-26.3	56.4	-26.9	56.1	-26.6
08:30 - 08:45	48.0	56.0	- 8.0	56.5	- 8.5	56.4	- 8.4	56.7	- 8.7	56.9	- 8.9	56.6	- 8.6	56.2	- 8.2	56.3	- 8.3	56.1	- 8.1	56.1	- 8.1	56.5	- 8.5	56.4	- 8.4
08:45 - 09:00	47.1	56.3	- 9.2	56.5	- 9.4	56.8	- 9.7	57.1	-10.0	56.2	- 9.1	56.4	- 9.3	56.8	- 9.7	56.7	- 9.6	55.9	- 8.8	56.5	- 9.4	56.8	- 9.7	56.6	- 9.5
09:00 - 09:15	47.0	56.6	- 9.6	56.6	- 9.6	56.4	- 9.4	56.7	- 9.7	56.0	- 9.0	56.4	- 9.4	56.1	- 9.1	56.6	- 9.6	55.8	- 8.8	56.1	- 9.1	56.8	- 9.8	56.4	- 9.4
09:15 - 09:30	51.4	55.5	- 4.1	56.0	- 4.6	56.5	- 5.1	56.6	- 5.2	56.6	- 5.2	56.4	- 5.0	56.3	- 4.9	55.8	- 4.4	55.8	- 4.4	56.5	- 5.1	56.2	- 4.8	56.2	- 4.8
Hour 1	55.6	55.1	0.5	53.6	2.0	54.8	0.8	54.2	1.4	54.1	1.5	54.6	1.0	54.1	1.5	54.4	1.2	55.3	0.3	54.6	1.0	52.4	3.2	54.3	1.3
Hour 2	41.7	54.1	-12.4	55.1	-13.4	54.5	-12.9	54.6	-12.9	54.2	-12.5	54.8	-13.1	53.7	-12.1	54.6	-13.0	54.0	-12.4	54.1	-12.4	54.7	-13.0	54.4	-12.7
Hour 3	37.4	54.8	-17.4	55.5	-18.1	55.1	-17.7	56.0	-18.6	55.5	-18.1	55.8	-18.4	55.8	-18.4	55.9	-18.5	55.7	-18.3	55.5	-18.1	55.7	-18.3	55.6	-18.2
Hour 4	48.4	56.1	- 7.8	56.4	- 8.1	56.5	- 8.2	56.8	- 8.4	56.4	- 8.1	56.5	- 8.1	56.4	- 8.0	56.4	- 8.0	55.9	- 7.6	56.3	- 8.0	56.6	- 8.2	56.4	- 8.1
11	45.7	55.0	- 9.3	55.2	- 9.4	55.2	- 9.5	55.4	- 9.6	55.1	- 9.3	55.4	- 9.7	55.0	- 9.2	55.3	- 9.6	55.2	- 9.5	55.1	- 9.4	54.8	- 9.1	55.2	- 9.4



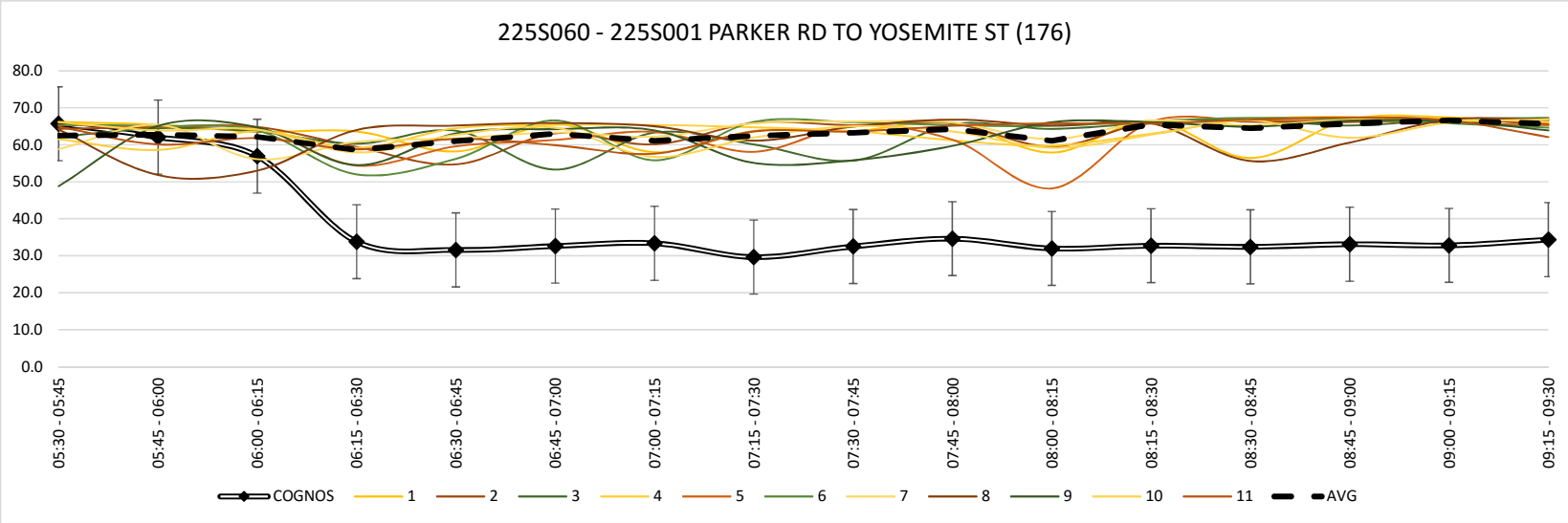
CONCEPT 2		Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run																							
AM	COGNOS	MODEL																						AGGREGATE	
TIME	225S040	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	61.1	57.0	4.1	57.1	4.0	56.9	4.2	57.1	4.0	56.8	4.3	57.0	4.1	57.4	3.7	56.5	4.6	56.8	4.3	57.1	4.0	57.2	3.9	57.0	4.1
05:45 - 06:00	55.2	57.4	- 2.2	56.8	- 1.6	56.7	- 1.5	56.9	- 1.7	57.0	- 1.8	56.5	- 1.3	56.8	- 1.6	57.3	- 2.1	57.2	- 2.0	56.5	- 1.3	56.9	- 1.7	56.9	- 1.7
06:00 - 06:15	51.3	56.7	- 5.4	56.8	- 5.5	56.0	- 4.7	56.4	- 5.1	56.0	- 4.7	56.2	- 4.9	55.5	- 4.2	56.5	- 5.2	57.0	- 5.7	56.4	- 5.1	56.2	- 4.9	56.3	- 5.0
06:15 - 06:30	40.6	56.6	-16.0	55.6	-15.0	55.8	-15.2	55.8	-15.2	55.9	-15.3	56.2	-15.6	55.7	-15.1	56.6	-16.0	56.3	-15.7	56.1	-15.5	56.6	-16.0	56.1	-15.5
06:30 - 06:45	35.0	56.3	-21.3	55.5	-20.5	56.6	-21.6	56.1	-21.1	56.4	-21.4	56.1	-21.1	56.7	-21.7	56.6	-21.6	56.4	-21.4	56.4	-21.4	56.3	-21.3	56.3	-21.3
06:45 - 07:00	36.9	56.4	-19.5	55.8	-18.9	56.2	-19.3	56.7	-19.8	56.3	-19.4	56.4	-19.5	56.3	-19.4	56.9	-20.0	56.8	-19.9	56.2	-19.3	56.9	-20.0	56.5	-19.6
07:00 - 07:15	35.1	56.1	-21.1	56.4	-21.4	56.4	-21.4	55.9	-20.9	57.0	-22.0	56.3	-21.3	56.2	-21.2	57.1	-22.1	56.3	-21.3	55.2	-20.2	56.0	-21.0	56.3	-21.3
07:15 - 07:30	32.4	56.1	-23.7	56.5	-24.1	56.5	-24.1	56.6	-24.2	56.5	-24.1	56.8	-24.4	56.6	-24.2	57.0	-24.6	56.1	-23.7	56.3	-23.9	56.2	-23.8	56.5	-24.1
07:30 - 07:45	39.4	56.9	-17.6	56.9	-17.6	57.1	-17.8	57.2	-17.9	57.2	-17.9	57.4	-18.1	57.1	-17.8	57.0	-17.7	57.0	-17.7	56.9	-17.6	57.1	-17.8	57.1	-17.8
07:45 - 08:00	39.3	57.4	-18.1	57.1	-17.8	56.9	-17.6	57.1	-17.8	57.1	-17.8	57.5	-18.2	57.3	-18.0	57.2	-17.9	57.3	-18.0	56.9	-17.6	57.1	-17.8	57.2	-17.9
08:00 - 08:15	36.7	57.2	-20.6	57.2	-20.6	57.3	-20.7	57.4	-20.8	57.3	-20.7	57.1	-20.5	57.0	-20.4	57.2	-20.6	57.4	-20.8	56.9	-20.3	56.9	-20.3	57.2	-20.6
08:15 - 08:30	30.5	57.1	-26.6	57.4	-26.9	57.5	-27.0	57.6	-27.1	57.4	-26.9	57.9	-27.4	57.6	-27.1	57.4	-26.9	57.4	-26.9	57.1	-26.6	57.4	-26.9	57.4	-26.9
08:30 - 08:45	36.7	57.6	-20.9	57.2	-20.5	57.6	-20.9	57.6	-20.9	57.9	-21.2	57.9	-21.2	57.5	-20.8	57.4	-20.7	57.8	-21.1	57.6	-20.9	57.9	-21.2	57.6	-20.9
08:45 - 09:00	39.0	57.8	-18.8	57.7	-18.7	57.8	-18.8	58.1	-19.1	57.6	-18.6	57.5	-18.5	57.8	-18.8	57.7	-18.7	57.6	-18.6	57.7	-18.7	57.9	-18.9	57.7	-18.7
09:00 - 09:15	38.6	57.6	-19.0	57.8	-19.2	57.4	-18.8	57.5	-18.9	57.8	-19.2	57.7	-19.1	57.5	-18.9	57.8	-19.2	57.5	-18.9	57.3	-18.7	57.6	-19.0	57.6	-19.0
09:15 - 09:30	42.4	57.3	-14.9	57.4	-15.0	57.6	-15.2	57.8	-15.4	57.9	-15.5	57.3	-14.9	57.4	-15.0	57.7	-15.3	57.5	-15.1	57.7	-15.3	57.4	-15.0	57.5	-15.1
Hour 1	52.1	56.9	- 4.9	56.6	- 4.5	56.4	- 4.3	56.6	- 4.5	56.4	- 4.4	56.5	- 4.4	56.4	- 4.3	56.7	- 4.7	56.8	- 4.8	56.5	- 4.5	56.7	- 4.7	56.6	- 4.5
Hour 2	34.8	56.2	-21.4	56.1	-21.2	56.4	-21.6	56.3	-21.5	56.6	-21.7	56.4	-21.6	56.5	-21.6	56.9	-22.1	56.4	-21.6	56.0	-21.2	56.4	-21.5	56.4	-21.6
Hour 3	36.5	57.2	-20.7	57.2	-20.7	57.2	-20.8	57.3	-20.9	57.3	-20.8	57.5	-21.0	57.3	-20.8	57.2	-20.8	57.3	-20.8	57.0	-20.5	57.1	-20.7	57.2	-20.8
Hour 4	39.2	57.6	-18.4	57.5	-18.3	57.6	-18.4	57.8	-18.6	57.8	-18.6	57.6	-18.4	57.6	-18.4	57.7	-18.5	57.6	-18.4	57.6	-18.4	57.7	-18.5	57.6	-18.4
11	40.6	57.0	-16.3	56.8	-16.2	56.9	-16.3	57.0	-16.4	57.0	-16.4	57.0	-16.4	56.9	-16.3	57.1	-16.5	57.0	-16.4	56.8	-16.1	57.0	-16.3	57.0	-16.3



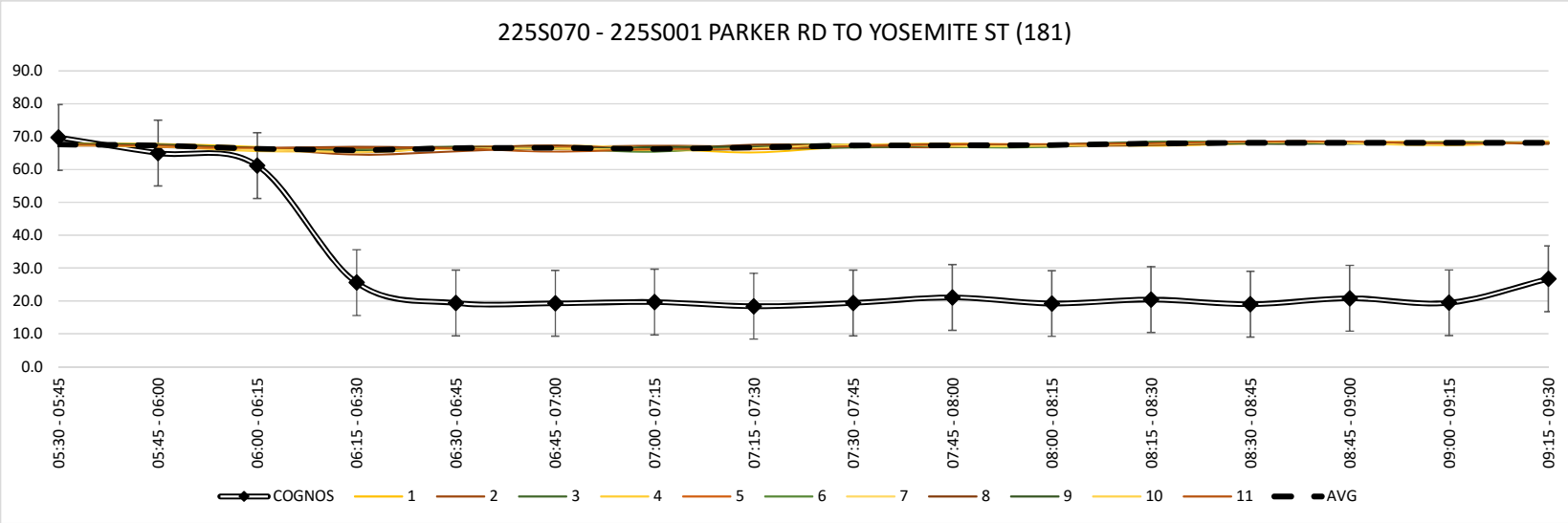
CONCEPT 2		Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run																							
AM	COGNOS	MODEL																						AGGREGATE	
TIME	225S050	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	62.7	68.3	- 5.6	68.7	- 6.0	67.4	- 4.7	68.2	- 5.5	68.4	- 5.7	68.3	- 5.6	68.3	- 5.6	67.8	- 5.1	68.4	- 5.7	68.5	- 5.8	68.5	- 5.8	68.3	- 5.6
05:45 - 06:00	56.7	68.6	-12.0	68.7	-12.1	68.1	-11.5	67.5	-10.9	68.3	-11.7	68.3	-11.7	68.2	-11.6	68.3	-11.7	68.6	-12.0	68.6	-12.0	67.8	-11.2	68.3	-11.7
06:00 - 06:15	47.1	67.7	-20.6	67.8	-20.7	67.7	-20.6	67.3	-20.2	68.1	-21.0	67.7	-20.6	65.6	-18.5	66.2	-19.1	68.3	-21.2	68.1	-21.0	66.1	-19.0	67.3	-20.2
06:15 - 06:30	32.0	67.9	-35.9	66.8	-34.8	67.3	-35.3	67.5	-35.5	67.5	-35.5	66.9	-34.9	66.8	-34.8	67.6	-35.6	66.3	-34.3	67.6	-35.6	67.1	-35.1	67.2	-35.2
06:30 - 06:45	30.7	67.8	-37.1	66.8	-36.1	67.9	-37.2	67.6	-36.9	67.0	-36.3	67.0	-36.3	67.4	-36.7	67.6	-36.9	66.3	-35.6	67.5	-36.8	67.3	-36.6	67.3	-36.6
06:45 - 07:00	28.9	67.6	-38.7	67.3	-38.4	67.0	-38.1	67.2	-38.3	67.8	-38.9	68.0	-39.1	65.6	-36.7	67.9	-39.0	67.7	-38.8	67.6	-38.7	67.6	-38.7	67.4	-38.5
07:00 - 07:15	31.5	67.1	-35.6	67.3	-35.8	67.6	-36.1	66.8	-35.3	67.9	-36.4	67.0	-35.5	66.4	-34.9	67.7	-36.2	67.4	-35.9	66.1	-34.6	67.3	-35.8	67.1	-35.6
07:15 - 07:30	28.3	66.5	-38.3	67.8	-39.6	67.5	-39.3	67.8	-39.6	66.6	-38.4	68.1	-39.9	67.8	-39.6	68.2	-40.0	67.0	-38.8	66.0	-37.8	67.3	-39.1	67.3	-39.1
07:30 - 07:45	31.9	67.9	-36.0	67.4	-35.5	67.9	-36.0	67.8	-35.9	68.2	-36.3	68.3	-36.4	68.4	-36.5	68.2	-36.3	67.4	-35.5	68.1	-36.2	67.8	-35.9	67.9	-36.0
07:45 - 08:00	29.8	68.3	-38.5	68.0	-38.2	68.0	-38.2	68.5	-38.7	67.8	-38.0	67.9	-38.1	68.4	-38.6	68.0	-38.2	67.8	-38.0	68.2	-38.4	67.9	-38.1	68.1	-38.3
08:00 - 08:15	28.1	67.1	-39.0	68.0	-39.9	66.7	-38.6	67.9	-39.8	67.4	-39.3	68.3	-40.2	68.5	-40.4	68.4	-40.3	68.0	-39.9	68.3	-40.2	68.1	-40.0	67.9	-39.8
08:15 - 08:30	28.5	67.5	-39.0	68.4	-39.9	68.6	-40.1	68.2	-39.7	68.6	-40.1	68.9	-40.4	68.8	-40.3	68.6	-40.1	68.5	-40.0	67.1	-38.6	68.1	-39.6	68.3	-39.8
08:30 - 08:45	26.5	67.8	-41.3	68.2	-41.7	68.3	-41.8	68.4	-41.9	68.6	-42.1	68.9	-42.4	68.9	-42.4	67.5	-41.0	68.4	-41.9	68.5	-42.0	69.0	-42.5	68.4	-41.9
08:45 - 09:00	29.7	68.8	-39.1	68.9	-39.2	68.8	-39.1	69.0	-39.3	68.6	-38.9	68.6	-38.9	68.8	-39.1	68.1	-38.4	68.5	-38.8	68.4	-38.7	68.9	-39.2	68.7	-39.0
09:00 - 09:15	31.0	68.4	-37.4	68.7	-37.7	68.5	-37.5	68.4	-37.4	68.7	-37.7	68.9	-37.9	68.7	-37.7	68.4	-37.4	68.4	-37.4	68.5	-37.5	68.6	-37.6	68.6	-37.6
09:15 - 09:30	31.2	68.2	-37.0	68.7	-37.5	68.5	-37.3	68.9	-37.7	68.5	-37.3	68.5	-37.3	68.2	-37.0	68.3	-37.1	68.7	-37.5	68.9	-37.7	67.9	-36.7	68.5	-37.3
Hour 1	49.6	68.1	-18.5	68.0	-18.4	67.6	-18.0	67.6	-18.0	68.1	-18.5	67.8	-18.2	67.2	-17.6	67.5	-17.9	67.9	-18.3	68.2	-18.6	67.4	-17.8	67.8	-18.2
Hour 2	29.8	67.3	-37.4	67.3	-37.5	67.5	-37.7	67.4	-37.5	67.3	-37.5	67.5	-37.7	66.8	-37.0	67.9	-38.0	67.1	-37.3	66.8	-37.0	67.4	-37.5	67.3	-37.4
Hour 3	29.6	67.7	-38.1	68.0	-38.4	67.8	-38.2	68.1	-38.5	68.0	-38.4	68.4	-38.8	68.5	-39.0	68.3	-38.7	67.9	-38.4	67.9	-38.4	68.0	-38.4	68.1	-38.5
Hour 4	29.6	68.3	-38.7	68.6	-39.0	68.5	-38.9	68.7	-39.1	68.6	-39.0	68.7	-39.1	68.7	-39.0	68.1	-38.5	68.5	-38.9	68.6	-39.0	68.6	-39.0	68.6	-38.9
11	34.7	67.8	-33.2	68.0	-33.3	67.9	-33.2	67.9	-33.3	68.0	-33.3	68.1	-33.4	67.8	-33.1	67.9	-33.3	67.9	-33.2	67.9	-33.2	67.8	-33.2	67.9	-33.3



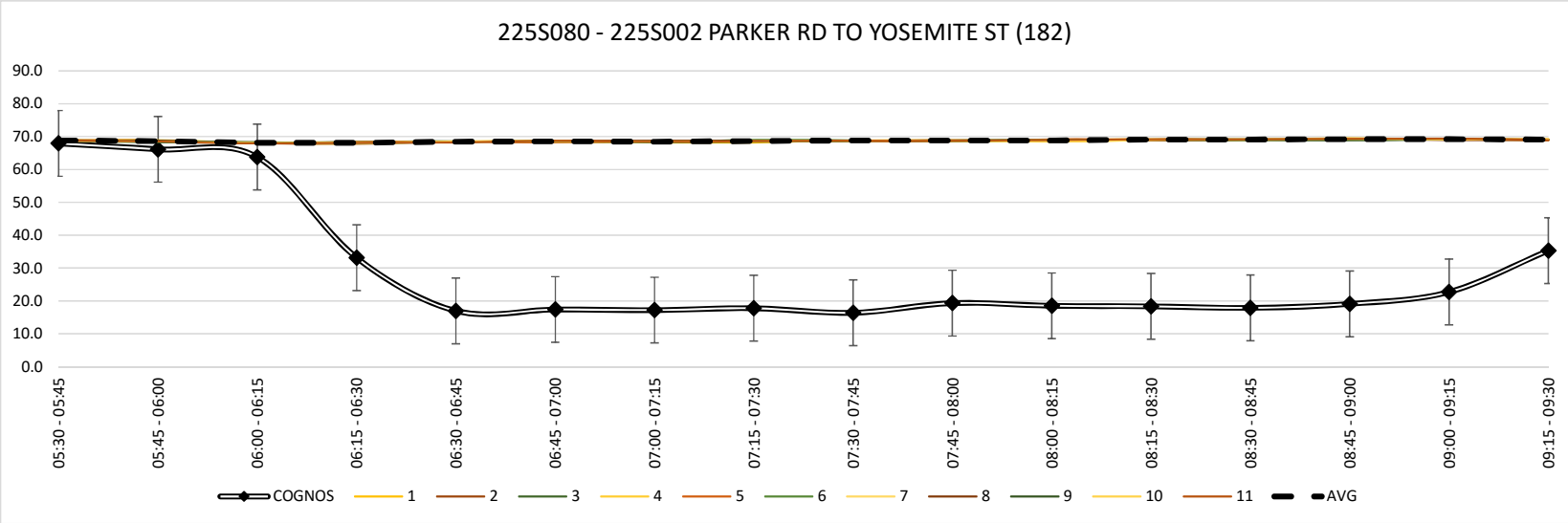
CONCEPT 2		Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run																							
AM	COGNOS	MODEL																						AGGREGATE	
TIME	225S060	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	65.7	66.2	- 0.5	64.3	1.4	62.1	3.6	61.5	4.2	65.4	0.3	65.4	0.3	58.8	6.9	64.1	1.6	48.8	16.9	66.1	- 0.4	64.9	0.8	62.5	3.2
05:45 - 06:00	62.1	65.4	- 3.3	64.7	- 2.6	64.5	- 2.4	58.6	3.5	64.9	- 2.8	65.1	- 3.0	65.4	- 3.3	51.8	10.3	65.1	- 3.0	63.9	- 1.8	60.1	2.0	62.7	- 0.6
06:00 - 06:15	56.9	63.5	- 6.6	64.8	- 7.9	63.6	- 6.7	63.7	- 6.8	64.5	- 7.6	63.9	- 7.0	56.1	0.8	53.0	3.9	64.7	- 7.8	64.1	- 7.2	61.8	- 4.9	62.2	- 5.3
06:15 - 06:30	33.8	63.6	-29.8	59.4	-25.6	60.3	-26.5	59.2	-25.4	54.4	-20.6	52.0	-18.2	60.8	-27.0	64.0	-30.2	54.5	-20.7	57.9	-24.1	58.8	-25.0	58.6	-24.8
06:30 - 06:45	31.6	58.2	-26.6	54.7	-23.1	63.8	-32.2	64.5	-32.9	59.6	-28.0	56.2	-24.6	61.7	-30.1	65.2	-33.6	63.1	-31.5	62.7	-31.1	61.6	-30.0	61.0	-29.4
06:45 - 07:00	32.6	65.6	-33.0	63.1	-30.5	53.3	-20.7	65.4	-32.8	61.3	-28.7	66.6	-34.0	63.3	-30.7	65.9	-33.3	64.2	-31.6	64.6	-32.0	59.9	-27.3	63.0	-30.4
07:00 - 07:15	33.4	58.0	-24.6	60.1	-26.7	63.3	-29.9	65.4	-32.0	63.5	-30.1	55.8	-22.4	62.2	-28.8	65.0	-31.6	63.9	-30.5	56.7	-23.3	57.6	-24.2	61.1	-27.7
07:15 - 07:30	29.6	63.7	-34.1	65.9	-36.3	60.1	-30.5	64.7	-35.1	58.1	-28.5	66.2	-36.6	65.8	-36.2	61.1	-31.5	55.1	-25.5	62.0	-32.4	63.6	-34.0	62.4	-32.8
07:30 - 07:45	32.5	63.7	-31.2	65.3	-32.8	55.7	-23.2	63.7	-31.2	65.2	-32.7	66.1	-33.6	66.3	-33.8	64.9	-32.4	55.8	-23.3	65.0	-32.5	63.6	-31.1	63.2	-30.7
07:45 - 08:00	34.6	66.0	-31.4	65.8	-31.2	65.5	-30.9	61.2	-26.6	61.4	-26.8	65.3	-30.7	66.0	-31.4	66.8	-32.2	59.7	-25.1	63.6	-29.0	65.1	-30.5	64.2	-29.6
08:00 - 08:15	32.0	57.9	-25.9	59.5	-27.5	64.3	-32.3	59.8	-27.8	48.2	-16.2	65.1	-33.1	61.5	-29.5	65.2	-33.2	66.1	-34.1	59.2	-27.2	65.8	-33.8	61.1	-29.1
08:15 - 08:30	32.7	66.5	-33.8	66.2	-33.5	65.9	-33.2	63.0	-30.3	66.2	-33.5	66.4	-33.7	66.5	-33.8	65.8	-33.1	66.1	-33.4	62.7	-30.0	65.7	-33.0	65.5	-32.8
08:30 - 08:45	32.4	56.4	-24.0	66.2	-33.8	66.8	-34.4	66.9	-34.5	66.5	-34.1	67.3	-34.9	65.3	-32.9	55.6	-23.2	64.9	-32.5	66.6	-34.2	66.8	-34.4	64.5	-32.1
08:45 - 09:00	33.1	66.9	-33.8	66.1	-33.0	65.2	-32.1	67.5	-34.4	66.5	-33.4	66.9	-33.8	66.8	-33.7	60.6	-27.5	66.5	-33.4	61.9	-28.8	67.4	-34.3	65.7	-32.6
09:00 - 09:15	32.8	67.4	-34.6	66.9	-34.1	66.9	-34.1	66.9	-34.1	65.9	-33.1	65.8	-33.0	66.9	-34.1	66.8	-34.0	66.5	-33.7	66.0	-33.2	66.6	-33.8	66.6	-33.8
09:15 - 09:30	34.4	65.8	-31.5	65.5	-31.2	67.3	-33.0	66.9	-32.6	65.3	-31.0	64.6	-30.3	66.3	-32.0	66.7	-32.4	63.9	-29.6	66.9	-32.6	62.1	-27.8	65.6	-31.3
Hour 1	54.6	64.7	-10.1	63.3	- 8.7	62.6	- 8.0	60.8	- 6.1	62.3	- 7.7	61.6	- 7.0	60.3	- 5.7	58.2	- 3.6	58.3	- 3.7	63.0	- 8.4	61.4	- 6.8	61.5	- 6.9
Hour 2	31.8	61.4	-29.6	61.0	-29.2	60.1	-28.3	65.0	-33.2	60.6	-28.8	61.2	-29.4	63.3	-31.5	64.3	-32.5	61.6	-29.8	61.5	-29.7	60.7	-28.9	61.9	-30.1
Hour 3	33.0	63.5	-30.6	64.2	-31.3	62.9	-29.9	61.9	-29.0	60.3	-27.3	65.7	-32.8	65.1	-32.1	65.7	-32.7	61.9	-29.0	62.6	-29.7	65.1	-32.1	63.5	-30.6
Hour 4	33.2	64.1	-31.0	66.2	-33.0	66.6	-33.4	67.1	-33.9	66.1	-32.9	66.2	-33.0	66.3	-33.2	62.4	-29.3	65.5	-32.3	65.4	-32.2	65.7	-32.6	65.6	-32.4
11	38.1	63.4	-25.3	63.7	-25.5	63.0	-24.9	63.7	-25.5	62.3	-24.2	63.7	-25.5	63.7	-25.6	62.7	-24.5	61.8	-23.7	63.1	-25.0	63.2	-25.1	63.1	-25.0



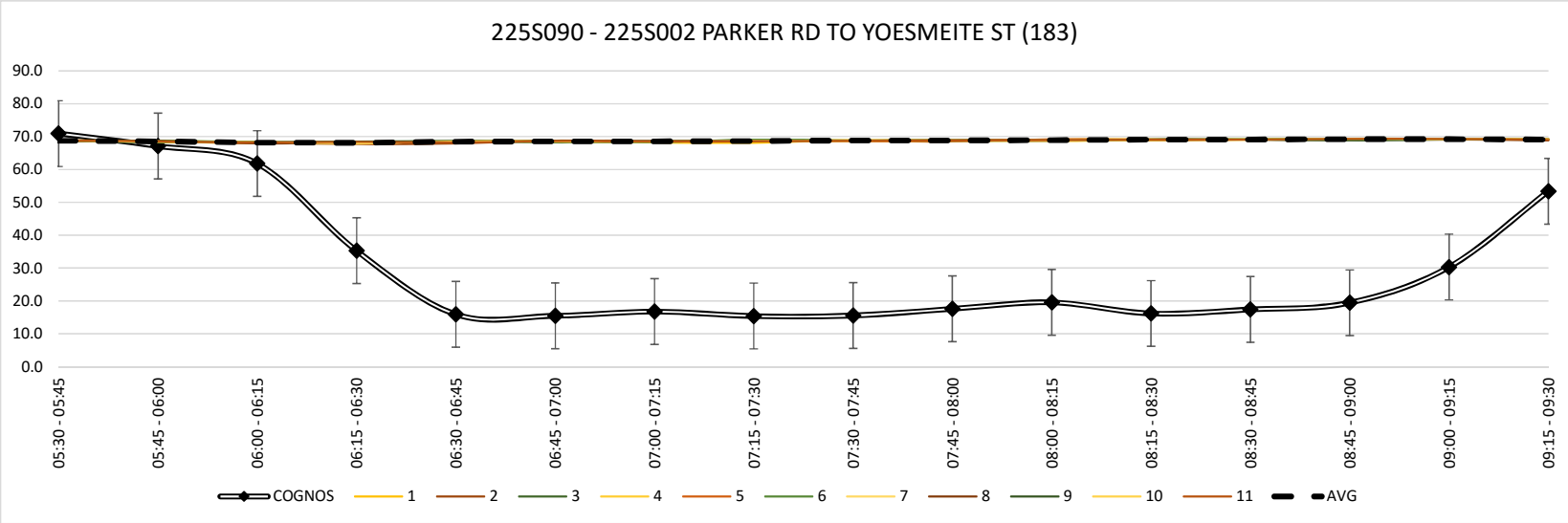
CONCEPT 2		Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run																							
AM	COGNOS	MODEL																						AGGREGATE	
TIME	225S070	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	69.7	67.9	1.8	67.2	2.5	67.9	1.8	67.8	1.9	67.5	2.2	67.4	2.3	67.4	2.3	67.6	2.1	67.8	1.9	67.5	2.2	67.6	2.1	67.6	2.1
05:45 - 06:00	65.0	67.8	- 2.8	67.2	- 2.2	66.8	- 1.8	67.0	- 2.0	66.9	- 1.9	67.2	- 2.2	67.6	- 2.6	67.5	- 2.5	67.6	- 2.6	67.0	- 2.0	67.2	- 2.2	67.3	- 2.3
06:00 - 06:15	61.2	66.8	- 5.6	66.5	- 5.3	66.4	- 5.2	65.6	- 4.4	66.1	- 4.9	66.5	- 5.3	66.0	- 4.8	66.6	- 5.4	66.5	- 5.3	66.3	- 5.1	66.5	- 5.3	66.3	- 5.1
06:15 - 06:30	25.6	65.2	-39.6	64.5	-38.9	66.4	-40.8	65.6	-40.0	65.3	-39.7	66.1	-40.5	65.6	-40.0	66.9	-41.3	65.7	-40.1	65.3	-39.7	66.6	-41.0	65.8	-40.2
06:30 - 06:45	19.4	66.7	-47.3	65.5	-46.1	66.9	-47.5	66.4	-47.0	66.7	-47.3	66.8	-47.4	66.5	-47.1	66.7	-47.3	66.6	-47.2	66.4	-47.0	66.4	-47.0	66.5	-47.1
06:45 - 07:00	19.3	66.8	-47.5	66.7	-47.4	66.6	-47.3	66.8	-47.5	67.0	-47.7	66.4	-47.1	67.3	-48.0	67.3	-48.0	66.2	-46.9	66.3	-47.0	65.4	-46.1	66.6	-47.3
07:00 - 07:15	19.7	66.3	-46.6	67.2	-47.5	65.9	-46.2	65.6	-45.9	66.1	-46.4	65.4	-45.7	66.7	-47.0	66.2	-46.5	66.8	-47.1	66.0	-46.3	66.2	-46.5	66.2	-46.5
07:15 - 07:30	18.4	65.2	-46.8	67.0	-48.6	66.2	-47.8	66.6	-48.2	66.8	-48.4	67.4	-49.0	67.2	-48.8	67.5	-49.1	66.9	-48.5	66.5	-48.1	66.1	-47.7	66.7	-48.3
07:30 - 07:45	19.4	67.0	-47.6	66.9	-47.5	66.7	-47.3	67.5	-48.1	67.2	-47.8	67.6	-48.2	67.5	-48.1	67.3	-47.9	67.2	-47.8	67.6	-48.2	67.1	-47.7	67.3	-47.9
07:45 - 08:00	21.1	67.7	-46.6	66.7	-45.6	67.2	-46.1	67.9	-46.8	67.1	-46.0	66.8	-45.7	67.7	-46.6	67.7	-46.6	67.2	-46.1	67.1	-46.0	67.6	-46.5	67.3	-46.2
08:00 - 08:15	19.2	67.6	-48.4	67.1	-47.9	67.5	-48.3	67.0	-47.8	67.6	-48.4	66.9	-47.7	67.6	-48.4	67.2	-48.0	67.6	-48.4	67.2	-48.0	67.7	-48.5	67.4	-48.2
08:15 - 08:30	20.4	67.2	-46.8	68.1	-47.7	68.3	-47.9	67.8	-47.4	67.9	-47.5	68.4	-48.0	68.1	-47.7	67.4	-47.0	68.2	-47.8	67.8	-47.4	68.0	-47.6	67.9	-47.5
08:30 - 08:45	19.0	67.9	-48.9	67.9	-48.9	68.1	-49.1	67.9	-48.9	68.4	-49.4	68.4	-49.4	68.0	-49.0	68.0	-49.0	67.8	-48.8	68.3	-49.3	68.5	-49.5	68.1	-49.1
08:45 - 09:00	20.8	68.1	-47.3	67.9	-47.1	67.8	-47.0	68.3	-47.5	68.1	-47.3	68.2	-47.4	68.1	-47.3	68.0	-47.2	68.0	-47.2	68.0	-47.2	68.5	-47.7	68.1	-47.3
09:00 - 09:15	19.5	68.2	-48.8	68.3	-48.9	68.1	-48.7	68.5	-49.1	68.3	-48.9	68.3	-48.9	68.5	-49.1	68.1	-48.7	68.1	-48.7	67.3	-47.9	67.9	-48.5	68.1	-48.7
09:15 - 09:30	26.7	68.2	-41.5	67.9	-41.2	68.3	-41.6	68.0	-41.3	68.0	-41.3	67.9	-41.2	67.8	-41.1	67.8	-41.1	68.1	-41.4	68.6	-41.9	68.1	-41.4	68.1	-41.4
Hour 1	55.4	66.9	-11.6	66.4	-11.0	66.9	-11.5	66.5	-11.1	66.5	-11.1	66.8	-11.4	66.7	-11.3	67.2	-11.8	66.9	-11.5	66.5	-11.2	67.0	-11.6	66.8	-11.4
Hour 2	19.2	66.3	-47.1	66.6	-47.4	66.4	-47.2	66.4	-47.2	66.7	-47.5	66.5	-47.3	66.9	-47.7	66.9	-47.7	66.6	-47.4	66.3	-47.1	66.0	-46.8	66.5	-47.3
Hour 3	20.0	67.4	-47.3	67.2	-47.2	67.4	-47.4	67.6	-47.5	67.5	-47.4	67.4	-47.4	67.7	-47.7	67.4	-47.4	67.6	-47.5	67.4	-47.4	67.6	-47.6	67.5	-47.4
Hour 4	21.5	68.1	-46.6	68.0	-46.5	68.1	-46.6	68.2	-46.7	68.2	-46.7	68.2	-46.7	68.1	-46.6	68.0	-46.5	68.0	-46.5	68.1	-46.5	68.3	-46.7	68.1	-46.6
11	29.0	67.2	-38.1	67.0	-38.0	67.2	-38.2	67.1	-38.1	67.2	-38.2	67.2	-38.2	67.4	-38.3	67.4	-38.3	67.3	-38.2	67.1	-38.1	67.2	-38.2	67.2	-38.2



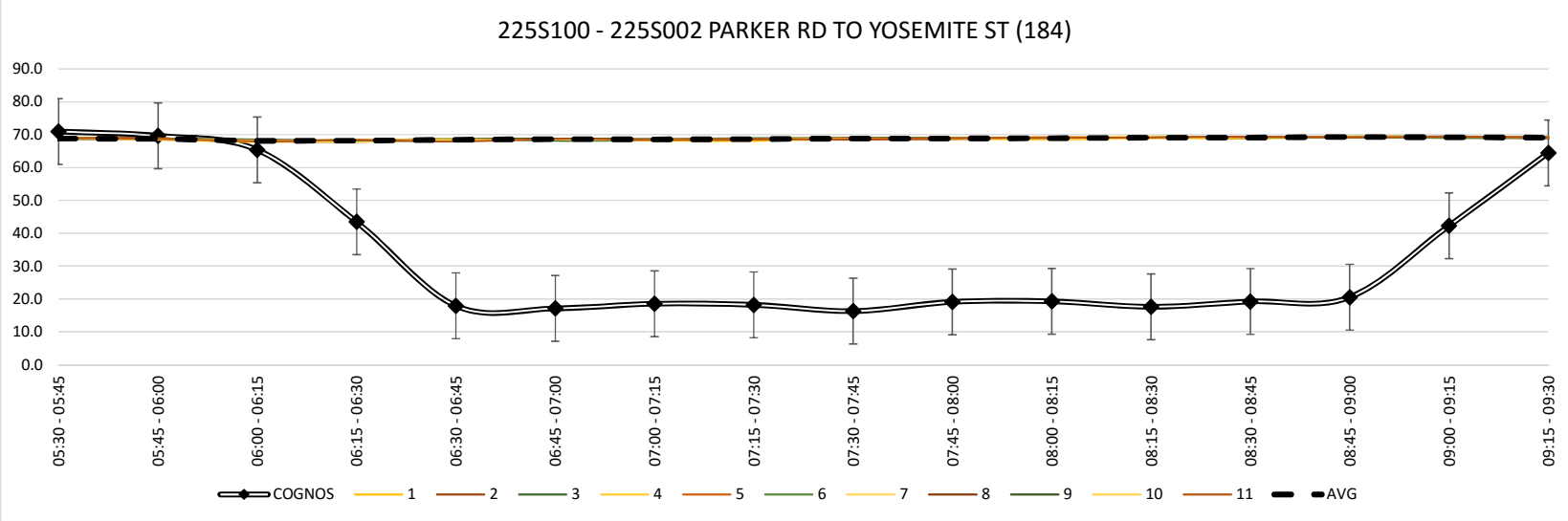
CONCEPT 2		Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run																							
AM	COGNOS	MODEL																						AGGREGATE	
TIME	225S080	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	67.9	68.9	- 1.0	68.9	- 1.0	68.6	- 0.7	68.8	- 0.9	68.8	- 0.9	68.6	- 0.7	68.6	- 0.7	68.6	- 0.7	68.9	- 1.0	69.0	- 1.1	68.9	- 1.0	68.8	- 0.9
05:45 - 06:00	66.1	68.9	- 2.8	68.8	- 2.7	68.3	- 2.2	68.7	- 2.6	68.6	- 2.5	68.6	- 2.5	68.6	- 2.5	68.8	- 2.7	68.6	- 2.5	68.5	- 2.4	68.5	- 2.4	68.6	- 2.5
06:00 - 06:15	63.8	68.2	- 4.4	68.0	- 4.2	68.1	- 4.3	68.0	- 4.2	68.1	- 4.3	68.1	- 4.3	68.1	- 4.3	68.0	- 4.2	68.3	- 4.5	68.1	- 4.3	67.9	- 4.1	68.1	- 4.3
06:15 - 06:30	33.2	68.3	-35.2	67.8	-34.7	68.4	-35.3	68.2	-35.1	68.3	-35.2	67.9	-34.8	67.8	-34.7	68.2	-35.1	68.1	-35.0	68.2	-35.1	68.1	-35.0	68.1	-35.0
06:30 - 06:45	17.0	68.4	-51.4	68.4	-51.4	68.6	-51.6	68.4	-51.4	68.5	-51.5	68.4	-51.4	68.6	-51.6	68.4	-51.4	68.4	-51.4	68.5	-51.5	68.2	-51.2	68.4	-51.4
06:45 - 07:00	17.4	68.7	-51.3	68.6	-51.2	68.3	-50.9	68.5	-51.1	68.2	-50.8	68.6	-51.2	68.4	-51.0	68.6	-51.2	68.5	-51.1	68.6	-51.2	68.7	-51.3	68.5	-51.1
07:00 - 07:15	17.2	68.2	-51.0	68.7	-51.5	68.3	-51.1	68.4	-51.2	68.6	-51.4	68.3	-51.1	68.5	-51.3	68.7	-51.5	68.5	-51.3	68.4	-51.2	68.4	-51.2	68.4	-51.2
07:15 - 07:30	17.8	68.2	-50.4	68.5	-50.7	68.4	-50.6	68.7	-50.9	68.7	-50.9	69.0	-51.2	68.7	-50.9	68.8	-51.0	68.6	-50.8	68.6	-50.8	68.6	-50.8	68.6	-50.8
07:30 - 07:45	16.4	68.8	-52.4	68.7	-52.3	68.7	-52.3	68.6	-52.2	68.7	-52.3	68.9	-52.5	68.8	-52.4	68.7	-52.3	68.7	-52.3	68.8	-52.4	68.8	-52.4	68.8	-52.4
07:45 - 08:00	19.4	68.7	-49.4	68.7	-49.4	68.8	-49.5	68.8	-49.5	68.5	-49.2	68.6	-49.3	69.0	-49.7	68.9	-49.6	68.8	-49.5	68.7	-49.4	68.7	-49.4	68.8	-49.5
08:00 - 08:15	18.5	68.8	-50.3	68.9	-50.4	69.0	-50.5	68.5	-50.0	69.2	-50.7	68.7	-50.2	68.9	-50.4	68.9	-50.4	68.9	-50.4	68.4	-49.9	68.9	-50.4	68.8	-50.3
08:15 - 08:30	18.4	68.9	-50.5	69.0	-50.6	69.0	-50.6	69.0	-50.6	69.1	-50.7	69.2	-50.8	69.3	-50.9	68.9	-50.5	69.1	-50.7	69.0	-50.6	69.2	-50.8	69.1	-50.7
08:30 - 08:45	17.9	68.9	-51.0	69.0	-51.1	68.9	-51.0	69.1	-51.2	69.1	-51.2	69.2	-51.3	69.0	-51.1	69.1	-51.2	69.0	-51.1	69.2	-51.3	69.2	-51.3	69.1	-51.2
08:45 - 09:00	19.1	69.3	-50.2	69.1	-50.0	68.9	-49.8	69.5	-50.4	69.1	-50.0	69.2	-50.1	69.1	-50.0	69.3	-50.2	68.9	-49.8	69.3	-50.2	69.3	-50.2	69.2	-50.1
09:00 - 09:15	22.7	69.1	-46.4	69.3	-46.6	69.1	-46.4	69.2	-46.5	69.3	-46.6	69.2	-46.5	69.2	-46.5	68.9	-46.2	69.1	-46.4	69.1	-46.4	69.4	-46.7	69.2	-46.5
09:15 - 09:30	35.3	69.0	-33.7	69.0	-33.7	69.1	-33.8	69.2	-33.9	69.2	-33.9	69.1	-33.8	68.8	-33.5	68.9	-33.6	69.1	-33.8	69.3	-34.0	68.9	-33.6	69.1	-33.8
Hour 1	57.7	68.6	-10.8	68.4	-10.6	68.4	-10.6	68.4	-10.7	68.5	-10.7	68.3	-10.6	68.3	-10.5	68.4	-10.7	68.5	-10.7	68.5	-10.7	68.4	-10.6	68.4	-10.7
Hour 2	17.3	68.4	-51.0	68.6	-51.2	68.4	-51.1	68.5	-51.2	68.5	-51.2	68.6	-51.2	68.6	-51.2	68.6	-51.3	68.5	-51.2	68.5	-51.2	68.5	-51.1	68.5	-51.1
Hour 3	18.2	68.8	-50.6	68.8	-50.7	68.9	-50.7	68.7	-50.6	68.9	-50.7	68.9	-50.7	69.0	-50.8	68.9	-50.7	68.9	-50.7	68.7	-50.6	68.9	-50.7	68.9	-50.7
Hour 4	23.8	69.1	-45.3	69.1	-45.3	69.0	-45.2	69.3	-45.5	69.2	-45.4	69.2	-45.4	69.0	-45.3	69.1	-45.3	69.0	-45.3	69.2	-45.5	69.2	-45.4	69.2	-45.4
11	29.3	68.7	-39.5	68.7	-39.5	68.7	-39.4	68.7	-39.5	68.8	-39.5	68.7	-39.5	68.7	-39.5	68.7	-39.5	68.7	-39.5	68.7	-39.5	68.7	-39.5	68.7	-39.5



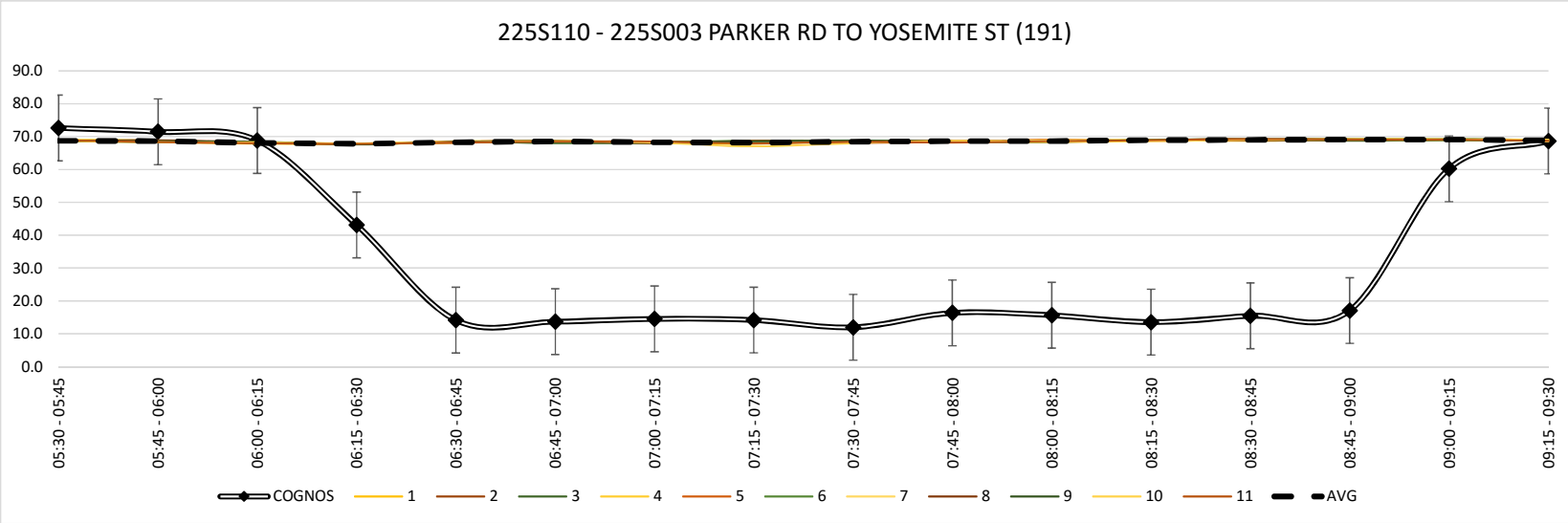
CONCEPT 2		Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run																							
AM	COGNOS	MODEL																						AGGREGATE	
TIME	225S090	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	70.9	68.9	2.0	68.6	2.3	68.7	2.2	68.9	2.0	68.7	2.2	68.5	2.4	68.7	2.2	68.6	2.3	68.8	2.1	68.8	2.1	68.9	2.0	68.7	2.2
05:45 - 06:00	67.1	68.7	- 1.6	68.7	- 1.6	68.2	- 1.1	68.4	- 1.3	68.5	- 1.4	68.8	- 1.7	68.5	- 1.4	68.7	- 1.6	68.5	- 1.4	68.4	- 1.3	68.5	- 1.4	68.5	- 1.4
06:00 - 06:15	61.8	68.3	- 6.5	68.1	- 6.3	68.3	- 6.5	68.0	- 6.2	68.0	- 6.2	68.3	- 6.5	68.2	- 6.4	67.9	- 6.1	68.3	- 6.5	68.3	- 6.5	68.2	- 6.4	68.2	- 6.4
06:15 - 06:30	35.3	68.0	-32.7	67.7	-32.4	68.5	-33.2	68.0	-32.7	68.2	-32.9	68.1	-32.8	67.8	-32.5	68.2	-32.9	68.3	-33.0	68.0	-32.7	68.4	-33.1	68.1	-32.8
06:30 - 06:45	15.9	68.5	-52.6	67.9	-52.0	68.6	-52.7	68.5	-52.6	68.4	-52.5	68.5	-52.6	68.7	-52.8	68.4	-52.5	68.7	-52.8	68.5	-52.6	68.2	-52.3	68.4	-52.5
06:45 - 07:00	15.5	68.6	-53.1	68.8	-53.3	68.2	-52.7	68.7	-53.2	68.5	-53.0	68.4	-52.9	68.5	-53.0	68.7	-53.2	68.5	-53.0	68.4	-52.9	68.6	-53.1	68.5	-53.0
07:00 - 07:15	16.8	68.2	-51.4	68.5	-51.7	68.4	-51.6	68.3	-51.5	68.6	-51.8	68.3	-51.5	68.5	-51.7	68.6	-51.8	68.6	-51.8	68.5	-51.7	68.5	-51.7	68.5	-51.7
07:15 - 07:30	15.4	68.1	-52.7	68.7	-53.3	68.7	-53.3	68.6	-53.2	68.7	-53.3	69.1	-53.7	68.6	-53.2	68.8	-53.4	68.6	-53.2	68.6	-53.2	68.5	-53.1	68.6	-53.2
07:30 - 07:45	15.6	68.8	-53.3	68.7	-53.2	68.7	-53.2	68.7	-53.2	68.6	-53.1	68.9	-53.4	69.0	-53.5	68.8	-53.3	68.8	-53.3	68.7	-53.2	68.7	-53.2	68.8	-53.3
07:45 - 08:00	17.6	68.7	-51.1	68.6	-51.0	68.8	-51.2	68.8	-51.2	68.5	-50.9	68.7	-51.1	69.1	-51.5	68.9	-51.3	68.9	-51.3	68.7	-51.1	68.8	-51.2	68.8	-51.2
08:00 - 08:15	19.6	68.8	-49.3	69.0	-49.5	69.0	-49.5	68.6	-49.1	69.2	-49.7	68.8	-49.3	69.1	-49.6	69.0	-49.5	68.7	-49.2	68.8	-49.3	68.9	-49.4	68.9	-49.4
08:15 - 08:30	16.2	68.9	-52.7	69.0	-52.8	69.1	-52.9	69.0	-52.8	69.2	-53.0	69.0	-52.8	69.3	-53.1	69.0	-52.8	69.2	-53.0	69.0	-52.8	69.1	-52.9	69.1	-52.9
08:30 - 08:45	17.4	69.0	-51.6	69.1	-51.7	69.2	-51.8	69.0	-51.6	69.1	-51.7	69.3	-51.9	69.1	-51.7	69.0	-51.6	69.1	-51.7	69.2	-51.8	69.1	-51.7	69.1	-51.7
08:45 - 09:00	19.5	69.2	-49.8	69.2	-49.8	69.1	-49.7	69.4	-50.0	69.0	-49.6	69.3	-49.9	69.2	-49.8	69.2	-49.8	68.8	-49.4	69.3	-49.9	69.3	-49.9	69.2	-49.8
09:00 - 09:15	30.3	69.1	-38.8	69.2	-38.9	69.1	-38.8	69.2	-38.9	69.3	-39.0	69.3	-39.0	69.2	-38.9	69.1	-38.8	69.1	-38.8	69.2	-38.9	69.3	-39.0	69.2	-38.9
09:15 - 09:30	53.4	69.1	-15.7	69.1	-15.7	69.1	-15.7	69.2	-15.8	69.3	-15.9	69.1	-15.7	69.0	-15.6	68.8	-15.4	69.3	-15.9	69.3	-15.9	69.0	-15.6	69.1	-15.7
Hour 1	58.8	68.5	- 9.7	68.3	- 9.5	68.4	- 9.7	68.3	- 9.6	68.4	- 9.6	68.4	- 9.7	68.3	- 9.5	68.4	- 9.6	68.5	- 9.7	68.4	- 9.6	68.5	- 9.7	68.4	- 9.6
Hour 2	15.9	68.4	-52.5	68.5	-52.6	68.5	-52.6	68.5	-52.6	68.6	-52.7	68.6	-52.7	68.6	-52.7	68.6	-52.7	68.6	-52.7	68.5	-52.6	68.5	-52.6	68.5	-52.6
Hour 3	17.2	68.8	-51.6	68.8	-51.6	68.9	-51.7	68.8	-51.5	68.9	-51.6	68.9	-51.6	69.1	-51.9	68.9	-51.7	68.9	-51.7	68.8	-51.6	68.9	-51.6	68.9	-51.7
Hour 4	30.1	69.1	-39.0	69.2	-39.0	69.1	-39.0	69.2	-39.1	69.2	-39.0	69.3	-39.1	69.1	-39.0	69.0	-38.9	69.1	-38.9	69.3	-39.1	69.2	-39.0	69.2	-39.0
11	30.5	68.7	-38.2	68.7	-38.2	68.7	-38.2	68.7	-38.2	68.7	-38.2	68.8	-38.3	68.8	-38.3	68.7	-38.2	68.8	-38.3	68.7	-38.2	68.8	-38.2	68.7	-38.2



CONCEPT 2		Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run																							
AM	COGNOS	MODEL																						AGGREGATE	
TIME	225S100	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	71.0	69.0	2.0	68.8	2.2	68.7	2.3	68.8	2.2	68.7	2.3	68.7	2.3	68.8	2.2	68.8	2.2	68.8	2.2	68.9	2.1	69.0	2.0	68.8	2.2
05:45 - 06:00	69.6	68.8	0.8	68.9	0.7	68.5	1.1	68.4	1.2	68.7	0.9	68.8	0.8	68.6	1.0	68.9	0.7	68.8	0.8	68.7	0.9	68.7	0.9	68.7	0.9
06:00 - 06:15	65.4	67.8	- 2.5	68.0	- 2.7	68.0	- 2.7	67.8	- 2.5	68.2	- 2.9	68.3	- 3.0	68.3	- 3.0	68.1	- 2.8	68.5	- 3.2	68.2	- 2.9	68.0	- 2.7	68.1	- 2.8
06:15 - 06:30	43.5	68.4	-24.9	67.8	-24.3	68.3	-24.8	68.3	-24.8	68.1	-24.6	68.0	-24.5	67.8	-24.3	68.3	-24.8	68.2	-24.7	68.4	-24.9	68.4	-24.9	68.2	-24.7
06:30 - 06:45	17.9	68.5	-50.6	68.6	-50.7	68.7	-50.8	68.6	-50.7	68.4	-50.5	68.2	-50.3	68.7	-50.8	68.5	-50.6	68.5	-50.6	68.4	-50.5	67.9	-50.0	68.4	-50.5
06:45 - 07:00	17.1	68.6	-51.5	68.8	-51.7	68.1	-51.0	68.7	-51.6	68.5	-51.4	68.8	-51.7	68.5	-51.4	68.8	-51.7	68.8	-51.7	68.5	-51.4	68.7	-51.6	68.6	-51.5
07:00 - 07:15	18.6	68.2	-49.6	68.5	-49.9	68.4	-49.8	68.4	-49.8	68.5	-49.9	68.6	-50.0	68.4	-49.8	68.6	-50.0	68.5	-49.9	68.5	-49.9	68.4	-49.8	68.5	-49.9
07:15 - 07:30	18.2	68.1	-49.9	68.7	-50.5	68.6	-50.4	68.7	-50.5	68.6	-50.4	69.0	-50.8	68.7	-50.5	68.7	-50.5	68.5	-50.3	68.5	-50.3	68.5	-50.3	68.6	-50.4
07:30 - 07:45	16.3	68.8	-52.5	68.4	-52.1	68.9	-52.6	68.8	-52.5	68.8	-52.5	68.9	-52.6	69.0	-52.7	69.0	-52.7	68.9	-52.6	68.8	-52.5	68.7	-52.4	68.8	-52.5
07:45 - 08:00	19.1	68.8	-49.7	68.8	-49.7	68.8	-49.7	68.9	-49.8	68.6	-49.5	68.7	-49.6	69.2	-50.1	68.9	-49.8	68.9	-49.8	68.7	-49.6	68.8	-49.7	68.8	-49.7
08:00 - 08:15	19.3	68.7	-49.4	69.0	-49.7	69.0	-49.7	68.6	-49.3	69.3	-50.0	69.0	-49.7	69.2	-49.9	69.0	-49.7	68.7	-49.4	68.4	-49.1	69.1	-49.8	68.9	-49.6
08:15 - 08:30	17.6	69.1	-51.5	69.2	-51.6	69.3	-51.7	69.0	-51.4	69.1	-51.5	69.2	-51.6	69.5	-51.9	69.0	-51.4	69.2	-51.6	68.9	-51.3	69.1	-51.5	69.1	-51.5
08:30 - 08:45	19.2	68.8	-49.6	69.0	-49.8	69.0	-49.8	69.0	-49.8	69.1	-49.9	69.3	-50.1	69.1	-49.9	69.1	-49.9	69.2	-50.0	69.2	-50.0	69.4	-50.2	69.1	-49.9
08:45 - 09:00	20.5	69.4	-48.9	69.3	-48.8	69.2	-48.7	69.5	-49.0	69.1	-48.6	69.4	-48.9	69.3	-48.8	69.2	-48.7	69.2	-48.7	69.3	-48.8	69.2	-48.7	69.3	-48.8
09:00 - 09:15	42.3	69.2	-26.9	69.3	-27.0	69.1	-26.8	69.3	-27.0	69.2	-26.9	69.4	-27.1	69.2	-26.9	69.1	-26.8	69.0	-26.7	69.3	-27.0	69.4	-27.1	69.2	-26.9
09:15 - 09:30	64.4	69.1	- 4.7	69.2	- 4.8	69.0	- 4.6	69.2	- 4.8	69.3	- 4.9	69.2	- 4.8	69.1	- 4.7	68.9	- 4.5	69.2	- 4.8	69.2	- 4.8	69.2	- 4.8	69.1	- 4.7
Hour 1	62.4	68.5	- 6.1	68.4	- 6.0	68.4	- 6.0	68.3	- 6.0	68.4	- 6.1	68.5	- 6.1	68.4	- 6.0	68.5	- 6.2	68.6	- 6.2	68.6	- 6.2	68.5	- 6.2	68.5	- 6.1
Hour 2	18.0	68.4	-50.4	68.7	-50.7	68.5	-50.5	68.6	-50.6	68.5	-50.5	68.7	-50.7	68.6	-50.6	68.7	-50.7	68.6	-50.6	68.5	-50.5	68.4	-50.4	68.5	-50.6
Hour 3	18.1	68.9	-50.8	68.9	-50.8	69.0	-50.9	68.8	-50.7	69.0	-50.9	69.0	-50.9	69.2	-51.1	69.0	-50.9	68.9	-50.8	68.7	-50.6	68.9	-50.8	68.9	-50.8
Hour 4	36.6	69.1	-32.5	69.2	-32.6	69.1	-32.5	69.3	-32.6	69.2	-32.6	69.3	-32.7	69.2	-32.6	69.1	-32.5	69.2	-32.5	69.3	-32.6	69.3	-32.7	69.2	-32.6
11	33.8	68.7	-35.0	68.8	-35.0	68.7	-35.0	68.8	-35.0	68.8	-35.0	68.8	-35.1	68.8	-35.1	68.8	-35.1	68.8	-35.1	68.7	-35.0	68.8	-35.0	68.8	-35.0



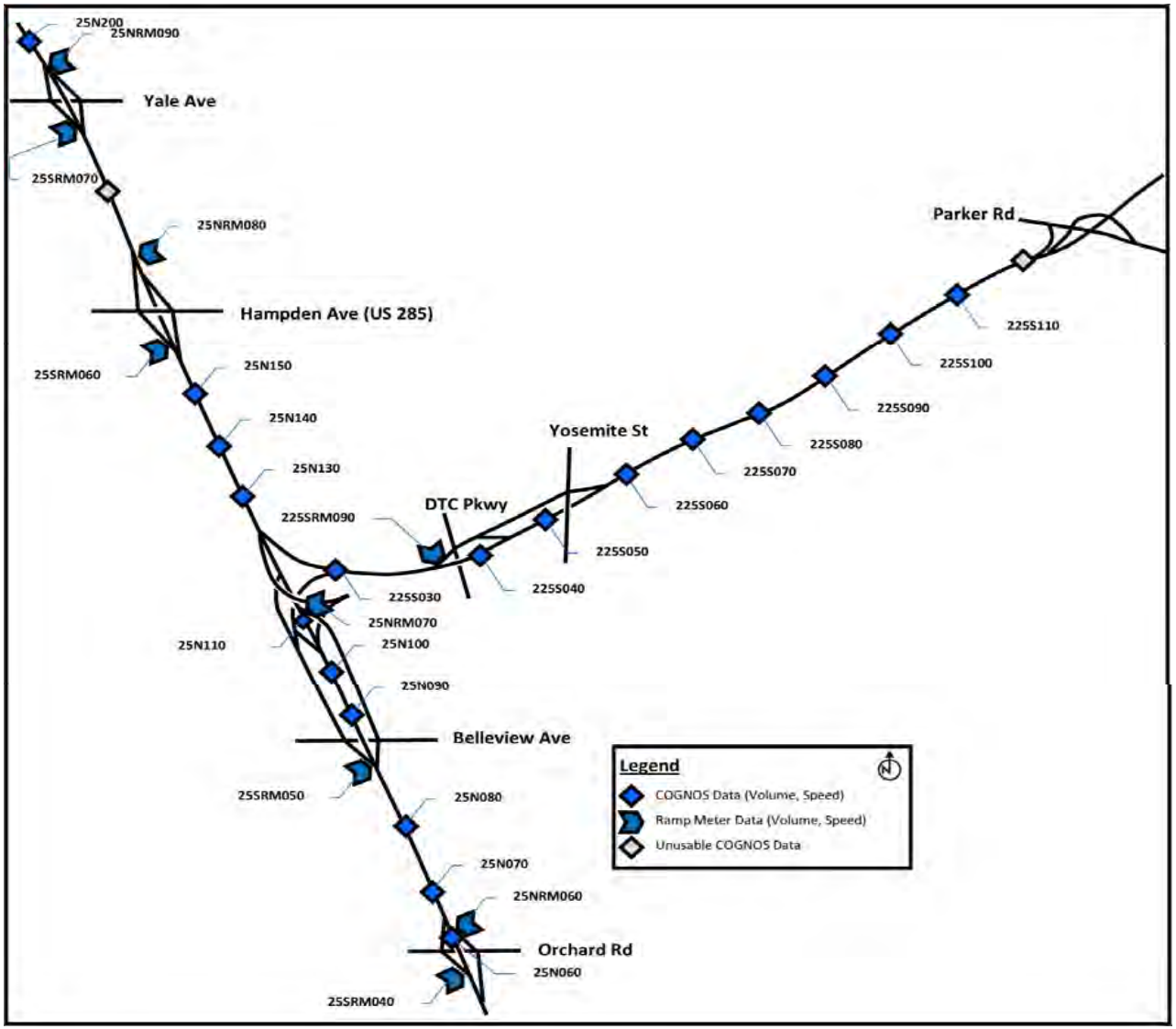
CONCEPT 2		Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run																							
AM	COGNOS	MODEL																						AGGREGATE	
TIME	225S110	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	72.6	69.0	3.6	68.8	3.8	68.6	4.0	68.7	3.9	68.6	4.0	68.5	4.1	68.9	3.7	68.6	4.0	68.7	3.9	68.7	3.9	68.9	3.7	68.7	3.9
05:45 - 06:00	71.5	68.8	2.7	68.7	2.8	68.3	3.2	68.4	3.1	68.6	2.9	68.6	2.9	68.6	2.9	68.9	2.6	68.6	2.9	68.3	3.2	68.3	3.2	68.6	2.9
06:00 - 06:15	68.8	68.0	0.8	68.3	0.5	68.2	0.6	67.8	1.0	68.1	0.7	68.1	0.7	68.2	0.6	68.3	0.5	68.4	0.4	68.2	0.6	68.0	0.8	68.1	0.7
06:15 - 06:30	43.1	67.8	-24.7	67.8	-24.7	67.6	-24.5	67.9	-24.8	67.8	-24.7	67.9	-24.8	67.9	-24.8	67.7	-24.6	67.8	-24.7	67.9	-24.8	67.8	-24.7	67.8	-24.7
06:30 - 06:45	14.2	68.2	-54.0	68.2	-54.0	68.4	-54.2	68.4	-54.2	68.5	-54.3	68.3	-54.1	68.6	-54.4	68.4	-54.2	68.3	-54.1	68.2	-54.0	68.2	-54.0	68.3	-54.1
06:45 - 07:00	13.7	68.6	-54.9	68.7	-55.0	68.0	-54.3	68.5	-54.8	68.5	-54.8	68.4	-54.7	68.7	-55.0	68.6	-54.9	68.6	-54.9	68.6	-54.9	68.4	-54.7	68.5	-54.8
07:00 - 07:15	14.6	68.2	-53.6	68.0	-53.4	68.0	-53.4	68.3	-53.7	68.5	-53.9	68.2	-53.6	68.4	-53.8	68.0	-53.4	68.4	-53.8	68.2	-53.6	68.5	-53.9	68.3	-53.7
07:15 - 07:30	14.2	67.8	-53.6	68.4	-54.2	68.5	-54.3	68.3	-54.1	68.3	-54.1	68.8	-54.6	68.4	-54.2	68.7	-54.5	68.5	-54.3	67.0	-52.8	67.9	-53.7	68.2	-54.0
07:30 - 07:45	12.0	68.5	-56.5	68.1	-56.1	68.3	-56.3	68.6	-56.6	68.2	-56.2	68.7	-56.7	68.6	-56.6	68.5	-56.5	68.8	-56.8	68.0	-56.0	68.4	-56.4	68.4	-56.4
07:45 - 08:00	16.4	68.5	-52.1	68.5	-52.1	68.7	-52.3	68.7	-52.3	68.3	-51.9	68.5	-52.1	68.7	-52.3	68.7	-52.3	68.5	-52.1	68.7	-52.3	68.2	-51.8	68.6	-52.2
08:00 - 08:15	15.6	68.4	-52.8	68.6	-53.0	68.7	-53.1	68.5	-52.9	69.1	-53.5	68.5	-52.9	68.9	-53.3	68.5	-52.9	68.3	-52.7	68.3	-52.7	68.6	-53.0	68.6	-53.0
08:15 - 08:30	13.6	69.0	-55.4	68.9	-55.3	69.1	-55.5	68.9	-55.3	68.7	-55.1	69.0	-55.4	69.1	-55.5	68.8	-55.2	69.0	-55.4	68.6	-55.0	68.9	-55.3	68.9	-55.3
08:30 - 08:45	15.5	68.7	-53.2	68.9	-53.4	69.2	-53.7	68.9	-53.4	68.9	-53.4	69.2	-53.7	69.0	-53.5	68.9	-53.4	69.0	-53.5	69.0	-53.5	69.3	-53.8	69.0	-53.5
08:45 - 09:00	17.1	69.1	-52.0	69.2	-52.1	68.7	-51.6	69.0	-51.9	68.9	-51.8	69.3	-52.2	69.1	-52.0	69.0	-51.9	69.0	-51.9	69.3	-52.2	69.1	-52.0	69.1	-52.0
09:00 - 09:15	60.2	69.0	- 8.8	69.1	- 8.9	68.9	- 8.7	69.0	- 8.8	69.2	- 9.0	69.3	- 9.1	69.2	- 9.0	69.1	- 8.9	69.0	- 8.8	69.2	- 9.0	69.1	- 8.9	69.1	- 8.9
09:15 - 09:30	68.7	68.9	- 0.3	69.0	- 0.3	68.7	- 0.0	68.9	- 0.3	68.8	- 0.1	68.9	- 0.3	68.5	0.2	68.9	- 0.3	68.8	- 0.1	69.1	- 0.4	68.7	- 0.0	68.8	- 0.1
Hour 1	64.0	68.4	- 4.4	68.4	- 4.4	68.2	- 4.2	68.2	- 4.2	68.3	- 4.3	68.3	- 4.3	68.4	- 4.4	68.4	- 4.4	68.4	- 4.4	68.3	- 4.3	68.3	- 4.3	68.3	- 4.3
Hour 2	14.2	68.2	-54.0	68.3	-54.2	68.2	-54.1	68.4	-54.2	68.5	-54.3	68.4	-54.3	68.5	-54.4	68.4	-54.3	68.5	-54.3	68.0	-53.8	68.3	-54.1	68.3	-54.2
Hour 3	14.4	68.6	-54.2	68.5	-54.1	68.7	-54.3	68.7	-54.3	68.6	-54.2	68.7	-54.3	68.8	-54.4	68.6	-54.2	68.7	-54.3	68.4	-54.0	68.5	-54.1	68.6	-54.2
Hour 4	40.4	68.9	-28.6	69.1	-28.7	68.9	-28.5	69.0	-28.6	69.0	-28.6	69.2	-28.8	69.0	-28.6	69.0	-28.6	69.0	-28.6	69.2	-28.8	69.1	-28.7	69.0	-28.6
11	33.2	68.5	-35.3	68.6	-35.3	68.5	-35.3	68.6	-35.3	68.6	-35.3	68.6	-35.4	68.7	-35.4	68.6	-35.4	68.6	-35.4	68.5	-35.2	68.5	-35.3	68.6	-35.3



AVERAGE VEHICLE SPEEDS - BY LINK

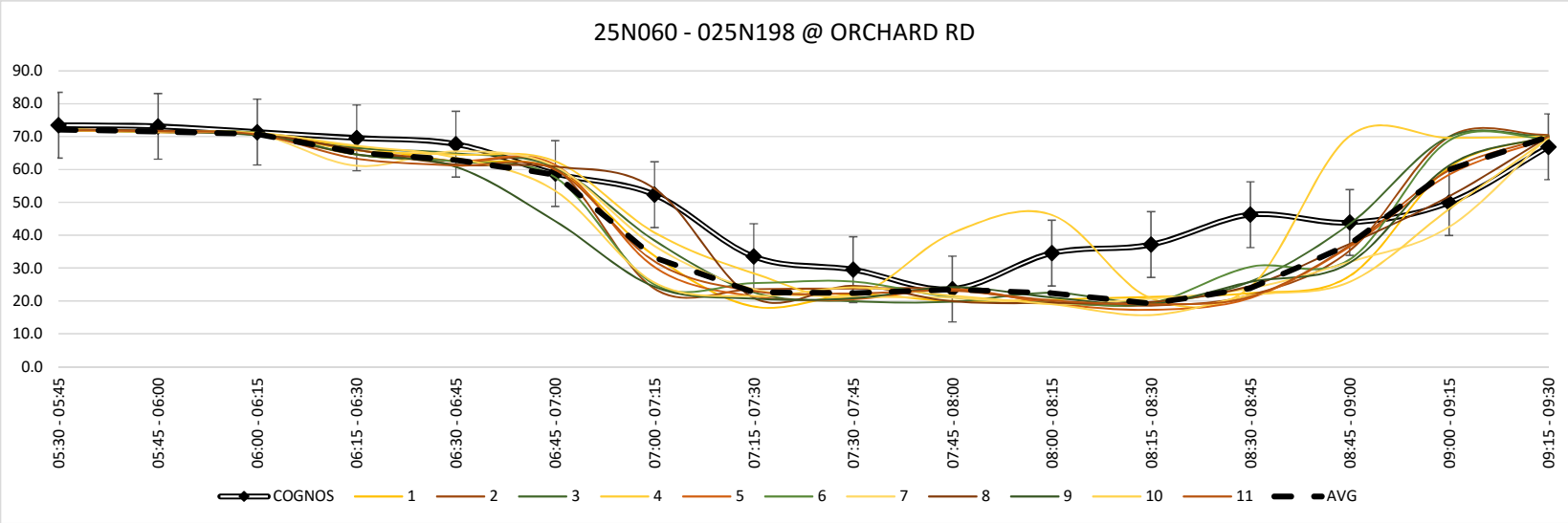
CONCEPT 2

ROUTE: I-25
PERIOD: AM

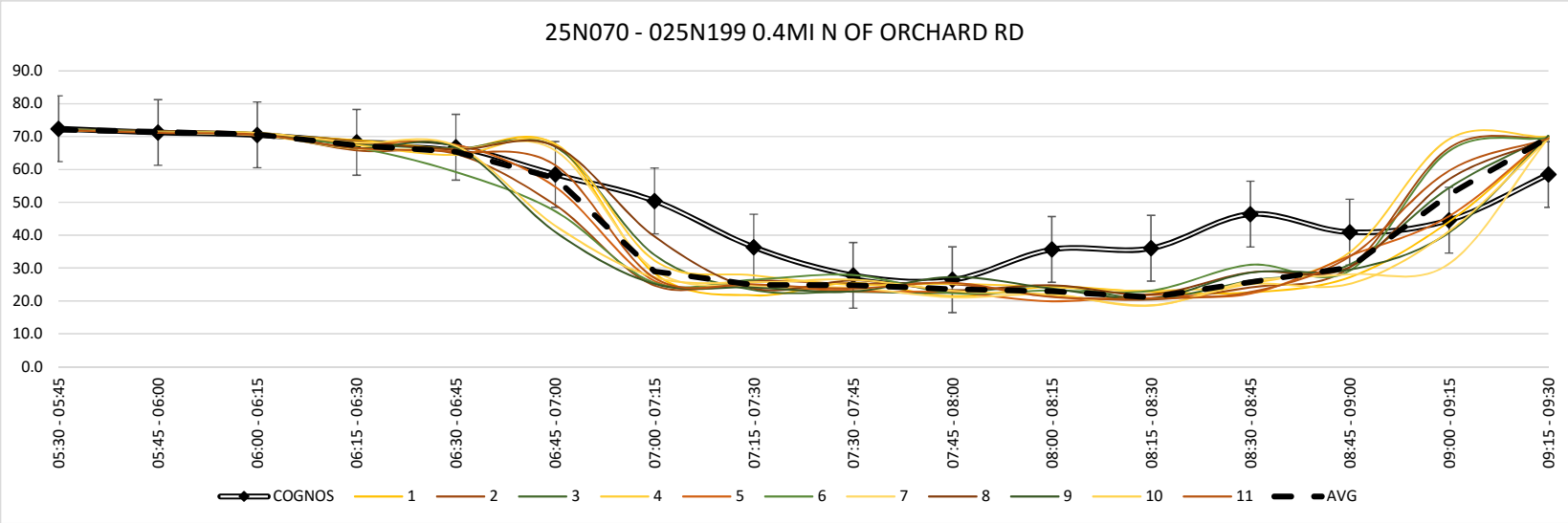


LOCATION	COGNOS DESCRIPTION
25N060	025N198 @ ORCHARD RD
25N070	025N199 0.4MI N OF ORCHARD RD
25N080	025N199 0.4MI S OF BELLEVIEW AVE
25N090	025S199 @ BELLVIEW AVE
25N100	025N200 BELLVIEW AVE TO I-25 NB (153)
25N110	025N200 @ I-225
25N130	025N201 0.2MI N OF I-225
25N140	025N201 I-225 TO HAMPDEN AVE 2 (132)
25N150	025N201 0.6MI S OF HAMPDEN AVE
25N200	025N203 0.4MI N OF YALE AVE (124)

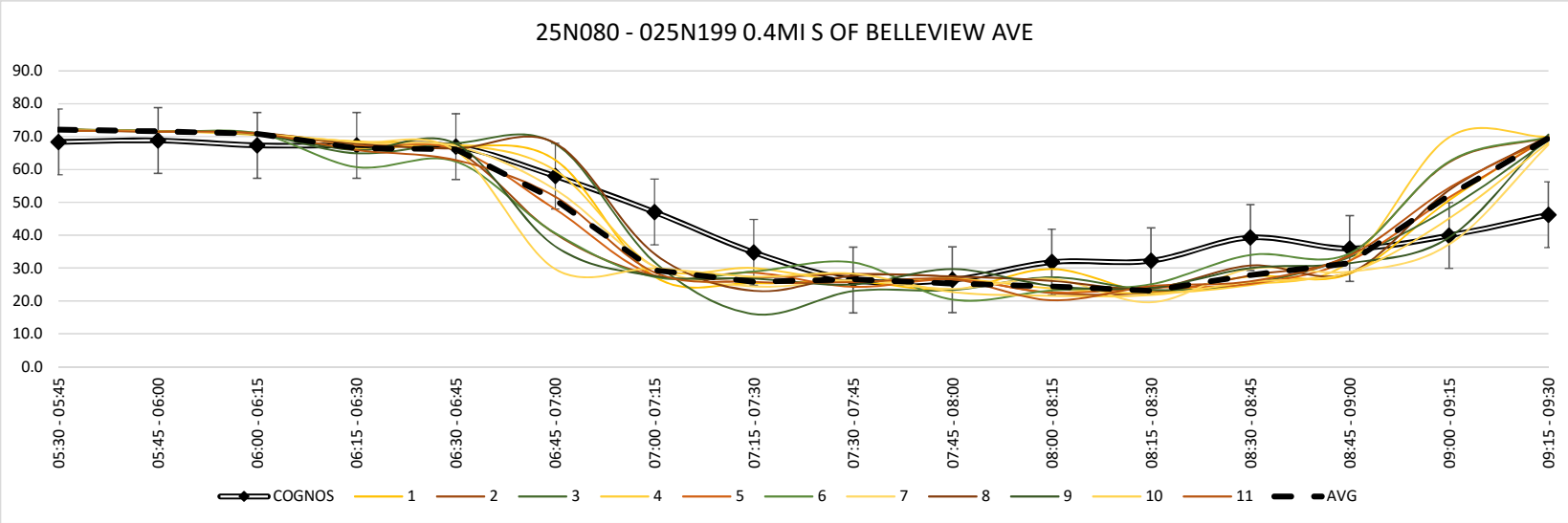
CONCEPT 2		Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run																							
AM	COGNOS	MODEL																						AGGREGATE	
TIME	25N060	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	73.5	71.9	1.6	72.3	1.2	72.1	1.4	72.3	1.2	72.0	1.5	72.3	1.2	72.2	1.3	72.0	1.5	71.9	1.6	71.9	1.6	71.9	1.6	72.1	1.4
05:45 - 06:00	73.1	71.7	1.4	71.7	1.4	71.6	1.5	71.5	1.6	71.3	1.8	71.4	1.7	71.3	1.8	71.8	1.3	71.4	1.7	71.4	1.7	71.6	1.5	71.5	1.6
06:00 - 06:15	71.4	70.6	0.8	71.1	0.3	70.4	0.9	70.8	0.5	70.6	0.8	71.2	0.1	70.7	0.6	70.8	0.5	70.5	0.8	71.1	0.3	70.6	0.8	70.8	0.5
06:15 - 06:30	69.6	66.9	2.7	65.9	3.7	66.5	3.1	65.8	3.8	64.5	5.1	64.5	5.1	61.1	8.5	66.0	3.6	64.6	5.0	67.2	2.4	63.3	6.3	65.1	4.5
06:30 - 06:45	67.7	62.4	5.3	62.5	5.2	64.9	2.8	64.5	3.2	62.6	5.1	62.4	5.3	65.5	2.2	61.5	6.2	60.8	6.9	63.6	4.1	61.2	6.5	62.9	4.8
06:45 - 07:00	58.8	60.0	- 1.2	60.4	- 1.6	60.6	- 1.8	62.5	- 3.7	61.4	- 2.6	57.6	1.2	60.9	- 2.1	60.9	- 2.1	44.3	14.5	53.5	5.3	59.9	- 1.1	58.4	0.4
07:00 - 07:15	52.3	33.7	18.6	23.7	28.6	38.4	13.9	40.8	11.5	30.3	22.0	25.0	27.3	36.7	15.6	54.2	- 1.9	24.3	28.0	25.6	26.7	32.0	20.3	33.2	19.1
07:15 - 07:30	33.5	18.3	15.2	23.6	9.9	22.6	10.9	28.4	5.1	21.4	12.1	25.4	8.1	23.6	9.9	20.9	12.6	20.7	12.8	21.5	12.0	23.0	10.5	22.7	10.8
07:30 - 07:45	29.5	22.0	7.5	23.8	5.7	19.9	9.6	21.5	8.0	20.5	9.0	25.9	3.6	21.3	8.2	24.6	4.9	20.8	8.7	24.1	5.4	22.3	7.2	22.4	7.1
07:45 - 08:00	23.6	20.0	3.6	23.5	0.1	19.8	3.8	40.6	-17.0	23.7	- 0.1	21.1	2.5	21.0	2.6	19.9	3.7	24.2	- 0.6	21.6	2.0	23.1	0.5	23.5	0.1
08:00 - 08:15	34.5	20.4	14.1	19.7	14.8	22.5	12.0	46.2	-11.7	19.3	15.2	19.4	15.1	19.1	15.4	19.4	15.1	21.1	13.4	19.0	15.5	20.2	14.3	22.4	12.1
08:15 - 08:30	37.2	21.2	16.0	18.6	18.6	19.5	17.7	20.8	16.4	17.3	19.9	19.4	17.8	20.7	16.5	19.7	17.5	19.0	18.2	15.7	21.5	19.0	18.2	19.2	18.0
08:30 - 08:45	46.2	22.4	23.8	21.8	24.4	25.9	20.3	24.3	21.9	20.9	25.3	30.4	15.8	23.8	22.4	24.6	21.6	25.8	20.4	21.7	24.5	21.3	24.9	23.9	22.3
08:45 - 09:00	43.9	27.6	16.3	35.3	8.6	43.4	0.5	70.2	-26.3	36.5	7.4	32.6	11.3	31.9	12.0	37.4	6.5	31.6	12.3	25.8	18.1	36.9	7.0	37.2	6.7
09:00 - 09:15	49.9	60.6	-10.7	69.9	-20.0	69.9	-20.0	69.6	-19.7	58.4	- 8.5	68.8	-18.9	42.5	7.4	51.8	- 1.9	61.2	-11.3	47.9	2.0	59.8	- 9.9	60.0	-10.1
09:15 - 09:30	66.9	70.2	- 3.3	70.5	- 3.6	70.0	- 3.1	70.0	- 3.1	69.5	- 2.6	69.4	- 2.5	69.9	- 3.0	69.9	- 3.0	70.1	- 3.2	69.5	- 2.6	69.9	- 3.0	69.9	- 3.0
Hour 1	71.9	70.3	1.6	70.3	1.6	70.2	1.7	70.1	1.8	69.6	2.3	69.9	2.0	68.8	3.1	70.2	1.7	69.6	2.3	70.4	1.5	69.4	2.5	69.9	2.0
Hour 2	53.1	43.6	9.5	42.6	10.5	46.6	6.4	49.1	4.0	43.9	9.1	42.6	10.5	46.7	6.4	49.4	3.7	37.5	15.5	41.1	12.0	44.0	9.0	44.3	8.8
Hour 3	31.2	20.9	10.3	21.4	9.8	20.4	10.8	32.3	- 1.1	20.2	11.0	21.5	9.8	20.5	10.7	20.9	10.3	21.3	9.9	20.1	11.1	21.2	10.1	21.9	9.3
Hour 4	51.7	45.2	6.5	49.4	2.4	52.3	- 0.6	58.5	- 6.8	46.3	5.4	50.3	1.4	42.0	9.7	45.9	5.8	47.2	4.6	41.2	10.5	47.0	4.8	47.8	4.0
11	52.0	45.0	7.0	45.9	6.1	47.4	4.6	52.5	- 0.5	45.0	7.0	46.1	5.9	44.5	7.5	46.6	5.4	43.9	8.1	43.2	8.8	45.4	6.6	46.0	6.0



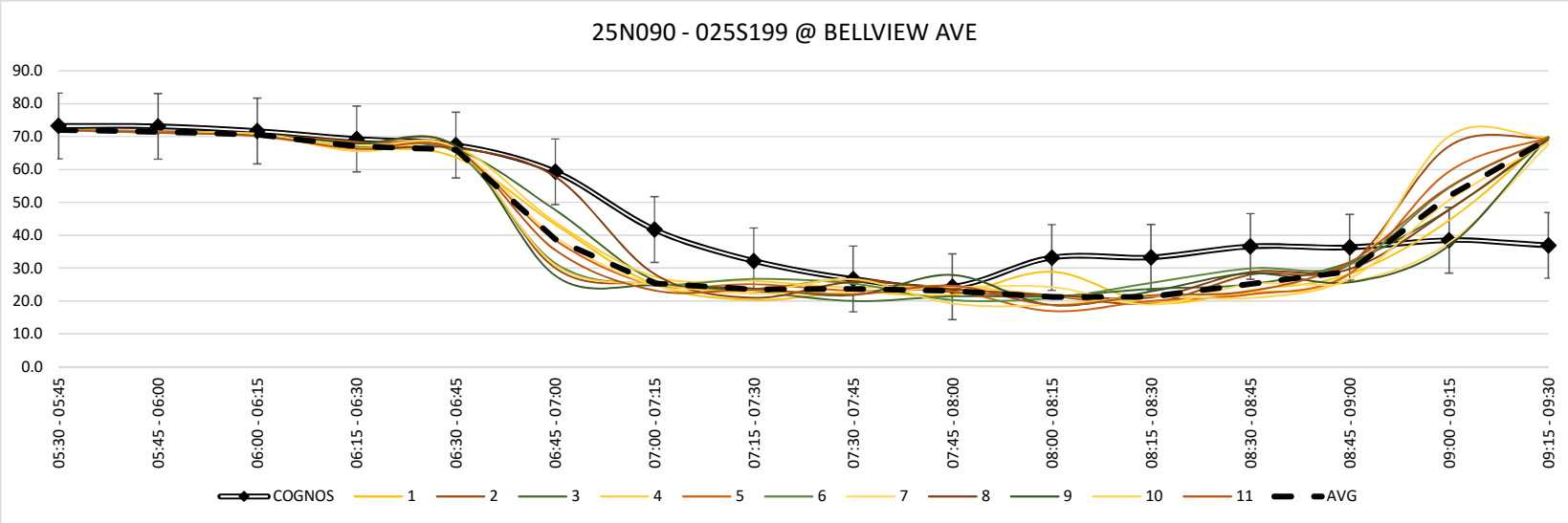
CONCEPT 2		Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run																							
AM	COGNOS	MODEL																						AGGREGATE	
TIME	25N070	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	72.4	71.8	0.6	72.2	0.2	72.2	0.2	72.1	0.3	72.0	0.4	72.2	0.2	72.2	0.2	72.0	0.4	72.1	0.3	72.0	0.4	72.0	0.4	72.1	0.3
05:45 - 06:00	71.3	71.6	- 0.3	71.7	- 0.5	71.6	- 0.3	71.4	- 0.2	71.5	- 0.3	71.4	- 0.2	71.2	0.0	71.4	- 0.2	71.3	- 0.0	71.3	- 0.0	71.1	0.2	71.4	- 0.2
06:00 - 06:15	70.5	70.6	- 0.1	70.9	- 0.4	70.5	0.0	71.1	- 0.6	70.4	0.1	71.0	- 0.5	70.4	0.1	70.7	- 0.2	70.7	- 0.2	71.1	- 0.6	70.6	- 0.1	70.7	- 0.2
06:15 - 06:30	68.3	68.9	- 0.6	65.8	2.5	67.7	0.6	67.4	0.9	68.1	0.2	66.7	1.6	66.3	2.0	68.6	- 0.3	66.5	1.8	68.2	0.1	66.5	1.8	67.3	1.0
06:30 - 06:45	66.7	66.2	0.5	64.7	2.0	66.4	0.3	64.4	2.3	67.5	- 0.8	59.2	7.5	66.2	0.5	66.1	0.6	66.7	0.0	67.2	- 0.5	65.4	1.3	65.4	1.3
06:45 - 07:00	58.5	67.5	- 9.0	49.2	9.3	66.9	- 8.4	67.8	- 9.3	54.7	3.8	47.3	11.2	65.8	- 7.3	67.1	- 8.6	41.0	17.5	42.9	15.6	61.3	- 2.8	57.4	1.1
07:00 - 07:15	50.4	28.4	22.0	24.7	25.7	34.0	16.4	32.3	18.1	26.1	24.3	25.5	24.9	29.4	21.0	39.6	10.8	25.2	25.2	27.2	23.2	27.0	23.4	29.0	21.4
07:15 - 07:30	36.4	21.7	14.7	26.2	10.2	23.3	13.1	27.8	8.6	24.7	11.7	26.5	9.9	24.6	11.8	23.8	12.6	24.1	12.3	25.7	10.7	25.1	11.3	24.9	11.5
07:30 - 07:45	27.8	25.5	2.3	25.2	2.6	22.8	5.0	24.9	2.9	23.0	4.8	27.9	- 0.1	24.0	3.8	26.2	1.6	22.9	4.9	26.5	1.3	23.8	4.0	24.8	3.0
07:45 - 08:00	26.4	21.4	5.0	25.1	1.3	22.5	3.9	25.2	1.2	22.6	3.8	22.4	4.0	21.1	5.3	23.3	3.1	27.3	- 0.9	23.1	3.3	25.5	0.9	23.6	2.8
08:00 - 08:15	35.7	24.3	11.4	21.6	14.1	24.6	11.1	24.2	11.5	19.9	15.8	23.2	12.5	22.0	13.7	24.8	10.9	23.8	11.9	21.9	13.8	21.2	14.5	22.9	12.8
08:15 - 08:30	36.0	22.7	13.3	20.4	15.6	20.7	15.3	23.1	12.9	21.8	14.2	23.1	12.9	18.5	17.5	22.0	14.0	20.8	15.2	18.7	17.3	20.8	15.2	21.1	14.9
08:30 - 08:45	46.4	22.6	23.8	24.1	22.3	26.2	20.2	25.3	21.1	22.2	24.2	31.0	15.4	26.0	20.4	28.7	17.7	28.6	17.8	25.1	21.3	22.7	23.7	25.7	20.7
08:45 - 09:00	40.9	27.2	13.7	30.2	10.7	31.1	9.8	34.8	6.1	33.7	7.2	29.2	11.7	28.1	12.8	30.3	10.6	29.5	11.4	25.2	15.7	33.5	7.4	30.2	10.7
09:00 - 09:15	44.6	44.1	0.5	66.5	-21.9	54.4	- 9.8	69.2	-24.6	45.8	- 1.2	65.6	-21.0	31.3	13.3	57.0	-12.4	40.8	3.8	41.2	3.4	59.6	-15.0	52.3	- 7.7
09:15 - 09:30	58.5	69.7	-11.2	69.8	-11.3	70.2	-11.7	69.9	-11.4	70.0	-11.5	69.6	-11.1	69.6	-11.1	69.2	-10.7	70.2	-11.7	69.4	-10.9	69.4	-10.9	69.7	-11.2
Hour 1	70.6	70.7	- 0.1	70.2	0.4	70.5	0.1	70.5	0.1	70.5	0.1	70.3	0.3	70.0	0.6	70.7	- 0.1	70.2	0.5	70.7	- 0.1	70.1	0.5	70.4	0.2
Hour 2	53.0	46.0	7.1	41.2	11.8	47.7	5.4	48.1	4.9	43.3	9.8	39.6	13.4	46.5	6.5	49.2	3.9	39.3	13.8	40.8	12.3	44.7	8.3	44.2	8.8
Hour 3	31.5	23.5	8.0	23.1	8.4	22.7	8.8	24.4	7.1	21.8	9.7	24.2	7.3	21.4	10.1	24.1	7.4	23.7	7.8	22.6	8.9	22.8	8.7	23.1	8.4
Hour 4	47.6	40.9	6.7	47.7	- 0.1	45.5	2.1	49.8	- 2.2	42.9	4.7	48.9	- 1.3	38.8	8.8	46.3	1.3	42.3	5.3	40.2	7.4	46.3	1.3	44.5	3.1
11	50.7	45.3	5.4	45.5	5.2	46.6	4.1	48.2	2.5	44.6	6.0	45.7	4.9	44.2	6.5	47.6	3.1	43.8	6.8	43.5	7.1	46.0	4.7	45.5	5.1



CONCEPT 2		Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run																							
AM	COGNOS	MODEL																						AGGREGATE	
TIME	25N080	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	68.4	71.9	- 3.5	72.1	- 3.7	72.1	- 3.7	72.3	- 3.9	72.0	- 3.6	72.2	- 3.8	72.2	- 3.8	71.8	- 3.4	72.2	- 3.8	72.0	- 3.6	71.9	- 3.5	72.1	- 3.7
05:45 - 06:00	68.8	71.7	- 2.9	71.6	- 2.8	71.6	- 2.8	71.5	- 2.7	71.6	- 2.8	71.4	- 2.6	71.5	- 2.7	71.5	- 2.7	71.7	- 2.9	71.6	- 2.8	71.5	- 2.7	71.6	- 2.8
06:00 - 06:15	67.3	70.5	- 3.2	71.1	- 3.8	70.8	- 3.5	71.0	- 3.7	70.9	- 3.6	71.0	- 3.7	70.8	- 3.5	71.0	- 3.7	70.6	- 3.3	70.8	- 3.5	70.9	- 3.6	70.9	- 3.6
06:15 - 06:30	67.3	68.5	- 1.2	67.7	- 0.4	64.9	2.4	66.3	1.0	67.4	- 0.1	60.7	6.6	67.8	- 0.5	67.8	- 0.5	65.9	1.4	68.3	- 1.0	65.9	1.4	66.5	0.8
06:30 - 06:45	67.0	67.4	- 0.4	65.6	1.4	68.0	- 1.0	67.5	- 0.5	66.1	0.9	62.4	4.6	67.1	- 0.1	66.4	0.6	67.8	- 0.8	65.7	1.3	62.8	4.2	66.1	0.9
06:45 - 07:00	58.0	62.9	- 4.9	40.4	17.6	67.8	- 9.8	59.7	- 1.7	47.9	10.1	40.6	17.4	53.9	4.1	68.0	-10.0	36.6	21.4	29.7	28.3	51.7	6.3	50.8	7.2
07:00 - 07:15	47.1	27.4	19.7	27.7	19.4	31.8	15.3	30.5	16.6	27.8	19.3	27.3	19.8	30.4	16.7	34.3	12.8	27.6	19.5	29.9	17.2	28.7	18.4	29.4	17.7
07:15 - 07:30	34.8	25.4	9.4	27.1	7.7	16.0	18.8	30.0	4.8	28.6	6.2	29.0	5.8	24.4	10.4	23.1	11.7	26.8	8.0	27.4	7.4	25.8	9.0	25.8	9.0
07:30 - 07:45	26.4	26.0	0.4	28.2	- 1.8	23.0	3.4	25.9	0.5	24.3	2.1	31.7	- 5.3	26.3	0.1	27.7	- 1.3	25.0	1.4	28.3	- 1.9	25.7	0.7	26.6	- 0.2
07:45 - 08:00	26.5	23.4	3.1	27.2	- 0.8	23.3	3.2	26.8	- 0.4	26.6	- 0.2	20.4	6.1	23.7	2.8	27.5	- 1.1	29.7	- 3.3	22.7	3.8	26.6	- 0.2	25.3	1.2
08:00 - 08:15	31.8	29.7	2.1	22.4	9.4	27.2	4.6	23.8	8.0	22.6	9.2	23.2	8.6	26.7	5.1	26.1	5.7	24.6	7.2	21.6	10.2	20.2	11.6	24.4	7.4
08:15 - 08:30	32.2	22.8	9.4	22.6	9.6	23.4	8.8	22.4	9.8	24.0	8.2	25.1	7.1	19.6	12.6	23.8	8.4	24.0	8.2	21.8	10.4	24.5	7.7	23.1	9.1
08:30 - 08:45	39.3	27.5	11.8	27.8	11.5	25.3	14.0	24.9	14.4	25.2	14.1	34.0	5.3	29.8	9.5	30.8	8.5	30.0	9.3	25.8	13.5	26.0	13.3	27.9	11.4
08:45 - 09:00	35.9	28.3	7.6	34.1	1.8	33.3	2.6	32.0	3.9	32.3	3.6	34.5	1.4	28.9	7.0	28.6	7.3	31.5	4.4	28.7	7.2	33.8	2.1	31.5	4.4
09:00 - 09:15	39.9	50.6	-10.7	62.2	-22.3	48.2	- 8.3	69.8	-29.9	51.5	-11.6	62.4	-22.5	37.2	2.7	53.7	-13.8	39.3	0.6	45.1	- 5.2	54.4	-14.5	52.2	-12.3
09:15 - 09:30	46.2	70.2	-24.0	69.7	-23.5	68.9	-22.7	69.9	-23.7	69.6	-23.4	69.9	-23.7	67.5	-21.3	70.2	-24.0	70.6	-24.4	68.1	-21.9	69.6	-23.4	69.5	-23.3
Hour 1	68.0	70.7	- 2.7	70.6	- 2.7	69.9	- 1.9	70.3	- 2.3	70.5	- 2.5	68.8	- 0.9	70.6	- 2.6	70.5	- 2.6	70.1	- 2.1	70.7	- 2.7	70.1	- 2.1	70.3	- 2.3
Hour 2	51.7	45.8	5.9	40.2	11.5	45.9	5.8	46.9	4.8	42.6	9.1	39.8	11.9	44.0	7.7	48.0	3.7	39.7	12.0	38.2	13.5	42.3	9.4	43.0	8.7
Hour 3	29.2	25.5	3.7	25.1	4.1	24.2	5.0	24.7	4.5	24.4	4.8	25.1	4.1	24.1	5.1	26.3	2.9	25.8	3.4	23.6	5.6	24.3	5.0	24.9	4.4
Hour 4	40.3	44.2	- 3.8	48.5	- 8.1	43.9	- 3.6	49.2	- 8.8	44.7	- 4.3	50.2	- 9.9	40.9	- 0.5	45.8	- 5.5	42.9	- 2.5	41.9	- 1.6	46.0	- 5.6	45.3	- 4.9
11	47.3	46.5	0.8	46.1	1.2	46.0	1.3	47.8	- 0.5	45.5	1.8	46.0	1.3	44.9	2.4	47.6	- 0.3	44.6	2.7	43.6	3.7	45.6	1.7	45.9	1.4



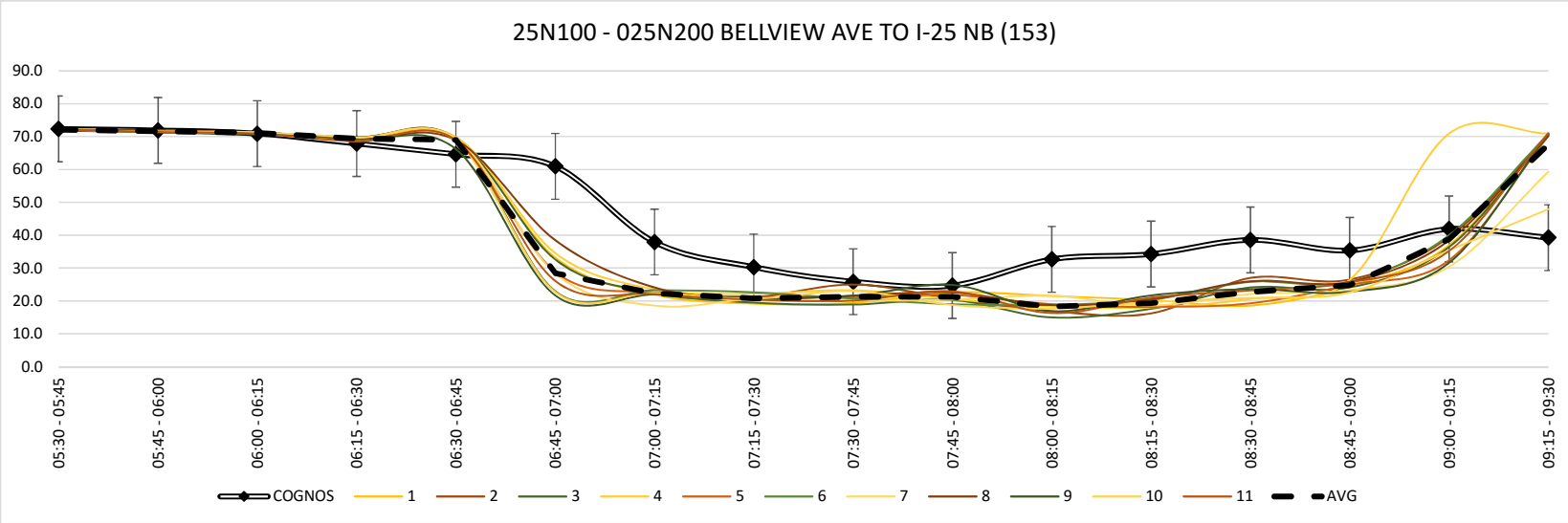
CONCEPT 2		Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run																							
AM	COGNOS	MODEL																						AGGREGATE	
TIME	25N090	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	73.2	71.9	1.3	72.1	1.1	72.1	1.1	71.9	1.3	71.9	1.3	72.2	1.0	72.0	1.2	71.8	1.4	72.0	1.2	71.9	1.3	71.9	1.3	72.0	1.2
05:45 - 06:00	73.1	71.4	1.7	71.6	1.5	71.4	1.7	71.3	1.8	71.4	1.7	71.2	1.9	71.5	1.6	71.5	1.6	71.1	2.0	71.3	1.8	71.2	1.9	71.4	1.7
06:00 - 06:15	71.7	70.5	1.2	70.7	1.0	70.4	1.3	70.7	1.0	70.7	1.0	70.9	0.8	70.4	1.3	70.5	1.2	70.6	1.1	70.8	0.9	70.1	1.6	70.6	1.1
06:15 - 06:30	69.3	66.7	2.6	67.9	1.4	67.7	1.6	65.6	3.7	68.3	1.0	66.9	2.4	67.4	1.9	66.4	2.9	68.0	1.3	66.5	2.8	66.3	3.0	67.0	2.3
06:30 - 06:45	67.4	63.7	3.7	67.1	0.3	66.1	1.3	66.8	0.6	65.7	1.7	65.1	2.3	66.0	1.4	66.5	0.9	67.0	0.4	66.4	1.0	65.9	1.5	66.0	1.4
06:45 - 07:00	59.3	43.3	16.0	30.0	29.3	47.7	11.6	44.0	15.3	38.5	20.8	31.5	27.8	39.5	19.8	57.8	1.5	27.7	31.6	30.9	28.4	35.5	23.8	38.8	20.5
07:00 - 07:15	41.7	25.0	16.7	25.3	16.4	26.3	15.4	27.4	14.3	24.9	16.8	25.1	16.6	24.8	16.9	28.2	13.5	24.7	17.0	25.0	16.7	23.2	18.5	25.4	16.3
07:15 - 07:30	32.2	20.3	11.9	23.7	8.5	23.0	9.2	26.1	6.1	25.1	7.1	26.7	5.5	22.3	9.9	21.0	11.2	23.8	8.4	22.9	9.3	23.4	8.8	23.5	8.7
07:30 - 07:45	26.7	22.7	4.0	26.6	0.1	20.0	6.7	24.1	2.6	23.1	3.6	25.3	1.4	22.6	4.1	25.8	0.9	21.8	4.9	26.6	0.1	22.0	4.7	23.7	3.0
07:45 - 08:00	24.3	21.9	2.4	22.7	1.6	21.4	2.9	24.5	- 0.2	23.0	1.3	20.3	4.0	24.1	0.2	23.6	0.7	27.9	- 3.6	19.2	5.1	24.6	- 0.3	23.0	1.3
08:00 - 08:15	33.2	28.9	4.3	21.4	11.8	21.4	11.8	21.7	11.5	16.9	16.3	20.9	12.3	24.2	9.0	21.8	11.4	18.7	14.5	18.8	14.4	18.8	14.4	21.2	12.0
08:15 - 08:30	33.3	19.4	13.9	19.4	13.9	23.7	9.6	19.7	13.6	20.0	13.3	25.5	7.8	18.9	14.4	21.1	12.2	22.9	10.4	21.5	11.8	21.7	11.6	21.3	12.0
08:30 - 08:45	36.6	23.2	13.4	28.0	8.6	25.1	11.5	22.4	14.2	22.0	14.6	29.9	6.7	25.1	11.5	28.8	7.8	28.4	8.2	20.9	15.7	23.0	13.6	25.2	11.4
08:45 - 09:00	36.3	28.2	8.1	31.2	5.1	31.8	4.5	28.3	8.0	28.3	8.0	31.0	5.3	25.7	10.6	29.7	6.6	25.7	10.6	26.8	9.5	31.8	4.5	29.0	7.3
09:00 - 09:15	38.5	44.5	- 6.0	67.1	-28.6	47.8	- 9.3	70.1	-31.6	59.4	-20.9	54.4	-15.9	37.7	0.8	47.7	- 9.2	36.8	1.7	50.6	-12.1	54.7	-16.2	51.9	-13.4
09:15 - 09:30	36.9	69.9	-33.0	69.7	-32.8	69.0	-32.1	69.6	-32.7	69.8	-32.9	69.7	-32.8	67.6	-30.7	69.4	-32.5	69.8	-32.9	68.3	-31.4	69.6	-32.7	69.3	-32.4
Hour 1	71.8	70.1	1.7	70.6	1.2	70.4	1.4	69.9	1.9	70.6	1.2	70.3	1.5	70.3	1.5	70.1	1.8	70.4	1.4	70.1	1.7	69.9	1.9	70.3	1.6
Hour 2	50.1	38.1	12.1	36.5	13.6	40.8	9.4	41.1	9.1	38.6	11.6	37.1	13.0	38.2	12.0	43.4	6.8	35.8	14.3	36.3	13.8	37.0	13.1	38.4	11.7
Hour 3	29.4	23.2	6.1	22.5	6.8	21.6	7.7	22.5	6.9	20.8	8.6	23.0	6.4	22.5	6.9	23.1	6.3	22.8	6.5	21.5	7.8	21.8	7.6	22.3	7.1
Hour 4	37.1	41.5	- 4.4	49.0	-11.9	43.4	- 6.4	47.6	-10.5	44.9	- 7.8	46.3	- 9.2	39.0	- 2.0	43.9	- 6.8	40.2	- 3.1	41.7	- 4.6	44.8	- 7.7	43.9	- 6.8
11	47.1	43.2	3.9	44.7	2.4	44.1	3.0	45.3	1.8	43.7	3.4	44.2	2.9	42.5	4.6	45.1	2.0	42.3	4.8	42.4	4.7	43.4	3.7	43.7	3.4



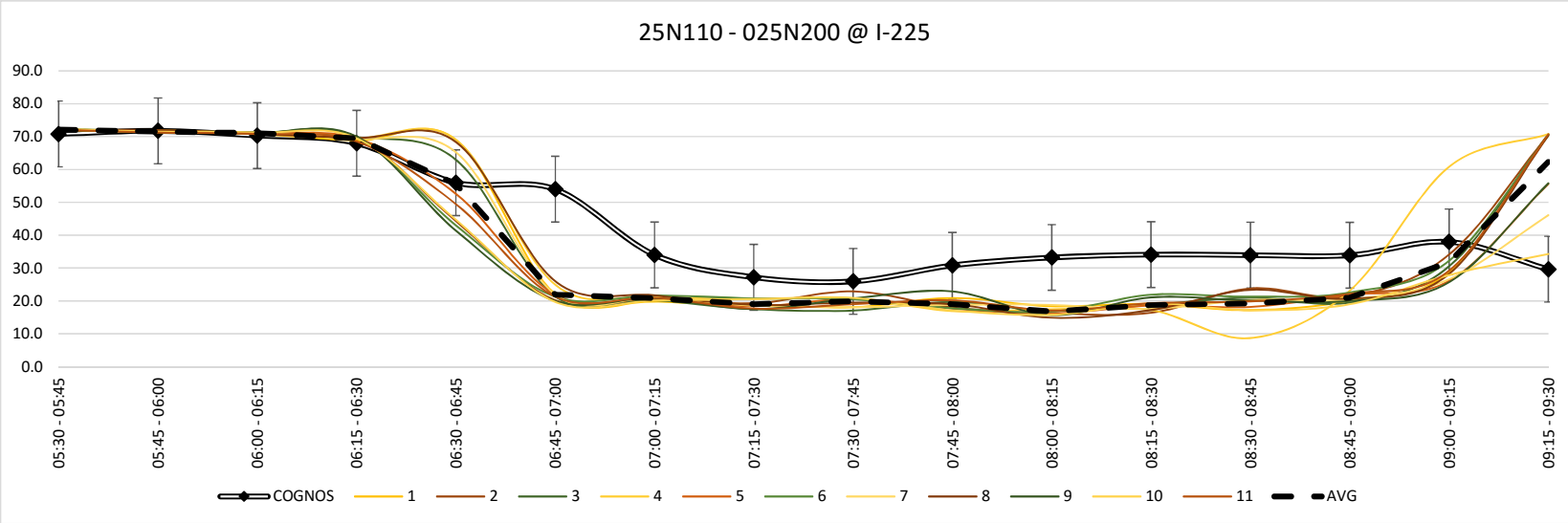
CONCEPT 2

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

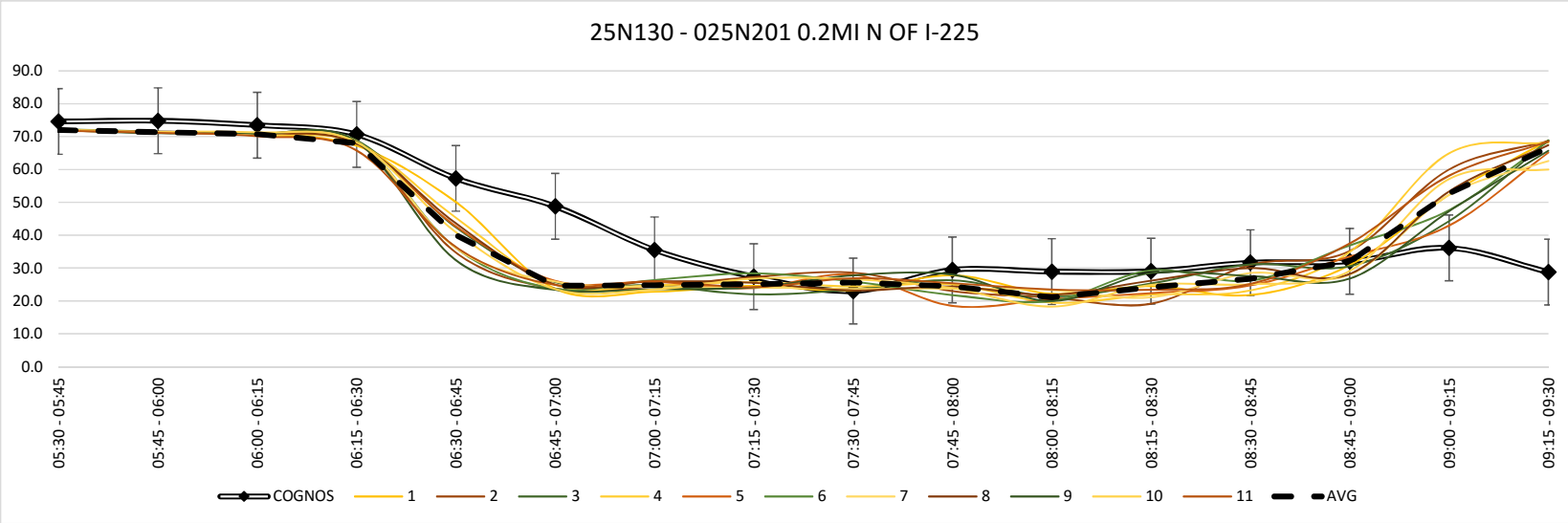
AM	COGNOS	MODEL																						AGGREGATE	
TIME	25N100	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	72.3	72.1	0.2	72.1	0.2	72.2	0.1	72.3	0.0	72.2	0.1	72.3	0.0	72.2	0.1	71.8	0.5	72.1	0.2	72.0	0.3	72.1	0.2	72.1	0.2
05:45 - 06:00	71.9	71.8	0.1	71.7	0.2	71.4	0.5	71.4	0.5	71.6	0.3	71.3	0.6	71.6	0.3	72.0	- 0.1	71.5	0.4	71.6	0.3	71.4	0.5	71.6	0.3
06:00 - 06:15	70.9	71.2	- 0.3	71.1	- 0.2	70.7	0.2	71.1	- 0.2	71.0	- 0.1	71.2	- 0.3	71.0	- 0.1	71.1	- 0.2	71.1	- 0.2	71.3	- 0.4	70.9	- 0.0	71.1	- 0.2
06:15 - 06:30	67.9	69.3	- 1.5	69.6	- 1.8	69.8	- 2.0	69.1	- 1.3	69.7	- 1.9	69.3	- 1.5	69.5	- 1.7	69.3	- 1.5	69.3	- 1.5	69.7	- 1.9	68.5	- 0.7	69.4	- 1.6
06:30 - 06:45	64.6	69.2	- 4.6	69.2	- 4.6	69.6	- 5.0	69.9	- 5.3	69.3	- 4.7	69.3	- 4.7	69.5	- 4.9	68.9	- 4.3	66.2	- 1.6	68.8	- 4.2	68.9	- 4.3	69.0	- 4.4
06:45 - 07:00	61.0	33.2	27.8	22.9	38.1	32.6	28.4	34.6	26.4	28.8	32.2	22.9	38.1	28.4	32.6	38.5	22.5	21.7	39.3	22.7	38.3	26.1	34.9	28.4	32.6
07:00 - 07:15	37.9	21.9	16.0	22.6	15.3	22.5	15.4	23.6	14.3	22.5	15.4	23.3	14.6	18.6	19.3	24.1	13.8	22.0	15.9	22.4	15.5	22.1	15.8	22.3	15.6
07:15 - 07:30	30.3	19.2	11.1	21.2	9.1	19.5	10.8	22.2	8.1	21.3	9.0	22.6	7.7	20.5	9.8	20.7	9.6	20.9	9.4	20.7	9.6	20.4	9.9	20.8	9.5
07:30 - 07:45	25.9	19.4	6.5	25.0	0.9	18.9	7.0	23.3	2.6	21.1	4.8	20.7	5.2	20.1	5.8	21.6	4.3	21.6	4.3	23.0	2.9	20.1	5.8	21.3	4.6
07:45 - 08:00	24.7	22.6	2.1	20.7	4.0	20.3	4.4	20.5	4.2	21.8	2.9	19.0	5.7	20.4	4.3	22.6	2.1	24.9	- 0.2	18.8	5.9	22.9	1.8	21.3	3.4
08:00 - 08:15	32.7	21.5	11.2	16.9	15.8	15.0	17.7	18.4	14.3	19.0	13.7	18.8	13.9	21.6	11.1	18.7	14.0	16.9	15.8	17.7	15.0	16.3	16.4	18.3	14.4
08:15 - 08:30	34.3	20.3	14.0	16.2	18.1	17.6	16.7	18.0	16.3	18.2	16.1	20.4	13.9	18.6	15.7	20.5	13.8	21.7	12.6	19.7	14.6	21.0	13.3	19.3	15.0
08:30 - 08:45	38.6	18.6	20.0	27.0	11.6	24.1	14.5	20.6	18.0	19.3	19.3	25.8	12.8	22.1	16.5	26.0	12.6	23.6	15.0	20.9	17.7	23.2	15.4	22.8	15.8
08:45 - 09:00	35.4	24.5	10.9	26.5	8.9	24.1	11.3	26.4	9.0	24.9	10.5	25.8	9.6	23.3	12.1	25.8	9.6	22.8	12.6	22.6	12.8	25.6	9.8	24.8	10.6
09:00 - 09:15	41.9	36.9	5.0	39.4	2.5	36.4	5.5	70.9	-29.0	32.4	9.5	40.0	1.9	30.4	11.5	38.4	3.5	31.6	10.3	35.4	6.5	35.2	6.7	38.8	3.1
09:15 - 09:30	39.3	70.8	-31.5	70.6	-31.3	70.5	-31.2	70.9	-31.6	70.2	-30.9	70.8	-31.5	59.3	-20.0	70.2	-30.9	70.8	-31.5	47.9	- 8.6	71.0	-31.7	67.6	-28.3
Hour 1	70.7	71.1	- 0.4	71.1	- 0.4	71.0	- 0.3	71.0	- 0.2	71.1	- 0.4	71.0	- 0.3	71.1	- 0.3	71.1	- 0.3	71.0	- 0.3	71.2	- 0.4	70.7	0.0	71.1	- 0.3
Hour 2	48.5	35.9	12.6	34.0	14.5	36.1	12.4	37.6	10.9	35.5	13.0	34.5	13.9	34.3	14.2	38.1	10.4	32.7	15.8	33.7	14.8	34.4	14.1	35.1	13.3
Hour 3	29.4	21.0	8.4	19.7	9.7	18.0	11.4	20.1	9.3	20.0	9.3	19.7	9.6	20.2	9.2	20.9	8.5	21.3	8.1	19.8	9.6	20.1	9.3	20.1	9.3
Hour 4	38.8	37.7	1.1	40.9	- 2.1	38.8	0.0	47.2	- 8.4	36.7	2.1	40.6	- 1.8	33.8	5.0	40.1	- 1.3	37.2	1.6	31.7	7.1	38.8	0.0	38.5	0.3
11	46.8	41.4	5.4	41.4	5.4	41.0	5.9	44.0	2.9	40.8	6.0	41.5	5.4	39.8	7.0	42.5	4.3	40.5	6.3	39.1	7.8	41.0	5.8	41.2	5.7



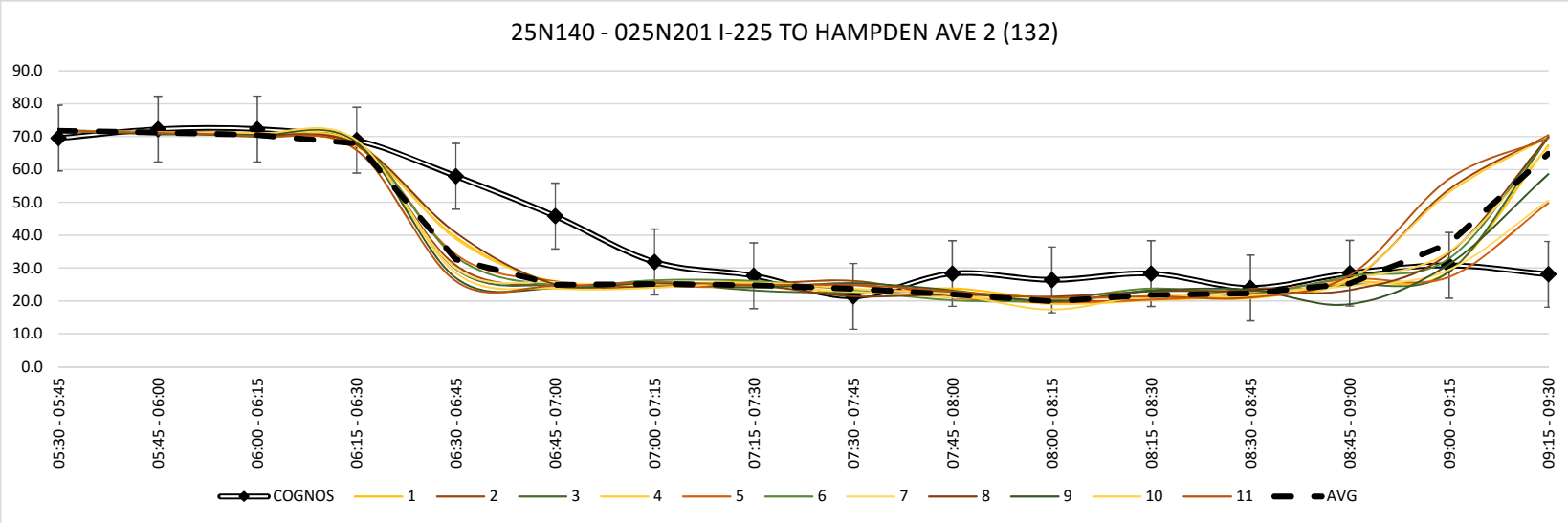
CONCEPT 2		Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run																							
AM	COGNOS	MODEL																						AGGREGATE	
TIME	25N110	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	70.8	71.8	- 1.0	72.2	- 1.4	72.1	- 1.3	72.1	- 1.3	72.1	- 1.3	72.4	- 1.6	72.2	- 1.4	71.9	- 1.1	72.1	- 1.3	72.2	- 1.4	72.1	- 1.3	72.1	- 1.3
05:45 - 06:00	71.7	71.9	- 0.2	71.5	0.2	71.5	0.2	71.3	0.4	71.6	0.1	71.4	0.3	71.7	0.0	72.0	- 0.3	71.4	0.3	71.5	0.2	71.2	0.5	71.5	0.2
06:00 - 06:15	70.3	70.8	- 0.5	71.2	- 0.9	70.8	- 0.5	70.9	- 0.6	71.0	- 0.7	71.2	- 0.9	71.2	- 0.9	70.8	- 0.5	71.2	- 0.9	71.2	- 0.9	70.8	- 0.5	71.0	- 0.7
06:15 - 06:30	68.0	68.8	- 0.8	69.9	- 1.9	69.8	- 1.8	69.5	- 1.5	69.4	- 1.4	69.8	- 1.8	69.4	- 1.4	69.6	- 1.6	70.0	- 2.0	69.5	- 1.5	68.5	- 0.5	69.5	- 1.5
06:30 - 06:45	56.0	69.0	-13.0	44.3	11.7	63.0	- 7.0	69.1	-13.1	52.6	3.4	43.0	13.0	65.3	- 9.3	68.4	-12.4	41.4	14.6	44.7	11.3	49.5	6.5	55.5	0.5
06:45 - 07:00	54.0	22.1	31.9	20.2	33.8	21.4	32.6	24.9	29.1	21.9	32.1	21.3	32.7	22.0	32.0	26.0	28.0	20.0	34.0	19.7	34.3	21.3	32.7	21.9	32.1
07:00 - 07:15	34.0	19.8	14.2	20.6	13.4	20.2	13.8	21.4	12.6	20.6	13.4	21.7	12.3	21.0	13.0	21.7	12.3	20.9	13.1	20.1	13.9	21.0	13.0	20.8	13.2
07:15 - 07:30	27.2	19.0	8.2	19.3	7.9	17.5	9.7	20.6	6.6	18.4	8.8	20.8	6.4	18.6	8.6	18.8	8.4	17.5	9.7	20.6	6.6	17.7	9.5	19.0	8.2
07:30 - 07:45	26.0	18.1	7.9	22.9	3.1	17.1	8.9	20.9	5.1	20.6	5.4	20.5	5.5	18.1	7.9	19.5	6.5	20.8	5.2	20.9	5.1	19.0	7.0	19.9	6.1
07:45 - 08:00	30.8	20.9	9.9	18.0	12.8	19.7	11.1	16.9	13.9	17.7	13.1	17.8	13.0	18.8	12.0	19.0	11.8	22.9	7.9	17.1	13.7	20.2	10.6	19.0	11.8
08:00 - 08:15	33.2	18.4	14.8	16.3	16.9	17.0	16.2	17.5	15.7	16.2	17.0	16.8	16.4	18.8	14.4	14.9	18.3	15.7	17.5	15.8	17.4	17.1	16.1	16.8	16.4
08:15 - 08:30	34.1	19.1	15.0	16.4	17.7	18.8	15.3	17.2	16.9	18.6	15.5	21.9	12.2	17.6	16.5	17.2	16.9	21.1	13.0	19.2	14.9	19.3	14.8	18.8	15.3
08:30 - 08:45	33.9	17.2	16.7	23.8	10.1	21.0	12.9	8.7	25.2	18.2	15.7	21.3	12.6	20.3	13.6	23.4	10.5	20.1	13.8	17.2	16.7	19.9	14.0	19.2	14.7
08:45 - 09:00	33.9	20.1	13.8	21.4	12.5	19.5	14.4	23.1	10.8	21.9	12.0	22.6	11.3	20.5	13.4	20.7	13.2	20.0	13.9	19.0	14.9	22.2	11.7	21.0	12.9
09:00 - 09:15	38.0	28.8	9.2	34.1	3.9	30.5	7.5	60.8	-22.8	26.1	11.9	32.2	5.8	26.6	11.4	28.2	9.8	25.7	12.3	27.9	10.1	29.2	8.8	31.8	6.2
09:15 - 09:30	29.7	70.6	-40.9	70.6	-40.9	70.7	-41.0	70.8	-41.1	55.6	-25.9	70.3	-40.6	46.1	-16.4	70.4	-40.7	55.8	-26.1	34.3	- 4.6	70.7	-41.0	62.3	-32.6
Hour 1	70.2	70.8	- 0.6	71.2	- 1.0	71.1	- 0.9	71.0	- 0.8	71.0	- 0.8	71.2	- 1.0	71.1	- 0.9	71.1	- 0.9	71.2	- 1.0	71.1	- 0.9	70.7	- 0.5	71.0	- 0.8
Hour 2	42.8	32.5	10.3	26.1	16.7	30.5	12.3	34.0	8.8	28.4	14.4	26.7	16.1	31.7	11.1	33.7	9.1	25.0	17.8	26.3	16.5	27.4	15.4	29.3	13.5
Hour 3	31.0	19.1	11.9	18.4	12.6	18.2	12.9	18.1	12.9	18.3	12.7	19.3	11.8	18.3	12.7	17.7	13.4	20.1	10.9	18.3	12.8	18.9	12.1	18.6	12.4
Hour 4	33.9	34.2	- 0.3	37.5	- 3.6	35.4	- 1.6	40.9	- 7.0	30.5	3.4	36.6	- 2.7	28.4	5.5	35.7	- 1.8	30.4	3.5	24.6	9.3	35.5	- 1.6	33.6	0.3
11	44.5	39.2	5.3	38.3	6.2	38.8	5.7	41.0	3.5	37.0	7.4	38.4	6.0	37.4	7.1	39.5	4.9	36.7	7.8	35.1	9.4	38.1	6.4	38.1	6.3



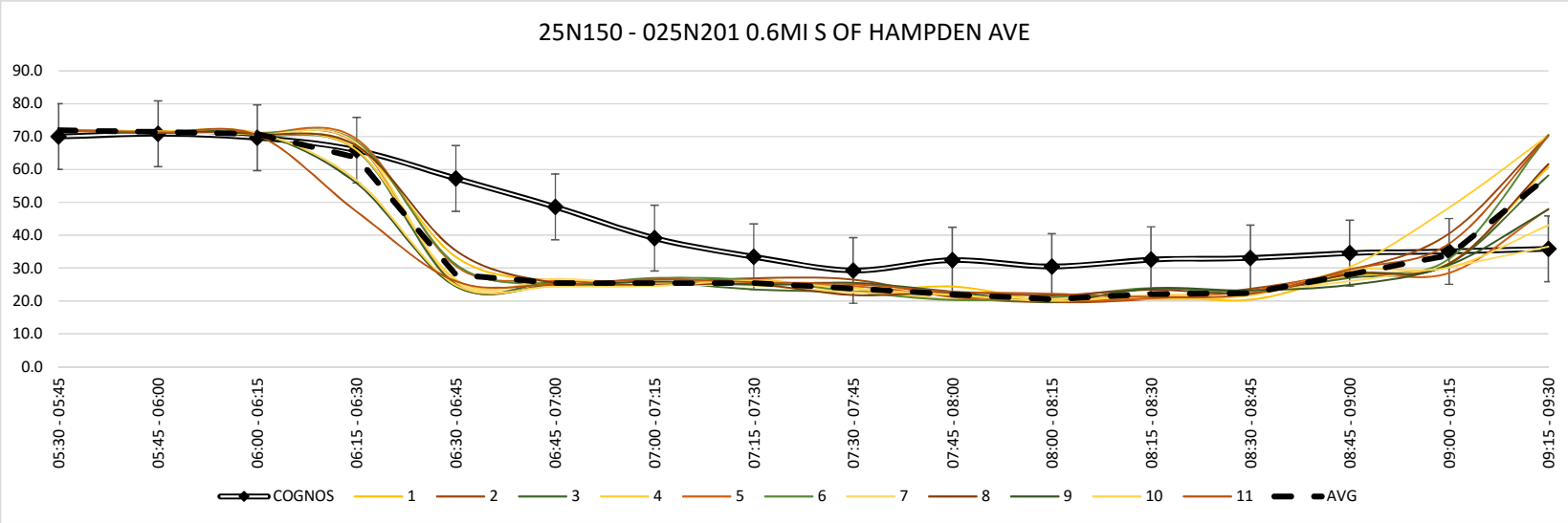
CONCEPT 2		Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run																							
AM	COGNOS	MODEL																						AGGREGATE	
TIME	25N130	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	74.6	72.0	2.6	72.1	2.5	72.1	2.5	71.8	2.8	71.9	2.7	72.2	2.4	72.1	2.5	71.9	2.7	71.9	2.7	72.0	2.6	71.8	2.8	72.0	2.6
05:45 - 06:00	74.8	71.3	3.5	71.2	3.6	71.4	3.4	71.4	3.4	71.2	3.6	71.5	3.3	71.4	3.4	71.5	3.3	71.0	3.8	71.4	3.4	71.1	3.7	71.3	3.5
06:00 - 06:15	73.5	70.7	2.8	71.0	2.5	70.5	3.0	70.4	3.1	70.9	2.6	71.0	2.5	70.5	3.0	71.0	2.5	70.9	2.6	71.3	2.2	70.1	3.4	70.8	2.7
06:15 - 06:30	70.7	67.2	3.5	68.3	2.4	68.8	1.9	68.0	2.7	67.9	2.8	68.7	2.0	68.6	2.1	67.9	2.8	68.5	2.2	68.3	2.4	65.8	4.9	68.0	2.7
06:30 - 06:45	57.3	50.1	7.2	34.7	22.6	42.4	14.9	45.3	12.0	42.7	14.6	36.1	21.2	36.1	21.2	43.6	13.7	32.4	24.9	40.9	16.4	36.4	20.9	40.1	17.2
06:45 - 07:00	48.8	23.7	25.1	23.8	25.0	25.7	23.1	24.9	23.9	26.1	22.7	23.7	25.1	25.9	22.9	25.0	23.8	23.4	25.4	23.6	25.2	24.9	23.9	24.6	24.2
07:00 - 07:15	35.5	22.8	12.7	24.4	11.1	24.7	10.8	24.8	10.7	25.8	9.7	26.4	9.1	24.3	11.2	26.0	9.5	23.6	11.9	23.5	12.0	26.0	9.5	24.8	10.7
07:15 - 07:30	27.4	24.6	2.8	27.3	0.1	22.0	5.4	25.7	1.7	23.9	3.5	28.4	- 1.0	24.1	3.3	25.5	1.9	24.1	3.3	26.8	0.6	24.2	3.2	25.1	2.3
07:30 - 07:45	23.0	23.2	- 0.2	28.6	- 5.6	23.5	- 0.5	24.4	- 1.4	28.0	- 5.0	25.9	- 2.9	23.7	- 0.7	23.2	- 0.2	27.8	- 4.8	26.6	- 3.6	26.9	- 3.9	25.6	- 2.6
07:45 - 08:00	29.4	27.8	1.6	23.0	6.4	26.3	3.1	25.0	4.4	18.5	10.9	21.8	7.6	23.8	5.6	24.4	5.0	28.0	1.4	23.9	5.5	25.4	4.0	24.4	5.0
08:00 - 08:15	28.9	22.2	6.7	21.0	7.9	21.4	7.5	19.5	9.4	20.5	8.4	20.0	8.9	23.3	5.6	21.9	7.0	20.0	8.9	18.3	10.6	23.5	5.4	21.1	7.8
08:15 - 08:30	29.0	24.5	4.5	19.2	9.8	25.3	3.7	21.9	7.1	22.4	6.6	29.3	- 0.3	21.1	7.9	26.2	2.8	28.5	0.5	24.9	4.1	23.4	5.6	24.2	4.8
08:30 - 08:45	31.6	21.8	9.8	31.0	0.6	31.1	0.5	23.2	8.4	24.7	6.9	26.2	5.4	28.5	3.1	30.0	1.6	27.6	4.0	25.1	6.5	25.2	6.4	26.8	4.8
08:45 - 09:00	32.1	30.9	1.2	35.2	- 3.1	30.6	1.5	34.9	- 2.8	33.5	- 1.4	36.9	- 4.8	28.0	4.1	28.2	3.9	26.8	5.3	29.1	3.0	37.5	- 5.4	32.0	0.1
09:00 - 09:15	36.1	52.3	-16.2	60.0	-23.9	44.3	- 8.2	64.9	-28.8	42.9	- 6.8	47.6	-11.5	52.3	-16.2	53.3	-17.2	47.3	-11.2	57.1	-21.0	58.1	-22.0	52.7	-16.6
09:15 - 09:30	28.8	68.8	-40.0	68.7	-39.9	68.9	-40.1	68.2	-39.4	65.1	-36.3	68.6	-39.8	62.6	-33.8	67.4	-38.6	65.7	-36.9	60.0	-31.2	68.5	-39.7	66.6	-37.8
Hour 1	73.4	70.3	3.1	70.7	2.7	70.7	2.7	70.4	3.0	70.5	2.9	70.9	2.5	70.7	2.7	70.6	2.8	70.6	2.8	70.8	2.6	69.7	3.7	70.5	2.9
Hour 2	42.2	30.3	11.9	27.6	14.7	28.7	13.5	30.2	12.1	29.6	12.6	28.7	13.6	27.6	14.6	30.0	12.2	25.9	16.4	28.7	13.5	27.9	14.4	28.7	13.6
Hour 3	27.6	24.4	3.2	23.0	4.7	24.1	3.5	22.7	4.9	22.4	5.3	24.3	3.4	23.0	4.6	23.9	3.7	26.1	1.5	23.4	4.2	24.8	2.8	23.8	3.8
Hour 4	32.2	43.5	-11.3	48.7	-16.6	43.7	-11.6	47.8	-15.6	41.6	- 9.4	44.8	-12.7	42.9	-10.7	44.7	-12.6	41.9	- 9.7	42.8	-10.7	47.3	-15.2	44.5	-12.4
11	43.8	42.1	1.7	42.5	1.4	41.8	2.0	42.8	1.1	41.0	2.8	42.1	1.7	41.0	2.8	42.3	1.5	41.1	2.7	41.4	2.4	42.4	1.4	41.9	2.0



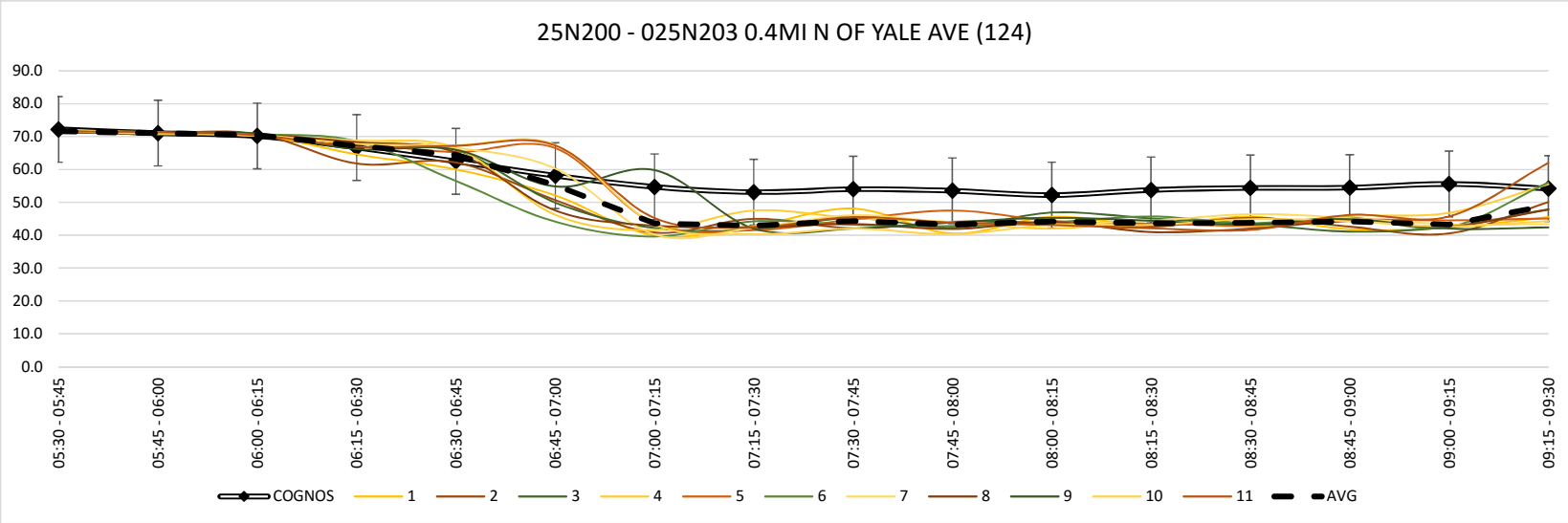
CONCEPT 2		Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run																							
AM	COGNOS	MODEL																						AGGREGATE	
TIME	25N140	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	69.5	71.6	- 2.1	71.8	- 2.3	71.9	- 2.4	71.9	- 2.4	71.7	- 2.2	71.9	- 2.4	72.0	- 2.5	71.7	- 2.2	71.8	- 2.3	71.8	- 2.3	71.9	- 2.4	71.8	- 2.3
05:45 - 06:00	72.2	71.4	0.8	71.3	0.9	71.2	1.0	71.2	1.0	71.4	0.8	71.2	1.0	71.2	1.0	71.3	0.9	70.7	1.5	71.3	0.9	71.1	1.1	71.2	1.0
06:00 - 06:15	72.3	70.3	2.0	70.6	1.7	69.9	2.4	70.7	1.6	71.0	1.3	70.6	1.7	70.4	1.9	70.6	1.7	70.5	1.8	71.0	1.3	70.0	2.3	70.5	1.8
06:15 - 06:30	68.9	67.0	1.9	67.5	1.4	68.5	0.4	68.2	0.7	68.4	0.5	68.5	0.4	68.2	0.7	67.7	1.2	68.3	0.6	68.9	0.0	65.9	3.0	67.9	1.0
06:30 - 06:45	57.9	39.4	18.5	30.8	27.1	29.7	28.2	38.9	19.0	34.1	23.8	33.4	24.5	29.9	28.0	40.7	17.2	27.0	30.9	28.5	29.4	26.0	31.9	32.6	25.3
06:45 - 07:00	45.8	25.4	20.4	24.5	21.3	24.7	21.1	25.8	20.0	26.0	19.8	24.8	21.0	25.7	20.1	25.1	20.7	23.8	22.0	23.8	22.0	24.6	21.2	24.9	20.9
07:00 - 07:15	31.9	25.0	6.9	24.9	7.0	25.7	6.2	25.7	6.2	24.6	7.3	26.3	5.6	24.8	7.1	24.4	7.5	25.5	6.4	24.0	7.9	25.7	6.2	25.2	6.7
07:15 - 07:30	27.7	25.6	2.1	25.1	2.6	23.2	4.5	25.0	2.7	24.2	3.5	26.1	1.6	24.4	3.3	24.7	3.0	24.1	3.6	25.6	2.1	24.9	2.8	24.8	2.9
07:30 - 07:45	21.4	22.3	- 0.9	26.1	- 4.7	22.4	- 1.0	23.6	- 2.2	24.8	- 3.4	23.3	- 1.9	22.8	- 1.4	21.4	0.0	25.4	- 4.0	23.7	- 2.3	24.9	- 3.5	23.7	- 2.3
07:45 - 08:00	28.4	23.8	4.6	21.5	6.9	22.8	5.6	22.1	6.3	21.0	7.4	20.2	8.2	21.1	7.3	22.0	6.4	23.2	5.2	21.9	6.5	22.9	5.5	22.0	6.4
08:00 - 08:15	26.4	20.6	5.8	20.0	6.4	19.5	6.9	19.1	7.3	19.6	6.8	20.3	6.1	20.9	5.5	21.3	5.1	19.9	6.5	17.4	9.0	21.0	5.4	19.9	6.5
08:15 - 08:30	28.3	21.4	6.9	20.5	7.8	23.1	5.2	20.2	8.1	20.4	7.9	23.8	4.5	21.0	7.3	22.9	5.4	23.2	5.1	21.7	6.6	21.4	6.9	21.8	6.5
08:30 - 08:45	23.9	20.8	3.1	23.7	0.2	22.9	1.0	21.6	2.3	22.2	1.7	22.0	1.9	22.7	1.2	23.0	0.9	23.4	0.5	21.6	2.3	21.1	2.8	22.3	1.6
08:45 - 09:00	28.4	25.6	2.8	26.2	2.2	24.9	3.5	26.4	2.0	26.7	1.7	27.6	0.8	24.5	3.9	23.3	5.1	19.0	9.4	26.6	1.8	27.8	0.6	25.3	3.1
09:00 - 09:15	30.8	29.0	1.8	53.9	-23.1	28.9	1.9	53.0	-22.2	27.3	3.5	32.9	- 2.1	29.5	1.3	34.5	- 3.7	31.2	- 0.4	35.0	- 4.2	57.1	-26.3	37.5	- 6.7
09:15 - 09:30	28.1	67.4	-39.3	70.4	-42.3	69.8	-41.7	70.0	-41.9	49.8	-21.7	69.9	-41.8	50.6	-22.5	69.9	-41.8	58.6	-30.5	66.8	-38.7	69.5	-41.4	64.8	-36.7
Hour 1	70.7	70.1	0.7	70.3	0.4	70.4	0.4	70.5	0.2	70.6	0.1	70.6	0.2	70.5	0.3	70.3	0.4	70.3	0.4	70.8	- 0.0	69.7	1.0	70.4	0.4
Hour 2	40.8	28.9	12.0	26.3	14.5	25.8	15.0	28.9	12.0	27.2	13.6	27.7	13.2	26.2	14.6	28.7	12.1	25.1	15.7	25.5	15.3	25.3	15.5	26.9	13.9
Hour 3	26.1	22.0	4.1	22.0	4.1	22.0	4.2	21.3	4.9	21.5	4.7	21.9	4.2	21.5	4.7	21.9	4.2	22.9	3.2	21.2	4.9	22.6	3.6	21.9	4.3
Hour 4	27.8	35.7	- 7.9	43.6	-15.7	36.6	- 8.8	42.8	-14.9	31.5	- 3.7	38.1	-10.3	31.8	- 4.0	37.7	- 9.9	33.1	- 5.2	37.5	- 9.7	43.9	-16.1	37.5	- 9.7
11	41.4	39.2	2.2	40.6	0.8	38.7	2.7	40.8	0.5	37.7	3.7	39.6	1.8	37.5	3.9	39.7	1.7	37.9	3.5	38.7	2.6	40.4	1.0	39.1	2.2



CONCEPT 2		Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run																							
AM	COGNOS	MODEL																						AGGREGATE	
TIME	25N150	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	70.0	71.8	- 1.8	71.8	- 1.8	72.0	- 2.0	71.8	- 1.8	71.6	- 1.6	72.0	- 2.0	72.2	- 2.2	71.8	- 1.8	71.9	- 1.9	72.0	- 2.0	72.1	- 2.1	71.9	- 1.9
05:45 - 06:00	70.8	71.6	- 0.8	71.5	- 0.7	71.4	- 0.6	71.2	- 0.4	71.6	- 0.8	71.1	- 0.3	71.3	- 0.5	71.6	- 0.8	71.1	- 0.3	71.6	- 0.8	71.3	- 0.5	71.4	- 0.6
06:00 - 06:15	69.6	70.7	- 1.1	71.0	- 1.4	70.4	- 0.8	70.7	- 1.1	71.1	- 1.5	71.0	- 1.4	70.7	- 1.1	70.8	- 1.2	70.9	- 1.3	71.1	- 1.5	70.4	- 0.8	70.8	- 1.2
06:15 - 06:30	65.9	67.1	- 1.3	67.8	- 2.0	65.8	0.0	65.9	- 0.1	69.3	- 3.5	68.5	- 2.7	68.0	- 2.2	67.2	- 1.4	55.8	10.1	56.7	9.1	47.2	18.7	63.6	2.2
06:30 - 06:45	57.3	33.4	23.9	25.2	32.1	24.9	32.4	26.5	30.8	30.6	26.7	31.1	26.2	25.8	31.5	35.3	22.0	24.4	32.9	24.8	32.5	26.0	31.3	28.0	29.3
06:45 - 07:00	48.6	25.9	22.7	25.0	23.6	25.9	22.7	26.2	22.4	26.3	22.3	25.2	23.4	26.7	21.9	25.5	23.1	24.7	23.9	24.4	24.2	25.0	23.6	25.5	23.1
07:00 - 07:15	39.1	24.7	14.4	25.3	13.8	25.8	13.3	25.7	13.4	25.3	13.8	27.0	12.1	25.1	14.0	24.9	14.2	25.9	13.2	24.6	14.5	26.6	12.5	25.5	13.6
07:15 - 07:30	33.5	26.7	6.8	26.9	6.6	23.5	10.0	25.9	7.6	25.0	8.5	26.3	7.2	24.7	8.8	25.1	8.4	25.0	8.5	26.2	7.3	25.7	7.8	25.5	8.0
07:30 - 07:45	29.3	22.9	6.4	26.5	2.8	22.8	6.5	23.9	5.4	24.5	4.8	22.9	6.4	22.6	6.7	21.8	7.5	25.5	3.8	23.7	5.6	25.1	4.2	23.8	5.5
07:45 - 08:00	32.4	24.4	8.0	21.2	11.2	22.0	10.4	20.4	12.0	21.5	10.9	20.3	12.1	22.0	10.4	22.6	9.8	22.8	9.6	21.9	10.5	22.8	9.6	22.0	10.4
08:00 - 08:15	30.5	20.1	10.4	19.6	10.9	19.8	10.7	21.0	9.5	20.1	10.4	21.1	9.4	20.6	9.9	21.7	8.8	19.8	10.7	20.0	10.5	22.2	8.3	20.5	10.0
08:15 - 08:30	32.6	21.5	11.1	20.6	12.0	23.8	8.8	20.5	12.1	20.8	11.8	23.9	8.7	21.8	10.8	23.4	9.2	23.8	8.8	21.7	10.9	21.2	11.4	22.1	10.5
08:30 - 08:45	33.1	20.4	12.7	23.7	9.4	23.1	10.0	21.8	11.3	23.1	10.0	22.7	10.4	22.7	10.4	22.4	10.7	23.2	9.9	21.7	11.4	22.1	11.0	22.4	10.7
08:45 - 09:00	34.5	27.6	6.9	29.3	5.2	27.0	7.5	30.3	4.2	28.5	6.0	28.2	6.3	26.0	8.5	28.1	6.4	24.9	9.6	29.4	5.1	29.6	4.9	28.1	6.4
09:00 - 09:15	35.1	31.5	3.6	40.5	- 5.4	31.3	3.8	48.4	-13.3	28.5	6.6	32.8	2.3	30.4	4.7	31.3	3.8	30.9	4.2	30.2	4.9	37.4	- 2.3	33.9	1.2
09:15 - 09:30	35.9	60.7	-24.9	70.5	-34.7	58.2	-22.4	70.3	-34.5	48.0	-12.2	70.4	-34.6	36.5	- 0.6	61.6	-25.8	47.8	-12.0	43.0	- 7.2	70.2	-34.4	57.9	-22.1
Hour 1	69.1	70.3	- 1.2	70.5	- 1.4	69.9	- 0.8	69.9	- 0.8	70.9	- 1.8	70.7	- 1.6	70.6	- 1.5	70.4	- 1.3	67.4	1.7	67.9	1.2	65.3	3.8	69.4	- 0.3
Hour 2	44.6	27.7	16.9	25.6	19.0	25.0	19.6	26.1	18.5	26.8	17.8	27.4	17.2	25.6	19.0	27.7	16.9	25.0	19.6	25.0	19.6	25.8	18.8	26.1	18.5
Hour 3	31.2	22.2	9.0	22.0	9.2	22.1	9.1	21.5	9.7	21.7	9.5	22.1	9.1	21.8	9.4	22.4	8.8	23.0	8.2	21.8	9.4	22.8	8.4	22.1	9.1
Hour 4	34.6	35.1	- 0.4	41.0	- 6.4	34.9	- 0.3	42.7	- 8.1	32.0	2.6	38.5	- 3.9	28.9	5.7	35.9	- 1.2	31.7	2.9	31.1	3.6	39.8	- 5.2	35.6	- 0.9
11	44.9	38.8	6.1	39.8	5.1	38.0	6.9	40.0	4.8	37.9	7.0	39.7	5.2	36.7	8.2	39.1	5.8	36.8	8.1	36.4	8.4	38.4	6.4	38.3	6.6



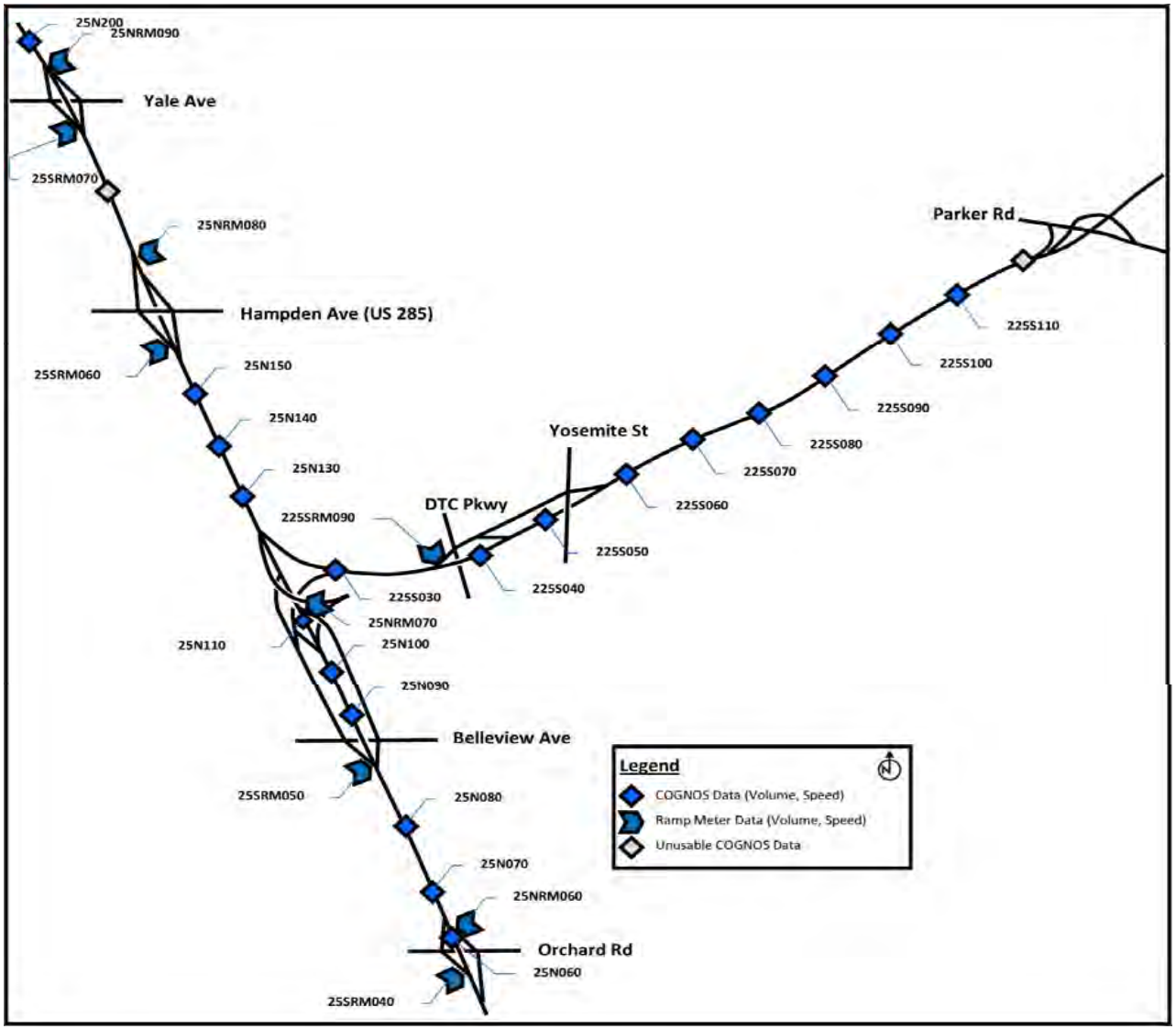
CONCEPT 2		Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run																							
AM	COGNOS	MODEL																						AGGREGATE	
TIME	25N200	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	72.2	71.3	0.9	71.7	0.5	71.8	0.4	71.7	0.5	71.5	0.7	71.4	0.8	71.9	0.3	71.2	1.0	71.7	0.5	71.6	0.6	71.6	0.6	71.6	0.6
05:45 - 06:00	71.1	71.1	- 0.0	71.2	- 0.1	70.6	0.5	71.1	- 0.0	70.7	0.4	71.1	- 0.0	71.3	- 0.2	71.0	0.1	70.8	0.3	70.9	0.2	71.3	- 0.2	71.0	0.1
06:00 - 06:15	70.2	70.4	- 0.2	70.8	- 0.6	70.7	- 0.5	70.3	- 0.1	70.3	- 0.1	70.7	- 0.5	70.2	- 0.0	70.6	- 0.4	70.9	- 0.7	70.5	- 0.3	70.4	- 0.2	70.5	- 0.3
06:15 - 06:30	66.7	64.6	2.1	61.8	4.9	68.1	- 1.4	68.8	- 2.1	67.9	- 1.2	68.6	- 1.9	68.8	- 2.1	68.3	- 1.6	66.2	0.5	67.8	- 1.1	66.9	- 0.2	67.1	- 0.4
06:30 - 06:45	62.5	60.0	2.5	62.1	0.4	66.0	- 3.6	66.5	- 4.1	65.3	- 2.8	56.5	6.0	66.6	- 4.1	65.2	- 2.8	66.0	- 3.6	67.4	- 5.0	67.2	- 4.8	64.4	- 2.0
06:45 - 07:00	58.1	52.1	6.0	50.7	7.4	49.9	8.2	46.2	11.9	66.5	- 8.4	44.1	14.0	60.3	- 2.2	47.5	10.6	54.8	3.3	67.5	- 9.4	67.3	- 9.2	55.2	2.9
07:00 - 07:15	54.7	39.9	14.8	40.8	13.9	42.2	12.5	41.6	13.1	43.5	11.2	39.6	15.1	40.2	14.5	42.9	11.8	59.8	- 5.1	43.4	11.3	45.2	9.5	43.6	11.1
07:15 - 07:30	53.1	42.8	10.3	45.0	8.1	41.7	11.4	47.5	5.6	41.5	11.6	44.2	8.9	42.2	10.9	42.4	10.7	42.0	11.1	40.3	12.8	42.5	10.6	42.9	10.2
07:30 - 07:45	54.0	48.1	5.9	42.1	11.9	45.2	8.8	45.2	8.8	44.8	9.2	43.2	10.8	46.1	7.9	43.4	10.6	42.0	12.0	42.0	12.0	45.5	8.5	44.3	9.7
07:45 - 08:00	53.5	40.5	13.0	44.1	9.4	42.3	11.2	44.0	9.5	47.5	6.0	42.8	10.7	43.8	9.7	41.9	11.6	43.9	9.6	40.3	13.2	43.8	9.7	43.2	10.3
08:00 - 08:15	52.2	45.6	6.6	43.7	8.5	46.9	5.3	42.0	10.2	44.4	7.8	43.9	8.3	43.5	8.7	44.0	8.2	45.3	6.9	43.2	9.0	43.1	9.1	44.2	8.0
08:15 - 08:30	53.8	43.1	10.7	42.6	11.2	45.1	8.7	44.4	9.4	43.5	10.3	45.7	8.1	44.4	9.4	41.0	12.8	44.4	9.4	43.1	10.7	42.1	11.7	43.6	10.2
08:30 - 08:45	54.4	45.6	8.8	45.3	9.1	43.4	11.0	42.6	11.8	43.0	11.4	43.7	10.7	46.4	8.0	42.0	12.4	43.3	11.1	44.9	9.5	41.6	12.8	43.8	10.6
08:45 - 09:00	54.5	41.8	12.7	42.6	11.9	41.1	13.4	45.8	8.7	44.7	9.8	45.3	9.2	45.2	9.3	44.3	10.2	44.9	9.6	44.2	10.3	46.2	8.3	44.2	10.3
09:00 - 09:15	55.6	42.3	13.3	40.5	15.1	42.5	13.1	46.8	8.8	44.5	11.1	42.5	13.1	43.3	12.3	42.7	12.9	42.0	13.6	42.7	12.9	45.7	9.9	43.2	12.4
09:15 - 09:30	54.2	45.5	8.7	50.1	4.1	47.9	6.3	55.5	- 1.3	45.1	9.1	56.0	- 1.8	43.4	10.8	47.8	6.4	42.4	11.8	44.3	9.9	62.0	- 7.8	49.1	5.1
Hour 1	70.0	69.4	0.7	68.9	1.1	70.3	- 0.3	70.5	- 0.5	70.1	- 0.1	70.5	- 0.4	70.6	- 0.5	70.3	- 0.3	69.9	0.1	70.2	- 0.2	70.1	- 0.0	70.1	- 0.0
Hour 2	57.1	48.7	8.4	49.7	7.4	50.0	7.1	50.5	6.6	54.2	2.9	46.1	11.0	52.3	4.8	49.5	7.6	55.7	1.4	54.7	2.4	55.6	1.5	51.5	5.6
Hour 3	53.4	44.3	9.0	43.1	10.2	44.9	8.5	43.9	9.5	45.1	8.3	43.9	9.5	44.5	8.9	42.6	10.8	43.9	9.5	42.2	11.2	43.6	9.7	43.8	9.5
Hour 4	54.6	43.8	10.8	44.6	10.0	43.7	10.9	47.7	7.0	44.3	10.3	46.9	7.8	44.6	10.1	44.2	10.4	43.2	11.5	44.0	10.6	48.9	5.8	45.1	9.6
11	58.8	51.5	7.2	51.6	7.2	52.2	6.6	53.1	5.7	53.4	5.4	51.8	6.9	53.0	5.8	51.6	7.1	53.2	5.6	52.8	6.0	54.5	4.3	52.6	6.2



AVERAGE VEHICLE SPEEDS - BY LINK

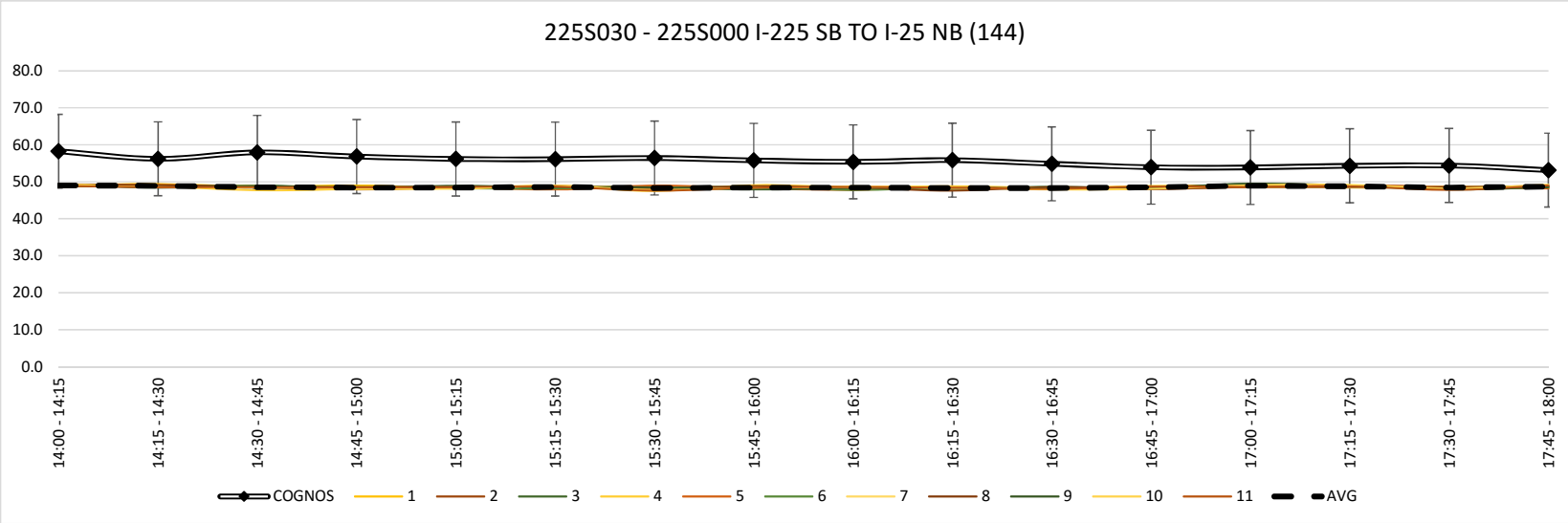
CONCEPT 2

ROUTE: I-225
PERIOD: PM

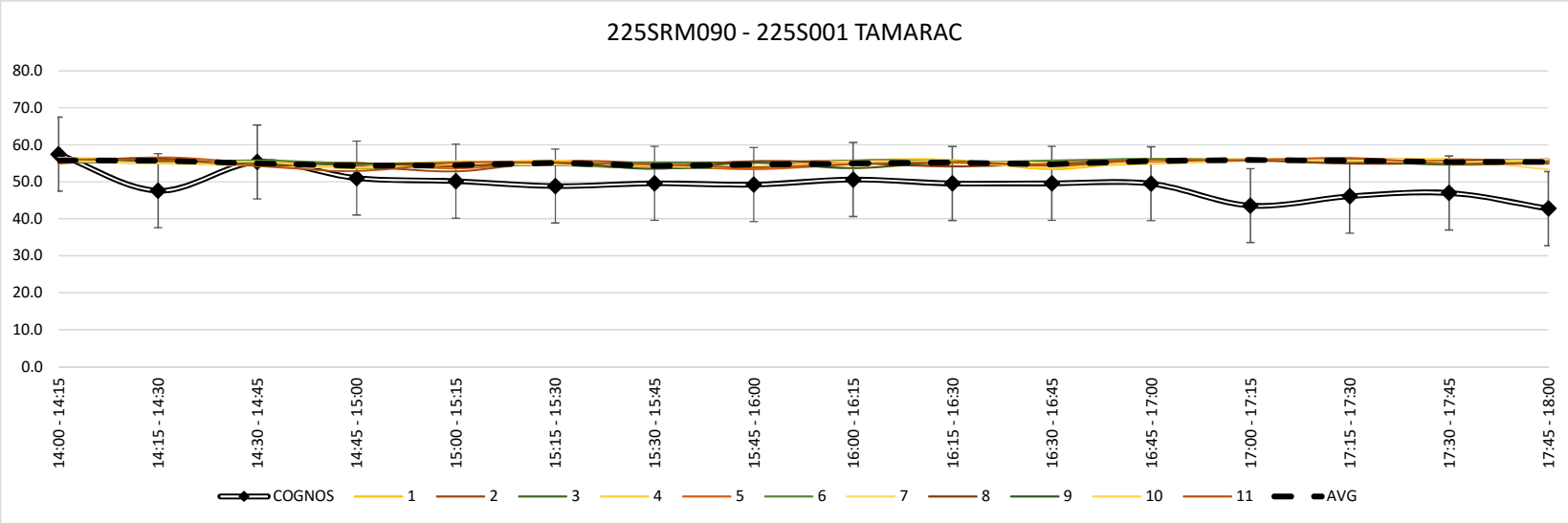


LOCATION	COGNOS DESCRIPTION
225S030	225S000 I-225 SB TO I-25 NB (144)
225SRM090	225S001 TAMARAC
225S040	225S001 YOSEMITE ST TO DTC BLVD (172)
225S050	225S001 YOSEMITE ST (174)
225S060	225S001 PARKER RD TO YOSEMITE ST (176)
225S070	225S001 PARKER RD TO YOSEMITE ST (181)
225S080	225S002 PARKER RD TO YOSEMITE ST (182)
225S090	225S002 PARKER RD TO YOESMEITE ST (183)
225S100	225S002 PARKER RD TO YOSEMITE ST (184)
225S110	225S003 PARKER RD TO YOSEMITE ST (191)

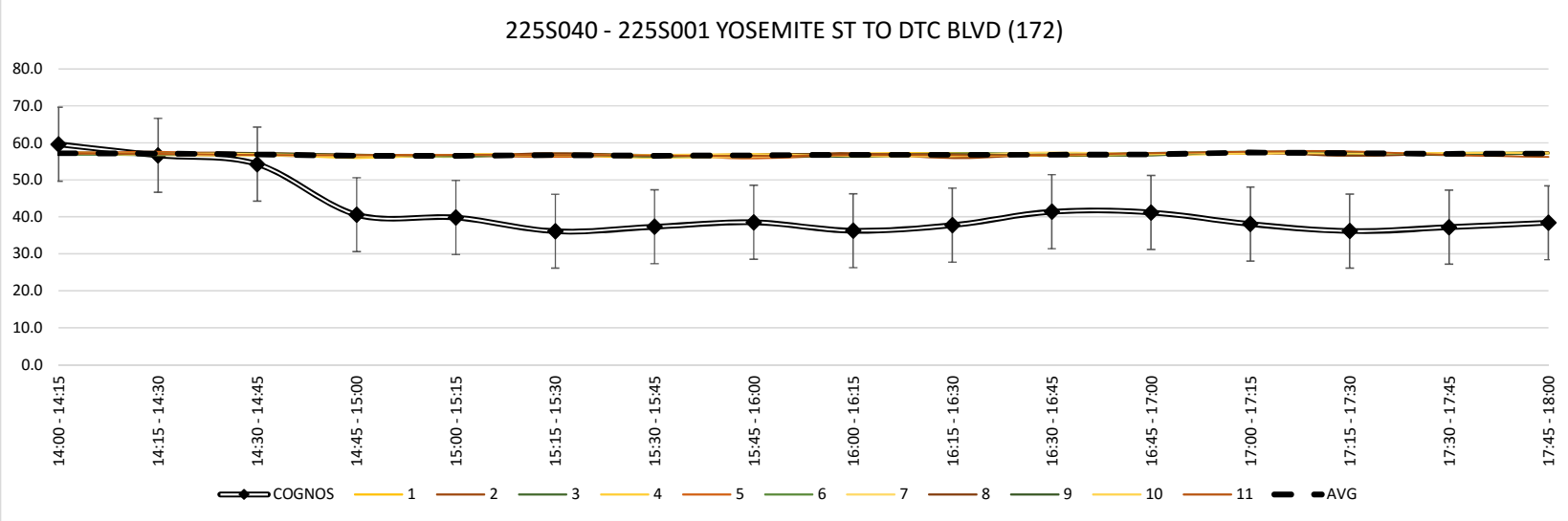
CONCEPT 2		Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run																							
PM	COGNOS	MODEL																						AGGREGATE	
TIME	225S030	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	58.3	49.0	9.3	49.3	9.0	48.9	9.4	49.1	9.2	48.6	9.7	48.8	9.5	49.2	9.1	48.9	9.4	49.2	9.1	49.3	9.0	48.9	9.4	49.0	9.3
14:15 - 14:30	56.2	49.4	6.8	49.1	7.1	48.7	7.5	48.8	7.4	49.1	7.1	49.0	7.2	48.7	7.5	49.1	7.1	48.4	7.8	48.5	7.7	48.5	7.7	48.9	7.3
14:30 - 14:45	58.0	48.7	9.3	48.5	9.5	49.0	9.0	47.7	10.3	48.4	9.6	48.4	9.6	48.8	9.2	48.6	9.4	48.8	9.2	48.5	9.5	48.6	9.4	48.5	9.5
14:45 - 15:00	56.8	49.0	7.8	47.9	8.9	48.3	8.5	48.0	8.8	48.5	8.3	48.6	8.2	48.3	8.5	48.5	8.3	48.5	8.3	48.2	8.6	48.5	8.3	48.4	8.4
15:00 - 15:15	56.2	48.3	7.9	48.4	7.8	48.6	7.6	48.3	7.9	48.5	7.7	48.2	8.0	48.4	7.8	48.3	7.9	48.9	7.3	48.1	8.1	48.6	7.6	48.4	7.8
15:15 - 15:30	56.1	48.7	7.4	48.8	7.3	48.4	7.7	48.9	7.2	47.9	8.2	48.2	7.9	48.9	7.2	48.8	7.3	48.6	7.5	48.9	7.2	48.7	7.4	48.6	7.5
15:30 - 15:45	56.4	48.6	7.8	48.5	7.9	48.8	7.6	47.5	8.9	49.0	7.4	48.4	8.0	48.4	8.0	48.2	8.2	48.5	7.9	47.8	8.6	47.6	8.8	48.3	8.1
15:45 - 16:00	55.8	48.4	7.4	48.2	7.6	48.4	7.4	49.1	6.7	48.2	7.6	48.6	7.2	48.1	7.7	48.8	7.0	47.9	7.9	48.4	7.4	48.4	7.4	48.4	7.4
16:00 - 16:15	55.4	48.7	6.7	48.2	7.2	48.6	6.8	48.5	6.9	47.8	7.6	47.8	7.6	48.8	6.6	48.5	6.9	48.3	7.1	48.6	6.8	48.6	6.8	48.4	7.0
16:15 - 16:30	55.8	48.5	7.3	48.5	7.3	48.0	7.8	48.8	7.0	48.5	7.3	48.4	7.4	48.1	7.7	47.6	8.2	48.4	7.4	48.5	7.3	48.4	7.4	48.3	7.5
16:30 - 16:45	54.9	48.3	6.6	48.4	6.5	48.7	6.2	48.4	6.5	48.2	6.7	48.0	6.9	48.4	6.5	48.6	6.3	48.2	6.7	47.9	7.0	48.1	6.8	48.3	6.6
16:45 - 17:00	53.9	48.8	5.1	48.0	5.9	48.2	5.7	48.8	5.1	48.6	5.3	48.6	5.3	48.6	5.3	48.2	5.7	48.4	5.5	48.1	5.8	48.7	5.2	48.5	5.4
17:00 - 17:15	53.9	49.0	4.9	48.6	5.3	49.5	4.4	48.9	5.0	49.2	4.7	48.5	5.4	48.5	5.4	48.6	5.3	49.5	4.4	49.1	4.8	48.6	5.3	48.9	5.0
17:15 - 17:30	54.3	48.8	5.5	49.0	5.3	48.5	5.8	48.4	5.9	49.0	5.3	48.7	5.6	48.5	5.8	48.6	5.7	49.0	5.3	49.2	5.1	48.8	5.5	48.8	5.5
17:30 - 17:45	54.4	48.1	6.3	48.7	5.7	48.5	5.9	48.7	5.7	48.6	5.8	48.3	6.1	48.6	5.8	48.6	5.8	47.9	6.5	48.2	6.2	47.8	6.6	48.4	6.0
17:45 - 18:00	53.1	48.5	4.6	48.8	4.3	48.8	4.3	48.3	4.8	48.2	4.9	48.5	4.6	48.6	4.5	48.7	4.4	48.5	4.6	49.2	3.9	49.0	4.1	48.7	4.4
Hour 1	57.3	49.0	8.3	48.7	8.6	48.7	8.6	48.4	8.9	48.7	8.7	48.7	8.6	48.8	8.6	48.8	8.5	48.7	8.6	48.6	8.7	48.6	8.7	48.7	8.6
Hour 2	56.1	48.5	7.6	48.5	7.6	48.6	7.6	48.5	7.7	48.4	7.7	48.4	7.8	48.5	7.7	48.5	7.6	48.5	7.6	48.3	7.8	48.3	7.8	48.4	7.7
Hour 3	55.0	48.6	6.4	48.3	6.7	48.4	6.6	48.6	6.4	48.3	6.7	48.2	6.8	48.5	6.5	48.2	6.8	48.3	6.7	48.3	6.7	48.5	6.6	48.4	6.6
Hour 4	53.9	48.6	5.3	48.8	5.2	48.8	5.1	48.6	5.4	48.8	5.2	48.5	5.4	48.6	5.4	48.6	5.3	48.7	5.2	48.9	5.0	48.6	5.4	48.7	5.2
11	55.6	48.7	6.9	48.6	7.0	48.6	7.0	48.5	7.1	48.5	7.1	48.4	7.2	48.6	7.0	48.5	7.1	48.6	7.0	48.5	7.1	48.5	7.1	48.6	7.0



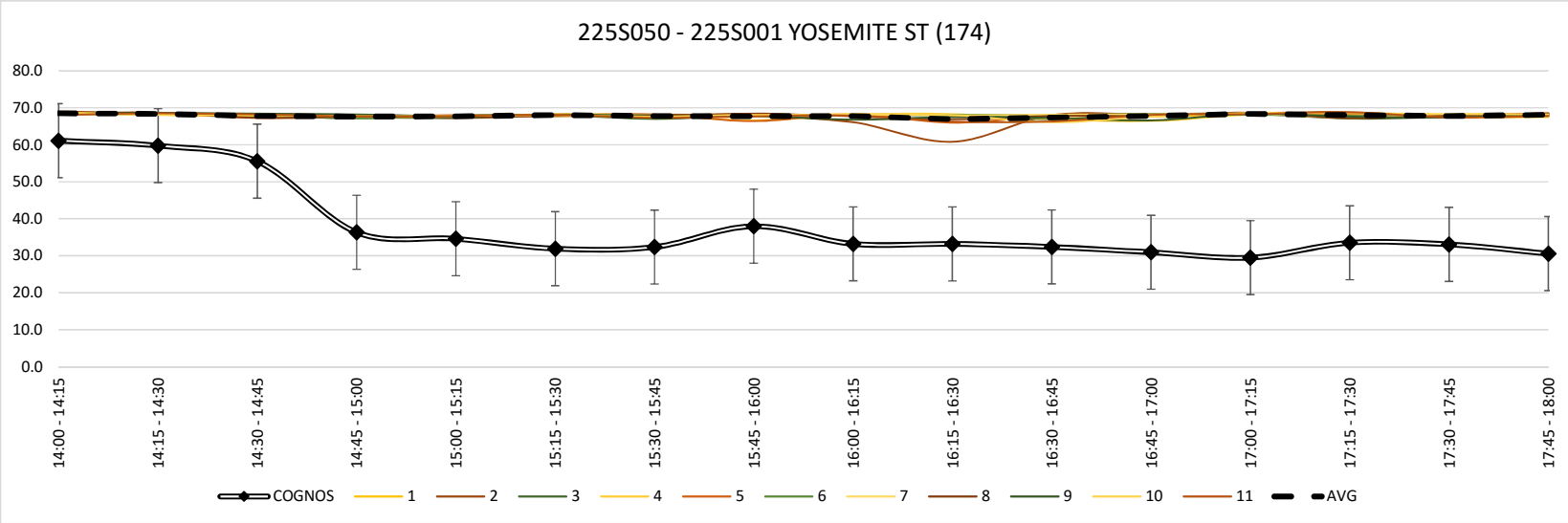
CONCEPT 2		Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run																							
PM	COGNOS	MODEL																						AGGREGATE	
TIME	225SRM090	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	57.5	55.9	1.6	56.5	1.0	55.3	2.2	56.5	1.0	54.9	2.6	55.4	2.1	55.8	1.7	55.7	1.8	56.0	1.5	55.9	1.6	56.0	1.5	55.8	1.7
14:15 - 14:30	47.6	56.2	- 8.6	55.5	- 7.9	55.3	- 7.7	55.8	- 8.2	56.6	- 9.0	55.1	- 7.5	55.0	- 7.4	56.3	- 8.7	55.8	- 8.2	55.0	- 7.4	55.9	- 8.3	55.7	- 8.1
14:30 - 14:45	55.4	54.6	0.8	55.6	- 0.3	55.4	- 0.0	54.4	1.0	55.2	0.1	55.8	- 0.4	54.3	1.1	54.4	1.0	55.0	0.4	55.4	- 0.0	54.3	1.1	55.0	0.4
14:45 - 15:00	51.0	54.7	- 3.7	54.3	- 3.3	53.6	- 2.6	54.7	- 3.7	55.1	- 4.1	55.0	- 4.0	53.8	- 2.8	55.0	- 4.0	54.8	- 3.8	53.8	- 2.8	52.9	- 1.9	54.3	- 3.3
15:00 - 15:15	50.2	54.2	- 4.0	52.8	- 2.6	54.6	- 4.4	55.5	- 5.3	53.6	- 3.4	54.5	- 4.3	54.8	- 4.6	54.2	- 4.0	55.1	- 4.9	54.8	- 4.6	55.2	- 5.0	54.5	- 4.3
15:15 - 15:30	48.8	55.1	- 6.3	55.6	- 6.8	54.5	- 5.7	55.0	- 6.2	55.3	- 6.5	54.6	- 5.8	54.6	- 5.8	55.7	- 6.9	55.2	- 6.4	55.8	- 7.0	55.2	- 6.4	55.1	- 6.3
15:30 - 15:45	49.6	54.5	- 4.9	55.1	- 5.5	53.7	- 4.1	53.9	- 4.3	54.6	- 5.0	55.3	- 5.7	54.0	- 4.4	54.2	- 4.6	53.5	- 3.9	54.2	- 4.6	54.7	- 5.1	54.3	- 4.7
15:45 - 16:00	49.2	53.4	- 4.2	55.2	- 6.0	54.0	- 4.8	55.4	- 6.2	53.4	- 4.2	55.1	- 5.9	55.1	- 5.9	55.6	- 6.4	55.2	- 6.0	54.2	- 5.0	53.9	- 4.7	54.6	- 5.4
16:00 - 16:15	50.6	55.7	- 5.1	55.6	- 5.0	55.8	- 5.2	53.7	- 3.1	54.7	- 4.1	55.1	- 4.5	55.5	- 4.9	55.0	- 4.4	53.7	- 3.1	55.2	- 4.6	54.8	- 4.2	55.0	- 4.4
16:15 - 16:30	49.5	55.9	- 6.4	54.1	- 4.6	55.5	- 6.0	55.1	- 5.6	55.4	- 5.9	55.2	- 5.7	55.4	- 5.9	54.2	- 4.7	55.4	- 5.9	55.3	- 5.8	55.2	- 5.7	55.2	- 5.7
16:30 - 16:45	49.6	53.4	- 3.8	55.5	- 5.9	54.9	- 5.3	54.3	- 4.7	55.5	- 5.9	55.8	- 6.2	55.1	- 5.5	54.8	- 5.2	54.3	- 4.7	53.8	- 4.2	54.5	- 4.9	54.7	- 5.1
16:45 - 17:00	49.5	55.7	- 6.2	55.4	- 5.9	55.0	- 5.5	54.8	- 5.3	56.1	- 6.6	56.2	- 6.7	55.0	- 5.5	55.8	- 6.3	55.8	- 6.3	55.7	- 6.2	55.9	- 6.4	55.6	- 6.1
17:00 - 17:15	43.6	55.7	-12.1	56.0	-12.4	55.8	-12.2	55.7	-12.1	56.0	-12.4	55.9	-12.3	55.8	-12.2	55.8	-12.2	55.9	-12.3	56.1	-12.5	55.9	-12.3	55.9	-12.3
17:15 - 17:30	46.1	56.0	- 9.9	54.9	- 8.8	55.6	- 9.5	55.5	- 9.4	56.1	-10.0	55.8	- 9.7	55.8	- 9.7	55.0	- 8.9	55.9	- 9.8	55.8	- 9.7	56.4	-10.3	55.7	- 9.6
17:30 - 17:45	47.0	55.5	- 8.5	55.1	- 8.1	54.6	- 7.6	56.0	- 9.0	56.1	- 9.1	55.5	- 8.5	56.1	- 9.1	55.7	- 8.7	55.0	- 8.0	55.3	- 8.3	54.9	- 7.9	55.4	- 8.4
17:45 - 18:00	42.8	55.7	-12.9	56.1	-13.3	55.1	-12.3	55.3	-12.5	55.6	-12.8	55.8	-13.0	53.3	-10.5	55.9	-13.1	55.1	-12.3	56.0	-13.2	54.9	-12.1	55.4	-12.6
Hour 1	52.9	55.4	- 2.5	55.5	- 2.6	54.9	- 2.1	55.4	- 2.5	55.5	- 2.6	55.3	- 2.5	54.7	- 1.9	55.4	- 2.5	55.4	- 2.6	55.0	- 2.2	54.8	- 1.9	55.2	- 2.4
Hour 2	49.5	54.3	- 4.8	54.7	- 5.2	54.2	- 4.7	55.0	- 5.5	54.2	- 4.8	54.9	- 5.4	54.6	- 5.2	54.9	- 5.5	54.8	- 5.3	54.8	- 5.3	54.8	- 5.3	54.6	- 5.2
Hour 3	49.8	55.2	- 5.4	55.2	- 5.4	55.3	- 5.5	54.5	- 4.7	55.4	- 5.6	55.6	- 5.8	55.3	- 5.5	55.0	- 5.2	54.8	- 5.0	55.0	- 5.2	55.1	- 5.3	55.1	- 5.3
Hour 4	44.8	55.7	-10.9	55.5	-10.7	55.3	-10.4	55.6	-10.8	56.0	-11.1	55.8	-10.9	55.3	-10.4	55.6	-10.8	55.5	-10.6	55.8	-11.0	55.5	-10.7	55.6	-10.8
11	49.2	55.1	- 5.9	55.2	- 6.0	54.9	- 5.7	55.1	- 5.9	55.3	- 6.0	55.4	- 6.1	55.0	- 5.7	55.2	- 6.0	55.1	- 5.9	55.1	- 5.9	55.0	- 5.8	55.1	- 5.9



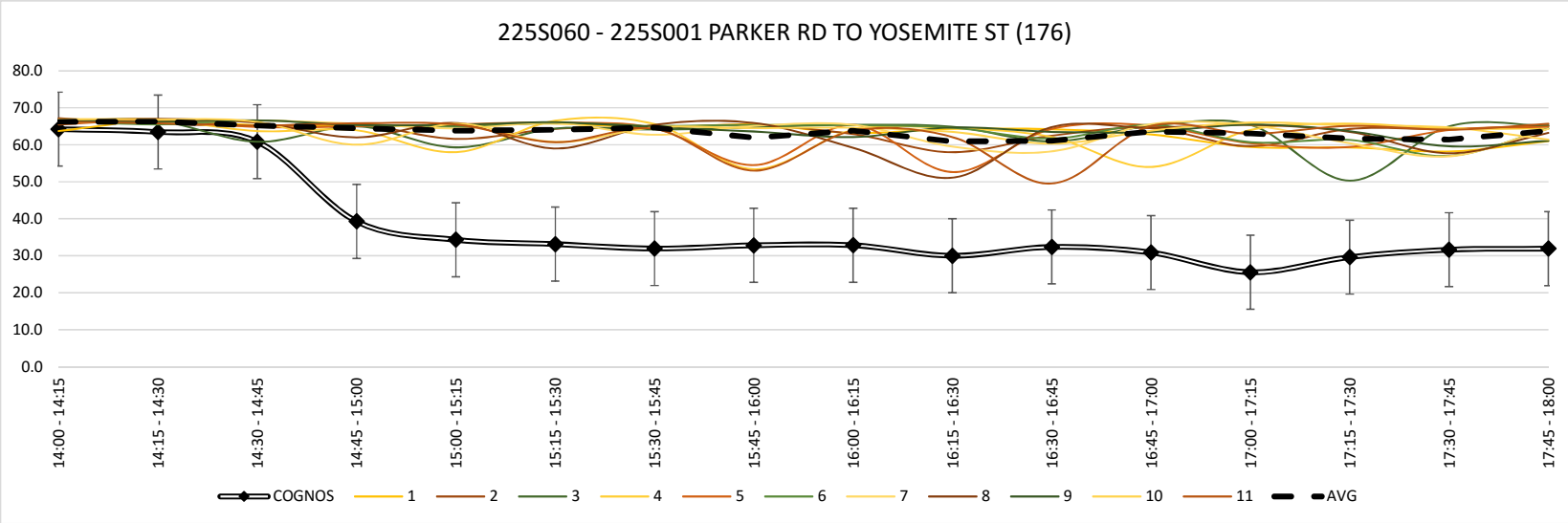
CONCEPT 2		Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run																							
PM	COGNOS	MODEL																						AGGREGATE	
TIME	225S040	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	59.6	57.2	2.4	57.5	2.1	56.9	2.7	57.2	2.4	56.8	2.8	56.8	2.8	57.2	2.4	57.0	2.6	57.4	2.2	57.4	2.2	57.3	2.3	57.2	2.4
14:15 - 14:30	56.6	57.3	- 0.7	57.3	- 0.7	56.7	- 0.1	56.9	- 0.3	57.6	- 1.0	57.1	- 0.5	56.7	- 0.1	57.3	- 0.7	56.9	- 0.3	57.1	- 0.5	57.0	- 0.4	57.1	- 0.5
14:30 - 14:45	54.3	57.0	- 2.8	56.6	- 2.4	57.0	- 2.8	57.0	- 2.8	56.6	- 2.4	56.6	- 2.4	56.5	- 2.3	57.3	- 3.1	57.2	- 3.0	57.0	- 2.8	56.8	- 2.6	56.9	- 2.7
14:45 - 15:00	40.6	56.5	-15.9	56.3	-15.7	56.6	-16.0	55.9	-15.3	56.7	-16.1	56.8	-16.2	56.5	-15.9	56.8	-16.2	56.7	-16.1	56.5	-15.9	56.6	-16.0	56.5	-15.9
15:00 - 15:15	39.8	56.8	-17.0	56.4	-16.6	56.4	-16.6	56.8	-17.0	56.7	-16.9	56.2	-16.4	56.4	-16.6	56.5	-16.7	56.5	-16.7	56.7	-16.9	56.8	-17.0	56.5	-16.7
15:15 - 15:30	36.1	56.7	-20.6	56.3	-20.2	56.7	-20.6	56.9	-20.8	56.2	-20.1	57.1	-21.0	57.1	-21.0	57.2	-21.1	56.7	-20.6	56.6	-20.5	56.7	-20.6	56.7	-20.6
15:30 - 15:45	37.3	56.0	-18.7	56.7	-19.4	56.5	-19.2	56.4	-19.1	56.6	-19.3	56.7	-19.4	56.1	-18.8	56.6	-19.3	56.3	-19.0	56.7	-19.4	56.6	-19.3	56.5	-19.2
15:45 - 16:00	38.5	56.5	-18.0	56.7	-18.2	56.9	-18.4	56.7	-18.2	55.8	-17.3	56.5	-18.0	56.2	-17.7	56.9	-18.4	56.6	-18.1	57.0	-18.5	56.4	-17.9	56.6	-18.1
16:00 - 16:15	36.2	57.1	-20.9	57.2	-21.0	57.0	-20.8	56.8	-20.6	56.7	-20.5	56.7	-20.5	56.9	-20.7	57.0	-20.8	56.2	-20.0	56.4	-20.2	56.7	-20.5	56.8	-20.6
16:15 - 16:30	37.7	57.2	-19.5	55.9	-18.2	56.9	-19.2	57.3	-19.6	56.9	-19.2	57.2	-19.5	56.8	-19.1	56.9	-19.2	56.8	-19.1	56.4	-18.7	56.7	-19.0	56.8	-19.1
16:30 - 16:45	41.4	56.5	-15.1	56.8	-15.4	56.8	-15.4	56.6	-15.2	57.2	-15.8	57.1	-15.7	57.4	-16.0	56.6	-15.2	56.7	-15.3	56.7	-15.3	56.7	-15.3	56.8	-15.4
16:45 - 17:00	41.2	56.7	-15.5	56.9	-15.7	57.3	-16.1	56.8	-15.6	57.1	-15.9	57.1	-15.9	56.9	-15.7	57.0	-15.8	56.6	-15.4	56.9	-15.7	57.2	-16.0	56.9	-15.7
17:00 - 17:15	38.1	57.1	-19.1	57.1	-19.1	57.4	-19.4	57.2	-19.2	57.5	-19.5	57.6	-19.6	57.2	-19.2	57.4	-19.4	57.6	-19.6	57.3	-19.3	57.6	-19.6	57.4	-19.4
17:15 - 17:30	36.1	57.3	-21.2	57.3	-21.2	57.0	-20.9	57.2	-21.1	57.3	-21.2	56.6	-20.5	57.3	-21.2	56.5	-20.4	57.4	-21.3	57.1	-21.0	57.7	-21.6	57.2	-21.1
17:30 - 17:45	37.2	57.1	-19.9	56.9	-19.7	56.8	-19.6	57.0	-19.8	57.3	-20.1	57.3	-20.1	56.9	-19.7	57.1	-19.9	56.7	-19.5	57.3	-20.1	56.7	-19.5	57.0	-19.8
17:45 - 18:00	38.4	57.1	-18.7	57.4	-19.0	57.1	-18.7	57.0	-18.6	57.3	-18.9	57.4	-19.0	57.0	-18.6	57.4	-19.0	57.2	-18.8	57.3	-18.9	56.2	-17.8	57.1	-18.7
Hour 1	52.8	57.0	- 4.2	56.9	- 4.2	56.8	- 4.0	56.8	- 4.0	56.9	- 4.2	56.8	- 4.1	56.7	- 4.0	57.1	- 4.3	57.1	- 4.3	57.0	- 4.2	56.9	- 4.2	56.9	- 4.2
Hour 2	37.9	56.5	-18.6	56.5	-18.6	56.6	-18.7	56.7	-18.8	56.3	-18.4	56.6	-18.7	56.5	-18.5	56.8	-18.9	56.5	-18.6	56.8	-18.8	56.6	-18.7	56.6	-18.6
Hour 3	39.1	56.9	-17.7	56.7	-17.6	57.0	-17.9	56.9	-17.7	57.0	-17.8	57.0	-17.9	57.0	-17.9	56.9	-17.7	56.6	-17.4	56.6	-17.5	56.8	-17.7	56.8	-17.7
Hour 4	37.4	57.2	-19.7	57.2	-19.7	57.1	-19.6	57.1	-19.7	57.4	-19.9	57.2	-19.8	57.1	-19.7	57.1	-19.7	57.2	-19.8	57.3	-19.8	57.1	-19.6	57.2	-19.7
11	41.8	56.9	-15.1	56.8	-15.0	56.9	-15.1	56.9	-15.0	56.9	-15.1	56.9	-15.1	56.8	-15.0	57.0	-15.1	56.8	-15.0	56.9	-15.1	56.9	-15.0	56.9	-15.1



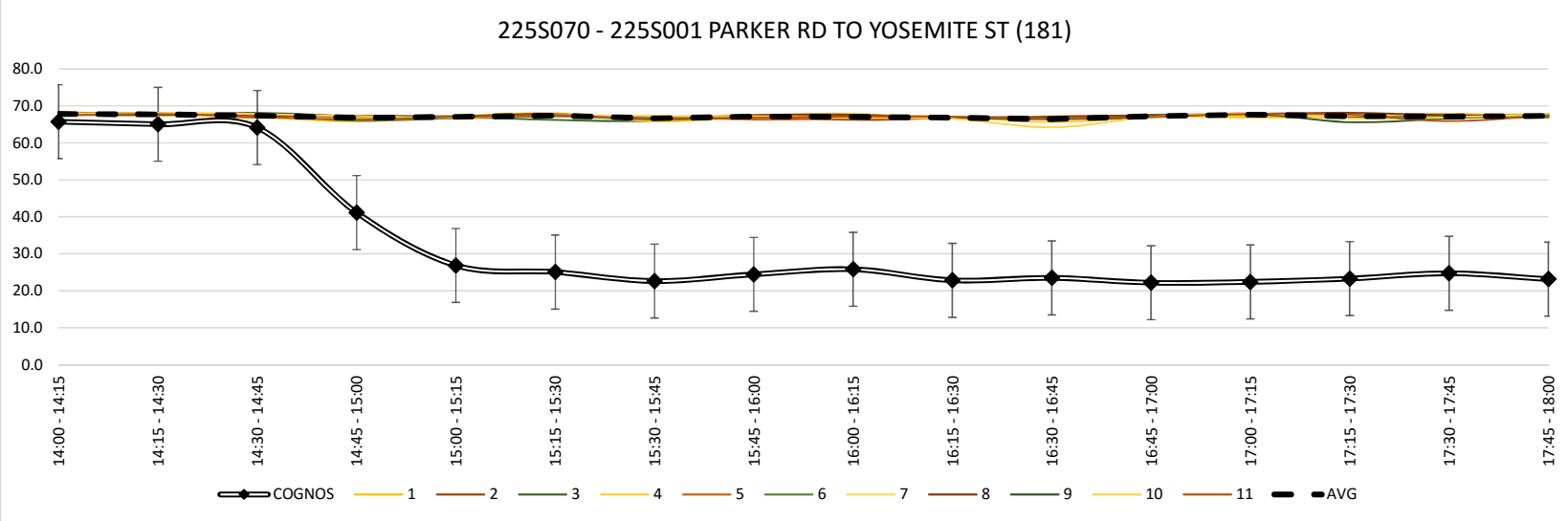
CONCEPT 2		Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run																							
PM	COGNOS	MODEL																						AGGREGATE	
TIME	225S050	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	61.1	68.6	- 7.5	69.0	- 7.9	68.4	- 7.3	68.4	- 7.3	68.1	- 7.0	68.3	- 7.2	68.4	- 7.3	68.3	- 7.2	68.5	- 7.4	68.8	- 7.7	68.1	- 7.0	68.5	- 7.4
14:15 - 14:30	59.8	68.5	- 8.7	68.5	- 8.7	68.2	- 8.4	68.1	- 8.3	68.5	- 8.7	68.3	- 8.5	68.4	- 8.6	68.7	- 8.9	68.6	- 8.8	68.1	- 8.3	68.5	- 8.7	68.4	- 8.6
14:30 - 14:45	55.6	68.1	-12.5	67.8	-12.2	67.6	-12.0	67.6	-12.0	67.3	-11.7	68.0	-12.4	68.0	-12.4	67.3	-11.7	68.4	-12.8	68.0	-12.4	68.2	-12.6	67.8	-12.2
14:45 - 15:00	36.3	67.4	-31.1	68.0	-31.7	67.4	-31.1	67.4	-31.1	67.5	-31.2	67.1	-30.8	67.8	-31.5	67.6	-31.3	68.2	-31.9	67.8	-31.5	67.7	-31.4	67.6	-31.3
15:00 - 15:15	34.6	67.9	-33.3	67.2	-32.6	67.3	-32.7	67.6	-33.0	68.0	-33.4	67.9	-33.3	67.6	-33.0	67.5	-32.9	67.7	-33.1	67.8	-33.2	67.8	-33.2	67.7	-33.1
15:15 - 15:30	31.9	67.8	-35.9	68.0	-36.1	68.0	-36.1	68.3	-36.4	68.0	-36.1	68.1	-36.2	67.8	-35.9	67.8	-35.9	68.2	-36.3	68.0	-36.1	68.1	-36.2	68.0	-36.1
15:30 - 15:45	32.4	67.7	-35.3	68.2	-35.8	67.0	-34.6	68.0	-35.6	68.2	-35.8	68.0	-35.6	67.9	-35.5	67.9	-35.5	67.7	-35.3	67.6	-35.2	67.3	-34.9	67.8	-35.4
15:45 - 16:00	38.0	68.0	-30.0	67.8	-29.8	68.0	-30.0	66.6	-28.6	66.4	-28.4	67.8	-29.8	67.7	-29.7	68.4	-30.4	67.8	-29.8	68.1	-30.1	67.7	-29.7	67.7	-29.7
16:00 - 16:15	33.2	68.1	-34.9	66.1	-32.9	67.9	-34.7	68.2	-35.0	68.3	-35.1	68.2	-35.0	68.4	-35.2	67.7	-34.5	66.8	-33.6	68.0	-34.8	67.9	-34.7	67.8	-34.6
16:15 - 16:30	33.2	68.2	-35.0	60.8	-27.6	68.0	-34.8	68.3	-35.1	66.0	-32.8	68.1	-34.9	67.9	-34.7	66.9	-33.7	67.5	-34.3	68.0	-34.8	66.3	-33.1	66.9	-33.7
16:30 - 16:45	32.4	67.8	-35.4	68.0	-35.6	66.9	-34.5	67.0	-34.6	67.8	-35.4	68.0	-35.6	68.2	-35.8	67.8	-35.4	67.3	-34.9	66.1	-33.7	66.3	-33.9	67.4	-35.0
16:45 - 17:00	30.9	67.7	-36.8	68.2	-37.3	68.2	-37.3	66.4	-35.5	68.2	-37.3	68.3	-37.4	68.2	-37.3	67.8	-36.9	66.6	-35.7	67.6	-36.7	68.1	-37.2	67.8	-36.9
17:00 - 17:15	29.5	68.2	-38.7	68.5	-39.0	68.4	-38.9	68.2	-38.7	68.4	-38.9	68.2	-38.7	68.5	-39.0	68.7	-39.2	68.4	-38.9	68.6	-39.1	68.3	-38.8	68.4	-38.9
17:15 - 17:30	33.5	67.8	-34.3	68.8	-35.3	67.1	-33.6	68.5	-35.0	68.3	-34.8	67.8	-34.3	67.3	-33.8	67.2	-33.7	67.6	-34.1	68.5	-35.0	68.8	-35.3	68.0	-34.5
17:30 - 17:45	33.1	67.5	-34.4	67.7	-34.6	67.5	-34.4	67.8	-34.7	68.1	-35.0	67.9	-34.8	68.2	-35.1	67.9	-34.8	67.4	-34.3	68.3	-35.2	67.4	-34.3	67.8	-34.7
17:45 - 18:00	30.6	67.5	-36.9	68.5	-37.9	68.3	-37.7	67.8	-37.2	68.5	-37.9	68.1	-37.5	68.0	-37.4	67.9	-37.3	68.3	-37.7	68.2	-37.6	67.8	-37.2	68.1	-37.5
Hour 1	53.2	68.2	-15.0	68.3	-15.1	67.9	-14.7	67.9	-14.7	67.9	-14.7	67.9	-14.7	68.2	-15.0	68.0	-14.8	68.4	-15.2	68.2	-15.0	68.1	-14.9	68.1	-14.9
Hour 2	34.2	67.9	-33.6	67.8	-33.6	67.6	-33.4	67.6	-33.4	67.7	-33.4	68.0	-33.7	67.8	-33.5	67.9	-33.7	67.9	-33.6	67.9	-33.7	67.7	-33.5	67.8	-33.6
Hour 3	32.4	68.0	-35.5	65.8	-33.3	67.8	-35.3	67.5	-35.0	67.6	-35.1	68.2	-35.7	68.2	-35.7	67.6	-35.1	67.1	-34.6	67.4	-35.0	67.2	-34.7	67.5	-35.0
Hour 4	31.7	67.8	-36.1	68.4	-36.7	67.8	-36.2	68.1	-36.4	68.3	-36.7	68.0	-36.3	68.0	-36.3	67.9	-36.3	67.9	-36.3	68.4	-36.7	68.1	-36.4	68.1	-36.4
11	37.9	67.9	-30.0	67.6	-29.7	67.8	-29.9	67.8	-29.9	67.9	-30.0	68.0	-30.1	68.0	-30.1	67.8	-30.0	67.8	-29.9	68.0	-30.1	67.8	-29.9	67.9	-30.0



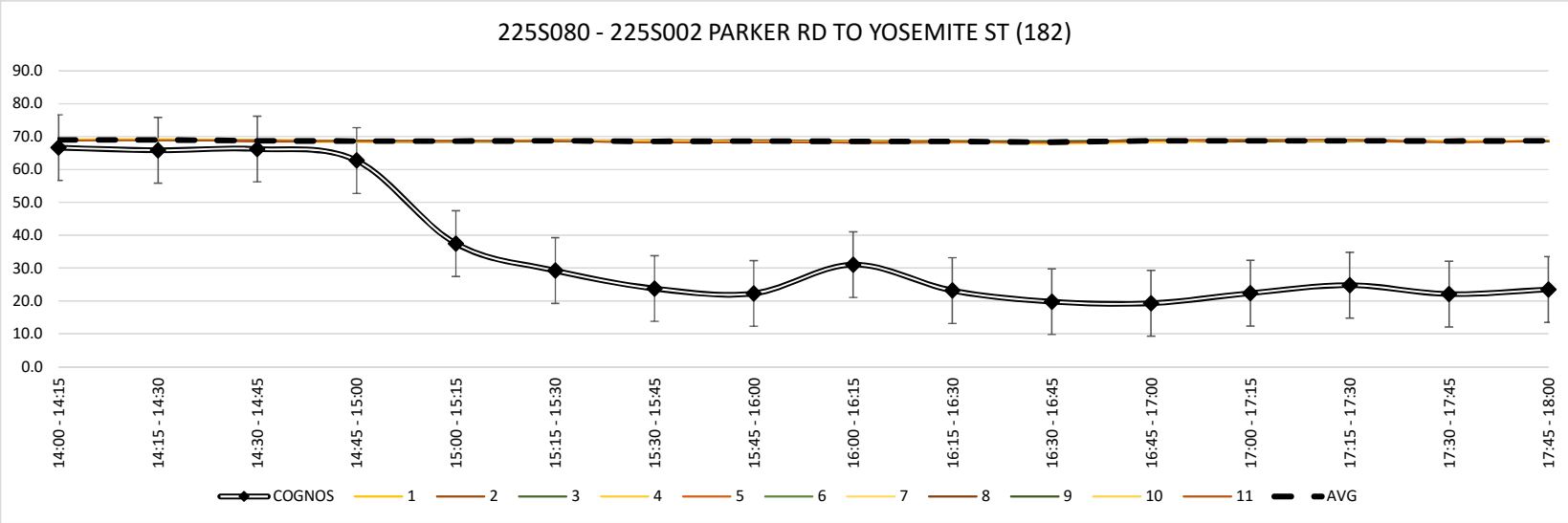
CONCEPT 2		Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run																							
PM	COGNOS	MODEL																						AGGREGATE	
TIME	225S060	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	64.2	63.7	0.5	67.2	- 3.0	66.6	- 2.4	66.1	- 1.9	65.5	- 1.3	66.6	- 2.4	66.2	- 2.0	66.6	- 2.4	66.5	- 2.3	66.9	- 2.7	66.2	- 2.0	66.2	- 2.0
14:15 - 14:30	63.5	66.6	- 3.1	65.7	- 2.3	66.5	- 3.1	66.7	- 3.3	66.7	- 3.3	65.5	- 2.1	66.1	- 2.6	67.0	- 3.6	66.2	- 2.8	66.9	- 3.5	65.8	- 2.3	66.3	- 2.8
14:30 - 14:45	60.8	65.3	- 4.5	65.1	- 4.3	60.8	0.0	63.7	- 2.9	64.8	- 4.0	66.6	- 5.8	66.6	- 5.8	66.0	- 5.2	66.6	- 5.8	66.2	- 5.4	65.2	- 4.4	65.2	- 4.4
14:45 - 15:00	39.3	65.3	-26.0	65.6	-26.3	65.0	-25.7	63.9	-24.6	65.0	-25.7	65.3	-26.0	65.7	-26.4	62.0	-22.7	65.4	-26.1	60.0	-20.7	65.8	-26.5	64.5	-25.2
15:00 - 15:15	34.3	65.3	-31.0	61.6	-27.3	59.3	-25.0	58.0	-23.7	65.5	-31.2	64.9	-30.6	64.4	-30.1	65.9	-31.6	65.4	-31.1	65.7	-31.4	65.5	-31.2	63.8	-29.5
15:15 - 15:30	33.1	65.7	-32.6	64.3	-31.2	64.4	-31.3	66.5	-33.4	66.0	-32.9	65.9	-32.8	65.9	-32.8	59.0	-25.9	66.1	-33.0	60.7	-27.6	60.7	-27.6	64.1	-31.0
15:30 - 15:45	31.9	64.7	-32.8	64.6	-32.7	64.1	-32.2	65.6	-33.7	64.5	-32.6	65.1	-33.2	62.7	-30.8	65.4	-33.5	64.8	-32.9	64.7	-32.8	64.3	-32.4	64.6	-32.7
15:45 - 16:00	32.8	65.5	-32.7	65.3	-32.5	64.7	-31.9	53.4	-20.6	54.5	-21.7	65.4	-32.6	65.1	-32.3	65.9	-33.1	63.6	-30.8	64.5	-31.7	53.0	-20.2	61.9	-29.1
16:00 - 16:15	32.8	63.2	-30.4	62.9	-30.1	65.4	-32.6	64.0	-31.2	65.4	-32.6	65.3	-32.5	65.4	-32.6	59.2	-26.4	62.1	-29.3	64.6	-31.8	63.8	-31.0	63.8	-31.0
16:15 - 16:30	30.0	64.3	-34.3	58.0	-28.0	64.9	-34.9	64.5	-34.5	52.6	-22.6	64.6	-34.6	59.5	-29.5	51.1	-21.1	64.7	-34.7	63.5	-33.5	62.1	-32.1	60.9	-30.9
16:30 - 16:45	32.4	64.2	-31.8	62.5	-30.1	60.9	-28.5	62.1	-29.7	64.3	-31.9	61.7	-29.3	58.2	-25.8	64.8	-32.4	63.5	-31.1	60.3	-27.9	49.5	-17.1	61.1	-28.7
16:45 - 17:00	30.9	62.8	-31.9	64.5	-33.6	65.1	-34.2	54.0	-23.1	65.2	-34.3	65.4	-34.5	65.6	-34.7	64.6	-33.7	63.5	-32.6	63.8	-32.9	65.1	-34.2	63.6	-32.7
17:00 - 17:15	25.5	59.4	-33.9	59.6	-34.1	65.4	-39.9	64.0	-38.5	60.4	-34.9	60.7	-35.2	65.3	-39.8	65.4	-39.9	65.5	-40.0	66.0	-40.5	63.0	-37.5	63.1	-37.6
17:15 - 17:30	29.6	59.3	-29.7	64.3	-34.7	50.3	-20.7	65.7	-36.1	59.4	-29.8	61.3	-31.7	60.4	-30.8	63.5	-33.9	63.7	-34.1	65.2	-35.6	65.1	-35.5	61.7	-32.1
17:30 - 17:45	31.6	58.2	-26.6	64.2	-32.6	65.0	-33.4	64.4	-32.8	64.0	-32.4	57.0	-25.4	56.9	-25.3	57.7	-26.1	59.6	-28.0	64.7	-33.1	64.1	-32.5	61.4	-29.8
17:45 - 18:00	31.9	61.0	-29.1	65.2	-33.3	65.2	-33.3	64.4	-32.5	64.9	-33.0	64.4	-32.5	64.3	-32.4	63.2	-31.3	61.1	-29.2	61.4	-29.5	65.7	-33.8	63.7	-31.8
Hour 1	57.0	65.2	- 8.3	65.9	- 8.9	64.7	- 7.8	65.1	- 8.1	65.5	- 8.5	66.0	- 9.0	66.2	- 9.2	65.4	- 8.4	66.2	- 9.2	65.0	- 8.0	65.8	- 8.8	65.6	- 8.6
Hour 2	33.1	65.3	-32.2	64.0	-30.9	63.1	-30.1	60.9	-27.8	62.6	-29.6	65.3	-32.3	64.5	-31.5	64.1	-31.0	65.0	-31.9	63.9	-30.8	60.9	-27.8	63.6	-30.5
Hour 3	31.5	63.6	-32.1	62.0	-30.5	64.1	-32.6	61.2	-29.6	61.9	-30.4	64.3	-32.7	62.2	-30.7	59.9	-28.4	63.5	-31.9	63.1	-31.5	60.1	-28.6	62.4	-30.8
Hour 4	29.7	59.5	-29.8	63.3	-33.6	61.5	-31.8	64.6	-34.9	62.2	-32.5	60.9	-31.2	61.7	-32.0	62.5	-32.8	62.5	-32.8	64.3	-34.6	64.5	-34.8	62.5	-32.8
11	37.8	63.4	-25.6	63.8	-26.0	63.4	-25.5	62.9	-25.1	63.0	-25.2	64.1	-26.3	63.6	-25.8	63.0	-25.2	64.3	-26.5	64.1	-26.3	62.8	-25.0	63.5	-25.7



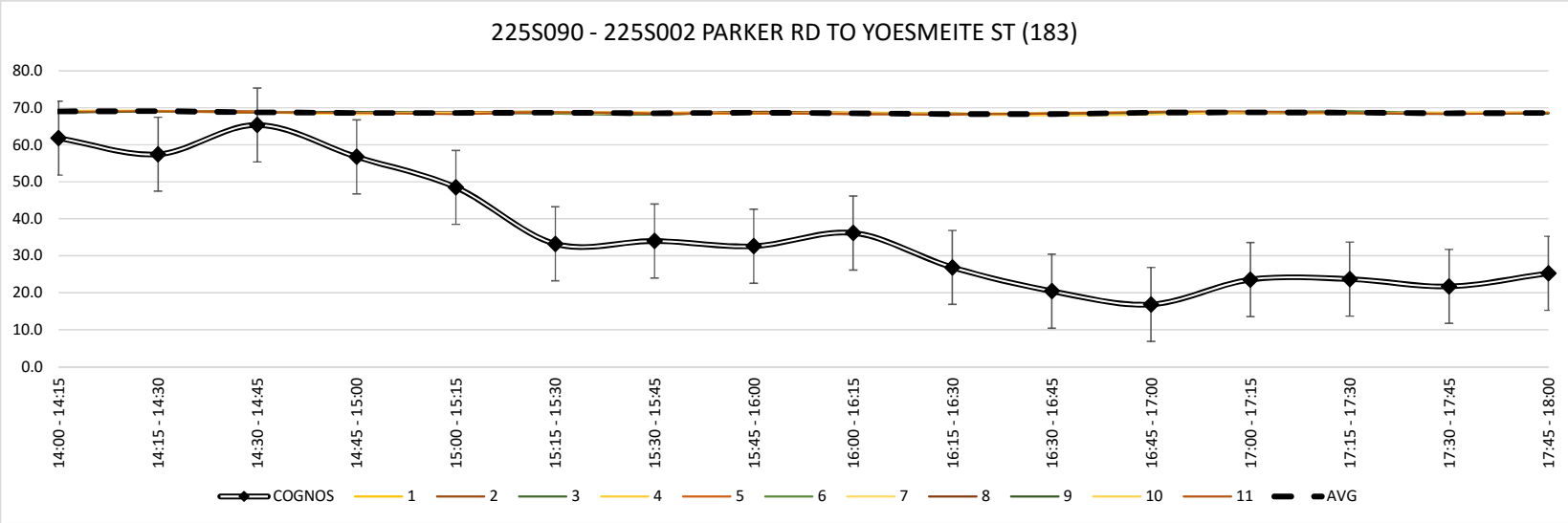
CONCEPT 2		Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run																							
PM	COGNOS	MODEL																						AGGREGATE	
TIME	225S070	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	65.7	68.3	- 2.6	68.3	- 2.6	67.6	- 1.9	67.6	- 1.9	67.5	- 1.8	68.0	- 2.3	67.9	- 2.2	67.8	- 2.1	67.7	- 2.0	67.9	- 2.2	67.4	- 1.7	67.8	- 2.1
14:15 - 14:30	65.0	67.5	- 2.5	67.8	- 2.8	67.5	- 2.5	67.5	- 2.5	68.0	- 3.0	67.7	- 2.7	67.4	- 2.4	68.0	- 3.0	67.5	- 2.5	68.1	- 3.1	67.8	- 2.8	67.7	- 2.7
14:30 - 14:45	64.1	67.8	- 3.7	67.6	- 3.5	67.2	- 3.1	66.9	- 2.8	66.8	- 2.7	67.5	- 3.4	67.4	- 3.3	67.3	- 3.2	68.1	- 4.0	67.8	- 3.7	67.1	- 3.0	67.4	- 3.3
14:45 - 15:00	41.1	66.9	-25.8	67.3	-26.2	67.3	-26.2	65.8	-24.7	67.2	-26.1	66.0	-24.9	66.5	-25.4	67.3	-26.2	67.2	-26.1	67.2	-26.1	66.3	-25.2	66.8	-25.7
15:00 - 15:15	26.9	67.0	-40.2	66.8	-40.0	67.0	-40.2	67.2	-40.4	66.7	-39.9	66.7	-39.9	67.0	-40.2	67.2	-40.4	67.1	-40.3	66.9	-40.1	67.0	-40.2	67.0	-40.2
15:15 - 15:30	25.1	67.4	-42.3	67.2	-42.1	66.2	-41.1	68.0	-42.9	67.3	-42.2	67.3	-42.2	67.5	-42.4	67.8	-42.7	67.5	-42.4	67.5	-42.4	67.4	-42.3	67.4	-42.3
15:30 - 15:45	22.6	66.6	-44.0	66.6	-44.0	65.9	-43.3	65.8	-43.2	67.2	-44.6	66.3	-43.7	67.2	-44.6	66.5	-43.9	66.9	-44.3	67.2	-44.6	66.5	-43.9	66.6	-44.0
15:45 - 16:00	24.5	66.8	-42.4	67.2	-42.8	67.2	-42.8	66.9	-42.5	66.3	-41.9	67.3	-42.9	67.5	-43.1	67.5	-43.1	67.1	-42.7	67.2	-42.8	66.8	-42.4	67.1	-42.7
16:00 - 16:15	25.8	66.3	-40.5	66.2	-40.4	66.9	-41.1	67.3	-41.5	66.5	-40.7	67.2	-41.4	67.9	-42.1	67.6	-41.8	67.0	-41.2	66.8	-41.0	67.1	-41.3	67.0	-41.2
16:15 - 16:30	22.8	67.0	-44.2	66.8	-44.0	66.9	-44.1	67.0	-44.2	66.6	-43.8	66.7	-43.9	66.6	-43.8	66.7	-43.9	66.9	-44.1	66.5	-43.7	67.1	-44.3	66.8	-44.0
16:30 - 16:45	23.5	66.6	-43.1	67.1	-43.6	66.9	-43.4	65.6	-42.1	66.6	-43.1	66.6	-43.1	67.2	-43.7	67.1	-43.6	66.4	-42.9	64.2	-40.7	66.6	-43.1	66.4	-42.9
16:45 - 17:00	22.2	67.3	-45.1	67.3	-45.1	67.3	-45.1	67.0	-44.8	67.5	-45.3	67.6	-45.4	67.1	-44.9	67.4	-45.2	66.9	-44.7	67.0	-44.8	67.1	-44.9	67.2	-45.0
17:00 - 17:15	22.4	66.9	-44.5	67.7	-45.3	67.6	-45.2	67.4	-45.0	67.6	-45.2	67.6	-45.2	67.5	-45.1	67.8	-45.4	67.9	-45.5	68.0	-45.6	67.8	-45.4	67.6	-45.2
17:15 - 17:30	23.3	67.1	-43.8	66.9	-43.6	66.8	-43.5	67.9	-44.6	67.4	-44.1	67.5	-44.2	67.4	-44.1	68.1	-44.8	65.6	-42.3	66.6	-43.3	67.6	-44.3	67.2	-43.9
17:30 - 17:45	24.7	67.1	-42.4	66.9	-42.2	67.1	-42.4	67.1	-42.4	67.8	-43.1	67.1	-42.4	67.8	-43.1	67.5	-42.8	66.6	-41.9	66.9	-42.2	65.9	-41.2	67.1	-42.4
17:45 - 18:00	23.2	67.1	-44.0	67.4	-44.3	66.9	-43.8	67.1	-44.0	67.2	-44.1	66.9	-43.8	67.6	-44.5	67.4	-44.3	67.8	-44.7	67.8	-44.7	67.4	-44.3	67.3	-44.2
Hour 1	59.0	67.6	- 8.6	67.8	- 8.7	67.4	- 8.4	67.0	- 7.9	67.4	- 8.4	67.3	- 8.3	67.3	- 8.3	67.6	- 8.6	67.6	- 8.6	67.8	- 8.7	67.2	- 8.1	67.4	- 8.4
Hour 2	24.7	67.0	-42.2	67.0	-42.2	66.6	-41.8	67.0	-42.2	66.9	-42.1	66.9	-42.2	67.3	-42.6	67.3	-42.5	67.2	-42.4	67.2	-42.5	66.9	-42.2	67.0	-42.3
Hour 3	23.6	66.8	-43.2	66.9	-43.3	67.0	-43.4	66.7	-43.1	66.8	-43.2	67.0	-43.4	67.2	-43.6	67.2	-43.6	66.8	-43.2	66.1	-42.5	67.0	-43.4	66.9	-43.3
Hour 4	23.4	67.1	-43.7	67.2	-43.8	67.1	-43.7	67.4	-44.0	67.5	-44.1	67.3	-43.9	67.6	-44.2	67.7	-44.3	67.0	-43.6	67.3	-43.9	67.2	-43.8	67.3	-43.9
11	32.7	67.1	-34.4	67.2	-34.5	67.0	-34.3	67.0	-34.3	67.1	-34.5	67.1	-34.4	67.3	-34.7	67.4	-34.8	67.1	-34.5	67.1	-34.4	67.1	-34.4	67.2	-34.5



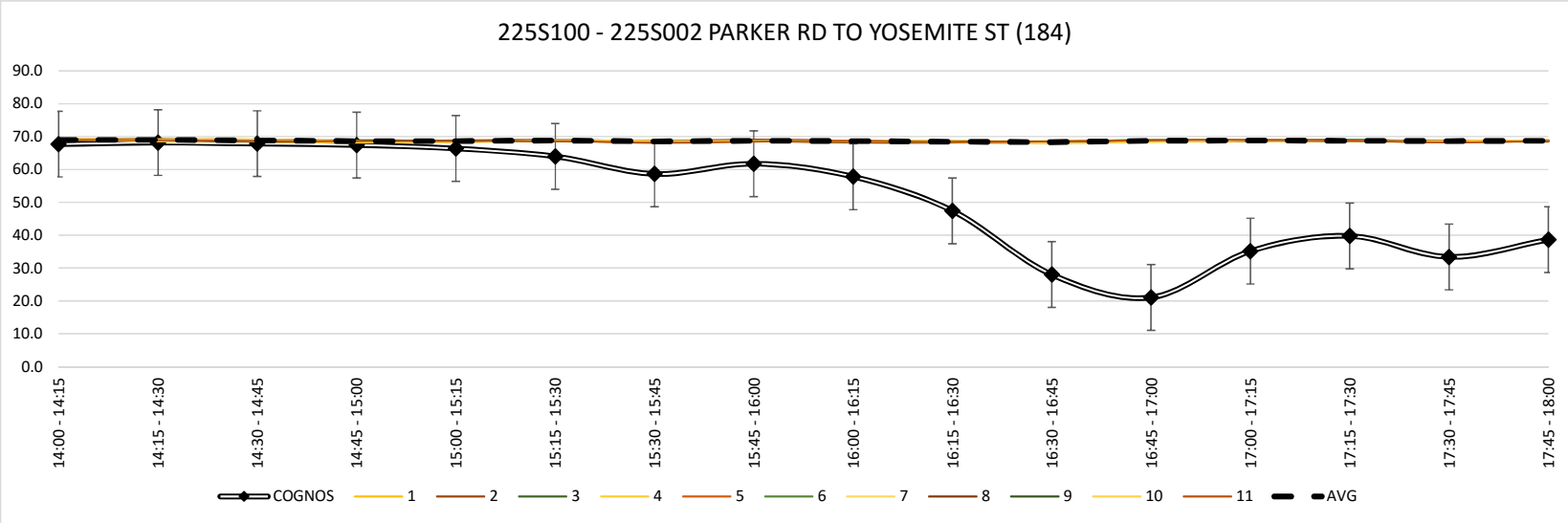
CONCEPT 2		Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run																							
PM	COGNOS	MODEL																						AGGREGATE	
TIME	225S080	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	66.6	69.2	- 2.6	69.1	- 2.5	68.9	- 2.3	68.7	- 2.1	68.8	- 2.2	69.1	- 2.5	69.0	- 2.4	69.0	- 2.4	68.9	- 2.3	69.1	- 2.5	68.8	- 2.2	69.0	- 2.4
14:15 - 14:30	65.8	69.0	- 3.2	69.0	- 3.2	69.0	- 3.2	69.1	- 3.3	69.1	- 3.3	69.0	- 3.2	68.9	- 3.1	69.1	- 3.3	69.0	- 3.2	69.3	- 3.5	68.9	- 3.1	69.0	- 3.2
14:30 - 14:45	66.2	68.9	- 2.7	68.9	- 2.7	68.7	- 2.5	68.6	- 2.4	68.5	- 2.3	68.8	- 2.6	68.8	- 2.6	68.6	- 2.4	68.8	- 2.6	68.9	- 2.7	68.8	- 2.6	68.7	- 2.5
14:45 - 15:00	62.7	68.8	- 6.1	68.4	- 5.7	68.6	- 5.9	68.3	- 5.6	68.6	- 5.9	68.6	- 5.9	68.4	- 5.7	68.5	- 5.8	68.8	- 6.1	68.6	- 5.9	68.6	- 5.9	68.6	- 5.9
15:00 - 15:15	37.5	68.4	-30.9	68.6	-31.1	68.6	-31.1	68.7	-31.2	68.6	-31.1	68.3	-30.8	68.5	-31.0	68.5	-31.0	68.7	-31.2	68.6	-31.1	68.6	-31.1	68.6	-31.1
15:15 - 15:30	29.3	69.0	-39.8	68.7	-39.5	68.5	-39.3	68.9	-39.7	68.7	-39.5	68.6	-39.4	68.7	-39.5	68.9	-39.7	68.7	-39.5	68.8	-39.6	68.7	-39.5	68.7	-39.5
15:30 - 15:45	23.8	68.3	-44.5	68.9	-45.1	68.4	-44.6	68.4	-44.6	68.7	-44.9	68.4	-44.6	68.5	-44.7	68.8	-45.0	68.5	-44.7	68.7	-44.9	68.2	-44.4	68.5	-44.7
15:45 - 16:00	22.3	68.5	-46.2	68.6	-46.3	68.7	-46.4	68.5	-46.2	68.3	-46.0	68.8	-46.5	68.7	-46.4	68.9	-46.6	68.6	-46.3	68.6	-46.3	68.3	-46.0	68.6	-46.3
16:00 - 16:15	31.1	68.6	-37.6	68.1	-37.1	68.5	-37.5	68.6	-37.6	68.4	-37.4	68.5	-37.5	68.8	-37.8	68.6	-37.6	68.6	-37.6	68.5	-37.5	68.2	-37.2	68.5	-37.5
16:15 - 16:30	23.2	68.4	-45.2	68.2	-45.0	68.5	-45.3	68.4	-45.2	68.2	-45.0	68.6	-45.4	68.7	-45.5	68.5	-45.3	68.6	-45.4	68.3	-45.1	68.5	-45.3	68.5	-45.3
16:30 - 16:45	19.8	68.2	-48.4	68.4	-48.6	68.5	-48.7	67.8	-48.0	68.4	-48.6	68.2	-48.4	68.5	-48.7	68.2	-48.4	68.6	-48.8	68.0	-48.2	68.2	-48.4	68.3	-48.5
16:45 - 17:00	19.3	68.4	-49.1	68.7	-49.4	68.9	-49.6	68.5	-49.2	68.7	-49.4	69.0	-49.7	68.8	-49.5	68.8	-49.5	68.6	-49.3	68.2	-48.9	68.8	-49.5	68.7	-49.4
17:00 - 17:15	22.4	68.4	-46.0	68.7	-46.3	68.5	-46.1	68.8	-46.4	68.8	-46.4	68.6	-46.2	68.7	-46.3	68.6	-46.2	68.8	-46.4	69.1	-46.7	69.0	-46.6	68.7	-46.3
17:15 - 17:30	24.8	68.5	-43.7	68.5	-43.7	68.5	-43.7	69.0	-44.2	68.6	-43.8	68.9	-44.1	68.5	-43.7	68.9	-44.1	68.6	-43.8	68.6	-43.8	68.9	-44.1	68.7	-43.9
17:30 - 17:45	22.1	68.7	-46.6	68.4	-46.3	68.5	-46.4	68.4	-46.3	68.7	-46.6	68.6	-46.5	68.8	-46.7	68.7	-46.6	68.5	-46.4	68.8	-46.7	68.3	-46.2	68.6	-46.5
17:45 - 18:00	23.5	68.7	-45.2	68.5	-45.0	68.6	-45.1	68.8	-45.3	68.7	-45.2	68.5	-45.0	68.6	-45.1	68.5	-45.0	68.6	-45.1	68.8	-45.3	68.7	-45.2	68.7	-45.2
Hour 1	65.4	69.0	- 3.6	68.9	- 3.5	68.8	- 3.5	68.7	- 3.3	68.8	- 3.4	68.9	- 3.5	68.8	- 3.4	68.8	- 3.5	68.9	- 3.5	69.0	- 3.6	68.8	- 3.4	68.8	- 3.5
Hour 2	28.2	68.6	-40.4	68.7	-40.5	68.6	-40.4	68.6	-40.4	68.6	-40.4	68.5	-40.3	68.6	-40.4	68.8	-40.6	68.6	-40.4	68.7	-40.5	68.5	-40.3	68.6	-40.4
Hour 3	23.3	68.4	-45.1	68.4	-45.0	68.6	-45.3	68.3	-45.0	68.4	-45.1	68.6	-45.3	68.7	-45.4	68.5	-45.2	68.6	-45.3	68.3	-44.9	68.4	-45.1	68.5	-45.2
Hour 4	23.2	68.6	-45.4	68.5	-45.3	68.5	-45.3	68.8	-45.6	68.7	-45.5	68.7	-45.5	68.7	-45.5	68.7	-45.5	68.6	-45.4	68.8	-45.6	68.7	-45.5	68.7	-45.5
11	35.0	68.6	-33.6	68.6	-33.6	68.6	-33.6	68.6	-33.6	68.6	-33.6	68.7	-33.6	68.7	-33.7	68.7	-33.7	68.7	-33.7	68.7	-33.7	68.6	-33.6	68.7	-33.6



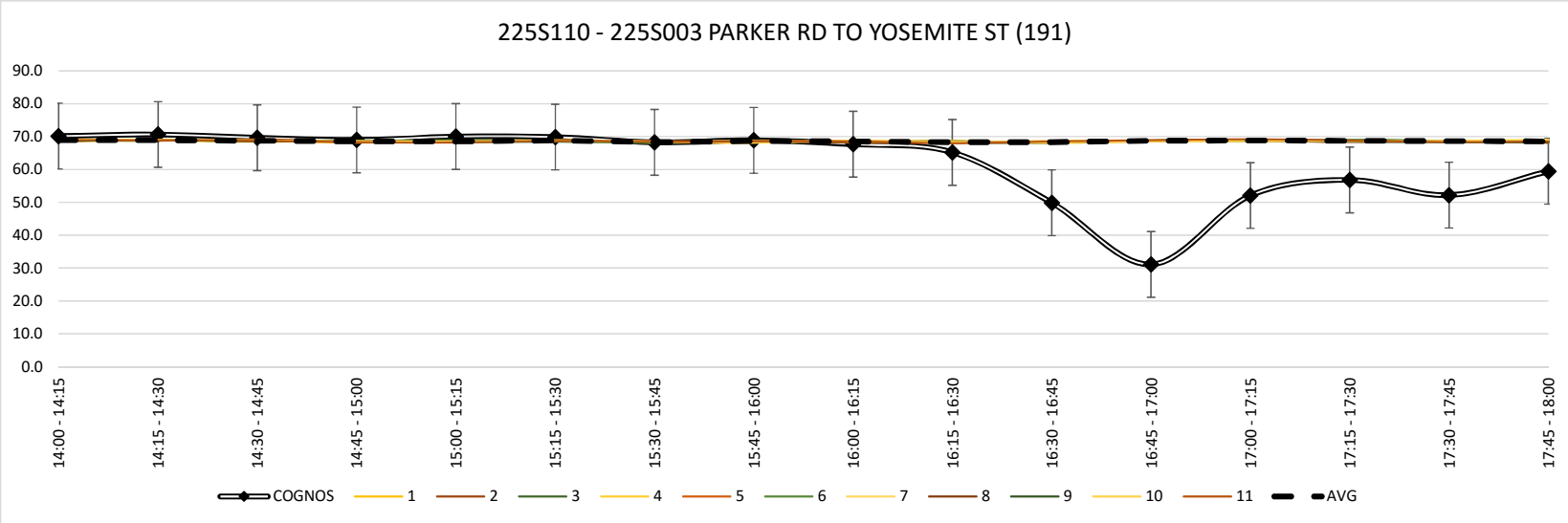
CONCEPT 2		Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run																							
PM	COGNOS	MODEL																						AGGREGATE	
TIME	225S090	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	61.8	69.2	- 7.4	69.0	- 7.2	68.9	- 7.1	68.9	- 7.1	68.9	- 7.1	69.0	- 7.2	69.2	- 7.4	68.7	- 6.9	68.7	- 6.9	69.2	- 7.4	68.9	- 7.1	69.0	- 7.2
14:15 - 14:30	57.4	69.1	-11.7	69.0	-11.6	69.0	-11.6	68.9	-11.5	69.1	-11.7	69.2	-11.8	68.9	-11.5	69.2	-11.8	69.0	-11.6	69.2	-11.8	69.1	-11.7	69.1	-11.7
14:30 - 14:45	65.4	68.8	- 3.5	69.1	- 3.8	68.7	- 3.4	68.7	- 3.4	68.8	- 3.5	68.8	- 3.5	68.9	- 3.6	68.8	- 3.5	68.8	- 3.5	68.8	- 3.5	68.8	- 3.5	68.8	- 3.5
14:45 - 15:00	56.7	68.8	-12.1	68.4	-11.7	68.5	-11.8	68.3	-11.6	68.6	-11.9	68.8	-12.1	68.4	-11.7	68.7	-12.0	68.9	-12.2	68.6	-11.9	68.6	-11.9	68.6	-11.9
15:00 - 15:15	48.5	68.7	-20.2	68.8	-20.3	68.6	-20.1	68.6	-20.1	68.6	-20.1	68.7	-20.2	68.7	-20.2	68.8	-20.3	68.6	-20.1	68.7	-20.2	68.3	-19.8	68.6	-20.1
15:15 - 15:30	33.2	68.9	-35.7	68.8	-35.6	68.4	-35.2	68.8	-35.6	68.8	-35.6	68.7	-35.5	68.6	-35.4	68.9	-35.7	68.7	-35.5	68.8	-35.6	68.8	-35.6	68.7	-35.5
15:30 - 15:45	34.0	68.4	-34.4	68.6	-34.6	68.1	-34.1	68.4	-34.4	68.7	-34.7	68.2	-34.2	68.4	-34.4	68.4	-34.4	68.6	-34.6	68.8	-34.8	68.5	-34.5	68.5	-34.5
15:45 - 16:00	32.6	68.4	-35.8	68.9	-36.3	68.9	-36.3	68.6	-36.0	68.5	-35.9	68.9	-36.3	68.8	-36.2	68.9	-36.3	68.7	-36.1	68.6	-36.0	68.5	-35.9	68.7	-36.1
16:00 - 16:15	36.2	68.7	-32.6	68.2	-32.1	68.6	-32.5	68.5	-32.4	68.4	-32.3	68.5	-32.4	68.8	-32.7	68.7	-32.6	68.5	-32.4	68.7	-32.6	68.4	-32.3	68.5	-32.4
16:15 - 16:30	26.9	68.4	-41.6	68.4	-41.6	68.3	-41.5	68.5	-41.7	68.3	-41.5	68.4	-41.6	68.5	-41.7	68.1	-41.3	68.4	-41.6	68.3	-41.5	68.2	-41.4	68.3	-41.5
16:30 - 16:45	20.4	68.3	-47.9	68.2	-47.8	68.4	-48.0	68.0	-47.6	68.3	-47.9	68.3	-47.9	68.7	-48.3	68.5	-48.1	68.2	-47.8	67.9	-47.5	68.4	-48.0	68.3	-47.9
16:45 - 17:00	16.8	68.6	-51.8	68.6	-51.8	68.8	-52.0	68.4	-51.6	68.7	-51.9	68.9	-52.1	68.9	-52.1	68.7	-51.9	68.5	-51.7	68.2	-51.4	68.9	-52.1	68.7	-51.9
17:00 - 17:15	23.6	68.5	-44.9	68.6	-45.0	68.7	-45.1	68.6	-45.0	68.9	-45.3	68.9	-45.3	68.8	-45.2	68.9	-45.3	68.9	-45.3	68.9	-45.3	69.0	-45.4	68.8	-45.2
17:15 - 17:30	23.7	68.6	-44.9	68.5	-44.8	68.6	-44.9	68.9	-45.2	68.7	-45.0	69.1	-45.4	68.4	-44.7	68.6	-44.9	68.5	-44.8	68.6	-44.9	68.7	-45.0	68.7	-45.0
17:30 - 17:45	21.7	68.7	-47.0	68.4	-46.7	68.5	-46.8	68.5	-46.8	68.7	-47.0	68.6	-46.9	68.7	-47.0	68.6	-46.9	68.4	-46.7	68.6	-46.9	68.3	-46.6	68.5	-46.8
17:45 - 18:00	25.3	68.7	-43.4	68.5	-43.2	68.4	-43.1	68.7	-43.4	68.7	-43.4	68.5	-43.2	68.7	-43.4	68.7	-43.4	68.7	-43.4	68.8	-43.5	68.6	-43.3	68.6	-43.3
Hour 1	60.3	69.0	- 8.6	68.9	- 8.5	68.8	- 8.4	68.7	- 8.4	68.9	- 8.5	69.0	- 8.6	68.9	- 8.5	68.9	- 8.5	68.9	- 8.5	69.0	- 8.6	68.9	- 8.5	68.9	- 8.5
Hour 2	37.1	68.6	-31.5	68.8	-31.7	68.5	-31.4	68.6	-31.5	68.7	-31.6	68.6	-31.6	68.6	-31.6	68.8	-31.7	68.7	-31.6	68.7	-31.7	68.5	-31.5	68.6	-31.6
Hour 3	25.1	68.5	-43.4	68.4	-43.3	68.5	-43.5	68.4	-43.3	68.4	-43.4	68.5	-43.5	68.7	-43.7	68.5	-43.4	68.4	-43.3	68.3	-43.2	68.5	-43.4	68.5	-43.4
Hour 4	23.6	68.6	-45.1	68.5	-44.9	68.6	-45.0	68.7	-45.1	68.8	-45.2	68.8	-45.2	68.7	-45.1	68.7	-45.1	68.6	-45.1	68.7	-45.2	68.7	-45.1	68.7	-45.1
11	36.5	68.7	-32.2	68.6	-32.1	68.6	-32.1	68.6	-32.1	68.7	-32.2	68.7	-32.2	68.7	-32.2	68.7	-32.2	68.6	-32.1	68.7	-32.2	68.6	-32.1	68.7	-32.1



CONCEPT 2		Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run																							
PM	COGNOS	MODEL																						AGGREGATE	
TIME	225S100	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	67.7	69.4	- 1.7	69.2	- 1.5	69.0	- 1.3	68.8	- 1.1	68.9	- 1.2	69.1	- 1.4	69.0	- 1.3	69.0	- 1.3	68.8	- 1.1	69.3	- 1.6	69.0	- 1.3	69.0	- 1.3
14:15 - 14:30	68.2	68.5	- 0.3	69.1	- 0.9	69.0	- 0.8	69.0	- 0.8	69.1	- 0.9	69.1	- 0.9	68.9	- 0.7	69.3	- 1.1	69.2	- 1.0	69.2	- 1.0	68.9	- 0.7	69.0	- 0.8
14:30 - 14:45	67.8	68.9	- 1.1	69.1	- 1.3	68.7	- 0.9	68.5	- 0.7	68.8	- 1.0	69.0	- 1.2	68.8	- 1.0	68.6	- 0.8	68.9	- 1.1	69.1	- 1.3	68.7	- 0.9	68.8	- 1.0
14:45 - 15:00	67.4	68.8	- 1.4	68.6	- 1.2	68.6	- 1.2	68.1	- 0.7	68.6	- 1.2	68.6	- 1.2	68.5	- 1.1	68.7	- 1.3	68.9	- 1.5	68.6	- 1.2	68.6	- 1.2	68.6	- 1.2
15:00 - 15:15	66.4	68.6	- 2.2	68.8	- 2.4	68.5	- 2.1	68.7	- 2.3	68.7	- 2.3	68.6	- 2.2	68.9	- 2.5	68.7	- 2.3	68.7	- 2.3	68.2	- 1.8	68.6	- 2.2	68.6	- 2.2
15:15 - 15:30	64.0	68.8	- 4.8	69.0	- 5.0	68.6	- 4.6	68.8	- 4.8	68.6	- 4.6	68.7	- 4.7	68.7	- 4.7	68.7	- 4.7	68.9	- 4.9	68.9	- 4.9	68.7	- 4.7	68.8	- 4.8
15:30 - 15:45	58.6	68.3	- 9.7	68.6	-10.0	68.4	- 9.8	68.6	-10.0	68.7	-10.1	68.3	- 9.7	68.8	-10.2	68.6	-10.0	68.6	-10.0	68.6	-10.0	68.1	- 9.5	68.5	- 9.9
15:45 - 16:00	61.7	68.5	- 6.8	68.6	- 6.9	68.8	- 7.1	68.8	- 7.1	68.6	- 6.9	68.8	- 7.1	68.7	- 7.0	69.1	- 7.4	68.7	- 7.0	68.7	- 7.0	68.4	- 6.7	68.7	- 7.0
16:00 - 16:15	57.8	68.5	-10.7	68.2	-10.4	68.6	-10.8	68.7	-10.9	68.7	-10.9	68.6	-10.8	68.8	-11.0	68.7	-10.9	68.6	-10.8	68.6	-10.8	68.7	-10.9	68.6	-10.8
16:15 - 16:30	47.4	68.6	-21.2	68.1	-20.7	68.3	-20.9	68.7	-21.3	68.4	-21.0	68.6	-21.2	68.6	-21.2	68.4	-21.0	68.3	-20.9	68.3	-20.9	68.3	-20.9	68.4	-21.0
16:30 - 16:45	28.0	68.4	-40.4	68.4	-40.4	68.1	-40.1	68.1	-40.1	68.2	-40.2	68.2	-40.2	68.6	-40.6	68.5	-40.5	68.3	-40.3	67.9	-39.9	68.5	-40.5	68.3	-40.3
16:45 - 17:00	21.1	68.4	-47.3	68.7	-47.6	68.7	-47.6	68.6	-47.5	68.8	-47.7	69.1	-48.0	68.9	-47.8	68.7	-47.6	68.8	-47.7	68.3	-47.2	68.9	-47.8	68.7	-47.6
17:00 - 17:15	35.2	68.6	-33.4	68.8	-33.6	68.9	-33.7	68.7	-33.5	68.9	-33.7	68.7	-33.5	68.8	-33.6	68.8	-33.6	68.8	-33.6	68.9	-33.7	69.0	-33.8	68.8	-33.6
17:15 - 17:30	39.8	68.6	-28.8	68.6	-28.8	68.6	-28.8	68.8	-29.0	68.8	-29.0	69.1	-29.3	68.5	-28.7	68.7	-28.9	68.7	-28.9	68.7	-28.9	68.8	-29.0	68.7	-28.9
17:30 - 17:45	33.4	68.6	-35.2	68.3	-34.9	68.5	-35.1	68.7	-35.3	68.8	-35.4	68.5	-35.1	68.8	-35.4	68.7	-35.3	68.5	-35.1	68.6	-35.2	68.2	-34.8	68.6	-35.2
17:45 - 18:00	38.7	68.7	-30.0	68.8	-30.1	68.4	-29.7	68.6	-29.9	68.7	-30.0	68.7	-30.0	68.7	-30.0	68.6	-29.9	68.9	-30.2	69.0	-30.3	68.7	-30.0	68.7	-30.0
Hour 1	67.8	68.9	- 1.1	69.0	- 1.2	68.8	- 1.0	68.6	- 0.8	68.9	- 1.1	69.0	- 1.2	68.8	- 1.0	68.9	- 1.1	69.0	- 1.2	69.1	- 1.3	68.8	- 1.0	68.9	- 1.1
Hour 2	62.7	68.6	- 5.9	68.8	- 6.1	68.6	- 5.9	68.7	- 6.0	68.7	- 6.0	68.6	- 5.9	68.8	- 6.1	68.8	- 6.1	68.7	- 6.0	68.6	- 5.9	68.5	- 5.8	68.7	- 6.0
Hour 3	38.6	68.5	-29.9	68.4	-29.8	68.4	-29.9	68.5	-30.0	68.5	-30.0	68.6	-30.1	68.7	-30.2	68.6	-30.0	68.5	-29.9	68.3	-29.7	68.6	-30.0	68.5	-29.9
Hour 4	36.7	68.6	-31.9	68.6	-31.9	68.6	-31.9	68.7	-32.0	68.8	-32.1	68.8	-32.0	68.7	-32.0	68.7	-32.0	68.7	-32.0	68.8	-32.1	68.7	-31.9	68.7	-32.0
11	51.4	68.6	-17.2	68.7	-17.2	68.6	-17.2	68.6	-17.2	68.7	-17.3	68.7	-17.3	68.8	-17.3	68.7	-17.3	68.7	-17.3	68.7	-17.2	68.6	-17.2	68.7	-17.2



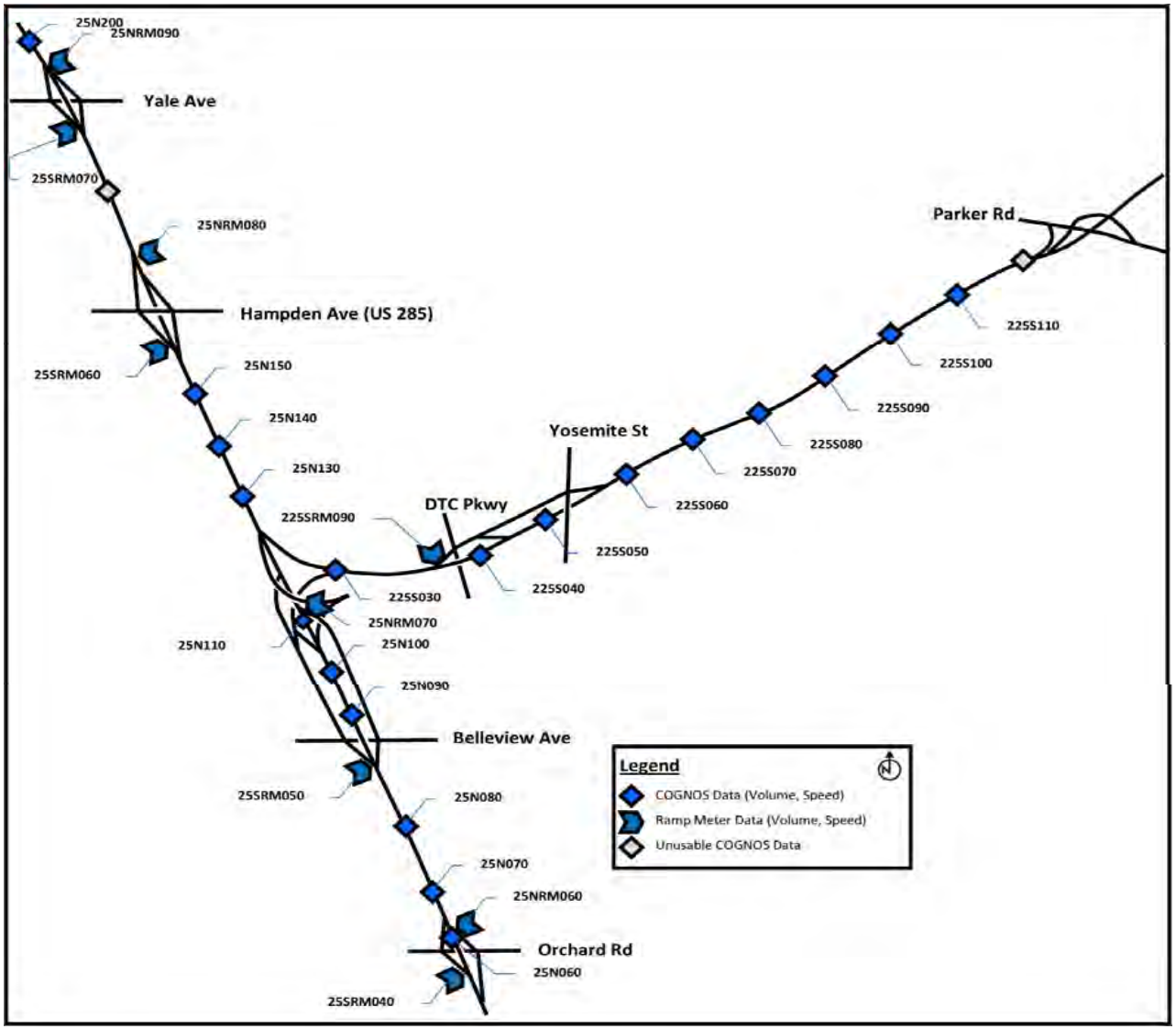
CONCEPT 2		Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run																							
PM	COGNOS	MODEL																						AGGREGATE	
TIME	225S110	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	70.1	69.2	0.9	69.1	1.0	68.7	1.4	68.5	1.6	68.7	1.4	68.9	1.2	69.1	1.0	68.5	1.6	68.7	1.4	69.1	1.0	69.0	1.1	68.9	1.2
14:15 - 14:30	70.6	68.9	1.7	68.7	1.9	68.8	1.8	68.8	1.8	68.9	1.7	68.9	1.7	68.8	1.8	69.1	1.5	68.9	1.7	69.0	1.6	68.8	1.8	68.9	1.7
14:30 - 14:45	69.6	68.4	1.2	69.2	0.4	68.8	0.8	68.6	1.0	68.6	1.0	68.5	1.1	68.8	0.8	68.6	1.0	68.8	0.8	68.9	0.7	68.8	0.8	68.7	0.9
14:45 - 15:00	69.0	68.8	0.2	68.6	0.4	68.2	0.8	68.2	0.8	68.3	0.7	68.8	0.2	68.6	0.4	68.7	0.3	68.7	0.3	68.6	0.4	68.3	0.7	68.5	0.5
15:00 - 15:15	70.0	68.2	1.8	68.7	1.3	68.3	1.7	68.7	1.3	68.4	1.6	68.4	1.6	68.5	1.5	68.6	1.4	69.0	1.0	68.6	1.4	68.2	1.8	68.5	1.5
15:15 - 15:30	69.9	69.0	0.8	68.9	0.9	68.4	1.4	68.8	1.1	68.8	1.1	68.7	1.1	68.9	0.9	68.9	0.9	68.9	0.9	68.8	1.1	68.7	1.1	68.8	1.1
15:30 - 15:45	68.3	68.3	- 0.0	68.2	0.1	68.3	- 0.0	68.2	0.1	68.6	- 0.3	68.0	0.3	68.5	- 0.2	68.4	- 0.1	68.3	- 0.0	68.4	- 0.1	68.4	- 0.1	68.3	- 0.0
15:45 - 16:00	68.9	68.2	0.7	68.7	0.2	68.9	- 0.0	68.7	0.2	68.5	0.4	68.7	0.2	68.8	0.1	68.7	0.2	68.4	0.5	68.1	0.8	68.5	0.4	68.6	0.3
16:00 - 16:15	67.7	68.7	- 1.0	68.1	- 0.4	68.5	- 0.8	68.6	- 0.9	68.5	- 0.8	68.4	- 0.7	68.7	- 1.0	68.6	- 0.9	68.5	- 0.8	68.7	- 1.0	68.5	- 0.8	68.5	- 0.8
16:15 - 16:30	65.2	68.3	- 3.1	68.2	- 3.0	68.2	- 3.0	68.8	- 3.6	68.1	- 2.9	68.6	- 3.4	68.4	- 3.2	68.3	- 3.1	68.2	- 3.0	68.2	- 3.0	68.0	- 2.8	68.3	- 3.1
16:30 - 16:45	49.9	68.2	-18.3	68.4	-18.5	68.3	-18.4	68.0	-18.1	68.6	-18.7	68.4	-18.5	68.7	-18.8	68.3	-18.4	68.1	-18.2	68.2	-18.3	68.5	-18.6	68.3	-18.4
16:45 - 17:00	31.1	68.5	-37.4	68.5	-37.4	68.8	-37.7	68.7	-37.6	68.8	-37.7	68.9	-37.8	68.9	-37.8	68.7	-37.6	68.8	-37.7	68.5	-37.4	68.9	-37.8	68.7	-37.6
17:00 - 17:15	52.1	68.8	-16.7	68.9	-16.8	69.0	-16.9	68.6	-16.5	69.0	-16.9	68.6	-16.5	68.7	-16.6	68.8	-16.7	68.8	-16.7	68.7	-16.6	69.2	-17.1	68.8	-16.7
17:15 - 17:30	56.8	68.8	-12.0	68.7	-11.9	68.6	-11.8	68.7	-11.9	68.7	-11.9	69.1	-12.3	68.5	-11.7	68.3	-11.5	68.5	-11.7	68.6	-11.8	68.8	-12.0	68.7	-11.9
17:30 - 17:45	52.2	68.8	-16.6	68.4	-16.2	68.6	-16.4	68.7	-16.5	68.8	-16.6	68.7	-16.5	68.7	-16.5	68.6	-16.4	68.3	-16.1	68.7	-16.5	68.3	-16.1	68.6	-16.4
17:45 - 18:00	59.4	68.3	- 8.9	68.8	- 9.4	68.2	- 8.8	68.7	- 9.3	68.1	- 8.7	68.5	- 9.1	68.7	- 9.3	68.7	- 9.3	68.3	- 8.9	69.1	- 9.7	68.5	- 9.1	68.5	- 9.1
Hour 1	69.8	68.8	1.0	68.9	0.9	68.6	1.2	68.5	1.3	68.6	1.2	68.8	1.1	68.8	1.0	68.7	1.1	68.8	1.1	68.9	0.9	68.7	1.1	68.8	1.1
Hour 2	69.2	68.4	0.8	68.6	0.6	68.5	0.8	68.6	0.6	68.6	0.7	68.5	0.8	68.7	0.6	68.7	0.6	68.7	0.6	68.5	0.8	68.5	0.8	68.6	0.7
Hour 3	53.5	68.4	-15.0	68.3	-14.8	68.5	-15.0	68.5	-15.1	68.5	-15.0	68.6	-15.1	68.7	-15.2	68.5	-15.0	68.4	-14.9	68.4	-14.9	68.5	-15.0	68.5	-15.0
Hour 4	55.1	68.7	-13.5	68.7	-13.6	68.6	-13.5	68.7	-13.5	68.7	-13.5	68.7	-13.6	68.7	-13.5	68.6	-13.5	68.5	-13.3	68.8	-13.6	68.7	-13.6	68.7	-13.5
11	61.9	68.6	- 6.7	68.6	- 6.7	68.5	- 6.6	68.6	- 6.7	68.6	- 6.7	68.6	- 6.7	68.7	- 6.8	68.6	- 6.7	68.6	- 6.7	68.6	- 6.7	68.6	- 6.7	68.6	- 6.7



AVERAGE VEHICLE SPEEDS - BY LINK

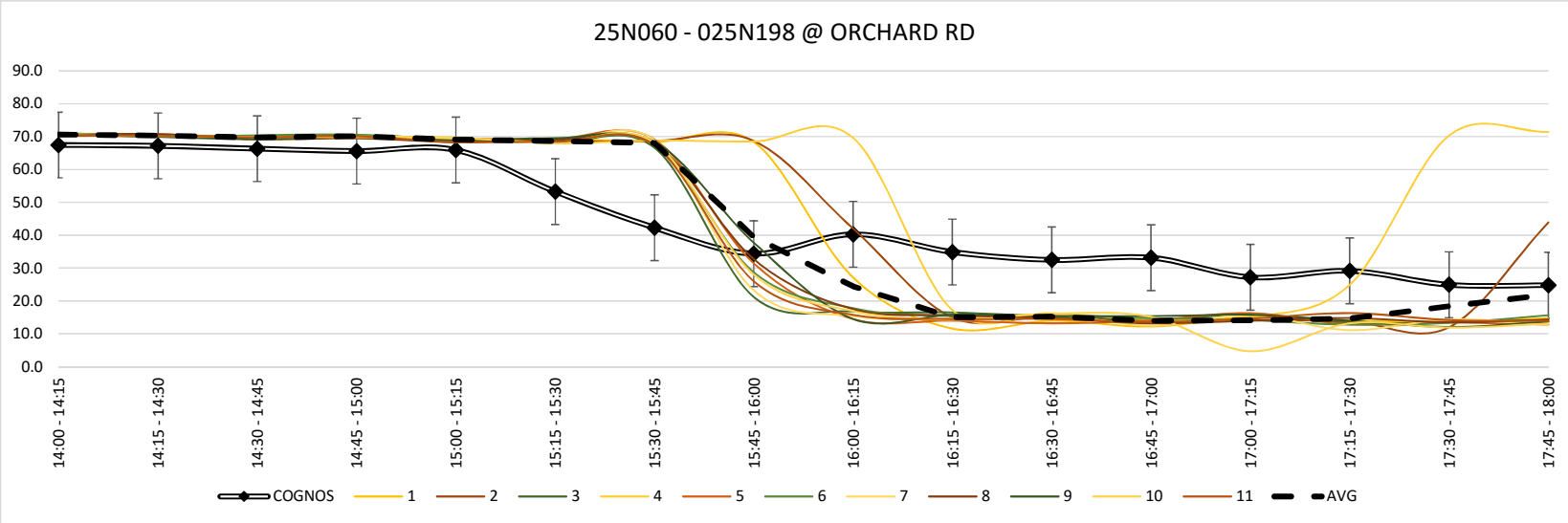
CONCEPT 2

ROUTE: I-25
PERIOD: PM

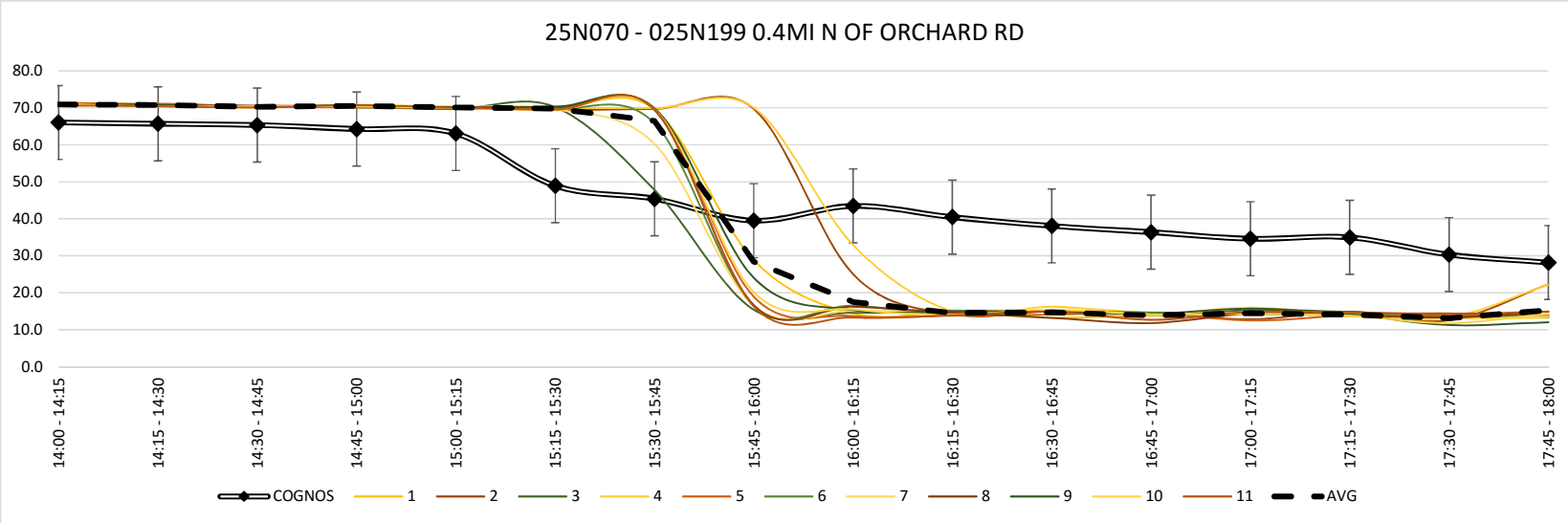


LOCATION	COGNOS DESCRIPTION
25N060	025N198 @ ORCHARD RD
25N070	025N199 0.4MI N OF ORCHARD RD
25N080	025N199 0.4MI S OF BELLEVIEW AVE
25N090	025S199 @ BELLVIEW AVE
25N100	025N200 BELLVIEW AVE TO I-25 NB (153)
25N110	025N200 @ I-225
25N130	025N201 0.2MI N OF I-225
25N140	025N201 I-225 TO HAMPDEN AVE 2 (132)
25N150	025N201 0.6MI S OF HAMPDEN AVE
25N200	025N203 0.4MI N OF YALE AVE (124)

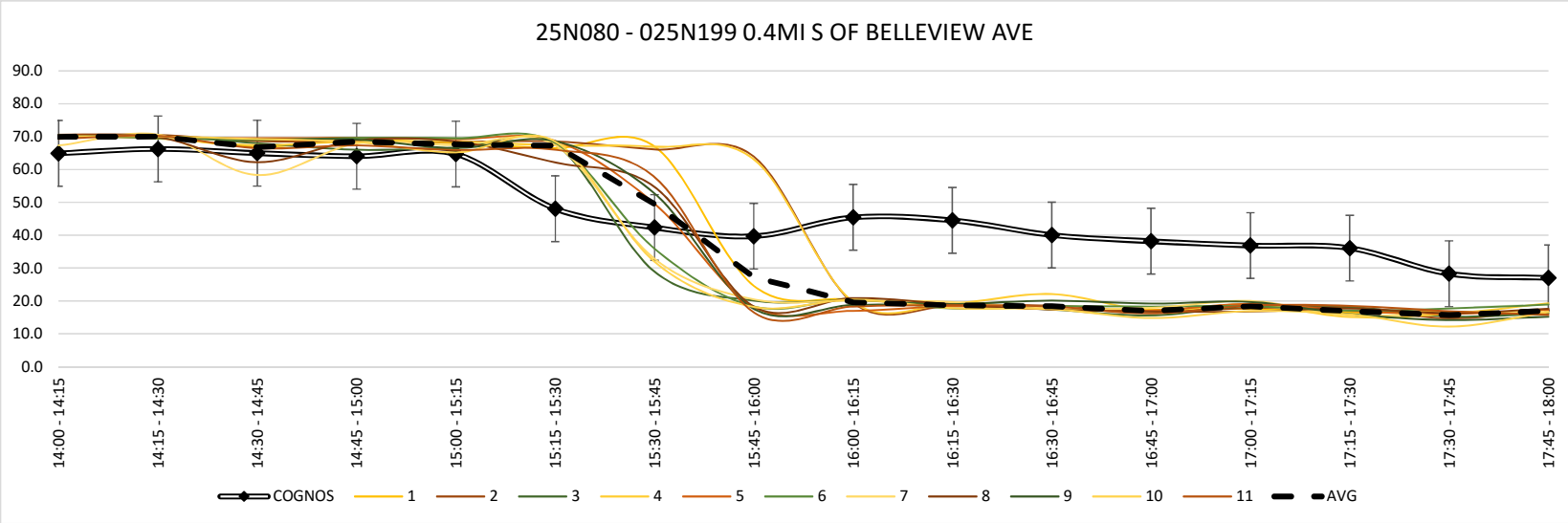
CONCEPT 2		Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run																							
PM	COGNOS	MODEL																						AGGREGATE	
TIME	25N060	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	67.4	70.4	- 3.0	71.0	- 3.6	70.9	- 3.5	70.7	- 3.3	70.2	- 2.8	70.7	- 3.3	70.7	- 3.3	70.3	- 2.9	70.6	- 3.2	70.4	- 3.0	70.2	- 2.8	70.6	- 3.2
14:15 - 14:30	67.2	70.5	- 3.3	70.3	- 3.1	70.6	- 3.4	70.3	- 3.1	70.5	- 3.3	70.0	- 2.8	70.3	- 3.1	70.8	- 3.6	69.9	- 2.7	70.2	- 3.0	70.3	- 3.1	70.3	- 3.1
14:30 - 14:45	66.3	70.1	- 3.8	70.0	- 3.7	69.5	- 3.2	69.2	- 2.9	69.8	- 3.5	70.4	- 4.1	69.4	- 3.1	69.2	- 2.9	69.2	- 2.9	69.9	- 3.6	69.8	- 3.5	69.7	- 3.4
14:45 - 15:00	65.6	70.3	- 4.7	70.3	- 4.7	70.3	- 4.7	69.6	- 4.0	70.3	- 4.7	70.6	- 5.0	70.0	- 4.4	69.5	- 3.9	69.9	- 4.3	69.8	- 4.2	70.1	- 4.5	70.1	- 4.5
15:00 - 15:15	65.9	69.3	- 3.4	69.4	- 3.5	69.0	- 3.1	69.7	- 3.8	69.2	- 3.3	69.2	- 3.3	69.5	- 3.6	68.3	- 2.4	68.8	- 2.9	69.5	- 3.6	68.3	- 2.4	69.1	- 3.2
15:15 - 15:30	53.3	69.3	-16.0	68.5	-15.2	68.0	-14.7	68.0	-14.7	69.3	-16.0	68.5	-15.2	68.0	-14.7	69.0	-15.7	69.5	-16.2	68.2	-14.9	68.4	-15.1	68.6	-15.3
15:30 - 15:45	42.3	68.4	-26.1	68.7	-26.4	66.6	-24.3	68.8	-26.5	69.1	-26.8	67.3	-25.0	68.9	-26.6	67.8	-25.5	68.4	-26.1	68.1	-25.8	67.3	-25.0	68.1	-25.8
15:45 - 16:00	34.4	68.3	-33.9	68.7	-34.3	21.2	13.2	68.5	-34.1	31.4	3.0	28.7	5.7	23.2	11.2	32.7	1.7	37.7	- 3.3	28.0	6.4	26.0	8.4	39.5	- 5.1
16:00 - 16:15	40.3	27.1	13.2	42.0	- 1.7	16.8	23.5	69.6	-29.3	14.5	25.8	17.8	22.5	15.4	24.9	17.5	22.8	14.5	25.8	16.9	23.4	15.8	24.5	24.4	15.9
16:15 - 16:30	34.9	11.6	23.3	15.0	19.9	16.5	18.4	17.2	17.7	14.0	20.9	15.4	19.5	14.6	20.3	15.7	19.2	15.8	19.1	14.3	20.6	14.5	20.4	15.0	19.9
16:30 - 16:45	32.5	14.0	18.5	15.5	17.0	15.2	17.3	16.3	16.2	13.2	19.3	15.7	16.8	15.9	16.6	14.8	17.7	15.5	17.0	16.1	16.4	14.5	18.0	15.2	17.3
16:45 - 17:00	33.2	12.2	21.0	13.9	19.3	14.2	19.0	14.4	18.8	14.1	19.1	14.7	18.5	12.5	20.7	13.2	20.0	15.4	17.8	15.2	18.0	13.6	19.6	14.0	19.2
17:00 - 17:15	27.2	15.2	12.0	14.2	13.0	15.9	11.3	15.1	12.1	16.3	10.9	14.1	13.1	15.7	11.5	14.0	13.2	15.8	11.4	4.7	22.5	14.6	12.6	14.1	13.1
17:15 - 17:30	29.1	14.1	15.0	13.8	15.3	13.3	15.8	24.9	4.2	12.9	16.2	12.8	16.3	11.1	18.0	14.8	14.3	14.0	15.1	13.2	15.9	16.3	12.8	14.7	14.4
17:30 - 17:45	24.9	13.7	11.2	12.0	12.9	13.6	11.3	70.3	-45.4	13.4	11.5	13.3	11.6	14.4	10.5	13.5	11.4	12.1	12.8	11.9	13.0	14.2	10.7	18.4	6.5
17:45 - 18:00	24.8	14.7	10.1	43.9	-19.1	14.2	10.6	71.4	-46.6	12.8	12.0	15.7	9.1	12.7	12.1	14.4	10.4	13.7	11.1	13.1	11.7	13.9	10.9	21.9	2.9
Hour 1	66.6	70.3	- 3.7	70.4	- 3.8	70.3	- 3.7	70.0	- 3.3	70.2	- 3.6	70.4	- 3.8	70.1	- 3.5	70.0	- 3.3	69.9	- 3.3	70.1	- 3.4	70.1	- 3.5	70.2	- 3.5
Hour 2	49.0	68.8	-19.9	68.8	-19.9	56.2	- 7.2	68.8	-19.8	59.8	-10.8	58.4	- 9.5	57.4	- 8.4	59.5	-10.5	61.1	-12.1	58.5	- 9.5	57.5	- 8.5	61.3	-12.4
Hour 3	35.2	16.2	19.0	21.6	13.6	15.7	19.5	29.4	5.8	14.0	21.3	15.9	19.3	14.6	20.6	15.3	19.9	15.3	19.9	15.6	19.6	14.6	20.6	17.2	18.1
Hour 4	26.5	14.4	12.1	21.0	5.5	14.3	12.3	45.4	-18.9	13.9	12.7	14.0	12.5	13.5	13.0	14.2	12.3	13.9	12.6	10.7	15.8	14.8	11.8	17.3	9.2
11	44.3	42.5	1.9	45.5	- 1.1	39.1	5.2	53.4	- 9.0	39.4	4.9	39.7	4.6	38.9	5.4	39.7	4.6	40.1	4.3	38.7	5.6	39.2	5.1	41.5	2.8



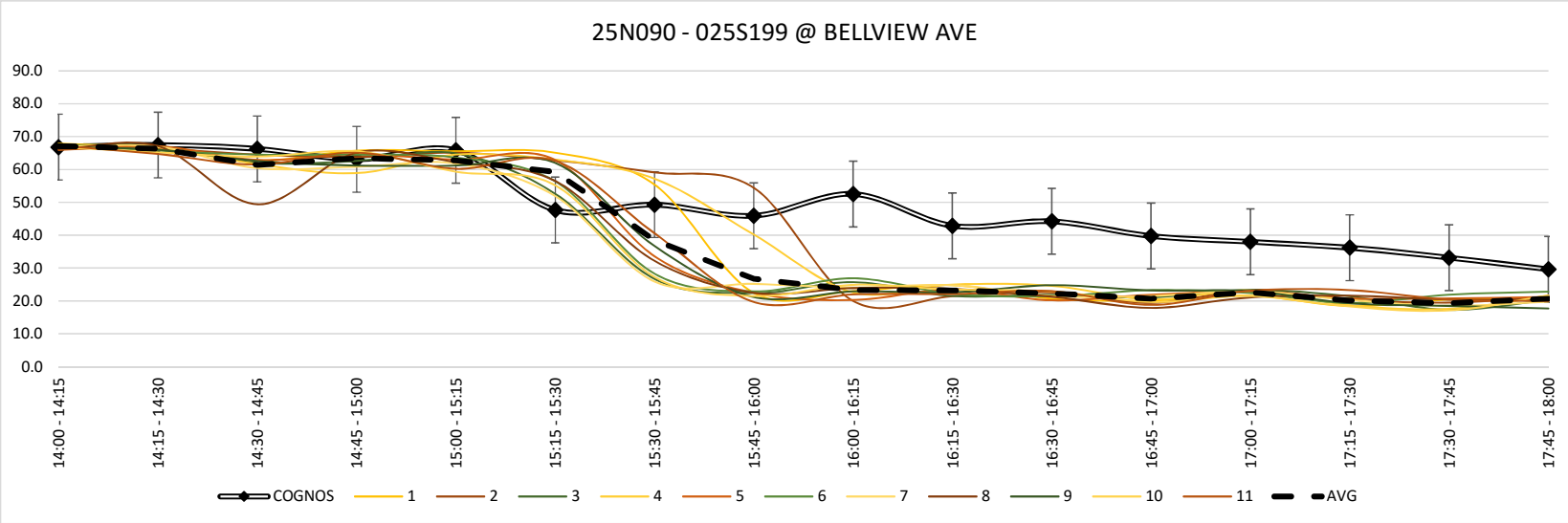
CONCEPT 2		Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run																							
PM	COGNOS	MODEL																						AGGREGATE	
TIME	25N070	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	66.0	71.3	- 5.3	71.2	- 5.2	70.8	- 4.8	70.5	- 4.5	70.7	- 4.7	70.7	- 4.7	70.8	- 4.8	71.0	- 5.0	70.9	- 4.9	71.1	- 5.1	70.7	- 4.7	70.9	- 4.9
14:15 - 14:30	65.7	70.9	- 5.2	70.9	- 5.2	70.9	- 5.2	70.8	- 5.1	71.1	- 5.4	70.7	- 5.0	70.8	- 5.1	70.8	- 5.1	70.8	- 5.1	70.4	- 4.7	70.4	- 4.7	70.8	- 5.1
14:30 - 14:45	65.3	70.1	- 4.8	70.6	- 5.3	70.4	- 5.1	70.3	- 5.0	70.3	- 5.0	70.3	- 5.0	70.2	- 4.9	70.4	- 5.1	70.3	- 5.0	70.4	- 5.1	70.1	- 4.8	70.3	- 5.0
14:45 - 15:00	64.3	70.8	- 6.5	70.4	- 6.1	70.1	- 5.8	70.2	- 5.9	70.1	- 5.8	70.5	- 6.2	70.7	- 6.4	70.5	- 6.2	70.7	- 6.4	70.4	- 6.1	70.7	- 6.4	70.5	- 6.2
15:00 - 15:15	63.1	70.1	- 7.0	70.2	- 7.1	69.7	- 6.6	70.1	- 7.0	70.1	- 7.0	70.2	- 7.1	70.3	- 7.2	70.2	- 7.1	69.8	- 6.7	69.9	- 6.8	70.0	- 6.9	70.1	- 7.0
15:15 - 15:30	48.9	70.0	-21.1	69.4	-20.5	70.2	-21.3	70.0	-21.1	69.6	-20.7	69.8	-20.9	69.6	-20.7	70.1	-21.2	70.3	-21.4	69.4	-20.5	69.5	-20.6	69.8	-20.9
15:30 - 15:45	45.4	69.6	-24.2	69.7	-24.3	47.8	- 2.4	69.9	-24.5	69.6	-24.2	65.8	-20.4	60.2	-14.8	69.4	-24.0	69.9	-24.5	69.6	-24.2	69.5	-24.1	66.5	-21.1
15:45 - 16:00	39.5	28.8	10.7	69.7	-30.2	15.4	24.1	70.0	-30.5	18.9	20.6	16.4	23.1	16.5	23.0	16.6	22.9	24.0	15.5	20.1	19.4	16.3	23.2	28.4	11.1
16:00 - 16:15	43.5	14.4	29.1	25.0	18.5	14.6	28.9	32.9	10.6	13.7	29.8	16.5	27.0	15.1	28.4	16.2	27.3	15.3	28.2	15.5	28.0	13.3	30.2	17.5	26.0
16:15 - 16:30	40.4	14.7	25.7	14.2	26.2	15.0	25.4	15.0	25.4	13.8	26.6	14.0	26.4	15.2	25.2	14.7	25.7	15.1	25.3	14.1	26.3	13.9	26.5	14.5	25.9
16:30 - 16:45	38.1	13.3	24.8	15.0	23.1	14.8	23.3	16.2	21.9	14.1	24.0	15.0	23.1	15.1	23.0	13.2	24.9	14.9	23.2	15.4	22.7	14.9	23.2	14.7	23.4
16:45 - 17:00	36.4	13.8	22.6	14.5	21.9	13.9	22.5	14.5	21.9	14.5	21.9	14.7	21.7	13.9	22.5	11.8	24.6	14.3	22.1	14.2	22.2	12.7	23.7	13.9	22.5
17:00 - 17:15	34.6	14.5	20.1	12.8	21.8	15.3	19.3	14.5	20.1	12.5	22.1	14.3	20.3	16.0	18.6	14.4	20.2	15.7	18.9	14.3	20.3	14.8	19.8	14.4	20.2
17:15 - 17:30	35.0	14.2	20.8	14.9	20.1	14.8	20.2	13.7	21.3	13.8	21.2	14.0	21.0	13.7	21.3	14.0	21.0	14.1	20.9	13.8	21.2	14.7	20.3	14.1	20.9
17:30 - 17:45	30.3	13.1	17.2	12.5	17.8	13.6	16.7	13.3	17.0	13.9	16.4	14.4	15.9	13.0	17.3	13.3	17.0	11.3	19.0	11.8	18.5	14.3	16.0	13.1	17.2
17:45 - 18:00	28.2	13.3	14.9	22.3	5.9	13.7	14.5	22.2	6.0	14.1	14.1	13.4	14.8	13.5	14.7	14.9	13.3	12.0	16.2	14.3	13.9	14.9	13.3	15.3	12.9
Hour 1	65.3	70.8	- 5.5	70.8	- 5.5	70.6	- 5.2	70.5	- 5.1	70.6	- 5.2	70.6	- 5.2	70.6	- 5.3	70.7	- 5.4	70.7	- 5.4	70.6	- 5.3	70.5	- 5.2	70.6	- 5.3
Hour 2	49.2	59.6	-10.4	69.8	-20.5	50.8	- 1.6	70.0	-20.8	57.1	- 7.8	55.6	- 6.3	54.2	- 4.9	56.6	- 7.4	58.5	- 9.3	57.3	- 8.0	56.3	- 7.1	58.7	- 9.5
Hour 3	39.6	14.1	25.5	17.2	22.4	14.6	25.0	19.7	19.9	14.0	25.6	15.1	24.5	14.8	24.8	14.0	25.6	14.9	24.7	14.8	24.8	13.7	25.9	15.2	24.4
Hour 4	32.0	13.8	18.2	15.6	16.4	14.4	17.7	15.9	16.1	13.6	18.4	14.0	18.0	14.1	18.0	14.2	17.9	13.3	18.7	13.6	18.5	14.7	17.3	14.2	17.8
11	46.5	39.6	7.0	43.3	3.2	37.6	9.0	44.0	2.5	38.8	7.7	38.8	7.7	38.4	8.1	38.8	7.7	39.3	7.2	39.0	7.5	38.8	7.7	39.7	6.9



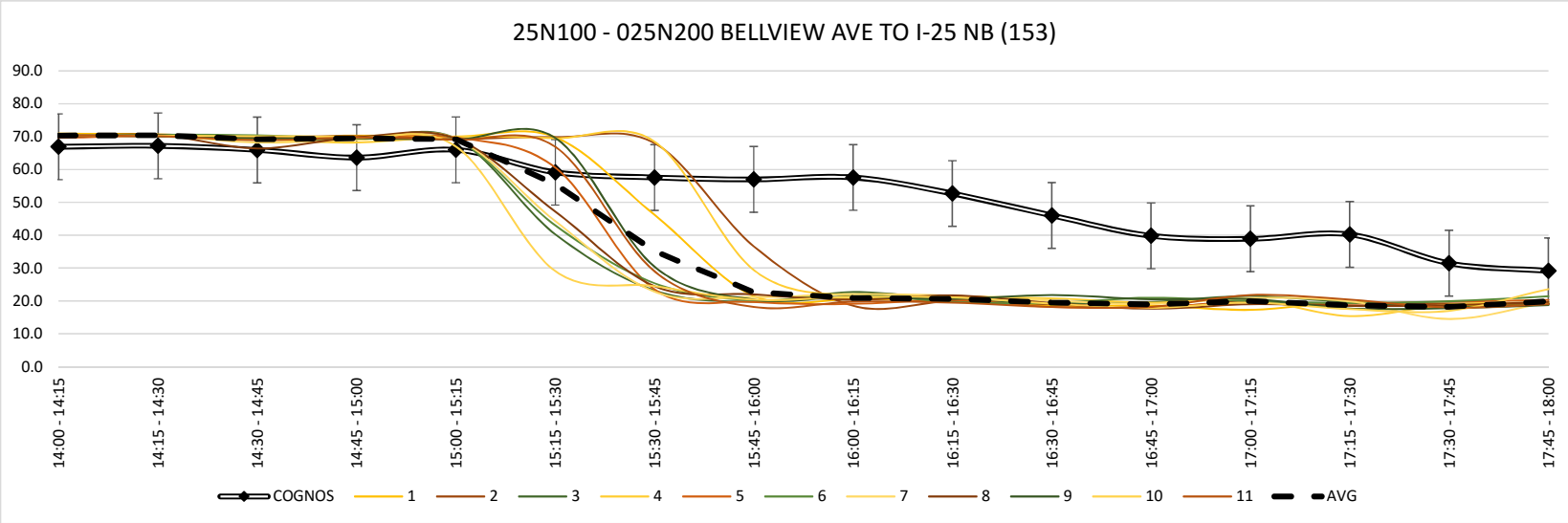
CONCEPT 2		Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run																							
PM	COGNOS	MODEL																						AGGREGATE	
TIME	25N080	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	64.9	70.4	- 5.5	70.6	- 5.7	70.0	- 5.1	70.4	- 5.5	70.2	- 5.3	70.4	- 5.5	67.3	- 2.4	70.2	- 5.3	70.1	- 5.2	70.1	- 5.2	69.3	- 4.4	69.9	- 5.0
14:15 - 14:30	66.2	69.8	- 3.6	70.5	- 4.3	70.2	- 4.0	69.4	- 3.2	69.7	- 3.5	69.5	- 3.3	70.6	- 4.4	69.8	- 3.6	70.0	- 3.8	70.0	- 3.8	70.2	- 4.0	70.0	- 3.8
14:30 - 14:45	65.0	66.9	- 2.0	68.6	- 3.6	68.0	- 3.1	67.4	- 2.5	69.5	- 4.6	69.0	- 4.1	58.3	6.7	62.2	2.8	69.2	- 4.3	69.3	- 4.3	66.5	- 1.6	66.8	- 1.8
14:45 - 15:00	64.0	69.0	- 5.0	68.6	- 4.6	66.0	- 2.0	68.5	- 4.5	69.6	- 5.6	69.6	- 5.6	67.9	- 3.9	68.8	- 4.8	69.1	- 5.1	68.3	- 4.3	67.3	- 3.3	68.4	- 4.4
15:00 - 15:15	64.7	68.0	- 3.3	68.4	- 3.7	66.6	- 1.9	68.5	- 3.8	69.2	- 4.5	69.5	- 4.8	67.4	- 2.7	68.5	- 3.8	66.5	- 1.8	65.2	- 0.5	65.9	- 1.2	67.6	- 2.9
15:15 - 15:30	48.1	66.5	-18.4	68.5	-20.4	67.6	-19.5	67.3	-19.2	68.7	-20.6	68.1	-20.0	67.4	-19.3	62.1	-14.0	68.6	-20.5	68.5	-20.4	66.0	-17.9	67.2	-19.1
15:30 - 15:45	42.3	67.0	-24.7	66.1	-23.8	28.9	13.4	66.9	-24.6	49.6	- 7.3	35.9	6.4	32.8	9.5	54.7	-12.4	52.7	-10.4	31.9	10.4	57.7	-15.4	49.5	- 7.2
15:45 - 16:00	39.7	24.6	15.1	63.9	-24.2	20.1	19.6	63.1	-23.4	18.2	21.5	18.3	21.4	20.5	19.2	18.3	21.4	17.6	22.1	18.2	21.5	16.5	23.2	27.2	12.5
16:00 - 16:15	45.4	20.5	24.9	19.4	26.0	20.2	25.2	19.7	25.7	17.0	28.4	20.6	24.8	20.1	25.3	20.9	24.5	18.8	26.6	20.4	25.0	18.3	27.1	19.6	25.8
16:15 - 16:30	44.5	18.8	25.7	18.5	26.0	18.9	25.6	19.3	25.2	18.4	26.1	17.7	26.8	19.7	24.8	19.0	25.5	19.0	25.5	17.8	26.7	18.7	25.8	18.7	25.8
16:30 - 16:45	40.1	17.5	22.6	18.6	21.5	17.4	22.7	22.1	18.0	17.5	22.6	18.4	21.7	17.7	22.4	17.4	22.7	20.1	20.0	17.5	22.6	18.3	21.8	18.4	21.7
16:45 - 17:00	38.2	17.3	20.9	16.9	21.3	15.6	22.6	17.1	21.1	17.1	21.1	18.3	19.9	17.9	20.3	16.8	21.4	19.2	19.0	14.8	23.4	16.2	22.0	17.0	21.2
17:00 - 17:15	36.9	17.6	19.3	17.8	19.1	18.5	18.4	19.0	17.9	19.1	17.8	18.4	18.5	20.0	16.9	16.8	20.1	19.7	17.2	16.9	20.0	18.6	18.3	18.4	18.5
17:15 - 17:30	36.1	16.5	19.6	18.0	18.1	18.2	17.9	15.1	21.0	17.0	19.1	17.1	19.0	15.5	20.6	17.7	18.4	16.0	20.1	15.9	20.2	18.5	17.6	16.9	19.2
17:30 - 17:45	28.3	16.7	11.6	14.7	13.6	15.3	13.0	16.1	12.2	16.1	12.2	17.7	10.6	16.6	11.7	16.3	12.0	14.2	14.1	12.2	16.1	16.9	11.4	15.7	12.6
17:45 - 18:00	27.0	16.5	10.5	17.5	9.5	16.2	10.8	19.3	7.7	17.3	9.7	18.9	8.1	16.7	10.3	17.6	9.4	15.2	11.8	16.6	10.4	15.8	11.2	17.0	10.0
Hour 1	65.0	69.0	- 4.0	69.6	- 4.5	68.6	- 3.5	68.9	- 3.9	69.8	- 4.7	69.6	- 4.6	66.0	- 1.0	67.8	- 2.7	69.6	- 4.6	69.4	- 4.4	68.3	- 3.3	68.8	- 3.7
Hour 2	48.7	56.5	- 7.8	66.7	-18.0	45.8	2.9	66.5	-17.8	51.4	- 2.7	48.0	0.7	47.0	1.7	50.9	- 2.2	51.4	- 2.7	46.0	2.7	51.5	- 2.8	52.9	- 4.2
Hour 3	42.0	18.5	23.5	18.4	23.7	18.0	24.0	19.6	22.5	17.5	24.5	18.8	23.3	18.9	23.2	18.5	23.5	19.3	22.8	17.6	24.4	17.9	24.2	18.4	23.6
Hour 4	32.1	16.8	15.2	17.0	15.1	17.1	15.0	17.4	14.7	17.4	14.7	18.0	14.0	17.2	14.9	17.1	15.0	16.3	15.8	15.4	16.7	17.5	14.6	17.0	15.1
11	47.0	40.2	6.7	42.9	4.0	37.4	9.6	43.1	3.9	39.0	7.9	38.6	8.4	37.3	9.7	38.6	8.4	39.1	7.8	37.1	9.9	38.8	8.2	39.3	7.7



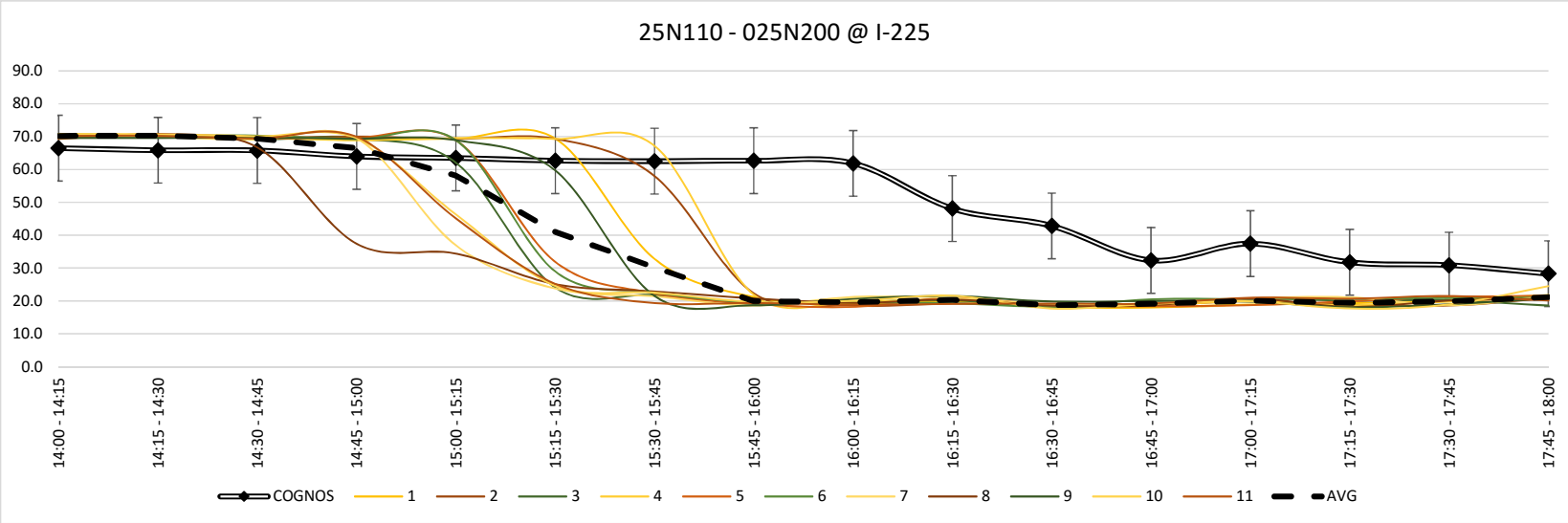
CONCEPT 2		Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run																							
PM	COGNOS	MODEL																						AGGREGATE	
TIME	25N090	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	66.8	67.9	- 1.1	67.6	- 0.8	67.4	- 0.6	67.5	- 0.7	65.9	0.9	67.7	- 0.9	67.0	- 0.2	66.2	0.6	66.7	0.1	66.8	0.0	67.3	- 0.5	67.1	- 0.3
14:15 - 14:30	67.4	66.4	1.0	66.5	0.9	67.1	0.3	66.7	0.7	67.1	0.3	65.7	1.7	66.9	0.5	67.1	0.3	66.0	1.4	65.2	2.2	64.7	2.7	66.3	1.1
14:30 - 14:45	66.3	62.7	3.6	64.5	1.8	62.0	4.3	61.6	4.7	62.9	3.4	64.5	1.8	60.4	5.9	49.4	16.9	62.6	3.7	63.9	2.4	61.5	4.8	61.4	4.9
14:45 - 15:00	63.1	65.7	- 2.6	63.8	- 0.7	62.6	0.5	58.9	4.2	64.6	- 1.5	64.5	- 1.4	60.8	2.3	65.1	- 2.0	61.2	1.9	65.5	- 2.4	65.1	- 2.0	63.4	- 0.3
15:00 - 15:15	65.8	65.5	0.3	65.1	0.7	64.9	0.9	64.5	1.3	63.0	2.8	63.6	2.2	61.8	4.0	62.2	3.6	61.2	4.6	59.3	6.5	60.2	5.6	62.8	3.0
15:15 - 15:30	47.7	65.1	-17.4	62.8	-15.1	52.6	- 4.9	63.0	-15.3	62.9	-15.2	56.4	- 8.7	51.9	- 4.2	56.5	- 8.8	62.0	-14.3	55.2	- 7.5	62.6	-14.9	59.2	-11.5
15:30 - 15:45	49.3	55.4	- 6.1	59.1	- 9.8	26.7	22.6	57.2	- 7.9	33.6	15.7	28.3	21.0	25.9	23.4	32.2	17.1	36.7	12.6	27.3	22.0	40.6	8.7	38.5	10.8
15:45 - 16:00	45.9	22.4	23.5	54.4	- 8.5	22.4	23.5	40.2	5.7	22.5	23.4	22.9	23.0	25.2	20.7	22.5	23.4	21.2	24.7	21.5	24.4	19.7	26.2	26.8	19.1
16:00 - 16:15	52.5	23.0	29.5	20.0	32.5	25.7	26.8	22.6	29.9	20.3	32.2	26.9	25.6	24.1	28.4	23.9	28.6	22.9	29.6	24.9	27.6	22.0	30.5	23.3	29.2
16:15 - 16:30	42.9	24.8	18.1	21.4	21.5	21.5	21.4	25.0	17.9	23.5	19.4	22.2	20.7	24.8	18.1	23.7	19.2	22.6	20.3	23.5	19.4	22.1	20.8	23.2	19.7
16:30 - 16:45	44.2	20.7	23.5	22.6	21.6	21.9	22.3	24.6	19.6	20.2	24.0	21.4	22.8	21.5	22.7	21.3	22.9	24.8	19.4	22.9	21.3	23.0	21.2	22.3	21.9
16:45 - 17:00	39.8	20.1	19.7	19.4	20.4	21.1	18.7	20.5	19.3	21.9	17.9	23.3	16.5	21.5	18.3	17.9	21.9	23.2	16.6	19.7	20.1	18.8	21.0	20.7	19.1
17:00 - 17:15	38.0	21.6	16.4	23.2	14.8	23.4	14.6	23.2	14.8	22.9	15.1	22.4	15.6	23.0	15.0	21.1	16.9	23.0	15.0	21.5	16.5	23.1	14.9	22.6	15.4
17:15 - 17:30	36.2	18.5	17.7	20.4	15.8	21.4	14.8	18.7	17.5	20.8	15.4	19.4	16.8	20.3	15.9	21.6	14.6	19.3	16.9	18.3	17.9	23.3	12.9	20.2	16.0
17:30 - 17:45	33.2	20.4	12.8	19.5	13.7	17.3	15.9	17.6	15.6	20.8	12.4	21.9	11.3	18.5	14.7	20.4	12.8	18.5	14.7	17.1	16.1	20.4	12.8	19.3	13.9
17:45 - 18:00	29.6	20.5	9.1	21.3	8.3	20.3	9.3	21.6	8.0	21.2	8.4	22.8	6.8	19.8	9.8	20.4	9.2	17.7	11.9	21.7	7.9	20.0	9.6	20.7	8.9
Hour 1	65.9	65.7	0.2	65.6	0.3	64.8	1.1	63.7	2.2	65.1	0.8	65.6	0.3	63.8	2.1	62.0	3.9	64.1	1.8	65.4	0.5	64.7	1.2	64.6	1.3
Hour 2	52.2	52.1	0.1	60.4	- 8.2	41.7	10.5	56.2	- 4.1	45.5	6.7	42.8	9.4	41.2	11.0	43.4	8.8	45.3	6.9	40.8	11.3	45.8	6.4	46.8	5.3
Hour 3	44.8	22.2	22.7	20.9	24.0	22.6	22.3	23.2	21.7	21.5	23.4	23.5	21.4	23.0	21.9	21.7	23.1	23.4	21.5	22.8	22.1	21.5	23.4	22.4	22.5
Hour 4	34.2	20.3	14.0	21.1	13.1	20.6	13.6	20.3	14.0	21.4	12.8	21.6	12.6	20.4	13.8	20.9	13.4	19.6	14.6	19.7	14.6	21.7	12.5	20.7	13.5
11	49.3	40.0	9.2	42.0	7.3	37.4	11.9	40.8	8.4	38.4	10.9	38.4	10.9	37.1	12.2	37.0	12.3	38.1	11.2	37.1	12.1	38.4	10.9	38.6	10.7



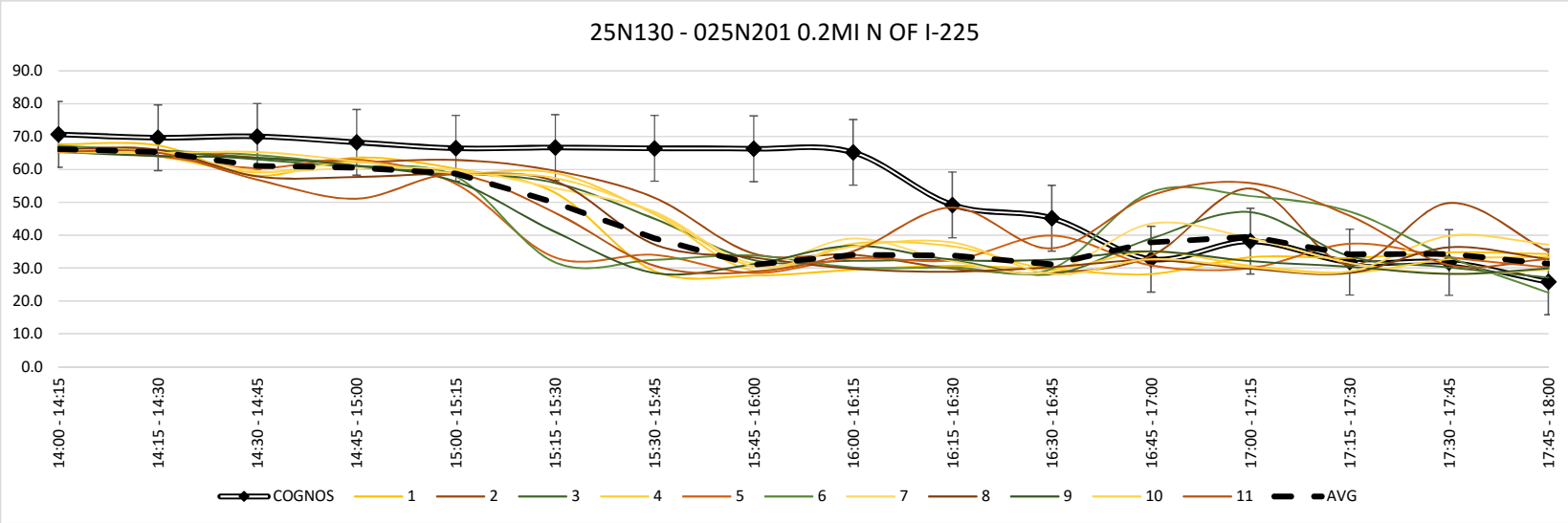
CONCEPT 2		Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run																							
PM	COGNOS	MODEL																						AGGREGATE	
TIME	25N100	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	66.9	70.9	- 4.0	70.1	- 3.2	70.4	- 3.5	70.6	- 3.7	69.6	- 2.7	70.4	- 3.5	70.5	- 3.6	69.9	- 3.0	70.5	- 3.6	70.4	- 3.5	70.4	- 3.5	70.3	- 3.4
14:15 - 14:30	67.2	70.7	- 3.5	70.6	- 3.4	70.0	- 2.8	70.3	- 3.1	70.2	- 3.0	70.6	- 3.4	70.3	- 3.1	70.5	- 3.3	70.4	- 3.2	70.3	- 3.1	70.1	- 2.9	70.4	- 3.2
14:30 - 14:45	65.9	69.5	- 3.6	69.9	- 4.0	69.2	- 3.3	69.2	- 3.3	69.5	- 3.6	70.4	- 4.5	68.2	- 2.3	66.4	- 0.5	69.5	- 3.6	70.1	- 4.2	68.9	- 3.0	69.2	- 3.3
14:45 - 15:00	63.6	70.3	- 6.7	70.1	- 6.5	69.1	- 5.5	68.2	- 4.6	69.8	- 6.2	69.5	- 5.9	69.0	- 5.4	69.8	- 6.2	69.5	- 5.9	69.7	- 6.1	69.7	- 6.1	69.5	- 5.9
15:00 - 15:15	66.0	70.0	- 4.0	69.3	- 3.3	69.4	- 3.4	70.0	- 4.0	69.7	- 3.7	69.2	- 3.2	69.4	- 3.4	69.4	- 3.4	69.1	- 3.1	67.0	- 1.0	69.0	- 3.0	69.2	- 3.2
15:15 - 15:30	59.2	69.8	-10.7	69.8	-10.7	40.3	18.9	69.5	-10.4	60.6	- 1.5	43.0	16.2	44.3	14.9	47.2	12.0	69.6	-10.5	29.1	30.1	66.9	- 7.8	55.5	3.7
15:30 - 15:45	57.6	46.2	11.4	68.0	-10.4	23.2	34.4	68.5	-10.9	23.5	34.1	25.4	32.2	22.8	34.8	24.5	33.1	30.4	27.2	24.5	33.1	29.0	28.6	35.1	22.5
15:45 - 16:00	57.0	21.5	35.5	36.6	20.4	19.8	37.2	29.4	27.6	19.7	37.3	20.2	36.8	21.2	35.8	22.0	35.0	20.4	36.6	20.4	36.6	18.2	38.8	22.7	34.3
16:00 - 16:15	57.6	20.5	37.1	18.5	39.1	22.7	34.9	21.4	36.2	19.1	38.5	22.1	35.5	22.1	35.5	20.4	37.2	21.4	36.2	21.2	36.4	19.8	37.8	20.9	36.7
16:15 - 16:30	52.7	20.6	32.1	20.0	32.7	20.4	32.3	21.3	31.4	20.3	32.4	19.7	33.0	21.6	31.1	21.7	31.0	20.6	32.1	21.1	31.6	19.5	33.2	20.6	32.1
16:30 - 16:45	46.0	18.6	27.4	19.0	27.0	19.3	26.7	20.8	25.2	18.2	27.8	19.4	26.6	20.1	25.9	19.4	26.6	21.8	24.2	19.2	26.8	18.2	27.8	19.5	26.5
16:45 - 17:00	39.8	18.6	21.2	18.0	21.8	19.7	20.1	19.5	20.3	18.2	21.6	21.0	18.8	19.1	20.7	17.6	22.2	20.5	19.3	17.9	21.9	18.2	21.6	18.9	20.9
17:00 - 17:15	38.9	17.3	21.6	19.9	19.0	21.5	17.4	20.5	18.4	19.6	19.3	19.9	19.0	20.9	18.0	19.0	19.9	20.6	18.3	19.5	19.4	21.8	17.1	20.0	18.9
17:15 - 17:30	40.2	19.6	20.6	18.6	21.6	19.6	20.6	15.4	24.8	19.2	21.0	19.4	20.8	19.9	20.3	18.5	21.7	17.7	22.5	17.5	22.7	20.4	19.8	18.7	21.5
17:30 - 17:45	31.5	18.5	13.0	19.2	12.3	18.2	13.3	18.9	12.6	19.8	11.7	19.9	11.6	14.5	17.0	18.7	12.8	17.8	13.7	17.0	14.5	18.0	13.5	18.2	13.3
17:45 - 18:00	29.2	19.5	9.7	19.1	10.1	18.9	10.3	19.6	9.6	20.3	8.9	21.4	7.8	19.6	9.6	19.7	9.5	18.7	10.5	23.6	5.6	19.0	10.2	19.9	9.3
Hour 1	65.9	70.4	- 4.4	70.2	- 4.3	69.7	- 3.8	69.6	- 3.7	69.8	- 3.9	70.2	- 4.3	69.5	- 3.6	69.2	- 3.2	70.0	- 4.1	70.1	- 4.2	69.8	- 3.9	69.9	- 3.9
Hour 2	59.9	51.9	8.0	60.9	- 1.0	38.2	21.7	59.4	0.6	43.4	16.5	39.5	20.5	39.4	20.5	40.8	19.1	47.4	12.5	35.3	24.7	45.8	14.1	45.6	14.3
Hour 3	49.0	19.6	29.4	18.9	30.1	20.5	28.5	20.8	28.3	19.0	30.1	20.6	28.5	20.7	28.3	19.8	29.2	21.1	27.9	19.9	29.2	18.9	30.1	20.0	29.0
Hour 4	34.9	18.7	16.2	19.2	15.7	19.6	15.4	18.6	16.3	19.7	15.2	20.2	14.8	18.7	16.2	19.0	16.0	18.7	16.2	19.4	15.5	19.8	15.1	19.2	15.7
11	52.4	40.1	12.3	42.3	10.1	37.0	15.5	42.1	10.4	38.0	14.5	37.6	14.8	37.1	15.3	37.2	15.3	39.3	13.2	36.2	16.3	38.6	13.9	38.7	13.8



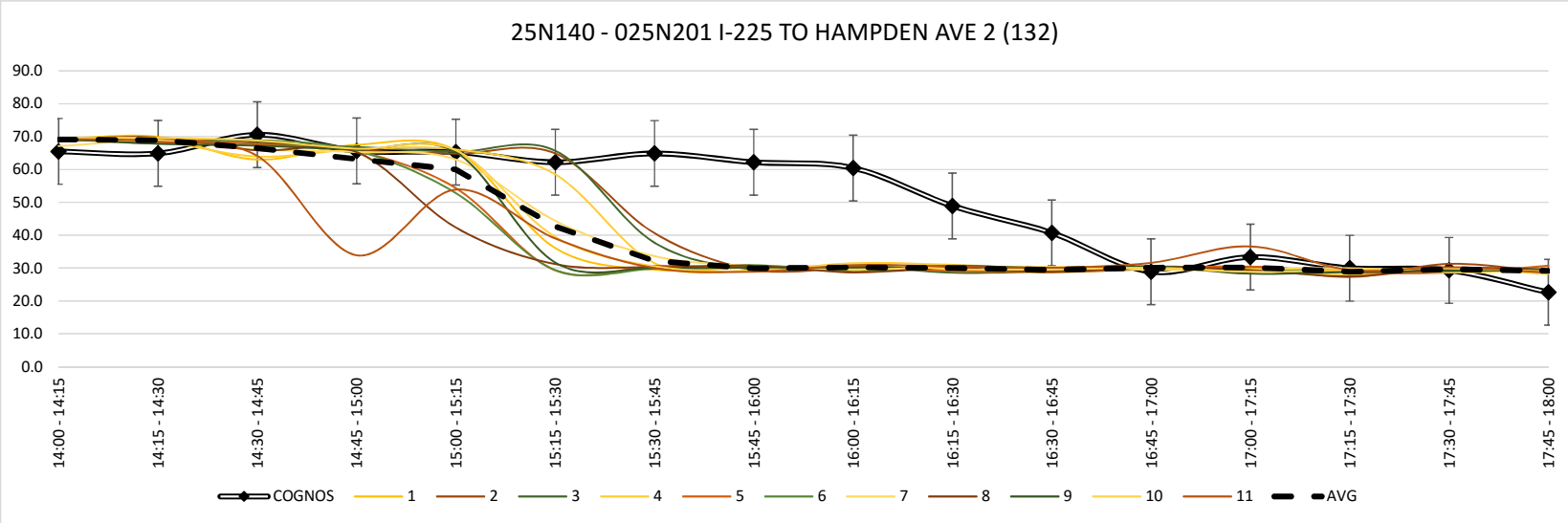
CONCEPT 2		Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run																							
PM	COGNOS	MODEL																						AGGREGATE	
TIME	25N110	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	66.5	70.7	- 4.2	69.3	- 2.8	70.4	- 3.9	70.2	- 3.7	69.7	- 3.2	70.8	- 4.3	70.6	- 4.1	70.1	- 3.6	69.6	- 3.1	70.8	- 4.3	70.2	- 3.7	70.2	- 3.7
14:15 - 14:30	65.9	70.5	- 4.7	70.8	- 5.0	70.2	- 4.4	70.2	- 4.4	70.2	- 4.4	70.3	- 4.5	69.9	- 4.1	70.3	- 4.5	69.6	- 3.8	70.7	- 4.9	70.2	- 4.4	70.3	- 4.5
14:30 - 14:45	65.8	69.8	- 4.0	69.7	- 3.9	69.1	- 3.3	69.6	- 3.8	69.4	- 3.6	70.3	- 4.5	69.0	- 3.2	66.7	- 0.9	69.6	- 3.8	70.1	- 4.3	69.4	- 3.6	69.4	- 3.6
14:45 - 15:00	64.0	69.0	- 5.0	70.0	- 6.0	69.4	- 5.4	68.9	- 4.9	69.7	- 5.7	69.2	- 5.2	69.5	- 5.5	37.4	26.6	69.4	- 5.4	69.5	- 5.5	69.9	- 5.9	66.5	- 2.5
15:00 - 15:15	63.5	69.4	- 5.9	69.3	- 5.8	62.1	1.4	69.5	- 6.0	68.9	- 5.4	68.9	- 5.4	36.9	26.6	34.4	29.1	68.9	- 5.4	46.3	17.2	45.1	18.4	58.1	5.4
15:15 - 15:30	62.7	69.4	- 6.7	69.3	- 6.6	24.1	38.6	69.3	- 6.6	31.9	30.8	29.0	33.7	23.8	38.9	25.1	37.6	59.7	3.0	24.6	38.1	25.2	37.5	41.0	21.7
15:30 - 15:45	62.5	32.8	29.7	58.0	4.5	21.8	40.7	67.2	- 4.7	22.3	40.2	22.6	39.9	21.4	41.1	22.9	39.6	21.5	41.0	22.5	40.0	19.4	43.1	30.2	32.3
15:45 - 16:00	62.6	21.2	41.4	22.3	40.3	19.3	43.3	21.9	40.7	19.1	43.5	19.6	43.0	18.6	44.0	20.8	41.8	18.7	43.9	19.7	42.9	19.4	43.2	20.0	42.6
16:00 - 16:15	61.9	19.1	42.8	18.6	43.3	19.8	42.1	19.8	42.1	18.2	43.7	19.6	42.3	21.2	40.7	19.4	42.5	20.6	41.3	20.0	41.9	18.8	43.1	19.6	42.3
16:15 - 16:30	48.1	20.0	28.1	19.2	28.9	20.2	27.9	20.6	27.5	20.9	27.2	19.3	28.8	20.9	27.2	20.4	27.7	21.5	26.6	21.6	26.5	19.1	29.0	20.3	27.8
16:30 - 16:45	42.8	18.1	24.7	18.7	24.1	18.1	24.7	18.9	23.9	18.8	24.0	18.3	24.5	19.0	23.8	18.6	24.2	19.8	23.0	17.7	25.1	19.2	23.6	18.7	24.1
16:45 - 17:00	32.3	18.0	14.3	18.6	13.7	19.1	13.2	18.8	13.5	18.4	13.9	20.5	11.8	19.3	13.0	18.7	13.6	20.0	12.3	19.1	13.2	19.2	13.1	19.1	13.2
17:00 - 17:15	37.4	18.9	18.5	20.0	17.4	20.7	16.7	19.9	17.5	18.7	18.7	20.6	16.8	20.8	16.6	20.7	16.7	19.8	17.6	19.9	17.5	21.0	16.4	20.1	17.3
17:15 - 17:30	31.8	19.3	12.5	18.8	13.0	20.1	11.7	18.7	13.1	19.9	11.9	20.7	11.1	21.1	10.7	18.2	13.6	18.1	13.7	17.7	14.1	20.7	11.1	19.4	12.4
17:30 - 17:45	30.9	20.3	10.6	18.6	12.3	20.2	10.7	19.8	11.1	21.2	9.7	20.9	10.0	18.7	12.2	20.1	10.8	19.0	11.9	18.9	12.0	21.5	9.4	19.9	11.0
17:45 - 18:00	28.3	21.8	6.5	20.8	7.5	18.6	9.7	21.2	7.1	21.6	6.7	21.1	7.2	21.4	6.9	20.7	7.6	20.8	7.5	24.5	3.8	20.1	8.2	21.2	7.1
Hour 1	65.5	70.0	- 4.5	70.0	- 4.4	69.8	- 4.3	69.7	- 4.2	69.8	- 4.2	70.2	- 4.6	69.8	- 4.2	61.1	4.4	69.6	- 4.0	70.3	- 4.8	69.9	- 4.4	69.1	- 3.6
Hour 2	62.8	48.2	14.6	54.7	8.1	31.8	31.0	57.0	5.9	35.6	27.3	35.0	27.8	25.2	37.7	25.8	37.0	42.2	20.6	28.3	34.6	27.3	35.6	37.3	25.5
Hour 3	46.3	18.8	27.5	18.8	27.5	19.3	27.0	19.5	26.8	19.1	27.2	19.4	26.9	20.1	26.2	19.3	27.0	20.5	25.8	19.6	26.7	19.1	27.2	19.4	26.9
Hour 4	32.1	20.1	12.0	19.6	12.5	19.9	12.2	19.9	12.2	20.4	11.7	20.8	11.3	20.5	11.6	19.9	12.2	19.4	12.7	20.3	11.8	20.8	11.3	20.2	11.9
11	51.7	39.3	12.4	40.8	10.9	35.2	16.5	41.5	10.1	36.2	15.5	36.4	15.3	33.9	17.8	31.5	20.1	37.9	13.8	34.6	17.1	34.3	17.4	36.5	15.2



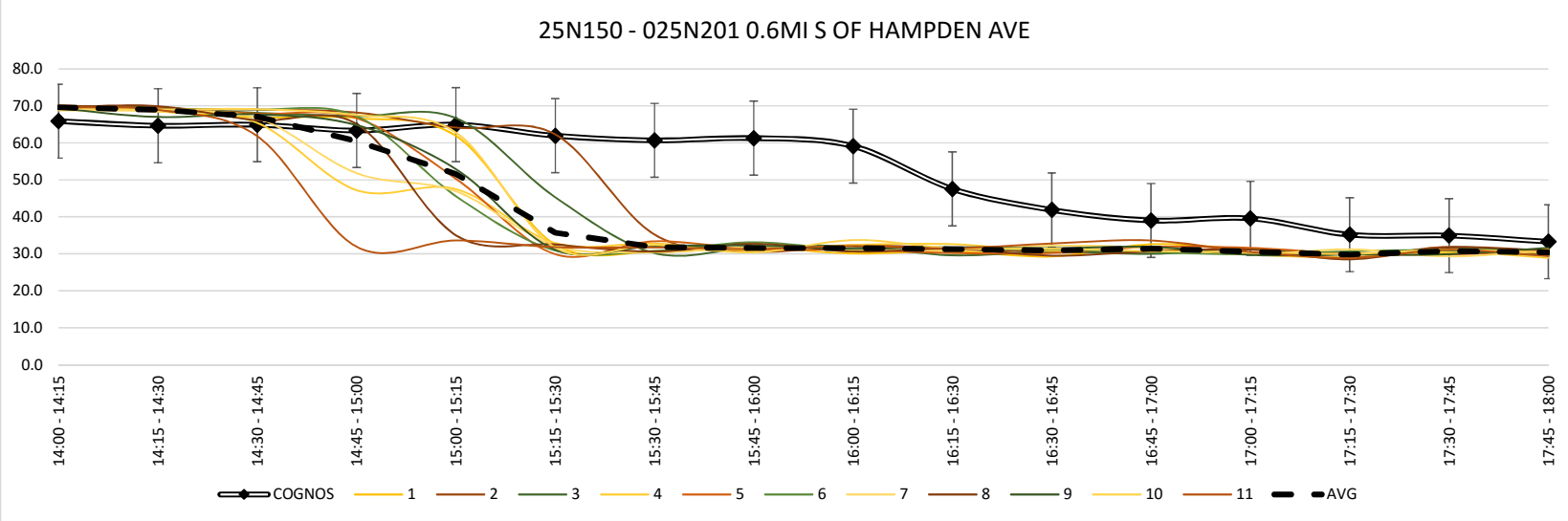
CONCEPT 2		Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run																							
PM	COGNOS	MODEL																						AGGREGATE	
TIME	25N130	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	70.7	67.7	3.0	66.1	4.6	66.5	4.2	66.8	3.9	65.6	5.1	67.2	3.5	66.4	4.3	66.3	4.4	65.3	5.4	65.3	5.4	65.5	5.2	66.2	4.5
14:15 - 14:30	69.7	67.3	2.4	65.8	3.9	65.6	4.1	64.0	5.7	64.0	5.7	65.7	4.0	65.5	4.2	66.0	3.7	64.1	5.6	65.0	4.7	65.1	4.6	65.3	4.4
14:30 - 14:45	70.1	58.1	12.0	63.6	6.5	63.0	7.1	59.1	11.0	60.4	9.7	64.4	5.6	59.5	10.6	57.9	12.2	63.5	6.6	65.3	4.8	56.9	13.2	61.1	9.0
14:45 - 15:00	68.3	63.6	4.7	62.3	6.0	60.7	7.6	62.3	6.0	63.0	5.3	61.2	7.1	60.5	7.8	57.7	10.6	61.1	7.2	62.5	5.8	51.1	17.2	60.5	7.8
15:00 - 15:15	66.4	60.2	6.2	62.9	3.5	58.9	7.5	58.9	7.5	55.6	10.8	57.9	8.5	59.8	6.6	58.6	7.8	56.3	10.1	58.8	7.6	58.4	8.0	58.8	7.6
15:15 - 15:30	66.7	52.9	13.8	59.6	7.1	55.9	10.8	58.9	7.8	33.2	33.5	31.7	35.0	54.3	12.4	56.4	10.3	41.0	25.7	57.4	9.3	46.8	19.9	49.8	16.9
15:30 - 15:45	66.4	29.1	37.3	51.4	15.0	45.0	21.4	46.4	20.0	34.0	32.4	32.5	33.9	47.1	19.3	37.2	29.2	28.5	37.9	46.9	19.5	30.7	35.7	39.0	27.4
15:45 - 16:00	66.3	27.7	38.6	34.4	31.9	32.4	33.9	29.2	37.1	28.5	37.8	33.8	32.5	31.4	34.9	33.2	33.1	31.2	35.1	30.5	35.8	28.9	37.4	31.0	35.3
16:00 - 16:15	65.2	29.5	35.7	34.1	31.1	32.2	33.0	37.4	27.8	33.0	32.2	30.2	35.0	39.0	26.2	29.8	35.4	36.8	28.4	36.6	28.6	35.1	30.1	34.0	31.2
16:15 - 16:30	49.2	30.7	18.5	29.8	19.4	32.2	17.0	36.6	12.6	32.4	16.8	30.2	19.0	32.1	17.1	28.9	20.3	32.6	16.6	37.8	11.4	48.4	0.8	33.8	15.4
16:30 - 16:45	45.2	29.6	15.6	28.6	16.6	28.1	17.1	30.0	15.2	39.9	5.3	29.8	15.4	28.9	16.3	30.3	14.9	32.6	12.6	28.2	17.0	36.0	9.2	31.1	14.1
16:45 - 17:00	32.7	28.2	4.5	33.7	- 1.0	39.0	- 6.3	35.0	- 2.3	30.8	1.9	53.1	-20.4	43.5	-10.8	32.4	0.3	35.1	- 2.4	32.7	0.0	52.1	-19.4	37.8	- 5.1
17:00 - 17:15	38.2	33.3	4.9	54.2	-16.0	47.0	- 8.8	30.7	7.5	30.0	8.2	51.9	-13.7	39.1	- 0.9	29.8	8.4	32.1	6.1	30.2	8.0	55.9	-17.7	39.5	- 1.3
17:15 - 17:30	31.8	33.1	- 1.3	30.9	0.9	33.6	- 1.8	28.6	3.2	37.4	- 5.6	47.2	-15.4	31.6	0.2	28.5	3.3	30.4	1.4	29.0	2.8	45.9	-14.1	34.2	- 2.4
17:30 - 17:45	31.7	34.8	- 3.1	49.8	-18.1	30.2	1.5	32.7	- 1.0	33.3	- 1.6	33.4	- 1.7	28.3	3.4	36.3	- 4.6	28.2	3.5	39.8	- 8.1	30.9	0.8	34.3	- 2.6
17:45 - 18:00	25.8	34.3	- 8.5	35.0	- 9.2	27.1	- 1.3	33.4	- 7.6	30.2	- 4.4	22.5	3.3	29.4	- 3.6	32.7	- 6.9	29.9	- 4.1	37.2	-11.4	32.8	- 7.0	31.3	- 5.5
Hour 1	69.7	64.2	5.5	64.5	5.2	64.0	5.7	63.1	6.6	63.3	6.4	64.6	5.0	63.0	6.7	62.0	7.7	63.5	6.2	64.5	5.1	59.7	10.0	63.3	6.4
Hour 2	66.5	42.5	24.0	52.1	14.4	48.1	18.4	48.4	18.1	37.8	28.6	39.0	27.5	48.2	18.3	46.4	20.1	39.3	27.2	48.4	18.1	41.2	25.3	44.7	21.8
Hour 3	48.1	29.5	18.6	31.6	16.5	32.9	15.2	34.8	13.3	34.0	14.0	35.8	12.2	35.9	12.2	30.4	17.7	34.3	13.8	33.8	14.2	42.9	5.2	34.2	13.9
Hour 4	31.9	33.9	- 2.0	42.5	-10.6	34.5	- 2.6	31.4	0.5	32.7	- 0.9	38.8	- 6.9	32.1	- 0.2	31.8	0.0	30.2	1.7	34.1	- 2.2	41.4	- 9.5	34.8	- 3.0
11	54.0	42.5	11.5	47.6	6.4	44.8	9.2	44.4	9.6	42.0	12.1	44.5	9.5	44.8	9.2	42.6	11.4	41.8	12.2	45.2	8.8	46.3	7.7	44.2	9.8



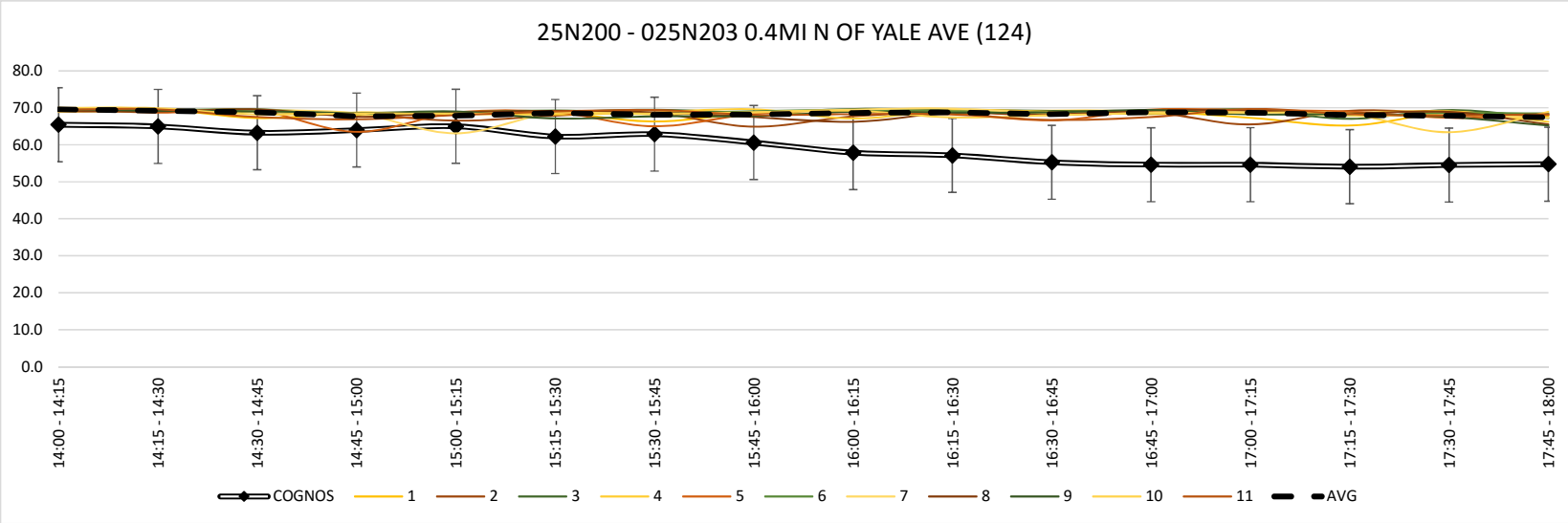
CONCEPT 2		Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run																							
PM	COGNOS	MODEL																						AGGREGATE	
TIME	25N140	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	65.5	69.3	- 3.8	68.9	- 3.4	69.0	- 3.5	69.5	- 4.0	69.1	- 3.6	69.4	- 3.9	67.1	- 1.6	69.1	- 3.6	69.3	- 3.8	69.5	- 4.0	69.3	- 3.8	69.1	- 3.6
14:15 - 14:30	64.9	69.9	- 5.0	69.0	- 4.1	68.7	- 3.8	68.7	- 3.8	69.4	- 4.5	67.9	- 3.0	68.8	- 3.9	69.7	- 4.8	67.8	- 2.9	69.6	- 4.7	68.4	- 3.5	68.9	- 4.0
14:30 - 14:45	70.6	63.0	7.6	68.4	2.1	67.9	2.6	63.9	6.7	67.6	3.0	68.9	1.6	66.1	4.5	65.8	4.8	67.2	3.3	68.8	1.8	64.1	6.5	66.5	4.1
14:45 - 15:00	65.7	67.5	- 1.8	65.9	- 0.2	66.8	- 1.1	66.1	- 0.4	65.5	0.2	65.7	- 0.0	65.3	0.4	65.3	0.4	66.0	- 0.3	66.3	- 0.6	33.9	31.8	63.1	2.6
15:00 - 15:15	65.3	65.8	- 0.5	64.8	0.5	65.4	- 0.1	66.1	- 0.8	54.3	11.0	52.8	12.5	63.0	2.3	42.3	23.0	65.2	0.1	65.8	- 0.5	53.9	11.4	60.0	5.3
15:15 - 15:30	62.2	36.1	26.1	64.9	- 2.7	65.7	- 3.5	58.5	3.7	29.3	32.9	29.4	32.8	44.4	17.8	31.2	31.0	31.7	30.5	39.5	22.7	39.0	23.2	42.7	19.5
15:30 - 15:45	64.9	29.5	35.4	40.6	24.3	37.7	27.2	31.5	33.4	30.6	34.3	29.8	35.1	33.6	31.3	30.3	34.6	30.0	34.9	30.6	34.3	30.0	34.9	32.2	32.7
15:45 - 16:00	62.2	30.2	32.0	29.5	32.7	29.6	32.6	29.3	32.9	30.4	31.8	30.9	31.3	30.6	31.6	30.7	31.5	30.2	32.0	29.0	33.2	28.9	33.3	29.9	32.3
16:00 - 16:15	60.5	29.5	31.0	30.1	30.4	30.6	29.9	31.5	29.0	30.4	30.1	28.9	31.6	29.6	30.9	28.7	31.8	30.2	30.3	31.3	29.2	30.9	29.6	30.2	30.3
16:15 - 16:30	48.9	29.6	19.3	29.9	19.0	28.6	20.3	31.0	17.9	29.1	19.8	30.7	18.2	30.2	18.7	30.0	18.9	30.6	18.3	29.7	19.2	30.5	18.4	30.0	18.9
16:30 - 16:45	40.7	28.7	12.0	28.9	11.8	29.1	11.6	29.8	10.9	28.9	11.8	29.7	11.0	30.4	10.3	28.8	11.9	30.1	10.6	29.6	11.1	30.1	10.6	29.5	11.2
16:45 - 17:00	28.9	29.8	- 0.9	29.7	- 0.8	30.5	- 1.6	29.9	- 1.0	29.8	- 0.9	29.6	- 0.7	29.5	- 0.6	30.3	- 1.4	30.5	- 1.6	30.1	- 1.2	31.6	- 2.7	30.1	- 1.2
17:00 - 17:15	33.4	29.8	3.6	30.4	3.0	29.6	3.8	29.3	4.1	30.5	2.9	29.3	4.1	29.6	3.8	29.4	4.0	28.3	5.1	28.9	4.5	36.6	- 3.2	30.2	3.2
17:15 - 17:30	30.0	29.8	0.2	27.3	2.7	29.3	0.7	27.9	2.1	28.7	1.3	29.7	0.3	30.0	- 0.0	27.5	2.5	28.8	1.2	29.5	0.5	29.4	0.6	28.9	1.1
17:30 - 17:45	29.3	28.7	0.6	31.3	- 2.0	29.8	- 0.5	29.8	- 0.5	28.6	0.7	29.7	- 0.4	28.7	0.6	30.0	- 0.7	29.1	0.2	29.9	- 0.6	30.3	- 1.0	29.6	- 0.3
17:45 - 18:00	22.7	29.5	- 6.9	28.8	- 6.2	29.5	- 6.9	28.2	- 5.6	30.7	- 8.1	28.9	- 6.3	29.3	- 6.7	29.6	- 7.0	29.5	- 6.9	29.0	- 6.4	28.6	- 6.0	29.2	- 6.6
Hour 1	66.7	67.4	- 0.8	68.1	- 1.4	68.1	- 1.4	67.1	- 0.4	67.9	- 1.3	68.0	- 1.3	66.8	- 0.2	67.5	- 0.8	67.6	- 0.9	68.6	- 1.9	58.9	7.7	66.9	- 0.3
Hour 2	63.6	40.4	23.2	50.0	13.7	49.6	14.0	46.4	17.3	36.2	27.5	35.7	27.9	42.9	20.7	33.6	30.0	39.3	24.4	41.2	22.4	38.0	25.7	41.2	22.4
Hour 3	44.7	29.4	15.3	29.7	15.1	29.7	15.0	30.6	14.2	29.6	15.2	29.7	15.0	29.9	14.8	29.5	15.3	30.4	14.4	30.2	14.6	30.8	14.0	30.0	14.8
Hour 4	28.8	29.5	- 0.6	29.5	- 0.6	29.6	- 0.7	28.8	0.0	29.6	- 0.8	29.4	- 0.6	29.4	- 0.6	29.1	- 0.3	28.9	- 0.1	29.3	- 0.5	31.2	- 2.4	29.5	- 0.7
11	51.0	41.7	9.3	44.3	6.7	44.2	6.7	43.2	7.8	40.8	10.2	40.7	10.3	42.3	8.7	39.9	11.0	41.5	9.4	42.3	8.6	39.7	11.2	41.9	9.1



CONCEPT 2		Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run																							
PM	COGNOS	MODEL																						AGGREGATE	
TIME	25N150	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	65.9	69.7	- 3.8	70.2	- 4.3	69.7	- 3.8	69.5	- 3.6	69.6	- 3.7	69.8	- 3.9	68.8	- 2.9	69.7	- 3.8	69.3	- 3.4	69.4	- 3.5	69.6	- 3.7	69.6	- 3.7
14:15 - 14:30	64.6	68.5	- 3.9	69.2	- 4.6	69.5	- 4.9	69.0	- 4.4	69.4	- 4.8	69.0	- 4.4	68.5	- 3.9	69.9	- 5.3	67.0	- 2.4	69.0	- 4.4	68.9	- 4.3	68.9	- 4.3
14:30 - 14:45	64.9	66.9	- 2.0	69.0	- 4.1	68.1	- 3.2	65.4	- 0.5	67.9	- 3.0	69.0	- 4.1	66.7	- 1.8	66.1	- 1.2	67.7	- 2.8	69.1	- 4.2	61.8	3.1	67.1	- 2.2
14:45 - 15:00	63.4	66.7	- 3.4	68.2	- 4.9	67.2	- 3.9	47.2	16.2	66.7	- 3.4	67.2	- 3.9	51.8	11.6	65.1	- 1.7	64.8	- 1.5	67.5	- 4.2	31.9	31.5	60.4	3.0
15:00 - 15:15	64.9	61.9	3.0	64.1	0.8	66.7	- 1.8	47.5	17.4	50.3	14.6	45.6	19.3	46.9	18.0	35.0	29.9	52.9	12.0	62.8	2.1	33.6	31.3	51.6	13.3
15:15 - 15:30	61.9	32.5	29.4	62.3	- 0.4	45.3	16.6	32.9	29.0	29.9	32.0	30.9	31.0	32.2	29.7	32.5	29.4	31.1	30.8	31.7	30.2	31.8	30.1	35.7	26.2
15:30 - 15:45	60.7	30.5	30.2	35.2	25.5	30.2	30.5	32.8	27.9	33.4	27.3	30.8	29.9	30.5	30.2	30.6	30.1	32.1	28.6	32.4	28.3	31.7	29.0	31.8	28.9
15:45 - 16:00	61.3	31.7	29.6	30.6	30.7	31.8	29.5	30.9	30.4	31.2	30.1	33.1	28.2	31.7	29.6	32.7	28.6	32.2	29.1	30.4	30.9	31.3	30.0	31.6	29.7
16:00 - 16:15	59.1	30.1	29.0	32.3	26.8	32.0	27.1	32.4	26.7	31.1	28.0	31.0	28.1	31.2	27.9	30.6	28.5	31.4	27.7	33.7	25.4	32.1	27.0	31.6	27.5
16:15 - 16:30	47.6	30.7	16.9	31.4	16.2	29.6	18.0	32.6	15.0	30.2	17.4	31.1	16.5	30.9	16.7	31.4	16.2	31.8	15.8	31.5	16.1	31.5	16.1	31.2	16.4
16:30 - 16:45	41.9	29.3	12.6	30.5	11.4	30.6	11.3	30.8	11.1	30.2	11.7	31.2	10.7	32.2	9.7	29.5	12.4	31.5	10.4	31.4	10.5	32.8	9.1	30.9	11.0
16:45 - 17:00	39.0	32.6	6.4	30.7	8.3	30.0	9.0	31.7	7.3	31.9	7.1	30.4	8.6	31.6	7.4	30.6	8.4	31.9	7.1	30.7	8.3	33.6	5.4	31.4	7.6
17:00 - 17:15	39.6	31.2	8.4	31.3	8.3	31.3	8.3	29.8	9.8	31.6	8.0	29.9	9.7	29.9	9.7	31.1	8.5	29.7	9.9	30.4	9.2	30.5	9.1	30.6	9.0
17:15 - 17:30	35.2	30.3	4.9	29.0	6.2	29.9	5.3	29.1	6.1	30.0	5.2	30.7	4.5	31.2	4.0	28.5	6.7	29.8	5.4	30.0	5.2	28.9	6.3	29.8	5.4
17:30 - 17:45	34.9	30.1	4.8	31.9	3.0	31.4	3.5	30.5	4.4	29.8	5.1	30.9	4.0	29.3	5.6	31.7	3.2	29.9	5.0	31.1	3.8	31.1	3.8	30.7	4.2
17:45 - 18:00	33.3	31.2	2.1	29.7	3.6	30.6	2.7	28.9	4.4	31.0	2.3	29.5	3.8	30.9	2.4	30.9	2.4	31.6	1.7	30.3	3.0	29.4	3.9	30.4	2.9
Hour 1	64.7	68.0	- 3.3	69.2	- 4.5	68.6	- 3.9	62.8	1.9	68.4	- 3.7	68.8	- 4.1	64.0	0.7	67.7	- 3.0	67.2	- 2.5	68.8	- 4.1	58.1	6.6	66.5	- 1.8
Hour 2	62.2	39.2	23.1	48.1	14.2	43.5	18.7	36.0	26.2	36.2	26.0	35.1	27.1	35.3	26.9	32.7	29.5	37.1	25.1	39.3	22.9	32.1	30.1	37.7	24.5
Hour 3	46.9	30.7	16.2	31.2	15.7	30.6	16.3	31.9	15.0	30.9	16.0	30.9	16.0	31.5	15.4	30.5	16.4	31.7	15.2	31.8	15.1	32.5	14.4	31.3	15.6
Hour 4	35.7	30.7	5.0	30.5	5.3	30.8	4.9	29.6	6.2	30.6	5.1	30.3	5.5	30.3	5.4	30.6	5.2	30.3	5.5	30.5	5.3	30.0	5.8	30.4	5.4
11	52.4	42.1	10.3	44.7	7.6	43.4	9.0	40.1	12.3	41.5	10.9	41.3	11.1	40.3	12.1	40.4	12.0	41.5	10.8	42.6	9.8	38.2	14.2	41.5	10.9



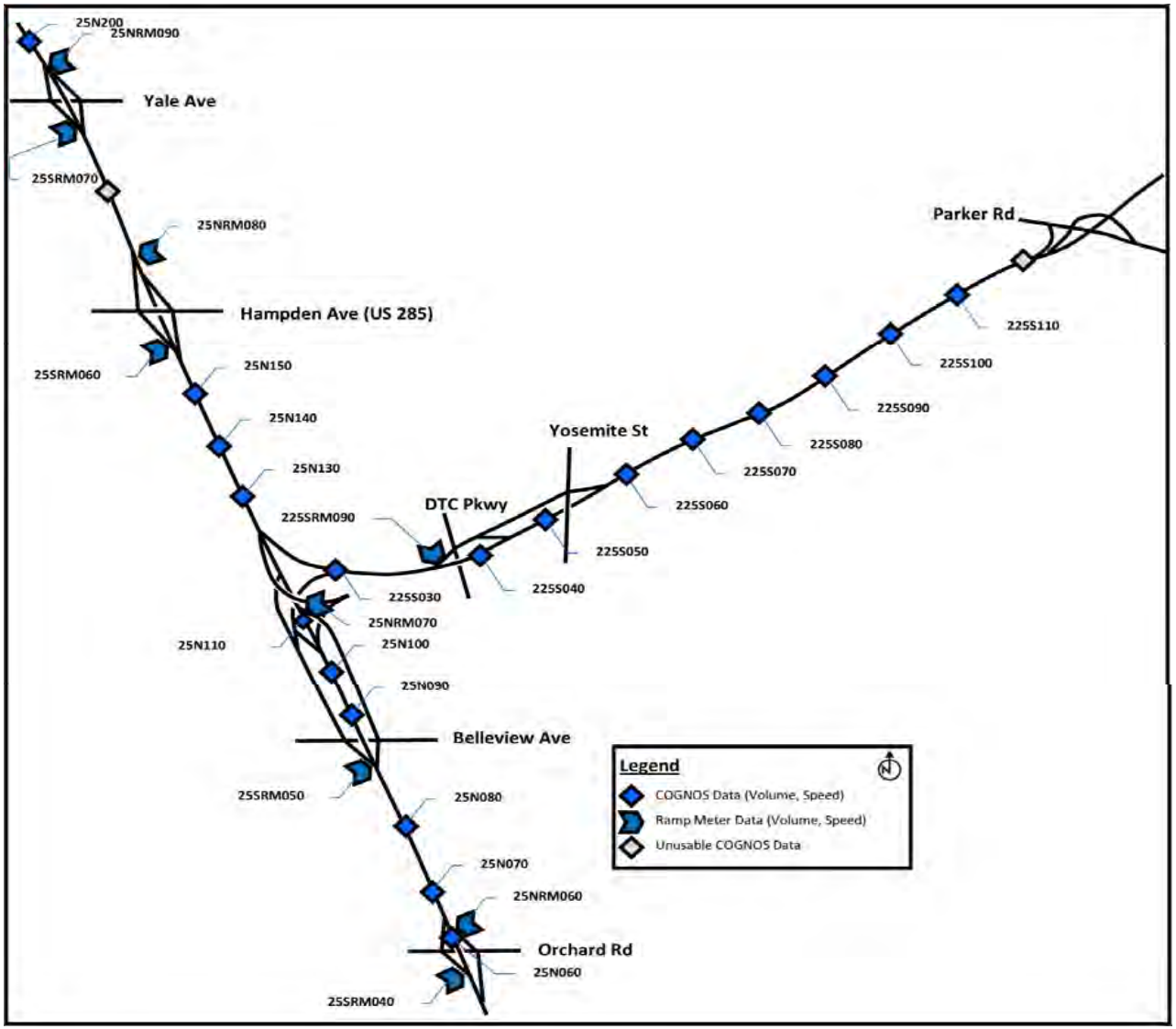
CONCEPT 2		Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run																							
PM	COGNOS	MODEL																						AGGREGATE	
TIME	25N200	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	65.4	69.1	- 3.7	69.9	- 4.5	69.7	- 4.3	70.0	- 4.6	69.7	- 4.3	69.5	- 4.1	68.9	- 3.5	69.1	- 3.7	69.7	- 4.3	70.0	- 4.6	69.5	- 4.1	69.6	- 4.2
14:15 - 14:30	65.0	69.7	- 4.7	69.1	- 4.1	68.9	- 3.9	69.0	- 4.0	68.7	- 3.7	69.4	- 4.4	69.2	- 4.2	69.0	- 4.0	69.2	- 4.2	69.9	- 4.9	69.6	- 4.6	69.2	- 4.2
14:30 - 14:45	63.3	67.2	- 3.9	69.2	- 5.9	68.9	- 5.6	69.0	- 5.7	69.2	- 5.9	69.6	- 6.3	69.3	- 6.0	69.6	- 6.3	69.1	- 5.8	68.2	- 4.9	67.5	- 4.2	68.8	- 5.5
14:45 - 15:00	64.0	68.7	- 4.7	68.4	- 4.4	68.1	- 4.1	68.1	- 4.1	63.5	0.5	68.4	- 4.4	68.5	- 4.5	67.6	- 3.6	68.6	- 4.6	68.5	- 4.5	66.9	- 2.9	67.7	- 3.7
15:00 - 15:15	65.0	68.3	- 3.3	66.5	- 1.5	68.9	- 3.9	68.3	- 3.3	68.7	- 3.7	68.8	- 3.8	63.1	1.9	68.7	- 3.7	69.0	- 4.0	68.4	- 3.4	68.0	- 3.0	67.9	- 2.9
15:15 - 15:30	62.2	68.7	- 6.5	67.9	- 5.7	68.9	- 6.7	68.2	- 6.0	68.8	- 6.6	69.3	- 7.1	68.7	- 6.5	69.2	- 7.0	67.1	- 4.9	68.7	- 6.5	69.0	- 6.8	68.6	- 6.4
15:30 - 15:45	62.9	66.3	- 3.4	68.5	- 5.6	69.5	- 6.6	68.8	- 5.9	65.0	- 2.1	68.5	- 5.6	68.2	- 5.3	68.8	- 5.9	67.7	- 4.8	68.4	- 5.5	69.4	- 6.5	68.1	- 5.2
15:45 - 16:00	60.6	68.7	- 8.1	64.9	- 4.3	68.7	- 8.1	69.6	- 9.0	68.4	- 7.8	69.1	- 8.5	68.8	- 8.2	67.5	- 6.9	67.8	- 7.2	68.8	- 8.2	68.1	- 7.5	68.2	- 7.6
16:00 - 16:15	57.9	69.1	-11.2	67.7	- 9.8	69.7	-11.8	67.1	- 9.2	69.3	-11.4	69.4	-11.5	69.5	-11.6	66.2	- 8.3	68.9	-11.0	69.2	-11.3	68.3	-10.4	68.6	-10.7
16:15 - 16:30	57.1	68.9	-11.8	68.7	-11.6	69.5	-12.4	69.4	-12.3	68.5	-11.4	69.1	-12.0	69.8	-12.7	68.6	-11.5	68.7	-11.6	67.4	-10.3	68.2	-11.1	68.8	-11.7
16:30 - 16:45	55.3	69.2	-13.9	68.0	-12.7	69.2	-13.9	68.9	-13.6	66.6	-11.3	68.7	-13.4	68.5	-13.2	68.2	-12.9	68.8	-13.5	68.0	-12.7	66.7	-11.4	68.3	-13.0
16:45 - 17:00	54.6	69.0	-14.4	68.7	-14.1	69.0	-14.4	68.3	-13.7	69.5	-14.9	68.5	-13.9	68.9	-14.3	69.3	-14.7	69.4	-14.8	68.5	-13.9	67.5	-12.9	68.8	-14.2
17:00 - 17:15	54.6	67.3	-12.7	65.5	-10.9	69.5	-14.9	69.0	-14.4	69.4	-14.8	69.6	-15.0	69.0	-14.4	69.3	-14.7	68.2	-13.6	68.7	-14.1	69.7	-15.1	68.7	-14.1
17:15 - 17:30	54.1	65.2	-11.1	69.2	-15.1	67.0	-12.9	68.6	-14.5	69.0	-14.9	67.9	-13.8	67.8	-13.7	68.5	-14.4	68.3	-14.2	68.3	-14.2	68.3	-14.2	68.0	-13.9
17:30 - 17:45	54.5	68.7	-14.2	68.5	-14.0	69.4	-14.9	69.1	-14.6	67.3	-12.8	68.6	-14.1	68.0	-13.5	68.9	-14.4	67.5	-13.0	63.4	- 8.9	67.9	-13.4	67.9	-13.4
17:45 - 18:00	54.8	67.7	-12.9	68.1	-13.3	67.2	-12.4	66.2	-11.4	68.1	-13.3	68.5	-13.7	67.3	-12.5	65.5	-10.7	65.2	-10.4	68.9	-14.1	68.3	-13.5	67.4	-12.6
Hour 1	64.4	68.7	- 4.3	69.2	- 4.7	68.9	- 4.5	69.0	- 4.6	67.8	- 3.4	69.2	- 4.8	69.0	- 4.6	68.8	- 4.4	69.2	- 4.7	69.2	- 4.7	68.4	- 4.0	68.8	- 4.4
Hour 2	62.7	68.0	- 5.3	67.0	- 4.3	69.0	- 6.3	68.7	- 6.0	67.7	- 5.0	68.9	- 6.2	67.2	- 4.5	68.6	- 5.9	67.9	- 5.2	68.6	- 5.9	68.6	- 5.9	68.2	- 5.5
Hour 3	56.2	69.1	-12.8	68.3	-12.1	69.4	-13.1	68.4	-12.2	68.5	-12.3	68.9	-12.7	69.2	-13.0	68.1	-11.9	69.0	-12.7	68.3	-12.1	67.7	-11.5	68.6	-12.4
Hour 4	54.5	67.2	-12.7	67.8	-13.3	68.3	-13.8	68.2	-13.7	68.5	-14.0	68.7	-14.2	68.0	-13.5	68.1	-13.6	67.3	-12.8	67.3	-12.8	68.6	-14.1	68.0	-13.5
11	59.5	68.2	- 8.8	68.1	- 8.6	68.9	- 9.4	68.6	- 9.1	68.1	- 8.7	68.9	- 9.5	68.3	- 8.9	68.4	- 8.9	68.3	- 8.9	68.3	- 8.9	68.3	- 8.9	68.4	- 9.0



AVERAGE VEHICLE SPEEDS - BY LINK

CONCEPT 3

ROUTE: I-225
PERIOD: AM

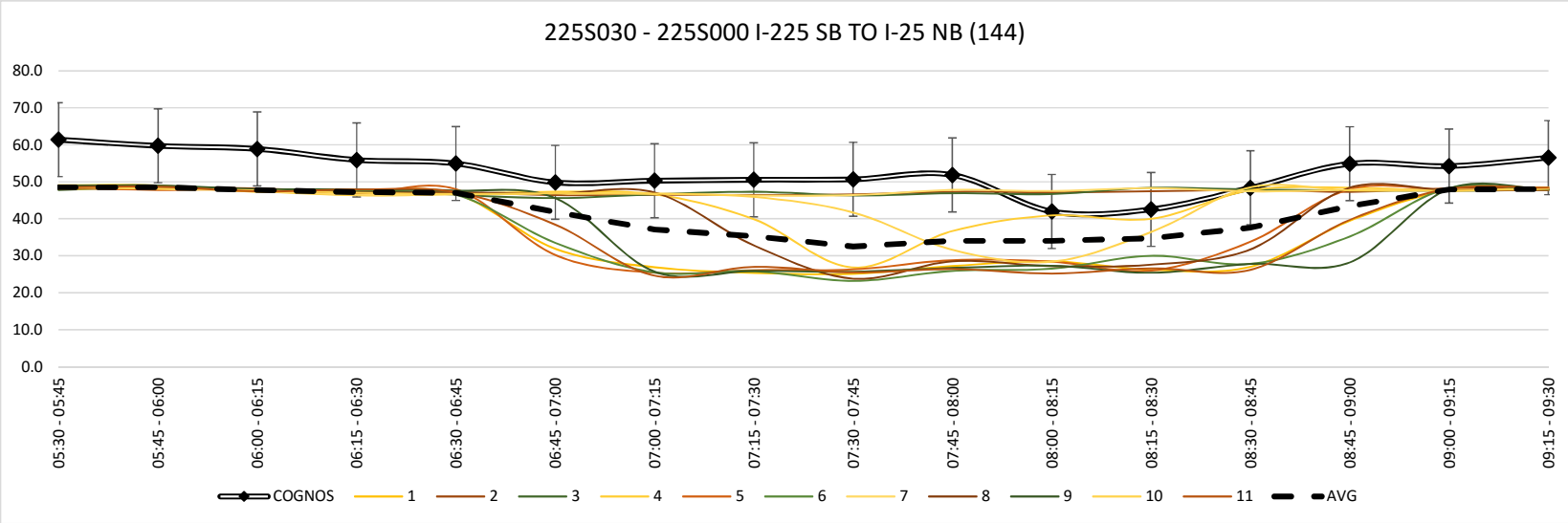


LOCATION	COGNOS DESCRIPTION
225S030	225S000 I-225 SB TO I-25 NB (144)
225SRM090	225S001 TAMARAC
225S040	225S001 YOSEMITE ST TO DTC BLVD (172)
225S050	225S001 YOSEMITE ST (174)
225S060	225S001 PARKER RD TO YOSEMITE ST (176)
225S070	225S001 PARKER RD TO YOSEMITE ST (181)
225S080	225S002 PARKER RD TO YOSEMITE ST (182)
225S090	225S002 PARKER RD TO YOESMEITE ST (183)
225S100	225S002 PARKER RD TO YOSEMITE ST (184)
225S110	225S003 PARKER RD TO YOSEMITE ST (191)

CONCEPT 3

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

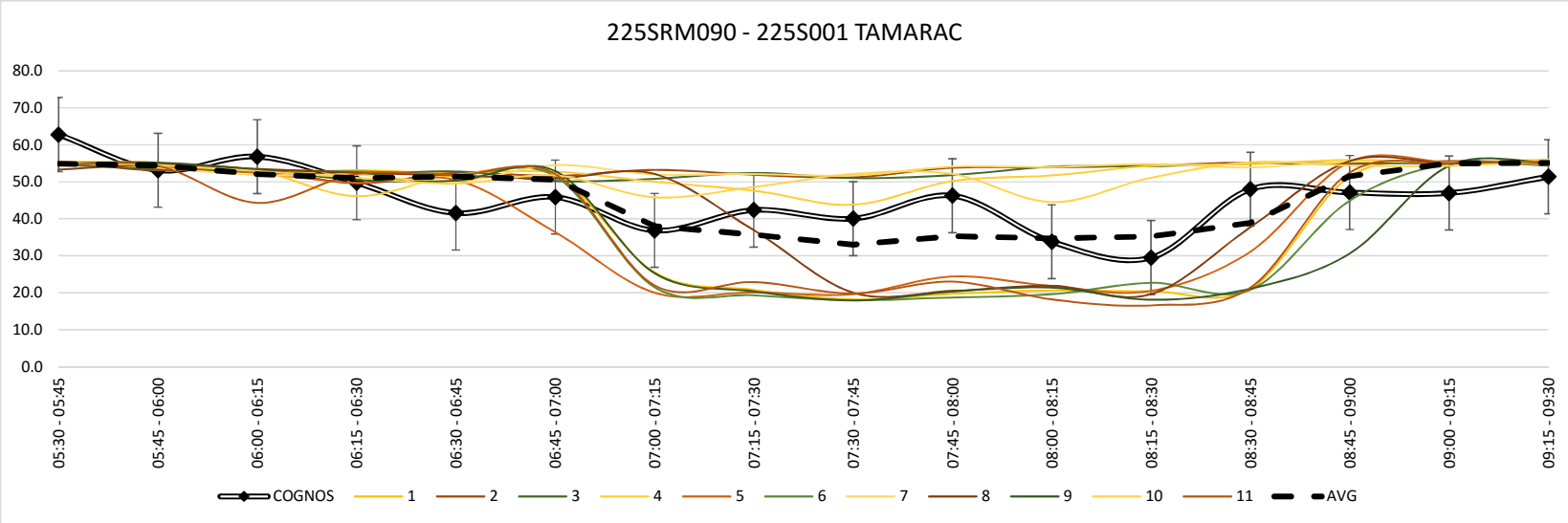
AM	COGNOS	MODEL																						AGGREGATE	
TIME	225S030	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	61.4	49.1	12.3	48.7	12.7	47.8	13.6	48.0	13.4	48.4	13.0	48.6	12.8	48.8	12.6	48.3	13.1	48.9	12.5	48.5	12.9	48.5	12.9	48.5	12.9
05:45 - 06:00	59.7	49.0	10.7	48.4	11.3	48.5	11.2	48.4	11.3	47.8	11.9	48.5	11.2	48.1	11.6	48.5	11.2	49.0	10.7	48.2	11.5	48.7	11.0	48.5	11.2
06:00 - 06:15	58.9	47.3	11.6	48.2	10.7	47.9	11.0	47.5	11.4	48.0	10.9	47.8	11.1	47.5	11.4	48.0	10.9	48.0	10.9	47.7	11.2	47.4	11.5	47.8	11.1
06:15 - 06:30	55.9	47.5	8.4	47.3	8.6	47.9	8.0	46.3	9.6	46.8	9.1	47.5	8.4	46.5	9.4	47.1	8.8	47.9	8.0	47.0	8.9	47.9	8.0	47.2	8.7
06:30 - 06:45	54.9	46.7	8.2	47.2	7.7	46.5	8.4	46.7	8.2	48.0	6.9	46.5	8.4	46.6	8.3	47.1	7.8	47.6	7.3	46.7	8.2	47.2	7.7	47.0	7.9
06:45 - 07:00	49.8	31.9	17.9	46.4	3.4	45.6	4.2	47.3	2.5	30.2	19.6	33.5	16.3	46.7	3.1	46.8	3.0	45.6	4.2	46.9	2.9	38.4	11.4	41.8	8.0
07:00 - 07:15	50.3	26.9	23.4	46.5	3.8	46.6	3.7	46.6	3.7	25.4	24.9	25.5	24.8	46.8	3.5	47.1	3.2	25.7	24.6	46.8	3.5	24.6	25.7	37.1	13.2
07:15 - 07:30	50.5	25.4	25.1	46.4	4.1	47.3	3.2	39.9	10.6	26.1	24.4	25.8	24.7	46.3	4.2	32.8	17.7	25.9	24.6	45.9	4.6	27.0	23.5	35.3	15.2
07:30 - 07:45	50.7	25.1	25.6	46.6	4.1	46.3	4.4	26.8	23.9	26.3	24.4	23.2	27.5	46.4	4.3	23.8	26.9	25.7	25.0	41.7	9.0	25.5	25.2	32.5	18.2
07:45 - 08:00	51.8	27.2	24.6	47.3	4.5	46.9	4.9	36.7	15.1	28.8	23.0	25.9	25.9	47.8	4.0	28.5	23.3	26.7	25.1	31.6	20.2	26.4	25.4	34.0	17.8
08:00 - 08:15	42.0	28.5	13.5	47.2	- 5.2	46.7	- 4.7	40.9	1.1	28.4	13.6	26.5	15.5	47.5	- 5.5	27.2	14.8	27.3	14.7	28.4	13.6	25.2	16.8	34.0	8.0
08:15 - 08:30	42.5	26.2	16.3	47.4	- 4.9	48.4	- 5.9	40.0	2.5	26.0	16.5	30.0	12.5	48.3	- 5.8	27.6	14.9	25.4	17.1	36.4	6.1	26.6	15.9	34.7	7.8
08:30 - 08:45	48.4	27.0	21.4	47.8	0.6	47.9	0.5	47.7	0.7	33.8	14.6	27.8	20.6	47.4	1.0	31.7	16.7	27.8	20.6	48.5	- 0.1	26.2	22.2	37.6	10.8
08:45 - 09:00	54.9	39.4	15.5	47.3	7.6	47.7	7.2	48.4	6.5	48.0	6.9	35.2	19.7	47.8	7.1	48.4	6.5	28.2	26.7	47.7	7.2	39.7	15.2	43.4	11.5
09:00 - 09:15	54.3	47.8	6.5	48.2	6.1	47.6	6.7	47.6	6.7	47.8	6.5	48.3	6.0	47.8	6.5	47.7	6.6	48.1	6.2	47.6	6.7	48.1	6.2	47.9	6.4
09:15 - 09:30	56.5	48.4	8.1	48.1	8.4	47.8	8.7	48.5	8.0	47.9	8.6	47.7	8.8	47.8	8.7	47.8	8.7	48.0	8.5	48.1	8.4	48.4	8.1	48.0	8.5
Hour 1	59.0	48.2	10.7	48.2	10.8	48.0	10.9	47.6	11.4	47.8	11.2	48.1	10.9	47.7	11.2	48.0	11.0	48.5	10.5	47.9	11.1	48.1	10.8	48.0	11.0
Hour 2	51.4	32.7	18.7	46.6	4.8	46.5	4.9	45.1	6.3	32.4	19.0	32.8	18.6	46.6	4.8	43.5	8.0	36.2	15.2	46.6	4.8	34.3	17.1	40.3	11.1
Hour 3	46.8	26.8	20.0	47.1	- 0.4	47.1	- 0.3	36.1	10.7	27.4	19.4	26.4	20.4	47.5	- 0.8	26.8	20.0	26.3	20.5	34.5	12.2	25.9	20.8	33.8	13.0
Hour 4	53.5	40.7	12.9	47.9	5.7	47.8	5.8	48.1	5.5	44.4	9.1	39.8	13.8	47.7	5.8	43.9	9.6	38.0	15.5	48.0	5.5	40.6	12.9	44.2	9.3
11	52.7	37.1	15.6	47.4	5.2	47.3	5.3	44.2	8.5	38.0	14.7	36.8	15.9	47.4	5.3	40.5	12.1	37.2	15.4	44.2	8.4	37.2	15.4	41.6	11.1



CONCEPT 3

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

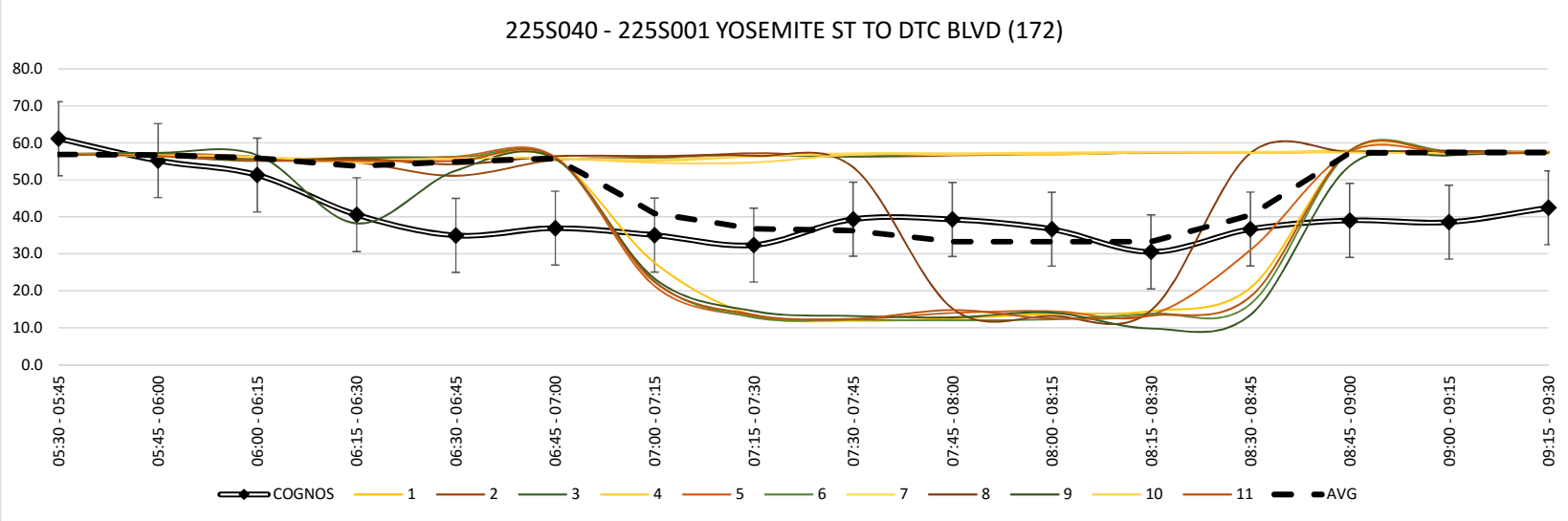
AM	COGNOS	MODEL																						AGGREGATE	
TIME	225SRM090	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	62.8	55.4	7.4	55.3	7.5	54.6	8.2	55.3	7.5	55.4	7.4	55.0	7.8	55.2	7.6	53.3	9.5	55.0	7.8	55.2	7.6	54.7	8.1	54.9	7.9
05:45 - 06:00	53.1	55.1	- 2.0	53.1	0.0	53.5	- 0.4	54.8	- 1.7	54.4	- 1.3	55.0	- 1.9	53.8	- 0.7	54.6	- 1.5	55.2	- 2.1	54.5	- 1.4	54.3	- 1.2	54.4	- 1.3
06:00 - 06:15	56.8	52.5	4.3	53.3	3.5	52.6	4.2	53.0	3.8	52.4	4.4	53.2	3.6	51.8	5.0	53.5	3.3	53.3	3.5	52.9	3.9	44.3	12.5	52.1	4.7
06:15 - 06:30	49.7	53.1	- 3.4	49.6	0.1	51.9	- 2.2	46.1	3.6	49.7	0.0	52.8	- 3.1	51.9	- 2.2	52.4	- 2.7	50.5	- 0.8	51.1	- 1.4	52.1	- 2.4	51.0	- 1.3
06:30 - 06:45	41.6	52.3	-10.8	52.4	-10.9	52.8	-11.3	51.9	-10.4	50.5	- 9.0	51.9	-10.4	50.0	- 8.5	51.7	-10.2	50.3	- 8.8	49.5	- 8.0	51.8	-10.3	51.4	- 9.9
06:45 - 07:00	45.9	52.1	- 6.2	51.6	- 5.7	50.2	- 4.3	52.7	- 6.8	36.4	9.5	51.5	- 5.6	54.5	- 8.6	50.9	- 5.0	52.9	- 7.0	51.7	- 5.8	52.1	- 6.2	50.6	- 4.7
07:00 - 07:15	36.9	25.5	11.4	53.2	-16.4	50.8	-14.0	50.0	-13.2	20.0	16.9	21.5	15.4	52.0	-15.2	52.1	-15.3	25.3	11.6	45.8	- 9.0	22.0	14.9	38.0	- 1.2
07:15 - 07:30	42.4	20.8	21.6	51.9	- 9.6	52.4	-10.1	47.6	- 5.3	20.1	22.3	19.3	23.1	52.1	- 9.8	36.9	5.5	20.4	22.0	48.6	- 6.3	22.9	19.5	35.7	6.7
07:30 - 07:45	40.0	18.2	21.8	51.2	-11.2	51.0	-11.0	43.8	- 3.8	19.6	20.4	18.0	22.0	51.7	-11.7	20.0	20.0	17.9	22.1	52.1	-12.1	19.8	20.2	33.0	7.0
07:45 - 08:00	46.2	19.7	26.5	53.8	- 7.6	51.8	- 5.6	50.2	- 4.0	24.4	21.8	18.7	27.5	54.1	- 7.9	20.5	25.7	20.3	25.9	52.1	- 5.9	23.0	23.2	35.3	10.9
08:00 - 08:15	33.8	20.6	13.2	53.9	-20.1	54.1	-20.3	51.7	-17.9	21.8	12.0	19.6	14.2	54.0	-20.2	21.9	11.9	21.4	12.4	44.5	-10.7	18.2	15.6	34.7	- 0.9
08:15 - 08:30	29.5	20.4	9.1	54.4	-24.9	54.2	-24.7	54.3	-24.8	20.5	9.0	22.7	6.8	54.8	-25.3	19.6	9.9	18.1	11.4	51.1	-21.6	16.6	12.9	35.2	- 5.7
08:30 - 08:45	48.0	21.1	26.9	55.2	- 7.2	54.9	- 6.9	54.8	- 6.8	31.1	16.9	20.8	27.2	53.9	- 5.9	37.7	10.3	21.1	26.9	55.3	- 7.3	21.4	26.6	38.9	9.1
08:45 - 09:00	47.1	51.4	- 4.3	54.8	- 7.7	55.1	- 8.0	55.9	- 8.8	55.4	- 8.3	44.9	2.2	55.4	- 8.3	55.6	- 8.5	30.6	16.5	54.4	- 7.3	52.5	- 5.4	51.5	- 4.4
09:00 - 09:15	47.0	55.3	- 8.3	55.6	- 8.6	54.9	- 7.9	55.3	- 8.3	55.3	- 8.3	54.9	- 7.9	55.2	- 8.2	55.0	- 8.0	54.3	- 7.3	54.3	- 7.3	55.0	- 8.0	55.0	- 8.0
09:15 - 09:30	51.4	54.4	- 3.0	55.2	- 3.8	55.2	- 3.8	56.0	- 4.6	55.1	- 3.7	54.4	- 3.0	54.8	- 3.4	55.1	- 3.7	55.4	- 4.0	55.6	- 4.2	55.4	- 4.0	55.1	- 3.7
Hour 1	55.6	54.0	1.6	52.8	2.8	53.2	2.5	52.3	3.3	53.0	2.6	54.0	1.6	53.2	2.4	53.5	2.1	53.5	2.1	53.4	2.2	51.4	4.2	53.1	2.5
Hour 2	41.7	37.7	4.0	52.3	-10.6	51.6	- 9.9	50.6	- 8.9	31.8	9.9	36.1	5.6	52.2	-10.5	47.9	- 6.2	37.2	4.4	48.9	- 7.2	37.2	4.5	43.9	- 2.3
Hour 3	37.4	19.7	17.7	53.3	-15.9	52.8	-15.4	50.0	-12.6	21.6	15.8	19.8	17.6	53.7	-16.3	20.5	16.9	19.4	18.0	50.0	-12.6	19.4	18.0	34.6	2.8
Hour 4	48.4	45.6	2.8	55.2	- 6.9	55.0	- 6.7	55.5	- 7.2	49.2	- 0.9	43.8	4.6	54.8	- 6.5	50.9	- 2.5	40.4	8.0	54.9	- 6.6	46.1	2.3	50.1	- 1.8
11	45.7	39.2	6.5	53.4	- 7.7	53.1	- 7.4	52.1	- 6.3	38.9	6.9	38.4	7.4	53.5	- 7.7	43.2	2.6	37.6	8.1	51.8	- 6.0	38.5	7.2	45.4	0.3



CONCEPT 3

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

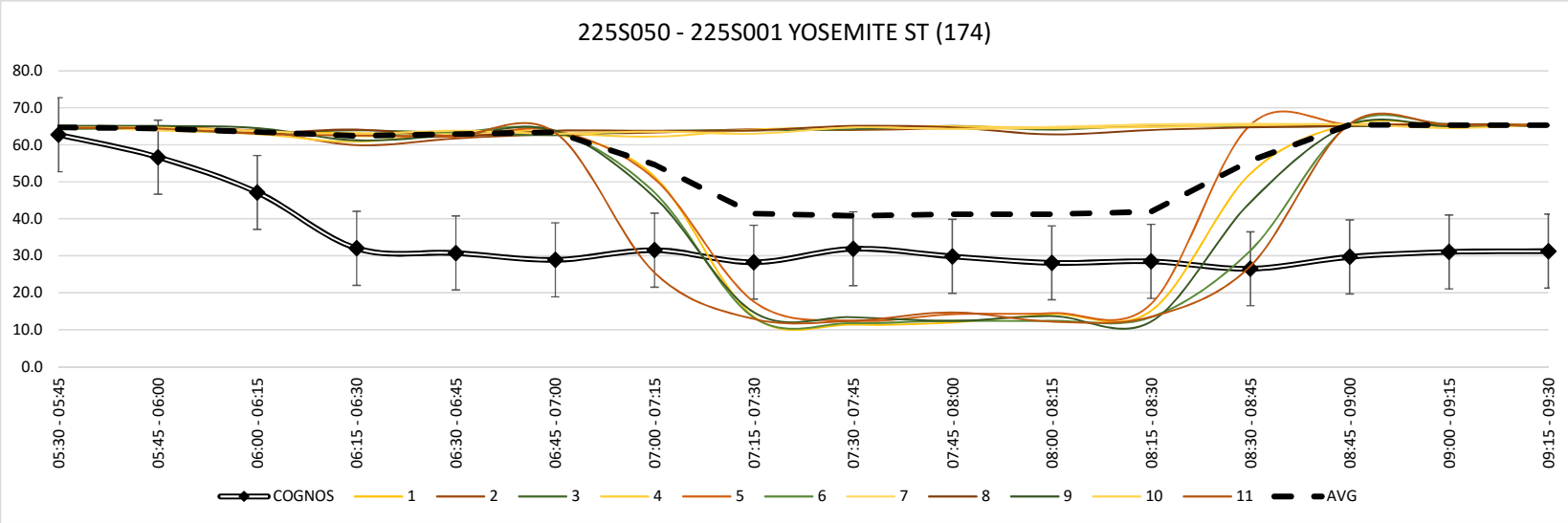
AM	COGNOS	MODEL																						AGGREGATE	
TIME	225S040	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	61.1	56.7	4.4	57.1	4.0	56.9	4.2	56.8	4.3	56.9	4.2	57.0	4.1	57.1	4.0	56.7	4.4	57.0	4.1	57.0	4.1	57.0	4.1	56.9	4.2
05:45 - 06:00	55.2	57.2	- 2.0	56.3	- 1.1	56.4	- 1.2	56.8	- 1.6	57.1	- 1.9	56.7	- 1.5	56.3	- 1.1	56.9	- 1.7	57.3	- 2.1	56.7	- 1.5	56.4	- 1.2	56.7	- 1.5
06:00 - 06:15	51.3	55.8	- 4.5	55.6	- 4.3	55.1	- 3.8	56.0	- 4.7	56.3	- 5.0	55.9	- 4.6	56.1	- 4.8	55.4	- 4.1	56.7	- 5.4	56.2	- 4.9	55.2	- 3.9	55.9	- 4.6
06:15 - 06:30	40.6	55.9	-15.3	54.7	-14.1	56.0	-15.4	54.8	-14.2	54.7	-14.1	55.4	-14.8	55.3	-14.7	55.7	-15.1	38.2	2.4	54.6	-14.0	55.2	-14.6	53.7	-13.1
06:30 - 06:45	35.0	55.8	-20.8	51.1	-16.1	56.0	-21.0	55.7	-20.7	56.3	-21.3	55.9	-20.9	55.8	-20.8	54.2	-19.2	52.5	-17.5	55.8	-20.8	55.1	-20.1	54.9	-19.9
06:45 - 07:00	36.9	55.6	-18.7	55.4	-18.5	55.8	-18.9	55.6	-18.7	56.1	-19.2	55.9	-19.0	55.8	-18.9	56.4	-19.5	55.7	-18.8	55.9	-19.0	56.1	-19.2	55.8	-18.9
07:00 - 07:15	35.1	27.6	7.5	56.0	-21.0	55.6	-20.6	55.1	-20.1	21.3	13.8	22.5	12.6	55.5	-20.5	56.4	-21.4	23.3	11.8	54.6	-19.6	22.4	12.7	40.9	- 5.9
07:15 - 07:30	32.4	13.3	19.1	57.2	-24.8	56.5	-24.1	56.3	-23.9	13.1	19.3	12.8	19.6	56.5	-24.1	56.5	-24.1	14.5	17.9	54.7	-22.3	13.5	18.9	36.8	- 4.4
07:30 - 07:45	39.4	11.9	27.5	56.3	-17.0	56.3	-17.0	57.0	-17.7	12.3	27.1	12.2	27.2	57.2	-17.9	53.4	-14.1	13.2	26.2	56.8	-17.5	12.4	27.0	36.3	3.1
07:45 - 08:00	39.3	12.5	26.8	56.6	-17.3	56.9	-17.6	57.1	-17.8	14.0	25.3	12.0	27.3	57.2	-17.9	15.2	24.1	12.8	26.5	56.8	-17.5	14.8	24.5	33.3	6.0
08:00 - 08:15	36.7	13.8	22.9	57.0	-20.4	56.9	-20.3	56.8	-20.2	14.5	22.2	12.3	24.4	57.4	-20.8	13.2	23.5	14.1	22.6	57.2	-20.6	12.5	24.2	33.3	3.4
08:15 - 08:30	30.5	14.5	16.0	57.4	-26.9	57.4	-26.9	57.5	-27.0	13.5	17.0	13.8	16.7	57.5	-27.0	14.7	15.8	9.8	20.7	57.4	-26.9	13.3	17.2	33.3	- 2.8
08:30 - 08:45	36.7	20.8	15.9	57.3	-20.6	57.5	-20.8	57.4	-20.7	31.0	5.7	16.4	20.3	57.6	-20.9	57.2	-20.5	13.5	23.2	57.3	-20.6	18.4	18.3	40.4	- 3.7
08:45 - 09:00	39.0	57.8	-18.8	57.6	-18.6	57.5	-18.5	57.9	-18.9	57.6	-18.6	57.7	-18.7	57.6	-18.6	57.6	-18.6	53.8	-14.8	57.4	-18.4	57.9	-18.9	57.3	-18.3
09:00 - 09:15	38.6	57.5	-18.9	57.1	-18.5	57.5	-18.9	57.3	-18.7	57.4	-18.8	57.8	-19.2	57.5	-18.9	57.8	-19.2	56.6	-18.0	57.2	-18.6	57.4	-18.8	57.4	-18.8
09:15 - 09:30	42.4	57.0	-14.6	57.5	-15.1	57.6	-15.2	57.4	-15.0	57.7	-15.3	57.5	-15.1	57.1	-14.7	57.4	-15.0	57.4	-15.0	57.8	-15.4	57.4	-15.0	57.4	-15.0
Hour 1	52.1	56.4	- 4.3	55.9	- 3.9	56.1	- 4.0	56.1	- 4.0	56.3	- 4.2	56.3	- 4.2	56.2	- 4.1	56.2	- 4.1	52.3	- 0.2	56.1	- 4.1	56.0	- 3.9	55.8	- 3.7
Hour 2	34.8	38.1	- 3.2	54.9	-20.1	56.0	-21.1	55.7	-20.8	36.7	- 1.9	36.8	- 1.9	55.9	-21.1	55.9	-21.0	36.5	- 1.7	55.3	-20.4	36.8	- 1.9	47.1	-12.3
Hour 3	36.5	13.2	23.3	56.8	-20.4	56.9	-20.4	57.1	-20.7	13.6	22.9	12.6	23.9	57.3	-20.9	24.1	12.3	12.5	24.0	57.1	-20.6	13.3	23.2	34.1	2.4
Hour 4	39.2	48.3	- 9.1	57.4	-18.2	57.5	-18.3	57.5	-18.3	50.9	-11.7	47.4	- 8.2	57.5	-18.3	57.5	-18.3	45.3	- 6.1	57.4	-18.2	47.8	- 8.6	53.1	-13.9
11	40.6	39.0	1.6	56.3	-15.6	56.6	-16.0	56.6	-16.0	39.4	1.3	38.2	2.4	56.7	-16.1	48.4	- 7.8	36.7	4.0	56.5	-15.8	38.4	2.2	47.5	- 6.9



CONCEPT 3

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

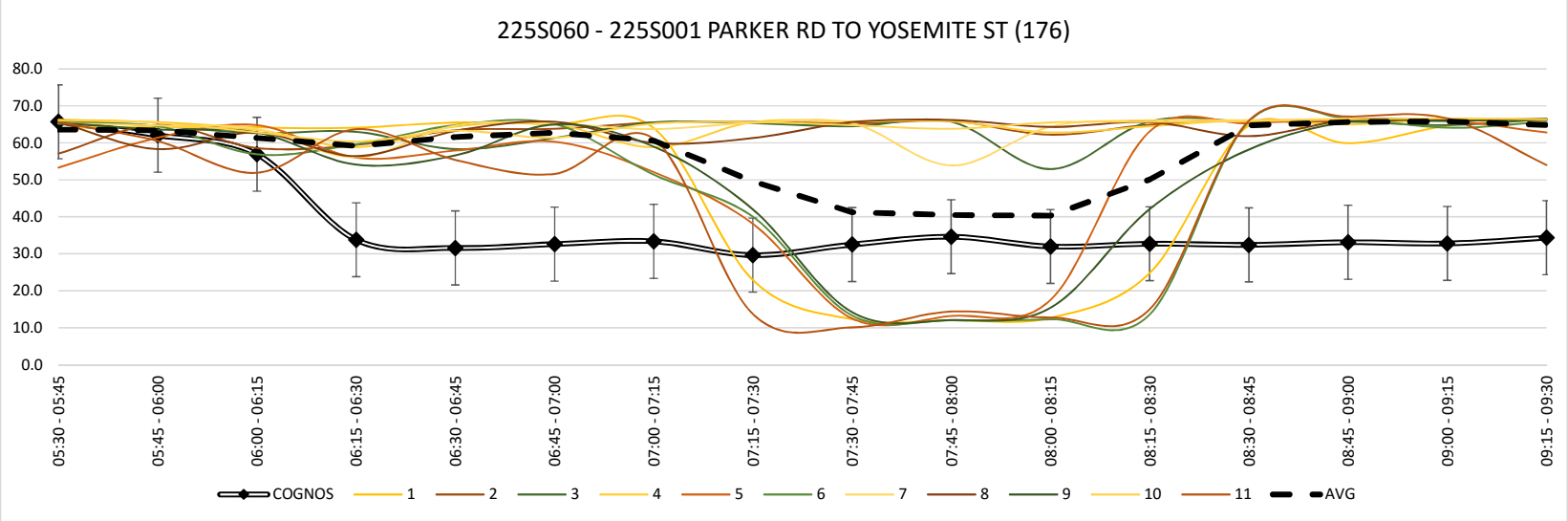
AM	COGNOS	MODEL																						AGGREGATE	
TIME	225S050	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	62.7	64.9	- 2.2	64.8	- 2.1	64.7	- 2.0	64.8	- 2.1	64.5	- 1.8	64.3	- 1.6	64.9	- 2.2	64.4	- 1.7	65.1	- 2.4	64.7	- 2.0	64.7	- 2.0	64.7	- 2.0
05:45 - 06:00	56.7	64.8	- 8.2	64.2	- 7.6	64.2	- 7.6	63.9	- 7.3	64.8	- 8.2	64.2	- 7.6	64.1	- 7.5	64.5	- 7.9	65.1	- 8.5	64.6	- 8.0	64.4	- 7.8	64.4	- 7.8
06:00 - 06:15	47.1	63.8	-16.7	63.8	-16.7	63.2	-16.1	62.9	-15.8	63.8	-16.7	63.1	-16.0	63.8	-16.7	63.2	-16.1	64.5	-17.4	63.7	-16.6	63.0	-15.9	63.5	-16.4
06:15 - 06:30	32.0	63.1	-31.1	59.9	-27.9	63.9	-31.9	60.8	-28.8	62.6	-30.6	62.7	-30.7	62.3	-30.3	64.1	-32.1	61.2	-29.2	62.9	-30.9	62.5	-30.5	62.4	-30.4
06:30 - 06:45	30.7	63.2	-32.5	61.7	-31.0	63.2	-32.5	63.5	-32.8	62.2	-31.5	63.5	-32.8	62.9	-32.2	62.4	-31.7	62.6	-31.9	63.8	-33.1	62.5	-31.8	62.9	-32.2
06:45 - 07:00	28.9	63.0	-34.1	62.9	-34.0	62.6	-33.7	63.1	-34.2	63.8	-34.9	63.7	-34.8	63.8	-34.9	63.8	-34.9	63.8	-34.9	63.0	-34.1	63.3	-34.4	63.4	-34.5
07:00 - 07:15	31.5	51.4	-19.9	63.3	-31.8	63.7	-32.2	62.2	-30.7	50.8	-19.3	47.1	-15.6	63.6	-32.1	63.8	-32.3	45.8	-14.3	63.6	-32.1	25.4	6.1	54.6	-23.1
07:15 - 07:30	28.3	13.5	14.8	64.2	-36.0	63.9	-35.7	64.1	-35.9	17.6	10.7	13.3	15.0	63.9	-35.7	63.9	-35.7	14.7	13.6	63.0	-34.8	12.9	15.4	41.4	-13.2
07:30 - 07:45	31.9	11.4	20.5	64.0	-32.1	64.2	-32.3	64.8	-32.9	12.4	19.5	11.8	20.1	64.9	-33.0	65.1	-33.2	13.4	18.5	64.7	-32.8	12.4	19.5	40.8	- 8.9
07:45 - 08:00	29.8	12.0	17.8	64.5	-34.7	65.1	-35.3	65.0	-35.2	14.2	15.6	12.4	17.4	64.4	-34.6	64.7	-34.9	12.4	17.4	64.3	-34.5	14.7	15.1	41.2	-11.4
08:00 - 08:15	28.1	14.2	13.9	64.7	-36.6	64.1	-36.0	64.7	-36.6	14.5	13.6	12.4	15.7	64.9	-36.8	62.8	-34.7	13.7	14.4	64.5	-36.4	12.2	15.9	41.2	-13.1
08:15 - 08:30	28.5	15.1	13.4	64.9	-36.4	65.3	-36.8	65.4	-36.9	17.0	11.5	13.4	15.1	65.5	-37.0	64.0	-35.5	12.2	16.3	64.8	-36.3	13.5	15.0	41.9	-13.4
08:30 - 08:45	26.5	52.2	-25.7	65.4	-38.9	65.0	-38.5	65.4	-38.9	65.4	-38.9	31.4	- 4.9	65.7	-39.2	64.7	-38.2	44.5	-18.0	65.3	-38.8	27.2	- 0.7	55.7	-29.2
08:45 - 09:00	29.7	65.6	-35.9	65.1	-35.4	65.0	-35.3	65.5	-35.8	65.5	-35.8	65.5	-35.8	65.5	-35.8	65.1	-35.4	65.4	-35.7	65.5	-35.8	65.7	-36.0	65.4	-35.7
09:00 - 09:15	31.0	65.4	-34.4	65.2	-34.2	65.3	-34.3	65.5	-34.5	65.5	-34.5	65.6	-34.6	64.9	-33.9	65.6	-34.6	65.0	-34.0	64.5	-33.5	65.4	-34.4	65.3	-34.3
09:15 - 09:30	31.2	65.3	-34.1	65.5	-34.3	65.2	-34.0	65.3	-34.1	65.4	-34.2	65.2	-34.0	65.2	-34.0	65.2	-34.0	65.1	-33.9	65.5	-34.3	65.2	-34.0	65.3	-34.1
Hour 1	49.6	64.2	-14.5	63.2	-13.6	64.0	-14.4	63.1	-13.5	63.9	-14.3	63.6	-14.0	63.8	-14.2	64.1	-14.4	64.0	-14.4	64.0	-14.4	63.7	-14.0	63.8	-14.1
Hour 2	29.8	47.8	-17.9	63.0	-33.2	63.4	-33.5	63.2	-33.4	48.6	-18.8	46.9	-17.1	63.6	-33.7	63.5	-33.6	46.7	-16.9	63.4	-33.5	41.0	-11.2	55.6	-25.7
Hour 3	29.6	13.2	16.4	64.5	-35.0	64.7	-35.1	65.0	-35.4	14.5	15.0	12.5	17.1	64.9	-35.4	64.2	-34.6	12.9	16.6	64.6	-35.0	13.2	16.4	41.3	-11.7
Hour 4	29.6	62.1	-32.5	65.3	-35.7	65.1	-35.5	65.4	-35.8	65.5	-35.8	56.9	-27.3	65.3	-35.7	65.2	-35.5	60.0	-30.4	65.2	-35.6	55.9	-26.3	62.9	-33.3
11	34.7	46.8	-12.1	64.0	-29.3	64.3	-29.6	64.2	-29.5	48.1	-13.5	45.0	-10.3	64.4	-29.7	64.2	-29.5	45.9	-11.2	64.3	-29.6	43.4	- 8.8	55.9	-21.2



CONCEPT 3

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

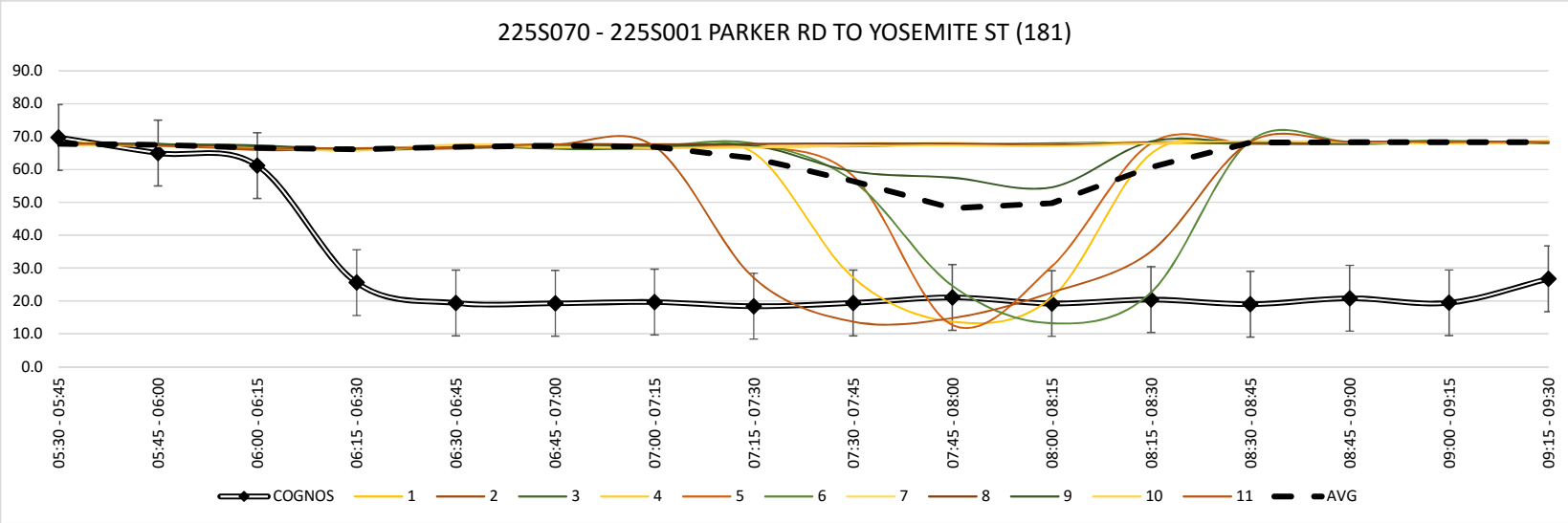
AM	COGNOS	MODEL																						AGGREGATE	
TIME	225S060	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	65.7	66.3	- 0.6	57.1	8.6	66.0	- 0.3	64.0	1.7	53.3	12.4	65.1	0.6	65.3	0.4	65.6	0.1	65.4	0.3	66.0	- 0.3	65.6	0.1	63.6	2.1
05:45 - 06:00	62.1	65.6	- 3.5	64.9	- 2.8	64.6	- 2.5	64.3	- 2.2	61.4	0.7	64.5	- 2.4	64.7	- 2.6	58.3	3.8	63.6	- 1.5	65.5	- 3.4	60.5	1.6	63.4	- 1.3
06:00 - 06:15	56.9	64.2	- 7.3	58.6	- 1.7	62.6	- 5.7	63.5	- 6.6	64.8	- 7.9	56.9	0.0	63.8	- 6.9	62.8	- 5.9	62.8	- 5.9	62.8	- 5.9	51.9	5.0	61.3	- 4.4
06:15 - 06:30	33.8	64.1	-30.3	59.4	-25.6	63.0	-29.2	58.8	-25.0	56.0	-22.2	59.6	-25.8	56.1	-22.3	56.4	-22.6	54.1	-20.3	60.4	-26.6	63.7	-29.9	59.2	-25.4
06:30 - 06:45	31.6	65.5	-33.9	63.4	-31.8	58.3	-26.7	64.4	-32.8	57.9	-26.3	64.8	-33.2	64.7	-33.1	63.2	-31.6	56.6	-25.0	63.3	-31.7	55.4	-23.8	61.6	-30.0
06:45 - 07:00	32.6	65.0	-32.4	63.8	-31.2	61.3	-28.7	65.0	-32.4	60.3	-27.7	65.1	-32.5	65.2	-32.6	65.7	-33.1	65.0	-32.4	61.4	-28.8	51.6	-19.0	62.7	-30.1
07:00 - 07:15	33.4	64.0	-30.6	65.5	-32.1	65.5	-32.1	58.8	-25.4	52.1	-18.7	51.4	-18.0	63.7	-30.3	60.0	-26.6	59.0	-25.6	65.2	-31.8	61.1	-27.7	60.6	-27.2
07:15 - 07:30	29.6	22.9	6.7	65.7	-36.1	65.3	-35.7	65.6	-36.0	38.1	- 8.5	40.0	-10.4	65.4	-35.8	61.3	-31.7	42.0	-12.4	65.6	-36.0	13.7	15.9	49.6	-20.0
07:30 - 07:45	32.5	12.3	20.2	65.2	-32.7	64.5	-32.0	65.8	-33.3	12.5	20.0	13.3	19.2	65.3	-32.8	65.6	-33.1	14.2	18.3	64.8	-32.3	10.1	22.4	41.2	- 8.7
07:45 - 08:00	34.6	12.0	22.6	65.9	-31.3	65.7	-31.1	65.8	-31.2	13.2	21.4	12.0	22.6	53.9	-19.3	66.2	-31.6	12.1	22.5	63.8	-29.2	14.4	20.2	40.5	- 5.9
08:00 - 08:15	32.0	12.7	19.3	62.2	-30.2	52.9	-20.9	62.8	-30.8	17.5	14.5	12.3	19.7	64.4	-32.4	64.3	-32.3	15.4	16.6	65.5	-33.5	12.8	19.2	40.3	- 8.3
08:15 - 08:30	32.7	24.8	7.9	64.9	-32.2	65.8	-33.1	64.5	-31.8	63.1	-30.4	13.6	19.1	66.1	-33.4	65.6	-32.9	42.1	- 9.4	65.7	-33.0	15.0	17.7	50.1	-17.4
08:30 - 08:45	32.4	64.7	-32.3	66.1	-33.7	65.8	-33.4	66.1	-33.7	65.3	-32.9	65.8	-33.4	66.1	-33.7	61.8	-29.4	58.2	-25.8	65.8	-33.4	66.0	-33.6	64.7	-32.3
08:45 - 09:00	33.1	59.9	-26.8	65.9	-32.8	65.7	-32.6	65.0	-31.9	66.1	-33.0	66.6	-33.5	66.5	-33.4	66.2	-33.1	65.7	-32.6	66.4	-33.3	67.1	-34.0	65.6	-32.5
09:00 - 09:15	32.8	64.6	-31.8	66.0	-33.2	64.8	-32.0	66.4	-33.6	66.0	-33.2	64.1	-31.3	66.5	-33.7	66.3	-33.5	66.0	-33.2	66.6	-33.8	66.6	-33.8	65.8	-33.0
09:15 - 09:30	34.4	66.3	-32.0	66.2	-31.9	66.4	-32.1	66.5	-32.2	62.8	-28.5	65.7	-31.4	66.4	-32.1	66.3	-32.0	66.5	-32.2	66.4	-32.1	54.0	-19.7	64.8	-30.5
Hour 1	54.6	65.1	-10.4	60.0	- 5.4	64.1	- 9.4	62.7	- 8.0	58.9	- 4.3	61.5	- 6.9	62.5	- 7.9	60.8	- 6.2	61.5	- 6.9	63.7	- 9.1	60.4	- 5.8	61.9	- 7.3
Hour 2	31.8	54.4	-22.6	64.6	-32.8	62.6	-30.8	63.5	-31.7	52.1	-20.3	55.3	-23.5	64.8	-33.0	62.6	-30.8	55.7	-23.9	63.9	-32.1	45.5	-13.7	58.6	-26.8
Hour 3	33.0	15.5	17.5	64.6	-31.6	62.2	-29.3	64.7	-31.8	26.6	6.4	12.8	20.2	62.4	-29.5	65.4	-32.5	21.0	12.0	65.0	-32.0	13.1	19.9	43.0	-10.1
Hour 4	33.2	63.9	-30.7	66.1	-32.9	65.7	-32.5	66.0	-32.8	65.1	-31.9	65.6	-32.4	66.4	-33.2	65.2	-32.0	64.1	-30.9	66.3	-33.1	63.4	-30.3	65.2	-32.1
11	38.1	49.7	-11.5	63.8	-25.7	63.6	-25.5	64.2	-26.1	50.7	-12.5	48.8	-10.7	64.0	-25.9	63.5	-25.3	50.5	-12.4	64.7	-26.6	45.6	- 7.5	57.2	-19.1



CONCEPT 3

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

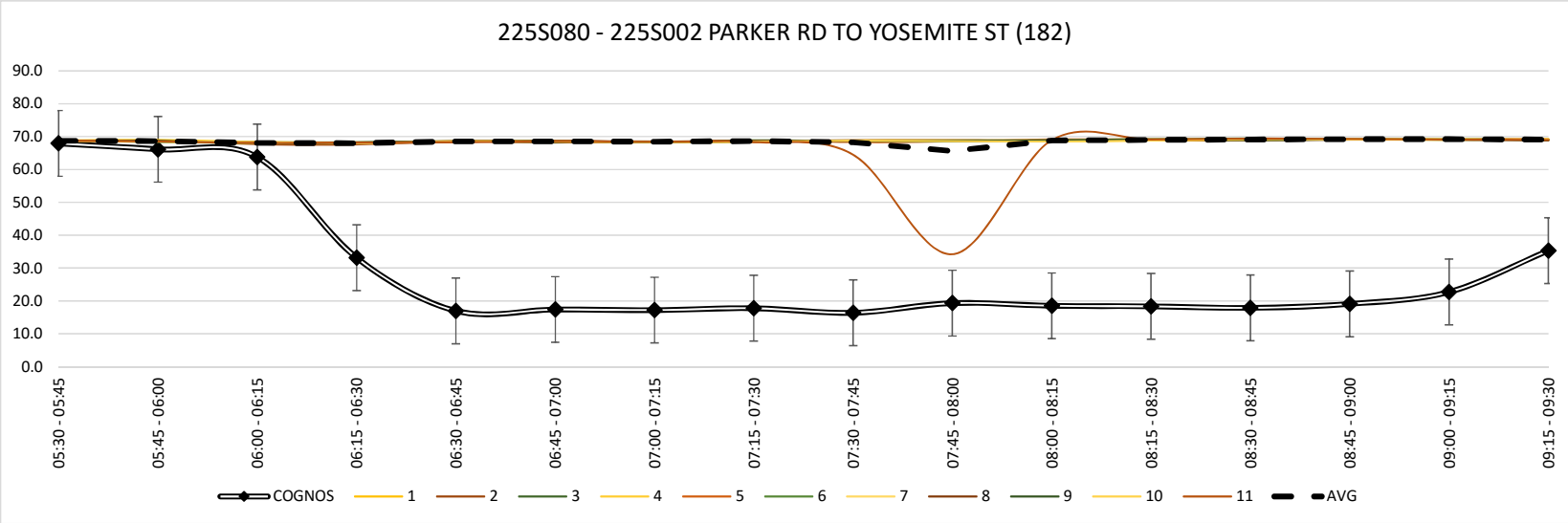
AM	COGNOS	MODEL																						AGGREGATE	
TIME	225S070	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	69.7	68.1	1.6	67.3	2.4	67.8	1.9	68.1	1.6	68.0	1.7	67.7	2.0	67.5	2.2	67.7	2.0	67.9	1.8	67.9	1.8	68.0	1.7	67.8	1.9
05:45 - 06:00	65.0	67.7	- 2.7	67.8	- 2.8	67.5	- 2.5	67.2	- 2.2	67.6	- 2.6	67.4	- 2.4	67.1	- 2.1	67.7	- 2.7	67.7	- 2.7	67.0	- 2.0	67.2	- 2.2	67.5	- 2.5
06:00 - 06:15	61.2	66.4	- 5.2	65.9	- 4.7	66.4	- 5.2	66.6	- 5.4	66.7	- 5.5	66.6	- 5.4	66.9	- 5.7	66.7	- 5.5	67.3	- 6.1	66.5	- 5.3	66.3	- 5.1	66.6	- 5.4
06:15 - 06:30	25.6	66.3	-40.7	66.3	-40.7	66.1	-40.5	65.8	-40.2	65.9	-40.3	66.0	-40.4	66.2	-40.6	66.4	-40.8	66.1	-40.5	65.7	-40.1	66.5	-40.9	66.1	-40.5
06:30 - 06:45	19.4	67.0	-47.6	66.4	-47.0	67.1	-47.7	67.3	-47.9	66.6	-47.2	66.7	-47.3	67.6	-48.2	66.9	-47.5	66.8	-47.4	67.4	-48.0	66.7	-47.3	66.9	-47.5
06:45 - 07:00	19.3	67.2	-47.9	67.2	-47.9	66.3	-47.0	66.7	-47.4	67.5	-48.2	67.5	-48.2	67.3	-48.0	67.7	-48.4	67.1	-47.8	66.9	-47.6	67.6	-48.3	67.2	-47.9
07:00 - 07:15	19.7	66.7	-47.0	67.7	-48.0	66.4	-46.7	66.8	-47.1	66.3	-46.6	67.3	-47.6	66.5	-46.8	67.5	-47.8	66.9	-47.2	66.6	-46.9	67.0	-47.3	66.9	-47.2
07:15 - 07:30	18.4	65.0	-46.6	67.4	-49.0	67.2	-48.8	67.4	-49.0	67.0	-48.6	67.9	-49.5	66.9	-48.5	67.8	-49.4	67.2	-48.8	66.7	-48.3	27.0	- 8.6	63.4	-45.0
07:30 - 07:45	19.4	27.1	- 7.7	67.0	-47.6	67.7	-48.3	68.0	-48.6	58.0	-38.6	56.5	-37.1	67.7	-48.3	67.9	-48.5	59.4	-40.0	67.1	-47.7	13.7	5.7	56.4	-37.0
07:45 - 08:00	21.1	13.7	7.4	67.9	-46.8	67.5	-46.4	67.8	-46.7	12.7	8.4	24.6	- 3.5	68.1	-47.0	67.9	-46.8	57.5	-36.4	67.3	-46.2	14.8	6.3	48.2	-27.1
08:00 - 08:15	19.2	21.1	- 1.9	67.6	-48.4	68.0	-48.8	67.3	-48.1	30.5	-11.3	13.2	6.0	67.6	-48.4	67.5	-48.3	54.6	-35.4	67.1	-47.9	22.6	- 3.4	49.7	-30.5
08:15 - 08:30	20.4	64.8	-44.4	68.1	-47.7	68.2	-47.8	67.8	-47.4	68.0	-47.6	22.6	- 2.2	68.5	-48.1	68.2	-47.8	68.5	-48.1	68.0	-47.6	35.1	-14.7	60.7	-40.3
08:30 - 08:45	19.0	68.1	-49.1	68.3	-49.3	67.8	-48.8	68.3	-49.3	67.9	-48.9	68.7	-49.7	68.4	-49.4	68.1	-49.1	68.1	-49.1	68.6	-49.6	68.4	-49.4	68.2	-49.2
08:45 - 09:00	20.8	68.5	-47.7	68.2	-47.4	67.7	-46.9	68.4	-47.6	68.3	-47.5	68.4	-47.6	68.3	-47.5	68.2	-47.4	68.4	-47.6	68.3	-47.5	68.4	-47.6	68.3	-47.5
09:00 - 09:15	19.5	68.1	-48.7	68.5	-49.1	68.3	-48.9	68.2	-48.8	68.5	-49.1	68.7	-49.3	68.4	-49.0	68.2	-48.8	68.4	-49.0	67.8	-48.4	68.4	-49.0	68.3	-48.9
09:15 - 09:30	26.7	68.1	-41.4	68.2	-41.5	68.4	-41.7	68.7	-42.0	68.4	-41.7	67.9	-41.2	68.2	-41.5	68.2	-41.5	68.5	-41.8	68.5	-41.8	68.3	-41.6	68.3	-41.6
Hour 1	55.4	67.1	-11.8	66.8	-11.5	67.0	-11.6	66.9	-11.6	67.1	-11.7	66.9	-11.6	66.9	-11.6	67.1	-11.8	67.3	-11.9	66.8	-11.4	67.0	-11.6	67.0	-11.6
Hour 2	19.2	66.5	-47.3	67.2	-48.0	66.8	-47.6	67.1	-47.9	66.9	-47.7	67.4	-48.2	67.1	-47.9	67.5	-48.3	67.0	-47.8	66.9	-47.7	57.1	-37.9	66.1	-46.9
Hour 3	20.0	31.7	-11.6	67.7	-47.6	67.9	-47.8	67.7	-47.7	42.3	-22.3	29.2	- 9.2	68.0	-47.9	67.9	-47.8	60.0	-40.0	67.4	-47.3	21.6	- 1.5	53.8	-33.7
Hour 4	21.5	68.2	-46.7	68.3	-46.8	68.1	-46.5	68.4	-46.9	68.3	-46.8	68.4	-46.9	68.3	-46.8	68.2	-46.7	68.4	-46.8	68.3	-46.8	68.4	-46.9	68.3	-46.8
11	29.0	58.4	-29.3	67.5	-38.5	67.4	-38.4	67.5	-38.5	61.1	-32.1	58.0	-29.0	67.6	-38.6	67.7	-38.6	65.7	-36.6	67.3	-38.3	53.5	-24.5	63.8	-34.8



CONCEPT 3

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

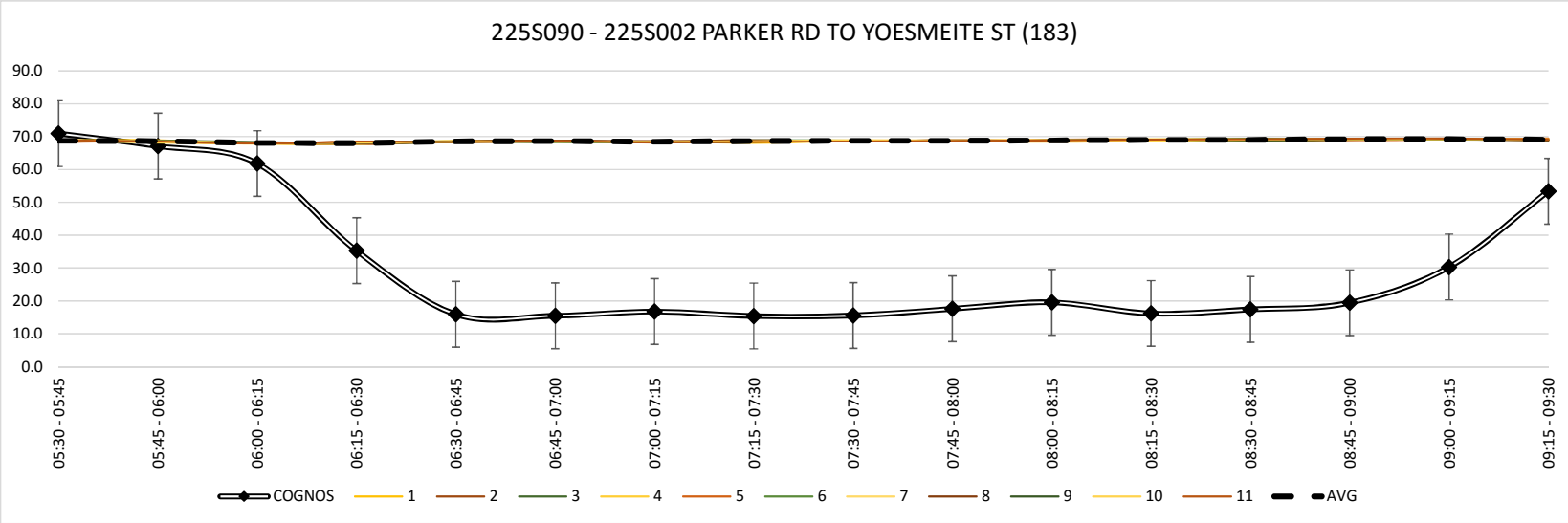
AM	COGNOS	MODEL																						AGGREGATE	
TIME	225S080	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	67.9	68.8	- 0.9	68.7	- 0.8	68.7	- 0.8	68.9	- 1.0	68.7	- 0.8	68.4	- 0.5	68.5	- 0.6	68.6	- 0.7	68.8	- 0.9	68.8	- 0.9	68.8	- 0.9	68.7	- 0.8
05:45 - 06:00	66.1	69.0	- 2.9	68.7	- 2.6	68.3	- 2.2	68.5	- 2.4	68.5	- 2.4	68.6	- 2.5	68.5	- 2.4	68.6	- 2.5	68.6	- 2.5	68.4	- 2.3	68.5	- 2.4	68.6	- 2.5
06:00 - 06:15	63.8	68.3	- 4.5	67.7	- 3.9	68.0	- 4.2	68.0	- 4.2	68.3	- 4.5	68.3	- 4.5	68.2	- 4.4	68.1	- 4.3	68.2	- 4.4	68.4	- 4.6	68.1	- 4.3	68.1	- 4.3
06:15 - 06:30	33.2	68.0	-34.9	67.6	-34.5	68.2	-35.1	67.9	-34.8	68.0	-34.9	68.3	-35.2	67.9	-34.8	68.1	-35.0	68.2	-35.1	68.1	-35.0	68.2	-35.1	68.0	-34.9
06:30 - 06:45	17.0	68.5	-51.5	68.4	-51.4	68.6	-51.6	68.6	-51.6	68.4	-51.4	68.6	-51.6	68.7	-51.7	68.6	-51.6	68.5	-51.5	68.5	-51.5	68.3	-51.3	68.5	-51.5
06:45 - 07:00	17.4	68.6	-51.2	68.6	-51.2	68.2	-50.8	68.5	-51.1	68.3	-50.9	68.6	-51.2	68.5	-51.1	68.7	-51.3	68.6	-51.2	68.6	-51.2	68.6	-51.2	68.5	-51.1
07:00 - 07:15	17.2	68.4	-51.2	68.4	-51.2	68.4	-51.2	68.3	-51.1	68.3	-51.1	68.3	-51.1	68.3	-51.1	68.5	-51.3	68.3	-51.1	68.3	-51.1	68.4	-51.2	68.4	-51.2
07:15 - 07:30	17.8	68.6	-50.8	68.6	-50.8	68.6	-50.8	68.4	-50.6	68.8	-51.0	68.9	-51.1	68.4	-50.6	68.7	-50.9	68.5	-50.7	68.4	-50.6	68.3	-50.5	68.6	-50.8
07:30 - 07:45	16.4	68.5	-52.1	68.5	-52.1	68.7	-52.3	68.7	-52.3	68.3	-51.9	68.6	-52.2	68.9	-52.5	68.9	-52.5	68.8	-52.4	68.8	-52.4	64.5	-48.1	68.3	-51.9
07:45 - 08:00	19.4	68.7	-49.4	68.5	-49.2	68.7	-49.4	68.8	-49.5	68.5	-49.2	68.6	-49.3	69.0	-49.7	68.9	-49.6	68.8	-49.5	68.6	-49.3	34.2	-14.9	65.6	-46.3
08:00 - 08:15	18.5	68.8	-50.3	68.9	-50.4	68.9	-50.4	68.6	-50.1	69.2	-50.7	68.7	-50.2	68.9	-50.4	68.7	-50.2	68.9	-50.4	68.5	-50.0	68.9	-50.4	68.8	-50.3
08:15 - 08:30	18.4	68.8	-50.4	68.9	-50.5	69.0	-50.6	68.8	-50.4	69.0	-50.6	69.2	-50.8	69.3	-50.9	69.2	-50.8	69.2	-50.8	68.8	-50.4	69.1	-50.7	69.0	-50.6
08:30 - 08:45	17.9	68.9	-51.0	69.0	-51.1	69.0	-51.1	69.1	-51.2	69.0	-51.1	69.4	-51.5	69.0	-51.1	69.0	-51.1	68.9	-51.0	69.2	-51.3	69.4	-51.5	69.1	-51.2
08:45 - 09:00	19.1	69.3	-50.2	69.2	-50.1	69.1	-50.0	69.2	-50.1	69.0	-49.9	69.2	-50.1	69.2	-50.1	69.1	-50.0	69.1	-50.0	69.1	-50.0	69.3	-50.2	69.2	-50.1
09:00 - 09:15	22.7	69.1	-46.4	69.2	-46.5	69.1	-46.4	69.0	-46.3	69.3	-46.6	69.3	-46.6	69.3	-46.6	69.1	-46.4	69.0	-46.3	69.0	-46.3	69.1	-46.4	69.2	-46.5
09:15 - 09:30	35.3	69.0	-33.7	69.2	-33.9	69.1	-33.8	69.3	-34.0	69.2	-33.9	68.9	-33.6	69.0	-33.7	68.8	-33.5	69.0	-33.7	69.3	-34.0	69.0	-33.7	69.1	-33.8
Hour 1	57.7	68.5	-10.8	68.2	-10.4	68.3	-10.6	68.3	-10.6	68.4	-10.6	68.4	-10.7	68.3	-10.5	68.4	-10.6	68.5	-10.7	68.4	-10.7	68.4	-10.7	68.4	-10.6
Hour 2	17.3	68.5	-51.2	68.5	-51.2	68.5	-51.1	68.5	-51.1	68.5	-51.1	68.6	-51.3	68.5	-51.1	68.6	-51.3	68.5	-51.1	68.5	-51.1	68.4	-51.1	68.5	-51.2
Hour 3	18.2	68.7	-50.5	68.7	-50.5	68.8	-50.7	68.7	-50.6	68.8	-50.6	68.8	-50.6	69.0	-50.9	68.9	-50.8	68.9	-50.8	68.7	-50.5	59.2	-41.0	67.9	-49.8
Hour 4	23.8	69.1	-45.3	69.2	-45.4	69.1	-45.3	69.2	-45.4	69.1	-45.4	69.2	-45.4	69.1	-45.4	69.0	-45.2	69.0	-45.2	69.2	-45.4	69.2	-45.4	69.2	-45.4
11	29.3	68.7	-39.5	68.6	-39.4	68.7	-39.4	68.7	-39.4	68.7	-39.4	68.7	-39.5	68.7	-39.5	68.7	-39.5	68.7	-39.5	68.7	-39.4	66.3	-37.0	68.5	-39.2



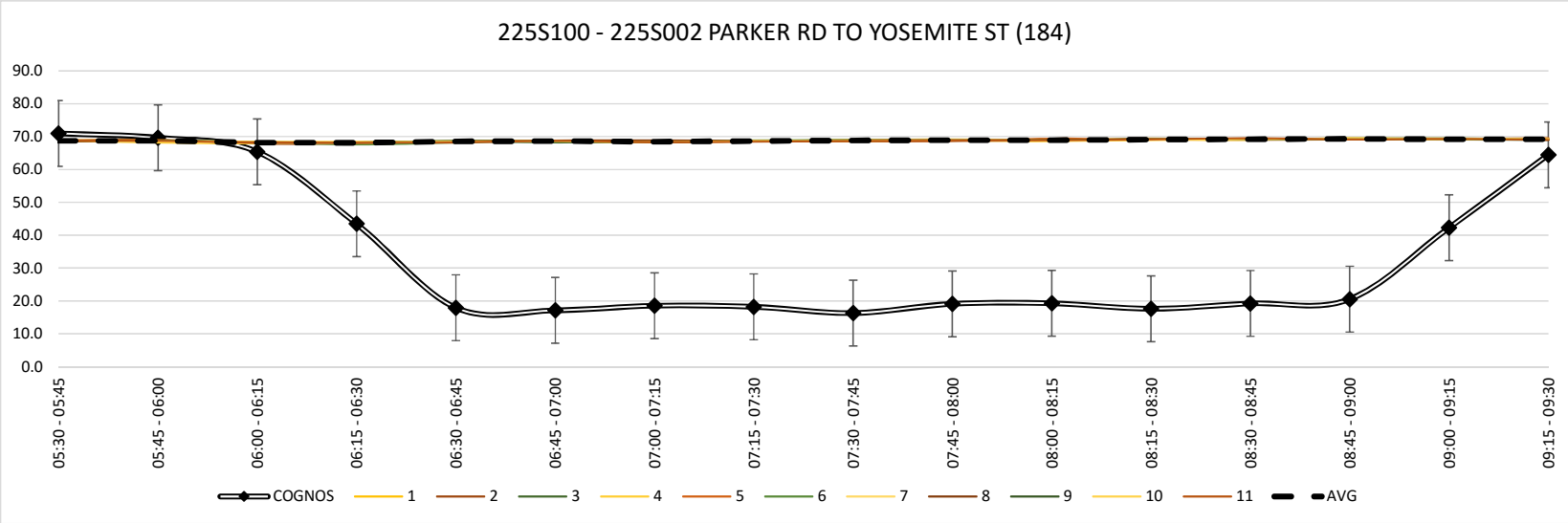
CONCEPT 3

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

AM	COGNOS	MODEL																						AGGREGATE	
TIME	225S090	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	70.9	68.9	2.0	68.8	2.1	68.7	2.2	69.0	1.9	68.3	2.6	68.5	2.4	68.7	2.2	68.6	2.3	68.6	2.3	69.0	1.9	68.9	2.0	68.7	2.2
05:45 - 06:00	67.1	68.9	- 1.8	68.7	- 1.6	68.4	- 1.3	68.2	- 1.1	68.6	- 1.5	68.6	- 1.5	68.3	- 1.2	68.6	- 1.5	68.8	- 1.7	68.6	- 1.5	68.5	- 1.4	68.6	- 1.5
06:00 - 06:15	61.8	68.0	- 6.2	68.0	- 6.2	68.1	- 6.3	67.8	- 6.0	68.0	- 6.2	68.2	- 6.4	68.2	- 6.4	68.0	- 6.2	68.3	- 6.5	68.2	- 6.4	67.9	- 6.1	68.1	- 6.3
06:15 - 06:30	35.3	68.1	-32.8	67.7	-32.4	68.2	-32.9	67.8	-32.5	68.0	-32.7	67.9	-32.6	67.8	-32.5	67.9	-32.6	68.1	-32.8	68.1	-32.8	68.5	-33.2	68.0	-32.7
06:30 - 06:45	15.9	68.5	-52.6	68.4	-52.5	68.6	-52.7	68.7	-52.8	68.3	-52.4	68.3	-52.4	68.7	-52.8	68.5	-52.6	68.5	-52.6	68.4	-52.5	68.3	-52.4	68.5	-52.6
06:45 - 07:00	15.5	68.6	-53.1	68.8	-53.3	68.3	-52.8	68.6	-53.1	68.5	-53.0	68.4	-52.9	68.4	-52.9	68.8	-53.3	68.5	-53.0	68.5	-53.0	68.6	-53.1	68.6	-53.1
07:00 - 07:15	16.8	68.4	-51.6	68.4	-51.6	68.3	-51.5	68.5	-51.7	68.4	-51.6	68.3	-51.5	68.5	-51.7	68.6	-51.8	68.3	-51.5	68.4	-51.6	68.2	-51.4	68.4	-51.6
07:15 - 07:30	15.4	68.1	-52.7	68.8	-53.4	68.5	-53.1	68.5	-53.1	68.4	-53.0	68.9	-53.5	68.7	-53.3	68.9	-53.5	68.4	-53.0	68.6	-53.2	68.4	-53.0	68.6	-53.2
07:30 - 07:45	15.6	68.6	-53.1	68.6	-53.1	68.7	-53.2	68.7	-53.2	68.6	-53.1	68.8	-53.3	68.8	-53.3	68.6	-53.1	68.8	-53.3	68.9	-53.4	68.5	-53.0	68.7	-53.2
07:45 - 08:00	17.6	68.6	-51.0	68.5	-50.9	68.7	-51.1	68.8	-51.2	68.7	-51.1	68.5	-50.9	69.0	-51.4	68.9	-51.3	68.7	-51.1	68.7	-51.1	68.7	-51.1	68.7	-51.1
08:00 - 08:15	19.6	68.4	-48.9	68.9	-49.4	68.9	-49.4	68.8	-49.3	69.1	-49.6	68.9	-49.4	69.0	-49.5	68.7	-49.2	68.9	-49.4	68.6	-49.1	68.8	-49.3	68.8	-49.3
08:15 - 08:30	16.2	68.7	-52.5	68.9	-52.7	69.0	-52.8	69.0	-52.8	69.1	-52.9	69.1	-52.9	69.3	-53.1	69.1	-52.9	69.0	-52.8	68.7	-52.5	69.1	-52.9	69.0	-52.8
08:30 - 08:45	17.4	69.0	-51.6	69.0	-51.6	68.5	-51.1	69.0	-51.6	69.1	-51.7	69.4	-52.0	69.1	-51.7	69.0	-51.6	68.9	-51.5	69.1	-51.7	69.2	-51.8	69.0	-51.6
08:45 - 09:00	19.5	69.3	-49.9	69.1	-49.7	69.0	-49.6	69.3	-49.9	68.9	-49.5	69.2	-49.8	69.2	-49.8	69.2	-49.8	69.2	-49.8	69.2	-49.8	69.4	-50.0	69.2	-49.8
09:00 - 09:15	30.3	69.2	-38.9	69.2	-38.9	69.1	-38.8	69.3	-39.0	69.2	-38.9	69.2	-38.9	69.2	-38.9	69.2	-38.9	69.1	-38.8	69.2	-38.9	69.4	-39.1	69.2	-38.9
09:15 - 09:30	53.4	69.0	-15.6	69.3	-15.9	69.1	-15.7	69.2	-15.8	69.4	-16.0	69.0	-15.6	68.9	-15.5	68.8	-15.4	69.0	-15.6	69.2	-15.8	69.1	-15.7	69.1	-15.7
Hour 1	58.8	68.5	- 9.7	68.3	- 9.5	68.4	- 9.6	68.2	- 9.4	68.2	- 9.5	68.3	- 9.5	68.3	- 9.5	68.3	- 9.5	68.5	- 9.7	68.5	- 9.7	68.5	- 9.7	68.4	- 9.6
Hour 2	15.9	68.4	-52.5	68.6	-52.7	68.4	-52.5	68.6	-52.7	68.4	-52.5	68.5	-52.6	68.6	-52.7	68.7	-52.8	68.4	-52.5	68.5	-52.6	68.4	-52.5	68.5	-52.6
Hour 3	17.2	68.6	-51.3	68.7	-51.5	68.8	-51.6	68.8	-51.6	68.9	-51.6	68.8	-51.6	69.0	-51.8	68.8	-51.6	68.9	-51.6	68.7	-51.5	68.8	-51.5	68.8	-51.6
Hour 4	30.1	69.1	-39.0	69.2	-39.0	68.9	-38.8	69.2	-39.1	69.2	-39.0	69.2	-39.1	69.1	-39.0	69.1	-38.9	69.1	-38.9	69.2	-39.0	69.3	-39.1	69.1	-39.0
11	30.5	68.6	-38.1	68.7	-38.2	68.6	-38.1	68.7	-38.2	68.7	-38.2	68.7	-38.2	68.7	-38.2	68.7	-38.2	68.7	-38.2	68.7	-38.2	68.7	-38.2	68.7	-38.2



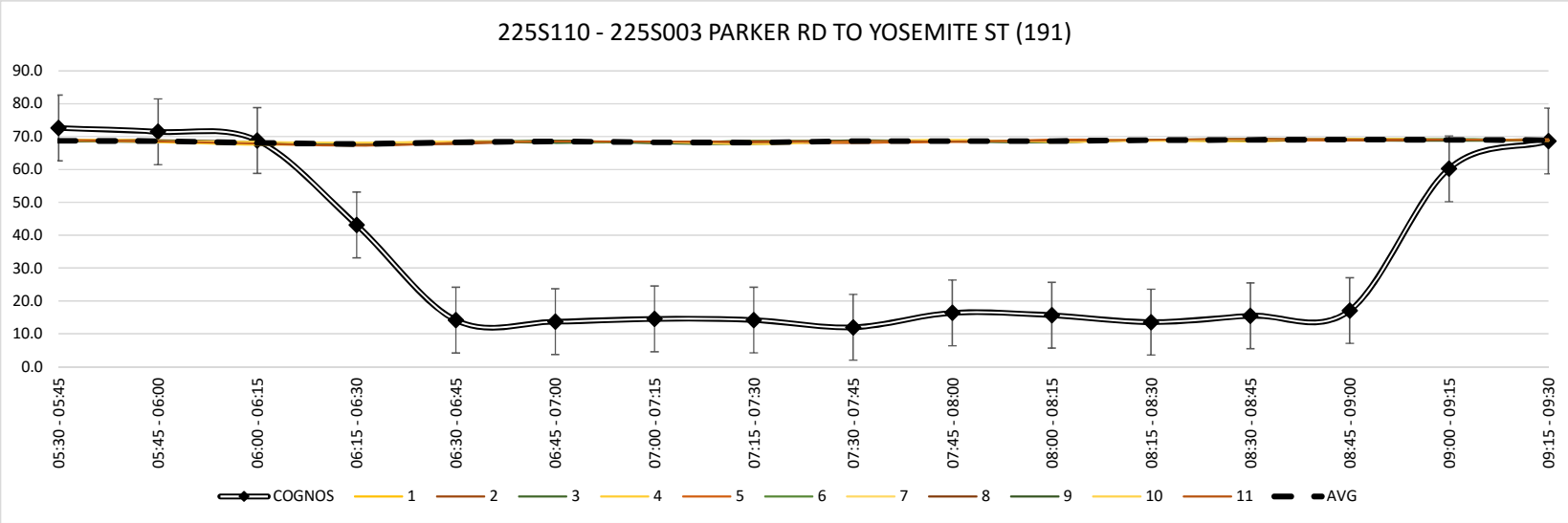
CONCEPT 3		Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run																							
AM	COGNOS	MODEL																						AGGREGATE	
TIME	225S100	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	71.0	68.9	2.1	68.9	2.1	68.7	2.3	68.7	2.3	68.5	2.5	68.7	2.3	68.9	2.1	68.6	2.4	68.7	2.3	68.9	2.1	68.8	2.2	68.7	2.3
05:45 - 06:00	69.6	68.9	0.7	68.9	0.7	68.6	1.0	68.2	1.4	68.7	0.9	68.7	0.9	68.5	1.1	68.9	0.7	68.8	0.8	68.6	1.0	68.7	0.9	68.7	0.9
06:00 - 06:15	65.4	68.3	- 3.0	67.9	- 2.6	68.1	- 2.8	67.9	- 2.6	68.1	- 2.8	68.3	- 3.0	68.1	- 2.8	68.1	- 2.8	68.4	- 3.1	68.5	- 3.2	68.2	- 2.9	68.2	- 2.9
06:15 - 06:30	43.5	68.3	-24.8	67.9	-24.4	68.2	-24.7	68.1	-24.6	67.9	-24.4	67.6	-24.1	68.0	-24.5	68.1	-24.6	68.2	-24.7	68.3	-24.8	68.2	-24.7	68.1	-24.6
06:30 - 06:45	17.9	68.6	-50.7	68.5	-50.6	68.6	-50.7	68.4	-50.5	68.3	-50.4	68.2	-50.3	68.7	-50.8	68.5	-50.6	68.7	-50.8	68.5	-50.6	68.2	-50.3	68.5	-50.6
06:45 - 07:00	17.1	68.7	-51.6	68.5	-51.4	68.2	-51.1	68.6	-51.5	68.6	-51.5	68.6	-51.5	68.5	-51.4	68.9	-51.8	68.5	-51.4	68.6	-51.5	68.7	-51.6	68.6	-51.5
07:00 - 07:15	18.6	68.5	-49.9	68.6	-50.0	68.4	-49.8	68.4	-49.8	68.3	-49.7	68.5	-49.9	68.5	-49.9	68.8	-50.2	68.3	-49.7	68.3	-49.7	68.3	-49.7	68.4	-49.8
07:15 - 07:30	18.2	68.5	-50.3	68.8	-50.6	68.7	-50.5	68.5	-50.3	68.5	-50.3	68.9	-50.7	68.7	-50.5	68.8	-50.6	68.7	-50.5	68.7	-50.5	68.4	-50.2	68.6	-50.4
07:30 - 07:45	16.3	69.0	-52.7	68.5	-52.2	68.9	-52.6	68.8	-52.5	68.6	-52.3	68.9	-52.6	68.9	-52.6	68.7	-52.4	68.9	-52.6	68.7	-52.4	68.6	-52.3	68.8	-52.5
07:45 - 08:00	19.1	68.8	-49.7	68.7	-49.6	68.9	-49.8	69.1	-50.0	68.7	-49.6	68.8	-49.7	69.2	-50.1	69.0	-49.9	68.9	-49.8	68.9	-49.8	68.8	-49.7	68.9	-49.8
08:00 - 08:15	19.3	68.6	-49.3	68.9	-49.6	69.0	-49.7	68.7	-49.4	69.4	-50.1	68.9	-49.6	69.0	-49.7	68.9	-49.6	68.9	-49.6	68.8	-49.5	68.9	-49.6	68.9	-49.6
08:15 - 08:30	17.6	69.1	-51.5	69.1	-51.5	69.1	-51.5	69.1	-51.5	69.1	-51.5	69.2	-51.6	69.4	-51.8	69.3	-51.7	69.2	-51.6	68.9	-51.3	69.1	-51.5	69.1	-51.5
08:30 - 08:45	19.2	69.0	-49.8	69.0	-49.8	69.3	-50.1	69.0	-49.8	69.1	-49.9	69.3	-50.1	69.2	-50.0	69.2	-50.0	69.1	-49.9	69.2	-50.0	69.5	-50.3	69.2	-50.0
08:45 - 09:00	20.5	69.4	-48.9	69.2	-48.7	69.3	-48.8	69.5	-49.0	69.1	-48.6	69.4	-48.9	69.3	-48.8	69.3	-48.8	69.2	-48.7	69.3	-48.8	69.1	-48.6	69.3	-48.8
09:00 - 09:15	42.3	69.2	-26.9	69.3	-27.0	69.1	-26.8	69.4	-27.1	69.3	-27.0	69.4	-27.1	69.3	-27.0	69.2	-26.9	69.1	-26.8	69.2	-26.9	69.3	-27.0	69.2	-26.9
09:15 - 09:30	64.4	69.1	- 4.7	69.3	- 4.9	69.1	- 4.7	69.3	- 4.9	69.5	- 5.1	69.2	- 4.8	69.1	- 4.7	69.0	- 4.6	69.0	- 4.6	69.3	- 4.9	69.0	- 4.6	69.2	- 4.8
Hour 1	62.4	68.6	- 6.2	68.4	- 6.0	68.4	- 6.0	68.2	- 5.9	68.3	- 5.9	68.3	- 6.0	68.4	- 6.0	68.4	- 6.1	68.5	- 6.2	68.6	- 6.2	68.5	- 6.1	68.4	- 6.1
Hour 2	18.0	68.6	-50.6	68.6	-50.6	68.5	-50.5	68.5	-50.5	68.4	-50.5	68.6	-50.6	68.6	-50.6	68.8	-50.8	68.6	-50.6	68.5	-50.6	68.4	-50.4	68.5	-50.6
Hour 3	18.1	68.9	-50.8	68.8	-50.7	69.0	-50.9	68.9	-50.8	69.0	-50.9	69.0	-50.9	69.1	-51.0	69.0	-50.9	69.0	-50.9	68.8	-50.7	68.9	-50.8	68.9	-50.8
Hour 4	36.6	69.2	-32.6	69.2	-32.6	69.2	-32.6	69.3	-32.7	69.3	-32.6	69.3	-32.7	69.2	-32.6	69.2	-32.6	69.1	-32.5	69.3	-32.6	69.2	-32.6	69.2	-32.6
11	33.8	68.8	-35.1	68.8	-35.0	68.8	-35.0	68.7	-35.0	68.7	-35.0	68.8	-35.0	68.8	-35.1	68.8	-35.1	68.8	-35.0	68.8	-35.0	68.7	-35.0	68.8	-35.0



CONCEPT 3

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

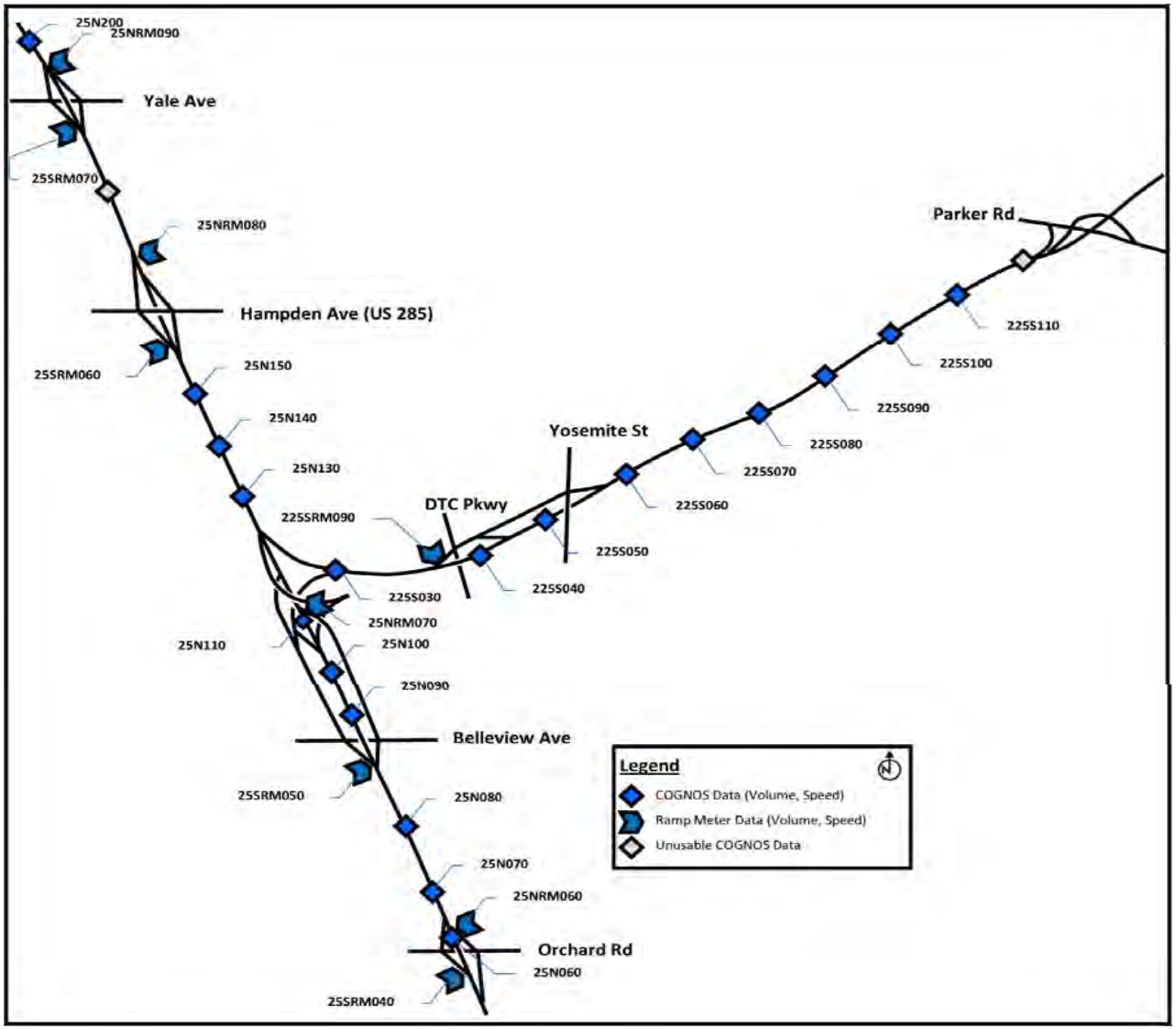
AM	COGNOS	MODEL																						AGGREGATE	
TIME	225S110	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	72.6	69.0	3.6	68.8	3.8	68.6	4.0	68.7	3.9	68.6	4.0	68.6	4.0	68.8	3.8	68.6	4.0	68.6	4.0	68.8	3.8	69.0	3.6	68.7	3.9
05:45 - 06:00	71.5	68.9	2.6	68.7	2.8	68.3	3.2	68.3	3.2	68.6	2.9	68.7	2.8	68.6	2.9	68.9	2.6	68.7	2.8	68.6	2.9	68.5	3.0	68.6	2.9
06:00 - 06:15	68.8	68.1	0.7	68.2	0.6	68.2	0.6	67.5	1.3	68.2	0.6	68.2	0.6	68.2	0.6	68.3	0.5	68.4	0.4	68.4	0.4	67.9	0.9	68.1	0.7
06:15 - 06:30	43.1	67.7	-24.6	67.7	-24.6	67.5	-24.4	67.9	-24.8	67.9	-24.8	68.0	-24.9	68.1	-25.0	67.7	-24.6	67.3	-24.2	68.1	-25.0	67.2	-24.1	67.7	-24.6
06:30 - 06:45	14.2	68.2	-54.0	67.7	-53.5	68.4	-54.2	68.5	-54.3	68.5	-54.3	68.4	-54.2	68.6	-54.4	68.2	-54.0	68.2	-54.0	68.3	-54.1	68.1	-53.9	68.3	-54.1
06:45 - 07:00	13.7	68.7	-55.0	68.7	-55.0	68.1	-54.4	68.5	-54.8	68.5	-54.8	68.5	-54.8	68.5	-54.8	68.6	-54.9	68.7	-55.0	68.5	-54.8	68.5	-54.8	68.5	-54.8
07:00 - 07:15	14.6	68.2	-53.6	68.1	-53.5	68.4	-53.8	68.4	-53.8	68.4	-53.8	68.1	-53.5	68.4	-53.8	68.3	-53.7	68.0	-53.4	68.3	-53.7	68.5	-53.9	68.3	-53.7
07:15 - 07:30	14.2	67.9	-53.7	68.3	-54.1	68.2	-54.0	68.6	-54.4	68.2	-54.0	68.7	-54.5	68.5	-54.3	68.6	-54.4	67.7	-53.5	67.7	-53.5	68.3	-54.1	68.2	-54.0
07:30 - 07:45	12.0	68.7	-56.7	68.1	-56.1	68.8	-56.8	68.6	-56.6	68.2	-56.2	68.7	-56.7	68.6	-56.6	68.6	-56.6	68.9	-56.9	68.5	-56.5	68.6	-56.6	68.6	-56.6
07:45 - 08:00	16.4	68.5	-52.1	68.6	-52.2	68.5	-52.1	69.0	-52.6	68.3	-51.9	68.5	-52.1	68.6	-52.2	68.7	-52.3	68.5	-52.1	68.8	-52.4	68.5	-52.1	68.6	-52.2
08:00 - 08:15	15.6	68.7	-53.1	68.3	-52.7	68.8	-53.2	68.2	-52.6	69.1	-53.5	68.3	-52.7	68.7	-53.1	68.6	-53.0	68.3	-52.7	68.4	-52.8	68.8	-53.2	68.6	-53.0
08:15 - 08:30	13.6	68.7	-55.1	68.9	-55.3	68.8	-55.2	69.1	-55.5	68.8	-55.2	69.0	-55.4	69.1	-55.5	68.9	-55.3	68.9	-55.3	68.8	-55.2	69.0	-55.4	68.9	-55.3
08:30 - 08:45	15.5	68.7	-53.2	68.9	-53.4	69.2	-53.7	68.5	-53.0	68.8	-53.3	69.3	-53.8	69.1	-53.6	69.1	-53.6	68.9	-53.4	69.0	-53.5	69.3	-53.8	69.0	-53.5
08:45 - 09:00	17.1	69.3	-52.2	69.2	-52.1	68.8	-51.7	69.3	-52.2	68.8	-51.7	69.1	-52.0	69.1	-52.0	69.1	-52.0	69.2	-52.1	69.3	-52.2	69.1	-52.0	69.1	-52.0
09:00 - 09:15	60.2	69.0	- 8.8	68.8	- 8.6	68.7	- 8.5	69.1	- 8.9	69.0	- 8.8	69.3	- 9.1	69.1	- 8.9	68.8	- 8.6	68.9	- 8.7	69.1	- 8.9	69.1	- 8.9	69.0	- 8.8
09:15 - 09:30	68.7	68.7	- 0.0	69.3	- 0.6	68.8	- 0.1	68.9	- 0.3	68.7	- 0.0	68.8	- 0.1	68.7	- 0.0	68.9	- 0.3	68.8	- 0.1	68.9	- 0.3	68.9	- 0.3	68.9	- 0.3
Hour 1	64.0	68.4	- 4.4	68.4	- 4.3	68.2	- 4.1	68.1	- 4.1	68.3	- 4.3	68.4	- 4.4	68.4	- 4.4	68.4	- 4.4	68.3	- 4.3	68.5	- 4.5	68.2	- 4.2	68.3	- 4.3
Hour 2	14.2	68.3	-54.1	68.2	-54.0	68.3	-54.1	68.5	-54.3	68.4	-54.2	68.4	-54.3	68.5	-54.3	68.4	-54.3	68.2	-54.0	68.2	-54.0	68.4	-54.2	68.3	-54.2
Hour 3	14.4	68.7	-54.3	68.5	-54.1	68.7	-54.3	68.7	-54.3	68.6	-54.2	68.6	-54.2	68.8	-54.4	68.7	-54.3	68.7	-54.3	68.6	-54.2	68.7	-54.3	68.7	-54.3
Hour 4	40.4	68.9	-28.6	69.1	-28.7	68.9	-28.5	69.0	-28.6	68.8	-28.5	69.1	-28.8	69.0	-28.6	69.0	-28.6	69.0	-28.6	69.1	-28.7	69.1	-28.7	69.0	-28.6
11	33.2	68.6	-35.3	68.5	-35.3	68.5	-35.3	68.6	-35.3	68.5	-35.3	68.6	-35.4	68.7	-35.4	68.6	-35.4	68.5	-35.3	68.6	-35.4	68.6	-35.4	68.6	-35.3



AVERAGE VEHICLE SPEEDS - BY LINK

CONCEPT 3

ROUTE: I-25
PERIOD: AM

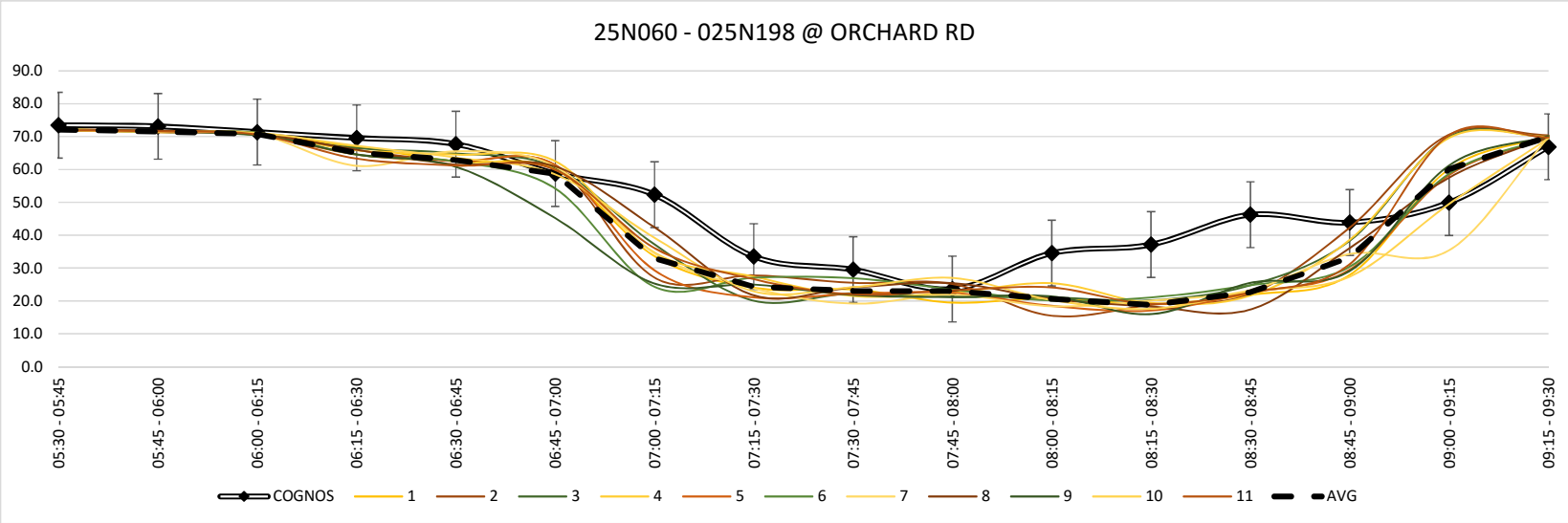


LOCATION	COGNOS DESCRIPTION
25N060	025N198 @ ORCHARD RD
25N070	025N199 0.4MI N OF ORCHARD RD
25N080	025N199 0.4MI S OF BELLEVIEW AVE
25N090	025S199 @ BELLVIEW AVE
25N100	025N200 BELLVIEW AVE TO I-25 NB (153)
25N110	025N200 @ I-225
25N130	025N201 0.2MI N OF I-225
25N140	025N201 I-225 TO HAMPDEN AVE 2 (132)
25N150	025N201 0.6MI S OF HAMPDEN AVE
25N200	025N203 0.4MI N OF YALE AVE (124)

CONCEPT 3

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

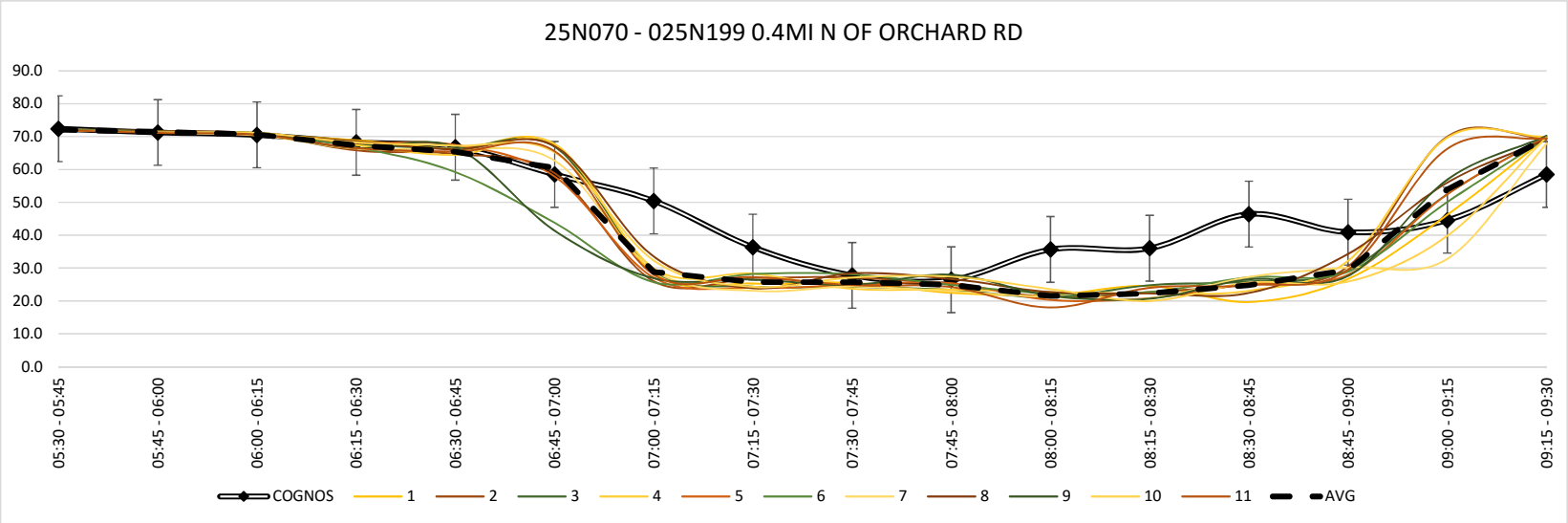
AM	COGNOS	MODEL																						AGGREGATE	
TIME	25N060	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	73.5	71.9	1.6	72.3	1.2	72.1	1.4	72.3	1.2	72.0	1.5	72.3	1.2	72.2	1.3	72.0	1.5	71.9	1.6	71.9	1.6	71.9	1.6	72.1	1.4
05:45 - 06:00	73.1	71.7	1.4	71.7	1.4	71.6	1.5	71.5	1.6	71.3	1.8	71.4	1.7	71.3	1.8	71.8	1.3	71.4	1.7	71.4	1.7	71.6	1.5	71.5	1.6
06:00 - 06:15	71.4	70.6	0.8	71.1	0.3	70.4	0.9	70.8	0.5	70.6	0.8	71.2	0.1	70.7	0.6	70.8	0.5	70.5	0.8	71.1	0.3	70.6	0.8	70.8	0.5
06:15 - 06:30	69.6	66.9	2.7	65.9	3.7	66.5	3.1	65.8	3.8	64.5	5.1	64.5	5.1	61.1	8.5	66.0	3.6	64.6	5.0	67.2	2.4	63.3	6.3	65.1	4.5
06:30 - 06:45	67.7	62.4	5.3	62.5	5.2	64.9	2.8	64.5	3.2	62.6	5.1	62.4	5.3	65.5	2.2	61.5	6.2	60.8	6.9	63.6	4.1	61.2	6.5	62.9	4.8
06:45 - 07:00	58.8	60.0	- 1.2	61.3	- 2.5	60.6	- 1.8	62.5	- 3.7	61.4	- 2.6	54.2	4.6	60.9	- 2.1	60.9	- 2.1	45.2	13.6	58.5	0.3	59.9	- 1.1	58.7	0.1
07:00 - 07:15	52.3	33.6	18.7	27.1	25.2	37.2	15.1	34.7	17.6	29.3	23.0	24.3	28.0	34.5	17.8	42.4	9.9	25.3	27.0	39.2	13.1	36.1	16.2	33.0	19.3
07:15 - 07:30	33.5	24.0	9.5	27.8	5.7	20.1	13.4	27.4	6.1	21.1	12.4	27.1	6.4	23.8	9.7	21.7	11.8	25.0	8.5	22.9	10.6	26.6	6.9	24.3	9.2
07:30 - 07:45	29.5	23.5	6.0	25.5	4.0	22.4	7.1	21.5	8.0	22.2	7.3	26.9	2.6	19.2	10.3	24.1	5.4	21.8	7.7	24.2	5.3	22.0	7.5	23.0	6.5
07:45 - 08:00	23.6	19.5	4.1	25.2	- 1.6	21.2	2.4	22.5	1.1	22.5	1.1	23.5	0.1	21.9	1.7	25.4	- 1.8	21.2	2.4	27.0	- 3.4	23.2	0.4	23.0	0.6
08:00 - 08:15	34.5	20.9	13.6	15.5	19.0	21.1	13.4	25.4	9.1	18.5	16.0	20.1	14.4	18.4	16.1	20.6	13.9	21.4	13.1	20.3	14.2	24.1	10.4	20.6	13.9
08:15 - 08:30	37.2	19.1	18.1	18.8	18.4	20.2	17.0	19.4	17.8	17.1	20.1	21.1	16.1	20.1	17.1	18.3	18.9	16.0	21.2	17.6	19.6	19.1	18.1	18.8	18.4
08:30 - 08:45	46.2	21.9	24.3	22.1	24.1	24.8	21.4	21.6	24.6	22.5	23.7	24.8	21.4	23.3	22.9	17.4	28.8	25.5	20.7	22.9	23.3	22.6	23.6	22.7	23.5
08:45 - 09:00	43.9	27.9	16.0	42.3	1.6	38.3	5.6	38.6	5.3	29.5	14.4	30.4	13.5	34.3	9.6	36.1	7.8	29.1	14.8	27.4	16.5	31.2	12.7	33.2	10.7
09:00 - 09:15	49.9	60.1	-10.2	70.6	-20.7	69.9	-20.0	69.6	-19.7	58.3	- 8.4	58.7	- 8.8	35.4	14.5	57.5	- 7.6	61.2	-11.3	49.5	0.4	70.4	-20.5	60.1	-10.2
09:15 - 09:30	66.9	70.2	- 3.3	70.4	- 3.5	70.0	- 3.1	70.0	- 3.1	69.5	- 2.6	69.6	- 2.7	69.8	- 2.9	69.9	- 3.0	70.2	- 3.3	69.4	- 2.5	69.7	- 2.8	69.9	- 3.0
Hour 1	71.9	70.3	1.6	70.3	1.6	70.2	1.7	70.1	1.8	69.6	2.3	69.9	2.0	68.8	3.1	70.2	1.7	69.6	2.3	70.4	1.5	69.4	2.5	69.9	2.0
Hour 2	53.1	45.0	8.1	44.7	8.4	45.7	7.4	47.3	5.8	43.6	9.5	42.0	11.1	46.2	6.9	46.6	6.4	39.1	14.0	46.1	7.0	46.0	7.1	44.7	8.3
Hour 3	31.2	20.8	10.5	21.3	10.0	21.2	10.0	22.2	9.0	20.1	11.1	22.9	8.3	19.9	11.3	22.1	9.1	20.1	11.1	22.3	8.9	22.1	9.1	21.4	9.9
Hour 4	51.7	45.0	6.7	51.4	0.4	50.8	1.0	50.0	1.8	45.0	6.8	45.9	5.9	40.7	11.0	45.2	6.5	46.5	5.2	42.3	9.4	48.5	3.3	46.5	5.3
11	52.0	45.3	6.7	46.9	5.1	47.0	5.0	47.4	4.6	44.6	7.4	45.2	6.8	43.9	8.1	46.0	5.9	43.8	8.1	45.3	6.7	46.5	5.5	45.6	6.4



CONCEPT 3

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

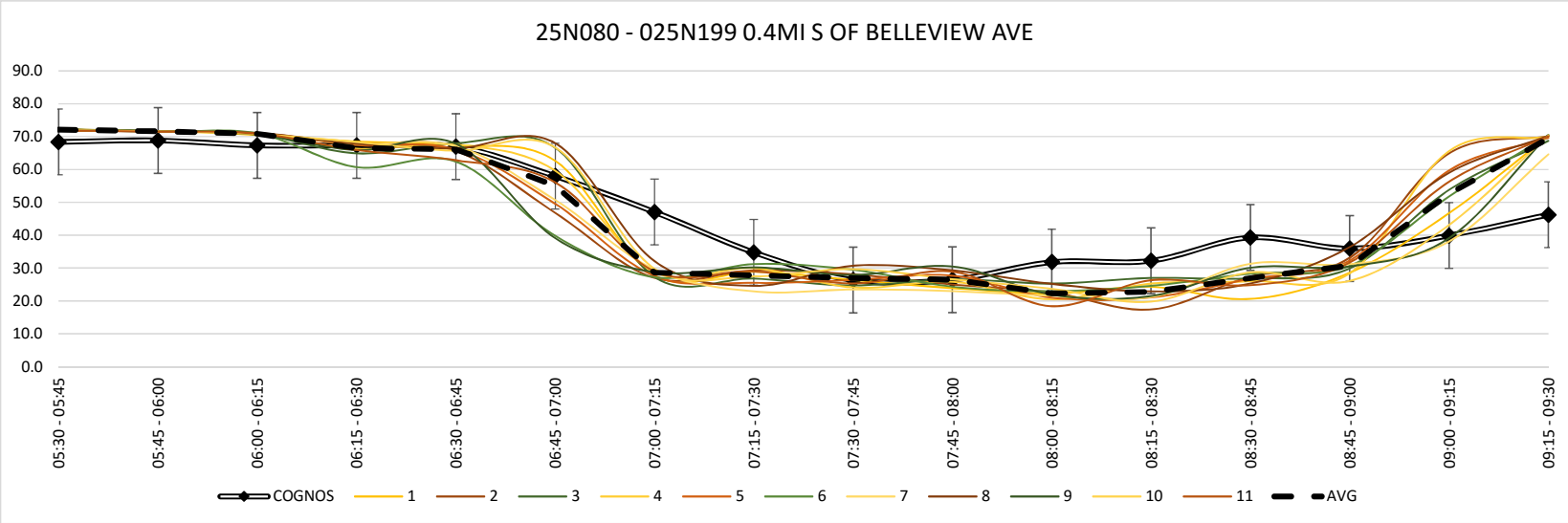
AM	COGNOS	MODEL																						AGGREGATE	
TIME	25N070	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	72.4	71.8	0.6	72.2	0.2	72.2	0.2	72.1	0.3	72.0	0.4	72.2	0.2	72.2	0.2	72.0	0.4	72.1	0.3	72.0	0.4	72.0	0.4	72.1	0.3
05:45 - 06:00	71.3	71.6	- 0.3	71.7	- 0.5	71.6	- 0.3	71.4	- 0.2	71.5	- 0.3	71.4	- 0.2	71.2	0.0	71.4	- 0.2	71.3	- 0.0	71.3	- 0.0	71.1	0.2	71.4	- 0.2
06:00 - 06:15	70.5	70.6	- 0.1	70.9	- 0.4	70.5	0.0	71.1	- 0.6	70.4	0.1	71.0	- 0.5	70.4	0.1	70.7	- 0.2	70.7	- 0.2	71.1	- 0.6	70.6	- 0.1	70.7	- 0.2
06:15 - 06:30	68.3	68.9	- 0.6	65.8	2.5	67.7	0.6	67.4	0.9	68.1	0.2	66.7	1.6	66.3	2.0	68.6	- 0.3	66.5	1.8	68.2	0.1	66.5	1.8	67.3	1.0
06:30 - 06:45	66.7	66.2	0.5	64.7	2.0	66.4	0.3	64.4	2.3	67.5	- 0.8	59.2	7.5	66.2	0.5	66.1	0.6	66.7	0.0	67.2	- 0.5	65.4	1.3	65.4	1.3
06:45 - 07:00	58.5	67.5	- 9.0	58.9	- 0.4	66.9	- 8.4	67.8	- 9.3	57.9	0.6	43.8	14.7	62.7	- 4.2	67.1	- 8.6	41.4	17.1	65.2	- 6.7	65.6	- 7.1	60.4	- 1.9
07:00 - 07:15	50.4	28.4	22.0	26.0	24.4	29.2	21.2	29.9	20.5	27.1	23.3	25.7	24.7	29.4	21.0	33.5	16.9	26.9	23.5	32.3	18.1	28.0	22.4	28.8	21.6
07:15 - 07:30	36.4	25.3	11.1	27.0	9.4	24.4	12.0	28.3	8.1	24.0	12.4	28.2	8.2	23.1	13.3	23.9	12.5	26.5	9.9	24.3	12.1	27.3	9.1	25.7	10.7
07:30 - 07:45	27.8	25.5	2.3	27.1	0.7	24.3	3.5	23.7	4.1	24.9	2.9	28.1	- 0.3	24.4	3.4	28.4	- 0.6	24.9	2.9	27.1	0.7	24.8	3.0	25.7	2.1
07:45 - 08:00	26.4	22.5	3.9	25.0	1.4	23.4	3.0	23.5	2.9	25.4	1.0	24.9	1.5	22.9	3.5	26.7	- 0.3	28.0	- 1.6	27.4	- 1.0	24.2	2.2	24.9	1.5
08:00 - 08:15	35.7	21.8	13.9	21.2	14.5	21.1	14.6	22.7	13.0	20.3	15.4	22.3	13.4	21.2	14.5	22.7	13.0	21.6	14.1	23.6	12.1	18.0	17.7	21.5	14.2
08:15 - 08:30	36.0	24.6	11.4	22.7	13.3	24.8	11.2	22.4	13.6	20.9	15.1	22.7	13.3	20.8	15.2	22.3	13.7	20.7	15.3	20.0	16.0	24.0	12.0	22.3	13.7
08:30 - 08:45	46.4	19.7	26.7	25.1	21.3	25.9	20.5	23.1	23.3	25.2	21.2	27.2	19.2	27.3	19.1	22.4	24.0	26.6	19.8	25.6	20.8	24.8	21.6	24.8	21.6
08:45 - 09:00	40.9	26.7	14.2	30.5	10.4	29.4	11.5	32.2	8.7	28.0	12.9	28.9	12.0	30.2	10.7	34.3	6.6	27.6	13.3	25.9	15.0	29.5	11.4	29.4	11.5
09:00 - 09:15	44.6	46.2	- 1.6	70.0	-25.4	52.5	- 7.9	69.7	-25.1	52.5	- 7.9	50.1	- 5.5	32.8	11.8	56.0	-11.4	56.9	-12.3	39.8	4.8	66.3	-21.7	53.9	- 9.3
09:15 - 09:30	58.5	69.7	-11.2	69.4	-10.9	70.2	-11.7	69.9	-11.4	70.0	-11.5	69.5	-11.0	67.9	- 9.4	69.2	-10.7	70.2	-11.7	69.8	-11.3	69.5	-11.0	69.6	-11.1
Hour 1	70.6	70.7	- 0.1	70.2	0.4	70.5	0.1	70.5	0.1	70.5	0.1	70.3	0.3	70.0	0.6	70.7	- 0.1	70.2	0.5	70.7	- 0.1	70.1	0.5	70.4	0.2
Hour 2	53.0	46.9	6.2	44.2	8.9	46.7	6.3	47.6	5.4	44.1	8.9	39.2	13.8	45.4	7.7	47.7	5.4	40.4	12.6	47.3	5.8	46.6	6.4	45.1	7.9
Hour 3	31.5	23.6	7.9	24.0	7.5	23.4	8.1	23.1	8.4	22.9	8.6	24.5	7.0	22.3	9.2	25.0	6.5	23.8	7.7	24.5	7.0	22.8	8.7	23.6	7.9
Hour 4	47.6	40.6	7.0	48.8	- 1.2	44.5	3.1	48.7	- 1.1	43.9	3.7	43.9	3.7	39.6	8.0	45.5	2.1	45.3	2.3	40.3	7.3	47.5	0.1	44.4	3.2
11	50.7	45.4	5.2	46.8	3.9	46.3	4.4	47.5	3.2	45.4	5.3	44.5	6.2	44.3	6.4	47.2	3.5	44.9	5.8	45.7	5.0	46.7	3.9	45.9	4.8



CONCEPT 3

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

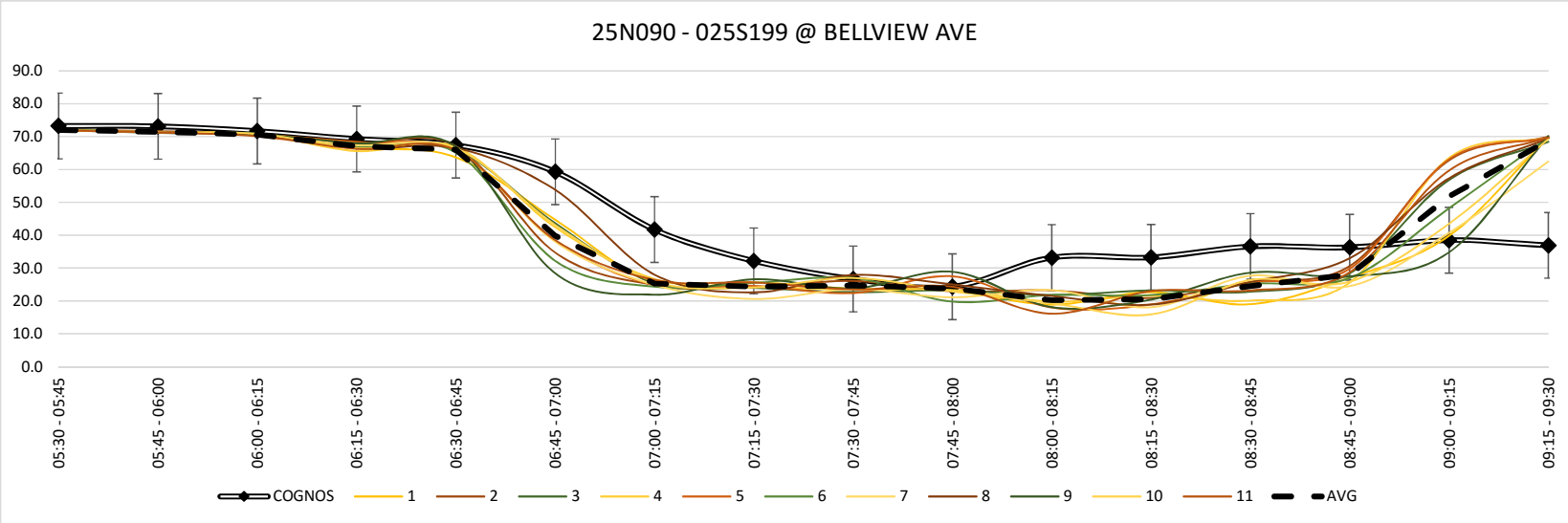
AM	COGNOS	MODEL																						AGGREGATE	
TIME	25N080	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	68.4	71.9	- 3.5	72.1	- 3.7	72.1	- 3.7	72.3	- 3.9	72.0	- 3.6	72.2	- 3.8	72.2	- 3.8	71.8	- 3.4	72.2	- 3.8	72.0	- 3.6	71.9	- 3.5	72.1	- 3.7
05:45 - 06:00	68.8	71.7	- 2.9	71.6	- 2.8	71.6	- 2.8	71.5	- 2.7	71.6	- 2.8	71.4	- 2.6	71.5	- 2.7	71.5	- 2.7	71.7	- 2.9	71.6	- 2.8	71.5	- 2.7	71.6	- 2.8
06:00 - 06:15	67.3	70.5	- 3.2	71.1	- 3.8	70.8	- 3.5	71.0	- 3.7	70.9	- 3.6	71.0	- 3.7	70.8	- 3.5	71.0	- 3.7	70.6	- 3.3	70.8	- 3.5	70.9	- 3.6	70.9	- 3.6
06:15 - 06:30	67.3	68.5	- 1.2	67.7	- 0.4	64.9	2.4	66.3	1.0	67.4	- 0.1	60.7	6.6	67.8	- 0.5	67.8	- 0.5	65.9	1.4	68.3	- 1.0	65.9	1.4	66.5	0.8
06:30 - 06:45	67.0	67.4	- 0.4	65.6	1.4	68.0	- 1.0	67.5	- 0.5	66.1	0.9	62.4	4.6	67.1	- 0.1	66.4	0.6	67.8	- 0.8	65.7	1.3	62.8	4.2	66.1	0.9
06:45 - 07:00	58.0	62.6	- 4.6	46.8	11.2	66.6	- 8.6	59.6	- 1.6	49.6	8.4	39.8	18.2	50.7	7.3	68.0	-10.0	39.1	18.9	66.7	- 8.7	56.1	1.9	55.0	3.0
07:00 - 07:15	47.1	27.8	19.3	27.0	20.1	27.3	19.8	28.8	18.3	27.6	19.5	27.2	19.9	29.5	17.6	32.1	15.0	28.8	18.3	29.8	17.3	29.0	18.1	28.6	18.5
07:15 - 07:30	34.8	28.9	5.9	29.3	5.5	26.8	8.0	30.0	4.8	25.5	9.3	31.2	3.6	22.9	11.9	24.6	10.2	30.2	4.6	27.5	7.3	29.0	5.8	27.8	7.0
07:30 - 07:45	26.4	26.4	- 0.0	28.1	- 1.7	24.7	1.7	24.1	2.3	26.4	- 0.0	29.5	- 3.1	23.5	2.9	30.7	- 4.3	27.9	- 1.5	29.7	- 3.3	25.3	1.1	26.9	- 0.5
07:45 - 08:00	26.5	23.9	2.6	25.0	1.5	26.6	- 0.2	25.8	0.6	27.7	- 1.3	24.3	2.2	23.0	3.5	29.3	- 2.9	30.5	- 4.1	26.6	- 0.2	28.9	- 2.5	26.5	- 0.1
08:00 - 08:15	31.8	22.3	9.5	22.6	9.2	25.3	6.5	20.5	11.3	21.0	10.8	23.0	8.8	21.6	10.2	25.2	6.6	21.9	9.9	23.7	8.1	18.4	13.4	22.3	9.5
08:15 - 08:30	32.2	24.3	7.9	17.4	14.8	27.0	5.2	25.3	6.9	21.1	11.1	24.6	7.6	21.2	11.0	22.9	9.3	21.5	10.7	19.8	12.4	26.3	5.9	22.8	9.4
08:30 - 08:45	39.3	20.6	18.7	27.4	11.9	26.9	12.4	26.0	13.3	26.7	12.6	28.3	11.0	31.3	8.0	25.3	14.0	30.1	9.2	28.7	10.6	24.8	14.5	26.9	12.4
08:45 - 09:00	35.9	28.6	7.3	33.1	2.8	29.9	6.0	28.4	7.5	32.3	3.6	30.7	5.2	31.2	4.7	36.4	- 0.5	30.5	5.4	26.1	9.8	31.7	4.2	30.8	5.1
09:00 - 09:15	39.9	46.7	- 6.8	64.9	-25.0	53.8	-13.9	65.6	-25.7	59.7	-19.8	51.8	-11.9	38.1	1.8	59.0	-19.1	39.1	0.8	43.1	- 3.2	56.3	-16.4	52.5	-12.6
09:15 - 09:30	46.2	70.2	-24.0	70.1	-23.9	68.7	-22.5	69.9	-23.7	69.6	-23.4	70.4	-24.2	64.6	-18.4	70.2	-24.0	70.5	-24.3	70.4	-24.2	70.1	-23.9	69.5	-23.3
Hour 1	68.0	70.7	- 2.7	70.6	- 2.7	69.9	- 1.9	70.3	- 2.3	70.5	- 2.5	68.8	- 0.9	70.6	- 2.6	70.5	- 2.6	70.1	- 2.1	70.7	- 2.7	70.1	- 2.1	70.3	- 2.3
Hour 2	51.7	46.7	5.0	42.2	9.5	47.2	4.5	46.5	5.2	42.2	9.5	40.2	11.5	42.6	9.1	47.8	3.9	41.5	10.2	47.4	4.3	44.2	7.5	44.4	7.3
Hour 3	29.2	24.2	5.0	23.3	5.9	25.9	3.3	23.9	5.3	24.1	5.2	25.4	3.9	22.3	6.9	27.0	2.2	25.5	3.8	25.0	4.3	24.7	4.5	24.6	4.6
Hour 4	40.3	41.5	- 1.2	48.9	- 8.5	44.8	- 4.5	47.5	- 7.1	47.1	- 6.7	45.3	- 5.0	41.3	- 1.0	47.7	- 7.4	42.6	- 2.2	42.1	- 1.7	45.7	- 5.4	44.9	- 4.6
11	47.3	45.8	1.5	46.2	1.1	46.9	0.4	47.0	0.3	46.0	1.3	44.9	2.4	44.2	3.1	48.3	- 1.0	44.9	2.4	46.3	1.0	46.2	1.1	46.1	1.2



CONCEPT 3

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

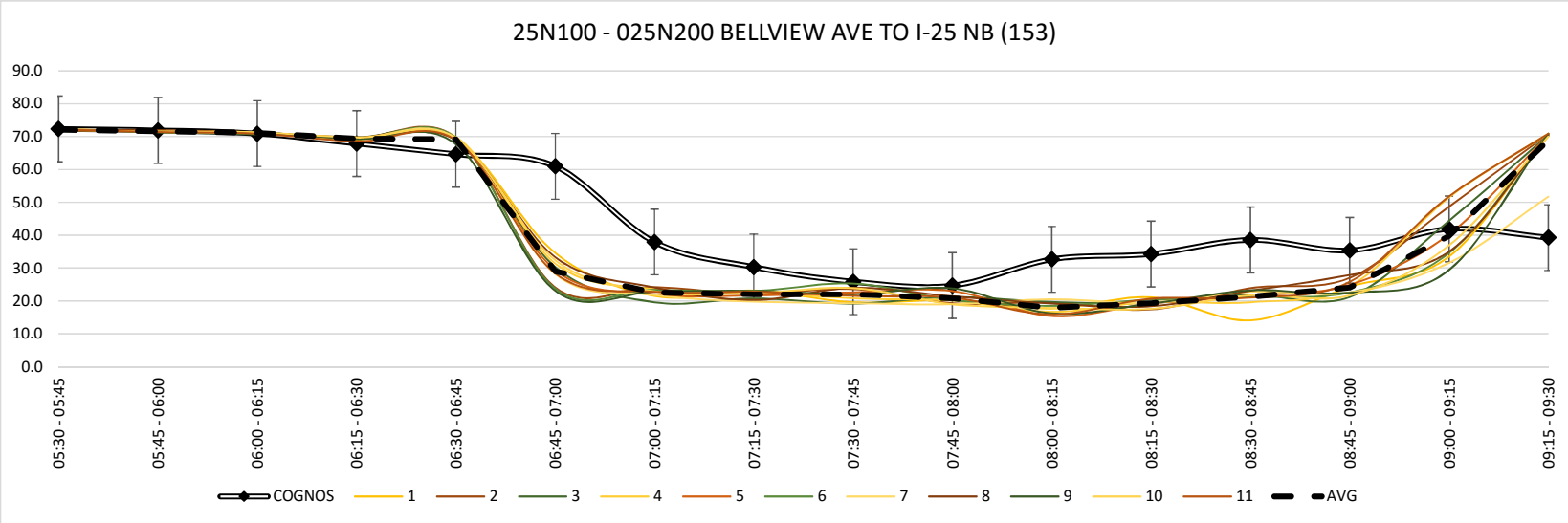
AM	COGNOS	MODEL																						AGGREGATE	
TIME	25N090	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	73.2	71.9	1.3	72.1	1.1	72.1	1.1	71.9	1.3	71.9	1.3	72.2	1.0	72.0	1.2	71.8	1.4	72.0	1.2	71.9	1.3	71.9	1.3	72.0	1.2
05:45 - 06:00	73.1	71.4	1.7	71.6	1.5	71.4	1.7	71.3	1.8	71.4	1.7	71.2	1.9	71.5	1.6	71.5	1.6	71.1	2.0	71.3	1.8	71.2	1.9	71.4	1.7
06:00 - 06:15	71.7	70.5	1.2	70.7	1.0	70.4	1.3	70.7	1.0	70.7	1.0	70.9	0.8	70.4	1.3	70.5	1.2	70.6	1.1	70.8	0.9	70.1	1.6	70.6	1.1
06:15 - 06:30	69.3	66.7	2.6	67.9	1.4	67.7	1.6	65.6	3.7	68.3	1.0	66.9	2.4	67.4	1.9	66.4	2.9	68.0	1.3	66.5	2.8	66.3	3.0	67.0	2.3
06:30 - 06:45	67.4	63.7	3.7	67.1	0.3	66.1	1.3	66.8	0.6	65.7	1.7	65.1	2.3	66.0	1.4	66.5	0.9	67.0	0.4	66.4	1.0	65.9	1.5	66.0	1.4
06:45 - 07:00	59.3	44.7	14.6	34.7	24.6	43.6	15.7	42.4	16.9	38.4	20.9	32.2	27.1	38.0	21.3	53.8	5.5	28.4	30.9	43.1	16.2	38.5	20.8	39.8	19.5
07:00 - 07:15	41.7	25.3	16.4	24.9	16.8	25.4	16.3	26.7	15.0	24.8	16.9	24.3	17.4	24.9	16.8	28.0	13.7	21.9	19.8	25.9	15.8	26.4	15.3	25.3	16.4
07:15 - 07:30	32.2	25.7	6.5	24.2	8.0	24.0	8.2	24.3	7.9	24.6	7.6	25.5	6.7	20.6	11.6	22.6	9.6	26.6	5.6	24.1	8.1	25.6	6.6	24.3	7.9
07:30 - 07:45	26.7	23.7	3.0	26.1	0.6	22.7	4.0	23.6	3.1	22.4	4.3	27.0	- 0.3	23.6	3.1	27.9	- 1.2	23.8	2.9	27.0	- 0.3	23.5	3.2	24.7	2.0
07:45 - 08:00	24.3	23.1	1.2	22.9	1.4	23.2	1.1	23.3	1.0	27.5	- 3.2	19.8	4.5	21.1	3.2	25.0	- 0.7	28.9	- 4.6	22.9	1.4	24.3	0.0	23.8	0.5
08:00 - 08:15	33.2	18.9	14.3	23.2	10.0	21.8	11.4	19.8	13.4	18.0	15.2	21.8	11.4	23.3	9.9	21.5	11.7	18.1	15.1	19.3	13.9	16.1	17.1	20.2	13.0
08:15 - 08:30	33.3	22.7	10.6	20.9	12.4	23.2	10.1	21.6	11.7	18.9	14.4	21.8	11.5	18.1	15.2	18.9	14.4	20.4	12.9	15.9	17.4	23.0	10.3	20.5	12.8
08:30 - 08:45	36.6	19.0	17.6	25.7	10.9	22.8	13.8	20.1	16.5	25.5	11.1	25.2	11.4	27.7	8.9	25.8	10.8	28.6	8.0	26.4	10.2	23.2	13.4	24.5	12.1
08:45 - 09:00	36.3	27.1	9.2	30.6	5.7	28.4	7.9	25.6	10.7	29.8	6.5	27.0	9.3	24.5	11.8	33.0	3.3	27.5	8.8	25.9	10.4	28.7	7.6	28.0	8.3
09:00 - 09:15	38.5	39.8	- 1.3	62.8	-24.3	56.8	-18.3	63.5	-25.0	63.1	-24.6	48.2	- 9.7	40.7	- 2.2	57.3	-18.8	34.8	3.7	43.5	- 5.0	59.7	-21.2	51.8	-13.3
09:15 - 09:30	36.9	69.9	-33.0	69.9	-33.0	68.4	-31.5	69.6	-32.7	69.6	-32.7	69.8	-32.9	62.4	-25.5	69.4	-32.5	70.2	-33.3	69.3	-32.4	69.7	-32.8	68.9	-32.0
Hour 1	71.8	70.1	1.7	70.6	1.2	70.4	1.4	69.9	1.9	70.6	1.2	70.3	1.5	70.3	1.5	70.1	1.8	70.4	1.4	70.1	1.7	69.9	1.9	70.3	1.6
Hour 2	50.1	39.9	10.3	37.7	12.4	39.8	10.4	40.1	10.1	38.4	11.8	36.8	13.4	37.4	12.8	42.7	7.4	36.0	14.2	39.9	10.3	39.1	11.0	38.9	11.3
Hour 3	29.4	22.1	7.3	23.3	6.1	22.7	6.6	22.1	7.3	21.7	7.7	22.6	6.8	21.5	7.8	23.3	6.0	22.8	6.6	21.3	8.1	21.7	7.6	22.3	7.1
Hour 4	37.1	39.0	- 1.9	47.3	-10.2	44.1	- 7.0	44.7	- 7.6	47.0	- 9.9	42.6	- 5.5	38.8	- 1.8	46.4	- 9.3	40.3	- 3.2	41.3	- 4.2	45.3	- 8.3	43.3	- 6.2
11	47.1	42.8	4.3	44.7	2.4	44.3	2.8	44.2	2.9	44.4	2.7	43.1	4.0	42.0	5.1	45.6	1.5	42.4	4.7	43.1	4.0	44.0	3.1	43.7	3.4



CONCEPT 3

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

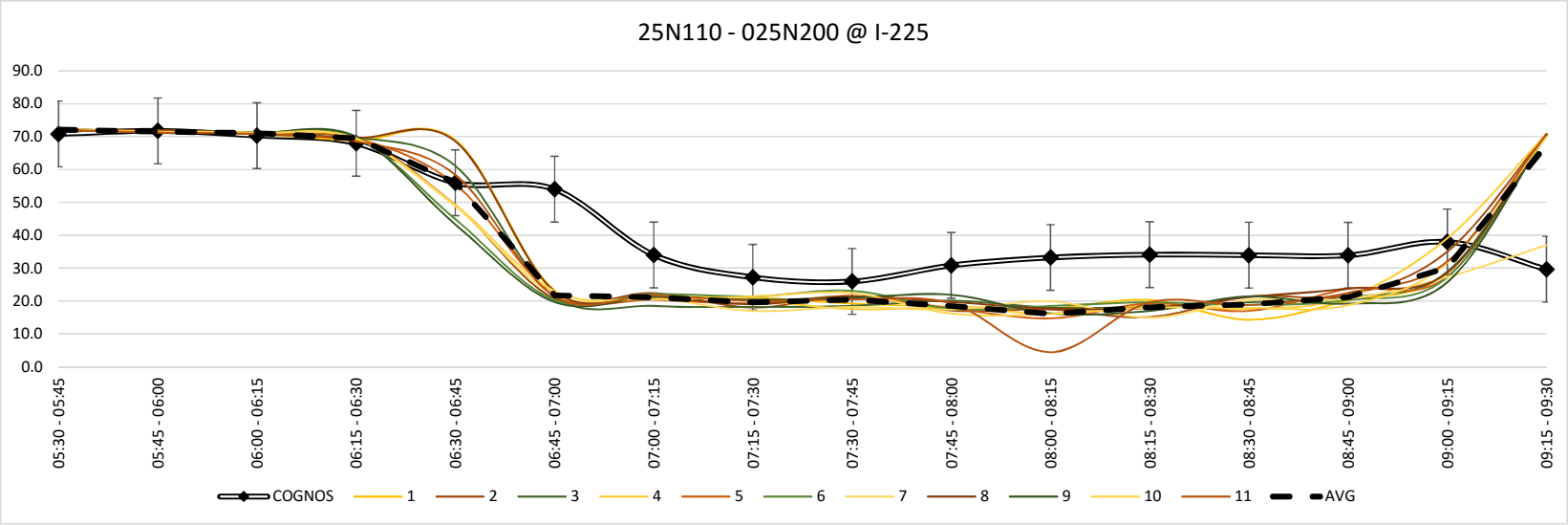
AM	COGNOS	MODEL																						AGGREGATE	
TIME	25N100	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	72.3	72.1	0.2	72.1	0.2	72.2	0.1	72.3	0.0	72.2	0.1	72.3	0.0	72.2	0.1	71.8	0.5	72.1	0.2	72.0	0.3	72.1	0.2	72.1	0.2
05:45 - 06:00	71.9	71.8	0.1	71.7	0.2	71.4	0.5	71.4	0.5	71.6	0.3	71.3	0.6	71.6	0.3	72.0	- 0.1	71.5	0.4	71.6	0.3	71.4	0.5	71.6	0.3
06:00 - 06:15	70.9	71.2	- 0.3	71.1	- 0.2	70.7	0.2	71.1	- 0.2	71.0	- 0.1	71.2	- 0.3	71.0	- 0.1	71.1	- 0.2	71.1	- 0.2	71.3	- 0.4	70.9	- 0.0	71.1	- 0.2
06:15 - 06:30	67.9	69.3	- 1.5	69.6	- 1.8	69.8	- 2.0	69.1	- 1.3	69.7	- 1.9	69.3	- 1.5	69.5	- 1.7	69.3	- 1.5	69.3	- 1.5	69.7	- 1.9	68.5	- 0.7	69.4	- 1.6
06:30 - 06:45	64.6	69.2	- 4.6	69.7	- 5.1	69.6	- 5.0	69.9	- 5.3	69.3	- 4.7	69.6	- 5.0	69.5	- 4.9	68.9	- 4.3	67.7	- 3.1	69.3	- 4.7	68.9	- 4.3	69.2	- 4.6
06:45 - 07:00	61.0	34.6	26.4	24.1	36.9	30.3	30.7	31.4	29.6	29.4	31.6	23.7	37.3	28.2	32.8	33.3	27.7	23.1	37.9	32.4	28.6	28.4	32.6	29.0	32.0
07:00 - 07:15	37.9	21.5	16.4	24.2	13.7	19.6	18.3	23.6	14.3	22.1	15.8	23.4	14.5	21.8	16.1	24.1	13.8	22.8	15.1	22.9	15.0	22.8	15.1	22.6	15.3
07:15 - 07:30	30.3	23.2	7.1	22.2	8.1	20.8	9.5	22.6	7.7	21.7	8.6	23.0	7.3	19.8	10.5	20.3	10.0	23.1	7.2	22.4	7.9	22.8	7.5	22.0	8.3
07:30 - 07:45	25.9	19.6	6.3	23.6	2.3	19.2	6.7	20.8	5.1	22.6	3.3	25.3	0.6	19.3	6.6	24.0	1.9	22.0	3.9	23.9	2.0	21.5	4.4	22.0	3.9
07:45 - 08:00	24.7	20.3	4.4	19.3	5.4	21.2	3.5	20.1	4.6	23.0	1.7	20.3	4.4	19.0	5.7	21.4	3.3	23.8	0.9	19.0	5.7	21.0	3.7	20.8	3.9
08:00 - 08:15	32.7	17.7	15.0	19.5	13.2	19.7	13.0	16.7	16.0	15.4	17.3	18.5	14.2	20.5	12.2	19.2	13.5	16.2	16.5	17.9	14.8	15.9	16.8	17.9	14.8
08:15 - 08:30	34.3	21.1	13.2	17.4	16.9	19.4	14.9	19.7	14.6	19.2	15.1	20.4	13.9	19.4	14.9	18.4	15.9	19.2	15.1	17.6	16.7	20.7	13.6	19.3	15.0
08:30 - 08:45	38.6	14.1	24.5	23.9	14.7	21.9	16.7	19.6	19.0	21.6	17.0	21.2	17.4	22.8	15.8	23.1	15.5	23.2	15.4	21.7	16.9	21.0	17.6	21.3	17.3
08:45 - 09:00	35.4	24.3	11.1	27.0	8.4	21.2	14.2	24.5	10.9	24.9	10.5	22.6	12.8	22.6	12.8	27.9	7.5	22.5	12.9	21.7	13.7	25.8	9.6	24.1	11.3
09:00 - 09:15	41.9	33.5	8.4	48.7	- 6.8	44.4	- 2.5	51.5	- 9.6	40.3	1.6	34.6	7.3	31.6	10.3	35.0	6.9	29.4	12.5	36.9	5.0	51.8	- 9.9	39.8	2.1
09:15 - 09:30	39.3	70.8	-31.5	70.8	-31.5	70.5	-31.2	70.9	-31.6	70.5	-31.2	70.6	-31.3	51.7	-12.4	70.2	-30.9	70.9	-31.6	70.0	-30.7	70.9	-31.6	68.9	-29.6
Hour 1	70.7	71.1	- 0.4	71.1	- 0.4	71.0	- 0.3	71.0	- 0.2	71.1	- 0.4	71.0	- 0.3	71.1	- 0.3	71.1	- 0.3	71.0	- 0.3	71.2	- 0.4	70.7	0.0	71.1	- 0.3
Hour 2	48.5	37.1	11.3	35.1	13.4	35.1	13.4	36.9	11.6	35.6	12.8	34.9	13.5	34.8	13.6	36.7	11.8	34.2	14.3	36.8	11.7	35.7	12.7	35.7	12.8
Hour 3	29.4	19.7	9.7	20.0	9.4	19.9	9.5	19.3	10.0	20.1	9.3	21.1	8.2	19.6	9.8	20.8	8.6	20.3	9.1	19.6	9.8	19.8	9.6	20.0	9.4
Hour 4	38.8	35.7	3.1	42.6	- 3.8	39.5	- 0.7	41.6	- 2.9	39.3	- 0.6	37.3	1.5	32.2	6.6	39.1	- 0.3	36.5	2.3	37.6	1.2	42.4	- 3.6	38.5	0.2
11	46.8	40.9	5.9	42.2	4.7	41.4	5.5	42.2	4.6	41.5	5.3	41.1	5.7	39.4	7.4	41.9	5.0	40.5	6.3	41.3	5.6	42.2	4.7	41.3	5.5



CONCEPT 3

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

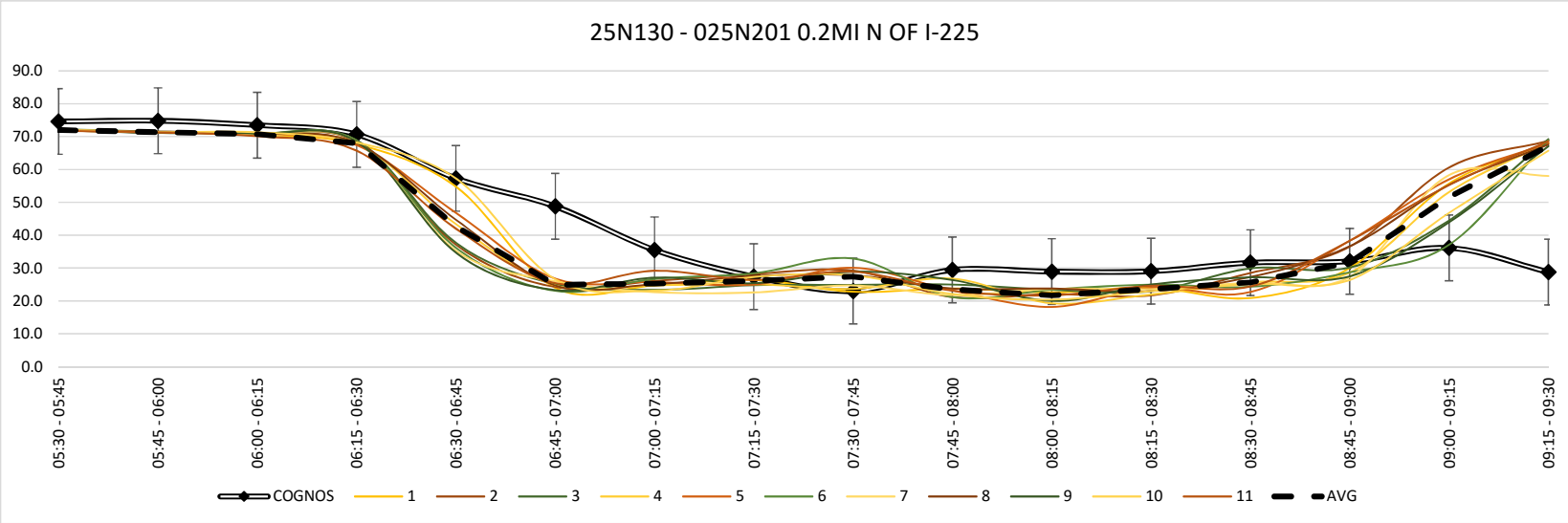
AM	COGNOS	MODEL																						AGGREGATE	
TIME	25N110	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	70.8	71.8	- 1.0	72.2	- 1.4	72.1	- 1.3	72.1	- 1.3	72.1	- 1.3	72.4	- 1.6	72.2	- 1.4	71.9	- 1.1	72.1	- 1.3	72.2	- 1.4	72.1	- 1.3	72.1	- 1.3
05:45 - 06:00	71.7	71.9	- 0.2	71.5	0.2	71.5	0.2	71.3	0.4	71.6	0.1	71.4	0.3	71.7	0.0	72.0	- 0.3	71.4	0.3	71.5	0.2	71.2	0.5	71.5	0.2
06:00 - 06:15	70.3	70.8	- 0.5	71.2	- 0.9	70.8	- 0.5	70.9	- 0.6	71.0	- 0.7	71.2	- 0.9	71.2	- 0.9	70.8	- 0.5	71.2	- 0.9	71.2	- 0.9	70.8	- 0.5	71.0	- 0.7
06:15 - 06:30	68.0	68.8	- 0.8	69.9	- 1.9	69.8	- 1.8	69.5	- 1.5	69.4	- 1.4	69.8	- 1.8	69.4	- 1.4	69.6	- 1.6	70.0	- 2.0	69.5	- 1.5	68.5	- 0.5	69.5	- 1.5
06:30 - 06:45	56.0	69.0	-13.0	49.2	6.8	61.1	- 5.1	68.9	-12.9	55.5	0.5	44.9	11.1	48.8	7.2	68.6	-12.6	43.3	12.7	49.3	6.7	58.4	- 2.4	56.1	- 0.1
06:45 - 07:00	54.0	23.2	30.8	20.8	33.2	21.4	32.6	22.5	31.5	21.8	32.2	20.3	33.7	21.9	32.1	23.0	31.0	19.7	34.3	23.0	31.0	21.4	32.6	21.7	32.3
07:00 - 07:15	34.0	21.2	12.8	22.4	11.6	18.5	15.5	21.6	12.4	20.4	13.6	22.1	11.9	20.9	13.1	21.4	12.6	21.2	12.8	20.6	13.4	21.7	12.3	21.1	12.9
07:15 - 07:30	27.2	21.1	6.1	18.0	9.2	18.2	9.0	20.3	6.9	19.3	7.9	21.4	5.8	17.0	10.2	19.0	8.2	20.4	6.8	21.4	5.8	20.0	7.2	19.6	7.6
07:30 - 07:45	26.0	19.2	6.8	21.5	4.5	18.5	7.5	17.5	8.5	21.5	4.5	23.1	2.9	18.2	7.8	21.4	4.6	21.0	5.0	22.4	3.6	20.5	5.5	20.4	5.6
07:45 - 08:00	30.8	18.3	12.5	17.1	13.7	20.1	10.7	18.0	12.8	17.8	13.0	17.6	13.2	17.4	13.4	19.7	11.1	21.9	8.9	16.2	14.6	19.3	11.5	18.5	12.3
08:00 - 08:15	33.2	17.8	15.4	17.4	15.8	18.0	15.2	16.2	17.0	14.7	18.5	18.5	14.7	19.9	13.3	17.7	15.5	16.2	17.0	16.0	17.2	4.4	28.8	16.1	17.1
08:15 - 08:30	34.1	20.3	13.8	15.1	19.0	18.2	15.9	18.7	15.4	19.3	14.8	19.6	14.5	14.9	19.2	17.9	16.2	17.0	17.1	18.0	16.1	19.6	14.5	18.1	16.0
08:30 - 08:45	33.9	14.3	19.6	21.4	12.5	19.6	14.3	17.6	16.3	17.0	16.9	18.8	15.1	20.3	13.6	21.2	12.7	21.4	12.5	17.9	16.0	18.8	15.1	18.9	15.0
08:45 - 09:00	33.9	20.1	13.8	21.8	12.1	21.1	12.8	21.2	12.7	23.7	10.2	20.3	13.6	20.7	13.2	23.8	10.1	19.2	14.7	18.7	15.2	22.5	11.4	21.2	12.7
09:00 - 09:15	38.0	28.6	9.4	35.0	3.0	28.9	9.1	39.1	- 1.1	27.4	10.6	27.2	10.8	27.3	10.7	28.6	9.4	25.7	12.3	31.6	6.4	32.0	6.0	30.1	7.9
09:15 - 09:30	29.7	70.6	-40.9	70.8	-41.1	70.8	-41.1	70.8	-41.1	70.7	-41.0	70.4	-40.7	37.0	- 7.3	70.4	-40.7	70.4	-40.7	69.9	-40.2	70.8	-41.1	67.5	-37.8
Hour 1	70.2	70.8	- 0.6	71.2	- 1.0	71.1	- 0.9	71.0	- 0.8	71.0	- 0.8	71.2	- 1.0	71.1	- 0.9	71.1	- 0.9	71.2	- 1.0	71.1	- 0.9	70.7	- 0.5	71.0	- 0.8
Hour 2	42.8	33.6	9.2	27.6	15.2	29.8	13.0	33.3	9.5	29.3	13.5	27.2	15.6	27.2	15.6	33.0	9.8	26.2	16.6	28.6	14.2	30.4	12.4	29.6	13.2
Hour 3	31.0	18.9	12.1	17.8	13.2	18.7	12.3	17.6	13.4	18.3	12.7	19.7	11.3	17.6	13.4	19.2	11.8	19.0	12.0	18.2	12.9	16.0	15.1	18.3	12.7
Hour 4	33.9	33.4	0.5	37.3	- 3.4	35.1	- 1.2	37.2	- 3.3	34.7	- 0.8	34.2	- 0.3	26.3	7.5	36.0	- 2.1	34.2	- 0.3	34.5	- 0.7	36.0	- 2.2	34.4	- 0.6
11	44.5	39.2	5.3	38.5	6.0	38.7	5.8	39.8	4.7	38.3	6.1	38.1	6.4	35.6	8.9	39.8	4.7	37.6	6.8	38.1	6.4	38.3	6.2	38.3	6.1



CONCEPT 3

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

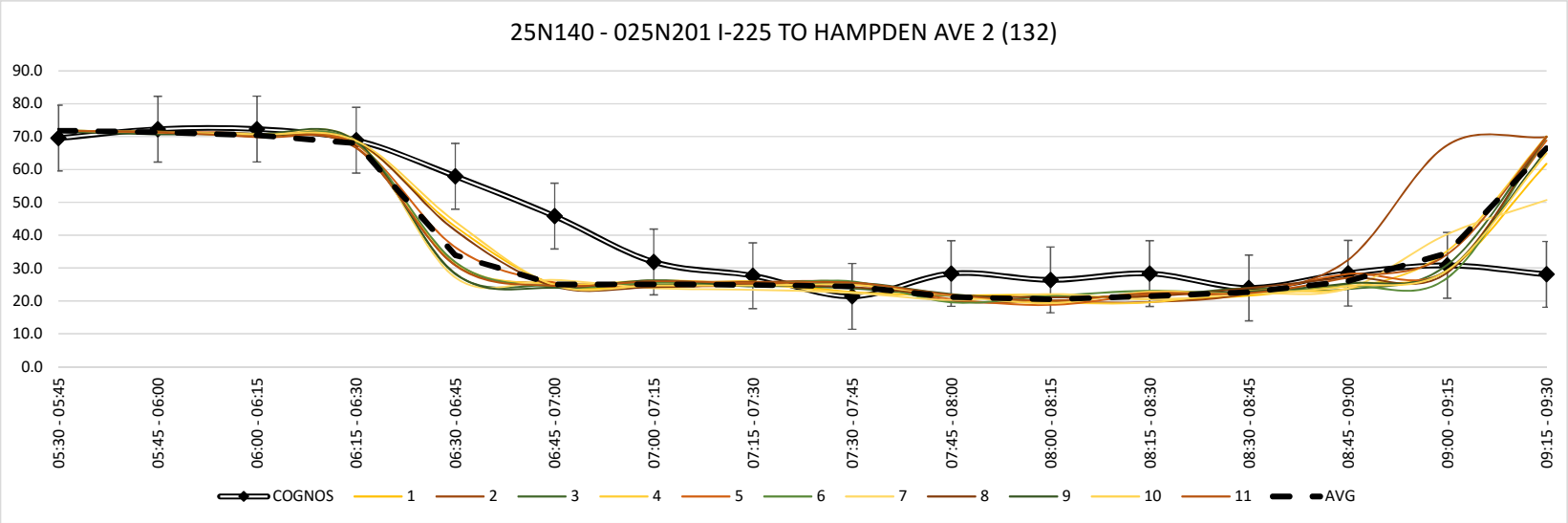
AM	COGNOS	MODEL																						AGGREGATE	
TIME	25N130	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	74.6	72.0	2.6	72.1	2.5	72.1	2.5	71.8	2.8	71.9	2.7	72.2	2.4	72.1	2.5	71.9	2.7	71.9	2.7	72.0	2.6	71.8	2.8	72.0	2.6
05:45 - 06:00	74.8	71.3	3.5	71.2	3.6	71.4	3.4	71.4	3.4	71.2	3.6	71.5	3.3	71.4	3.4	71.5	3.3	71.1	3.7	71.3	3.5	71.2	3.6	71.3	3.5
06:00 - 06:15	73.5	70.7	2.8	71.1	2.4	70.4	3.1	70.4	3.1	70.9	2.6	71.0	2.5	70.5	3.0	71.0	2.5	70.9	2.6	71.3	2.2	70.1	3.4	70.8	2.7
06:15 - 06:30	70.7	67.7	3.0	68.3	2.4	68.9	1.8	68.0	2.7	67.4	3.3	68.8	1.9	68.5	2.2	68.0	2.7	68.5	2.2	68.2	2.5	65.7	5.0	68.0	2.7
06:30 - 06:45	57.3	54.8	2.5	37.1	20.2	37.7	19.6	43.4	13.9	46.8	10.5	36.2	21.1	35.3	22.0	44.7	12.6	34.7	22.6	57.3	- 0.0	42.0	15.3	42.7	14.6
06:45 - 07:00	48.8	24.0	24.8	24.2	24.6	25.2	23.6	24.7	24.1	26.8	22.0	23.1	25.7	26.0	22.8	24.7	24.1	23.3	25.5	26.6	22.2	25.4	23.4	24.9	23.9
07:00 - 07:15	35.5	24.7	10.8	26.1	9.4	23.4	12.1	24.8	10.7	25.8	9.7	26.7	8.8	22.7	12.8	25.1	10.4	27.1	8.4	23.1	12.4	29.2	6.3	25.3	10.2
07:15 - 07:30	27.4	26.4	1.0	28.2	- 0.8	24.8	2.6	25.1	2.3	25.0	2.4	28.4	- 1.0	22.6	4.8	27.6	- 0.2	25.4	2.0	27.3	0.1	26.4	1.0	26.1	1.3
07:30 - 07:45	23.0	22.8	0.2	29.2	- 6.2	24.9	- 1.9	23.7	- 0.7	30.1	- 7.1	32.9	- 9.9	24.7	- 1.7	27.8	- 4.8	28.9	- 5.9	27.8	- 4.8	28.9	- 5.9	27.4	- 4.4
07:45 - 08:00	29.4	23.8	5.6	21.2	8.2	25.0	4.4	26.8	2.6	23.2	6.2	21.2	8.2	21.8	7.6	23.8	5.6	26.4	3.0	22.1	7.3	23.1	6.3	23.5	5.9
08:00 - 08:15	28.9	22.6	6.3	22.1	6.8	23.4	5.5	19.3	9.6	18.2	10.7	23.4	5.5	23.7	5.2	23.8	5.1	20.0	8.9	20.4	8.5	21.7	7.2	21.7	7.2
08:15 - 08:30	29.0	24.1	4.9	21.7	7.3	23.0	6.0	22.0	7.0	24.0	5.0	25.0	4.0	23.6	5.4	23.0	6.0	25.0	4.0	23.0	6.0	24.6	4.4	23.6	5.4
08:30 - 08:45	31.6	20.9	10.7	28.5	3.1	29.9	1.7	25.6	6.0	22.7	8.9	24.3	7.3	25.6	6.0	27.3	4.3	27.2	4.4	25.1	6.5	24.4	7.2	25.6	6.0
08:45 - 09:00	32.1	30.0	2.1	36.5	- 4.4	30.2	1.9	28.6	3.5	38.3	- 6.2	28.7	3.4	27.3	4.8	36.6	- 4.5	27.5	4.6	26.4	5.7	38.3	- 6.2	31.7	0.4
09:00 - 09:15	36.1	55.7	-19.6	60.6	-24.5	44.5	- 8.4	53.1	-17.0	57.0	-20.9	37.1	- 1.0	58.3	-22.2	55.3	-19.2	43.9	- 7.8	46.8	-10.7	55.3	-19.2	51.6	-15.5
09:15 - 09:30	28.8	68.0	-39.2	68.7	-39.9	69.2	-40.4	68.1	-39.3	68.1	-39.3	68.9	-40.1	58.0	-29.2	67.6	-38.8	67.1	-38.3	65.7	-36.9	68.6	-39.8	67.1	-38.3
Hour 1	73.4	70.4	3.0	70.7	2.7	70.7	2.7	70.4	3.0	70.4	3.0	70.9	2.5	70.6	2.8	70.6	2.8	70.6	2.8	70.7	2.7	69.7	3.7	70.5	2.9
Hour 2	42.2	32.5	9.8	28.9	13.3	27.8	14.5	29.5	12.7	31.1	11.1	28.6	13.6	26.7	15.6	30.5	11.7	27.6	14.6	33.6	8.7	30.8	11.5	29.8	12.5
Hour 3	27.6	23.3	4.3	23.6	4.1	24.1	3.5	23.0	4.7	23.9	3.7	25.6	2.0	23.5	4.2	24.6	3.0	25.1	2.5	23.3	4.3	24.6	3.0	24.1	3.6
Hour 4	32.2	43.7	-11.5	48.6	-16.4	43.5	-11.3	43.9	-11.7	46.5	-14.4	39.8	- 7.6	42.3	-10.1	46.7	-14.5	41.4	- 9.3	41.0	- 8.8	46.7	-14.5	44.0	-11.8
11	43.8	42.5	1.4	42.9	0.9	41.5	2.3	41.7	2.2	43.0	0.9	41.2	2.6	40.8	3.1	43.1	0.7	41.2	2.7	42.2	1.7	42.9	0.9	42.1	1.8



CONCEPT 3

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

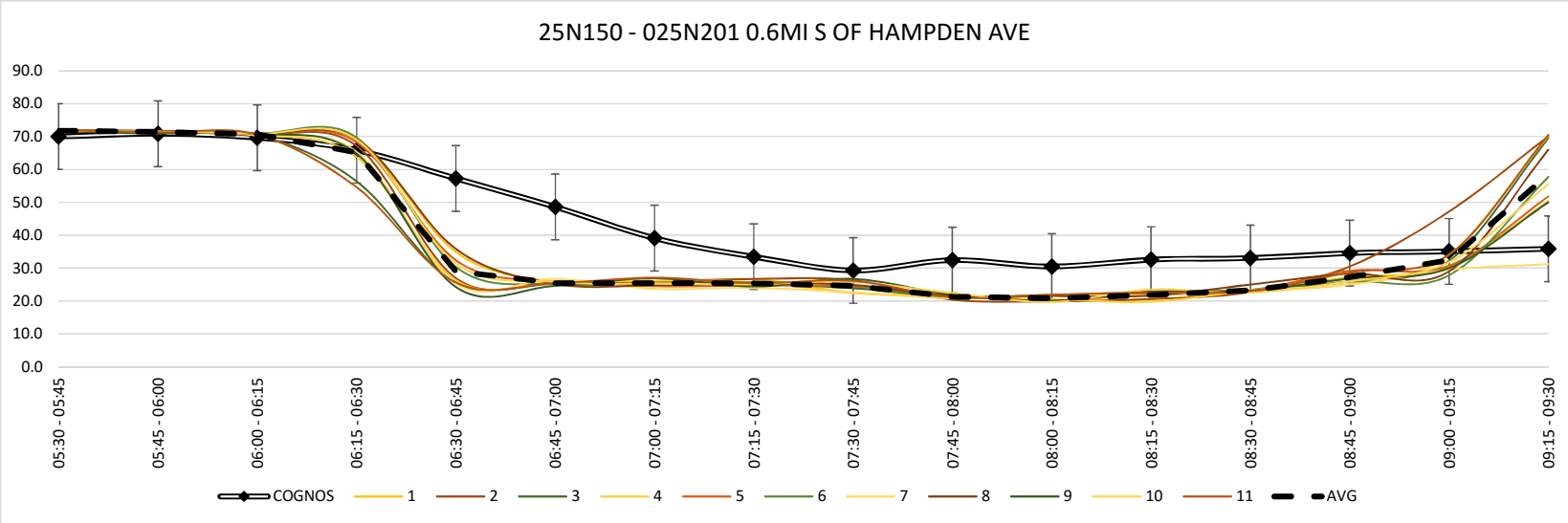
AM	COGNOS	MODEL																						AGGREGATE	
TIME	25N140	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	69.5	71.7	- 2.2	71.9	- 2.4	71.9	- 2.4	71.8	- 2.3	71.6	- 2.1	71.9	- 2.4	72.0	- 2.5	71.8	- 2.3	71.6	- 2.1	71.8	- 2.3	71.8	- 2.3	71.8	- 2.3
05:45 - 06:00	72.2	71.5	0.7	71.3	0.9	71.2	1.0	71.3	0.9	71.4	0.8	71.3	0.9	71.2	1.0	71.4	0.8	70.7	1.5	71.2	1.0	71.2	1.0	71.3	0.9
06:00 - 06:15	72.3	70.3	2.0	70.6	1.7	70.0	2.3	70.6	1.7	70.8	1.5	70.6	1.7	70.2	2.1	70.5	1.8	70.8	1.5	70.7	1.6	69.8	2.5	70.4	1.9
06:15 - 06:30	68.9	68.1	0.8	66.5	2.4	68.1	0.8	67.8	1.1	67.6	1.3	68.2	0.7	68.7	0.2	68.5	0.4	68.6	0.3	68.7	0.2	66.8	2.1	68.0	0.9
06:30 - 06:45	57.9	42.6	15.3	30.9	27.0	28.2	29.7	31.6	26.3	36.3	21.6	31.8	26.1	27.1	30.8	41.4	16.5	28.3	29.6	44.1	13.8	30.8	27.1	33.9	24.0
06:45 - 07:00	45.8	25.1	20.7	25.4	20.4	24.8	21.0	25.2	20.6	25.6	20.2	24.3	21.5	26.4	19.4	24.4	21.4	24.0	21.8	24.8	21.0	24.6	21.2	25.0	20.8
07:00 - 07:15	31.9	24.9	7.0	25.7	6.2	24.9	7.0	26.2	5.7	24.5	7.4	25.5	6.4	23.9	8.0	24.2	7.7	26.3	5.6	24.7	7.2	26.0	5.9	25.1	6.8
07:15 - 07:30	27.7	25.9	1.8	25.8	1.9	24.7	3.0	25.2	2.5	24.7	3.0	25.2	2.5	23.4	4.3	24.9	2.8	24.4	3.3	24.7	3.0	25.4	2.3	24.9	2.8
07:30 - 07:45	21.4	22.7	- 1.3	25.6	- 4.2	23.8	- 2.4	22.5	- 1.1	25.0	- 3.6	25.9	- 4.5	22.5	- 1.1	24.2	- 2.8	25.6	- 4.2	24.9	- 3.5	25.6	- 4.2	24.4	- 3.0
07:45 - 08:00	28.4	21.7	6.7	20.0	8.4	21.5	6.9	21.8	6.6	20.6	7.8	19.6	8.8	20.3	8.1	21.8	6.6	22.1	6.3	21.7	6.7	21.9	6.5	21.2	7.2
08:00 - 08:15	26.4	21.9	4.5	19.7	6.7	21.4	5.0	19.6	6.8	18.8	7.6	21.5	4.9	22.1	4.3	21.1	5.3	20.1	6.3	19.3	7.1	20.1	6.3	20.5	5.9
08:15 - 08:30	28.3	20.6	7.7	19.7	8.6	21.5	6.8	19.6	8.7	21.9	6.4	23.1	5.2	20.5	7.8	21.4	6.9	22.4	5.9	22.8	5.5	22.4	5.9	21.5	6.8
08:30 - 08:45	23.9	21.6	2.3	22.3	1.6	23.9	0.0	23.1	0.8	22.5	1.4	22.3	1.6	22.2	1.7	23.9	0.0	22.9	1.0	22.2	1.7	22.4	1.5	22.7	1.2
08:45 - 09:00	28.4	25.2	3.2	32.5	- 4.1	23.6	4.8	23.8	4.6	28.2	0.2	24.5	3.9	23.8	4.6	27.1	1.3	25.3	3.1	24.5	3.9	27.1	1.3	26.0	2.4
09:00 - 09:15	30.8	29.3	1.5	67.4	-36.6	31.0	- 0.2	35.2	- 4.4	29.3	1.5	27.0	3.8	40.3	- 9.5	28.6	2.2	29.4	1.4	29.3	1.5	34.2	- 3.4	34.6	- 3.8
09:15 - 09:30	28.1	61.7	-33.6	69.8	-41.7	70.0	-41.9	70.1	-42.0	68.8	-40.7	69.8	-41.7	50.7	-22.6	70.0	-41.9	65.8	-37.7	64.9	-36.8	69.9	-41.8	66.5	-38.4
Hour 1	70.7	70.4	0.3	70.1	0.7	70.3	0.4	70.4	0.4	70.4	0.4	70.5	0.2	70.5	0.2	70.6	0.2	70.4	0.3	70.6	0.1	69.9	0.8	70.4	0.4
Hour 2	40.8	29.6	11.2	27.0	13.9	25.7	15.2	27.1	13.8	27.8	13.0	26.7	14.1	25.2	15.6	28.7	12.1	25.8	15.1	29.6	11.2	26.7	14.1	27.2	13.6
Hour 3	26.1	21.7	4.4	21.3	4.9	22.1	4.1	20.9	5.2	21.6	4.5	22.5	3.6	21.4	4.8	22.1	4.0	22.6	3.6	22.2	3.9	22.5	3.6	21.9	4.2
Hour 4	27.8	34.5	- 6.6	48.0	-20.2	37.1	- 9.3	38.1	-10.2	37.2	- 9.4	35.9	- 8.1	34.3	- 6.4	37.4	- 9.6	35.9	- 8.0	35.2	- 7.4	38.4	-10.6	37.5	- 9.6
11	41.4	39.1	2.3	41.6	- 0.2	38.8	2.6	39.1	2.3	39.2	2.1	38.9	2.5	37.8	3.5	39.7	1.7	38.6	2.7	39.4	2.0	39.4	2.0	39.2	2.1



CONCEPT 3

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

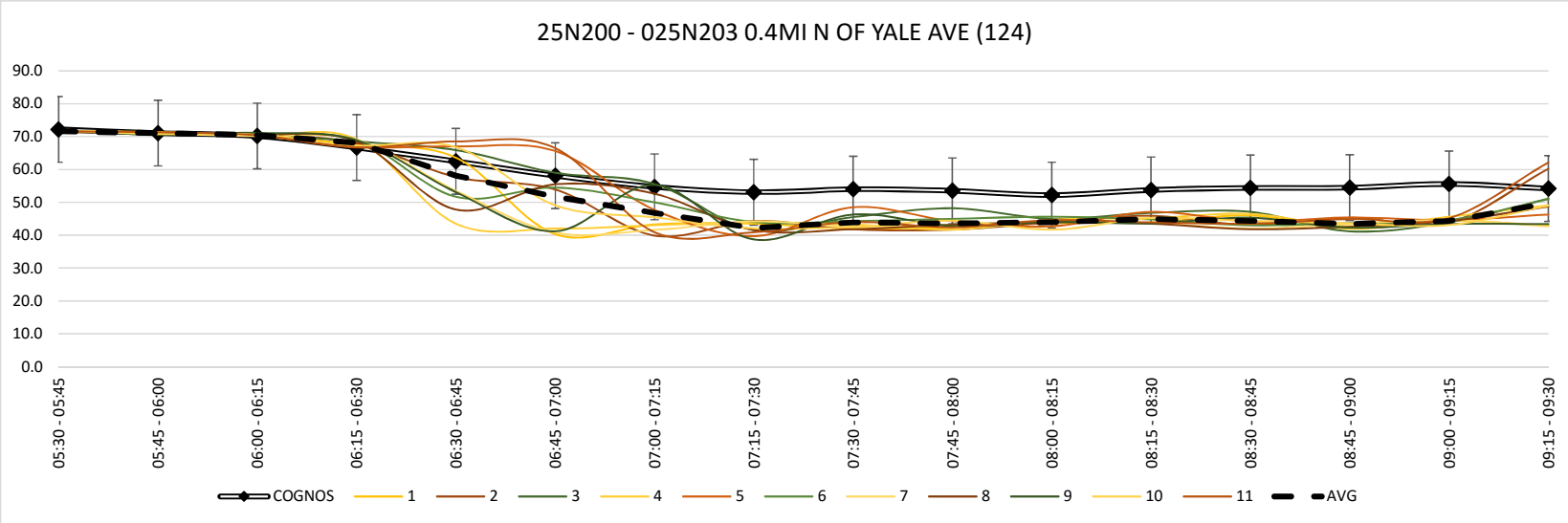
AM	COGNOS	MODEL																						AGGREGATE	
TIME	25N150	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	70.0	71.8	- 1.8	71.8	- 1.8	71.8	- 1.8	71.7	- 1.7	71.7	- 1.7	72.2	- 2.2	72.0	- 2.0	71.9	- 1.9	71.6	- 1.6	71.8	- 1.8	72.0	- 2.0	71.8	- 1.8
05:45 - 06:00	70.8	71.6	- 0.8	71.7	- 0.9	71.3	- 0.5	71.4	- 0.6	71.4	- 0.6	71.3	- 0.5	71.5	- 0.7	71.7	- 0.9	70.9	- 0.1	71.5	- 0.7	71.3	- 0.5	71.4	- 0.6
06:00 - 06:15	69.6	70.9	- 1.3	70.7	- 1.1	70.4	- 0.8	70.6	- 1.0	71.0	- 1.4	70.9	- 1.3	70.3	- 0.7	70.8	- 1.2	70.9	- 1.3	70.9	- 1.3	70.6	- 1.0	70.7	- 1.1
06:15 - 06:30	65.9	69.0	- 3.2	67.2	- 1.4	56.4	9.5	63.8	2.1	68.3	- 2.5	69.7	- 3.9	65.4	0.4	69.2	- 3.4	64.8	1.1	69.1	- 3.3	54.6	11.3	65.2	0.6
06:30 - 06:45	57.3	34.9	22.4	26.9	30.4	25.5	31.8	26.3	31.0	32.4	24.9	30.3	27.0	25.3	32.0	35.8	21.5	24.2	33.1	31.4	25.9	25.6	31.7	29.0	28.3
06:45 - 07:00	48.6	25.7	22.9	25.2	23.4	25.4	23.2	25.8	22.8	25.8	22.8	25.0	23.6	26.7	21.9	25.2	23.4	24.6	24.0	25.8	22.8	25.4	23.2	25.5	23.1
07:00 - 07:15	39.1	25.4	13.7	25.9	13.2	24.8	14.3	26.2	12.9	24.5	14.6	25.4	13.7	23.7	15.4	24.8	14.3	26.9	12.2	25.3	13.8	27.1	12.0	25.5	13.6
07:15 - 07:30	33.5	26.6	6.9	26.7	6.8	25.2	8.3	25.7	7.8	24.7	8.8	25.7	7.8	24.0	9.5	25.5	8.0	24.4	9.1	25.1	8.4	25.4	8.1	25.4	8.1
07:30 - 07:45	29.3	22.5	6.8	26.3	3.0	23.9	5.4	22.4	6.9	24.4	4.9	24.8	4.5	22.6	6.7	24.9	4.4	26.7	2.6	25.8	3.5	26.1	3.2	24.6	4.7
07:45 - 08:00	32.4	21.7	10.7	20.4	12.0	21.3	11.1	21.2	11.2	21.7	10.7	20.9	11.5	20.8	11.6	21.5	10.9	21.9	10.5	22.4	10.0	21.1	11.3	21.3	11.1
08:00 - 08:15	30.5	20.1	10.4	19.9	10.6	21.8	8.7	20.5	10.0	20.1	10.4	21.8	8.7	21.7	8.8	21.5	9.0	20.1	10.4	19.7	10.8	21.9	8.6	20.8	9.7
08:15 - 08:30	32.6	20.5	12.1	20.6	12.0	21.9	10.7	19.8	12.8	22.3	10.3	22.7	9.9	21.8	10.8	21.6	11.0	22.9	9.7	23.5	9.1	22.6	10.0	21.8	10.8
08:30 - 08:45	33.1	22.8	10.3	22.7	10.4	23.0	10.1	23.1	10.0	23.3	9.8	23.4	9.7	23.4	9.7	25.0	8.1	23.2	9.9	22.5	10.6	23.0	10.1	23.2	9.9
08:45 - 09:00	34.5	27.2	7.3	30.5	4.0	26.0	8.5	25.2	9.3	29.2	5.3	25.9	8.6	25.0	9.5	28.3	6.2	26.8	7.7	26.0	8.5	28.7	5.8	27.2	7.3
09:00 - 09:15	35.1	30.4	4.7	47.2	-12.1	32.2	2.9	34.1	1.0	30.7	4.4	27.8	7.3	29.5	5.6	29.0	6.1	30.0	5.1	31.8	3.3	34.1	1.0	32.4	2.7
09:15 - 09:30	35.9	50.3	-14.5	70.1	-34.3	69.5	-33.7	70.2	-34.4	51.8	-16.0	57.7	-21.9	31.2	4.7	66.0	-30.2	50.0	-14.2	55.5	-19.7	70.5	-34.7	58.4	-22.6
Hour 1	69.1	70.8	- 1.7	70.4	- 1.3	67.5	1.6	69.4	- 0.3	70.6	- 1.5	71.0	- 1.9	69.8	- 0.7	70.9	- 1.8	69.6	- 0.5	70.8	- 1.7	67.1	2.0	69.8	- 0.7
Hour 2	44.6	28.2	16.5	26.2	18.4	25.2	19.4	26.0	18.6	26.9	17.8	26.6	18.0	24.9	19.7	27.8	16.8	25.0	19.6	26.9	17.7	25.9	18.7	26.4	18.3
Hour 3	31.2	21.2	10.0	21.8	9.4	22.2	9.0	21.0	10.2	22.1	9.1	22.6	8.6	21.7	9.5	22.4	8.8	22.9	8.3	22.9	8.3	22.9	8.3	22.1	9.1
Hour 4	34.6	32.7	2.0	42.6	- 8.0	37.7	- 3.0	38.2	- 3.5	33.8	0.9	33.7	0.9	27.3	7.4	37.1	- 2.4	32.5	2.1	34.0	0.7	39.1	- 4.4	35.3	- 0.7
11	44.9	38.2	6.7	40.2	4.6	38.2	6.7	38.6	6.2	38.3	6.5	38.5	6.4	35.9	8.9	39.5	5.3	37.5	7.4	38.6	6.2	38.8	6.1	38.4	6.5



CONCEPT 3

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

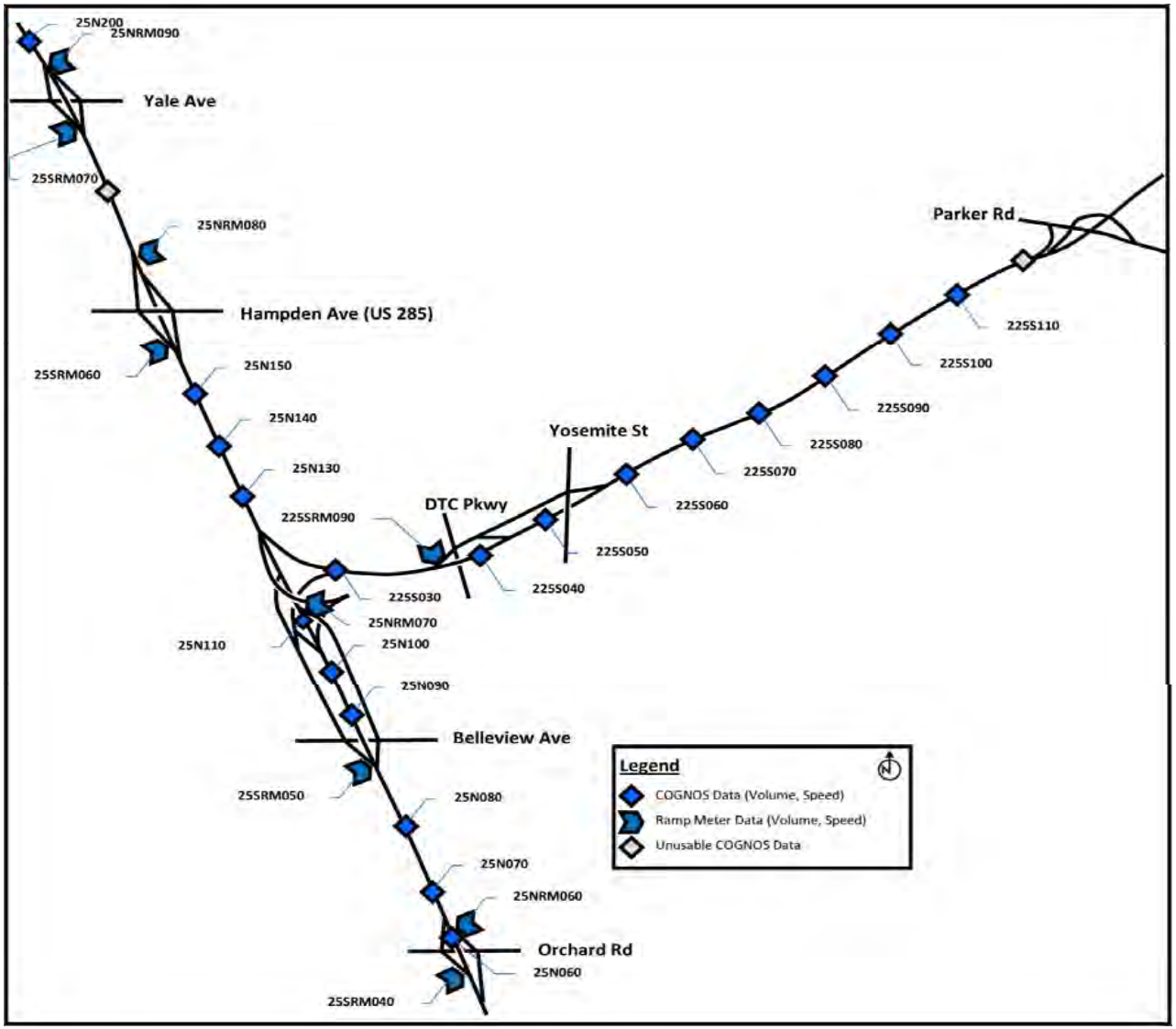
AM	COGNOS	MODEL																						AGGREGATE	
TIME	25N200	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	72.2	71.6	0.6	71.4	0.8	71.8	0.4	71.6	0.6	71.6	0.6	71.5	0.7	71.7	0.5	71.3	0.9	71.8	0.4	71.8	0.4	71.6	0.6	71.6	0.6
05:45 - 06:00	71.1	71.1	- 0.0	71.2	- 0.1	70.8	0.3	71.4	- 0.3	70.8	0.3	71.0	0.1	70.9	0.2	71.2	- 0.1	70.6	0.5	70.8	0.3	71.3	- 0.2	71.0	0.1
06:00 - 06:15	70.2	70.4	- 0.2	70.5	- 0.3	70.7	- 0.5	70.3	- 0.1	70.2	- 0.0	70.4	- 0.2	70.1	0.1	70.7	- 0.5	71.1	- 0.9	70.6	- 0.4	70.4	- 0.2	70.5	- 0.3
06:15 - 06:30	66.7	67.5	- 0.8	68.0	- 1.3	68.5	- 1.8	69.2	- 2.5	66.8	- 0.1	69.0	- 2.3	69.0	- 2.3	68.5	- 1.8	68.9	- 2.2	67.3	- 0.6	66.7	- 0.0	68.1	- 1.4
06:30 - 06:45	62.5	63.6	- 1.2	57.7	4.8	65.9	- 3.5	43.5	19.0	67.0	- 4.6	51.7	10.8	53.5	9.0	47.8	14.7	53.1	9.4	66.8	- 4.3	68.5	- 6.1	58.1	4.4
06:45 - 07:00	58.1	40.3	17.8	53.9	4.2	59.0	- 0.9	42.0	16.1	65.6	- 7.5	54.5	3.6	40.8	17.3	55.5	2.6	41.2	16.9	49.1	9.0	66.5	- 8.4	51.7	6.4
07:00 - 07:15	54.7	43.3	11.4	39.9	14.8	55.6	- 0.9	43.0	11.7	47.7	7.0	50.0	4.7	41.6	13.1	52.6	2.1	55.3	- 0.6	45.4	9.3	40.9	13.8	46.8	7.9
07:15 - 07:30	53.1	43.5	9.6	44.3	8.8	41.5	11.6	43.9	9.2	39.7	13.4	44.0	9.1	44.2	8.9	41.6	11.5	38.7	14.4	42.1	11.0	40.9	12.2	42.2	10.9
07:30 - 07:45	54.0	42.0	12.0	41.8	12.2	45.5	8.5	43.3	10.7	48.5	5.5	44.3	9.7	42.7	11.3	41.8	12.2	46.3	7.7	42.5	11.5	44.0	10.0	43.9	10.1
07:45 - 08:00	53.5	42.5	11.0	41.7	11.8	48.2	5.3	41.7	11.8	44.3	9.2	45.0	8.5	43.1	10.4	43.2	10.3	42.8	10.7	44.4	9.1	42.4	11.1	43.6	9.9
08:00 - 08:15	52.2	43.7	8.5	43.9	8.3	45.0	7.2	44.7	7.5	42.7	9.5	45.6	6.6	44.2	8.0	44.0	8.2	44.0	8.2	41.7	10.5	44.6	7.6	44.0	8.2
08:15 - 08:30	53.8	43.9	9.9	45.9	7.9	46.8	7.0	45.2	8.6	47.1	6.7	44.8	9.0	43.7	10.1	43.5	10.3	43.6	10.2	45.2	8.6	43.9	9.9	44.9	8.9
08:30 - 08:45	54.4	46.0	8.4	43.1	11.3	47.1	7.3	46.5	7.9	44.2	10.2	43.0	11.4	42.0	12.4	41.8	12.6	45.3	9.1	44.3	10.1	43.5	10.9	44.3	10.1
08:45 - 09:00	54.5	42.0	12.5	45.3	9.2	41.2	13.3	42.7	11.8	45.4	9.1	43.7	10.8	43.5	11.0	42.6	11.9	42.3	12.2	43.6	10.9	44.9	9.6	43.4	11.1
09:00 - 09:15	55.6	44.4	11.2	43.9	11.7	43.9	11.7	45.6	10.0	44.6	11.0	44.6	11.0	44.6	11.0	44.3	11.3	43.4	12.2	43.1	12.5	45.2	10.4	44.3	11.3
09:15 - 09:30	54.2	42.9	11.3	60.2	- 6.0	51.1	3.1	49.1	5.1	46.3	7.9	50.9	3.3	42.7	11.5	48.7	5.5	43.4	10.8	49.0	5.2	62.1	- 7.9	49.7	4.5
Hour 1	70.0	70.2	- 0.1	70.3	- 0.3	70.5	- 0.4	70.6	- 0.6	69.9	0.2	70.5	- 0.5	70.4	- 0.4	70.4	- 0.4	70.6	- 0.6	70.1	- 0.1	70.0	0.0	70.3	- 0.3
Hour 2	57.1	47.7	9.4	49.0	8.1	55.5	1.6	43.1	14.0	55.0	2.1	50.1	7.0	45.0	12.1	49.4	7.7	47.1	10.0	50.9	6.2	54.2	2.9	49.7	7.4
Hour 3	53.4	43.0	10.3	43.3	10.0	46.4	7.0	43.7	9.6	45.7	7.7	44.9	8.4	43.4	9.9	43.1	10.2	44.2	9.2	43.5	9.9	43.7	9.6	44.1	9.3
Hour 4	54.6	43.8	10.8	48.1	6.5	45.8	8.8	46.0	8.7	45.1	9.5	45.6	9.1	43.2	11.4	44.4	10.3	43.6	11.0	45.0	9.6	48.9	5.7	45.4	9.2
11	58.8	51.2	7.6	52.7	6.1	54.5	4.2	50.9	7.9	53.9	4.9	52.8	6.0	50.5	8.3	51.8	7.0	51.4	7.4	52.4	6.4	54.2	4.6	52.4	6.4



AVERAGE VEHICLE SPEEDS - BY LINK

CONCEPT 3

ROUTE: I-225
PERIOD: PM

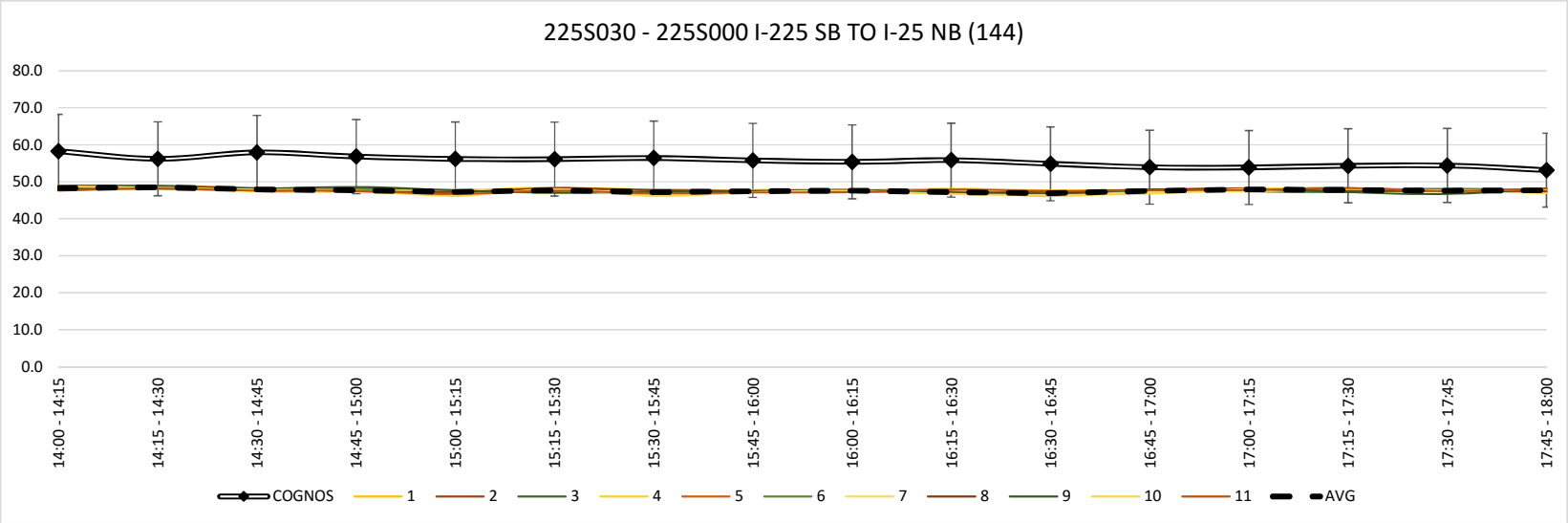


LOCATION	COGNOS DESCRIPTION
225S030	225S000 I-225 SB TO I-25 NB (144)
225SRM090	225S001 TAMARAC
225S040	225S001 YOSEMITE ST TO DTC BLVD (172)
225S050	225S001 YOSEMITE ST (174)
225S060	225S001 PARKER RD TO YOSEMITE ST (176)
225S070	225S001 PARKER RD TO YOSEMITE ST (181)
225S080	225S002 PARKER RD TO YOSEMITE ST (182)
225S090	225S002 PARKER RD TO YOESMEITE ST (183)
225S100	225S002 PARKER RD TO YOSEMITE ST (184)
225S110	225S003 PARKER RD TO YOSEMITE ST (191)

CONCEPT 3

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

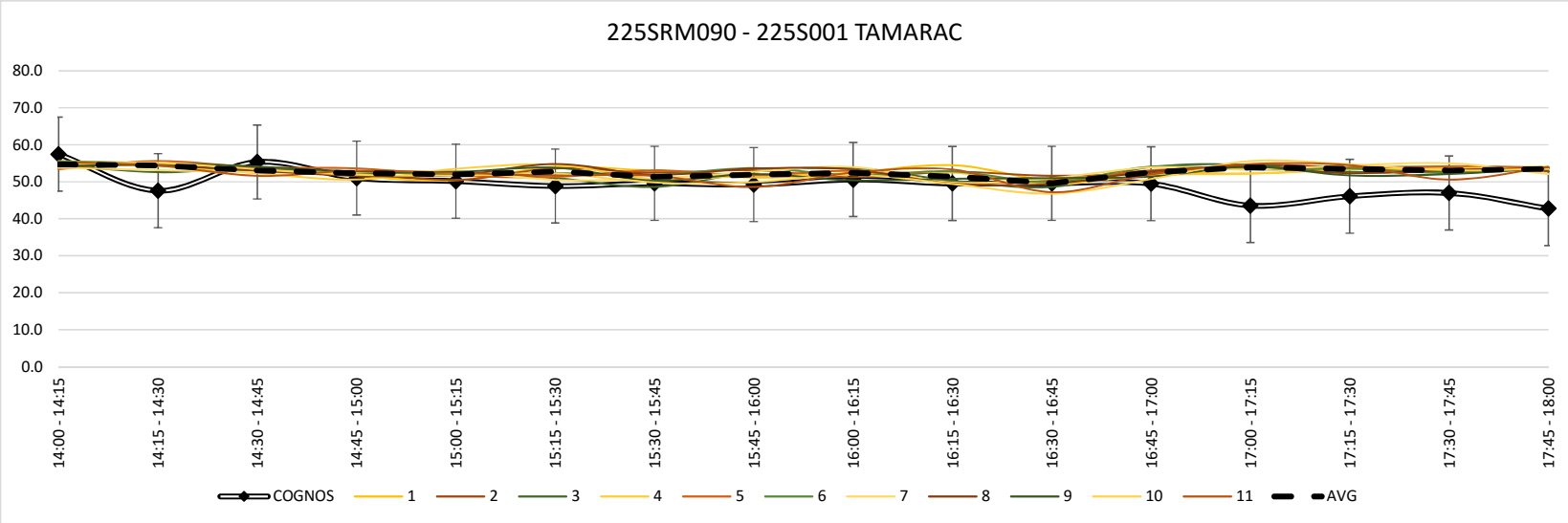
PM	COGNOS	MODEL																						AGGREGATE	
TIME	225S030	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	58.3	48.0	10.3	49.0	9.3	48.2	10.1	48.3	10.0	48.3	10.0	48.4	9.9	48.3	10.0	48.0	10.3	48.3	10.0	48.7	9.6	47.6	10.7	48.3	10.0
14:15 - 14:30	56.2	48.2	8.0	48.9	7.3	48.1	8.1	48.3	7.9	48.9	7.3	48.6	7.6	48.2	8.0	48.4	7.8	48.8	7.4	48.4	7.8	48.2	8.0	48.5	7.7
14:30 - 14:45	58.0	48.1	9.9	48.0	10.0	47.7	10.3	47.4	10.6	48.3	9.7	47.8	10.2	48.1	9.9	48.1	9.9	48.2	9.8	47.9	10.1	47.6	10.4	47.9	10.1
14:45 - 15:00	56.8	47.8	9.0	47.8	9.0	48.2	8.6	47.2	9.6	47.9	8.9	47.8	9.0	47.5	9.3	47.5	9.3	48.6	8.2	47.6	9.2	47.5	9.3	47.7	9.1
15:00 - 15:15	56.2	47.7	8.5	47.3	8.9	47.6	8.6	46.8	9.4	47.8	8.4	47.4	8.8	47.9	8.3	47.2	9.0	47.7	8.5	46.2	10.0	46.7	9.5	47.3	8.9
15:15 - 15:30	56.1	48.4	7.7	48.0	8.1	47.3	8.8	48.3	7.8	47.1	9.0	47.6	8.5	47.7	8.4	48.3	7.8	47.0	9.1	48.0	8.1	47.6	8.5	47.7	8.4
15:30 - 15:45	56.4	47.8	8.6	47.8	8.6	47.7	8.7	46.3	10.1	47.7	8.7	46.8	9.6	47.4	9.0	47.7	8.7	47.3	9.1	46.2	10.2	46.9	9.5	47.2	9.2
15:45 - 16:00	55.8	47.2	8.6	47.7	8.1	47.4	8.4	47.2	8.6	47.2	8.6	47.6	8.2	47.8	8.0	47.5	8.3	47.5	8.3	47.2	8.6	47.1	8.7	47.4	8.4
16:00 - 16:15	55.4	47.6	7.8	47.4	8.0	47.8	7.6	47.6	7.8	47.6	7.8	47.5	7.9	48.0	7.4	47.8	7.6	47.7	7.7	47.6	7.8	47.2	8.2	47.6	7.8
16:15 - 16:30	55.8	48.1	7.7	47.0	8.8	46.9	8.9	47.3	8.5	47.1	8.7	47.4	8.4	47.1	8.7	47.1	8.7	47.0	8.8	46.7	9.1	47.9	7.9	47.2	8.6
16:30 - 16:45	54.9	47.7	7.2	47.2	7.7	46.7	8.2	46.1	8.8	46.5	8.4	46.9	8.0	47.2	7.7	47.3	7.6	46.8	8.1	46.4	8.5	47.5	7.4	46.9	8.0
16:45 - 17:00	53.9	47.8	6.1	47.5	6.4	47.3	6.6	47.4	6.5	47.7	6.2	47.9	6.0	47.2	6.7	47.9	6.0	47.8	6.1	46.8	7.1	47.7	6.2	47.5	6.4
17:00 - 17:15	53.9	47.9	6.0	47.9	6.0	48.2	5.7	47.7	6.2	48.3	5.6	47.4	6.5	47.4	6.5	48.1	5.8	48.0	5.9	48.1	5.8	47.8	6.1	47.9	6.0
17:15 - 17:30	54.3	48.2	6.1	48.3	6.0	47.9	6.4	47.5	6.8	47.8	6.5	47.2	7.1	48.0	6.3	47.5	6.8	47.2	7.1	48.2	6.1	48.3	6.0	47.8	6.5
17:30 - 17:45	54.4	47.5	6.9	47.7	6.7	48.1	6.3	47.5	6.9	47.4	7.0	47.9	6.5	47.5	6.9	47.6	6.8	46.7	7.7	47.7	6.7	47.5	6.9	47.6	6.8
17:45 - 18:00	53.1	47.3	5.8	47.9	5.2	47.9	5.2	46.9	6.2	48.1	5.0	47.4	5.7	47.8	5.3	47.4	5.7	48.2	4.9	48.0	5.1	48.2	4.9	47.7	5.4
Hour 1	57.3	48.0	9.3	48.4	8.9	48.1	9.3	47.8	9.5	48.4	9.0	48.2	9.2	48.0	9.3	48.0	9.3	48.5	8.8	48.2	9.2	47.7	9.6	48.1	9.2
Hour 2	56.1	47.8	8.3	47.7	8.4	47.5	8.6	47.2	9.0	47.5	8.7	47.4	8.8	47.7	8.4	47.7	8.4	47.4	8.7	46.9	9.2	47.1	9.0	47.4	8.7
Hour 3	55.0	47.8	7.2	47.3	7.7	47.2	7.8	47.1	7.9	47.2	7.8	47.4	7.6	47.4	7.6	47.5	7.5	47.3	7.7	46.9	8.1	47.6	7.4	47.3	7.7
Hour 4	53.9	47.7	6.2	48.0	6.0	48.0	5.9	47.4	6.5	47.9	6.0	47.5	6.5	47.7	6.3	47.7	6.3	47.5	6.4	48.0	5.9	48.0	6.0	47.8	6.2
11	55.6	47.8	7.8	47.8	7.8	47.7	7.9	47.4	8.2	47.7	7.9	47.6	8.0	47.7	7.9	47.7	7.9	47.7	7.9	47.5	8.1	47.6	8.0	47.6	8.0



CONCEPT 3

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

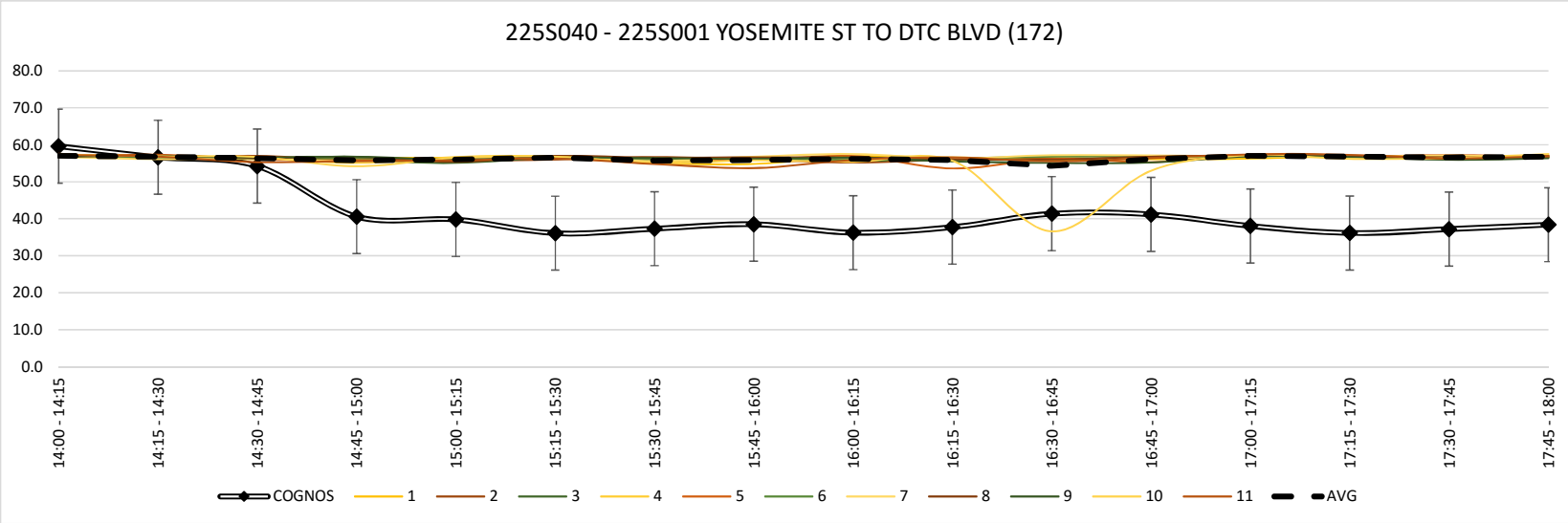
PM	COGNOS	MODEL																						AGGREGATE	
TIME	225SRM090	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	57.5	55.6	1.9	55.3	2.2	54.5	3.0	54.4	3.1	53.4	4.1	55.5	2.0	53.8	3.7	54.6	2.9	54.1	3.4	54.8	2.7	55.3	2.2	54.7	2.8
14:15 - 14:30	47.6	54.9	- 7.3	54.4	- 6.8	52.6	- 5.0	54.3	- 6.7	55.6	- 8.0	54.9	- 7.3	53.1	- 5.5	54.4	- 6.8	54.9	- 7.3	55.1	- 7.5	54.4	- 6.8	54.4	- 6.8
14:30 - 14:45	55.4	54.0	1.4	52.9	2.5	53.6	1.8	52.3	3.1	53.9	1.5	52.8	2.6	52.6	2.8	53.0	2.4	54.1	1.3	53.4	2.0	51.6	3.8	53.1	2.3
14:45 - 15:00	51.0	51.6	- 0.6	52.4	- 1.4	52.3	- 1.3	50.6	0.4	53.6	- 2.6	52.7	- 1.7	52.5	- 1.5	51.6	- 0.6	52.8	- 1.8	51.9	- 0.9	53.0	- 2.0	52.3	- 1.3
15:00 - 15:15	50.2	50.4	- 0.2	50.5	- 0.3	52.6	- 2.4	53.5	- 3.3	51.7	- 1.5	52.0	- 1.8	52.8	- 2.6	51.8	- 1.6	52.7	- 2.5	51.7	- 1.5	52.4	- 2.2	52.0	- 1.8
15:15 - 15:30	48.8	54.0	- 5.2	53.6	- 4.8	51.0	- 2.2	54.6	- 5.8	51.3	- 2.5	52.3	- 3.5	50.5	- 1.7	54.8	- 6.0	53.8	- 5.0	52.2	- 3.4	51.7	- 2.9	52.7	- 3.9
15:30 - 15:45	49.6	52.9	- 3.3	52.5	- 2.9	48.6	1.0	50.7	- 1.1	53.1	- 3.5	51.9	- 2.3	50.9	- 1.3	51.9	- 2.3	50.3	- 0.7	49.8	- 0.2	51.6	- 2.0	51.3	- 1.7
15:45 - 16:00	49.2	51.1	- 1.9	53.1	- 3.9	52.7	- 3.5	51.7	- 2.5	51.7	- 2.5	53.7	- 4.5	52.7	- 3.5	53.6	- 4.4	52.1	- 2.9	49.9	- 0.7	48.6	0.6	51.9	- 2.7
16:00 - 16:15	50.6	52.5	- 1.9	51.2	- 0.6	53.7	- 3.1	52.0	- 1.4	52.9	- 2.3	51.8	- 1.2	54.0	- 3.4	53.3	- 2.7	50.4	0.2	51.9	- 1.3	52.5	- 1.9	52.4	- 1.8
16:15 - 16:30	49.5	54.5	- 5.0	52.7	- 3.2	50.3	- 0.8	52.5	- 3.0	49.8	- 0.3	52.8	- 3.3	49.8	- 0.3	49.5	0.0	50.8	- 1.3	49.4	0.1	53.3	- 3.8	51.4	- 1.9
16:30 - 16:45	49.6	50.5	- 0.9	51.6	- 2.0	48.6	1.0	49.4	0.2	50.4	- 0.8	49.9	- 0.3	51.0	- 1.4	49.4	0.2	51.0	- 1.4	46.8	2.8	47.2	2.4	49.6	- 0.0
16:45 - 17:00	49.5	52.5	- 3.0	52.4	- 2.9	54.0	- 4.5	51.8	- 2.3	53.1	- 3.6	54.1	- 4.6	53.9	- 4.4	52.8	- 3.3	51.4	- 1.9	50.7	- 1.2	52.0	- 2.5	52.6	- 3.1
17:00 - 17:15	43.6	52.2	- 8.6	54.6	-11.0	54.6	-11.0	52.2	- 8.6	53.8	-10.2	53.3	- 9.7	53.3	- 9.7	54.1	-10.5	54.1	-10.5	55.6	-12.0	54.8	-11.2	53.9	-10.3
17:15 - 17:30	46.1	53.4	- 7.3	53.9	- 7.8	52.7	- 6.6	53.3	- 7.2	53.8	- 7.7	53.6	- 7.5	54.4	- 8.3	52.3	- 6.2	51.7	- 5.6	54.7	- 8.6	54.5	- 8.4	53.5	- 7.4
17:30 - 17:45	47.0	53.4	- 6.4	53.9	- 6.9	52.7	- 5.7	53.6	- 6.6	54.2	- 7.2	52.4	- 5.4	55.0	- 8.0	53.2	- 6.2	52.1	- 5.1	53.1	- 6.1	50.6	- 3.6	53.1	- 6.1
17:45 - 18:00	42.8	53.7	-10.9	52.9	-10.1	53.4	-10.6	54.1	-11.3	53.9	-11.1	53.9	-11.1	52.1	- 9.3	53.7	-10.9	53.6	-10.8	53.5	-10.7	54.0	-11.2	53.5	-10.7
Hour 1	52.9	54.0	- 1.2	53.8	- 0.9	53.3	- 0.4	52.9	- 0.0	54.1	- 1.3	54.0	- 1.1	53.0	- 0.1	53.4	- 0.5	54.0	- 1.1	53.8	- 1.0	53.6	- 0.7	53.6	- 0.8
Hour 2	49.5	52.1	- 2.6	52.4	- 3.0	51.2	- 1.8	52.6	- 3.2	52.0	- 2.5	52.5	- 3.0	51.7	- 2.3	53.0	- 3.6	52.2	- 2.8	50.9	- 1.4	51.1	- 1.6	52.0	- 2.5
Hour 3	49.8	52.5	- 2.7	52.0	- 2.2	51.7	- 1.9	51.4	- 1.6	51.6	- 1.8	52.2	- 2.4	52.2	- 2.4	51.3	- 1.5	50.9	- 1.1	49.7	0.1	51.3	- 1.5	51.5	- 1.7
Hour 4	44.8	53.2	- 8.3	53.8	- 9.0	53.4	- 8.5	53.3	- 8.5	53.9	- 9.1	53.3	- 8.5	53.7	- 8.9	53.3	- 8.5	52.9	- 8.0	54.2	- 9.4	53.5	- 8.6	53.5	- 8.7
11	49.2	53.0	- 3.7	53.0	- 3.8	52.4	- 3.1	52.6	- 3.3	52.9	- 3.7	53.0	- 3.7	52.7	- 3.4	52.8	- 3.5	52.5	- 3.3	52.2	- 2.9	52.3	- 3.1	52.7	- 3.4



CONCEPT 3

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

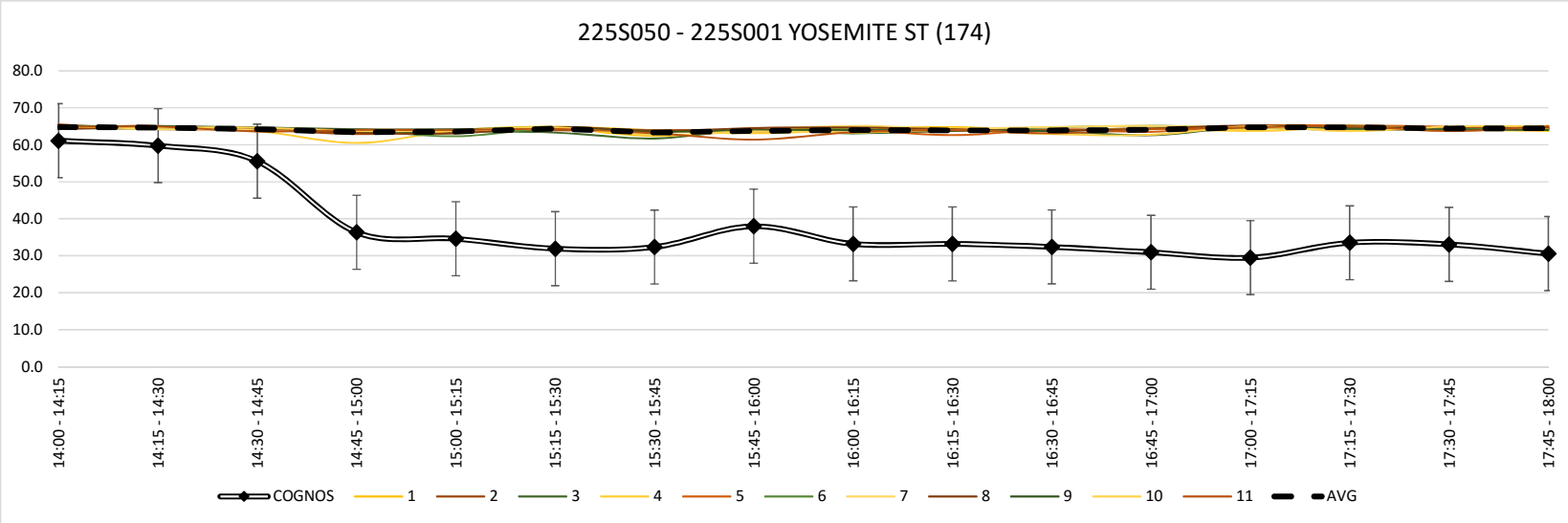
PM	COGNOS	MODEL																						AGGREGATE	
TIME	225S040	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	59.6	57.2	2.4	57.6	2.0	56.9	2.7	56.8	2.8	56.9	2.7	57.0	2.6	56.7	2.9	56.7	2.9	56.9	2.7	57.4	2.2	57.3	2.3	57.0	2.6
14:15 - 14:30	56.6	57.0	- 0.4	56.2	0.4	56.4	0.2	56.9	- 0.3	57.3	- 0.7	56.7	- 0.1	56.1	0.5	57.1	- 0.5	56.9	- 0.3	56.9	- 0.3	56.8	- 0.2	56.8	- 0.2
14:30 - 14:45	54.3	56.1	- 1.9	57.0	- 2.8	56.5	- 2.3	56.5	- 2.3	56.2	- 2.0	56.3	- 2.1	56.4	- 2.2	56.4	- 2.2	56.6	- 2.4	56.7	- 2.5	55.3	- 1.1	56.4	- 2.2
14:45 - 15:00	40.6	56.4	-15.8	55.6	-15.0	55.8	-15.2	55.1	-14.5	55.9	-15.3	56.4	-15.8	55.4	-14.8	56.7	-16.1	56.8	-16.2	54.2	-13.6	55.6	-15.0	55.8	-15.2
15:00 - 15:15	39.8	56.4	-16.6	55.7	-15.9	55.1	-15.3	56.7	-16.9	56.1	-16.3	56.0	-16.2	56.0	-16.2	55.4	-15.6	56.0	-16.2	56.5	-16.7	55.8	-16.0	56.0	-16.2
15:15 - 15:30	36.1	56.3	-20.2	56.0	-19.9	56.5	-20.4	56.9	-20.8	56.3	-20.2	56.4	-20.3	56.7	-20.6	57.0	-20.9	56.6	-20.5	56.8	-20.7	56.3	-20.2	56.5	-20.4
15:30 - 15:45	37.3	55.2	-17.9	56.7	-19.4	55.4	-18.1	55.3	-18.0	56.4	-19.1	55.9	-18.6	55.6	-18.3	56.5	-19.2	56.4	-19.1	55.0	-17.7	54.8	-17.5	55.7	-18.4
15:45 - 16:00	38.5	54.8	-16.3	56.0	-17.5	56.0	-17.5	56.4	-17.9	56.0	-17.5	56.5	-18.0	56.8	-18.3	56.6	-18.1	56.2	-17.7	55.8	-17.3	53.7	-15.2	55.9	-17.4
16:00 - 16:15	36.2	56.9	-20.7	55.2	-19.0	55.7	-19.5	55.9	-19.7	57.0	-20.8	55.9	-19.7	57.5	-21.3	56.6	-20.4	56.5	-20.3	55.4	-19.2	55.9	-19.7	56.2	-20.0
16:15 - 16:30	37.7	56.5	-18.8	56.0	-18.3	55.9	-18.2	56.6	-18.9	53.6	-15.9	56.3	-18.6	56.3	-18.6	56.1	-18.4	55.5	-17.8	55.7	-18.0	56.6	-18.9	55.9	-18.2
16:30 - 16:45	41.4	56.4	-15.0	56.2	-14.8	55.9	-14.5	55.8	-14.4	56.2	-14.8	56.8	-15.4	57.2	-15.8	56.0	-14.6	55.1	-13.7	36.6	4.8	55.5	-14.1	54.3	-12.9
16:45 - 17:00	41.2	56.1	-14.9	56.6	-15.4	56.7	-15.5	56.5	-15.3	55.3	-14.1	56.9	-15.7	57.1	-15.9	56.8	-15.6	55.2	-14.0	53.0	-11.8	56.4	-15.2	56.1	-14.9
17:00 - 17:15	38.1	56.3	-18.3	57.1	-19.1	56.9	-18.9	56.7	-18.7	57.2	-19.2	56.8	-18.8	56.9	-18.9	57.1	-19.1	56.9	-18.9	57.2	-19.2	57.4	-19.4	57.0	-19.0
17:15 - 17:30	36.1	56.9	-20.8	56.8	-20.7	56.8	-20.7	57.0	-20.9	56.9	-20.8	57.1	-21.0	56.7	-20.6	56.8	-20.7	56.7	-20.6	56.2	-20.1	57.3	-21.2	56.8	-20.7
17:30 - 17:45	37.2	56.4	-19.2	56.3	-19.1	57.0	-19.8	56.5	-19.3	57.2	-20.0	56.4	-19.2	57.1	-19.9	56.6	-19.4	55.9	-18.7	56.4	-19.2	56.3	-19.1	56.6	-19.4
17:45 - 18:00	38.4	57.1	-18.7	57.1	-18.7	56.8	-18.4	56.6	-18.2	56.8	-18.4	56.8	-18.4	56.7	-18.3	56.6	-18.2	56.4	-18.0	57.5	-19.1	56.9	-18.5	56.8	-18.4
Hour 1	52.8	56.7	- 3.9	56.6	- 3.8	56.4	- 3.6	56.3	- 3.6	56.6	- 3.8	56.6	- 3.8	56.2	- 3.4	56.7	- 4.0	56.8	- 4.0	56.3	- 3.5	56.3	- 3.5	56.5	- 3.7
Hour 2	37.9	55.7	-17.7	56.1	-18.2	55.8	-17.8	56.3	-18.4	56.2	-18.3	56.2	-18.3	56.3	-18.3	56.4	-18.4	56.3	-18.4	56.0	-18.1	55.2	-17.2	56.0	-18.1
Hour 3	39.1	56.5	-17.3	56.0	-16.9	56.1	-16.9	56.2	-17.1	55.5	-16.4	56.5	-17.3	57.0	-17.9	56.4	-17.2	55.6	-16.4	50.2	-11.0	56.1	-17.0	55.6	-16.5
Hour 4	37.4	56.7	-19.2	56.8	-19.4	56.9	-19.4	56.7	-19.3	57.0	-19.6	56.8	-19.3	56.9	-19.4	56.8	-19.3	56.5	-19.0	56.8	-19.4	57.0	-19.5	56.8	-19.4
11	41.8	56.4	-14.6	56.4	-14.6	56.3	-14.4	56.4	-14.6	56.3	-14.5	56.5	-14.7	56.6	-14.8	56.6	-14.7	56.3	-14.5	54.8	-13.0	56.1	-14.3	56.2	-14.4



CONCEPT 3

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

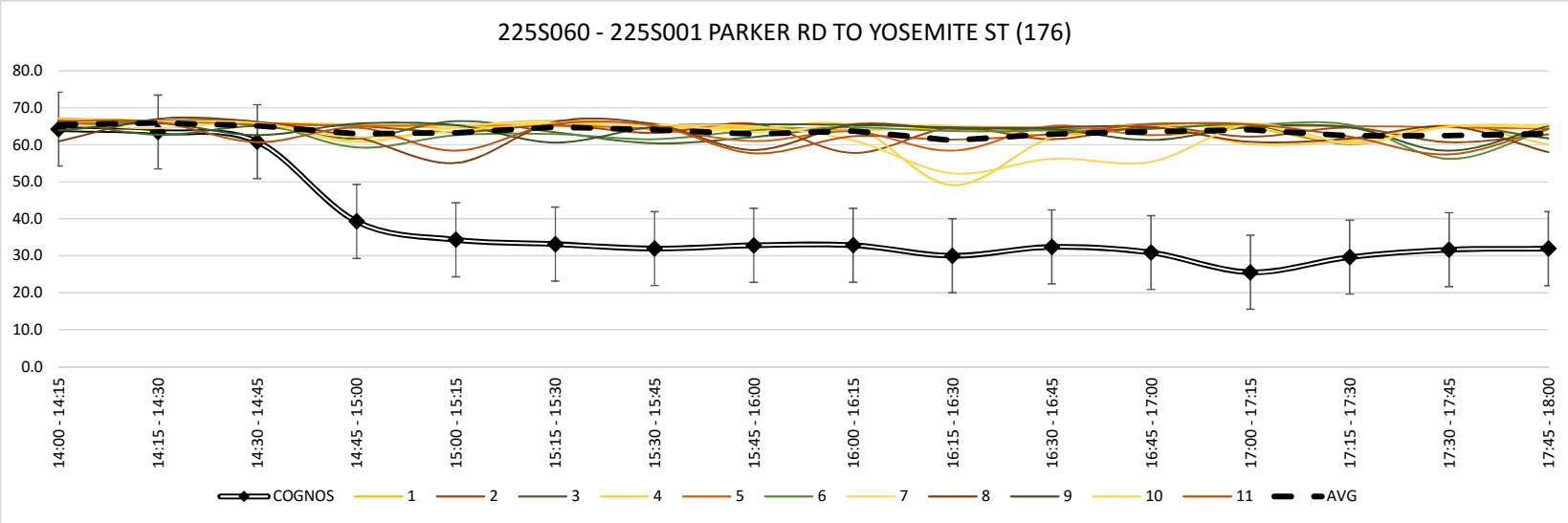
PM	COGNOS	MODEL																						AGGREGATE	
TIME	225S050	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	61.1	65.0	- 3.9	65.5	- 4.4	64.5	- 3.4	64.7	- 3.6	64.5	- 3.4	65.0	- 3.9	64.8	- 3.7	64.2	- 3.1	65.1	- 4.0	64.9	- 3.8	64.8	- 3.7	64.8	- 3.7
14:15 - 14:30	59.8	64.7	- 4.9	64.2	- 4.4	64.3	- 4.5	64.7	- 4.9	65.1	- 5.3	64.4	- 4.6	64.2	- 4.4	64.9	- 5.1	65.0	- 5.2	64.7	- 4.9	64.9	- 5.1	64.6	- 4.8
14:30 - 14:45	55.6	64.5	- 8.9	64.1	- 8.5	64.6	- 9.0	63.7	- 8.1	63.8	- 8.2	64.4	- 8.8	64.2	- 8.6	64.5	- 8.9	64.7	- 9.1	64.6	- 9.0	63.6	- 8.0	64.2	- 8.6
14:45 - 15:00	36.3	64.0	-27.7	62.9	-26.6	63.5	-27.2	60.5	-24.2	63.9	-27.6	63.9	-27.6	63.8	-27.5	63.2	-26.9	64.2	-27.9	63.8	-27.5	64.0	-27.7	63.4	-27.1
15:00 - 15:15	34.6	63.7	-29.1	63.7	-29.1	63.6	-29.0	63.9	-29.3	63.8	-29.2	62.3	-27.7	63.8	-29.2	63.1	-28.5	64.2	-29.6	63.9	-29.3	64.0	-29.4	63.6	-29.0
15:15 - 15:30	31.9	64.4	-32.5	63.9	-32.0	63.3	-31.4	64.9	-33.0	64.2	-32.3	64.6	-32.7	64.3	-32.4	64.8	-32.9	64.6	-32.7	64.7	-32.8	64.3	-32.4	64.4	-32.5
15:30 - 15:45	32.4	62.4	-30.0	63.8	-31.4	61.7	-29.3	63.9	-31.5	64.0	-31.6	63.8	-31.4	63.3	-30.9	63.8	-31.4	63.5	-31.1	62.6	-30.2	63.1	-30.7	63.3	-30.9
15:45 - 16:00	38.0	64.0	-26.0	64.0	-26.0	64.2	-26.2	63.1	-25.1	63.6	-25.6	63.8	-25.8	64.2	-26.2	64.5	-26.5	64.0	-26.0	63.6	-25.6	61.4	-23.4	63.7	-25.7
16:00 - 16:15	33.2	64.4	-31.2	63.3	-30.1	63.1	-29.9	64.0	-30.8	64.0	-30.8	64.2	-31.0	65.1	-31.9	64.7	-31.5	64.0	-30.8	63.3	-30.1	63.4	-30.2	64.0	-30.8
16:15 - 16:30	33.2	64.8	-31.6	63.7	-30.5	63.9	-30.7	64.0	-30.8	62.6	-29.4	63.9	-30.7	64.4	-31.2	64.2	-31.0	63.8	-30.6	64.0	-30.8	64.0	-30.8	63.9	-30.7
16:30 - 16:45	32.4	63.9	-31.5	63.9	-31.5	63.9	-31.5	63.8	-31.4	64.2	-31.8	64.7	-32.3	64.8	-32.4	63.8	-31.4	63.7	-31.3	62.9	-30.5	63.1	-30.7	63.9	-31.5
16:45 - 17:00	30.9	64.4	-33.5	64.5	-33.6	64.4	-33.5	64.4	-33.5	63.5	-32.6	65.1	-34.2	65.1	-34.2	64.4	-33.5	62.6	-31.7	62.7	-31.8	64.2	-33.3	64.1	-33.2
17:00 - 17:15	29.5	64.3	-34.8	65.0	-35.5	64.6	-35.1	63.7	-34.2	65.2	-35.7	64.7	-35.2	64.6	-35.1	65.2	-35.7	64.9	-35.4	65.0	-35.5	64.7	-35.2	64.7	-35.2
17:15 - 17:30	33.5	65.2	-31.7	64.7	-31.2	64.0	-30.5	64.7	-31.2	65.2	-31.7	65.1	-31.6	64.7	-31.2	64.6	-31.1	64.5	-31.0	63.7	-30.2	65.0	-31.5	64.7	-31.2
17:30 - 17:45	33.1	64.1	-31.0	64.1	-31.0	64.3	-31.2	64.1	-31.0	64.9	-31.8	64.3	-31.2	64.8	-31.7	64.8	-31.7	64.1	-31.0	64.9	-31.8	63.7	-30.6	64.4	-31.3
17:45 - 18:00	30.6	64.7	-34.1	64.4	-33.8	64.3	-33.7	63.7	-33.1	64.2	-33.6	64.8	-34.2	64.6	-34.0	64.7	-34.1	64.0	-33.4	65.1	-34.5	65.0	-34.4	64.5	-33.9
Hour 1	53.2	64.6	-11.4	64.2	-11.0	64.2	-11.0	63.4	-10.2	64.3	-11.1	64.4	-11.2	64.3	-11.1	64.2	-11.0	64.8	-11.6	64.5	-11.3	64.3	-11.1	64.3	-11.1
Hour 2	34.2	63.6	-29.4	63.9	-29.6	63.2	-29.0	64.0	-29.7	63.9	-29.7	63.6	-29.4	63.9	-29.7	64.1	-29.8	64.1	-29.9	63.7	-29.5	63.2	-29.0	63.8	-29.5
Hour 3	32.4	64.4	-31.9	63.9	-31.4	63.8	-31.4	64.1	-31.6	63.6	-31.1	64.5	-32.0	64.9	-32.4	64.3	-31.8	63.5	-31.1	63.2	-30.8	63.7	-31.2	64.0	-31.5
Hour 4	31.7	64.6	-32.9	64.6	-32.9	64.3	-32.6	64.1	-32.4	64.9	-33.2	64.7	-33.1	64.7	-33.0	64.8	-33.2	64.4	-32.7	64.7	-33.0	64.6	-32.9	64.6	-32.9
11	37.9	64.3	-26.4	64.1	-26.2	63.9	-26.0	63.9	-26.0	64.2	-26.3	64.3	-26.4	64.4	-26.5	64.3	-26.5	64.2	-26.3	64.0	-26.1	64.0	-26.1	64.1	-26.3



CONCEPT 3

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

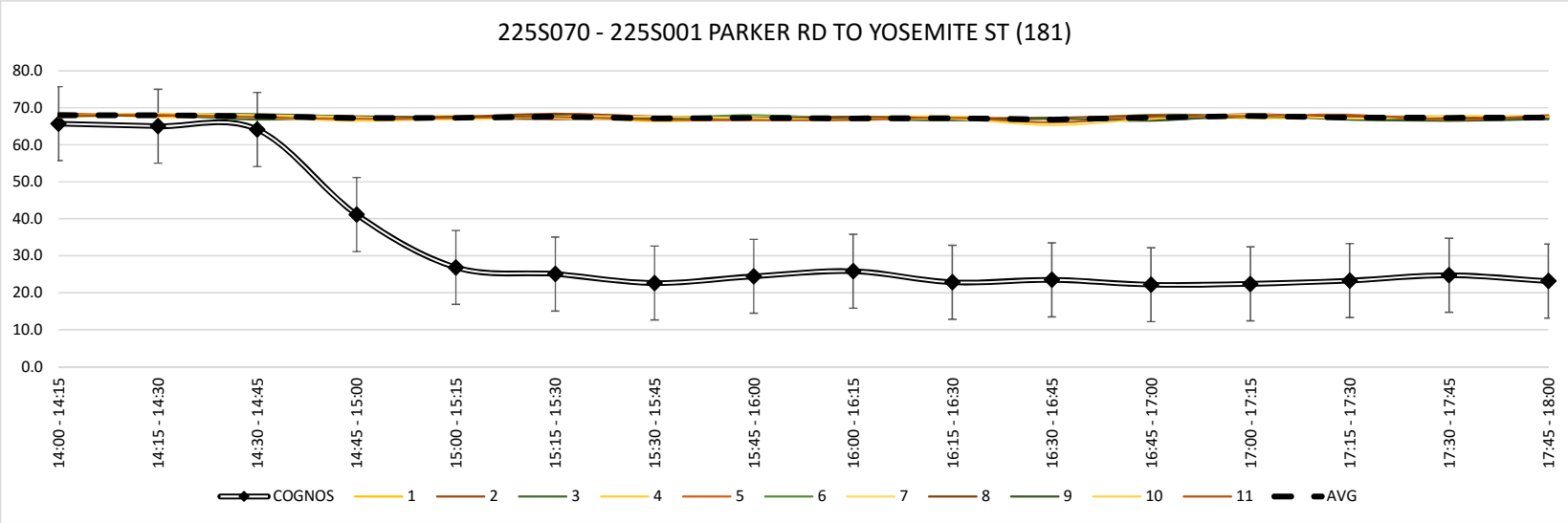
PM	COGNOS	MODEL																						AGGREGATE	
TIME	225S060	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	64.2	67.2	- 3.0	66.9	- 2.7	66.5	- 2.3	65.6	- 1.4	65.6	- 1.4	65.0	- 0.8	65.5	- 1.3	60.9	3.3	63.9	0.3	67.0	- 2.8	66.4	- 2.2	65.5	- 1.3
14:15 - 14:30	63.5	66.5	- 3.1	66.4	- 3.0	62.7	0.8	66.3	- 2.8	66.2	- 2.8	66.5	- 3.1	64.5	- 1.1	67.0	- 3.6	65.8	- 2.3	66.4	- 3.0	66.1	- 2.6	65.9	- 2.5
14:30 - 14:45	60.8	65.9	- 5.1	65.5	- 4.7	65.0	- 4.2	66.1	- 5.3	65.9	- 5.1	66.1	- 5.3	65.9	- 5.1	66.2	- 5.4	62.6	- 1.8	65.9	- 5.1	60.7	0.1	65.1	- 4.3
14:45 - 15:00	39.3	65.5	-26.2	65.1	-25.8	61.7	-22.4	61.0	-21.7	65.1	-25.8	59.3	-20.0	60.7	-21.4	62.0	-22.7	65.7	-26.4	62.1	-22.8	64.6	-25.3	63.0	-23.7
15:00 - 15:15	34.3	64.6	-30.3	63.4	-29.1	66.4	-32.1	64.8	-30.5	65.4	-31.1	62.6	-28.3	65.0	-30.7	55.1	-20.8	65.3	-31.0	63.7	-29.4	58.4	-24.1	63.2	-28.9
15:15 - 15:30	33.1	65.9	-32.8	65.3	-32.2	63.4	-30.3	66.6	-33.5	65.1	-32.0	62.9	-29.8	65.8	-32.7	66.2	-33.1	60.6	-27.5	65.9	-32.8	65.6	-32.5	64.8	-31.7
15:30 - 15:45	31.9	64.1	-32.2	63.2	-31.3	60.4	-28.5	65.1	-33.2	64.3	-32.4	61.5	-29.6	65.7	-33.8	65.6	-33.7	64.9	-33.0	65.3	-33.4	65.2	-33.3	64.1	-32.2
15:45 - 16:00	32.8	64.9	-32.1	65.7	-32.9	62.1	-29.3	64.4	-31.6	61.0	-28.2	63.9	-31.1	63.3	-30.5	58.6	-25.8	65.5	-32.7	65.0	-32.2	57.7	-24.9	62.9	-30.1
16:00 - 16:15	32.8	64.0	-31.2	57.8	-25.0	65.1	-32.3	65.0	-32.2	63.6	-30.8	64.7	-31.9	65.7	-32.9	65.5	-32.7	65.4	-32.6	61.2	-28.4	62.3	-29.5	63.7	-30.9
16:15 - 16:30	30.0	64.5	-34.5	64.6	-34.6	65.0	-35.0	49.1	-19.1	58.4	-28.4	63.7	-33.7	65.1	-35.1	64.3	-34.3	64.7	-34.7	52.3	-22.3	61.4	-31.4	61.2	-31.2
16:30 - 16:45	32.4	62.6	-30.2	61.5	-29.1	63.9	-31.5	62.0	-29.6	65.1	-32.7	64.0	-31.6	64.7	-32.3	64.7	-32.3	64.3	-31.9	56.2	-23.8	62.9	-30.5	62.9	-30.5
16:45 - 17:00	30.9	64.9	-34.0	64.9	-34.0	64.3	-33.4	65.2	-34.3	62.6	-31.7	65.7	-34.8	65.4	-34.5	64.8	-33.9	61.3	-30.4	55.4	-24.5	65.5	-34.6	63.6	-32.7
17:00 - 17:15	25.5	64.5	-39.0	62.2	-36.7	65.3	-39.8	60.2	-34.7	64.8	-39.3	65.5	-40.0	65.7	-40.2	60.8	-35.3	64.8	-39.3	65.6	-40.1	65.5	-40.0	64.1	-38.6
17:15 - 17:30	29.6	60.4	-30.8	64.6	-35.0	60.2	-30.6	61.2	-31.6	65.1	-35.5	65.4	-35.8	60.3	-30.7	61.7	-32.1	64.7	-35.1	60.6	-31.0	62.2	-32.6	62.4	-32.8
17:30 - 17:45	31.6	65.0	-33.4	60.7	-29.1	64.9	-33.3	65.3	-33.7	64.7	-33.1	56.2	-24.6	64.8	-33.2	65.0	-33.4	58.4	-26.8	65.0	-33.4	57.4	-25.8	62.5	-30.9
17:45 - 18:00	31.9	61.8	-29.9	62.8	-30.9	61.7	-29.8	60.1	-28.2	64.5	-32.6	64.2	-32.3	64.7	-32.8	58.0	-26.1	65.1	-33.2	65.4	-33.5	64.4	-32.5	63.0	-31.1
Hour 1	57.0	66.3	- 9.3	66.0	- 9.0	64.0	- 7.0	64.8	- 7.8	65.7	- 8.7	64.2	- 7.3	64.2	- 7.2	64.0	- 7.1	64.5	- 7.5	65.4	- 8.4	64.5	- 7.5	64.9	- 7.9
Hour 2	33.1	64.9	-31.8	64.4	-31.3	63.1	-30.0	65.2	-32.2	64.0	-30.9	62.7	-29.7	65.0	-31.9	61.4	-28.3	64.1	-31.0	65.0	-31.9	61.7	-28.7	63.8	-30.7
Hour 3	31.5	64.0	-32.5	62.2	-30.7	64.6	-33.1	60.3	-28.8	62.4	-30.9	64.5	-33.0	65.2	-33.7	64.8	-33.3	63.9	-32.4	56.3	-24.8	63.0	-31.5	62.9	-31.3
Hour 4	29.7	62.9	-33.2	62.6	-32.9	63.0	-33.3	61.7	-32.0	64.8	-35.1	62.8	-33.1	63.9	-34.2	61.4	-31.7	63.3	-33.6	64.2	-34.5	62.4	-32.7	63.0	-33.3
11	37.8	64.5	-26.7	63.8	-26.0	63.7	-25.9	63.0	-25.2	64.2	-26.4	63.6	-25.8	64.6	-26.7	62.9	-25.1	63.9	-26.1	62.7	-24.9	62.9	-25.1	63.6	-25.8



CONCEPT 3

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

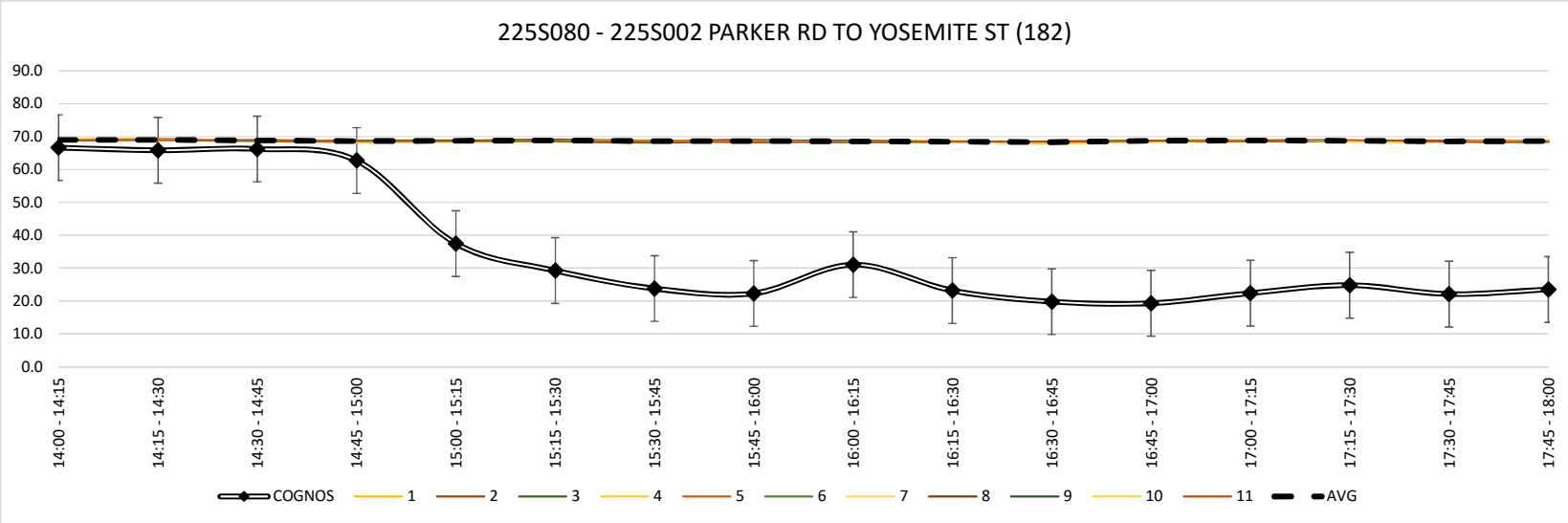
PM	COGNOS	MODEL																						AGGREGATE	
TIME	225S070	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	65.7	68.6	- 2.9	68.5	- 2.8	67.8	- 2.1	67.4	- 1.7	67.7	- 2.0	68.1	- 2.4	68.2	- 2.5	67.8	- 2.1	67.9	- 2.2	68.1	- 2.4	68.0	- 2.3	68.0	- 2.3
14:15 - 14:30	65.0	67.5	- 2.5	67.9	- 2.9	68.0	- 3.0	68.0	- 3.0	68.3	- 3.3	68.1	- 3.1	67.8	- 2.8	67.9	- 2.9	68.1	- 3.1	68.4	- 3.4	68.1	- 3.1	68.0	- 3.0
14:30 - 14:45	64.1	67.6	- 3.5	67.7	- 3.6	66.8	- 2.7	67.4	- 3.3	67.5	- 3.4	67.8	- 3.7	68.0	- 3.9	68.1	- 4.0	68.3	- 4.2	68.0	- 3.9	67.4	- 3.3	67.7	- 3.6
14:45 - 15:00	41.1	67.4	-26.3	67.2	-26.1	67.5	-26.4	66.5	-25.4	67.1	-26.0	67.2	-26.1	67.0	-25.9	67.7	-26.6	67.6	-26.5	67.5	-26.4	67.0	-25.9	67.2	-26.1
15:00 - 15:15	26.9	67.6	-40.8	67.2	-40.4	67.3	-40.5	67.1	-40.3	67.0	-40.2	67.0	-40.2	67.9	-41.1	67.6	-40.8	67.3	-40.5	66.8	-40.0	67.3	-40.5	67.3	-40.5
15:15 - 15:30	25.1	67.8	-42.7	66.9	-41.8	67.2	-42.1	68.1	-43.0	67.5	-42.4	67.9	-42.8	67.2	-42.1	68.4	-43.3	67.7	-42.6	67.6	-42.5	67.5	-42.4	67.6	-42.5
15:30 - 15:45	22.6	66.4	-43.8	67.3	-44.7	66.8	-44.2	66.8	-44.2	67.0	-44.4	67.3	-44.7	66.9	-44.3	67.7	-45.1	67.1	-44.5	67.6	-45.0	66.8	-44.2	67.1	-44.5
15:45 - 16:00	24.5	67.1	-42.7	67.4	-43.0	67.3	-42.9	67.4	-43.0	67.2	-42.8	68.0	-43.6	67.5	-43.1	67.3	-42.9	67.3	-42.9	67.2	-42.8	66.6	-42.2	67.3	-42.9
16:00 - 16:15	25.8	67.5	-41.7	67.0	-41.2	67.1	-41.3	67.5	-41.7	66.8	-41.0	67.1	-41.3	67.4	-41.6	67.6	-41.8	67.0	-41.2	66.7	-40.9	66.7	-40.9	67.1	-41.3
16:15 - 16:30	22.8	67.7	-44.9	66.8	-44.0	67.1	-44.3	67.3	-44.5	67.0	-44.2	67.3	-44.5	67.6	-44.8	67.2	-44.4	66.6	-43.8	67.0	-44.2	67.3	-44.5	67.2	-44.4
16:30 - 16:45	23.5	66.9	-43.4	67.3	-43.8	67.3	-43.8	65.9	-42.4	67.1	-43.6	67.0	-43.5	67.1	-43.6	67.3	-43.8	67.1	-43.6	65.3	-41.8	66.1	-42.6	66.8	-43.3
16:45 - 17:00	22.2	67.4	-45.2	67.1	-44.9	66.9	-44.7	67.5	-45.3	67.8	-45.6	68.1	-45.9	67.9	-45.7	67.9	-45.7	66.5	-44.3	67.0	-44.8	67.5	-45.3	67.4	-45.2
17:00 - 17:15	22.4	67.2	-44.8	68.3	-45.9	67.5	-45.1	67.7	-45.3	67.7	-45.3	67.9	-45.5	67.7	-45.3	67.8	-45.4	67.9	-45.5	68.1	-45.7	67.8	-45.4	67.8	-45.4
17:15 - 17:30	23.3	67.3	-44.0	67.2	-43.9	67.4	-44.1	67.9	-44.6	67.6	-44.3	67.3	-44.0	67.4	-44.1	67.7	-44.4	66.8	-43.5	67.1	-43.8	68.1	-44.8	67.4	-44.1
17:30 - 17:45	24.7	67.3	-42.6	67.2	-42.5	67.6	-42.9	67.2	-42.5	67.7	-43.0	67.2	-42.5	67.7	-43.0	67.4	-42.7	66.5	-41.8	67.7	-43.0	66.7	-42.0	67.3	-42.6
17:45 - 18:00	23.2	67.2	-44.1	67.6	-44.5	67.3	-44.2	67.7	-44.6	67.4	-44.3	67.3	-44.2	67.4	-44.3	67.1	-44.0	66.9	-43.8	67.8	-44.7	68.0	-44.9	67.4	-44.3
Hour 1	59.0	67.8	- 8.8	67.8	- 8.8	67.5	- 8.5	67.3	- 8.3	67.7	- 8.6	67.8	- 8.8	67.8	- 8.7	67.9	- 8.9	68.0	- 9.0	68.0	- 9.0	67.6	- 8.6	67.7	- 8.7
Hour 2	24.7	67.2	-42.5	67.2	-42.5	67.2	-42.4	67.4	-42.6	67.2	-42.4	67.6	-42.8	67.4	-42.6	67.8	-43.0	67.4	-42.6	67.3	-42.6	67.1	-42.3	67.3	-42.6
Hour 3	23.6	67.4	-43.8	67.1	-43.5	67.1	-43.5	67.1	-43.5	67.2	-43.6	67.4	-43.8	67.5	-43.9	67.5	-43.9	66.8	-43.2	66.5	-42.9	66.9	-43.3	67.1	-43.5
Hour 4	23.4	67.3	-43.9	67.6	-44.2	67.5	-44.1	67.6	-44.2	67.6	-44.2	67.4	-44.0	67.6	-44.2	67.5	-44.1	67.0	-43.6	67.7	-44.3	67.7	-44.3	67.5	-44.1
11	32.7	67.4	-34.7	67.4	-34.7	67.3	-34.6	67.3	-34.7	67.4	-34.7	67.5	-34.9	67.5	-34.9	67.7	-35.0	67.3	-34.6	67.4	-34.7	67.3	-34.6	67.4	-34.7



CONCEPT 3

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

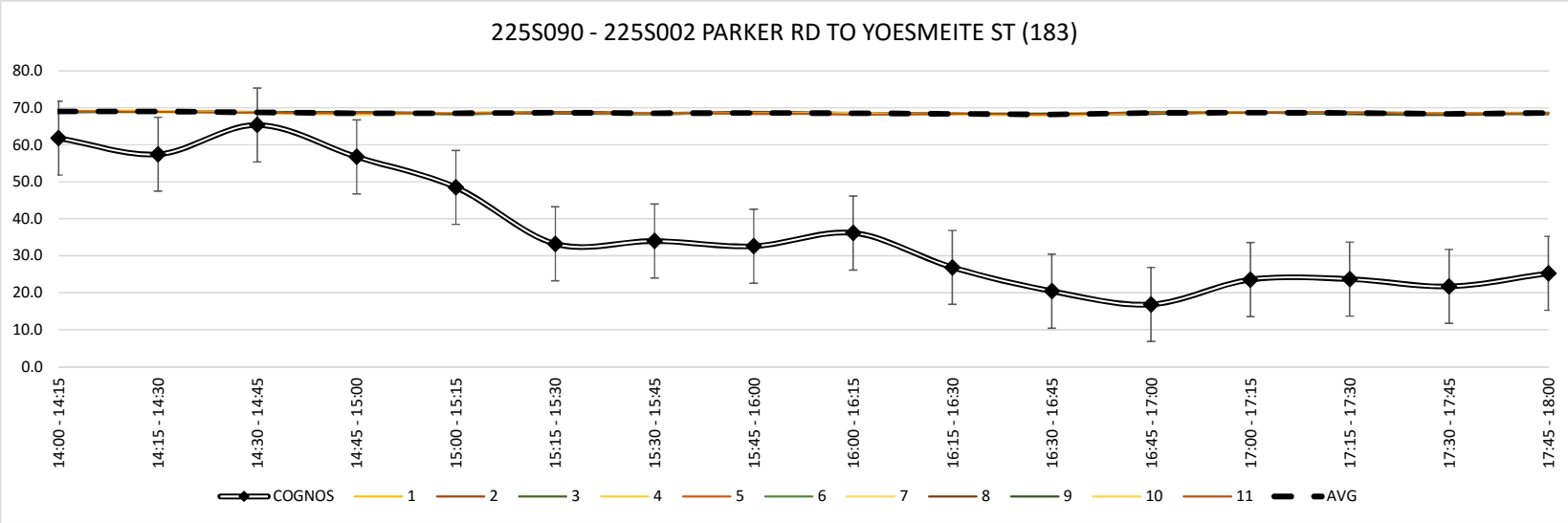
PM	COGNOS	MODEL																						AGGREGATE	
TIME	225S080	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	66.6	69.2	- 2.6	69.1	- 2.5	69.0	- 2.4	68.7	- 2.1	68.6	- 2.0	69.1	- 2.5	69.2	- 2.6	69.0	- 2.4	69.0	- 2.4	69.2	- 2.6	68.9	- 2.3	69.0	- 2.4
14:15 - 14:30	65.8	69.2	- 3.4	68.9	- 3.1	69.0	- 3.2	69.1	- 3.3	69.3	- 3.5	68.9	- 3.1	68.7	- 2.9	69.2	- 3.4	69.0	- 3.2	69.2	- 3.4	69.0	- 3.2	69.0	- 3.2
14:30 - 14:45	66.2	68.9	- 2.7	69.0	- 2.8	68.6	- 2.4	68.7	- 2.5	68.8	- 2.6	68.7	- 2.5	68.8	- 2.6	68.7	- 2.5	68.8	- 2.6	68.9	- 2.7	68.8	- 2.6	68.8	- 2.6
14:45 - 15:00	62.7	68.6	- 5.9	68.6	- 5.9	68.6	- 5.9	68.1	- 5.4	68.6	- 5.9	68.5	- 5.8	68.5	- 5.8	68.6	- 5.9	68.8	- 6.1	68.6	- 5.9	68.7	- 6.0	68.6	- 5.9
15:00 - 15:15	37.5	68.4	-30.9	68.7	-31.2	68.8	-31.3	68.8	-31.3	68.6	-31.1	68.4	-30.9	68.9	-31.4	68.7	-31.2	68.8	-31.3	68.5	-31.0	68.6	-31.1	68.7	-31.2
15:15 - 15:30	29.3	68.9	-39.7	68.7	-39.5	68.5	-39.3	68.9	-39.7	68.8	-39.6	68.7	-39.5	68.7	-39.5	69.1	-39.9	68.9	-39.7	68.8	-39.6	68.7	-39.5	68.8	-39.6
15:30 - 15:45	23.8	68.4	-44.6	68.7	-44.9	68.1	-44.3	68.6	-44.8	68.9	-45.1	68.7	-44.9	68.7	-44.9	68.7	-44.9	68.5	-44.7	68.6	-44.8	68.4	-44.6	68.6	-44.8
15:45 - 16:00	22.3	68.5	-46.2	68.7	-46.4	68.7	-46.4	68.6	-46.3	68.2	-45.9	68.9	-46.6	68.7	-46.4	69.0	-46.7	68.6	-46.3	68.6	-46.3	68.4	-46.1	68.6	-46.3
16:00 - 16:15	31.1	68.2	-37.2	68.3	-37.3	68.4	-37.4	68.8	-37.8	68.5	-37.5	68.3	-37.3	68.8	-37.8	68.5	-37.5	68.8	-37.8	68.4	-37.4	68.3	-37.3	68.5	-37.5
16:15 - 16:30	23.2	68.4	-45.2	68.2	-45.0	68.2	-45.0	68.7	-45.5	68.4	-45.2	68.5	-45.3	68.7	-45.5	68.4	-45.2	68.4	-45.2	68.3	-45.1	68.5	-45.3	68.4	-45.2
16:30 - 16:45	19.8	68.0	-48.2	68.5	-48.7	68.4	-48.6	68.0	-48.2	68.5	-48.7	68.3	-48.5	68.6	-48.8	68.5	-48.7	68.4	-48.6	68.0	-48.2	68.4	-48.6	68.3	-48.5
16:45 - 17:00	19.3	68.4	-49.1	68.7	-49.4	68.7	-49.4	68.6	-49.3	68.8	-49.5	68.8	-49.5	68.7	-49.4	68.6	-49.3	68.6	-49.3	68.4	-49.1	68.7	-49.4	68.7	-49.4
17:00 - 17:15	22.4	68.5	-46.1	68.9	-46.5	68.7	-46.3	68.7	-46.3	68.8	-46.4	68.7	-46.3	68.8	-46.4	68.7	-46.3	68.8	-46.4	69.0	-46.6	68.7	-46.3	68.8	-46.4
17:15 - 17:30	24.8	68.7	-43.9	68.5	-43.7	68.5	-43.7	68.8	-44.0	68.6	-43.8	68.7	-43.9	68.7	-43.9	68.8	-44.0	68.5	-43.7	68.5	-43.7	69.0	-44.2	68.7	-43.9
17:30 - 17:45	22.1	68.5	-46.4	68.6	-46.5	68.5	-46.4	68.6	-46.5	68.7	-46.6	68.6	-46.5	68.6	-46.5	68.7	-46.6	68.4	-46.3	68.5	-46.4	68.4	-46.3	68.5	-46.4
17:45 - 18:00	23.5	68.3	-44.8	68.7	-45.2	68.4	-44.9	68.6	-45.1	68.8	-45.3	68.6	-45.1	68.5	-45.0	68.6	-45.1	68.5	-45.0	68.7	-45.2	68.4	-44.9	68.6	-45.1
Hour 1	65.4	69.0	- 3.6	68.9	- 3.6	68.8	- 3.5	68.7	- 3.3	68.8	- 3.5	68.8	- 3.5	68.8	- 3.5	68.9	- 3.5	68.9	- 3.6	69.0	- 3.6	68.9	- 3.5	68.9	- 3.5
Hour 2	28.2	68.6	-40.4	68.7	-40.5	68.5	-40.3	68.7	-40.5	68.6	-40.4	68.7	-40.5	68.8	-40.6	68.9	-40.7	68.7	-40.5	68.6	-40.4	68.5	-40.3	68.7	-40.5
Hour 3	23.3	68.3	-44.9	68.4	-45.1	68.4	-45.1	68.5	-45.2	68.6	-45.2	68.5	-45.2	68.7	-45.4	68.5	-45.2	68.6	-45.2	68.3	-45.0	68.5	-45.2	68.5	-45.2
Hour 4	23.2	68.5	-45.3	68.7	-45.5	68.5	-45.3	68.7	-45.5	68.7	-45.5	68.7	-45.5	68.7	-45.5	68.7	-45.5	68.6	-45.4	68.7	-45.5	68.6	-45.4	68.7	-45.5
11	35.0	68.6	-33.6	68.7	-33.7	68.6	-33.6	68.6	-33.6	68.7	-33.7	68.7	-33.6	68.7	-33.7	68.7	-33.7	68.7	-33.7	68.6	-33.6	68.6	-33.6	68.7	-33.6



CONCEPT 3

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

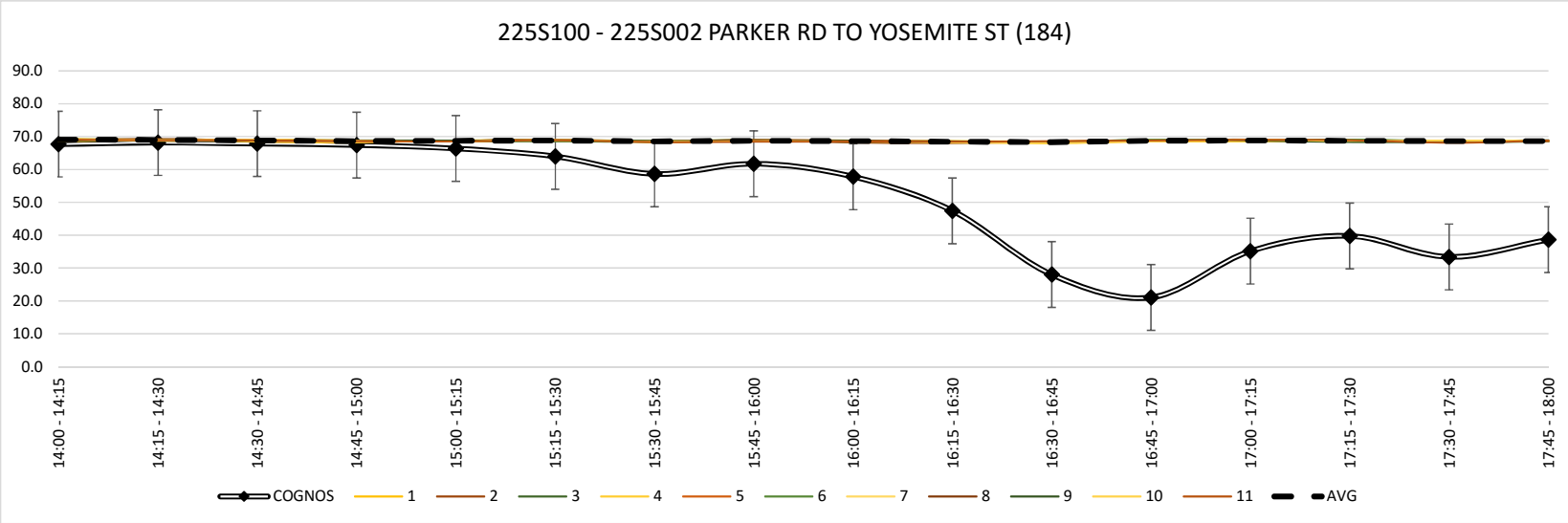
PM	COGNOS	MODEL																						AGGREGATE	
TIME	225S090	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	61.8	69.2	- 7.4	69.0	- 7.2	69.0	- 7.2	68.9	- 7.1	68.9	- 7.1	69.1	- 7.3	69.1	- 7.3	68.8	- 7.0	68.7	- 6.9	69.0	- 7.2	69.1	- 7.3	69.0	- 7.2
14:15 - 14:30	57.4	69.2	-11.8	69.0	-11.6	69.0	-11.6	69.0	-11.6	69.1	-11.7	69.1	-11.7	68.6	-11.2	69.2	-11.8	68.9	-11.5	69.2	-11.8	68.9	-11.5	69.0	-11.6
14:30 - 14:45	65.4	68.8	- 3.5	68.9	- 3.6	68.8	- 3.5	68.5	- 3.2	68.8	- 3.5	68.9	- 3.6	68.8	- 3.5	68.7	- 3.4	68.8	- 3.5	68.8	- 3.5	68.7	- 3.4	68.8	- 3.5
14:45 - 15:00	56.7	68.8	-12.1	68.5	-11.8	68.6	-11.9	68.3	-11.6	68.4	-11.7	68.7	-12.0	68.0	-11.3	68.5	-11.8	68.9	-12.2	68.4	-11.7	68.6	-11.9	68.5	-11.8
15:00 - 15:15	48.5	68.5	-20.0	68.6	-20.1	68.5	-20.0	68.6	-20.1	68.4	-19.9	68.2	-19.7	68.7	-20.2	68.5	-20.0	68.6	-20.1	68.7	-20.2	68.5	-20.0	68.5	-20.0
15:15 - 15:30	33.2	68.8	-35.6	68.8	-35.6	68.4	-35.2	68.8	-35.6	68.6	-35.4	68.7	-35.5	68.8	-35.6	68.9	-35.7	68.8	-35.6	68.7	-35.5	68.7	-35.5	68.7	-35.5
15:30 - 15:45	34.0	68.4	-34.4	68.5	-34.5	68.3	-34.3	68.5	-34.5	68.7	-34.7	68.2	-34.2	68.5	-34.5	68.6	-34.6	68.5	-34.5	68.5	-34.5	68.5	-34.5	68.5	-34.5
15:45 - 16:00	32.6	68.5	-35.9	68.5	-35.9	68.6	-36.0	68.7	-36.1	68.3	-35.7	68.9	-36.3	68.7	-36.1	68.9	-36.3	68.8	-36.2	68.6	-36.0	68.5	-35.9	68.6	-36.0
16:00 - 16:15	36.2	68.6	-32.5	68.2	-32.1	68.6	-32.5	68.6	-32.5	68.4	-32.3	68.4	-32.3	68.7	-32.6	68.6	-32.5	68.6	-32.5	68.6	-32.5	68.2	-32.1	68.5	-32.4
16:15 - 16:30	26.9	68.4	-41.6	68.4	-41.6	68.2	-41.4	68.6	-41.8	68.2	-41.4	68.5	-41.7	68.5	-41.7	68.4	-41.6	68.4	-41.6	68.2	-41.4	68.4	-41.6	68.4	-41.6
16:30 - 16:45	20.4	68.0	-47.6	68.4	-48.0	68.4	-48.0	68.0	-47.6	68.4	-48.0	68.2	-47.8	68.5	-48.1	68.4	-48.0	68.4	-48.0	67.9	-47.5	68.2	-47.8	68.2	-47.8
16:45 - 17:00	16.8	68.4	-51.6	68.4	-51.6	68.6	-51.8	68.5	-51.7	68.6	-51.8	68.9	-52.1	68.7	-51.9	68.7	-51.9	68.3	-51.5	68.6	-51.8	68.7	-51.9	68.6	-51.8
17:00 - 17:15	23.6	68.6	-45.0	68.8	-45.2	68.7	-45.1	68.5	-44.9	68.8	-45.2	68.7	-45.1	68.7	-45.1	68.7	-45.1	68.8	-45.2	68.9	-45.3	68.8	-45.2	68.7	-45.1
17:15 - 17:30	23.7	68.7	-45.0	68.3	-44.6	68.3	-44.6	68.8	-45.1	68.6	-44.9	68.8	-45.1	68.6	-44.9	68.7	-45.0	68.3	-44.6	68.7	-45.0	68.8	-45.1	68.6	-44.9
17:30 - 17:45	21.7	68.5	-46.8	68.5	-46.8	68.4	-46.7	68.4	-46.7	68.6	-46.9	68.5	-46.8	68.4	-46.7	68.6	-46.9	68.0	-46.3	68.5	-46.8	68.3	-46.6	68.4	-46.7
17:45 - 18:00	25.3	68.6	-43.3	68.6	-43.3	68.2	-42.9	68.6	-43.3	68.7	-43.4	68.5	-43.2	68.6	-43.3	68.7	-43.4	68.7	-43.4	68.7	-43.4	68.6	-43.3	68.6	-43.3
Hour 1	60.3	69.0	- 8.7	68.9	- 8.5	68.9	- 8.5	68.7	- 8.3	68.8	- 8.5	69.0	- 8.6	68.6	- 8.3	68.8	- 8.5	68.8	- 8.5	68.9	- 8.5	68.8	- 8.5	68.8	- 8.5
Hour 2	37.1	68.6	-31.5	68.6	-31.5	68.5	-31.4	68.7	-31.6	68.5	-31.4	68.5	-31.4	68.7	-31.6	68.7	-31.7	68.7	-31.6	68.6	-31.6	68.6	-31.5	68.6	-31.5
Hour 3	25.1	68.4	-43.3	68.4	-43.3	68.5	-43.4	68.4	-43.4	68.4	-43.3	68.5	-43.4	68.6	-43.5	68.5	-43.5	68.4	-43.4	68.3	-43.3	68.4	-43.3	68.4	-43.4
Hour 4	23.6	68.6	-45.0	68.6	-45.0	68.4	-44.8	68.6	-45.0	68.7	-45.1	68.6	-45.1	68.6	-45.0	68.7	-45.1	68.5	-44.9	68.7	-45.1	68.6	-45.1	68.6	-45.0
11	36.5	68.6	-32.1	68.6	-32.1	68.5	-32.0	68.6	-32.1	68.6	-32.1	68.6	-32.1	68.6	-32.1	68.7	-32.2	68.6	-32.1	68.6	-32.1	68.6	-32.1	68.6	-32.1



CONCEPT 3

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

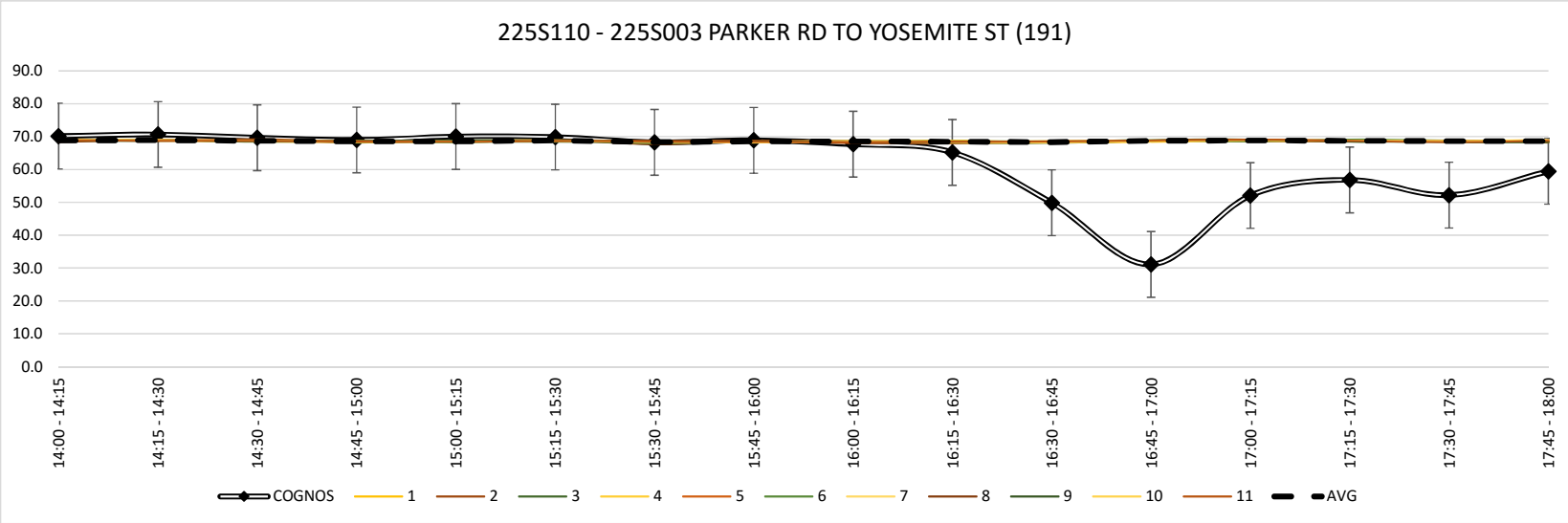
PM	COGNOS	MODEL																						AGGREGATE	
TIME	225S100	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	67.7	69.4	- 1.7	69.1	- 1.4	69.1	- 1.4	68.5	- 0.8	69.0	- 1.3	69.2	- 1.5	69.1	- 1.4	68.9	- 1.2	68.8	- 1.1	69.3	- 1.6	69.1	- 1.4	69.1	- 1.4
14:15 - 14:30	68.2	68.7	- 0.5	69.0	- 0.8	69.0	- 0.8	69.0	- 0.8	69.1	- 0.9	69.1	- 0.9	68.8	- 0.6	69.3	- 1.1	69.1	- 0.9	69.0	- 0.8	68.9	- 0.7	69.0	- 0.8
14:30 - 14:45	67.8	69.0	- 1.2	68.9	- 1.1	68.8	- 1.0	68.4	- 0.6	68.7	- 0.9	68.8	- 1.0	68.8	- 1.0	68.8	- 1.0	68.9	- 1.1	69.1	- 1.3	68.9	- 1.1	68.8	- 1.0
14:45 - 15:00	67.4	68.8	- 1.4	68.6	- 1.2	68.7	- 1.3	68.2	- 0.8	68.4	- 1.0	68.7	- 1.3	68.5	- 1.1	68.7	- 1.3	68.9	- 1.5	68.7	- 1.3	68.6	- 1.2	68.6	- 1.2
15:00 - 15:15	66.4	68.5	- 2.1	68.7	- 2.3	68.6	- 2.2	68.8	- 2.4	68.7	- 2.3	68.6	- 2.2	68.8	- 2.4	68.7	- 2.3	68.8	- 2.4	68.5	- 2.1	68.5	- 2.1	68.7	- 2.3
15:15 - 15:30	64.0	68.9	- 4.9	69.0	- 5.0	68.6	- 4.6	68.8	- 4.8	68.7	- 4.7	68.7	- 4.7	68.9	- 4.9	69.0	- 5.0	68.9	- 4.9	69.0	- 5.0	68.9	- 4.9	68.8	- 4.8
15:30 - 15:45	58.6	68.3	- 9.7	68.6	-10.0	68.4	- 9.8	68.5	- 9.9	68.8	-10.2	68.5	- 9.9	68.7	-10.1	68.5	- 9.9	68.7	-10.1	68.4	- 9.8	68.3	- 9.7	68.5	- 9.9
15:45 - 16:00	61.7	68.6	- 6.9	68.8	- 7.1	68.8	- 7.1	68.7	- 7.0	68.6	- 6.9	69.0	- 7.3	68.9	- 7.2	69.0	- 7.3	68.5	- 6.8	68.6	- 6.9	68.4	- 6.7	68.7	- 7.0
16:00 - 16:15	57.8	68.7	-10.9	68.2	-10.4	68.6	-10.8	68.7	-10.9	68.6	-10.8	68.4	-10.6	68.8	-11.0	68.8	-11.0	68.7	-10.9	68.5	-10.7	68.5	-10.7	68.6	-10.8
16:15 - 16:30	47.4	68.5	-21.1	68.0	-20.6	68.5	-21.1	68.5	-21.1	68.3	-20.9	68.6	-21.2	68.7	-21.3	68.5	-21.1	68.2	-20.8	68.2	-20.8	68.4	-21.0	68.4	-21.0
16:30 - 16:45	28.0	68.1	-40.1	68.3	-40.3	68.3	-40.3	68.0	-40.0	68.5	-40.5	68.3	-40.3	68.5	-40.5	68.5	-40.5	68.4	-40.4	68.1	-40.1	68.6	-40.6	68.3	-40.3
16:45 - 17:00	21.1	68.6	-47.5	68.6	-47.5	68.8	-47.7	68.6	-47.5	68.9	-47.8	69.1	-48.0	68.9	-47.8	68.7	-47.6	68.8	-47.7	68.5	-47.4	68.8	-47.7	68.7	-47.6
17:00 - 17:15	35.2	68.6	-33.4	69.1	-33.9	68.9	-33.7	68.5	-33.3	68.8	-33.6	68.8	-33.6	68.8	-33.6	68.9	-33.7	68.8	-33.6	69.0	-33.8	69.0	-33.8	68.8	-33.6
17:15 - 17:30	39.8	68.8	-29.0	68.6	-28.8	68.4	-28.6	68.8	-29.0	68.8	-29.0	69.1	-29.3	68.6	-28.8	68.7	-28.9	68.3	-28.5	68.7	-28.9	68.9	-29.1	68.7	-28.9
17:30 - 17:45	33.4	68.6	-35.2	68.6	-35.2	68.3	-34.9	68.6	-35.2	68.8	-35.4	68.7	-35.3	68.6	-35.2	68.8	-35.4	68.6	-35.2	68.8	-35.4	68.1	-34.7	68.6	-35.2
17:45 - 18:00	38.7	68.6	-29.9	68.6	-29.9	68.5	-29.8	68.7	-30.0	68.5	-29.8	68.6	-29.9	68.6	-29.9	68.6	-29.9	68.9	-30.2	68.8	-30.1	68.8	-30.1	68.6	-29.9
Hour 1	67.8	69.0	- 1.2	68.9	- 1.1	68.9	- 1.1	68.5	- 0.7	68.8	- 1.0	69.0	- 1.2	68.8	- 1.0	68.9	- 1.1	68.9	- 1.1	69.0	- 1.2	68.9	- 1.1	68.9	- 1.1
Hour 2	62.7	68.6	- 5.9	68.8	- 6.1	68.6	- 5.9	68.7	- 6.0	68.7	- 6.0	68.7	- 6.0	68.8	- 6.1	68.8	- 6.1	68.7	- 6.0	68.6	- 5.9	68.5	- 5.8	68.7	- 6.0
Hour 3	38.6	68.5	-29.9	68.3	-29.7	68.6	-30.0	68.5	-29.9	68.6	-30.0	68.6	-30.0	68.7	-30.2	68.6	-30.1	68.5	-30.0	68.3	-29.8	68.6	-30.0	68.5	-29.9
Hour 4	36.7	68.7	-31.9	68.7	-32.0	68.5	-31.8	68.7	-31.9	68.7	-32.0	68.8	-32.1	68.7	-31.9	68.8	-32.0	68.7	-31.9	68.8	-32.1	68.7	-32.0	68.7	-31.9
11	51.4	68.7	-17.2	68.7	-17.2	68.6	-17.2	68.6	-17.1	68.7	-17.3	68.8	-17.3	68.8	-17.3	68.8	-17.3	68.7	-17.3	68.7	-17.3	68.7	-17.2	68.7	-17.2



CONCEPT 3

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

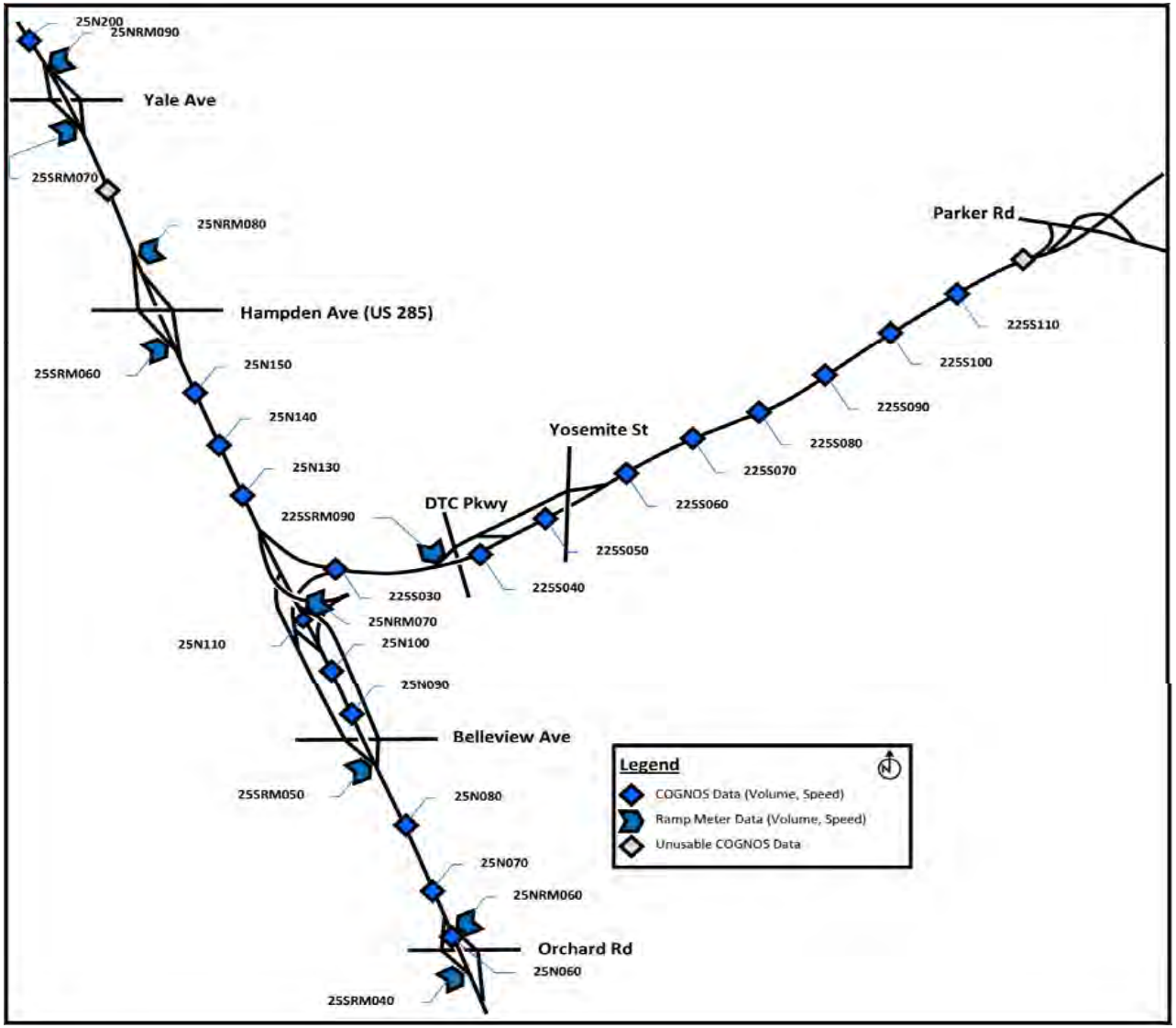
PM	COGNOS	MODEL																						AGGREGATE	
TIME	225S110	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	70.1	69.2	0.9	69.1	1.0	68.6	1.5	68.7	1.4	68.7	1.4	68.9	1.2	69.2	0.9	68.3	1.8	68.8	1.3	68.9	1.2	68.9	1.2	68.8	1.3
14:15 - 14:30	70.6	68.9	1.7	68.7	1.9	68.7	1.9	68.8	1.8	69.0	1.6	69.0	1.6	68.7	1.9	69.0	1.6	68.8	1.8	69.0	1.6	68.7	1.9	68.9	1.7
14:30 - 14:45	69.6	68.6	1.0	69.2	0.4	68.8	0.8	68.5	1.1	68.6	1.0	68.4	1.2	68.7	0.9	68.6	1.0	68.7	0.9	68.7	0.9	68.7	0.9	68.7	0.9
14:45 - 15:00	69.0	68.6	0.4	68.5	0.5	68.2	0.8	68.3	0.7	68.4	0.6	68.7	0.3	68.4	0.6	68.7	0.3	68.6	0.4	68.6	0.4	68.5	0.5	68.5	0.5
15:00 - 15:15	70.0	68.3	1.7	68.6	1.4	68.5	1.5	68.5	1.5	68.6	1.4	68.3	1.7	68.8	1.2	68.6	1.4	68.8	1.2	68.5	1.5	68.4	1.6	68.5	1.5
15:15 - 15:30	69.9	68.8	1.1	68.9	0.9	68.4	1.4	68.8	1.1	68.8	1.1	68.8	1.1	68.9	0.9	68.9	0.9	68.9	0.9	68.7	1.1	68.7	1.1	68.8	1.1
15:30 - 15:45	68.3	68.2	0.1	67.7	0.6	68.3	- 0.0	68.5	- 0.2	68.6	- 0.3	68.0	0.3	68.3	- 0.0	68.6	- 0.3	68.3	- 0.0	68.4	- 0.1	68.5	- 0.2	68.3	- 0.0
15:45 - 16:00	68.9	68.3	0.6	68.6	0.3	68.7	0.2	68.7	0.2	68.4	0.5	68.5	0.4	68.6	0.3	68.8	0.1	68.5	0.4	68.2	0.7	68.4	0.5	68.5	0.4
16:00 - 16:15	67.7	68.6	- 0.9	68.0	- 0.3	68.6	- 0.9	68.6	- 0.9	68.3	- 0.6	68.6	- 0.9	68.7	- 1.0	68.5	- 0.8	68.5	- 0.8	68.5	- 0.8	68.3	- 0.6	68.5	- 0.8
16:15 - 16:30	65.2	68.1	- 2.9	68.0	- 2.8	68.4	- 3.2	68.8	- 3.6	68.2	- 3.0	68.6	- 3.4	68.5	- 3.3	68.5	- 3.3	68.2	- 3.0	68.3	- 3.1	68.4	- 3.2	68.4	- 3.2
16:30 - 16:45	49.9	68.2	-18.3	68.3	-18.4	68.2	-18.3	68.3	-18.4	68.5	-18.6	68.5	-18.6	68.6	-18.7	68.3	-18.4	68.1	-18.2	68.2	-18.3	68.5	-18.6	68.3	-18.4
16:45 - 17:00	31.1	68.4	-37.3	68.7	-37.6	68.9	-37.8	68.7	-37.6	68.8	-37.7	68.9	-37.8	68.8	-37.7	68.8	-37.7	68.7	-37.6	68.6	-37.5	68.8	-37.7	68.7	-37.6
17:00 - 17:15	52.1	68.8	-16.7	68.8	-16.7	69.1	-17.0	68.5	-16.4	68.9	-16.8	68.5	-16.4	68.7	-16.6	68.8	-16.7	68.9	-16.8	68.9	-16.8	69.1	-17.0	68.8	-16.7
17:15 - 17:30	56.8	68.9	-12.1	68.6	-11.8	68.4	-11.6	68.8	-12.0	68.6	-11.8	69.1	-12.3	68.6	-11.8	68.5	-11.7	68.6	-11.8	68.8	-12.0	68.7	-11.9	68.7	-11.9
17:30 - 17:45	52.2	68.5	-16.3	68.6	-16.4	68.6	-16.4	68.6	-16.4	68.7	-16.5	68.8	-16.6	68.6	-16.4	68.7	-16.5	68.3	-16.1	68.7	-16.5	68.3	-16.1	68.6	-16.4
17:45 - 18:00	59.4	68.5	- 9.1	68.8	- 9.4	68.2	- 8.8	68.8	- 9.4	68.3	- 8.9	68.5	- 9.1	68.6	- 9.2	68.6	- 9.2	68.3	- 8.9	69.0	- 9.6	68.7	- 9.3	68.6	- 9.2
Hour 1	69.8	68.8	1.0	68.9	1.0	68.6	1.3	68.6	1.3	68.7	1.2	68.8	1.1	68.8	1.1	68.7	1.2	68.7	1.1	68.8	1.0	68.7	1.1	68.7	1.1
Hour 2	69.2	68.4	0.8	68.5	0.8	68.5	0.8	68.6	0.6	68.6	0.6	68.4	0.8	68.7	0.6	68.7	0.5	68.6	0.6	68.5	0.8	68.5	0.7	68.5	0.7
Hour 3	53.5	68.3	-14.9	68.3	-14.8	68.5	-15.1	68.6	-15.1	68.5	-15.0	68.7	-15.2	68.7	-15.2	68.5	-15.1	68.4	-14.9	68.4	-14.9	68.5	-15.0	68.5	-15.0
Hour 4	55.1	68.7	-13.5	68.7	-13.6	68.6	-13.4	68.7	-13.5	68.6	-13.5	68.7	-13.6	68.6	-13.5	68.7	-13.5	68.5	-13.4	68.9	-13.7	68.7	-13.6	68.7	-13.5
11	61.9	68.6	- 6.6	68.6	- 6.6	68.5	- 6.6	68.6	- 6.7	68.6	- 6.7	68.6	- 6.7	68.7	- 6.7	68.6	- 6.7	68.6	- 6.6	68.6	- 6.7	68.6	- 6.7	68.6	- 6.7



AVERAGE VEHICLE SPEEDS - BY LINK

CONCEPT 3

ROUTE: I-25
PERIOD: PM

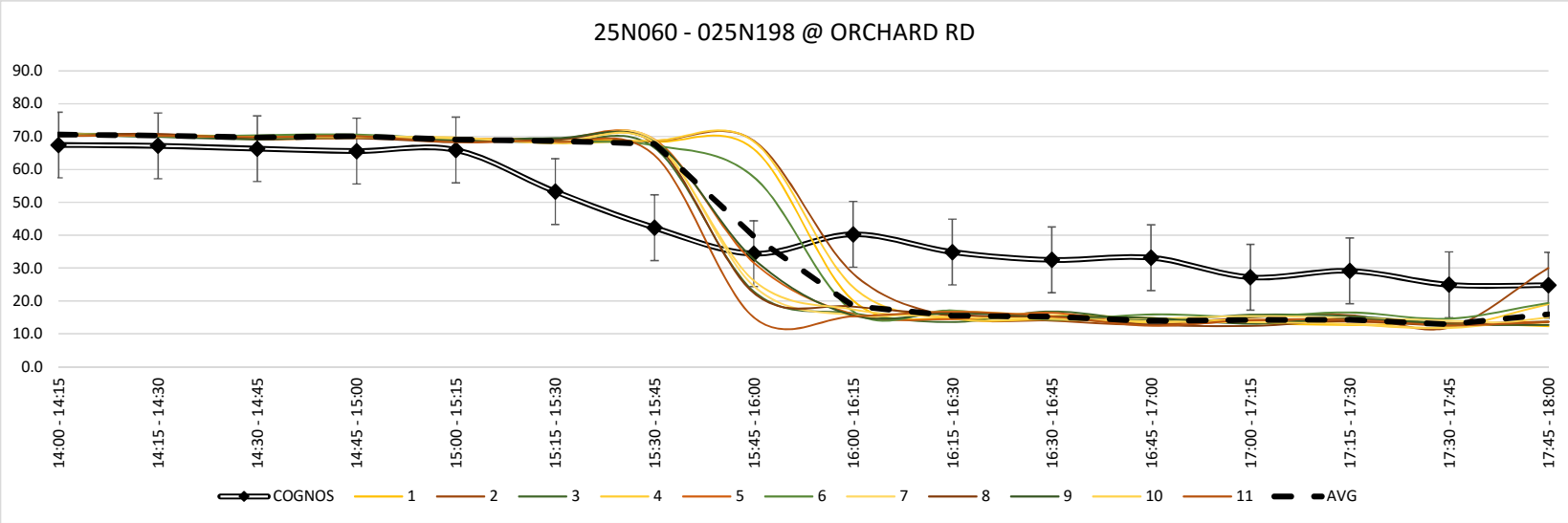


LOCATION	COGNOS DESCRIPTION
25N060	025N198 @ ORCHARD RD
25N070	025N199 0.4MI N OF ORCHARD RD
25N080	025N199 0.4MI S OF BELLEVIEW AVE
25N090	025S199 @ BELLVIEW AVE
25N100	025N200 BELLVIEW AVE TO I-25 NB (153)
25N110	025N200 @ I-225
25N130	025N201 0.2MI N OF I-225
25N140	025N201 I-225 TO HAMPDEN AVE 2 (132)
25N150	025N201 0.6MI S OF HAMPDEN AVE
25N200	025N203 0.4MI N OF YALE AVE (124)

CONCEPT 3

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

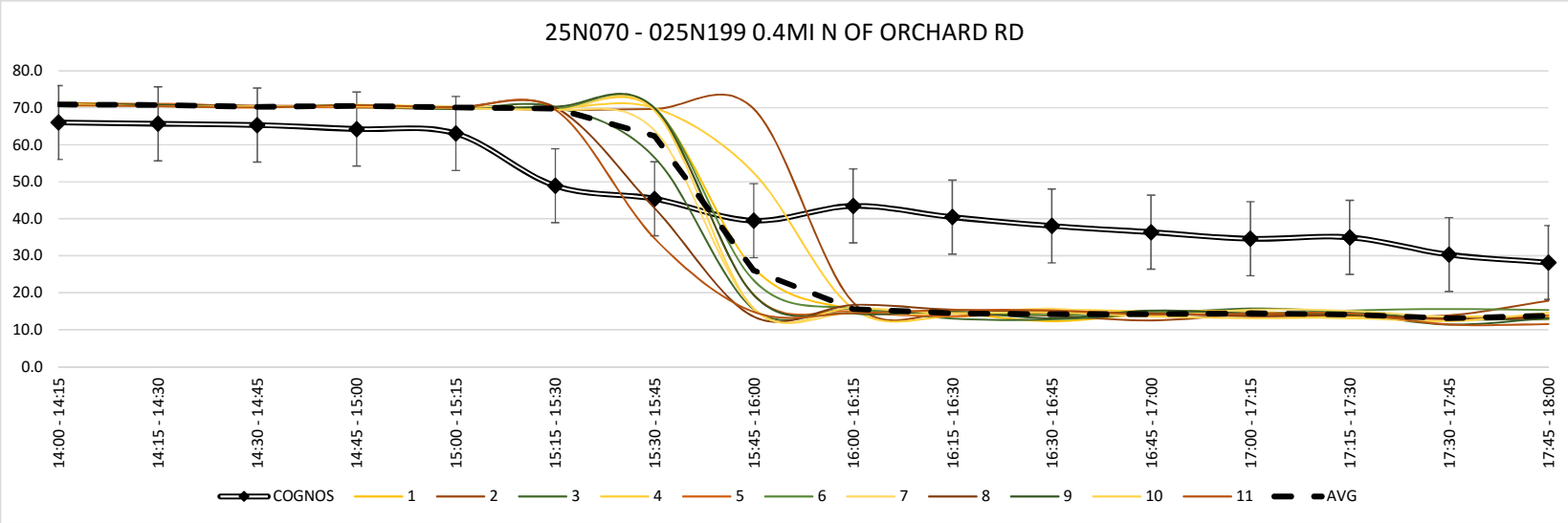
PM	COGNOS	MODEL																						AGGREGATE	
TIME	25N060	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	67.4	70.4	- 3.0	71.0	- 3.6	70.9	- 3.5	70.7	- 3.3	70.2	- 2.8	70.7	- 3.3	70.7	- 3.3	70.3	- 2.9	70.6	- 3.2	70.4	- 3.0	70.2	- 2.8	70.6	- 3.2
14:15 - 14:30	67.2	70.5	- 3.3	70.3	- 3.1	70.6	- 3.4	70.3	- 3.1	70.5	- 3.3	70.0	- 2.8	70.3	- 3.1	70.8	- 3.6	69.9	- 2.7	70.2	- 3.0	70.3	- 3.1	70.3	- 3.1
14:30 - 14:45	66.3	70.1	- 3.8	70.0	- 3.7	69.5	- 3.2	69.2	- 2.9	69.8	- 3.5	70.4	- 4.1	69.4	- 3.1	69.2	- 2.9	69.2	- 2.9	69.9	- 3.6	69.8	- 3.5	69.7	- 3.4
14:45 - 15:00	65.6	70.3	- 4.7	70.3	- 4.7	70.3	- 4.7	69.6	- 4.0	70.3	- 4.7	70.6	- 5.0	70.0	- 4.4	69.5	- 3.9	69.9	- 4.3	69.8	- 4.2	70.1	- 4.5	70.1	- 4.5
15:00 - 15:15	65.9	69.3	- 3.4	69.4	- 3.5	69.0	- 3.1	69.7	- 3.8	69.2	- 3.3	69.2	- 3.3	69.5	- 3.6	68.3	- 2.4	68.8	- 2.9	69.5	- 3.6	68.3	- 2.4	69.1	- 3.2
15:15 - 15:30	53.3	69.3	-16.0	68.5	-15.2	68.0	-14.7	68.0	-14.7	69.3	-16.0	68.5	-15.2	68.0	-14.7	69.0	-15.7	69.5	-16.2	68.2	-14.9	68.4	-15.1	68.6	-15.3
15:30 - 15:45	42.3	68.4	-26.1	68.7	-26.4	66.6	-24.3	68.8	-26.5	69.1	-26.8	67.3	-25.0	68.9	-26.6	67.8	-25.5	68.4	-26.1	68.1	-25.8	64.3	-22.0	67.8	-25.5
15:45 - 16:00	34.4	66.2	-31.8	68.7	-34.3	22.9	11.5	68.5	-34.1	31.6	2.8	57.7	-23.3	24.5	9.9	22.4	12.0	32.7	1.7	26.2	8.2	15.0	19.4	39.7	- 5.3
16:00 - 16:15	40.3	20.1	20.2	28.3	12.0	16.2	24.1	24.2	16.1	16.0	24.3	16.8	23.5	15.7	24.6	18.3	22.0	15.6	24.7	17.4	22.9	15.3	25.0	18.5	21.8
16:15 - 16:30	34.9	14.6	20.3	15.1	19.8	13.6	21.3	14.7	20.2	14.5	20.4	17.1	17.8	16.8	18.1	15.8	19.1	16.3	18.6	15.1	19.8	16.7	18.2	15.5	19.4
16:30 - 16:45	32.5	15.7	16.8	14.0	18.5	16.8	15.7	14.4	18.1	16.4	16.1	14.3	18.2	15.6	16.9	14.9	17.6	15.3	17.2	14.6	17.9	15.3	17.2	15.2	17.3
16:45 - 17:00	33.2	14.8	18.4	12.8	20.4	14.0	19.2	13.5	19.7	12.6	20.6	15.9	17.3	14.7	18.5	12.8	20.4	14.8	18.4	13.8	19.4	12.5	20.7	13.9	19.3
17:00 - 17:15	27.2	13.3	13.9	15.0	12.2	15.8	11.4	14.3	12.9	14.1	13.1	15.2	12.0	15.4	11.8	12.4	14.8	13.1	14.1	13.5	13.7	14.2	13.0	14.2	13.0
17:15 - 17:30	29.1	12.7	16.4	15.7	13.4	15.4	13.7	12.9	16.2	13.7	15.4	16.5	12.6	14.8	14.3	13.9	15.2	14.6	14.5	13.0	16.1	14.3	14.8	14.3	14.8
17:30 - 17:45	24.9	13.3	11.6	11.9	13.0	13.3	11.6	12.2	12.7	13.1	11.8	14.6	10.3	14.0	10.9	12.5	12.4	12.9	12.0	11.8	13.1	12.6	12.3	12.9	12.0
17:45 - 18:00	24.8	12.3	12.5	30.0	- 5.2	13.7	11.1	19.0	5.8	13.7	11.1	19.4	5.4	12.8	12.0	13.6	11.2	12.7	12.1	15.0	9.8	13.6	11.2	16.0	8.8
Hour 1	66.6	70.3	- 3.7	70.4	- 3.8	70.3	- 3.7	70.0	- 3.3	70.2	- 3.6	70.4	- 3.8	70.1	- 3.5	70.0	- 3.3	69.9	- 3.3	70.1	- 3.4	70.1	- 3.5	70.2	- 3.5
Hour 2	49.0	68.3	-19.3	68.8	-19.9	56.6	- 7.7	68.8	-19.8	59.8	-10.8	65.7	-16.7	57.7	- 8.8	56.9	- 7.9	59.9	-10.9	58.0	- 9.0	54.0	- 5.0	61.3	-12.3
Hour 3	35.2	16.3	18.9	17.6	17.7	15.2	20.1	16.7	18.5	14.9	20.3	16.0	19.2	15.7	19.5	15.5	19.8	15.5	19.7	15.2	20.0	15.0	20.3	15.8	19.4
Hour 4	26.5	12.9	13.6	18.2	8.4	14.6	12.0	14.6	11.9	13.7	12.9	16.4	10.1	14.3	12.3	13.1	13.4	13.3	13.2	13.3	13.2	13.7	12.8	14.4	12.2
11	44.3	42.0	2.4	43.7	0.6	39.2	5.2	42.5	1.8	39.6	4.7	42.1	2.2	39.4	4.9	38.8	5.5	39.6	4.7	39.2	5.2	38.2	6.1	40.4	3.9



CONCEPT 3

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

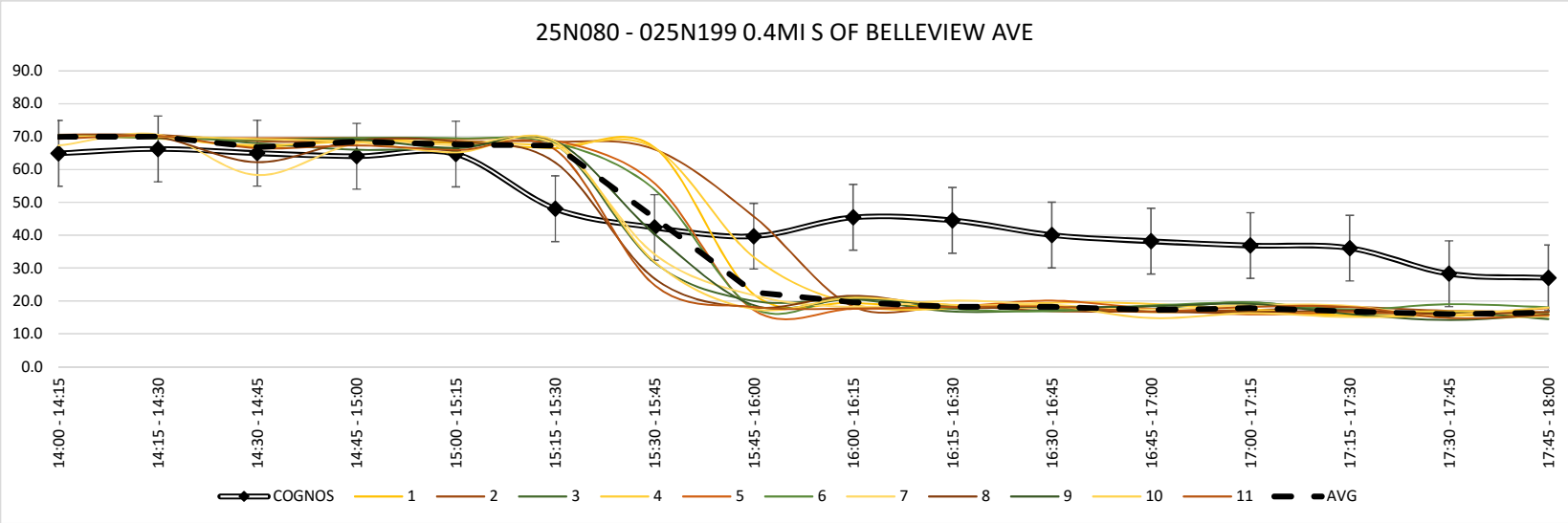
PM	COGNOS	MODEL																						AGGREGATE	
TIME	25N070	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	66.0	71.3	- 5.3	71.2	- 5.2	70.8	- 4.8	70.5	- 4.5	70.7	- 4.7	70.7	- 4.7	70.8	- 4.8	71.0	- 5.0	70.9	- 4.9	71.1	- 5.1	70.7	- 4.7	70.9	- 4.9
14:15 - 14:30	65.7	70.9	- 5.2	70.9	- 5.2	70.9	- 5.2	70.8	- 5.1	71.1	- 5.4	70.7	- 5.0	70.8	- 5.1	70.8	- 5.1	70.8	- 5.1	70.4	- 4.7	70.4	- 4.7	70.8	- 5.1
14:30 - 14:45	65.3	70.1	- 4.8	70.6	- 5.3	70.4	- 5.1	70.3	- 5.0	70.3	- 5.0	70.3	- 5.0	70.2	- 4.9	70.4	- 5.1	70.3	- 5.0	70.4	- 5.1	70.1	- 4.8	70.3	- 5.0
14:45 - 15:00	64.3	70.8	- 6.5	70.4	- 6.1	70.1	- 5.8	70.2	- 5.9	70.1	- 5.8	70.5	- 6.2	70.7	- 6.4	70.5	- 6.2	70.7	- 6.4	70.4	- 6.1	70.7	- 6.4	70.5	- 6.2
15:00 - 15:15	63.1	70.1	- 7.0	70.2	- 7.1	69.7	- 6.6	70.1	- 7.0	70.1	- 7.0	70.2	- 7.1	70.3	- 7.2	70.2	- 7.1	69.8	- 6.7	69.9	- 6.8	70.0	- 6.9	70.1	- 7.0
15:15 - 15:30	48.9	70.0	-21.1	69.4	-20.5	70.2	-21.3	70.0	-21.1	69.6	-20.7	69.8	-20.9	69.6	-20.7	70.1	-21.2	70.3	-21.4	69.4	-20.5	69.5	-20.6	69.8	-20.9
15:30 - 15:45	45.4	69.6	-24.2	69.7	-24.3	56.6	-11.2	69.9	-24.5	69.6	-24.2	70.0	-24.6	63.9	-18.5	42.9	2.5	69.9	-24.5	69.2	-23.8	34.7	10.7	62.4	-17.0
15:45 - 16:00	39.5	26.6	12.9	69.7	-30.2	15.5	24.0	52.4	-12.9	19.4	20.1	23.3	16.2	15.7	23.8	13.5	26.0	19.3	20.2	15.7	23.8	14.8	24.7	26.0	13.5
16:00 - 16:15	43.5	15.5	28.0	17.4	26.1	15.7	27.8	15.7	27.8	14.9	28.6	15.7	27.8	14.6	28.9	16.7	26.8	14.4	29.1	15.9	27.6	14.5	29.0	15.6	27.9
16:15 - 16:30	40.4	14.5	25.9	14.4	26.0	13.0	27.4	13.6	26.8	13.7	26.7	14.9	25.5	14.3	26.1	15.4	25.0	14.9	25.5	14.5	25.9	15.3	25.1	14.4	26.0
16:30 - 16:45	38.1	12.3	25.8	13.8	24.3	12.8	25.3	15.3	22.8	14.6	23.5	14.0	24.1	15.7	22.4	14.9	23.2	13.1	25.0	14.7	23.4	15.2	22.9	14.2	23.9
16:45 - 17:00	36.4	14.3	22.1	12.5	23.9	14.3	22.1	15.0	21.4	14.4	22.0	14.9	21.5	13.7	22.7	14.4	22.0	15.2	21.2	13.6	22.8	14.1	22.3	14.2	22.2
17:00 - 17:15	34.6	14.0	20.6	14.1	20.5	15.7	18.9	15.0	19.6	14.4	20.2	14.4	20.2	15.4	19.2	13.6	21.0	14.4	20.2	13.1	21.5	14.3	20.3	14.4	20.2
17:15 - 17:30	35.0	13.1	21.9	13.7	21.3	14.8	20.2	13.3	21.7	14.0	21.0	15.2	19.8	15.1	19.9	13.9	21.1	14.2	20.8	13.2	21.8	14.4	20.6	14.1	20.9
17:30 - 17:45	30.3	13.2	17.1	13.9	16.4	12.9	17.4	13.6	16.7	12.8	17.5	15.6	14.7	13.4	16.9	13.0	17.3	11.4	18.9	12.3	18.0	11.4	18.9	13.1	17.2
17:45 - 18:00	28.2	13.6	14.6	17.8	10.4	12.8	15.4	13.4	14.8	13.9	14.3	15.3	12.9	12.9	15.3	13.2	15.0	13.1	15.1	14.6	13.6	11.5	16.7	13.8	14.4
Hour 1	65.3	70.8	- 5.5	70.8	- 5.5	70.6	- 5.2	70.5	- 5.1	70.6	- 5.2	70.6	- 5.2	70.6	- 5.3	70.7	- 5.4	70.7	- 5.4	70.6	- 5.3	70.5	- 5.2	70.6	- 5.3
Hour 2	49.2	59.1	- 9.9	69.8	-20.5	53.0	- 3.8	65.6	-16.4	57.2	- 8.0	58.3	- 9.1	54.9	- 5.7	49.2	0.0	57.3	- 8.1	56.1	- 6.8	47.3	2.0	57.1	- 7.9
Hour 3	39.6	14.2	25.4	14.5	25.1	14.0	25.6	14.9	24.7	14.4	25.2	14.9	24.7	14.6	25.0	15.4	24.2	14.4	25.2	14.7	24.9	14.8	24.8	14.6	25.0
Hour 4	32.0	13.5	18.5	14.9	17.1	14.1	18.0	13.8	18.2	13.8	18.2	15.1	16.9	14.2	17.8	13.4	18.6	13.3	18.7	13.3	18.7	12.9	19.1	13.9	18.2
11	46.5	39.4	7.2	42.5	4.1	37.9	8.6	41.2	5.3	39.0	7.6	39.7	6.8	38.6	8.0	37.2	9.4	38.9	7.6	38.7	7.9	36.4	10.2	39.0	7.5



CONCEPT 3

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

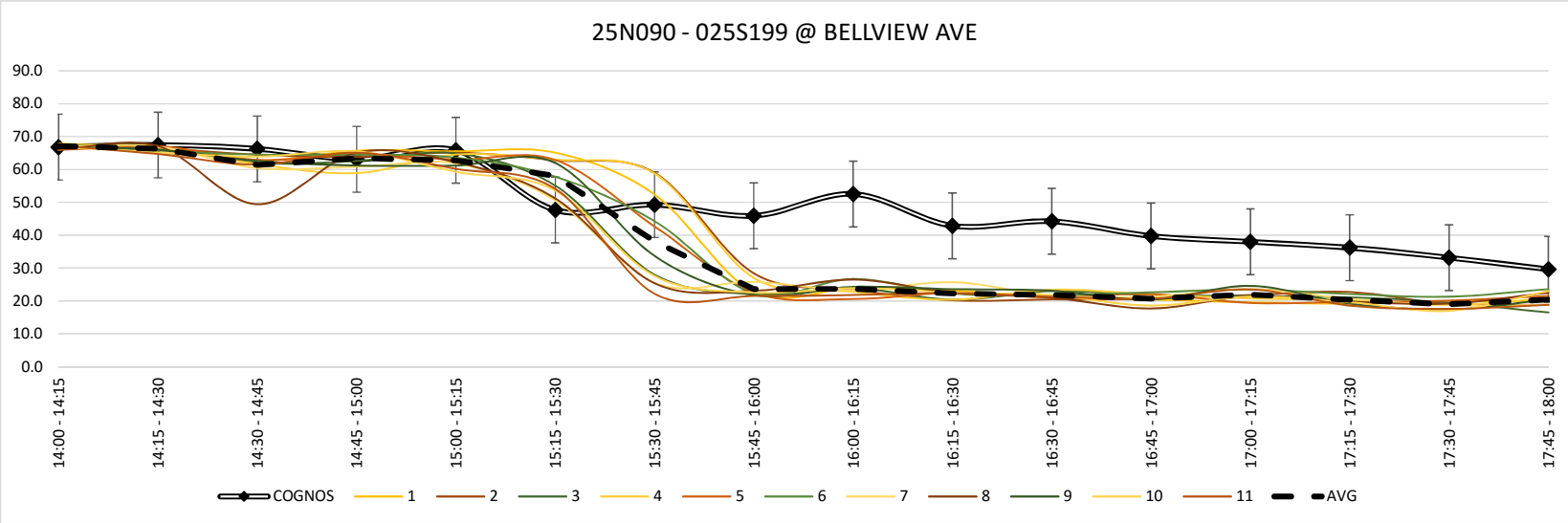
PM	COGNOS	MODEL																						AGGREGATE	
TIME	25N080	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	64.9	70.4	- 5.5	70.6	- 5.7	70.0	- 5.1	70.4	- 5.5	70.2	- 5.3	70.4	- 5.5	67.3	- 2.4	70.2	- 5.3	70.1	- 5.2	70.1	- 5.2	69.3	- 4.4	69.9	- 5.0
14:15 - 14:30	66.2	69.8	- 3.6	70.5	- 4.3	70.2	- 4.0	69.4	- 3.2	69.7	- 3.5	69.5	- 3.3	70.6	- 4.4	69.8	- 3.6	70.0	- 3.8	70.0	- 3.8	70.2	- 4.0	70.0	- 3.8
14:30 - 14:45	65.0	66.9	- 2.0	68.6	- 3.6	68.0	- 3.1	67.4	- 2.5	69.5	- 4.6	69.0	- 4.1	58.3	6.7	62.2	2.8	69.2	- 4.3	69.3	- 4.3	66.5	- 1.6	66.8	- 1.8
14:45 - 15:00	64.0	69.0	- 5.0	68.6	- 4.6	66.0	- 2.0	68.5	- 4.5	69.6	- 5.6	69.6	- 5.6	67.9	- 3.9	68.8	- 4.8	69.1	- 5.1	68.3	- 4.3	67.3	- 3.3	68.4	- 4.4
15:00 - 15:15	64.7	68.0	- 3.3	68.4	- 3.7	66.6	- 1.9	68.5	- 3.8	69.2	- 4.5	69.5	- 4.8	67.4	- 2.7	68.5	- 3.8	66.5	- 1.8	65.2	- 0.5	65.9	- 1.2	67.6	- 2.9
15:15 - 15:30	48.1	66.5	-18.4	68.5	-20.4	67.5	-19.4	67.3	-19.2	68.7	-20.6	68.1	-20.0	67.5	-19.4	62.1	-14.0	68.6	-20.5	68.5	-20.4	66.0	-17.9	67.2	-19.1
15:30 - 15:45	42.3	66.7	-24.4	66.1	-23.8	31.7	10.6	66.5	-24.2	55.8	-13.5	53.9	-11.6	34.2	8.1	26.8	15.5	40.4	1.9	31.9	10.4	24.8	17.5	45.3	- 3.0
15:45 - 16:00	39.7	22.0	17.7	45.7	- 6.0	20.0	19.7	33.3	6.4	17.2	22.5	17.8	21.9	21.7	18.0	18.0	21.7	18.7	21.0	17.5	22.2	18.2	21.5	22.7	17.0
16:00 - 16:15	45.4	19.4	26.0	18.3	27.1	20.5	24.9	19.0	26.4	17.6	27.8	21.3	24.1	18.2	27.2	21.6	23.8	20.6	24.8	21.0	24.4	17.7	27.7	19.6	25.8
16:15 - 16:30	44.5	18.3	26.2	18.5	26.0	16.8	27.7	17.6	26.9	18.2	26.3	17.6	26.9	20.1	24.4	18.0	26.5	18.7	25.8	18.8	25.7	18.2	26.3	18.2	26.3
16:30 - 16:45	40.1	17.9	22.2	16.9	23.2	17.2	22.9	19.5	20.6	20.1	20.0	16.9	23.2	18.8	21.3	18.2	21.9	18.1	22.0	18.5	21.6	18.3	21.8	18.2	21.9
16:45 - 17:00	38.2	16.6	21.6	16.8	21.4	17.6	20.6	19.1	19.1	17.6	20.6	18.6	19.6	17.4	20.8	16.7	21.5	18.4	19.8	14.8	23.4	16.8	21.4	17.3	20.9
17:00 - 17:15	36.9	16.9	20.0	17.2	19.7	19.6	17.3	17.4	19.5	15.9	21.0	19.5	17.4	18.8	18.1	16.6	20.3	19.1	17.8	16.3	20.6	18.2	18.7	17.8	19.1
17:15 - 17:30	36.1	15.6	20.5	18.1	18.0	16.3	19.8	16.3	19.8	16.6	19.5	17.4	18.7	18.5	17.6	17.1	19.0	16.0	20.1	15.1	21.0	18.2	17.9	16.8	19.3
17:30 - 17:45	28.3	15.6	12.7	17.0	11.3	16.6	11.7	16.9	11.4	15.9	12.4	19.0	9.3	14.9	13.4	16.0	12.3	14.2	14.1	15.7	12.6	14.8	13.5	16.0	12.3
17:45 - 18:00	27.0	15.8	11.2	16.6	10.4	14.5	12.5	16.5	10.5	17.8	9.2	18.1	8.9	15.3	11.7	16.6	10.4	15.9	11.1	18.0	9.0	15.7	11.3	16.4	10.6
Hour 1	65.0	69.0	- 4.0	69.6	- 4.5	68.6	- 3.5	68.9	- 3.9	69.8	- 4.7	69.6	- 4.6	66.0	- 1.0	67.8	- 2.7	69.6	- 4.6	69.4	- 4.4	68.3	- 3.3	68.8	- 3.7
Hour 2	48.7	55.8	- 7.1	62.2	-13.5	46.5	2.2	58.9	-10.2	52.7	- 4.0	52.3	- 3.6	47.7	1.0	43.9	4.8	48.6	0.1	45.8	2.9	43.7	5.0	50.7	- 2.0
Hour 3	42.0	18.1	24.0	17.6	24.4	18.0	24.0	18.8	23.2	18.4	23.7	18.6	23.4	18.6	23.4	18.6	23.4	19.0	23.1	18.3	23.8	17.8	24.3	18.3	23.7
Hour 4	32.1	16.0	16.1	17.2	14.8	16.8	15.3	16.8	15.3	16.6	15.5	18.5	13.6	16.9	15.2	16.6	15.5	16.3	15.8	16.3	15.8	16.7	15.3	16.8	15.3
11	47.0	39.7	7.2	41.7	5.3	37.4	9.5	40.9	6.1	39.4	7.6	39.8	7.2	37.3	9.6	36.7	10.3	38.4	8.6	37.4	9.5	36.6	10.3	38.6	8.3



CONCEPT 3

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

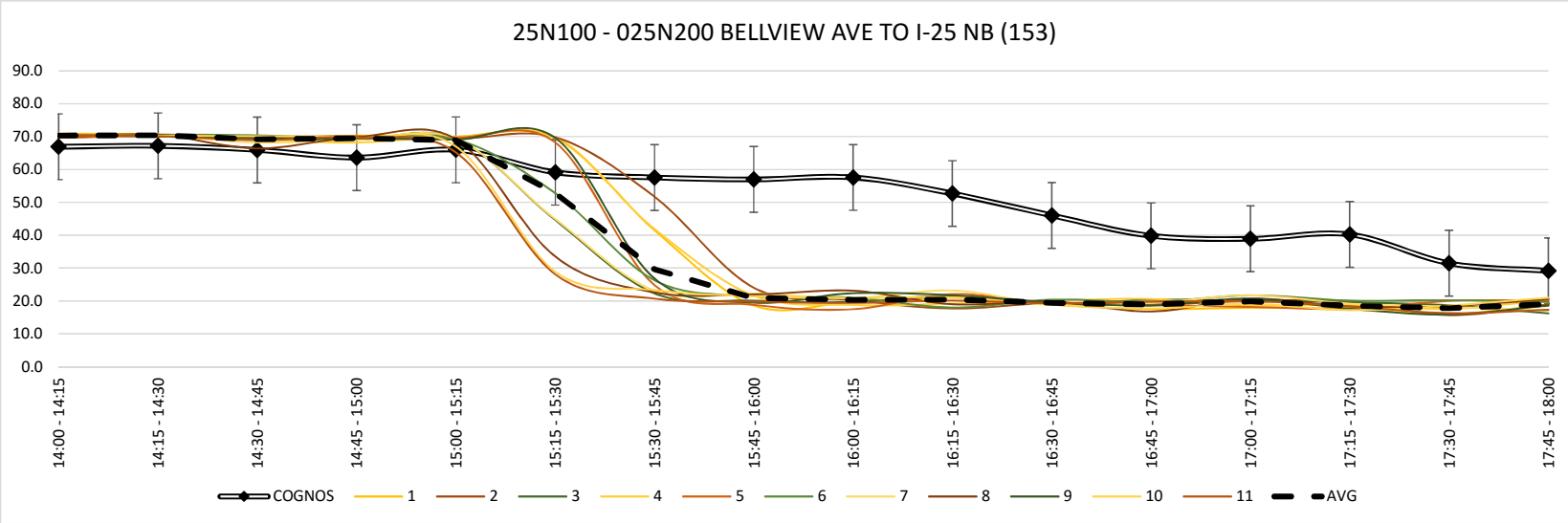
PM	COGNOS	MODEL																						AGGREGATE	
TIME	25N090	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	66.8	67.9	- 1.1	67.6	- 0.8	67.4	- 0.6	67.5	- 0.7	65.9	0.9	67.7	- 0.9	67.0	- 0.2	66.2	0.6	66.7	0.1	66.8	0.0	67.3	- 0.5	67.1	- 0.3
14:15 - 14:30	67.4	66.4	1.0	66.5	0.9	67.1	0.3	66.7	0.7	67.1	0.3	65.7	1.7	66.9	0.5	67.1	0.3	66.0	1.4	65.2	2.2	64.7	2.7	66.3	1.1
14:30 - 14:45	66.3	62.7	3.6	64.5	1.8	62.0	4.3	61.6	4.7	62.9	3.4	64.5	1.8	60.4	5.9	49.4	16.9	62.6	3.7	63.9	2.4	61.5	4.8	61.4	4.9
14:45 - 15:00	63.1	65.7	- 2.6	63.8	- 0.7	62.6	0.5	58.9	4.2	64.6	- 1.5	64.5	- 1.4	60.8	2.3	65.1	- 2.0	61.2	1.9	65.5	- 2.4	65.1	- 2.0	63.4	- 0.3
15:00 - 15:15	65.8	65.5	0.3	65.1	0.7	64.9	0.9	64.5	1.3	63.0	2.8	63.6	2.2	61.8	4.0	62.2	3.6	61.2	4.6	59.3	6.5	60.2	5.6	62.8	3.0
15:15 - 15:30	47.7	65.1	-17.4	62.8	-15.1	55.1	- 7.4	63.0	-15.3	62.9	-15.2	57.8	-10.1	50.6	- 2.9	51.2	- 3.5	62.0	-14.3	53.6	- 5.9	54.1	- 6.4	58.0	-10.3
15:30 - 15:45	49.3	52.4	- 3.1	59.0	- 9.7	28.0	21.3	58.8	- 9.5	42.7	6.6	44.3	5.0	25.5	23.8	25.4	23.9	33.7	15.6	27.6	21.7	22.2	27.1	38.1	11.2
15:45 - 16:00	45.9	22.7	23.2	28.4	17.5	22.1	23.8	27.0	18.9	22.6	23.3	22.3	23.6	25.8	20.1	23.1	22.8	21.8	24.1	22.6	23.3	21.5	24.4	23.6	22.3
16:00 - 16:15	52.5	23.9	28.6	23.4	29.1	23.9	28.6	22.8	29.7	20.6	31.9	26.7	25.8	23.3	29.2	26.5	26.0	24.3	28.2	23.9	28.6	21.8	30.7	23.7	28.8
16:15 - 16:30	42.9	23.2	19.7	20.2	22.7	20.4	22.5	20.4	22.5	22.5	20.4	22.3	20.6	25.7	17.2	22.5	20.4	23.6	19.3	22.6	20.3	22.4	20.5	22.3	20.6
16:30 - 16:45	44.2	21.0	23.2	20.5	23.7	23.0	21.2	23.4	20.8	21.1	23.1	21.7	22.5	21.7	22.5	21.0	23.2	23.1	21.1	21.7	22.5	21.3	22.9	21.8	22.4
16:45 - 17:00	39.8	20.4	19.4	20.7	19.1	21.8	18.0	22.0	17.8	22.1	17.7	22.6	17.2	21.3	18.5	17.7	22.1	20.4	19.4	18.6	21.2	20.7	19.1	20.7	19.1
17:00 - 17:15	38.0	19.6	18.4	21.8	16.2	21.5	16.5	20.8	17.2	19.4	18.6	23.5	14.5	23.6	14.4	21.4	16.6	24.6	13.4	21.3	16.7	23.5	14.5	21.9	16.1
17:15 - 17:30	36.2	19.2	17.0	22.7	13.5	21.1	15.1	20.3	15.9	19.7	16.5	22.1	14.1	20.6	15.6	19.8	16.4	19.2	17.0	19.6	16.6	18.6	17.6	20.3	15.9
17:30 - 17:45	33.2	19.9	13.3	19.1	14.1	19.5	13.7	18.8	14.4	20.1	13.1	21.3	11.9	18.7	14.5	19.2	14.0	17.4	15.8	17.0	16.2	17.6	15.6	19.0	14.2
17:45 - 18:00	29.6	19.9	9.7	18.8	10.8	16.5	13.1	20.8	8.8	21.5	8.1	23.6	6.0	18.8	10.8	22.5	7.1	20.4	9.2	23.0	6.6	18.8	10.8	20.4	9.2
Hour 1	65.9	65.7	0.2	65.6	0.3	64.8	1.1	63.7	2.2	65.1	0.8	65.6	0.3	63.8	2.1	62.0	3.9	64.1	1.8	65.4	0.5	64.7	1.2	64.6	1.3
Hour 2	52.2	51.4	0.7	53.8	- 1.7	42.5	9.6	53.3	- 1.2	47.8	4.4	47.0	5.2	40.9	11.2	40.5	11.7	44.7	7.5	40.8	11.4	39.5	12.7	45.6	6.5
Hour 3	44.8	22.1	22.7	21.2	23.6	22.3	22.6	22.2	22.7	21.6	23.3	23.3	21.5	23.0	21.8	21.9	22.9	22.9	22.0	21.7	23.1	21.6	23.3	22.1	22.7
Hour 4	34.2	19.7	14.6	20.6	13.6	19.7	14.6	20.2	14.1	20.2	14.1	22.6	11.6	20.4	13.8	20.7	13.5	20.4	13.8	20.2	14.0	19.6	14.6	20.4	13.8
11	49.3	39.7	9.6	40.3	9.0	37.3	12.0	39.8	9.5	38.7	10.6	39.6	9.6	37.0	12.3	36.3	13.0	38.0	11.3	37.0	12.3	36.3	13.0	38.2	11.1



CONCEPT 3

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

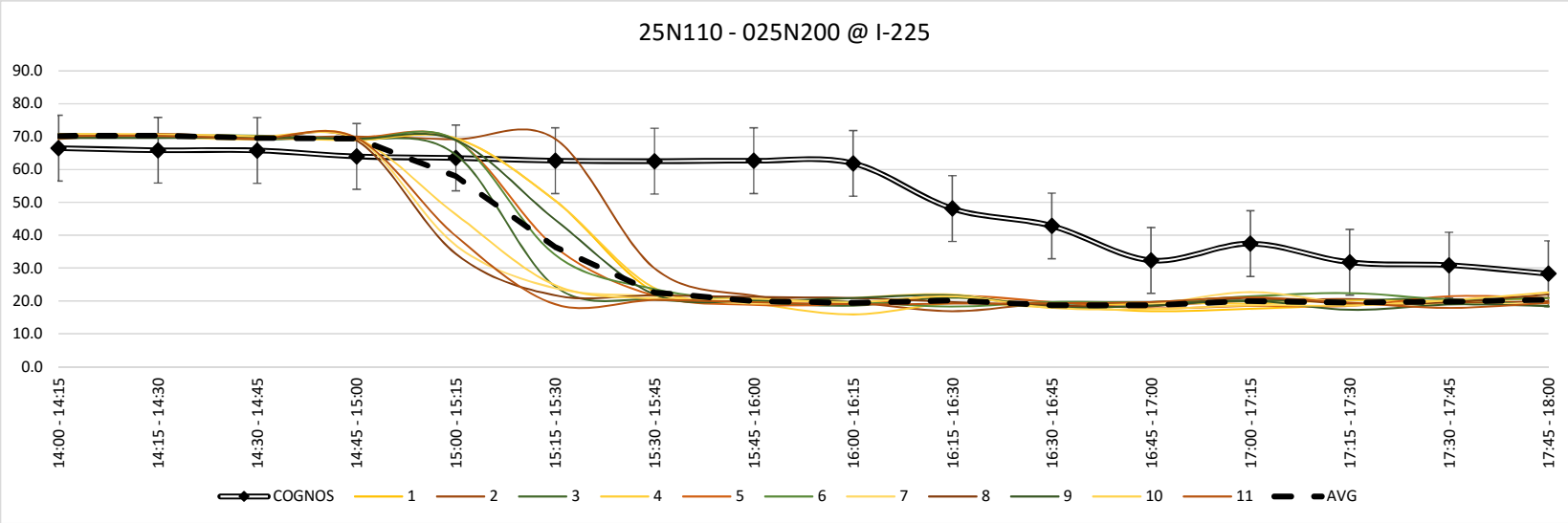
PM	COGNOS	MODEL																						AGGREGATE	
TIME	25N100	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	66.9	70.9	- 4.0	70.1	- 3.2	70.4	- 3.5	70.6	- 3.7	69.6	- 2.7	70.4	- 3.5	70.5	- 3.6	69.9	- 3.0	70.5	- 3.6	70.4	- 3.5	70.4	- 3.5	70.3	- 3.4
14:15 - 14:30	67.2	70.7	- 3.5	70.6	- 3.4	70.0	- 2.8	70.3	- 3.1	70.2	- 3.0	70.6	- 3.4	70.3	- 3.1	70.5	- 3.3	70.4	- 3.2	70.3	- 3.1	70.1	- 2.9	70.4	- 3.2
14:30 - 14:45	65.9	69.5	- 3.6	69.9	- 4.0	69.2	- 3.3	69.2	- 3.3	69.5	- 3.6	70.4	- 4.5	68.2	- 2.3	66.4	- 0.5	69.5	- 3.6	70.1	- 4.2	68.9	- 3.0	69.2	- 3.3
14:45 - 15:00	63.6	70.3	- 6.7	70.1	- 6.5	69.1	- 5.5	68.2	- 4.6	69.8	- 6.2	69.5	- 5.9	69.0	- 5.4	69.8	- 6.2	69.5	- 5.9	69.7	- 6.1	69.7	- 6.1	69.5	- 5.9
15:00 - 15:15	66.0	70.0	- 4.0	69.3	- 3.3	69.4	- 3.4	70.0	- 4.0	69.7	- 3.7	69.2	- 3.2	69.4	- 3.4	69.2	- 3.2	69.1	- 3.1	67.0	- 1.0	65.2	0.8	68.9	- 2.9
15:15 - 15:30	59.2	69.8	-10.7	69.8	-10.7	44.6	14.6	69.5	-10.4	68.2	- 9.1	52.8	6.4	44.9	14.3	33.5	25.7	69.6	-10.5	28.9	30.3	28.1	31.1	52.7	6.5
15:30 - 15:45	57.6	41.5	16.1	51.7	5.9	22.3	35.3	41.9	15.7	24.8	32.8	26.3	31.3	23.1	34.5	22.6	35.0	26.8	30.8	23.3	34.3	20.7	36.9	29.6	28.0
15:45 - 16:00	57.0	18.6	38.4	24.0	33.0	20.1	36.9	21.6	35.4	18.8	38.2	21.5	35.5	22.3	34.7	22.0	35.0	19.5	37.5	21.4	35.6	19.8	37.2	20.9	36.1
16:00 - 16:15	57.6	19.8	37.8	20.3	37.3	19.7	37.9	18.8	38.8	17.5	40.1	21.0	36.6	20.9	36.7	23.1	34.5	22.4	35.2	20.9	36.7	19.4	38.2	20.3	37.3
16:15 - 16:30	52.7	21.0	31.7	17.7	35.0	21.6	31.1	19.2	33.5	22.1	30.6	18.0	34.7	23.2	29.5	19.0	33.7	21.7	31.0	21.1	31.6	20.1	32.6	20.4	32.3
16:30 - 16:45	46.0	18.9	27.1	19.4	26.6	19.1	26.9	20.1	25.9	19.2	26.8	20.4	25.6	18.9	27.1	19.8	26.2	19.6	26.4	18.8	27.2	19.3	26.7	19.4	26.6
16:45 - 17:00	39.8	17.5	22.3	18.9	20.9	20.4	19.4	20.6	19.2	18.7	21.1	19.7	20.1	19.4	20.4	16.8	23.0	18.6	21.2	17.7	22.1	19.8	20.0	18.9	20.9
17:00 - 17:15	38.9	17.9	21.0	20.0	18.9	20.1	18.8	18.6	20.3	18.2	20.7	21.7	17.2	21.7	17.2	20.7	18.2	20.7	18.2	19.1	19.8	19.9	19.0	19.9	19.0
17:15 - 17:30	40.2	17.6	22.6	19.9	20.3	19.6	20.6	18.8	21.4	17.6	22.6	20.1	20.1	19.2	21.0	18.3	21.9	17.6	22.6	17.2	23.0	18.4	21.8	18.6	21.6
17:30 - 17:45	31.5	16.0	15.5	15.7	15.8	18.7	12.8	17.6	13.9	20.0	11.5	20.2	11.3	18.2	13.3	18.4	13.1	15.9	15.6	18.6	12.9	16.3	15.2	17.8	13.7
17:45 - 18:00	29.2	18.9	10.3	18.9	10.3	16.2	13.0	20.3	8.9	20.1	9.1	19.7	9.5	17.2	12.0	20.6	8.6	18.6	10.6	21.0	8.2	17.3	11.9	19.0	10.2
Hour 1	65.9	70.4	- 4.4	70.2	- 4.3	69.7	- 3.8	69.6	- 3.7	69.8	- 3.9	70.2	- 4.3	69.5	- 3.6	69.2	- 3.2	70.0	- 4.1	70.1	- 4.2	69.8	- 3.9	69.9	- 3.9
Hour 2	59.9	50.0	9.9	53.7	6.2	39.1	20.8	50.8	9.2	45.4	14.5	42.5	17.5	39.9	20.0	36.8	23.1	46.3	13.7	35.2	24.8	33.5	26.5	43.0	16.9
Hour 3	49.0	19.3	29.7	19.1	29.9	20.2	28.8	19.7	29.3	19.4	29.6	19.8	29.2	20.6	28.4	19.7	29.3	20.6	28.4	19.6	29.4	19.7	29.4	19.8	29.3
Hour 4	34.9	17.6	17.3	18.6	16.3	18.7	16.3	18.8	16.1	19.0	16.0	20.4	14.5	19.1	15.9	19.5	15.4	18.2	16.7	19.0	16.0	18.0	17.0	18.8	16.1
11	52.4	39.3	13.1	40.4	12.0	36.9	15.5	39.7	12.7	38.4	14.1	38.2	14.2	37.3	15.2	36.3	16.2	38.8	13.7	36.0	16.5	35.2	17.2	37.9	14.6



CONCEPT 3

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

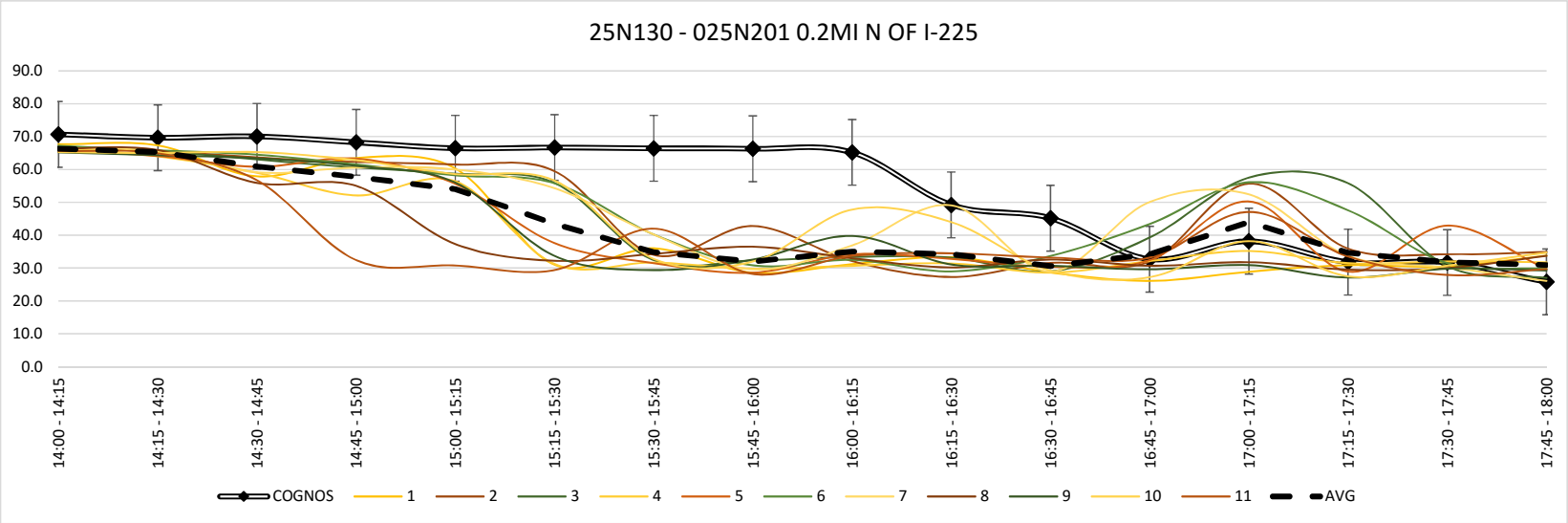
PM	COGNOS	MODEL																						AGGREGATE	
TIME	25N110	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	66.5	70.7	- 4.2	69.3	- 2.8	70.4	- 3.9	70.2	- 3.7	69.7	- 3.2	70.8	- 4.3	70.6	- 4.1	70.1	- 3.6	69.6	- 3.1	70.8	- 4.3	70.2	- 3.7	70.2	- 3.7
14:15 - 14:30	65.9	70.5	- 4.7	70.8	- 5.0	70.2	- 4.4	70.2	- 4.4	70.2	- 4.4	70.3	- 4.5	69.9	- 4.1	70.3	- 4.5	69.6	- 3.8	70.7	- 4.9	70.2	- 4.4	70.3	- 4.5
14:30 - 14:45	65.8	69.8	- 4.0	69.7	- 3.9	69.1	- 3.3	69.6	- 3.8	69.4	- 3.6	70.3	- 4.5	69.0	- 3.2	69.2	- 3.4	69.6	- 3.8	70.1	- 4.3	69.4	- 3.6	69.6	- 3.8
14:45 - 15:00	64.0	69.0	- 5.0	70.0	- 6.0	69.4	- 5.4	68.9	- 4.9	69.7	- 5.7	69.2	- 5.2	69.5	- 5.5	68.8	- 4.8	69.4	- 5.4	69.5	- 5.5	69.6	- 5.6	69.4	- 5.4
15:00 - 15:15	63.5	69.4	- 5.9	69.2	- 5.7	64.5	- 1.0	69.5	- 6.0	68.9	- 5.4	68.9	- 5.4	36.9	26.6	34.3	29.2	68.9	- 5.4	46.3	17.2	39.7	23.8	57.9	5.6
15:15 - 15:30	62.7	50.5	12.2	69.3	- 6.6	24.4	38.3	50.5	12.2	36.4	26.3	34.0	28.7	23.9	38.8	21.7	41.0	44.7	18.0	24.8	37.9	19.0	43.7	36.3	26.4
15:30 - 15:45	62.5	22.8	39.7	29.9	32.6	20.4	42.1	23.9	38.6	21.6	40.9	23.6	38.9	21.4	41.1	21.7	40.8	22.0	40.5	20.7	41.8	20.3	42.2	22.6	39.9
15:45 - 16:00	62.6	19.9	42.7	21.6	41.0	19.4	43.2	19.3	43.3	18.8	43.8	20.3	42.3	19.2	43.4	21.2	41.4	20.1	42.5	20.7	41.9	19.6	43.0	20.0	42.6
16:00 - 16:15	61.9	18.8	43.1	19.6	42.3	18.6	43.3	15.9	46.0	19.2	42.7	19.7	42.2	20.9	41.0	20.9	41.0	20.9	41.0	19.6	42.3	19.0	42.9	19.4	42.5
16:15 - 16:30	48.1	21.1	27.0	16.9	31.2	21.0	27.1	19.3	28.8	21.6	26.5	18.3	29.8	22.0	26.1	19.7	28.4	21.7	26.4	21.4	26.7	19.2	28.9	20.2	27.9
16:30 - 16:45	42.8	18.6	24.2	19.3	23.5	18.7	24.1	18.2	24.6	19.7	23.1	19.7	23.1	17.9	24.9	18.6	24.2	18.1	24.7	17.9	24.9	19.3	23.5	18.7	24.1
16:45 - 17:00	32.3	16.9	15.4	18.8	13.5	19.7	12.6	19.4	12.9	17.8	14.5	19.7	12.6	19.0	13.3	18.4	13.9	18.6	13.7	17.5	14.8	19.7	12.6	18.7	13.6
17:00 - 17:15	37.4	17.6	19.8	20.0	17.4	20.0	17.4	19.2	18.2	18.5	18.9	21.4	16.0	22.7	14.7	20.9	16.5	20.1	17.3	18.7	18.7	21.1	16.3	20.0	17.4
17:15 - 17:30	31.8	18.8	13.0	20.6	11.2	20.2	11.6	20.1	11.7	18.5	13.3	22.4	9.4	19.3	12.5	19.2	12.6	17.3	14.5	18.6	13.2	19.5	12.3	19.5	12.3
17:30 - 17:45	30.9	19.8	11.1	19.5	11.4	20.6	10.3	20.0	10.9	21.4	9.5	20.5	10.4	19.0	11.9	19.6	11.3	18.9	12.0	20.2	10.7	17.9	13.0	19.8	11.1
17:45 - 18:00	28.3	20.9	7.4	19.9	8.4	18.3	10.0	20.8	7.5	21.0	7.3	20.9	7.4	19.3	9.0	22.0	6.3	18.5	9.8	22.6	5.7	19.4	8.9	20.3	8.0
Hour 1	65.5	70.0	- 4.5	70.0	- 4.4	69.8	- 4.3	69.7	- 4.2	69.8	- 4.2	70.2	- 4.6	69.8	- 4.2	69.6	- 4.1	69.6	- 4.0	70.3	- 4.8	69.9	- 4.3	69.9	- 4.4
Hour 2	62.8	40.7	22.2	47.5	15.3	32.2	30.7	40.8	22.0	36.4	26.4	36.7	26.1	25.4	37.5	24.7	38.1	38.9	23.9	28.1	34.7	24.7	38.2	34.2	28.6
Hour 3	46.3	18.9	27.4	18.7	27.6	19.5	26.8	18.2	28.1	19.6	26.7	19.4	26.9	20.0	26.3	19.4	26.9	19.8	26.5	19.1	27.2	19.3	27.0	19.3	27.0
Hour 4	32.1	19.3	12.8	20.0	12.1	19.8	12.3	20.0	12.1	19.9	12.2	21.3	10.8	20.1	12.0	20.4	11.7	18.7	13.4	20.0	12.1	19.5	12.6	19.9	12.2
11	51.7	37.2	14.5	39.0	12.7	35.3	16.4	37.2	14.5	36.4	15.3	36.9	14.8	33.8	17.9	33.5	18.1	36.8	14.9	34.4	17.3	33.3	18.4	35.8	15.9



CONCEPT 3

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

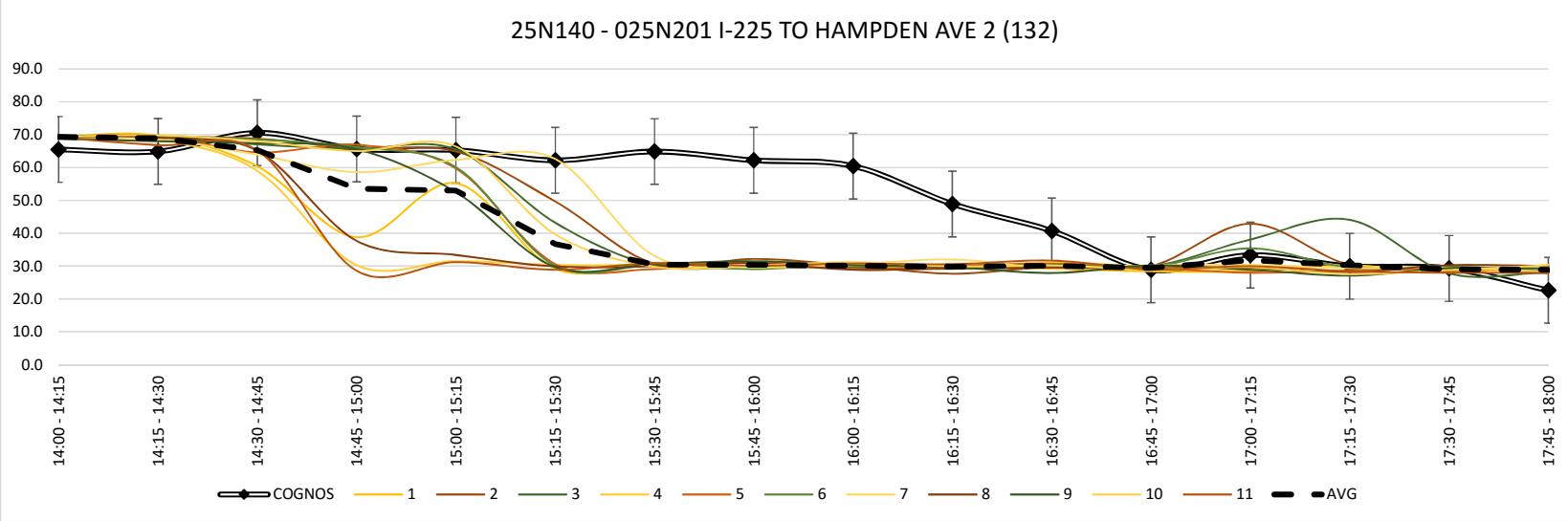
PM	COGNOS	MODEL																						AGGREGATE	
TIME	25N130	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	70.7	67.7	3.0	66.2	4.5	66.6	4.1	66.8	3.9	65.6	5.1	67.2	3.5	66.4	4.3	66.4	4.3	65.2	5.5	65.3	5.4	65.6	5.1	66.3	4.4
14:15 - 14:30	69.7	67.3	2.4	65.7	4.0	65.6	4.1	64.0	5.7	64.1	5.6	65.8	3.9	65.5	4.2	65.9	3.8	64.3	5.4	65.0	4.7	64.9	4.8	65.3	4.4
14:30 - 14:45	70.1	57.9	12.2	63.6	6.5	63.0	7.1	59.0	11.1	60.8	9.3	64.5	5.6	59.1	11.0	55.9	14.2	63.4	6.7	65.3	4.8	56.7	13.4	60.9	9.2
14:45 - 15:00	68.3	63.5	4.8	62.3	6.0	60.6	7.7	52.1	16.2	63.3	5.0	61.5	6.8	60.6	7.7	55.0	13.3	61.1	7.2	62.8	5.5	32.4	35.9	57.7	10.6
15:00 - 15:15	66.4	60.3	6.1	61.5	4.9	58.7	7.7	56.4	10.0	55.6	10.8	58.2	8.2	60.0	6.4	37.3	29.1	56.0	10.4	58.6	7.8	30.8	35.6	54.0	12.4
15:15 - 15:30	66.7	31.0	35.7	59.5	7.2	55.9	10.8	31.2	35.5	37.6	29.1	55.8	10.9	54.3	12.4	32.2	34.5	33.7	33.0	56.6	10.1	29.4	37.3	43.4	23.3
15:30 - 15:45	66.4	36.0	30.4	34.0	32.4	32.4	34.0	31.7	34.7	31.5	34.9	40.2	26.2	40.2	26.2	34.3	32.1	29.4	37.0	32.8	33.6	42.0	24.4	34.9	31.5
15:45 - 16:00	66.3	28.6	37.7	42.8	23.5	32.3	34.0	29.8	36.5	28.6	37.7	30.8	35.5	29.6	36.7	36.5	29.8	32.6	33.7	32.0	34.3	28.2	38.1	32.0	34.3
16:00 - 16:15	65.2	31.2	34.0	32.1	33.1	33.4	31.8	30.7	34.5	34.2	31.0	32.5	32.7	36.9	28.3	33.0	32.2	39.8	25.4	47.8	17.4	33.7	31.5	35.0	30.2
16:15 - 16:30	49.2	33.3	15.9	27.3	21.9	33.2	16.0	31.4	17.8	32.8	16.4	29.0	20.2	49.1	0.1	30.2	19.0	31.1	18.1	44.0	5.2	34.5	14.7	34.2	15.0
16:30 - 16:45	45.2	28.7	16.5	31.6	13.6	29.0	16.2	28.6	16.6	30.4	14.8	33.7	11.5	28.9	16.3	32.6	12.6	30.7	14.5	29.2	16.0	33.2	12.0	30.6	14.6
16:45 - 17:00	32.7	26.1	6.6	32.0	0.7	39.3	- 6.6	32.1	0.6	32.4	0.3	43.4	-10.7	50.1	-17.4	30.7	2.0	29.6	3.1	27.2	5.5	33.2	- 0.5	34.2	- 1.5
17:00 - 17:15	38.2	28.9	9.3	55.7	-17.5	57.5	-19.3	35.2	3.0	50.3	-12.1	56.1	-17.9	52.4	-14.2	31.8	6.4	30.9	7.3	38.2	- 0.0	47.1	- 8.9	44.0	- 5.8
17:15 - 17:30	31.8	30.9	0.9	35.9	- 4.1	55.8	-24.0	31.5	0.3	28.9	2.9	47.6	-15.8	33.7	- 1.9	29.5	2.3	27.1	4.7	27.5	4.3	33.5	- 1.7	34.7	- 2.9
17:30 - 17:45	31.7	30.5	1.2	34.2	- 2.5	30.6	1.1	32.0	- 0.3	42.9	-11.2	31.5	0.2	30.2	1.5	30.0	1.7	29.8	1.9	30.7	1.0	27.9	3.8	31.8	- 0.1
17:45 - 18:00	25.8	33.8	- 8.0	34.9	- 9.1	27.0	- 1.2	31.8	- 6.0	29.7	- 3.9	29.8	- 4.0	26.1	- 0.3	33.7	- 7.9	29.3	- 3.5	34.7	- 8.9	29.7	- 3.9	30.9	- 5.1
Hour 1	69.7	64.1	5.6	64.5	5.2	64.0	5.7	60.5	9.2	63.5	6.2	64.8	4.9	62.9	6.8	60.8	8.9	63.5	6.2	64.6	5.1	54.9	14.8	62.6	7.1
Hour 2	66.5	39.0	27.5	49.5	17.0	44.8	21.6	37.3	29.2	38.3	28.1	46.3	20.2	46.0	20.4	35.1	31.4	37.9	28.5	45.0	21.5	32.6	33.9	41.1	25.4
Hour 3	48.1	29.8	18.2	30.8	17.3	33.7	14.3	30.7	17.4	32.5	15.6	34.7	13.4	41.3	6.8	31.6	16.4	32.8	15.3	37.1	11.0	33.7	14.4	33.5	14.6
Hour 4	31.9	31.0	0.8	40.2	- 8.3	42.7	-10.9	32.6	- 0.8	38.0	- 6.1	41.3	- 9.4	35.6	- 3.7	31.3	0.6	29.3	2.6	32.8	- 0.9	34.6	- 2.7	35.4	- 3.5
11	54.0	41.0	13.0	46.2	7.8	46.3	7.7	40.3	13.7	43.0	11.0	46.7	7.3	46.4	7.6	39.7	14.3	40.9	13.1	44.9	9.2	38.9	15.1	43.1	10.9



CONCEPT 3

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

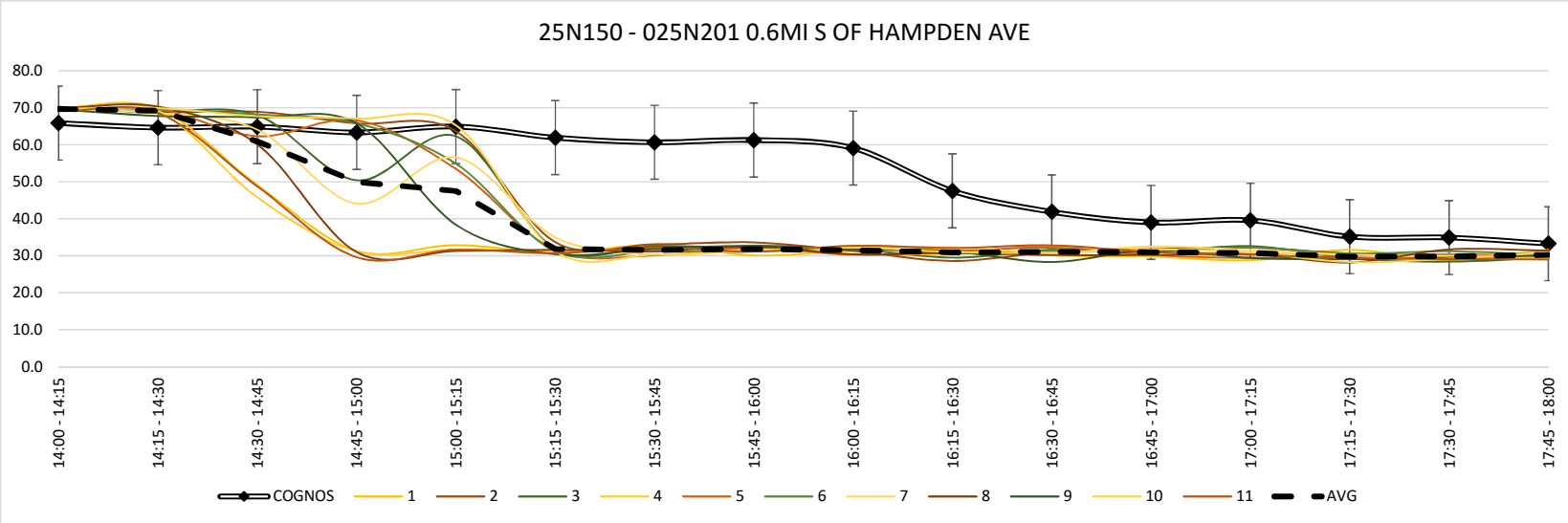
PM	COGNOS	MODEL																						AGGREGATE	
TIME	25N140	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	65.5	69.5	- 4.0	69.1	- 3.6	69.7	- 4.2	69.4	- 3.9	69.5	- 4.0	69.6	- 4.1	68.6	- 3.1	69.5	- 4.0	68.8	- 3.3	69.4	- 3.9	69.1	- 3.6	69.3	- 3.8
14:15 - 14:30	64.9	69.7	- 4.8	69.1	- 4.2	69.3	- 4.4	68.6	- 3.7	69.6	- 4.7	69.6	- 4.7	68.6	- 3.7	69.1	- 4.2	68.0	- 3.1	69.8	- 4.9	66.8	- 1.9	68.9	- 4.0
14:30 - 14:45	70.6	60.4	10.2	68.8	1.8	67.0	3.6	59.0	11.6	64.6	6.0	68.5	2.1	63.9	6.7	65.1	5.5	67.4	3.1	68.0	2.6	65.2	5.3	65.3	5.3
14:45 - 15:00	65.7	38.8	26.9	65.7	- 0.0	65.7	- 0.0	30.3	35.4	66.9	- 1.2	66.2	- 0.5	58.6	7.1	37.7	28.0	65.6	0.1	65.0	0.7	28.6	37.1	53.6	12.1
15:00 - 15:15	65.3	55.2	10.1	64.9	0.4	65.5	- 0.2	31.5	33.8	59.7	5.6	60.1	5.2	62.3	3.0	33.4	31.9	52.5	12.8	66.4	- 1.1	31.2	34.1	53.0	12.3
15:15 - 15:30	62.2	29.2	33.0	49.7	12.5	43.2	19.0	30.4	31.8	30.6	31.6	30.1	32.1	62.6	- 0.4	29.9	32.3	29.7	32.5	39.7	22.5	28.9	33.3	36.7	25.5
15:30 - 15:45	64.9	31.0	33.9	30.7	34.2	30.2	34.7	30.3	34.6	29.1	35.8	30.3	34.6	33.1	31.8	30.0	34.9	30.7	34.2	29.8	35.1	30.9	34.0	30.5	34.4
15:45 - 16:00	62.2	29.7	32.5	32.2	30.0	29.9	32.3	29.9	32.3	31.2	31.0	29.1	33.1	29.7	32.5	30.9	31.3	31.5	30.7	30.2	32.0	30.1	32.1	30.4	31.8
16:00 - 16:15	60.5	29.7	30.8	30.2	30.3	29.6	30.9	30.3	30.2	29.1	31.4	30.6	29.9	30.6	29.9	28.9	31.6	30.3	30.2	31.2	29.3	30.8	29.7	30.1	30.4
16:15 - 16:30	48.9	29.8	19.1	27.7	21.2	29.2	19.7	29.3	19.6	30.1	18.8	29.8	19.1	32.0	16.9	29.3	19.6	29.7	19.2	29.9	19.0	30.6	18.3	29.8	19.1
16:30 - 16:45	40.7	29.2	11.5	29.9	10.8	30.7	10.0	31.2	9.5	30.7	10.0	30.5	10.2	29.4	11.3	29.5	11.2	27.9	12.8	30.2	10.5	31.7	9.0	30.1	10.6
16:45 - 17:00	28.9	28.4	0.5	30.0	- 1.1	29.9	- 1.0	29.7	- 0.8	29.4	- 0.5	29.8	- 0.9	30.2	- 1.3	29.4	- 0.5	30.2	- 1.3	29.0	- 0.1	29.0	- 0.1	29.5	- 0.6
17:00 - 17:15	33.4	28.4	5.0	42.9	- 9.5	38.1	- 4.7	28.9	4.5	28.0	5.4	35.4	- 2.0	30.4	3.0	29.5	3.9	28.9	4.5	29.7	3.7	30.0	3.4	31.8	1.6
17:15 - 17:30	30.0	30.2	- 0.2	30.4	- 0.4	44.1	-14.1	30.0	- 0.0	28.6	1.4	29.6	0.4	29.4	0.6	28.1	1.9	27.1	2.9	27.6	2.4	28.4	1.6	30.3	- 0.3
17:30 - 17:45	29.3	28.1	1.2	29.7	- 0.4	27.8	1.5	28.8	0.5	29.2	0.1	29.9	- 0.6	29.5	- 0.2	30.3	- 1.0	29.4	- 0.1	28.8	0.5	28.0	1.3	29.0	0.3
17:45 - 18:00	22.7	30.4	- 7.8	28.0	- 5.4	28.1	- 5.5	28.5	- 5.9	28.5	- 5.9	28.6	- 6.0	28.3	- 5.7	30.0	- 7.4	29.3	- 6.7	30.3	- 7.7	27.9	- 5.3	28.9	- 6.3
Hour 1	66.7	59.6	7.1	68.2	- 1.5	67.9	- 1.3	56.8	9.8	67.7	- 1.0	68.5	- 1.8	64.9	1.7	60.4	6.3	67.5	- 0.8	68.1	- 1.4	57.4	9.2	64.3	2.4
Hour 2	63.6	36.3	27.4	44.4	19.3	42.2	21.4	30.5	33.1	37.7	26.0	37.4	26.2	46.9	16.7	31.1	32.6	36.1	27.5	41.5	22.1	30.3	33.4	37.7	26.0
Hour 3	44.7	29.3	15.5	29.5	15.3	29.9	14.9	30.1	14.6	29.8	14.9	30.2	14.6	30.6	14.2	29.3	15.5	29.5	15.2	30.1	14.7	30.5	14.2	29.9	14.9
Hour 4	28.8	29.3	- 0.5	32.8	- 3.9	34.5	- 5.7	29.1	- 0.2	28.6	0.2	30.9	- 2.1	29.4	- 0.6	29.5	- 0.7	28.7	0.1	29.1	- 0.3	28.6	0.2	30.0	- 1.2
11	51.0	38.6	12.4	43.7	7.3	43.6	7.3	36.6	14.3	40.9	10.0	41.7	9.2	43.0	8.0	37.5	13.4	40.4	10.5	42.2	8.8	36.7	14.3	40.5	10.5



CONCEPT 3

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

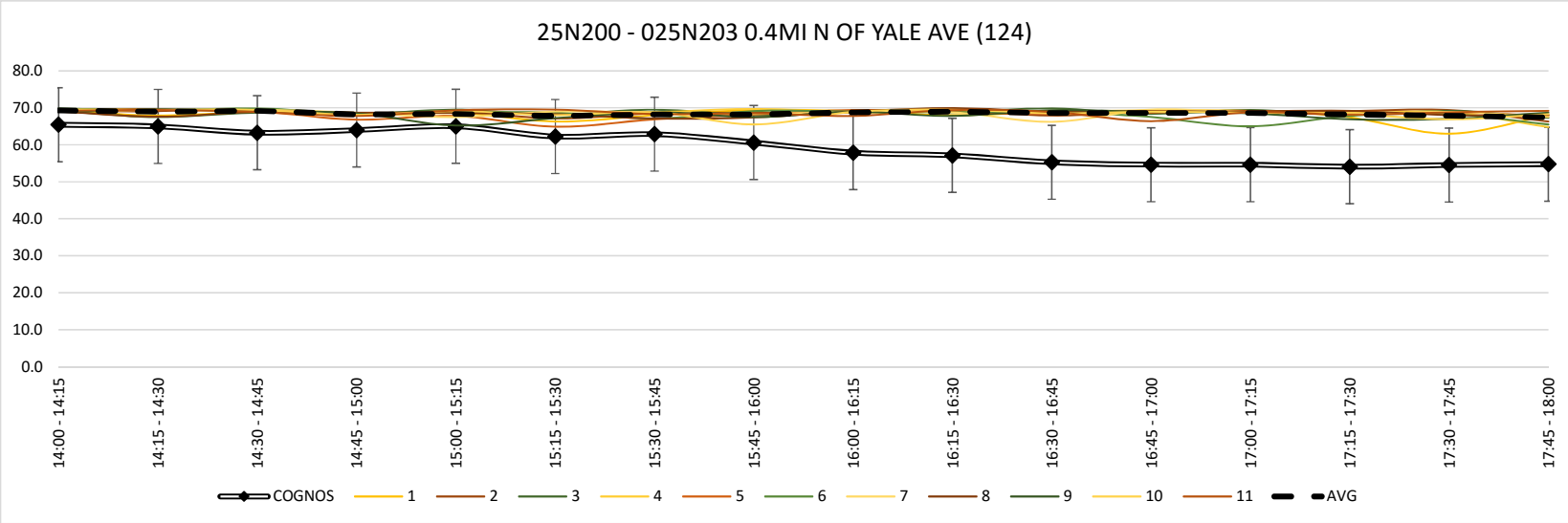
PM	COGNOS	MODEL																						AGGREGATE	
TIME	25N150	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	65.9	70.0	- 4.1	69.9	- 4.0	69.6	- 3.7	69.9	- 4.0	69.2	- 3.3	69.9	- 4.0	69.4	- 3.5	69.9	- 4.0	69.6	- 3.7	69.7	- 3.8	69.1	- 3.2	69.7	- 3.8
14:15 - 14:30	64.6	69.8	- 5.2	68.8	- 4.2	68.9	- 4.3	69.2	- 4.6	69.6	- 5.0	69.6	- 5.0	68.6	- 4.0	70.3	- 5.7	67.8	- 3.2	69.9	- 5.3	68.6	- 4.0	69.2	- 4.6
14:30 - 14:45	64.9	49.1	15.8	68.9	- 4.0	68.0	- 3.1	45.8	19.1	62.3	2.6	68.2	- 3.3	64.1	0.8	60.1	4.8	67.4	- 2.5	67.7	- 2.8	48.8	16.1	60.9	4.0
14:45 - 15:00	63.4	31.3	32.1	65.8	- 2.5	50.4	13.0	31.2	32.2	66.6	- 3.2	65.8	- 2.5	44.1	19.3	31.0	32.4	65.8	- 2.5	67.1	- 3.7	29.6	33.8	49.9	13.5
15:00 - 15:15	64.9	32.9	32.0	63.7	1.2	62.3	2.6	31.7	33.2	53.5	11.4	54.9	10.0	56.6	8.3	31.3	33.6	38.4	26.5	65.3	- 0.4	31.6	33.3	47.5	17.4
15:15 - 15:30	61.9	30.8	31.1	33.7	28.2	31.9	30.0	31.4	30.5	31.5	30.4	31.2	30.7	35.0	26.9	31.6	30.3	30.4	31.5	31.2	30.7	30.7	31.2	31.8	30.1
15:30 - 15:45	60.7	32.9	27.8	33.1	27.6	32.6	28.1	31.7	29.0	30.1	30.6	31.2	29.5	30.4	30.3	31.3	29.4	31.9	28.8	30.3	30.4	32.2	28.5	31.6	29.1
15:45 - 16:00	61.3	30.1	31.2	33.6	27.7	32.2	29.1	31.7	29.6	32.2	29.1	31.1	30.2	31.4	29.9	32.5	28.8	32.7	28.6	31.4	29.9	31.1	30.2	31.8	29.5
16:00 - 16:15	59.1	31.4	27.7	31.3	27.8	31.8	27.3	30.5	28.6	30.3	28.8	32.0	27.1	32.1	27.0	30.4	28.7	31.8	27.3	32.2	26.9	32.7	26.4	31.5	27.6
16:15 - 16:30	47.6	31.6	16.0	28.6	19.0	29.5	18.1	30.6	17.0	31.2	16.4	30.6	17.0	32.3	15.3	30.8	16.8	31.2	16.4	31.0	16.6	32.1	15.5	30.9	16.7
16:30 - 16:45	41.9	30.1	11.8	31.0	10.9	31.5	10.4	32.6	9.3	32.2	9.7	31.6	10.3	30.8	11.1	30.2	11.7	28.3	13.6	30.8	11.1	32.8	9.1	31.1	10.8
16:45 - 17:00	39.0	29.8	9.2	31.8	7.2	31.0	8.0	29.7	9.3	30.2	8.8	31.2	7.8	32.5	6.5	30.2	8.8	31.6	7.4	31.7	7.3	31.0	8.0	31.0	8.0
17:00 - 17:15	39.6	28.8	10.8	32.2	7.4	32.6	7.0	30.5	9.1	29.4	10.2	32.2	7.4	31.5	8.1	30.5	9.1	29.4	10.2	30.9	8.7	30.3	9.3	30.7	8.9
17:15 - 17:30	35.2	31.6	3.6	30.6	4.6	29.4	5.8	30.4	4.8	29.9	5.3	30.6	4.6	30.3	4.9	28.2	7.0	29.1	6.1	28.3	6.9	29.4	5.8	29.8	5.4
17:30 - 17:45	34.9	28.8	6.1	30.1	4.8	28.4	6.5	29.6	5.3	30.4	4.5	31.2	3.7	30.0	4.9	31.7	3.2	29.5	5.4	29.2	5.7	29.1	5.8	29.8	5.1
17:45 - 18:00	33.3	31.6	1.7	29.8	3.5	29.6	3.7	29.3	4.0	29.9	3.4	30.2	3.1	29.9	3.4	31.4	1.9	30.1	3.2	30.9	2.4	29.0	4.3	30.2	3.1
Hour 1	64.7	55.1	9.6	68.4	- 3.7	64.2	0.5	54.0	10.7	66.9	- 2.2	68.4	- 3.7	61.6	3.1	57.8	6.9	67.7	- 3.0	68.6	- 3.9	54.0	10.7	62.4	2.3
Hour 2	62.2	31.7	30.5	41.0	21.2	39.8	22.5	31.6	30.6	36.8	25.4	37.1	25.1	38.4	23.9	31.7	30.5	33.4	28.9	39.6	22.7	31.4	30.8	35.7	26.5
Hour 3	46.9	30.7	16.2	30.7	16.2	31.0	15.9	30.9	16.0	31.0	15.9	31.4	15.5	31.9	15.0	30.4	16.5	30.7	16.2	31.4	15.5	32.2	14.7	31.1	15.8
Hour 4	35.7	30.2	5.5	30.7	5.1	30.0	5.7	30.0	5.8	29.9	5.8	31.1	4.7	30.4	5.3	30.5	5.3	29.5	6.2	29.8	5.9	29.5	6.3	30.1	5.6
11	52.4	36.9	15.5	42.7	9.7	41.2	11.1	36.6	15.8	41.2	11.2	42.0	10.4	40.6	11.8	37.6	14.8	40.3	12.1	42.4	10.0	36.8	15.6	39.8	12.5



CONCEPT 3

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

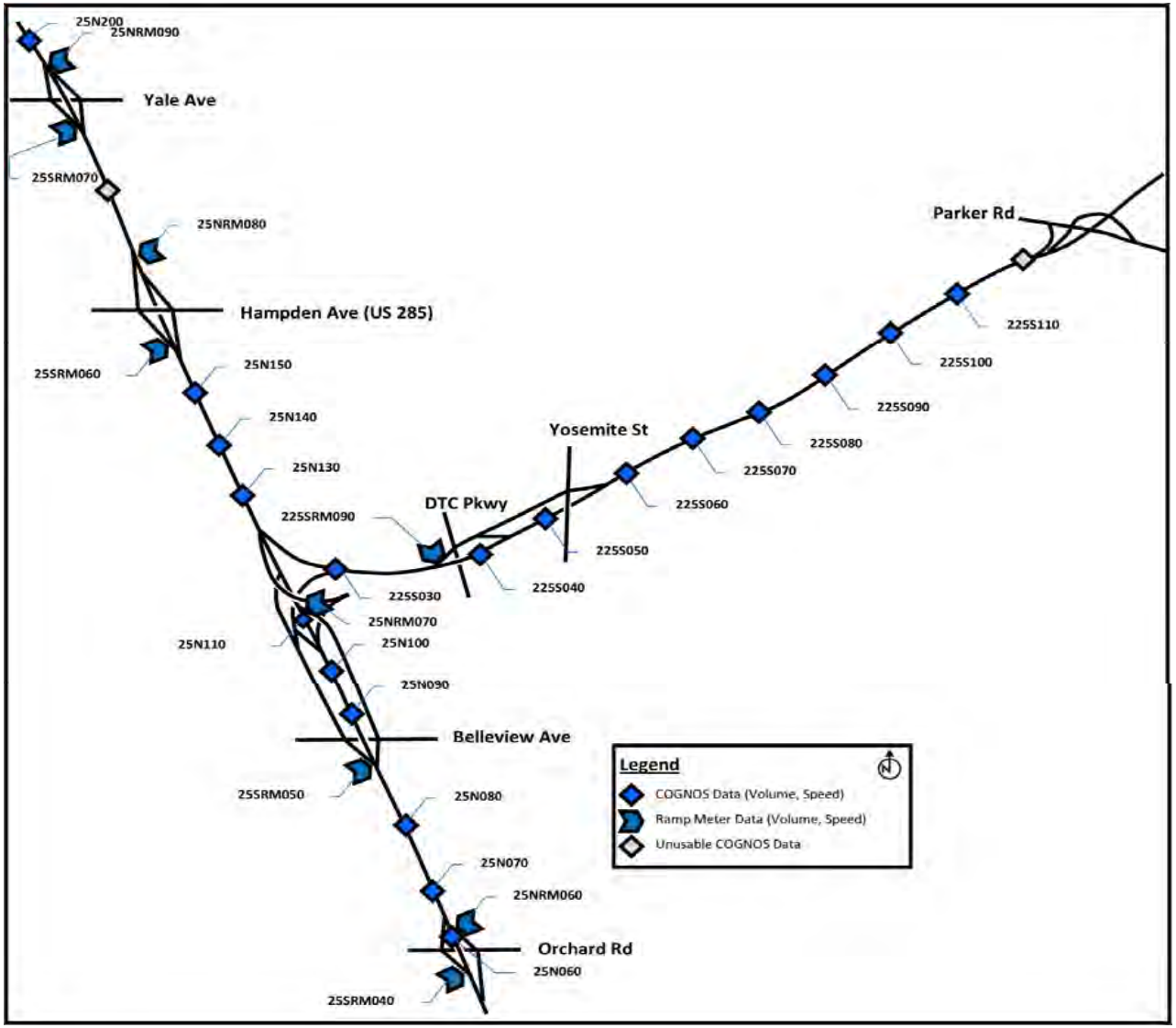
PM	COGNOS	MODEL																						AGGREGATE	
TIME	25N200	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	65.4	69.4	- 4.0	69.1	- 3.7	69.2	- 3.8	69.3	- 3.9	69.7	- 4.3	69.8	- 4.4	69.2	- 3.8	69.0	- 3.6	68.9	- 3.5	69.6	- 4.2	69.2	- 3.8	69.3	- 3.9
14:15 - 14:30	65.0	67.9	- 2.9	69.1	- 4.1	67.5	- 2.5	69.5	- 4.5	69.6	- 4.6	69.4	- 4.4	69.4	- 4.4	67.6	- 2.6	69.6	- 4.6	69.4	- 4.4	69.4	- 4.4	68.9	- 3.9
14:30 - 14:45	63.3	68.9	- 5.6	69.6	- 6.3	68.7	- 5.4	68.9	- 5.6	69.0	- 5.7	69.8	- 6.5	69.5	- 6.2	68.9	- 5.6	69.0	- 5.7	69.4	- 6.1	68.9	- 5.6	69.2	- 5.9
14:45 - 15:00	64.0	68.4	- 4.4	68.5	- 4.5	68.3	- 4.3	68.2	- 4.2	66.8	- 2.8	68.5	- 4.5	68.7	- 4.7	68.7	- 4.7	68.5	- 4.5	68.1	- 4.1	67.8	- 3.8	68.2	- 4.2
15:00 - 15:15	65.0	68.7	- 3.7	69.0	- 4.0	69.5	- 4.5	68.6	- 3.6	67.8	- 2.8	68.7	- 3.7	67.5	- 2.5	68.6	- 3.6	65.2	- 0.2	69.1	- 4.1	69.3	- 4.3	68.4	- 3.4
15:15 - 15:30	62.2	66.3	- 4.1	67.1	- 4.9	68.1	- 5.9	68.3	- 6.1	64.9	- 2.7	68.7	- 6.5	69.0	- 6.8	68.3	- 6.1	67.2	- 5.0	68.0	- 5.8	69.5	- 7.3	67.8	- 5.6
15:30 - 15:45	62.9	68.0	- 5.1	68.5	- 5.6	69.5	- 6.6	68.8	- 5.9	66.9	- 4.0	67.1	- 4.2	68.7	- 5.8	67.1	- 4.2	68.8	- 5.9	68.8	- 5.9	68.3	- 5.4	68.2	- 5.3
15:45 - 16:00	60.6	69.4	- 8.8	68.7	- 8.1	68.0	- 7.4	69.7	- 9.1	68.2	- 7.6	69.1	- 8.5	68.3	- 7.7	67.4	- 6.8	67.5	- 6.9	65.5	- 4.9	68.5	- 7.9	68.2	- 7.6
16:00 - 16:15	57.9	69.1	-11.2	68.7	-10.8	68.9	-11.0	68.7	-10.8	69.4	-11.5	69.0	-11.1	68.9	-11.0	69.0	-11.1	68.9	-11.0	68.9	-11.0	67.8	- 9.9	68.8	-10.9
16:15 - 16:30	57.1	68.0	-10.9	69.1	-12.0	68.9	-11.8	69.1	-12.0	68.9	-11.8	68.8	-11.7	68.8	-11.7	69.9	-12.8	67.8	-10.7	69.5	-12.4	69.4	-12.3	68.9	-11.8
16:30 - 16:45	55.3	68.8	-13.5	67.9	-12.6	69.8	-14.5	69.0	-13.7	68.4	-13.1	69.0	-13.7	66.2	-10.9	69.0	-13.7	69.3	-14.0	68.5	-13.2	68.9	-13.6	68.6	-13.3
16:45 - 17:00	54.6	68.6	-14.0	68.9	-14.3	68.4	-13.8	69.3	-14.7	68.7	-14.1	67.5	-12.9	69.5	-14.9	69.1	-14.5	68.9	-14.3	68.9	-14.3	66.4	-11.8	68.6	-14.0
17:00 - 17:15	54.6	69.3	-14.7	69.1	-14.5	69.4	-14.8	69.2	-14.6	69.2	-14.6	65.0	-10.4	68.8	-14.2	69.0	-14.4	68.5	-13.9	68.7	-14.1	68.8	-14.2	68.6	-14.0
17:15 - 17:30	54.1	67.4	-13.3	69.1	-15.0	68.1	-14.0	68.6	-14.5	68.3	-14.2	67.8	-13.7	68.3	-14.2	69.2	-15.1	66.9	-12.8	68.3	-14.2	68.1	-14.0	68.2	-14.1
17:30 - 17:45	54.5	63.0	- 8.5	69.4	-14.9	69.2	-14.7	68.8	-14.3	68.7	-14.2	68.3	-13.8	68.9	-14.4	68.0	-13.5	67.0	-12.5	66.9	-12.4	68.8	-14.3	67.9	-13.4
17:45 - 18:00	54.8	68.0	-13.2	66.3	-11.5	67.3	-12.5	64.8	-10.0	67.9	-13.1	65.5	-10.7	67.5	-12.7	68.1	-13.3	68.7	-13.9	68.3	-13.5	69.2	-14.4	67.4	-12.6
Hour 1	64.4	68.7	- 4.2	69.1	- 4.7	68.4	- 4.0	69.0	- 4.6	68.8	- 4.4	69.4	- 5.0	69.2	- 4.8	68.6	- 4.1	69.0	- 4.6	69.1	- 4.7	68.8	- 4.4	68.9	- 4.5
Hour 2	62.7	68.1	- 5.4	68.3	- 5.6	68.8	- 6.1	68.9	- 6.2	67.0	- 4.3	68.4	- 5.7	68.4	- 5.7	67.9	- 5.2	67.2	- 4.5	67.9	- 5.2	68.9	- 6.2	68.2	- 5.5
Hour 3	56.2	68.6	-12.4	68.7	-12.4	69.0	-12.8	69.0	-12.8	68.9	-12.6	68.6	-12.4	68.4	-12.1	69.3	-13.0	68.7	-12.5	69.0	-12.7	68.1	-11.9	68.7	-12.5
Hour 4	54.5	66.9	-12.4	68.5	-14.0	68.5	-14.0	67.9	-13.4	68.5	-14.0	66.7	-12.2	68.4	-13.9	68.6	-14.1	67.8	-13.3	68.1	-13.6	68.7	-14.2	68.0	-13.5
11	59.5	68.1	- 8.6	68.6	- 9.2	68.7	- 9.2	68.7	- 9.2	68.3	- 8.8	68.3	- 8.8	68.6	- 9.1	68.6	- 9.1	68.2	- 8.7	68.5	- 9.0	68.6	- 9.2	68.5	- 9.0



AVERAGE VEHICLE SPEEDS - BY LINK

CONCEPT 2: +10% I-225

ROUTE: I-225
PERIOD: AM

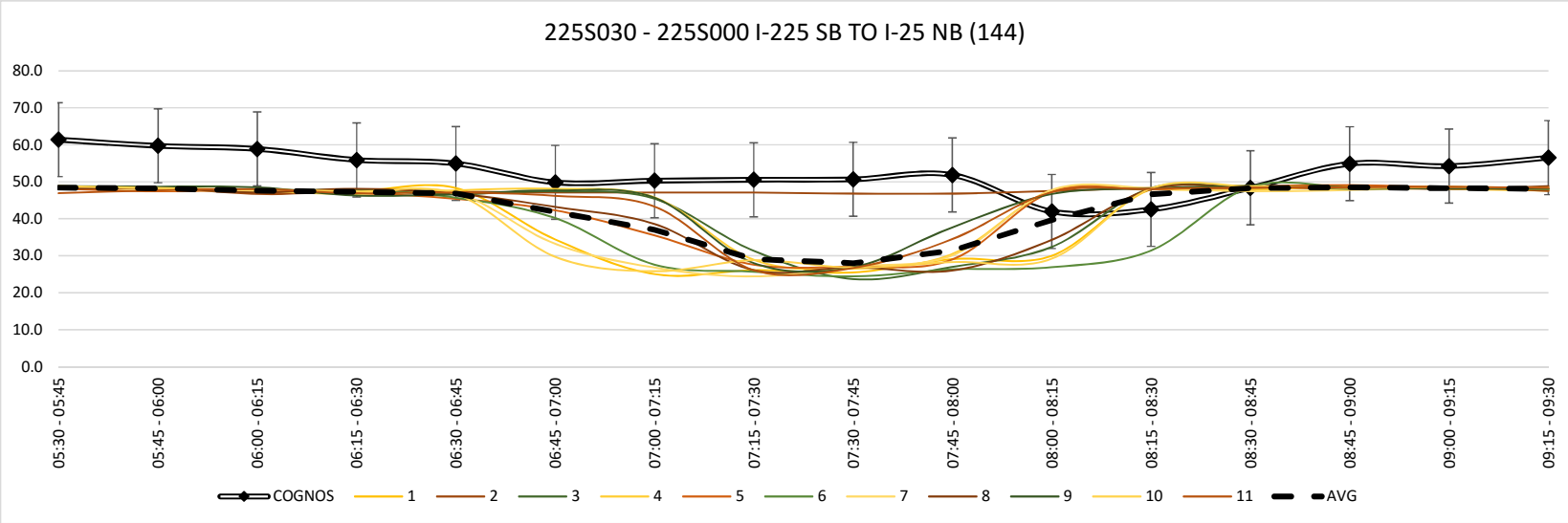


LOCATION	COGNOS DESCRIPTION
225S030	225S000 I-225 SB TO I-25 NB (144)
225SRM090	225S001 TAMARAC
225S040	225S001 YOSEMITE ST TO DTC BLVD (172)
225S050	225S001 YOSEMITE ST (174)
225S060	225S001 PARKER RD TO YOSEMITE ST (176)
225S070	225S001 PARKER RD TO YOSEMITE ST (181)
225S080	225S002 PARKER RD TO YOSEMITE ST (182)
225S090	225S002 PARKER RD TO YOESMEITE ST (183)
225S100	225S002 PARKER RD TO YOSEMITE ST (184)
225S110	225S003 PARKER RD TO YOSEMITE ST (191)

CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

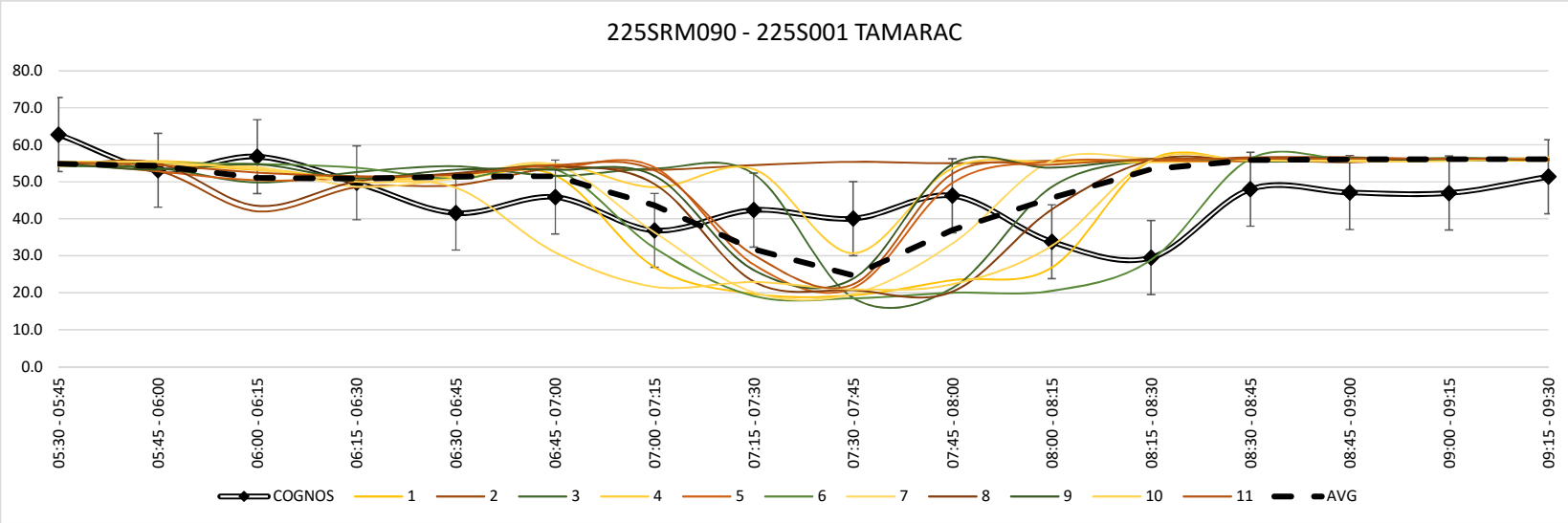
AM	COGNOS	MODEL																						AGGREGATE	
TIME	225S030	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	61.4	48.8	12.6	48.5	12.9	48.7	12.7	48.2	13.2	48.2	13.2	48.3	13.1	48.7	12.7	48.1	13.3	48.8	12.6	48.8	12.6	46.9	14.5	48.4	13.0
05:45 - 06:00	59.7	48.0	11.7	48.5	11.2	48.4	11.3	48.2	11.5	47.4	12.3	48.2	11.5	47.8	11.9	48.3	11.4	48.7	11.0	48.3	11.4	47.7	12.0	48.2	11.5
06:00 - 06:15	58.9	47.6	11.3	46.7	12.2	47.7	11.2	47.5	11.4	47.8	11.1	47.3	11.6	47.5	11.4	47.1	11.8	48.5	10.4	47.9	11.0	48.0	10.9	47.6	11.3
06:15 - 06:30	55.9	47.5	8.4	47.4	8.5	47.6	8.3	46.7	9.2	47.0	8.9	47.9	8.0	47.1	8.8	48.1	7.8	46.3	9.6	47.4	8.5	46.9	9.0	47.3	8.6
06:30 - 06:45	54.9	48.3	6.6	47.3	7.6	46.7	8.2	47.7	7.2	45.4	9.5	45.7	9.2	47.0	7.9	46.8	8.1	46.6	8.3	46.7	8.2	47.1	7.8	46.9	8.0
06:45 - 07:00	49.8	34.4	15.4	47.1	2.7	47.4	2.4	48.1	1.7	42.3	7.5	40.2	9.6	33.2	16.6	43.2	6.6	47.7	2.1	29.7	20.1	46.2	3.6	41.8	8.0
07:00 - 07:15	50.3	25.0	25.3	47.1	3.2	45.4	4.9	45.8	4.5	35.5	14.8	27.6	22.7	26.8	23.5	38.6	11.7	45.7	4.6	25.8	24.5	43.3	7.0	37.0	13.3
07:15 - 07:30	50.5	26.1	24.4	47.1	3.4	31.3	19.2	28.9	21.6	27.6	22.9	25.7	24.8	24.4	26.1	26.1	24.4	28.0	22.5	28.8	21.7	26.1	24.4	29.1	21.4
07:30 - 07:45	50.7	25.5	25.2	46.8	3.9	23.7	27.0	26.5	24.2	27.1	23.6	24.4	26.3	27.1	23.6	26.9	23.8	26.9	23.8	26.8	23.9	26.7	24.0	28.0	22.7
07:45 - 08:00	51.8	29.1	22.7	46.8	5.0	27.0	24.8	30.5	21.3	29.0	22.8	26.3	25.5	30.1	21.7	26.0	25.8	37.7	14.1	28.3	23.5	34.5	17.3	31.4	20.4
08:00 - 08:15	42.0	30.0	12.0	47.5	- 5.5	32.4	9.6	47.6	- 5.6	47.3	- 5.3	26.9	15.1	47.8	- 5.8	34.3	7.7	46.7	- 4.7	29.2	12.8	47.2	- 5.2	39.7	2.3
08:15 - 08:30	42.5	48.0	- 5.5	48.3	- 5.8	48.3	- 5.8	47.9	- 5.4	47.9	- 5.4	31.4	11.1	48.3	- 5.8	48.0	- 5.5	48.2	- 5.7	48.2	- 5.7	48.1	- 5.6	46.6	- 4.1
08:30 - 08:45	48.4	48.1	0.3	48.2	0.2	48.4	- 0.0	47.8	0.6	48.8	- 0.4	48.6	- 0.2	47.4	1.0	48.5	- 0.1	48.9	- 0.5	48.8	- 0.4	48.4	- 0.0	48.3	0.1
08:45 - 09:00	54.9	48.9	6.0	48.4	6.5	48.6	6.3	48.8	6.1	49.1	5.8	48.5	6.4	47.8	7.1	48.5	6.4	48.1	6.8	48.3	6.6	48.5	6.4	48.5	6.4
09:00 - 09:15	54.3	48.1	6.2	48.7	5.6	48.1	6.2	48.1	6.2	48.4	5.9	48.4	5.9	48.3	6.0	48.1	6.2	48.3	6.0	48.6	5.7	48.6	5.7	48.3	6.0
09:15 - 09:30	56.5	47.6	8.9	47.5	9.0	48.1	8.4	48.3	8.2	47.9	8.6	48.0	8.5	48.3	8.2	48.8	7.7	48.2	8.3	48.4	8.1	48.4	8.1	48.1	8.4
Hour 1	59.0	48.0	11.0	47.8	11.2	48.1	10.9	47.7	11.3	47.6	11.4	47.9	11.0	47.8	11.2	47.9	11.1	48.1	10.9	48.1	10.9	47.4	11.6	47.9	11.1
Hour 2	51.4	33.5	18.0	47.2	4.3	42.7	8.7	42.6	8.8	37.7	13.7	34.8	16.6	32.9	18.6	38.7	12.7	42.0	9.4	32.8	18.7	40.7	10.7	38.7	12.7
Hour 3	46.8	33.2	13.6	47.4	- 0.6	32.9	13.9	38.1	8.6	37.8	8.9	27.3	19.5	38.3	8.4	33.8	13.0	39.9	6.9	33.1	13.6	39.1	7.6	36.4	10.3
Hour 4	53.5	48.2	5.3	48.2	5.3	48.3	5.2	48.3	5.3	48.6	5.0	48.4	5.1	48.0	5.6	48.5	5.0	48.4	5.1	48.5	5.0	48.5	5.0	48.3	5.2
11	52.7	40.7	12.0	47.6	5.0	43.0	9.7	44.2	8.5	42.9	9.7	39.6	13.1	41.7	10.9	42.2	10.4	44.6	8.1	40.6	12.0	43.9	8.7	42.8	9.8



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

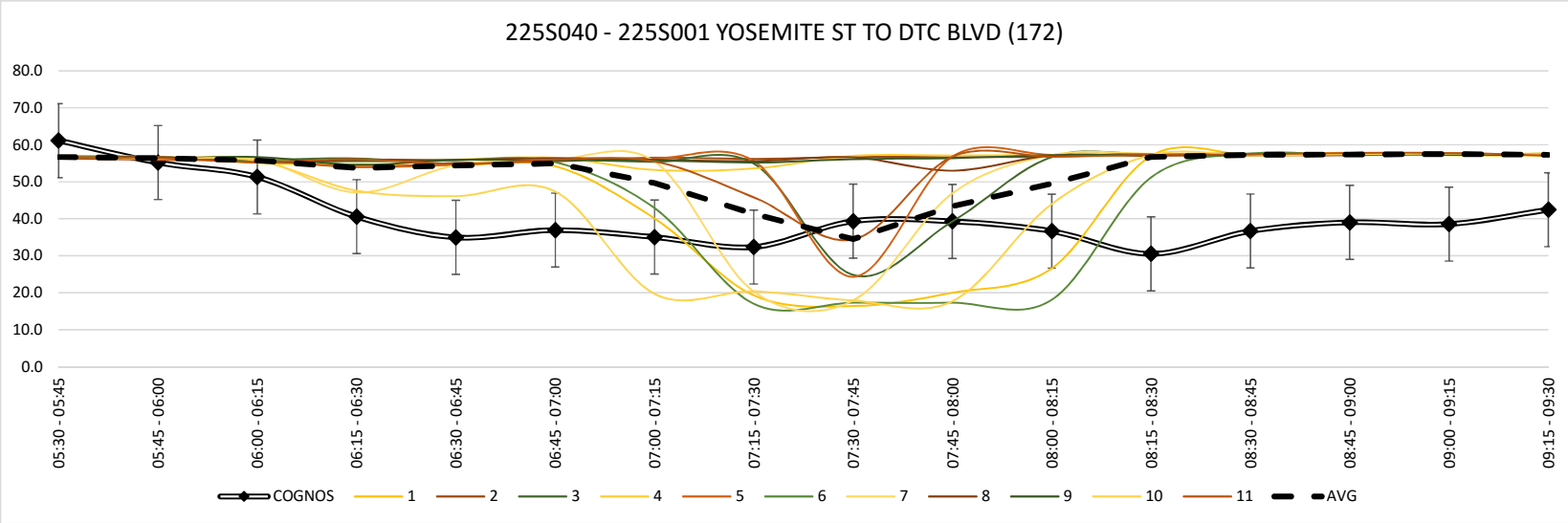
AM	COGNOS	MODEL																						AGGREGATE	
TIME	225SRM090	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	62.8	55.3	7.5	54.9	7.9	54.3	8.5	54.2	8.6	55.1	7.7	54.8	8.0	55.3	7.5	54.7	8.1	54.8	8.0	55.4	7.4	55.3	7.5	54.9	7.9
05:45 - 06:00	53.1	54.8	- 1.7	53.0	0.1	53.7	- 0.6	55.6	- 2.5	52.8	0.3	55.0	- 1.9	54.6	- 1.5	55.0	- 1.9	53.3	- 0.2	55.3	- 2.2	54.5	- 1.4	54.3	- 1.2
06:00 - 06:15	56.8	53.2	3.6	42.0	14.8	49.8	7.0	53.8	3.0	50.4	6.4	54.8	2.0	54.0	2.8	43.5	13.3	54.7	2.1	53.3	3.5	52.5	4.3	51.1	5.7
06:15 - 06:30	49.7	51.1	- 1.4	48.5	1.2	52.6	- 2.9	50.7	- 1.0	51.0	- 1.3	53.8	- 4.1	48.7	1.0	50.1	- 0.4	50.9	- 1.2	50.0	- 0.3	51.5	- 1.8	50.8	- 1.1
06:30 - 06:45	41.6	50.8	- 9.3	49.1	- 7.6	54.2	-12.7	51.5	-10.0	52.1	-10.6	50.8	- 9.3	50.9	- 9.4	52.3	-10.8	53.3	-11.8	48.4	- 6.9	51.9	-10.4	51.4	- 9.9
06:45 - 07:00	45.9	51.7	- 5.8	53.7	- 7.8	51.6	- 5.7	54.8	- 8.9	53.8	- 7.9	53.4	- 7.5	54.5	- 8.6	54.2	- 8.3	53.2	- 7.3	30.9	15.0	54.5	- 8.6	51.5	- 5.6
07:00 - 07:15	36.9	26.9	10.0	53.2	-16.4	53.6	-16.8	48.5	-11.7	53.9	-17.1	32.1	4.8	36.3	0.6	49.4	-12.6	51.6	-14.8	21.6	15.3	53.1	-16.3	43.6	- 6.8
07:15 - 07:30	42.4	19.7	22.7	54.5	-12.2	52.1	- 9.8	53.4	-11.1	27.6	14.8	19.1	23.3	20.1	22.3	23.0	19.4	26.1	16.3	22.9	19.5	30.2	12.2	31.7	10.7
07:30 - 07:45	40.0	19.3	20.7	55.4	-15.4	18.6	21.4	30.7	9.3	21.3	18.7	18.5	21.5	19.7	20.3	20.7	19.3	23.8	16.2	20.9	19.1	22.3	17.7	24.7	15.3
07:45 - 08:00	46.2	23.4	22.8	55.0	- 8.8	21.3	24.9	53.7	- 7.5	49.7	- 3.5	20.0	26.2	33.3	12.9	20.3	25.9	54.8	- 8.6	22.3	23.9	52.2	- 6.0	36.9	9.3
08:00 - 08:15	33.8	26.8	7.0	55.7	-21.9	48.6	-14.8	55.3	-21.5	55.5	-21.7	20.5	13.3	55.7	-21.9	42.5	- 8.7	53.8	-20.0	32.7	1.1	54.6	-20.8	45.6	-11.8
08:15 - 08:30	29.5	55.9	-26.4	55.5	-26.0	55.8	-26.3	55.3	-25.8	55.7	-26.2	28.9	0.6	56.3	-26.8	55.8	-26.3	56.2	-26.7	55.8	-26.3	56.1	-26.6	53.4	-23.9
08:30 - 08:45	48.0	55.6	- 7.6	56.6	- 8.6	55.5	- 7.5	55.6	- 7.6	55.6	- 7.6	56.2	- 8.2	55.9	- 7.9	55.9	- 7.9	55.9	- 7.9	55.8	- 7.8	56.2	- 8.2	55.9	- 7.9
08:45 - 09:00	47.1	56.2	- 9.1	56.6	- 9.5	55.6	- 8.5	55.9	- 8.8	56.1	- 9.0	56.0	- 8.9	55.8	- 8.7	55.3	- 8.2	56.5	- 9.4	55.5	- 8.4	56.3	- 9.2	56.0	- 8.9
09:00 - 09:15	47.0	56.0	- 9.0	56.0	- 9.0	56.2	- 9.2	56.0	- 9.0	56.3	- 9.3	56.4	- 9.4	56.0	- 9.0	56.3	- 9.3	55.7	- 8.7	55.6	- 8.6	56.2	- 9.2	56.1	- 9.1
09:15 - 09:30	51.4	55.6	- 4.2	56.0	- 4.6	55.8	- 4.4	56.2	- 4.8	55.9	- 4.5	56.3	- 4.9	56.1	- 4.7	55.9	- 4.5	56.3	- 4.9	56.6	- 5.2	56.1	- 4.7	56.1	- 4.7
Hour 1	55.6	53.6	2.0	49.6	6.0	52.6	3.0	53.6	2.0	52.3	3.3	54.6	1.0	53.2	2.4	50.8	4.8	53.4	2.2	53.5	2.1	53.5	2.1	52.8	2.8
Hour 2	41.7	37.3	4.4	52.6	-11.0	52.9	-11.2	52.1	-10.4	46.9	- 5.2	38.9	2.8	40.5	1.2	44.7	- 3.1	46.1	- 4.4	31.0	10.7	47.4	- 5.8	44.6	- 2.9
Hour 3	37.4	31.4	6.0	55.4	-18.0	36.1	1.3	48.8	-11.4	45.6	- 8.2	22.0	15.4	41.3	- 3.9	34.8	2.6	47.2	- 9.8	32.9	4.5	46.3	- 8.9	40.2	- 2.8
Hour 4	48.4	55.9	- 7.5	56.3	- 8.0	55.8	- 7.4	55.9	- 7.6	56.0	- 7.6	56.2	- 7.9	56.0	- 7.6	55.9	- 7.5	56.1	- 7.8	55.9	- 7.5	56.2	- 7.9	56.0	- 7.7
11	45.7	44.5	1.2	53.5	- 7.7	49.3	- 3.6	52.6	- 6.8	50.2	- 4.4	42.9	2.8	47.7	- 2.0	46.6	- 0.8	50.7	- 4.9	43.3	2.4	50.8	- 5.1	48.4	- 2.6



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

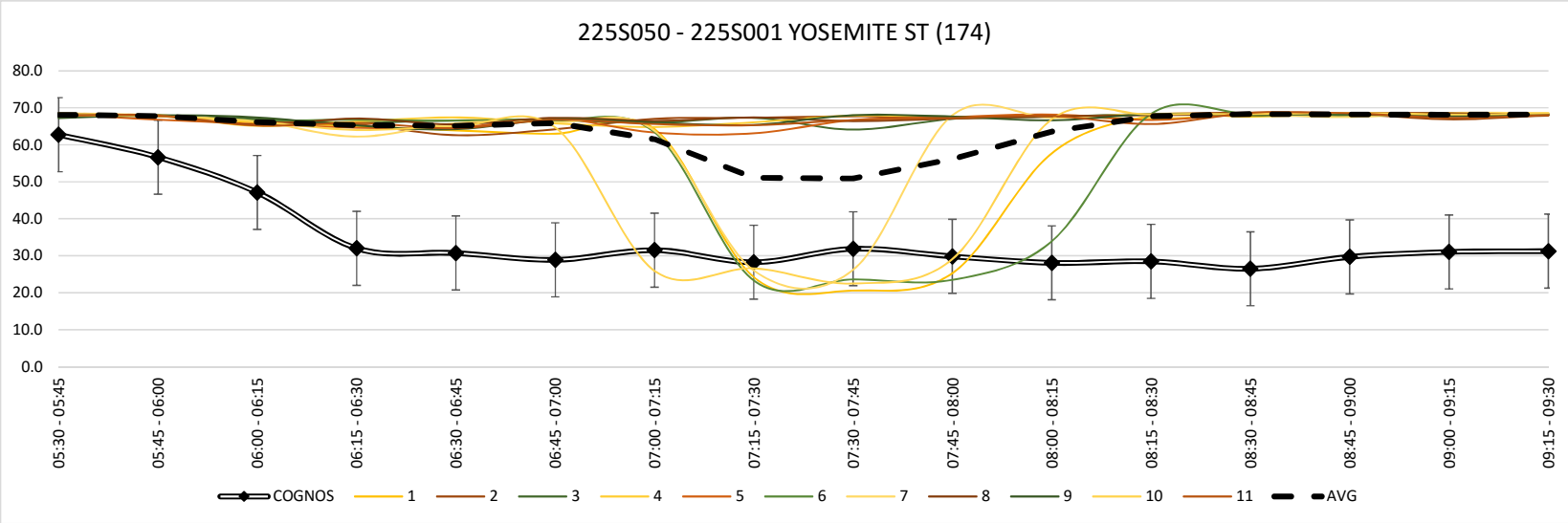
AM	COGNOS	MODEL																						AGGREGATE	
TIME	225S040	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	61.1	56.9	4.2	56.4	4.7	56.5	4.6	57.1	4.0	56.8	4.3	56.9	4.2	56.8	4.3	56.3	4.8	56.8	4.3	56.7	4.4	56.6	4.5	56.7	4.4
05:45 - 06:00	55.2	56.6	- 1.4	55.9	- 0.7	56.5	- 1.3	56.7	- 1.5	56.1	- 0.9	56.7	- 1.5	56.3	- 1.1	56.7	- 1.5	56.3	- 1.1	56.2	- 1.0	56.4	- 1.2	56.4	- 1.2
06:00 - 06:15	51.3	55.1	- 3.8	55.8	- 4.5	56.0	- 4.7	56.0	- 4.7	55.8	- 4.5	55.8	- 4.5	56.1	- 4.8	55.3	- 4.0	56.7	- 5.4	55.7	- 4.4	55.3	- 4.0	55.8	- 4.5
06:15 - 06:30	40.6	54.6	-14.0	54.0	-13.4	56.3	-15.7	55.5	-14.9	54.1	-13.5	55.5	-14.9	47.1	- 6.5	55.9	-15.3	54.6	-14.0	47.6	- 7.0	56.1	-15.5	53.7	-13.1
06:30 - 06:45	35.0	54.4	-19.4	55.1	-20.1	54.9	-19.9	56.0	-21.0	54.6	-19.6	55.9	-20.9	54.5	-19.5	55.9	-20.9	55.9	-20.9	46.1	-11.1	54.8	-19.8	54.4	-19.4
06:45 - 07:00	36.9	54.2	-17.3	55.5	-18.6	55.9	-19.0	56.5	-19.6	55.8	-18.9	55.3	-18.4	56.0	-19.1	56.4	-19.5	55.8	-18.9	47.4	-10.5	56.0	-19.1	55.0	-18.1
07:00 - 07:15	35.1	40.1	- 5.1	56.5	-21.5	55.4	-20.4	53.2	-18.2	56.3	-21.3	42.9	- 7.9	55.5	-20.5	56.0	-21.0	55.8	-20.8	19.7	15.4	55.5	-20.5	49.7	-14.7
07:15 - 07:30	32.4	19.3	13.1	56.2	-23.8	54.9	-22.5	53.6	-21.2	55.6	-23.2	17.0	15.4	20.3	12.1	55.6	-23.2	55.2	-22.8	20.4	12.0	45.8	-13.4	41.3	- 8.9
07:30 - 07:45	39.4	16.4	23.0	56.7	-17.4	24.8	14.6	57.0	-17.7	24.3	15.1	17.3	22.1	17.9	21.5	56.6	-17.3	56.1	-16.8	17.9	21.5	34.4	5.0	34.5	4.9
07:45 - 08:00	39.3	20.0	19.3	56.7	-17.4	39.3	- 0.0	57.1	-17.8	56.8	-17.5	17.3	22.0	46.9	- 7.6	53.0	-13.7	56.4	-17.1	17.7	21.6	56.8	-17.5	43.4	- 4.1
08:00 - 08:15	36.7	26.6	10.1	56.8	-20.2	56.7	-20.1	57.2	-20.6	57.3	-20.7	18.1	18.6	57.2	-20.6	57.1	-20.5	57.2	-20.6	44.0	- 7.4	56.8	-20.2	49.5	-12.9
08:15 - 08:30	30.5	57.0	-26.5	57.4	-26.9	57.4	-26.9	57.2	-26.7	57.2	-26.7	51.2	-20.7	57.6	-27.1	57.0	-26.5	57.4	-26.9	57.2	-26.7	57.3	-26.8	56.7	-26.2
08:30 - 08:45	36.7	57.3	-20.6	57.2	-20.5	57.6	-20.9	57.2	-20.5	57.2	-20.5	57.6	-20.9	57.1	-20.4	57.4	-20.7	57.2	-20.5	57.2	-20.5	57.4	-20.7	57.3	-20.6
08:45 - 09:00	39.0	57.4	-18.4	57.3	-18.3	57.4	-18.4	57.9	-18.9	57.3	-18.3	57.2	-18.2	57.3	-18.3	57.2	-18.2	57.4	-18.4	57.4	-18.4	57.8	-18.8	57.4	-18.4
09:00 - 09:15	38.6	57.2	-18.6	57.6	-19.0	57.3	-18.7	57.3	-18.7	57.5	-18.9	57.6	-19.0	57.3	-18.7	57.6	-19.0	57.3	-18.7	57.6	-19.0	57.8	-19.2	57.5	-18.9
09:15 - 09:30	42.4	57.1	-14.7	57.1	-14.7	57.6	-15.2	57.7	-15.3	57.3	-14.9	57.4	-15.0	57.3	-14.9	57.2	-14.8	57.3	-14.9	57.4	-15.0	57.1	-14.7	57.3	-14.9
Hour 1	52.1	55.8	- 3.7	55.5	- 3.5	56.3	- 4.3	56.3	- 4.3	55.7	- 3.6	56.2	- 4.2	54.1	- 2.0	56.1	- 4.0	56.1	- 4.0	54.1	- 2.0	56.1	- 4.0	55.7	- 3.6
Hour 2	34.8	42.0	- 7.2	55.8	-21.0	55.3	-20.4	54.8	-20.0	55.6	-20.7	42.8	- 7.9	46.6	-11.7	56.0	-21.1	55.7	-20.8	33.4	1.4	53.0	-18.2	50.1	-15.3
Hour 3	36.5	30.0	6.5	56.9	-20.5	44.6	- 8.1	57.1	-20.7	48.9	-12.5	26.0	10.5	44.9	- 8.5	55.9	-19.5	56.8	-20.3	34.2	2.3	51.3	-14.9	46.0	- 9.6
Hour 4	39.2	57.3	-18.1	57.3	-18.1	57.5	-18.3	57.5	-18.3	57.3	-18.1	57.5	-18.3	57.3	-18.1	57.4	-18.2	57.3	-18.1	57.4	-18.2	57.5	-18.3	57.4	-18.2
11	40.6	46.3	- 5.6	56.4	-15.8	53.4	-12.8	56.5	-15.8	54.4	-13.7	45.6	- 5.0	50.7	-10.1	56.3	-15.7	56.5	-15.8	44.8	- 4.1	54.5	-13.9	52.3	-11.7



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

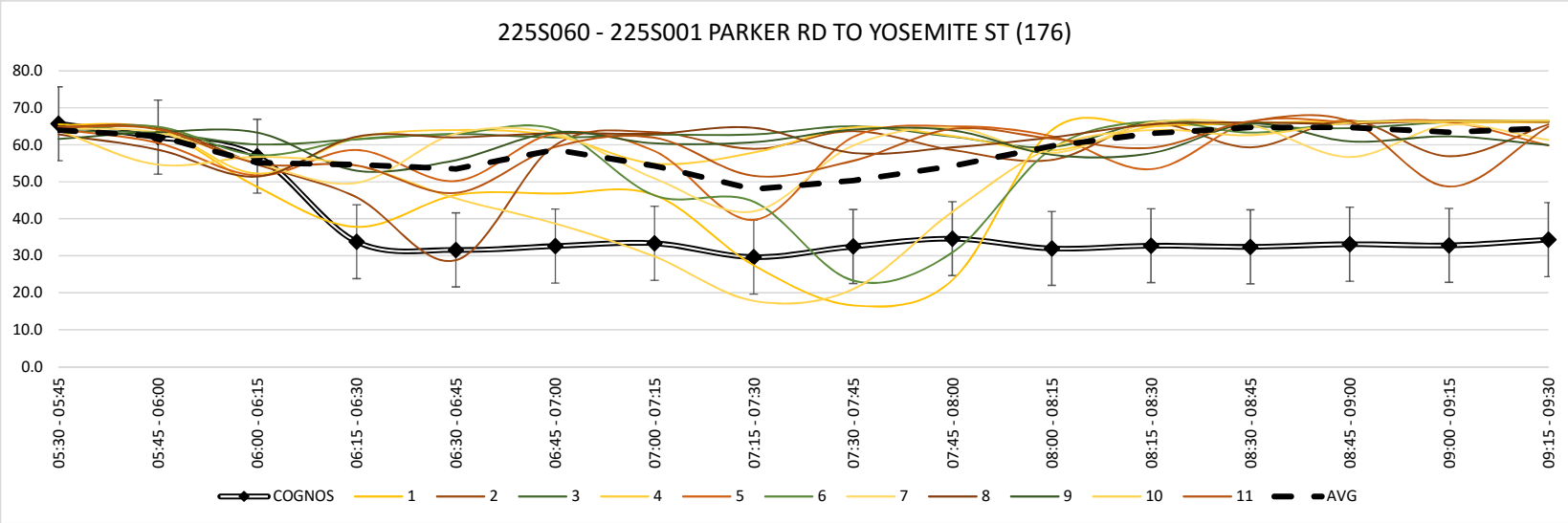
AM	COGNOS	MODEL																						AGGREGATE	
TIME	225S050	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	62.7	68.2	- 5.5	68.3	- 5.6	68.1	- 5.4	68.1	- 5.4	68.3	- 5.6	67.9	- 5.2	68.6	- 5.9	68.2	- 5.5	67.2	- 4.5	68.0	- 5.3	67.9	- 5.2	68.1	- 5.4
05:45 - 06:00	56.7	68.0	-11.4	67.9	-11.3	67.7	-11.1	67.8	-11.2	66.8	-10.2	67.9	-11.3	67.9	-11.3	67.8	-11.2	68.0	-11.4	67.8	-11.2	67.9	-11.3	67.8	-11.2
06:00 - 06:15	47.1	66.0	-18.9	66.4	-19.3	67.0	-19.9	65.1	-18.0	65.6	-18.5	66.6	-19.5	66.3	-19.2	65.4	-18.3	67.4	-20.3	66.2	-19.1	65.2	-18.1	66.1	-19.0
06:15 - 06:30	32.0	65.1	-33.1	65.5	-33.5	66.0	-34.0	66.3	-34.3	64.6	-32.6	66.8	-34.8	62.2	-30.2	67.1	-35.1	65.2	-33.2	64.0	-32.0	65.9	-33.9	65.3	-33.3
06:30 - 06:45	30.7	63.9	-33.2	62.6	-31.9	66.6	-35.9	67.4	-36.7	64.6	-33.9	66.5	-35.8	65.8	-35.1	65.5	-34.8	64.2	-33.5	65.0	-34.3	64.5	-33.8	65.1	-34.4
06:45 - 07:00	28.9	63.0	-34.1	64.2	-35.3	66.6	-37.7	65.8	-36.9	67.1	-38.2	66.7	-37.8	66.1	-37.2	67.3	-38.4	66.9	-38.0	64.7	-35.8	66.8	-37.9	65.9	-37.0
07:00 - 07:15	31.5	64.3	-32.8	67.0	-35.5	66.0	-34.5	64.8	-33.3	63.3	-31.8	63.4	-31.9	63.8	-32.3	66.5	-35.0	66.0	-34.5	25.9	5.6	65.6	-34.1	61.5	-30.0
07:15 - 07:30	28.3	24.2	4.1	67.3	-39.1	67.3	-39.1	66.1	-37.9	63.1	-34.9	23.3	5.0	26.0	2.3	67.4	-39.2	65.4	-37.2	26.6	1.7	65.3	-37.1	51.1	-22.9
07:30 - 07:45	31.9	20.6	11.3	67.7	-35.8	64.1	-32.2	67.9	-36.0	66.7	-34.8	23.6	8.3	26.2	5.7	66.4	-34.5	68.0	-36.1	22.5	9.4	66.7	-34.8	50.9	-19.0
07:45 - 08:00	29.8	25.3	4.5	67.2	-37.4	67.0	-37.2	67.6	-37.8	67.5	-37.7	23.5	6.3	68.0	-38.2	67.1	-37.3	67.6	-37.8	29.1	0.7	67.2	-37.4	56.1	-26.3
08:00 - 08:15	28.1	57.7	-29.6	67.6	-39.5	67.6	-39.5	67.8	-39.7	68.2	-40.1	33.9	- 5.8	67.3	-39.2	67.7	-39.6	66.6	-38.5	66.9	-38.8	67.8	-39.7	63.6	-35.5
08:15 - 08:30	28.5	67.8	-39.3	68.3	-39.8	68.3	-39.8	67.0	-38.5	66.7	-38.2	68.4	-39.9	68.4	-39.9	68.0	-39.5	68.3	-39.8	68.2	-39.7	65.6	-37.1	67.7	-39.2
08:30 - 08:45	26.5	67.6	-41.1	68.7	-42.2	68.0	-41.5	68.3	-41.8	68.3	-41.8	68.3	-41.8	68.2	-41.7	68.3	-41.8	68.1	-41.6	68.3	-41.8	68.6	-42.1	68.3	-41.8
08:45 - 09:00	29.7	68.3	-38.6	68.3	-38.6	67.8	-38.1	68.4	-38.7	68.3	-38.6	68.1	-38.4	67.5	-37.8	68.6	-38.9	68.2	-38.5	68.6	-38.9	68.5	-38.8	68.2	-38.5
09:00 - 09:15	31.0	68.4	-37.4	66.9	-35.9	68.2	-37.2	68.4	-37.4	68.6	-37.6	68.6	-37.6	68.6	-37.6	68.5	-37.5	67.7	-36.7	68.2	-37.2	67.3	-36.3	68.1	-37.1
09:15 - 09:30	31.2	68.0	-36.8	67.9	-36.7	68.1	-36.9	68.4	-37.2	68.0	-36.8	68.4	-37.2	68.6	-37.4	68.1	-36.9	68.1	-36.9	68.5	-37.3	68.0	-36.8	68.2	-37.0
Hour 1	49.6	66.8	-17.2	67.0	-17.4	67.2	-17.6	66.8	-17.2	66.3	-16.7	67.3	-17.7	66.3	-16.6	67.1	-17.5	67.0	-17.3	66.5	-16.9	66.7	-17.1	66.8	-17.2
Hour 2	29.8	53.9	-24.0	65.3	-35.4	66.6	-36.8	66.0	-36.2	64.5	-34.7	55.0	-25.1	55.4	-25.6	66.7	-36.8	65.6	-35.8	45.6	-15.7	65.6	-35.7	60.9	-31.1
Hour 3	29.6	42.9	-13.3	67.7	-38.1	66.8	-37.2	67.6	-38.0	67.3	-37.7	37.4	- 7.8	57.5	-27.9	67.3	-37.7	67.6	-38.1	46.7	-17.1	66.8	-37.3	59.6	-30.0
Hour 4	29.6	68.1	-38.5	68.0	-38.3	68.0	-38.4	68.4	-38.8	68.3	-38.7	68.4	-38.7	68.2	-38.6	68.4	-38.8	68.0	-38.4	68.4	-38.8	68.1	-38.5	68.2	-38.6
11	34.7	57.9	-23.2	67.0	-32.3	67.2	-32.5	67.2	-32.5	66.6	-31.9	57.0	-22.3	61.8	-27.2	67.4	-32.7	67.1	-32.4	56.8	-22.1	66.8	-32.1	63.9	-29.2



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

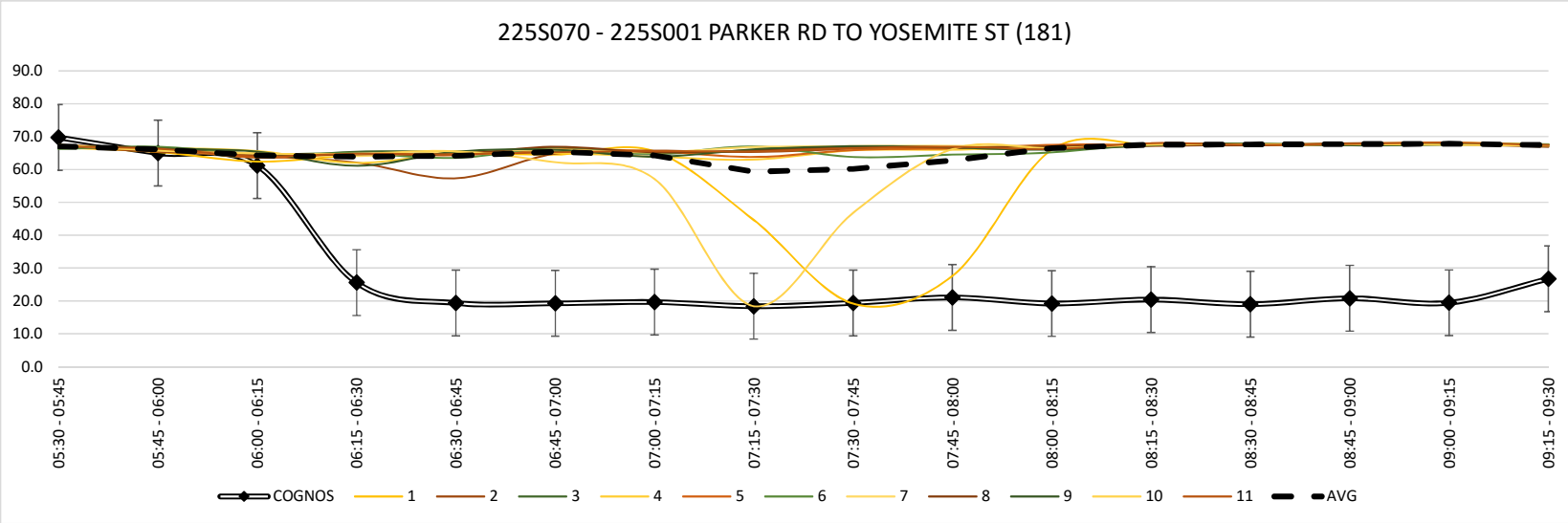
AM	COGNOS	MODEL																						AGGREGATE	
TIME	225S060	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	65.7	65.5	0.2	64.9	0.8	63.7	2.0	64.2	1.5	64.2	1.5	63.7	2.0	64.4	1.3	62.8	2.9	61.6	4.1	63.8	1.9	64.8	0.9	64.0	1.7
05:45 - 06:00	62.1	64.0	- 1.9	64.6	- 2.5	63.2	- 1.1	64.1	- 2.0	60.5	1.6	64.9	- 2.8	63.3	- 1.2	58.7	3.4	63.4	- 1.3	54.6	7.5	64.2	- 2.1	62.3	- 0.2
06:00 - 06:15	56.9	48.6	8.3	54.7	2.2	60.1	- 3.2	52.2	4.7	51.7	5.2	57.2	- 0.3	55.1	1.8	51.4	5.5	63.3	- 6.4	56.7	0.2	55.0	1.9	55.1	1.8
06:15 - 06:30	33.8	37.8	- 4.0	45.8	-12.0	61.5	-27.7	61.9	-28.1	58.6	-24.8	61.5	-27.7	49.7	-15.9	62.2	-28.4	53.0	-19.2	54.4	-20.6	54.4	-20.6	54.6	-20.8
06:30 - 06:45	31.6	46.4	-14.8	28.8	2.8	62.9	-31.3	64.0	-32.4	50.2	-18.6	63.0	-31.4	63.0	-31.4	62.0	-30.4	55.9	-24.3	45.5	-13.9	47.0	-15.4	53.5	-21.9
06:45 - 07:00	32.6	46.8	-14.2	59.9	-27.3	62.0	-29.4	62.4	-29.8	63.1	-30.5	64.2	-31.6	63.0	-30.4	63.1	-30.5	63.4	-30.8	38.7	- 6.1	59.4	-26.8	58.7	-26.1
07:00 - 07:15	33.4	46.4	-13.0	63.4	-30.0	62.7	-29.3	54.9	-21.5	58.3	-24.9	46.3	-12.9	50.9	-17.5	63.0	-29.6	60.4	-27.0	29.8	3.6	61.9	-28.5	54.3	-20.9
07:15 - 07:30	29.6	27.4	2.2	58.9	-29.3	62.8	-33.2	57.9	-28.3	39.7	-10.1	44.6	-15.0	42.0	-12.4	64.6	-35.0	60.7	-31.1	17.8	11.8	51.6	-22.0	48.0	-18.4
07:30 - 07:45	32.5	16.6	15.9	63.7	-31.2	65.0	-32.5	64.7	-32.2	62.1	-29.6	23.3	9.2	59.8	-27.3	57.8	-25.3	64.1	-31.6	21.0	11.5	55.7	-23.2	50.3	-17.8
07:45 - 08:00	34.6	23.4	11.2	58.6	-24.0	62.2	-27.6	62.4	-27.8	65.0	-30.4	30.9	3.7	64.6	-30.0	59.3	-24.7	63.9	-29.3	41.9	- 7.3	64.3	-29.7	54.2	-19.6
08:00 - 08:15	32.0	64.0	-32.0	55.9	-23.9	59.4	-27.4	58.5	-26.5	62.3	-30.3	58.9	-26.9	57.8	-25.8	62.0	-30.0	57.3	-25.3	59.3	-27.3	61.7	-29.7	59.7	-27.7
08:15 - 08:30	32.7	65.0	-32.3	65.8	-33.1	66.2	-33.5	64.9	-32.2	53.4	-20.7	66.3	-33.6	66.0	-33.3	65.5	-32.8	57.7	-25.0	64.0	-31.3	59.2	-26.5	63.1	-30.4
08:30 - 08:45	32.4	65.8	-33.4	59.3	-26.9	65.0	-32.6	65.8	-33.4	66.2	-33.8	63.3	-30.9	65.3	-32.9	66.0	-33.6	65.7	-33.3	62.6	-30.2	66.4	-34.0	64.7	-32.3
08:45 - 09:00	33.1	66.2	-33.1	66.6	-33.5	64.5	-31.4	66.4	-33.3	66.2	-33.1	66.0	-32.9	56.7	-23.6	65.7	-32.6	60.9	-27.8	65.9	-32.8	66.4	-33.3	64.7	-31.6
09:00 - 09:15	32.8	66.5	-33.7	56.9	-24.1	66.1	-33.3	66.0	-33.2	66.2	-33.4	66.4	-33.6	65.4	-32.6	66.5	-33.7	62.3	-29.5	66.4	-33.6	48.7	-15.9	63.4	-30.6
09:15 - 09:30	34.4	66.3	-32.0	65.5	-31.2	66.1	-31.8	66.1	-31.8	59.8	-25.5	66.5	-32.2	61.3	-27.0	66.2	-31.9	59.9	-25.6	66.5	-32.2	64.9	-30.6	64.5	-30.2
Hour 1	54.6	54.0	0.6	57.5	- 2.9	62.1	- 7.5	60.6	- 6.0	58.8	- 4.1	61.8	- 7.2	58.1	- 3.5	58.8	- 4.2	60.3	- 5.7	57.4	- 2.8	59.6	- 5.0	59.0	- 4.4
Hour 2	31.8	41.8	-10.0	52.8	-21.0	62.6	-30.8	59.8	-28.0	52.8	-21.0	54.5	-22.7	54.7	-22.9	63.2	-31.4	60.1	-28.3	33.0	- 1.2	55.0	-23.2	53.6	-21.8
Hour 3	33.0	42.3	- 9.3	61.0	-28.1	63.2	-30.3	62.6	-29.7	60.7	-27.8	44.9	-11.9	62.1	-29.1	61.2	-28.2	60.8	-27.8	46.6	-13.6	60.2	-27.3	56.8	-23.9
Hour 4	33.2	66.2	-33.0	62.1	-28.9	65.4	-32.3	66.1	-32.9	64.6	-31.4	65.6	-32.4	62.2	-29.0	66.1	-32.9	62.2	-29.0	65.4	-32.2	61.6	-28.4	64.3	-31.2
11	38.1	51.0	-12.9	58.3	-20.2	63.3	-25.2	62.3	-24.1	59.2	-21.1	56.7	-18.6	59.3	-21.1	62.3	-24.2	60.8	-22.7	50.6	-12.4	59.1	-21.0	58.4	-20.3



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

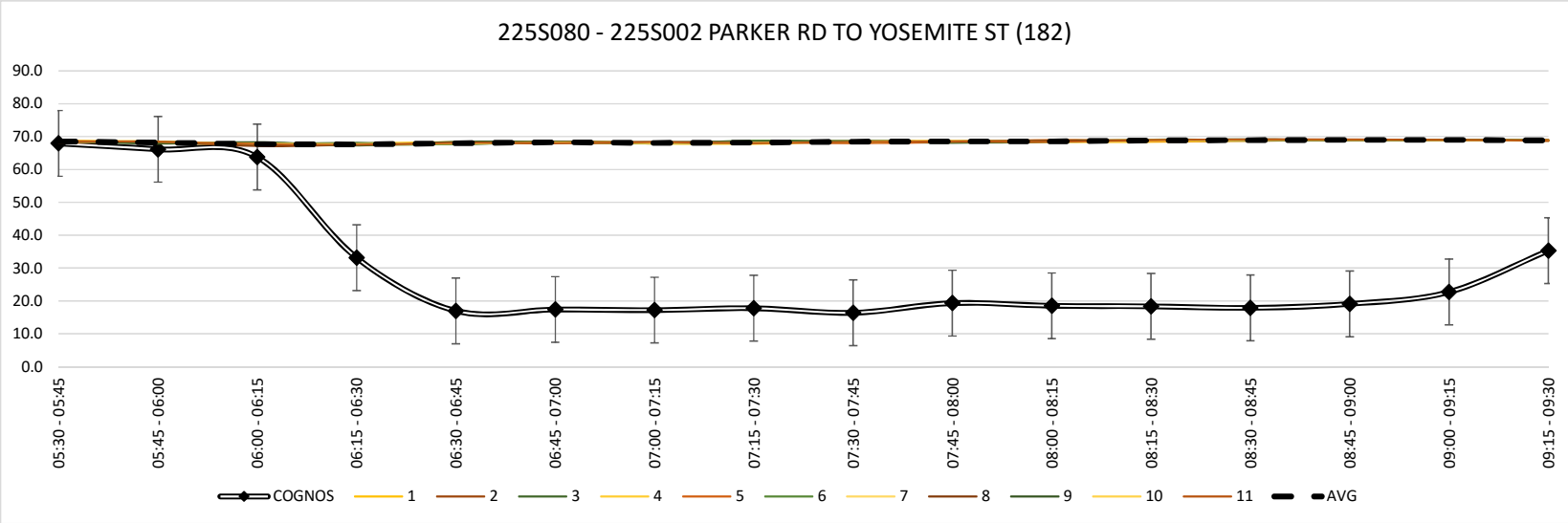
AM	COGNOS	MODEL																						AGGREGATE	
TIME	225S070	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	69.7	66.7	3.0	67.0	2.7	66.8	2.9	67.0	2.7	66.8	2.9	66.2	3.5	67.5	2.2	67.4	2.3	67.2	2.5	67.5	2.2	67.0	2.7	67.0	2.7
05:45 - 06:00	65.0	65.3	- 0.3	65.4	- 0.4	66.3	- 1.3	66.5	- 1.5	66.2	- 1.2	66.9	- 1.9	65.7	- 0.7	66.4	- 1.4	66.4	- 1.4	65.8	- 0.8	66.3	- 1.3	66.1	- 1.1
06:00 - 06:15	61.2	62.4	- 1.2	64.1	- 2.9	63.6	- 2.4	65.6	- 4.4	63.6	- 2.4	64.8	- 3.6	65.0	- 3.8	64.3	- 3.1	65.4	- 4.2	64.8	- 3.6	64.0	- 2.8	64.3	- 3.1
06:15 - 06:30	25.6	64.3	-38.7	62.1	-36.5	65.4	-39.8	62.0	-36.4	64.7	-39.1	64.9	-39.3	64.1	-38.5	64.6	-39.0	61.1	-35.5	64.8	-39.2	64.8	-39.2	63.9	-38.3
06:30 - 06:45	19.4	64.9	-45.5	57.3	-37.9	65.4	-46.0	65.0	-45.6	64.3	-44.9	63.5	-44.1	65.3	-45.9	64.7	-45.3	65.4	-46.0	65.5	-46.1	64.6	-45.2	64.2	-44.8
06:45 - 07:00	19.3	64.5	-45.2	64.8	-45.5	65.4	-46.1	65.0	-45.7	66.1	-46.8	66.7	-47.4	66.0	-46.7	66.9	-47.6	66.0	-46.7	62.2	-42.9	65.2	-45.9	65.4	-46.1
07:00 - 07:15	19.7	65.5	-45.8	65.7	-46.0	64.8	-45.1	63.9	-44.2	65.5	-45.8	64.8	-45.1	65.2	-45.5	65.2	-45.5	63.9	-44.2	57.1	-37.4	65.6	-45.9	64.3	-44.6
07:15 - 07:30	18.4	44.6	-26.2	65.3	-46.9	65.8	-47.4	63.0	-44.6	63.8	-45.4	67.0	-48.6	66.8	-48.4	65.8	-47.4	66.1	-47.7	18.4	0.0	65.5	-47.1	59.3	-40.9
07:30 - 07:45	19.4	19.2	0.2	66.3	-46.9	66.6	-47.2	65.8	-46.4	65.9	-46.5	63.8	-44.4	67.1	-47.7	66.9	-47.5	67.1	-47.7	46.8	-27.4	66.5	-47.1	60.2	-40.8
07:45 - 08:00	21.1	27.6	- 6.5	66.7	-45.6	66.2	-45.1	66.0	-44.9	66.4	-45.3	64.5	-43.4	67.2	-46.1	66.7	-45.6	66.7	-45.6	66.2	-45.1	66.9	-45.8	62.8	-41.7
08:00 - 08:15	19.2	66.0	-46.8	66.7	-47.5	66.6	-47.4	66.9	-47.7	67.5	-48.3	65.2	-46.0	66.9	-47.7	67.0	-47.8	66.0	-46.8	66.5	-47.3	66.2	-47.0	66.5	-47.3
08:15 - 08:30	20.4	67.5	-47.1	67.1	-46.7	67.6	-47.2	67.7	-47.3	67.6	-47.2	67.7	-47.3	67.7	-47.3	67.4	-47.0	67.3	-46.9	67.5	-47.1	68.0	-47.6	67.5	-47.1
08:30 - 08:45	19.0	67.3	-48.3	67.6	-48.6	67.6	-48.6	67.4	-48.4	67.5	-48.5	67.8	-48.8	67.5	-48.5	67.3	-48.3	67.9	-48.9	67.7	-48.7	67.5	-48.5	67.6	-48.6
08:45 - 09:00	20.8	67.7	-46.9	67.8	-47.0	67.4	-46.6	67.9	-47.1	67.5	-46.7	67.7	-46.9	67.6	-46.8	68.0	-47.2	67.3	-46.5	67.7	-46.9	67.8	-47.0	67.7	-46.9
09:00 - 09:15	19.5	68.1	-48.7	67.9	-48.5	67.5	-48.1	68.0	-48.6	67.8	-48.4	67.8	-48.4	67.7	-48.3	67.7	-48.3	67.6	-48.2	67.5	-48.1	68.2	-48.8	67.8	-48.4
09:15 - 09:30	26.7	67.6	-40.9	67.3	-40.6	67.6	-40.9	67.1	-40.4	67.4	-40.7	67.7	-41.0	67.6	-40.9	66.9	-40.2	67.5	-40.8	67.2	-40.5	67.4	-40.7	67.4	-40.7
Hour 1	55.4	64.7	- 9.3	64.7	- 9.3	65.5	-10.2	65.3	- 9.9	65.3	-10.0	65.7	-10.3	65.6	-10.2	65.7	-10.3	65.0	- 9.7	65.7	-10.4	65.5	-10.2	65.3	-10.0
Hour 2	19.2	59.9	-40.7	63.3	-44.1	65.4	-46.2	64.2	-45.0	64.9	-45.7	65.5	-46.3	65.8	-46.6	65.7	-46.5	65.4	-46.2	50.8	-31.6	65.2	-46.0	63.3	-44.1
Hour 3	20.0	45.1	-25.0	66.7	-46.7	66.8	-46.7	66.6	-46.6	66.9	-46.8	65.3	-45.3	67.2	-47.2	67.0	-47.0	66.8	-46.7	61.8	-41.7	66.9	-46.9	64.3	-44.2
Hour 4	21.5	67.7	-46.2	67.7	-46.1	67.5	-46.0	67.6	-46.1	67.6	-46.0	67.8	-46.2	67.6	-46.1	67.5	-46.0	67.6	-46.1	67.5	-46.0	67.7	-46.2	67.6	-46.1
11	29.0	59.3	-30.3	65.6	-36.5	66.3	-37.3	65.9	-36.9	66.2	-37.1	66.1	-37.0	66.6	-37.5	66.5	-37.4	66.2	-37.2	61.5	-32.4	66.3	-37.3	65.1	-36.1



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

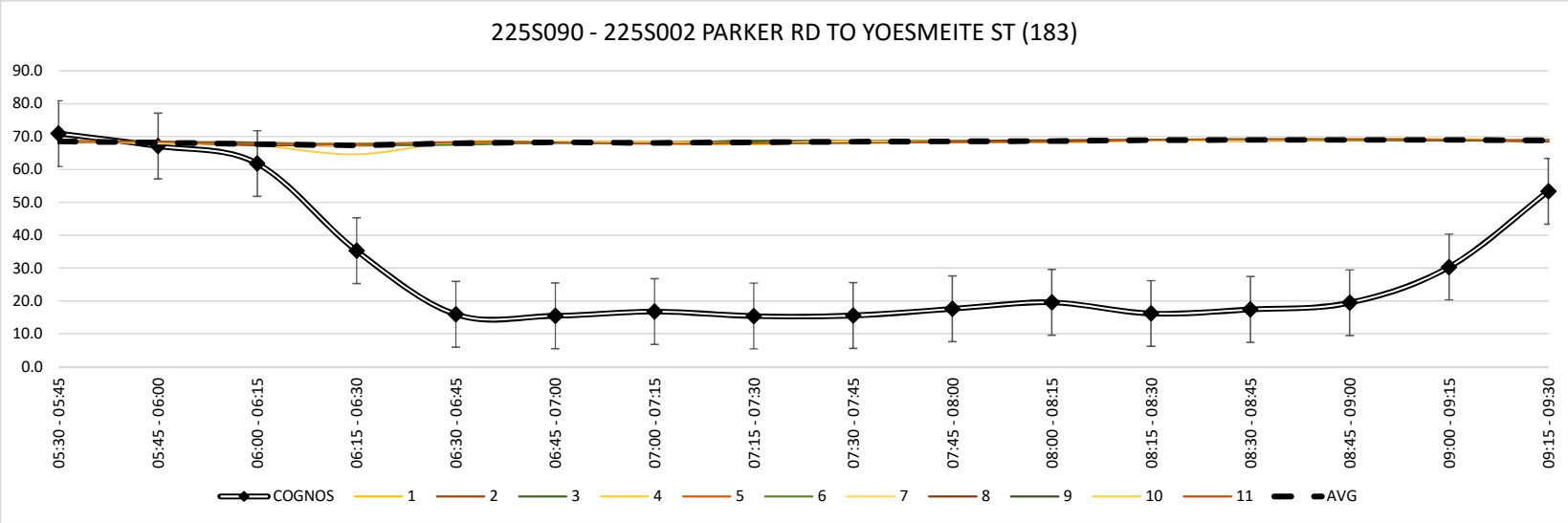
AM	COGNOS	MODEL																						AGGREGATE	
TIME	225S080	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	67.9	68.7	- 0.8	68.4	- 0.5	68.3	- 0.4	68.7	- 0.8	68.1	- 0.2	68.4	- 0.5	68.6	- 0.7	68.4	- 0.5	68.6	- 0.7	68.7	- 0.8	68.6	- 0.7	68.5	- 0.6
05:45 - 06:00	66.1	68.5	- 2.4	68.2	- 2.1	68.4	- 2.3	68.1	- 2.0	68.2	- 2.1	68.2	- 2.1	67.9	- 1.8	68.4	- 2.3	67.9	- 1.8	68.4	- 2.3	68.4	- 2.3	68.2	- 2.1
06:00 - 06:15	63.8	67.6	- 3.8	67.8	- 4.0	67.8	- 4.0	67.5	- 3.7	67.7	- 3.9	67.8	- 4.0	67.8	- 4.0	67.1	- 3.3	68.3	- 4.5	67.9	- 4.1	67.7	- 3.9	67.7	- 3.9
06:15 - 06:30	33.2	67.9	-34.8	67.6	-34.5	68.1	-35.0	67.4	-34.3	67.5	-34.4	67.5	-34.4	67.3	-34.2	67.5	-34.4	67.3	-34.2	67.8	-34.7	67.5	-34.4	67.6	-34.5
06:30 - 06:45	17.0	68.3	-51.3	68.0	-51.0	67.7	-50.7	68.1	-51.1	67.8	-50.8	67.7	-50.7	68.1	-51.1	68.0	-51.0	68.4	-51.4	67.9	-50.9	68.1	-51.1	68.0	-51.0
06:45 - 07:00	17.4	68.4	-51.0	68.2	-50.8	68.2	-50.8	68.5	-51.1	68.1	-50.7	68.3	-50.9	68.2	-50.8	68.4	-51.0	68.4	-51.0	68.2	-50.8	68.0	-50.6	68.3	-50.9
07:00 - 07:15	17.2	67.9	-50.7	67.9	-50.7	67.9	-50.7	68.2	-51.0	68.1	-50.9	67.9	-50.7	68.2	-51.0	68.3	-51.1	68.3	-51.1	68.0	-50.8	68.3	-51.1	68.1	-50.9
07:15 - 07:30	17.8	67.8	-50.0	68.2	-50.4	68.2	-50.4	68.1	-50.3	68.3	-50.5	68.8	-51.0	68.3	-50.5	68.4	-50.6	68.4	-50.6	68.1	-50.3	68.0	-50.2	68.2	-50.4
07:30 - 07:45	16.4	68.5	-52.1	68.1	-51.7	68.4	-52.0	68.3	-51.9	68.0	-51.6	68.6	-52.2	68.7	-52.3	68.4	-52.0	68.7	-52.3	68.3	-51.9	68.3	-51.9	68.4	-52.0
07:45 - 08:00	19.4	68.7	-49.4	68.3	-49.0	68.1	-48.8	68.6	-49.3	68.3	-49.0	68.4	-49.1	68.8	-49.5	68.6	-49.3	68.4	-49.1	68.6	-49.3	68.5	-49.2	68.5	-49.2
08:00 - 08:15	18.5	68.4	-49.9	68.4	-49.9	68.4	-49.9	68.6	-50.1	69.0	-50.5	68.5	-50.0	68.8	-50.3	68.8	-50.3	68.4	-49.9	68.3	-49.8	68.4	-49.9	68.5	-50.0
08:15 - 08:30	18.4	68.4	-50.0	68.8	-50.4	68.9	-50.5	68.8	-50.4	68.6	-50.2	69.1	-50.7	69.0	-50.6	68.9	-50.5	68.8	-50.4	68.7	-50.3	68.9	-50.5	68.8	-50.4
08:30 - 08:45	17.9	68.7	-50.8	68.8	-50.9	69.2	-51.3	68.9	-51.0	68.9	-51.0	69.0	-51.1	68.7	-50.8	68.7	-50.8	68.8	-50.9	68.9	-51.0	69.2	-51.3	68.9	-51.0
08:45 - 09:00	19.1	69.1	-50.0	69.0	-49.9	68.8	-49.7	68.9	-49.8	68.9	-49.8	69.0	-49.9	68.9	-49.8	69.0	-49.9	68.9	-49.8	69.0	-49.9	69.1	-50.0	69.0	-49.9
09:00 - 09:15	22.7	68.9	-46.2	69.1	-46.4	68.8	-46.1	69.0	-46.3	69.0	-46.3	69.1	-46.4	68.9	-46.2	69.0	-46.3	68.9	-46.2	68.9	-46.2	69.0	-46.3	69.0	-46.3
09:15 - 09:30	35.3	68.7	-33.4	68.8	-33.5	68.8	-33.5	68.8	-33.5	69.1	-33.8	68.9	-33.6	68.8	-33.5	68.7	-33.4	68.8	-33.5	68.8	-33.5	68.7	-33.4	68.8	-33.5
Hour 1	57.7	68.2	-10.4	68.0	-10.3	68.2	-10.4	67.9	-10.2	67.9	-10.1	68.0	-10.2	67.9	-10.2	67.9	-10.1	68.0	-10.3	68.2	-10.5	68.1	-10.3	68.0	-10.3
Hour 2	17.3	68.1	-50.8	68.1	-50.7	68.0	-50.7	68.2	-50.9	68.1	-50.7	68.2	-50.8	68.2	-50.9	68.3	-50.9	68.4	-51.0	68.1	-50.7	68.1	-50.8	68.2	-50.8
Hour 3	18.2	68.5	-50.3	68.4	-50.2	68.5	-50.3	68.6	-50.4	68.5	-50.3	68.7	-50.5	68.8	-50.7	68.7	-50.5	68.6	-50.4	68.5	-50.3	68.5	-50.4	68.6	-50.4
Hour 4	23.8	68.9	-45.1	68.9	-45.2	68.9	-45.1	68.9	-45.1	69.0	-45.2	69.0	-45.2	68.8	-45.1	68.9	-45.1	68.9	-45.1	68.9	-45.1	69.0	-45.2	68.9	-45.2
11	29.3	68.4	-39.2	68.4	-39.1	68.4	-39.1	68.4	-39.2	68.4	-39.1	68.5	-39.2	68.4	-39.2	68.4	-39.2	68.5	-39.2	68.4	-39.2	68.4	-39.2	68.4	-39.2



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

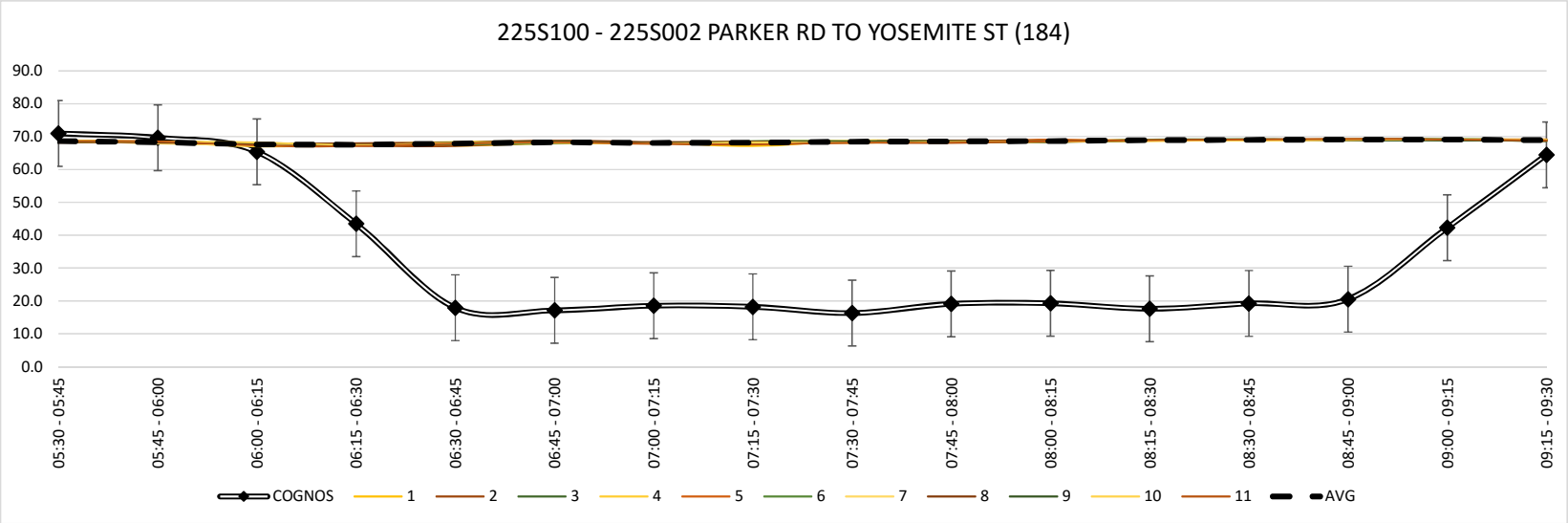
AM	COGNOS	MODEL																						AGGREGATE	
TIME	225S090	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	70.9	68.8	2.1	68.6	2.3	68.3	2.6	68.6	2.3	68.3	2.6	68.4	2.5	68.6	2.3	68.4	2.5	68.5	2.4	68.6	2.3	68.7	2.2	68.5	2.4
05:45 - 06:00	67.1	68.1	- 1.0	68.0	- 0.9	68.3	- 1.2	68.3	- 1.2	68.3	- 1.2	68.4	- 1.3	67.9	- 0.8	68.4	- 1.3	68.3	- 1.2	68.2	- 1.1	68.4	- 1.3	68.2	- 1.1
06:00 - 06:15	61.8	67.9	- 6.1	67.7	- 5.9	67.6	- 5.8	67.3	- 5.5	67.6	- 5.8	68.2	- 6.4	67.5	- 5.7	67.3	- 5.5	68.1	- 6.3	67.8	- 6.0	67.8	- 6.0	67.7	- 5.9
06:15 - 06:30	35.3	67.8	-32.5	67.8	-32.5	67.5	-32.2	64.6	-29.3	67.2	-31.9	67.5	-32.2	67.4	-32.1	67.7	-32.4	67.5	-32.2	67.9	-32.6	67.8	-32.5	67.3	-32.0
06:30 - 06:45	15.9	67.9	-52.0	67.7	-51.8	67.8	-51.9	68.4	-52.5	68.0	-52.1	67.5	-51.6	68.3	-52.4	67.9	-52.0	67.9	-52.0	68.0	-52.1	68.3	-52.4	68.0	-52.1
06:45 - 07:00	15.5	68.4	-52.9	68.2	-52.7	68.1	-52.6	68.4	-52.9	68.3	-52.8	68.2	-52.7	68.3	-52.8	68.5	-53.0	68.4	-52.9	68.5	-53.0	68.2	-52.7	68.3	-52.8
07:00 - 07:15	16.8	67.9	-51.1	68.3	-51.5	68.0	-51.2	68.1	-51.3	68.3	-51.5	68.1	-51.3	68.1	-51.3	68.1	-51.3	68.2	-51.4	68.3	-51.5	67.8	-51.0	68.1	-51.3
07:15 - 07:30	15.4	67.6	-52.2	68.3	-52.9	68.4	-53.0	68.2	-52.8	68.4	-53.0	68.8	-53.4	68.3	-52.9	68.3	-52.9	68.5	-53.1	68.0	-52.6	68.0	-52.6	68.3	-52.9
07:30 - 07:45	15.6	68.5	-53.0	68.2	-52.7	68.6	-53.1	68.3	-52.8	68.2	-52.7	68.6	-53.1	68.7	-53.2	68.4	-52.9	68.7	-53.2	68.6	-53.1	68.0	-52.5	68.4	-52.9
07:45 - 08:00	17.6	68.6	-51.0	68.3	-50.7	68.5	-50.9	68.3	-50.7	68.5	-50.9	68.3	-50.7	68.9	-51.3	68.7	-51.1	68.5	-50.9	68.2	-50.6	68.3	-50.7	68.5	-50.9
08:00 - 08:15	19.6	68.2	-48.7	68.6	-49.1	68.8	-49.3	68.6	-49.1	69.0	-49.5	68.6	-49.1	68.7	-49.2	68.8	-49.3	68.5	-49.0	68.3	-48.8	68.4	-48.9	68.6	-49.1
08:15 - 08:30	16.2	68.8	-52.6	68.8	-52.6	69.0	-52.8	68.8	-52.6	68.9	-52.7	69.0	-52.8	68.9	-52.7	68.9	-52.7	68.9	-52.7	68.8	-52.6	69.0	-52.8	68.9	-52.7
08:30 - 08:45	17.4	68.7	-51.3	69.0	-51.6	69.1	-51.7	69.0	-51.6	68.9	-51.5	69.3	-51.9	68.9	-51.5	68.7	-51.3	69.1	-51.7	68.8	-51.4	69.1	-51.7	69.0	-51.6
08:45 - 09:00	19.5	69.1	-49.7	69.0	-49.6	68.8	-49.4	69.3	-49.9	69.0	-49.6	69.2	-49.8	69.0	-49.6	69.0	-49.6	68.9	-49.5	68.9	-49.5	69.2	-49.8	69.0	-49.6
09:00 - 09:15	30.3	69.2	-38.9	69.0	-38.7	68.8	-38.5	69.2	-38.9	69.0	-38.7	69.1	-38.8	69.0	-38.7	68.9	-38.6	68.9	-38.6	69.1	-38.8	69.0	-38.7	69.0	-38.7
09:15 - 09:30	53.4	68.9	-15.5	68.8	-15.4	68.6	-15.2	68.9	-15.5	69.1	-15.7	68.9	-15.5	68.9	-15.5	68.4	-15.0	69.0	-15.6	68.9	-15.5	68.7	-15.3	68.8	-15.4
Hour 1	58.8	68.2	- 9.4	68.0	- 9.3	67.9	- 9.2	67.2	- 8.4	67.9	- 9.1	68.1	- 9.4	67.9	- 9.1	68.0	- 9.2	68.1	- 9.3	68.1	- 9.4	68.2	- 9.4	67.9	- 9.2
Hour 2	15.9	68.0	-52.1	68.1	-52.2	68.1	-52.2	68.3	-52.4	68.3	-52.4	68.2	-52.3	68.3	-52.4	68.2	-52.3	68.3	-52.4	68.2	-52.3	68.1	-52.2	68.2	-52.3
Hour 3	17.2	68.5	-51.3	68.5	-51.2	68.7	-51.5	68.5	-51.3	68.7	-51.4	68.6	-51.4	68.8	-51.6	68.7	-51.5	68.7	-51.4	68.5	-51.2	68.4	-51.2	68.6	-51.4
Hour 4	30.1	69.0	-38.8	69.0	-38.8	68.8	-38.7	69.1	-39.0	69.0	-38.9	69.1	-39.0	69.0	-38.8	68.8	-38.6	69.0	-38.8	68.9	-38.8	69.0	-38.9	69.0	-38.8
11	30.5	68.4	-37.9	68.4	-37.9	68.4	-37.9	68.3	-37.8	68.4	-37.9	68.5	-38.0	68.5	-38.0	68.4	-37.9	68.5	-38.0	68.4	-37.9	68.4	-37.9	68.4	-37.9



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

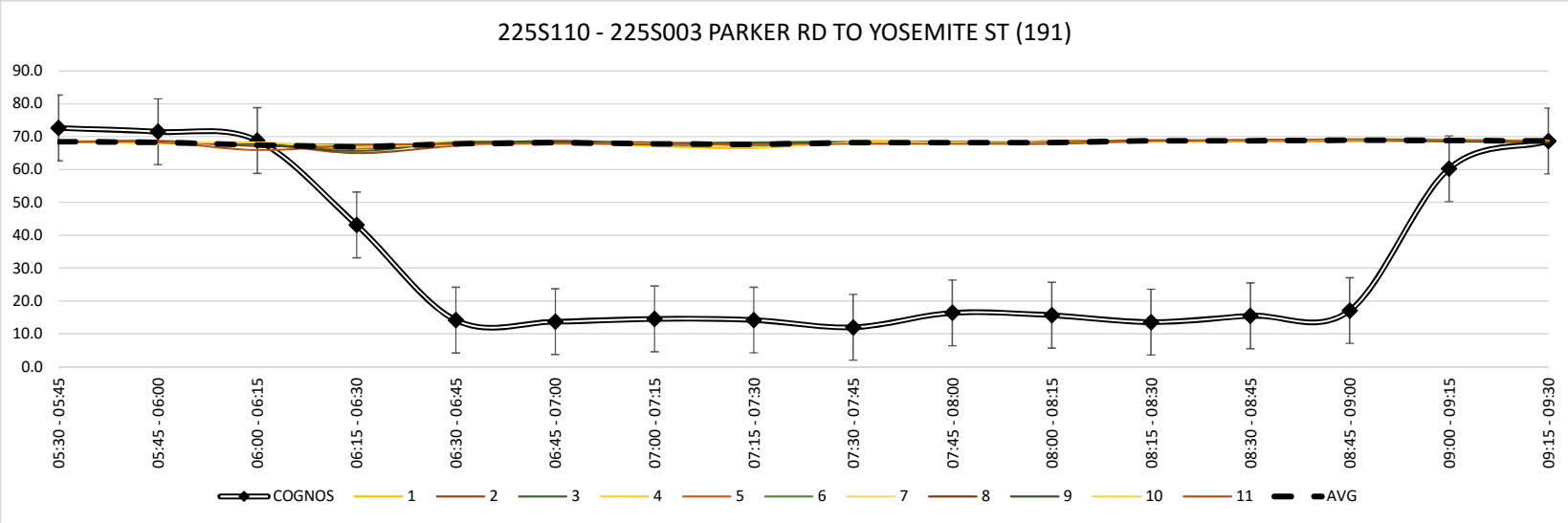
AM	COGNOS	MODEL																						AGGREGATE	
TIME	225S100	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	71.0	68.9	2.1	68.5	2.5	68.5	2.5	68.7	2.3	68.2	2.8	68.3	2.7	68.8	2.2	68.4	2.6	68.6	2.4	68.8	2.2	68.6	2.4	68.6	2.4
05:45 - 06:00	69.6	68.4	1.2	68.1	1.5	68.4	1.2	68.3	1.3	68.3	1.3	68.4	1.2	67.9	1.7	68.2	1.4	68.4	1.2	68.5	1.1	68.5	1.1	68.3	1.3
06:00 - 06:15	65.4	67.6	- 2.3	67.4	- 2.1	67.3	- 2.0	67.0	- 1.7	67.9	- 2.6	67.8	- 2.5	67.4	- 2.1	67.8	- 2.5	68.1	- 2.8	68.2	- 2.9	67.3	- 2.0	67.6	- 2.3
06:15 - 06:30	43.5	67.6	-24.1	67.2	-23.7	67.8	-24.3	67.7	-24.2	67.3	-23.8	67.9	-24.4	67.4	-23.9	68.0	-24.5	67.4	-23.9	67.4	-23.9	67.1	-23.6	67.5	-24.0
06:30 - 06:45	17.9	67.2	-49.3	67.1	-49.2	67.7	-49.8	68.4	-50.5	68.0	-50.1	67.7	-49.8	68.2	-50.3	68.1	-50.2	68.1	-50.2	68.0	-50.1	67.9	-50.0	67.9	-50.0
06:45 - 07:00	17.1	68.0	-50.9	68.3	-51.2	67.9	-50.8	68.5	-51.4	68.4	-51.3	68.3	-51.2	68.2	-51.1	68.8	-51.7	68.5	-51.4	68.1	-51.0	68.3	-51.2	68.3	-51.2
07:00 - 07:15	18.6	68.1	-49.5	68.2	-49.6	68.1	-49.5	68.2	-49.6	68.1	-49.5	68.0	-49.4	68.0	-49.4	68.3	-49.7	68.0	-49.4	67.8	-49.2	67.8	-49.2	68.1	-49.5
07:15 - 07:30	18.2	67.1	-48.9	68.1	-49.9	68.0	-49.8	68.5	-50.3	68.4	-50.2	68.6	-50.4	68.5	-50.3	68.5	-50.3	68.3	-50.1	68.2	-50.0	67.6	-49.4	68.2	-50.0
07:30 - 07:45	16.3	68.7	-52.4	68.3	-52.0	68.5	-52.2	68.6	-52.3	68.4	-52.1	68.7	-52.4	68.6	-52.3	68.4	-52.1	68.5	-52.2	68.1	-51.8	68.1	-51.8	68.4	-52.1
07:45 - 08:00	19.1	68.5	-49.4	68.3	-49.2	68.3	-49.2	68.7	-49.6	68.4	-49.3	68.5	-49.4	68.7	-49.6	68.8	-49.7	68.6	-49.5	68.4	-49.3	68.1	-49.0	68.5	-49.4
08:00 - 08:15	19.3	68.4	-49.1	68.4	-49.1	68.6	-49.3	68.7	-49.4	69.1	-49.8	68.4	-49.1	68.8	-49.5	68.7	-49.4	68.3	-49.0	68.4	-49.1	68.6	-49.3	68.6	-49.3
08:15 - 08:30	17.6	68.7	-51.1	68.8	-51.2	68.8	-51.2	68.9	-51.3	68.8	-51.2	69.1	-51.5	68.9	-51.3	68.9	-51.3	68.9	-51.3	68.8	-51.2	68.9	-51.3	68.9	-51.3
08:30 - 08:45	19.2	68.9	-49.7	69.1	-49.9	69.2	-50.0	68.9	-49.7	69.0	-49.8	69.2	-50.0	68.8	-49.6	69.0	-49.8	69.0	-49.8	68.8	-49.6	69.1	-49.9	69.0	-49.8
08:45 - 09:00	20.5	69.1	-48.6	69.1	-48.6	68.8	-48.3	69.3	-48.8	69.0	-48.5	69.0	-48.5	69.1	-48.6	69.2	-48.7	69.1	-48.6	69.0	-48.5	69.3	-48.8	69.1	-48.6
09:00 - 09:15	42.3	69.0	-26.7	69.2	-26.9	68.9	-26.6	69.0	-26.7	69.1	-26.8	69.3	-27.0	69.1	-26.8	69.0	-26.7	68.8	-26.5	69.2	-26.9	69.1	-26.8	69.1	-26.8
09:15 - 09:30	64.4	68.9	- 4.5	68.6	- 4.2	68.6	- 4.2	68.9	- 4.5	69.2	- 4.8	68.9	- 4.5	68.9	- 4.5	68.8	- 4.4	69.0	- 4.6	69.1	- 4.7	68.8	- 4.4	68.9	- 4.5
Hour 1	62.4	68.1	- 5.8	67.8	- 5.4	68.0	- 5.6	67.9	- 5.6	67.9	- 5.6	68.1	- 5.7	67.9	- 5.5	68.1	- 5.7	68.1	- 5.8	68.2	- 5.9	67.9	- 5.5	68.0	- 5.6
Hour 2	18.0	67.6	-49.6	67.9	-50.0	67.9	-50.0	68.4	-50.4	68.2	-50.3	68.2	-50.2	68.2	-50.3	68.4	-50.5	68.2	-50.3	68.0	-50.1	67.9	-49.9	68.1	-50.2
Hour 3	18.1	68.6	-50.5	68.5	-50.4	68.6	-50.5	68.7	-50.6	68.7	-50.6	68.7	-50.6	68.8	-50.7	68.7	-50.6	68.6	-50.5	68.4	-50.3	68.4	-50.3	68.6	-50.5
Hour 4	36.6	69.0	-32.4	69.0	-32.4	68.9	-32.3	69.0	-32.4	69.1	-32.5	69.1	-32.5	69.0	-32.4	69.0	-32.4	69.0	-32.4	69.0	-32.4	69.1	-32.5	69.0	-32.4
11	33.8	68.3	-34.6	68.3	-34.5	68.3	-34.6	68.5	-34.8	68.5	-34.7	68.5	-34.8	68.5	-34.7	68.6	-34.8	68.5	-34.7	68.4	-34.7	68.3	-34.6	68.4	-34.7



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

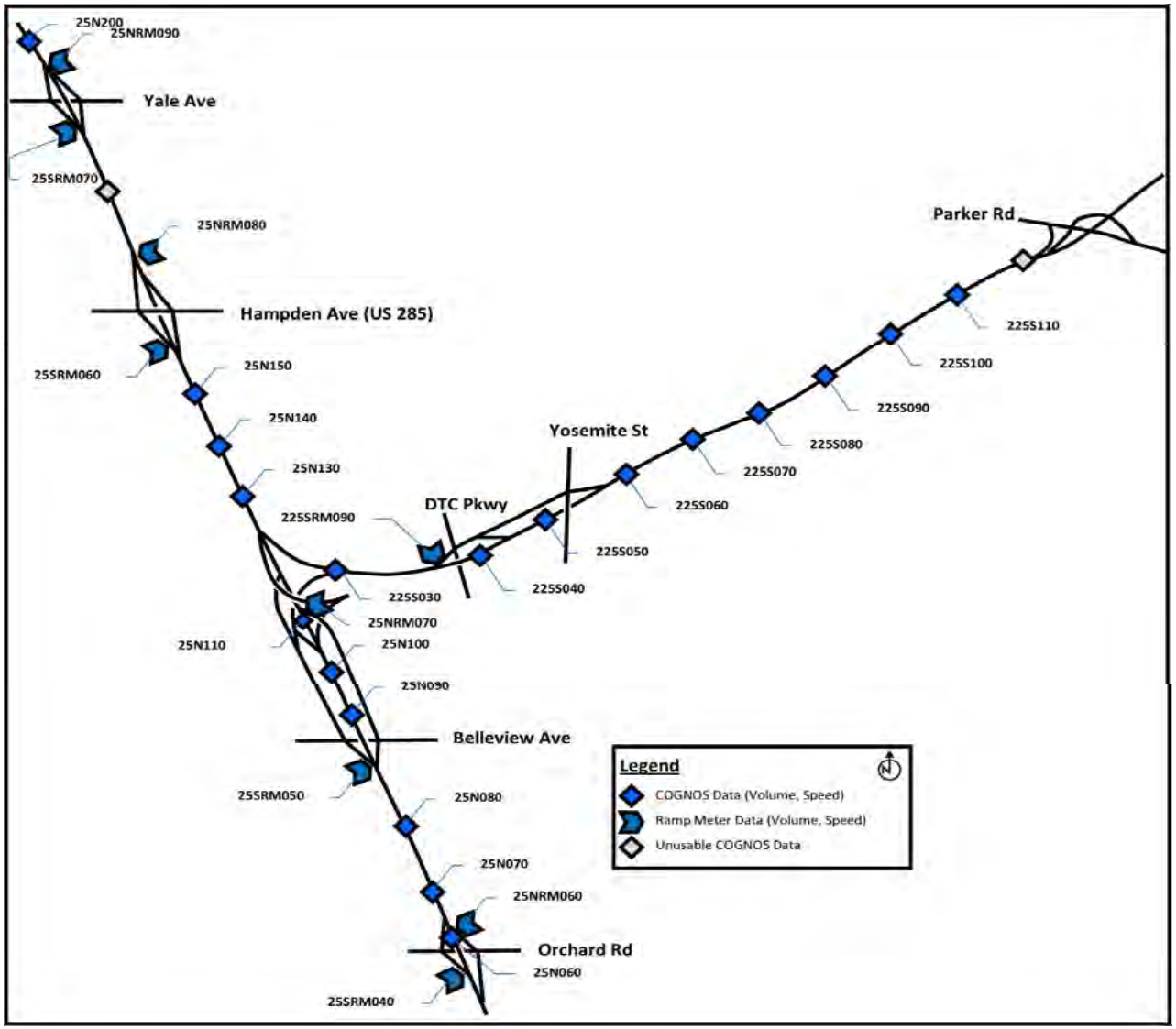
AM	COGNOS	MODEL																						AGGREGATE	
TIME	225S110	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	72.6	68.6	4.0	68.5	4.1	68.3	4.3	68.4	4.2	68.5	4.1	68.4	4.2	68.7	3.9	68.2	4.4	68.4	4.2	68.3	4.3	68.3	4.3	68.4	4.2
05:45 - 06:00	71.5	68.5	3.0	68.3	3.2	68.1	3.4	67.9	3.6	68.3	3.2	68.4	3.1	68.2	3.3	68.7	2.8	68.2	3.3	68.1	3.4	68.3	3.2	68.3	3.2
06:00 - 06:15	68.8	67.3	1.5	67.8	1.0	67.6	1.2	67.5	1.3	67.4	1.4	67.6	1.2	67.7	1.1	67.1	1.7	67.8	1.0	68.2	0.6	65.9	2.9	67.4	1.4
06:15 - 06:30	43.1	66.8	-23.7	65.0	-21.9	67.4	-24.3	67.2	-24.1	66.3	-23.2	67.6	-24.5	66.8	-23.7	67.3	-24.2	65.6	-22.5	67.1	-24.0	67.4	-24.3	66.8	-23.7
06:30 - 06:45	14.2	67.9	-53.7	67.2	-53.0	67.8	-53.6	68.1	-53.9	67.7	-53.5	67.8	-53.6	68.6	-54.4	67.7	-53.5	68.2	-54.0	67.5	-53.3	67.7	-53.5	67.8	-53.6
06:45 - 07:00	13.7	68.4	-54.7	68.5	-54.8	68.2	-54.5	68.1	-54.4	67.9	-54.2	67.9	-54.2	68.2	-54.5	68.7	-55.0	68.3	-54.6	67.8	-54.1	68.0	-54.3	68.2	-54.5
07:00 - 07:15	14.6	67.1	-52.5	68.2	-53.6	67.6	-53.0	67.9	-53.3	67.9	-53.3	67.8	-53.2	67.9	-53.3	67.7	-53.1	68.0	-53.4	67.9	-53.3	67.7	-53.1	67.8	-53.2
07:15 - 07:30	14.2	66.5	-52.3	67.7	-53.5	67.1	-52.9	68.0	-53.8	68.1	-53.9	68.2	-54.0	67.8	-53.6	67.9	-53.7	68.1	-53.9	66.8	-52.6	67.7	-53.5	67.6	-53.4
07:30 - 07:45	12.0	68.6	-56.6	68.0	-56.0	68.0	-56.0	68.4	-56.4	68.2	-56.2	68.5	-56.5	68.4	-56.4	68.2	-56.2	68.2	-56.2	68.2	-56.2	67.8	-55.8	68.2	-56.2
07:45 - 08:00	16.4	68.4	-52.0	68.2	-51.8	68.3	-51.9	68.0	-51.6	68.0	-51.6	68.3	-51.9	68.4	-52.0	68.1	-51.7	68.4	-52.0	68.2	-51.8	67.8	-51.4	68.2	-51.8
08:00 - 08:15	15.6	68.1	-52.5	68.2	-52.6	68.3	-52.7	68.1	-52.5	68.7	-53.1	68.1	-52.5	68.5	-52.9	68.3	-52.7	68.0	-52.4	68.0	-52.4	67.8	-52.2	68.2	-52.6
08:15 - 08:30	13.6	68.4	-54.8	68.5	-54.9	68.8	-55.2	68.7	-55.1	68.7	-55.1	68.7	-55.1	68.9	-55.3	68.9	-55.3	68.7	-55.1	68.5	-54.9	68.7	-55.1	68.7	-55.1
08:30 - 08:45	15.5	68.5	-53.0	68.7	-53.2	68.8	-53.3	68.7	-53.2	68.6	-53.1	68.8	-53.3	68.5	-53.0	68.7	-53.2	68.9	-53.4	68.8	-53.3	68.9	-53.4	68.7	-53.2
08:45 - 09:00	17.1	68.8	-51.7	69.0	-51.9	68.9	-51.8	69.0	-51.9	68.7	-51.6	69.1	-52.0	68.8	-51.7	68.7	-51.6	68.9	-51.8	68.9	-51.8	69.2	-52.1	68.9	-51.8
09:00 - 09:15	60.2	68.9	- 8.7	68.8	- 8.6	68.7	- 8.5	68.8	- 8.6	68.9	- 8.7	69.1	- 8.9	68.9	- 8.7	68.7	- 8.5	68.5	- 8.3	69.0	- 8.8	68.9	- 8.7	68.8	- 8.6
09:15 - 09:30	68.7	68.7	- 0.0	68.5	0.2	68.3	0.4	68.5	0.2	68.8	- 0.1	68.5	0.2	68.6	0.1	68.5	0.2	68.3	0.4	68.8	- 0.1	68.6	0.1	68.6	0.1
Hour 1	64.0	67.8	- 3.8	67.4	- 3.4	67.9	- 3.8	67.8	- 3.8	67.6	- 3.6	68.0	- 4.0	67.9	- 3.9	67.8	- 3.8	67.5	- 3.5	67.9	- 3.9	67.5	- 3.5	67.7	- 3.7
Hour 2	14.2	67.5	-53.3	67.9	-53.7	67.7	-53.5	68.0	-53.9	67.9	-53.7	67.9	-53.8	68.1	-54.0	68.0	-53.8	68.2	-54.0	67.5	-53.3	67.8	-53.6	67.9	-53.7
Hour 3	14.4	68.4	-54.0	68.2	-53.8	68.4	-54.0	68.3	-53.9	68.4	-54.0	68.4	-54.0	68.6	-54.2	68.4	-54.0	68.3	-53.9	68.2	-53.8	68.0	-53.6	68.3	-53.9
Hour 4	40.4	68.7	-28.4	68.8	-28.4	68.7	-28.3	68.8	-28.4	68.8	-28.4	68.9	-28.5	68.7	-28.3	68.7	-28.3	68.7	-28.3	68.9	-28.5	68.9	-28.5	68.8	-28.4
11	33.2	68.1	-34.9	68.1	-34.8	68.1	-34.9	68.2	-35.0	68.2	-34.9	68.3	-35.1	68.3	-35.1	68.2	-35.0	68.2	-34.9	68.1	-34.9	68.0	-34.8	68.2	-34.9



AVERAGE VEHICLE SPEEDS - BY LINK

CONCEPT 2: +10% I-225

ROUTE: I-25
PERIOD: AM

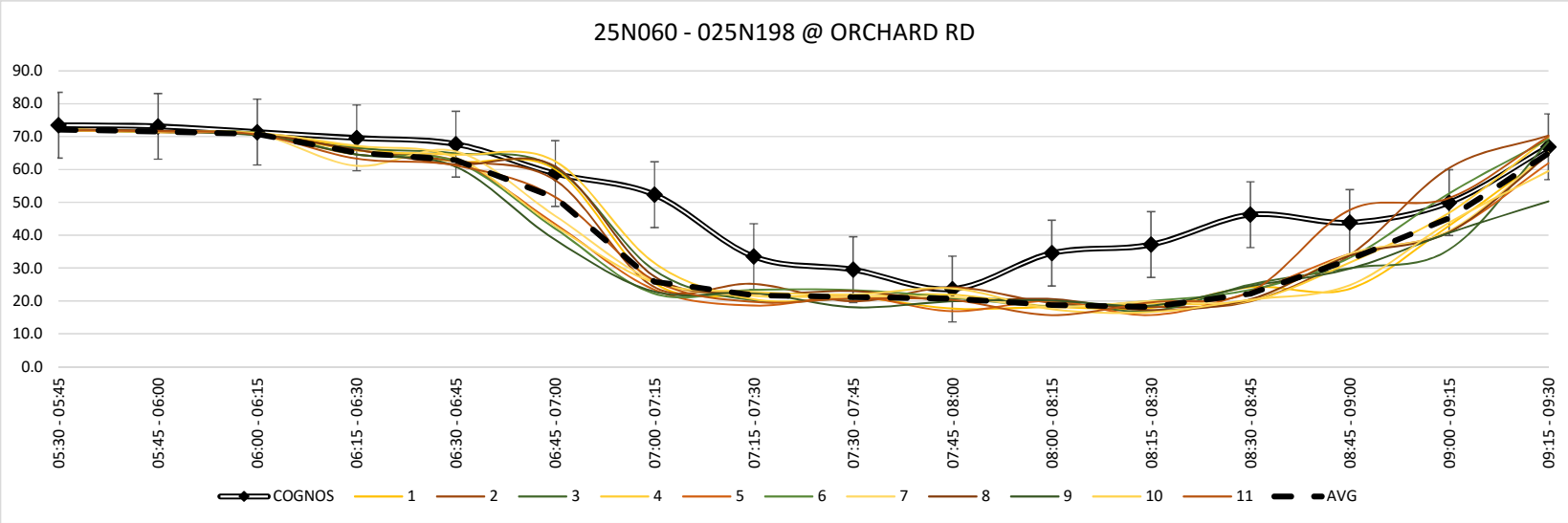


LOCATION	COGNOS DESCRIPTION
25N060	025N198 @ ORCHARD RD
25N070	025N199 0.4MI N OF ORCHARD RD
25N080	025N199 0.4MI S OF BELLEVIEW AVE
25N090	025S199 @ BELLVIEW AVE
25N100	025N200 BELLVIEW AVE TO I-25 NB (153)
25N110	025N200 @ I-225
25N130	025N201 0.2MI N OF I-225
25N140	025N201 I-225 TO HAMPDEN AVE 2 (132)
25N150	025N201 0.6MI S OF HAMPDEN AVE
25N200	025N203 0.4MI N OF YALE AVE (124)

CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

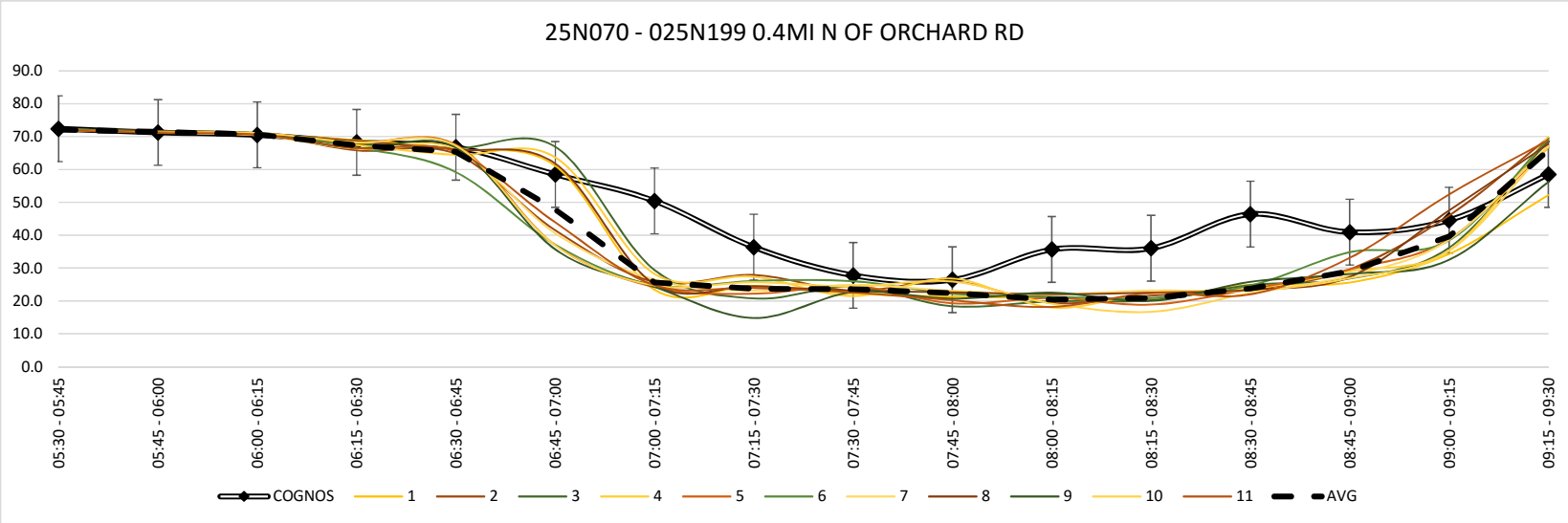
AM	COGNOS	MODEL																						AGGREGATE	
TIME	25N060	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	73.5	71.9	1.6	72.3	1.2	72.1	1.4	72.3	1.2	72.0	1.5	72.3	1.2	72.2	1.3	72.0	1.5	71.9	1.6	71.9	1.6	71.9	1.6	72.1	1.4
05:45 - 06:00	73.1	71.7	1.4	71.7	1.4	71.6	1.5	71.5	1.6	71.3	1.8	71.4	1.7	71.3	1.8	71.8	1.3	71.4	1.7	71.4	1.7	71.6	1.5	71.5	1.6
06:00 - 06:15	71.4	70.6	0.8	71.1	0.3	70.4	0.9	70.8	0.5	70.6	0.8	71.2	0.1	70.7	0.6	70.8	0.5	70.5	0.8	71.1	0.3	70.6	0.8	70.8	0.5
06:15 - 06:30	69.6	66.9	2.7	65.9	3.7	66.5	3.1	65.8	3.8	64.5	5.1	64.5	5.1	61.1	8.5	66.0	3.6	64.6	5.0	67.2	2.4	63.3	6.3	65.1	4.5
06:30 - 06:45	67.7	62.4	5.3	62.5	5.2	64.9	2.8	64.5	3.2	62.6	5.1	62.4	5.3	65.5	2.2	61.5	6.2	60.8	6.9	63.6	4.1	61.2	6.5	62.9	4.8
06:45 - 07:00	58.8	60.0	- 1.2	56.7	2.1	60.6	- 1.8	62.5	- 3.7	43.4	15.4	42.0	16.8	45.9	12.9	60.9	- 2.1	38.6	20.2	42.8	16.0	51.6	7.2	51.4	7.4
07:00 - 07:15	52.3	25.4	26.9	24.2	28.1	29.3	23.0	31.5	20.8	23.4	28.9	22.2	30.1	26.0	26.3	27.4	24.9	22.8	29.5	25.6	26.7	26.2	26.1	25.8	26.5
07:15 - 07:30	33.5	21.6	11.9	25.2	8.3	20.2	13.3	20.5	13.0	18.6	14.9	23.4	10.1	21.5	12.0	22.3	11.2	22.5	11.0	22.8	10.7	19.7	13.8	21.7	11.8
07:30 - 07:45	29.5	21.3	8.2	19.9	9.6	20.7	8.8	21.3	8.2	21.4	8.1	23.3	6.2	21.3	8.2	23.0	6.5	18.1	11.4	22.0	7.5	20.7	8.8	21.2	8.3
07:45 - 08:00	23.6	17.7	5.9	24.1	- 0.5	20.8	2.8	21.9	1.7	16.9	6.7	21.1	2.5	21.2	2.4	20.0	3.6	19.9	3.7	23.8	- 0.2	20.3	3.3	20.7	2.9
08:00 - 08:15	34.5	18.1	16.4	19.4	15.1	20.0	14.5	18.4	16.1	20.0	14.5	18.3	16.2	18.2	16.3	20.6	13.9	20.1	14.4	17.5	17.0	15.7	18.8	18.8	15.7
08:15 - 08:30	37.2	17.9	19.3	18.2	19.0	16.9	20.3	19.2	18.0	15.7	21.5	20.0	17.2	19.9	17.3	17.2	20.0	18.6	18.6	16.6	20.6	19.6	17.6	18.2	19.0
08:30 - 08:45	46.2	24.2	22.0	19.9	26.3	25.0	21.2	20.0	26.2	22.7	23.5	23.4	22.8	20.4	25.8	20.5	25.7	24.5	21.7	20.4	25.8	22.8	23.4	22.2	24.0
08:45 - 09:00	43.9	23.7	20.2	33.9	10.0	30.0	13.9	31.7	12.2	34.3	9.6	33.1	10.8	34.3	9.6	33.8	10.1	29.8	14.1	24.8	19.1	47.7	- 3.8	32.5	11.4
09:00 - 09:15	49.9	42.9	7.0	60.4	-10.5	35.6	14.3	46.8	3.1	41.1	8.8	52.7	- 2.8	41.3	8.6	40.9	9.0	40.7	9.2	43.8	6.1	51.3	- 1.4	45.2	4.7
09:15 - 09:30	66.9	64.5	2.4	70.3	- 3.4	68.4	- 1.5	69.7	- 2.8	61.9	5.0	69.2	- 2.3	65.2	1.7	64.4	2.5	50.3	16.6	59.5	7.4	70.0	- 3.1	64.9	2.0
Hour 1	71.9	70.3	1.6	70.3	1.6	70.2	1.7	70.1	1.8	69.6	2.3	69.9	2.0	68.8	3.1	70.2	1.7	69.6	2.3	70.4	1.5	69.4	2.5	69.9	2.0
Hour 2	53.1	42.4	10.7	42.2	10.9	43.8	9.3	44.8	8.3	37.0	16.1	37.5	15.6	39.7	13.3	43.0	10.0	36.2	16.9	38.7	14.4	39.7	13.4	40.5	12.6
Hour 3	31.2	18.8	12.5	20.4	10.8	19.6	11.6	20.2	11.0	18.5	12.7	20.7	10.5	20.2	11.1	20.2	11.0	19.2	12.0	20.0	11.2	19.1	12.1	19.7	11.5
Hour 4	51.7	38.8	12.9	46.1	5.6	39.8	12.0	42.1	9.7	40.0	11.7	44.6	7.1	40.3	11.4	39.9	11.8	36.3	15.4	37.1	14.6	48.0	3.8	41.2	10.5
11	52.0	42.6	9.4	44.7	7.2	43.3	8.7	44.3	7.7	41.3	10.7	43.2	8.8	42.3	9.7	43.3	8.6	40.3	11.6	41.6	10.4	44.0	8.0	42.8	9.2



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

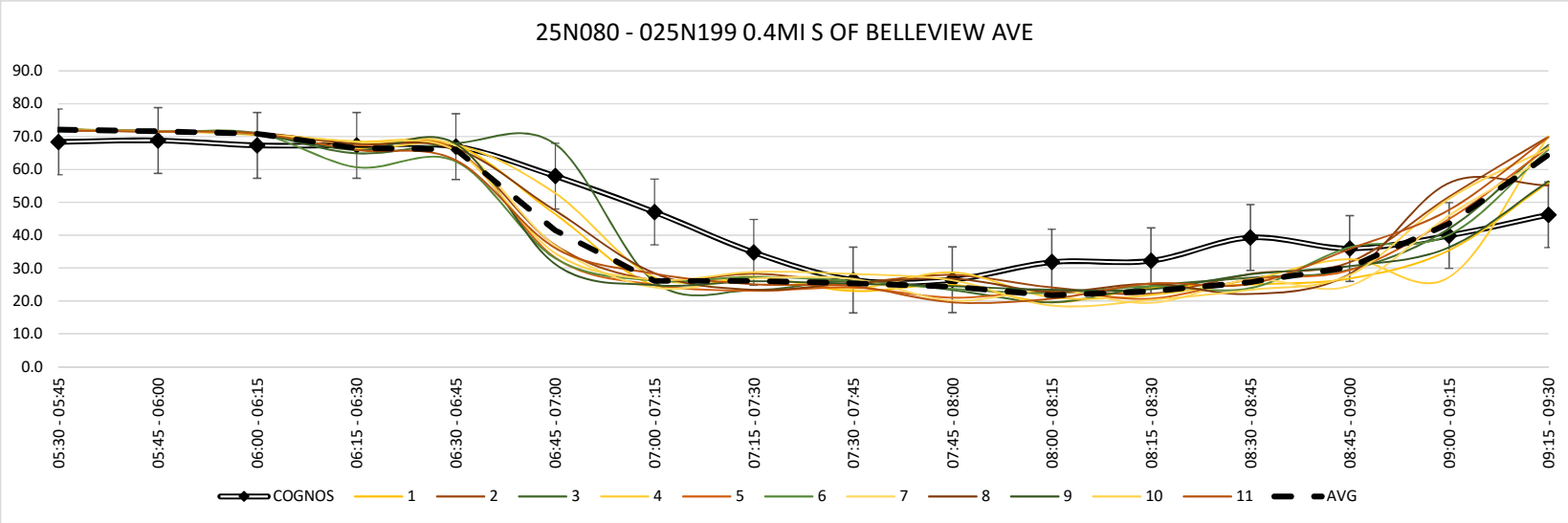
AM	COGNOS	MODEL																						AGGREGATE	
TIME	25N070	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	72.4	71.8	0.6	72.2	0.2	72.2	0.2	72.1	0.3	72.0	0.4	72.2	0.2	72.2	0.2	72.0	0.4	72.1	0.3	72.0	0.4	72.0	0.4	72.1	0.3
05:45 - 06:00	71.3	71.6	- 0.3	71.7	- 0.5	71.6	- 0.3	71.4	- 0.2	71.5	- 0.3	71.4	- 0.2	71.2	0.0	71.4	- 0.2	71.3	- 0.0	71.3	- 0.0	71.1	0.2	71.4	- 0.2
06:00 - 06:15	70.5	70.6	- 0.1	70.9	- 0.4	70.5	0.0	71.1	- 0.6	70.4	0.1	71.0	- 0.5	70.4	0.1	70.7	- 0.2	70.7	- 0.2	71.1	- 0.6	70.6	- 0.1	70.7	- 0.2
06:15 - 06:30	68.3	68.9	- 0.6	65.8	2.5	67.7	0.6	67.4	0.9	68.1	0.2	66.7	1.6	66.3	2.0	68.6	- 0.3	66.5	1.8	68.2	0.1	66.5	1.8	67.3	1.0
06:30 - 06:45	66.7	66.2	0.5	64.7	2.0	66.4	0.3	64.4	2.3	67.5	- 0.8	59.2	7.5	66.2	0.5	66.1	0.6	66.7	0.0	67.2	- 0.5	65.4	1.3	65.4	1.3
06:45 - 07:00	58.5	61.1	- 2.6	41.5	17.0	66.9	- 8.4	63.7	- 5.2	37.0	21.5	37.1	21.4	40.6	17.9	61.8	- 3.3	35.7	22.8	36.9	21.6	43.9	14.6	47.8	10.7
07:00 - 07:15	50.4	23.4	27.0	25.8	24.6	29.4	21.0	28.2	22.2	24.2	26.2	24.8	25.6	26.5	23.9	25.0	25.4	24.3	26.1	24.7	25.7	24.8	25.6	25.6	24.8
07:15 - 07:30	36.4	24.6	11.8	27.9	8.5	20.8	15.6	27.4	9.0	22.2	14.2	26.1	10.3	23.1	13.3	24.5	11.9	14.8	21.6	25.7	10.7	24.0	12.4	23.7	12.7
07:30 - 07:45	27.8	22.3	5.5	23.1	4.7	24.4	3.4	21.5	6.3	24.6	3.2	26.0	1.8	24.9	2.9	23.1	4.7	22.7	5.1	24.4	3.4	22.6	5.2	23.6	4.2
07:45 - 08:00	26.4	21.3	5.1	26.0	0.4	18.4	8.0	26.8	- 0.4	19.3	7.1	22.2	4.2	23.1	3.3	22.6	3.8	20.7	5.7	25.9	0.5	20.2	6.2	22.4	4.0
08:00 - 08:15	35.7	21.0	14.7	19.4	16.3	19.9	15.8	18.0	17.7	20.9	14.8	21.3	14.4	22.0	13.7	22.1	13.6	22.5	13.2	19.2	16.5	18.2	17.5	20.4	15.3
08:15 - 08:30	36.0	20.7	15.3	21.6	14.4	20.2	15.8	22.5	13.5	18.9	17.1	20.9	15.1	23.2	12.8	22.5	13.5	20.0	16.0	16.7	19.3	22.4	13.6	20.9	15.1
08:30 - 08:45	46.4	24.9	21.5	23.4	23.0	24.8	21.6	23.7	22.7	23.6	22.8	24.7	21.7	23.1	23.3	23.4	23.0	25.8	20.6	22.4	24.0	22.0	24.4	23.8	22.6
08:45 - 09:00	40.9	25.6	15.3	29.6	11.3	26.8	14.1	29.0	11.9	29.6	11.3	34.8	6.1	27.7	13.2	27.3	13.6	28.2	12.7	26.9	14.0	33.1	7.8	29.0	11.9
09:00 - 09:15	44.6	34.3	10.3	46.0	- 1.4	36.2	8.4	35.4	9.2	38.8	5.8	38.4	6.2	38.6	6.0	47.5	- 2.9	32.5	12.1	35.2	9.4	52.4	- 7.8	39.6	5.0
09:15 - 09:30	58.5	52.2	6.3	69.6	-11.1	68.6	-10.1	69.9	-11.4	66.7	- 8.2	69.3	-10.8	67.3	- 8.8	67.7	- 9.2	56.2	2.3	66.9	- 8.4	68.9	-10.4	65.8	- 7.3
Hour 1	70.6	70.7	- 0.1	70.2	0.4	70.5	0.1	70.5	0.1	70.5	0.1	70.3	0.3	70.0	0.6	70.7	- 0.1	70.2	0.5	70.7	- 0.1	70.1	0.5	70.4	0.2
Hour 2	53.0	43.8	9.2	40.0	13.0	45.9	7.1	45.9	7.1	37.7	15.3	36.8	16.2	39.1	13.9	44.4	8.7	35.4	17.6	38.6	14.4	39.5	13.5	40.6	12.4
Hour 3	31.5	21.3	10.2	22.5	9.0	20.7	10.8	22.2	9.3	20.9	10.6	22.6	8.9	23.3	8.2	22.6	8.9	21.5	10.0	21.6	9.9	20.9	10.6	21.8	9.7
Hour 4	47.6	34.3	13.3	42.2	5.4	39.1	8.5	39.5	8.1	39.7	7.9	41.8	5.8	39.2	8.4	41.5	6.1	35.7	11.9	37.9	9.7	44.1	3.5	39.6	8.0
11	50.7	42.5	8.1	43.7	7.0	44.1	6.6	44.5	6.1	42.2	8.5	42.9	7.8	42.9	7.8	44.8	5.9	40.7	10.0	42.2	8.5	43.6	7.0	43.1	7.6



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

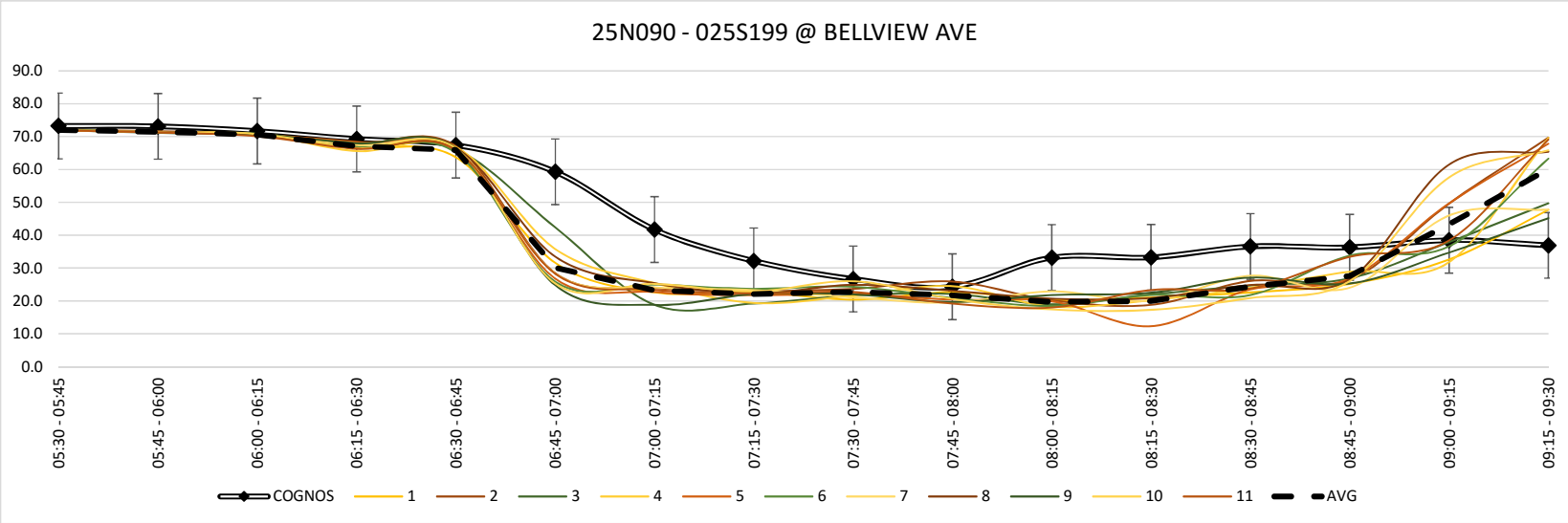
AM	COGNOS	MODEL																						AGGREGATE	
TIME	25N080	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	68.4	71.9	- 3.5	72.1	- 3.7	72.1	- 3.7	72.3	- 3.9	72.0	- 3.6	72.2	- 3.8	72.2	- 3.8	71.8	- 3.4	72.2	- 3.8	72.0	- 3.6	71.9	- 3.5	72.1	- 3.7
05:45 - 06:00	68.8	71.7	- 2.9	71.6	- 2.8	71.6	- 2.8	71.5	- 2.7	71.6	- 2.8	71.4	- 2.6	71.5	- 2.7	71.5	- 2.7	71.7	- 2.9	71.6	- 2.8	71.5	- 2.7	71.6	- 2.8
06:00 - 06:15	67.3	70.5	- 3.2	71.1	- 3.8	70.8	- 3.5	71.0	- 3.7	70.9	- 3.6	71.0	- 3.7	70.8	- 3.5	71.0	- 3.7	70.6	- 3.3	70.8	- 3.5	70.9	- 3.6	70.9	- 3.6
06:15 - 06:30	67.3	68.5	- 1.2	67.7	- 0.4	64.9	2.4	66.3	1.0	67.4	- 0.1	60.7	6.6	67.8	- 0.5	67.8	- 0.5	65.9	1.4	68.3	- 1.0	65.9	1.4	66.5	0.8
06:30 - 06:45	67.0	67.4	- 0.4	65.6	1.4	68.0	- 1.0	67.5	- 0.5	66.1	0.9	62.4	4.6	67.1	- 0.1	66.4	0.6	67.8	- 0.8	65.7	1.3	62.8	4.2	66.1	0.9
06:45 - 07:00	58.0	46.4	11.6	37.0	21.0	67.7	- 9.7	52.8	5.2	33.2	24.8	33.0	25.0	36.8	21.2	47.5	10.5	31.2	26.8	34.5	23.5	36.1	21.9	41.5	16.5
07:00 - 07:15	47.1	24.7	22.4	26.3	20.8	25.8	21.3	27.2	19.9	24.9	22.2	26.2	20.9	24.1	23.0	28.4	18.7	24.8	22.3	26.5	20.6	28.3	18.8	26.1	21.0
07:15 - 07:30	34.8	27.2	7.6	28.3	6.5	23.3	11.5	27.4	7.4	23.1	11.7	27.3	7.5	26.8	8.0	23.4	11.4	26.0	8.8	28.8	6.0	25.1	9.7	26.1	8.7
07:30 - 07:45	26.4	23.0	3.4	25.8	0.6	26.2	0.2	23.8	2.6	24.1	2.3	26.1	0.3	26.7	- 0.3	25.4	1.0	25.2	1.2	28.2	- 1.8	24.5	1.9	25.4	1.0
07:45 - 08:00	26.5	24.9	1.6	27.9	- 1.5	23.3	3.2	28.7	- 2.3	21.0	5.5	23.7	2.8	20.1	6.4	26.8	- 0.4	24.5	2.0	26.3	0.1	19.6	6.9	24.3	2.2
08:00 - 08:15	31.8	19.6	12.2	24.1	7.7	19.6	12.2	21.1	10.7	22.9	8.9	22.4	9.4	23.3	8.5	22.8	9.0	23.4	8.4	18.6	13.2	20.7	11.1	21.7	10.1
08:15 - 08:30	32.2	24.0	8.2	22.2	10.0	24.5	7.7	21.8	10.4	20.7	11.5	24.5	7.7	19.4	12.8	25.2	7.0	23.6	8.6	20.3	11.9	25.3	6.9	22.9	9.3
08:30 - 08:45	39.3	25.0	14.3	28.2	11.1	27.1	12.2	26.5	12.8	26.6	12.7	23.9	15.4	26.5	12.8	22.1	17.2	28.1	11.2	23.4	15.9	25.2	14.1	25.7	13.6
08:45 - 09:00	35.9	26.8	9.1	31.8	4.1	29.5	6.4	32.7	3.2	29.4	6.5	36.3	- 0.4	24.6	11.3	28.2	7.7	30.6	5.3	27.9	8.0	35.8	0.1	30.3	5.6
09:00 - 09:15	39.9	35.4	4.5	51.7	-11.8	42.0	- 2.1	27.2	12.7	44.9	- 5.0	40.1	- 0.2	46.0	- 6.1	55.9	-16.0	36.3	3.6	51.1	-11.2	47.7	- 7.8	43.5	- 3.6
09:15 - 09:30	46.2	56.0	- 9.8	70.0	-23.8	67.5	-21.3	70.1	-23.9	66.7	-20.5	66.0	-19.8	64.2	-18.0	55.1	- 8.9	56.4	-10.2	66.5	-20.3	69.8	-23.6	64.4	-18.2
Hour 1	68.0	70.7	- 2.7	70.6	- 2.7	69.9	- 1.9	70.3	- 2.3	70.5	- 2.5	68.8	- 0.9	70.6	- 2.6	70.5	- 2.6	70.1	- 2.1	70.7	- 2.7	70.1	- 2.1	70.3	- 2.3
Hour 2	51.7	41.4	10.3	39.3	12.4	46.2	5.5	43.7	8.0	36.8	14.9	37.2	14.5	38.7	13.0	41.4	10.3	37.5	14.2	38.9	12.8	38.1	13.6	40.0	11.7
Hour 3	29.2	22.9	6.3	25.0	4.2	23.4	5.8	23.9	5.4	22.2	7.0	24.2	5.0	22.4	6.8	25.1	4.2	24.2	5.0	23.4	5.9	22.5	6.7	23.6	5.6
Hour 4	40.3	35.8	4.5	45.4	- 5.1	41.5	- 1.2	39.1	1.2	41.9	- 1.6	41.6	- 1.2	40.3	0.0	40.3	0.0	37.9	2.5	42.2	- 1.9	44.6	- 4.3	41.0	- 0.6
11	47.3	42.7	4.6	45.1	2.2	45.2	2.1	44.2	3.1	42.8	4.5	43.0	4.3	43.0	4.3	44.3	3.0	42.4	4.9	43.8	3.5	43.8	3.5	43.7	3.6



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

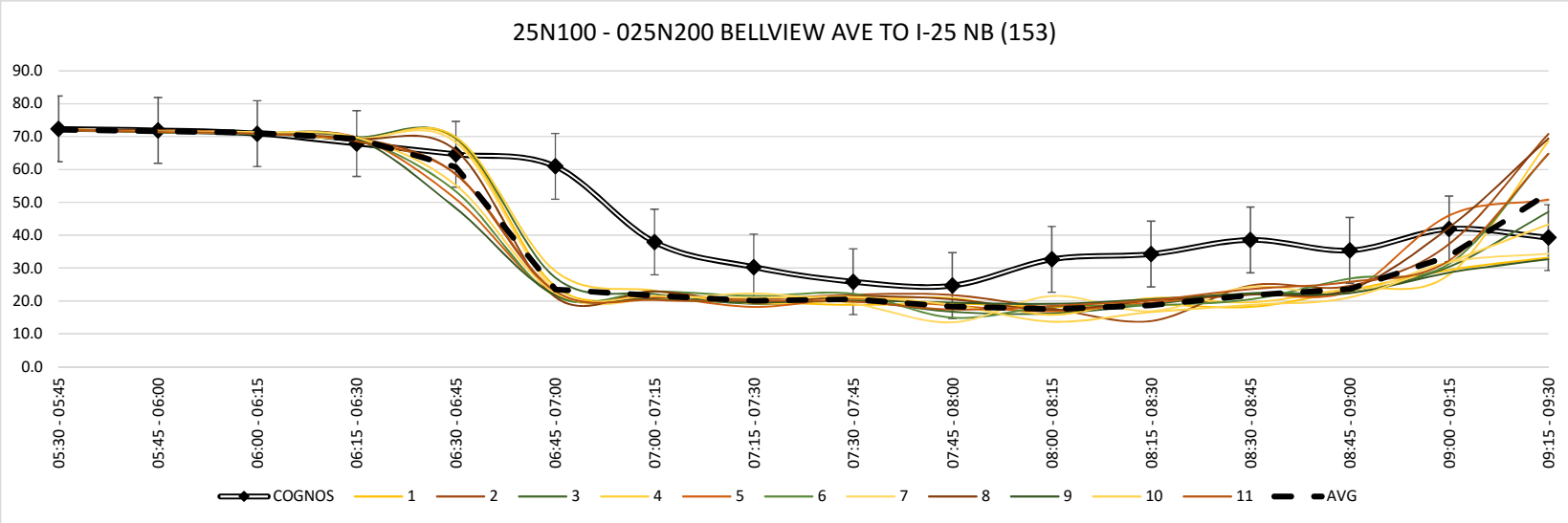
AM	COGNOS	MODEL																						AGGREGATE	
TIME	25N090	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	73.2	71.9	1.3	72.1	1.1	72.1	1.1	71.9	1.3	71.9	1.3	72.2	1.0	72.0	1.2	71.8	1.4	72.0	1.2	71.9	1.3	71.9	1.3	72.0	1.2
05:45 - 06:00	73.1	71.4	1.7	71.6	1.5	71.4	1.7	71.3	1.8	71.4	1.7	71.2	1.9	71.5	1.6	71.5	1.6	71.1	2.0	71.3	1.8	71.2	1.9	71.4	1.7
06:00 - 06:15	71.7	70.5	1.2	70.7	1.0	70.4	1.3	70.7	1.0	70.7	1.0	70.9	0.8	70.4	1.3	70.5	1.2	70.6	1.1	70.8	0.9	70.1	1.6	70.6	1.1
06:15 - 06:30	69.3	66.7	2.6	67.9	1.4	67.7	1.6	65.6	3.7	68.3	1.0	66.9	2.4	67.4	1.9	66.4	2.9	68.0	1.3	66.5	2.8	66.3	3.0	67.0	2.3
06:30 - 06:45	67.4	63.7	3.7	67.1	0.3	66.1	1.3	66.8	0.6	65.4	2.0	65.1	2.3	66.0	1.4	66.5	0.9	66.4	1.0	66.4	1.0	65.9	1.5	65.9	1.5
06:45 - 07:00	59.3	31.6	27.7	28.5	30.8	42.4	16.9	35.8	23.5	26.8	32.5	25.9	33.4	28.4	30.9	33.5	25.8	24.8	34.5	25.3	34.0	28.3	31.0	30.1	29.2
07:00 - 07:15	41.7	22.6	19.1	24.0	17.7	18.8	22.9	25.4	16.3	22.7	19.0	25.0	16.7	24.1	17.6	25.4	16.3	18.8	22.9	25.2	16.5	23.4	18.3	23.2	18.5
07:15 - 07:30	32.2	22.8	9.4	23.0	9.2	19.2	13.0	19.4	12.8	21.7	10.5	23.7	8.5	23.3	8.9	22.3	9.9	22.1	10.1	22.9	9.3	22.3	9.9	22.1	10.1
07:30 - 07:45	26.7	20.4	6.3	23.7	3.0	21.7	5.0	21.6	5.1	22.2	4.5	24.3	2.4	21.1	5.6	24.9	1.8	22.0	4.7	26.0	0.7	22.7	4.0	22.8	3.9
07:45 - 08:00	24.3	22.7	1.6	25.9	- 1.6	22.1	2.2	24.5	- 0.2	20.4	3.9	20.9	3.4	19.5	4.8	23.1	1.2	19.7	4.6	20.6	3.7	19.2	5.1	21.7	2.6
08:00 - 08:15	33.2	20.3	12.9	20.2	13.0	19.0	14.2	18.3	14.9	19.9	13.3	18.5	14.7	22.9	10.3	20.7	12.5	21.8	11.4	17.4	15.8	18.0	15.2	19.7	13.5
08:15 - 08:30	33.3	21.1	12.2	18.8	14.5	22.0	11.3	20.2	13.1	12.3	21.0	21.8	11.5	20.1	13.2	20.9	12.4	22.5	10.8	17.3	16.0	23.3	10.0	20.0	13.3
08:30 - 08:45	36.6	22.6	14.0	26.1	10.5	24.7	11.9	24.0	12.6	23.5	13.1	21.8	14.8	27.7	8.9	24.9	11.7	27.1	9.5	20.9	15.7	23.8	12.8	24.3	12.3
08:45 - 09:00	36.3	25.2	11.1	26.4	9.9	26.9	9.4	28.9	7.4	26.9	9.4	33.8	2.5	24.0	12.3	26.6	9.7	25.3	11.0	26.0	10.3	33.4	2.9	27.6	8.7
09:00 - 09:15	38.5	32.6	5.9	49.6	-11.1	37.9	0.6	31.8	6.7	49.7	-11.2	36.6	1.9	46.0	- 7.5	61.5	-23.0	34.7	3.8	57.6	-19.1	38.4	0.1	43.3	- 4.8
09:15 - 09:30	36.9	47.7	-10.8	69.7	-32.8	49.7	-12.8	69.6	-32.7	67.8	-30.9	63.3	-26.4	47.8	-10.9	65.4	-28.5	45.2	- 8.3	65.8	-28.9	69.1	-32.2	60.1	-23.2
Hour 1	71.8	70.1	1.7	70.6	1.2	70.4	1.4	69.9	1.9	70.6	1.2	70.3	1.5	70.3	1.5	70.1	1.8	70.4	1.4	70.1	1.7	69.9	1.9	70.3	1.6
Hour 2	50.1	35.2	15.0	35.7	14.5	36.6	13.5	36.9	13.3	34.2	16.0	34.9	15.2	35.5	14.7	36.9	13.2	33.0	17.1	35.0	15.2	35.0	15.2	35.3	14.8
Hour 3	29.4	21.1	8.2	22.2	7.2	21.2	8.2	21.2	8.2	18.7	10.7	21.4	8.0	20.9	8.5	22.4	7.0	21.5	7.9	20.3	9.0	20.8	8.6	21.1	8.3
Hour 4	37.1	32.0	5.0	43.0	- 5.9	34.8	2.3	38.6	- 1.5	42.0	- 4.9	38.9	- 1.8	36.4	0.7	44.6	- 7.5	33.1	4.0	42.6	- 5.5	41.2	- 4.1	38.8	- 1.8
11	47.1	39.6	7.5	42.8	4.3	40.8	6.3	41.6	5.5	41.4	5.7	41.4	5.7	40.8	6.3	43.5	3.6	39.5	7.6	42.0	5.1	41.7	5.4	41.4	5.7



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

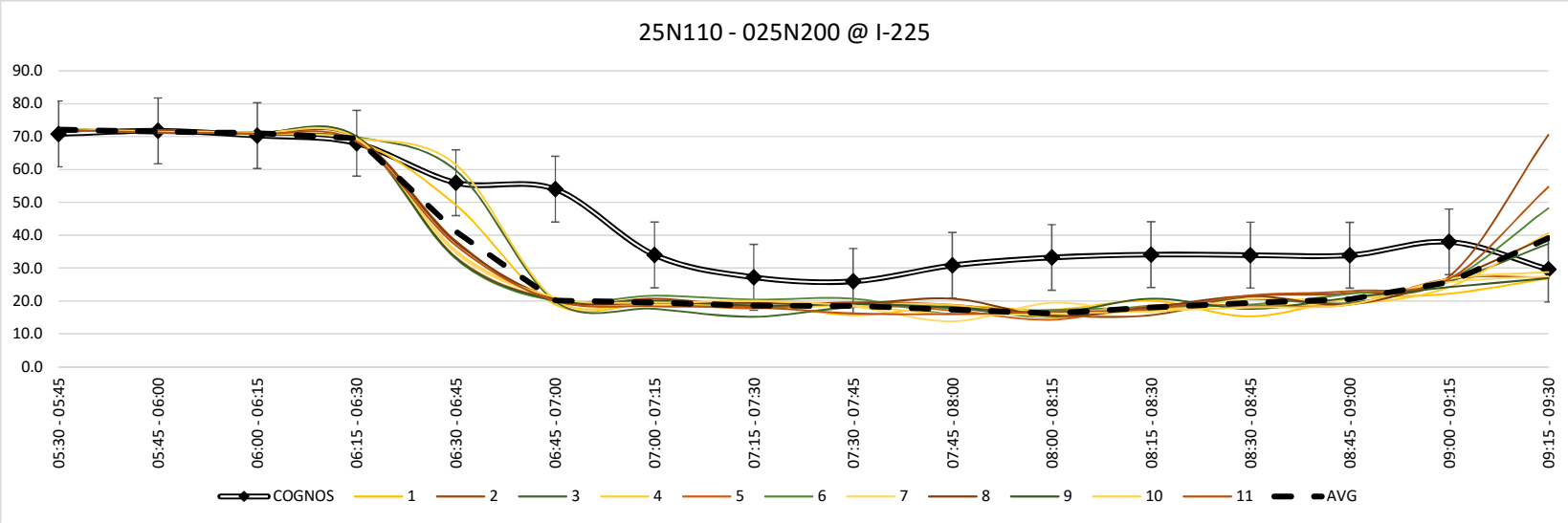
AM	COGNOS	MODEL																						AGGREGATE	
TIME	25N100	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	72.3	72.1	0.2	72.1	0.2	72.2	0.1	72.3	0.0	72.2	0.1	72.3	0.0	72.2	0.1	71.8	0.5	72.1	0.2	72.0	0.3	72.1	0.2	72.1	0.2
05:45 - 06:00	71.9	71.8	0.1	71.7	0.2	71.4	0.5	71.4	0.5	71.6	0.3	71.3	0.6	71.6	0.3	72.0	- 0.1	71.5	0.4	71.6	0.3	71.4	0.5	71.6	0.3
06:00 - 06:15	70.9	71.2	- 0.3	71.1	- 0.2	70.7	0.2	71.1	- 0.2	71.0	- 0.1	71.2	- 0.3	71.0	- 0.1	71.1	- 0.2	71.1	- 0.2	71.3	- 0.4	70.9	- 0.0	71.1	- 0.2
06:15 - 06:30	67.9	69.3	- 1.5	69.6	- 1.8	69.8	- 2.0	69.1	- 1.3	69.7	- 1.9	69.3	- 1.5	69.5	- 1.7	69.3	- 1.5	69.3	- 1.5	69.7	- 1.9	68.5	- 0.7	69.4	- 1.6
06:30 - 06:45	64.6	69.2	- 4.6	58.5	6.1	69.6	- 5.0	69.9	- 5.3	51.0	13.6	53.3	11.3	68.2	- 3.6	65.8	- 1.2	48.2	16.4	55.2	9.4	58.6	6.0	60.7	3.9
06:45 - 07:00	61.0	24.4	36.6	22.6	38.4	27.1	33.9	29.1	31.9	21.8	39.2	21.5	39.5	23.3	37.7	21.2	39.8	21.9	39.1	22.4	38.6	23.0	38.0	23.5	37.5
07:00 - 07:15	37.9	21.3	16.6	21.1	16.8	22.1	15.8	23.1	14.8	21.4	16.5	22.9	15.0	20.5	17.4	22.9	15.0	20.5	17.4	21.5	16.4	20.3	17.6	21.6	16.3
07:15 - 07:30	30.3	19.8	10.5	20.6	9.7	19.1	11.2	19.3	11.0	18.2	12.1	21.5	8.8	22.3	8.0	19.5	10.8	19.6	10.7	21.0	9.3	20.1	10.2	20.1	10.2
07:30 - 07:45	25.9	18.8	7.1	21.9	4.0	20.0	5.9	20.2	5.7	20.8	5.1	22.2	3.7	19.2	6.7	21.4	4.5	20.1	5.8	21.2	4.7	19.8	6.1	20.5	5.4
07:45 - 08:00	24.7	19.2	5.5	21.8	2.9	16.7	8.0	20.9	3.8	18.6	6.1	14.9	9.8	13.5	11.2	20.5	4.2	19.5	5.2	18.8	5.9	17.4	7.3	18.3	6.4
08:00 - 08:15	32.7	18.2	14.5	17.7	15.0	16.2	16.5	15.8	16.9	16.9	15.8	18.3	14.4	21.5	11.2	17.3	15.4	19.1	13.6	13.7	19.0	18.5	14.2	17.5	15.2
08:15 - 08:30	34.3	19.0	15.3	13.9	20.4	19.0	15.3	20.9	13.4	19.5	14.8	18.7	15.6	16.9	17.4	20.1	14.2	20.5	13.8	16.6	17.7	20.2	14.1	18.7	15.6
08:30 - 08:45	38.6	18.2	20.4	24.7	13.9	22.4	16.2	19.6	19.0	22.0	16.6	20.5	18.1	24.3	14.3	21.9	16.7	22.2	16.4	18.8	19.8	23.6	15.0	21.7	16.9
08:45 - 09:00	35.4	23.3	12.1	24.6	10.8	22.7	12.7	23.8	11.6	23.1	12.3	26.8	8.6	22.4	13.0	23.5	11.9	22.4	13.0	21.1	14.3	25.8	9.6	23.6	11.8
09:00 - 09:15	41.9	29.4	12.5	37.3	4.6	30.4	11.5	28.0	13.9	46.0	- 4.1	31.3	10.6	31.8	10.1	42.3	- 0.4	28.6	13.3	31.8	10.1	32.3	9.6	33.6	8.3
09:15 - 09:30	39.3	33.2	6.1	70.8	-31.5	47.1	- 7.8	68.6	-29.3	50.8	-11.5	64.8	-25.5	34.4	4.9	69.4	-30.1	32.7	6.6	43.3	- 4.0	64.7	-25.4	52.7	-13.4
Hour 1	70.7	71.1	- 0.4	71.1	- 0.4	71.0	- 0.3	71.0	- 0.2	71.1	- 0.4	71.0	- 0.3	71.1	- 0.3	71.1	- 0.3	71.0	- 0.3	71.2	- 0.4	70.7	0.0	71.1	- 0.3
Hour 2	48.5	33.7	14.8	30.7	17.8	34.5	14.0	35.4	13.1	28.1	20.4	29.8	18.7	33.6	14.9	32.4	16.1	27.6	20.9	30.0	18.4	30.5	18.0	31.5	17.0
Hour 3	29.4	18.8	10.6	18.8	10.5	18.0	11.4	19.5	9.9	19.0	10.4	18.5	10.8	17.8	11.6	19.8	9.5	19.8	9.6	17.6	11.8	19.0	10.4	18.8	10.6
Hour 4	38.8	26.0	12.8	39.4	- 0.6	30.7	8.1	35.0	3.8	35.5	3.3	35.9	2.9	28.2	10.6	39.3	- 0.5	26.5	12.3	28.8	10.0	36.6	2.2	32.9	5.9
11	46.8	37.4	9.4	40.0	6.8	38.5	8.3	40.2	6.6	38.4	8.4	38.8	8.0	37.7	9.2	40.6	6.2	36.2	10.6	36.9	10.0	39.2	7.6	38.5	8.3



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

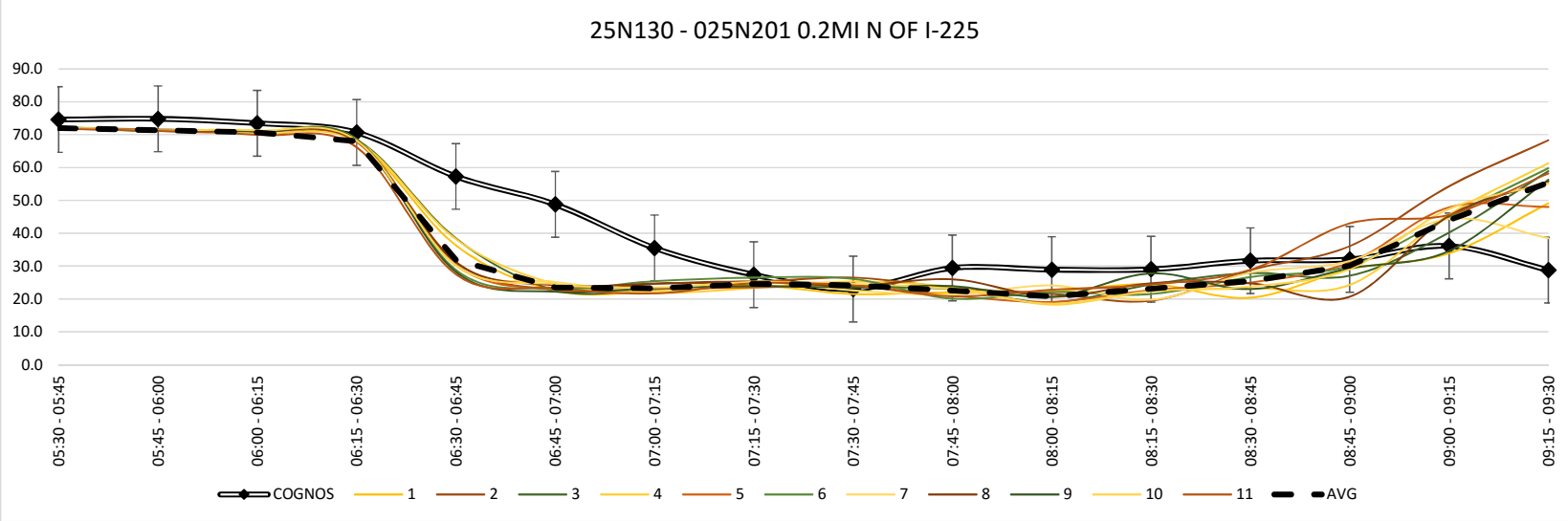
AM	COGNOS	MODEL																						AGGREGATE	
TIME	25N110	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	70.8	71.8	- 1.0	72.2	- 1.4	72.1	- 1.3	72.1	- 1.3	72.1	- 1.3	72.4	- 1.6	72.2	- 1.4	71.9	- 1.1	72.1	- 1.3	72.2	- 1.4	72.1	- 1.3	72.1	- 1.3
05:45 - 06:00	71.7	71.9	- 0.2	71.5	0.2	71.5	0.2	71.3	0.4	71.6	0.1	71.4	0.3	71.7	0.0	72.0	- 0.3	71.4	0.3	71.5	0.2	71.2	0.5	71.5	0.2
06:00 - 06:15	70.3	70.8	- 0.5	71.2	- 0.9	70.8	- 0.5	70.9	- 0.6	71.0	- 0.7	71.2	- 0.9	71.2	- 0.9	70.8	- 0.5	71.2	- 0.9	71.2	- 0.9	70.8	- 0.5	71.0	- 0.7
06:15 - 06:30	68.0	68.8	- 0.8	69.9	- 1.9	69.8	- 1.8	69.5	- 1.5	69.4	- 1.4	69.8	- 1.8	69.4	- 1.4	69.6	- 1.6	70.0	- 2.0	69.5	- 1.5	68.5	- 0.5	69.5	- 1.5
06:30 - 06:45	56.0	49.2	6.8	38.2	17.8	59.7	- 3.7	61.5	- 5.5	33.3	22.7	32.8	23.2	34.6	21.4	37.8	18.2	33.1	22.9	35.3	20.7	36.9	19.1	41.1	14.9
06:45 - 07:00	54.0	18.9	35.1	19.9	34.1	19.9	34.1	20.5	33.5	20.3	33.7	20.0	34.0	20.9	33.1	20.6	33.4	20.2	33.8	21.1	32.9	20.1	33.9	20.2	33.8
07:00 - 07:15	34.0	19.4	14.6	20.7	13.3	17.6	16.4	20.1	13.9	19.1	14.9	21.6	12.4	18.9	15.1	19.4	14.6	20.1	13.9	19.5	14.5	18.4	15.6	19.5	14.5
07:15 - 07:30	27.2	19.1	8.1	18.5	8.7	15.2	12.0	17.6	9.6	17.8	9.4	20.4	6.8	19.8	7.4	19.4	7.8	18.6	8.6	20.0	7.2	18.1	9.1	18.6	8.6
07:30 - 07:45	26.0	15.7	10.3	19.6	6.4	18.1	7.9	18.9	7.1	19.2	6.8	20.7	5.3	18.3	7.7	19.1	6.9	19.0	7.0	18.6	7.4	16.2	9.8	18.5	7.5
07:45 - 08:00	30.8	18.4	12.4	18.8	12.0	17.8	13.0	18.8	12.0	17.1	13.7	16.0	14.8	13.8	17.0	20.7	10.1	18.1	12.7	15.9	14.9	16.0	14.8	17.4	13.4
08:00 - 08:15	33.2	17.3	15.9	15.7	17.5	15.1	18.1	15.1	18.1	14.3	18.9	17.2	16.0	19.4	13.8	15.4	17.8	16.3	16.9	16.1	17.1	16.8	16.4	16.2	17.0
08:15 - 08:30	34.1	20.1	14.0	15.7	18.4	18.2	15.9	17.5	16.6	18.6	15.5	18.2	15.9	16.7	17.4	18.1	16.0	20.7	13.4	17.0	17.1	17.5	16.6	18.0	16.1
08:30 - 08:45	33.9	15.3	18.6	21.4	12.5	20.6	13.3	18.9	15.0	18.6	15.3	18.9	15.0	20.7	13.2	21.5	12.4	17.6	16.3	18.0	15.9	21.7	12.2	19.4	14.5
08:45 - 09:00	33.9	20.6	13.3	22.4	11.5	19.4	14.5	19.1	14.8	18.9	15.0	22.2	11.7	20.4	13.5	19.0	14.9	21.0	12.9	18.9	15.0	23.0	10.9	20.5	13.4
09:00 - 09:15	38.0	22.2	15.8	27.4	10.6	25.9	12.1	24.2	13.8	26.8	11.2	26.5	11.5	25.7	12.3	26.6	11.4	24.2	13.8	26.7	11.3	26.7	11.3	25.7	12.3
09:15 - 09:30	29.7	26.9	2.8	70.5	-40.8	37.4	- 7.7	40.6	-10.9	27.2	2.5	48.2	-18.5	27.5	2.2	39.7	-10.0	26.9	2.8	28.8	0.9	54.7	-25.0	39.0	- 9.3
Hour 1	70.2	70.8	- 0.6	71.2	- 1.0	71.1	- 0.9	71.0	- 0.8	71.0	- 0.8	71.2	- 1.0	71.1	- 0.9	71.1	- 0.9	71.2	- 1.0	71.1	- 0.9	70.7	- 0.5	71.0	- 0.8
Hour 2	42.8	26.7	16.1	24.3	18.5	28.1	14.7	29.9	12.9	22.6	20.2	23.7	19.1	23.6	19.2	24.3	18.5	23.0	19.8	24.0	18.8	23.4	19.4	24.9	17.9
Hour 3	31.0	17.9	13.1	17.5	13.6	17.3	13.7	17.6	13.4	17.3	13.7	18.0	13.0	17.1	14.0	18.3	12.7	18.5	12.5	16.9	14.1	16.6	14.4	17.5	13.5
Hour 4	33.9	21.3	12.6	35.4	- 1.6	25.8	8.0	25.7	8.2	22.9	11.0	29.0	4.9	23.6	10.3	26.7	7.2	22.4	11.4	23.1	10.8	31.5	2.3	26.2	7.7
11	44.5	34.2	10.3	37.1	7.4	35.6	8.9	36.0	8.4	33.5	11.0	35.5	9.0	33.8	10.6	35.1	9.4	33.8	10.7	33.8	10.7	35.5	8.9	34.9	9.6



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

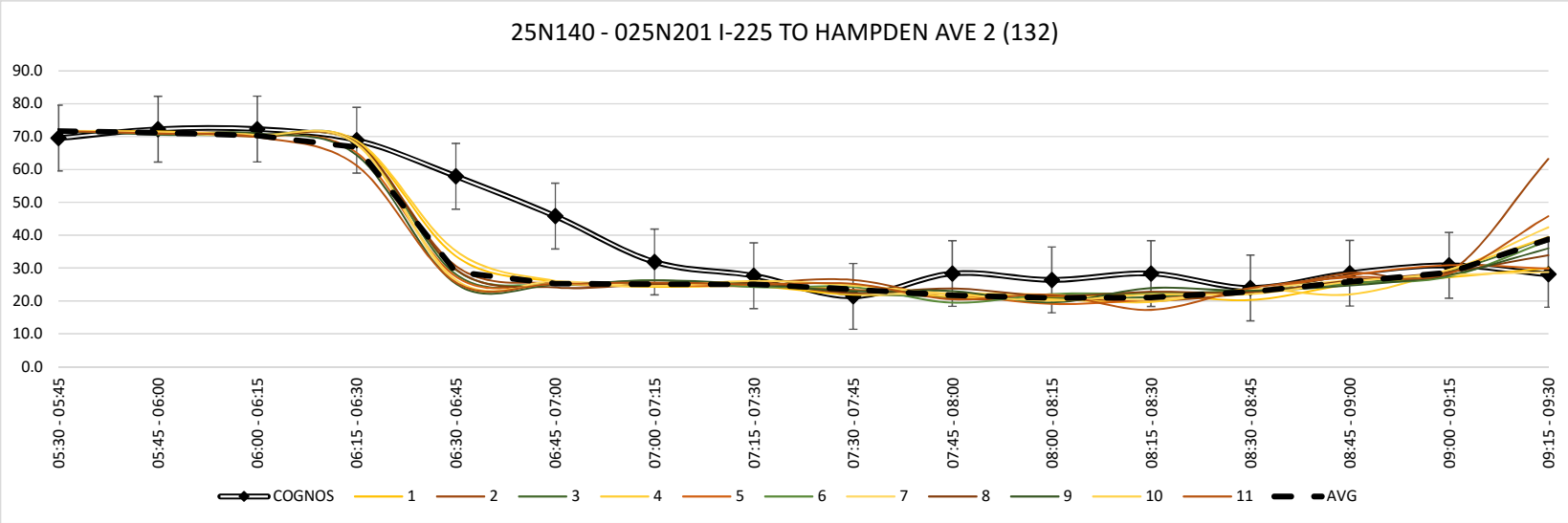
AM	COGNOS	MODEL																						AGGREGATE	
TIME	25N130	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	74.6	72.0	2.6	72.1	2.5	72.1	2.5	71.8	2.8	72.0	2.6	72.2	2.4	72.1	2.5	71.9	2.7	71.9	2.7	72.0	2.6	71.8	2.8	72.0	2.6
05:45 - 06:00	74.8	71.3	3.5	71.2	3.6	71.4	3.4	71.4	3.4	71.2	3.6	71.5	3.3	71.5	3.3	71.5	3.3	71.1	3.7	71.3	3.5	71.1	3.7	71.3	3.5
06:00 - 06:15	73.5	70.8	2.7	71.0	2.5	70.5	3.0	70.4	3.1	70.9	2.6	71.0	2.5	70.5	3.0	71.0	2.5	70.9	2.6	71.3	2.2	69.9	3.6	70.7	2.8
06:15 - 06:30	70.7	67.8	2.9	68.3	2.4	68.4	2.3	68.1	2.6	67.8	2.9	68.7	2.0	68.4	2.3	68.0	2.7	68.5	2.2	68.2	2.5	66.2	4.5	68.0	2.7
06:30 - 06:45	57.3	36.3	21.0	31.3	26.0	38.4	18.9	38.2	19.1	30.3	27.0	28.8	28.5	30.1	27.2	31.1	26.2	28.2	29.1	30.2	27.1	27.5	29.8	31.9	25.4
06:45 - 07:00	48.8	22.5	26.3	22.8	26.0	22.7	26.1	24.6	24.2	22.8	26.0	23.2	25.6	25.2	23.6	24.2	24.6	22.2	26.6	24.5	24.3	23.3	25.5	23.5	25.3
07:00 - 07:15	35.5	22.3	13.2	24.6	10.9	22.8	12.7	21.8	13.7	23.1	12.4	25.4	10.1	22.4	13.1	24.7	10.8	23.3	12.2	23.5	12.0	21.7	13.8	23.2	12.3
07:15 - 07:30	27.4	24.1	3.3	25.2	2.2	23.8	3.6	23.4	4.0	23.5	3.9	26.5	0.9	25.2	2.2	25.3	2.1	23.9	3.5	25.2	2.2	24.8	2.6	24.6	2.8
07:30 - 07:45	23.0	21.5	1.5	26.5	- 3.5	23.5	- 0.5	25.3	- 2.3	23.9	- 0.9	26.1	- 3.1	22.6	0.4	24.0	- 1.0	23.6	- 0.6	24.6	- 1.6	24.1	- 1.1	24.2	- 1.2
07:45 - 08:00	29.4	22.1	7.3	23.4	6.0	23.0	6.4	23.6	5.8	21.0	8.4	20.1	9.3	21.3	8.1	26.0	3.4	23.9	5.5	23.0	6.4	20.8	8.6	22.6	6.8
08:00 - 08:15	28.9	22.3	6.6	21.6	7.3	19.0	9.9	18.3	10.6	19.1	9.8	22.1	6.8	24.1	4.8	20.7	8.2	20.6	8.3	18.6	10.3	22.8	6.1	20.8	8.1
08:15 - 08:30	29.0	24.5	4.5	19.5	9.5	24.4	4.6	22.4	6.6	22.7	6.3	21.5	7.5	19.8	9.2	24.8	4.2	27.8	1.2	22.4	6.6	24.4	4.6	23.1	5.9
08:30 - 08:45	31.6	20.4	11.2	28.8	2.8	27.9	3.7	23.2	8.4	25.0	6.6	26.7	4.9	28.0	3.6	24.8	6.8	23.0	8.6	23.8	7.8	28.9	2.7	25.5	6.1
08:45 - 09:00	32.1	29.1	3.0	36.1	- 4.0	27.1	5.0	24.3	7.8	31.1	1.0	30.1	2.0	31.6	0.5	20.7	11.4	29.3	2.8	29.1	3.0	43.0	-10.9	30.1	2.0
09:00 - 09:15	36.1	33.9	2.2	54.3	-18.2	40.2	- 4.1	45.7	- 9.6	47.9	-11.8	45.0	- 8.9	44.4	- 8.3	45.3	- 9.2	34.6	1.5	47.4	-11.3	45.6	- 9.5	44.0	- 7.9
09:15 - 09:30	28.8	49.1	-20.3	68.3	-39.5	58.9	-30.1	61.3	-32.5	48.0	-19.2	59.8	-31.0	38.5	- 9.7	55.8	-27.0	56.3	-27.5	55.1	-26.3	58.2	-29.4	55.4	-26.6
Hour 1	73.4	70.5	2.9	70.7	2.7	70.6	2.8	70.4	3.0	70.5	2.9	70.9	2.5	70.6	2.8	70.6	2.8	70.6	2.8	70.7	2.7	69.8	3.6	70.5	2.9
Hour 2	42.2	26.3	15.9	26.0	16.3	26.9	15.3	27.0	15.2	24.9	17.3	26.0	16.3	25.7	16.5	26.3	15.9	24.4	17.8	25.9	16.4	24.3	17.9	25.8	16.4
Hour 3	27.6	22.6	5.0	22.8	4.9	22.5	5.1	22.4	5.2	21.7	5.9	22.5	5.2	22.0	5.7	23.9	3.7	24.0	3.6	22.2	5.5	23.0	4.6	22.7	4.9
Hour 4	32.2	33.1	- 1.0	46.9	-14.7	38.5	- 6.4	38.6	- 6.5	38.0	- 5.8	40.4	- 8.2	35.6	- 3.5	36.7	- 4.5	35.8	- 3.6	38.9	- 6.7	43.9	-11.8	38.8	- 6.6
11	43.8	38.1	5.7	41.6	2.3	39.6	4.2	39.6	4.2	38.8	5.1	39.9	3.9	38.5	5.4	39.4	4.5	38.7	5.1	39.4	4.5	40.3	3.6	39.4	4.4



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

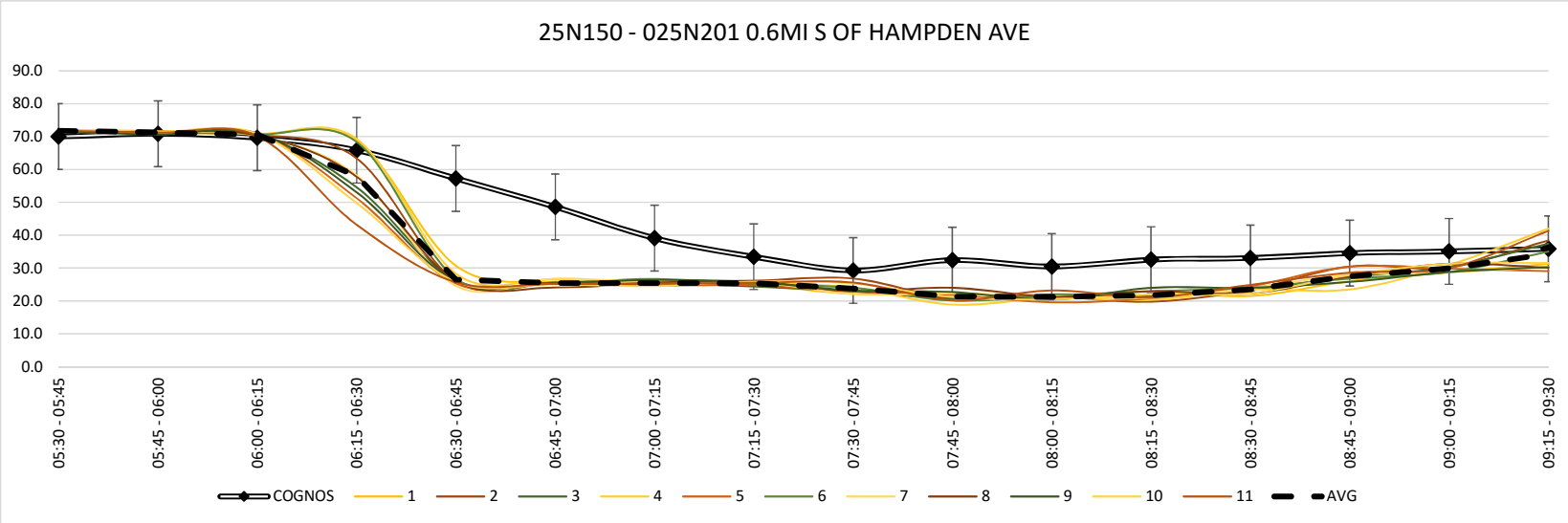
AM	COGNOS	MODEL																						AGGREGATE	
TIME	25N140	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	69.5	71.7	- 2.2	71.7	- 2.2	71.9	- 2.4	71.6	- 2.1	71.8	- 2.3	71.6	- 2.1	71.8	- 2.3	71.8	- 2.3	71.7	- 2.2	71.8	- 2.3	71.7	- 2.2	71.7	- 2.2
05:45 - 06:00	72.2	71.6	0.6	71.0	1.2	70.6	1.6	71.2	1.0	71.2	1.0	71.1	1.1	71.1	1.1	71.3	0.9	70.8	1.4	71.4	0.8	70.9	1.3	71.1	1.1
06:00 - 06:15	72.3	70.2	2.1	70.6	1.7	70.2	2.1	70.3	2.0	70.7	1.6	70.6	1.7	69.9	2.4	70.0	2.3	70.9	1.4	70.5	1.8	69.8	2.5	70.3	2.0
06:15 - 06:30	68.9	68.4	0.5	67.9	1.0	68.2	0.7	68.8	0.1	65.1	3.8	67.8	1.1	67.6	1.3	68.1	0.8	64.4	4.5	67.8	1.1	61.2	7.7	66.8	2.1
06:30 - 06:45	57.9	33.6	24.3	30.6	27.3	28.1	29.8	35.2	22.7	27.4	30.5	29.4	28.5	25.7	32.2	29.6	28.3	25.2	32.7	26.4	31.5	25.6	32.3	28.8	29.1
06:45 - 07:00	45.8	25.9	19.9	25.3	20.5	25.0	20.8	26.1	19.7	25.1	20.7	25.0	20.8	26.0	19.8	24.1	21.7	24.9	20.9	25.2	20.6	25.2	20.6	25.3	20.5
07:00 - 07:15	31.9	24.3	7.6	24.7	7.2	25.4	6.5	24.6	7.3	24.8	7.1	26.3	5.6	24.7	7.2	25.1	6.8	26.3	5.6	24.5	7.4	25.6	6.3	25.1	6.8
07:15 - 07:30	27.7	24.5	3.2	25.5	2.2	25.2	2.5	25.3	2.4	24.4	3.3	24.2	3.5	25.3	2.4	25.5	2.2	25.0	2.7	26.1	1.6	25.0	2.7	25.1	2.6
07:30 - 07:45	21.4	21.9	- 0.5	26.4	- 5.0	22.4	- 1.0	23.3	- 1.9	23.4	- 2.0	24.2	- 2.8	22.2	- 0.8	22.4	- 1.0	23.0	- 1.6	24.7	- 3.3	25.2	- 3.8	23.5	- 2.1
07:45 - 08:00	28.4	22.2	6.2	20.9	7.5	21.2	7.2	21.3	7.1	22.0	6.4	19.5	8.9	22.4	6.0	23.8	4.6	23.0	5.4	22.1	6.3	20.5	7.9	21.7	6.7
08:00 - 08:15	26.4	21.2	5.2	20.7	5.7	20.8	5.6	20.5	5.9	19.1	7.3	22.1	4.3	21.9	4.5	21.5	4.9	19.6	6.8	20.1	6.3	21.9	4.5	20.9	5.5
08:15 - 08:30	28.3	22.0	6.3	20.0	8.3	21.2	7.1	19.7	8.6	20.5	7.8	22.3	6.0	20.4	7.9	22.8	5.5	23.9	4.4	22.0	6.3	17.3	11.0	21.1	7.2
08:30 - 08:45	23.9	20.3	3.6	22.6	1.3	23.1	0.8	23.6	0.3	23.3	0.6	23.2	0.7	23.4	0.5	22.6	1.3	23.1	0.8	22.1	1.8	23.9	0.0	22.8	1.1
08:45 - 09:00	28.4	25.0	3.4	28.5	- 0.1	25.3	3.1	22.0	6.4	27.8	0.6	25.4	3.0	26.3	2.1	26.2	2.2	24.7	3.7	25.9	2.5	27.2	1.2	25.8	2.6
09:00 - 09:15	30.8	27.2	3.6	28.8	2.0	29.0	1.8	29.4	1.4	30.9	- 0.1	27.4	3.4	27.9	2.9	28.8	2.0	27.9	2.9	29.5	1.3	28.3	2.5	28.6	2.2
09:15 - 09:30	28.1	30.0	- 1.9	63.2	-35.1	39.3	-11.2	39.5	-11.4	29.8	- 1.7	38.3	-10.2	28.8	- 0.7	33.9	- 5.8	36.0	- 7.9	42.4	-14.3	45.8	-17.7	38.8	-10.7
Hour 1	70.7	70.5	0.3	70.3	0.4	70.2	0.5	70.5	0.3	69.7	1.0	70.3	0.5	70.1	0.6	70.3	0.4	69.5	1.3	70.4	0.4	68.4	2.3	70.0	0.8
Hour 2	40.8	27.1	13.7	26.5	14.3	25.9	14.9	27.8	13.0	25.4	15.4	26.2	14.6	25.4	15.4	26.1	14.7	25.4	15.5	25.6	15.3	25.4	15.5	26.1	14.7
Hour 3	26.1	21.8	4.3	22.0	4.1	21.4	4.7	21.2	4.9	21.3	4.9	22.0	4.1	21.7	4.4	22.6	3.5	22.4	3.7	22.2	3.9	21.2	4.9	21.8	4.3
Hour 4	27.8	25.6	2.2	35.8	- 8.0	29.2	- 1.4	28.6	- 0.8	28.0	- 0.1	28.6	- 0.8	26.6	1.2	27.9	- 0.1	27.9	- 0.1	30.0	- 2.2	31.3	- 3.5	29.0	- 1.2
11	41.4	36.3	5.1	38.7	2.7	36.7	4.7	37.0	4.3	36.1	5.3	36.8	4.6	36.0	5.4	36.7	4.7	36.3	5.1	37.0	4.3	36.6	4.8	36.7	4.7



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

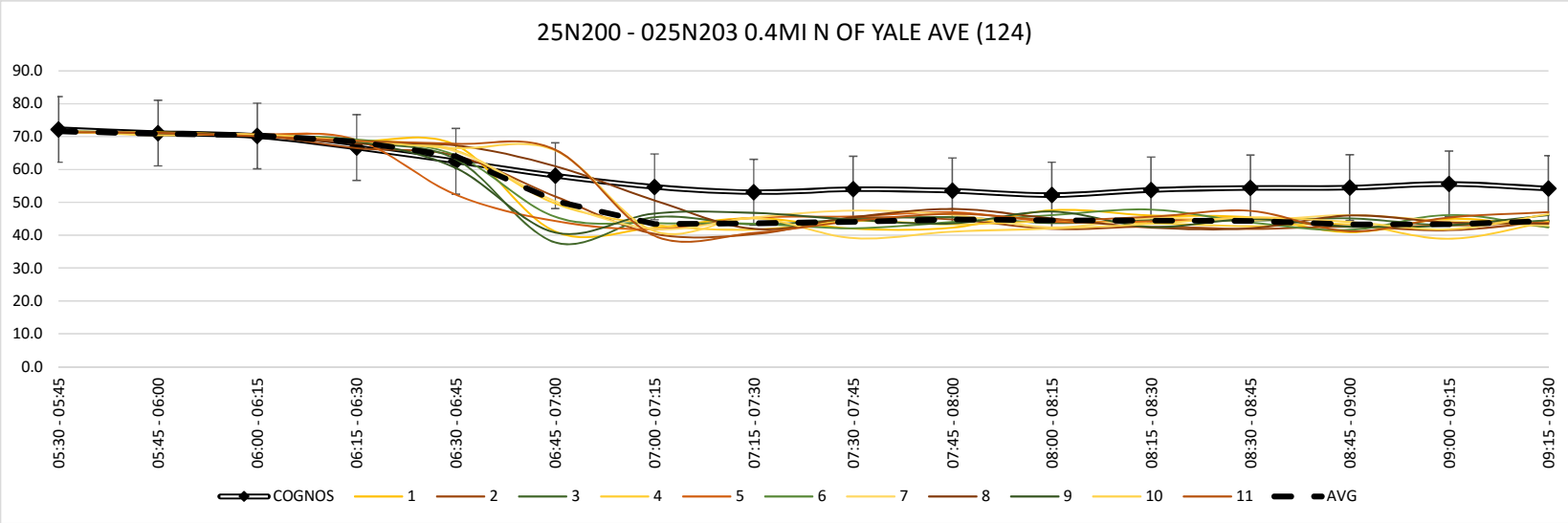
AM	COGNOS	MODEL																						AGGREGATE	
TIME	25N150	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	70.0	71.9	- 1.9	71.9	- 1.9	71.9	- 1.9	71.4	- 1.4	71.8	- 1.8	71.9	- 1.9	71.9	- 1.9	71.6	- 1.6	71.7	- 1.7	72.0	- 2.0	71.8	- 1.8	71.8	- 1.8
05:45 - 06:00	70.8	71.7	- 0.9	71.3	- 0.5	71.1	- 0.3	71.1	- 0.3	71.1	- 0.3	71.2	- 0.4	71.3	- 0.5	71.5	- 0.7	70.6	0.2	71.5	- 0.7	71.2	- 0.4	71.2	- 0.4
06:00 - 06:15	69.6	70.9	- 1.3	70.6	- 1.0	70.5	- 0.9	70.7	- 1.1	70.9	- 1.3	70.7	- 1.1	70.2	- 0.6	70.3	- 0.7	71.0	- 1.4	70.9	- 1.3	70.2	- 0.6	70.6	- 1.0
06:15 - 06:30	65.9	68.8	- 3.0	63.4	2.5	54.6	11.3	69.3	- 3.5	51.3	14.6	68.4	- 2.6	58.2	7.6	57.8	8.1	53.1	12.8	49.8	16.1	43.2	22.7	58.0	7.8
06:30 - 06:45	57.3	30.7	26.6	26.0	31.3	26.3	31.0	28.3	29.0	25.3	32.0	26.8	30.5	24.6	32.7	26.1	31.2	25.9	31.4	25.8	31.5	25.7	31.6	26.5	30.8
06:45 - 07:00	48.6	25.7	22.9	25.5	23.1	25.5	23.1	26.5	22.1	25.4	23.2	25.6	23.0	26.8	21.8	24.1	24.5	25.5	23.1	25.1	23.5	25.2	23.4	25.5	23.1
07:00 - 07:15	39.1	24.6	14.5	25.8	13.3	25.4	13.7	25.4	13.7	24.8	14.3	26.7	12.4	25.7	13.4	25.6	13.5	26.4	12.7	24.5	14.6	25.3	13.8	25.5	13.6
07:15 - 07:30	33.5	24.7	8.8	26.2	7.3	24.4	9.1	25.6	7.9	24.8	8.7	25.1	8.4	25.8	7.7	25.9	7.6	25.7	7.8	25.9	7.6	25.5	8.0	25.4	8.1
07:30 - 07:45	29.3	22.2	7.1	26.8	2.5	22.9	6.4	24.0	5.3	22.8	6.5	24.0	5.3	22.1	7.2	23.0	6.3	23.2	6.1	25.3	4.0	25.6	3.7	23.8	5.5
07:45 - 08:00	32.4	22.2	10.2	20.8	11.6	20.8	11.6	18.9	13.5	21.8	10.6	20.1	12.3	22.3	10.1	24.0	8.4	22.7	9.7	21.2	11.2	20.2	12.2	21.4	11.0
08:00 - 08:15	30.5	21.2	9.3	21.3	9.2	22.0	8.5	20.9	9.6	19.6	10.9	21.6	8.9	21.6	8.9	21.3	9.2	20.4	10.1	20.5	10.0	23.2	7.3	21.2	9.3
08:15 - 08:30	32.6	22.9	9.7	19.8	12.8	21.4	11.2	20.3	12.3	20.8	11.8	22.9	9.7	21.0	11.6	23.0	9.6	24.0	8.6	22.0	10.6	21.1	11.5	21.7	10.9
08:30 - 08:45	33.1	21.5	11.6	23.4	9.7	23.5	9.6	23.5	9.6	24.5	8.6	24.1	9.0	23.9	9.2	22.3	10.8	24.0	9.1	22.3	10.8	24.9	8.2	23.5	9.6
08:45 - 09:00	34.5	26.0	8.5	30.5	4.0	27.3	7.2	23.5	11.0	30.4	4.1	26.8	7.7	28.0	6.5	27.5	7.0	25.8	8.7	27.9	6.6	28.6	5.9	27.5	7.0
09:00 - 09:15	35.1	28.7	6.4	30.2	4.9	30.4	4.7	30.9	4.2	29.8	5.3	28.8	6.3	28.7	6.4	31.3	3.8	28.8	6.3	31.3	3.8	30.0	5.1	29.9	5.2
09:15 - 09:30	35.9	31.3	4.6	38.4	- 2.6	37.4	- 1.6	42.0	- 6.2	29.1	6.8	35.0	0.9	30.4	5.5	30.1	5.8	30.3	5.6	31.6	4.3	41.3	- 5.5	34.3	1.6
Hour 1	69.1	70.8	- 1.7	69.3	- 0.2	67.0	2.1	70.6	- 1.5	66.3	2.8	70.6	- 1.5	67.9	1.2	67.8	1.3	66.6	2.5	66.1	3.0	64.1	5.0	67.9	1.2
Hour 2	44.6	26.4	18.2	25.9	18.7	25.4	19.2	26.5	18.2	25.1	19.5	26.1	18.6	25.7	18.9	25.4	19.2	25.9	18.7	25.3	19.3	25.4	19.2	25.7	18.9
Hour 3	31.2	22.1	9.1	22.2	9.0	21.8	9.4	21.0	10.2	21.3	9.9	22.2	9.0	21.8	9.4	22.8	8.4	22.6	8.6	22.3	8.9	22.5	8.7	22.0	9.2
Hour 4	34.6	26.9	7.8	30.6	4.0	29.7	5.0	30.0	4.7	28.5	6.2	28.7	6.0	27.8	6.9	27.8	6.8	27.2	7.4	28.3	6.4	31.2	3.4	28.8	5.8
11	44.9	36.6	8.3	37.0	7.9	36.0	8.9	37.0	7.9	35.3	9.6	36.9	8.0	35.8	9.1	36.0	8.9	35.6	9.3	35.5	9.4	35.8	9.1	36.1	8.8



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

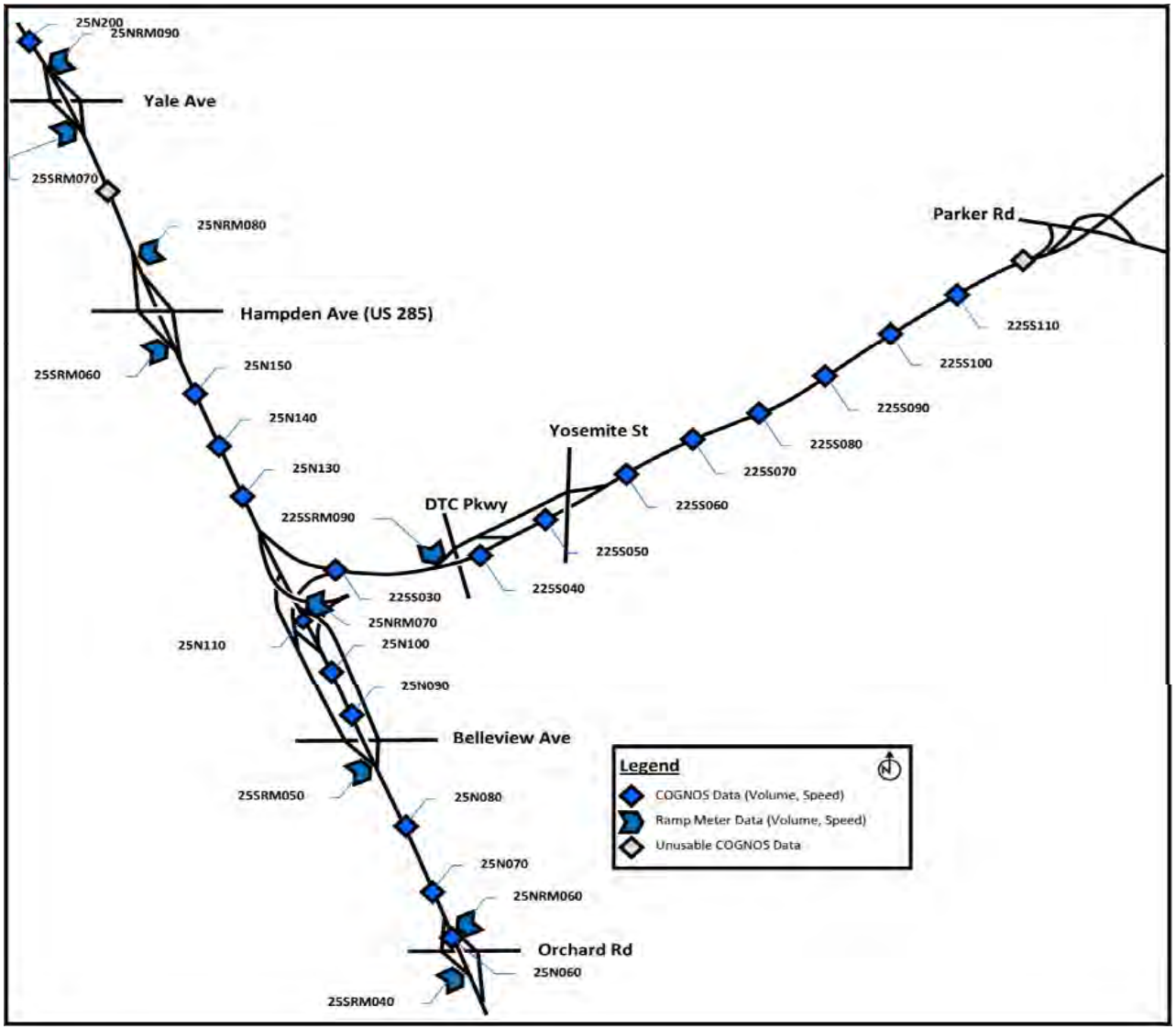
AM	COGNOS	MODEL																						AGGREGATE	
TIME	25N200	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	72.2	71.4	0.8	71.7	0.5	71.8	0.4	71.3	0.9	71.5	0.7	71.7	0.5	71.7	0.5	71.4	0.8	71.5	0.7	71.6	0.6	71.4	0.8	71.6	0.6
05:45 - 06:00	71.1	71.3	- 0.2	70.8	0.3	70.8	0.3	71.0	0.1	70.7	0.4	71.1	- 0.0	71.1	- 0.0	71.1	- 0.0	70.8	0.3	70.4	0.7	71.0	0.1	70.9	0.2
06:00 - 06:15	70.2	70.3	- 0.1	70.3	- 0.1	70.7	- 0.5	70.3	- 0.1	70.7	- 0.5	70.4	- 0.2	70.5	- 0.3	70.3	- 0.1	70.4	- 0.2	70.6	- 0.4	70.1	0.1	70.4	- 0.2
06:15 - 06:30	66.7	68.7	- 2.0	66.5	0.2	68.1	- 1.4	68.9	- 2.2	69.0	- 2.3	69.1	- 2.4	68.5	- 1.8	67.9	- 1.2	68.5	- 1.8	68.7	- 2.0	68.7	- 2.0	68.4	- 1.7
06:30 - 06:45	62.5	67.4	- 5.0	64.2	- 1.8	63.1	- 0.6	65.8	- 3.3	52.3	10.2	64.3	- 1.8	65.5	- 3.1	67.3	- 4.8	60.4	2.1	66.5	- 4.1	67.8	- 5.3	64.0	- 1.6
06:45 - 07:00	58.1	41.1	17.0	51.8	6.3	37.8	20.3	49.6	8.5	44.3	13.8	45.6	12.5	50.3	7.8	61.0	- 2.9	40.8	17.3	65.8	- 7.7	66.0	- 7.9	50.4	7.7
07:00 - 07:15	54.7	42.3	12.4	40.4	14.3	45.5	9.2	43.2	11.5	41.8	12.9	43.7	11.0	41.9	12.8	50.6	4.1	46.6	8.1	41.2	13.5	39.8	14.9	43.4	11.3
07:15 - 07:30	53.1	45.2	7.9	40.3	12.8	43.3	9.8	41.7	11.4	45.3	7.8	43.5	9.6	45.4	7.7	41.9	11.2	46.8	6.3	45.2	7.9	40.7	12.4	43.6	9.5
07:30 - 07:45	54.0	42.0	12.0	45.1	8.9	44.8	9.2	44.3	9.7	45.7	8.3	42.1	11.9	47.5	6.5	45.5	8.5	44.7	9.3	39.1	14.9	44.3	9.7	44.1	9.9
07:45 - 08:00	53.5	42.3	11.2	44.8	8.7	45.5	8.0	43.3	10.2	47.0	6.5	44.0	9.5	46.2	7.3	48.0	5.5	43.6	9.9	41.1	12.4	46.5	7.0	44.8	8.7
08:00 - 08:15	52.2	47.6	4.6	41.9	10.3	43.7	8.5	44.2	8.0	44.1	8.1	46.1	6.1	42.4	9.8	45.1	7.1	47.2	5.0	42.0	10.2	44.7	7.5	44.5	7.7
08:15 - 08:30	53.8	46.0	7.8	42.6	11.2	44.6	9.2	43.7	10.1	44.2	9.6	47.8	6.0	45.2	8.6	42.3	11.5	42.5	11.3	43.4	10.4	45.6	8.2	44.4	9.4
08:30 - 08:45	54.4	45.4	9.0	41.9	12.5	44.4	10.0	42.7	11.7	45.2	9.2	43.9	10.5	44.5	9.9	42.1	12.3	44.9	9.5	45.4	9.0	47.4	7.0	44.3	10.1
08:45 - 09:00	54.5	40.9	13.6	42.6	11.9	45.1	9.4	43.3	11.2	42.7	11.8	41.6	12.9	46.1	8.4	46.0	8.5	42.6	11.9	44.0	10.5	41.2	13.3	43.3	11.2
09:00 - 09:15	55.6	45.0	10.6	41.5	14.1	43.0	12.6	38.9	16.7	43.0	12.6	46.2	9.4	44.3	11.3	43.9	11.7	43.0	12.6	41.8	13.8	45.4	10.2	43.3	12.3
09:15 - 09:30	54.2	42.5	11.7	44.2	10.0	44.5	9.7	44.1	10.1	43.8	10.4	42.4	11.8	42.9	11.3	43.5	10.7	46.1	8.1	46.4	7.8	47.0	7.2	44.3	9.9
Hour 1	70.0	70.4	- 0.4	69.8	0.2	70.4	- 0.3	70.4	- 0.4	70.5	- 0.5	70.6	- 0.6	70.5	- 0.4	70.2	- 0.2	70.3	- 0.3	70.3	- 0.3	70.3	- 0.3	70.3	- 0.3
Hour 2	57.1	49.0	8.1	49.2	7.9	47.4	9.7	50.1	7.0	45.9	11.2	49.3	7.8	50.8	6.3	55.2	1.9	48.7	8.4	54.7	2.4	53.6	3.5	50.4	6.7
Hour 3	53.4	44.5	8.9	43.6	9.8	44.7	8.7	43.9	9.5	45.3	8.1	45.0	8.4	45.3	8.0	45.2	8.1	44.5	8.9	41.4	12.0	45.3	8.1	44.5	8.9
Hour 4	54.6	43.5	11.2	42.6	12.1	44.3	10.4	42.3	12.4	43.7	11.0	43.5	11.1	44.5	10.2	43.9	10.8	44.2	10.5	44.4	10.2	45.3	9.4	43.8	10.8
11	58.8	51.8	6.9	51.3	7.5	51.7	7.1	51.6	7.1	51.3	7.4	52.1	6.7	52.8	6.0	53.6	5.2	51.9	6.9	52.7	6.1	53.6	5.2	52.2	6.5



AVERAGE VEHICLE SPEEDS - BY LINK

CONCEPT 2: +10% I-225

ROUTE: I-225
PERIOD: PM

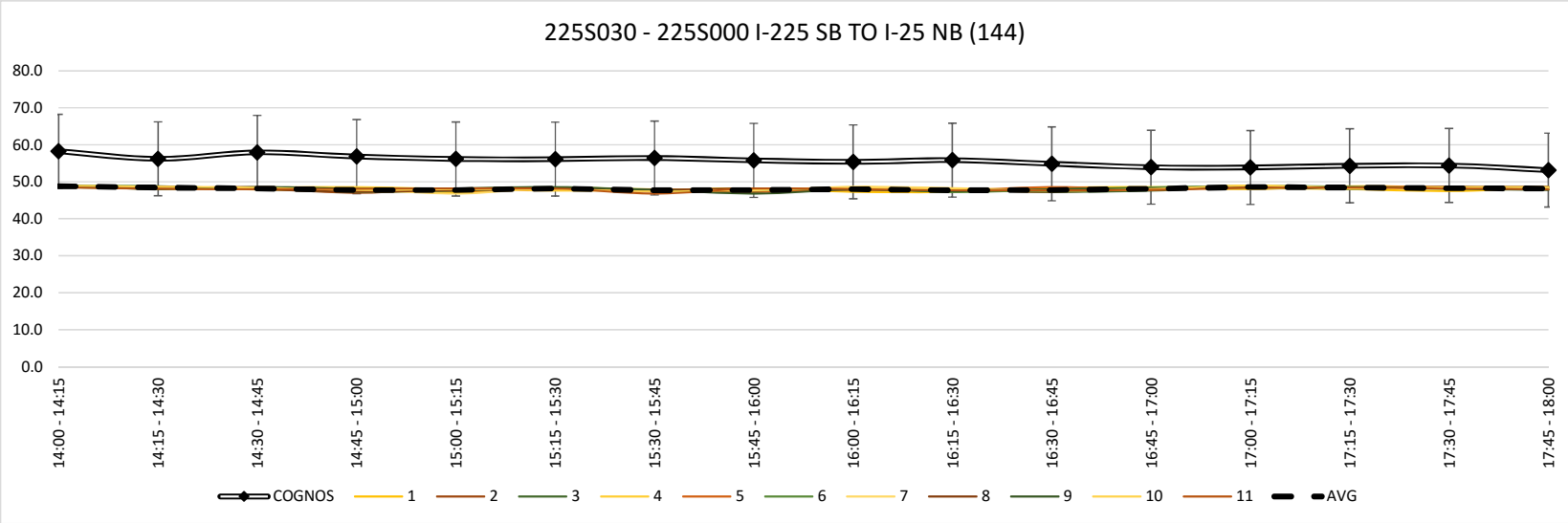


LOCATION	COGNOS DESCRIPTION
225S030	225S000 I-225 SB TO I-25 NB (144)
225SRM090	225S001 TAMARAC
225S040	225S001 YOSEMITE ST TO DTC BLVD (172)
225S050	225S001 YOSEMITE ST (174)
225S060	225S001 PARKER RD TO YOSEMITE ST (176)
225S070	225S001 PARKER RD TO YOSEMITE ST (181)
225S080	225S002 PARKER RD TO YOSEMITE ST (182)
225S090	225S002 PARKER RD TO YOESMEITE ST (183)
225S100	225S002 PARKER RD TO YOSEMITE ST (184)
225S110	225S003 PARKER RD TO YOSEMITE ST (191)

CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

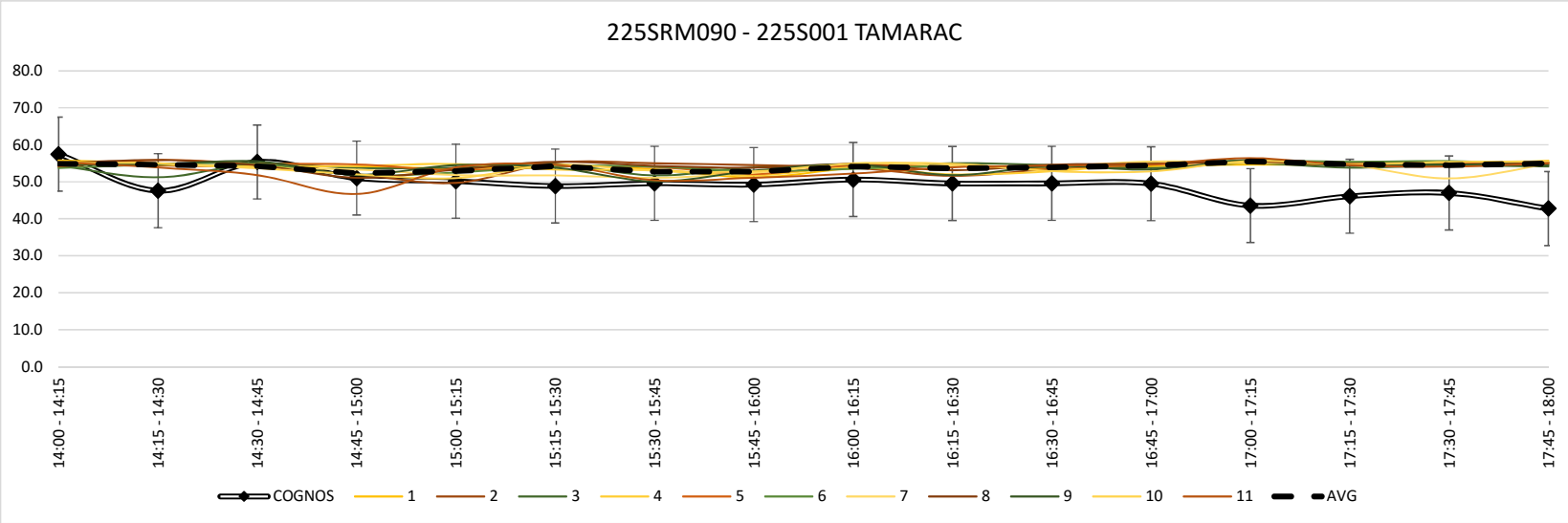
PM	COGNOS	MODEL																						AGGREGATE	
TIME	225S030	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	58.3	48.9	9.4	49.0	9.3	48.6	9.7	48.9	9.4	48.8	9.5	48.9	9.4	48.7	9.6	48.5	9.8	49.0	9.3	48.9	9.4	48.5	9.8	48.8	9.5
14:15 - 14:30	56.2	48.7	7.5	48.3	7.9	48.1	8.1	48.1	8.1	48.3	7.9	48.8	7.4	48.7	7.5	48.7	7.5	48.0	8.2	48.7	7.5	48.1	8.1	48.4	7.8
14:30 - 14:45	58.0	48.1	9.9	48.2	9.8	48.2	9.8	48.4	9.6	48.6	9.4	48.0	10.0	47.9	10.1	48.0	10.0	48.6	9.4	48.4	9.6	48.0	10.0	48.2	9.8
14:45 - 15:00	56.8	48.2	8.6	47.0	9.8	48.1	8.7	48.6	8.2	47.8	9.0	47.3	9.5	47.9	8.9	47.3	9.5	48.1	8.7	47.8	9.0	48.1	8.7	47.8	9.0
15:00 - 15:15	56.2	47.1	9.1	48.2	8.0	48.2	8.0	48.0	8.2	47.5	8.7	47.6	8.6	46.8	9.4	47.7	8.5	48.2	8.0	48.0	8.2	48.2	8.0	47.8	8.4
15:15 - 15:30	56.1	48.2	7.9	48.0	8.1	48.6	7.5	47.6	8.5	48.0	8.1	48.4	7.7	48.3	7.8	48.3	7.8	48.5	7.6	48.0	8.1	48.2	7.9	48.2	7.9
15:30 - 15:45	56.4	47.8	8.6	47.9	8.5	47.8	8.6	47.8	8.6	47.5	8.9	47.9	8.5	48.0	8.4	47.9	8.5	47.8	8.6	47.4	9.0	46.8	9.6	47.7	8.7
15:45 - 16:00	55.8	48.2	7.6	47.3	8.5	48.2	7.6	48.2	7.6	47.3	8.5	47.6	8.2	47.7	8.1	48.2	7.6	46.8	9.0	47.9	7.9	48.2	7.6	47.8	8.0
16:00 - 16:15	55.4	47.3	8.1	48.0	7.4	48.0	7.4	47.6	7.8	47.8	7.6	48.5	6.9	48.7	6.7	48.1	7.3	47.9	7.5	48.3	7.1	48.0	7.4	48.0	7.4
16:15 - 16:30	55.8	47.3	8.5	48.0	7.8	47.8	8.0	48.0	7.8	47.6	8.2	47.2	8.6	48.3	7.5	47.9	7.9	47.4	8.4	48.0	7.8	47.7	8.1	47.7	8.1
16:30 - 16:45	54.9	48.4	6.5	47.2	7.7	47.3	7.6	47.7	7.2	48.6	6.3	47.9	7.0	47.8	7.1	47.8	7.1	48.0	6.9	47.6	7.3	47.7	7.2	47.8	7.1
16:45 - 17:00	53.9	48.6	5.3	48.2	5.7	47.6	6.3	48.4	5.5	47.9	6.0	48.5	5.4	47.9	6.0	48.1	5.8	48.1	5.8	48.0	5.9	47.8	6.1	48.1	5.8
17:00 - 17:15	53.9	48.3	5.6	48.1	5.8	48.8	5.1	48.0	5.9	48.5	5.4	48.9	5.0	48.9	5.0	48.8	5.1	48.4	5.5	49.0	4.9	48.4	5.5	48.6	5.3
17:15 - 17:30	54.3	48.0	6.3	48.4	5.9	48.0	6.3	48.8	5.5	48.6	5.7	48.7	5.6	48.4	5.9	48.2	6.1	48.4	5.9	48.1	6.2	48.4	5.9	48.4	5.9
17:30 - 17:45	54.4	47.5	6.9	48.6	5.8	48.6	5.8	48.5	5.9	48.6	5.8	48.3	6.1	48.0	6.4	48.6	5.8	48.1	6.3	48.5	5.9	48.2	6.2	48.3	6.1
17:45 - 18:00	53.1	48.4	4.7	48.1	5.0	48.0	5.1	48.1	5.0	48.0	5.1	48.6	4.5	48.2	4.9	48.7	4.4	47.8	5.3	48.6	4.5	47.9	5.2	48.2	4.9
Hour 1	57.3	48.5	8.8	48.1	9.2	48.3	9.1	48.5	8.8	48.4	8.9	48.3	9.1	48.3	9.0	48.1	9.2	48.4	8.9	48.5	8.9	48.2	9.1	48.3	9.0
Hour 2	56.1	47.8	8.3	47.9	8.3	48.2	7.9	47.9	8.2	47.6	8.5	47.9	8.2	47.7	8.4	48.0	8.1	47.8	8.3	47.8	8.3	47.9	8.3	47.9	8.2
Hour 3	55.0	47.9	7.1	47.9	7.2	47.7	7.3	47.9	7.1	48.0	7.0	48.0	7.0	48.2	6.8	48.0	7.0	47.9	7.2	48.0	7.0	47.8	7.2	47.9	7.1
Hour 4	53.9	48.1	5.9	48.3	5.6	48.4	5.6	48.4	5.6	48.4	5.5	48.6	5.3	48.4	5.6	48.6	5.4	48.2	5.8	48.6	5.4	48.2	5.7	48.4	5.6
11	55.6	48.1	7.5	48.0	7.6	48.1	7.5	48.2	7.4	48.1	7.5	48.2	7.4	48.1	7.5	48.2	7.4	48.1	7.5	48.2	7.4	48.0	7.6	48.1	7.5



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

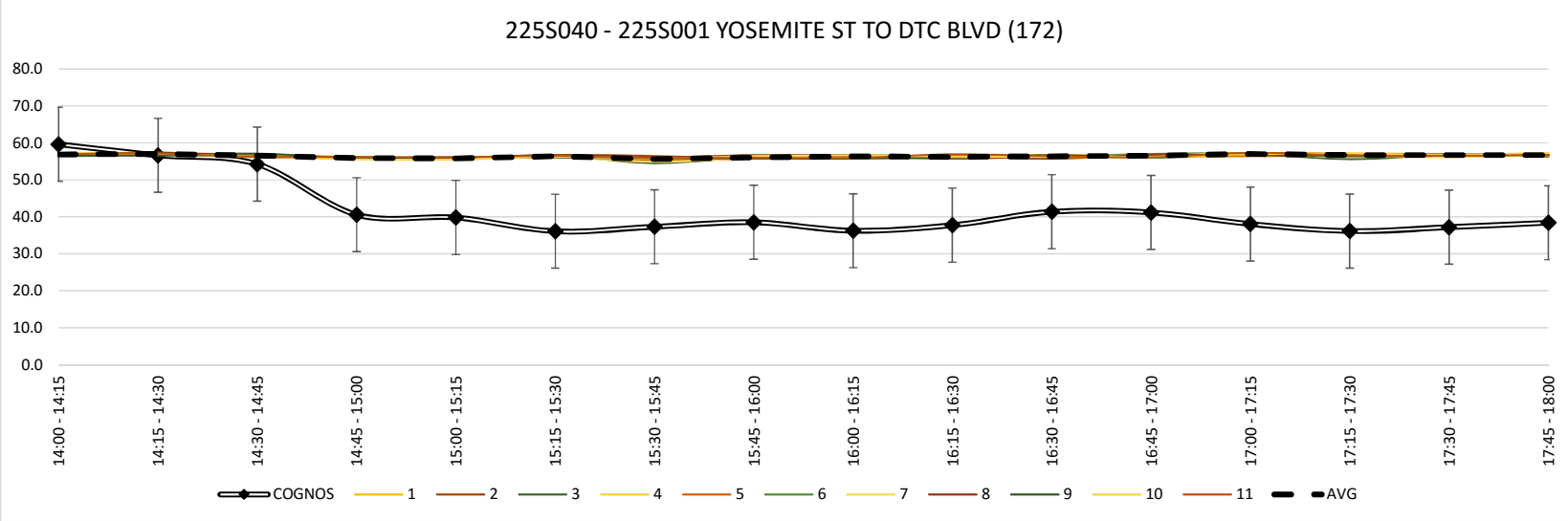
PM	COGNOS	MODEL																						AGGREGATE	
TIME	225SRM090	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	57.5	55.8	1.7	55.1	2.4	54.3	3.2	55.6	1.9	54.0	3.5	53.7	3.8	55.1	2.4	55.0	2.5	54.6	2.9	55.1	2.4	55.3	2.2	54.9	2.6
14:15 - 14:30	47.6	55.0	- 7.4	54.4	- 6.8	51.2	- 3.6	54.6	- 7.0	55.9	- 8.3	54.7	- 7.1	54.9	- 7.3	55.9	- 8.3	54.8	- 7.2	55.0	- 7.4	53.9	- 6.3	54.6	- 7.0
14:30 - 14:45	55.4	53.9	1.5	53.9	1.5	54.9	0.5	54.1	1.3	54.9	0.5	54.9	0.5	53.7	1.7	54.5	0.9	55.5	- 0.1	53.7	1.7	51.8	3.6	54.2	1.2
14:45 - 15:00	51.0	54.2	- 3.2	52.0	- 1.0	53.7	- 2.7	54.3	- 3.3	54.7	- 3.7	51.8	- 0.8	53.3	- 2.3	51.1	- 0.1	51.9	- 0.9	52.0	- 1.0	46.7	4.3	52.3	- 1.3
15:00 - 15:15	50.2	53.6	- 3.4	49.7	0.5	53.8	- 3.6	54.8	- 4.6	53.1	- 2.9	52.5	- 2.3	51.8	- 1.6	53.3	- 3.1	54.5	- 4.3	51.0	- 0.8	53.9	- 3.7	52.9	- 2.7
15:15 - 15:30	48.8	54.3	- 5.5	55.2	- 6.4	54.8	- 6.0	53.3	- 4.5	54.1	- 5.3	54.2	- 5.4	51.7	- 2.9	55.4	- 6.6	53.8	- 5.0	54.6	- 5.8	54.6	- 5.8	54.2	- 5.4
15:30 - 15:45	49.6	53.4	- 3.8	55.0	- 5.4	51.7	- 2.1	53.1	- 3.5	54.0	- 4.4	54.1	- 4.5	51.1	- 1.5	54.3	- 4.7	50.1	- 0.5	53.0	- 3.4	50.4	- 0.8	52.7	- 3.1
15:45 - 16:00	49.2	51.2	- 2.0	54.5	- 5.3	53.9	- 4.7	51.7	- 2.5	52.1	- 2.9	52.9	- 3.7	52.4	- 3.2	53.8	- 4.6	53.0	- 3.8	52.8	- 3.6	51.1	- 1.9	52.7	- 3.5
16:00 - 16:15	50.6	53.6	- 3.0	53.8	- 3.2	53.8	- 3.2	53.9	- 3.3	54.5	- 3.9	53.5	- 2.9	55.0	- 4.4	54.8	- 4.2	54.7	- 4.1	54.9	- 4.3	52.2	- 1.6	54.1	- 3.5
16:15 - 16:30	49.5	54.2	- 4.7	51.6	- 2.1	55.0	- 5.5	52.0	- 2.5	54.3	- 4.8	54.3	- 4.8	54.4	- 4.9	53.1	- 3.6	51.8	- 2.3	54.9	- 5.4	53.9	- 4.4	53.6	- 4.1
16:30 - 16:45	49.6	53.6	- 4.0	53.5	- 3.9	54.5	- 4.9	52.8	- 3.2	53.8	- 4.2	54.0	- 4.4	54.2	- 4.6	54.6	- 5.0	54.3	- 4.7	52.9	- 3.3	54.4	- 4.8	53.9	- 4.3
16:45 - 17:00	49.5	54.2	- 4.7	55.2	- 5.7	53.7	- 4.2	55.0	- 5.5	54.6	- 5.1	54.9	- 5.4	55.5	- 6.0	54.9	- 5.4	53.3	- 3.8	52.8	- 3.3	54.7	- 5.2	54.4	- 4.9
17:00 - 17:15	43.6	54.6	-11.0	55.4	-11.8	55.0	-11.4	55.0	-11.4	55.5	-11.9	55.8	-12.2	55.2	-11.6	55.5	-11.9	55.9	-12.3	55.6	-12.0	56.4	-12.8	55.5	-11.9
17:15 - 17:30	46.1	54.6	- 8.5	54.4	- 8.3	53.8	- 7.7	55.4	- 9.3	55.1	- 9.0	55.4	- 9.3	54.5	- 8.4	54.6	- 8.5	54.3	- 8.2	54.7	- 8.6	54.5	- 8.4	54.7	- 8.6
17:30 - 17:45	47.0	54.6	- 7.6	54.8	- 7.8	54.4	- 7.4	55.0	- 8.0	55.1	- 8.1	55.6	- 8.6	50.9	- 3.9	54.6	- 7.6	54.7	- 7.7	55.4	- 8.4	54.1	- 7.1	54.5	- 7.5
17:45 - 18:00	42.8	55.7	-12.9	55.2	-12.4	54.1	-11.3	55.2	-12.4	55.0	-12.2	54.6	-11.8	54.8	-12.0	55.1	-12.3	54.5	-11.7	55.5	-12.7	55.0	-12.2	55.0	-12.2
Hour 1	52.9	54.7	- 1.9	53.9	- 1.0	53.5	- 0.7	54.7	- 1.8	54.9	- 2.0	53.8	- 0.9	54.3	- 1.4	54.1	- 1.3	54.2	- 1.4	54.0	- 1.1	51.9	0.9	54.0	- 1.2
Hour 2	49.5	53.1	- 3.7	53.6	- 4.1	53.6	- 4.1	53.2	- 3.8	53.3	- 3.9	53.4	- 4.0	51.8	- 2.3	54.2	- 4.7	52.9	- 3.4	52.9	- 3.4	52.5	- 3.0	53.1	- 3.7
Hour 3	49.8	53.9	- 4.1	53.5	- 3.7	54.3	- 4.5	53.4	- 3.6	54.3	- 4.5	54.2	- 4.4	54.8	- 5.0	54.4	- 4.6	53.5	- 3.7	53.9	- 4.1	53.8	- 4.0	54.0	- 4.2
Hour 4	44.8	54.9	-10.0	55.0	-10.1	54.3	- 9.5	55.2	-10.3	55.2	-10.3	55.4	-10.5	53.9	- 9.0	55.0	-10.1	54.9	-10.0	55.3	-10.5	55.0	-10.2	54.9	-10.1
11	49.2	54.2	- 4.9	54.0	- 4.7	53.9	- 4.7	54.1	- 4.9	54.4	- 5.2	54.2	- 4.9	53.7	- 4.4	54.4	- 5.2	53.9	- 4.6	54.0	- 4.8	53.3	- 4.1	54.0	- 4.8



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

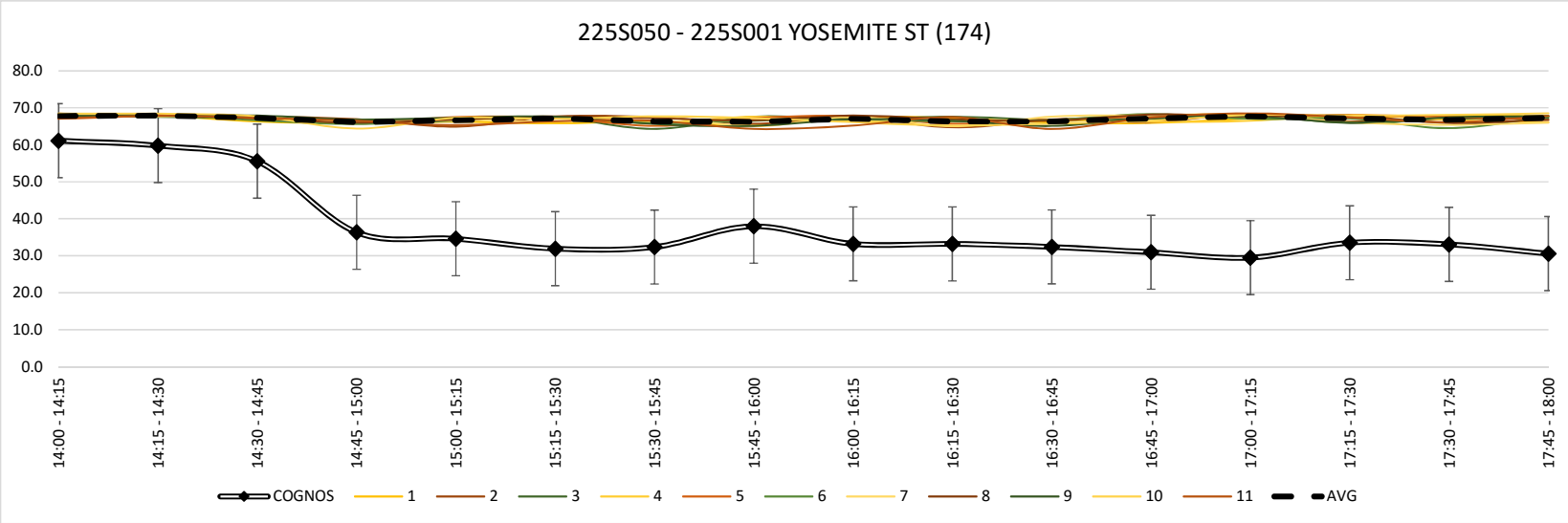
PM	COGNOS	MODEL																						AGGREGATE	
TIME	225S040	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	59.6	57.2	2.4	56.9	2.7	56.4	3.2	57.2	2.4	56.6	3.0	56.7	2.9	57.0	2.6	56.8	2.8	56.8	2.8	57.2	2.4	57.0	2.6	56.9	2.7
14:15 - 14:30	56.6	57.1	- 0.5	56.8	- 0.2	56.6	0.0	56.9	- 0.3	57.2	- 0.6	56.9	- 0.3	57.0	- 0.4	57.4	- 0.8	56.6	0.0	57.0	- 0.4	57.1	- 0.5	57.0	- 0.4
14:30 - 14:45	54.3	56.8	- 2.6	56.7	- 2.5	56.7	- 2.5	56.6	- 2.4	56.7	- 2.5	56.1	- 1.9	56.3	- 2.1	56.3	- 2.1	57.1	- 2.9	56.3	- 2.1	56.2	- 2.0	56.5	- 2.3
14:45 - 15:00	40.6	55.8	-15.2	56.0	-15.4	55.9	-15.3	56.2	-15.6	55.7	-15.1	56.1	-15.5	55.6	-15.0	56.1	-15.5	55.9	-15.3	55.5	-14.9	56.2	-15.6	55.9	-15.3
15:00 - 15:15	39.8	55.7	-15.9	55.6	-15.8	56.0	-16.2	55.8	-16.0	55.8	-16.0	55.7	-15.9	55.7	-15.9	55.9	-16.1	56.2	-16.4	55.5	-15.7	56.1	-16.3	55.8	-16.0
15:15 - 15:30	36.1	56.5	-20.4	56.7	-20.6	56.6	-20.5	56.4	-20.3	56.2	-20.1	56.3	-20.2	56.1	-20.0	56.7	-20.6	56.0	-19.9	56.2	-20.1	56.5	-20.4	56.4	-20.3
15:30 - 15:45	37.3	55.5	-18.2	56.4	-19.1	54.5	-17.2	55.5	-18.2	55.4	-18.1	55.7	-18.4	54.9	-17.6	56.0	-18.7	55.8	-18.5	55.8	-18.5	55.9	-18.6	55.6	-18.3
15:45 - 16:00	38.5	55.9	-17.4	55.9	-17.4	56.2	-17.7	55.8	-17.3	55.7	-17.2	56.1	-17.6	55.9	-17.4	56.7	-18.2	55.8	-17.3	56.4	-17.9	56.0	-17.5	56.0	-17.5
16:00 - 16:15	36.2	56.3	-20.1	56.2	-20.0	56.6	-20.4	56.4	-20.2	56.5	-20.3	56.8	-20.6	56.7	-20.5	56.5	-20.3	55.7	-19.5	56.6	-20.4	55.9	-19.7	56.4	-20.2
16:15 - 16:30	37.7	56.1	-18.4	55.7	-18.0	56.2	-18.5	56.4	-18.7	56.4	-18.7	56.1	-18.4	56.2	-18.5	56.4	-18.7	56.1	-18.4	56.3	-18.6	56.9	-19.2	56.2	-18.5
16:30 - 16:45	41.4	56.7	-15.3	56.3	-14.9	56.3	-14.9	56.6	-15.2	56.3	-14.9	56.4	-15.0	56.6	-15.2	55.7	-14.3	56.7	-15.3	56.2	-14.8	56.4	-15.0	56.4	-15.0
16:45 - 17:00	41.2	56.3	-15.1	56.5	-15.3	56.8	-15.6	56.2	-15.0	56.7	-15.5	57.0	-15.8	56.5	-15.3	56.8	-15.6	56.0	-14.8	56.2	-15.0	56.1	-14.9	56.5	-15.3
17:00 - 17:15	38.1	56.3	-18.3	56.9	-18.9	56.9	-18.9	57.1	-19.1	57.3	-19.3	57.2	-19.2	57.2	-19.2	56.6	-18.6	57.2	-19.2	56.9	-18.9	57.3	-19.3	57.0	-19.0
17:15 - 17:30	36.1	56.8	-20.7	56.4	-20.3	55.6	-19.5	57.2	-21.1	57.0	-20.9	56.9	-20.8	56.4	-20.3	56.8	-20.7	56.4	-20.3	57.1	-21.0	56.6	-20.5	56.7	-20.6
17:30 - 17:45	37.2	56.9	-19.7	56.9	-19.7	56.7	-19.5	57.0	-19.8	56.8	-19.6	57.0	-19.8	56.1	-18.9	56.8	-19.6	56.5	-19.3	56.8	-19.6	56.5	-19.3	56.7	-19.5
17:45 - 18:00	38.4	57.2	-18.8	56.9	-18.5	56.3	-17.9	56.6	-18.2	56.4	-18.0	56.6	-18.2	56.7	-18.3	56.7	-18.3	56.8	-18.4	57.2	-18.8	56.8	-18.4	56.7	-18.3
Hour 1	52.8	56.7	- 4.0	56.6	- 3.8	56.4	- 3.6	56.7	- 4.0	56.6	- 3.8	56.5	- 3.7	56.5	- 3.7	56.7	- 3.9	56.6	- 3.8	56.5	- 3.7	56.6	- 3.9	56.6	- 3.8
Hour 2	37.9	55.9	-18.0	56.2	-18.2	55.8	-17.9	55.9	-17.9	55.8	-17.8	56.0	-18.0	55.7	-17.7	56.3	-18.4	56.0	-18.0	56.0	-18.0	56.1	-18.2	56.0	-18.0
Hour 3	39.1	56.4	-17.2	56.2	-17.0	56.5	-17.3	56.4	-17.3	56.5	-17.3	56.6	-17.4	56.5	-17.4	56.4	-17.2	56.1	-17.0	56.3	-17.2	56.3	-17.2	56.4	-17.2
Hour 4	37.4	56.8	-19.4	56.8	-19.3	56.4	-18.9	57.0	-19.5	56.9	-19.4	56.9	-19.5	56.6	-19.2	56.7	-19.3	56.7	-19.3	57.0	-19.6	56.8	-19.4	56.8	-19.3
11	41.8	56.4	-14.6	56.4	-14.6	56.3	-14.4	56.5	-14.7	56.4	-14.6	56.5	-14.7	56.3	-14.5	56.5	-14.7	56.4	-14.5	56.5	-14.6	56.5	-14.6	56.4	-14.6



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

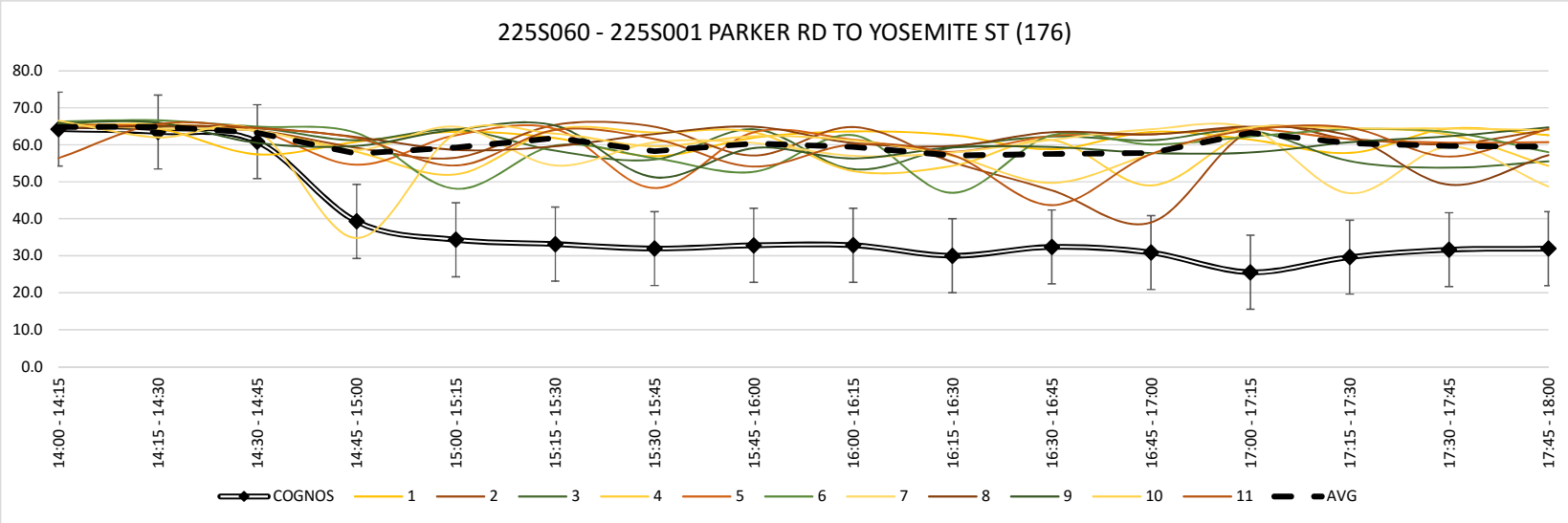
PM	COGNOS	MODEL																						AGGREGATE	
TIME	225S050	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	61.1	68.4	- 7.3	68.4	- 7.3	67.8	- 6.7	67.8	- 6.7	67.0	- 5.9	67.7	- 6.6	68.4	- 7.3	67.6	- 6.5	67.8	- 6.7	68.4	- 7.3	67.1	- 6.0	67.8	- 6.7
14:15 - 14:30	59.8	67.9	- 8.1	68.1	- 8.3	67.5	- 7.7	68.1	- 8.3	67.8	- 8.0	68.3	- 8.5	67.7	- 7.9	67.9	- 8.1	67.9	- 8.1	68.4	- 8.6	67.9	- 8.1	67.9	- 8.1
14:30 - 14:45	55.6	66.3	-10.7	67.7	-12.1	67.2	-11.6	66.9	-11.3	67.6	-12.0	66.6	-11.0	67.6	-12.0	67.1	-11.5	67.9	-12.3	67.7	-12.1	67.3	-11.7	67.3	-11.7
14:45 - 15:00	36.3	65.8	-29.5	66.9	-30.6	66.8	-30.5	66.7	-30.4	65.7	-29.4	65.6	-29.3	66.3	-30.0	66.0	-29.7	66.8	-30.5	64.4	-28.1	66.5	-30.2	66.1	-29.8
15:00 - 15:15	34.6	66.2	-31.6	64.9	-30.3	67.1	-32.5	66.4	-31.8	67.5	-32.9	66.5	-31.9	66.7	-32.1	66.8	-32.2	67.3	-32.7	67.3	-32.7	65.3	-30.7	66.6	-32.0
15:15 - 15:30	31.9	65.8	-33.9	67.6	-35.7	67.4	-35.5	67.5	-35.6	67.3	-35.4	67.5	-35.6	66.3	-34.4	67.7	-35.8	67.6	-35.7	67.0	-35.1	66.4	-34.5	67.1	-35.2
15:30 - 15:45	32.4	66.4	-34.0	67.5	-35.1	64.3	-31.9	65.9	-33.5	65.1	-32.7	65.8	-33.4	67.5	-35.1	67.2	-34.8	65.6	-33.2	67.7	-35.3	66.5	-34.1	66.3	-33.9
15:45 - 16:00	38.0	65.2	-27.2	65.7	-27.7	67.6	-29.6	67.6	-29.6	67.2	-29.2	66.5	-28.5	65.0	-27.0	66.6	-28.6	65.1	-27.1	67.2	-29.2	64.3	-26.3	66.2	-28.2
16:00 - 16:15	33.2	67.5	-34.3	67.5	-34.3	66.9	-33.7	66.3	-33.1	67.8	-34.6	66.9	-33.7	67.6	-34.4	67.9	-34.7	66.9	-33.7	66.1	-32.9	65.2	-32.0	67.0	-33.8
16:15 - 16:30	33.2	67.2	-34.0	64.7	-31.5	67.6	-34.4	66.5	-33.3	65.7	-32.5	66.3	-33.1	65.0	-31.8	66.9	-33.7	66.5	-33.3	65.2	-32.0	67.5	-34.3	66.3	-33.1
16:30 - 16:45	32.4	66.0	-33.6	66.7	-34.3	66.7	-34.3	66.7	-34.3	66.9	-34.5	66.7	-34.3	67.6	-35.2	66.5	-34.1	65.1	-32.7	65.7	-33.3	64.3	-31.9	66.3	-33.9
16:45 - 17:00	30.9	65.9	-35.0	66.1	-35.2	67.0	-36.1	66.2	-35.3	67.5	-36.6	68.3	-37.4	68.0	-37.1	68.2	-37.3	67.2	-36.3	66.5	-35.6	67.4	-36.5	67.1	-36.2
17:00 - 17:15	29.5	67.1	-37.6	68.4	-38.9	67.8	-38.3	66.5	-37.0	67.7	-38.2	67.0	-37.5	68.2	-38.7	67.6	-38.1	67.7	-38.2	68.1	-38.6	68.5	-39.0	67.7	-38.2
17:15 - 17:30	33.5	67.4	-33.9	66.4	-32.9	65.9	-32.4	68.1	-34.6	68.0	-34.5	67.1	-33.6	66.1	-32.6	67.9	-34.4	66.0	-32.5	67.9	-34.4	67.4	-33.9	67.1	-33.6
17:30 - 17:45	33.1	67.8	-34.7	66.9	-33.8	67.0	-33.9	66.7	-33.6	67.5	-34.4	64.5	-31.4	65.4	-32.3	65.9	-32.8	67.4	-34.3	68.1	-35.0	66.1	-33.0	66.7	-33.6
17:45 - 18:00	30.6	67.8	-37.2	67.8	-37.2	67.3	-36.7	66.1	-35.5	66.7	-36.1	67.6	-37.0	66.0	-35.4	66.8	-36.2	67.8	-37.2	68.5	-37.9	67.8	-37.2	67.3	-36.7
Hour 1	53.2	67.1	-13.9	67.8	-14.6	67.3	-14.1	67.4	-14.2	67.0	-13.8	67.1	-13.9	67.5	-14.3	67.2	-14.0	67.6	-14.4	67.2	-14.0	67.2	-14.0	67.3	-14.1
Hour 2	34.2	65.9	-31.7	66.4	-32.2	66.6	-32.4	66.9	-32.6	66.8	-32.6	66.6	-32.4	66.4	-32.2	67.1	-32.9	66.4	-32.2	67.3	-33.1	65.6	-31.4	66.6	-32.3
Hour 3	32.4	66.7	-34.2	66.3	-33.8	67.1	-34.6	66.4	-34.0	67.0	-34.5	67.1	-34.6	67.1	-34.6	67.4	-34.9	66.4	-34.0	65.9	-33.4	66.1	-33.7	66.7	-34.2
Hour 4	31.7	67.5	-35.9	67.4	-35.7	67.0	-35.3	66.9	-35.2	67.5	-35.8	66.6	-34.9	66.4	-34.8	67.1	-35.4	67.2	-35.6	68.2	-36.5	67.5	-35.8	67.2	-35.5
11	37.9	66.8	-28.9	67.0	-29.1	67.0	-29.1	66.9	-29.0	67.1	-29.2	66.8	-28.9	66.8	-29.0	67.2	-29.3	66.9	-29.0	67.1	-29.3	66.6	-28.7	66.9	-29.0



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

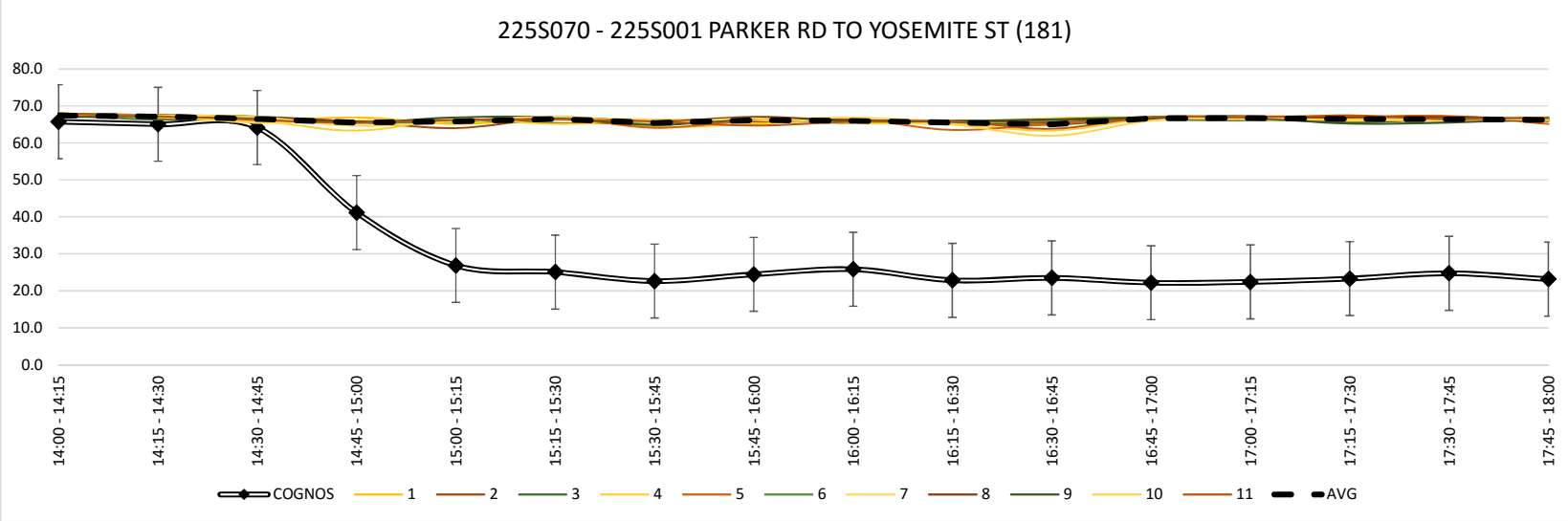
PM	COGNOS	MODEL																						AGGREGATE	
TIME	225S060	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	64.2	65.6	- 1.4	65.7	- 1.5	65.6	- 1.4	65.2	- 1.0	65.3	- 1.1	66.3	- 2.1	65.3	- 1.1	64.4	- 0.2	65.9	- 1.7	66.5	- 2.3	56.4	7.8	64.8	- 0.6
14:15 - 14:30	63.5	64.4	- 1.0	64.5	- 1.1	65.0	- 1.6	65.6	- 2.1	65.2	- 1.8	66.6	- 3.1	64.4	- 1.0	65.1	- 1.6	66.0	- 2.6	62.0	1.5	65.6	- 2.1	64.9	- 1.5
14:30 - 14:45	60.8	57.4	3.4	63.8	- 3.0	64.5	- 3.7	63.7	- 2.9	63.7	- 2.9	64.9	- 4.1	63.8	- 3.0	64.6	- 3.8	60.5	0.3	63.7	- 2.9	64.5	- 3.7	63.2	- 2.4
14:45 - 15:00	39.3	60.8	-21.5	59.2	-19.9	61.2	-21.9	58.1	-18.8	54.6	-15.3	63.2	-23.9	58.6	-19.3	62.1	-22.8	59.7	-20.4	34.8	4.5	61.8	-22.5	57.6	-18.3
15:00 - 15:15	34.3	63.5	-29.2	56.5	-22.2	64.1	-29.8	52.0	-17.7	62.6	-28.3	48.1	-13.8	64.9	-30.6	58.6	-24.3	64.1	-29.8	63.1	-28.8	54.4	-20.1	59.3	-25.0
15:15 - 15:30	33.1	61.8	-28.7	65.4	-32.3	58.4	-25.3	64.2	-31.1	64.3	-31.2	59.8	-26.7	54.4	-21.3	59.6	-26.5	65.2	-32.1	63.0	-29.9	64.0	-30.9	61.8	-28.7
15:30 - 15:45	31.9	56.9	-25.0	64.9	-33.0	56.0	-24.1	63.3	-31.4	48.3	-16.4	56.4	-24.5	60.7	-28.8	62.9	-31.0	51.2	-19.3	59.6	-27.7	61.6	-29.7	58.3	-26.4
15:45 - 16:00	32.8	61.9	-29.1	57.1	-24.3	64.2	-31.4	63.4	-30.6	63.4	-30.6	52.7	-19.9	60.5	-27.7	64.9	-32.1	59.1	-26.3	62.3	-29.5	54.1	-21.3	60.3	-27.5
16:00 - 16:15	32.8	63.6	-30.8	64.8	-32.0	53.4	-20.6	52.9	-20.1	61.4	-28.6	62.6	-29.8	57.0	-24.2	60.5	-27.7	56.3	-23.5	61.2	-28.4	60.1	-27.3	59.4	-26.6
16:15 - 16:30	30.0	62.6	-32.6	55.3	-25.3	59.3	-29.3	54.3	-24.3	58.1	-28.1	47.0	-17.0	57.9	-27.9	59.7	-29.7	59.3	-29.3	57.0	-27.0	57.2	-27.2	57.1	-27.1
16:30 - 16:45	32.4	58.8	-26.4	47.7	-15.3	62.2	-29.8	61.3	-28.9	62.4	-30.0	62.6	-30.2	61.3	-28.9	63.4	-31.0	59.4	-27.0	49.7	-17.3	43.7	-11.3	57.5	-25.1
16:45 - 17:00	30.9	63.5	-32.6	39.0	- 8.1	61.2	-30.3	49.0	-18.1	62.8	-31.9	60.1	-29.2	64.2	-33.3	62.8	-31.9	57.8	-26.9	57.5	-26.6	57.5	-26.6	57.8	-26.9
17:00 - 17:15	25.5	61.4	-35.9	63.8	-38.3	63.8	-38.3	63.6	-38.1	64.3	-38.8	62.2	-36.7	64.4	-38.9	64.9	-39.4	57.9	-32.4	64.7	-39.2	64.0	-38.5	63.2	-37.7
17:15 - 17:30	29.6	57.8	-28.2	61.6	-32.0	55.6	-26.0	64.4	-34.8	61.5	-31.9	64.2	-34.6	46.9	-17.3	62.4	-32.8	60.7	-31.1	64.4	-34.8	64.6	-35.0	60.4	-30.8
17:30 - 17:45	31.6	64.4	-32.8	60.2	-28.6	53.8	-22.2	62.7	-31.1	60.6	-29.0	63.4	-31.8	59.5	-27.9	49.2	-17.6	62.3	-30.7	64.4	-32.8	56.8	-25.2	59.7	-28.1
17:45 - 18:00	31.9	62.6	-30.7	64.1	-32.2	55.5	-23.6	54.3	-22.4	60.7	-28.8	58.0	-26.1	48.7	-16.8	57.2	-25.3	64.7	-32.8	64.0	-32.1	64.3	-32.4	59.5	-27.6
Hour 1	57.0	62.1	- 5.1	63.3	- 6.3	64.1	- 7.1	63.2	- 6.2	62.2	- 5.2	65.3	- 8.3	63.0	- 6.1	64.1	- 7.1	63.0	- 6.1	56.8	0.2	62.1	- 5.1	62.6	- 5.7
Hour 2	33.1	61.0	-28.0	61.0	-27.9	60.7	-27.6	60.7	-27.7	59.7	-26.6	54.3	-21.2	60.1	-27.1	61.5	-28.4	59.9	-26.8	62.0	-28.9	58.5	-25.5	59.9	-26.9
Hour 3	31.5	62.1	-30.6	51.7	-20.2	59.0	-27.5	54.4	-22.9	61.2	-29.7	58.1	-26.6	60.1	-28.6	61.6	-30.1	58.2	-26.7	56.4	-24.8	54.6	-23.1	58.0	-26.4
Hour 4	29.7	61.6	-31.9	62.4	-32.7	57.2	-27.5	61.3	-31.6	61.8	-32.1	62.0	-32.3	54.9	-25.2	58.4	-28.7	61.4	-31.7	64.4	-34.7	62.4	-32.7	60.7	-31.0
11	37.8	61.7	-23.9	59.6	-21.8	60.2	-22.4	59.9	-22.1	61.2	-23.4	59.9	-22.1	59.5	-21.7	61.4	-23.6	60.6	-22.8	59.9	-22.1	59.4	-21.6	60.3	-22.5



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

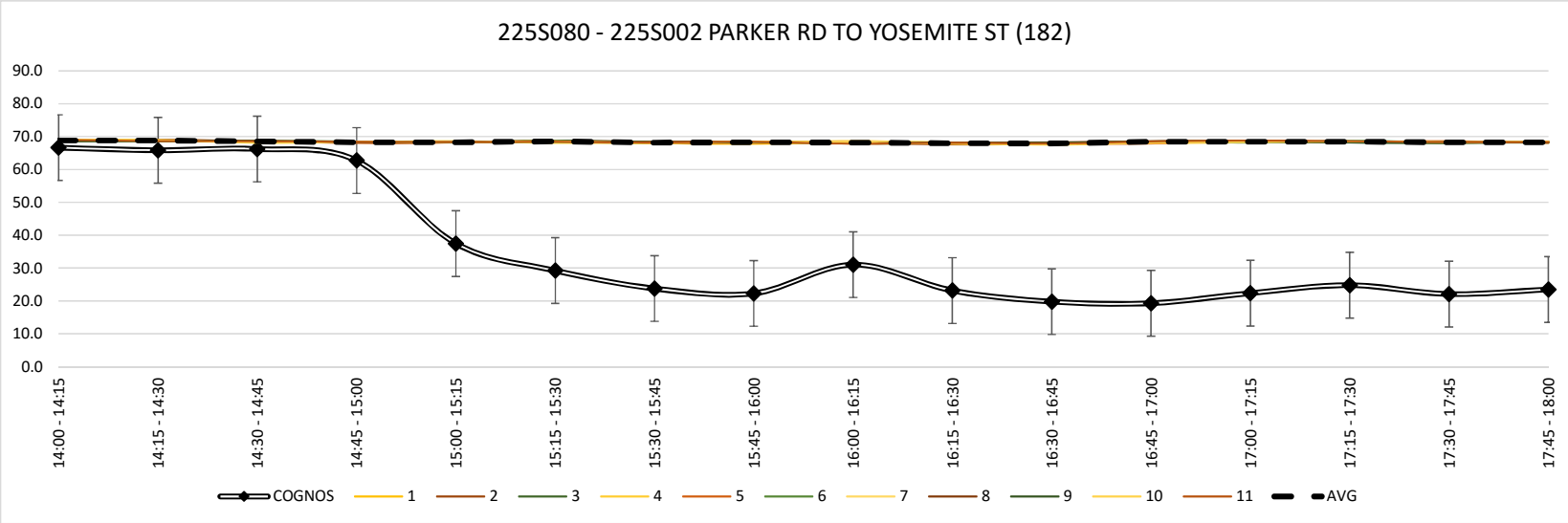
PM	COGNOS	MODEL																						AGGREGATE	
TIME	225S070	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	65.7	68.1	- 2.4	67.9	- 2.2	67.4	- 1.7	67.2	- 1.5	67.1	- 1.4	67.0	- 1.3	67.2	- 1.5	67.2	- 1.5	66.9	- 1.2	67.6	- 1.9	67.9	- 2.2	67.4	- 1.7
14:15 - 14:30	65.0	66.7	- 1.7	67.5	- 2.5	66.3	- 1.3	66.8	- 1.8	67.3	- 2.3	67.0	- 2.0	67.3	- 2.3	67.5	- 2.5	67.3	- 2.3	67.4	- 2.4	67.2	- 2.2	67.1	- 2.1
14:30 - 14:45	64.1	65.9	- 1.8	67.1	- 3.0	66.7	- 2.6	65.9	- 1.8	66.7	- 2.6	66.8	- 2.7	65.4	- 1.3	66.9	- 2.8	67.0	- 2.9	67.0	- 2.9	66.2	- 2.1	66.5	- 2.4
14:45 - 15:00	41.1	66.9	-25.8	65.7	-24.6	65.9	-24.8	63.3	-22.2	65.9	-24.8	65.5	-24.4	66.1	-25.0	65.8	-24.7	65.5	-24.4	64.6	-23.5	65.4	-24.3	65.5	-24.4
15:00 - 15:15	26.9	65.1	-38.3	64.0	-37.2	66.2	-39.4	66.4	-39.6	65.8	-39.0	65.7	-38.9	66.1	-39.3	66.0	-39.2	66.9	-40.1	65.8	-39.0	66.2	-39.4	65.8	-39.0
15:15 - 15:30	25.1	66.5	-41.4	66.6	-41.5	65.4	-40.3	65.1	-40.0	66.8	-41.7	66.8	-41.7	66.6	-41.5	67.0	-41.9	66.9	-41.8	67.1	-42.0	66.3	-41.2	66.5	-41.4
15:30 - 15:45	22.6	64.2	-41.6	65.5	-42.9	65.4	-42.8	65.9	-43.3	64.1	-41.5	65.4	-42.8	66.4	-43.8	65.8	-43.2	64.8	-42.2	65.5	-42.9	65.8	-43.2	65.4	-42.8
15:45 - 16:00	24.5	65.2	-40.8	65.8	-41.4	66.3	-41.9	66.1	-41.7	66.1	-41.7	66.6	-42.2	66.2	-41.8	67.0	-42.6	66.5	-42.1	66.6	-42.2	64.7	-40.3	66.1	-41.7
16:00 - 16:15	25.8	66.0	-40.2	65.9	-40.1	66.3	-40.5	65.4	-39.6	66.4	-40.6	65.3	-39.5	66.9	-41.1	66.1	-40.3	65.9	-40.1	65.3	-39.5	65.7	-39.9	66.0	-40.2
16:15 - 16:30	22.8	65.5	-42.7	66.1	-43.3	65.5	-42.7	65.1	-42.3	63.5	-40.7	66.0	-43.2	65.9	-43.1	65.8	-43.0	65.9	-43.1	64.9	-42.1	65.8	-43.0	65.5	-42.7
16:30 - 16:45	23.5	65.3	-41.8	65.5	-42.0	64.9	-41.4	63.3	-39.8	65.1	-41.6	66.1	-42.6	66.7	-43.2	66.3	-42.8	66.4	-42.9	61.9	-38.4	63.8	-40.3	65.0	-41.5
16:45 - 17:00	22.2	66.4	-44.2	66.9	-44.7	66.8	-44.6	66.5	-44.3	66.6	-44.4	66.3	-44.1	67.0	-44.8	66.6	-44.4	66.9	-44.7	66.0	-43.8	67.0	-44.8	66.6	-44.4
17:00 - 17:15	22.4	66.1	-43.7	66.4	-44.0	67.2	-44.8	66.9	-44.5	67.2	-44.8	66.1	-43.7	66.4	-44.0	66.9	-44.5	66.8	-44.4	66.9	-44.5	66.9	-44.5	66.7	-44.3
17:15 - 17:30	23.3	66.6	-43.3	65.6	-42.3	65.5	-42.2	66.6	-43.3	67.0	-43.7	67.3	-44.0	67.0	-43.7	66.9	-43.6	65.2	-41.9	66.0	-42.7	67.4	-44.1	66.5	-43.2
17:30 - 17:45	24.7	66.6	-41.9	66.3	-41.6	66.6	-41.9	65.9	-41.2	67.3	-42.6	66.5	-41.8	65.8	-41.1	67.0	-42.3	65.5	-40.8	66.4	-41.7	66.4	-41.7	66.4	-41.7
17:45 - 18:00	23.2	66.0	-42.9	66.9	-43.8	65.9	-42.8	66.4	-43.3	65.1	-42.0	66.3	-43.2	66.2	-43.1	66.4	-43.3	66.4	-43.3	66.2	-43.1	66.9	-43.8	66.2	-43.1
Hour 1	59.0	66.9	- 7.9	67.1	- 8.0	66.6	- 7.6	65.8	- 6.8	66.8	- 7.7	66.6	- 7.6	66.5	- 7.5	66.9	- 7.8	66.7	- 7.7	66.7	- 7.6	66.7	- 7.7	66.6	- 7.6
Hour 2	24.7	65.3	-40.5	65.5	-40.7	65.8	-41.1	65.9	-41.1	65.7	-41.0	66.1	-41.4	66.3	-41.6	66.5	-41.7	66.3	-41.5	66.3	-41.5	65.8	-41.0	66.0	-41.2
Hour 3	23.6	65.8	-42.2	66.1	-42.5	65.9	-42.3	65.1	-41.5	65.4	-41.8	65.9	-42.3	66.6	-43.0	66.2	-42.6	66.3	-42.7	64.5	-40.9	65.6	-42.0	65.8	-42.2
Hour 4	23.4	66.3	-42.9	66.3	-42.9	66.3	-42.9	66.5	-43.1	66.7	-43.3	66.6	-43.2	66.4	-43.0	66.8	-43.4	66.0	-42.6	66.4	-43.0	66.9	-43.5	66.5	-43.1
11	32.7	66.1	-33.4	66.2	-33.6	66.1	-33.5	65.8	-33.1	66.1	-33.4	66.3	-33.6	66.5	-33.8	66.6	-33.9	66.3	-33.6	66.0	-33.3	66.2	-33.5	66.2	-33.5



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

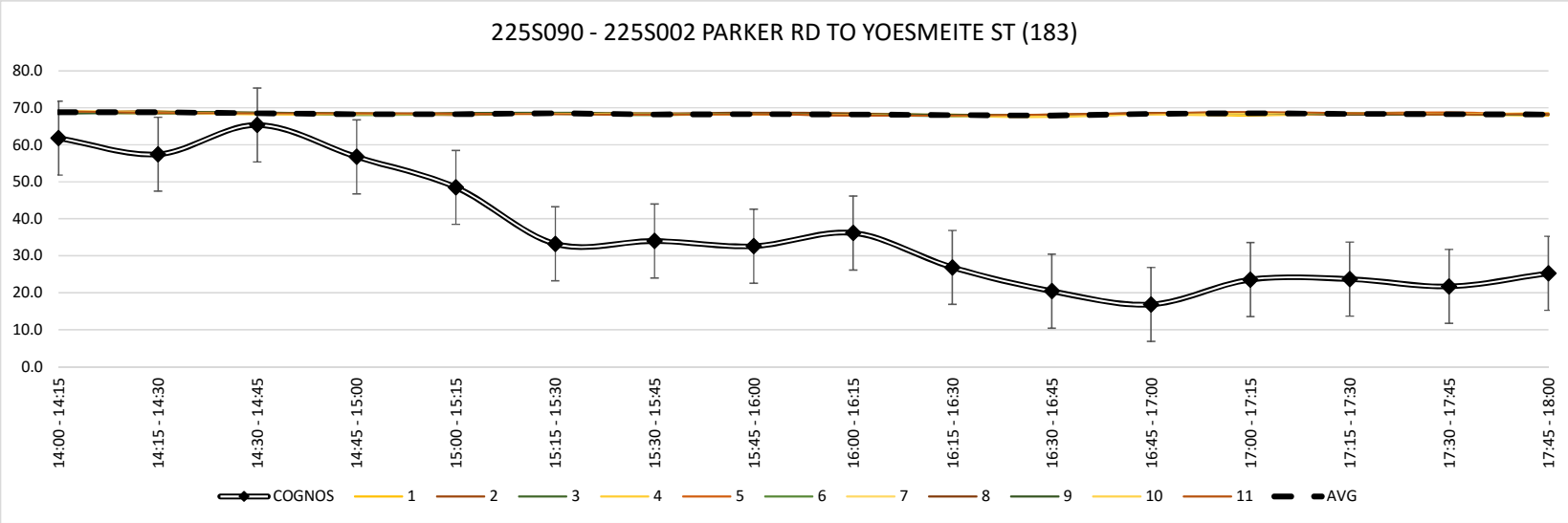
PM	COGNOS	MODEL																						AGGREGATE	
TIME	225S080	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	66.6	69.1	- 2.5	68.9	- 2.3	68.7	- 2.1	68.8	- 2.2	68.6	- 2.0	68.8	- 2.2	68.9	- 2.3	68.7	- 2.1	68.5	- 1.9	69.1	- 2.5	69.0	- 2.4	68.8	- 2.2
14:15 - 14:30	65.8	68.9	- 3.1	68.8	- 3.0	68.6	- 2.8	68.8	- 3.0	68.9	- 3.1	68.7	- 2.9	68.6	- 2.8	69.0	- 3.2	68.6	- 2.8	69.0	- 3.2	68.6	- 2.8	68.8	- 3.0
14:30 - 14:45	66.2	68.6	- 2.4	68.7	- 2.5	68.4	- 2.2	68.3	- 2.1	68.6	- 2.4	68.4	- 2.2	68.3	- 2.1	68.6	- 2.4	68.7	- 2.5	68.1	- 1.9	68.6	- 2.4	68.5	- 2.3
14:45 - 15:00	62.7	68.5	- 5.8	68.4	- 5.7	68.5	- 5.8	68.4	- 5.7	68.0	- 5.3	68.3	- 5.6	68.2	- 5.5	68.2	- 5.5	68.5	- 5.8	68.4	- 5.7	68.4	- 5.7	68.3	- 5.6
15:00 - 15:15	37.5	68.4	-30.9	68.2	-30.7	68.3	-30.8	68.6	-31.1	68.3	-30.8	68.3	-30.8	68.4	-30.9	68.3	-30.8	68.2	-30.7	68.3	-30.8	68.3	-30.8	68.3	-30.8
15:15 - 15:30	29.3	68.5	-39.3	68.5	-39.3	68.3	-39.1	68.1	-38.9	68.7	-39.5	68.4	-39.2	68.4	-39.2	68.7	-39.5	68.8	-39.6	68.6	-39.4	68.4	-39.2	68.5	-39.3
15:30 - 15:45	23.8	68.0	-44.2	68.4	-44.6	68.0	-44.2	68.1	-44.3	68.1	-44.3	68.3	-44.5	68.3	-44.5	68.4	-44.6	68.3	-44.5	68.0	-44.2	68.2	-44.4	68.2	-44.4
15:45 - 16:00	22.3	67.8	-45.5	68.3	-46.0	68.4	-46.1	68.3	-46.0	68.1	-45.8	68.3	-46.0	68.2	-45.9	68.4	-46.1	68.3	-46.0	68.5	-46.2	68.4	-46.1	68.3	-46.0
16:00 - 16:15	31.1	68.4	-37.4	68.1	-37.1	68.1	-37.1	68.4	-37.4	68.3	-37.3	67.9	-36.9	68.7	-37.7	68.2	-37.2	68.2	-37.2	68.2	-37.2	67.8	-36.8	68.2	-37.2
16:15 - 16:30	23.2	68.2	-45.0	67.6	-44.4	67.9	-44.7	67.9	-44.7	67.8	-44.6	68.0	-44.8	68.1	-44.9	68.1	-44.9	68.0	-44.8	67.9	-44.7	68.1	-44.9	68.0	-44.8
16:30 - 16:45	19.8	67.8	-48.0	67.8	-48.0	67.7	-47.9	67.8	-48.0	67.8	-48.0	68.0	-48.2	67.9	-48.1	68.3	-48.5	68.1	-48.3	67.5	-47.7	67.9	-48.1	67.9	-48.1
16:45 - 17:00	19.3	68.1	-48.8	68.5	-49.2	68.5	-49.2	68.3	-49.0	67.9	-48.6	68.5	-49.2	68.4	-49.1	68.6	-49.3	68.5	-49.2	68.1	-48.8	68.5	-49.2	68.4	-49.1
17:00 - 17:15	22.4	68.2	-45.8	68.3	-45.9	68.5	-46.1	68.4	-46.0	68.7	-46.3	68.2	-45.8	68.3	-45.9	68.6	-46.2	68.5	-46.1	68.4	-46.0	68.8	-46.4	68.4	-46.0
17:15 - 17:30	24.8	68.4	-43.6	68.3	-43.5	68.2	-43.4	68.3	-43.5	68.4	-43.6	68.7	-43.9	68.5	-43.7	68.3	-43.5	68.2	-43.4	68.6	-43.8	68.6	-43.8	68.4	-43.6
17:30 - 17:45	22.1	68.3	-46.2	68.3	-46.2	68.2	-46.1	68.1	-46.0	68.6	-46.5	68.3	-46.2	68.3	-46.2	68.4	-46.3	68.0	-45.9	68.3	-46.2	68.3	-46.2	68.3	-46.2
17:45 - 18:00	23.5	68.2	-44.7	68.5	-45.0	68.2	-44.7	68.4	-44.9	68.1	-44.6	68.2	-44.7	68.4	-44.9	68.3	-44.8	68.5	-45.0	68.5	-45.0	68.3	-44.8	68.3	-44.8
Hour 1	65.4	68.8	- 3.4	68.7	- 3.3	68.6	- 3.2	68.6	- 3.2	68.5	- 3.2	68.6	- 3.2	68.5	- 3.2	68.6	- 3.3	68.6	- 3.2	68.7	- 3.3	68.7	- 3.3	68.6	- 3.3
Hour 2	28.2	68.2	-40.0	68.4	-40.2	68.3	-40.1	68.3	-40.1	68.3	-40.1	68.3	-40.1	68.3	-40.1	68.5	-40.3	68.4	-40.2	68.4	-40.2	68.3	-40.1	68.3	-40.1
Hour 3	23.3	68.1	-44.8	68.0	-44.7	68.1	-44.7	68.1	-44.8	68.0	-44.6	68.1	-44.8	68.3	-45.0	68.3	-45.0	68.2	-44.9	67.9	-44.6	68.1	-44.8	68.1	-44.8
Hour 4	23.2	68.3	-45.1	68.4	-45.2	68.3	-45.1	68.3	-45.1	68.5	-45.3	68.4	-45.2	68.4	-45.2	68.4	-45.2	68.3	-45.1	68.5	-45.3	68.5	-45.3	68.4	-45.2
11	35.0	68.3	-33.3	68.4	-33.3	68.3	-33.3	68.3	-33.3	68.3	-33.3	68.3	-33.3	68.4	-33.4	68.4	-33.4	68.4	-33.4	68.3	-33.3	68.4	-33.4	68.4	-33.3



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

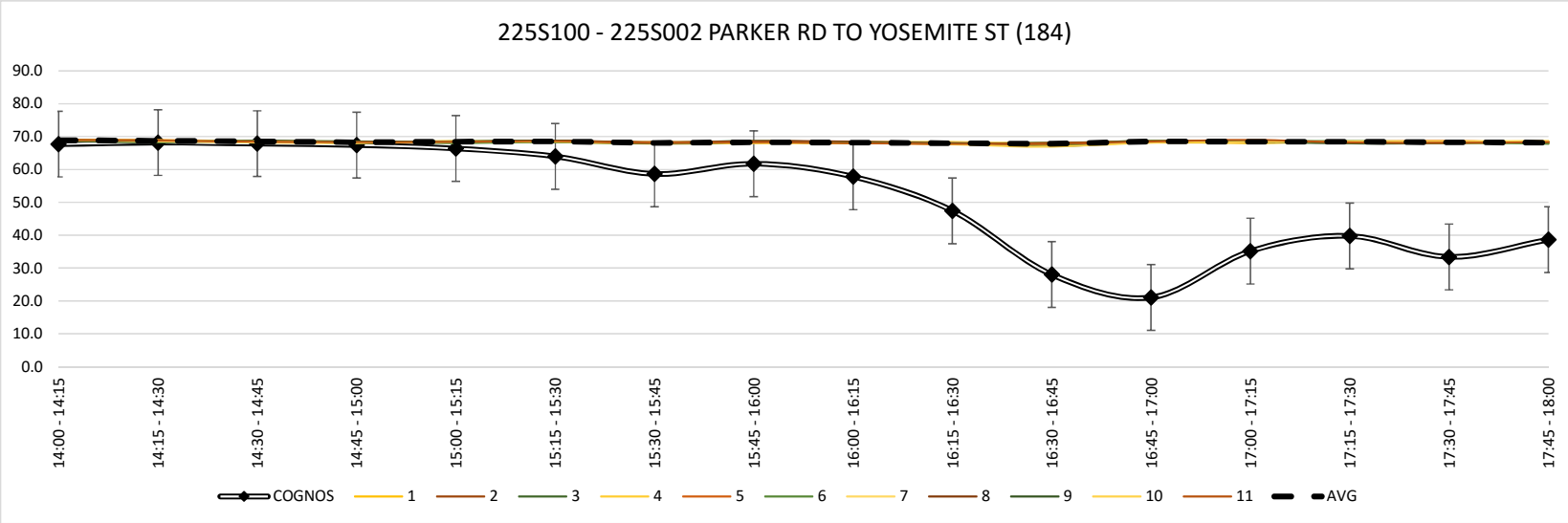
PM	COGNOS	MODEL																						AGGREGATE	
TIME	225S090	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	61.8	69.0	- 7.2	68.9	- 7.1	68.7	- 6.9	68.8	- 7.0	68.6	- 6.8	68.8	- 7.0	68.8	- 7.0	68.7	- 6.9	68.4	- 6.6	69.1	- 7.3	69.1	- 7.3	68.8	- 7.0
14:15 - 14:30	57.4	69.0	-11.6	68.7	-11.3	68.4	-11.0	68.7	-11.3	68.8	-11.4	68.8	-11.4	68.5	-11.1	69.0	-11.6	68.8	-11.4	68.8	-11.4	68.6	-11.2	68.8	-11.4
14:30 - 14:45	65.4	68.5	- 3.2	68.7	- 3.4	68.5	- 3.2	68.2	- 2.9	68.7	- 3.4	68.6	- 3.3	68.5	- 3.2	68.4	- 3.1	68.8	- 3.5	68.4	- 3.1	68.5	- 3.2	68.5	- 3.2
14:45 - 15:00	56.7	68.5	-11.8	68.4	-11.7	68.5	-11.8	68.1	-11.4	68.2	-11.5	68.0	-11.3	68.3	-11.6	68.4	-11.7	68.4	-11.7	68.3	-11.6	68.5	-11.8	68.3	-11.6
15:00 - 15:15	48.5	68.1	-19.6	68.0	-19.5	68.3	-19.8	68.4	-19.9	68.2	-19.7	68.3	-19.8	68.5	-20.0	68.5	-20.0	68.6	-20.1	68.3	-19.8	68.4	-19.9	68.3	-19.8
15:15 - 15:30	33.2	68.4	-35.2	68.6	-35.4	68.4	-35.2	68.5	-35.3	68.6	-35.4	68.4	-35.2	68.6	-35.4	68.6	-35.4	68.7	-35.5	68.4	-35.2	68.3	-35.1	68.5	-35.3
15:30 - 15:45	34.0	68.2	-34.2	68.3	-34.3	68.2	-34.2	68.0	-34.0	68.3	-34.3	68.0	-34.0	68.5	-34.5	68.5	-34.5	68.4	-34.4	68.3	-34.3	68.1	-34.1	68.2	-34.2
15:45 - 16:00	32.6	68.2	-35.6	68.4	-35.8	68.4	-35.8	68.4	-35.8	68.1	-35.5	68.5	-35.9	68.3	-35.7	68.7	-36.1	68.4	-35.8	68.2	-35.6	68.3	-35.7	68.3	-35.7
16:00 - 16:15	36.2	68.1	-32.0	67.9	-31.8	68.2	-32.1	68.3	-32.2	68.1	-32.0	68.1	-32.0	68.5	-32.4	68.5	-32.4	68.2	-32.1	68.1	-32.0	67.9	-31.8	68.2	-32.1
16:15 - 16:30	26.9	68.2	-41.4	68.0	-41.2	68.0	-41.2	67.8	-41.0	67.8	-41.0	67.7	-40.9	68.0	-41.2	68.0	-41.2	68.2	-41.4	67.8	-41.0	67.9	-41.1	68.0	-41.2
16:30 - 16:45	20.4	67.9	-47.5	68.0	-47.6	67.8	-47.4	67.5	-47.1	68.0	-47.6	68.1	-47.7	68.2	-47.8	68.2	-47.8	67.9	-47.5	67.7	-47.3	68.2	-47.8	67.9	-47.5
16:45 - 17:00	16.8	68.2	-51.4	68.6	-51.8	68.4	-51.6	68.4	-51.6	68.4	-51.6	68.5	-51.7	68.3	-51.5	68.6	-51.8	68.4	-51.6	68.2	-51.4	68.5	-51.7	68.4	-51.6
17:00 - 17:15	23.6	67.9	-44.3	68.4	-44.8	68.7	-45.1	68.4	-44.8	68.5	-44.9	68.5	-44.9	68.2	-44.6	68.7	-45.1	68.5	-44.9	68.5	-44.9	68.9	-45.3	68.5	-44.9
17:15 - 17:30	23.7	68.4	-44.7	68.3	-44.6	68.3	-44.6	68.4	-44.7	68.5	-44.8	68.6	-44.9	68.4	-44.7	68.1	-44.4	68.3	-44.6	68.5	-44.8	68.5	-44.8	68.4	-44.7
17:30 - 17:45	21.7	68.1	-46.4	68.3	-46.6	68.3	-46.6	68.2	-46.5	68.8	-47.1	68.2	-46.5	68.3	-46.6	68.4	-46.7	68.1	-46.4	68.3	-46.6	68.2	-46.5	68.3	-46.6
17:45 - 18:00	25.3	67.9	-42.6	68.3	-43.0	68.2	-42.9	68.2	-42.9	68.0	-42.7	68.1	-42.8	68.3	-43.0	68.2	-42.9	68.4	-43.1	68.6	-43.3	68.4	-43.1	68.2	-42.9
Hour 1	60.3	68.8	- 8.4	68.7	- 8.3	68.5	- 8.2	68.5	- 8.1	68.6	- 8.2	68.6	- 8.2	68.5	- 8.2	68.6	- 8.3	68.6	- 8.3	68.7	- 8.3	68.7	- 8.3	68.6	- 8.3
Hour 2	37.1	68.2	-31.2	68.3	-31.3	68.3	-31.3	68.3	-31.3	68.3	-31.2	68.3	-31.2	68.5	-31.4	68.6	-31.5	68.5	-31.5	68.3	-31.2	68.3	-31.2	68.3	-31.3
Hour 3	25.1	68.1	-43.0	68.1	-43.1	68.1	-43.0	68.0	-42.9	68.1	-43.0	68.1	-43.0	68.3	-43.2	68.3	-43.3	68.2	-43.1	68.0	-42.9	68.1	-43.1	68.1	-43.1
Hour 4	23.6	68.1	-44.5	68.3	-44.8	68.4	-44.8	68.3	-44.7	68.5	-44.9	68.4	-44.8	68.3	-44.7	68.4	-44.8	68.3	-44.8	68.5	-44.9	68.5	-44.9	68.4	-44.8
11	36.5	68.3	-31.8	68.4	-31.9	68.3	-31.8	68.3	-31.8	68.4	-31.8	68.3	-31.8	68.4	-31.9	68.5	-32.0	68.4	-31.9	68.3	-31.8	68.4	-31.9	68.4	-31.8



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

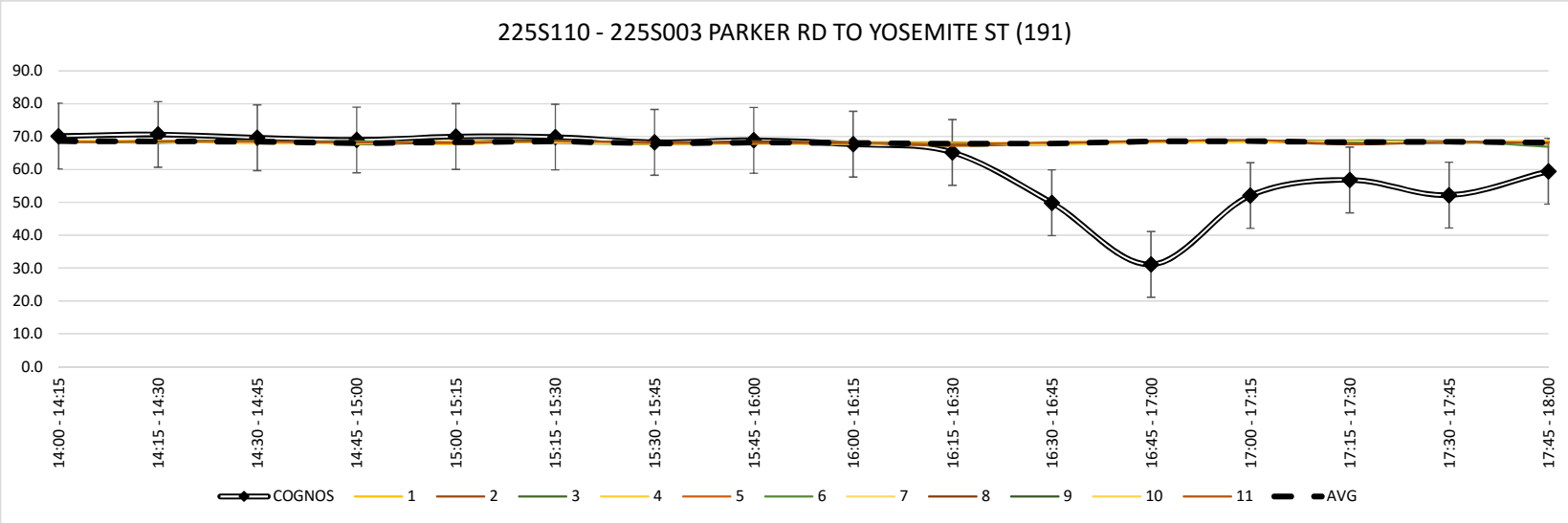
PM	COGNOS	MODEL																						AGGREGATE	
TIME	225S100	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	67.7	69.1	- 1.4	69.1	- 1.4	68.7	- 1.0	68.8	- 1.1	68.8	- 1.1	68.9	- 1.2	68.9	- 1.2	68.7	- 1.0	68.6	- 0.9	68.9	- 1.2	69.0	- 1.3	68.9	- 1.2
14:15 - 14:30	68.2	68.9	- 0.7	68.7	- 0.5	68.2	- 0.0	68.7	- 0.5	68.9	- 0.7	68.7	- 0.5	68.5	- 0.3	68.9	- 0.7	68.8	- 0.6	68.9	- 0.7	68.8	- 0.6	68.7	- 0.5
14:30 - 14:45	67.8	68.6	- 0.8	68.8	- 1.0	68.7	- 0.9	68.2	- 0.4	68.6	- 0.8	68.5	- 0.7	68.3	- 0.5	68.5	- 0.7	68.8	- 1.0	68.5	- 0.7	68.4	- 0.6	68.5	- 0.7
14:45 - 15:00	67.4	68.5	- 1.1	68.2	- 0.8	68.0	- 0.6	68.1	- 0.7	68.2	- 0.8	68.5	- 1.1	68.1	- 0.7	68.5	- 1.1	68.5	- 1.1	68.2	- 0.8	68.3	- 0.9	68.3	- 0.9
15:00 - 15:15	66.4	68.3	- 1.9	68.2	- 1.8	68.6	- 2.2	68.4	- 2.0	68.4	- 2.0	68.0	- 1.6	68.7	- 2.3	68.4	- 2.0	68.6	- 2.2	68.4	- 2.0	68.4	- 2.0	68.4	- 2.0
15:15 - 15:30	64.0	68.5	- 4.5	68.7	- 4.7	68.3	- 4.3	68.4	- 4.4	68.5	- 4.5	68.3	- 4.3	68.5	- 4.5	68.8	- 4.8	68.7	- 4.7	68.4	- 4.4	68.6	- 4.6	68.5	- 4.5
15:30 - 15:45	58.6	68.1	- 9.5	68.1	- 9.5	68.1	- 9.5	67.8	- 9.2	68.1	- 9.5	67.9	- 9.3	68.4	- 9.8	68.3	- 9.7	67.9	- 9.3	68.1	- 9.5	68.1	- 9.5	68.1	- 9.5
15:45 - 16:00	61.7	68.1	- 6.4	68.4	- 6.7	68.7	- 7.0	68.1	- 6.4	68.2	- 6.5	68.3	- 6.6	68.3	- 6.6	68.6	- 6.9	68.2	- 6.5	68.1	- 6.4	68.3	- 6.6	68.3	- 6.6
16:00 - 16:15	57.8	68.0	-10.2	68.1	-10.3	68.3	-10.5	68.3	-10.5	68.1	-10.3	68.2	-10.4	68.4	-10.6	68.5	-10.7	68.1	-10.3	68.0	-10.2	68.0	-10.2	68.2	-10.4
16:15 - 16:30	47.4	68.2	-20.8	67.9	-20.5	68.1	-20.7	68.3	-20.9	67.7	-20.3	68.0	-20.6	68.3	-20.9	68.0	-20.6	68.0	-20.6	67.6	-20.2	67.8	-20.4	68.0	-20.6
16:30 - 16:45	28.0	67.6	-39.6	67.8	-39.8	67.1	-39.1	67.9	-39.9	67.8	-39.8	68.2	-40.2	68.0	-40.0	68.0	-40.0	68.0	-40.0	66.9	-38.9	68.0	-40.0	67.8	-39.8
16:45 - 17:00	21.1	68.2	-47.1	68.7	-47.6	68.3	-47.2	68.6	-47.5	68.4	-47.3	68.5	-47.4	68.7	-47.6	68.5	-47.4	68.7	-47.6	68.2	-47.1	68.5	-47.4	68.5	-47.4
17:00 - 17:15	35.2	68.0	-32.8	68.4	-33.2	68.4	-33.2	68.4	-33.2	68.5	-33.3	68.5	-33.3	68.3	-33.1	68.4	-33.2	68.4	-33.2	68.3	-33.1	69.0	-33.8	68.4	-33.2
17:15 - 17:30	39.8	68.4	-28.6	68.4	-28.6	68.4	-28.6	68.6	-28.8	68.5	-28.7	68.7	-28.9	68.5	-28.7	68.1	-28.3	67.9	-28.1	68.6	-28.8	68.2	-28.4	68.4	-28.6
17:30 - 17:45	33.4	68.1	-34.7	68.4	-35.0	68.2	-34.8	68.2	-34.8	68.7	-35.3	68.3	-34.9	68.1	-34.7	68.3	-34.9	68.0	-34.6	68.6	-35.2	68.1	-34.7	68.3	-34.9
17:45 - 18:00	38.7	68.3	-29.6	68.5	-29.8	68.0	-29.3	68.1	-29.4	67.9	-29.2	67.8	-29.1	68.3	-29.6	68.3	-29.6	68.3	-29.6	68.7	-30.0	68.3	-29.6	68.2	-29.5
Hour 1	67.8	68.8	- 1.0	68.7	- 0.9	68.4	- 0.6	68.5	- 0.7	68.6	- 0.8	68.7	- 0.9	68.5	- 0.7	68.7	- 0.9	68.7	- 0.9	68.6	- 0.8	68.6	- 0.8	68.6	- 0.8
Hour 2	62.7	68.3	- 5.6	68.4	- 5.7	68.4	- 5.7	68.2	- 5.5	68.3	- 5.6	68.1	- 5.4	68.5	- 5.8	68.5	- 5.8	68.4	- 5.7	68.3	- 5.6	68.4	- 5.7	68.3	- 5.6
Hour 3	38.6	68.0	-29.4	68.1	-29.6	68.0	-29.4	68.3	-29.7	68.0	-29.4	68.2	-29.7	68.4	-29.8	68.3	-29.7	68.2	-29.6	67.7	-29.1	68.1	-29.5	68.1	-29.6
Hour 4	36.7	68.2	-31.5	68.4	-31.7	68.3	-31.5	68.3	-31.6	68.4	-31.7	68.3	-31.6	68.3	-31.6	68.3	-31.5	68.2	-31.4	68.6	-31.8	68.4	-31.7	68.3	-31.6
11	51.4	68.3	-16.9	68.4	-17.0	68.3	-16.8	68.3	-16.9	68.3	-16.9	68.3	-16.9	68.4	-16.9	68.4	-17.0	68.3	-16.9	68.3	-16.8	68.4	-16.9	68.3	-16.9



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

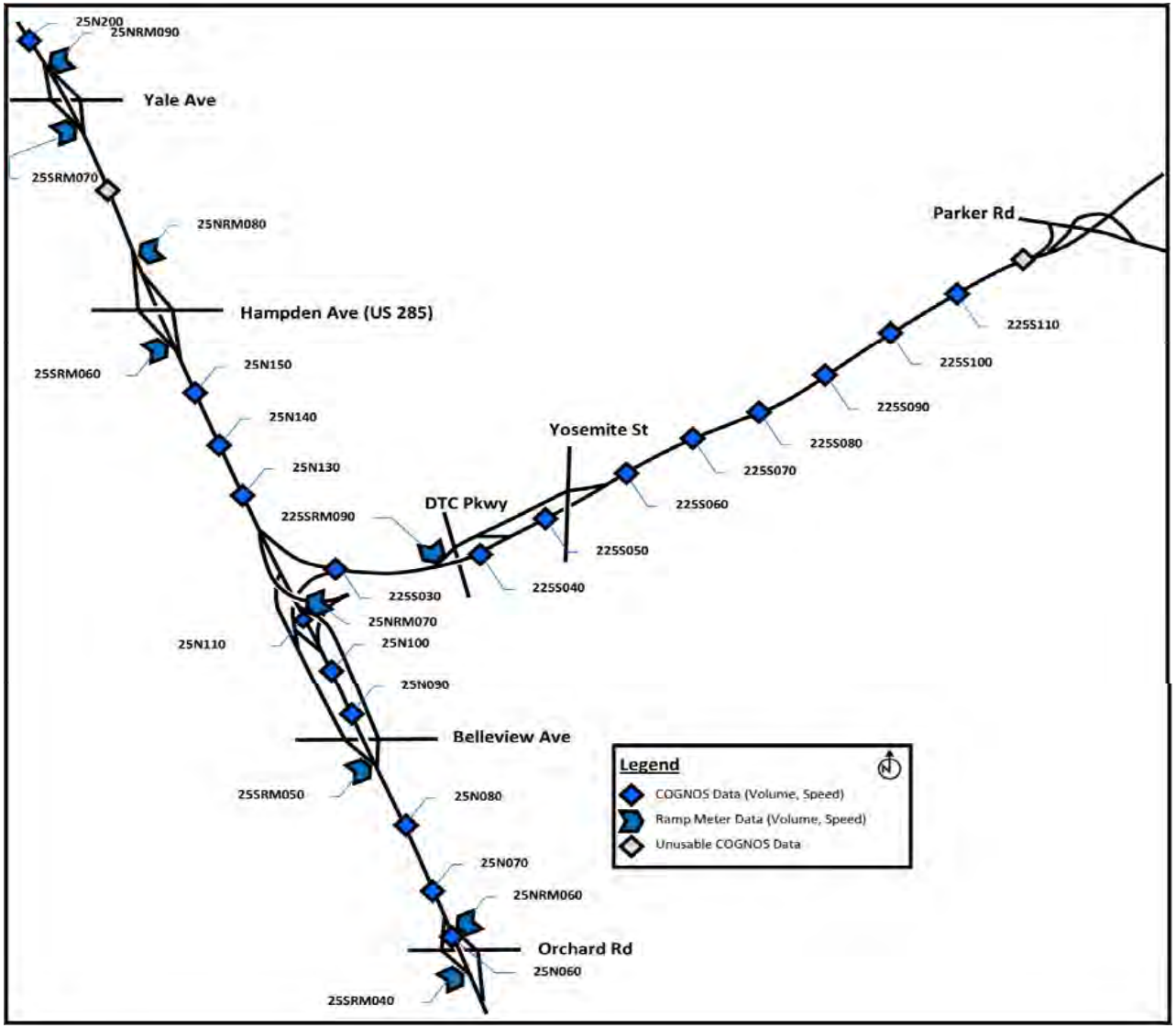
PM	COGNOS	MODEL																						AGGREGATE	
TIME	225S110	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	70.1	68.7	1.4	68.9	1.2	68.5	1.6	68.5	1.6	68.4	1.7	68.8	1.3	68.7	1.4	68.3	1.8	68.5	1.6	68.8	1.3	68.4	1.7	68.6	1.5
14:15 - 14:30	70.6	68.7	1.9	68.4	2.2	68.1	2.5	68.5	2.1	68.7	1.9	68.3	2.3	68.3	2.3	68.7	1.9	68.5	2.1	68.7	1.9	68.5	2.1	68.5	2.1
14:30 - 14:45	69.6	68.3	1.3	68.8	0.8	68.5	1.1	67.9	1.7	68.5	1.1	68.4	1.2	68.2	1.4	68.6	1.0	68.7	0.9	68.3	1.3	68.4	1.2	68.4	1.2
14:45 - 15:00	69.0	68.3	0.7	67.7	1.3	67.8	1.2	68.0	1.0	67.9	1.1	68.6	0.4	67.9	1.1	68.1	0.9	67.7	1.3	67.8	1.2	68.2	0.8	68.0	1.0
15:00 - 15:15	70.0	67.7	2.3	68.3	1.7	68.4	1.6	68.3	1.7	68.1	1.9	68.3	1.7	68.7	1.3	68.2	1.8	68.5	1.5	68.5	1.5	68.2	1.8	68.3	1.7
15:15 - 15:30	69.9	68.7	1.1	68.8	1.1	68.1	1.8	68.3	1.6	68.5	1.3	68.5	1.3	68.7	1.1	68.8	1.1	68.8	1.1	68.2	1.6	68.6	1.3	68.5	1.3
15:30 - 15:45	68.3	67.8	0.5	67.6	0.7	67.7	0.6	68.0	0.3	68.3	- 0.0	67.7	0.6	68.0	0.3	68.1	0.2	68.0	0.3	67.7	0.6	68.0	0.3	67.9	0.4
15:45 - 16:00	68.9	68.1	0.8	68.2	0.7	68.6	0.3	68.0	0.9	67.9	1.0	68.4	0.5	68.2	0.7	68.5	0.4	68.0	0.9	67.8	1.1	68.0	0.9	68.2	0.7
16:00 - 16:15	67.7	68.2	- 0.5	68.0	- 0.3	68.0	- 0.3	68.3	- 0.6	68.1	- 0.4	68.3	- 0.6	68.3	- 0.6	68.1	- 0.4	68.0	- 0.3	67.7	- 0.0	68.0	- 0.3	68.1	- 0.4
16:15 - 16:30	65.2	67.2	- 2.0	67.2	- 2.0	68.0	- 2.8	68.3	- 3.1	67.5	- 2.3	67.7	- 2.5	67.9	- 2.7	67.7	- 2.5	68.1	- 2.9	68.1	- 2.9	67.8	- 2.6	67.8	- 2.6
16:30 - 16:45	49.9	67.8	-17.9	67.9	-18.0	67.9	-18.0	68.0	-18.1	67.9	-18.0	68.2	-18.3	68.4	-18.5	67.9	-18.0	67.5	-17.6	67.5	-17.6	68.2	-18.3	67.9	-18.0
16:45 - 17:00	31.1	68.2	-37.1	68.7	-37.6	68.7	-37.6	68.6	-37.5	68.6	-37.5	68.6	-37.5	68.7	-37.6	68.7	-37.6	68.5	-37.4	68.1	-37.0	68.5	-37.4	68.5	-37.4
17:00 - 17:15	52.1	68.5	-16.4	68.5	-16.4	68.8	-16.7	68.2	-16.1	68.5	-16.4	68.6	-16.5	68.5	-16.4	68.7	-16.6	68.7	-16.6	68.3	-16.2	69.0	-16.9	68.6	-16.5
17:15 - 17:30	56.8	68.5	-11.7	68.2	-11.4	68.5	-11.7	68.2	-11.4	68.4	-11.6	68.8	-12.0	68.3	-11.5	67.6	-10.8	68.2	-11.4	68.6	-11.8	67.7	-10.9	68.3	-11.5
17:30 - 17:45	52.2	68.2	-16.0	68.4	-16.2	68.4	-16.2	68.1	-15.9	68.6	-16.4	68.6	-16.4	68.4	-16.2	68.4	-16.2	68.1	-15.9	68.3	-16.1	68.4	-16.2	68.4	-16.2
17:45 - 18:00	59.4	68.3	- 8.9	68.4	- 9.0	68.1	- 8.7	68.2	- 8.8	67.8	- 8.4	66.9	- 7.5	68.3	- 8.9	68.5	- 9.1	68.3	- 8.9	68.8	- 9.4	68.2	- 8.8	68.2	- 8.8
Hour 1	69.8	68.5	1.3	68.5	1.4	68.2	1.6	68.2	1.6	68.4	1.5	68.5	1.3	68.3	1.6	68.4	1.4	68.4	1.5	68.4	1.4	68.4	1.5	68.4	1.5
Hour 2	69.2	68.1	1.2	68.2	1.0	68.2	1.0	68.2	1.1	68.2	1.0	68.2	1.0	68.4	0.8	68.4	0.8	68.3	0.9	68.1	1.2	68.2	1.0	68.2	1.0
Hour 3	53.5	67.9	-14.4	68.0	-14.5	68.2	-14.7	68.3	-14.8	68.0	-14.6	68.2	-14.7	68.3	-14.9	68.1	-14.6	68.0	-14.6	67.9	-14.4	68.1	-14.7	68.1	-14.6
Hour 4	55.1	68.4	-13.2	68.4	-13.2	68.5	-13.3	68.2	-13.0	68.3	-13.2	68.2	-13.1	68.4	-13.2	68.3	-13.2	68.3	-13.2	68.5	-13.4	68.3	-13.2	68.4	-13.2
11	61.9	68.2	- 6.3	68.3	- 6.3	68.3	- 6.3	68.2	- 6.3	68.2	- 6.3	68.3	- 6.4	68.3	- 6.4	68.3	- 6.4	68.3	- 6.3	68.2	- 6.3	68.3	- 6.3	68.3	- 6.3



AVERAGE VEHICLE SPEEDS - BY LINK

CONCEPT 2: +10% I-225

ROUTE: I-25
PERIOD: PM

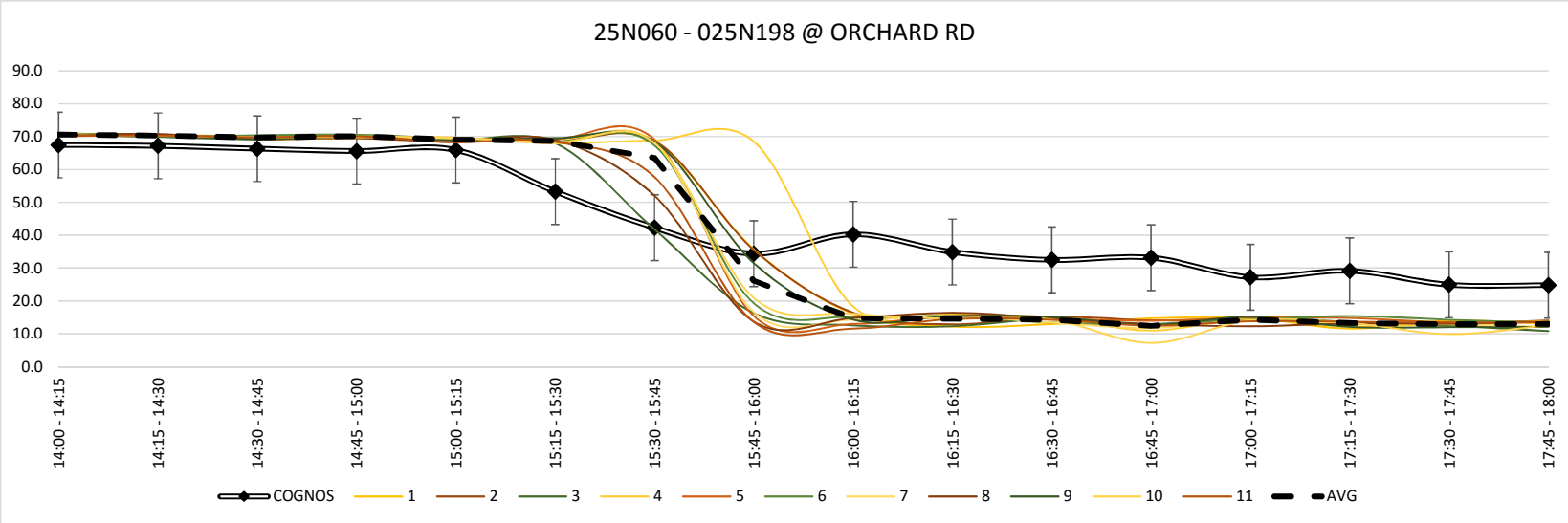


LOCATION	COGNOS DESCRIPTION
25N060	025N198 @ ORCHARD RD
25N070	025N199 0.4MI N OF ORCHARD RD
25N080	025N199 0.4MI S OF BELLEVIEW AVE
25N090	025S199 @ BELLVIEW AVE
25N100	025N200 BELLVIEW AVE TO I-25 NB (153)
25N110	025N200 @ I-225
25N130	025N201 0.2MI N OF I-225
25N140	025N201 I-225 TO HAMPDEN AVE 2 (132)
25N150	025N201 0.6MI S OF HAMPDEN AVE
25N200	025N203 0.4MI N OF YALE AVE (124)

CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

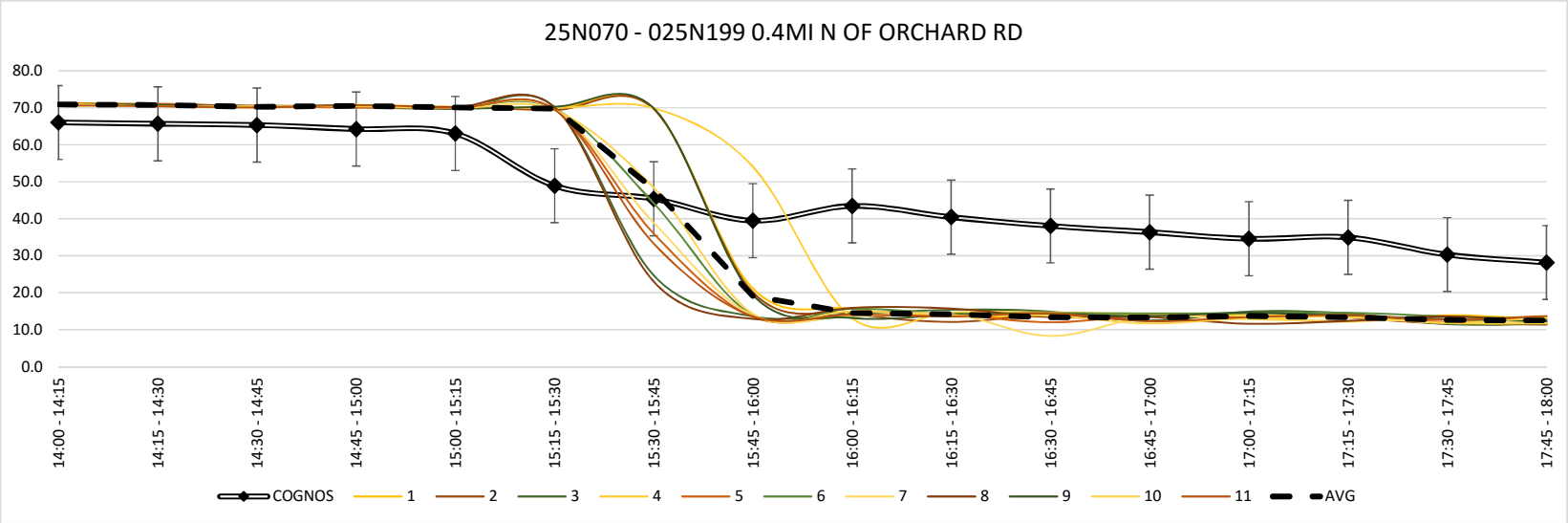
PM	COGNOS	MODEL																						AGGREGATE	
TIME	25N060	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	67.4	70.4	- 3.0	71.0	- 3.6	70.9	- 3.5	70.7	- 3.3	70.2	- 2.8	70.7	- 3.3	70.7	- 3.3	70.3	- 2.9	70.6	- 3.2	70.4	- 3.0	70.2	- 2.8	70.6	- 3.2
14:15 - 14:30	67.2	70.5	- 3.3	70.3	- 3.1	70.6	- 3.4	70.3	- 3.1	70.5	- 3.3	70.0	- 2.8	70.3	- 3.1	70.8	- 3.6	69.9	- 2.7	70.2	- 3.0	70.3	- 3.1	70.3	- 3.1
14:30 - 14:45	66.3	70.1	- 3.8	70.0	- 3.7	69.5	- 3.2	69.2	- 2.9	69.8	- 3.5	70.4	- 4.1	69.4	- 3.1	69.2	- 2.9	69.2	- 2.9	69.9	- 3.6	69.8	- 3.5	69.7	- 3.4
14:45 - 15:00	65.6	70.3	- 4.7	70.3	- 4.7	70.3	- 4.7	69.6	- 4.0	70.3	- 4.7	70.6	- 5.0	70.0	- 4.4	69.5	- 3.9	69.9	- 4.3	69.8	- 4.2	70.1	- 4.5	70.1	- 4.5
15:00 - 15:15	65.9	69.3	- 3.4	69.4	- 3.5	69.0	- 3.1	69.7	- 3.8	69.2	- 3.3	69.2	- 3.3	69.5	- 3.6	68.3	- 2.4	68.8	- 2.9	69.5	- 3.6	68.3	- 2.4	69.1	- 3.2
15:15 - 15:30	53.3	69.3	-16.0	68.5	-15.2	68.0	-14.7	68.0	-14.7	69.3	-16.0	68.5	-15.2	68.0	-14.7	69.0	-15.7	69.5	-16.2	68.2	-14.9	68.4	-15.1	68.6	-15.3
15:30 - 15:45	42.3	68.4	-26.1	68.7	-26.4	41.8	0.5	68.8	-26.5	69.1	-26.8	67.3	-25.0	68.2	-25.9	52.0	- 9.7	68.4	-26.1	68.1	-25.8	57.7	-15.4	63.5	-21.2
15:45 - 16:00	34.4	35.7	- 1.3	35.5	- 1.1	16.3	18.1	68.5	-34.1	15.4	19.0	19.3	15.1	16.6	17.8	13.7	20.7	31.5	2.9	20.9	13.5	13.6	20.8	26.1	8.3
16:00 - 16:15	40.3	16.1	24.2	16.4	23.9	12.6	27.7	18.3	22.0	13.0	27.3	15.1	25.2	14.3	26.0	14.8	25.5	14.3	26.0	16.1	24.2	11.6	28.7	14.8	25.5
16:15 - 16:30	34.9	12.2	22.7	12.9	22.0	12.3	22.6	16.0	18.9	15.5	19.4	15.5	19.4	15.5	19.4	16.4	18.5	15.4	19.5	14.6	20.3	14.5	20.4	14.6	20.3
16:30 - 16:45	32.5	13.0	19.5	15.2	17.3	14.6	17.9	15.0	17.5	14.7	17.8	13.4	19.1	13.4	19.1	14.7	17.8	15.1	17.4	14.3	18.2	14.3	18.2	14.3	18.2
16:45 - 17:00	33.2	14.7	18.5	14.1	19.1	12.9	20.3	11.0	22.2	14.0	19.2	13.0	20.2	11.8	21.4	13.0	20.2	12.7	20.5	7.2	26.0	12.5	20.7	12.4	20.8
17:00 - 17:15	27.2	14.8	12.4	14.1	13.1	15.0	12.2	14.8	12.4	15.0	12.2	14.3	12.9	14.1	13.1	12.3	14.9	15.2	12.0	14.1	13.1	13.8	13.4	14.3	12.9
17:15 - 17:30	29.1	11.6	17.5	13.6	15.5	13.6	15.5	12.3	16.8	14.8	14.3	15.4	13.7	13.0	16.1	13.1	16.0	12.1	17.0	13.3	15.8	13.7	15.4	13.3	15.8
17:30 - 17:45	24.9	14.0	10.9	13.1	11.8	12.5	12.4	13.0	11.9	13.5	11.4	14.3	10.6	12.9	12.0	13.1	11.8	12.0	12.9	9.9	15.0	13.4	11.5	12.9	12.0
17:45 - 18:00	24.8	13.1	11.7	14.1	10.7	10.8	14.0	13.9	10.9	13.7	11.1	13.4	11.4	12.1	12.7	13.6	11.2	12.1	12.7	12.6	12.2	13.5	11.3	13.0	11.8
Hour 1	66.6	70.3	- 3.7	70.4	- 3.8	70.3	- 3.7	70.0	- 3.3	70.2	- 3.6	70.4	- 3.8	70.1	- 3.5	70.0	- 3.3	69.9	- 3.3	70.1	- 3.4	70.1	- 3.5	70.2	- 3.5
Hour 2	49.0	60.7	-11.7	60.5	-11.6	48.8	0.2	68.8	-19.8	55.8	- 6.8	56.1	- 7.1	55.6	- 6.6	50.8	- 1.8	59.6	-10.6	56.7	- 7.7	52.0	- 3.0	56.8	- 7.9
Hour 3	35.2	14.0	21.2	14.7	20.6	13.1	22.1	15.1	20.1	14.3	20.9	14.3	21.0	13.8	21.5	14.7	20.5	14.4	20.8	13.1	22.2	13.2	22.0	14.0	21.2
Hour 4	26.5	13.4	13.1	13.7	12.8	13.0	13.5	13.5	13.0	14.3	12.3	14.4	12.2	13.0	13.5	13.0	13.5	12.9	13.7	12.5	14.0	13.6	12.9	13.4	13.1
11	44.3	39.6	4.7	39.8	4.5	36.3	8.0	41.8	2.5	38.6	5.7	38.8	5.6	38.1	6.2	37.1	7.2	39.2	5.2	38.1	6.3	37.2	7.1	38.6	5.7



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

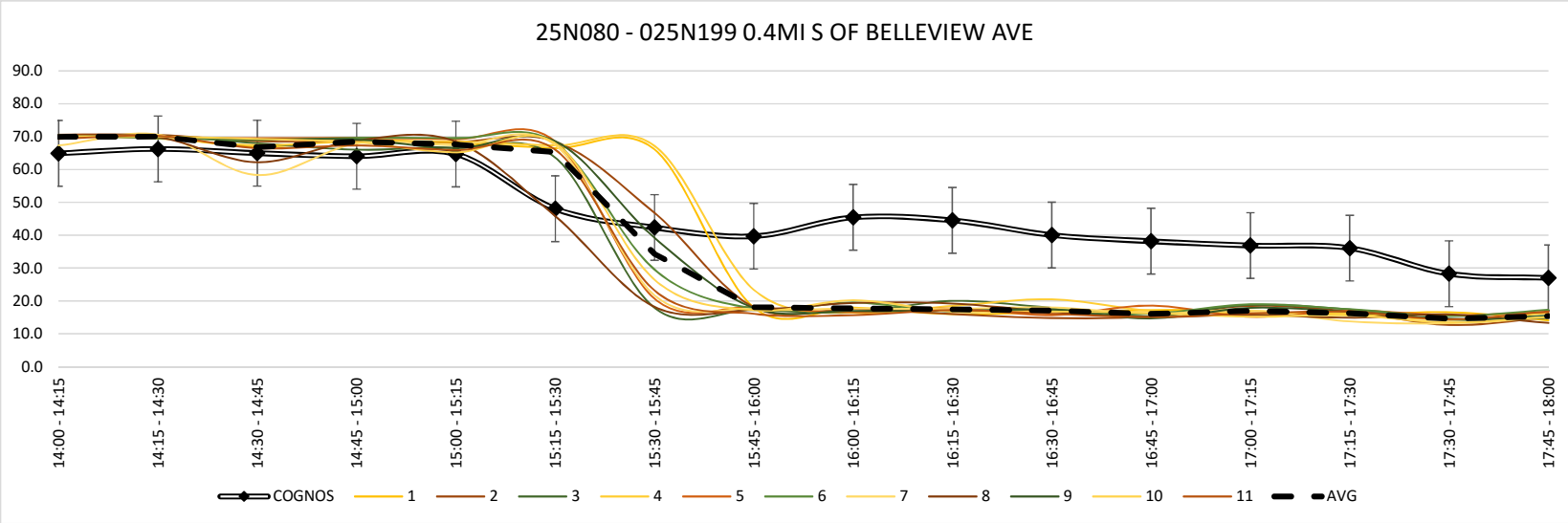
PM	COGNOS	MODEL																						AGGREGATE	
TIME	25N070	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	66.0	71.3	- 5.3	71.2	- 5.2	70.8	- 4.8	70.5	- 4.5	70.7	- 4.7	70.7	- 4.7	70.8	- 4.8	71.0	- 5.0	70.9	- 4.9	71.1	- 5.1	70.7	- 4.7	70.9	- 4.9
14:15 - 14:30	65.7	70.9	- 5.2	70.9	- 5.2	70.9	- 5.2	70.8	- 5.1	71.1	- 5.4	70.7	- 5.0	70.8	- 5.1	70.8	- 5.1	70.8	- 5.1	70.4	- 4.7	70.4	- 4.7	70.8	- 5.1
14:30 - 14:45	65.3	70.1	- 4.8	70.6	- 5.3	70.4	- 5.1	70.3	- 5.0	70.3	- 5.0	70.3	- 5.0	70.2	- 4.9	70.4	- 5.1	70.3	- 5.0	70.4	- 5.1	70.1	- 4.8	70.3	- 5.0
14:45 - 15:00	64.3	70.8	- 6.5	70.4	- 6.1	70.1	- 5.8	70.2	- 5.9	70.1	- 5.8	70.5	- 6.2	70.7	- 6.4	70.5	- 6.2	70.7	- 6.4	70.4	- 6.1	70.7	- 6.4	70.5	- 6.2
15:00 - 15:15	63.1	70.1	- 7.0	70.2	- 7.1	69.7	- 6.6	70.1	- 7.0	70.1	- 7.0	70.2	- 7.1	70.3	- 7.2	70.2	- 7.1	69.8	- 6.7	69.9	- 6.8	70.0	- 6.9	70.1	- 7.0
15:15 - 15:30	48.9	70.0	-21.1	69.4	-20.5	70.2	-21.3	70.0	-21.1	69.6	-20.7	69.8	-20.9	69.6	-20.7	70.1	-21.2	70.3	-21.4	69.4	-20.5	69.5	-20.6	69.8	-20.9
15:30 - 15:45	45.4	69.6	-24.2	69.7	-24.3	24.7	20.7	69.9	-24.5	36.0	9.4	44.2	1.2	38.9	6.5	23.0	22.4	69.9	-24.5	48.4	- 3.0	33.3	12.1	48.0	- 2.6
15:45 - 16:00	39.5	21.1	18.4	20.1	19.4	13.6	25.9	54.1	-14.6	13.5	26.0	13.9	25.6	13.8	25.7	12.9	26.6	19.4	20.1	14.3	25.2	13.6	25.9	19.1	20.4
16:00 - 16:15	43.5	15.7	27.8	14.4	29.1	14.3	29.2	13.1	30.4	13.8	29.7	15.7	27.8	13.7	29.8	15.9	27.6	13.2	30.3	15.0	28.5	14.1	29.4	14.5	29.0
16:15 - 16:30	40.4	13.6	26.8	12.1	28.3	15.4	25.0	14.7	25.7	14.0	26.4	14.4	26.0	14.3	26.1	15.7	24.7	14.0	26.4	13.9	26.5	13.6	26.8	14.2	26.2
16:30 - 16:45	38.1	13.6	24.5	14.0	24.1	14.9	23.2	14.7	23.4	12.0	26.1	14.5	23.6	8.3	29.8	13.4	24.7	14.3	23.8	13.8	24.3	14.4	23.7	13.4	24.7
16:45 - 17:00	36.4	13.8	22.6	12.5	23.9	12.4	24.0	14.3	22.1	13.9	22.5	14.4	22.0	13.6	22.8	13.4	23.0	13.7	22.7	11.7	24.7	12.3	24.1	13.3	23.1
17:00 - 17:15	34.6	13.4	21.2	14.6	20.0	14.9	19.7	14.0	20.6	13.2	21.4	14.5	20.1	12.8	21.8	11.6	23.0	14.6	20.0	13.1	21.5	13.4	21.2	13.7	20.9
17:15 - 17:30	35.0	12.2	22.8	13.3	21.7	14.4	20.6	13.4	21.6	14.0	21.0	14.6	20.4	12.4	22.6	12.4	22.6	13.8	21.2	13.4	21.6	13.9	21.1	13.4	21.6
17:30 - 17:45	30.3	13.9	16.4	11.6	18.7	11.5	18.8	11.8	18.5	12.1	18.2	13.6	16.7	12.8	17.5	13.6	16.7	12.9	17.4	11.9	18.4	12.7	17.6	12.6	17.7
17:45 - 18:00	28.2	12.8	15.4	11.4	16.8	11.7	16.5	11.7	16.5	13.6	14.6	12.8	15.4	11.9	16.3	12.3	15.9	12.3	15.9	13.3	14.9	13.7	14.5	12.5	15.7
Hour 1	65.3	70.8	- 5.5	70.8	- 5.5	70.6	- 5.2	70.5	- 5.1	70.6	- 5.2	70.6	- 5.2	70.6	- 5.3	70.7	- 5.4	70.7	- 5.4	70.6	- 5.3	70.5	- 5.2	70.6	- 5.3
Hour 2	49.2	57.7	- 8.5	57.4	- 8.1	44.6	4.7	66.0	-16.8	47.3	1.9	49.5	- 0.3	48.2	1.1	44.1	5.2	57.4	- 8.1	50.5	- 1.3	46.6	2.6	51.8	- 2.5
Hour 3	39.6	14.2	25.4	13.3	26.3	14.3	25.3	14.2	25.4	13.4	26.2	14.8	24.8	12.5	27.1	14.6	25.0	13.8	25.8	13.6	26.0	13.6	26.0	13.9	25.7
Hour 4	32.0	13.1	18.9	12.7	19.3	13.1	18.9	12.7	19.3	13.2	18.8	13.9	18.1	12.5	19.5	12.5	19.5	13.4	18.6	12.9	19.1	13.4	18.6	13.1	19.0
11	46.5	38.9	7.6	38.5	8.0	35.6	10.9	40.9	5.7	36.1	10.4	37.2	9.4	35.9	10.6	35.5	11.1	38.8	7.7	36.9	9.6	36.0	10.5	37.3	9.2



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

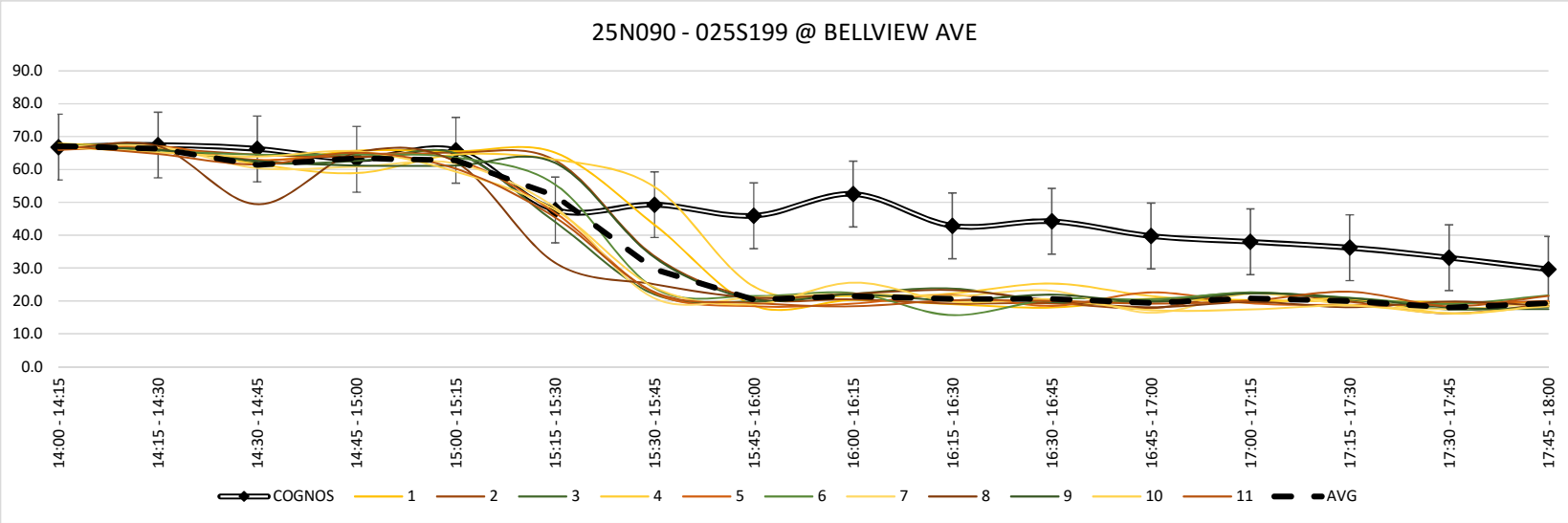
PM	COGNOS	MODEL																						AGGREGATE	
TIME	25N080	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	64.9	70.4	- 5.5	70.6	- 5.7	70.0	- 5.1	70.4	- 5.5	70.2	- 5.3	70.4	- 5.5	67.3	- 2.4	70.2	- 5.3	70.1	- 5.2	70.1	- 5.2	69.3	- 4.4	69.9	- 5.0
14:15 - 14:30	66.2	69.8	- 3.6	70.5	- 4.3	70.2	- 4.0	69.4	- 3.2	69.7	- 3.5	69.5	- 3.3	70.6	- 4.4	69.8	- 3.6	70.0	- 3.8	70.0	- 3.8	70.2	- 4.0	70.0	- 3.8
14:30 - 14:45	65.0	66.9	- 2.0	68.6	- 3.6	68.0	- 3.1	67.4	- 2.5	69.5	- 4.6	69.0	- 4.1	58.3	6.7	62.2	2.8	69.2	- 4.3	69.3	- 4.3	66.5	- 1.6	66.8	- 1.8
14:45 - 15:00	64.0	69.0	- 5.0	68.6	- 4.6	66.0	- 2.0	68.5	- 4.5	69.6	- 5.6	69.6	- 5.6	67.9	- 3.9	68.8	- 4.8	69.1	- 5.1	68.3	- 4.3	67.3	- 3.3	68.4	- 4.4
15:00 - 15:15	64.7	68.0	- 3.3	68.4	- 3.7	66.6	- 1.9	68.5	- 3.8	69.2	- 4.5	69.5	- 4.8	67.4	- 2.7	68.5	- 3.8	66.5	- 1.8	65.2	- 0.5	65.9	- 1.2	67.6	- 2.9
15:15 - 15:30	48.1	66.5	-18.4	68.5	-20.4	63.6	-15.5	67.3	-19.2	68.5	-20.4	68.1	-20.0	67.4	-19.3	45.8	2.3	68.6	-20.5	68.0	-19.9	66.0	-17.9	65.3	-17.2
15:30 - 15:45	42.3	66.1	-23.8	46.8	- 4.5	17.9	24.4	67.2	-24.9	20.7	21.6	29.5	12.8	21.7	20.6	18.2	24.1	39.2	3.1	26.4	15.9	23.2	19.1	34.3	8.0
15:45 - 16:00	39.7	18.0	21.7	18.1	21.6	17.3	22.4	23.4	16.3	18.1	21.6	17.7	22.0	17.5	22.2	17.3	22.4	17.9	21.8	17.2	22.5	16.1	23.6	18.1	21.6
16:00 - 16:15	45.4	18.0	27.4	17.6	27.8	16.5	28.9	16.4	29.0	16.6	28.8	19.5	25.9	17.7	27.7	19.4	26.0	17.0	28.4	20.2	25.2	15.7	29.7	17.7	27.7
16:15 - 16:30	44.5	16.0	28.5	16.0	28.5	20.0	24.5	18.5	26.0	17.7	26.8	16.8	27.7	17.6	26.9	19.2	25.3	17.0	27.5	16.8	27.7	17.2	27.3	17.5	27.0
16:30 - 16:45	40.1	16.6	23.5	14.8	25.3	17.9	22.2	20.5	19.6	15.7	24.4	17.3	22.8	18.0	22.1	16.7	23.4	17.4	22.7	16.8	23.3	16.1	24.0	17.1	23.0
16:45 - 17:00	38.2	17.2	21.0	15.3	22.9	15.4	22.8	17.0	21.2	18.6	19.6	16.2	22.0	16.2	22.0	15.1	23.1	14.7	23.5	16.3	21.9	15.1	23.1	16.1	22.1
17:00 - 17:15	36.9	17.0	19.9	18.5	18.4	18.8	18.1	16.3	20.6	15.2	21.7	19.0	17.9	17.1	19.8	15.8	21.1	17.9	19.0	15.2	21.7	16.2	20.7	17.0	19.9
17:15 - 17:30	36.1	15.7	20.4	16.8	19.3	17.4	18.7	16.1	20.0	17.1	19.0	17.5	18.6	13.8	22.3	14.9	21.2	16.7	19.4	15.6	20.5	16.7	19.4	16.2	19.9
17:30 - 17:45	28.3	16.6	11.7	12.7	15.6	14.3	14.0	14.3	14.0	15.7	12.6	15.4	12.9	13.2	15.1	15.9	12.4	14.6	13.7	13.5	14.8	14.4	13.9	14.6	13.7
17:45 - 18:00	27.0	14.1	12.9	15.0	12.0	15.6	11.4	16.3	10.7	16.6	10.4	17.3	9.7	14.9	12.1	13.3	13.7	14.8	12.2	15.1	11.9	16.8	10.2	15.4	11.6
Hour 1	65.0	69.0	- 4.0	69.6	- 4.5	68.6	- 3.5	68.9	- 3.9	69.8	- 4.7	69.6	- 4.6	66.0	- 1.0	67.8	- 2.7	69.6	- 4.6	69.4	- 4.4	68.3	- 3.3	68.8	- 3.7
Hour 2	48.7	54.7	- 6.0	50.5	- 1.8	41.4	7.3	56.6	- 7.9	44.1	4.6	46.2	2.5	43.5	5.2	37.5	11.2	48.1	0.6	44.2	4.5	42.8	5.9	46.3	2.4
Hour 3	42.0	17.0	25.1	15.9	26.1	17.5	24.6	18.1	23.9	17.2	24.9	17.5	24.6	17.4	24.7	17.6	24.4	16.5	25.5	17.5	24.5	16.0	26.0	17.1	24.9
Hour 4	32.1	15.9	16.2	15.8	16.3	16.5	15.5	15.8	16.3	16.2	15.9	17.3	14.8	14.8	17.3	15.0	17.1	16.0	16.1	14.9	17.2	16.0	16.0	15.8	16.3
11	47.0	39.1	7.8	37.9	9.0	36.0	11.0	39.8	7.1	36.8	10.2	37.6	9.3	35.4	11.5	34.4	12.5	37.5	9.4	36.5	10.5	35.8	11.2	37.0	10.0



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

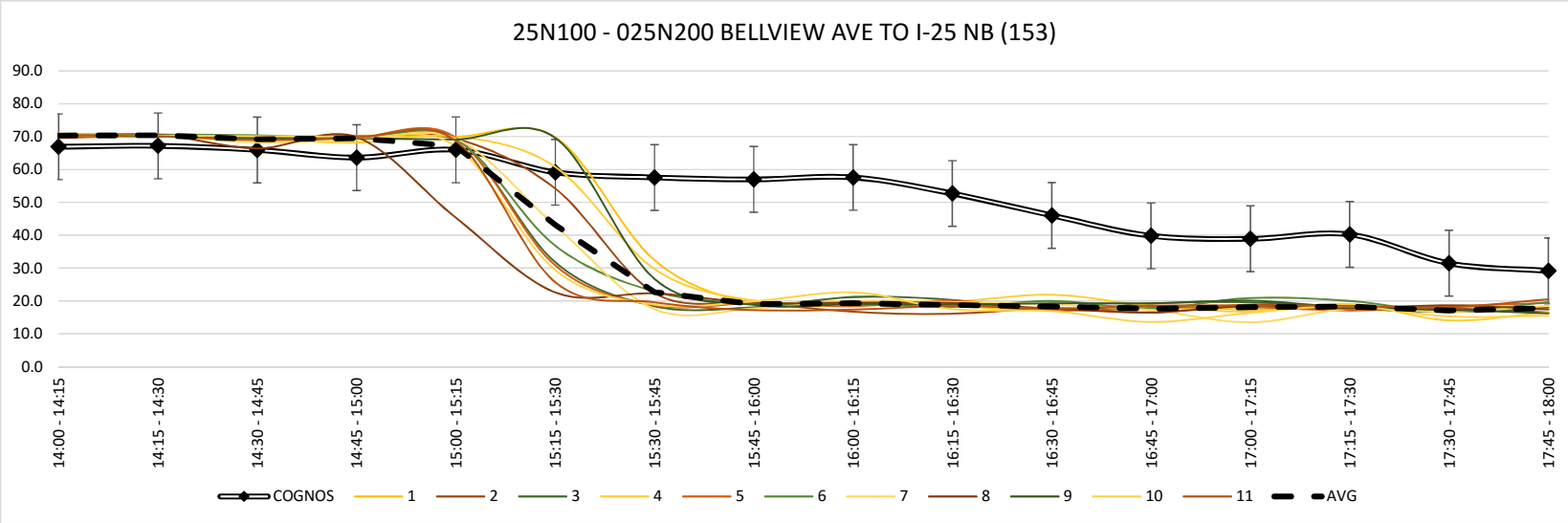
PM	COGNOS	MODEL																						AGGREGATE	
TIME	25N090	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	66.8	67.9	- 1.1	67.6	- 0.8	67.4	- 0.6	67.5	- 0.7	65.9	0.9	67.7	- 0.9	67.0	- 0.2	66.2	0.6	66.7	0.1	66.8	0.0	67.3	- 0.5	67.1	- 0.3
14:15 - 14:30	67.4	66.4	1.0	66.5	0.9	67.1	0.3	66.7	0.7	67.1	0.3	65.7	1.7	66.9	0.5	67.1	0.3	66.0	1.4	65.2	2.2	64.7	2.7	66.3	1.1
14:30 - 14:45	66.3	62.7	3.6	64.5	1.8	62.0	4.3	61.6	4.7	62.9	3.4	64.5	1.8	60.4	5.9	49.4	16.9	62.6	3.7	63.9	2.4	61.5	4.8	61.4	4.9
14:45 - 15:00	63.1	65.7	- 2.6	63.8	- 0.7	62.6	0.5	58.9	4.2	64.6	- 1.5	64.5	- 1.4	60.8	2.3	65.1	- 2.0	61.2	1.9	65.5	- 2.4	65.1	- 2.0	63.4	- 0.3
15:00 - 15:15	65.8	65.5	0.3	65.1	0.7	64.9	0.9	64.5	1.3	63.0	2.8	63.6	2.2	61.8	4.0	62.2	3.6	61.2	4.6	59.3	6.5	60.2	5.6	62.8	3.0
15:15 - 15:30	47.7	65.1	-17.4	62.8	-15.1	44.0	3.7	63.0	-15.3	46.8	0.9	55.4	- 7.7	48.4	- 0.7	31.6	16.1	62.0	-14.3	47.7	- 0.0	45.4	2.3	52.0	- 4.3
15:30 - 15:45	49.3	43.2	6.1	33.6	15.7	22.0	27.3	54.7	- 5.4	22.4	26.9	23.9	25.4	20.8	28.5	25.1	24.2	33.2	16.1	24.1	25.2	22.7	26.6	29.6	19.7
15:45 - 16:00	45.9	18.6	27.3	20.9	25.0	19.8	26.1	24.4	21.5	18.4	27.5	21.5	24.4	21.1	24.8	21.0	24.9	20.5	25.4	19.0	26.9	19.4	26.5	20.4	25.5
16:00 - 16:15	52.5	20.3	32.2	20.5	32.0	22.2	30.3	21.4	31.1	19.2	33.3	22.4	30.1	22.1	30.4	22.2	30.3	22.0	30.5	25.6	26.9	18.4	34.1	21.5	31.0
16:15 - 16:30	42.9	19.0	23.9	19.2	23.7	23.8	19.1	22.3	20.6	21.8	21.1	15.7	27.2	21.5	21.4	23.3	19.6	20.2	22.7	19.8	23.1	20.2	22.7	20.6	22.3
16:30 - 16:45	44.2	18.0	26.2	19.3	24.9	19.7	24.5	25.3	18.9	18.5	25.7	20.5	23.7	23.1	21.1	20.2	24.0	21.9	22.3	20.5	23.7	20.0	24.2	20.6	23.6
16:45 - 17:00	39.8	20.7	19.1	17.8	22.0	20.0	19.8	21.5	18.3	22.6	17.2	20.5	19.3	16.4	23.4	18.1	21.7	19.7	20.1	17.2	22.6	19.2	20.6	19.4	20.4
17:00 - 17:15	38.0	20.2	17.8	22.4	15.6	22.6	15.4	19.5	18.5	19.3	18.7	22.5	15.5	22.2	15.8	19.7	18.3	22.3	15.7	17.4	20.6	20.1	17.9	20.8	17.2
17:15 - 17:30	36.2	20.0	16.2	19.8	16.4	20.4	15.8	20.7	15.5	18.8	17.4	21.0	15.2	18.8	17.4	18.1	18.1	20.9	15.3	18.6	17.6	22.8	13.4	20.0	16.2
17:30 - 17:45	33.2	19.7	13.5	16.2	17.0	17.4	15.8	16.2	17.0	19.1	14.1	19.1	14.1	17.5	15.7	19.8	13.4	18.0	15.2	16.3	16.9	18.4	14.8	18.0	15.2
17:45 - 18:00	29.6	19.5	10.1	19.2	10.4	18.2	11.4	18.7	10.9	20.0	9.6	21.7	7.9	19.5	10.1	18.5	11.1	17.5	12.1	18.4	11.2	21.5	8.1	19.3	10.3
Hour 1	65.9	65.7	0.2	65.6	0.3	64.8	1.1	63.7	2.2	65.1	0.8	65.6	0.3	63.8	2.1	62.0	3.9	64.1	1.8	65.4	0.5	64.7	1.2	64.6	1.3
Hour 2	52.2	48.1	4.1	45.6	6.6	37.7	14.5	51.7	0.5	37.7	14.5	41.1	11.1	38.0	14.1	35.0	17.2	44.2	7.9	37.5	14.6	36.9	15.2	41.2	11.0
Hour 3	44.8	19.5	25.3	19.2	25.6	21.4	23.4	22.6	22.2	20.5	24.3	19.8	25.1	20.8	24.1	21.0	23.9	21.0	23.9	20.8	24.1	19.5	25.4	20.5	24.3
Hour 4	34.2	19.9	14.4	19.4	14.8	19.7	14.6	18.8	15.5	19.3	14.9	21.1	13.2	19.5	14.7	19.0	15.2	19.7	14.6	17.7	16.6	20.7	13.5	19.5	14.7
11	49.3	38.3	11.0	37.5	11.8	35.9	13.4	39.2	10.1	35.7	13.6	36.9	12.4	35.5	13.8	34.2	15.1	37.2	12.0	35.3	14.0	35.4	13.9	36.5	12.8



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

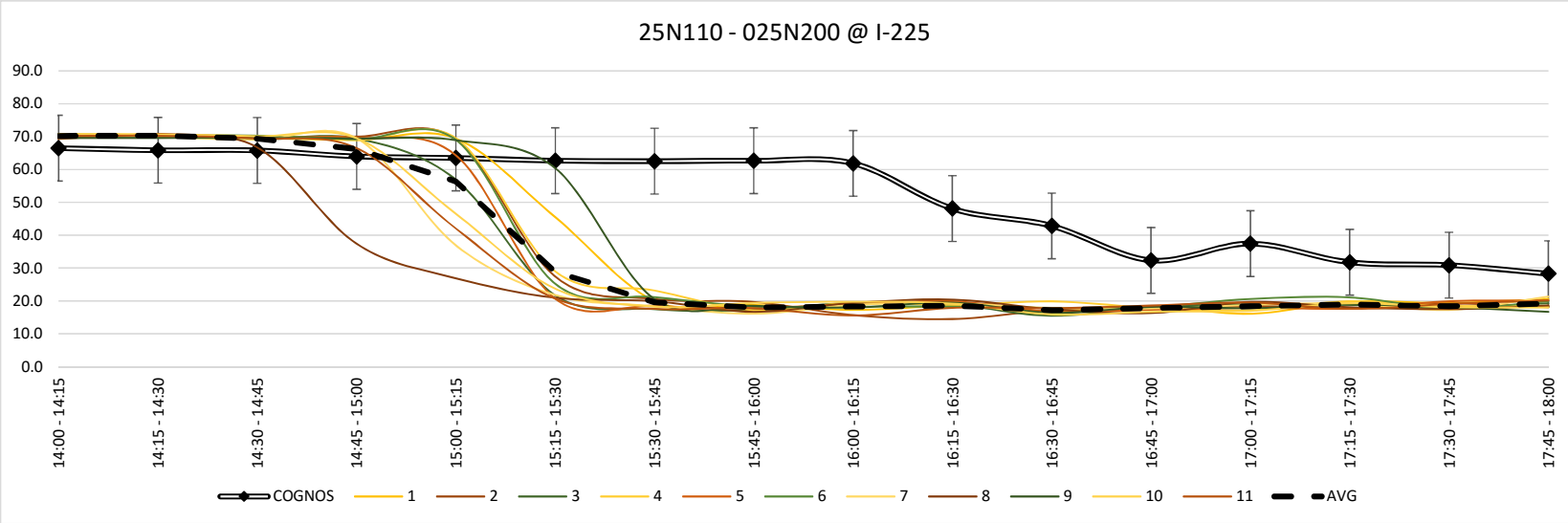
PM	COGNOS	MODEL																						AGGREGATE	
TIME	25N100	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	66.9	70.9	- 4.0	70.1	- 3.2	70.4	- 3.5	70.6	- 3.7	69.6	- 2.7	70.4	- 3.5	70.5	- 3.6	69.9	- 3.0	70.5	- 3.6	70.4	- 3.5	70.4	- 3.5	70.3	- 3.4
14:15 - 14:30	67.2	70.7	- 3.5	70.6	- 3.4	70.0	- 2.8	70.3	- 3.1	70.2	- 3.0	70.6	- 3.4	70.3	- 3.1	70.5	- 3.3	70.4	- 3.2	70.3	- 3.1	70.1	- 2.9	70.4	- 3.2
14:30 - 14:45	65.9	69.5	- 3.6	69.9	- 4.0	69.2	- 3.3	69.2	- 3.3	69.5	- 3.6	70.4	- 4.5	68.2	- 2.3	66.4	- 0.5	69.5	- 3.6	70.1	- 4.2	68.9	- 3.0	69.2	- 3.3
14:45 - 15:00	63.6	70.3	- 6.7	70.1	- 6.5	69.1	- 5.5	68.2	- 4.6	69.8	- 6.2	69.5	- 5.9	69.0	- 5.4	69.8	- 6.2	69.5	- 5.9	69.7	- 6.1	69.7	- 6.1	69.5	- 5.9
15:00 - 15:15	66.0	70.0	- 4.0	69.3	- 3.3	69.4	- 3.4	70.0	- 4.0	69.7	- 3.7	69.2	- 3.2	69.4	- 3.4	45.3	20.7	69.1	- 3.1	67.0	- 1.0	68.7	- 2.7	67.0	- 1.0
15:15 - 15:30	59.2	69.8	-10.7	54.2	5.0	31.8	27.4	60.8	- 1.7	30.8	28.4	36.8	22.4	42.9	16.3	22.6	36.6	69.6	-10.5	29.4	29.8	25.7	33.5	43.1	16.1
15:30 - 15:45	57.6	32.4	25.2	22.4	35.2	18.4	39.2	29.7	27.9	18.7	38.9	22.9	34.7	17.5	40.1	22.3	35.3	26.7	30.9	18.9	38.7	19.6	38.0	22.7	34.9
15:45 - 16:00	57.0	19.2	37.8	19.5	37.5	18.1	38.9	20.1	36.9	19.3	37.7	19.2	37.8	17.7	39.3	19.5	37.5	18.8	38.2	19.9	37.1	17.2	39.8	19.0	38.0
16:00 - 16:15	57.6	18.8	38.8	16.7	40.9	21.2	36.4	19.9	37.7	18.4	39.2	19.1	38.5	20.0	37.6	19.5	38.1	19.1	38.5	22.6	35.0	17.4	40.2	19.3	38.3
16:15 - 16:30	52.7	18.4	34.3	16.1	36.6	20.3	32.4	19.8	32.9	20.1	32.6	18.2	34.5	19.7	33.0	19.4	33.3	19.0	33.7	17.5	35.2	18.5	34.2	18.8	33.9
16:30 - 16:45	46.0	17.2	28.8	17.8	28.2	17.1	28.9	21.9	24.1	17.2	28.8	20.0	26.0	18.9	27.1	17.7	28.3	19.3	26.7	16.9	29.1	17.7	28.3	18.3	27.7
16:45 - 17:00	39.8	18.6	21.2	16.5	23.3	19.2	20.6	18.5	21.3	17.9	21.9	17.7	22.1	17.2	22.6	16.5	23.3	19.3	20.5	13.6	26.2	18.5	21.3	17.6	22.2
17:00 - 17:15	38.9	17.4	21.5	18.9	20.0	19.6	19.3	16.8	22.1	18.1	20.8	20.9	18.0	13.5	25.4	18.5	20.4	20.1	18.8	16.4	22.5	18.7	20.2	18.1	20.8
17:15 - 17:30	40.2	18.3	21.9	18.2	22.0	17.9	22.3	19.1	21.1	17.1	23.1	20.0	20.2	17.6	22.6	17.7	22.5	18.0	22.2	18.4	21.8	18.5	21.7	18.3	21.9
17:30 - 17:45	31.5	18.3	13.2	17.8	13.7	16.6	14.9	14.1	17.4	18.4	13.1	16.7	14.8	16.7	14.8	18.7	12.8	17.3	14.2	15.3	16.2	18.1	13.4	17.1	14.4
17:45 - 18:00	29.2	17.8	11.4	16.5	12.7	18.1	11.1	16.6	12.6	19.4	9.8	19.7	9.5	18.5	10.7	17.4	11.8	16.2	13.0	15.5	13.7	20.5	8.7	17.8	11.4
Hour 1	65.9	70.4	- 4.4	70.2	- 4.3	69.7	- 3.8	69.6	- 3.7	69.8	- 3.9	70.2	- 4.3	69.5	- 3.6	69.2	- 3.2	70.0	- 4.1	70.1	- 4.2	69.8	- 3.9	69.9	- 3.9
Hour 2	59.9	47.9	12.1	41.4	18.6	34.4	25.5	45.2	14.8	34.6	25.3	37.0	22.9	36.9	23.0	27.4	32.5	46.1	13.9	33.8	26.1	32.8	27.1	38.0	22.0
Hour 3	49.0	18.3	30.8	16.8	32.2	19.5	29.6	20.0	29.0	18.4	30.6	18.8	30.3	19.0	30.1	18.3	30.7	19.2	29.8	17.7	31.4	18.0	31.0	18.5	30.5
Hour 4	34.9	18.0	17.0	17.9	17.1	18.1	16.9	16.7	18.3	18.3	16.7	19.3	15.6	16.6	18.4	18.1	16.9	17.9	17.0	16.4	18.5	19.0	16.0	17.8	17.1
11	52.4	38.6	13.8	36.5	15.9	35.4	17.0	37.9	14.6	35.3	17.2	36.3	16.1	35.5	17.0	33.2	19.2	38.3	14.2	34.5	17.9	34.9	17.6	36.0	16.4



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

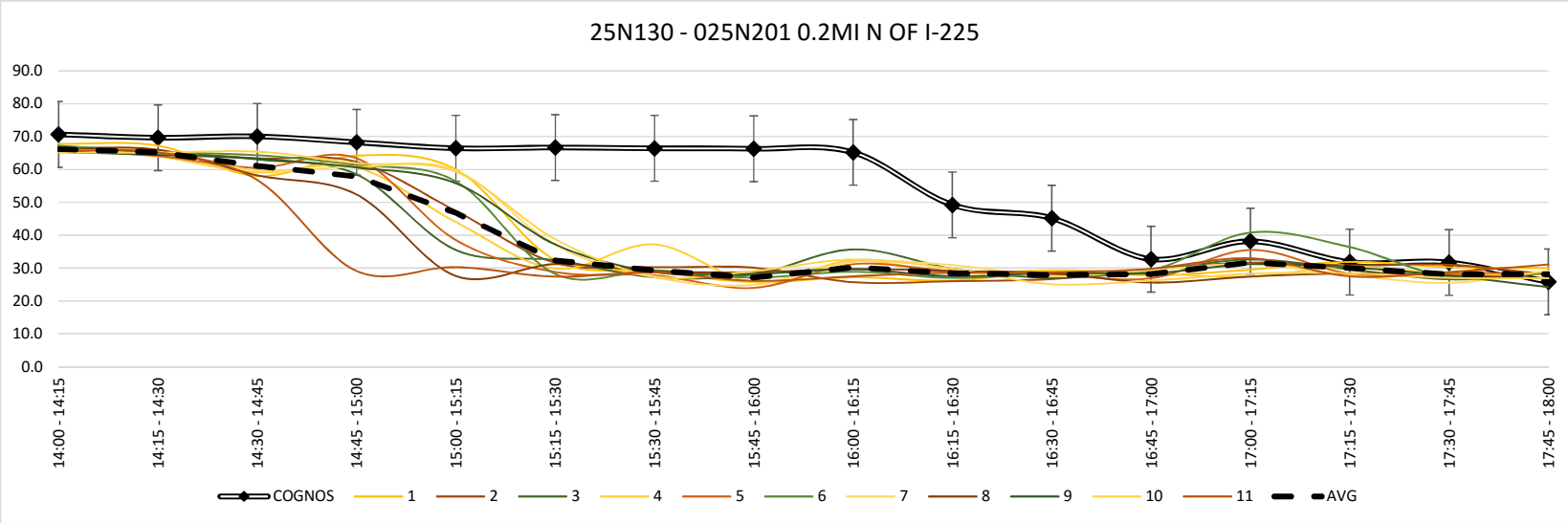
PM	COGNOS	MODEL																						AGGREGATE	
TIME	25N110	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	66.5	70.7	- 4.2	69.3	- 2.8	70.4	- 3.9	70.2	- 3.7	69.7	- 3.2	70.8	- 4.3	70.6	- 4.1	70.1	- 3.6	69.6	- 3.1	70.8	- 4.3	70.2	- 3.7	70.2	- 3.7
14:15 - 14:30	65.9	70.5	- 4.7	70.8	- 5.0	70.2	- 4.4	70.2	- 4.4	70.2	- 4.4	70.3	- 4.5	69.9	- 4.1	70.3	- 4.5	69.6	- 3.8	70.7	- 4.9	70.2	- 4.4	70.3	- 4.5
14:30 - 14:45	65.8	69.8	- 4.0	69.7	- 3.9	69.1	- 3.3	69.6	- 3.8	69.4	- 3.6	70.3	- 4.5	69.0	- 3.2	66.7	- 0.9	69.6	- 3.8	70.1	- 4.3	69.4	- 3.6	69.4	- 3.6
14:45 - 15:00	64.0	69.0	- 5.0	70.0	- 6.0	69.4	- 5.4	68.9	- 4.9	69.7	- 5.7	69.2	- 5.2	69.5	- 5.5	37.4	26.6	69.4	- 5.4	69.5	- 5.5	66.5	- 2.5	66.2	- 2.2
15:00 - 15:15	63.5	69.4	- 5.9	69.2	- 5.7	56.9	6.6	69.5	- 6.0	64.3	- 0.8	69.0	- 5.5	36.9	26.6	26.9	36.6	68.9	- 5.4	46.5	17.0	42.0	21.5	56.3	7.2
15:15 - 15:30	62.7	45.5	17.2	27.4	35.3	21.7	41.0	29.0	33.7	20.7	42.0	25.2	37.5	21.8	40.9	21.0	41.7	60.4	2.3	23.7	39.0	20.7	42.0	28.8	33.9
15:30 - 15:45	62.5	20.0	42.5	20.6	41.9	17.5	45.0	23.2	39.3	18.5	44.0	21.2	41.3	18.4	44.1	19.9	42.6	20.5	42.0	18.3	44.2	17.6	44.9	19.6	42.9
15:45 - 16:00	62.6	18.8	43.8	19.7	42.9	17.3	45.3	17.2	45.4	17.9	44.7	18.4	44.2	16.1	46.5	16.7	45.9	18.5	44.1	19.4	43.2	17.7	44.9	18.0	44.6
16:00 - 16:15	61.9	17.3	44.6	15.7	46.2	19.4	42.5	19.5	42.4	19.0	42.9	18.3	43.6	18.8	43.1	19.4	42.5	18.0	43.9	19.8	42.1	15.6	46.3	18.3	43.6
16:15 - 16:30	48.1	18.4	29.7	14.5	33.6	18.9	29.2	18.7	29.4	19.9	28.2	18.3	29.8	19.2	28.9	20.4	27.7	19.5	28.6	19.2	28.9	17.9	30.2	18.6	29.5
16:30 - 16:45	42.8	16.9	25.9	17.2	25.6	15.5	27.3	19.9	22.9	16.8	26.0	17.9	24.9	17.9	24.9	17.5	25.3	16.4	26.4	15.9	26.9	17.8	25.0	17.2	25.6
16:45 - 17:00	32.3	18.3	14.0	18.1	14.2	18.2	14.1	17.9	14.4	17.3	15.0	18.2	14.1	17.7	14.6	16.3	16.0	18.2	14.1	16.7	15.6	18.6	13.7	17.8	14.5
17:00 - 17:15	37.4	16.1	21.3	18.5	18.9	19.0	18.4	17.2	20.2	17.9	19.5	20.6	16.8	18.8	18.6	19.7	17.7	17.8	19.6	17.0	20.4	19.5	17.9	18.4	19.0
17:15 - 17:30	31.8	19.8	12.0	17.7	14.1	18.8	13.0	19.9	11.9	17.7	14.1	21.1	10.7	19.2	12.6	18.1	13.7	18.9	12.9	19.3	12.5	17.6	14.2	18.9	12.9
17:30 - 17:45	30.9	19.4	11.5	19.2	11.7	17.8	13.1	18.5	12.4	19.9	11.0	17.7	13.2	17.3	13.6	17.5	13.4	18.1	12.8	18.1	12.8	19.1	11.8	18.4	12.5
17:45 - 18:00	28.3	20.6	7.7	18.1	10.2	19.3	9.0	18.5	9.8	20.2	8.1	19.9	8.4	21.3	7.0	18.6	9.7	16.7	11.6	18.0	10.3	20.1	8.2	19.2	9.1
Hour 1	65.5	70.0	- 4.5	70.0	- 4.4	69.8	- 4.3	69.7	- 4.2	69.8	- 4.2	70.2	- 4.6	69.8	- 4.2	61.1	4.4	69.6	- 4.0	70.3	- 4.8	69.1	- 3.6	69.0	- 3.5
Hour 2	62.8	38.4	24.4	34.2	28.6	28.4	34.5	34.7	28.1	30.4	32.5	33.5	29.4	23.3	39.5	21.1	41.7	42.1	20.8	27.0	35.9	24.5	38.3	30.7	32.2
Hour 3	46.3	17.7	28.6	16.4	29.9	18.0	28.3	19.0	27.3	18.3	28.0	18.2	28.1	18.4	27.9	18.4	27.9	18.0	28.3	17.9	28.4	17.5	28.8	18.0	28.3
Hour 4	32.1	19.0	13.1	18.4	13.7	18.7	13.4	18.5	13.6	18.9	13.2	19.8	12.3	19.2	12.9	18.5	13.6	17.9	14.2	18.1	14.0	19.1	13.0	18.7	13.4
11	51.7	36.3	15.4	34.7	16.9	33.7	18.0	35.5	16.2	34.3	17.4	35.4	16.3	32.7	19.0	29.8	21.9	36.9	14.8	33.3	18.4	32.5	19.1	34.1	17.6



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

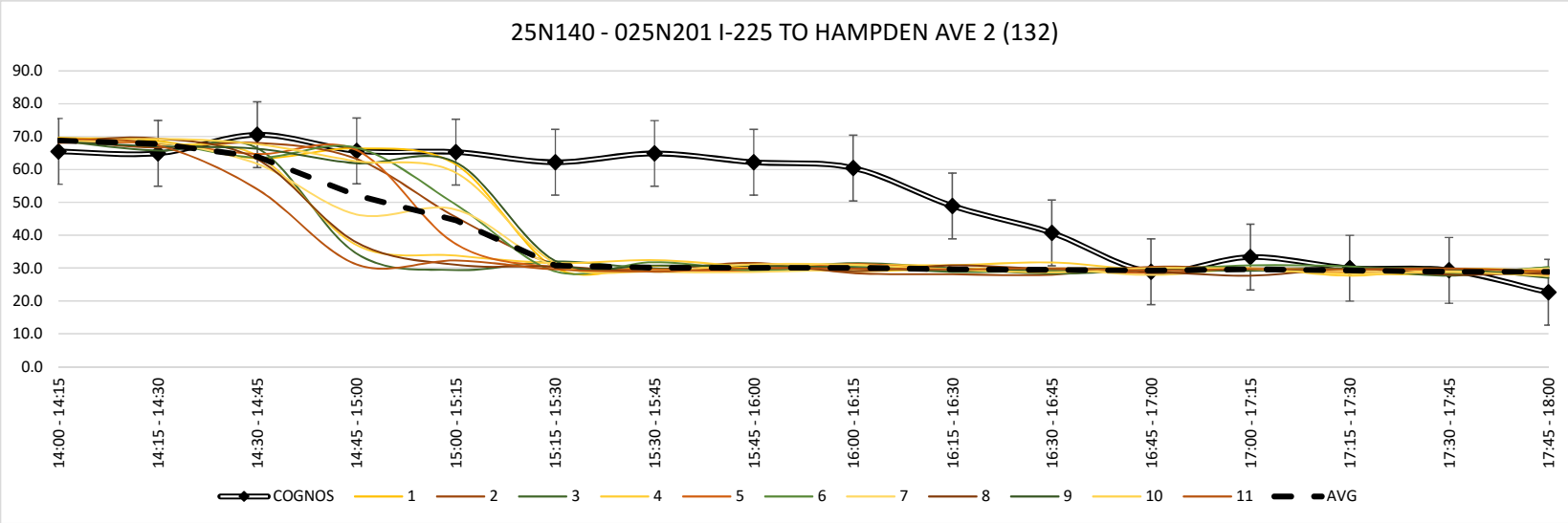
PM	COGNOS	MODEL																						AGGREGATE	
TIME	25N130	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	70.7	67.8	2.9	66.1	4.6	66.5	4.2	66.8	3.9	65.6	5.1	67.2	3.5	66.4	4.3	66.3	4.4	65.3	5.4	65.2	5.5	65.6	5.1	66.2	4.5
14:15 - 14:30	69.7	67.2	2.5	65.3	4.4	65.3	4.4	64.0	5.7	64.1	5.6	65.4	4.3	65.5	4.2	66.0	3.7	64.4	5.3	65.1	4.6	65.2	4.5	65.2	4.5
14:30 - 14:45	70.1	58.0	12.1	63.4	6.7	63.0	7.1	59.1	11.0	60.5	9.6	64.3	5.8	59.7	10.4	58.2	11.9	63.3	6.8	65.4	4.6	56.8	13.3	61.1	9.0
14:45 - 15:00	68.3	64.2	4.1	62.3	6.0	58.5	9.8	60.6	7.7	63.4	4.9	61.4	6.9	60.8	7.5	52.4	15.9	60.6	7.7	61.9	6.4	29.1	39.2	57.8	10.5
15:00 - 15:15	66.4	60.0	6.4	47.4	19.0	35.5	30.9	44.0	22.4	38.5	27.9	56.4	10.0	59.7	6.7	27.6	38.8	55.8	10.6	59.3	7.1	30.3	36.1	46.8	19.6
15:15 - 15:30	66.7	32.4	34.3	31.6	35.1	32.4	34.3	29.8	36.9	28.8	37.9	28.2	38.5	37.0	29.7	31.2	35.5	37.2	29.5	38.8	27.9	27.4	39.3	32.3	34.4
15:30 - 15:45	66.4	29.0	37.4	30.3	36.1	27.2	39.2	37.2	29.2	27.8	38.6	29.3	37.1	27.2	39.2	29.0	37.4	28.8	37.6	27.5	38.9	28.7	37.7	29.3	37.1
15:45 - 16:00	66.3	25.7	40.6	30.1	36.2	28.1	38.2	25.7	40.6	24.0	42.3	27.1	39.2	24.9	41.4	28.8	37.5	28.2	38.1	29.1	37.2	26.1	40.2	27.1	39.2
16:00 - 16:15	65.2	27.2	38.0	25.7	39.5	35.7	29.5	32.3	32.9	31.2	34.0	28.9	36.3	31.9	33.3	29.7	35.5	29.7	35.5	32.6	32.6	27.5	37.7	30.2	35.0
16:15 - 16:30	49.2	26.2	23.0	26.0	23.2	29.8	19.4	28.4	20.8	29.1	20.1	27.0	22.2	30.9	18.3	29.1	20.1	27.5	21.7	29.8	19.4	28.6	20.6	28.4	20.8
16:30 - 16:45	45.2	29.2	16.0	26.7	18.5	27.0	18.2	29.4	15.8	28.1	17.1	28.4	16.8	27.5	17.7	28.5	16.7	28.6	16.6	25.1	20.1	28.7	16.5	27.9	17.3
16:45 - 17:00	32.7	27.8	4.9	29.7	3.0	29.2	3.5	28.4	4.3	26.9	5.8	29.4	3.3	29.4	3.3	25.6	7.1	28.4	4.3	26.2	6.5	29.8	2.9	28.2	4.5
17:00 - 17:15	38.2	29.5	8.7	31.7	6.5	32.6	5.6	27.4	10.8	35.5	2.7	40.8	- 2.6	31.2	7.0	27.4	10.8	31.2	7.0	28.3	9.9	33.0	5.2	31.7	6.5
17:15 - 17:30	31.8	31.9	- 0.1	30.8	1.0	29.6	2.2	30.5	1.3	28.3	3.5	36.4	- 4.6	27.9	3.9	28.4	3.4	30.2	1.6	28.4	3.4	27.5	4.3	30.0	1.8
17:30 - 17:45	31.7	30.3	1.4	31.0	0.7	26.6	5.1	28.2	3.5	28.4	3.3	27.3	4.4	25.5	6.2	27.8	3.9	27.7	4.0	27.0	4.7	28.8	2.9	28.1	3.6
17:45 - 18:00	25.8	30.0	- 4.2	28.1	- 2.3	28.3	- 2.5	28.1	- 2.3	28.6	- 2.8	28.5	- 2.7	29.2	- 3.4	26.9	- 1.1	24.2	1.6	26.9	- 1.1	31.1	- 5.3	28.2	- 2.4
Hour 1	69.7	64.3	5.4	64.3	5.4	63.3	6.3	62.6	7.0	63.4	6.3	64.6	5.1	63.1	6.6	60.7	8.9	63.4	6.3	64.4	5.3	54.2	15.5	62.6	7.1
Hour 2	66.5	36.8	29.7	34.9	31.6	30.8	35.7	34.2	32.3	29.8	36.7	35.3	31.2	37.2	29.3	29.2	37.3	37.5	29.0	38.7	27.8	28.1	38.3	33.9	32.6
Hour 3	48.1	27.6	20.5	27.0	21.0	30.4	17.6	29.6	18.4	28.8	19.2	28.4	19.6	29.9	18.1	28.2	19.8	28.6	19.5	28.4	19.6	28.7	19.4	28.7	19.4
Hour 4	31.9	30.4	1.4	30.4	1.5	29.3	2.6	28.6	3.3	30.2	1.7	33.3	- 1.4	28.5	3.4	27.6	4.2	28.3	3.5	27.7	4.2	30.1	1.8	29.5	2.4
11	54.0	39.8	14.2	39.1	14.9	38.5	15.6	38.7	15.3	38.1	16.0	40.4	13.6	39.7	14.3	36.4	17.6	39.4	14.6	39.8	14.2	35.3	18.7	38.7	15.4



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

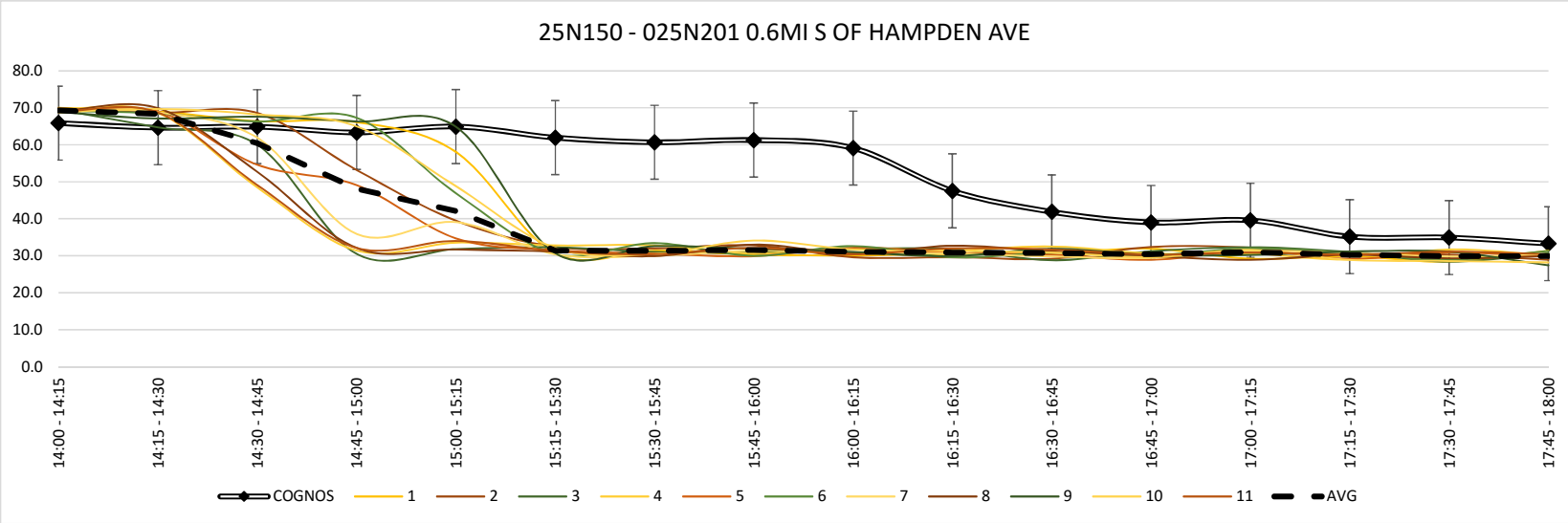
PM	COGNOS	MODEL																						AGGREGATE	
TIME	25N140	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	65.5	69.6	- 4.1	68.9	- 3.4	68.7	- 3.2	69.3	- 3.8	68.1	- 2.6	69.1	- 3.6	68.4	- 2.9	68.6	- 3.1	68.4	- 2.9	68.6	- 3.1	69.4	- 3.9	68.8	- 3.3
14:15 - 14:30	64.9	68.7	- 3.8	66.7	- 1.8	65.7	- 0.8	67.8	- 2.9	68.0	- 3.1	68.2	- 3.3	68.2	- 3.3	69.4	- 4.5	67.0	- 2.1	69.3	- 4.4	67.3	- 2.4	67.8	- 2.9
14:30 - 14:45	70.6	63.4	7.2	68.1	2.5	66.5	4.1	64.2	6.3	64.7	5.8	63.6	7.0	61.7	8.8	63.1	7.5	66.3	4.3	67.7	2.8	54.0	16.6	63.9	6.7
14:45 - 15:00	65.7	66.4	- 0.7	63.2	2.5	34.4	31.3	37.0	28.7	65.9	- 0.2	66.6	- 0.9	46.3	19.4	37.8	27.9	61.9	3.8	62.5	3.2	31.1	34.6	52.1	13.6
15:00 - 15:15	65.3	61.5	3.8	45.5	19.8	29.4	35.9	33.8	31.5	37.3	28.0	49.3	16.0	47.8	17.5	31.0	34.3	62.1	3.2	59.0	6.3	32.3	33.0	44.5	20.8
15:15 - 15:30	62.2	30.1	32.1	31.2	31.0	32.0	30.2	31.5	30.7	30.2	32.0	29.0	33.2	30.6	31.6	30.5	31.7	32.2	30.0	31.5	30.7	29.6	32.6	30.8	31.4
15:30 - 15:45	64.9	30.7	34.2	29.7	35.2	29.9	35.0	32.4	32.5	29.6	35.3	31.8	33.1	28.9	36.0	28.9	36.0	30.8	34.1	29.1	35.8	29.0	35.9	30.1	34.8
15:45 - 16:00	62.2	30.0	32.2	31.6	30.6	29.6	32.6	30.6	31.6	29.1	33.1	29.3	32.9	28.8	33.4	30.8	31.4	30.7	31.5	31.1	31.1	30.0	32.2	30.1	32.1
16:00 - 16:15	60.5	29.1	31.4	28.5	32.0	31.5	29.0	31.0	29.5	31.2	29.3	30.6	29.9	29.6	30.9	29.1	31.4	30.1	30.4	31.0	29.5	29.8	30.7	30.1	30.4
16:15 - 16:30	48.9	29.8	19.1	28.1	20.8	30.0	18.9	30.9	18.0	29.5	19.4	28.8	20.1	29.6	19.3	30.8	18.1	29.1	19.8	29.6	19.3	29.6	19.3	29.6	19.3
16:30 - 16:45	40.7	29.9	10.8	28.0	12.7	28.3	12.4	31.7	9.0	29.6	11.1	29.2	11.5	29.8	10.9	29.7	11.0	29.8	10.9	28.7	12.0	29.9	10.8	29.5	11.2
16:45 - 17:00	28.9	29.9	- 1.0	30.4	- 1.5	29.4	- 0.5	29.4	- 0.5	28.5	0.4	29.6	- 0.7	27.9	1.0	28.9	0.0	29.6	- 0.7	30.0	- 1.1	29.3	- 0.4	29.3	- 0.4
17:00 - 17:15	33.4	29.4	4.0	29.9	3.5	29.7	3.7	30.0	3.4	29.6	3.8	30.8	2.6	29.8	3.6	27.7	5.7	29.2	4.2	29.7	3.7	29.7	3.7	29.6	3.8
17:15 - 17:30	30.0	28.4	1.6	29.8	0.2	29.8	0.2	27.7	2.3	29.0	1.0	30.5	- 0.5	29.2	0.8	29.8	0.2	29.9	0.1	28.2	1.8	29.6	0.4	29.3	0.7
17:30 - 17:45	29.3	28.2	1.1	28.9	0.4	27.7	1.6	29.8	- 0.5	29.6	- 0.3	28.3	1.0	29.0	0.3	28.0	1.3	29.8	- 0.5	28.8	0.5	29.9	- 0.6	28.9	0.4
17:45 - 18:00	22.7	29.2	- 6.6	27.9	- 5.3	30.3	- 7.7	29.2	- 6.6	29.1	- 6.5	30.3	- 7.7	29.9	- 7.3	28.5	- 5.9	27.0	- 4.4	27.6	- 5.0	28.9	- 6.3	28.9	- 6.3
Hour 1	66.7	67.0	- 0.4	66.7	- 0.1	58.8	7.8	59.6	7.1	66.7	- 0.0	66.9	- 0.2	61.2	5.5	59.7	6.9	65.9	0.8	67.0	- 0.4	55.5	11.2	63.2	3.5
Hour 2	63.6	38.1	25.6	34.5	29.1	30.2	33.4	32.1	31.6	31.6	32.1	34.9	28.8	34.0	29.6	30.3	33.3	39.0	24.7	37.7	26.0	30.2	33.4	33.9	29.8
Hour 3	44.7	29.7	15.1	28.8	16.0	29.8	14.9	30.8	14.0	29.7	15.0	29.6	15.2	29.2	15.5	29.6	15.1	29.7	15.1	29.8	14.9	29.7	15.1	29.6	15.1
Hour 4	28.8	28.8	0.0	29.1	- 0.3	29.4	- 0.6	29.2	- 0.4	29.3	- 0.5	30.0	- 1.2	29.5	- 0.7	28.5	0.3	29.0	- 0.2	28.6	0.2	29.5	- 0.7	29.2	- 0.4
11	51.0	40.9	10.1	39.8	11.2	37.1	13.9	37.9	13.1	39.3	11.6	40.3	10.6	38.5	12.5	37.0	13.9	40.9	10.1	40.8	10.2	36.2	14.7	39.0	12.0



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

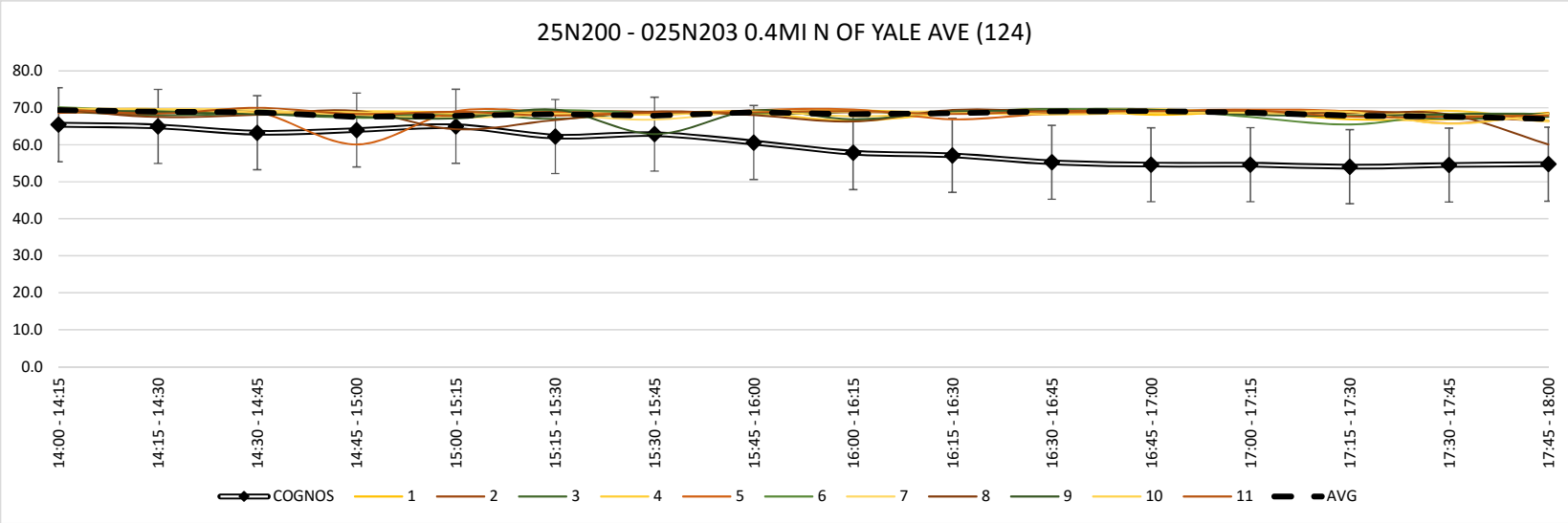
PM	COGNOS	MODEL																						AGGREGATE	
TIME	25N150	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	65.9	70.0	- 4.1	69.9	- 4.0	69.5	- 3.6	69.8	- 3.9	68.8	- 2.9	69.2	- 3.3	69.5	- 3.6	69.2	- 3.3	68.8	- 2.9	68.8	- 2.9	69.1	- 3.2	69.3	- 3.4
14:15 - 14:30	64.6	69.0	- 4.4	68.6	- 4.0	64.7	- 0.1	68.6	- 4.0	69.0	- 4.4	68.5	- 3.9	68.8	- 4.2	69.9	- 5.3	67.1	- 2.5	69.7	- 5.1	68.7	- 4.1	68.4	- 3.8
14:30 - 14:45	64.9	66.4	- 1.5	68.6	- 3.7	60.0	4.9	48.5	16.4	54.6	10.3	66.3	- 1.4	61.9	3.0	52.7	12.2	67.6	- 2.7	68.2	- 3.3	49.1	15.8	60.4	4.5
14:45 - 15:00	63.4	66.1	- 2.7	53.2	10.2	30.5	32.9	31.4	32.0	49.1	14.3	67.3	- 4.0	35.9	27.5	32.1	31.3	66.3	- 3.0	65.0	- 1.7	32.1	31.3	48.1	15.3
15:00 - 15:15	64.9	58.1	6.8	39.5	25.4	31.8	33.1	33.5	31.4	34.7	30.2	46.9	18.0	39.1	25.8	31.7	33.2	64.9	0.0	48.8	16.1	34.0	30.9	42.1	22.8
15:15 - 15:30	61.9	30.6	31.3	32.4	29.5	32.3	29.6	32.8	29.1	31.5	30.4	30.5	31.4	30.4	31.5	31.1	30.8	30.7	31.2	32.1	29.8	31.3	30.6	31.4	30.5
15:30 - 15:45	60.7	31.4	29.3	32.0	28.7	31.0	29.7	32.8	27.9	30.6	30.1	33.4	27.3	30.0	30.7	29.9	30.8	32.6	28.1	30.5	30.2	30.4	30.3	31.3	29.4
15:45 - 16:00	61.3	30.3	31.0	32.8	28.5	30.9	30.4	30.6	30.7	29.9	31.4	30.0	31.3	31.4	29.9	33.0	28.3	31.9	29.4	34.1	27.2	32.1	29.2	31.6	29.7
16:00 - 16:15	59.1	30.1	29.0	29.6	29.5	31.8	27.3	32.0	27.1	32.2	26.9	32.6	26.5	30.6	28.5	30.6	28.5	31.0	28.1	31.7	27.4	30.4	28.7	31.1	28.0
16:15 - 16:30	47.6	30.5	17.1	29.6	18.0	31.8	15.8	31.5	16.1	30.8	16.8	29.6	18.0	30.6	17.0	32.7	14.9	29.9	17.7	31.3	16.3	32.0	15.6	30.9	16.7
16:30 - 16:45	41.9	30.7	11.2	29.2	12.7	28.8	13.1	32.5	9.4	30.3	11.6	30.8	11.1	29.8	12.1	31.2	10.7	31.9	10.0	30.9	11.0	31.7	10.2	30.7	11.2
16:45 - 17:00	39.0	31.9	7.1	32.4	6.6	31.2	7.8	30.6	8.4	28.9	10.1	30.1	8.9	29.4	9.6	29.9	9.1	30.2	8.8	29.6	9.4	30.3	8.7	30.4	8.6
17:00 - 17:15	39.6	29.2	10.4	32.2	7.4	32.3	7.3	30.6	9.0	31.3	8.3	32.0	7.6	31.3	8.3	28.9	10.7	30.2	9.4	31.6	8.0	30.9	8.7	31.0	8.6
17:15 - 17:30	35.2	29.9	5.3	30.4	4.8	31.0	4.2	29.0	6.2	29.2	6.0	30.8	4.4	30.7	4.5	30.3	4.9	31.1	4.1	28.9	6.3	30.3	4.9	30.2	5.0
17:30 - 17:45	34.9	28.4	6.5	30.3	4.6	28.4	6.5	31.7	3.2	30.9	4.0	28.9	6.0	29.8	5.1	29.3	5.6	31.1	3.8	28.6	6.3	31.1	3.8	29.9	5.0
17:45 - 18:00	33.3	31.4	1.9	28.9	4.4	30.7	2.6	30.1	3.2	29.7	3.6	31.3	2.0	30.4	2.9	29.9	3.4	27.4	5.9	28.2	5.1	30.4	2.9	29.9	3.4
Hour 1	64.7	67.9	- 3.2	65.1	- 0.4	56.2	8.5	54.6	10.1	60.4	4.3	67.8	- 3.1	59.0	5.7	56.0	8.7	67.5	- 2.8	67.9	- 3.2	54.8	9.9	61.6	3.1
Hour 2	62.2	37.6	24.6	34.2	28.0	31.5	30.7	32.4	29.8	31.7	30.5	35.2	27.0	32.7	29.5	31.4	30.8	40.0	22.2	36.4	25.8	32.0	30.3	34.1	28.1
Hour 3	46.9	30.8	16.1	30.2	16.7	30.9	16.0	31.7	15.2	30.6	16.3	30.8	16.1	30.1	16.8	31.1	15.8	30.8	16.1	30.9	16.0	31.1	15.8	30.8	16.1
Hour 4	35.7	29.7	6.0	30.5	5.3	30.6	5.1	30.4	5.4	30.3	5.5	30.8	5.0	30.6	5.2	29.6	6.1	30.0	5.8	29.3	6.4	30.7	5.1	30.3	5.5
11	52.4	41.5	10.9	40.0	12.4	37.3	15.1	37.3	15.1	38.2	14.2	41.1	11.2	38.1	14.3	37.0	15.4	42.0	10.3	41.1	11.3	37.1	15.3	39.2	13.2



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

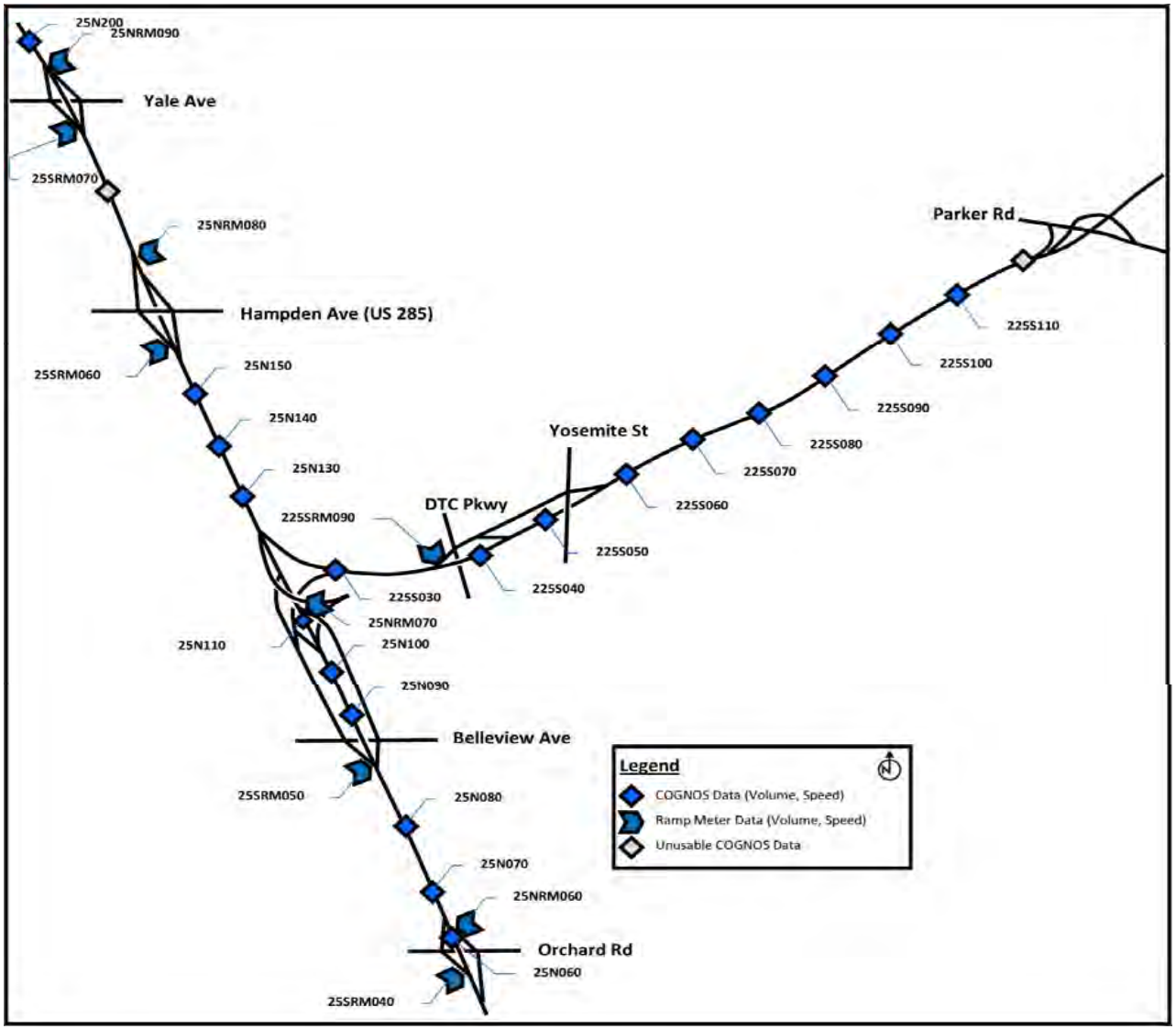
PM	COGNOS	MODEL																						AGGREGATE	
TIME	25N200	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	65.4	69.5	- 4.1	69.4	- 4.0	69.0	- 3.6	69.6	- 4.2	68.6	- 3.2	70.2	- 4.8	69.1	- 3.7	69.5	- 4.1	69.4	- 4.0	69.8	- 4.4	69.6	- 4.2	69.4	- 4.0
14:15 - 14:30	65.0	69.7	- 4.7	68.7	- 3.7	68.0	- 3.0	69.1	- 4.1	69.3	- 4.3	69.2	- 4.2	69.7	- 4.7	67.5	- 2.5	68.9	- 3.9	69.6	- 4.6	68.4	- 3.4	68.9	- 3.9
14:30 - 14:45	63.3	68.4	- 5.1	68.6	- 5.3	68.3	- 5.0	68.7	- 5.4	68.8	- 5.5	69.4	- 6.1	69.4	- 6.1	68.1	- 4.8	68.3	- 5.0	68.8	- 5.5	70.0	- 6.7	68.8	- 5.5
14:45 - 15:00	64.0	68.1	- 4.1	68.5	- 4.5	67.4	- 3.4	69.1	- 5.1	60.1	3.9	67.3	- 3.3	67.9	- 3.9	69.2	- 5.2	67.6	- 3.6	68.8	- 4.8	68.3	- 4.3	67.5	- 3.5
15:00 - 15:15	65.0	68.1	- 3.1	67.8	- 2.8	68.5	- 3.5	68.8	- 3.8	69.1	- 4.1	68.6	- 3.6	67.3	- 2.3	64.2	0.8	67.1	- 2.1	68.5	- 3.5	68.9	- 3.9	67.9	- 2.9
15:15 - 15:30	62.2	68.4	- 6.2	69.1	- 6.9	67.0	- 4.8	68.5	- 6.3	68.8	- 6.6	69.4	- 7.2	68.0	- 5.8	66.7	- 4.5	69.5	- 7.3	68.4	- 6.2	67.9	- 5.7	68.3	- 6.1
15:30 - 15:45	62.9	68.7	- 5.8	68.9	- 6.0	68.9	- 6.0	68.4	- 5.5	68.2	- 5.3	68.6	- 5.7	66.8	- 3.9	69.0	- 6.1	62.9	- 0.0	68.1	- 5.2	68.7	- 5.8	67.9	- 5.0
15:45 - 16:00	60.6	69.2	- 8.6	68.4	- 7.8	68.2	- 7.6	68.5	- 7.9	69.3	- 8.7	68.5	- 7.9	69.1	- 8.5	68.0	- 7.4	69.3	- 8.7	69.0	- 8.4	68.8	- 8.2	68.8	- 8.2
16:00 - 16:15	57.9	69.3	-11.4	68.8	-10.9	68.9	-11.0	66.5	- 8.6	69.6	-11.7	69.0	-11.1	68.9	-11.0	66.3	- 8.4	66.9	- 9.0	67.7	- 9.8	69.1	-11.2	68.3	-10.4
16:15 - 16:30	57.1	68.7	-11.6	68.6	-11.5	68.9	-11.8	68.4	-11.3	66.9	- 9.8	68.4	-11.3	69.0	-11.9	69.4	-12.3	69.0	-11.9	68.5	-11.4	68.3	-11.2	68.5	-11.4
16:30 - 16:45	55.3	69.7	-14.4	68.3	-13.0	69.7	-14.4	68.7	-13.4	68.5	-13.2	69.4	-14.1	69.0	-13.7	69.1	-13.8	69.1	-13.8	68.2	-12.9	69.1	-13.8	69.0	-13.7
16:45 - 17:00	54.6	68.1	-13.5	68.9	-14.3	69.3	-14.7	69.0	-14.4	69.2	-14.6	69.6	-15.0	69.7	-15.1	69.3	-14.7	69.5	-14.9	68.6	-14.0	69.1	-14.5	69.1	-14.5
17:00 - 17:15	54.6	68.7	-14.1	68.4	-13.8	68.8	-14.2	69.1	-14.5	69.5	-14.9	67.5	-12.9	68.6	-14.0	69.0	-14.4	68.1	-13.5	68.7	-14.1	69.3	-14.7	68.7	-14.1
17:15 - 17:30	54.1	66.9	-12.8	69.2	-15.1	68.1	-14.0	67.9	-13.8	69.0	-14.9	65.5	-11.4	67.9	-13.8	68.6	-14.5	67.8	-13.7	68.9	-14.8	67.6	-13.5	67.9	-13.8
17:30 - 17:45	54.5	66.9	-12.4	67.8	-13.3	67.0	-12.5	69.2	-14.7	65.8	-11.3	68.2	-13.7	68.4	-13.9	68.2	-13.7	68.3	-13.8	65.7	-11.2	67.6	-13.1	67.6	-13.1
17:45 - 18:00	54.8	68.7	-13.9	66.4	-11.6	67.5	-12.7	66.6	-11.8	68.6	-13.8	68.4	-13.6	66.2	-11.4	60.1	- 5.3	68.3	-13.5	68.4	-13.6	67.9	-13.1	67.0	-12.2
Hour 1	64.4	68.9	- 4.5	68.8	- 4.4	68.2	- 3.8	69.1	- 4.7	66.7	- 2.3	69.0	- 4.6	69.0	- 4.6	68.6	- 4.2	68.6	- 4.1	69.3	- 4.8	69.1	- 4.7	68.7	- 4.2
Hour 2	62.7	68.6	- 5.9	68.6	- 5.9	68.2	- 5.5	68.6	- 5.9	68.9	- 6.2	68.8	- 6.1	67.8	- 5.1	67.0	- 4.3	67.2	- 4.5	68.5	- 5.8	68.6	- 5.9	68.2	- 5.5
Hour 3	56.2	69.0	-12.7	68.7	-12.4	69.2	-13.0	68.2	-11.9	68.6	-12.3	69.1	-12.9	69.2	-12.9	68.5	-12.3	68.6	-12.4	68.3	-12.0	68.9	-12.7	68.7	-12.5
Hour 4	54.5	67.8	-13.3	68.0	-13.5	67.9	-13.4	68.2	-13.7	68.2	-13.7	67.4	-12.9	67.8	-13.3	66.5	-12.0	68.1	-13.6	67.9	-13.4	68.1	-13.6	67.8	-13.3
11	59.5	68.6	- 9.1	68.5	- 9.0	68.3	- 8.9	68.5	- 9.1	68.1	- 8.6	68.6	- 9.1	68.4	- 9.0	67.6	- 8.2	68.1	- 8.7	68.5	- 9.0	68.7	- 9.2	68.4	- 8.9



AVERAGE VEHICLE SPEEDS - BY LINK

CONCEPT 3: +10% I-225

ROUTE: I-225
PERIOD: AM

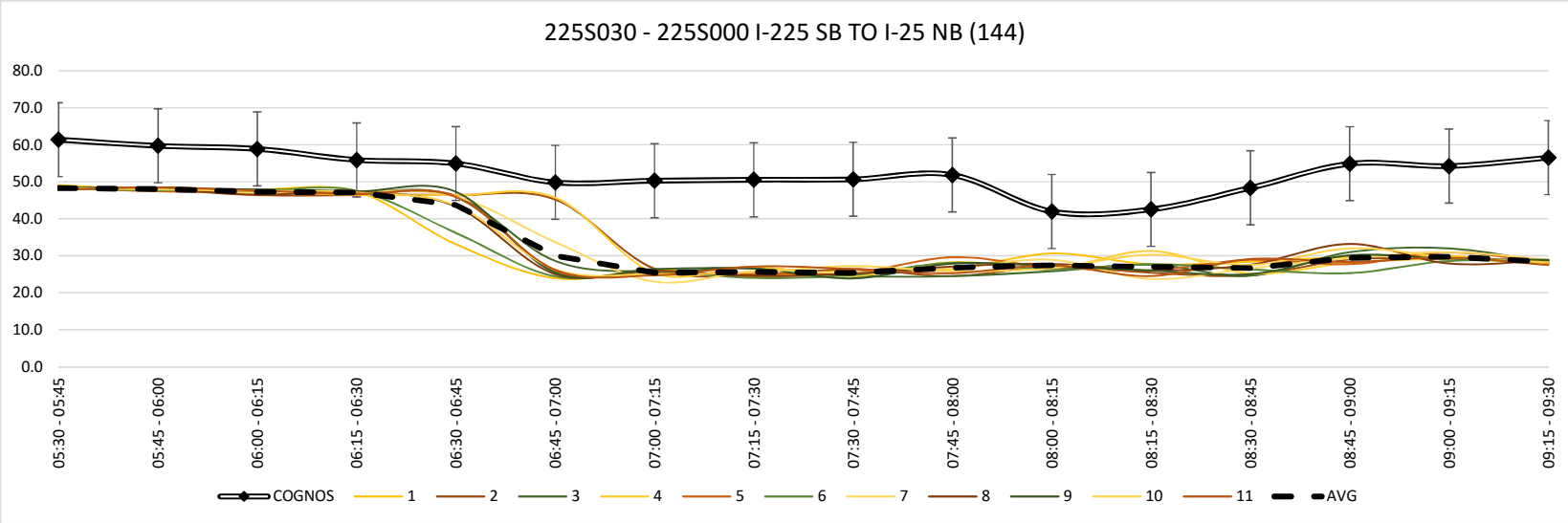


LOCATION	COGNOS DESCRIPTION
225S030	225S000 I-225 SB TO I-25 NB (144)
225SRM090	225S001 TAMARAC
225S040	225S001 YOSEMITE ST TO DTC BLVD (172)
225S050	225S001 YOSEMITE ST (174)
225S060	225S001 PARKER RD TO YOSEMITE ST (176)
225S070	225S001 PARKER RD TO YOSEMITE ST (181)
225S080	225S002 PARKER RD TO YOSEMITE ST (182)
225S090	225S002 PARKER RD TO YOESMEITE ST (183)
225S100	225S002 PARKER RD TO YOSEMITE ST (184)
225S110	225S003 PARKER RD TO YOSEMITE ST (191)

CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

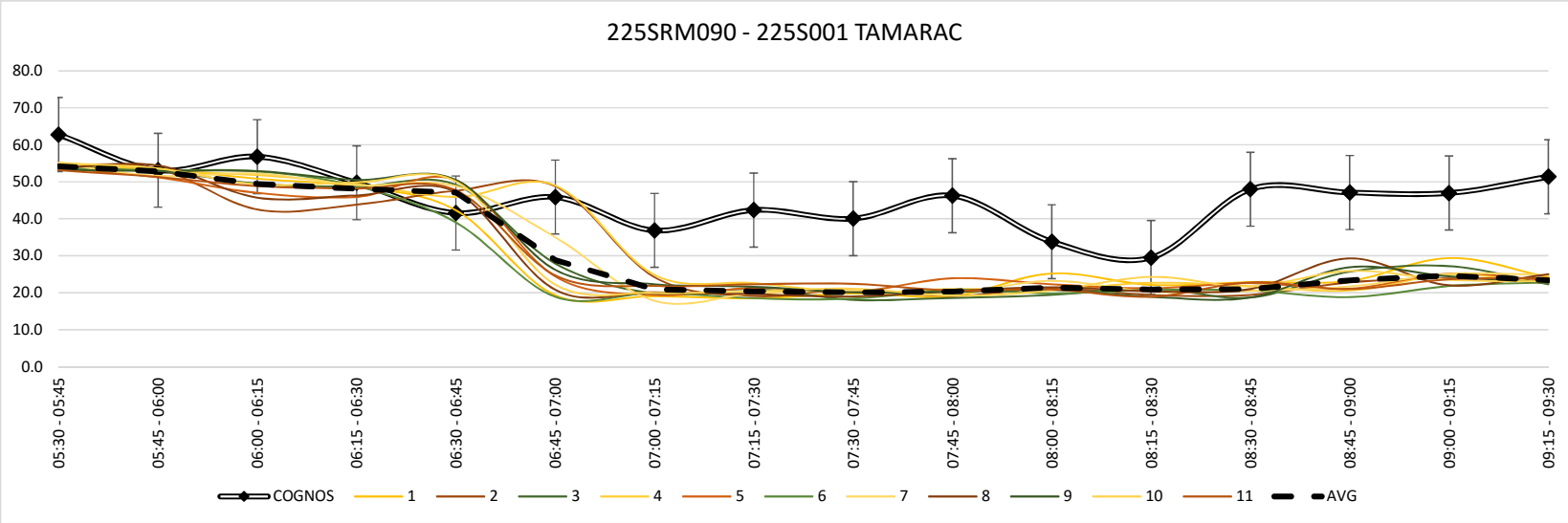
AM	COGNOS	MODEL																						AGGREGATE	
TIME	225S030	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	61.4	49.1	12.3	48.3	13.1	48.3	13.1	47.9	13.5	48.4	13.0	48.2	13.2	48.6	12.8	48.2	13.2	48.4	13.0	48.3	13.1	47.9	13.5	48.3	13.1
05:45 - 06:00	59.7	47.8	11.9	47.8	11.9	48.1	11.6	47.9	11.8	47.4	12.3	47.7	12.0	48.1	11.6	48.1	11.6	48.3	11.4	47.9	11.8	48.5	11.2	48.0	11.7
06:00 - 06:15	58.9	47.9	11.0	46.4	12.5	47.9	11.0	47.4	11.5	47.2	11.7	47.6	11.3	46.9	12.0	46.5	12.4	47.8	11.1	47.6	11.3	47.6	11.3	47.3	11.6
06:15 - 06:30	55.9	47.4	8.5	46.4	9.5	47.4	8.5	46.4	9.5	46.6	9.3	47.6	8.3	47.5	8.4	47.3	8.6	47.4	8.5	47.1	8.8	46.8	9.1	47.1	8.8
06:30 - 06:45	54.9	33.1	21.8	46.4	8.5	46.1	8.8	46.4	8.5	46.1	8.8	36.2	18.7	46.0	8.9	43.3	11.6	47.3	7.6	43.6	11.3	45.9	9.0	43.7	11.2
06:45 - 07:00	49.8	23.9	25.9	45.2	4.6	28.6	21.2	45.7	4.1	25.9	23.9	24.4	25.4	33.7	16.1	25.0	24.8	25.4	24.4	26.3	23.5	26.2	23.6	30.0	19.8
07:00 - 07:15	50.3	26.2	24.1	26.5	23.8	25.7	24.6	25.3	25.0	25.3	25.0	25.8	24.5	23.0	27.3	26.0	24.3	26.4	23.9	25.0	25.3	24.7	25.6	25.4	24.9
07:15 - 07:30	50.5	24.3	26.2	24.8	25.7	26.8	23.7	27.0	23.5	25.2	25.3	24.0	26.5	25.8	24.7	24.5	26.0	26.5	24.0	25.6	24.9	27.1	23.4	25.6	24.9
07:30 - 07:45	50.7	26.2	24.5	26.4	24.3	24.6	26.1	24.5	26.2	25.4	25.3	24.8	25.9	25.4	25.3	25.2	25.5	23.9	26.8	27.2	23.5	26.4	24.3	25.4	25.3
07:45 - 08:00	51.8	26.4	25.4	24.5	27.3	24.5	27.3	28.3	23.5	29.6	22.2	28.1	23.7	26.6	25.2	27.1	24.7	27.9	23.9	25.8	26.0	25.3	26.5	26.8	25.0
08:00 - 08:15	42.0	30.6	11.4	27.1	14.9	25.8	16.2	26.4	15.6	26.9	15.1	26.3	15.7	28.9	13.1	27.8	14.2	27.2	14.8	26.7	15.3	27.4	14.6	27.4	14.6
08:15 - 08:30	42.5	27.7	14.8	25.4	17.1	27.6	14.9	31.3	11.2	26.1	16.4	27.7	14.8	23.7	18.8	26.0	16.5	26.0	16.5	30.3	12.2	24.5	18.0	27.0	15.5
08:30 - 08:45	48.4	28.4	20.0	24.7	23.7	24.6	23.8	25.2	23.2	28.9	19.5	26.3	22.1	26.6	21.8	27.6	20.8	25.0	23.4	27.5	20.9	29.1	19.3	26.7	21.7
08:45 - 09:00	54.9	29.7	25.2	29.0	25.9	31.0	23.9	28.1	26.8	27.7	27.2	25.3	29.6	29.3	25.6	33.2	21.7	30.1	24.8	32.0	22.9	28.3	26.6	29.4	25.5
09:00 - 09:15	54.3	30.0	24.3	29.0	25.3	32.0	22.3	29.1	25.2	30.9	23.4	28.6	25.7	31.0	23.3	27.9	26.4	29.2	25.1	29.6	24.7	29.5	24.8	29.7	24.6
09:15 - 09:30	56.5	27.6	28.9	28.7	27.8	28.1	28.4	27.8	28.7	28.1	28.4	28.4	28.1	28.9	27.6	28.7	27.8	28.9	27.6	28.2	28.3	27.5	29.0	28.3	28.2
Hour 1	59.0	48.1	10.9	47.2	11.7	47.9	11.0	47.4	11.6	47.4	11.6	47.8	11.2	47.8	11.2	47.5	11.4	48.0	11.0	47.7	11.2	47.7	11.3	47.7	11.3
Hour 2	51.4	26.9	24.5	35.7	15.7	31.8	19.6	36.1	15.3	30.6	20.8	27.6	23.8	32.1	19.3	29.7	21.7	31.4	20.0	30.1	21.3	31.0	20.4	31.2	20.2
Hour 3	46.8	27.7	19.0	25.9	20.9	25.6	21.1	27.6	19.1	27.0	19.8	26.7	20.0	26.2	20.6	26.5	20.2	26.3	20.5	27.5	19.3	25.9	20.9	26.7	20.1
Hour 4	53.5	28.9	24.6	27.9	25.7	28.9	24.6	27.6	26.0	28.9	24.6	27.2	26.4	29.0	24.6	29.4	24.2	28.3	25.2	29.3	24.2	28.6	24.9	28.5	25.0
11	52.7	32.9	19.8	34.2	18.5	33.6	19.1	34.7	18.0	33.5	19.2	32.3	20.3	33.8	18.9	33.3	19.4	33.5	19.2	33.7	19.0	33.3	19.4	33.5	19.2



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

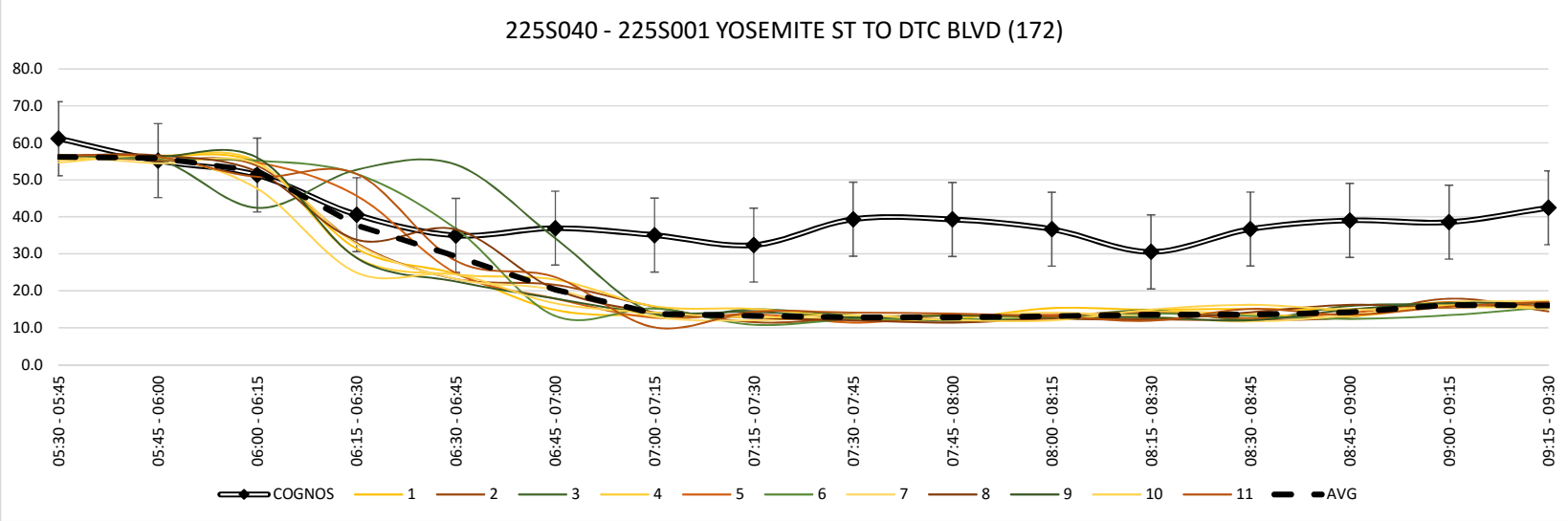
AM	COGNOS	MODEL																						AGGREGATE	
TIME	225SRM090	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	62.8	54.6	8.2	54.7	8.1	54.2	8.6	55.1	7.7	53.7	9.1	53.6	9.2	54.9	7.9	53.8	9.0	53.2	9.6	55.1	7.7	53.1	9.7	54.2	8.6
05:45 - 06:00	53.1	53.5	- 0.4	53.5	- 0.4	53.0	0.1	53.1	0.0	51.2	1.9	53.1	0.0	51.6	1.5	54.4	- 1.3	52.9	0.2	53.6	- 0.5	51.3	1.8	52.8	0.3
06:00 - 06:15	56.8	50.8	6.0	42.5	14.3	49.5	7.3	51.8	5.0	47.0	9.8	52.8	4.0	52.2	4.6	45.7	11.1	52.9	3.9	49.3	7.5	48.8	8.0	49.4	7.4
06:15 - 06:30	49.7	48.7	1.0	43.8	5.9	48.7	1.0	49.4	0.3	45.9	3.8	48.8	0.9	49.1	0.6	46.3	3.4	50.5	- 0.8	49.8	- 0.1	48.2	1.5	48.1	1.6
06:30 - 06:45	41.6	42.3	- 0.8	47.6	- 6.1	49.2	- 7.7	45.9	- 4.4	50.4	- 8.9	39.0	2.6	48.8	- 7.3	47.2	- 5.7	50.5	- 9.0	50.1	- 8.6	47.7	- 6.2	47.1	- 5.6
06:45 - 07:00	45.9	19.3	26.6	48.8	- 2.9	27.9	18.0	49.0	- 3.1	24.4	21.5	18.9	27.0	35.0	10.9	20.8	25.1	26.2	19.7	22.2	23.7	24.7	21.2	28.8	17.1
07:00 - 07:15	36.9	19.1	17.8	24.2	12.7	19.8	17.1	24.8	12.1	19.4	17.5	20.0	16.9	17.8	19.1	20.1	16.8	22.3	14.6	20.0	16.9	21.8	15.1	20.9	16.0
07:15 - 07:30	42.4	18.5	23.9	19.1	23.3	21.0	21.4	22.6	19.8	21.3	21.1	18.5	23.9	19.8	22.6	19.6	22.8	21.6	20.8	20.4	22.0	22.3	20.1	20.4	22.0
07:30 - 07:45	40.0	19.8	20.2	20.9	19.1	18.1	21.9	20.1	19.9	20.2	19.8	18.4	21.6	20.7	19.3	19.0	21.0	20.1	19.9	21.1	18.9	22.4	17.6	20.1	19.9
07:45 - 08:00	46.2	19.1	27.1	19.1	27.1	18.6	27.6	21.0	25.2	23.9	22.3	20.8	25.4	20.0	26.2	20.4	25.8	20.2	26.0	19.2	27.0	20.6	25.6	20.3	25.9
08:00 - 08:15	33.8	25.2	8.6	21.2	12.6	19.4	14.4	20.8	13.0	22.3	11.5	19.8	14.0	23.2	10.6	21.5	12.3	20.8	13.0	20.6	13.2	20.9	12.9	21.4	12.4
08:15 - 08:30	29.5	22.1	7.4	19.4	10.1	21.2	8.3	22.7	6.8	21.2	8.3	20.8	8.7	20.3	9.2	20.4	9.1	18.9	10.6	24.3	5.2	18.9	10.6	20.9	8.6
08:30 - 08:45	48.0	22.9	25.1	19.4	28.6	18.7	29.3	21.8	26.2	22.6	25.4	20.6	27.4	20.5	27.5	21.0	27.0	18.7	29.3	21.7	26.3	22.8	25.2	21.0	27.0
08:45 - 09:00	47.1	23.2	23.9	22.8	24.3	25.7	21.4	20.6	26.5	21.1	26.0	18.8	28.3	21.7	25.4	29.3	17.8	26.9	20.2	25.9	21.2	21.0	26.1	23.4	23.7
09:00 - 09:15	47.0	29.4	17.6	23.9	23.1	27.2	19.8	24.9	22.1	25.2	21.8	21.8	25.2	25.1	21.9	22.0	25.0	24.4	22.6	23.5	23.5	23.6	23.4	24.6	22.4
09:15 - 09:30	51.4	24.2	27.2	22.9	28.5	22.3	29.1	22.6	28.8	23.3	28.1	22.8	28.6	24.8	26.6	25.0	26.4	22.7	28.7	23.0	28.4	24.0	27.4	23.4	28.0
Hour 1	55.6	51.9	3.7	48.6	7.0	51.4	4.3	52.4	3.2	49.5	6.1	52.1	3.5	52.0	3.7	50.1	5.6	52.4	3.2	52.0	3.6	50.4	5.3	51.1	4.5
Hour 2	41.7	24.8	16.9	34.9	6.7	29.5	12.2	35.6	6.1	28.9	12.8	24.1	17.6	30.4	11.3	26.9	14.7	30.2	11.5	28.2	13.5	29.1	12.5	29.3	12.4
Hour 3	37.4	21.6	15.8	20.2	17.2	19.3	18.1	21.2	16.2	21.9	15.5	20.0	17.4	21.1	16.3	20.3	17.1	20.0	17.4	21.3	16.1	20.7	16.7	20.7	16.7
Hour 4	48.4	24.9	23.4	22.3	26.1	23.5	24.9	22.5	25.9	23.1	25.3	21.0	27.4	23.0	25.3	24.3	24.0	23.2	25.2	23.5	24.8	22.9	25.5	23.1	25.3
11	45.7	30.8	15.0	31.5	14.3	30.9	14.8	32.9	12.9	30.8	14.9	29.3	16.5	31.6	14.2	30.4	15.3	31.4	14.3	31.2	14.5	30.8	15.0	31.1	14.7



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

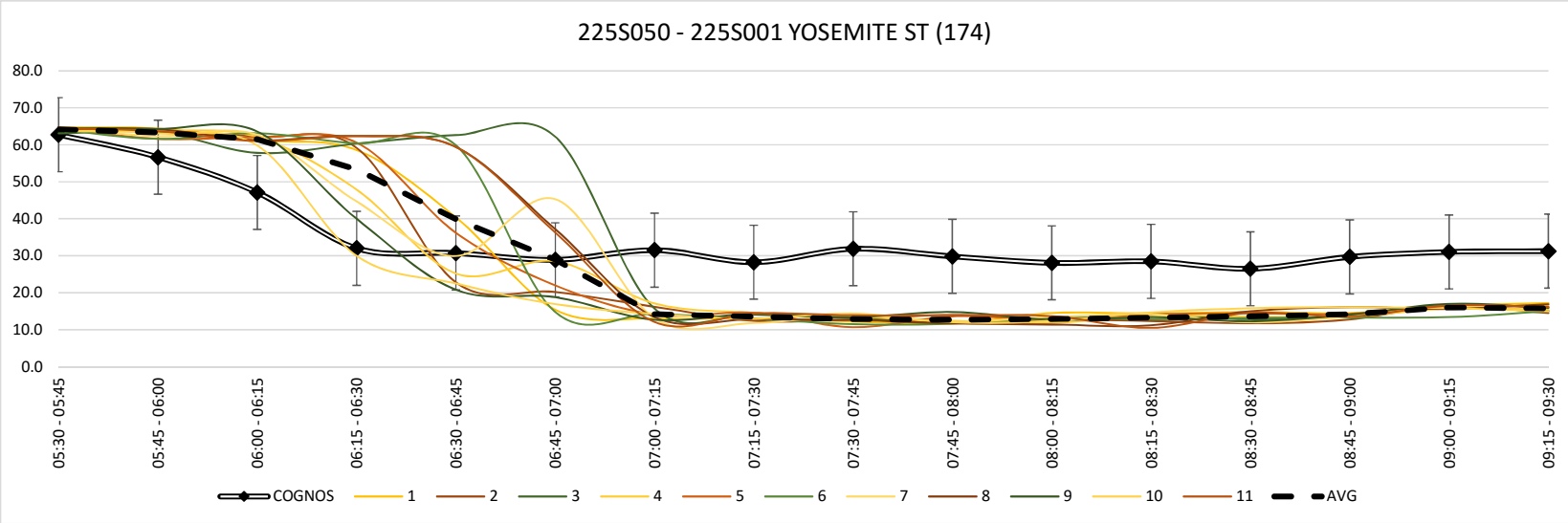
AM	COGNOS	MODEL																						AGGREGATE	
TIME	225S040	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	61.1	56.4	4.7	56.7	4.4	56.5	4.6	55.4	5.7	56.5	4.6	56.3	4.8	56.6	4.5	56.6	4.5	56.4	4.7	54.7	6.4	56.6	4.5	56.2	4.9
05:45 - 06:00	55.2	56.4	- 1.2	55.5	- 0.3	55.6	- 0.4	56.5	- 1.3	55.3	- 0.1	55.6	- 0.4	54.5	0.7	56.6	- 1.4	56.3	- 1.1	56.1	- 0.9	56.2	- 1.0	55.9	- 0.7
06:00 - 06:15	51.3	54.5	- 3.2	53.8	- 2.5	42.4	8.9	54.9	- 3.6	54.7	- 3.4	55.2	- 3.9	54.3	- 3.0	52.2	- 0.9	56.0	- 4.7	47.6	3.7	50.8	0.5	52.4	- 1.1
06:15 - 06:30	40.6	31.4	9.2	32.9	7.7	52.7	-12.1	29.0	11.6	45.7	- 5.1	51.6	-11.0	32.6	8.0	33.8	6.8	28.9	11.7	24.9	15.7	51.6	-11.0	37.7	2.9
06:30 - 06:45	35.0	24.5	10.5	23.2	11.8	54.1	-19.1	24.4	10.6	24.8	10.2	36.8	- 1.8	23.2	11.8	36.6	- 1.6	22.5	12.5	24.4	10.6	28.1	6.9	29.3	5.7
06:45 - 07:00	36.9	14.8	22.1	21.6	15.3	34.2	2.7	23.0	13.9	17.9	19.0	13.2	23.7	20.3	16.6	20.4	16.5	17.9	19.0	16.6	20.3	23.7	13.2	20.3	16.6
07:00 - 07:15	35.1	13.3	21.8	15.7	19.4	13.8	21.3	15.8	19.3	12.7	22.4	15.2	19.9	13.0	22.1	14.2	20.9	13.9	21.2	14.1	21.0	10.1	25.0	13.8	21.3
07:15 - 07:30	32.4	13.0	19.4	11.5	20.9	15.0	17.4	15.1	17.3	13.7	18.7	10.8	21.6	12.0	20.4	12.7	19.7	14.3	18.1	12.8	19.6	14.3	18.1	13.2	19.2
07:30 - 07:45	39.4	12.2	27.2	12.6	26.8	13.4	26.0	12.9	26.5	11.4	28.0	12.3	27.1	13.2	26.2	12.0	27.4	12.8	26.6	13.4	26.0	14.1	25.3	12.8	26.6
07:45 - 08:00	39.3	12.4	26.9	13.5	25.8	11.9	27.4	13.4	25.9	13.3	26.0	12.3	27.0	13.1	26.2	11.4	27.9	13.3	26.0	12.1	27.2	13.8	25.5	12.8	26.5
08:00 - 08:15	36.7	15.3	21.4	12.8	23.9	12.9	23.8	12.7	24.0	13.5	23.2	12.6	24.1	14.1	22.6	12.4	24.3	13.0	23.7	12.0	24.7	13.1	23.6	13.1	23.6
08:15 - 08:30	30.5	14.9	15.6	12.3	18.2	14.7	15.8	14.4	16.1	14.1	16.4	13.8	16.7	13.0	17.5	12.2	18.3	12.8	17.7	14.9	15.6	11.9	18.6	13.5	17.0
08:30 - 08:45	36.7	15.1	21.6	12.1	24.6	12.2	24.5	13.7	23.0	12.6	24.1	13.2	23.5	11.7	25.0	14.2	22.5	12.0	24.7	16.2	20.5	15.1	21.6	13.5	23.2
08:45 - 09:00	39.0	15.0	24.0	12.9	26.1	15.9	23.1	13.0	26.0	14.0	25.0	12.4	26.6	13.4	25.6	16.2	22.8	14.9	24.1	14.9	24.1	13.5	25.5	14.2	24.8
09:00 - 09:15	38.6	17.0	21.6	17.9	20.7	16.3	22.3	16.1	22.5	16.9	21.7	13.4	25.2	16.7	21.9	15.4	23.2	16.7	21.9	15.6	23.0	15.7	22.9	16.2	22.4
09:15 - 09:30	42.4	16.8	25.6	14.4	28.0	15.2	27.2	15.4	27.0	15.8	26.6	15.6	26.8	17.3	25.1	16.9	25.5	16.5	25.9	15.2	27.2	17.0	25.4	16.0	26.4
Hour 1	52.1	49.7	2.4	49.7	2.3	51.8	0.3	49.0	3.1	53.1	- 1.0	54.7	- 2.6	49.5	2.6	49.8	2.3	49.4	2.7	45.8	6.2	53.8	- 1.7	50.6	1.5
Hour 2	34.8	16.4	18.4	18.0	16.8	29.3	5.6	19.6	15.3	17.3	17.6	19.0	15.8	17.1	17.7	21.0	13.9	17.2	17.7	17.0	17.9	19.1	15.8	19.2	15.7
Hour 3	36.5	13.7	22.8	12.8	23.7	13.2	23.2	13.4	23.1	13.1	23.4	12.8	23.7	13.4	23.1	12.0	24.5	13.0	23.5	13.1	23.4	13.2	23.2	13.1	23.4
Hour 4	39.2	16.0	23.2	14.3	24.9	14.9	24.3	14.6	24.6	14.8	24.4	13.7	25.5	14.8	24.4	15.7	23.5	15.0	24.2	15.5	23.7	15.3	23.9	15.0	24.2
11	40.6	23.9	16.7	23.7	16.9	27.3	13.3	24.1	16.5	24.6	16.1	25.0	15.6	23.7	16.9	24.6	16.0	23.6	17.0	22.8	17.8	25.4	15.3	24.4	16.2



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

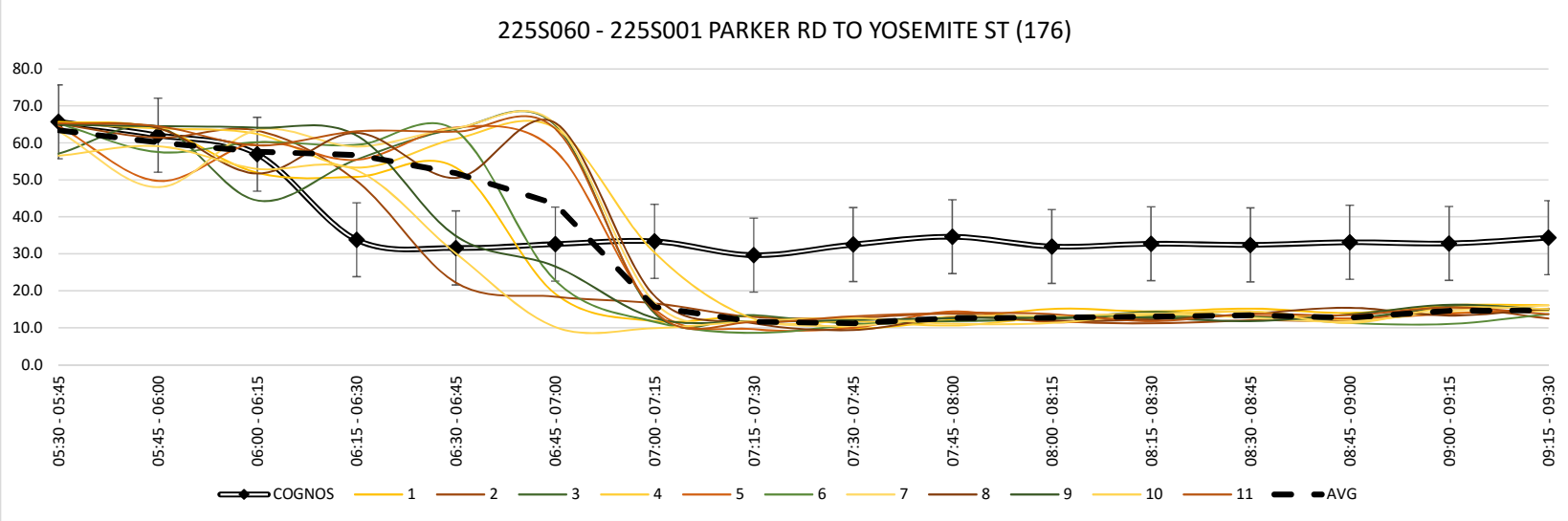
AM	COGNOS	MODEL																						AGGREGATE	
TIME	225S050	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	62.7	64.7	- 2.0	64.1	- 1.4	63.1	- 0.4	63.8	- 1.1	64.6	- 1.9	64.1	- 1.4	64.6	- 1.9	64.2	- 1.5	64.5	- 1.8	63.8	- 1.1	64.4	- 1.7	64.2	- 1.5
05:45 - 06:00	56.7	64.4	- 7.8	63.8	- 7.2	63.5	- 6.9	63.9	- 7.3	61.6	- 5.0	61.6	- 5.0	62.3	- 5.7	64.2	- 7.6	64.3	- 7.7	63.1	- 6.5	63.7	- 7.1	63.3	- 6.7
06:00 - 06:15	47.1	61.2	-14.1	62.2	-15.1	57.8	-10.7	62.1	-15.0	62.0	-14.9	63.1	-16.0	62.7	-15.6	61.2	-14.1	63.6	-16.5	59.8	-12.7	61.0	-13.9	61.5	-14.4
06:15 - 06:30	32.0	58.6	-26.6	59.2	-27.2	60.3	-28.3	47.9	-15.9	60.6	-28.6	60.4	-28.4	44.7	-12.7	62.4	-30.4	40.0	- 8.0	30.0	2.0	62.3	-30.3	53.3	-21.3
06:30 - 06:45	30.7	40.4	- 9.7	22.8	7.9	62.6	-31.9	25.2	5.5	36.2	- 5.5	59.9	-29.2	29.9	0.8	59.4	-28.7	20.8	9.9	22.5	8.2	59.4	-28.7	39.9	- 9.2
06:45 - 07:00	28.9	15.4	13.5	20.2	8.7	62.2	-33.3	28.5	0.4	22.0	6.9	14.8	14.1	45.3	-16.4	37.2	- 8.3	18.8	10.1	16.9	12.0	36.3	- 7.4	28.9	- 0.0
07:00 - 07:15	31.5	13.0	18.5	16.2	15.3	15.7	15.8	17.1	14.4	14.1	17.4	14.3	17.2	13.1	18.4	13.4	18.1	12.7	18.8	14.3	17.2	12.1	19.4	14.2	17.3
07:15 - 07:30	28.3	13.1	15.2	12.4	15.9	14.1	14.2	14.6	13.7	14.6	13.7	13.0	15.3	11.8	16.5	12.9	15.4	14.3	14.0	13.0	15.3	14.4	13.9	13.5	14.8
07:30 - 07:45	31.9	12.2	19.7	12.8	19.1	13.1	18.8	13.6	18.3	10.7	21.2	11.5	20.4	13.9	18.0	12.6	19.3	13.4	18.5	14.4	17.5	13.9	18.0	12.9	19.0
07:45 - 08:00	29.8	11.7	18.1	14.0	15.8	11.9	17.9	12.4	17.4	13.6	16.2	11.6	18.2	12.1	17.7	11.7	18.1	14.8	15.0	12.0	17.8	13.9	15.9	12.7	17.1
08:00 - 08:15	28.1	14.5	13.6	12.9	15.2	12.7	15.4	11.8	16.3	12.8	15.3	13.2	14.9	13.5	14.6	11.4	16.7	12.7	15.4	12.4	15.7	13.7	14.4	12.9	15.2
08:15 - 08:30	28.5	14.4	14.1	12.4	16.1	14.3	14.2	13.9	14.6	14.2	14.3	12.8	15.7	14.2	14.3	11.2	17.3	13.4	15.1	14.7	13.8	10.5	18.0	13.3	15.2
08:30 - 08:45	26.5	14.8	11.7	11.7	14.8	12.8	13.7	13.5	13.0	14.4	12.1	13.2	13.3	12.0	14.5	15.0	11.5	12.3	14.2	15.8	10.7	14.6	11.9	13.6	12.9
08:45 - 09:00	29.7	14.5	15.2	12.8	16.9	13.8	15.9	13.5	16.2	14.3	15.4	13.3	16.4	13.6	16.1	16.1	13.6	14.1	15.6	16.1	13.6	13.6	16.1	14.2	15.5
09:00 - 09:15	31.0	16.4	14.6	16.5	14.5	16.0	15.0	15.8	15.2	16.6	14.4	13.4	17.6	16.2	14.8	15.6	15.4	17.0	14.0	15.8	15.2	16.5	14.5	16.0	15.0
09:15 - 09:30	31.2	17.2	14.0	14.5	16.7	15.1	16.1	15.4	15.8	16.0	15.2	15.0	16.2	16.4	14.8	16.9	14.3	15.9	15.3	15.0	16.2	16.2	15.0	15.8	15.4
Hour 1	49.6	62.2	-12.6	62.3	-12.7	61.2	-11.6	59.4	- 9.8	62.2	-12.6	62.3	-12.7	58.6	- 9.0	63.0	-13.4	58.1	- 8.5	54.2	- 4.6	62.9	-13.2	60.6	-11.0
Hour 2	29.8	20.5	9.4	17.9	11.9	38.7	- 8.8	21.4	8.5	21.7	8.1	25.5	4.3	25.0	4.8	30.7	- 0.9	16.7	13.2	16.7	13.2	30.6	- 0.7	24.1	5.7
Hour 3	29.6	13.2	16.4	13.0	16.5	13.0	16.6	12.9	16.6	12.8	16.7	12.3	17.3	13.4	16.1	11.7	17.8	13.6	16.0	13.4	16.2	13.0	16.6	13.0	16.6
Hour 4	29.6	15.7	13.9	13.9	15.7	14.4	15.2	14.6	15.1	15.3	14.3	13.7	15.9	14.6	15.1	15.9	13.7	14.8	14.8	15.7	13.9	15.2	14.4	14.9	14.7
11	34.7	27.9	6.8	26.8	7.9	31.8	2.9	27.1	7.6	28.0	6.6	28.5	6.2	27.9	6.8	30.3	4.3	25.8	8.9	25.0	9.7	30.4	4.3	28.1	6.5



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

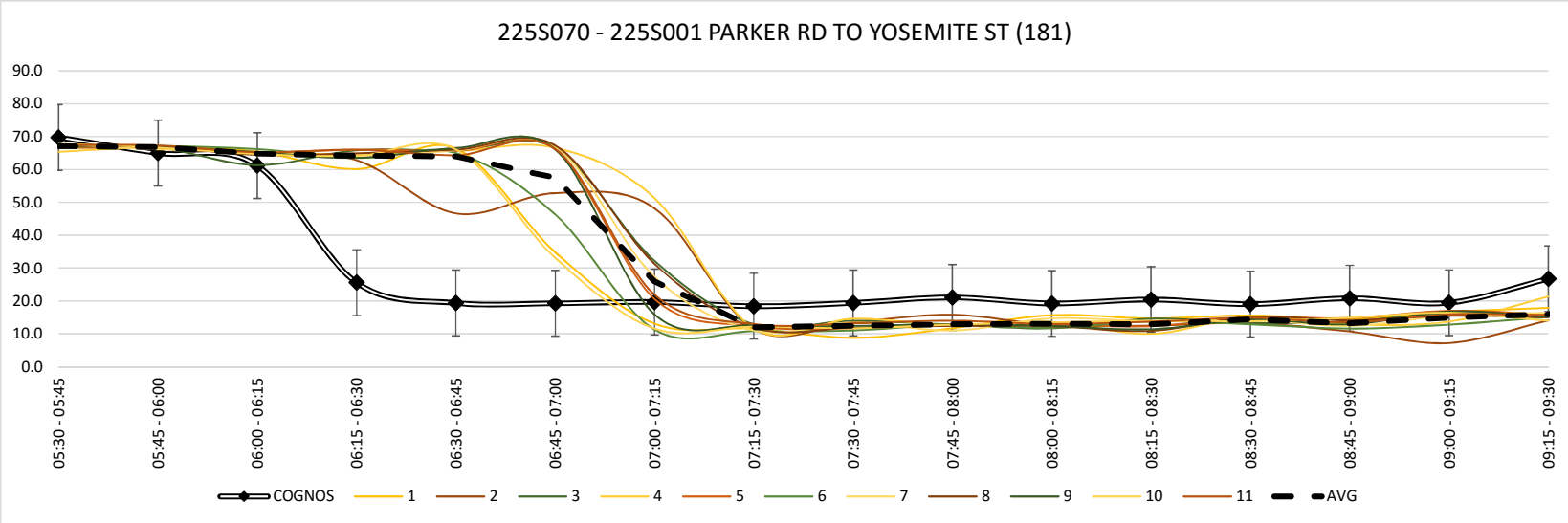
AM	COGNOS	MODEL																						AGGREGATE	
TIME	225S060	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	65.7	65.7	- 0.0	65.1	0.6	57.1	8.6	65.2	0.5	64.6	1.1	65.2	0.5	63.1	2.6	65.2	0.5	64.9	0.8	56.5	9.2	65.3	0.4	63.4	2.3
05:45 - 06:00	62.1	64.0	- 1.9	61.4	0.7	64.4	- 2.3	63.9	- 1.8	49.7	12.4	57.5	4.6	48.0	14.1	64.0	- 1.9	64.5	- 2.4	59.1	3.0	64.5	- 2.4	60.1	2.0
06:00 - 06:15	56.9	51.9	5.0	63.3	- 6.4	44.4	12.5	62.4	- 5.5	60.1	- 3.2	60.2	- 3.3	63.5	- 6.6	51.7	5.2	64.1	- 7.2	53.0	3.9	59.3	- 2.4	57.6	- 0.7
06:15 - 06:30	33.8	50.8	-17.0	49.7	-15.9	55.5	-21.7	53.3	-19.5	55.4	-21.6	59.4	-25.6	59.0	-25.2	62.7	-28.9	62.0	-28.2	52.6	-18.8	63.1	-29.3	56.7	-22.9
06:30 - 06:45	31.6	53.3	-21.7	22.2	9.4	63.8	-32.2	61.1	-29.5	64.2	-32.6	63.3	-31.7	64.0	-32.4	50.5	-18.9	34.8	- 3.2	30.1	1.5	63.0	-31.4	51.8	-20.2
06:45 - 07:00	32.6	19.2	13.4	18.4	14.2	64.8	-32.2	64.0	-31.4	57.9	-25.3	22.8	9.8	65.2	-32.6	65.4	-32.8	26.6	6.0	10.2	22.4	63.8	-31.2	43.5	-10.9
07:00 - 07:15	33.4	11.8	21.6	16.6	16.8	13.9	19.5	30.3	3.1	15.1	18.3	11.6	21.8	16.8	16.6	18.6	14.8	12.6	20.8	9.9	23.5	14.4	19.0	15.6	17.8
07:15 - 07:30	29.6	13.1	16.5	12.9	16.7	13.4	16.2	12.4	17.2	9.6	20.0	8.6	21.0	11.6	18.0	11.2	18.4	11.7	17.9	11.8	17.8	11.5	18.1	11.6	18.0
07:30 - 07:45	32.5	9.8	22.7	12.7	19.8	11.1	21.4	11.8	20.7	10.0	22.5	10.8	21.7	10.5	22.0	9.4	23.1	12.1	20.4	12.6	19.9	13.1	19.4	11.2	21.3
07:45 - 08:00	34.6	12.2	22.4	13.8	20.8	11.8	22.8	10.6	24.0	14.4	20.2	12.6	22.0	13.1	21.5	12.8	21.8	12.6	22.0	11.1	23.5	14.0	20.6	12.6	22.0
08:00 - 08:15	32.0	15.1	16.9	11.8	20.2	12.3	19.7	12.8	19.2	11.5	20.5	13.0	19.0	13.2	18.8	11.9	20.1	12.7	19.3	11.3	20.7	13.7	18.3	12.7	19.3
08:15 - 08:30	32.7	14.4	18.3	11.2	21.5	14.3	18.4	13.2	19.5	12.7	20.0	13.0	19.7	13.8	18.9	12.2	20.5	12.7	20.0	13.6	19.1	11.8	20.9	13.0	19.7
08:30 - 08:45	32.4	15.2	17.2	12.0	20.4	12.9	19.5	14.4	18.0	13.2	19.2	13.0	19.4	12.7	19.7	13.8	18.6	11.8	20.6	14.4	18.0	13.7	18.7	13.4	19.0
08:45 - 09:00	33.1	14.0	19.1	12.1	21.0	12.5	20.6	12.2	20.9	12.5	20.6	11.3	21.8	11.7	21.4	15.4	17.7	13.6	19.5	11.3	21.8	13.4	19.7	12.7	20.4
09:00 - 09:15	32.8	16.1	16.7	15.3	17.5	15.7	17.1	14.0	18.8	13.8	19.0	11.0	21.8	14.6	18.2	13.3	19.5	16.2	16.6	15.4	17.4	15.5	17.3	14.6	18.2
09:15 - 09:30	34.4	16.1	18.3	12.5	21.9	15.1	19.3	14.6	19.8	15.0	19.4	13.7	20.7	16.1	18.3	15.2	19.2	14.9	19.5	15.1	19.3	13.7	20.7	14.7	19.7
Hour 1	54.6	58.1	- 3.5	59.9	- 5.3	55.4	- 0.7	61.2	- 6.6	57.5	- 2.8	60.6	- 6.0	58.4	- 3.8	60.9	- 6.3	63.9	- 9.3	55.3	- 0.7	63.1	- 8.4	59.5	- 4.8
Hour 2	31.8	24.4	7.4	17.5	14.3	39.0	- 7.2	42.0	-10.2	36.7	- 4.9	26.6	5.2	39.4	- 7.6	36.4	- 4.6	21.4	10.4	15.5	16.3	38.2	- 6.4	30.6	1.2
Hour 3	33.0	12.9	20.1	12.4	20.6	12.4	20.6	12.1	20.9	12.2	20.8	12.4	20.6	12.7	20.3	11.6	21.4	12.5	20.4	12.2	20.8	13.2	19.8	12.4	20.6
Hour 4	33.2	15.4	17.8	13.0	20.2	14.1	19.1	13.8	19.4	13.6	19.5	12.3	20.9	13.8	19.4	14.4	18.7	14.1	19.0	14.1	19.1	14.1	19.1	13.9	19.3
11	38.1	27.7	10.5	25.7	12.4	30.2	7.9	32.3	5.9	30.0	8.2	27.9	10.2	31.1	7.1	30.8	7.3	28.0	10.1	24.3	13.9	32.1	6.0	29.1	9.1



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

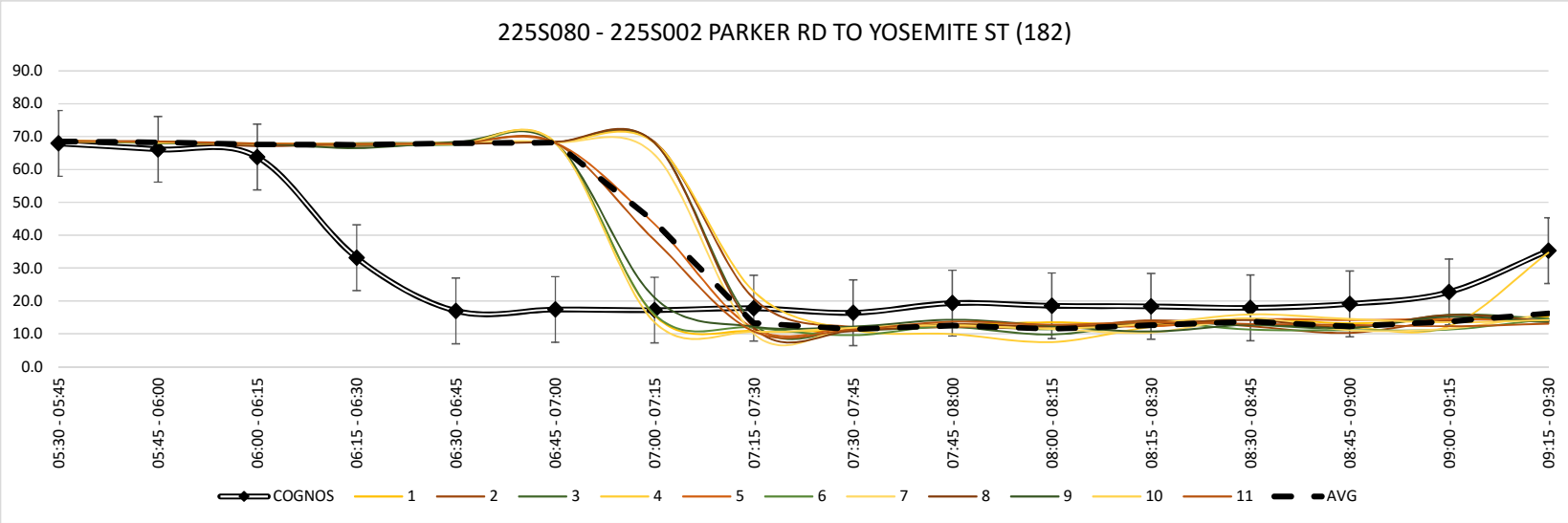
AM	COGNOS	MODEL																						AGGREGATE	
TIME	225S070	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	69.7	67.4	2.3	67.2	2.5	67.0	2.7	65.4	4.3	66.7	3.0	66.8	2.9	67.6	2.1	67.2	2.5	67.5	2.2	67.8	1.9	67.5	2.2	67.1	2.6
05:45 - 06:00	65.0	67.1	- 2.1	66.9	- 1.9	66.6	- 1.6	66.7	- 1.7	66.3	- 1.3	67.1	- 2.1	66.1	- 1.1	66.9	- 1.9	67.0	- 2.0	66.7	- 1.7	67.3	- 2.3	66.8	- 1.8
06:00 - 06:15	61.2	65.4	- 4.2	65.0	- 3.8	61.3	- 0.1	65.0	- 3.8	65.2	- 4.0	66.2	- 5.0	65.4	- 4.2	64.4	- 3.2	65.3	- 4.1	64.7	- 3.5	65.2	- 4.0	64.8	- 3.6
06:15 - 06:30	25.6	60.1	-34.5	62.8	-37.2	65.8	-40.2	64.8	-39.2	66.0	-40.4	63.5	-37.9	64.2	-38.6	64.9	-39.3	63.5	-37.9	64.1	-38.5	66.0	-40.4	64.2	-38.6
06:30 - 06:45	19.4	66.4	-47.0	46.6	-27.2	65.7	-46.3	65.6	-46.2	65.6	-46.2	65.0	-45.6	65.8	-46.4	66.0	-46.6	66.5	-47.1	66.1	-46.7	64.3	-44.9	64.0	-44.6
06:45 - 07:00	19.3	34.8	-15.5	52.8	-33.5	66.5	-47.2	66.6	-47.3	66.1	-46.8	46.3	-27.0	66.9	-47.6	67.3	-48.0	66.1	-46.8	33.1	-13.8	66.2	-46.9	57.5	-38.2
07:00 - 07:15	19.7	13.1	6.6	48.2	-28.5	32.2	-12.5	51.3	-31.6	20.6	- 0.9	11.3	8.4	27.3	- 7.6	31.3	-11.6	15.9	3.8	11.6	8.1	21.9	- 2.2	25.9	- 6.2
07:15 - 07:30	18.4	11.6	6.8	11.5	6.9	12.9	5.5	11.6	6.8	12.3	6.1	10.8	7.6	11.0	7.4	11.9	6.5	12.6	5.8	12.2	6.2	13.0	5.4	12.0	6.4
07:30 - 07:45	19.4	8.8	10.6	13.6	5.8	14.0	5.4	14.6	4.8	11.7	7.7	11.0	8.4	13.4	6.0	11.8	7.6	12.4	7.0	11.7	7.7	13.2	6.2	12.4	7.0
07:45 - 08:00	21.1	11.7	9.4	15.8	5.3	12.8	8.3	12.7	8.4	12.7	8.4	12.8	8.3	11.0	10.1	12.4	8.7	12.9	8.2	12.8	8.3	14.0	7.1	12.9	8.2
08:00 - 08:15	19.2	15.7	3.5	12.7	6.5	11.7	7.5	13.6	5.6	12.8	6.4	11.8	7.4	14.7	4.5	12.3	6.9	12.4	6.8	13.5	5.7	13.0	6.2	13.1	6.1
08:15 - 08:30	20.4	14.7	5.7	12.5	7.9	14.6	5.8	10.0	10.4	12.3	8.1	13.8	6.6	13.8	6.6	10.9	9.5	11.4	9.0	14.0	6.4	13.7	6.7	12.9	7.5
08:30 - 08:45	19.0	15.6	3.4	13.3	5.7	13.3	5.7	15.3	3.7	15.1	3.9	12.9	6.1	14.4	4.6	15.2	3.8	14.4	4.6	13.8	5.2	14.9	4.1	14.4	4.6
08:45 - 09:00	20.8	14.4	6.4	10.7	10.1	13.8	7.0	12.9	7.9	14.8	6.0	11.6	9.2	12.4	8.4	14.1	6.7	12.9	7.9	14.9	5.9	13.5	7.3	13.2	7.6
09:00 - 09:15	19.5	16.7	2.8	7.2	12.3	16.2	3.3	13.7	5.8	17.0	2.5	12.8	6.7	15.6	3.9	15.5	4.0	16.8	2.7	16.4	3.1	15.9	3.6	14.9	4.6
09:15 - 09:30	26.7	17.9	8.8	14.1	12.6	15.7	11.0	21.3	5.4	15.9	10.8	15.1	11.6	16.4	10.3	15.0	11.7	15.1	11.6	14.0	12.7	15.7	11.0	16.0	10.7
Hour 1	55.4	65.0	- 9.6	65.5	-10.1	65.2	- 9.8	65.5	-10.1	66.1	-10.7	65.9	-10.5	65.8	-10.5	65.9	-10.5	65.8	-10.5	65.8	-10.5	66.5	-11.1	65.7	-10.4
Hour 2	19.2	31.5	-12.3	39.8	-20.6	44.3	-25.1	48.8	-29.6	41.2	-22.0	33.4	-14.2	42.8	-23.6	44.1	-24.9	40.3	-21.1	30.8	-11.6	41.4	-22.2	39.9	-20.7
Hour 3	20.0	12.7	7.3	13.7	6.4	13.3	6.8	12.7	7.3	12.4	7.7	12.4	7.7	13.2	6.8	11.9	8.2	12.3	7.8	13.0	7.0	13.5	6.6	12.8	7.2
Hour 4	21.5	16.2	5.4	11.3	10.2	14.8	6.8	15.8	5.7	15.7	5.8	13.1	8.4	14.7	6.8	15.0	6.6	14.8	6.7	14.8	6.7	15.0	6.5	14.6	6.9
11	29.0	31.3	- 2.3	32.6	- 3.5	34.4	- 5.4	35.7	- 6.7	33.8	- 4.8	31.2	- 2.2	34.1	- 5.1	34.2	- 5.2	33.3	- 4.3	31.1	- 2.1	34.1	- 5.1	33.3	- 4.2



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

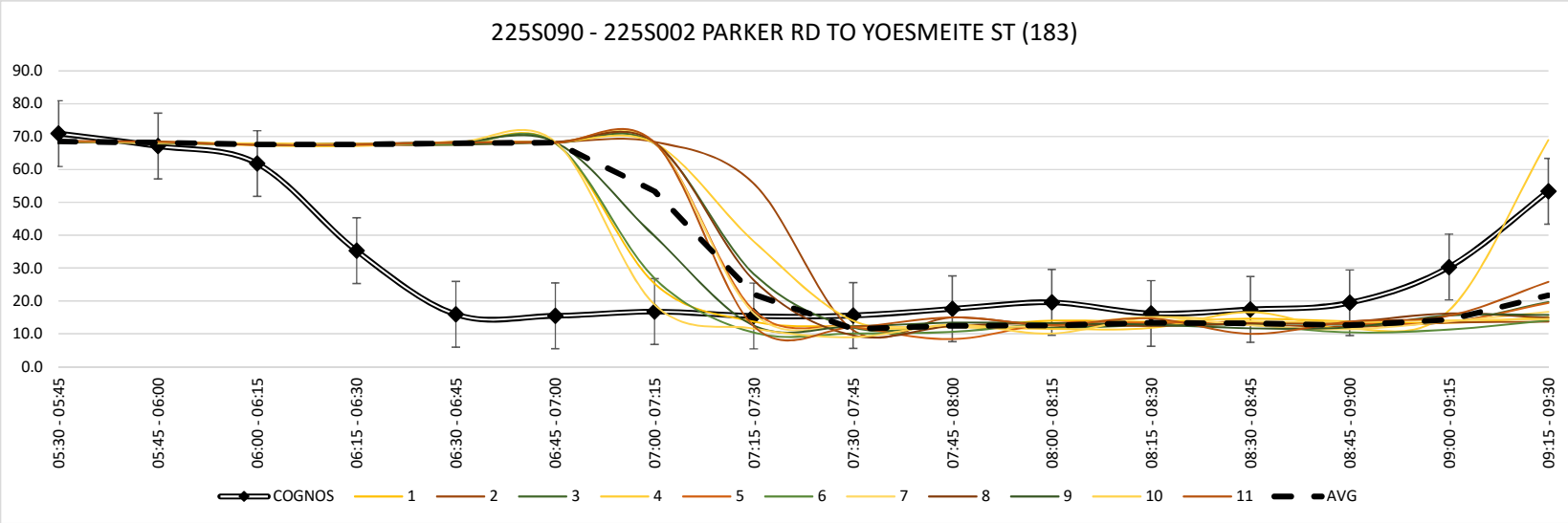
AM	COGNOS	MODEL																						AGGREGATE	
TIME	225S080	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	67.9	68.6	- 0.7	68.5	- 0.6	68.4	- 0.5	68.8	- 0.9	68.4	- 0.5	68.5	- 0.6	68.6	- 0.7	68.2	- 0.3	68.6	- 0.7	68.7	- 0.8	68.7	- 0.8	68.5	- 0.6
05:45 - 06:00	66.1	68.3	- 2.2	68.1	- 2.0	68.5	- 2.4	68.1	- 2.0	68.5	- 2.4	68.5	- 2.4	68.1	- 2.0	68.3	- 2.2	68.0	- 1.9	68.2	- 2.1	68.5	- 2.4	68.3	- 2.2
06:00 - 06:15	63.8	67.6	- 3.8	67.6	- 3.8	67.4	- 3.6	67.4	- 3.6	67.5	- 3.7	67.7	- 3.9	67.7	- 3.9	67.1	- 3.3	67.9	- 4.1	68.0	- 4.2	67.9	- 4.1	67.6	- 3.8
06:15 - 06:30	33.2	67.6	-34.5	67.1	-34.0	68.0	-34.9	67.6	-34.5	67.4	-34.3	67.5	-34.4	67.6	-34.5	67.8	-34.7	66.5	-33.4	67.8	-34.7	67.7	-34.6	67.5	-34.4
06:30 - 06:45	17.0	67.9	-50.9	67.9	-50.9	68.1	-51.1	68.1	-51.1	68.2	-51.2	67.5	-50.5	68.3	-51.3	67.7	-50.7	68.3	-51.3	67.7	-50.7	67.9	-50.9	68.0	-51.0
06:45 - 07:00	17.4	68.3	-50.9	68.3	-50.9	68.3	-50.9	68.3	-50.9	68.1	-50.7	68.0	-50.6	68.3	-50.9	68.4	-51.0	68.0	-50.6	68.1	-50.7	68.1	-50.7	68.2	-50.8
07:00 - 07:15	17.2	15.6	1.6	68.4	-51.2	68.1	-50.9	68.1	-50.9	43.4	-26.2	15.9	1.3	64.5	-47.3	68.1	-50.9	21.0	- 3.8	13.5	3.7	38.5	-21.3	44.1	-26.9
07:15 - 07:30	17.8	10.8	7.0	20.7	- 2.9	13.1	4.7	22.9	- 5.1	11.6	6.2	11.9	5.9	10.0	7.8	11.9	5.9	12.2	5.6	10.6	7.2	10.7	7.1	13.3	4.5
07:30 - 07:45	16.4	11.3	5.1	12.0	4.4	11.2	5.2	11.2	5.2	11.7	4.7	9.6	6.8	12.0	4.4	10.9	5.5	12.2	4.2	11.8	4.6	11.3	5.1	11.4	5.0
07:45 - 08:00	19.4	12.6	6.8	12.4	7.0	12.0	7.4	9.9	9.5	12.1	7.3	12.6	6.8	13.0	6.4	12.9	6.5	14.3	5.1	12.6	6.8	13.7	5.7	12.5	6.9
08:00 - 08:15	18.5	13.5	5.0	11.5	7.0	9.8	8.7	7.5	11.0	12.7	5.8	11.4	7.1	11.5	7.0	12.1	6.4	12.4	6.1	11.6	6.9	12.8	5.7	11.5	7.0
08:15 - 08:30	18.4	12.8	5.6	14.1	4.3	13.1	5.3	12.1	6.3	12.3	6.1	13.5	4.9	10.4	8.0	13.0	5.4	10.7	7.7	13.1	5.3	13.5	4.9	12.6	5.8
08:30 - 08:45	17.9	14.6	3.3	12.3	5.6	12.8	5.1	14.6	3.3	14.4	3.5	11.3	6.6	14.6	3.3	14.2	3.7	12.8	5.1	15.9	2.0	13.0	4.9	13.7	4.2
08:45 - 09:00	19.1	13.2	5.9	10.3	8.8	11.7	7.4	12.0	7.1	14.2	4.9	11.1	8.0	11.1	8.0	11.9	7.2	11.8	7.3	14.5	4.6	12.7	6.4	12.2	6.9
09:00 - 09:15	22.7	14.3	8.4	14.1	8.6	15.8	6.9	12.3	10.4	14.5	8.2	11.3	11.4	11.6	11.1	15.7	7.0	15.2	7.5	13.5	9.2	12.3	10.4	13.7	9.0
09:15 - 09:30	35.3	15.3	20.0	14.0	21.3	14.6	20.7	34.7	0.6	13.9	21.4	14.5	20.8	16.0	19.3	13.9	21.4	13.5	21.8	14.2	21.1	13.1	22.2	16.2	19.1
Hour 1	57.7	68.0	-10.3	67.8	-10.1	68.1	-10.3	68.0	-10.2	68.0	-10.2	68.1	-10.3	68.0	-10.3	67.9	-10.1	67.8	-10.0	68.2	-10.4	68.2	-10.5	68.0	-10.2
Hour 2	17.3	40.7	-23.3	56.3	-39.0	54.4	-37.1	56.9	-39.5	47.8	-30.5	40.8	-23.5	52.8	-35.4	54.0	-36.7	42.4	-25.0	40.0	-22.6	46.3	-29.0	48.4	-31.1
Hour 3	18.2	12.6	5.6	12.5	5.7	11.5	6.6	10.2	8.0	12.2	6.0	11.8	6.4	11.7	6.4	12.2	5.9	12.4	5.8	12.3	5.9	12.8	5.3	12.0	6.2
Hour 4	23.8	14.4	9.4	12.7	11.1	13.7	10.0	18.4	5.4	14.3	9.5	12.1	11.7	13.3	10.4	13.9	9.8	13.3	10.4	14.5	9.2	12.8	11.0	14.0	9.8
11	29.3	33.9	- 4.6	37.3	- 8.1	36.9	- 7.7	38.4	- 9.1	35.6	- 6.3	33.2	- 3.9	36.5	- 7.2	37.0	- 7.8	34.0	- 4.7	33.7	- 4.5	35.0	- 5.8	35.6	- 6.3



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

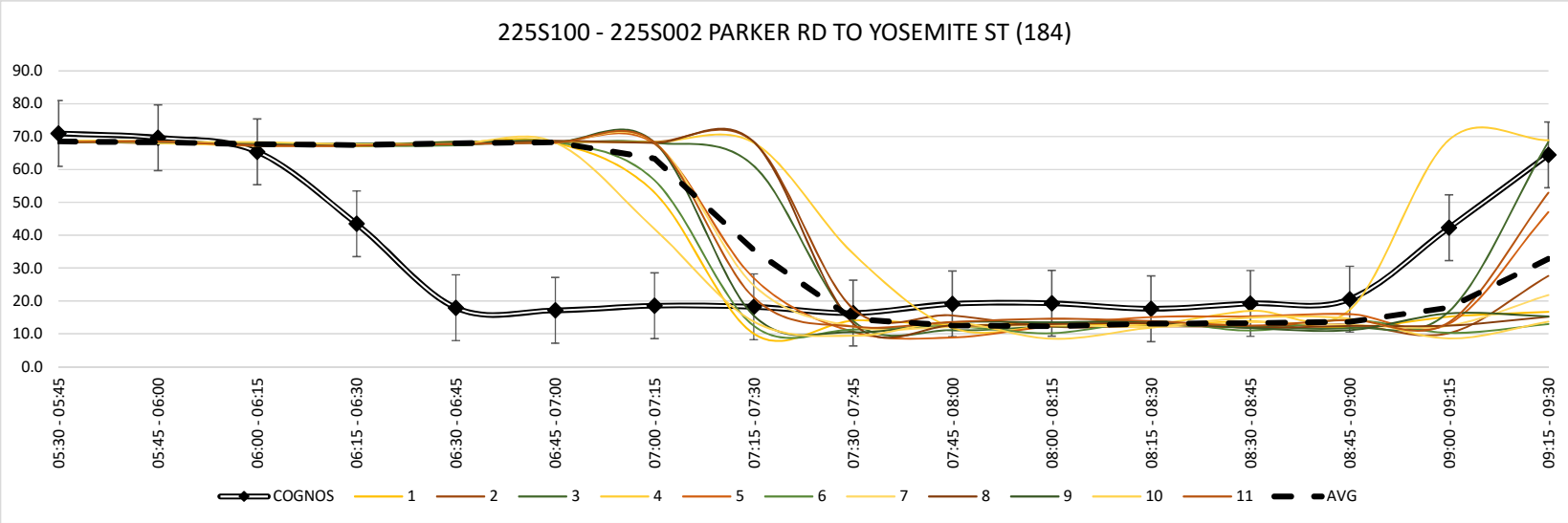
AM	COGNOS	MODEL																						AGGREGATE	
TIME	225S090	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	70.9	68.5	2.4	68.5	2.4	68.3	2.6	68.5	2.4	68.3	2.6	68.2	2.7	68.6	2.3	68.3	2.6	68.5	2.4	68.6	2.3	68.7	2.2	68.5	2.4
05:45 - 06:00	67.1	68.4	- 1.3	68.2	- 1.1	68.2	- 1.1	68.3	- 1.2	68.2	- 1.1	68.3	- 1.2	67.9	- 0.8	68.4	- 1.3	68.1	- 1.0	68.2	- 1.1	68.4	- 1.3	68.2	- 1.1
06:00 - 06:15	61.8	67.7	- 5.9	67.6	- 5.8	67.7	- 5.9	67.3	- 5.5	67.5	- 5.7	67.6	- 5.8	67.5	- 5.7	67.5	- 5.7	67.6	- 5.8	68.0	- 6.2	67.5	- 5.7	67.6	- 5.8
06:15 - 06:30	35.3	67.6	-32.3	67.5	-32.2	67.9	-32.6	67.1	-31.8	67.4	-32.1	67.7	-32.4	67.5	-32.2	67.9	-32.6	67.6	-32.3	67.8	-32.5	67.6	-32.3	67.6	-32.3
06:30 - 06:45	15.9	67.7	-51.8	67.5	-51.6	67.7	-51.8	68.4	-52.5	68.3	-52.4	67.5	-51.6	68.2	-52.3	68.1	-52.2	68.3	-52.4	68.2	-52.3	68.2	-52.3	68.0	-52.1
06:45 - 07:00	15.5	68.0	-52.5	68.3	-52.8	68.1	-52.6	68.4	-52.9	68.3	-52.8	68.0	-52.5	68.3	-52.8	68.4	-52.9	68.3	-52.8	68.4	-52.9	68.1	-52.6	68.2	-52.7
07:00 - 07:15	16.8	25.3	- 8.5	68.4	-51.6	67.9	-51.1	68.0	-51.2	68.0	-51.2	26.9	-10.1	68.0	-51.2	68.3	-51.5	39.7	-22.9	18.9	- 2.1	68.2	-51.4	53.4	-36.6
07:15 - 07:30	15.4	13.7	1.7	55.7	-40.3	28.2	-12.8	38.1	-22.7	17.1	- 1.7	10.4	5.0	16.2	- 0.8	26.3	-10.9	12.5	2.9	11.6	3.8	12.3	3.1	22.0	- 6.6
07:30 - 07:45	15.6	12.3	3.3	11.1	4.5	11.9	3.7	14.0	1.6	12.1	3.5	10.1	5.5	12.4	3.2	9.5	6.1	12.3	3.3	9.0	6.6	12.1	3.5	11.5	4.1
07:45 - 08:00	17.6	12.1	5.5	15.0	2.6	12.4	5.2	12.1	5.5	8.4	9.2	10.6	7.0	12.1	5.5	12.4	5.2	13.4	4.2	12.8	4.8	15.0	2.6	12.4	5.2
08:00 - 08:15	19.6	14.0	5.6	12.4	7.2	11.8	7.8	11.5	8.1	13.2	6.4	13.1	6.5	12.5	7.1	13.2	6.4	13.2	6.4	10.1	9.5	12.7	6.9	12.5	7.1
08:15 - 08:30	16.2	13.7	2.5	13.2	3.0	12.7	3.5	11.8	4.4	13.4	2.8	12.5	3.7	15.1	1.1	12.4	3.8	12.8	3.4	15.0	1.2	14.7	1.5	13.4	2.8
08:30 - 08:45	17.4	14.6	2.8	12.9	4.5	13.3	4.1	16.6	0.8	13.5	3.9	12.7	4.7	12.6	4.8	13.2	4.2	11.7	5.7	13.8	3.6	10.0	7.4	13.2	4.2
08:45 - 09:00	19.5	13.8	5.7	12.1	7.4	12.8	6.7	11.5	8.0	13.1	6.4	10.4	9.1	11.4	8.1	13.7	5.8	12.0	7.5	13.7	5.8	13.7	5.8	12.6	6.9
09:00 - 09:15	30.3	13.3	17.0	13.4	16.9	13.6	16.7	17.1	13.2	13.6	16.7	11.3	19.0	13.8	16.5	16.2	14.1	15.6	14.7	14.1	16.2	15.5	14.8	14.3	16.0
09:15 - 09:30	53.4	15.1	38.3	13.7	39.7	19.7	33.7	68.9	-15.5	19.4	34.0	14.1	39.3	16.7	36.7	14.9	38.5	15.8	37.6	14.5	38.9	25.8	27.6	21.7	31.7
Hour 1	58.8	68.1	- 9.3	68.0	- 9.2	68.0	- 9.3	67.8	- 9.0	67.9	- 9.1	68.0	- 9.2	67.9	- 9.1	68.0	- 9.3	68.0	- 9.2	68.2	- 9.4	68.1	- 9.3	68.0	- 9.2
Hour 2	15.9	43.7	-27.8	65.0	-49.1	58.0	-42.1	60.7	-44.8	55.4	-39.5	43.2	-27.3	55.2	-39.3	57.8	-41.9	47.2	-31.3	41.8	-25.9	54.2	-38.3	52.9	-37.0
Hour 3	17.2	13.0	4.2	12.9	4.3	12.2	5.0	12.4	4.9	11.8	5.5	11.6	5.7	13.0	4.2	11.9	5.4	12.9	4.3	11.7	5.5	13.6	3.6	12.5	4.8
Hour 4	30.1	14.2	15.9	13.0	17.1	14.9	15.3	28.5	1.6	14.9	15.2	12.1	18.0	13.6	16.5	14.5	15.6	13.8	16.4	14.0	16.1	16.3	13.9	15.5	14.7
11	30.5	34.7	- 4.2	39.7	- 9.2	38.3	- 7.8	42.4	-11.8	37.5	- 7.0	33.7	- 3.2	37.4	- 6.9	38.0	- 7.5	35.5	- 5.0	33.9	- 3.4	38.0	- 7.5	37.2	- 6.7



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

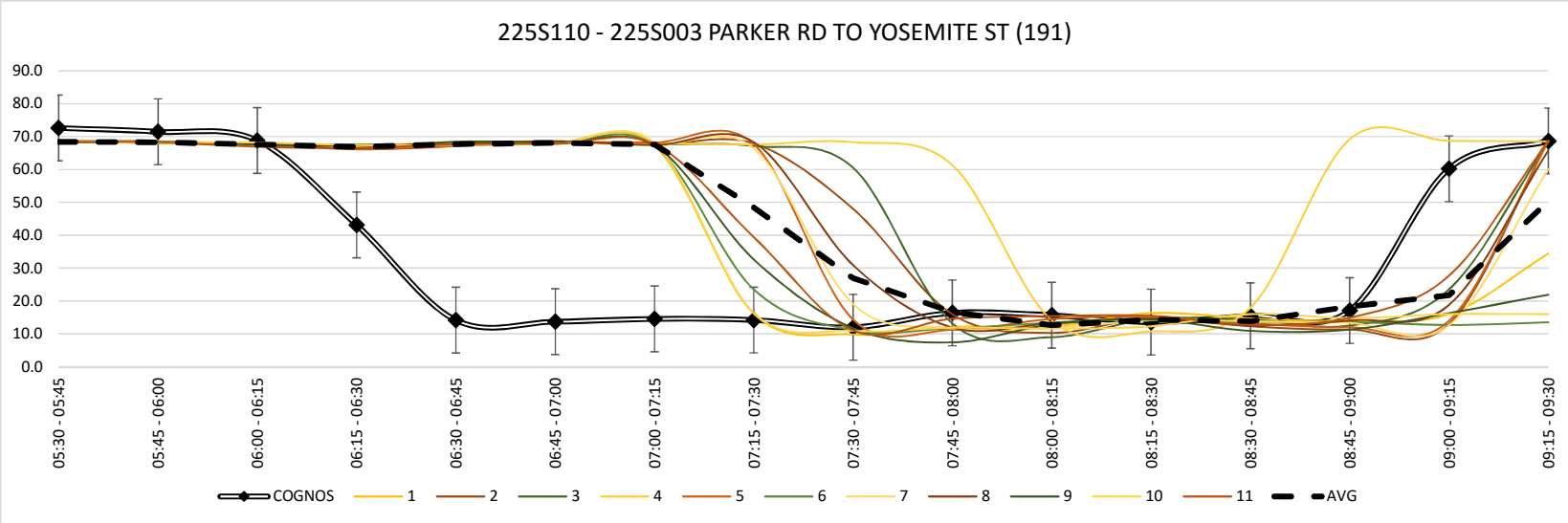
AM	COGNOS	MODEL																						AGGREGATE	
TIME	225S100	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	71.0	68.8	2.2	68.6	2.4	68.3	2.7	68.4	2.6	68.4	2.6	68.3	2.7	68.9	2.1	68.3	2.7	68.6	2.4	68.7	2.3	68.4	2.6	68.5	2.5
05:45 - 06:00	69.6	68.5	1.1	68.0	1.6	68.5	1.1	68.0	1.6	68.4	1.2	68.4	1.2	68.1	1.5	68.4	1.2	68.3	1.3	68.4	1.2	68.5	1.1	68.3	1.3
06:00 - 06:15	65.4	67.8	- 2.5	67.6	- 2.3	67.9	- 2.6	67.2	- 1.9	67.5	- 2.2	67.7	- 2.4	67.5	- 2.2	67.5	- 2.2	68.1	- 2.8	68.3	- 3.0	67.2	- 1.9	67.7	- 2.4
06:15 - 06:30	43.5	67.1	-23.6	67.7	-24.2	67.9	-24.4	67.5	-24.0	67.2	-23.7	67.2	-23.7	67.3	-23.8	67.3	-23.8	67.4	-23.9	67.7	-24.2	67.3	-23.8	67.4	-23.9
06:30 - 06:45	17.9	68.1	-50.2	67.8	-49.9	67.7	-49.8	68.4	-50.5	68.2	-50.3	67.3	-49.4	68.3	-50.4	68.0	-50.1	68.4	-50.5	67.8	-49.9	67.7	-49.8	68.0	-50.1
06:45 - 07:00	17.1	68.1	-51.0	68.3	-51.2	68.2	-51.1	68.4	-51.3	68.4	-51.3	68.3	-51.2	68.3	-51.2	68.7	-51.6	68.3	-51.2	68.2	-51.1	68.2	-51.1	68.3	-51.2
07:00 - 07:15	18.6	53.0	-34.4	68.4	-49.8	68.1	-49.5	68.3	-49.7	67.8	-49.2	56.7	-38.1	68.2	-49.6	68.1	-49.5	68.2	-49.6	41.9	-23.3	68.2	-49.6	63.3	-44.7
07:15 - 07:30	18.2	10.0	8.2	68.3	-50.1	61.1	-42.9	68.1	-49.9	26.9	- 8.7	12.4	5.8	24.7	- 6.5	68.4	-50.2	15.5	2.7	13.7	4.5	21.0	- 2.8	35.5	-17.3
07:30 - 07:45	16.3	14.0	2.3	17.6	- 1.3	13.9	2.4	34.4	-18.1	10.6	5.7	11.3	5.0	12.2	4.1	13.1	3.2	10.5	5.8	9.4	6.9	12.2	4.1	14.5	1.8
07:45 - 08:00	19.1	12.6	6.5	15.6	3.5	11.1	8.0	11.8	7.3	8.9	10.2	12.3	6.8	12.1	7.0	12.5	6.6	13.5	5.6	13.4	5.7	13.6	5.5	12.5	6.6
08:00 - 08:15	19.3	13.2	6.1	12.2	7.1	12.2	7.1	12.5	6.8	12.4	6.9	10.2	9.1	12.7	6.6	13.0	6.3	13.5	5.8	8.5	10.8	14.6	4.7	12.3	7.0
08:15 - 08:30	17.6	12.3	5.3	12.3	5.3	12.4	5.2	12.9	4.7	15.1	2.5	13.8	3.8	12.1	5.5	13.2	4.4	13.7	3.9	11.9	5.7	13.9	3.7	13.1	4.5
08:30 - 08:45	19.2	13.8	5.4	12.2	7.0	12.2	7.0	17.0	2.2	15.3	3.9	11.0	8.2	13.5	5.7	11.9	7.3	11.8	7.4	14.9	4.3	12.5	6.7	13.3	5.9
08:45 - 09:00	20.5	11.8	8.7	12.8	7.7	11.8	8.7	17.3	3.2	16.0	4.5	14.3	6.2	12.7	7.8	12.4	8.1	11.1	9.4	14.6	5.9	14.2	6.3	13.6	6.9
09:00 - 09:15	42.3	15.2	27.1	10.2	32.1	16.8	25.5	69.0	-26.7	13.1	29.2	10.3	32.0	12.5	29.8	12.5	29.8	16.2	26.1	8.6	33.7	13.6	28.7	18.0	24.3
09:15 - 09:30	64.4	16.7	47.7	27.6	36.8	68.4	- 4.0	68.9	- 4.5	47.0	17.4	13.0	51.4	21.8	42.6	15.2	49.2	15.3	49.1	13.7	50.7	52.9	11.5	32.8	31.6
Hour 1	62.4	68.1	- 5.7	68.0	- 5.6	68.2	- 5.8	67.8	- 5.4	67.9	- 5.5	67.9	- 5.5	68.0	- 5.6	67.9	- 5.5	68.1	- 5.7	68.3	- 5.9	67.9	- 5.5	68.0	- 5.6
Hour 2	18.0	49.8	-31.8	68.2	-50.2	66.3	-48.3	68.3	-50.3	57.8	-39.9	51.2	-33.2	57.4	-39.4	68.3	-50.3	55.1	-37.1	47.9	-29.9	56.3	-38.3	58.8	-40.8
Hour 3	18.1	13.0	5.1	14.4	3.7	12.4	5.7	17.9	0.2	11.8	6.3	11.9	6.2	12.3	5.8	13.0	5.1	12.8	5.3	10.8	7.3	13.6	4.5	13.1	5.0
Hour 4	36.6	14.4	22.3	15.7	20.9	27.3	9.3	43.1	- 6.4	22.9	13.8	12.2	24.5	15.1	21.5	13.0	23.6	13.6	23.0	13.0	23.7	23.3	13.3	19.4	17.2
11	33.8	36.3	- 2.6	41.6	- 7.8	43.5	- 9.8	49.3	-15.5	40.1	- 6.3	35.8	- 2.0	38.2	- 4.4	40.5	- 6.8	37.4	- 3.6	35.0	- 1.2	40.3	- 6.5	39.8	- 6.1



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

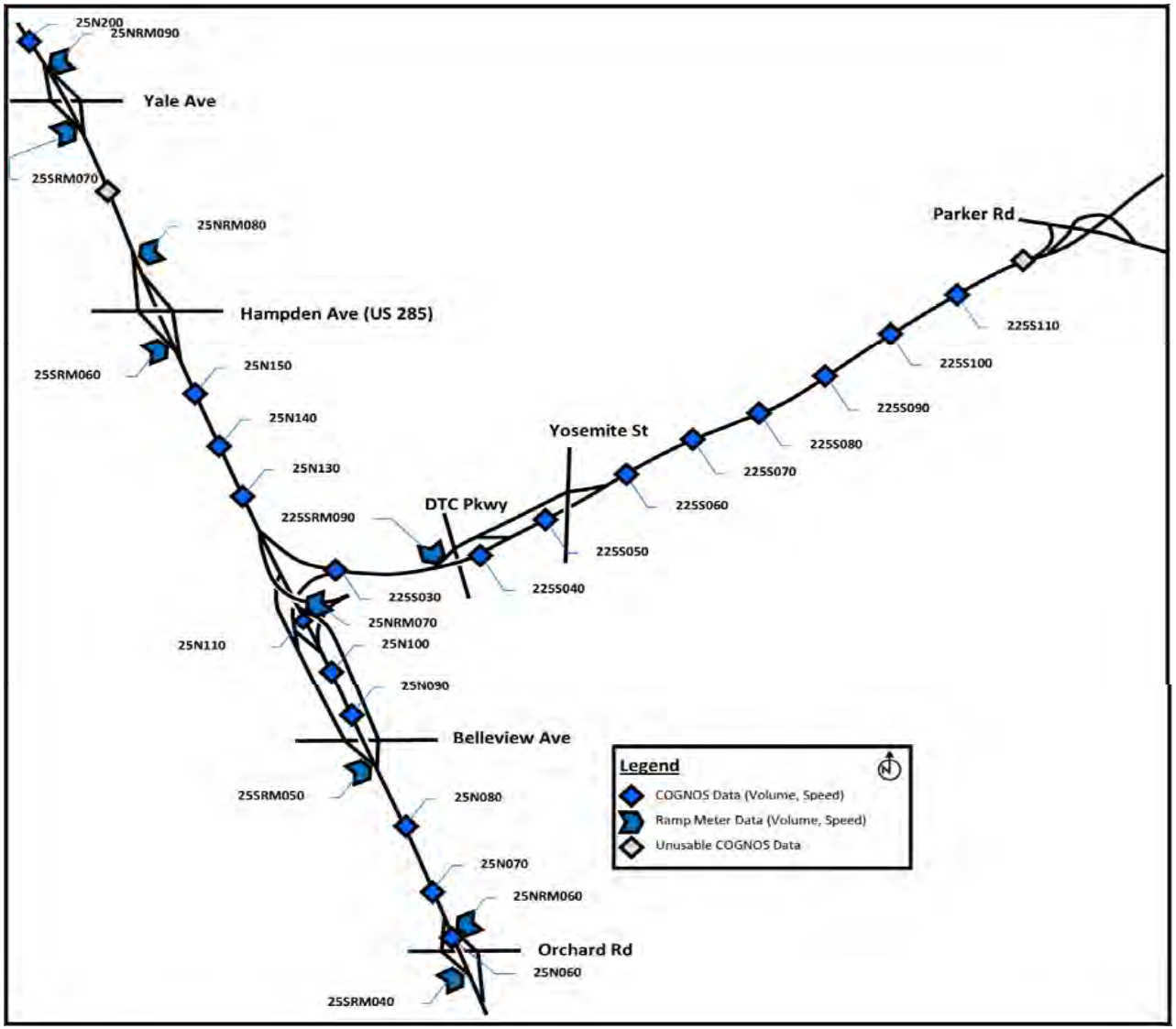
AM	COGNOS	MODEL																						AGGREGATE	
TIME	225S110	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	72.6	68.4	4.2	68.5	4.1	68.3	4.3	68.3	4.3	68.6	4.0	68.3	4.3	68.6	4.0	68.3	4.3	68.6	4.0	68.5	4.1	68.4	4.2	68.4	4.2
05:45 - 06:00	71.5	68.5	3.0	68.1	3.4	68.1	3.4	68.1	3.4	68.5	3.0	68.5	3.0	68.2	3.3	68.5	3.0	68.4	3.1	68.3	3.2	68.3	3.2	68.3	3.2
06:00 - 06:15	68.8	67.3	1.5	67.8	1.0	67.7	1.1	67.3	1.5	67.7	1.1	67.6	1.2	67.6	1.2	67.6	1.2	67.7	1.1	68.2	0.6	66.9	1.9	67.6	1.2
06:15 - 06:30	43.1	66.7	-23.6	66.1	-23.0	67.5	-24.4	67.3	-24.2	66.2	-23.1	67.5	-24.4	67.1	-24.0	67.3	-24.2	66.5	-23.4	67.4	-24.3	66.6	-23.5	66.9	-23.8
06:30 - 06:45	14.2	67.6	-53.4	67.1	-52.9	67.9	-53.7	68.0	-53.8	67.2	-53.0	67.3	-53.1	68.4	-54.2	67.8	-53.6	68.4	-54.2	67.4	-53.2	67.6	-53.4	67.7	-53.5
06:45 - 07:00	13.7	68.2	-54.5	68.5	-54.8	68.2	-54.5	68.2	-54.5	68.2	-54.5	67.9	-54.2	68.2	-54.5	68.6	-54.9	68.1	-54.4	67.7	-54.0	67.8	-54.1	68.1	-54.4
07:00 - 07:15	14.6	67.3	-52.7	67.5	-52.9	67.7	-53.1	68.0	-53.4	68.2	-53.6	67.2	-52.6	67.3	-52.7	67.4	-52.8	67.2	-52.6	67.9	-53.3	67.7	-53.1	67.6	-53.0
07:15 - 07:30	14.2	16.1	- 1.9	67.9	-53.7	67.1	-52.9	67.6	-53.4	67.7	-53.5	23.5	- 9.3	66.4	-52.2	68.3	-54.1	32.6	-18.4	16.3	- 2.1	39.4	-25.2	48.4	-34.2
07:30 - 07:45	12.0	9.8	2.2	48.0	-36.0	60.5	-48.5	68.3	-56.3	14.3	- 2.3	11.1	0.9	19.0	- 7.0	30.9	-18.9	11.7	0.3	10.9	1.1	11.0	1.0	26.9	-14.9
07:45 - 08:00	16.4	12.1	4.3	15.9	0.5	13.1	3.3	61.3	-44.9	11.2	5.2	11.7	4.7	11.7	4.7	11.9	4.5	7.4	9.0	11.9	4.5	14.6	1.8	16.6	- 0.2
08:00 - 08:15	15.6	12.2	3.4	10.3	5.3	9.0	6.6	14.1	1.5	14.5	1.1	13.4	2.2	11.8	3.8	13.2	2.4	12.9	2.7	11.6	4.0	15.4	0.2	12.6	3.0
08:15 - 08:30	13.6	16.3	- 2.7	14.9	- 1.3	14.5	- 0.9	10.7	2.9	15.2	- 1.6	14.7	- 1.1	14.1	- 0.5	14.6	- 1.0	14.3	- 0.7	12.3	1.3	15.5	- 1.9	14.3	- 0.7
08:30 - 08:45	15.5	14.7	0.8	12.3	3.2	14.4	1.1	17.9	- 2.4	13.2	2.3	13.7	1.8	13.8	1.7	12.6	2.9	10.9	4.6	16.0	- 0.5	12.8	2.7	13.8	1.7
08:45 - 09:00	17.1	14.0	3.1	11.3	5.8	12.5	4.6	69.2	-52.1	12.0	5.1	13.6	3.5	13.3	3.8	14.1	3.0	11.3	5.8	14.8	2.3	14.9	2.2	18.3	- 1.2
09:00 - 09:15	60.2	16.0	44.2	13.0	47.2	23.5	36.7	68.7	- 8.5	14.0	46.2	12.7	47.5	12.6	47.6	18.8	41.4	16.3	43.9	16.0	44.2	27.7	32.5	21.7	38.5
09:15 - 09:30	68.7	34.4	34.3	68.6	0.1	68.4	0.3	68.5	0.2	68.7	- 0.0	13.5	55.2	60.1	8.6	65.8	2.9	21.9	46.8	16.0	52.7	68.8	- 0.1	50.4	18.3
Hour 1	64.0	67.7	- 3.7	67.6	- 3.6	67.9	- 3.9	67.8	- 3.8	67.8	- 3.8	68.0	- 4.0	67.9	- 3.9	67.9	- 3.9	67.8	- 3.8	68.1	- 4.1	67.6	- 3.6	67.8	- 3.8
Hour 2	14.2	54.8	-40.6	67.8	-53.6	67.7	-53.6	68.0	-53.8	67.8	-53.7	56.5	-42.3	67.6	-53.4	68.0	-53.9	59.1	-44.9	54.8	-40.7	60.6	-46.5	63.0	-48.8
Hour 3	14.4	12.6	1.8	22.3	- 7.9	24.3	- 9.9	38.6	-24.2	13.8	0.6	12.7	1.7	14.2	0.2	17.7	- 3.3	11.6	2.8	11.7	2.7	14.1	0.3	17.6	- 3.2
Hour 4	40.4	19.8	20.6	26.3	14.1	29.7	10.7	56.1	-15.7	27.0	13.4	13.4	27.0	25.0	15.4	27.8	12.5	15.1	25.3	15.7	24.7	31.1	9.3	26.1	14.3
11	33.2	38.7	- 5.5	46.0	-12.8	47.4	-14.2	57.6	-24.4	44.1	-10.9	37.6	- 4.4	43.6	-10.4	45.4	-12.1	38.4	- 5.2	37.6	- 4.3	43.3	-10.1	43.6	-10.4



AVERAGE VEHICLE SPEEDS - BY LINK

CONCEPT 3: +10% I-225

ROUTE: I-25
PERIOD: AM

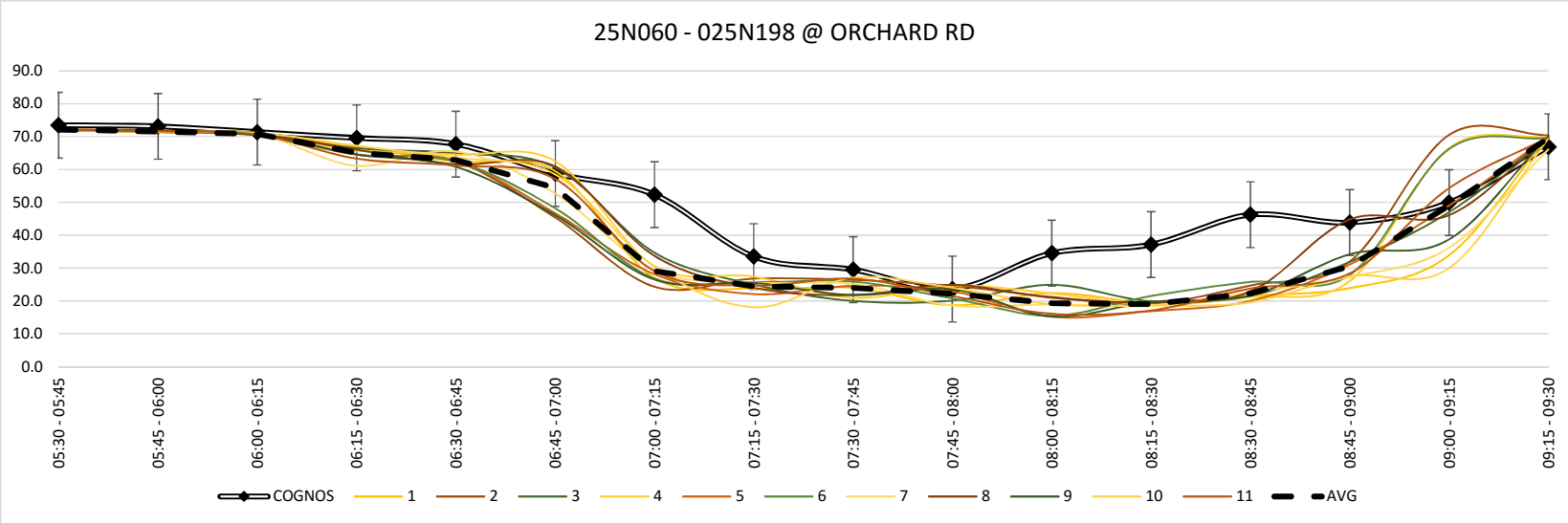


LOCATION	COGNOS DESCRIPTION
25N060	025N198 @ ORCHARD RD
25N070	025N199 0.4MI N OF ORCHARD RD
25N080	025N199 0.4MI S OF BELLEVIEW AVE
25N090	025S199 @ BELLVIEW AVE
25N100	025N200 BELLVIEW AVE TO I-25 NB (153)
25N110	025N200 @ I-225
25N130	025N201 0.2MI N OF I-225
25N140	025N201 I-225 TO HAMPDEN AVE 2 (132)
25N150	025N201 0.6MI S OF HAMPDEN AVE
25N200	025N203 0.4MI N OF YALE AVE (124)

CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

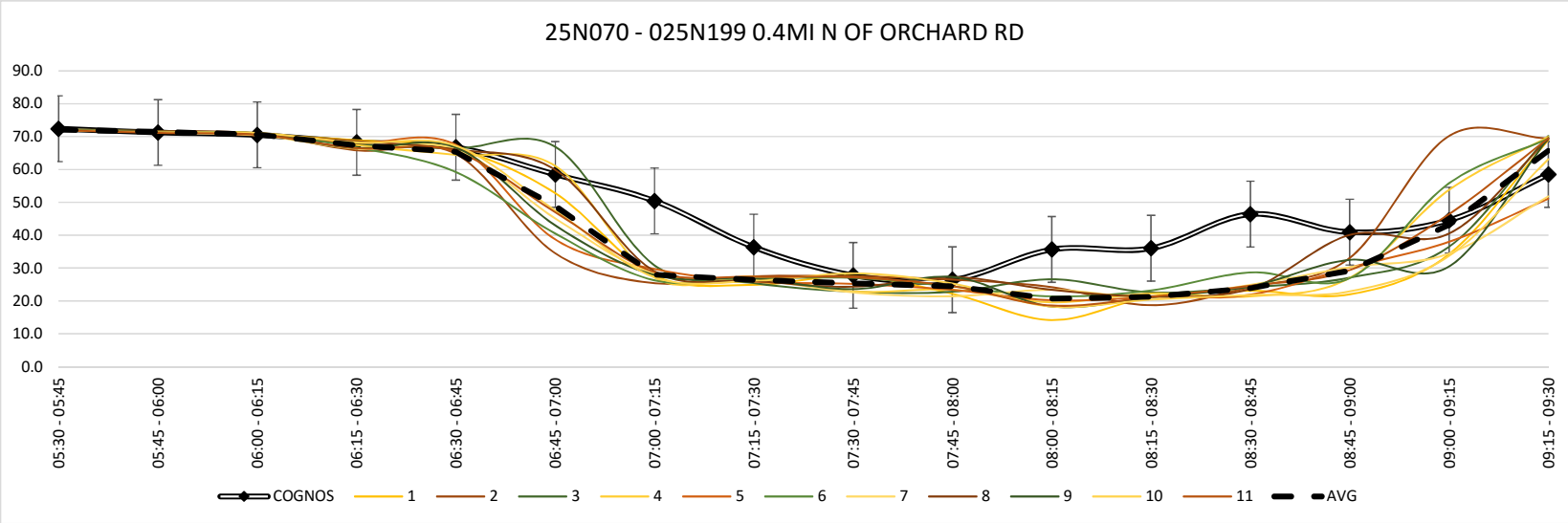
AM	COGNOS	MODEL																						AGGREGATE	
TIME	25N060	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	73.5	71.9	1.6	72.3	1.2	72.1	1.4	72.3	1.2	72.0	1.5	72.3	1.2	72.2	1.3	72.0	1.5	71.9	1.6	71.9	1.6	71.9	1.6	72.1	1.4
05:45 - 06:00	73.1	71.7	1.4	71.7	1.4	71.6	1.5	71.5	1.6	71.3	1.8	71.4	1.7	71.3	1.8	71.8	1.3	71.4	1.7	71.4	1.7	71.6	1.5	71.5	1.6
06:00 - 06:15	71.4	70.6	0.8	71.1	0.3	70.4	0.9	70.8	0.5	70.6	0.8	71.2	0.1	70.7	0.6	70.8	0.5	70.5	0.8	71.1	0.3	70.6	0.8	70.8	0.5
06:15 - 06:30	69.6	66.9	2.7	65.9	3.7	66.5	3.1	65.8	3.8	64.5	5.1	64.5	5.1	61.1	8.5	66.0	3.6	64.6	5.0	67.2	2.4	63.3	6.3	65.1	4.5
06:30 - 06:45	67.7	62.4	5.3	62.5	5.2	64.9	2.8	64.5	3.2	62.6	5.1	62.4	5.3	65.5	2.2	61.5	6.2	60.8	6.9	63.6	4.1	61.2	6.5	62.9	4.8
06:45 - 07:00	58.8	59.5	- 0.7	45.4	13.4	60.6	- 1.8	62.5	- 3.7	46.7	12.1	48.2	10.6	52.7	6.1	60.9	- 2.1	46.1	12.7	58.5	0.3	57.1	1.7	54.4	4.4
07:00 - 07:15	52.3	27.0	25.3	24.3	28.0	34.7	17.6	30.6	21.7	28.1	24.2	26.8	25.5	29.4	22.9	33.7	18.6	26.5	25.8	30.4	21.9	29.1	23.2	29.1	23.2
07:15 - 07:30	33.5	23.7	9.8	26.8	6.7	25.0	8.5	27.4	6.1	22.1	11.4	25.7	7.8	25.6	7.9	24.0	9.5	25.5	8.0	18.1	15.4	24.7	8.8	24.4	9.1
07:30 - 07:45	29.5	24.0	5.5	26.4	3.1	20.0	9.5	20.9	8.6	24.6	4.9	25.9	3.6	25.2	4.3	21.8	7.7	21.8	7.7	27.1	2.4	26.8	2.7	24.0	5.5
07:45 - 08:00	23.6	18.7	4.9	24.6	- 1.0	20.1	3.5	24.7	- 1.1	22.9	0.7	20.8	2.8	18.6	5.0	24.9	- 1.3	23.6	0.0	24.0	- 0.4	21.5	2.1	22.2	1.4
08:00 - 08:15	34.5	22.4	12.1	21.2	13.3	24.9	9.6	22.3	12.2	15.2	19.3	15.5	19.0	19.0	15.5	21.0	13.5	15.3	19.2	19.0	15.5	16.1	18.4	19.3	15.2
08:15 - 08:30	37.2	19.5	17.7	19.2	18.0	19.9	17.3	18.8	18.4	16.9	20.3	21.5	15.7	18.6	18.6	19.6	17.6	19.7	17.5	18.6	18.6	17.1	20.1	19.0	18.2
08:30 - 08:45	46.2	21.6	24.6	24.7	21.5	21.6	24.6	21.2	25.0	20.0	26.2	25.8	20.4	22.6	23.6	22.9	23.3	21.6	24.6	19.6	26.6	23.8	22.4	22.3	23.9
08:45 - 09:00	43.9	23.9	20.0	32.0	11.9	31.9	12.0	26.0	17.9	31.1	12.8	27.9	16.0	27.3	16.6	44.8	- 0.9	34.2	9.7	27.5	16.4	28.4	15.5	30.5	13.4
09:00 - 09:15	49.9	33.9	16.0	70.5	-20.6	47.0	2.9	66.5	-16.6	49.0	0.9	66.2	-16.3	36.2	13.7	46.1	3.8	38.7	11.2	30.0	19.9	54.3	- 4.4	49.0	0.9
09:15 - 09:30	66.9	70.2	- 3.3	70.4	- 3.5	70.0	- 3.1	70.0	- 3.1	69.9	- 3.0	69.6	- 2.7	66.1	0.8	69.9	- 3.0	70.2	- 3.3	69.4	- 2.5	69.7	- 2.8	69.6	- 2.7
Hour 1	71.9	70.3	1.6	70.3	1.6	70.2	1.7	70.1	1.8	69.6	2.3	69.9	2.0	68.8	3.1	70.2	1.7	69.6	2.3	70.4	1.5	69.4	2.5	69.9	2.0
Hour 2	53.1	43.2	9.9	39.8	13.3	46.3	6.8	46.3	6.8	39.9	13.2	40.8	12.3	43.3	9.8	45.0	8.0	39.7	13.3	42.7	10.4	43.0	10.0	42.7	10.4
Hour 3	31.2	21.2	10.1	22.9	8.4	21.2	10.0	21.7	9.5	19.9	11.3	20.9	10.3	20.4	10.9	21.8	9.4	20.1	11.1	22.2	9.0	20.4	10.8	21.1	10.1
Hour 4	51.7	37.4	14.3	49.4	2.3	42.6	9.1	45.9	5.8	42.5	9.2	47.4	4.4	38.1	13.7	45.9	5.8	41.2	10.6	36.6	15.1	44.1	7.7	42.9	8.9
11	52.0	43.0	9.0	45.6	6.4	45.1	6.9	46.0	6.0	43.0	9.0	44.7	7.2	42.6	9.3	45.7	6.2	42.7	9.3	43.0	9.0	44.2	7.8	44.1	7.8



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

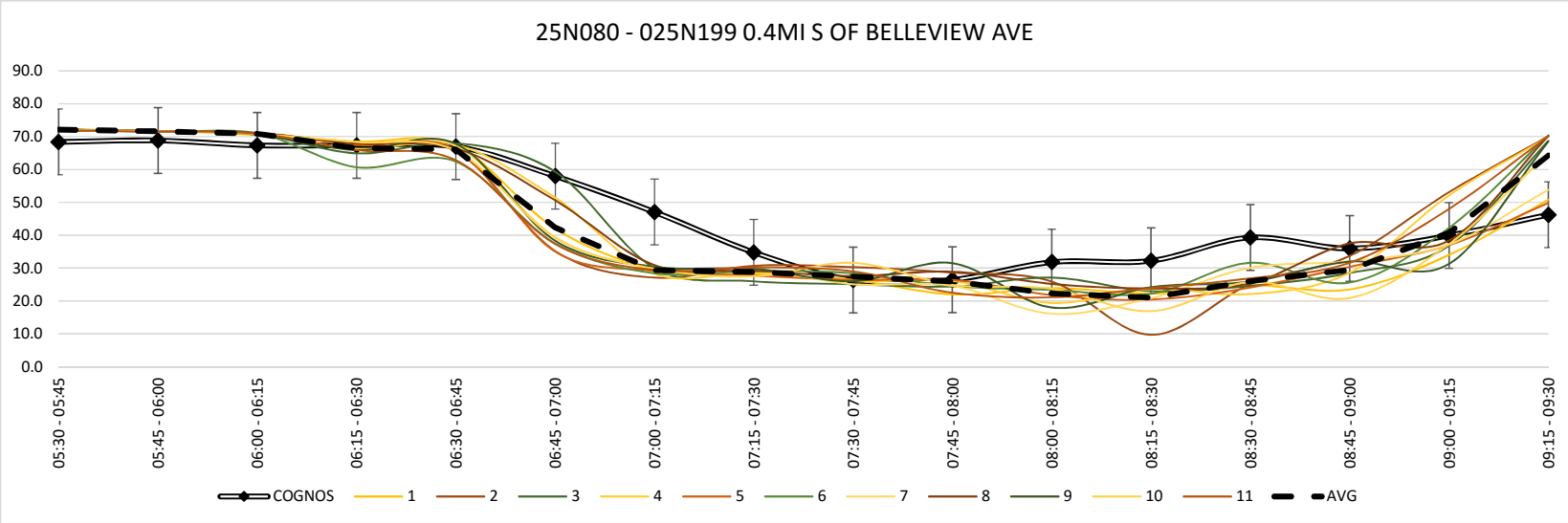
AM	COGNOS	MODEL																						AGGREGATE	
TIME	25N070	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	72.4	71.8	0.6	72.2	0.2	72.2	0.2	72.1	0.3	72.0	0.4	72.2	0.2	72.2	0.2	72.0	0.4	72.1	0.3	72.0	0.4	72.0	0.4	72.1	0.3
05:45 - 06:00	71.3	71.6	- 0.3	71.7	- 0.5	71.6	- 0.3	71.4	- 0.2	71.5	- 0.3	71.4	- 0.2	71.2	0.0	71.4	- 0.2	71.3	- 0.0	71.3	- 0.0	71.1	0.2	71.4	- 0.2
06:00 - 06:15	70.5	70.6	- 0.1	70.9	- 0.4	70.5	0.0	71.1	- 0.6	70.4	0.1	71.0	- 0.5	70.4	0.1	70.7	- 0.2	70.7	- 0.2	71.1	- 0.6	70.6	- 0.1	70.7	- 0.2
06:15 - 06:30	68.3	68.9	- 0.6	65.8	2.5	67.7	0.6	67.4	0.9	68.1	0.2	66.7	1.6	66.3	2.0	68.6	- 0.3	66.5	1.8	68.2	0.1	66.5	1.8	67.3	1.0
06:30 - 06:45	66.7	66.2	0.5	64.7	2.0	66.4	0.3	64.4	2.3	67.5	- 0.8	59.2	7.5	66.2	0.5	66.1	0.6	66.7	0.0	67.2	- 0.5	65.4	1.3	65.4	1.3
06:45 - 07:00	58.5	52.8	5.7	34.5	24.0	66.9	- 8.4	61.1	- 2.6	38.7	19.8	40.5	18.0	45.1	13.4	59.9	- 1.4	43.0	15.5	47.5	11.0	47.0	11.5	48.8	9.7
07:00 - 07:15	50.4	27.7	22.7	25.4	25.0	30.8	19.6	27.1	23.3	29.7	20.7	26.3	24.1	28.3	22.1	29.0	21.4	27.9	22.5	27.2	23.2	28.8	21.6	28.0	22.4
07:15 - 07:30	36.4	24.9	11.5	27.5	8.9	25.4	11.0	27.4	9.0	25.9	10.5	26.8	9.6	26.6	9.8	26.1	10.3	26.8	9.6	26.1	10.3	27.4	9.0	26.4	10.0
07:30 - 07:45	27.8	27.6	0.2	27.5	0.3	22.8	5.0	22.9	4.9	25.2	2.6	27.0	0.8	22.6	5.2	24.3	3.5	23.6	4.2	28.4	- 0.6	27.2	0.6	25.4	2.4
07:45 - 08:00	26.4	22.2	4.2	26.5	- 0.1	22.8	3.6	23.4	3.0	23.4	3.0	24.4	2.0	21.4	5.0	27.3	- 0.9	27.3	- 0.9	25.3	1.1	24.5	1.9	24.4	2.0
08:00 - 08:15	35.7	14.2	21.5	24.2	11.5	26.6	9.1	19.6	16.1	20.2	15.5	21.4	14.3	23.4	12.3	23.4	12.3	18.3	17.4	18.3	17.4	18.6	17.1	20.7	15.0
08:15 - 08:30	36.0	21.3	14.7	18.7	17.3	22.6	13.4	22.3	13.7	21.1	14.9	23.2	12.8	21.1	14.9	21.4	14.6	21.1	14.9	20.4	15.6	21.2	14.8	21.3	14.7
08:30 - 08:45	46.4	23.1	23.3	24.2	22.2	24.2	22.2	21.4	25.0	21.9	24.5	28.7	17.7	24.9	21.5	23.7	22.7	24.5	21.9	21.8	24.6	24.6	21.8	23.9	22.5
08:45 - 09:00	40.9	22.0	18.9	33.1	7.8	27.1	13.8	27.0	13.9	30.2	10.7	26.9	14.0	30.3	10.6	40.1	0.8	32.5	8.4	22.9	18.0	29.4	11.5	29.2	11.7
09:00 - 09:15	44.6	34.2	10.4	70.2	-25.6	36.5	8.1	53.8	- 9.2	38.0	6.6	55.8	-11.2	34.4	10.2	40.5	4.1	30.5	14.1	33.7	10.9	46.4	- 1.8	43.1	1.5
09:15 - 09:30	58.5	69.0	-10.5	69.4	-10.9	70.2	-11.7	69.9	-11.4	51.1	7.4	69.4	-10.9	51.8	6.7	69.2	-10.7	69.6	-11.1	63.1	- 4.6	69.5	-11.0	65.7	- 7.2
Hour 1	70.6	70.7	- 0.1	70.2	0.4	70.5	0.1	70.5	0.1	70.5	0.1	70.3	0.3	70.0	0.6	70.7	- 0.1	70.2	0.5	70.7	- 0.1	70.1	0.5	70.4	0.2
Hour 2	53.0	42.9	10.1	38.0	15.0	47.4	5.6	45.0	8.0	40.5	12.6	38.2	14.8	41.6	11.5	45.3	7.7	41.1	11.9	42.0	11.0	42.2	10.9	42.2	10.9
Hour 3	31.5	21.3	10.2	24.2	7.3	23.7	7.8	22.1	9.4	22.5	9.0	24.0	7.5	22.1	9.4	24.1	7.4	22.6	8.9	23.1	8.4	22.9	8.6	23.0	8.5
Hour 4	47.6	37.1	10.5	49.2	- 1.6	39.5	8.1	43.0	4.6	35.3	12.3	45.2	2.4	35.4	12.2	43.4	4.2	39.3	8.3	35.4	12.2	42.5	5.1	40.5	7.1
11	50.7	43.0	7.7	45.4	5.3	45.3	5.4	45.1	5.5	42.2	8.5	44.4	6.2	42.3	8.4	45.9	4.8	43.3	7.4	42.8	7.9	44.4	6.3	44.0	6.7



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

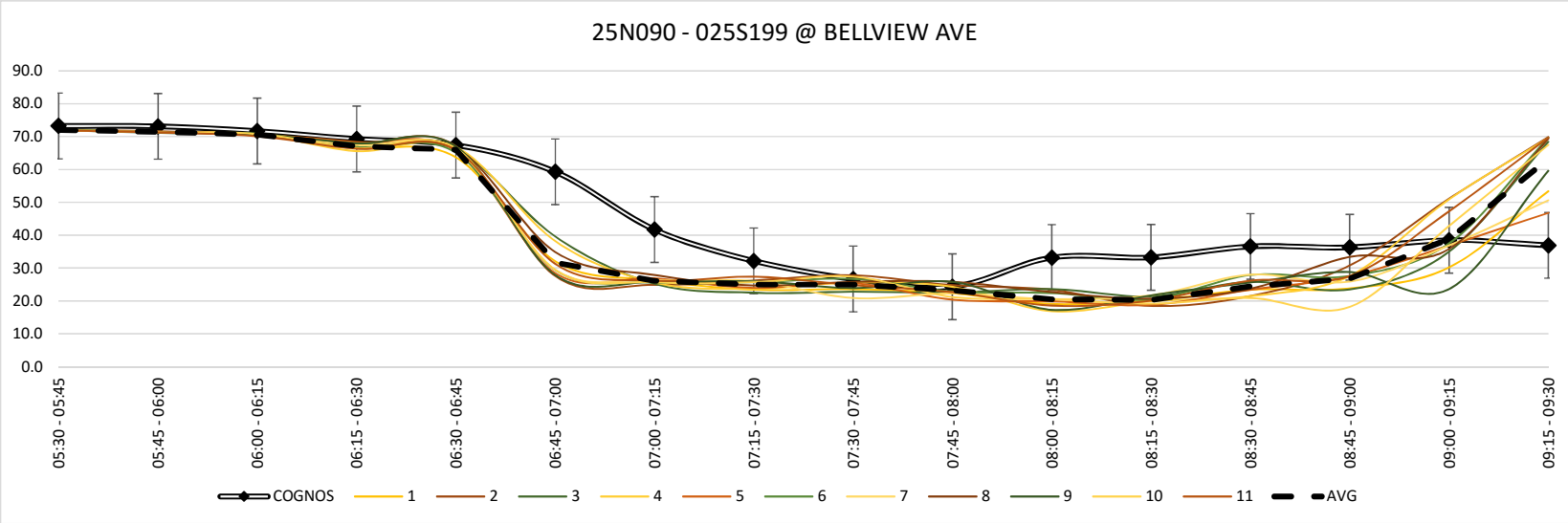
AM	COGNOS	MODEL																						AGGREGATE	
TIME	25N080	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	68.4	71.9	- 3.5	72.1	- 3.7	72.1	- 3.7	72.3	- 3.9	72.0	- 3.6	72.2	- 3.8	72.2	- 3.8	71.8	- 3.4	72.2	- 3.8	72.0	- 3.6	71.9	- 3.5	72.1	- 3.7
05:45 - 06:00	68.8	71.7	- 2.9	71.6	- 2.8	71.6	- 2.8	71.5	- 2.7	71.6	- 2.8	71.4	- 2.6	71.5	- 2.7	71.5	- 2.7	71.7	- 2.9	71.6	- 2.8	71.5	- 2.7	71.6	- 2.8
06:00 - 06:15	67.3	70.5	- 3.2	71.1	- 3.8	70.8	- 3.5	71.0	- 3.7	70.9	- 3.6	71.0	- 3.7	70.8	- 3.5	71.0	- 3.7	70.6	- 3.3	70.8	- 3.5	70.9	- 3.6	70.9	- 3.6
06:15 - 06:30	67.3	68.5	- 1.2	67.7	- 0.4	64.9	2.4	66.3	1.0	67.4	- 0.1	60.7	6.6	67.8	- 0.5	67.8	- 0.5	65.9	1.4	68.3	- 1.0	65.9	1.4	66.5	0.8
06:30 - 06:45	67.0	67.4	- 0.4	65.6	1.4	68.0	- 1.0	67.5	- 0.5	66.1	0.9	62.4	4.6	67.1	- 0.1	66.4	0.6	67.8	- 0.8	65.7	1.3	62.8	4.2	66.1	0.9
06:45 - 07:00	58.0	42.0	16.0	35.2	22.8	59.3	- 1.3	51.4	6.6	35.0	23.0	37.5	20.5	39.4	18.6	50.6	7.4	38.3	19.7	39.2	18.8	37.3	20.7	42.3	15.7
07:00 - 07:15	47.1	29.7	17.4	27.1	20.0	30.0	17.1	28.3	18.8	29.2	17.9	28.4	18.7	30.2	16.9	30.9	16.2	30.4	16.7	29.8	17.3	29.4	17.7	29.4	17.7
07:15 - 07:30	34.8	28.1	6.7	30.7	4.1	26.0	8.8	28.7	6.1	27.7	7.1	29.1	5.7	29.7	5.1	29.2	5.6	29.8	5.0	27.5	7.3	30.2	4.6	28.8	6.0
07:30 - 07:45	26.4	26.4	- 0.0	30.3	- 3.9	25.1	1.3	26.0	0.4	26.4	- 0.0	28.4	- 2.0	25.1	1.3	27.6	- 1.2	26.0	0.4	31.6	- 5.2	29.0	- 2.6	27.4	- 1.0
07:45 - 08:00	26.5	22.0	4.5	28.6	- 2.2	24.4	2.1	26.1	0.3	26.4	0.1	24.5	2.0	24.6	1.9	28.9	- 2.5	31.5	- 5.1	24.9	1.6	22.5	4.0	25.9	0.6
08:00 - 08:15	31.8	23.9	7.9	25.9	5.9	27.1	4.7	19.4	12.4	21.8	10.0	23.4	8.4	16.1	15.7	25.2	6.6	18.0	13.8	23.7	8.1	21.1	10.7	22.3	9.5
08:15 - 08:30	32.2	22.3	9.9	9.7	22.5	23.0	9.2	23.6	8.6	20.4	11.8	22.2	10.0	20.9	11.3	23.8	8.4	24.2	8.0	16.9	15.3	23.9	8.3	21.0	11.2
08:30 - 08:45	39.3	24.8	14.5	25.1	14.2	24.6	14.7	22.1	17.2	24.1	15.2	31.6	7.7	30.1	9.2	25.4	13.9	25.9	13.4	25.8	13.5	26.9	12.4	26.0	13.3
08:45 - 09:00	35.9	23.5	12.4	33.7	2.2	28.5	7.4	28.6	7.3	30.4	5.5	25.6	10.3	32.1	3.8	37.5	- 1.6	32.0	3.9	20.9	15.0	31.6	4.3	29.5	6.4
09:00 - 09:15	39.9	34.0	5.9	53.1	-13.2	36.8	3.1	52.1	-12.2	37.0	2.9	42.2	- 2.3	37.2	2.7	38.4	1.5	31.3	8.6	37.3	2.6	48.0	- 8.1	40.7	- 0.8
09:15 - 09:30	46.2	50.8	- 4.6	70.1	-23.9	68.7	-22.5	69.9	-23.7	49.8	- 3.6	70.4	-24.2	53.8	- 7.6	70.2	-24.0	68.5	-22.3	64.8	-18.6	70.1	-23.9	64.3	-18.1
Hour 1	68.0	70.7	- 2.7	70.6	- 2.7	69.9	- 1.9	70.3	- 2.3	70.5	- 2.5	68.8	- 0.9	70.6	- 2.6	70.5	- 2.6	70.1	- 2.1	70.7	- 2.7	70.1	- 2.1	70.3	- 2.3
Hour 2	51.7	41.8	9.9	39.7	12.0	45.8	5.9	44.0	7.7	39.5	12.2	39.4	12.3	41.6	10.1	44.3	7.4	41.6	10.1	40.6	11.1	39.9	11.8	41.7	10.0
Hour 3	29.2	23.7	5.6	23.6	5.6	24.9	4.3	23.8	5.4	23.8	5.5	24.6	4.6	21.7	7.5	26.4	2.8	24.9	4.3	24.3	4.9	24.1	5.1	24.2	5.1
Hour 4	40.3	33.3	7.1	45.5	- 5.2	39.7	0.7	43.2	- 2.8	35.3	5.0	42.5	- 2.1	38.3	2.0	42.9	- 2.5	39.4	0.9	37.2	3.1	44.2	- 3.8	40.1	0.2
11	47.3	42.3	5.0	44.9	2.4	45.1	2.2	45.3	2.0	42.3	5.0	43.8	3.5	43.0	4.3	46.0	1.3	44.0	3.3	43.2	4.1	44.6	2.7	44.1	3.2



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

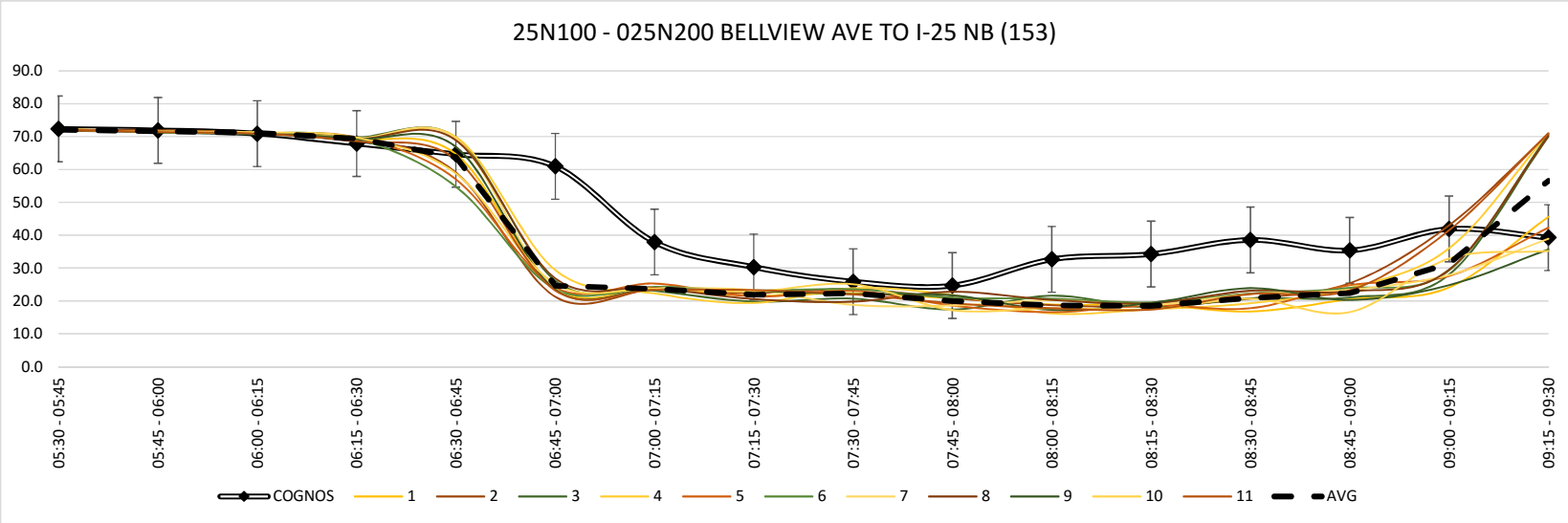
AM	COGNOS	MODEL																						AGGREGATE	
TIME	25N090	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	73.2	71.9	1.3	72.1	1.1	72.1	1.1	71.9	1.3	71.9	1.3	72.2	1.0	72.0	1.2	71.8	1.4	72.0	1.2	71.9	1.3	71.9	1.3	72.0	1.2
05:45 - 06:00	73.1	71.4	1.7	71.6	1.5	71.4	1.7	71.3	1.8	71.4	1.7	71.2	1.9	71.5	1.6	71.5	1.6	71.1	2.0	71.3	1.8	71.2	1.9	71.4	1.7
06:00 - 06:15	71.7	70.5	1.2	70.7	1.0	70.4	1.3	70.7	1.0	70.7	1.0	70.9	0.8	70.4	1.3	70.5	1.2	70.6	1.1	70.8	0.9	70.1	1.6	70.6	1.1
06:15 - 06:30	69.3	66.7	2.6	67.9	1.4	67.7	1.6	65.6	3.7	68.3	1.0	66.9	2.4	67.4	1.9	66.4	2.9	68.0	1.3	66.5	2.8	66.3	3.0	67.0	2.3
06:30 - 06:45	67.4	63.7	3.7	67.1	0.3	66.1	1.3	66.8	0.6	65.7	1.7	65.1	2.3	66.0	1.4	66.5	0.9	67.0	0.4	66.4	1.0	65.9	1.5	66.0	1.4
06:45 - 07:00	59.3	32.1	27.2	27.6	31.7	39.6	19.7	38.2	21.1	28.5	30.8	29.4	29.9	29.5	29.8	34.9	24.4	27.9	31.4	29.5	29.8	31.3	28.0	31.7	27.6
07:00 - 07:15	41.7	26.3	15.4	24.9	16.8	25.2	16.5	25.6	16.1	26.9	14.8	25.6	16.1	26.4	15.3	27.9	13.8	25.8	15.9	25.7	16.0	26.2	15.5	26.1	15.6
07:15 - 07:30	32.2	23.4	8.8	26.2	6.0	22.5	9.7	23.7	8.5	24.0	8.2	25.7	6.5	26.0	6.2	24.7	7.5	26.0	6.2	25.7	6.5	27.4	4.8	25.0	7.2
07:30 - 07:45	26.7	23.6	3.1	27.8	- 1.1	22.8	3.9	25.6	1.1	25.4	1.3	26.7	- 0.0	20.9	5.8	25.8	0.9	23.9	2.8	27.4	- 0.7	24.8	1.9	25.0	1.7
07:45 - 08:00	24.3	22.3	2.0	24.8	- 0.5	22.6	1.7	24.3	0.0	20.4	3.9	22.9	1.4	22.3	2.0	25.8	- 1.5	25.8	- 1.5	21.2	3.1	22.7	1.6	23.2	1.1
08:00 - 08:15	33.2	19.1	14.1	23.4	9.8	23.6	9.6	16.9	16.3	19.9	13.3	22.4	10.8	20.6	12.6	22.7	10.5	17.3	15.9	20.5	12.7	18.6	14.6	20.5	12.7
08:15 - 08:30	33.3	20.2	13.1	18.5	14.8	21.4	11.9	19.9	13.4	18.8	14.5	20.5	12.8	21.7	11.6	20.7	12.6	21.7	11.6	19.2	14.1	20.1	13.2	20.3	13.0
08:30 - 08:45	36.6	23.4	13.2	21.5	15.1	25.8	10.8	21.5	15.1	23.4	13.2	27.9	8.7	28.0	8.6	23.7	12.9	25.6	11.0	20.9	15.7	26.2	10.4	24.4	12.2
08:45 - 09:00	36.3	23.8	12.5	30.8	5.5	23.5	12.8	27.6	8.7	27.5	8.8	27.6	8.7	25.9	10.4	33.4	2.9	28.8	7.5	18.2	18.1	27.6	8.7	26.8	9.5
09:00 - 09:15	38.5	30.2	8.3	51.1	-12.6	35.0	3.5	50.9	-12.4	36.9	1.6	37.5	1.0	36.9	1.6	35.8	2.7	23.6	14.9	42.8	- 4.3	47.3	- 8.8	38.9	- 0.4
09:15 - 09:30	36.9	53.4	-16.5	69.9	-33.0	68.4	-31.5	69.6	-32.7	46.8	- 9.9	69.7	-32.8	50.6	-13.7	69.4	-32.5	59.6	-22.7	67.5	-30.6	69.7	-32.8	63.2	-26.3
Hour 1	71.8	70.1	1.7	70.6	1.2	70.4	1.4	69.9	1.9	70.6	1.2	70.3	1.5	70.3	1.5	70.1	1.8	70.4	1.4	70.1	1.7	69.9	1.9	70.3	1.6
Hour 2	50.1	36.4	13.8	36.5	13.7	38.4	11.8	38.6	11.6	36.3	13.9	36.5	13.7	37.0	13.2	38.5	11.6	36.7	13.5	36.8	13.3	37.7	12.4	37.2	12.9
Hour 3	29.4	21.3	8.1	23.6	5.7	22.6	6.8	21.7	7.7	21.1	8.2	23.1	6.2	21.4	8.0	23.8	5.6	22.2	7.2	22.1	7.3	21.6	7.8	22.3	7.1
Hour 4	37.1	32.7	4.4	43.3	- 6.3	38.2	- 1.1	42.4	- 5.3	33.7	3.4	40.7	- 3.6	35.4	1.7	40.6	- 3.5	34.4	2.7	37.4	- 0.3	42.7	- 5.6	38.3	- 1.3
11	47.1	40.1	7.0	43.5	3.6	42.4	4.7	43.1	4.0	40.4	6.7	42.6	4.5	41.0	6.1	43.2	3.9	40.9	6.2	41.6	5.5	43.0	4.1	42.0	5.1



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

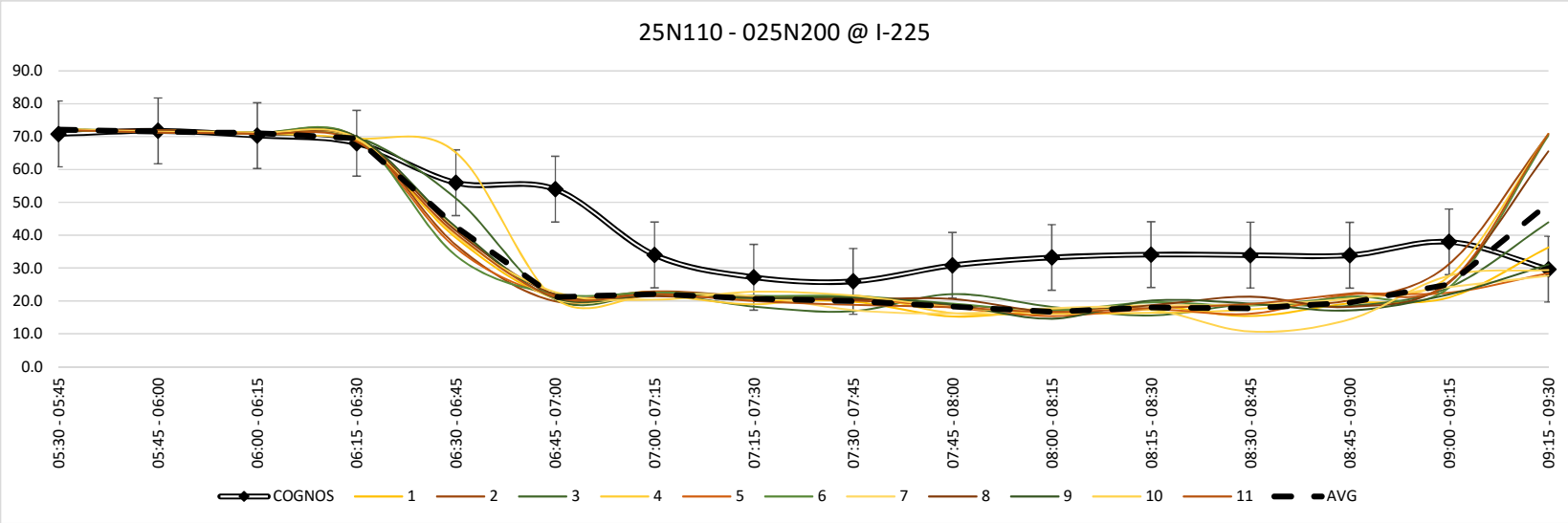
AM	COGNOS	MODEL																						AGGREGATE	
TIME	25N100	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	72.3	72.1	0.2	72.1	0.2	72.2	0.1	72.3	0.0	72.2	0.1	72.3	0.0	72.2	0.1	71.8	0.5	72.1	0.2	72.0	0.3	72.1	0.2	72.1	0.2
05:45 - 06:00	71.9	71.8	0.1	71.7	0.2	71.4	0.5	71.4	0.5	71.6	0.3	71.3	0.6	71.6	0.3	72.0	- 0.1	71.5	0.4	71.6	0.3	71.4	0.5	71.6	0.3
06:00 - 06:15	70.9	71.2	- 0.3	71.1	- 0.2	70.7	0.2	71.1	- 0.2	71.0	- 0.1	71.2	- 0.3	71.0	- 0.1	71.1	- 0.2	71.1	- 0.2	71.3	- 0.4	70.9	- 0.0	71.1	- 0.2
06:15 - 06:30	67.9	69.3	- 1.5	69.6	- 1.8	69.8	- 2.0	69.1	- 1.3	69.7	- 1.9	69.3	- 1.5	69.5	- 1.7	69.3	- 1.5	69.3	- 1.5	69.7	- 1.9	68.5	- 0.7	69.4	- 1.6
06:30 - 06:45	64.6	64.7	- 0.1	59.1	5.5	69.6	- 5.0	69.9	- 5.3	57.0	7.6	54.8	9.8	69.4	- 4.8	68.9	- 4.3	66.9	- 2.3	58.8	5.8	63.1	1.5	63.8	0.8
06:45 - 07:00	61.0	23.8	37.2	21.3	39.7	26.2	34.8	29.4	31.6	24.1	36.9	23.6	37.4	23.7	37.3	26.9	34.1	23.5	37.5	25.2	35.8	23.2	37.8	24.6	36.4
07:00 - 07:15	37.9	23.8	14.1	23.5	14.4	23.1	14.8	22.3	15.6	25.3	12.6	24.3	13.6	23.9	14.0	24.0	13.9	23.7	14.2	23.8	14.1	23.4	14.5	23.7	14.2
07:15 - 07:30	30.3	21.6	8.7	22.4	7.9	19.8	10.5	19.4	10.9	21.4	8.9	23.2	7.1	23.3	7.0	20.6	9.7	23.1	7.2	22.9	7.4	23.3	7.0	21.9	8.4
07:30 - 07:45	25.9	22.4	3.5	23.6	2.3	20.7	5.2	23.9	2.0	23.1	2.8	23.6	2.3	18.8	7.1	19.8	6.1	22.1	3.8	25.1	0.8	22.0	3.9	22.3	3.6
07:45 - 08:00	24.7	20.8	3.9	20.9	3.8	17.4	7.3	21.8	2.9	18.6	6.1	21.0	3.7	18.6	6.1	22.8	1.9	21.7	3.0	17.2	7.5	19.3	5.4	20.0	4.7
08:00 - 08:15	32.7	18.9	13.8	18.7	14.0	21.6	11.1	16.2	16.5	16.6	16.1	20.7	12.0	20.2	12.5	20.3	12.4	17.3	15.4	17.8	14.9	17.8	14.9	18.7	14.0
08:15 - 08:30	34.3	18.9	15.4	18.4	15.9	18.1	16.2	17.5	16.8	18.7	15.6	19.6	14.7	18.8	15.5	19.3	15.0	19.4	14.9	17.5	16.8	17.4	16.9	18.5	15.8
08:30 - 08:45	38.6	16.8	21.8	20.7	17.9	20.8	17.8	19.3	19.3	17.8	20.8	22.3	16.3	22.1	16.5	23.1	15.5	23.9	14.7	20.7	17.9	22.1	16.5	20.9	17.7
08:45 - 09:00	35.4	20.5	14.9	25.4	10.0	21.1	14.3	24.0	11.4	24.8	10.6	23.9	11.5	23.4	12.0	22.9	12.5	20.3	15.1	16.6	18.8	23.2	12.2	22.4	13.0
09:00 - 09:15	41.9	24.1	17.8	43.0	- 1.1	28.0	13.9	36.0	5.9	27.6	14.3	29.3	12.6	27.9	14.0	29.5	12.4	24.8	17.1	32.9	9.0	41.5	0.4	31.3	10.6
09:15 - 09:30	39.3	45.6	- 6.3	70.8	-31.5	70.0	-30.7	70.9	-31.6	42.3	- 3.0	70.6	-31.3	38.9	0.4	70.2	-30.9	35.7	3.6	35.2	4.1	71.0	-31.7	56.5	-17.2
Hour 1	70.7	71.1	- 0.4	71.1	- 0.4	71.0	- 0.3	71.0	- 0.2	71.1	- 0.4	71.0	- 0.3	71.1	- 0.3	71.1	- 0.3	71.0	- 0.3	71.2	- 0.4	70.7	0.0	71.1	- 0.3
Hour 2	48.5	33.5	15.0	31.6	16.9	34.7	13.8	35.3	13.2	32.0	16.5	31.5	17.0	35.1	13.4	35.1	13.4	34.3	14.2	32.7	15.8	33.3	15.2	33.5	15.0
Hour 3	29.4	20.3	9.1	20.4	9.0	19.5	9.9	19.9	9.5	19.3	10.1	21.2	8.1	19.1	10.3	20.6	8.8	20.1	9.2	19.4	10.0	19.1	10.2	19.9	9.5
Hour 4	38.8	26.8	12.0	40.0	- 1.2	35.0	3.8	37.6	1.2	28.1	10.7	36.5	2.3	28.1	10.7	36.4	2.4	26.2	12.6	26.4	12.4	39.5	- 0.7	32.8	6.0
11	46.8	37.9	8.9	40.8	6.1	40.0	6.8	40.9	5.9	37.6	9.2	40.1	6.8	38.3	8.5	40.8	6.0	37.9	8.9	37.4	9.4	40.6	6.2	39.3	7.5



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

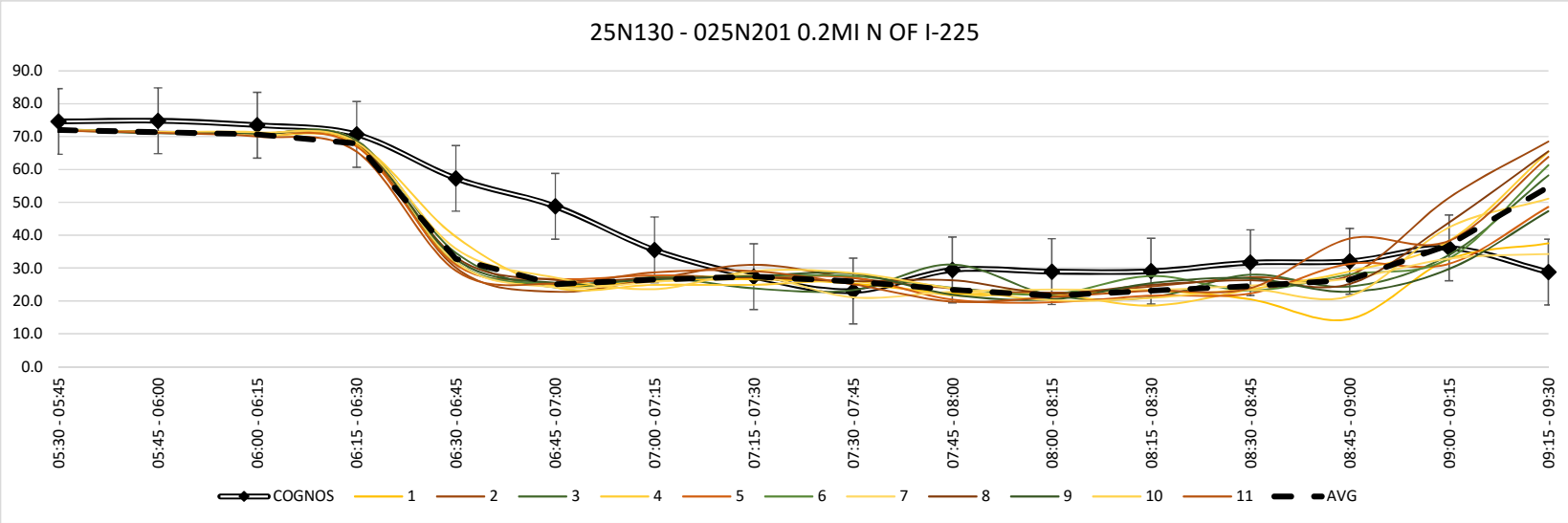
AM	COGNOS	MODEL																						AGGREGATE	
TIME	25N110	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	70.8	71.8	- 1.0	72.2	- 1.4	72.1	- 1.3	72.1	- 1.3	72.1	- 1.3	72.4	- 1.6	72.2	- 1.4	71.9	- 1.1	72.1	- 1.3	72.2	- 1.4	72.1	- 1.3	72.1	- 1.3
05:45 - 06:00	71.7	71.9	- 0.2	71.5	0.2	71.5	0.2	71.3	0.4	71.6	0.1	71.4	0.3	71.7	0.0	72.0	- 0.3	71.4	0.3	71.5	0.2	71.2	0.5	71.5	0.2
06:00 - 06:15	70.3	70.8	- 0.5	71.2	- 0.9	70.8	- 0.5	70.9	- 0.6	71.0	- 0.7	71.2	- 0.9	71.2	- 0.9	70.8	- 0.5	71.2	- 0.9	71.2	- 0.9	70.8	- 0.5	71.0	- 0.7
06:15 - 06:30	68.0	68.8	- 0.8	69.9	- 1.9	69.8	- 1.8	69.5	- 1.5	69.4	- 1.4	69.8	- 1.8	69.4	- 1.4	69.6	- 1.6	70.0	- 2.0	69.5	- 1.5	68.5	- 0.5	69.5	- 1.5
06:30 - 06:45	56.0	39.2	16.8	37.0	19.0	51.2	4.8	65.2	- 9.2	36.1	19.9	33.8	22.2	42.1	13.9	41.4	14.6	42.5	13.5	39.8	16.2	40.5	15.5	42.6	13.4
06:45 - 07:00	54.0	21.0	33.0	19.9	34.1	20.4	33.6	20.7	33.3	21.6	32.4	22.2	31.8	20.6	33.4	22.0	32.0	20.9	33.1	22.7	31.3	21.2	32.8	21.2	32.8
07:00 - 07:15	34.0	22.9	11.1	22.9	11.1	22.2	11.8	21.7	12.3	22.8	11.2	22.6	11.4	21.9	12.1	21.4	12.6	22.0	12.0	20.4	13.6	22.1	11.9	22.1	11.9
07:15 - 07:30	27.2	20.2	7.0	21.3	5.9	18.3	8.9	19.0	8.2	21.2	6.0	21.6	5.6	21.5	5.7	20.9	6.3	20.9	6.3	22.8	4.4	20.0	7.2	20.7	6.5
07:30 - 07:45	26.0	19.8	6.2	20.1	5.9	16.9	9.1	21.7	4.3	20.8	5.2	21.5	4.5	17.2	8.8	20.5	5.5	21.1	4.9	21.6	4.4	18.8	7.2	20.0	6.0
07:45 - 08:00	30.8	15.3	15.5	18.8	12.0	22.1	8.7	16.3	14.5	18.0	12.8	19.2	11.6	16.2	14.6	20.6	10.2	18.9	11.9	18.1	12.7	18.1	12.7	18.3	12.5
08:00 - 08:15	33.2	17.3	15.9	17.1	16.1	18.2	15.0	16.1	17.1	15.4	17.8	17.1	16.1	17.8	15.4	16.7	16.5	14.6	18.6	16.5	16.7	16.6	16.6	16.7	16.5
08:15 - 08:30	34.1	18.5	15.6	18.4	15.7	15.6	18.5	16.4	17.7	17.4	16.7	19.6	14.5	18.5	15.6	18.7	15.4	20.1	14.0	17.3	16.8	17.8	16.3	18.0	16.1
08:30 - 08:45	33.9	15.4	18.5	19.0	14.9	19.1	14.8	17.4	16.5	16.1	17.8	18.6	15.3	18.9	15.0	21.3	12.6	19.2	14.7	10.7	23.2	19.1	14.8	17.7	16.2
08:45 - 09:00	33.9	19.3	14.6	20.2	13.7	18.5	15.4	21.0	12.9	21.9	12.0	21.3	12.6	20.6	13.3	18.2	15.7	17.1	16.8	14.4	19.5	22.3	11.6	19.5	14.4
09:00 - 09:15	38.0	21.1	16.9	31.2	6.8	24.1	13.9	27.5	10.5	22.5	15.5	24.1	13.9	24.2	13.8	25.8	12.2	22.0	16.0	27.7	10.3	25.5	12.5	25.1	12.9
09:15 - 09:30	29.7	36.3	- 6.6	70.8	-41.1	43.9	-14.2	70.8	-41.1	28.4	1.3	70.3	-40.6	27.7	2.0	65.5	-35.8	31.1	- 1.4	29.4	0.3	70.8	-41.1	49.6	-19.9
Hour 1	70.2	70.8	- 0.6	71.2	- 1.0	71.1	- 0.9	71.0	- 0.8	71.0	- 0.8	71.2	- 1.0	71.1	- 0.9	71.1	- 0.9	71.2	- 1.0	71.1	- 0.9	70.7	- 0.5	71.0	- 0.8
Hour 2	42.8	25.8	17.0	25.3	17.5	28.0	14.8	31.7	11.1	25.4	17.4	25.1	17.7	26.5	16.3	26.4	16.4	26.6	16.2	26.4	16.4	26.0	16.8	26.7	16.1
Hour 3	31.0	17.7	13.3	18.6	12.4	18.2	12.8	17.6	13.4	17.9	13.1	19.4	11.7	17.4	13.6	19.1	11.9	18.7	12.3	18.4	12.6	17.8	13.2	18.3	12.8
Hour 4	33.9	23.0	10.8	35.3	- 1.4	26.4	7.5	34.2	- 0.3	22.2	11.6	33.6	0.3	22.9	11.0	32.7	1.2	22.4	11.5	20.6	13.3	34.4	- 0.6	28.0	5.9
11	44.5	34.4	10.1	37.6	6.9	35.9	8.6	38.6	5.9	34.1	10.3	37.3	7.2	34.5	10.0	37.3	7.1	34.7	9.8	34.1	10.4	37.2	7.3	36.0	8.5



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

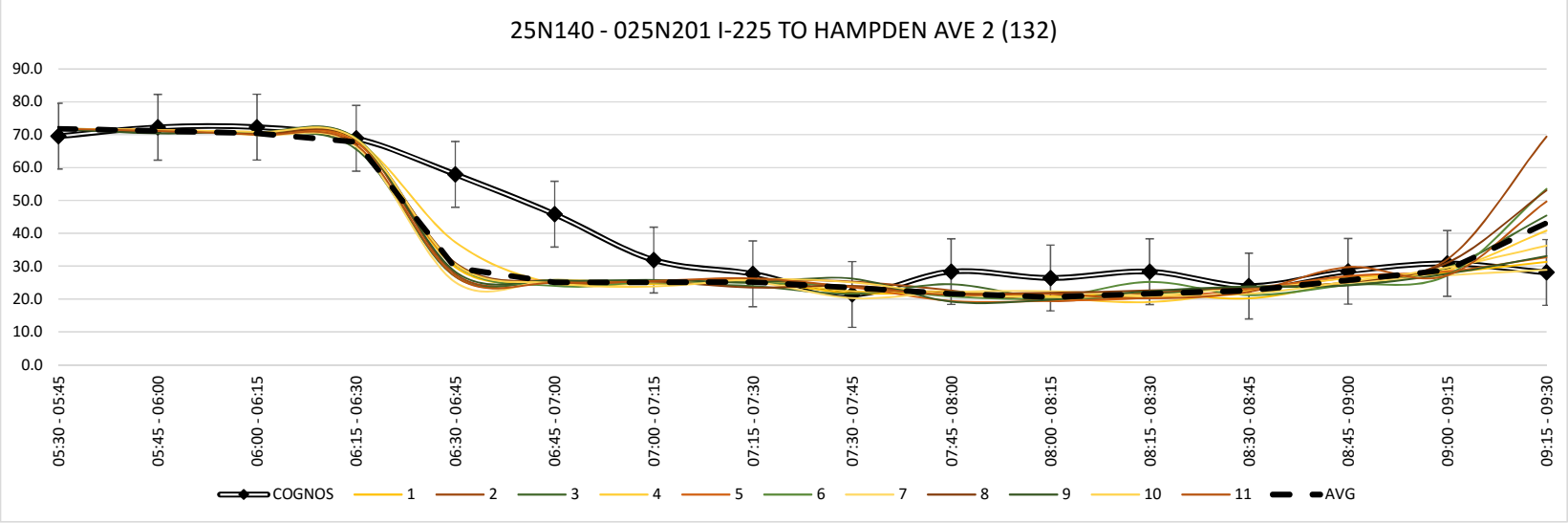
AM	COGNOS	MODEL																						AGGREGATE	
TIME	25N130	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	74.6	72.0	2.6	72.1	2.5	72.1	2.5	71.8	2.8	72.0	2.6	72.2	2.4	72.1	2.5	71.9	2.7	71.9	2.7	72.0	2.6	71.8	2.8	72.0	2.6
05:45 - 06:00	74.8	71.3	3.5	71.2	3.6	71.4	3.4	71.4	3.4	71.2	3.6	71.4	3.4	71.4	3.4	71.5	3.3	71.0	3.8	71.4	3.4	71.1	3.7	71.3	3.5
06:00 - 06:15	73.5	70.7	2.8	71.0	2.5	70.4	3.1	70.4	3.1	70.9	2.6	71.0	2.5	70.5	3.0	71.0	2.5	70.9	2.6	71.3	2.2	70.0	3.5	70.7	2.8
06:15 - 06:30	70.7	67.4	3.3	68.3	2.4	68.8	1.9	68.0	2.7	67.0	3.7	68.6	2.1	68.6	2.1	68.1	2.6	68.6	2.1	68.2	2.5	65.4	5.3	67.9	2.8
06:30 - 06:45	57.3	31.5	25.8	30.1	27.2	34.6	22.7	39.5	17.8	31.0	26.3	31.8	25.5	31.8	25.5	33.3	24.0	32.7	24.6	35.9	21.4	29.2	28.1	32.8	24.5
06:45 - 07:00	48.8	24.8	24.0	22.8	26.0	24.1	24.7	24.1	24.7	26.7	22.1	25.2	23.6	24.2	24.6	26.4	22.4	25.5	23.3	27.1	21.7	25.3	23.5	25.1	23.7
07:00 - 07:15	35.5	26.0	9.5	26.8	8.7	27.2	8.3	24.9	10.6	27.8	7.7	27.0	8.5	25.8	9.7	26.9	8.6	26.6	8.9	23.6	11.9	28.7	6.8	26.5	9.0
07:15 - 07:30	27.4	26.6	0.8	31.0	- 3.6	23.8	3.6	24.9	2.5	27.1	0.3	27.5	- 0.1	27.7	- 0.3	27.2	0.2	27.6	- 0.2	29.1	- 1.7	29.1	- 1.7	27.4	- 0.0
07:30 - 07:45	23.0	25.3	- 2.3	27.0	- 4.0	23.3	- 0.3	26.0	- 3.0	27.1	- 4.1	27.6	- 4.6	21.1	1.9	26.0	- 3.0	28.3	- 5.3	28.5	- 5.5	25.1	- 2.1	25.9	- 2.9
07:45 - 08:00	29.4	22.3	7.1	23.8	5.6	31.1	- 1.7	21.7	7.7	20.4	9.0	24.0	5.4	22.8	6.6	26.3	3.1	21.9	7.5	23.8	5.6	19.8	9.6	23.4	6.0
08:00 - 08:15	28.9	22.3	6.6	22.5	6.4	21.7	7.2	22.1	6.8	19.6	9.3	22.0	6.9	23.5	5.4	22.3	6.6	20.5	8.4	20.2	8.7	21.2	7.7	21.6	7.3
08:15 - 08:30	29.0	23.2	5.8	24.4	4.6	21.1	7.9	18.6	10.4	21.6	7.4	27.6	1.4	23.4	5.6	24.9	4.1	25.4	3.6	20.9	8.1	23.1	5.9	23.1	5.9
08:30 - 08:45	31.6	20.5	11.1	27.2	4.4	28.0	3.6	23.5	8.1	22.3	9.3	23.2	8.4	24.7	6.9	26.3	5.3	26.9	4.7	23.4	8.2	23.9	7.7	24.5	7.1
08:45 - 09:00	32.1	14.5	17.6	27.8	4.3	24.4	7.7	29.0	3.1	31.3	0.8	28.1	4.0	26.8	5.3	25.2	6.9	22.8	9.3	21.5	10.6	39.0	- 6.9	26.4	5.7
09:00 - 09:15	36.1	32.7	3.4	51.4	-15.3	34.0	2.1	38.3	- 2.2	31.3	4.8	32.9	3.2	32.9	3.2	43.9	- 7.8	29.7	6.4	42.4	- 6.3	38.3	- 2.2	37.1	- 1.0
09:15 - 09:30	28.8	37.5	- 8.7	68.5	-39.7	58.2	-29.4	65.4	-36.6	48.6	-19.8	61.3	-32.5	34.3	- 5.5	65.5	-36.7	47.3	-18.5	51.1	-22.3	63.8	-35.0	54.7	-25.9
Hour 1	73.4	70.4	3.0	70.7	2.7	70.7	2.7	70.4	3.0	70.3	3.1	70.8	2.6	70.7	2.7	70.6	2.8	70.6	2.8	70.7	2.7	69.6	3.8	70.5	2.9
Hour 2	42.2	27.2	15.0	27.7	14.6	27.4	14.8	28.4	13.9	28.2	14.1	27.9	14.4	27.4	14.9	28.5	13.8	28.1	14.1	28.9	13.3	28.1	14.2	28.0	14.3
Hour 3	27.6	23.3	4.3	24.4	3.2	24.3	3.3	22.1	5.5	22.2	5.4	25.3	2.3	22.7	4.9	24.9	2.7	24.0	3.6	23.4	4.3	22.3	5.3	23.5	4.1
Hour 4	32.2	26.3	5.9	43.7	-11.6	36.2	- 4.0	39.1	- 6.9	33.4	- 1.2	36.4	- 4.2	29.7	2.5	40.2	- 8.1	31.7	0.5	34.6	- 2.4	41.3	- 9.1	35.7	- 3.5
11	43.8	36.8	7.1	41.6	2.2	39.6	4.2	40.0	3.9	38.5	5.3	40.1	3.8	37.6	6.2	41.0	2.8	38.6	5.2	39.4	4.4	40.3	3.5	39.4	4.4



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

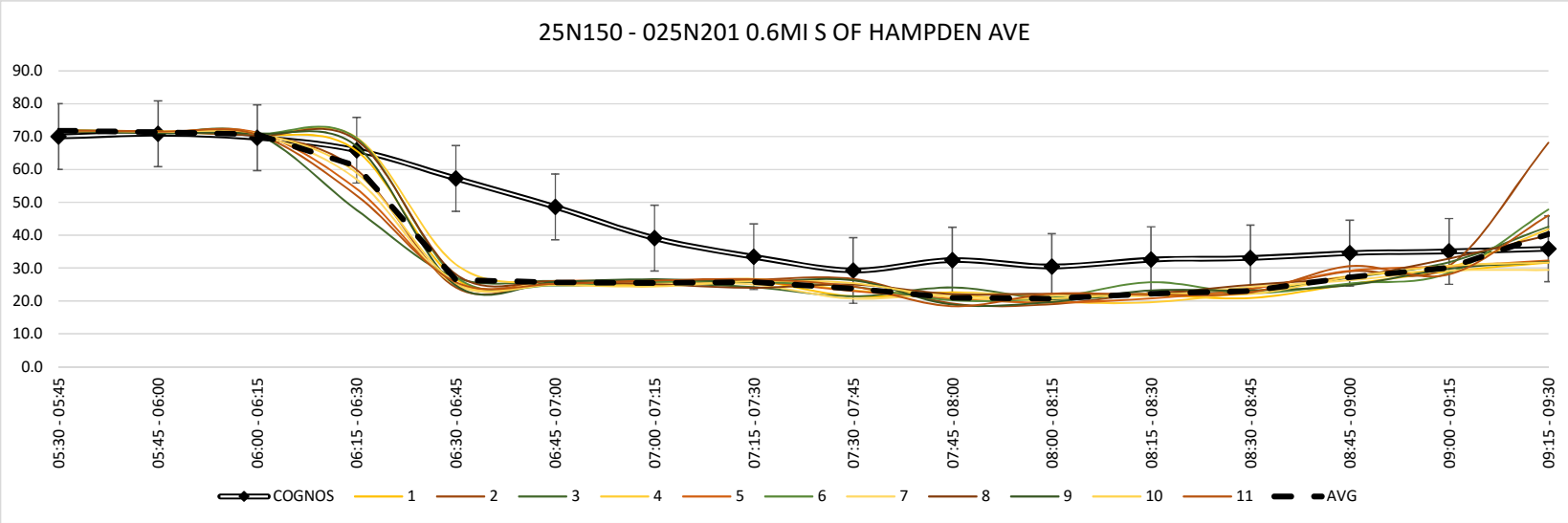
AM	COGNOS	MODEL																						AGGREGATE	
TIME	25N140	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	69.5	71.7	- 2.2	71.8	- 2.3	71.9	- 2.4	71.8	- 2.3	71.8	- 2.3	71.9	- 2.4	71.8	- 2.3	71.5	- 2.0	71.7	- 2.2	71.9	- 2.4	71.8	- 2.3	71.8	- 2.3
05:45 - 06:00	72.2	71.4	0.8	71.0	1.2	71.0	1.2	71.4	0.8	71.4	0.8	71.2	1.0	71.3	0.9	71.2	1.0	70.4	1.8	71.3	0.9	71.1	1.1	71.1	1.1
06:00 - 06:15	72.3	70.4	1.9	70.5	1.8	70.4	1.9	70.4	1.9	70.5	1.8	70.6	1.7	69.8	2.5	70.1	2.2	70.8	1.5	70.8	1.5	70.0	2.3	70.4	1.9
06:15 - 06:30	68.9	68.0	0.9	68.4	0.5	65.6	3.3	68.1	0.8	67.7	1.2	68.9	0.0	66.4	2.5	68.5	0.4	68.8	0.1	68.7	0.2	66.9	2.0	67.8	1.1
06:30 - 06:45	57.9	29.7	28.2	27.6	30.3	26.8	31.1	37.3	20.6	30.4	27.5	30.5	27.4	25.1	32.8	31.0	26.9	28.3	29.6	30.6	27.3	26.9	31.0	29.5	28.4
06:45 - 07:00	45.8	25.0	20.8	25.4	20.4	25.8	20.0	24.7	21.1	25.5	20.3	24.0	21.8	25.8	20.0	25.0	20.8	25.7	20.1	24.8	21.0	24.9	20.9	25.1	20.7
07:00 - 07:15	31.9	24.6	7.3	25.1	6.8	24.9	7.0	25.0	6.9	25.6	6.3	25.2	6.7	25.2	6.7	25.3	6.6	25.8	6.1	23.8	8.1	25.5	6.4	25.1	6.8
07:15 - 07:30	27.7	25.3	2.4	25.9	1.8	23.9	3.8	25.8	1.9	25.8	1.9	24.9	2.8	25.2	2.5	23.5	4.2	25.1	2.6	26.0	1.7	26.3	1.4	25.2	2.5
07:30 - 07:45	21.4	21.8	- 0.4	25.3	- 3.9	21.6	- 0.2	22.4	- 1.0	23.6	- 2.2	23.9	- 2.5	20.3	1.1	24.0	- 2.6	26.2	- 4.8	25.1	- 3.7	23.7	- 2.3	23.4	- 2.0
07:45 - 08:00	28.4	22.0	6.4	22.6	5.8	24.5	3.9	22.3	6.1	19.4	9.0	20.8	7.6	22.1	6.3	21.7	6.7	19.2	9.2	21.4	7.0	21.3	7.1	21.6	6.8
08:00 - 08:15	26.4	20.9	5.5	19.4	7.0	20.1	6.3	20.4	6.0	19.5	6.9	20.4	6.0	22.4	4.0	21.9	4.5	19.8	6.6	20.6	5.8	21.5	4.9	20.6	5.8
08:15 - 08:30	28.3	21.9	6.4	21.8	6.5	21.4	6.9	19.1	9.2	20.4	7.9	25.2	3.1	21.2	7.1	22.6	5.7	22.4	5.9	20.9	7.4	20.2	8.1	21.6	6.7
08:30 - 08:45	23.9	20.2	3.7	23.5	0.4	23.5	0.4	22.6	1.3	23.0	0.9	21.2	2.7	23.5	0.4	23.5	0.4	23.8	0.1	21.6	2.3	22.2	1.7	22.6	1.3
08:45 - 09:00	28.4	25.1	3.3	26.6	1.8	24.3	4.1	26.4	2.0	27.0	1.4	24.3	4.1	24.9	3.5	25.1	3.3	24.1	4.3	25.3	3.1	29.7	- 1.3	25.7	2.7
09:00 - 09:15	30.8	28.0	2.8	32.1	- 1.3	29.6	1.2	28.8	2.0	28.4	2.4	27.2	3.6	27.2	3.6	31.0	- 0.2	27.7	3.1	29.6	1.2	27.2	3.6	28.8	2.0
09:15 - 09:30	28.1	31.3	- 3.2	69.4	-41.3	45.4	-17.3	40.8	-12.7	32.7	- 4.6	53.5	-25.4	28.9	- 0.8	53.0	-24.9	33.1	- 5.0	36.2	- 8.1	49.7	-21.6	43.1	-15.0
Hour 1	70.7	70.4	0.4	70.4	0.3	69.7	1.0	70.4	0.3	70.4	0.4	70.7	0.1	69.8	0.9	70.3	0.4	70.4	0.3	70.7	0.1	70.0	0.8	70.3	0.5
Hour 2	40.8	26.2	14.7	26.0	14.8	25.4	15.5	28.2	12.6	26.8	14.0	26.2	14.7	25.3	15.5	26.2	14.6	26.2	14.6	26.3	14.5	25.9	14.9	26.2	14.6
Hour 3	26.1	21.7	4.5	22.3	3.8	21.9	4.2	21.1	5.1	20.7	5.4	22.6	3.5	21.5	4.6	22.6	3.6	21.9	4.2	22.0	4.1	21.7	4.4	21.8	4.3
Hour 4	27.8	26.2	1.7	37.9	-10.1	30.7	- 2.9	29.7	- 1.8	27.8	0.0	31.6	- 3.7	26.1	1.7	33.2	- 5.3	27.2	0.6	28.2	- 0.4	32.2	- 4.4	30.1	- 2.2
11	41.4	36.1	5.3	39.2	2.2	36.9	4.5	37.3	4.0	36.4	5.0	37.7	3.6	35.7	5.7	38.1	3.3	36.4	4.9	36.8	4.6	37.4	3.9	37.1	4.3



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

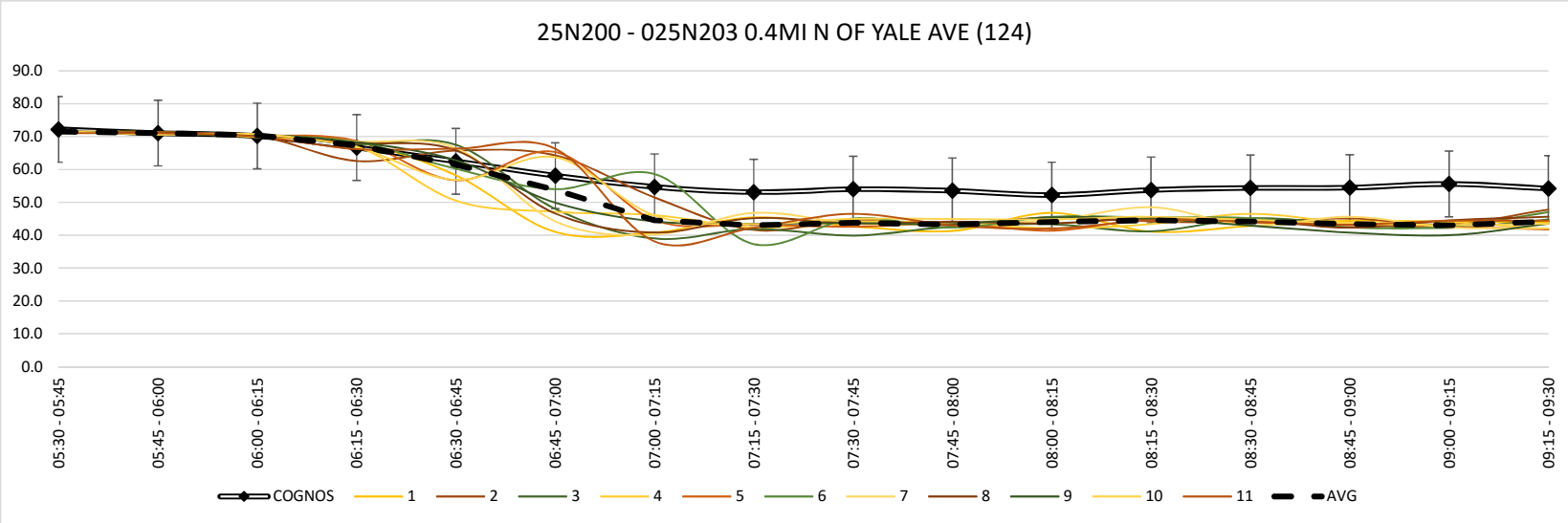
AM	COGNOS	MODEL																						AGGREGATE	
TIME	25N150	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	70.0	71.8	- 1.8	71.8	- 1.8	71.8	- 1.8	71.5	- 1.5	71.6	- 1.6	72.1	- 2.1	71.9	- 1.9	71.6	- 1.6	71.7	- 1.7	71.9	- 1.9	71.9	- 1.9	71.8	- 1.8
05:45 - 06:00	70.8	71.6	- 0.8	71.3	- 0.5	71.2	- 0.4	71.4	- 0.6	71.2	- 0.4	71.3	- 0.5	71.4	- 0.6	71.5	- 0.7	71.0	- 0.2	71.4	- 0.6	71.5	- 0.7	71.3	- 0.5
06:00 - 06:15	69.6	70.6	- 1.0	70.7	- 1.1	70.6	- 1.0	70.5	- 0.9	71.1	- 1.5	70.8	- 1.2	70.4	- 0.8	70.3	- 0.7	70.9	- 1.3	70.9	- 1.3	70.6	- 1.0	70.7	- 1.1
06:15 - 06:30	65.9	65.7	0.1	59.9	6.0	47.7	18.2	69.7	- 3.9	54.1	11.8	69.5	- 3.7	57.0	8.8	68.9	- 3.1	67.1	- 1.3	59.0	6.8	52.1	13.8	61.0	4.8
06:30 - 06:45	57.3	26.6	30.7	24.1	33.2	27.1	30.2	31.1	26.2	25.4	31.9	27.3	30.0	24.9	32.4	28.1	29.2	24.7	32.6	25.6	31.7	25.7	31.6	26.4	30.9
06:45 - 07:00	48.6	25.5	23.1	26.0	22.6	26.1	22.5	25.4	23.2	26.1	22.5	24.7	23.9	25.9	22.7	26.0	22.6	25.8	22.8	24.9	23.7	25.2	23.4	25.6	23.0
07:00 - 07:15	39.1	24.8	14.3	25.3	13.8	25.5	13.6	25.3	13.8	26.0	13.1	25.8	13.3	25.2	13.9	25.1	14.0	26.6	12.5	24.4	14.7	26.2	12.9	25.5	13.6
07:15 - 07:30	33.5	26.0	7.5	26.4	7.1	24.2	9.3	26.7	6.8	25.9	7.6	25.7	7.8	25.0	8.5	24.0	9.5	25.8	7.7	26.0	7.5	26.6	6.9	25.7	7.8
07:30 - 07:45	29.3	21.4	7.9	26.7	2.6	21.4	7.9	23.2	6.1	23.0	6.3	24.3	5.0	20.7	8.6	25.0	4.3	26.3	3.0	25.4	3.9	24.4	4.9	23.8	5.5
07:45 - 08:00	32.4	22.6	9.8	19.2	13.2	24.1	8.3	21.9	10.5	20.7	11.7	20.2	12.2	22.3	10.1	22.1	10.3	18.9	13.5	21.1	11.3	18.4	14.0	21.0	11.4
08:00 - 08:15	30.5	21.5	9.0	19.0	11.5	20.6	9.9	19.8	10.7	19.5	11.0	21.0	9.5	21.7	8.8	22.2	8.3	19.7	10.8	20.8	9.7	22.2	8.3	20.7	9.8
08:15 - 08:30	32.6	21.8	10.8	22.4	10.2	22.2	10.4	19.6	13.0	20.8	11.8	25.7	6.9	21.6	11.0	22.3	10.3	23.2	9.4	22.2	10.4	21.9	10.7	22.2	10.4
08:30 - 08:45	33.1	20.9	12.2	23.8	9.3	22.9	10.2	22.8	10.3	23.6	9.5	22.4	10.7	24.3	8.8	24.9	8.2	23.2	9.9	22.1	11.0	22.6	10.5	23.0	10.1
08:45 - 09:00	34.5	25.1	9.4	29.0	5.5	27.1	7.4	27.6	6.9	29.2	5.3	25.3	9.2	26.3	8.2	27.3	7.2	24.8	9.7	27.3	7.2	30.6	3.9	27.2	7.3
09:00 - 09:15	35.1	29.0	6.1	30.7	4.4	31.8	3.3	30.3	4.8	30.5	4.6	28.5	6.6	29.2	5.9	32.9	2.2	29.8	5.3	30.7	4.4	28.1	7.0	30.1	5.0
09:15 - 09:30	35.9	31.7	4.2	68.1	-32.3	42.6	- 6.8	41.8	- 6.0	32.3	3.6	47.8	-12.0	29.4	6.5	40.0	- 4.2	31.9	4.0	31.7	4.2	46.0	-10.2	40.3	- 4.5
Hour 1	69.1	69.9	- 0.8	68.4	0.7	65.3	3.8	70.8	- 1.7	67.0	2.1	70.9	- 1.8	67.7	1.4	70.6	- 1.5	70.2	- 1.1	68.3	0.8	66.5	2.6	68.7	0.4
Hour 2	44.6	25.7	18.9	25.5	19.2	25.7	18.9	27.1	17.5	25.9	18.8	25.9	18.7	25.3	19.4	25.8	18.8	25.7	18.9	25.2	19.4	25.9	18.7	25.8	18.8
Hour 3	31.2	21.8	9.4	21.8	9.4	22.1	9.1	21.1	10.1	21.0	10.2	22.8	8.4	21.6	9.6	22.9	8.3	22.0	9.2	22.4	8.8	21.7	9.5	21.9	9.3
Hour 4	34.6	26.7	8.0	37.9	- 3.3	31.1	3.5	30.6	4.0	28.9	5.7	31.0	3.6	27.3	7.3	31.3	3.4	27.4	7.2	28.0	6.7	31.8	2.8	30.2	4.5
11	44.9	36.0	8.8	38.4	6.5	36.1	8.8	37.4	7.5	35.7	9.2	37.7	7.2	35.5	9.4	37.6	7.2	36.3	8.5	36.0	8.9	36.5	8.4	36.6	8.2



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

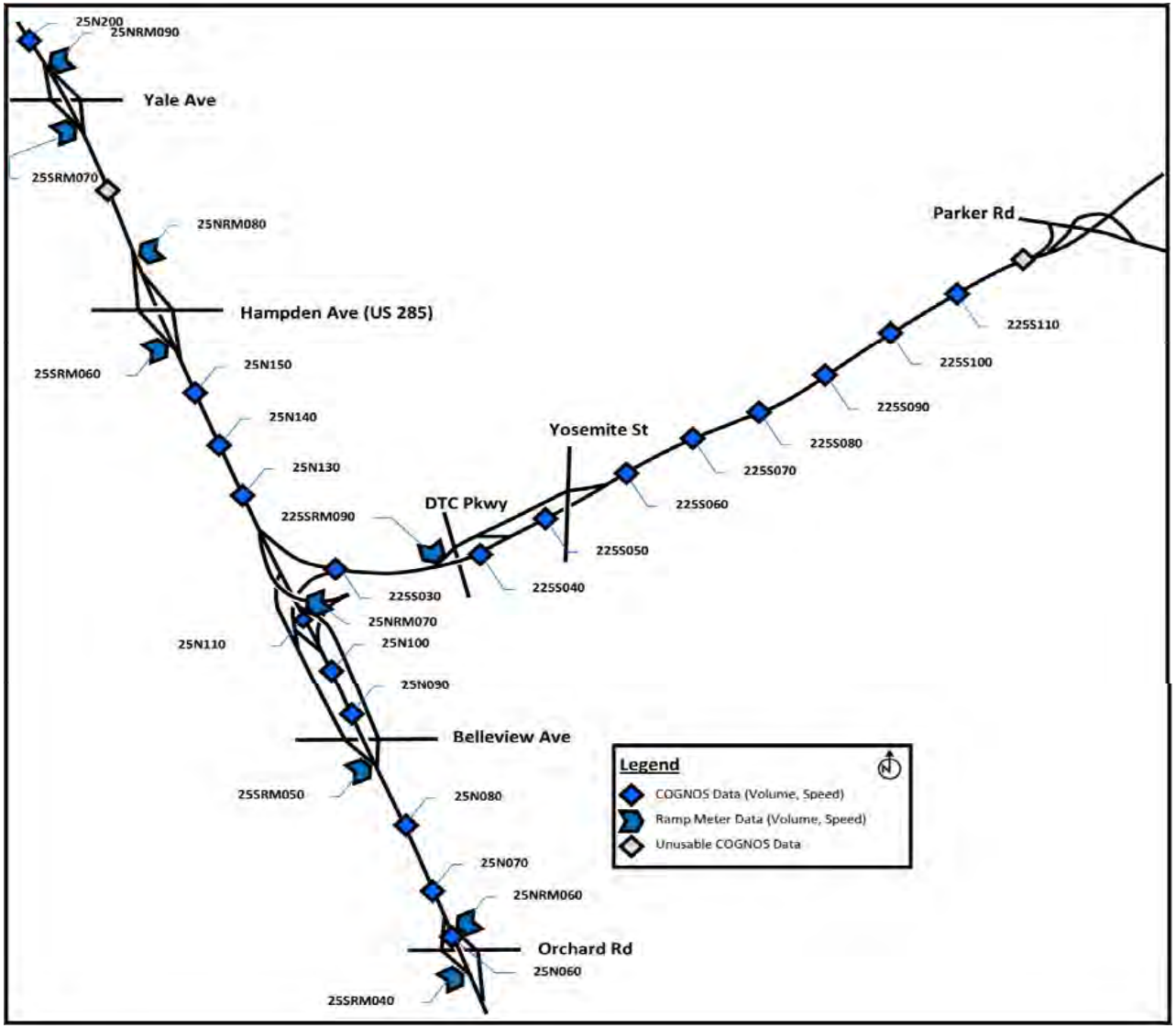
AM	COGNOS	MODEL																						AGGREGATE	
TIME	25N200	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
05:30 - 05:45	72.2	71.5	0.7	71.6	0.6	71.6	0.6	71.4	0.8	71.5	0.7	71.6	0.6	71.4	0.8	71.2	1.0	71.7	0.5	71.7	0.5	71.0	1.2	71.5	0.7
05:45 - 06:00	71.1	71.4	- 0.3	71.1	- 0.0	71.0	0.1	71.0	0.1	70.6	0.5	71.0	0.1	71.1	- 0.0	71.3	- 0.2	70.5	0.6	70.6	0.5	71.0	0.1	71.0	0.1
06:00 - 06:15	70.2	70.4	- 0.2	70.2	- 0.0	70.6	- 0.4	69.8	0.4	70.4	- 0.2	70.4	- 0.2	70.5	- 0.3	70.5	- 0.3	70.5	- 0.3	70.7	- 0.5	70.0	0.2	70.4	- 0.2
06:15 - 06:30	66.7	68.4	- 1.7	62.6	4.1	67.7	- 1.0	67.0	- 0.3	68.7	- 2.0	68.3	- 1.6	68.5	- 1.8	68.1	- 1.4	68.3	- 1.6	66.7	- 0.0	66.2	0.5	67.3	- 0.6
06:30 - 06:45	62.5	58.2	4.3	65.7	- 3.3	67.5	- 5.1	50.5	12.0	56.7	5.8	60.2	2.3	66.5	- 4.1	65.8	- 3.3	62.8	- 0.3	56.8	5.7	66.3	- 3.8	61.5	1.0
06:45 - 07:00	58.1	41.0	17.1	64.3	- 6.2	48.0	10.1	47.1	11.0	65.3	- 7.2	54.0	4.1	44.2	13.9	46.6	11.5	49.9	8.2	63.7	- 5.6	66.3	- 8.2	53.7	4.4
07:00 - 07:15	54.7	40.8	13.9	51.5	3.2	39.0	15.7	46.1	8.6	44.6	10.1	58.6	- 3.9	40.2	14.5	40.8	13.9	44.2	10.5	46.0	8.7	38.1	16.6	44.5	10.2
07:15 - 07:30	53.1	45.4	7.7	41.6	11.5	41.9	11.2	42.4	10.7	43.3	9.8	37.3	15.8	46.8	6.3	45.2	7.9	43.5	9.6	43.4	9.7	42.3	10.8	43.0	10.1
07:30 - 07:45	54.0	42.7	11.3	44.7	9.3	39.9	14.1	44.1	9.9	42.6	11.4	45.1	8.9	43.6	10.4	43.6	10.4	43.7	10.3	45.0	9.0	46.5	7.5	43.8	10.2
07:45 - 08:00	53.5	41.3	12.2	43.0	10.5	42.6	10.9	43.8	9.7	43.5	10.0	42.3	11.2	43.6	9.9	44.1	9.4	43.4	10.1	44.9	8.6	43.0	10.5	43.2	10.3
08:00 - 08:15	52.2	46.8	5.4	45.5	6.7	43.3	8.9	42.1	10.1	41.4	10.8	45.6	6.6	44.5	7.7	43.6	8.6	45.4	6.8	44.8	7.4	42.0	10.2	44.1	8.1
08:15 - 08:30	53.8	41.1	12.7	44.2	9.6	41.2	12.6	43.4	10.4	44.9	8.9	45.4	8.4	48.5	5.3	45.2	8.6	45.0	8.8	45.6	8.2	44.5	9.3	44.5	9.3
08:30 - 08:45	54.4	42.8	11.6	43.9	10.5	45.1	9.3	46.5	7.9	43.9	10.5	45.2	9.2	43.0	11.4	44.6	9.8	42.9	11.5	44.6	9.8	44.1	10.3	44.2	10.2
08:45 - 09:00	54.5	44.4	10.1	45.1	9.4	43.4	11.1	43.8	10.7	43.0	11.5	42.4	12.1	45.6	8.9	42.3	12.2	40.8	13.7	43.6	10.9	43.2	11.3	43.4	11.1
09:00 - 09:15	55.6	44.1	11.5	43.3	12.3	42.2	13.4	44.0	11.6	42.6	13.0	42.6	13.0	42.4	13.2	44.5	11.1	40.0	15.6	43.1	12.5	44.4	11.2	43.0	12.6
09:15 - 09:30	54.2	44.1	10.1	47.8	6.4	44.8	9.4	41.8	12.4	41.7	12.5	47.0	7.2	42.1	12.1	45.6	8.6	43.5	10.7	43.5	10.7	44.4	9.8	44.2	10.0
Hour 1	70.0	70.4	- 0.4	68.9	1.1	70.2	- 0.2	69.8	0.2	70.3	- 0.3	70.3	- 0.3	70.4	- 0.4	70.3	- 0.3	70.3	- 0.2	69.9	0.1	69.6	0.5	70.1	- 0.0
Hour 2	57.1	46.4	10.7	55.8	1.3	49.1	8.0	46.5	10.6	52.5	4.6	52.5	4.6	49.4	7.7	49.6	7.5	50.1	7.0	52.5	4.6	53.3	3.8	50.7	6.4
Hour 3	53.4	43.0	10.4	44.4	9.0	41.8	11.6	43.4	10.0	43.1	10.3	44.6	8.8	45.1	8.3	44.1	9.2	44.4	9.0	45.1	8.3	44.0	9.4	43.9	9.5
Hour 4	54.6	43.9	10.8	45.0	9.6	43.9	10.8	44.0	10.6	42.8	11.8	44.3	10.3	43.3	11.4	44.3	10.4	41.8	12.8	43.7	10.9	44.0	10.6	43.7	10.9
11	58.8	50.9	7.9	53.5	5.3	51.2	7.5	50.9	7.9	52.2	6.6	52.9	5.8	52.0	6.7	52.1	6.7	51.6	7.1	52.8	6.0	52.7	6.1	52.1	6.7



AVERAGE VEHICLE SPEEDS - BY LINK

CONCEPT 3: +10% I-225

ROUTE: I-225
PERIOD: PM

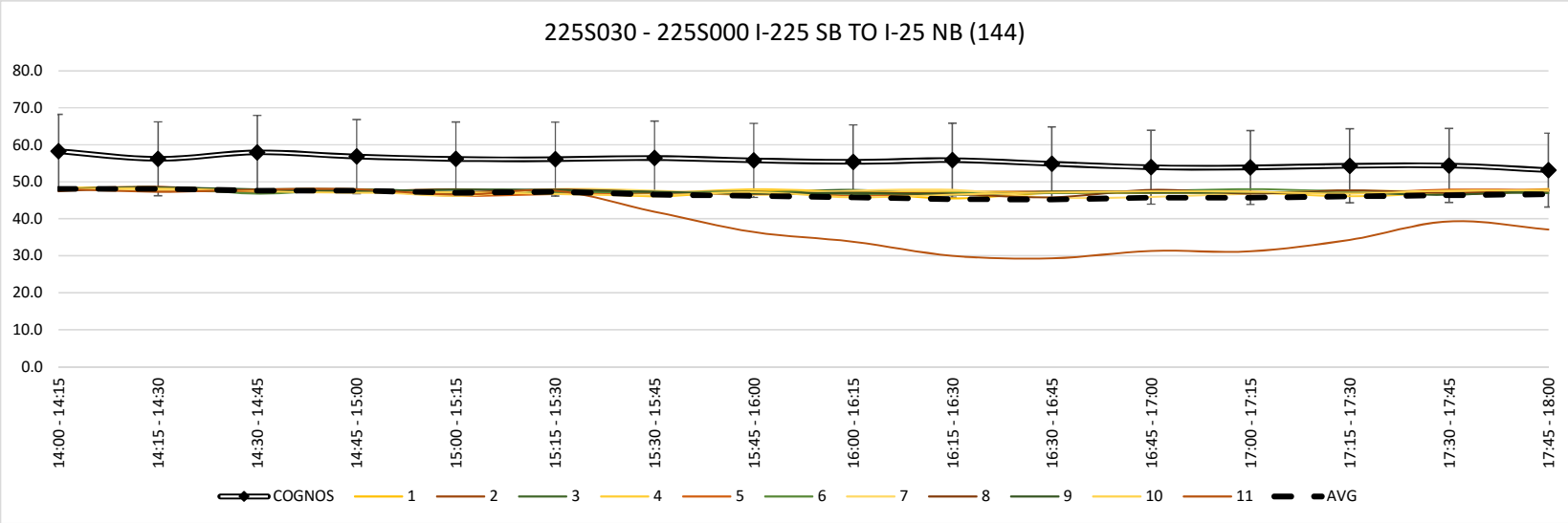


LOCATION	COGNOS DESCRIPTION
225S030	225S000 I-225 SB TO I-25 NB (144)
225SRM090	225S001 TAMARAC
225S040	225S001 YOSEMITE ST TO DTC BLVD (172)
225S050	225S001 YOSEMITE ST (174)
225S060	225S001 PARKER RD TO YOSEMITE ST (176)
225S070	225S001 PARKER RD TO YOSEMITE ST (181)
225S080	225S002 PARKER RD TO YOSEMITE ST (182)
225S090	225S002 PARKER RD TO YOESMEITE ST (183)
225S100	225S002 PARKER RD TO YOSEMITE ST (184)
225S110	225S003 PARKER RD TO YOSEMITE ST (191)

CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

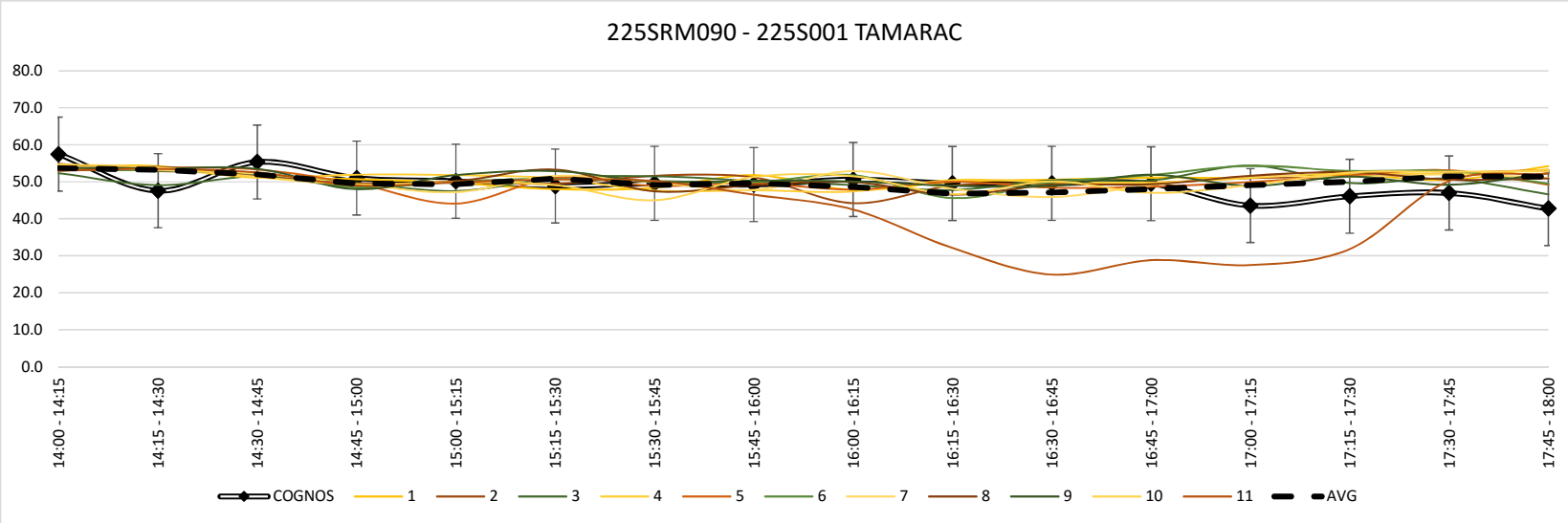
PM	COGNOS	MODEL																						AGGREGATE	
TIME	225S030	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	58.3	48.3	10.0	48.4	9.9	48.0	10.3	48.3	10.0	48.1	10.2	48.1	10.2	48.3	10.0	47.4	10.9	48.0	10.3	48.0	10.3	48.1	10.2	48.1	10.2
14:15 - 14:30	56.2	48.5	7.7	47.7	8.5	47.7	8.5	47.9	8.3	48.6	7.6	48.5	7.7	47.7	8.5	48.6	7.6	48.5	7.7	48.2	8.0	47.3	8.9	48.1	8.1
14:30 - 14:45	58.0	47.8	10.2	47.3	10.7	48.0	10.0	47.8	10.2	47.2	10.8	46.8	11.2	47.8	10.2	47.5	10.5	47.9	10.1	47.5	10.5	47.9	10.1	47.6	10.4
14:45 - 15:00	56.8	47.9	8.9	47.3	9.5	48.0	8.8	47.4	9.4	47.6	9.2	47.9	8.9	47.5	9.3	47.7	9.1	47.5	9.3	47.0	9.8	48.0	8.8	47.6	9.2
15:00 - 15:15	56.2	47.0	9.2	48.0	8.2	47.3	8.9	46.7	9.5	46.2	10.0	46.8	9.4	46.2	10.0	47.1	9.1	47.9	8.3	47.2	9.0	46.5	9.7	47.0	9.2
15:15 - 15:30	56.1	47.5	8.6	46.9	9.2	47.1	9.0	46.8	9.3	46.7	9.4	47.3	8.8	48.0	8.1	47.9	8.2	47.8	8.3	46.7	9.4	47.6	8.5	47.3	8.8
15:30 - 15:45	56.4	46.1	10.3	47.2	9.2	47.1	9.3	46.9	9.5	47.0	9.4	47.1	9.3	47.6	8.8	47.2	9.2	47.3	9.1	46.3	10.1	41.9	14.5	46.5	9.9
15:45 - 16:00	55.8	47.5	8.3	47.2	8.6	47.1	8.7	48.0	7.8	47.3	8.5	47.3	8.5	46.4	9.4	46.7	9.1	46.8	9.0	47.2	8.6	36.4	19.4	46.2	9.6
16:00 - 16:15	55.4	47.1	8.3	47.3	8.1	47.8	7.6	47.3	8.1	46.3	9.1	46.7	8.7	47.6	7.8	47.0	8.4	47.0	8.4	45.8	9.6	33.8	21.6	45.8	9.6
16:15 - 16:30	55.8	45.5	10.3	47.2	8.6	46.5	9.3	47.4	8.4	46.8	9.0	47.0	8.8	47.8	8.0	46.7	9.1	46.6	9.2	46.5	9.3	30.0	25.8	45.3	10.5
16:30 - 16:45	54.9	47.0	7.9	47.4	7.5	47.3	7.6	47.1	7.8	47.1	7.8	46.9	8.0	45.7	9.2	45.8	9.1	47.1	7.8	47.1	7.8	29.3	25.6	45.2	9.7
16:45 - 17:00	53.9	47.1	6.8	47.4	6.5	47.2	6.7	46.9	7.0	47.3	6.6	47.5	6.4	45.9	8.0	47.8	6.1	47.0	6.9	47.4	6.5	31.3	22.6	45.7	8.2
17:00 - 17:15	53.9	47.1	6.8	47.0	6.9	47.1	6.8	47.0	6.9	47.3	6.6	48.0	5.9	46.8	7.1	46.8	7.1	47.1	6.8	47.3	6.6	31.2	22.7	45.7	8.2
17:15 - 17:30	54.3	47.3	7.0	47.6	6.7	47.1	7.2	46.1	8.2	46.9	7.4	47.4	6.9	47.6	6.7	47.7	6.6	47.0	7.3	46.8	7.5	34.3	20.0	46.0	8.3
17:30 - 17:45	54.4	46.7	7.7	46.6	7.8	47.1	7.3	47.0	7.4	47.9	6.5	47.2	7.2	47.4	7.0	47.0	7.4	46.5	7.9	47.6	6.8	39.3	15.1	46.4	8.0
17:45 - 18:00	53.1	47.6	5.5	47.6	5.5	46.9	6.2	48.1	5.0	47.8	5.3	47.5	5.6	47.5	5.6	47.6	5.5	47.7	5.4	47.7	5.4	37.1	16.0	46.6	6.5
Hour 1	57.3	48.1	9.2	47.7	9.6	47.9	9.4	47.9	9.5	47.9	9.4	47.8	9.5	47.8	9.5	47.8	9.5	48.0	9.3	47.7	9.6	47.8	9.5	47.9	9.5
Hour 2	56.1	47.0	9.1	47.3	8.8	47.2	9.0	47.1	9.0	46.8	9.3	47.1	9.0	47.1	9.1	47.2	8.9	47.5	8.7	46.9	9.3	43.1	13.0	46.8	9.4
Hour 3	55.0	46.7	8.3	47.3	7.7	47.2	7.8	47.2	7.8	46.9	8.1	47.0	8.0	46.8	8.3	46.8	8.2	46.9	8.1	46.7	8.3	31.1	23.9	45.5	9.5
Hour 4	53.9	47.2	6.8	47.2	6.7	47.1	6.9	47.1	6.9	47.5	6.5	47.5	6.4	47.3	6.6	47.3	6.7	47.1	6.9	47.4	6.6	35.5	18.5	46.2	7.8
11	55.6	47.3	8.3	47.4	8.2	47.3	8.3	47.3	8.3	47.3	8.3	47.4	8.2	47.2	8.4	47.3	8.3	47.4	8.2	47.1	8.4	39.4	16.2	46.6	9.0



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

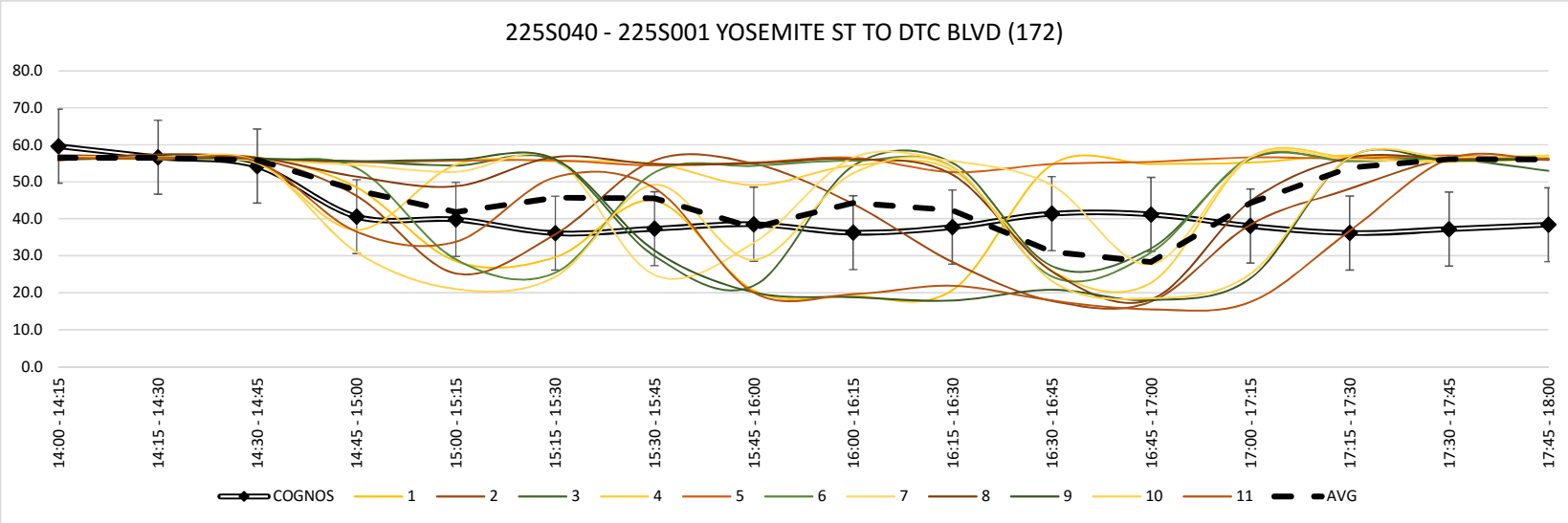
PM	COGNOS	MODEL																						AGGREGATE	
TIME	225SRM090	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	57.5	54.0	3.5	54.9	2.6	52.3	5.2	53.6	3.9	53.9	3.6	53.2	4.3	54.2	3.3	53.0	4.5	53.8	3.7	54.7	2.8	53.0	4.5	53.7	3.8
14:15 - 14:30	47.6	54.2	- 6.6	52.9	- 5.3	49.1	- 1.5	53.6	- 6.0	53.9	- 6.3	53.0	- 5.4	53.2	- 5.6	54.0	- 6.4	53.6	- 6.0	53.9	- 6.3	53.5	- 5.9	53.2	- 5.6
14:30 - 14:45	55.4	51.2	4.2	52.5	2.9	51.5	3.9	51.1	4.3	53.3	2.1	52.0	3.4	52.2	3.2	51.5	3.9	53.5	1.9	51.3	4.1	52.5	2.9	52.0	3.4
14:45 - 15:00	51.0	50.7	0.3	48.7	2.3	49.7	1.3	51.9	- 0.9	49.5	1.5	48.5	2.5	49.4	1.6	49.6	1.4	48.0	3.0	49.3	1.7	49.0	2.0	49.5	1.5
15:00 - 15:15	50.2	49.7	0.5	49.8	0.4	47.5	2.7	51.8	- 1.6	44.1	6.1	50.1	0.1	47.2	3.0	50.2	- 0.0	51.8	- 1.6	49.9	0.3	49.9	0.3	49.3	0.9
15:15 - 15:30	48.8	48.0	0.8	49.5	- 0.7	51.0	- 2.2	50.9	- 2.1	51.1	- 2.3	50.8	- 2.0	51.6	- 2.8	53.3	- 4.5	52.9	- 4.1	49.1	- 0.3	50.6	- 1.8	50.8	- 2.0
15:30 - 15:45	49.6	48.4	1.2	51.6	- 2.0	51.5	- 1.9	47.6	2.0	48.9	0.7	50.2	- 0.6	49.8	- 0.2	47.4	2.2	50.0	- 0.4	45.0	4.6	50.2	- 0.6	49.1	0.5
15:45 - 16:00	49.2	51.8	- 2.6	51.2	- 2.0	50.2	- 1.0	47.7	1.5	49.6	- 0.4	49.9	- 0.7	47.8	1.4	49.1	0.1	50.3	- 1.1	51.3	- 2.1	46.5	2.7	49.6	- 0.4
16:00 - 16:15	50.6	47.8	2.8	44.2	6.4	49.1	1.5	47.4	3.2	47.9	2.7	51.8	- 1.2	52.9	- 2.3	49.9	0.7	50.1	0.5	51.5	- 0.9	42.5	8.1	48.6	2.0
16:15 - 16:30	49.5	50.0	- 0.5	49.0	0.5	47.8	1.7	50.5	- 1.0	50.0	- 0.5	45.6	3.9	48.1	1.4	46.5	3.0	48.9	0.6	46.7	2.8	32.1	17.4	46.8	2.7
16:30 - 16:45	49.6	50.6	- 1.0	49.6	- 0.0	50.4	- 0.8	49.9	- 0.3	48.4	1.2	49.8	- 0.2	45.9	3.7	49.2	0.4	48.9	0.7	50.1	- 0.5	24.9	24.7	47.1	2.5
16:45 - 17:00	49.5	51.1	- 1.6	49.7	- 0.2	50.4	- 0.9	49.8	- 0.3	48.7	0.8	51.8	- 2.3	49.1	0.4	49.3	0.2	51.9	- 2.4	47.0	2.5	28.8	20.7	48.0	1.5
17:00 - 17:15	43.6	51.1	- 7.5	51.0	- 7.4	54.4	-10.8	51.0	- 7.4	49.9	- 6.3	54.3	-10.7	51.5	- 7.9	51.6	- 8.0	48.9	- 5.3	49.1	- 5.5	27.5	16.1	49.1	- 5.5
17:15 - 17:30	46.1	51.9	- 5.8	51.3	- 5.2	49.7	- 3.6	52.4	- 6.3	51.7	- 5.6	52.9	- 6.8	51.3	- 5.2	52.6	- 6.5	51.4	- 5.3	52.5	- 6.4	31.8	14.3	50.0	- 3.9
17:30 - 17:45	47.0	50.5	- 3.5	52.3	- 5.3	50.8	- 3.8	52.2	- 5.2	53.1	- 6.1	52.9	- 5.9	52.0	- 5.0	50.6	- 3.6	49.2	- 2.2	52.7	- 5.7	50.2	- 3.2	51.5	- 4.5
17:45 - 18:00	42.8	54.2	-11.4	53.2	-10.4	46.6	- 3.8	53.3	-10.5	49.2	- 6.4	49.5	- 6.7	51.1	- 8.3	50.9	- 8.1	52.3	- 9.5	52.8	-10.0	52.2	- 9.4	51.4	- 8.6
Hour 1	52.9	52.5	0.3	52.3	0.6	50.7	2.2	52.6	0.3	52.7	0.2	51.7	1.2	52.3	0.6	52.0	0.8	52.2	0.6	52.3	0.6	52.0	0.9	52.1	0.8
Hour 2	49.5	49.5	- 0.0	50.5	- 1.1	50.1	- 0.6	49.5	- 0.0	48.4	1.0	50.3	- 0.8	49.1	0.4	50.0	- 0.5	51.3	- 1.8	48.8	0.6	49.3	0.2	49.7	- 0.2
Hour 3	49.8	49.9	- 0.1	48.1	1.7	49.4	0.4	49.4	0.4	48.8	1.1	49.8	0.0	49.0	0.8	48.7	1.1	50.0	- 0.2	48.8	1.0	32.1	17.7	47.6	2.2
Hour 4	44.8	51.9	- 7.1	52.0	- 7.1	50.4	- 5.5	52.2	- 7.4	51.0	- 6.1	52.4	- 7.6	51.5	- 6.6	51.4	- 6.6	50.5	- 5.6	51.8	- 6.9	40.4	4.4	50.5	- 5.7
11	49.2	51.0	- 1.7	50.7	- 1.5	50.1	- 0.9	50.9	- 1.7	50.2	- 1.0	51.0	- 1.8	50.5	- 1.2	50.5	- 1.3	51.0	- 1.7	50.4	- 1.2	43.5	5.8	50.0	- 0.7



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

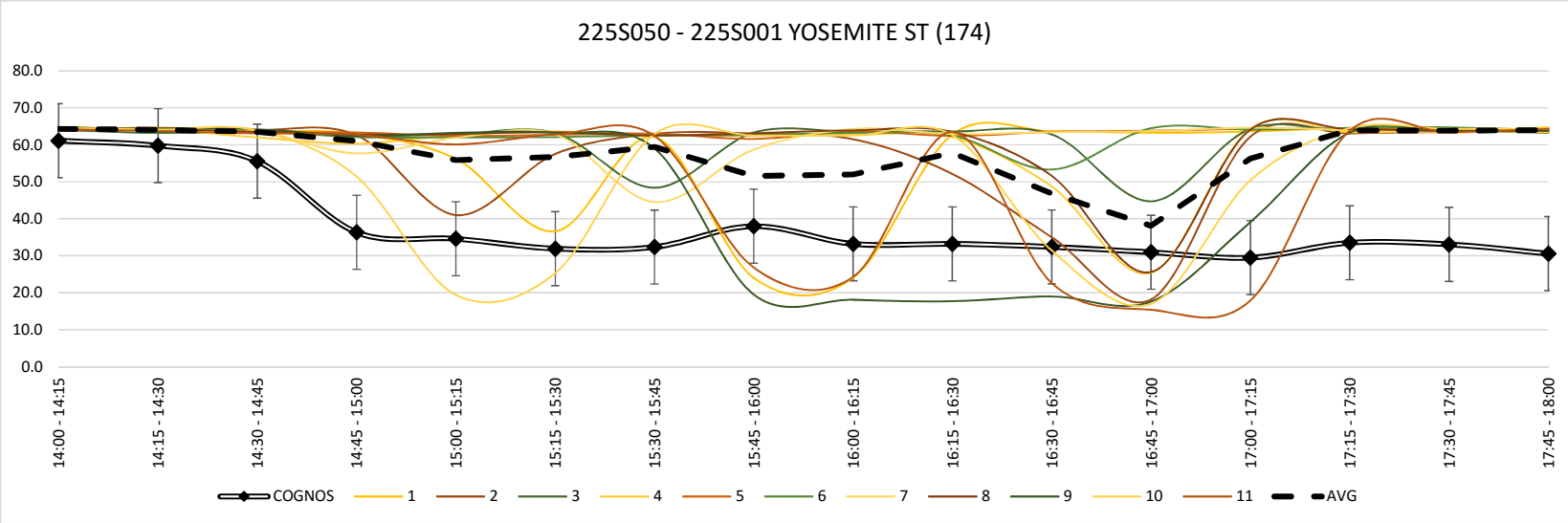
PM	COGNOS	MODEL																						AGGREGATE	
TIME	225S040	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	59.6	56.7	2.9	57.2	2.4	56.0	3.6	56.7	2.9	56.2	3.4	56.4	3.2	56.5	3.1	55.8	3.8	56.4	3.2	56.7	2.9	56.5	3.1	56.5	3.1
14:15 - 14:30	56.6	56.3	0.3	56.8	- 0.2	56.4	0.2	56.7	- 0.1	56.4	0.2	56.5	0.1	56.5	0.1	57.4	- 0.8	56.4	0.2	56.1	0.5	56.1	0.5	56.5	0.1
14:30 - 14:45	54.3	56.6	- 2.4	56.2	- 2.0	56.0	- 1.8	55.0	- 0.8	55.9	- 1.7	55.7	- 1.5	55.8	- 1.6	56.5	- 2.3	56.3	- 2.1	55.4	- 1.2	55.4	- 1.2	55.9	- 1.7
14:45 - 15:00	40.6	48.5	- 7.9	46.2	- 5.6	55.5	-14.9	37.0	3.6	55.3	-14.7	53.7	-13.1	54.5	-13.9	51.4	-10.8	55.6	-15.0	31.0	9.6	36.5	4.1	47.7	- 7.1
15:00 - 15:15	39.8	28.5	11.3	25.2	14.6	54.4	-14.6	54.6	-14.8	55.7	-15.9	29.0	10.8	52.7	-12.9	48.8	- 9.0	56.0	-16.2	21.0	18.8	33.8	6.0	41.8	- 2.0
15:15 - 15:30	36.1	29.6	6.5	35.8	0.3	55.7	-19.6	55.5	-19.4	55.8	-19.7	25.4	10.7	56.1	-20.0	56.7	-20.6	56.1	-20.0	24.3	11.8	51.2	-15.1	45.7	- 9.6
15:30 - 15:45	37.3	44.9	- 7.6	55.8	-18.5	29.9	7.4	54.9	-17.6	54.4	-17.1	52.5	-15.2	24.8	12.5	54.8	-17.5	31.4	5.9	49.2	-11.9	48.3	-11.0	45.5	- 8.2
15:45 - 16:00	38.5	20.6	17.9	54.9	-16.4	21.9	16.6	49.1	-10.6	55.2	-16.7	54.3	-15.8	33.5	5.0	55.0	-16.5	20.1	18.4	28.9	9.6	20.0	18.5	37.6	0.9
16:00 - 16:15	36.2	19.1	17.1	44.0	- 7.8	54.3	-18.1	54.4	-18.2	56.5	-20.3	55.7	-19.5	56.5	-20.3	56.1	-19.9	18.8	17.4	52.3	-16.1	19.6	16.6	44.3	- 8.1
16:15 - 16:30	37.7	20.7	17.0	28.3	9.4	55.1	-17.4	53.1	-15.4	52.6	-14.9	54.0	-16.3	55.6	-17.9	51.9	-14.2	17.9	19.8	53.9	-16.2	21.9	15.8	42.3	- 4.6
16:30 - 16:45	41.4	54.6	-13.2	17.8	23.6	27.2	14.2	26.0	15.4	54.8	-13.4	24.4	17.0	49.1	- 7.7	25.8	15.6	20.8	20.6	23.2	18.2	17.9	23.5	31.1	10.3
16:45 - 17:00	41.2	54.8	-13.6	17.6	23.6	32.0	9.2	22.7	18.5	55.4	-14.2	30.9	10.3	27.7	13.5	18.2	23.0	18.0	23.2	18.5	22.7	15.5	25.7	28.3	12.9
17:00 - 17:15	38.1	55.2	-17.2	38.4	- 0.4	56.2	-18.2	56.6	-18.6	56.6	-18.6	56.6	-18.6	56.6	-18.6	44.7	- 6.7	23.9	14.2	25.1	13.0	17.5	20.6	44.3	- 6.3
17:15 - 17:30	36.1	57.1	-21.0	48.1	-12.0	56.0	-19.9	56.6	-20.5	56.3	-20.2	55.5	-19.4	56.1	-20.0	56.5	-20.4	56.6	-20.5	56.6	-20.5	36.7	- 0.6	53.8	-17.7
17:30 - 17:45	37.2	55.9	-18.7	56.2	-19.0	56.1	-18.9	55.6	-18.4	57.1	-19.9	56.4	-19.2	55.3	-18.1	56.2	-19.0	55.7	-18.5	56.6	-19.4	56.2	-19.0	56.1	-18.9
17:45 - 18:00	38.4	56.7	-18.3	55.9	-17.5	53.0	-14.6	56.0	-17.6	56.0	-17.6	56.2	-17.8	56.4	-18.0	56.0	-17.6	56.2	-17.8	57.1	-18.7	56.0	-17.6	56.0	-17.6
Hour 1	52.8	54.5	- 1.8	54.1	- 1.3	56.0	- 3.2	51.4	1.4	56.0	- 3.2	55.6	- 2.8	55.8	- 3.1	55.3	- 2.5	56.2	- 3.4	49.8	3.0	51.1	1.6	54.2	- 1.4
Hour 2	37.9	30.9	7.0	42.9	- 5.0	40.5	- 2.5	53.5	-15.6	55.3	-17.3	40.3	- 2.4	41.8	- 3.8	53.8	-15.9	40.9	- 3.0	30.9	7.1	38.3	- 0.4	42.7	- 4.7
Hour 3	39.1	37.3	1.8	26.9	12.2	42.2	- 3.0	39.1	0.1	54.8	-15.7	41.3	- 2.1	47.2	- 8.1	38.0	1.1	18.9	20.3	37.0	2.2	18.7	20.4	36.5	2.6
Hour 4	37.4	56.2	-18.8	49.7	-12.2	55.3	-17.9	56.2	-18.8	56.5	-19.1	56.2	-18.7	56.1	-18.7	53.4	-15.9	48.1	-10.7	48.9	-11.4	41.6	- 4.2	52.6	-15.1
11	41.8	44.7	- 2.9	43.4	- 1.6	48.5	- 6.7	50.0	- 8.2	55.6	-13.8	48.3	- 6.5	50.2	- 8.4	50.1	- 8.3	41.0	0.8	41.6	0.2	37.4	4.4	46.5	- 4.6



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

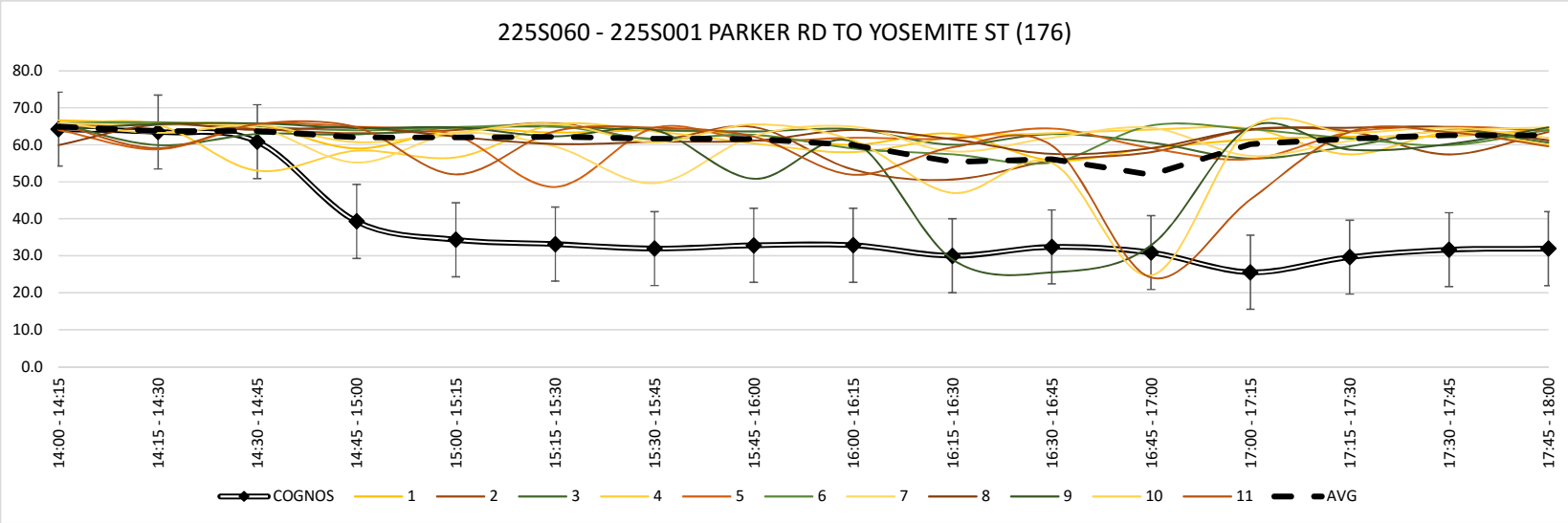
PM	COGNOS	MODEL																						AGGREGATE	
TIME	225S050	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	61.1	64.7	- 3.6	64.8	- 3.7	64.0	- 2.9	64.5	- 3.4	63.7	- 2.6	64.6	- 3.5	64.4	- 3.3	64.0	- 2.9	64.1	- 3.0	64.5	- 3.4	64.2	- 3.1	64.3	- 3.2
14:15 - 14:30	59.8	64.2	- 4.4	64.1	- 4.3	63.2	- 3.4	64.2	- 4.4	64.6	- 4.8	64.2	- 4.4	64.2	- 4.4	64.2	- 4.4	64.4	- 4.6	64.1	- 4.3	63.7	- 3.9	64.1	- 4.3
14:30 - 14:45	55.6	63.8	- 8.2	64.0	- 8.4	63.4	- 7.8	62.0	- 6.4	63.4	- 7.8	63.7	- 8.1	63.7	- 8.1	63.5	- 7.9	64.2	- 8.6	63.9	- 8.3	63.1	- 7.5	63.5	- 7.9
14:45 - 15:00	36.3	62.9	-26.6	62.6	-26.3	62.4	-26.1	60.3	-24.0	63.3	-27.0	62.1	-25.8	57.7	-21.4	62.8	-26.5	62.4	-26.1	51.4	-15.1	62.7	-26.4	61.0	-24.7
15:00 - 15:15	34.6	56.2	-21.6	41.0	- 6.4	62.8	-28.2	62.6	-28.0	62.4	-27.8	62.0	-27.4	61.9	-27.3	62.9	-28.3	63.2	-28.6	19.4	15.2	60.1	-25.5	55.9	-21.3
15:15 - 15:30	31.9	36.6	- 4.7	57.5	-25.6	63.2	-31.3	63.6	-31.7	62.7	-30.8	62.1	-30.2	62.8	-30.9	63.4	-31.5	63.2	-31.3	25.3	6.6	62.8	-30.9	56.7	-24.8
15:30 - 15:45	32.4	62.1	-29.7	63.0	-30.6	48.4	-16.0	62.6	-30.2	63.0	-30.6	62.6	-30.2	44.5	-12.1	62.5	-30.1	59.0	-26.6	62.9	-30.5	62.4	-30.0	59.4	-27.0
15:45 - 16:00	38.0	24.0	14.0	63.0	-25.0	63.3	-25.3	62.5	-24.5	61.6	-23.6	62.6	-24.6	58.7	-20.7	63.1	-25.1	19.5	18.5	62.5	-24.5	26.8	11.2	51.6	-13.6
16:00 - 16:15	33.2	24.1	9.1	61.5	-28.3	63.5	-30.3	62.7	-29.5	63.6	-30.4	63.2	-30.0	64.3	-31.1	63.9	-30.7	18.1	15.1	62.5	-29.3	24.3	8.9	52.0	-18.8
16:15 - 16:30	33.2	62.8	-29.6	52.1	-18.9	63.6	-30.4	62.1	-28.9	62.4	-29.2	62.5	-29.3	62.9	-29.7	63.5	-30.3	17.7	15.5	62.6	-29.4	63.5	-30.3	57.8	-24.6
16:30 - 16:45	32.4	63.7	-31.3	35.0	- 2.6	62.8	-30.4	48.7	-16.3	63.5	-31.1	53.3	-20.9	63.4	-31.0	51.6	-19.2	19.0	13.4	31.4	1.0	22.6	9.8	46.8	-14.4
16:45 - 17:00	30.9	63.2	-32.3	18.2	12.7	44.7	-13.8	25.4	5.5	63.8	-32.9	64.5	-33.6	63.7	-32.8	25.6	5.3	17.6	13.3	17.0	13.9	15.4	15.5	38.1	- 7.2
17:00 - 17:15	29.5	63.6	-34.1	62.2	-32.7	64.3	-34.8	64.3	-34.8	64.3	-34.8	64.1	-34.6	64.6	-35.1	64.1	-34.6	39.1	- 9.6	50.4	-20.9	17.9	11.6	56.3	-26.8
17:15 - 17:30	33.5	64.4	-30.9	63.1	-29.6	63.5	-30.0	63.4	-29.9	64.3	-30.8	64.6	-31.1	64.0	-30.5	64.2	-30.7	63.3	-29.8	64.5	-31.0	63.8	-30.3	63.9	-30.4
17:30 - 17:45	33.1	63.3	-30.2	63.5	-30.4	63.8	-30.7	63.8	-30.7	64.3	-31.2	64.7	-31.6	63.5	-30.4	63.7	-30.6	63.7	-30.6	64.3	-31.2	63.4	-30.3	63.8	-30.7
17:45 - 18:00	30.6	64.7	-34.1	64.3	-33.7	63.2	-32.6	63.4	-32.8	63.8	-33.2	63.9	-33.3	64.2	-33.6	63.9	-33.3	63.8	-33.2	64.4	-33.8	64.3	-33.7	64.0	-33.4
Hour 1	53.2	63.9	-10.7	63.9	-10.7	63.3	-10.1	62.8	- 9.6	63.8	-10.6	63.7	-10.5	62.5	- 9.3	63.6	-10.4	63.8	-10.6	61.0	- 7.8	63.4	-10.2	63.2	-10.0
Hour 2	34.2	44.7	-10.5	56.1	-21.9	59.4	-25.2	62.8	-28.6	62.4	-28.2	62.3	-28.1	57.0	-22.8	63.0	-28.8	51.2	-17.0	42.5	- 8.3	53.0	-18.8	55.9	-21.7
Hour 3	32.4	53.5	-21.0	41.7	- 9.3	58.7	-26.2	49.7	-17.3	63.3	-30.9	60.9	-28.4	63.6	-31.1	51.2	-18.7	18.1	14.3	43.4	-10.9	31.5	1.0	48.7	-16.2
Hour 4	31.7	64.0	-32.3	63.3	-31.6	63.7	-32.0	63.7	-32.1	64.2	-32.5	64.3	-32.7	64.1	-32.4	64.0	-32.3	57.5	-25.8	60.9	-29.2	52.4	-20.7	62.0	-30.3
11	37.9	56.5	-18.6	56.2	-18.4	61.3	-23.4	59.8	-21.9	63.4	-25.5	62.8	-24.9	61.8	-23.9	60.4	-22.6	47.6	- 9.8	51.9	-14.1	50.1	-12.2	57.5	-19.6



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

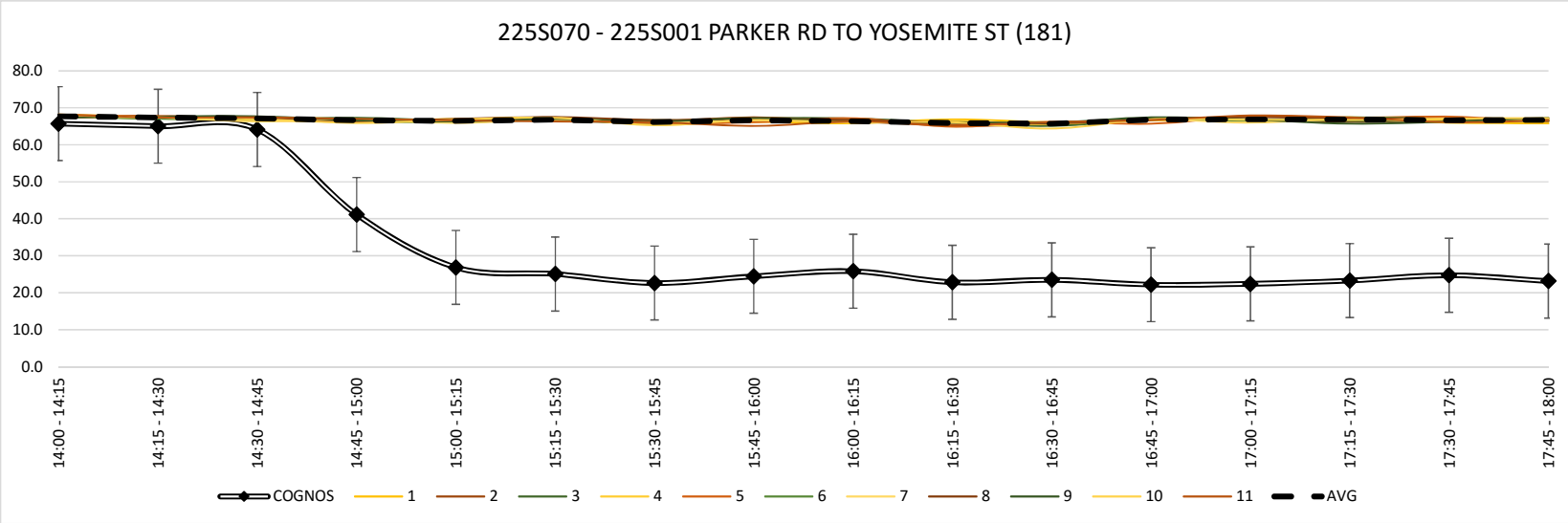
PM	COGNOS	MODEL																						AGGREGATE	
TIME	225S060	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	64.2	66.6	- 2.4	65.0	- 0.8	65.7	- 1.5	65.8	- 1.6	64.0	0.2	65.9	- 1.7	65.8	- 1.6	59.9	4.3	64.2	0.0	65.9	- 1.7	65.5	- 1.3	64.9	- 0.7
14:15 - 14:30	63.5	66.0	- 2.6	65.7	- 2.3	59.9	3.6	65.4	- 2.0	58.8	4.7	66.1	- 2.6	65.3	- 1.8	65.5	- 2.1	65.6	- 2.1	63.2	0.3	59.1	4.4	63.7	- 0.3
14:30 - 14:45	60.8	65.3	- 4.5	64.3	- 3.5	62.9	- 2.1	53.0	7.8	65.4	- 4.6	65.0	- 4.2	64.6	- 3.8	64.0	- 3.2	65.8	- 5.0	65.3	- 4.5	65.6	- 4.8	63.7	- 2.9
14:45 - 15:00	39.3	59.0	-19.7	63.1	-23.8	62.8	-23.5	58.4	-19.1	64.9	-25.6	63.9	-24.6	55.2	-15.9	64.7	-25.4	64.5	-25.2	60.7	-21.4	64.7	-25.4	62.0	-22.7
15:00 - 15:15	34.3	64.2	-29.9	64.0	-29.7	64.6	-30.3	56.6	-22.3	62.5	-28.2	64.8	-30.5	63.1	-28.8	62.2	-27.9	64.7	-30.4	63.3	-29.0	52.0	-17.7	62.0	-27.7
15:15 - 15:30	33.1	63.3	-30.2	65.8	-32.7	64.9	-31.8	65.5	-32.4	48.6	-15.5	65.0	-31.9	59.5	-26.4	60.2	-27.1	62.3	-29.2	65.7	-32.6	63.7	-30.6	62.2	-29.1
15:30 - 15:45	31.9	63.9	-32.0	61.5	-29.6	64.0	-32.1	63.6	-31.7	64.6	-32.7	61.6	-29.7	49.6	-17.7	60.8	-28.9	64.0	-32.1	60.7	-28.8	64.6	-32.7	61.7	-29.8
15:45 - 16:00	32.8	62.7	-29.9	64.8	-32.0	63.6	-30.8	60.4	-27.6	61.2	-28.4	62.7	-29.9	62.4	-29.6	61.1	-28.3	50.8	-18.0	65.5	-32.7	62.2	-29.4	61.6	-28.8
16:00 - 16:15	32.8	60.0	-27.2	53.3	-20.5	64.2	-31.4	58.0	-25.2	61.9	-29.1	59.0	-26.2	64.9	-32.1	64.0	-31.2	60.8	-28.0	61.2	-28.4	51.9	-19.1	59.9	-27.1
16:15 - 16:30	30.0	63.0	-33.0	50.6	-20.6	60.0	-30.0	62.0	-32.0	61.7	-31.7	57.4	-27.4	58.2	-28.2	61.5	-31.5	29.0	1.0	47.0	-17.0	59.3	-29.3	55.4	-25.4
16:30 - 16:45	32.4	55.8	-23.4	55.7	-23.3	62.9	-30.5	63.1	-30.7	64.4	-32.0	55.2	-22.8	61.9	-29.5	57.5	-25.1	25.5	6.9	55.1	-22.7	59.8	-27.4	56.1	-23.7
16:45 - 17:00	30.9	59.1	-28.2	58.0	-27.1	60.6	-29.7	64.1	-33.2	59.1	-28.2	65.2	-34.3	64.6	-33.7	59.1	-28.2	32.8	- 1.9	24.7	6.2	24.1	6.8	51.9	-21.0
17:00 - 17:15	25.5	61.4	-35.9	64.0	-38.5	56.3	-30.8	64.4	-38.9	56.1	-30.6	64.2	-38.7	57.0	-31.5	64.2	-38.7	64.8	-39.3	64.7	-39.2	45.2	-19.7	60.2	-34.7
17:15 - 17:30	29.6	62.2	-32.6	63.6	-34.0	59.6	-30.0	57.4	-27.8	63.4	-33.8	61.7	-32.1	61.1	-31.5	64.6	-35.0	58.7	-29.1	63.2	-33.6	63.5	-33.9	61.7	-32.1
17:30 - 17:45	31.6	62.3	-30.7	57.4	-25.8	63.9	-32.3	63.3	-31.7	64.9	-33.3	59.9	-28.3	63.8	-32.2	64.7	-33.1	60.2	-28.6	64.6	-33.0	63.4	-31.8	62.6	-31.0
17:45 - 18:00	31.9	64.3	-32.4	63.5	-31.6	60.6	-28.7	60.0	-28.1	63.8	-31.9	64.0	-32.1	64.7	-32.8	61.2	-29.3	64.7	-32.8	61.9	-30.0	59.6	-27.7	62.6	-30.7
Hour 1	57.0	64.2	- 7.3	64.5	- 7.6	62.8	- 5.9	60.7	- 3.7	63.3	- 6.3	65.2	- 8.3	62.7	- 5.8	63.5	- 6.6	65.0	- 8.1	63.8	- 6.8	63.7	- 6.8	63.6	- 6.6
Hour 2	33.1	63.5	-30.5	64.0	-31.0	64.3	-31.2	61.5	-28.5	59.2	-26.2	63.5	-30.5	58.7	-25.6	61.1	-28.0	60.5	-27.4	63.8	-30.7	60.6	-27.6	61.9	-28.8
Hour 3	31.5	59.5	-28.0	54.4	-22.9	61.9	-30.4	61.8	-30.3	61.8	-30.3	59.2	-27.7	62.4	-30.9	60.5	-29.0	37.0	- 5.5	47.0	-15.5	48.8	-17.3	55.8	-24.3
Hour 4	29.7	62.6	-32.9	62.1	-32.4	60.1	-30.4	61.3	-31.6	62.1	-32.4	62.5	-32.8	61.7	-32.0	63.7	-34.0	62.1	-32.4	63.6	-33.9	57.9	-28.2	61.8	-32.1
11	37.8	62.4	-24.6	61.3	-23.5	62.3	-24.5	61.3	-23.5	61.6	-23.8	62.6	-24.8	61.4	-23.6	62.2	-24.4	56.2	-18.3	59.5	-21.7	57.8	-20.0	60.8	-23.0



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

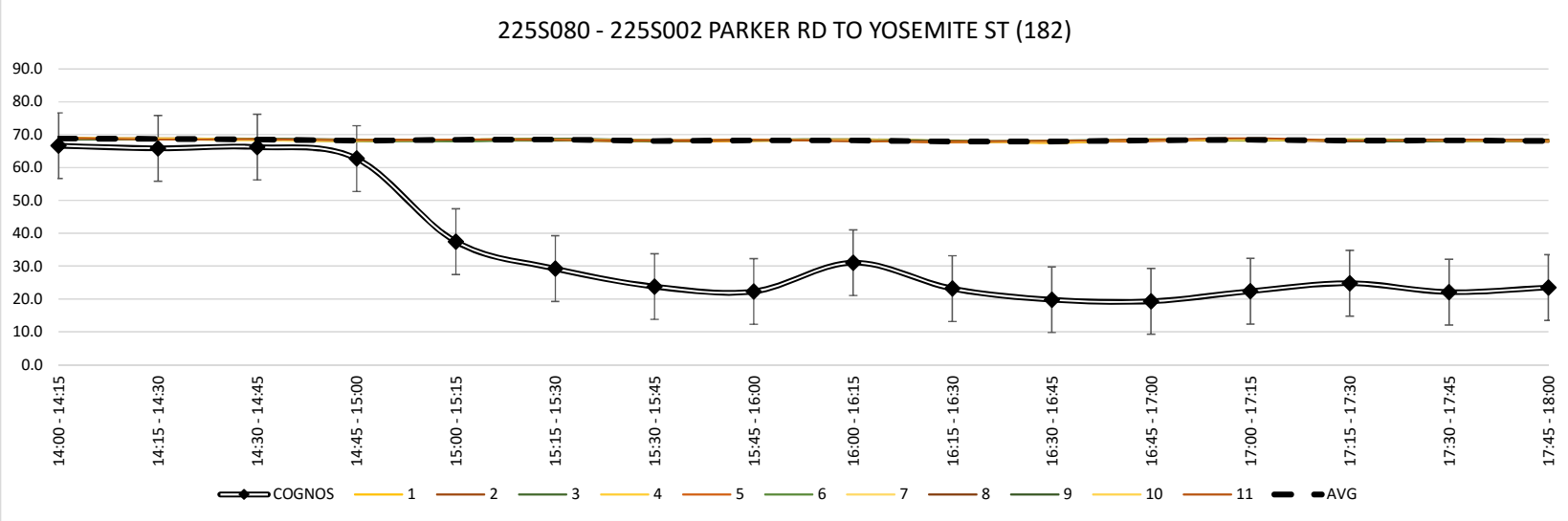
PM	COGNOS	MODEL																						AGGREGATE	
TIME	225S070	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	65.7	68.2	- 2.5	67.7	- 2.0	67.7	- 2.0	67.7	- 2.0	67.7	- 2.0	67.8	- 2.1	67.4	- 1.7	67.4	- 1.7	67.4	- 1.7	68.0	- 2.3	68.2	- 2.5	67.7	- 2.0
14:15 - 14:30	65.0	67.5	- 2.5	67.4	- 2.4	67.1	- 2.1	67.1	- 2.1	67.8	- 2.8	67.0	- 2.0	67.4	- 2.4	67.7	- 2.7	67.6	- 2.6	67.4	- 2.4	67.4	- 2.4	67.4	- 2.4
14:30 - 14:45	64.1	67.3	- 3.2	67.1	- 3.0	66.9	- 2.8	66.6	- 2.5	67.0	- 2.9	67.0	- 2.9	66.3	- 2.2	67.2	- 3.1	67.7	- 3.6	67.0	- 2.9	67.4	- 3.3	67.1	- 3.0
14:45 - 15:00	41.1	67.0	-25.9	66.7	-25.6	67.3	-26.2	66.3	-25.2	66.4	-25.3	66.3	-25.2	66.8	-25.7	66.1	-25.0	66.6	-25.5	65.9	-24.8	67.0	-25.9	66.6	-25.5
15:00 - 15:15	26.9	66.2	-39.4	66.6	-39.8	66.5	-39.7	67.0	-40.2	66.9	-40.1	66.1	-39.3	65.9	-39.1	67.0	-40.2	66.3	-39.5	66.8	-40.0	66.6	-39.8	66.5	-39.7
15:15 - 15:30	25.1	66.8	-41.7	66.6	-41.5	66.5	-41.4	66.6	-41.5	67.0	-41.9	66.8	-41.7	66.9	-41.8	67.5	-42.4	67.0	-41.9	67.3	-42.2	66.3	-41.2	66.8	-41.7
15:30 - 15:45	22.6	65.6	-43.0	66.4	-43.8	65.9	-43.3	66.4	-43.8	65.8	-43.2	66.6	-44.0	66.2	-43.6	66.7	-44.1	66.3	-43.7	65.3	-42.7	66.1	-43.5	66.1	-43.5
15:45 - 16:00	24.5	66.2	-41.8	67.4	-43.0	67.1	-42.7	66.7	-42.3	66.1	-41.7	66.6	-42.2	66.6	-42.2	67.0	-42.6	67.2	-42.8	66.7	-42.3	65.1	-40.7	66.6	-42.2
16:00 - 16:15	25.8	65.8	-40.0	66.4	-40.6	67.1	-41.3	66.1	-40.3	67.2	-41.4	66.5	-40.7	66.6	-40.8	66.7	-40.9	66.1	-40.3	66.0	-40.2	66.3	-40.5	66.4	-40.6
16:15 - 16:30	22.8	66.9	-44.1	65.2	-42.4	65.9	-43.1	66.4	-43.6	64.9	-42.1	66.0	-43.2	66.0	-43.2	66.1	-43.3	66.1	-43.3	66.1	-43.3	65.4	-42.6	65.9	-43.1
16:30 - 16:45	23.5	66.1	-42.6	65.6	-42.1	65.1	-41.6	65.6	-42.1	66.2	-42.7	66.0	-42.5	65.8	-42.3	65.8	-42.3	66.0	-42.5	64.4	-40.9	66.1	-42.6	65.7	-42.2
16:45 - 17:00	22.2	66.6	-44.4	66.7	-44.5	66.9	-44.7	67.0	-44.8	65.7	-43.5	66.9	-44.7	66.9	-44.7	66.9	-44.7	67.4	-45.2	66.9	-44.7	66.7	-44.5	66.8	-44.6
17:00 - 17:15	22.4	66.6	-44.2	66.9	-44.5	66.9	-44.5	66.4	-44.0	67.7	-45.3	66.5	-44.1	66.0	-43.6	67.5	-45.1	66.8	-44.4	66.8	-44.4	67.9	-45.5	66.9	-44.5
17:15 - 17:30	23.3	67.0	-43.7	66.2	-42.9	66.5	-43.2	67.4	-44.1	67.3	-44.0	67.4	-44.1	67.0	-43.7	67.1	-43.8	65.7	-42.4	66.7	-43.4	67.4	-44.1	66.9	-43.6
17:30 - 17:45	24.7	66.0	-41.3	66.6	-41.9	66.5	-41.8	66.6	-41.9	67.6	-42.9	67.0	-42.3	66.2	-41.5	67.1	-42.4	66.3	-41.6	67.1	-42.4	66.1	-41.4	66.6	-41.9
17:45 - 18:00	23.2	65.8	-42.7	66.6	-43.5	66.5	-43.4	66.9	-43.8	66.3	-43.2	66.5	-43.4	66.8	-43.7	67.1	-44.0	67.3	-44.2	67.2	-44.1	66.6	-43.5	66.7	-43.6
Hour 1	59.0	67.5	- 8.5	67.2	- 8.2	67.3	- 8.2	66.9	- 7.9	67.2	- 8.2	67.0	- 8.0	67.0	- 8.0	67.1	- 8.1	67.3	- 8.3	67.1	- 8.1	67.5	- 8.5	67.2	- 8.2
Hour 2	24.7	66.2	-41.5	66.8	-42.0	66.5	-41.8	66.7	-41.9	66.5	-41.7	66.5	-41.8	66.4	-41.7	67.1	-42.3	66.7	-42.0	66.5	-41.8	66.0	-41.3	66.5	-41.8
Hour 3	23.6	66.4	-42.8	66.0	-42.4	66.3	-42.7	66.3	-42.7	66.0	-42.4	66.4	-42.8	66.3	-42.7	66.4	-42.8	66.4	-42.8	65.9	-42.3	66.1	-42.5	66.2	-42.6
Hour 4	23.4	66.4	-43.0	66.6	-43.2	66.6	-43.2	66.8	-43.4	67.2	-43.8	66.9	-43.5	66.5	-43.1	67.2	-43.8	66.5	-43.1	67.0	-43.6	67.0	-43.6	66.8	-43.4
11	32.7	66.6	-33.9	66.6	-34.0	66.7	-34.0	66.7	-34.0	66.7	-34.0	66.7	-34.0	66.6	-33.9	66.9	-34.3	66.7	-34.1	66.6	-33.9	66.7	-34.0	66.7	-34.0



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

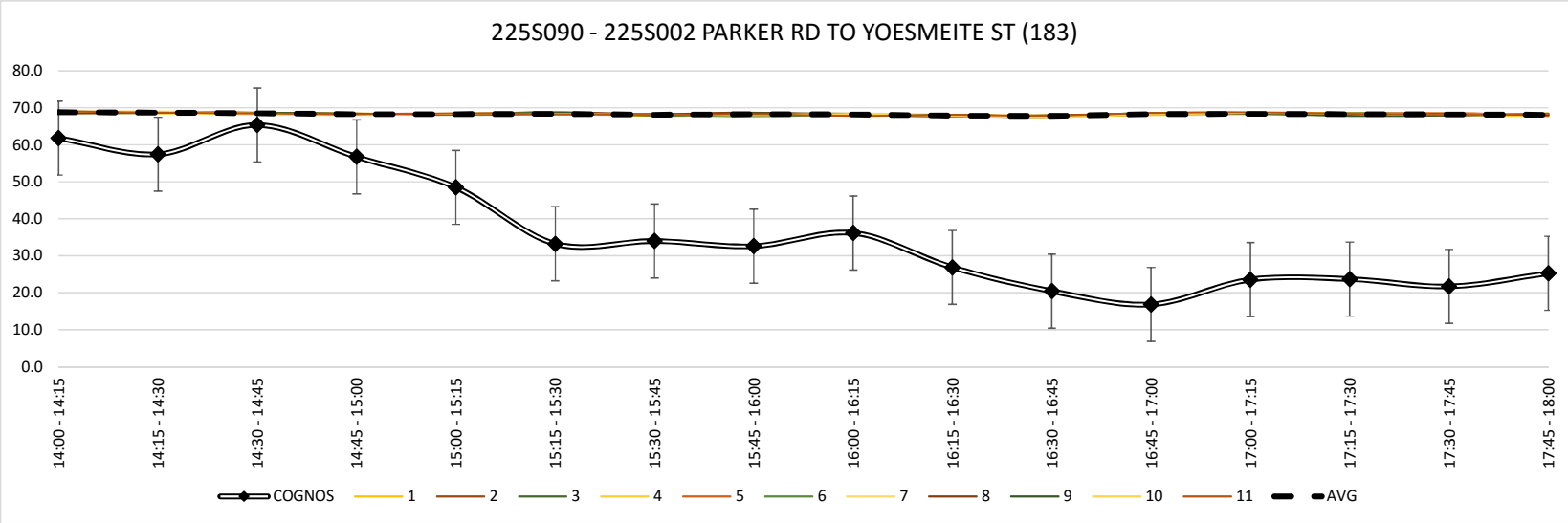
PM	COGNOS	MODEL																						AGGREGATE	
TIME	225S080	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	66.6	69.1	- 2.5	68.9	- 2.3	68.6	- 2.0	68.9	- 2.3	68.6	- 2.0	68.7	- 2.1	68.9	- 2.3	68.7	- 2.1	68.5	- 1.9	68.9	- 2.3	69.0	- 2.4	68.8	- 2.2
14:15 - 14:30	65.8	68.7	- 2.9	68.8	- 3.0	68.5	- 2.7	68.6	- 2.8	68.8	- 3.0	68.6	- 2.8	68.6	- 2.8	68.9	- 3.1	68.7	- 2.9	68.9	- 3.1	68.5	- 2.7	68.7	- 2.9
14:30 - 14:45	66.2	68.5	- 2.3	68.6	- 2.4	68.5	- 2.3	68.3	- 2.1	68.5	- 2.3	68.5	- 2.3	68.3	- 2.1	68.7	- 2.5	68.8	- 2.6	68.6	- 2.4	68.6	- 2.4	68.5	- 2.3
14:45 - 15:00	62.7	68.2	- 5.5	68.2	- 5.5	68.5	- 5.8	67.9	- 5.2	68.3	- 5.6	68.0	- 5.3	68.1	- 5.4	68.5	- 5.8	68.4	- 5.7	68.3	- 5.6	68.3	- 5.6	68.2	- 5.5
15:00 - 15:15	37.5	68.4	-30.9	68.3	-30.8	68.1	-30.6	68.5	-31.0	68.4	-30.9	68.0	-30.5	68.5	-31.0	68.4	-30.9	68.4	-30.9	68.5	-31.0	68.5	-31.0	68.4	-30.9
15:15 - 15:30	29.3	68.4	-39.2	68.5	-39.3	68.2	-39.0	68.5	-39.3	68.5	-39.3	68.4	-39.2	68.4	-39.2	68.7	-39.5	68.8	-39.6	68.6	-39.4	68.4	-39.2	68.5	-39.3
15:30 - 15:45	23.8	67.9	-44.1	68.3	-44.5	67.9	-44.1	68.0	-44.2	67.9	-44.1	68.0	-44.2	68.2	-44.4	68.2	-44.4	68.3	-44.5	68.3	-44.5	68.2	-44.4	68.1	-44.3
15:45 - 16:00	22.3	68.1	-45.8	68.4	-46.1	68.4	-46.1	68.5	-46.2	68.2	-45.9	68.3	-46.0	68.4	-46.1	68.4	-46.1	68.3	-46.0	68.4	-46.1	68.4	-46.1	68.3	-46.0
16:00 - 16:15	31.1	68.4	-37.4	68.1	-37.1	68.6	-37.6	68.4	-37.4	68.2	-37.2	68.2	-37.2	68.6	-37.6	68.3	-37.3	68.2	-37.2	68.2	-37.2	68.0	-37.0	68.3	-37.3
16:15 - 16:30	23.2	68.1	-44.9	67.7	-44.5	68.1	-44.9	68.1	-44.9	67.6	-44.4	68.0	-44.8	68.0	-44.8	67.9	-44.7	68.1	-44.9	67.8	-44.6	68.0	-44.8	67.9	-44.7
16:30 - 16:45	19.8	67.7	-47.9	68.2	-48.4	67.6	-47.8	67.4	-47.6	67.8	-48.0	68.1	-48.3	67.9	-48.1	68.0	-48.2	67.9	-48.1	67.8	-48.0	68.1	-48.3	67.9	-48.1
16:45 - 17:00	19.3	68.3	-49.0	68.3	-49.0	68.3	-49.0	68.4	-49.1	68.0	-48.7	68.6	-49.3	68.6	-49.3	68.4	-49.1	68.4	-49.1	68.3	-49.0	68.4	-49.1	68.3	-49.0
17:00 - 17:15	22.4	68.1	-45.7	68.3	-45.9	68.6	-46.2	68.2	-45.8	68.7	-46.3	68.2	-45.8	68.4	-46.0	68.6	-46.2	68.5	-46.1	68.4	-46.0	68.9	-46.5	68.4	-46.0
17:15 - 17:30	24.8	68.3	-43.5	68.0	-43.2	68.1	-43.3	68.6	-43.8	68.3	-43.5	68.5	-43.7	68.4	-43.6	68.1	-43.3	68.0	-43.2	68.2	-43.4	68.2	-43.4	68.2	-43.4
17:30 - 17:45	22.1	68.3	-46.2	68.4	-46.3	68.0	-45.9	68.3	-46.2	68.5	-46.4	68.3	-46.2	68.1	-46.0	68.4	-46.3	68.1	-46.0	68.2	-46.1	68.3	-46.2	68.3	-46.2
17:45 - 18:00	23.5	68.0	-44.5	68.3	-44.8	68.0	-44.5	68.3	-44.8	67.8	-44.3	67.9	-44.4	68.3	-44.8	67.9	-44.4	68.5	-45.0	68.1	-44.6	68.3	-44.8	68.1	-44.6
Hour 1	65.4	68.6	- 3.3	68.6	- 3.3	68.5	- 3.2	68.4	- 3.1	68.6	- 3.2	68.5	- 3.1	68.5	- 3.1	68.7	- 3.4	68.6	- 3.3	68.7	- 3.3	68.6	- 3.3	68.6	- 3.2
Hour 2	28.2	68.2	-40.0	68.4	-40.2	68.2	-40.0	68.4	-40.2	68.3	-40.1	68.2	-40.0	68.4	-40.2	68.4	-40.2	68.5	-40.3	68.5	-40.3	68.4	-40.2	68.3	-40.1
Hour 3	23.3	68.1	-44.8	68.1	-44.8	68.2	-44.8	68.1	-44.8	67.9	-44.6	68.2	-44.9	68.3	-45.0	68.2	-44.8	68.2	-44.8	68.0	-44.7	68.1	-44.8	68.1	-44.8
Hour 4	23.2	68.2	-45.0	68.3	-45.1	68.2	-45.0	68.4	-45.2	68.3	-45.1	68.2	-45.0	68.3	-45.1	68.3	-45.1	68.3	-45.1	68.2	-45.0	68.4	-45.2	68.3	-45.1
11	35.0	68.3	-33.3	68.3	-33.3	68.3	-33.2	68.3	-33.3	68.3	-33.2	68.3	-33.3	68.4	-33.3	68.4	-33.4	68.4	-33.4	68.3	-33.3	68.4	-33.4	68.3	-33.3



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

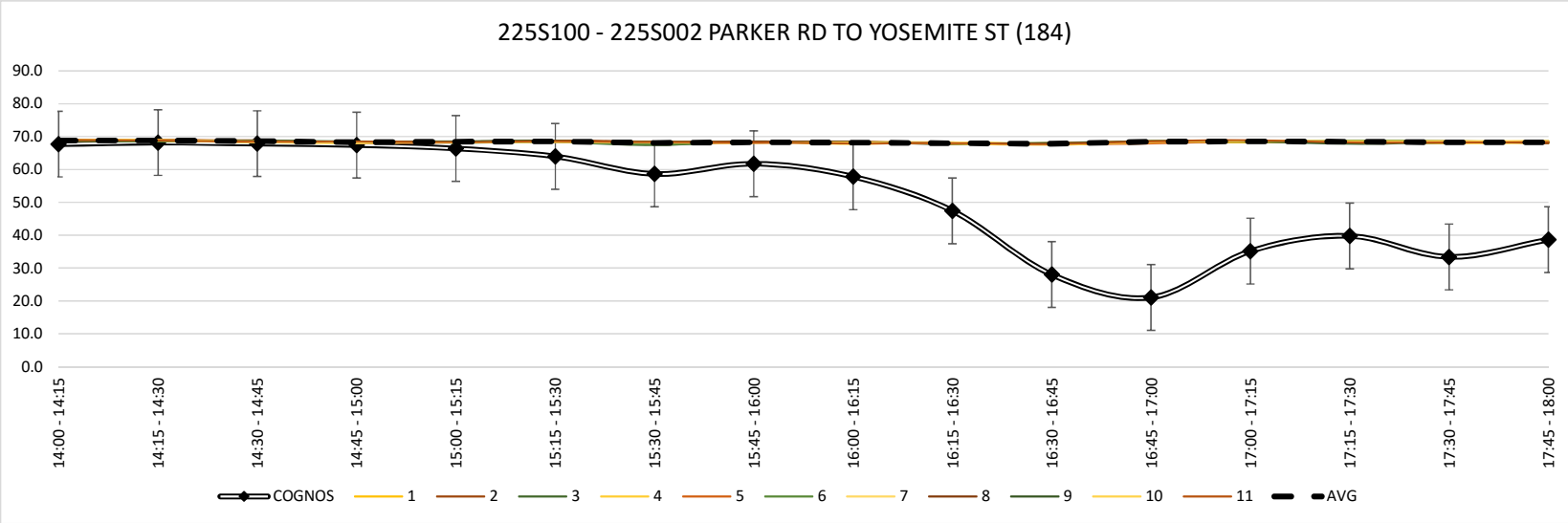
PM	COGNOS	MODEL																						AGGREGATE	
TIME	225S090	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	61.8	69.0	- 7.2	69.0	- 7.2	68.5	- 6.7	68.9	- 7.1	68.4	- 6.6	69.0	- 7.2	68.9	- 7.1	68.7	- 6.9	68.6	- 6.8	68.9	- 7.1	69.0	- 7.2	68.8	- 7.0
14:15 - 14:30	57.4	68.9	-11.5	68.8	-11.4	68.5	-11.1	68.7	-11.3	68.8	-11.4	68.7	-11.3	68.4	-11.0	68.7	-11.3	68.8	-11.4	69.0	-11.6	68.7	-11.3	68.7	-11.3
14:30 - 14:45	65.4	68.6	- 3.3	68.7	- 3.4	68.5	- 3.2	68.3	- 3.0	68.6	- 3.3	68.6	- 3.3	68.3	- 3.0	68.5	- 3.2	68.7	- 3.4	68.5	- 3.2	68.5	- 3.2	68.5	- 3.2
14:45 - 15:00	56.7	68.5	-11.8	68.3	-11.6	68.3	-11.6	68.0	-11.3	68.2	-11.5	68.4	-11.7	68.1	-11.4	68.4	-11.7	68.4	-11.7	68.1	-11.4	68.3	-11.6	68.3	-11.6
15:00 - 15:15	48.5	68.2	-19.7	68.1	-19.6	68.1	-19.6	68.3	-19.8	68.3	-19.8	68.2	-19.7	68.4	-19.9	68.3	-19.8	68.3	-19.8	68.4	-19.9	68.5	-20.0	68.3	-19.8
15:15 - 15:30	33.2	68.5	-35.3	68.4	-35.2	68.3	-35.1	68.5	-35.3	68.5	-35.3	68.3	-35.1	68.4	-35.2	68.8	-35.6	68.7	-35.5	68.4	-35.2	68.3	-35.1	68.4	-35.2
15:30 - 15:45	34.0	67.8	-33.8	68.3	-34.3	68.1	-34.1	68.0	-34.0	68.0	-34.0	68.0	-34.0	68.3	-34.3	68.3	-34.3	68.0	-34.0	68.1	-34.1	68.1	-34.1	68.1	-34.1
15:45 - 16:00	32.6	68.1	-35.5	68.6	-36.0	68.4	-35.8	68.2	-35.6	68.1	-35.5	67.7	-35.1	68.0	-35.4	68.7	-36.1	68.5	-35.9	68.1	-35.5	68.3	-35.7	68.3	-35.7
16:00 - 16:15	36.2	68.2	-32.1	68.0	-31.9	68.4	-32.3	68.1	-32.0	68.1	-32.0	68.2	-32.1	68.5	-32.4	68.2	-32.1	67.9	-31.8	68.3	-32.2	67.8	-31.7	68.2	-32.1
16:15 - 16:30	26.9	67.9	-41.1	67.7	-40.9	67.9	-41.1	68.0	-41.2	67.6	-40.8	67.8	-41.0	68.1	-41.3	67.8	-41.0	68.1	-41.3	67.8	-41.0	68.1	-41.3	67.9	-41.1
16:30 - 16:45	20.4	68.0	-47.6	67.8	-47.4	67.5	-47.1	67.5	-47.1	67.8	-47.4	68.0	-47.6	67.9	-47.5	68.0	-47.6	67.7	-47.3	67.5	-47.1	67.9	-47.5	67.8	-47.4
16:45 - 17:00	16.8	68.0	-51.2	68.5	-51.7	68.3	-51.5	68.3	-51.5	68.1	-51.3	68.5	-51.7	68.3	-51.5	68.4	-51.6	68.6	-51.8	68.2	-51.4	68.6	-51.8	68.3	-51.5
17:00 - 17:15	23.6	68.2	-44.6	68.4	-44.8	68.6	-45.0	68.5	-44.9	68.3	-44.7	68.2	-44.6	68.1	-44.5	68.5	-44.9	68.4	-44.8	68.6	-45.0	68.8	-45.2	68.4	-44.8
17:15 - 17:30	23.7	68.4	-44.7	68.3	-44.6	68.1	-44.4	68.6	-44.9	68.5	-44.8	68.5	-44.8	68.2	-44.5	68.3	-44.6	67.8	-44.1	68.4	-44.7	68.4	-44.7	68.3	-44.6
17:30 - 17:45	21.7	68.3	-46.6	68.4	-46.7	68.0	-46.3	68.1	-46.4	68.6	-46.9	68.3	-46.6	68.2	-46.5	68.3	-46.6	67.9	-46.2	68.1	-46.4	68.1	-46.4	68.2	-46.5
17:45 - 18:00	25.3	67.7	-42.4	68.3	-43.0	68.2	-42.9	67.7	-42.4	67.9	-42.6	68.1	-42.8	68.3	-43.0	68.0	-42.7	68.4	-43.1	68.5	-43.2	68.4	-43.1	68.1	-42.8
Hour 1	60.3	68.8	- 8.4	68.7	- 8.4	68.5	- 8.1	68.5	- 8.1	68.5	- 8.2	68.7	- 8.3	68.4	- 8.1	68.6	- 8.2	68.6	- 8.3	68.6	- 8.3	68.6	- 8.3	68.6	- 8.2
Hour 2	37.1	68.2	-31.1	68.4	-31.3	68.2	-31.2	68.3	-31.2	68.2	-31.2	68.1	-31.0	68.3	-31.2	68.5	-31.5	68.4	-31.3	68.3	-31.2	68.3	-31.2	68.3	-31.2
Hour 3	25.1	68.0	-43.0	68.0	-42.9	68.0	-43.0	68.0	-42.9	67.9	-42.8	68.1	-43.1	68.2	-43.1	68.1	-43.0	68.1	-43.0	68.0	-42.9	68.1	-43.0	68.1	-43.0
Hour 4	23.6	68.2	-44.6	68.4	-44.8	68.2	-44.7	68.2	-44.7	68.3	-44.8	68.3	-44.7	68.2	-44.6	68.3	-44.7	68.1	-44.6	68.4	-44.8	68.4	-44.9	68.3	-44.7
11	36.5	68.3	-31.8	68.4	-31.8	68.2	-31.7	68.2	-31.7	68.2	-31.7	68.3	-31.8	68.3	-31.8	68.4	-31.9	68.3	-31.8	68.3	-31.8	68.4	-31.9	68.3	-31.8



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

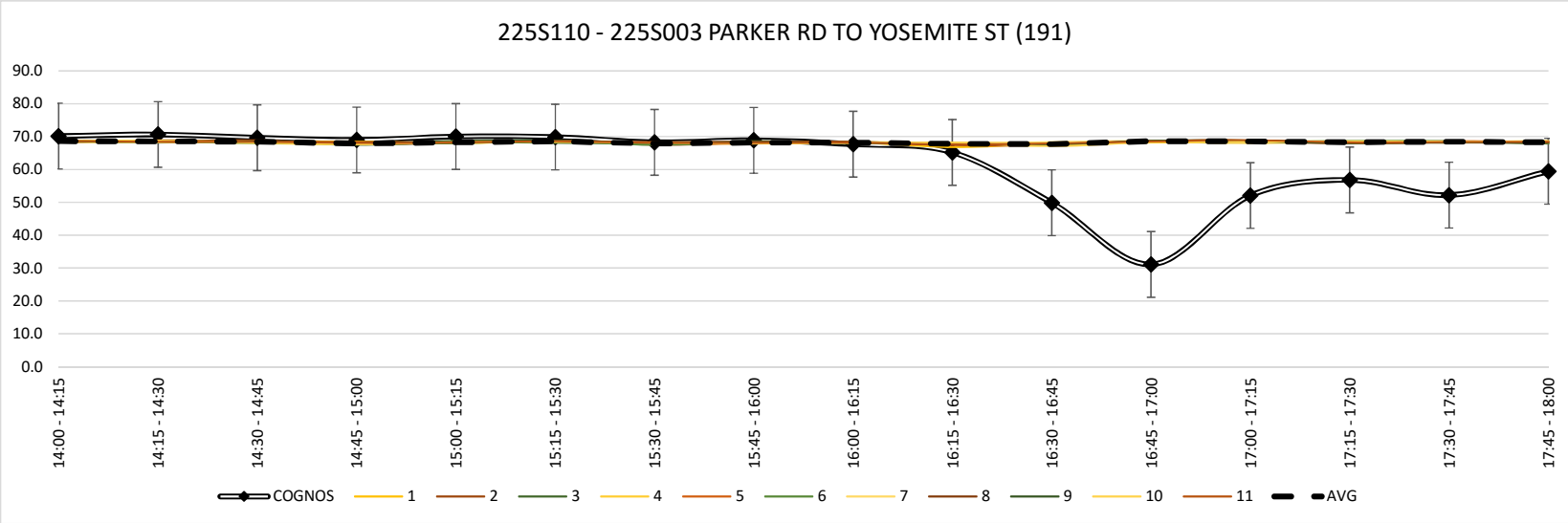
PM	COGNOS	MODEL																						AGGREGATE	
TIME	225S100	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	67.7	69.1	- 1.4	69.1	- 1.4	68.5	- 0.8	68.9	- 1.2	68.6	- 0.9	68.9	- 1.2	68.9	- 1.2	68.5	- 0.8	68.5	- 0.8	69.0	- 1.3	69.0	- 1.3	68.8	- 1.1
14:15 - 14:30	68.2	68.8	- 0.6	68.7	- 0.5	68.5	- 0.3	68.7	- 0.5	69.0	- 0.8	68.6	- 0.4	68.8	- 0.6	69.0	- 0.8	68.8	- 0.6	69.0	- 0.8	68.8	- 0.6	68.8	- 0.6
14:30 - 14:45	67.8	68.4	- 0.6	68.9	- 1.1	68.7	- 0.9	68.3	- 0.5	68.7	- 0.9	68.7	- 0.9	68.2	- 0.4	68.6	- 0.8	68.7	- 0.9	68.5	- 0.7	68.4	- 0.6	68.6	- 0.8
14:45 - 15:00	67.4	68.4	- 1.0	68.1	- 0.7	68.4	- 1.0	68.1	- 0.7	68.1	- 0.7	68.5	- 1.1	68.0	- 0.6	68.4	- 1.0	68.5	- 1.1	68.3	- 0.9	68.5	- 1.1	68.3	- 0.9
15:00 - 15:15	66.4	68.3	- 1.9	68.2	- 1.8	68.4	- 2.0	68.5	- 2.1	68.4	- 2.0	68.1	- 1.7	68.4	- 2.0	68.4	- 2.0	68.6	- 2.2	68.2	- 1.8	68.3	- 1.9	68.4	- 2.0
15:15 - 15:30	64.0	68.7	- 4.7	68.8	- 4.8	68.3	- 4.3	68.4	- 4.4	68.4	- 4.4	68.4	- 4.4	68.3	- 4.3	68.8	- 4.8	68.7	- 4.7	68.5	- 4.5	68.6	- 4.6	68.5	- 4.5
15:30 - 15:45	58.6	68.0	- 9.4	68.3	- 9.7	67.4	- 8.8	68.3	- 9.7	68.1	- 9.5	67.7	- 9.1	68.2	- 9.6	68.4	- 9.8	68.3	- 9.7	68.2	- 9.6	68.3	- 9.7	68.1	- 9.5
15:45 - 16:00	61.7	68.3	- 6.6	68.4	- 6.7	68.5	- 6.8	68.3	- 6.6	68.1	- 6.4	68.5	- 6.8	68.4	- 6.7	68.5	- 6.8	68.2	- 6.5	68.1	- 6.4	68.2	- 6.5	68.3	- 6.6
16:00 - 16:15	57.8	67.8	-10.0	68.1	-10.3	68.0	-10.2	68.2	-10.4	68.3	-10.5	68.0	-10.2	68.4	-10.6	68.5	-10.7	68.3	-10.5	68.2	-10.4	67.9	-10.1	68.2	-10.4
16:15 - 16:30	47.4	68.2	-20.8	67.8	-20.4	68.1	-20.7	68.2	-20.8	67.8	-20.4	67.9	-20.5	68.2	-20.8	67.9	-20.5	67.7	-20.3	67.8	-20.4	68.0	-20.6	68.0	-20.6
16:30 - 16:45	28.0	67.7	-39.7	67.7	-39.7	67.8	-39.8	67.8	-39.8	67.6	-39.6	68.1	-40.1	68.0	-40.0	68.0	-40.0	67.8	-39.8	67.5	-39.5	67.7	-39.7	67.8	-39.8
16:45 - 17:00	21.1	68.3	-47.2	68.4	-47.3	68.5	-47.4	68.6	-47.5	67.9	-46.8	68.6	-47.5	68.6	-47.5	68.6	-47.5	68.6	-47.5	68.3	-47.2	68.5	-47.4	68.4	-47.3
17:00 - 17:15	35.2	68.2	-33.0	68.4	-33.2	68.6	-33.4	68.4	-33.2	68.6	-33.4	68.4	-33.2	68.4	-33.2	68.7	-33.5	68.5	-33.3	68.7	-33.5	68.9	-33.7	68.5	-33.3
17:15 - 17:30	39.8	68.4	-28.6	68.3	-28.5	68.2	-28.4	68.6	-28.8	68.5	-28.7	68.8	-29.0	68.5	-28.7	68.2	-28.4	67.8	-28.0	68.6	-28.8	68.2	-28.4	68.4	-28.6
17:30 - 17:45	33.4	68.0	-34.6	68.4	-35.0	68.3	-34.9	68.2	-34.8	68.6	-35.2	68.6	-35.2	68.1	-34.7	68.4	-35.0	68.2	-34.8	68.6	-35.2	68.2	-34.8	68.3	-34.9
17:45 - 18:00	38.7	68.3	-29.6	68.3	-29.6	68.2	-29.5	68.0	-29.3	68.1	-29.4	68.2	-29.5	68.3	-29.6	68.0	-29.3	68.6	-29.9	68.7	-30.0	68.3	-29.6	68.3	-29.6
Hour 1	67.8	68.7	- 0.9	68.7	- 0.9	68.5	- 0.7	68.5	- 0.7	68.6	- 0.8	68.7	- 0.9	68.5	- 0.7	68.6	- 0.8	68.6	- 0.8	68.7	- 0.9	68.7	- 0.9	68.6	- 0.8
Hour 2	62.7	68.3	- 5.6	68.4	- 5.7	68.2	- 5.5	68.4	- 5.7	68.3	- 5.6	68.2	- 5.5	68.3	- 5.6	68.5	- 5.8	68.5	- 5.8	68.3	- 5.6	68.4	- 5.7	68.3	- 5.6
Hour 3	38.6	68.0	-29.4	68.0	-29.4	68.1	-29.5	68.2	-29.6	67.9	-29.3	68.2	-29.6	68.3	-29.7	68.3	-29.7	68.1	-29.5	68.0	-29.4	68.0	-29.5	68.1	-29.5
Hour 4	36.7	68.2	-31.5	68.4	-31.6	68.3	-31.6	68.3	-31.6	68.5	-31.7	68.5	-31.8	68.3	-31.6	68.3	-31.6	68.3	-31.5	68.7	-31.9	68.4	-31.7	68.4	-31.6
11	51.4	68.3	-16.9	68.4	-16.9	68.3	-16.8	68.3	-16.9	68.3	-16.9	68.4	-16.9	68.4	-16.9	68.4	-17.0	68.4	-16.9	68.4	-16.9	68.4	-16.9	68.4	-16.9



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

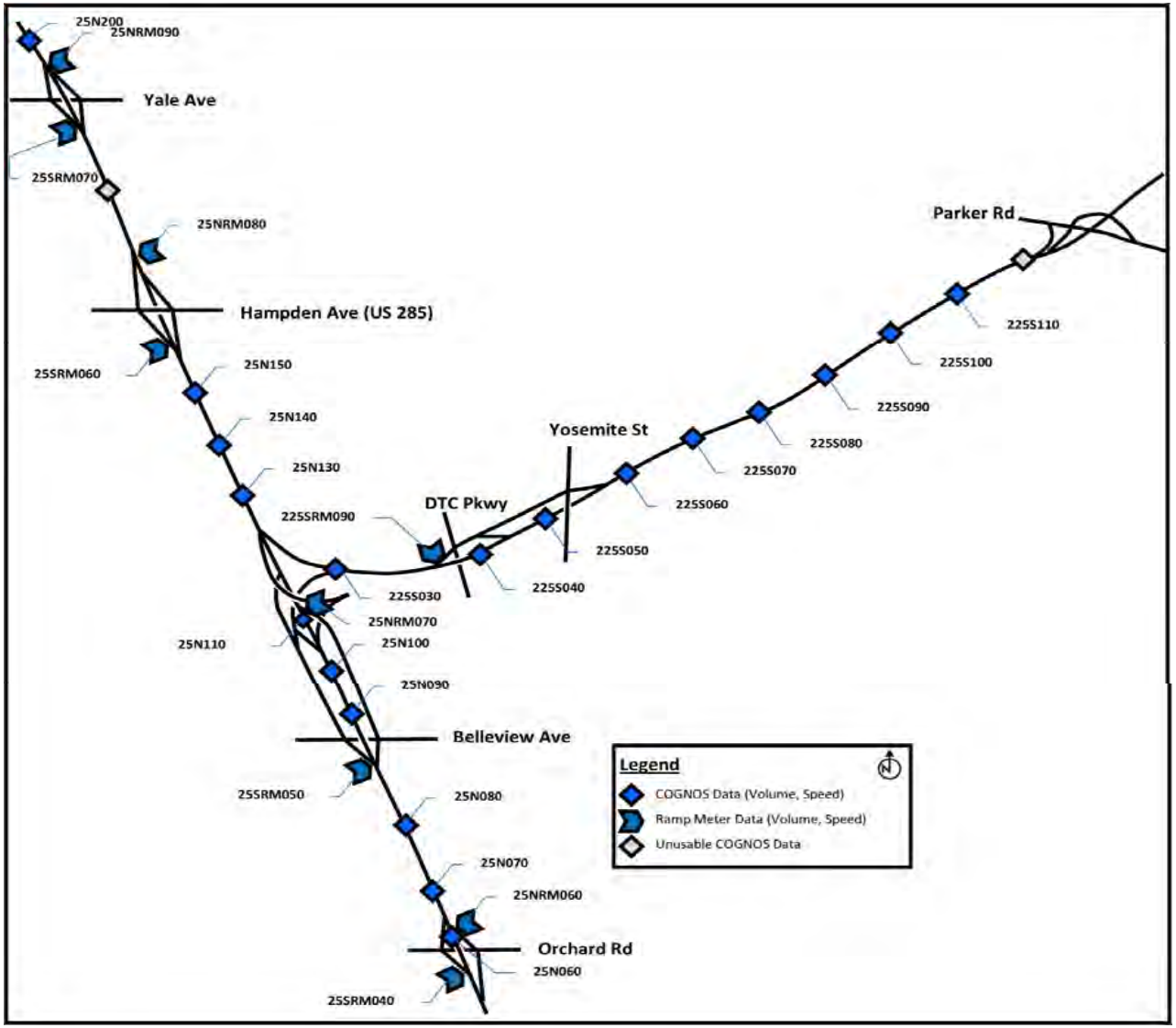
PM	COGNOS	MODEL																						AGGREGATE	
TIME	225S110	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	70.1	68.4	1.7	68.8	1.3	68.5	1.6	68.3	1.8	68.7	1.4	68.8	1.3	68.7	1.4	68.3	1.8	68.6	1.5	68.7	1.4	68.7	1.4	68.6	1.5
14:15 - 14:30	70.6	68.5	2.1	68.5	2.1	68.2	2.4	68.3	2.3	68.6	2.0	68.5	2.1	68.3	2.3	68.9	1.7	68.4	2.2	68.8	1.8	68.4	2.2	68.5	2.1
14:30 - 14:45	69.6	68.4	1.2	68.9	0.7	68.4	1.2	68.0	1.6	68.5	1.1	68.1	1.5	68.4	1.2	68.4	1.2	68.5	1.1	68.2	1.4	68.4	1.2	68.4	1.2
14:45 - 15:00	69.0	68.5	0.5	67.6	1.4	67.5	1.5	67.7	1.3	68.2	0.8	68.1	0.9	67.7	1.3	68.3	0.7	67.9	1.1	67.7	1.3	68.1	0.9	67.9	1.1
15:00 - 15:15	70.0	68.0	2.0	68.1	1.9	68.2	1.8	68.3	1.7	68.3	1.7	68.0	2.0	68.6	1.4	68.3	1.7	68.7	1.3	68.3	1.7	68.2	1.8	68.3	1.7
15:15 - 15:30	69.9	68.6	1.3	68.6	1.3	68.1	1.8	68.4	1.4	68.6	1.3	68.5	1.3	68.7	1.1	68.7	1.1	68.8	1.1	68.4	1.4	68.6	1.3	68.5	1.3
15:30 - 15:45	68.3	67.7	0.6	67.5	0.8	67.9	0.4	68.1	0.2	67.8	0.5	67.5	0.8	68.1	0.2	68.3	- 0.0	67.9	0.4	68.1	0.2	68.1	0.2	67.9	0.4
15:45 - 16:00	68.9	68.0	0.9	68.1	0.8	68.6	0.3	68.1	0.8	67.9	1.0	68.3	0.6	68.3	0.6	68.5	0.4	68.3	0.6	67.9	1.0	68.1	0.8	68.2	0.7
16:00 - 16:15	67.7	68.2	- 0.5	68.0	- 0.3	68.1	- 0.4	68.2	- 0.5	68.2	- 0.5	68.3	- 0.6	68.4	- 0.7	68.4	- 0.7	68.1	- 0.4	68.1	- 0.4	68.2	- 0.5	68.2	- 0.5
16:15 - 16:30	65.2	66.8	- 1.6	67.9	- 2.7	68.1	- 2.9	68.1	- 2.9	67.4	- 2.2	67.8	- 2.6	68.1	- 2.9	67.5	- 2.3	67.9	- 2.7	68.1	- 2.9	67.6	- 2.4	67.8	- 2.6
16:30 - 16:45	49.9	67.8	-17.9	67.9	-18.0	67.4	-17.5	68.0	-18.1	67.4	-17.5	67.9	-18.0	68.3	-18.4	67.7	-17.8	67.4	-17.5	67.1	-17.2	67.9	-18.0	67.7	-17.8
16:45 - 17:00	31.1	68.2	-37.1	68.7	-37.6	68.7	-37.6	68.5	-37.4	68.6	-37.5	68.6	-37.5	68.7	-37.6	68.7	-37.6	68.7	-37.6	68.3	-37.2	68.5	-37.4	68.6	-37.5
17:00 - 17:15	52.1	68.5	-16.4	68.5	-16.4	68.8	-16.7	68.0	-15.9	68.6	-16.5	68.3	-16.2	68.3	-16.2	68.8	-16.7	68.6	-16.5	68.4	-16.3	68.9	-16.8	68.5	-16.4
17:15 - 17:30	56.8	68.4	-11.6	67.9	-11.1	68.2	-11.4	68.3	-11.5	68.2	-11.4	68.7	-11.9	68.4	-11.6	68.1	-11.3	68.0	-11.2	68.6	-11.8	68.2	-11.4	68.3	-11.5
17:30 - 17:45	52.2	68.2	-16.0	68.3	-16.1	68.3	-16.1	68.4	-16.2	68.6	-16.4	68.6	-16.4	68.5	-16.3	68.2	-16.0	68.2	-16.0	68.4	-16.2	68.3	-16.1	68.4	-16.2
17:45 - 18:00	59.4	68.4	- 9.0	68.4	- 9.0	67.9	- 8.5	68.3	- 8.9	68.4	- 9.0	67.9	- 8.5	68.3	- 8.9	68.2	- 8.8	68.4	- 9.0	68.7	- 9.3	68.4	- 9.0	68.3	- 8.9
Hour 1	69.8	68.5	1.4	68.5	1.4	68.2	1.7	68.1	1.8	68.5	1.3	68.4	1.5	68.3	1.6	68.5	1.4	68.4	1.5	68.4	1.5	68.4	1.4	68.4	1.5
Hour 2	69.2	68.1	1.2	68.1	1.2	68.2	1.0	68.2	1.0	68.2	1.1	68.1	1.2	68.4	0.8	68.5	0.8	68.4	0.8	68.2	1.1	68.3	1.0	68.2	1.0
Hour 3	53.5	67.8	-14.3	68.1	-14.7	68.1	-14.6	68.2	-14.7	67.9	-14.4	68.2	-14.7	68.4	-14.9	68.1	-14.6	68.0	-14.6	67.9	-14.4	68.1	-14.6	68.1	-14.6
Hour 4	55.1	68.4	-13.2	68.3	-13.1	68.3	-13.2	68.3	-13.1	68.5	-13.3	68.4	-13.2	68.4	-13.2	68.3	-13.2	68.3	-13.2	68.5	-13.4	68.5	-13.3	68.4	-13.2
11	61.9	68.2	- 6.2	68.2	- 6.3	68.2	- 6.3	68.2	- 6.3	68.3	- 6.3	68.2	- 6.3	68.4	- 6.4	68.3	- 6.4	68.3	- 6.4	68.2	- 6.3	68.3	- 6.4	68.3	- 6.3



AVERAGE VEHICLE SPEEDS - BY LINK

CONCEPT 3: +10% I-225

ROUTE: I-25
PERIOD: PM

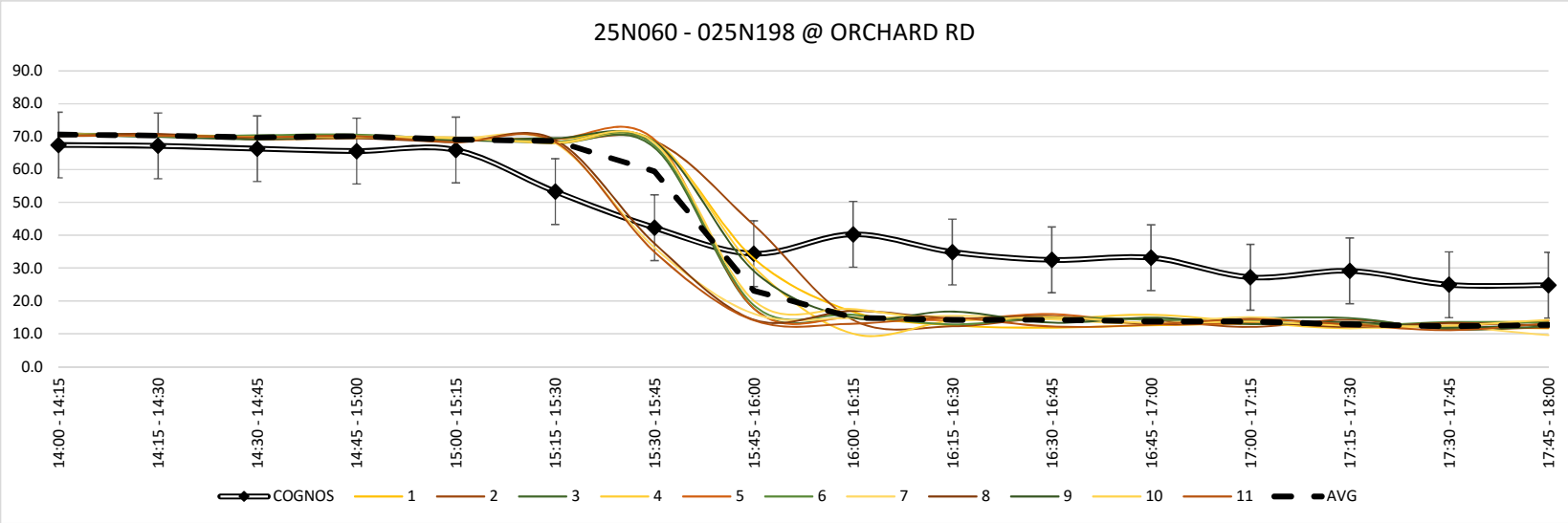


LOCATION	COGNOS DESCRIPTION
25N060	025N198 @ ORCHARD RD
25N070	025N199 0.4MI N OF ORCHARD RD
25N080	025N199 0.4MI S OF BELLEVIEW AVE
25N090	025S199 @ BELLVIEW AVE
25N100	025N200 BELLVIEW AVE TO I-25 NB (153)
25N110	025N200 @ I-225
25N130	025N201 0.2MI N OF I-225
25N140	025N201 I-225 TO HAMPDEN AVE 2 (132)
25N150	025N201 0.6MI S OF HAMPDEN AVE
25N200	025N203 0.4MI N OF YALE AVE (124)

CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

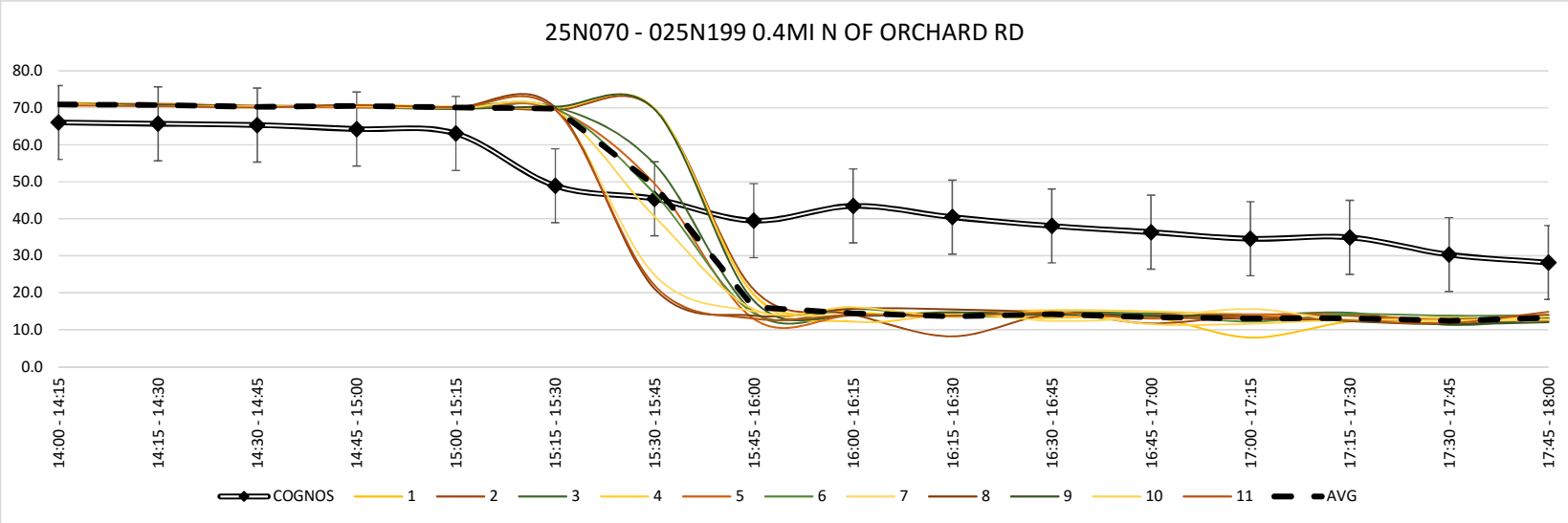
PM	COGNOS	MODEL																						AGGREGATE	
TIME	25N060	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	67.4	70.4	- 3.0	71.0	- 3.6	70.9	- 3.5	70.7	- 3.3	70.2	- 2.8	70.7	- 3.3	70.7	- 3.3	70.3	- 2.9	70.6	- 3.2	70.4	- 3.0	70.2	- 2.8	70.6	- 3.2
14:15 - 14:30	67.2	70.5	- 3.3	70.3	- 3.1	70.6	- 3.4	70.3	- 3.1	70.5	- 3.3	70.0	- 2.8	70.3	- 3.1	70.8	- 3.6	69.9	- 2.7	70.2	- 3.0	70.3	- 3.1	70.3	- 3.1
14:30 - 14:45	66.3	70.1	- 3.8	70.0	- 3.7	69.5	- 3.2	69.2	- 2.9	69.8	- 3.5	70.4	- 4.1	69.4	- 3.1	69.2	- 2.9	69.2	- 2.9	69.9	- 3.6	69.8	- 3.5	69.7	- 3.4
14:45 - 15:00	65.6	70.3	- 4.7	70.3	- 4.7	70.3	- 4.7	69.6	- 4.0	70.3	- 4.7	70.6	- 5.0	70.0	- 4.4	69.5	- 3.9	69.9	- 4.3	69.8	- 4.2	70.1	- 4.5	70.1	- 4.5
15:00 - 15:15	65.9	69.3	- 3.4	69.4	- 3.5	69.0	- 3.1	69.7	- 3.8	69.2	- 3.3	69.2	- 3.3	69.5	- 3.6	68.3	- 2.4	68.8	- 2.9	69.5	- 3.6	68.3	- 2.4	69.1	- 3.2
15:15 - 15:30	53.3	69.3	-16.0	68.5	-15.2	68.0	-14.7	68.0	-14.7	69.3	-16.0	68.5	-15.2	68.0	-14.7	69.0	-15.7	69.5	-16.2	68.2	-14.9	68.4	-15.1	68.6	-15.3
15:30 - 15:45	42.3	68.4	-26.1	68.7	-26.4	66.6	-24.3	68.8	-26.5	69.1	-26.8	67.3	-25.0	36.2	6.1	37.5	4.8	68.4	-26.1	68.1	-25.8	34.9	7.4	59.4	-17.1
15:45 - 16:00	34.4	32.9	1.5	43.1	- 8.7	17.7	16.7	30.3	4.1	17.7	16.7	18.7	15.7	16.1	18.3	14.3	20.1	29.1	5.3	20.1	14.3	14.1	20.3	23.1	11.3
16:00 - 16:15	40.3	16.7	23.6	14.2	26.1	15.0	25.3	10.0	30.3	14.9	25.4	15.8	24.5	14.8	25.5	17.0	23.3	14.9	25.4	17.5	22.8	13.1	27.2	14.9	25.4
16:15 - 16:30	34.9	12.6	22.3	12.3	22.6	14.5	20.4	14.0	20.9	14.2	20.7	12.9	22.0	15.5	19.4	14.7	20.2	16.8	18.1	14.3	20.6	14.8	20.1	14.2	20.7
16:30 - 16:45	32.5	11.9	20.6	14.9	17.6	14.8	17.7	14.5	18.0	16.0	16.5	15.0	17.5	14.4	18.1	15.4	17.1	13.4	19.1	15.1	17.4	12.2	20.3	14.3	18.2
16:45 - 17:00	33.2	12.6	20.6	14.2	19.0	13.2	20.0	15.8	17.4	13.0	20.2	14.3	18.9	13.0	20.2	13.0	20.2	14.9	18.3	13.3	19.9	12.8	20.4	13.7	19.5
17:00 - 17:15	27.2	13.1	14.1	12.1	15.1	14.6	12.6	13.5	13.7	13.2	14.0	14.0	13.2	15.1	12.1	13.6	13.6	13.0	14.2	13.7	13.5	14.5	12.7	13.7	13.5
17:15 - 17:30	29.1	13.0	16.1	14.3	14.8	14.8	14.3	11.7	17.4	12.9	16.2	12.5	16.6	11.9	17.2	12.1	17.0	13.6	15.5	12.5	16.6	12.8	16.3	12.9	16.2
17:30 - 17:45	24.9	12.0	12.9	11.5	13.4	11.4	13.5	13.3	11.6	12.5	12.4	13.6	11.3	12.1	12.8	13.3	11.6	11.9	13.0	12.5	12.4	11.1	13.8	12.3	12.6
17:45 - 18:00	24.8	11.7	13.1	11.9	12.9	12.3	12.5	13.8	11.0	14.0	10.8	13.4	11.4	9.6	15.2	12.5	12.3	12.9	11.9	14.3	10.5	13.2	11.6	12.7	12.1
Hour 1	66.6	70.3	- 3.7	70.4	- 3.8	70.3	- 3.7	70.0	- 3.3	70.2	- 3.6	70.4	- 3.8	70.1	- 3.5	70.0	- 3.3	69.9	- 3.3	70.1	- 3.4	70.1	- 3.5	70.2	- 3.5
Hour 2	49.0	60.0	-11.0	62.4	-13.5	55.3	- 6.4	59.2	-10.2	56.3	- 7.4	55.9	- 7.0	47.5	1.5	47.3	1.7	59.0	-10.0	56.5	- 7.5	46.4	2.5	55.1	- 6.1
Hour 3	35.2	13.5	21.8	13.9	21.3	14.4	20.8	13.6	21.6	14.5	20.7	14.5	20.7	14.4	20.8	15.0	20.2	15.0	20.2	15.1	20.2	13.2	22.0	14.3	20.9
Hour 4	26.5	12.5	14.1	12.5	14.1	13.3	13.2	13.1	13.4	13.2	13.4	13.4	13.1	12.2	14.3	12.9	13.6	12.9	13.7	13.3	13.3	12.9	13.6	12.9	13.6
11	44.3	39.1	5.3	39.8	4.5	38.3	6.0	39.0	5.4	38.6	5.8	38.6	5.8	36.0	8.3	36.3	8.0	39.2	5.2	38.7	5.6	35.7	8.7	38.1	6.2



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

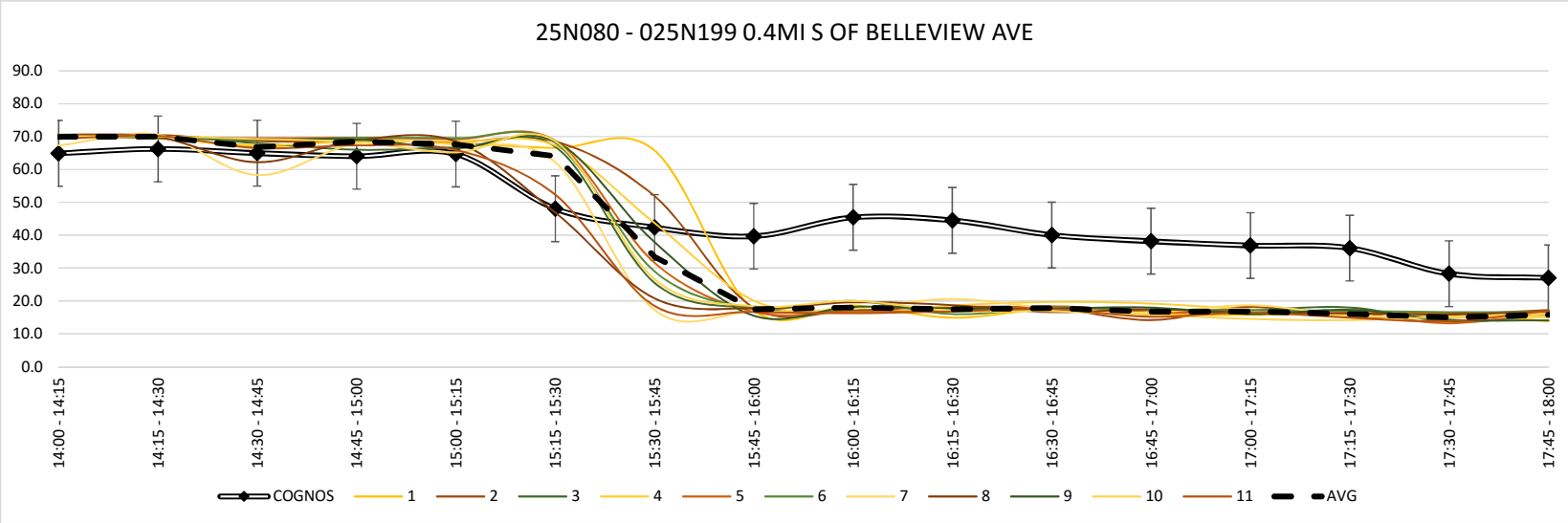
PM	COGNOS	MODEL																						AGGREGATE	
TIME	25N070	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	66.0	71.3	- 5.3	71.2	- 5.2	70.8	- 4.8	70.5	- 4.5	70.7	- 4.7	70.7	- 4.7	70.8	- 4.8	71.0	- 5.0	70.9	- 4.9	71.1	- 5.1	70.7	- 4.7	70.9	- 4.9
14:15 - 14:30	65.7	70.9	- 5.2	70.9	- 5.2	70.9	- 5.2	70.8	- 5.1	71.1	- 5.4	70.7	- 5.0	70.8	- 5.1	70.8	- 5.1	70.8	- 5.1	70.4	- 4.7	70.4	- 4.7	70.8	- 5.1
14:30 - 14:45	65.3	70.1	- 4.8	70.6	- 5.3	70.4	- 5.1	70.3	- 5.0	70.3	- 5.0	70.3	- 5.0	70.2	- 4.9	70.4	- 5.1	70.3	- 5.0	70.4	- 5.1	70.1	- 4.8	70.3	- 5.0
14:45 - 15:00	64.3	70.8	- 6.5	70.4	- 6.1	70.1	- 5.8	70.2	- 5.9	70.1	- 5.8	70.5	- 6.2	70.7	- 6.4	70.5	- 6.2	70.7	- 6.4	70.4	- 6.1	70.7	- 6.4	70.5	- 6.2
15:00 - 15:15	63.1	70.1	- 7.0	70.2	- 7.1	69.7	- 6.6	70.1	- 7.0	70.1	- 7.0	70.2	- 7.1	70.3	- 7.2	70.2	- 7.1	69.8	- 6.7	69.9	- 6.8	70.0	- 6.9	70.1	- 7.0
15:15 - 15:30	48.9	70.0	-21.1	69.4	-20.5	70.2	-21.3	70.0	-21.1	69.6	-20.7	69.8	-20.9	69.6	-20.7	70.1	-21.2	70.3	-21.4	69.4	-20.5	69.5	-20.6	69.8	-20.9
15:30 - 15:45	45.4	69.6	-24.2	69.7	-24.3	54.8	- 9.4	69.9	-24.5	49.5	- 4.1	46.8	- 1.4	24.8	20.6	21.1	24.3	69.6	-24.2	40.6	4.8	22.0	23.4	49.0	- 3.6
15:45 - 16:00	39.5	19.5	20.0	20.8	18.7	14.8	24.7	19.4	20.1	12.9	26.6	14.5	25.0	15.0	24.5	13.8	25.7	17.8	21.7	15.5	24.0	13.0	26.5	16.1	23.4
16:00 - 16:15	43.5	14.8	28.7	14.1	29.4	14.1	29.4	12.2	31.3	13.9	29.6	15.7	27.8	13.9	29.6	15.7	27.8	13.9	29.6	16.1	27.4	14.0	29.5	14.4	29.1
16:15 - 16:30	40.4	13.8	26.6	8.2	32.2	13.8	26.6	14.3	26.1	13.7	26.7	13.6	26.8	14.7	25.7	15.5	24.9	14.7	25.7	13.5	26.9	13.7	26.7	13.6	26.8
16:30 - 16:45	38.1	13.2	24.9	14.2	23.9	14.7	23.4	15.3	22.8	14.0	24.1	14.2	23.9	12.4	25.7	14.7	23.4	14.1	24.0	14.9	23.2	14.6	23.5	14.2	23.9
16:45 - 17:00	36.4	13.4	23.0	11.7	24.7	14.4	22.0	14.9	21.5	14.1	22.3	14.0	22.4	13.3	23.1	13.6	22.8	13.8	22.6	11.5	24.9	13.0	23.4	13.4	23.0
17:00 - 17:15	34.6	7.9	26.7	13.8	20.8	13.9	20.7	14.1	20.5	14.2	20.4	12.2	22.4	15.6	19.0	12.9	21.7	13.6	21.0	11.6	23.0	13.6	21.0	13.0	21.6
17:15 - 17:30	35.0	12.2	22.8	13.8	21.2	14.6	20.4	12.6	22.4	14.0	21.0	14.2	20.8	12.5	22.5	12.6	22.4	12.3	22.7	12.7	22.3	12.5	22.5	13.1	21.9
17:30 - 17:45	30.3	13.2	17.1	11.6	18.7	11.3	19.0	13.2	17.1	12.5	17.8	13.8	16.5	12.4	17.9	12.7	17.6	11.5	18.8	12.5	17.8	11.8	18.5	12.4	17.9
17:45 - 18:00	28.2	12.2	16.0	13.2	15.0	13.1	15.1	12.5	15.7	12.6	15.6	13.9	14.3	12.8	15.4	14.0	14.2	12.0	16.2	13.6	14.6	14.8	13.4	13.2	15.0
Hour 1	65.3	70.8	- 5.5	70.8	- 5.5	70.6	- 5.2	70.5	- 5.1	70.6	- 5.2	70.6	- 5.2	70.6	- 5.3	70.7	- 5.4	70.7	- 5.4	70.6	- 5.3	70.5	- 5.2	70.6	- 5.3
Hour 2	49.2	57.3	- 8.1	57.5	- 8.3	52.4	- 3.2	57.4	- 8.1	50.5	- 1.3	50.3	- 1.1	44.9	4.3	43.8	5.4	56.9	- 7.7	48.9	0.4	43.6	5.6	51.3	- 2.0
Hour 3	39.6	13.8	25.8	12.1	27.5	14.3	25.3	14.2	25.4	13.9	25.7	14.4	25.2	13.6	26.0	14.9	24.7	14.1	25.5	14.0	25.6	13.8	25.8	13.9	25.7
Hour 4	32.0	11.4	20.6	13.1	18.9	13.2	18.8	13.1	18.9	13.3	18.7	13.5	18.5	13.3	18.7	13.1	19.0	12.4	19.7	12.6	19.4	13.2	18.8	12.9	19.1
11	46.5	38.3	8.2	38.4	8.2	37.6	8.9	38.8	7.8	37.1	9.5	37.2	9.3	35.6	10.9	35.6	10.9	38.5	8.0	36.5	10.0	35.3	11.3	37.2	9.4



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

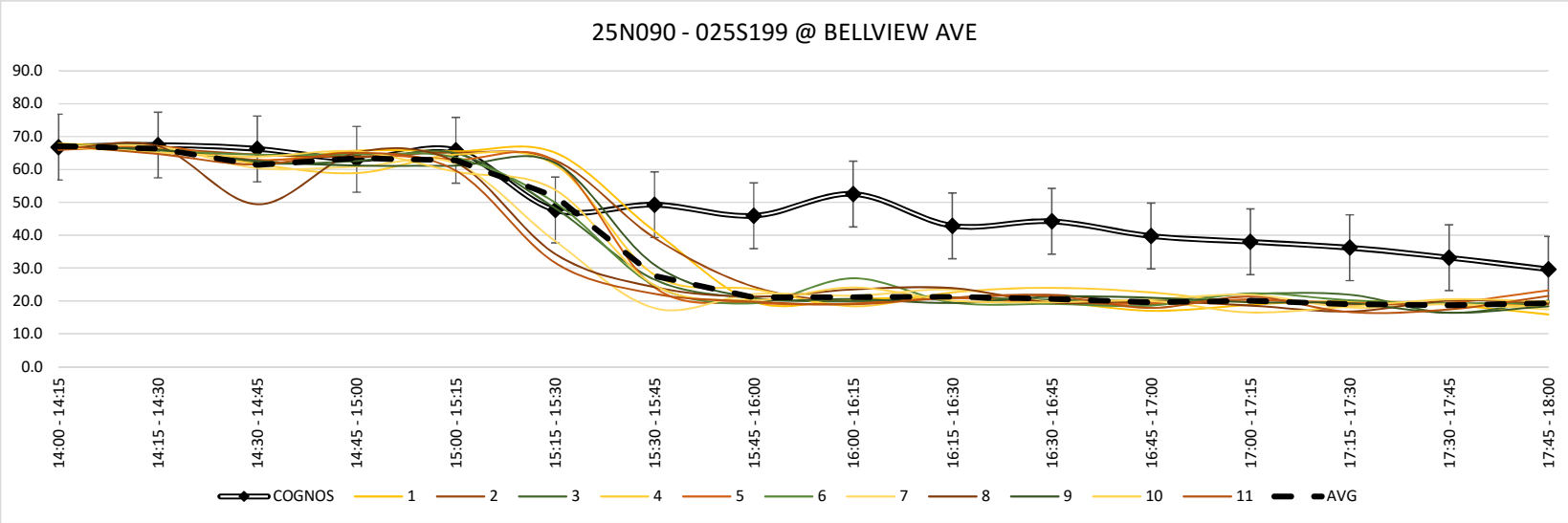
PM	COGNOS	MODEL																						AGGREGATE	
TIME	25N080	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	64.9	70.4	- 5.5	70.6	- 5.7	70.0	- 5.1	70.4	- 5.5	70.2	- 5.3	70.4	- 5.5	67.3	- 2.4	70.2	- 5.3	70.1	- 5.2	70.1	- 5.2	69.3	- 4.4	69.9	- 5.0
14:15 - 14:30	66.2	69.8	- 3.6	70.5	- 4.3	70.2	- 4.0	69.4	- 3.2	69.7	- 3.5	69.5	- 3.3	70.6	- 4.4	69.8	- 3.6	70.0	- 3.8	70.0	- 3.8	70.2	- 4.0	70.0	- 3.8
14:30 - 14:45	65.0	66.9	- 2.0	68.6	- 3.6	68.0	- 3.1	67.4	- 2.5	69.5	- 4.6	69.0	- 4.1	58.3	6.7	62.2	2.8	69.2	- 4.3	69.3	- 4.3	66.5	- 1.6	66.8	- 1.8
14:45 - 15:00	64.0	69.0	- 5.0	68.6	- 4.6	66.0	- 2.0	68.5	- 4.5	69.6	- 5.6	69.6	- 5.6	67.9	- 3.9	68.8	- 4.8	69.1	- 5.1	68.3	- 4.3	67.3	- 3.3	68.4	- 4.4
15:00 - 15:15	64.7	68.0	- 3.3	68.4	- 3.7	66.6	- 1.9	68.5	- 3.8	69.2	- 4.5	69.5	- 4.8	67.4	- 2.7	68.5	- 3.8	66.5	- 1.8	65.2	- 0.5	65.9	- 1.2	67.6	- 2.9
15:15 - 15:30	48.1	66.5	-18.4	68.5	-20.4	66.9	-18.8	67.3	-19.2	68.7	-20.6	68.1	-20.0	62.2	-14.1	46.9	1.2	68.6	-20.5	68.6	-20.5	52.3	- 4.2	64.1	-16.0
15:30 - 15:45	42.3	65.8	-23.5	51.9	- 9.6	25.5	16.8	43.7	- 1.4	31.6	10.7	29.0	13.3	17.2	25.1	20.8	21.5	37.9	4.4	26.6	15.7	18.5	23.8	33.5	8.8
15:45 - 16:00	39.7	17.2	22.5	17.9	21.8	17.7	22.0	20.1	19.6	16.7	23.0	17.9	21.8	16.8	22.9	17.7	22.0	15.5	24.2	18.4	21.3	16.7	23.0	17.5	22.2
16:00 - 16:15	45.4	18.6	26.8	17.2	28.2	17.0	28.4	16.3	29.1	16.8	28.6	20.0	25.4	17.6	27.8	19.6	25.8	18.2	27.2	20.0	25.4	16.3	29.1	18.0	27.4
16:15 - 16:30	44.5	14.9	29.6	18.2	26.3	17.1	27.4	18.6	25.9	16.9	27.6	16.0	28.5	20.6	23.9	18.7	25.8	17.7	26.8	17.0	27.5	16.8	27.7	17.5	27.0
16:30 - 16:45	40.1	17.6	22.5	17.7	22.4	18.2	21.9	19.7	20.4	18.4	21.7	17.9	22.2	17.7	22.4	16.6	23.5	17.7	22.4	16.9	23.2	17.5	22.6	17.8	22.3
16:45 - 17:00	38.2	16.0	22.2	14.2	24.0	17.2	21.0	19.2	19.0	16.6	21.6	17.3	20.9	16.5	21.7	17.5	20.7	18.0	20.2	15.8	22.4	15.2	23.0	16.7	21.5
17:00 - 17:15	36.9	15.8	21.1	18.2	18.7	17.3	19.6	17.4	19.5	16.5	20.4	17.2	19.7	18.7	18.2	16.4	20.5	16.0	20.9	14.5	22.4	16.5	20.4	16.8	20.1
17:15 - 17:30	36.1	16.2	19.9	15.1	21.0	18.0	18.1	15.4	20.7	16.6	19.5	17.0	19.1	15.6	20.5	16.2	19.9	17.3	18.8	14.2	21.9	14.9	21.2	16.1	20.0
17:30 - 17:45	28.3	16.3	12.0	15.8	12.5	13.8	14.5	15.0	13.3	13.2	15.1	16.6	11.7	15.3	13.0	16.0	12.3	14.3	14.0	15.2	13.1	13.9	14.4	15.0	13.3
17:45 - 18:00	27.0	13.8	13.2	17.2	9.8	15.6	11.4	15.5	11.5	16.7	10.3	16.7	10.3	14.9	12.1	16.6	10.4	14.1	12.9	16.2	10.8	17.0	10.0	15.8	11.2
Hour 1	65.0	69.0	- 4.0	69.6	- 4.5	68.6	- 3.5	68.9	- 3.9	69.8	- 4.7	69.6	- 4.6	66.0	- 1.0	67.8	- 2.7	69.6	- 4.6	69.4	- 4.4	68.3	- 3.3	68.8	- 3.7
Hour 2	48.7	54.4	- 5.7	51.7	- 3.0	44.2	4.5	49.9	- 1.2	46.6	2.1	46.1	2.6	40.9	7.8	38.5	10.2	47.1	1.6	44.7	4.0	38.4	10.3	45.7	3.0
Hour 3	42.0	16.8	25.3	16.8	25.2	17.4	24.7	18.5	23.6	17.2	24.9	17.8	24.2	18.1	23.9	18.1	23.9	17.9	24.1	17.4	24.6	16.5	25.6	17.5	24.5
Hour 4	32.1	15.5	16.5	16.6	15.5	16.2	15.9	15.8	16.2	15.8	16.3	16.9	15.2	16.1	15.9	16.3	15.8	15.4	16.6	15.0	17.0	15.6	16.5	15.9	16.1
11	47.0	38.9	8.0	38.7	8.3	36.6	10.4	38.3	8.7	37.3	9.6	37.6	9.3	35.3	11.7	35.2	11.8	37.5	9.4	36.6	10.3	34.7	12.3	37.0	10.0



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

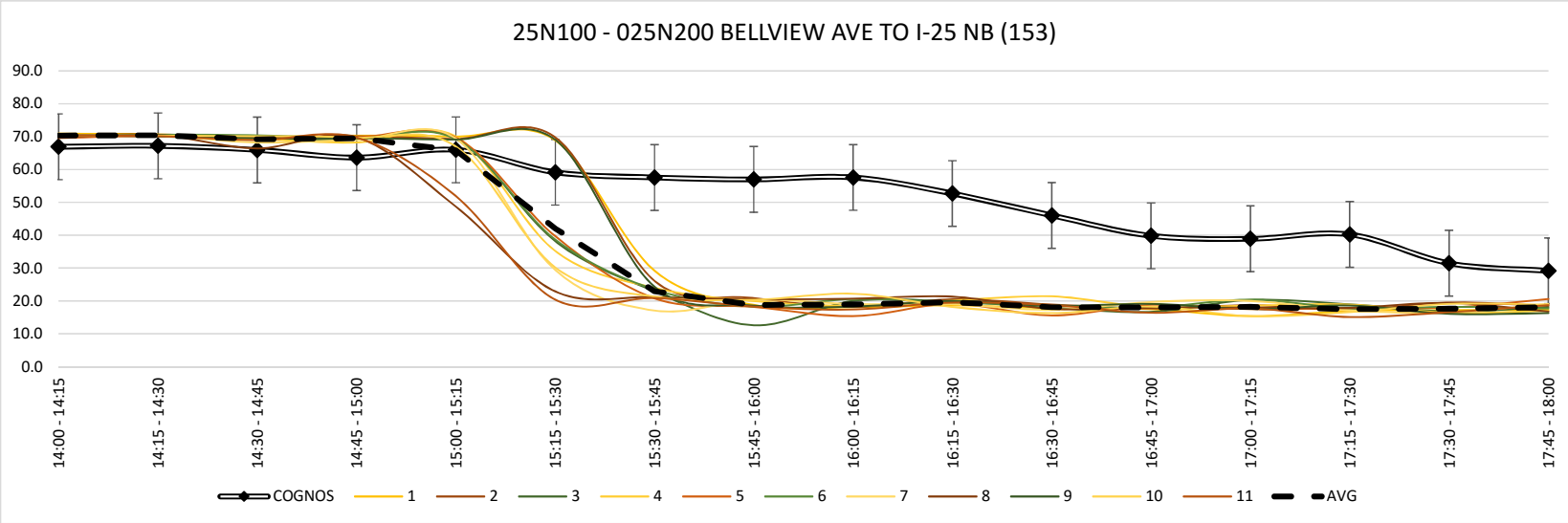
PM	COGNOS	MODEL																						AGGREGATE	
TIME	25N090	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	66.8	67.9	- 1.1	67.6	- 0.8	67.4	- 0.6	67.5	- 0.7	65.9	0.9	67.7	- 0.9	67.0	- 0.2	66.2	0.6	66.7	0.1	66.8	0.0	67.3	- 0.5	67.1	- 0.3
14:15 - 14:30	67.4	66.4	1.0	66.5	0.9	67.1	0.3	66.7	0.7	67.1	0.3	65.7	1.7	66.9	0.5	67.1	0.3	66.0	1.4	65.2	2.2	64.7	2.7	66.3	1.1
14:30 - 14:45	66.3	62.7	3.6	64.5	1.8	62.0	4.3	61.6	4.7	62.9	3.4	64.5	1.8	60.4	5.9	49.4	16.9	62.6	3.7	63.9	2.4	61.5	4.8	61.4	4.9
14:45 - 15:00	63.1	65.7	- 2.6	63.8	- 0.7	62.6	0.5	58.9	4.2	64.6	- 1.5	64.5	- 1.4	60.8	2.3	65.1	- 2.0	61.2	1.9	65.5	- 2.4	65.1	- 2.0	63.4	- 0.3
15:00 - 15:15	65.8	65.5	0.3	65.1	0.7	64.9	0.9	64.5	1.3	63.0	2.8	63.6	2.2	61.8	4.0	62.2	3.6	61.2	4.6	59.3	6.5	59.6	6.2	62.8	3.0
15:15 - 15:30	47.7	65.1	-17.4	62.8	-15.1	48.2	- 0.5	61.4	-13.7	62.4	-14.7	49.9	- 2.2	38.2	9.5	34.3	13.4	62.0	-14.3	53.8	- 6.1	31.6	16.1	51.8	- 4.1
15:30 - 15:45	49.3	41.2	8.1	39.2	10.1	26.5	22.8	27.9	21.4	24.1	25.2	24.7	24.6	17.8	31.5	24.2	25.1	31.0	18.3	24.8	24.5	22.2	27.1	27.6	21.7
15:45 - 16:00	45.9	19.8	26.1	24.3	21.6	20.8	25.1	23.6	22.3	19.5	26.4	19.3	26.6	22.1	23.8	21.3	24.6	20.9	25.0	20.3	25.6	19.8	26.1	21.1	24.8
16:00 - 16:15	52.5	20.6	31.9	19.8	32.7	19.9	32.6	18.4	34.1	19.2	33.3	26.9	25.6	21.6	30.9	23.5	29.0	20.6	31.9	24.1	28.4	19.0	33.5	21.2	31.3
16:15 - 16:30	42.9	21.1	21.8	21.0	21.9	21.1	21.8	22.6	20.3	20.9	22.0	19.5	23.4	23.5	19.4	23.9	19.0	19.4	23.5	20.1	22.8	21.0	21.9	21.3	21.6
16:30 - 16:45	44.2	19.8	24.4	21.9	22.3	20.3	23.9	24.0	20.2	19.2	25.0	19.1	25.1	19.8	24.4	19.5	24.7	21.3	22.9	19.6	24.6	21.5	22.7	20.6	23.6
16:45 - 17:00	39.8	17.0	22.8	19.0	20.8	20.3	19.5	22.6	17.2	19.3	20.5	18.6	21.2	20.5	19.3	19.9	19.9	21.0	18.8	20.0	19.8	17.9	21.9	19.6	20.2
17:00 - 17:15	38.0	18.8	19.2	20.4	17.6	22.1	15.9	19.5	18.5	20.4	17.6	22.3	15.7	21.9	16.1	18.6	19.4	19.6	18.4	16.5	21.5	21.3	16.7	20.1	17.9
17:15 - 17:30	36.2	20.0	16.2	18.9	17.3	21.9	14.3	19.8	16.4	19.4	16.8	20.2	16.0	18.0	18.2	16.8	19.4	19.3	16.9	18.3	17.9	16.6	19.6	19.0	17.2
17:30 - 17:45	33.2	18.8	14.4	19.2	14.0	16.4	16.8	19.0	14.2	19.5	13.7	19.3	13.9	19.0	14.2	20.1	13.1	16.4	16.8	20.5	12.7	17.4	15.8	18.7	14.5
17:45 - 18:00	29.6	15.9	13.7	19.0	10.6	20.1	9.5	18.4	11.2	23.2	6.4	19.5	10.1	17.4	12.2	19.4	10.2	18.4	11.2	19.8	9.8	21.5	8.1	19.3	10.3
Hour 1	65.9	65.7	0.2	65.6	0.3	64.8	1.1	63.7	2.2	65.1	0.8	65.6	0.3	63.8	2.1	62.0	3.9	64.1	1.8	65.4	0.5	64.7	1.2	64.6	1.3
Hour 2	52.2	47.9	4.3	47.9	4.3	40.1	12.1	44.4	7.8	42.3	9.9	39.4	12.8	35.0	17.2	35.5	16.7	43.8	8.4	39.6	12.6	33.3	18.9	40.8	11.3
Hour 3	44.8	19.6	25.2	20.4	24.4	20.4	24.4	21.9	22.9	19.7	25.2	21.0	23.8	21.4	23.5	21.7	23.1	20.6	24.3	21.0	23.9	19.9	25.0	20.7	24.2
Hour 4	34.2	18.4	15.9	19.4	14.9	20.1	14.1	19.2	15.1	20.6	13.6	20.3	13.9	19.1	15.2	18.7	15.5	18.4	15.8	18.8	15.5	19.2	15.0	19.3	15.0
11	49.3	37.9	11.4	38.3	11.0	36.4	12.9	37.3	12.0	36.9	12.4	36.6	12.7	34.8	14.5	34.5	14.8	36.7	12.6	36.2	13.1	34.3	15.0	36.3	13.0



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

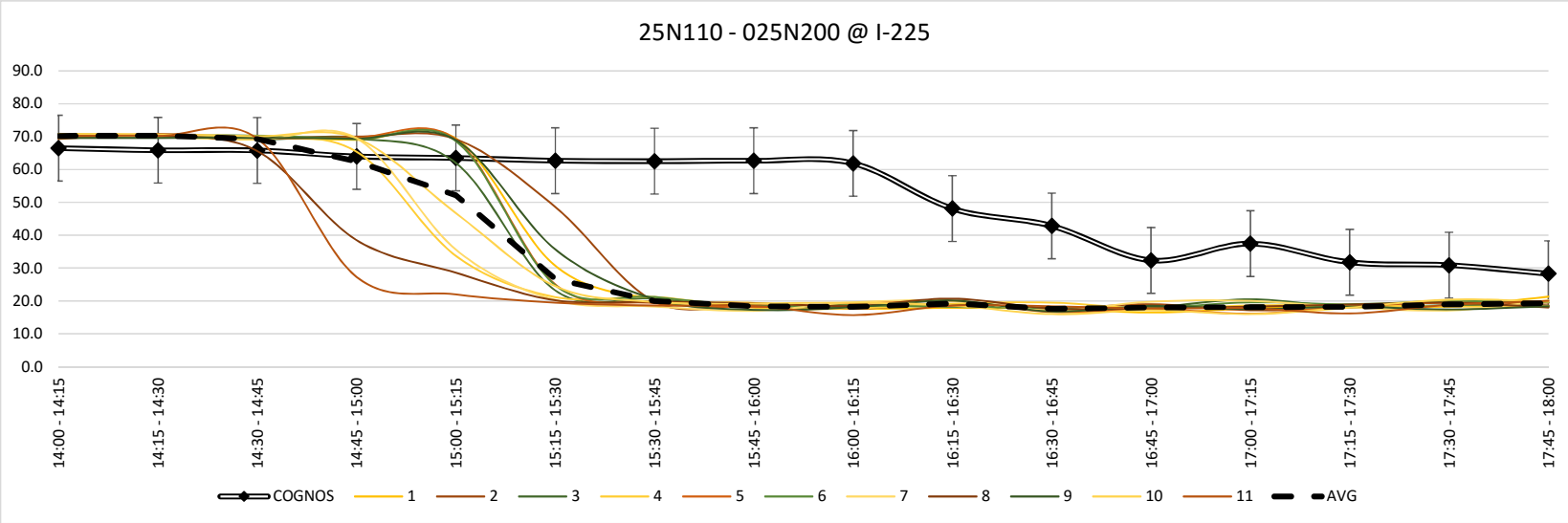
PM	COGNOS	MODEL																						AGGREGATE	
TIME	25N100	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	66.9	70.9	- 4.0	70.1	- 3.2	70.4	- 3.5	70.6	- 3.7	69.6	- 2.7	70.4	- 3.5	70.5	- 3.6	69.9	- 3.0	70.5	- 3.6	70.4	- 3.5	70.4	- 3.5	70.3	- 3.4
14:15 - 14:30	67.2	70.7	- 3.5	70.6	- 3.4	70.0	- 2.8	70.3	- 3.1	70.2	- 3.0	70.6	- 3.4	70.3	- 3.1	70.5	- 3.3	70.4	- 3.2	70.3	- 3.1	70.1	- 2.9	70.4	- 3.2
14:30 - 14:45	65.9	69.5	- 3.6	69.9	- 4.0	69.2	- 3.3	69.2	- 3.3	69.5	- 3.6	70.4	- 4.5	68.2	- 2.3	66.4	- 0.5	69.5	- 3.6	70.1	- 4.2	68.9	- 3.0	69.2	- 3.3
14:45 - 15:00	63.6	70.3	- 6.7	70.1	- 6.5	69.1	- 5.5	68.2	- 4.6	69.8	- 6.2	69.5	- 5.9	69.0	- 5.4	69.8	- 6.2	69.5	- 5.9	69.7	- 6.1	69.7	- 6.1	69.5	- 5.9
15:00 - 15:15	66.0	70.0	- 4.0	69.3	- 3.3	69.4	- 3.4	70.0	- 4.0	69.7	- 3.7	69.2	- 3.2	69.4	- 3.4	48.7	17.3	69.1	- 3.1	67.0	- 1.0	51.9	14.1	65.8	0.2
15:15 - 15:30	59.2	68.9	- 9.8	69.8	-10.7	38.2	21.0	35.2	24.0	39.7	19.5	38.7	20.5	29.4	29.8	22.9	36.3	69.0	- 9.9	30.2	29.0	20.4	38.8	42.0	17.2
15:30 - 15:45	57.6	29.2	28.4	26.1	31.5	22.9	34.7	24.0	33.6	20.8	36.8	23.5	34.1	17.1	40.5	21.2	36.4	24.3	33.3	21.3	36.3	20.9	36.7	22.9	34.7
15:45 - 16:00	57.0	18.8	38.2	20.9	36.1	12.6	44.4	20.0	37.0	18.2	38.8	18.3	38.7	20.3	36.7	20.5	36.5	18.6	38.4	20.4	36.6	18.3	38.7	18.8	38.2
16:00 - 16:15	57.6	18.1	39.5	18.2	39.4	20.0	37.6	18.5	39.1	15.4	42.2	20.6	37.0	19.1	38.5	20.7	36.9	18.3	39.3	22.2	35.4	17.4	40.2	18.9	38.7
16:15 - 16:30	52.7	18.7	34.0	20.5	32.2	19.8	32.9	20.1	32.6	19.1	33.6	19.5	33.2	19.0	33.7	21.3	31.4	20.0	32.7	18.2	34.5	19.5	33.2	19.6	33.1
16:30 - 16:45	46.0	17.8	28.2	18.9	27.1	17.9	28.1	21.4	24.6	15.6	30.4	18.7	27.3	17.3	28.7	17.6	28.4	18.5	27.5	16.3	29.7	18.7	27.3	18.1	27.9
16:45 - 17:00	39.8	17.5	22.3	17.7	22.1	16.7	23.1	18.1	21.7	18.8	21.0	18.0	21.8	19.7	20.1	17.9	21.9	19.1	20.7	18.3	21.5	16.4	23.4	18.0	21.8
17:00 - 17:15	38.9	15.4	23.5	18.7	20.2	20.3	18.6	18.6	20.3	17.5	21.4	20.4	18.5	20.0	18.9	18.0	20.9	17.5	21.4	15.4	23.5	17.7	21.2	18.2	20.7
17:15 - 17:30	40.2	16.9	23.3	17.3	22.9	19.0	21.2	18.9	21.3	17.9	22.3	17.7	22.5	17.1	23.1	17.9	22.3	18.6	21.6	16.6	23.6	15.1	25.1	17.5	22.7
17:30 - 17:45	31.5	17.2	14.3	19.5	12.0	16.8	14.7	16.4	15.1	18.0	13.5	18.2	13.3	16.5	15.0	19.4	12.1	16.1	15.4	19.1	12.4	16.6	14.9	17.6	13.9
17:45 - 18:00	29.2	17.3	11.9	18.5	10.7	18.1	11.1	17.0	12.2	20.6	8.6	17.7	11.5	19.1	10.1	16.8	12.4	16.3	12.9	18.9	10.3	18.7	10.5	18.1	11.1
Hour 1	65.9	70.4	- 4.4	70.2	- 4.3	69.7	- 3.8	69.6	- 3.7	69.8	- 3.9	70.2	- 4.3	69.5	- 3.6	69.2	- 3.2	70.0	- 4.1	70.1	- 4.2	69.8	- 3.9	69.9	- 3.9
Hour 2	59.9	46.7	13.2	46.5	13.4	35.8	24.1	37.3	22.6	37.1	22.8	37.4	22.5	34.1	25.9	28.3	31.6	45.3	14.7	34.7	25.2	27.9	32.0	37.4	22.5
Hour 3	49.0	18.0	31.0	18.8	30.2	18.6	30.4	19.5	29.5	17.2	31.8	19.2	29.8	18.8	30.2	19.4	29.6	19.0	30.0	18.8	30.3	18.0	31.0	18.7	30.4
Hour 4	34.9	16.7	18.2	18.5	16.4	18.6	16.4	17.7	17.2	18.5	16.4	18.5	16.4	18.2	16.8	18.0	16.9	17.1	17.8	17.5	17.4	17.0	17.9	17.9	17.1
11	52.4	38.0	14.5	38.5	13.9	35.7	16.8	36.0	16.4	35.7	16.8	36.3	16.1	35.1	17.3	33.7	18.7	37.8	14.6	35.3	17.2	33.2	19.3	35.9	16.5



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

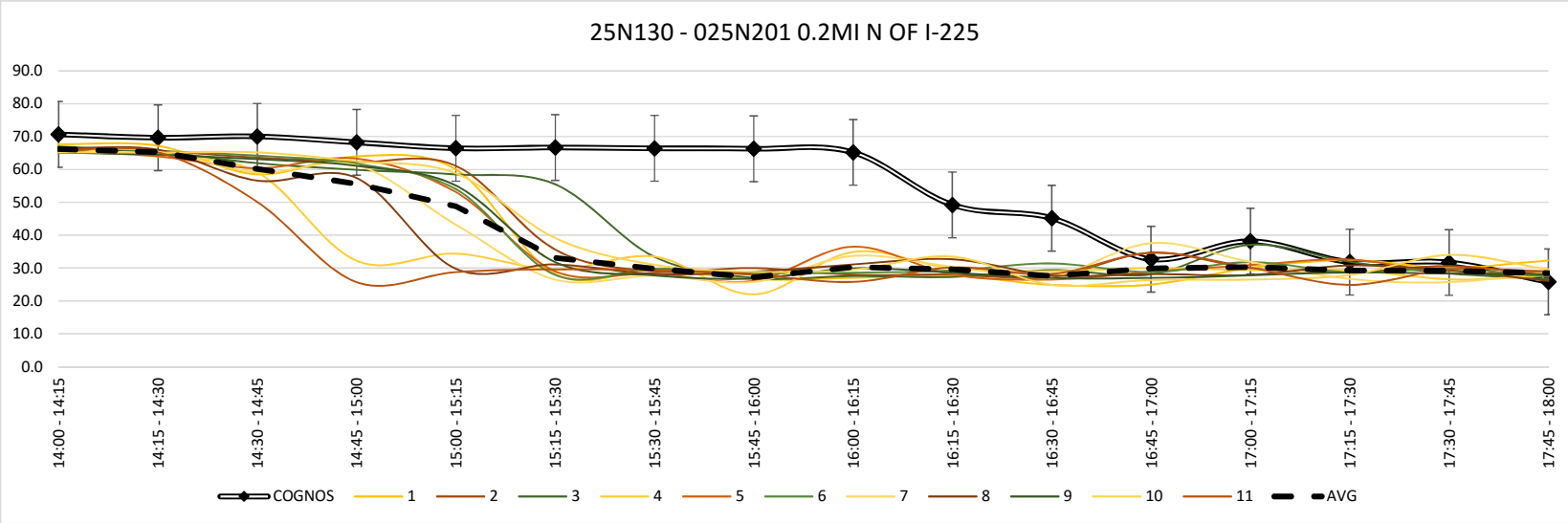
PM	COGNOS	MODEL																						AGGREGATE	
TIME	25N110	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	66.5	70.7	- 4.2	69.3	- 2.8	70.4	- 3.9	70.2	- 3.7	69.7	- 3.2	70.8	- 4.3	70.6	- 4.1	70.1	- 3.6	69.6	- 3.1	70.8	- 4.3	70.2	- 3.7	70.2	- 3.7
14:15 - 14:30	65.9	70.5	- 4.7	70.8	- 5.0	70.2	- 4.4	70.2	- 4.4	70.2	- 4.4	70.3	- 4.5	69.9	- 4.1	70.3	- 4.5	69.6	- 3.8	70.7	- 4.9	70.2	- 4.4	70.3	- 4.5
14:30 - 14:45	65.8	69.8	- 4.0	69.7	- 3.9	69.1	- 3.3	69.6	- 3.8	69.4	- 3.6	70.3	- 4.5	69.0	- 3.2	65.6	0.2	69.6	- 3.8	70.1	- 4.3	69.4	- 3.6	69.3	- 3.5
14:45 - 15:00	64.0	69.0	- 5.0	70.0	- 6.0	69.4	- 5.4	65.4	- 1.4	69.7	- 5.7	69.2	- 5.2	69.5	- 5.5	38.5	25.5	69.4	- 5.4	69.5	- 5.5	27.3	36.7	62.4	1.6
15:00 - 15:15	63.5	69.4	- 5.9	69.2	- 5.7	62.0	1.5	33.7	29.8	69.1	- 5.6	68.7	- 5.2	35.6	27.9	28.6	34.9	68.9	- 5.4	46.7	16.8	22.0	41.5	52.2	11.3
15:15 - 15:30	62.7	30.7	32.0	48.6	14.1	23.2	39.5	21.2	41.5	25.0	37.7	24.8	37.9	20.3	42.4	20.2	42.5	35.7	27.0	24.5	38.2	19.5	43.2	26.7	36.0
15:30 - 15:45	62.5	20.6	41.9	19.8	42.7	20.7	41.8	21.2	41.3	19.3	43.2	21.2	41.3	18.3	44.2	19.8	42.7	20.6	41.9	19.7	42.8	18.6	43.9	20.0	42.5
15:45 - 16:00	62.6	19.4	43.2	18.7	43.9	18.2	44.4	17.9	44.7	18.2	44.4	18.6	44.0	17.0	45.6	19.3	43.3	17.3	45.3	19.2	43.4	18.5	44.1	18.4	44.2
16:00 - 16:15	61.9	17.7	44.2	17.6	44.3	18.1	43.8	17.7	44.2	19.2	42.7	18.7	43.2	19.6	42.3	18.5	43.4	18.1	43.8	19.5	42.4	15.7	46.2	18.2	43.7
16:15 - 16:30	48.1	17.9	30.2	19.1	29.0	19.0	29.1	19.2	28.9	20.1	28.0	18.2	29.9	20.0	28.1	20.7	27.4	20.1	28.0	18.6	29.5	18.6	29.5	19.2	28.9
16:30 - 16:45	42.8	17.7	25.1	17.7	25.1	17.7	25.1	19.5	23.3	16.6	26.2	17.9	24.9	17.1	25.7	17.7	25.1	16.8	26.0	16.0	26.8	18.4	24.4	17.6	25.2
16:45 - 17:00	32.3	16.5	15.8	19.0	13.3	18.1	14.2	17.7	14.6	17.6	14.7	17.8	14.5	19.8	12.5	17.7	14.6	18.5	13.8	17.2	15.1	17.7	14.6	18.0	14.3
17:00 - 17:15	37.4	17.7	19.7	17.2	20.2	20.5	16.9	18.6	18.8	16.1	21.3	19.6	17.8	20.0	17.4	18.3	19.1	17.5	19.9	16.0	21.4	17.8	19.6	18.1	19.3
17:15 - 17:30	31.8	18.8	13.0	18.0	13.8	18.1	13.7	18.7	13.1	18.4	13.4	19.0	12.8	18.1	13.7	18.9	12.9	18.3	13.5	18.0	13.8	16.2	15.6	18.2	13.6
17:30 - 17:45	30.9	18.3	12.6	20.1	10.8	18.7	12.2	18.3	12.6	19.5	11.4	20.0	10.9	17.1	13.8	19.5	11.4	17.4	13.5	20.4	10.5	18.8	12.1	18.9	12.0
17:45 - 18:00	28.3	21.3	7.0	18.6	9.7	18.5	9.8	18.4	9.9	19.5	8.8	19.6	8.7	20.2	8.1	18.0	10.3	18.4	9.9	19.8	8.5	20.0	8.3	19.3	9.0
Hour 1	65.5	70.0	- 4.5	70.0	- 4.4	69.8	- 4.3	68.9	- 3.3	69.8	- 4.2	70.2	- 4.6	69.8	- 4.2	61.1	4.4	69.6	- 4.0	70.3	- 4.8	59.3	6.2	68.1	- 2.5
Hour 2	62.8	35.0	27.8	39.1	23.8	31.0	31.8	23.5	39.3	32.9	29.9	33.3	29.5	22.8	40.0	22.0	40.9	35.6	27.2	27.5	35.3	19.7	43.2	29.3	33.5
Hour 3	46.3	17.5	28.8	18.4	27.9	18.2	28.1	18.5	27.8	18.4	27.9	18.2	28.1	19.1	27.2	18.7	27.6	18.4	27.9	17.8	28.5	17.6	28.7	18.3	28.0
Hour 4	32.1	19.0	13.1	18.5	13.6	19.0	13.1	18.5	13.6	18.4	13.7	19.6	12.5	18.9	13.2	18.7	13.4	17.9	14.2	18.6	13.5	18.2	13.9	18.6	13.5
11	51.7	35.4	16.3	36.5	15.2	34.5	17.2	32.3	19.3	34.9	16.8	35.3	16.4	32.6	19.0	30.1	21.6	35.4	16.3	33.5	18.1	28.7	23.0	33.6	18.1



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

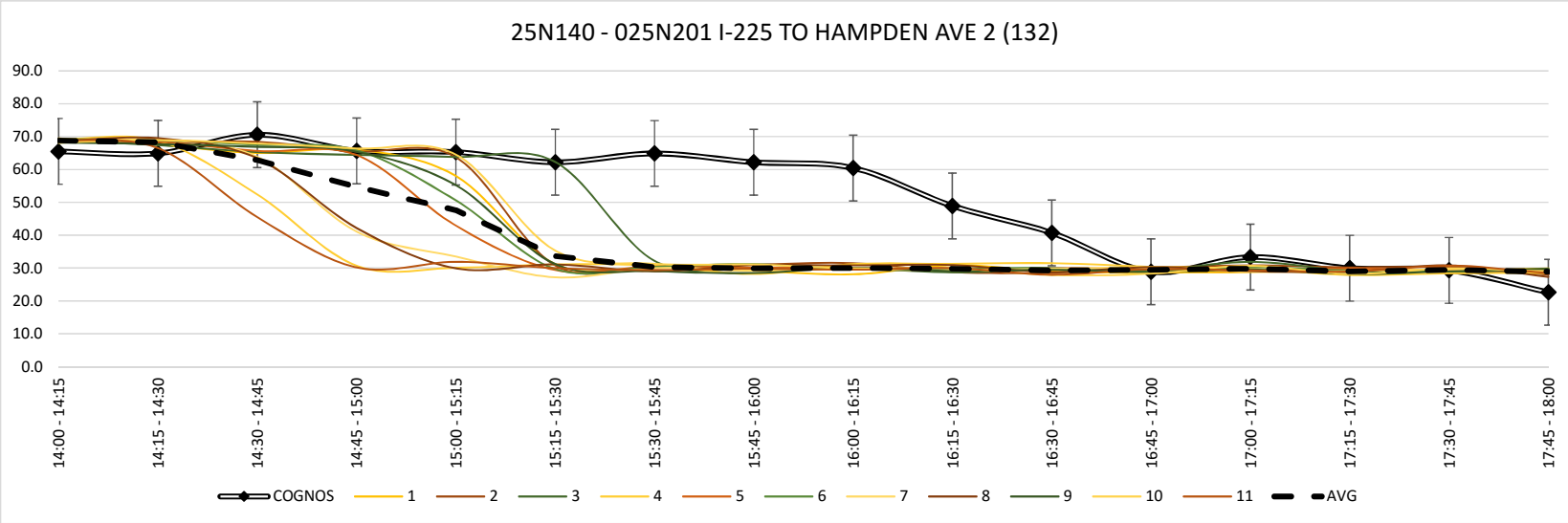
PM	COGNOS	MODEL																						AGGREGATE	
TIME	25N130	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	70.7	67.7	3.0	66.0	4.7	66.5	4.2	66.7	4.0	65.5	5.2	67.0	3.7	66.2	4.5	66.4	4.3	65.1	5.6	65.2	5.5	65.9	4.8	66.2	4.5
14:15 - 14:30	69.7	67.2	2.5	65.6	4.1	65.3	4.4	64.0	5.7	64.0	5.7	65.6	4.1	65.6	4.1	66.0	3.7	64.5	5.2	65.1	4.6	65.2	4.5	65.3	4.4
14:30 - 14:45	70.1	58.5	11.6	63.6	6.5	61.9	8.2	59.1	11.0	60.4	9.7	64.2	5.8	59.1	11.0	56.6	13.5	63.1	7.0	65.2	4.8	50.1	20.0	60.2	9.8
14:45 - 15:00	68.3	64.0	4.3	62.3	6.0	59.9	8.4	32.2	36.1	63.3	5.0	61.7	6.6	61.3	7.0	57.4	10.9	61.1	7.2	62.5	5.8	25.7	42.6	55.6	12.7
15:00 - 15:15	66.4	60.0	6.4	61.1	5.3	58.5	7.9	34.4	32.0	53.1	13.3	54.0	12.4	43.2	23.2	29.8	36.6	55.1	11.3	58.8	7.6	28.8	37.6	48.8	17.6
15:15 - 15:30	66.7	28.2	38.5	35.6	31.1	55.5	11.2	29.5	37.2	29.0	37.7	27.9	38.8	26.5	40.2	31.1	35.6	31.8	34.9	39.1	27.6	29.6	37.1	33.1	33.6
15:30 - 15:45	66.4	29.4	37.0	29.0	37.4	33.4	33.0	33.5	32.9	28.3	38.1	29.8	36.6	27.7	38.7	28.2	38.2	27.8	38.6	31.0	35.4	29.4	37.0	29.8	36.6
15:45 - 16:00	66.3	26.6	39.7	30.0	36.3	27.0	39.3	22.0	44.3	26.1	40.2	28.5	37.8	25.8	40.5	28.9	37.4	26.8	39.5	28.9	37.4	28.0	38.3	27.2	39.1
16:00 - 16:15	65.2	27.0	38.2	28.0	37.2	27.6	37.6	34.9	30.3	36.5	28.7	28.6	36.6	33.7	31.5	31.1	34.1	29.9	35.3	29.5	35.7	25.8	39.4	30.3	34.9
16:15 - 16:30	49.2	27.7	21.5	28.0	21.2	27.3	21.9	29.9	19.3	28.0	21.2	29.3	19.9	30.4	18.8	32.7	16.5	28.6	20.6	33.5	15.7	30.2	19.0	29.6	19.6
16:30 - 16:45	45.2	24.9	20.3	27.3	17.9	29.4	15.8	29.1	16.1	26.5	18.7	31.4	13.8	27.5	17.7	27.8	17.4	27.0	18.2	24.9	20.3	28.2	17.0	27.6	17.6
16:45 - 17:00	32.7	25.0	7.7	34.7	- 2.0	28.1	4.6	30.0	2.7	28.9	3.8	28.8	3.9	37.6	- 4.9	28.2	4.5	27.0	5.7	26.4	6.3	34.6	- 1.9	29.9	2.8
17:00 - 17:15	38.2	30.1	8.1	30.0	8.2	37.1	1.1	29.4	8.8	30.9	7.3	31.8	6.4	31.9	6.3	27.9	10.3	27.8	10.4	26.5	11.7	30.1	8.1	30.3	7.9
17:15 - 17:30	31.8	32.4	- 0.6	28.7	3.1	31.9	- 0.1	29.4	2.4	32.6	- 0.8	28.7	3.1	26.7	5.1	30.8	1.0	28.7	3.1	27.9	3.9	24.9	6.9	29.3	2.5
17:30 - 17:45	31.7	30.1	1.6	30.6	1.1	28.4	3.3	26.6	5.1	28.5	3.2	29.8	1.9	25.7	6.0	29.3	2.4	28.3	3.4	34.0	- 2.3	29.6	2.1	29.2	2.5
17:45 - 18:00	25.8	32.3	- 6.5	27.9	- 2.1	26.6	- 0.8	27.6	- 1.8	29.1	- 3.3	27.3	- 1.5	28.7	- 2.9	26.1	- 0.3	28.1	- 2.3	29.6	- 3.8	29.0	- 3.2	28.4	- 2.6
Hour 1	69.7	64.4	5.3	64.4	5.3	63.4	6.3	55.5	14.2	63.3	6.4	64.6	5.0	63.1	6.6	61.6	8.1	63.5	6.2	64.5	5.2	51.7	17.9	61.8	7.8
Hour 2	66.5	36.1	30.4	38.9	27.5	43.6	22.9	29.9	36.6	34.1	32.3	35.1	31.4	30.8	35.7	29.5	37.0	35.4	31.1	39.5	27.0	29.0	37.5	34.7	31.7
Hour 3	48.1	26.2	21.9	29.5	18.6	28.1	20.0	31.0	17.1	30.0	18.1	29.5	18.5	32.3	15.8	30.0	18.1	28.1	19.9	28.6	19.5	29.7	18.4	29.4	18.7
Hour 4	31.9	31.2	0.6	29.3	2.6	31.0	0.9	28.3	3.6	30.3	1.6	29.4	2.5	28.3	3.6	28.5	3.3	28.2	3.6	29.5	2.4	28.4	3.5	29.3	2.6
11	54.0	39.4	14.6	40.5	13.5	41.5	12.5	36.1	17.9	39.4	14.6	39.7	14.4	38.6	15.4	37.4	16.6	38.8	15.2	40.5	13.5	34.7	19.3	38.8	15.2



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

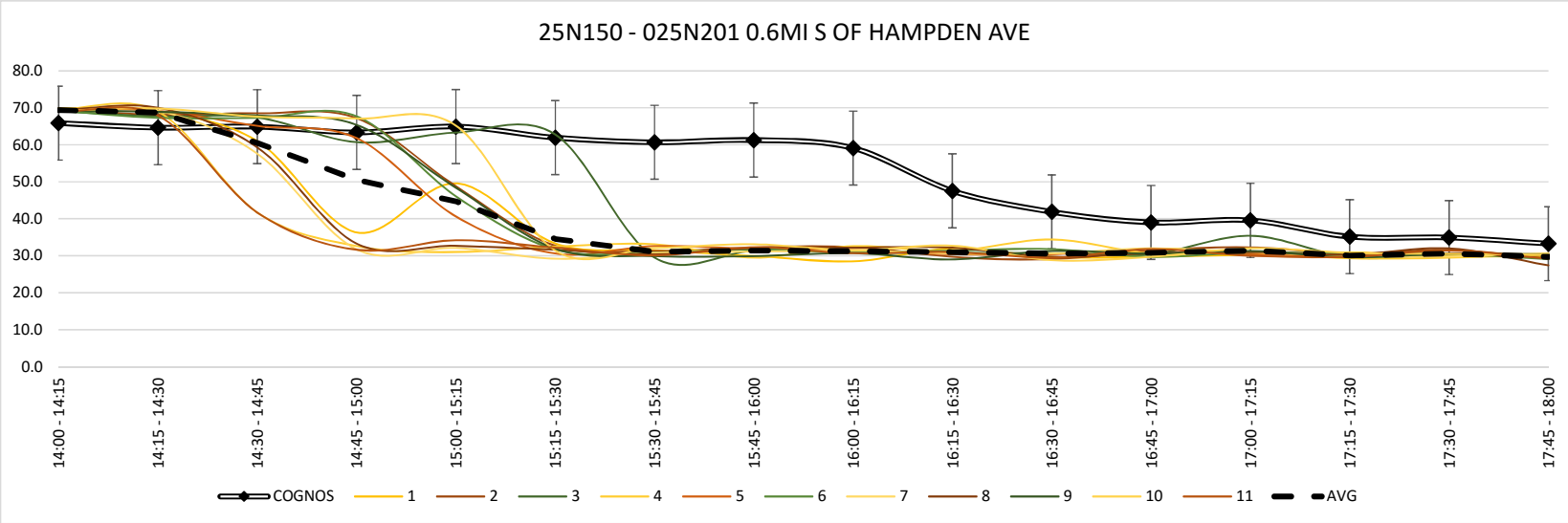
PM	COGNOS	MODEL																						AGGREGATE	
TIME	25N140	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	65.5	69.4	- 3.9	69.1	- 3.6	68.9	- 3.4	69.2	- 3.7	69.1	- 3.6	69.2	- 3.7	68.1	- 2.6	68.6	- 3.1	68.2	- 2.7	68.2	- 2.7	69.1	- 3.6	68.8	- 3.3
14:15 - 14:30	64.9	67.5	- 2.6	68.2	- 3.3	67.4	- 2.5	68.7	- 3.8	68.5	- 3.6	68.8	- 3.9	69.1	- 4.2	69.5	- 4.6	67.7	- 2.8	68.9	- 4.0	66.5	- 1.6	68.3	- 3.4
14:30 - 14:45	70.6	65.0	5.6	68.4	2.1	65.3	5.3	52.4	18.2	65.6	5.0	67.5	3.1	63.8	6.8	63.4	7.2	66.9	3.6	67.9	2.6	45.5	25.1	62.9	7.7
14:45 - 15:00	65.7	66.0	- 0.3	65.5	0.2	64.4	1.3	30.7	35.0	64.4	1.3	65.8	- 0.1	41.1	24.6	42.2	23.5	65.4	0.3	66.4	- 0.7	30.2	35.5	54.7	11.0
15:00 - 15:15	65.3	58.0	7.3	63.7	1.6	63.8	1.5	30.1	35.2	42.9	22.4	50.6	14.7	33.5	31.8	29.9	35.4	55.2	10.1	64.5	0.8	31.9	33.4	47.6	17.7
15:15 - 15:30	62.2	31.2	31.0	30.8	31.4	62.3	- 0.1	31.1	31.1	29.4	32.8	29.7	32.5	27.2	35.0	31.1	31.1	31.2	31.0	35.3	26.9	30.0	32.2	33.6	28.6
15:30 - 15:45	64.9	30.3	34.6	30.5	34.4	32.2	32.7	30.8	34.1	30.5	34.4	30.4	34.5	30.0	34.9	29.0	35.9	29.1	35.8	31.3	33.6	29.4	35.5	30.3	34.6
15:45 - 16:00	62.2	29.2	33.0	31.0	31.2	29.9	32.3	28.2	34.0	30.2	32.0	31.2	31.0	29.3	32.9	30.9	31.3	28.5	33.7	31.1	31.1	29.8	32.4	29.9	32.3
16:00 - 16:15	60.5	28.1	32.4	31.5	29.0	29.9	30.6	31.2	29.3	30.0	30.5	29.7	30.8	29.7	30.8	30.8	29.7	30.1	30.4	29.9	30.6	29.5	31.0	30.0	30.5
16:15 - 16:30	48.9	30.9	18.0	28.8	20.1	28.7	20.2	31.3	17.6	29.4	19.5	29.9	19.0	29.3	19.6	30.9	18.0	29.1	19.8	30.0	18.9	30.0	18.9	29.8	19.1
16:30 - 16:45	40.7	29.0	11.7	28.6	12.1	29.6	11.1	31.5	9.2	30.0	10.7	30.0	10.7	29.8	10.9	28.8	11.9	29.5	11.2	27.9	12.8	28.0	12.7	29.3	11.4
16:45 - 17:00	28.9	28.7	0.2	30.1	- 1.2	29.3	- 0.4	30.4	- 1.5	29.6	- 0.7	28.9	0.0	30.1	- 1.2	30.3	- 1.4	28.8	0.1	28.3	0.6	29.7	- 0.8	29.5	- 0.6
17:00 - 17:15	33.4	28.8	4.6	30.8	2.6	31.9	1.5	29.8	3.6	29.1	4.3	30.3	3.1	28.9	4.5	29.1	4.3	29.6	3.8	30.7	2.7	29.3	4.1	29.8	3.6
17:15 - 17:30	30.0	29.4	0.6	30.2	- 0.2	29.2	0.8	27.9	2.1	29.9	0.1	29.2	0.8	29.1	0.9	28.9	1.1	28.2	1.8	28.2	1.8	28.9	1.1	29.0	1.0
17:30 - 17:45	29.3	29.2	0.1	30.3	- 1.0	28.9	0.4	28.4	0.9	29.2	0.1	29.0	0.3	29.6	- 0.3	30.8	- 1.5	29.0	0.3	29.9	- 0.6	30.7	- 1.4	29.5	- 0.2
17:45 - 18:00	22.7	29.9	- 7.3	28.0	- 5.4	29.1	- 6.5	28.5	- 5.9	29.3	- 6.7	29.7	- 7.1	29.1	- 6.5	27.3	- 4.7	29.8	- 7.2	28.9	- 6.3	28.5	- 5.9	28.9	- 6.3
Hour 1	66.7	67.0	- 0.3	67.8	- 1.2	66.5	0.2	55.3	11.4	66.9	- 0.3	67.8	- 1.2	60.5	6.1	60.9	5.7	67.1	- 0.4	67.9	- 1.2	52.8	13.8	63.7	3.0
Hour 2	63.6	37.2	26.5	39.0	24.6	47.1	16.6	30.1	33.6	33.3	30.4	35.5	28.2	30.0	33.6	30.2	33.4	36.0	27.6	40.6	23.1	30.3	33.4	35.4	28.3
Hour 3	44.7	29.2	15.6	29.8	15.0	29.4	15.4	31.1	13.6	29.8	15.0	29.6	15.1	29.7	15.0	30.2	14.5	29.4	15.4	29.0	15.7	29.3	15.4	29.7	15.1
Hour 4	28.8	29.3	- 0.5	29.8	- 1.0	29.8	- 1.0	28.7	0.2	29.4	- 0.6	29.6	- 0.7	29.2	- 0.4	29.0	- 0.2	29.2	- 0.3	29.4	- 0.6	29.4	- 0.5	29.3	- 0.5
11	51.0	40.7	10.3	41.6	9.4	43.2	7.8	36.3	14.7	39.8	11.1	40.6	10.3	37.4	13.6	37.6	13.4	40.4	10.6	41.7	9.2	35.4	15.5	39.5	11.5



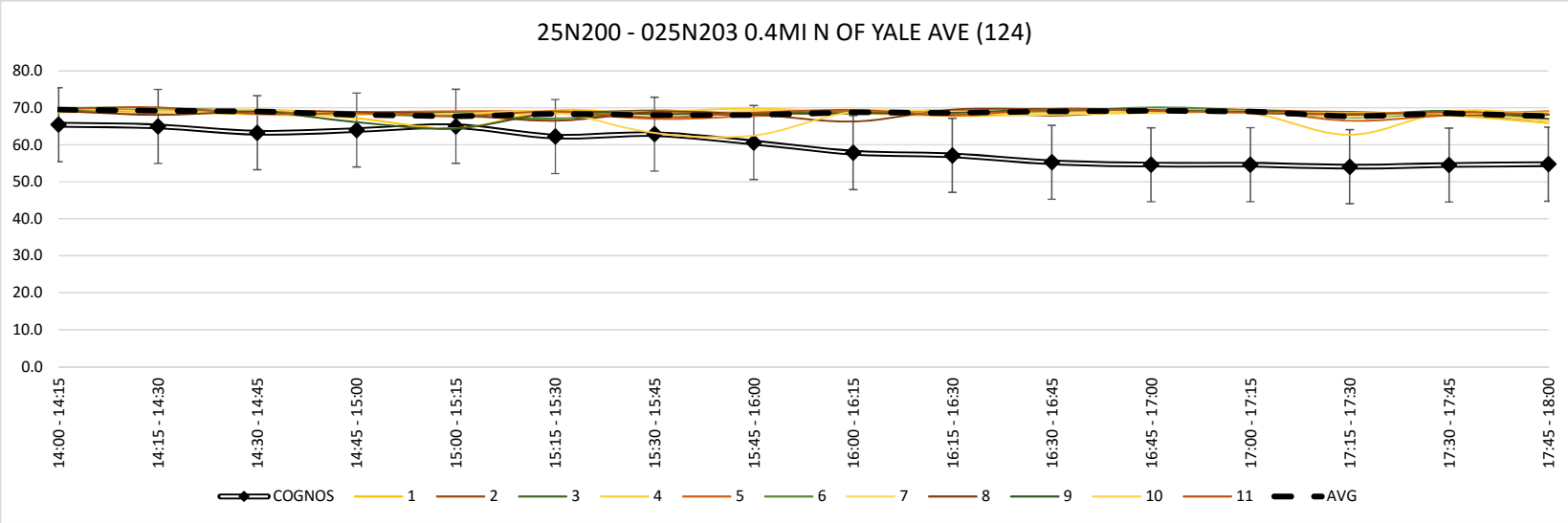
CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

PM	COGNOS	MODEL																						AGGREGATE	
TIME	25N150	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	65.9	69.9	- 4.0	69.7	- 3.8	69.1	- 3.2	69.7	- 3.8	69.6	- 3.7	69.2	- 3.3	69.4	- 3.5	69.4	- 3.5	69.3	- 3.4	69.2	- 3.3	69.0	- 3.1	69.4	- 3.5
14:15 - 14:30	64.6	69.0	- 4.4	68.1	- 3.5	67.7	- 3.1	69.0	- 4.4	69.2	- 4.6	67.3	- 2.7	69.2	- 4.6	70.0	- 5.4	68.9	- 4.3	69.8	- 5.2	67.9	- 3.3	68.7	- 4.1
14:30 - 14:45	64.9	61.0	3.9	68.5	- 3.6	67.4	- 2.5	41.7	23.2	65.1	- 0.2	67.3	- 2.4	57.6	7.3	59.3	5.6	67.9	- 3.0	67.6	- 2.7	41.7	23.2	60.5	4.4
14:45 - 15:00	63.4	36.3	27.1	67.2	- 3.9	60.7	2.7	32.6	30.8	61.8	1.6	67.7	- 4.4	31.7	31.7	33.3	30.1	65.4	- 2.1	67.1	- 3.7	31.6	31.8	50.5	12.9
15:00 - 15:15	64.9	49.6	15.3	48.8	16.1	63.3	1.6	31.0	33.9	40.6	24.3	46.1	18.8	32.1	32.8	32.7	32.2	48.4	16.5	65.2	- 0.3	34.2	30.7	44.7	20.2
15:15 - 15:30	61.9	33.3	28.6	32.7	29.2	62.8	- 0.9	32.5	29.4	30.6	31.3	31.7	30.2	29.2	32.7	31.6	30.3	31.9	30.0	31.4	30.5	32.2	29.7	34.5	27.4
15:30 - 15:45	60.7	31.5	29.2	31.3	29.4	29.5	31.2	33.1	27.6	32.6	28.1	30.9	29.8	30.8	29.9	30.4	30.3	29.9	30.8	32.1	28.6	30.1	30.6	31.1	29.6
15:45 - 16:00	61.3	30.0	31.3	32.2	29.1	31.3	30.0	29.5	31.8	31.9	29.4	31.7	29.6	31.1	30.2	32.1	29.2	29.9	31.4	33.1	28.2	32.3	29.0	31.4	29.9
16:00 - 16:15	59.1	28.5	30.6	32.4	26.7	30.9	28.2	32.6	26.5	31.6	27.5	31.0	28.1	31.4	27.7	32.2	26.9	30.7	28.4	31.5	27.6	30.7	28.4	31.2	27.9
16:15 - 16:30	47.6	32.0	15.6	29.7	17.9	30.8	16.8	31.3	16.3	30.4	17.2	31.4	16.2	30.6	17.0	32.2	15.4	29.0	18.6	32.7	14.9	31.0	16.6	31.0	16.6
16:30 - 16:45	41.9	29.7	12.2	29.1	12.8	30.7	11.2	34.4	7.5	30.4	11.5	31.8	10.1	30.6	11.3	29.7	12.2	31.3	10.6	28.8	13.1	29.5	12.4	30.6	11.3
16:45 - 17:00	39.0	29.7	9.3	31.4	7.6	30.4	8.6	30.6	8.4	31.8	7.2	29.7	9.3	32.0	7.0	30.7	8.3	30.6	8.4	29.7	9.3	31.8	7.2	30.8	8.2
17:00 - 17:15	39.6	30.3	9.3	32.3	7.3	35.4	4.2	30.9	8.7	30.4	9.2	30.9	8.7	31.0	8.6	31.0	8.6	31.3	8.3	32.0	7.6	30.0	9.6	31.4	8.2
17:15 - 17:30	35.2	30.9	4.3	30.5	4.7	29.6	5.6	29.3	5.9	30.0	5.2	30.6	4.6	29.9	5.3	30.3	4.9	29.6	5.6	30.8	4.4	29.7	5.5	30.1	5.1
17:30 - 17:45	34.9	30.0	4.9	31.6	3.3	30.3	4.6	29.5	5.4	30.6	4.3	30.5	4.4	29.8	5.1	32.0	2.9	30.5	4.4	30.5	4.4	31.4	3.5	30.6	4.3
17:45 - 18:00	33.3	29.8	3.5	29.2	4.1	30.3	3.0	30.4	2.9	30.3	3.0	29.1	4.2	30.7	2.6	27.4	5.9	30.4	2.9	30.3	3.0	29.2	4.1	29.7	3.6
Hour 1	64.7	59.1	5.6	68.4	- 3.7	66.2	- 1.5	53.3	11.4	66.4	- 1.7	67.9	- 3.2	57.0	7.7	58.0	6.7	67.9	- 3.2	68.4	- 3.7	52.6	12.1	62.3	2.4
Hour 2	62.2	36.1	26.1	36.3	26.0	46.7	15.5	31.5	30.7	33.9	28.3	35.1	27.1	30.8	31.4	31.7	30.5	35.0	27.2	40.5	21.8	32.2	30.0	35.4	26.8
Hour 3	46.9	30.0	16.9	30.7	16.2	30.7	16.2	32.2	14.7	31.1	15.8	31.0	15.9	31.2	15.7	31.2	15.7	30.4	16.5	30.7	16.2	30.8	16.1	30.9	16.0
Hour 4	35.7	30.3	5.5	30.9	4.8	31.4	4.3	30.0	5.7	30.3	5.4	30.3	5.5	30.4	5.4	30.2	5.6	30.5	5.3	30.9	4.8	30.1	5.7	30.5	5.3
11	52.4	38.8	13.5	41.5	10.8	43.8	8.6	36.8	15.6	40.4	11.9	41.1	11.3	37.3	15.1	37.8	14.6	40.9	11.4	42.6	9.8	36.4	16.0	39.8	12.6



CONCEPT 2: +10% I-225

Average Mainline Vehicle Speeds versus COGNOS Speed Data: by Run

PM	COGNOS	MODEL																						AGGREGATE	
TIME	25N200	1	Δ	2	Δ	3	Δ	4	Δ	5	Δ	6	Δ	7	Δ	8	Δ	9	Δ	10	Δ	11	Δ	AVG	Δ
14:00 - 14:15	65.4	69.8	- 4.4	69.3	- 3.9	69.2	- 3.8	69.6	- 4.2	69.3	- 3.9	70.0	- 4.6	68.8	- 3.4	69.2	- 3.8	69.5	- 4.1	69.8	- 4.4	69.7	- 4.3	69.5	- 4.1
14:15 - 14:30	65.0	69.4	- 4.4	68.8	- 3.8	69.2	- 4.2	69.2	- 4.2	69.2	- 4.2	70.0	- 5.0	68.8	- 3.8	68.1	- 3.1	69.2	- 4.2	69.1	- 4.1	70.1	- 5.1	69.2	- 4.2
14:30 - 14:45	63.3	69.3	- 6.0	69.2	- 5.9	68.4	- 5.1	68.1	- 4.8	69.4	- 6.1	69.1	- 5.8	69.2	- 5.9	69.0	- 5.7	69.1	- 5.8	69.5	- 6.2	68.4	- 5.1	69.0	- 5.7
14:45 - 15:00	64.0	67.2	- 3.2	68.2	- 4.2	68.3	- 4.3	68.1	- 4.1	68.8	- 4.8	68.3	- 4.3	68.6	- 4.6	68.9	- 4.9	66.1	- 2.1	68.2	- 4.2	68.5	- 4.5	68.1	- 4.1
15:00 - 15:15	65.0	64.5	0.5	68.8	- 3.8	68.8	- 3.8	68.4	- 3.4	69.1	- 4.1	67.7	- 2.7	68.2	- 3.2	68.2	- 3.2	64.4	0.6	68.4	- 3.4	67.8	- 2.8	67.7	- 2.7
15:15 - 15:30	62.2	69.3	- 7.1	68.5	- 6.3	68.8	- 6.6	68.5	- 6.3	68.8	- 6.6	67.1	- 4.9	68.4	- 6.2	66.5	- 4.3	68.7	- 6.5	68.8	- 6.6	69.0	- 6.8	68.4	- 6.2
15:30 - 15:45	62.9	68.2	- 5.3	69.3	- 6.4	69.0	- 6.1	68.9	- 6.0	67.0	- 4.1	68.7	- 5.8	68.6	- 5.7	68.9	- 6.0	68.3	- 5.4	63.2	- 0.3	67.4	- 4.5	68.0	- 5.1
15:45 - 16:00	60.6	69.1	- 8.5	68.5	- 7.9	67.9	- 7.3	69.8	- 9.2	67.8	- 7.2	68.2	- 7.6	69.1	- 8.5	68.2	- 7.6	68.5	- 7.9	62.5	- 1.9	68.7	- 8.1	68.0	- 7.4
16:00 - 16:15	57.9	68.9	-11.0	68.5	-10.6	69.3	-11.4	68.6	-10.7	69.1	-11.2	69.4	-11.5	69.5	-11.6	66.3	- 8.4	68.5	-10.6	68.9	-11.0	69.4	-11.5	68.8	-10.9
16:15 - 16:30	57.1	69.2	-12.1	69.3	-12.2	68.5	-11.4	67.8	-10.7	67.9	-10.8	68.7	-11.6	69.1	-12.0	69.5	-12.4	68.6	-11.5	68.2	-11.1	68.1	-11.0	68.6	-11.5
16:30 - 16:45	55.3	69.8	-14.5	67.9	-12.6	69.4	-14.1	68.2	-12.9	69.0	-13.7	69.0	-13.7	68.2	-12.9	69.6	-14.3	69.7	-14.4	68.6	-13.3	69.6	-14.3	69.0	-13.7
16:45 - 17:00	54.6	68.6	-14.0	69.3	-14.7	69.3	-14.7	68.6	-14.0	69.1	-14.5	70.1	-15.5	69.3	-14.7	69.3	-14.7	69.4	-14.8	69.0	-14.4	69.2	-14.6	69.2	-14.6
17:00 - 17:15	54.6	69.1	-14.5	69.4	-14.8	69.4	-14.8	68.5	-13.9	69.4	-14.8	69.3	-14.7	69.0	-14.4	68.9	-14.3	68.6	-14.0	68.6	-14.0	68.7	-14.1	69.0	-14.4
17:15 - 17:30	54.1	68.2	-14.1	68.7	-14.6	68.0	-13.9	62.7	- 8.6	66.5	-12.4	67.4	-13.3	67.6	-13.5	68.9	-14.8	68.3	-14.2	68.7	-14.6	68.4	-14.3	67.6	-13.5
17:30 - 17:45	54.5	67.9	-13.4	68.5	-14.0	69.2	-14.7	69.0	-14.5	68.0	-13.5	68.4	-13.9	68.6	-14.1	68.1	-13.6	68.7	-14.2	68.4	-13.9	68.8	-14.3	68.5	-14.0
17:45 - 18:00	54.8	65.9	-11.1	68.1	-13.3	67.0	-12.2	68.3	-13.5	69.1	-14.3	66.5	-11.7	66.5	-11.7	68.1	-13.3	68.2	-13.4	68.8	-14.0	68.3	-13.5	67.7	-12.9
Hour 1	64.4	68.9	- 4.5	68.9	- 4.5	68.8	- 4.4	68.8	- 4.3	69.2	- 4.8	69.4	- 4.9	68.9	- 4.4	68.8	- 4.4	68.5	- 4.1	69.2	- 4.7	69.2	- 4.8	69.0	- 4.5
Hour 2	62.7	67.8	- 5.1	68.8	- 6.1	68.6	- 5.9	68.9	- 6.2	68.2	- 5.5	67.9	- 5.2	68.6	- 5.9	68.0	- 5.3	67.5	- 4.8	65.7	- 3.0	68.2	- 5.5	68.0	- 5.3
Hour 3	56.2	69.1	-12.9	68.8	-12.5	69.1	-12.9	68.3	-12.1	68.8	-12.6	69.3	-13.1	69.0	-12.8	68.7	-12.5	69.1	-12.8	68.7	-12.5	69.1	-12.9	68.9	-12.7
Hour 4	54.5	67.8	-13.3	68.7	-14.2	68.4	-13.9	67.1	-12.6	68.3	-13.8	67.9	-13.4	67.9	-13.4	68.5	-14.0	68.5	-14.0	68.6	-14.1	68.6	-14.1	68.2	-13.7
11	59.5	68.4	- 8.9	68.8	- 9.3	68.7	- 9.3	68.3	- 8.8	68.6	- 9.1	68.6	- 9.2	68.6	- 9.1	68.5	- 9.0	68.4	- 8.9	68.0	- 8.6	68.8	- 9.3	68.5	- 9.1