

Oversight / NHS

FHWA OVERSIGHT? NO YES

NATIONAL HIGHWAY SYSTEM? NO YES

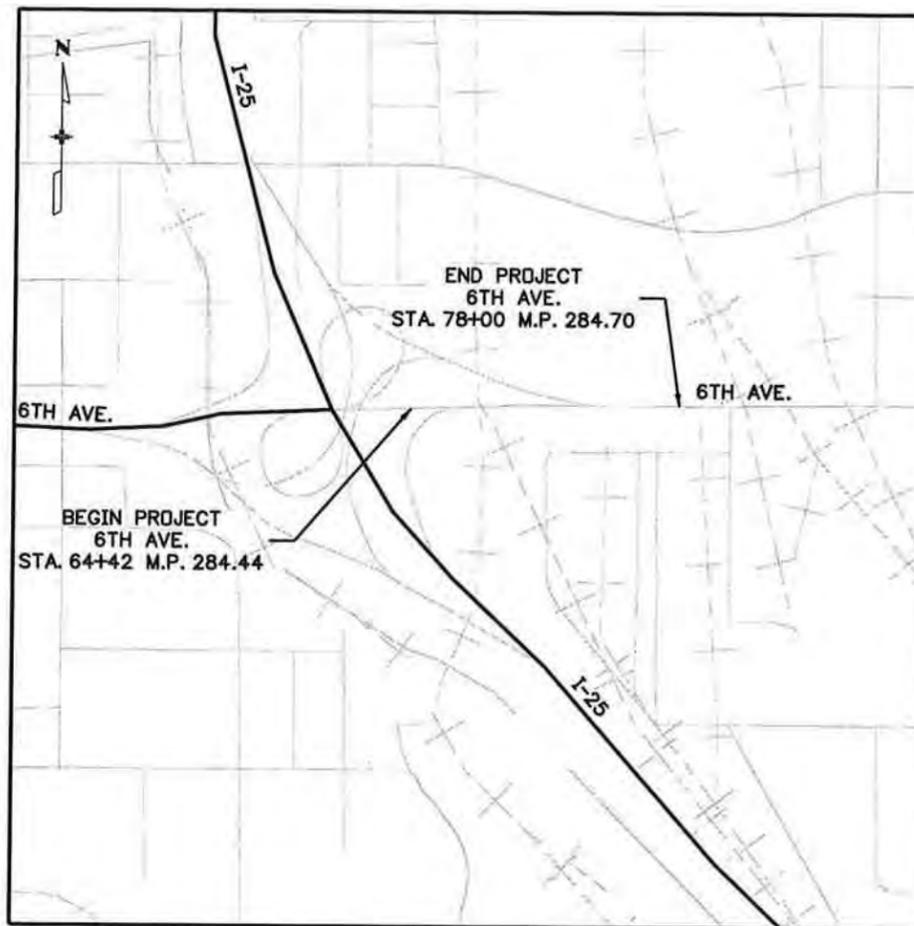
DEPARTMENT OF TRANSPORTATION STATE OF COLORADO

FIELD INSPECTION REVIEW PLANS OF PROPOSED
FEDERAL AID PROJECT NO. FBR 0062-026
STATE HIGHWAY NO. 6 OVER BNSF RAILWAY
DENVER COUNTY
CONSTRUCTION PROJECT CODE NO. 18202

Related Projects:	
P. E. UNDER PROJECT:	XXXXXXXXXX
Project Number	XXXXXX
Project Code:	XXXXXX
R.O.W. Projects:	
R.O.W. Project Description	XXXXXXXXXXXXXXXXXX

TABULATION OF LENGTH & DESIGN DATA

STATION	FEET	
	ROADWAY	STRUCTURE
BEGIN CONSTRUCTION FBR 0062-026 US 6 STA. 64+42.21 M.P. 284.44	440.7	
BEGIN STRUCTURE F-16-YJ STA 68+82.91 END STRUCTURE F-16-YJ STA 70+42.40		159.49
END CONSTRUCTION FBR 0062-026 US 6 STA. 78+00 M.P. 284.70	757.6	
BEGIN CONSTRUCTION FBR 0062-026 RAMP D STA. 200+00 M.P.	483	
END PROJECT FBR 0062-026 RAMP STA. 204+83 M.P. XX		
TOTAL	1681.3	159.49
SUMMARY OF PROJECT LENGTH	FEET	MILES
ROADWAY (NET LENGTH)	1681.3	0.318
STRUCTURE (NET LENGTH)	159.49	0.031
PROJECT GROSS LENGTH	1840.79	0.349
DESIGN DATA	US6	RAMP
MINIMUM RADIUS OF CURVE	3819.89	167
MAXIMUM GRADE	6%	6%
MINIMUM S.S.D. HORIZONTAL	>360	
MINIMUM S.S.D. VERTICAL	363	286
MAXIMUM DESIGN SPEED	45 MPH	45 MPH
2035 DESIGN TRAFFIC	DHV = TBD	
DHV TRUCKS %	ADT = TBD	
	TBD	
CLEAR ZONE DISTANCE	RAMP US 6	10'-12' 20'-26'



PROJECT LOCATION MAP

SHEET NO.	INDEX OF SHEETS
1	TITLE SHEET
2	STANDARD PLANS LIST
3	GENERAL NOTES
4	PAVEMENT DESIGN
5-6	TYPICAL SECTIONS
7-10	UTILITY PLANS
11-14	ROADWAY PLANS
15-17	ROADWAY PROFILES
18-20	DRAINAGE PLANS
21-26	STORM WATER MANAGEMENT PLAN
27-32	BRIDGE PLANS
33	SIGNING PLAN
34-37	TRAFFIC CONTROL PLANS
38-41	SURVEY CONTROL DIAGRAM
42	OWNERSHIP MAP



**Know what's below.
Call before you dig.**

Print Date: 12/28/2011		Sheet Revisions			Colorado Department of Transportation 8833 South Wadsworth Court Littleton, CO 80128 Phone: 303-972-9112 FAX: 303-972-9114 Region 6	As Constructed	Contract Information		Project No./Code	
File Name: 18202_DES_TitleSht.dgn		Date:	Comments	Init.		No Revisions:	Contractor:		FBR 0062-026	
Horiz. Scale: 1:1 Vert. Scale: As Noted						Revised:	Resident Engineer:		18202	
Unit Information Unit Leader Initials				Void:	Project Engineer:		/ / / /			
					PROJECT STARTED: / / ACCEPTED: / /		Sheet Number 1			
					Comments:					

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PLAN NUMBER	NEW OR REVISED	M STANDARD TITLE	PAGE NUMBER
<input type="checkbox"/>	M-100-1	STANDARD SYMBOLS (3 SHEETS).....	1-3
<input type="checkbox"/>	M-203-1	APPROACH ROADS	4
<input type="checkbox"/>	M-203-2	DITCH TYPES.....	5
<input checked="" type="checkbox"/>	M-203-11	SUPERELEVATION CROWNED AND DIVIDED HIGHWAYS (3 SHEETS).....	6-8
<input type="checkbox"/>	M-203-12	SUPERELEVATION STREETS (2 SHEETS).....	9-10
<input checked="" type="checkbox"/>	M-206-1	EXCAVATION AND BACKFILL FOR STRUCTURES (2 SHEETS).....	11-12
<input checked="" type="checkbox"/>	M-206-2	EXCAVATION AND BACKFILL FOR BRIDGES (2 SHEETS).....	13-14
<input type="checkbox"/>	M-208-1	<input checked="" type="checkbox"/> TEMPORARY EROSION CONTROL (12 SHEETS) (REVISED ON JULY 29, 2011) ...	15-21
<input type="checkbox"/>	M-210-1	MAILBOX SUPPORTS (2 SHEETS).....	22-23
<input type="checkbox"/>	M-214-1	PLANTING DETAILS.....	24
<input type="checkbox"/>	M-412-1	<input type="checkbox"/> CONCRETE PAVEMENT JOINTS (5 SHEETS) (REVISED ON JULY 29, 2011) ...	25-29
<input type="checkbox"/>	M-510-1	STRUCTURAL PLATE PIPE H-20 LOADING.....	30
<input type="checkbox"/>	M-601-1	SINGLE CONCRETE BOX CULVERT (2 SHEETS).....	31-32
<input type="checkbox"/>	M-601-2	DOUBLE CONCRETE BOX CULVERT (2 SHEETS).....	33-34
<input type="checkbox"/>	M-601-3	TRIPLE CONCRETE BOX CULVERT (2 SHEETS).....	35-36
<input type="checkbox"/>	M-601-10	HEADWALL FOR PIPES.....	37
<input type="checkbox"/>	M-601-11	TYPE "S" SADDLE HEADWALLS FOR PIPE.....	38
<input type="checkbox"/>	M-601-12	HEADWALLS AND PIPE OUTLET PAVING	39
<input type="checkbox"/>	M-601-20	WINGWALLS FOR PIPE OR BOX CULVERTS.....	40
<input type="checkbox"/>	M-603-1	<input type="checkbox"/> METAL PIPE (4 SHEETS) (REVISED ON FEBRUARY 25, 2010)	41-42
<input checked="" type="checkbox"/>	M-603-2	REINFORCED CONCRETE PIPE	43
<input type="checkbox"/>	M-603-3	<input type="checkbox"/> PRECAST CONCRETE BOX CULVERT (REVISED ON JULY 29, 2011)	44
<input type="checkbox"/>	M-603-4	<input type="checkbox"/> CORRUGATED POLYETHYLENE PIPE (AASHTO M294) (REV. ON FEB. 25, 2010)	
<input type="checkbox"/>	M-603-5	<input type="checkbox"/> POLYVINYL CHLORIDE (PVC) PIPE (AASHTO M304) (NEW ON FEB. 25, 2010)	
<input checked="" type="checkbox"/>	M-603-10	CONCRETE AND METAL END SECTIONS (2 SHEETS).....	45-46
<input checked="" type="checkbox"/>	M-604-10	INLET, TYPE C.....	47
<input type="checkbox"/>	M-604-11	INLET, TYPE D.....	48
<input checked="" type="checkbox"/>	M-604-12	CURB INLET TYPE R (2 SHEETS).....	49-50
<input type="checkbox"/>	M-604-13	CONCRETE INLET TYPE 13.....	51
<input checked="" type="checkbox"/>	M-604-20	MANHOLES (3 SHEETS).....	52-54
<input checked="" type="checkbox"/>	M-604-25	VANE GRATE INLET (5 SHEETS).....	55-59
<input type="checkbox"/>	M-605-1	<input type="checkbox"/> SUBSURFACE DRAINS (REVISED ON JULY 09, 2009)	60
<input type="checkbox"/>	M-606-1	<input checked="" type="checkbox"/> GUARDRAIL TYPE 3 W-BEAM (18 SHEETS) (REVISED ON MAY 05, 2011)	61-76
<input checked="" type="checkbox"/>	M-606-13	GUARDRAIL TYPE 7 F-SHAPE BARRIER (4 SHEETS).....	77-80
<input type="checkbox"/>	M-606-14	PRECAST TYPE 7 CONCRETE BARRIER (3 SHEETS).....	81-83

PLAN NUMBER	NEW OR REVISED	M STANDARD TITLE	PAGE NUMBER
<input type="checkbox"/>	M-607-1	WIRE FENCES AND GATES (3 SHEETS).....	84-86
<input type="checkbox"/>	M-607-2	CHAIN LINK FENCE (3 SHEETS).....	87-89
<input type="checkbox"/>	M-607-3	BARRIER FENCE.....	90
<input type="checkbox"/>	M-607-4	DEER FENCE AND GATES (2 SHEETS).....	91-92
<input type="checkbox"/>	M-607-10	PICKET SNOW FENCE	93
<input type="checkbox"/>	M-607-15	ROAD CLOSURE GATE (9 SHEETS).....	94-102
<input type="checkbox"/>	M-608-1	<input type="checkbox"/> CURB RAMPS (6 SHEETS) (REVISED ON MAY 05, 2011)	103-106
<input type="checkbox"/>	M-609-1	<input checked="" type="checkbox"/> CURBS, GUTTERS, AND SIDEWALKS (4 SHEETS) (REVISED ON JULY 09, 2009)	107-109
<input type="checkbox"/>	M-611-1	CATTLE GUARD (2 SHEETS).....	110-111
<input checked="" type="checkbox"/>	M-613-1	ROADWAY LIGHTING (4 SHEETS).....	112-115
<input type="checkbox"/>	M-614-1	RUMBLE STRIPS (3 SHEETS).....	116-118
<input type="checkbox"/>	M-614-2	SAND BARREL ARRAYS (2 SHEETS).....	119-120
<input type="checkbox"/>	M-615-1	EMBANKMENT PROTECTOR TYPE 3.....	121
<input type="checkbox"/>	M-615-2	EMBANKMENT PROTECTOR TYPE 5.....	122
<input type="checkbox"/>	M-616-1	INVERTED SIPHON.....	123
<input type="checkbox"/>	M-620-1	FIELD LABORATORY CLASS 1.....	124
<input type="checkbox"/>	M-620-2	FIELD LABORATORY CLASS 2	125
<input type="checkbox"/>	M-620-11	FIELD OFFICE CLASS 1.....	126
<input type="checkbox"/>	M-620-12	FIELD OFFICE CLASS 2.....	127
<input type="checkbox"/>	M-629-1	SURVEY MONUMENTS (2 SHEETS).....	128-129

PLAN NUMBER	NEW OR REVISED	S STANDARD TITLE	PAGE NUMBER
<input type="checkbox"/>	S-612-1	<input checked="" type="checkbox"/> DELINEATOR INSTALLATIONS (6 SHEETS) (REVISED, JULY 01, 2010) ...	131-135
<input checked="" type="checkbox"/>	S-614-1	GROUND SIGN PLACEMENT (2 SHEETS).....	136-137
<input checked="" type="checkbox"/>	S-614-2	CLASS I SIGNS.....	138
<input type="checkbox"/>	S-614-3	CLASS II SIGNS.....	139
<input type="checkbox"/>	S-614-4	<input type="checkbox"/> CLASS III SIGNS (3 SHEETS) (REVISED, DECEMBER 29, 2009)	140-142
<input type="checkbox"/>	S-614-5	BREAK-AWAY SIGN SUPPORT DETAILS.....	143-144
<input type="checkbox"/>	S-614-6	CONCRETE FOOTINGS AND SIGN ISLANDS.....	145-146
<input type="checkbox"/>	S-614-8	<input type="checkbox"/> TUBULAR STEEL SIGN SUPPORT DETAILS (5 SHEETS) (REVISED ON SEPT. 01, 2010)	147-151
<input type="checkbox"/>	S-614-10	MARKER ASSEMBLY INSTALLATIONS	152
<input type="checkbox"/>	S-614-11	<input type="checkbox"/> MILEPOST SIGN DETAIL FOR HIGH SNOW AREAS (NEW, JUNE 22, 2009)	
<input checked="" type="checkbox"/>	S-614-12	STRUCTURE NUMBER INSTALLATION	153
<input type="checkbox"/>	S-614-14	FLASHING BEACON AND SIGN INSTALLATIONS (3 SHEETS).....	154-156
<input type="checkbox"/>	S-614-20	TYPICAL POLE MOUNT SIGN INSTALLATIONS.....	157
<input type="checkbox"/>	S-614-21	<input type="checkbox"/> CONCRETE BARRIER SIGN POST INSTALLATIONS (REVISED ON JUNE 24, 2011)	158
<input type="checkbox"/>	S-614-22	TYPICAL MULTI-SIGN INSTALLATIONS.....	159
<input type="checkbox"/>	S-614-40	TYPICAL TRAFFIC SIGNAL INSTALLATION DETAILS.....	160-166
<input type="checkbox"/>	S-614-40A	ALTERNATIVE TRAFFIC SIGNAL INSTALLATION DETAILS....	167-171
<input type="checkbox"/>	S-614-50	MONOTUBE OVERHEAD SIGNS (14 SHEETS).....	172-185
<input type="checkbox"/>	S-627-1	<input checked="" type="checkbox"/> PAVEMENT MARKINGS (5 SHEETS) (REVISED ON OCTOBER 01, 2010)	186-190
<input type="checkbox"/>	S-630-1	<input checked="" type="checkbox"/> TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION (REVISED ON FEB. 24, 2011)	191-202
<input checked="" type="checkbox"/>	S-630-2	BARRICADES, DRUMS, CONCRETE BARRIERS (TEMP.) AND VERTICAL PANELS	203
<input type="checkbox"/>	S-630-3	<input checked="" type="checkbox"/> FLASHING BEACON (PORTABLE) DETAILS (REVISED ON JUNE 27, 2011)	204
<input type="checkbox"/>	S-630-4	<input type="checkbox"/> STEEL SIGN SUPPORT (TEMPORARY) INSTALLATION DETAILS. (NEW, MARCH 22, 2010)	
<input type="checkbox"/>	S-630-5	<input type="checkbox"/> PORTABLE RUMBLE STRIPS (TEMPORARY).....	(NEW, MAY 05, 2011)
<input type="checkbox"/>	S-630-6	<input type="checkbox"/> EMERGENCY PULL-OFF AREA (TEMPORARY).....	(NEW, MAY 05, 2011)
<input type="checkbox"/>	S-630-7	<input type="checkbox"/> ROLLING ROADBLOCKS FOR TRAFFIC CONTROL	(NEW, MAY 05, 2011)

THE STANDARD PLAN SHEETS INDICATED HEREON BY A MARKED BOX ARE TO BE USED TO CONSTRUCT THIS PROJECT.

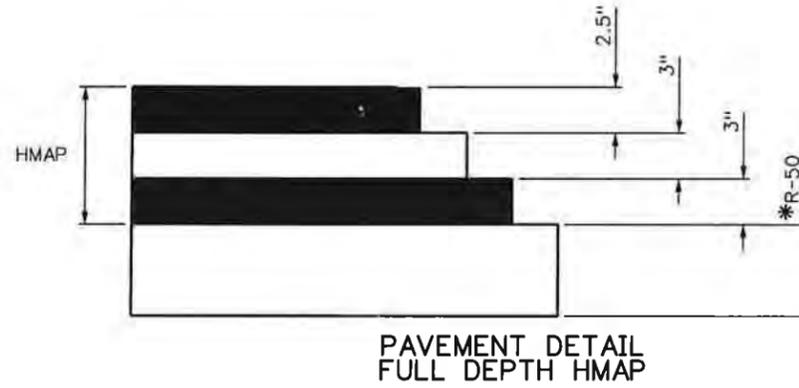
ALL OF THE M&S STANDARD PLANS, AS SUPPLEMENTED AND REVISED, APPLY TO THIS PROJECT WHEN USED BY DESIGNATED PAY ITEM OR SUBSIDIARY ITEM.

COLORADO
DEPARTMENT OF TRANSPORTATION
STANDARD PLANS LIST
M&S STANDARDS
 July 04, 2006
 Revised on July 29, 2011

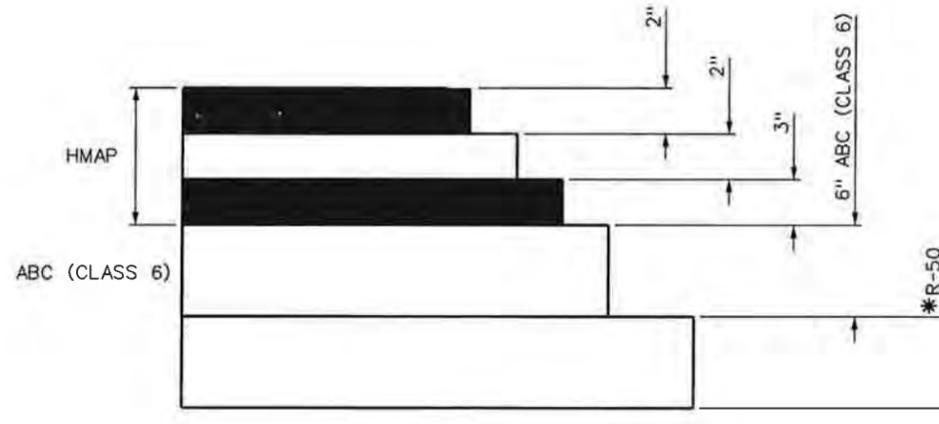
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Horiz. Scale: 1:1 Vert. Scale: As Noted							Revised:		Designer: JBK Structure		18202	
Unit Information Unit Leader Initials							Void:		Detailer: JBK Numbers		Sheet Subset: STD PLANS Subset Sheets: 1 of 1	
												

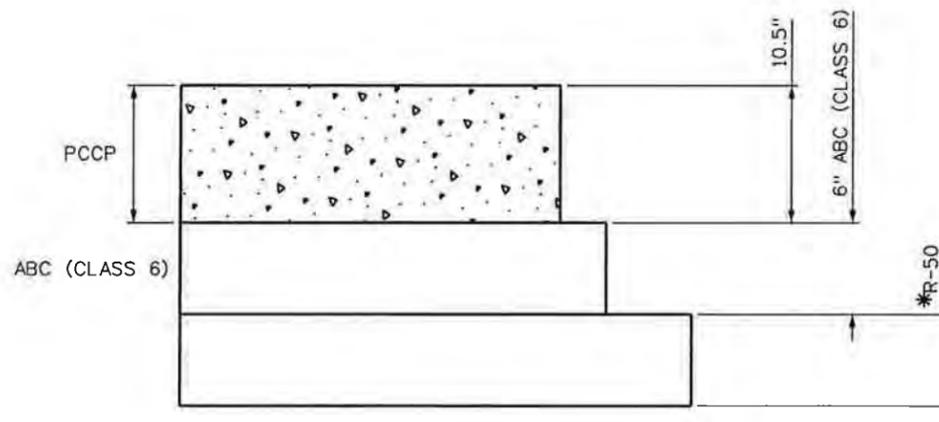
THE PAVEMENT DESIGN SECTIONS SHOWN ON THIS PAGE ARE OPTIONS TO CONSIDER AT FIR. THE FINAL PAVEMENT DESIGN SECTION WILL BE INCLUDED WITH THE DESIGN-BUILD DOCUMENTS.



PAVEMENT DETAIL
FULL DEPTH HMAP



PAVEMENT DETAIL
HMAP OVER ABC



PAVEMENT DETAIL
FULL DEPTH PCCP

PAVEMENT DESIGN PARAMTERS

Initial Serviceability	4.5
Terminal Serivceability	2.5
Str. Layer Coeff. - HMA	0.44
Design Subgrade R-value	50
Reliability Level, %	95
Overall Standard Deviation (PCCP)	0.34
Str. Layer Coeff.- HMAP	0.44
Str. Layer Coeff.- ABC	0.12
ESAL _{2c} (HMAP)	4,825,027
ESAL _{3c} (PCCP)	11,011,767

*SUBGRADE WITH AN R-VALUE LESS THAN 50 WITHIN THE PAVEMENT AREAS WILL NEED TO BE SUBEXCAVATED A MINIMUM OF 3' AND REPLACED WITH R-VALUE 50 OR BETTER MATERIAL

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File Name: 18202_Pavement.dgn	
Horiz. Scale: 1:10 Vert. Scale: As Noted	
Unit Information Unit Leader Initials	

Sheet Revisions		
Date:	Comments	Init.

Colorado Department of Transportation

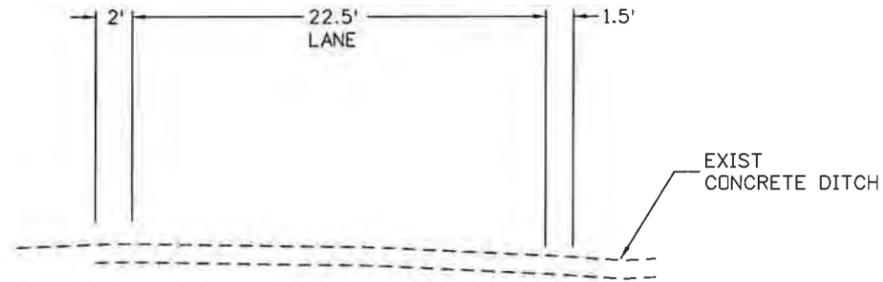
8833 South Wadsworth Court
Littleton, CO 80128
Phone: 303-972-9112 FAX: 303-972-9114

Region 6 MP

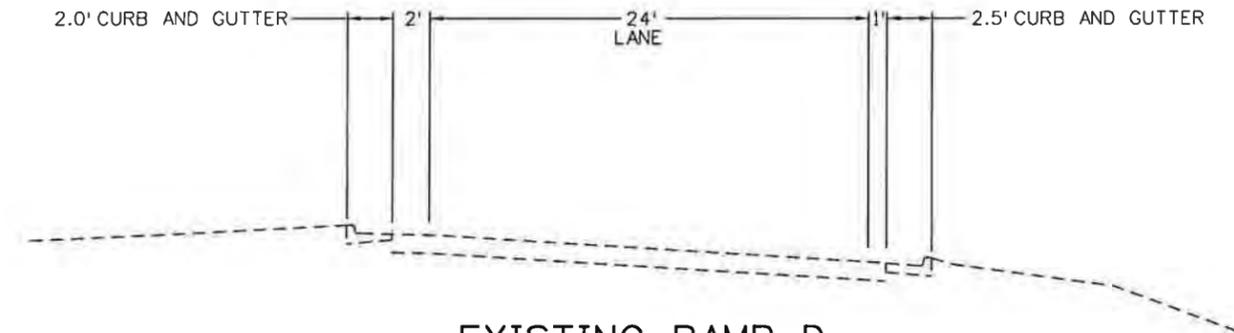
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PAVEMENT DESIGN DETAILS	
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Detailer: MAB	
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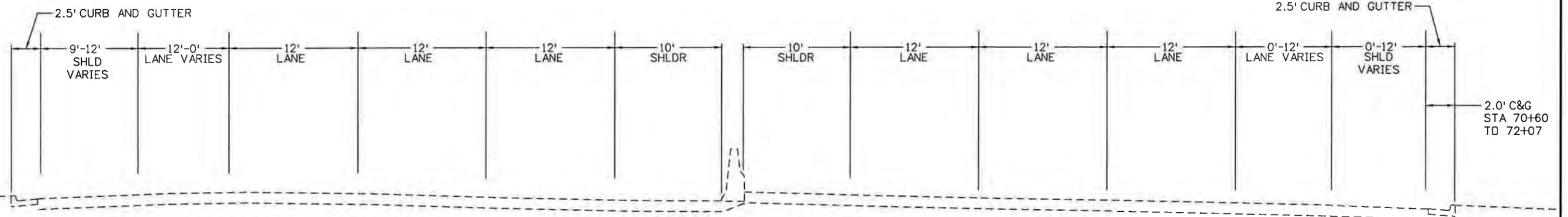
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FBR 0062-026
18202
Sheet Number 4



EXISTING RAMP D
Sta. 200+00 TO Sta. 203+35



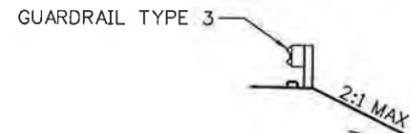
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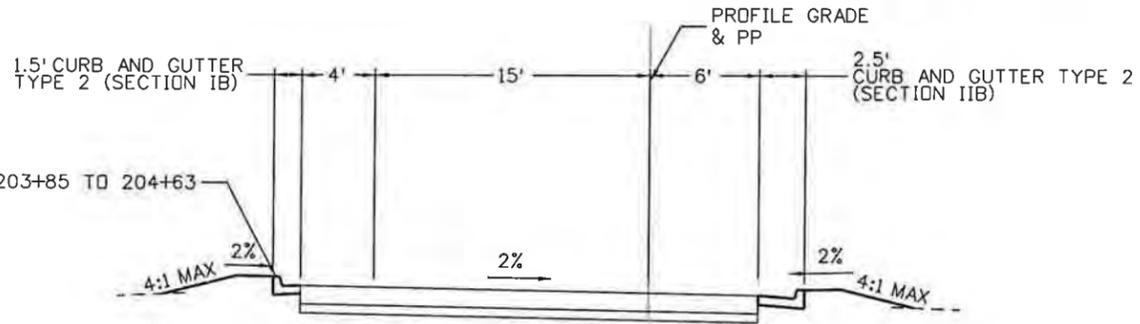
US 6
Sta. 64+70 TO Sta. 72+15

Print Date: 12/27/2011		Sheet Revisions			Colorado Department of Transportation 8833 South Wadsworth Court Littleton, CO 80128 Phone: 303-972-9112 FAX: 303-972-9114 Region 6	As Constructed	TYPICAL SECTIONS		Project No./Code
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Unit Information Unit Leader Initials						Void:	Detailer: JBK	Numbers	Sheet Number 5
 999 18TH STREET, SUITE 2000 DENVER, CO 80202 PHONE: 303-297-2076 FAX: 303-297-2091						Sheet Subset: TYPICALS	Subset Sheets: 1 of 2		

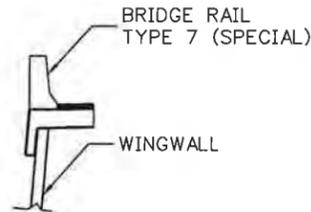
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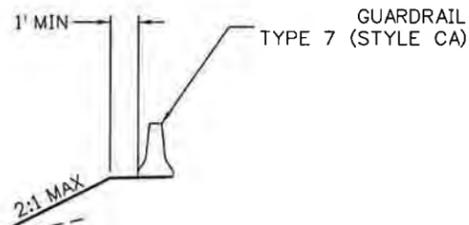
Sta. 202+79 TO Sta. 204+85



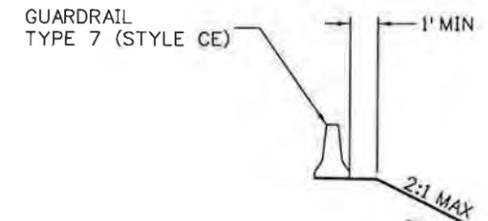
RAMP D
Sta. 200+00 TO Sta. 204+93



Sta. 70+53 TO Sta. 71+33

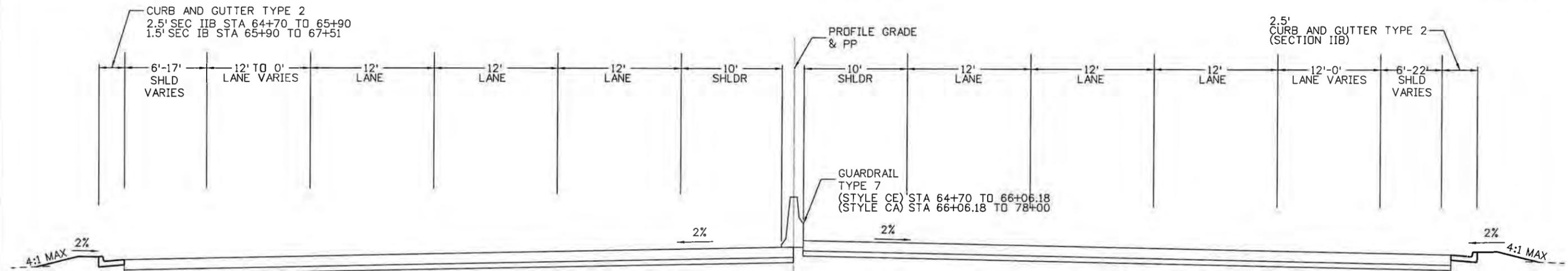


Sta. 65+51 TO Sta. 68+53



Sta. 70+72 TO Sta. 72+15

CURB AND GUTTER TYPE 2
2.5' SEC IIB STA 64+70 TO 65+90
1.5' SEC IB STA 65+90 TO 67+51



US 6
Sta. 64+70 TO Sta. 72+15

Print Date: 12/27/2011	
File Name: 18202_DES_Typ1Sect.dgn	
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Unit Information Unit Leader Initials	

Sheet Revisions		
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Region 6 MP

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Void:

TYPICAL SECTIONS		
US 6		
Designer: JBK	Structure	
Detailer: JBK	Numbers	
Sheet Subset: TYPICALS	Subset Sheets: 2	of 2

Project No./Code
FBR 0062-026
18202
Sheet Number 6

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POTENTIAL UTILITY CONFLICT TABLE

Utility Page	Approx Begin	Approx End	Utility Owner	Existing Facility
2	64+29	64+30	Denver Water?	Potential 3" water line (from key maps)
2	64+66	64+67	Denver Water?	Potential 3" water line (from key maps)
2	64+75	64+81	Denver Water?	Potential 6" water line (from key maps)
2	64+74	64+80	Denver Water?	Potential 8" water line (from key maps)
2	68+50	73+60	Xcel Electric	Underground electric line
3	73+75	73+79	Xcel Gas	4" Gas Lines
3	73+97	73+98	Denver Water	8" Water line
3	74+37	74+38	Xcel Gas	4" Gas Line
3	74+37	74+38	Adesta	Underground Fiber Optic line
4	203+12	203+13	Denver Water?	Potential 3" water line (from key maps)
4	203+45	203+46	CDOT Traffic	Fiber Optic line
4	203+60	203+61	CDOT Traffic	CDOT Traffic electric

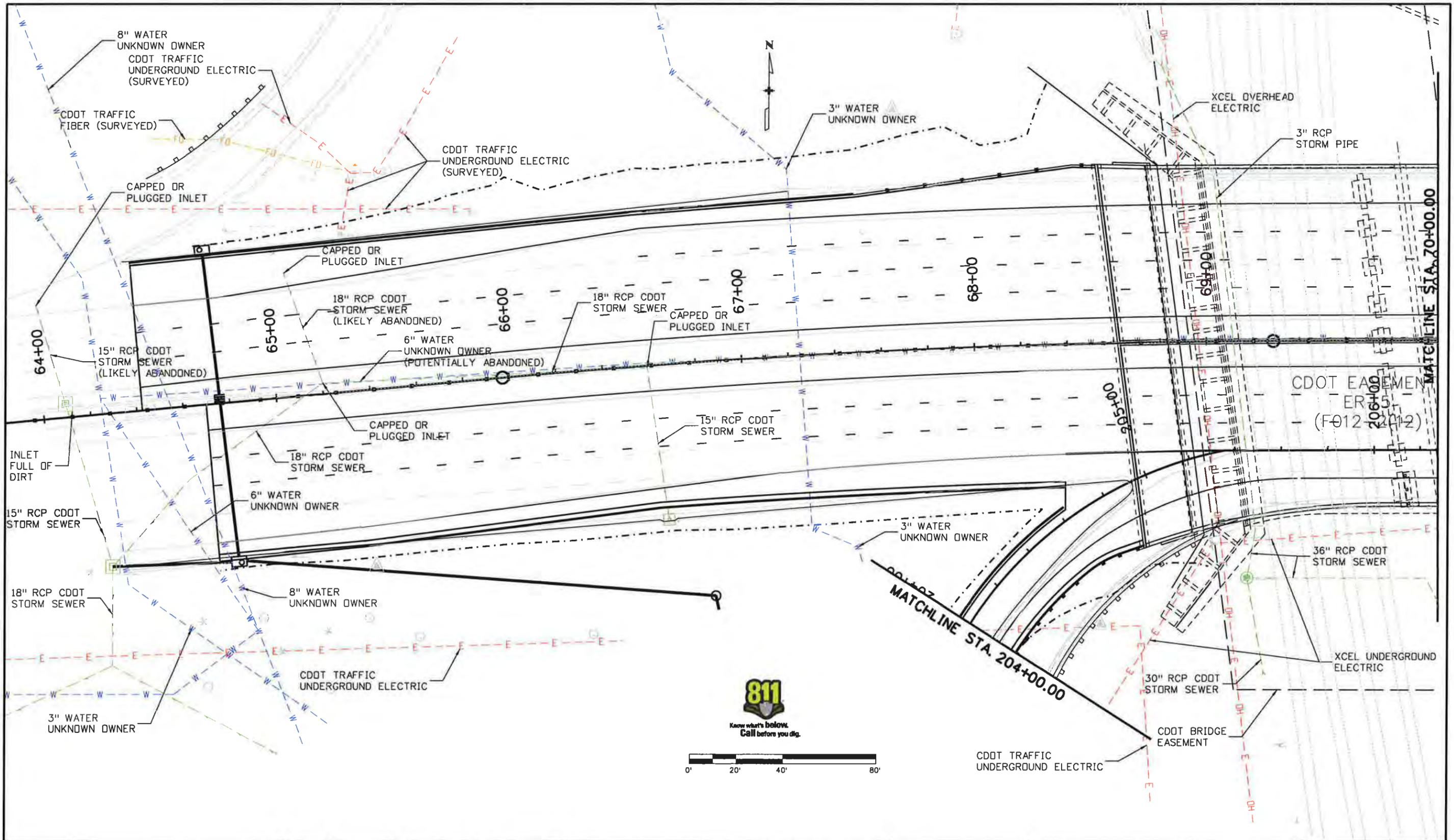
UTILITY PLAN LEGEND

EXISTING	PROPOSED
--- E --- E --- ELECTRIC	— E — E — ELECTRIC
--- T --- T --- TELEPHONE	— T — T — TELEPHONE
--- FO --- FO --- FIBER OPTIC	— FO — FO --- FIBER OPTIC
--- H --- H --- HIGH PRESSURE GAS	--- H --- H --- HIGH PRESSURE GAS
--- W --- W --- WATER	--- W --- W --- WATER
--- S --- S --- SANITARY SEWER	--- S --- S --- SANITARY SEWER
--- ST --- ST --- STORM SEWER	--- ST --- ST --- STORM SEWER



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Print Date: 12/28/2011		Sheet Revisions			Colorado Department of Transportation		As Constructed	UTILITY PLAN		Project No./Code	
File Name: 18202_UTL_TitleSht.dgn		Date:	Comments	Init.	8833 South Wadsworth Court Littleton, CO 80128 Phone: 303-972-9112 FAX: 303-972-9114		No Revisions:	US 6 OVER BNSF		FBR 0062-026	
Horiz. Scale: 1:1 Vert. Scale: As Noted					Region 6 MP		Revised:	Designer: · JBK	Structure	18202	
Unit Information Unit Leader Initials							Void:	Detailer: RMC	Numbers	Sheet Number 7	
699 18TH STREET, SUITE 2000 DENVER, CO 80202 PHONES: 303-297-2978 FAX: 303-297-2993							Sheet Subset: UTILITY	Subset Sheets: 1 of 4			



Print Date: 12/28/2011
 File Name: 18202_Utility_Sheet_01.dgn
 Horiz. Scale: 1:40 Vert. Scale: As Noted
 Unit Information Unit Leader Initials

Sheet Revisions		
Date:	Comments	Init.

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 Phone: 303-972-9112 FAX: 303-972-9114
 Region 6 MP

As Constructed
 No Revisions:
 Revised:
 Void:

UTILITY PLAN
 STA 63+80 TO 70+00

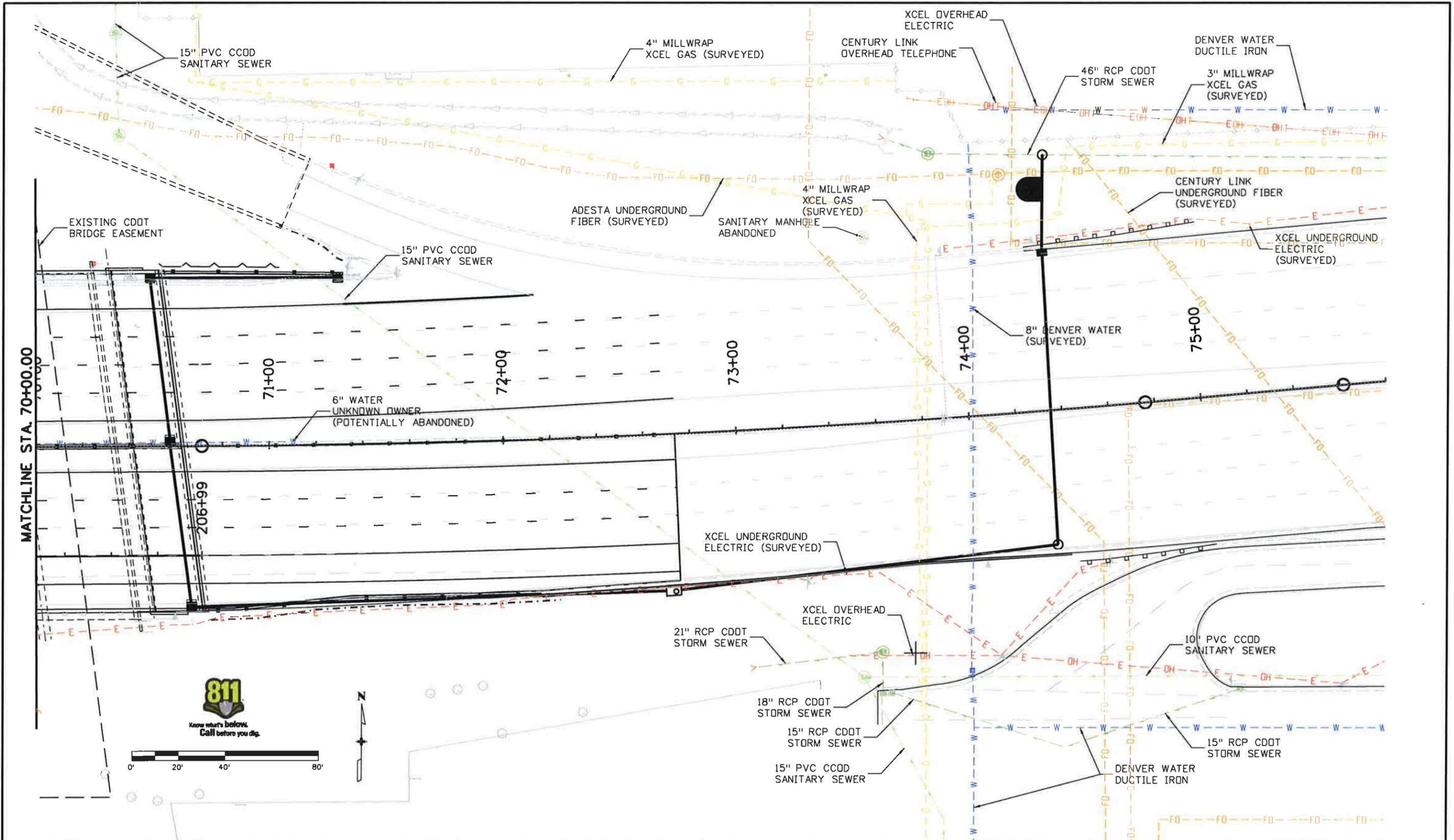
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Detailer:	RMC	Numbers	
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Project No./Code
 FBR 0062-026
 18202
 Sheet Number 8

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Horiz. Scale: 1:40 Vert. Scale: As Noted	
Unit Information Unit Leader Initials	

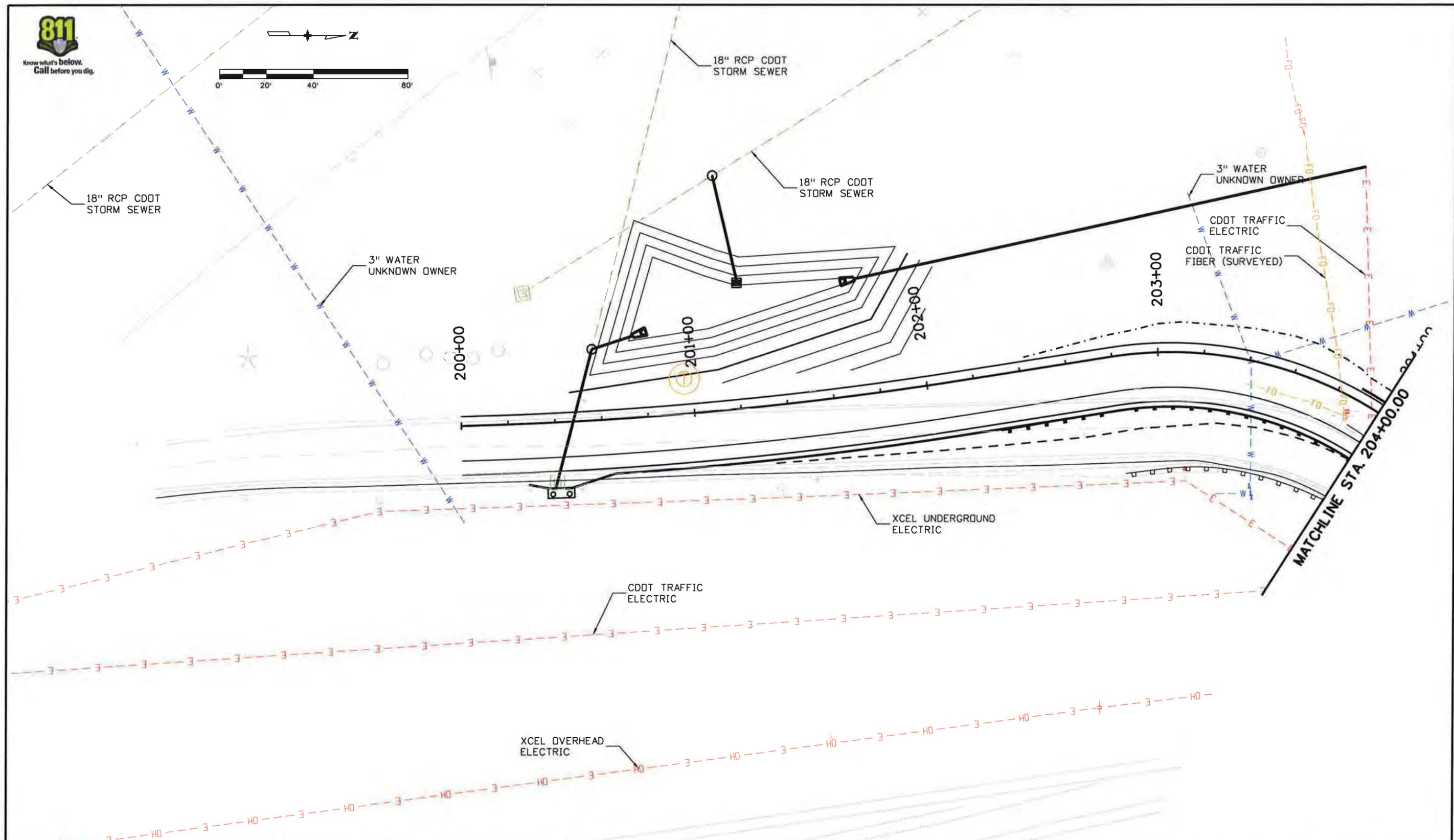
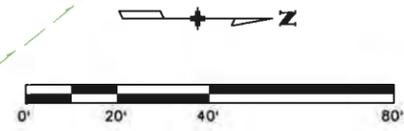
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UTILITY PLAN STA 70+00 TO 75+00			
Designer:	JBK	Structure	
Detailer:	RMC	Numbers	
Sheet Subset:	UTILITIES	Subset Sheets:	3 of 4

Project No./Code
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Sheet Number 9



Print Date: 12/28/2011	
File Name: 18202_Utility_Sheet_03.dgn	
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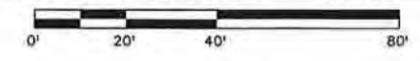
Region 6 **MP**

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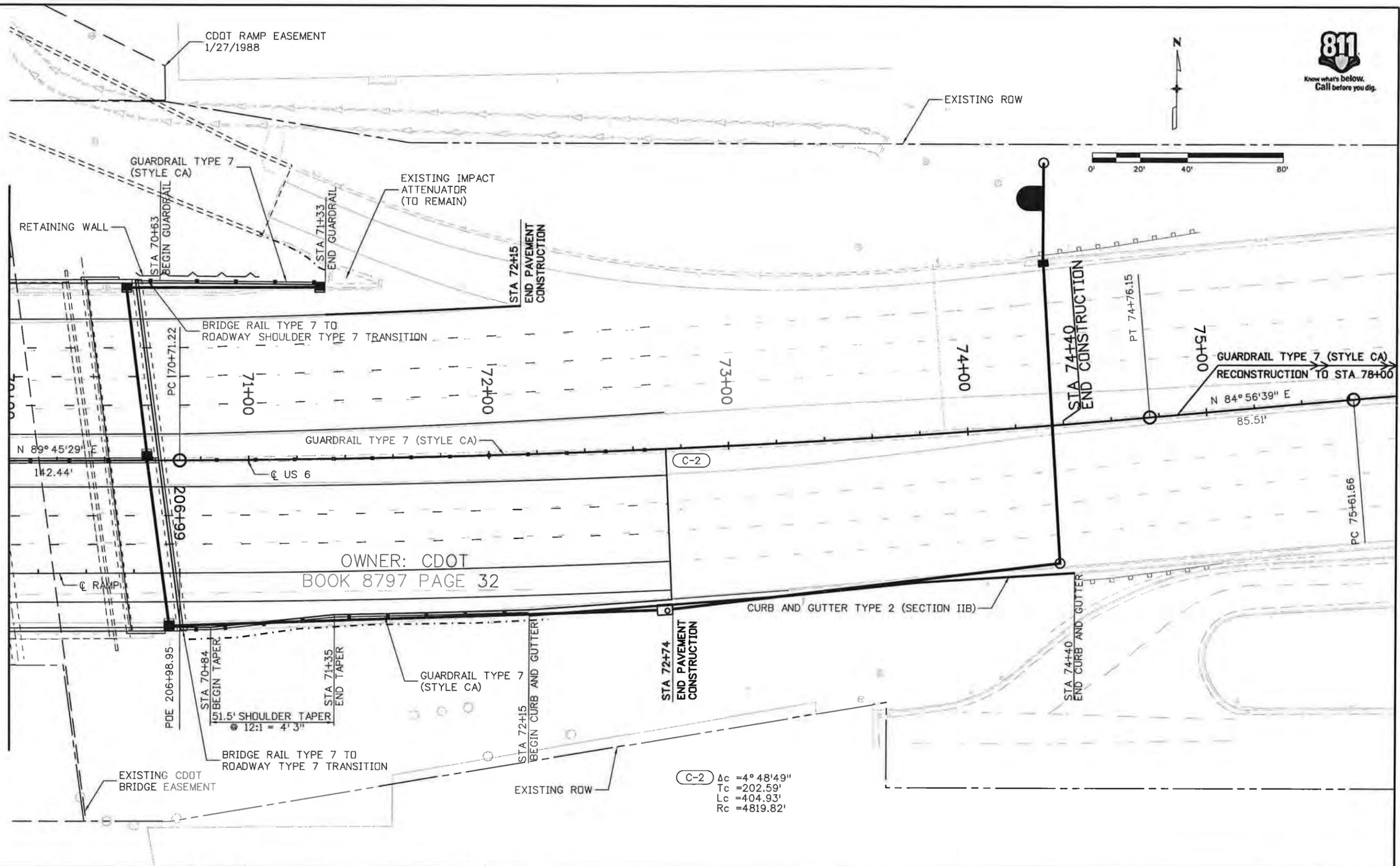
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STA 200+00 TO 204+00			
Designer:	JBK	Structure	
Detailer:	RMC	Numbers	
Sheet Subset:	UTILITY	Subset Sheets:	4 of 4

Project No./Code
FBR 0062-026
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Sheet Number 10

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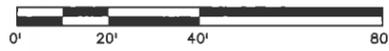
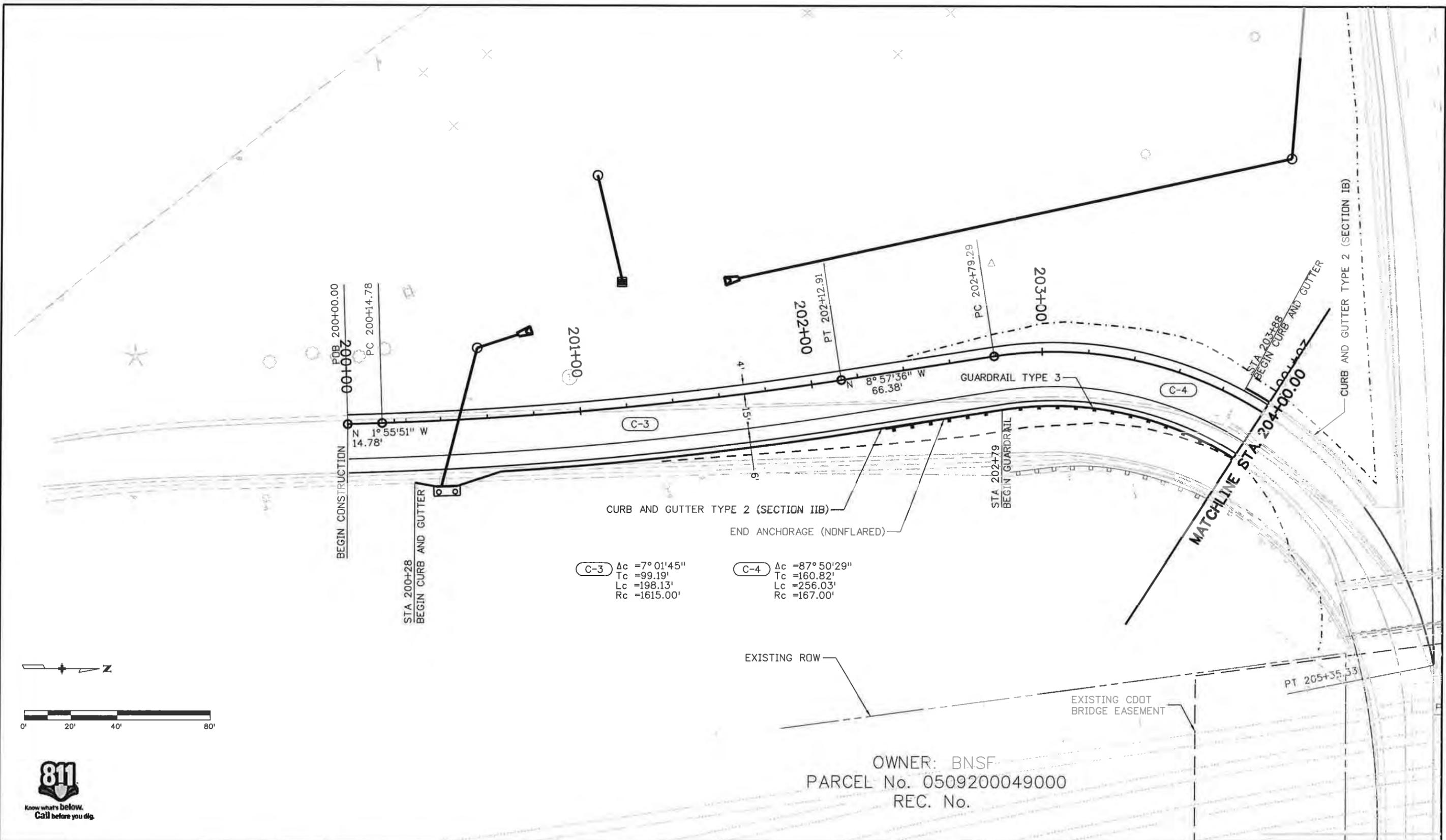
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US 6			
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Sheet Subset:	ROADWAY	Subset Sheets:	2 of 3

Project No./Code
FBR 0062-026
18202
Sheet Number 12

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OWNER: BNSF
 PARCEL No. 0509200049000
 REC. No.

Print Date: 12/27/2011
File Name: 18202_Roadway_Sheet_03.dgn
Horiz. Scale: 1:40 Vert. Scale: As Noted
Unit Information Unit Leader Initials
WILSON & COMPANY <small>Engineers & Architects</small>
<small>255 18TH STREET, SUITE 2600 DENVER, CO 80202 PHONE: 303-297-2976 FAX: 303-297-2693</small>

Sheet Revisions		
Date:	Comments	Init.

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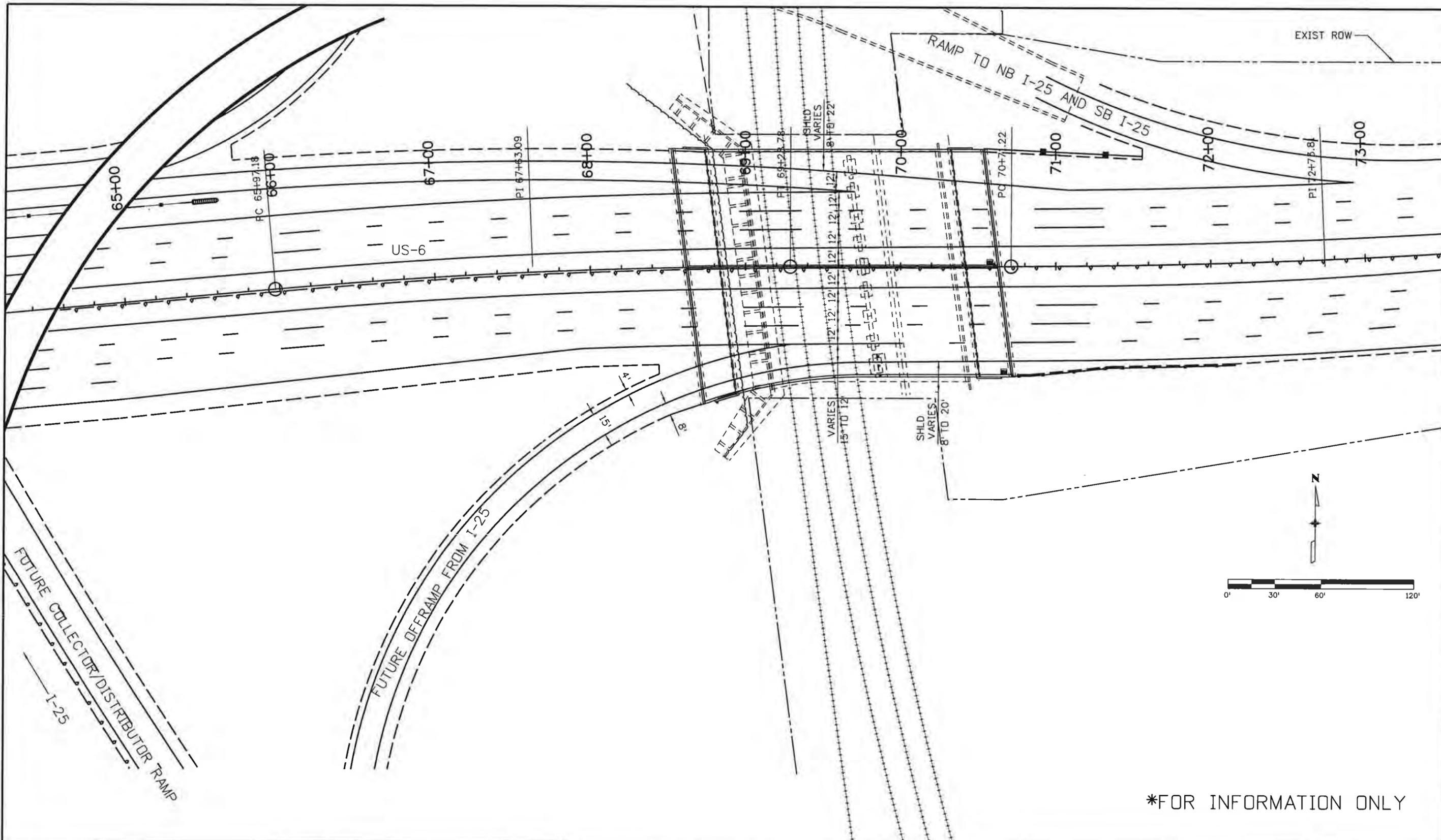
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Region 6 **MP**

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ROADWAY PLAN		
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Designer: JBK	Structure Numbers:	
Detailer: JBK		
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Sheet Number 13



*FOR INFORMATION ONLY

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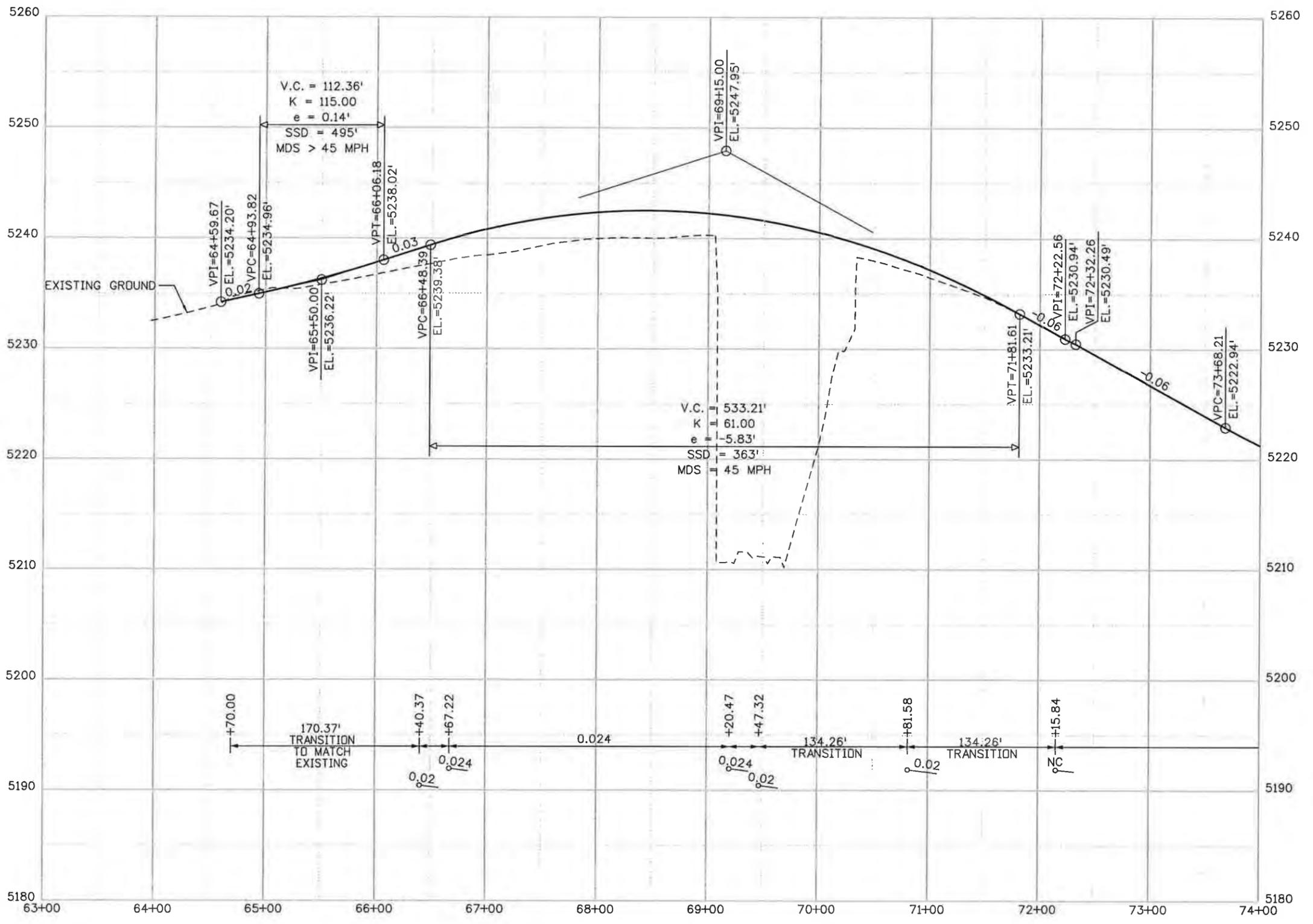
Region 6 **MP**

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US 6 OVER BNSF FUTURE ROADWAY PLAN			
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Detailer:	JBK	Numbers	
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Project No./Code
FBR 0062-026
18202
Sheet Number 14

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Print Date: 12/28/2011
 File Name: 18202_DES_PROFILES.DGN
 Horiz. Scale: 1:100 Vert. Scale: As Noted
 Unit Information Unit Leader Initials

Sheet Revisions		
Date:	Comments	Init.

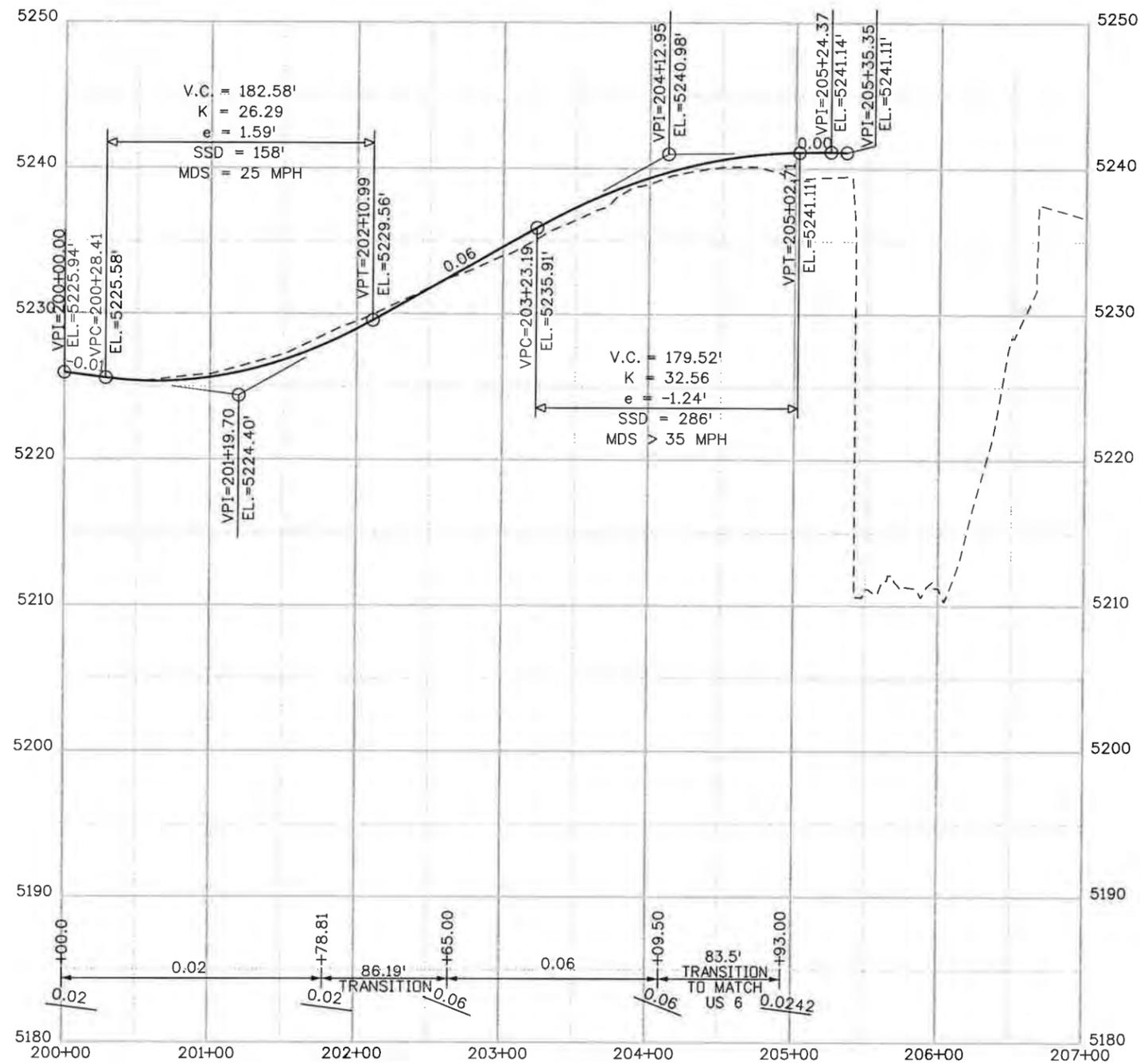
Colorado Department of Transportation
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 Region 6 MP

As Constructed
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ROADWAY PROFILE	
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Designer: JBK	Structure Numbers
Detailer: JBK	
Sheet Subset: PROFILE	Subset Sheets: 1 of 3

Project No./Code
 FBR 0062-026
 18202
 Sheet Number 15

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Print Date: 12/28/2011
 File Name: 18202_DES_PROFILES.DGN
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WILSON & COMPANY
 Engineers & Architects
 999 18TH STREET, SUITE 2600
 DENVER, CO 80202
 PHONE: 303-297-2976
 FAX: 303-297-2693

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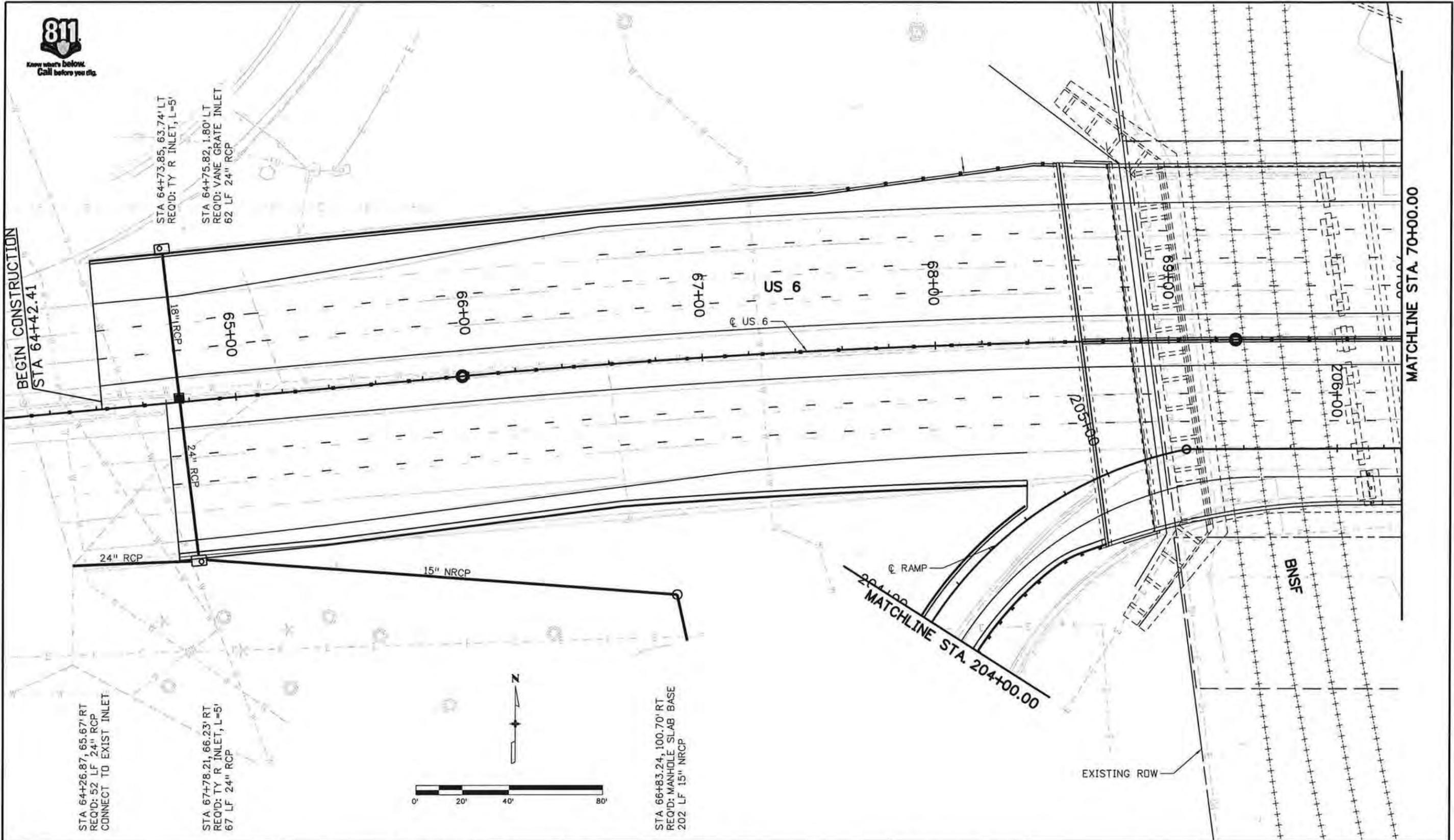
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ROADWAY PROFILE	
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Designer: JBK	Structure Numbers
Detailer: JBK	
Sheet Subset: PROFILE	Subset Sheets: 3 of 3

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18202
Sheet Number 17



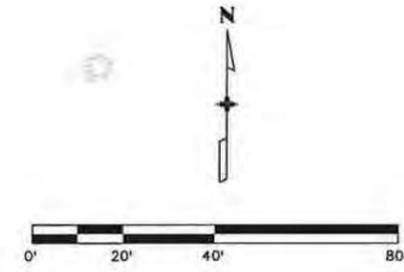
STA 64+73.85, 63.74' LT
REQ'D: TY R INLET, L=5'

STA 64+75.82, 1.80' LT
REQ'D: VANE GRATE INLET
62 LF 24" RCP

STA 64+26.87, 65.67' RT
REQ'D: 52 LF 24" RCP
CONNECT TO EXIST INLET.

STA 67+78.21, 66.23' RT
REQ'D: TY R INLET, L=5'
67 LF 24" RCP

STA 66+83.24, 100.70' RT
REQ'D: MANHOLE SLAB BASE
202 LF 15" NRCP



Print Date: 12/22/2011	
File Name: 18202_Drain_Sheet_01.dgn	
Horiz. Scale: 1:40	Vert. Scale: As Noted
Unit Information	Unit Leader Initials

Sheet Revisions		
Date:	Comments	Init.

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Littleton, CO 80128
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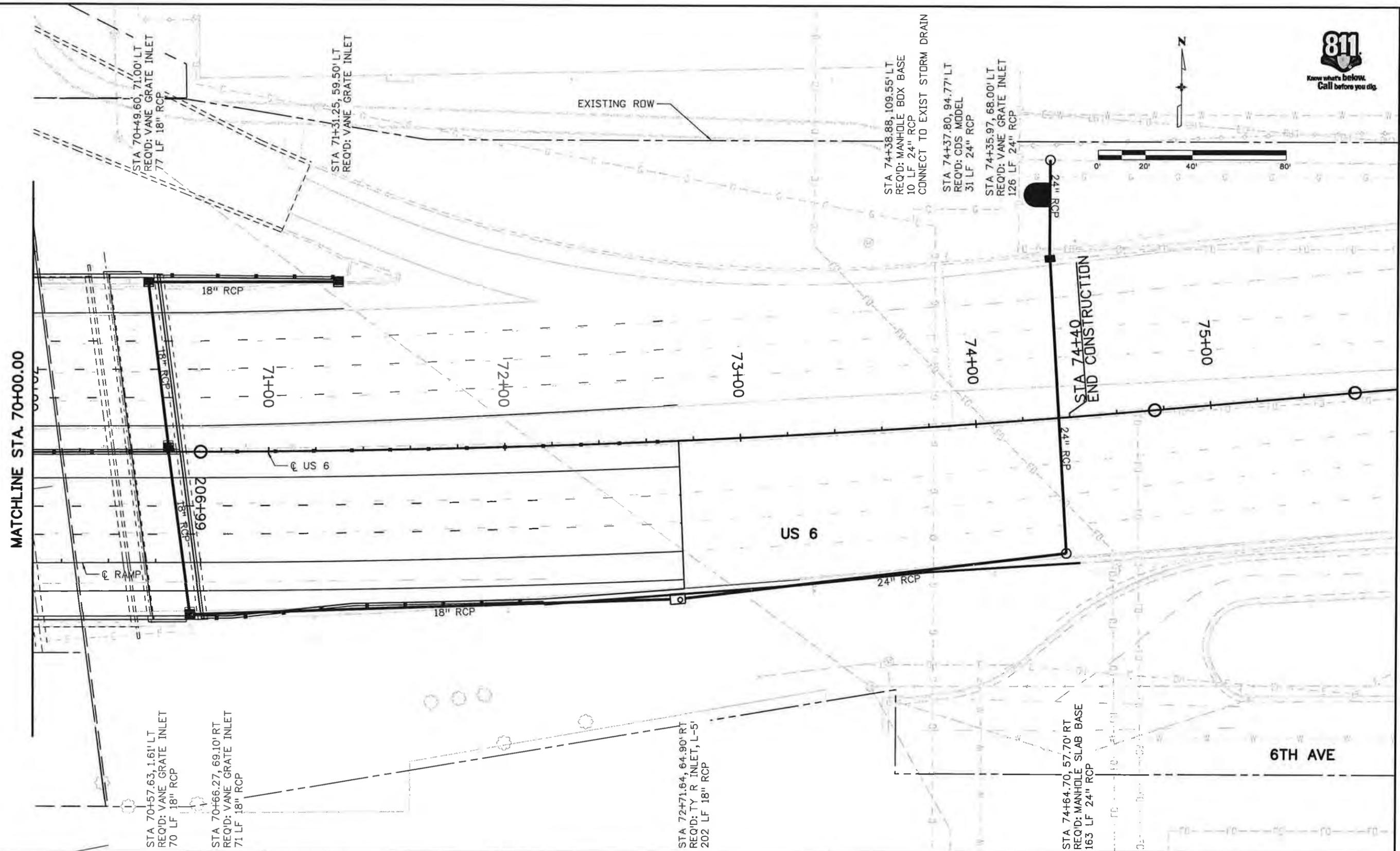
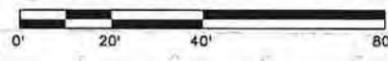
Region 6 MP

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No Revisions:	
Revised:	
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DRAINAGE PLAN US 6			
Designer:	TDS	Structure	
Detailer:	TDS	Numbers	
Sheet Subset:	DRAIN	Subset Sheets:	1 of 3

Project No./Code	
FBR 0062-026	
18202	
Sheet Number	18

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Print Date: 12/22/2011
File Name: 18202_Drain_Sheet_02.dgn
Horiz. Scale: 1:40 Vert. Scale: As Noted
Unit Information Unit Leader Initials
 <small>999 18TH STREET, SUITE 2600 DENVER, CO 80202 PHONE: 303-297-2976 FAX: 303-297-2693</small>

Sheet Revisions		
Date:	Comments	Init.

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Region 6 MP

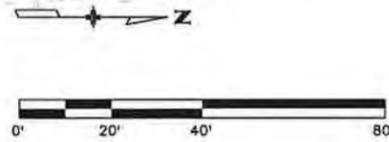
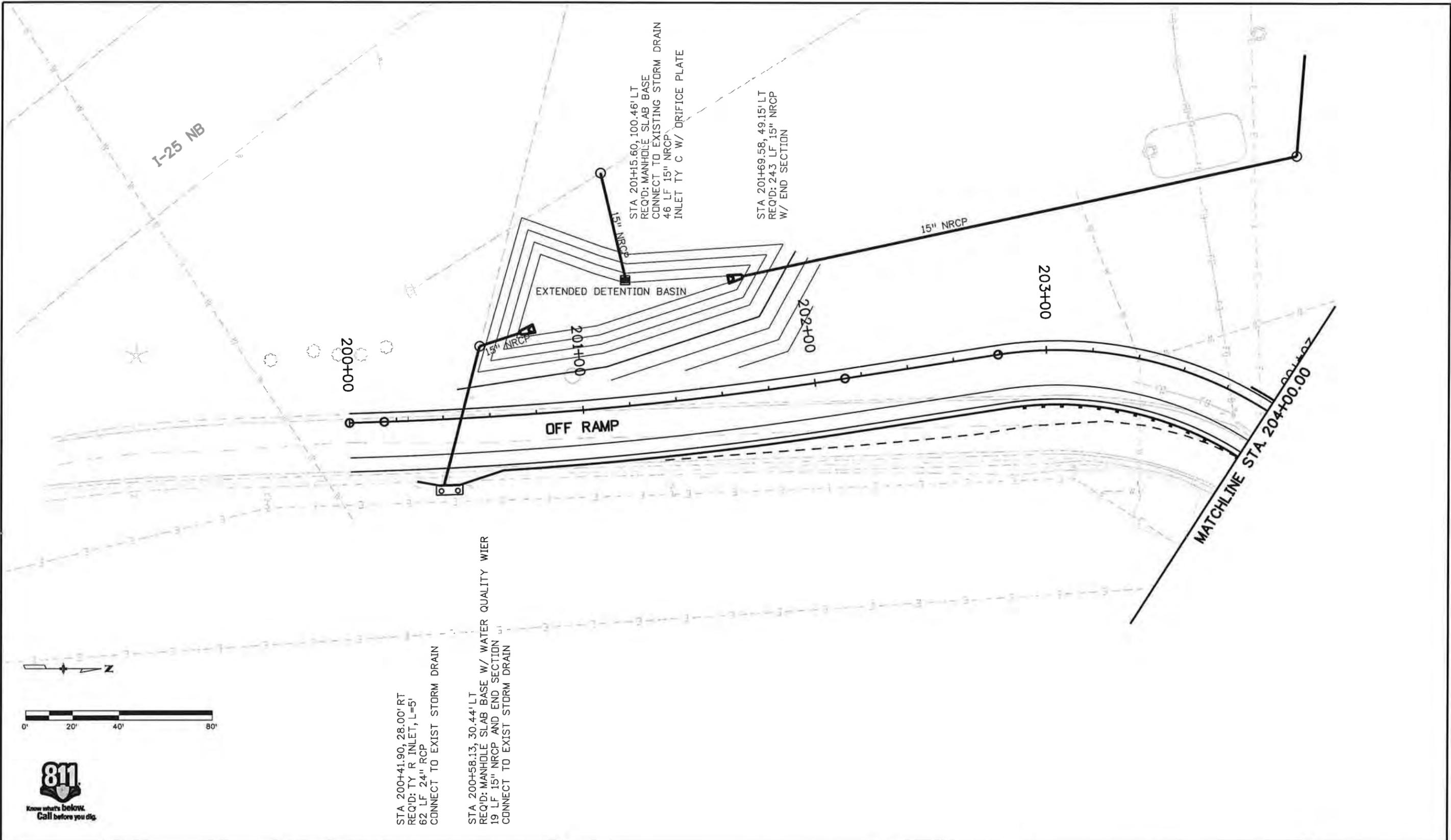
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DRAINAGE PLAN		
US 6		
Designer:	TDS	Structure Numbers
Detailer:	TDS	
Sheet Subset:	DRAIN	Subset Sheets: 2 of 3

Project No./Code
FBR 0062-026
18202
Sheet Number 19

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STA 200+41.90, 28.00' RT
REQ'D: TY R INLET, L=5'
62 LF 24" RCP
CONNECT TO EXIST STORM DRAIN

STA 200+58.13, 30.44' LT
REQ'D: MANHOLE SLAB BASE W/ WATER QUALITY WIER
19 LF 15" NRCP AND END SECTION
CONNECT TO EXIST STORM DRAIN

STA 201+15.60, 100.46' LT
REQ'D: MANHOLE SLAB BASE
CONNECT TO EXISTING STORM DRAIN
46 LF 15" NRCP
INLET TY C W/ DRIFICE PLATE

STA 201+69.58, 49.15' LT
REQ'D: 24.3 LF 15" NRCP
W/ END SECTION

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File Name: 18202_Drain_Sheet_03.dgn
Horiz. Scale: 1:40 Vert. Scale: As Noted
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Sheet Revisions		
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DRAINAGE PLAN RAMP 200+00 TO 203+40		
Designer:	TDS	Structure
Detailer:	TDS	Numbers
Sheet Subset:	DRAIN	Subset Sheets: 3 of 3

Project No./Code
FBR 0062-026
18202
Sheet Number 20

WILSON & COMPANY
Engineers & Architects
333 18TH STREET, SUITE 2000
DENVER, CO 80202
PHONE: 303-297-2976
FAX: 303-297-2992

1. Site Description

Additional information for permitted projects. For information only to fulfill the CDPS-SCP (Colorado Discharge Permit System - Stormwater Construction Permit)

A. Project Site Description: This project involves replacing the 6th Avenue bridge and approaches over the BNSF. Some pavement structure reconstruction and resurfacing is also included.

B. Proposed Sequencing For Major Activities:

1. Install perimeter BMPs (silt fence and stabilized construction entrance) and inlet protection on existing inlets.
2. Shift traffic to westbound lanes, construct new off ramp, eastbound lanes, and south portion of bridge.
3. Shift traffic to outside lanes, construct center portion of bridge
4. Shift traffic to eastbound lanes, construct westbound lanes and north portion of bridge.
5. Final stabilization (seeding with soil retention blanket or mulch (weed free) and mulch tackifier)

C. Acres Of Disturbance:

1. Total area of construction site: 4.3 acres
2. Total area of disturbance: 4.3 acres (includes roadway and bridge pavement disturbances)
3. Acreage of seeding: 0.6 acre

D. Existing Soil Data:

The existing soil is primarily imported road base with the surrounding areas consisting of loams and gravelly sand. Erosion potential is classified as slight to moderate.

E. Existing Vegetation, Including Percent Cover:

Existing Cover is primarily asphalt and concrete cover with naturally vegetated slopes ranging from 2% to 33% embankment slopes.

Documentation is required to support that the site has been stabilized to 70% of the pre-disturbance cover and does not show signs of accelerated erosion. Prior to construction the contractor shall create photographic documentation and measure existing plant cover according to the CDDT specifications.

1. Date of Survey: To be conducted as a preconstruction activity by Contractor.

F. Potential Pollutants Sources:

See First Construction Activities under Potential Pollutant Sources. The ECS shall prepare a list of all potential pollutants and their locations in accordance with subsection 107.25.

G. Receiving Water:

1. Outfall locations: Inlets and storm sewer along US 6. (CDDT and CCD facilities).

SIZE	TYPE	LOCATION	OUTFALL	RECEIVING WATERS
24"	RCP	64+26, RT	CDDT Storm Drain	South Platte River
24"	RCP	74+38, LT	CCD Storm Drain	South Platte River
15"	NRCP	201+15, LT	CDDT Storm Drain	South Platte River

2. Names of receiving water(s) on site and the ultimate receiving water: South Platte River
3. Distance ultimate receiving water is from project: 1,000'
4. Does the receiving water have an approved TMDL? Yes/No, _____
No impairments are contributed by this project.

H. Allowable Non-Stormwater Discharges:

1. Discharges to the ground of water from construction dewatering activities may be authorized provided that:
 - A. The source is groundwater and/or groundwater combined with stormwater that does not contain pollutants.
 - B. The source and BMP's are identified in the SWMP.
 - C. Discharges do not leave the site as surface runoff or to surface waters.
2. If discharges do not meet the above criteria, a separate permit from the Department of Health will be required. Contaminated groundwater requiring coverage under a separate permit may include groundwater contaminated with pollutants from a landfill, mining activities, industrial pollutant plumes, underground storage tank, etc.

I. Environmental Impacts:

1. Wetland Impacts: No
2. Stream Impacts: No
3. Threatened and Endangered Species: No

2. Site Map Components:

Pre-construction

- A. Construction Site Boundaries See Erosion Control Plan / SWMP Site Map
- B. All Areas Of Ground Surface Disturbance See Erosion Control Plan / SWMP Site Map
- C. Areas Of Cut And Fill See Erosion Control Plan / SWMP Site Map
- D. Location Of All Structural BMP's Identified In The SWMP See Erosion Control Plan / SWMP Site Map
- E. Location Of Non-Structural BMP's As Applicable In The SWMP See Erosion Control Plan / SWMP Site Map
- F. Springs, Streams, Wetlands And Other Surface Water See Erosion Control Plan / SWMP Site Map
- G. Protection Of Trees, Shrubs, Cultural Resources And Mature Vegetation See Erosion Control Plan/SWMP Site Map
- H. Areas used for storing and stockpiling of materials, staging areas (field trailer, fueling, etc) and batch plants

3. SWMP Administrator For Design:

The original SWMP design for this project has been designed by the following Engineer:
 SWMP Engineering Firm: Wilson & Company, Inc. Engineers and Architects
 SWMP Engineer: Troy D. Sloucum, PE, CFM
 Address: 999 18th Street, Suite 2600
 Denver, CO 80202
 Phone: 303-297-2976
 Once the Contractor takes ownership of the SWMP they will become the Owner and assume responsibility for all design changes to the SWMP, implementation, and maintenance.

4. Stormwater Management Controls First Construction Activities

The contractor shall perform the following:

A. Designate A SWMP Administrator/Erosion Control Supervisor (To be filled out at time of construction; designate the individual(s) responsible for implementing, maintaining and revising SWMP, including the title and contact information. The activities and responsibilities of the administrator shall address all aspects of the project's SWMP.)

Name/Title: _____

Contact information: _____

B. Potential Pollutant Sources

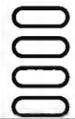
Evaluate, identify and describe all potential sources of pollutants at the site in accordance with subsection 107.25 and place in the SWMP notebook. All BMP's related to potential pollutants shall be shown on the SWMP site map by the contractor's ECS.

C. Best Management Practices (BMP'S) For Stormwater Pollution Prevention

Phased BMP Implementation, Application, and Narrative:

During Design: "BMP as Designed" boxes are marked when used in the SWMP. During construction: the ECS shall update the narratives, include new narratives and update the "In use on site" boxes to match which BMPs are currently in use on site. Clearly describe the relationship between the phases of construction and the implementation of BMP controls.

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Print Date: 12/23/2011		Sheet Revisions			 Colorado Department of Transportation 8833 South Wadsworth Court Littleton, CO 80128 Phone: 303-972-9112 FAX: 303-972-9114 Region 6 MP	As Constructed No Revisions: Revised: Void:	STORMWATER MANAGEMENT PLAN SHEET			Project No./Code FBR 0062-026 18202 Sheet Number 21
File Name: 18202_swmp01.dgn		Date:	Comments	Init.			Designer: TDS	Structure Numbers		
Horiz. Scale: 1:100 Vert. Scale: As Noted							Detailer: TDS			
Unit Information Unit Leader Initials							Sheet Subset: SWMP	Subset Sheets: 1 of 6		

STRUCTURAL and NONSTRUCTURAL BMPs that may be potentially used on the project for erosion and sediment control; practices may include, but are not limited to:

Structural BMPs and Application	Narrative	BMP As Designed	In Use On Site	First Construction Activities	During Construction	Interim/Final Stabilization
Earth Berm/Stockpile	Placed around toe to contain sediment around stockpile					
Earth Berm/Toe of fill	Placed prior to earthwork within specified distance of toe to capture sediment and protect undisturbed areas					
Earthberm/Diversion	Placed to divert drainage and subdivide runoff volume from less than 10 acre sub basins. Temp feature to be removed upon final stabilization					
*Rock Check Dams/Ditch	Velocity checks in ditches placed immediately after ditch grading					
Silt Fence/Sediment Control	Placed on contour to contain construction runoff	X		X	X	
Silt Fence/Protection of Vegetation	Placed to protect undisturbed area and delineate boundary of protected area	X		X	X	
Erosion Logs, Silt Berms or Silt Dikes/Ditch Checks	Erosion Control checks in ditches placed immediately after ditch grading to reduce flow velocity of runoff in ditch					
Erosion Logs/ Existing Inlet	Placed prior to disturbance at existing inlets where disturbance maybe occurring to cause sediment laden water to enter pipe					
Erosion Logs/culvert inlet or outlet	Placed on culvert to filter or prevent sediment from entering pipe. If disturbance occurs above pipe then erosion logs are placed above pipe	X		X	X	
Erosion Logs/Sediment Control	Placed to protect undisturbed area and delineate boundary of protected area	X		X	X	
Storm Drain Inlet Protection/Sediment Control	Placed to protect storm drain inlets to filter or prevent sediment from entering drainage system	X		X	X	
Temporary Sediment Trap/Basin	Contain and filter sediment laden water from < 5 acre sub basins within construction disturbance					
Permanent Sediment Trap/Basin	Utilized during construction to act as temporary sediment containment. Outlet structure shall be modified for construction runoff					
Embankment Protection or Temp Slope Drain	Placed as a conduit or chute to drain runoff down slope and prevent erosion of slope					
Outlet Protection	Material placed as energy dissipation device to prevent erosion at outlet structure					
Concrete Washouts/Construction Control	Construction waste management of concrete washout material	X		X	X	
Vehicle Tracking Pad	Placed to prevent tracking of sediment from disturbance to offsite surface	X		X	X	
Sweeping/Construction or Source Control	Utilized to remove sediment on pavement surface and to prevent sediment from entering drainage system	X		X	X	
Dewatering/ Construction Control	Sediment control to remove or filter sediment from construction dewatering					
Temporary Stream Crossing/ Construction Control	Constructed over stream or drainage to prevent discharge of pollutants from construction equipment into stream					
Clean water diversion	Placed to divert clean surface or ground water from mixing with construction runoff or activity					

Structural BMPs and Application	Narrative	BMP As Designed	In Use On Site	First Construction Activities	During Construction	Interim/Final Stabilization
Gravel Bag	Placed on impervious surfaces to be used as a check dam to slow flow and prevent pollutants from entering storm drain. May also be used as additional storm drain inlet protection. A gravel bag shall be mobile and may be used more than once if not damaged.					
Erosion Bale (weed free)	Placed on pervious surfaces to be used as a check dam or inlet protection.					
Other						

Non Structural BMPs and Application	Narrative	BMP As Designed	In Use On Site	First Construction Activities	During Construction	Interim/Final Stabilization
Surface Roughening/Grading Techniques	Interim and temp stabilization of disturbance and to minimize wind and erosion	X			X	X
Seeding Permanent/Final Stabilization	Reduce runoff and control erosion on disturbed areas	X				X
Seeding Temporary	Over wintering of disturbance or used to control erosion for areas scheduled for future construction	X			X	X
Mulch/Mulch Tackifier/ Temp or Final Stabilization	Placed as a surface cover for erosion control and or seeding establishment	X			X	X
Soil Retention Blanket /Temp or Final Stabilization	Placed as surface cover for erosion control and seeding establishment	X			X	X
Turf Reinforcement Mat/ Final Stabilization	Placed in channels or on slopes for erosion control, channel liner and seeding establishment					
Soil Binder/Temp Stabilization	Placed as surface treatment to provide temp erosion control	X			X	
Spray on mulch blanket/ Temp or Final Stabilization	Placed cover on slopes to control erosion and seeding establishment					
Vegetative Buffer Strips	Filter sediment laden runoff from disturbance area					
Protection Of Trees/Protected Resources -Fence Plastic	Placed prior to construction to protect existing vegetation to remain	X		X	X	
Preservation Of Mature Vegetation/Work access and grading plans	Used to protect existing stable cover and minimize impact to vegetation	X		X	X	

*Check dams may be rock, erosion logs, silt dike, silt berm, etc. as indicated in the narratives and SWMP site map. Erosion control devices are used to limit the amount of soil loss on site. Sediment control devices are designed to capture sediment on the project site. Construction control are BMPs related to construction access and staging. BMP locations are indicated on the SWMP site map. BMP details and narratives not covered by the SWMP or Standard Plan M-208-1 shall be added to the SWMP notebook by the ECS.

- D. Offsite Drainage (Run On Water)
 1. Describe and record BMPs on the SWMP site map that has been implemented to address off site run-on water in accordance with subsection 208.03.
- E. Stabilized Construction Entrance/Vehicle Tracking Control
 1. BMP's shall be implemented in accordance with subsection 208.04.
- F. Perimeter Control
 1. Perimeter control shall be established as the first item on the SWMP to prevent the potential for pollutants leaving the construction site boundaries, entering the stormwater drainage system, or discharging to state waters.
 2. Perimeter control may consist of vegetation buffers, berms, silt fence, erosion logs, existing landforms, or other BMPs as approved.
 3. Perimeter control shall be in accordance with subsection 208.04.

Print Date: 12/23/2011
 File Name: 18202_swmp02.dgn
 Horiz. Scale: 1:100 Vert. Scale: As Noted
 Unit Information Unit Leader Initials



2600 DENVER, CO 80202
 PHONE: 303-297-2976
 FAX: 303-297-2695

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Region 6 MP

As Constructed	STORMWATER MANAGEMENT PLAN SHEET		Project No./Code
No Revisions:			FBR 0062-026
Revised:	Designer: TDS	Structure Numbers	18202
Void:	Detailer: MAB	Sheet Subset: SWMP	Sheet Number 22
	Subset Sheets: 2 of 6		

5. During Construction

RESPONSIBILITIES OF THE SWMP ADMINISTRATOR/EROSION CONTROL SUPERVISOR DURING CONSTRUCTION

The SWMP should be considered a *living document* that is continuously reviewed and modified. During construction, the following items shall be added, updated, or amended as needed by the SWMP Administrator/Erosion Control Supervisor (ECS) in accordance with Section 208.

During construction, indicate how items that have not been addressed during design are being handled in construction. If items are covered in the template or other sections of the SWMP notebook indicate below what section the discussion takes place.

- A. STOCKPILE MANAGEMENT - shall be done in accordance with subsection 101.95 and 208.07
- B. CONCRETE WASHOUT - Concrete wash out water or waste from field laboratories and paving equipment shall be contained in accordance with subsection 208.05 .
- C. SAW CUTTING - shall be done in accordance with subsection 101.95, 208.04, 208.05
- D. STREET CLEANING - shall be done in accordance with subsection 208.04

6. Inspections

A. Inspections shall be in accordance with subsection 208.03 (c).

7. BMP Maintenance

A. Maintenance shall be in accordance with subsection 208.04 (f).

8. Record Keeping

A. Records shall be kept in accordance with subsection 208.03 (c).

9. Interim And Final Stabilization

A. Seeding Plan

Soil preparation, soil conditioning or topsoil, seeding (native), mulching (weed free), and mulch tackifier will be required for an estimated X acre of disturbed area within the right-of-way limits which are not surfaced. The following types and rates shall be used:

Common Name	Botanical Name	Pounds PLS/Acre
Sideoats grama, Vaughn	Bouteloua curtipendula	3.0
Blue grama, Hachita	Bouteloua gracilis	2.0
Green needlegrass	Stipa viridula v. Lordom	3.0
Switchgrass	Panicum virgatum "Dacotah"	4.0
Junegrass, native	Koeleria macrantha	0.2
Western wheatgrass, Arriba	Pascopyrum smithii	6.0
Little bluestem, Posturo	Schizachyrium scoparium	3.0
Prairie coneflower	Rotibidia columnifera	0.3
Purple prairie clover	Ratibida columnaris	0.5
Gaillarda	Gaillardia aristata	1.0
Regreen / Triticum	Aestivum xElytrigia elongate	3.0
Total		26

B. SEEDING APPLICATION: Drill seed 0.25 inch to 0.5 inch into the soil. In small areas not accessible to a drill, hand broadcast at double the rate and rake 0.25 inch to 0.5 inch into the soil.

C. MULCHING APPLICATION: Apply a minimum of 1 1/2 tons of certified weed free hay per acre and in accordance with Section 213, and mechanically crimp it into the soil in combination with an organic mulch tackifier.

D. SPECIAL REQUIREMENTS: Due to high failure rates, hydromulching and/or hydroseeding will not be allowed

E. Topsoil shall comply with PSP 207 Topsoil.

F. BLANKET APPLICATION: On slopes and ditches requiring a blanket, the blanket shall be placed in lieu of mulch and mulch tackifier. See SWMP for blanket locations.

G. RESEEDING OPERATIONS/CORRECTIVE STABILIZATION

Prior to final acceptance.

1. Seeded areas shall be reviewed during the 14 day inspections by the Erosion Control Supervisor for bare soils caused by surface or wind erosion. Bare areas caused by surface or gully erosion, blown away mulch, etc. shall be regraded, seeded, mulched and have mulch tackifier (or blanket) applied as necessary, at no additional cost to the project.
2. Areas where seed has not germinated after one season shall be evaluated by the Engineer and CDOT Landscape Architect. Areas that have not germinated shall have seed, mulch and mulch tackifier (or blanket) reapplied. Work shall be paid for by the appropriate bid item.
3. The Contractor shall maintain seeding/mulch/tackifier, mow to control weeds or apply herbicide to control weeds in the seeded areas until Final Acceptance.

10. Prior To Final Acceptance

- A. Final Acceptance shall be in accordance with CDDT Construction Details subsection 208.10.
- B. All erosion bales (weed free) shall be removed or replaced with erosion logs prior to final acceptance.

11. Tabulation Of Stormwater Quantities

Pay Item	Description	Unit	Quantity
			Total
203	Blading	Hour	120
203	Sweeping (Pick-up-broom)	Hour	40
208	Erosion Log (12 Inch)	LF	300
208	Silt Fence	LF	3310
208	Gravel Bag	LF	50
208	Concrete Washout Structure	Each	4
208	Storm Drain Inlet Protection (TYPE 1)	LF	25
208	Erosion Bale (Weed Free)	Each	50
208	Vehicle Tracking Pad	Each	2
208	Sediment Removal and Disposal (Equipment)	Hour	80
208	Sediment Removal and Disposal (Labor)	Hour	80
208	Erosion Control Supervisor	Day	450
212	Seeding (Native)	Acre	0.6
212	Tree Retention and Protection	LS	1
207	Topsoil	CY	480
216	Soil Retention Covering / Blanket	SY	440
700	Erosion Control	FA	1

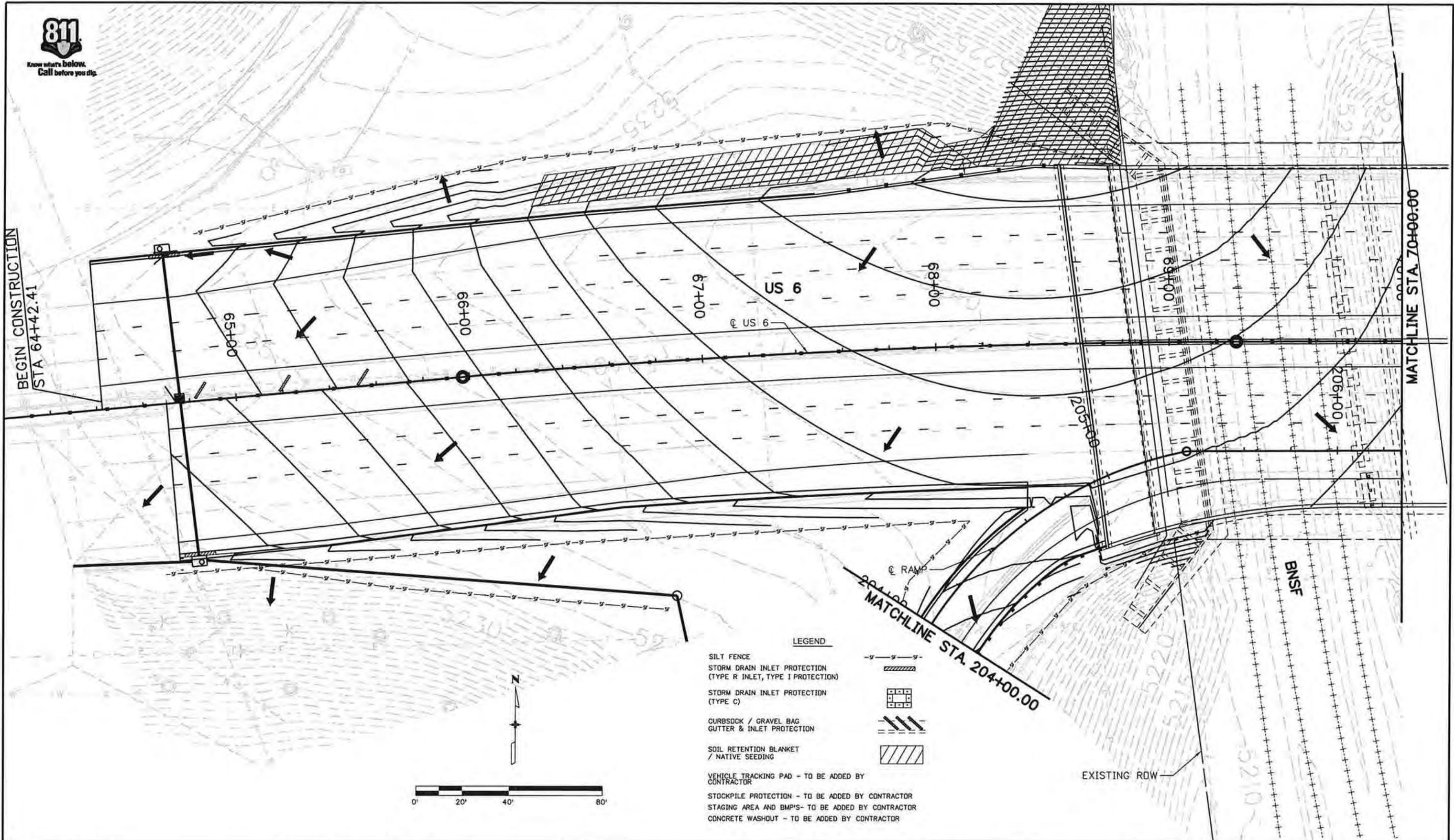
*It is anticipated that additional BMPs and BMP quantities not shown on the SWMP Site Maps shall be required on the project for unforeseen conditions and replacement of items that are beyond their useful service life, see subsection 208.03 and 208.04 (e). Quantities for all BMPs shown above are estimated, and have been increased for unforeseen Project conditions.

- A. BMP sediment removal and disposal shall be paid for as: 208 Removal and Disposal of Sediment (Equipment) and 208 Removal and Disposal of Sediment (Labor). All other BMP maintenance shall be included in the cost of the BMP Device.
- B. It is estimated that 120 hours of labor, blading (150 horsepower), dozing (150 horsepower), combination loader (98 horsepower) and/or backhoe (98 horsepower) may be required for miscellaneous erosion control work as directed by the Engineer. Work shall be paid for as: 203 Labor, 203 Blading, 203 Dozing, 203 Combination Loader or 203 Backhoe.
- C. Maintenance of seeded areas shall be included in the price of the work.

Print Date: 12/23/2011		Sheet Revisions	Colorado Department of Transportation	As Constructed	STORMWATER MANAGEMENT PLAN SHEET	Project No./Code
File Name: 18202_swmp03.dgn		Date: Comments Init.	 8833 South Wadsworth Court Littleton, CO 80128 Phone: 303-972-9112 FAX: 303-972-9114 Region 6	No Revisions:	Designer: TDS Structure Detailer: TDS Numbers	FBR 0062-026
Horiz. Scale: 1:100 Vert. Scale: As Noted				Revised:		
Unit Information Unit Leader Initials				Void:	Sheet Subset: SWMP Subset Sheets: 3 of 6	Sheet Number 23
 999 10TH STREET, SUITE 2000 DENVER, CO 80202 PHONE: 303-297-2976 FAX: 303-297-2693				MP		



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Sheet Revisions		
Date:	Comments	Init.

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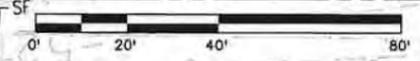
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 Region 6 MP

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No Revisions:
Revised:
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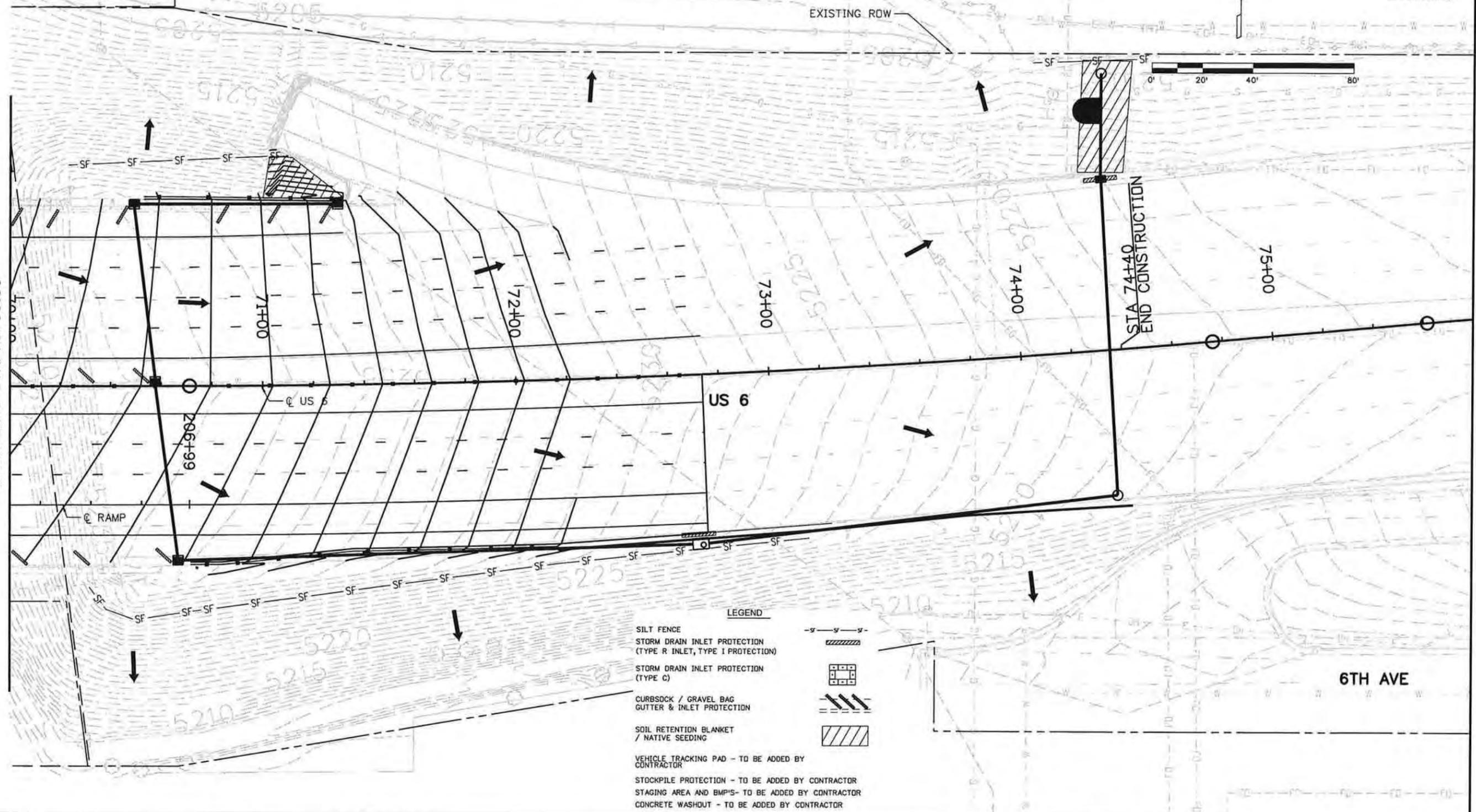
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Designer:	TDS	Structure Numbers
Detailer:	TDS	
Sheet Subset:	SWMP	Subset Sheets: 4 of 6

Project No./Code
FBR 0062-026
18202
Sheet Number 24

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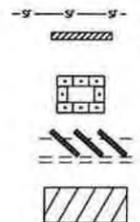


MATCHLINE STA. 70+00.00



LEGEND

- SILT FENCE
- STORM DRAIN INLET PROTECTION (TYPE R INLET, TYPE I PROTECTION)
- STORM DRAIN INLET PROTECTION (TYPE C)
- CURB / GRASS BAG GUTTER & INLET PROTECTION
- SOIL RETENTION BLANKET / NATIVE SEEDING
- VEHICLE TRACKING PAD - TO BE ADDED BY CONTRACTOR
- STOCKPILE PROTECTION - TO BE ADDED BY CONTRACTOR
- STAGING AREA AND BMP'S - TO BE ADDED BY CONTRACTOR
- CONCRETE WASHOUT - TO BE ADDED BY CONTRACTOR



Print Date: 12/23/2011	
File Name: 18202_SWMP_Sheet_05.dgn	
Horiz. Scale: 1:40	Vert. Scale: As Noted
Unit Information	Unit Leader Initials

Sheet Revisions		
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Region 6 MP

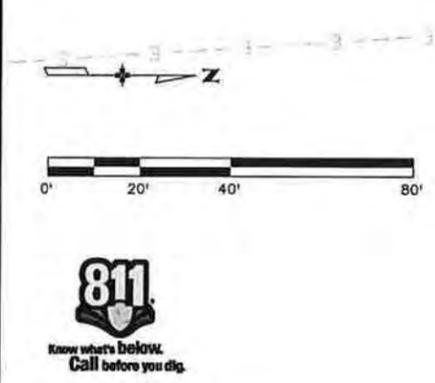
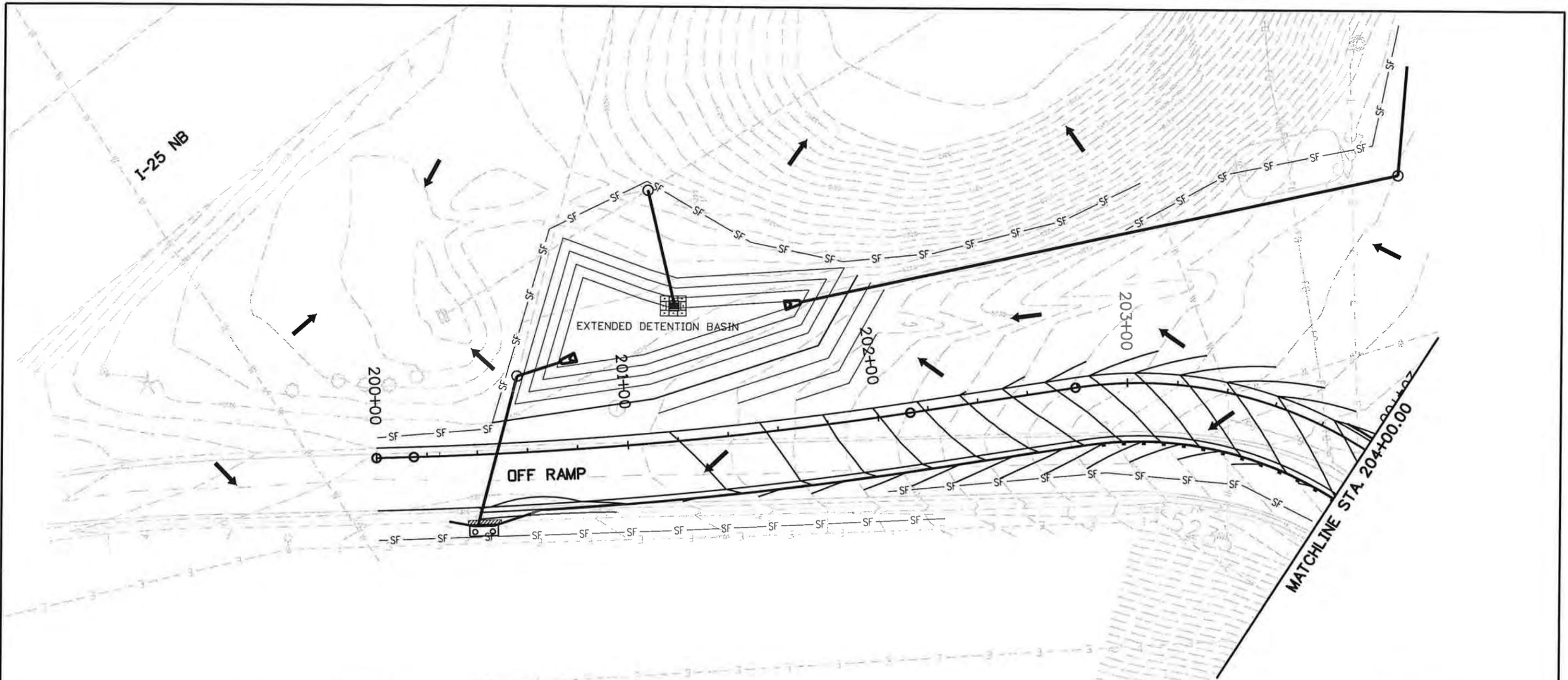
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Revised:	
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SWMP PLAN SITE MAP US 6			
Designer:	TDS	Structure	
Detailer:	TDS	Numbers	
Sheet Subset:	SWMP	Subset Sheets:	5 of 6

Project No./Code	
FBR 0062-026	
18202	
Sheet Number	25

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LEGEND	
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STORM DRAIN INLET PROTECTION (TYPE C)	
CURBSOCK / GRAVEL BAG GUTTER & INLET PROTECTION	
SOIL RETENTION BLANKET / NATIVE SEEDING	
VEHICLE TRACKING PAD - TO BE ADDED BY CONTRACTOR	
STOCKPILE PROTECTION - TO BE ADDED BY CONTRACTOR	
STAGING AREA AND BMP'S - TO BE ADDED BY CONTRACTOR	
CONCRETE WASHOUT - TO BE ADDED BY CONTRACTOR	

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Horiz. Scale: 1:40 Vert. Scale: As Noted
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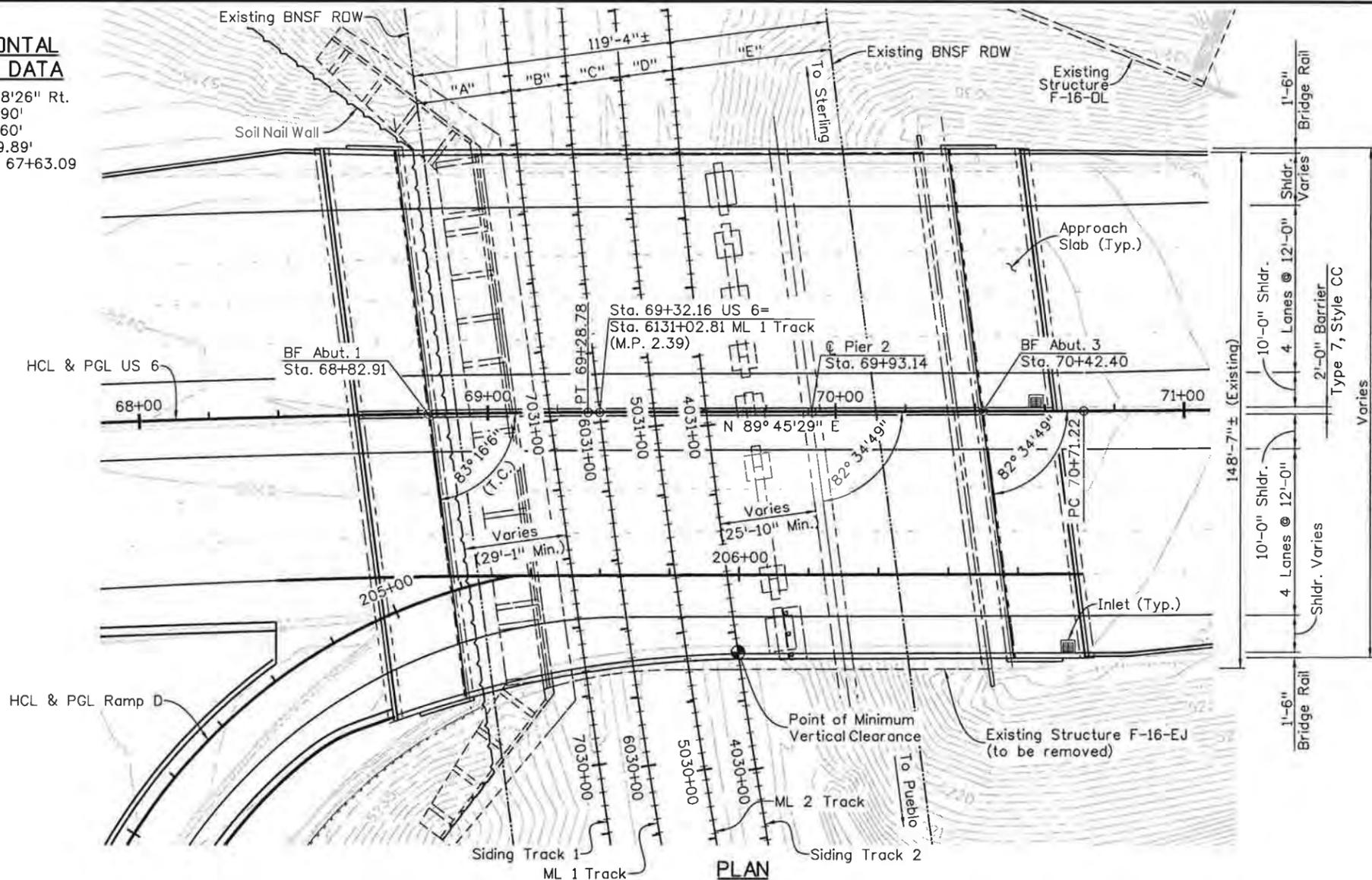
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RAMP 200+00 TO 203+40			
Designer:	TDS	Structure Numbers	
Detailer:	TDS		
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18202
Sheet Number 26

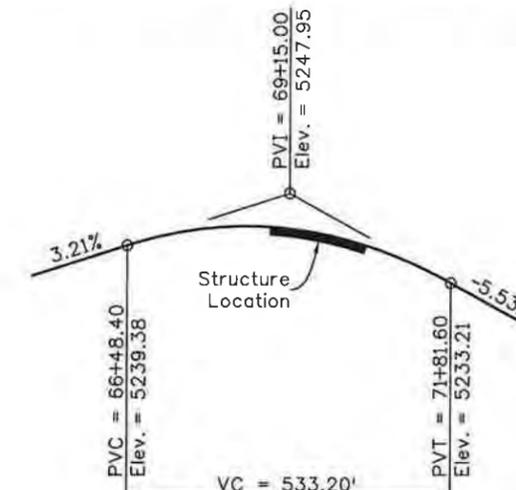
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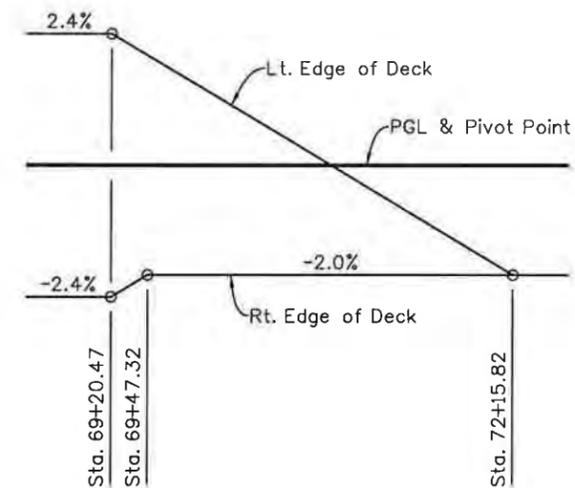


TRACK CLEARANCE TABLE

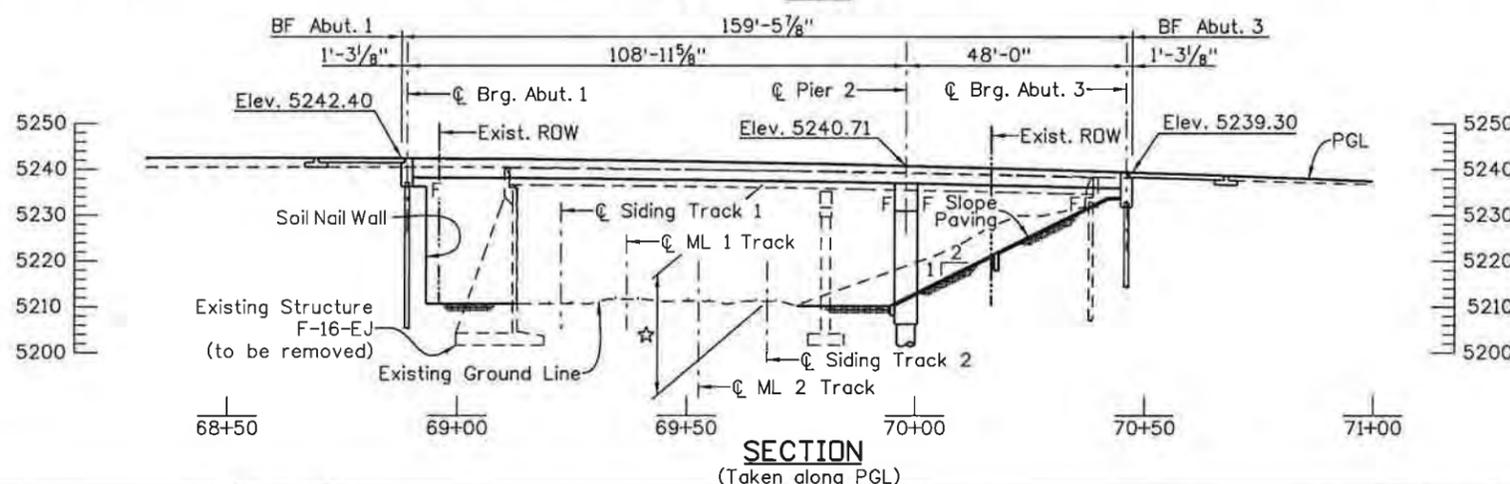
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Varies 26'-3" Min.	Varies 13'-7" Min.	Varies 15'-4" Min.	Varies 14'-8" Min.	Varies 46'-10" Min.



US 6 PROFILE GRADE



SUPERELEVATION DIAGRAM



SECTION
(Taken along PGL)

☆ Minimum Vertical Clearance
 23'-9" Concrete Alternate
 23'-6" Steel Alternate

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Print Date: 12/22/2011
 File Name: 18202BRDG_GeneralLayout.dgn
 Horiz. Scale: 1:1 Vert. Scale: As Noted
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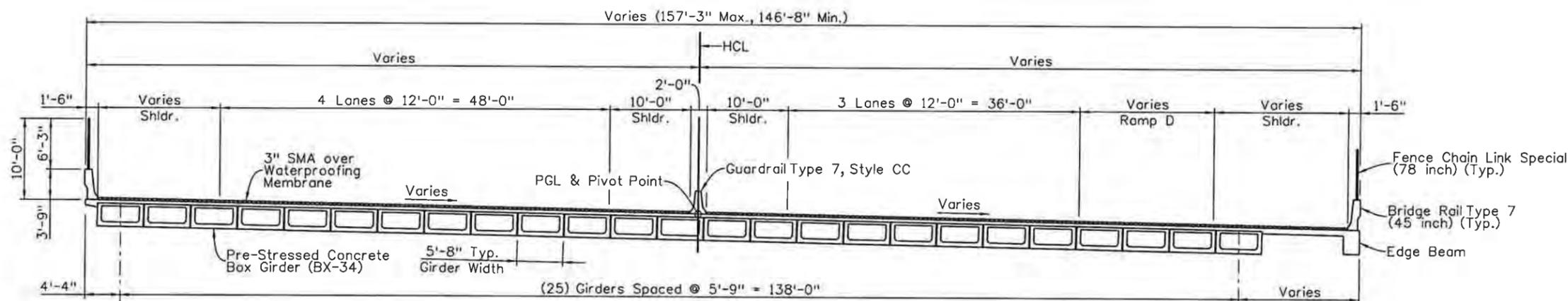
Region 6 MP

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No Revisions:
Revised:
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Detailer:	D. Anderson		
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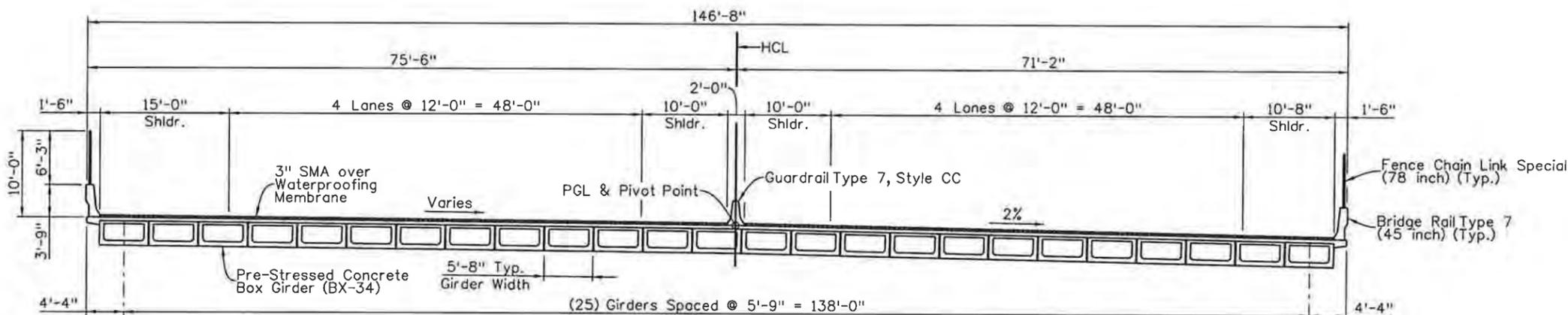
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Sheet Number 27

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TYPICAL SECTION

Abut. 1 to Sta. 69+76.53



TYPICAL SECTION

Sta. 69+76.53 to Abut. 3

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12/28/2011

Design		Detail		Quantities	
INITIAL	DATE	INITIAL	DATE	INITIAL	DATE
Designed By	12/11	Detailed By	12/11	Quantities By	12/11
Checked By	12/11	Checked By	12/11	Checked By	12/11

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Date:	Comments	Init.

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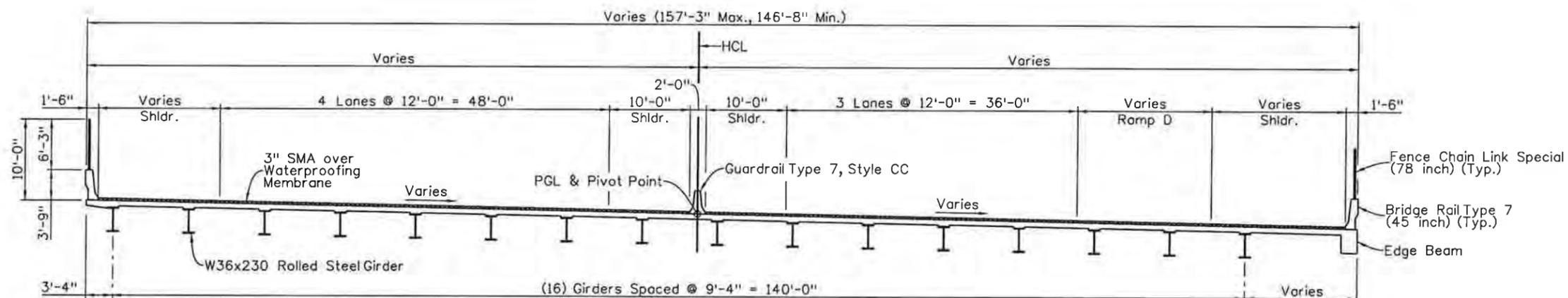
Region 6 **MP**

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Revised:
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Detailer:	B. Allen	Subset Sheets:	B2 of BX
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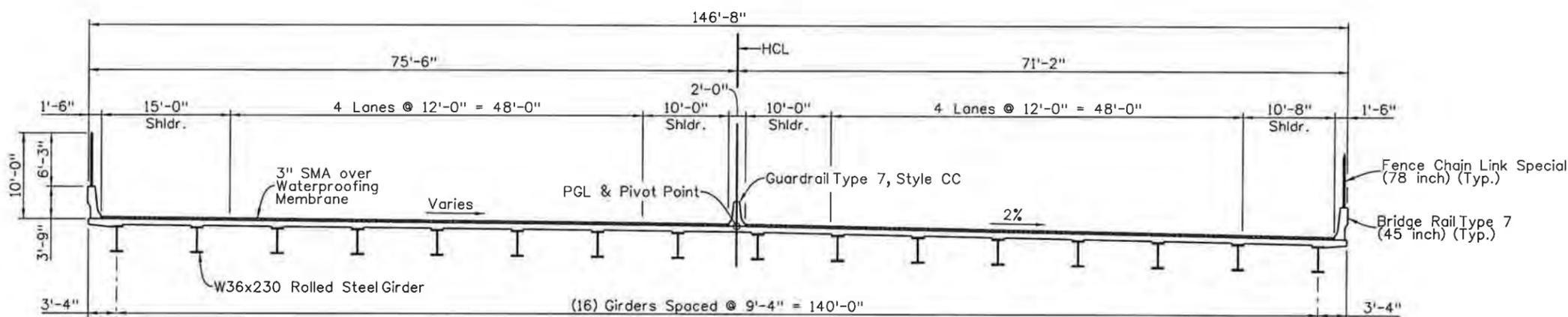
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Sheet Number 28

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TYPICAL SECTION

Abut. 1 to Sta. 69+76.53



TYPICAL SECTION

Sta. 69+76.53 to Abut. 3

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Checked By	12/11	Checked By	12/11	Checked By	12/11

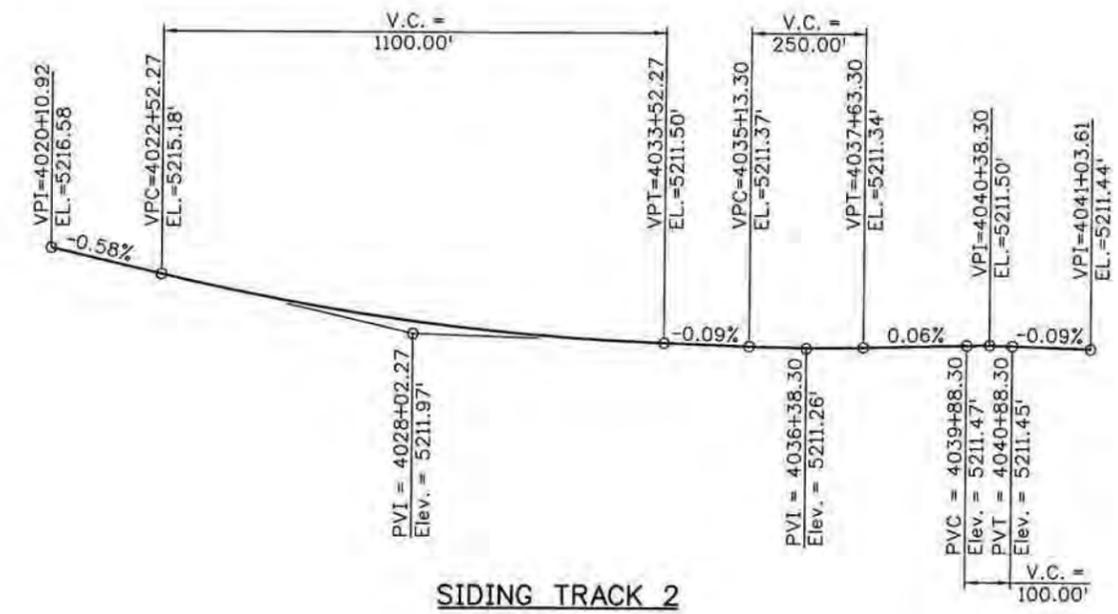
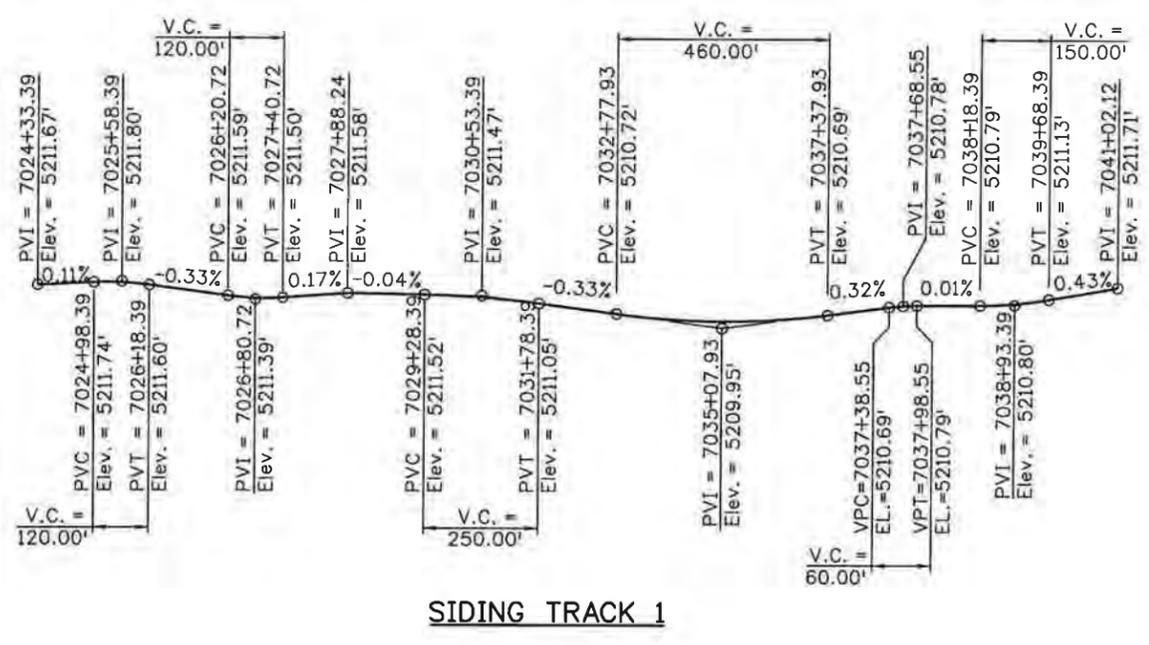
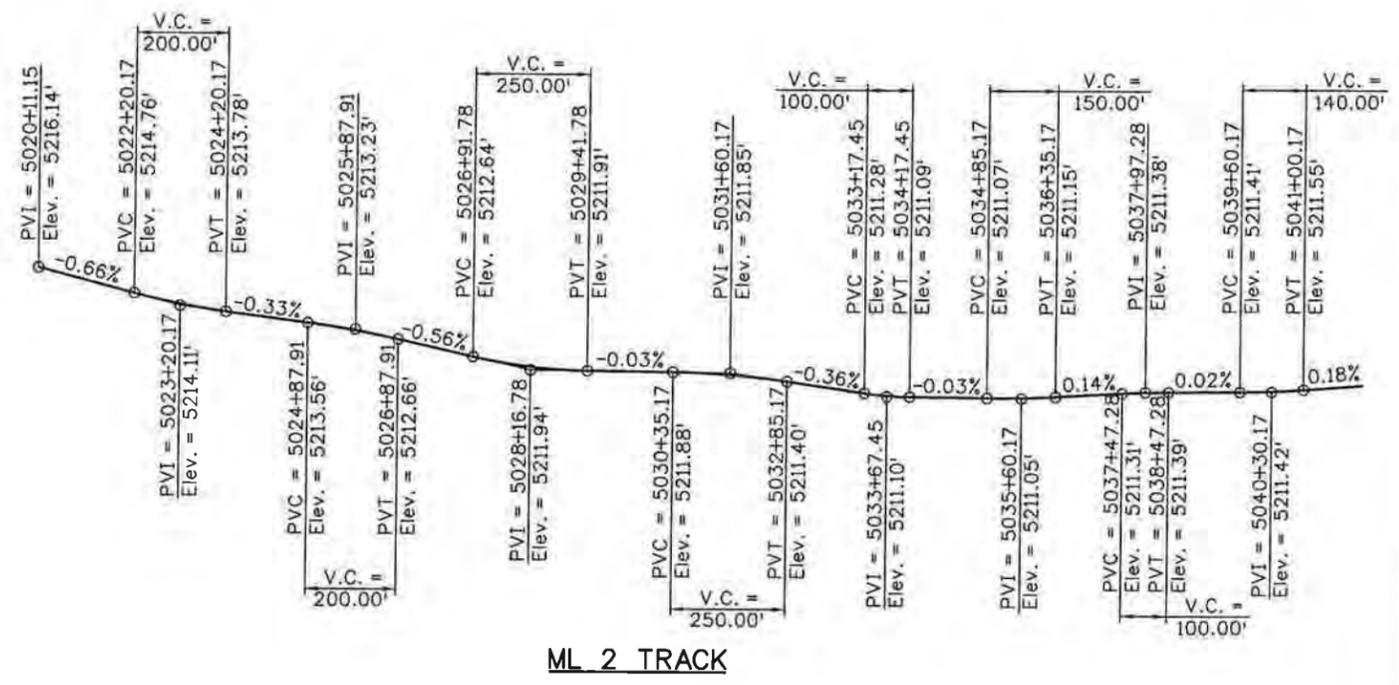
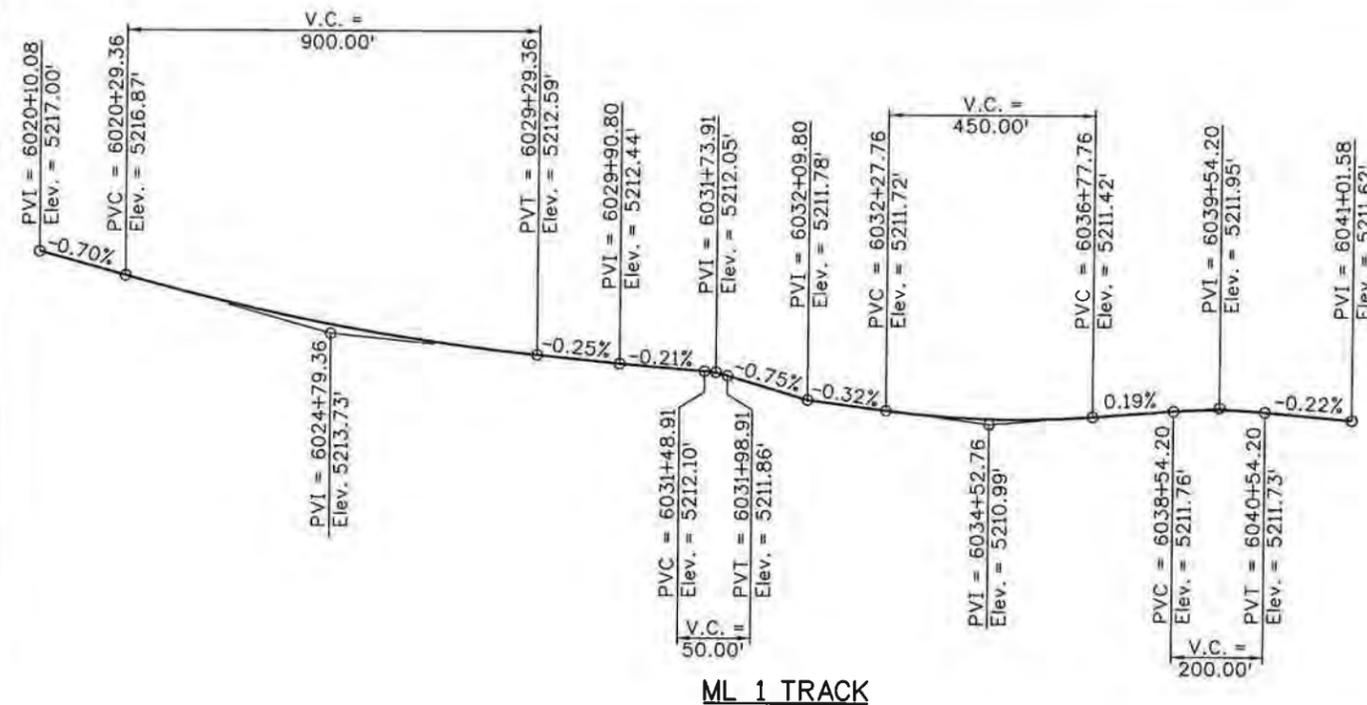
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Vert. Scale: As Noted					Revised:	Designer: B. Allen	Structure Numbers: F-16-YJ	
Staff Bridge Branch - Unit 022X Unit Leader Initials				Void:	Detailer: B. Allen	Sheet Subset: BRIDGE	Subset Sheets: B3 of BX	
								

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Designed By		Detailed By		Quantities By	
Checked By		Checked By		Checked By	



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12/28/2011

Print Date: 12/27/2011
 File Name: 18202BRDG_TrackProfiles_01.dgn
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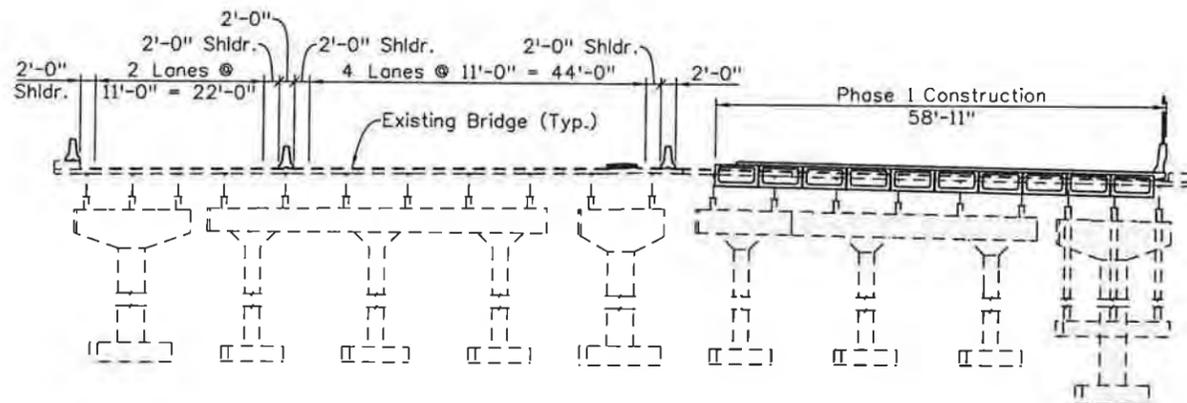
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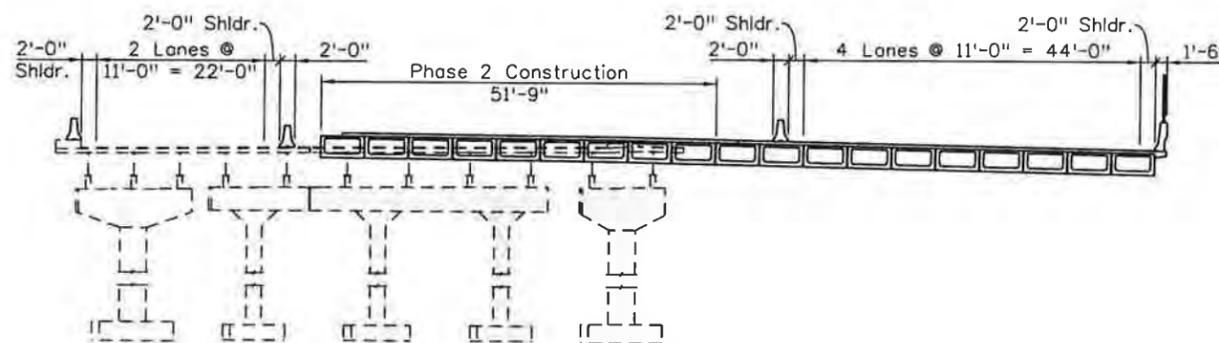
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FBR 0062-026
18202
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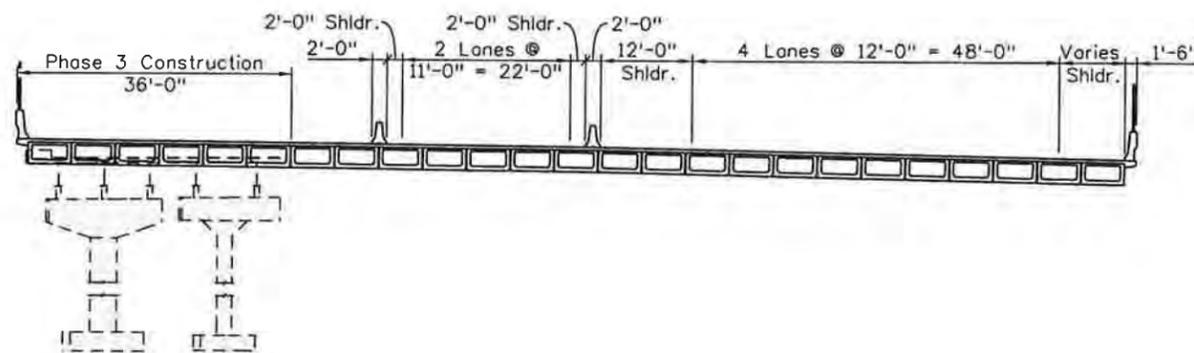
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PHASE 1 CONSTRUCTION



PHASE 2 CONSTRUCTION



PHASE 3 CONSTRUCTION

 Indicates removal during phase

FIR

12/28/2011

Design		Detail		Quantities	
INITIAL	DATE	INITIAL	DATE	INITIAL	DATE
Designed By BJA	12/11	DRA	12/11	Quantities By JAR	12/11
Checked By JAR	12/11	Checked By BJA	12/11	Checked By BJA	12/11

Print Date: 12/22/2011
 File Name: 18202BRDG_PhaseConstr_01.dgn
 Horiz. Scale: 1:1 Vert. Scale: As Noted
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Sheet Revisions

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Region 6

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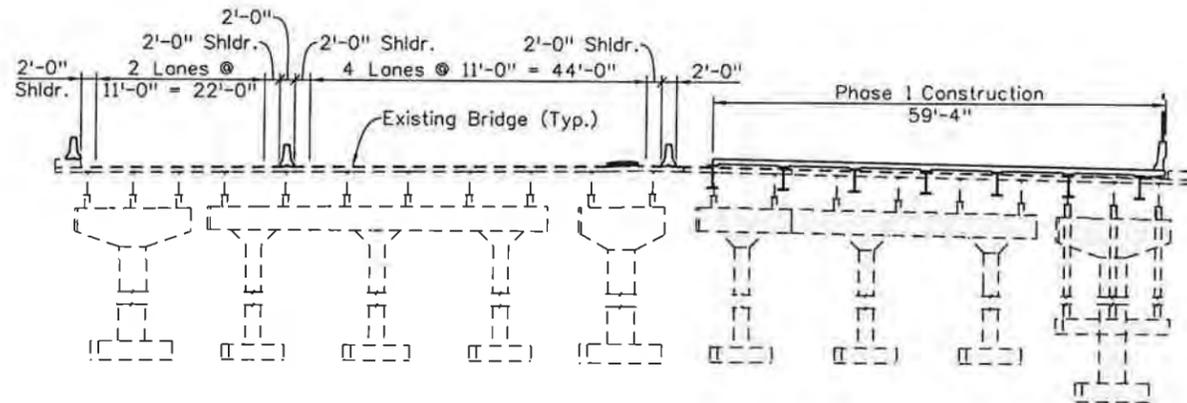
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US 6 OVER BNSF
 CONSTRUCTION PHASING
 CONCRETE ALTERNATE

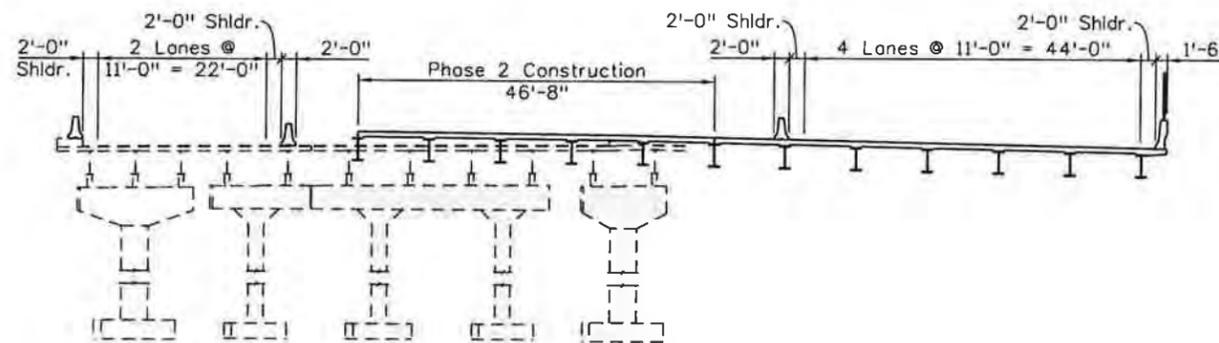
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 Detailer: D. Anderson
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Project No./Code

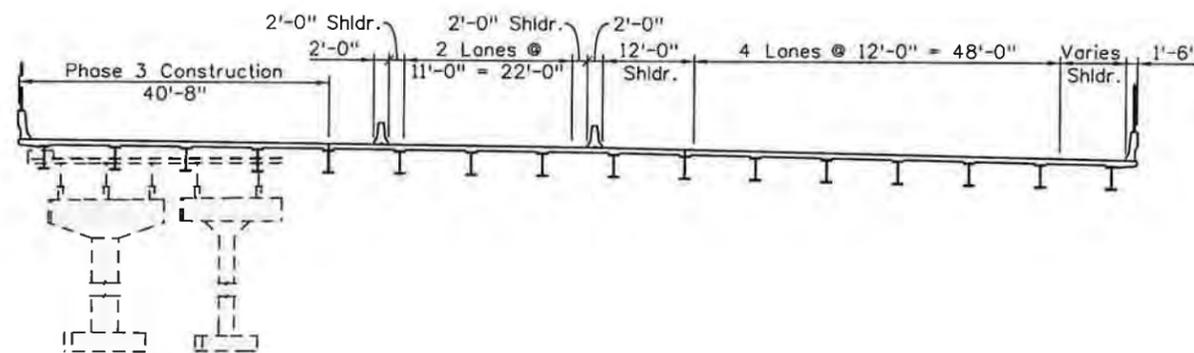
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 18202
 Sheet Number 31



PHASE 1 CONSTRUCTION



PHASE 2 CONSTRUCTION



PHASE 3 CONSTRUCTION

Indicates removal during phase

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12/28/2011

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Designed By	12/11	Detailed By	12/11	Quantities By	12/11
Checked By	JAR	Checked By	BJA	Checked By	BJA

Print Date: 12/22/2011
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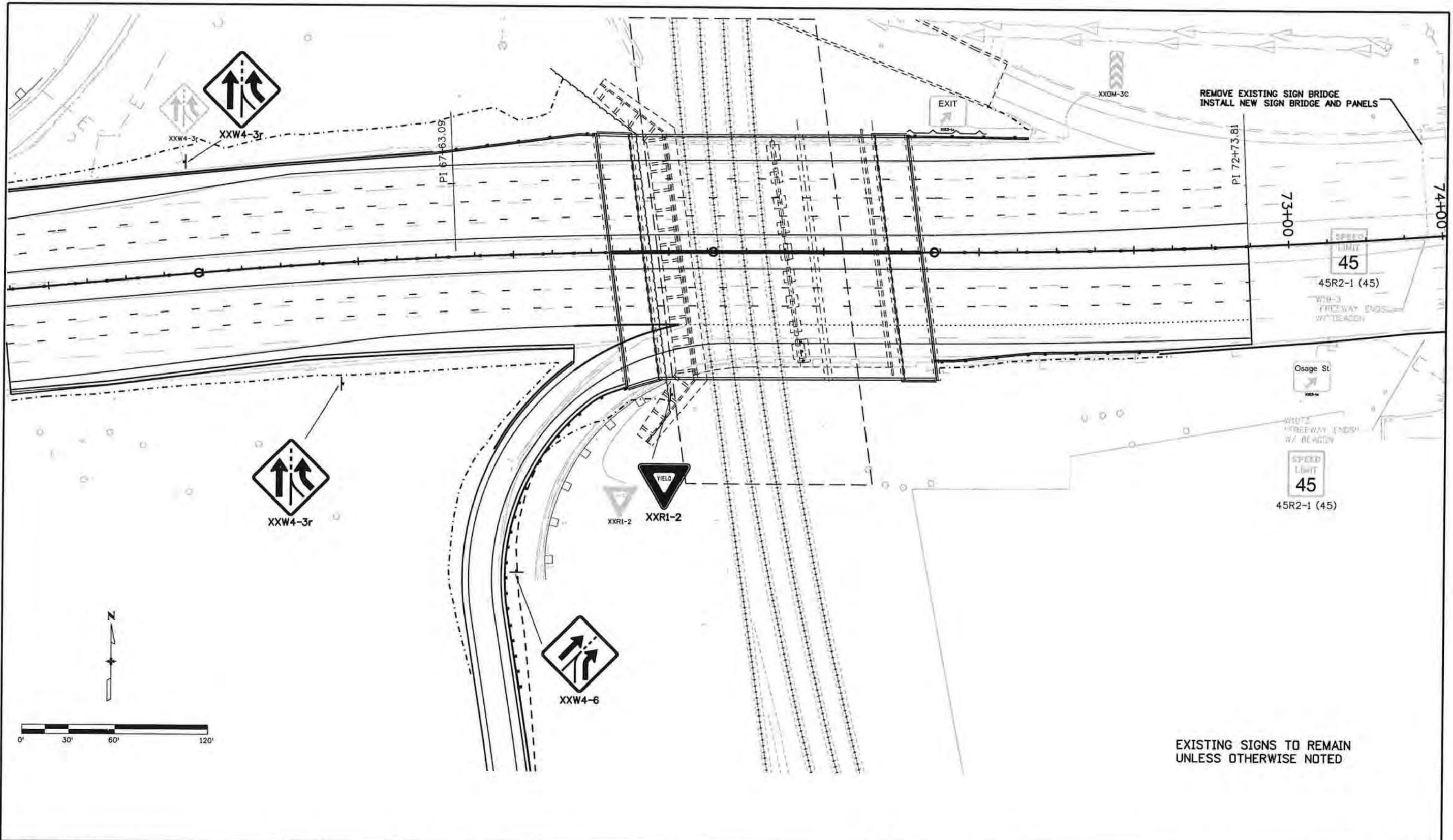
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 Region 6 MP

As Constructed
No Revisions:
Revised:
Void:

US 6 OVER BNSF CONSTRUCTION PHASING STEEL ALTERNATE			
Designer:	B. Allen	Structure Numbers	F-16-YJ
Detailer:	D. Anderson	Subset Sheets:	B6 of BX
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Project No./Code
FBR 0062-026
18202
Sheet Number 32

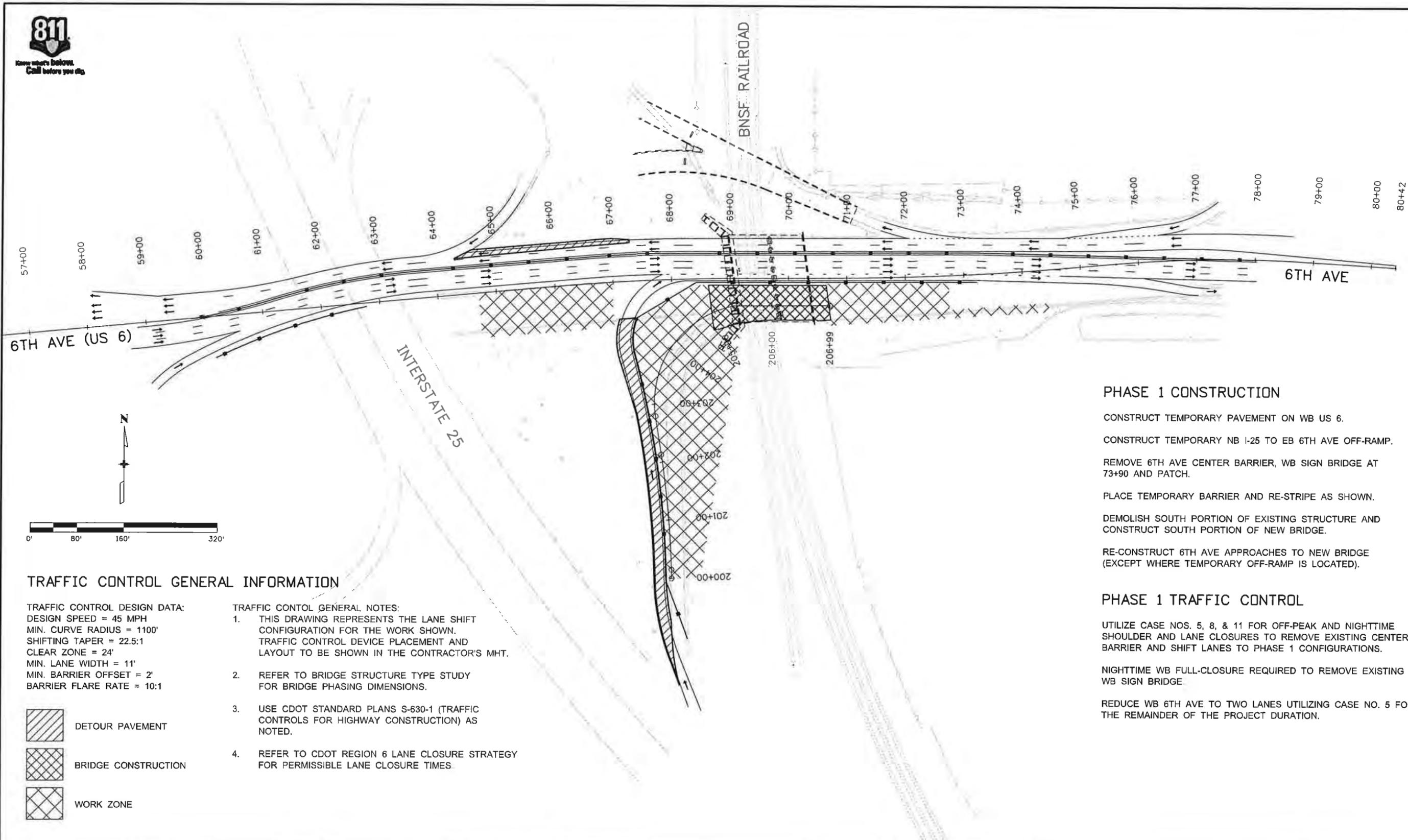
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Unit Information									Structure Numbers			
Unit Leader Initials									Sheet Subset: SIGN		Subset Sheets: 1 of 1	
WILSON & COMPANY 999 18TH STREET, SUITE 2600 DENVER, CO 80202 PHONE: 303-297-2976 FAX: 303-297-2693												



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TRAFFIC CONTROL GENERAL INFORMATION

TRAFFIC CONTROL DESIGN DATA:
DESIGN SPEED = 45 MPH
MIN. CURVE RADIUS = 1100'
SHIFTING TAPER = 22.5:1
CLEAR ZONE = 24'
MIN. LANE WIDTH = 11'
MIN. BARRIER OFFSET = 2'
BARRIER FLARE RATE = 10:1

TRAFFIC CONTROL GENERAL NOTES:

1. THIS DRAWING REPRESENTS THE LANE SHIFT CONFIGURATION FOR THE WORK SHOWN. TRAFFIC CONTROL DEVICE PLACEMENT AND LAYOUT TO BE SHOWN IN THE CONTRACTOR'S MHT.
2. REFER TO BRIDGE STRUCTURE TYPE STUDY FOR BRIDGE PHASING DIMENSIONS.
3. USE CDOT STANDARD PLANS S-630-1 (TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION) AS NOTED.
4. REFER TO CDOT REGION 6 LANE CLOSURE STRATEGY FOR PERMISSIBLE LANE CLOSURE TIMES.

- DETOUR PAVEMENT
- BRIDGE CONSTRUCTION
- WORK ZONE

PHASE 1 CONSTRUCTION

- CONSTRUCT TEMPORARY PAVEMENT ON WB US 6.
- CONSTRUCT TEMPORARY NB I-25 TO EB 6TH AVE OFF-RAMP.
- REMOVE 6TH AVE CENTER BARRIER, WB SIGN BRIDGE AT 73+90 AND PATCH.
- PLACE TEMPORARY BARRIER AND RE-STRIPE AS SHOWN.
- DEMOLISH SOUTH PORTION OF EXISTING STRUCTURE AND CONSTRUCT SOUTH PORTION OF NEW BRIDGE.
- RE-CONSTRUCT 6TH AVE APPROACHES TO NEW BRIDGE (EXCEPT WHERE TEMPORARY OFF-RAMP IS LOCATED).

PHASE 1 TRAFFIC CONTROL

- UTILIZE CASE NOS. 5, 8, & 11 FOR OFF-PEAK AND NIGHTTIME SHOULDER AND LANE CLOSURES TO REMOVE EXISTING CENTER BARRIER AND SHIFT LANES TO PHASE 1 CONFIGURATIONS.
- NIGHTTIME WB FULL-CLOSURE REQUIRED TO REMOVE EXISTING WB SIGN BRIDGE.
- REDUCE WB 6TH AVE TO TWO LANES UTILIZING CASE NO. 5 FOR THE REMAINDER OF THE PROJECT DURATION.

Print Date: 12/27/2011

File Name: 18202_TCP_01.dgn

Horiz. Scale: 1:160

Vert. Scale: As Noted

Unit Information

Unit Leader Initials



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8833 South Wadsworth Court
Littleton, CO 80128
Phone: 303-972-9112 FAX: 303-972-9114

Region 6

MP

As Constructed

No Revisions:

Revised:

Void:

US 6 TRAFFIC CONTROL PLAN PHASE 1

Designer: MAK
Detailer: MAK

Structure Numbers

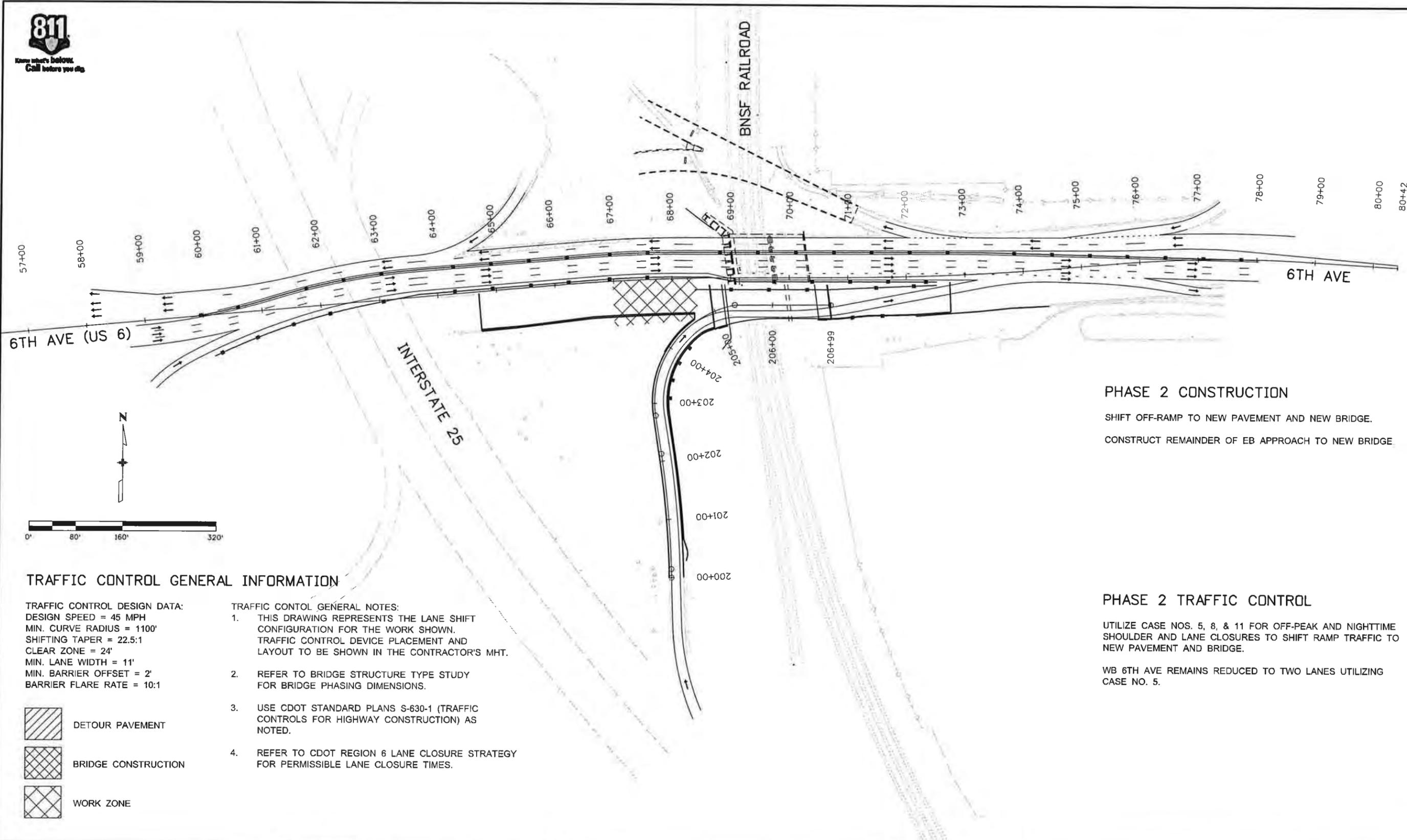
Sheet Subset: PHASING
Subset Sheets: 1 of 4

Project No./Code

FBR 0062-026

18202

Sheet Number 34



PHASE 2 CONSTRUCTION
 SHIFT OFF-RAMP TO NEW PAVEMENT AND NEW BRIDGE.
 CONSTRUCT REMAINDER OF EB APPROACH TO NEW BRIDGE

PHASE 2 TRAFFIC CONTROL
 UTILIZE CASE NOS. 5, 8, & 11 FOR OFF-PEAK AND NIGHTTIME SHOULDER AND LANE CLOSURES TO SHIFT RAMP TRAFFIC TO NEW PAVEMENT AND BRIDGE.
 WB 6TH AVE REMAINS REDUCED TO TWO LANES UTILIZING CASE NO. 5.

TRAFFIC CONTROL GENERAL INFORMATION

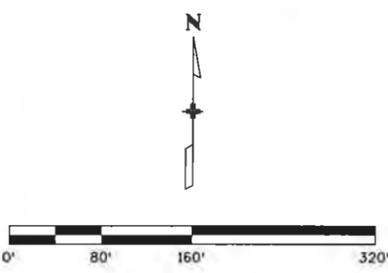
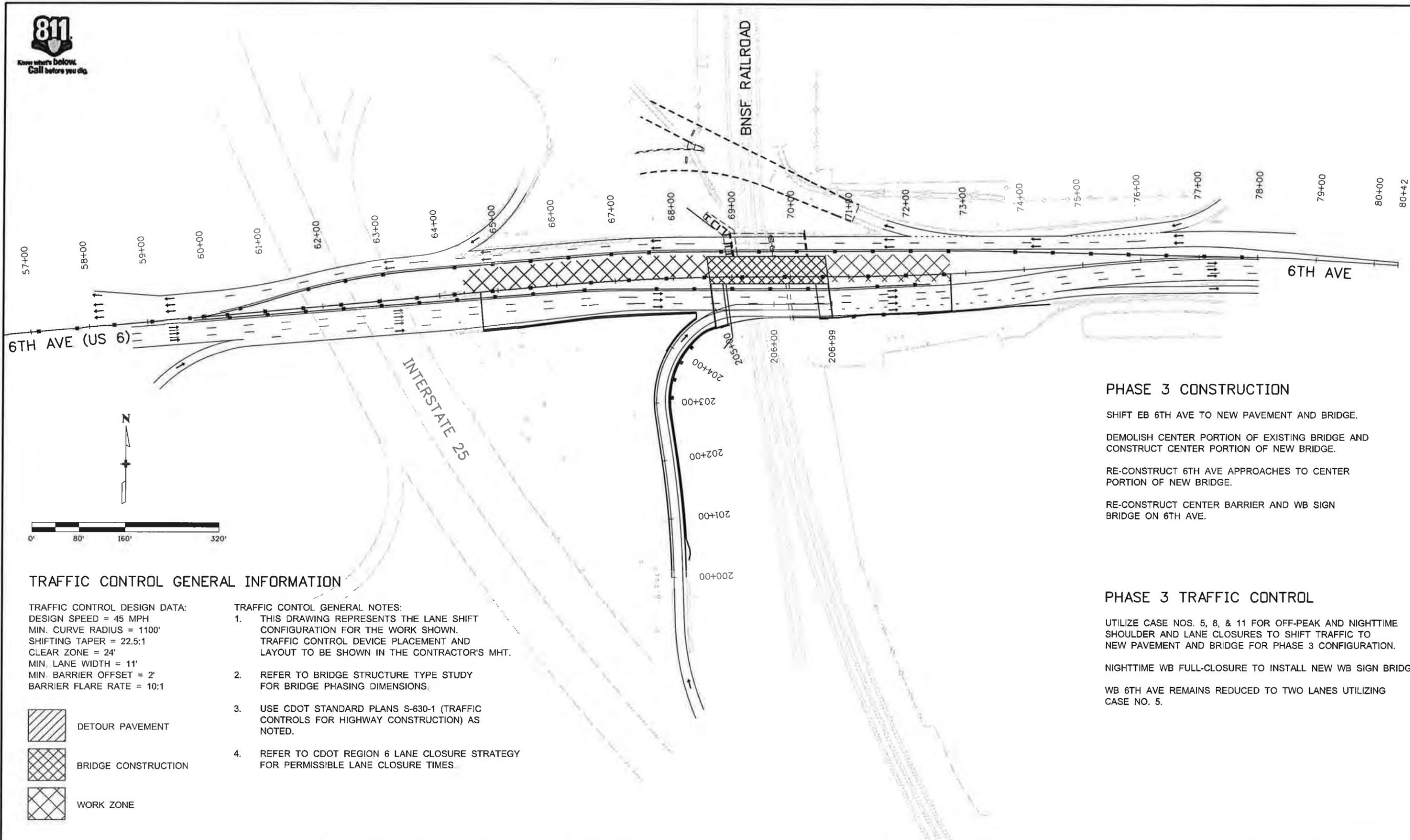
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 DESIGN SPEED = 45 MPH
 MIN. CURVE RADIUS = 1100'
 SHIFTING TAPER = 22.5:1
 CLEAR ZONE = 24'
 MIN. LANE WIDTH = 11'
 MIN. BARRIER OFFSET = 2'
 BARRIER FLARE RATE = 10:1

- TRAFFIC CONTROL GENERAL NOTES:**
1. THIS DRAWING REPRESENTS THE LANE SHIFT CONFIGURATION FOR THE WORK SHOWN. TRAFFIC CONTROL DEVICE PLACEMENT AND LAYOUT TO BE SHOWN IN THE CONTRACTOR'S MHT.
 2. REFER TO BRIDGE STRUCTURE TYPE STUDY FOR BRIDGE PHASING DIMENSIONS.
 3. USE CDOT STANDARD PLANS S-630-1 (TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION) AS NOTED.
 4. REFER TO CDOT REGION 6 LANE CLOSURE STRATEGY FOR PERMISSIBLE LANE CLOSURE TIMES.

- DETOUR PAVEMENT
- BRIDGE CONSTRUCTION
- WORK ZONE

Print Date: 12/27/2011		Sheet Revisions		Colorado Department of Transportation		As Constructed		US 6 TRAFFIC CONTROL PLAN PHASE 2		Project No./Code		
File Name: 18202_TCP_02.dgn		Date:	Comments	Init.	 8833 South Wadsworth Court Littleton, CO 80128 Phone: 303-972-9112 FAX: 303-972-9114 Region 6 MP		No Revisions:		Designer: MAK Detailer: MAK Structure Numbers:		FBR 0062-026	
Horiz. Scale: 1:160 Vert. Scale: As Noted							Revised:				18202	
Unit Information Unit Leader Initials							Void:				Sheet Subset: PHASING Subset Sheets: 2 of 4	
 999 18TH STREET, SUITE 2600 DENVER, CO 80202 PHONE: 303-297-2978 FAX: 303-297-2693											Sheet Number 35	

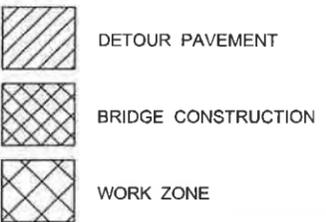
MAKochis F
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TRAFFIC CONTROL GENERAL INFORMATION

TRAFFIC CONTROL DESIGN DATA:
 DESIGN SPEED = 45 MPH
 MIN. CURVE RADIUS = 1100'
 SHIFTING TAPER = 22.5:1
 CLEAR ZONE = 24'
 MIN. LANE WIDTH = 11'
 MIN. BARRIER OFFSET = 2'
 BARRIER FLARE RATE = 10:1

- TRAFFIC CONTROL GENERAL NOTES:
1. THIS DRAWING REPRESENTS THE LANE CONFIGURATION FOR THE WORK SHOWN. TRAFFIC CONTROL DEVICE PLACEMENT AND LAYOUT TO BE SHOWN IN THE CONTRACTOR'S MHT.
 2. REFER TO BRIDGE STRUCTURE TYPE STUDY FOR BRIDGE PHASING DIMENSIONS.
 3. USE CDOT STANDARD PLANS S-630-1 (TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION) AS NOTED.
 4. REFER TO CDOT REGION 6 LANE CLOSURE STRATEGY FOR PERMISSIBLE LANE CLOSURE TIMES.



PHASE 3 CONSTRUCTION

- SHIFT EB 6TH AVE TO NEW PAVEMENT AND BRIDGE.
- DEMOLISH CENTER PORTION OF EXISTING BRIDGE AND CONSTRUCT CENTER PORTION OF NEW BRIDGE.
- RE-CONSTRUCT 6TH AVE APPROACHES TO CENTER PORTION OF NEW BRIDGE.
- RE-CONSTRUCT CENTER BARRIER AND WB SIGN BRIDGE ON 6TH AVE.

PHASE 3 TRAFFIC CONTROL

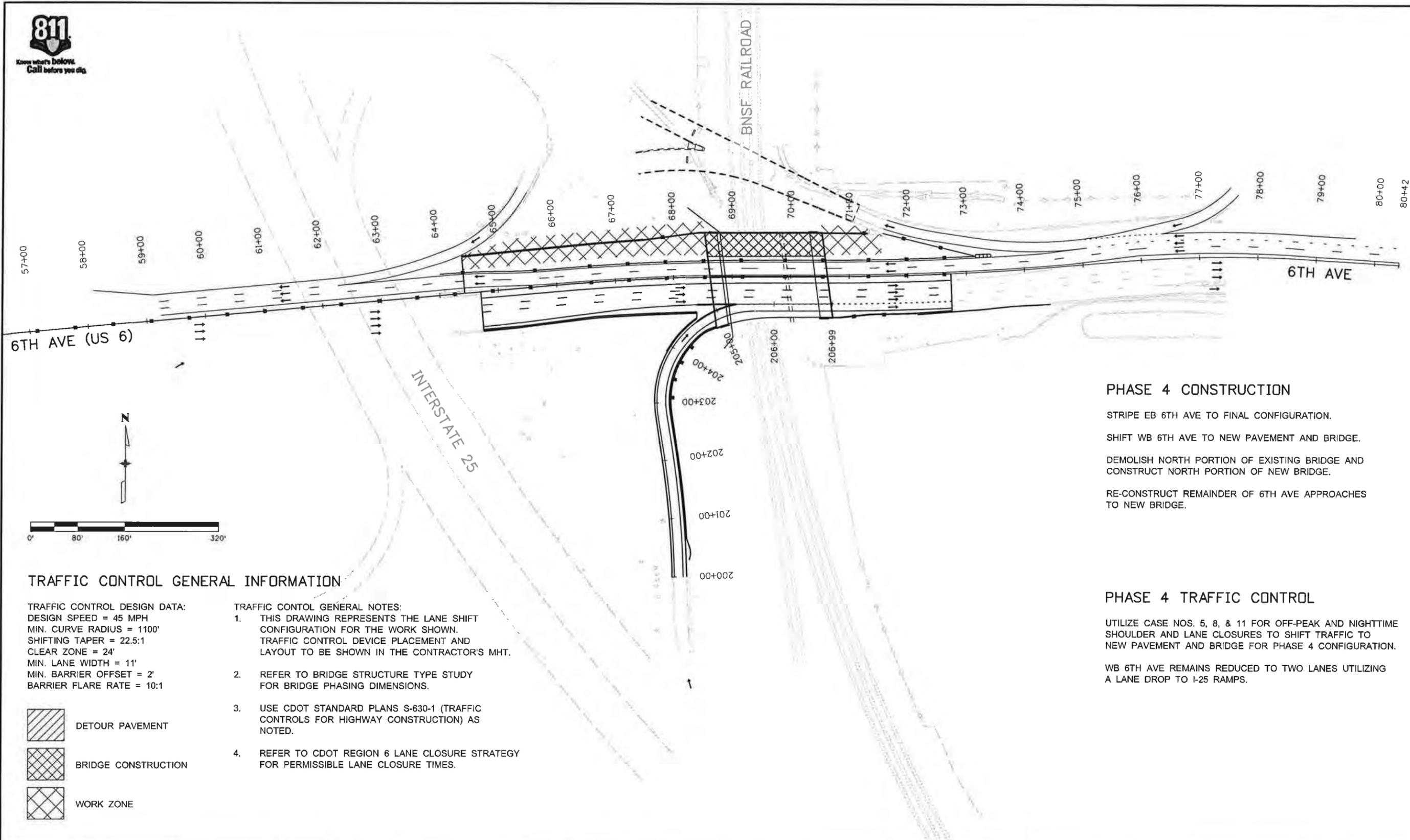
- UTILIZE CASE NOS. 5, 8, & 11 FOR OFF-PEAK AND NIGHTTIME SHOULDER AND LANE CLOSURES TO SHIFT TRAFFIC TO NEW PAVEMENT AND BRIDGE FOR PHASE 3 CONFIGURATION.
- NIGHTTIME WB FULL-CLOSURE TO INSTALL NEW WB SIGN BRIDGE.
- WB 6TH AVE REMAINS REDUCED TO TWO LANES UTILIZING CASE NO. 5.

Print Date: 12/27/2011		Sheet Revisions			Colorado Department of Transportation		As Constructed		US 6 TRAFFIC CONTROL PLAN		Project No./Code	
File Name: 18202_TCP_03.dgn		Date:	Comments	Init.	8833 South Wadsworth Court Littleton, CO 80128 Phone: 303-972-9112 FAX: 303-972-9114 Region 6 MP		No Revisions:		PHASE 3		FBR 0062-026	
Horiz. Scale: 1:160 Vert. Scale: As Noted							Revised:		Designer: MAK	Structure	18202	
Unit Information Unit Leader Initials							Void:		Detailer: MAK	Numbers	Sheet Number 36	
999 18TH STREET, SUITE 2600 DENVER, CO 80202 PHONE: 303-297-2976 FAX: 303-297-2973		Sheet Subset: PHASING		Subset Sheets: 3 of 4								

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 MAKochis 5



Know what's below.
Call before you dig.



TRAFFIC CONTROL GENERAL INFORMATION

TRAFFIC CONTROL DESIGN DATA:
DESIGN SPEED = 45 MPH
MIN. CURVE RADIUS = 1100'
SHIFTING TAPER = 22.5:1
CLEAR ZONE = 24'
MIN. LANE WIDTH = 11'
MIN. BARRIER OFFSET = 2'
BARRIER FLARE RATE = 10:1

TRAFFIC CONTROL GENERAL NOTES:

1. THIS DRAWING REPRESENTS THE LANE SHIFT CONFIGURATION FOR THE WORK SHOWN. TRAFFIC CONTROL DEVICE PLACEMENT AND LAYOUT TO BE SHOWN IN THE CONTRACTOR'S MHT.
2. REFER TO BRIDGE STRUCTURE TYPE STUDY FOR BRIDGE PHASING DIMENSIONS.
3. USE CDOT STANDARD PLANS S-630-1 (TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION) AS NOTED.
4. REFER TO CDOT REGION 6 LANE CLOSURE STRATEGY FOR PERMISSIBLE LANE CLOSURE TIMES.

-  DETOUR PAVEMENT
-  BRIDGE CONSTRUCTION
-  WORK ZONE

PHASE 4 CONSTRUCTION

- STRIPE EB 6TH AVE TO FINAL CONFIGURATION.
- SHIFT WB 6TH AVE TO NEW PAVEMENT AND BRIDGE.
- DEMOLISH NORTH PORTION OF EXISTING BRIDGE AND CONSTRUCT NORTH PORTION OF NEW BRIDGE.
- RE-CONSTRUCT REMAINDER OF 6TH AVE APPROACHES TO NEW BRIDGE.

PHASE 4 TRAFFIC CONTROL

- UTILIZE CASE NOS. 5, 8, & 11 FOR OFF-PEAK AND NIGHTTIME SHOULDER AND LANE CLOSURES TO SHIFT TRAFFIC TO NEW PAVEMENT AND BRIDGE FOR PHASE 4 CONFIGURATION.
- WB 6TH AVE REMAINS REDUCED TO TWO LANES UTILIZING A LANE DROP TO I-25 RAMPS.

Print Date: 12/27/2011	
File Name: 18202_TCP_04.dgn	
Horiz. Scale: 1:160	Vert. Scale: As Noted
Unit Information	Unit Leader Initials
	

Sheet Revisions		
Date:	Comments	Init.

Colorado Department of Transportation

 8833 South Wadsworth Court
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Region 6 MP

As Constructed
No Revisions:
Revised:
Void:

US 6 TRAFFIC CONTROL PLAN PHASE 4		
Designer:	MAK	Structure Numbers
Detailer:	MAK	
Sheet Subset:	PHASING	Subset Sheets: 4 of 4

Project No./Code
FBR 0062-026
18202
Sheet Number 37

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