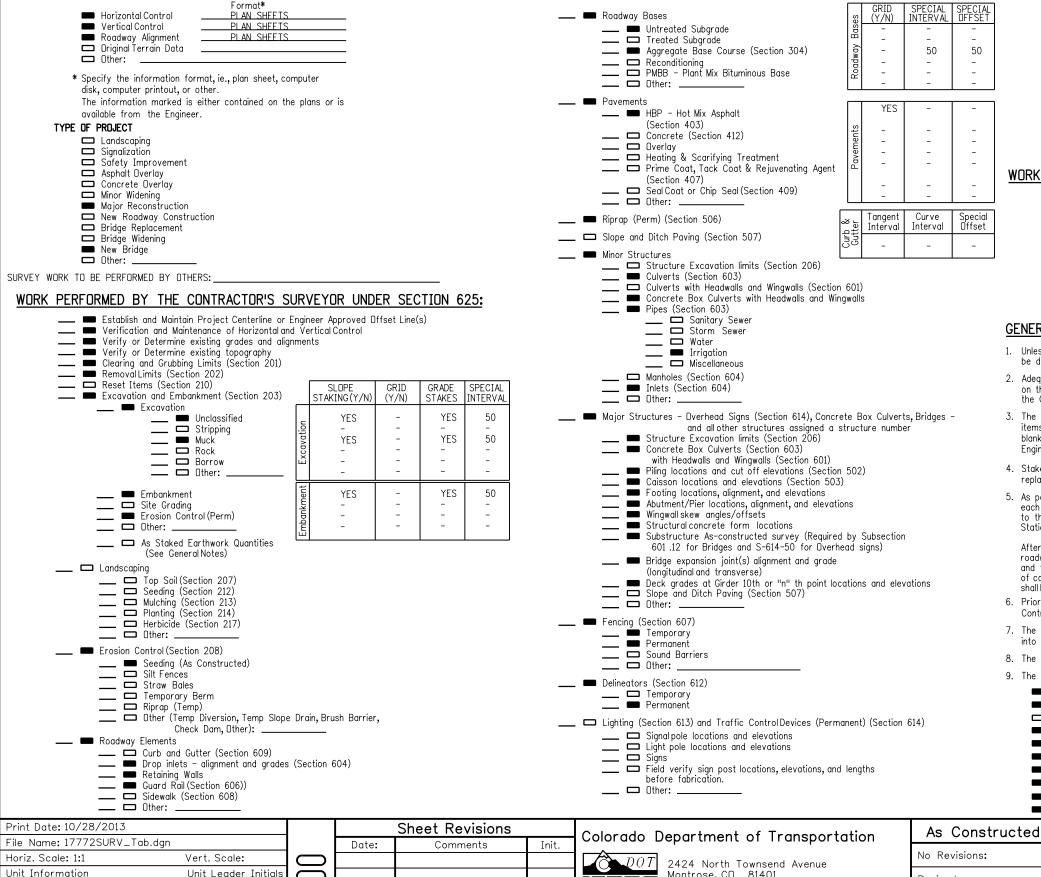
TO ESTABLISH GEOMETRIC CONTROL FOR THE CONSTRUCTION OF THIS PROJECT, THE DEPARTMENT HAS PROVIDED THE FOLLOWING INFORMATION:

 \square

 \bigcirc



Montrose, CD 81401

Region 3

Phone: 972-249-5285 FAX: 970-249-6018

URS

GENERAL NOTES:

the Contractor's surveyor.

3. The Contractor's surveyor shall provide an estimate of the man-hours necessary to complete the work items indicated on this sheet. A copy of this sheet, with the estimated man-hours written on the blank line to the left of the specified items, shall be submitted with the Survey Schedule to the Engineer <u>10</u> days prior to Presurvey Conference - Construction Survey.

4. Stakes and Monuments which are damaged or destroyed by the progress of construction shall be replaced by the Contractor at no additional cost to the Department.

5. As part of the slope staking process, the Contractor shall field verify the original ground corss sections at each 50 foot station from slope stake left of centerline to slope stake right and provide this information to the Engineer on disks in an ASCII file. This ASCII file format shall consist of a columnar structure of Station, Northing, Easting, and Elevation; or columnar structure of Station, Offset, and Elevation.

After slope staking, the "As Staked" data shall be processed by the Contractor using a CDDT accepted roadway volumetric calculation method or computer program for verification of the earthwork quantities and then be submitted to the Engineer before twenty percent (20%) of the earthwork in any given phase of construction is completed. A printed copy of the "As Staked" earthwork data and a computer disk shall be submitted to the Engineer in the aforementioned ASCII file format.

into field grades.

8. The Contractor shall coordinate construction staking on the project with any utility work.

- Property Pin Ties
- Horizontal Alignment
- 🔲 Gradina
- Slope Staking Minor Structures
- Major Structures

Revised:

Void:

RA

Pavement Marking (Section 627) ____ C Striping (Temp) 🔳 Striping ((Perm 🗖 Symbols ____ 🗖 Other: _ Temporary Lighting and Construction Traffic Control Devices (Section 630) ____ Signal pole locations and elevations (Temp) ____ Light pole locations and elevations (Temp) ____ Signs (Temp) . 🗖 Other:

Easement (Temp) (Staking) (P.L.S. Only)

Right of Way (Temp) (Staking) (P.L.S. Only)

WORK PERFORMED BY THE CONTRACTOR'S SURVEYOR UNDER SECTION 629:

— Monumentation (Section 629)

___ Control

- ____ 🔳 Right of Way
- Land corners, Aliquot corners
- ____ Easement (Perm)
- ____ Reference the specified existing monuments: **
- ____ Relocate the specified existing monuments:
- ____ 🗖 Locate monuments. It is estimated hours are required.
 - ** A Tabulation of Survey Monuments may be provided on the plans.
- Note: All 629 items shall include adequate research, calculations.
- and evaluations of evidence for all monuments to be set

1. Unless indicated otherwise on this Survey Tabulation Sheet, all survey work and staking intervals shall be done in accordance with the latest edition of the entire CDDT Survey Manual.

2. Adequate information for establishing lines, grades, and locations for all work items have been specified on the plans. Any additional information required to stake the item or element shall be generated by

6. Prior to beginning work on any subsequent operation, such as placing base course or paving, the Contractor shall certify in writing to the Engineer that the final grade is within specified tolerance.

7. The Contractor's surveyor shall perform all field surveying and calculations necessary to tie plan grades

9. The Contractor's surveyor shall submit the following fieldbooks to the Engineer:

Horizontal Control (Primary & Secondary)

Vertical Control (i.e. Benchmarks)

One fieldbook for each work category shown on this sheet Other Fieldbook(s): Existing Topography Verification

SURVEY TABULATION SHEET				Project No./Code			
SURVET TABL		STA 092A-024					
Designer: P. WELLS Structure				17772			
Detailer: B. TENNANT	Numbers		ŀ				
Sheet Subset: SUR TAB	Subset Sh	eets: 01 of	01	Sheet Number	132 .		

Colorado Department of Transportation



Region 3

222 South 6th Street Room 317 Grand Junction, CD 81501 Phone: 970-248-7390 FAX: 970-248-7233 JEM

Sheet Revisions						
Date	Description	Initials				
mm/yy	XXXXXXXX	XXX				

STATE HIGHWAY 92 SECTION 6, T.15S., R.94W., 6th P.M., SECTION 31, T. 14S., R.93W SECTIONS 26, 27, 28, 31, 32, 33, 35, 36, T.14S., R.94W., 6th COUNTY: DELTA

Construction Surveying and Monumentation Requirements

1. This Project Control Diagram represents the horizontal and vertical control for the project established by the Division. It is possible that some of the survey control monuments listed have been disturbed or obliterated. It is the Contractor's responsibility to verify the existence and stability of the control monuments before submitting a bid price.

2. All Type 1 and Type 2 monuments shall be set flush with the ground. Witness posts shall be installed 1 foot from and facing all Type 1 and Type 2 monuments. or as directed by the Project Engineer.

3. Installation of Type 3 and Type 3-A monuments shall be completed in the same day that installation is commenced. Under no circumstances shall holes in the roadway be left open overnight.

4. When installing Type 3-A monuments, the aluminum monument box shall be positively secured in the roadway surface. The monument box shall be caulked with asphalt caulking between the monument box and the edges of the roadway surface to provide a positive moisture barrier around the monument box.

5. Control survey procedures, statistical analysis, and accuracy obtained for horizontal and vertical control shall be documented in the field book.

6. Legible copies of the field books shall be submitted to the Project Engineer for review on a monthly basis.

7. It is ultimately the prime Contractors responsibility to insure that these requirements, as well as any contained in the CDOT specifications, project special provisions, and CDDT Survey Manual are fulfilled under this contract.

8. The minimum staking intervals for each item are described on the plans or in the CDDT Survey Manual. If the contractor wishes to reduce the minimum intervals, a Contract Modification Order must be negotiated and the cost of the item reduced accordingly.

9. Whenever the contract includes the setting of CDOT Type 2 monuments, a Project Control Diagram, signed and sealed by the P.L.S. in responsible charge, shall be submitted to the Project Engineer. An AutoCad drawing on CD shall accompany the hard copy.

BASIS DF BEARINGS: All bearings are based on a line connecting CDDT Control Points 690 and 1530 as bearing N 80°30'50" E 40731.148sft. This control survey is based on a GPS Survey which used points K178, U429, W429 and Dead. Information may be obtained from Internet address http://www.ngs.noaa.gov

BASIS OF ELEVATIONS: Elevations were established by differential leveling from an existing USC&GS Verticle Control Bench Mark G178. Bench Mark NAVD 88 elevation is 1588.245 m (5210.77 feet). Complete data sheets and information may be obtained from Internet address http://www.ngs.noaa.gov

NOTE: This control survey is for the use of the Colorado Department of Transportation personnel. The survey is not a complete Boundary Survey. Title Policy, Title Commitment, and Title Research were not part of this control survey, therefore, easements, rights, and rights to easements, rights of way, property boundaries, and restriction, as described in the instruments of record, were not included in this control survey.

NOTE: According to Colorado law you must commence any legalaction based upon any defect in this survey within three years after you first discover such defect. In no event may any action based upon any defect in this survey be commenced more than ten years from the date of the statement shown.

NOTE: No guarantee as to the accuracy of the information contained on the attached drawing is either stated or implied unless this copy bears an original signature of the professionalland surveyor hereon named.

I, Jackson E Messenger, a professional land surveyor licensed in the State of Colorado, do hereby state to the Colorado Department of Transportation this Project Control Diagram was prepared and the field survey it represents was performed under my responsible charge and, based upon my knowledge, information and belief is in accordance with applicable standards of practice defined by Colorado Department of Transportation publications. This statement is not a quaranty or warranty, either expressed or implied.

Jackson E. Messenger PLS No. 27272 Date 222 South 6th Street, RM 317 Grand Junction, Colorado 81501

	Project Control Diagram								
	Title Sheet								
1.6th P.M.	Project Number: STA 092A-018								
P.M.	Project Location: Austin to Hotchkiss Corridor								
	Project Location: S.H. 92, M.P. 6.9-15.3								
Project Code: Last Mod. Date Subset Sheets Sheet No. Total No									
	14934 10-03-06 1 of 4 3 55								
			3.01 - 3.03	3.01					

GENERAL NOTES

SURVEYOR STATEMENT (PROJECT CONTROL DIAGRAM)

Colorado Department of Transportation

DOT Region 3

222 South 6th Street Room 317 Grand Junction, CD 81501 Phone: 970-248-7390 FAX: 970-248-7233 JEM

Sheet Revisions Date mm/yy Description XXXXXXXX Initials XXX

STATE HIGHWAY 92 SECTION 6, T.15S., R.94W., 6th P.M., SECTION 31, T. 14S., R.93W. SECTIONS 26, 27, 28, 31, 32, 33, 35, 36, T.14S., R.94W., 6th COUNTY; DELTA

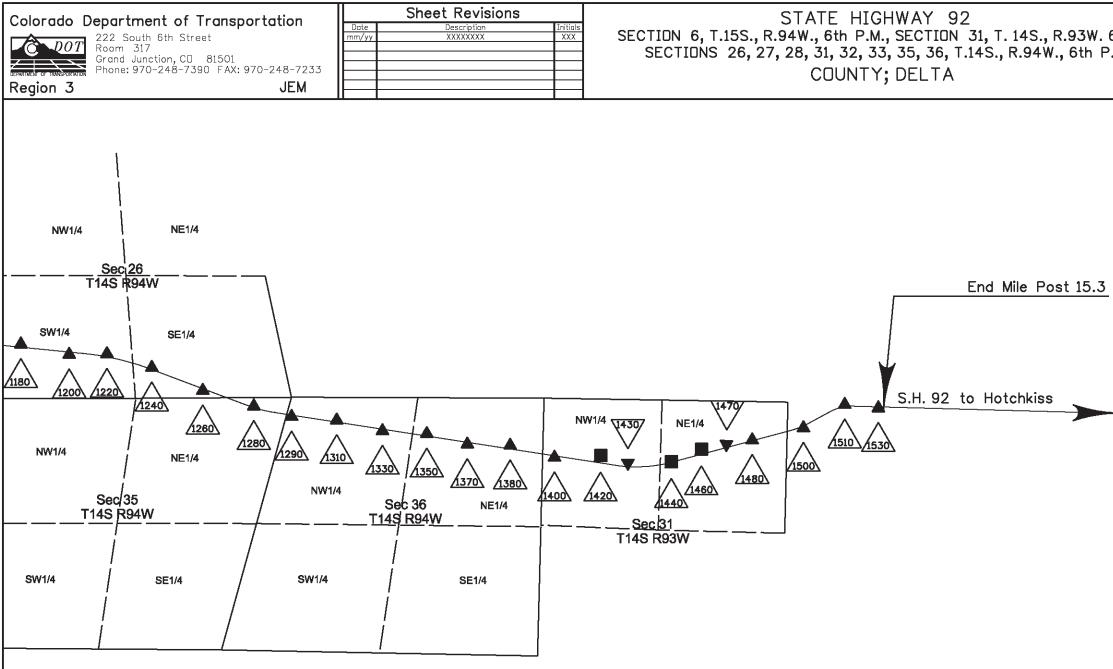
Coordinate System: Site(at ground) Coordinate Zone: Colorado Central 0502(3) Coordinate Datum: NAD 1983 (Conus) Project Latitude: 38° 48'08.96277"N Project Longitude: 107° 53'09.84910"W Project Height: 5227.531sft Local Site Ground Scale Factor: 1.0003000935 False Reduction North: 1000000.000sft False Reduction East: 2000000.000sft Seed North 1361891.638sft Seed East 2320094.215sft Units: US Survey Feet

Note: To get from Project Coordinates to State Plane Coordinates: Add the false reduction to the Northing or Easting, subtract the seed point North or East coordinate, then divide the difference by the ground scale factor, then add the seed point North or East coordinate to get the State Plane Coordinate.

Example of Project Coordinate to S.P. North on point 690: 100000.000+353820.373=1353820.373-1361891.638=(-8071.265)/1.0003000935=(-8068.845)+1361891.638=1353822.794

	Geodetic Coordinates	1					Project Coordinates in Fee	et	Project Coordi	nates in Meter	'e	1	
Pnt# Latitude	Longitude Ellip. Heigh	t CD Morth	SP East	Elevation	Scale Factor				nt# Northing	Easting	Elevation	Description	Comments
	v 1 v									<u> </u>			
	107°57'09.68375"W 4970.915sft				1.00001446		353820.37 300878.00 5025		690 107844.665m		1531.874m	CDOT type 2 Monument	
	107°56'58.91200"W 4979.390sft		2301747.175sft	5034.27sft	1.00001395		354195.33 301741.66 5034		710 107958.955m		1534.448m	CDOT type 2 Monument	and the second se
	107°56'46.79024"W 4975.697sft		2302713.116sft	5030.55sft	1.00001406		354407.57 302707.90 5030		730 108023.645m		1533.314m	CDOT type 2 Monument	
	107°56'35.05201"W 4983.592sft		2303654.724sft	5038.41sft	1.00001356		354845.37 303649.79 5038		750 108157.085m		1535.710m	CDOT type 2 Monument	
	107°56'29.19330"W 4997.613sft		2304139.723sft		1.00001268	_	355623.64 304134.93 5052		770 108394.303m		1539.974m	CDOT type 2 Monument	
the second s	107°56'26.30661"W 5012.510sft		2304388.719sft		1.00001177		356380.81 304384.00 5067		780 108625.089m		1544.506m	CDOT type 2 Monument	
	107°56'28.07115"W 5020.560sft				1.00001126		356870.11 304257.35 5075		790 108774.228m		1546.956m	CDOT type 2 Monument	
	107°56'24.08892"W 5037.296sft		2304599.512sft	5092.01sft	1.00001025	10715120	357688.99 304594.86 5092		810 109023.823m		1552.046m	CDOT type 2 Monument	The second se
	107°56'13.53727"W 5105.726sft				1.00000686	-	358134.20 305442.79 5160		820 109159.524m		1572.894m	CDOT type 2 Monument	
	107°56'02.77497"W 5127.159sft		2306303.279sft		1.00000580		358271.98 306299.14 5181		840 109201.521m		1579.419m	S.H.D.ROW Marker	MP 8.4
	107°55'49.75977"W 5138.477sft		2307330.745sft		1.00000528	-	358146.29 307326.91 5193		870 109163.209m		1582.863m	CDOT type 2 Monument	
880 38°47'28.67598"N	107°55'36.16177"W 5140.714sft	1358124.261sft	2308407.116sft	5195.32sft	1.00000517	880	358123.13 308403.60 5195	95.32sft 8	880 109156.148m	94001.608m	1583.537m	Stainless Steel Rod	MP 8.8 (Delta County P005)
900 38°47'30.87847"N	107°55'24.84940"W 5159.189sft	1358323.089sft	2309308.383sft	5213.77sft	1.00000423	900	358322.01 309305.14 5213	3.77sft 9	900 109216.770m	94276.397m	1589.160m	CDOT type 2 Monument	
920 38°47'35.39049"N	107°55'15.45101"W 5183.549sft	1358759.545sft	2310064.381sft	5238.10sft	1.00000295	920	358758.60 310061.37 5238	38.10sft 9	920 109349.842m	94506.895m	1596.575m	CDOT type 2 Monument	
930 38°47'41.45176"N	107°55'08.86133"W 5236.526sft	1359358.617sft	2310602.239sft	5291.04sft	1.00000027	930	359357.85 310599.39 5291	01.04sft 9	930 109532.494m	94670.884m	1612.712m	S.H.D.ROW Marker	MP 9.3
940 38°47'44.12117"N	107°55'03.26648"W 5249.746sft	1359616.781sft	2311052.211sft	5304.24sft	0.99999957	940	359616.09 311049.49 5304	04.24sft 9	940 109611.206m	94808.077m	1616.736m	CDOT type 2 Monument	MP 9.4
950 38°47'47.82565"N	107°55'00.25088"W 5256.098sft	1359985.059sft	2311300.837sft	5310.58sft	0.99999917	950	359984.48 311298.19 5310	0.58sft 9	950 109723.491m	94883.881m	1618.666m	CDOT type 2 Monument	MP 9.5
970 38°47'53.47717"N	107°54'50.45361"W 5201.357sft	1360535.971sft	2312091.383sft	5255.80sft	1.00000164	970	360535.56 312088.98 5255	5.80sft 9	970 109891.460m	95124.912m	1601.970m	CDOT type 2 Monument	MP 9.7
980 38°48'00.07409"N	107°54'42.11045"W 5204.429sft	1361185.570sft	2312769.360sft	5258.83sft	1.00000133	980	361185.35 312767.16 5258	8.83sft 9	980 110089.517m	95331.622m	1602.894m	CDOT type 2 Monument	MP 9.8
1000 38°48'02.77554"N	107°54'34.04268"W 5206.957sft	1361441.820sft	2313415.061sft	5261.33sft	1.00000114	1000	361441.68 313413.05 5261	61.33sft 10	000 110167.646m	95528.491m	1603.658m	CDOT type 2 Monument	MP 10.0
1010 38°48'04.37965"N	107°54'22.25241"W 5213.294sft	1361579.307sft	2314352.387sft	5267.64sft	1.00000079	1010	361579.21 314350.66 5267	67.64sft 10	010 110209.565m	95814.274m	1605.581m	S.H.D.ROW Marker	MP 10.1
1030 38°48'05.31554"N	107°54'10.05556"W 5216.575sft	1361648.400sft	2315320.089sft	5270.90sft	1.00000061	1030	361648.32 315318.65 5270	70.90sft 10	030 110230.631m	96109.319m	1606.572m	CDOT type 2 Monument	MP 10.3
1050 38°48'05.20543"N	107°53'56.89672"W 5231.747sft	1361609.737sft	2316361.117sft	5286.04sft	0.99999989	1050	361609.65 316359.99 5286	36.04sft 10	050 110218.843m	96426.720m	1611.189m	CDOT type 2 Monument	MP 10.5
1070 38°48'07.08958"N	107°53'44.87202"W 5221.748sft	1361775.162sft	2317317.717sft	5276.01sft	1.0000032	1070	361775.12 317316.88 5276	76.01sft 10	070 110269.279m	96718.380m	1608.132m	CDOT type 2 Monument	MP 10.7
1090 38°48'06.99567"N	107°53'34.55136"W 5231.313sft	1361744.135sft	2318134.186sft	5285.56sft	0.99999987	1090	361744.09 318133.59 5285	35.56sft 10	090 110259.819m	96967.315m	1611.041m	CDOT type 2 Monument	MP 10.9
1100 38°48'09.06735"N	107°53'22.59853"W 5224.517sft	1361928.739sft	2319085.580sft	5278.73sft	1.00000014	1100	361928.75 319085.27 5278	78.73sft 11	100 110316.104m	97257.387m	1608.959m	CDOT type 2 Monument	MP 11.0
1120 38°48'08.96277"N	107°53'09.84910"W 5227.531sft	1361891.638sft	2320094.215sft	5281.71sft	1.00000000	1120	361891.63 320094.21 5281	31.71sft 11	120 110304.792m	97564.912m	1609.869m	CDOT type 2 Monument	MP 11.2
1140 38°48'10.92356"N	107°52'58.49470"W 5235.157sft	1362066.343sft	2320997.937sft	5289.31sft	0.99999959	1140	362066.39 320998.20 5289	9.31sft 11	140 110358.058m	97840.450m	1612.184m	S.H.D.ROW Marker	MP 11.4
1150 38°48'10.60838"N	107°52'51.14204"W 5239.256sft	1362019.210sft	2321578.944sft	5293.39sft	0.99999940	1150	362019.24 321579.38 5293	3.39sft 11	150 110343.688m	98017.594m	1613.429m	CDOT type 2 Monument	MP 11.5
1160 38°48'09.32381"N	107°52'44.02900"W 5234.182sft	1361874.553sft	2322138.422sft	5288.31sft	0.99999967	1160	361874.54 322139.03 5288	38.31sft 11	160 110299.583m	98188.174m	1611.879m	CDOT type 2 Monument	MP 11.6
1180 38°48'09.49005"N	107°52'31.13466"W 5212.748sft	1361864.659sft	2323159.244sft	5266.84sft	1.00000069	1180	361864.65 323160.16 5266	6.84sft 11	180 110296.566m	98499.415m	1605.337m	CDOT type 2 Monument	MP 11.8
1200 38°48'07.81107"N	107°52'18.31284"W 5221.076sft	1361668.348sft	2324169.454sft	5275.15sft	1.0000034	1200	361668.28 324170.67 5275	75.15sft 12	200 110236.713m	98807.420m	1607.869m	CDOT type 2 Monument	MP 12.0
1220 38°48'08.08030"N	107°52'08.45201"W 5228.827sft	1361675.210sft	2324950.499sft	5282.88sft	0.99999996	1220	361675.14 324951.95 5282	32.88sft 12	220 110238.805m	99045.554m	1610.224m	CDOT type 2 Monument	MP 12.2
1240 38°48'05.61745"N	107°51'56.44482"W 5269.151sft	1361401.375sft	2325894.197sft	5323.18sft	0.99999810	1240	361401.22 325895.93 5323	23.18sft 12	240 110155.315m	99333.281m	1622.509m	CDOT type 2 Monument	MP 12.4
1260 38°48'00.92335"N	107°51'42.89714"W 5317.449sft	1360898.757sft	2326953.956sft	5371.46sft	0.99999591	1260	360898.45 326956.01 5371	71.46sft 12	260 110002.070m	99656.393m	1637.225m	CDOT type 2 Monument	MP 12.6
1280 38°47'58.27642"N	107°51'29.30660"W 5336.451sft	1360603.125sft	2328022.522sft	5390.44sft	0.99999507	1280	360602.73 328024.90 5390	0.44sft 12	280 109911.934m	99982.190m	1643.010m	CDOT type 2 Monument	MP 12.8
1290 38°47'56.01860"N	107°51'19.37062"W 5378.723sft	1360354.386sft	2328802.914sft	5432.70sft	0.99999311	1290	360353.92 328805.52 5432	32.70sft 12	290 109836.096m	100220.125m	1655.889m	CDOT type 2 Monument	MP 12.9
1310 38°47'55.75146"N	107°51'07.54006"W 5350.481sft	1360303.107sft	2329738.471sft	5404.43sft	0.99999447	1310	360302.63 329741.36 5404	04.43sft 13	310 109820.461m	100505.369m	1647.272m	CDOT type 2 Monument	MP 13.1
1330 38°47'53.60174"N	107°50'55.30482"W 5328.354sft	1360060.647sft	2330701.133sft	5382.28sft	0.99999558	1330	360060.09 330704.31 5382	32.28sft 13	330 109746.537m	100798.877m	1640.521m	CDOT type 2 Monument	MP 13.3
1350 38°47'53.34979"N	107°50'43.66166"W 5272.148sft	1360011.356sft	2331621.910sft	5326.04sft	0.99999827	1350	360010.79 331625.37 5326	6.04sft 13	350 109731.509m	101079.615m	1623.381m	CDOT type 2 Monument	MP 13.5
1370 38°47'51.35395"N	107°50'32.85728"W 5232.058sft	1359787.448sft	2332471.761sft	5285.93sft	1.00000023	1370	359786.81 332475.47 5285	35.93sft 13	370 109663.241m	101338.728m	1611.156m	CDOT type 2 Monument	MP 13.7
1380 38°47'51.45151"N	107°50'21.49761"W 5228.847sft	1359774.144sft	2333371.026sft	5282.69sft	1.00000038	1380	359773.50 333375.01 5282	32.69sft 13	380 109659.185m	101612.906m	1610.168m	CDOT type 2 Monument	MP 13.8
1400 38°47'49.03892"N	107°50'09.79897"W 5257.195sft	1359506.327sft	2334290.587sft	5311.02sft	0.99999909	1400	359505.61 334294.84 5311	1.02sft 14	400 109577.529m	101893.273m	1618.803m	CDOT type 2 Monument	MP 14.0
1420 38°47'49.27263"N	107°49'57.60720"W 5301.174sft	1359505.164sft	2335256.067sft	5354.97sft	0.99999698	1420	359504.44 335260.61 5354	54.97sft 14	420 109577.175m	102187.641m	1632.199m	S.H.D.ROW Marker	MP 14.2
	107°49'50.47352"W 5299.254sft					1430	359416.72 335823.47 5353					CDOT type 2 Monument	
	107°49'38.99416"W 5327.644sft											S.H.D.ROW Marker	MP 14.4
	107°49'31.17316"W 5335.697sft						359649.60 337358.36 5389					S.H.D.ROW Marker	MP 14.6
	107°49'24.61170"W 5325.968sft			Provide and the provide states	A TAR PARA TARTA AND A MADE							CDOT type 2 Monument	
	107°49'17.81793"W 5344.512sft						359895.88 338422.61 5398					CDOT type 2 Monument	
	107°49'04.36079"W 5376.907sft						360127.76 339494.54 5430					CDOT type 2 Monument	
	107°48'53.80814"W 5450.126sft						360629.68 340343.26 5503					CDOT type 2 Monument	
	107°48'44.82703"W 5452.529sft											CDOT type 2 Monument	
											1		

/. 6th P.M. P.M.	Project Control Diagram									
	Title Sheet									
	Project Number: STA 092A-018									
	Project Location: Austin to Hotchkiss Corridor									
	Project Location: S.H. 92, M.P. 6.9-15.3									
	Project Code:	Last Mod. Date	Subset Sheets	Sheet No.	Total No. of Sheets					
	14934	10-03-06	2 of 4	3A	55					
	102 C		3.01 - 3.03	3.02						



		Project Control Diagram								
. 6th P.M.	Plan Sheet									
P.M.		Project Number: STA 092A-018								
г.w.	Project Lo	cation: Austi	n to Hotchki	ss Corrid	dor					
			2, M.P. 6.9-15.3							
	Project Cade: Last Mod. Date Subset Sheets Sheet No. Total No. of She									
	14934	10-03-06	4 of 4	3C	55					
			3.01 - 3.03	3.03						

