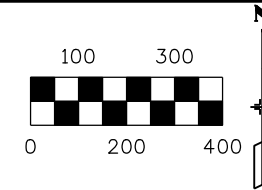




Sheet Revisions

Date mm/yy	Description XXXXXXXX	Initials XXX



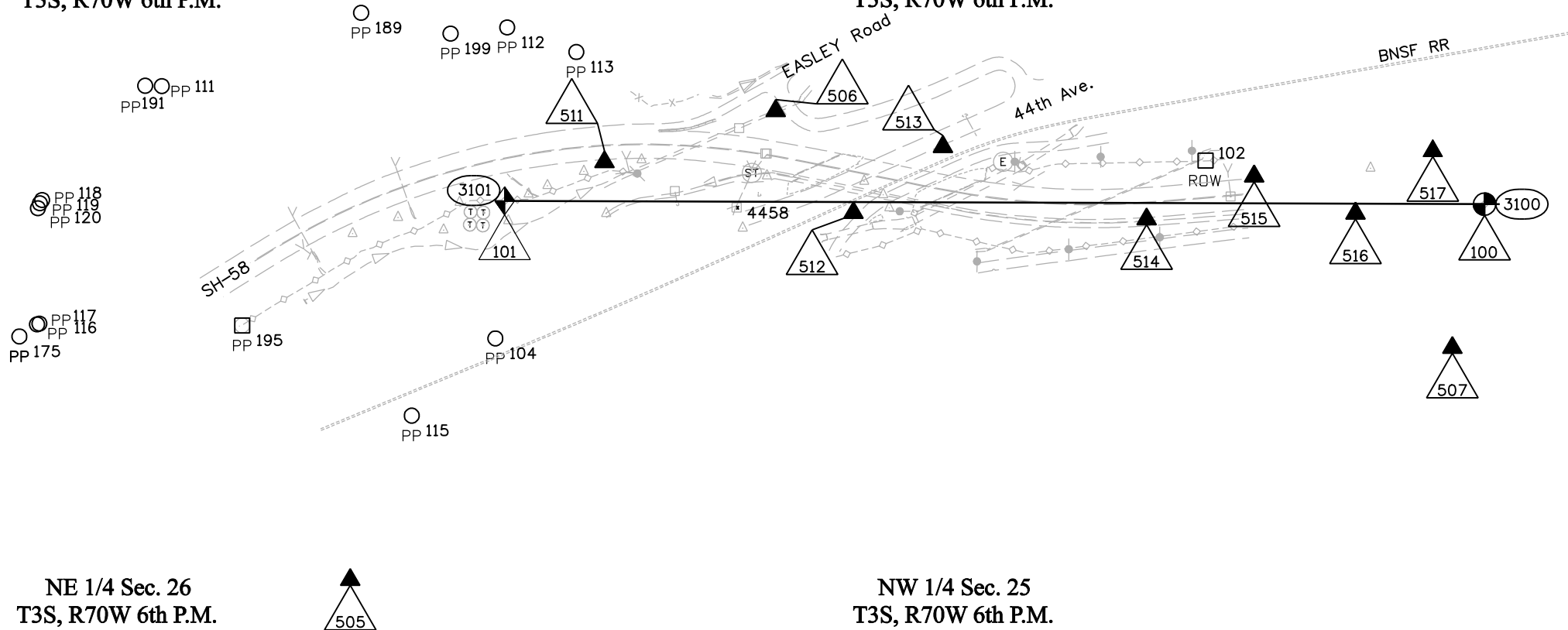
Land Survey Control Diagram Plan Sheet				
Project Number: BR 058-006				
Project Location: SH 58 at 44th Ave.				
Sec. 22,23,26,27 T4S R70W 6PM				
Project Code	Last Mod. Date	Subset Sheets	Sheet No.	Total No. of Sheets
14959	1-03-07	1 of 2	3A	4

SE 1/4 Sec. 22
T3S, R70W 6th P.M.

SW 1/4 Sec. 23
T3S, R70W 6th P.M.

NE 1/4 Sec. 26
T3S, R70W 6th P.M.

NW 1/4 Sec. 25
T3S, R70W 6th P.M.



GENERAL NOTES:

- This **Land Survey Control Diagram** is to document the recovery and/or establishment of survey points that will be the basis of future surveys for design purposes, right-of-way acquisitions, monumentation, and/or roadway construction. This Land Survey Control Diagram is not a Monumented Land Survey or Boundary Survey and does not address matters of title.
- BASIS OF BEARINGS:** Grid bearings of the Colorado coordinate system of 1983, central zone, determined by a fast static GPS survey of the control points shown hereon. The line between point 506 and point 516, shown herein, bears S79°57'19"E, a distance of 1587.30 feet.
- Geodetic coordinates are "WGS-84 datum" (NAD '83-1992) based on a fast static GPS survey holding published values on the primary control points listed herein.
- Project specific** coordinates were obtained by multiplying the project's state plane coordinates by 1.0002650689 and then truncating the northing by 1,000,000 and the easting by 3,000,000. Published units are in US survey feet: 1 survey foot = (1200/3937) meters
- Horizontal Control Tolerances meet the precision requirements of CDOT type A control (+/- 0.07' with 95% certainty).
- Vertical Datum: Elevations are NAVD '88 Datum established by differential levels previously run by CDOT crews from NGS benchmark "L407" (PID KK1370), elevation = 5717.85', through CDOT control point 4458, elevation = 5645.462'.
- Elevations on control points were established by electronic differential levels with an accuracy meeting or exceeding 0.035' times the square root of the distance leveled in miles.

NOTICE: According to Colorado law you **must** commence any legal action 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 certification shown hereon.

Surveyor's Statement:

I, Donald D. Hansen, a professional land surveyor licensed in the State of Colorado, do hereby state to the Colorado Department of Transportation that this Land Survey 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 guaranty or warranty, either expressed or implied.

Donald D. Hansen, PLS No.14599

Date

JEFFERSON COUNTY SURVEY DEPOSITING CERTIFICATE:

Deposited this _____ day of _____, 200__, at _____ o'clock ____M. in Book _____ at page _____ of Land Surveys/Right of Way Surveys, under Reception No. _____.

By: _____

Title: _____



Sheet Revisions

Date mm/yy	Description XXXXXXXX	Initials XXX

Land Survey Control Diagram

Plan Sheet

Project Number: BR 058-006				
Project Location: SH 58 at 44th Ave.				
Sec. 22,23,26,27 T4S R70W 6PM				
Project Code:	Last Mod. Date	Subset Sheets	Sheet No.	Total No. of Sheets
14959	1-03-07	2 of 2	3B	4

Geodetic and State Plane coordinates
(Colorado coordinates system of 1983, Central zone)

Project Coordinates (US survey feet)

Name	Latitude	Longitude	Height	Convergence	Combined Factor	Northing (State Plane)	Easting (State Plane)	Elevation NAVD '88	Name	Northing (Project)	Easting (Project)	NAVD '88	Description
501~	39°43'28.76488"N	105°09'45.24185"W	5833.75	0°13'04.89588"	0.999716760	1689012.040	3094914.120		501				HARN point CURLY, NGS PID AA7126, 3" brass disc
502~	39°44'45.75007"N	105°12'31.41463"W	5699.99	0°11'17.52609"	0.999727273	1696756.870	3081905.420	5751.29	502				HARN point H 407, NGS PID KK1373, deep rod
503~	39°46'57.83313"N	105°08'18.27201"W	5421.51	0°14'01.09000"	0.999747975	1710192.870	3101625.200		503				CDOT Metro Net Pt. 18, "KAISER," 3-1/4" alum. disc
504	39°48'50.64483"N	105°13'19.46247"W	5898.97	0°10'46.48077"	0.999731864	1721525.251	3078076.586		504				HARN point F 411 RESET, NGS PID KK2128, Did NOT use NGS value
505	39°45'58.74368"N	105°12'16.83108"W	5561.09	0°11'26.94901"	0.999737947	1704146.473	3083020.533	*5612.80	505	704598.190	83792.734	5612.80	Coors secondary control point 88, 2-1/2" brass cap
506	39°46'11.16988"N	105°12'02.16652"W	5637.48	0°11'36.42427"	0.999735005	1705407.583	3084161.508	5689.31	506	705859.634	84934.011	5689.31	Recover Carter-Burgess panel point, 2" alum. cap
507	39°46'04.80724"N	105°11'38.88305"W	5532.81	0°11'51.46850"	0.999739638	1704769.827	3085981.735	*5584.87	507	705221.709	86754.720	5584.87	Coors secondary control point 12, 2-1/2" brass cap
508	39°46'18.79396"N	105°10'28.36374"W	5506.49	0°12'37.03339"	0.999741686	1706204.225	3091483.207	*5559.27	508	706656.488	92257.651	5559.27	Coors secondary control point 91, 2-1/2" brass cap
511	39°46'09.82144"N	105°12'08.06756"W	5654.57	0°11'32.61141"	0.999734114	1705269.625	3083701.180	5706.37	511	705721.639	84473.561	5706.37	Set CDOT Type 2 monument
512	39°46'08.45062"N	105°11'59.49760"W	5577.11	0°11'38.14875"	0.999737731	1705133.118	3084370.816	5629.04	512	705585.097	85143.375	5629.04	Set CDOT Type 2 monument
513	39°46'10.19752"N	105°11'56.40466"W	5585.70	0°11'40.14720"	0.999737420	1705310.680	3084611.741	5637.58	513	705762.705	85384.364	5637.58	Set CDOT Type 2 monument
514	39°46'08.25394"N	105°11'49.40046"W	5570.59	0°11'44.67285"	0.999738031	1705115.834	3085159.313	5622.56	514	705567.808	85932.081	5622.56	Set CDOT Type 2 monument
515	39°46'09.38839"N	105°11'45.69124"W	5553.60	0°11'47.06950"	0.999738906	1705231.592	3085448.562	5605.58	515	705683.596	86221.406	5605.58	Set CDOT Type 2 monument
516	39°46'08.38819"N	105°11'42.20385"W	5541.52	0°11'49.32282"	0.999739425	1705131.299	3085721.211	5593.57	516	705583.277	86494.128	5593.57	Set CDOT Type 2 monument
517	39°46'10.04405"N	105°11'39.53293"W	5541.96	0°11'51.04859"	0.999739498	1705299.549	3085929.205	5593.98	517	705751.572	86702.177	5593.98	Set CDOT Type 2 monument
dsrc~	39°59'29.12987"N	105°15'39.67586"W	5437.00	0°09'15.88421"	0.999797287	1786103.700	3066965.150		dsrc				NGS CORS Station DSRC, ARP PID AI2151

"~" indicates Primary Control Point; "*" indicates GPS derived elevation, not a Benchded value

Recovered monuments, Topographic quality only
(single based RTK measurements)

Name	North (Project)	East (Project)	Elevation	Description
100	705608.205	86882.526	5587.08	x in T-rail web, 1/4 corner S23/S27
101	705617.124	84204.950	5717.98	3.25 Alum cap, "LPI PLS 23521" Section Cor., S22 S23 / S27 S26
102	705725.494	86091.041	5600.73	3.5" Brass cap, CDOH ROW MARKER
104	705246.707	84179.979	5653.69	No. 5 rebar, no cap
111	705926.139	83282.503	5980.63	1.5 Alum cap "Contra LTD. WC 15"
112	706084.171	84211.799	5855.67	1.5" Alum cap "Contra LTD. PE PLS 5447"
113	706017.801	84397.630	5791.84	1.5" Alum cap "Contra LTD. PE PLS 5447" in concrete
115	705038.782	83954.812	5634.70	T-rail center of web, RR marker
116	705286.477	82952.990	5815.57	2" Alum cap, JR ENG LS 13258
117	705284.540	82946.625	5817.50	1.5" Alum cap on No. 5 rebar, O-S PLS 27612
118	705619.153	82960.344	5931.57	1.5" Alum cap, O-S PLS 27612
119	705610.444	82954.266	5926.50	1.5" Alum cap, O-S PLS 27612 RM MRKD CEN CAP
120	705597.232	82948.834	5925.33	2" Alum cap JEFFCO Open Space E16 27-22 '05 PLS 27612
175	705252.072	82899.193	5815.33	No. 5 rebar, no cap
176	704806.817	82219.193	5774.85	2" Alum cap, JR ENG LS 13258
177	704866.919	82056.503	5832.10	2" Alum cap, JR ENG LS 13258
178	704859.672	82045.826	5830.04	2" Alum cap, JR ENG LS 13258
189	706123.358	83818.767	6007.84	1.5" Alum cap, "Contra LTD. PEPLS 5447"
191	705927.046	83237.777	5992.10	2" Alum cap, JR ENG LS 13258
195	705281.550	83498.654	5717.10	3.5" Brass cap, CDOH ROW marker
199	706067.493	84059.427	5895.53	1.5" Alum cap, "Contra LTD. PE PLS 5447"
4458	705598.694	84831.923	5645.46	3.25 Alum cap, CDOT in culvert headwall, Project Benchmark

Aliquot Corners from Coor's Coordinate system data

Name	North (Project)	East (Project)	Description
3100	705608.3110	86882.4648	1/4 Cor. Sec. 23/26
3101	705617.2615	84204.8178	Cor. Sec. 22 23 27 26

GPS control data information

Project latitude	39°46'11.16989"N
Project longitude	105°12'02.16652"W
Project height/elevation	5637.569sft/5689.31sft
State Plane Zone	Colorado central 1983
Ground scale factor	1.000265069
False northing offset	999547.949sft
False easting offset	2999227.497sft