

Sheet Revisions		
Date	Description	Initials

Sheet Revisions		
Date	Description	Initials

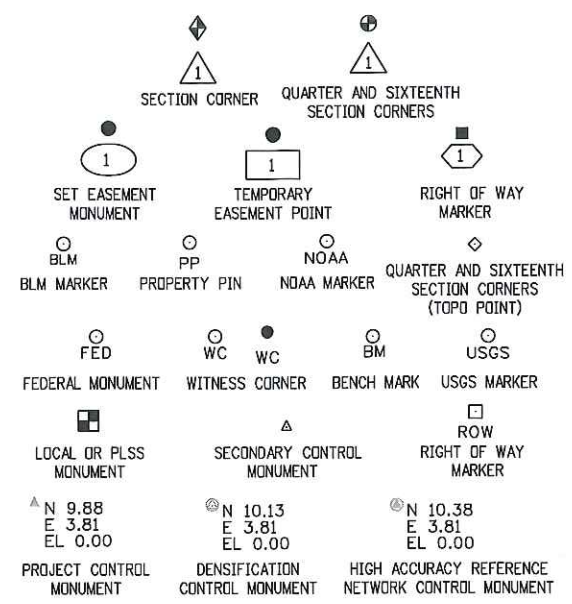
Project/Land Survey Control Diagram			
Title Sheet			
Project Number: FBR R200-266			
Project Location: BRIDGE REPLACEMENT			
I-13-G & I-13-H US HIGHWAY 24			
Project Code:	Last Mod. Date:	Subset:	Sheet No.:
23558	11-18-2020	3.01 of 3.04	3.01

DEPARTMENT OF TRANSPORTATION STATE OF COLORADO

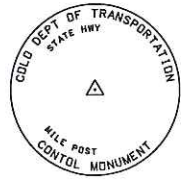
PROJECT / LAND SURVEY CONTROL DIAGRAM

SHEET NO.	INDEX OF SHEETS
3.01	(1) Title Sheet
3.02	(1) Coordinate Tables
3.03-3.04	(2) Plan Sheet
	(4) Total Sheets

Bridge I-13-H
 State Highway 24
 Section 8
 Township 13 South, Range 76 West
 Bridge I-13-G
 Section 13
 Township 13 South, Range 77 West
 of the 6th Principal Meridian
 Park County, Colorado



Note: For a complete listing of symbology used within this set of plans, please refer to the M-100-1 Standard Symbols of the Colorado Department of Transportation M&S Standards Publication. Existing features are shown as screened weight (gray scale). Proposed or new features are shown as full weight without screening.

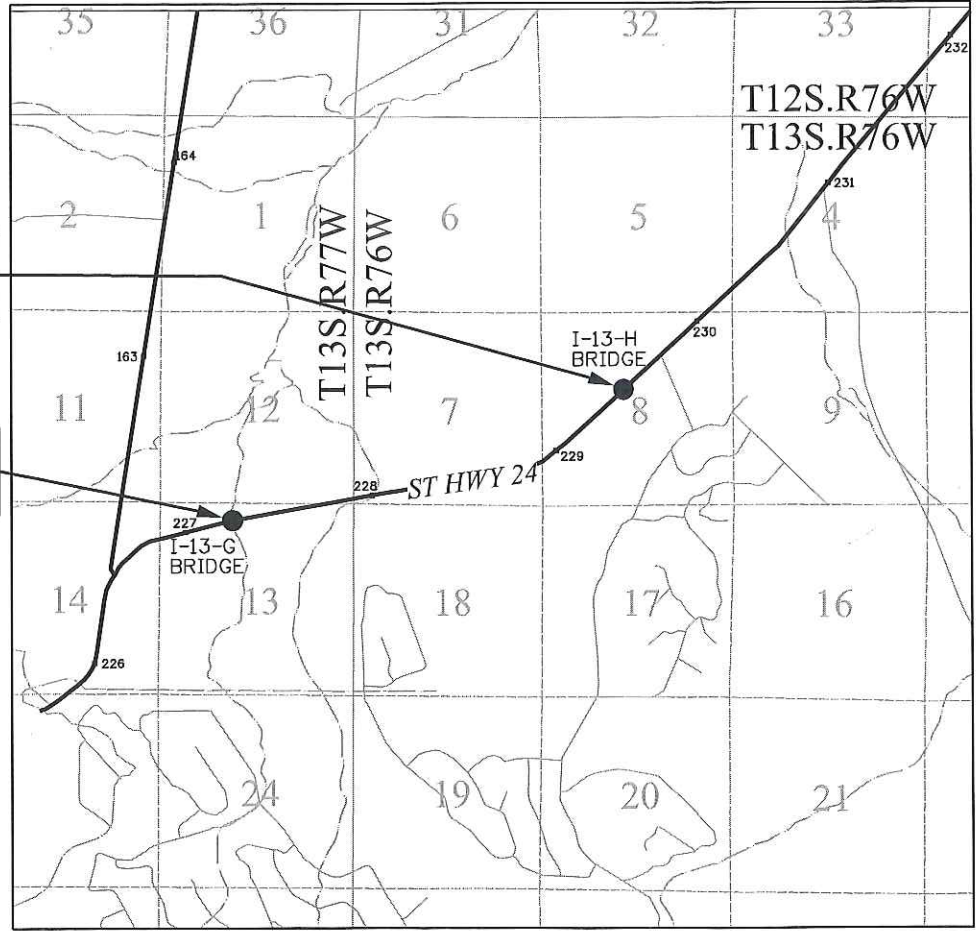


Typical Control Monument Cap
Not to Scale

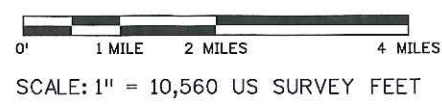
▲ CM-MP - Control Point Monuments set by CDOT. They are CDOT Type 2 monuments, a 3/4" dia. aluminum control monument cap (as shown) on a 3' x 3/4" dia. aluminum security rod on a 3' x 3/4" dia. smooth aluminum rod.

General Notes:

1. This Project Control Diagram is not a boundary survey of the adjoining property and is prepared for the Colorado Department of Transportation purposes only.
2. This plan set is subject to change and may not be the most current set. It is the user's responsibility to verify with CDOT that this set is the most current. The information contained on the attached drawing is not valid unless this copy bears an original signature of the Professional Land Surveyor hereon named.
3. Refer to the M-629-1 Survey Monuments of the Standard Plans found in The Colorado Department of Transportation, M & S Standards for typical survey monument descriptions.



PROJECT LOCATION MAP



Basis of Bearings: Bearings used in the calculations of coordinates are based on a grid bearing of N69°27'02"E from CM-MP 2705 to CM-MP 2723. Both monuments are CDOT Type II, marked appropriately for their milepost location and control position. The survey data was obtained from a Global Navigation Satellite System (GNSS) survey in September of 2020 and is based on the National Spatial Reference System (NSRS).

Basis of Elevations: Project elevations for I-13-G are based on a NGS published elevation of 9226.28 on benchmark J 350 (PID # JK0660). Project elevations for I-13-H are based on a GPS elevation of 8981.94 on C.P. 2971. All project control points were then leveled through holding the elevations listed above.

COORDINATE DATUM: Project coordinates are modified Colorado State Plane Central Zone NAD '83/(11) coordinates. The combined elevation/scale factor used to modify the coordinates from state plane to project coordinates is 1.000496211. The resulting project coordinates are truncated by 1,000,000ft in the Northing and 2,000,000 ft in the Easting after converting from state plane coordinates to project coordinates.

Project Coordinates Northing US Survey Feet = (State Plane Coordinate Northing * 1.000496211) - 1,000,000.

Project Coordinates Easting US Survey Feet = (State Plane Coordinate Easting * 1.000496211) - 2,000,000.

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 STATEMENT (PROJECT CONTROL DIAGRAM)
 I, Lorelei A. Ward, 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 guaranty or warranty, either expressed or implied.
 PLS No. 34982



11/19/2020 3:56:56 PM J:\2020\0200567.00 - CDOT Bridge Bundles\23558\RDW_Survey\113G - US 24 MP 227.095\Drawings\23558\SURV_I-13-G-I-13-H-LSCD-TitleSheet.dgn



5615 Wills Boulevard
Pueblo, CO 81008
Phone: 719-546-5746 FAX: 719-546-5414

Region 2

DRP

Sheet Revisions

Date	Description	Initials

Sheet Revisions

Date	Description	Initials



4755 FORGE ROAD, SUITE 150
COLORADO SPRINGS, CO 80907
(719) 590-9194 / (719) 590-9111 Fax
www.f-w.com

Project/Land Survey Control Diagram

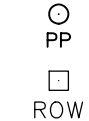
Coordinate Tables			
Project Number: FBR R200-266			
Project Location: BRIDGE REPLACEMENT			
I-13-G & I-13-H - US HIGHWAY 24			
Project Code:	Last Mod. Date	Subset	Sheet No.
23558	11-22-2020	3.02 of 3.04	3.02



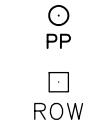
Point No.	Geodetic Coordinates NAD 83(2011) (CHARN)		Elip Height (NAVD88)(ft)	Ortho Height (ft)	Mapping Angle	Grid Scale Factor	NAD 83(2011) Zone 0502		Description
	Latitude(N)	Longitude(W)					SP Northing(ft)	SP Easting(ft)	
	2705	38°55'24.72443					-105°57'44.16380	9,120.59	
2723	38°55'28.25680	-105°57'32.28432	9,097.71	9,142.65	-0°17'22.1"	0.999505772	1,397,733.38	2,869,428.04	CDOT TYPE II MONUMENT
2744	38°55'30.22255	-105°57'19.14275	9,081.21	9,126.17	-0°17'13.8"	0.999506531	1,397,927.02	2,870,467.54	CDOT TYPE II MONUMENT
2777	38°55'31.76075	-105°56'56.87887	9,131.04	9,176.03	-0°16'59.7"	0.999504127	1,398,073.87	2,872,227.69	CDOT TYPE II MONUMENT
2909	38°55'51.54460	-105°55'28.47097	8,985.23	9,030.34	-0°16'04.0"	0.999510307	1,400,041.70	2,879,223.34	CDOT TYPE II MONUMENT
2955	38°56'07.45047	-105°55'06.87034	8,941.05	8,986.20	-0°15'50.4"	0.999512693	1,401,642.90	2,880,937.58	CDOT TYPE II MONUMENT
2971	38°56'12.48506	-105°54'57.43186	8,936.78	8,981.94	-0°15'44.4"	0.999512828	1,402,148.80	2,881,685.67	CDOT TYPE II MONUMENT
3001	38°56'24.20636	-105°54'43.51299	8,946.09	8,991.27	-0°15'35.6"	0.999512223	1,403,329.57	2,882,790.79	CDOT TYPE II MONUMENT
*J350	38°55'20.23750	-105°58'06.34983	9,181.40	9,226.28	-0°17'43.6"	0.999501893	1,396,935.85	2,866,731.85	BM DISK SET IN TOP OF CONCRETE
*P302	39°13'57.62594	-105°59'09.52803	9,868.94	9,912.06	-0°18'23.4"	0.999466360	1,510,004.56	2,862,343.80	BM DISK SET IN TOP OF CONCRETE
*V288	38°51'11.19808	-105°39'08.58588	9,199.34	9,245.17	-0°05'46.0"	0.999505486	1,371,434.48	2,956,604.15	BM DISK SET IN ROCK - V 288 1951
*X285	38°48'29.84758	-106°06'55.88139	7,813.62	7,859.57	-0°23'17.5"	0.999575384	1,355,669.29	2,824,603.52	BM DISK SET IN TOP OF CONCRETE
* NOT SHOWN									



Point No.	Project Coordinates		Elev(ft) (NAVD88)	Description
	Northing(ft)	Easting(ft)		
	2705	398,074.18		
2723	398,426.95	870,851.88	9,142.65	CDOT TYPE II MONUMENT
2744	398,620.68	871,891.90	9,126.17	CDOT TYPE II MONUMENT
2777	398,767.61	873,652.92	9,176.03	CDOT TYPE II MONUMENT
2909	400,736.42	880,652.04	9,030.34	CDOT TYPE II MONUMENT
2955	402,336.41	882,367.13	8,986.20	CDOT TYPE II MONUMENT
2971	402,844.56	883,115.59	8,981.94	CDOT TYPE II MONUMENT
3001	404,025.92	884,221.26	8,991.27	CDOT TYPE II MONUMENT
J350	397,629.03	868,154.35	9,226.28	BM DISK SET IN TOP OF CONCRETE
P302	510,753.84	863,764.13	9,912.06	BM DISK SET IN TOP OF CONCRETE
V288	372,115.01	958,071.25	9,245.17	BM DISK SET IN ROCK OUTCROP MARKED V 288 1951
X285	356,341.99	826,005.12	7,859.57	BM DISK SET IN TOP OF CONCRETE



Point No.	Project Coordinates		Elev(ft) (NAVD88)	Description
	Northing(ft)	Easting(ft)		
	5201	398,902.44		
5202	398,487.56	872,194.36	9,147.48	FND 3.25" BRASS CAP IN CONC STATE HWY ROW MARKER +-0.5 ABOVE GRADE
5203	398,902.36	873,330.86	9,164.17	FND 3.25" BRASS CAP IN CONC +-0.6 ABOVE GRADE // STATE HWY DEPT ROW MARKER
5204	398,690.60	872,193.54	9,139.14	FND 3.25" BRASS CAP N CONC +-0.5 ABOVE GRADE // STATE HWY DEPT ROW MARKER
5205	397,948.52	869,509.16	9,179.98	FND 1.5" ALUM CAP ON #4 REBAR +-0.25 ABOVE GRADE // WRIGHT ENGR 2343
5206	397,955.68	869,527.96	9,179.74	FND 3.25" BRASS CAP IN CONC +-0.5 ABOVE GRADE // STATE HIGHWAY DEPT ROW MARKER STA 740+57
5207	398,162.45	869,512.87	9,173.87	FND 1.5"ALUM CAP +-0.05 ABOVE GRADE // WRIGHT ENGR 234#
5208	398,165.84	869,522.30	9,174.13	FND 3.25" BRASS CAP IN CONC +-0.65 ABOVE GRADE // STATE HIGHWAY DEPT ROW MARKER STA 741+22



Point No.	Project Coordinates		Elev(ft) (NAVD88)	Description
	Northing(ft)	Easting(ft)		
	140724	404,159.53		
140738	404,156.53	884,355.30	8,991.49	CDOT BRASS CAP IN CONCRETE STAMPED FAP158E1 STA 906+99.8
140929	403,275.96	883,408.97	8,973.72	CDOT BRASS CAP IN CONCRETE STAMPED FAP158E1 STA 894+07
140939	403,203.25	883,477.55	8,974.32	CDOT BRASS CAP IN CONCRETE STAMPED FAP158E1 STA 894+07
140943	403,111.29	883,408.08	8,976.15	CDOT BRASS CAP IN CONCRETE STAMPED FAP158E1 STA 892+93
140951	403,219.79	883,304.82	8,974.92	CDOT BRASS CAP IN CONCRETE STAMPED FAP158E1 STA892+93
141157	402,649.76	882,692.17	8,979.96	CDOT BRASS CAP IN CONCRETE STAMPED FAP158E1 STA 884+56
141170	402,446.91	882,693.95	8,983.79	CDOT BRASS CAP IN CONCRETE STAMPED FAP158E1 STA 883+18
141239	402,094.43	882,314.58	8,983.37	CDOT BRASS CAP IN CONCRETE STAMPED FAP158E1 STA 878+00
141344	401,987.03	882,170.04	8,982.11	CDOT BRASS CAP IN CONCRETE STAMPED FAP158E1 STA 876+21
141443	401,444.89	881,587.44	9,006.72	CDOT BRASS CAP IN CONCRETE STAMPED FAP158E1 STA860+26
141482	401,449.28	881,401.52	9,004.12	CDOT BRASS CAP IN CONCRETE STAMPED FAP158E1 STA 866+92
141666	400,263.23	880,002.21	9,062.78	CDOT BRASS CAP IN CONCRETE STAMPED FAP158E1 STA 848+34
141670	400,280.26	879,990.91	9,064.78	CDOT BRASS CAP IN CONCRETE STAMPED FAP158E1 STA 848+71
141683	400,113.91	879,995.91	9,051.11	CDOT BRASS CAP IN CONCRETE STAMPED FAP158E1 STA 847+58
141694	400,050.11	879,980.66	9,049.13	CDOT BRASS CAP IN CONCRETE STAMPED FAP158E1 STA 847+19

COORDINATE DATUM: Project coordinates are modified Colorado State Plane Central Zone NAD '83/(11) coordinates. The combined elevation/scale factor used to modify the coordinates from state plane to project coordinates is 1.000496211. The resulting project coordinates are truncated by 1,000,000ft in the Northing and 2,000,000 ft in the Easting after converting from state plane coordinates to project coordinates.

Project Coordinates Northing US Survey Feet = (State Plane Coordinate Northing * 1.000496211) - 1,000,000.
Project Coordinates Easting US Survey Feet = (State Plane Coordinate Easting * 1.000496211) - 2,000,000.



Sheet Revisions

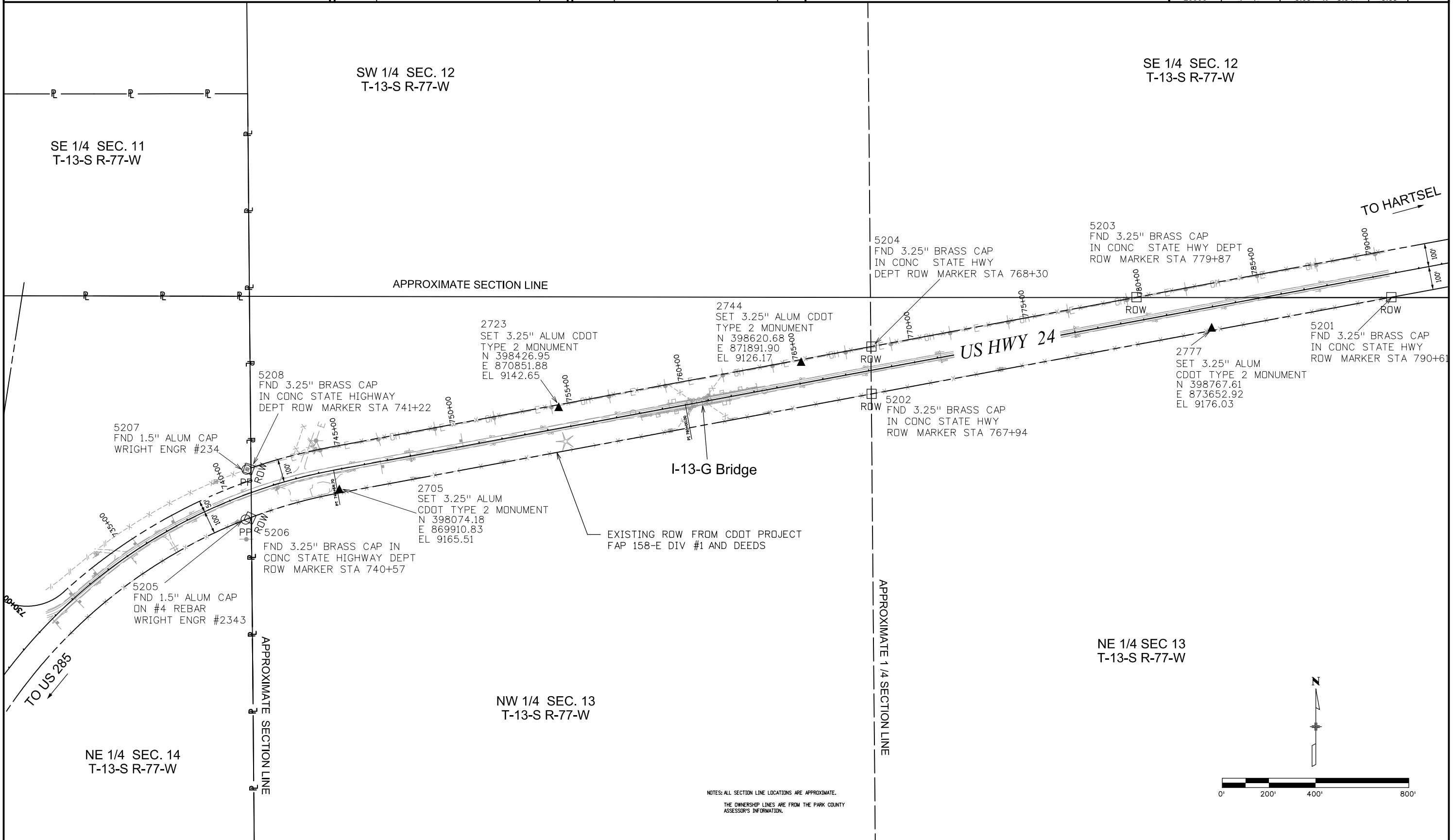
Date	Description	Initials

Sheet Revisions

Date	Description	Initials

Project Code:	Last Mod. Date	Subset	Sheet No.
23558	11/22/20	3.03 to 3.04	3.03

12/11/2020 1:23:03 PM J:\2020\0200567.00 - CDDT Bridge Bundles\235556\RDW_Survey\113G - US 24 MP 227.095\Drawings\235558_SURV_1-13-G_PCD-Plan01.dgn



Sheet Revisions			Sheet Revisions		
Date	Description	Initials	Date	Description	Initials

