

Survey Report

Project: FBR R200-266

Name: Region 2 Project Specific Bridge Bundle Design & Preconstruction Engineering

Code: 23558 & 23559

Project survey information

Farnsworth Group's role in this project was to provide CDOT and the Stanley Group design surveys, Project Control Diagrams, Land Survey Control Diagrams, and preliminary ownership maps for nine separate drainage structure (bridges, concrete box culverts, or large pipes) in various locations along US Highway 24 and State Highway 9 in Park, Teller, El Paso, and Fremont Counties. CDOT divided up the project into two task orders, one for seven bridges and one for two. Our time was tracked depending on which bridge we worked on.

The survey limits were initially the same for each bridge. CDOT asked for 3,000 feet each direction from the drainage structure along the highway and 1,200 feet, up and downstream in the drainage channel. CDOT also requested that 100 feet beyond the ROW be surveyed on each side of the highway for the total 6,000 feet. After some discussion with CDOT and Stanley, the limits on some of the structures were changed. These changes will be discussed in the specific structure portion of this report.

"Notice to Proceed" was received on August 12th, 2020 from Ron Gibson at the Stanley Group and a phone-in Pre-Survey / Kickoff meeting was held on August 19th, 2020. A project schedule, progress meetings, and the survey / ownership requirements were discussed. Please see project scope / survey request for more information. The project schedule was very accelerated. Stanley Group and CDOT asked for the field surveys to be completed by October 22nd, 2020. We discussed having the first three bridges surveyed in three weeks, so the designers could have something to work on. The field work for this project was finished by October 15th, 2020 and the final project deliverables were put in ProjectWise on December 21st, 2020.

Farnsworth began the project by researching owners along the corridor for each bridge and sending out Permission to Enter Forms. We then researched any existing control, NGS markers, section information or benchmarks in the area of each bridge. Control surveys were then planned, and surveyors began getting utility locates before setting of the control points. Existing control was found and used on three of the nine bridges. Some supplemental control was added to the existing control in areas. Three control surveys were planned for the other six bridges, because two bridges on each highway were located close enough together to combine them into one control survey.

A minimum of four control points was used for each location (drainage structure). CDOT Type II control monuments were used and set in most locations. These monuments were double or triple observed using GPS methods and processed using the National Spatial Reference Network (using a minimum of four to five of the closest Continuously Operating Reference Stations (CORS)). The survey crews then checked between the points using a Total Station to verify the distances and the scale factor established by the GPS processing was correct.

Vertical precision on the control points was increased by using NGS benchmarks in the control network whenever possible. The benchmarks were occupied during the GPS control survey and their elevation were held fixed in the GPS processing. Level loops were performed after the GPS survey to ensure vertical precision. The benchmark elevation was held fixed and the other control point elevations were adjusted after the level loop. If a benchmark was not found in the area, the GPS established elevation for one point was held fixed for the level loop and the other control points were adjusted to it. The level loops and gun checks provided an additional check on the original processed data.

The Topographic (TMOSS) Surveys for two of the bridges were started as soon as the existing control was checked and verified. The third crew began working on the control surveys, setting lath, getting utility locates, setting monuments, doing the GPS control survey and level loops. Farnsworth had three crews working for the first six weeks until the control surveys were completed. The roadway portions of the surveys were completed with the help of traffic control. Traffic control permit requests were sent to and approved by CDOT Region 2 personnel. The roadway surveys were planned for the least amount of mobilization by the Traffic Control company and the road closures were coordinated with the Geotech drilling portion of the project whenever possible. The channel surveys for some of the bridges were slightly delayed while we attempted to get Permission to Enter forms signed by the landowners. Most owners gave verbal permission once we spoke to them but there were a few areas where we were unable to get on to the property. Some reasons why were; no valid phone numbers could be found, no one would answer the door, the owner would not allow the surveyor on their land, or the Permission to Enter forms were never returned.

Most of the TMOSS surveys were done per the scope and completed to those limits. A few drainage structures did get variances and will be discussed below. The surveyors used TMOSS coding per the current CDOT codebook for their survey data collection. The surveys were performed using GPS equipment as well as robotic and conventional theodolites (Total Stations) depending on the conditions. Most areas were open enough for GPS but the area underneath of all the structures was surveyed with a Total station. The surveyors also took photographs of all pertinent items and features. These photos were put into the respective structure folder in ProjectWise. The survey data was processed using Bentley Open Roads SS4 software and was provided to CDOT and the Stanley Group to review.

The Topographic surveys included tying in all found CDOT ROW monuments, any property pins found in the area, any aliquot corners in the surveyed area, and any other evidence (fences, roads etc.) that would help to identify ownership. Due to some lack of permissions and time constrains, only readily found boundary information, close to the highways was located. We used CDOT right-of-way plans and records, subdivision plats in the area, and assessor's information to compile a preliminary ownership map of the surveyed areas. We did not pull vesting deeds, title work information or easement documents at this time. There were a couple of areas that lacked any CDOT information or did not match the only CDOT records for the highway. These areas were mainly in BLM lands along State Highway 9.

Project Team Members

This project required multiple crew members because of its size, the different locations, and the time constraints. Lorelei Ward was the Project Manager in charge of the project. Her tasks included the day to

day crew scheduling, meetings, permits, compiling and reviewing data, ROW line decisions, etc. There were up to five survey field crew members on the project at various times, Larry Lucas, Zach Green, Chad Sievers, Justin Amavisca, and Ben Ellington. Larry, Zach, and Chad worked separately at different structure locations, most of the time. Justin and Ben helped with the control surveys. A two-man crew was used for the roadway portion of the survey so it could be completed within one day. The control surveys were processed by Daniel Orris. The TMOSS surveys were processed by Dianne Olson. The ROW research and drafting for the control and LSCD diagrams, ownership maps, and other drawings were done by Dianne Olson, Jennifer Finley, and Lorelei Ward.

Specific bridge information

G-12-C – SH 9 @ Mile Post 71.45

(Project Code 23558)

This drainage structure is a large concrete box culvert in poor condition. It has continuous flows through it from South Platte River. It is located on a fairly busy highway just north of the town limits of Alma. This structure did get a slight variance on the length of the survey outside the ROW limits because of the town. The survey outside the ROW ended at the town limits. No construction or detours were planned that far south, so it was deemed unnecessary to spend additional time in that area. The north side limits were shortened about 800 feet outside the ROW due to a steep hillside with a ditch running along it. This hillside was outside the construction and detour area.

This structure was one of the first to be surveyed. It had existing control from a previous CDOT project, STA 0091-026. The existing control points were found and verified for accuracy. A few additional control points were set on the north end of the project. We were unable to survey two properties outside the ROW on the west side of the highway south of County Rd 6 because we were unable to locate the owners to obtain Permission to Enter. The channel work took a little longer to finish because of Permission problems also.

The ROW plans from CDOT project STA 0091-026 and found ROW monuments and pins were used to establish the existing ROW lines for Highway 9. Most of the survey area is surrounded by one subdivision plat, the Alma Park Estates. Due to a drafting mistake or mis-read of the original CDOT plan set, the Alma Park Estates created an approximately 15 ft wide gap at the north end of the subdivision, between the subdivision and the west right-of-way line of the highway when the subdivision was platted. This area is shown on the ownership map and may need to be resolved if ROW parcels have to be purchased.

H-13-N – US 24 @ Mile Post 240.69

(Project Code 23558)

This drainage structure is an old timber bridge built in the 1930's. It is too small to accommodate today's traffic. It has continuous flows through it from the middle fork of the South Platte River. It is located on a fairly busy highway with the town limits of the Town of Hartsel about one and half miles to the west. This bridge was surveyed to the requested survey limits.

This bridge was also one of the first to be surveyed. It had existing control from a previous CDOT project, NH 0242-048. The existing control points were found and verified for accuracy. No additional control monuments were needed for this project. We were able to obtain some form of Permission to Enter from all of the owners along the survey corridor. Only the channel for the middle fork of the South Platte was

surveyed. There is another bridge within the survey limits (H-13-M) but that structure had already been upgraded and no additional channel survey was requested.

The ROW plans from CDOT project PWA 158-E DIV 2 were used to draw up the existing highway ROW. This project is the latest set of ROW plans in this area. We used found ROW monuments and property pins to establish the existing ROW lines along Hwy 24 and the ownership lines north and south of the highway. All of ownerships in this survey area are described by aliquot parts. No aliquot corners were found. The section lines were drawn using the ROW plan information, ROW monuments and property pins. Further investigation will be needed to establish the true section lines.

I-13-G – US 24 @ Mile Post 227.09

(Project Code 23558)

This drainage structure is an old timber bridge built in the 1930's. It is too small to accommodate today's traffic. It is located over a dry channel with intermittent flows that was once used as a cattle pass but now has different landowners on either side. It is located on a fairly busy highway with the Highway 285 Junction a half a mile to the west. This bridge was surveyed to the requested survey limits within the ROW, but we were unable to survey outside the fence for the last 1,200 feet on the northwest side. We were able to obtain some form of Permission to Enter from all but one (the very west end on the north side of the highway) of the owners along the survey corridor.

The control survey for this bridge and the bridge to the east (I-13-H) was combined because the structures are located within a few miles of each other. Four control points were set at strategic points along the highway for each bridge. The GPS control survey consisted of these eight points along with four found NGS benchmarks. A level loop was performed for each bridge area and the control monuments were checked with a total station to verify the results of the GPS survey.

The deeds from the CDOT "FAP 158-E DIV 1" project were used to draw up the existing highway ROW and establish the existing ROW lines along Hwy 24. This project is the latest set of ROW plans in this area. The FAP 158-E DIV 1 ROW plan set does **not** match the deeds for this project in most of the locations along the survey limits. The found ROW monuments, fence lines and property pins seem to match the deeds in this area. The only spot where the fence line does not match anything is the area in the NE 1/4 of Section 14, on the north side of the highway. I could not find any original ROW deeds for this location. The ROW plans show a ROW distance of 50 feet from the centerline to the north ROW line. The fence along the north side is approximately 100 feet from the centerline. All of ownerships in this survey area are described by aliquot parts. No aliquot corners were found. The section lines were created by the ROW plan information, ROW monuments and property pins. Further investigation will be needed to establish the true section and ownership lines and the correct ROW width in the NE 1/4 of Section 14.

I-13-H – US 24 @ Mile Post 229.47

(Project Code 23559)

This drainage structure is an old timber bridge built in the 1930's. It is too small to accommodate today's traffic. It is located over a dry channel with intermittent flows that was once used as a cattle pass but now has different landowners on each side of the highway. It is located on a fairly busy highway with the

Highway 285 Junction three miles to the west. This bridge was surveyed to the requested survey limits. We were able to obtain some form of Permission to Enter from all owners in the survey limits.

The control survey for this bridge and the bridge to the west (I-13-G) was combined because the structures are located within a few miles of each other. Please see I-13-G for details.

The deeds from the CDOT "FAP 158-E DIV 1" project were used to draw up the existing highway ROW and establish the existing ROW lines along Hwy 24. This project is the latest set of ROW plans this area. The FAP 158-E DIV 1 ROW plan set does **not** match the deeds for this project in a few of the locations along the surveyed area. The found ROW monuments, fence lines and property pins seem to match the deeds in this area. All of ownerships in this survey area are described by aliquot parts. No aliquot corners were found. The section lines were created by the ROW plan information, ROW monuments and property pins. Further investigation will be needed to establish the true section and ownership lines.

I-15-T – US 24 @ Mile Post 271.69 and I-15-AO @ Mile Post 271.90

(Project Code 23558)

These drainage structures were surveyed as one project since they are less than 3000 feet apart from each other. Each one is a large concrete box culvert. They are in poor condition and too small for any additional widening along the highway. Both box culverts handle run-off from the adjoining hillsides and drain into a small creek that runs along the south side of the highway. They have intermittent flows but seem to be wet most of the year. These structures are located on a busy portion of Highway 24 between Divide and Florissant. This area of the highway also has many curves, poor line of sight and steep hillsides. There are many full-time residents in the area and many driveways or cross streets. These structures were surveyed to the requested survey limits within the ROW, but we were unable to survey the full 1,200 feet upstream on I-15-AO. We were not able to get permission to enter for the last 400 feet. We were able to obtain some form of Permission to Enter from all but a couple of the owners along the survey corridor.

The control survey for these two structures was combined because of their location to each other. Six control points were set at strategic points along the highway within the survey limits. The GPS control survey consisted of these six points along with two found NGS monuments. Control point CP 2713's elevation was held fixed and a level loop was performed through the control monuments. The points were then checked with a total station to verify the results of the GPS survey.

The CDOT project PWA 158-F right-of-way plans were used to draw up the existing highway ROW and the found ROW monuments and property pins were used to establish the existing ROW lines along Highway 24. This plan set is the latest set of ROW plans this area. The found ROW monuments, fence lines and property pins seem to match the plans closely in this area. Most of the surrounding properties are located in subdivisions. There are three main subdivisions in this area; Druid Hills, Billups and Barnes, and Paradise Valley Ranch. There are some properties on the NW end of this project that are described by aliquot parts. Only one aliquot corner was found, a 1/16th corner. The section lines were created by the ROW plan information, calls from the survey plats, ROW monuments and property pins. Further investigation will be needed to establish the true section lines and exact lot lines.

I-17-X– US 24 @ Mile Post 295.45**(Project Code 23559)**

This drainage structure is concrete box culvert built in the 1960's. It is located in a cross-over between the east and west bound lanes of US Highway 24 in a steep canyon area. It is too small to accommodate Fountain Creek, which flows through it, during storm events. This creek is normally small in size but has had a couple of large floods in recent years. The structure is located on an extremely busy highway between Colorado Springs and Woodland Park. The survey limits for this structure were adjusted because the creek runs in-between the east and west bound lanes of US 24. The creek channel was surveyed 3,000 feet up and downstream from the box culvert. Only the inside edges of asphalt for the east and westbound lanes were surveyed along with the turn lanes at the cross-over. Nothing outside of the ROW was surveyed. We did **not** obtain any Permissions to Enter and most of the surrounding area is owned by the government.

This structure was also one of the first to be surveyed. It had existing control from a previous CDOT project, NH 0242-056. The existing control points were found and verified for accuracy. A couple of additional control monuments were set near I-17-X and verified for accuracy.

CDOT project F 017-1(13) ROW plans were used to draw up the existing highway right of way. This project is the latest set of ROW plans this area. The right of way lines were established during a previous Farnsworth survey for CDOT. No aliquot corners, row monuments or property pins were found during this survey.

J-14-C – SH 9 @ Mile Post 20.11**Project Code 23558)**

This drainage structure is a timber bridge built in the 1930's. It is too small to accommodate today's traffic. The channel is mainly dry with intermittent flows that was once used as a cattle pass but has a fence on the west side now. It is located on a low volume highway with no nearby towns. This bridge's survey limits were adjusted to accommodate extremely steep side slopes inside and outside the ROW. The roadway was surveyed for 3,000 feet north and south of the bridge. The ROW area was also surveyed to 3,000 feet where possible. Outside of the ROW, the area was only surveyed for 1,500 feet north and south due to the steep slopes. We did not receive any Permission to Enter forms back but got verbal permission from the owner of the NE part of the project. The BLM / US government owns the land on both sides of the highway at the bridge.

The control survey for this bridge and the structure to the south (J-15-G) was combined because the structures are located less than five miles from each other. Four control points were set in strategic points along the highway for each bridge. The GPS control survey consisted of these eight points along with two found NGS monuments. A level loop was performed for each bridge area and the control monuments were checked with a total station to verify the results of the GPS survey.

An exhaustive search was made to find any CDOT right-of-way or construction plans in this area. A couple of old construction plans were found, but neither of them had any ROW information shown on them. Because the surrounding land has always been owned by the BLM, there are no deeds describing or excepting out the highway. The only CDOT right-of-way project found nearby ended one mile north of this area. After discussing this with the CDOT Survey Manager, it was decided that the best way to establish the

existing right of way was to use the physical evidence found in the field along with other CDOT and BLM records. According to the CDOT highway records (“the green book”) the ROW width is 100 feet in this area. The BLM records also show a 100-foot total width. The existing fence lines in these areas are located approximately 50 feet from the centerline of the highway, in most places in the surveyed area. A centerline alignment was established using the surveyed yellow paint line (centerline) on the highway. That alignment was offset by 50 feet on each side to develop a ROW line. These lines seem to match existing fences in most areas along the surveyed corridor. No ROW monuments or section corners were found, but four property pins were found in Section 23. These pins fit the established right-of-way line. The section lines were drawn from GIS and assessor’s maps. Further investigation will be needed to establish the true section lines and exact ownership lines.

J-15-G – SH 9 @ Mile Post 15.83

(Project Code 23558)

This drainage structure is two large, corrugated steel pipes. The pipes are in poor condition and will need to be replaced. Its channel is fairly moist with intermittent flows and is heavily covered with willow bushes. It runs alongside a fairly low volume highway with no towns nearby. This drainage structure’s survey limits were adjusted to accommodate extremely steep side slopes inside and outside the ROW at each end of the survey limits. The roadway was surveyed for 3,000 feet north and south of the bridge. The ROW area was also surveyed to 3,000 feet where possible. Outside of the ROW, the area was only surveyed for 1,500 feet north and south due to the steep slopes. We received one Permission to Enter form back and one verbal permission for the channel north of the highway.

The control survey for this structure and the bridge to the north (J-14-C) was combined because the structures are located within a few miles of each other. Please see J-14-C for more information.

A thorough search was made to find any CDOT right-of-way or construction plans in this area. A single page hand drawn Ownership map from project SP 14-9-502 was the only record found for this area. No other records for this project were found at the CDOT Region 2 or Headquarters offices or in their data bases. The ownership maps alignment does not match a portion of the highway within the survey limits. Something must have changed during the construction of the highway or there was a mistake on drawing because the alignment shown on the plan does not match the existing roadway alignment after Station 125+64.80 (approximately the center of Section 7). The plan alignment after that station places the roadway 200 feet to the west of its existing alignment. There is no physical evidence that the roadway was ever 200 feet to the west. The ownership map shows a 100-foot ROW, 50 feet on each side of the highway. The CDOT highway records (“the green book”) show that the ROW width is 100 feet in this area and the BLM records state the same. There is a platted subdivision (The Ranches at Glitter Gulch) in the NW quarter of Section 7, that borders the highway. The subdivision also shows the ROW width to be 100 feet. Since the subdivision line parallels the center line of the existing roadway so well, it is my assumption that the painted centerline was used to establish a centerline alignment and the existing ROW line was offset 50 feet from it.

After discussing this with the CDOT Survey Manager, we decided the best way to establish the existing right of way was to use the Ownership map for the south portion of the project (up to station 125+64.80), use the physical evidence found in the field along with other CDOT and BLM records for the center section and

curve, and the Glitter Gulch subdivision plat for the north end of the project. The existing fence lines in the surveyed limits are located approximately 50 feet from the centerline of the highway, in most places. We established a centerline alignment using the surveyed yellow paint line (centerline) on the highway from station 125+64.80, just south of a large curve, to the quarter section line at the center of section 7. North of the quarter section line we used the centerline alignment and ROW as shown on the Glitter Gulch plat. These established right-of-way lines seem to match existing fences in most of the areas along the corridor. No ROW monuments were found but the center of section 7 and a couple other aliquot corners were found, along with multiple property pins found in NW quarter of Section 7. This evidence fits the right-of-way lines that were established. Most of the section lines were drawn from distances and bearings listed on the CDOT ownership map. Further investigation will be needed to establish the true section lines and exact ownership lines.

I, Lorelei A. Ward, a professional land surveyor licensed in the State of Colorado, do hereby state to the Stanley Group and the Colorado Department of Transportation that this survey report was prepared and the field survey was performed under my responsible charge and is based upon my knowledge, information and beliefs in accordance with applicable standards of practice defined by the Colorado Department of Transportation publications. This statement is not a guaranty or warranty, either expressed or implied.



Colorado PLS No. 34982

January 15, 2021

Date

Sheet Revisions			Sheet Revisions		
Date	Description	Initials	Date	Description	Initials

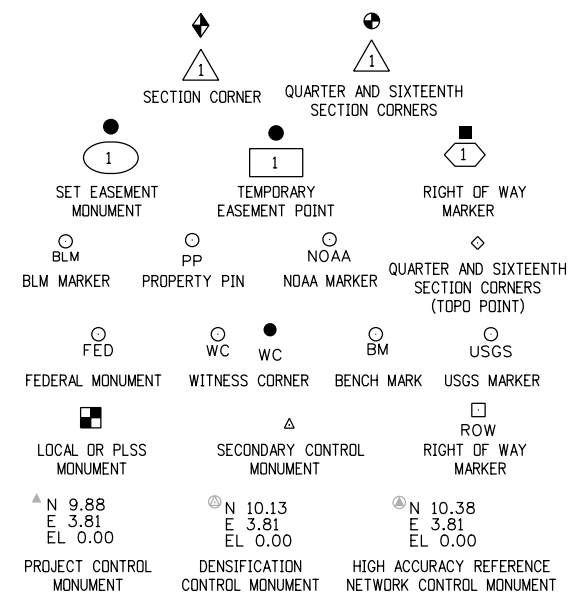
Project/Land Survey Control			
Title Sheet			
Project Number: FBR R200-266			
Project Location: BRIDGE REPLACEMENT			
G-12-C - ST HIGHWAY 9			
Project Code:	Last Mod. Date	Subset	Sheet No.
23558	11-19-2020	3.01 of 3.04	3.01

DEPARTMENT OF TRANSPORTATION STATE OF COLORADO

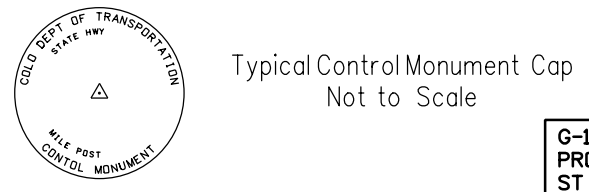
PROJECT/LAND SURVEY CONTROL DIAGRAM

State Highway 9
 Sections 1 & 12, Township 9 South, Range 78 West
 of the 6th Principal Meridian
 County of Park

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



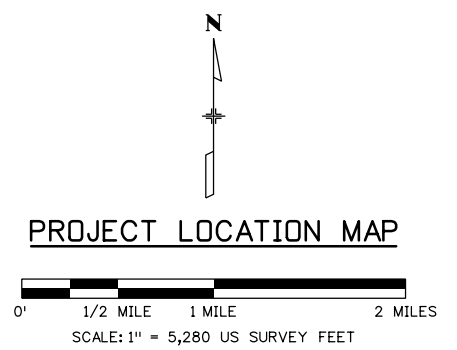
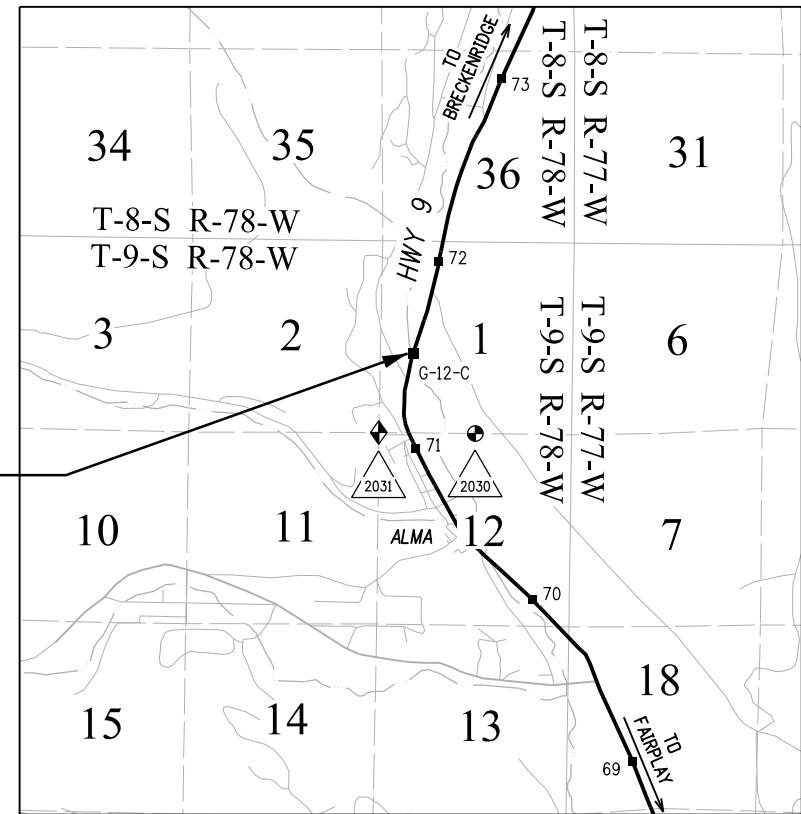
Note: For a complete listing of symbolology used within this set of plans, please refer to the M-100-1 Standard Symbols of the Colorado Department of Transportation M&S Standards Publication. Existing features are shown as screened weight (gray scale). Proposed or new features are shown as full weight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



▲ CM-MP - ControlPoint Monuments set by CDOT. They are CDOT Type II 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/Land Survey 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.



This control is part of a larger control network created for CDOT Project STA 0091-026. The control points were verified for accuracy.

Basis of Bearings: Bearings used in the calculation of coordinates are based on a grid bearing of N17°15'03"E from Control Point 7130 (a CDOT Type II Control Monument - MP 71.30) to Control Point 7140 (a CDOT Type II Control Monument - MP 71.40). Both monuments are marked appropriately for their milepost location. Coordinates are based on existing control established by Colorado Department of Transportation Project No. STA 0091-026 and were verified for this project.

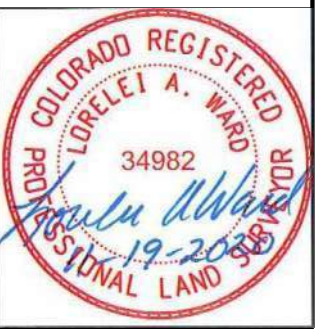
Basis of Elevations: Project elevations are based on NAVD vertical datum. A bench loop was run starting at NSRS benchmark F 302 (3166.066 m). All control monuments on this project were tied through a bench loop. NSRS F 302 is a first order, class 2 benchmark. Elevations are based on existing vertical control established by the Colorado Department of Transportation Project No. STA 0091-026 and were verified for this project.

COORDINATE DATUM: Project coordinates are ground modified Colorado State Plane Central Zone (0502) NAD '83/(1992) coordinates. The combined elevation/scale factor used to modify coordinates from state plane to project coordinates is 1.000555028. The resulting project coordinates are truncated by 100,000 meters in the Northing and 200,000 meters in the Easting after converting from state plane coordinates to project coordinates. The NSRS is based on the NAD '83 (1992) datum.

Project Coordinates Northing US Survey Feet =
 (State Plane Coordinate Northing(m) * 1.000555028 - 100,000m) * (3937ft/1200m).
 Project Coordinates Easting US Survey Feet =
 (State Plane Coordinate Easting(m) * 1.000555028 - 200,000m) * (3937ft/1200m).

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/LAND SURVEY 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 that based upon my knowledge, information and belief, research, calculations and evaluation of the survey evidence were performed and this Project/Land Survey Control Diagram prepared under my responsible charge 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



11/30/2020 10:11:59 AM J:\2020\0200567.00 - CDOT Bridge Bundles\23558 ROW_Survey\G12C - Hwy 9 mp 71.445\Drawings\23558SURV_G-12-C_PLSheet.dgn

Sheet Revisions		
Date	Description	Initials

Sheet Revisions		
Date	Description	Initials

Project/Land Survey Control Diagram			
Coordinate Tables			
Project Number: FBR R200-266			
Project Location: BRIDGE REPLACEMENT			
G-12-C - ST HIGHWAY 9			
Project Code:	Last Mod. Date	Subset	Sheet No.
23558	11-19-2020	3.02 of 3.04	3.02

GEODETTIC COORDINATE TABLE



Point No	Geodetic Coordinates NAD-83(2011)		Elip Height (NAVD88)	Ortho Height (NAVD88)	Mapping Angle	Grid Scale Factor	NAD 83(2011) Zone 0502		Description
	Latitude(N)	Longitude(W)					SP Northing(m)	SP Easting(m)	
7030	N39°16'44.83183"	W106°03'27.81544"	10,274.662	10,317.19	-0°21'06.3"	1.000004380	465,441.945	866,281.538	CDOT TYPE II MON - "CM - MP 70.30"
7040	N39°16'49.34864"	W106°03'32.81186"	10,283.431	10,325.95	-0°21'09.5"	1.000004029	465,581.965	866,162.650	CDOT TYPE II MON - "CM - MP 70.40"
7055	N39°16'53.85919"	W106°03'39.75644"	10,309.899	10,352.41	-0°21'13.8"	1.000002832	465,722.081	865,997.077	CDOT TYPE II MON - "CM - MP 70.50"
7060	N39°16'57.82306"	W106°03'43.03965"	10,311.134	10,353.64	-0°21'15.9"	1.000002834	465,844.800	865,919.150	CDOT TYPE II MON - "CM - MP 70.60"
7075	N39°17'04.40049"	W106°03'47.33166"	10,314.740	10,357.24	-0°21'18.6"	1.000002763	466,048.264	865,817.549	CDOT TYPE II MON - "CM - MP 70.75"
7090	N39°17'10.54265"	W106°03'52.43111"	10,334.988	10,377.48	-0°21'21.8"	1.000001891	466,238.426	865,696.521	CDOT TYPE II MON - "CM - MP 70.90"
7100	N39°17'15.61908"	W106°03'54.95020"	10,357.553	10,400.04	-0°21'23.4"	1.000000892	466,395.342	865,637.128	CDOT TYPE II MON - "CM - MP 71.00"
7110	N39°17'19.22382"	W106°03'58.20182"	10,372.968	10,415.45	-0°21'25.5"	1.000000212	466,506.986	865,559.902	CDOT TYPE II MON - "CM - MP 71.10"
7130	N39°17'28.84237"	W106°03'59.93864"	10,364.705	10,407.18	-0°21'26.6"	1.000000761	466,803.850	865,520.133	CDOT TYPE II MON - "CM - MP 71.30"
7140	N39°17'34.27082"	W106°03'57.81695"	10,351.770	10,394.24	-0°21'25.2"	1.000001466	466,970.929	865,572.015	CDOT TYPE II MON - "CM - MP 71.40"

PROJECT COORDINATE TABLE



Point No	Project Coordinates		Elev(ft) (NAVD88)	Description
	Northing(ft)	Easting(ft)		
2007	1,205,536.32	2,185,364.38	10,387.19	3.5" BRASS CAP IN CONC HEADWALL "USC&GS BENCH MARK - F50"
7030	1,199,801.66	2,187,536.14	10,317.19	CDOT TYPE II MON - "CM - MP 70.30"
7040	1,200,261.30	2,187,145.87	10,325.95	CDOT TYPE II MON - "CM - MP 70.40"
7055	1,200,721.25	2,186,602.35	10,352.41	CDOT TYPE II MON - "CM - MP 70.50"
7060	1,201,124.10	2,186,346.54	10,353.64	CDOT TYPE II MON - "CM - MP 70.60"
7075	1,201,792.00	2,186,013.02	10,357.24	CDOT TYPE II MON - "CM - MP 70.75"
7090	1,202,416.24	2,185,615.73	10,377.48	CDOT TYPE II MON - "CM - MP 70.90"
7100	1,202,931.34	2,185,420.76	10,400.04	CDOT TYPE II MON - "CM - MP 71.00"
7110	1,203,297.83	2,185,167.26	10,415.45	CDOT TYPE II MON - "CM - MP 71.10"
7130	1,204,272.33	2,185,036.71	10,407.18	CDOT TYPE II MON - "CM - MP 71.30"
7140	1,204,820.79	2,185,207.02	10,394.24	CDOT TYPE II MON - "CM - MP 71.40"
7180	1,206,860.25	2,185,694.44	10,416.02	CDOT TYPE II MON - "CM - MP 71.80"
7205	1,208,659.74	2,186,054.02	10,458.28	CDOT TYPE II MON - "CM - MP 72.05"

FOUND BOUNDARY MONUMENT COORDINATE TABLE



Point No.	Northing(ft)	Easting(ft)	Description
2001	1,208,684.52	2,186,044.93	#4 REBAR YPC - FREESE LS 4392
2002	1,208,682.76	2,186,147.27	#4 REBAR YPC - FREESE LS 4392
2004	1,205,892.14	2,185,365.54	1" IRON PIPE
2006	1,206,692.52	2,185,686.83	1" IRON PIPE
2008	1,203,930.13	2,184,988.20	1.5" ALUM CAP ON #5 REBAR - LS 11944
2009	1,203,535.32	2,185,050.53	1.5" ALUM CAP - ILLEGIBLE
2010	1,203,209.12	2,185,093.80	1.5" ALUM CAP - PLS 15296
2011	1,203,254.18	2,185,183.26	YPC - BURNETT 11944
2013	1,203,074.85	2,185,286.08	1.5" ALUM CAP - BURNETT LS 11944
2014	1,202,886.84	2,185,379.74	#5 REBAR YPC - ROY GEORGE LS 33192
2015	1,202,940.57	2,185,352.94	1.5" ALUM CAP - BURNETT LS 11944
2016	1,202,490.81	2,185,571.72	YPC - ROY GEORGE LC 33192
2018	1,203,383.14	2,185,245.22	2" ALUM CAP ON #5 REBAR - CROW HILL PLS 86960
2021	1,203,667.96	2,185,154.10	1" IRON PIPE
2022	1,205,313.93	2,185,358.41	1.5" ALUM CAP - BURNETT 11944
2032	1,203,391.12	2,184,464.35	1.5" ALUM CAP - ILLEGIBLE
2033	1,203,543.80	2,185,051.89	#5 REBAR BROKEN - BENT

FOUND ROW MONUMENT COORDINATE TABLE



Point No.	Northing(ft)	Easting(ft)	Description
2000	1,208,681.40	2,186,044.28	3" BRASS CAP - ST HWY DEPT STA 230+25
2003	1,208,679.98	2,186,146.73	3" BRASS CAP IN 6" DIAM CONCRETE COLLAR
2017	1,203,392.64	2,185,241.83	3.25" BRASS CAP - ST HWY DEPT STA 284+59
2019	1,203,247.07	2,185,306.51	3.25" ALUM CAP - CDOT PT 845 ROW PLS 17488
2020	1,204,497.87	2,185,163.64	3.25" ALUM CAP - CDOT PT 853 PLS 17488

FOUND ALIQUOT MONUMENT COORDINATE TABLE



Point No.	Northing(ft)	Easting(ft)	Description
2031	1,203,392.73	2,184,323.44	BLM BRASS CAP - SEC COR - S2-S1 / S 11-S12 - 1960
2030	1,203,365.93	2,186,985.76	BLM BRASS CAP - 1/4 COR - S1-S12 - 1960

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Sheet Revisions

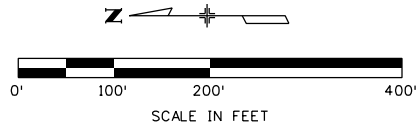
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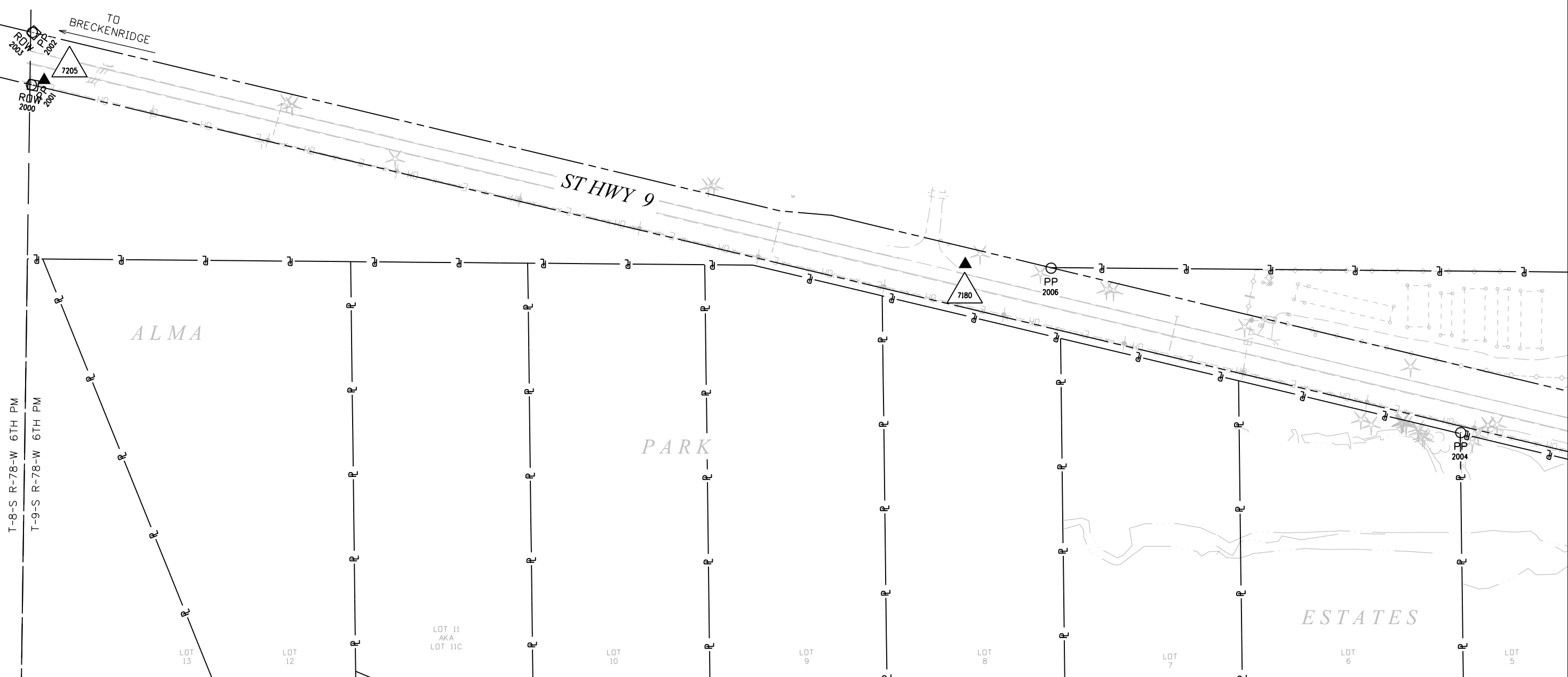
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TOWNSHIP LINE PROTRACTED



SECTION 1
T-9-S R-78-W
6TH PM





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Sheet Revisions

Date	Description	Initials

Sheet Revisions

Date	Description	Initials

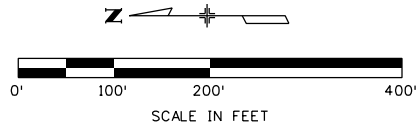


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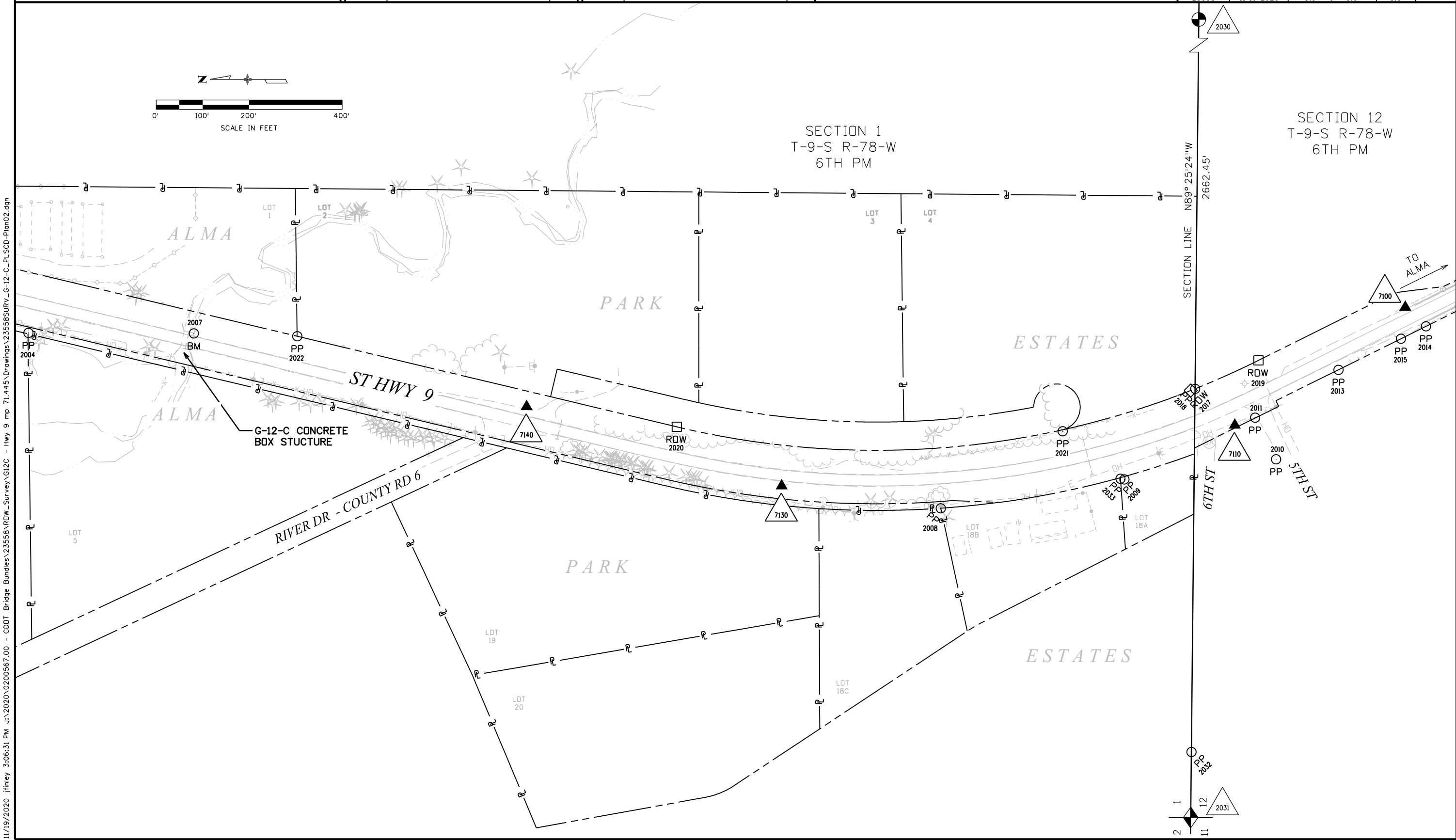
Project/Land Survey Control Diagram

Plan Sheet

Project Number: FBR R200-266			
Project Location: BRIDGE REPLACEMENT			
G-12-C - ST HIGHWAY 9			
Project Code:	Last Mod. Date	Subset	Sheet No.
23558	11-19-2020	3,04 of 3,04	3,04



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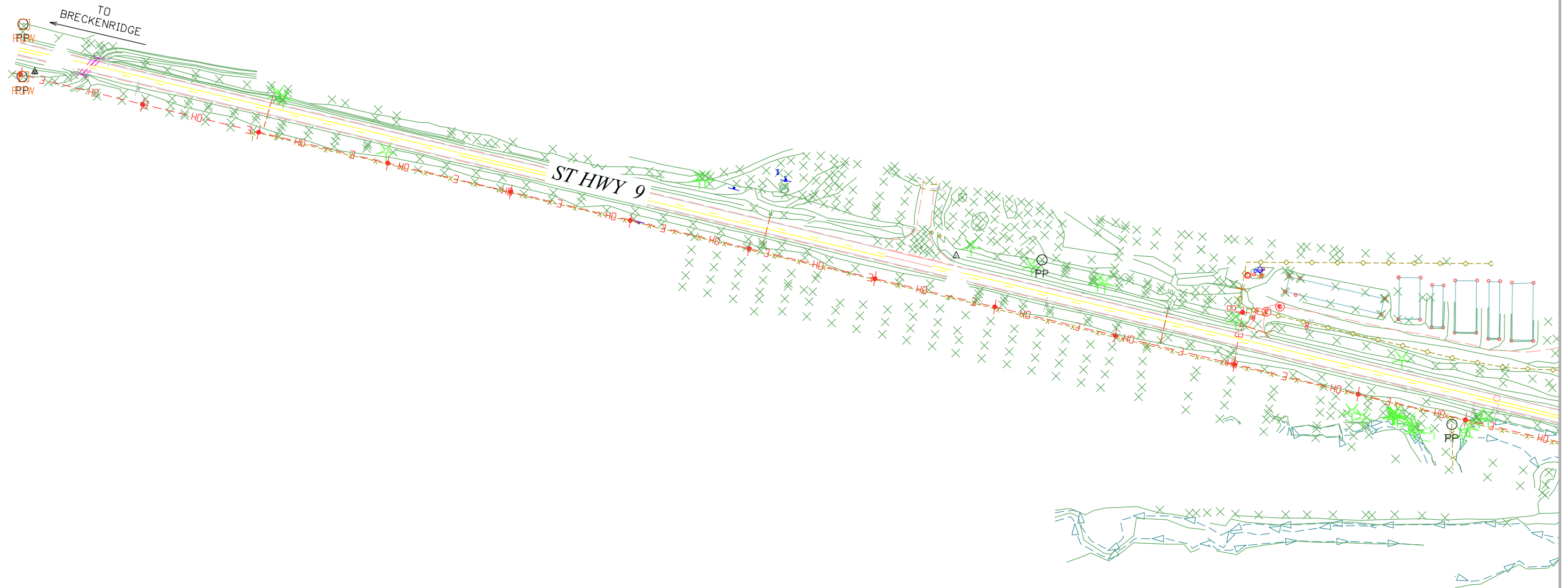
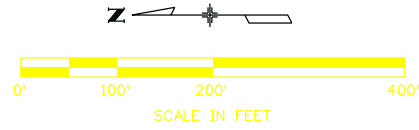
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Sheet Revisions

Date	Description	Initials

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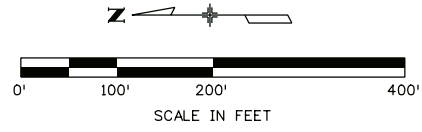
Sheet Revisions

Date	Description	Initials

Sheet Revisions

Date	Description	Initials

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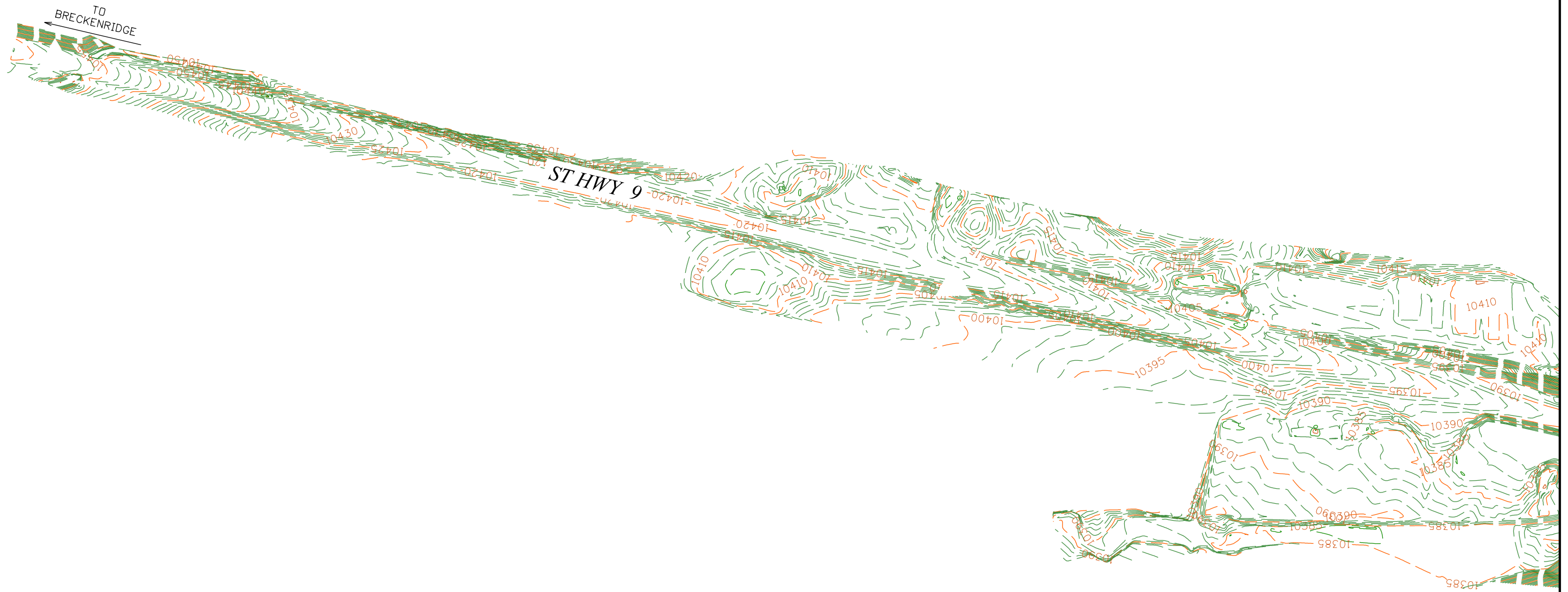
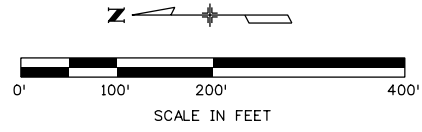
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Date	Description	Initials

Sheet Revisions

Date	Description	Initials

Project Number: FBR R200-266			
Project Location: BRIDGE REPLACEMENT			
G-12-C - ST HIGHWAY 9			
Project Code:	Last Mod. Date:	Subset	Sheet No.
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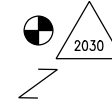
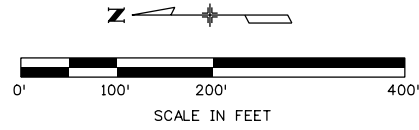
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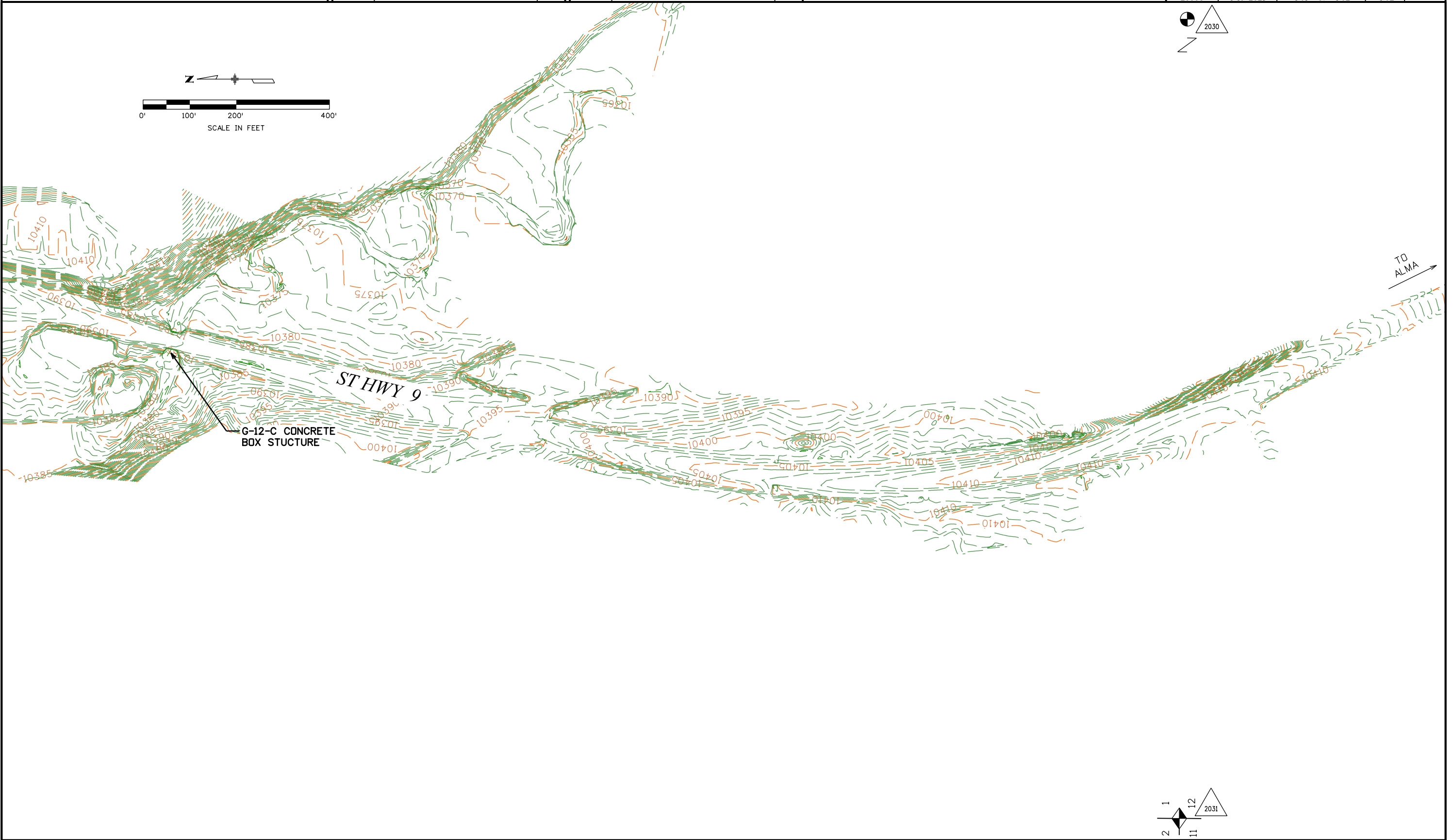
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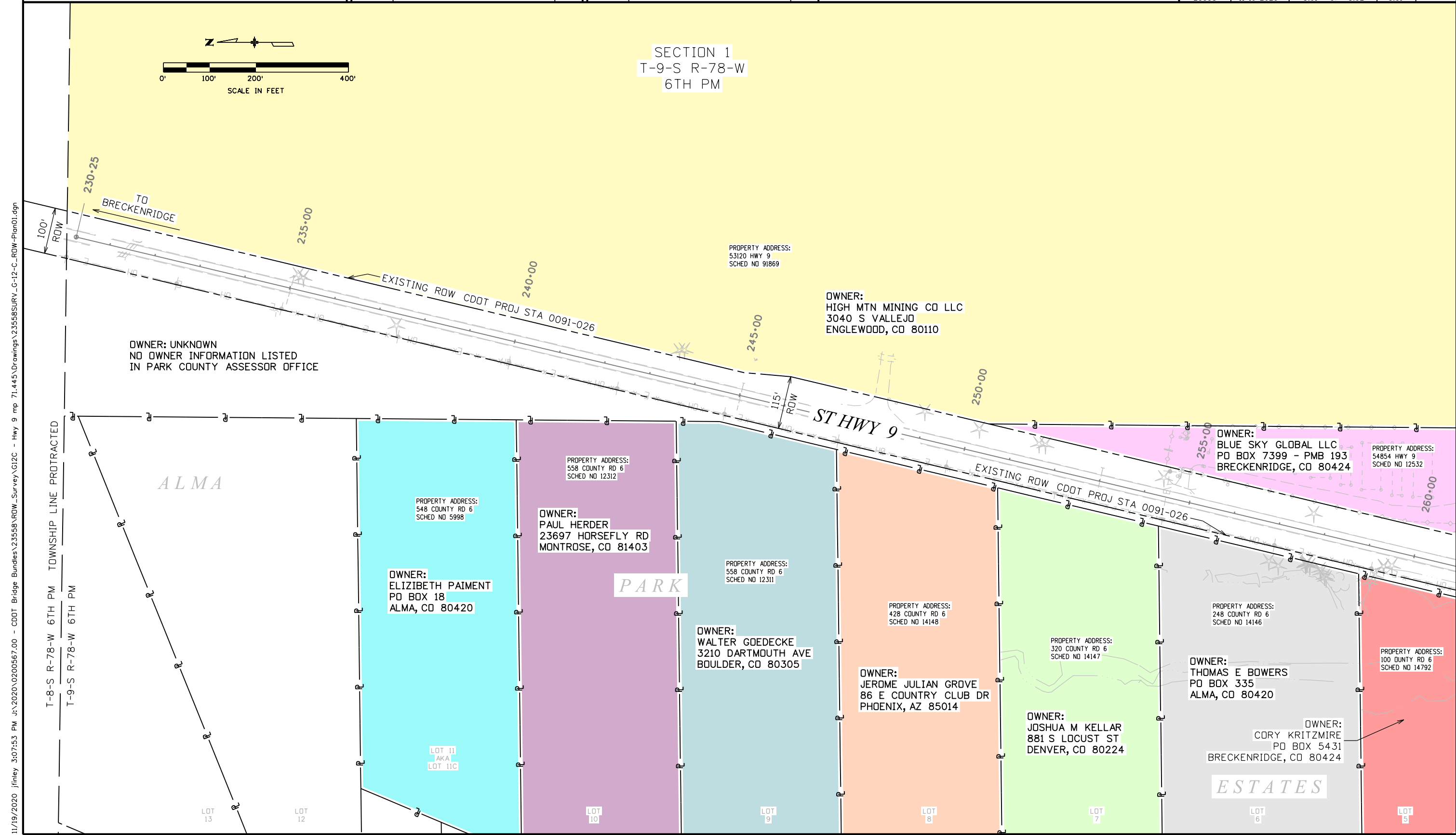
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Sheet Revisions		
Date	Description	Initials

Sheet Revisions		
Date	Description	Initials

Right-of-Way Plans			
Ownership Map			
Project Number: FBR R200-266			
Project Location: BRIDGE REPLACEMENT			
G-12-C - ST HIGHWAY 9			
Project Code:	Last Mod. Date:	Subset:	Sheet No.:
23558	11-19-2020	8.01 of 8.02	8.01





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Region 2

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Sheet Revisions

Date	Description	Initials

Sheet Revisions

Date	Description	Initials

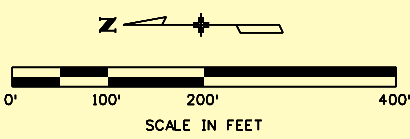


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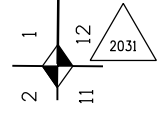
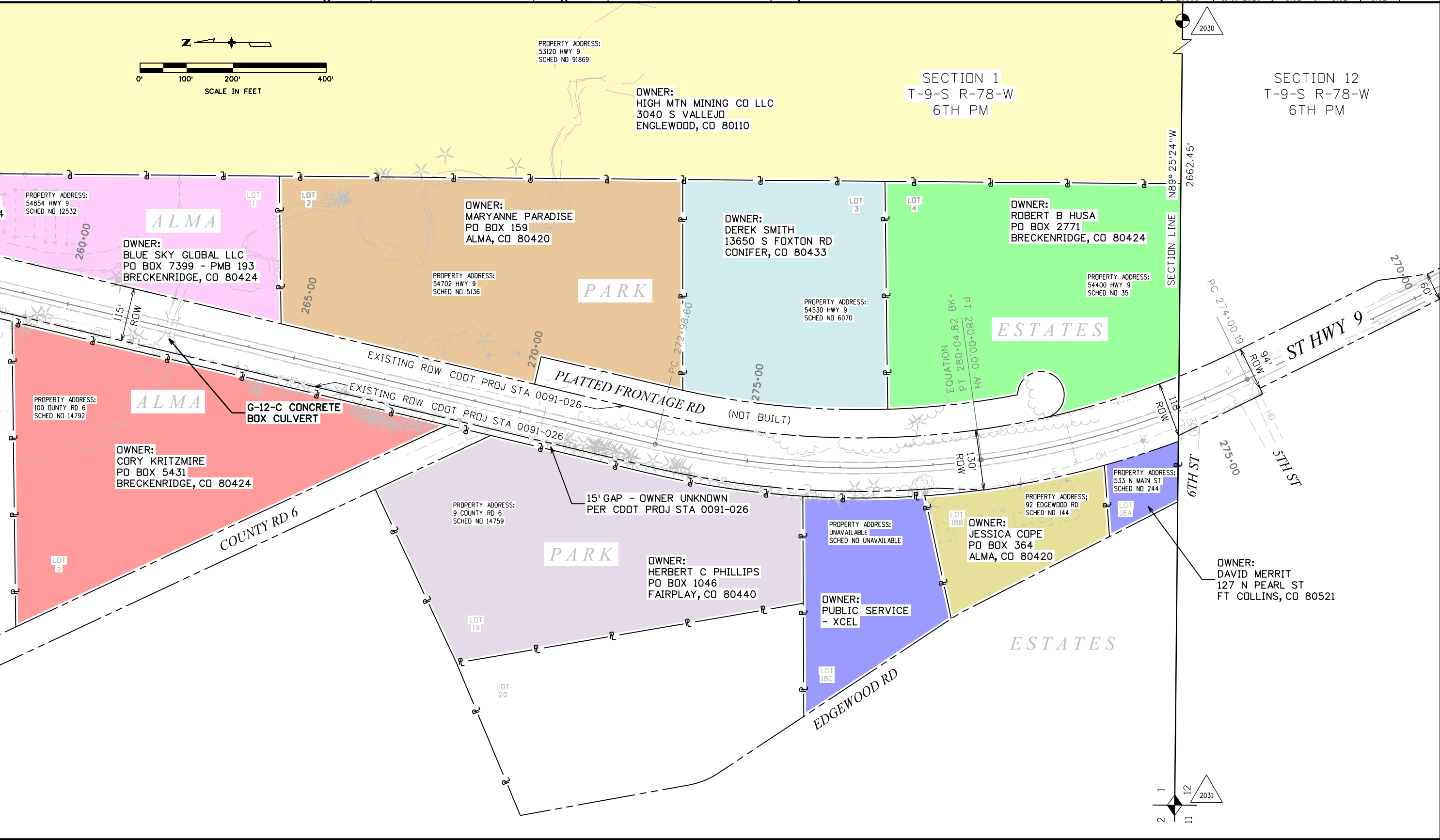
Right-of-Way Plans

Ownership Map

Project Number:	FBR R200-266		
Project Location:	BRIDGE REPLACEMENT		
G-12-C - ST HIGHWAY 9			
Project Code:	Last Mod. Date	Subset	Sheet No.
23558	11-19-2020	8.02 of 8.02	8.02



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Sheet Revisions

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Sheet Revisions

Date	Description	Initials



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Project/Land Survey Control Diagram

Title Sheet			
Project Number: FBR R200-266			
Project Location: BRIDGE REPLACEMENT			
H-13-N - ST HIGHWAY 24			
Project Code:	Last Mod. Date	Subset	Sheet No.
23558	10-22-2020	3.01 of 3.04	3.01

DEPARTMENT OF TRANSPORTATION STATE OF COLORADO

PROJECT / LAND SURVEY CONTROL DIAGRAM

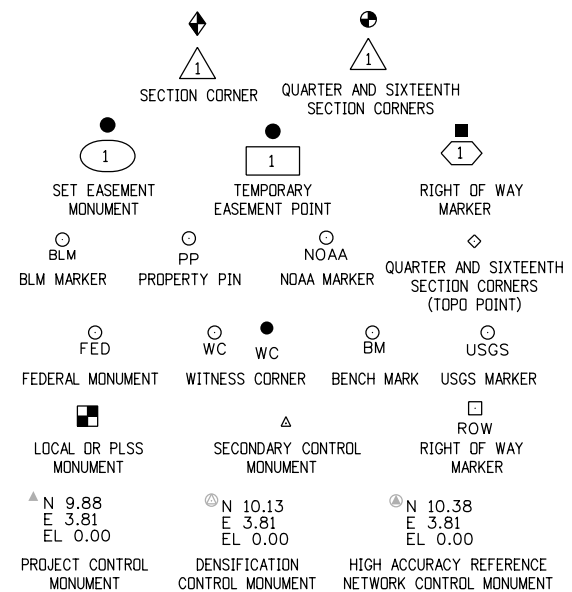
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Sections 3, 4 & 9
Township 12 South, Range 75 West
of the 6th Principal Meridian
Park County, Colorado

SHEET NO.

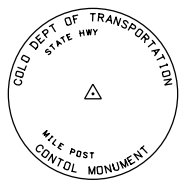
3.01-3.01
3.02-3.02
3.03-3.04

INDEX OF SHEETS

(1) Title Sheet
(1) Coordinate Tables
(2) Plan Sheet
(4) Total Sheets



Note: For a complete listing of symbolology 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.



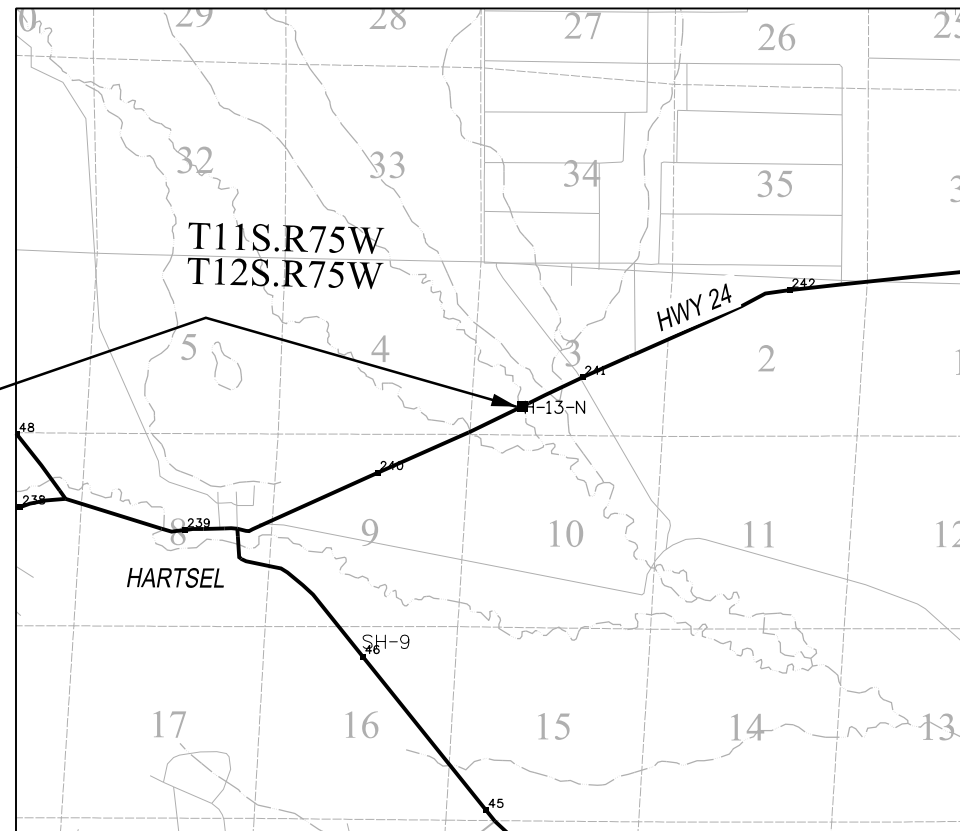
Typical Control Monument Cap
Not to Scale

H-13-N
ST HWY 24 - MP 240.686

▲ CM-MP - Control Point Monuments set by CDOT. They are CDOT Type 2 monuments, a 3 1/4" 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



SCALE: 1" = 5,280 US SURVEY FEET

The control for this project is part of a larger control network established for CDOT for Project NH 0242-048. The control was checked for accuracy.

Basis of Bearings: Bearings used in the calculations of coordinates are based on a grid bearing of N71°10'11"E from CM-MP 2405 to CM-MP 2408. Both monuments are CDOT Type II, marked appropriately for their milepost location and control position. The survey data was obtained from a Global Positioning System (GPS) survey based on the Colorado High Accuracy Reference Network (CHARN), 2nd CDOT Project 0242-035.

Basis of Elevations: Project elevations are based on Bench Mark 70 G, PID: KK0935, a standard bench mark disk set on top of a concrete monument, with a NAVD 88 elevation of 8868.52ft. 70 G is a second order class 0 benchmark.

COORDINATE DATUM: Project coordinates are modified Colorado State Plane Central Zone NAD '83/(92) coordinates. The combined elevation/scale factor used to modify the coordinates from state plane to project coordinates is 1.000485004. The CHARN is based on the NAD '83(92) datum.
Project Coordinates Northing US Survey Feet = (State Plane Coordinate Northing(m) * 1.000485004) * (3937ft/1200m).
Project Coordinates Easting US Survey Feet = (State Plane Coordinate Easting(m) * 1.000485004) * (3937ft/1200m).

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



Sheet Revisions		
Date	Description	Initials

Sheet Revisions		
Date	Description	Initials

Project/Land Survey Control Diagram			
Coordinate Tables			
Project Number: FBR R200-2666			
Project Location: BRIDGE REPLACEMENT			
H-13-N			
Project Code:	Last Mod. Date	Subset	Sheet No.
23558	10-23-2020	3.02 of 3.04	3.02



Point No.	Geodetic Coordinates NAD-83(92) (CHARN)		Elip Height (NAVD88)(m)	Ortho Height (m)	Mapping Angle	Grid Scale Factor	NAD 83(92) Zone 0502		Description
	Latitude(N)	Longitude(W)					SP Northing(m)	SP Easting(m)	
	2389	39°01'15.70125"N					105°48'04.28806"W	2,693.82	
2390	39°01'15.64684"N	105°47'59.95900"W	2,692.01	2,705.80	-0°11'21"	0.999936880	436,684.32	888,424.27	SET 3.25" ALUM CDOT TYPE 2 MONUMENT
2391	39°01'16.61129"N	105°47'51.43524"W	2,689.01	2,702.69	-0°11'16"	0.999936874	436,713.39	888,629.40	SET 3.25" ALUM CDOT TYPE 2 MONUMENT
2392	39°01'16.12490"N	105°47'43.26867"W	2,688.93	2,702.66	-0°11'11"	0.999936877	436,697.75	888,825.79	SET 3.25" ALUM CDOT TYPE 2 MONUMENT
2393	39°01'19.13977"N	105°47'35.22811"W	2,688.03	2,701.76	-0°11'06"	0.999936857	436,790.09	889,019.50	SET 3.25" ALUM CDOT TYPE 2 MONUMENT
2403	39°01'40.28501"N	105°46'32.62930"W	2,678.96	2,692.75	-0°10'26"	0.999936721	437,437.40	890,527.22	SET 3.25" ALUM CDOT TYPE 2 MONUMENT
2404	39°01'40.94115"N	105°46'32.97706"W	2,678.98	2,692.78	-0°10'26"	0.999936717	437,457.66	890,518.91	SET 3.25" ALUM CDOT TYPE 2 MONUMENT
2405	39°01'45.94631"N	105°46'19.01864"W	2,676.40	2,690.19	-0°10'17"	0.999936687	437,610.98	890,855.10	SET 3.25" ALUM CDOT TYPE 2 MONUMENT
2406	39°01'45.51553"N	105°46'18.79196"W	2,677.67	2,691.47	-0°10'17"	0.999936689	437,597.68	890,860.51	SET 3.25" ALUM CDOT TYPE 2 MONUMENT
2410	39°01'52.91997"N	105°45'57.51998"W	2,678.67	2,692.47	-0°10'04"	0.999936645	437,824.49	891,372.80	SET 3.25" ALUM CDOT TYPE 2 MONUMENT
2408	39°01'48.29111"N	105°46'10.28832"W	2,675.51	2,689.25	-0°10'12"	0.999936673	437,682.66	891,065.29	SET 3.25" ALUM CDOT TYPE 2 MONUMENT
200	39°01'19.24384"N	105°47'35.26388"W	2,688.05	2,701.84	-0°11'06"	0.999936856	436,793.30	889,018.65	#5 REBAR W/RCP "FARNSWORTH CONTROL"
70G	39°01'18.51076"N	105°47'44.96539"W	2,689.34	2,703.13	-0°11'12"	0.999936861	436,771.45	888,785.22	USGS BRASS DISC IN CONCRETE
P302	39°13'57.62520"N	105°59'09.52753"W	3,008.15	3,021.26	-0°18'23"	0.999938541	460,250.29	872,444.15	USC&GS BRASS DISC IN CONCRETE
V176	39°01'50.35114"N	105°29'26.88512"W	2,755.12	2,768.87	0°00'21"	0.999936661	437,711.61	915,198.27	USC&GS BRASS DISC IN CONCRETE
V288	38°51'11.19790"N	105°39'08.58540"W	2,803.97	2,817.89	-0°05'46"	0.999945221	418,014.06	901,174.76	USC&GS BRASS DISC IN ROCK



Point No.	Project Coordinates		Elev(ft) (NAVD88)	Description
	Northing(ft)	Easting(ft)		
2389	1,433,389.97	2,915,843.85	8,883.21	SET 3.25" ALUM CDOT TYPE 2 MONUMENT
2390	1,433,383.34	2,916,185.63	8,877.27	SET 3.25" ALUM CDOT TYPE 2 MONUMENT
2391	1,433,478.74	2,916,858.95	8,867.08	SET 3.25" ALUM CDOT TYPE 2 MONUMENT
2392	1,433,427.40	2,917,503.59	8,866.99	SET 3.25" ALUM CDOT TYPE 2 MONUMENT
2393	1,433,730.50	2,918,139.42	8,864.03	SET 3.25" ALUM CDOT TYPE 2 MONUMENT
2403	1,435,855.26	2,923,088.40	8,834.25	SET 3.25" ALUM CDOT TYPE 2 MONUMENT
2404	1,435,921.75	2,923,061.14	8,834.33	SET 3.25" ALUM CDOT TYPE 2 MONUMENT
2405	1,436,425.03	2,924,164.65	8,825.86	SET 3.25" ALUM CDOT TYPE 2 MONUMENT
2406	1,436,381.38	2,924,182.41	8,830.04	SET 3.25" ALUM CDOT TYPE 2 MONUMENT
2410	1,437,125.85	2,925,863.96	8,833.43	SET 3.25" ALUM CDOT TYPE 2 MONUMENT
2408	1,436,660.31	2,924,854.58	8,822.99	SET 3.25" ALUM CDOT TYPE 2 MONUMENT
200	1,433,741.04	2,918,136.63	8,864.08	#5 REBAR W/RCP "FARNSWORTH CONTROL"
70G	1,433,669.33	2,917,370.41	8,868.52	USGS BRASS DISC IN CONCRETE



Point No.	FOUND BOUNDARY MONUMENT COORDINATE TABLE		Description
	Northing(ft)	Easting(ft)	
5100	1,437,484.89	2,926,412.45	FND CDOH BRASS CAP IN CONC. STA1466+40.9
5101	1,437,492.13	2,926,188.87	FND CDOH BRASS CAP IN CONC. STA1464+40.7
5102	1,437,658.64	2,926,789.63	FND CDOH BRASS CAP IN CONC. STA1470+56.3
5103	1,437,316.74	2,926,405.89	FND CDOH BRASS CAP IN CONC. STA1465+65
5104	1,437,037.89	2,925,920.65	FND CDOH BRASS CAP IN CONC. STA1760+06.6
5105	1,437,039.40	2,925,685.56	FND CDOH BRASS CAP IN CONC. STA1757+93.4
5106	1,437,085.58	2,925,784.90	1" YPC BURNETT PLS 11944
5107	1,437,770.67	2,927,343.29	FND CDOH BRASS CAP IN CONC. STA1476+06.5
5108	1,437,662.96	2,927,157.09	FND CDOH BRASS CAP IN CONC. STA1473+92
5109	1,437,644.67	2,927,117.90	FND CDOH BRASS CAP IN CONC. STA1473+48.7
5110	1,437,507.45	2,926,819.82	1" ALUM CAP +0.3 ABOVE GRADE
5111	1,435,900.49	2,922,975.56	1" ALUM CAP +0.3 ABOVE GRADE
5112	1,437,310.26	2,925,795.02	FND CDOH BRASS CAP IN CONC. STA 1760+06.6



Sheet Revisions

Date	Description	Initials

Sheet Revisions

Date	Description	Initials

SE QUARTER SECTION 4

SW QUARTER SECTION 3

NE QUARTER SECTION 9

SW QUARTER SECTION 10

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5111
1" ALUM CAP
+0.3 ABOVE GRADE

2404
3.25" ALUM CDDT
TYPE 2 MONUMENT
N 1435921.75
E 2923061.14
EL 8834.33

2403
3.25" ALUM CDDT
TYPE 2 MONUMENT
N 1435855.26
E 2923088.40
EL 8834.25

2405
3.25" ALUM CDDT
TYPE 2 MONUMENT
N 1436425.03
E 2924164.65
EL 8825.86

2406
3.25" ALUM CDDT
TYPE 2 MONUMENT
N 1436381.38
E 2924182.41
EL 8830.04

2408
3.25" ALUM CDDT
TYPE 2 MONUMENT
N 1436660.31
E 2924854.58
EL 8822.99

H-13-M BRIDGE

H-13-N BRIDGE

ST HWY 24

EXISTING ROW CDDT PROJECT
PWA 158-E DIV2

TO HARTSEL

APPROX. SECTION LINE

APPROX. SECTION LINE

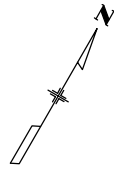
MATCH LINE

MATCH LINE

MIDDLE FORK OF THE SOUTH PLATTE RIVER



SCALE IN FEET





Sheet Revisions

Date	Description	Initials

Sheet Revisions

Date	Description	Initials

ENGINEERS
ARCHITECTS
SURVEYORS
SCIENTISTS

Farnsworth
GROUP

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Project/Land Survey Control Diagram

Plan Sheet

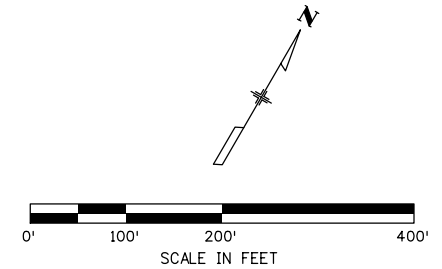
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Project Location: BRIDGE REPLACEMENT			
H-13-N - US HIGHWAY 24			
Project Code:	Last Mod. Date:	Subset:	Sheet No.:
23558	11-05-2020	3.04 of 3.04	3.04

T-12-S R-75-W
6TH PM

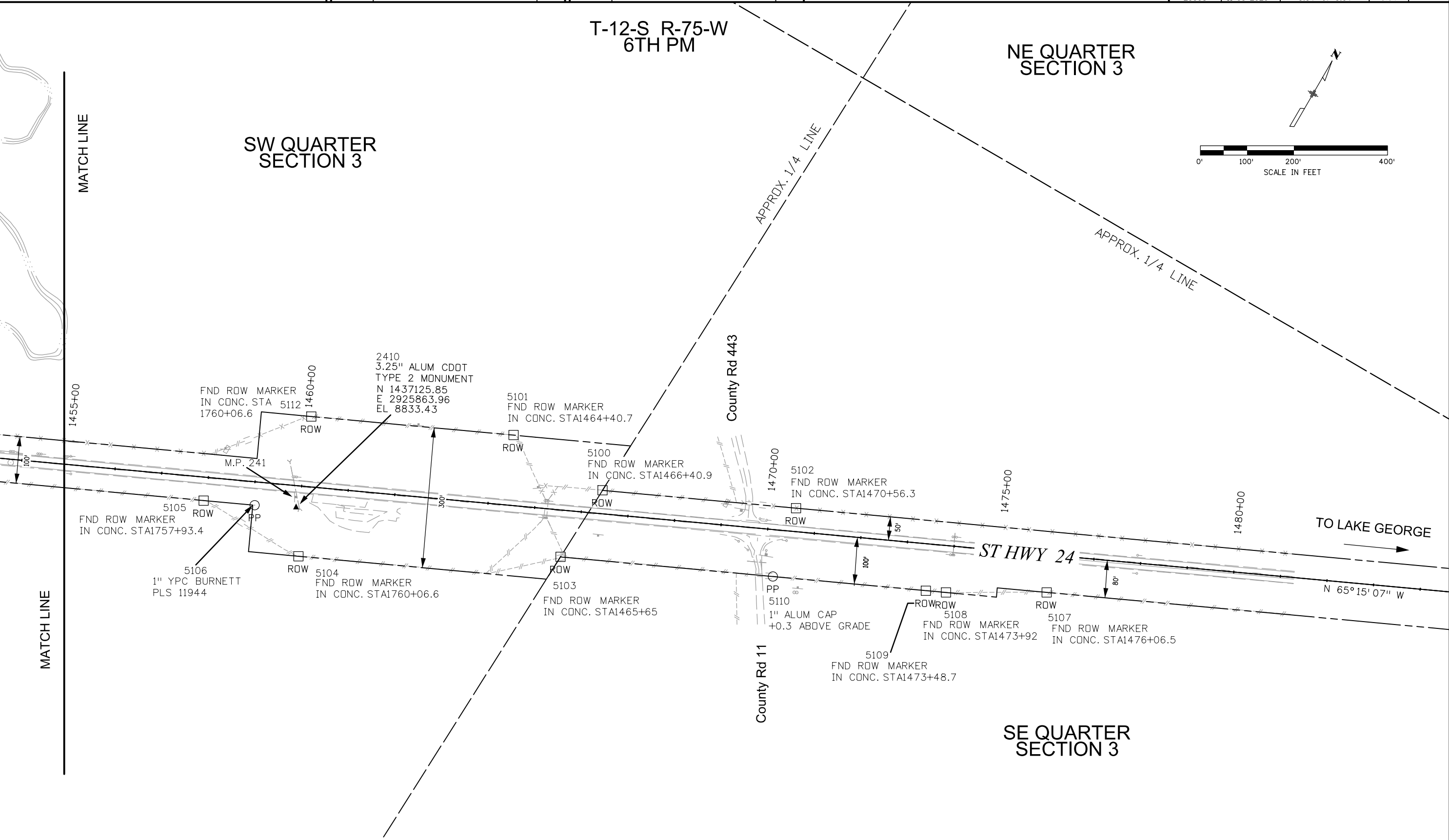
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SECTION 3

SW QUARTER
SECTION 3

SE QUARTER
SECTION 3



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Sheet Revisions

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Sheet Revisions

Date	Description	Initials

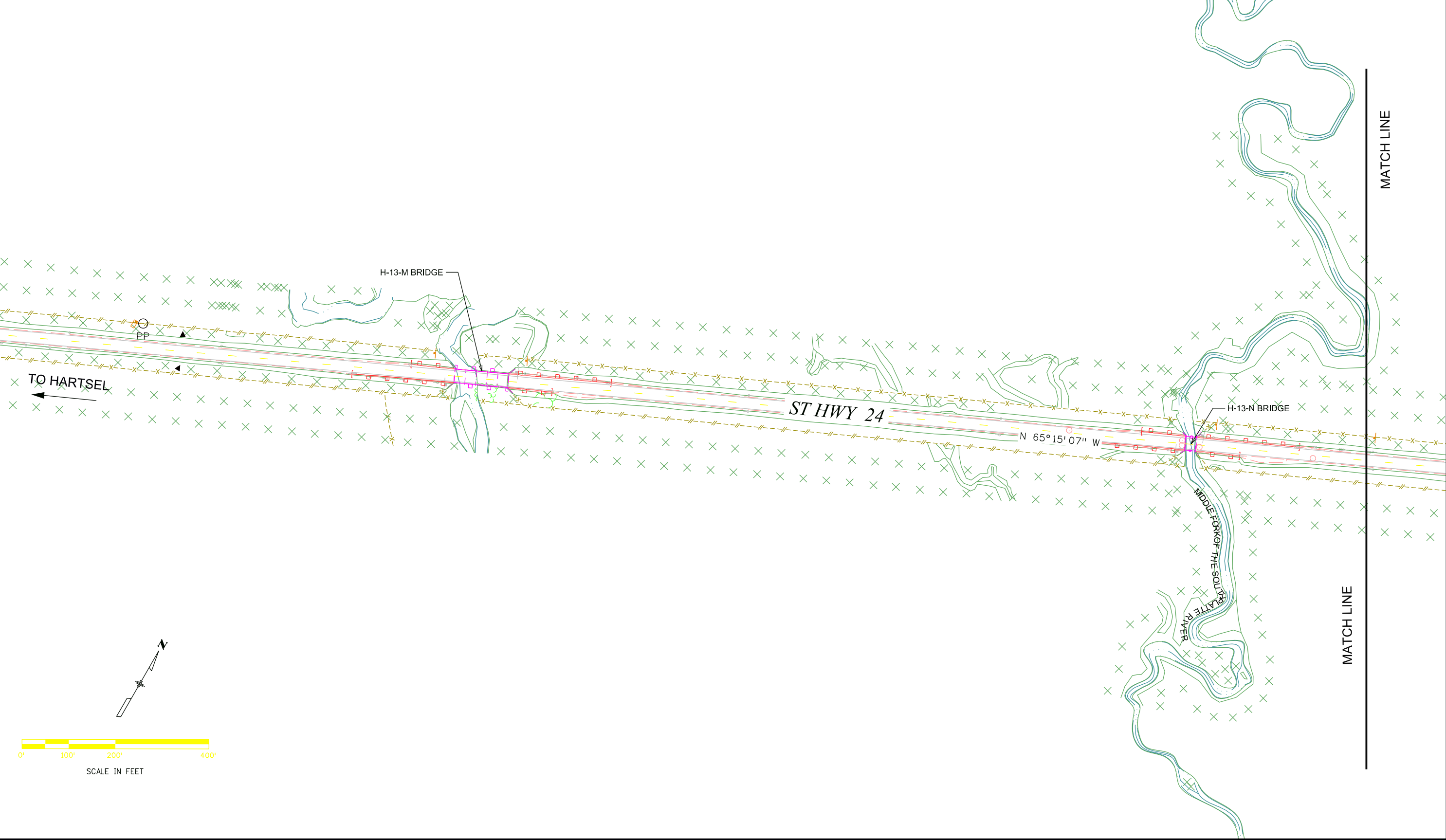
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Project Code:	Last Mod. Date	Subset	Sheet No.
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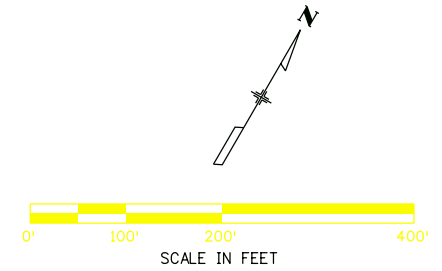
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SURVEYORS
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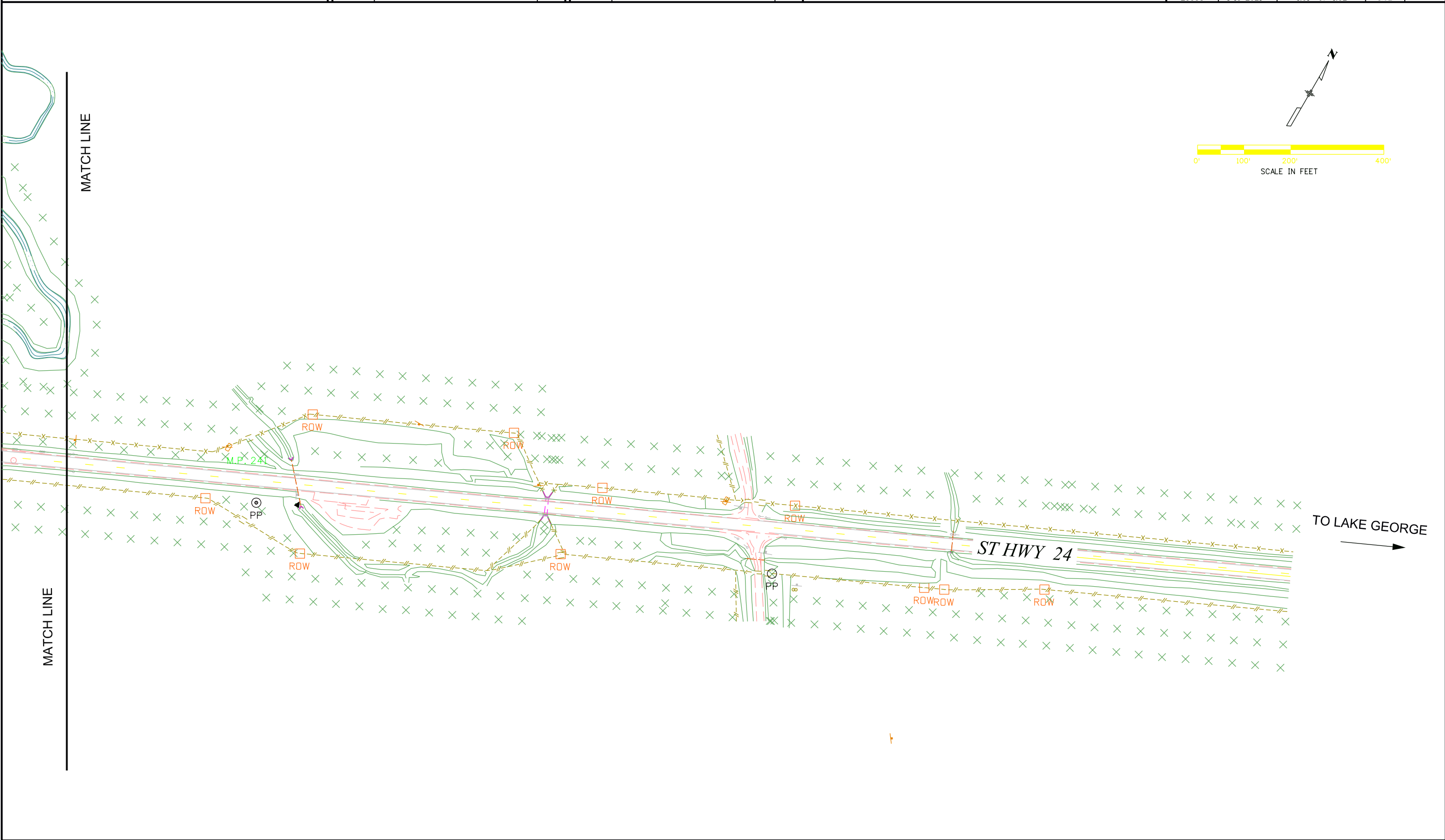


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Sheet Revisions

Date	Description	Initials

Sheet Revisions

Date	Description	Initials

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Sheet Revisions

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Sheet Revisions

Date	Description	Initials

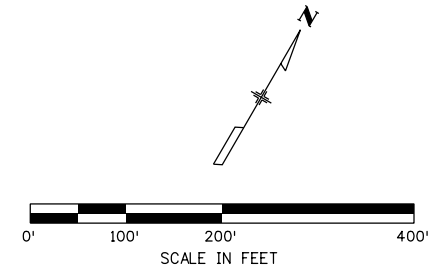
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Project Code:	Last Mod. Date	Subset	Sheet No.
23558	1-13-2021	1.01 of 1.02	1.02

T-12-S R-75-W
6TH PM



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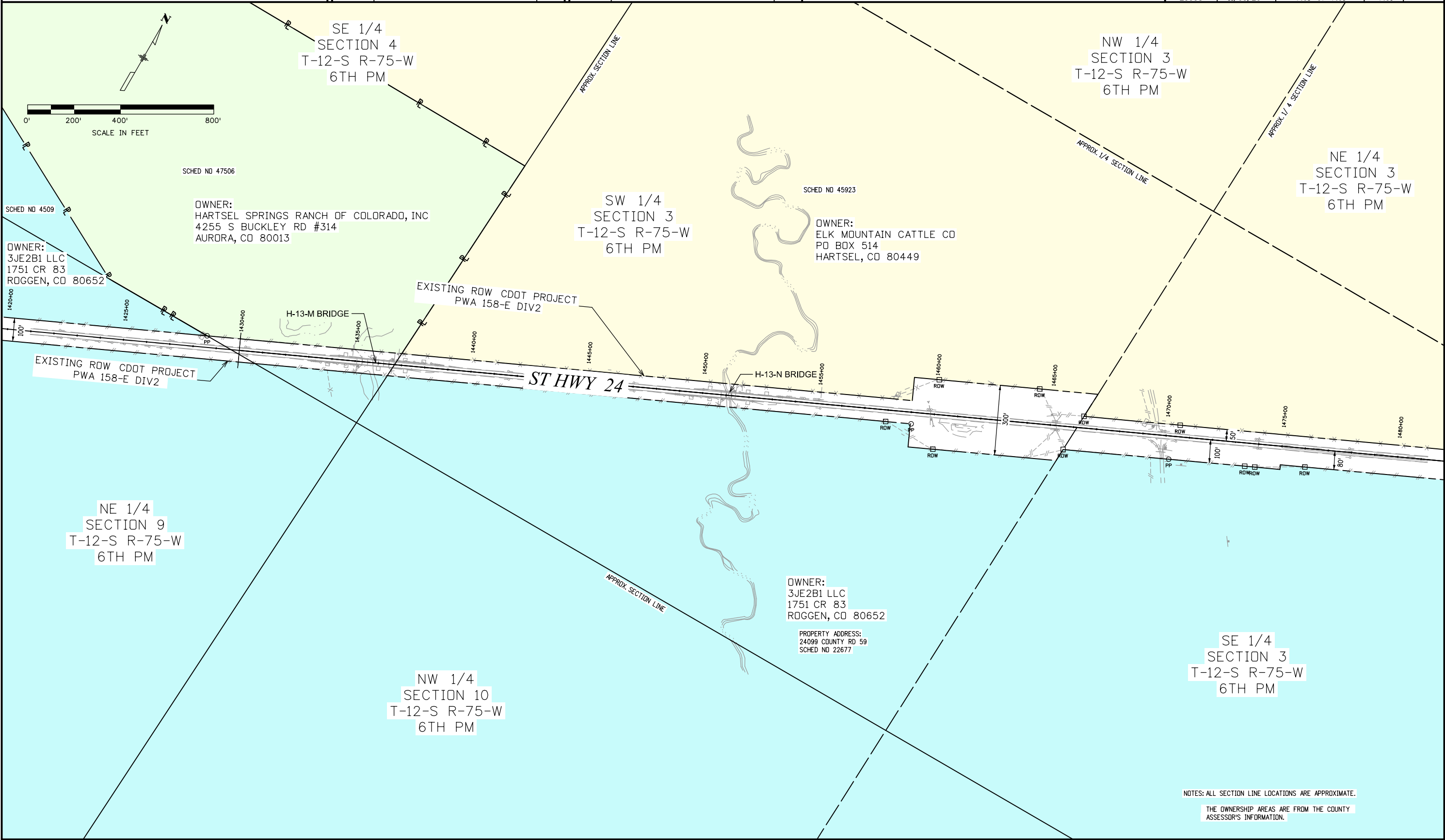
MATCH LINE

TO LAKE GEORGE
→

Sheet Revisions		
Date	Description	Initials

Sheet Revisions		
Date	Description	Initials

Right-of-Way Plans			
Ownership Map			
Project Number: FBR R200-266			
Project Location: BRIDGE REPLACEMENT			
H-13-N - US HIGHWAY 24			
Project Code:	Last Mod. Date	Subset	Sheet No.
23558	11/05/20	7.01 of 7.01	7.01



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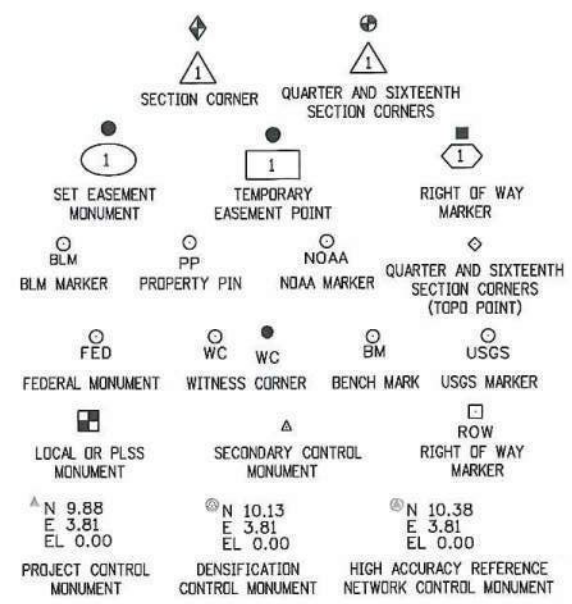
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Title Sheet			
Project Number: FBR R200-266			
Project Location: BRIDGE REPLACEMENT			
I-13-G & I-13-H US HIGHWAY 24			
Project Code:	Last Mod. Date:	Subset:	Sheet No.:
23558	11-18-2020	3.01 of 3.04	3.01

DEPARTMENT OF TRANSPORTATION STATE OF COLORADO

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	

PROJECT / LAND SURVEY CONTROL DIAGRAM

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.

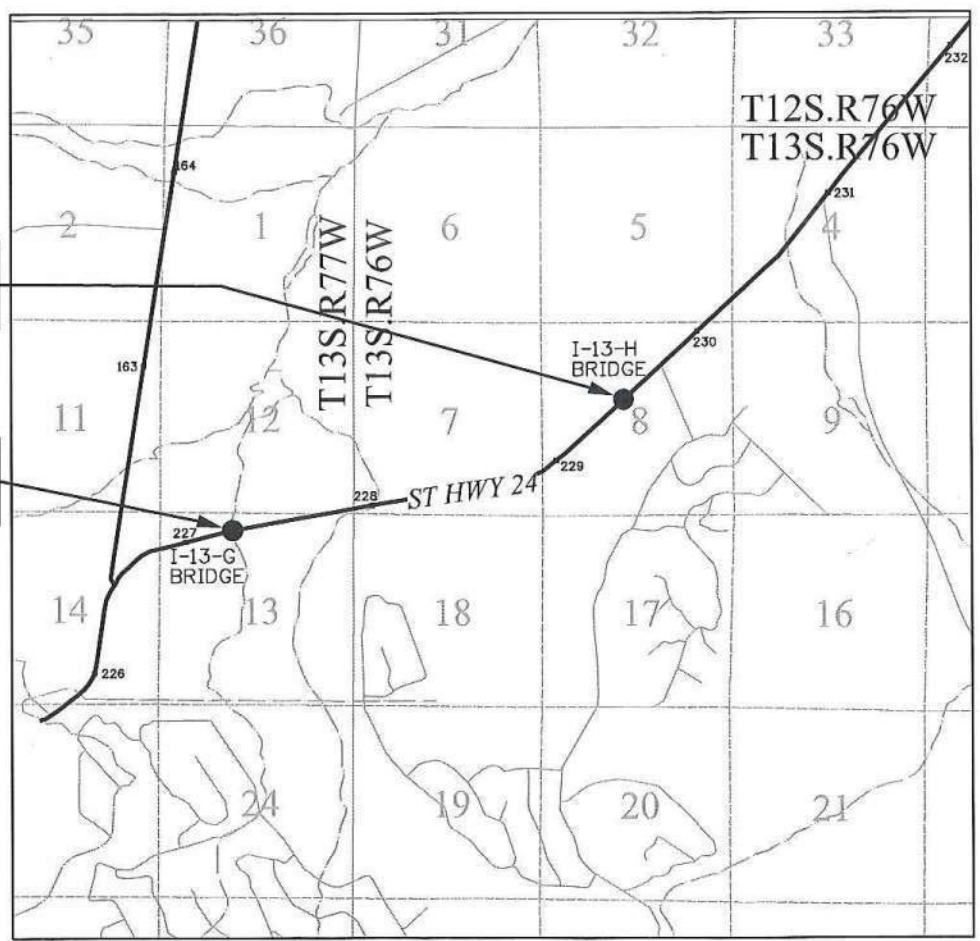


Typical Control Monument Cap
Not to Scale

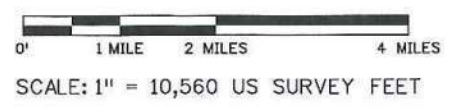
▲ CM-MP - Control Point Monuments set by CDDT. They are CDDT Type 2 monuments, a 3/4" dia. aluminum control monument cap (as shown) on a 3' x 3/4" dia. aluminum security rod on a 3' x 3/4" dia. smooth aluminum rod.

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 CDDT 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 CDDT Type II, marked appropriately for their milepost location and control position. The survey data was obtained from a Global Navigation System (GPS) 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



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Region 2

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Date	Description	Initials

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Date	Description	Initials



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Project/Land Survey Control Diagram

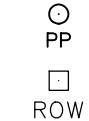
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Project Location: BRIDGE REPLACEMENT			
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Project Code:	Last Mod. Date	Subset	Sheet No.
23558	11-22-2020	3.02 of 3.04	3.02



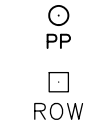
Point No.	Geodetic Coordinates NAD 83(2011) (CHARN)		Elev Height (NAVD88)(ft)	Ortho Height (ft)	Mapping Angle	Grid Scale Factor	NAD 83(2011) Zone 0502		Description
	Latitude(N)	Longitude(W)					SP Northing(ft)	SP Easting(ft)	
	2705	38°55'24.72443					-105°57'44.16380	9,120.59	
2723	38°55'28.25680	-105°57'32.28432	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"	0.999512993	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



FOUND BOUNDARY MONUMENT TABLE - I-13-G				
Point No.	Project Coordinates		Elev(ft) (NAVD88)	Description
	Northing(ft)	Easting(ft)		
5201	398,902.44	874,423.75	9,166.40	FND 3.25" BRASS CAP IN CONC STATE HWY ROW MARKER +-0.75 ABOVE GRADE
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



FOUND BOUNDARY MONUMENT TABLE - I-13-H				
Point No.	Project Coordinates		Elev(ft) (NAVD88)	Description
	Northing(ft)	Easting(ft)		
140724	404,159.53	884,505.04	8,994.02	CDOT BRASS CAP IN CONCRETE STAMPED FAP158E1 STA 908+11
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.

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Region 2

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Sheet Revisions

Date	Description	Initials

Sheet Revisions

Date	Description	Initials

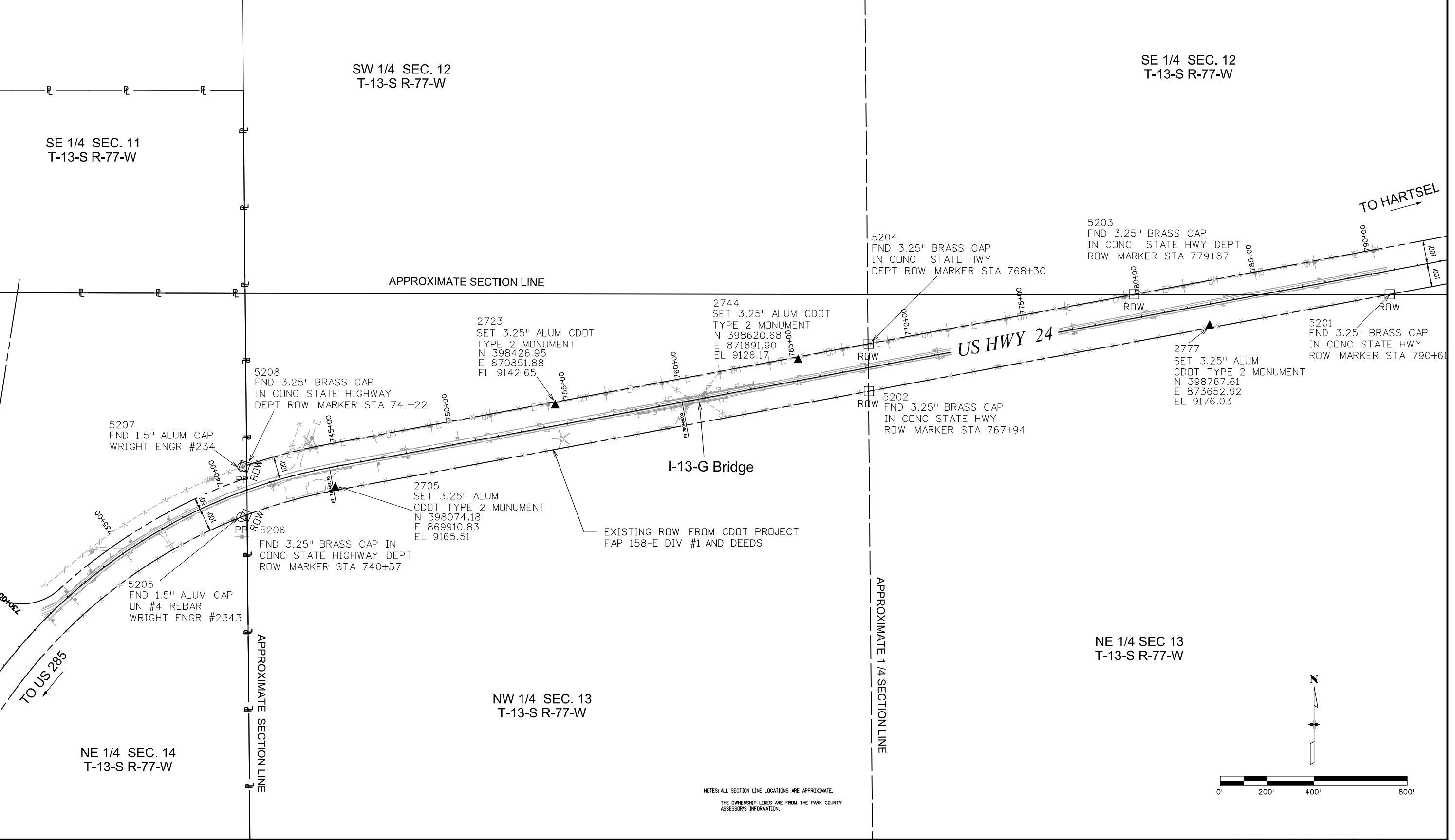


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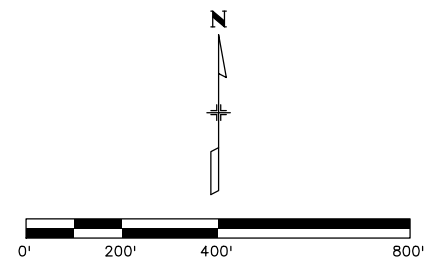
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Project Location: BRIDGE REPLACEMENT			
I-13-G - US HIGHWAY 24			
Project Code:	Last Mod. Date	Subset	Sheet No.
23558	11/22/20	3.03 to 3.04	3.03

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NOTES: ALL SECTION LINE LOCATIONS ARE APPROXIMATE.
THE OWNERSHIP LINES ARE FROM THE PARK COUNTY ASSESSOR'S INFORMATION.





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Region 2

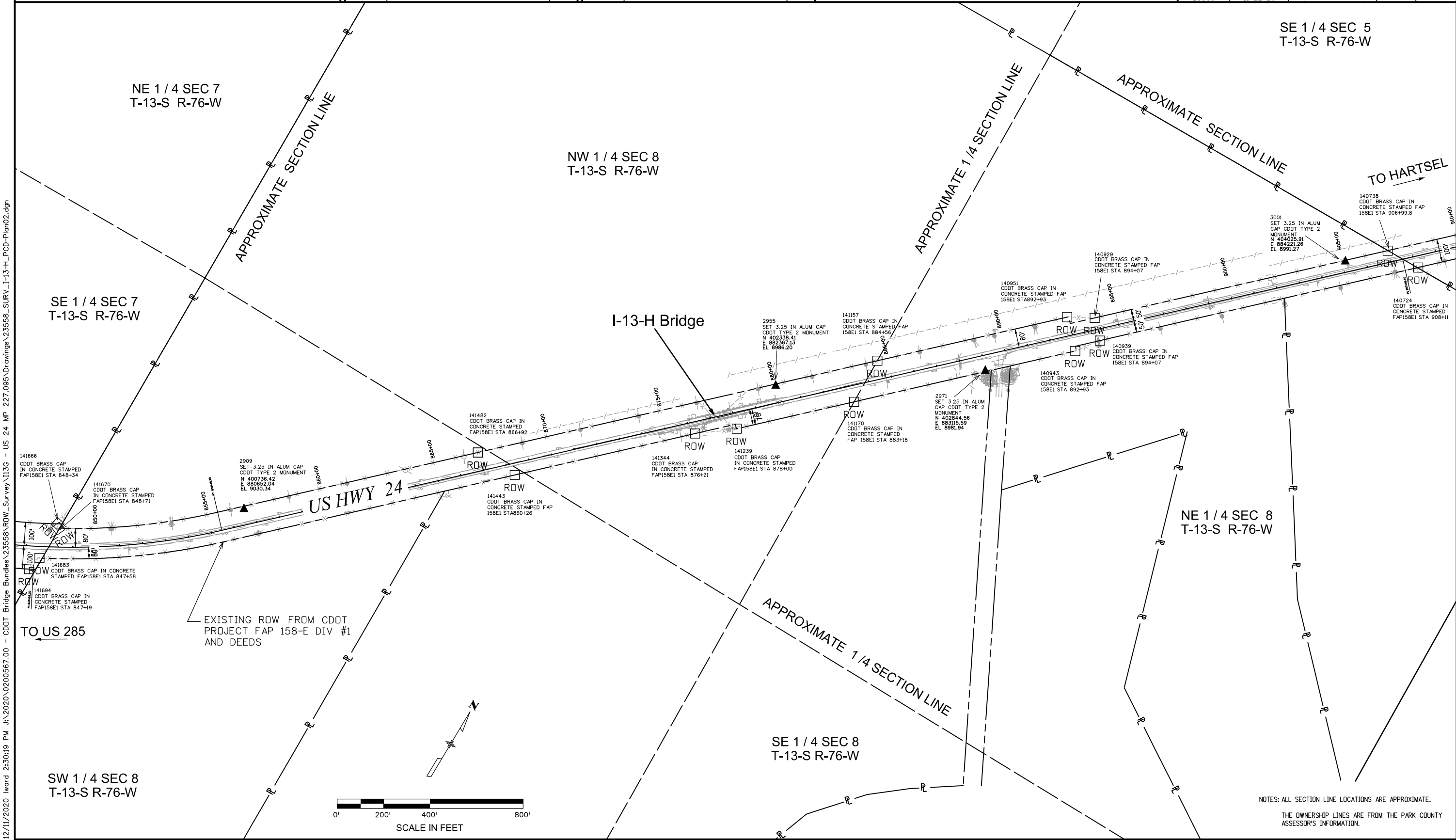
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Sheet Revisions

Date	Description	Initials	Date	Description	Initials

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Project Number: FBR R200-266			
Project Location: BRIDGE REPLACEMENT			
I-13-H - US HIGHWAY 24			
Project Code: 23559	Last Mod. Date: 11-22-20	Subset: 3.04 of 3.04	Sheet No.: 3.04



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Date	Description	Initials

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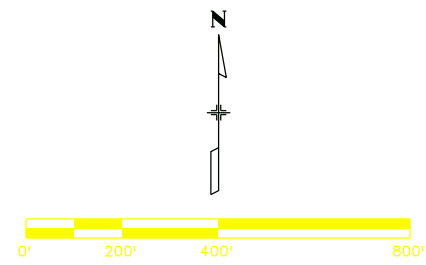
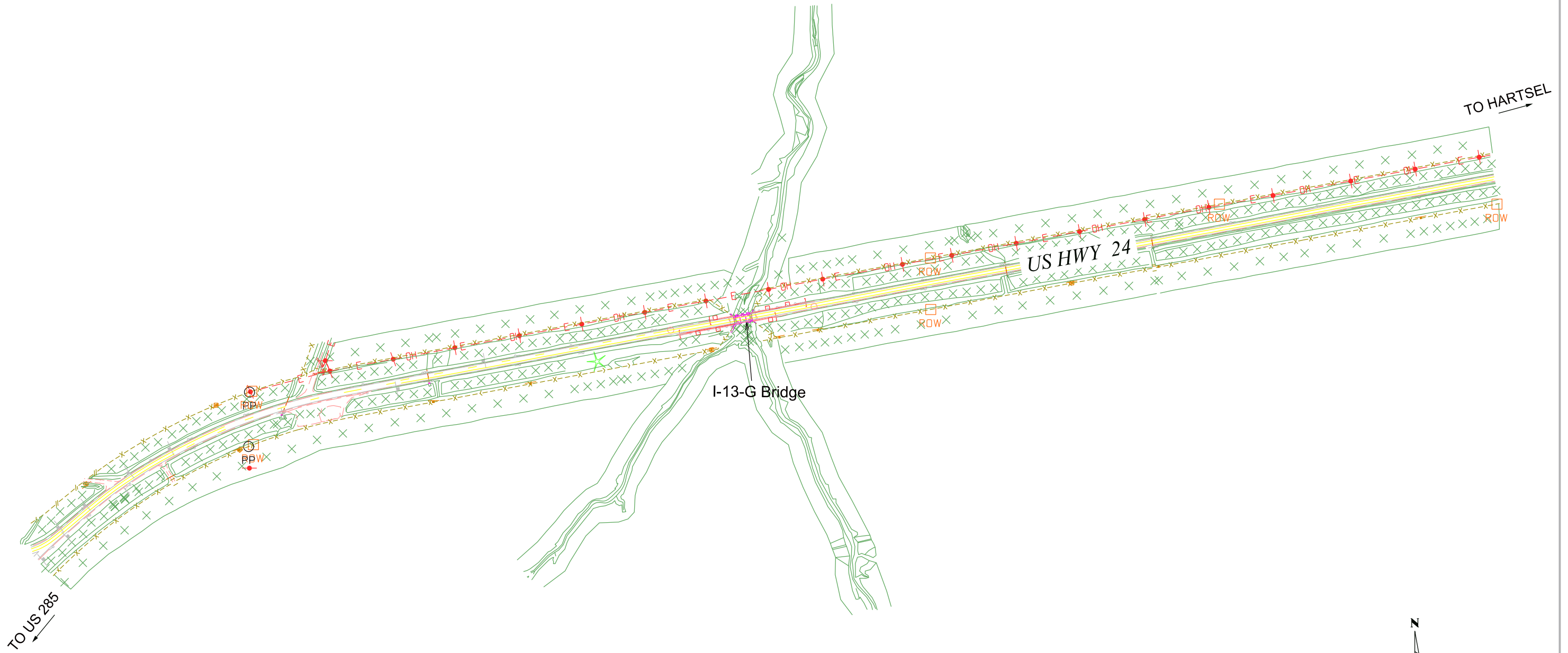
Project Number: FBR R200-266

Project Location: BRIDGE REPLACEMENT

I-13-G - US HIGHWAY 24

Project Code:	Last Mod. Date	Subset	Sheet No.
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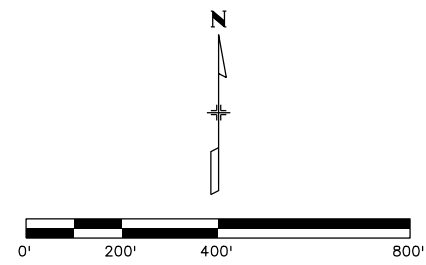
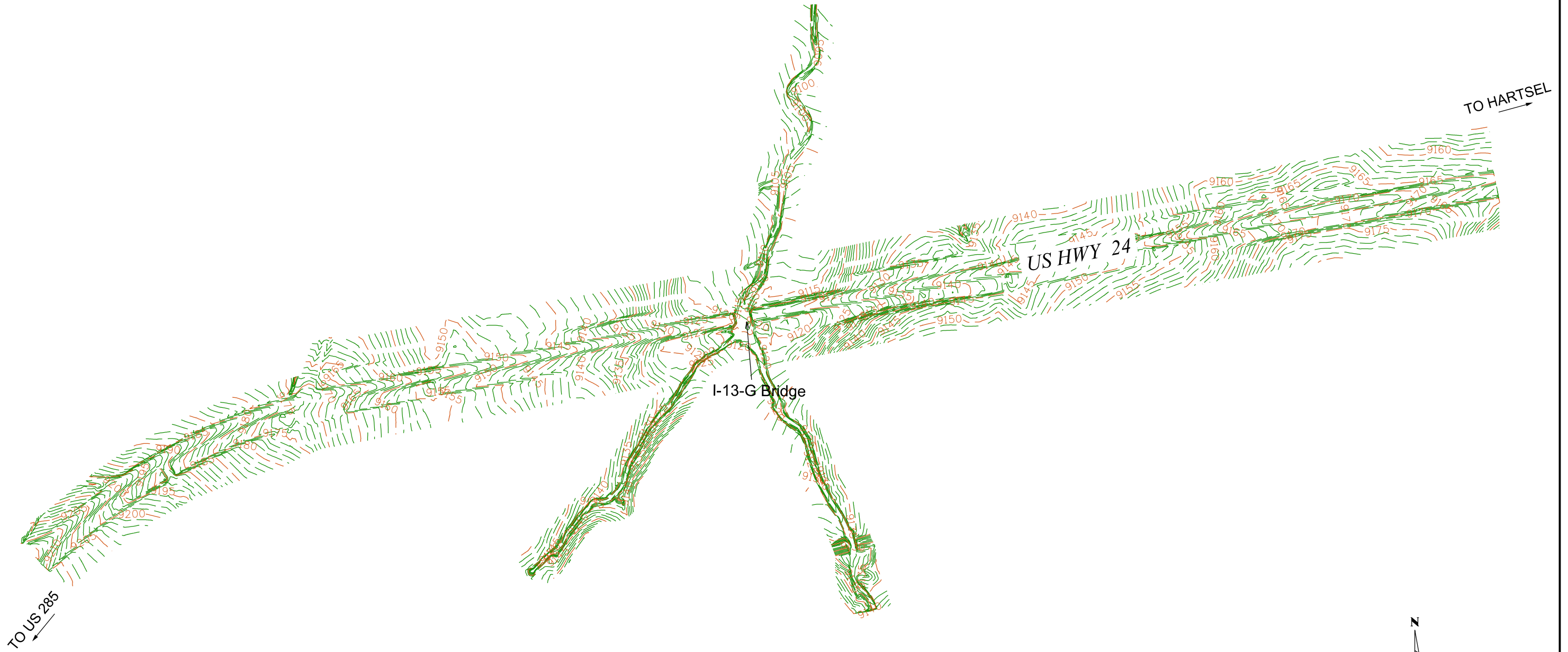
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Sheet Revisions

Date	Description	Initials

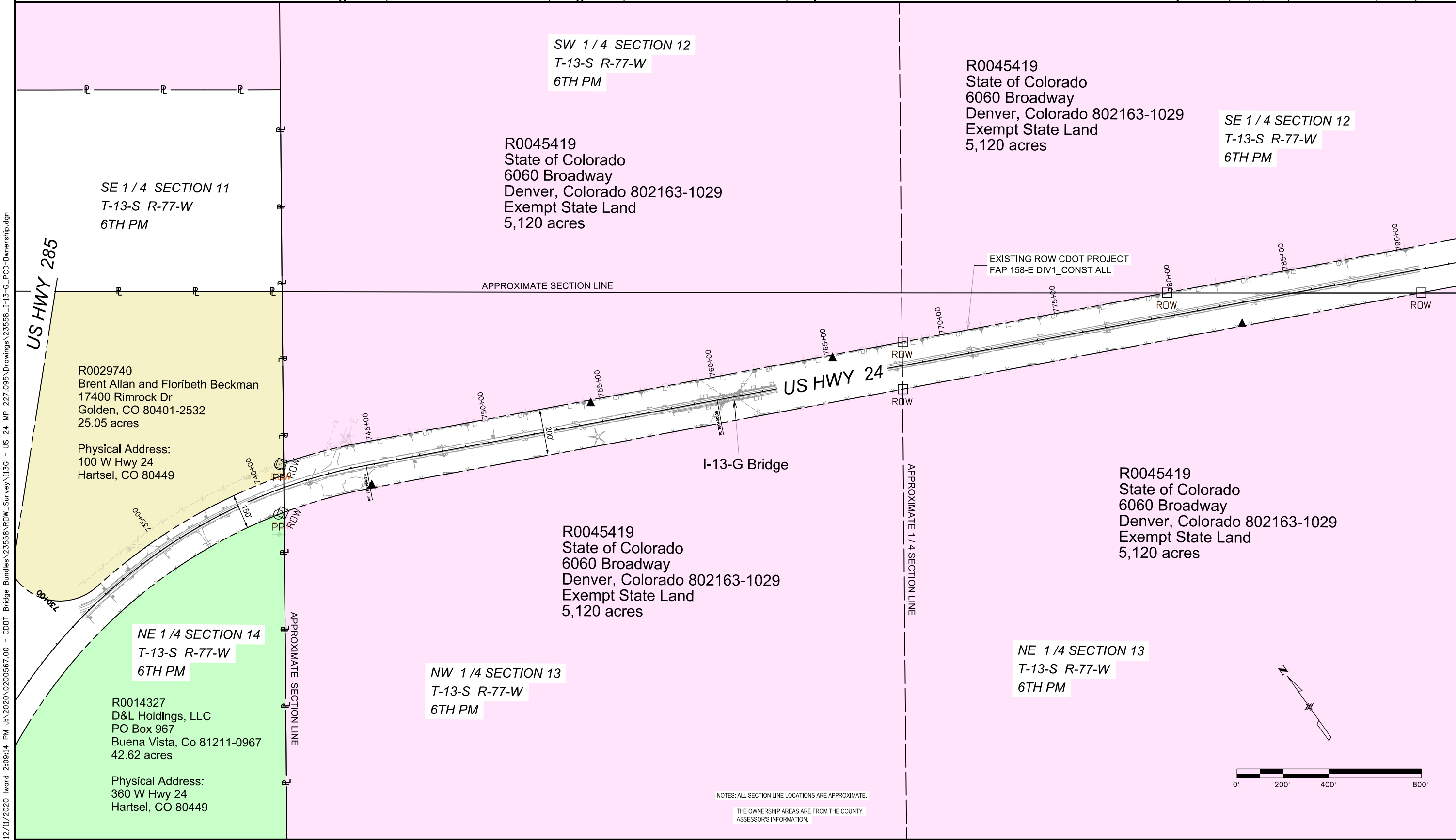
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Sheet Revisions		
Date	Description	Initials

Sheet Revisions		
Date	Description	Initials

RIGHT OF WAY PLANS			
OWNERSHIP MAP			
Project Number: FBR R200-266			
Project Location: BRIDGE REPLACEMENT			
I-13-G - US HIGHWAY 24			
Project Code:	Last Mod. Date	Subset	Sheet No.
23558	11/22/20	7.01 to 7.01	



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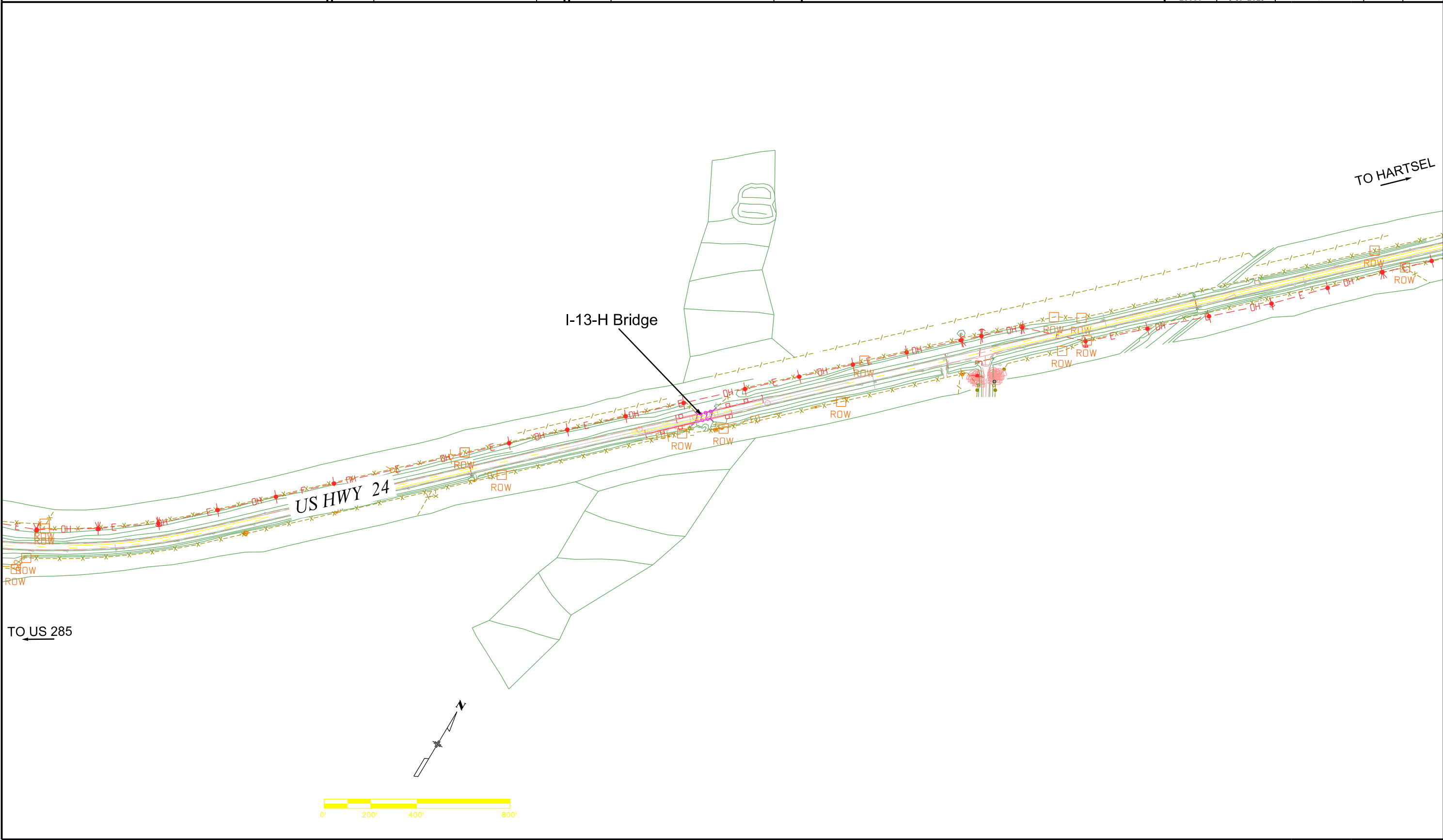
Project Number: FBR R200-266

Project Location: BRIDGE REPLACEMENT

I-13-H - US HIGHWAY 24

Project Code:	Last Mod. Date	Subset	Sheet No.
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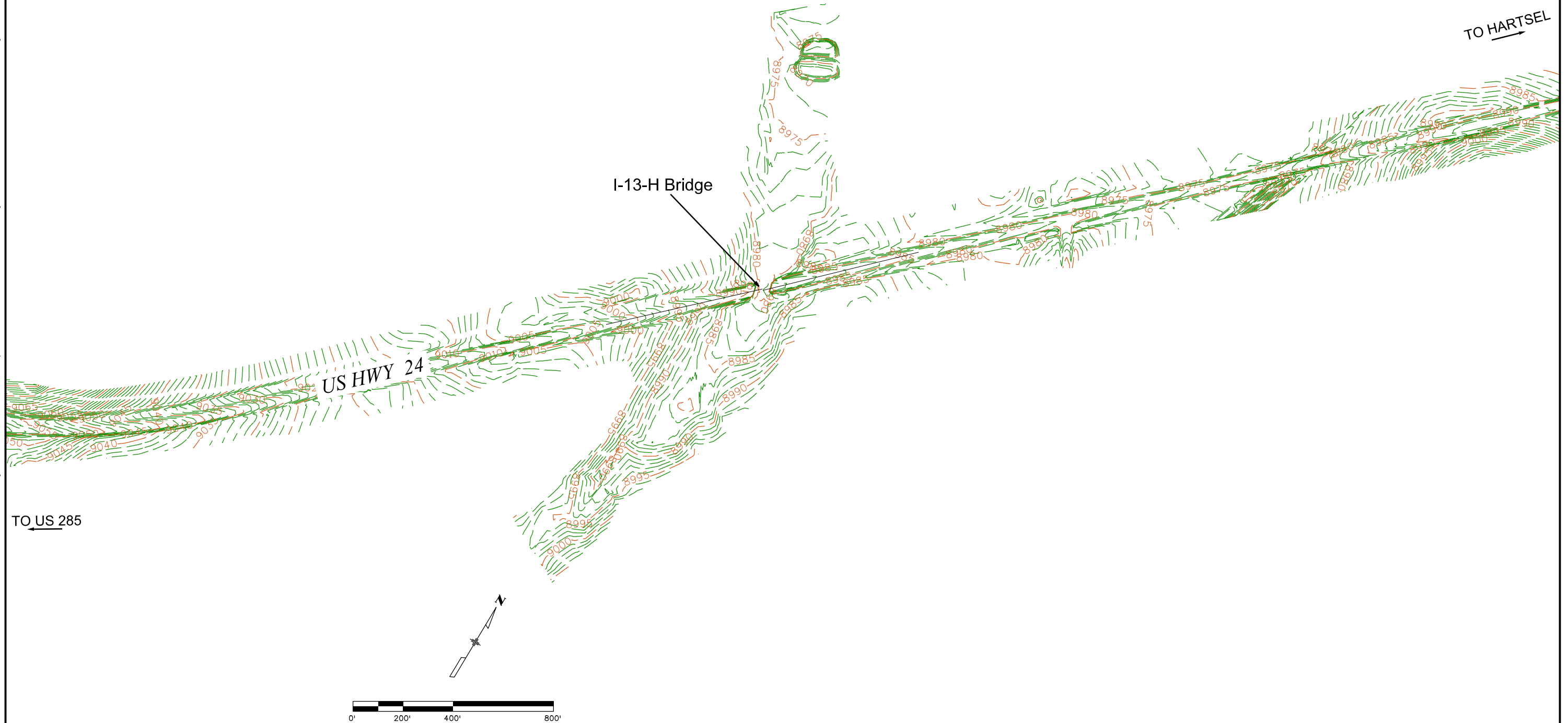




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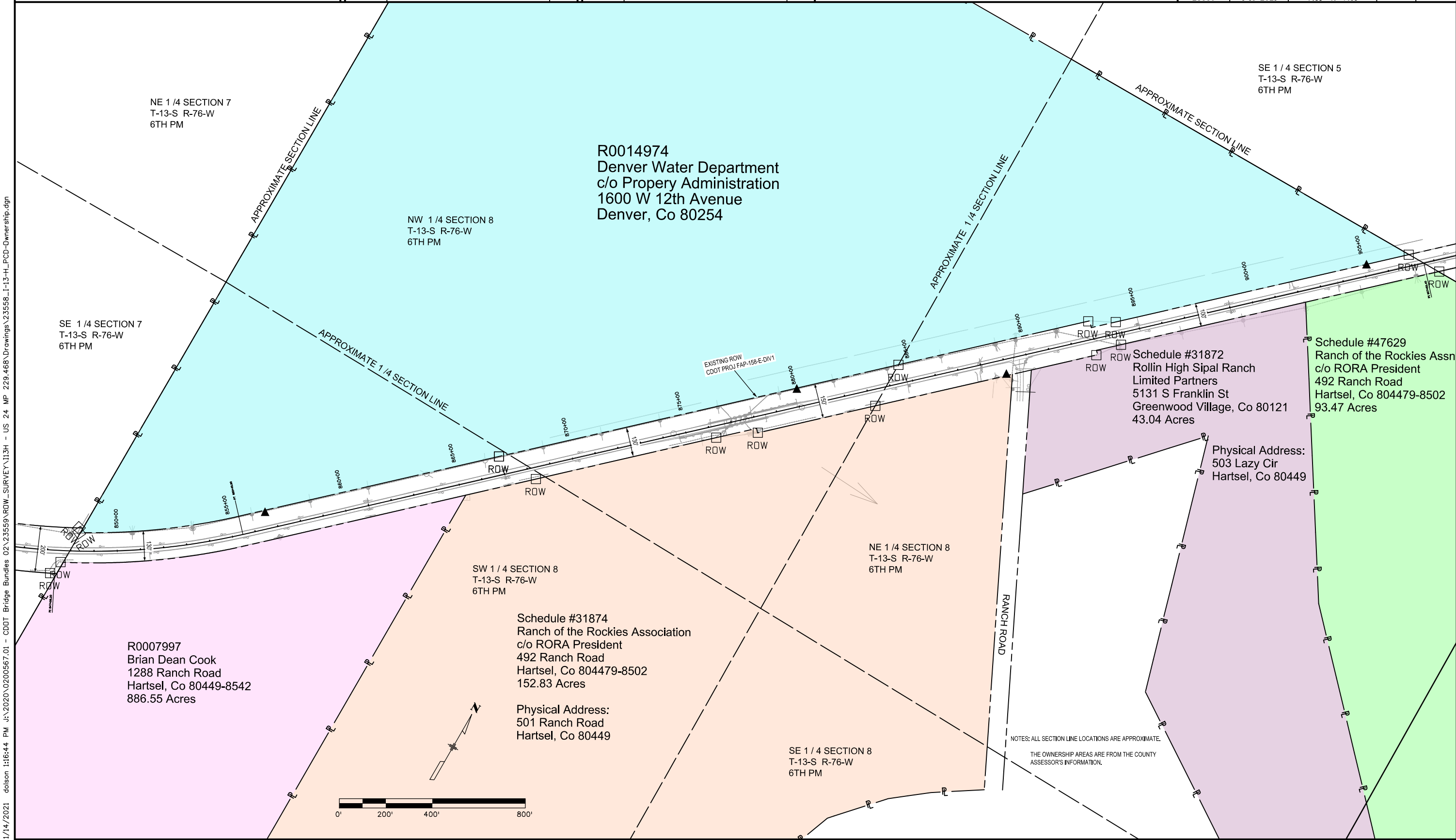
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OWNERSHIP MAP			
Project Number:	FBR R200-266		
Project Location:	BRIDGE REPLACEMENT		
I-13-H - US HIGHWAY 24			
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Sheet Revisions

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Project/Land Survey Control Diagram

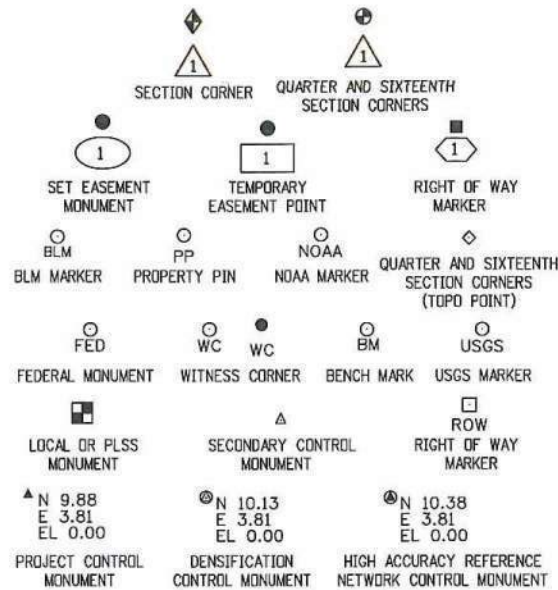
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Project Location: BRIDGE REPLACEMENT			
I-15-AD - I-15-T US HIGHWAY 24			
Project Code:	Last Mod. Date	Subset	Sheet No.
23558	11-25-2020	3.01 to 3.05	3.01

DEPARTMENT OF TRANSPORTATION STATE OF COLORADO

PROJECT/LAND SURVEY CONTROL DIAGRAM

State Highway 24
Section 6
Township 13 South, Range 70 West
of the 6th Principal Meridian
County of Teller

SHEET NO.	INDEX OF SHEETS
3.01	(1) Title Sheet
3.02	(1) Coordinate Tables
3.03 - 3.05	(3) Plan Sheets
(5) Total Sheets	



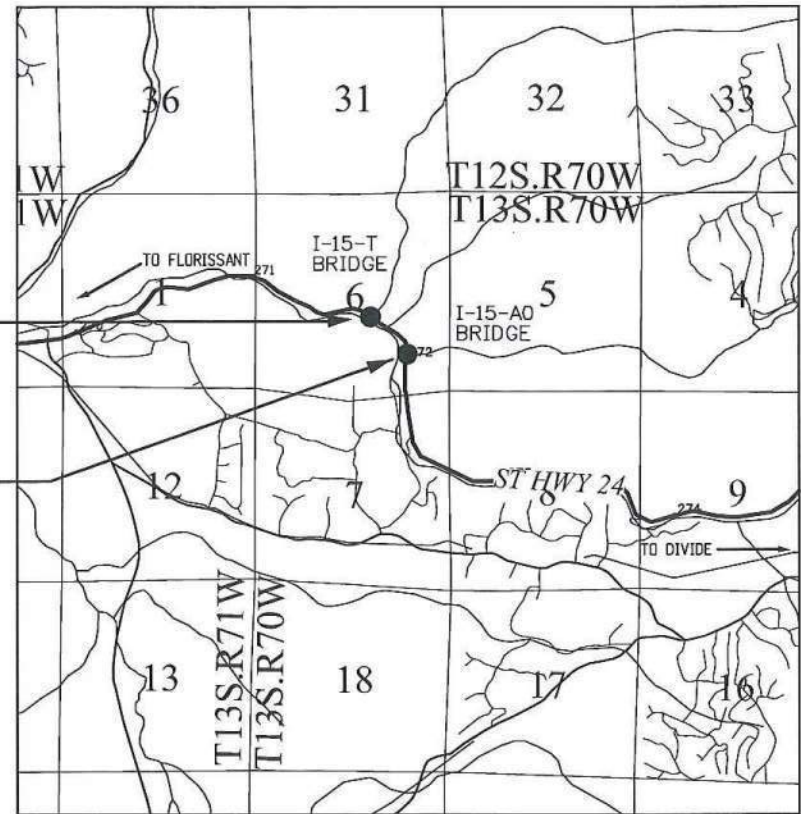
Note: For a complete listing of symbolology used within this set of plans, please refer to the M-100-1 Standard Symbols of the Colorado Department of Transportation M&S Standards Publication. Existing features are shown as screened weight (gray scale). Proposed or new features are shown as full weight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



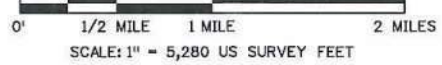
Typical Control Monument Cap
Not to Scale

I-15-T
PROJECT FBR R200-266
ST HWY 24 - MP 271.9

I-15-AD
PROJECT FBR R200-266
ST HWY 24 - MP 271.9



PROJECT LOCATION MAP



Basis of Bearings: Bearings used in the calculations of coordinates are based on a grid bearing of S80°50'50"E from CM-MP 2713 to CM-MP 2716. Both monuments are CDOT Type II, marked appropriately for their milepost location and control position. The survey data was obtained from a Global Positioning System (GPS) survey in September of 2020 and is based on the National Spatial Reference System.

Basis of Elevations: Project elevations are based on a GPS elevation of 8433.33 on C.P. 2713, a standard CDOT Type II monument. All project control points were then leveled through holding the elevation 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 1.0004617479. The resulting project coordinates are truncated by 1,000,000 ft 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(m) * 1.0004617479) * (3937ft/1200m)] - 1,000,000ft.
Project Coordinates Easting US Survey Feet = (State Plane Coordinate Easting(m) * 1.0004617479) * (3937ft/1200m) - 2,000,000ft.

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.

General Notes:

1. This Project/Land Survey 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.

SURVEYOR STATEMENT (PROJECT/LAND SURVEY 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 that based upon my knowledge, information and belief, research, calculations and evaluation of the survey evidence were performed and this Project/Land Survey Control Diagram prepared under my responsible charge 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.

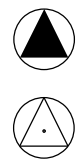
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Sheet Revisions		
Date	Description	Initials

Project Control Diagram			
Coordinate Tables			
Project Number: FBR R200-266			
Project Location: BRIDGE REPLACEMENT			
I-15-AD - I-15-T - US HIGHWAY 24			
Project Code:	Last Mod. Date	Subset	Sheet No.
23558	11-30-20	3.02 of 3.05	3.02



GEODETTIC COORDINATE TABLE									
Point No.	Geodetic Coordinates NAD-83(2011)		Elip Height (NAVD88)	Ortho Height (NAVD88)	Mapping Angle	Grid Scale Factor	NAD 83(2011) Zone 0502		Description
	Latitude(N)	Longitude(W)					SP Northing(m)	SP Easting(m)	
2713	38°56'53.64160"	-105°15'48.44746"	8,386.86	8,433.33	0°08'57.1"	0.999538554	1,406,129.16	3,067,271.76	CDOT TYPE II MONUMENT
2716	38°56'50.87311"	-105°15'26.80642"	8,393.69	8,440.18	0°09'10.7"	0.999538264	1,405,853.59	3,068,982.12	CDOT TYPE II MONUMENT
2718	38°56'43.76719"	-105°15'16.29484"	8,436.73	8,483.24	0°09'17.3"	0.999536299	1,405,136.95	3,069,814.48	CDOT TYPE II MONUMENT
2721	38°56'34.90184"	-105°15'18.43722"	8,473.56	8,520.07	0°09'16.0"	0.999534657	1,404,239.62	3,069,647.64	CDOT TYPE II MONUMENT
2723	38°56'18.53956"	-105°15'14.85543"	8,511.55	8,558.09	0°09'18.3"	0.999533061	1,402,585.08	3,069,935.10	CDOT TYPE II MONUMENT
27175	38°56'47.10327"	-105°15'19.43856"	8,417.30	8,463.80	0°09'15.4"	0.999537184	1,405,473.77	3,069,565.21	CDOT TYPE II MONUMENT
Q173	38°57'16.82035"	-105°19'22.04510"	8,027.28	8,073.53	0°06'42.4"	0.999555444	1,408,435.63	3,050,393.22	BM SET IN CONCRETE POST
WADE	38°55'59.04264"	-105°13'18.93945"	8,757.84	8,804.52	0°10'31.4"	0.999521565	1,400,639.08	3,079,099.61	HORIZONTAL CONTROL DISK SET IN ROCK



PROJECT COORDINATE TABLE				
Point No.	Project Coordinates		Elev(ft) (NAVD88)	Description
	Northing(ft)	Easting(ft)		
2713	406,778.44	1,068,688.07	8,433.33	CDOT TYPE II MONUMENT
2716	406,502.74	1,070,399.22	8,440.18	CDOT TYPE II MONUMENT
2718	405,785.76	1,071,231.96	8,483.24	CDOT TYPE II MONUMENT
2721	404,888.02	1,071,065.04	8,520.07	CDOT TYPE II MONUMENT
2723	403,232.72	1,071,352.63	8,558.09	CDOT TYPE II MONUMENT
27175	406,122.75	1,070,982.57	8,463.80	CDOT TYPE II MONUMENT
Q173	409,085.98	1,051,801.73	8,073.53	BM SET IN CONCRETE POST
WADE	401,285.82	1,080,521.38	8,804.52	HORIZONTAL CONTROL DISK SET IN ROCK

○ PP
 □ ROW

FOUND BOUNDARY MONUMENT COORDINATE TABLE - I-15-AO - I-15-T			
Point No.	Northing(ft)	Easting(ft)	Description
5301	406,603.90	1,070,463.27	FOUND 3.25" BRASS CAP IN CONCRETE STATE HWY ROW MARKER 1045+00
5302	406,964.08	1,069,645.15	FOUND YPC ON #5 REBAR MARKED ALESSI PLS 30130
5303	406,877.91	1,069,267.67	FND 3.25" BRASS CAP IN CONC STATE HWY ROW MARKER STA 1030+85.6
5304	407,056.67	1,068,380.88	FND 3.25" BRASS CAP IN CONC STATE HWY ROW MARKER STA 1021+00
5305	407,264.80	1,067,975.49	FND #4 REBAR WITH BROKEN ILLEG YPC
5306	407,383.46	1,067,744.80	FND 3.25" BRASS CAP IN CONC STATE HWY ROW MARKER STA 1013+83.4
5307	406,949.03	1,068,325.93	FOUND 3.25" BRASS CAP IN CONCRETE STATE HWY ROW MARKER 1021+00
5308	406,931.52	1,068,316.77	FOUND 3.25" BRASS CAP IN CONCRETE STATE HWY ROW MARKER 1021+00
5309	406,850.59	1,068,515.63	FOUND #4 REBAR
5310	406,844.71	1,069,642.66	FOUND 1.5" ALUM CAP PLS 38118
5311	407,266.33	1,068,336.63	FOUND 2.5" ALUM CAP ON #6 REBAR MARKED ALLES I PLS 30130
147035	402,813.62	1,071,777.03	FND BRASS ROW MARKER IN CONCRETE PWA158E 1088+53BK 1088+58.9AH
148498	404,353.28	1,071,223.45	FND BRASS ROW MARKER IN CONCRETE 158F 1070+98
148501	404,340.20	1,071,225.96	LS 27931 ALUM 1.25 CAP
148785	406,337.44	1,070,882.92	PWA 158F STA1048+96 LEANING
148937	403,258.32	1,071,283.19	FND BRASS ROW MARKER IN CONCRETE RBR PWA 158F STA 1081+86.1
148972	402,657.29	1,071,698.74	FND BRASS ROW MARKER IN CONCRETE PWA 158F 1088+53BK 1088+58.9AH
149115	404,350.35	1,071,102.61	FND BRASS ROW MARKER IN CONCRETE PWA 158F 1070+78
149518	405,342.86	1,071,066.51	FND BRASS ROW MARKER IN CONCRETE PWA 158F STA 1061+00
149576	405,347.51	1,071,042.09	FND BRASS ROW MARKER IN CONCRETE PWA 158F 1061+00
149849	405,944.98	1,071,213.28	LS 27931 WC 7/4 1.25 ALUM CAP
150017	405,322.29	1,070,927.44	LS 2372 RPC
150075	405,805.68	1,071,006.78	CPLS 38118 1.25 ALUM CAP
150281	406,486.20	1,070,392.41	LAYING ON SURFACE
150388	405,981.43	1,072,127.24	FND ALUM CAP "1/ 2 3 LS 27931"

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Sheet Revisions

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Project/Land Survey Control Diagram

Plan Sheet			
Project Number: FBR R200-266			
Project Location: BRIDGE REPLACEMENT			
I-15-AD - I-15-T - US HIGHWAY 24			
Project Code:	Last Mod. Date:	Subset:	Sheet No.:
23558	12-10-2020	3.03 to 3.05	3.03

T-13-S R-70-W
6TH PM

NW 1/4 SECTION 6

NE 1/4 SECTION 6

SW 1/4 SECTION 6

SE 1/4 SECTION 6

TO FLORISSANT

MATCH LINE

MATCH LINE

APPROXIMATE 1/4 SECTION LINE

APPROXIMATE 1/4 SECTION LINE

US HWY 24

TRACT 1R
BILLUP AND BARNES SUB

TRACT 2R
BILLUP AND BARNES SUB

TRACT 10R
BILLUP AND BARNES SUB

TRACT 11
BILLUP AND BARNES SUB

TRACT 12
BILLUP AND BARNES SUB

TRACT 7B

TRACT 7

PRIVATE DRIVE

PRIVATE DRIVE

5307 FOUND 3.25" BRASS CAP IN CONCRETE STATE HWY ROW MARKER STA 1021+00

5308 FOUND 3.25" BRASS CAP IN CONCRETE STATE HWY ROW MARKER STA 1021+00

5309 FOUND #4 REBAR PP

5311 FOUND 2.5" ALUM CAP ON #6 REBAR MARKED ALLESI PLS 30130

5304 FND 3.25" BRASS CAP IN CONCR STATE HWY ROW MARKER STA 1021+00

5305 FND #4 REBAR WITH BROKEN ILLEG YPC

5306 FND 3.25" BRASS CAP IN CONCR STATE HWY ROW MARKER STA 1013+83.4

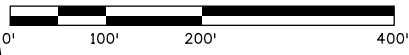
5302 FOUND YPC ON #5 REBAR MARKED ALLESI PLS 30130

5303 FND 3.25" BRASS CAP IN CONCR STATE HWY ROW MARKER STA 1030+85.6

5310 FOUND 1.5" ALUM CAP PLS 38118

2713 SET CDDT TYPE II MONUMENT
N 406,778.44
E 1,068,688.06
EL 8,433.33

NOTES:
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Date	Description	Initials

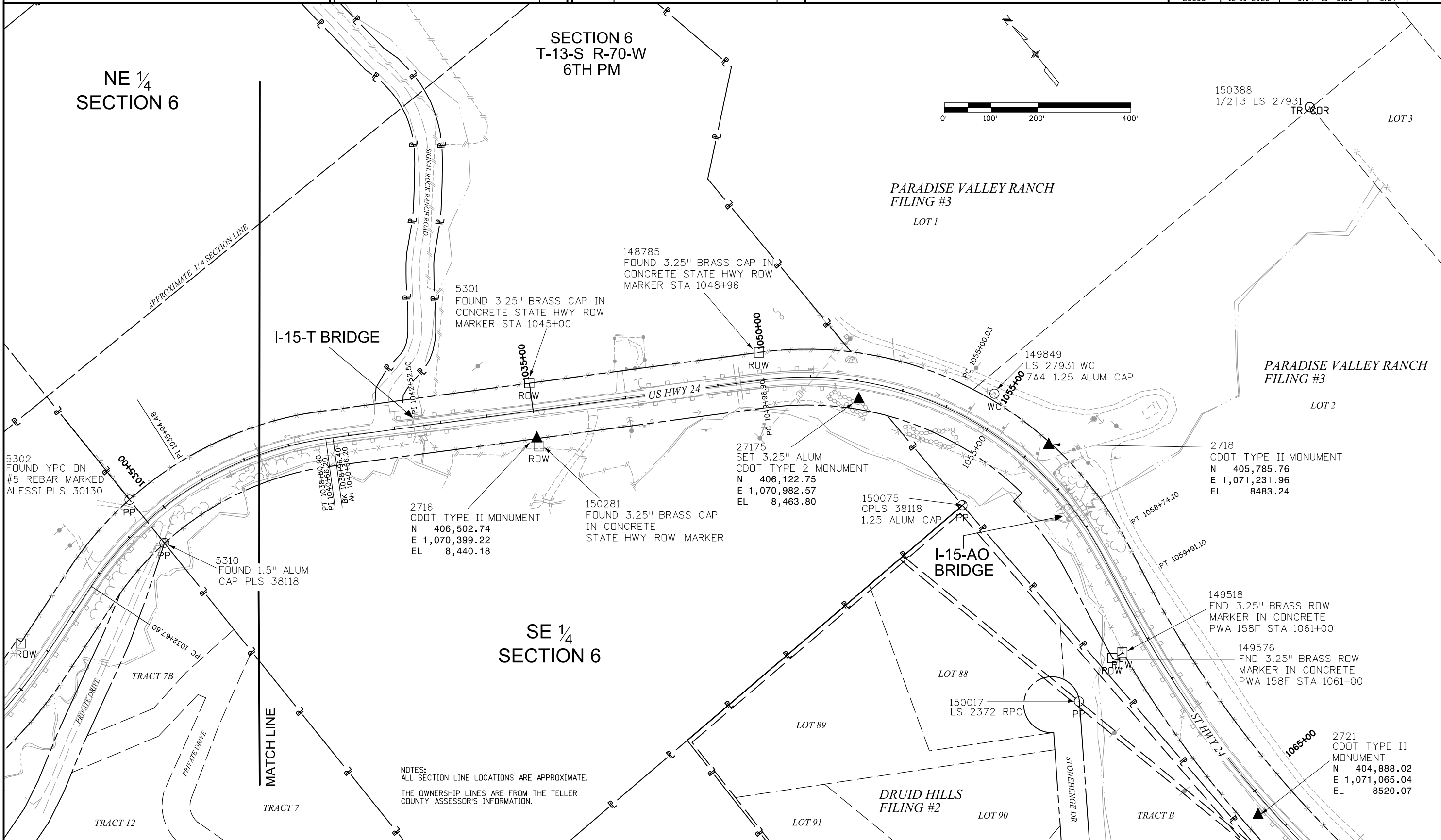
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Project/Land Survey Control Diagram

Plan Sheet

Project Number: FBR R200-266			
Project Location: BRIDGE REPLACEMENT			
I-15-AD - I-15-T - US HIGHWAY 24			
Project Code:	Last Mod. Date:	Subset:	Sheet No.:
23558	12-10-2020	3.04 to 3.05	3.04

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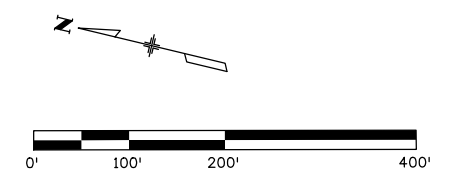
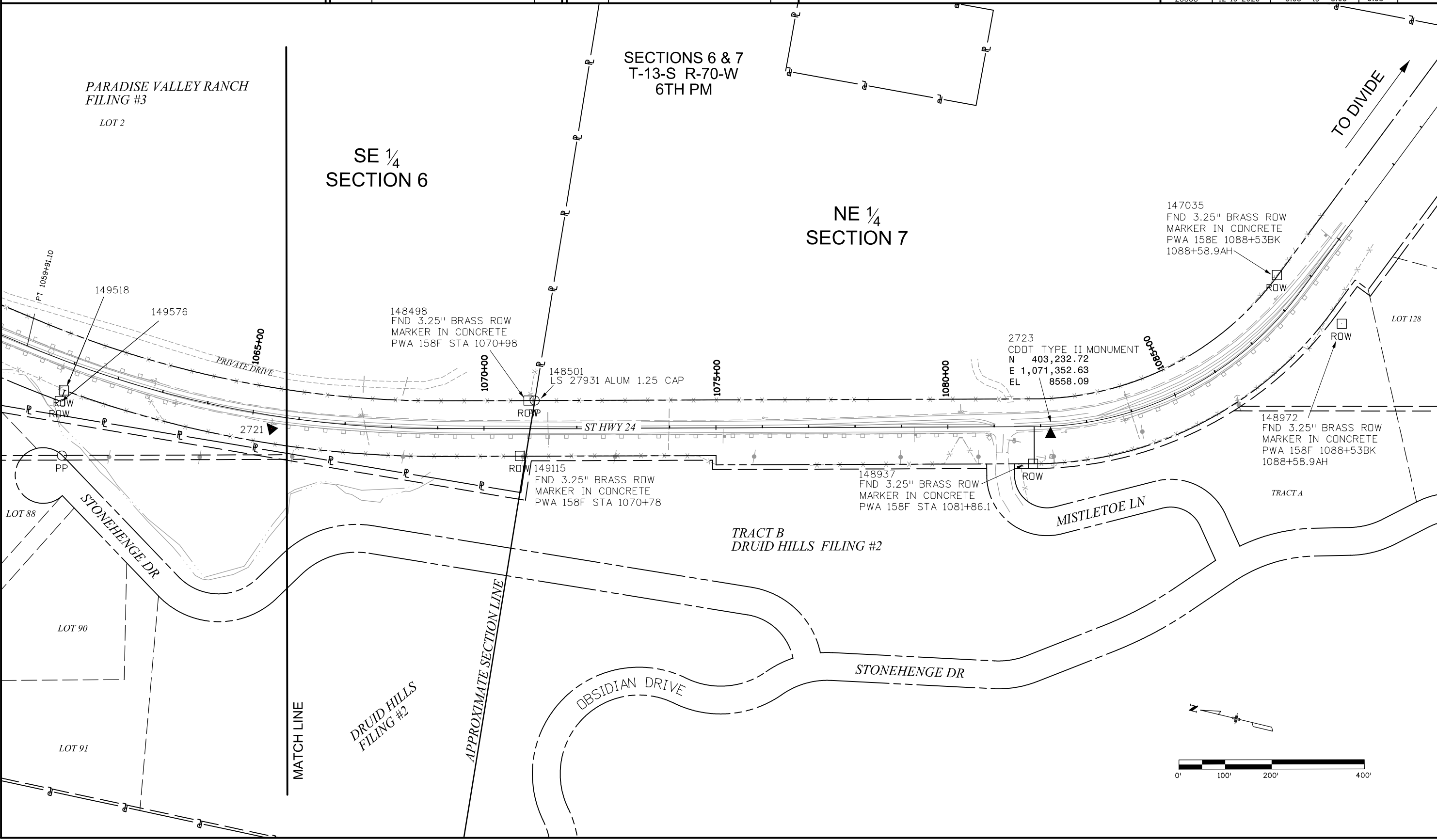
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Sheet Revisions		
Date	Description	Initials

Sheet Revisions		
Date	Description	Initials

Project/Land Survey Control Diagram				
Plan Sheet				
Project Number: FBR R200-266				
Project Location: BRIDGE REPLACEMENT				
I-15-AD - I-15-T - US HIGHWAY 24				
Project Code:	Last Mod. Date:	Subset	Sheet No.	
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SCIENTISTS



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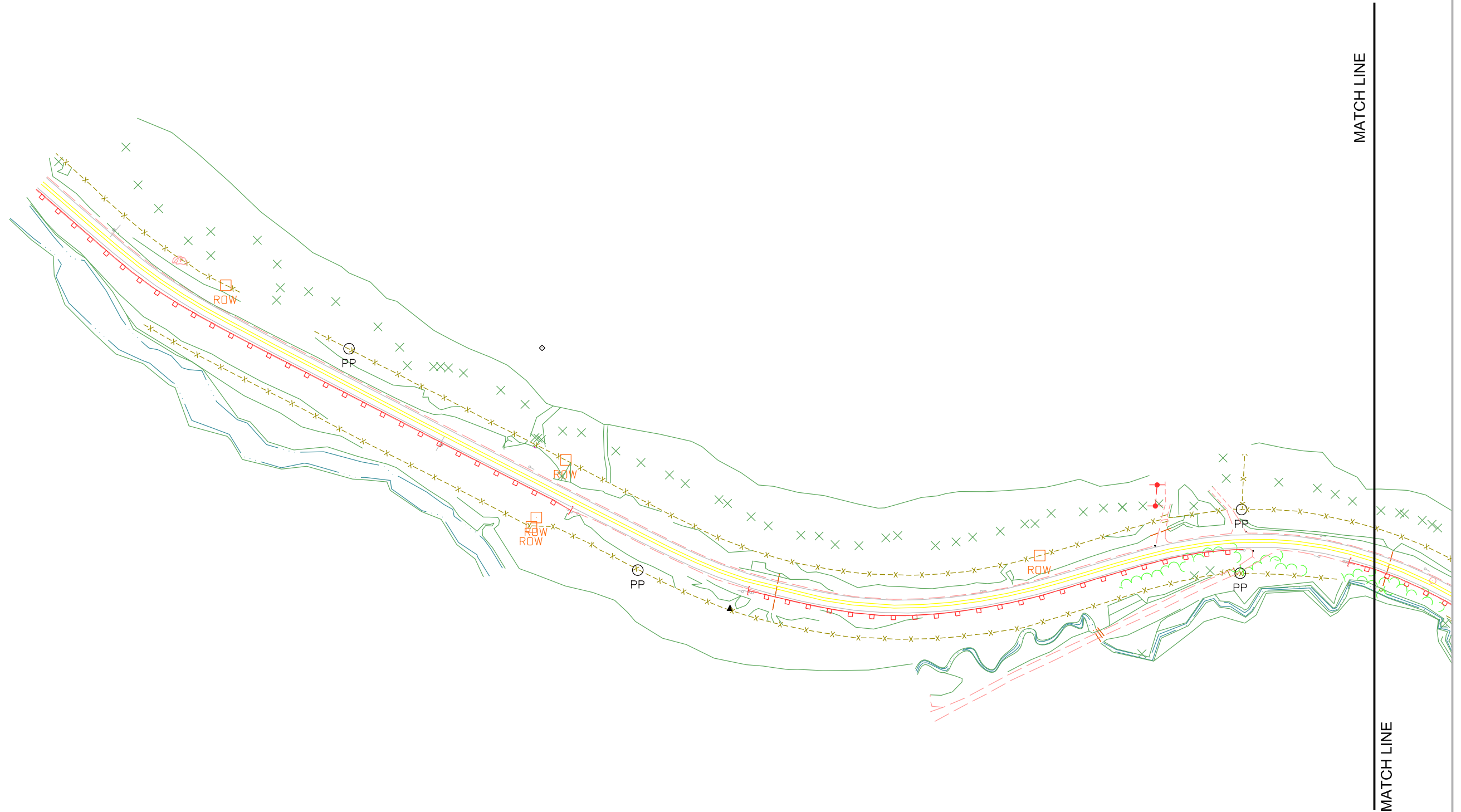
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Plan Sheet

Project Number: FBR R200-266			
Project Location: BRIDGE REPLACEMENT			
I-15-AD - I-15-T - US HIGHWAY 24			
Project Code:	Last Mod. Date	Subset	Sheet No.
	1-13-2021	1.01 to 1.03	1.01

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TO FLORISSANT



MATCH LINE

MATCH LINE



Sheet Revisions

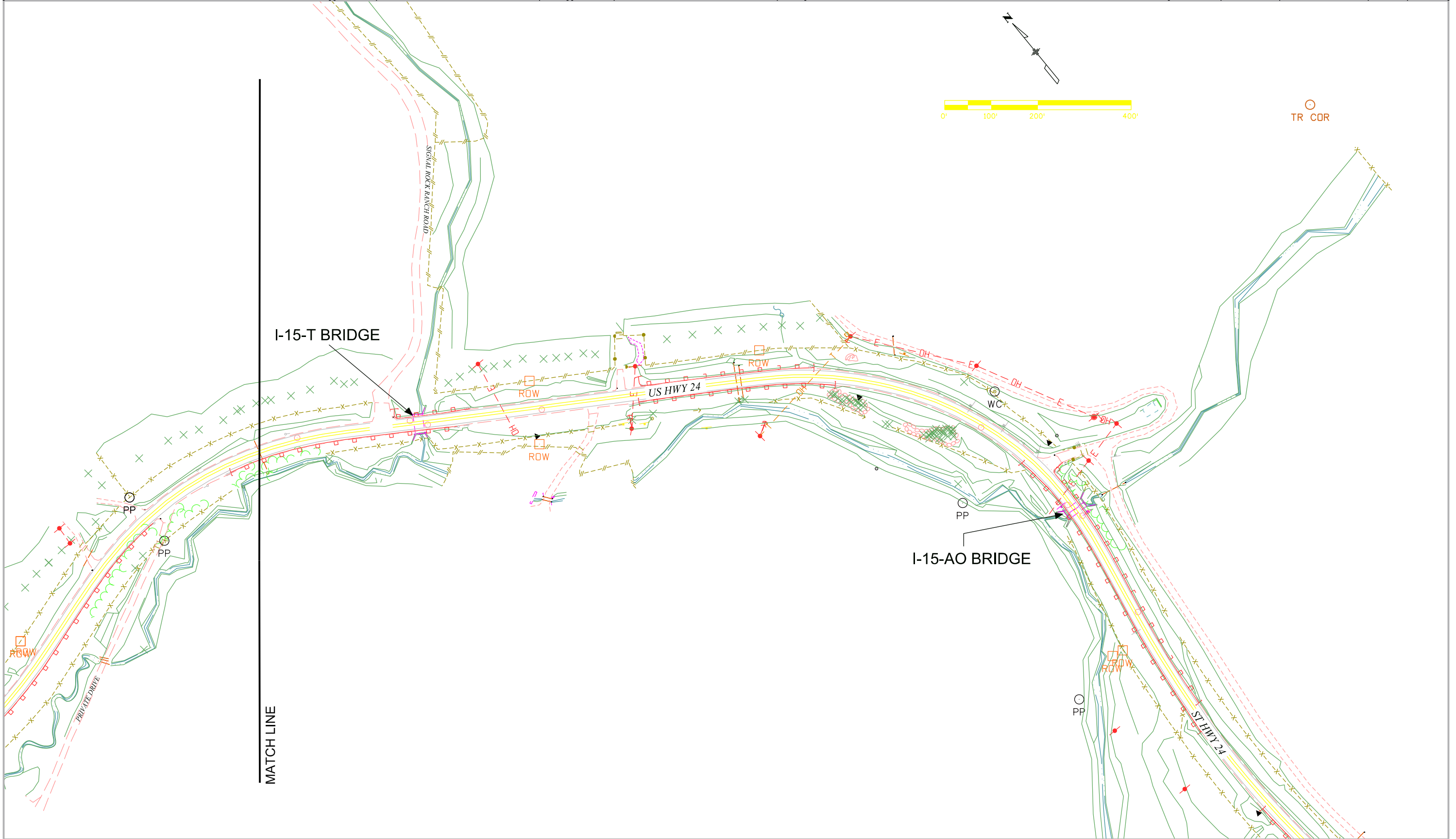
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Sheet Revisions

Date	Description	Initials

Project Number: FBR R200-266			
Project Location: BRIDGE REPLACEMENT			
I-15-AD - I-15-T - US HIGHWAY 24			
Project Code:	Last Mod. Date	Subset	Sheet No.
23558	1-13-2021	1.01 to 1.03	1.02

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Sheet Revisions

Date	Description	Initials

Sheet Revisions

Date	Description	Initials

ENGINEERS
ARCHITECTS
SURVEYORS
SCIENTISTS



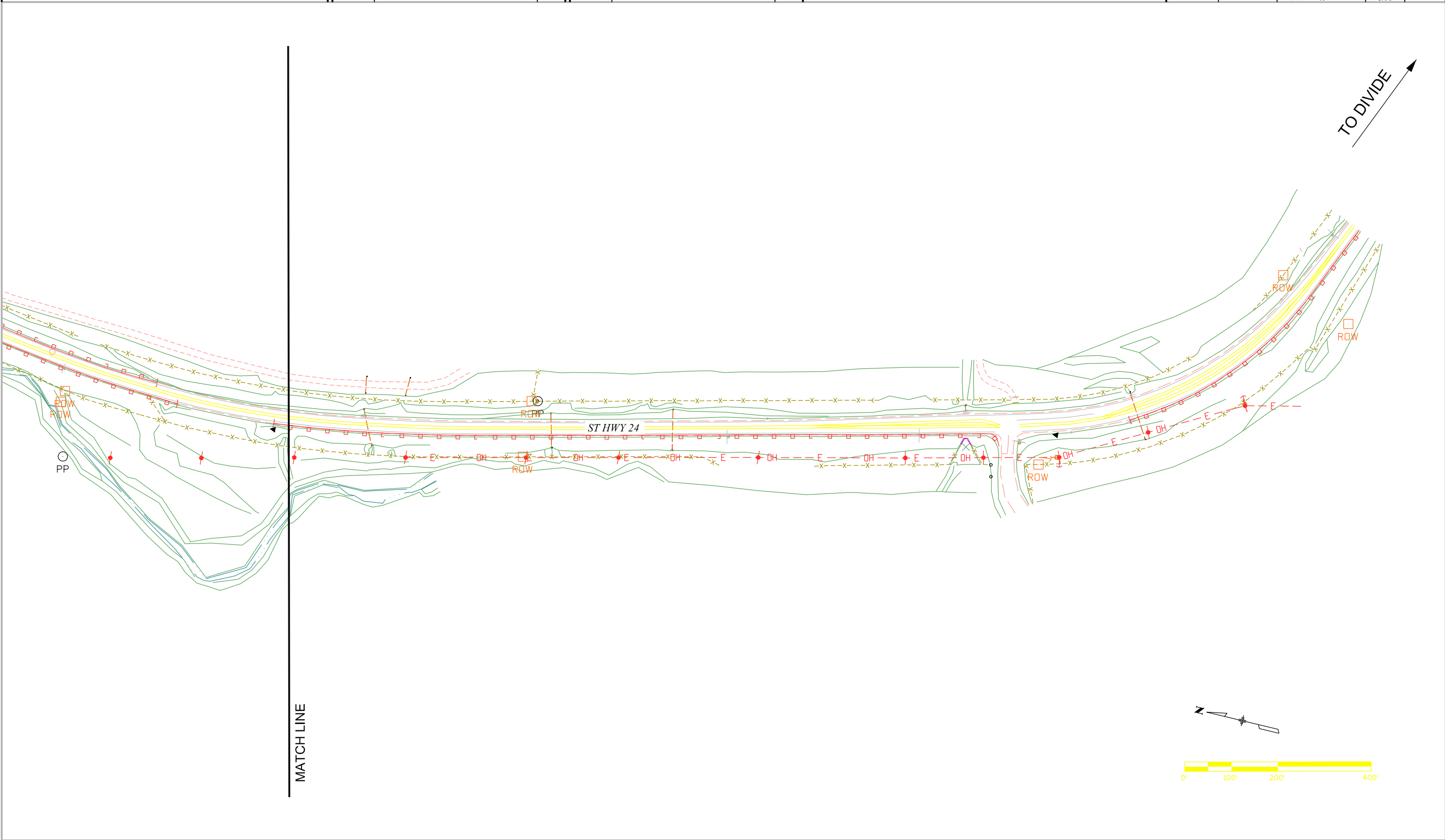
4755 FORGE ROAD, SUITE 150
COLORADO SPRINGS, CO 80907
(719) 590-9194 / (719) 590-9111 Fax
www.f-w.com

Topographical Drawing

Plan Sheet

Project Number: FBR R200-266			
Project Location: BRIDGE REPLACEMENT			
I-15-AD - I-15-T - US HIGHWAY 24			
Project Code:	Last Mod. Date	Subset	Sheet No.
	1-13-2021	1.01 to 1.03	1.03

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Sheet Revisions

Date	Description	Initials

Sheet Revisions

Date	Description	Initials

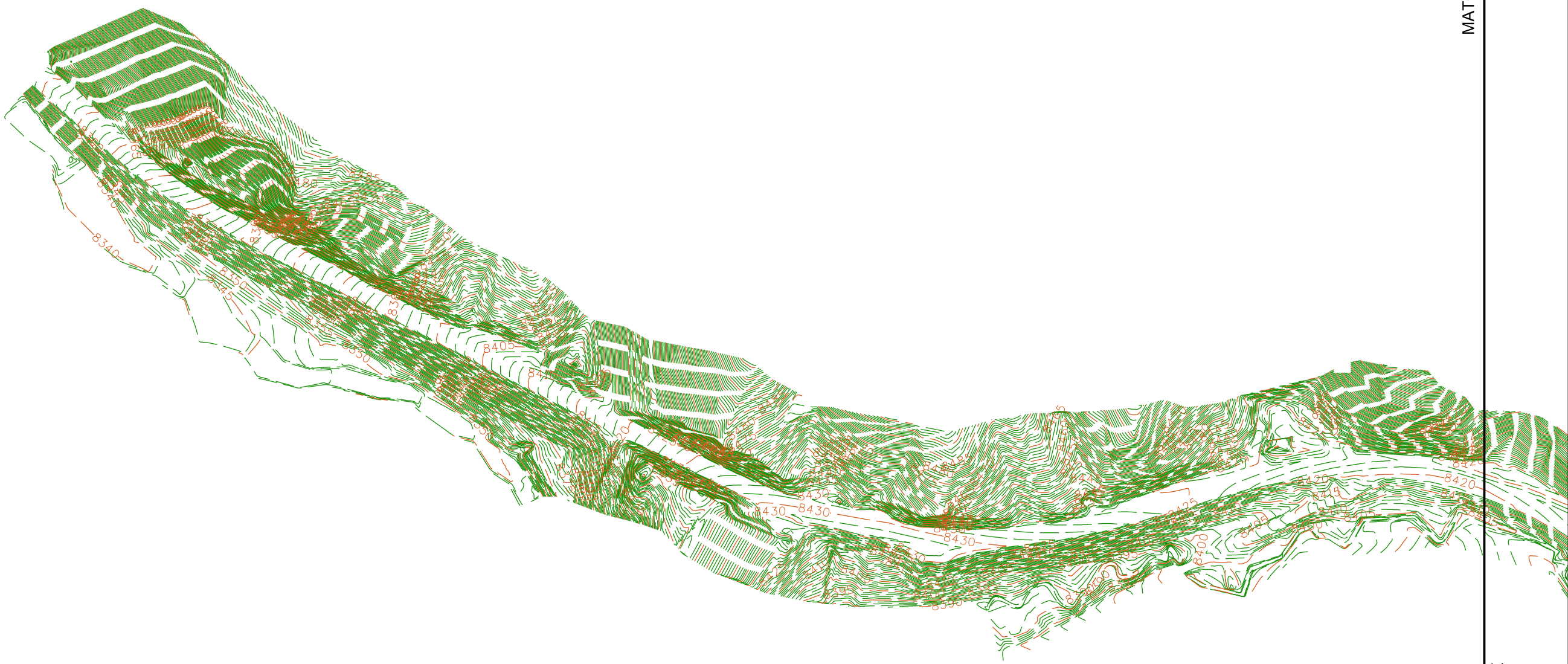
Contour Drawing

Plan Sheet

Project Number: FBR R200-266			
Project Location: BRIDGE REPLACEMENT			
I-15-AD - I-15-T - US HIGHWAY 24			
Project Code:	Last Mod. Date	Subset	Sheet No.
	1-13-2021	1.01 to 1.03	1.01

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TO FLORISSANT



MATCH LINE

MATCH LINE





Sheet Revisions

Date	Description	Initials

Sheet Revisions

Date	Description	Initials

ENGINEERS
ARCHITECTS
SURVEYORS
SCIENTISTS

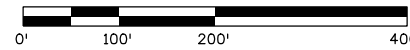
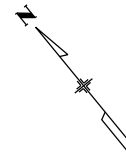


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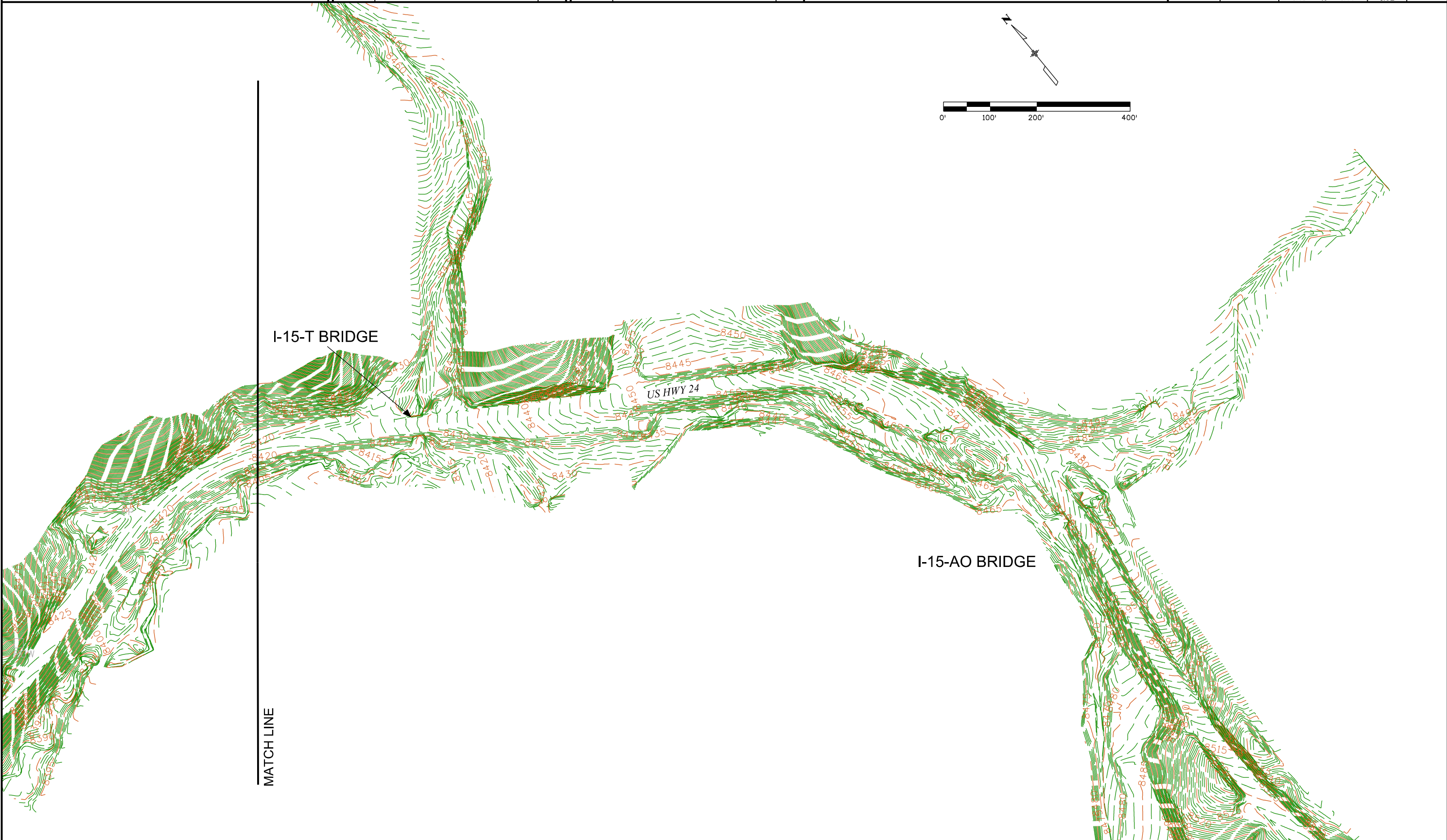
Contour Drawing

Plan Sheet

Project Number: FBR R200-266			
Project Location: BRIDGE REPLACEMENT			
I-15-AD - I-15-T - US HIGHWAY 24			
Project Code:	Last Mod. Date	Subset	Sheet No.
	1-13-2021	1.01 to 1.03	1.02



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Sheet Revisions

Date	Description	Initials

Sheet Revisions

Date	Description	Initials

ENGINEERS
ARCHITECTS
SURVEYORS
SCIENTISTS



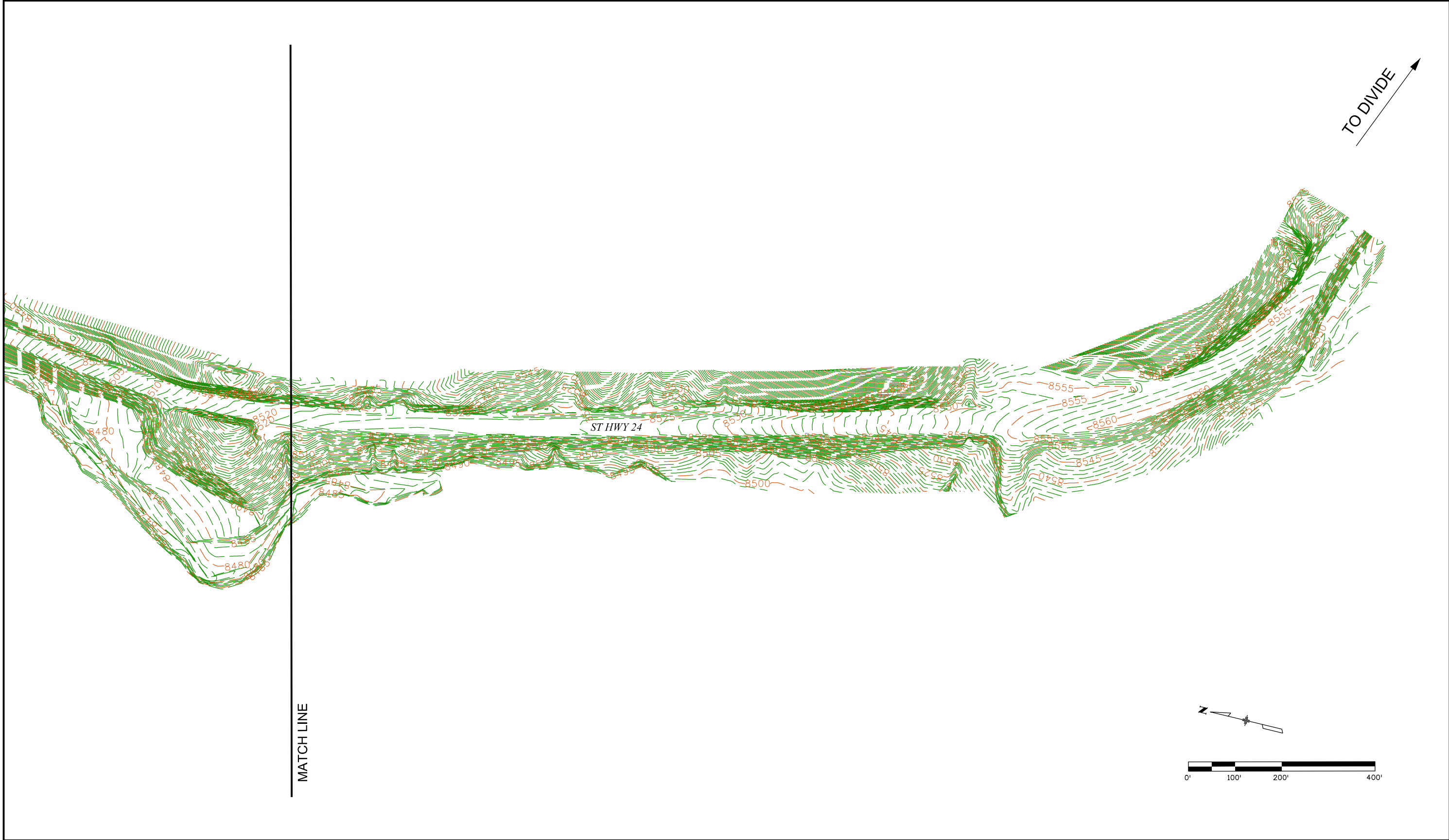
4755 FORGE ROAD, SUITE 150
COLORADO SPRINGS, CO 80907
(719) 590-9194 / (719) 590-9111 Fax
www.f-w.com

Contour Drawing

Plan Sheet

Project Number: FBR R200-266		
Project Location: BRIDGE REPLACEMENT		
I-15-AD - I-15-T - US HIGHWAY 24		
Project Code:	Last Mod. Date	Subset
	1-13-2021	1.01 to 1.03
		Sheet No.
		1.03

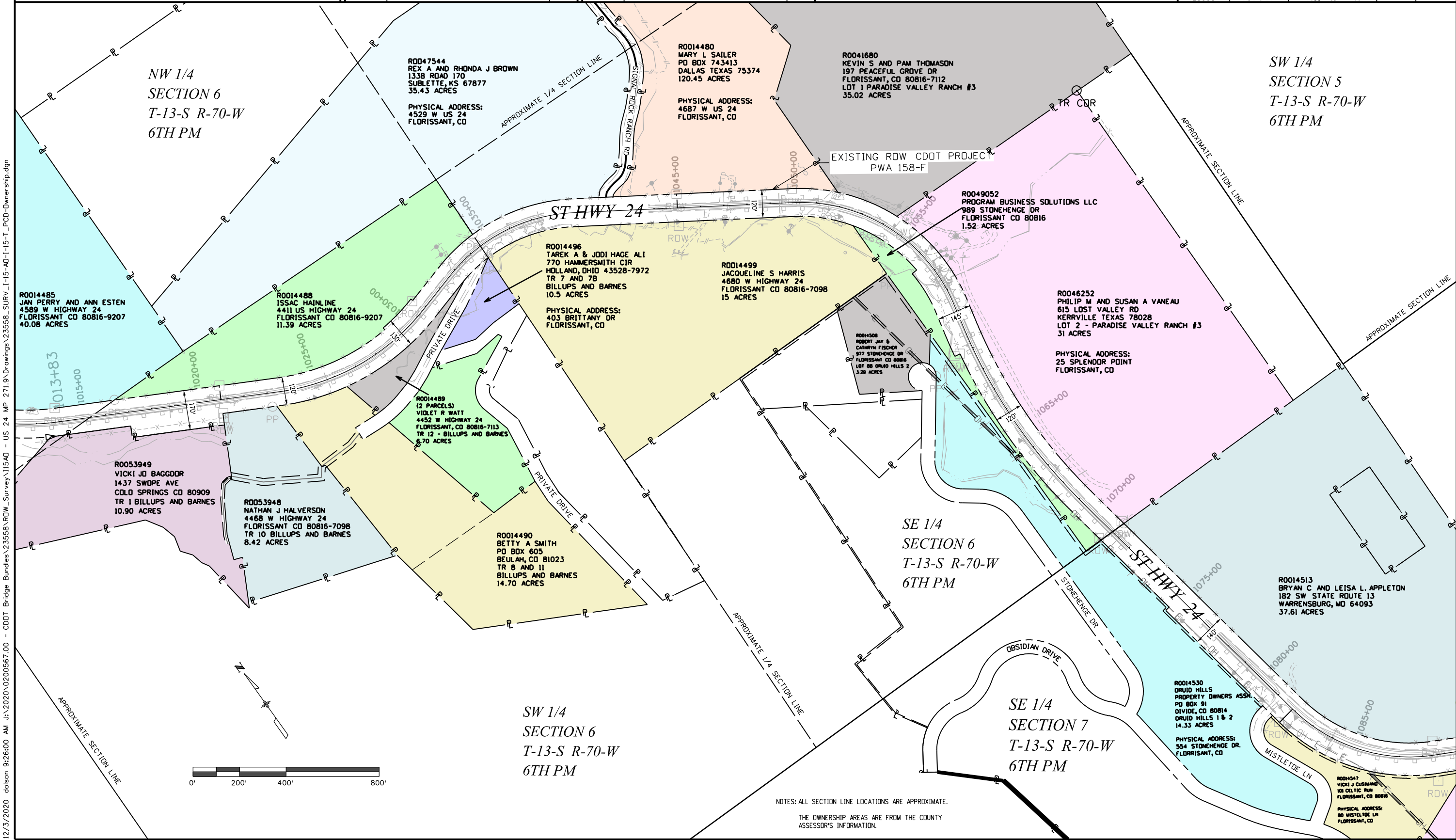
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Sheet Revisions		
Date	Description	Initials

Sheet Revisions		
Date	Description	Initials

Project/Land Survey Control Diagram			
Plan Sheet			
Project Number: FBR R200-266			
Project Location: BRIDGE REPLACEMENT			
I-15-AD - I-15-T - US HIGHWAY 24			
Project Code:	Last Mod. Date	Subset	Sheet No.
23558	11/18/20	7.01 to 7.01	



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NOTES: ALL SECTION LINE LOCATIONS ARE APPROXIMATE.
 THE OWNERSHIP AREAS ARE FROM THE COUNTY ASSESSOR'S INFORMATION.

Sheet Revisions		
Date	Description	Initials

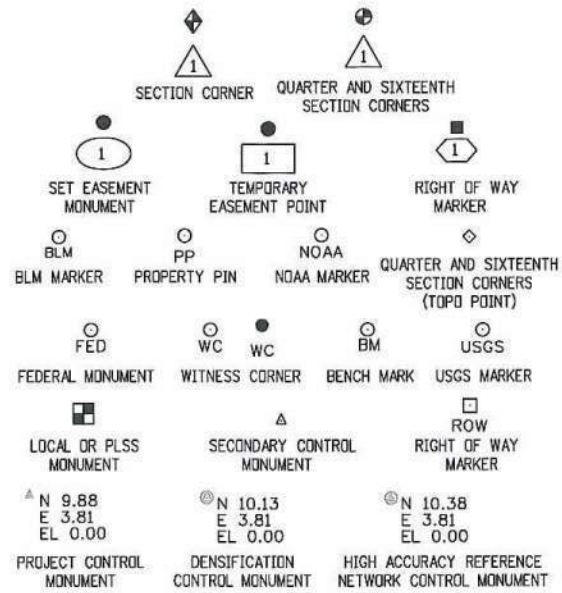
Sheet Revisions		
Date	Description	Initials

Project/Land Survey Control Diagram			
Title Sheet			
Project Number: FBR R200-266			
Project Location: BRIDGE REPLACEMENT			
I-17-X - US HIGHWAY 24			
Project Code:	Last Mod. Date	Subset	Sheet No.
23559	12-7-2020	3.01 of 3.02	3.01

DEPARTMENT OF TRANSPORTATION STATE OF COLORADO

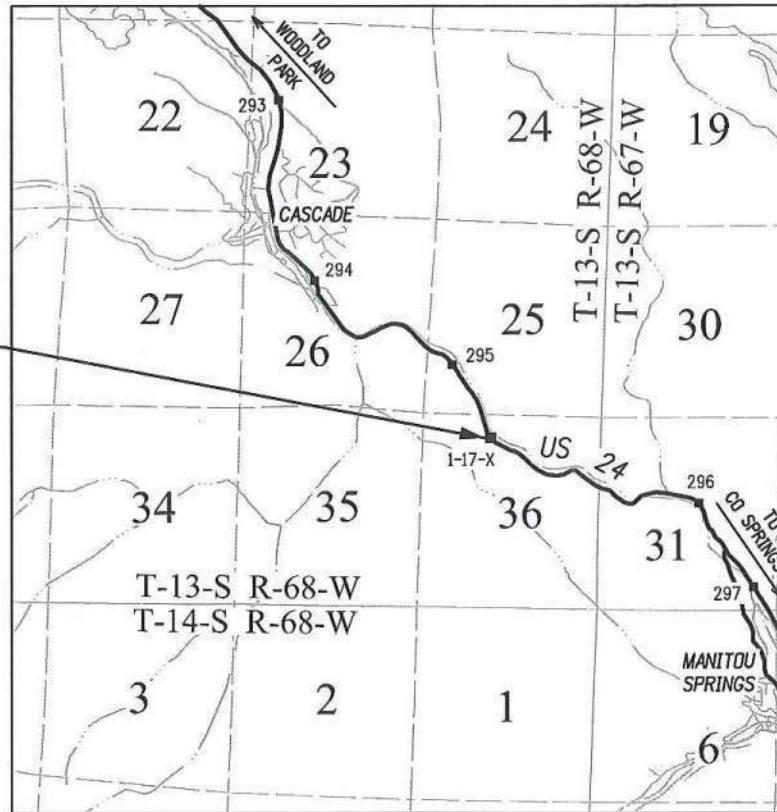
PROJECT / LAND SURVEY CONTROL DIAGRAM

SHEET NO.	INDEX OF SHEETS
3.01	(1) Title Sheet
3.02	(1) Project Control Diagram
(2) Total Sheets	



Note: For a complete listing of symbolology 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.

US HIGHWAY NO 24 SECTIONS 25 & 36, T-13-S, R-68-W SIXTH PRINCIPAL MERIDIAN EL PASO COUNTY



I-17-X
PROJECT FBR R200-266
US 24 - MP 295.45



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:

- This Project Control Diagram is not a boundary survey of the adjoining property and is prepared for the Colorado Department of Transportation purposes only.
- 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.
- 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.

The control for this project is part of a larger control network established for CDOT for Project NH 0242-056. The control was checked for accuracy.

Basis of Bearings: Bearings used in the calculations of coordinates are based on a grid bearing of S43°16'22"E from Control Point 9581 (a CDOT Type II Control Monument - MP 295.81) to Control Point 9586 (a CDOT Type II Control Monument - MP 295.86). Both monuments are marked appropriately for their milepost location. Coordinates are based on existing control established by the Colorado Department of Transportation for Project No: NH 0242-056 and were verified for this project.

Basis of Elevations: Project elevations are based on Control Point 9581 (a CDOT Type II Control Monument - MP 295.81) established during a prior project.

COORDINATE DATUM: Project coordinates are modified Colorado State Plane Central Zone (502) NAD '83/(11) coordinates. The combined elevation/scale factor used to modify the coordinates from state plane to project coordinates is 1.0003911480. The resulting project coordinates are truncated by 1,000,000 in the Northing and 3,000,000 in the Easting after converting from state plane coordinates to project coordinates.

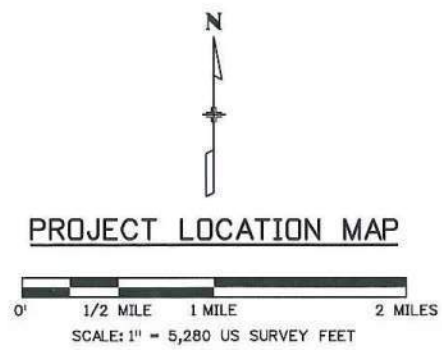
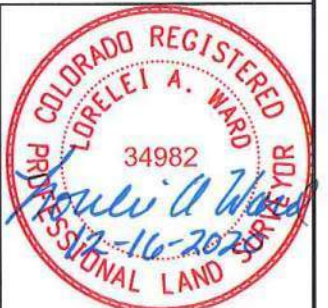
Project Coordinates Northing US Survey Feet = (State Plane Coordinate Northing(ft) * 1.0003911480).
 Project Coordinates Easting US Survey Feet = (State Plane Coordinate Easting(ft) * 1.0003911480).

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



Sheet Revisions		
Date	Description	Initials

Sheet Revisions		
Date	Description	Initials

Project Control Diagram			
Plan Sheet			
Project Number: FBR R200-266			
Project Location: BRIDGE REPLACEMENT			
I-17-X - US HIGHWAY 24			
Project Code:	Last Mod. Date	Subset	Sheet No.
23559	11-10-2020	3.02 of 3.02	3.02

**DEPARTMENT OF TRANSPORTATION
 STATE OF COLORADO
 PROJECT CONTROL DIAGRAM
 US HIGHWAY 24
 SECTION 25 & 36, T-13-S R-68-W, 6TH PM
 EL PASO COUNTY**

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 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 COORDINATE TABLE				
Point No	Project Coordinates		Elev(ft) (NAVD88)	Description
	Northing(ft)	Easting(ft)		
701	384,841.56	156,576.63	7,138.93	1.5" ALUM CAP - "DEA INC CONTROL"
702	382,836.89	157,783.07	7,031.53	#4 REBAR W/DIMPLE IN CENTER
9449	382,896.40	157,898.03	7,030.37	CDOT TYPE II CONTROL MONUMENT - "MP 294.49"
9450	382,776.53	157,646.33	7,035.95	CDOT TYPE II CONTROL MONUMENT - "MP 294.50"
9497	384,994.93	156,072.27	7,157.70	CDOT TYPE II CONTROL MONUMENT - "MP 294.97"
9581	381,949.07	158,856.89	6,992.63	CDOT TYPE II CONTROL MONUMENT - "MP 295.81"
9586	381,749.84	159,044.45	6,984.54	CDOT TYPE II CONTROL MONUMENT - "MP 295.86"

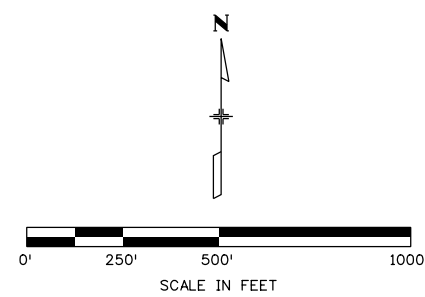
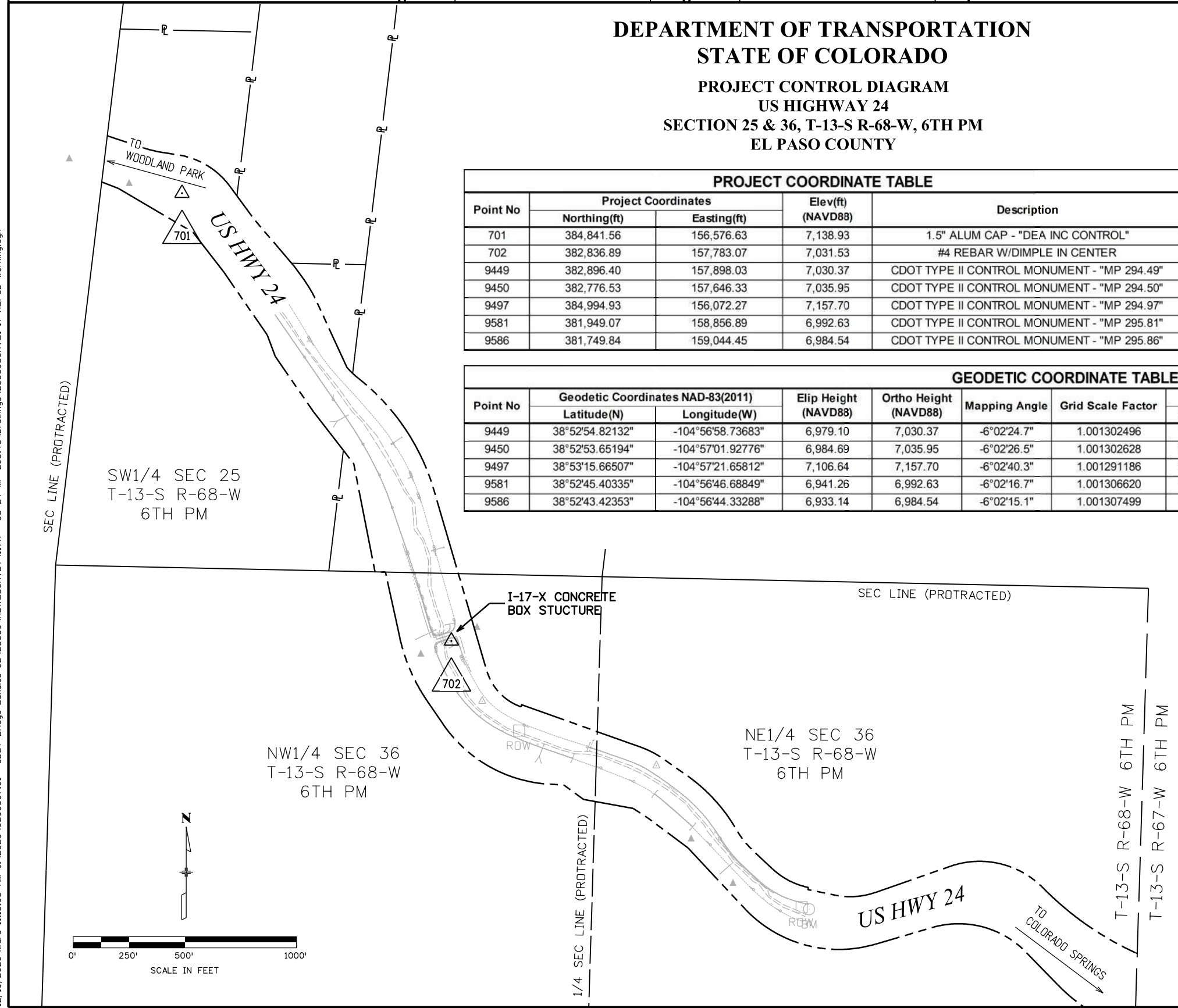
GEODETIC COORDINATE TABLE									
Point No	Geodetic Coordinates NAD-83(2011)		Elip Height (NAVD88)	Ortho Height (NAVD88)	Mapping Angle	Grid Scale Factor	NAD 83(2011) Zone 0502		Description
	Latitude(N)	Longitude(W)					SP Northing	SP Easting	
9449	38°52'54.82132"	-104°56'58.73683"	6,979.10	7,030.37	-6°02'24.7"	1.001302496	1,382,355.69	3,156,663.30	CDOT TYPE II CONTROL MONUMENT - "MP 294.49"
9450	38°52'53.65194"	-104°57'01.92776"	6,984.69	7,035.95	-6°02'26.5"	1.001302628	1,382,235.87	3,156,411.70	CDOT TYPE II CONTROL MONUMENT - "MP 294.50"
9497	38°53'15.66507"	-104°57'21.65812"	7,106.64	7,157.70	-6°02'40.3"	1.001291186	1,384,453.40	3,154,838.25	CDOT TYPE II CONTROL MONUMENT - "MP 294.97"
9581	38°52'45.40335"	-104°56'46.68849"	6,941.26	6,992.63	-6°02'16.7"	1.001306620	1,381,408.73	3,157,621.78	CDOT TYPE II CONTROL MONUMENT - "MP 295.81"
9586	38°52'43.42353"	-104°56'44.33288"	6,933.14	6,984.54	-6°02'15.1"	1.001307499	1,381,209.58	3,157,809.28	CDOT TYPE II CONTROL MONUMENT - "MP 295.86"

Combined Scale Factor: 1.0003911480
 Northing Truncation: 1,000,000
 Easting Truncation: 3,000,000
 All values are US Survey Feet
 Elevation is NAVD 88

Basis of Bearings: Bearings used in the calculations of coordinates are based on a grid bearing of S43°16'22"E from Control Point 9581 (a CDOT Type II Control Monument - MP 295.81) to Control Point 9586 (a CDOT Type II Control Monument - MP 295.86). Both monuments are marked appropriately for their milepost location. Coordinates are based on existing control established by the Colorado Department of Transportation for Project No: NH 0242-056 and were verified for this project.

Coordinate Datum: Project coordinates are modified Colorado State Plane Central Zone (0502) NAD 83 (2011) coordinates. The combined elevation/scale factor used to modify state plane to project coordinates is 1.0003911480. The resulting project coordinates are truncated by 1,000,000 in the Northing and 3,000,000 in the Easting after converting from state plane coordinates to project coordinates.

Project Coordinates Northing US Survey Feet = (State Plane Coordinate Northing * 1.0003911480 - 1,000,000)
 Project Coordinates Easting US Survey Feet = (State Plane Coordinate Easting * 1.0003911480 - 3,000,000)



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Sheet Revisions

Date	Description	Initials

Sheet Revisions

Date	Description	Initials

Project Number: FBR R200-266			
Project Location: BRIDGE REPLACEMENT			
I-17-X - US HIGHWAY 24			
Project Code:	Last Mod. Date:	Subset	Sheet No.
23559	1-13-2021	1.01 of 1.01	

**DEPARTMENT OF TRANSPORTATION
 STATE OF COLORADO**

**PROJECT CONTROL DIAGRAM
 US HIGHWAY 24
 SECTION 25 & 36, T-13-S R-68-W, 6TH PM
 EL PASO COUNTY**





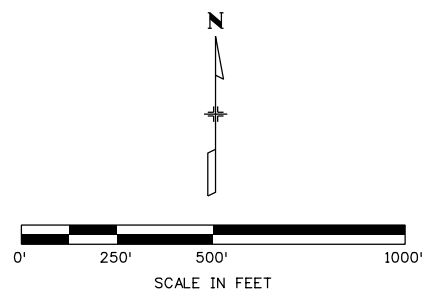
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Date	Description	Initials

Sheet Revisions		
Date	Description	Initials

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Project Location: BRIDGE REPLACEMENT			
I-17-X - US HIGHWAY 24			
Project Code:	Last Mod. Date	Subset	Sheet No.
23559	1-13-2021	1.01 of 1.01	

**DEPARTMENT OF TRANSPORTATION
 STATE OF COLORADO**

**PROJECT CONTROL DIAGRAM
 US HIGHWAY 24
 SECTION 25 & 36, T-13-S R-68-W, 6TH PM
 EL PASO COUNTY**





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



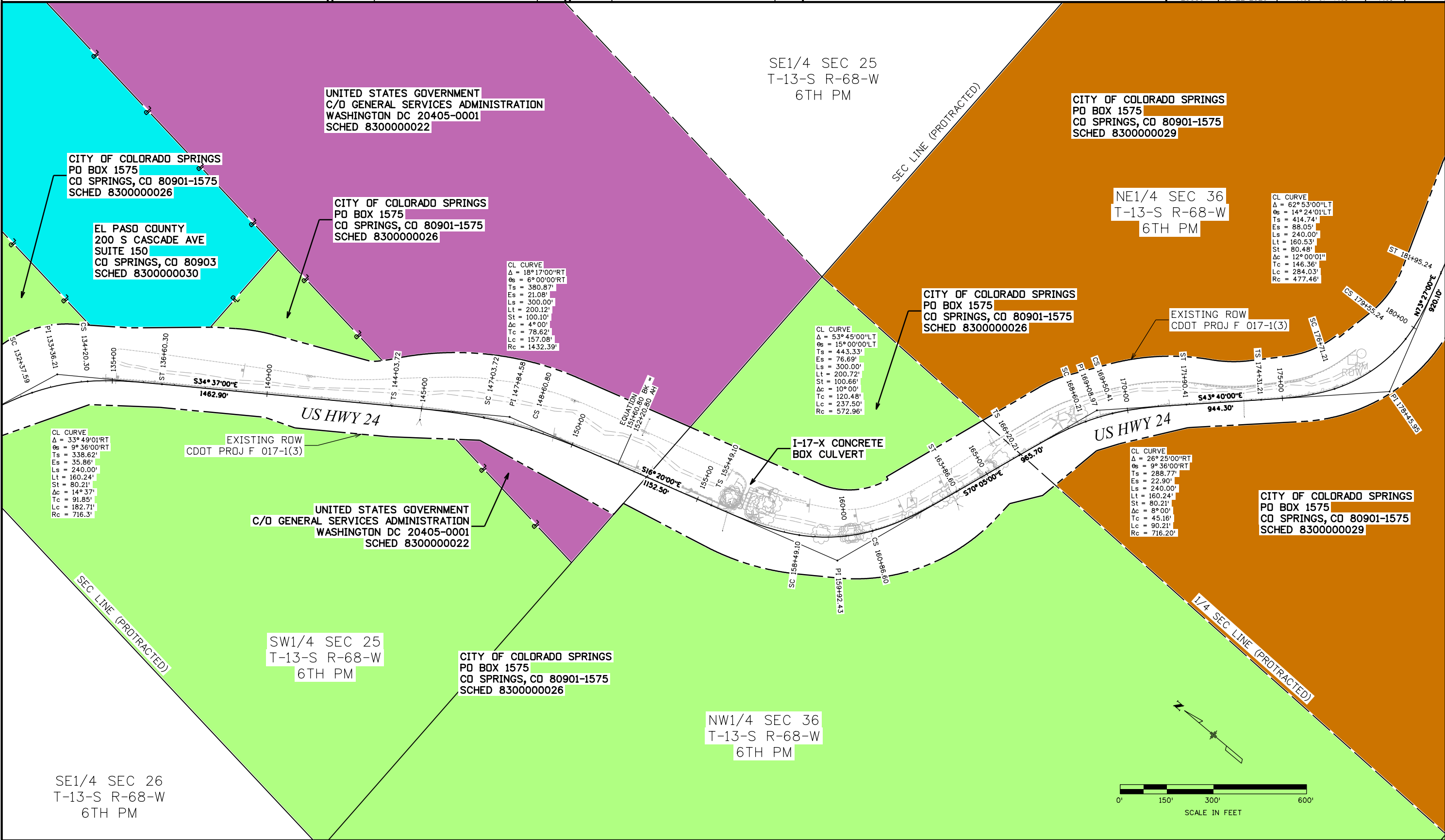
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www.f-w.com

Right-of-Way Plans

Ownership Map

Project Number: FBR R200-266
Project Location: BRIDGE REPLACEMENT
I-17-X - US HIGHWAY 24
Project Code: Last Mod. Date Subset Sheet No.
23559 10-22-2020 7.01 of 7.01 7.01

12/7/2020 3:14:23 PM J:\2020\0200567.01 - CDDT Bridge Bundles 02\23559\RDW_SURVEY\I17X - US 24 MP 295.45\Drawings\23559RDW_I-17-X_Ownership.dgn





Sheet Revisions

Date	Description	Initials

Sheet Revisions

Date	Description	Initials

Project Control Diagram

Title Sheet			
Project Number: FBR R200-266			
Project Location: BRIDGE REPLACEMENT			
J-15-G & J-14-C - ST HIGHWAY 9			
Project Code:	Last Mod. Date	Subset	Sheet No.
23558	11-19-2020	3.01 of 3.04	3.01

DEPARTMENT OF TRANSPORTATION STATE OF COLORADO

PROJECT CONTROL DIAGRAM

State Highway 9
Section 7

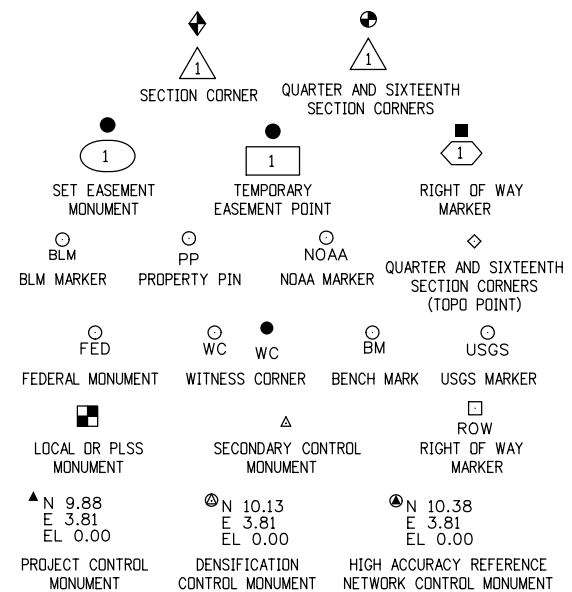
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& Sections 23, 25 and 26
Township 15 South, Range 73 West
of the 6th Principal Meridian
Counties of Fremont and Park

SHEET NO.

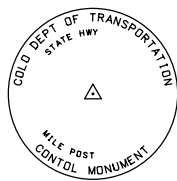
3.01
3.02
3.03-3.04

INDEX OF SHEETS

(1) Title Sheet
(1) Coordinate Tables
(2) Plan Sheet
(4) Total Sheets



Note: For a complete listing of symbolology 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

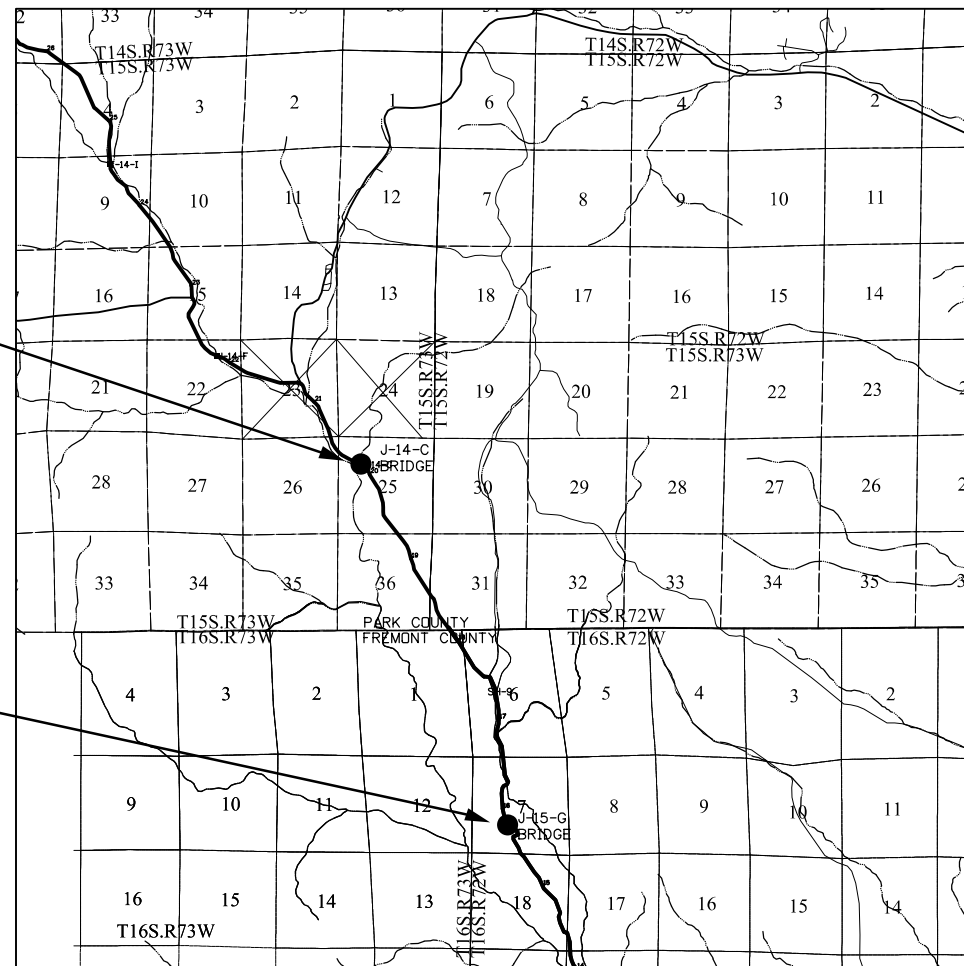
▲ CM-MP - Control Point Monuments set by CDDT. They are CDDT Type 2 monuments, a 3 3/4" dia. aluminum control monument cap (as shown) on a 3' x 3/4" dia. aluminum security rod on a 3' x 3/4" dia. smooth aluminum rod.

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 CDDT 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.

J-14-C
ST HWY 9 - MP 20.107

J-15-G
ST HWY 9 - MP 15.83



PROJECT LOCATION MAP



SCALE: 1" = 10,560 US SURVEY FEET

Basis of Bearings: Bearings used in the calculations of coordinates are based on a grid bearing of S 76°14'42"E from CM-MP 203 to CM-MP 201. Both monuments are CDDT Type II, marked appropriately for their milepost location and control position. The survey data was obtained from a Global Positioning System (GPS) survey in September of 2020 and is based on the National Spatial Reference System (NSRS).

Basis of Elevations: Project elevations for J-15-G are based on a GPS elevation of 7949.77 on C.P. 154. Project elevations for J-14-C are based on a GPS elevation of 8283.00 on C.P. 203. All project control were then leveled through using 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 1.0004436603. 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 * 1.0004436603) - 1,000,000.

Project Coordinates Easting US Survey Feet = (State Plane Coordinate Easting * 1.0004436603) - 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



Sheet Revisions		
Date	Description	Initials

Sheet Revisions		
Date	Description	Initials

Project/Land Survey Control Diagram			
Coordinate Tables			
Project Number: FBR R200-266			
Project Location: BRIDGE REPLACEMENTS			
J-14-C MP 20.11 & J-15-G MP 15.83			
Project Code:	Last Mod. Date	Subset	Sheet No.
23558	10-15-2020	3.01 of 3.04	3.02



GEODETTIC COORDINATE TABLE									
Point No.	Geodetic Coordinates NAD-83(2011)		Elev Height (NAVD88)	Ortho Height (NAVD88)	Mapping Angle	Combined Scale Factor	NAD 83(2011) Zone 0502		Description
	Latitude(N)	Longitude(W)					SP Northing (f)	SP Easting (f)	
154	38°40'02.05263"	-105°28'50.69659"	7,902.05	7,949.77	0°00'43.7"	0.999586643	1,303,705.04	3,005,496.59	CDOT TYPE II MONUMENT
157	38°40'12.34487"	-105°28'58.37261"	7,943.88	7,991.54	0°00'38.9"	0.999584270	1,304,746.12	3,004,887.59	CDOT TYPE II MONUMENT
159	38°40'11.95241"	-105°29'08.00937"	7,976.26	8,023.92	0°00'32.8"	0.999582737	1,304,706.28	3,004,123.32	CDOT TYPE II MONUMENT
195	38°42'54.90242"	-105°30'40.39565"	8,405.92	8,452.76	-0°00'25.5"	0.999556619	1,321,190.80	2,996,798.30	CDOT TYPE II MONUMENT
201	38°43'18.77890"	-105°30'52.84544"	8,252.02	8,298.76	-0°00'33.3"	0.999563206	1,323,606.38	2,995,811.94	CDOT TYPE II MONUMENT
203	38°43'21.11017"	-105°31'05.01144"	8,236.28	8,283.00	-0°00'41.0"	0.999563884	1,323,842.40	2,994,847.82	CDOT TYPE II MONUMENT
207	38°43'39.14240"	-105°31'20.17685"	8,279.03	8,325.68	-0°00'50.6"	0.999561271	1,325,666.88	2,993,646.40	CDOT TYPE II MONUMENT
1615	38°40'28.61367"	-105°29'19.25562"	8,038.02	8,085.59	0°00'25.7"	0.999579186	1,306,391.67	3,003,231.18	CDOT TYPE II MONUMENT
T287	38°44'05.39583"	-105°32'04.80329"	8,351.92	8,398.44	-0°01'18.7"	0.999556973	1,328,323.89	2,990,111.00	NGS BRASS CAP PID #JK0747 STAMPED T287 1951
WILLIAMS	38°39'10.66213"	-105°28'21.53538"	7,682.08	7,730.09	0°01'02.1"	0.999599057	1,298,506.77	3,007,810.99	NGS BRASS SET PID #AA3128 IN ROCK STAMPED WWILLIAMS 1993



PROJECT COORDINATE TABLE				
Point No.	Project Coordinates		Elev(ft) (NAVD88)	Description
	Northing(ft)	Easting(ft)		
154	304,283.44	1,006,830.01	7,949.77	CDOT TYPE II MONUMENT
157	305,324.98	1,006,220.74	7,991.54	CDOT TYPE II MONUMENT
159	305,285.13	1,005,456.13	8,023.92	CDOT TYPE II MONUMENT
195	321,776.96	998,127.86	8,452.76	CDOT TYPE II MONUMENT
201	324,193.62	997,141.06	8,298.76	CDOT TYPE II MONUMENT
203	324,429.73	996,176.51	8,283.00	CDOT TYPE II MONUMENT
207	326,255.02	994,974.56	8,325.68	CDOT TYPE II MONUMENT
1615	306,971.26	1,004,563.60	8,085.59	CDOT TYPE II MONUMENT
T287	328,913.22	991,437.60	8,398.44	NGS BRASS CAP PID #JK0747 STAMPED T287 1951
WILLIAMS	299,082.87	1,009,145.43	7,730.09	NGS BRASS SET PID #AA3128 IN ROCK STAMPED WWILLIAMS 1993



FOUND BOUNDARY MONUMENT TABLE - J-15-G				
Point No.	Project Coordinates		Elev(ft) (NAVD88)	Description
	Northing(ft)	Easting(ft)		
1	310,697.61	1,004,029.04	8,228.02	3.5" ALUM CAP BLM WC SECTION 6 72.7 FT SOUTHEAST
2	310,703.52	1,004,131.66	8,215.86	3.5" ALUM CAP BLM WC SECTION 6 72.7 FT SOUTHWEST
4	305,305.60	1,005,912.20	7,994.42	3" ALUM CAP BLM C 1/4 SECTION 7 1996
5	302,626.67	1,008,461.87	7,997.09	3.5" BLM BRASS CAP SECTION CORNER MARKED 7/8/17/18 DATED 1996
148371	306,180.29	1,004,846.54	8,046.49	WPC M-2 LS34587
148400	306,613.25	1,004,744.11	8,067.06	NO CAP #4 REBAR
148402	306,532.33	1,004,764.68	8,063.05	WPC M2 SURVEYING PLS 34587
148403	306,498.39	1,004,772.58	8,062.78	WPC M2 SURVEYING PLS 34587
148404	306,465.58	1,004,780.17	8,063.65	WPC M2 SURVEYING PLS 34587
148418	306,791.09	1,004,695.18	8,072.97	3.5" ALUM CAP ROW L2 L1 PLS 34597 2008
148440	307,248.56	1,004,579.33	8,081.34	WPC M2 SURVEYING PLS 345870
148454	307,749.76	1,004,494.41	8,097.46	WPC M2 SURVEYING PLS 345870
148571	306,230.48	1,004,753.22	8,063.92	REBAR W9
148578	306,123.87	1,004,755.51	8,066.81	1" WHITE PLASTIC CAP MARKED "ASC PLS28651"
148591	305,874.74	1,004,793.54	8,054.55	1" WHITE PLASTIC CAP MARKED "ASC PLS28651"
148619	305,504.47	1,005,122.91	8,038.61	#4 REBAR NO CAP
148977	306,138.93	1,004,854.42	8,039.19	WPC M-2 PLS 34578
148990	306,524.20	1,004,937.58	8,056.24	WPC M-2 PLS 34578
147049	303,985.08	1,007,096.26	7,950.97	BLM TAG 100 SE TO COR
147050	303,966.14	1,007,190.58	7,981.22	3.5" BLM BRASS CAP SE 1/16 SEC 7 1996
149037	308,042.07	1,003,083.57	8,187.19	BEARING TREE
149038	308,013.04	1,003,070.06	8,193.25	BEARING TREE
149039	308,098.77	1,003,114.25	8,180.62	NAIL AND WASHER 3/8" FROM BOTTOM OF TREE
149040	305,438.12	1,005,914.81	8,018.17	2.5" ALUM CAP MARKED L1 ROW PLS 34587 DATED 2008
149041	302,597.77	1,008,458.01	7,995.32	YPC ILLEGIBLE
149042	302,621.14	1,008,440.66	7,995.05	YPC ILLEGIBLE
149043	302,637.75	1,008,480.43	7,997.79	X CHISELED IN STONE - STONE ON GROUND
300000	308,030.67	1,003,111.85	8,184.57	3.5" BRASS CAP IN MOUND OF STONE



FOUND BOUNDARY MONUMENT TABLE - J-14-C				
Point No.	Project Coordinates		Elev(ft) (NAVD88)	Description
	Northing(ft)	Easting(ft)		
5401	326,238.65	994,996.79	8,325.72	RPC ON #4 REBAR MARKED PLS 25968
5402	326,148.29	995,027.81	8,324.30	RPC ON #4 REBAR MARKED PLS 25968
5403	325,696.72	995,056.14	8,306.67	YPC ON #4 REBAR MARKED PLS 19883
5404	325,662.15	995,064.64	8,306.52	2 1/2" RPC ON #4 REBAR MARKED PLS 19883
5405	324,325.77	996,946.89	8,286.33	NW 1/16 S25
5406	324,350.90	996,903.54	8,288.47	NW 1/16 S25 REFERENCE
5407	324,413.80	996,912.12	8,290.74	NW 1/16 S25 REFERENCE



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Region 2

DRP

Sheet Revisions

Date	Description	Initials

Sheet Revisions

Date	Description	Initials



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Project/Land Survey Control Diagram

Plan Sheet

Project Number: FBR R200-266			
Project Location: BRIDGE REPLACEMENT			
J-14-C - ST HIGHWAY 9			
Project Code:	Last Mod. Date	Subset	Sheet No.
23558	12-18-2020	3.01 to 3.04	3.03

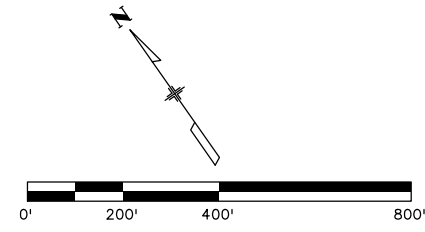
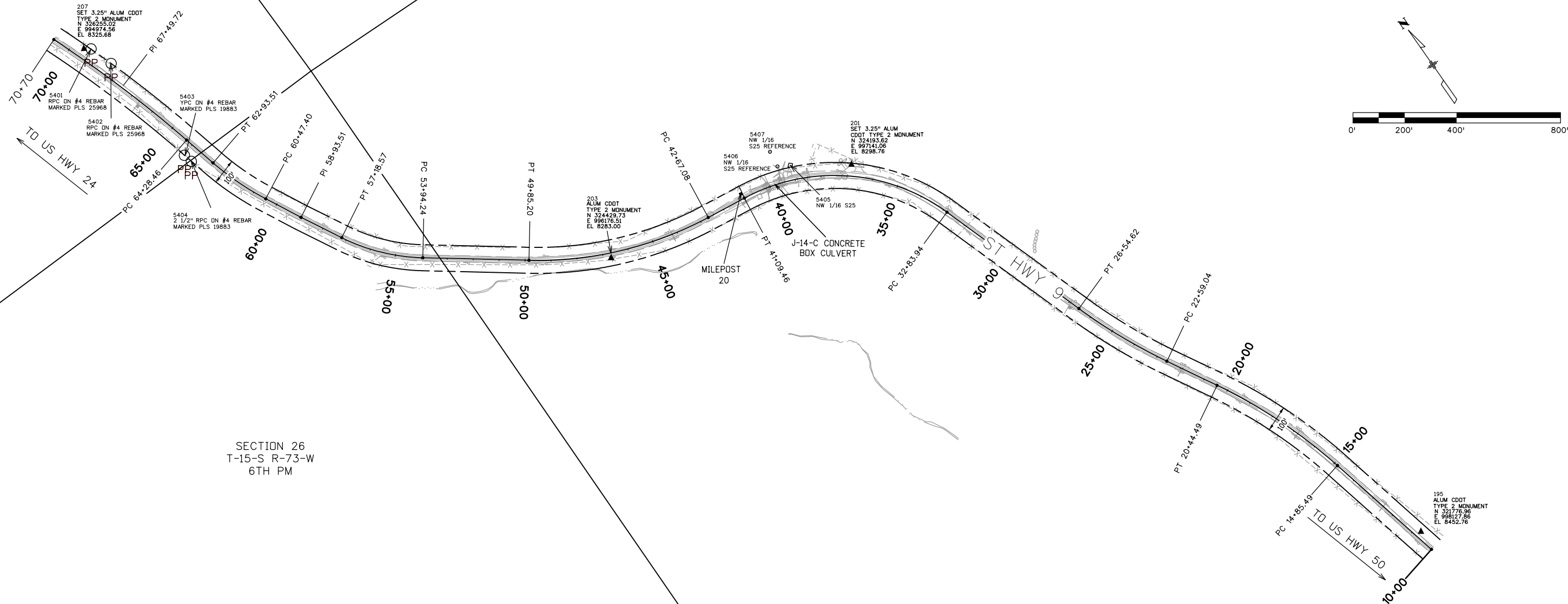
SECTION 24
 T-15-S R-73-W
 6TH PM

SECTION 23
 T-15-S R-73-W
 6TH PM

SECTION 25
 T-15-S R-73-W
 6TH PM

APPROXIMATE SECTION LINE

APPROXIMATE SECTION LINE



NOTES: ALL SECTION LINE LOCATIONS ARE APPROXIMATE.

The Right of Way (ROW) lines shown were developed using a combination of existing BLM records, the existing roadway centerline and CDDT records on highway widths. No CDDT ROW or construction plans were found for this area. The ROW lines were developed using the centerline of the existing highway. The ROW width is from the BLM records and matches the CDDT records. The centerline alignment and stationing was developed using the existing surveyed highway alignment.

12/18/2020 3:42:13 PM J:\2020\0200567.00 - CDDT Bridge Bundles\23558\RDW_Survey\J15G-Hwy 9 MP 15.83\Drawings\23558_SURV_J-14-C_PCD-Plan01.dgn



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Sheet Revisions

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PROJECT/LAND SURVEY CONTROL DIAGRAM

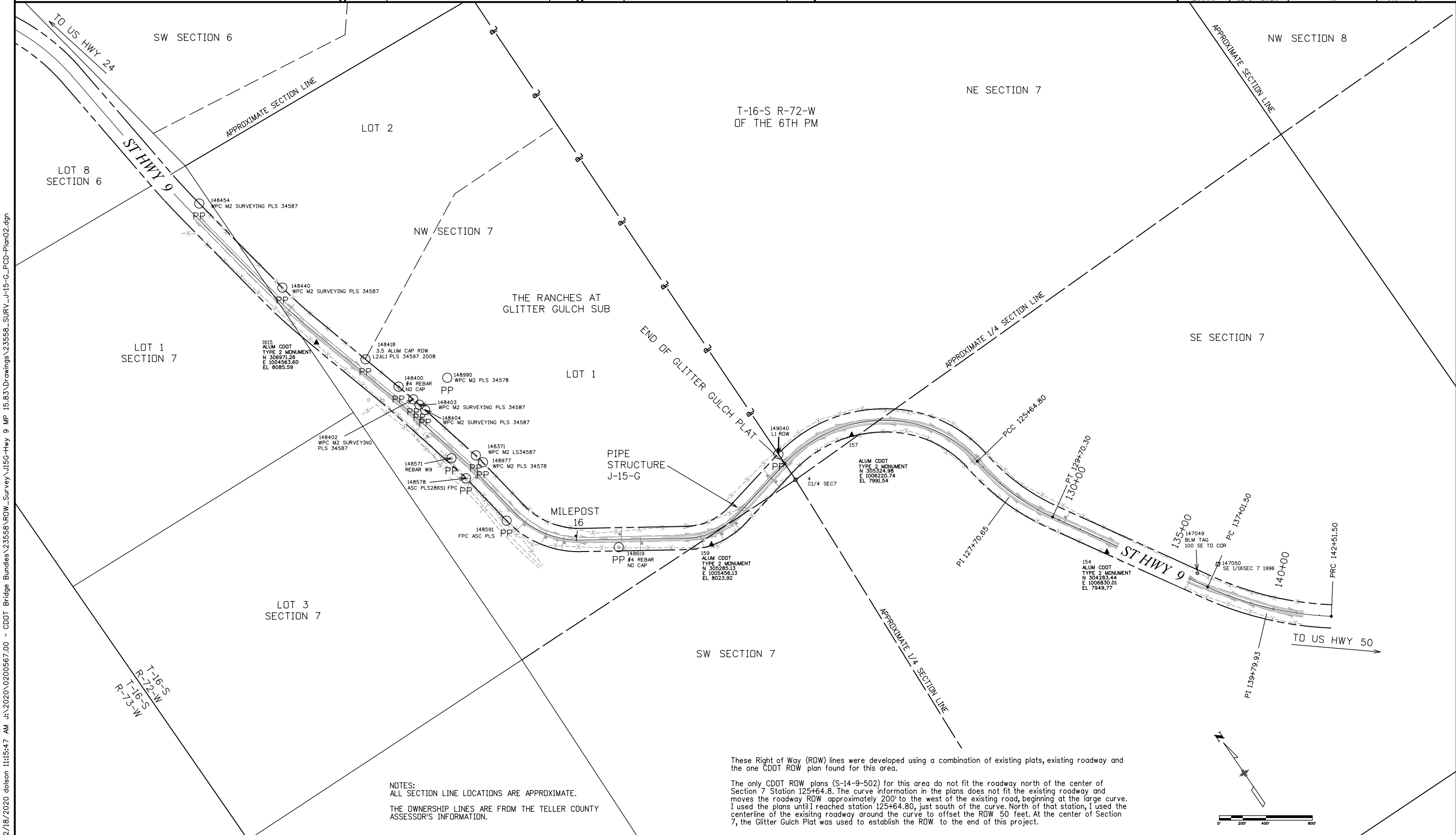
PLAN SHEET

Project Number: FBR R200-266

Project Location: BRIDGE REPLACEMENT

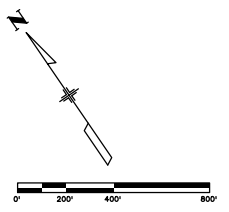
J-15-G STATE HIGHWAY 9

Project Code:	Last Mod. Date	Subset	Sheet No.
23558	12-17-2020	3.01 to 3.04	3.04



NOTES:
ALL SECTION LINE LOCATIONS ARE APPROXIMATE.
THE OWNERSHIP LINES ARE FROM THE TELLER COUNTY ASSESSOR'S INFORMATION.

These Right of Way (ROW) lines were developed using a combination of existing plats, existing roadway and the one CDOT ROW plan found for this area.
The only CDOT ROW plans (S-14-9-502) for this area do not fit the roadway north of the center of Section 7 Station 125+64.8. The curve information in the plans does not fit the existing roadway and moves the roadway ROW approximately 200' to the west of the existing road, beginning at the large curve. I used the plans until I reached station 125+64.80, just south of the curve. North of that station, I used the centerline of the existing roadway around the curve to offset the ROW 50 feet. At the center of Section 7, the Glitter Gulch Plat was used to establish the ROW to the end of this project.



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Sheet Revisions

Date	Description	Initials

Sheet Revisions

Date	Description	Initials

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 ARCHITECTS
 SURVEYORS
 SCIENTISTS



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Topographical Drawing

Plan Sheet

Project Number: FBR R200-266

Project Location: BRIDGE REPLACEMENT

J-14-C STATE HIGHWAY 9

Project Code:	Last Mod. Date	Subset	Sheet No.
23558	1-13-2021	1 of 1	

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Sheet Revisions

Date	Description	Initials

Sheet Revisions

Date	Description	Initials

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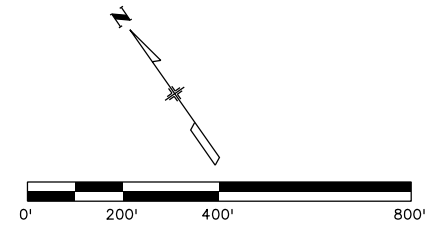
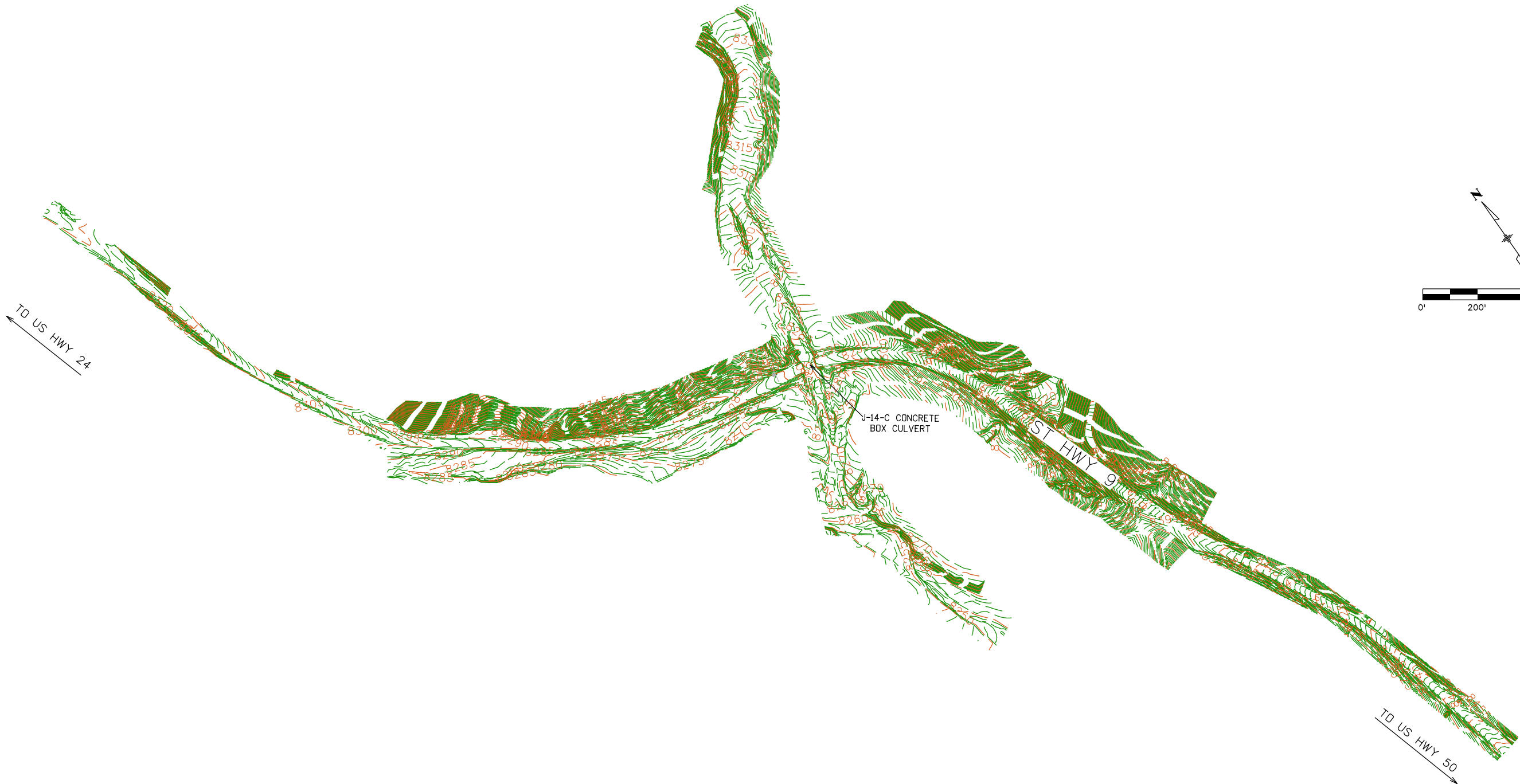
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Contour Drawing

Plan Sheet

Project Number: FBR R200-266			
Project Location: BRIDGE REPLACEMENT			
J-14-C STATE HIGHWAY 9			
Project Code:	Last Mod. Date	Subset	Sheet No.
23558	1-13-2021	1 of 1	

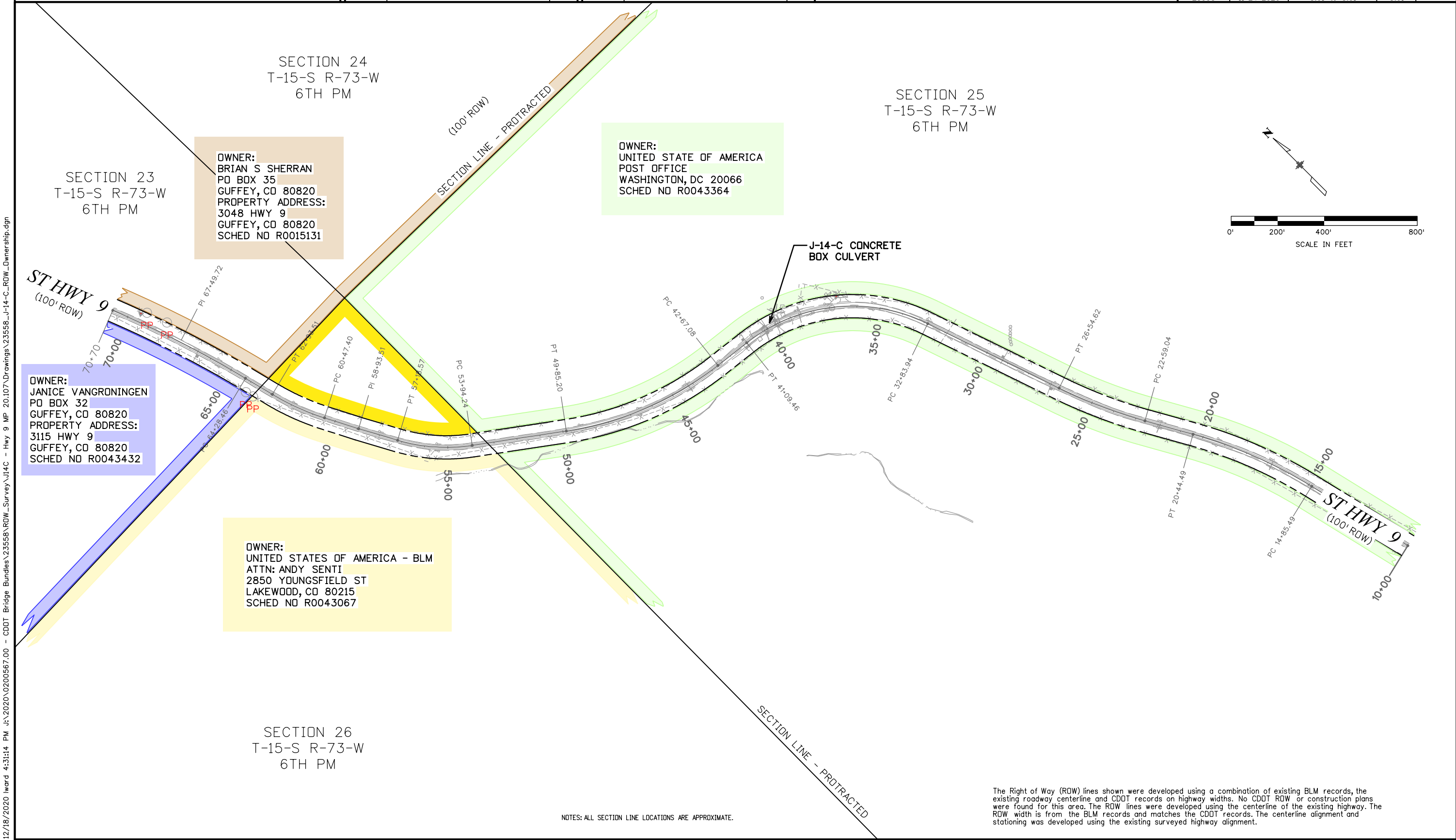
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Sheet Revisions		
Date	Description	Initials

Sheet Revisions		
Date	Description	Initials

Right of Way Plans			
Ownership Map			
Project Number: FBR R200-266			
Project Location: BRIDGE REPLACEMENT			
J-14-C STATE HIGHWAY 9			
Project Code:	Last Mod. Date	Subset	Sheet No.
23558	11-24-2020	8.01 to 8.01	8.01



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NOTES: ALL SECTION LINE LOCATIONS ARE APPROXIMATE.

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Topographical Drawing

Plan Sheet

Project Number: FBR R200-266

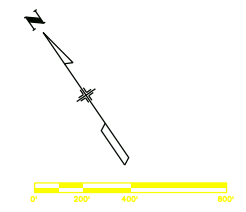
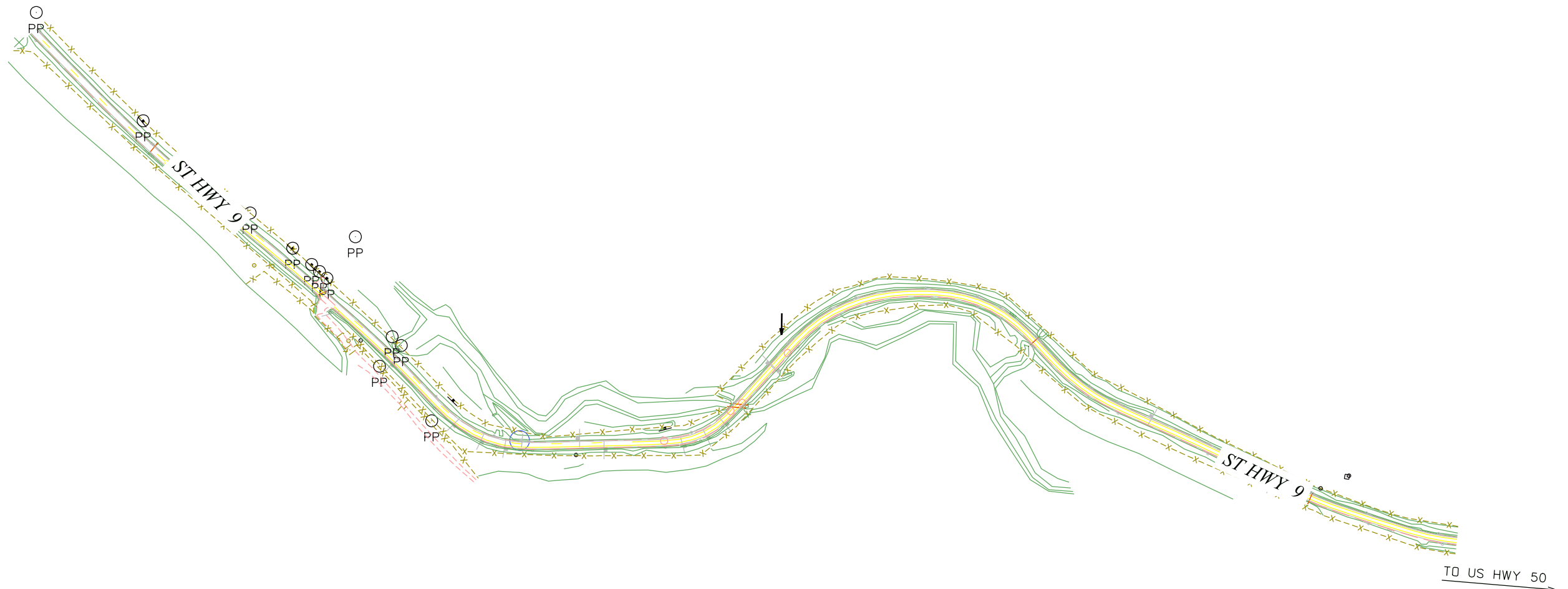
Project Location: BRIDGE REPLACEMENT

J-15-G STATE HIGHWAY 9

Project Code:	Last Mod. Date	Subset	Sheet No.
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TO US HWY 24





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Sheet Revisions

Date	Description	Initials

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Contour Drawing

Plan Sheet

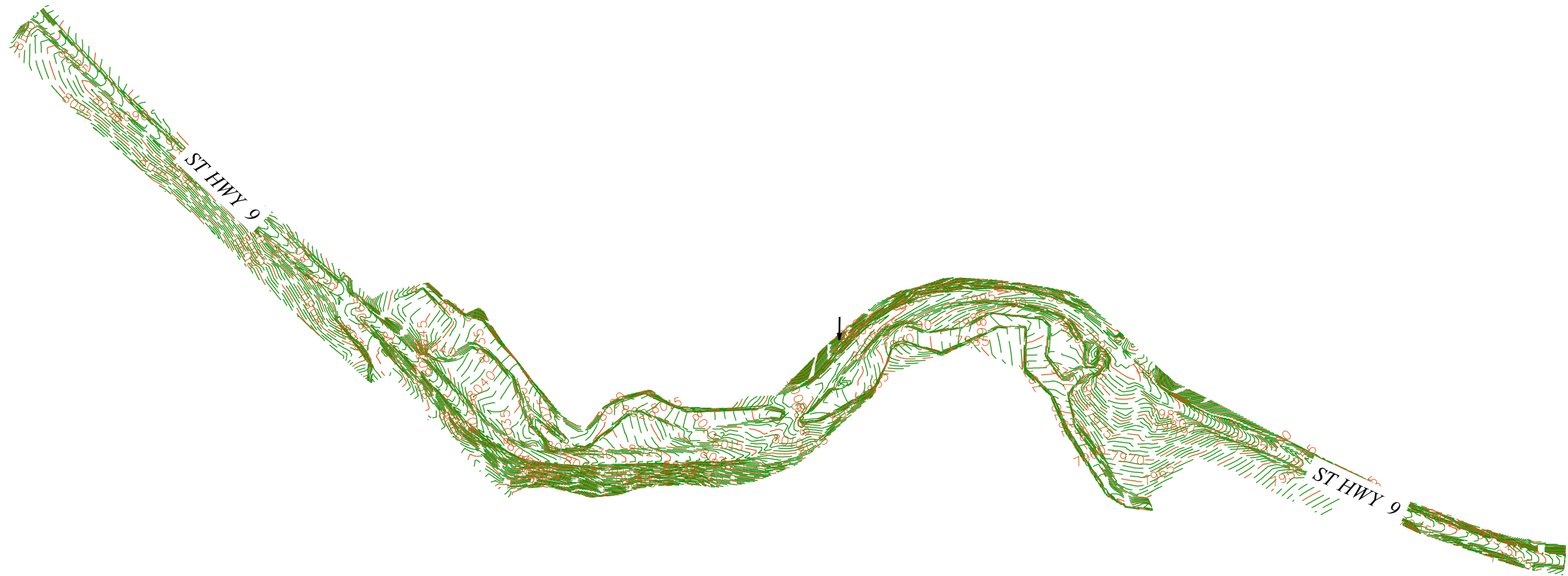
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Project Location: BRIDGE REPLACEMENT

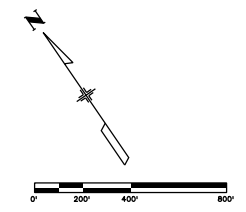
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Project Code:	Last Mod. Date	Subset	Sheet No.
23558	1-13-2021	1 of 1	

TO US HWY 24



TO US HWY 50





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Region 2

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Sheet Revisions

Date	Description	Initials

Sheet Revisions

Date	Description	Initials

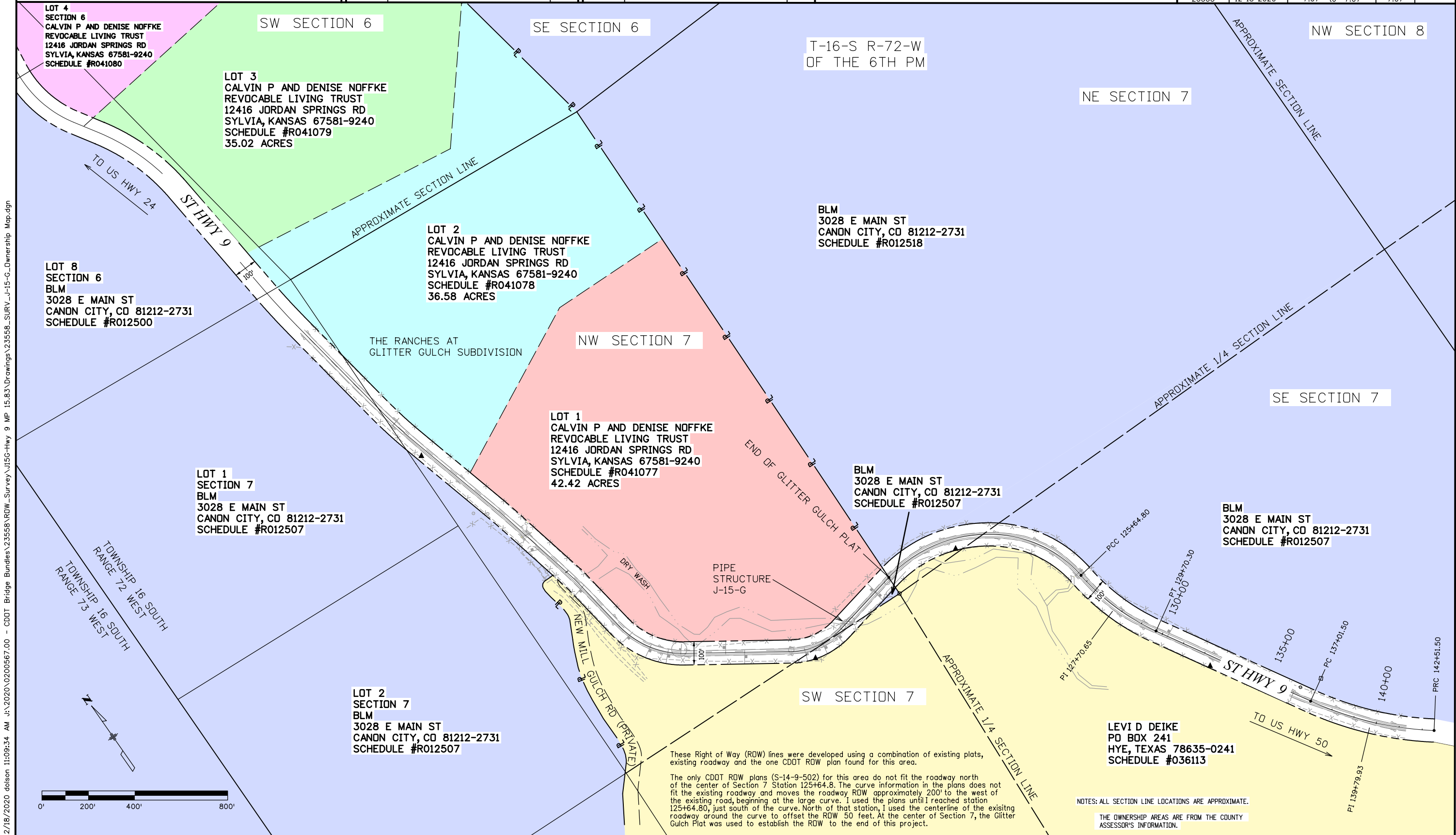


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Right-of-Way Plans

Ownership Map

Project Number: FBR R200-266			
Project Location: BRIDGE REPLACEMENT			
J-15-G STATE HIGHWAY 9			
Project Code:	Last Mod. Date	Subset	Sheet No.
23558	12-18-2020	7.07 to 7.07	7.07



These Right of Way (ROW) lines were developed using a combination of existing plots, existing roadway and the one CDOT ROW plan found for this area.

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NOTES: ALL SECTION LINE LOCATIONS ARE APPROXIMATE.

THE OWNERSHIP AREAS ARE FROM THE COUNTY ASSESSOR'S INFORMATION.

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