

TOWN OF RANCHESTER TR PATH STUDY



SUBMITTED BY:

 **WWC** ENGINEERING



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TOWN OF RANCHESTER TR PATH STUDY



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1.0 EXECUTIVE SUMMARY

The Tongue River Pathway Study also known as the TR Path Study, or Study, was conducted to determine the feasibility of construction of a pathway between the communities of Dayton and Ranchester, Wyoming located in the Tongue River Valley (TRV) within Sheridan County. Since the 1990's and early 2000's, people within the TRV have discussed the possibility of a pathway between the two communities. The following is a summation of those efforts.

1.1 PURPOSE AND NEED FOR ENGINEERING STUDY

In December 2019, the Town of Ranchester received an 80/20 matching \$125,000 grant through the Wyoming Department of Transportation Alternative Program (TAP) to perform a research and design study (the Study) to identify the feasibility of constructing a pathway between the communities of Dayton and Ranchester. Highlights of the Study include:

- Two pathway alignment alternatives within the right of way of US Highway 14 between Dayton and Ranchester. The Study compares the estimated cost, capacity, potential environmental impacts, and permitting requirements for each alternative and provides a 30% preliminary design for the preferred alternative.
- Potential funding sources were evaluated along with their requirements for potential funding of final design and construction of the pathway. The funding sources evaluated include local, state, and federal loan and grant programs with a discussion of availability, magnitude, specific requirements, and other pertinent information for consideration to fund future design and construction activities. Additionally, operation and maintenance (O&M) requirements have been evaluated.
- The Study documents the results of a public involvement process that included public meetings, a web-based project portal, print and web-based comment forms, and data/opinion collection. One public meeting was held in each of the communities of Dayton and Ranchester, with several members of the public in attendance. Based on the public comments forms along with surveys held during previous public meeting prior to this Study it is determined that there is strong support for the TR Path Project (Project) by the local residents and business owners.

2.0 PROJECT IDENTIFICATION

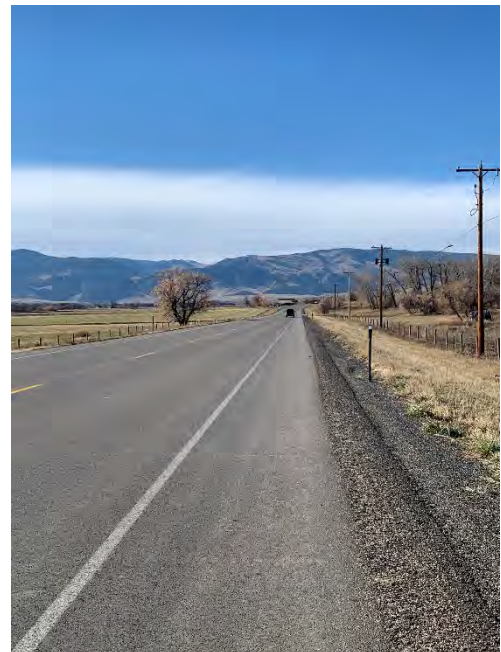
2.1 PROJECT HISTORY

The towns of Ranchester, Dayton, Parkman, and other surrounding areas comprise the TRV. As far back as the 1990's and the early 2000's, many people in the TRV have

discussed ideas of building a multi-use pathway in the area. In 2005, Melissa Butcher, director of the Sheridan Wyoming Chamber of Commerce at the time, discussed potential pathway locations and funding options with the district engineer from Wyoming Department of Transportation (WYDOT) based on previous work with them. Again in 2010, Erin Kilbride with the Tongue River Valley Community Center (TRVCC), Mike Butcher and Melissa Butcher with Confluence Collaborative, and the Town of Ranchester discussed the feasibility of constructing a walking path between Dayton and Ranchester along Wyoming State Highway 14 (HWY 14). WYDOT was again contacted to discuss the idea of the pathway, however the idea was tabled.

In 2018, Brad Bauer with Sheridan Community Land Trust (SCLT), Erin Kilbride with TRVCC, and Ranchester Mayor Peter Clark attended a pathway conference in Colorado. In December of 2018, the SCLT received a non-monetary grant from the Nation Park Service (NPS) - Rivers, Trails, and Conservation Assistance Program to help kickstart the pathway planning. The grant provided for a NPS employee to visit the area and assist with the planning stages, which resulted in the formation of the TR Path Committee (Committee), comprised of members from the Town of Ranchester, Town of Dayton, and the TRVCC.

In April of 2019, the Committee conducted a community survey and held two community meetings to discuss the pathway concept. Another meeting was held with WYDOT, the Town of Ranchester, the Town of Dayton, and other key stakeholders. From this meeting the Town of Ranchester, acting on behalf of the Committee, applied for a Transportation Alternatives Programs (TAP) grant through WYDOT in July of 2019. Sheridan County and the Town of Dayton were in support of the grant application and the three entities evenly split the \$25,000 funding match required for the grant. The Committee was awarded the TAP grant in December 2019 and in June 2020 contracted WWC Engineering (WWC) to evaluate the feasibility of constructing a pathway along HWY 14 between the towns of Dayton and Ranchester. This Study provides the Committee with an assessment of potential alignment options; permitting requirements; design, permitting, construction, and operation and maintenance (O&M) costs; and potential funding opportunities should this Study advance to construction of a pathway project (Project).



2.2 PROJECT DESCRIPTION AND LOCATION

The communities of Dayton and Ranchester, Wyoming are located in the TRV near the foot of the Bighorn Mountains within Sheridan County. HWY 14 is a state highway in northern Wyoming running in an east-west direction and passes through the towns of Dayton and Ranchester. People frequently walk, run, and bicycle along the highway, however the narrow shoulders and high vehicle speeds make these activities unsafe. Figure 1 depicts the general location of the study area.

2.3 EXISTING CONDITIONS

Multiple field visits were conducted to review the existing conditions throughout the study area in consideration of a potential pathway. As part of the field visits, the location of the highway right-of-way (ROW), existing utilities, drainage features, power poles, trees, wetlands, approaches, and other features were identified that could have an impact on the pathway location.

HWY 14 within the study area consists of approximately 5 miles of two-way traffic with no signals or pedestrian crossing facilities between the two towns. Fiber optic, cable, telephone, and power are present along HWY 14 and located predominantly within the ROW. Columbus Creek and the Hanover Ditch are waterway systems that appear on both sides of the road. Numerous large trees, shrubs, and wetlands surround both waterways. There are many vehicular approaches along both sides of the highway, as well as several drainage and irrigation culverts conveying water beneath the highway.

2.4 PROJECT GOALS

The primary goal of the Study is to evaluate the feasibility of constructing a shared-use pathway to provide a bicyclist and pedestrian friendly pathway that will enhance the health, safety, and welfare of the TRV communities, while maintaining minimal impacts to the surrounding area.

With safety concerns for runners, bicyclists, and walkers along HWY 14, the Committee seeks an alternate route for recreators other than the shoulder of the highway. This would minimize potential bicyclist and pedestrian-vehicular encounters. With the increase in recreational opportunities, the pathway would provide a safe means to participate in some form of exercise to benefit their health. The pathway would create a family-friendly recreational corridor through the TRV, improving the community's overall quality of life. The Committee aims to accomplish all this while minimizing the effect on adjacent properties, land use, and environmental concerns.

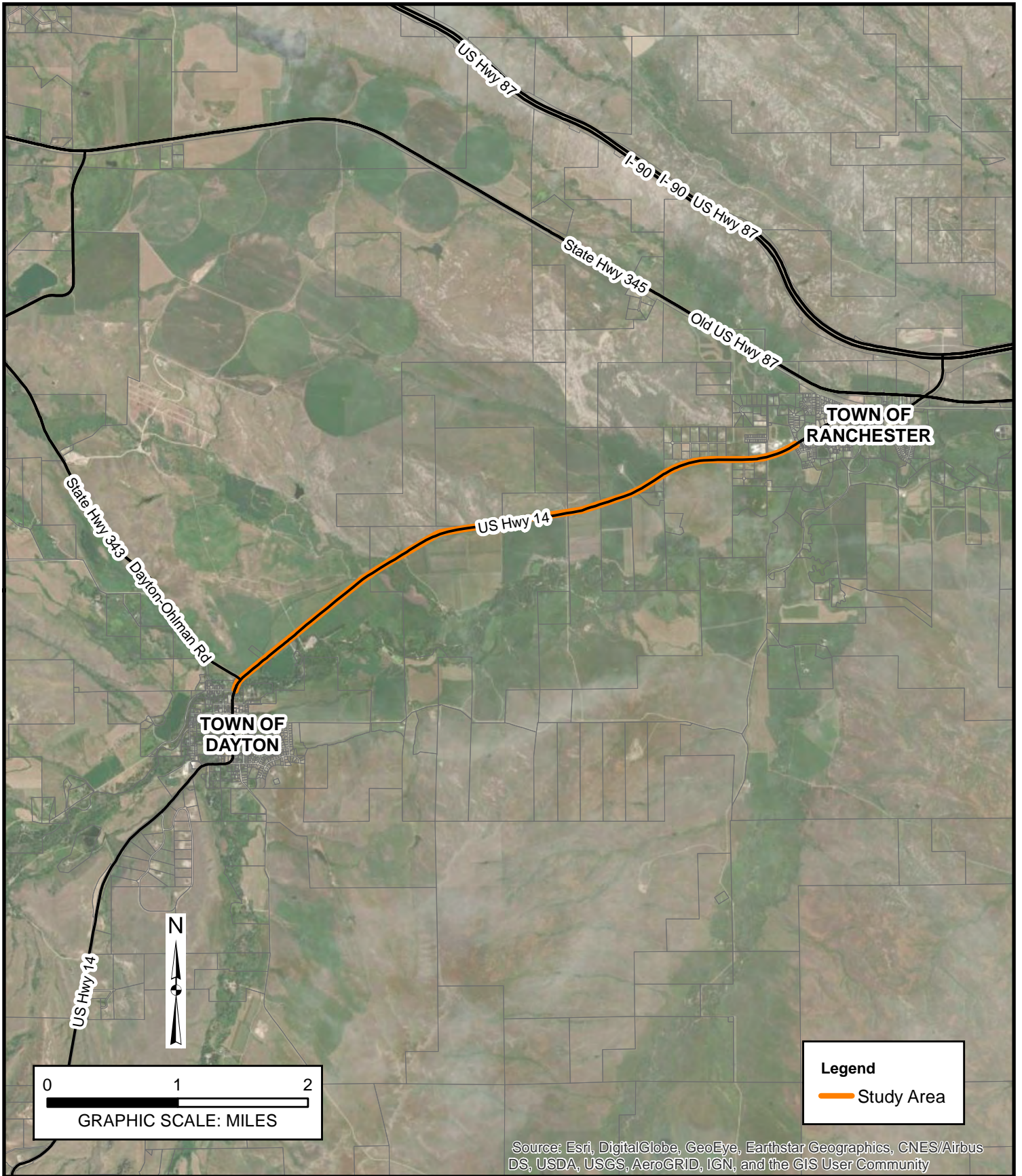


FIGURE 1
TR PATH STUDY AREA



3.0 PROJECT NEEDS

3.1 PUBLIC INVOLVEMENT

Community engagement and public outreach was performed to inform the communities of the planning process and intent of the Study, gather, and document public input, and better understand the needs of the TRV community and visitors.

The Committee conducted two public meetings on April 30 and May 1 in 2019 prior to applying for the Transportation Alternatives Program (TAP) grant. These two meetings introduced the pathway concept to the public to gain support in securing funding for the potential Project.

Two additional public meetings were held in October 2020; one in Dayton and one in Ranchester at each local community center. Newspaper and social media postings were utilized to ensure the public was aware of the Study and upcoming meetings. During the meetings, the public learned of the history and goals of the Study. Visuals of the potential pathway alignments and design constraints were available for the public to view.

Attendees were encouraged to ask any questions they had and provide comments to the Committee. To ensure the opportunity for participation during the COVID-19 pandemic, all the information from the public meetings was also available online through the Tongue River Valley Community Center website. Public comments and questions were received following each meeting as well as a questionnaire available online at the Tongue River Valley Community Center website. All comments and questions received are included in Appendix A. Of the 58 comments received only 4 did not support advancement of this Study to Project implementation, indicating over 93% support.



3.2 IDENTIFIED PROJECT BENEFITS

Throughout development of the Study, the potential benefits of the Project were identified and thoroughly examined. The primary focus was to identify options to improve the health, safety, economy, and connectivity of the TRV as discussed below.

Health - The pathway encourages physical activity by providing a safe opportunity for people of all ages to engage in outside activities. People's health could improve with the exercise in terms of weight management, lowering health risks, strengthening bones and muscles, and improving mobility. Walking, jogging, running, bicycling, and

skating are a few examples of the possible ways people could utilize the pathway, which also creates an alternative mode of travel between the communities.

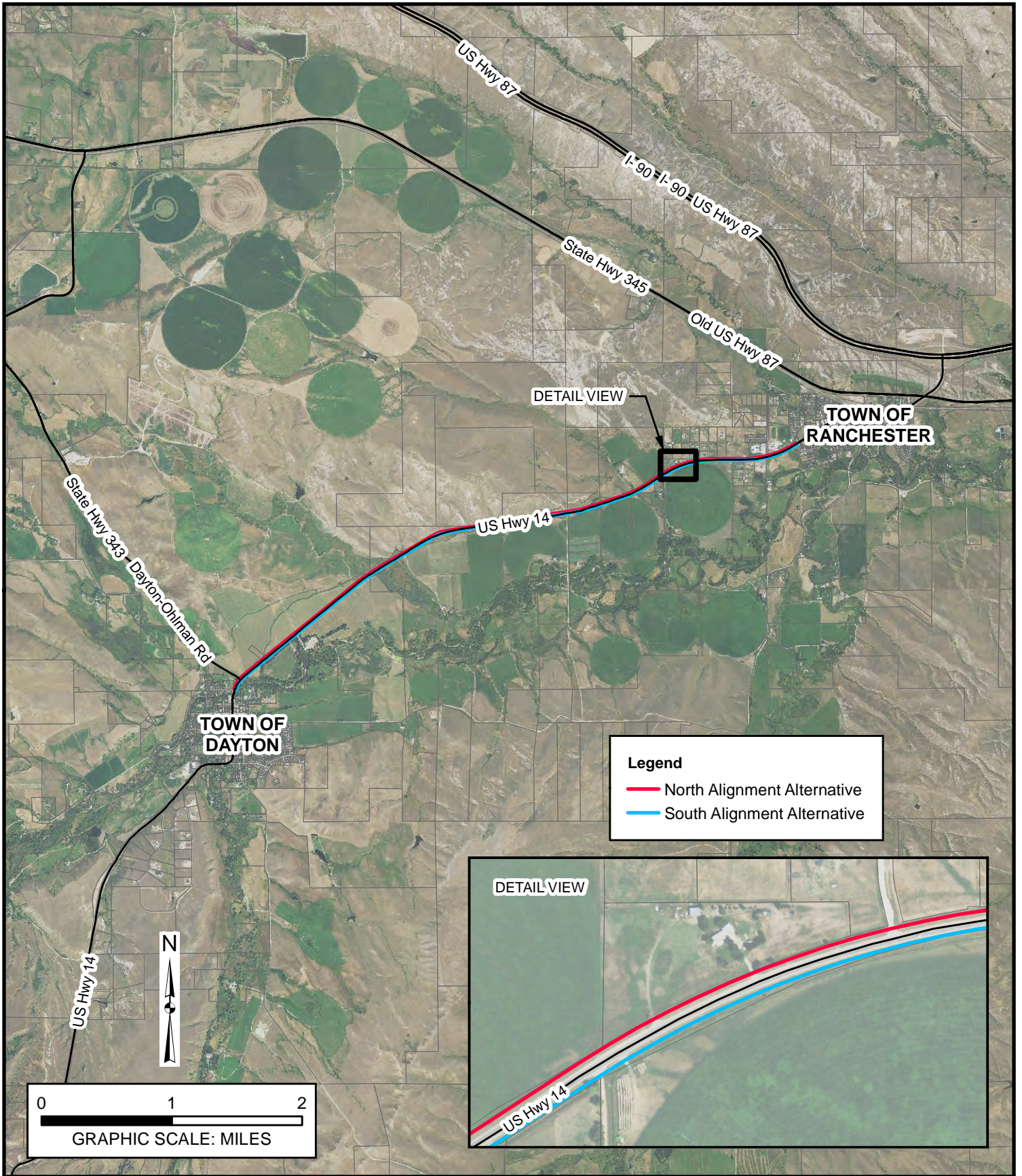
Safety - Vehicular collisions are generally the most dangerous and damaging accidents for pedestrians and bicyclists to due to the sheer size and speed of automobiles. Recreators frequently traverse along the edge of HWY 14, and with the roadway being highspeed with two-lanes and narrow shoulders, safety concerns are already present. Based on a vehicle collision report from 2015 through 2019 there has not been a reportable vehicle/pedestrian collision within the study area (WYDOT 2020); however, public comments for this Study (Appendix A) and previous surveys indicate near misses have occurred. There is currently no signage or designated areas pedestrians and cyclists along the roadway. The pathway would provide a much safer route for walkers, runners, and bicyclists for use along HWY 14.

Economics - While encouraging exercise, a pathway also promotes connectivity between the towns, potentially increasing economic opportunities for the TRV. Encouraging walking and bicycling can promote greater access to local and nearby businesses, supports outdoor recreation business, encourages local travel and tourism to the area, and can support additional real estate value. Walking and bicycling can also provide an affordable transportation alternative for residents in the TRV.

Connectivity - The towns of Dayton and Ranchester would be connected through transportation alternatives other than automobiles. The pathway would allow children and adults of all ages to travel independently between the two communities for general exercise and recreating, travelling to school, or as another mode of transportation between the two towns.

4.0 ALIGNMENT OPTION ANALYSIS

Two alignment options were evaluated for the pathway, one along each side of HWY 14 within the ROW. Other pathway alignment alternatives have been previously explored including pathways outside the ROW by the TR Path Committee. However, these alternatives were not analyzed during this Study due to their unlikely ability to obtain ROW from private landowners. Figure 2 depicts the alignment alternatives analyzed for this project. Each of the two alignments examined for this Study were closely analyzed to identify topographic, infrastructure, constructability, environmental, and other constraints. Both alignments offer significant challenges in that there are areas of narrow ROW creating roadway to pathway separation issues and the need to potentially impact private lands, difficult terrain, and irrigation and drainage concerns. Regardless of the alternative chosen, the pathway will begin in Ranchester at Big Horn Drive, follow the alignment of the highway, and end at the Tongue River bridge at Dayton.



Legend

- North Alignment Alternative
- South Alignment Alternative

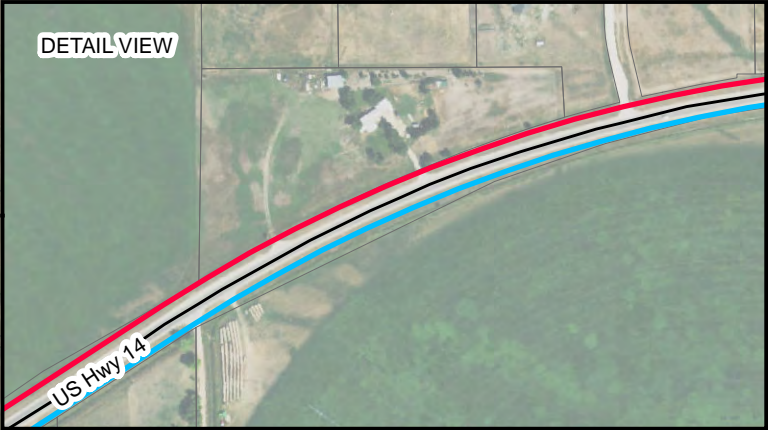


FIGURE 2
TR PATH STUDY
ALIGNMENT ALTERNATIVES



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4.1 SAFETY

Safety is of utmost importance for a project of this type and will not be compromised with either pathway alignment option. A significant number of people already travel along HWY 14 in unsafe locations. The construction of a shared-use pathway would immediately reduce the potential for vehicular and bicycle/pedestrian incidents, significantly improving the safety in the area.



4.1.1 Signage

The preferred alignment will have sufficient signage indicating its pedestrian use. Signage will help indicate direction of travel, trail length and difficulty, prohibited activities, upcoming hazards or risks, and rest areas.

4.1.2 Maintenance

The pathway will require year-round maintenance, so a pathway operation & maintenance (O&M) program would be essential to reduce long-term expenses and extending the life of the components, assuring both the safety and enjoyment of the residents and visitors who use it. Trash removal, sweeping, mowing, snow removal, tree and vegetation control are examples of required ongoing O&M activities. The O&M program would also identify responsibilities to be shared by multiple agencies and/or volunteer organizations.

4.1.3 Law Enforcement/Emergency Response

The pathway location along HWY 14 allows for unobstructed routine inspections for public safety. The Sheridan County Sheriff's Department and Wyoming Highway Patrol would likely provide law enforcement and emergency response for the pathway area. A clear and accessible route is available for any emergency responders with both pathway alignment options.

4.1.4 Highway 14 Crossings

North

The North alignment option does not have any safety or connectivity issues.

South

To tie the South alignment option into the Town of Dayton, a pedestrian crossing would need to be installed either below or across HWY 14 since the logical tie-in of the pathway in Dayton occurs on the west side of the roadway. A below grade crossing of HWY 14 could be constructed beneath the bridge at the Tongue River. However, there is not sufficient space available to economically construct a pathway at this

location so no further analysis was performed. An at grade crossing would have pathway users crossing from the south side of the highway to the north before reaching the bridge in Dayton near the location shown below. This would require a lighted and signaled crossing with a center median. While this type of crossing is widely used, this particular location has minimal vehicular sight distances in both directions and would pose an unnecessary safety risk. The South alignment also contains two areas with narrow ROW adjacent to the highway. If easements with landowners cannot be obtained, the close proximity of the pathway to the highway would create an additional safety risk.



Tongue River Bridge near Dayton town limits.

4.2 ADA & SLOPES

Each pathway alignment option must meet the requirements of the Americans with Disabilities Act (ADA) to ensure it is accessible and usable by individuals with disabilities. As required in the 2010 ADA Standards for Accessible Design (ADA, 2010), the pathway would be ADA compliant with ample rest areas, landing areas at required locations, maximum 2% cross slopes, and maximum 5% running slopes. Facilities will be barrier free and accessibility information will be available at the beginnings of the pathway. Other specific ADA needs and requirements would be implemented into final designs.

4.3 CONSTRUCTION ISSUES

This section identifies general construction concerns for each of the two alignment alternatives. Both the north and south alignment alternatives were examined for potential wetlands, easements, utilities, and hydraulic crossing impacts. This study does not analyze potential wildlife, threatened and endangered species, or cultural resources, however these will need to be addressed during final design.

4.3.1 Wetlands



A wetland is a distinct ecosystem that provides habitat for fish, wildlife, and plants. They provide several different functionalities including recharging groundwater, reducing flooding, providing clean drinking water, offering food and fiber, and supporting cultural and recreational activities. A permit from the US Army Corps of Engineers (USACE) is required for wetland impacts exceeding 1/10-acre. A review of the National Wetlands Inventory (NWI) was conducted for both pathway alignments, the results of which are provided on the preliminary design drawings in Appendix B. The NWI inventory provides a general overview of wetland areas, however work performed in or adjacent to any potential wetland area must first be delineated and submitted to the

USACE for verification of the presence of wetlands.

South

The South alignment would cross the Hanover Ditch five times and Columbus Creek one time. At one Hanover Ditch crossing location, the wetland is classified as intermittent riverine that is seasonally flooded. The other four locations along Hanover Ditch are classified as emergent palustrine wetlands that are seasonally flooded. The Columbus Creek crossing is classified as a temporary flooded palustrine wetland. Preliminary analysis of the NWI indicates the total affected wetlands from the pathway would be minimal enough to fall under the USACE's Nationwide Permit No. 14 - Linear Transportation Projects, which requires minimal permitting effort, however future analysis will be required to determine the extent of wetland areas.

North

The North alignment similarly crosses the Hanover Ditch and Columbus Creek the same number of times as the South alignment. The major difference between the two alignment options is the North alignment has additional wetland area along Columbus Creek that could potentially be affected. The wetland is a seasonally flooded emergent palustrine wetland. The North alignment has the potential to require an individual USACE permit due to its proximity to Columbus Creek, possibly requiring channel modifications. Further investigation and design would be required to verify potential wetland disturbance; however, the likelihood is sufficient to include the additional costs of an individual permit through the USACE. Depending on the future

pathway design and its subsequent impact on delineated wetlands, additional costs may be incurred for wetland mitigation beyond the permit costs listed in this Study.

4.3.2 Easements

A ROW retracement was not performed for the Study; therefore, the HWY 14 ROW is estimated to be the existing fence line separating HWY 14 from adjacent lands. The estimated ROW is depicted in the preliminary design drawings in Appendix B.

Cooperation of landowners granting easements for public access will be required as both proposed alignments potentially extend beyond the estimated ROW due to steep slopes, areas of narrow ROW and areas potentially needed for wetland mitigation. Easements across private lands in these areas would be needed.

The pathway alignment options in this Study are preliminary. It is important to clarify that no agreements for land use in areas extending beyond the estimated WYDOT ROW have been made with any landowners. Any part of the proposed pathway alignment or potential construction disturbance that would cross onto private lands would require negotiations with each effected landowner for potential, easement acquisition, land purchase, or other access strategies. This effort would be undertaken during a future design phase to determine the final alignment. Temporary construction easements, permanent easements, land exchange, or other agreements would need to be negotiated, including the route, width, and value, as well as timelines for temporary construction easements. A permanent easement would have an indefinite term allowing for certain pathway O&M activities. The private landowner would typically be eligible for reasonable compensation for any property disturbance, use, or damage that might occur during construction and O&M of the pathway. Temporary construction easements would allow additional area for staging materials and equipment for a set length of time. Once construction is complete or the term expires, the temporary easement would be terminated. Traditionally, easement payments are based on a percentage of the appraised value of the property. To assist in negotiations, the TR Path Committee should consult with a professional familiar with the Uniform Easement Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (Uniform Act) for advice, (FHWA, 2021). Any agreement that could not be reached would likely result in realignment of the pathway.

North

The North alignment contains steep slopes that could potentially cause the pathway to be moved outside of WYDOT ROW near the pathway crossing of Columbus Creek. This adjacent land is owned by a utility company who leases the land to a local family. The landowners and lessee would need to be contacted to find a solution to this problem if the North alignment was moved outside of the ROW. Other design

options to mitigate the problem in this area would be to install a retaining wall or pedestrian bridge so the alignment would stay in the ROW.

South

The South alignment also has steep slopes near where the pathway crosses Columbus Creek with the same landowner and lease arrangement. With either alignment option, the landowners and lessee would need to be contacted to resolve this issue. The South alignment option also contains two areas with narrow ROW. This issue is present on the south side near where the pathway ends in Ranchester. Another location with narrow ROW is adjacent to properties near Bozeman Lane.

4.3.3 Utilities

Multiple buried and overhead utilities exist along HWY 14 including fiber optic, overhead power, underground telephone, and cable. The pathway was designed to avoid the utilities whenever possible to maximize access for potential repairs. In areas where the pathway must cross or be placed on top of existing utilities, utility relocations may be necessary.

North

The North pathway alignment option contains overhead power from the beginning of the path in Ranchester until it crosses the highway and travels up Halfway Lane. Overhead power also is present on the north side across from Padlock headquarters all the way into Dayton. Fiber optic only exists on the north side of HWY 14 for approximately 1,000 ft near Columbus Creek. Telephone and cable utilities are underground the entire extent on the North alignment. Telephone and cable vaults and markers are also scattered throughout the length of the pathway.

South

The South alignment option has fiber optic running from Ranchester until it stops near Halfway Lane. Fiber optic begins again after Columbus Creek until reaching State Highway 343. Additional fiber optic lines may be placed on the south side in the future. If this occurs, utilities will need to be reevaluated in future designs. Overhead power only crosses across the South alignment at Halfway Lane. Telephone and cable utilities do not run on the south side of HWY 14.

4.3.4 Hydraulic Crossings

There are multiple culvert crossings that could impact construction of either alignment alternative. Future design efforts should include examining the current culvert design characteristics to determine options for potential mitigation including

culvert extensions, pathway alignment adjustment, etc. to account for potential hydraulic impacts from pathway construction. Currently, reinforced concrete box culverts are installed for the drainage crossings for Columbus Creek and Stoops Draw across HWY 14. The culverts will likely need extended to install a pathway on either side of



the highway. An analysis was completed to assess the feasibility of the culvert extensions. Peak-flow characteristics for Stoops Draw and Columbus Creek were estimated using regression analysis developed for Wyoming streams (Miller, 2003). WWC calculated peak flows at 1.5, 2, 5, 10, 25, 50, and 100-year events using USGS topographic mapping of the area to determine the inputs for the regression equations. Table 1 shows the characteristics of each drainage while the peak-flows for each storm event is provided in Table 2. Hydraulic analyses on the culverts for each drainage indicates negligible adverse impacts resulting from extending any culverts, either upstream or downstream as required for pathway construction during the 100-yr. peak flow event.

Table 1. Peak-Flow Characteristics

Input Values	Columbus Creek	Stoops Draw
Area (sq mi)	20.84	3.15
Longitude (degree)	107.39	107.24
Elevation (ft)	6500	4200

Table 2. Peak-Flow Rates

Storm Event	Peak Flow Rate (cfs)	
	Columbus Creek	Stoops Draw
1.5-yr	49	1
2-yr	74	1
5-yr	141	4
10-yr	200	8
25-yr	290	16
50-yr	363	24
100-yr	447	37

4.4 REGULATORY REQUIREMENTS

4.4.1 Design

Conceptual designs were developed for each alignment following design criteria found in the following guidance documents:

- American Association of State Highway and Transportation Officials (AASHTO) guideline “Guide for the Development of Bicycle Facilities” (AASHTO 2012),
- AASHTO “Guide for the Planning, Design, and Operation of Pedestrian Facilities (AASHTO, 2004), and
- 2010 ADA Standards for Accessible Design (ADA, 2010).

A pathway width of 8-ft was chosen by the Committee. This differs from the typical 10-ft width for a shared-use path based on the expected usage volume, and to minimize overall disturbance and maintain as much of the pathway within the WYDOT ROW as possible.

Additionally, the pathway alignment adheres to WYDOT’s preferred “clear zone” distance of 28-feet from the edge of the roadway as much as possible. Areas where the pathway cannot stay outside of the “clear zone,” no obstructions such as trees, benches, or other solid features should be installed. There are no significant design constraints resulting from the recommended “clear zone”.

4.4.2 Environmental

The National Environmental Policy Act (NEPA) was signed into law in 1970 to promote efforts that prevent or eliminate damage to the environment. NEPA requires that prior to funding, authorizing, or implementing an action, federal agencies consider the effects that their proposed action may have on the environment and the related social and economic effects, as early as possible in any given decision-making process. Federal agencies comply with NEPA for an activity or action by evaluating the environmental impacts of the action in one of three levels of analysis: Categorical Exclusion (CATEX), Environmental Assessment (EA), or Environmental Impact Statement (EIS).

WYDOT has a Programmatic Agreement (PA) with the Federal Highway Administration (FHWA) (WYDOT, 2018), which authorizes WYDOT to determine on behalf of FHWA whether a project qualifies for a CATEX. CATEXs are actions which meet the definition contained in 40 CFR 1508.4, and based on past experience with similar actions, do not involve significant environmental impacts. Based on Appendix A of the PA, which is consistent with 23 CFR §771.117, the NEPA action for the proposed pathway is likely a CATEX.

The following steps will need to be completed for the CATEX:

- Prepare scoping letters with details on the proposed scope of work,
- Send scoping letters to the Wyoming Game and Fish Department, U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, and other applicable agencies depending on project specifics,
- Send a letter to WYDOT seeking cultural comments,
- Complete design plans to 35% to determine proposed impacts,
- Complete a Class III Cultural Survey,
- Complete a wetland delineation,
- Complete a biological review and possibly a raptor survey, and
- Complete CATEX form.

4.5 MISCELLANEOUS

4.5.1 Landowners

Many landowners on both the north and south of the highway were contacted during the analysis phase to determine potential constraints and concerns with the construction of a pathway. Concerns that were brought up included:

- movement of livestock along the highway,
- pathway crossing heavy and lightly used approaches,
- pathway crossing both natural drainages and irrigation crossings,
- users of the pathway disturbing livestock in adjacent fields,
- irrigation in adjacent fields creating a hazard on the pathway,
- the ability to use a constructed pathway with off-road vehicles for access to adjacent lands, and
- plowing of snow along the pathway.

Cattle trailing can occur within the ROW on either side of the highway and at any time throughout the year. Following construction of the pathway, coordination with affected landowners and WYDOT should occur to ensure continued cattle driving and minimize impacts to the pathway and its users. Signage would also be placed along the pathway at approaches, and in areas where irrigation sprinklers may create a hazard. The pathway would be designed to include continued drainage and irrigation

ditch use. In most cases, this would involve extending existing culverts beneath HWY 14. The use of off-road vehicles on the pathway will also need to be addressed as well as identifying the entity responsible for O&M of the pathway, including snow removal.

4.5.2 Parking

Additional parking areas are not anticipated in conjunction with the pathway. Rather, it is recommended to establish agreements with the owners of existing parking areas for pathway users.

4.5.3 Wind

The prevailing wind direction was also considered to determine the potential for blowing snow to drift more on one side of the highway versus the other. Through multiple site visits and input from the public and local residents, it was determined that both sides of the highway experience drifting snow to the extent the wind direction does not impact either side more than the other.

4.5.4 Bus Routes

Schools within the TRV include the Tongue River High School in Dayton, and the Tongue River Elementary School and Tongue River Middle Schools in Ranchester. There is only one current bus stop along HWY 14, located at the intersection of Timber Drive, that could be affected by the pathway.

North

Installing the pathway on the north side of HWY 14 would not impact this bus stop.

South

A pathway along the south side of the highway would require additional bus stop(s) as the Tongue River Middle School and Elementary School are on the north side of HWY 14.

4.5.5 Historical Consideration

The study area and the greater TRV have a rich historic past. It is not anticipated that either proposed pathway alignment would affect any historical buildings or cultural areas. However, no archeological studies or surveys of the study area were performed as part of this Study. Prior to any ground disturbing activities and during next steps in design, WYDOTs Environmental Division



should be consulted, and any cultural surveys be conducted, as needed. A historical marker is located on the north side of HWY 14 between Dayton and Ranchester. As seen in the photo on the previous page, the marker describes the Tongue River Crossing that used to be in the area. The North alignment option would not disturb or alter the marker.

5.0 DECISION PROCESS

After careful review of the two alignment options for the pathway based on the information obtained, the feasibility of the two options were evaluated based on the following criteria:

Safety - Increasing public safety for recreators along HWY 14 is a priority for the Project. An analysis of potential safety concerns was performed for the two alignment options focused on pedestrian/vehicular interactions, narrow ROW areas along HWY 14, and potential pedestrian crossings, particularly at the Tongue River bridge in Dayton. Section 4.1.4 describes some of the safety risks analyzed during the Study.

Design Constraints - The ease of constructability for each option was also considered. Potential design constraints assessed for each alignment included potential wetland areas and waters of the US impacts, easement requirements, utility conflicts, regulatory requirements, and other miscellaneous design constraints identified in Section 4.5.

Cost - The difference in cost between the two alignment options may have a direct impact on the extent of fundraising and number of funding sources required to ensure successful completion and long-term operation of the pathway. While cost is an important factor, the difference between the two alignment options is minimal compared to the overall project costs and should not be a major influencing factor. Additionally, environmental concerns such as wetland delineations or mitigation were not performed for this Study, which could affect the final project cost.

Accessibility - Construction of a shared use pathway should add convenience for potential pathway users. ADA accessibility was assessed for each alignment option focusing primarily on pathway grades. The location of the pathway was also evaluated based on access to parking and pathway connection points within each town. Table 3 shows the preferred alignment for each evaluation criteria category.

6.0 PREFERRED ALTERNATIVE

Considering the numerous factors described in Sections 4 and 5 above, and careful evaluation of the pros and cons of each alignment followed by discussions with the Committee, the North alignment is the preferred pathway alignment option. Although

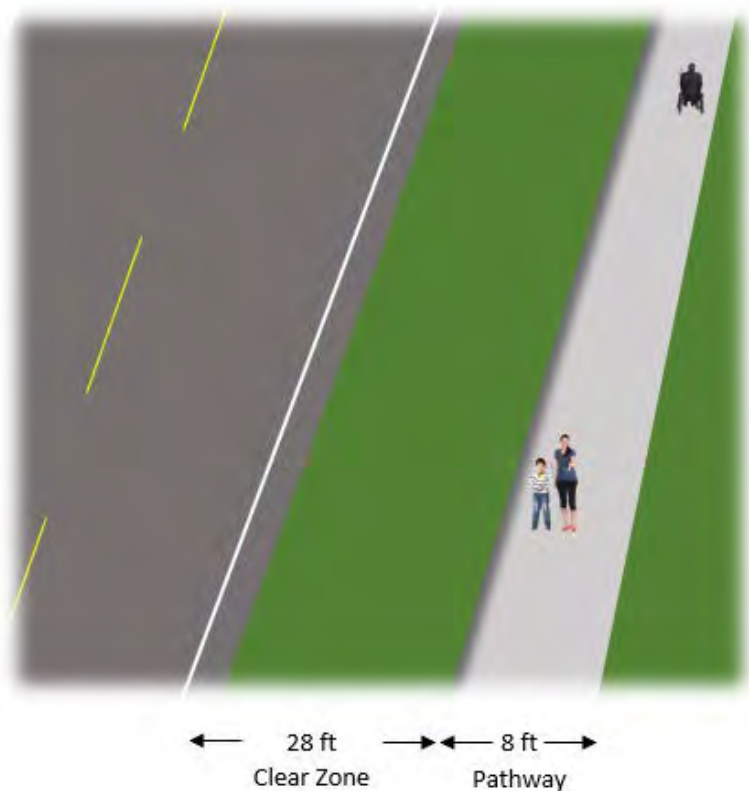
slightly less desirable the South alignment does remain a viable alternative should something in the future arise that eliminates the North alignment.

Table 3. Alignment Criteria

Criteria	Significant Deciding Factors	Preferred Alignment
Safety	South Alignment Requires Pedestrian Crossing(s) at Ranchester Schools & Tongue River Bridge at Dayton	North
Design Constraints	North Alignment has less potential ROW/Easement, Utility Conflicts, and Impacts to School Bus Routes	North
Cost	South Alignment Is Slightly Less Expensive	South
Accessibility	North Alignment Provides Additional Parking Options and Direct Connection Points in Both Towns	North

6.1 PRELIMINARY DESIGN

WWC prepared a preliminary design for the North alignment that met the requirements of the TAP funding. The preliminary design comprises major design elements including the current estimated ROW, the pathway alignment in plan and profile, typical sections, and design feature locations. The preliminary design drawings are provided in Appendix B.



6.2 COST ESTIMATE

A preliminary cost estimate for final design, permitting, and pathway construction is provided in Table 4. The cost estimate will provide the Committee an estimated breakdown of costs for each component of the Project to assist in identifying and securing funding for future phases.

Table 4. Preliminary Engineers Estimate of Probable Construction Costs

North			Engineer's Estimate	
Item Description	Unit	Quantity	Unit Price	Extended Price
QUALITY CONTROL TESTING	LS	1	\$ 5,000.00	\$ 5,000.00
CONSTRUCTION SURVEYING	LS	1	\$ 40,000.00	\$ 40,000.00
TEMPORARY TRAFFIC CONTROL	LS	1	\$ 5,000.00	\$ 5,000.00
UNCLASSIFIED EXCAVATION ABOVE SUBGRADE	CY	15,371	\$ 12.50	\$ 192,137.50
REMOVAL OF EXCESS CUT	CY	7,056	\$ 3.00	\$ 21,168.00
SUBGRADE PREPARATION (10-INCH DEPTH)	SY	22,790	\$ 3.75	\$ 85,462.50
TOPSOIL STRIPPING AND STOCKPILING	SY	58,325	\$ 2.00	\$ 116,650.00
CRUSHED AGGREGATE BASE COURSE	CY	3,798	\$ 45.00	\$ 170,910.00
CONCRETE PAVEMENT - 6"	SY	22,790	\$ 55.00	\$ 1,253,450.00
CULVERT	LF	311	\$ 50.00	\$ 15,550.00
BOX CULVERT (10 x 7) - Stoops Draw	FT	16	\$ 600.00	\$ 9,600.00
BOX CULVERT (10 x 10) - Columbus Creek	FT	32	\$ 750.00	\$ 24,000.00
UTILITY ADJUSTMENTS	EA	10	\$ 1,000.00	\$ 10,000.00
REMOVE AND REINSTALL SIGN	EA	12	\$ 350.00	\$ 4,200.00
INSTALL SIGN	EA	4	\$ 500.00	\$ 2,000.00
TOPSOIL REPLACEMENT & SEEDING	SY	29,838	\$ 2.50	\$ 74,595.00
ADA DETECTABLE WARNING PLATE	EA	11	\$ 310.00	\$ 3,410.00
USACE PERMIT	LS	1	\$ 30,000.00	\$ 30,000.00
Construction Subtotal				\$ 2,063,133.00
Permitting & Mitigation (1%)				\$ 20,631.33
Legal Fees (1%)				\$ 20,631.33
Easements (5%)				\$ 103,156.65
Contingency (30%)				\$ 618,939.90
Mobilization & Bonding (6%)				\$ 123,787.98
Design/Construction Admin (15%)				\$ 309,469.95
TOTAL				\$ 3,259,750.14

6.3 PROBABLE FUNDING SOURCES

Project funding may be provided through a variety of sources including grants, loans, or private contributions. Numerous grants and loans are available at the local, state, and federal level to assist with funding for the future design, permitting, and



construction of the pathway. Securing funding from key project stakeholders in addition to solicitation of local donations is advisable to create matching dollars, which will increase the likelihood of securing funding through state and federal programs. The towns of Dayton and Ranchester and Sheridan County may choose to show their commitment for the Project through providing financial support for certain elements, such as final engineering design and permitting. This commitment of funds would be important to include on grant and loan requests to show the communities' support.

6.3.1 County and Municipal Contributions

The contributions from the Town of Ranchester, Town of Dayton and Sheridan County will be important for funding aspects of the final pathway design, construction oversight, construction costs, and other Project expenses. The funds contributed by Sheridan County and the towns would serve as leverage to obtain additional grant and loan funding, as it is typically important to show support from the local governments. The towns and Sheridan County may use their appropriations of the Capital Facilities 1% Tax (CAP Tax) to support the Project through completion of construction. The Town of Ranchester has included an allotment of \$300,000 for the pathway while the Town of Dayton and Sheridan County have not explicitly allotted funds at the time this Study was completed.

6.3.2 Grants

Grants provide an opportunity for various entities to administer funds for project design and construction with no obligation of repayment. Because grants do not require repayment, the process of obtaining the funding is often more competitive than similar loan programs. The Wyoming Office of State Lands and Investments (SLIB) administers several grants, as do entities such as the Wyoming Business Council (WBC) and WYDOT. Other grant programs exist at the local, state, and federal level with various requirements and monetary values.

6.3.2.1 Mineral Royalty Grant (MRG)

Similar to the CWC Grant, MRG applicants may be applied for by towns, counties, and joint powers boards. The MRG funds are awarded with approximately 87.5% of the

available funds allocated to projects where the MRG funding does not exceed 50% of the eligible project costs. To demonstrate eligibility for the MRG program, the project must alleviate an emergency situation of health, safety, or welfare, promote compliance with a federal or state mandate, or provide an essential public service. The pathway would increase the safety for pedestrians traveling the corridor, promoting the safety of citizens. The MRG funds are available for construction costs in addition to engineering fees (including design, inspection, and contract administration) up to 20% of the project's construction cost. A statement of feasibility from an Engineer is required during the application process in addition to providing other funding sources expected to be utilized for the project. The MRG applications are considered with criteria including funding matches, financial need of the applicant, and the percentage of the applicant's population served by the project.

6.3.2.2 Transportation Enterprise Account (TEA)

The TEA has grants and loans awarded by SLIB to Wyoming counties, municipal corporations, and others for the purpose of enhancing transportation in Wyoming. The TEA application includes information on project scope and other funding sources expected to be utilized. After applications are reviewed by WYDOT and a legislative committee, SLIB prioritizes applications based on criteria including project funding expectations, urgency, and the percentage of the applicant's population directly served. The funds from the TEA may be applied to applicable project costs including professional services.

6.3.2.3 Transportation Alternatives Program (TAP)

TAP consists of federal funds administered by WYDOT. The purpose of the TAP funds is to expand travel choices and enhance transportation. To be eligible, a project must relate to surface transportation through at least one eligible activity, with the pathway eligible as a pedestrian and bicycle facility and safe route for non-drivers, and potentially under other activities. The TAP funding is approximately \$2.1 million throughout Wyoming every year with a competitive application program. The pathway may have grant allocations from the TAP with opportunities improved based on the public involvement, planning, and design completed through this Study. The TAP funds operate on an 80% TAP to 20% local cash match, meaning alternative funds will be required for matching purposes.

6.3.2.4 Safe Routes to School (SRTS)

The SRTS program was created for the encouragement of children to safely walk and bicycle to school. The SRTS program is administered by WYDOT and funds programs at schools or school districts in addition to infrastructure projects within a two-mile radius of targeted schools. A majority of the pathway is within a 2-mile radius of either the Tongue River High School, Tongue River Middle School, or Tongue River

Elementary School. If the pathway is considered completely eligible or partially eligible and ultimately selected for funding under the SRTS program, the associated federal funds are available with no match required. Eligible applicants include school districts, state agencies, counties, municipalities, and nonprofit organizations. The SRTS application requires project information including a detailed cost estimate and are scored upon recommendations of a committee with final award by the Wyoming Transportation Commission.

6.3.2.5 Wyoming Business Council (WBC)

The WBC administers many grants including the Rural Development - Community Development grant to assist rural communities in making improvements to the quality of life for citizens, enhance visitor experience, and encourages others to come live in the community. Grants up to \$2,500 are available through the Rural Development Community Development Grant program. Additional grants with maximum allocations of \$500,000 or more are available under the Business Ready Communities (BRC) Grants. These grants are intended for projects that will promote economic development within communities and applicants that can demonstrate economic expansion of the local economy directly associated with the project are more likely to be funded. The nearby Red Grade Trails Expansion is a great example of trail projects being funded under the BRC grant program. As with that project, the application for this Project will require a clear demonstration of positive economic impacts to the communities.

6.3.2.6 Wyoming Recreation Trails Program (RTP) Grants

RTP grants are administered by the Wyoming State Parks, Historic Sites and Trails (SPHST) with funds derived from the federal gas tax paid on non-highway recreation fuel used by off-highway vehicles. The funds are available for local, State and federal agencies in addition to non-profits. The typical annual fund allocations are approximately \$1.5 million with approximately \$400,000 allocated to nonmotorized trails. The grant amounts administered through the RTP for nonmotorized trails range from \$10,000 to \$50,000 and may be exceeded in special conditions with additional approval of SPHST management and others. The utilization of the RTP grants requires additional requirements including Buy America requirements for iron and steel, System for Award Management (SAM) registration, and various requirements for agreements on the project and monitoring and reporting the grant allocation. A nonmotorized RTP may be applied to planning, engineering, and design work not to exceed 15% of the project's total cost and landscaping along the pathway is not eligible unless it is required as a screen between adjacent landowners. During the application and prioritization process for RTP grants a priority multiplier is applied to projects scores, with hard-surfaced community trails having the minimum multiplier of 1.0, the maximum multiplier being a 1.5 for maintenance or restoration of trails.

6.3.3 Loans

Various loans are available through SLIB for infrastructure projects including Capital Construction Loans and loans through the TEA program. The TEA loan requirements are the same as the grant requirements. Loans through SLIB are often low interest with favorable loan terms.

6.3.3.1 Capital Construction Loan

Similar to the grant programs available through SLIB, the Capital Construction Loan may be granted to a town or county. Eligible projects for the Capital Construction Loan include purchase of land, renovating or upgrading existing infrastructure, and planning and construction for street and road projects. Additional requirements for the Capital Construction Loan include development and implementation of a maintenance plan through the duration of the loan, an Engineer's feasibility statement, and commitment letters from other funding sources. The Capital Construction Loan's interest rate is calculated as 1% plus 0.75% for each year of the loan term in excess of 5 years with the maximum loan term being 25 years. The Capital Construction Loan applications are considered based on several criteria including the project's contribution to health, safety and welfare of citizens, project and financial need, and the applicant's ability to repay the loan. The pathway may not be classified as a "street or road project" and further clarification should take place with SLIB prior to applying for the Capital Construction Loan.

6.4 MAINTENANCE

Typical surfacing for pathways in the TRV region include various thicknesses of dirt, gravel, asphalt pavement, or concrete pavement. For this Study, only asphalt pavement and concrete pavement were considered to provide a hard-surface that meets WYDOT requirements for a pathway within the HWY 14 ROW. Additionally, selection of a hard-surfacing pathway consisting of asphalt or concrete pavement further clarifies the grants or loans that may be available the Project. The maintenance requirements for asphalt and concrete pavements were considered to determine the most suitable surfacing for the pathway. Both pavement options will require seasonal and ongoing maintenance to adhere to funding requirements for potential funding sources in addition to WYDOT requirements.

6.4.1 Seasonal Maintenance

As required by WYDOT, the pathway corridor within the HWY 14 ROW would require maintenance throughout the year. This maintenance will largely include snow removal in winter months which may be intensified by the snow removed from HWY 14. It is recommended that the pathway have snow removal by means of small to medium-sized equipment, potentially under a contract for seasonal snow removal. The snow

removal for the pathway is estimated to cost around \$15,000 annually. In addition to snow accumulation in the winter months, it is likely that a build-up of sand, salt or other sediment will accumulate on the pathway. Snow and ice removal efforts on HWY 14 often include salt and sand which will presumably migrate to the pathway surface with melt runoff or direct placement from a snowplow. To provide safety to pedestrian and bicycle traffic, and in the case of concrete pavement, extend the serviceable life of the pathway surface, the salt and sand sediment should be removed by a street sweeper or other method annually. An annual sweep of the pathway is estimated to cost \$1,500.

6.4.2. Asphalt Pavement Maintenance

Maintenance of asphaltic concrete surfacing typically includes measures such as crack sealing, sealcoat, and pothole repairs. With an asphalt pavement surface experiencing no motorized traffic except for vehicles used for maintenance operations, damage to the pathway from concentrated loads should be minimal. A reasonable lifecycle for asphalt pavement of 25 years requires continuous preservation to prevent deterioration from factors such as water infiltration and freeze-thaw cycles. Costly corrective measures and premature replacement may be avoided by investing in preventative measures on a regular schedule. Crack sealing every two to three years, or as cracks arise, followed by a seal coat every four to five years should be regularly scheduled throughout the service life of the pathway. The condition of the pathway should be closely monitored, and adjustments made to the maintenance schedule accordingly. The crack seal and seal coat maintenance activities are estimated to cost \$35,000 on a five-year schedule.

6.4.3 Concrete Pavement Maintenance

Preventative maintenance of concrete pavement often includes cleaning and sealing cracks to prevent water infiltration. An expected lifecycle for concrete pavement of 40 years assumes preventative maintenance is executed. It is suggested to examine the concrete pavement for cracking on a three to five-year schedule and fill any cracks with a sealant and replace failing sealant. Throughout the lifecycle of the concrete pavement pathway, the maintenance schedule should be adjusted based on monitored conditions. The crack seal maintenance activities are estimated to cost \$1,500 on a five-year schedule.

7.0 PROJECT IMPLEMENTATION PLAN

Successful implementation of the Project includes the following steps: securing funding, complete the design and permitting, construction activities, and O&M of the constructed pathway.

Funding - Development of a funding program by the Committee is an essential first step towards completion of the Project. The Committee should research all potential funding sources and develop a comprehensive funding program for the Project. The funding program should consider planning options including:

- Identification of multiple funding sources and their specific requirements,
- Phased pathway construction alternatives, and
- Capitalize on each town's position as separate municipalities to independently apply for project funding to maximize potential funding opportunities.

Additionally, individual funding sources should be consulted to discuss options and determine the best paths forward. Meeting funding application deadlines and securing grant matching funds is vital for Project completion. Once constructed, a sustainable, long-term program for funding pathway O&M is essential to ensure a safe and viable pathway system for future generations.

Design - The intent of this Study is to identify a preferred pathway alignment, identify potential regulatory requirements, and development of preliminary designs and estimated costs, and provide the Committee a clear path resulting in a constructed Project. As such, additional design, permitting, potential easement acquisition, and other associated tasks are necessary to advance the Project to bidding and construction. The cost estimate provided in Table 4 was developed to provide the detail necessary for the Committee to secure Project funding.

Construction - A competitive bidding environment is advantageous in that it allows the opportunity for multiple contractors to bid projects, generally resulting in fair and equitable construction costs. Final design and permitting for the Project should be completed and timed to allow for late fall/winter bidding to maximize contractor turnout and ensure competitive costs for spring/summer construction.

Maintenance - An O&M manual should be developed to ensure the entity responsible for the pathway follows established maintenance procedures and safety inspections to maintain the pathway as a successful, long-term community asset.

8.0 REFERENCES

American Association of State Highway and Transportation Officials, 2004, Guide for the Planning, Design, and Operation of Pedestrian Facilities. Available for purchase on the Internet as of March 2021: <https://www.transportation.org/>

_____, 2012, Guide for the Development of Bicycle Facilities, Fourth Edition. Available for purchase on the Internet as of March 2021: <https://www.transportation.org/>

Miller, Kirk A., 2003, Peak-Flow Characteristics of Wyoming Streams, Water-Resources Investigations Report 03-4107. Available on the Internet as of March 2021: <https://pubs.usgs.gov/wri/wri034107/pdf/wri034107.pdf>

United States Department of Justice, Civil Rights Division, 2010, 2010 ADA Standards for Accessible Design. Available on the Internet as of March 2021: https://www.ada.gov/2010ADASTandards_index.htm

United States Department of Transportation, Federal Highway Administration, 2021, Uniform Easement Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. Available on the Internet as of March 2021: <https://www.fhwa.dot.gov/hep/guidance/>

Wyoming Department of Transportation, 2020, Highway Safety Segment Crash History Report, Year 2015-2019, LRS Route: ML 37 B US14, From RM:82.8 to RM 88.4. Electronic copy only, available on request from WYDOT.

_____, 2018, Programmatic Agreement Between the Federal Highway Administration, Wyoming Division and the Wyoming Department of Transportation Regarding the Processing of Actions Classified as Categorical Exclusions for Federal-Aid Highway Projects. Available on the Internet as of March 2021: http://www.dot.state.wy.us/files/live/sites/wydot/files/shared/Environmental_Services/Documents/Programmatic%20CE%20Agreement%20with%20FHWA%202018.pdf

Appendix A

Public Outreach Comments

City	Comment
Dayton	What a fabulous thing this would be for our communities! A safe path for all of us outdoor enthusiasts to bike, walk, or run would be wonderful! There are many times my middle school aged kids have wanted to ride over to the library or a friends and I've never felt safe about it. A pathway would be perfect! Our family fully supports this!
Dayton	This is a great idea and a safe way to excersise without traffic. Thank you
Ranchester	Thank you for taking comments/questions. Though the thought is nice, I am concerned it will take away from the beauty of the drive from Ranchester to Dayton, upkeep costs, and cause more hitchhikers or transients to go to Dayton (Ranchester surprisingly sees a lot of transients from Sheridan). The path at the Dayton park was amazing when it was first put in, I remember how great it was, but it's not so great anymore, it hasn't been maintained well. I was shocked when I took my family on it this fall, I told them it was much better 15+ years ago. You all do great work and I respect you! Again, thank you for taking comments.
Ranchester	<p>We recently moved to Dayton from a small city in southern New Mexico. Approximately 20 years ago, that city decided to put a bike/walking trail that spanned the entire length of the city east to west - a massive project - crossing many major streets throughout the city, dipping down into the river with an alternat path accessible when there was actual water in the river. That path is utilized by every age group and multiple activities - running, walking, 5K fun runds, biking, roller blading, skateboarding, etc. It offers a safe place adn open space for these activities. Maintenance is done by the city; however, benches, water stations (human and pet) have been donatd by various organizations such as the runners club, Audubon Society, and individuals.</p> <p>This path has encouraged many people to get outdoors, exercise and enjoy much needed recreation, especially with the current COVID crisis. It has promoted health and wellness both physical and mental. I was forever grateful the city had the foresight to invest in the wellbeing of the community. I am a compettive athlete and used that trail for training year-round. I can guarantee, if the path is built between Dayton and Ranchester, it will be very heavily used and encouage people who might otherwise choose not to get outside to actually enjoy a long walk in this beautiful setting. You can never go wrong when the investment betters and encourages a healthy lifestyle.</p>

City	Comment
Dayton	I am very excited about the pathway. It will be a great asset to the valley. I am in favor of the use of cement versus asphalt. I hope the pathway will not cross the highway at any point. I also hope that any erosion control seeding would be done with native seed that is locally sourced. It is important to clearly define type of use would be allowed such as foot traffic, bicycle traffic, etc. It should be determined if electric/gas bikes will be allowed and if electric scooters for disabled people be allowed. There has also been questions regarding ATV's. I would hope electric scooters and wheel chairs be acceptable uses. I have no opinion regarding electric or gas powered bicycles. I also hope that a volunteer group be formed for maintenance. That group could obtain support from all governmental agencies (Ranchester, Dayton, County), however they would be responsible for snow removal, etc. A maintenance plan would need to be developed for long term care of the pathway and who determines if repairs need to be made. I appreciate everyone that has worked on this project.
Ranchester	I think the pathway would benefit the two communities and be a much safer route for walkers, bikers, and runners. Surprisingly, we have a number of children that ride their bikes between the Dayton and Ranchester, as a means of transportation, to get to extra school activities. I am in favor of the pathway!
Parkman	I think it would be a great addition to our community. I would greatly appreciate it, and would use it often.
Dayton	This would be a great asset to both communities. Would provide ability to walk run or,ride between towns. I think it would promote community cooperation and sharing of resources. It would provide encouragement and safety for exercise an sight seeing by both the young and old. It would also benefit businesses in both communities. I would be willing to help pay for such a valuable project
Dayton	What a great idea and unifying project. I would definately use it as a running route. Would be great to have a safe path for walking and enjoying our beautiful Mountains.
Dayton	The proposed pathway project is very exciting. I believe it will get many more families outdoors to enjoy family time and exercise in the the sun and fresh air. I see it bringing the two communities closer by supporting commerce as well as all the social benefits. It will provide a much safer path for walkers, runners and bicyclists of all ages.
Dayton	I whole heartedly support this proposed pathway. I see many benefits to the Tongue River Valley community, to include it being a safe corridor for both pedestrian and bicycling traffic between Ranchester and Dayton. As currently proposed, and without further updated surveying and research, I would endorse the North side over the South side pathway due to the requirement to include a crosswalk area for the Dayton termination point of the South side pathway. I also would advocate for the incorporation of the "old Dayton bridge" as a pathway bridge over the Tongue River in Dayton.
Dayton	I often see runners and bikers on the highway between Dayton and Ranchester. Residents also often use Eagle Ridge Trail to escape traffic for exercise. The pathway would provide safety and options for runners, walkers, bikers and outdoor recreation. I support the pathway project.

City	Comment
Dayton	<p>This is a wonderful plan because:</p> <ol style="list-style-type: none"> 1. It is not safe to walk on highway 2. Would be great for bike riders who have to watch all the time for trucks and cars 3. Great exercise for those who have to walk 4. Safety for children walking to school from out of town 5. Just do it
Ranchester	<p>I am very much in favor of a pathway between Ranchester and Dayton for the reasons everybody has suggested in the past. I believe it needs to be 10 feet wide. I agree that the bridges in Dayton should be used. I would LOVE to see it along the Tongue River, but I know that's pricey and unrealistic at this time. I would be willing to help where needed.</p>
Ranchester	<p>Our support for the proposed pathway is twofold:</p> <ol style="list-style-type: none"> 1) As bicyclists and runners, we have been talking for 15 years about the need for this pathway. When we do run or bike on the highway between Ranchester and Dayton, the experience of enjoying the beautiful scenery is always diminished by the overarching concern about safety. While we rarely ride on the highway now, we are certain to use the pathway several times a week. 2) As owners of an RV campground and restaurant, we see a large number of tourists from spring to fall, and we regularly and frequently get questions about places to walk or bike in the area. A majority of our travelers are active and would be highly likely to use the pathway to take in the scenery and travel between the two towns. The pathway would be a big selling point for us in promoting our businesses. <p>We strongly support this project!</p>
Dayton	<p>I encounter bikers/walkers/joggers on the Highway 14 on a fairly consistent basis. I've seen families - mom/dad pulling jogging trailers and youngsters, "racing" style runners and bikers - even Roger has walked from Dayton to Ranchester. I believe a path would benefit so many people to lead or continue a healthy lifestyle. I think we owe them a safe path to utilize and is worth every penny spent. I strongly encourage the construction of this project.</p>
Dayton	<p>The pathway would be great and I would use it to cycle on. I don't feel safe on the road. When the road was re-paved, the rumble strip was not put in. Thus there is no warning to cyclists or runners that a car is over the line. I had an experience last week when I was driving on that road. The road was dusty and the dusty was suspended in the air, the sun was settin over the mountains and was in my eyes. The sun visor in my car was of no help. Visibility was terrible! Then I noticed a cyclist coming toward me. I would have felt much safer as a driver if the cyclist would have had a pathway further off the road to cycle on.</p>
Dayton	<p>I love the idea of having a bike/walking path from Dayton to Ranchester. I ride the US Highway 14 often on my bike and now with no rumble strips it is less comforting to know who is behind you and if they are close to you! Would love to have a path away from the main traffic path. My wife and I use the Sheridan paths often for a weekend or weekly riding activity. Please consider putting in a pathway in our community. You have my support on this project.</p>
Dayton	<p>this is such a great idea. not only will a trail make this area safer and more accessible, but the events a trail like this could hold could bring extra revenue into the towns. Bike races, run races, etc.</p>

City	Comment
Dayton	A path connecting Dayton and Ranchester would be great! I love biking as well as walking my dogs and this would give me much joy to be able to get back and forth between the communities without having to drive. Much safer than biking the highway and easier than taking Dayton East road for me. Please build the trail.
Dayton	I highly support a path between Dayton and Ranchester. I think it would encourage walking, biking and social interaction between communities.
Dayton	This is an important opportunity to provide the Tongue River Valley with a safe and accessible pathway connecting not only the municipalities of Ranchester and Dayton but providing opportunities for the rural residents along the way and within the TRV corridor. I definitely support this and would use the pathway on a regular basis. It also offers recreational opportunities other than transportation, such as birding, wildlife viewing, photography, and social opportunities. The pathway would also offer a safe opportunity for walkers, runners, bikers, families with a variety of recreational bikes, scooters, rollerblades, etc., providing not only recreational use but supporting a healthy physical activity. Future components of this pathway could include vegetation planting, benches and interpretive and educational exhibits. As a resident of Colorado (Denver metro area) for 20 years we often used the amazing pathways they have established around the city. One could ride from the western side of the metro area to downtown and even the far southeastern metro area without ever being on a street or road. The pathways there are heavily used and I believe that the citizens within the metro area come to expect a bike path within a few blocks of their home, which amazingly enough the entire metro area has accomplished this. I would be glad to assist in any way should you need some help - we are currently limiting our social activities based on cover-19 - but hopefully that will be over soon. I worked with NPS staff in the Denver Regional Office of the National Park Service, I am not sure any of the staff I worked with are still there, but would be happy to assist in working with them. Who was the NPS contact on this project? Thank You so much for pursuing this, it is a great addition to our community and as with most projects which are new, I am sure there are those who see no value but I am more certain that the community as a whole would benefit from this and would welcome the opportunity to use this pathway on a regular basis.
Dayton	Thank you all for your time and effort on this project!! I sure hope it is feasible and actually is seen through. It would be a wonderful asset for everyone involved.
Dayton	Benefit! Expands transportation (walk/bike) options via a SAFE method. Offers extra exercise possibilities for all local residents (fun runs etc.). Ties the two communities together. Adds value to both communities. Wholeheartedly support this effort—hopefully you are able to coordinate with property owners along the way, and they are willing to participate. I appreciate all those who do!
Ranchester	I fully support this project and would love to see it happen. Thank you
Dayton	I love the idea of a pathway to connect the towns. The pathway will allow for safe travel via walking or biking. It will enhance the idea of a healthy active community! A pathway makes our communities attractive to live in, run a business, and raise a family. I can't think of a single reason why you wouldn't want a pathway!! Thank you for the efforts of our communities to make them a better place to live!
Dayton	I do not feel the pathway is beneficial. I feel, with as long as our winter lasts we would not get the usage out of it that we should. I also feel this is not a great walking path because of the traffic.

City	Comment
Ranchester	Kudos to al who have brought this project this far. It will be a big asset to our communities. As a walker and a biker, I am most comfortable if trail is away from the roadway a bit. I know this is not always possible but where there can be a little space it is nice.. Concrete surfaces are hard on feet and legs so I am thinking as a walker, I would prefer asphalt. Will it be plowed in winter. Hopefully so for year round use.
Sheridan	The TR Valley has some of the most magnificent views year round of the Big Horn Mountains. There is a reason more tourists and locals are coming to the Valley to recreate. It would be amazing for those wishing to take in these views do so safely on a route connecting Ranchester and Dayton. As a runner and cyclist, there are times we would like to make a loop from Wolf Creek Road, Halfway Lane, and then to Dayton or back to Ranchester but safety always has going in an out and back. Too many people are distracted while driving to make going between the towns on the highway safe. This pathway would be a great addition to the TR Valley!
Dayton	This pathway is a fine idea. I hope people support it. But I don't think it reaches to the level of public necessity that it should be supported with tax money. I believe it should be privately funded.
Ranchester	Greetings. I live in Dayton and work in Ranchester. In the past, I have felt comfortable riding my bicycle to and from work. Sadly, it does not feel safe any longer due to increased traffic during these peak hours, and during the weekend. I am also concerned for the safety of students who ride to school and for athletes who train along the roadway.. I support this project. I am sad that I missed the 2020 town meetings. I've seen another pathway (Livingston, MT) that accommodates pedestrians as well as cyclists. Thank you for continuing the quest to secure this 5 mile route. I think that once in place, on the north side, there will be daily usage. Monique Robinson
Dayton	I do not feel this is necessary at this time. The cost of maintenance for this in the future would be too high for the amount of use it would receive.
Ranchester	I am in favor of a pathway, I think it is a great way to connect the 2 communities and allows a safe way to walk or bike. I like the idea of a north side pathway but my husband brought up a point that I feel needs to be taken into consideration. Many people pull off on the state land just before the historic site and use that area to site in and shoot firearms. I am concerned that this could be a potential safety hazard or a place for possible conflict for the north side of the highway. Because of this reason I think the south side of the highway would provide the safest route in this area.
Ranchester	I am in favor of the project and hope that the study shows that it is feasible.
Ranchester	I am very interested in the pathway between the two towns.
Dayton	A walkway and bike path between the two communities would be such an asset. It would make travel between the two towns safer and encourage residents to get out and enjoy our beautiful environment. Every where you travel communities are incorporating these types of recreation into their plan. We should definitely be doing the same here.
Dayton	We would LOVE this. My family and I walk/ride all the time in Dayton now. This would add so much more options for the community, such as races, wildlife viewing, family time, outdoor exercise, etc. Go for it!

City	Comment
Dayton	I support the pathway project. This will give our community a safe way to travel by a alternative means between Dayton and Ranchester. A bold and progressive step forward.
Dayton	Safety from texting drivers is a reality. In years past, before smart phones and texting, cycling/running/walking was generally safe on highway paved shoulders. With texting realities, using highway shoulders has become dangerous. The Tongue River Pathway will provide an encouraging and safe means to exercise on the Dayton/Ranchester portion of US Highway 14. It has nice value as a scenic, almost flat route otherwise unavailable to residents.
Ranchester	I think this would be an awesome addition to our communities!
Sheridan	This is fantastic opportunity that would enhance the quality of life and add value to these rural towns. As a former valley resident and outdoor enthusiast, this pathway has been needed for a long time!! It would offer a safe alternative for travel between the two towns, provide a safe place for running, walking, and biking, open up opportunities for events, and would only add the quality of life of residents. I truly hope this comes to fruition!
Dayton	This looks like a great opportunity for TR valley. Thank you for pursuing it.
Dayton	It will be a great add for both communities
Ranchester	In favor of the pathway. The pathways in Sheridan have benefitted many in the community. Seems to be a positive for healthy lifestyles and the aesthetics of the area. Certainly useful in this time of COVID.
Ranchester	I am in support of the trail project
Dayton	I've heard about the discussion of a pathway between Dayton and Ranchester for a while, now. This is not a project I support. I've lived in this area almost all of my life and have seen hardly anyone go back and forth between Ranchester and Dayton on a bike. And only (very) occasionally do you see anybody running. At least on the highway. You could argue that it's because there's no pathway; it's dangerous, etc. However, for local people--and I do stress local--I just don't see how this is of much--if any--benefit. I think in a survey, you might get a lot of people who would say this is a great idea but, if push came to shove, there would not be any real support beyond words. And most of the people who would say they support it will not be using the pathway at all. This is not a NEED. I think it is the want of a very small group of people and, in times of economic crisis, especially, this is a frivolous expense that will be utilized by only a handful (literally only a handful) of people between the two communities. People who want to run or bike between the towns already do. The safety of a pathway on the side of a highly used highway is only an illusion and only opens us up for accidents on the side of the road. Thank you.
Ranchester	A separated bike-walk trail along Highway 14 between Ranchester and Dayton would be a great addition to our community. Suggest 10 foot width, concrete. If there are restrictions, neck down to 8 foot with warning signs, etc. Utilizing the bridge(s) over the river at Dayton would be a savings.
Dayton	This would be a great asset to our community, adding exercise opportunities, mobility for our kids to access amenities in both towns, and possible increase in tourism dollars.

City	Comment
Sheridan	While I do not live in Ranchester or Dayton, I work at the Central Administration Offices in Ranchester. I'm an avid user of all the trails and pathways in Sheridan and would love to see a trail between Ranchester and Dayton. I've often thought of walking or biking between Ranchester and Dayton on my lunch hour or after work, but it doesn't feel safe to be that close to traffic on the highway where the speed limit is 65 mph. A pathway between these two communities would encourage more folks to get out and walk or bike, and enjoy the beautiful view of the valley. Thank you to all who have put so much work into making this a reality for these little communities.
Dayton	I think the pathway would be very beneficial to the TR community. I think it would be a much safer way for people to walk/bicycle between Ranchester & Dayton.
Ranchester	I have lived in the community since 1986 and have always thought a pathway between the two towns would be great. Now that I have kids I think it would be even greater for the connection and to use it for more outside opportunities. We live right next to where the path would go and my only plan is to plant some privacy bushes but other than that I think it would be a great addition to the community!
Dayton	I am against this pathway. <ol style="list-style-type: none"> 1. It is unneeded 2. It will impact and interfere with normal activity and business use along the highway 3. It will not be used very much by very few people 4. It will not be open for use all year with maybe 6 months of possible use 5. It is an urban life feature that does not fit with the valley 6. It is not worth the cost
Dayton	Yes!!! The trail would be great!
Dayton	I just think it would be a great addition to add a path from dayton to ranchester. In the warmer months it would be a great place for biking, running and walking. In the winter, if it isn't plowed, it could be a great cross country ski trail! The path would be good for kids and adults!
Dayton	The pathway is a fantastic idea! I have walked from Dayton to ranchester a lot and it is scary as a walker. The cars are flying by! And when I drive by a jogger it is sometimes hard to see them if they are wearing grey. Bikers also are also hard to see. If there is oncoming traffic slowing down isn't enough and you can't get out of the way. This would be a good thing to have!
Sheridan	A trail connecting Dayton and Ranchester is long over-due. Giving people the opportunity to walk, run, cycle or ride on a location close to their home is one of the best ways to improve mental and physical health. In the best of worlds, the trail would not run adjacent to a heavily used highway but use another already-set easement such as along an old County right of way, an irrigation ditch/canal or along a creek/river. I understand how difficult it is to find those sorts of situations but they are well worth the effort. Making a trail happen is hard work, so please do not be deterred by the difficulty because the result will be worth the effort, even if it is located along the highway. Thank you for moving this effort forward.
Dayton	Absolutely support this effort! Would be a great, safe way to allow folks from both communities to travel between them while getting outdoor exercise. I look forward to future updates and assisting in the effort however I can.

City	Comment
Ranchester	<p>I remember some of the early discussions about a pathway such as this. There was a great deal of excitement and a number of unanswered questions. Positive benefits include: increased safety traveling by foot or bike between Dayton and Ranchester, recreation and exercise potentials for all generations, opportunities for community service in maintaining the pathway; a wonderful way to promote our TR Valley and the quality of life. Questions still to be answered are: Will there be sufficient funds to develop AND maintain a pathway for at least 20 years? Who will be responsible for maintenance? Will there be enough landowners to support the project so easements allow the most feasible route? Are there any liability issues? Will the pathway be lit and if so how will that be sustained/maintained (solar lights perhaps)?</p> <p>I am a wholehearted supporter of the project. I see it as a win-win for the whole community if we can find a way to get it built and to have funds for the maintenance. Look forward to continued discussions.</p>

Appendix B

Preliminary Design Drawings

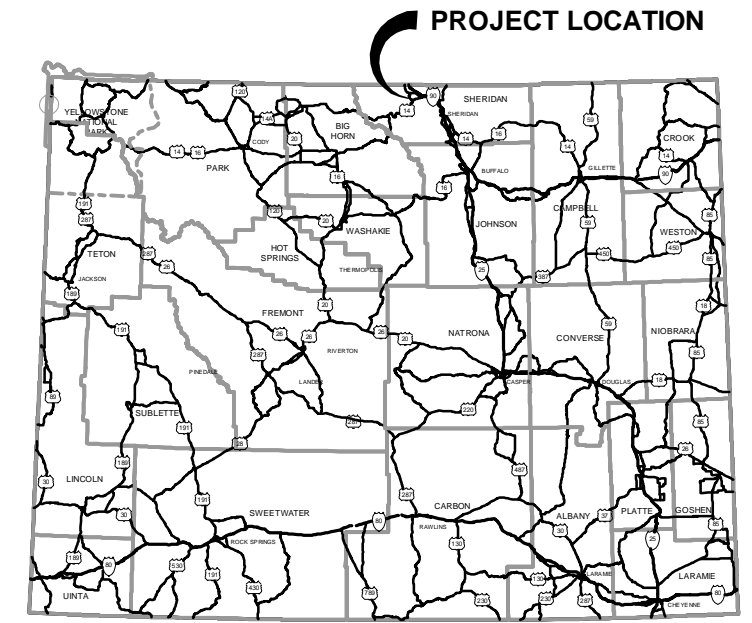
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PRELIMINARY DESIGN DRAWINGS
NOT FOR CONSTRUCTION

TOWN OF RANCHESTER TONGUE RIVER PATH STUDY

SHERIDAN COUNTY, WYOMING

Sheet List Table	
Sheet Number	Sheet Title
1	COVER
2	LEGEND
3	SITE OVERVIEW
4	WETLANDS
5	TYPICAL PATHWAY SECTIONS
6	PATHWAY PLAN AND PROFILE SHEET
7	PATHWAY PLAN AND PROFILE SHEET
8	PATHWAY PLAN AND PROFILE SHEET
9	PATHWAY PLAN AND PROFILE SHEET
10	PATHWAY PLAN AND PROFILE SHEET
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22	PATHWAY PLAN AND PROFILE SHEET
23	PATHWAY PLAN AND PROFILE SHEET
24	PATHWAY PLAN AND PROFILE SHEET
25	PATHWAY CROSS SECTION SHEET
26	PATHWAY CROSS SECTION SHEET
27	PATHWAY CROSS SECTION SHEET
28	PATHWAY CROSS SECTION SHEET
29	PATHWAY CROSS SECTION SHEET
30	PATHWAY CROSS SECTION SHEET
31	PATHWAY CROSS SECTION SHEET
32	PATHWAY CROSS SECTION SHEET
33	PATHWAY DETAIL SHEET




STATE OF WYOMING



R86W
LOCATION MAP



PREPARED FOR:				TOWN OF RANCHESTER			
				145 COFFEEN STREET RANCHESTER, WY 82839			
PREPARED BY:				 WWC ENGINEERING 1849 TERRA AVENUE SHERIDAN, WY 82801 (307) 672-0761 www.wwcengineering.com			
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				SHEET			
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LINE STYLE LEGEND

EXISTING		
---		MAJOR CONTOUR
---		MINOR CONTOUR
— OHT —	OHT	OVERHEAD TELEPHONE
— OHP —	OHP	OVERHEAD POWER
— NG —	NG	NATURAL GAS
— IR —	IR	IRRIGATION LINE
— FO —	FO	FIBER OPTIC
— FM —	FM	FORCEMAIN
— X —	X	FENCE AND RIGHT-OF-WAY (ASSUMED)
— F —	F	FIRE LINE
— OHTV —	OHTV	OVERHEAD TV
— RW —	RW	RAW WATER
— SS —	SS	SEWER
— ST —	ST	STORM
— UGP —	UGP	UNDERGROUND POWER
— UGT —	UGT	UNDERGROUND TELEPHONE
— UGTV —	UGTV	UNDERGROUND TV
— W —	W	WATER
---		GRADING EXTENTS

HATCH STYLE LEGEND

EXISTING		
		FRESHWATER EMERGENT WETLAND
		FRESHWATER FORESTED/SHRUB WETLAND
		RIVERINE

PROPOSED		
		CONCRETE PATHWAY

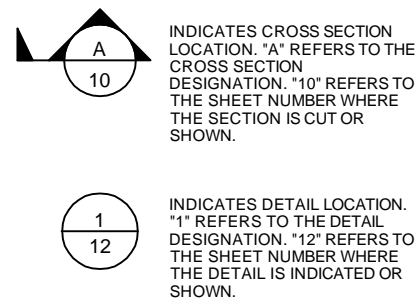
BLOCK LEGEND

EXISTING		
	SANITARY SEWER MANHOLE	
	SANITARY SEWER CLEANOUT	
	SANITARY SEWER CAP	
	SANITARY SEWER METER VAULT	
	SANITARY SEWER LIFT STATION	
	SANITARY SEWER FM (TEE)	
	SANITARY SEWER FM (11.25°)	
	SANITARY SEWER FM (22.5°)	
	SANITARY SEWER FM (45°)	
	SANITARY SEWER FM (90°)	
	SANITARY SEWER FM (CROSS)	
	SANITARY SEWER FM FLANGE	
	SANITARY SEWER FM VALVE	
	SANITARY SEWER FM REDUCER	
	SANITARY SEWER FM BF PREV.	
	STORMWATER AREA INLET	
	STORMWATER COMBO INLET	
	STORMWATER FLARED END	
	STORMWATER MANHOLE	
	STORMWATER PUMP STATION	
	STORM SEWER HEAD WALL	
	WATER FITTING BEND 11.25°	
	WATER FITTING BEND 22.5°	
	WATER FITTING BEND 45°	
	WATER FITTING BEND 90°	
	WATER FITTING CAP	
	WATER FITTING CROSS	
	WATER FITTING FLANGE	
	WATER FITTING TEE	
	WATER FITTING VALVE	

EXISTING		
	WATER VENT	
	WATER MANHOLE	
	WATER REDUCER	
	WATER MARKER	
	FIRE HYDRANT	
	WATER CURB STOP	
	WATER METER	
	WATER VAULT	
	WATER BOOSTER STATION	
	WATER WELL	
	WATER MONITORING WELL	
	WATER TEST STATION	
	CABLE TELEVISION MARKER	
	CABLE TELEVISION PULL BOX	
	CABLE TELEVISION PEDESTAL	
	CABLE TELEVISION VAULT	
	POWER GUY ANCHOR	
	POWER GUY POLE	
	POWER MANHOLE	
	POWER MARKER	
	ELECTRIC POWER METER	
	POWER POLE	
	POWER TRANSFORMER	
	POWER VAULT	
	STREET LIGHT	
	IRRIGATION PULL BOX	
	IRRIGATION SPRINKLER HEAD	
	IRRIGATION VALVE	
	IRRIGATION VAULT	

EXISTING		
	FIBER OPTIC MANHOLE	
	FIBER OPTIC MARKER	
	FIBER OPTIC PULL BOX	
	FIBER OPTIC PEDESTAL	
	FIBER OPTIC VAULT	
	NATURAL GAS MARKER	
	NATURAL GAS METER	
	NATURAL GAS VALVE	
	TELEPHONE MANHOLE	
	TELEPHONE MARKER	
	TELEPHONE PULL BOX	
	TELEPHONE PEDESTAL	
	TELEPHONE VAULT	
	TREE (DECIDUOUS)	
	TREE (CONIFER)	
	ADA RAMP	
	SIGN	
	BOLLARD	
	MILEPOST	
	CATTLE GUARD	
	BORE LOCATION	
	PROP CORNER ALUMINUM CAP	
	PROP CORNER BRASS CAP	
	PROP CORNER CHISELED X	
	HIGHWAY ROW MONUMENT	
	PROP CORNER IRON PIPE	
	PROP CORNER LEAD & TACK	
	PROP CORNER REBAR	
	PROP CORNER STONE	
	CONTROL POINT	

DRAWING NOTATION



ABBREVIATIONS

ACI	AMERICAN CONCRETE INSTITUTE	HWY	HIGHWAY
BAR	REBAR	INV	INVERT ELEVATION
BMP	BEST MANAGEMENT PRACTICES	LF	LINEAR FEET
BOT	BOTTOM	MH	MANHOLE
BVC	BEGIN VERTICAL CURVE	MJ	MECHANICAL JOINT
CFS	CUBIC FEET PER SECOND	O.C.	ON CENTER
CL	CENTERLINE	O.C.E.F.	ON CENTER EACH FACE
CMP	CORRUGATED METAL PIPE	OHP	OVERHEAD POWER
CONC	CONCRETE OR CONCENTRIC	PI	POINT OF INTERSECTION
CP	CONTROL POINT	POT	POINT ON TANGENT
CSP	CORRUGATED STEEL PIPE	PS	PIPE SUPPORT
CTR	CENTER	PT	POINT, POINT OF TANGENCY
CU FT	CUBIC FEET	PVC	POLYVINYL CHLORIDE
CULV	CULVERT	PWR	POWER
DI	DUCTILE IRON OR DRAIN INLET	RCP	REINFORCED CONCRETE PIPE
DIA	DIAMETER	R/W OR ROW	RIGHT OF WAY
EA	EACH	SAN	SANITARY
E.F.	EACH FACE	SST	STAINLESS STEEL
EL, ELEV	ELEVATION	STA	STATION
EOP	EDGE OF PAVEMENT	TBC	TOP BACK OF CURB
EVC	END VERTICAL CURVE	TYP	TYPICAL
FT	FOOT OR FEET	UG	UNDERGROUND
GPM	GALLONS PER MINUTE	WTR	WATER
HP	HORSEPOWER		

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 1849 TERRA AVE.
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 www.wwcengineering.com

TOWN OF RANCHESTER
TONGUE RIVER PATH STUDY
LEGEND
 SHERIDAN COUNTY, WYOMING

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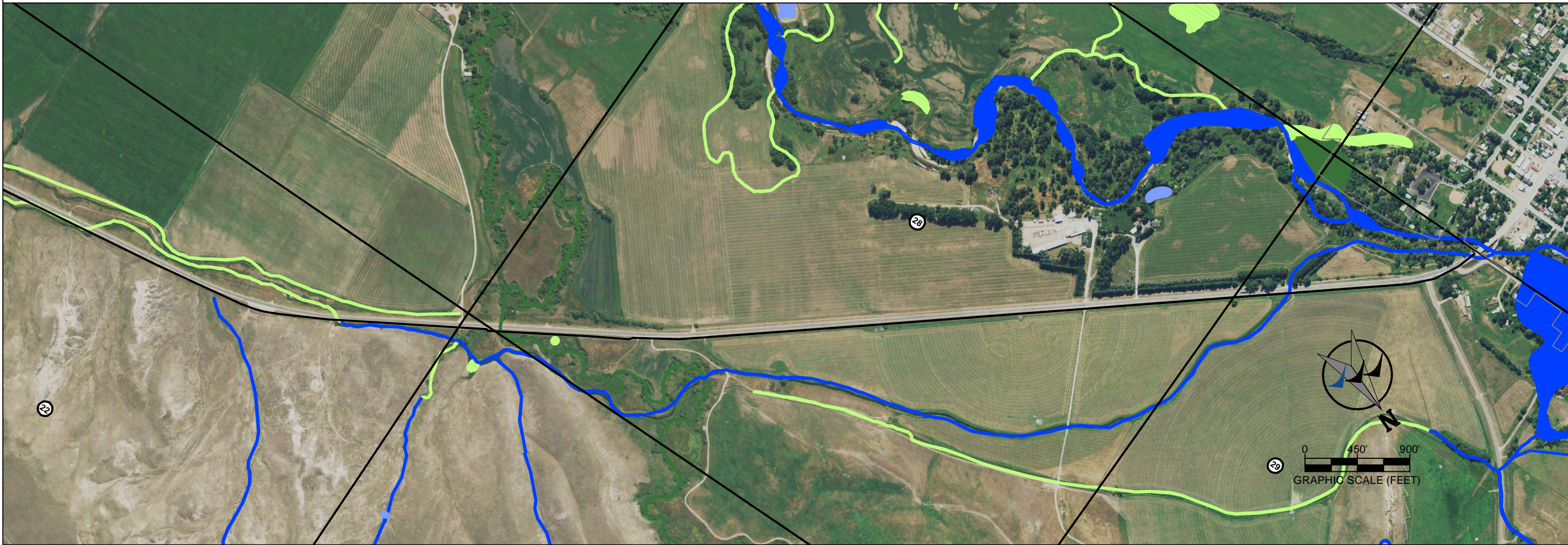
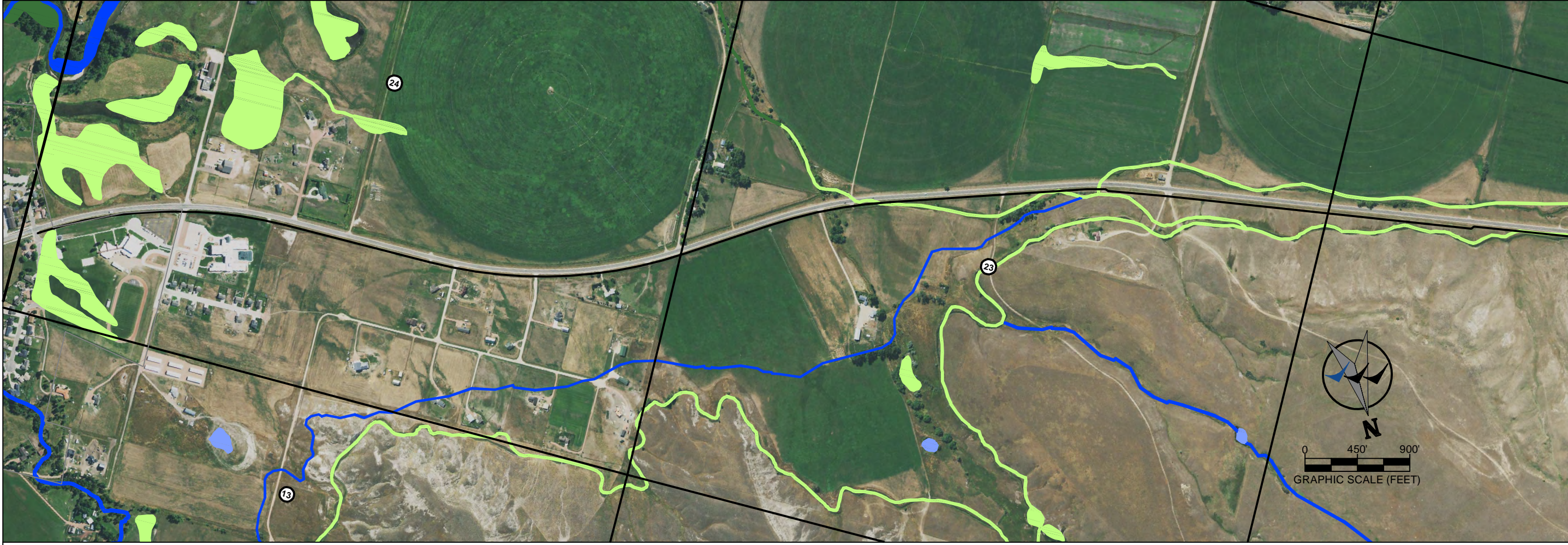
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TOWN OF RANCHESTER
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SITE OVERVIEW
 SHERIDAN COUNTY, WYOMING

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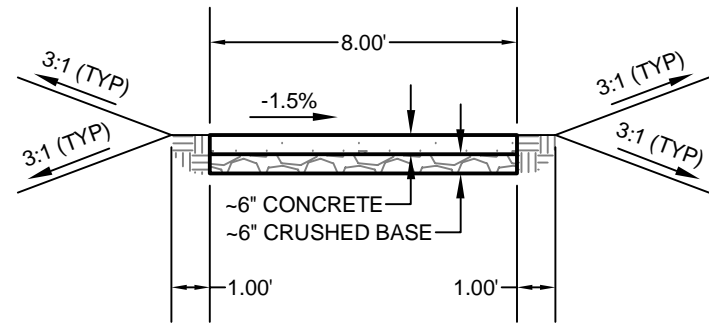
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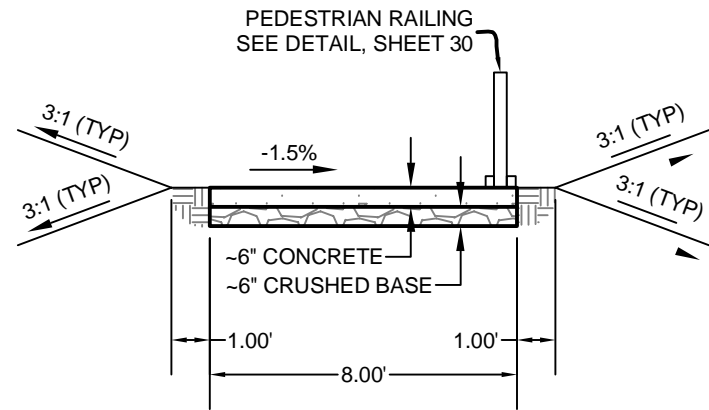
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WETLANDS
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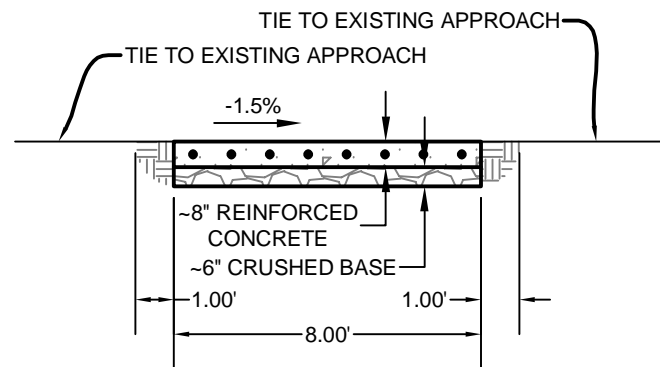
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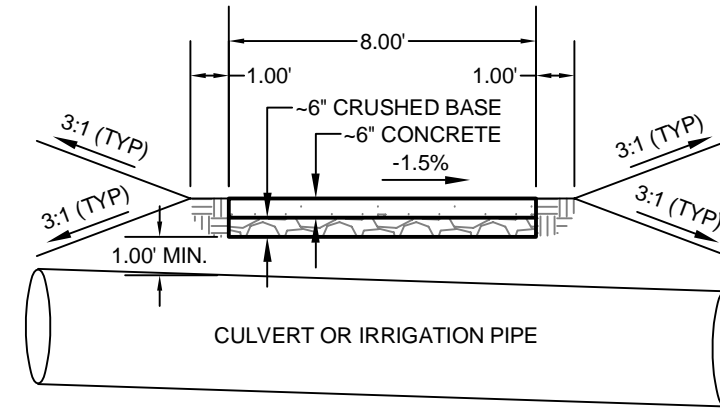
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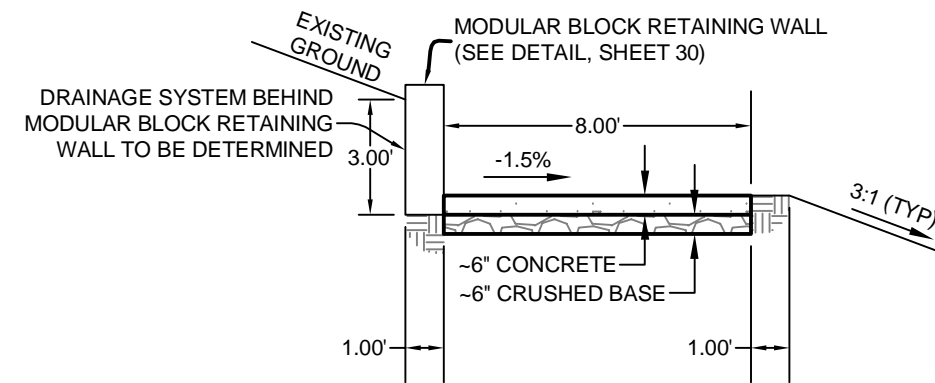
TYPICAL #2 - PATHWAY WITH PEDESTRIAN GUARDRAIL
STA 171+75 TO 172+25 AND 174+25 TO 174+75



TYPICAL #3 - PATHWAY WITH APPROACHES



TYPICAL #4 - PATHWAY WITH CULVERT/IRRIGATION CROSSING



TYPICAL #5 - PATHWAY WITH RETAINING WALL
STA 172+50 TO 177+25

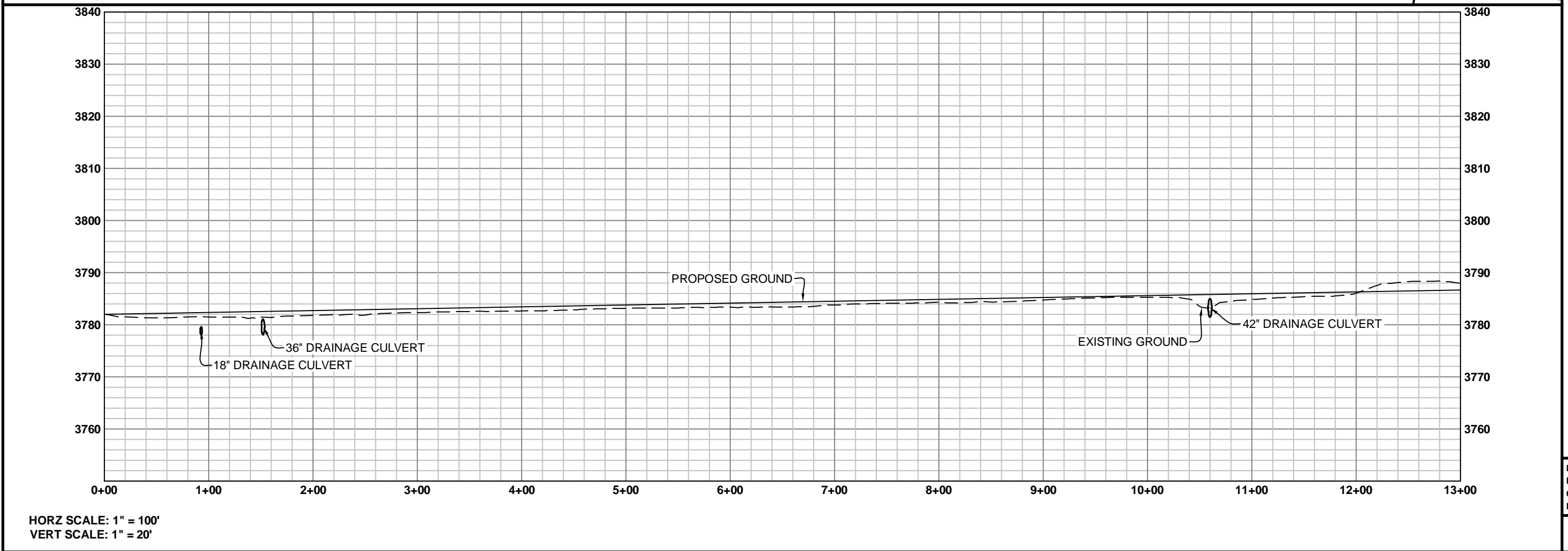
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TONGUE RIVER PATH STUDY
TYPICAL PATHWAY SECTIONS
SHERIDAN COUNTY, WYOMING

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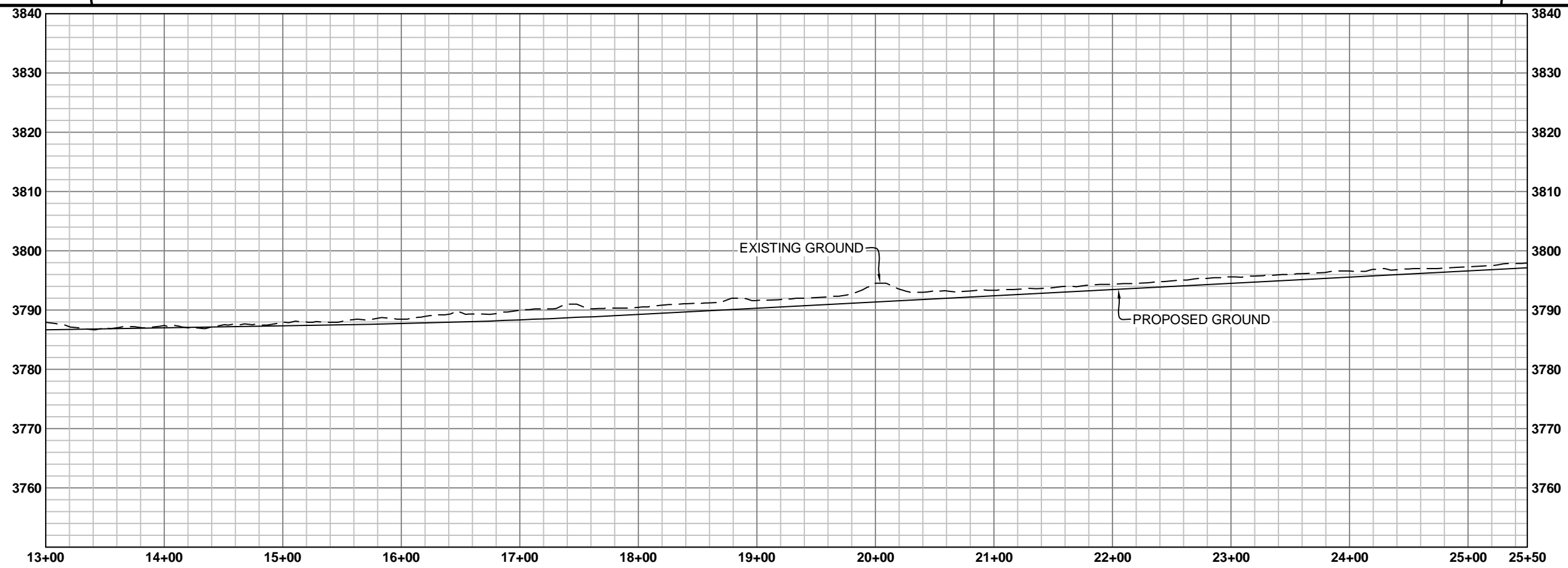
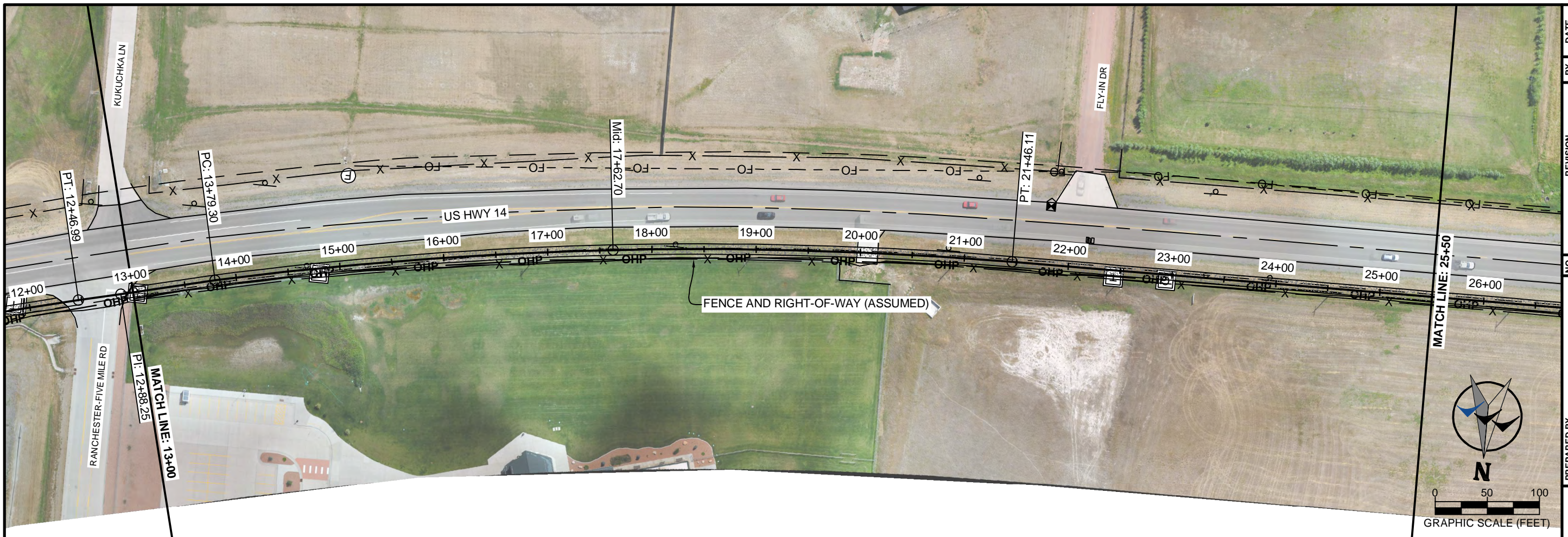
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TOWN OF RANCHESTER
TONGUE RIVER PATH STUDY
PATHWAY PLAN AND PROFILE SHEET
SHERIDAN COUNTY, WYOMING

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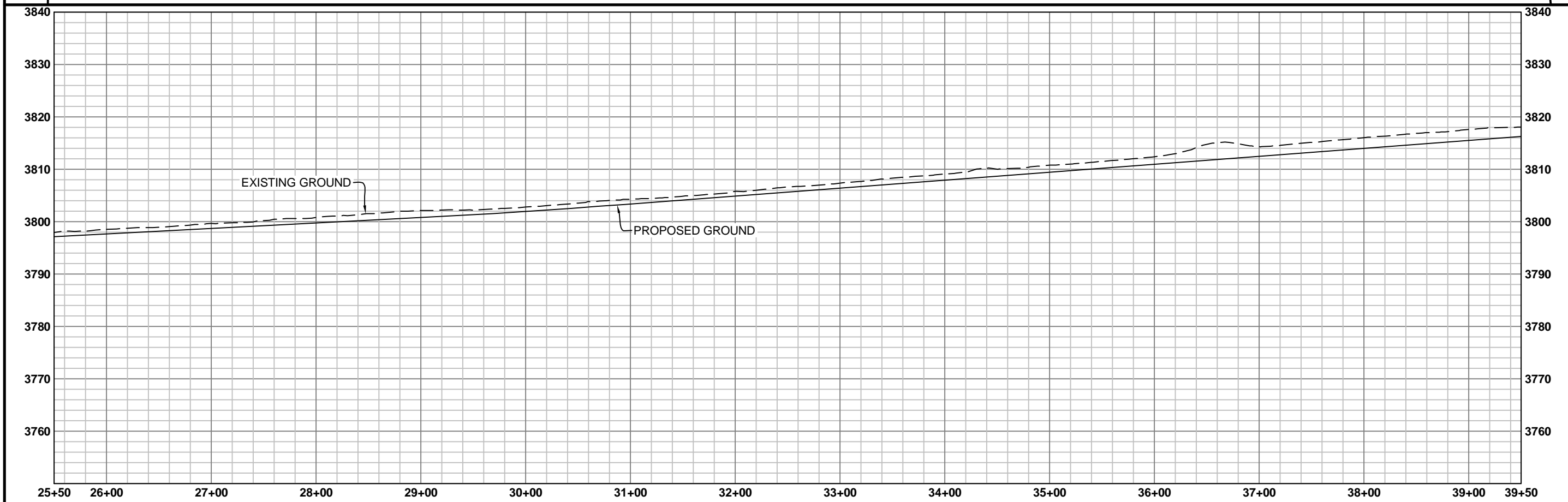
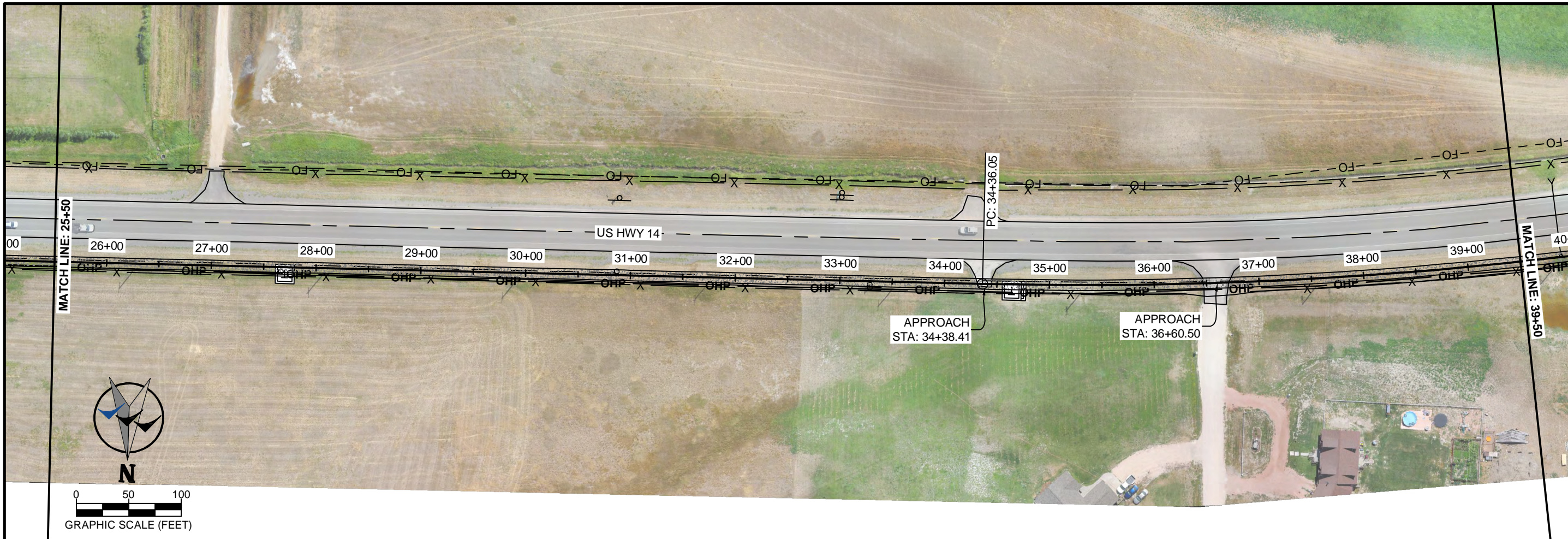
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PATHWAY PLAN AND PROFILE SHEET
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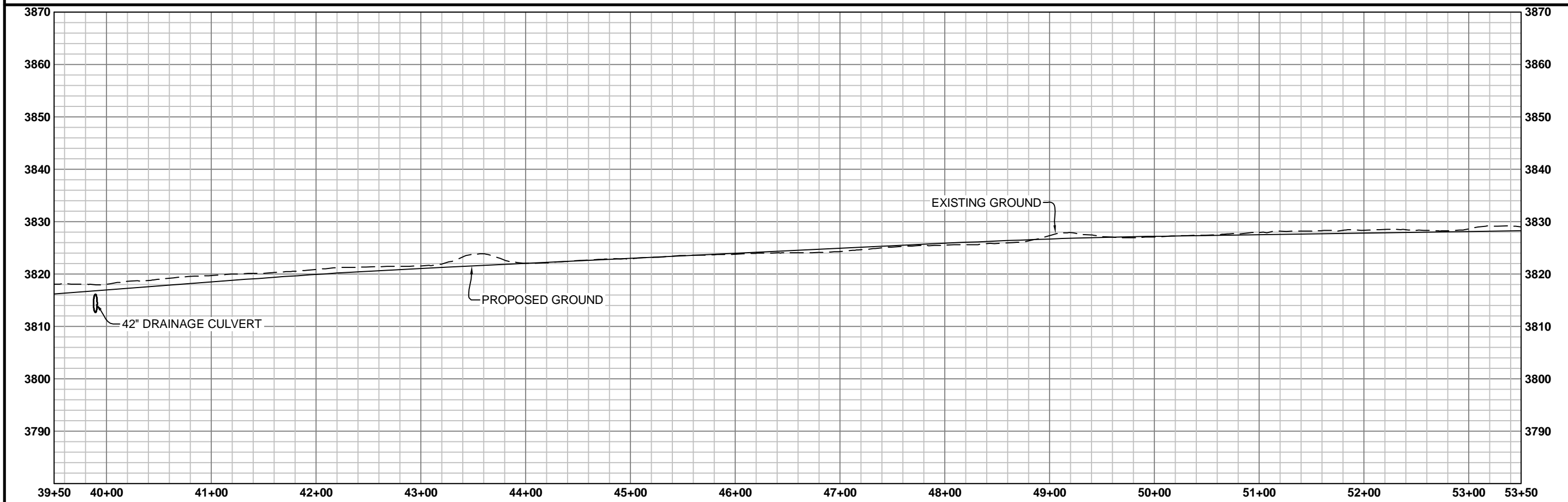
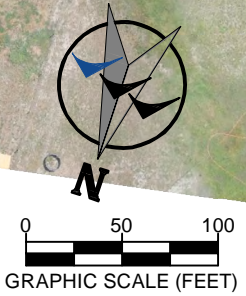
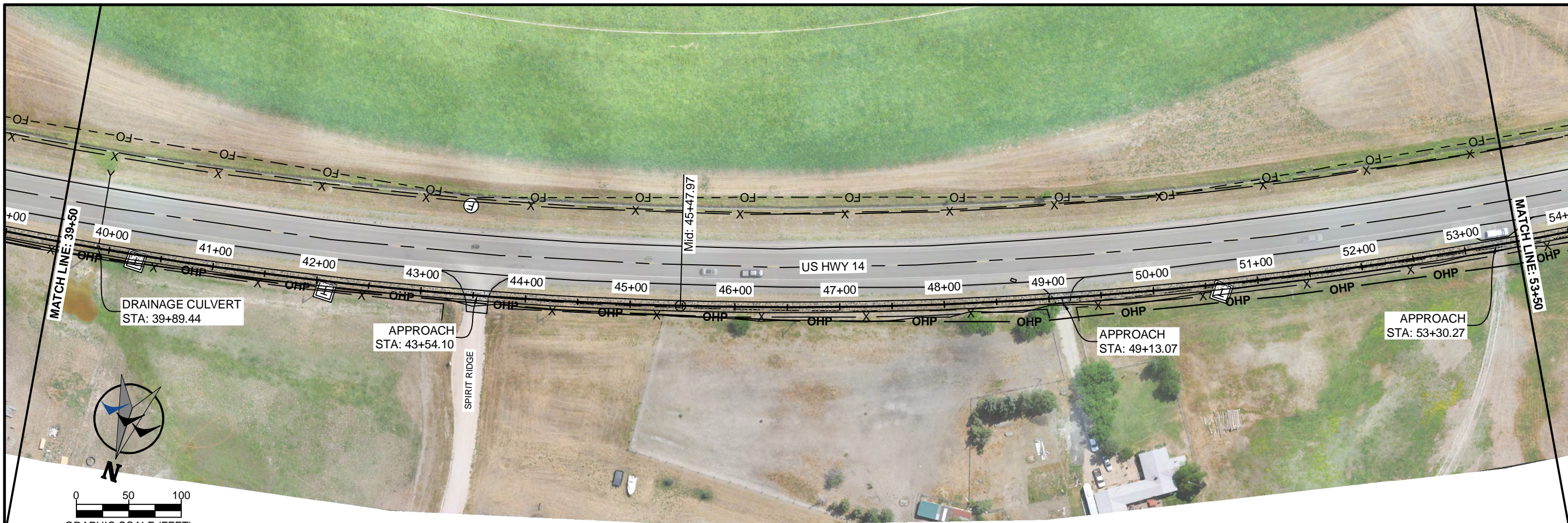
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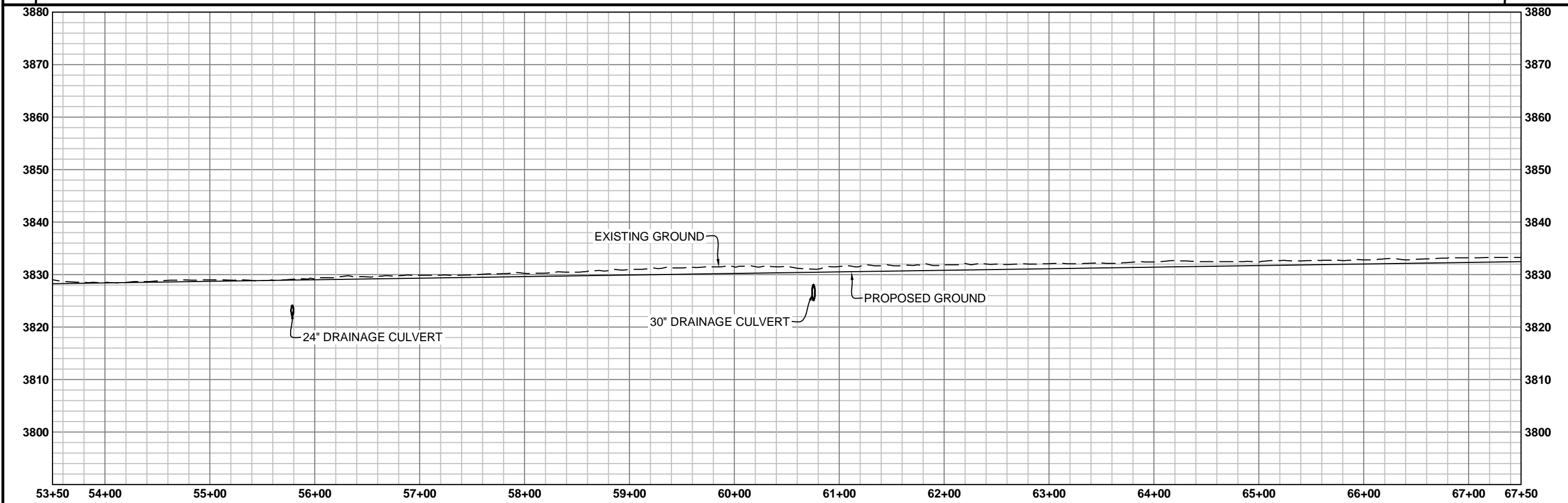
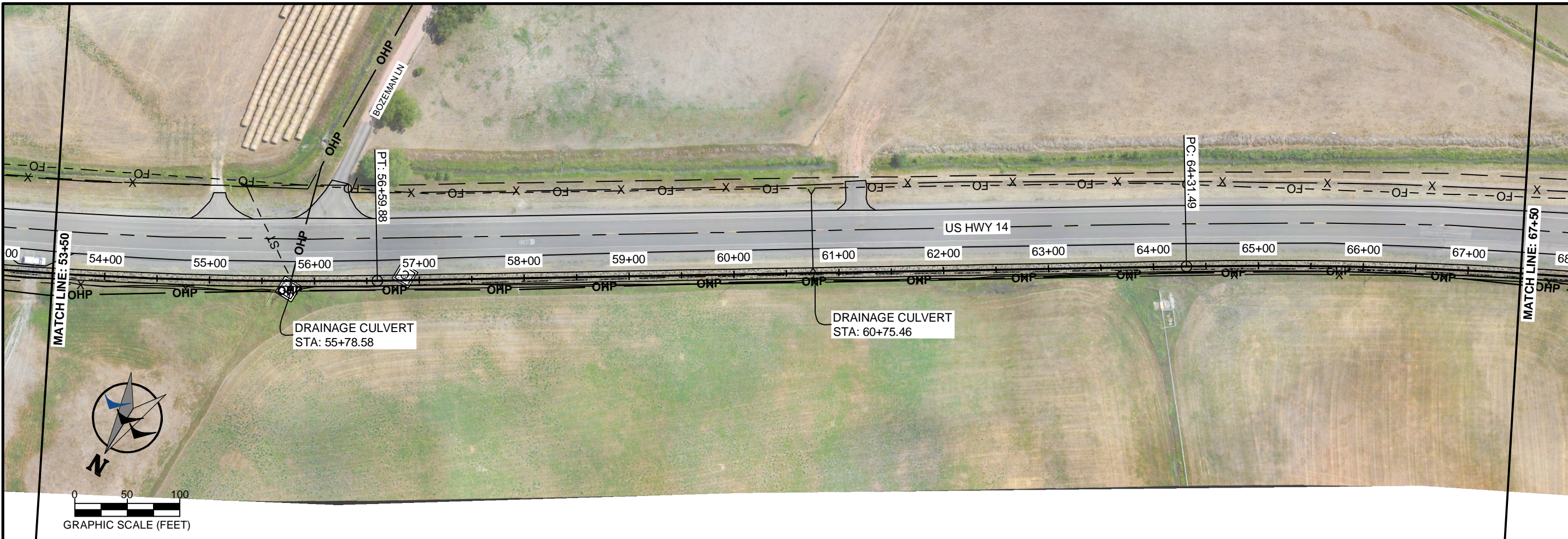
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PATHWAY PLAN AND PROFILE SHEET
SHERIDAN COUNTY, WYOMING

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SHEET
9

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VERT SCALE: 1" = 20'

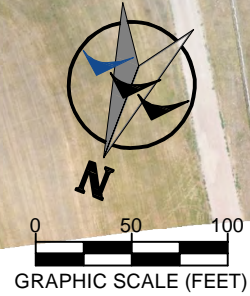
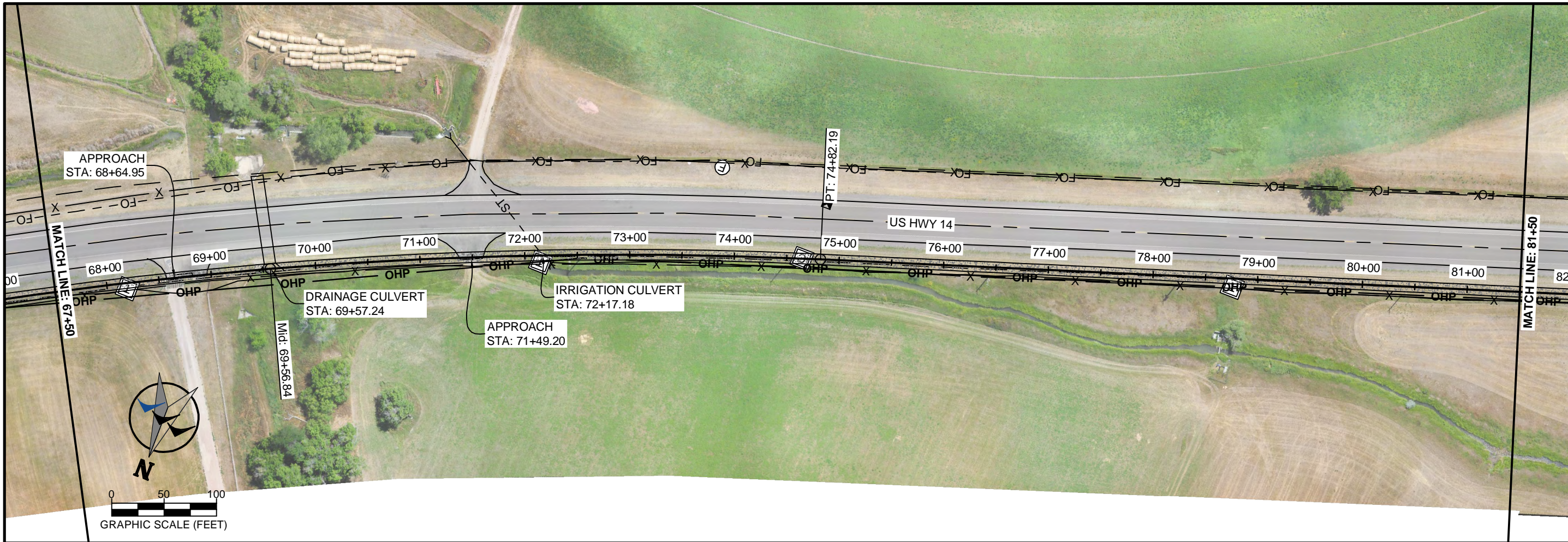
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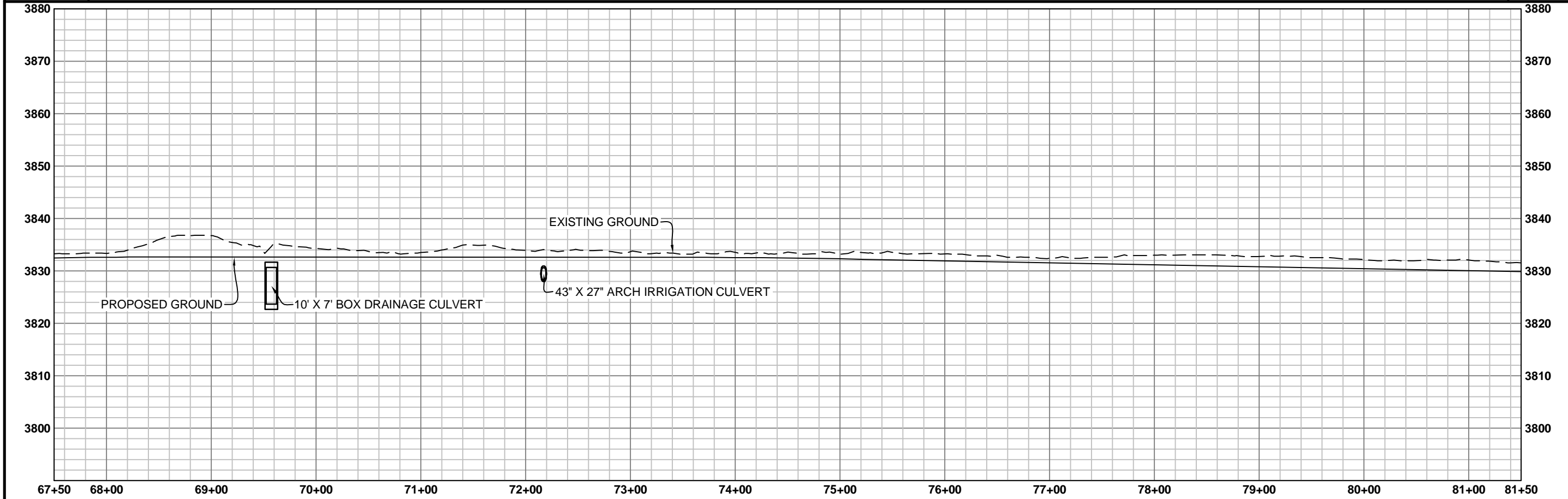
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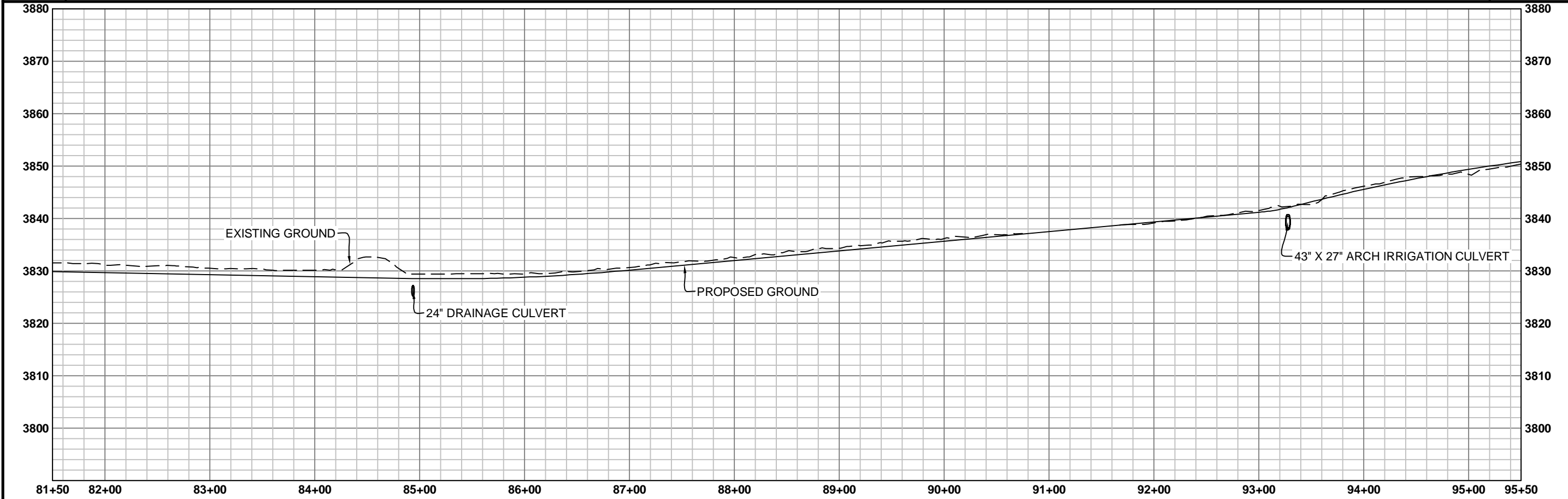
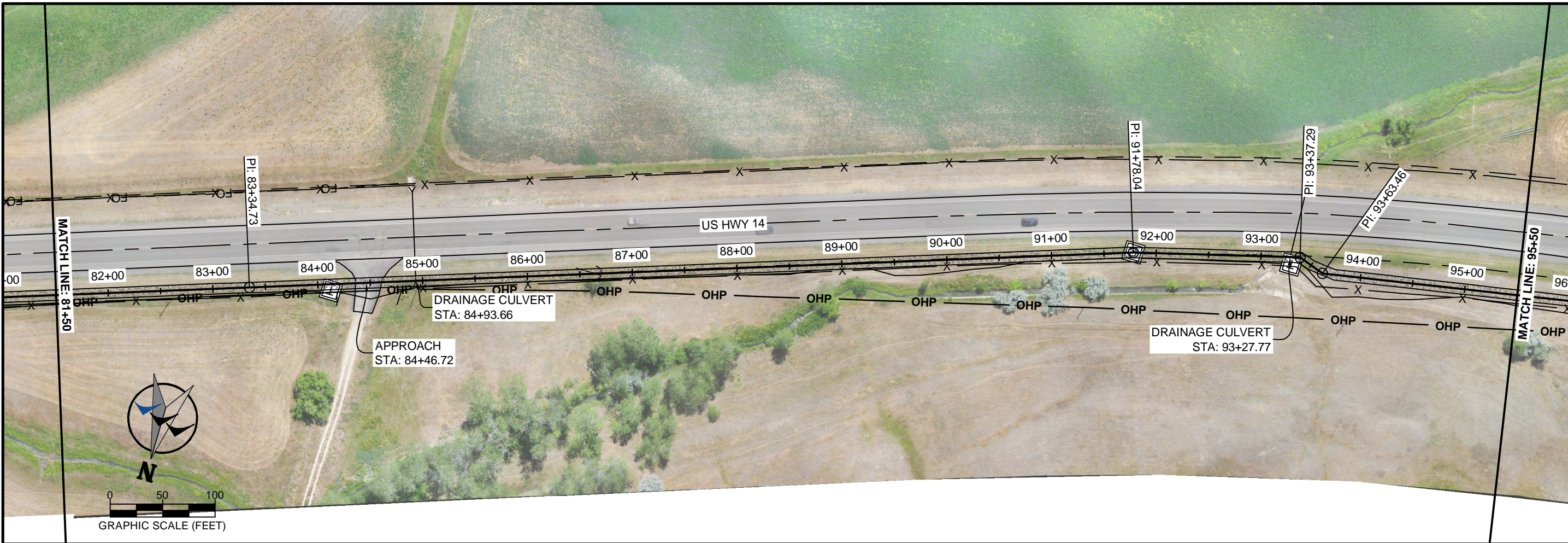
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 VERT SCALE: 1" = 20'

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SHEET
11

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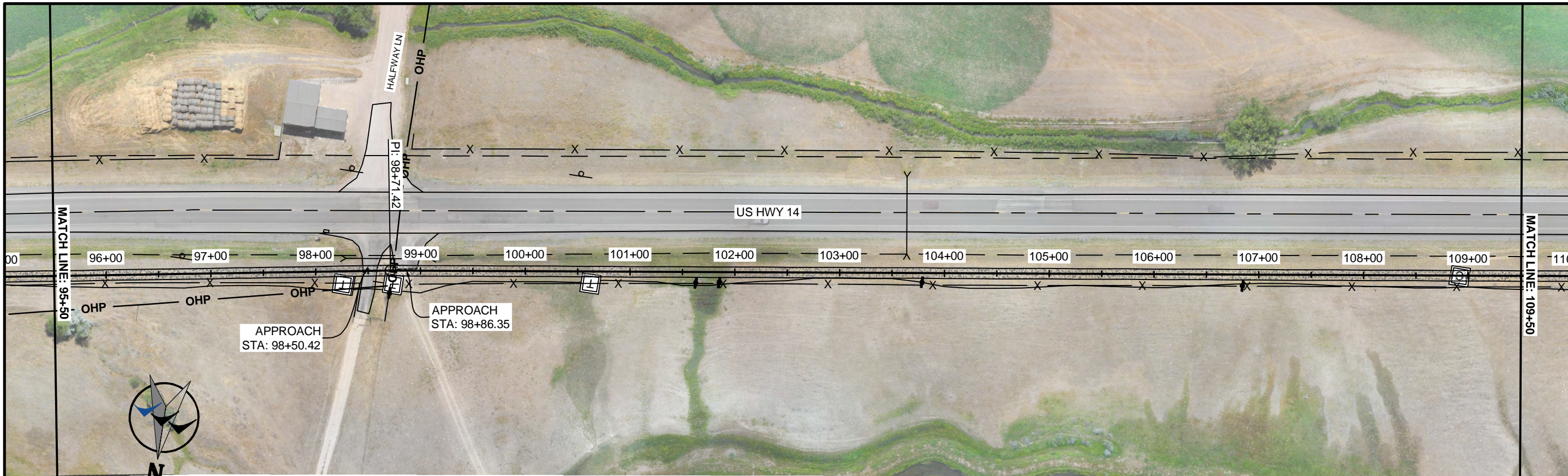
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SHEET
12

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VERT SCALE: 1" = 20'

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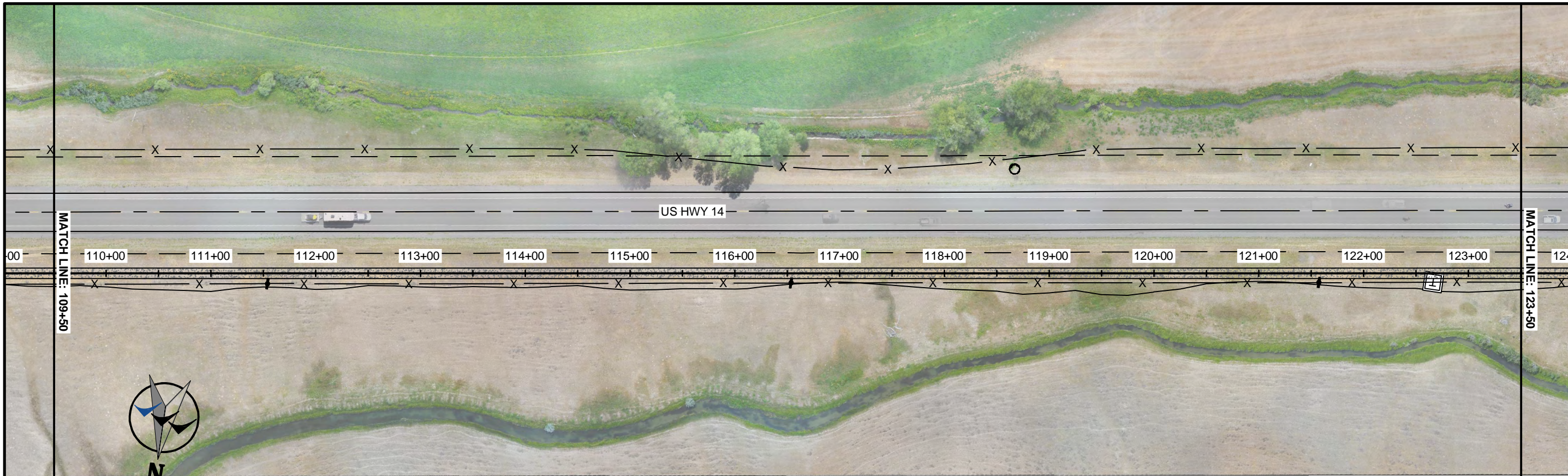
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SHEET
13

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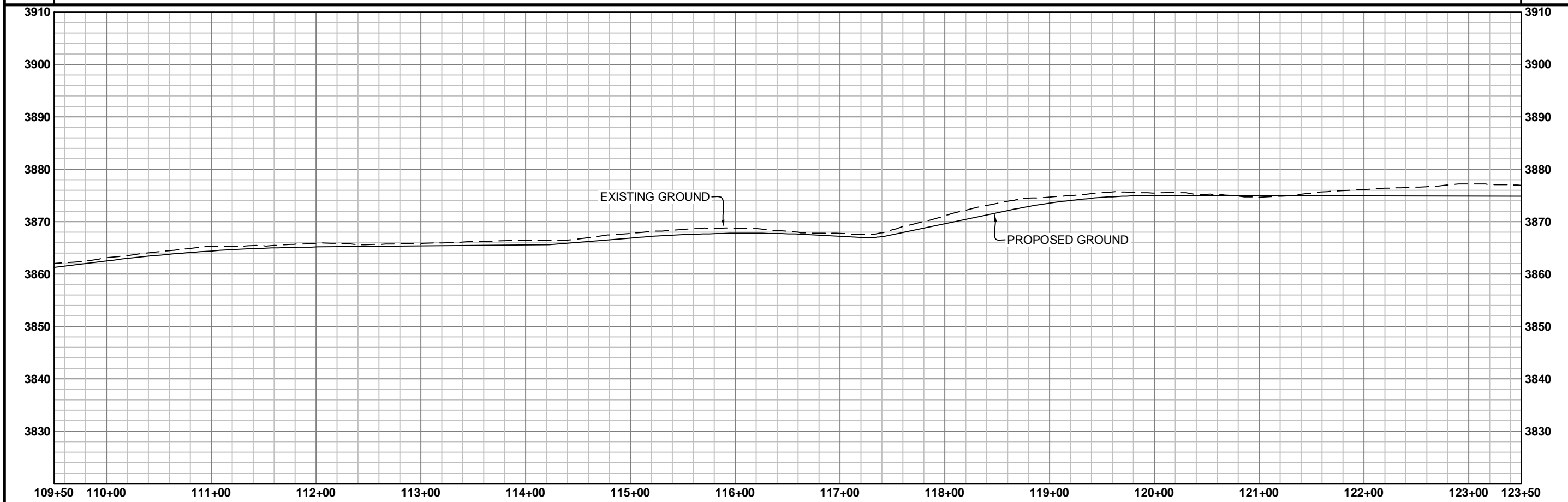
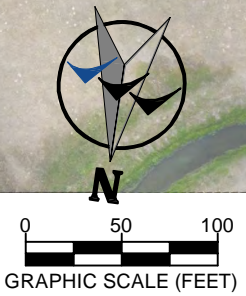
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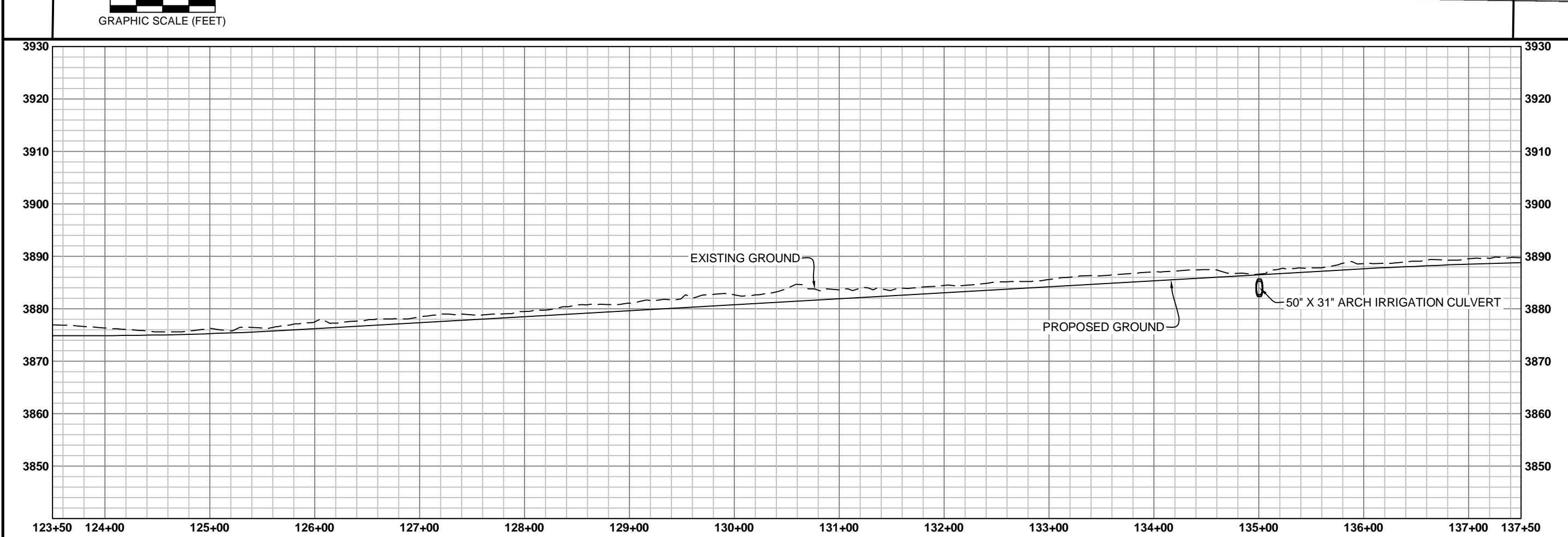
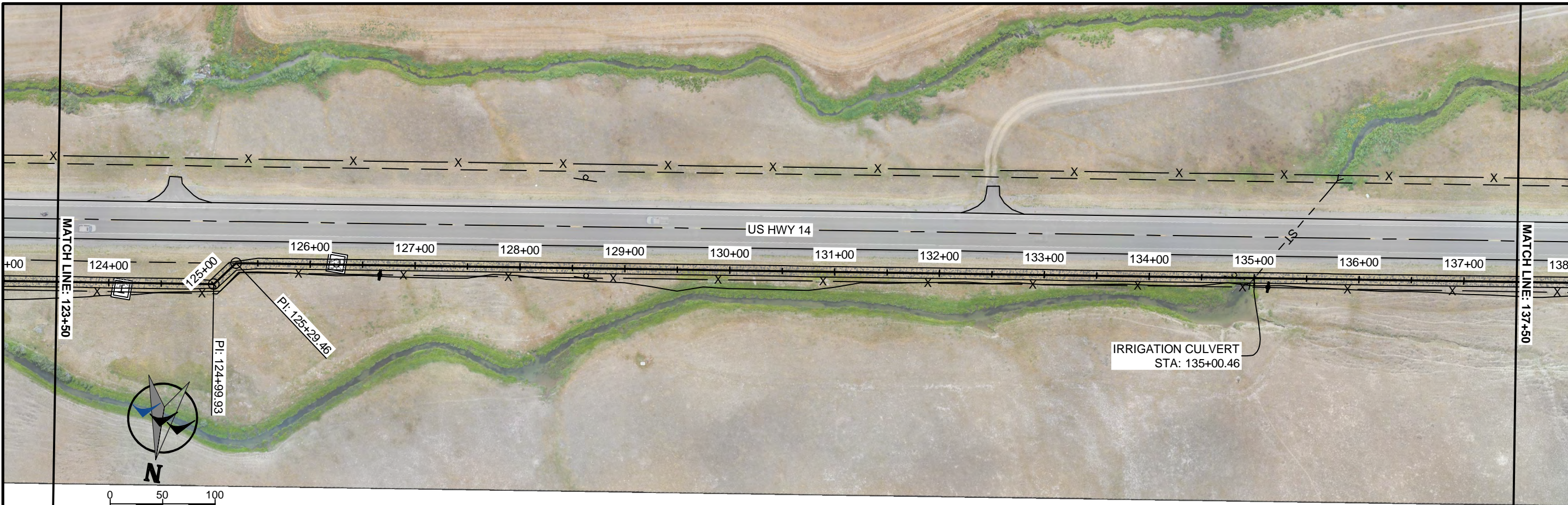
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SHEET
14



HORZ SCALE: 1" = 100'
 VERT SCALE: 1" = 20'

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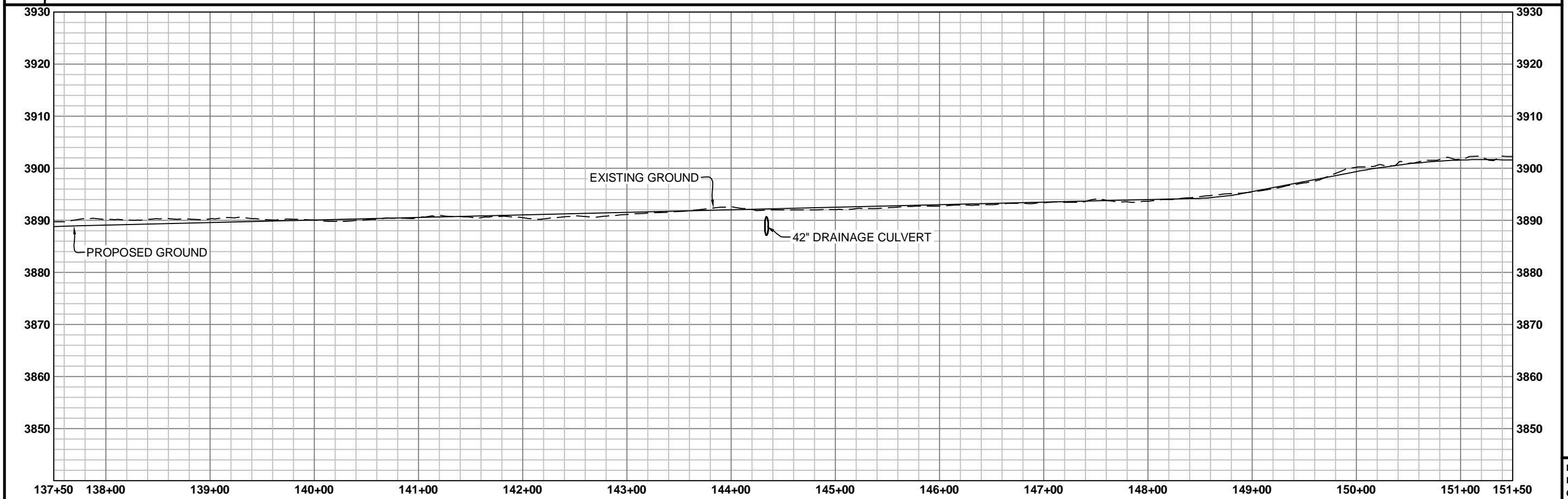
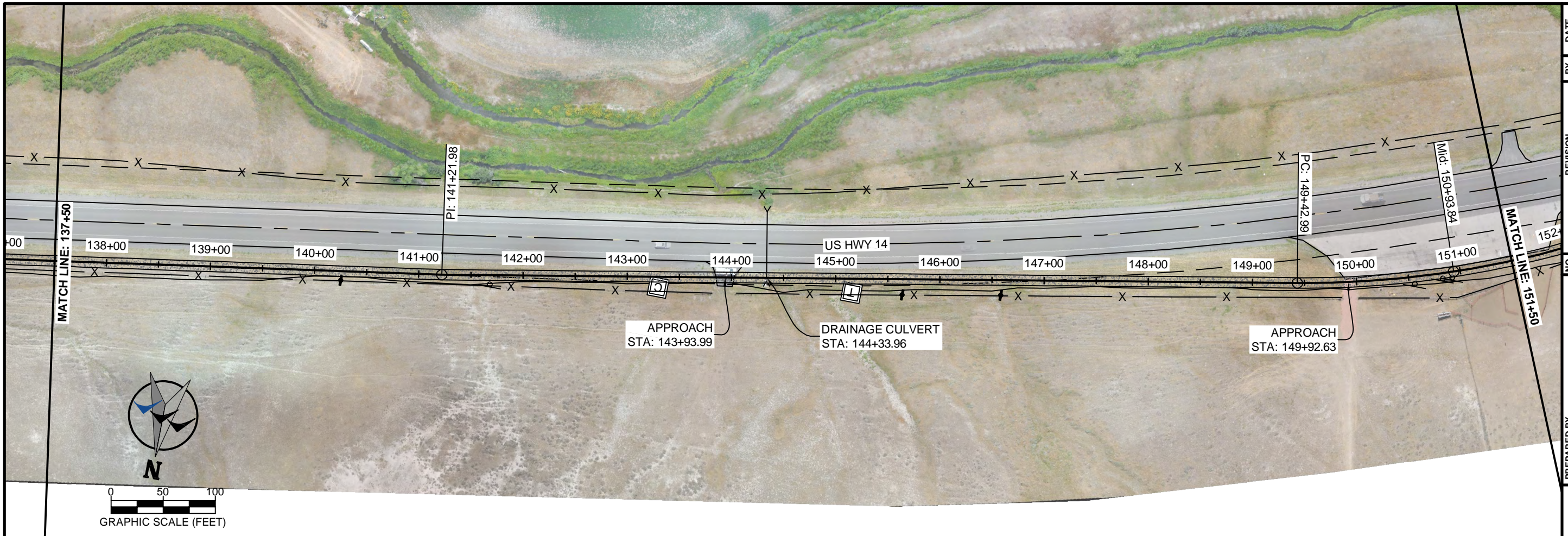
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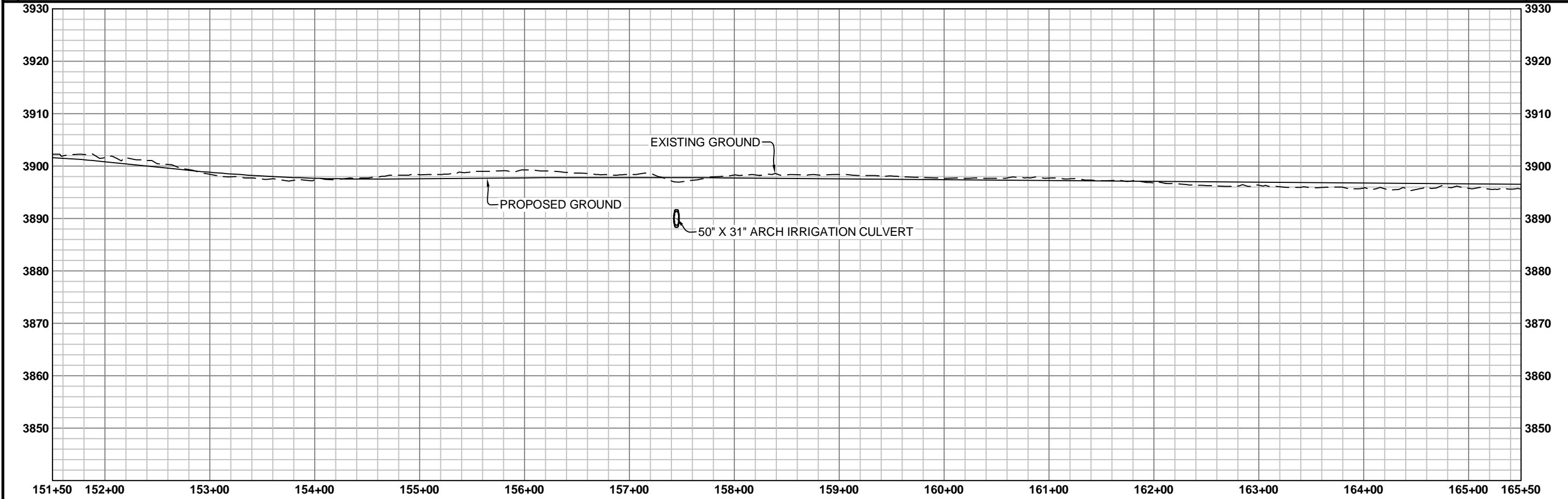
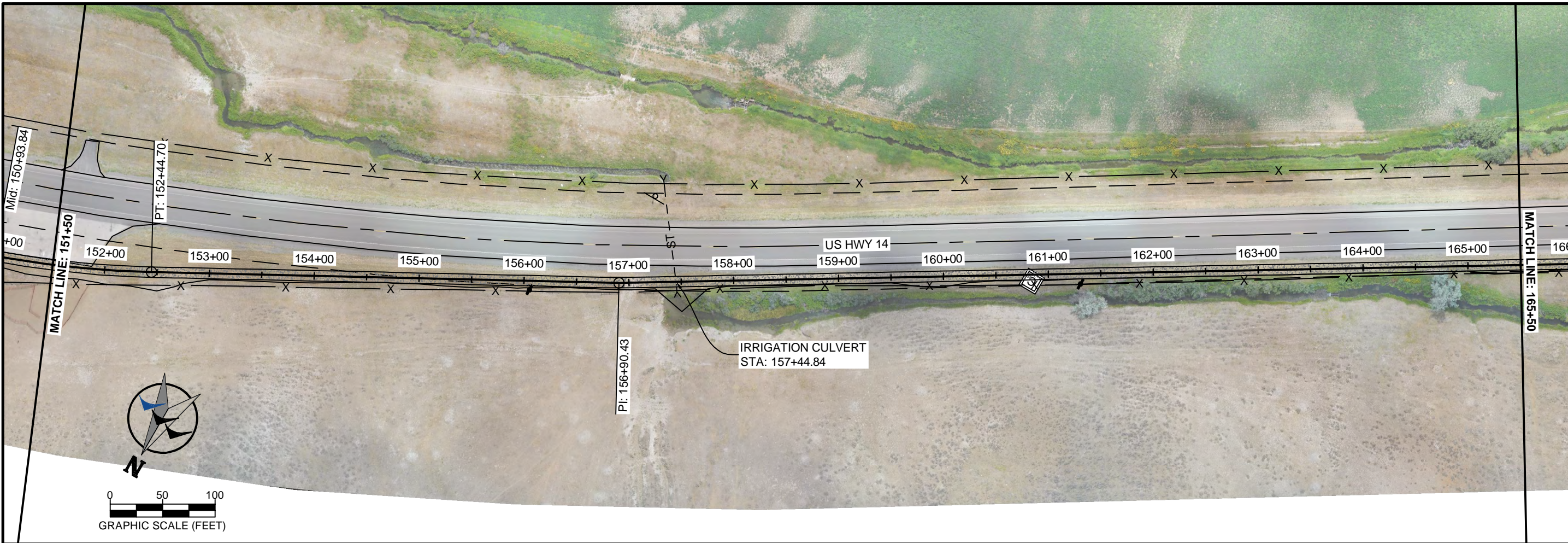
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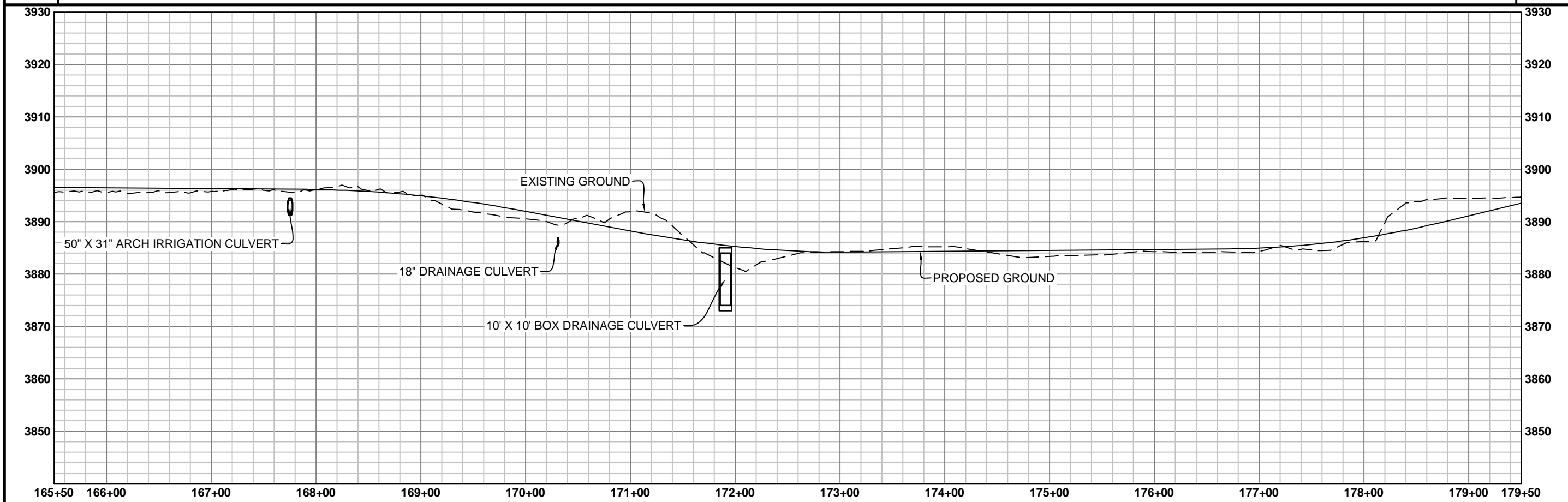
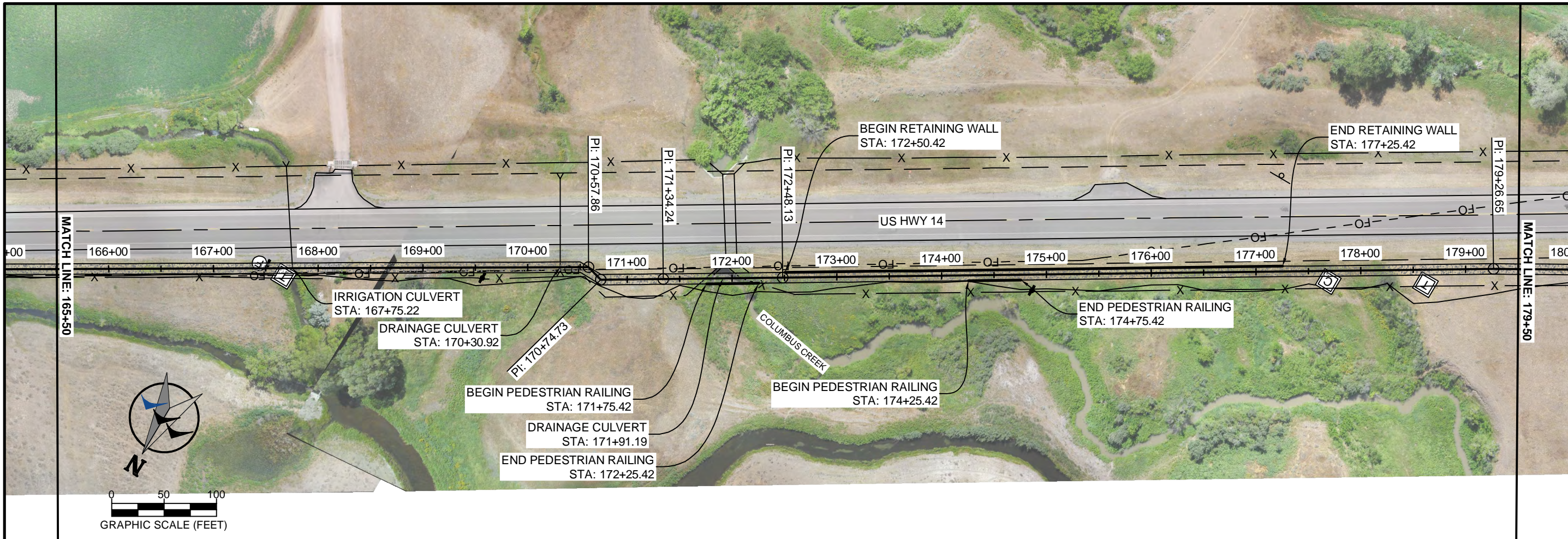
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VERT SCALE: 1" = 20'

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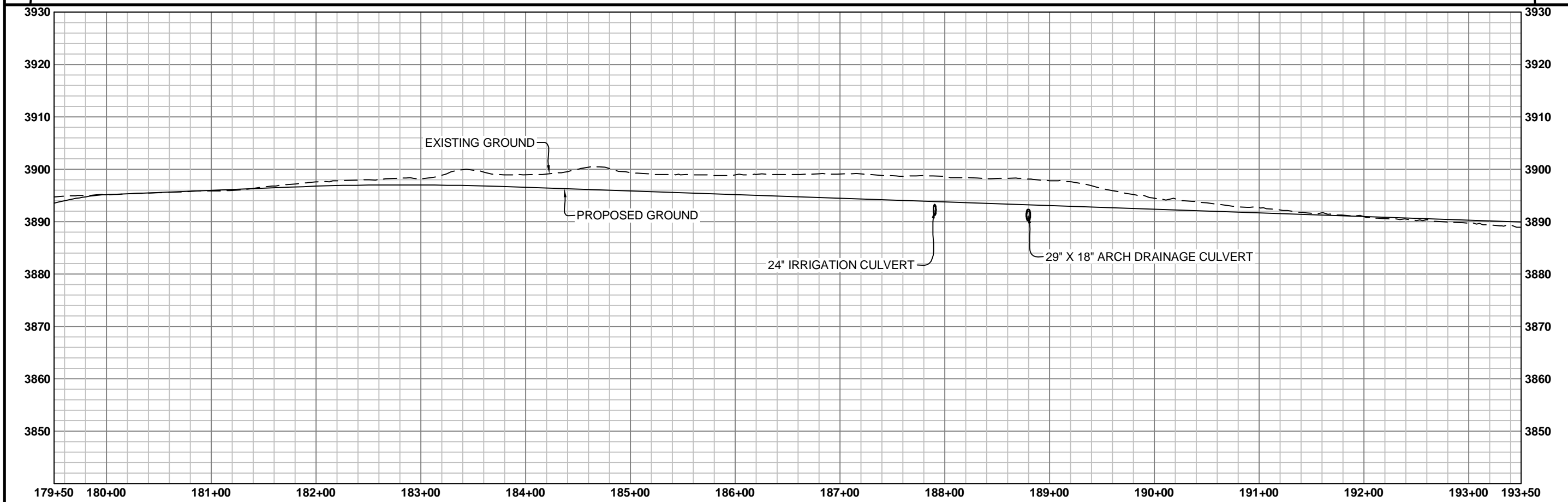
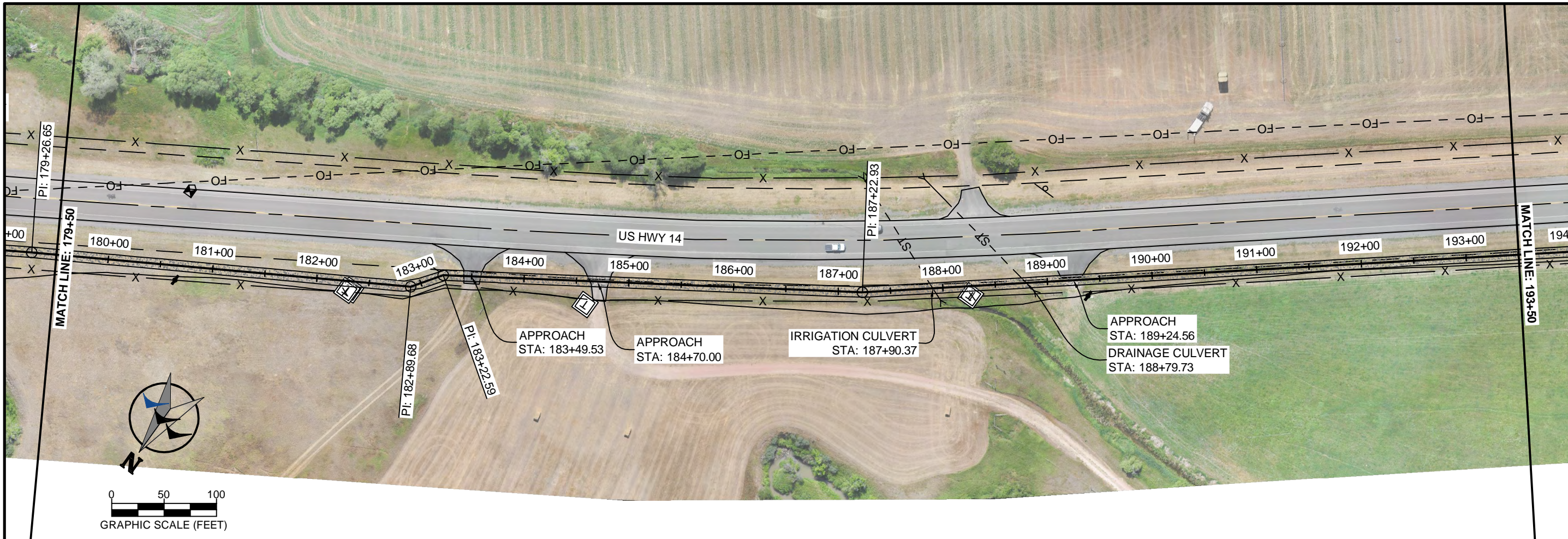
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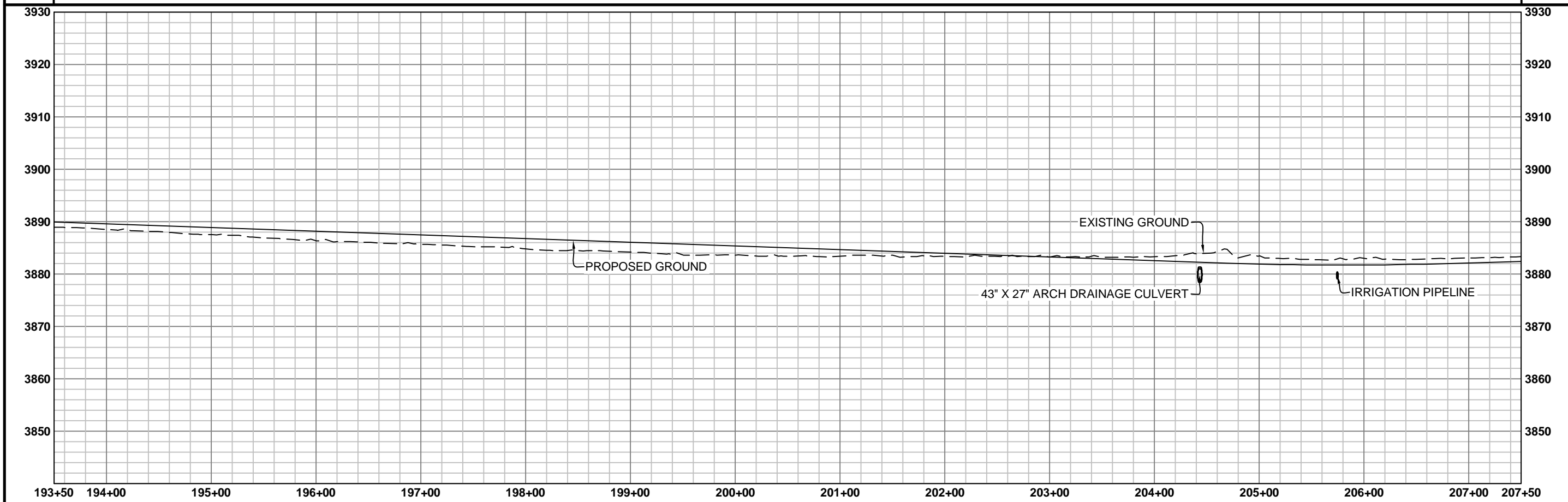
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HORZ SCALE: 1" = 100'
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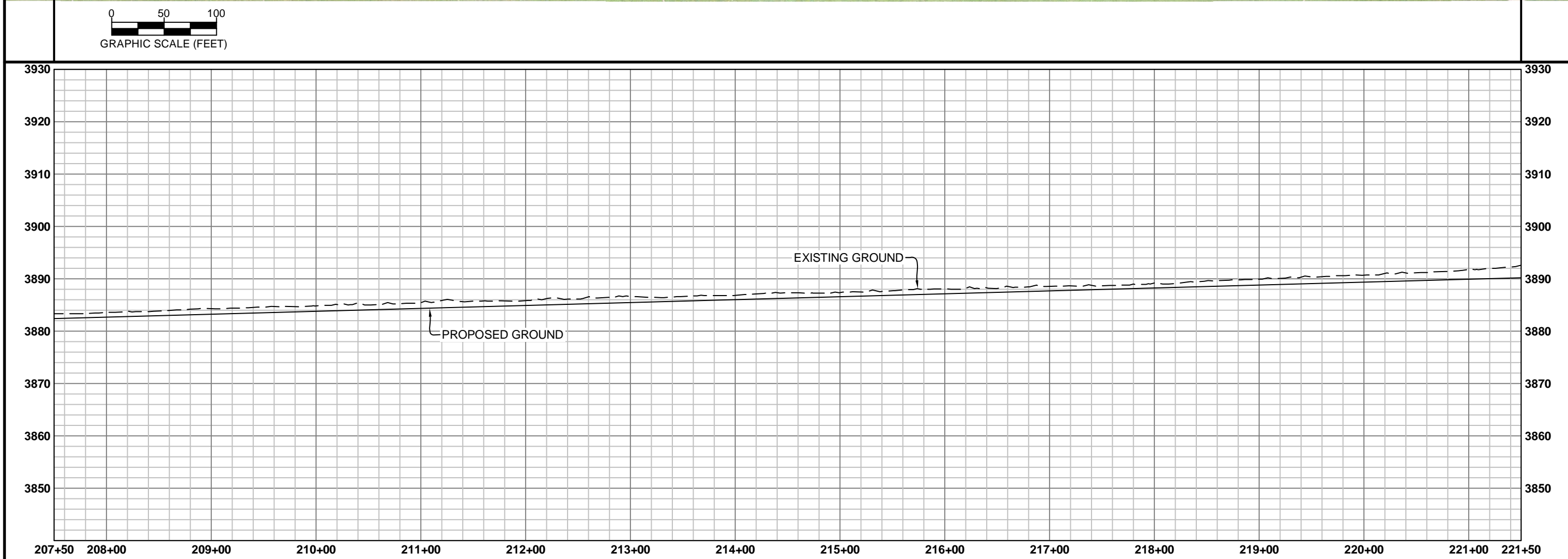
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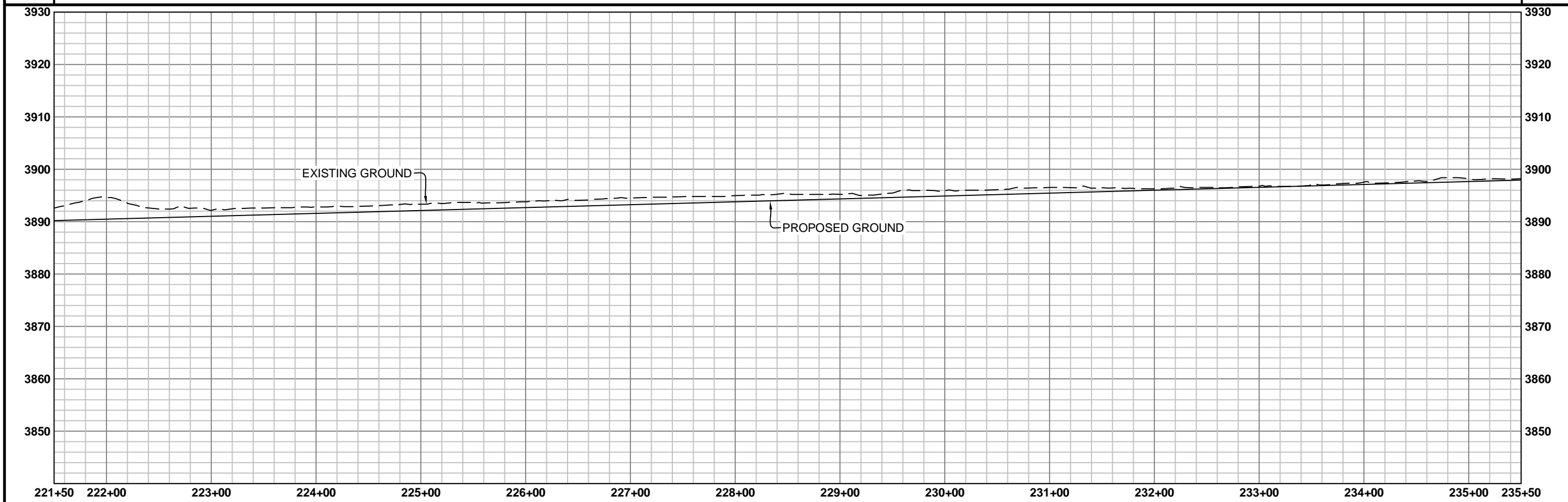
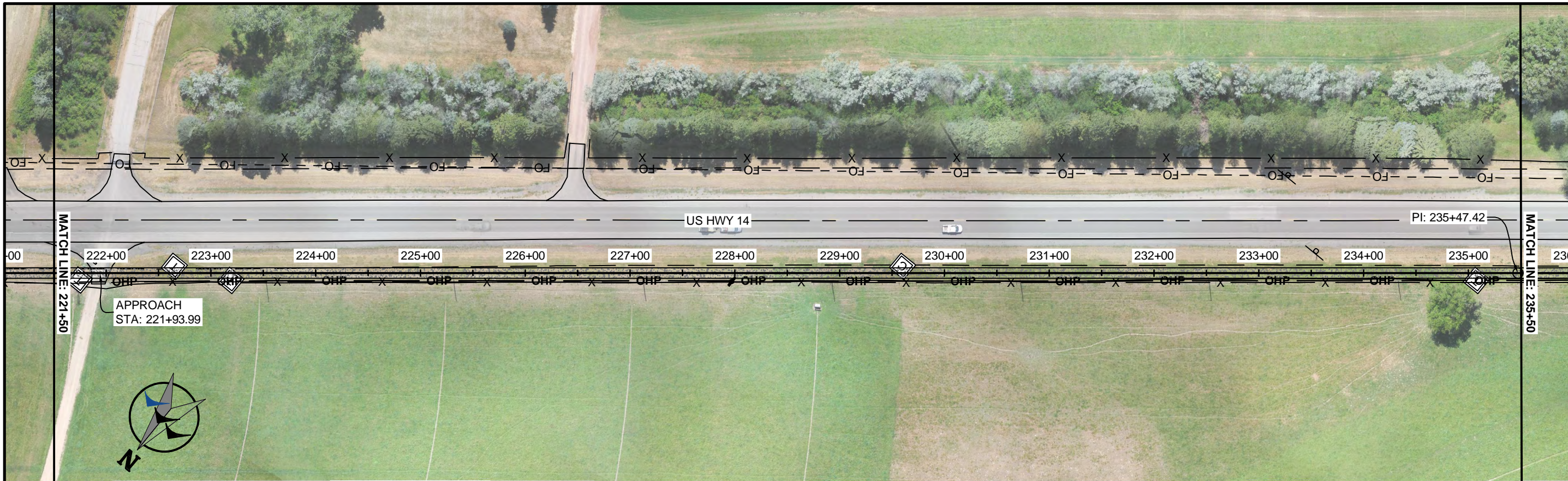
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21

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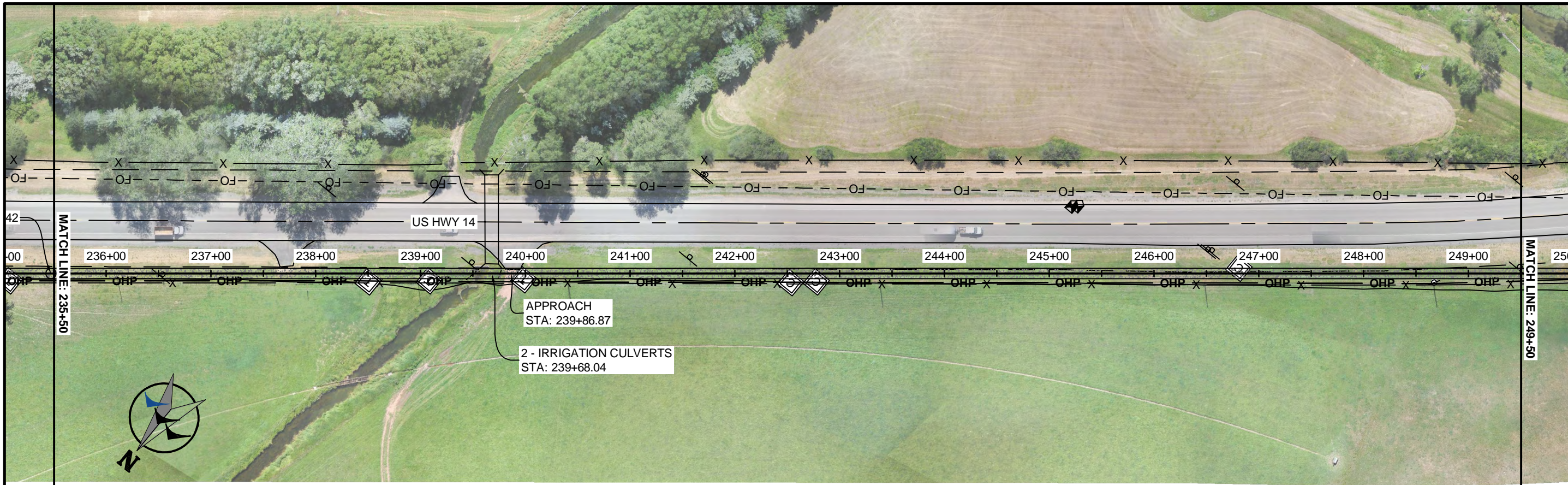
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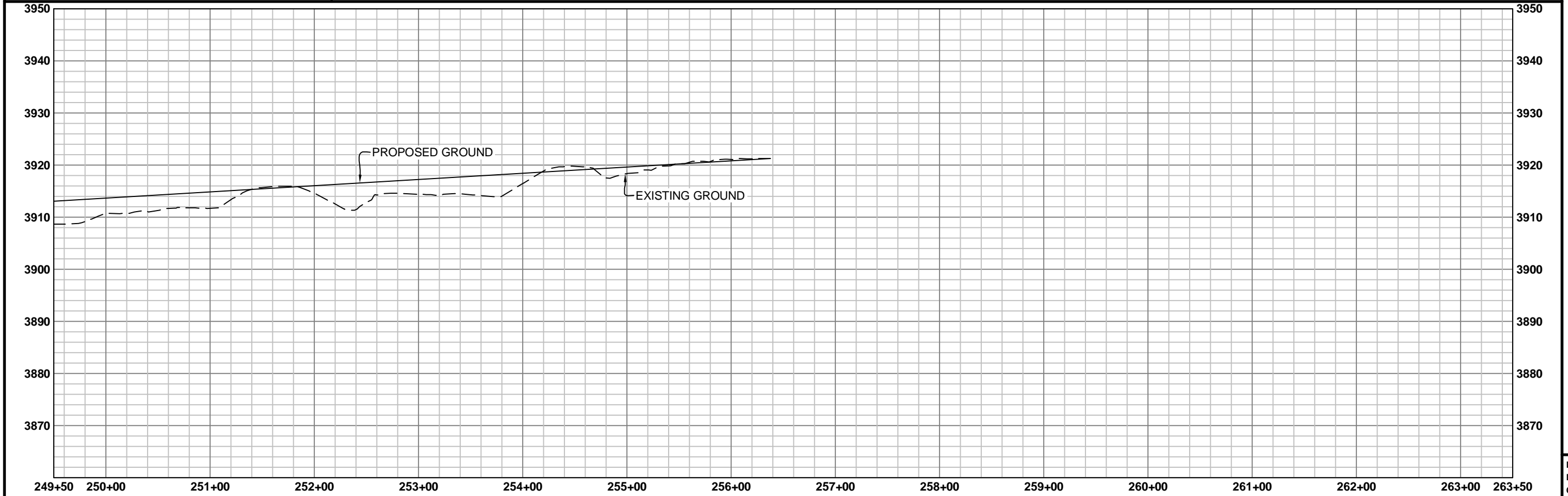
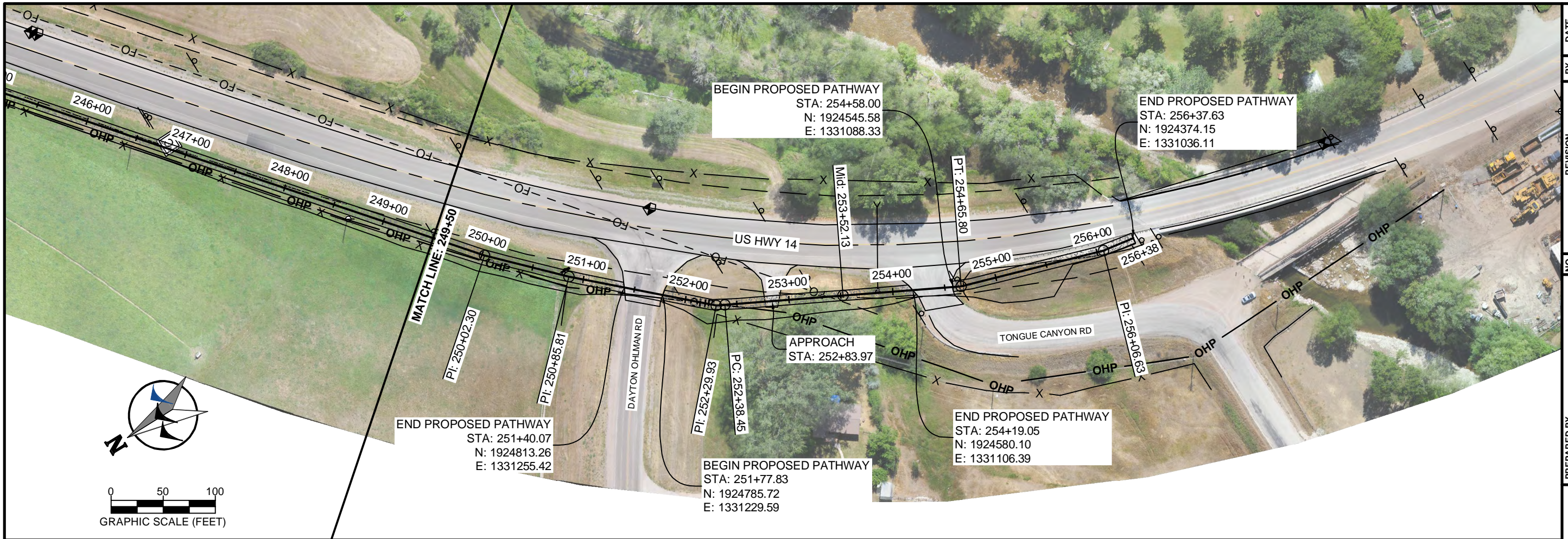
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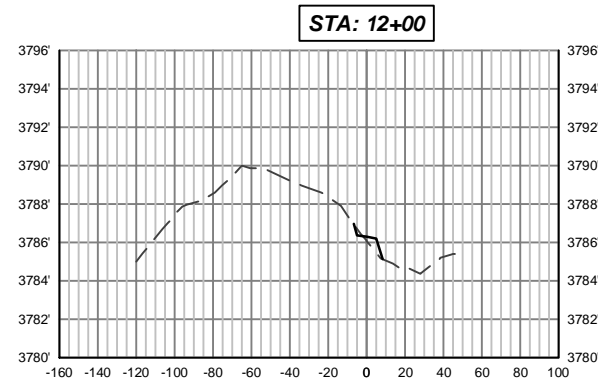
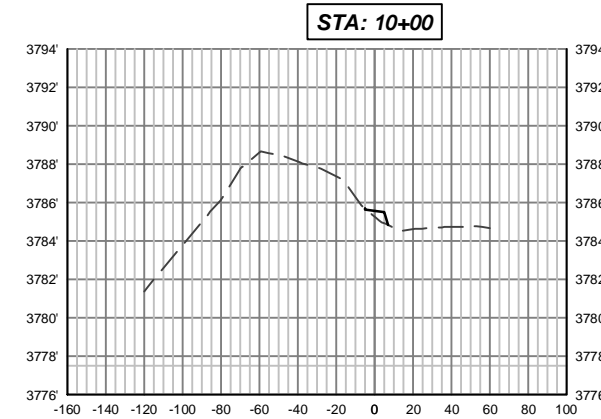
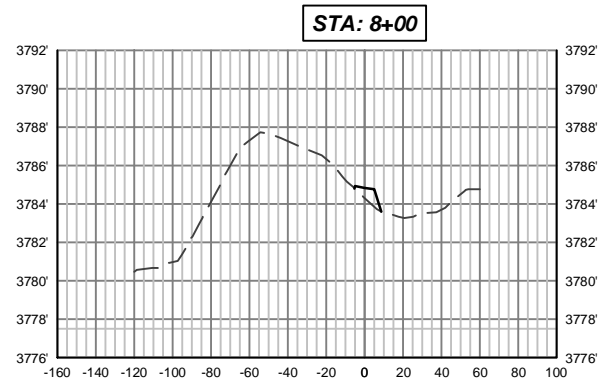
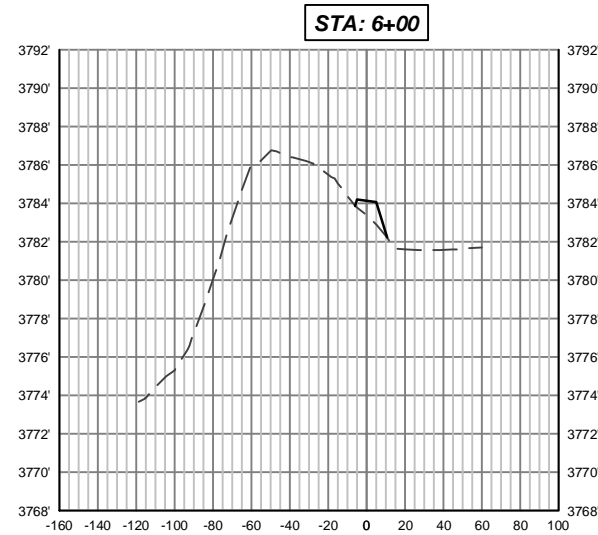
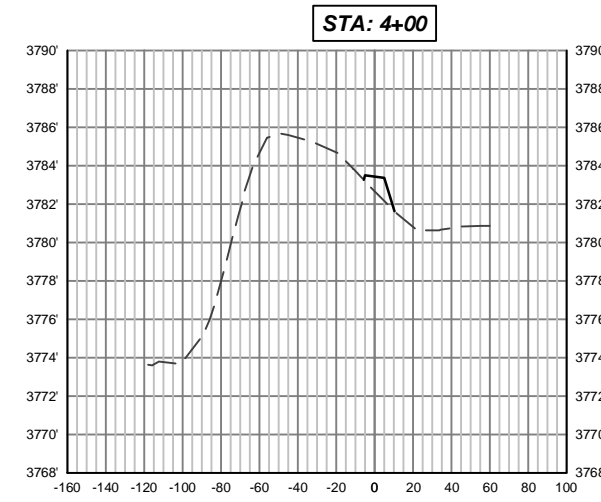
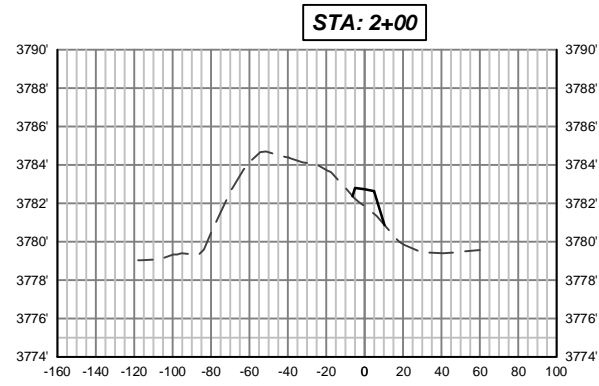
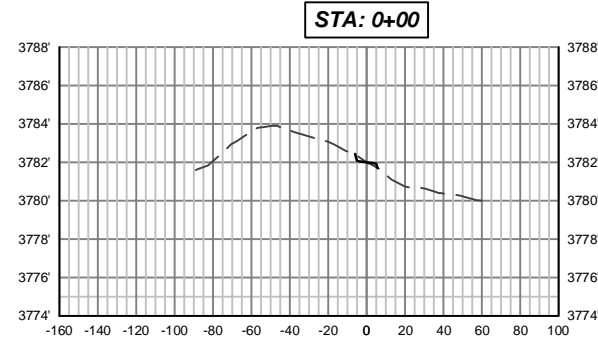
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VERT SCALE: 1" = 20'

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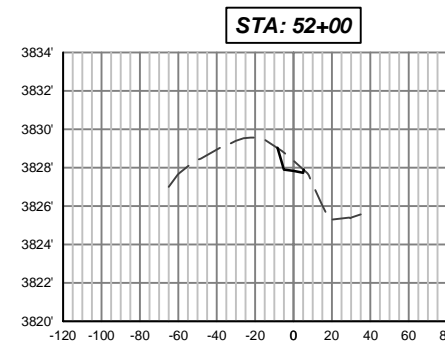
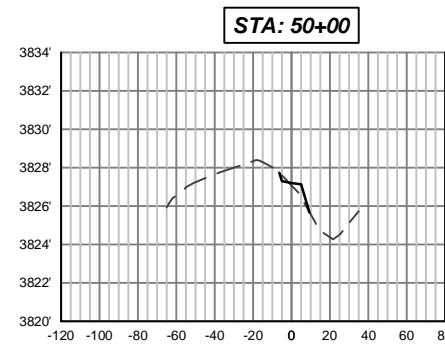
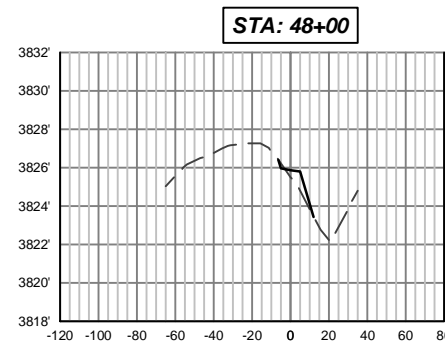
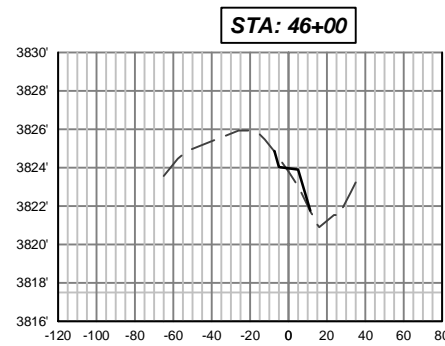
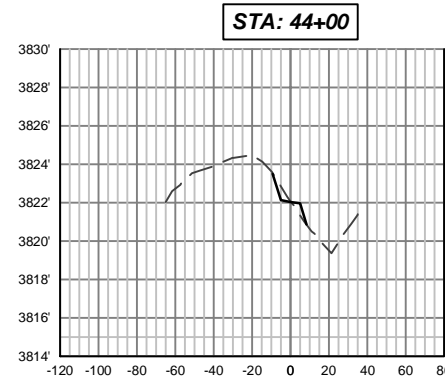
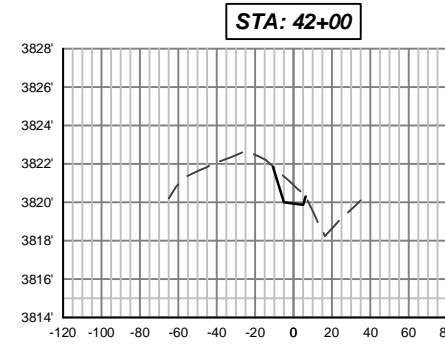
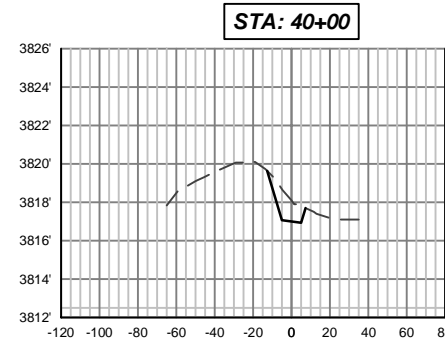
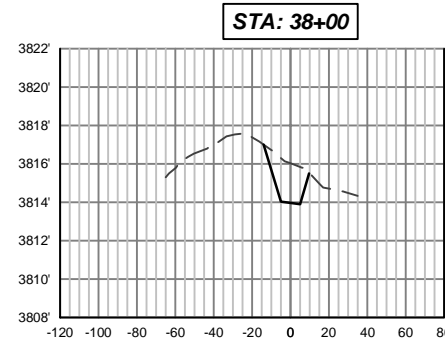
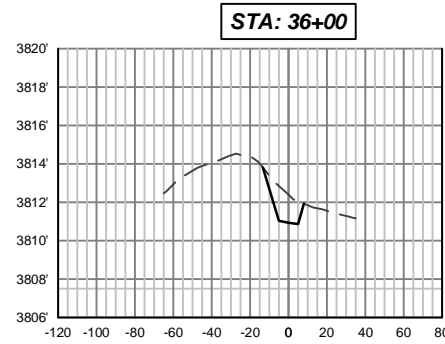
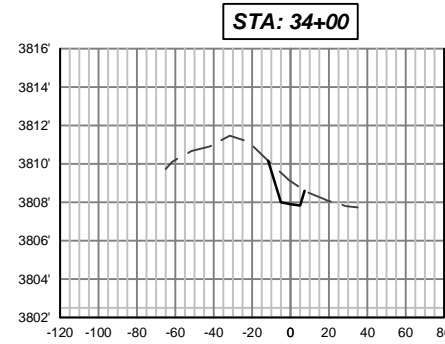
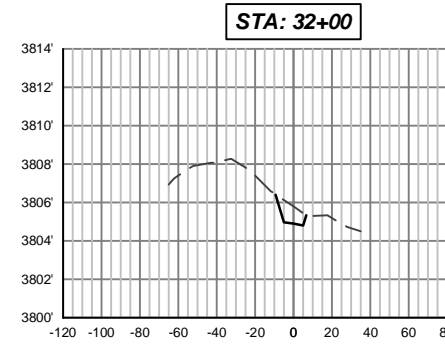
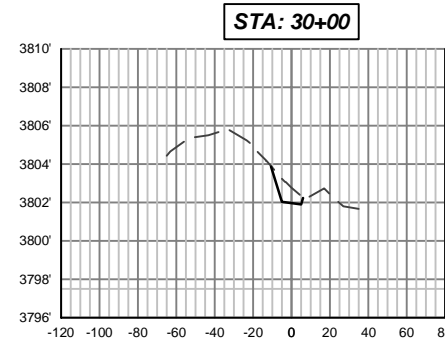
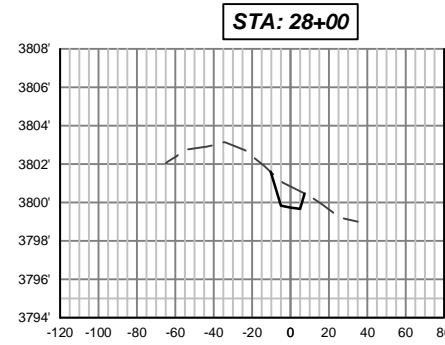
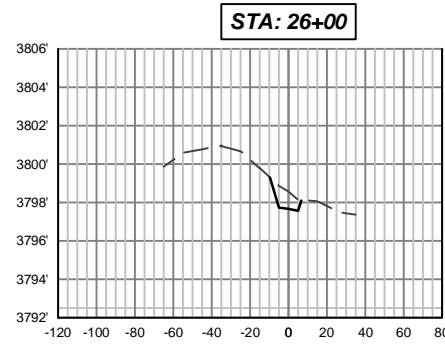
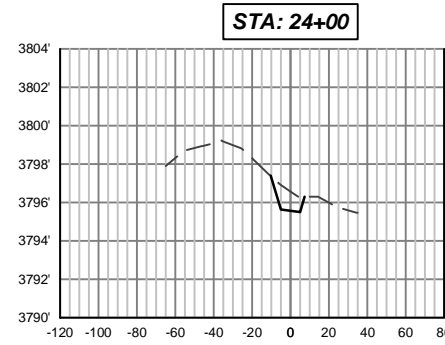
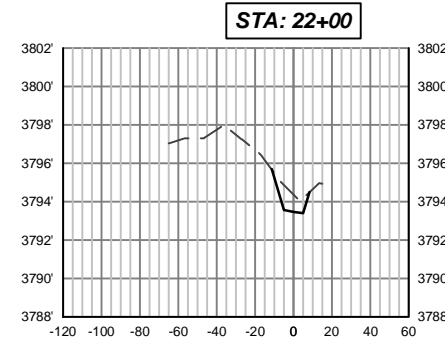
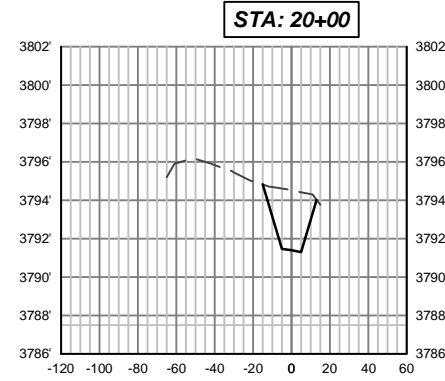
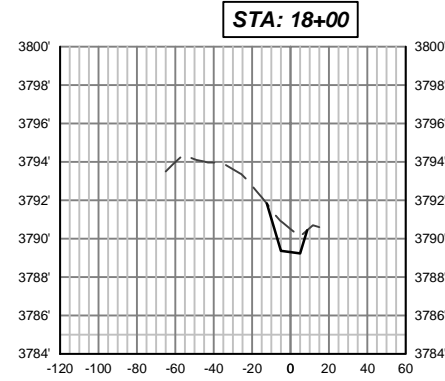
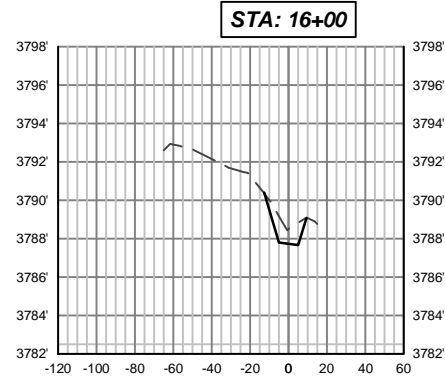
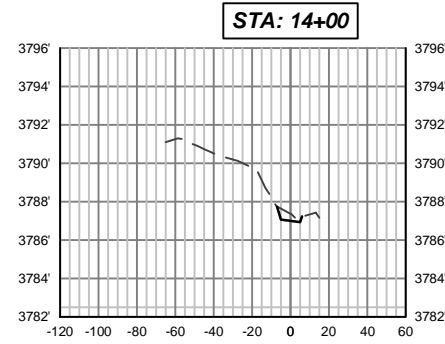
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TOWN OF RANCHESTER
TONGUE RIVER PATH STUDY
PATHWAY CROSS SECTION SHEET
SHERIDAN COUNTY, WYOMING

DESIGNED BY: SER
DRAWN BY: CIG
CHECKED BY: CDR
DATE: 3/15/2021

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HORZ SCALE: 1" = 100'
VERT SCALE: 1" = 10'

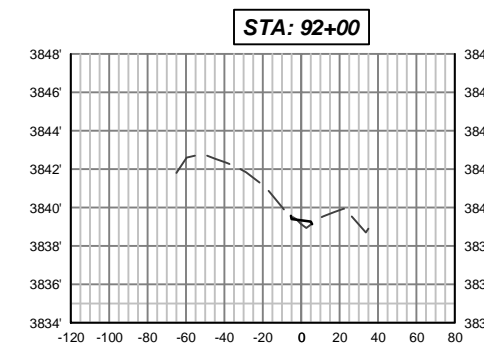
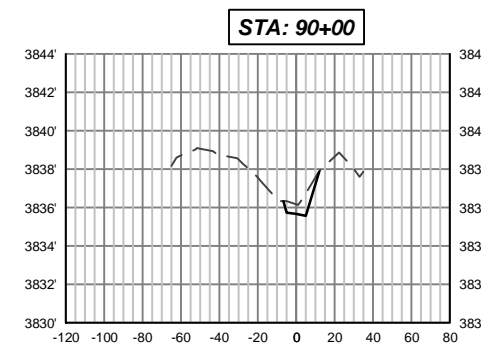
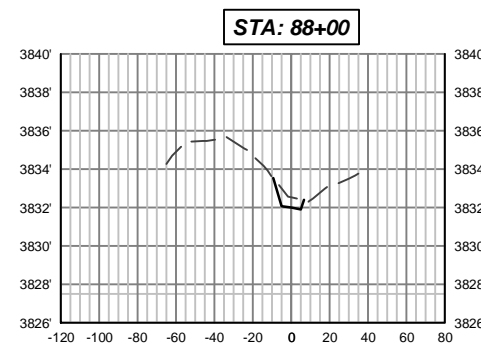
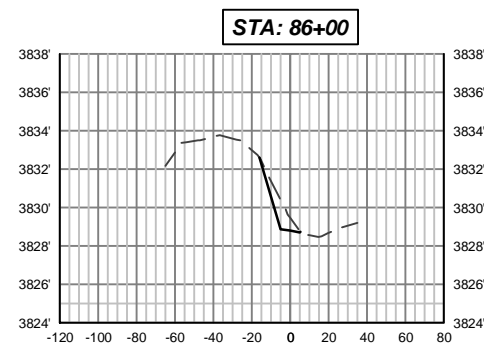
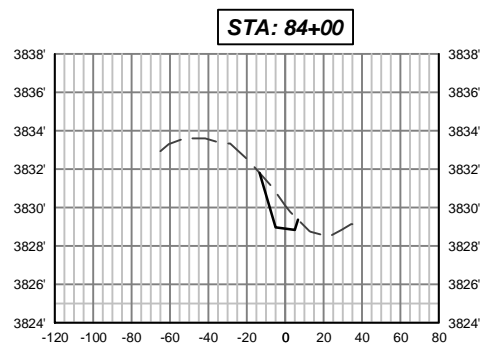
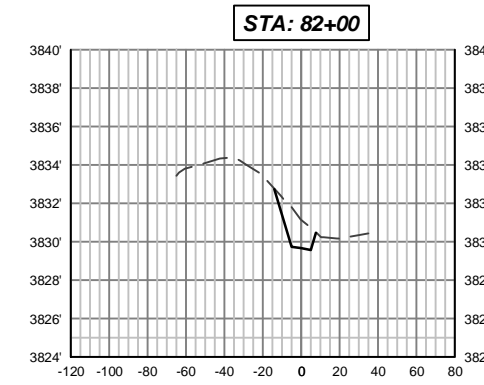
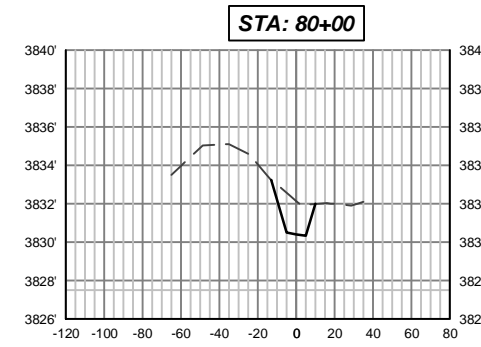
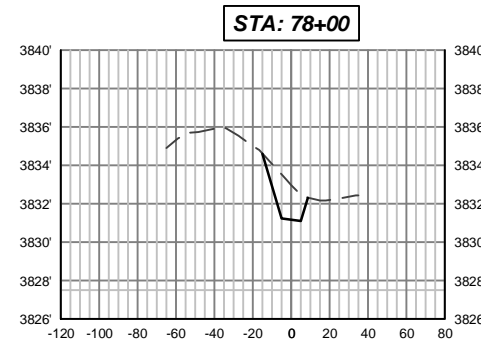
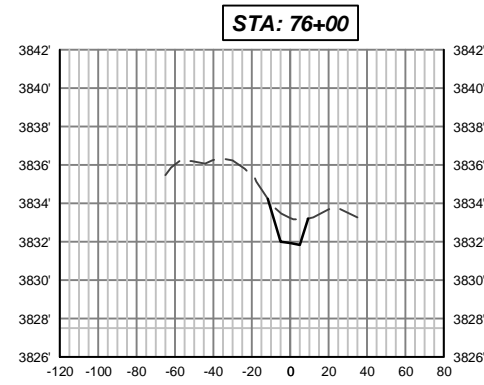
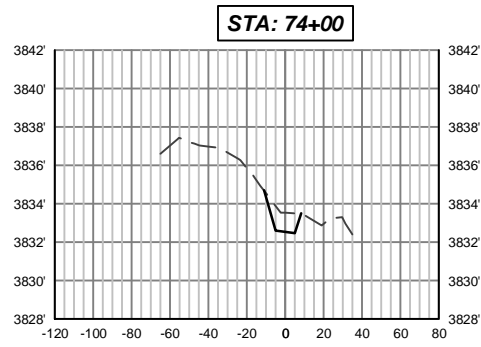
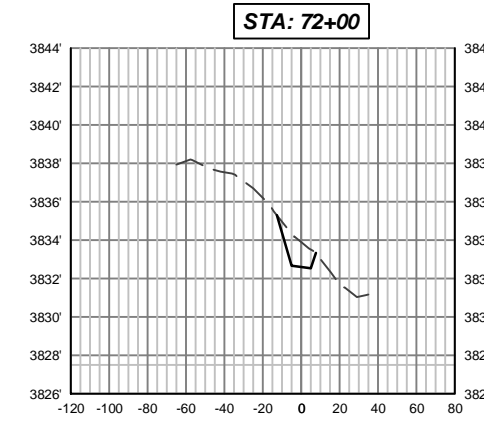
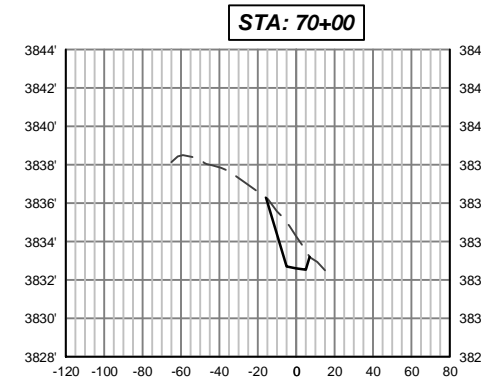
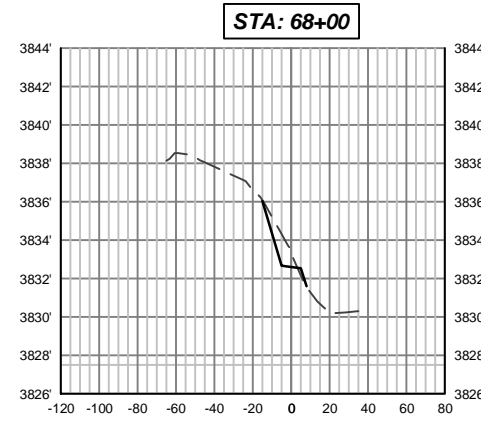
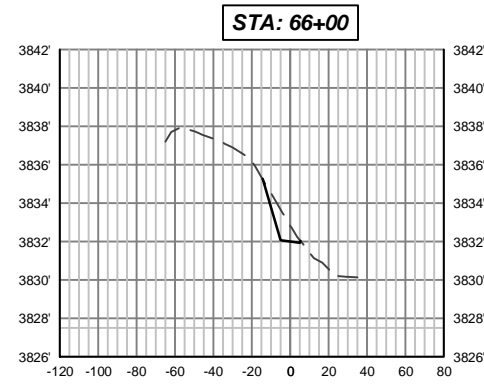
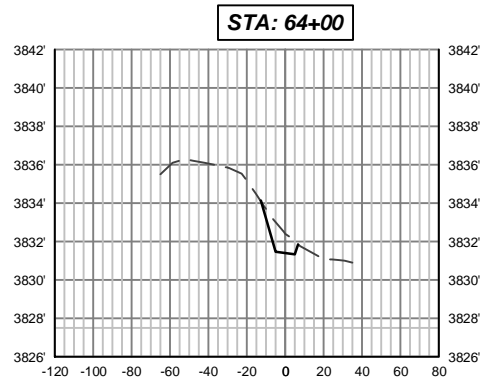
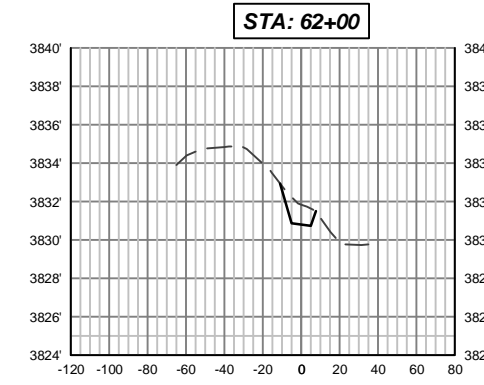
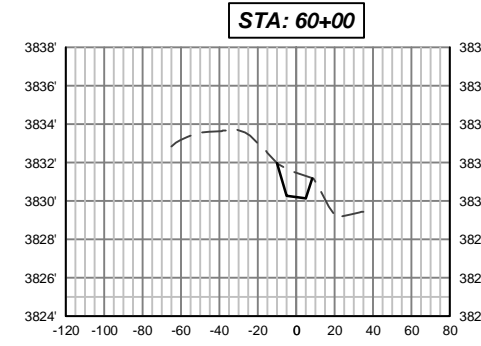
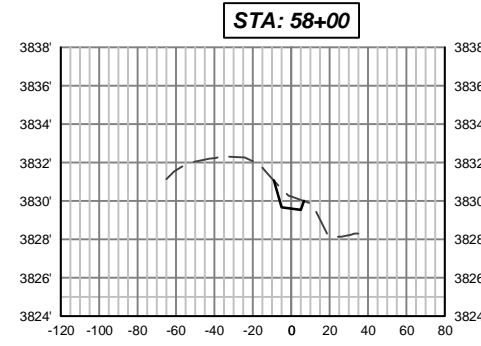
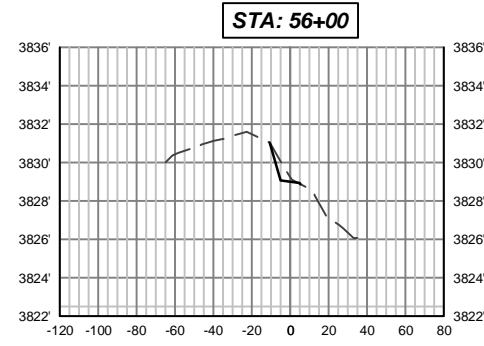
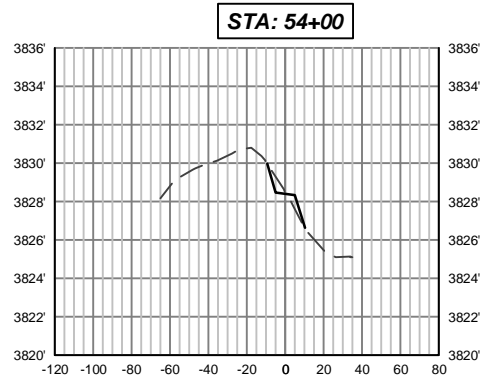
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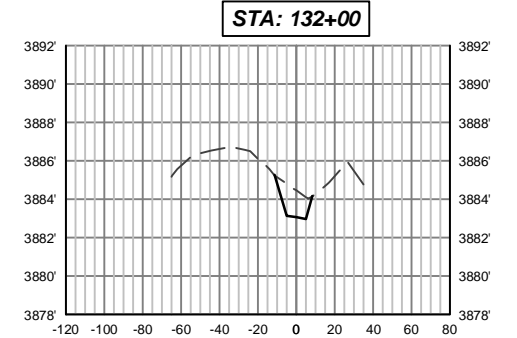
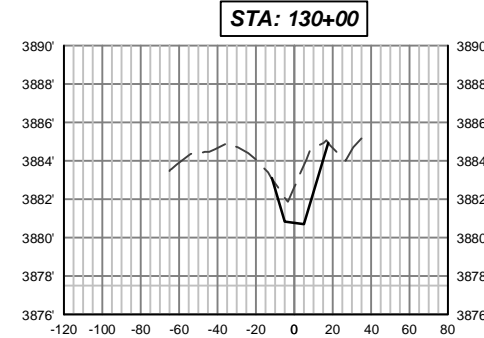
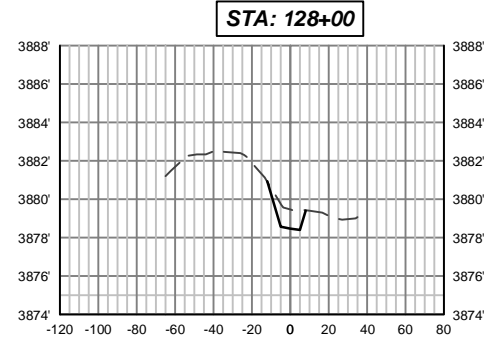
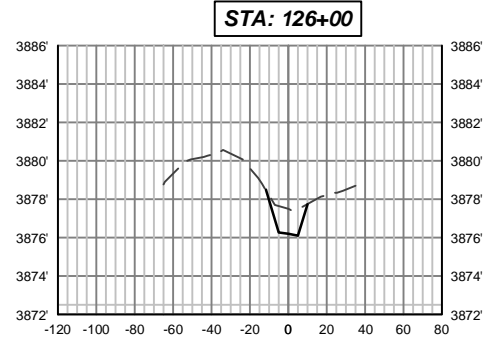
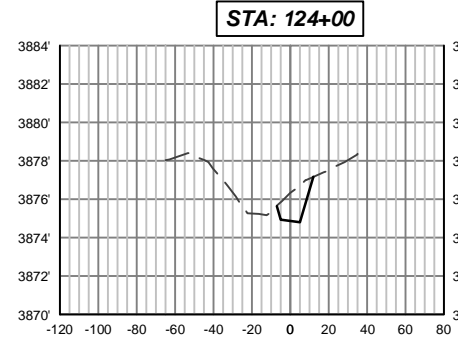
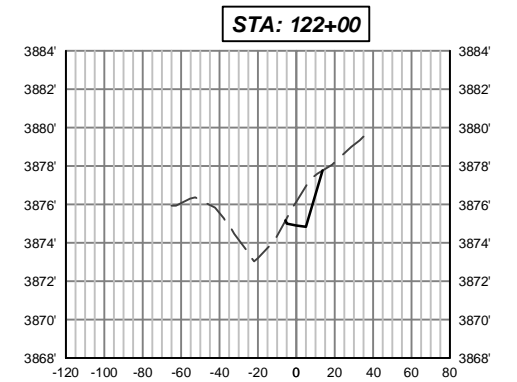
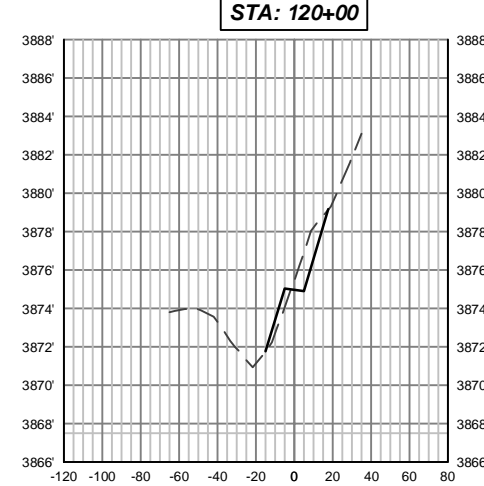
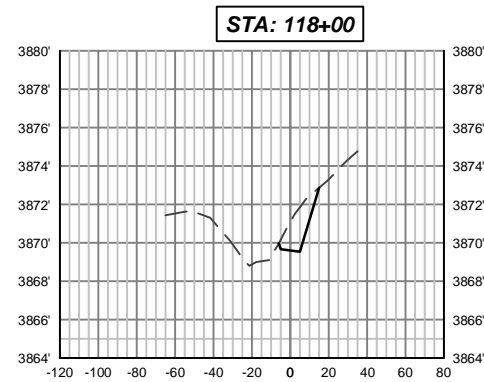
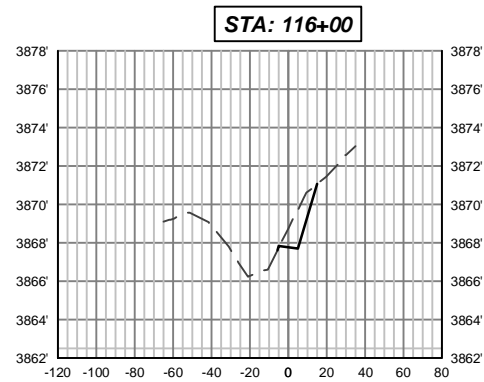
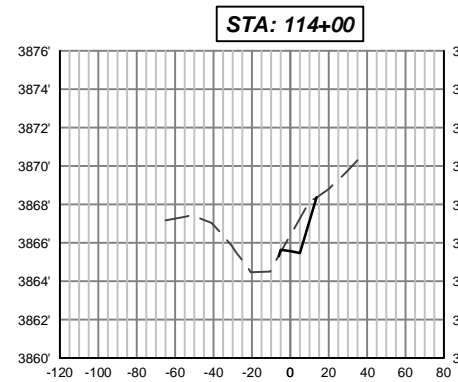
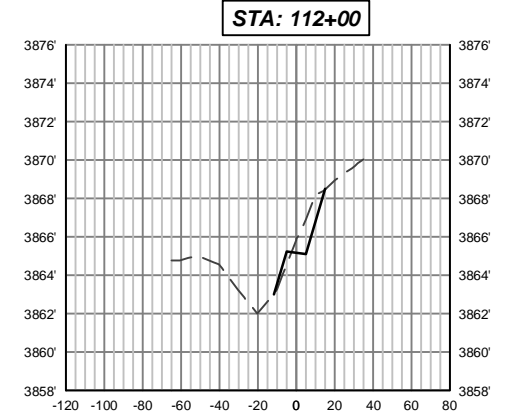
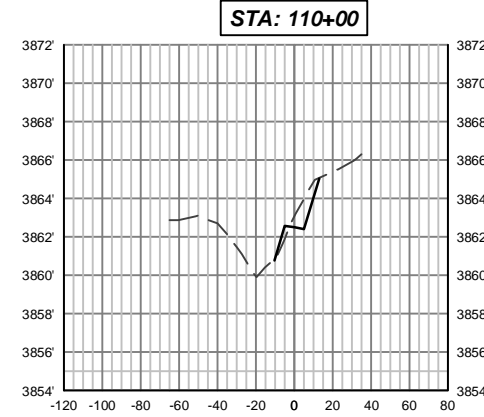
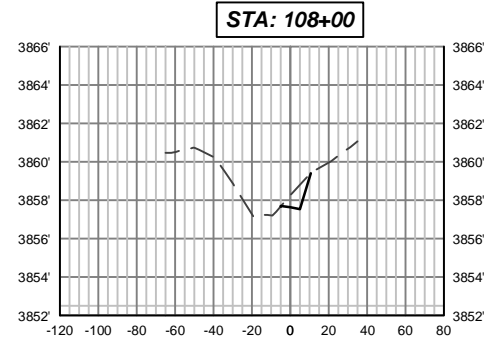
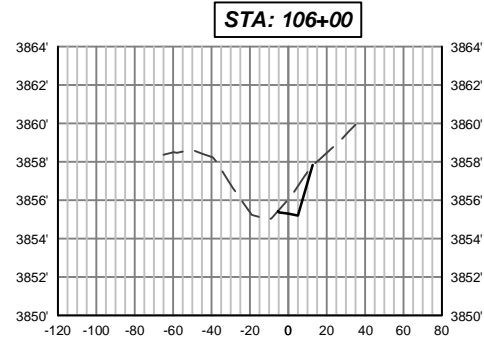
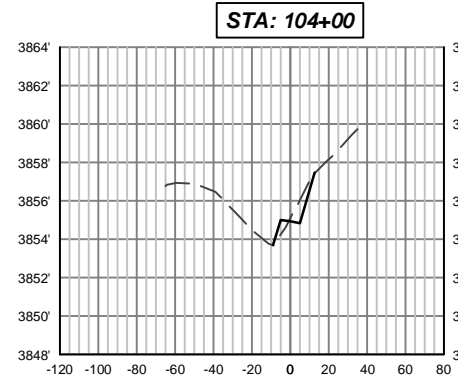
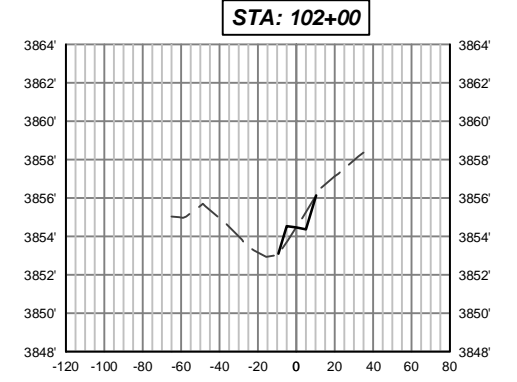
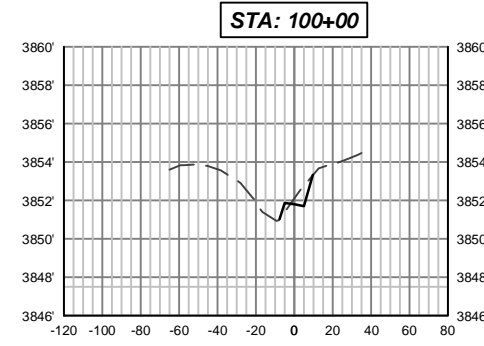
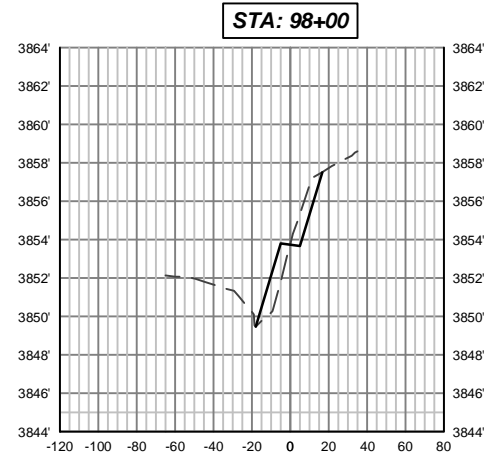
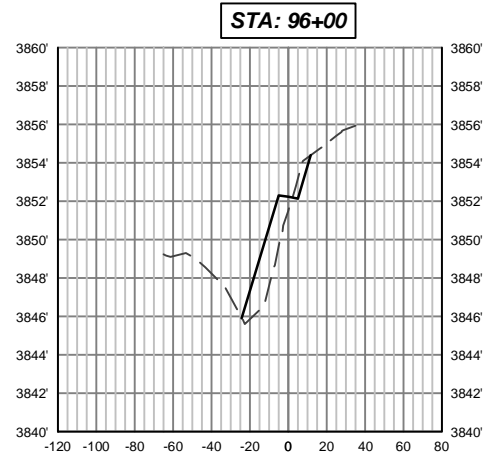
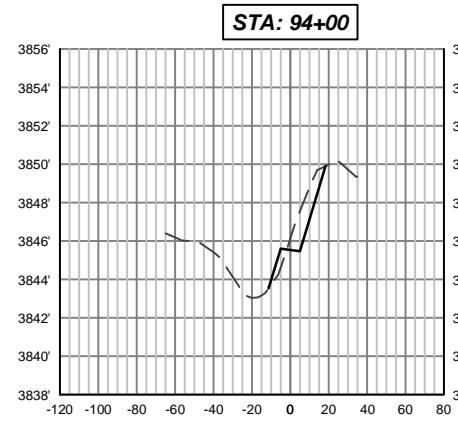
HORZ SCALE: 1" = 100'
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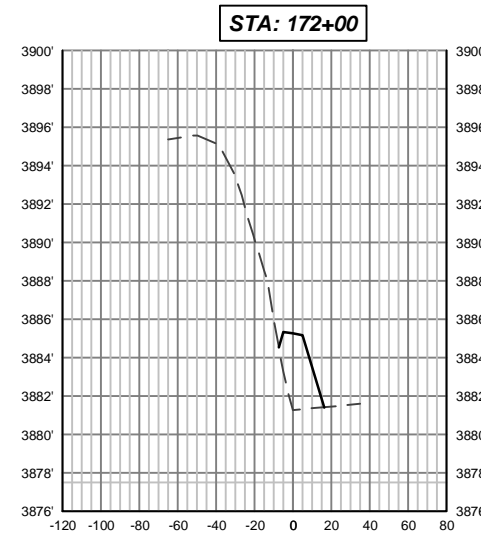
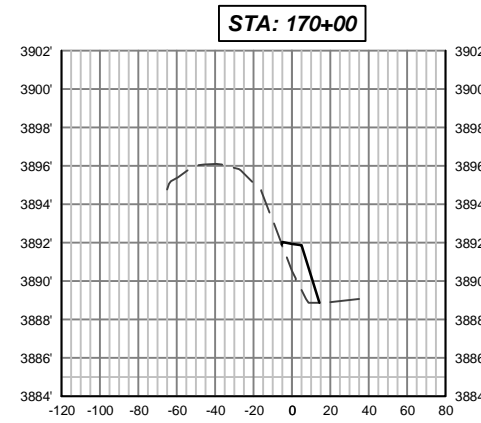
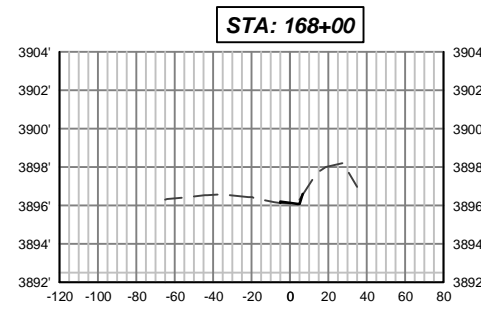
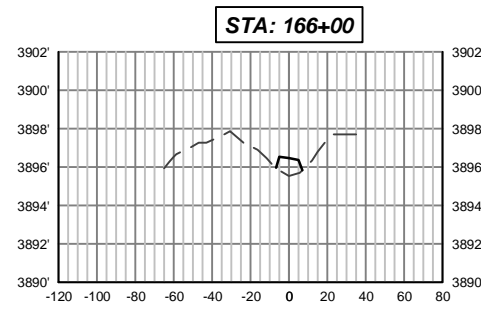
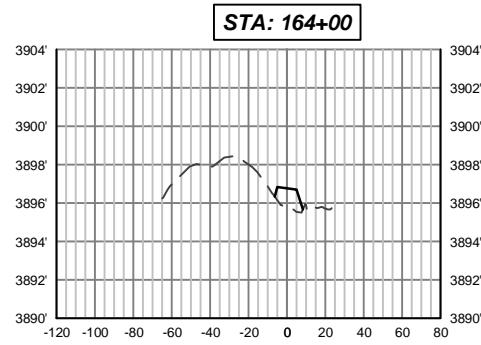
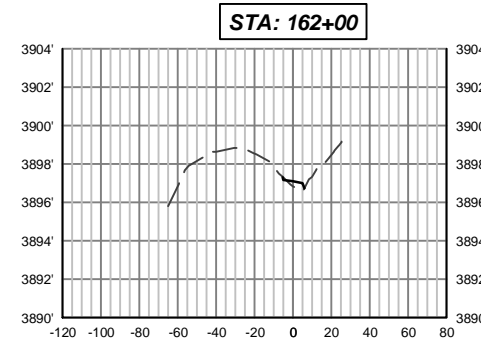
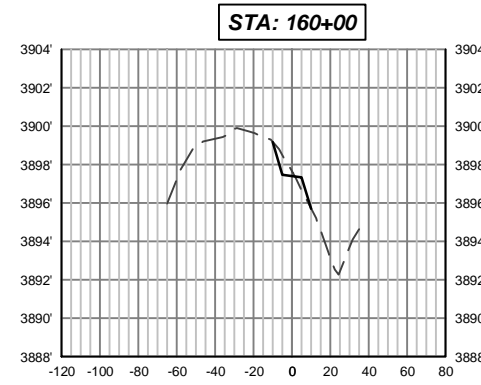
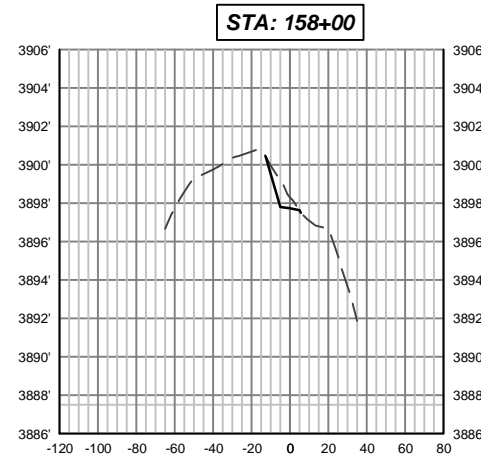
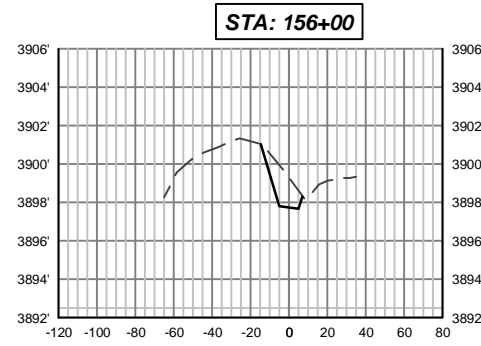
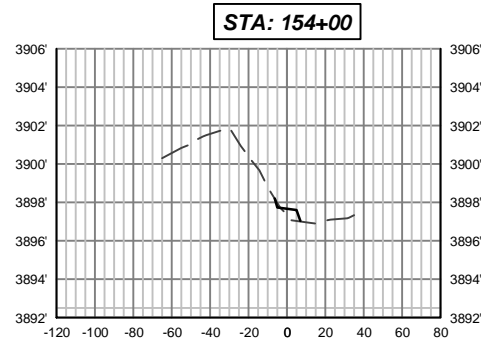
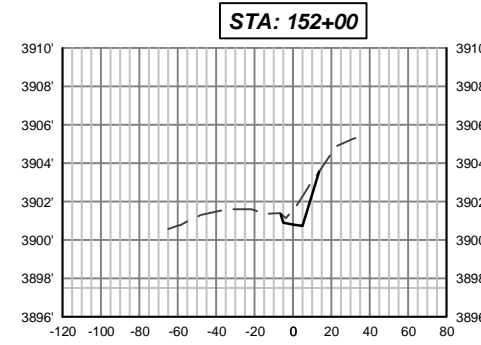
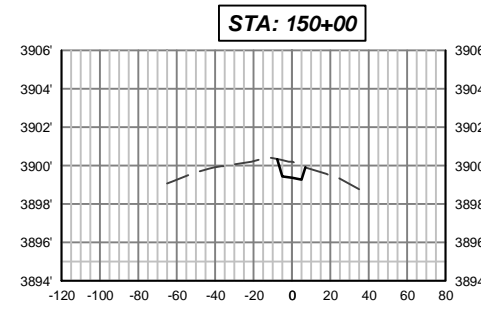
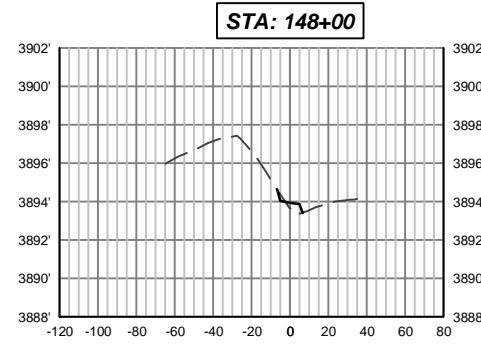
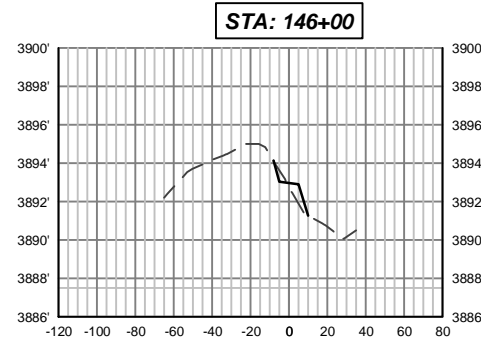
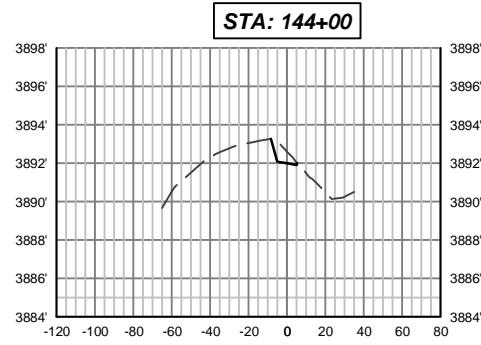
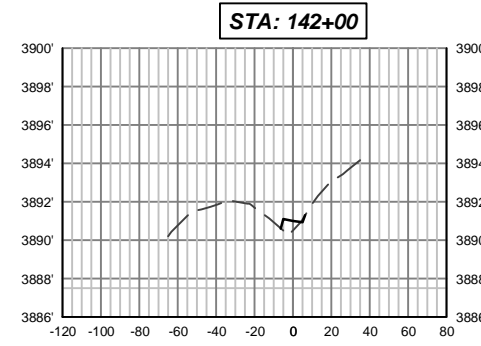
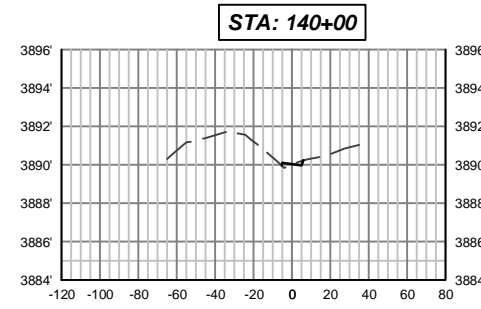
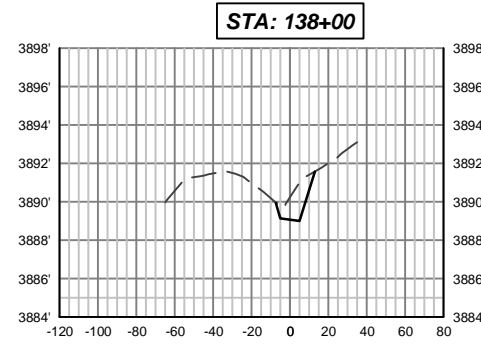
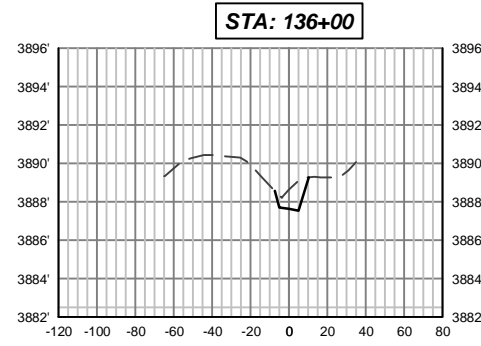
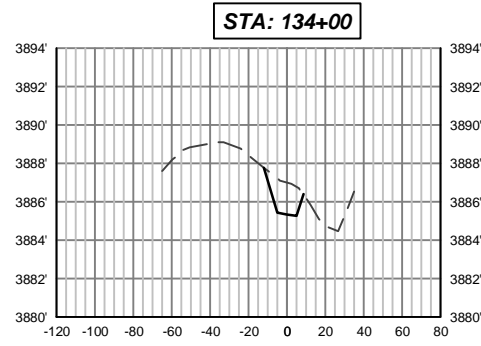
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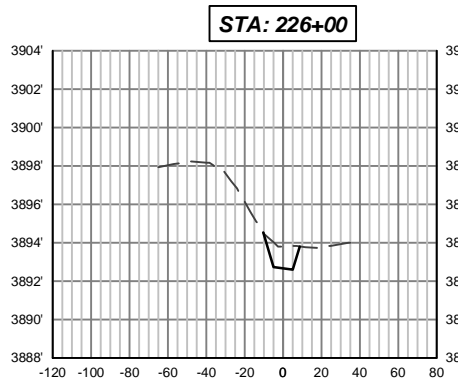
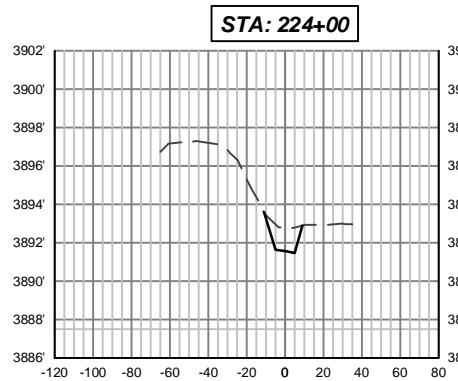
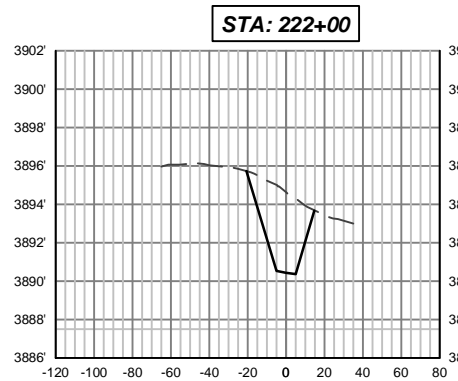
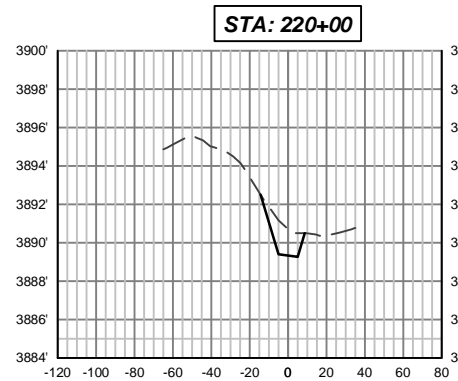
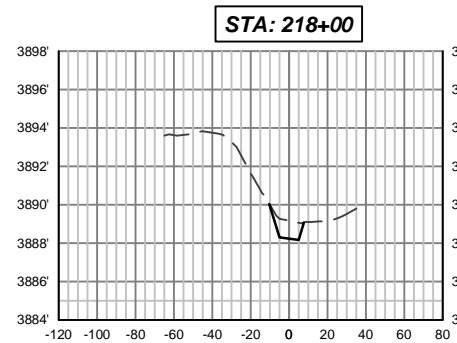
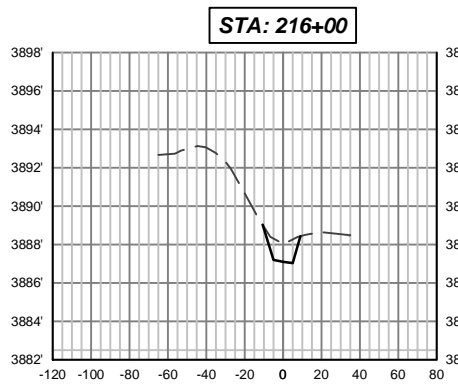
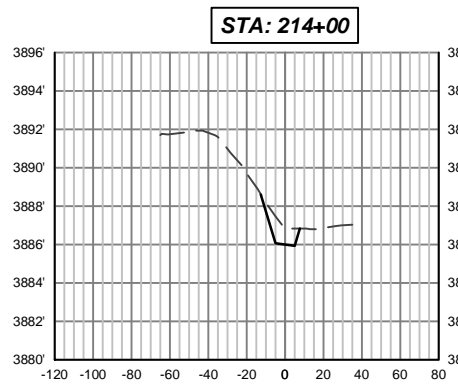
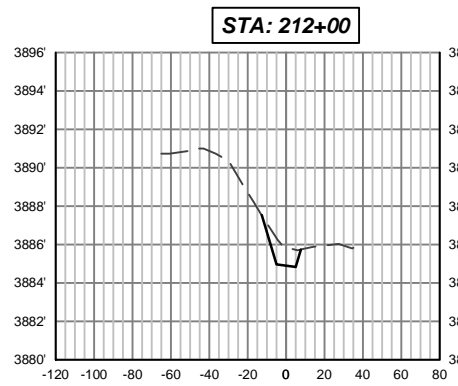
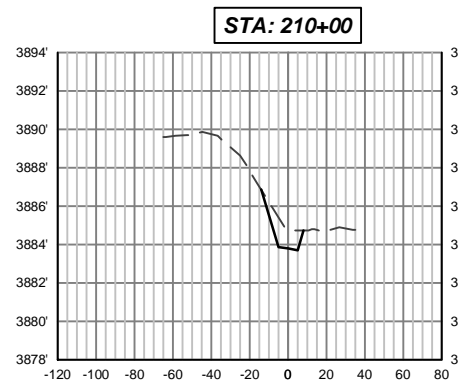
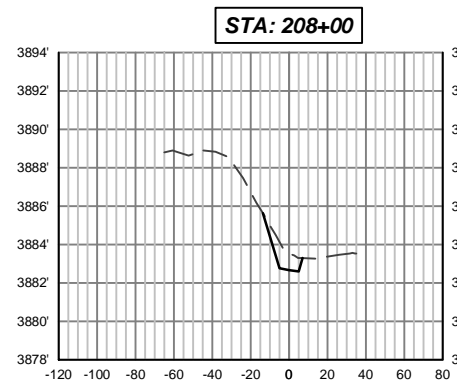
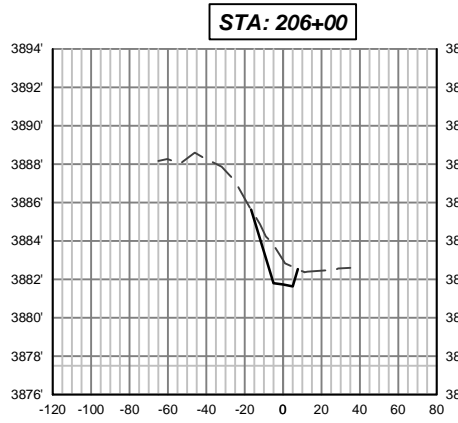
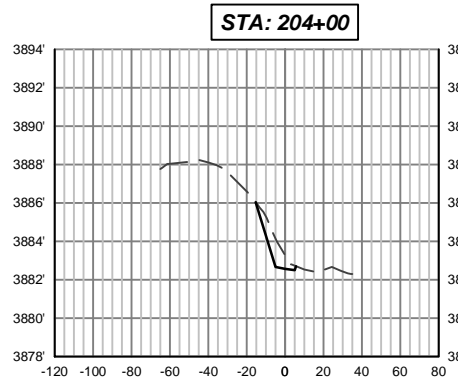
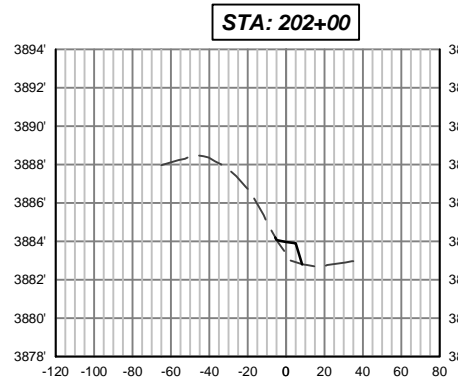
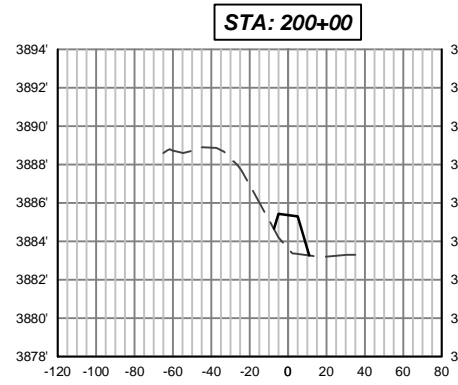
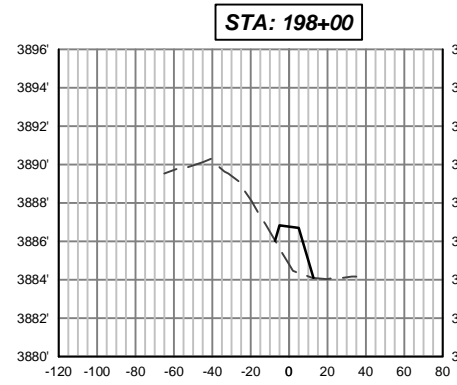
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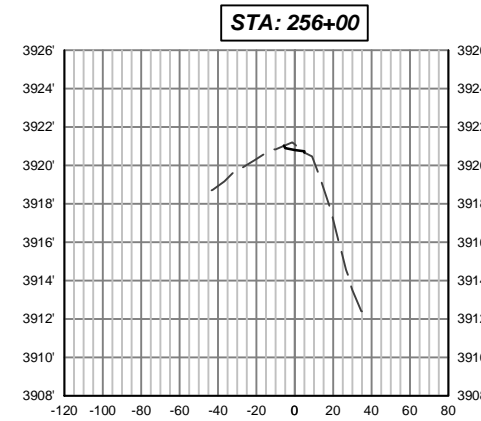
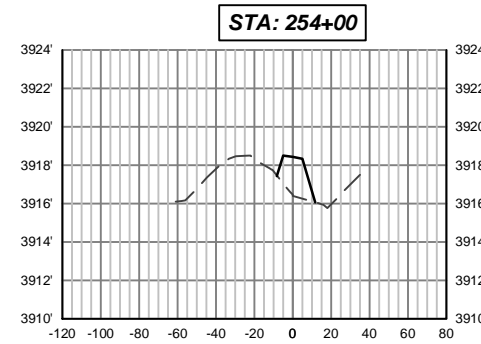
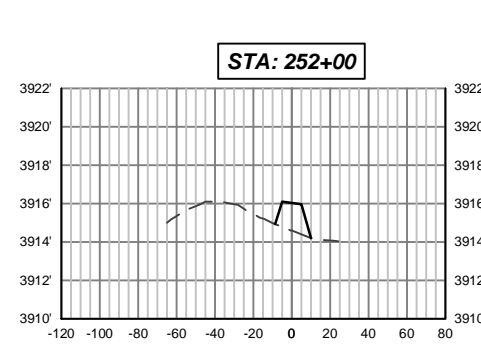
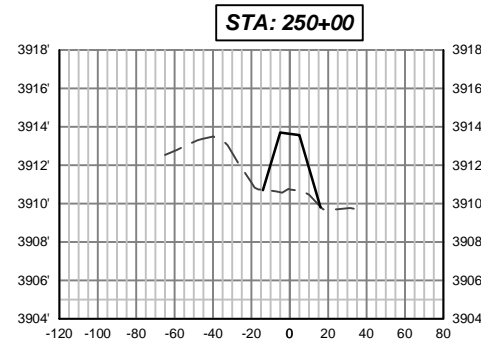
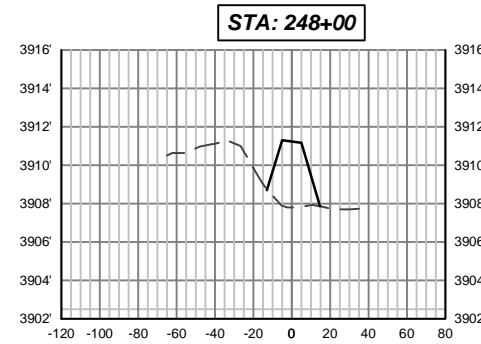
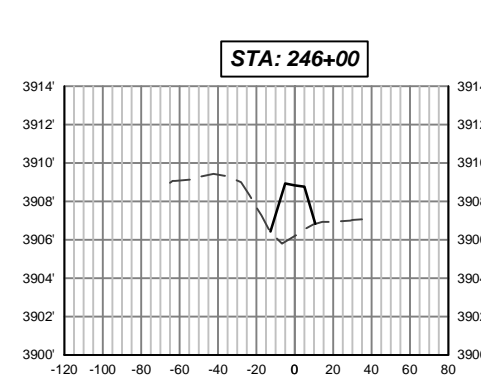
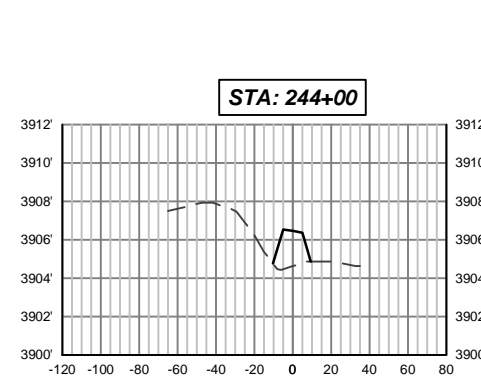
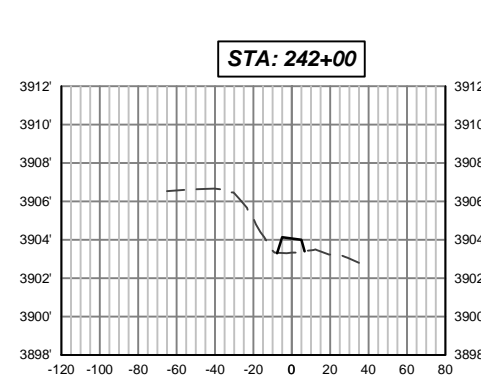
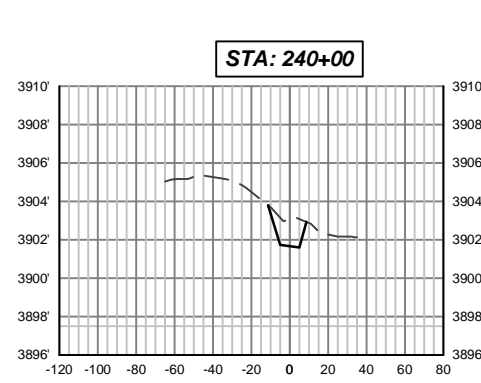
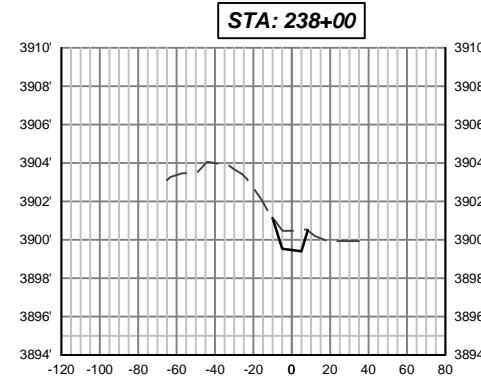
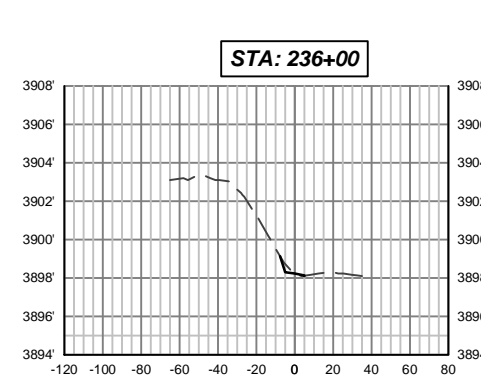
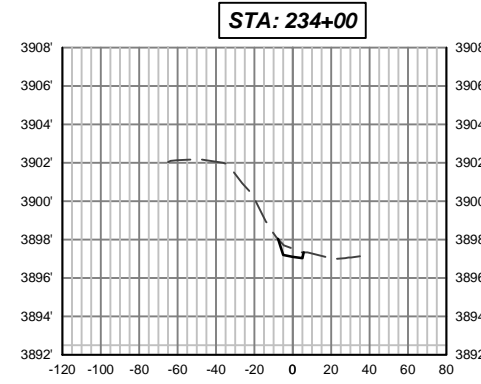
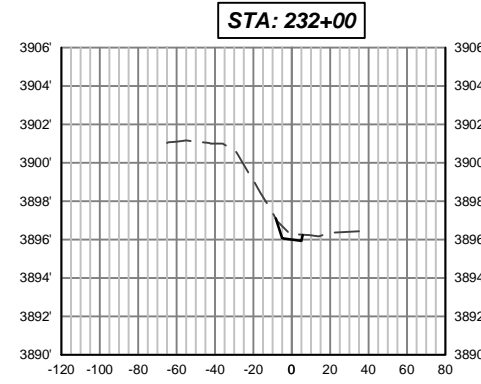
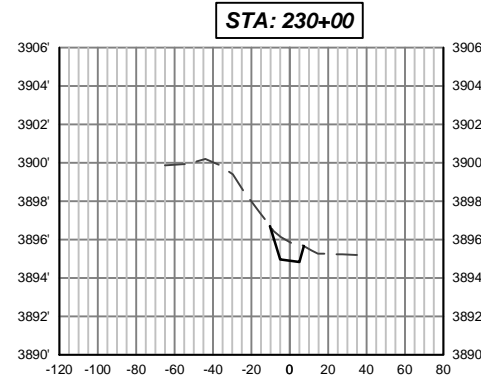
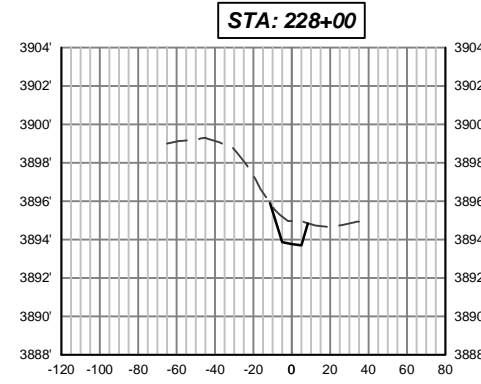
HORZ SCALE: 1" = 100'
VERT SCALE: 1" = 10'

NO.	REVISION	BY	DATE

PREPARED BY  **WWC ENGINEERING**
1849 TERRA AVE.
SHERIDAN, WY 82801
(307) 672-0761
www.wwcengineering.com

TOWN OF RANCHESTER
TONGUE RIVER PATH STUDY
PATHWAY CROSS SECTION SHEET
SHERIDAN COUNTY, WYOMING

DESIGNED BY: SER
DRAWN BY: CIG
CHECKED BY: CDR
DATE: 3/15/2021



NO.	REVISION	BY	DATE

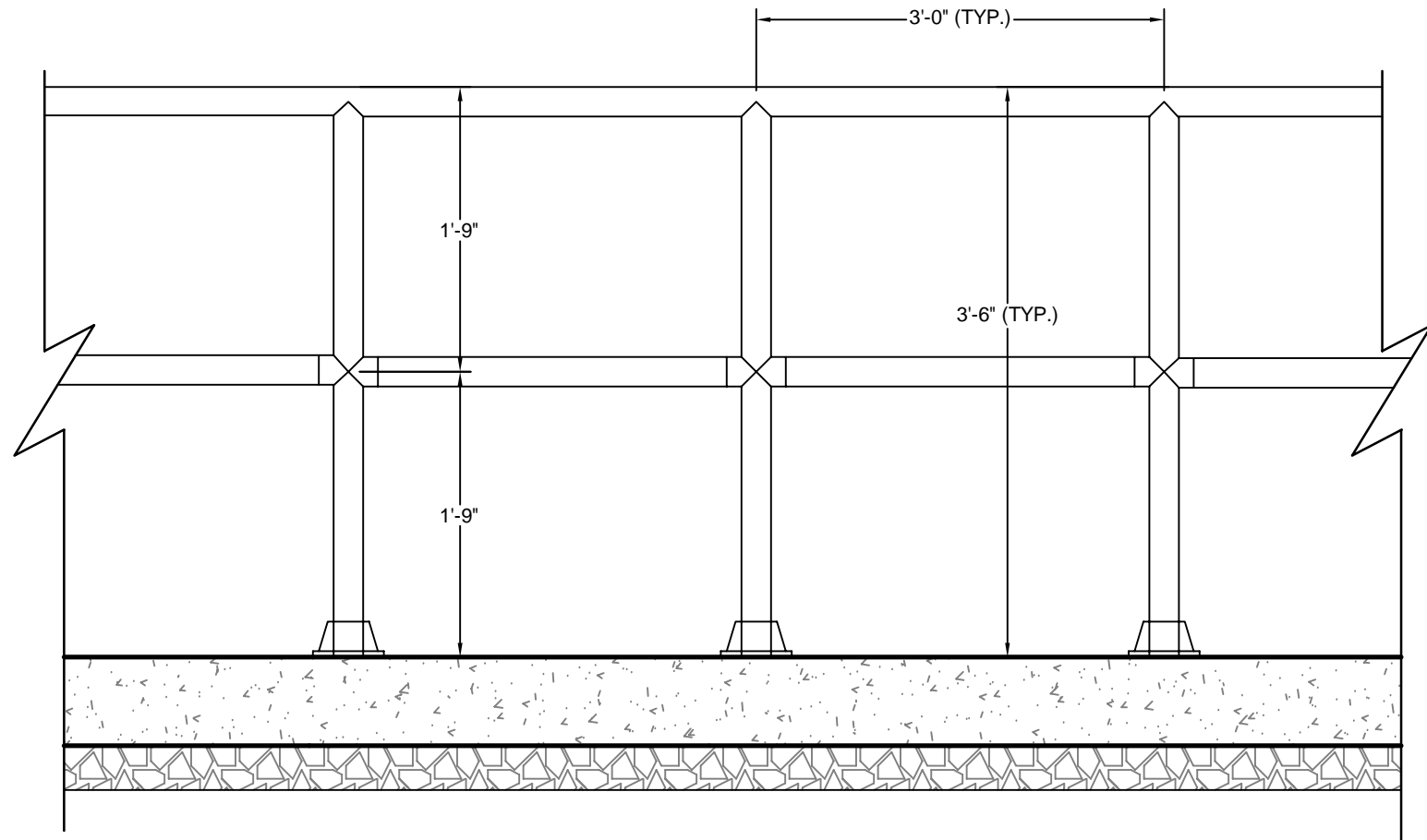
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TOWN OF RANCHESTER
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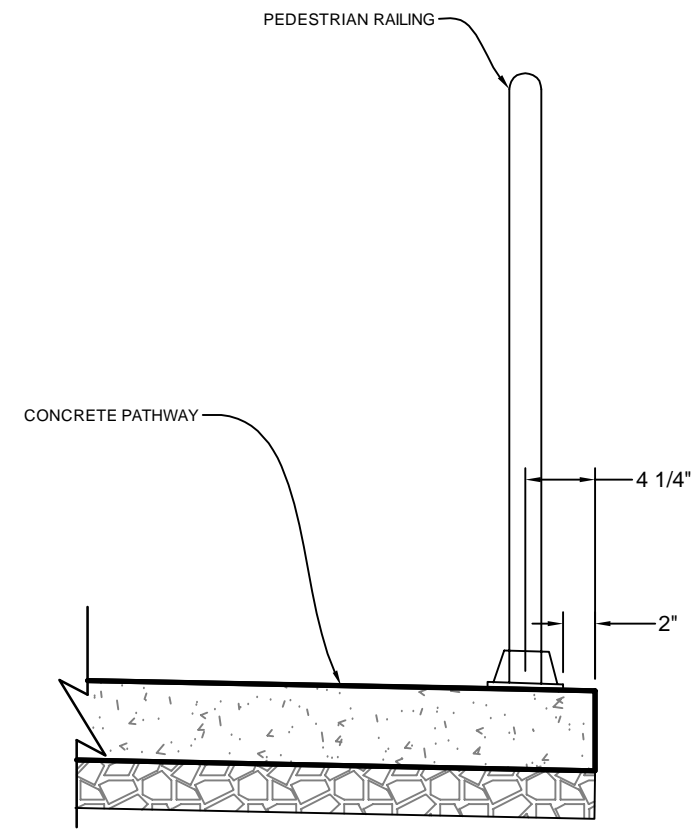
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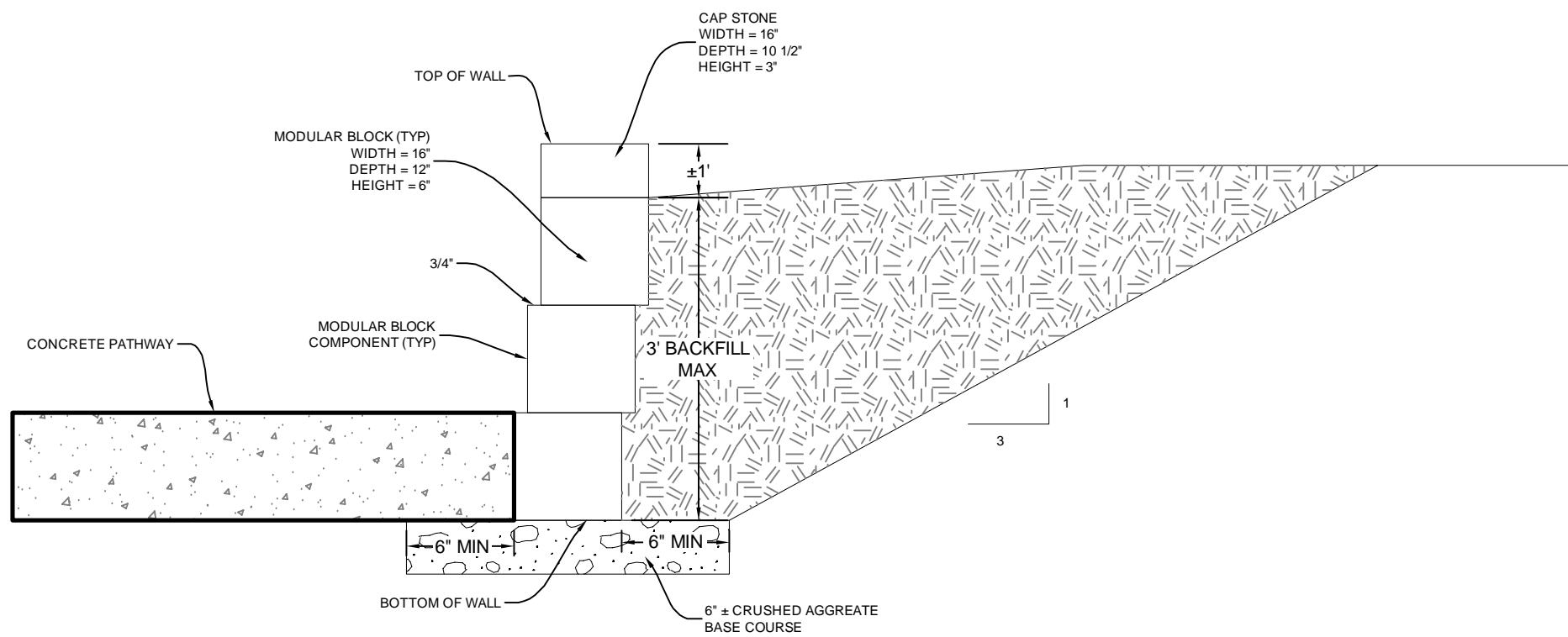
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PEDESTRIAN RAILING DETAILS
NOT TO SCALE



PEDESTRIAN RAILING ATTACHMENT DETAILS
NOT TO SCALE



RETAINING WALL DETAILS
NOT TO SCALE

NO.	REVISION	BY	DATE

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CIVIL/WATER RESOURCE ENGINEERING

- ☐ PUMPS AND PIPELINES
- ☐ SURFACE AND GROUNDWATER MODELING
- ☐ EARTH DAM DESIGN AND REHABILITATION
- ☐ WATER SUPPLY, TREATMENT AND DISTRIBUTION
- ☐ WASTEWATER TREATMENT AND DISPOSAL
- ☐ IRRIGATION SYSTEMS
- ☐ GPS AND CONVENTIONAL SURVEYING
- ☐ CIVIL ENGINEERING DESIGN, PLANS AND SPECIFICATIONS
- ☐ CONSTRUCTION ENGINEERING
- ☐ WATER RIGHTS
- ☐ COMPUTER-AIDED DESIGN AND DRAFTING (CADD)
- ☐ STORM WATER MANAGEMENT
- ☐ GEOTECHNICAL DRILLING AND SAMPLING

TRANSPORTATION SERVICES

- ☐ RECONNAISSANCE REPORTS
- ☐ SURVEYS (RIGHT OF WAY, GROUND CONTROL, CONSTRUCTION)
- ☐ BRIDGE HYDRAULICS, SCOUR ANALYSIS, STRUCTURE SELECTION
- ☐ DESIGN OF URBAN STREETS, RURAL ROADWAYS AND INTERSTATE RECONSTRUCTION
- ☐ STREETScape ENHANCEMENTS
- ☐ UTILITY REPLACEMENT
- ☐ DRAINAGE DESIGN
- ☐ BICYCLE/PEDESTRIAN PATHWAYS
- ☐ PARKING FACILITIES
- ☐ CONSTRUCTION ADMINISTRATION

MINE SERVICES

- ☐ MINING AND RECLAMATION DESIGN AND PERMITTING
- ☐ RESERVOIR AND DAM DESIGN
- ☐ HAULROADS AND STREAM CROSSINGS
- ☐ HYDROLOGIC CONTROL PLANS
- ☐ ANNUAL REPORTS AND BOND CALCULATIONS
- ☐ NEPA DOCUMENT PREPARATION
- ☐ 404 PERMITS
- ☐ BASELINE STUDIES
- ☐ GPS AND CONVENTIONAL SURVEYING
- ☐ DRILLING AND MONITORING SERVICES
- ☐ BLAST MONITORING AND REPORTING
- ☐ ABANDONED MINE LAND RECLAMATION
- ☐ RECLAIMED STREAM CHANNELS
- ☐ ASSESSMENT OF PROBABLE HYDROLOGIC CONSEQUENCES
- ☐ AVF ASSESSMENTS

ENVIRONMENTAL SERVICES

- ☐ ENVIRONMENTAL COMPLIANCE AND BEST MANAGEMENT PRACTICES
- ☐ REGULATORY PERMITTING
- ☐ ENVIRONMENTAL SITE ASSESSMENTS
- ☐ GEOMORPHOLOGIC INVESTIGATIONS
- ☐ HYDROCARBON PRODUCT RECOVERY SYSTEM DESIGN
- ☐ HYDROLOGIC AND WATER QUALITY MONITORING
- ☐ HAZARDOUS AND NON-HAZARDOUS WASTE MANAGEMENT PLANNING
- ☐ SITE REMEDIATION PLANNING AND DESIGN
- ☐ SOIL AND GROUNDWATER CLEANUP PLANS
- ☐ UNDERGROUND STORAGE TANK INVESTIGATION AND REMOVAL PLANS
- ☐ NEPA DOCUMENT PREPARATION
- ☐ ENVIRONMENTAL AUDITS
- ☐ WETLAND DELINEATION AND MITIGATION
- ☐ DRILLING SUPERVISION

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