# Offsite Culverts Hydraulics Report

## US-20, MP 291 to Idaho Falls

Project No. A023(244), Key No. 23244

and

## US-20, Bonneville Co Line to MP 291

Project No. A024(149), Key No. 24149

Bingham and Bonneville Counties, Idaho

**Prepared for:**

## Idaho Transportation Department

DAVID EVANS AND ASSOCIATES INC.




DEA Project No. HRKS00000018
December, 2025

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# 1.0 Introduction

This report summarizes the culvert analysis for two projects: US-20, MP 291 to Idaho Falls and US-20, Bonneville Co Line to MP 291. These projects will widen the existing two-lane highway to a four-lane divided highway for approximately 20 miles from milepost 281 to 301.4 near Idaho Falls, Idaho. An overview map of the US-20 Arco to Idaho Falls Corridor, highlighting these two projects is shown below in *Figure 1-1*.

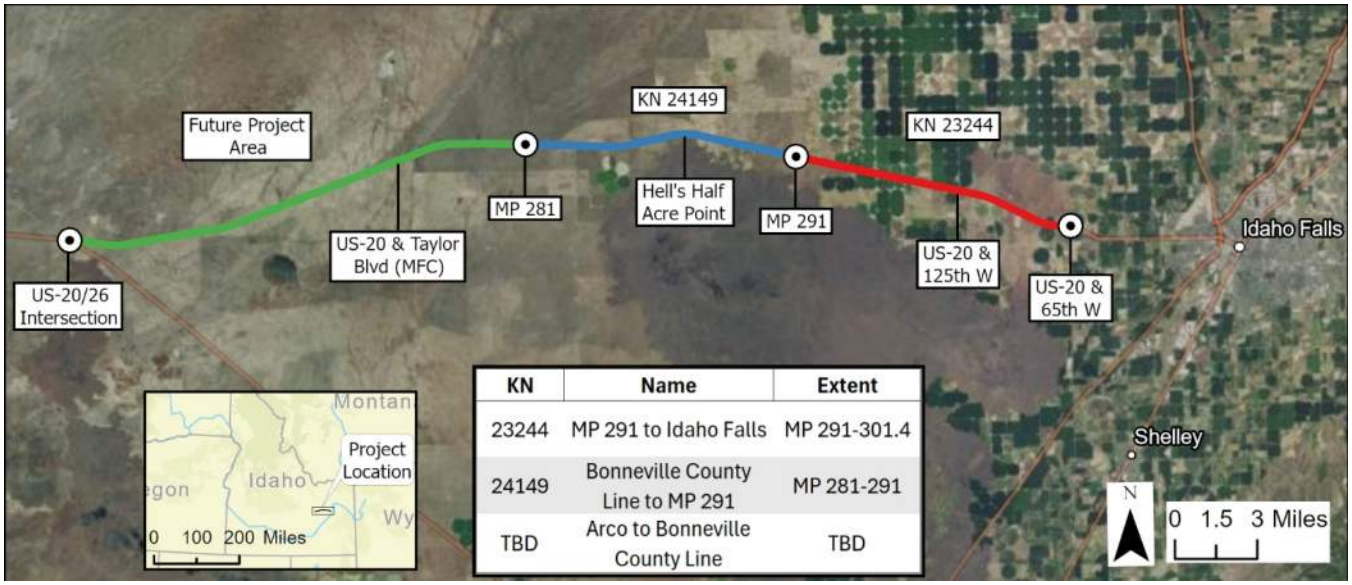



*Figure 1-1. Project Overview*

In reference to the design alignment, KN 23244 extends from Sta 6425+00 to 6972+00 and KN 24149 extends from Sta 5895+00 to 6425+00. Stationing from this alignment is used to refer to culvert locations along US-20 throughout this report.

# 2.0 Existing Conditions

US-20 crosses the eastern Snake River Plain, an area characterized by rolling terrain, covered with windblown silt overlaying fractured basalt. Basalt outcrops are common and the basalt rock in this region contains fissures through which surface water infiltrates into the subsurface, contributing to the Eastern Snake River Plain aquifer (Idaho National Laboratory, 2005).

This region can be described as a "sink area" for surface runoff; west of the project location, the Big and Little Lost Rivers disappear or infiltrate into the aquifer through highly porous and fractured basalt. The surface water from these sink areas likely resurfaces at Thousand Springs near Bliss, Idaho, where it emerges out of the cliffs above the Snake River (Link, Willsey, and Schmidt, 2016).

Off-site runoff from the surrounding Snake River Plain is conveyed under US-20 at ninety-two (92) locations within the project limits. Most of the existing culverts are 18” diameter corrugated metal pipes (CMPs) and range

from 24” to 48” diameter CMPs at several locations. Larger culvert crossings include dual 84” CMPs and a 90” x 142” (7’-6” x 11’-10”) Arch Pipe at Stations 6718+85 and 6749+95, respectively.

The existing culverts were constructed in 1950, as part of the Twin Buttes Highway federal aid project, No. F-6422(1), and established the current alignment of US-20. In general, the pipes were free of debris and sediment during DEA staff site visits. The galvanized corrugated metal pipes were in good condition, as there was generally no sign of rust in the pipes. There were a few damaged and crushed pipe ends within the project limits. For the most part, the pipe sizes and materials listed in the 1950 as-built plans were confirmed and documented in the field by survey. In some locations, there is evidence of culvert replacement and additions.

For example, at Station 6750+00, the 1950 as-builts show a 90” x 142” (7’-6” x 11’-10”) Arch CMP, where dual 84” CMPs exist today. It’s likely that the large arch pipe failed over the last 75 years, and ITD replaced the culvert crossing. There is no information available on the age of the dual 84” CMPs.

At MP 296 (Sta 6690+00) the as-built plans show a single 18” pipe. A 30” pipe exists at this location today and was likely added to manage the changing flow patterns. This location has experienced flooding over the top of the roadway as recently as March 2025. More information on this location is provided in Section 2.1. See *Appendix E* for photographs of the culvert locations.

## 2.1 Milepost 296 Flooding

On March 7, 2025, US-20 was closed due to flooding overtopping the roadway at the intersection with 115 W, near MP 296 (Sta 6690+00). ITD maintenance noted this as a problem area for flooding on an annual basis. A large offsite watershed flows along the north side of US-20 to this location, where the runoff crosses under US-20 from north to south through existing 30” and 18” CMPs.

Historically, runoff flowed to the existing 48” culvert at Sta 6675+00, approximately 1,650 feet west of the flooding area. However, the channel across the agricultural field has likely migrated over time and runoff no longer reaches this culvert under current conditions. Instead, the runoff flows east to the intersection with 115 W, where existing 30” and 18” CMPs cross under US-20. During the flooding incident, ITD attempted to dig a cutoff ditch to connect to the 48” CMP, but they were unable to make it work effectively.

Per the as-builts, there is an 18” culvert at Sta 6683+90 that is likely bypassed as well. At MP 296 (Sta 6689+90) the as-builts show a single 18” culvert. The 30” pipe was likely added to manage the changing flow patterns. Once the water crosses US-20, it is conveyed under 115 W and continues flowing to the east and southeast. See Section 6.0 and *Appendix C* for more information on the flooding at this location and the countermeasures to mitigate flooding in the proposed condition.

# 3.0 Proposed Conditions

The roadway will be constructed as a four-lane divided highway in two phases. The project is anticipated to require multiple construction seasons to complete both phases. Phase 1 will construct eastbound US 20 to the south of the existing alignment; this will allow traffic to remain on the existing roadway while the Phase 1

roadway is constructed. Following Phase 1, traffic will be moved to the newly constructed Phase 1 roadway, and Phase 2 will be constructed to the north side of the existing alignment. Refer to the typical section in *Appendix F*.

During Phase 1, the existing culverts will remain in place and a junction structure (Inlet Type 8, Manhole or Custom) will be built over the existing culverts. The new culverts will be built under Phase 1 roadway and connected to the junction structure. Runoff from the offsite watershed will be conveyed under existing and Phase 1 roadways during Phase 1 and the interim period (winter shutdown) prior to beginning Phase 2.

Phase 2 will remove the existing culverts under the existing roadway. The new culverts under the Phase 2 roadway will be constructed and connected to the junction structures constructed during Phase 1. The junction structures will need to be cored to receive the Phase 2 culverts. See *Appendix F* for typical section sheets that show the construction phasing.

Box culverts (9.5'span x 8' rise) are proposed to replace the Dual 84" CMP (Sta. 6718+00) and 90" x 142" Arch pipe (Sta 6750+00). The box culverts were analyzed for hydraulic capacity and meet ITD design standards; see Section 6.0 for more information. Box culverts were selected over round pipes to provide a larger opening for wildlife passage. There is not a requirement to provide wildlife crossings within this corridor, however, there were discussions during value planning over "critter crossings". Animal tracks were observed in the large arch pipe at 6650+00. See photographs of this culvert in *Appendix E*.

## 4.0 Design Standards

Per Section 640.03 of the ITD Roadway Design Manual, culverts are sized such that the ratio of the headwater to the diameter (HW/D) of the pipe for the 25-year design flow is less than 1.25. HW/D ratios larger than 1.25 are permitted, provided that the existing site conditions dictate or warrant a larger ratio. The culverts are also evaluated for capacity during the 100-year flow without overtopping the roadway. *Table 4-1* provides a summary of the design standards for this project.

For this classification of highway (primary), ITD requires an 80-year design life for culverts with over 10' of fill. For fill depth under 10' height, 50-year life is recommended. All proposed culverts will be greater than 70' in length, so the required minimum culvert size is 24".

*Table 4-1. Summary of Design Standards.*

| Feature | Design Requirements | Reference |
|---|---|---|
| Culverts < 12' Wide | 25-yr peak flow: HW/D $\leq$ 1.25<br>100-yr peak flow: No Roadway Overtopping | ITD 640.03 |
| Culvert <70' Length<br>Culvert >70' Length | 18" Minimum<br>24" Minimum | ITD 640.02 |
| Culvert Life $\leq$ 10' Fill<br>Culvert Life > 10' Fill | Primary Route: 50 years<br>Primary Route: 80 years | ITD 640.04 |

# 5.0 Methodology

The culverts were analyzed to determine if they meet the design criteria outlined above. A hydrologic analysis was completed to determine the runoff expected to reach the culverts using current watershed conditions. Natural Resources Conservation Service (NRCS) TR-55 methodology was used in conjunction with the following Geographic Information Systems (GIS), hydrology, and hydraulic modeling software to complete the analysis: ArcGIS Pro, Win-TR55, HY-8, and Infoworks ICM.

## 5.1 Hydrology

ArcGIS Pro was used to delineate the watershed(s) for each culvert using LiDAR data obtained from United States Geological Survey (USGS). TR-55 methodology was used to characterize the watershed, select a representative curve number (CN), and determine the time of concentration (TOC). Land use data from the National Land Cover Database (NLCD, 2024) and Hydrologic Soil Group data from the USDA Web Soil Survey (NRCS USDA, 2025) was used to calculate a composite runoff CN for each watershed. Soils data is provided in *Appendix A*.

TOC flowpaths were delineated in ArcGIS Pro and assumed to be the longest flowpath by travel time in each basin based on topography and flow direction. A majority of the culvert watersheds lack defined channels, so TOC values were defined assuming only sheet flow and shallow concentrated flow. Sheet flow was set to a maximum length of 100 feet.

Rainfall data was retrieved from NOAA Atlas 14 Precipitation Data Server. The centroid of the project area (Latitude: 43.5405 Degree, Longitude: -112.5260 Degree) was used as the query point to obtain rainfall depths. The 25-year and 100-year, 24-hour rainfall depths were used for the analysis and are shown in *Table 5-1*.

There is methodology for considering snowmelt in Appendix B of the ITD Roadway Design Manual; however, this guidance is used to estimate peak discharge using a nomograph, which cannot easily be used in conjunction with the Infoworks ICM model. Therefore, a simple assumption was used and rainfall depths were increased by 25% to account for the additional water input during a theoretical rain-on-snow event (National Weather Service, 2006). This assumption represents a worse-case scenario for design, and was not used to meet the design requirements listed in *Table 4-1*.

*Table 5-1. Rainfall Depths*

| Event | 24-Hour Rainfall Depth (in) | 24-Hour Rainfall Depth Adjusted for Rain-on-Snow (in) |
|---|---|---|
| 25-Year | 1.72 | 2.15 |
| 100-Year | 2.10 | 2.63 |

## 5.2 Hydraulics

Autodesk Infoworks ICM (ICM) was used to analyze culvert hydraulics. ICM is a coupled 1D and 2D modeling software that can analyze both surface flooding and culvert hydraulics simultaneously. A single 2D model representing the entire drainage system along US-20 was built in ICM that computes and models hydrologic properties of the drainage basins, surface runoff, and hydraulic properties of the proposed culverts. It was used to determine if the proposed culverts meet the design criteria outlined in Section 4.0 The culvert analysis is based on the final proposed condition, and this report does not include any analysis of interim phased conditions.

Design surfaces for the roadway were incorporated into existing terrain to create a proposed ground surface in ArcGIS Pro. This digital elevation model (DEM) was imported as a ground grid in ICM. A 2D mesh was then laid over the ground grid to create the computation surface. The mesh is composed of a series of triangular elements sized dynamically to best represent the terrain (e.g., smaller triangles where topography changes rapidly, larger ones in flat areas). The minimum triangle size for the 2D mesh was set to 4 square feet to match the cell size of the underlying DEM (2 feet).

Proposed culverts were imported as shapefiles to ICM and modeled as 2D culverts. Most of the culverts were modeled as CMPs with an assigned Manning's n value of 0.024. Reinforced concrete pipe (RCP) was used in locations where flooding behavior necessitated smoother pipe, and a Manning's n of 0.013 was used in these cases. Invert elevations were determined based on the design roadway surfaces and cover constraints. Culverts included in the ICM model do not currently include median inlets.

Output at select locations from ICM was analyzed in Win-TR55 and HY-8 for comparison. Results from the hydrologic and hydraulic analysis are shown in *Appendix B*.

## 5.3 Floodplains

This project area has mapped floodplains generated by the Federal Emergency Management Agency (FEMA) Map Service tool. A Zone A floodplain is present along US-20 near Sta 6767+00. However, the floodplain in this location is not within the project limits and no impacts are anticipated. See *Appendix D* for FIRM maps for the area.

# 6.0 Results

The ICM model was used to analyze drainage for 83 culvert crossings within the project area. Nine culvert crossings were removed after initial modeling determined that no runoff reaches these crossings. Overall, the proposed culverts meet the required design criteria outlined in Section 4.0 and control drainage across US-20.

## 6.1 Hydrology

Most drainage basins (75%) are small (less than 100 acres) and drain to a single culvert. Two large basins (greater than 9,000 acres) drain to the proposed box culverts (Sta 6716+50 and 6749+95). The average basin curve number is 68 (range: 61 to 82), reflecting the hydrologic soil group B and C soils and generally undeveloped nature of the area. Basins with the highest CNs are small basins draining the existing roadway. Peak flows from the delineated watersheds range from 0.33 cubic feet per second (cfs) to 303 cfs for the 25-year event (average: 12.02 cfs) and

from 0.46 cfs to 459.80 cfs for the 100-year event (average: 20.29 cfs). Watershed maps are in *Appendix A*. See *Appendix B* for a summary of watershed drainage characteristics and peak flows.

Runoff primarily flows from north to south across US-20. However, between Sta 6618+00 and 6690+00, drainage flows along US-20 to the east and causes flow produced by adjacent basins to intermingle and flow back and forth under the highway. This drainage pattern continues until the roadway sag and intersection with 115 W near MP 296 and Sta 6690+00, where there is a history of flooding (see Section 2.1).

Under the analysis accounting for snowmelt, peak flows range from 0.48 cubic feet per second (cfs) to 486 cfs for the 25-year event (average: 21.73 cfs) and from 0.71 cfs to 714 cfs for the 100-year event (average: 34.85 cfs). Accounting for snowmelt increased average peak flows by 80 and 71 percent for the 25-year and 100-year events, respectively.

## 6.2 Hydraulics

Most (58 out of 83) of the proposed culvert crossing are single 24” CMP cross-culverts that upsize or replace existing 18” or 24” pipes; the remaining culverts are either dual 24” CMP or are bigger than 24” where drainage patterns and flooding issues dictate the need for larger pipes. In 7 locations dual culverts are proposed to reduce flooding and compensate for low cover.

The ICM model indicates that at 18 culverts locations the contributing drainage basins do not generate sufficient runoff to activate these culverts during the 25-year event, and 15 culvert locations receive no flow during the 100-year event. This is likely because of the porous soils, insufficient basin area to yield enough runoff, or culvert alignments that do not follow dominate flow paths. The design intent when these crossings were installed in 1950 is not known, but these culverts are not currently slated for removal and are to be replaced with 24” CMP.

The remaining pipes all convey runoff under US-20 without overtopping the roadway during the 100-year event and without producing HW/D ratios above 1.25 for the 25-year event. See *Appendix B* for a summary of culvert characteristics and results.

To address flooding issues near MP 296, the existing 18” and 30” culvert alignment at Sta 6689+90 will be replaced with a dual 30” RCP. Additionally, dual 48” RCP are proposed at the roadway sag at Sta 6683+90, approximately 900 ft east of the existing 48” CMP (Sta 6675+00) that is bypassed in the existing condition. The proposed culvert and roadway design near MP 296 does not completely remove flooding adjacent to the roadway but it does eliminate overtopping of US-20 near the intersection with 115 W during both the 25- and 100-year events.

The two proposed box culverts (Sta 6718+75 and Sta 6749+95) adequately convey flows and could potentially be downsized as the design is refined to reduce project cost. Water surface profiles and images of modeled flooding from the ICM model near Stations 6689+90, 6683+90, 6675+00, 6718+75, and 6749+95 are included in *Appendix B*. Output for other culverts is tabulated in *Appendix B*. Current design plans can be found in *Appendix F*.

## 7.0 Summary

The culverts designed for this project meet or exceed ITD 640.02, 640.03, and 640.04. The proposed culvert design prevents roadway overtopping throughout the project area for the 100-year event and limits the HW/D ratio to below 1.25 during the 25-year event.

Installation of dual 48" RCP at the proposed roadway sag at Sta 6683+90 addresses roadway overtopping, but does not eliminate flooding adjacent to US-20 near MP 296. Elsewhere, conveyance is controlled under US-20 and flooding is limited to local depressions and ditches near the roadway.

## 8.0 References

National Weather Service, 2006. Rain-on Snow Snowmelt Modeling. Retrieved from https://www.cnrfc.noaa.gov/publications/Rain_on_snow.pdf

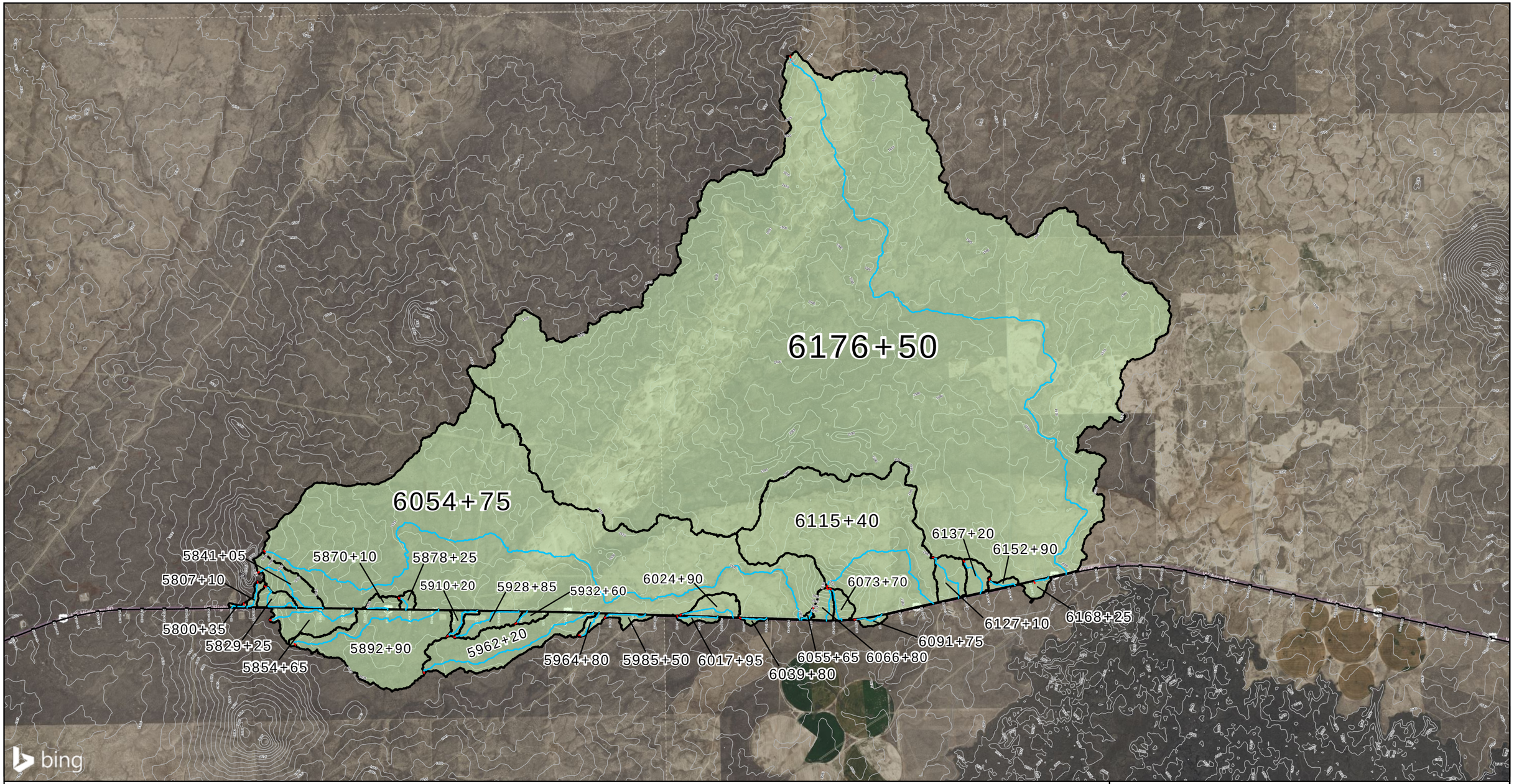
Idaho National Laboratory, 2005. Idaho's treasure; the Eastern Snake River Plain Aquifer. Retrieved from https://idwr.idaho.gov/wp-content/uploads/sites/2/iwrb/2005/200505-ESPA-CAMP-INL-newsletter.pdf

P. Link, S. Willsey, and K. Schmidt, Roadside Geology of Idaho, 2nd ed., illustrated by C. M. Feeney. Missoula, MT: Mountain Press, 2016.

*Appendix A*

# Watershed Maps

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## Legend

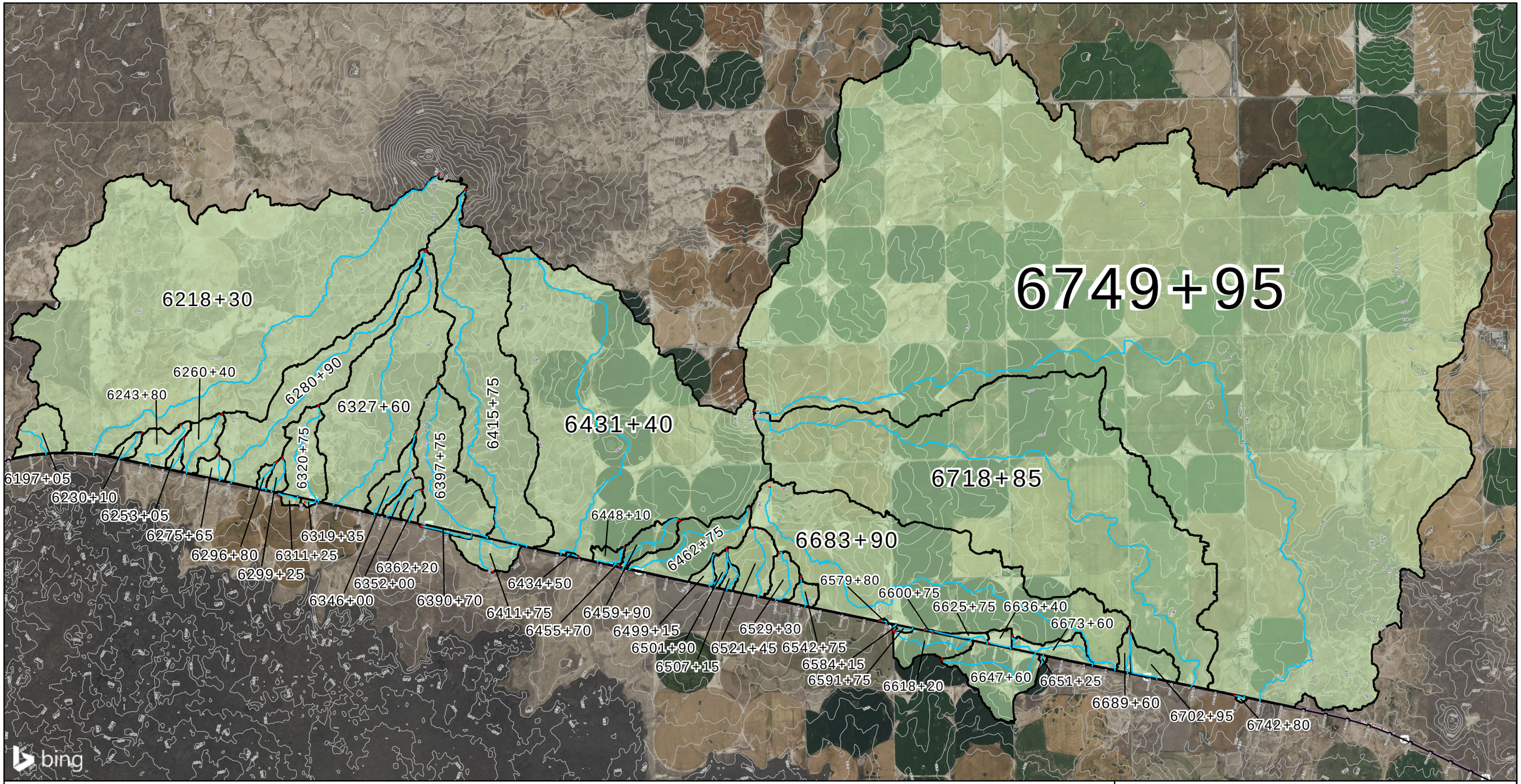
- Watershed Basin
- Shallow Concentrated Flow
- Sheet Flow
- Contours 5ft

0 0.4 0.8 1.6 Miles

1 inch = 0.8 Miles

# *US 20 - Arco to Idaho Falls Drainage Report*

## *Watershed Basins 5800+35 - 6176+50*




## Legend

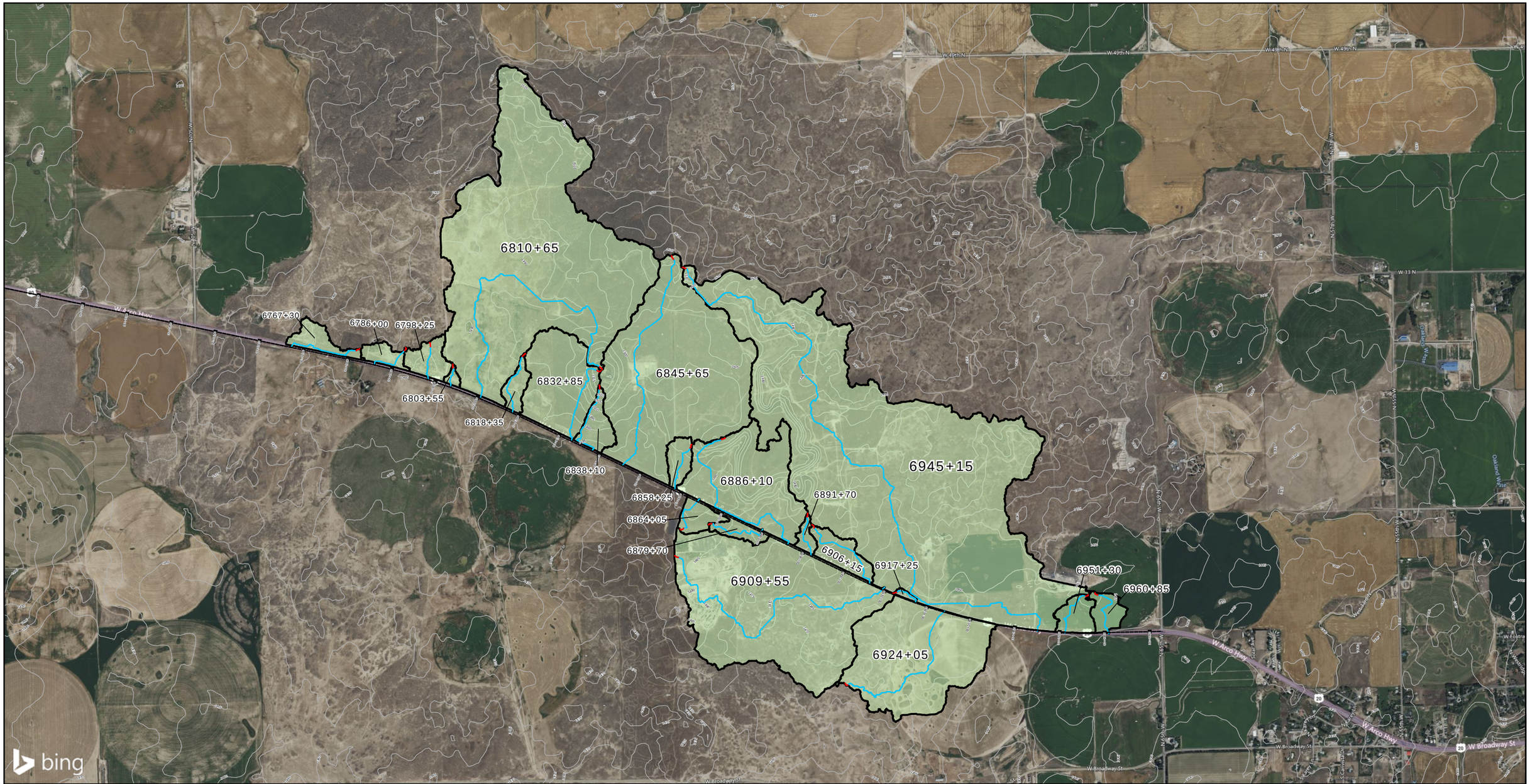
- Watershed Basin
- Shallow Concentrated Flow
- Sheet Flow
- Contours 5ft

0 0.4 0.8 1.6 Miles

1 inch = 0.8 Miles

# *US 20 - Arco to Idaho Falls Drainage Report*

## *Watershed Basins 6197+05 - 6749+95*




## Legend

- Watershed Basin
- Shallow Concentrated Flow
- Sheet Flow
- Contours 5ft

0 0.2 0.4 0.8 Miles

1 inch = 0.4 Miles

# *US 20 - Arco to Idaho Falls Drainage Report*

## *Watershed Basins 6767+30 - 6960+85*

*Appendix B*

# Calculations

DAVID EVANS AND ASSOCIATES INC.

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

# Custom Soil Resource Report for Bonneville County Area, Idaho; Butte County Area, Idaho, Parts of Butte and Bingham Counties; Idaho National Engineering Laboratory, Idaho; and Jefferson County, Idaho




June 12, 2025

# Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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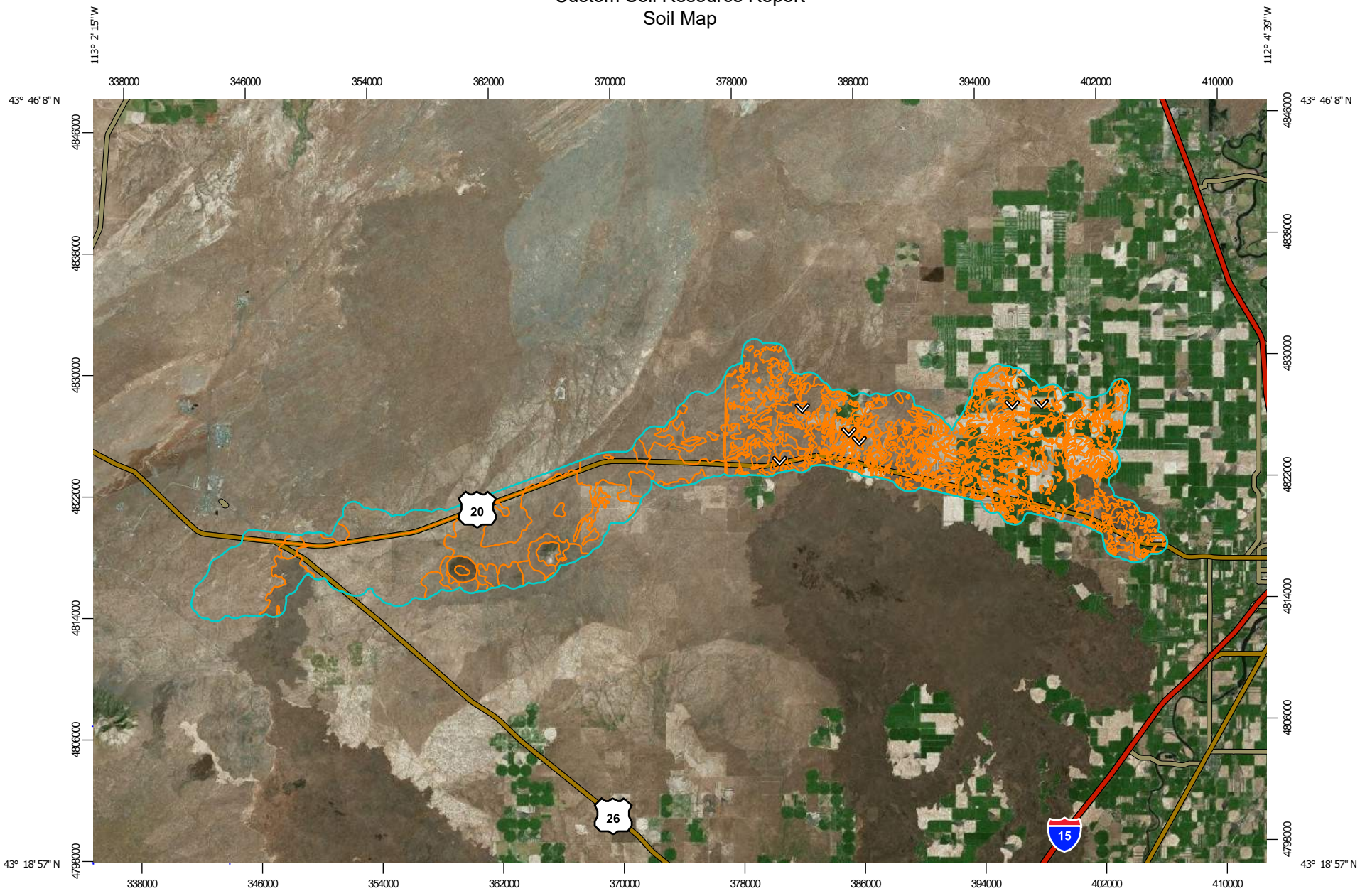
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# Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

# Custom Soil Resource Report
## Soil Map



## MAP LEGEND

**Area of Interest (AOI)**
- Area of Interest (AOI)

**Soils**
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

**Special Point Features**
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

**Water Features**
- Streams and Canals

**Transportation**
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

**Background**
- Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Bonneville County Area, Idaho
Survey Area Data: Version 20, Aug 22, 2024

Soil Survey Area: Butte County Area, Idaho, Parts of Butte and Bingham Counties
Survey Area Data: Version 22, Aug 22, 2024

Soil Survey Area: Idaho National Engineering Laboratory, Idaho
Survey Area Data: Version 8, Aug 22, 2024

Soil Survey Area: Jefferson County, Idaho
Survey Area Data: Version 22, Aug 22, 2024

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

## MAP LEGEND

## MAP INFORMATION

Date(s) aerial images were photographed: Jan 1, 1999—Dec 31, 2003

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

# Map Unit Legend

| Map Unit Symbol | Map Unit Name | Acres in AOI | Percent of AOI |
|---|---|---|---|
| 5 | Badgerton variant sandy loam | 3.3 | 0.0% |
| 17 | Lava flows | 213.7 | 0.2% |
| 20 | Packham gravelly loam | 3.4 | 0.0% |
| 22 | Pancheri silt loam, 0 to 2 percent slopes | 4,862.0 | 5.0% |
| 23 | Pancheri silt loam, 2 to 4 percent slopes | 22,090.4 | 22.8% |
| 24 | Pancheri silt loam, 4 to 8 percent slopes | 10,237.9 | 10.6% |
| 25 | Pancheri silt loam, 8 to 15 percent slopes | 305.0 | 0.3% |
| 26 | Pancheri-Rock outcrop complex, 2 to 25 percent slopes | 6,805.8 | 7.0% |
| 32 | Pits | 15.3 | 0.0% |
| 33 | Polatis-Rock outcrop complex, 2 to 25 percent slopes | 5,796.7 | 6.0% |
| **Subtotals for Soil Survey Area** | | **50,333.7** | **52.0%** |
| **Totals for Area of Interest** | | **96,723.9** | **100.0%** |

| Map Unit Symbol | Map Unit Name | Acres in AOI | Percent of AOI |
|---|---|---|---|
| 3 | Atom silt loam, 2 to 8 percent slopes | 8,503.8 | 8.8% |
| 15 | Coffee-Nargon complex, 4 to 20 percent slopes | 1,516.3 | 1.6% |
| 16 | Coffee-Nargon-Atom complex, 2 to 12 percent slopes | 248.5 | 0.3% |
| 37 | Hondoho gravelly loam, 4 to 30 percent slopes | 780.4 | 0.8% |
| 56 | Lava flows | 555.6 | 0.6% |
| 58 | Lava flows-Pingree complex, 0 to 8 percent slopes | 1,471.4 | 1.5% |
| 72 | Menan silt loam, 0 to 2 percent slopes | 377.3 | 0.4% |
| 77 | Nargon-Deuce complex, 2 to 20 percent slopes | 2,223.0 | 2.3% |
| 82 | Calcids-Rubble land-Rock outcrop complex, 30 to 80 percent slopes | 456.9 | 0.5% |
| 86 | Pancheri silt loam, 2 to 8 percent slopes | 2,553.1 | 2.6% |
| 87 | Pancheri-Polatis complex, 2 to 12 percent slopes | 3,283.9 | 3.4% |

| Map Unit Symbol | Map Unit Name | Acres in AOI | Percent of AOI |
|---|---|---|---|
| 119 | Splittop-Atomic complex, 0 to 8 percent slopes | 19,068.6 | 19.7% |
| **Subtotals for Soil Survey Area** | | **41,038.8** | **42.4%** |
| **Totals for Area of Interest** | | **96,723.9** | **100.0%** |

| Map Unit Symbol | Map Unit Name | Acres in AOI | Percent of AOI |
|---|---|---|---|
| 3-B | Atom silt loam, 2 to 8 percent slopes | 147.4 | 0.2% |
| 61-B | Malm-Bondfarm-Matheson complex, 4 to 8 percent slopes | 300.8 | 0.3% |
| 72-B | Menan silt loam, 0 to 2 percent slopes | 158.6 | 0.2% |
| 119-B | Splittop-Atomic complex, 0 to 8 percent slopes | 4,743.6 | 4.9% |
| **Subtotals for Soil Survey Area** | | **5,350.5** | **5.5%** |
| **Totals for Area of Interest** | | **96,723.9** | **100.0%** |

| Map Unit Symbol | Map Unit Name | Acres in AOI | Percent of AOI |
|---|---|---|---|
| 14 | Bereniceton-Terreton-Aecet complex | 1.0 | 0.0% |
| **Subtotals for Soil Survey Area** | | **1.0** | **0.0%** |
| **Totals for Area of Interest** | | **96,723.9** | **100.0%** |

# Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties

and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

# Bonneville County Area, Idaho

## 5—Badgerton variant sandy loam

### Map Unit Setting

*National map unit symbol:* 2tm2
*Elevation:* 5,500 to 7,000 feet
*Mean annual precipitation:* 13 to 25 inches
*Mean annual air temperature:* 34 to 43 degrees F
*Frost-free period:* 50 to 85 days
*Farmland classification:* Not prime farmland

### Map Unit Composition

*Badgerton variant and similar soils:* 85 percent
*Minor components:* 10 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Badgerton Variant

#### Setting

*Landform:* Fan remnants, terraces
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Mixed alluvium

#### Typical profile

*A1 - 0 to 13 inches:* sandy loam
*A2 - 13 to 20 inches:* sandy loam
*C1 - 20 to 32 inches:* loamy sand
*2C2 - 32 to 60 inches:* very gravelly coarse sand

#### Properties and qualities

*Slope:* 0 to 4 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Well drained
*Capacity of the most limiting layer to transmit water (Ksat):* High (2.00 to 6.00 in/hr)
*Depth to water table:* More than 80 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Calcium carbonate, maximum content:* 5 percent
*Available water supply, 0 to 60 inches:* Low (about 4.4 inches)

#### Interpretive groups

*Land capability classification (irrigated):* 6c
*Land capability classification (nonirrigated):* 6c
*Hydrologic Soil Group:* A
*Ecological site:* R013XY006ID - Sandy Loam 16-22 PZ ARTRV/PSSPS
*Hydric soil rating:* No

### Minor Components

#### Aquic cryoborolls

*Percent of map unit:* 5 percent
*Landform:* Flood plains
*Hydric soil rating:* Yes

**Typic cryaquolls**
*Percent of map unit:* 5 percent
*Landform:* Flood plains
*Down-slope shape:* Concave
*Across-slope shape:* Linear
*Hydric soil rating:* Yes

## 17—Lava flows

**Map Unit Composition**
*Lava flows:* 100 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Lava Flows**

**Typical profile**
*R - 0 to 60 inches:* bedrock

**Properties and qualities**
*Depth to restrictive feature:* 0 inches to lithic bedrock

**Interpretive groups**
*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 8
*Hydric soil rating:* Unranked

## 20—Packham gravelly loam

**Map Unit Setting**
*National map unit symbol:* 2tl1
*Elevation:* 4,200 to 5,400 feet
*Mean annual precipitation:* 8 to 12 inches
*Mean annual air temperature:* 39 to 45 degrees F
*Frost-free period:* 80 to 125 days
*Farmland classification:* Prime farmland if irrigated

**Map Unit Composition**
*Packham and similar soils:* 85 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Packham**

**Setting**
*Landform:* Flood plains
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Mixed alluvium

**Typical profile**

*A1 - 0 to 4 inches:* gravelly loam
*A2 - 4 to 8 inches:* very gravelly loam
*Bw - 8 to 15 inches:* very gravelly loam
*C1 - 15 to 23 inches:* very gravelly sandy loam
*C2 - 23 to 60 inches:* very gravelly loamy sand

**Properties and qualities**

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Well drained
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 2.00 in/hr)
*Depth to water table:* More than 80 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Calcium carbonate, maximum content:* 15 percent
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
*Available water supply, 0 to 60 inches:* Low (about 3.4 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 3s
*Land capability classification (nonirrigated):* 6c
*Hydrologic Soil Group:* B
*Ecological site:* R011XB032ID - Gravelly Loam 7-10 PZ ARNO4/ACHY-HECOC8
*Hydric soil rating:* No

## 22—Pancheri silt loam, 0 to 2 percent slopes

**Map Unit Setting**

*National map unit symbol:* 2tl3
*Elevation:* 4,200 to 6,000 feet
*Mean annual precipitation:* 8 to 11 inches
*Mean annual air temperature:* 41 to 45 degrees F
*Frost-free period:* 80 to 120 days
*Farmland classification:* Prime farmland if irrigated and reclaimed of excess salts and sodium

**Map Unit Composition**

*Pancheri and similar soils:* 85 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Pancheri**

**Setting**

*Landform:* Lava fields
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Loess

**Typical profile**

*Ap - 0 to 6 inches:* silt loam

*Bw - 6 to 10 inches:* silt loam
*Bk1 - 10 to 17 inches:* silt loam
*Bk2 - 17 to 33 inches:* silt loam
*Bk3 - 33 to 60 inches:* silt loam

**Properties and qualities**

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Well drained
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 2.00 in/hr)
*Depth to water table:* More than 80 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Calcium carbonate, maximum content:* 30 percent
*Gypsum, maximum content:* 5 percent
*Maximum salinity:* Very slightly saline to moderately saline (2.0 to 8.0 mmhos/cm)
*Sodium adsorption ratio, maximum:* 13.0
*Available water supply, 0 to 60 inches:* Moderate (about 8.0 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 3c
*Land capability classification (nonirrigated):* 6c
*Hydrologic Soil Group:* B
*Ecological site:* R011XB001ID - Loamy 8-12 PZ
*Hydric soil rating:* No

## 23—Pancheri silt loam, 2 to 4 percent slopes

**Map Unit Setting**

*National map unit symbol:* 2tl4
*Elevation:* 4,200 to 6,000 feet
*Mean annual precipitation:* 8 to 11 inches
*Mean annual air temperature:* 41 to 45 degrees F
*Frost-free period:* 80 to 120 days
*Farmland classification:* Prime farmland if irrigated and reclaimed of excess salts and sodium

**Map Unit Composition**

*Pancheri and similar soils:* 85 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Pancheri**

**Setting**

*Landform:* Lava fields
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Loess

**Typical profile**

*Ap - 0 to 6 inches:* silt loam

*Bw - 6 to 10 inches:* silt loam
*Bk1 - 10 to 17 inches:* silt loam
*Bk2 - 17 to 33 inches:* silt loam
*Bk3 - 33 to 60 inches:* silt loam

**Properties and qualities**

*Slope:* 2 to 4 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Well drained
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 2.00 in/hr)
*Depth to water table:* More than 80 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Calcium carbonate, maximum content:* 30 percent
*Gypsum, maximum content:* 5 percent
*Maximum salinity:* Very slightly saline to moderately saline (2.0 to 8.0 mmhos/cm)
*Sodium adsorption ratio, maximum:* 13.0
*Available water supply, 0 to 60 inches:* Moderate (about 8.0 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 3e
*Land capability classification (nonirrigated):* 6c
*Hydrologic Soil Group:* B
*Ecological site:* R011XB001ID - Loamy 8-12 PZ
*Hydric soil rating:* No

## 24—Pancheri silt loam, 4 to 8 percent slopes

**Map Unit Setting**

*National map unit symbol:* 2tl5
*Elevation:* 4,200 to 6,000 feet
*Mean annual precipitation:* 8 to 11 inches
*Mean annual air temperature:* 41 to 45 degrees F
*Frost-free period:* 80 to 120 days
*Farmland classification:* Not prime farmland

**Map Unit Composition**

*Pancheri and similar soils:* 85 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Pancheri**

**Setting**

*Landform:* Lava fields
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Loess

**Typical profile**

*Ap - 0 to 6 inches:* silt loam
*Bw - 6 to 10 inches:* silt loam

*Bk1 - 10 to 17 inches:* silt loam
*Bk2 - 17 to 33 inches:* silt loam
*Bk3 - 33 to 60 inches:* silt loam

**Properties and qualities**

*Slope:* 4 to 8 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Well drained
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 2.00 in/hr)
*Depth to water table:* More than 80 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Calcium carbonate, maximum content:* 30 percent
*Gypsum, maximum content:* 5 percent
*Maximum salinity:* Very slightly saline to moderately saline (2.0 to 8.0 mmhos/cm)
*Sodium adsorption ratio, maximum:* 13.0
*Available water supply, 0 to 60 inches:* Moderate (about 8.0 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 4e
*Land capability classification (nonirrigated):* 6c
*Hydrologic Soil Group:* B
*Ecological site:* R011XB001ID - Loamy 8-12 PZ
*Hydric soil rating:* No

## 25—Pancheri silt loam, 8 to 15 percent slopes

**Map Unit Setting**

*National map unit symbol:* 2tl6
*Elevation:* 4,200 to 6,000 feet
*Mean annual precipitation:* 8 to 11 inches
*Mean annual air temperature:* 41 to 45 degrees F
*Frost-free period:* 80 to 120 days
*Farmland classification:* Not prime farmland

**Map Unit Composition**

*Pancheri and similar soils:* 90 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Pancheri**

**Setting**

*Landform:* Lava fields
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Loess

**Typical profile**

*Ap - 0 to 6 inches:* silt loam
*Bw - 6 to 10 inches:* silt loam
*Bk1 - 10 to 17 inches:* silt loam

*Bk2 - 17 to 33 inches:* silt loam
*Bk3 - 33 to 60 inches:* silt loam

**Properties and qualities**

*Slope:* 8 to 15 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Well drained
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 2.00 in/hr)
*Depth to water table:* More than 80 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Calcium carbonate, maximum content:* 30 percent
*Gypsum, maximum content:* 5 percent
*Maximum salinity:* Very slightly saline to moderately saline (2.0 to 8.0 mmhos/cm)
*Sodium adsorption ratio, maximum:* 13.0
*Available water supply, 0 to 60 inches:* Moderate (about 8.0 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 6e
*Land capability classification (nonirrigated):* 6c
*Hydrologic Soil Group:* B
*Ecological site:* R011XB001ID - Loamy 8-12 PZ
*Hydric soil rating:* No

## 26—Pancheri-Rock outcrop complex, 2 to 25 percent slopes

**Map Unit Setting**

*National map unit symbol:* 2tl7
*Elevation:* 4,200 to 6,000 feet
*Mean annual precipitation:* 8 to 11 inches
*Mean annual air temperature:* 41 to 45 degrees F
*Frost-free period:* 80 to 120 days
*Farmland classification:* Not prime farmland

**Map Unit Composition**

*Pancheri and similar soils:* 70 percent
*Rock outcrop:* 25 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Pancheri**

**Setting**

*Landform:* Lava fields
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Loess

**Typical profile**

*Ap - 0 to 6 inches:* silt loam
*Bw - 6 to 10 inches:* silt loam
*Bk1 - 10 to 17 inches:* silt loam

*Bk2 - 17 to 33 inches:* silt loam
*Bk3 - 33 to 60 inches:* silt loam

**Properties and qualities**

*Slope:* 2 to 25 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Well drained
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 2.00 in/hr)
*Depth to water table:* More than 80 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Calcium carbonate, maximum content:* 30 percent
*Gypsum, maximum content:* 5 percent
*Maximum salinity:* Very slightly saline to moderately saline (2.0 to 8.0 mmhos/cm)
*Sodium adsorption ratio, maximum:* 13.0
*Available water supply, 0 to 60 inches:* Moderate (about 8.0 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 6e
*Land capability classification (nonirrigated):* 6c
*Hydrologic Soil Group:* B
*Ecological site:* R011XB001ID - Loamy 8-12 PZ
*Hydric soil rating:* No

**Description of Rock Outcrop**

**Typical profile**

*R - 0 to 60 inches:* bedrock

**Properties and qualities**

*Slope:* 2 to 25 percent
*Depth to restrictive feature:* 0 inches to lithic bedrock

**Interpretive groups**

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 8
*Hydrologic Soil Group:* D
*Hydric soil rating:* Unranked

## 32—Pits

**Map Unit Composition**

*Pits, gravel:* 100 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Pits, Gravel**

**Typical profile**

*C - 0 to 60 inches:* gravel, cobbles

**Interpretive groups**

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 8
*Hydric soil rating:* Unranked

## 33—Polatis-Rock outcrop complex, 2 to 25 percent slopes

**Map Unit Setting**

*National map unit symbol:* 2tlh
*Elevation:* 4,600 to 6,000 feet
*Mean annual precipitation:* 8 to 11 inches
*Mean annual air temperature:* 39 to 45 degrees F
*Frost-free period:* 95 to 120 days
*Farmland classification:* Not prime farmland

**Map Unit Composition**

*Polatis and similar soils:* 65 percent
*Rock outcrop:* 25 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Polatis**

**Setting**

*Landform:* Lava fields
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Loess over bedrock derived from basalt

**Typical profile**

*A - 0 to 6 inches:* silt loam
*Bw - 6 to 9 inches:* silt loam
*Bk1 - 9 to 22 inches:* silt loam
*Bk2 - 22 to 31 inches:* silt loam
*R - 31 to 41 inches:* bedrock

**Properties and qualities**

*Slope:* 2 to 25 percent
*Depth to restrictive feature:* 20 to 40 inches to lithic bedrock
*Drainage class:* Well drained
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 2.00 in/hr)
*Depth to water table:* More than 80 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Calcium carbonate, maximum content:* 30 percent
*Maximum salinity:* Very slightly saline to slightly saline (2.0 to 4.0 mmhos/cm)
*Sodium adsorption ratio, maximum:* 13.0
*Available water supply, 0 to 60 inches:* Moderate (about 6.2 inches)

**Interpretive groups**

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 6c
*Hydrologic Soil Group:* C

*Ecological site:* R011XB001ID - Loamy 8-12 PZ
*Hydric soil rating:* No

**Description of Rock Outcrop**

**Typical profile**
*R - 0 to 60 inches:* bedrock

**Properties and qualities**
*Slope:* 2 to 25 percent
*Depth to restrictive feature:* 0 inches to lithic bedrock

**Interpretive groups**
*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 8
*Hydrologic Soil Group:* D
*Hydric soil rating:* Unranked

# Butte County Area, Idaho, Parts of Butte and Bingham Counties

## 3—Atom silt loam, 2 to 8 percent slopes

### Map Unit Setting

*National map unit symbol:* 2n69
*Elevation:* 4,800 to 5,500 feet
*Mean annual precipitation:* 8 to 11 inches
*Mean annual air temperature:* 41 to 45 degrees F
*Frost-free period:* 80 to 115 days
*Farmland classification:* Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium

### Map Unit Composition

*Atom and similar soils:* 80 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Atom

#### Setting

*Landform:* Hillslopes
*Landform position (two-dimensional):* Backslope
*Landform position (three-dimensional):* Side slope
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Reworked eolian deposits

#### Typical profile

*A1 - 0 to 3 inches:* silt loam
*A2 - 3 to 10 inches:* silty clay loam
*Bkq - 10 to 29 inches:* silt loam
*Bk - 29 to 79 inches:* silt loam

#### Properties and qualities

*Slope:* 2 to 8 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Well drained
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high (0.21 to 0.71 in/hr)
*Depth to water table:* More than 80 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Calcium carbonate, maximum content:* 25 percent
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
*Available water supply, 0 to 60 inches:* High (about 10.2 inches)

#### Interpretive groups

*Land capability classification (irrigated):* 4e
*Land capability classification (nonirrigated):* 6c
*Hydrologic Soil Group:* C
*Ecological site:* R011XB001ID - Loamy 8-12 PZ
*Hydric soil rating:* No

## 15—Coffee-Nargon complex, 4 to 20 percent slopes

### Map Unit Setting

*National map unit symbol:* 2n5q
*Elevation:* 4,700 to 5,500 feet
*Mean annual precipitation:* 9 to 11 inches
*Mean annual air temperature:* 43 to 45 degrees F
*Frost-free period:* 80 to 110 days
*Farmland classification:* Not prime farmland

### Map Unit Composition

*Coffee and similar soils:* 45 percent
*Nargon and similar soils:* 30 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Coffee

#### Setting

*Landform:* Lava plains
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Mixed alluvium over basalt

#### Typical profile

*A - 0 to 7 inches:* silt loam
*Bk - 7 to 25 inches:* silt loam
*Bkq - 25 to 48 inches:* silty clay loam
*2R - 48 to 58 inches:* bedrock

#### Properties and qualities

*Slope:* 4 to 20 percent
*Depth to restrictive feature:* 40 to 60 inches to lithic bedrock
*Drainage class:* Well drained
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 2.00 in/hr)
*Depth to water table:* More than 80 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Calcium carbonate, maximum content:* 30 percent
*Maximum salinity:* Moderately saline to strongly saline (8.0 to 16.0 mmhos/cm)
*Sodium adsorption ratio, maximum:* 35.0
*Available water supply, 0 to 60 inches:* Low (about 5.2 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 6s
*Hydrologic Soil Group:* B
*Ecological site:* R011XB001ID - Loamy 8-12 PZ
*Hydric soil rating:* No

**Description of Nargon**

**Setting**

*Landform:* Lava plains
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Mixed alluvium over bedrock derived from basalt

**Typical profile**

*A - 0 to 5 inches:* loam
*Bk - 5 to 15 inches:* clay loam
*Bkq - 15 to 22 inches:* stony loam
*2R - 22 to 32 inches:* bedrock

**Properties and qualities**

*Slope:* 4 to 20 percent
*Depth to restrictive feature:* 20 to 40 inches to lithic bedrock
*Drainage class:* Well drained
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high (0.20 to 0.60 in/hr)
*Depth to water table:* More than 80 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Calcium carbonate, maximum content:* 30 percent
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
*Sodium adsorption ratio, maximum:* 2.0
*Available water supply, 0 to 60 inches:* Low (about 4.2 inches)

**Interpretive groups**

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 6c
*Hydrologic Soil Group:* C
*Ecological site:* R011XB001ID - Loamy 8-12 PZ
*Hydric soil rating:* No

## 16—Coffee-Nargon-Atom complex, 2 to 12 percent slopes

**Map Unit Setting**

*National map unit symbol:* 2n5r
*Elevation:* 4,800 to 5,500 feet
*Mean annual precipitation:* 8 to 11 inches
*Mean annual air temperature:* 41 to 45 degrees F
*Frost-free period:* 80 to 115 days
*Farmland classification:* Not prime farmland

**Map Unit Composition**

*Coffee and similar soils:* 35 percent
*Nargon and similar soils:* 25 percent
*Atom and similar soils:* 15 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

## Description of Coffee

### Setting

*Landform:* Lava flows
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Reworked eolian deposits over residuum weathered from basalt

### Typical profile

*A - 0 to 7 inches:* silt loam
*Bk - 7 to 25 inches:* silt loam
*Bkq - 25 to 48 inches:* silt loam
*R - 48 to 79 inches:* bedrock

### Properties and qualities

*Slope:* 2 to 12 percent
*Depth to restrictive feature:* 39 to 59 inches to lithic bedrock
*Drainage class:* Well drained
*Capacity of the most limiting layer to transmit water (Ksat):* Low to moderately high (0.01 to 0.57 in/hr)
*Depth to water table:* More than 80 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Calcium carbonate, maximum content:* 25 percent
*Maximum salinity:* Very slightly saline to slightly saline (2.0 to 4.0 mmhos/cm)
*Sodium adsorption ratio, maximum:* 10.0
*Available water supply, 0 to 60 inches:* Moderate (about 7.5 inches)

### Interpretive groups

*Land capability classification (irrigated):* 4e
*Land capability classification (nonirrigated):* 6c
*Hydrologic Soil Group:* C
*Ecological site:* R011XB001ID - Loamy 8-12 PZ
*Hydric soil rating:* No

## Description of Nargon

### Setting

*Landform:* Lava flows
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Reworked eolian deposits over residuum weathered from basalt

### Typical profile

*A - 0 to 5 inches:* loam
*Bk - 5 to 15 inches:* clay loam
*Bkq - 15 to 22 inches:* stony loam
*R - 22 to 79 inches:* bedrock

### Properties and qualities

*Slope:* 2 to 12 percent
*Depth to restrictive feature:* 20 to 39 inches to lithic bedrock
*Drainage class:* Well drained
*Capacity of the most limiting layer to transmit water (Ksat):* Low to moderately high (0.01 to 0.57 in/hr)
*Depth to water table:* More than 80 inches
*Frequency of flooding:* None

*Frequency of ponding:* None
*Calcium carbonate, maximum content:* 25 percent
*Maximum salinity:* Very slightly saline to slightly saline (2.0 to 4.0 mmhos/cm)
*Available water supply, 0 to 60 inches:* Low (about 3.3 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 4e
*Land capability classification (nonirrigated):* 6c
*Hydrologic Soil Group:* C
*Ecological site:* R011XB001ID - Loamy 8-12 PZ
*Hydric soil rating:* No

## Description of Atom

**Setting**

*Landform:* Lava fields, hillslopes
*Landform position (two-dimensional):* Backslope
*Landform position (three-dimensional):* Side slope
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Reworked eolian deposits

**Typical profile**

*A1 - 0 to 3 inches:* silt loam
*A2 - 3 to 10 inches:* silty clay loam
*Bkq - 10 to 29 inches:* silt loam
*Bk - 29 to 79 inches:* silt loam

**Properties and qualities**

*Slope:* 2 to 12 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Well drained
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high (0.21 to 0.71 in/hr)
*Depth to water table:* More than 80 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Calcium carbonate, maximum content:* 25 percent
*Maximum salinity:* Very slightly saline to slightly saline (2.0 to 4.0 mmhos/cm)
*Sodium adsorption ratio, maximum:* 10.0
*Available water supply, 0 to 60 inches:* High (about 9.7 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 4e
*Land capability classification (nonirrigated):* 6c
*Hydrologic Soil Group:* C
*Ecological site:* R011XB001ID - Loamy 8-12 PZ
*Hydric soil rating:* No

## 37—Hondoho gravelly loam, 4 to 30 percent slopes

### Map Unit Setting

*National map unit symbol:* 2n6k
*Elevation:* 5,000 to 5,600 feet
*Mean annual precipitation:* 12 to 14 inches
*Mean annual air temperature:* 43 to 45 degrees F
*Frost-free period:* 70 to 100 days
*Farmland classification:* Farmland of statewide importance, if irrigated

### Map Unit Composition

*Hondoho and similar soils:* 85 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Hondoho

#### Setting

*Landform:* Fan remnants
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Mixed alluvium and/or colluvium

#### Typical profile

*A - 0 to 6 inches:* gravelly loam
*Bw - 6 to 10 inches:* gravelly loam
*Bk - 10 to 60 inches:* very stony loam

#### Properties and qualities

*Slope:* 4 to 30 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Well drained
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 2.00 in/hr)
*Depth to water table:* More than 80 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Calcium carbonate, maximum content:* 40 percent
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
*Sodium adsorption ratio, maximum:* 5.0
*Available water supply, 0 to 60 inches:* Moderate (about 6.4 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 4e
*Hydrologic Soil Group:* B
*Ecological site:* R011XB010ID - Loamy 12-16 PZ ARTRW8/PSSPS
*Hydric soil rating:* No

## 56—Lava flows

**Map Unit Composition**

*Lava flows:* 100 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Lava Flows**

**Typical profile**

*R - 0 to 60 inches:* bedrock

**Properties and qualities**

*Depth to restrictive feature:* 0 inches to lithic bedrock

**Interpretive groups**

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 8
*Hydric soil rating:* Unranked

## 58—Lava flows-Pingree complex, 0 to 8 percent slopes

**Map Unit Setting**

*National map unit symbol:* 2n8w
*Elevation:* 4,500 to 5,400 feet
*Mean annual precipitation:* 9 to 12 inches
*Mean annual air temperature:* 44 to 46 degrees F
*Frost-free period:* 80 to 110 days
*Farmland classification:* Not prime farmland

**Map Unit Composition**

*Lava flows:* 60 percent
*Pingree and similar soils:* 35 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Lava Flows**

**Typical profile**

*R - 0 to 60 inches:* bedrock

**Properties and qualities**

*Slope:* 0 to 8 percent
*Depth to restrictive feature:* 0 inches to lithic bedrock

**Interpretive groups**

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 8
*Hydric soil rating:* Unranked

**Description of Pingree**

**Setting**

*Landform:* Lava plains
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Loess over bedrock derived from basalt

**Typical profile**

*A - 0 to 2 inches:* gravelly silt loam
*Bw1 - 2 to 7 inches:* gravelly silt loam
*Bw2 - 7 to 9 inches:* cobbly silt loam
*2R - 9 to 19 inches:* bedrock

**Properties and qualities**

*Slope:* 0 to 4 percent
*Depth to restrictive feature:* 5 to 10 inches to lithic bedrock
*Drainage class:* Well drained
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 2.00 in/hr)
*Depth to water table:* More than 80 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
*Available water supply, 0 to 60 inches:* Very low (about 1.5 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 7e
*Land capability classification (nonirrigated):* 7s
*Hydrologic Soil Group:* D
*Ecological site:* R011XB005ID - Fractured Loamy 8-16 PZ ARTRW8/PSSPS
*Hydric soil rating:* No

## 72—Menan silt loam, 0 to 2 percent slopes

**Map Unit Setting**

*National map unit symbol:* 2n9d
*Elevation:* 4,800 to 5,500 feet
*Mean annual precipitation:* 8 to 11 inches
*Mean annual air temperature:* 41 to 45 degrees F
*Frost-free period:* 80 to 115 days
*Farmland classification:* Prime farmland if irrigated

**Map Unit Composition**

*Menan and similar soils:* 90 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Menan**

**Setting**

*Landform:* Swales
*Down-slope shape:* Linear
*Across-slope shape:* Concave
*Parent material:* Slope alluvium

**Typical profile**

*A - 0 to 7 inches:* silt loam
*Bt - 7 to 33 inches:* silty clay loam
*Btk - 33 to 38 inches:* silty clay loam
*Bk - 38 to 60 inches:* silt loam

**Properties and qualities**

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Well drained
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high (0.21 to 0.71 in/hr)
*Depth to water table:* More than 80 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Calcium carbonate, maximum content:* 25 percent
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
*Sodium adsorption ratio, maximum:* 3.0
*Available water supply, 0 to 60 inches:* High (about 10.6 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 3c
*Land capability classification (nonirrigated):* 6c
*Hydrologic Soil Group:* C
*Ecological site:* R011XB019ID - Loamy 7-10 PZ ARTRW8/HECOC8-ACHY
*Hydric soil rating:* No

## 77—Nargon-Deuce complex, 2 to 20 percent slopes

**Map Unit Setting**

*National map unit symbol:* 2n9k
*Elevation:* 4,800 to 5,500 feet
*Mean annual precipitation:* 8 to 11 inches
*Mean annual air temperature:* 41 to 45 degrees F
*Frost-free period:* 80 to 115 days
*Farmland classification:* Not prime farmland

**Map Unit Composition**

*Nargon and similar soils:* 50 percent
*Deuce and similar soils:* 20 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Nargon

#### Setting

*Landform:* Lava flows
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Reworked eolian deposits over residuum weathered from basalt

#### Typical profile

*A - 0 to 5 inches:* silt loam
*Bk - 5 to 15 inches:* clay loam
*Bkq - 15 to 22 inches:* stony loam
*R - 22 to 79 inches:* bedrock

#### Properties and qualities

*Slope:* 2 to 20 percent
*Depth to restrictive feature:* 20 to 39 inches to lithic bedrock
*Drainage class:* Well drained
*Capacity of the most limiting layer to transmit water (Ksat):* Low to moderately high (0.01 to 0.57 in/hr)
*Depth to water table:* More than 80 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Calcium carbonate, maximum content:* 25 percent
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
*Available water supply, 0 to 60 inches:* Low (about 3.5 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 6c
*Hydrologic Soil Group:* C
*Ecological site:* R011XB001ID - Loamy 8-12 PZ
*Hydric soil rating:* No

### Description of Deuce

#### Setting

*Landform:* Lava flows
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Reworked eolian deposits over residuum weathered from basalt

#### Typical profile

*A - 0 to 2 inches:* stony silt loam
*Bk1 - 2 to 6 inches:* silt loam
*Bk2 - 6 to 11 inches:* silt loam
*Bkq - 11 to 19 inches:* silt loam
*R - 19 to 79 inches:* bedrock

#### Properties and qualities

*Slope:* 2 to 20 percent
*Depth to restrictive feature:* 10 to 20 inches to lithic bedrock
*Drainage class:* Well drained
*Capacity of the most limiting layer to transmit water (Ksat):* Low to moderately high (0.01 to 0.57 in/hr)
*Depth to water table:* More than 80 inches
*Frequency of flooding:* None

*Frequency of ponding:* None
*Calcium carbonate, maximum content:* 30 percent
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
*Available water supply, 0 to 60 inches:* Very low (about 2.9 inches)

**Interpretive groups**

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 6s
*Hydrologic Soil Group:* D
*Ecological site:* R011XB009ID - Shallow Stony 8-12 PZ ARTRW8/PSSPS
*Hydric soil rating:* No

## 82—Calcids-Rubble land-Rock outcrop complex, 30 to 80 percent slopes

**Map Unit Setting**

*National map unit symbol:* 2n9r
*Elevation:* 5,200 to 7,500 feet
*Mean annual precipitation:* 11 to 13 inches
*Mean annual air temperature:* 36 to 43 degrees F
*Frost-free period:* 50 to 75 days
*Farmland classification:* Not prime farmland

**Map Unit Composition**

*Calcids and similar soils:* 50 percent
*Rubble land:* 20 percent
*Rock outcrop:* 15 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Calcids**

**Setting**

*Landform:* Mountain slopes
*Down-slope shape:* Concave
*Across-slope shape:* Convex
*Parent material:* Colluvium and/or mixed slope alluvium

**Typical profile**

*A - 0 to 4 inches:* very gravelly loam
*Bw - 4 to 12 inches:* very gravelly loam
*Bk - 12 to 25 inches:* extremely gravelly loam
*C - 25 to 60 inches:* extremely gravelly coarse sandy loam

**Properties and qualities**

*Slope:* 30 to 80 percent
*Depth to restrictive feature:* 20 to 80 inches to lithic bedrock
*Drainage class:* Well drained
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 2.00 in/hr)
*Depth to water table:* More than 80 inches
*Frequency of flooding:* None
*Frequency of ponding:* None

*Calcium carbonate, maximum content:* 15 percent
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
*Available water supply, 0 to 60 inches:* Low (about 4.0 inches)

**Interpretive groups**

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 7e
*Hydrologic Soil Group:* B
*Ecological site:* R012XY015ID - Steep Limestone 12-20 PZ CELE3/PSSPS-FEID
*Hydric soil rating:* No

**Description of Rubble Land**

**Typical profile**

*C - 0 to 60 inches:* stones, boulders

**Interpretive groups**

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 8
*Hydrologic Soil Group:* A
*Hydric soil rating:* Unranked

**Description of Rock Outcrop**

**Typical profile**

*R - 0 to 60 inches:* bedrock

**Properties and qualities**

*Slope:* 30 to 80 percent
*Depth to restrictive feature:* 0 inches to lithic bedrock

**Interpretive groups**

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 8
*Hydrologic Soil Group:* D
*Hydric soil rating:* Unranked

## 86—Pancheri silt loam, 2 to 8 percent slopes

**Map Unit Setting**

*National map unit symbol:* 2n9w
*Elevation:* 4,500 to 5,500 feet
*Mean annual precipitation:* 8 to 11 inches
*Mean annual air temperature:* 43 to 45 degrees F
*Frost-free period:* 80 to 110 days
*Farmland classification:* Farmland of statewide importance, if irrigated

**Map Unit Composition**

*Pancheri and similar soils:* 80 percent
*Minor components:* 1 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Pancheri

#### Setting

*Landform:* Lava plains
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Loess

#### Typical profile

*A - 0 to 4 inches:* silt loam
*Bw - 4 to 9 inches:* silt loam
*Bk1 - 9 to 29 inches:* silt loam
*Bk2 - 29 to 60 inches:* silt loam

#### Properties and qualities

*Slope:* 2 to 8 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Well drained
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 2.00 in/hr)
*Depth to water table:* More than 80 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Calcium carbonate, maximum content:* 30 percent
*Maximum salinity:* Very slightly saline to moderately saline (2.0 to 8.0 mmhos/cm)
*Sodium adsorption ratio, maximum:* 13.0
*Available water supply, 0 to 60 inches:* Moderate (about 7.9 inches)

#### Interpretive groups

*Land capability classification (irrigated):* 4e
*Land capability classification (nonirrigated):* 6c
*Hydrologic Soil Group:* B
*Ecological site:* R011XB001ID - Loamy 8-12 PZ
*Hydric soil rating:* No

### Minor Components

#### Playas

*Percent of map unit:* 1 percent
*Hydric soil rating:* Yes

## 87—Pancheri-Polatis complex, 2 to 12 percent slopes

### Map Unit Setting

*National map unit symbol:* 2n9x
*Elevation:* 4,500 to 5,400 feet
*Mean annual precipitation:* 9 to 11 inches
*Mean annual air temperature:* 43 to 45 degrees F
*Frost-free period:* 80 to 110 days
*Farmland classification:* Not prime farmland

**Map Unit Composition**

*Pancheri and similar soils:* 45 percent
*Polatis and similar soils:* 30 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Pancheri**

**Setting**

*Landform:* Lava plains
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Loess

**Typical profile**

*A - 0 to 4 inches:* silt loam
*Bw - 4 to 9 inches:* silt loam
*Bk1 - 9 to 29 inches:* silt loam
*Bk2 - 29 to 60 inches:* silt loam

**Properties and qualities**

*Slope:* 2 to 12 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Well drained
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 2.00 in/hr)
*Depth to water table:* More than 80 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Calcium carbonate, maximum content:* 30 percent
*Maximum salinity:* Very slightly saline to moderately saline (2.0 to 8.0 mmhos/cm)
*Sodium adsorption ratio, maximum:* 13.0
*Available water supply, 0 to 60 inches:* Moderate (about 7.9 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 4e
*Land capability classification (nonirrigated):* 6c
*Hydrologic Soil Group:* B
*Ecological site:* R011XB001ID - Loamy 8-12 PZ
*Hydric soil rating:* No

**Description of Polatis**

**Setting**

*Landform:* Lava plains
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Loess over bedrock derived from basalt

**Typical profile**

*A - 0 to 3 inches:* silt loam
*Bk1 - 3 to 26 inches:* silt loam
*Bk2 - 26 to 39 inches:* silt loam
*2R - 39 to 49 inches:* bedrock

**Properties and qualities**

*Slope:* 2 to 12 percent
*Depth to restrictive feature:* 20 to 40 inches to lithic bedrock

*Drainage class:* Well drained
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 2.00 in/hr)
*Depth to water table:* More than 80 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Calcium carbonate, maximum content:* 30 percent
*Maximum salinity:* Very slightly saline to slightly saline (2.0 to 4.0 mmhos/cm)
*Sodium adsorption ratio, maximum:* 5.0
*Available water supply, 0 to 60 inches:* Moderate (about 7.4 inches)

**Interpretive groups**
*Land capability classification (irrigated):* 4e
*Land capability classification (nonirrigated):* 6c
*Hydrologic Soil Group:* C
*Ecological site:* R011XB001ID - Loamy 8-12 PZ
*Hydric soil rating:* No

## 119—Splittop-Atomic complex, 0 to 8 percent slopes

**Map Unit Setting**
*National map unit symbol:* 2n4l
*Elevation:* 4,600 to 5,400 feet
*Mean annual precipitation:* 10 to 12 inches
*Mean annual air temperature:* 43 to 45 degrees F
*Frost-free period:* 80 to 90 days
*Farmland classification:* Prime farmland if irrigated

**Map Unit Composition**
*Splittop and similar soils:* 50 percent
*Atomic and similar soils:* 30 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Splittop**

**Setting**
*Landform:* Lava flows
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Eolian deposits derived from basalt over residuum weathered from basalt

**Typical profile**
*A - 0 to 3 inches:* loam
*Bw - 3 to 8 inches:* silt loam
*Bk1 - 8 to 26 inches:* silt loam
*Bk2 - 26 to 32 inches:* loam
*2R - 32 to 79 inches:* bedrock

**Properties and qualities**
*Slope:* 0 to 8 percent

*Depth to restrictive feature:* 20 to 40 inches to lithic bedrock
*Drainage class:* Well drained
*Capacity of the most limiting layer to transmit water (Ksat):* Low to moderately high (0.01 to 0.57 in/hr)
*Depth to water table:* More than 80 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Calcium carbonate, maximum content:* 30 percent
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
*Sodium adsorption ratio, maximum:* 3.0
*Available water supply, 0 to 60 inches:* Low (about 5.0 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 4e
*Land capability classification (nonirrigated):* 6c
*Hydrologic Soil Group:* C
*Ecological site:* R011XB001ID - Loamy 8-12 PZ
*Hydric soil rating:* No

**Description of Atomic**

**Setting**

*Landform:* Lava flows
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Loess influenced slope alluvium derived from basalt

**Typical profile**

*A - 0 to 15 inches:* loam
*Bkq - 15 to 34 inches:* silt loam
*Bk - 34 to 46 inches:* cobbly silt loam
*2R - 46 to 79 inches:* bedrock

**Properties and qualities**

*Slope:* 0 to 8 percent
*Depth to restrictive feature:* 40 to 60 inches to lithic bedrock
*Drainage class:* Well drained
*Capacity of the most limiting layer to transmit water (Ksat):* Low to moderately high (0.01 to 0.57 in/hr)
*Depth to water table:* More than 80 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Calcium carbonate, maximum content:* 40 percent
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
*Sodium adsorption ratio, maximum:* 3.0
*Available water supply, 0 to 60 inches:* Moderate (about 7.3 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 3e
*Land capability classification (nonirrigated):* 6c
*Hydrologic Soil Group:* C
*Ecological site:* R011XB001ID - Loamy 8-12 PZ
*Hydric soil rating:* No

# Idaho National Engineering Laboratory, Idaho

## 3-B—Atom silt loam, 2 to 8 percent slopes

### Map Unit Setting

*National map unit symbol:* 2n69
*Elevation:* 4,800 to 5,500 feet
*Mean annual precipitation:* 8 to 11 inches
*Mean annual air temperature:* 41 to 45 degrees F
*Frost-free period:* 80 to 115 days
*Farmland classification:* Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium

### Map Unit Composition

*Atom and similar soils:* 80 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Atom

#### Setting

*Landform:* Hillslopes
*Landform position (two-dimensional):* Backslope
*Landform position (three-dimensional):* Side slope
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Reworked eolian deposits

#### Typical profile

*A1 - 0 to 3 inches:* silt loam
*A2 - 3 to 10 inches:* silty clay loam
*Bkq - 10 to 29 inches:* silt loam
*Bk - 29 to 79 inches:* silt loam

#### Properties and qualities

*Slope:* 2 to 8 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Well drained
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high (0.21 to 0.71 in/hr)
*Depth to water table:* More than 80 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Calcium carbonate, maximum content:* 25 percent
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
*Available water supply, 0 to 60 inches:* High (about 10.2 inches)

#### Interpretive groups

*Land capability classification (irrigated):* 4e
*Land capability classification (nonirrigated):* 6c
*Hydrologic Soil Group:* C
*Ecological site:* R011XB001ID - Loamy 8-12 PZ
*Hydric soil rating:* No

## 61-B—Malm-Bondfarm-Matheson complex, 4 to 8 percent slopes

### Map Unit Setting

*National map unit symbol:* 2n90
*Elevation:* 4,800 to 5,500 feet
*Mean annual precipitation:* 8 to 11 inches
*Mean annual air temperature:* 41 to 45 degrees F
*Frost-free period:* 80 to 115 days
*Farmland classification:* Not prime farmland

### Map Unit Composition

*Malm and similar soils:* 60 percent
*Bondfarm and similar soils:* 20 percent
*Matheson and similar soils:* 15 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Malm

#### Setting

*Landform:* Lava flows
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Reworked eolian deposits over residuum weathered from basalt

#### Typical profile

*A - 0 to 10 inches:* fine sandy loam
*Bk1 - 10 to 32 inches:* fine sandy loam
*Bk2 - 32 to 38 inches:* gravelly fine sandy loam
*2R - 38 to 79 inches:* bedrock

#### Properties and qualities

*Slope:* 4 to 8 percent
*Depth to restrictive feature:* 20 to 39 inches to lithic bedrock
*Drainage class:* Well drained
*Capacity of the most limiting layer to transmit water (Ksat):* Low to moderately high (0.01 to 0.57 in/hr)
*Depth to water table:* More than 80 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Calcium carbonate, maximum content:* 30 percent
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
*Available water supply, 0 to 60 inches:* Low (about 4.6 inches)

#### Interpretive groups

*Land capability classification (irrigated):* 3e
*Land capability classification (nonirrigated):* 6c
*Hydrologic Soil Group:* B
*Ecological site:* R011XB001ID - Loamy 8-12 PZ
*Hydric soil rating:* No

### Description of Bondfarm

#### Setting

*Landform:* Lava flows
*Down-slope shape:* Convex
*Across-slope shape:* Convex
*Parent material:* Reworked eolian deposits over residuum weathered from basalt

#### Typical profile

*A - 0 to 2 inches:* cobbly fine sandy loam
*Bkq - 2 to 11 inches:* fine sandy loam
*R - 11 to 79 inches:* bedrock

#### Properties and qualities

*Slope:* 4 to 8 percent
*Depth to restrictive feature:* 10 to 20 inches to lithic bedrock
*Drainage class:* Well drained
*Capacity of the most limiting layer to transmit water (Ksat):* Low to moderately high (0.01 to 0.57 in/hr)
*Depth to water table:* More than 80 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Calcium carbonate, maximum content:* 25 percent
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
*Available water supply, 0 to 60 inches:* Very low (about 1.3 inches)

#### Interpretive groups

*Land capability classification (irrigated):* 4s
*Land capability classification (nonirrigated):* 7s
*Hydrologic Soil Group:* D
*Ecological site:* R011XB018ID - Shallow Sandy 8-12 PZ ARNO4/ACHY-HECOC8
*Hydric soil rating:* No

### Description of Matheson

#### Setting

*Landform:* Lava flows
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Reworked eolian deposits over residuum weathered from basalt

#### Typical profile

*A - 0 to 6 inches:* fine sandy loam
*Bk1 - 6 to 12 inches:* sandy loam
*Bk2 - 12 to 35 inches:* sandy loam
*Bk3 - 35 to 45 inches:* gravelly sandy loam
*R - 45 to 79 inches:* bedrock

#### Properties and qualities

*Slope:* 4 to 8 percent
*Depth to restrictive feature:* 39 to 59 inches to lithic bedrock
*Drainage class:* Well drained
*Capacity of the most limiting layer to transmit water (Ksat):* Low to moderately high (0.01 to 0.57 in/hr)
*Depth to water table:* More than 80 inches
*Frequency of flooding:* None
*Frequency of ponding:* None

*Calcium carbonate, maximum content:* 25 percent
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
*Available water supply, 0 to 60 inches:* Low (about 5.4 inches)

**Interpretive groups**
*Land capability classification (irrigated):* 3e
*Land capability classification (nonirrigated):* 6c
*Hydrologic Soil Group:* A
*Ecological site:* R011XA014ID - Sandy 8-14 PZ ARTRT/HECOC8-ACHY
*Hydric soil rating:* No

## 72-B—Menan silt loam, 0 to 2 percent slopes

**Map Unit Setting**
*National map unit symbol:* 2n9d
*Elevation:* 4,800 to 5,500 feet
*Mean annual precipitation:* 8 to 11 inches
*Mean annual air temperature:* 41 to 45 degrees F
*Frost-free period:* 80 to 115 days
*Farmland classification:* Prime farmland if irrigated

**Map Unit Composition**
*Menan and similar soils:* 90 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Menan**

**Setting**
*Landform:* Swales
*Down-slope shape:* Linear
*Across-slope shape:* Concave
*Parent material:* Slope alluvium

**Typical profile**
*A - 0 to 7 inches:* silt loam
*Bt - 7 to 33 inches:* silty clay loam
*Btk - 33 to 38 inches:* silty clay loam
*Bk - 38 to 60 inches:* silt loam

**Properties and qualities**
*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Well drained
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high (0.21 to 0.71 in/hr)
*Depth to water table:* More than 80 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Calcium carbonate, maximum content:* 25 percent
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

*Sodium adsorption ratio, maximum:* 3.0
*Available water supply, 0 to 60 inches:* High (about 10.6 inches)

**Interpretive groups**
*Land capability classification (irrigated):* 3c
*Land capability classification (nonirrigated):* 6c
*Hydrologic Soil Group:* C
*Ecological site:* R011XB019ID - Loamy 7-10 PZ ARTRW8/HECOC8-ACHY
*Hydric soil rating:* No

## 119-B—Splittop-Atomic complex, 0 to 8 percent slopes

**Map Unit Setting**
*National map unit symbol:* 2n4l
*Elevation:* 4,600 to 5,400 feet
*Mean annual precipitation:* 10 to 12 inches
*Mean annual air temperature:* 43 to 45 degrees F
*Frost-free period:* 80 to 90 days
*Farmland classification:* Prime farmland if irrigated

**Map Unit Composition**
*Splittop and similar soils:* 50 percent
*Atomic and similar soils:* 30 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Splittop**

**Setting**
*Landform:* Lava flows
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Eolian deposits derived from basalt over residuum weathered from basalt

**Typical profile**
*A - 0 to 3 inches:* loam
*Bw - 3 to 8 inches:* silt loam
*Bk1 - 8 to 26 inches:* silt loam
*Bk2 - 26 to 32 inches:* loam
*2R - 32 to 79 inches:* bedrock

**Properties and qualities**
*Slope:* 0 to 8 percent
*Depth to restrictive feature:* 20 to 40 inches to lithic bedrock
*Drainage class:* Well drained
*Capacity of the most limiting layer to transmit water (Ksat):* Low to moderately high (0.01 to 0.57 in/hr)
*Depth to water table:* More than 80 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Calcium carbonate, maximum content:* 30 percent
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

*Sodium adsorption ratio, maximum:* 3.0
*Available water supply, 0 to 60 inches:* Low (about 5.0 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 4e
*Land capability classification (nonirrigated):* 6c
*Hydrologic Soil Group:* C
*Ecological site:* R011XB001ID - Loamy 8-12 PZ
*Hydric soil rating:* No

**Description of Atomic**

**Setting**

*Landform:* Lava flows
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Loess influenced slope alluvium derived from basalt

**Typical profile**

*A - 0 to 15 inches:* loam
*Bkq - 15 to 34 inches:* silt loam
*Bk - 34 to 46 inches:* cobbly silt loam
*2R - 46 to 79 inches:* bedrock

**Properties and qualities**

*Slope:* 0 to 8 percent
*Depth to restrictive feature:* 40 to 60 inches to lithic bedrock
*Drainage class:* Well drained
*Capacity of the most limiting layer to transmit water (Ksat):* Low to moderately high (0.01 to 0.57 in/hr)
*Depth to water table:* More than 80 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Calcium carbonate, maximum content:* 40 percent
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
*Sodium adsorption ratio, maximum:* 3.0
*Available water supply, 0 to 60 inches:* Moderate (about 7.3 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 3e
*Land capability classification (nonirrigated):* 6c
*Hydrologic Soil Group:* C
*Ecological site:* R011XB001ID - Loamy 8-12 PZ
*Hydric soil rating:* No

# Jefferson County, Idaho

## 14—Bereniceton-Terreton-Aecet complex

### Map Unit Setting

*National map unit symbol:* 2t80
*Elevation:* 4,500 to 5,500 feet
*Mean annual precipitation:* 8 to 11 inches
*Mean annual air temperature:* 37 to 46 degrees F
*Frost-free period:* 80 to 115 days
*Farmland classification:* Farmland of statewide importance, if irrigated

### Map Unit Composition

*Bereniceton and similar soils:* 30 percent
*Terreton and similar soils:* 25 percent
*Aecet and similar soils:* 20 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Bereniceton

#### Setting

*Landform:* Hillslopes on lava plains
*Down-slope shape:* Concave
*Across-slope shape:* Linear
*Parent material:* Mixed alluvium and/or eolian deposits and/or lacustrine deposits over bedrock derived from basalt

#### Typical profile

*A - 0 to 3 inches:* silt loam
*Bk1 - 3 to 14 inches:* loam
*Bk2 - 14 to 46 inches:* clay loam
*R - 46 to 56 inches:* bedrock

#### Properties and qualities

*Slope:* 1 to 6 percent
*Depth to restrictive feature:* 40 to 60 inches to lithic bedrock
*Drainage class:* Well drained
*Capacity of the most limiting layer to transmit water (Ksat):* Low to moderately high (0.01 to 0.57 in/hr)
*Depth to water table:* More than 80 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Calcium carbonate, maximum content:* 40 percent
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
*Sodium adsorption ratio, maximum:* 5.0
*Available water supply, 0 to 60 inches:* Moderate (about 8.6 inches)

#### Interpretive groups

*Land capability classification (irrigated):* 4e
*Land capability classification (nonirrigated):* 6c
*Hydrologic Soil Group:* C
*Ecological site:* R011XB001ID - Loamy 8-12 PZ
*Hydric soil rating:* No

### Description of Terreton

#### Setting

*Landform:* Hillslopes on lava plains
*Down-slope shape:* Concave
*Across-slope shape:* Linear
*Parent material:* Lacustrine deposits

#### Typical profile

*Ap - 0 to 6 inches:* silt loam
*C1 - 6 to 31 inches:* clay
*C2 - 31 to 51 inches:* silty clay loam
*C3 - 51 to 60 inches:* clay

#### Properties and qualities

*Slope:* 1 to 6 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Well drained
*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately low (0.00 to 0.07 in/hr)
*Depth to water table:* More than 80 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Calcium carbonate, maximum content:* 15 percent
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
*Sodium adsorption ratio, maximum:* 5.0
*Available water supply, 0 to 60 inches:* High (about 10.3 inches)

#### Interpretive groups

*Land capability classification (irrigated):* 4e
*Land capability classification (nonirrigated):* 6c
*Hydrologic Soil Group:* C
*Ecological site:* R011XB001ID - Loamy 8-12 PZ
*Hydric soil rating:* No

### Description of Aecet

#### Setting

*Landform:* Ridges on lava plains
*Down-slope shape:* Convex
*Across-slope shape:* Linear
*Parent material:* Eolian deposits over bedrock derived from basalt

#### Typical profile

*A - 0 to 5 inches:* loam
*Bkn1 - 5 to 13 inches:* clay loam
*Bkn2 - 13 to 23 inches:* clay loam
*R - 23 to 79 inches:* bedrock

#### Properties and qualities

*Slope:* 1 to 6 percent
*Depth to restrictive feature:* 20 to 40 inches to lithic bedrock
*Drainage class:* Well drained
*Capacity of the most limiting layer to transmit water (Ksat):* Low to moderately high (0.01 to 0.57 in/hr)
*Depth to water table:* More than 80 inches
*Frequency of flooding:* None

*Frequency of ponding:* None
*Calcium carbonate, maximum content:* 25 percent
*Maximum salinity:* Very slightly saline to moderately saline (2.0 to 10.0 mmhos/cm)
*Sodium adsorption ratio, maximum:* 12.0
*Available water supply, 0 to 60 inches:* Low (about 3.4 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 3e
*Land capability classification (nonirrigated):* 6c
*Hydrologic Soil Group:* C
*Ecological site:* R011XB001ID - Loamy 8-12 PZ
*Hydric soil rating:* No

# Soil Information for All Uses

## Soil Properties and Qualities

The Soil Properties and Qualities section includes various soil properties and qualities displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each property or quality.

## Soil Qualities and Features

Soil qualities are behavior and performance attributes that are not directly measured, but are inferred from observations of dynamic conditions and from soil properties. Example soil qualities include natural drainage, and frost action. Soil features are attributes that are not directly part of the soil. Example soil features include slope and depth to restrictive layer. These features can greatly impact the use and management of the soil.

### Hydrologic Soil Group

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

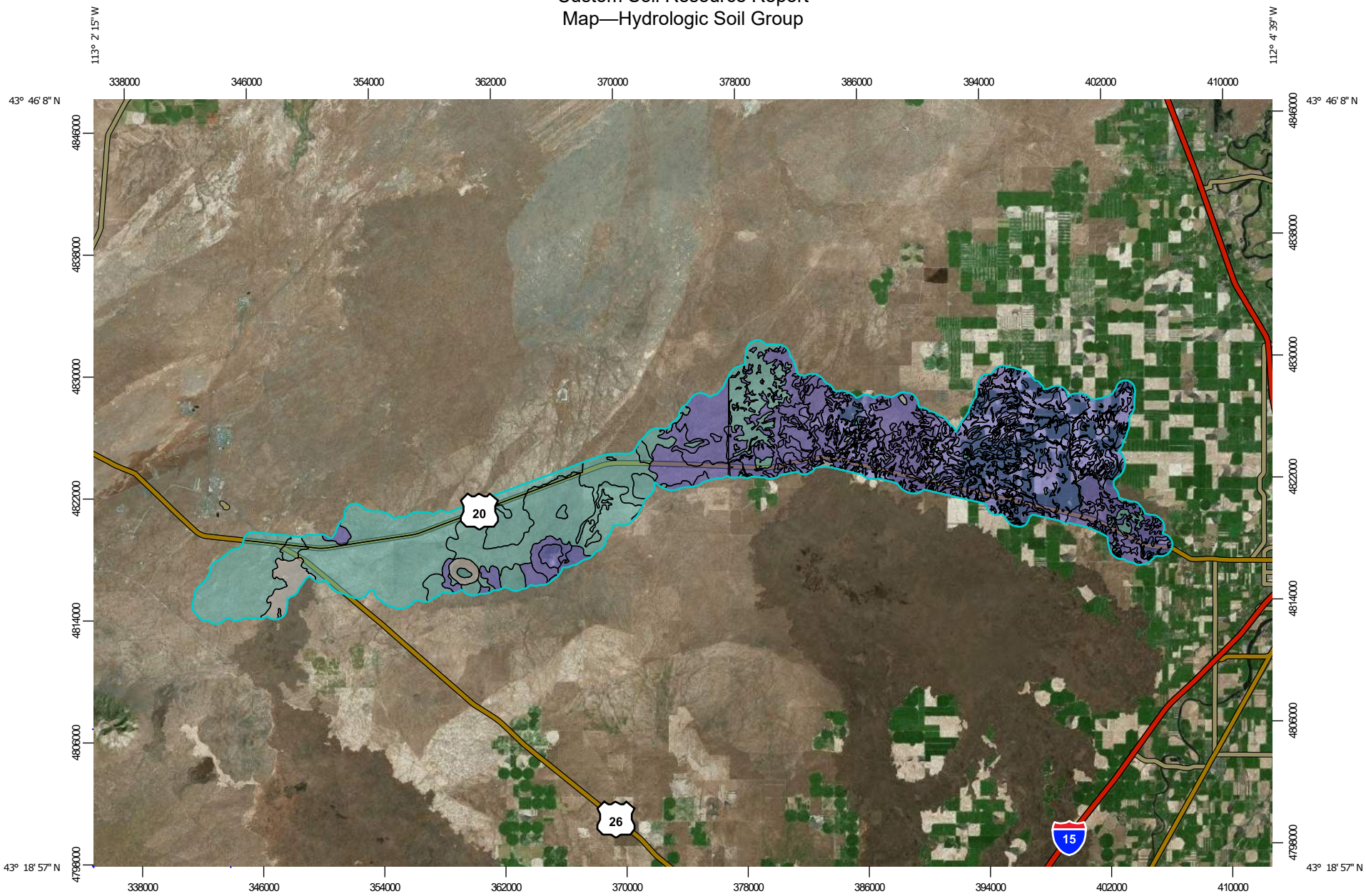
Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

## Map—Hydrologic Soil Group



## MAP LEGEND

**Area of Interest (AOI)**

- Area of Interest (AOI)

**Soils**

**Soil Rating Polygons**

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

**Soil Rating Lines**

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

**Soil Rating Points**

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

**Water Features**

- Streams and Canals

**Transportation**

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

**Background**

- Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Bonneville County Area, Idaho
Survey Area Data: Version 20, Aug 22, 2024

Soil Survey Area: Butte County Area, Idaho, Parts of Butte and Bingham Counties
Survey Area Data: Version 22, Aug 22, 2024

Soil Survey Area: Idaho National Engineering Laboratory, Idaho
Survey Area Data: Version 8, Aug 22, 2024

Soil Survey Area: Jefferson County, Idaho
Survey Area Data: Version 22, Aug 22, 2024

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

## MAP LEGEND

## MAP INFORMATION

Date(s) aerial images were photographed: Jan 1, 1999—Dec 31, 2003

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Table—Hydrologic Soil Group

| Map unit symbol | Map unit name | Rating | Acres in AOI | Percent of AOI |
|---|---|---|---|---|
| 5 | Badgerton variant sandy loam | A | 3.3 | 0.0% |
| 17 | Lava flows | | 213.7 | 0.2% |
| 20 | Packham gravelly loam | B | 3.4 | 0.0% |
| 22 | Pancheri silt loam, 0 to 2 percent slopes | B | 4,862.0 | 5.0% |
| 23 | Pancheri silt loam, 2 to 4 percent slopes | B | 22,090.4 | 22.8% |
| 24 | Pancheri silt loam, 4 to 8 percent slopes | B | 10,237.9 | 10.6% |
| 25 | Pancheri silt loam, 8 to 15 percent slopes | B | 305.0 | 0.3% |
| 26 | Pancheri-Rock outcrop complex, 2 to 25 percent slopes | B | 6,805.8 | 7.0% |
| 32 | Pits | | 15.3 | 0.0% |
| 33 | Polatis-Rock outcrop complex, 2 to 25 percent slopes | C | 5,796.7 | 6.0% |
| **Subtotals for Soil Survey Area** | | | **50,333.7** | **52.0%** |
| **Totals for Area of Interest** | | | **96,723.9** | **100.0%** |

| Map unit symbol | Map unit name | Rating | Acres in AOI | Percent of AOI |
|---|---|---|---|---|
| 3 | Atom silt loam, 2 to 8 percent slopes | C | 8,503.8 | 8.8% |
| 15 | Coffee-Nargon complex, 4 to 20 percent slopes | B | 1,516.3 | 1.6% |
| 16 | Coffee-Nargon-Atom complex, 2 to 12 percent slopes | C | 248.5 | 0.3% |
| 37 | Hondoho gravelly loam, 4 to 30 percent slopes | B | 780.4 | 0.8% |
| 56 | Lava flows | | 555.6 | 0.6% |
| 58 | Lava flows-Pingree complex, 0 to 8 percent slopes | | 1,471.4 | 1.5% |
| 72 | Menan silt loam, 0 to 2 percent slopes | C | 377.3 | 0.4% |
| 77 | Nargon-Deuce complex, 2 to 20 percent slopes | C | 2,223.0 | 2.3% |
| 82 | Calcids-Rubble land-Rock outcrop complex, 30 to 80 percent slopes | B | 456.9 | 0.5% |

| Map unit symbol | Map unit name | Rating | Acres in AOI | Percent of AOI |
|---|---|---|---|---|
| 86 | Pancheri silt loam, 2 to 8 percent slopes | B | 2,553.1 | 2.6% |
| 87 | Pancheri-Polatis complex, 2 to 12 percent slopes | B | 3,283.9 | 3.4% |
| 119 | Splittop-Atomic complex, 0 to 8 percent slopes | C | 19,068.6 | 19.7% |
| **Subtotals for Soil Survey Area** | | | **41,038.8** | **42.4%** |
| **Totals for Area of Interest** | | | **96,723.9** | **100.0%** |

| Map unit symbol | Map unit name | Rating | Acres in AOI | Percent of AOI |
|---|---|---|---|---|
| 3-B | Atom silt loam, 2 to 8 percent slopes | C | 147.4 | 0.2% |
| 61-B | Malm-Bondfarm-Matheson complex, 4 to 8 percent slopes | B | 300.8 | 0.3% |
| 72-B | Menan silt loam, 0 to 2 percent slopes | C | 158.6 | 0.2% |
| 119-B | Splittop-Atomic complex, 0 to 8 percent slopes | C | 4,743.6 | 4.9% |
| **Subtotals for Soil Survey Area** | | | **5,350.5** | **5.5%** |
| **Totals for Area of Interest** | | | **96,723.9** | **100.0%** |

| Map unit symbol | Map unit name | Rating | Acres in AOI | Percent of AOI |
|---|---|---|---|---|
| 14 | Bereniceton-Terreton-Aecet complex | C | 1.0 | 0.0% |
| **Subtotals for Soil Survey Area** | | | **1.0** | **0.0%** |
| **Totals for Area of Interest** | | | **96,723.9** | **100.0%** |

## Rating Options—Hydrologic Soil Group

*Aggregation Method:* Dominant Condition

*Component Percent Cutoff: None Specified*

*Tie-break Rule:* Higher

# References

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

National Research Council. 1995. Wetlands: Characteristics and boundaries.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_054262

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service, U.S. Department of Agriculture Handbook 436. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053577

Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053580

Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.

United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.

United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2_053374

United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf

**NOAA Atlas 14, Volume 12, Version 2**
**Location name: Blackfoot, Idaho, USA***
**Latitude: 43.5405°, Longitude: -112.526°**
**Elevation: 5298 ft****
* source: ESRI Maps
** source: USGS

**POINT PRECIPITATION FREQUENCY ESTIMATES**

Carl Trypaluk, Dale Unruh, Michael St.Laurent, Austin Jordan, Rama Sesha Sridhar Mantripragada, Sandra Pavlovic, Greg Fall, Fernando Salas

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

## PF tabular

**PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]**

| Duration | Average recurrence interval (years) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 5 | 10 | 25 | 50 | 100 | 200 | 500 | 1000 |
| 5-min | **0.134** (0.117-0.154) | **0.189** (0.165-0.218) | **0.273** (0.236-0.317) | **0.339** (0.290-0.397) | **0.425** (0.353-0.505) | **0.487** (0.393-0.584) | **0.544** (0.421-0.666) | **0.599** (0.442-0.757) | **0.665** (0.465-0.886) | **0.710** (0.488-0.990) |
| 10-min | **0.186** (0.162-0.214) | **0.262** (0.229-0.302) | **0.379** (0.327-0.440) | **0.471** (0.402-0.551) | **0.590** (0.489-0.700) | **0.675** (0.545-0.811) | **0.755** (0.584-0.924) | **0.831** (0.613-1.05) | **0.922** (0.645-1.23) | **0.985** (0.676-1.37) |
| 15-min | **0.217** (0.188-0.248) | **0.304** (0.266-0.351) | **0.440** (0.380-0.512) | **0.547** (0.467-0.640) | **0.685** (0.568-0.814) | **0.784** (0.633-0.942) | **0.877** (0.678-1.07) | **0.965** (0.712-1.22) | **1.07** (0.749-1.43) | **1.14** (0.786-1.60) |
| 30-min | **0.264** (0.229-0.303) | **0.370** (0.324-0.428) | **0.536** (0.463-0.623) | **0.667** (0.569-0.780) | **0.835** (0.693-0.992) | **0.956** (0.772-1.15) | **1.07** (0.826-1.31) | **1.18** (0.868-1.49) | **1.31** (0.913-1.74) | **1.40** (0.958-1.94) |
| 60-min | **0.316** (0.274-0.362) | **0.442** (0.386-0.510) | **0.638** (0.551-0.742) | **0.793** (0.677-0.928) | **0.992** (0.823-1.18) | **1.14** (0.916-1.36) | **1.27** (0.981-1.55) | **1.40** (1.03-1.77) | **1.55** (1.08-2.07) | **1.66** (1.14-2.31) |
| 2-hr | **0.407** (0.358-0.459) | **0.536** (0.474-0.611) | **0.738** (0.646-0.848) | **0.898** (0.777-1.04) | **1.11** (0.933-1.30) | **1.26** (1.03-1.50) | **1.40** (1.11-1.70) | **1.54** (1.17-1.94) | **1.71** (1.23-2.27) | **1.83** (1.29-2.54) |
| 3-hr | **0.474** (0.423-0.532) | **0.600** (0.536-0.678) | **0.800** (0.706-0.910) | **0.958** (0.836-1.10) | **1.17** (0.994-1.36) | **1.32** (1.10-1.56) | **1.47** (1.18-1.77) | **1.61** (1.24-2.02) | **1.79** (1.31-2.37) | **1.91** (1.38-2.66) |
| 6-hr | **0.602** (0.545-0.666) | **0.725** (0.656-0.805) | **0.922** (0.824-1.03) | **1.08** (0.956-1.22) | **1.29** (1.12-1.48) | **1.45** (1.24-1.69) | **1.60** (1.33-1.92) | **1.76** (1.42-2.18) | **1.95** (1.51-2.56) | **2.09** (1.59-2.88) |
| 12-hr | **0.749** (0.686-0.818) | **0.878** (0.802-0.961) | **1.09** (0.984-1.19) | **1.26** (1.13-1.39) | **1.49** (1.32-1.67) | **1.66** (1.45-1.89) | **1.83** (1.57-2.14) | **2.00** (1.69-2.42) | **2.23** (1.83-2.85) | **2.39** (1.92-3.22) |
| 24-hr | **0.906** (0.836-0.984) | **1.05** (0.965-1.14) | **1.28** (1.17-1.39) | **1.46** (1.33-1.60) | **1.72** (1.54-1.90) | **1.91** (1.70-2.14) | **2.10** (1.85-2.40) | **2.30** (2.00-2.72) | **2.55** (2.18-3.19) | **2.73** (2.30-3.59) |
| 2-day | **1.05** (0.969-1.14) | **1.21** (1.11-1.31) | **1.46** (1.33-1.58) | **1.66** (1.51-1.81) | **1.94** (1.75-2.14) | **2.14** (1.92-2.39) | **2.34** (2.08-2.68) | **2.54** (2.24-3.01) | **2.80** (2.42-3.51) | **2.98** (2.55-3.92) |
| 3-day | **1.14** (1.05-1.24) | **1.31** (1.20-1.42) | **1.58** (1.44-1.72) | **1.80** (1.63-1.96) | **2.09** (1.88-2.31) | **2.30** (2.06-2.58) | **2.51** (2.23-2.88) | **2.71** (2.39-3.22) | **2.96** (2.58-3.73) | **3.14** (2.71-4.16) |
| 4-day | **1.21** (1.12-1.32) | **1.40** (1.28-1.51) | **1.69** (1.54-1.83) | **1.92** (1.74-2.09) | **2.22** (2.00-2.46) | **2.45** (2.19-2.75) | **2.66** (2.37-3.06) | **2.87** (2.53-3.42) | **3.13** (2.72-3.95) | **3.32** (2.86-4.39) |
| 7-day | **1.39** (1.28-1.52) | **1.62** (1.48-1.76) | **1.97** (1.79-2.15) | **2.26** (2.03-2.47) | **2.63** (2.35-2.93) | **2.91** (2.58-3.29) | **3.18** (2.79-3.68) | **3.43** (2.99-4.13) | **3.76** (3.23-4.80) | **3.99** (3.39-5.34) |
| 10-day | **1.54** (1.42-1.69) | **1.80** (1.65-1.97) | **2.22** (2.00-2.42) | **2.55** (2.28-2.80) | **2.98** (2.65-3.33) | **3.31** (2.92-3.76) | **3.62** (3.16-4.22) | **3.93** (3.39-4.76) | **4.31** (3.67-5.54) | **4.58** (3.86-6.19) |
| 20-day | **2.00** (1.83-2.20) | **2.34** (2.14-2.56) | **2.88** (2.60-3.16) | **3.32** (2.97-3.66) | **3.89** (3.46-4.36) | **4.32** (3.80-4.93) | **4.73** (4.12-5.55) | **5.13** (4.42-6.26) | **5.63** (4.79-7.30) | **5.99** (5.04-8.16) |
| 30-day | **2.37** (2.16-2.60) | **2.77** (2.52-3.03) | **3.41** (3.07-3.73) | **3.91** (3.51-4.31) | **4.58** (4.07-5.14) | **5.08** (4.48-5.81) | **5.56** (4.85-6.53) | **6.02** (5.19-7.35) | **6.60** (5.62-8.56) | **7.01** (5.90-9.56) |
| 45-day | **2.87** (2.62-3.15) | **3.35** (3.04-3.66) | **4.10** (3.69-4.48) | **4.69** (4.20-5.17) | **5.48** (4.86-6.14) | **6.05** (5.33-6.92) | **6.60** (5.76-7.75) | **7.13** (6.16-8.70) | **7.78** (6.64-10.1) | **8.24** (6.98-11.2) |
| 60-day | **3.30** (3.02-3.63) | **3.84** (3.50-4.20) | **4.69** (4.22-5.13) | **5.36** (4.79-5.90) | **6.23** (5.53-6.99) | **6.86** (6.05-7.85) | **7.46** (6.52-8.77) | **8.04** (6.96-9.82) | **8.74** (7.49-11.3) | **9.24** (7.87-12.6) |

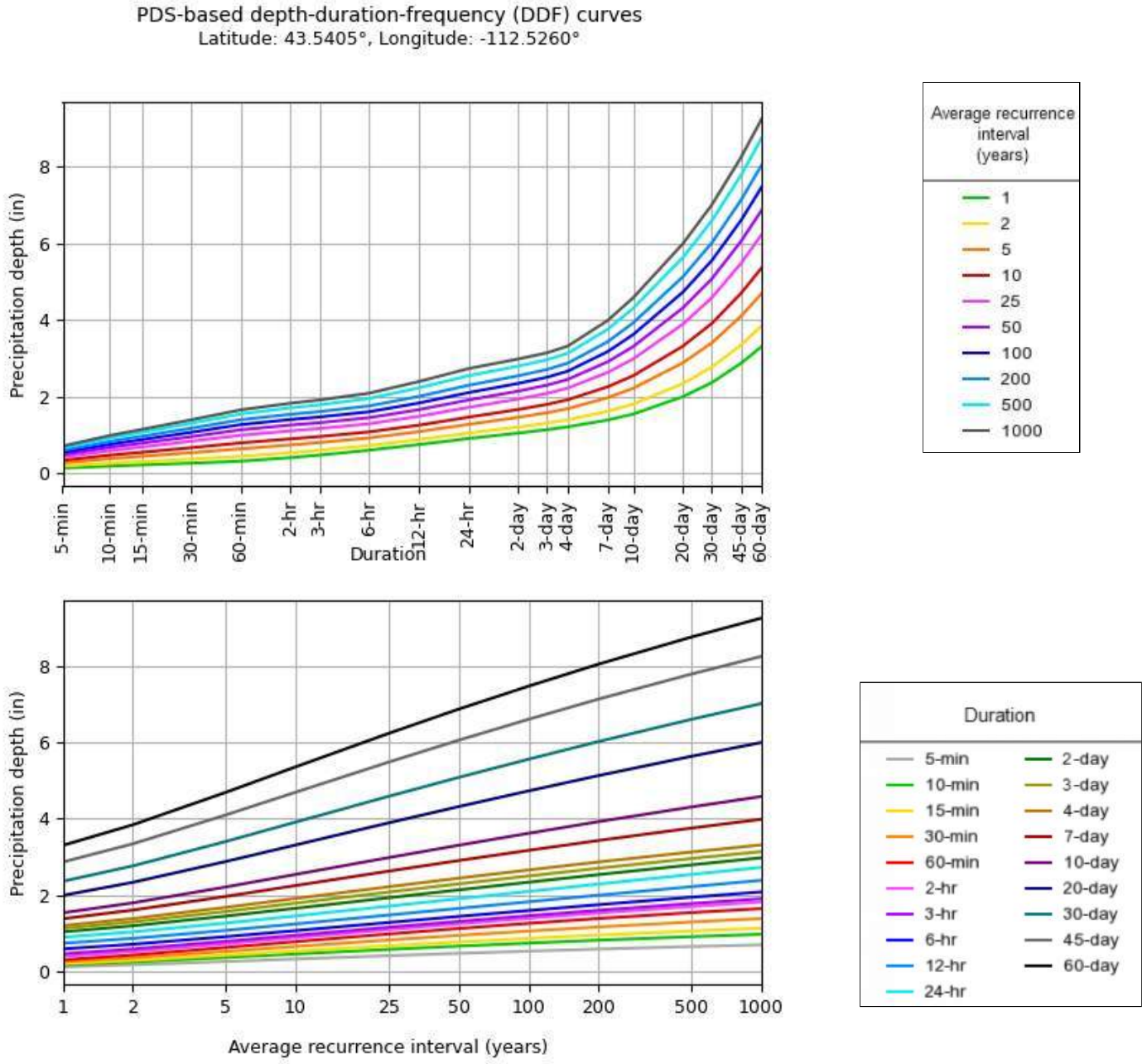
[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

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## PF graphical



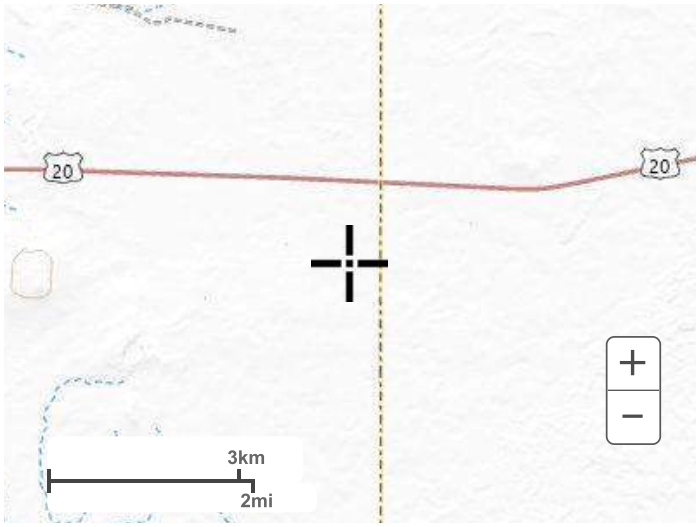

NOAA Atlas 14, Volume 12, Version 2

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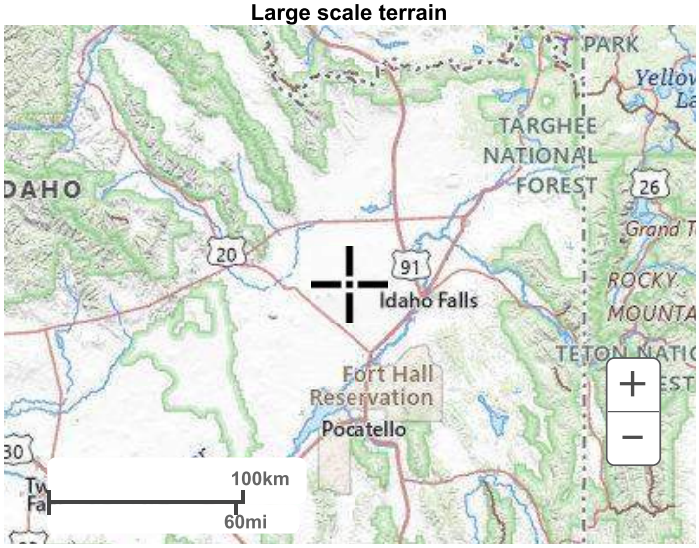
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## Maps & aerials

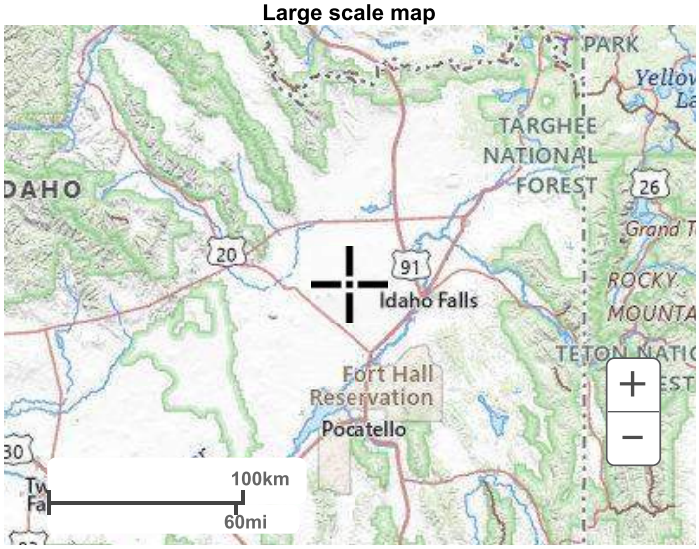
**Small scale terrain**



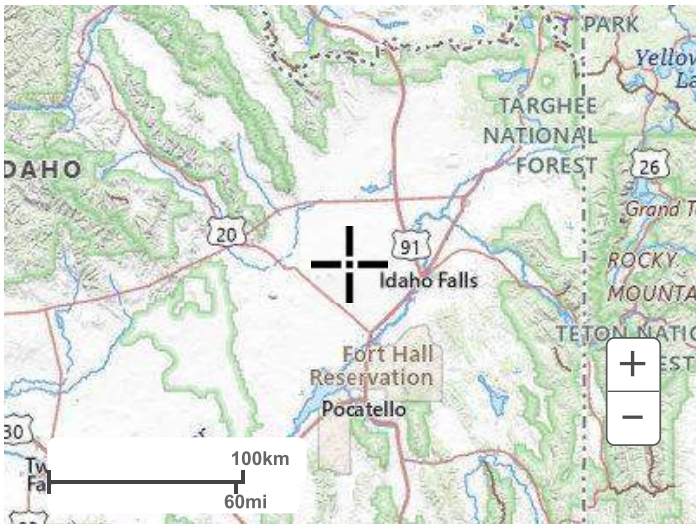

**Large scale terrain**




**Large scale map**




**Large scale aerial**




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Disclaimer

**ICM Subcatchment Output: 25-year Event**
**Project:** US-20, Arco to Idaho Falls (Key Nos. 23244 & 24149)
**Designer:** Austin Wissler, PE (OR), CFM
**Date:** 10/24/2025

DAVID EVANS AND ASSOCIATES INC.

| Subcatchment ID | Total Rainfall (in) | Max Rainfall (in/hr) | Effective rainfall (ft) | Contributing area (acre) | Curve number | Time of concentration, tc (minutes) | Time to peak factor | Time to peak, tp (minutes) | Base time, tb (minutes) | Max Total outflow ($ft^3/s$) | Max Infiltration to soil ($ft^3/s$) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 5800+35 | 1.72 | 1.96 | 0.13 | 2.76 | 78 | 17 | 0.67 | 11.33 | 56.67 | 1.55 | 3.75 |
| 5807+10 | 1.72 | 1.96 | 0.12 | 9.55 | 75 | 18 | 0.67 | 12.00 | 60.00 | 4.13 | 14.43 |
| 5829+25 | 1.72 | 1.96 | 0.12 | 27.06 | 74 | 37 | 0.67 | 24.67 | 123.33 | 7.16 | 42.20 |
| 5841+05 | 1.72 | 1.96 | 0.11 | 74.36 | 71 | 51 | 0.67 | 34.00 | 170.00 | 11.46 | 125.92 |
| 5854+65 | 1.72 | 1.96 | 0.08 | 95.32 | 63 | 77 | 0.67 | 51.33 | 256.67 | 2.96 | 187.66 |
| 5870+10 | 1.72 | 1.96 | 0.08 | 18.67 | 64 | 26 | 0.67 | 17.33 | 86.67 | 1.44 | 36.64 |
| 5878+25 | 1.72 | 1.96 | 0.07 | 11.53 | 62 | 30 | 0.67 | 20.00 | 100.00 | 0.48 | 22.73 |
| 5892+90 | 1.72 | 1.96 | 0.07 | 347.07 | 61 | 169 | 0.67 | 112.67 | 563.33 | 4.44 | 683.09 |
| 5910+20 | 1.72 | 1.96 | 0.07 | 16.35 | 62 | 58 | 0.67 | 38.67 | 193.33 | 0.47 | 32.21 |
| 5928+85 | 1.72 | 1.96 | 0.07 | 49.40 | 62 | 91 | 0.67 | 60.67 | 303.33 | 1.10 | 97.35 |
| 5932+60 | 1.72 | 1.96 | 0.08 | 12.21 | 63 | 29 | 0.67 | 19.33 | 96.67 | 0.69 | 24.03 |
| 5962+20 | 1.72 | 1.96 | 0.07 | 230.57 | 61 | 208 | 0.67 | 138.67 | 693.33 | 2.67 | 453.79 |
| 5964+80 | 1.72 | 1.96 | 0.07 | 12.34 | 62 | 38 | 0.67 | 25.33 | 126.67 | 0.45 | 24.32 |
| 5985+50 | 1.72 | 1.96 | 0.08 | 14.84 | 63 | 57 | 0.67 | 38.00 | 190.00 | 0.55 | 29.22 |
| 6017+95 | 1.72 | 1.96 | 0.09 | 11.28 | 67 | 38 | 0.67 | 25.33 | 126.67 | 1.21 | 20.91 |
| 6024+90 | 1.72 | 1.96 | 0.08 | 45.77 | 63 | 48 | 0.67 | 32.00 | 160.00 | 1.89 | 90.11 |
| 6039+80 | 1.72 | 1.96 | 0.09 | 5.18 | 66 | 34 | 0.67 | 22.67 | 113.33 | 0.51 | 9.80 |
| 6054+75 | 1.72 | 1.96 | 0.08 | 2805.23 | 63 | 712 | 0.67 | 474.67 | 2373.33 | 24.26 | 5523.03 |
| 6055+65 | 1.72 | 1.96 | 0.13 | 2.99 | 78 | 19 | 0.67 | 12.67 | 63.33 | 1.61 | 4.06 |
| 6066+80 | 1.72 | 1.96 | 0.12 | 26.35 | 76 | 17 | 0.67 | 11.33 | 56.67 | 12.70 | 38.54 |
| 6073+70 | 1.72 | 1.96 | 0.12 | 23.53 | 75 | 19 | 0.67 | 12.67 | 63.33 | 9.94 | 35.57 |
| 6091+75 | 1.72 | 1.96 | 0.08 | 10.33 | 64 | 35 | 0.67 | 23.33 | 116.67 | 0.66 | 20.27 |
| 6115+40 | 1.72 | 1.96 | 0.09 | 898.32 | 65 | 100 | 0.67 | 66.67 | 333.33 | 35.25 | 1731.37 |
| 6127+10 | 1.72 | 1.96 | 0.07 | 56.63 | 62 | 66 | 0.67 | 44.00 | 220.00 | 1.51 | 111.59 |
| 6137+20 | 1.72 | 1.96 | 0.07 | 33.44 | 62 | 54 | 0.67 | 36.00 | 180.00 | 1.00 | 65.89 |
| 6152+90 | 1.72 | 1.96 | 0.09 | 10.89 | 65 | 39 | 0.67 | 26.00 | 130.00 | 0.80 | 20.99 |
| 6168+25 | 1.72 | 1.96 | 0.08 | 18.12 | 63 | 18 | 0.67 | 12.00 | 60.00 | 1.37 | 35.67 |
| 6176+50 | 1.72 | 1.96 | 0.09 | 9002.89 | 65 | 800 | 0.67 | 533.33 | 2666.67 | 95.41 | 17351.77 |
| 6197+05 | 1.72 | 1.96 | 0.07 | 89.94 | 62 | 40 | 0.67 | 26.67 | 133.33 | 3.20 | 177.23 |
| 6218+30 | 1.72 | 1.96 | 0.08 | 3303.74 | 63 | 325 | 0.67 | 216.67 | 1083.33 | 44.43 | 6504.52 |
| 6230+10 | 1.72 | 1.96 | 0.07 | 20.63 | 62 | 39 | 0.67 | 26.00 | 130.00 | 0.74 | 40.65 |
| 6243+80 | 1.72 | 1.96 | 0.09 | 65.81 | 65 | 55 | 0.67 | 36.67 | 183.33 | 3.84 | 126.84 |
| 6253+05 | 1.72 | 1.96 | 0.07 | 15.26 | 61 | 38 | 0.67 | 25.33 | 126.67 | 0.41 | 30.04 |
| 6260+40 | 1.72 | 1.96 | 0.08 | 73.39 | 64 | 62 | 0.67 | 41.33 | 206.67 | 3.24 | 144.02 |
| 6275+65 | 1.72 | 1.96 | 0.08 | 27.99 | 64 | 23 | 0.67 | 15.33 | 76.67 | 2.34 | 54.93 |
| 6280+90 | 1.72 | 1.96 | 0.07 | 436.70 | 62 | 223 | 0.67 | 148.67 | 743.33 | 6.01 | 860.54 |
| 6296+80 | 1.72 | 1.96 | 0.08 | 11.98 | 63 | 37 | 0.67 | 24.67 | 123.33 | 0.58 | 23.59 |

**ICM Subcatchment Output: 25-year Event**
**Project:** US-20, Arco to Idaho Falls (Key Nos. 23244 & 24149)
**Designer:** Austin Wissler, PE (OR), CFM
**Date:** 10/24/2025

DAVID EVANS AND ASSOCIATES INC.

| Subcatchment ID | Total Rainfall (in) | Max Rainfall (in/hr) | Effective rainfall (ft) | Contributing area (acre) | Curve number | Time of concentration, tc (minutes) | Time to peak factor | Time to peak, tp (minutes) | Base time, tb (minutes) | Max Total outflow ($ft^3/s$) | Max Infiltration to soil ($ft^3/s$) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 6299+25 | 1.72 | 1.96 | 0.08 | 21.89 | 64 | 35 | 0.67 | 23.33 | 116.67 | 1.40 | 42.96 |
| 6311+25 | 1.72 | 1.96 | 0.12 | 9.29 | 74 | 24 | 0.67 | 16.00 | 80.00 | 3.19 | 14.48 |
| 6319+35 | 1.72 | 1.96 | 0.10 | 4.17 | 68 | 15 | 0.67 | 10.00 | 50.00 | 0.91 | 7.57 |
| 6320+75 | 1.72 | 1.96 | 0.09 | 142.58 | 65 | 87 | 0.67 | 58.00 | 290.00 | 6.14 | 274.81 |
| 6327+60 | 1.72 | 1.96 | 0.07 | 755.83 | 62 | 204 | 0.67 | 136.00 | 680.00 | 10.91 | 1489.40 |
| 6346+00 | 1.72 | 1.96 | 0.07 | 67.61 | 61 | 66 | 0.67 | 44.00 | 220.00 | 1.38 | 133.06 |
| 6352+00 | 1.72 | 1.96 | 0.07 | 29.79 | 62 | 46 | 0.67 | 30.67 | 153.33 | 0.98 | 58.70 |
| 6362+20 | 1.72 | 1.96 | 0.07 | 23.49 | 62 | 28 | 0.67 | 18.67 | 93.33 | 1.03 | 46.28 |
| 6390+70 | 1.72 | 1.96 | 0.09 | 9.07 | 66 | 49 | 0.67 | 32.67 | 163.33 | 0.69 | 17.16 |
| 6397+75 | 1.72 | 1.96 | 0.07 | 325.53 | 61 | 131 | 0.67 | 87.33 | 436.67 | 4.72 | 640.68 |
| 6411+75 | 1.72 | 1.96 | 0.07 | 76.25 | 62 | 65 | 0.67 | 43.33 | 216.67 | 2.06 | 150.25 |
| 6415+75 | 1.72 | 1.96 | 0.07 | 941.94 | 61 | 282 | 0.67 | 188.00 | 940.00 | 9.40 | 1853.87 |
| 6431+40 | 1.72 | 1.96 | 0.11 | 2213.92 | 71 | 364 | 0.67 | 242.67 | 1213.33 | 80.29 | 3749.31 |
| 6434+50 | 1.72 | 1.96 | 0.12 | 1.76 | 74 | 24 | 0.67 | 16.00 | 80.00 | 0.60 | 2.74 |
| 6448+10 | 1.72 | 1.96 | 0.11 | 21.13 | 73 | 46 | 0.67 | 30.67 | 153.33 | 4.37 | 33.93 |
| 6455+70 | 1.72 | 1.96 | 0.14 | 0.61 | 82 | 16 | 0.67 | 10.67 | 53.33 | 0.46 | 0.69 |
| 6459+90 | 1.72 | 1.96 | 0.12 | 64.45 | 75 | 105 | 0.67 | 70.00 | 350.00 | 8.89 | 97.43 |
| 6462+75 | 1.72 | 1.96 | 0.12 | 182.93 | 74 | 123 | 0.67 | 82.00 | 410.00 | 20.38 | 285.24 |
| 6499+15 | 1.72 | 1.96 | 0.10 | 17.84 | 68 | 34 | 0.67 | 22.67 | 113.33 | 2.43 | 32.40 |
| 6501+90 | 1.72 | 1.96 | 0.12 | 18.43 | 75 | 40 | 0.67 | 26.67 | 133.33 | 5.08 | 27.86 |
| 6507+15 | 1.72 | 1.96 | 0.12 | 14.83 | 76 | 42 | 0.67 | 28.00 | 140.00 | 4.32 | 21.68 |
| 6521+45 | 1.72 | 1.96 | 0.12 | 107.98 | 75 | 52 | 0.67 | 34.67 | 173.33 | 24.89 | 163.22 |
| 6529+30 | 1.72 | 1.96 | 0.12 | 52.56 | 74 | 68 | 0.67 | 45.33 | 226.67 | 9.10 | 81.96 |
| 6542+75 | 1.72 | 1.96 | 0.12 | 25.98 | 74 | 49 | 0.67 | 32.67 | 163.33 | 5.68 | 40.50 |
| 6579+80 | 1.72 | 1.96 | 0.12 | 0.87 | 75 | 18 | 0.67 | 12.00 | 60.00 | 0.38 | 1.32 |
| 6584+15 | 1.72 | 1.96 | 0.14 | 1.33 | 82 | 16 | 0.67 | 10.67 | 53.33 | 1.01 | 1.51 |
| 6591+75 | 1.72 | 1.96 | 0.12 | 4.24 | 75 | 25 | 0.67 | 16.67 | 83.33 | 1.56 | 6.41 |
| 6600+75 | 1.72 | 1.96 | 0.12 | 0.66 | 75 | 15 | 0.67 | 10.00 | 50.00 | 0.31 | 0.99 |
| 6618+20 | 1.72 | 1.96 | 0.12 | 86.15 | 75 | 62 | 0.67 | 41.33 | 206.67 | 17.53 | 130.23 |
| 6625+75 | 1.72 | 1.96 | 0.12 | 12.94 | 75 | 40 | 0.67 | 26.67 | 133.33 | 3.57 | 19.57 |
| 6636+40 | 1.72 | 1.96 | 0.12 | 17.66 | 74 | 25 | 0.67 | 16.67 | 83.33 | 5.93 | 27.53 |
| 6647+60 | 1.72 | 1.96 | 0.12 | 190.70 | 75 | 93 | 0.67 | 62.00 | 310.00 | 28.81 | 288.27 |
| 6651+25 | 1.72 | 1.96 | 0.10 | 2.83 | 69 | 22 | 0.67 | 14.67 | 73.33 | 0.58 | 5.02 |
| 6673+60 | 1.72 | 1.96 | 0.11 | 56.45 | 73 | 92 | 0.67 | 61.33 | 306.67 | 7.07 | 90.63 |
| 6683+90 | 1.72 | 1.96 | 0.12 | 1375.24 | 75 | 390 | 0.67 | 260.00 | 1300.00 | 69.96 | 2078.87 |
| 6689+60 | 1.72 | 1.96 | 0.12 | 20.42 | 75 | 50 | 0.67 | 33.33 | 166.67 | 4.84 | 30.87 |
| 6702+95 | 1.72 | 1.96 | 0.12 | 59.48 | 75 | 64 | 0.67 | 42.67 | 213.33 | 11.83 | 89.90 |

**ICM Subcatchment Output: 25-year Event**
**Project:** US-20, Arco to Idaho Falls (Key Nos. 23244 & 24149)
**Designer:** Austin Wissler, PE (OR), CFM
**Date:** 10/24/2025

DAVID EVANS AND ASSOCIATES INC.

| Subcatchment ID | Total Rainfall (in) | Max Rainfall (in/hr) | Effective rainfall (ft) | Contributing area (acre) | Curve number | Time of concentration, tc (minutes) | Time to peak factor | Time to peak, tp (minutes) | Base time, tb (minutes) | Max Total outflow ($ft^3/s$) | Max Infiltration to soil ($ft^3/s$) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 6718+85 | 1.72 | 1.96 | 0.12 | 2938.14 | 75 | 554 | 0.67 | 369.33 | 1846.67 | 114.54 | 4441.41 |
| 6742+80 | 1.72 | 1.96 | 0.12 | 2.63 | 74 | 20 | 0.67 | 13.33 | 66.67 | 0.99 | 4.10 |
| 6749+95 | 1.72 | 1.96 | 0.12 | 11815.63 | 74 | 862 | 0.67 | 574.67 | 2873.33 | 303.32 | 18424.03 |
| 6767+30 | 1.72 | 1.96 | 0.09 | 13.71 | 65 | 38 | 0.67 | 25.33 | 126.67 | 1.02 | 26.43 |
| 6786+00 | 1.72 | 1.96 | 0.09 | 9.00 | 65 | 36 | 0.67 | 24.00 | 120.00 | 0.70 | 17.34 |
| 6798+25 | 1.72 | 1.96 | 0.09 | 15.46 | 67 | 19 | 0.67 | 12.67 | 63.33 | 2.58 | 28.66 |
| 6803+55 | 1.72 | 1.96 | 0.10 | 2.30 | 69 | 29 | 0.67 | 19.33 | 96.67 | 0.40 | 4.08 |
| 6810+65 | 1.72 | 1.96 | 0.07 | 435.08 | 62 | 117 | 0.67 | 78.00 | 390.00 | 8.47 | 857.34 |
| 6818+35 | 1.72 | 1.96 | 0.07 | 9.82 | 62 | 32 | 0.67 | 21.33 | 106.67 | 0.40 | 19.35 |
| 6832+85 | 1.72 | 1.96 | 0.08 | 70.19 | 64 | 21 | 0.67 | 14.00 | 70.00 | 6.21 | 137.75 |
| 6838+10 | 1.72 | 1.96 | 0.09 | 15.13 | 67 | 22 | 0.67 | 14.67 | 73.33 | 2.32 | 28.05 |
| 6845+65 | 1.72 | 1.96 | 0.09 | 243.39 | 67 | 66 | 0.67 | 44.00 | 220.00 | 17.86 | 451.27 |
| 6858+25 | 1.72 | 1.96 | 0.10 | 11.45 | 68 | 20 | 0.67 | 13.33 | 66.67 | 2.17 | 20.80 |
| 6864+05 | 1.72 | 1.96 | 0.08 | 12.24 | 64 | 33 | 0.67 | 22.00 | 110.00 | 0.81 | 24.01 |
| 6879+70 | 1.72 | 1.96 | 0.09 | 10.71 | 67 | 37 | 0.67 | 24.67 | 123.33 | 1.17 | 19.85 |
| 6886+10 | 1.72 | 1.96 | 0.11 | 103.05 | 71 | 59 | 0.67 | 39.33 | 196.67 | 14.31 | 174.52 |
| 6891+70 | 1.72 | 1.96 | 0.08 | 5.45 | 63 | 26 | 0.67 | 17.33 | 86.67 | 0.33 | 10.72 |
| 6906+15 | 1.72 | 1.96 | 0.08 | 19.14 | 63 | 34 | 0.67 | 22.67 | 113.33 | 0.98 | 37.69 |
| 6909+55 | 1.72 | 1.96 | 0.07 | 253.71 | 62 | 111 | 0.67 | 74.00 | 370.00 | 5.08 | 499.94 |
| 6917+25 | 1.72 | 1.96 | 0.11 | 1.65 | 73 | 17 | 0.67 | 11.33 | 56.67 | 0.61 | 2.65 |
| 6924+05 | 1.72 | 1.96 | 0.10 | 141.42 | 69 | 59 | 0.67 | 39.33 | 196.67 | 15.16 | 251.19 |
| 6945+15 | 1.72 | 1.96 | 0.09 | 646.65 | 65 | 216 | 0.67 | 144.00 | 720.00 | 15.44 | 1246.33 |
| 6951+30 | 1.72 | 1.96 | 0.12 | 13.99 | 75 | 43 | 0.67 | 28.67 | 143.33 | 3.68 | 21.15 |
| 6960+85 | 1.72 | 1.96 | 0.12 | 12.21 | 75 | 34 | 0.67 | 22.67 | 113.33 | 3.74 | 18.46 |

**ICM Subcatchment Output: 25-year Event, Snowmelt Analysis**
**Project:** US-20, Arco to Idaho Falls (Key Nos. 23244 & 24149)
**Designer:** Austin Wissler, PE (OR), CFM
**Date:** 10/24/2025

DAVID EVANS AND ASSOCIATES INC.

| Subcatchment ID | Total Rainfall (in) | Max Rainfall (in/hr) | Effective rainfall (ft) | Contributing area (acre) | Curve number | Time of concentration, tc (minutes) | Time to peak factor | Time to peak, tp (minutes) | Base time, tb (minutes) | Max Total outflow ($ft^3/s$) | Max Infiltration to soil ($ft^3/s$) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 5800+35 | 2.15 | 2.47 | 0.17 | 2.76 | 78 | 17 | 0.67 | 11.33 | 56.67 | 2.36 | 4.22 |
| 5807+10 | 2.15 | 2.47 | 0.16 | 9.55 | 75 | 18 | 0.67 | 12.00 | 60.00 | 6.57 | 16.44 |
| 5829+25 | 2.15 | 2.47 | 0.15 | 27.06 | 74 | 37 | 0.67 | 24.67 | 123.33 | 11.70 | 48.24 |
| 5841+05 | 2.15 | 2.47 | 0.14 | 74.36 | 71 | 51 | 0.67 | 34.00 | 170.00 | 20.28 | 145.37 |
| 5854+65 | 2.15 | 2.47 | 0.11 | 95.32 | 63 | 77 | 0.67 | 51.33 | 256.67 | 7.64 | 224.28 |
| 5870+10 | 2.15 | 2.47 | 0.12 | 18.67 | 64 | 26 | 0.67 | 17.33 | 86.67 | 3.64 | 43.08 |
| 5878+25 | 2.15 | 2.47 | 0.11 | 11.53 | 62 | 30 | 0.67 | 20.00 | 100.00 | 1.49 | 27.65 |
| 5892+90 | 2.15 | 2.47 | 0.11 | 347.07 | 61 | 169 | 0.67 | 112.67 | 563.33 | 12.15 | 846.96 |
| 5910+20 | 2.15 | 2.47 | 0.11 | 16.35 | 62 | 58 | 0.67 | 38.67 | 193.33 | 1.36 | 39.19 |
| 5928+85 | 2.15 | 2.47 | 0.11 | 49.40 | 62 | 91 | 0.67 | 60.67 | 303.33 | 3.03 | 118.42 |
| 5932+60 | 2.15 | 2.47 | 0.11 | 12.21 | 63 | 29 | 0.67 | 19.33 | 96.67 | 1.91 | 28.72 |
| 5962+20 | 2.15 | 2.47 | 0.11 | 230.57 | 61 | 208 | 0.67 | 138.67 | 693.33 | 7.08 | 562.66 |
| 5964+80 | 2.15 | 2.47 | 0.11 | 12.34 | 62 | 38 | 0.67 | 25.33 | 126.67 | 1.37 | 29.58 |
| 5985+50 | 2.15 | 2.47 | 0.11 | 14.84 | 63 | 57 | 0.67 | 38.00 | 190.00 | 1.47 | 34.92 |
| 6017+95 | 2.15 | 2.47 | 0.13 | 11.28 | 67 | 38 | 0.67 | 25.33 | 126.67 | 2.52 | 24.41 |
| 6024+90 | 2.15 | 2.47 | 0.11 | 45.77 | 63 | 48 | 0.67 | 32.00 | 160.00 | 5.09 | 107.69 |
| 6039+80 | 2.15 | 2.47 | 0.13 | 5.18 | 66 | 34 | 0.67 | 22.67 | 113.33 | 1.11 | 11.47 |
| 6054+75 | 2.15 | 2.47 | 0.11 | 2805.23 | 63 | 712 | 0.67 | 474.67 | 2373.33 | 51.02 | 6600.83 |
| 6055+65 | 2.15 | 2.47 | 0.17 | 2.99 | 78 | 19 | 0.67 | 12.67 | 63.33 | 2.44 | 4.58 |
| 6066+80 | 2.15 | 2.47 | 0.16 | 26.35 | 76 | 17 | 0.67 | 11.33 | 56.67 | 19.84 | 43.74 |
| 6073+70 | 2.15 | 2.47 | 0.16 | 23.53 | 75 | 19 | 0.67 | 12.67 | 63.33 | 15.81 | 40.52 |
| 6091+75 | 2.15 | 2.47 | 0.12 | 10.33 | 64 | 35 | 0.67 | 23.33 | 116.67 | 1.66 | 23.84 |
| 6115+40 | 2.15 | 2.47 | 0.12 | 898.32 | 65 | 100 | 0.67 | 66.67 | 333.33 | 78.82 | 2031.27 |
| 6127+10 | 2.15 | 2.47 | 0.11 | 56.63 | 62 | 66 | 0.67 | 44.00 | 220.00 | 4.32 | 135.76 |
| 6137+20 | 2.15 | 2.47 | 0.11 | 33.44 | 62 | 54 | 0.67 | 36.00 | 180.00 | 2.92 | 80.16 |
| 6152+90 | 2.15 | 2.47 | 0.12 | 10.89 | 65 | 39 | 0.67 | 26.00 | 130.00 | 1.87 | 24.63 |
| 6168+25 | 2.15 | 2.47 | 0.11 | 18.12 | 63 | 18 | 0.67 | 12.00 | 60.00 | 3.78 | 42.63 |
| 6176+50 | 2.15 | 2.47 | 0.12 | 9002.89 | 65 | 800 | 0.67 | 533.33 | 2666.67 | 186.21 | 20357.36 |
| 6197+05 | 2.15 | 2.47 | 0.11 | 89.94 | 62 | 40 | 0.67 | 26.67 | 133.33 | 9.61 | 215.61 |
| 6218+30 | 2.15 | 2.47 | 0.11 | 3303.74 | 63 | 325 | 0.67 | 216.67 | 1083.33 | 99.87 | 7773.84 |
| 6230+10 | 2.15 | 2.47 | 0.11 | 20.63 | 62 | 39 | 0.67 | 26.00 | 130.00 | 2.24 | 49.45 |
| 6243+80 | 2.15 | 2.47 | 0.12 | 65.81 | 65 | 55 | 0.67 | 36.67 | 183.33 | 8.86 | 148.81 |
| 6253+05 | 2.15 | 2.47 | 0.11 | 15.26 | 61 | 38 | 0.67 | 25.33 | 126.67 | 1.41 | 37.25 |
| 6260+40 | 2.15 | 2.47 | 0.12 | 73.39 | 64 | 62 | 0.67 | 41.33 | 206.67 | 7.92 | 169.36 |
| 6275+65 | 2.15 | 2.47 | 0.12 | 27.99 | 64 | 23 | 0.67 | 15.33 | 76.67 | 5.90 | 64.60 |
| 6280+90 | 2.15 | 2.47 | 0.11 | 436.70 | 62 | 223 | 0.67 | 148.67 | 743.33 | 14.81 | 1046.87 |
| 6296+80 | 2.15 | 2.47 | 0.11 | 11.98 | 63 | 37 | 0.67 | 24.67 | 123.33 | 1.59 | 28.19 |

**ICM Subcatchment Output: 25-year Event, Snowmelt Analysis**
**Project:** US-20, Arco to Idaho Falls (Key Nos. 23244 & 24149)
**Designer:** Austin Wissler, PE (OR), CFM
**Date:** 10/24/2025

DAVID EVANS AND ASSOCIATES INC.

| Subcatchment ID | Total Rainfall (in) | Max Rainfall (in/hr) | Effective rainfall (ft) | Contributing area (acre) | Curve number | Time of concentration, tc (minutes) | Time to peak factor | Time to peak, tp (minutes) | Base time, tb (minutes) | Max Total outflow ($ft^3/s$) | Max Infiltration to soil ($ft^3/s$) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 6299+25 | 2.15 | 2.47 | 0.12 | 21.89 | 64 | 35 | 0.67 | 23.33 | 116.67 | 3.51 | 50.52 |
| 6311+25 | 2.15 | 2.47 | 0.15 | 9.29 | 74 | 24 | 0.67 | 16.00 | 80.00 | 5.19 | 16.56 |
| 6319+35 | 2.15 | 2.47 | 0.13 | 4.17 | 68 | 15 | 0.67 | 10.00 | 50.00 | 1.75 | 8.81 |
| 6320+75 | 2.15 | 2.47 | 0.12 | 142.58 | 65 | 87 | 0.67 | 58.00 | 290.00 | 13.83 | 322.41 |
| 6327+60 | 2.15 | 2.47 | 0.11 | 755.83 | 62 | 204 | 0.67 | 136.00 | 680.00 | 27.16 | 1811.90 |
| 6346+00 | 2.15 | 2.47 | 0.11 | 67.61 | 61 | 66 | 0.67 | 44.00 | 220.00 | 4.34 | 164.98 |
| 6352+00 | 2.15 | 2.47 | 0.11 | 29.79 | 62 | 46 | 0.67 | 30.67 | 153.33 | 2.90 | 71.42 |
| 6362+20 | 2.15 | 2.47 | 0.11 | 23.49 | 62 | 28 | 0.67 | 18.67 | 93.33 | 3.19 | 56.30 |
| 6390+70 | 2.15 | 2.47 | 0.13 | 9.07 | 66 | 49 | 0.67 | 32.67 | 163.33 | 1.51 | 20.08 |
| 6397+75 | 2.15 | 2.47 | 0.11 | 325.53 | 61 | 131 | 0.67 | 87.33 | 436.67 | 13.39 | 794.39 |
| 6411+75 | 2.15 | 2.47 | 0.11 | 76.25 | 62 | 65 | 0.67 | 43.33 | 216.67 | 5.87 | 182.78 |
| 6415+75 | 2.15 | 2.47 | 0.11 | 941.94 | 61 | 282 | 0.67 | 188.00 | 940.00 | 23.95 | 2298.63 |
| 6431+40 | 2.15 | 2.47 | 0.14 | 2213.92 | 71 | 364 | 0.67 | 242.67 | 1213.33 | 138.76 | 4328.44 |
| 6434+50 | 2.15 | 2.47 | 0.15 | 1.76 | 74 | 24 | 0.67 | 16.00 | 80.00 | 0.98 | 3.13 |
| 6448+10 | 2.15 | 2.47 | 0.15 | 21.13 | 73 | 46 | 0.67 | 30.67 | 153.33 | 7.32 | 38.92 |
| 6455+70 | 2.15 | 2.47 | 0.18 | 0.61 | 82 | 16 | 0.67 | 10.67 | 53.33 | 0.67 | 0.77 |
| 6459+90 | 2.15 | 2.47 | 0.16 | 64.45 | 75 | 105 | 0.67 | 70.00 | 350.00 | 14.26 | 111.00 |
| 6462+75 | 2.15 | 2.47 | 0.15 | 182.93 | 74 | 123 | 0.67 | 82.00 | 410.00 | 33.36 | 326.12 |
| 6499+15 | 2.15 | 2.47 | 0.13 | 17.84 | 68 | 34 | 0.67 | 22.67 | 113.33 | 4.80 | 37.73 |
| 6501+90 | 2.15 | 2.47 | 0.16 | 18.43 | 75 | 40 | 0.67 | 26.67 | 133.33 | 8.14 | 31.74 |
| 6507+15 | 2.15 | 2.47 | 0.16 | 14.83 | 76 | 42 | 0.67 | 28.00 | 140.00 | 6.80 | 24.61 |
| 6521+45 | 2.15 | 2.47 | 0.16 | 107.98 | 75 | 52 | 0.67 | 34.67 | 173.33 | 39.91 | 185.96 |
| 6529+30 | 2.15 | 2.47 | 0.15 | 52.56 | 74 | 68 | 0.67 | 45.33 | 226.67 | 14.91 | 93.71 |
| 6542+75 | 2.15 | 2.47 | 0.15 | 25.98 | 74 | 49 | 0.67 | 32.67 | 163.33 | 9.30 | 46.31 |
| 6579+80 | 2.15 | 2.47 | 0.16 | 0.87 | 75 | 18 | 0.67 | 12.00 | 60.00 | 0.60 | 1.50 |
| 6584+15 | 2.15 | 2.47 | 0.18 | 1.33 | 82 | 16 | 0.67 | 10.67 | 53.33 | 1.45 | 1.67 |
| 6591+75 | 2.15 | 2.47 | 0.16 | 4.24 | 75 | 25 | 0.67 | 16.67 | 83.33 | 2.49 | 7.31 |
| 6600+75 | 2.15 | 2.47 | 0.16 | 0.66 | 75 | 15 | 0.67 | 10.00 | 50.00 | 0.48 | 1.13 |
| 6618+20 | 2.15 | 2.47 | 0.16 | 86.15 | 75 | 62 | 0.67 | 41.33 | 206.67 | 28.12 | 148.37 |
| 6625+75 | 2.15 | 2.47 | 0.16 | 12.94 | 75 | 40 | 0.67 | 26.67 | 133.33 | 5.72 | 22.29 |
| 6636+40 | 2.15 | 2.47 | 0.15 | 17.66 | 74 | 25 | 0.67 | 16.67 | 83.33 | 9.65 | 31.48 |
| 6647+60 | 2.15 | 2.47 | 0.16 | 190.70 | 75 | 93 | 0.67 | 62.00 | 310.00 | 46.22 | 328.43 |
| 6651+25 | 2.15 | 2.47 | 0.14 | 2.83 | 69 | 22 | 0.67 | 14.67 | 73.33 | 1.09 | 5.83 |
| 6673+60 | 2.15 | 2.47 | 0.15 | 56.45 | 73 | 92 | 0.67 | 61.33 | 306.67 | 11.85 | 103.97 |
| 6683+90 | 2.15 | 2.47 | 0.16 | 1375.24 | 75 | 390 | 0.67 | 260.00 | 1300.00 | 111.55 | 2368.46 |
| 6689+60 | 2.15 | 2.47 | 0.16 | 20.42 | 75 | 50 | 0.67 | 33.33 | 166.67 | 7.76 | 35.17 |
| 6702+95 | 2.15 | 2.47 | 0.16 | 59.48 | 75 | 64 | 0.67 | 42.67 | 213.33 | 18.97 | 102.43 |

**ICM Subcatchment Output: 25-year Event, Snowmelt Analysis**
**Project:** US-20, Arco to Idaho Falls (Key Nos. 23244 & 24149)
**Designer:** Austin Wissler, PE (OR), CFM
**Date:** 10/24/2025

DAVID EVANS AND ASSOCIATES INC.

| Subcatchment ID | Total Rainfall (in) | Max Rainfall (in/hr) | Effective rainfall (ft) | Contributing area (acre) | Curve number | Time of concentration, tc (minutes) | Time to peak factor | Time to peak, tp (minutes) | Base time, tb (minutes) | Max Total outflow ($ft^3/s$) | Max Infiltration to soil ($ft^3/s$) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 6718+85 | 2.15 | 2.47 | 0.16 | 2938.14 | 75 | 554 | 0.67 | 369.33 | 1846.67 | 181.88 | 5060.10 |
| 6742+80 | 2.15 | 2.47 | 0.15 | 2.63 | 74 | 20 | 0.67 | 13.33 | 66.67 | 1.61 | 4.69 |
| 6749+95 | 2.15 | 2.47 | 0.15 | 11815.63 | 74 | 862 | 0.67 | 574.67 | 2873.33 | 485.89 | 21064.73 |
| 6767+30 | 2.15 | 2.47 | 0.12 | 13.71 | 65 | 38 | 0.67 | 25.33 | 126.67 | 2.39 | 31.01 |
| 6786+00 | 2.15 | 2.47 | 0.12 | 9.00 | 65 | 36 | 0.67 | 24.00 | 120.00 | 1.63 | 20.35 |
| 6798+25 | 2.15 | 2.47 | 0.13 | 15.46 | 67 | 19 | 0.67 | 12.67 | 63.33 | 5.26 | 33.46 |
| 6803+55 | 2.15 | 2.47 | 0.14 | 2.30 | 69 | 29 | 0.67 | 19.33 | 96.67 | 0.76 | 4.74 |
| 6810+65 | 2.15 | 2.47 | 0.11 | 435.08 | 62 | 117 | 0.67 | 78.00 | 390.00 | 22.53 | 1042.98 |
| 6818+35 | 2.15 | 2.47 | 0.11 | 9.82 | 62 | 32 | 0.67 | 21.33 | 106.67 | 1.22 | 23.54 |
| 6832+85 | 2.15 | 2.47 | 0.12 | 70.19 | 64 | 21 | 0.67 | 14.00 | 70.00 | 15.60 | 161.99 |
| 6838+10 | 2.15 | 2.47 | 0.13 | 15.13 | 67 | 22 | 0.67 | 14.67 | 73.33 | 4.77 | 32.75 |
| 6845+65 | 2.15 | 2.47 | 0.13 | 243.39 | 67 | 66 | 0.67 | 44.00 | 220.00 | 36.82 | 526.82 |
| 6858+25 | 2.15 | 2.47 | 0.13 | 11.45 | 68 | 20 | 0.67 | 13.33 | 66.67 | 4.22 | 24.22 |
| 6864+05 | 2.15 | 2.47 | 0.12 | 12.24 | 64 | 33 | 0.67 | 22.00 | 110.00 | 2.04 | 28.24 |
| 6879+70 | 2.15 | 2.47 | 0.13 | 10.71 | 67 | 37 | 0.67 | 24.67 | 123.33 | 2.44 | 23.18 |
| 6886+10 | 2.15 | 2.47 | 0.14 | 103.05 | 71 | 59 | 0.67 | 39.33 | 196.67 | 25.34 | 201.47 |
| 6891+70 | 2.15 | 2.47 | 0.11 | 5.45 | 63 | 26 | 0.67 | 17.33 | 86.67 | 0.91 | 12.81 |
| 6906+15 | 2.15 | 2.47 | 0.11 | 19.14 | 63 | 34 | 0.67 | 22.67 | 113.33 | 2.69 | 45.05 |
| 6909+55 | 2.15 | 2.47 | 0.11 | 253.71 | 62 | 111 | 0.67 | 74.00 | 370.00 | 13.61 | 608.19 |
| 6917+25 | 2.15 | 2.47 | 0.15 | 1.65 | 73 | 17 | 0.67 | 11.33 | 56.67 | 1.01 | 3.04 |
| 6924+05 | 2.15 | 2.47 | 0.14 | 141.42 | 69 | 59 | 0.67 | 39.33 | 196.67 | 28.79 | 291.68 |
| 6945+15 | 2.15 | 2.47 | 0.12 | 646.65 | 65 | 216 | 0.67 | 144.00 | 720.00 | 32.80 | 1462.21 |
| 6951+30 | 2.15 | 2.47 | 0.16 | 13.99 | 75 | 43 | 0.67 | 28.67 | 143.33 | 5.89 | 24.10 |
| 6960+85 | 2.15 | 2.47 | 0.16 | 12.21 | 75 | 34 | 0.67 | 22.67 | 113.33 | 5.99 | 21.03 |

**ICM Subcatchment Output: 100-year Event**
**Project:** US-20, Arco to Idaho Falls (Key Nos. 23244 & 24149)
**Designer:** Austin Wissler, PE (OR), CFM
**Date:** 10/24/2025

DAVID EVANS AND ASSOCIATES INC.

| Subcatchment ID | Total Rainfall (in) | Max Rainfall (in/hr) | Effective rainfall (ft) | Contributing area (acre) | Curve number | Time of concentration, tc (minutes) | Time to peak factor | Time to peak, tp (minutes) | Base time, tb (minutes) | Max Total outflow ($ft^3/s$) | Max Infiltration to soil ($ft^3/s$) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 5800+35 | 2.10 | 2.40 | 0.16 | 2.76 | 78 | 17 | 0.67 | 10.00 | 50.00 | 2.24 | 4.17 |
| 5807+10 | 2.10 | 2.40 | 0.15 | 9.55 | 75 | 18 | 0.67 | 17.33 | 86.67 | 6.22 | 16.20 |
| 5829+25 | 2.10 | 2.40 | 0.15 | 27.06 | 74 | 37 | 0.67 | 12.00 | 60.00 | 11.05 | 47.51 |
| 5841+05 | 2.10 | 2.40 | 0.14 | 74.36 | 71 | 51 | 0.67 | 21.33 | 106.67 | 19.00 | 142.98 |
| 5854+65 | 2.10 | 2.40 | 0.11 | 95.32 | 63 | 77 | 0.67 | 19.33 | 96.67 | 6.90 | 220.01 |
| 5870+10 | 2.10 | 2.40 | 0.11 | 18.67 | 64 | 26 | 0.67 | 25.33 | 126.67 | 3.30 | 42.27 |
| 5878+25 | 2.10 | 2.40 | 0.11 | 11.53 | 62 | 30 | 0.67 | 25.33 | 126.67 | 1.33 | 27.11 |
| 5892+90 | 2.10 | 2.40 | 0.10 | 347.07 | 61 | 169 | 0.67 | 10.67 | 53.33 | 10.91 | 830.36 |
| 5910+20 | 2.10 | 2.40 | 0.11 | 16.35 | 62 | 58 | 0.67 | 38.67 | 193.33 | 1.22 | 38.43 |
| 5928+85 | 2.10 | 2.40 | 0.11 | 49.40 | 62 | 91 | 0.67 | 20.00 | 100.00 | 2.72 | 116.13 |
| 5932+60 | 2.10 | 2.40 | 0.11 | 12.21 | 63 | 29 | 0.67 | 22.67 | 113.33 | 1.72 | 28.17 |
| 5962+20 | 2.10 | 2.40 | 0.10 | 230.57 | 61 | 208 | 0.67 | 38.00 | 190.00 | 6.37 | 551.63 |
| 5964+80 | 2.10 | 2.40 | 0.11 | 12.34 | 62 | 38 | 0.67 | 24.67 | 123.33 | 1.22 | 29.01 |
| 5985+50 | 2.10 | 2.40 | 0.11 | 14.84 | 63 | 57 | 0.67 | 14.67 | 73.33 | 1.32 | 34.26 |
| 6017+95 | 2.10 | 2.40 | 0.13 | 11.28 | 67 | 38 | 0.67 | 16.00 | 80.00 | 2.33 | 23.97 |
| 6024+90 | 2.10 | 2.40 | 0.11 | 45.77 | 63 | 48 | 0.67 | 11.33 | 56.67 | 4.58 | 105.64 |
| 6039+80 | 2.10 | 2.40 | 0.12 | 5.18 | 66 | 34 | 0.67 | 23.33 | 116.67 | 1.02 | 11.26 |
| 6054+75 | 2.10 | 2.40 | 0.11 | 2805.23 | 63 | 712 | 0.67 | 19.33 | 96.67 | 46.94 | 6475.02 |
| 6055+65 | 2.10 | 2.40 | 0.16 | 2.99 | 78 | 19 | 0.67 | 32.67 | 163.33 | 2.32 | 4.52 |
| 6066+80 | 2.10 | 2.40 | 0.15 | 26.35 | 76 | 17 | 0.67 | 24.00 | 120.00 | 18.83 | 43.12 |
| 6073+70 | 2.10 | 2.40 | 0.15 | 23.53 | 75 | 19 | 0.67 | 26.00 | 130.00 | 14.98 | 39.92 |
| 6091+75 | 2.10 | 2.40 | 0.11 | 10.33 | 64 | 35 | 0.67 | 26.00 | 130.00 | 1.50 | 23.39 |
| 6115+40 | 2.10 | 2.40 | 0.12 | 898.32 | 65 | 100 | 0.67 | 22.00 | 110.00 | 72.13 | 1993.75 |
| 6127+10 | 2.10 | 2.40 | 0.11 | 56.63 | 62 | 66 | 0.67 | 10.00 | 50.00 | 3.86 | 133.13 |
| 6137+20 | 2.10 | 2.40 | 0.11 | 33.44 | 62 | 54 | 0.67 | 30.67 | 153.33 | 2.61 | 78.61 |
| 6152+90 | 2.10 | 2.40 | 0.12 | 10.89 | 65 | 39 | 0.67 | 22.67 | 113.33 | 1.70 | 24.17 |
| 6168+25 | 2.10 | 2.40 | 0.11 | 18.12 | 63 | 18 | 0.67 | 13.33 | 66.67 | 3.41 | 41.82 |
| 6176+50 | 2.10 | 2.40 | 0.12 | 9002.89 | 65 | 800 | 0.67 | 36.00 | 180.00 | 172.61 | 19981.31 |
| 6197+05 | 2.10 | 2.40 | 0.11 | 89.94 | 62 | 40 | 0.67 | 10.67 | 53.33 | 8.57 | 211.44 |
| 6218+30 | 2.10 | 2.40 | 0.11 | 3303.74 | 63 | 325 | 0.67 | 25.33 | 126.67 | 91.29 | 7625.68 |
| 6230+10 | 2.10 | 2.40 | 0.11 | 20.63 | 62 | 39 | 0.67 | 18.67 | 93.33 | 2.00 | 48.49 |
| 6243+80 | 2.10 | 2.40 | 0.12 | 65.81 | 65 | 55 | 0.67 | 60.67 | 303.33 | 8.09 | 146.06 |
| 6253+05 | 2.10 | 2.40 | 0.10 | 15.26 | 61 | 38 | 0.67 | 24.67 | 123.33 | 1.24 | 36.52 |
| 6260+40 | 2.10 | 2.40 | 0.11 | 73.39 | 64 | 62 | 0.67 | 25.33 | 126.67 | 7.19 | 166.18 |
| 6275+65 | 2.10 | 2.40 | 0.11 | 27.99 | 64 | 23 | 0.67 | 12.00 | 60.00 | 5.35 | 63.39 |
| 6280+90 | 2.10 | 2.40 | 0.11 | 436.70 | 62 | 223 | 0.67 | 44.00 | 220.00 | 13.42 | 1026.63 |
| 6296+80 | 2.10 | 2.40 | 0.11 | 11.98 | 63 | 37 | 0.67 | 23.33 | 116.67 | 1.43 | 27.65 |

**ICM Subcatchment Output: 100-year Event**
**Project:** US-20, Arco to Idaho Falls (Key Nos. 23244 & 24149)
**Designer:** Austin Wissler, PE (OR), CFM
**Date:** 10/24/2025

DAVID EVANS AND ASSOCIATES INC.

| Subcatchment ID | Total Rainfall (in) | Max Rainfall (in/hr) | Effective rainfall (ft) | Contributing area (acre) | Curve number | Time of concentration, tc (minutes) | Time to peak factor | Time to peak, tp (minutes) | Base time, tb (minutes) | Max Total outflow ($ft^3/s$) | Max Infiltration to soil ($ft^3/s$) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 6299+25 | 2.10 | 2.40 | 0.11 | 21.89 | 64 | 35 | 0.67 | 17.33 | 86.67 | 3.18 | 49.57 |
| 6311+25 | 2.10 | 2.40 | 0.15 | 9.29 | 74 | 24 | 0.67 | 44.00 | 220.00 | 4.90 | 16.30 |
| 6319+35 | 2.10 | 2.40 | 0.13 | 4.17 | 68 | 15 | 0.67 | 11.33 | 56.67 | 1.63 | 8.66 |
| 6320+75 | 2.10 | 2.40 | 0.12 | 142.58 | 65 | 87 | 0.67 | 16.67 | 83.33 | 12.65 | 316.45 |
| 6327+60 | 2.10 | 2.40 | 0.11 | 755.83 | 62 | 204 | 0.67 | 12.67 | 63.33 | 24.59 | 1776.86 |
| 6346+00 | 2.10 | 2.40 | 0.10 | 67.61 | 61 | 66 | 0.67 | 32.00 | 160.00 | 3.85 | 161.74 |
| 6352+00 | 2.10 | 2.40 | 0.11 | 29.79 | 62 | 46 | 0.67 | 43.33 | 216.67 | 2.59 | 70.04 |
| 6362+20 | 2.10 | 2.40 | 0.11 | 23.49 | 62 | 28 | 0.67 | 13.33 | 66.67 | 2.84 | 55.21 |
| 6390+70 | 2.10 | 2.40 | 0.12 | 9.07 | 66 | 49 | 0.67 | 14.67 | 73.33 | 1.38 | 19.72 |
| 6397+75 | 2.10 | 2.40 | 0.10 | 325.53 | 61 | 131 | 0.67 | 15.33 | 76.67 | 11.98 | 778.81 |
| 6411+75 | 2.10 | 2.40 | 0.11 | 76.25 | 62 | 65 | 0.67 | 22.67 | 113.33 | 5.26 | 179.25 |
| 6415+75 | 2.10 | 2.40 | 0.10 | 941.94 | 61 | 282 | 0.67 | 12.67 | 63.33 | 21.63 | 2253.56 |
| 6431+40 | 2.10 | 2.40 | 0.14 | 2213.92 | 71 | 364 | 0.67 | 138.67 | 693.33 | 130.25 | 4257.36 |
| 6434+50 | 2.10 | 2.40 | 0.15 | 1.76 | 74 | 24 | 0.67 | 51.33 | 256.67 | 0.93 | 3.08 |
| 6448+10 | 2.10 | 2.40 | 0.15 | 21.13 | 73 | 46 | 0.67 | 16.00 | 80.00 | 6.89 | 38.31 |
| 6455+70 | 2.10 | 2.40 | 0.17 | 0.61 | 82 | 16 | 0.67 | 26.67 | 133.33 | 0.64 | 0.76 |
| 6459+90 | 2.10 | 2.40 | 0.15 | 64.45 | 75 | 105 | 0.67 | 41.33 | 206.67 | 13.50 | 109.36 |
| 6462+75 | 2.10 | 2.40 | 0.15 | 182.93 | 74 | 123 | 0.67 | 26.67 | 133.33 | 31.50 | 321.17 |
| 6499+15 | 2.10 | 2.40 | 0.13 | 17.84 | 68 | 34 | 0.67 | 28.67 | 143.33 | 4.45 | 37.07 |
| 6501+90 | 2.10 | 2.40 | 0.15 | 18.43 | 75 | 40 | 0.67 | 22.67 | 113.33 | 7.71 | 31.27 |
| 6507+15 | 2.10 | 2.40 | 0.15 | 14.83 | 76 | 42 | 0.67 | 36.67 | 183.33 | 6.45 | 24.26 |
| 6521+45 | 2.10 | 2.40 | 0.15 | 107.98 | 75 | 52 | 0.67 | 12.00 | 60.00 | 37.77 | 183.21 |
| 6529+30 | 2.10 | 2.40 | 0.15 | 52.56 | 74 | 68 | 0.67 | 28.00 | 140.00 | 14.08 | 92.29 |
| 6542+75 | 2.10 | 2.40 | 0.15 | 25.98 | 74 | 49 | 0.67 | 30.67 | 153.33 | 8.78 | 45.61 |
| 6579+80 | 2.10 | 2.40 | 0.15 | 0.87 | 75 | 18 | 0.67 | 112.67 | 563.33 | 0.57 | 1.48 |
| 6584+15 | 2.10 | 2.40 | 0.17 | 1.33 | 82 | 16 | 0.67 | 87.33 | 436.67 | 1.39 | 1.65 |
| 6591+75 | 2.10 | 2.40 | 0.15 | 4.24 | 75 | 25 | 0.67 | 33.33 | 166.67 | 2.36 | 7.20 |
| 6600+75 | 2.10 | 2.40 | 0.15 | 0.66 | 75 | 15 | 0.67 | 74.00 | 370.00 | 0.46 | 1.11 |
| 6618+20 | 2.10 | 2.40 | 0.15 | 86.15 | 75 | 62 | 0.67 | 26.67 | 133.33 | 26.61 | 146.18 |
| 6625+75 | 2.10 | 2.40 | 0.15 | 12.94 | 75 | 40 | 0.67 | 32.67 | 163.33 | 5.41 | 21.96 |
| 6636+40 | 2.10 | 2.40 | 0.15 | 17.66 | 74 | 25 | 0.67 | 16.67 | 83.33 | 9.12 | 31.00 |
| 6647+60 | 2.10 | 2.40 | 0.15 | 190.70 | 75 | 93 | 0.67 | 148.67 | 743.33 | 43.73 | 323.58 |
| 6651+25 | 2.10 | 2.40 | 0.13 | 2.83 | 69 | 22 | 0.67 | 58.00 | 290.00 | 1.02 | 5.73 |
| 6673+60 | 2.10 | 2.40 | 0.15 | 56.45 | 73 | 92 | 0.67 | 14.00 | 70.00 | 11.16 | 102.35 |
| 6683+90 | 2.10 | 2.40 | 0.15 | 1375.24 | 75 | 390 | 0.67 | 61.33 | 306.67 | 105.62 | 2333.53 |
| 6689+60 | 2.10 | 2.40 | 0.15 | 20.42 | 75 | 50 | 0.67 | 24.67 | 123.33 | 7.34 | 34.65 |
| 6702+95 | 2.10 | 2.40 | 0.15 | 59.48 | 75 | 64 | 0.67 | 78.00 | 390.00 | 17.95 | 100.92 |

**ICM Subcatchment Output: 100-year Event**
**Project:** US-20, Arco to Idaho Falls (Key Nos. 23244 & 24149)
**Designer:** Austin Wissler, PE (OR), CFM
**Date:** 10/24/2025

DAVID EVANS AND ASSOCIATES INC.

| Subcatchment ID | Total Rainfall (in) | Max Rainfall (in/hr) | Effective rainfall (ft) | Contributing area (acre) | Curve number | Time of concentration, tc (minutes) | Time to peak factor | Time to peak, tp (minutes) | Base time, tb (minutes) | Max Total outflow ($ft^3/s$) | Max Infiltration to soil ($ft^3/s$) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 6718+85 | 2.10 | 2.40 | 0.15 | 2938.14 | 75 | 554 | 0.67 | 70.00 | 350.00 | 172.28 | 4985.48 |
| 6742+80 | 2.10 | 2.40 | 0.15 | 2.63 | 74 | 20 | 0.67 | 45.33 | 226.67 | 1.52 | 4.62 |
| 6749+95 | 2.10 | 2.40 | 0.15 | 11815.63 | 74 | 862 | 0.67 | 188.00 | 940.00 | 459.80 | 20744.65 |
| 6767+30 | 2.10 | 2.40 | 0.12 | 13.71 | 65 | 38 | 0.67 | 12.67 | 63.33 | 2.18 | 30.44 |
| 6786+00 | 2.10 | 2.40 | 0.12 | 9.00 | 65 | 36 | 0.67 | 136.00 | 680.00 | 1.49 | 19.97 |
| 6798+25 | 2.10 | 2.40 | 0.13 | 15.46 | 67 | 19 | 0.67 | 34.00 | 170.00 | 4.86 | 32.86 |
| 6803+55 | 2.10 | 2.40 | 0.13 | 2.30 | 69 | 29 | 0.67 | 42.67 | 213.33 | 0.71 | 4.66 |
| 6810+65 | 2.10 | 2.40 | 0.11 | 435.08 | 62 | 117 | 0.67 | 11.33 | 56.67 | 20.28 | 1022.81 |
| 6818+35 | 2.10 | 2.40 | 0.11 | 9.82 | 62 | 32 | 0.67 | 39.33 | 196.67 | 1.09 | 23.09 |
| 6832+85 | 2.10 | 2.40 | 0.11 | 70.19 | 64 | 21 | 0.67 | 39.33 | 196.67 | 14.16 | 158.95 |
| 6838+10 | 2.10 | 2.40 | 0.13 | 15.13 | 67 | 22 | 0.67 | 144.00 | 720.00 | 4.41 | 32.17 |
| 6845+65 | 2.10 | 2.40 | 0.13 | 243.39 | 67 | 66 | 0.67 | 41.33 | 206.67 | 33.97 | 517.42 |
| 6858+25 | 2.10 | 2.40 | 0.13 | 11.45 | 68 | 20 | 0.67 | 44.00 | 220.00 | 3.92 | 23.79 |
| 6864+05 | 2.10 | 2.40 | 0.11 | 12.24 | 64 | 33 | 0.67 | 82.00 | 410.00 | 1.85 | 27.71 |
| 6879+70 | 2.10 | 2.40 | 0.13 | 10.71 | 67 | 37 | 0.67 | 474.67 | 2373.33 | 2.25 | 22.76 |
| 6886+10 | 2.10 | 2.40 | 0.14 | 103.05 | 71 | 59 | 0.67 | 34.67 | 173.33 | 23.75 | 198.16 |
| 6891+70 | 2.10 | 2.40 | 0.11 | 5.45 | 63 | 26 | 0.67 | 62.00 | 310.00 | 0.82 | 12.57 |
| 6906+15 | 2.10 | 2.40 | 0.11 | 19.14 | 63 | 34 | 0.67 | 66.67 | 333.33 | 2.42 | 44.19 |
| 6909+55 | 2.10 | 2.40 | 0.11 | 253.71 | 62 | 111 | 0.67 | 216.67 | 1083.33 | 12.24 | 596.43 |
| 6917+25 | 2.10 | 2.40 | 0.15 | 1.65 | 73 | 17 | 0.67 | 260.00 | 1300.00 | 0.95 | 2.99 |
| 6924+05 | 2.10 | 2.40 | 0.13 | 141.42 | 69 | 59 | 0.67 | 242.67 | 1213.33 | 26.79 | 286.67 |
| 6945+15 | 2.10 | 2.40 | 0.12 | 646.65 | 65 | 216 | 0.67 | 533.33 | 2666.67 | 30.15 | 1435.20 |
| 6951+30 | 2.10 | 2.40 | 0.15 | 13.99 | 75 | 43 | 0.67 | 369.33 | 1846.67 | 5.58 | 23.74 |
| 6960+85 | 2.10 | 2.40 | 0.15 | 12.21 | 75 | 34 | 0.67 | 574.67 | 2873.33 | 5.67 | 20.72 |

**ICM Subcatchment Output: 100-year Event, Snowmelt Analysis**
**Project:** US-20, Arco to Idaho Falls (Key Nos. 23244 & 24149)
**Designer:** Austin Wissler, PE (OR), CFM
**Date:** 10/24/2025

DAVID EVANS AND ASSOCIATES INC.

| Subcatchment ID | Total Rainfall (in) | Max Rainfall (in/hr) | Effective rainfall (ft) | Contributing area (acre) | Curve number | Time of concentration, tc (minutes) | Time to peak factor | Time to peak, tp (minutes) | Base time, tb (minutes) | Max Total outflow ($ft^3/s$) | Max Infiltration to soil ($ft^3/s$) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 5800+35 | 2.63 | 3.02 | 0.21 | 2.76 | 78 | 17 | 0.67 | 10.00 | 50.00 | 3.32 | 4.17 |
| 5807+10 | 2.63 | 3.02 | 0.20 | 9.55 | 75 | 18 | 0.67 | 17.33 | 86.67 | 9.58 | 16.20 |
| 5829+25 | 2.63 | 3.02 | 0.19 | 27.06 | 74 | 37 | 0.67 | 12.00 | 60.00 | 17.37 | 47.51 |
| 5841+05 | 2.63 | 3.02 | 0.18 | 74.36 | 71 | 51 | 0.67 | 21.33 | 106.67 | 31.63 | 142.98 |
| 5854+65 | 2.63 | 3.02 | 0.15 | 95.32 | 63 | 77 | 0.67 | 19.33 | 96.67 | 14.82 | 220.01 |
| 5870+10 | 2.63 | 3.02 | 0.16 | 18.67 | 64 | 26 | 0.67 | 25.33 | 126.67 | 6.84 | 42.27 |
| 5878+25 | 2.63 | 3.02 | 0.15 | 11.53 | 62 | 30 | 0.67 | 25.33 | 126.67 | 3.09 | 27.11 |
| 5892+90 | 2.63 | 3.02 | 0.15 | 347.07 | 61 | 169 | 0.67 | 10.67 | 53.33 | 24.44 | 830.36 |
| 5910+20 | 2.63 | 3.02 | 0.15 | 16.35 | 62 | 58 | 0.67 | 38.67 | 193.33 | 2.78 | 38.43 |
| 5928+85 | 2.63 | 3.02 | 0.15 | 49.40 | 62 | 91 | 0.67 | 20.00 | 100.00 | 6.07 | 116.13 |
| 5932+60 | 2.63 | 3.02 | 0.15 | 12.21 | 63 | 29 | 0.67 | 22.67 | 113.33 | 3.75 | 28.17 |
| 5962+20 | 2.63 | 3.02 | 0.15 | 230.57 | 61 | 208 | 0.67 | 38.00 | 190.00 | 14.05 | 551.63 |
| 5964+80 | 2.63 | 3.02 | 0.15 | 12.34 | 62 | 38 | 0.67 | 24.67 | 123.33 | 2.82 | 29.01 |
| 5985+50 | 2.63 | 3.02 | 0.15 | 14.84 | 63 | 57 | 0.67 | 14.67 | 73.33 | 2.87 | 34.26 |
| 6017+95 | 2.63 | 3.02 | 0.17 | 11.28 | 67 | 38 | 0.67 | 16.00 | 80.00 | 4.30 | 23.97 |
| 6024+90 | 2.63 | 3.02 | 0.15 | 45.77 | 63 | 48 | 0.67 | 11.33 | 56.67 | 9.99 | 105.64 |
| 6039+80 | 2.63 | 3.02 | 0.17 | 5.18 | 66 | 34 | 0.67 | 23.33 | 116.67 | 1.95 | 11.26 |
| 6054+75 | 2.63 | 3.02 | 0.15 | 2805.23 | 63 | 712 | 0.67 | 19.33 | 96.67 | 89.28 | 6475.02 |
| 6055+65 | 2.63 | 3.02 | 0.21 | 2.99 | 78 | 19 | 0.67 | 32.67 | 163.33 | 3.44 | 4.52 |
| 6066+80 | 2.63 | 3.02 | 0.20 | 26.35 | 76 | 17 | 0.67 | 24.00 | 120.00 | 28.61 | 43.12 |
| 6073+70 | 2.63 | 3.02 | 0.20 | 23.53 | 75 | 19 | 0.67 | 26.00 | 130.00 | 23.07 | 39.92 |
| 6091+75 | 2.63 | 3.02 | 0.16 | 10.33 | 64 | 35 | 0.67 | 26.00 | 130.00 | 3.13 | 23.39 |
| 6115+40 | 2.63 | 3.02 | 0.16 | 898.32 | 65 | 100 | 0.67 | 22.00 | 110.00 | 141.91 | 1993.75 |
| 6127+10 | 2.63 | 3.02 | 0.15 | 56.63 | 62 | 66 | 0.67 | 10.00 | 50.00 | 8.77 | 133.13 |
| 6137+20 | 2.63 | 3.02 | 0.15 | 33.44 | 62 | 54 | 0.67 | 30.67 | 153.33 | 5.98 | 78.61 |
| 6152+90 | 2.63 | 3.02 | 0.16 | 10.89 | 65 | 39 | 0.67 | 22.67 | 113.33 | 3.39 | 24.17 |
| 6168+25 | 2.63 | 3.02 | 0.15 | 18.12 | 63 | 18 | 0.67 | 13.33 | 66.67 | 7.33 | 41.82 |
| 6176+50 | 2.63 | 3.02 | 0.16 | 9002.89 | 65 | 800 | 0.67 | 36.00 | 180.00 | 311.65 | 19981.31 |
| 6197+05 | 2.63 | 3.02 | 0.15 | 89.94 | 62 | 40 | 0.67 | 10.67 | 53.33 | 19.83 | 211.44 |
| 6218+30 | 2.63 | 3.02 | 0.15 | 3303.74 | 63 | 325 | 0.67 | 25.33 | 126.67 | 181.54 | 7625.68 |
| 6230+10 | 2.63 | 3.02 | 0.15 | 20.63 | 62 | 39 | 0.67 | 18.67 | 93.33 | 4.63 | 48.49 |
| 6243+80 | 2.63 | 3.02 | 0.16 | 65.81 | 65 | 55 | 0.67 | 60.67 | 303.33 | 16.12 | 146.06 |
| 6253+05 | 2.63 | 3.02 | 0.15 | 15.26 | 61 | 38 | 0.67 | 24.67 | 123.33 | 3.07 | 36.52 |
| 6260+40 | 2.63 | 3.02 | 0.16 | 73.39 | 64 | 62 | 0.67 | 25.33 | 126.67 | 14.88 | 166.18 |
| 6275+65 | 2.63 | 3.02 | 0.16 | 27.99 | 64 | 23 | 0.67 | 12.00 | 60.00 | 11.03 | 63.39 |
| 6280+90 | 2.63 | 3.02 | 0.15 | 436.70 | 62 | 223 | 0.67 | 44.00 | 220.00 | 28.28 | 1026.63 |
| 6296+80 | 2.63 | 3.02 | 0.15 | 11.98 | 63 | 37 | 0.67 | 23.33 | 116.67 | 3.13 | 27.65 |

**ICM Subcatchment Output: 100-year Event, Snowmelt Analysis**
**Project:** US-20, Arco to Idaho Falls (Key Nos. 23244 & 24149)
**Designer:** Austin Wissler, PE (OR), CFM
**Date:** 10/24/2025

DAVID EVANS AND ASSOCIATES INC.

| Subcatchment ID | Total Rainfall (in) | Max Rainfall (in/hr) | Effective rainfall (ft) | Contributing area (acre) | Curve number | Time of concentration, tc (minutes) | Time to peak factor | Time to peak, tp (minutes) | Base time, tb (minutes) | Max Total outflow ($ft^3/s$) | Max Infiltration to soil ($ft^3/s$) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 6299+25 | 2.63 | 3.02 | 0.16 | 21.89 | 64 | 35 | 0.67 | 17.33 | 86.67 | 6.63 | 49.57 |
| 6311+25 | 2.63 | 3.02 | 0.19 | 9.29 | 74 | 24 | 0.67 | 44.00 | 220.00 | 7.68 | 16.30 |
| 6319+35 | 2.63 | 3.02 | 0.17 | 4.17 | 68 | 15 | 0.67 | 11.33 | 56.67 | 2.86 | 8.66 |
| 6320+75 | 2.63 | 3.02 | 0.16 | 142.58 | 65 | 87 | 0.67 | 16.67 | 83.33 | 24.98 | 316.45 |
| 6327+60 | 2.63 | 3.02 | 0.15 | 755.83 | 62 | 204 | 0.67 | 12.67 | 63.33 | 52.12 | 1776.86 |
| 6346+00 | 2.63 | 3.02 | 0.15 | 67.61 | 61 | 66 | 0.67 | 32.00 | 160.00 | 9.25 | 161.74 |
| 6352+00 | 2.63 | 3.02 | 0.15 | 29.79 | 62 | 46 | 0.67 | 43.33 | 216.67 | 5.96 | 70.04 |
| 6362+20 | 2.63 | 3.02 | 0.15 | 23.49 | 62 | 28 | 0.67 | 13.33 | 66.67 | 6.58 | 55.21 |
| 6390+70 | 2.63 | 3.02 | 0.17 | 9.07 | 66 | 49 | 0.67 | 14.67 | 73.33 | 2.66 | 19.72 |
| 6397+75 | 2.63 | 3.02 | 0.15 | 325.53 | 61 | 131 | 0.67 | 15.33 | 76.67 | 27.39 | 778.81 |
| 6411+75 | 2.63 | 3.02 | 0.15 | 76.25 | 62 | 65 | 0.67 | 22.67 | 113.33 | 11.94 | 179.25 |
| 6415+75 | 2.63 | 3.02 | 0.15 | 941.94 | 61 | 282 | 0.67 | 12.67 | 63.33 | 46.57 | 2253.56 |
| 6431+40 | 2.63 | 3.02 | 0.18 | 2213.92 | 71 | 364 | 0.67 | 138.67 | 693.33 | 214.55 | 4257.36 |
| 6434+50 | 2.63 | 3.02 | 0.19 | 1.76 | 74 | 24 | 0.67 | 51.33 | 256.67 | 1.45 | 3.08 |
| 6448+10 | 2.63 | 3.02 | 0.19 | 21.13 | 73 | 46 | 0.67 | 16.00 | 80.00 | 11.03 | 38.31 |
| 6455+70 | 2.63 | 3.02 | 0.22 | 0.61 | 82 | 16 | 0.67 | 26.67 | 133.33 | 0.91 | 0.76 |
| 6459+90 | 2.63 | 3.02 | 0.20 | 64.45 | 75 | 105 | 0.67 | 41.33 | 206.67 | 20.93 | 109.36 |
| 6462+75 | 2.63 | 3.02 | 0.19 | 182.93 | 74 | 123 | 0.67 | 26.67 | 133.33 | 49.61 | 321.17 |
| 6499+15 | 2.63 | 3.02 | 0.17 | 17.84 | 68 | 34 | 0.67 | 28.67 | 143.33 | 7.96 | 37.07 |
| 6501+90 | 2.63 | 3.02 | 0.20 | 18.43 | 75 | 40 | 0.67 | 22.67 | 113.33 | 11.94 | 31.27 |
| 6507+15 | 2.63 | 3.02 | 0.20 | 14.83 | 76 | 42 | 0.67 | 36.67 | 183.33 | 9.85 | 24.26 |
| 6521+45 | 2.63 | 3.02 | 0.20 | 107.98 | 75 | 52 | 0.67 | 12.00 | 60.00 | 58.56 | 183.21 |
| 6529+30 | 2.63 | 3.02 | 0.19 | 52.56 | 74 | 68 | 0.67 | 28.00 | 140.00 | 22.17 | 92.29 |
| 6542+75 | 2.63 | 3.02 | 0.19 | 25.98 | 74 | 49 | 0.67 | 30.67 | 153.33 | 13.82 | 45.61 |
| 6579+80 | 2.63 | 3.02 | 0.20 | 0.87 | 75 | 18 | 0.67 | 112.67 | 563.33 | 0.87 | 1.48 |
| 6584+15 | 2.63 | 3.02 | 0.22 | 1.33 | 82 | 16 | 0.67 | 87.33 | 436.67 | 1.98 | 1.65 |
| 6591+75 | 2.63 | 3.02 | 0.20 | 4.24 | 75 | 25 | 0.67 | 33.33 | 166.67 | 3.64 | 7.20 |
| 6600+75 | 2.63 | 3.02 | 0.20 | 0.66 | 75 | 15 | 0.67 | 74.00 | 370.00 | 0.71 | 1.11 |
| 6618+20 | 2.63 | 3.02 | 0.20 | 86.15 | 75 | 62 | 0.67 | 26.67 | 133.33 | 41.26 | 146.18 |
| 6625+75 | 2.63 | 3.02 | 0.20 | 12.94 | 75 | 40 | 0.67 | 32.67 | 163.33 | 8.38 | 21.96 |
| 6636+40 | 2.63 | 3.02 | 0.19 | 17.66 | 74 | 25 | 0.67 | 16.67 | 83.33 | 14.30 | 31.00 |
| 6647+60 | 2.63 | 3.02 | 0.20 | 190.70 | 75 | 93 | 0.67 | 148.67 | 743.33 | 67.83 | 323.58 |
| 6651+25 | 2.63 | 3.02 | 0.18 | 2.83 | 69 | 22 | 0.67 | 58.00 | 290.00 | 1.76 | 5.73 |
| 6673+60 | 2.63 | 3.02 | 0.19 | 56.45 | 73 | 92 | 0.67 | 14.00 | 70.00 | 17.89 | 102.35 |
| 6683+90 | 2.63 | 3.02 | 0.20 | 1375.24 | 75 | 390 | 0.67 | 61.33 | 306.67 | 163.20 | 2333.53 |
| 6689+60 | 2.63 | 3.02 | 0.20 | 20.42 | 75 | 50 | 0.67 | 24.67 | 123.33 | 11.38 | 34.65 |
| 6702+95 | 2.63 | 3.02 | 0.20 | 59.48 | 75 | 64 | 0.67 | 78.00 | 390.00 | 27.84 | 100.92 |

**ICM Subcatchment Output: 100-year Event, Snowmelt Analysis**
**Project:** US-20, Arco to Idaho Falls (Key Nos. 23244 & 24149)
**Designer:** Austin Wissler, PE (OR), CFM
**Date:** 10/24/2025

DAVID EVANS AND ASSOCIATES INC.

| Subcatchment ID | Total Rainfall (in) | Max Rainfall (in/hr) | Effective rainfall (ft) | Contributing area (acre) | Curve number | Time of concentration, tc (minutes) | Time to peak factor | Time to peak, tp (minutes) | Base time, tb (minutes) | Max Total outflow ($ft^3/s$) | Max Infiltration to soil ($ft^3/s$) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 6718+85 | 2.63 | 3.02 | 0.20 | 2938.14 | 75 | 554 | 0.67 | 70.00 | 350.00 | 265.49 | 4985.48 |
| 6742+80 | 2.63 | 3.02 | 0.19 | 2.63 | 74 | 20 | 0.67 | 45.33 | 226.67 | 2.38 | 4.62 |
| 6749+95 | 2.63 | 3.02 | 0.19 | 11815.63 | 74 | 862 | 0.67 | 188.00 | 940.00 | 714.07 | 20744.65 |
| 6767+30 | 2.63 | 3.02 | 0.16 | 13.71 | 65 | 38 | 0.67 | 12.67 | 63.33 | 4.35 | 30.44 |
| 6786+00 | 2.63 | 3.02 | 0.16 | 9.00 | 65 | 36 | 0.67 | 136.00 | 680.00 | 2.96 | 19.97 |
| 6798+25 | 2.63 | 3.02 | 0.17 | 15.46 | 67 | 19 | 0.67 | 34.00 | 170.00 | 8.85 | 32.86 |
| 6803+55 | 2.63 | 3.02 | 0.18 | 2.30 | 69 | 29 | 0.67 | 42.67 | 213.33 | 1.22 | 4.66 |
| 6810+65 | 2.63 | 3.02 | 0.15 | 435.08 | 62 | 117 | 0.67 | 11.33 | 56.67 | 44.60 | 1022.81 |
| 6818+35 | 2.63 | 3.02 | 0.15 | 9.82 | 62 | 32 | 0.67 | 39.33 | 196.67 | 2.52 | 23.09 |
| 6832+85 | 2.63 | 3.02 | 0.16 | 70.19 | 64 | 21 | 0.67 | 39.33 | 196.67 | 29.09 | 158.95 |
| 6838+10 | 2.63 | 3.02 | 0.17 | 15.13 | 67 | 22 | 0.67 | 144.00 | 720.00 | 8.05 | 32.17 |
| 6845+65 | 2.63 | 3.02 | 0.17 | 243.39 | 67 | 66 | 0.67 | 41.33 | 206.67 | 62.94 | 517.42 |
| 6858+25 | 2.63 | 3.02 | 0.17 | 11.45 | 68 | 20 | 0.67 | 44.00 | 220.00 | 6.93 | 23.79 |
| 6864+05 | 2.63 | 3.02 | 0.16 | 12.24 | 64 | 33 | 0.67 | 82.00 | 410.00 | 3.85 | 27.71 |
| 6879+70 | 2.63 | 3.02 | 0.17 | 10.71 | 67 | 37 | 0.67 | 474.67 | 2373.33 | 4.16 | 22.76 |
| 6886+10 | 2.63 | 3.02 | 0.18 | 103.05 | 71 | 59 | 0.67 | 34.67 | 173.33 | 39.53 | 198.16 |
| 6891+70 | 2.63 | 3.02 | 0.15 | 5.45 | 63 | 26 | 0.67 | 62.00 | 310.00 | 1.79 | 12.57 |
| 6906+15 | 2.63 | 3.02 | 0.15 | 19.14 | 63 | 34 | 0.67 | 66.67 | 333.33 | 5.30 | 44.19 |
| 6909+55 | 2.63 | 3.02 | 0.15 | 253.71 | 62 | 111 | 0.67 | 216.67 | 1083.33 | 27.01 | 596.43 |
| 6917+25 | 2.63 | 3.02 | 0.19 | 1.65 | 73 | 17 | 0.67 | 260.00 | 1300.00 | 1.51 | 2.99 |
| 6924+05 | 2.63 | 3.02 | 0.18 | 141.42 | 69 | 59 | 0.67 | 242.67 | 1213.33 | 46.79 | 286.67 |
| 6945+15 | 2.63 | 3.02 | 0.16 | 646.65 | 65 | 216 | 0.67 | 533.33 | 2666.67 | 57.65 | 1435.20 |
| 6951+30 | 2.63 | 3.02 | 0.20 | 13.99 | 75 | 43 | 0.67 | 369.33 | 1846.67 | 8.64 | 23.74 |
| 6960+85 | 2.63 | 3.02 | 0.20 | 12.21 | 75 | 34 | 0.67 | 574.67 | 2873.33 | 8.77 | 20.72 |

**ICM Culvert Output: 25-year Event**
**Project:** US-20, Arco to Idaho Falls (Key Nos. 23244 & 24149)
**Designer:** Austin Wissler, PE (OR), CFM
**Date:** 10/24/2025

DAVID EVANS AND ASSOCIATES INC.

| Culvert Asset ID | Shape ID | Width (in) | Height (in) | Number of Barrels | Manning's n | Length (ft) | Gradient (%) | Full capacity ($ft^3/s$) | US invert (ft) | DS invert (ft) | Flow depth (ft) | Total head (ft) | Discharge ($ft^3/s$) | Velocity (ft/s) | HW/D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P-5909-1 | CIRC | 42 | 42 | 1 | 0.024 | 249 | 1.40 | 64.38 | 5326.80 | 5323.32 | 0.00 | 5326.37 | 0.00 | 0.00 | 0.00 |
| P-5928-1 | CIRC | 24 | 24 | 1 | 0.024 | 185 | 1.87 | 16.76 | 5316.60 | 5313.15 | 0.00 | 5316.26 | 0.00 | 0.00 | 0.00 |
| P-5932-1 | CIRC | 24 | 24 | 1 | 0.024 | 209 | 1.40 | 14.48 | 5316.44 | 5313.52 | 0.59 | 5316.81 | 2.03 | 3.48 | 0.29 |
| P-5959-1 | CIRC | 30 | 30 | 1 | 0.024 | 230 | 1.38 | 26.12 | 5294.80 | 5291.62 | 0.60 | 5295.17 | 2.29 | 3.45 | 0.24 |
| P-5985-1 | CIRC | 24 | 24 | 1 | 0.024 | 199 | 1.25 | 13.71 | 5284.07 | 5281.58 | 0.32 | 5284.17 | 0.53 | 2.82 | 0.16 |
| P-6017-1 | CIRC | 24 | 24 | 1 | 0.024 | 210 | 3.18 | 21.84 | 5250.90 | 5244.22 | 0.00 | 5250.23 | 0.00 | 0.00 | 0.00 |
| P-6025-1 | CIRC | 36 | 36 | 1 | 0.024 | 216 | 1.81 | 48.56 | 5229.65 | 5225.75 | 0.54 | 5230.28 | 1.88 | 8.46 | 0.18 |
| P-6055-1 | CIRC | 48 | 48 | 1 | 0.024 | 233 | 0.98 | 76.85 | 5196.96 | 5194.69 | 1.82 | 5198.62 | 24.28 | 5.58 | 0.45 |
| P-6066-1 | CIRC | 24 | 24 | 1 | 0.024 | 192 | 1.79 | 16.42 | 5195.95 | 5192.50 | 1.24 | 5198.87 | 9.44 | 14.48 | 0.62 |
| P-6074-1 | CIRC | 24 | 24 | 1 | 0.024 | 185 | 1.58 | 15.42 | 5194.00 | 5191.07 | 1.14 | 5196.18 | 7.09 | 12.61 | 0.57 |
| P-6091-1 | CIRC | 24 | 24 | 1 | 0.024 | 192 | 1.80 | 16.44 | 5184.53 | 5181.07 | 0.11 | 5184.30 | 0.06 | 1.46 | 0.05 |
| P-6114-1 | CIRC | 36 | 36 | 1 | 0.024 | 407 | 0.68 | 29.69 | 5157.76 | 5155.01 | 2.77 | 5160.44 | 26.62 | 2.90 | 0.92 |
| P-6127-1 | CIRC | 30 | 30 | 1 | 0.024 | 269 | 0.84 | 20.37 | 5157.66 | 5155.40 | 0.49 | 5157.95 | 1.42 | 1.48 | 0.19 |
| P-6137-1 | CIRC | 24 | 24 | 1 | 0.024 | 209 | 0.85 | 11.32 | 5156.28 | 5154.50 | 0.44 | 5156.57 | 0.98 | 1.35 | 0.22 |
| P-6155-1 | CIRC | 24 | 24 | 1 | 0.024 | 197 | 0.42 | 7.96 | 5144.35 | 5143.52 | 0.00 | 5144.27 | 0.00 | 0.00 | 0.00 |
| P-6168-1 | CIRC | 24 | 24 | 1 | 0.024 | 229 | 2.86 | 20.74 | 5133.22 | 5126.66 | 0.43 | 5133.15 | 0.98 | 3.86 | 0.22 |
| P-6176-1 | CIRC | 48 | 48 | 2 | 0.024 | 258 | 0.39 | 96.96 | 5113.85 | 5112.85 | 3.24 | 5117.06 | 85.26 | 2.92 | 0.81 |
| P-6197-1 | CIRC | 24 | 24 | 1 | 0.024 | 220 | 0.89 | 11.53 | 5113.50 | 5111.55 | 0.56 | 5113.94 | 1.51 | 1.58 | 0.28 |
| P-6218-1.2 | CIRC | 48 | 48 | 2 | 0.024 | 260 | 0.51 | 111.24 | 5096.95 | 5095.62 | 2.06 | 5098.88 | 39.54 | 2.41 | 0.52 |
| P-6230-1 | CIRC | 24 | 24 | 1 | 0.024 | 207 | 1.70 | 15.99 | 5104.82 | 5101.30 | 0.23 | 5104.71 | 0.26 | 1.96 | 0.11 |
| P-6243-1 | CIRC | 30 | 30 | 1 | 0.024 | 241 | 1.43 | 26.60 | 5096.63 | 5093.18 | 0.73 | 5097.13 | 3.81 | 5.54 | 0.29 |
| P-6253-1 | CIRC | 24 | 24 | 1 | 0.024 | 247 | 1.85 | 16.67 | 5107.76 | 5103.20 | 0.59 | 5108.02 | 1.77 | 3.35 | 0.29 |
| P-6257-1 | CIRC | 24 | 24 | 1 | 0.024 | 279 | 2.96 | 21.10 | 5110.81 | 5102.53 | 0.00 | 5110.22 | 0.00 | 0.00 | 0.00 |
| P-6260-1 | CIRC | 36 | 36 | 1 | 0.024 | 332 | 2.66 | 58.88 | 5111.76 | 5102.95 | 0.00 | 5111.03 | 0.00 | 0.00 | 0.00 |
| P-6275-1 | CIRC | 24 | 24 | 1 | 0.024 | 276 | 1.47 | 14.86 | 5105.81 | 5101.75 | 0.31 | 5105.85 | 0.47 | 2.52 | 0.15 |
| P-6280-1 | CIRC | 36 | 36 | 1 | 0.024 | 265 | 1.12 | 38.22 | 5100.65 | 5097.68 | 0.90 | 5101.30 | 6.00 | 4.53 | 0.30 |
| P-6293-1 | CIRC | 24 | 24 | 1 | 0.024 | 185 | 0.94 | 11.86 | 5107.20 | 5105.47 | 0.35 | 5107.39 | 0.58 | 1.17 | 0.17 |
| P-6299-1 | CIRC | 30 | 30 | 1 | 0.024 | 211 | 2.19 | 32.87 | 5104.86 | 5100.25 | 0.25 | 5104.55 | 0.35 | 3.26 | 0.10 |
| P-6311-1 | CIRC | 24 | 24 | 1 | 0.024 | 205 | 1.74 | 16.14 | 5095.51 | 5091.95 | 0.72 | 5095.99 | 2.94 | 6.37 | 0.36 |
| 6320+75 | CIRC | 30 | 30 | 1 | 0.024 | 222 | 1.40 | 26.29 | 5080.23 | 5077.13 | 0.98 | 5080.97 | 6.52 | 3.87 | 0.39 |
| 6327+20 | CIRC | 36 | 36 | 1 | 0.024 | 209 | 1.13 | 38.32 | 5075.35 | 5073.00 | 1.22 | 5076.34 | 10.33 | 4.33 | 0.41 |
| 6346+00 | CIRC | 24 | 24 | 1 | 0.024 | 225 | 1.38 | 14.39 | 5100.00 | 5096.90 | 0.47 | 5100.26 | 1.15 | 3.51 | 0.23 |
| 6362+20 | CIRC | 24 | 24 | 1 | 0.024 | 202 | 1.73 | 16.11 | 5107.75 | 5104.26 | 0.41 | 5107.85 | 0.86 | 3.45 | 0.21 |
| 6394+80 | CIRC | 24 | 24 | 1 | 0.024 | 186 | 1.06 | 12.64 | 5082.83 | 5080.85 | 0.43 | 5083.10 | 1.08 | 2.36 | 0.21 |
| 6411+75 | CIRC | 24 | 24 | 1 | 0.024 | 187 | 0.56 | 9.15 | 5076.44 | 5075.40 | 0.48 | 5076.84 | 1.05 | 1.41 | 0.24 |
| 6415+75 | CIRC | 24 | 24 | 2 | 0.024 | 192 | 0.89 | 23.06 | 5075.00 | 5073.30 | 1.24 | 5076.17 | 12.81 | 2.46 | 0.62 |
| 6431+40 | CIRC | 30 | 30 | 2 | 0.013 | 209 | 0.96 | 80.34 | 5069.50 | 5067.50 | 1.85 | 5071.49 | 42.95 | 5.13 | 0.74 |

**ICM Culvert Output: 25-year Event**
**Project:** US-20, Arco to Idaho Falls (Key Nos. 23244 & 24149)
**Designer:** Austin Wissler, PE (OR), CFM
**Date:** 10/24/2025

DAVID EVANS AND ASSOCIATES INC.

| Culvert Asset ID | Shape ID | Width (in) | Height (in) | Number of Barrels | Manning's n | Length (ft) | Gradient (%) | Full capacity ($ft^3/s$) | US invert (ft) | DS invert (ft) | Flow depth (ft) | Total head (ft) | Discharge ($ft^3/s$) | Velocity (ft/s) | HW/D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6434+50 | CIRC | 24 | 24 | 2 | 0.013 | 205 | 1.29 | 51.38 | 5069.77 | 5067.13 | 1.52 | 5071.60 | 32.82 | 6.08 | 0.76 |
| 6448+10 | CIRC | 24 | 24 | 1 | 0.024 | 200 | 2.00 | 17.34 | 5079.51 | 5075.50 | 0.71 | 5079.91 | 2.69 | 2.62 | 0.36 |
| 6455+70 | CIRC | 24 | 24 | 1 | 0.024 | 242 | 2.80 | 20.52 | 5087.90 | 5081.11 | 0.00 | 5087.33 | 0.00 | 0.00 | 0.00 |
| 6459+90 | CIRC | 24 | 24 | 1 | 0.024 | 271 | 1.81 | 16.48 | 5089.90 | 5085.00 | 0.40 | 5089.99 | 0.85 | 2.49 | 0.20 |
| 6462+75 | CIRC | 24 | 24 | 1 | 0.024 | 307 | 1.71 | 16.05 | 5090.96 | 5085.70 | 0.38 | 5091.05 | 0.76 | 2.50 | 0.19 |
| 6499+15 | CIRC | 24 | 24 | 1 | 0.024 | 284 | 2.30 | 18.58 | 5109.96 | 5103.42 | 0.54 | 5110.08 | 1.49 | 3.49 | 0.27 |
| 6501+90 | CIRC | 24 | 24 | 1 | 0.024 | 281 | 2.24 | 18.35 | 5107.80 | 5101.50 | 0.92 | 5108.68 | 4.99 | 9.23 | 0.46 |
| 6507+15 | CIRC | 24 | 24 | 1 | 0.024 | 298 | 3.30 | 22.26 | 5102.93 | 5093.10 | 0.45 | 5102.72 | 1.05 | 2.65 | 0.23 |
| 6521+45 | CIRC | 30 | 30 | 1 | 0.024 | 290 | 1.64 | 28.42 | 5093.75 | 5089.00 | 0.84 | 5094.36 | 5.35 | 5.61 | 0.34 |
| 6529+30 | CIRC | 24 | 24 | 1 | 0.024 | 296 | 1.78 | 16.36 | 5093.28 | 5088.00 | 1.19 | 5094.33 | 8.47 | 3.91 | 0.60 |
| 6542+75 | CIRC | 24 | 24 | 1 | 0.024 | 321 | 0.89 | 11.53 | 5082.00 | 5079.16 | 0.70 | 5082.58 | 2.36 | 1.95 | 0.35 |
| 6579+80 | CIRC | 24 | 24 | 1 | 0.024 | 284 | 1.12 | 12.94 | 5060.93 | 5057.76 | 0.00 | 5060.70 | 0.00 | 0.00 | 0.00 |
| 6618+20 | CIRC | 24 | 24 | 1 | 0.024 | 327 | 2.42 | 19.06 | 4969.62 | 4961.72 | 0.32 | 4969.48 | 0.54 | 3.56 | 0.16 |
| 6625+75 | CIRC | 42 | 42 | 1 | 0.024 | 327 | 2.02 | 77.52 | 4951.13 | 4944.51 | 0.00 | 4950.47 | 0.00 | 0.00 | 0.00 |
| 6647+60 | CIRC | 36 | 36 | 1 | 0.024 | 344 | 0.82 | 32.62 | 4915.74 | 4912.94 | 0.48 | 4916.02 | 1.43 | 1.56 | 0.16 |
| 6651+25 | CIRC | 24 | 24 | 1 | 0.024 | 315 | 3.26 | 22.12 | 4914.27 | 4904.02 | 0.33 | 4913.98 | 0.54 | 3.70 | 0.16 |
| 6683+90 | CIRC | 48 | 48 | 2 | 0.024 | 293 | 0.86 | 144.60 | 4869.58 | 4867.05 | 1.61 | 4871.19 | 45.03 | 4.50 | 0.40 |
| 6689+90 | CIRC | 30 | 30 | 2 | 0.024 | 325 | 1.41 | 52.68 | 4869.32 | 4864.75 | 1.31 | 4870.53 | 21.93 | 8.30 | 0.52 |
| 6702+95 | CIRC | 24 | 24 | 1 | 0.024 | 303 | 1.16 | 13.18 | 4860.48 | 4856.98 | 0.76 | 4861.12 | 3.18 | 2.77 | 0.38 |
| 6718+85 | RECT | 114 | 96 | 1 | 0.024 | 375 | 0.56 | 590.10 | 4853.72 | 4851.62 | 2.04 | 4855.71 | 114.12 | 5.56 | 0.25 |
| 6749+95 | RECT | 114 | 96 | 1 | 0.024 | 361 | 0.57 | 595.99 | 4840.10 | 4838.04 | 4.03 | 4844.34 | 286.28 | 6.85 | 0.50 |
| 6767+30 | CIRC | 24 | 24 | 1 | 0.024 | 295 | 2.84 | 20.66 | 4867.25 | 4858.87 | 0.44 | 4867.12 | 0.97 | 3.29 | 0.22 |
| 6786+00 | CIRC | 24 | 24 | 1 | 0.024 | 301 | 0.87 | 11.41 | 4880.32 | 4877.71 | 0.20 | 4880.36 | 0.18 | 0.69 | 0.10 |
| 6798+25 | CIRC | 24 | 24 | 1 | 0.024 | 335 | 1.23 | 13.58 | 4881.01 | 4876.90 | 0.23 | 4881.00 | 0.27 | 2.14 | 0.12 |
| 6803+55 | CIRC | 24 | 24 | 1 | 0.024 | 287 | 4.56 | 26.18 | 4886.01 | 4872.92 | 0.28 | 4885.38 | 0.39 | 3.54 | 0.14 |
| 6810+65 | CIRC | 24 | 24 | 1 | 0.024 | 309 | 1.16 | 13.17 | 4875.30 | 4871.73 | 1.28 | 4876.55 | 8.28 | 3.49 | 0.64 |
| 6818+35 | CIRC | 24 | 24 | 1 | 0.024 | 302 | 2.55 | 19.57 | 4880.57 | 4872.88 | 0.15 | 4880.25 | 0.11 | 2.09 | 0.07 |
| 6832+85 | CIRC | 24 | 24 | 1 | 0.024 | 292 | 2.53 | 19.49 | 4873.62 | 4866.25 | 1.05 | 4874.29 | 5.72 | 3.85 | 0.52 |
| 6838+10 | CIRC | 24 | 24 | 1 | 0.024 | 302 | 2.56 | 19.60 | 4867.70 | 4859.97 | 0.00 | 4867.22 | 0.00 | 0.00 | 0.00 |
| 6845+65 | CIRC | 24 | 24 | 1 | 0.024 | 291 | 1.12 | 12.97 | 4859.71 | 4856.45 | 1.20 | 4860.81 | 6.80 | 2.94 | 0.60 |
| 6886+10 | CIRC | 24 | 24 | 1 | 0.024 | 323 | 2.91 | 20.91 | 4841.05 | 4831.65 | 1.37 | 4842.17 | 12.15 | 5.09 | 0.68 |
| 6891+70 | CIRC | 24 | 24 | 1 | 0.024 | 349 | 4.82 | 26.91 | 4836.60 | 4819.78 | 0.00 | 4835.67 | 0.00 | 0.00 | 0.00 |
| 6906+15 | CIRC | 24 | 24 | 1 | 0.024 | 325 | 5.12 | 27.74 | 4798.25 | 4781.58 | 0.42 | 4797.67 | 0.92 | 3.45 | 0.21 |
| 6909+55 | CIRC | 24 | 24 | 1 | 0.024 | 344 | 1.83 | 16.58 | 4781.80 | 4775.50 | 0.44 | 4781.94 | 1.03 | 3.63 | 0.22 |
| 6917+30 | CIRC | 24 | 24 | 1 | 0.024 | 306 | 2.67 | 20.01 | 4771.02 | 4762.85 | 1.11 | 4771.94 | 7.96 | 4.50 | 0.56 |
| 6924+05 | CIRC | 24 | 24 | 1 | 0.024 | 341 | 0.14 | 4.50 | 4751.31 | 4750.85 | 1.38 | 4752.69 | 3.54 | 1.24 | 0.69 |
| 6951+30 | CIRC | 24 | 24 | 1 | 0.024 | 286 | 1.18 | 13.33 | 4756.10 | 4752.72 | 0.82 | 4757.52 | 3.66 | 10.33 | 0.41 |

**ICM Culvert Output: 25-year Event**
**Project:** US-20, Arco to Idaho Falls (Key Nos. 23244 & 24149)
**Designer:** Austin Wissler, PE (OR), CFM
**Date:** 10/24/2025

DAVID EVANS AND ASSOCIATES INC.

| Culvert Asset ID | Shape ID | Width (in) | Height (in) | Number of Barrels | Manning's n | Length (ft) | Gradient (%) | Full capacity ($ft^3/s$) | US invert (ft) | DS invert (ft) | Flow depth (ft) | Total head (ft) | Discharge ($ft^3/s$) | Velocity (ft/s) | HW/D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6960+85 | CIRC | 24 | 24 | 1 | 0.024 | 209 | 1.18 | 13.31 | 4757.04 | 4754.57 | 0.00 | 4756.79 | 0.00 | 0.00 | 0.00 |

**ICM Culvert Output: 100-year Event**
**Project:** US-20, Arco to Idaho Falls (Key Nos. 23244 & 24149)
**Designer:** Austin Wissler, PE (OR), CFM
**Date:** 10/24/2025

DAVID EVANS AND ASSOCIATES INC.

| Culvert Asset ID | Shape ID | Width (in) | Height (in) | Number of Barrels | Manning's n | Length (ft) | Gradient (%) | Full capacity ($ft^3/s$) | US invert (ft) | DS invert (ft) | Crown Elevation (ft) | Flow depth (ft) | Total head (ft) | Discharge ($ft^3/s$) | Velocity (ft/s) | HW/D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P-5909-1 | CIRC | 42 | 42 | 1 | 0.024 | 249 | 1.40 | 64.38 | 5326.80 | 5323.32 | 5332.11 | 0.00 | 5326.37 | 0.00 | 0.00 | 0.00 |
| P-5928-1 | CIRC | 24 | 24 | 1 | 0.024 | 185 | 1.87 | 16.76 | 5316.60 | 5313.15 | 5321.04 | 0.22 | 5316.49 | 0.24 | 1.57 | 0.11 |
| P-5932-1 | CIRC | 24 | 24 | 1 | 0.024 | 209 | 1.40 | 14.48 | 5316.44 | 5313.52 | 5320.97 | 0.91 | 5317.18 | 4.63 | 3.46 | 0.45 |
| P-5959-1 | CIRC | 30 | 30 | 1 | 0.024 | 230 | 1.38 | 26.12 | 5294.80 | 5291.62 | 5301.33 | 0.74 | 5295.36 | 4.09 | 3.50 | 0.30 |
| P-5985-1 | CIRC | 24 | 24 | 1 | 0.024 | 199 | 1.25 | 13.71 | 5284.07 | 5281.58 | 5290.18 | 0.61 | 5284.50 | 2.14 | 2.58 | 0.30 |
| P-6017-1 | CIRC | 24 | 24 | 1 | 0.024 | 210 | 3.18 | 21.84 | 5250.90 | 5244.22 | 5253.88 | 0.00 | 5250.23 | 0.00 | 0.00 | 0.00 |
| P-6025-1 | CIRC | 36 | 36 | 1 | 0.024 | 216 | 1.81 | 48.56 | 5229.65 | 5225.75 | 5239.96 | 0.82 | 5230.24 | 4.57 | 8.30 | 0.27 |
| P-6055-1 | CIRC | 48 | 48 | 1 | 0.024 | 233 | 0.98 | 76.85 | 5196.96 | 5194.69 | 5206.10 | 2.71 | 5199.59 | 46.84 | 5.37 | 0.68 |
| P-6066-1 | CIRC | 24 | 24 | 1 | 0.024 | 192 | 1.79 | 16.42 | 5195.95 | 5192.50 | 5201.28 | 1.47 | 5198.87 | 11.95 | 14.48 | 0.73 |
| P-6074-1 | CIRC | 24 | 24 | 1 | 0.024 | 185 | 1.58 | 15.42 | 5194.00 | 5191.07 | 5199.52 | 1.33 | 5196.33 | 9.79 | 12.98 | 0.66 |
| P-6091-1 | CIRC | 24 | 24 | 1 | 0.024 | 192 | 1.80 | 16.44 | 5184.53 | 5181.07 | 5190.03 | 0.21 | 5184.41 | 0.22 | 1.99 | 0.11 |
| P-6114-1 | CIRC | 36 | 36 | 1 | 0.024 | 407 | 0.68 | 29.69 | 5157.76 | 5155.01 | 5168.54 | 3.84 | 5161.65 | 36.07 | 4.03 | 1.28 |
| P-6127-1 | CIRC | 30 | 30 | 1 | 0.024 | 269 | 0.84 | 20.37 | 5157.66 | 5155.40 | 5164.90 | 0.83 | 5158.33 | 3.70 | 2.06 | 0.33 |
| P-6137-1 | CIRC | 24 | 24 | 1 | 0.024 | 209 | 0.85 | 11.32 | 5156.28 | 5154.50 | 5162.32 | 0.74 | 5156.90 | 2.57 | 1.92 | 0.37 |
| P-6155-1 | CIRC | 24 | 24 | 1 | 0.024 | 197 | 0.42 | 7.96 | 5144.35 | 5143.52 | 5149.33 | 0.00 | 5144.27 | 0.00 | 0.00 | 0.00 |
| P-6168-1 | CIRC | 24 | 24 | 1 | 0.024 | 229 | 2.86 | 20.74 | 5133.22 | 5126.66 | 5135.70 | 0.65 | 5133.40 | 2.23 | 4.00 | 0.32 |
| P-6176-1 | CIRC | 48 | 48 | 2 | 0.024 | 258 | 0.39 | 96.96 | 5113.85 | 5112.85 | 5129.88 | 4.76 | 5118.70 | 131.18 | 4.08 | 1.19 |
| P-6197-1 | CIRC | 24 | 24 | 1 | 0.024 | 220 | 0.89 | 11.53 | 5113.50 | 5111.55 | 5123.43 | 1.09 | 5114.50 | 5.01 | 2.23 | 0.54 |
| P-6218-1.2 | CIRC | 48 | 48 | 2 | 0.024 | 260 | 0.51 | 111.24 | 5096.95 | 5095.62 | 5113.70 | 3.07 | 5099.93 | 80.52 | 2.87 | 0.77 |
| P-6230-1 | CIRC | 24 | 24 | 1 | 0.024 | 207 | 1.70 | 15.99 | 5104.82 | 5101.30 | 5112.41 | 0.47 | 5104.98 | 1.13 | 2.23 | 0.23 |
| P-6243-1 | CIRC | 30 | 30 | 1 | 0.024 | 241 | 1.43 | 26.60 | 5096.63 | 5093.18 | 5106.76 | 1.18 | 5097.65 | 8.93 | 4.80 | 0.47 |
| P-6253-1 | CIRC | 24 | 24 | 1 | 0.024 | 247 | 1.85 | 16.67 | 5107.76 | 5103.20 | 5111.68 | 0.78 | 5108.29 | 3.48 | 3.18 | 0.39 |
| P-6257-1 | CIRC | 24 | 24 | 1 | 0.024 | 279 | 2.96 | 21.10 | 5110.81 | 5102.53 | 5113.90 | 0.00 | 5110.22 | 0.00 | 0.00 | 0.00 |
| P-6260-1 | CIRC | 36 | 36 | 1 | 0.024 | 332 | 2.66 | 58.88 | 5111.76 | 5102.95 | 5114.99 | 0.00 | 5111.03 | 0.00 | 0.00 | 0.00 |
| P-6275-1 | CIRC | 24 | 24 | 1 | 0.024 | 276 | 1.47 | 14.86 | 5105.81 | 5101.75 | 5110.91 | 0.54 | 5106.12 | 1.54 | 2.72 | 0.27 |
| P-6280-1 | CIRC | 36 | 36 | 1 | 0.024 | 265 | 1.12 | 38.22 | 5100.65 | 5097.68 | 5109.71 | 1.43 | 5101.90 | 13.36 | 4.58 | 0.48 |
| P-6293-1 | CIRC | 24 | 24 | 1 | 0.024 | 185 | 0.94 | 11.86 | 5107.20 | 5105.47 | 5112.82 | 0.53 | 5107.60 | 1.41 | 1.64 | 0.27 |
| P-6299-1 | CIRC | 30 | 30 | 1 | 0.024 | 211 | 2.19 | 32.87 | 5104.86 | 5100.25 | 5110.71 | 0.46 | 5104.79 | 1.23 | 3.52 | 0.18 |
| P-6311-1 | CIRC | 24 | 24 | 1 | 0.024 | 205 | 1.74 | 16.14 | 5095.51 | 5091.95 | 5100.26 | 0.85 | 5096.13 | 4.47 | 6.12 | 0.42 |
| 6320+75 | CIRC | 30 | 30 | 1 | 0.024 | 222 | 1.40 | 26.29 | 5080.23 | 5077.13 | 5091.26 | 1.29 | 5081.33 | 10.46 | 3.60 | 0.51 |
| 6327+20 | CIRC | 36 | 36 | 1 | 0.024 | 209 | 1.13 | 38.32 | 5075.35 | 5073.00 | 5086.41 | 1.86 | 5077.07 | 21.27 | 4.32 | 0.62 |
| 6346+00 | CIRC | 24 | 24 | 1 | 0.024 | 225 | 1.38 | 14.39 | 5100.00 | 5096.90 | 5108.43 | 0.72 | 5100.56 | 2.99 | 2.85 | 0.36 |
| 6362+20 | CIRC | 24 | 24 | 1 | 0.024 | 202 | 1.73 | 16.11 | 5107.75 | 5104.26 | 5115.31 | 0.70 | 5108.18 | 2.54 | 3.10 | 0.35 |
| 6394+80 | CIRC | 24 | 24 | 1 | 0.024 | 186 | 1.06 | 12.64 | 5082.83 | 5080.85 | 5087.75 | 0.81 | 5083.52 | 3.29 | 2.43 | 0.40 |
| 6411+75 | CIRC | 24 | 24 | 1 | 0.024 | 187 | 0.56 | 9.15 | 5076.44 | 5075.40 | 5082.05 | 0.73 | 5077.11 | 2.33 | 1.83 | 0.36 |
| 6415+75 | CIRC | 24 | 24 | 2 | 0.024 | 192 | 0.89 | 23.06 | 5075.00 | 5073.30 | 5080.30 | 1.73 | 5076.74 | 24.31 | 3.56 | 0.86 |
| 6431+40 | CIRC | 30 | 30 | 2 | 0.013 | 209 | 0.96 | 80.34 | 5069.50 | 5067.50 | 5074.92 | 2.65 | 5072.35 | 65.13 | 5.40 | 1.06 |

**ICM Culvert Output: 100-year Event**
**Project:** US-20, Arco to Idaho Falls (Key Nos. 23244 & 24149)
**Designer:** Austin Wissler, PE (OR), CFM
**Date:** 10/24/2025

DAVID EVANS AND ASSOCIATES INC.

| Culvert Asset ID | Shape ID | Width (in) | Height (in) | Number of Barrels | Manning's n | Length (ft) | Gradient (%) | Full capacity ($ft^3/s$) | US invert (ft) | DS invert (ft) | Crown Elevation (ft) | Flow depth (ft) | Total head (ft) | Discharge ($ft^3/s$) | Velocity (ft/s) | HW/D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6434+50 | CIRC | 24 | 24 | 2 | 0.013 | 205 | 1.29 | 51.38 | 5069.77 | 5067.13 | 5075.58 | 2.18 | 5072.27 | 46.68 | 6.48 | 1.09 |
| 6448+10 | CIRC | 24 | 24 | 1 | 0.024 | 200 | 2.00 | 17.34 | 5079.51 | 5075.50 | 5084.37 | 0.86 | 5080.13 | 4.49 | 3.22 | 0.43 |
| 6455+70 | CIRC | 24 | 24 | 1 | 0.024 | 242 | 2.80 | 20.52 | 5087.90 | 5081.11 | 5092.47 | 0.00 | 5087.33 | 0.00 | 0.00 | 0.00 |
| 6459+90 | CIRC | 24 | 24 | 1 | 0.024 | 271 | 1.81 | 16.48 | 5089.90 | 5085.00 | 5094.34 | 0.62 | 5090.25 | 2.09 | 2.37 | 0.31 |
| 6462+75 | CIRC | 24 | 24 | 1 | 0.024 | 307 | 1.71 | 16.05 | 5090.96 | 5085.70 | 5094.41 | 0.57 | 5091.28 | 1.80 | 2.38 | 0.29 |
| 6499+15 | CIRC | 24 | 24 | 1 | 0.024 | 284 | 2.30 | 18.58 | 5109.96 | 5103.42 | 5114.35 | 0.74 | 5110.32 | 2.89 | 3.36 | 0.37 |
| 6501+90 | CIRC | 24 | 24 | 1 | 0.024 | 281 | 2.24 | 18.35 | 5107.80 | 5101.50 | 5112.61 | 1.15 | 5108.73 | 8.22 | 9.12 | 0.57 |
| 6507+15 | CIRC | 24 | 24 | 1 | 0.024 | 298 | 3.30 | 22.26 | 5102.93 | 5093.10 | 5109.79 | 0.66 | 5102.96 | 2.31 | 2.36 | 0.33 |
| 6521+45 | CIRC | 30 | 30 | 1 | 0.024 | 290 | 1.64 | 28.42 | 5093.75 | 5089.00 | 5100.16 | 1.06 | 5094.59 | 7.79 | 7.85 | 0.42 |
| 6529+30 | CIRC | 24 | 24 | 1 | 0.024 | 296 | 1.78 | 16.36 | 5093.28 | 5088.00 | 5097.92 | 1.51 | 5094.71 | 12.56 | 4.42 | 0.75 |
| 6542+75 | CIRC | 24 | 24 | 1 | 0.024 | 321 | 0.89 | 11.53 | 5082.00 | 5079.16 | 5093.17 | 0.90 | 5082.80 | 3.83 | 2.30 | 0.45 |
| 6579+80 | CIRC | 24 | 24 | 1 | 0.024 | 284 | 1.12 | 12.94 | 5060.93 | 5057.76 | 5067.91 | 0.00 | 5060.70 | 0.00 | 0.00 | 0.00 |
| 6618+20 | CIRC | 24 | 24 | 1 | 0.024 | 327 | 2.42 | 19.06 | 4969.62 | 4961.72 | 4973.37 | 0.51 | 4969.69 | 1.39 | 2.67 | 0.25 |
| 6625+75 | CIRC | 42 | 42 | 1 | 0.024 | 327 | 2.02 | 77.52 | 4951.13 | 4944.51 | 4956.47 | 0.00 | 4950.47 | 0.00 | 0.00 | 0.00 |
| 6647+60 | CIRC | 36 | 36 | 1 | 0.024 | 344 | 0.82 | 32.62 | 4915.74 | 4912.94 | 4922.52 | 0.77 | 4916.34 | 3.64 | 2.04 | 0.26 |
| 6651+25 | CIRC | 24 | 24 | 1 | 0.024 | 315 | 3.26 | 22.12 | 4914.27 | 4904.02 | 4918.67 | 0.44 | 4914.10 | 0.98 | 3.71 | 0.22 |
| 6683+90 | CIRC | 48 | 48 | 2 | 0.024 | 293 | 0.86 | 144.60 | 4869.58 | 4867.05 | 4877.13 | 1.76 | 4871.38 | 53.51 | 4.76 | 0.44 |
| 6689+90 | CIRC | 30 | 30 | 2 | 0.024 | 325 | 1.41 | 52.68 | 4869.32 | 4864.75 | 4877.74 | 2.75 | 4871.99 | 54.24 | 10.43 | 1.10 |
| 6702+95 | CIRC | 24 | 24 | 1 | 0.024 | 303 | 1.16 | 13.18 | 4860.48 | 4856.98 | 4865.30 | 1.04 | 4861.44 | 5.61 | 3.02 | 0.52 |
| 6718+85 | RECT | 114 | 96 | 1 | 0.024 | 375 | 0.56 | 590.10 | 4853.72 | 4851.62 | 4866.30 | 2.75 | 4856.54 | 171.29 | 6.17 | 0.29 |
| 6749+95 | RECT | 114 | 96 | 1 | 0.024 | 361 | 0.57 | 595.99 | 4840.10 | 4838.04 | 4851.74 | 5.65 | 4845.96 | 425.59 | 6.97 | 0.59 |
| 6767+30 | CIRC | 24 | 24 | 1 | 0.024 | 295 | 2.84 | 20.66 | 4867.25 | 4858.87 | 4873.96 | 0.63 | 4867.35 | 2.11 | 2.88 | 0.32 |
| 6786+00 | CIRC | 24 | 24 | 1 | 0.024 | 301 | 0.87 | 11.41 | 4880.32 | 4877.71 | 4885.65 | 0.37 | 4880.55 | 0.72 | 1.22 | 0.19 |
| 6798+25 | CIRC | 24 | 24 | 1 | 0.024 | 335 | 1.23 | 13.58 | 4881.01 | 4876.90 | 4888.96 | 0.44 | 4881.23 | 1.00 | 2.53 | 0.22 |
| 6803+55 | CIRC | 24 | 24 | 1 | 0.024 | 287 | 4.56 | 26.18 | 4886.01 | 4872.92 | 4889.21 | 0.37 | 4885.47 | 0.69 | 3.74 | 0.19 |
| 6810+65 | CIRC | 24 | 24 | 1 | 0.024 | 309 | 1.16 | 13.17 | 4875.30 | 4871.73 | 4884.62 | 2.79 | 4878.11 | 16.90 | 4.12 | 1.39 |
| 6818+35 | CIRC | 24 | 24 | 1 | 0.024 | 302 | 2.55 | 19.57 | 4880.57 | 4872.88 | 4885.06 | 0.32 | 4880.44 | 0.53 | 2.48 | 0.16 |
| 6832+85 | CIRC | 24 | 24 | 1 | 0.024 | 292 | 2.53 | 19.49 | 4873.62 | 4866.25 | 4880.26 | 1.47 | 4874.88 | 12.72 | 4.50 | 0.73 |
| 6838+10 | CIRC | 24 | 24 | 1 | 0.024 | 302 | 2.56 | 19.60 | 4867.70 | 4859.97 | 4873.18 | 0.00 | 4867.22 | 0.00 | 0.00 | 0.00 |
| 6845+65 | CIRC | 24 | 24 | 1 | 0.024 | 291 | 1.12 | 12.97 | 4859.71 | 4856.45 | 4866.06 | 1.94 | 4861.62 | 14.39 | 3.95 | 0.97 |
| 6886+10 | CIRC | 24 | 24 | 1 | 0.024 | 323 | 2.91 | 20.91 | 4841.05 | 4831.65 | 4849.37 | 1.73 | 4842.61 | 17.44 | 5.20 | 0.86 |
| 6891+70 | CIRC | 24 | 24 | 1 | 0.024 | 349 | 4.82 | 26.91 | 4836.60 | 4819.78 | 4842.41 | 0.00 | 4835.67 | 0.00 | 0.00 | 0.00 |
| 6906+15 | CIRC | 24 | 24 | 1 | 0.024 | 325 | 5.12 | 27.74 | 4798.25 | 4781.58 | 4804.38 | 0.65 | 4797.93 | 2.25 | 3.01 | 0.33 |
| 6909+55 | CIRC | 24 | 24 | 1 | 0.024 | 344 | 1.83 | 16.58 | 4781.80 | 4775.50 | 4789.69 | 0.69 | 4782.22 | 2.54 | 3.07 | 0.34 |
| 6917+30 | CIRC | 24 | 24 | 1 | 0.024 | 306 | 2.67 | 20.01 | 4771.02 | 4762.85 | 4776.48 | 1.33 | 4772.19 | 11.56 | 4.80 | 0.66 |
| 6924+05 | CIRC | 24 | 24 | 1 | 0.024 | 341 | 0.14 | 4.50 | 4751.31 | 4750.85 | 4762.48 | 2.37 | 4753.65 | 6.00 | 1.58 | 1.18 |
| 6951+30 | CIRC | 24 | 24 | 1 | 0.024 | 286 | 1.18 | 13.33 | 4756.10 | 4752.72 | 4760.12 | 1.04 | 4757.55 | 5.54 | 10.41 | 0.52 |

**ICM Culvert Output: 100-year Event**
**Project:** US-20, Arco to Idaho Falls (Key Nos. 23244 & 24149)
**Designer:** Austin Wissler, PE (OR), CFM
**Date:** 10/24/2025

DAVID EVANS AND ASSOCIATES INC.

| Culvert Asset ID | Shape ID | Width (in) | Height (in) | Number of Barrels | Manning's n | Length (ft) | Gradient (%) | Full capacity ($ft^3/s$) | US invert (ft) | DS invert (ft) | Crown Elevation (ft) | Flow depth (ft) | Total head (ft) | Discharge ($ft^3/s$) | Velocity (ft/s) | HW/D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6960+85 | CIRC | 24 | 24 | 1 | 0.024 | 209 | 1.18 | 13.31 | 4757.04 | 4754.57 | 4759.81 | 0.00 | 4756.79 | 0.00 | 0.00 | 0.00 |

**ICM Culvert Output: 25-year Event, Snowmelt Analysis**
**Project:** US-20, Arco to Idaho Falls (Key Nos. 23244 & 24149)
**Designer:** Austin Wissler, PE (OR), CFM
**Date:** 10/24/2025

DAVID EVANS AND ASSOCIATES INC.

| Culvert Asset ID | Shape ID | Width (in) | Height (in) | Number of Barrels | Manning's n | Length (ft) | Gradient (%) | Full capacity ($ft^3/s$) | US invert (ft) | DS invert (ft) | Flow depth (ft) | Total head (ft) | Discharge ($ft^3/s$) | Velocity (ft/s) | HW/D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P-5909-1 | CIRC | 42 | 42 | 1 | 0.024 | 249 | 1.40 | 64.38 | 5326.80 | 5323.32 | 0.06 | 5326.75 | 0.02 | 4.97 | 0.02 |
| P-5928-1 | CIRC | 24 | 24 | 1 | 0.024 | 185 | 1.87 | 16.76 | 5316.60 | 5313.15 | 0.25 | 5316.53 | 0.32 | 1.60 | 0.13 |
| P-5932-1 | CIRC | 24 | 24 | 1 | 0.024 | 209 | 1.40 | 14.48 | 5316.44 | 5313.52 | 0.96 | 5317.24 | 5.12 | 3.25 | 0.48 |
| P-5959-1 | CIRC | 30 | 30 | 1 | 0.024 | 230 | 1.38 | 26.12 | 5294.80 | 5291.62 | 0.77 | 5295.39 | 4.39 | 3.55 | 0.31 |
| P-5985-1 | CIRC | 24 | 24 | 1 | 0.024 | 199 | 1.25 | 13.71 | 5284.07 | 5281.58 | 0.68 | 5284.58 | 2.57 | 2.52 | 0.34 |
| P-6017-1 | CIRC | 24 | 24 | 1 | 0.024 | 210 | 3.18 | 21.84 | 5250.90 | 5244.22 | 0.00 | 5250.23 | 0.00 | 0.00 | 0.00 |
| P-6025-1 | CIRC | 36 | 36 | 1 | 0.024 | 216 | 1.81 | 48.56 | 5229.65 | 5225.75 | 0.87 | 5230.14 | 5.07 | 7.59 | 0.29 |
| P-6055-1 | CIRC | 48 | 48 | 1 | 0.024 | 233 | 0.98 | 76.85 | 5196.96 | 5194.69 | 2.87 | 5199.76 | 50.86 | 5.40 | 0.72 |
| P-6066-1 | CIRC | 24 | 24 | 1 | 0.024 | 192 | 1.79 | 16.42 | 5195.95 | 5192.50 | 1.48 | 5198.99 | 12.29 | 14.76 | 0.74 |
| P-6074-1 | CIRC | 24 | 24 | 1 | 0.024 | 185 | 1.58 | 15.42 | 5194.00 | 5191.07 | 1.38 | 5196.22 | 10.28 | 12.72 | 0.69 |
| P-6091-1 | CIRC | 24 | 24 | 1 | 0.024 | 192 | 1.80 | 16.44 | 5184.53 | 5181.07 | 0.23 | 5184.43 | 0.27 | 2.04 | 0.12 |
| P-6114-1 | CIRC | 36 | 36 | 1 | 0.024 | 407 | 0.68 | 29.69 | 5157.76 | 5155.01 | 3.98 | 5161.81 | 36.92 | 4.17 | 1.33 |
| P-6127-1 | CIRC | 30 | 30 | 1 | 0.024 | 269 | 0.84 | 20.37 | 5157.66 | 5155.40 | 0.87 | 5158.38 | 4.12 | 2.14 | 0.35 |
| P-6137-1 | CIRC | 24 | 24 | 1 | 0.024 | 209 | 0.85 | 11.32 | 5156.28 | 5154.50 | 0.78 | 5156.95 | 2.87 | 1.99 | 0.39 |
| P-6155-1 | CIRC | 24 | 24 | 1 | 0.024 | 197 | 0.42 | 7.96 | 5144.35 | 5143.52 | 0.02 | 5144.29 | 0.00 | 0.39 | 0.01 |
| P-6168-1 | CIRC | 24 | 24 | 1 | 0.024 | 229 | 2.86 | 20.74 | 5133.22 | 5126.66 | 0.67 | 5133.42 | 2.40 | 3.65 | 0.34 |
| P-6176-1 | CIRC | 48 | 48 | 2 | 0.024 | 258 | 0.39 | 96.96 | 5113.85 | 5112.85 | 5.02 | 5119.00 | 137.20 | 4.32 | 1.26 |
| P-6197-1 | CIRC | 24 | 24 | 1 | 0.024 | 220 | 0.89 | 11.53 | 5113.50 | 5111.55 | 1.17 | 5114.59 | 5.64 | 2.28 | 0.58 |
| P-6218-1.2 | CIRC | 48 | 48 | 2 | 0.024 | 260 | 0.51 | 111.24 | 5096.95 | 5095.62 | 3.23 | 5100.10 | 87.61 | 2.96 | 0.81 |
| P-6230-1 | CIRC | 24 | 24 | 1 | 0.024 | 207 | 1.70 | 15.99 | 5104.82 | 5101.30 | 0.50 | 5105.02 | 1.32 | 2.24 | 0.25 |
| P-6243-1 | CIRC | 30 | 30 | 1 | 0.024 | 241 | 1.43 | 26.60 | 5096.63 | 5093.18 | 1.28 | 5097.76 | 10.24 | 4.49 | 0.51 |
| P-6253-1 | CIRC | 24 | 24 | 1 | 0.024 | 247 | 1.85 | 16.67 | 5107.76 | 5103.20 | 0.81 | 5108.33 | 3.73 | 3.03 | 0.40 |
| P-6257-1 | CIRC | 24 | 24 | 1 | 0.024 | 279 | 2.96 | 21.10 | 5110.81 | 5102.53 | 0.00 | 5110.22 | 0.00 | 0.00 | 0.00 |
| P-6260-1 | CIRC | 36 | 36 | 1 | 0.024 | 332 | 2.66 | 58.88 | 5111.76 | 5102.95 | 0.00 | 5111.03 | 0.00 | 0.00 | 0.00 |
| P-6275-1 | CIRC | 24 | 24 | 1 | 0.024 | 276 | 1.47 | 14.86 | 5105.81 | 5101.75 | 0.56 | 5106.15 | 1.71 | 2.63 | 0.28 |
| P-6280-1 | CIRC | 36 | 36 | 1 | 0.024 | 265 | 1.12 | 38.22 | 5100.65 | 5097.68 | 1.51 | 5101.99 | 14.71 | 4.54 | 0.50 |
| P-6293-1 | CIRC | 24 | 24 | 1 | 0.024 | 185 | 0.94 | 11.86 | 5107.20 | 5105.47 | 0.57 | 5107.64 | 1.58 | 1.71 | 0.28 |
| P-6299-1 | CIRC | 30 | 30 | 1 | 0.024 | 211 | 2.19 | 32.87 | 5104.86 | 5100.25 | 0.49 | 5104.82 | 1.39 | 3.48 | 0.19 |
| P-6311-1 | CIRC | 24 | 24 | 1 | 0.024 | 205 | 1.74 | 16.14 | 5095.51 | 5091.95 | 0.88 | 5096.17 | 4.73 | 6.17 | 0.44 |
| 6320+75 | CIRC | 30 | 30 | 1 | 0.024 | 222 | 1.40 | 26.29 | 5080.23 | 5077.13 | 1.32 | 5081.37 | 10.90 | 3.65 | 0.53 |
| 6327+20 | CIRC | 36 | 36 | 1 | 0.024 | 209 | 1.13 | 38.32 | 5075.35 | 5073.00 | 1.98 | 5077.19 | 23.29 | 4.29 | 0.66 |
| 6346+00 | CIRC | 24 | 24 | 1 | 0.024 | 225 | 1.38 | 14.39 | 5100.00 | 5096.90 | 0.76 | 5100.61 | 3.35 | 2.79 | 0.38 |
| 6362+20 | CIRC | 24 | 24 | 1 | 0.024 | 202 | 1.73 | 16.11 | 5107.75 | 5104.26 | 0.71 | 5108.22 | 2.87 | 2.91 | 0.35 |
| 6394+80 | CIRC | 24 | 24 | 1 | 0.024 | 186 | 1.06 | 12.64 | 5082.83 | 5080.85 | 0.86 | 5083.58 | 3.71 | 2.42 | 0.43 |
| 6411+75 | CIRC | 24 | 24 | 1 | 0.024 | 187 | 0.56 | 9.15 | 5076.44 | 5075.40 | 0.76 | 5077.15 | 2.56 | 1.88 | 0.38 |
| 6415+75 | CIRC | 24 | 24 | 2 | 0.024 | 192 | 0.89 | 23.06 | 5075.00 | 5073.30 | 2.09 | 5077.03 | 25.83 | 3.56 | 1.05 |
| 6431+40 | CIRC | 30 | 30 | 2 | 0.013 | 209 | 0.96 | 80.34 | 5069.50 | 5067.50 | 2.70 | 5072.46 | 68.79 | 5.70 | 1.08 |

**ICM Culvert Output: 25-year Event, Snowmelt Analysis**
**Project:** US-20, Arco to Idaho Falls (Key Nos. 23244 & 24149)
**Designer:** Austin Wissler, PE (OR), CFM
**Date:** 10/24/2025

DAVID EVANS AND ASSOCIATES INC.

| Culvert Asset ID | Shape ID | Width (in) | Height (in) | Number of Barrels | Manning's n | Length (ft) | Gradient (%) | Full capacity ($ft^3/s$) | US invert (ft) | DS invert (ft) | Flow depth (ft) | Total head (ft) | Discharge ($ft^3/s$) | Velocity (ft/s) | HW/D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6434+50 | CIRC | 24 | 24 | 2 | 0.013 | 205 | 1.29 | 51.38 | 5069.77 | 5067.13 | 2.20 | 5072.35 | 48.76 | 6.48 | 1.10 |
| 6448+10 | CIRC | 24 | 24 | 1 | 0.024 | 200 | 2.00 | 17.34 | 5079.51 | 5075.50 | 0.86 | 5080.13 | 4.77 | 3.22 | 0.43 |
| 6455+70 | CIRC | 24 | 24 | 1 | 0.024 | 242 | 2.80 | 20.52 | 5087.90 | 5081.11 | 0.00 | 5087.33 | 0.00 | 0.00 | 0.00 |
| 6459+90 | CIRC | 24 | 24 | 1 | 0.024 | 271 | 1.81 | 16.48 | 5089.90 | 5085.00 | 0.66 | 5090.28 | 2.30 | 2.36 | 0.33 |
| 6462+75 | CIRC | 24 | 24 | 1 | 0.024 | 307 | 1.71 | 16.05 | 5090.96 | 5085.70 | 0.60 | 5091.31 | 1.98 | 2.37 | 0.30 |
| 6499+15 | CIRC | 24 | 24 | 1 | 0.024 | 284 | 2.30 | 18.58 | 5109.96 | 5103.42 | 0.77 | 5110.36 | 3.17 | 3.06 | 0.39 |
| 6501+90 | CIRC | 24 | 24 | 1 | 0.024 | 281 | 2.24 | 18.35 | 5107.80 | 5101.50 | 1.17 | 5108.77 | 8.69 | 8.96 | 0.59 |
| 6507+15 | CIRC | 24 | 24 | 1 | 0.024 | 298 | 3.30 | 22.26 | 5102.93 | 5093.10 | 0.69 | 5103.00 | 2.53 | 2.31 | 0.35 |
| 6521+45 | CIRC | 30 | 30 | 1 | 0.024 | 290 | 1.64 | 28.42 | 5093.75 | 5089.00 | 1.09 | 5094.63 | 8.18 | 8.19 | 0.43 |
| 6529+30 | CIRC | 24 | 24 | 1 | 0.024 | 296 | 1.78 | 16.36 | 5093.28 | 5088.00 | 1.54 | 5094.75 | 13.14 | 4.51 | 0.77 |
| 6542+75 | CIRC | 24 | 24 | 1 | 0.024 | 321 | 0.89 | 11.53 | 5082.00 | 5079.16 | 0.93 | 5082.84 | 4.07 | 2.34 | 0.46 |
| 6579+80 | CIRC | 24 | 24 | 1 | 0.024 | 284 | 1.12 | 12.94 | 5060.93 | 5057.76 | 0.00 | 5060.70 | 0.00 | 0.00 | 0.00 |
| 6618+20 | CIRC | 24 | 24 | 1 | 0.024 | 327 | 2.42 | 19.06 | 4969.62 | 4961.72 | 0.53 | 4969.72 | 1.54 | 2.58 | 0.27 |
| 6625+75 | CIRC | 42 | 42 | 1 | 0.024 | 327 | 2.02 | 77.52 | 4951.13 | 4944.51 | 0.00 | 4950.47 | 0.00 | 0.00 | 0.00 |
| 6647+60 | CIRC | 36 | 36 | 1 | 0.024 | 344 | 0.82 | 32.62 | 4915.74 | 4912.94 | 0.80 | 4916.38 | 4.00 | 2.11 | 0.27 |
| 6651+25 | CIRC | 24 | 24 | 1 | 0.024 | 315 | 3.26 | 22.12 | 4914.27 | 4904.02 | 0.45 | 4914.12 | 1.05 | 3.47 | 0.23 |
| 6683+90 | CIRC | 48 | 48 | 2 | 0.024 | 293 | 0.86 | 144.60 | 4869.58 | 4867.05 | 1.78 | 4871.40 | 54.43 | 4.79 | 0.45 |
| 6689+90 | CIRC | 30 | 30 | 2 | 0.024 | 325 | 1.41 | 52.68 | 4869.32 | 4864.75 | 3.35 | 4872.61 | 58.80 | 10.56 | 1.34 |
| 6702+95 | CIRC | 24 | 24 | 1 | 0.024 | 303 | 1.16 | 13.18 | 4860.48 | 4856.98 | 1.08 | 4861.49 | 5.98 | 3.08 | 0.54 |
| 6718+85 | RECT | 114 | 96 | 1 | 0.024 | 375 | 0.56 | 590.10 | 4853.72 | 4851.62 | 2.87 | 4856.67 | 180.78 | 6.23 | 0.36 |
| 6749+95 | RECT | 114 | 96 | 1 | 0.024 | 361 | 0.57 | 595.99 | 4840.10 | 4838.04 | 5.92 | 4846.22 | 448.60 | 6.98 | 0.74 |
| 6767+30 | CIRC | 24 | 24 | 1 | 0.024 | 295 | 2.84 | 20.66 | 4867.25 | 4858.87 | 0.66 | 4867.39 | 2.31 | 2.74 | 0.33 |
| 6786+00 | CIRC | 24 | 24 | 1 | 0.024 | 301 | 0.87 | 11.41 | 4880.32 | 4877.71 | 0.41 | 4880.59 | 0.84 | 1.28 | 0.20 |
| 6798+25 | CIRC | 24 | 24 | 1 | 0.024 | 335 | 1.23 | 13.58 | 4881.01 | 4876.90 | 0.48 | 4881.27 | 1.17 | 2.51 | 0.24 |
| 6803+55 | CIRC | 24 | 24 | 1 | 0.024 | 287 | 4.56 | 26.18 | 4886.01 | 4872.92 | 0.38 | 4885.49 | 0.75 | 3.49 | 0.19 |
| 6810+65 | CIRC | 24 | 24 | 1 | 0.024 | 309 | 1.16 | 13.17 | 4875.30 | 4871.73 | 3.04 | 4878.39 | 17.56 | 4.19 | 1.52 |
| 6818+35 | CIRC | 24 | 24 | 1 | 0.024 | 302 | 2.55 | 19.57 | 4880.57 | 4872.88 | 0.35 | 4880.47 | 0.64 | 2.50 | 0.18 |
| 6832+85 | CIRC | 24 | 24 | 1 | 0.024 | 292 | 2.53 | 19.49 | 4873.62 | 4866.25 | 1.53 | 4874.96 | 13.89 | 4.66 | 0.76 |
| 6838+10 | CIRC | 24 | 24 | 1 | 0.024 | 302 | 2.56 | 19.60 | 4867.70 | 4859.97 | 0.00 | 4867.22 | 0.00 | 0.00 | 0.00 |
| 6845+65 | CIRC | 24 | 24 | 1 | 0.024 | 291 | 1.12 | 12.97 | 4859.71 | 4856.45 | 2.25 | 4861.91 | 15.57 | 3.96 | 1.12 |
| 6886+10 | CIRC | 24 | 24 | 1 | 0.024 | 323 | 2.91 | 20.91 | 4841.05 | 4831.65 | 1.83 | 4842.72 | 18.42 | 5.24 | 0.91 |
| 6891+70 | CIRC | 24 | 24 | 1 | 0.024 | 349 | 4.82 | 26.91 | 4836.60 | 4819.78 | 0.00 | 4835.67 | 0.00 | 0.00 | 0.00 |
| 6906+15 | CIRC | 24 | 24 | 1 | 0.024 | 325 | 5.12 | 27.74 | 4798.25 | 4781.58 | 0.68 | 4797.96 | 2.42 | 2.89 | 0.34 |
| 6909+55 | CIRC | 24 | 24 | 1 | 0.024 | 344 | 1.83 | 16.58 | 4781.80 | 4775.50 | 0.70 | 4782.26 | 2.75 | 2.89 | 0.35 |
| 6917+30 | CIRC | 24 | 24 | 1 | 0.024 | 306 | 2.67 | 20.01 | 4771.02 | 4762.85 | 1.37 | 4772.24 | 12.08 | 4.85 | 0.68 |
| 6924+05 | CIRC | 24 | 24 | 1 | 0.024 | 341 | 0.14 | 4.50 | 4751.31 | 4750.85 | 2.59 | 4753.88 | 5.85 | 1.55 | 1.30 |
| 6951+30 | CIRC | 24 | 24 | 1 | 0.024 | 286 | 1.18 | 13.33 | 4756.10 | 4752.72 | 1.08 | 4757.52 | 5.85 | 10.34 | 0.54 |

**ICM Culvert Output: 25-year Event, Snowmelt Analysis**
**Project:** US-20, Arco to Idaho Falls (Key Nos. 23244 & 24149)
**Designer:** Austin Wissler, PE (OR), CFM
**Date:** 10/24/2025

DAVID EVANS AND ASSOCIATES INC.

| Culvert Asset ID | Shape ID | Width (in) | Height (in) | Number of Barrels | Manning's n | Length (ft) | Gradient (%) | Full capacity ($ft^3/s$) | US invert (ft) | DS invert (ft) | Flow depth (ft) | Total head (ft) | Discharge ($ft^3/s$) | Velocity (ft/s) | HW/D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6960+85 | CIRC | 24 | 24 | 1 | 0.024 | 209 | 1.18 | 13.31 | 4757.04 | 4754.57 | 0.00 | 4756.79 | 0.00 | 0.00 | 0.00 |

**ICM Culvert Output: 100-year Event, Snowmelt Analysis**
**Project:** US-20, Arco to Idaho Falls (Key Nos. 23244 & 24149)
**Designer:** Austin Wissler, PE (OR), CFM
**Date:** 10/24/2025

DAVID EVANS AND ASSOCIATES INC.

| Culvert Asset ID | Shape ID | Width (in) | Height (in) | Number of Barrels | Manning's n | Length (ft) | Gradient (%) | Full capacity ($ft^3/s$) | US invert (ft) | DS invert (ft) | Crown Elevation (ft) | Flow depth (ft) | Total head (ft) | Discharge ($ft^3/s$) | Velocity (ft/s) | HW/D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P-5909-1 | CIRC | 42 | 42 | 1 | 0.024 | 249 | 1.40 | 64.38 | 5326.80 | 5323.32 | 5332.11 | 0.30 | 5326.81 | 0.63 | 5.34 | 0.31 |
| P-5928-1 | CIRC | 24 | 24 | 1 | 0.024 | 185 | 1.87 | 16.76 | 5316.60 | 5313.15 | 5321.04 | 0.42 | 5316.72 | 0.94 | 1.98 | 0.18 |
| P-5932-1 | CIRC | 24 | 24 | 1 | 0.024 | 209 | 1.40 | 14.48 | 5316.44 | 5313.52 | 5320.97 | 1.27 | 5317.66 | 8.94 | 3.94 | 0.19 |
| P-5959-1 | CIRC | 30 | 30 | 1 | 0.024 | 230 | 1.38 | 26.12 | 5294.80 | 5291.62 | 5301.33 | 0.99 | 5295.67 | 6.97 | 3.56 | 0.61 |
| P-5985-1 | CIRC | 24 | 24 | 1 | 0.024 | 199 | 1.25 | 13.71 | 5284.07 | 5281.58 | 5290.18 | 0.96 | 5284.90 | 4.80 | 2.75 | 0.71 |
| P-6017-1 | CIRC | 24 | 24 | 1 | 0.024 | 210 | 3.18 | 21.84 | 5250.90 | 5244.22 | 5253.88 | 0.00 | 5250.23 | 0.00 | 0.00 | 0.24 |
| P-6025-1 | CIRC | 36 | 36 | 1 | 0.024 | 216 | 1.81 | 48.56 | 5229.65 | 5225.75 | 5239.96 | 1.09 | 5230.45 | 9.96 | 6.06 | 0.27 |
| P-6055-1 | CIRC | 48 | 48 | 1 | 0.024 | 233 | 0.98 | 76.85 | 5196.96 | 5194.69 | 5206.10 | 4.36 | 5201.27 | 86.04 | 5.29 | 0.14 |
| P-6066-1 | CIRC | 24 | 24 | 1 | 0.024 | 192 | 1.79 | 16.42 | 5195.95 | 5192.50 | 5201.28 | 1.65 | 5198.89 | 14.92 | 14.53 | 0.08 |
| P-6074-1 | CIRC | 24 | 24 | 1 | 0.024 | 185 | 1.58 | 15.42 | 5194.00 | 5191.07 | 5199.52 | 1.62 | 5196.36 | 13.92 | 13.05 | 0.21 |
| P-6091-1 | CIRC | 24 | 24 | 1 | 0.024 | 192 | 1.80 | 16.44 | 5184.53 | 5181.07 | 5190.03 | 0.45 | 5184.67 | 1.04 | 2.20 | 0.63 |
| P-6114-1 | CIRC | 36 | 36 | 1 | 0.024 | 407 | 0.68 | 29.69 | 5157.76 | 5155.01 | 5168.54 | 5.08 | 5163.07 | 42.65 | 5.19 | 0.40 |
| P-6127-1 | CIRC | 30 | 30 | 1 | 0.024 | 269 | 0.84 | 20.37 | 5157.66 | 5155.40 | 5164.90 | 1.22 | 5158.76 | 7.70 | 2.61 | 0.48 |
| P-6137-1 | CIRC | 24 | 24 | 1 | 0.024 | 209 | 0.85 | 11.32 | 5156.28 | 5154.50 | 5162.32 | 1.17 | 5157.37 | 5.85 | 2.43 | 0.00 |
| P-6155-1 | CIRC | 24 | 24 | 1 | 0.024 | 197 | 0.42 | 7.96 | 5144.35 | 5143.52 | 5149.33 | 0.16 | 5144.43 | 0.11 | 0.57 | 0.36 |
| P-6168-1 | CIRC | 24 | 24 | 1 | 0.024 | 229 | 2.86 | 20.74 | 5133.22 | 5126.66 | 5135.70 | 0.84 | 5133.62 | 3.75 | 2.72 | 1.09 |
| P-6176-1 | CIRC | 48 | 48 | 2 | 0.024 | 258 | 0.39 | 96.96 | 5113.85 | 5112.85 | 5129.88 | 7.18 | 5121.45 | 180.27 | 6.16 | 0.83 |
| P-6197-1 | CIRC | 24 | 24 | 1 | 0.024 | 220 | 0.89 | 11.53 | 5113.50 | 5111.55 | 5123.43 | 1.54 | 5115.04 | 10.23 | 3.27 | 0.81 |
| P-6218-1.2 | CIRC | 48 | 48 | 2 | 0.024 | 260 | 0.51 | 111.24 | 5096.95 | 5095.62 | 5113.70 | 4.84 | 5101.86 | 143.65 | 4.31 | 0.22 |
| P-6230-1 | CIRC | 24 | 24 | 1 | 0.024 | 207 | 1.70 | 15.99 | 5104.82 | 5101.30 | 5112.41 | 0.75 | 5105.34 | 3.31 | 2.82 | 1.69 |
| P-6243-1 | CIRC | 30 | 30 | 1 | 0.024 | 241 | 1.43 | 26.60 | 5096.63 | 5093.18 | 5106.76 | 2.12 | 5098.65 | 21.26 | 4.06 | 0.49 |
| P-6253-1 | CIRC | 24 | 24 | 1 | 0.024 | 247 | 1.85 | 16.67 | 5107.76 | 5103.20 | 5111.68 | 0.97 | 5108.49 | 5.56 | 3.06 | 0.59 |
| P-6257-1 | CIRC | 24 | 24 | 1 | 0.024 | 279 | 2.96 | 21.10 | 5110.81 | 5102.53 | 5113.90 | 0.27 | 5110.51 | 0.37 | 2.12 | 0.08 |
| P-6260-1 | CIRC | 36 | 36 | 1 | 0.024 | 332 | 2.66 | 58.88 | 5111.76 | 5102.95 | 5114.99 | 0.00 | 5111.03 | 0.00 | 0.00 | 0.42 |
| P-6275-1 | CIRC | 24 | 24 | 1 | 0.024 | 276 | 1.47 | 14.86 | 5105.81 | 5101.75 | 5110.91 | 0.75 | 5106.38 | 3.36 | 2.63 | 1.80 |
| P-6280-1 | CIRC | 36 | 36 | 1 | 0.024 | 265 | 1.12 | 38.22 | 5100.65 | 5097.68 | 5109.71 | 2.29 | 5102.81 | 27.59 | 4.40 | 0.77 |
| P-6293-1 | CIRC | 24 | 24 | 1 | 0.024 | 185 | 0.94 | 11.86 | 5107.20 | 5105.47 | 5112.82 | 0.77 | 5107.87 | 2.92 | 2.13 | 1.21 |
| P-6299-1 | CIRC | 30 | 30 | 1 | 0.024 | 211 | 2.19 | 32.87 | 5104.86 | 5100.25 | 5110.71 | 0.69 | 5105.06 | 2.89 | 3.33 | 0.37 |
| P-6311-1 | CIRC | 24 | 24 | 1 | 0.024 | 205 | 1.74 | 16.14 | 5095.51 | 5091.95 | 5100.26 | 1.09 | 5096.42 | 6.84 | 6.03 | 0.85 |
| 6320+75 | CIRC | 30 | 30 | 1 | 0.024 | 222 | 1.40 | 26.29 | 5080.23 | 5077.13 | 5091.26 | 1.55 | 5081.64 | 14.36 | 3.99 | 0.48 |
| 6327+20 | CIRC | 36 | 36 | 1 | 0.024 | 209 | 1.13 | 38.32 | 5075.35 | 5073.00 | 5086.41 | 3.21 | 5078.43 | 42.33 | 4.14 | 0.14 |
| 6346+00 | CIRC | 24 | 24 | 1 | 0.024 | 225 | 1.38 | 14.39 | 5100.00 | 5096.90 | 5108.43 | 1.23 | 5101.16 | 7.84 | 3.47 | 0.00 |
| 6362+20 | CIRC | 24 | 24 | 1 | 0.024 | 202 | 1.73 | 16.11 | 5107.75 | 5104.26 | 5115.31 | 1.03 | 5108.58 | 6.00 | 3.05 | 0.38 |
| 6394+80 | CIRC | 24 | 24 | 1 | 0.024 | 186 | 1.06 | 12.64 | 5082.83 | 5080.85 | 5087.75 | 1.28 | 5084.04 | 7.33 | 2.86 | 0.76 |
| 6411+75 | CIRC | 24 | 24 | 1 | 0.024 | 187 | 0.56 | 9.15 | 5076.44 | 5075.40 | 5082.05 | 1.05 | 5077.46 | 4.48 | 2.17 | 0.39 |
| 6415+75 | CIRC | 24 | 24 | 2 | 0.024 | 192 | 0.89 | 23.06 | 5075.00 | 5073.30 | 5080.30 | 2.78 | 5077.82 | 31.98 | 3.69 | 0.28 |
| 6431+40 | CIRC | 30 | 30 | 2 | 0.013 | 209 | 0.96 | 80.34 | 5069.50 | 5067.50 | 5074.92 | 4.63 | 5074.69 | 94.76 | 7.23 | 0.55 |

**ICM Culvert Output: 100-year Event, Snowmelt Analysis**
**Project:** US-20, Arco to Idaho Falls (Key Nos. 23244 & 24149)
**Designer:** Austin Wissler, PE (OR), CFM
**Date:** 10/24/2025

DAVID EVANS AND ASSOCIATES INC.

| Culvert Asset ID | Shape ID | Width (in) | Height (in) | Number of Barrels | Manning's n | Length (ft) | Gradient (%) | Full capacity ($ft^3/s$) | US invert (ft) | DS invert (ft) | Crown Elevation (ft) | Flow depth (ft) | Total head (ft) | Discharge ($ft^3/s$) | Velocity (ft/s) | HW/D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6434+50 | CIRC | 24 | 24 | 2 | 0.013 | 205 | 1.29 | 51.38 | 5069.77 | 5067.13 | 5075.58 | 4.52 | 5074.90 | 60.89 | 7.50 | 0.62 |
| 6448+10 | CIRC | 24 | 24 | 1 | 0.024 | 200 | 2.00 | 17.34 | 5079.51 | 5075.50 | 5084.37 | 1.11 | 5080.39 | 7.17 | 3.38 | 1.07 |
| 6455+70 | CIRC | 24 | 24 | 1 | 0.024 | 242 | 2.80 | 20.52 | 5087.90 | 5081.11 | 5092.47 | 0.00 | 5087.33 | 0.00 | 0.00 | 0.61 |
| 6459+90 | CIRC | 24 | 24 | 1 | 0.024 | 271 | 1.81 | 16.48 | 5089.90 | 5085.00 | 5094.34 | 0.81 | 5090.49 | 4.22 | 2.92 | 0.52 |
| 6462+75 | CIRC | 24 | 24 | 1 | 0.024 | 307 | 1.71 | 16.05 | 5090.96 | 5085.70 | 5094.41 | 0.74 | 5091.50 | 3.61 | 3.02 | 0.64 |
| 6499+15 | CIRC | 24 | 24 | 1 | 0.024 | 284 | 2.30 | 18.58 | 5109.96 | 5103.42 | 5114.35 | 0.96 | 5110.66 | 5.41 | 3.60 | 0.53 |
| 6501+90 | CIRC | 24 | 24 | 1 | 0.024 | 281 | 2.24 | 18.35 | 5107.80 | 5101.50 | 5112.61 | 1.44 | 5109.09 | 11.91 | 8.98 | 1.39 |
| 6507+15 | CIRC | 24 | 24 | 1 | 0.024 | 298 | 3.30 | 22.26 | 5102.93 | 5093.10 | 5109.79 | 0.94 | 5103.30 | 4.70 | 2.95 | 1.85 |
| 6521+45 | CIRC | 30 | 30 | 1 | 0.024 | 290 | 1.64 | 28.42 | 5093.75 | 5089.00 | 5100.16 | 1.30 | 5094.90 | 11.31 | 5.38 | 2.26 |
| 6529+30 | CIRC | 24 | 24 | 1 | 0.024 | 296 | 1.78 | 16.36 | 5093.28 | 5088.00 | 5097.92 | 1.94 | 5095.17 | 17.20 | 4.65 | 0.55 |
| 6542+75 | CIRC | 24 | 24 | 1 | 0.024 | 321 | 0.89 | 11.53 | 5082.00 | 5079.16 | 5093.17 | 1.18 | 5083.11 | 6.20 | 2.66 | 0.00 |
| 6579+80 | CIRC | 24 | 24 | 1 | 0.024 | 284 | 1.12 | 12.94 | 5060.93 | 5057.76 | 5067.91 | 0.00 | 5060.70 | 0.00 | 0.00 | 0.41 |
| 6618+20 | CIRC | 24 | 24 | 1 | 0.024 | 327 | 2.42 | 19.06 | 4969.62 | 4961.72 | 4973.37 | 0.72 | 4969.95 | 2.85 | 2.59 | 0.37 |
| 6625+75 | CIRC | 42 | 42 | 1 | 0.024 | 327 | 2.02 | 77.52 | 4951.13 | 4944.51 | 4956.47 | 0.00 | 4950.47 | 0.00 | 0.00 | 0.48 |
| 6647+60 | CIRC | 36 | 36 | 1 | 0.024 | 344 | 0.82 | 32.62 | 4915.74 | 4912.94 | 4922.52 | 1.09 | 4916.70 | 7.27 | 2.59 | 0.72 |
| 6651+25 | CIRC | 24 | 24 | 1 | 0.024 | 315 | 3.26 | 22.12 | 4914.27 | 4904.02 | 4918.67 | 0.57 | 4914.26 | 1.71 | 2.57 | 0.47 |
| 6683+90 | CIRC | 48 | 48 | 2 | 0.024 | 293 | 0.86 | 144.60 | 4869.58 | 4867.05 | 4877.13 | 1.89 | 4871.53 | 60.72 | 4.93 | 0.52 |
| 6689+90 | CIRC | 30 | 30 | 2 | 0.024 | 325 | 1.41 | 52.68 | 4869.32 | 4864.75 | 4877.74 | 5.47 | 4875.08 | 75.33 | 10.51 | 0.97 |
| 6702+95 | CIRC | 24 | 24 | 1 | 0.024 | 303 | 1.16 | 13.18 | 4860.48 | 4856.98 | 4865.30 | 1.56 | 4862.09 | 12.40 | 4.18 | 0.59 |
| 6718+85 | RECT | 114 | 96 | 1 | 0.024 | 375 | 0.56 | 590.10 | 4853.72 | 4851.62 | 4866.30 | 4.06 | 4857.89 | 269.79 | 6.39 | 0.00 |
| 6749+95 | RECT | 114 | 96 | 1 | 0.024 | 361 | 0.57 | 595.99 | 4840.10 | 4838.04 | 4851.74 | 8.22 | 4848.40 | 645.74 | 7.14 | 0.36 |
| 6767+30 | CIRC | 24 | 24 | 1 | 0.024 | 295 | 2.84 | 20.66 | 4867.25 | 4858.87 | 4873.96 | 0.89 | 4867.66 | 4.21 | 2.79 | 0.00 |
| 6786+00 | CIRC | 24 | 24 | 1 | 0.024 | 301 | 0.87 | 11.41 | 4880.32 | 4877.71 | 4885.65 | 0.65 | 4880.86 | 2.03 | 1.76 | 0.36 |
| 6798+25 | CIRC | 24 | 24 | 1 | 0.024 | 335 | 1.23 | 13.58 | 4881.01 | 4876.90 | 4888.96 | 0.72 | 4881.56 | 2.93 | 2.38 | 0.28 |
| 6803+55 | CIRC | 24 | 24 | 1 | 0.024 | 287 | 4.56 | 26.18 | 4886.01 | 4872.92 | 4889.21 | 0.48 | 4885.60 | 1.20 | 2.49 | 0.47 |
| 6810+65 | CIRC | 24 | 24 | 1 | 0.024 | 309 | 1.16 | 13.17 | 4875.30 | 4871.73 | 4884.62 | 5.05 | 4880.59 | 20.90 | 5.44 | 2.19 |
| 6818+35 | CIRC | 24 | 24 | 1 | 0.024 | 302 | 2.55 | 19.57 | 4880.57 | 4872.88 | 4885.06 | 0.58 | 4880.74 | 1.81 | 2.41 | 0.78 |
| 6832+85 | CIRC | 24 | 24 | 1 | 0.024 | 292 | 2.53 | 19.49 | 4873.62 | 4866.25 | 4880.26 | 2.03 | 4875.52 | 20.15 | 5.06 | 0.43 |
| 6838+10 | CIRC | 24 | 24 | 1 | 0.024 | 302 | 2.56 | 19.60 | 4867.70 | 4859.97 | 4873.18 | 0.00 | 4867.22 | 0.00 | 0.00 | 0.87 |
| 6845+65 | CIRC | 24 | 24 | 1 | 0.024 | 291 | 1.12 | 12.97 | 4859.71 | 4856.45 | 4866.06 | 3.55 | 4863.36 | 18.64 | 4.62 | 0.45 |
| 6886+10 | CIRC | 24 | 24 | 1 | 0.024 | 323 | 2.91 | 20.91 | 4841.05 | 4831.65 | 4849.37 | 2.14 | 4843.15 | 24.50 | 5.98 | 0.33 |
| 6891+70 | CIRC | 24 | 24 | 1 | 0.024 | 349 | 4.82 | 26.91 | 4836.60 | 4819.78 | 4842.41 | 0.00 | 4835.67 | 0.00 | 0.00 | 0.36 |
| 6906+15 | CIRC | 24 | 24 | 1 | 0.024 | 325 | 5.12 | 27.74 | 4798.25 | 4781.58 | 4804.38 | 0.86 | 4798.19 | 3.96 | 2.75 | 0.24 |
| 6909+55 | CIRC | 24 | 24 | 1 | 0.024 | 344 | 1.83 | 16.58 | 4781.80 | 4775.50 | 4789.69 | 0.94 | 4782.55 | 5.36 | 3.21 | 2.53 |
| 6917+30 | CIRC | 24 | 24 | 1 | 0.024 | 306 | 2.67 | 20.01 | 4771.02 | 4762.85 | 4776.48 | 1.60 | 4772.56 | 16.23 | 5.36 | 0.29 |
| 6924+05 | CIRC | 24 | 24 | 1 | 0.024 | 341 | 0.14 | 4.50 | 4751.31 | 4750.85 | 4762.48 | 4.32 | 4755.61 | 5.71 | 1.54 | 1.02 |
| 6951+30 | CIRC | 24 | 24 | 1 | 0.024 | 286 | 1.18 | 13.33 | 4756.10 | 4752.72 | 4760.12 | 1.29 | 4757.53 | 8.56 | 10.37 | 0.00 |

**ICM Culvert Output: 100-year Event, Snowmelt Analysis**
**Project:** US-20, Arco to Idaho Falls (Key Nos. 23244 & 24149)
**Designer:** Austin Wissler, PE (OR), CFM
**Date:** 10/24/2025

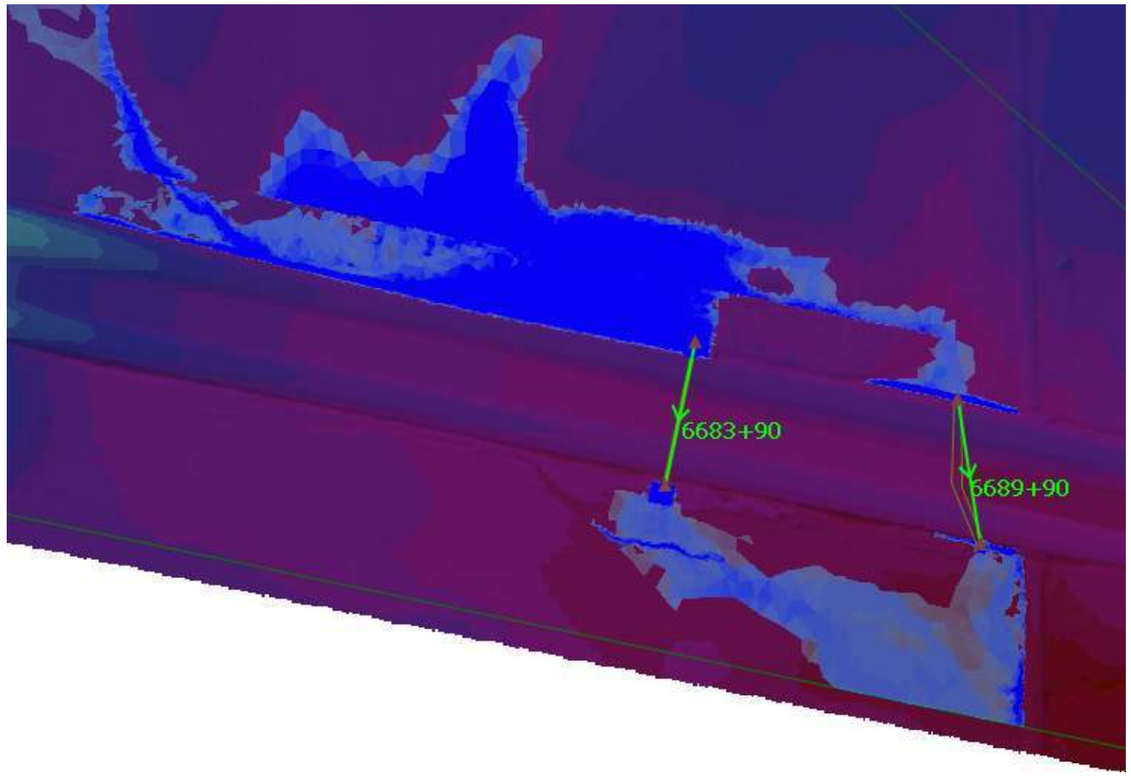
DAVID EVANS AND ASSOCIATES INC.

| Culvert Asset ID | Shape ID | Width (in) | Height (in) | Number of Barrels | Manning's n | Length (ft) | Gradient (%) | Full capacity ($ft^3/s$) | US invert (ft) | DS invert (ft) | Crown Elevation (ft) | Flow depth (ft) | Total head (ft) | Discharge ($ft^3/s$) | Velocity (ft/s) | HW/D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6960+85 | CIRC | 24 | 24 | 1 | 0.024 | 209 | 1.18 | 13.31 | 4757.04 | 4754.57 | 4759.81 | 0.00 | 4756.79 | 0.00 | 0.00 | 1.78 |

# Proposed Culvert Profile Results

Culvert Station: 6683+90
Culvert Size: Dual 48" CMP
Event: 25-year

N

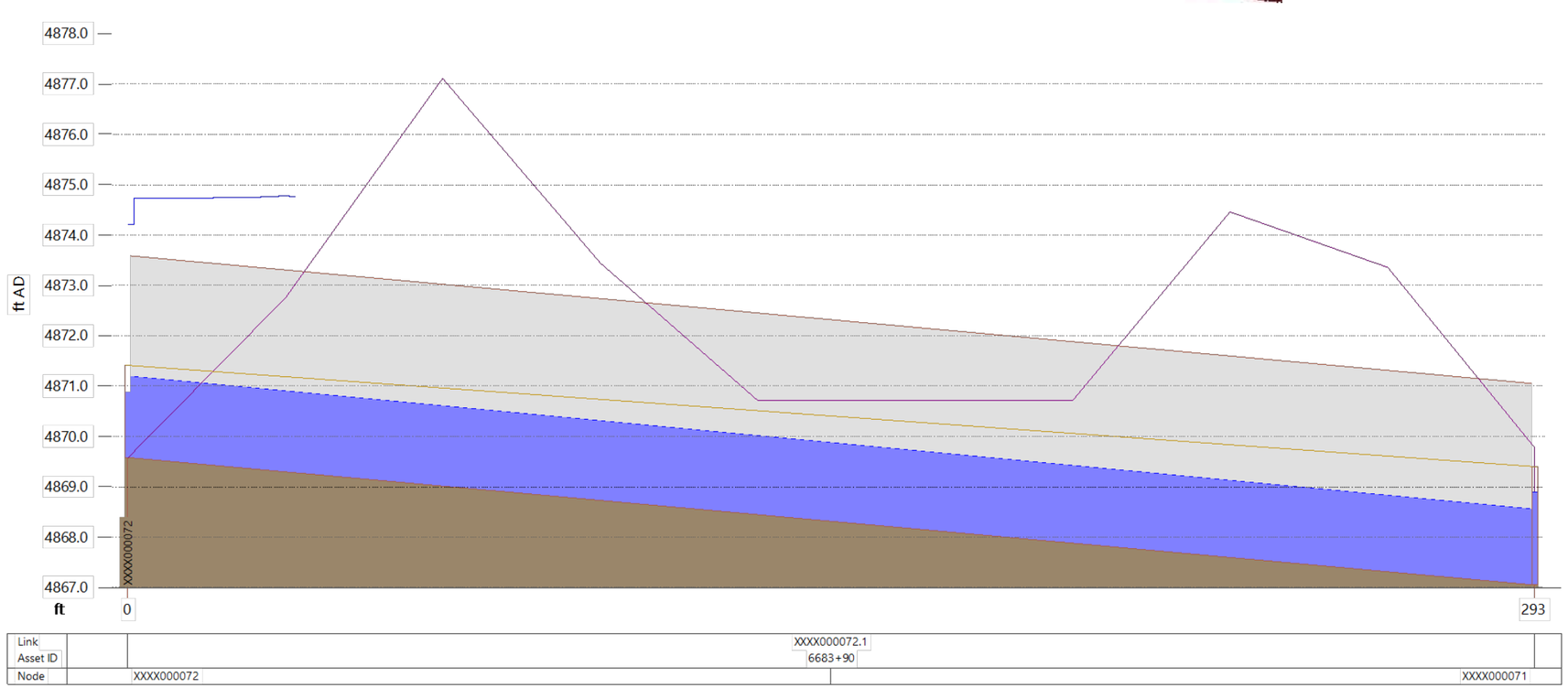



**Legend**

2D Mesh Ground Surface

Water Surface in Pipe

Pipe

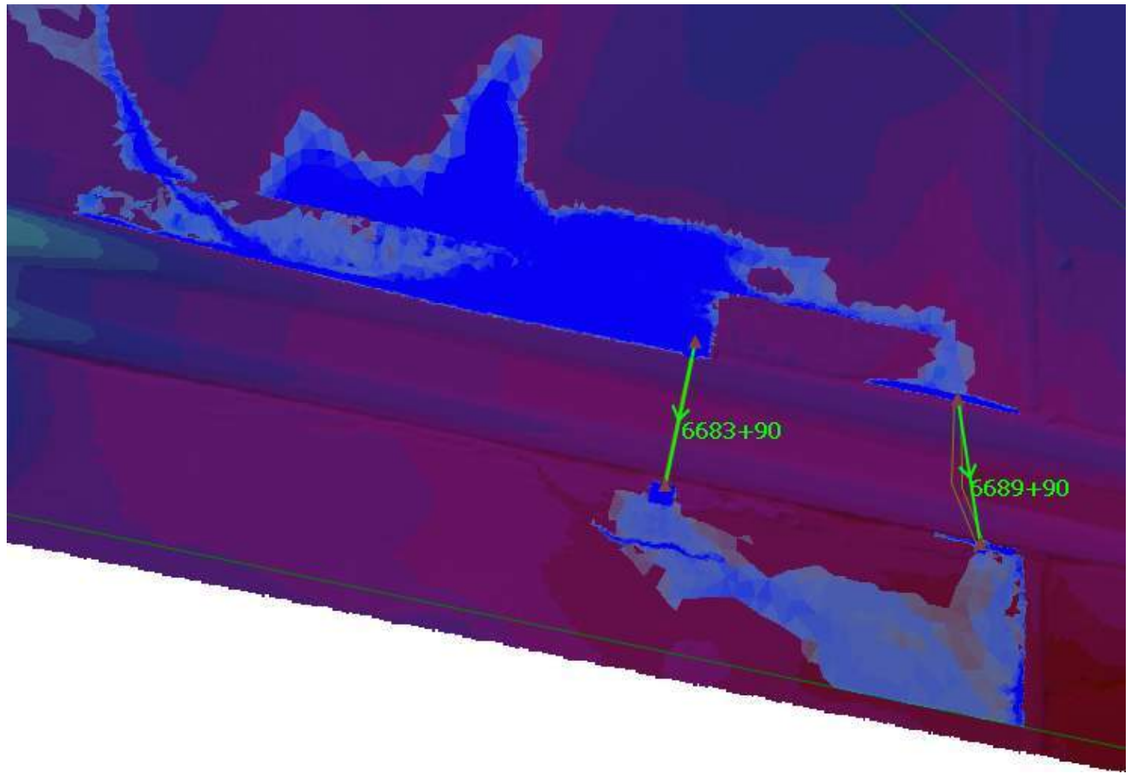


# Proposed Culvert Profile Results

Culvert Station: 6689+90
Culvert Size: Dual 30" CMP
Event: 25-year

DAVID EVANS AND ASSOCIATES INC.

N

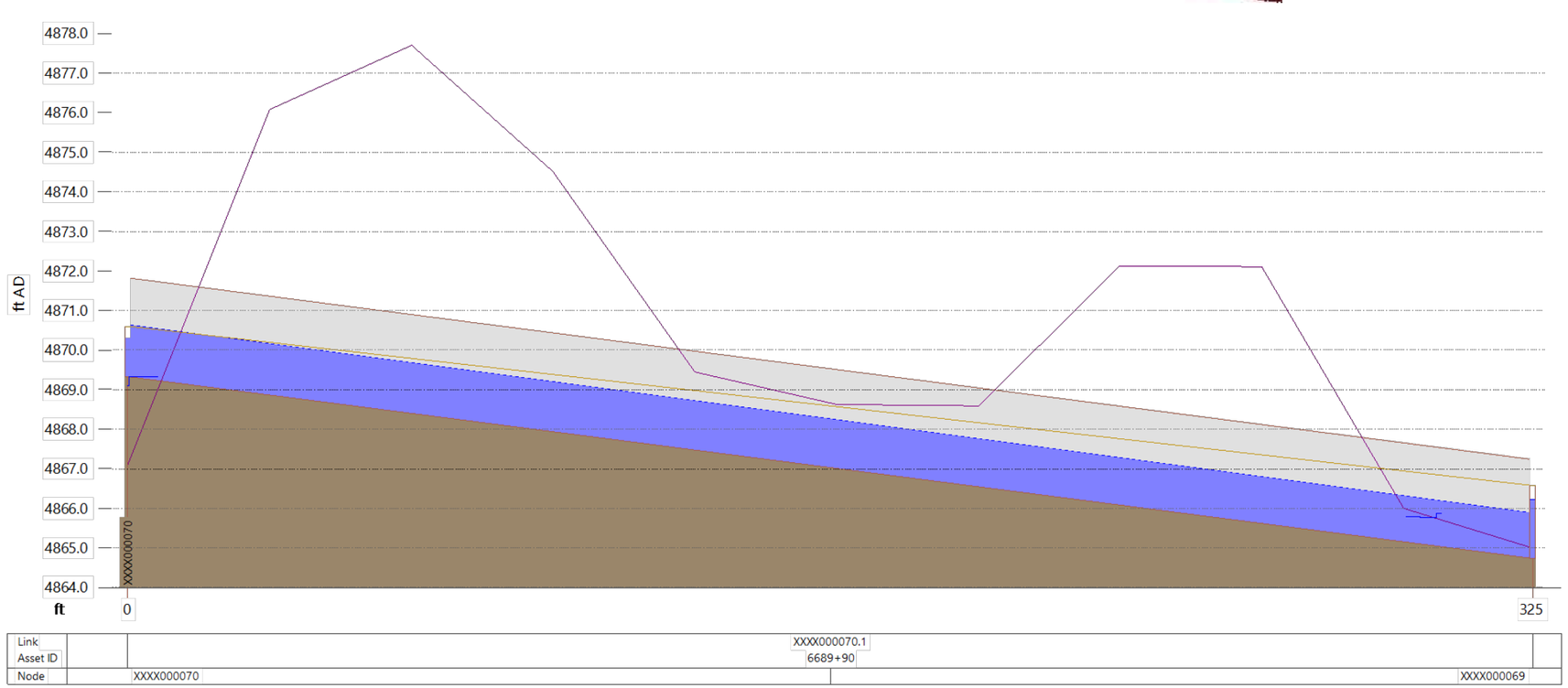



**Legend**

2D Mesh Ground Surface

Water Surface in Pipe

Pipe

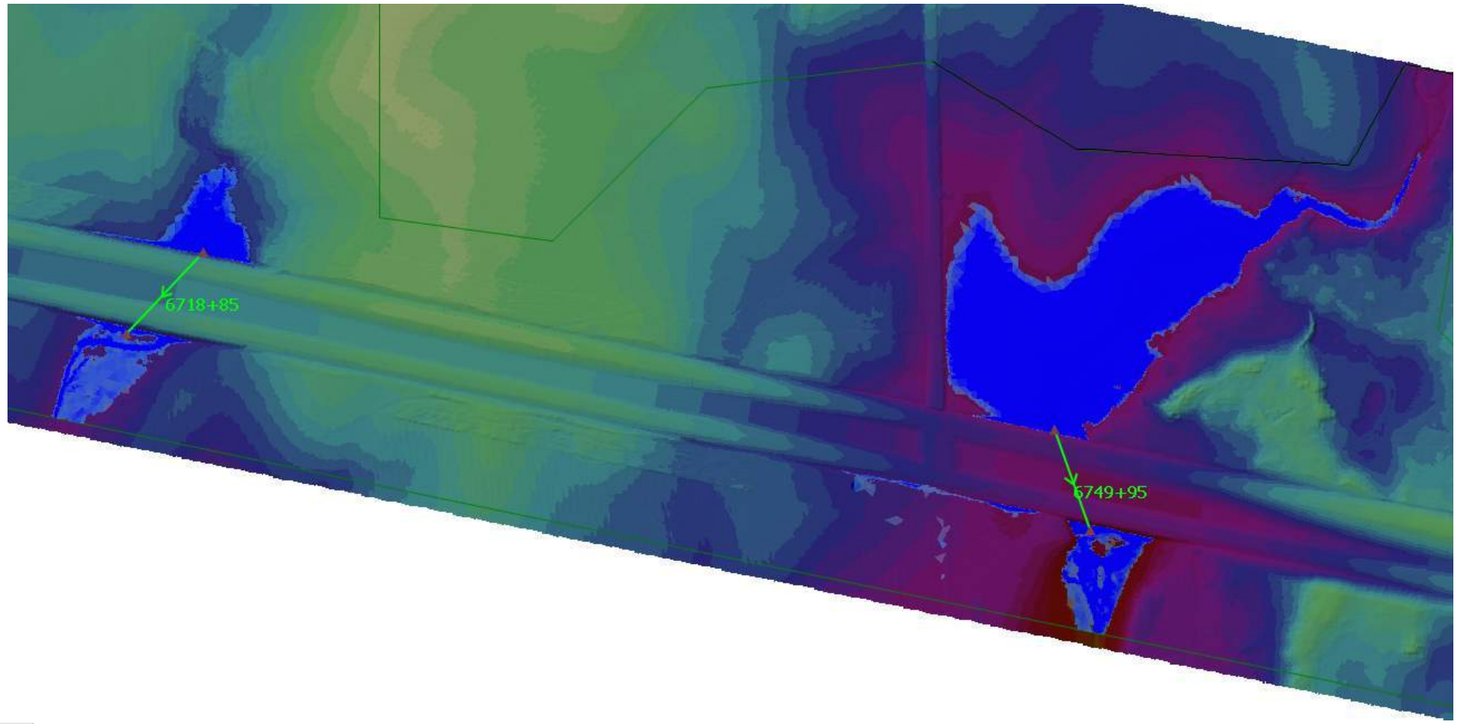


# Proposed Culvert Profile Results

Culvert Station: 6718+85
Culvert Size: 9.5’W x 8’ H Box Culvert
Event: 25-year

DAVID EVANS AND ASSOCIATES INC.

N

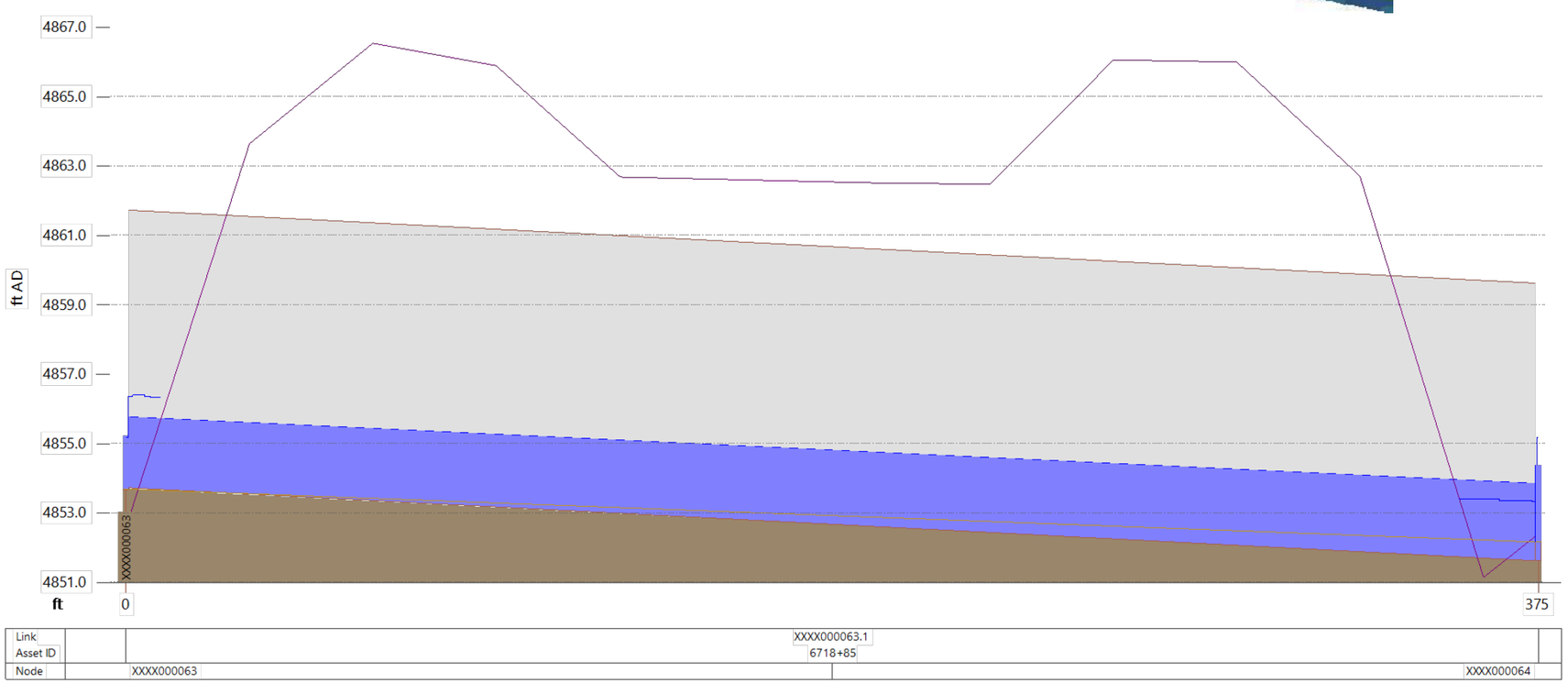



**Legend**

2D Mesh Ground Surface

Water Surface in Pipe

Pipe

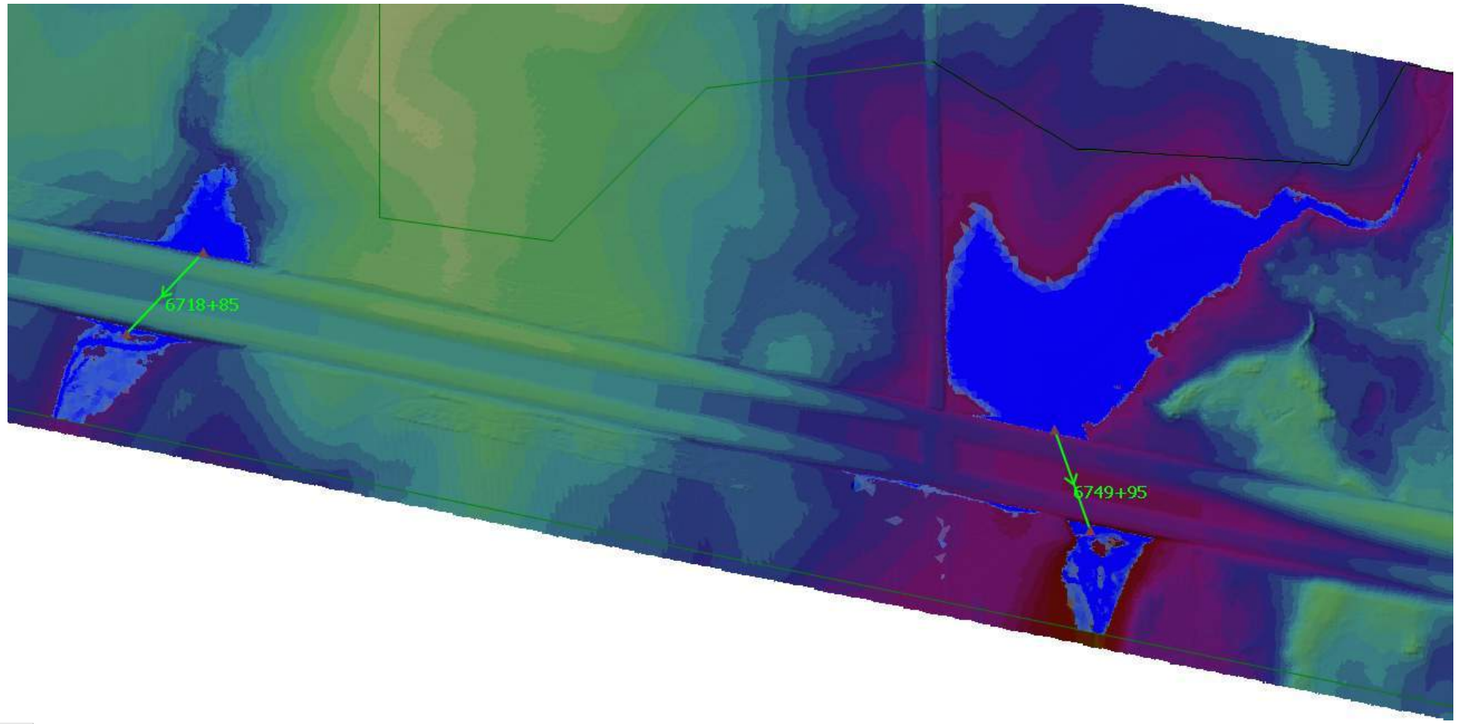


# Proposed Culvert Profile Results

Culvert Station: 6749+95
Culvert Size: 9.5’W x 8’ H Box Culvert
Event: 25-year

DAVID EVANS AND ASSOCIATES INC.

N

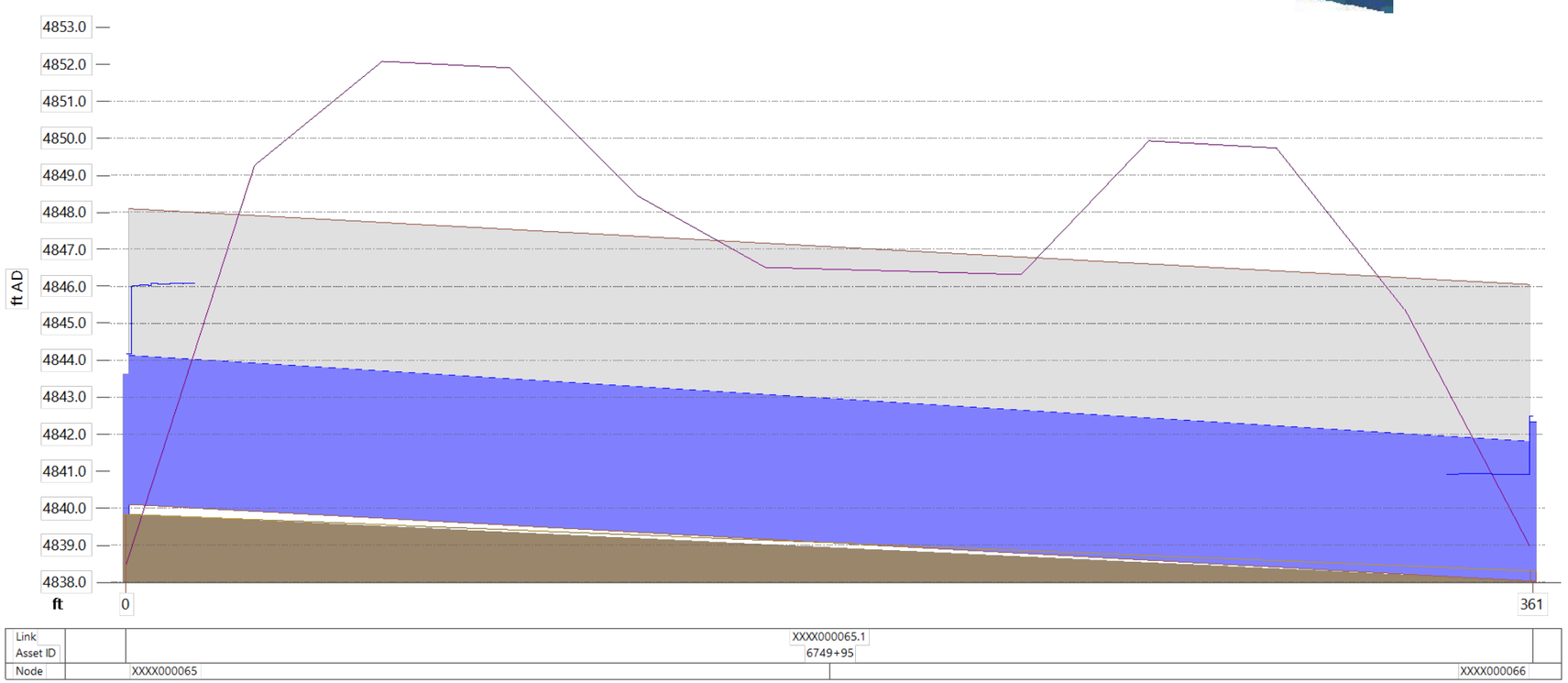



**Legend**

2D Mesh Ground Surface

Water Surface in Pipe

Pipe

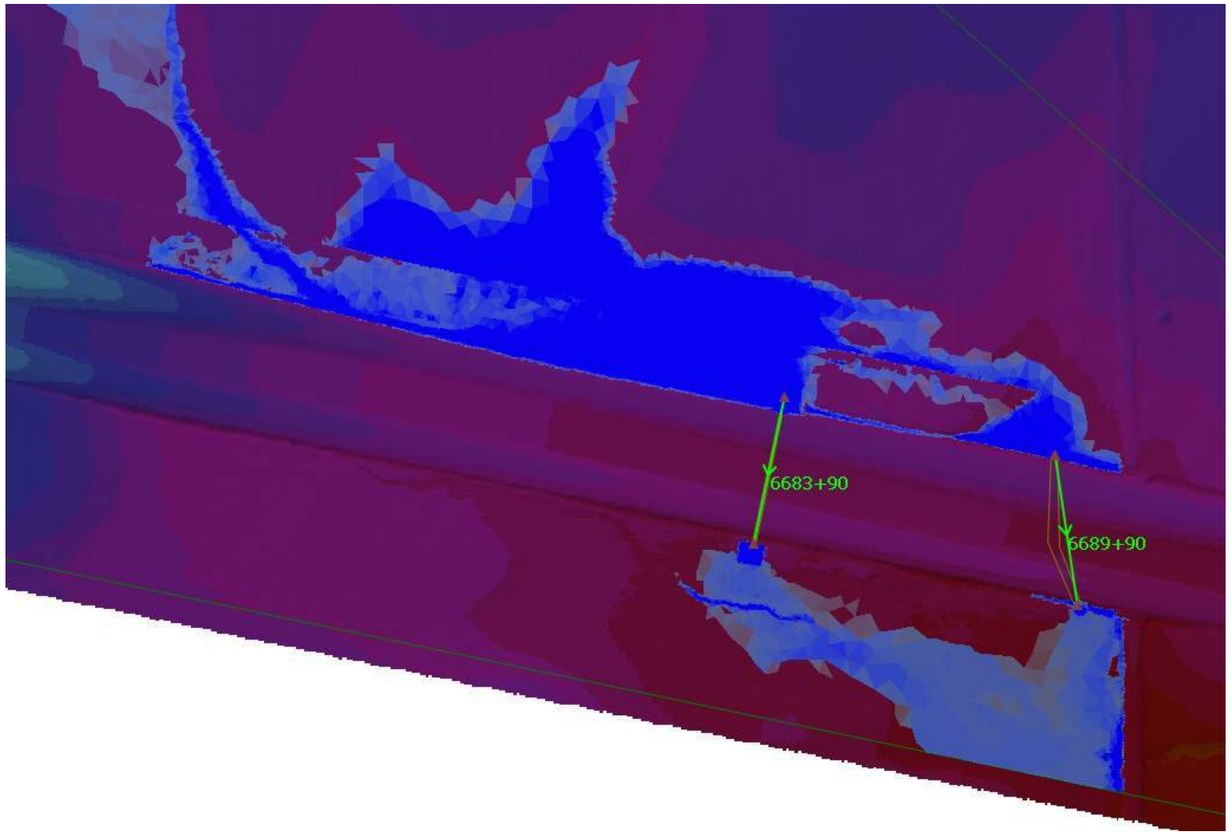


# Proposed Culvert Profile Results

Culvert Station: 6683+90
Culvert Size: Dual 48" CMP
Event: 100-year

DAVID EVANS AND ASSOCIATES INC.

N

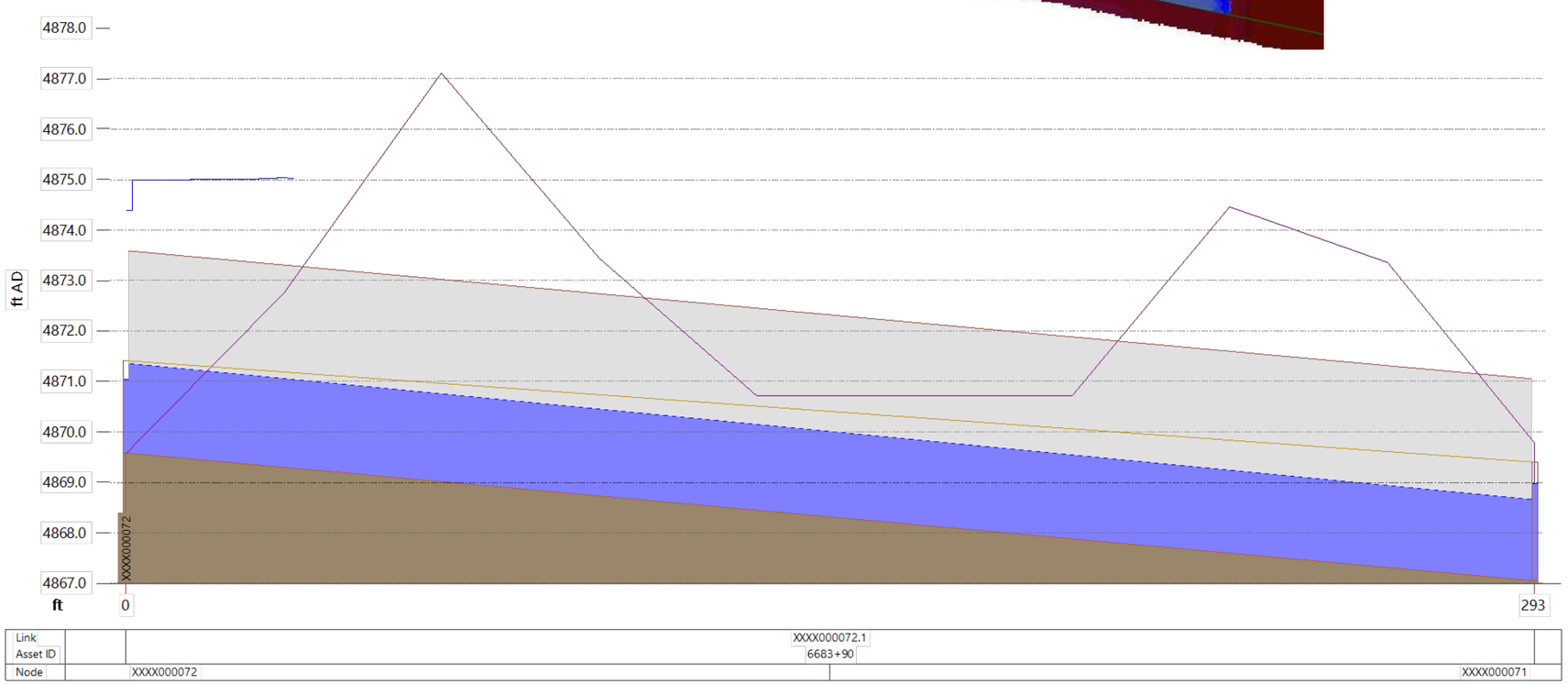



**Legend**

2D Mesh Ground Surface

Water Surface in Pipe

Pipe

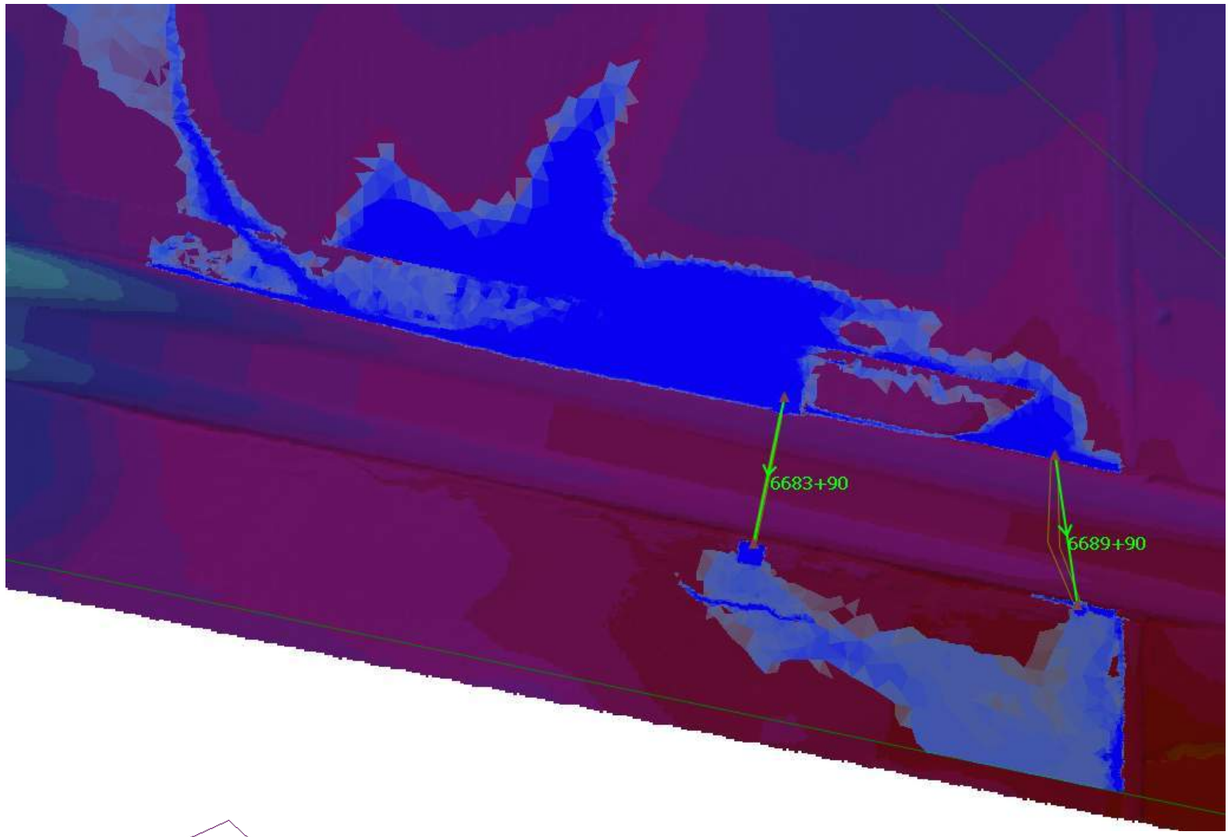


# Proposed Culvert Profile Results

Culvert Station: 6689+90
Culvert Size: Dual 30" CMP
Event: 100-year

DAVID EVANS AND ASSOCIATES INC.

N

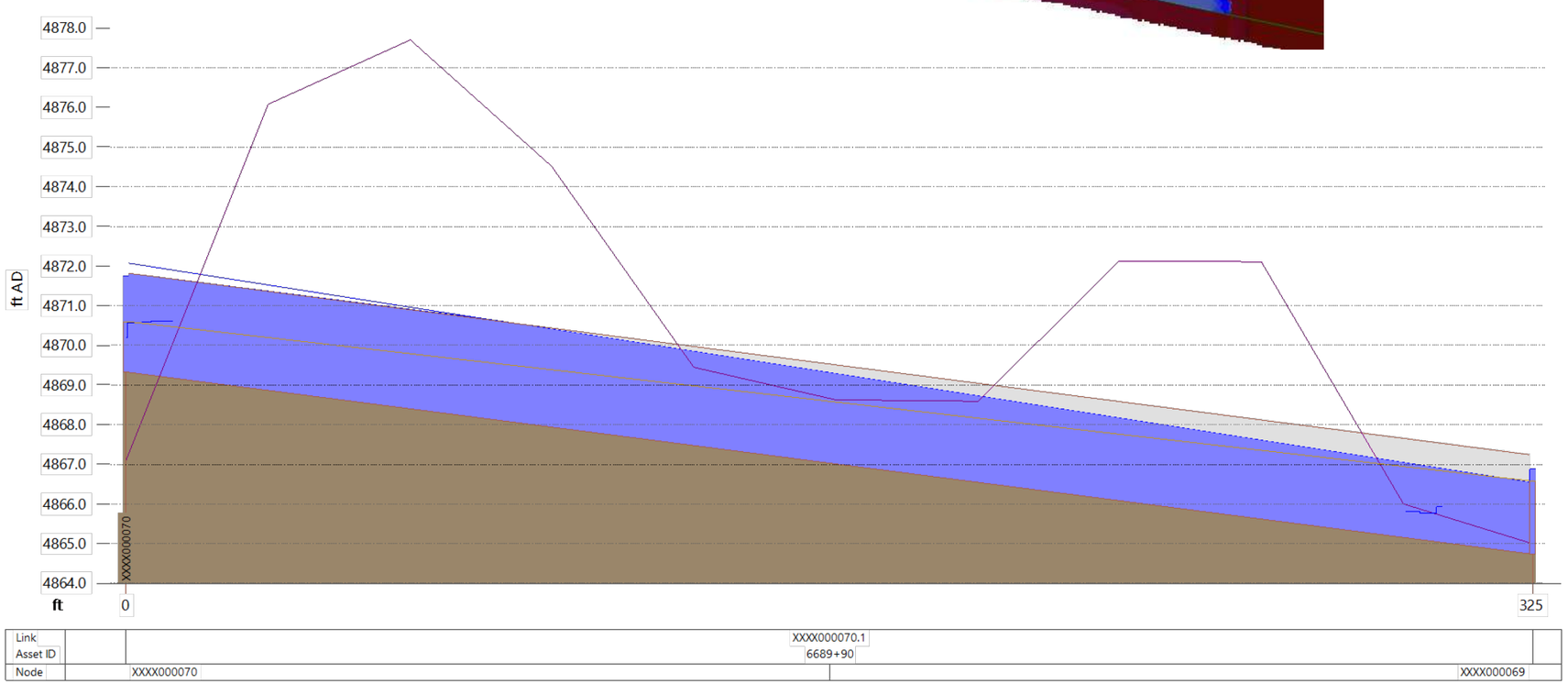



**Legend**

2D Mesh Ground Surface

Water Surface in Pipe

Pipe

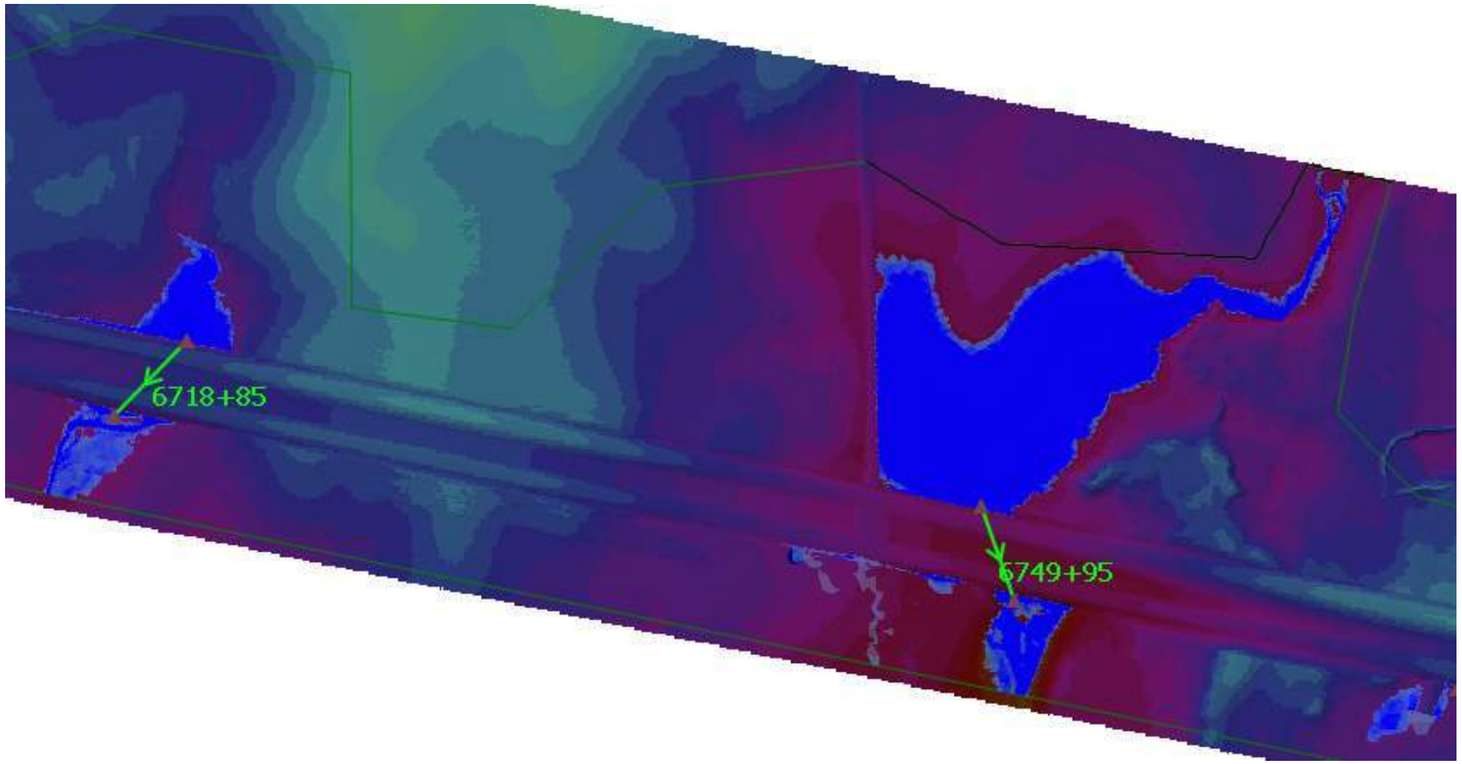


# Proposed Culvert Profile Results

Culvert Station: 6718+85
Culvert Size: 9.5’W x 8’ H Box Culvert
Event: 100-year

DAVID EVANS AND ASSOCIATES INC.

N

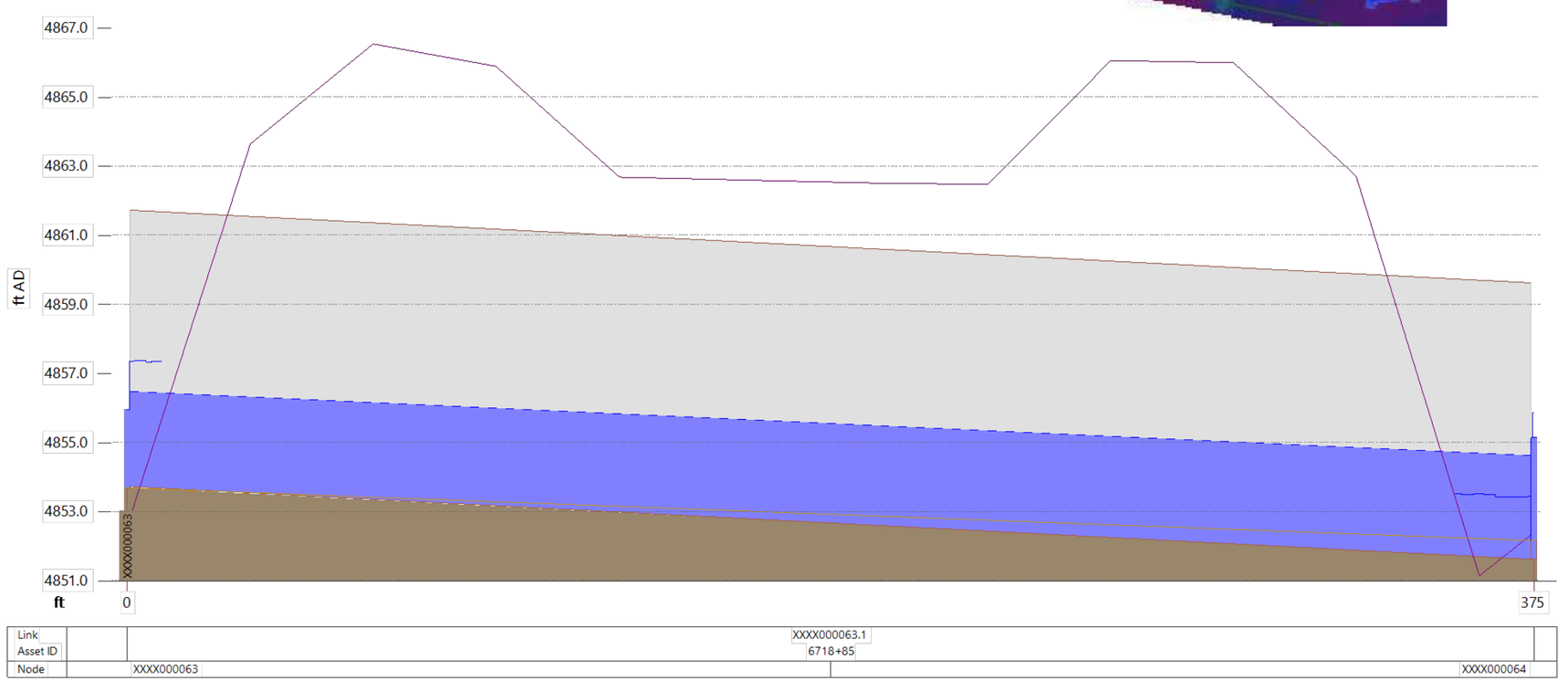



**Legend**

2D Mesh Ground Surface

Water Surface in Pipe

Pipe

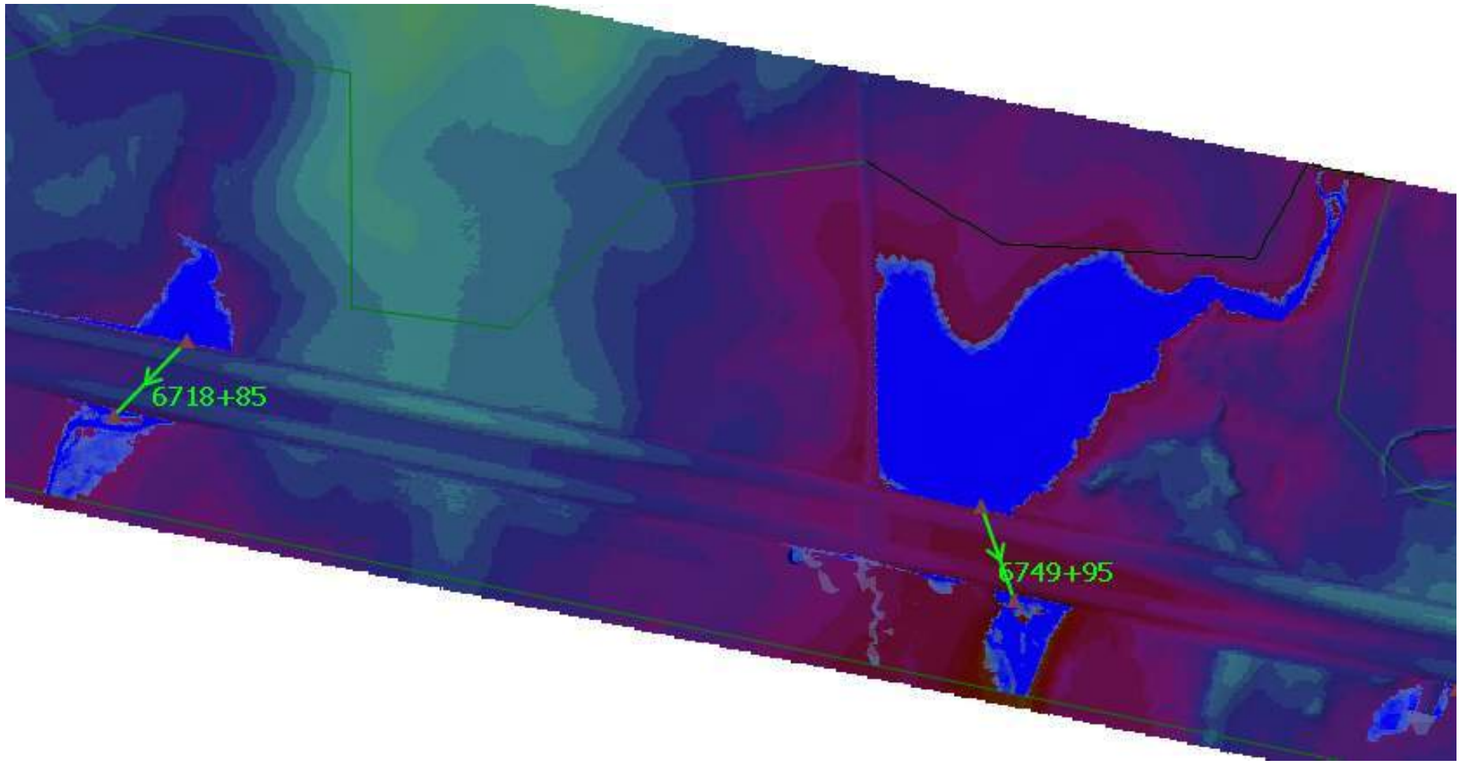


# Proposed Culvert Profile Results

Culvert Station: 6749+95
Culvert Size: 9.5'W x 8' H Box Culvert
Event: 100-year

DAVID EVANS AND ASSOCIATES INC.

N

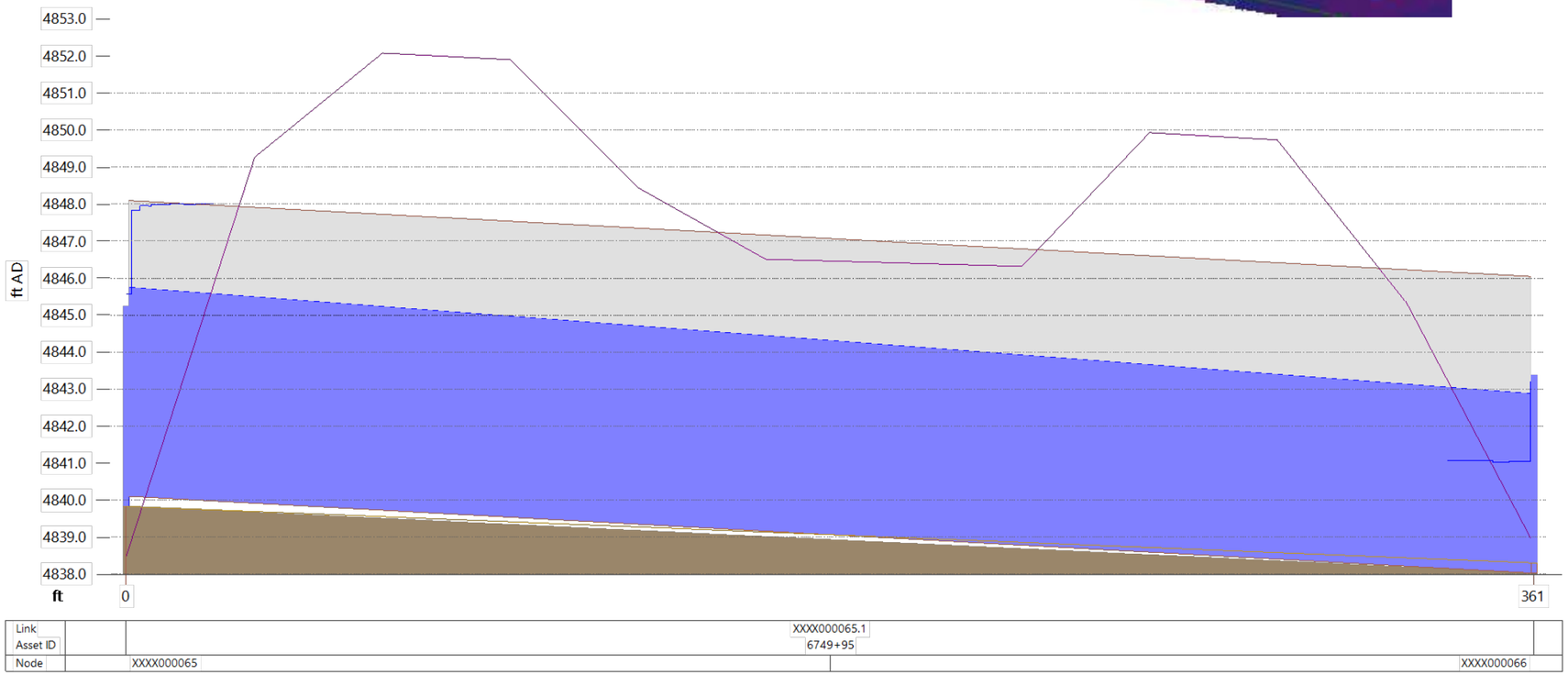



**Legend**

2D Mesh Ground Surface

Water Surface in Pipe

Pipe



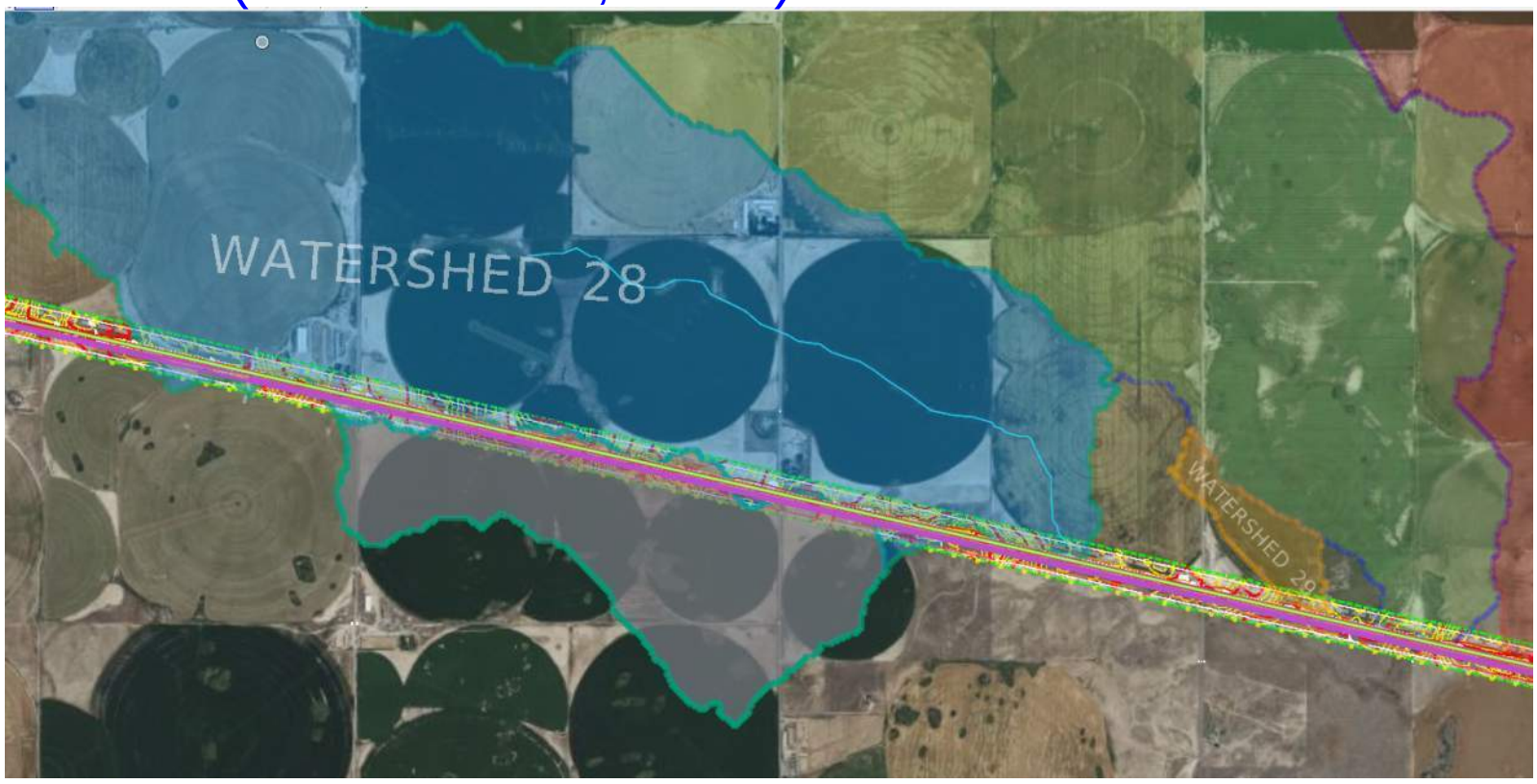
*Appendix C*

# MP 296 Flooding

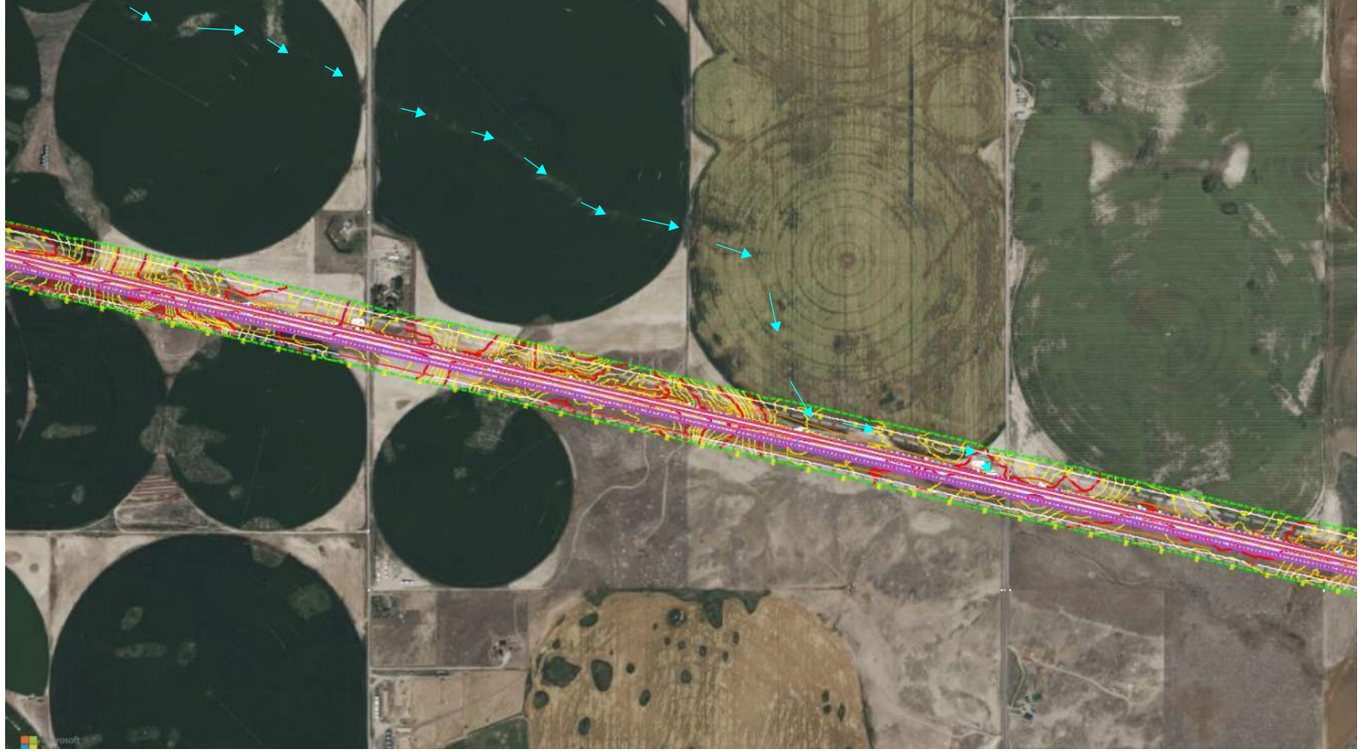
DAVID EVANS AND ASSOCIATES INC.



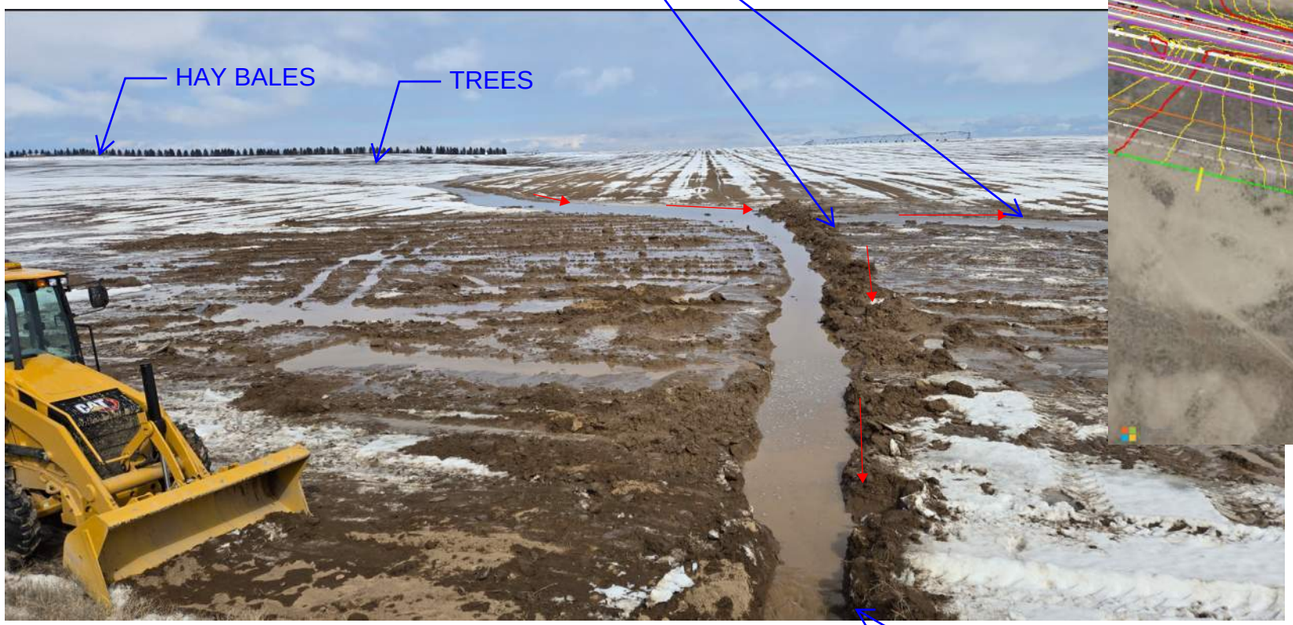

WATERSHED THAT FLOWS TO MP 296
(STA 6690+00, 115W)

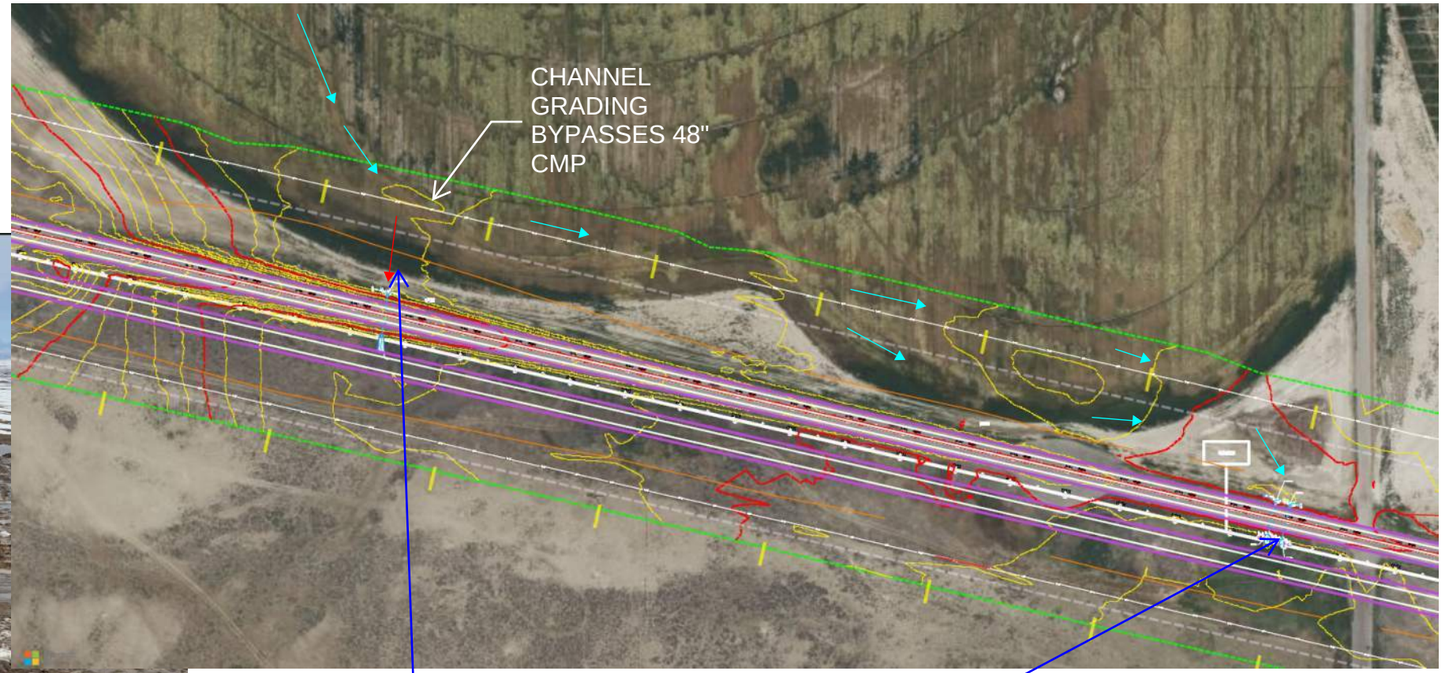




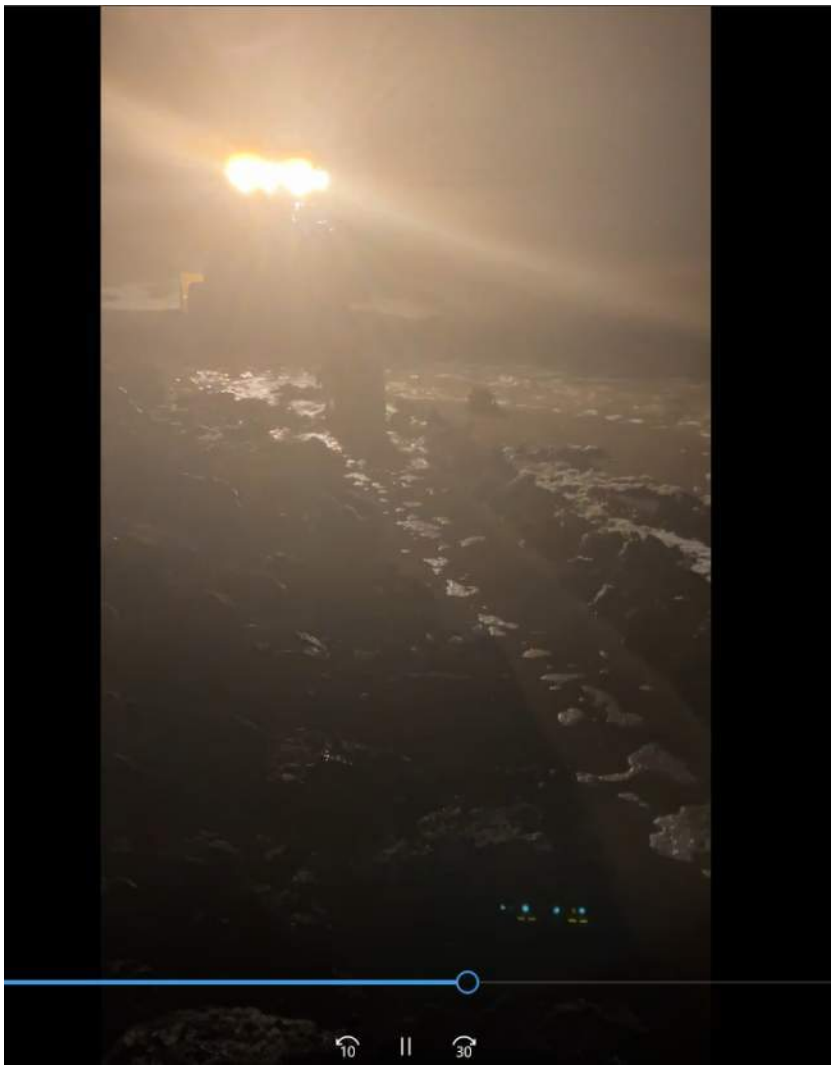
ITD GRADED THIS DITCH TO CONNECT TO THE 48" CROSSING CULVERT, BUT THE RUNOFF BLEW OUT THE BERM AND CONTINUED PAST





NEAR STA 6673+50, DIVERSION LOCATION TO 48" CMP. FLOW IS WIDE, 2 INCHES DEEP WITH WAVES, VELOCITY.




NEAR STA 6673+50, DIVERSION LOCATION TO 48" CMP. SNIP FROM VIDEO. WIDE, FAST FLOW VELOCITY.



WEST OF STA 6673+50. FLOW PATH ACROSS PIVOT FIELD. WIDE FLOW PATH, THEN RUNS PARALLEL TO US20 TO STA 6690+00.



WEST OF STA 6673+50. FLOW PATH ACROSS PIVOT FIELD. WIDE FLOW PATH.








30", 03/2025





30", 10/2024





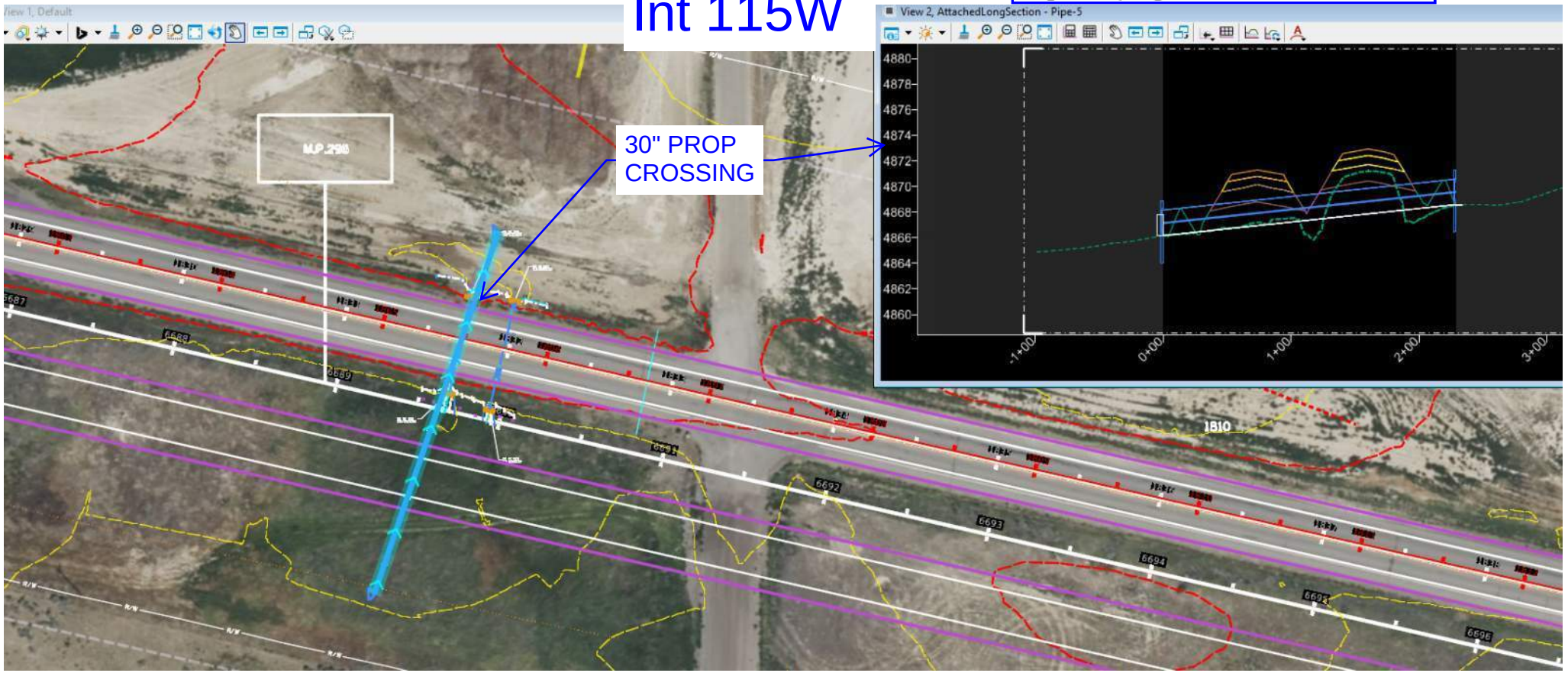
18", 10/2024

ITD MAINTAINENCE NOTES SUGGEST THIS AREA MIGHT BE A RECURRING ISSUE

296 replace culvert with larger culvert due to spring runoff

295.7 fill in shoulder replace culvert with larger for spring runoff

# STA 6690
# MP 296
# Int 115W

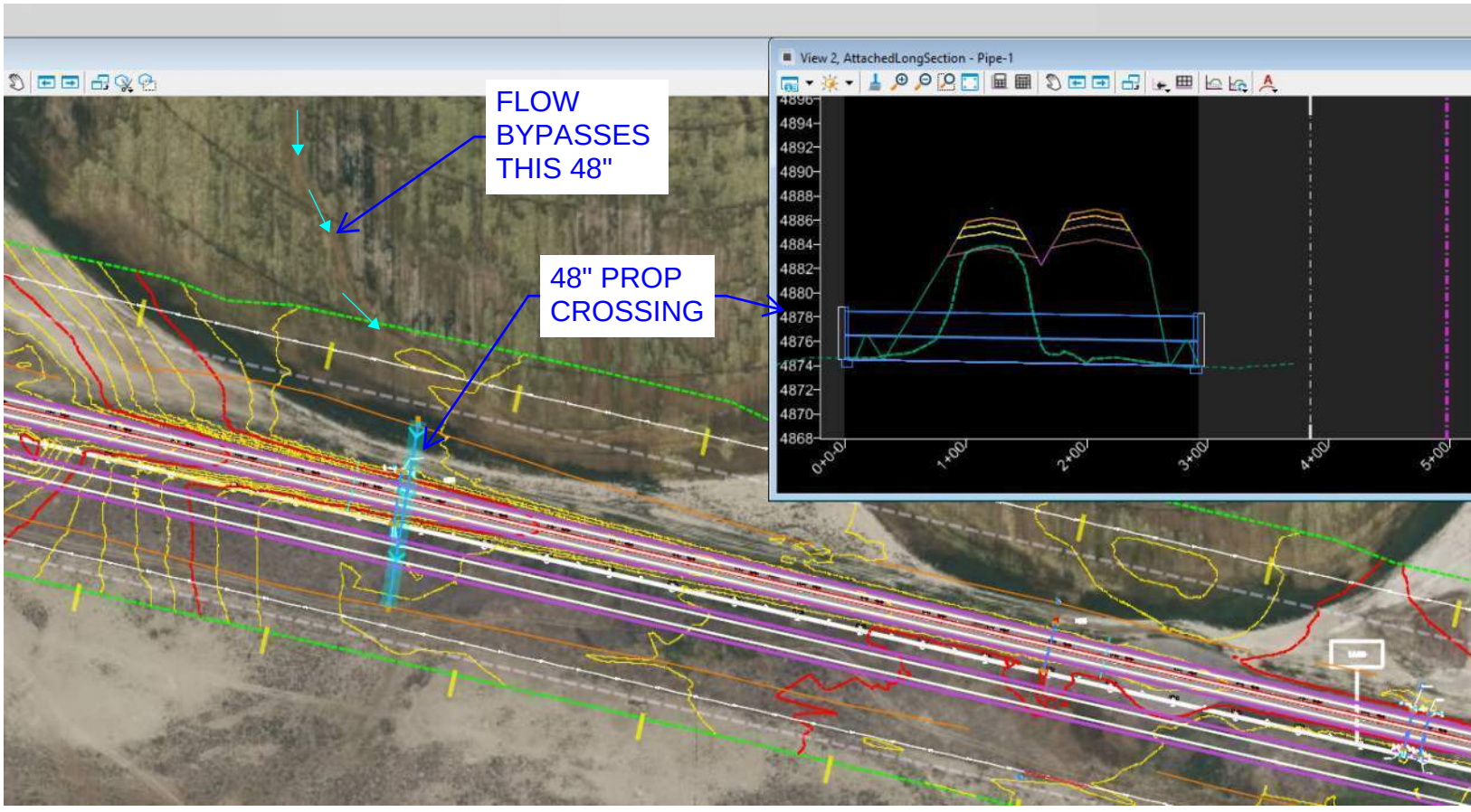


48" CMP
Outlet, Inlet,
Channel





STA
6673+50
48" CMP
bypassed



# T.2N.R.3GE.B.M.

| FEDERAL ROAD DIVISION NO. | STATE | FEDERAL AID PROJECT NO. | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 8 | IDAHO | F.6422(1) | 20 | 15 |

NW4SE4 6 | NE4SW4 6 | NE4SE4 6 | NW4SW4 5 | SE4SW4 5 | SW4SE4 6 | SE4SW4 6 | SE4SE4 6 | SW4SW4 5

1782+50 | 1790+00 | 1802+00 | 1808+50 | 1822+00

Fibre Optic Cable USDWC 190'± at ℄ #6-87-5'±

Barrow trenched By Hand to Permit Crossing

Plans Notice Commence Fiber Optic Cable Boring

200' 1775 1780 1785 1790 1795 1800 1805 1810 1815 1820 1825 1830 200'

Guide Posts Reqd Rt. & Lt.

S.77°43'E.

77.07

1800+00

1808+50 892.3 to Cor:

6 5 7 8

B.M. 4869.29

Iron Pin 150' Rt. Sta 1799+00

1782+50–Const. Appns. Rt. & Lt. 12"Pipe Culv. 80' Reqd 40' Side Drains Rt. & Lt. 4 C.Y. Str. Exc.

1790+00–18"Pipe Culv. 80' Reqd 5 C.Y. Str. Exc.

1802+00–18"Pipe Culv. 64' Reqd 4 C.Y. Str. Exc.

1803+00–18"Pipe Culv. 62' Reqd 3 C.Y. Str. Exc.

1808+50–Const. Appns. Rt. & Lt. 12"Pipe Culv. 100' Reqd 50' Side Drains Rt. & Lt. 5 C.Y. Str. Exc.

1822+00–24"Pipe Culv. 76' Reqd 5 C.Y. Str. Exc.

4912.62 | 4909.32 | 4892.82 | 4881.82 | 4874.86 | 4873.02 | 4871.58 | 4863.66 | 4862.32 | 4860.42

Finished Grade — 1800' V.C. 2100' R.S.D. 33 M.P.H. — -2.20% — 800' V.C. — -0.36% — Finished Grade — 1800' V.C.

4900 4850

Guide Posts Reqd 12 Rt. & 12 Lt.

| | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EXCAVATION UNCL. | 8041 C.Y. | | | | 10 C.Y. | | | | 7156 C.Y. | | | | | | 685 C.Y. | | | | | | | 15892 |
| BORROW | | | | | 17600 C.Y. | | | | | | | | | | 16282 C.Y. | | | | | | | 33882 |
| EMBANKMENT | 6433 C.Y. | | | | 14082 C.Y. | | | | 5730 C.Y. | | | | | | 13570 C.Y. | | | | | | | 39815 |
| HAUL ON EXCAVATION | 280 M.Y. | | | | | | | | 49 M.Y. | | | | F.H. | | | | | | | | | 329 |
| HAUL ON BORROW | | | | | 1546 M.Y. | | | 519 M.Y. | | | | | | | 952 M.Y. | | | 1255 M.Y. | | | | 4272 |
| | 1775 | 1780 | 1785 | 1790 | 1795 | 1800 | 1805 | 1810 | 1815 | 1820 | 1825 | 1830 | | | | | | | | | | 5500.0' |

PLATE I-PLAN-PROFILE A. P. W. A. STANDARD

10-5-50








CAT



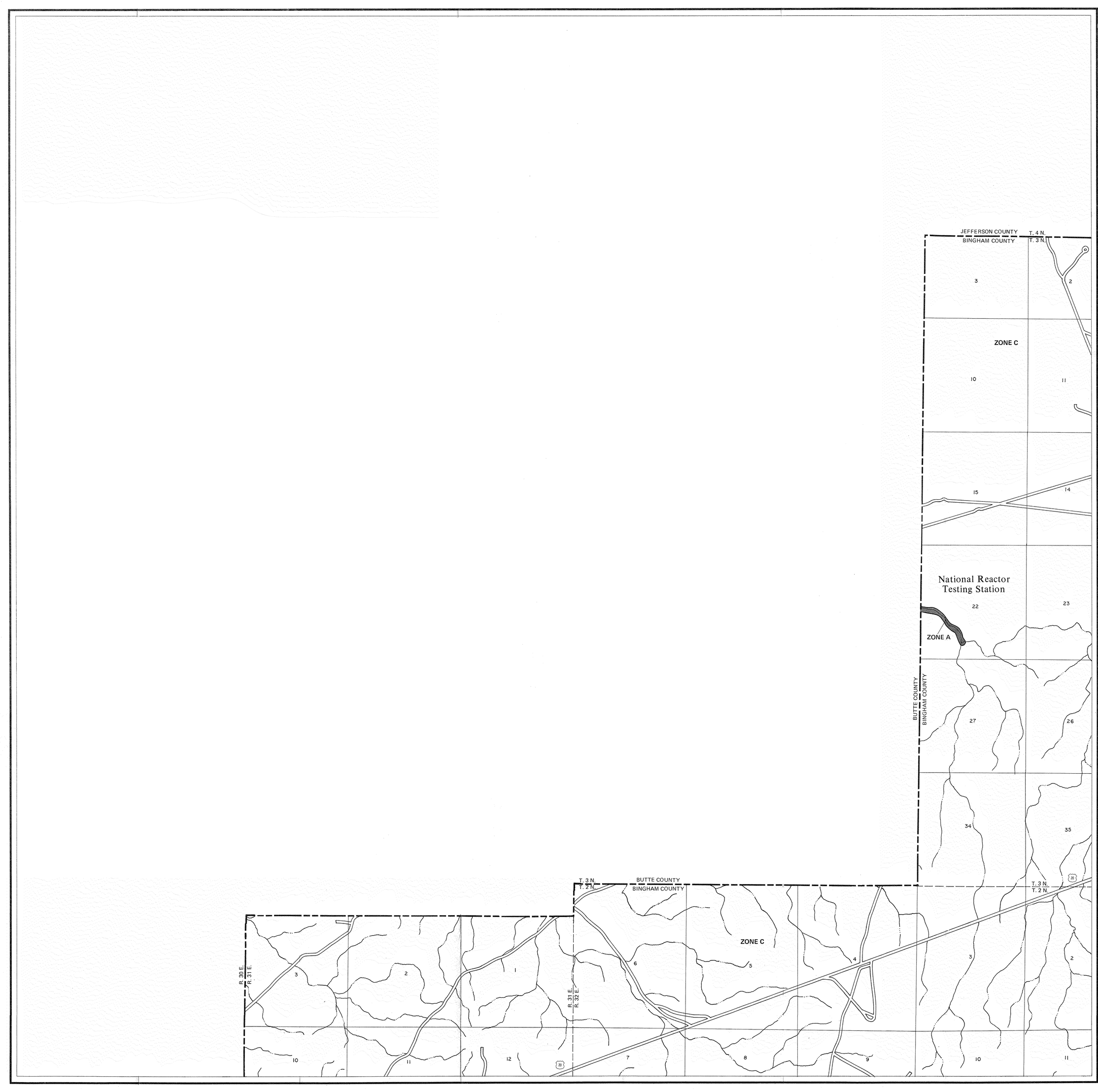




*Appendix D*

# FIRM Maps

DAVID EVANS
AND ASSOCIATES INC.




## KEY TO MAP

500-Year Flood Boundary

100-Year Flood Boundary

Zone Designations* With Date of Identification e.g., 12/2/74

100-Year Flood Boundary

500-Year Flood Boundary

ZONE B
ZONE A1 DATE
ZONE A6 DATE
ZONE B

Base Flood Elevation Line With Elevation In Feet** 513

Base Flood Elevation in Feet Where Uniform Within Zone** (EL 987)

Elevation Reference Mark RM7 ×

River Mile • M1.5

**Referenced to the National Geodetic Vertical Datum of 1929

## *EXPLANATION OF ZONE DESIGNATIONS

| ZONE | EXPLANATION |
|---|---|
| A | Areas of 100-year flood; base flood elevations and flood hazard factors not determined. |
| A0 | Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; average depths of inundation are shown, but no flood hazard factors are determined. |
| AH | Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; base flood elevations are shown, but no flood hazard factors are determined. |
| A1-A30 | Areas of 100-year flood; base flood elevations and flood hazard factors determined. |
| A99 | Areas of 100-year flood to be protected by flood protection system under construction; base flood elevations and flood hazard factors not determined. |
| B | Areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood. (Medium shading) |
| C | Areas of minimal flooding. (No shading) |
| D | Areas of undetermined, but possible, flood hazards. |
| V | Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors not determined. |
| V1-V30 | Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors determined. |

## NOTES TO USER

Certain areas not in the special flood hazard areas (zones A and V) may be protected by flood control structures.

This map is for flood insurance purposes only; it does not necessarily show all areas subject to flooding in the community or all planimetric features outside special flood hazard areas.

For adjoining map panels, see separately printed Index To Map Panels.

INITIAL IDENTIFICATION:
JUNE 20,1978

FLOOD HAZARD BOUNDARY MAP REVISIONS:

FLOOD INSURANCE RATE MAP EFFECTIVE:
NOVEMBER 15, 1979

FLOOD INSURANCE RATE MAP REVISIONS:

Refer to the FLOOD INSURANCE RATE MAP EFFECTIVE date shown on this map to determine when actuarial rates apply to structures in the zones where elevations or depths have been established.

To determine if flood insurance is available in this community, contact your insurance agent, or call the National Flood Insurance Program, at (800) 638-6620, or (800) 424-8872.

APPROXIMATE SCALE
2000 0 2000 FEET

NATIONAL FLOOD INSURANCE PROGRAM

# FIRM
## FLOOD INSURANCE RATE MAP

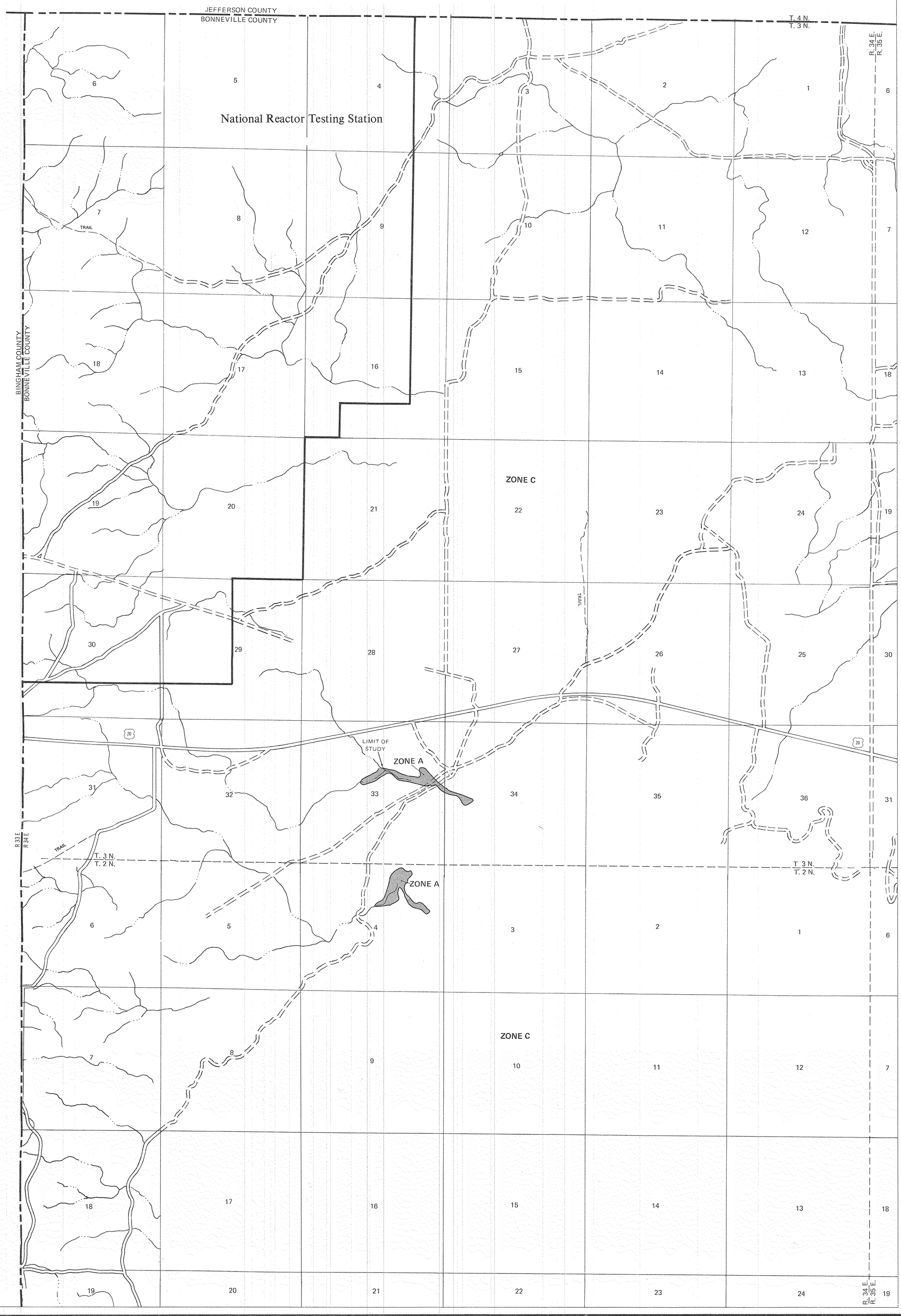
## BINGHAM COUNTY, IDAHO
(UNINCORPORATED AREAS)

PANEL 25 OF 750
(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER
160018 0025 B

EFFECTIVE DATE:
NOVEMBER 15, 1979

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
FEDERAL INSURANCE ADMINISTRATION




## KEY TO MAP

500-Year Flood Boundary
100-Year Flood Boundary
Zone Designations* With Date of Identification e.g., 12/2/74
100-Year Flood Boundary
500-Year Flood Boundary

ZONE B
ZONE A1 DATE / ZONE A5 DATE
ZONE B

Base Flood Elevation Line With Elevation In Feet** — 513

Base Flood Elevation in Feet Where Uniform Within Zone** — (EL 987)

Elevation Reference Mark — RM7 ×

River Mile — • M1.5

**Referenced to the National Geodetic Vertical Datum of 1929

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| ZONE | EXPLANATION |
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| AH | Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; base flood elevations are shown, but no flood hazard factors are determined. |
| A1-A30 | Areas of 100-year flood; base flood elevations and flood hazard factors determined. |
| A99 | Areas of 100-year flood to be protected by flood protection system under construction; base flood elevations and flood hazard factors not determined. |
| B | Areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood. (Medium shading) |
| C | Areas of minimal flooding. (No shading) |
| D | Areas of undetermined, but possible, flood hazards. |
| V | Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors not determined. |
| V1-V30 | Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors determined. |

## NOTES TO USER

Certain areas not in the special flood hazard areas (zones A and V) may be protected by flood control structures.

This map is for flood insurance purposes only; it does not necessarily show all areas subject to flooding in the community or all planimetric features outside special flood hazard areas.

For adjoining map panels, see separately printed Index To Map Panels.

INITIAL IDENTIFICATION:
OCTOBER 18, 1974

FLOOD HAZARD BOUNDARY MAP REVISIONS:
AUGUST 2, 1977
FEBRUARY 27, 1979

FLOOD INSURANCE RATE MAP EFFECTIVE:
NOVEMBER 4, 1981

FLOOD INSURANCE RATE MAP REVISIONS:

Refer to the FLOOD INSURANCE RATE MAP EFFECTIVE date shown on this map to determine when actuarial rates apply to structures in the zones where elevations or depths have been established.

To determine if flood insurance is available in this community, contact your insurance agent, or call the National Flood Insurance Program, at (800) 638-6620.

APPROXIMATE SCALE
2000 0 2000 FEET

NATIONAL FLOOD INSURANCE PROGRAM

# FIRM
## FLOOD INSURANCE RATE MAP

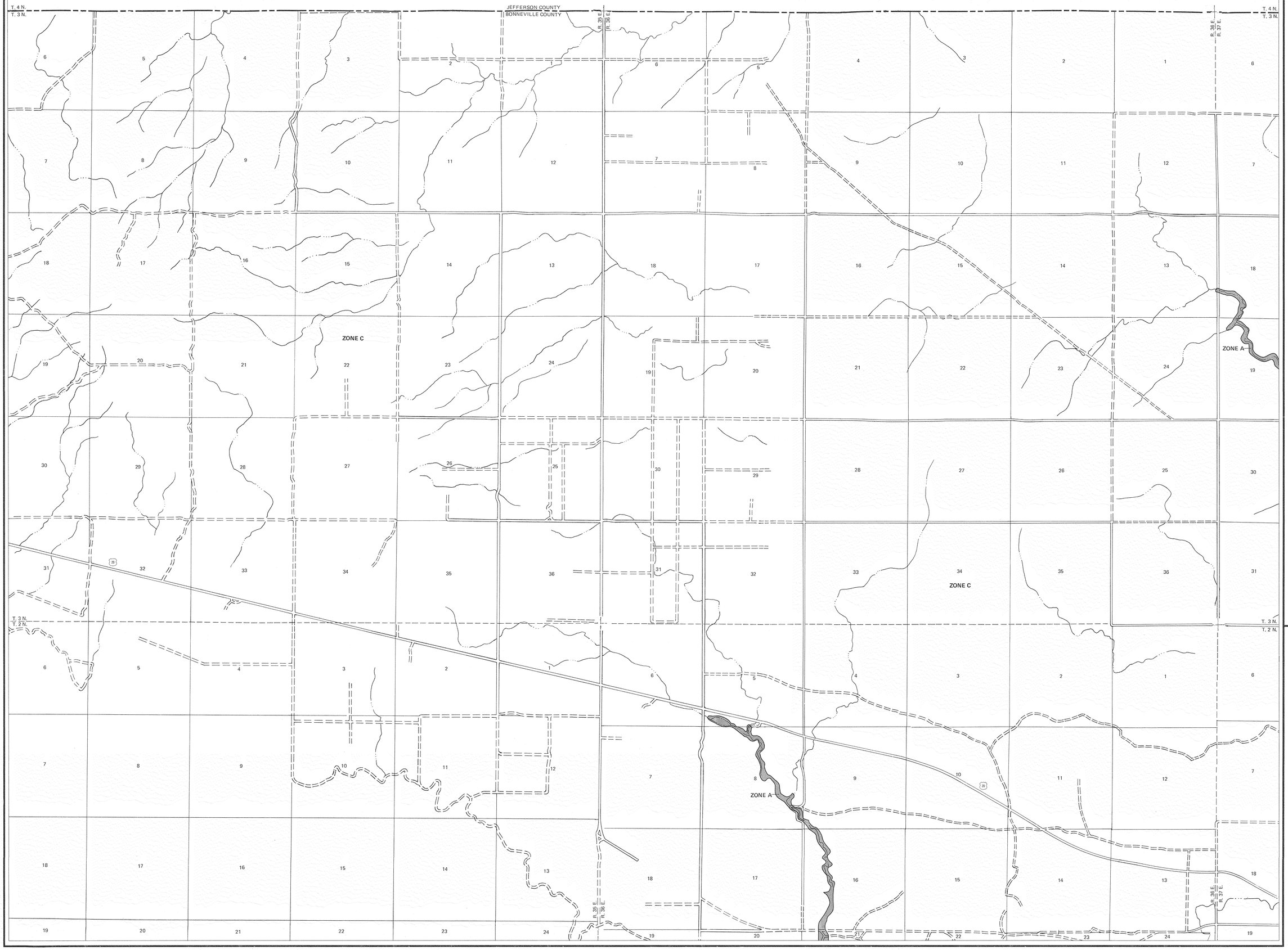
## BONNEVILLE COUNTY, IDAHO
(UNINCORPORATED AREAS)

PANEL 25 OF 600
(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER
160027 0025 C

EFFECTIVE DATE:
NOVEMBER 4, 1981

federal emergency management agency
federal insurance administration




## KEY TO MAP

| | |
|---|---|
| 500-Year Flood Boundary | ZONE B |
| 100-Year Flood Boundary | ZONE A1 DATE / ZONE A5 DATE |
| Zone Designations* With Date of Identification e.g., 12/2/74 | |
| 100-Year Flood Boundary | |
| 500-Year Flood Boundary | ZONE B |
| Base Flood Elevation Line With Elevation In Feet** | 513 |
| Base Flood Elevation in Feet Where Uniform Within Zone** | (EL 987) |
| Elevation Reference Mark | RM7 × |
| River Mile | • M1.5 |

**Referenced to the National Geodetic Vertical Datum of 1929

## *EXPLANATION OF ZONE DESIGNATIONS

| ZONE | EXPLANATION |
|---|---|
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| AH | Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; base flood elevations are shown, but no flood hazard factors are determined. |
| A1-A30 | Areas of 100-year flood; base flood elevations and flood hazard factors determined. |
| A99 | Areas of 100-year flood to be protected by flood protection system under construction; base flood elevations and flood hazard factors not determined. |
| B | Areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood. (Medium shading) |
| C | Areas of minimal flooding. (No shading) |
| D | Areas of undetermined, but possible, flood hazards. |
| V | Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors not determined. |
| V1-V30 | Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors determined. |

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INITIAL IDENTIFICATION:
OCTOBER 18, 1974

FLOOD HAZARD BOUNDARY MAP REVISIONS:
AUGUST 2, 1977
FEBRUARY 27, 1979

FLOOD INSURANCE RATE MAP EFFECTIVE:
NOVEMBER 4, 1981

FLOOD INSURANCE RATE MAP REVISIONS:

Refer to the FLOOD INSURANCE RATE MAP EFFECTIVE date shown on this map to determine when actuarial rates apply to structures in the zones where elevations or depths have been established.

To determine if flood insurance is available in this community, contact your insurance agent, or call the National Flood Insurance Program, at (800) 638-6620.

APPROXIMATE SCALE
2000 0 2000 FEET

NATIONAL FLOOD INSURANCE PROGRAM

# FIRM
## FLOOD INSURANCE RATE MAP

## BONNEVILLE COUNTY, IDAHO
(UNINCORPORATED AREAS)

PANEL 50 OF 600
(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER
160027 0050 C

EFFECTIVE DATE:
NOVEMBER 4, 1981

federal emergency management agency
federal insurance administration

*Appendix E*

# Photographs

DAVID EVANS AND ASSOCIATES INC.

STA 6718+85
DUAL 84" CMP
10/2024

STA 6718+85
DUAL 84" CMP
10/2024

STA 6718+85
DUAL 84" CMP
10/2024

STA 6718+85
DUAL 84" CMP
10/2024

STA 6718+85
DUAL 84" CMP
10/2024

STA 6749+95
7'-6" X 11'-10"
ARCH PIPE
10/2024

STA 6749+95
7'-6" X 11'-10"
ARCH PIPE
10/2024

STA 6749+95
7'-6" X 11'-10"
ARCH PIPE
10/2024

STA 6749+95
7'-6" X 11'-10"
ARCH PIPE
10/2024

STA 6749+95
7'-6" X 11'-10"
ARCH PIPE
10/2024

STA 6749+95
7'-6" X 11'-10"
ARCH PIPE
10/2024

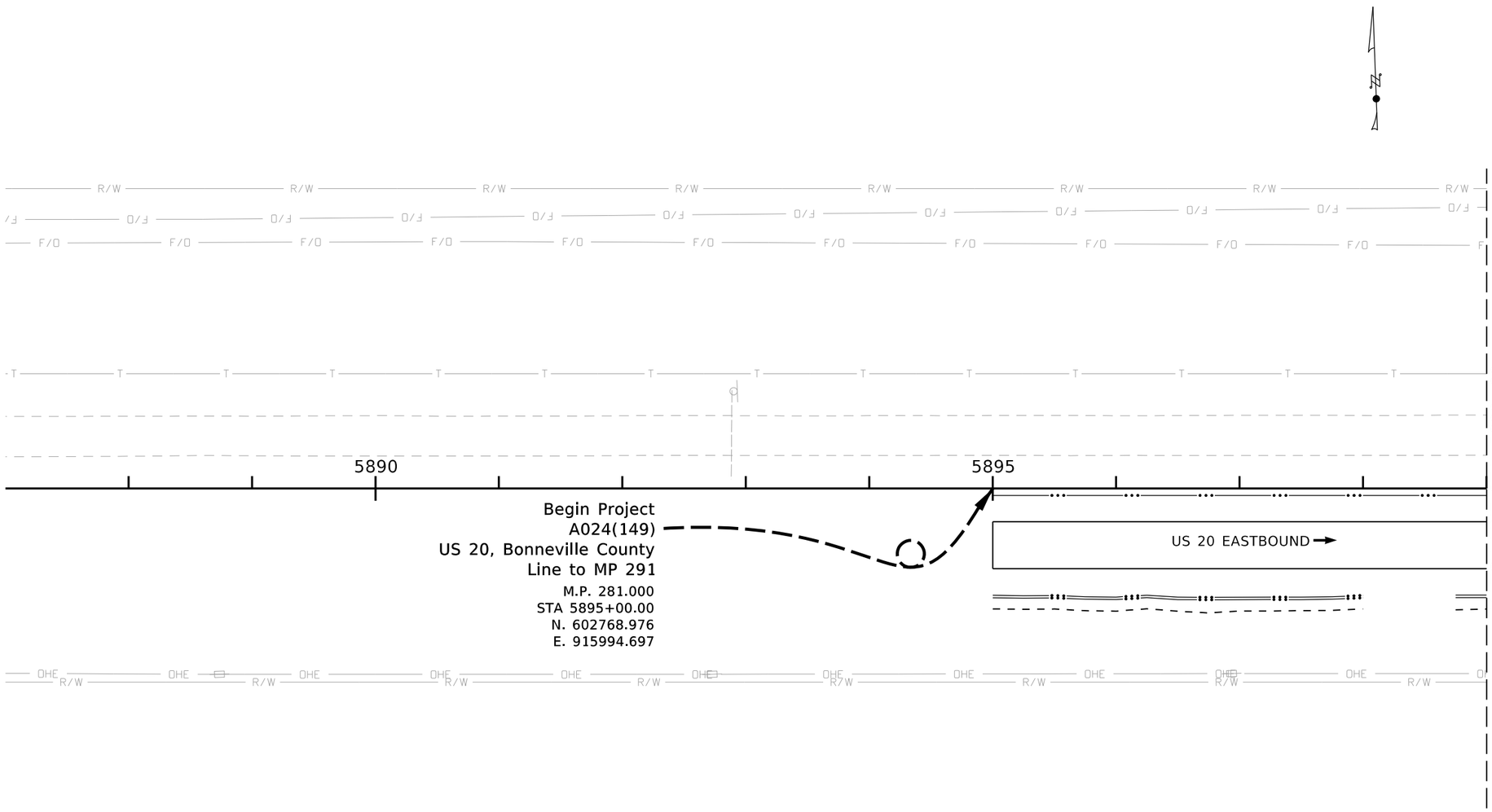
STA 6749+95
7'-6" X 11'-10"
ARCH PIPE
10/2024

*Appendix F*

# Plan, Profile, Detail Sheets

DAVID EVANS AND ASSOCIATES INC.

T.3N., R.33E., B.M.




Scale (Feet)
50 0 50 100

| REVISIONS | | | |
|---|---|---|---|
| NO. | DATE | BY | DESCRIPTION |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

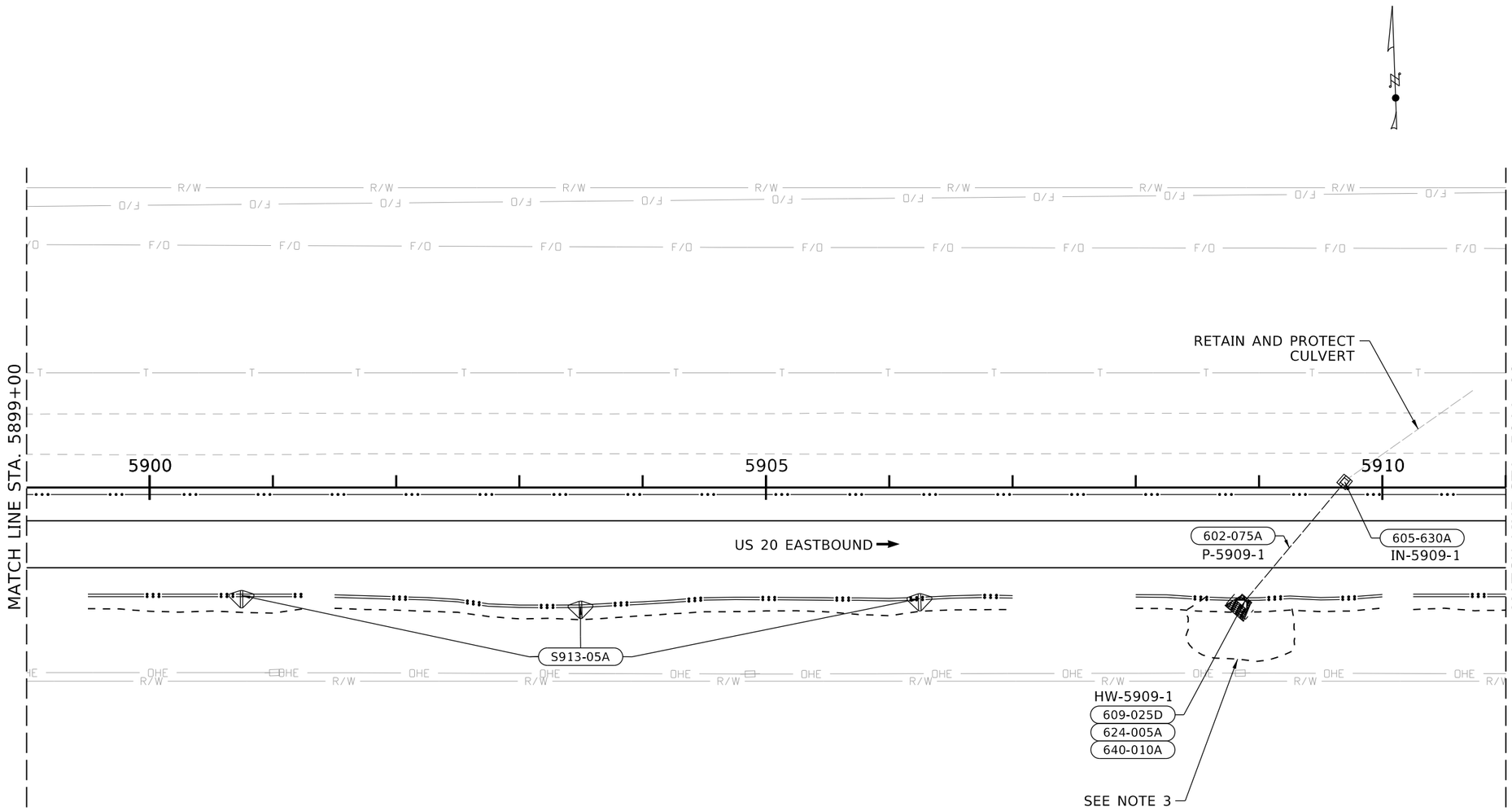
| | | |
|---|---|---|
| DESIGNED D. ABEDI | SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY | IDAHO TRANSPORTATION DEPARTMENT<br>YOUR Safety→YOUR Mobility→YOUR Economic Opportunity<br>DAVID EVANS AND ASSOCIATES INC. |
| DESIGN CHECKED C. MCALISTER | | |
| DETAILED P. CONSALVO | CADD FILE NAME 24149_DrpI_D201A.DGN | |
| DRAWING CHECKED C. MCALISTER | DRAWING DATE: November 21, 2025 | |

| PROJECT NO. | DRAINAGE PLAN | ENGLISH |
|---|---|---|
| A024(149) | US 20, BONNEVILLE COUNTY<br>LINE TO MP 291<br>STA. 5887+00 TO STA. 5899+00<br>PHASE 1 | COUNTY BINGHAM/BONNEVILLE<br>KEY NUMBER 24149<br>SHEET 194 OF 441 |

NOT APPROVED
INTERMEDIATE
FOR CONSTRUCTION

November 25, 2025 9:49:19 AM
pw://itd-pw.bentley.com:itd-pw-01/Documents/District 6/Projects/prj24394/Project_Development/Plan Sheets/Package 2 (KN 24149)/Drainage/24149_DrpI_D201A

T.3N., R.33E., B.M.




**602-075A** **42" PIPE CULVERT**
124 FT STA. 5908+88.93, 91.39' RT TO STA. 5909+69.44, 4.57' LT

**605-630A** **INLET TYPE 8**
1 EACH STA. 5909+69.44, 4.57' LT

**609-025D** **MINOR STRUCTURES (42" CONCRETE HEADWALL)**
1 EACH STA. 5908+88.93, 91.39' RT

**624-005A** **LOOSE RIPRAP (CLASS I)**
14.1 CY STA. 5908+88.93, 91.39' RT

**640-010A** **RIPRAP/EROSION CONTROL GEOTEXTILE**
32 SY STA. 5908+88.93, 91.39' RT

**S913-05A** **SP DITCH BERM**
4.9 CY STA. 5900+75, 87.45' RT
4.9 CY STA. 5903+50, 96.17' RT
4.9 CY STA. 5906+25, 90.03' RT

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.

2. IN PHASE 1, RETAIN AND PROTECT EXISTING CULVERTS. CONSTRUCT INLET OR JUNCTION BOX OVER EXISTING CULVERT, AND CONSTRUCT PROPOSED CULVERT UNDER PHASE 1 ROADWAY.

3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

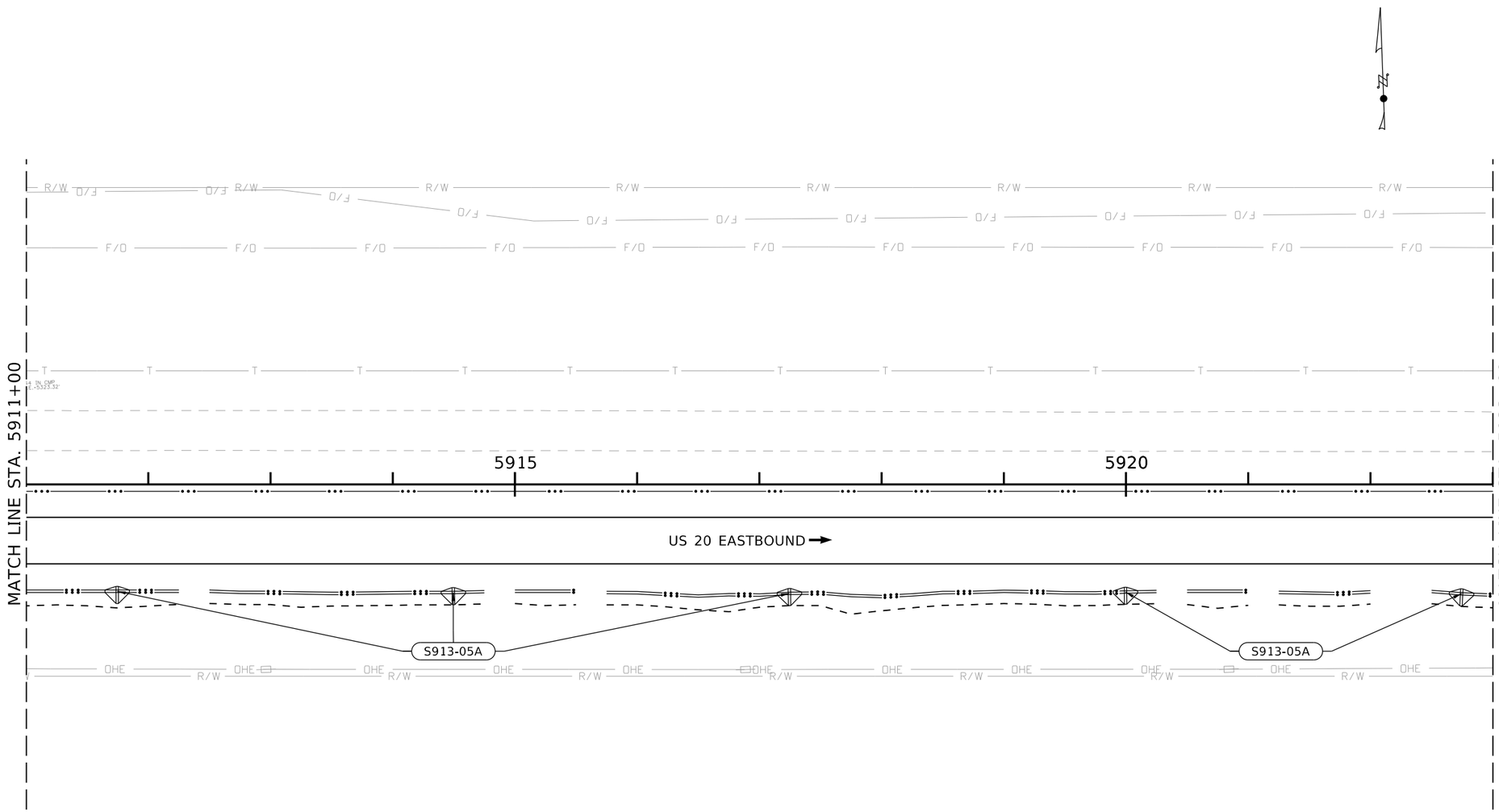
Scale (Feet)
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NOT APPROVED FOR INTERMEDIATE CONSTRUCTION

| REVISIONS | | | | DESIGNED | SCALES SHOWN | IDAHO TRANSPORTATION DEPARTMENT | PROJECT NO. | DRAINAGE PLAN | ENGLISH |
|---|---|---|---|---|---|---|---|---|---|
| NO. | DATE | BY | DESCRIPTION | D. ABEDI | ARE FOR 11" X 17" PRINTS ONLY | YOUR Safety→YOUR Mobility→YOUR Economic Opportunity | A024(149) | US 20, BONNEVILLE COUNTY LINE TO MP 291 STA. 5899+00 TO STA. 5911+00 PHASE 1 | COUNTY BINGHAM/BONNEVILLE |
| | | | | DESIGN CHECKED C. MCALISTER | | | | | KEY NUMBER 24149 |
| | | | | DETAILED P. CONSALVO | CADD FILE NAME 24149_Drpl_D201A.DGN | DAVID EVANS AND ASSOCIATES INC. | | | SHEET 195 OF 441 |
| | | | | DRAWING CHECKED C. MCALISTER | DRAWING DATE: November 21, 2025 | | | | |

November 21, 2025 4:46:29 PM
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T.3N., R.33E., B.M.




| S913-05A | SP DITCH BERM |
|---|---|
| 4.9 CY | STA. 5911+75, 87.45' RT |
| 4.9 CY | STA. 5914+50, 88.48' RT |
| 4.9 CY | STA. 5917+25, 89.21' RT |
| 4.9 CY | STA. 5920+00, 88.12' RT |
| 4.9 CY | STA. 5922+75, 89.52' RT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.

Scale (Feet)
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| REVISIONS | | | |
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DESIGNED D. ABEDI
DESIGN CHECKED C. MCALISTER
DETAILED P. CONSALVO
DRAWING CHECKED C. MCALISTER

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 24149_DrpI_D201A.DGN
DRAWING DATE: November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
DAVID EVANS AND ASSOCIATES INC.

PROJECT NO. A024(149)

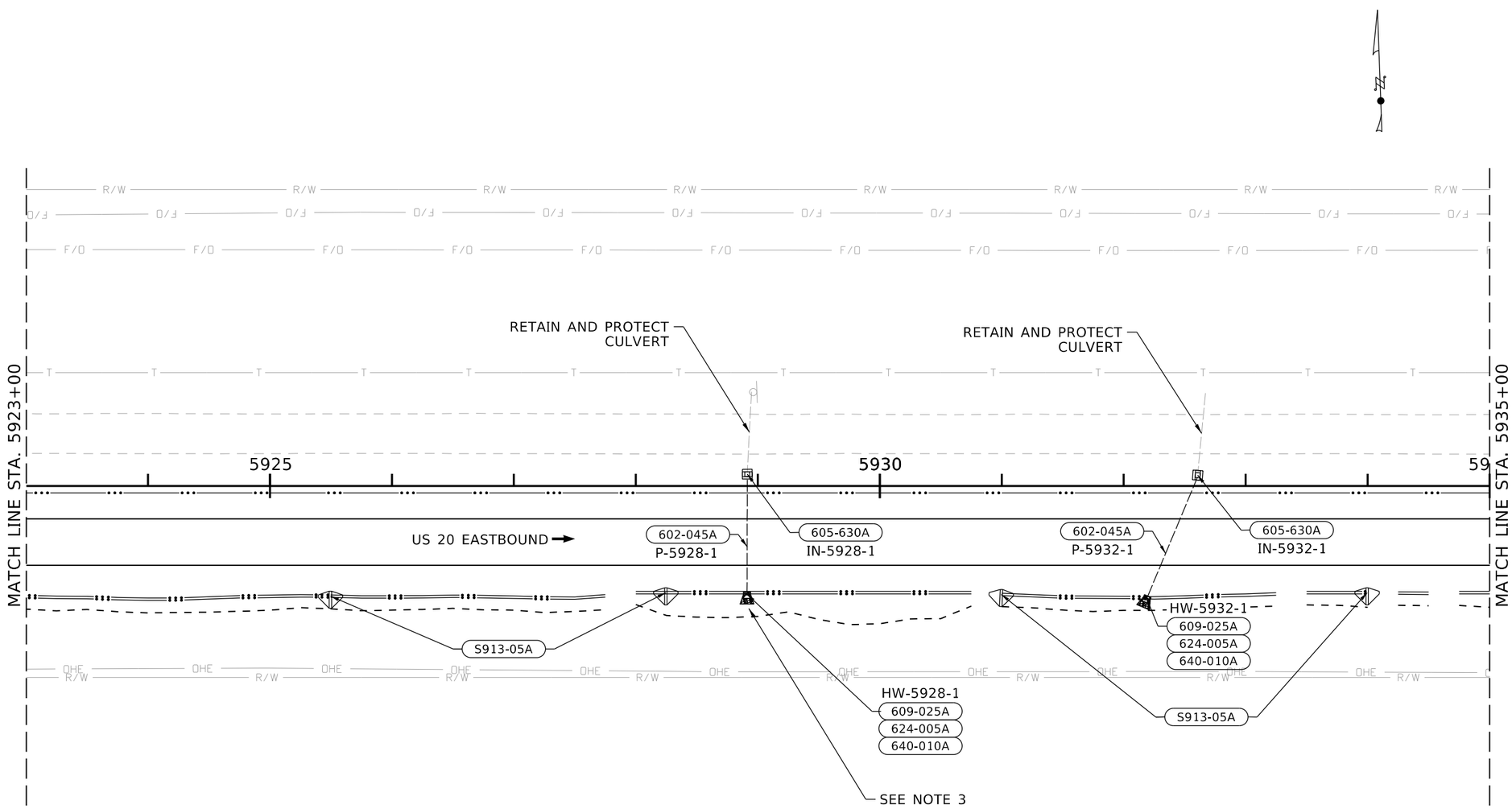
DRAINAGE PLAN
US 20, BONNEVILLE COUNTY
LINE TO MP 291
STA. 5911+00 TO STA. 5923+00
PHASE 1

ENGLISH
COUNTY BINGHAM/BONNEVILLE
KEY NUMBER 24149
SHEET 196 OF 441

NOT APPROVED
INTERMEDIATE
FOR CONSTRUCTION

November 21, 2025 4:46:31 PM
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T.3N., R.33E., B.M.




| | |
|---|---|
| **602-045A** | **24" PIPE CULVERT** |
| 98 FT | STA. 5928+91.16, 88.83' RT TO STA. 5928+91.34, 9.71' LT |
| 108 FT | STA. 5932+19.02, 92.06' RT STA. 5932+60.57, 7.37' LT |
| **605-630A** | **INLET TYPE 8** |
| 1 EACH | STA. 5928+91.34, 9.71' LT |
| 1 EACH | STA. 5932+60.57, 7.37' LT |
| **609-025A** | **MINOR STRUCTURES (24" CONCRETE HEADWALL)** |
| 1 EACH | STA. 5928+91.16, 88.83' RT |
| 1 EACH | STA. 5932+19.02, 92.06' RT |
| **624-005A** | **LOOSE RIPRAP (CLASS I)** |
| 4.7 CY | STA. 5928+91.16, 88.83' RT |
| 4.7 CY | STA. 5932+19.02, 92.06' RT |
| **640-010A** | **RIPRAP/EROSION CONTROL GEOTEXTILE** |
| 14 SY | STA. 5928+91.16, 88.83' RT |
| 14 SY | STA. 5932+19.02, 92.06' RT |
| **S913-05A** | **SP DITCH BERM** |
| 4.9 CY | STA. 5925+50, 90.28' RT |
| 4.9 CY | STA. 5928+25, 87.45' RT |
| 4.9 CY | STA. 5931+00, 88.85' RT |
| 4.9 CY | STA. 5934+00, 87.45' RT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.

2. IN PHASE 1, RETAIN AND PROTECT EXISTING CULVERTS. CONSTRUCT INLET OR JUNCTION BOX OVER EXISTING CULVERT, AND CONSTRUCT PROPOSED CULVERT UNDER PHASE 1 ROADWAY.

3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
50 0 50 100

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| DESIGNED D. ABEDI | SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY |
| DESIGN CHECKED C. MCALISTER | |
| DETAILED P. CONSALVO | CADD FILE NAME 24149_Drpl_D201A.DGN |
| DRAWING CHECKED C. MCALISTER | DRAWING DATE: November 21, 2025 |

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
DAVID EVANS AND ASSOCIATES INC.

| PROJECT NO. | DRAINAGE PLAN |
|---|---|
| A024(149) | US 20, BONNEVILLE COUNTY<br>LINE TO MP 291<br>STA. 5923+00 TO STA. 5935+00<br>PHASE 1 |

*ENGLISH*

COUNTY BINGHAM/BONNEVILLE

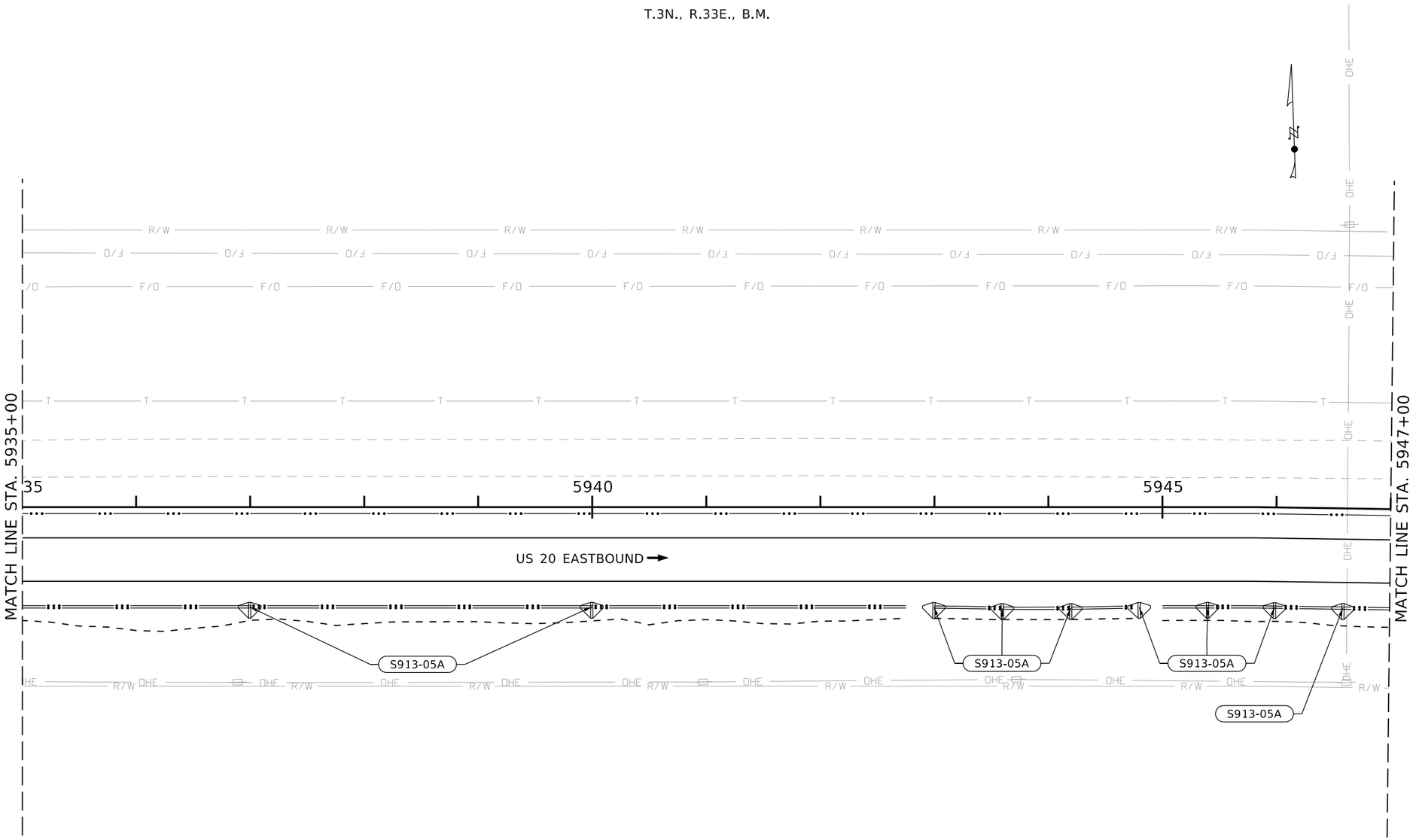
KEY NUMBER 24149

SHEET 197 OF 441

NOT APPROVED FOR INTERMEDIATE CONSTRUCTION

November 21, 2025 4:46:33 PM
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T.3N., R.33E., B.M.




| S913-05A | SP DITCH BERM |
|---|---|
| 4.9 CY | STA. 5937+00, 87.45' RT |
| 4.9 CY | STA. 5940+00, 87.45' RT |
| 4.9 CY | STA. 5943+00, 87.62' RT |
| 4.9 CY | STA. 5943+60, 88.56' RT |
| 4.9 CY | STA. 5944+20, 88.65' RT |
| 4.9 CY | STA. 5944+80, 87.58' RT |
| 4.9 CY | STA. 5945+40, 87.45' RT |
| 4.9 CY | STA. 5946+00, 87.45' RT |
| 4.9 CY | STA. 5946+60, 87.45' RT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.

Scale (Feet)
50 0 50 100

| REVISIONS | | | |
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DESIGNED D. ABEDI
DESIGN CHECKED C. MCALISTER
DETAILED P. CONSALVO
DRAWING CHECKED C. MCALISTER

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 24149_Drpl_D201A.DGN
DRAWING DATE: November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
DAVID EVANS AND ASSOCIATES INC.

PROJECT NO.
A024(149)

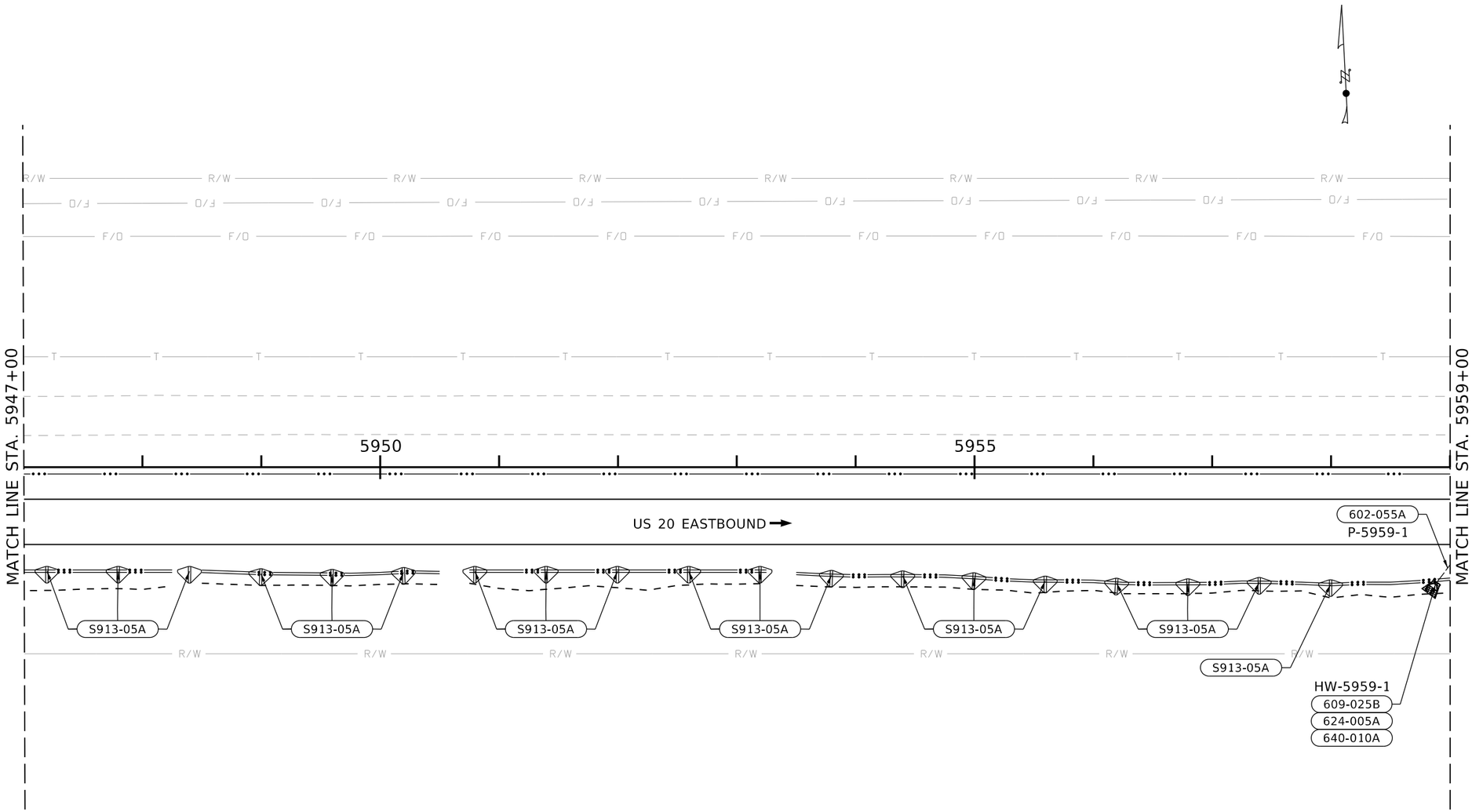
DRAINAGE PLAN
US 20, BONNEVILLE COUNTY
LINE TO MP 291
STA. 5935+00 TO STA. 5947+00
PHASE 1

ENGLISH
COUNTY BINGHAM/BONNEVILLE
KEY NUMBER 24149
SHEET 198 OF 441

NOT APPROVED
INTERMEDIATE
FOR CONSTRUCTION

November 21, 2025 4:46:35 PM
pw://itd-pw.bentley.com:itd-pw-01/Documents/District 6/Projects/prj24394/Project_Development/Plan Sheets/Package 2 (KN 24149)/Drainage/24149_Drpl_D201A

T.3N., R.33E., B.M.




| | |
|---|---|
| **602-055A** | **30" PIPE CULVERT** |
| 19 FT | STA. 5958+87.95, 98.32' RT TO STA. 5959+00.00, 82.06' RT |
| **609-025B** | **MINOR STRUCTURES (30" CONCRETE HEADWALL)** |
| 1 EACH | STA. 5958+87.95, 98.32' RT |
| **624-005A** | **LOOSE RIPRAP (CLASS I)** |
| 7.3 CY | STA. 5958+87.95, 98.32' RT |
| **640-010A** | **RIPRAP/EROSION CONTROL GEOTEXTILE** |
| 19 SY | STA. 5958+87.95, 98.32' RT |
| **S913-05A** | **SP DITCH BERM** |
| 4.9 CY | STA. 5947+20, 87.45' RT |
| 4.9 CY | STA. 5947+80, 87.45' RT |
| 4.9 CY | STA. 5948+40, 87.55' RT |
| 4.9 CY | STA. 5949+00, 89.42' RT |
| 4.9 CY | STA. 5949+60, 89.99' RT |
| 4.9 CY | STA. 5950+20, 88.44' RT |
| 4.9 CY | STA. 5950+80, 87.45' RT |
| 4.9 CY | STA. 5951+40, 87.45' RT |
| 4.9 CY | STA. 5952+00, 87.45' RT |
| 4.9 CY | STA. 5952+60, 87.45' RT |
| 4.9 CY | STA. 5953+20, 87.45' RT |
| 4.9 CY | STA. 5953+80, 90.84' RT |
| 4.9 CY | STA. 5954+40, 91.31' RT |
| 4.9 CY | STA. 5955+00, 92.86' RT |
| 4.9 CY | STA. 5955+60, 95.74' RT |
| 4.9 CY | STA. 5956+20, 97.40' RT |
| 4.9 CY | STA. 5956+80, 97.96' RT |
| 4.9 CY | STA. 5957+40, 96.84' RT |
| 4.9 CY | STA. 5958+00, 98.70' RT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.

2. IN PHASE 1, RETAIN AND PROTECT EXISTING CULVERTS. CONSTRUCT INLET OR JUNCTION BOX OVER EXISTING CULVERT, AND CONSTRUCT PROPOSED CULVERT UNDER PHASE 1 ROADWAY.

3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
50 0 50 100

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| DESIGNED D. ABEDI | SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY |
| DESIGN CHECKED C. MCALISTER | |
| DETAILED P. CONSALVO | CADD FILE NAME 24149_DrpI_D201A.DGN |
| DRAWING CHECKED C. MCALISTER | DRAWING DATE: November 21, 2025 |

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
DAVID EVANS AND ASSOCIATES INC.

| PROJECT NO. | DRAINAGE PLAN |
|---|---|
| A024(149) | US 20, BONNEVILLE COUNTY LINE TO MP 291 STA. 5947+00 TO STA. 5959+00 PHASE 1 |

*ENGLISH*

COUNTY BINGHAM/BONNEVILLE

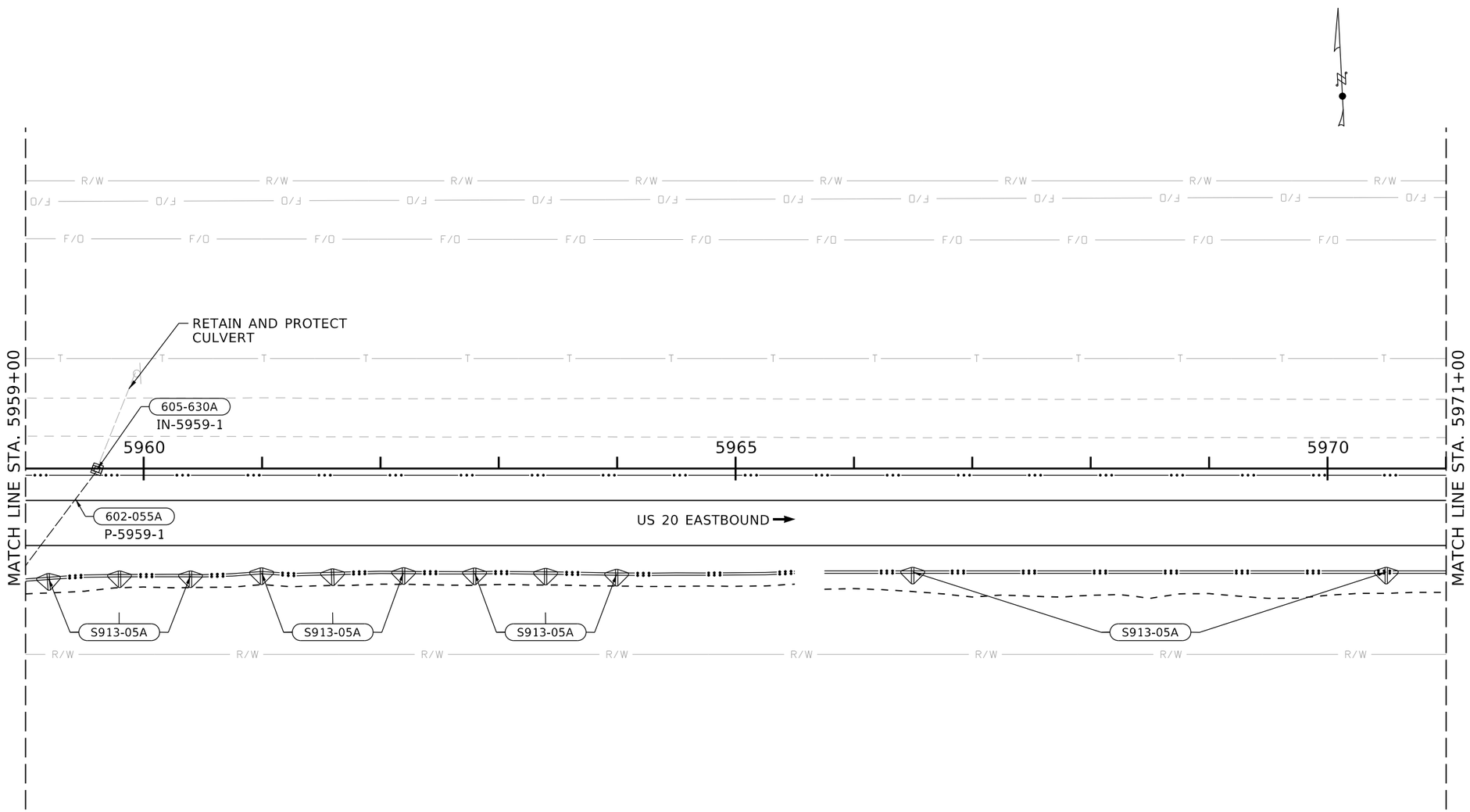
KEY NUMBER 24149

SHEET 199 OF 441

NOT APPROVED
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FOR CONSTRUCTION

November 21, 2025 4:46:37 PM
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T.3N., R.33E., B.M.




| | |
|---|---|
| **602-055A** | **30" PIPE CULVERT** |
| 102 FT | STA. 5959+00.00, 82.06' RT TO STA. 5959+60.63, 0.65' RT |
| **605-630A** | **INLET TYPE 8** |
| 1 EACH | STA. 5959+60.63, 0.65' RT |
| **S913-05A** | **SP DITCH BERM** |
| 4.9 CY | STA. 5959+20, 92.77' RT |
| 4.9 CY | STA. 5959+80, 90.50' RT |
| 4.9 CY | STA. 5960+40, 90.51' RT |
| 4.9 CY | STA. 5961+00, 87.96' RT |
| 4.9 CY | STA. 5961+60, 88.76' RT |
| 4.9 CY | STA. 5962+20, 87.80' RT |
| 4.9 CY | STA. 5962+80, 88.06' RT |
| 4.9 CY | STA. 5963+40, 88.30' RT |
| 4.9 CY | STA. 5964+00, 89.19' RT |
| 4.9 CY | STA. 5966+50, 87.45' RT |
| 4.9 CY | STA. 5970+50, 87.45' RT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.
2. IN PHASE 1, RETAIN AND PROTECT EXISTING CULVERTS. CONSTRUCT INLET OR JUNCTION BOX OVER EXISTING CULVERT, AND CONSTRUCT PROPOSED CULVERT UNDER PHASE 1 ROADWAY.
3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
50 0 50 100

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| DESIGNED D. ABEDI | SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY |
| DESIGN CHECKED C. MCALISTER | |
| DETAILED P. CONSALVO | CADD FILE NAME 24149_DrpI_D201A.DGN |
| DRAWING CHECKED C. MCALISTER | DRAWING DATE: November 21, 2025 |

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
DAVID EVANS AND ASSOCIATES INC.

| PROJECT NO. | DRAINAGE PLAN |
|---|---|
| A024(149) | US 20, BONNEVILLE COUNTY LINE TO MP 291<br>STA. 5959+00 TO STA. 5971+00<br>PHASE 1 |

*ENGLISH*

COUNTY BINGHAM/BONNEVILLE

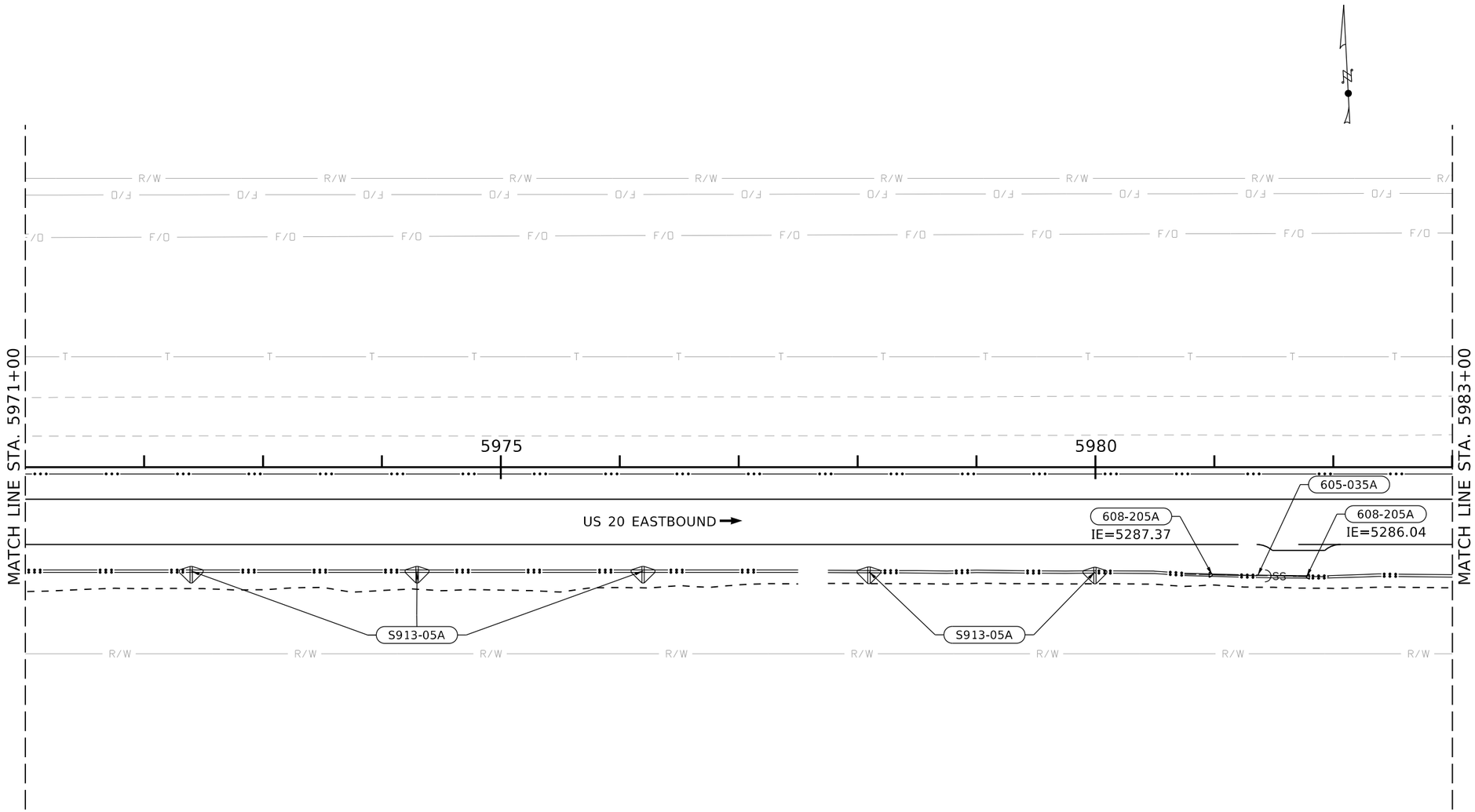
KEY NUMBER 24149

SHEET 200 OF 441

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T.3N., R.33E., B.M.




| | |
|---|---|
| **605-035A** | **18" STORM SEWER PIPE** |
| 80 FT | STA. 5980+98.20, 90.62' RT TO STA. 5981+77.46, 92.09' RT |
| **608-205A** | **METAL SAFETY APRON (PARALLEL) (18")** |
| 1 EACH | STA. 5980+98.20, 90.62' RT |
| 1 EACH | STA. 5981+77.46, 92.09' RT |
| **S913-05A** | **SP DITCH BERM** |
| 4.9 CY | STA. 5972+40, 87.45' RT |
| 4.9 CY | STA. 5974+30, 87.45' RT |
| 4.9 CY | STA. 5976+20, 87.45' RT |
| 4.9 CY | STA. 5978+10, 87.90' RT |
| 4.9 CY | STA. 5980+00, 88.13' RT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.

2. IN PHASE 1, RETAIN AND PROTECT EXISTING CULVERTS. CONSTRUCT INLET OR JUNCTION BOX OVER EXISTING CULVERT, AND CONSTRUCT PROPOSED CULVERT UNDER PHASE 1 ROADWAY.

3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
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NOT APPROVED
INTERMEDIATE
FOR CONSTRUCTION

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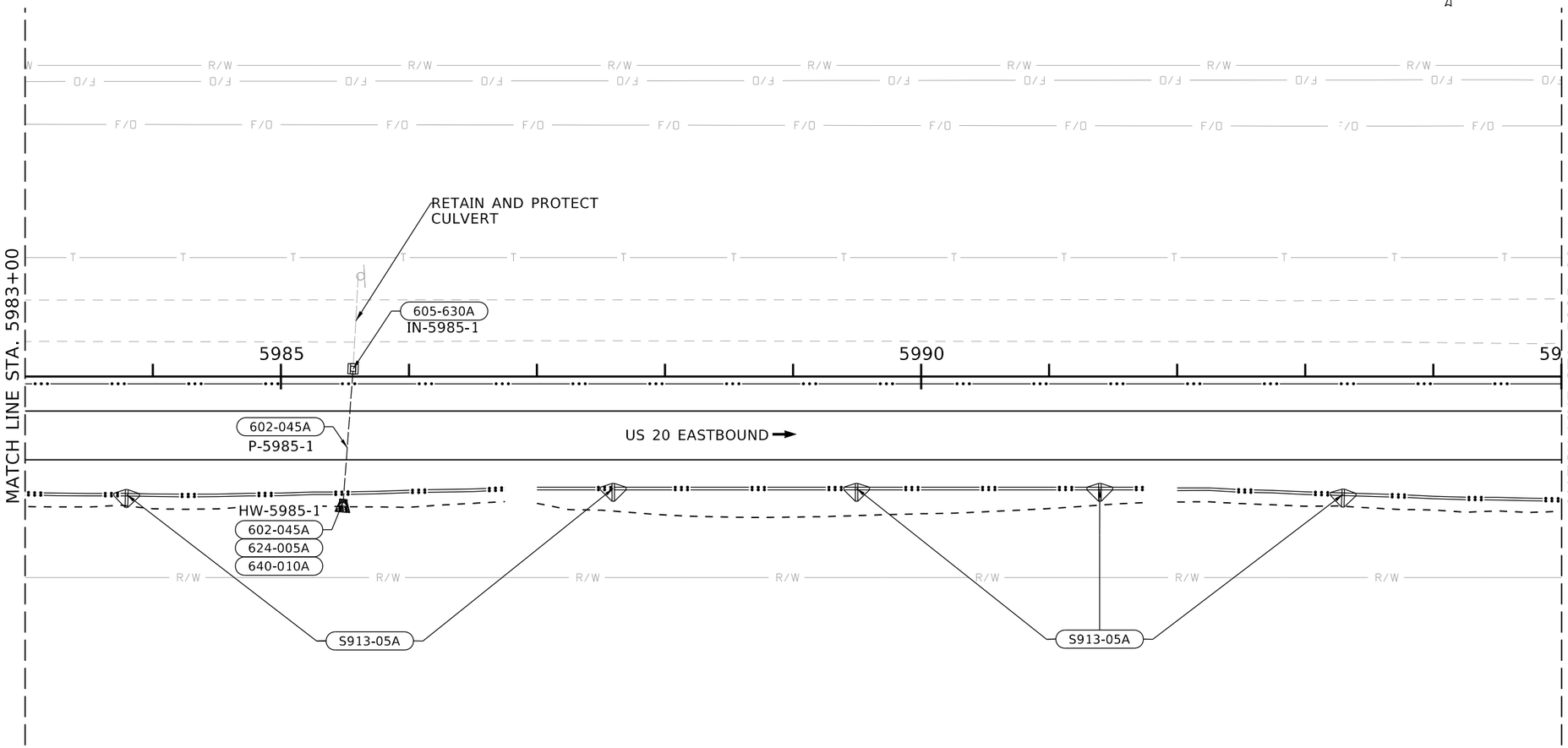
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| DETAILED P. CONSALVO | CADD FILE NAME 24149_DrpI_D201A.DGN |
| DRAWING CHECKED C. MCALISTER | DRAWING DATE: November 21, 2025 |

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
DAVID EVANS AND ASSOCIATES INC.

| PROJECT NO. | DRAINAGE PLAN | ENGLISH |
|---|---|---|
| A024(149) | US 20, BONNEVILLE COUNTY LINE TO MP 291 STA. 5971+00 TO STA. 5983+00 PHASE 1 | COUNTY BINGHAM/BONNEVILLE<br>KEY NUMBER 24149<br>SHEET 201 OF 441 |

November 21, 2025 4:46:42 PM
pw://itd-pw.bentley.com:itd-pw-01/Documents/District 6/Projects/prj24394/Project_Development/Plan Sheets/Package 2 (KN 24149)/Drainage/24149_DrpI_D201A

T.3N., R.33E., B.M.




| | |
|---|---|
| **602-045A** | **24" PIPE CULVERT** |
| 103 FT | STA. 5985+48.66, 97.86' RT TO STA. 5985+56.37, 6.03' LT |
| **605-630A** | **INLET TYPE 8** |
| 1 EACH | STA. 5985+56.37, 6.03' LT |
| **609-025A** | **MINOR STRUCTURES (24" CONCRETE HEADWALL)** |
| 1 EACH | STA. 5985+48.66, 97.86' RT |
| **624-005A** | **LOOSE RIPRAP (CLASS I)** |
| 4.7 CY | STA. 5985+48.66, 97.86' RT |
| **640-010A** | **RIPRAP/EROSION CONTROL GEOTEXTILE** |
| 14 SY | STA. 5985+48.66, 97.86' RT |
| **S913-05A** | **SP DITCH BERM** |
| 4.9 CY | STA. 5983+80, 92.30' RT |
| 4.9 CY | STA. 5987+60, 87.45' RT |
| 4.9 CY | STA. 5989+50, 87.45' RT |
| 4.9 CY | STA. 5991+40, 87.45' RT |
| 4.9 CY | STA. 5993+30, 91.94' RT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.

2. IN PHASE 1, RETAIN AND PROTECT EXISTING CULVERTS. CONSTRUCT INLET OR JUNCTION BOX OVER EXISTING CULVERT, AND CONSTRUCT PROPOSED CULVERT UNDER PHASE 1 ROADWAY.

3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)

50 0 50 100

| REVISIONS | | | |
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| NO. | DATE | BY | DESCRIPTION |
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| DESIGN CHECKED C. MCALISTER | |
| DETAILED P. CONSALVO | CADD FILE NAME 24149_DrpI_D201A.DGN |
| DRAWING CHECKED C. MCALISTER | DRAWING DATE: November 21, 2025 |

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
DAVID EVANS AND ASSOCIATES INC.

| PROJECT NO. | DRAINAGE PLAN |
|---|---|
| A024(149) | US 20, BONNEVILLE COUNTY LINE TO MP 291<br>STA. 5983+00 TO STA. 5995+00<br>PHASE 1 |

*ENGLISH*

COUNTY BINGHAM/BONNEVILLE

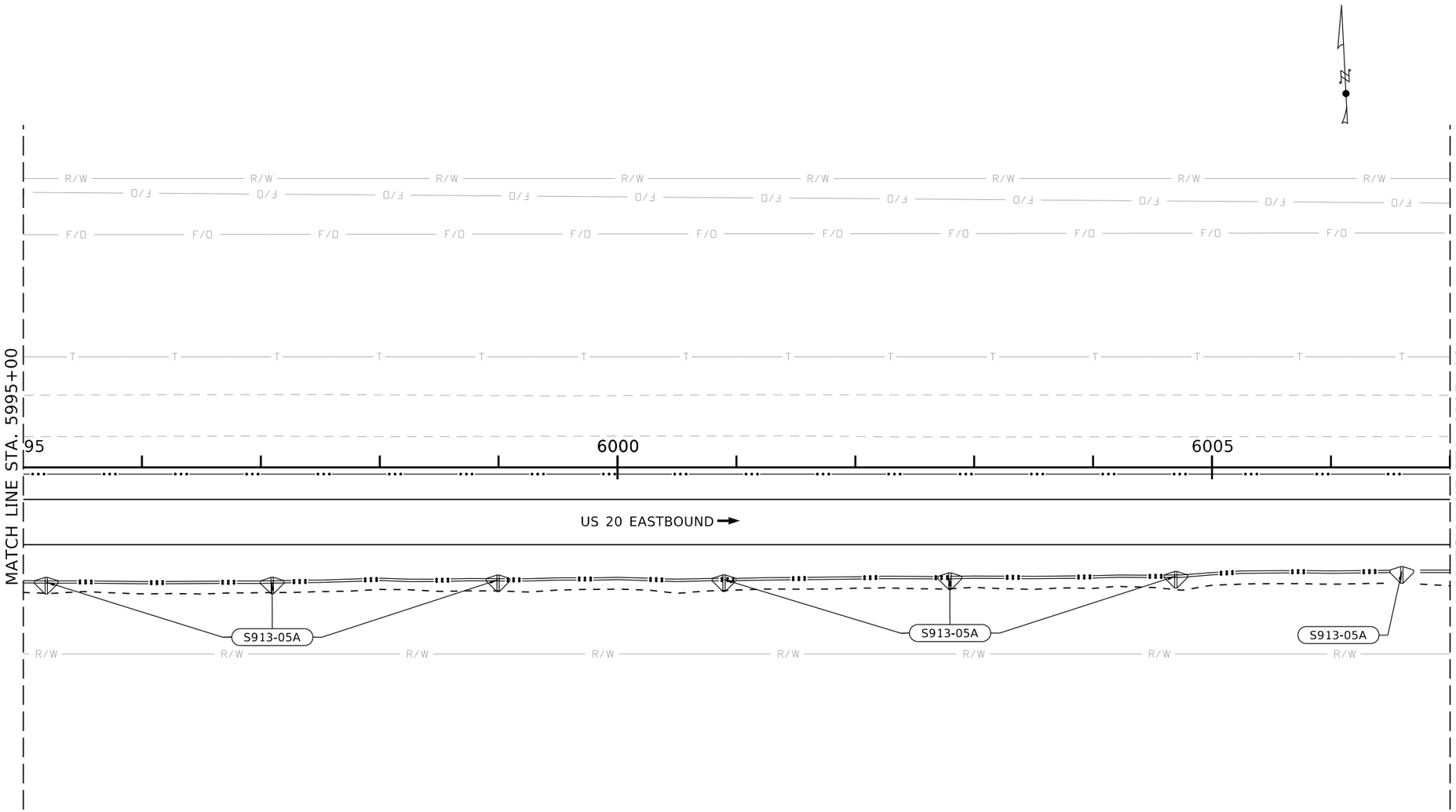
KEY NUMBER 24149

SHEET 202 OF 441

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November 21, 2025 4:46:44 PM
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T.3N., R.34E., B.M.




| S913-05A | SP DITCH BERM |
|---|---|
| 4.9 CY | STA. 5995+20, 96.49' RT |
| 4.9 CY | STA. 5997+10, 96.44' RT |
| 4.9 CY | STA. 5999+00, 94.56' RT |
| 4.9 CY | STA. 6000+90, 94.39' RT |
| 4.9 CY | STA. 6002+80, 92.74' RT |
| 4.9 CY | STA. 6004+70, 91.51' RT |
| 4.9 CY | STA. 6006+60, 87.47' RT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.

2. IN PHASE 1, RETAIN AND PROTECT EXISTING CULVERTS. CONSTRUCT INLET OR JUNCTION BOX OVER EXISTING CULVERT, AND CONSTRUCT PROPOSED CULVERT UNDER PHASE 1 ROADWAY.

3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
50 0 50 100

NOT APPROVED FOR CONSTRUCTION
INTERMEDIATE

| REVISIONS | | | |
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DESIGNED D. ABEDI
DESIGN CHECKED C. MCALISTER
DETAILED P. CONSALVO
DRAWING CHECKED C. MCALISTER

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 24149_DrpI_D201A.DGN
DRAWING DATE: November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
DAVID EVANS AND ASSOCIATES INC.

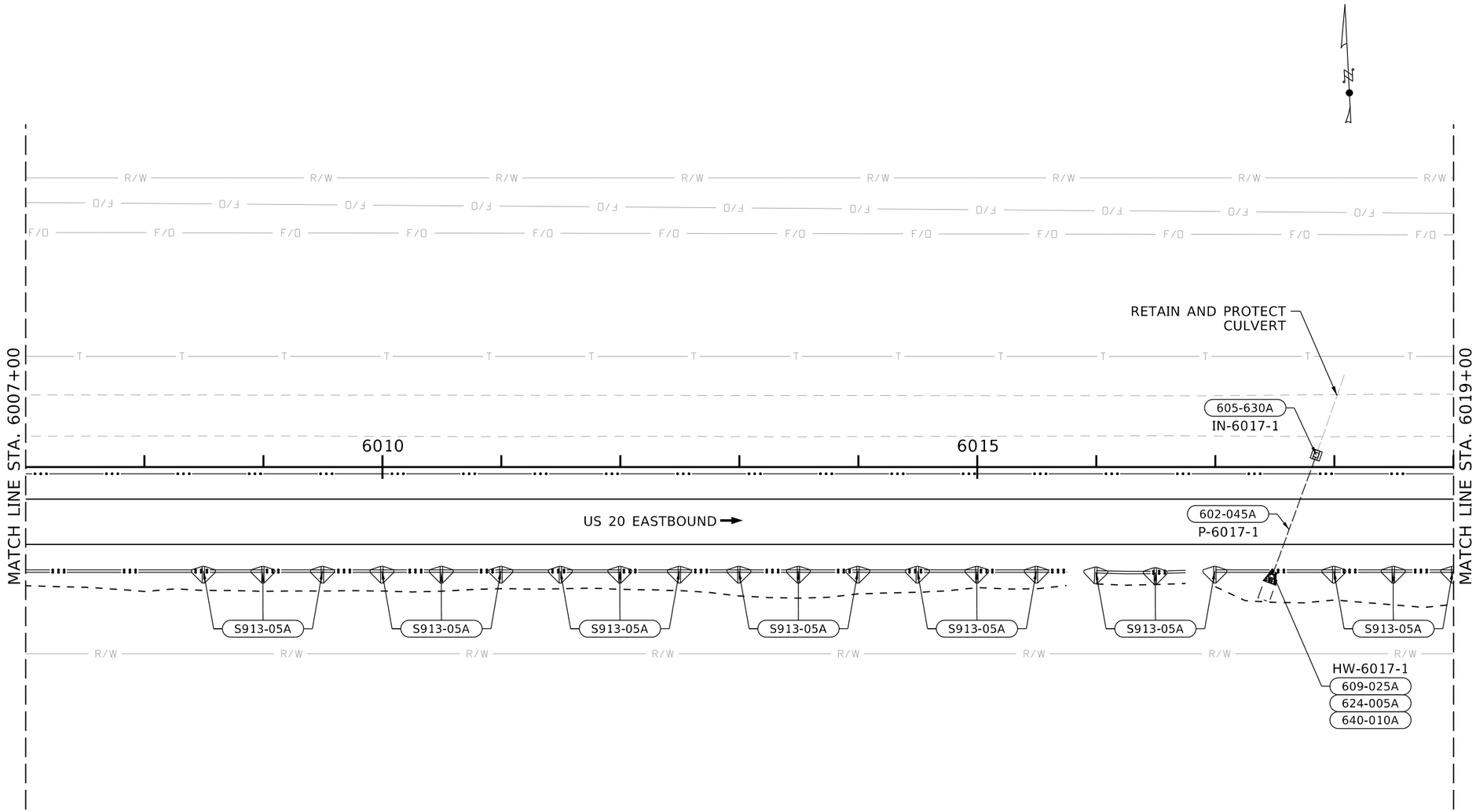
PROJECT NO. A024(149)

DRAINAGE PLAN
US 20, BONNEVILLE COUNTY
LINE TO MP 291
STA. 5995+00 TO STA. 6007+00
PHASE 1

ENGLISH
COUNTY BINGHAM/BONNEVILLE
KEY NUMBER 24149
SHEET 203 OF 441

November 21, 2025 4:46:46 PM
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T.3N., R.34E., B.M.




| | |
|---|---|
| **602-045A** | **24" PIPE CULVERT** |
| 105 FT | STA. 6017+48.35, 89.91' RT TO STA. 6017+84.78, 10.16' LT |
| **605-630A** | **INLET TYPE 8** |
| 1 EACH | STA. 6017+84.80, 10.14' LT |
| **609-025A** | **MINOR STRUCTURES (24" CONCRETE HEADWALL)** |
| 1 EACH | STA. 6017+48.35, 89.91' RT |
| **624-005A** | **LOOSE RIPRAP (CLASS I)** |
| 4.7 CY | STA. 6017+48.35, 89.91' RT |
| **640-010A** | **RIPRAP/EROSION CONTROL GEOTEXTILE** |
| 14 SY | STA. 6017+48.35, 89.91' RT |
| **S913-05A** | **SP DITCH BERM** |
| 4.9 CY | STA. 6008+50, 87.45' RT |
| 4.9 CY | STA. 6009+00, 87.45' RT |
| 4.9 CY | STA. 6009+50, 87.45' RT |
| 4.9 CY | STA. 6010+00, 87.45' RT |
| 4.9 CY | STA. 6010+50, 87.45' RT |
| 4.9 CY | STA. 6011+00, 87.45' RT |
| 4.9 CY | STA. 6011+50, 87.45' RT |
| 4.9 CY | STA. 6012+00, 87.45' RT |
| 4.9 CY | STA. 6012+50, 87.45' RT |
| 4.9 CY | STA. 6013+00, 87.45' RT |
| 4.9 CY | STA. 6013+50, 87.45' RT |
| 4.9 CY | STA. 6014+00, 87.45' RT |
| 4.9 CY | STA. 6014+50, 87.45' RT |
| 4.9 CY | STA. 6015+00, 87.45' RT |
| 4.9 CY | STA. 6015+50, 87.45' RT |
| 4.9 CY | STA. 6016+00, 88.06' RT |
| 4.9 CY | STA. 6016+50, 88.57' RT |
| 4.9 CY | STA. 6017+00, 87.45' RT |
| 4.9 CY | STA. 6018+00, 87.45' RT |
| 4.9 CY | STA. 6018+50, 87.45' RT |
| 4.9 CY | STA. 6019+00, 87.45' RT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.

2. IN PHASE 1, RETAIN AND PROTECT EXISTING CULVERTS. CONSTRUCT INLET OR JUNCTION BOX OVER EXISTING CULVERT, AND CONSTRUCT PROPOSED CULVERT UNDER PHASE 1 ROADWAY.

3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
50 0 50 100

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| DESIGNED D. ABEDI | SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY |
| DESIGN CHECKED C. MCALISTER | |
| DETAILED P. CONSALVO | CADD FILE NAME 24149_DrpI_D201A.DGN |
| DRAWING CHECKED C. MCALISTER | DRAWING DATE: November 21, 2025 |

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
DAVID EVANS AND ASSOCIATES INC.

| PROJECT NO. | DRAINAGE PLAN |
|---|---|
| A024(149) | US 20, BONNEVILLE COUNTY LINE TO MP 291 STA. 6007+00 TO STA. 6019+00 PHASE 1 |

*ENGLISH*

COUNTY BINGHAM/BONNEVILLE

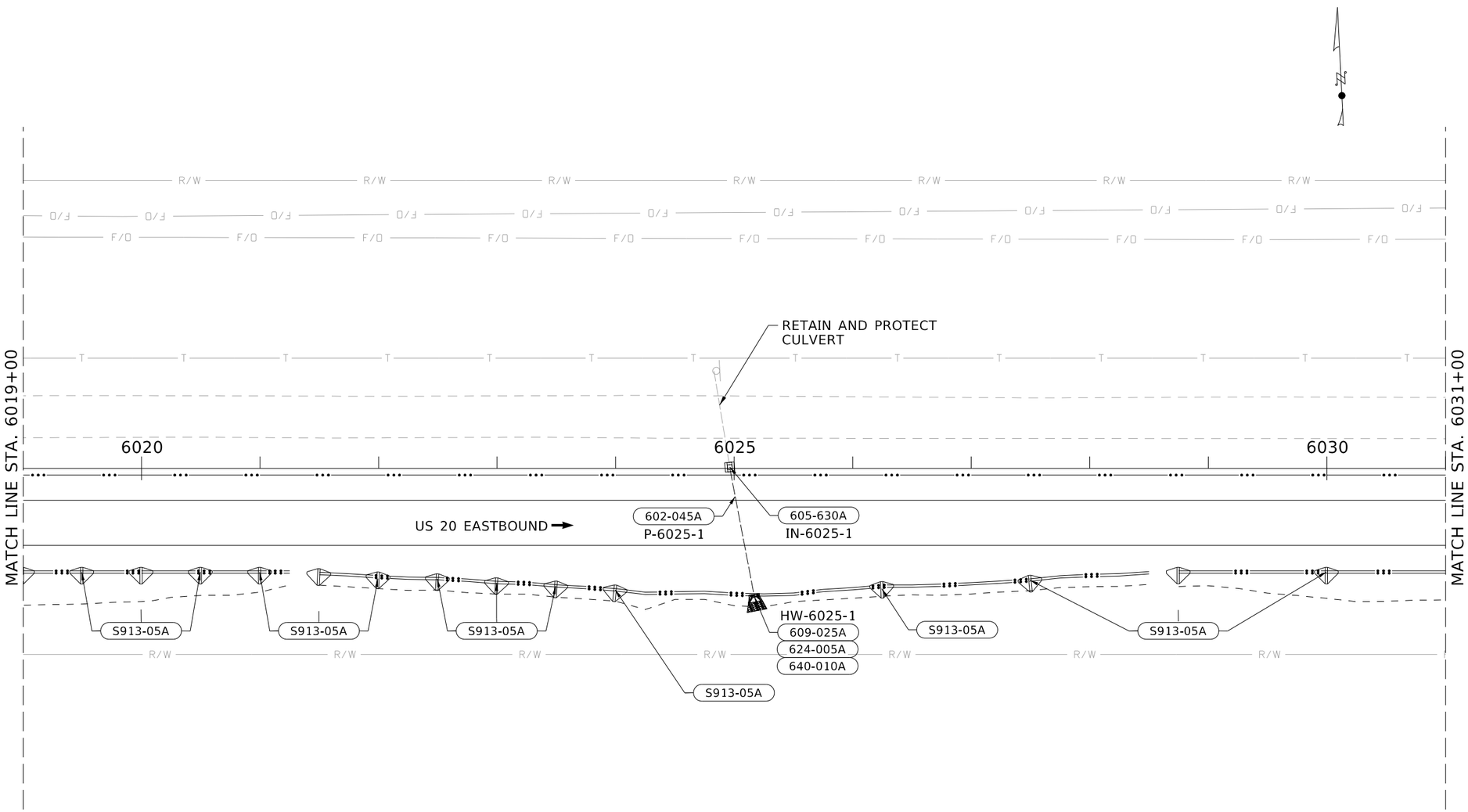
KEY NUMBER 24149

SHEET 204 OF 441

NOT APPROVED FOR INTERMEDIATE CONSTRUCTION

November 21, 2025 4:46:48 PM
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T.3N., R.34E., B.M.




| | |
|---|---|
| **602-065A** | **36" PIPE CULVERT** |
| 110 FT | STA. 6024+96.30, 1.10' LT TO STA. 6025+17.02, 108.24' RT |
| **605-630A** | **INLET TYPE 8** |
| 1 EACH | STA. 6024+96.30, 1.10' LT |
| **609-025C** | **MINOR STRUCTURES (36" CONCRETE HEADWALL)** |
| 1 EACH | STA. 6025+17.02, 108.24' RT |
| **624-005A** | **LOOSE RIPRAP (CLASS I)** |
| 10.4 CY | STA. 6025+17.02, 108.24' RT |
| **640-010A** | **RIPRAP/EROSION CONTROL GEOTEXTILE** |
| 25 SY | STA. 6025+17.02, 108.24' RT |
| **S913-05A** | **SP DITCH BERM** |
| 4.9 CY | STA. 6019+50, 87.45' RT |
| 4.9 CY | STA. 6020+00, 87.45' RT |
| 4.9 CY | STA. 6020+50, 87.45' RT |
| 4.9 CY | STA. 6021+00, 87.45' RT |
| 4.9 CY | STA. 6021+50, 88.67' RT |
| 4.9 CY | STA. 6022+00, 91.44' RT |
| 4.9 CY | STA. 6022+50, 93.00' RT |
| 4.9 CY | STA. 6023+00, 96.30' RT |
| 4.9 CY | STA, 6023+50, 99.14' RT |
| 4.9 CY | STA. 6024+00, 102.41' RT |
| 4.9 CY | STA. 6026+25, 99.47' RT |
| 4.9 CY | STA, 6027+50, 94.25' RT |
| 4.9 CY | STA, 6028+75, 87.45' RT |
| 4.9 CY | STA. 6030+00, 87.45' RT |

Scale (Feet)
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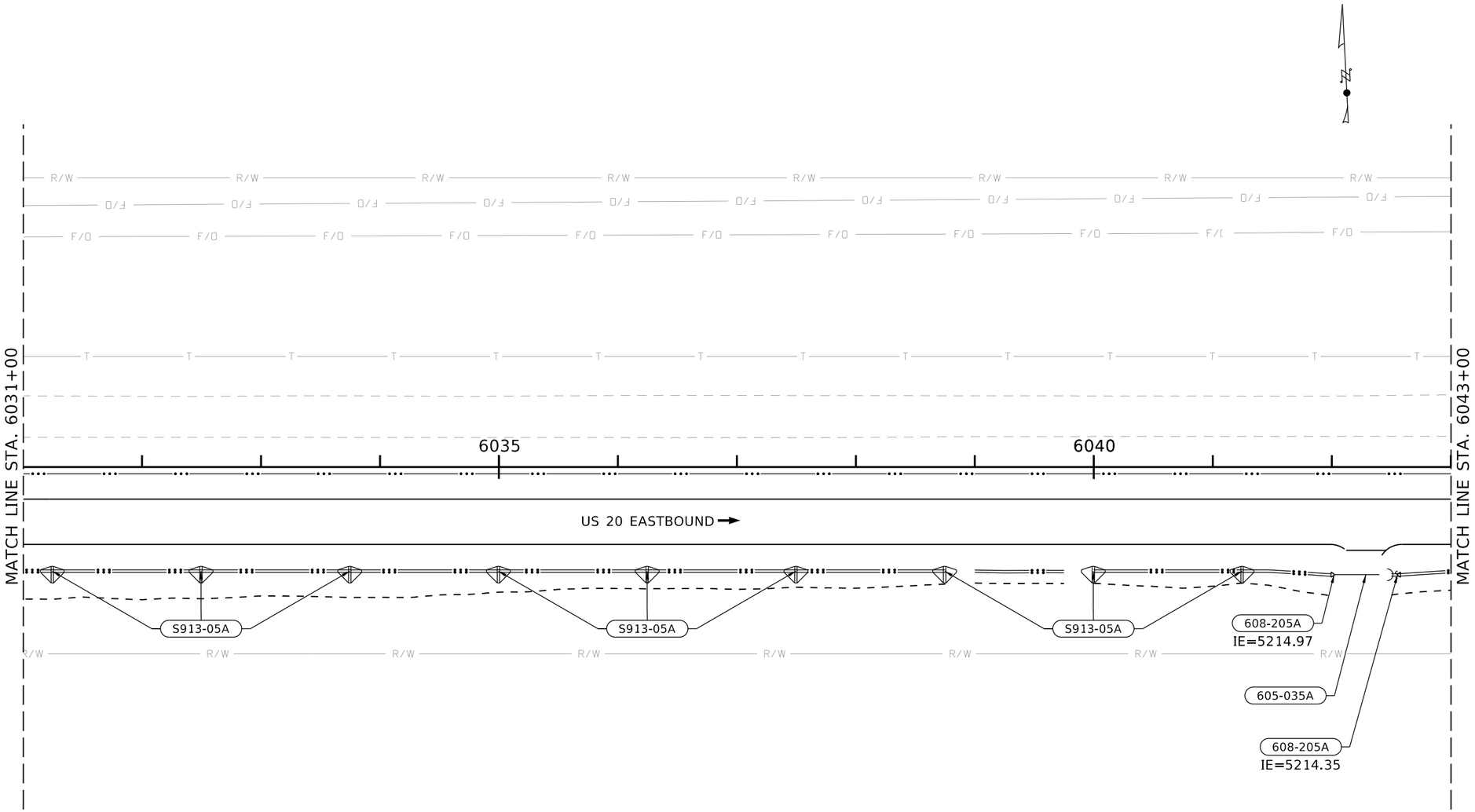
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| DESIGNED D. ABEDI | SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY | IDAHO TRANSPORTATION DEPARTMENT<br>YOUR Safety→YOUR Mobility→YOUR Economic Opportunity<br>DAVID EVANS AND ASSOCIATES INC. |
| DESIGN CHECKED C. MCALISTER | | |
| DETAILED P. CONSALVO | CADD FILE NAME 24149_DrpI_D201A.DGN | |
| DRAWING CHECKED C. MCALISTER | DRAWING DATE: November 21, 2025 | |

| PROJECT NO. | DRAINAGE PLAN | ENGLISH |
|---|---|---|
| A024(149) | US 20, BONNEVILLE COUNTY<br>LINE TO MP 291<br>STA. 6019+00 TO STA. 6031+00<br>PHASE 1 | COUNTY BINGHAM/BONNEVILLE<br>KEY NUMBER 24149<br>SHEET 205 OF 441 |

NOT APPROVED
INTERMEDIATE
FOR CONSTRUCTION

November 21, 2025 5:06:44 PM
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T.3N., R.34E., B.M.




| | |
|---|---|
| **605-035A** | **18" STORM SEWER PIPE** |
| 54 FT | STA. 6042+01.97, 90.44' RT TO STA. 6042+55.29, 90.52' RT |
| **608-205A** | **METAL SAFETY APRON (PARALLEL) (18")** |
| 1 EACH | STA. 6042+01.97, 90.44' RT |
| 1 EACH | STA. 6042+55.29, 90.52' RT |
| **S913-05A** | **SP DITCH BERM** |
| 4.9 CY | STA. 6031+25, 87.45' RT |
| 4.9 CY | STA. 6032+50, 87.45' RT |
| 4.9 CY | STA. 6033+75, 87.45' RT |
| 4.9 CY | STA. 6035+00, 87.45' RT |
| 4.9 CY | STA. 6036+25, 87.45' RT |
| 4.9 CY | STA. 6037+50, 87.45' RT |
| 4.9 CY | STA. 6038+75, 87.45' RT |
| 4.9 CY | STA. 6040+00, 87.45' RT |
| 4.9 CY | STA. 6041+25, 87.45' RT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.
2. IN PHASE 1, RETAIN AND PROTECT EXISTING CULVERTS. CONSTRUCT INLET OR JUNCTION BOX OVER EXISTING CULVERT, AND CONSTRUCT PROPOSED CULVERT UNDER PHASE 1 ROADWAY.
3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
50 0 50 100

NOT APPROVED FOR CONSTRUCTION
INTERMEDIATE

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DESIGNED D. ABEDI
DESIGN CHECKED C. MCALISTER
DETAILED P. CONSALVO
DRAWING CHECKED C. MCALISTER

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 24149_DrpI_D201B.DGN
DRAWING DATE: November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT
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DAVID EVANS AND ASSOCIATES INC.

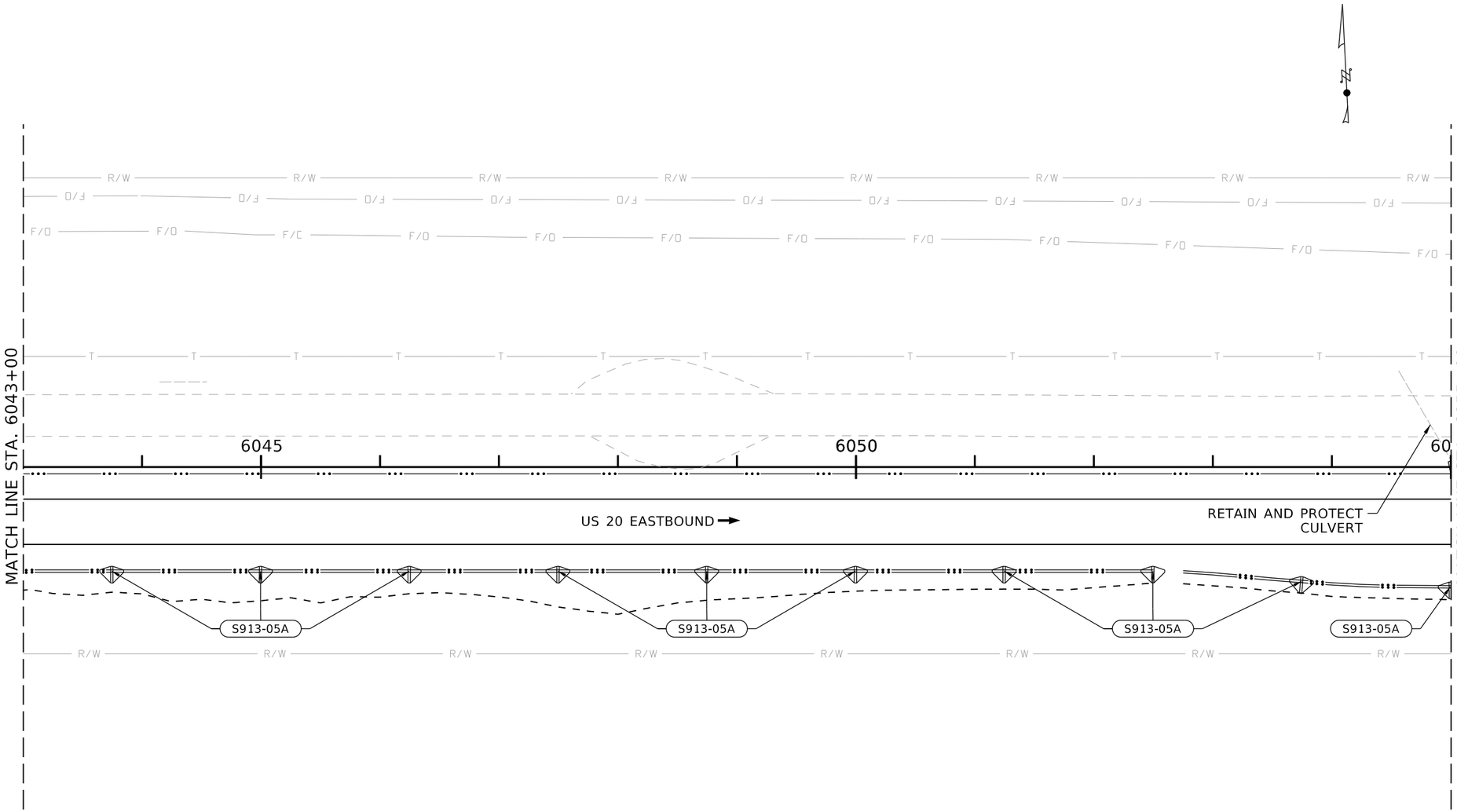
PROJECT NO. A024(149)

DRAINAGE PLAN
US 20, BONNEVILLE COUNTY
LINE TO MP 291
STA. 6031+00 TO STA. 6043+00
PHASE 1

ENGLISH
COUNTY BINGHAM/BONNEVILLE
KEY NUMBER 24149
SHEET 206 OF 441

November 21, 2025 4:47:07 PM
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T.3N., R.34E., B.M.




| S913-05A | SP DITCH BERM |
|---|---|
| 4.9 CY | STA. 6043+75, 87.45' RT |
| 4.9 CY | STA. 6045+00, 87.45' RT |
| 4.9 CY | STA. 6046+25, 87.45' RT |
| 4.9 CY | STA. 6047+50, 87.45' RT |
| 4.9 CY | STA. 6048+75, 87.45' RT |
| 4.9 CY | STA. 6050+00, 87.45' RT |
| 4.9 CY | STA. 6051+25, 87.45' RT |
| 4.9 CY | STA. 6052+50, 87.45' RT |
| 4.9 CY | STA. 6053+75, 96.19' RT |
| 4.9 CY | STA. 6055+00, 100.72' RT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.

Scale (Feet)
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DESIGNED D. ABEDI
DESIGN CHECKED C. MCALISTER
DETAILED P. CONSALVO
DRAWING CHECKED C. MCALISTER

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 24149_DrpI_D201B.DGN
DRAWING DATE: November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
DAVID EVANS AND ASSOCIATES INC.

PROJECT NO.
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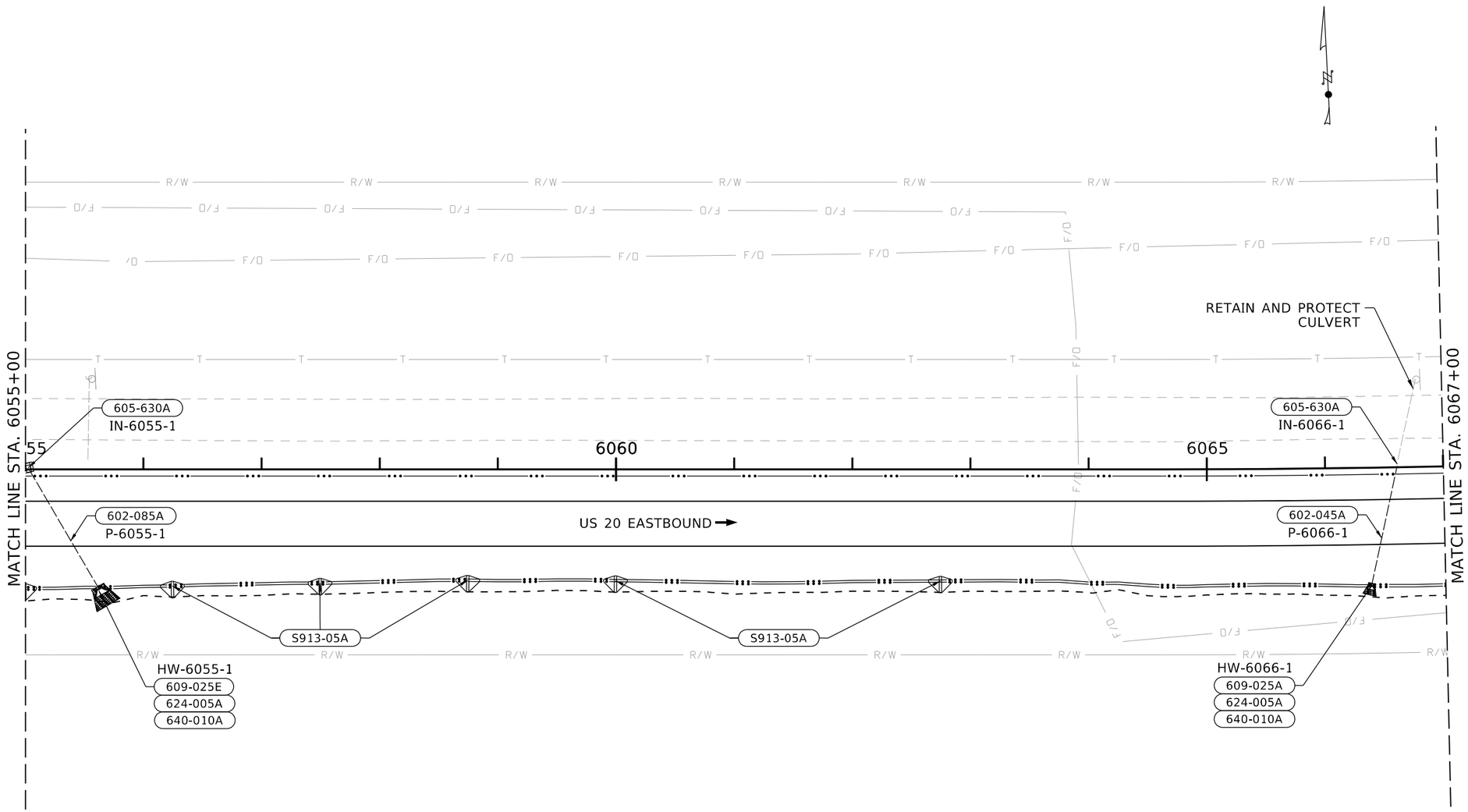
DRAINAGE PLAN
US 20, BONNEVILLE COUNTY
LINE TO MP 291
STA. 6043+00 TO STA. 6055+00
PHASE 1

ENGLISH
COUNTY BINGHAM/BONNEVILLE
KEY NUMBER 24149
SHEET 207 OF 441

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FOR CONSTRUCTION

November 21, 2025 4:47:10 PM
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T.3N., R.34E., B.M.




| | |
|---|---|
| **602-045A** | **24" PIPE CULVERT** |
| 104 FT | STA. 6066+37.99, 99.67' RT TO STA. 6066+61.19, 2.76' LT |
| **602-085A** | **48" PIPE CULVERT** |
| 117 FT | STA. 6055+02.57, 1.45' LT TO STA. 6055+62.33, 100.97' RT |
| **605-630A** | **INLET TYPE 8** |
| 1 EACH | STA. 6055+02.57, 1.45' LT |
| 1 EACH | STA. 6066+61.19, 2.76' LT |
| **609-025A** | **MINOR STRUCTURES (24" CONCRETE HEADWALL)** |
| 1 EACH | STA. 6066+37.99, 99.67' RT |
| **609-025E** | **MINOR STRUCTURES (48" CONCRETE HEADWALL)** |
| 1 EACH | STA. 6055+62.33, 100.97' RT |
| **624-005A** | **LOOSE RIPRAP (CLASS I)** |
| 18.5 CY | STA. 6055+62.33, 100.97' RT |
| 4.7 CY | STA. 6066+37.99, 99.67' RT |
| **640-010A** | **RIPRAP/EROSION CONTROL GEOTEXTILE** |
| 40 SY | STA. 6055+62.33, 100.97' RT |
| 14 SY | STA. 6066+37.99, 99.67' RT |
| **S913-05A** | **SP DITCH BERM** |
| 4.9 CY | STA. 6056+25, 98.74' RT |
| 4.9 CY | STA. 6057+50, 96.29' RT |
| 4.9 CY | STA. 6058+75, 93.82' RT |
| 4.9 CY | STA. 6060+00, 94.14' RT |
| 4.9 CY | STA. 6062+75, 94.51' RT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.

2. IN PHASE 1, RETAIN AND PROTECT EXISTING CULVERTS. CONSTRUCT INLET OR JUNCTION BOX OVER EXISTING CULVERT, AND CONSTRUCT PROPOSED CULVERT UNDER PHASE 1 ROADWAY.

3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
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| DESIGNED D. ABEDI | SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY |
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| DETAILED P. CONSALVO | CADD FILE NAME 24149_DrpI_D201B.DGN |
| DRAWING CHECKED C. MCALISTER | DRAWING DATE: November 21, 2025 |

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
DAVID EVANS AND ASSOCIATES INC.

| PROJECT NO. | DRAINAGE PLAN |
|---|---|
| A024(149) | US 20, BONNEVILLE COUNTY<br>LINE TO MP 291<br>STA. 6055+00 TO STA. 6067+00<br>PHASE 1 |

*ENGLISH*

COUNTY BINGHAM/BONNEVILLE

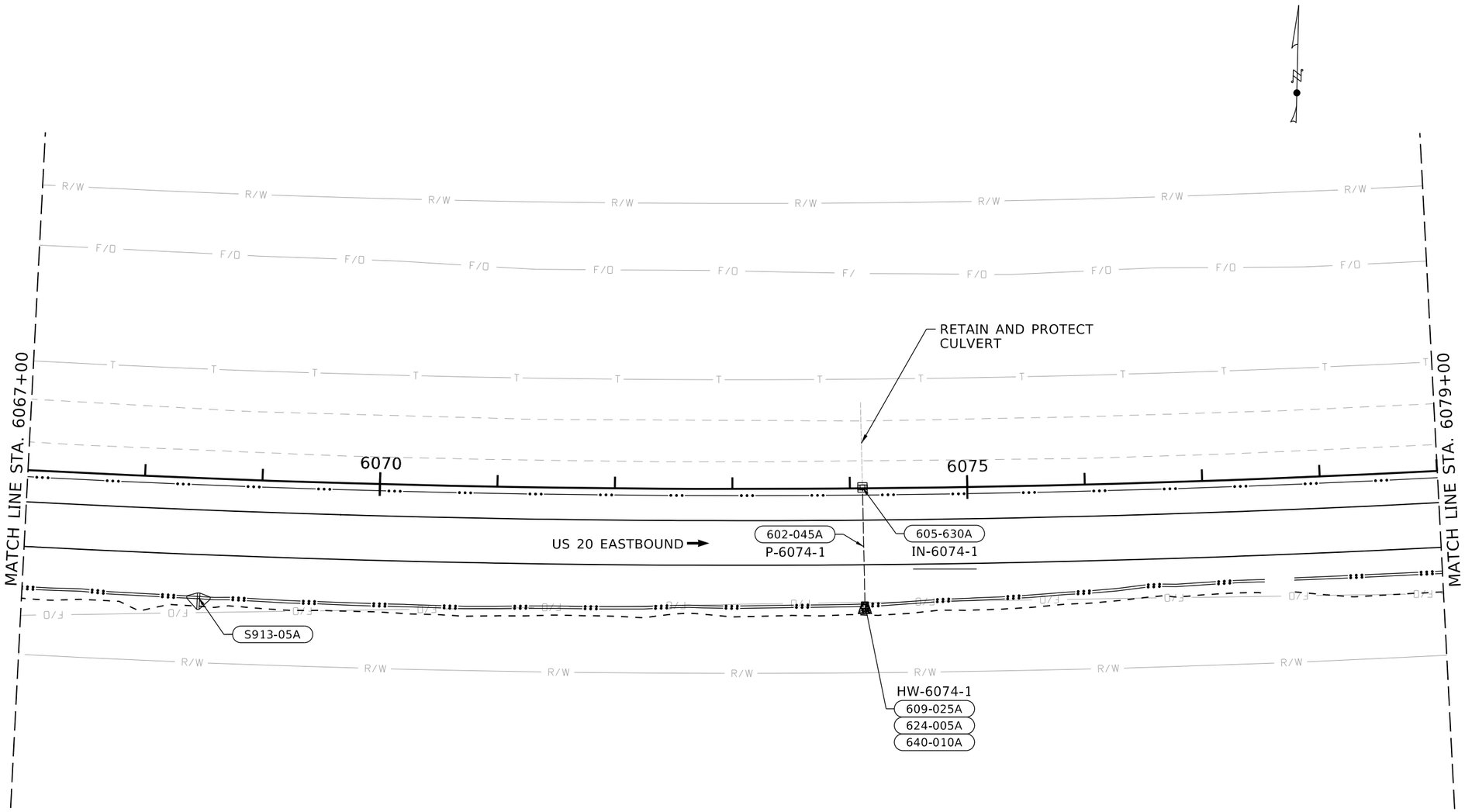
KEY NUMBER 24149

SHEET 208 OF 441

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INTERMEDIATE
FOR CONSTRUCTION

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T.3N., R.34E., B.M.




| | |
|---|---|
| **602-045A**<br>98 FT | **24" PIPE CULVERT**<br>STA. 6074+10.78, 0.85' LT TO STA. 6074+11.98, 98.56' RT |
| **605-630A**<br>1 EACH | **INLET TYPE 8**<br>STA. 6074+10.78, 0.85' LT |
| **609-025A**<br>1 EACH | **MINOR STRUCTURES (24" CONCRETE HEADWALL)**<br>STA. 6074+11.98, 98.56' RT |
| **624-005A**<br>4.7 CY | **LOOSE RIPRAP (CLASS I)**<br>STA. 6074+11.98, 98.56' RT |
| **640-010A**<br>14 SY | **RIPRAP/EROSION CONTROL GEOTEXTILE**<br>STA. 6074+11.98, 98.56' RT |
| **S913-05A**<br>4.9 CY | **SP DITCH BERM**<br>STA. 6068+50, 101.71' RT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.
2. IN PHASE 1, RETAIN AND PROTECT EXISTING CULVERTS. CONSTRUCT INLET OR JUNCTION BOX OVER EXISTING CULVERT, AND CONSTRUCT PROPOSED CULVERT UNDER PHASE 1 ROADWAY.
3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
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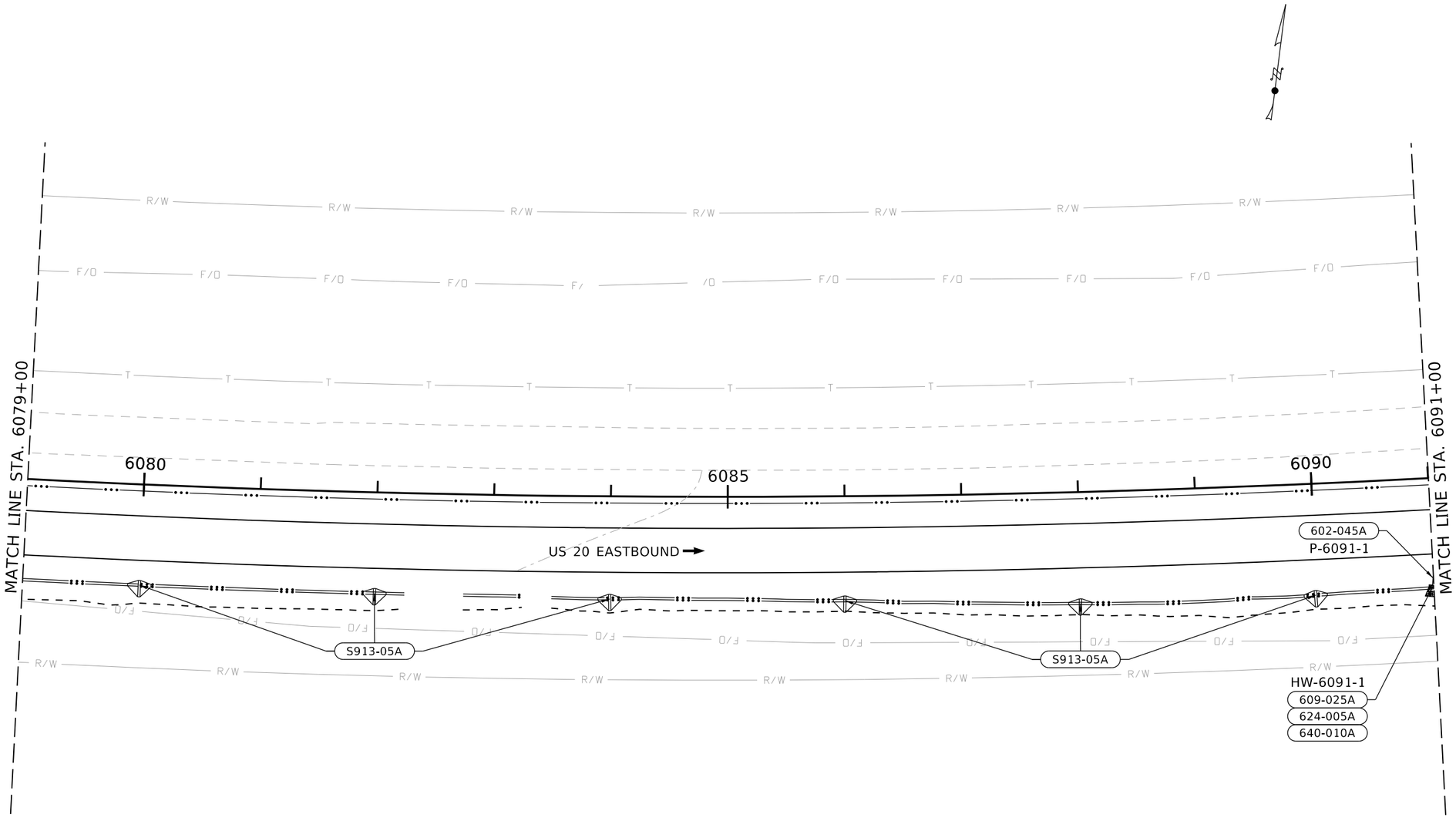
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| DESIGNED D. ABEDI | SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY | IDAHO TRANSPORTATION DEPARTMENT<br>YOUR Safety→YOUR Mobility→YOUR Economic Opportunity<br>DAVID EVANS AND ASSOCIATES INC. |
| DESIGN CHECKED C. MCALISTER | CADD FILE NAME 24149_DrpI_D201B.DGN | |
| DETAILED P. CONSALVO | DRAWING DATE: November 21, 2025 | |
| DRAWING CHECKED C. MCALISTER | | |

| PROJECT NO. | DRAINAGE PLAN | ENGLISH |
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| A024(149) | US 20, BONNEVILLE COUNTY LINE TO MP 291<br>STA. 6067+00 TO STA. 6079+00<br>PHASE 1 | COUNTY BINGHAM/BONNEVILLE<br>KEY NUMBER 24149<br>SHEET 209 OF 441 |

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T.3N., R.34E., B.M.




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|---|---|
| **602-045A** | **24" PIPE CULVERT** |
| 12 FT | STA. 6090+98.94, 93.50' RT TO STA. 6091+00.00, 81.68' RT |
| **609-025A** | **MINOR STRUCTURES (24" CONCRETE HEADWALL)** |
| 1 EACH | STA. 6090+98.94, 93.50' RT |
| **624-005A** | **LOOSE RIPRAP (CLASS I)** |
| 4.7 CY | STA. 6090+98.94, 93.50' RT |
| **640-010A** | **RIPRAP/EROSION CONTROL** |
| 14 SY | STA. 6090+98.94, 93.50' RT |
| **S913-05A** | **SP DITCH BERM** |
| 4.9 CY | STA. 6080+00, 86.27' RT |
| 4.9 CY | STA. 6082+00, 86.27' RT |
| 4.9 CY | STA. 6084+00, 87.81' RT |
| 4.9 CY | STA. 6086+00, 89.31' RT |
| 4.9 CY | STA. 6088+00, 95.39' RT |
| 4.9 CY | STA. 6090+00, 95.45' RT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.

2. IN PHASE 1, RETAIN AND PROTECT EXISTING CULVERTS. CONSTRUCT INLET OR JUNCTION BOX OVER EXISTING CULVERT, AND CONSTRUCT PROPOSED CULVERT UNDER PHASE 1 ROADWAY.

3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
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| DESIGNED D. ABEDI | SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY |
| DESIGN CHECKED C. MCALISTER | |
| DETAILED P. CONSALVO | CADD FILE NAME 24149_Drpl_D201B.DGN |
| DRAWING CHECKED C. MCALISTER | DRAWING DATE: November 21, 2025 |

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
DAVID EVANS AND ASSOCIATES INC.

| PROJECT NO. | DRAINAGE PLAN |
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| A024(149) | US 20, BONNEVILLE COUNTY LINE TO MP 291<br>STA. 6079+00 TO STA. 6091+00<br>PHASE 1 |

*ENGLISH*

COUNTY BINGHAM/BONNEVILLE

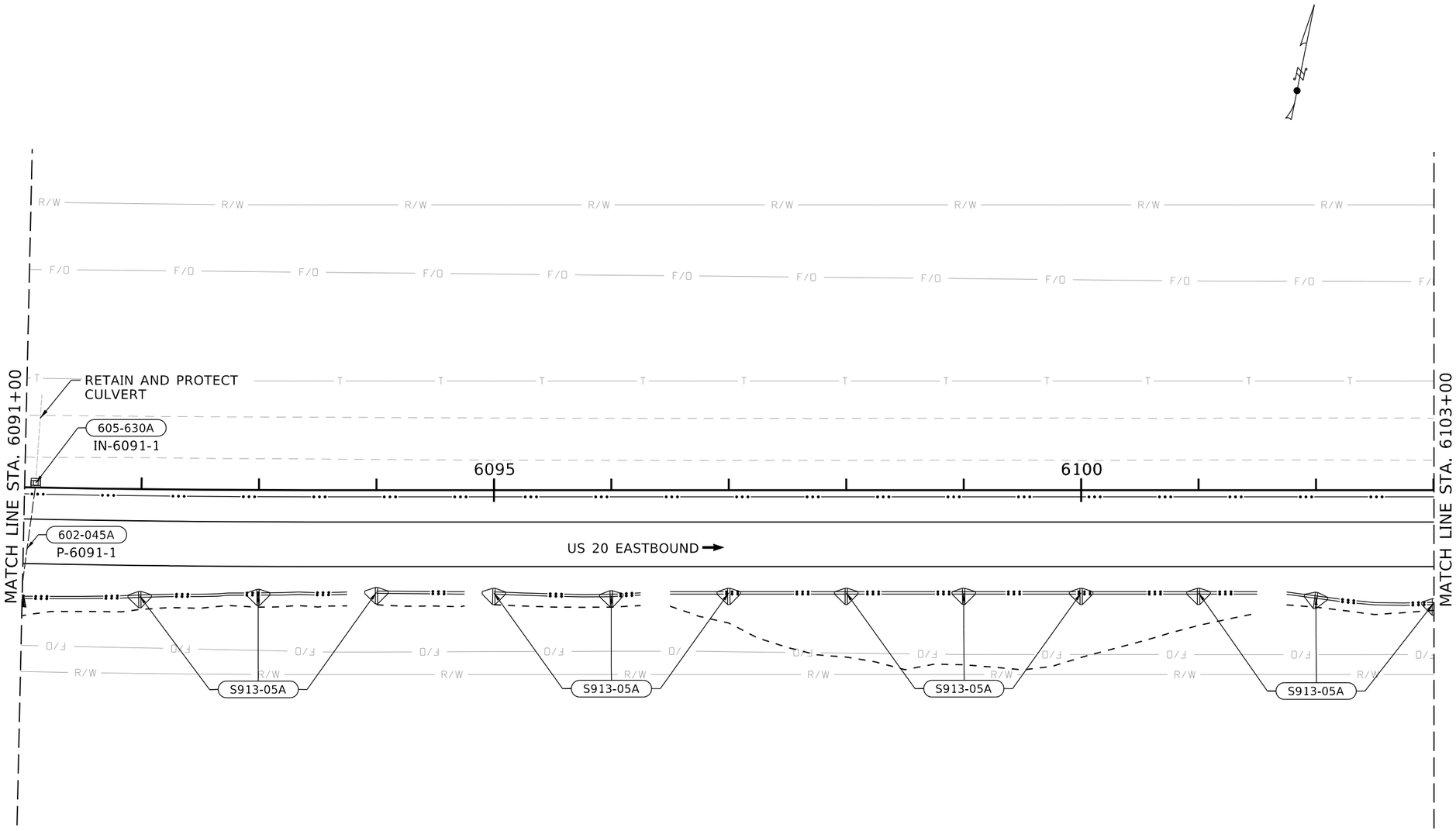
KEY NUMBER 24149

SHEET 210 OF 441

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T.3N., R.34E., B.M.




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|---|---|
| **602-045A** | **24" PIPE CULVERT** |
| 85 FT | STA. 6091+00.00, 81.68' RT TO STA. 6091+09.79, 3.68' LT |
| **605-630A** | **INLET TYPE 8** |
| 1 EACH | STA. 6091+09.79, 3.68' LT |
| **S913-05A** | **SP DITCH BERM** |
| 4.9 CY | STA. 6092+00, 91.10' RT |
| 4.9 CY | STA. 6093+00, 88.46' RT |
| 4.9 CY | STA. 6094+00, 86.83' RT |
| 4.9 CY | STA. 6095+00, 87.44' RT |
| 4.9 CY | STA. 6096+00, 89.59' RT |
| 4.9 CY | STA. 6097+00, 87.42' RT |
| 4.9 CY | STA. 6098+00, 87.42' RT |
| 4.9 CY | STA. 6099+00, 87.42' RT |
| 4.9 CY | STA. 6100+00, 87.42' RT |
| 4.9 CY | STA. 6101+00, 87.42' RT |
| 4.9 CY | STA. 6102+00, 90.96' RT |
| 4.9 CY | STA. 6103+00, 96.36' RT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.

2. IN PHASE 1, RETAIN AND PROTECT EXISTING CULVERTS. CONSTRUCT INLET OR JUNCTION BOX OVER EXISTING CULVERT, AND CONSTRUCT PROPOSED CULVERT UNDER PHASE 1 ROADWAY.

3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
50 0 50 100

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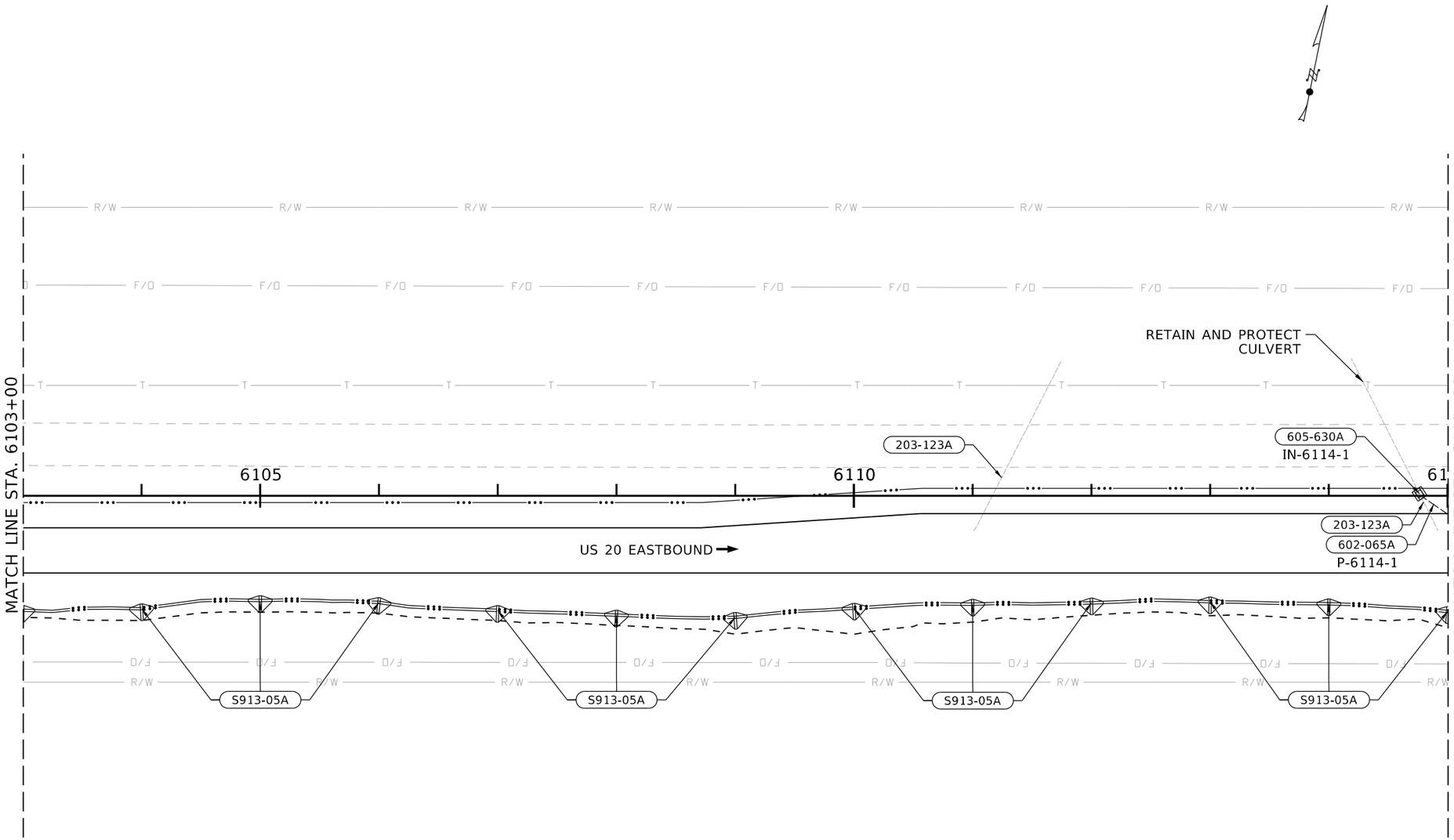
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|---|---|---|
| DESIGNED D. ABEDI | SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY | IDAHO TRANSPORTATION DEPARTMENT<br>YOUR Safety→YOUR Mobility→YOUR Economic Opportunity<br>DAVID EVANS AND ASSOCIATES INC. |
| DESIGN CHECKED C. MCALISTER | | |
| DETAILED P. CONSALVO | CADD FILE NAME 24149_DrpI_D201B.DGN | |
| DRAWING CHECKED C. MCALISTER | DRAWING DATE: November 21, 2025 | |

| PROJECT NO. | DRAINAGE PLAN | |
|---|---|---|
| A024(149) | US 20, BONNEVILLE COUNTY<br>LINE TO MP 291<br>STA. 6091+00 TO STA. 6103+00<br>PHASE 1 | *ENGLISH*<br>COUNTY BINGHAM/BONNEVILLE<br>KEY NUMBER 24149<br>SHEET 211 OF 441 |

NOT APPROVED FOR CONSTRUCTION
INTERMEDIATE

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T.3N., R.34E., B.M.




| | |
|---|---|
| **203-123A** | **REMOVAL OF MISCELLANEOUS ITEMS (PIPE)** |
| 164 FT | STA. 6111+00.83, 29.38' RT TO STA. 6111+74.36, 113.15' RT |
| 28 FT | STA. 6114+79.49, 4.67' RT TO STA. 6114+91.85, 29.12' RT |
| **602-065A** | **36" PIPE CULVERT** |
| 26 FT | STA. 6114+76.31, 1.64' LT TO STA. 6115+00.00, 14.67' RT |
| **605-630A** | **INLET TY 8** |
| 1 EACH | STA. 6114+76.31, 1.64' LT |
| **S913-05A** | **SP DITCH BERM** |
| 4.9 CY | STA. 6104+00, 95.08' RT |
| 4.9 CY | STA. 6105+00, 88.14' RT |
| 4.9 CY | STA. 6106+00, 89.81' RT |
| 4.9 CY | STA. 6107+00, 96.50' RT |
| 4.9 CY | STA. 6108+00, 100.41' RT |
| 4.9 CY | STA. 6109+00, 102.31' RT |
| 4.9 CY | STA. 6110+00, 94.59' RT |
| 4.9 CY | STA. 6111+00, 91.27' RT |
| 4.9 CY | STA. 6112+00, 90.17' RT |
| 4.9 CY | STA. 6113+00, 89.25' RT |
| 4.9 CY | STA. 6114+00, 90.90' RT |
| 4.9 CY | STA. 6115+00, 97.44' RT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.

2. IN PHASE 1, RETAIN AND PROTECT EXISTING CULVERTS. CONSTRUCT INLET OR JUNCTION BOX OVER EXISTING CULVERT, AND CONSTRUCT PROPOSED CULVERT UNDER PHASE 1 ROADWAY.

3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
50 0 50 100

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| DESIGNED D. ABEDI | SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY |
| DESIGN CHECKED C. MCALISTER | |
| DETAILED P. CONSALVO | CADD FILE NAME 24149_DrpI_D201B.DGN |
| DRAWING CHECKED C. MCALISTER | DRAWING DATE: November 21, 2025 |

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
DAVID EVANS AND ASSOCIATES INC.

| PROJECT NO. | DRAINAGE PLAN |
|---|---|
| A024(149) | US 20, BONNEVILLE COUNTY LINE TO MP 291<br>STA. 6103+00 TO STA. 6115+00<br>PHASE 1 |

*ENGLISH*

COUNTY BINGHAM/BONNEVILLE

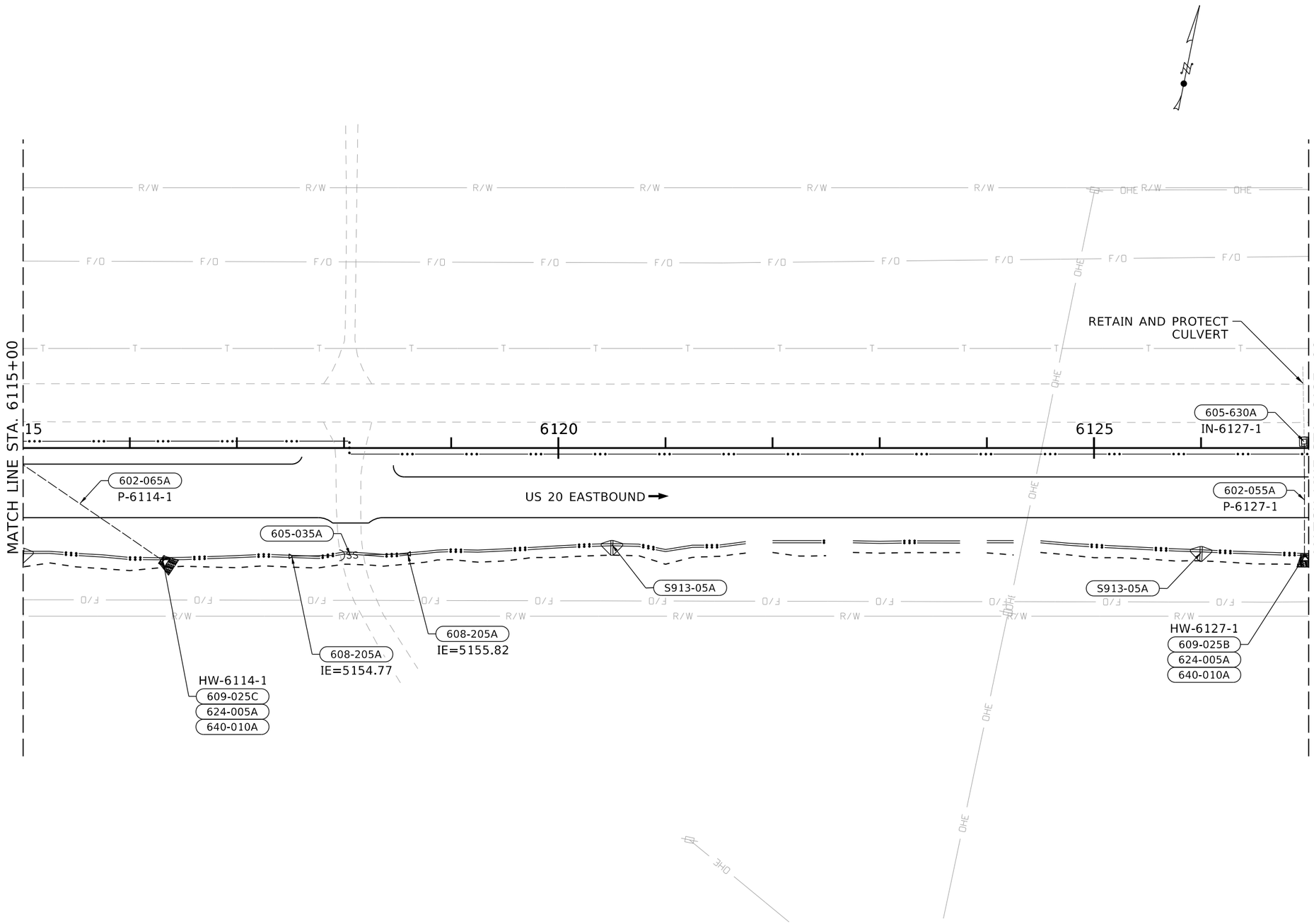
KEY NUMBER 24149

SHEET 212 OF 441

NOT APPROVED
INTERMEDIATE
FOR CONSTRUCTION

November 21, 2025 4:47:21 PM
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T.3N., R.34E., B.M.




**602-065A** **36" PIPE CULVERT**
160 FT STA. 6115+00.00, 14.67' RT TO STA. 6116+30.85, 105.06' RT
106 FT STA. 6126+96.07, 5.95' LT TO STA. 6126+96.46, 101.12' RT

**605-035A** **18" STORM SEWER PIPE**
109 FT STA. 6117+51.14, 101.04' RT TO STA. 6118+59.41, 98.89' RT

**605-630A** **INLET TYPE 8**
1 EACH STA. 6126+96.07, 5.95' LT

**608-205A** **METAL SAFETY APRON (PARALLEL) (18")**
1 EACH STA. 6117+51.14, 101.04' RT
1 EACH STA. 6118+59.41, 98.89' RT

**609-025C** **MINOR STRUCTURES (36" CONCRETE HEADWALL)**
1 EACH STA. 6116+30.85, 105.06' RT
1 EACH STA. 6126+96.46, 101.12' RT

**624-005A** **LOOSE RIPRAP (CLASS I)**
10.4 CY STA. 6116+30.85, 105.06' RT
10.4 CY STA. 6126+96.46, 101.12' RT

**640-010A** **RIPRAP/EROSION CONTROL GEOTEXTILE**
25 SY STA. 6116+30.85, 105.06' RT
25 SY STA. 6126+96.46, 101.12' RT

**S913-05A** **SP DITCH BERM**
4.9 CY STA. 6120+50, 90.19' RT
4.9 CY STA. 6126+00, 95.95' RT

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.

2. IN PHASE 1, RETAIN AND PROTECT EXISTING CULVERTS. CONSTRUCT INLET OR JUNCTION BOX OVER EXISTING CULVERT, AND CONSTRUCT PROPOSED CULVERT UNDER PHASE 1 ROADWAY.

3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
50 0 50 100

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DESIGNED D. ABEDI
DESIGN CHECKED C. MCALISTER
DETAILED P. CONSALVO
DRAWING CHECKED C. MCALISTER

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 24149_DrpI_D201B.DGN
DRAWING DATE: November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT
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DAVID EVANS AND ASSOCIATES INC.

PROJECT NO. A024(149)

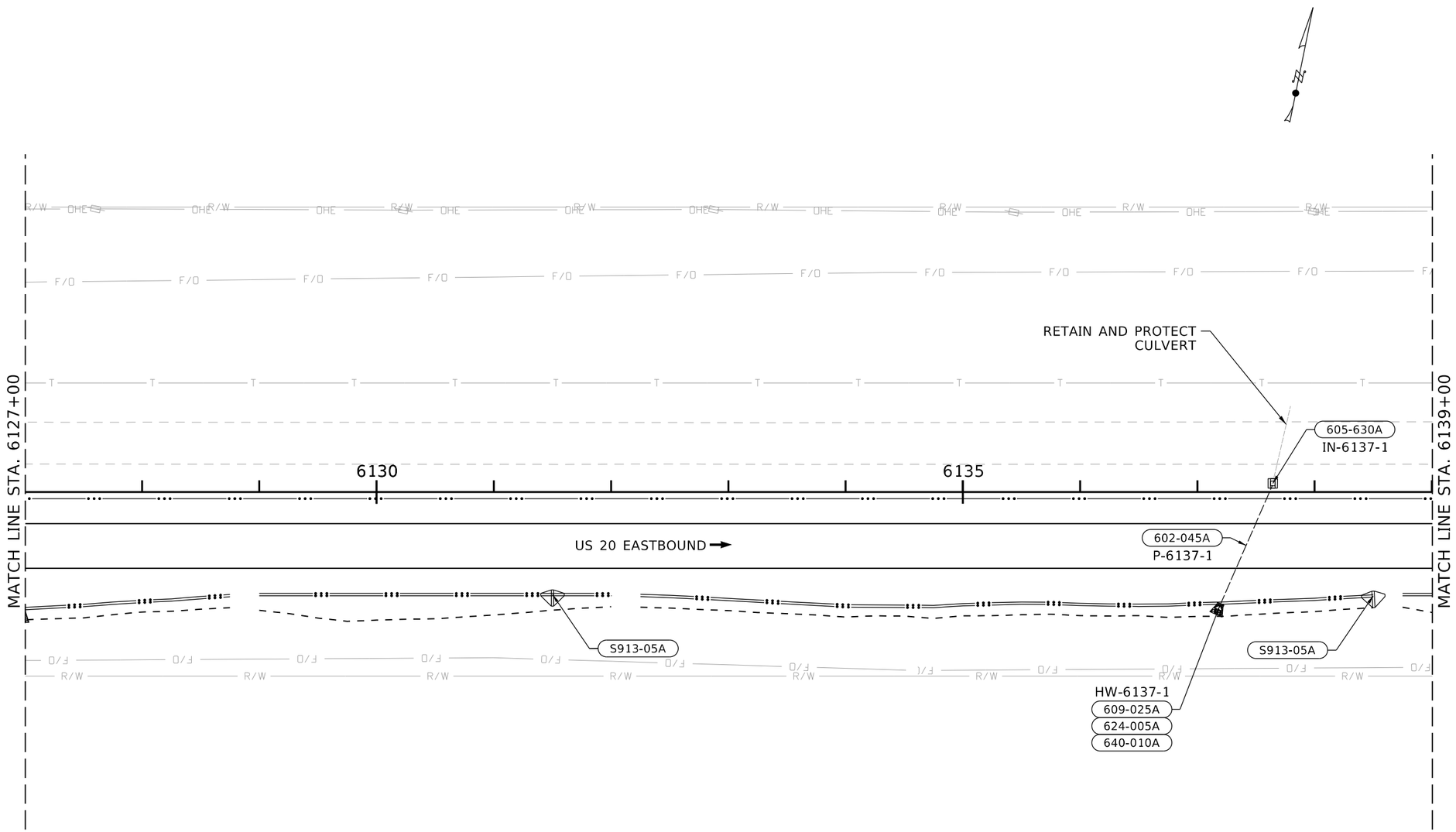
DRAINAGE PLAN
US 20, BONNEVILLE COUNTY
LINE TO MP 291
STA. 6115+00 TO STA. 6127+00
PHASE 1

ENGLISH
COUNTY BINGHAM/BONNEVILLE
KEY NUMBER 24149
SHEET 213 OF 441

NOT APPROVED
INTERMEDIATE
FOR CONSTRUCTION

November 21, 2025 4:47:24 PM
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T.3N., R.34E., B.M.




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|---|---|
| **602-045A**<br>113 FT | **24" PIPE CULVERT**<br>STA. 6137+19.11, 97.03' RT TO STA. 6137+64.32, 7.37' LT |
| **605-630A**<br>1 EACH | **INLET TYPE 8**<br>STA. 6137+64.32, 7.37' LT |
| **609-025A**<br>1 EACH | **MINOR STRUCTURES (24" CONCRETE HEADWALL)**<br>STA. 6137+19.11, 97.03' RT |
| **624-005A**<br>4.7 CY | **LOOSE RIPRAP (CLASS I)**<br>STA. 6137+19.11, 97.03' RT |
| **640-010A**<br>14 SY | **RIPRAP/EROSION CONTROL GEOTEXTILE**<br>STA. 6137+19.11, 97.03' RT |
| **S913-05A**<br>4.9 CY<br>4.9 CY | **SP DITCH BERM**<br>STA. 6131+50, 87.42' RT<br>STA. 6138+50, 88.56' RT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.
2. IN PHASE 1, RETAIN AND PROTECT EXISTING CULVERTS. CONSTRUCT INLET OR JUNCTION BOX OVER EXISTING CULVERT, AND CONSTRUCT PROPOSED CULVERT UNDER PHASE 1 ROADWAY.
3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
50 0 50 100

NOT APPROVED
INTERMEDIATE
FOR CONSTRUCTION

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DESIGNED D. ABEDI
DESIGN CHECKED C. MCALISTER
DETAILED P. CONSALVO
DRAWING CHECKED C. MCALISTER

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 24149_DrpI_D201B.DGN
DRAWING DATE: November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT
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DAVID EVANS AND ASSOCIATES INC.

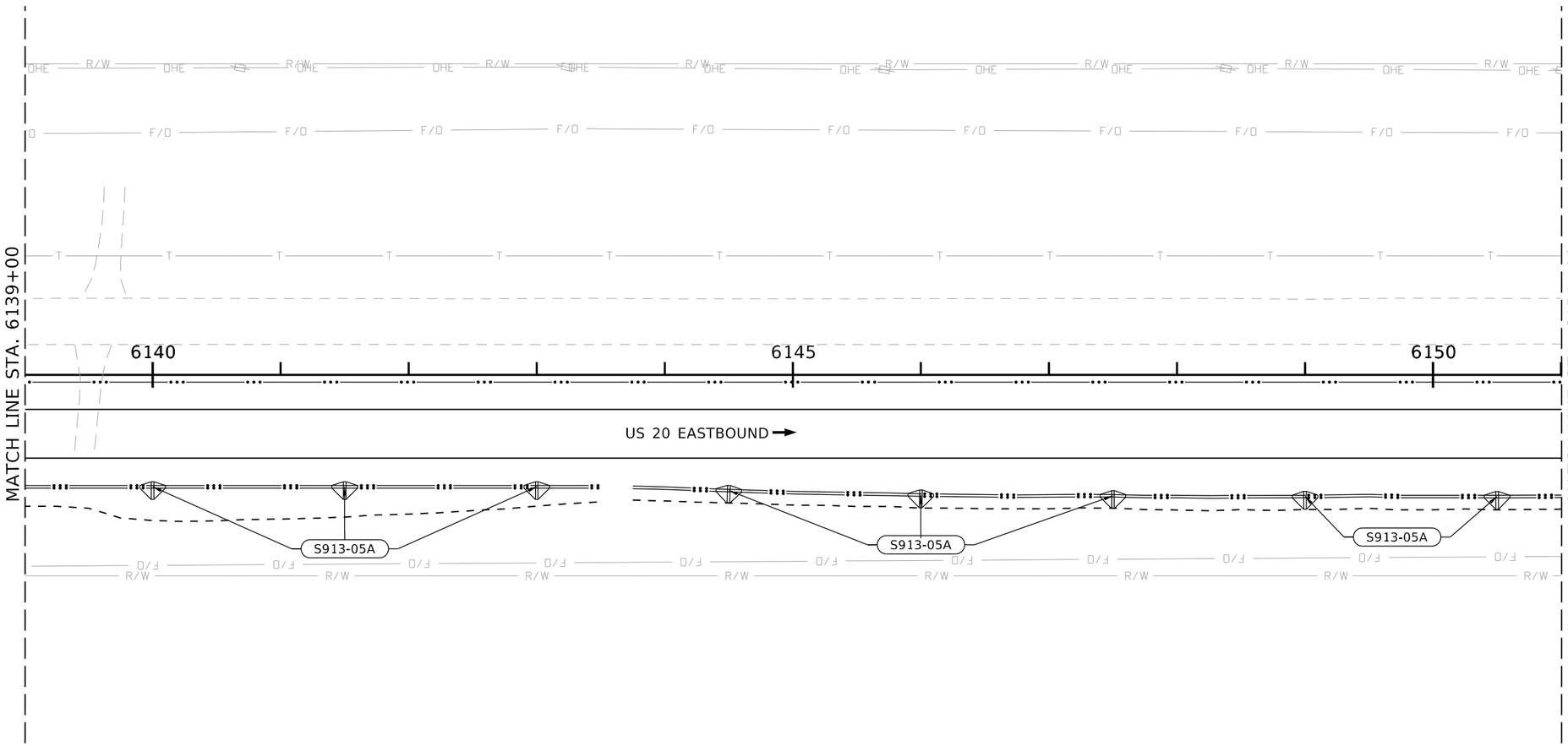
PROJECT NO. A024(149)

DRAINAGE PLAN
US 20, BONNEVILLE COUNTY
LINE TO MP 291
STA. 6127+00 TO STA. 6139+00
PHASE 1

ENGLISH
COUNTY BINGHAM/BONNEVILLE
KEY NUMBER 24149
SHEET 214 OF 441

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T.3N., R.34E., B.M.




| S913-05A | SP DITCH BERM |
|---|---|
| 4.9 CY | STA. 6140+00, 87.42' RT |
| 4.9 CY | STA. 6141+50, 87.42' RT |
| 4.9 CY | STA. 6143+00, 87.42' RT |
| 4.9 CY | STA. 6144+50, 90.30' RT |
| 4.9 CY | STA. 6146+00, 93.87' RT |
| 4.9 CY | STA. 6147+50, 94.48' RT |
| 4.9 CY | STA. 6149+00, 94.99' RT |
| 4.9 CY | STA. 6150+50, 95.06' RT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.

Scale (Feet)
50 0 50 100

NOT APPROVED
INTERMEDIATE
FOR CONSTRUCTION

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| DESIGNED | D. ABEDI |
| DESIGN CHECKED | C. MCALISTER |
| DETAILED | P. CONSALVO |
| DRAWING CHECKED | C. MCALISTER |

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME 24149_DrpI_D201B.DGN

DRAWING DATE: November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT
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DAVID EVANS AND ASSOCIATES INC.

PROJECT NO.
A024(149)

DRAINAGE PLAN
US 20, BONNEVILLE COUNTY
LINE TO MP 291
STA. 6139+00 TO STA. 6151+00
PHASE 1

ENGLISH

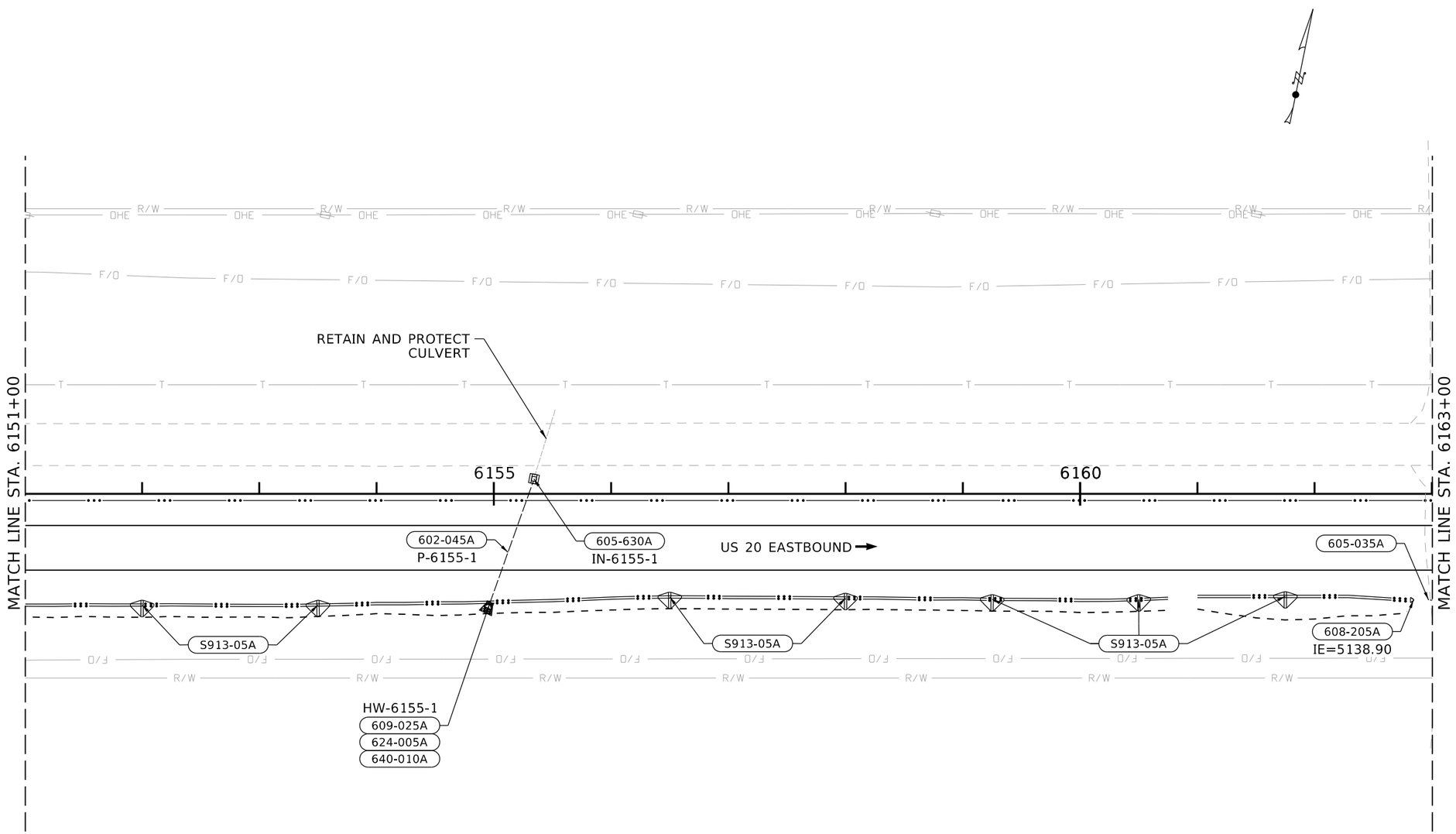
COUNTY
BINGHAM/BONNEVILLE

KEY NUMBER
24149

SHEET 215 OF 441

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T.3N., R.34E., B.M.




| | |
|---|---|
| **602-045A** | **24" PIPE CULVERT** |
| 112 FT | STA. 6154+96.25, 94.22' RT TO STA. 6155+34.22, 12.73' LT |
| **605-035A** | **18" STORM SEWER PIPE** |
| 16 FT | STA. 6162+84.33, 90.53' RT TO STA. 6163+00.00, 90.53' RT |
| **605-630A** | **INLET TYPE 8** |
| 1 EACH | STA. 6155+34.22, 12.73' LT |
| **608-205A** | **METAL SAFETY APRON (PARALLEL) (18")** |
| 1 EACH | STA. 6162+84.33, 90.53' RT |
| **609-025A** | **MINOR STRUCTURES (24" CONCRETE HEADWALL)** |
| 1 EACH | STA. 6154+96.25, 94.22' RT |
| **624-005A** | **LOOSE RIPRAP (CLASS I)** |
| 4.7 CY | STA. 6154+96.25, 94.22' RT |
| **640-010A** | **RIPRAP/EROSION CONTROL GEOTEXTILE** |
| 14 SY | STA. 6154+96.25, 94.22' RT |
| **S913-05A** | **SP DITCH BERM** |
| 4.9 CY | STA. 6152+00, 94.69' RT |
| 4.9 CY | STA. 6153+50, 94.78' RT |
| 4.9 CY | STA. 6156+50, 87.84' RT |
| 4.9 CY | STA. 6158+00, 88.81' RT |
| 4.9 CY | STA. 6159+25, 89.94' RT |
| 4.9 CY | STA. 6160+50, 90.02' RT |
| 4.9 CY | STA. 6161+75, 87.42' RT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.
2. IN PHASE 1, RETAIN AND PROTECT EXISTING CULVERTS. CONSTRUCT INLET OR JUNCTION BOX OVER EXISTING CULVERT, AND CONSTRUCT PROPOSED CULVERT UNDER PHASE 1 ROADWAY.
3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
50 0 50 100

NOT APPROVED FOR CONSTRUCTION
INTERMEDIATE

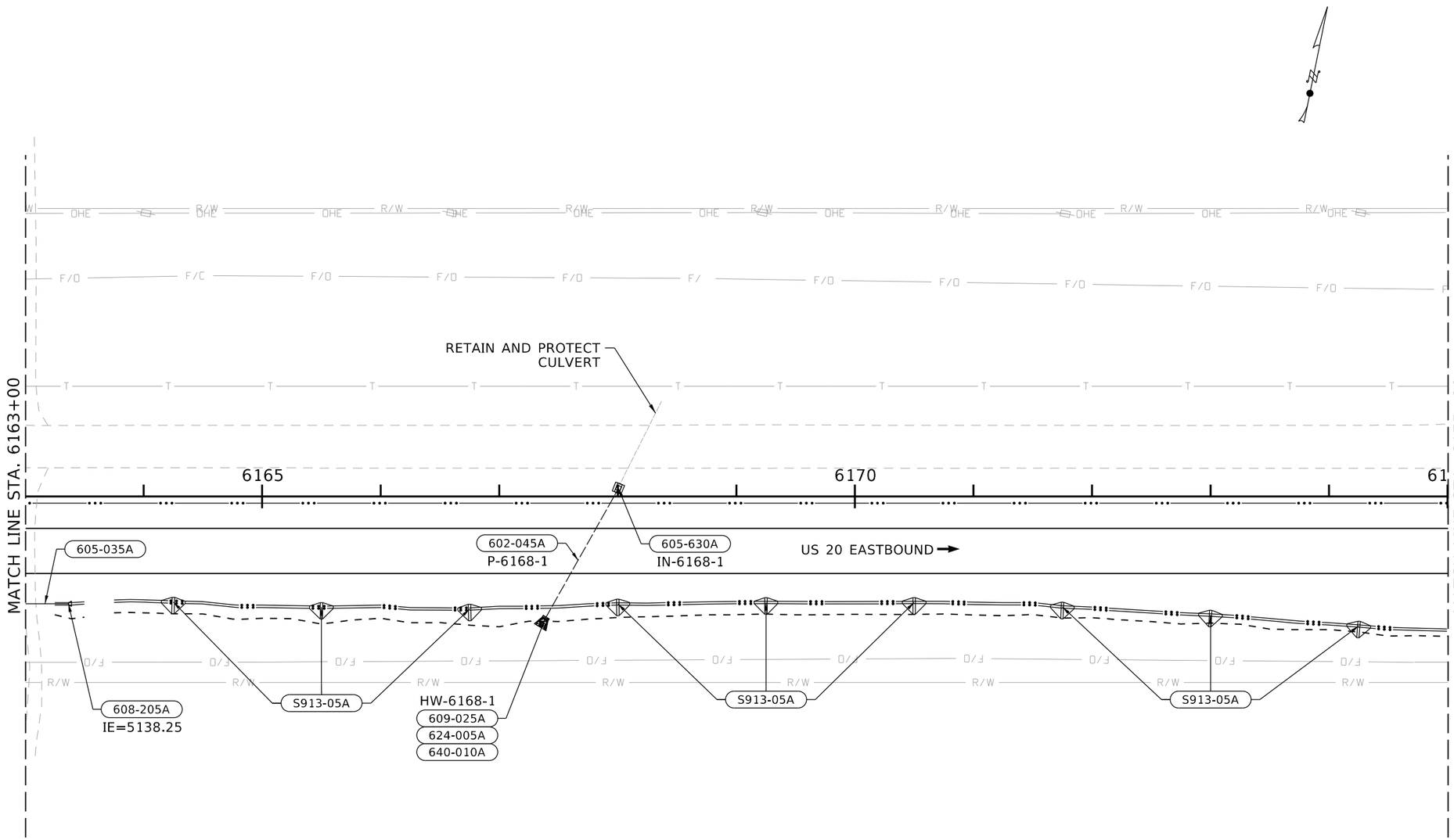
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| DESIGNED D. ABEDI | SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY | IDAHO TRANSPORTATION DEPARTMENT<br>YOUR Safety→YOUR Mobility→YOUR Economic Opportunity<br>DAVID EVANS AND ASSOCIATES INC. |
| DESIGN CHECKED C. MCALISTER | | |
| DETAILED P. CONSALVO | CADD FILE NAME 24149_DrpI_D201B.DGN | |
| DRAWING CHECKED C. MCALISTER | DRAWING DATE: November 21, 2025 | |

| PROJECT NO. | DRAINAGE PLAN | ENGLISH |
|---|---|---|
| A024(149) | US 20, BONNEVILLE COUNTY<br>LINE TO MP 291<br>STA. 6151+00 TO STA. 6163+00<br>PHASE 1 | COUNTY BINGHAM/BONNEVILLE<br>KEY NUMBER 24149<br>SHEET 216 OF 441 |

November 21, 2025 4:47:32 PM
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T.3N., R.34E., B.M.




| | |
|---|---|
| **602-045A** | **24" PIPE CULVERT** |
| 126 FT | STA. 6167+38.59, 103.49' RT TO STA. 6168+00.48, 6.96' LT |
| **605-035A** | **18" STORM SEWER PIPE** |
| 37 FT | STA. 6163+00.00, 90.53' RT TO STA. 6163+36.57, 90.57' RT |
| **605-630A** | **INLET TYPE 8** |
| 1 EACH | STA. 6168+00.48, 6.96' LT |
| **608-205A** | **METAL SAFETY APRON (PARALLEL) (18")** |
| 1 EACH | STA. 6163+36.57, 90.57' RT |
| **609-025A** | **MINOR STRUCTURES (24" CONCRETE HEADWALL)** |
| 1 EACH | STA. 6167+38.59, 103.49' RT |
| **624-005A** | **LOOSE RIPRAP (CLASS I)** |
| 4.7 CY | STA. 6167+38.59, 103.49' RT |
| **640-010A** | **RIPRAP/EROSION CONTROL GEOTEXTILE** |
| 14 SY | STA. 6167+38.59, 103.49' RT |
| **S913-05A** | **SP DITCH BERM** |
| 4.9 CY | STA. 6164+25, 89.13' RT |
| 4.9 CY | STA. 6165+50, 93.55' RT |
| 4.9 CY | STA. 6166+75, 94.97' RT |
| 4.9 CY | STA. 6168+00, 90.65' RT |
| 4.9 CY | STA. 6169+25, 89.45' RT |
| 4.9 CY | STA. 6170+50, 89.41' RT |
| 4.9 CY | STA. 6171+75, 93.28' RT |
| 4.9 CY | STA. 6173+00, 100.05' RT |
| 4.9 CY | STA. 6174+25, 109.34' RT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.
2. IN PHASE 1, RETAIN AND PROTECT EXISTING CULVERTS. CONSTRUCT INLET OR JUNCTION BOX OVER EXISTING CULVERT, AND CONSTRUCT PROPOSED CULVERT UNDER PHASE 1 ROADWAY.
3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
50 0 50 100

NOT APPROVED FOR CONSTRUCTION
INTERMEDIATE

| REVISIONS | | | |
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DESIGNED D. ABEDI
DESIGN CHECKED C. MCALISTER
DETAILED P. CONSALVO
DRAWING CHECKED C. MCALISTER

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 24149_DrpI_D201B.DGN
DRAWING DATE: November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
DAVID EVANS AND ASSOCIATES INC.

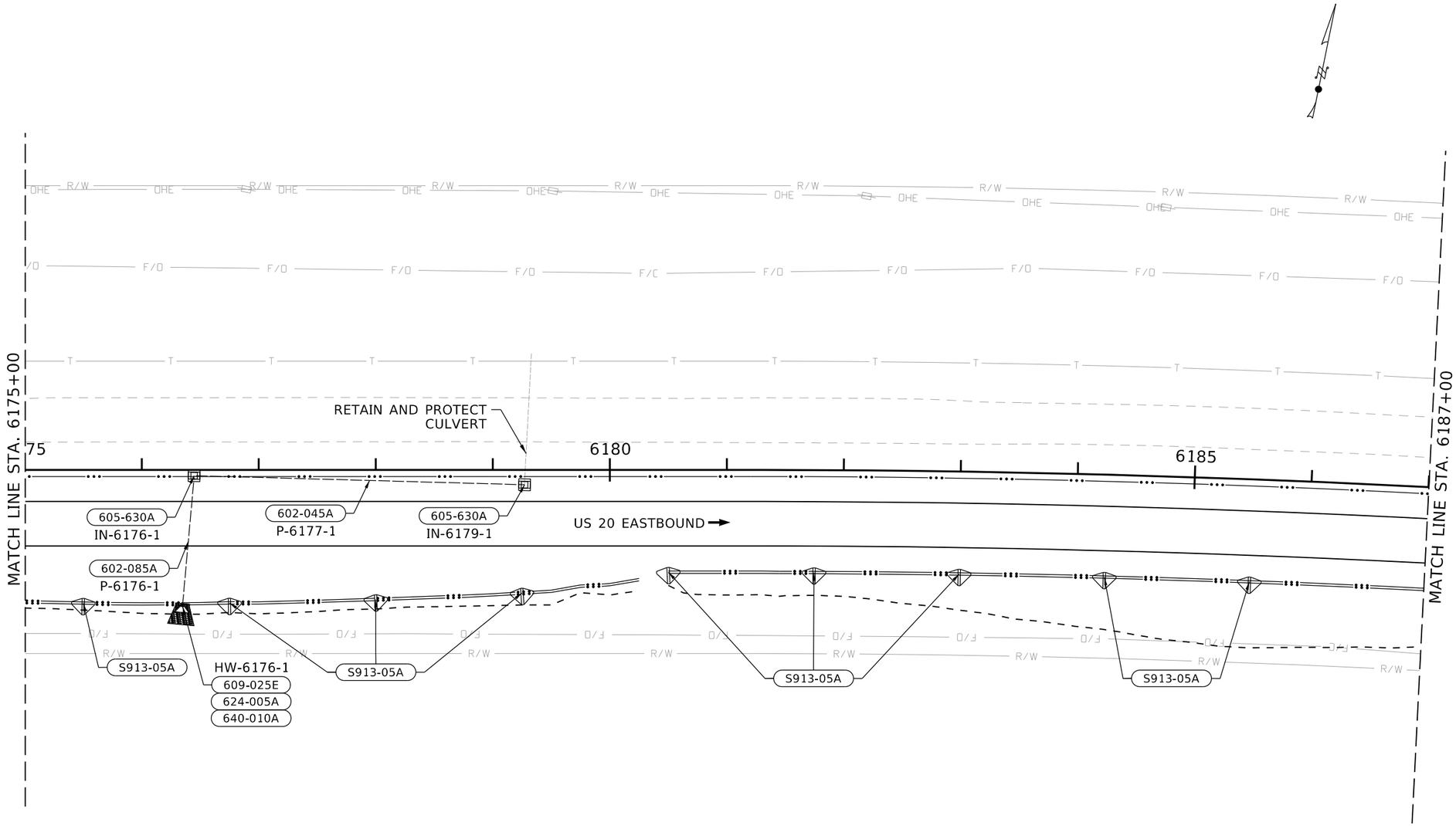
PROJECT NO. A024(149)

DRAINAGE PLAN
US 20, BONNEVILLE COUNTY
LINE TO MP 291
STA. 6163+00 TO STA. 6175+00
PHASE 1

ENGLISH
COUNTY BINGHAM/BONNEVILLE
KEY NUMBER 24149
SHEET 217 OF 441

November 21, 2025 4:47:35 PM
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T.3N., R.34E., B.M.




| | |
|---|---|
| **602-045A** | **24" PIPE CULVERT** |
| 280 FT | STA. 6176+44.76, 4.92' RT TO STA. 6179+27.16, 12.65' RT |
| **602-085A** | **48" PIPE CULVERT** |
| 111 FT | STA. 6176+44.76, 4.92' RT TO STA. 6176+34.79, 116.22' RT |
| **605-630A** | **INLET TYPE 8** |
| 1 EACH | STA. 6176+44.76, 4.92' RT |
| 1 EACH | STA. 6179+27.16, 12.65' RT |
| **609-025E** | **MINOR STRUCTURES (48" CONCRETE HEADWALL)** |
| 1 EACH | STA. 6176+34.79, 116.22' RT |
| **624-005A** | **LOOSE RIPRAP (CLASS I)** |
| 18.5 CY | STA. 6176+34.79, 116.22' RT |
| **640-010A** | **RIPRAP/EROSION CONTROL GEOTEXTILE** |
| 40 SY | STA. 6176+34.79, 116.22' RT |
| **S913-05A** | **SP DITCH BERM** |
| 4.9 CY | STA. 6175+50, 113.87' RT |
| 4.9 CY | STA. 6176+75, 113.72' RT |
| 4.9 CY | STA. 6178+00, 110.77' RT |
| 4.9 CY | STA. 6179+25, 105.22' RT |
| 4.9 CY | STA. 6180+50, 87.42' RT |
| 4.9 CY | STA. 6181+75, 87.59' RT |
| 4.9 CY | STA. 6183+00, 87.59' RT |
| 4.9 CY | STA. 6184+25, 87.58' RT |
| 4.9 CY | STA. 6185+50, 87.58' RT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.
2. IN PHASE 1, RETAIN AND PROTECT EXISTING CULVERTS. CONSTRUCT INLET OR JUNCTION BOX OVER EXISTING CULVERT, AND CONSTRUCT PROPOSED CULVERT UNDER PHASE 1 ROADWAY.
3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
50 0 50 100

| REVISIONS | | | |
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DESIGNED D. ABEDI
DESIGN CHECKED C. MCALISTER
DETAILED P. CONSALVO
DRAWING CHECKED C. MCALISTER

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 24149_Drpl_D201C.DGN
DRAWING DATE: November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT
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DAVID EVANS AND ASSOCIATES INC.

PROJECT NO. A024(149)

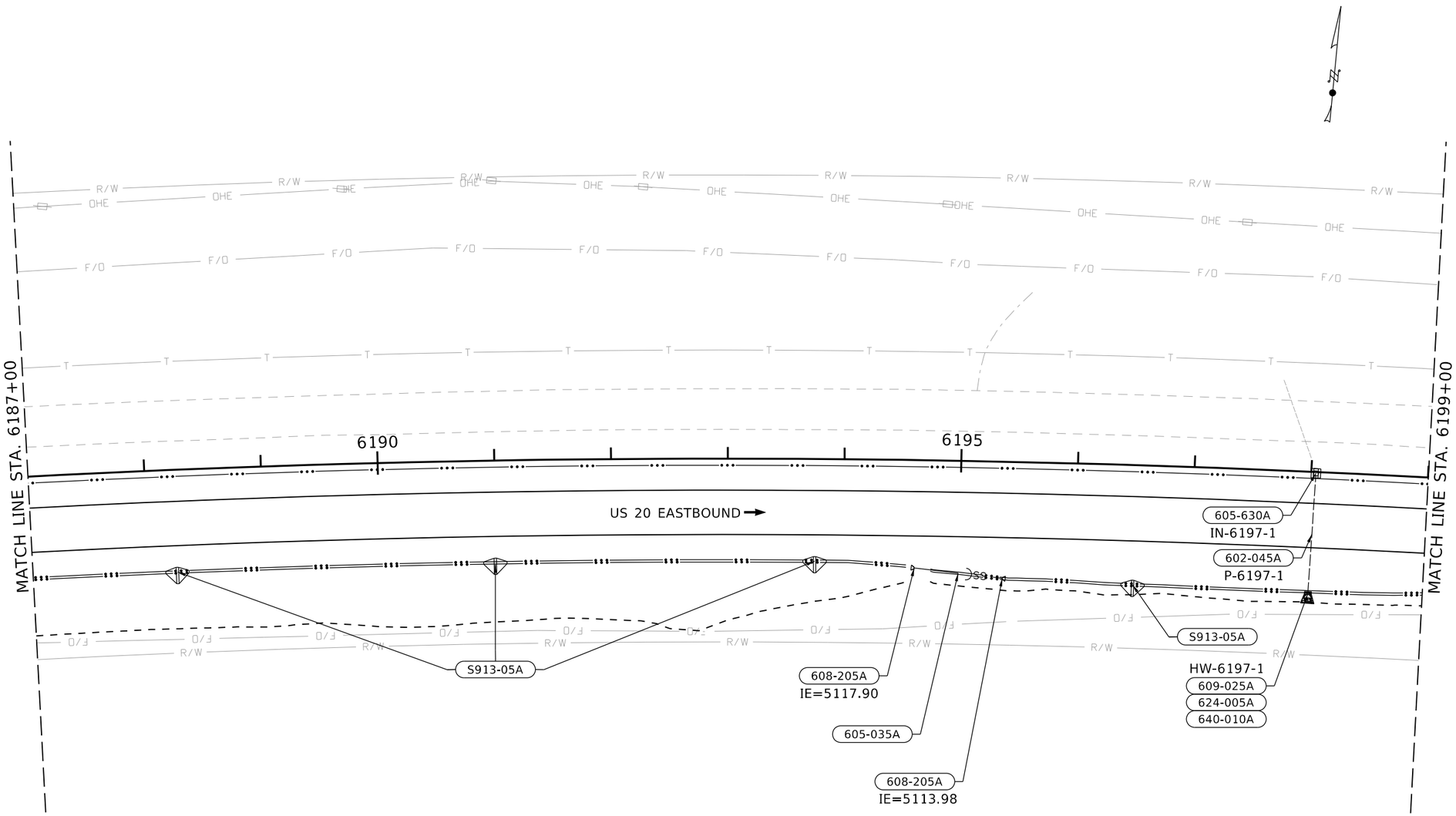
DRAINAGE PLAN
US 20, BONNEVILLE COUNTY
LINE TO MP 291
STA. 6175+00 TO STA. 6187+00
PHASE 1

ENGLISH
COUNTY BINGHAM/BONNEVILLE
KEY NUMBER 24149
SHEET 218 OF 441

NOT APPROVED FOR INTERMEDIATE CONSTRUCTION

November 21, 2025 4:47:54 PM
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T.3N., R.34E., B.M.




**602-045A** **24" PIPE CULVERT**
103 FT STA. 6198+03.94, 1.20' RT TO STA. 6198+01.60, 104.72' RT

**605-035A** **18" STORM SEWER PIPE**
76 FT STA. 6194+60.98, 92.50' RT TO STA. 6195+37.22, 99.94' RT

**605-630A** **INLET TYPE 8**
1 EACH STA. 6198+03.94, 1.20' RT

**608-205A** **METAL SAFETY APRON (PARALLEL) (18")**
1 EACH STA. 6194+60.98, 92.50' RT
1 EACH STA. 6195+37.22, 99.94' RT

**609-025A** **MINOR STRUCTURES (24" CONCRETE HEADWALL)**
1 EACH STA. 6198+01.60, 104.72' RT

**624-005A** **LOOSE RIPRAP (CLASS I)**
4.7 CY STA. 6198+01.60, 104.72' RT

**640-010A** **RIPRAP/EROSION CONTROL GEOTEXTILE**
14 SY STA. 6198+01.60, 104.72' RT

**S913-05A** **SP DITCH BERM**
4.9 CY STA. 6188+25, 87.59' RT
4.9 CY STA. 6191+00, 88.16' RT
4.9 CY STA. 6193+75, 87.60' RT
4.9 CY STA. 6196+50, 102.63' RT

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.

2. IN PHASE 1, RETAIN AND PROTECT EXISTING CULVERTS. CONSTRUCT INLET OR JUNCTION BOX OVER EXISTING CULVERT, AND CONSTRUCT PROPOSED CULVERT UNDER PHASE 1 ROADWAY.

3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
50 0 50 100

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DESIGNED D. ABEDI
DESIGN CHECKED C. MCALISTER
DETAILED P. CONSALVO
DRAWING CHECKED C. MCALISTER

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 24149_DrpI_D201C.DGN
DRAWING DATE: November 21, 2025

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DAVID EVANS AND ASSOCIATES INC.

PROJECT NO. A024(149)

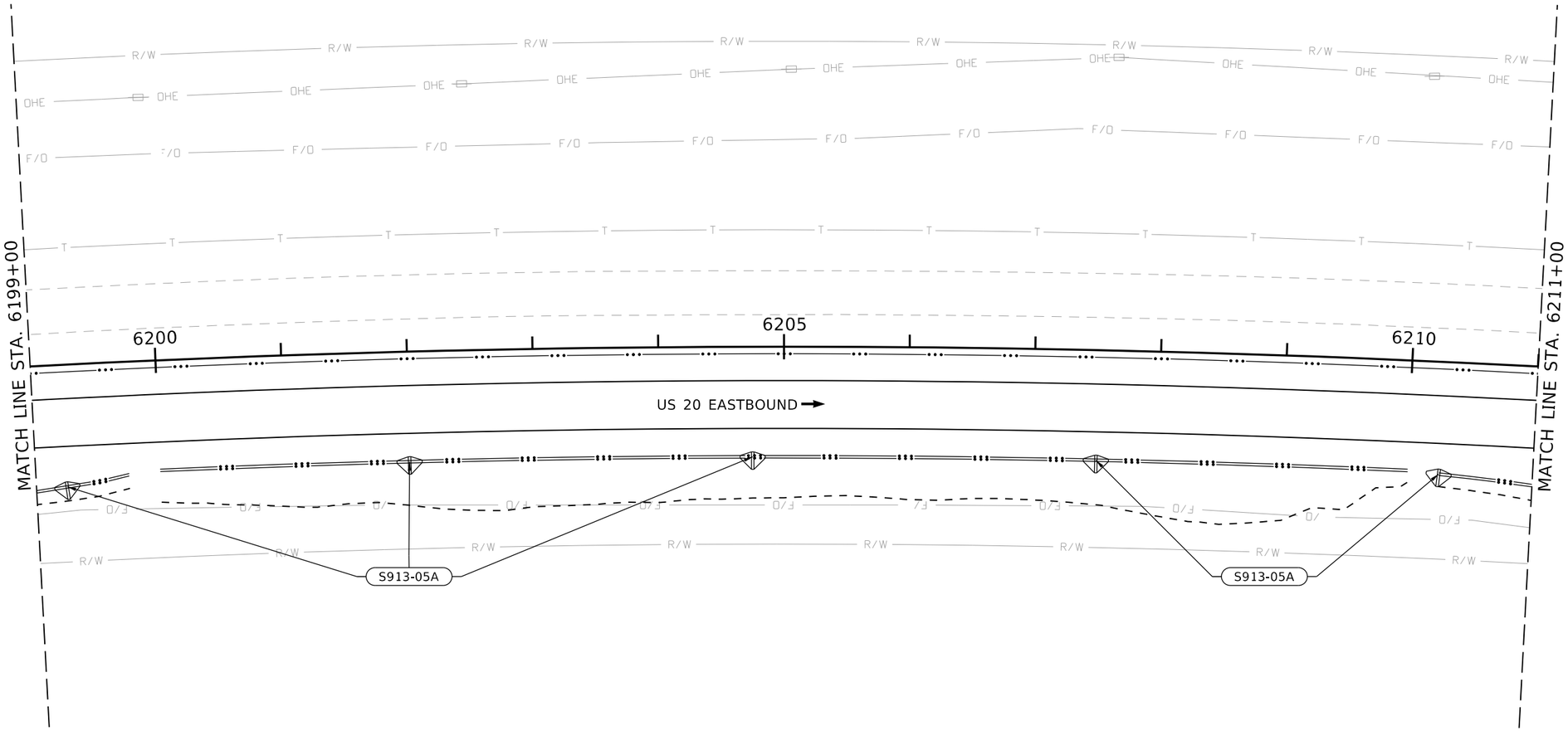
DRAINAGE PLAN
US 20, BONNEVILLE COUNTY LINE TO MP 291
STA. 6187+00 TO STA. 6199+00
PHASE 1

ENGLISH
COUNTY BINGHAM/BONNEVILLE
KEY NUMBER 24149
SHEET 219 OF 441

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November 21, 2025 4:47:56 PM
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T.3N., R.34E., B.M.




| S913-05A | SP DITCH BERM |
|---|---|
| 4.9 CY | STA. 6199+25, 97.18' RT |
| 4.9 CY | STA. 6202+00, 87.59' RT |
| 4.9 CY | STA. 6204+75, 87.60' RT |
| 4.9 CY | STA. 6207+50, 87.59' RT |
| 4.9 CY | STA. 6210+25, 89.36' RT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.

Scale (Feet)

50 0 50 100

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DESIGN CHECKED C. MCALISTER
DETAILED P. CONSALVO
DRAWING CHECKED C. MCALISTER

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME 24149_Drpl_D201C.DGN

DRAWING DATE: November 21, 2025

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PROJECT NO.
A024(149)

DRAINAGE PLAN
US 20, BONNEVILLE COUNTY
LINE TO MP 291
STA. 6199+00 TO STA. 6211+00
PHASE 1

ENGLISH

COUNTY BINGHAM/BONNEVILLE

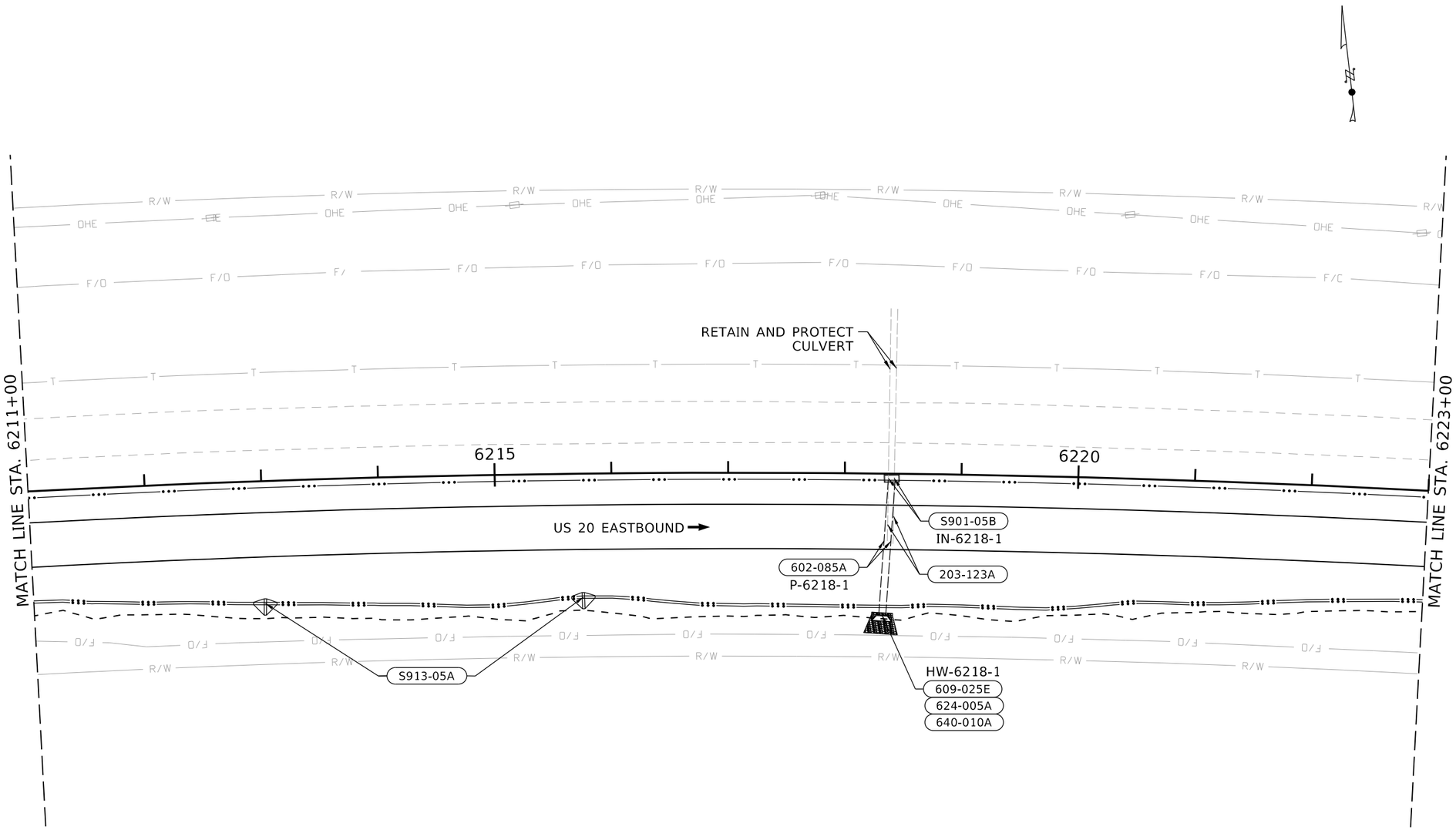
KEY NUMBER 24149

SHEET 220 OF 441

NOT APPROVED
INTERMEDIATE
FOR CONSTRUCTION

November 21, 2025 4:47:59 PM
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T.3N., R.34E., B.M.




**203-123A** **REMOVAL OF MISCELLANEOUS ITEMS (PIPE)**
54 FT STA. 6218+37.03, 57.66' RT TO STA. 6218+37.28, 4.21' RT
56 FT STA. 6218+41.96, 60.07' RT TO STA. 6218+43.29, 4.07' RT

**602-085A** **48" PIPE CULVERT**
117 FT STA. 6218+30.34, 121.69' RT TO STA. 6218+37.21, 4.22' RT
117 FT STA. 6218+36.40, 122.05' RT TO STA. 6218+43.21, 4.06' RT

**624-005A** **LOOSE RIPRAP (CLASS I)**
25.2 CY STA. 6218+33.13, 121.23' RT

**640-010A** **RIPRAP/EROSION CONTROL GEOTEXTILE**
52 SY STA. 6218+33.13, 121.23' RT

**S901-05A** **SP MINOR STRUCTURES (DUAL 48" CONCRETE HEADWALL)**
1 EACH STA. 6218+33.13, 121.23' RT

**S901-05B** **SP CONC JUNCTION BOX**
1 EACH STA. 6218+40.21, 4.14' RT

**S913-05A** **SP DITCH BERM**
4.9 CY STA. 6213+00, 104.85' RT
4.9 CY STA. 6215+75, 105.82' RT

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.

2. IN PHASE 1, RETAIN AND PROTECT EXISTING CULVERTS. CONSTRUCT INLET OR JUNCTION BOX OVER EXISTING CULVERT, AND CONSTRUCT PROPOSED CULVERT UNDER PHASE 1 ROADWAY.

3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
50 0 50 100

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DESIGNED D. ABEDI
DESIGN CHECKED C. MCALISTER
DETAILED P. CONSALVO
DRAWING CHECKED C. MCALISTER

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 24149_DrpI_D201C.DGN
DRAWING DATE: November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT
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DAVID EVANS AND ASSOCIATES INC.

PROJECT NO. A024(149)

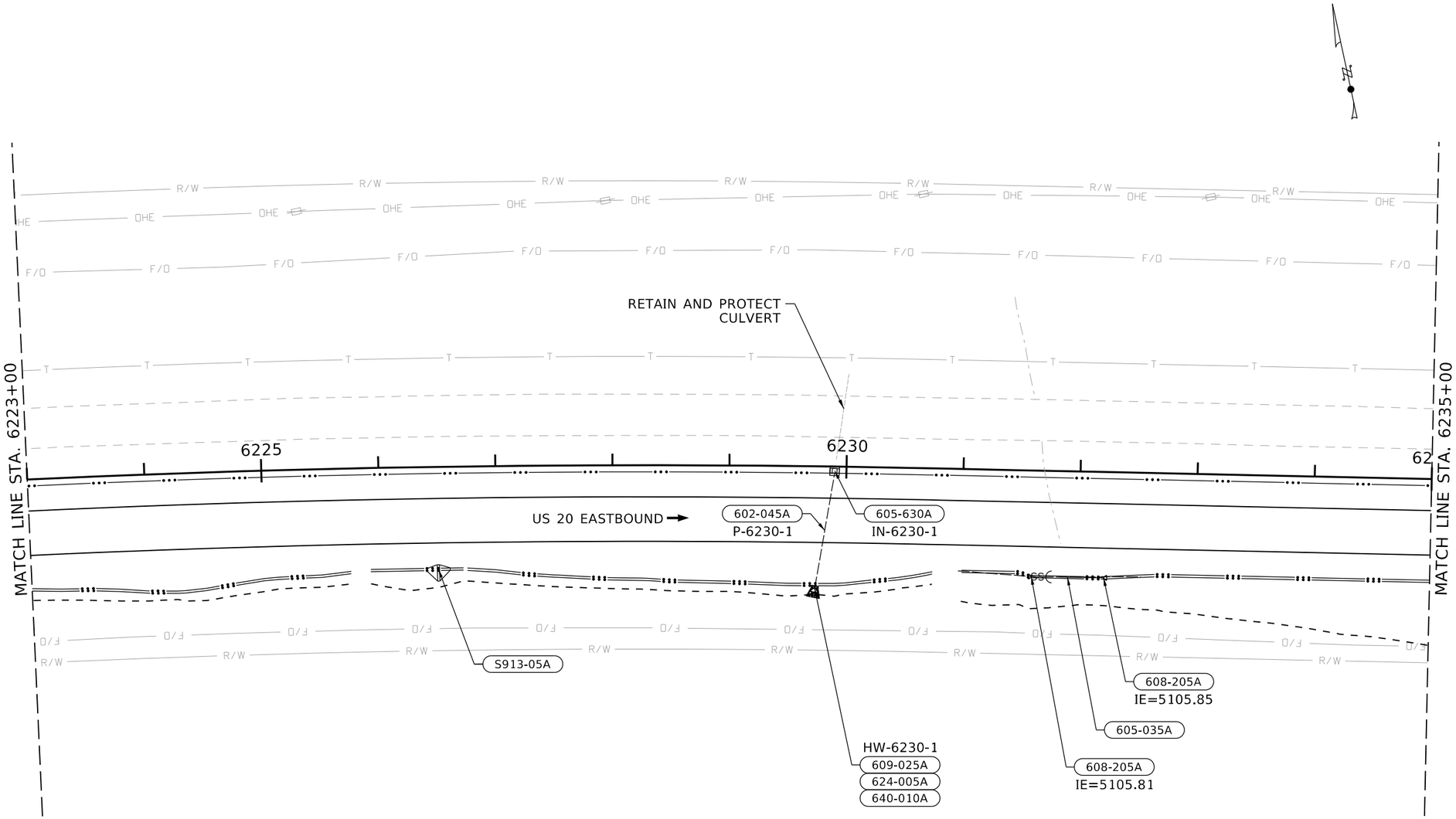
DRAINAGE PLAN
US 20, BONNEVILLE COUNTY
LINE TO MP 291
STA. 6211+00 TO STA. 6223+00
PHASE 1

ENGLISH
COUNTY BINGHAM/BONNEVILLE
KEY NUMBER 24149
SHEET 221 OF 441

NOT APPROVED
INTERMEDIATE
FOR CONSTRUCTION

November 21, 2025 4:48:01 PM
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T.3N., R.34E., B.M.




**602-045A** 24" PIPE CULVERT
109 FT STA. 6229+72.87, 111.16' RT TO STA. 6229+89.93, 3.65' RT

**605-035A** 18" STORM SEWER PIPE
62 FT STA. 6231+59.74, 90.61' RT TO STA. 6232+21.60, 90.39' RT

**605-630A** INLET TYPE 8
1 EACH STA. 6229+89.93, 3.65' RT

**608-205A** METAL SAFETY APRON (PARALLEL) (18")
1 EACH STA. 6231+59.74, 90.61' RT
1 EACH STA. 6232+21.60, 90.39' RT

**609-025A** MINOR STRUCTURES (24" CONCRETE HEADWALL)
1 EACH STA. 6229+72.87, 111.16' RT

**624-005A** LOOSE RIPRAP (CLASS I)
4.7 CY STA. 6229+72.87, 111.16' RT

**640-010A** RIPRAP/EROSION CONTROL GEOTEXTILE
14 SY STA. 6229+72.87, 111.16' RT

**S913-05A** SP DITCH BERM
4.9 CY STA. 6226+50, 87.62' RT

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.

2. IN PHASE 1, RETAIN AND PROTECT EXISTING CULVERTS. CONSTRUCT INLET OR JUNCTION BOX OVER EXISTING CULVERT, AND CONSTRUCT PROPOSED CULVERT UNDER PHASE 1 ROADWAY.

3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
50 0 50 100

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| NO. | DATE | BY | DESCRIPTION |
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DESIGNED D. ABEDI
DESIGN CHECKED C. MCALISTER
DETAILED P. CONSALVO
DRAWING CHECKED C. MCALISTER

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 24149_Drpl_D201C.DGN
DRAWING DATE: November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT
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DAVID EVANS AND ASSOCIATES INC.

PROJECT NO. A024(149)

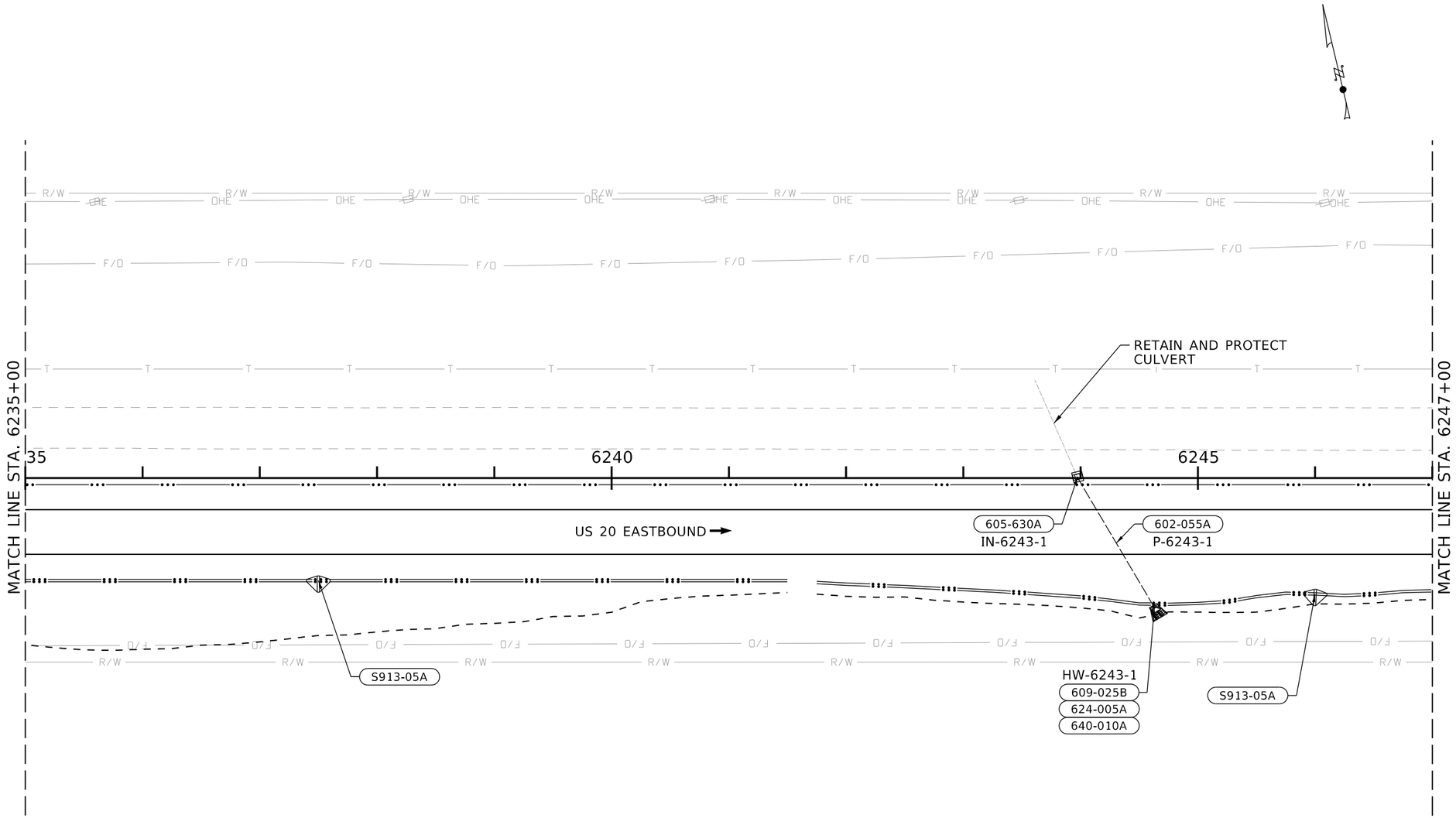
DRAINAGE PLAN
US 20, BONNEVILLE COUNTY
LINE TO MP 291
STA. 6223+00 TO STA. 6235+00
PHASE 1

ENGLISH
COUNTY BINGHAM/BONNEVILLE
KEY NUMBER 24149
SHEET 222 OF 441

NOT APPROVED FOR CONSTRUCTION
INTERMEDIATE

November 21, 2025 4:48:03 PM
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T.3N., R.34E., B.M.




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| **602-055A**<br>126 FT | **30" PIPE CULVERT**<br>STA. 6243+97.53, 1.14' LT TO<br>STA. 6244+76.37, 118.64' RT |
| **605-630A**<br>1 EACH | **INLET TYPE 8**<br>STA. 6243+97.53, 1.14' LT |
| **609-025B**<br>1 EACH | **MINOR STRUCTURES (30" CONCRETE HEADWALL)**<br>STA. 6244+76.37, 118.64' RT |
| **624-005A**<br>7.3 CY | **LOOSE RIPRAP (CLASS I)**<br>STA. 6244+76.37, 118.64' RT |
| **640-010A**<br>19 SY | **RIPRAP/EROSION CONTROL GEOTEXTILE**<br>STA. 6244+76.37, 118.64' RT |
| **S913-05A**<br>4.9 CY<br>4.9 CY | **SP DITCH BERM**<br>STA. 6237+50, 87.43' RT<br>STA. 6246+00, 98.86' RT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.

2. IN PHASE 1, RETAIN AND PROTECT EXISTING CULVERTS. CONSTRUCT INLET OR JUNCTION BOX OVER EXISTING CULVERT, AND CONSTRUCT PROPOSED CULVERT UNDER PHASE 1 ROADWAY.

3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
50 0 50 100

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DESIGNED D. ABEDI
DESIGN CHECKED C. MCALISTER
DETAILED P. CONSALVO
DRAWING CHECKED C. MCALISTER

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 24149_DrpI_D201C.DGN
DRAWING DATE: November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT
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DAVID EVANS AND ASSOCIATES INC.

PROJECT NO. A024(149)

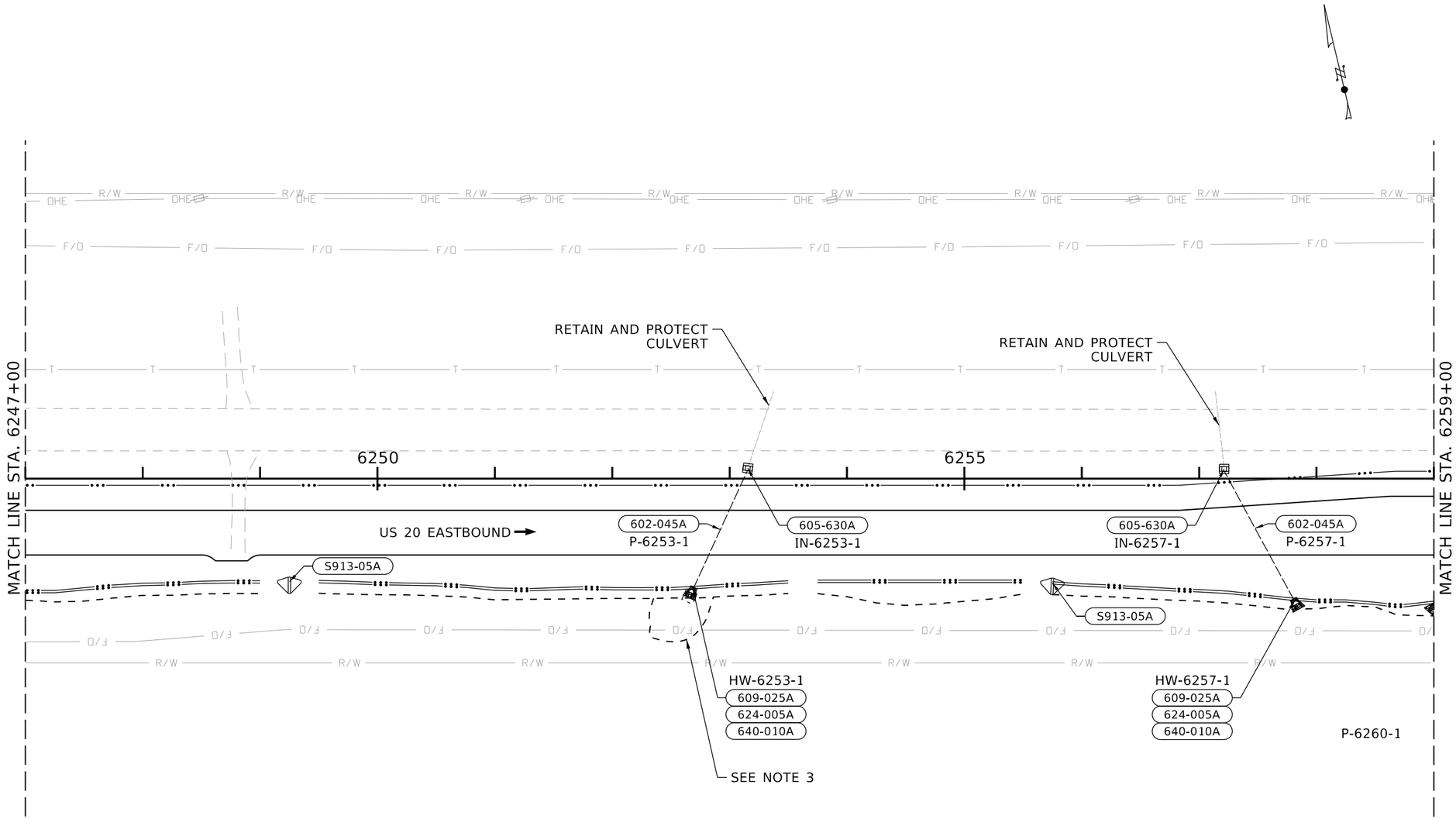
DRAINAGE PLAN
US 20, BONNEVILLE COUNTY
LINE TO MP 291
STA. 6235+00 TO STA. 6247+00
PHASE 1

ENGLISH
COUNTY BINGHAM/BONNEVILLE
KEY NUMBER 24149
SHEET 223 OF 441

NOT APPROVED
INTERMEDIATE
FOR CONSTRUCTION

November 21, 2025 4:48:06 PM
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T.3N., R.34E., B.M.




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|---|---|
| **602-045A** | **24" PIPE CULVERT** |
| 112 FT | STA. 6252+63.53, 106.20' RT TO STA. 6253+15.47, 8.89' LT |
| 126 FT | STA. 6257+21.29, 8.23' LT TO STA. 6257+89.71, 119.89' RT |
| **605-630A** | **INLET TYPE 8** |
| 1 EACH | STA. 6253+15.47, 8.89' LT |
| 1 EACH | STA. 6257+21.29, 8.23' LT |
| **609-025A** | **MINOR STRUCTURES (24" CONCRETE HEADWALL)** |
| 1 EACH | STA. 6252+63.53, 106.20' RT |
| 1 EACH | STA. 6257+89.71, 119.89' RT |
| **624-005A** | **LOOSE RIPRAP (CLASS I)** |
| 4.7 CY | STA. 6252+63.53, 106.20' RT |
| 4.7 CY | STA. 6257+89.71, 119.89' RT |
| **640-010A** | **RIPRAP/EROSION CONTROL GEOTEXTILE** |
| 14 SY | STA. 6252+63.53, 106.20' RT |
| 14 SY | STA. 6257+89.71, 119.89' RT |
| **S913-05A** | **SP DITCH BERM** |
| 4.9 CY | STA. 6249+25, 87.85' RT |
| 4.9 CY | STA. 6255+75, 88.81' RT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.
2. IN PHASE 1, RETAIN AND PROTECT EXISTING CULVERTS. CONSTRUCT INLET OR JUNCTION BOX OVER EXISTING CULVERT, AND CONSTRUCT PROPOSED CULVERT UNDER PHASE 1 ROADWAY.
3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
50 0 50 100

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DESIGNED D. ABEDI
DESIGN CHECKED C. MCALISTER
DETAILED P. CONSALVO
DRAWING CHECKED C. MCALISTER

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 24149_DrpI_D201C.DGN
DRAWING DATE: November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
DAVID EVANS AND ASSOCIATES INC.

PROJECT NO. A024(149)

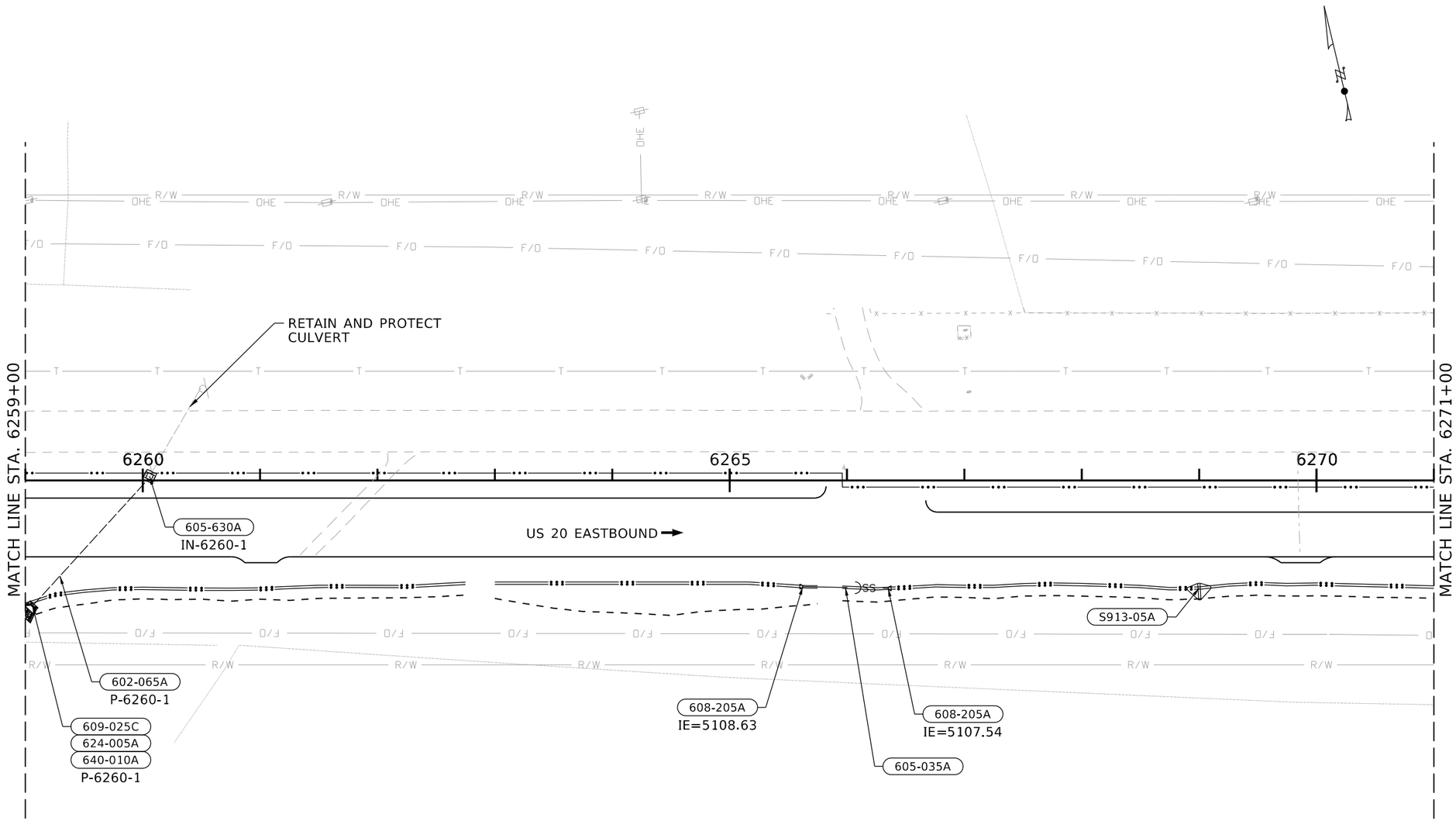
DRAINAGE PLAN
US 20, BONNEVILLE COUNTY
LINE TO MP 291
STA. 6247+00 TO STA. 6259+00
PHASE 1

ENGLISH
COUNTY BINGHAM/BONNEVILLE
KEY NUMBER 24149
SHEET 224 OF 441

NOT APPROVED
INTERMEDIATE
FOR CONSTRUCTION

November 21, 2025 4:48:08 PM
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T.3N., R.34E., B.M.




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| **602-065A**<br>147 FT | **36" PIPE CULVERT**<br>STA. 6259+00.00, 113.54' LT TO STA. 6260+06.67, 3.32' LT |
| **605-035A**<br>73 FT | **18" STORM SEWER PIPE**<br>STA. 6265+62.35, 90.37' RT TO STA. 6266+35.10, 91.81' RT |
| **605-630A**<br>1 EACH | **INLET TYPE 8**<br>STA. 6260+06.44, 2.79' LT |
| **608-205A**<br>1 EACH<br>1 EACH | **METAL SAFETY APRON (PARALLEL) (18")**<br>STA. 6265+62.35, 90.37' RT<br>STA. 6266+35.10, 91.81' RT |
| **609-025C**<br>1 EACH | **MINOR STRUCTURES (36" CONCRETE HEADWALL)**<br>STA. 6259+06.20, 106.85' RT |
| **624-005A**<br>10.4 CY | **LOOSE RIPRAP (CLASS I)**<br>STA. 6259+06.20, 106.85' RT |
| **640-010A**<br>25 SY | **RIPRAP/EROSION CONTROL GEOTEXTILE**<br>STA. 6259+06.20, 106.85' RT |
| **S913-05A**<br>4.9 CY | **SP DITCH BERM**<br>STA. 6269+00, 91.60' RT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.
2. IN PHASE 1, RETAIN AND PROTECT EXISTING CULVERTS. CONSTRUCT INLET OR JUNCTION BOX OVER EXISTING CULVERT, AND CONSTRUCT PROPOSED CULVERT UNDER PHASE 1 ROADWAY.
3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
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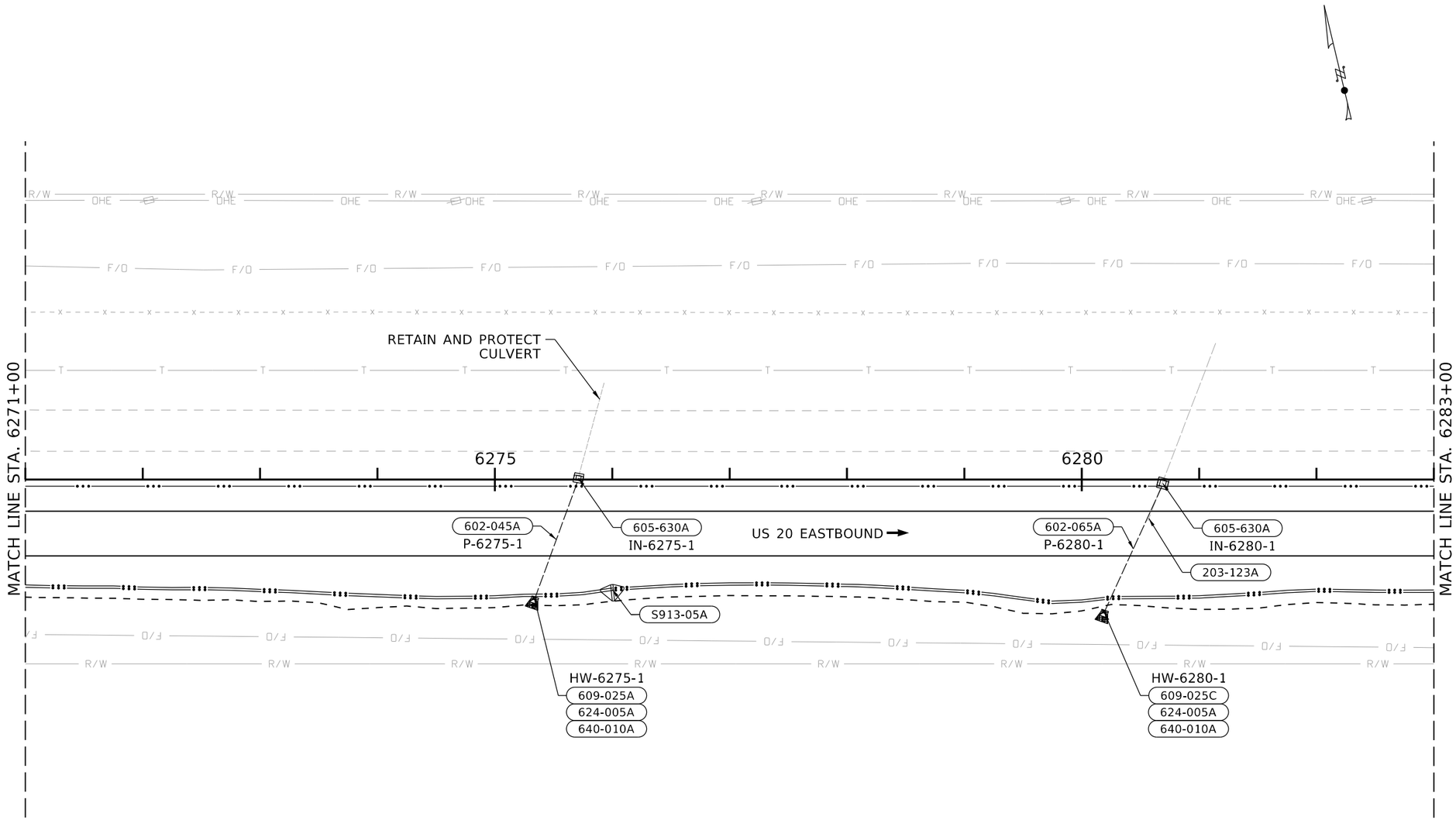
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| DESIGNED D. ABEDI | SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY | IDAHO TRANSPORTATION DEPARTMENT<br>YOUR Safety→YOUR Mobility→YOUR Economic Opportunity<br>DAVID EVANS AND ASSOCIATES INC. |
| DESIGN CHECKED C. MCALISTER | | |
| DETAILED P. CONSALVO | CADD FILE NAME 24149_DrpI_D201C.DGN | |
| DRAWING CHECKED C. MCALISTER | DRAWING DATE: November 21, 2025 | |

| PROJECT NO. | DRAINAGE PLAN | |
|---|---|---|
| A024(149) | US 20, BONNEVILLE COUNTY<br>LINE TO MP 291<br>STA. 6259+00 TO STA. 6271+00<br>PHASE 1 | *ENGLISH*<br>COUNTY BINGHAM/BONNEVILLE<br>KEY NUMBER 24149<br>SHEET 225 OF 441 |

NOT APPROVED
INTERMEDIATE
FOR CONSTRUCTION

November 21, 2025 4:48:09 PM
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T.3N., R.34E., B.M.




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|---|---|---|
| **203-123A** | **REMOVAL OF MISCELLANEOUS ITEMS (PIPE)** | |
| 35 FT | STA. 6280+56.33, 35.25' RT TO STA. 6280+69.08, 3.26' RT | |
| **602-045A** | **24" PIPE CULVERT** | |
| 109 FT | STA. 6275+28.76, 114.61' RT TO STA. 6275+71.24, 1.27' LT | |
| **602-065A** | **36" PIPE CULVERT** | |
| 119 FT | STA. 6280+19.31, 113.31' RT TO STA. 6280+69.08, 3.26' RT | |
| **605-630A** | **INLET TYPE 8** | |
| 1 EACH | STA. 6275+71.24, 1.27' LT | |
| 1 EACH | STA. 6280+69.08, 3.26' RT | |
| **609-025A** | **MINOR STRUCTURES (24" CONCRETE HEADWALL)** | |
| 1 EACH | STA. 6275+28.76, 114.61' RT | |
| **609-025C** | **MINOR STRUCTURES (36" CONCRETE HEADWALL)** | |
| 1 EACH | STA. 6280+19.31, 113.31' RT | |
| **624-005A** | **LOOSE RIPRAP (CLASS I)** | |
| 4.7 CY | STA. 6275+28.76, 114.61' RT | |
| 10.4 CY | STA. 6280+19.31, 113.31' RT | |
| **640-010A** | **RIPRAP/EROSION CONTROL GEOTEXTILE** | |
| 14 SY | STA. 6275+28.76, 114.61' RT | |
| 25 SY | STA. 6280+19.31, 113.31' RT | |
| **S913-05A** | **SP DITCH BERM** | |
| 4.9 CY | STA. 6276+00, 93.44' RT | |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.
2. IN PHASE 1, RETAIN AND PROTECT EXISTING CULVERTS. CONSTRUCT INLET OR JUNCTION BOX OVER EXISTING CULVERT, AND CONSTRUCT PROPOSED CULVERT UNDER PHASE 1 ROADWAY.
3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
50 0 50 100

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DESIGNED D. ABEDI
DESIGN CHECKED C. MCALISTER
DETAILED P. CONSALVO
DRAWING CHECKED C. MCALISTER

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 24149_DrpI_D201C.DGN
DRAWING DATE: November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
DAVID EVANS AND ASSOCIATES INC.

PROJECT NO. A024(149)

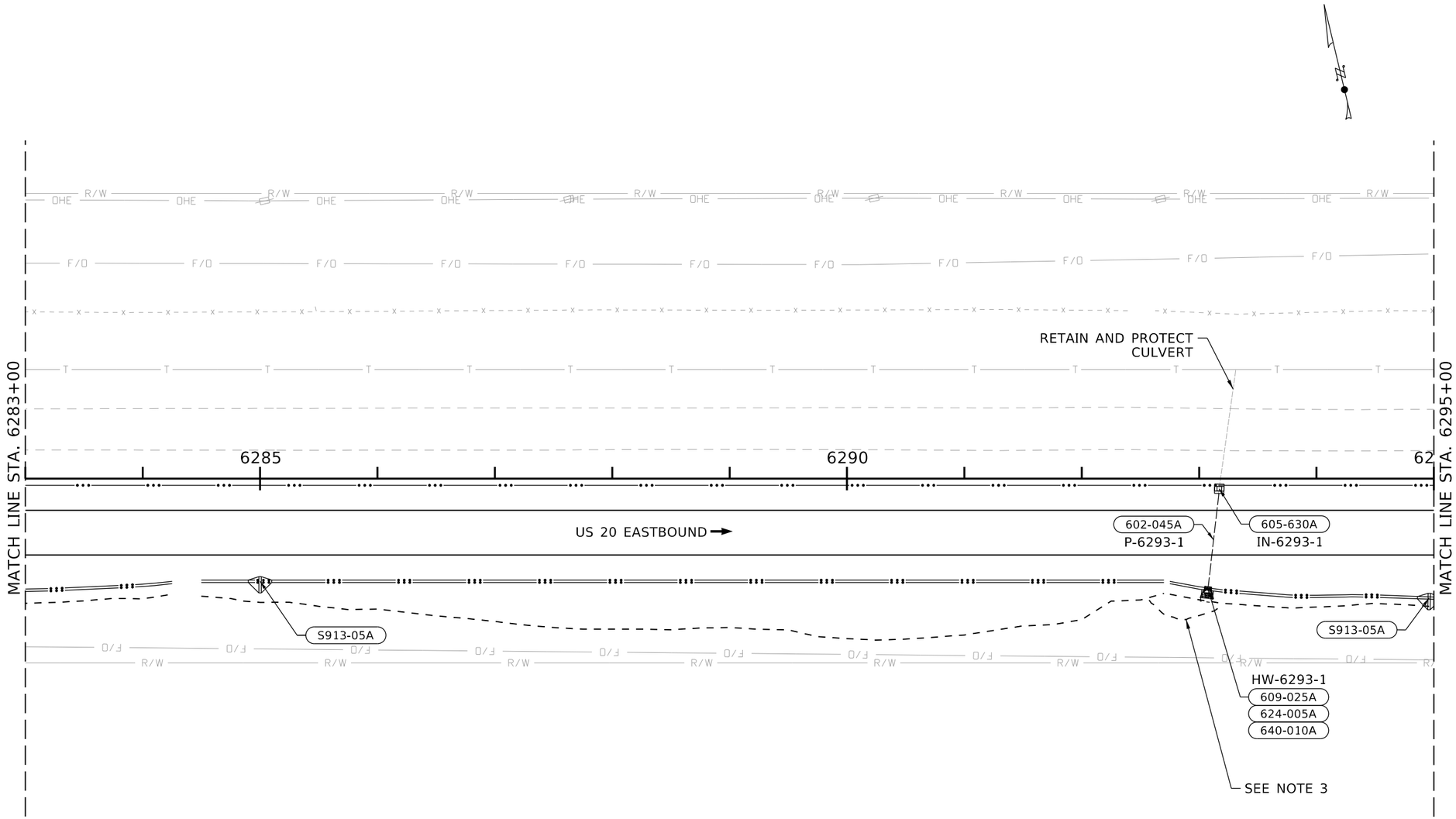
DRAINAGE PLAN
US 20, BONNEVILLE COUNTY
LINE TO MP 291
STA. 6271+00 TO STA. 6283+00
PHASE 1

ENGLISH
COUNTY BINGHAM/BONNEVILLE
KEY NUMBER 24149
SHEET 226 OF 441

NOT APPROVED
INTERMEDIATE
FOR CONSTRUCTION

November 21, 2025 4:48:11 PM
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T.3N., R.34E., B.M.




**602-045A** **24" PIPE CULVERT**
85 FT STA. 6293+05.93, 102.97' RT TO STA. 6293+17.18, 8.61' RT

**605-630A** **INLET TYPE 8**
1 EACH STA. 6293+17.18, 8.61' RT

**609-025A** **MINOR STRUCTURES (24" CONCRETE HEADWALL)**
1 EACH STA. 6293+05.93, 102.97' RT

**624-005A** **LOOSE RIPRAP (CLASS I)**
4.7 CY STA. 6293+05.93, 102.97' RT

**640-010A** **RIPRAP/EROSION CONTROL GEOTEXTILE**
14 SY STA. 6293+05.93, 102.97' RT

**S913-05A** **SP DITCH BERM**
4.9 CY STA. 6285+00, 87.43' RT
4.9 CY STA. 6294+96, 101.67' RT

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.

2. IN PHASE 1, RETAIN AND PROTECT EXISTING CULVERTS. CONSTRUCT INLET OR JUNCTION BOX OVER EXISTING CULVERT, AND CONSTRUCT PROPOSED CULVERT UNDER PHASE 1 ROADWAY.

3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
50 0 50 100

NOT APPROVED
INTERMEDIATE
FOR CONSTRUCTION

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DESIGNED D. ABEDI
DESIGN CHECKED C. MCALISTER
DETAILED P. CONSALVO
DRAWING CHECKED C. MCALISTER

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 24149_DrpI_D201C.DGN
DRAWING DATE: November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT
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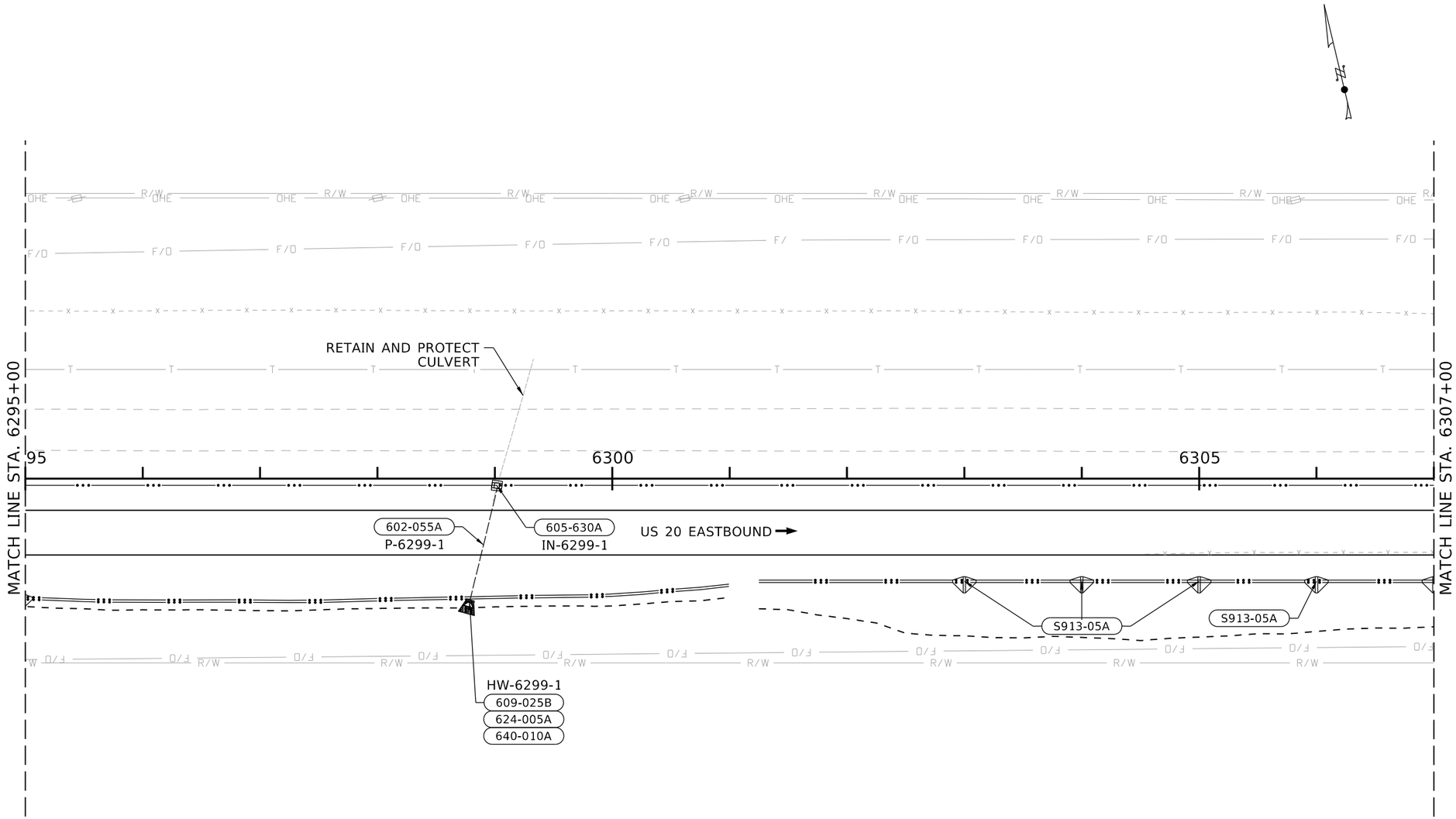
PROJECT NO. A024(149)

DRAINAGE PLAN
US 20, BONNEVILLE COUNTY
LINE TO MP 291
STA. 6283+00 TO STA. 6295+00
PHASE 1

ENGLISH
COUNTY BINGHAM/BONNEVILLE
KEY NUMBER 24149
SHEET 227 OF 441

November 21, 2025 4:48:14 PM
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T.3N., R.34E., B.M.




**602-055A** **30" PIPE CULVERT**
101 FT STA. 6298+75.26, 117.32' RT TO STA. 6299+01.76, 5.98' RT

**605-630A** **INLET TYPE 8**
1 EACH STA. 6299+01.76, 5.98' RT

**609-025B** **MINOR STRUCTURES (30" CONCRETE HEADWALL)**
1 EACH STA. 6298+75.26, 117.32' RT

**624-005A** **LOOSE RIPRAP (CLASS I)**
7.3 CY STA. 6298+75.26, 117.32' RT

**640-010A** **RIPRAP/EROSION CONTROL GEOTEXTILE**
19 SY STA. 6298+75.26, 117.32' RT

**S913-05A** **SP DITCH BERM**
4.9 CY STA. 6303+00, 87.43' RT
4.9 CY STA. 6304+00, 87.43' RT
4.9 CY STA. 6305+00, 87.43' RT
4.9 CY STA. 6306+00, 87.43' RT

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.

2. IN PHASE 1, RETAIN AND PROTECT EXISTING CULVERTS. CONSTRUCT INLET OR JUNCTION BOX OVER EXISTING CULVERT, AND CONSTRUCT PROPOSED CULVERT UNDER PHASE 1 ROADWAY.

3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
50 0 50 100

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DESIGNED D. ABEDI
DESIGN CHECKED C. MCALISTER
DETAILED P. CONSALVO
DRAWING CHECKED C. MCALISTER

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 24149_DrpI_D201C.DGN
DRAWING DATE: November 21, 2025

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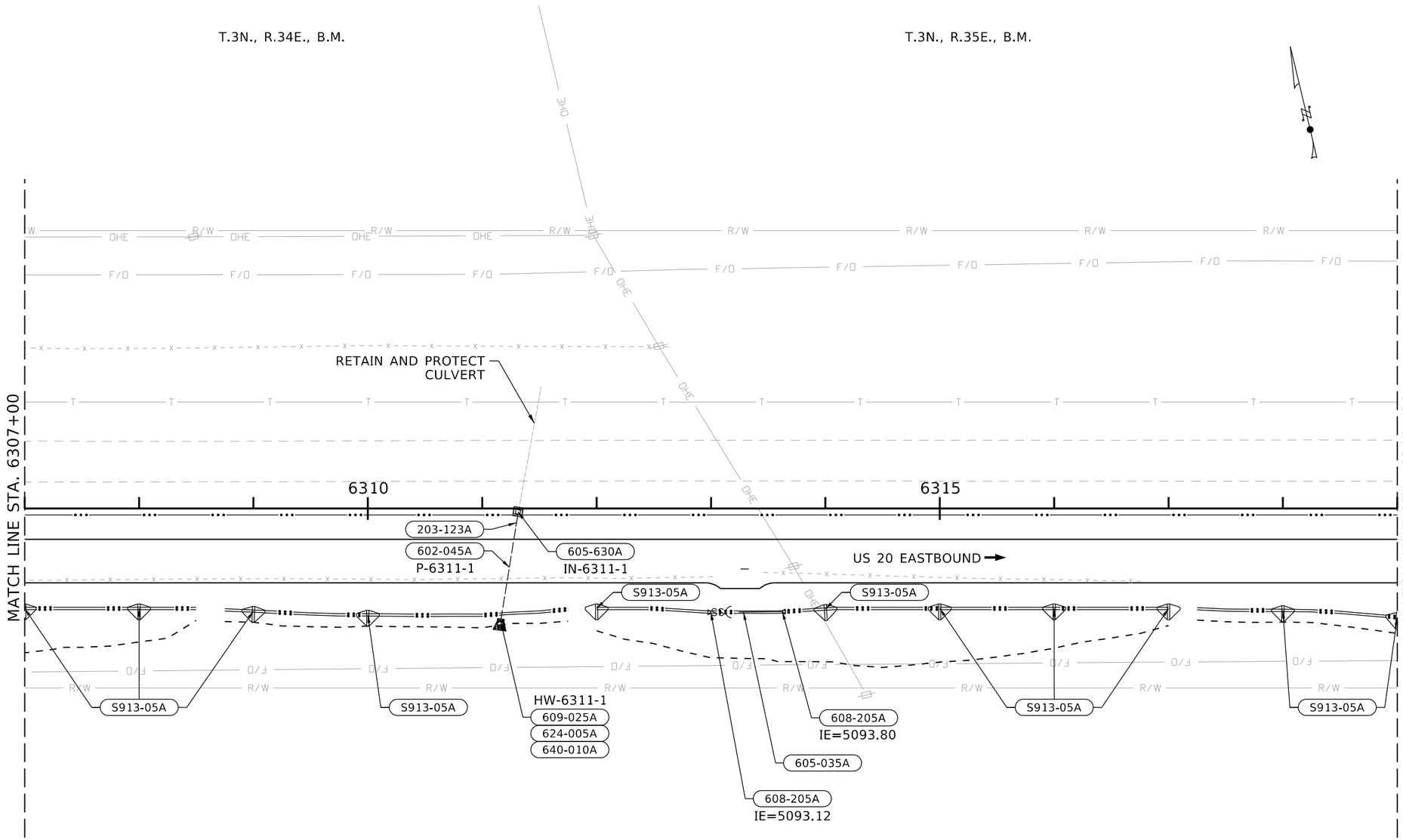
PROJECT NO. A024(149)

DRAINAGE PLAN
US 20, BONNEVILLE COUNTY
LINE TO MP 291
STA. 6295+00 TO STA. 6307+00
PHASE 1

ENGLISH
COUNTY BINGHAM/BONNEVILLE
KEY NUMBER 24149
SHEET 228 OF 441

NOT APPROVED
INTERMEDIATE
FOR CONSTRUCTION

November 21, 2025 4:48:16 PM
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| | |
|---|---|
| **203-123A** | **REMOVAL OF MISCELLANEOUS ITEMS (PIPE)** |
| 15 FT | STA. 6311+28.90, 17.67' RT TO STA. 6311+31.24, 2.90' RT |
| **602-045A** | **24" PIPE CULVERT** |
| 96 FT | STA. 6311+16.12, 98.58' RT TO STA. 6311+31.24, 2.90' RT |
| **605-035A** | **18" STORM SEWER PIPE** |
| 63 FT | STA. 6312+99.83, 90.77' RT TO STA. 6313+62.41, 90.20' RT |
| **605-630A** | **INLET TYPE 8** |
| 1 EACH | STA. 6311+31.24, 2.90' RT |
| **608-205A** | **METAL SAFETY APRON (PARALLEL) (18")** |
| 1 EACH | STA. 6312+99.83, 90.77' RT |
| 1 EACH | STA. 6313+62.41, 90.20' RT |
| **609-025A** | **MINOR STRUCTURES (24" CONCRETE HEADWALL)** |
| 1 EACH | STA. 6311+16.12, 98.58' RT |
| **624-005A** | **LOOSE RIPRAP (CLASS I)** |
| 4.7 CY | STA. 6311+16.12, 98.58' RT |
| **640-010A** | **RIPRAP/EROSION CONTROL GEOTEXTILE** |
| 14 SY | STA. 6311+16.12, 98.58' RT |
| **S913-05A** | **SP DITCH BERM** |
| 4.9 CY | STA. 6307+00, 87.43' RT |
| 4.9 CY | STA. 6308+00, 87.43' RT |
| 4.9 CY | STA. 6309+00, 89.71' RT |
| 4.9 CY | STA. 6310+00, 93.00' RT |
| 4.9 CY | STA. 6312+00, 87.43' RT |
| 4.9 CY | STA. 6314+00, 87.97' RT |
| 4.9 CY | STA. 6315+00, 87.43' RT |
| 4.9 CY | STA. 6316+00, 87.43' RT |
| 4.9 CY | STA. 6317+00, 87.43' RT |
| 4.9 CY | STA. 6318+00, 89.07' RT |
| 4.9 CY | STA. 6319+00, 95.09' RT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.

2. IN PHASE 1, RETAIN AND PROTECT EXISTING CULVERTS. CONSTRUCT INLET OR JUNCTION BOX OVER EXISTING CULVERT, AND CONSTRUCT PROPOSED CULVERT UNDER PHASE 1 ROADWAY.

3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
50 0 50 100

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DESIGN CHECKED C. MCALISTER
DETAILED P. CONSALVO
DRAWING CHECKED C. MCALISTER

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 24149_DrpI_D201C.DGN
DRAWING DATE: November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT
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DAVID EVANS AND ASSOCIATES INC.

PROJECT NO. A024(149)

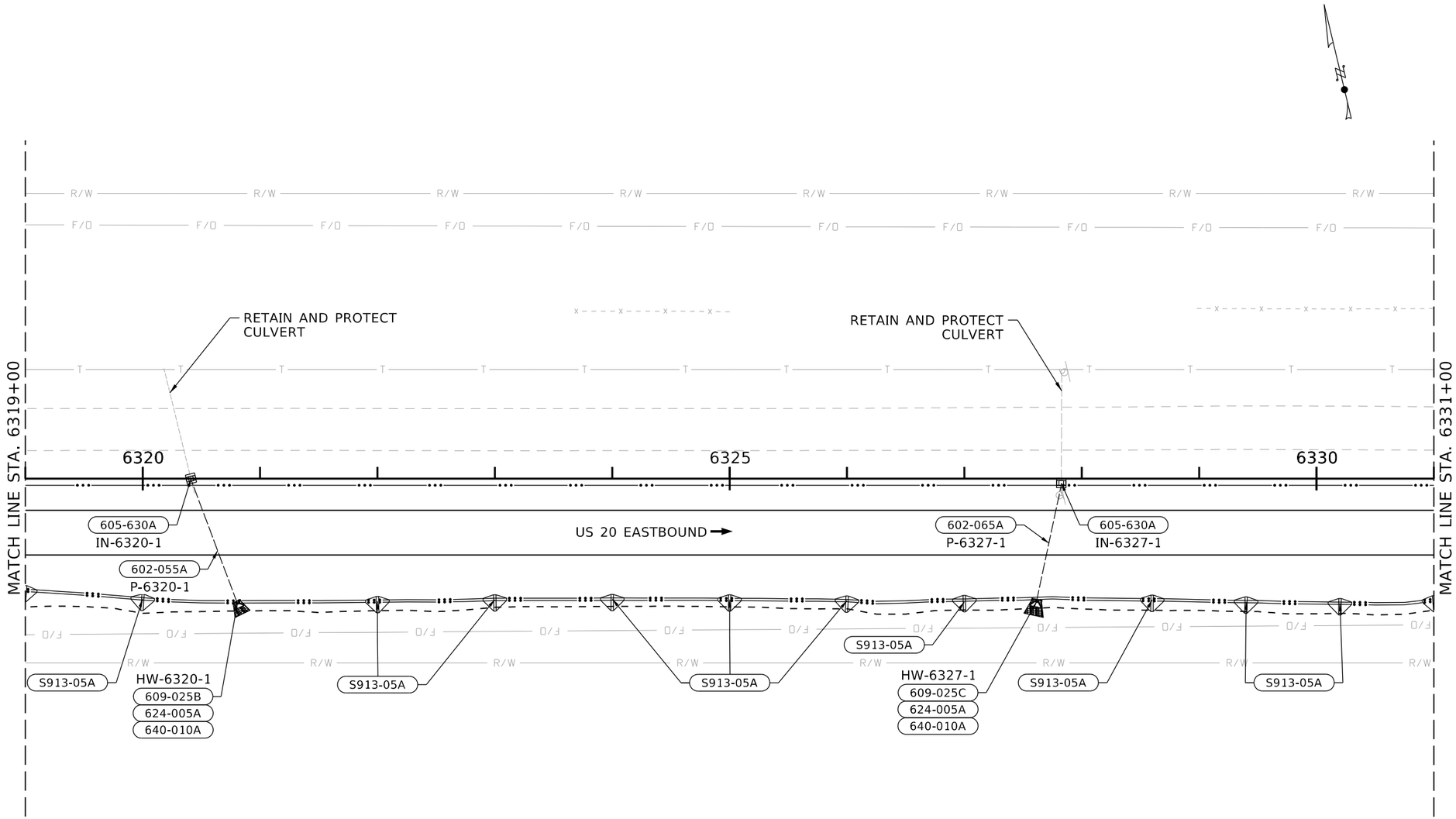
DRAINAGE PLAN
US 20, BONNEVILLE COUNTY
LINE TO MP 291
STA. 6307+00 TO STA. 6319+00
PHASE 1

ENGLISH
COUNTY BINGHAM/BONNEVILLE
KEY NUMBER 24149
SHEET 229 OF 441

NOT APPROVED
INTERMEDIATE
FOR CONSTRUCTION

November 21, 2025 4:48:19 PM
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T.3N., R.35E., B.M.




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|---|---|
| **602-055A** | **30" PIPE CULVERT** |
| 112 FT | STA. 6320+41.14, 0.00' RT TO STA. 6320+80.64, 106.31' RT |
| **602-065A** | **36" PIPE CULVERT** |
| 102 FT | STA. 6327+61.61, 104.70' RT TO STA. 6327+82.53, 3.73' RT |
| **605-630A** | **INLET TYPE 8** |
| 1 EACH | STA. 6320+41.14, 0.00' |
| 1 EACH | STA. 6327+82.53, 3.73' RT |
| **609-025B** | **MINOR STRUCTURES (30" CONCRETE HEADWALL)** |
| 1 EACH | STA. 6320+80.64, 106.31' RT |
| **609-025C** | **MINOR STRUCTURES (36" CONCRETE HEADWALL)** |
| 1 EACH | STA. 6327+61.61, 104.70' RT |
| **624-005A** | **LOOSE RIPRAP (CLASS I)** |
| 7.3 CY | STA. 6320+80.64, 106.31' RT |
| 10.4 CY | STA. 6327+61.61, 104.70' RT |
| **640-010A** | **RIPRAP/EROSION CONTROL GEOTEXTILE** |
| 19 SY | STA. 6320+80.64, 106.31' RT |
| 25 SY | STA. 6327+61.61, 104.70' RT |
| **S913-05A** | **SP DITCH BERM** |
| 4.9 CY | STA. 6320+00, 102.40' RT |
| 4.9 CY | STA. 6322+00, 104.35' RT |
| 4.9 CY | STA. 6323+00, 102.86' RT |
| 4.9 CY | STA. 6324+00, 102.56' RT |
| 4.9 CY | STA. 6325+00, 102.89' RT |
| 4.9 CY | STA. 6326+00, 103.92' RT |
| 4.9 CY | STA. 6327+00, 103.45' RT |
| 4.9 CY | STA. 6328+60, 103.22' RT |
| 4.9 CY | STA. 6329+40, 104.71' RT |
| 4.9 CY | STA. 6330+20, 106.12' RT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.

2. IN PHASE 1, RETAIN AND PROTECT EXISTING CULVERTS. CONSTRUCT INLET OR JUNCTION BOX OVER EXISTING CULVERT, AND CONSTRUCT PROPOSED CULVERT UNDER PHASE 1 ROADWAY.

3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
50 0 50 100

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| DESIGNED D. ABEDI | SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY |
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| DETAILED P. CONSALVO | CADD FILE NAME 24149_DrpI_D201D.DGN |
| DRAWING CHECKED C. MCALISTER | DRAWING DATE: November 21, 2025 |

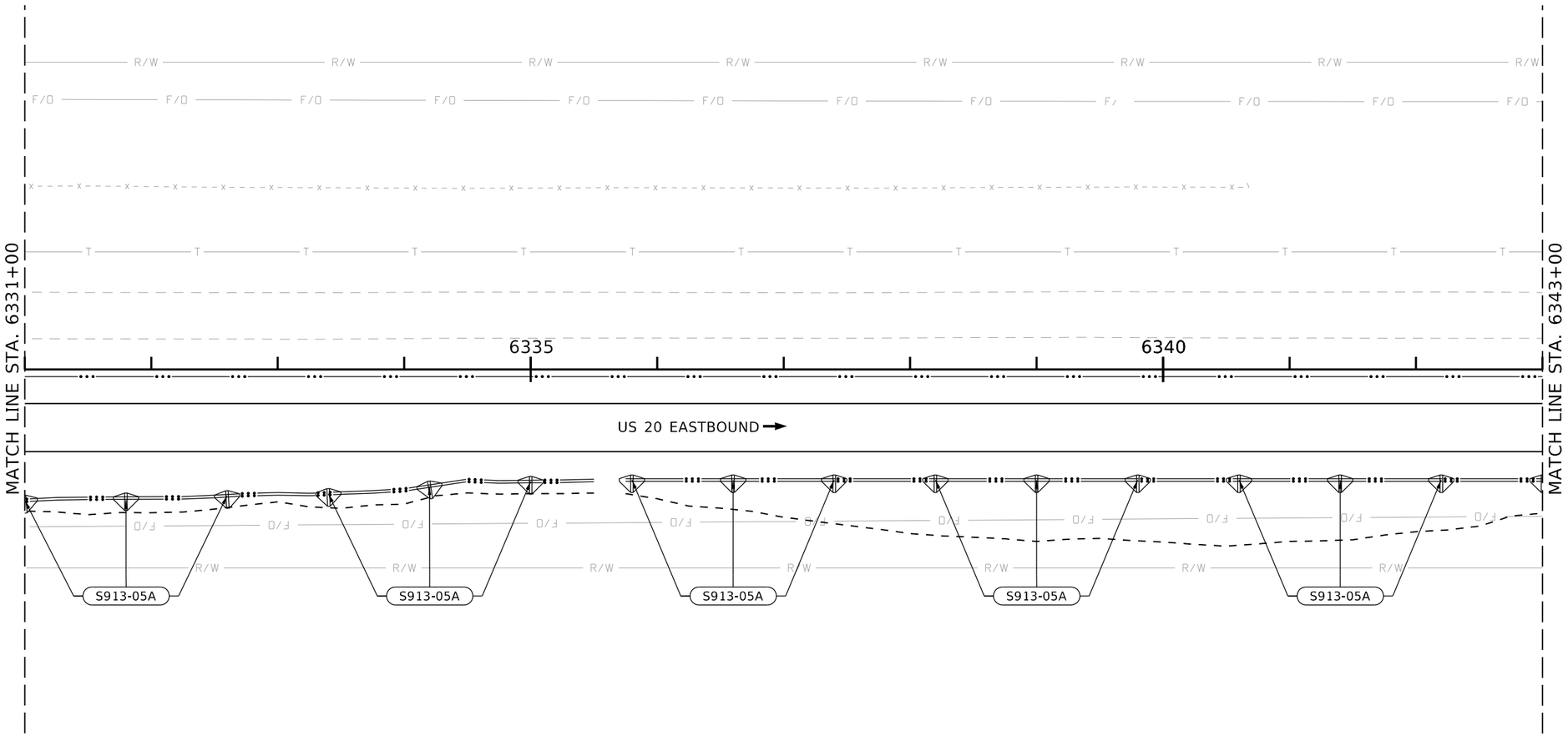
IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
DAVID EVANS AND ASSOCIATES INC.

| PROJECT NO. | DRAINAGE PLAN | ENGLISH |
|---|---|---|
| A024(149) | US 20, BONNEVILLE COUNTY LINE TO MP 291 STA. 6319+00 TO STA. 6331+00 PHASE 1 | COUNTY BINGHAM/BONNEVILLE<br>KEY NUMBER 24149<br>SHEET 230 OF 441 |

NOT APPROVED FOR INTERMEDIATE CONSTRUCTION

November 21, 2025 4:48:38 PM
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T.3N., R.35E., B.M.




| S913-05A | SP DITCH BERM |
|---|---|
| 4.9 CY | STA. 6331+00, 103.58' RT |
| 4.9 CY | STA. 6331+80, 101.74' RT |
| 4.9 CY | STA. 6332+60, 99.89' RT |
| 4.9 CY | STA. 6333+40, 98.23' RT |
| 4.9 CY | STA. 6334+20, 92.33' RT |
| 4.9 CY | STA. 6335+00, 88.58' RT |
| 4.9 CY | STA. 6335+80, 87.43' RT |
| 4.9 CY | STA. 6336+60, 87.43' RT |
| 4.9 CY | STA. 6337+40, 87.43' RT |
| 4.9 CY | STA. 6338+20, 87.43' RT |
| 4.9 CY | STA. 6339+00, 87.43' RT |
| 4.9 CY | STA. 6339+80, 87.43' RT |
| 4.9 CY | STA. 6340+60, 87.43' RT |
| 4.9 CY | STA. 6341+40, 87.43' RT |
| 4.9 CY | STA. 6342+20, 87.43' RT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.

Scale (Feet)
50 0 50 100

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CADD FILE NAME 24149_DrpI_D201D.DGN
DRAWING DATE: November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT
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DAVID EVANS AND ASSOCIATES INC.

PROJECT NO. A024(149)

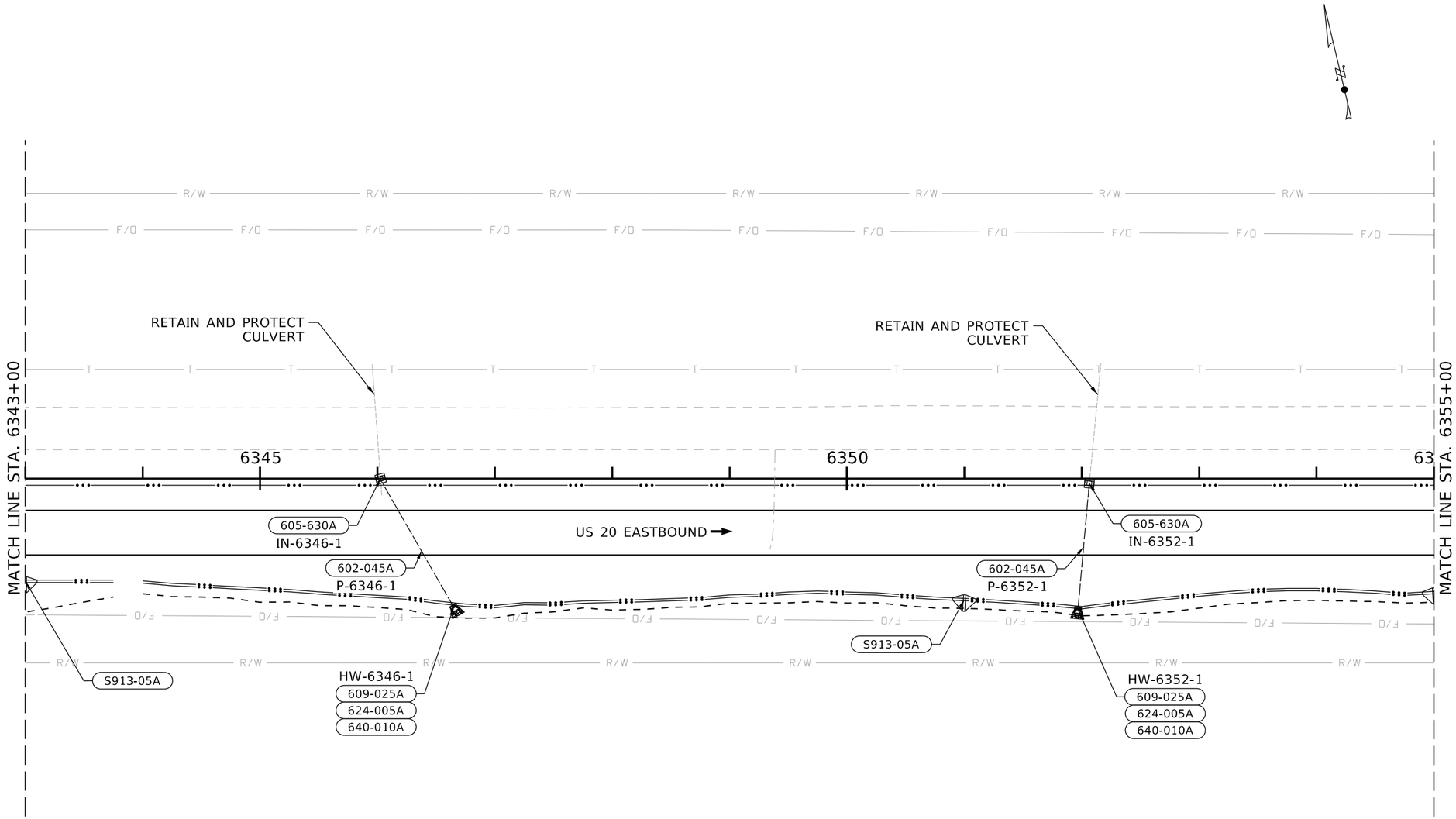
DRAINAGE PLAN
US 20, BONNEVILLE COUNTY
LINE TO MP 291
STA. 6331+00 TO STA. 6343+00
PHASE 1

ENGLISH
COUNTY BINGHAM/BONNEVILLE
KEY NUMBER 24149
SHEET 231 OF 441

NOT APPROVED
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FOR CONSTRUCTION

November 21, 2025 4:48:41 PM
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T.3N., R.35E., B.M.




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|---|---|
| **602-045A** | **24" PIPE CULVERT** |
| 125 FT | STA. 6346+02.64, 0.00' TO STA. 6346+65.00, 109.52' RT |
| 107 FT | STA. 6351+96.80, 111.37' RT TO STA. 6352+06.46, 3.95' RT |
| **605-630A** | **INLET TYPE 8** |
| 1 EACH | STA. 6346+02.64, 0.00' |
| 1 EACH | STA. 6352+06.46, 3.95' RT |
| **609-025A** | **MINOR STRUCTURES (24" CONCRETE HEADWALL)** |
| 1 EACH | STA. 6346+65.00, 109.52' RT |
| 1 EACH | STA. 6351+96.80, 111.37' RT |
| **624-005A** | **LOOSE RIPRAP (CLASS I)** |
| 4.7 CY | STA. 6346+65.00, 109.52' RT |
| 4.7 CY | STA. 6351+96.80, 111.37' RT |
| **640-010A** | **RIPRAP/EROSION CONTROL GEOTEXTILE** |
| 14 SY | STA. 6346+65.00, 109.52' RT |
| 14 SY | STA. 6351+96.80, 111.37' RT |
| **S913-05A** | **SP DITCH BERM** |
| 4.9 CY | STA. 6343+00, 87.43' RT |
| 4.9 CY | STA. 6351+00, 102.99' RT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.

2. IN PHASE 1, RETAIN AND PROTECT EXISTING CULVERTS. CONSTRUCT INLET OR JUNCTION BOX OVER EXISTING CULVERT, AND CONSTRUCT PROPOSED CULVERT UNDER PHASE 1 ROADWAY.

3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
50 0 50 100

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| DESIGNED D. ABEDI | SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY |
| DESIGN CHECKED C. MCALISTER | |
| DETAILED P. CONSALVO | CADD FILE NAME 24149_DrpI_D201D.DGN |
| DRAWING CHECKED C. MCALISTER | DRAWING DATE: November 21, 2025 |

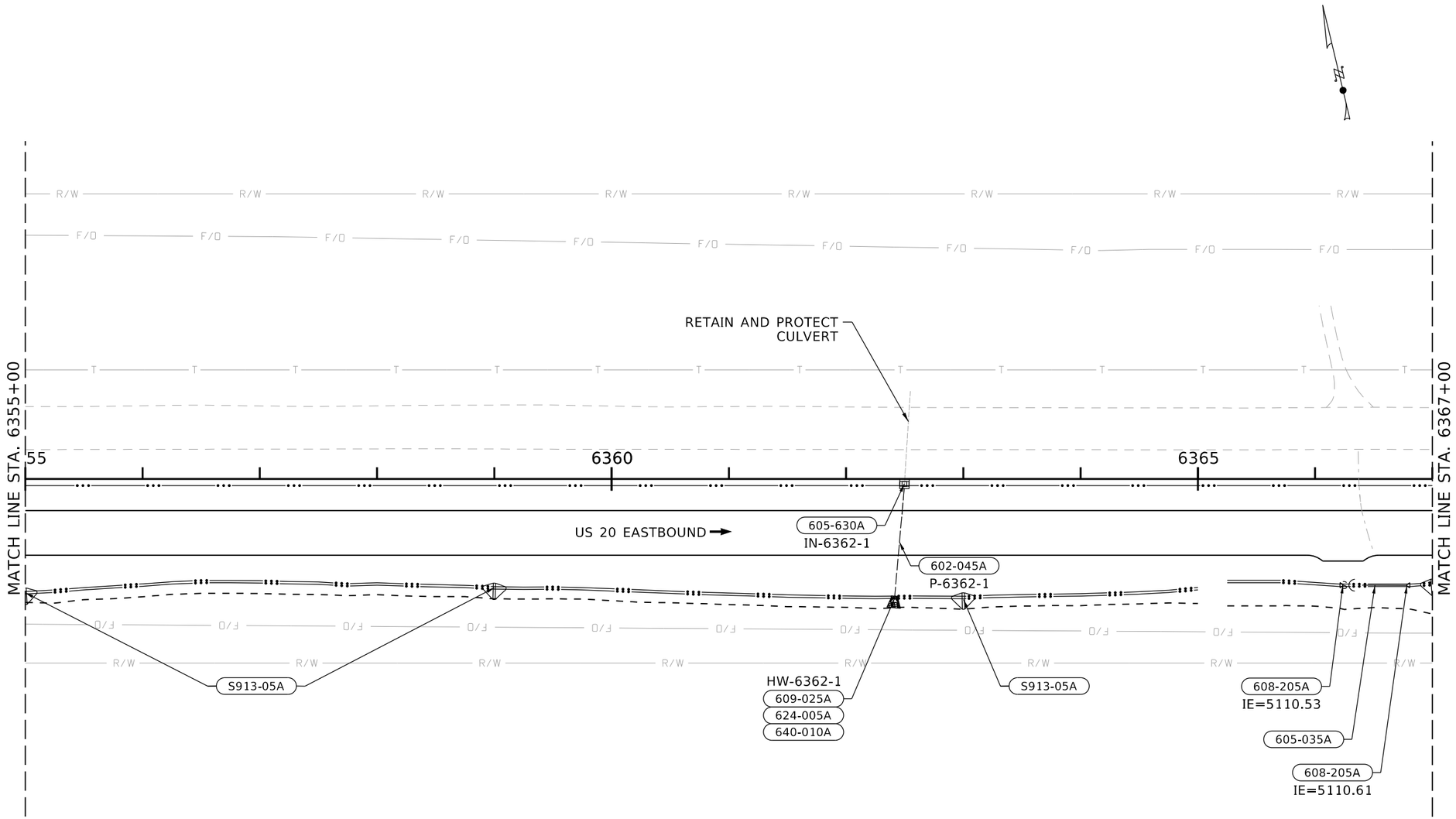
IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
DAVID EVANS AND ASSOCIATES INC.

| PROJECT NO. | DRAINAGE PLAN | ENGLISH |
|---|---|---|
| A024(149) | US 20, BONNEVILLE COUNTY LINE TO MP 291 STA. 6343+00 TO STA. 6355+00 PHASE 1 | COUNTY BINGHAM/BONNEVILLE<br>KEY NUMBER 24149<br>SHEET 232 OF 441 |

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November 21, 2025 4:48:43 PM
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T.3N., R.35E., B.M.




**602-045A** **24" PIPE CULVERT**
97 FT STA. 6362+41.14, 103.59' RT TO STA. 6362+49.75, 4.20' RT

**605-035A** **18" STORM SEWER PIPE**
55 FT STA. 6366+23.75, 90.57' RT TO STA. 6366+78.28, 90.69' RT

**605-630A** **INLET TYPE 8**
1 EACH STA. 6362+49.75, 4.20' RT

**608-205A** **METAL SAFETY APRON (PARALLEL) (18")**
1 EACH STA. 6366+23.75, 90.57' RT
1 EACH STA. 6366+78.28, 90.69' RT

**609-025A** **MINOR STRUCTURES (24" CONCRETE HEADWALL)**
1 EACH STA. 6362+41.14, 103.59' RT

**624-005A** **LOOSE RIPRAP (CLASS I)**
4.7 CY STA. 6362+41.14, 103.59' RT

**640-010A** **RIPRAP/EROSION CONTROL GEOTEXTILE**
14 SY STA. 6362+41.14, 103.59' RT

**S913-05A** **SP DITCH BERM**
4.9 CY STA. 6355+00, 97.04' RT
4.9 CY STA. 6359+00, 92.81' RT
4.9 CY STA. 6363+00, 101.06' RT

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.

2. IN PHASE 1, RETAIN AND PROTECT EXISTING CULVERTS. CONSTRUCT INLET OR JUNCTION BOX OVER EXISTING CULVERT, AND CONSTRUCT PROPOSED CULVERT UNDER PHASE 1 ROADWAY.

3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
50 0 50 100

NOT APPROVED FOR INTERMEDIATE CONSTRUCTION

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DESIGNED D. ABEDI
DESIGN CHECKED C. MCALISTER
DETAILED P. CONSALVO
DRAWING CHECKED C. MCALISTER

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 24149_DrpI_D201D.DGN
DRAWING DATE: November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
DAVID EVANS AND ASSOCIATES INC.

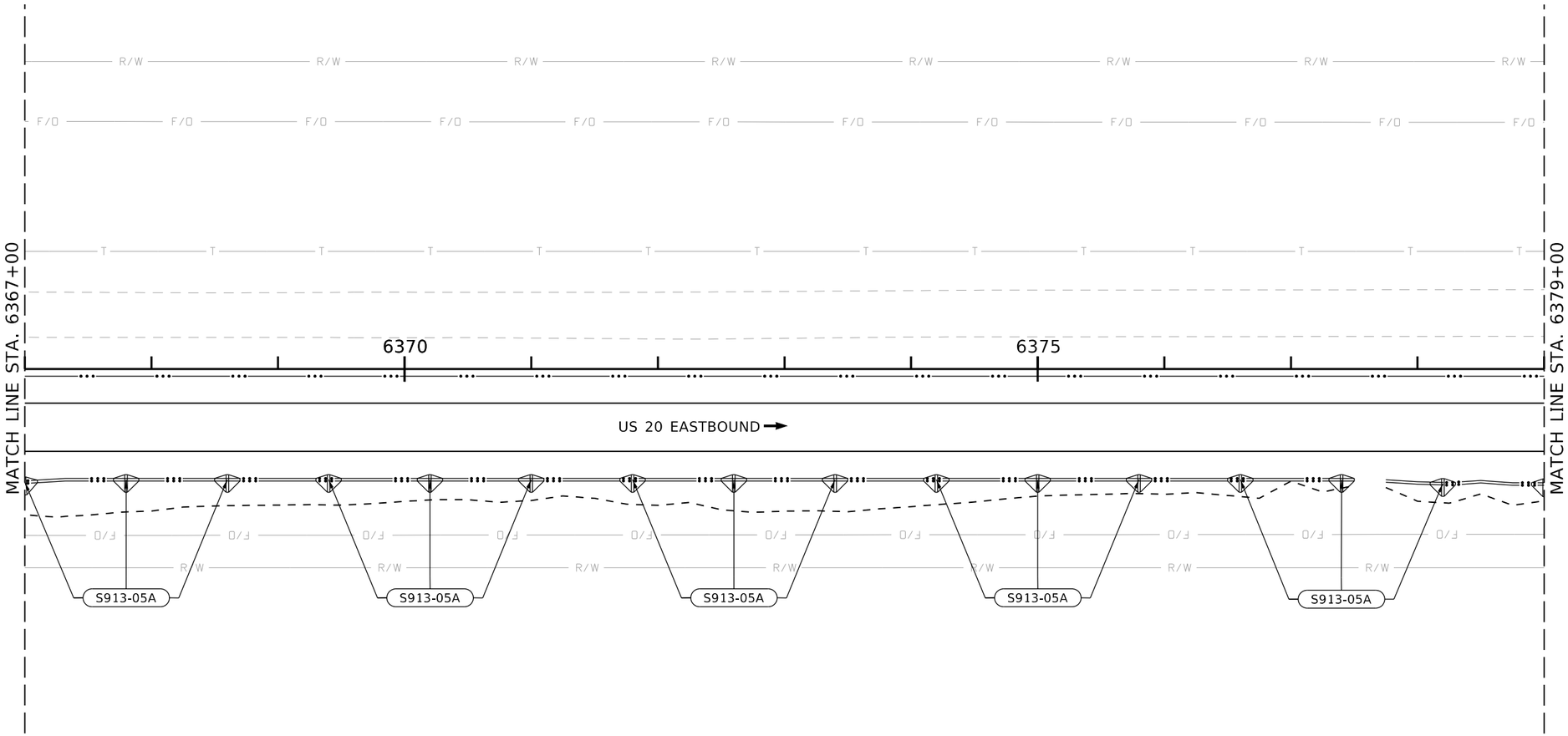
PROJECT NO. A024(149)

DRAINAGE PLAN
US 20, BONNEVILLE COUNTY
LINE TO MP 291
STA. 6355+00 TO STA. 6367+00
PHASE 1

ENGLISH
COUNTY BINGHAM/BONNEVILLE
KEY NUMBER 24149
SHEET 233 OF 441

November 21, 2025 4:48:46 PM
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T.3N., R.35E., B.M.




| S913-05A | SP DITCH BERM |
|---|---|
| 4.9 CY | STA. 6367+00, 89.41' RT |
| 4.9 CY | STA. 6367+80, 87.43' RT |
| 4.9 CY | STA. 6368+60, 87.43' RT |
| 4.9 CY | STA. 6369+40, 87.43' RT |
| 4.9 CY | STA. 6370+20, 87.43' RT |
| 4.9 CY | STA. 6371+00, 87.43' RT |
| 4.9 CY | STA. 6371+80, 87.43' RT |
| 4.9 CY | STA. 6372+60, 87.43' RT |
| 4.9 CY | STA. 6373+40, 87.43' RT |
| 4.9 CY | STA. 6374+20, 87.43' RT |
| 4.9 CY | STA. 6375+00, 87.43' RT |
| 4.9 CY | STA. 6375+80, 87.43' RT |
| 4.9 CY | STA. 6376+60, 87.43' RT |
| 4.9 CY | STA. 6377+40, 87.43' RT |
| 4.9 CY | STA. 6378+20, 90.57' RT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.

Scale (Feet)
50 0 50 100

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| DESIGNED | D. ABEDI |
| DESIGN CHECKED | C. MCALISTER |
| DETAILED | P. CONSALVO |
| DRAWING CHECKED | C. MCALISTER |

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME 24149_DrpI_D201D.DGN

DRAWING DATE: November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT
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DAVID EVANS AND ASSOCIATES INC.

PROJECT NO.
A024(149)

DRAINAGE PLAN
US 20, BONNEVILLE COUNTY
LINE TO MP 291
STA. 6367+00 TO STA. 6379+00
PHASE 1

ENGLISH

COUNTY BINGHAM/BONNEVILLE

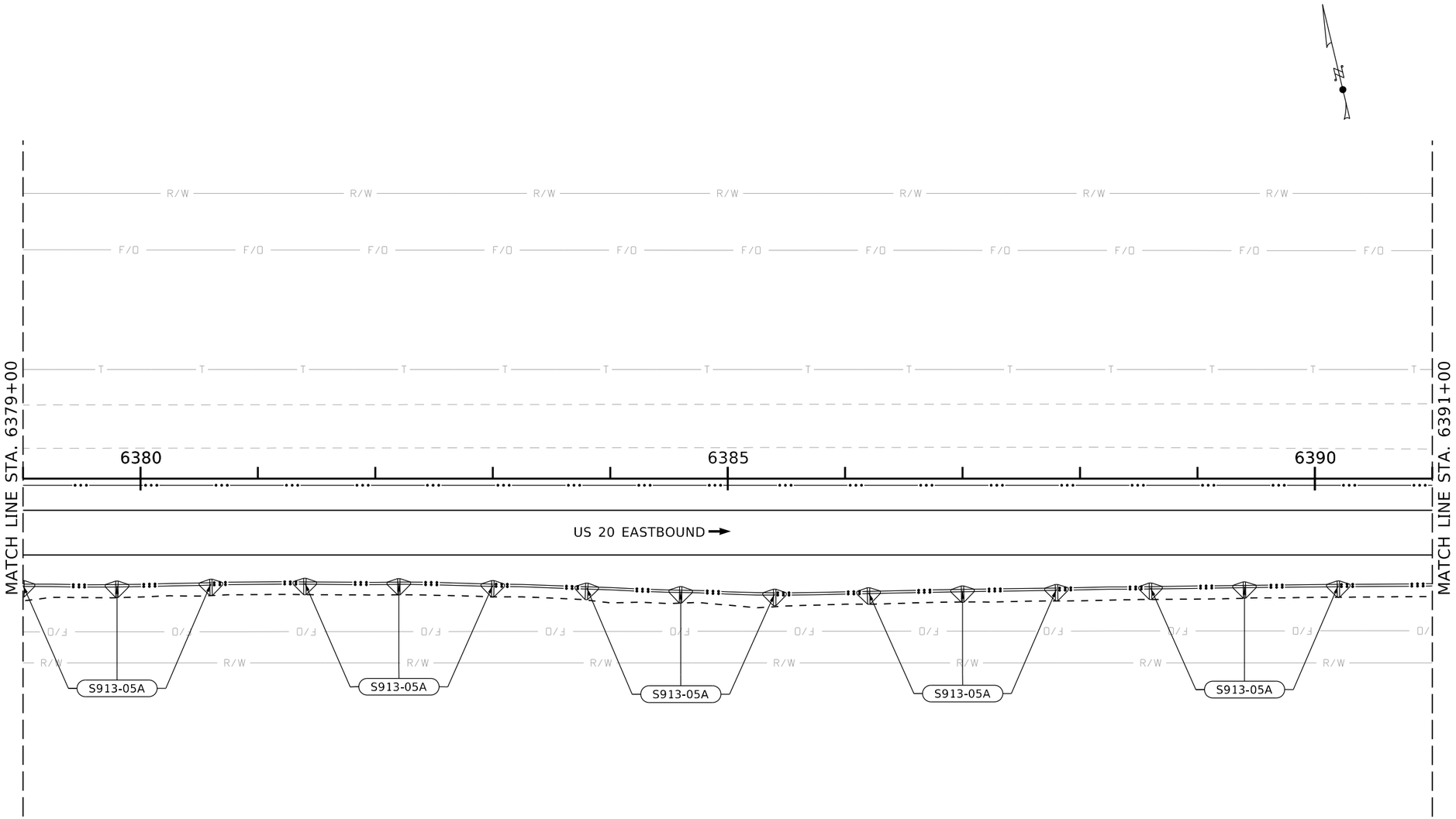
KEY NUMBER 24149

SHEET 234 OF 441

NOT APPROVED
INTERMEDIATE
FOR CONSTRUCTION

November 21, 2025 4:48:48 PM
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T.3N., R.35E., B.M.




| S913-05A | SP DITCH BERM |
|---|---|
| 4.9 CY | STA. 6379+00, 90.79' RT |
| 4.9 CY | STA. 6379+80, 91.25' RT |
| 4.9 CY | STA. 6380+60, 89.65' RT |
| 4.9 CY | STA. 6381+40, 88.91' RT |
| 4.9 CY | STA. 6382+20, 89.10' RT |
| 4.9 CY | STA. 6383+00, 90.81' RT |
| 4.9 CY | STA. 6383+80, 93.08' RT |
| 4.9 CY | STA. 6384+60, 95.98' RT |
| 4.9 CY | STA. 6385+40, 98.18' RT |
| 4.9 CY | STA. 6386+20, 96.96' RT |
| 4.9 CY | STA. 6387+00, 95.37' RT |
| 4.9 CY | STA. 6387+80, 94.13' RT |
| 4.9 CY | STA. 6388+60, 92.95' RT |
| 4.9 CY | STA. 6389+40, 91.88' RT |
| 4.9 CY | STA. 6390+20, 91.05' RT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.

Scale (Feet)
50 0 50 100

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DESIGNED D. ABEDI
DESIGN CHECKED C. MCALISTER
DETAILED P. CONSALVO
DRAWING CHECKED C. MCALISTER

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 24149_DrpI_D201D.DGN
DRAWING DATE: November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT
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DAVID EVANS AND ASSOCIATES INC.

PROJECT NO.
A024(149)

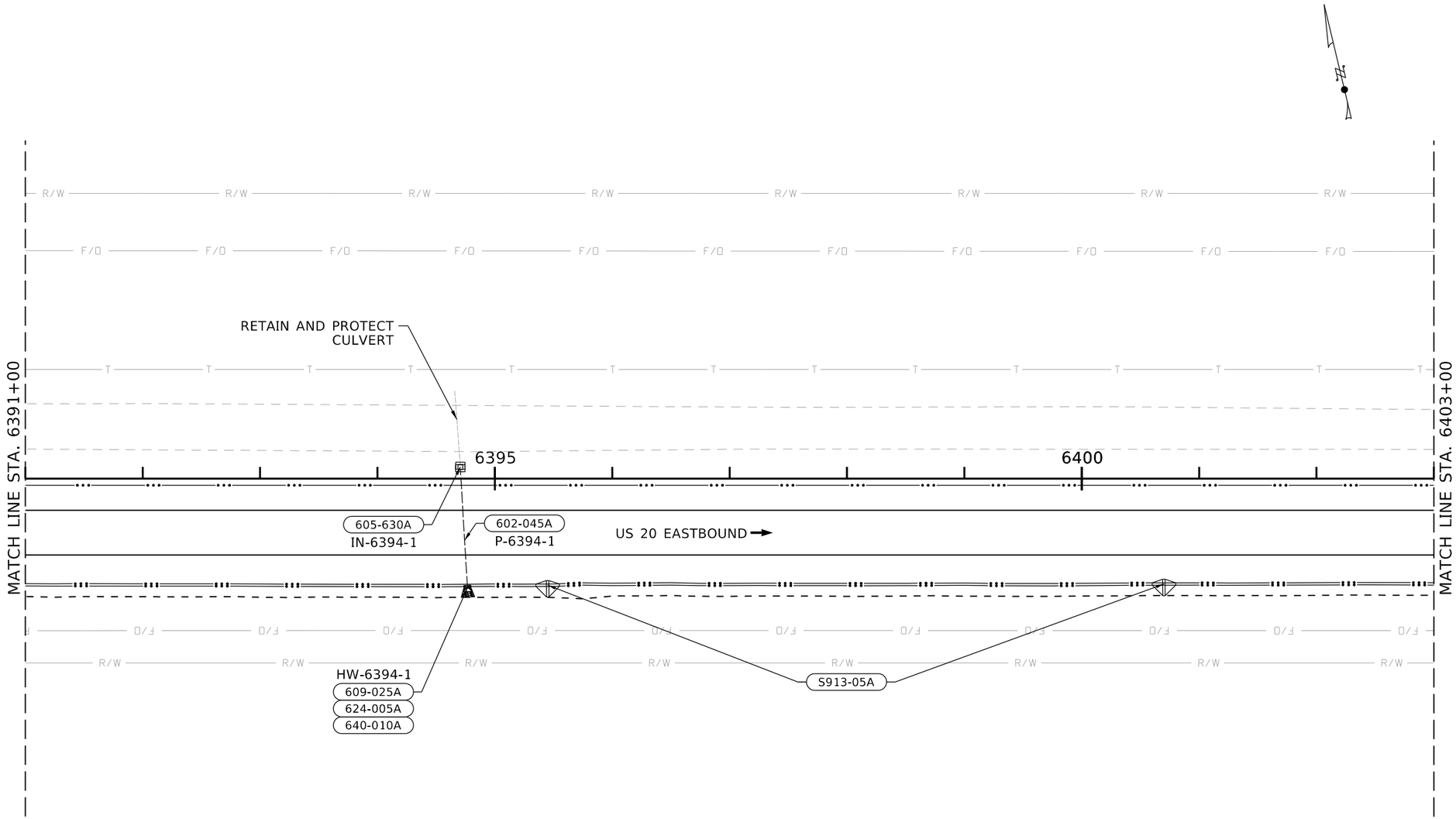
DRAINAGE PLAN
US 20, BONNEVILLE COUNTY
LINE TO MP 291
STA. 6379+00 TO STA. 6391+00
PHASE 1

ENGLISH
COUNTY BINGHAM/BONNEVILLE
KEY NUMBER 24149
SHEET 235 OF 441

NOT APPROVED
INTERMEDIATE
FOR CONSTRUCTION

November 21, 2025 4:48:51 PM
pw://itd-pw.bentley.com:itd-pw-01/Documents/District 6/Projects/prj24394/Project_Development/Plan Sheets/Package 2 (KN 24149)/Drainage/24149_DrpI_D201D

T.3N., R.35E., B.M.




**602-045A** **24" PIPE CULVERT**
102 FT STA. 6394+70.60, 9.96' LT TO STA. 6394+76.65, 92.86' RT

**605-630A** **INLET TYPE 8**
1 EACH STA. 6394+70.60, 9.96' LT

**609-025A** **MINOR STRUCTURES (24" CONCRETE HEADWALL)**
1 EACH STA. 6394+76.65, 92.86' RT

**624-005A** **LOOSE RIPRAP (CLASS I)**
4.7 CY STA. 6394+76.65, 92.86' RT

**640-010A** **RIPRAP/EROSION CONTROL GEOTEXTILE**
14 SY STA. 6394+76.65, 92.86' RT

**S913-05A** **SP DITCH BERM**
4.9 CY STA. 6395+45, 90.78' RT
4.9 CY STA. 6400+70, 89.73' RT

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.

2. IN PHASE 1, RETAIN AND PROTECT EXISTING CULVERTS. CONSTRUCT INLET OR JUNCTION BOX OVER EXISTING CULVERT, AND CONSTRUCT PROPOSED CULVERT UNDER PHASE 1 ROADWAY.

3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
50 0 50 100

NOT APPROVED FOR CONSTRUCTION
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DESIGNED D. ABEDI
DESIGN CHECKED C. MCALISTER
DETAILED P. CONSALVO
DRAWING CHECKED C. MCALISTER

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 24149_DrpI_D201D.DGN
DRAWING DATE: November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
DAVID EVANS AND ASSOCIATES INC.

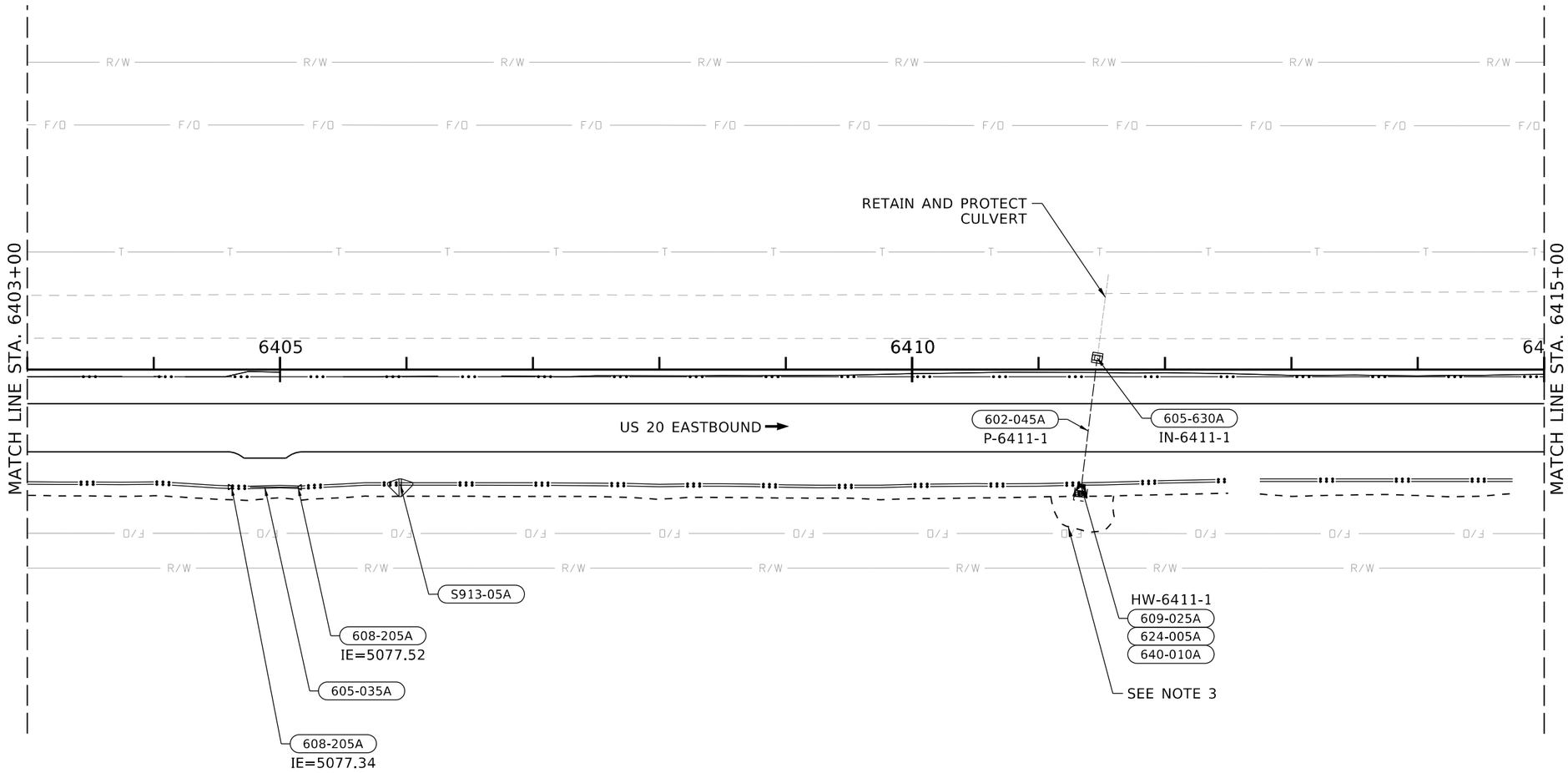
PROJECT NO.
A024(149)

DRAINAGE PLAN
US 20, BONNEVILLE COUNTY
LINE TO MP 291
STA. 6391+00 TO STA. 6403+00
PHASE 1

ENGLISH
COUNTY BINGHAM/BONNEVILLE
KEY NUMBER 24149
SHEET 236 OF 441

November 21, 2025 4:48:54 PM
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T.3N., R.35E., B.M.




**602-045A** **24" PIPE CULVERT**
102 FT STA. 6411+33.86, 92.62' RT TO STA. 6411+46.36, 9.20' LT

**605-035A** **18" STORM SEWER PIPE**
53 FT STA. 6404+61.54, 92.87' RT TO STA. 6405+14.28, 93.09' RT

**605-630A** **INLET TYPE 8**
1 EACH STA. 6411+46.36, 9.20' LT

**608-205A** **METAL SAFETY APRON (PARALLEL) (18")**
1 EACH STA. 6404+61.54, 92.87' RT
1 EACH STA. 6405+14.28, 93.09' RT

**609-025A** **MINOR STRUCTURES (24" CONCRETE HEADWALL)**
1 EACH STA. 6411+33.86, 92.62' RT

**624-005A** **LOOSE RIPRAP (CLASS I)**
4.7 CY STA. 6411+33.86, 92.62' RT

**640-010A** **RIPRAP/EROSION CONTROL GEOTEXTILE**
14 SY STA. 6411+33.86, 92.62' RT

**S913-05A** **SP DITCH BERM**
4.9 CY STA. 6405+95, 90.38' RT

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.

2. IN PHASE 1, RETAIN AND PROTECT EXISTING CULVERTS. CONSTRUCT INLET OR JUNCTION BOX OVER EXISTING CULVERT, AND CONSTRUCT PROPOSED CULVERT UNDER PHASE 1 ROADWAY.

3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
50 0 50 100

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DESIGNED D. ABEDI
DESIGN CHECKED C. MCALISTER
DETAILED P. CONSALVO
DRAWING CHECKED C. MCALISTER

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 24149_DrpI_D201D.DGN
DRAWING DATE: November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
DAVID EVANS AND ASSOCIATES INC.

PROJECT NO. A024(149)

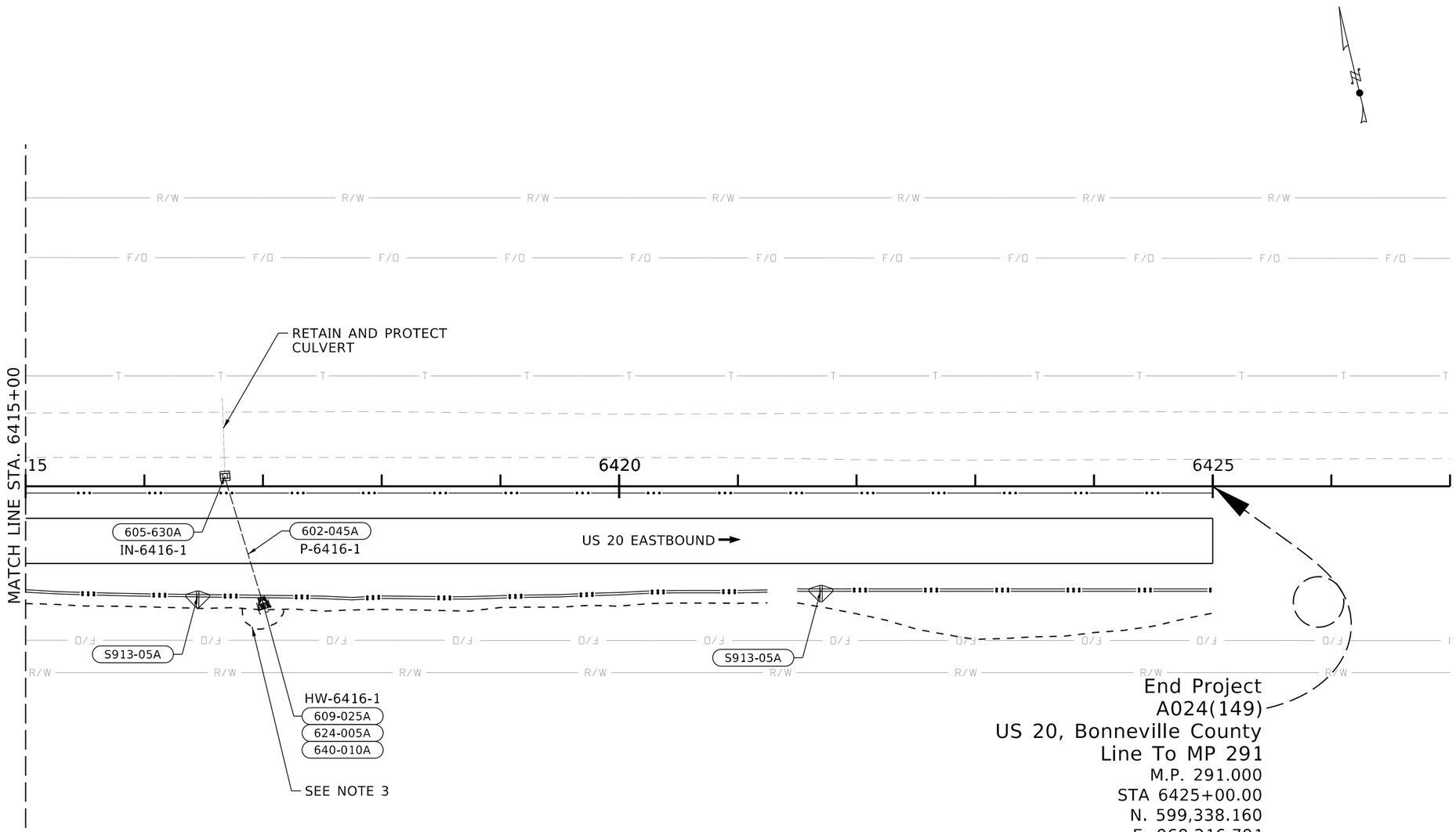
DRAINAGE PLAN
US 20, BONNEVILLE COUNTY
LINE TO MP 291
STA. 6403+00 TO STA. 6415+00
PHASE 1

ENGLISH
COUNTY BINGHAM/BONNEVILLE
KEY NUMBER 24149
SHEET 237 OF 441

NOT APPROVED FOR INTERMEDIATE CONSTRUCTION

November 21, 2025 4:48:57 PM
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T.3N., R.35E., B.M.




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| **602-045A**<br>108 FT | **24" PIPE CULVERT**<br>STA. 6416+67.89, 10.10' LT TO STA. 6417+99.14, 95.45' RT |
| **605-630A**<br>1 EACH | **INLET TYPE 8**<br>STA. 6416+67.89, 10.10' LT |
| **609-025A**<br>1 EACH | **MINOR STRUCTURES (24" CONCRETE HEADWALL)**<br>STA. 6416+99.14, 95.45' RT |
| **624-005A**<br>4.7 CY | **LOOSE RIPRAP (CLASS I)**<br>STA. 6416+99.14, 95.45' RT |
| **640-010A**<br>14 SY | **RIPRAP/EROSION CONTROL GEOTEXTILE**<br>STA. 6416+99.14, 95.45' RT |
| **S913-05A**<br>4.9 CY<br>4.9 CY | **SP DITCH BERM**<br>STA. 6416+45, 92.23' RT<br>STA. 6421+70, 87.43' RT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.

2. IN PHASE 1, RETAIN AND PROTECT EXISTING CULVERTS. CONSTRUCT INLET OR JUNCTION BOX OVER EXISTING CULVERT, AND CONSTRUCT PROPOSED CULVERT UNDER PHASE 1 ROADWAY.

3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
50 0 50 100

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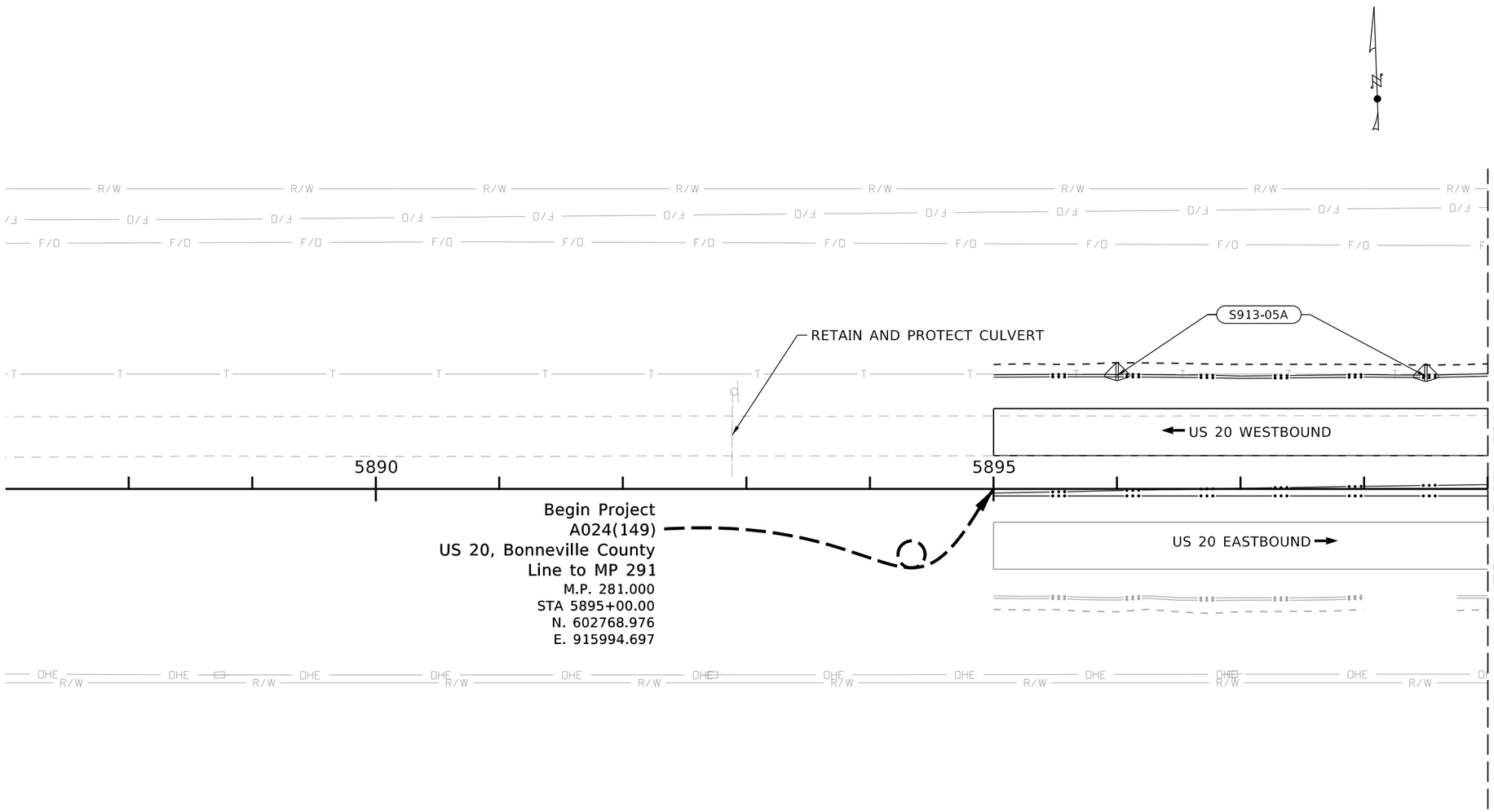
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| DESIGNED D. ABEDI | SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY | IDAHO TRANSPORTATION DEPARTMENT<br>YOUR Safety→YOUR Mobility→YOUR Economic Opportunity | PROJECT NO. |
| DESIGN CHECKED C. MCALISTER | | | A024(149) |
| DETAILED P. CONSALVO | CADD FILE NAME 24149_DrpI_D201D.DGN | | |
| DRAWING CHECKED C. MCALISTER | DRAWING DATE: November 21, 2025 | DAVID EVANS AND ASSOCIATES INC. | |

| DRAINAGE PLAN | ENGLISH |
|---|---|
| US 20, BONNEVILLE COUNTY<br>LINE TO MP 291<br>STA. 6415+00 TO STA. 6427+00<br>PHASE 1 | COUNTY BINGHAM/BONNEVILLE<br>KEY NUMBER 24149<br>SHEET 238 OF 441 |

NOT APPROVED
INTERMEDIATE FOR CONSTRUCTION

November 25, 2025 9:50:19 AM
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T.3N., R.33E., B.M.




**S913-05A** **SP DITCH BERM**
4.9 CY STA. 5896+00, 91.79' LT
4.9 CY STA. 5898+50, 91.10' LT

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.

Scale (Feet)
50 0 50 100

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DESIGNED D. ABEDI
DESIGN CHECKED C. MCALISTER
DETAILED P. CONSALVO
DRAWING CHECKED C. MCALISTER

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 24149_DrpI_D202A.DGN
DRAWING DATE: November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
DAVID EVANS AND ASSOCIATES INC.

PROJECT NO. A024(149)

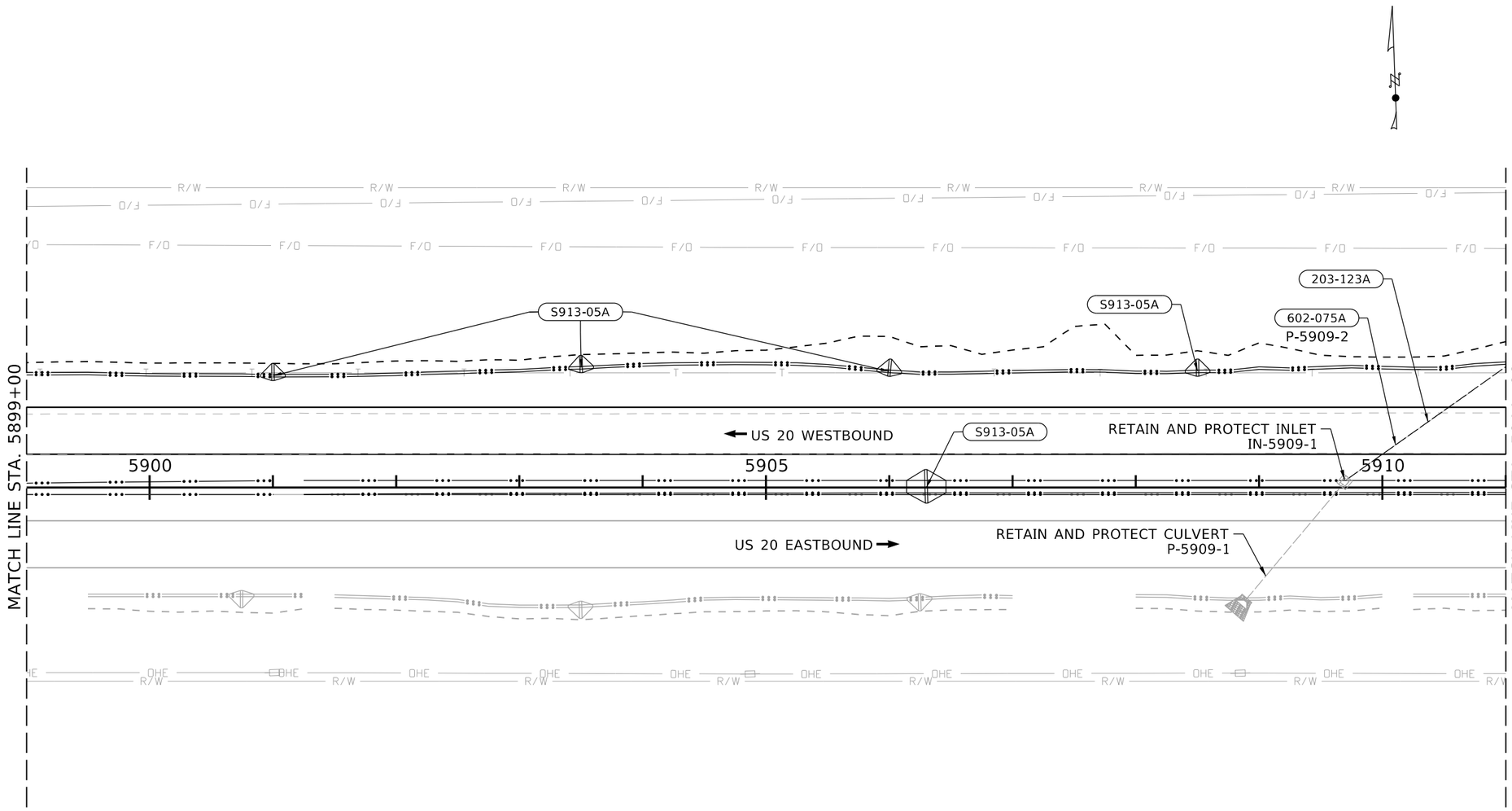
DRAINAGE PLAN
US 20, BONNEVILLE COUNTY
LINE TO MP 291
STA. 5887+00 TO STA. 5899+00
PHASE 2

ENGLISH
COUNTY BINGHAM/BONNEVILLE
KEY NUMBER 24149
SHEET 239 OF 441

NOT APPROVED
INTERMEDIATE
FOR CONSTRUCTION

November 25, 2025 9:51:15 AM
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T.3N., R.33E., B.M.




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| **203-123A** | **REMOVAL OF MISCELLANEOUS ITEMS (PIPE)** |
| 128 FT | STA. 5909+69.58, 5.41' LT TO STA. 5911+00.00, 78.63' LT |
| **602-075A** | **42" PIPE CULVERT** |
| 159 FT | STA. 5909+69.36, 6.29' LT TO STA. 5911+00.00, 97.95' LT |
| **S913-05A** | **SP DITCH BERM** |
| 4.9 CY | STA. 5901+00, 90.64' LT |
| 4.9 CY | STA. 5903+50, 97.11' LT |
| 4.9 CY | STA. 5906+00, 94.18' LT |
| 15.4 CY | STA. 5906+30, 0.01' LT |
| 4.9 CY | STA. 5908+50, 94.14' LT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.
2. IN PHASE 2, REMOVE EXISTING CULVERT, MODIFY INLET OR JUNCTION BOX OPENING TO CONNECT PROPOSED CULVERT AND CONSTRUCT UNDER PHASE 2 ROADWAY.
3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
50 0 50 100

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DESIGNED D. ABEDI
DESIGN CHECKED C. MCALISTER
DETAILED P. CONSALVO
DRAWING CHECKED C. MCALISTER

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 24149_Drpl_D202A.DGN
DRAWING DATE: November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
DAVID EVANS AND ASSOCIATES INC.

PROJECT NO. A024(149)

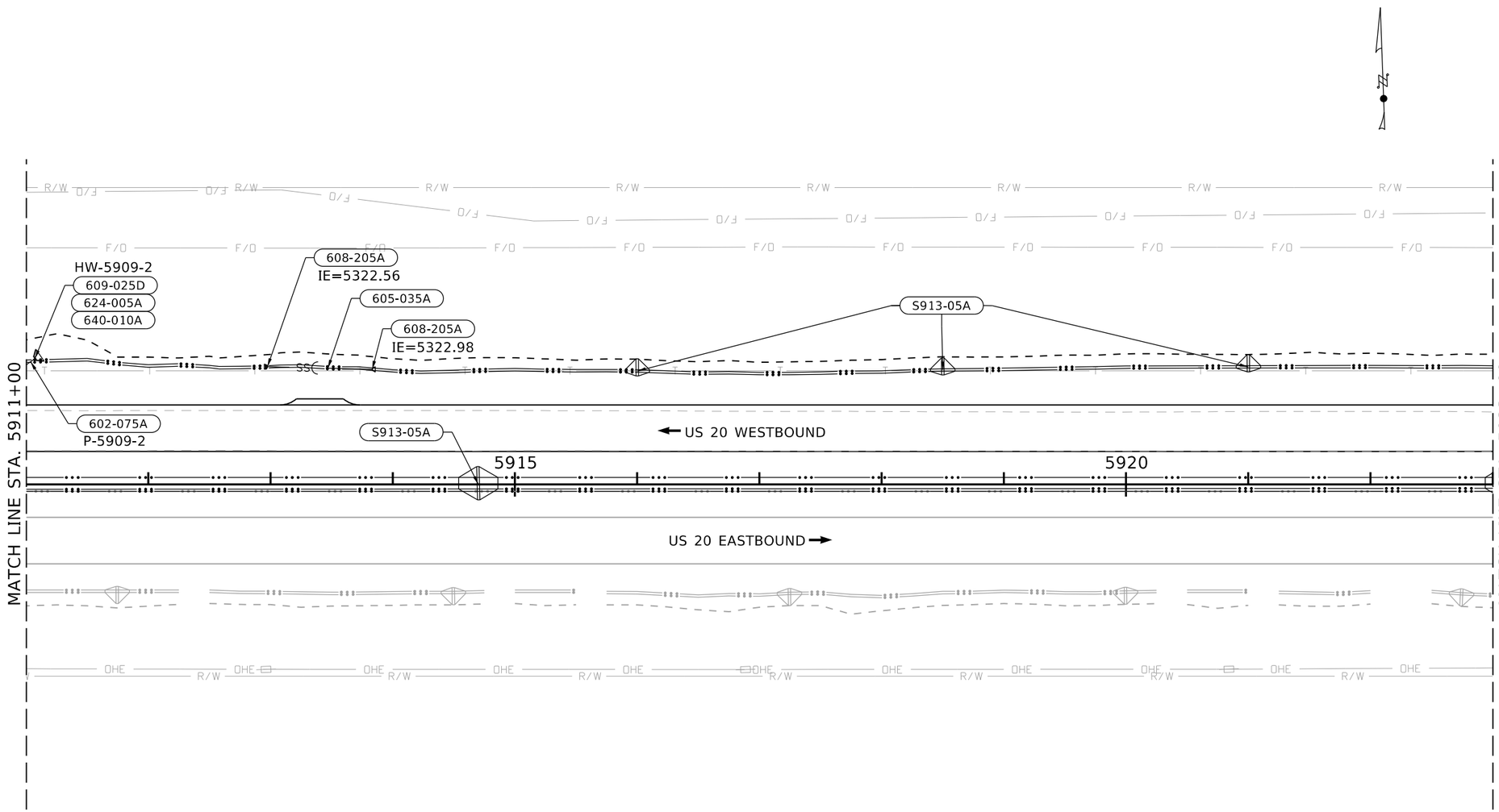
DRAINAGE PLAN
US 20, BONNEVILLE COUNTY LINE TO MP 291
STA. 5899+00 TO STA. 5911+00
PHASE 2

*ENGLISH*
COUNTY BINGHAM/BONNEVILLE
KEY NUMBER 24149
SHEET 240 OF 441

NOT APPROVED
INTERMEDIATE
FOR CONSTRUCTION

November 21, 2025 4:49:26 PM
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T.3N., R.33E., B.M.




**602-075A** **42" PIPE CULVERT**
9 FT STA. 5911+00.00, 97.95' LT TO STA. 5911+07.21, 102.93' LT

**605-035A** **18" STORM SEWER PIPE**
86 FT STA. 5912+97.33, 97.20' LT TO STA. 5913+83.22, 94.20' LT

**608-205A** **METAL SAFETY APRON (PARALLEL) (18")**
1 EACH STA. 5912+97.33, 97.20' LT
1 EACH STA. 5913+83.22, 94.20' LT

**609-025D** **MINOR STRUCTURES (42" CONCRETE HEADWALL)**
1 EACH STA. 5911+07.21, 102.93' LT

**624-005A** **LOOSE RIPRAP (CLASS I)**
14.1 CY STA. 5911+07.21, 102.93' LT

**640-010A** **RIPRAP/EROSION CONTROL GEOTEXTILE**
32 SY STA. 5911+07.21, 102.93' LT

**S913-05A** **SP DITCH BERM**
14.9 CY STA. 5914+70, 0.04' LT
4.9 CY STA. 5916+00, 92.85' LT
4.9 CY STA. 5918+50, 93.62' LT
4.9 CY STA. 5921+00, 96.17' LT

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.

2. IN PHASE 2, REMOVE EXISTING CULVERT, MODIFY INLET OR JUNCTION BOX OPENING TO CONNECT PROPOSED CULVERT AND CONSTRUCT UNDER PHASE 2 ROADWAY.

3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
50 0 50 100

NOT APPROVED FOR CONSTRUCTION
INTERMEDIATE

| REVISIONS | | | |
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DESIGNED D. ABEDI
DESIGN CHECKED C. MCALISTER
DETAILED P. CONSALVO
DRAWING CHECKED C. MCALISTER

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 24149_DrpI_D202A.DGN
DRAWING DATE: November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT
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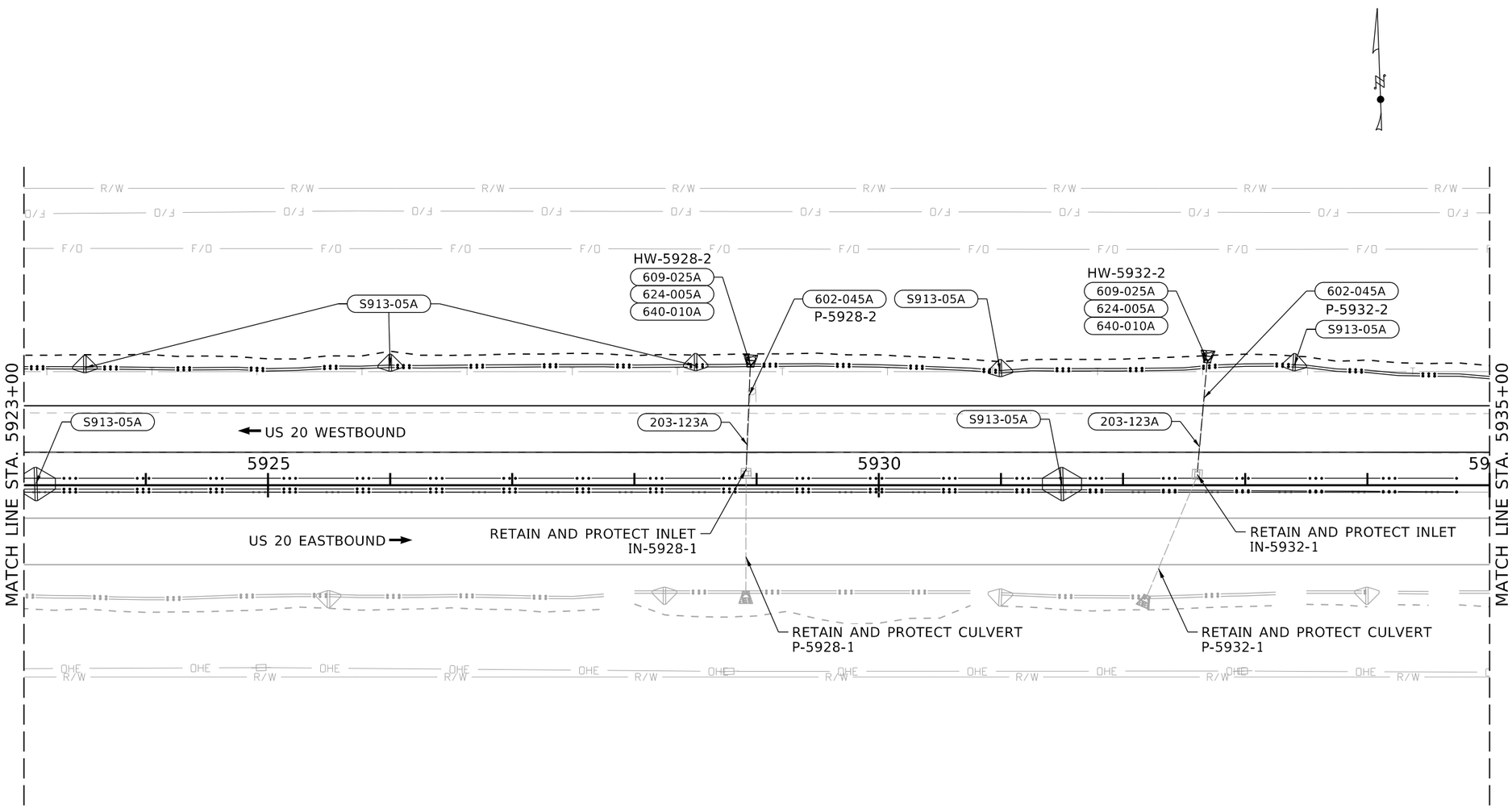
PROJECT NO. A024(149)

DRAINAGE PLAN
US 20, BONNEVILLE COUNTY
LINE TO MP 291
STA. 5911+00 TO STA. 5923+00
PHASE 2

ENGLISH
COUNTY BINGHAM/BONNEVILLE
KEY NUMBER 24149
SHEET 241 OF 441

November 21, 2025 4:49:29 PM
pw://itd-pw.bentley.com:itd-pw-01/Documents/District 6/Projects/prj24394/Project_Development/Plan Sheets/Package 2 (KN 24149)/Drainage/24149_DrpI_D202A

T.3N., R.33E., B.M.




**203-123A REMOVAL OF MISCELLANEOUS ITEMS (PIPE)**

| | |
|---|---|
| 67 FT | STA. 5928+91.38, 11.15' LT TO STA. 5928+94.79, 77.19' LT |
| 67 FT | STA. 5932+60.75, 10.32' LT TO STA. 5932+67.03, 76.18' LT |

**602-045A 24" PIPE CULVERT**

| | |
|---|---|
| 88 FT | STA. 5928+91.44, 13.04' LT TO STA. 5928+96.85, 116.62' LT |
| 93 FT | STA. 5932+60.74, 11.53' LT TO STA. 5932+68.42, 97.16' LT |

**609-025A MINOR STRUCTURES (24" CONCRETE HEADWALL)**

| | |
|---|---|
| 1 EACH | STA. 5928+97.85, 141.83' LT |
| 1 EACH | STA. 5932+68.92, 102.22' LT |

**624-005A LOOSE RIPRAP (CLASS I)**

| | |
|---|---|
| 4.7 CY | STA. 5928+97.85, 141.83' LT |
| 4.7 CY | STA. 5932+68.92, 102.22' LT |

**640-010A RIPRAP/EROSION CONTROL GEOTEXTILE**

| | |
|---|---|
| 14 SY | STA. 5928+97.85, 141.83' LT |
| 14 SY | STA. 5932+68.92, 102.22' LT |

**S913-05A SP DITCH BERM**

| | |
|---|---|
| 14.4 CY | STA. 5923+10, 1.24' LT |
| 4.9 CY | STA. 5923+50, 96.12' LT |
| 4.9 CY | STA. 5926+00, 97.33' LT |
| 4.9 CY | STA. 5928+50, 97.81' LT |
| 4.9 CY | STA. 5931+00, 92.90' LT |
| 4.9 CY | STA. 5933+40, 97.74' LT |
| 14.8 CY | STA. 5931+50, 0.27' LT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.
2. IN PHASE 2, REMOVE EXISTING CULVERT, MODIFY INLET OR JUNCTION BOX OPENING TO CONNECT PROPOSED CULVERT AND CONSTRUCT UNDER PHASE 2 ROADWAY.
3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
50 0 50 100

NOT APPROVED FOR INTERMEDIATE CONSTRUCTION

| REVISIONS | | | |
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| NO. | DATE | BY | DESCRIPTION |
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| DESIGNED D. ABEDI | SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY |
| DESIGN CHECKED C. MCALISTER | |
| DETAILED P. CONSALVO | CADD FILE NAME 24149_Drpl_D202A.DGN |
| DRAWING CHECKED C. MCALISTER | DRAWING DATE: November 21, 2025 |

IDAHO TRANSPORTATION DEPARTMENT
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DAVID EVANS AND ASSOCIATES INC.

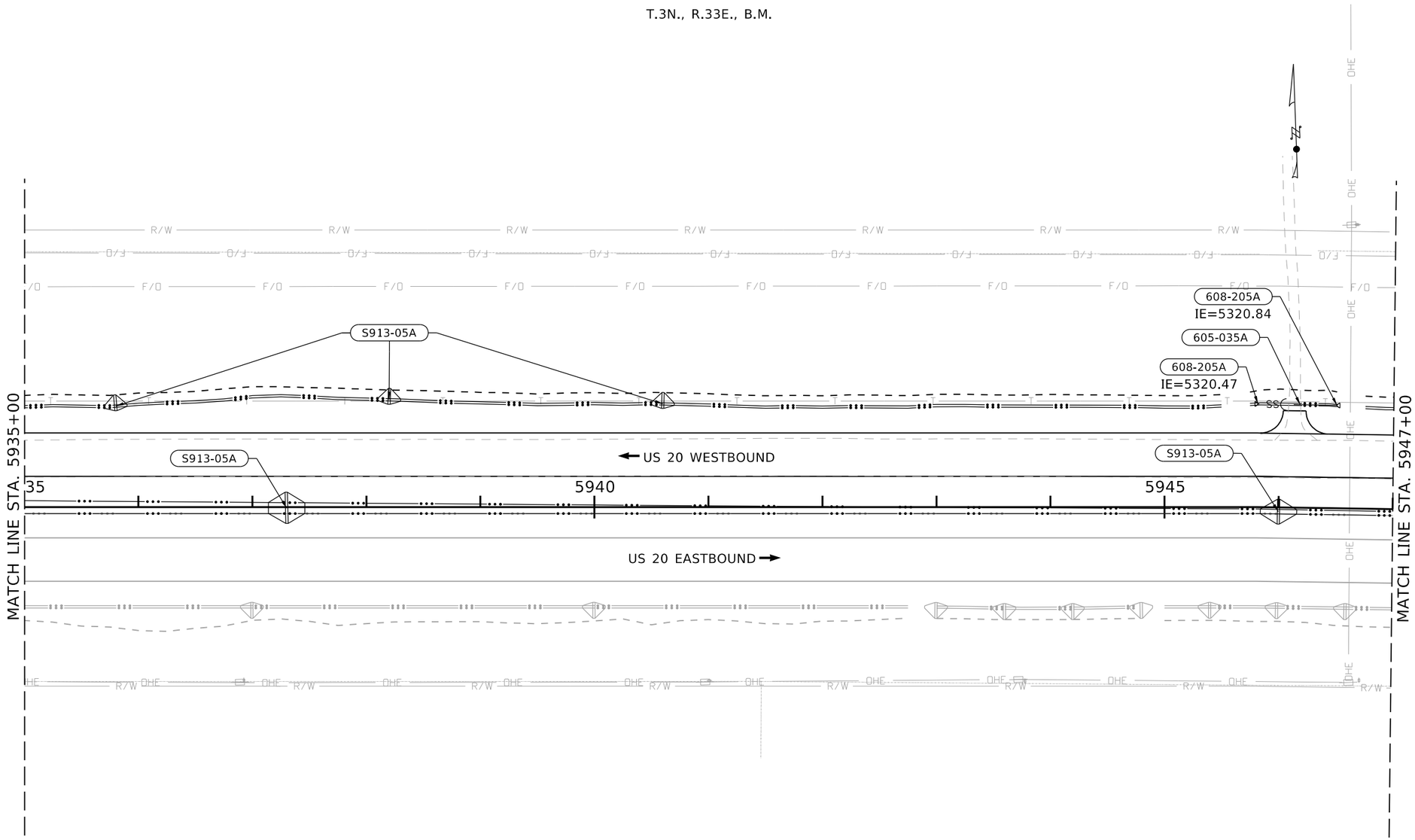
PROJECT NO. A024(149)

DRAINAGE PLAN
US 20, BONNEVILLE COUNTY
LINE TO MP 291
STA. 5923+00 TO STA. 5935+00
PHASE 2

ENGLISH
COUNTY BINGHAM/BONNEVILLE
KEY NUMBER 24149
SHEET 242 OF 441

November 21, 2025 4:49:32 PM
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T.3N., R.33E., B.M.




| | |
|---|---|
| **605-035A** | **18" STORM SEWER PIPE** |
| 70 FT | STA. 5945+80.91, 89.48' LT TO STA. 5946+50.00, 90.18' LT |
| **608-205A** | **METAL SAFETY APRON (PARALLEL) (18")** |
| 1 EACH | STA. 5945+80.91, 89.48' LT |
| 1 EACH | STA. 5946+50.00, 90.18' LT |
| **S913-05A** | **SP DITCH BERM** |
| 4.9 CY | STA. 5935+80, 88.53' LT |
| 15.1 CY | STA. 5937+30, 0.86' RT |
| 4.9 CY | STA. 5938+20, 94.16' LT |
| 4.9 CY | STA. 5940+60, 90.53' LT |
| 9.7 CY | STA. 5946+00, 3.69' RT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.
2. IN PHASE 2, REMOVE EXISTING CULVERT, MODIFY INLET OR JUNCTION BOX OPENING TO CONNECT PROPOSED CULVERT AND CONSTRUCT UNDER PHASE 2 ROADWAY.
3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
50 0 50 100

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DESIGNED D. ABEDI
DESIGN CHECKED C. MCALISTER
DETAILED P. CONSALVO
DRAWING CHECKED C. MCALISTER

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DRAWING DATE: November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT
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DAVID EVANS AND ASSOCIATES INC.

PROJECT NO. A024(149)

DRAINAGE PLAN
US 20, BONNEVILLE COUNTY LINE TO MP 291
STA. 5935+00 TO STA. 5947+00
PHASE 2

ENGLISH

COUNTY BINGHAM/BONNEVILLE

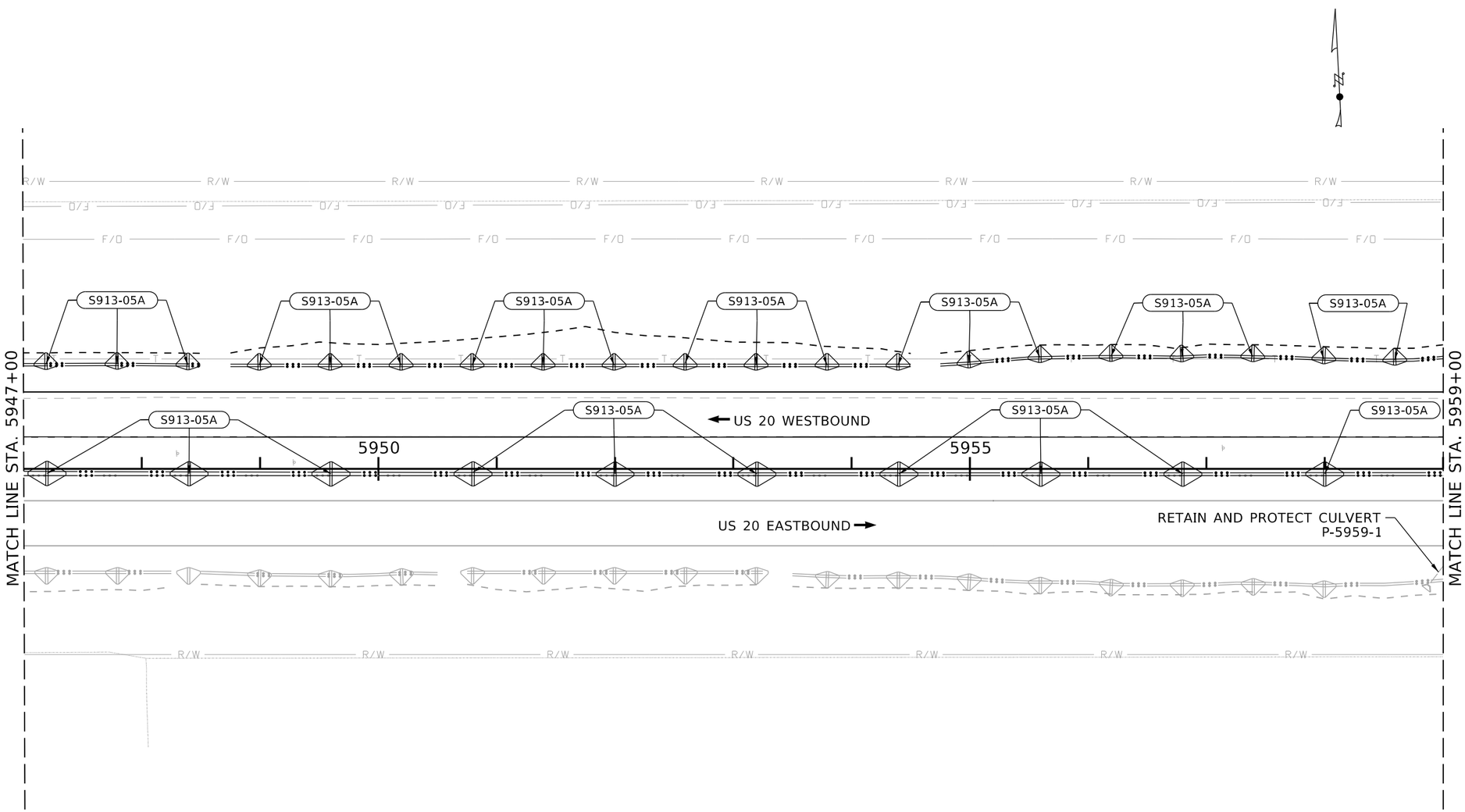
KEY NUMBER 24149

SHEET 243 OF 441

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FOR CONSTRUCTION

November 21, 2025 4:49:35 PM
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T.3N., R.33E., B.M.




| S913-05A | SP DITCH BERM |
|---|---|
| 9.3 CY | STA. 5947+20, 3.93' RT |
| 4.9 CY | STA. 5947+20, 88.08' LT |
| 4.9 CY | STA. 5947+80, 88.26' LT |
| 8.9 CY | STA. 5948+40, 4.12' RT |
| 4.9 CY | STA. 5948+40, 87.80' LT |
| 4.9 CY | STA. 5949+00, 87.45' LT |
| 8.6 CY | STA. 5949+60, 4.28' RT |
| 4.9 CY | STA. 5949+60, 87.45' LT |
| 4.9 CY | STA. 5950+20, 87.45' LT |
| 8.4 CY | STA. 5950+80, 4.21' RT |
| 4.9 CY | STA. 5950+80, 87.45' LT |
| 4.9 CY | STA. 5951+40, 87.45' LT |
| 8.3 CY | STA. 5952+00, 4.46' RT |
| 4.9 CY | STA. 5952+00, 87.45 LT |
| 4.9 CY | STA. 5952+60, 87.45' LT |
| 8.2 CY | STA. 5953+20, 4.50' RT |
| 4.9 CY | STA. 5953+20, 87.45' LT |
| 4.9 CY | STA. 5953+80, 87.45' LT |
| 8.2 CY | STA. 5954+40, 4.48' RT |
| 4.9 CY | STA. 5954+40, 87.45' LT |
| 4.9 CY | STA. 5955+00, 89.31' LT |
| 8.2 CY | STA. 5955+60, 4.49' RT |
| 4.9 CY | STA. 5955+60, 93.86' LT |
| 4.9 CY | STA. 5956+20, 94.86' LT |
| 8.2 CY | STA. 5956+80, 4.49' RT |
| 4.9 CY | STA. 5956+80, 94.48' LT |
| 4.9 CY | STA. 5957+40, 94.64' LT |
| 8.3 CY | STA. 5958+00, 4.45' RT |
| 4.9 CY | STA. 5958+00, 94.57' LT |
| 4.9 CY | STA. 5958+60, 91.70' LT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.

Scale (Feet)
50 0 50 100

| REVISIONS | | | |
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DESIGNED D. ABEDI
DESIGN CHECKED C. MCALISTER
DETAILED P. CONSALVO
DRAWING CHECKED C. MCALISTER

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 24149_DrpI_D202A.DGN
DRAWING DATE: November 21, 2025

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DAVID EVANS AND ASSOCIATES INC.

PROJECT NO.
A024(149)

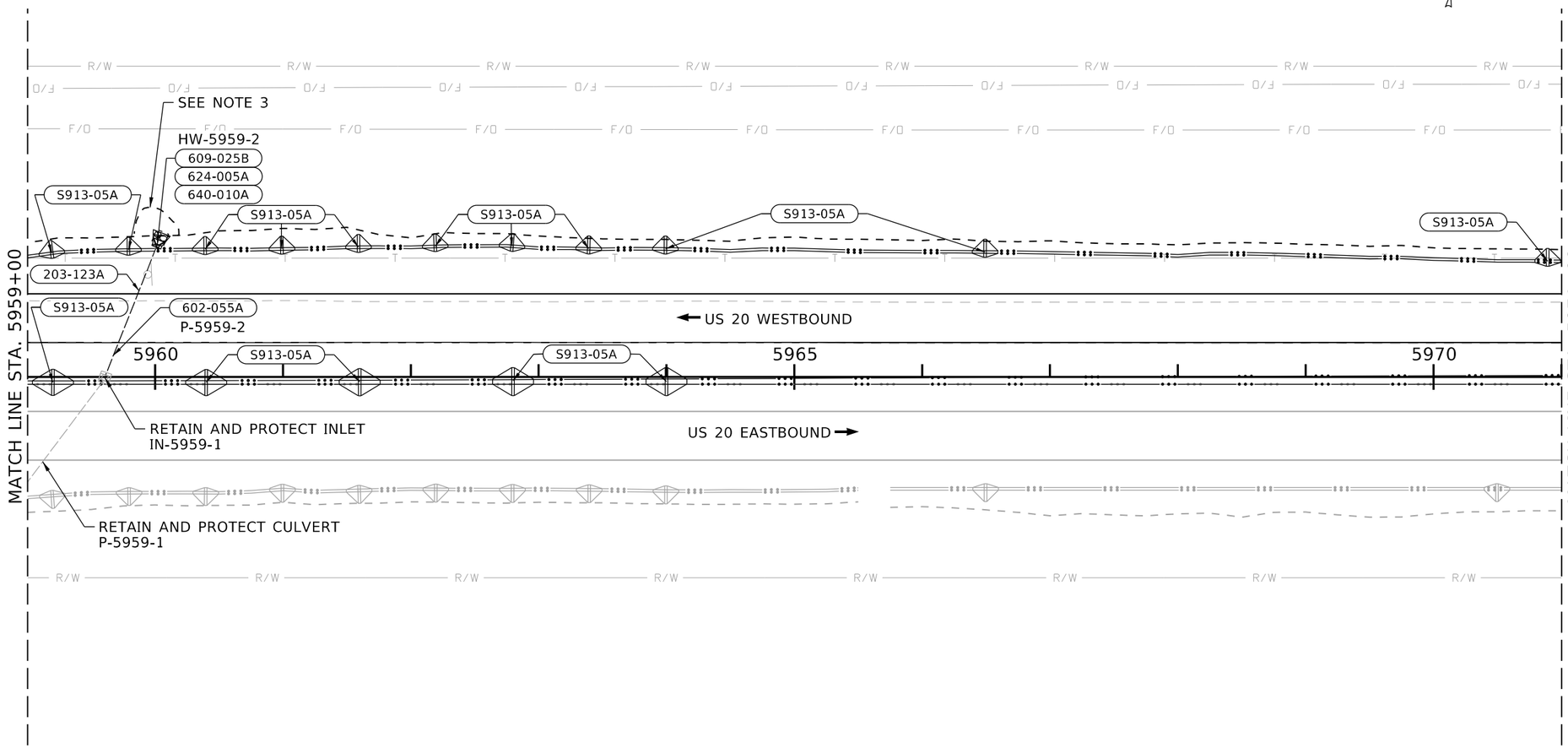
DRAINAGE PLAN
US 20, BONNEVILLE COUNTY
LINE TO MP 291
STA. 5947+00 TO STA. 5959+00
PHASE 2

ENGLISH
COUNTY BINGHAM/BONNEVILLE
KEY NUMBER 24149
SHEET 244 OF 441

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November 21, 2025 4:49:39 PM
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T.3N., R.33E., B.M.




| | |
|---|---|
| **203-123A** | **REMOVAL OF MISCELLANEOUS ITEMS (PIPE)** |
| 87 FT | STA. 5959+61.11, 0.94' LT TO STA. 5959+93.03, 81.06' LT |
| **602-055A** | **30" PIPE CULVERT** |
| 110 FT | STA. 5959+61.93, 1.40' LT TO STA. 5960+00.68, 95.85' LT |
| **609-025B** | **MINOR STRUCTURES (30" CONCRETE HEADWALL)** |
| 1 EACH | STA. 5960+01.65, 103.28' LT |
| **624-005A** | **LOOSE RIPRAP (CLASS I)** |
| 7.3 CY | STA. 5960+01.65, 103.28' LT |
| **640-010A** | **RIPRAP/EROSION CONTROL GEOTEXTILE** |
| 19 SY | STA. 5960+01.65, 103.28' LT |
| **S913-05A** | **SP DITCH BERM** |
| 8.4 CY | STA. 5959+20, 4.10' RT |
| 4.9 CY | STA. 5959+20, 96.75' LT |
| 4.9 CY | STA. 5959+80, 99.20' LT |
| 8.7 CY | STA. 5960+40, 4.37' RT |
| 4.9 CY | STA. 5960+40, 99.72' LT |
| 4.9 CY | STA. 5961+00, 100.05' LT |
| 9.0 CY | STA. 5961+60, 3.74' RT |
| 4.9 CY | STA. 5961+60, 101.40' LT |
| 4.9 CY | STA. 5962+20, 102.06' LT |
| 11.3 CY | STA. 5962+80, 2.95' RT |
| 4.9 CY | STA. 5962+80, 102.20' LT |
| 4.9 CY | STA. 5963+40, 100.22' LT |
| 9.8 CY | STA. 5964+00, 3.61' RT |
| 4.9 CY | STA. 5964+00, 100.11' LT |
| 4.9 CY | STA. 5966+50, 97.67' LT |
| 4.9 CY | STA. 5970+89, 90.49' LT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.
2. IN PHASE 2, REMOVE EXISTING CULVERT, MODIFY INLET OR JUNCTION BOX OPENING TO CONNECT PROPOSED CULVERT AND CONSTRUCT UNDER PHASE 2 ROADWAY.
3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
50 0 50 100

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| DESIGNED D. ABEDI | SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY |
| DESIGN CHECKED C. MCALISTER | |
| DETAILED P. CONSALVO | CADD FILE NAME 24149_DrpI_D202A.DGN |
| DRAWING CHECKED C. MCALISTER | DRAWING DATE: November 21, 2025 |

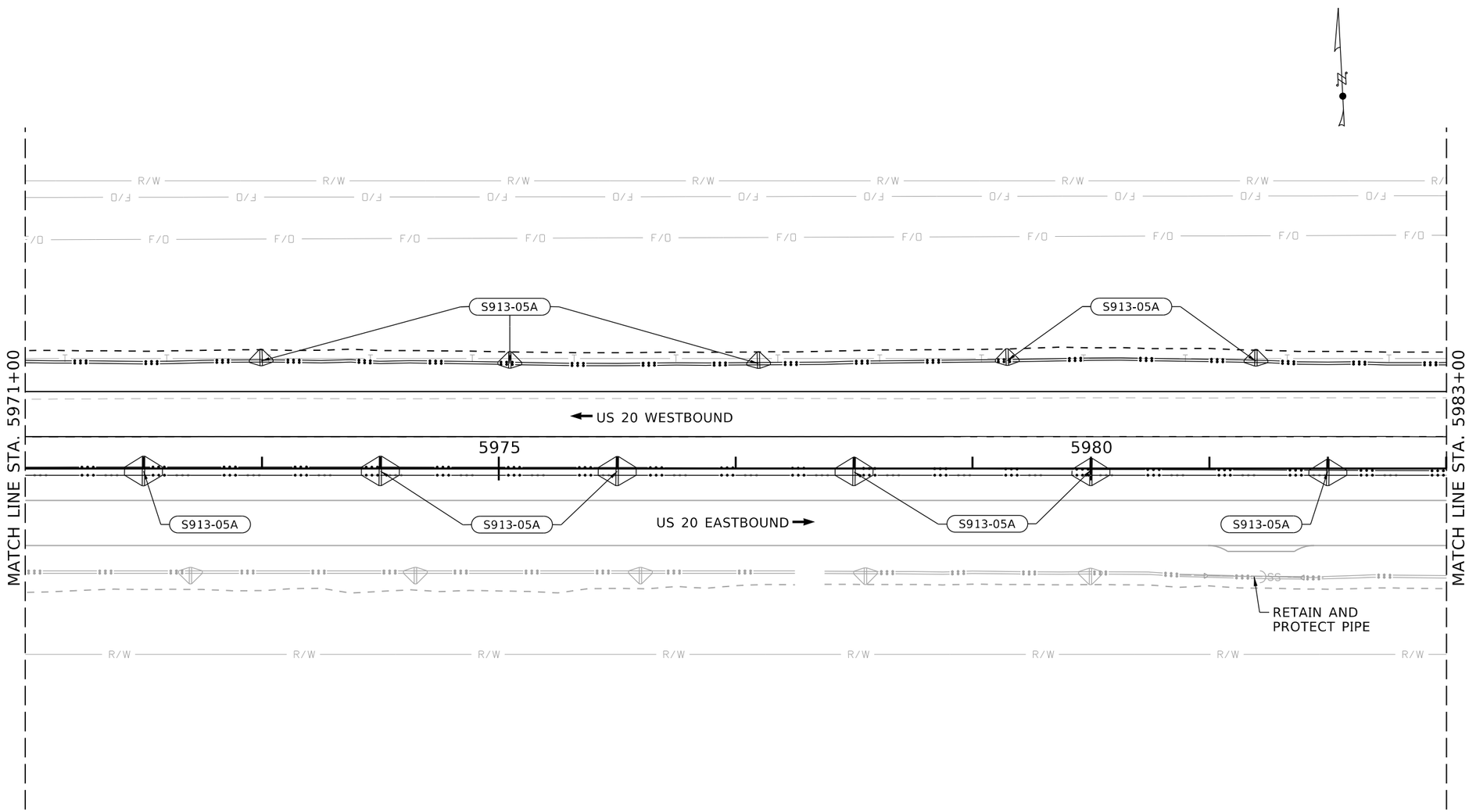
IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
DAVID EVANS AND ASSOCIATES INC.

| PROJECT NO. | DRAINAGE PLAN | ENGLISH |
|---|---|---|
| A024(149) | US 20, BONNEVILLE COUNTY LINE TO MP 291 STA. 5959+00 TO STA. 5971+00 PHASE 2 | COUNTY BINGHAM/BONNEVILLE<br>KEY NUMBER 24149<br>SHEET 245 OF 441 |

NOT APPROVED FOR INTERMEDIATE CONSTRUCTION

November 21, 2025 4:49:44 PM
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T.3N., R.33E., B.M.




| S913-05A | SP DITCH BERM |
|---|---|
| 12.5 CY | STA. 5972+00, 2.22' RT |
| 4.9 CY | STA. 5973+00, 90.86' LT |
| 12.5 CY | STA. 5974+00, 2.23' RT |
| 4.9 CY | STA. 5975+10, 88.78' LT |
| 12.1 CY | STA. 5976+00, 2.43' RT |
| 4.9 CY | STA. 5977+20, 88.58' LT |
| 11.5 CY | STA. 5978+00, 2.84' RT |
| 4.9 CY | STA. 5979+30, 91.10' LT |
| 10.7 CY | STA. 5980+00, 2.99' RT |
| 4.9 CY | STA. 5981+40, 90.54' LT |
| 9.9 CY | STA. 5982+00, 2.09' RT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.

Scale (Feet)
50 0 50 100

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DESIGNED D. ABEDI
DESIGN CHECKED C. MCALISTER
DETAILED P. CONSALVO
DRAWING CHECKED C. MCALISTER

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 24149_DrpI_D202A.DGN
DRAWING DATE: November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT
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PROJECT NO. A024(149)

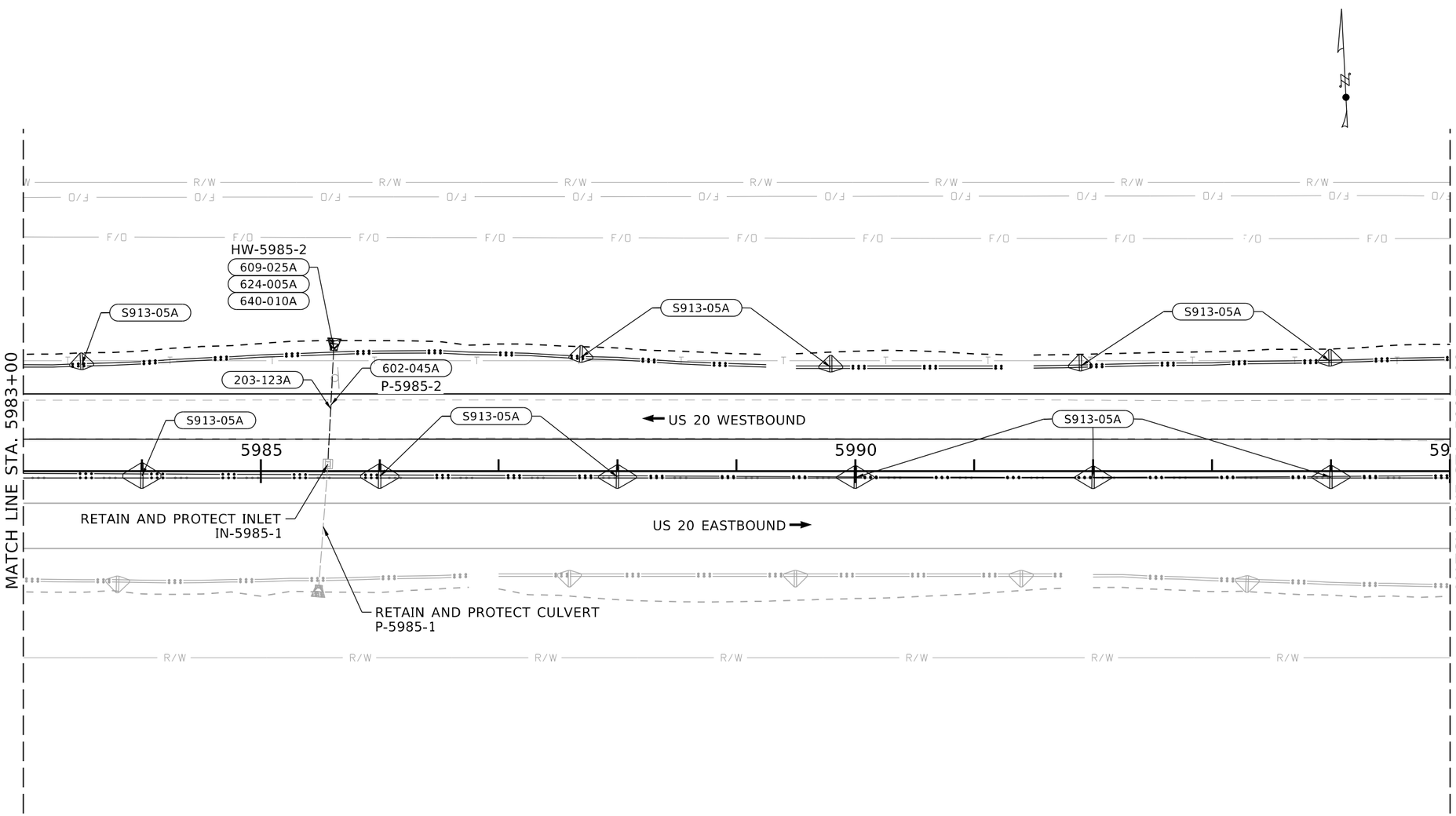
DRAINAGE PLAN
US 20, BONNEVILLE COUNTY
LINE TO MP 291
STA. 5971+00 TO STA. 5983+00
PHASE 2

ENGLISH
COUNTY BINGHAM/BONNEVILLE
KEY NUMBER 24149
SHEET 246 OF 441

NOT APPROVED
INTERMEDIATE
FOR CONSTRUCTION

November 21, 2025 4:49:48 PM
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T.3N., R.33E., B.M.




| | |
|---|---|
| **203-123A** | **REMOVAL OF MISCELLANEOUS ITEMS (PIPE)** |
| 72 FT | STA. 5985+56.41, 7.65' LT TO STA. 5985+60.51, 79.43' LT |
| **602-045A** | **24" PIPE CULVERT** |
| 97 FT | STA. 5985+56.33, 7.89' LT TO STA. 5985+63.40, 96.13' LT |
| **609-025A** | **MINOR STRUCTURES (24" CONCRETE HEADWALL)** |
| 1 EACH | STA. 5985+63.40, 96.13' LT |
| **624-005A** | **LOOSE RIPRAP (CLASS I)** |
| 4.7 CY | STA. 5985+63.40, 96.13' LT |
| **640-010A** | **RIPRAP/EROSION CONTROL GEOTEXTILE** |
| 14 SY | STA. 5985+63.40, 96.13' LT |
| **S913-05A** | **SP DITCH BERM** |
| 4.9 CY | STA. 5983+50, 89.43' LT |
| 9.1 CY | STA. 5984+00, 4.41' RT |
| 4.9 CY | STA. 5985+60, 100.85' LT |
| 8.4 CY | STA. 5986+00, 4.42' RT |
| 4.9 CY | STA. 5987+70, 95.65' LT |
| 7.6 CY | STA. 5988+00, 4.82' RT |
| 4.9 CY | STA. 5989+80, 87.45' LT |
| 6.8 CY | STA. 5990+00, 5.24' RT |
| 4.9 CY | STA. 5991+90, 88.35' LT |
| 6.5 CY | STA. 5992+00, 5.40' RT |
| 7.1 CY | STA. 5994+00, 5.06' RT |
| 4.9 CY | STA. 5994+00, 92.41' LT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.
2. IN PHASE 2, REMOVE EXISTING CULVERT, MODIFY INLET OR JUNCTION BOX OPENING TO CONNECT PROPOSED CULVERT AND CONSTRUCT UNDER PHASE 2 ROADWAY.
3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
50 0 50 100

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DESIGNED D. ABEDI
DESIGN CHECKED C. MCALISTER
DETAILED P. CONSALVO
DRAWING CHECKED C. MCALISTER

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 24149_DrpI_D202A.DGN
DRAWING DATE: November 21, 2025

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PROJECT NO. A024(149)

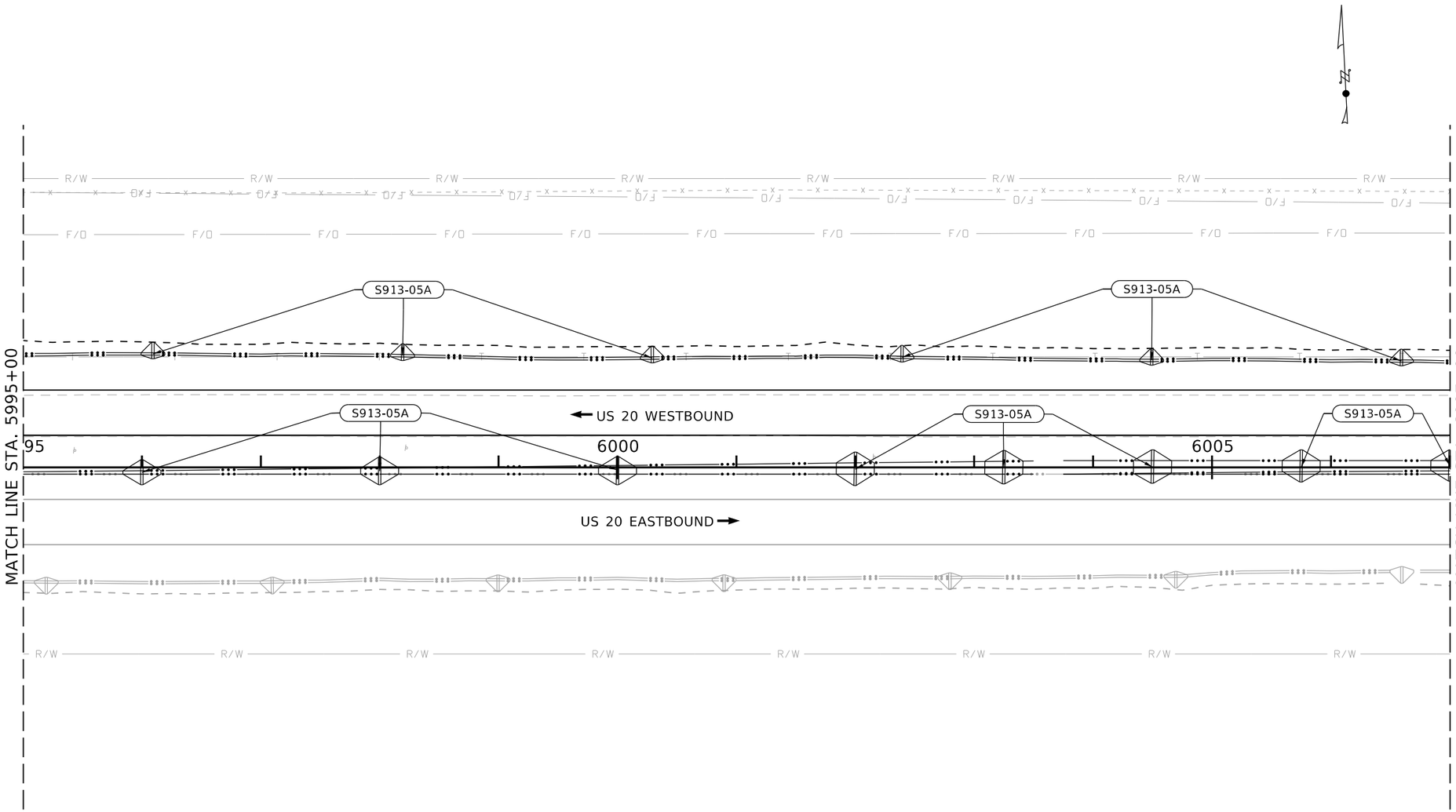
DRAINAGE PLAN
US 20, BONNEVILLE COUNTY
LINE TO MP 291
STA. 5983+00 TO STA. 5995+00
PHASE 2

ENGLISH
COUNTY BINGHAM/BONNEVILLE
KEY NUMBER 24149
SHEET 247 OF 441

NOT APPROVED
INTERMEDIATE
FOR CONSTRUCTION

November 21, 2025 4:49:52 PM
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T.3N., R.34E., B.M.




| S913-05A | SP DITCH BERM |
|---|---|
| 8.7 CY | STA. 5996+00, 4.22' RT |
| 4.9 CY | STA. 5996+10, 95.45' LT |
| 10.8 CY | STA. 5998+00, 3.04' RT |
| 4.9 CY | STA. 5998+20, 93.93' LT |
| 12.9 CY | STA. 6000+00, 2.06' RT |
| 4.9 CY | STA. 6000+30, 92.01' LT |
| 14.9 CY | STA. 6002+00, 1.62' RT |
| 4.9 CY | STA. 6002+40, 92.61' LT |
| 16.2 CY | STA. 6003+25, 0.00' RT |
| 15.9 CY | STA. 6004+50, 0.00' RT |
| 4.9 CY | STA. 6004+50, 89.99' LT |
| 14.8 CY | STA. 6005+75, 0.00' RT |
| 4.9 CY | STA. 6006+60, 89.42' LT |
| 14.1 CY | STA. 6007+00, 1.38' RT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.

Scale (Feet)
50 0 50 100

NOT APPROVED
INTERMEDIATE
FOR CONSTRUCTION

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DESIGNED D. ABEDI
DESIGN CHECKED C. MCALISTER
DETAILED P. CONSALVO
DRAWING CHECKED C. MCALISTER

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DRAWING DATE: November 21, 2025

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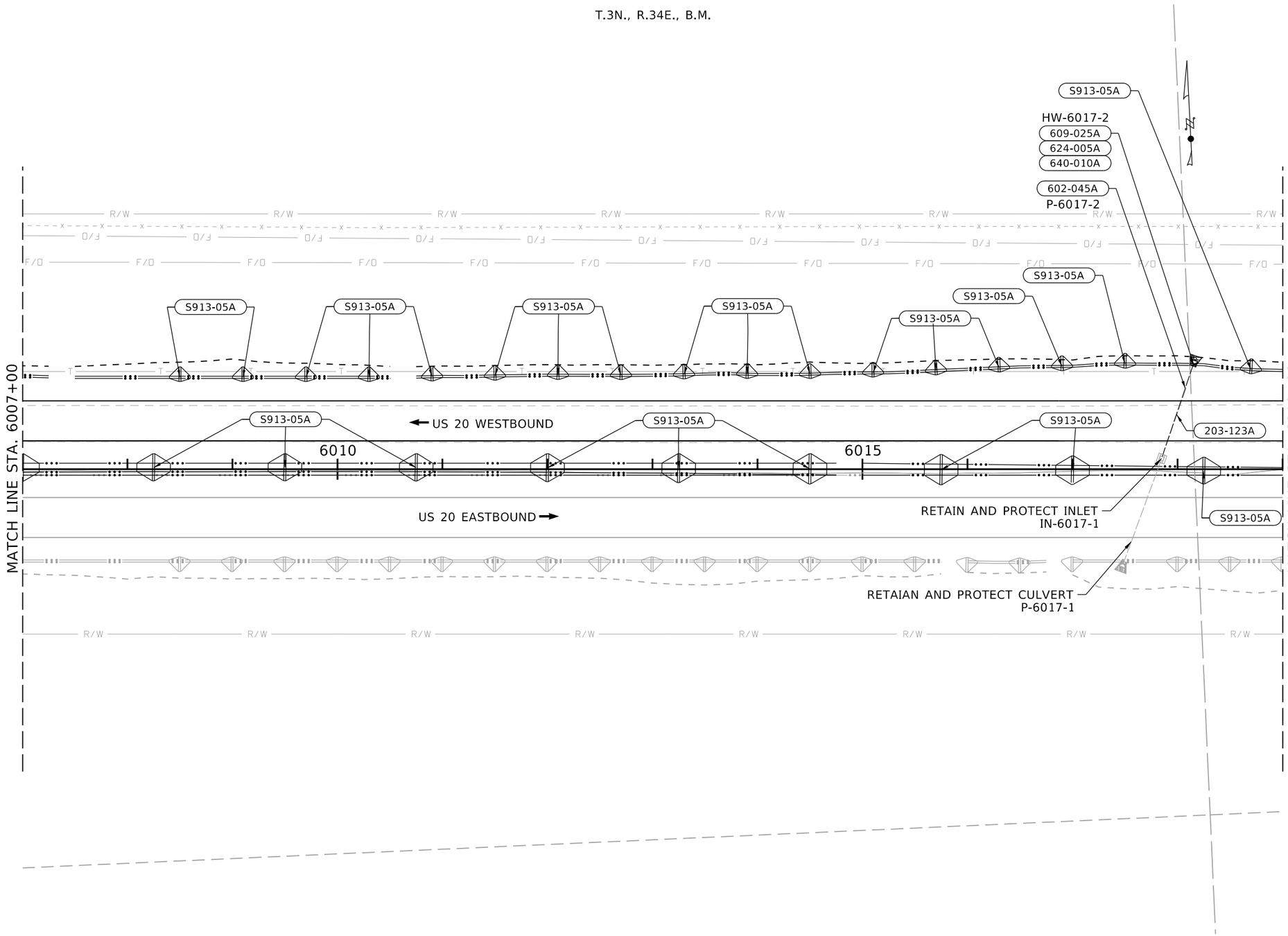
PROJECT NO.
A024(149)

DRAINAGE PLAN
US 20, BONNEVILLE COUNTY
LINE TO MP 291
STA. 5995+00 TO STA. 6007+00
PHASE 2

ENGLISH
COUNTY BINGHAM/BONNEVILLE
KEY NUMBER 24149
SHEET 248 OF 441

November 21, 2025 4:49:57 PM
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T.3N., R.34E., B.M.




**203-123A** REMOVAL OF MISCELLANEOUS ITEMS (PIPE)
70 FT — STA. 6017+85.23, 11.53' LT TO STA. 6018+08.50, 77.64' LT

**602-045A** 24" PIPE CULVERT
94 FT — STA. 6017+85.17, 11.53' LT TO STA. 6018+15.15, 100.16' LT

**609-025A** MINOR STRUCTURES (24" CONCRETE HEADWALL)
1 EACH — STA. 6018+15.15, 100.16' LT

**624-005A** LOOSE RIPRAP (CLASS I)
4.7 CY — STA. 6018+15.15, 100.16' LT

**640-010A** RIPRAP/EROSION CONTROL GEOTEXTILE
14 SY — STA. 6018+15.15, 100.16' LT

**S913-05A** SP DITCH BERM

| | |
|---|---|
| 13.5 CY | STA. 6008+25, 1.51' RT |
| 4.9 CY | STA. 6008+50, 87.45' LT |
| 4.9 CY | STA. 6009+10, 87.45' LT |
| 14.7 CY | STA. 6009+50, 1.67' RT |
| 4.9 CY | STA. 6009+70, 87.45' LT |
| 4.9 CY | STA. 6010+30, 87.45' LT |
| 16.0 CY | STA. 6010+75, 1.56' RT |
| 4.9 CY | STA. 6010+90, 88.07' LT |
| 4.9 CY | STA. 6011+50, 88.80' LT |
| 16.2 CY | STA. 6012+00, 1.25' RT |
| 4.9 CY | STA. 6012+10, 89.42' LT |
| 4.9 CY | STA. 6012+70, 89.28' LT |
| 15.1 CY | STA. 6013+25, 0.86' RT |
| 4.9 CY | STA. 6013+30, 90.02' LT |
| 4.9 CY | STA. 6013+90, 90.46' LT |
| 14.2 CY | STA. 6014+50, 0.26' RT |
| 4.9 CY | STA. 6014+50, 90.43' LT |
| 4.9 CY | STA. 6015+10, 91.75' LT |
| 13.7 CY | STA. 6015+75, 0.39' RT |
| 4.9 CY | STA. 6015+70, 93.87' LT |
| 4.9 CY | STA. 6016+30, 96.54' LT |
| 4.9 CY | STA. 6016+90, 97.86' LT |
| 4.9 CY | STA. 6017+50, 100.21' LT |
| 13.5 CY | STA. 6017+00, 0.98' RT |
| 13.7 CY | STA. 6018+25, 1.68' RT |
| 4.9 CY | STA. 6018+70, 94.97' LT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.
2. IN PHASE 2, REMOVE EXISTING CULVERT, MODIFY INLET OR JUNCTION BOX OPENING TO CONNECT PROPOSED CULVERT AND CONSTRUCT UNDER PHASE 2 ROADWAY.
3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
50 0 50 100

NOT APPROVED FOR CONSTRUCTION
INTERMEDIATE

| REVISIONS | | | |
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DESIGNED D. ABEDI
DESIGN CHECKED C. MCALISTER
DETAILED P. CONSALVO
DRAWING CHECKED C. MCALISTER

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 24149_DrpI_D202A.DGN
DRAWING DATE: November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
DAVID EVANS AND ASSOCIATES INC.

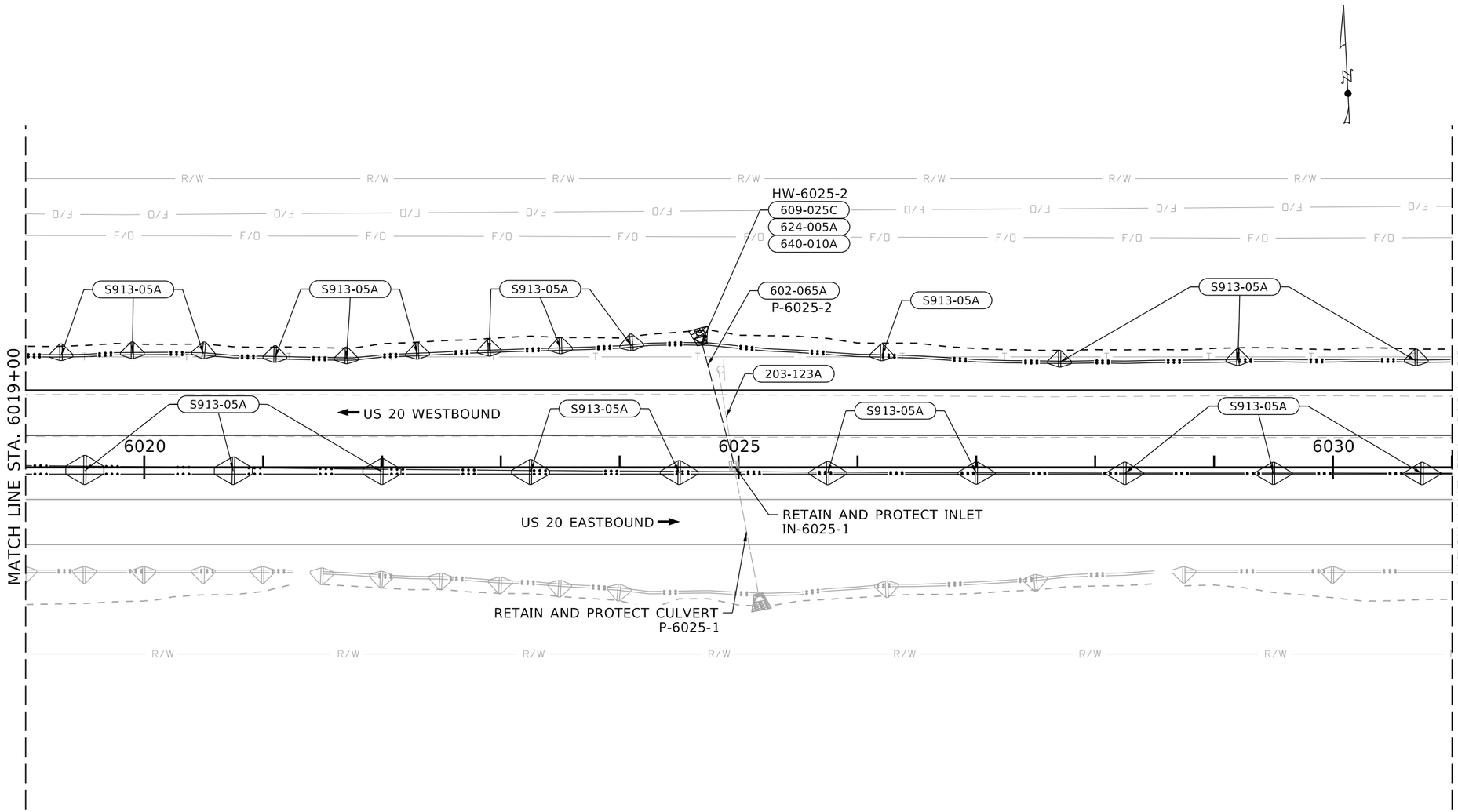
PROJECT NO. A024(149)

DRAINAGE PLAN
US 20, BONNEVILLE COUNTY
LINE TO MP 291
STA. 6007+00 TO STA. 6019+00
PHASE 2

ENGLISH
COUNTY BINGHAM/BONNEVILLE
KEY NUMBER 24149
SHEET 249 OF 441

November 21, 2025 4:50:02 PM
pw://itd-pw.bentley.com:itd-pw-01/Documents/District 6/Projects/prj24394/Project_Development/Plan Sheets/Package 2 (KN 24149)/Drainage/24149_DrpI_D202A

T.3N., R.34E., B.M.




| | |
|---|---|
| **203-123A** | **REMOVAL OF MISCELLANEOUS ITEMS** |
| 81 FT | STA. 6024+82.94, 82.09' LT TO STA. 6024+96.13, 2.27' LT |
| **602-065A** | **36" PIPE CULVERT** |
| 107 FT | STA. 6024+70.33, 103.61' LT TO STA. 6024+95.74, 2.98' LT |
| **609-025C** | **MINOR STRUCTURES (36" CONCRETE HEADWALL)** |
| 1 EACH | STA. 6024+70.14, 103.58' LT |
| **624-005A** | **LOOSE RIPRAP (CLASS I)** |
| 10.4 CY | STA. 6024+70.14, 103.58' LT |
| **640-010A** | **RIPRAP/EROSION CONTROL GEOTEXTILE** |
| 25 SY | STA. 6024+70.14, 103.58' LT |
| **S913-05A** | **SP DITCH BERM** |
| 4.9 CY | STA. 6019+30, 93.88' LT |
| 12.3 CY | STA. 6019+50, 2.71' RT |
| 4.9 CY | STA. 6019+90, 95.62' LT |
| 4.9 CY | STA. 6020+50, 95.49' LT |
| 11.0 CY | STA. 6020+75, 3.00' RT |
| 4.9 CY | STA. 6021+10, 92.37' LT |
| 4.9 CY | STA. 6021+70, 91.19' LT |
| 9.9 CY | STA. 6022+00, 3.56' RT |
| 4.9 CY | STA. 6022+30, 95.05' LT |
| 4.9 CY | STA. 6022+90, 97.68' LT |
| 8.9 CY | STA. 6023+25, 4.12' RT |
| 4.9 CY | STA. 6023+50, 99.58' LT |
| 4.9 CY | STA. 6024+10, 102.20' LT |
| 8.1 CY | STA. 6024+50, 4.53' RT |
| 7.5 CY | STA. 6025+75, 4.85' RT |
| 4.9 CY | STA. 6026+20, 93.75 LT |
| 6.9 CY | STA. 6027+00, 4.87' RT |
| 4.9 CY | STA. 6027+70, 88.42' LT |
| 6.8 CY | STA. 6028+25, 5.10' RT |
| 4.9 CY | STA. 6029+20, 89.78' LT |
| 6.7 CY | STA. 6029+50, 5.15' RT |
| 4.9 CY | STA. 6030+70, 89.52' LT |
| 6.7 CY | STA. 6030+75, 5.20' RT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.
2. IN PHASE 2, REMOVE EXISTING CULVERT, MODIFY INLET OR JUNCTION BOX OPENING TO CONNECT PROPOSED CULVERT AND CONSTRUCT UNDER PHASE 2 ROADWAY.
3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
50 0 50 100

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DESIGNED D. ABEDI
DESIGN CHECKED C. MCALISTER
DETAILED P. CONSALVO
DRAWING CHECKED C. MCALISTER

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 24149_DrpI_D202A.DGN
DRAWING DATE: November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT
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DAVID EVANS AND ASSOCIATES INC.

PROJECT NO. A024(149)

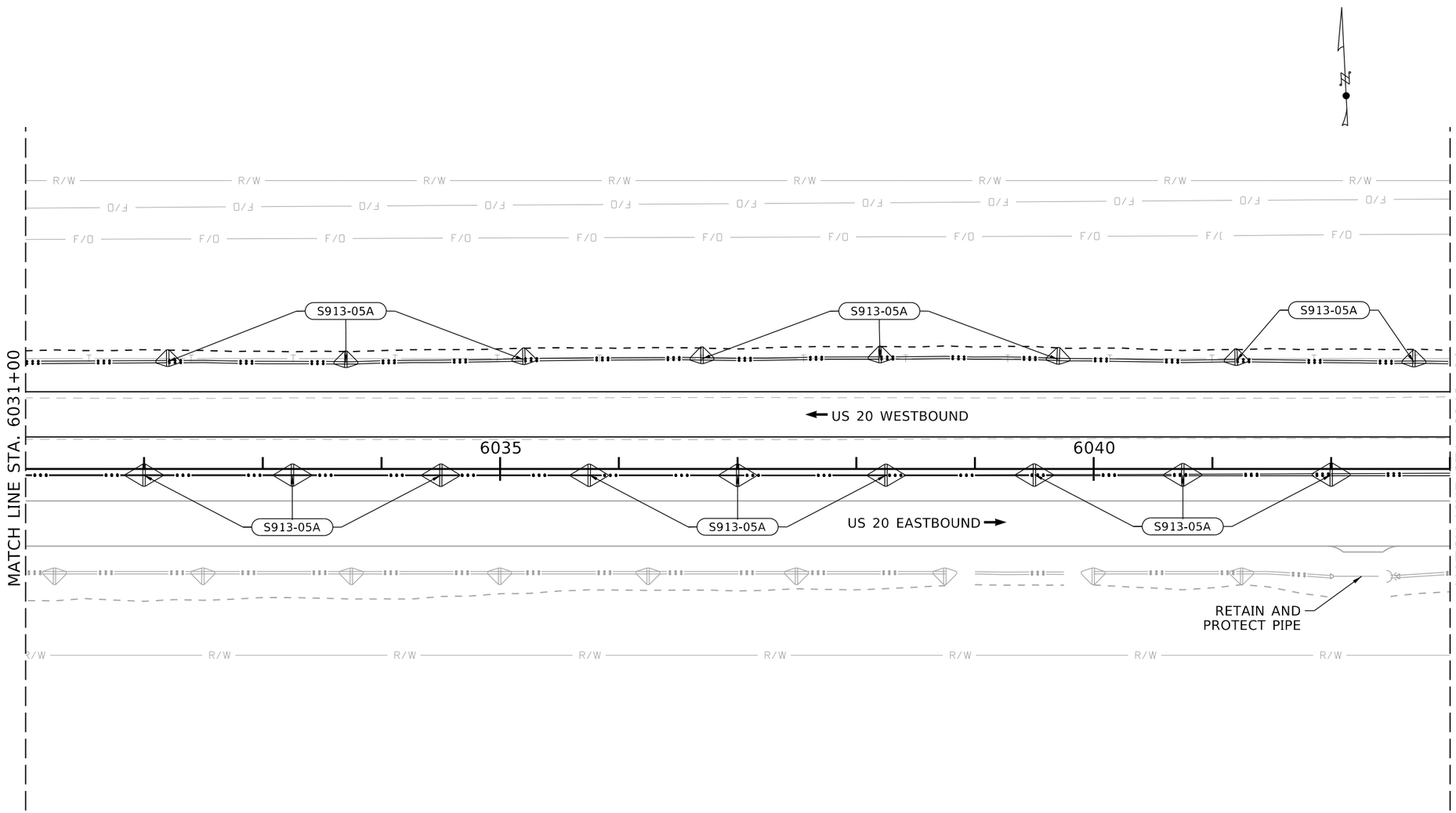
DRAINAGE PLAN
US 20, BONNEVILLE COUNTY
LINE TO MP 291
STA. 6019+00 TO STA. 6031+00
PHASE 2

*ENGLISH*
COUNTY BINGHAM/BONNEVILLE
KEY NUMBER 24149
SHEET 250 OF 441

NOT APPROVED
INTERMEDIATE
FOR CONSTRUCTION

November 21, 2025 4:50:04 PM
pw://itd-pw.bentley.com:itd-pw-01/Documents/District 6/Projects/prj24394/Project_Development/Plan Sheets/Package 2 (KN 24149)/Drainage/24149_DrpI_D202A

T.3N., R.34E., B.M.




| S913-05A | SP DITCH BERM |
|---|---|
| 6.7 CY | STA. 6032+00, 5.25' RT |
| 4.9 CY | STA. 6032+20, 90.43' LT |
| 6.7 CY | STA. 6033+25, 5.30' RT |
| 4.9 CY | STA. 6033+70, 89.42' LT |
| 6.7 CY | STA. 6034+50, 5.36' RT |
| 4.9 CY | STA. 6035+20, 91.95' LT |
| 6.7 CY | STA. 6035+75, 5.41' RT |
| 4.9 CY | STA. 6036+70, 92.77' LT |
| 6.7 CY | STA. 6037+00, 5.46' RT |
| 4.9 CY | STA. 6038+20, 93.45' LT |
| 6.6 CY | STA. 6038+25, 5.32' RT |
| 6.8 CY | STA. 6039+50, 5.24' RT |
| 4.9 CY | STA. 6039+70, 92.33' LT |
| 7.1 CY | STA. 6040+75, 5.16' RT |
| 4.9 CY | STA. 6041+20, 91.27' LT |
| 7.6 CY | STA. 6042+00, 4.83' RT |
| 4.9 CY | STA. 6042+70, 90.05' LT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.

Scale (Feet)
50 0 50 100

| REVISIONS | | | |
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DESIGNED D. ABEDI
DESIGN CHECKED C. MCALISTER
DETAILED P. CONSALVO
DRAWING CHECKED C. MCALISTER

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 24149_DrpI_D202B.DGN
DRAWING DATE: November 21, 2025

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PROJECT NO. A024(149)

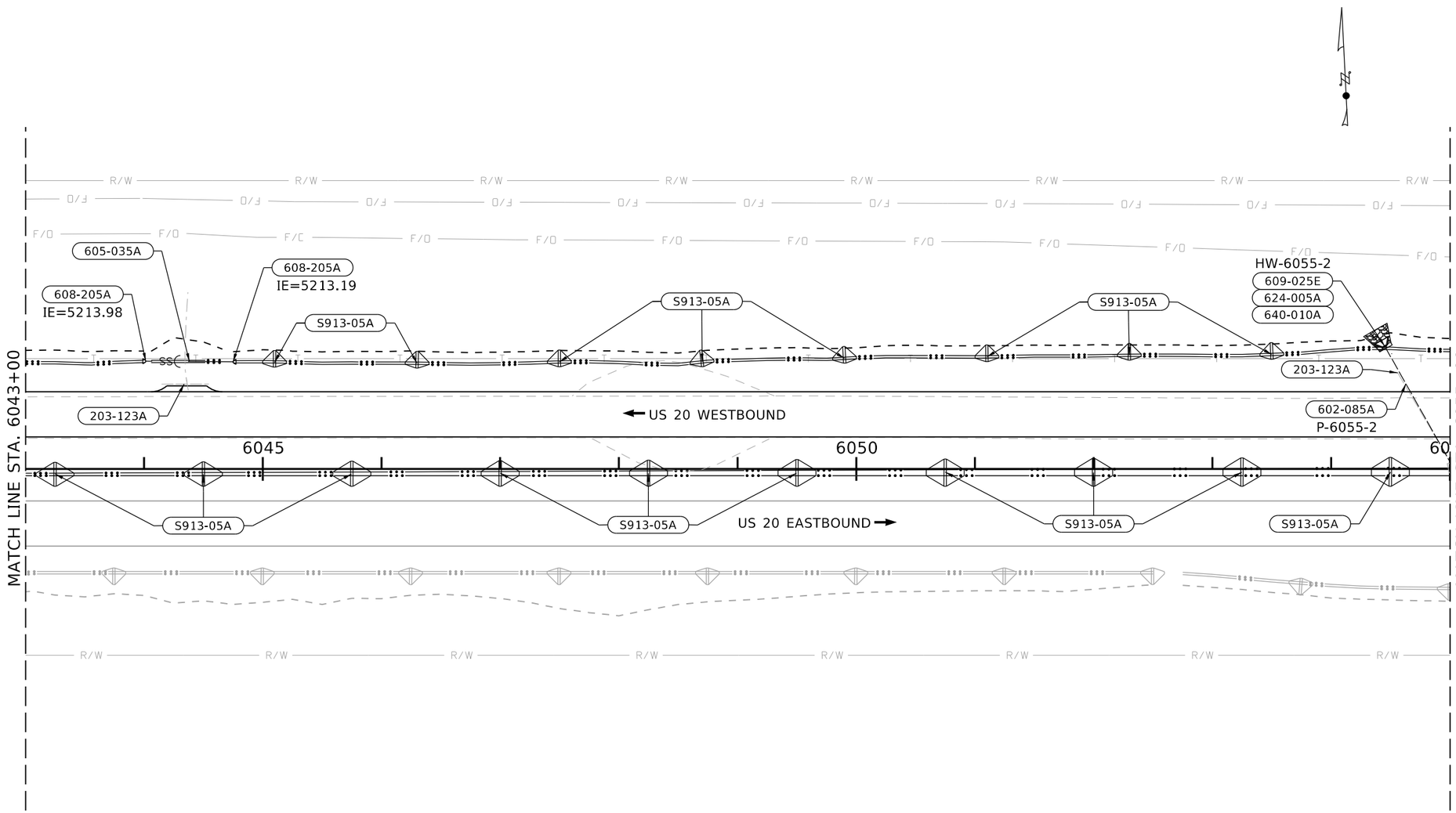
DRAINAGE PLAN
US 20, BONNEVILLE COUNTY
LINE TO MP 291
STA. 6031+00 TO STA. 6043+00
PHASE 2

ENGLISH
COUNTY BINGHAM/BONNEVILLE
KEY NUMBER 24149
SHEET 251 OF 441

NOT APPROVED
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November 21, 2025 4:50:30 PM
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T.3N., R.34E., B.M.




**203-123A REMOVAL OF MISCELLANEOUS ITEMS (PIPE)**

| | |
|---|---|
| 40 FT | STA. 6044+14.72, 71.47' LT TO STA. 6044+54.58, 71.84' LT |
| 87 FT | STA. 6054+56.11, 80.95' LT TO STA. 6055+00.00, 6.15' LT |

**602-085A 48" PIPE CULVERT**

| | |
|---|---|
| 115 FT | STA. 6054+46.29, 101.10' LT TO STA. 6055+00.00, 6.15' LT |

**605-035A 18" STORM SEWER PIPE**

| | |
|---|---|
| 74 FT | STA. 6044+01.45, 90.81' LT TO STA. 6044+75.00, 90.28' LT |

**608-205A METAL SAFETY APRON (PARALLEL) (18")**

| | |
|---|---|
| 1 EACH | STA. 6044+01.45, 90.81' LT |
| 1 EACH | STA. 6044+75.00, 90.28' LT |

**609-025E MINOR STRUCTURES (48" CONCRETE HEADWALL)**

| | |
|---|---|
| 1 EACH | STA. 6054+46.29, 101.10' LT |

**624-005A LOOSE RIPRAP (CLASS I)**

| | |
|---|---|
| 18.5 CY | STA. 6054+46.29, 101.10' LT |

**640-010A RIPRAP/EROSION CONTROL GEOTEXTILE**

| | |
|---|---|
| 40 SY | STA. 6054+46.29, 101.10' LT |

**S913-05A SP DITCH BERM**

| | |
|---|---|
| 8.0 CY | STA. 6043+25, 4.61' RT |
| 8.4 CY | STA. 6044+50, 4.37' RT |
| 4.9 CY | STA. 6045+10, 89.81' LT |
| 8.9 CY | STA. 6045+75, 4.14' RT |
| 4.9 CY | STA. 6046+30, 89.07' LT |
| 9.3 CY | STA. 6047+00, 3.89' RT |
| 4.9 CY | STA. 6047+50, 90.13' LT |
| 9.8 CY | STA. 6048+25, 3.63' RT |
| 4.9 CY | STA. 6048+70, 90.19' LT |
| 10.2 CY | STA. 6049+50, 3.42' RT |
| 4.9 CY | STA. 6049+90, 93.20' LT |
| 10.7 CY | STA. 6050+75, 3.20' RT |
| 4.9 CY | STA. 6051+10, 94.51' LT |
| 11.1 CY | STA. 6052+00, 2.95' RT |
| 4.9 CY | STA. 6052+30, 95.74' LT |
| 11.6 CY | STA. 6053+25, 2.71' RT |
| 4.9 CY | STA. 6053+50, 96.45' LT |
| 11.9 CY | STA. 6054+50, 2.50' RT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.
2. IN PHASE 2, REMOVE EXISTING CULVERT, MODIFY INLET OR JUNCTION BOX OPENING TO CONNECT PROPOSED CULVERT AND CONSTRUCT UNDER PHASE 2 ROADWAY.
3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
50 0 50 100

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DESIGNED D. ABEDI
DESIGN CHECKED C. MCALISTER
DETAILED P. CONSALVO
DRAWING CHECKED C. MCALISTER

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 24149_DrpI_D202B.DGN
DRAWING DATE: November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
DAVID EVANS AND ASSOCIATES INC.

PROJECT NO. A024(149)

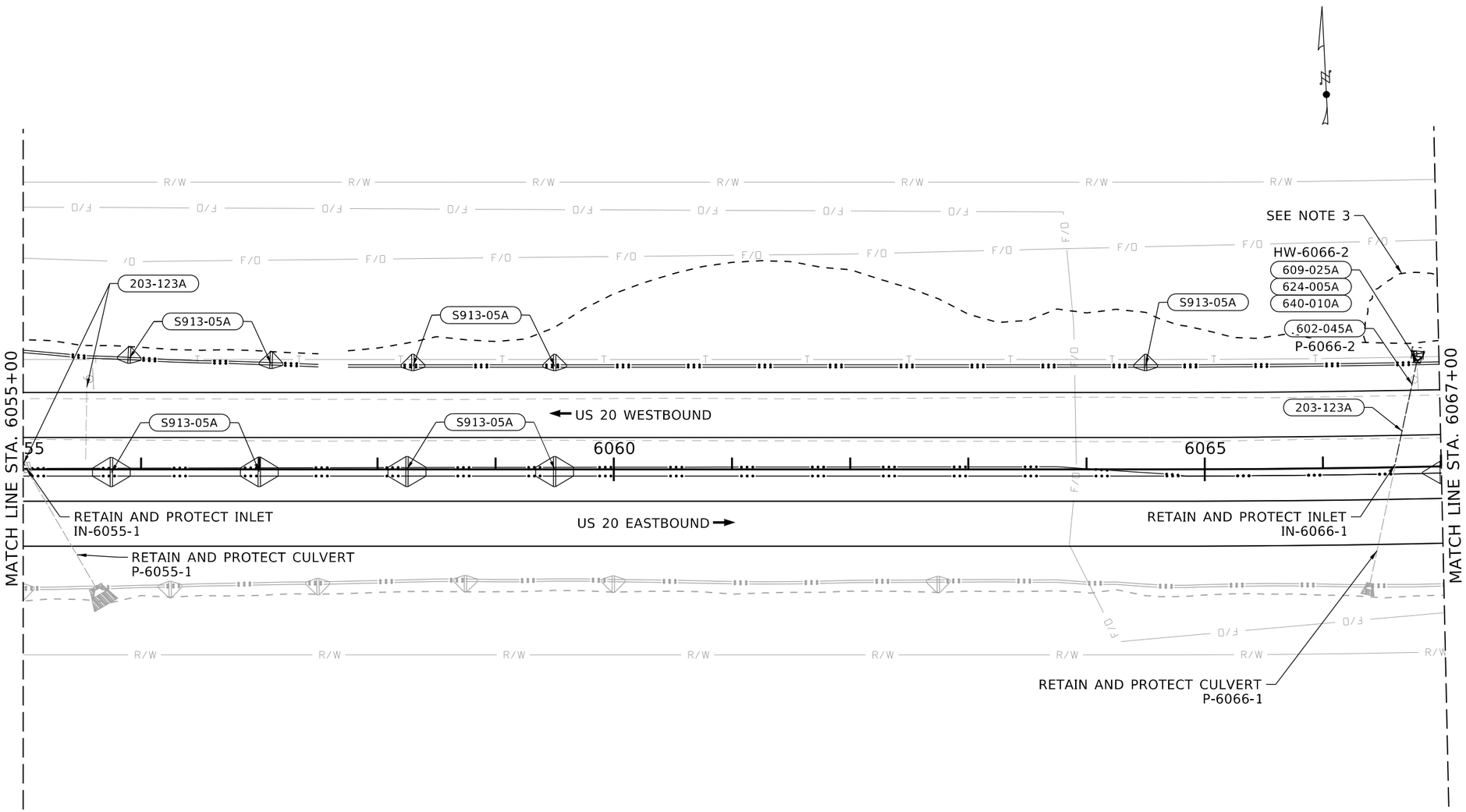
DRAINAGE PLAN
US 20, BONNEVILLE COUNTY
LINE TO MP 291
STA. 6043+00 TO STA. 6055+00
PHASE 2

ENGLISH
COUNTY BINGHAM/BONNEVILLE
KEY NUMBER 24149
SHEET 252 OF 441

NOT APPROVED
INTERMEDIATE
FOR CONSTRUCTION

November 21, 2025 4:50:33 PM
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T.3N., R.34E., B.M.




**203-123A REMOVAL OF MISCELLANEOUS ITEMS (PIPE)**

| | |
|---|---|
| 4 FT | STA. 6055+00.00, 6.15' LT TO STA. 6055+01.95, 2.83' LT |
| 69 FT | STA. 6055+53.05, 8.35' LT TO STA. 6055+54.26, 76.54' LT |
| 73 FT | STA. 6066+61.34, 4.23' LT TO STA. 6066+77.87, 74.52' LT |

**602-045A 24" PIPE CULVERT**

| | |
|---|---|
| 88 FT | STA. 6066+61.55, 4.82' LT TO STA. 6066+82.77, 95.88' LT |

**609-025A MINOR STRUCTURES (24" CONCRETE HEADWALL)**

| | |
|---|---|
| 1 EACH | STA. 6066+82.77, 95.88' LT |

**624-005A LOOSE RIPRAP (CLASS I)**

| | |
|---|---|
| 4.7 CY | STA. 6066+82.77, 95.88' LT |

**640-010A RIPRAP/EROSION CONTROL GEOTEXTILE**

| | |
|---|---|
| 14 SY | STA. 6066+82.77, 95.88' LT |

**S913-05A SP DITCH BERM**

| | |
|---|---|
| 12.3 CY | STA. 6055+75, 2.70' RT |
| 4.9 CY | STA. 6055+90, 93.75' LT |
| 12.6 CY | STA. 6057+00, 1.95' RT |
| 4.9 CY | STA. 6057+10, 89.33' LT |
| 12.8 CY | STA. 6058+25, 1.96' RT |
| 4.9 CY | STA. 6058+30, 87.45' LT |
| 13.0 CY | STA. 6059+50, 1.95' RT |
| 4.9 CY | STA. 6059+50, 87.45' LT |
| 4.9 CY | STA. 6064+50, 87.45' LT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.
2. IN PHASE 2, REMOVE EXISTING CULVERT, MODIFY INLET OR JUNCTION BOX OPENING TO CONNECT PROPOSED CULVERT AND CONSTRUCT UNDER PHASE 2 ROADWAY.
3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
50 0 50 100

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FOR CONSTRUCTION

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DESIGN CHECKED C. MCALISTER
DETAILED P. CONSALVO
DRAWING CHECKED C. MCALISTER

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CADD FILE NAME 24149_DrpI_D202B.DGN
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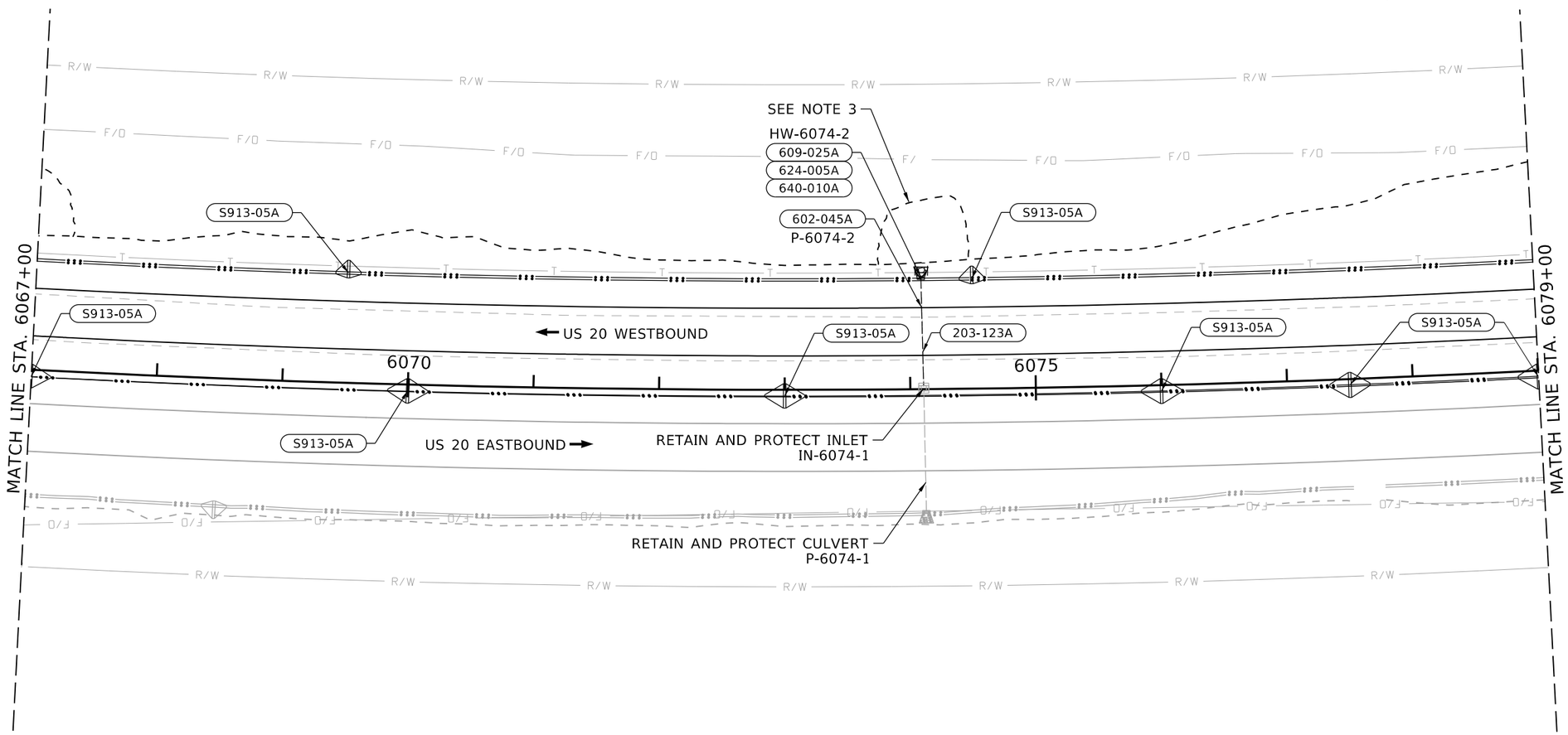
PROJECT NO. A024(149)

DRAINAGE PLAN
US 20, BONNEVILLE COUNTY
LINE TO MP 291
STA. 6055+00 TO STA. 6067+00
PHASE 2

ENGLISH
COUNTY BINGHAM/BONNEVILLE
KEY NUMBER 24149
SHEET 253 OF 441

November 21, 2025 4:50:37 PM
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T.3N., R.34E., B.M.




**203-123A** **REMOVAL OF MISCELLANEOUS ITEMS (PIPE)**
71 FT — STA. 6074+09.69, 73.28' LT TO STA. 6074+10.70, 2.30' LT

**602-045A** **24" PIPE CULVERT**
88 FT — STA. 6074+09.07, 93.30' LT TO STA. 6074+11.28, 1.13' LT

**609-025A** **MINOR STRUCTURES (24" CONCRETE HEADWALL)**
1 EACH — STA. 6066+82.77, 95.88' LT

**624-005A** **LOOSE RIPRAP (CLASS I)**
4.7 CY — STA. 6066+82.77, 95.88' LT

**640-010A** **RIPRAP/EROSION CONTROL GEOTEXTILE**
14 SY — STA. 6066+82.77, 95.88' LT

**S913-05A** **SP DITCH BERM**
6.8 CY — STA. 6067+00, 5.23' RT
4.9 CY — STA. 6069+50, 87.66' LT
7.1 CY — STA. 6070+00, 5.07' RT
7.4 CY — STA. 6073+00, 4.93' RT
4.9 CY — STA. 6074+50, 87.66' LT
7.7 CY — STA. 6076+00, 4.78' RT
7.8 CY — STA. 6077+50, 4.69' RT
7.9 CY — STA. 6079+00, 4.64' RT

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.
2. IN PHASE 2, REMOVE EXISTING CULVERT, MODIFY INLET OR JUNCTION BOX OPENING TO CONNECT PROPOSED CULVERT AND CONSTRUCT UNDER PHASE 2 ROADWAY.
3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
50 0 50 100

| REVISIONS | | | |
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| NO. | DATE | BY | DESCRIPTION |
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DESIGNED D. ABEDI
DESIGN CHECKED C. MCALISTER
DETAILED P. CONSALVO
DRAWING CHECKED C. MCALISTER

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 24149_DrpI_D202B.DGN
DRAWING DATE: November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT
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PROJECT NO.: A024(149)

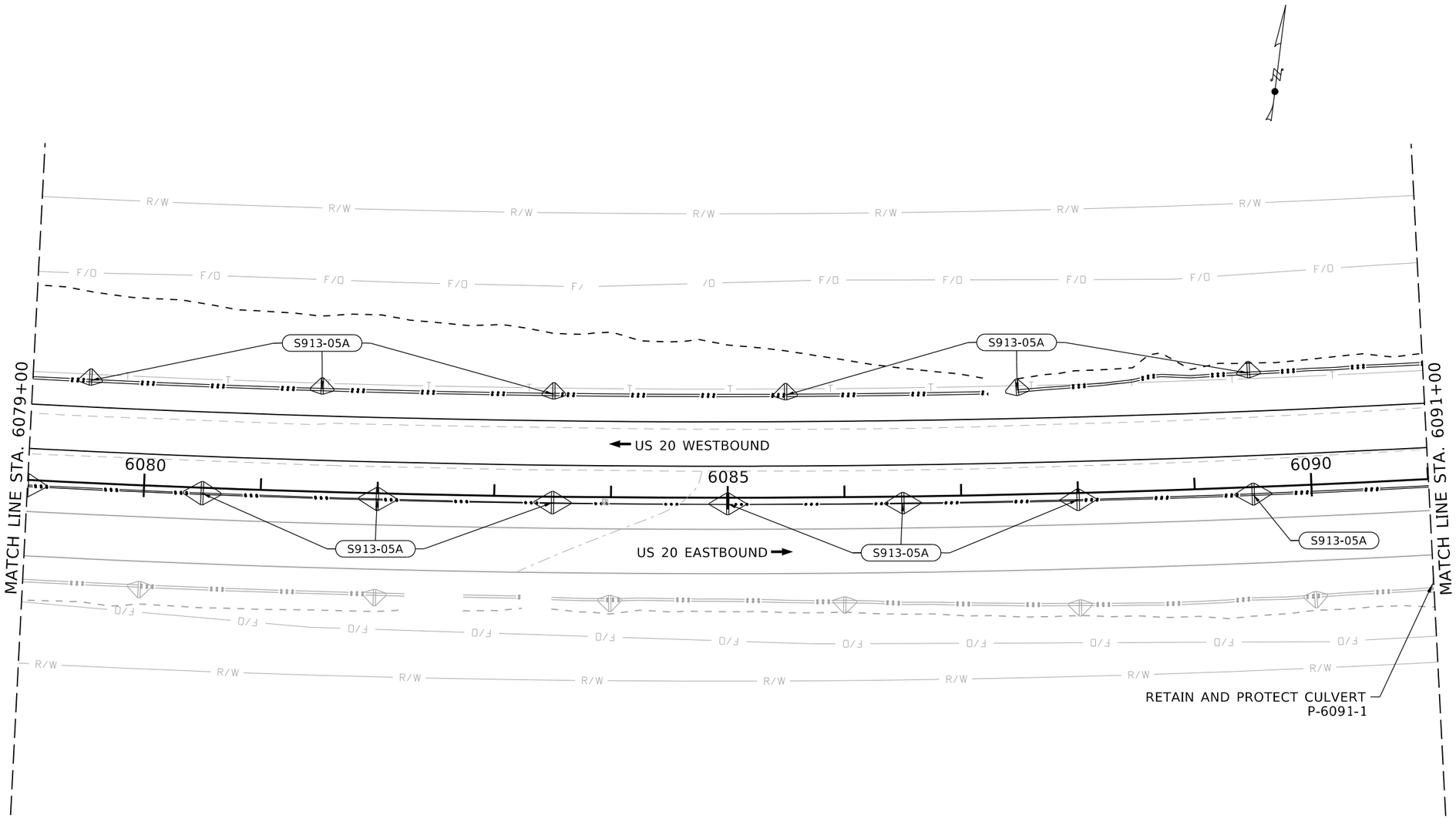
DRAINAGE PLAN: US 20, BONNEVILLE COUNTY LINE TO MP 291
STA. 6067+00 TO STA. 6079+00
PHASE 2

*ENGLISH*
COUNTY BINGHAM/BONNEVILLE
KEY NUMBER 24149
SHEET 254 OF 441

NOT APPROVED
INTERMEDIATE
FOR CONSTRUCTION

November 21, 2025 4:50:40 PM
pw://itd-pw.bentley.com:itd-pw-01/Documents/District 6/Projects/prj24394/Project_Development/Plan Sheets/Package 2 (KN 24149)/Drainage/24149_DrpI_D202B

T.3N., R.34E., B.M.




| S913-05A | SP DITCH BERM |
|---|---|
| 4.9 CY | STA. 6079+50, 87.66' LT |
| 7.8 CY | STA. 6080+50, 4.69' RT |
| 4.9 CY | STA. 6081+50, 87.66 LT |
| 7.6 CY | STA. 6082+00, 4.83' RT |
| 7.1 CY | STA. 6083+50, 5.07' RT |
| 4.9 CY | STA. 6083+50, 87.66' LT |
| 6.6 CY | STA. 6085+00, 5.31' RT |
| 4.9 CY | STA. 6085+50, 87.66' LT |
| 6.0 CY | STA. 6086+50, 5.66' RT |
| 4.9 CY | STA. 6087+50, 88.70' LT |
| 6.3 CY | STA. 6088+00, 5.82' RT |
| 6.7 CY | STA. 6089+50, 6.03' RT |
| 4.9 CY | STA. 6089+50, 97.70' LT |
| 6.5 CY | STA. 6091+00, 5.95' RT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.

Scale (Feet)
50 0 50 100

| REVISIONS | | | |
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| NO. | DATE | BY | DESCRIPTION |
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PROJECT NO. A024(149)

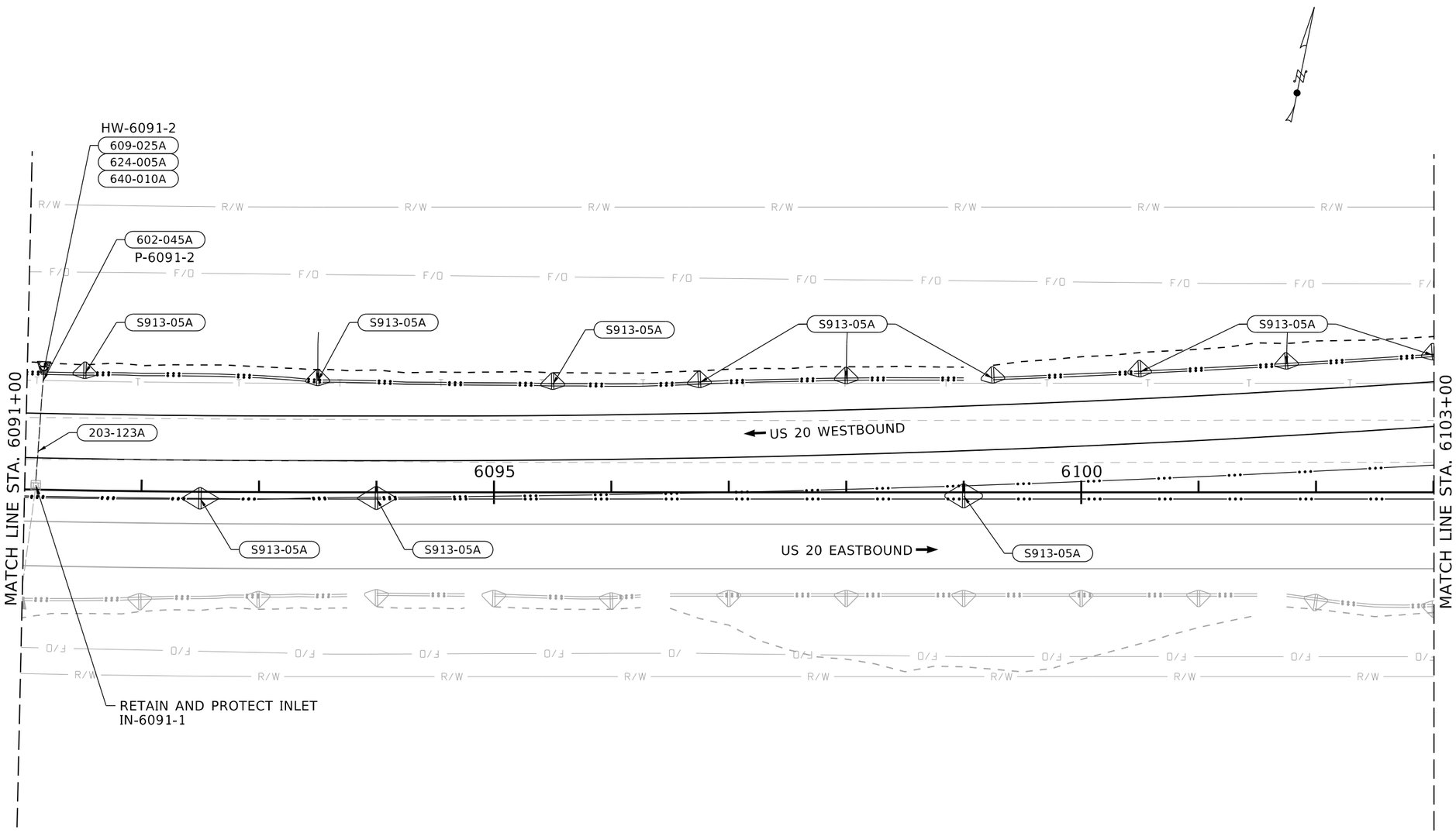
DRAINAGE PLAN
US 20, BONNEVILLE COUNTY LINE TO MP 291
STA. 6079+00 TO STA. 6091+00
PHASE 2

ENGLISH
COUNTY BINGHAM/BONNEVILLE
KEY NUMBER 24149
SHEET 255 OF 441

NOT APPROVED FOR INTERMEDIATE CONSTRUCTION

November 21, 2025 4:50:44 PM
pw://itd-pw.bentley.com:itd-pw-01/Documents/District 6/Projects/prj24394/Project_Development/Plan Sheets/Package 2 (KN 24149)/Drainage/24149_DrpI_D202B

T.3N., R.34E., B.M.




**203-123A** **REMOVAL OF MISCELLANEOUS ITEMS (PIPE)**
75 FT — STA. 6091+09.79, 5.12' LT TO STA. 6091+13.55, 79.18' LT

**602-045A** **24" PIPE CULVERT**
97 FT — STA. 6091+09.78, 3.68' LT TO STA. 6091+14.87, 104.10' LT

**609-025A** **MINOR STRUCTURES (24" CONCRETE HEADWALL)**
1 EACH — STA. 6091+14.87, 104.10' LT

**624-005A** **LOOSE RIPRAP (CLASS I)**
4.7 CY — STA. 6091+14.87, 104.10' LT

**640-010A** **RIPRAP/EROSION CONTROL GEOTEXTILE**
14 SY — STA. 6091+14.87, 104.10' LT

**S913-05A** **SP DITCH BERM**
4.9 CY — STA. 6091+50, 99.37' LT
6.0 CY — STA. 6092+50, 5.66' RT
4.9 CY — STA. 6093+50, 94.86' LT
7.3 CY — STA. 6094+00, 4.93' RT
4.9 CY — STA. 6095+50, 91.76' LT
4.9 CY — STA. 6096+75, 93.22' LT
4.9 CY — STA. 6098+00, 96.61' LT
16.6 CY — STA. 6099+00, 2.96' RT
4.9 CY — STA. 6099+25, 97.00' LT
4.9 CY — STA. 6100+50, 102.39' LT
4.9 CY — STA. 6101+75, 108.97' LT
4.9 CY — STA. 6103+00, 116.78' LT

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.

2. IN PHASE 2, REMOVE EXISTING CULVERT, MODIFY INLET OR JUNCTION BOX OPENING TO CONNECT PROPOSED CULVERT AND CONSTRUCT UNDER PHASE 2 ROADWAY.

3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
50 0 50 100

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DESIGNED D. ABEDI
DESIGN CHECKED C. MCALISTER
DETAILED P. CONSALVO
DRAWING CHECKED C. MCALISTER

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 24149_DrpI_D202B.DGN
DRAWING DATE: November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
DAVID EVANS AND ASSOCIATES INC.

PROJECT NO. A024(149)

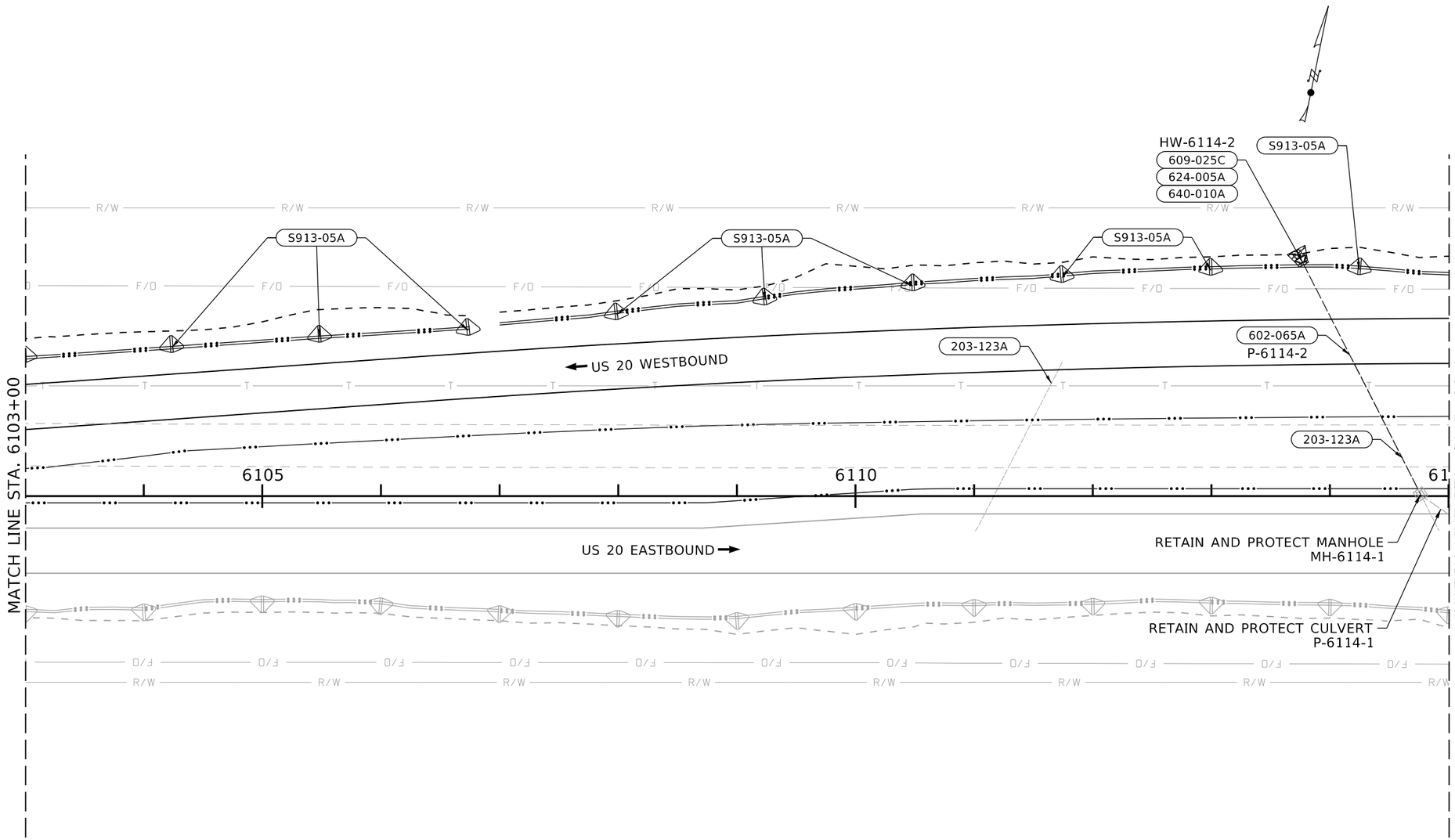
DRAINAGE PLAN
US 20, BONNEVILLE COUNTY
LINE TO MP 291
STA. 6091+00 TO STA. 6103+00
PHASE 2

ENGLISH
COUNTY BINGHAM/BONNEVILLE
KEY NUMBER 24149
SHEET 256 OF 441

NOT APPROVED
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November 21, 2025 4:50:47 PM
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T.3N., R.34E., B.M.




| | | |
|---|---|---|
| **203-123A** | **REMOVAL OF MISCELLANEOUS ITEMS (PIPE)** | |
| 135 FT | STA. 6111+13.21, 6.55' RT TO STA. 6111+74.36, 113.15' LT | |
| 135 FT | STA. 6114+18.88, 115.69' LT TO STA. 6114+79.52, 4.66' RT | |
| **602-065A** | **36" PIPE CULVERT** | |
| 219 FT | STA. 6114+18.98, 116.37' LT TO STA. 6114+79.49, 4.67' RT | |
| **609-025C** | **MINOR STRUCTURES (36" CONCRETE HEADWALL)** | |
| 1 EACH | STA. 6113+79.60, 196.39' LT | |
| **624-005A** | **LOOSE RIPRAP (CLASS I)** | |
| 10.4 CY | STA. 6113+79.60, 196.39' LT | |
| **640-010A** | **RIPRAP/EROSION CONTROL GEOTEXTILE** | |
| 25 SY | STA. 6113+79.60, 196.39' LT | |
| **S913-05A** | **SP DITCH BERM** | |
| 4.9 CY | STA. 6104+25, 125.25' LT | |
| 4.9 CY | STA. 6105+50, 133.90' LT | |
| 4.9 CY | STA. 6106+75, 139.64' LT | |
| 4.9 CY | STA. 6108+00, 152.80' LT | |
| 4.9 CY | STA. 6109+25, 165.28' LT | |
| 4.9 CY | STA. 6110+50, 177.27' LT | |
| 4.9 CY | STA. 6111+75, 184.29' LT | |
| 4.9 CY | STA. 6113+00, 190.33' LT | |
| 4.9 CY | STA. 6114+25, 195.60' LT | |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.

2. IN PHASE 2, REMOVE EXISTING CULVERT, MODIFY INLET OR JUNCTION BOX OPENING TO CONNECT PROPOSED CULVERT AND CONSTRUCT UNDER PHASE 2 ROADWAY.

3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
50 0 50 100

NOT APPROVED
INTERMEDIATE
FOR CONSTRUCTION

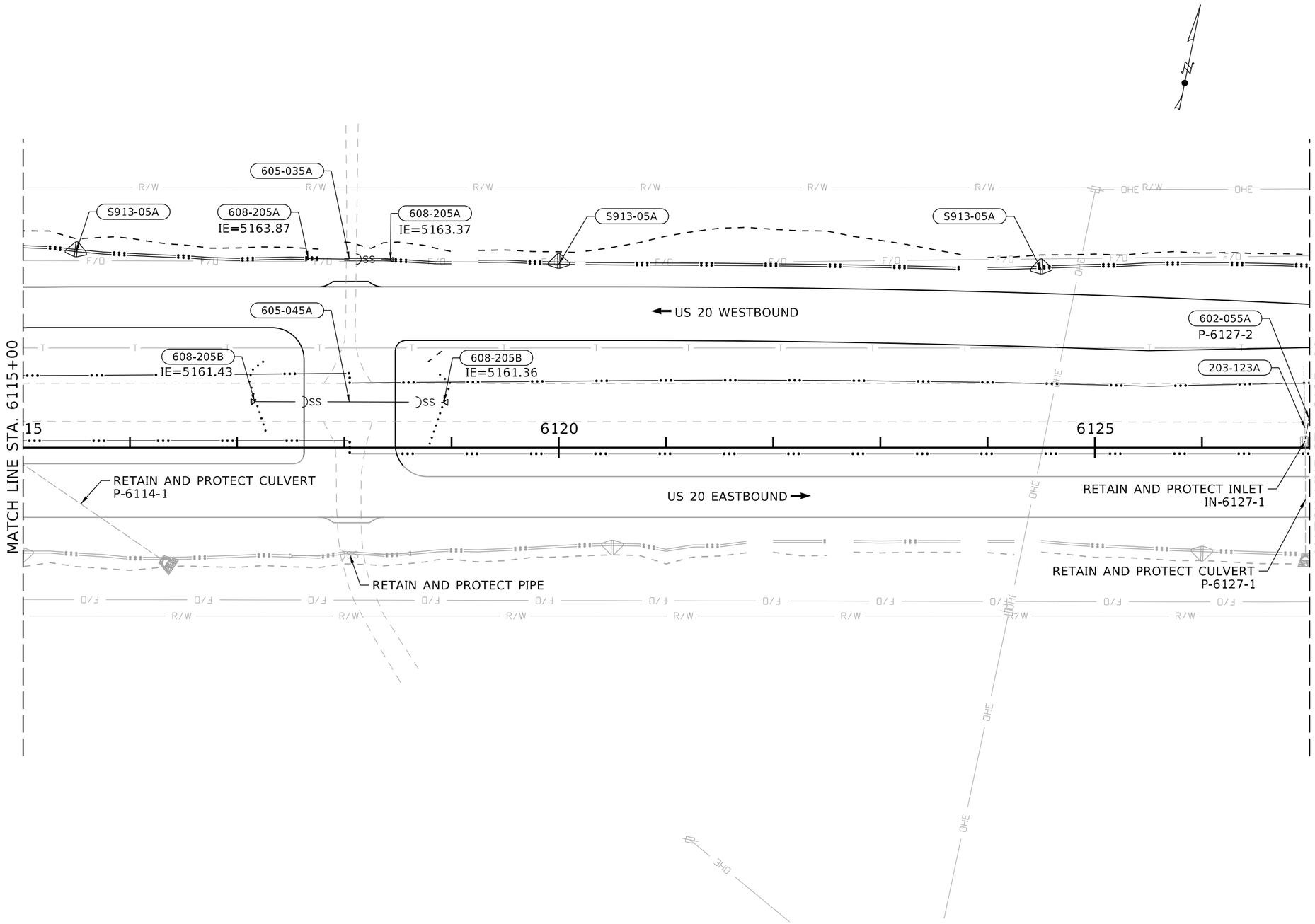
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| DESIGNED D. ABEDI | SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY | IDAHO TRANSPORTATION DEPARTMENT<br>YOUR Safety→YOUR Mobility→YOUR Economic Opportunity<br>DAVID EVANS AND ASSOCIATES INC. |
| DESIGN CHECKED C. MCALISTER | | |
| DETAILED P. CONSALVO | CADD FILE NAME 24149_DrpI_D202B.DGN | |
| DRAWING CHECKED C. MCALISTER | DRAWING DATE: November 21, 2025 | |

| PROJECT NO. | DRAINAGE PLAN | ENGLISH |
|---|---|---|
| A024(149) | US 20, BONNEVILLE COUNTY<br>LINE TO MP 291<br>STA. 6103+00 TO STA. 6115+00<br>PHASE 2 | COUNTY BINGHAM/BONNEVILLE<br>KEY NUMBER 24149<br>SHEET 257 OF 441 |

November 21, 2025 4:50:51 PM
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T.3N., R.34E., B.M.




**203-123A** **REMOVAL OF MISCELLANEOUS ITEMS (PIPE)**
69 FT STA. 6126+94.75, 75.95' LT TO STA. 6126+96.23, 7.95' LT

**602-055A** **30" PIPE CULVERT**
24 FT STA. 6126+96.07, 5.95' LT TO STA. 6127+00.00, 28.97' LT

**605-035A** **18" STORM SEWER PIPE**
77 FT STA. 6117+66.43, 176.42' LT TO STA. 6118+43.00, 175.46' LT

**605-045A** **24" STORM SEWER PIPE**
177 FT STA. 6117+16.28, 42.93' LT TO STA. 6118+93.20, 42.43' LT

**608-205A** **METAL SAFETY APRON (PARALLEL) (18")**
1 EACH STA. 6117+66.43, 176.42' LT
1 EACH STA. 6118+43.00, 175.46' LT

**608-205B** **METAL SAFETY APRON (PARALLEL) (24")**
1 EACH STA. 6117+16.28, 42.93' LT
1 EACH STA. 6118+93.20, 42.43' LT

**S913-05A** **SP DITCH BERM**
4.9 CY STA. 6115+50, 182.14' LT
4.9 CY STA. 6120+00, 171.23' LT
4.9 CY STA. 6124+50, 166.12' LT

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.
2. IN PHASE 2, REMOVE EXISTING CULVERT, MODIFY INLET OR JUNCTION BOX OPENING TO CONNECT PROPOSED CULVERT AND CONSTRUCT UNDER PHASE 2 ROADWAY.
3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
50 0 50 100

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DESIGNED D. ABEDI
DESIGN CHECKED C. MCALISTER
DETAILED P. CONSALVO
DRAWING CHECKED C. MCALISTER

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CADD FILE NAME 24149_DrpI_D202B.DGN
DRAWING DATE: November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
DAVID EVANS AND ASSOCIATES INC.

PROJECT NO. A024(149)

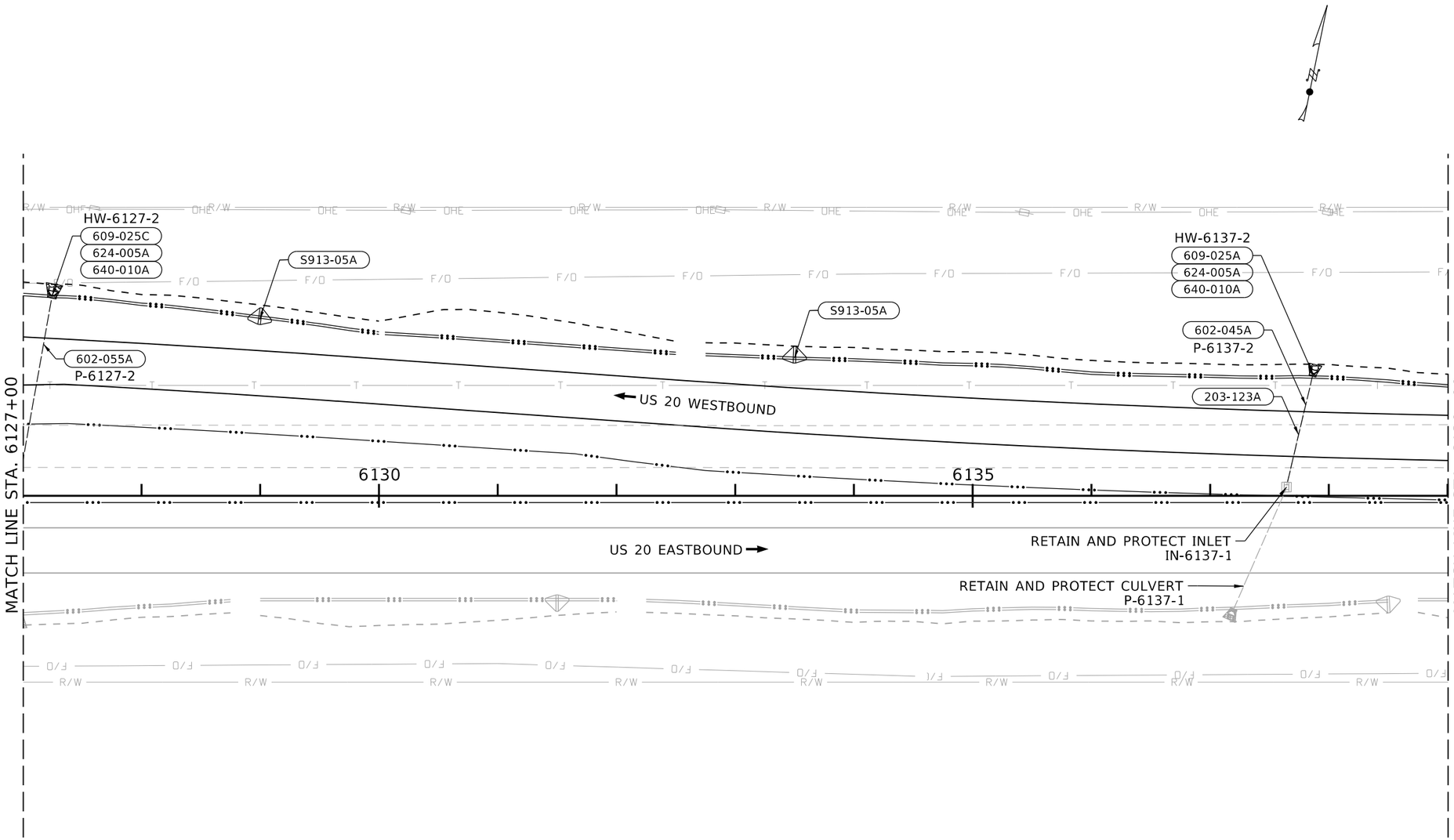
DRAINAGE PLAN
US 20, BONNEVILLE COUNTY
LINE TO MP 291
STA. 6115+00 TO STA. 6127+00
PHASE 2

ENGLISH
COUNTY BINGHAM/BONNEVILLE
KEY NUMBER 24149
SHEET 258 OF 441

NOT APPROVED
INTERMEDIATE
FOR CONSTRUCTION

November 21, 2025 4:50:53 PM
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T.3N., R.34E., B.M.




**203-123A** **REMOVAL OF MISCELLANEOUS ITEMS (PIPE)**
67 FT STA. 6137+64.51, 8.91' LT TO STA. 6137+79.52, 73.28' LT

**602-045A** **24" PIPE CULVERT**
97 FT STA. 6137+64.32, 7.35' LT TO STA. 6137+86.49, 100.66' LT

**602-055A** **30" PIPE CULVERT**
140 FT STA. 6127+00.00, 28.97' LT TO STA. 6127+24.77, 168.48' LT

**609-025A** **MINOR STRUCTURES (24" CONCRETE HEADWALL)**
1 EACH STA. 6137+86.49, 100.66' LT

**609-025B** **MINOR STRUCTURES (30" CONCRETE HEADWALL)**
1 EACH STA. 6127+24.77, 168.48' LT

**624-005A** **LOOSE RIPRAP (CLASS I)**
7.3 CY STA. 6127+24.77, 168.48' LT
4.7 CY STA. 6137+86.49, 100.66' LT

**640-010A** **RIPRAP/EROSION CONTROL GEOTEXTILE**
19 SY STA. 6127+24.77, 168.48' LT
14 SY STA. 6137+86.49, 100.66' LT

**S913-05A** **SP DITCH BERM**
4.9 CY STA. 6129+00, 148.36' LT
4.9 CY STA. 6133+50, 115.89' LT

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.

2. IN PHASE 2, REMOVE EXISTING CULVERT, MODIFY INLET OR JUNCTION BOX OPENING TO CONNECT PROPOSED CULVERT AND CONSTRUCT UNDER PHASE 2 ROADWAY.

3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
50 0 50 100

NOT APPROVED
INTERMEDIATE
FOR CONSTRUCTION

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DESIGNED D. ABEDI
DESIGN CHECKED C. MCALISTER
DETAILED P. CONSALVO
DRAWING CHECKED C. MCALISTER

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CADD FILE NAME 24149_DrpI_D202B.DGN
DRAWING DATE: November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT
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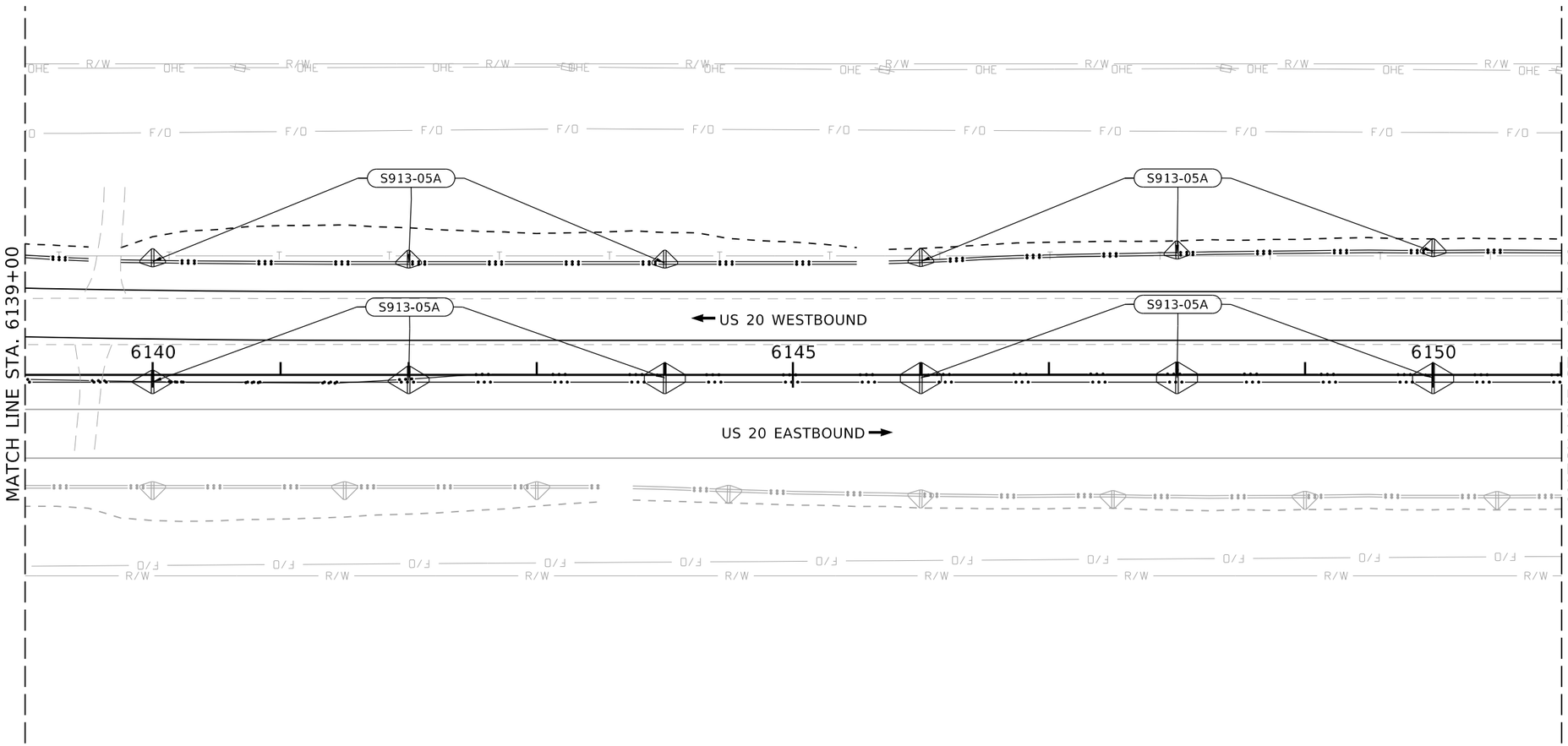
PROJECT NO. A024(149)

DRAINAGE PLAN
US 20, BONNEVILLE COUNTY
LINE TO MP 291
STA. 6127+00 TO STA. 6139+00
PHASE 2

ENGLISH
COUNTY BINGHAM/BONNEVILLE
KEY NUMBER 24149
SHEET 259 OF 441

November 21, 2025 4:50:57 PM
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T.3N., R.34E., B.M.




| S913-05A | SP DITCH BERM |
|---|---|
| 6.4 CY | STA. 6140+00, 5.43' RT |
| 4.9 CY | STA. 6140+00, 88.51' LT |
| 8.3 CY | STA. 6142+00, 4.46' RT |
| 4.9 CY | STA. 6142+00, 87.45' LT |
| 11.5 CY | STA. 6144+00, 2.32' RT |
| 4.9 CY | STA. 6144+00, 87.45' LT |
| 11.6 CY | STA. 6146+00, 2.32' RT |
| 4.9 CY | STA. 6146+00, 88.68' LT |
| 11.9 CY | STA. 6148+00, 2.32' RT |
| 4.9 CY | STA. 6148+00, 94.56' LT |
| 11.3 CY | STA. 6150+00, 2.32' RT |
| 4.9 CY | STA. 6150+00, 96.35' LT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.

Scale (Feet)
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DESIGNED D. ABEDI
DESIGN CHECKED C. MCALISTER
DETAILED P. CONSALVO
DRAWING CHECKED C. MCALISTER

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 24149_DrpI_D202B.DGN
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IDAHO TRANSPORTATION DEPARTMENT
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DAVID EVANS AND ASSOCIATES INC.

PROJECT NO.
A024(149)

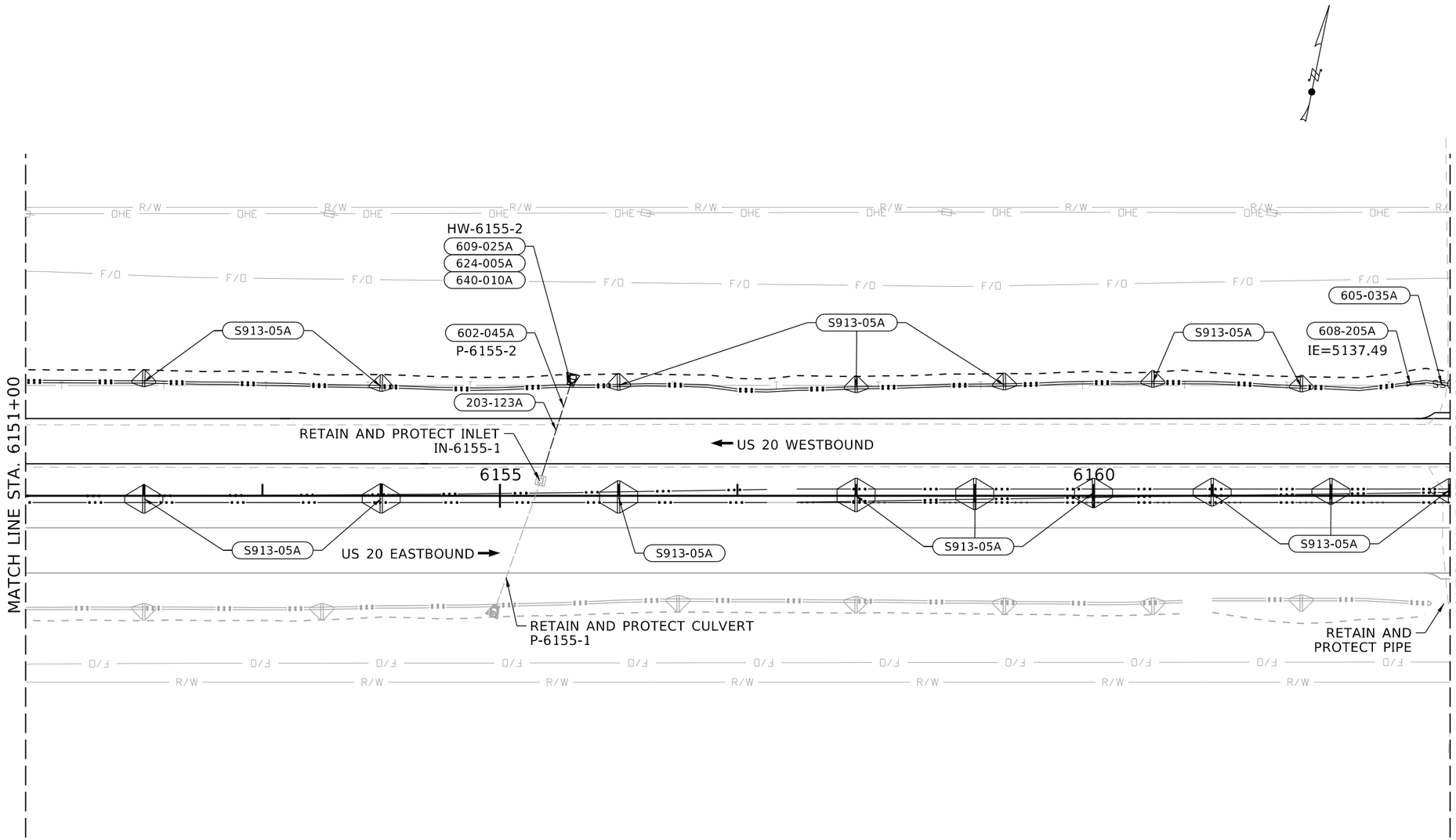
DRAINAGE PLAN
US 20, BONNEVILLE COUNTY
LINE TO MP 291
STA. 6139+00 TO STA. 6151+00
PHASE 2

*ENGLISH*
COUNTY BINGHAM/BONNEVILLE
KEY NUMBER 24149
SHEET 260 OF 441

NOT APPROVED
INTERMEDIATE
FOR CONSTRUCTION

November 21, 2025 4:51:01 PM
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T.3N., R.34E., B.M.




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|---|---|
| **203-123A** | **REMOVAL OF MISCELLANEOUS ITEMS (PIPE)** |
| 60 FT | STA. 6155+34.50, 14.25' LT TO STA. 6155+52.28, 71.49' LT |
| **602-045A** | **24" PIPE CULVERT** |
| 85 FT | STA. 6155+33.65, 12.56' LT TO STA. 6155+60.58, 97.83' LT |
| **605-035A** | **18" STORM SEWER PIPE** |
| 34 FT | STA. 6162+66.59, 94.24' LT TO STA. 6163+00.00, 94.14' LT |
| **608-205A** | **METAL SAFETY APRON (PARALLEL) (18")** |
| 1 EACH | STA. 6162+85.20, 91.92' LT |
| **609-025A** | **MINOR STRUCTURES (24" CONCRETE HEADWALL)** |
| 1 EACH | STA. 6155+60.57, 97.83' LT |
| **624-005A** | **LOOSE RIPRAP (CLASS I)** |
| 4.7 CY | STA. 6155+60.57, 97.83' LT |
| **640-010A** | **RIPRAP/EROSION CONTROL GEOTEXTILE** |
| 14 SY | STA. 6155+60.57, 97.83' LT |
| **S913-05A** | **SP DITCH BERM** |
| 4.9 CY | STA. 6152+00, 95.93' LT |
| 12.3 CY | STA. 6154+00, 2.32' RT |
| 4.9 CY | STA. 6154+00, 91.99' LT |
| 14.4 CY | STA. 6156+00, 1.14' RT |
| 4.9 CY | STA. 6156+00, 92.92' LT |
| 15.7 CY | STA. 6158+00, 0.52' RT |
| 4.9 CY | STA. 6158+00, 91.04' LT |
| 14.1 CY | STA. 6159+00, 1.34' RT |
| 4.9 CY | STA. 6159+25, 93.28' LT |
| 12.6 CY | STA. 6160+00, 2.16 RT |
| 11.2 CY | STA. 6161+00, 2.90' RT |
| 4.9 CY | STA. 6160+50, 95.45' LT |
| 4.9 CY | STA. 6161+75, 91.59' LT |
| 9.9 CY | STA. 6162+00, 3.61' RT |
| 8.6 CY | STA. 6163+00, 4.27' RT |
| 4.9 CY | STA. 6163+00, 3.61' LT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.

2. IN PHASE 2, REMOVE EXISTING CULVERT, MODIFY INLET OR JUNCTION BOX OPENING TO CONNECT PROPOSED CULVERT AND CONSTRUCT UNDER PHASE 2 ROADWAY.

3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
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| DESIGNED D. ABEDI | SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY |
| DESIGN CHECKED C. MCALISTER | |
| DETAILED P. CONSALVO | CADD FILE NAME 24149_DrpI_D202B.DGN |
| DRAWING CHECKED C. MCALISTER | DRAWING DATE: November 21, 2025 |

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
DAVID EVANS AND ASSOCIATES INC.

PROJECT NO.
A024(149)

DRAINAGE PLAN
US 20, BONNEVILLE COUNTY
LINE TO MP 291
STA. 6151+00 TO STA. 6163+00
PHASE 2

*ENGLISH*

COUNTY BINGHAM/BONNEVILLE

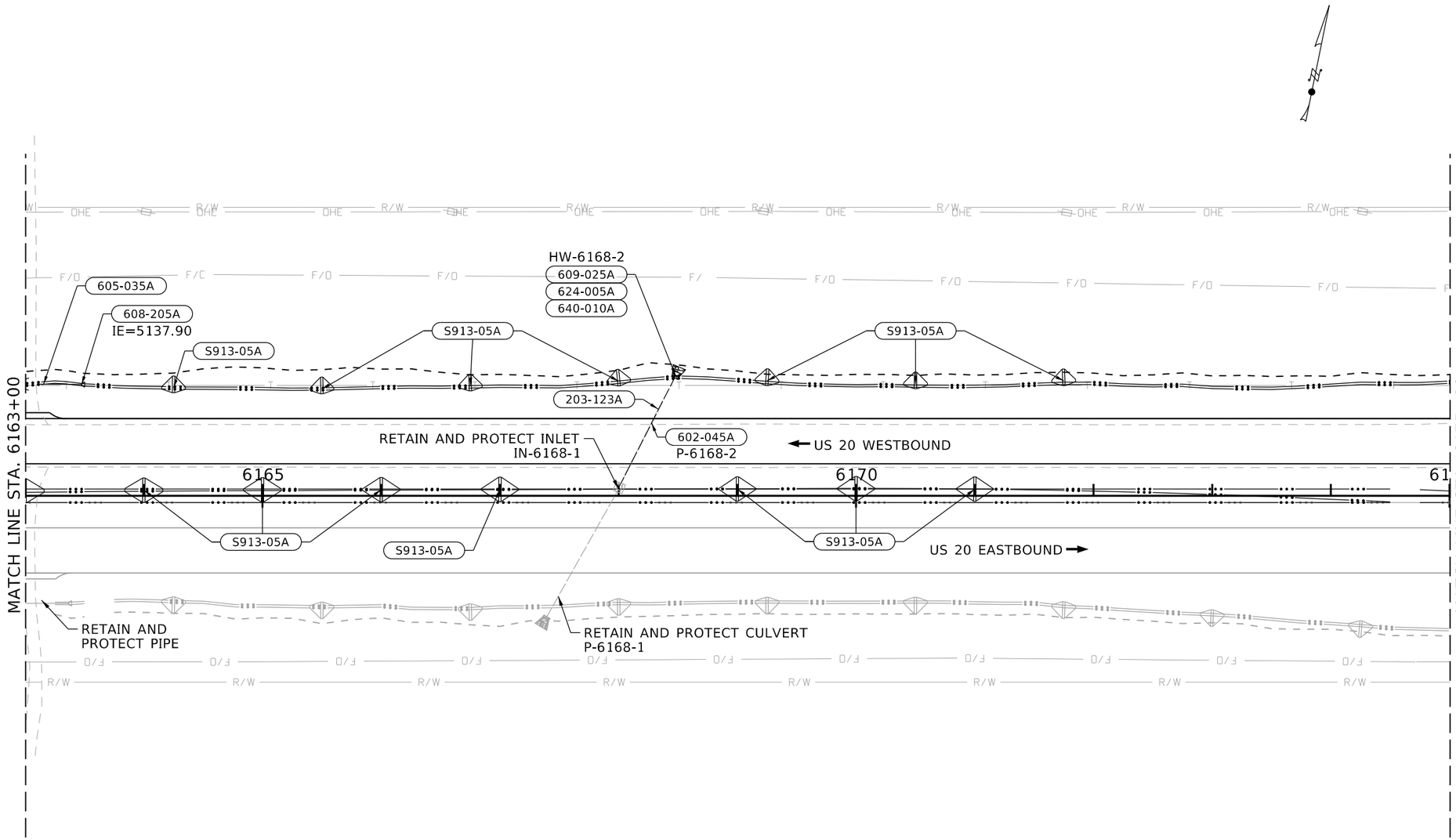
KEY NUMBER 24149

SHEET 261 OF 441

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FOR CONSTRUCTION

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T.3N., R.34E., B.M.




**203-123A** **REMOVAL OF MISCELLANEOUS ITEMS (PIPE)**
81 FT STA. 6168+00.86, 8.54' LT TO STA. 6168+36.76, 80.29' LT

**602-045A** **24" PIPE CULVERT**
104 FT STA. 6168+00.01, 6.79' LT TO STA. 6168+48.01, 101.03' LT

**605-035A** **18" STORM SEWER PIPE**
48 FT STA. 6163+00.00, 94.14' LT TO STA. 6163+47.98, 93.78' LT

**608-205A** **METAL SAFETY APRON (PARALLEL) (18")**
1 EACH STA. 6163+15.19, 90.35' LT

**609-025A** **MINOR STRUCTURES (24" CONCRETE HEADWALL)**
1 EACH STA. 6168+48.01, 101.03' LT

**624-005A** **LOOSE RIPRAP (CLASS I)**
4.7 CY STA. 6168+48.01, 101.03' LT

**640-010A** **RIPRAP/EROSION CONTROL GEOTEXTILE**
14 SY STA. 6168+48.01, 101.03' LT

**S913-05A** **SP DITCH BERM**
7.7 CY STA. 6164+00, 4.76' RT
4.9 CY STA. 6164+25, 90.82' LT
7.2 CY STA. 6165+00, 5.02' RT
4.9 CY STA. 6165+50, 89.95' LT
6.8 CY STA. 6166+00, 5.22' RT
4.9 CY STA. 6166+75, 92.38' LT
6.5 CY STA. 6167+00, 5.66' RT
4.9 CY STA. 6168+00, 96.59' LT
6.2 CY STA. 6169+00, 5.78' RT
4.9 CY STA. 6169+25, 96.91' LT
6.6 CY STA. 6170+00, 5.96' RT
4.9 CY STA. 6170+50, 94.16' LT
6.0 CY STA. 6171+00, 5.73' RT
4.9 CY STA. 6171+75, 96.81' LT

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.

2. IN PHASE 2, REMOVE EXISTING CULVERT, MODIFY INLET OR JUNCTION BOX OPENING TO CONNECT PROPOSED CULVERT AND CONSTRUCT UNDER PHASE 2 ROADWAY.

3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
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DESIGNED D. ABEDI
DESIGN CHECKED C. MCALISTER
DETAILED P. CONSALVO
DRAWING CHECKED C. MCALISTER

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 24149_DrpI_D202B.DGN
DRAWING DATE: November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT
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PROJECT NO. A024(149)

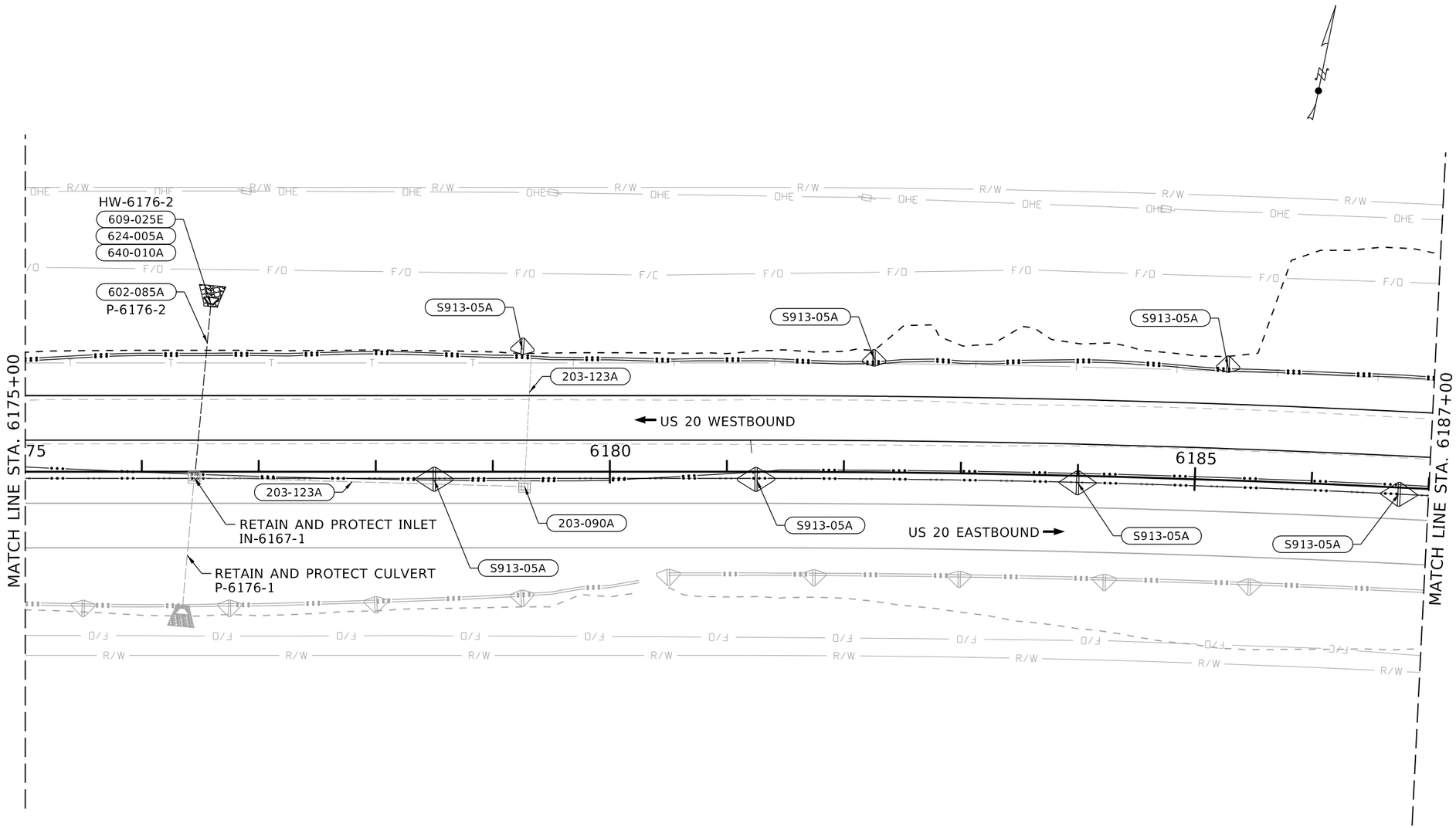
DRAINAGE PLAN
US 20, BONNEVILLE COUNTY
LINE TO MP 291
STA. 6163+00 TO STA. 6175+00
PHASE 2

*ENGLISH*
COUNTY BINGHAM/BONNEVILLE
KEY NUMBER 24149
SHEET 262 OF 441

NOT APPROVED
INTERMEDIATE
FOR CONSTRUCTION

November 21, 2025 4:51:09 PM
pw://itd-pw.bentley.com:itd-pw-01/Documents/District 6/Projects/prj24394/Project_Development/Plan Sheets/Package 2 (KN 24149)/Drainage/24149_DrpI_D202B

T.3N., R.34E., B.M.




**203-123A** **REMOVAL OF MISCELLANEOUS ITEMS (PIPE)**
113 FT STA. 6179+27.03, 12.72' LT TO STA. 6179+33.02, 99.51' LT
280 FT STA. 6176+44.76, 4.92' RT TO STA. 6179+27.03, 12.65' RT

**203-090A** **REMOVAL OF INLET**
1 EACH STA. 6179+27.03, 12.65' RT

**602-085A** **48" PIPE CULVERT**
148 FT STA. 6176+45.13, 4.99' RT TO STA. 6176+59.63, 147.49' LT

**609-025E** **MINOR STRUCTURES (48" CONCRETE HEADWALL)**
1 EACH STA. 6176+59.63, 147.49' LT

**624-005A** **LOOSE RIPRAP (CLASS I)**
18.5 CY STA. 6176+59.63, 147.49' LT

**640-010A** **RIPRAP/EROSION CONTROL GEOTEXTILE**
40 SY STA. 6176+59.63, 147.49' LT

**S913-05A** **SP DITCH BERM**
7.4 CY STA. 6178+50, 6.36' RT
4.9 CY STA. 6179+25, 104.61' LT
7.7 CY STA. 6181+25, 6.56' RT
4.9 CY STA. 6182+25, 94.84' LT
6.6 CY STA. 6184+00, 5.92' RT
4.9 CY STA. 6185+25, 96.19' LT
6.6 CY STA. 6186+75, 5.82' RT

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.

2. IN PHASE 2, REMOVE EXISTING CULVERT, MODIFY INLET OR JUNCTION BOX OPENING TO CONNECT PROPOSED CULVERT AND CONSTRUCT UNDER PHASE 2 ROADWAY.

3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
50 0 50 100

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DESIGNED D. ABEDI
DESIGN CHECKED C. MCALISTER
DETAILED P. CONSALVO
DRAWING CHECKED C. MCALISTER

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 24149_DrpI_D202C.DGN
DRAWING DATE: November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
DAVID EVANS AND ASSOCIATES INC.

PROJECT NO. A024(149)

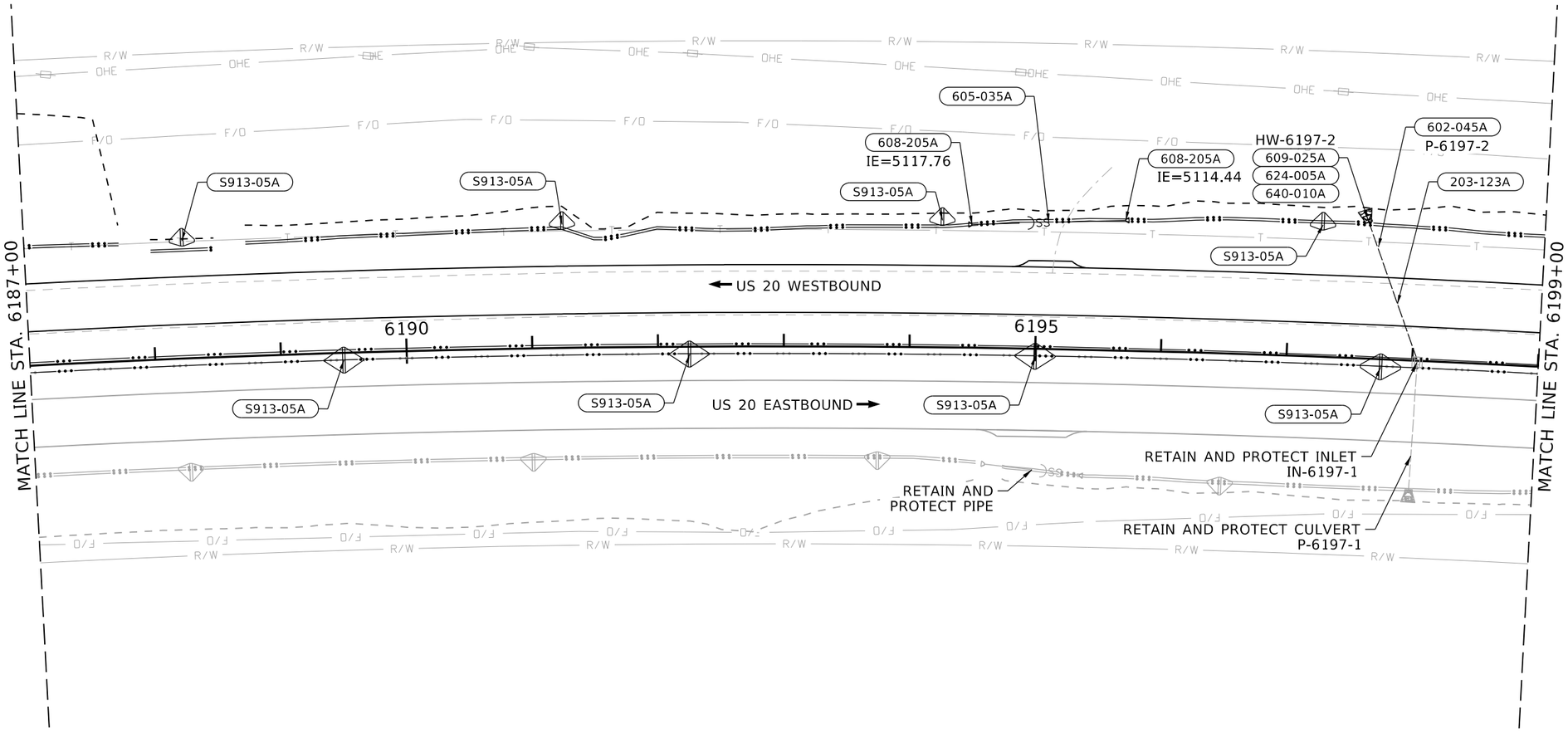
DRAINAGE PLAN
US 20, BONNEVILLE COUNTY LINE TO MP 291
STA. 6175+00 TO STA. 6187+00
PHASE 2

ENGLISH
COUNTY BINGHAM/BONNEVILLE
KEY NUMBER 24149
SHEET 263 OF 441

NOT APPROVED FOR CONSTRUCTION
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November 21, 2025 4:51:26 PM
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T.3N., R.34E., B.M.




**203-123A** **REMOVAL OF MISCELLANEOUS ITEMS (PIPE)**
71 FT — STA. 6197+73.30, 77.50' LT TO STA. 6198+00.21, 11.82' LT

**602-045A** **24" PIPE CULVERT**
119 FT — STA. 6197+59.91, 117.97' LT TO STA. 6197+98.80, 1.40' RT

**605-035A** **18" STORM SEWER PIPE**
123 FT — STA. 6194.+48.27, 98.01' LT TO STA. 6195+69.55, 103.57' LT

**608-205A** **METAL SAFETY APRON (PARALLEL) (18")**
1 EACH — STA. 6195+00.69, 98.14' LT
1 EACH — STA. 6195+69.55, 103.57' LT

**609-025A** **MINOR STRUCTURES (24" CONCRETE HEADWALL)**
1 EACH — STA. 6197+59.90, 117.97' LT

**624-005A** **LOOSE RIPRAP (CLASS I)**
4.7 CY — STA. 6197+59.90, 117.97' LT

**640-010A** **RIPRAP/EROSION CONTROL GEOTEXTILE**
14 SY — STA. 6197+59.90, 117.97' LT

**S913-05A** **SP DITCH BERM**
4.9 CY — STA. 6188+25, 93.39' LT
6.3 CY — STA. 6189+50, 5.81' RT
4.9 CY — STA. 6191+25, 98.23' LT
6.5 CY — STA. 6192+25, 5.92' RT
4.9 CY — STA. 6194+25, 100.88' LT
6.7 CY — STA. 6195+00, 6.06' RT
4.9 CY — STA. 6197+25, 104.73' LT
7.0 CY — STA. 6197+75, 6.19' RT

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.

2. IN PHASE 2, REMOVE EXISTING CULVERT, MODIFY INLET OR JUNCTION BOX OPENING TO CONNECT PROPOSED CULVERT AND CONSTRUCT UNDER PHASE 2 ROADWAY.

3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
50 0 50 100

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DESIGNED D. ABEDI
DESIGN CHECKED C. MCALISTER
DETAILED P. CONSALVO
DRAWING CHECKED C. MCALISTER

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CADD FILE NAME 24149_Drpl_D202C.DGN
DRAWING DATE: November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT
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DAVID EVANS AND ASSOCIATES INC.

PROJECT NO. A024(149)

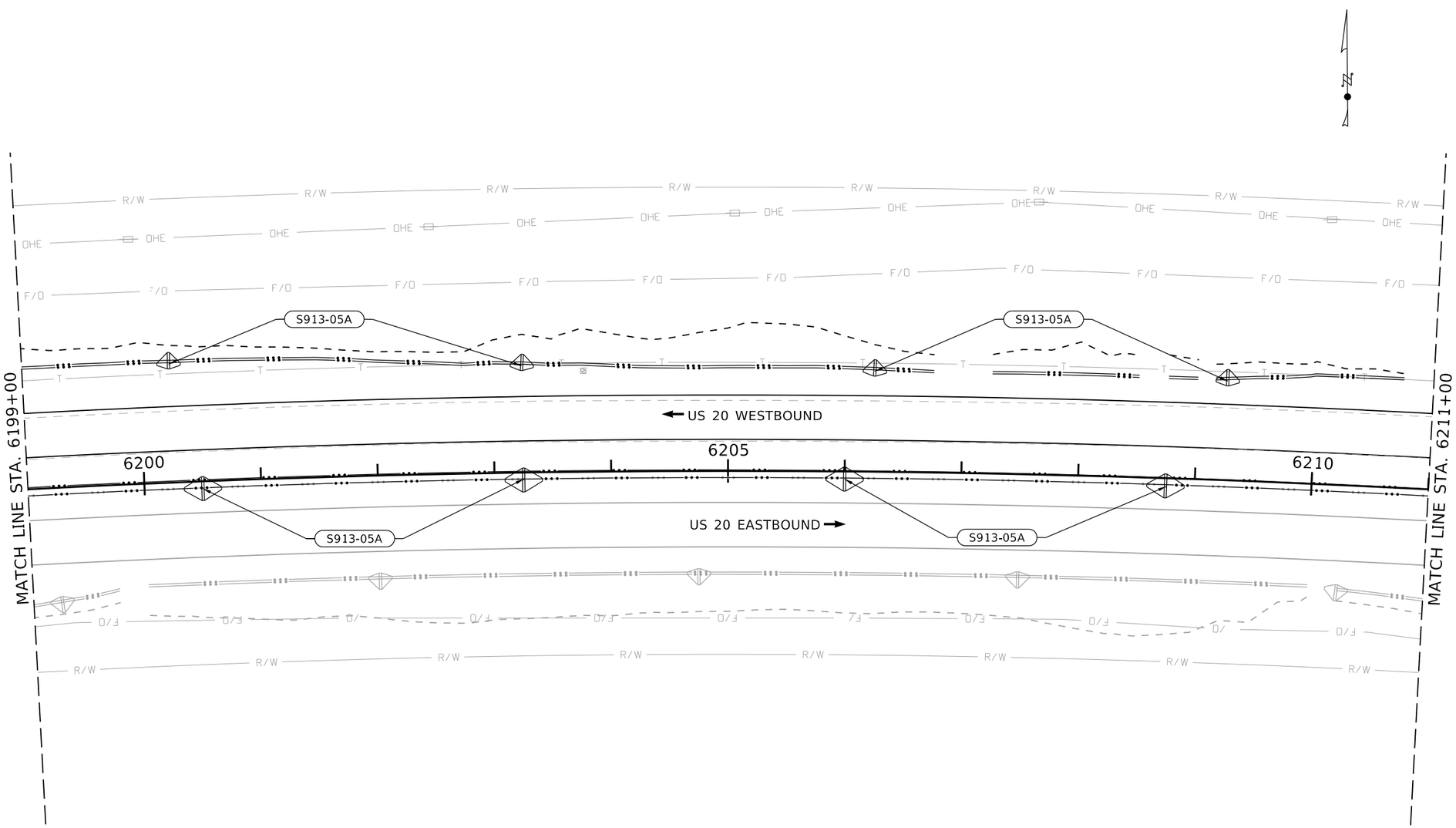
DRAINAGE PLAN
US 20, BONNEVILLE COUNTY
LINE TO MP 291
STA. 6187+00 TO STA. 6199+00
PHASE 2

*ENGLISH*
COUNTY BINGHAM/BONNEVILLE
KEY NUMBER 24149
SHEET 264 OF 441

NOT APPROVED
INTERMEDIATE
FOR CONSTRUCTION

November 21, 2025 4:51:29 PM
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T.3N., R.34E., B.M.




| S913-05A | SP DITCH BERM |
|---|---|
| 4.9 CY | STA. 6200+25, 101.31' LT |
| 7.2 CY | STA. 6200+50, 6.62' RT |
| 7.5 CY | STA. 6203+25, 6.46' RT |
| 4.9 CY | STA. 6203+25, 91.30' LT |
| 7.7 CY | STA. 6206+00, 6.59' RT |
| 4.9 CY | STA. 6206+25, 85.89' LT |
| 8.0 CY | STA. 6208+75, 6.70' RT |
| 4.9 CY | STA. 6209+25, 84.79' LT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.

Scale (Feet)
50 0 50 100

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DESIGNED D. ABEDI
DESIGN CHECKED C. MCALISTER
DETAILED P. CONSALVO
DRAWING CHECKED C. MCALISTER

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CADD FILE NAME 24149_DrpI_D202C.DGN
DRAWING DATE: November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT
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PROJECT NO.
A024(149)

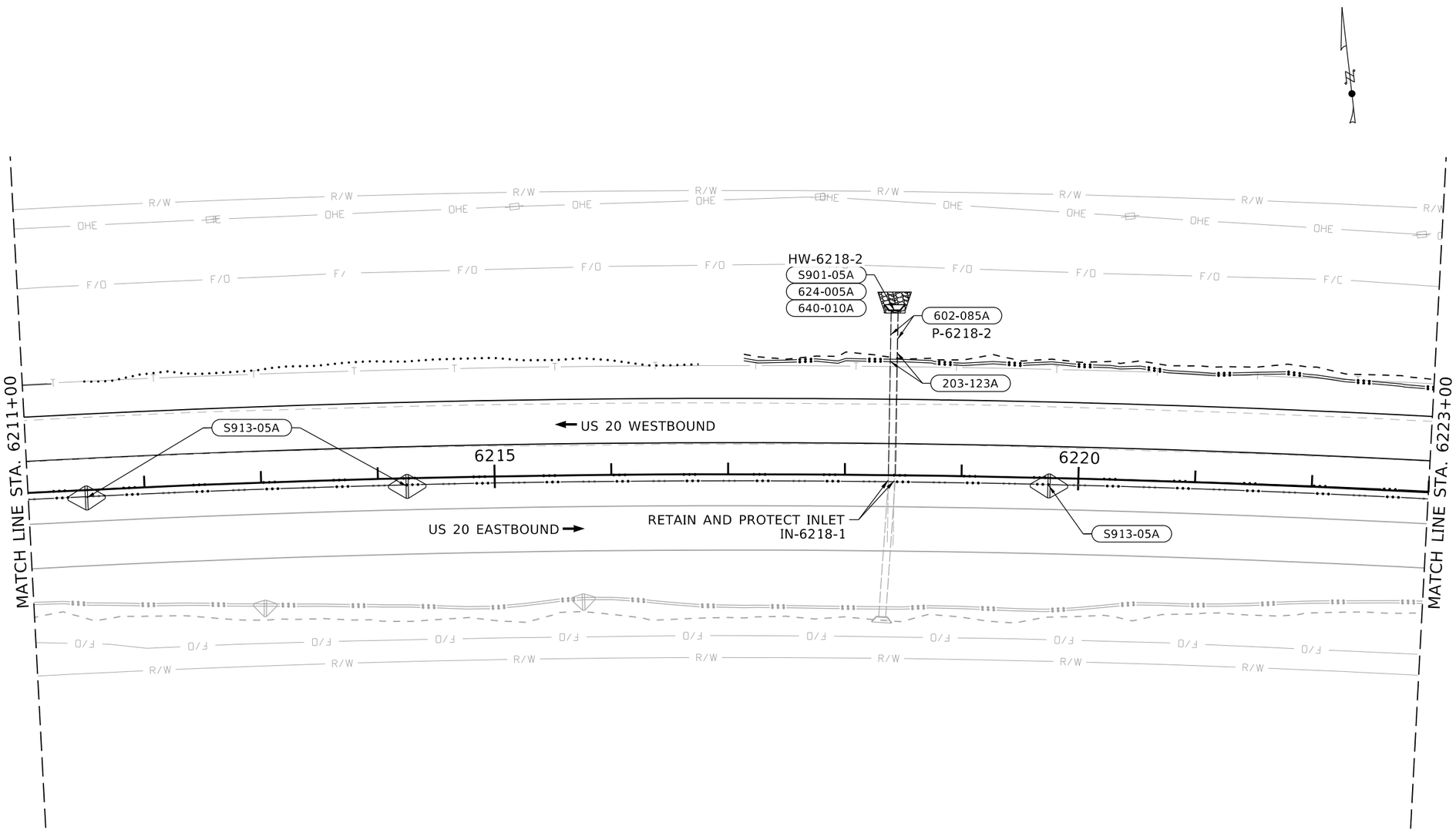
DRAINAGE PLAN
US 20, BONNEVILLE COUNTY
LINE TO MP 291
STA. 6199+00 TO STA. 6211+00
PHASE 2

*ENGLISH*
COUNTY BINGHAM/BONNEVILLE
KEY NUMBER 24149
SHEET 265 OF 441

NOT APPROVED
INTERMEDIATE
FOR CONSTRUCTION

November 21, 2025 4:51:32 PM
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T.3N., R.34E., B.M.




| | |
|---|---|
| **203-123A** | **REMOVAL OF MISCELLANEOUS ITEMS (PIPE)** |
| 145 FT | STA. 6218+37.30, 4.21' RT TO STA. 6218+38.02, 141.44' LT |
| 145 FT | STA. 6218+42.41, 4.09' RT TO STA. 6218+43.59, 141.17' LT |
| **602-085A** | **48" PIPE CULVERT** |
| 145 FT | STA. 6218+37.28, 4.21' RT TO STA. 6218+37.95, 141.44' LT |
| 144 FT | STA. 6218+43.29, 4.07' RT TO STA. 6218+43.35, 141.54' LT |
| **624-005A** | **LOOSE RIPRAP (CLASS I)** |
| 25.2 CY | STA. 6218+40.66, 141.48' LT |
| **640-010A** | **RIPRAP/ EROSION CONTROL GEOTEXTILE** |
| 52 SY | STA. 6218+40.66, 141.48' LT |
| **S901-05A** | **SP MINOR STRUCTURES (DUAL 48" CONCRETE HEADWALL)** |
| 1 EACH | STA. 6218+40.66, 141.48' LT |
| **S913-05A** | **SP DITCH BERM** |
| 8.2 CY | STA. 6211+50, 6.84' RT |
| 8.5 CY | STA. 6214+25, 6.97' RT |
| 8.3 CY | STA. 6219+75, 6.88' RT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.
2. IN PHASE 2, REMOVE EXISTING CULVERT, MODIFY INLET OR JUNCTION BOX OPENING TO CONNECT PROPOSED CULVERT AND CONSTRUCT UNDER PHASE 2 ROADWAY.
3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
50 0 50 100

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| DESIGNED D. ABEDI | SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY |
| DESIGN CHECKED C. MCALISTER | |
| DETAILED P. CONSALVO | CADD FILE NAME 24149_Drpl_D202C.DGN |
| DRAWING CHECKED C. MCALISTER | DRAWING DATE: November 21, 2025 |

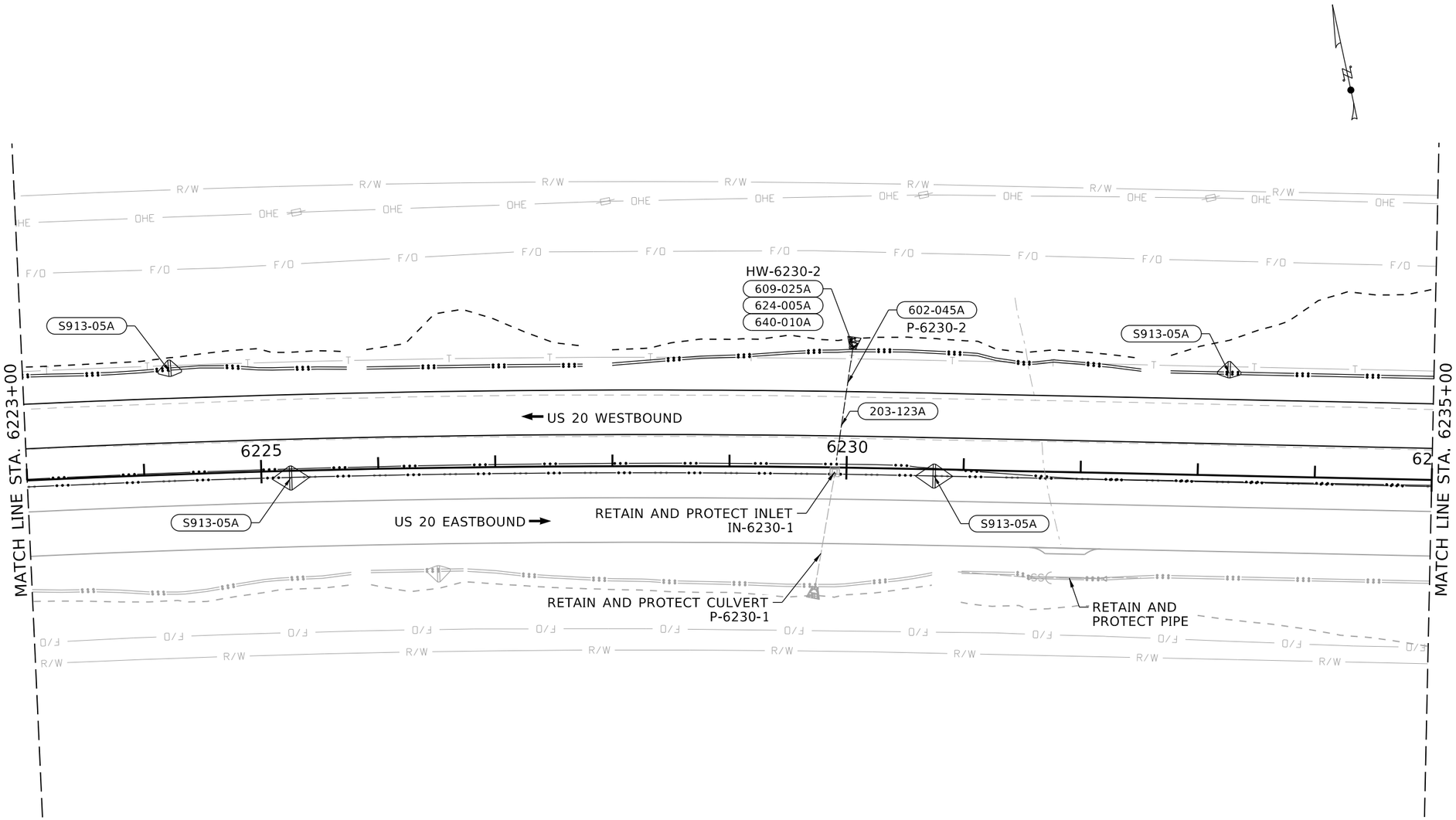
IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
DAVID EVANS AND ASSOCIATES INC.

| PROJECT NO. | DRAINAGE PLAN | ENGLISH |
|---|---|---|
| A024(149) | US 20, BONNEVILLE COUNTY LINE TO MP 291<br>STA. 6211+00 TO STA. 6223+00<br>PHASE 2 | COUNTY BINGHAM/BONNEVILLE<br>KEY NUMBER 24149<br>SHEET 266 OF 441 |

NOT APPROVED
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FOR CONSTRUCTION

November 21, 2025 4:51:34 PM
pw://itd-pw.bentley.com:itd-pw-01/Documents/District 6/Projects/prj24394/Project_Development/Plan Sheets/Package 2 (KN 24149)/Drainage/24149_Drpl_D202C

T.3N., R.34E., B.M.




**203-123A** **REMOVAL OF MISCELLANEOUS ITEMS (PIPE)**
74 FT — STA. 6229+91.17, 6.07' LT TO STA. 6230+00.89, 101.64' LT

**602-045A** **24" PIPE CULVERT**
99 FT — STA. 6229+89.93, 3.65' RT TO STA. 6230+03.85, 101.64' LT

**609-025A** **MINOR STRUCTURES (24" CONCRETE HEADWALL)**
1 EACH — STA. 6230+08.06, 134.98' LT

**624-005A** **LOOSE RIPRAP (CLASS I)**
4.7 CY — STA. 6230+08.06, 134.98' LT

**640-010A** **RIPRAP/EROSION CONTROL GEOTEXTILE**
14 SY — STA. 6230+08.06, 134.98' LT

**S913-05A** **SP DITCH BERM**
4.9 CY — STA. 6224+25, 87.71' LT
6.9 CY — STA. 6225+25, 6.16' RT
6.0 CY — STA. 6230+75, 5.79' RT
4.9 CY — STA. 6233+25, 87.45' LT

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.

2. IN PHASE 2, REMOVE EXISTING CULVERT, MODIFY INLET OR JUNCTION BOX OPENING TO CONNECT PROPOSED CULVERT AND CONSTRUCT UNDER PHASE 2 ROADWAY.

3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
50 0 50 100

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DESIGNED D. ABEDI
DESIGN CHECKED C. MCALISTER
DETAILED P. CONSALVO
DRAWING CHECKED C. MCALISTER

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 24149_DrpI_D202C.DGN
DRAWING DATE: November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT
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DAVID EVANS AND ASSOCIATES INC.

PROJECT NO.
A024(149)

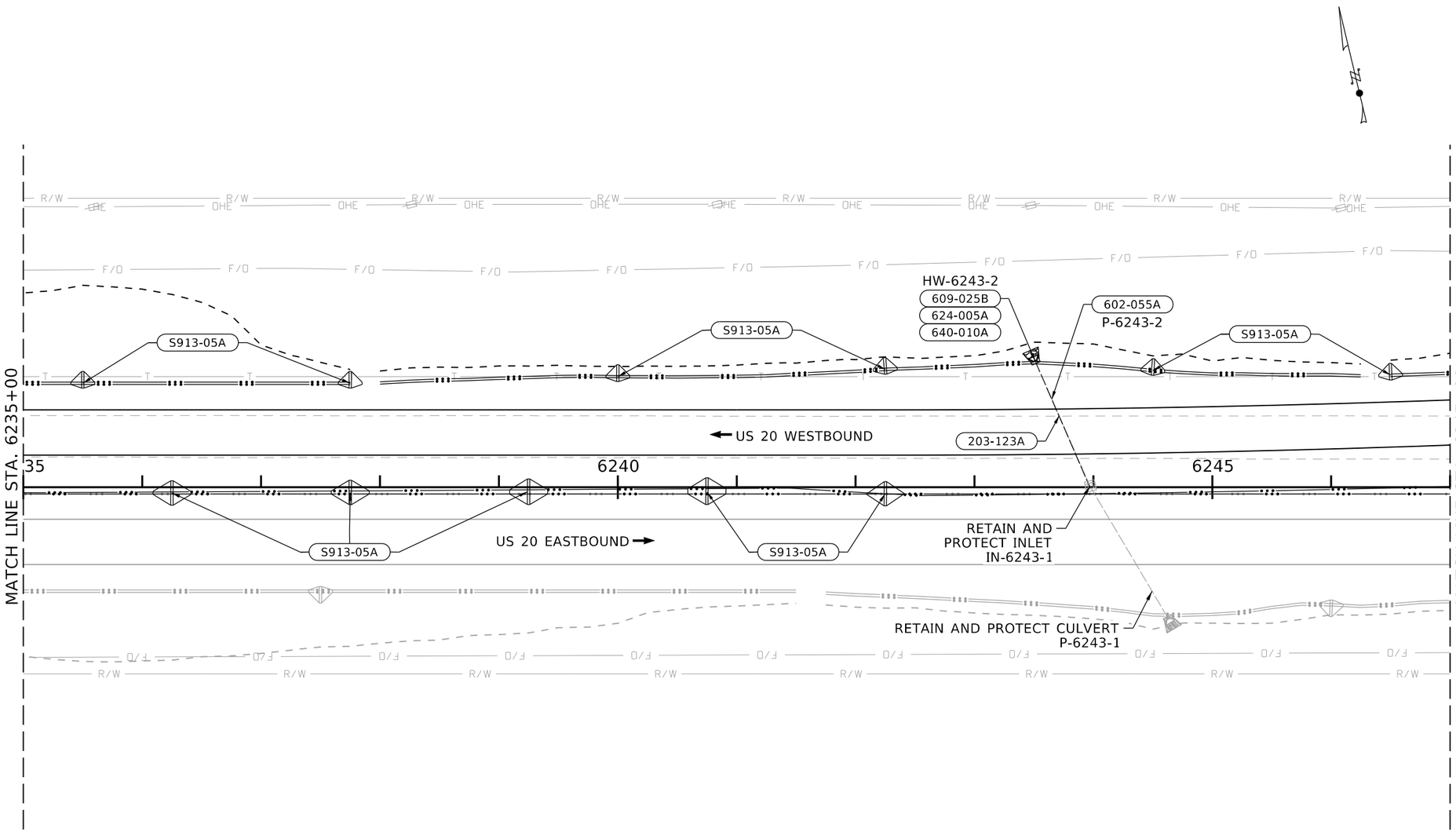
DRAINAGE PLAN
US 20, BONNEVILLE COUNTY
LINE TO MP 291
STA. 6223+00 TO STA. 6235+00
PHASE 2

*ENGLISH*
COUNTY BINGHAM/BONNEVILLE
KEY NUMBER 24149
SHEET 267 OF 441

NOT APPROVED
INTERMEDIATE
FOR CONSTRUCTION

November 21, 2025 4:51:36 PM
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T.3N., R.34E., B.M.




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|---|---|
| **203-123A** | **REMOVAL OF MISCELLANEOUS ITEMS (PIPE)** |
| 91 FT | STA. 6243+61.04, 83.54' LT TO STA. 6243+97.32, 0.72' LT |
| **602-055A** | **30" PIPE CULVERT** |
| 116 FT | STA. 6243+37.29, 137.37' LT TO STA. 6243+97.53, 1.14' LT |
| **609-025B** | **MINOR STRUCTURES (30" CONCRETE HEADWALL)** |
| 1 EACH | STA. 6243+37.29, 137.37' LT |
| **624-005A** | **LOOSE RIPRAP (CLASS I)** |
| 7.3 CY | STA. 6243+37.29, 137.37' LT |
| **640-010A** | **RIPRAP/EROSION CONTROL GEOTEXTILE** |
| 19 SY | STA. 6243+37.29, 137.37' LT |
| **S913-05A** | **SP DITCH BERM** |
| 4.9 CY | STA. 6235+50, 87.45' LT |
| 7.6 CY | STA. 6236+25, 4.88' RT |
| 8.4 CY | STA. 6237+75, 4.38' RT |
| 4.9 CY | STA. 6237+75, 87.45' LT |
| 9.3 CY | STA. 6239+25, 3.91' RT |
| 4.9 CY | STA. 6240+00, 92.98' LT |
| 10.2 CY | STA. 6240+75, 3.47' RT |
| 6.0 CY | STA. 6242+25, 5.66' RT |
| 4.9 CY | STA. 6242+25, 99.10' LT |
| 4.9 CY | STA. 6244+50, 98.10' LT |
| 4.9 CY | STA. 6246+50, 94.17' LT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.
2. IN PHASE 2, REMOVE EXISTING CULVERT, MODIFY INLET OR JUNCTION BOX OPENING TO CONNECT PROPOSED CULVERT AND CONSTRUCT UNDER PHASE 2 ROADWAY.
3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
50 0 50 100

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| DESIGNED D. ABEDI | SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY |
| DESIGN CHECKED C. MCALISTER | |
| DETAILED P. CONSALVO | CADD FILE NAME 24149_DrpI_D202C.DGN |
| DRAWING CHECKED C. MCALISTER | DRAWING DATE: November 21, 2025 |

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
DAVID EVANS AND ASSOCIATES INC.

| PROJECT NO. | DRAINAGE PLAN |
|---|---|
| A024(149) | US 20, BONNEVILLE COUNTY LINE TO MP 291<br>STA. 6235+00 TO STA. 6247+00<br>PHASE 2 |

ENGLISH

COUNTY BINGHAM/BONNEVILLE

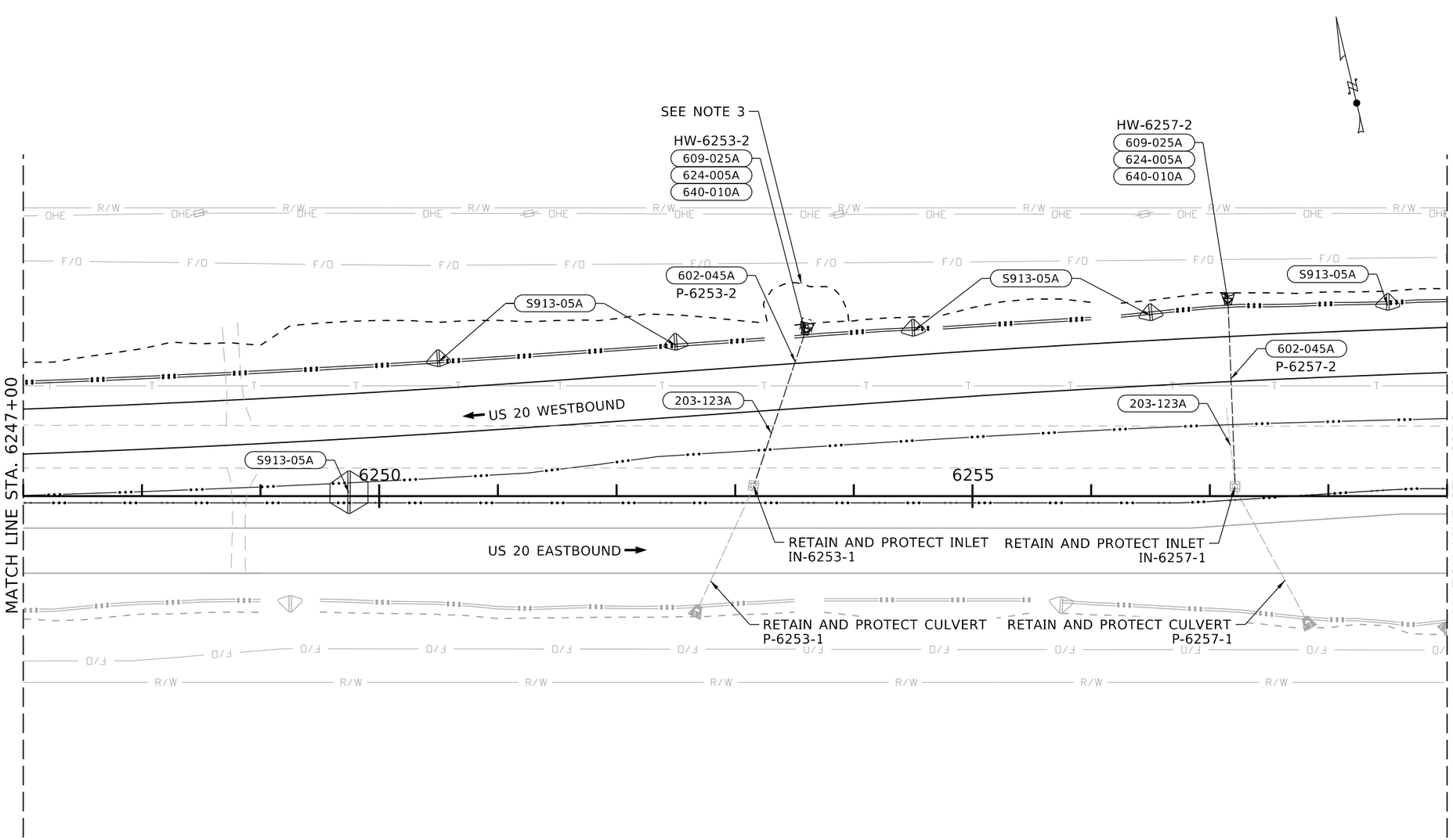
KEY NUMBER 24149

SHEET 268 OF 441

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November 21, 2025 4:51:39 PM
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T.3N., R.34E., B.M.




**203-123A REMOVAL OF MISCELLANEOUS ITEMS (PIPE)**

| | |
|---|---|
| 68 FT | STA. 6253+16.00, 10.58' LT TO STA. 6253+37.40, 74.16' LT |
| 65 FT | STA. 6257+13.82, 74.39' LT TO STA. 6257+21.21, 10.42' LT |

**602-045A 24" PIPE CULVERT**

| | |
|---|---|
| 135 FT | STA. 6253+15.48, 8.88' LT TO STA. 6253+45.29, 97.68' LT |
| 154 FT | STA. 6257+09.71, 111.41' LT TO STA. 6257+21.29, 8.23' LT |

**609-025A MINOR STRUCTURES (24" CONCRETE HEADWALL)**

| | |
|---|---|
| 1 EACH | STA. 6253+59.05, 138.17' LT |
| 1 EACH | STA. 6257+03.84, 163.04' LT |

**624-005A LOOSE RIPRAP (CLASS I)**

| | |
|---|---|
| 4.7 CY | STA. 6253+59.05, 138.17' LT |
| 4.7 CY | STA. 6257+03.84, 163.04' LT |

**640-010A RIPRAP/EROSION CONTROL GEOTEXTILE**

| | |
|---|---|
| 14 SY | STA. 6253+59.05, 138.17' LT |
| 14 SY | STA. 6257+03.84, 163.04' LT |

**S913-05A SP DITCH BERM**

| | |
|---|---|
| 21.9 CY | STA. 6249+75, 2.77' LT |
| 4.9 CY | STA. 6250+50, 113.31' LT |
| 4.9 CY | STA. 6252+50, 127.12' LT |
| 4.9 CY | STA. 6254+50, 139.03' LT |
| 4.9 CY | STA. 6256+50, 152.09' LT |
| 4.9 CY | STA. 6258+50, 160.83' LT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.
2. IN PHASE 2, REMOVE EXISTING CULVERT, MODIFY INLET OR JUNCTION BOX OPENING TO CONNECT PROPOSED CULVERT AND CONSTRUCT UNDER PHASE 2 ROADWAY.
3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
50 0 50 100

NOT APPROVED FOR CONSTRUCTION
INTERMEDIATE

| REVISIONS | | | |
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DESIGNED D. ABEDI
DESIGN CHECKED C. MCALISTER
DETAILED P. CONSALVO
DRAWING CHECKED C. MCALISTER

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 24149_DrpI_D202C.DGN
DRAWING DATE: November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT
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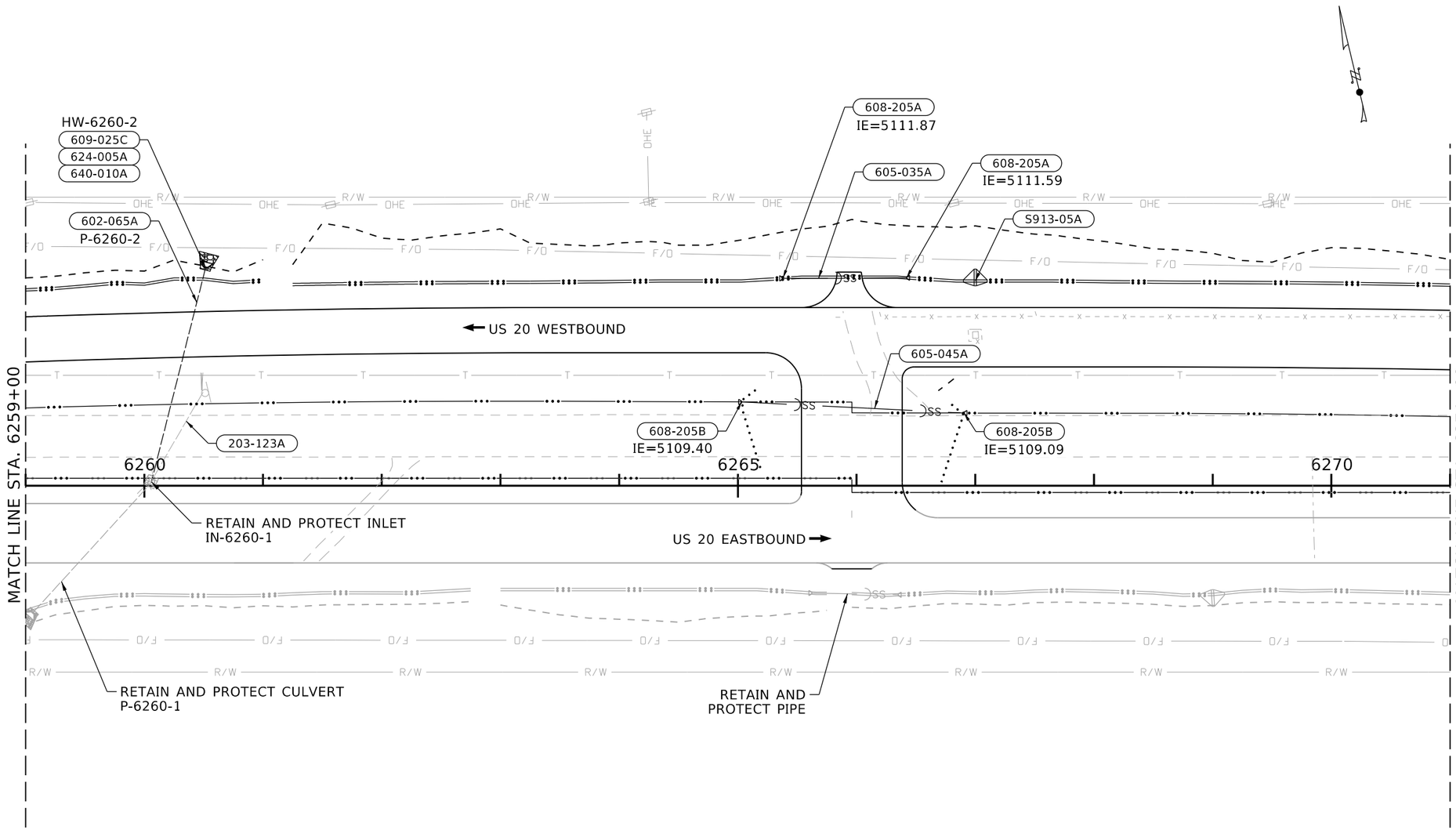
PROJECT NO. A024(149)

DRAINAGE PLAN
US 20, BONNEVILLE COUNTY
LINE TO MP 291
STA. 6247+00 TO STA. 6259+00
PHASE 2

ENGLISH
COUNTY BINGHAM/BONNEVILLE
KEY NUMBER 24149
SHEET 269 OF 441

November 21, 2025 4:51:42 PM
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T.3N., R.34E., B.M.




**203-123A** **REMOVAL OF MISCELLANEOUS ITEMS (PIPE)**
87 FT — STA. 6260+06.26, 4.42' LT TO STA. 6260+49.50, 77.41' LT

**602-065A** **36" PIPE CULVERT**
186 FT — STA. 6260+06.67, 3.32' LT TO STA. 6260+69.97, 113.64' LT

**605-035A** **18" STORM SEWER PIPE**
105 FT — STA. 6265+37.79, 174.64' LT TO STA. 6266+42.13, 175.19' LT

**605-045A** **24" STORM SEWER PIPE**
188 FT — STA. 6265+03.23, 70.55' LT TO STA. 6266+90.50, 61.22' LT

**608-205A** **METAL SAFETY APRON (PARALLEL) (18")**
1 EACH — STA. 6265+37.79, 174.64' LT
1 EACH — STA. 6266+42.13, 175.19' LT

**608-205B** **METAL SAFETY APRON (PARALLEL) (24")**
1 EACH — STA. 6265+03.23, 70.55' LT
1 EACH — STA. 6266+90.50, 61.22' LT

**609-025C** **MINOR STRUCTURES (36" CONCRETE HEADWALL)**
1 EACH — STA. 6260+40.59, 183.40' LT

**624-005A** **LOOSE RIPRAP (CLASS I)**
10.4 CY — STA. 6260+40.59, 183.40' LT

**640-010A** **RIPRAP/EROSION CONTROL GEOTEXTILE**
25 SY — STA. 6260+40.59, 183.40' LT

**S913-05A** **SP DITCH BERM**
4.9 CY — STA. 6267+00, 172.45' LT

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.

2. IN PHASE 2, REMOVE EXISTING CULVERT, MODIFY INLET OR JUNCTION BOX OPENING TO CONNECT PROPOSED CULVERT AND CONSTRUCT UNDER PHASE 2 ROADWAY.

3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
50 0 50 100

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DESIGNED D. ABEDI
DESIGN CHECKED C. MCALISTER
DETAILED P. CONSALVO
DRAWING CHECKED C. MCALISTER

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 24149_DrpI_D202C.DGN
DRAWING DATE: November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
DAVID EVANS AND ASSOCIATES INC.

PROJECT NO. A024(149)

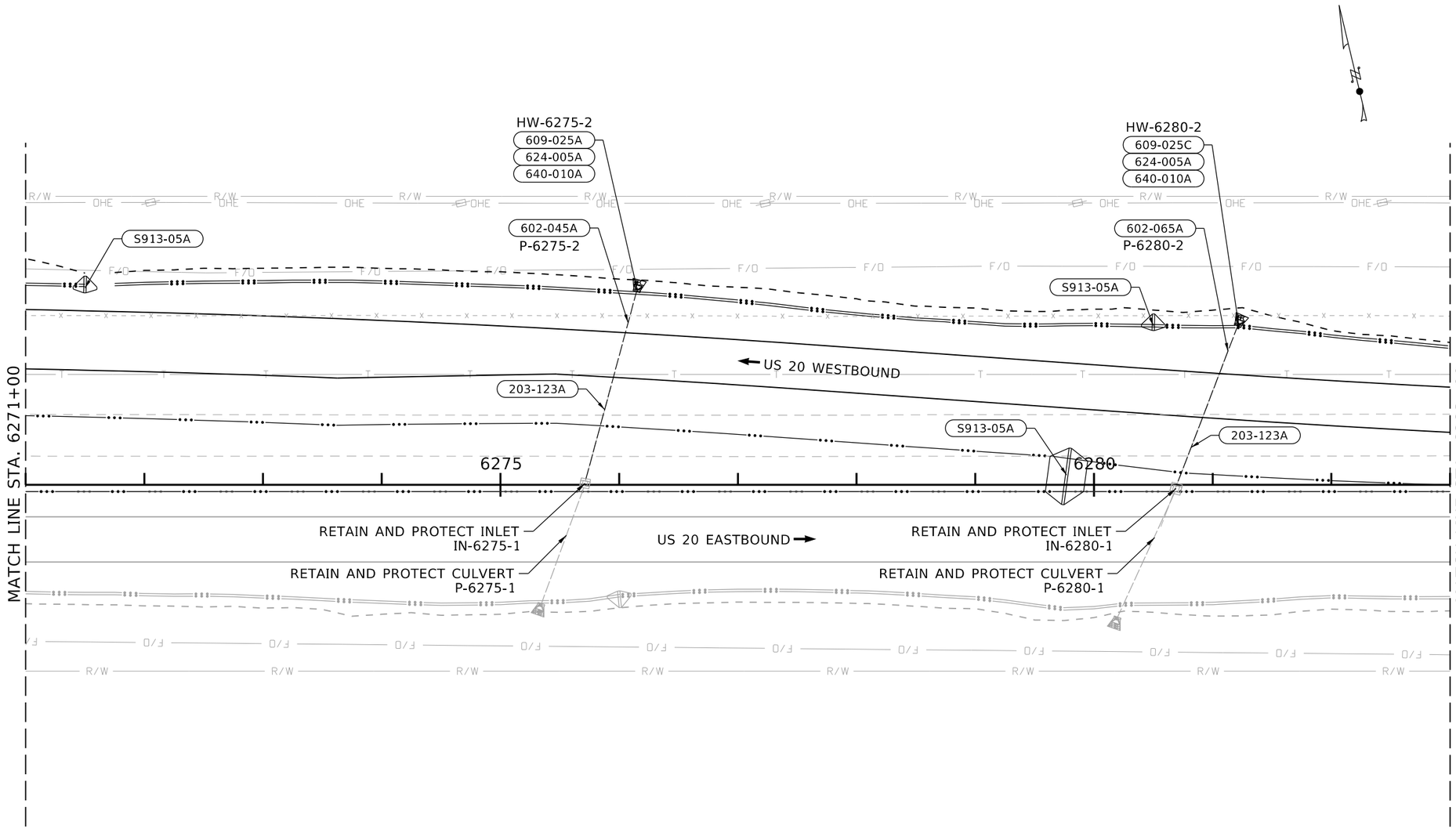
DRAINAGE PLAN
US 20, BONNEVILLE COUNTY
LINE TO MP 291
STA. 6259+00 TO STA. 6271+00
PHASE 2

ENGLISH
COUNTY BINGHAM/BONNEVILLE
KEY NUMBER 24149
SHEET 270 OF 441

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INTERMEDIATE
FOR CONSTRUCTION

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T.3N., R.34E., B.M.




**203-123A** **REMOVAL OF MISCELLANEOUS ITEMS (PIPE)**
83 FT STA. 6275+71.46, 2.94' LT TO STA. 6275+93.09, 82.35' LT
128 FT STA. 6280+68.54, 3.24' LT TO STA. 6281+14.09, 116.12' LT

**602-045A** **24" PIPE CULVERT**
168 FT STA. 6275+71.24, 1.27' LT TO STA. 6275+99.92, 108.15' LT

**602-065A** **36" PIPE CULVERT**
147 FT STA. 6280+69.06, 3.24' LT TO STA. 6281+14.34, 115.98' LT

**609-025A** **MINOR STRUCTURES (24" CONCRETE HEADWALL)**
1 EACH STA. 6276+18.76, 177.93' LT

**609-025C** **MINOR STRUCTURES (36" CONCRETE HEADWALL)**
1 EACH STA. 6281+26.69, 149.33' LT

**624-005A** **LOOSE RIPRAP (CLASS I)**
4.7 CY STA. 6276+18.76, 177.93' LT
10.4 CY STA. 6281+26.69, 149.33' LT

**640-010A** **RIPRAP/EROSION CONTROL GEOTEXTILE**
14 SY STA. 6276+18.76, 177.93' LT
25 SY STA. 6281+26.69, 149.33' LT

**S913-05A** **SP DITCH BERM**
4.9 CY STA. 6271+50, 165.76' LT
32.5 CY STA. 6279+75, 8.23' LT
4.9 CY STA. 6280+50, 134.02' LT

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.

2. IN PHASE 2, REMOVE EXISTING CULVERT, MODIFY INLET OR JUNCTION BOX OPENING TO CONNECT PROPOSED CULVERT AND CONSTRUCT UNDER PHASE 2 ROADWAY.

3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
50 0 50 100

NOT APPROVED
INTERMEDIATE
FOR CONSTRUCTION

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DESIGNED D. ABEDI
DESIGN CHECKED C. MCALISTER
DETAILED P. CONSALVO
DRAWING CHECKED C. MCALISTER

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 24149_DrpI_D202C.DGN
DRAWING DATE: November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT
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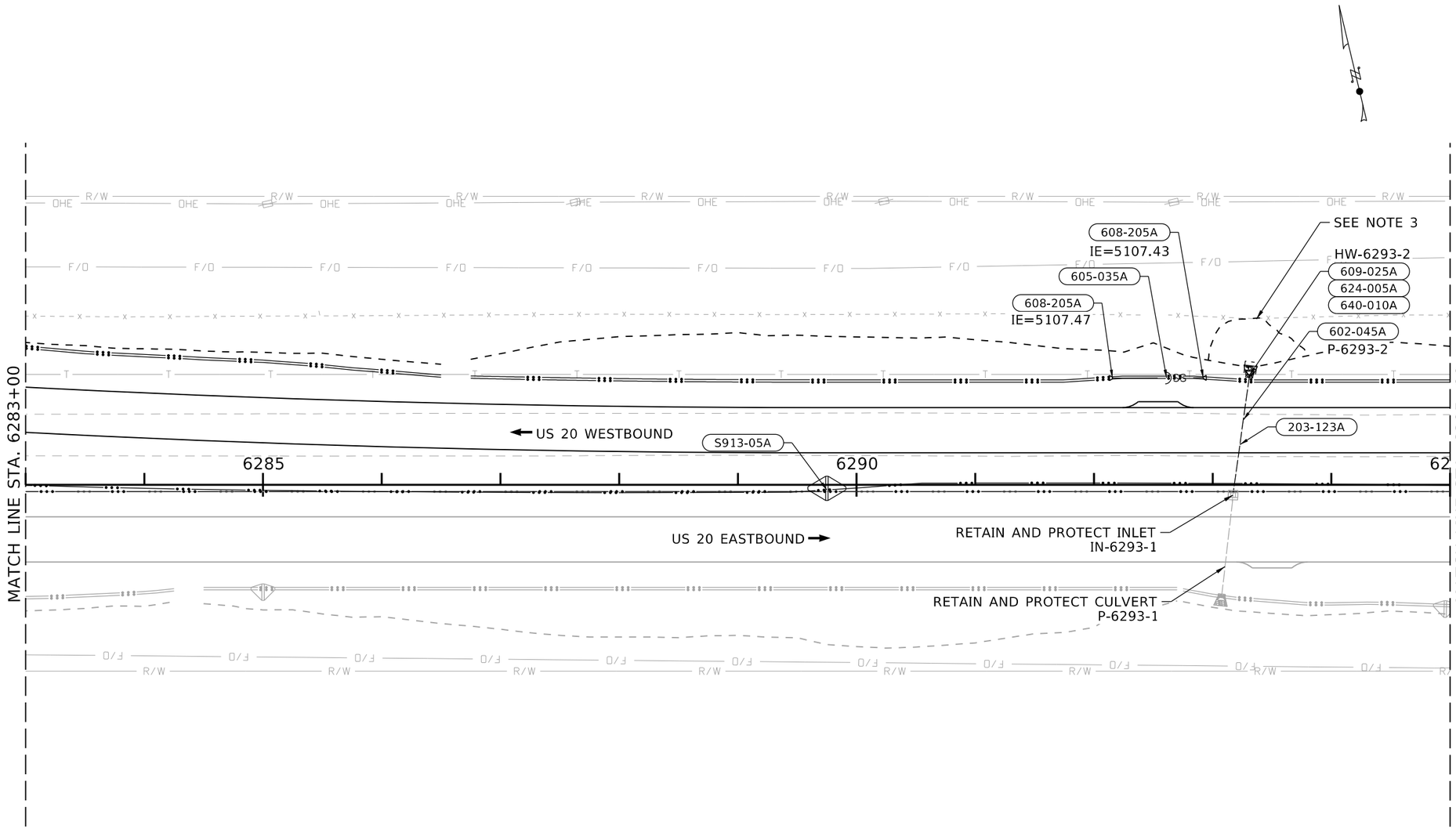
PROJECT NO. A024(149)

DRAINAGE PLAN
US 20, BONNEVILLE COUNTY
LINE TO MP 291
STA. 6271+00 TO STA. 6283+00
PHASE 2

ENGLISH
COUNTY BINGHAM/BONNEVILLE
KEY NUMBER 24149
SHEET 271 OF 441

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T.3N., R.34E., B.M.




**203-123A** **REMOVAL OF MISCELLANEOUS ITEMS (PIPE)**
103 FT STA. 6293+17.06, 2.94' RT TO STA. 6293+31.16, 92.48' LT

**602-045A** **24" PIPE CULVERT**
101 FT STA. 6293+17.19, 8.62' RT TO STA. 6293+30.99, 92.51' LT

**605-035A** **18" STORM SEWER PIPE**
77 FT STA. 6292+15.58, 89.96' LT TO STA. 6292+92.00, 90.16' LT

**608-205A** **METAL SAFETY APRON (PARALLEL) (18")**
1 EACH STA. 6292+15.58, 89.96' LT
1 EACH STA. 6292+92.00, 90.16' LT

**609-025A** **MINOR STRUCTURES (24" CONCRETE HEADWALL)**
1 EACH STA. 6293+30.99, 92.51' LT

**624-005A** **LOOSE RIPRAP (CLASS I)**
4.7 CY STA. 6293+30.99, 92.51' LT

**609-025A** **RIPRAP/EROSION CONTROL GEOTEXTILE**
14 SY STA. 6293+30.99, 92.51' LT

**S913-05A** **SP DITCH BERM**
13.1 CY STA. 6289+75, 2.96' RT

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.

2. IN PHASE 2, REMOVE EXISTING CULVERT, MODIFY INLET OR JUNCTION BOX OPENING TO CONNECT PROPOSED CULVERT AND CONSTRUCT UNDER PHASE 2 ROADWAY.

3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
50 0 50 100

NOT APPROVED FOR CONSTRUCTION
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DESIGNED D. ABEDI
DESIGN CHECKED C. MCALISTER
DETAILED P. CONSALVO
DRAWING CHECKED C. MCALISTER

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 24149_DrpI_D202C.DGN
DRAWING DATE: November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT
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DAVID EVANS AND ASSOCIATES INC.

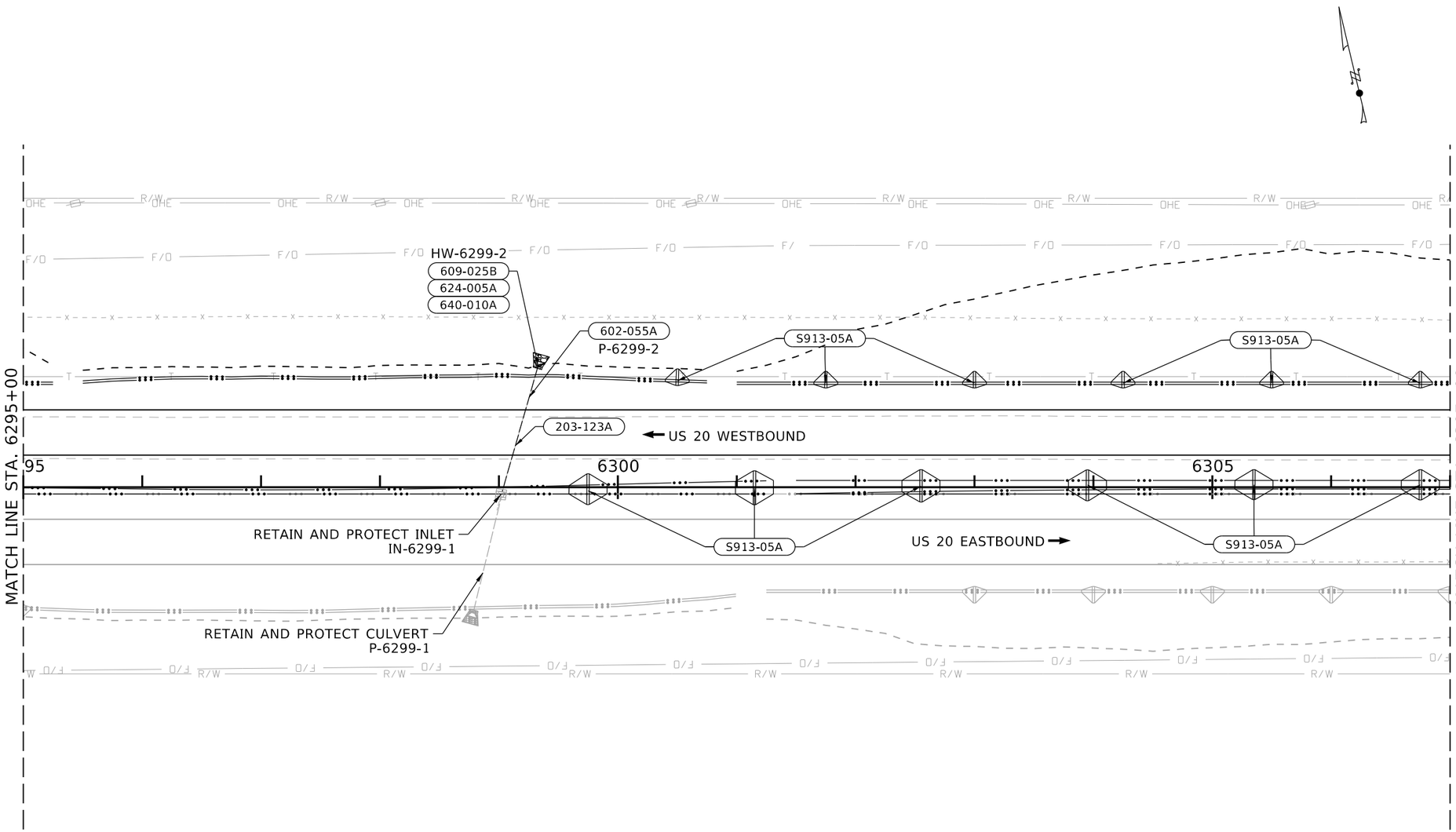
PROJECT NO. A024(149)

DRAINAGE PLAN
US 20, BONNEVILLE COUNTY
LINE TO MP 291
STA. 6283+00 TO STA. 6295+00
PHASE 2

ENGLISH
COUNTY BINGHAM/BONNEVILLE
KEY NUMBER 24149
SHEET 272 OF 441

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T.3N., R.34E., B.M.




| | |
|---|---|
| **203-123A** | **REMOVAL OF MISCELLANEOUS ITEMS (PIPE)** |
| 71 FT | STA. 6299+03.84, 0.00' LT TO STA. 6299+32.99, 102.02' LT |
| **602-055A** | **30" PIPE CULVERT** |
| 111 FT | STA. 6299+01.76, 5.98' RT TO STA. 6299+32.88, 102.71' LT |
| **609-025B** | **MINOR STRUCTURES (30" CONCRETE HEADWALL)** |
| 1 EACH | STA. 6299+32.88, 102.71' LT |
| **624-005A** | **LOOSE RIPRAP (CLASS I)** |
| 7.3 CY | STA. 6299+32.88, 102.71' LT |
| **640-010A** | **RIPRAP/EROSION CONTROL GEOTEXTILE** |
| 19 SY | STA. 6299+32.88, 102.71' LT |
| **S913-05A** | **SP DITCH BERM** |
| 13.1 CY | STA. 6299+75, 2.97' RT |
| 4.9 CY | STA. 6300+50, 89.51' LT |
| 16.2 CY | STA. 6301+15, 0.00' RT |
| 4.9 CY | STA. 6301+75, 87.39' LT |
| 14.8 CY | STA. 6302+55, 0.98' LT |
| 4.9 CY | STA. 6303+00, 87.51' LT |
| 13.4 CY | STA. 6303+95, 2.09' LT |
| 4.9 CY | STA. 6304+25, 87.45' LT |
| 12.7 CY | STA. 6305+35, 1.76' LT |
| 4.9 CY | STA. 6305+50, 87.45' LT |
| 12.9 CY | STA. 6306+75, 2.01' LT |
| 4.9 CY | STA. 6306+75, 87.39' LT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.
2. IN PHASE 2, REMOVE EXISTING CULVERT, MODIFY INLET OR JUNCTION BOX OPENING TO CONNECT PROPOSED CULVERT AND CONSTRUCT UNDER PHASE 2 ROADWAY.
3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
50 0 50 100

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| DESIGNED D. ABEDI | SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY |
| DESIGN CHECKED C. MCALISTER | |
| DETAILED P. CONSALVO | CADD FILE NAME 24149_DrpI_D202C.DGN |
| DRAWING CHECKED C. MCALISTER | DRAWING DATE: November 21, 2025 |

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
DAVID EVANS AND ASSOCIATES INC.

| PROJECT NO. | DRAINAGE PLAN |
|---|---|
| A024(149) | US 20, BONNEVILLE COUNTY<br>LINE TO MP 291<br>STA. 6295+00 TO STA. 6307+00<br>PHASE 2 |

*ENGLISH*

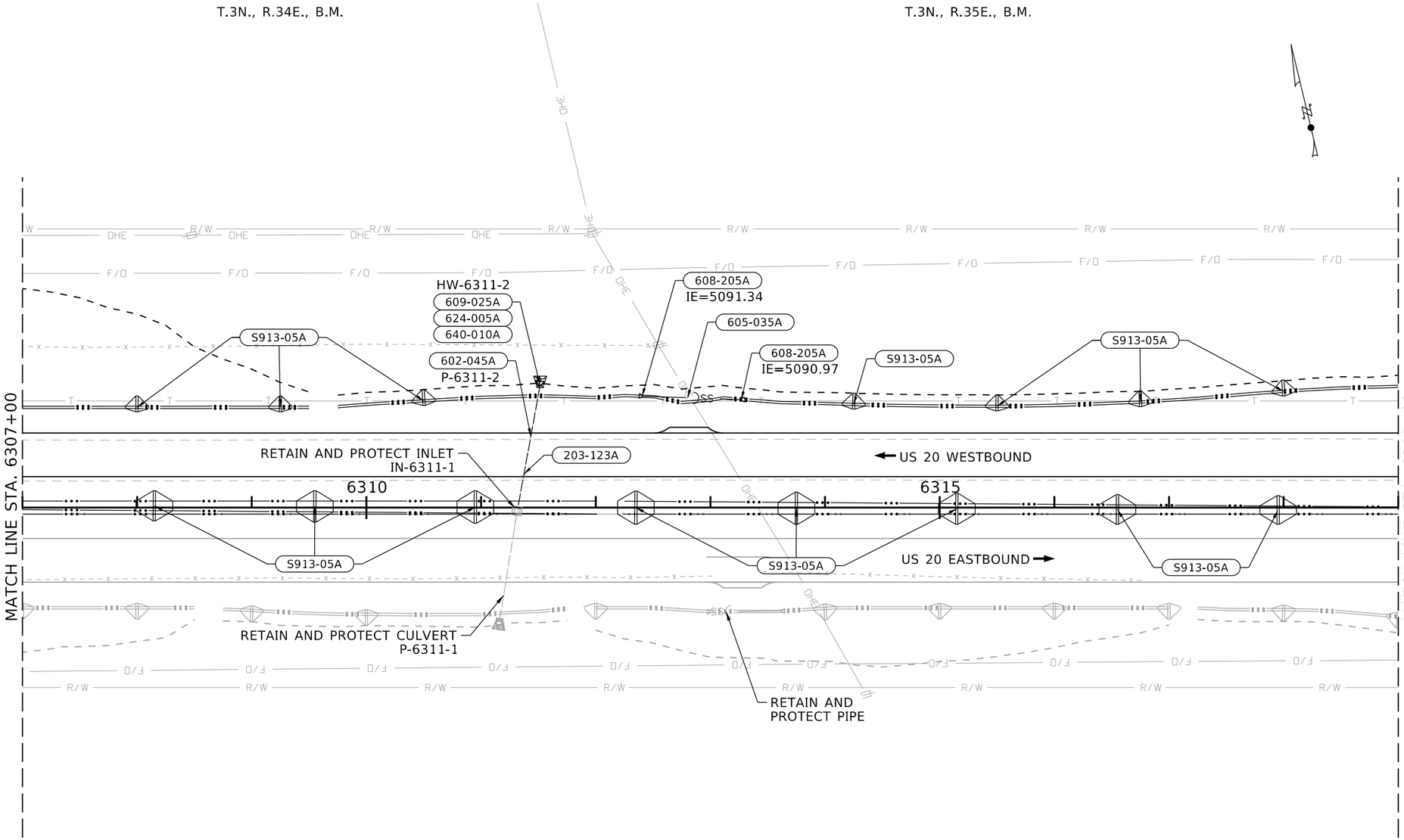
COUNTY BINGHAM/BONNEVILLE

KEY NUMBER 24149

SHEET 273 OF 441

NOT APPROVED
INTERMEDIATE
FOR CONSTRUCTION

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**203-123A** **REMOVAL OF MISCELLANEOUS ITEMS (PIPE)**
112 FT — STA. 6311+31.59, 2.96' LT TO STA. 6311+51.46, 106.61' LT

**602-045A** **24" PIPE CULVERT**
110 FT — STA. 6311+31.24, 2.90' LT TO STA. 6311+51.30, 106.60' LT

**605-035A** **18" STORM SEWER PIPE**
87 FT — STA. 6312+40.43, 97.10' LT TO STA. 6313+27.18, 94.26' LT

**608-205A** **METAL SAFETY APRON (PARALLEL) (18")**
1 EACH — STA. 6312+40.43, 97.10' LT
1 EACH — STA. 6313+27.18, 94.26' LT

**609-025A** **MINOR STRUCTURES (24" CONCRETE HEADWALL)**
1 EACH — STA. 6311+51.29, 106.61' LT

**624-005A** **LOOSE RIPRAP (CLASS I)**
4.7 CY — STA. 6311+51.29, 106.61' LT

**640-010A** **RIPRAP/EROSION CONTROL GEOTEXTILE**
14 SY — STA. 6311+51.29, 106.61' LT

**S913-05A** **SP DITCH BERM**
4.9 CY — STA. 6308+00, 87.45' LT
13.9 CY — STA. 6308+15, 1.50' LT
4.9 CY — STA. 6309+25, 87.45' LT
14.8 CY — STA. 6309+55, 0.99' LT
4.9 CY — STA. 6310+50, 93.06' LT
15.8 CY — STA. 6310+95, 0.46' LT
16.6 CY — STA. 6312+35, 0.00' LT
15.6 CY — STA. 6313+75, 0.58' RT
4.9 CY — STA. 6314+25, 89.94' LT
14.6 CY — STA. 6315+15, 1.18' RT
4.9 CY — STA. 6315+50, 88.37' LT
13.6 CY — STA. 6316+55, 1.54' RT
4.9 CY — STA. 6316+75, 92.00' LT
12.6 CY — STA. 6317+95, 1.85' RT
4.9 CY — STA. 6318+00, 101.39' LT

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.
2. IN PHASE 2, REMOVE EXISTING CULVERT, MODIFY INLET OR JUNCTION BOX OPENING TO CONNECT PROPOSED CULVERT AND CONSTRUCT UNDER PHASE 2 ROADWAY.
3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
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DESIGNED D. ABEDI
DESIGN CHECKED C. MCALISTER
DETAILED P. CONSALVO
DRAWING CHECKED C. MCALISTER

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 24149_DrpI_D202C.DGN
DRAWING DATE: November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
DAVID EVANS AND ASSOCIATES INC.

PROJECT NO. A024(149)

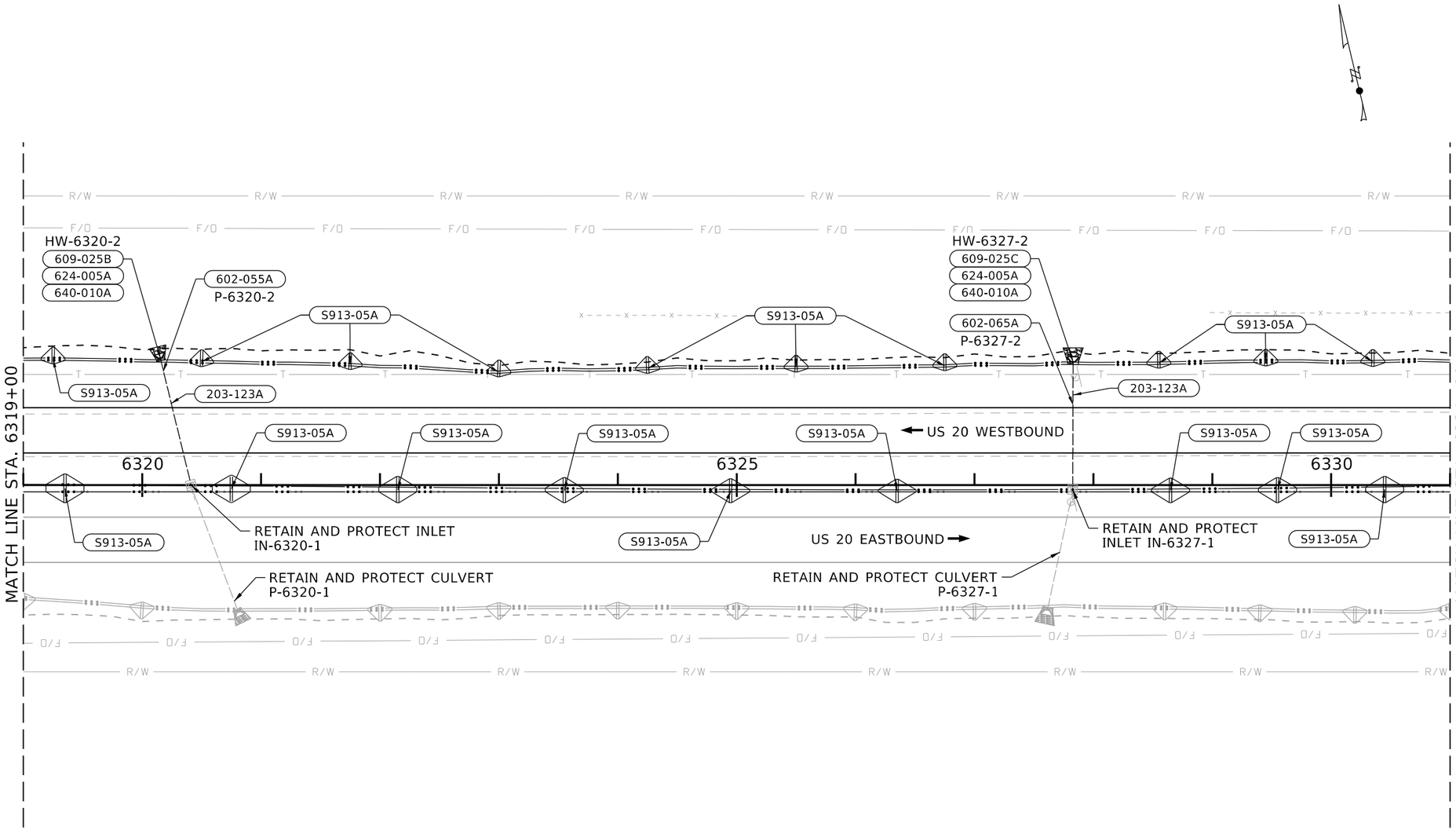
DRAINAGE PLAN
US 20, BONNEVILLE COUNTY
LINE TO MP 291
STA. 6307+00 TO STA. 6319+00
PHASE 2

ENGLISH
COUNTY BINGHAM/BONNEVILLE
KEY NUMBER 24149
SHEET 274 OF 441

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FOR CONSTRUCTION

November 21, 2025 4:51:58 PM
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T.3N., R.35E., B.M.




**203-123A** **REMOVAL OF MISCELLANEOUS ITEMS (PIPE)**

| | |
|---|---|
| 103 FT | STA. 6320+18.02, 94.05' LT TO STA. 6320+42.36, 5.22' RT |
| 99 FT | STA. 6327+82.61, 8.25' RT TO STA. 6327+82.93, 90.37' LT |

**602-055A** **30" PIPE CULVERT**

| | |
|---|---|
| 111 FT | STA. 6320+15.96, 102.82' LT TO STA. 6320+42.23, 5.22' RT |

**602-065A** **36" PIPE CULVERT**

| | |
|---|---|
| 106 FT | STA. 6327+82.68, 8.25' RT TO STA. 6327+82.71, 99.47' LT |

**609-025B** **MINOR STRUCTURES (30" CONCRETE HEADWALL)**

| | |
|---|---|
| 1 EACH | STA. 6320+15.96, 102.82' LT |

**609-025C** **MINOR STRUCTURES (36" CONCRETE HEADWALL)**

| | |
|---|---|
| 1 EACH | STA. 6327+82.71, 99.47' LT |

**624-005A** **LOOSE RIPRAP (CLASS I)**

| | |
|---|---|
| 7.3 CY | STA. 6320+15.96, 102.82' LT |
| 10.4 CY | STA. 6327+82.71, 99.47' LT |

**640-010A** **RIPRAP/EROSION CONTROL GEOTEXTILE**

| | |
|---|---|
| 19 SY | STA. 6320+15.96, 102.82' LT |
| 25 SY | STA. 6327+82.71, 99.47' LT |

**S913-05A** **SP DITCH BERM**

| | |
|---|---|
| 4.9 CY | STA. 6319+25, 105.94' LT |
| 11.7 CY | STA. 6319+35, 2.99' RT |
| 4.9 CY | STA. 6320+50, 103.62' LT |
| 10.7 CY | STA. 6320+75, 2.99' RT |
| 4.9 CY | STA. 6321+75, 101.19' LT |
| 9.7 CY | STA. 6322+15, 3.71' RT |
| 4.9 CY | STA. 6323+00, 95.03' LT |
| 8.7 CY | STA. 6323+55, 4.23' RT |
| 4.9 CY | STA. 6324+25, 97.98' LT |
| 7.8 CY | STA. 6324+95, 4.68' RT |
| 4.9 CY | STA. 6325+50, 99.03' LT |
| 7.5 CY | STA. 6326+35, 4.85' RT |
| 4.9 CY | STA. 6326+75, 100.33' LT |
| 4.9 CY | STA. 6328+55, 102.42' LT |
| 8.3 CY | STA. 6328+65, 4.41' RT |
| 4.9 CY | STA. 6329+45, 104.13' LT |
| 9.0 CY | STA. 6329+55, 4.10' RT |
| 4.9 CY | STA. 6330+35, 103.78' LT |
| 9.9 CY | STA. 6330+45, 3.60' RT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.

2. IN PHASE 2, REMOVE EXISTING CULVERT, MODIFY INLET OR JUNCTION BOX OPENING TO CONNECT PROPOSED CULVERT AND CONSTRUCT UNDER PHASE 2 ROADWAY.

3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

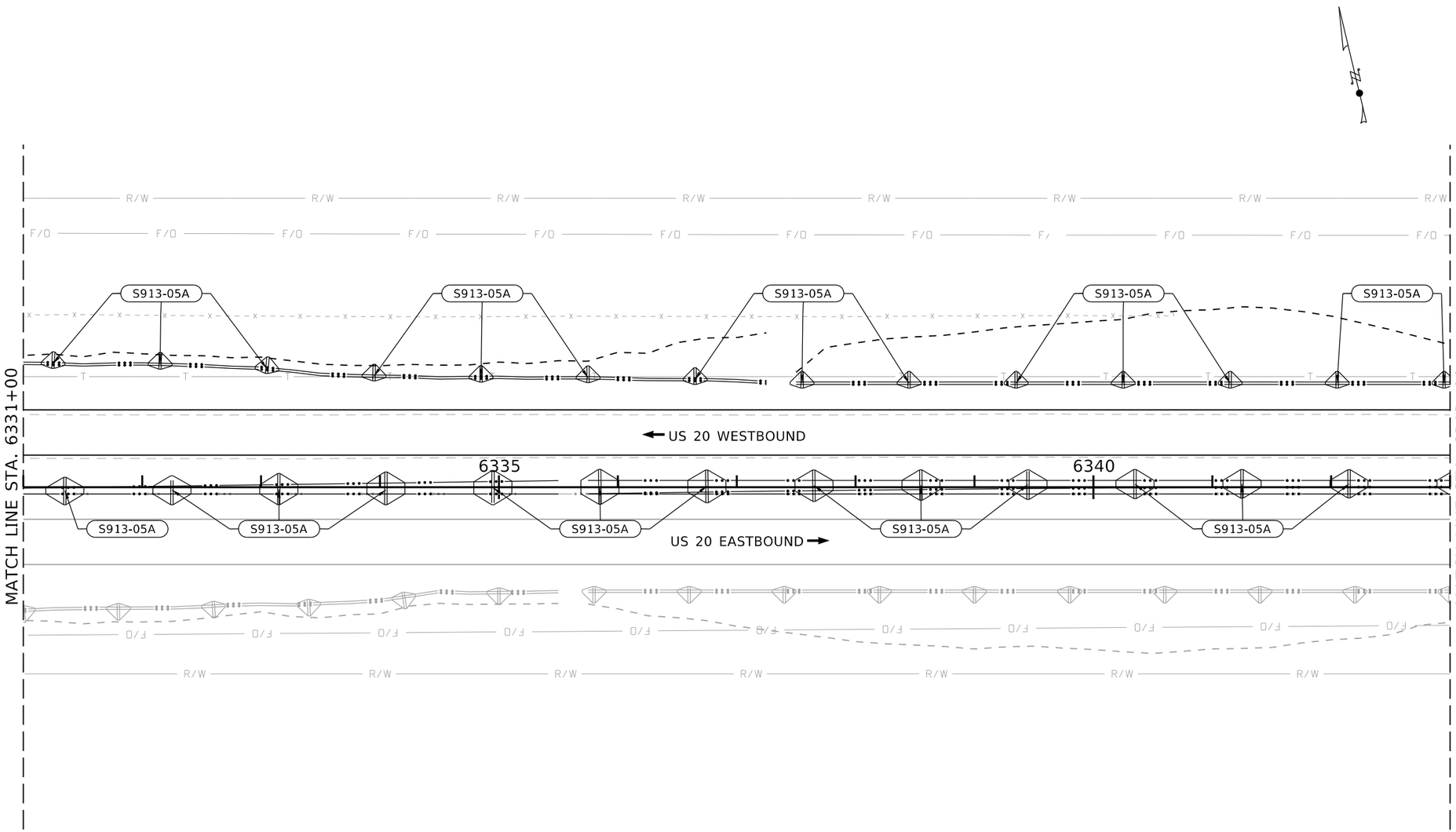
Scale (Feet)
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| NO. | DATE | BY | DESCRIPTION | D. ABEDI | | | | | |
| | | | | DESIGN CHECKED C. MCALISTER | | | A024(149) | US 20, BONNEVILLE COUNTY LINE TO MP 291 STA. 6319+00 TO STA. 6331+00 PHASE 2 | COUNTY BINGHAM/BONNEVILLE |
| | | | | DETAILED P. CONSALVO | CADD FILE NAME 24149_Drpl_D202D.DGN | YOUR Safety→YOUR Mobility→YOUR Economic Opportunity | | | KEY NUMBER 24149 |
| | | | | DRAWING CHECKED C. MCALISTER | DRAWING DATE: November 21, 2025 | DAVID EVANS AND ASSOCIATES INC. | | | SHEET 275 OF 441 |

NOT APPROVED FOR INTERMEDIATE CONSTRUCTION

November 21, 2025 4:52:19 PM
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T.3N., R.35E., B.M.




| S913-05A | SP DITCH BERM |
|---|---|
| 4.9 CY | STA. 6331+25, 103.92' LT |
| 11.0 CY | STA. 6331+35, 2.99' RT |
| 4.9 CY | STA. 6332+15, 103.31' LT |
| 12.2 CY | STA. 6332+25, 2.36' RT |
| 4.9 CY | STA. 6333+05, 99.62' LT |
| 13.4 CY | STA. 6333+15, 1.73' RT |
| 4.9 CY | STA. 6333+95, 93.42 LT |
| 14.6 CY | STA. 6334+05, 2.39' RT |
| 4.9 CY | STA. 6334+85, 92.30' LT |
| 15.8 CY | STA. 6334+95, 0.46' RT |
| 4.9 CY | STA. 6335+75, 92.01' LT |
| 16.4 CY | STA. 6335+85, 0.17' LT |
| 4.9 CY | STA. 6336+65, 90.43' LT |
| 15.2 CY | STA. 6336+75, 0.80' LT |
| 4.9 CY | STA. 6337+55, 87.42' LT |
| 14.1 CY | STA. 6337+65, 1.36' LT |
| 13.2 CY | STA. 6338+55, 1.84' LT |
| 4.9 CY | STA. 6339+45, 87.42' LT |
| 12.5 CY | STA. 6339+45, 2.22' LT |
| 4.9 CY | STA. 6339+35, 87.42' LT |
| 4.9 CY | STA. 6340+25, 87.42' LT |
| 11.9 CY | STA. 6340+35, 2.52' LT |
| 4.9 CY | STA. 6341+15, 87.42' LT |
| 11.5 CY | STA. 6341+25, 2.73' LT |
| 4.9 CY | STA. 6342+05, 87.42' LT |
| 11.3 CY | STA. 6342+15, 2.85' LT |
| 4.9 CY | STA. 6342+95, 87.42' LT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.

Scale (Feet)
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| REVISIONS | | | |
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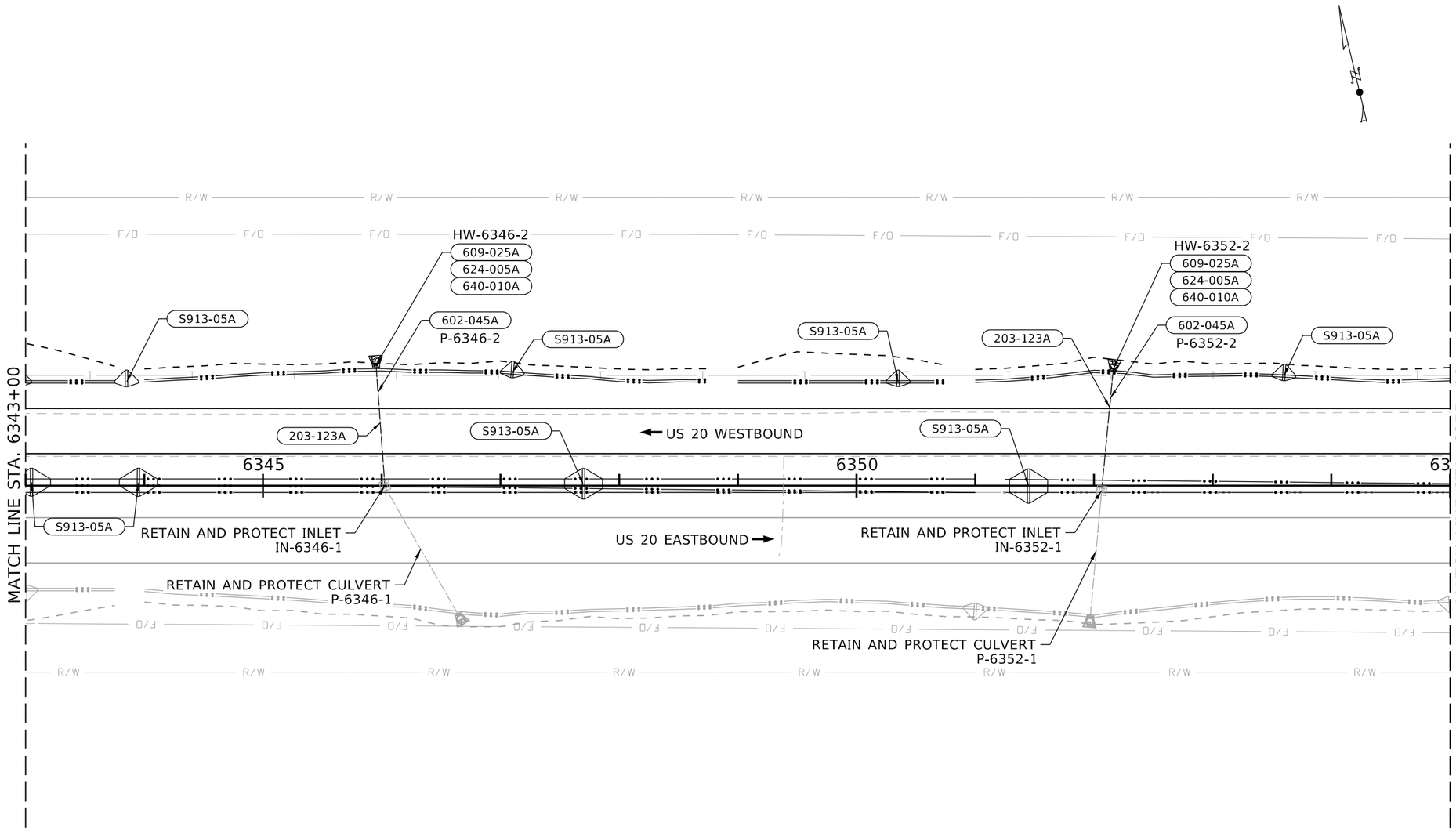
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|---|---|---|
| DESIGNED D. ABEDI | SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY | IDAHO TRANSPORTATION DEPARTMENT<br>YOUR Safety→YOUR Mobility→YOUR Economic Opportunity<br>DAVID EVANS AND ASSOCIATES INC. |
| DESIGN CHECKED C. MCALISTER | | |
| DETAILED P. CONSALVO | CADD FILE NAME 24149_DrpI_D202D.DGN | |
| DRAWING CHECKED C. MCALISTER | DRAWING DATE: November 21, 2025 | |

| PROJECT NO. | DRAINAGE PLAN | ENGLISH |
|---|---|---|
| A024(149) | US 20, BONNEVILLE COUNTY<br>LINE TO MP 291<br>STA. 6331+00 TO STA. 6343+00<br>PHASE 2 | COUNTY BINGHAM/BONNEVILLE<br>KEY NUMBER 24149<br>SHEET 276 OF 441 |

NOT APPROVED
INTERMEDIATE FOR CONSTRUCTION

November 21, 2025 4:52:23 PM
pw://itd-pw.bentley.com:itd-pw-01/Documents/District 6/Projects/prj24394/Project_Development/Plan Sheets/Package 2 (KN 24149)/Drainage/24149_DrpI_D202D

T.3N., R.35E., B.M.




**203-123A REMOVAL OF MISCELLANEOUS ITEMS (PIPE)**

| | |
|---|---|
| 98 FT | STA. 6345+95.50, 97.43' LT TO STA. 6346+02.64, 0.00' LT |
| 104 FT | STA. 6352+06.46, 3.95' LT TO STA. 6352+16.31, 98.34' LT |

**602-045A 24" PIPE CULVERT**

| | |
|---|---|
| 101 FT | STA. 6345+96.05, 96.98' LT TO STA. 6346+02.64, 0.00' LT |
| 102 FT | STA. 6352+06.46, 3.95' LT TO STA. 6352+16.48, 98.32' LT |

**609-025A MINOR STRUCTURES (24" CONCRETE HEADWALL)**

| | |
|---|---|
| 1 EACH | STA. 6345+96.05, 96.98' LT |
| 1 EACH | STA. 6352+16.48, 98.32' LT |

**624-005A LOOSE RIPRAP (CLASS I)**

| | |
|---|---|
| 4.7 CY | STA. 6345+96.05, 96.98' LT |
| 4.7 CY | STA. 6352+16.48, 98.32' LT |

**640-010A RIPRAP/EROSION CONTROL GEOTEXTILE**

| | |
|---|---|
| 14 SY | STA. 6345+96.05, 96.98' LT |
| 14 SY | STA. 6352+16.48, 98.32' LT |

**S913-05A SP DITCH BERM**

| | |
|---|---|
| 11.2 CY | STA. 6343+05, 2.89' LT |
| 4.9 CY | STA. 6343+85, 87.42' LT |
| 11.3 CY | STA. 6343+95, 2.83' LT |
| 4.9 CY | STA. 6347+10, 94.94' LT |
| 13.6 CY | STA. 6347+70, 1.65' LT |
| 4.9 CY | STA. 6350+35, 87.45' LT |
| 16.3 CY | STA. 6351+45, 0.22' RT |
| 4.9 CY | STA. 6353+60, 92.42' LT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.
2. IN PHASE 2, REMOVE EXISTING CULVERT, MODIFY INLET OR JUNCTION BOX OPENING TO CONNECT PROPOSED CULVERT AND CONSTRUCT UNDER PHASE 2 ROADWAY.
3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
50 0 50 100

| REVISIONS | | | |
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| NO. | DATE | BY | DESCRIPTION |
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DESIGNED D. ABEDI
DESIGN CHECKED C. MCALISTER
DETAILED P. CONSALVO
DRAWING CHECKED C. MCALISTER

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 24149_DrpI_D202D.DGN
DRAWING DATE: November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
DAVID EVANS AND ASSOCIATES INC.

PROJECT NO. A024(149)

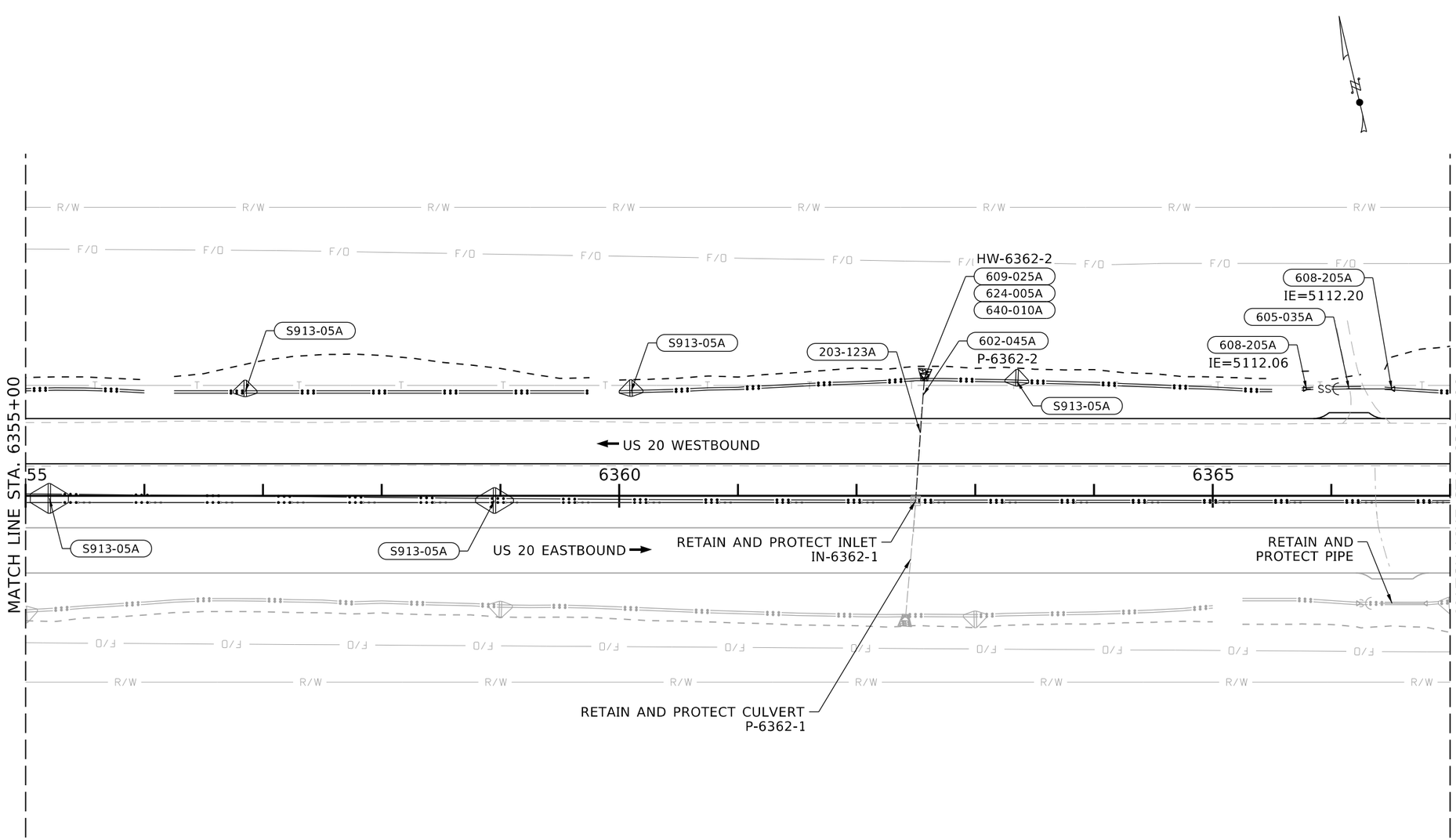
DRAINAGE PLAN
US 20, BONNEVILLE COUNTY
LINE TO MP 291
STA. 6343+00 TO STA. 6355+00
PHASE 2

ENGLISH
COUNTY BINGHAM/BONNEVILLE
KEY NUMBER 24149
SHEET 277 OF 441

NOT APPROVED
INTERMEDIATE
FOR CONSTRUCTION

November 21, 2025 4:52:27 PM
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T.3N., R.35E., B.M.




| | |
|---|---|
| **203-123A** | **REMOVAL OF MISCELLANEOUS ITEMS (PIPE)** |
| 80 FT | STA. 6362+49.72, 4.16' LT TO STA. 6362+54.80, 74.95' LT |
| **602-045A** | **24" PIPE CULVERT** |
| 102 FT | STA. 6362+49.72, 4.16' LT TO STA. 6362+56.60, 93.60' LT |
| **605-035A** | **18" STORM SEWER PIPE** |
| 72 FT | STA. 6365+78.99, 90.03' LT TO STA. 6366+50.75, 90.05' LT |
| **608-205A** | **METAL SAFETY APRON (PARALLEL) (18")** |
| 1 EACH | STA. 6365+78.99, 90.03' LT |
| 1 EACH | STA. 6366+50.75, 90.05' LT |
| **609-025A** | **MINOR STRUCTURES (24" CONCRETE HEADWALL)** |
| 1 EACH | STA. 6362+56.61, 93.60' LT |
| **624-005A** | **LOOSE RIPRAP (CLASS I)** |
| 4.7 CY | STA. 6362+56.61, 93.60' LT |
| **640-010A** | **RIPRAP/EROSION CONTROL GEOTEXTILE** |
| 14 SY | STA. 6362+56.61, 93.60' LT |
| **S913-05A** | **SP DITCH BERM** |
| 12.7 CY | STA. 6355+20, 2.09' RT |
| 4.9 CY | STA. 6356+85, 87.45' LT |
| 9.2 CY | STA. 6358+95, 3.96' RT |
| 4.9 CY | STA. 6360+10, 87.77' LT |
| 4.9 CY | STA. 6363+35, 96.47' LT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.
2. IN PHASE 2, REMOVE EXISTING CULVERT, MODIFY INLET OR JUNCTION BOX OPENING TO CONNECT PROPOSED CULVERT AND CONSTRUCT UNDER PHASE 2 ROADWAY.
3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
50 0 50 100

| REVISIONS | | | |
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| DESIGNED D. ABEDI | SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY |
| DESIGN CHECKED C. MCALISTER | |
| DETAILED P. CONSALVO | CADD FILE NAME 24149_DrpI_D202D.DGN |
| DRAWING CHECKED C. MCALISTER | DRAWING DATE: November 21, 2025 |

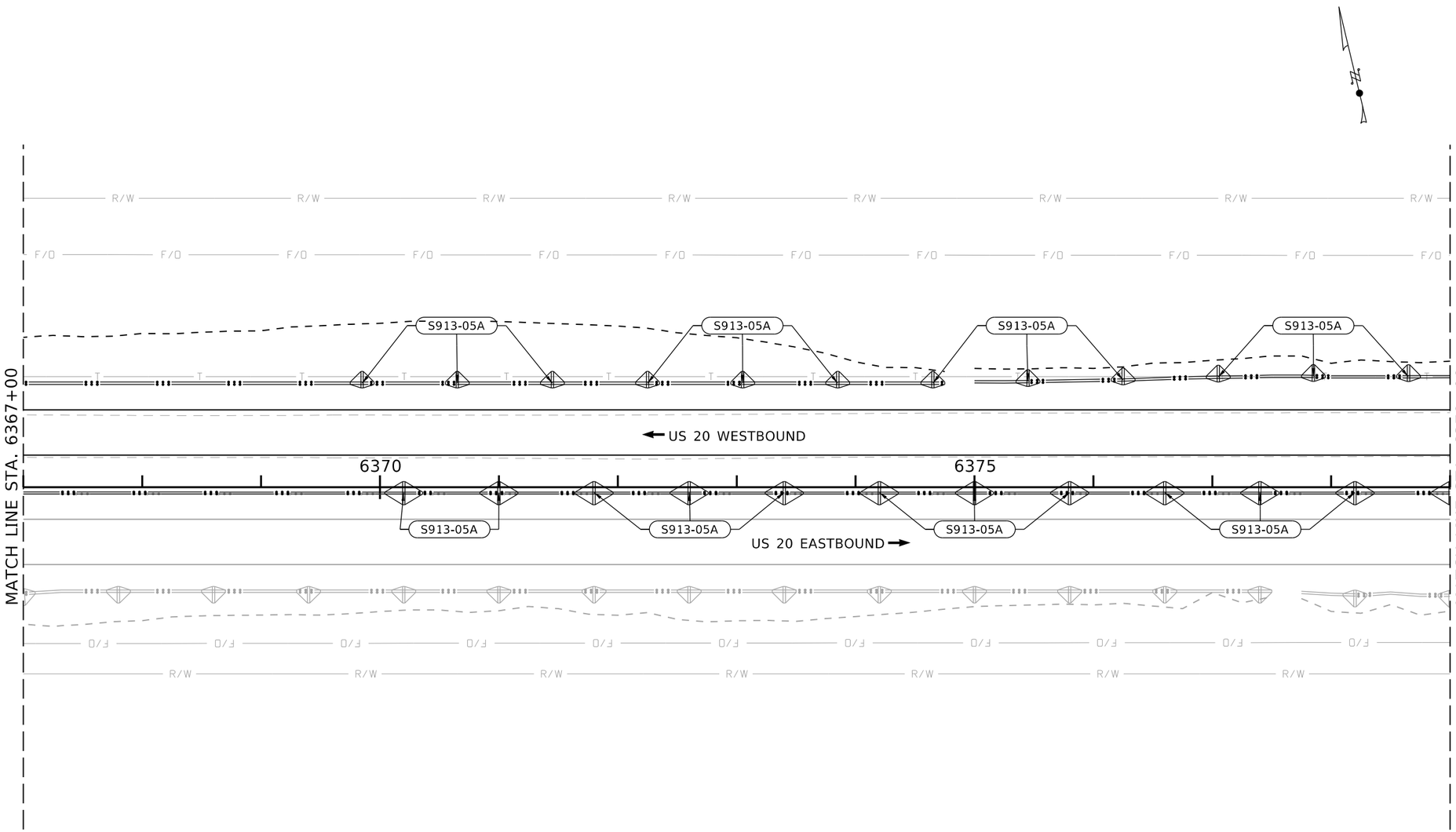
IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
DAVID EVANS AND ASSOCIATES INC.

| PROJECT NO. | DRAINAGE PLAN | ENGLISH |
|---|---|---|
| A024(149) | US 20, BONNEVILLE COUNTY<br>LINE TO MP 291<br>STA. 6355+00 TO STA. 6367+00<br>PHASE 2 | COUNTY BINGHAM/BONNEVILLE<br>KEY NUMBER 24149<br>SHEET 278 OF 441 |

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INTERMEDIATE

November 21, 2025 4:52:30 PM
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T.3N., R.35E., B.M.




| S913-05A | SP DITCH BERM |
|---|---|
| 4.9 CY | STA. 6369+85, 87.45' LT |
| 9.2 CY | STA. 6370+20, 4.41' RT |
| 4.9 CY | STA. 6370+65, 87.45' LT |
| 8.8 CY | STA. 6371+00, 4.41' RT |
| 4.9 CY | STA. 6371+45, 87.45' LT |
| 8.8 CY | STA. 6371+80, 4.41' RT |
| 4.9 CY | STA. 6372+25, 87.45' LT |
| 8.8 CY | STA. 6372+60, 4.41' RT |
| 4.9 CY | STA. 6373+05, 87.45' LT |
| 8.8 CY | STA. 6373+40, 4.41' RT |
| 4.9 CY | STA. 6373+85, 87.45' LT |
| 8.8 CY | STA. 6374+20, 4.41' RT |
| 4.9 CY | STA. 6374+65, 87.45' LT |
| 8.8 CY | STA. 6375+00, 4.41' RT |
| 4.9 CY | STA. 6375+45, 88.82' LT |
| 8.8 CY | STA. 6375+80, 4.41' RT |
| 4.9 CY | STA. 6376+25, 90.15' LT |
| 8.8 CY | STA. 6376+60, 4.41' RT |
| 4.9 CY | STA. 6377+05, 92.50' LT |
| 8.8 CY | STA. 6377+40, 4.41' RT |
| 4.9 CY | STA. 6377+85, 93.11' LT |
| 8.8 CY | STA. 6378+20, 4.41' RT |
| 4.9 CY | STA. 6378+65, 92.95' LT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.

Scale (Feet)
50 0 50 100

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DESIGNED D. ABEDI
DESIGN CHECKED C. MCALISTER
DETAILED P. CONSALVO
DRAWING CHECKED C. MCALISTER

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 24149_DrpI_D202D.DGN
DRAWING DATE: November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
DAVID EVANS AND ASSOCIATES INC.

PROJECT NO. A024(149)

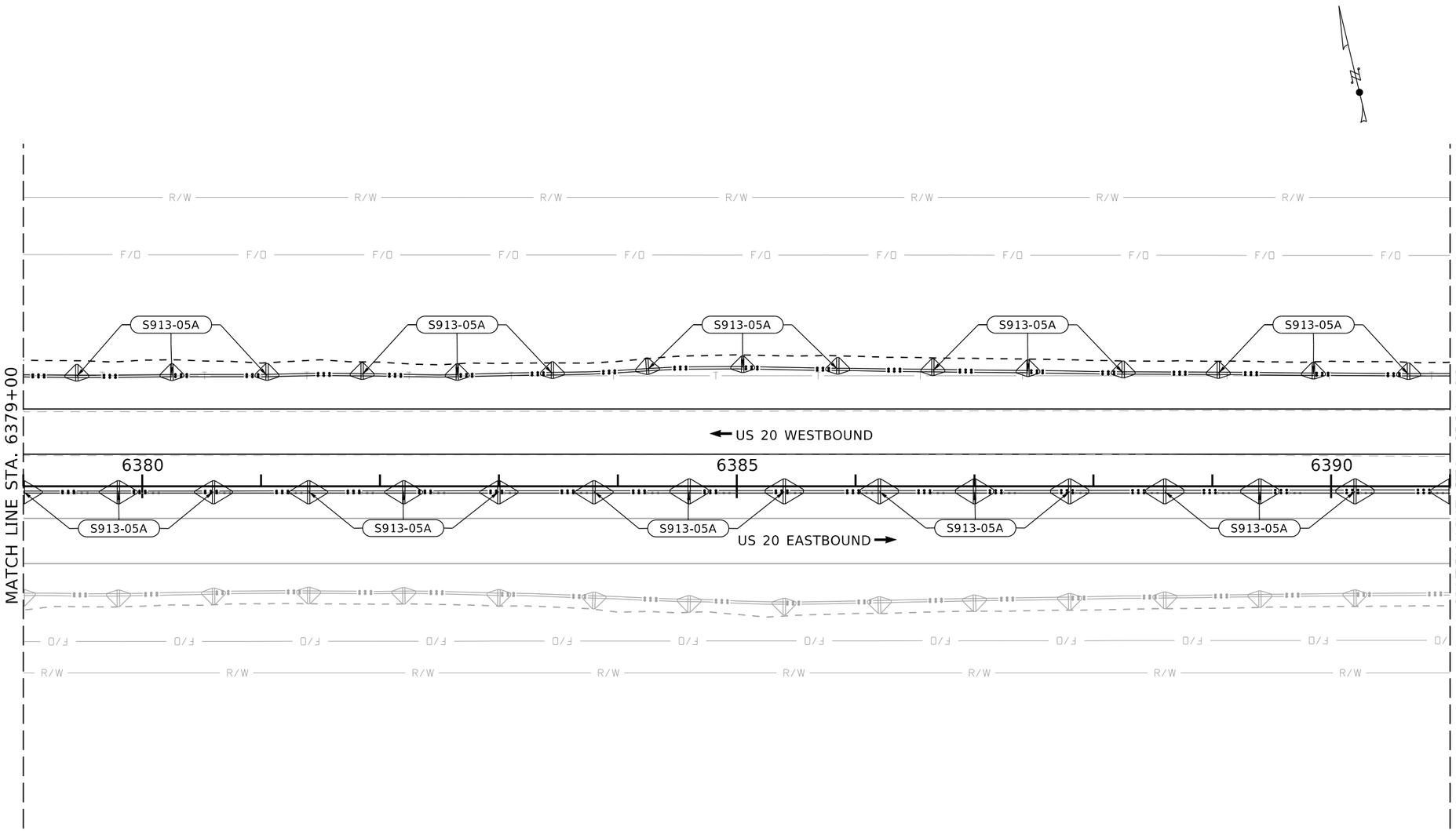
DRAINAGE PLAN
US 20, BONNEVILLE COUNTY
LINE TO MP 291
STA. 6367+00 TO STA. 6379+00
PHASE 2

ENGLISH
COUNTY BINGHAM/BONNEVILLE
KEY NUMBER 24149
SHEET 279 OF 441

NOT APPROVED
INTERMEDIATE
FOR CONSTRUCTION

November 21, 2025 4:52:35 PM
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T.3N., R.35E., B.M.




| S913-05A | SP DITCH BERM |
|---|---|
| 8.8 CY | STA. 6379+00, 4.41' RT |
| 4.9 CY | STA. 6379+45, 92.50' LT |
| 8.8 CY | STA. 6379+80, 4.41' RT |
| 4.9 CY | STA. 6380+25, 93.09' LT |
| 8.8 CY | STA. 6380+60, 4.41' RT |
| 4.9 CY | STA. 6381+05, 93.19' LT |
| 8.8 CY | STA. 6381+40, 4.41' RT |
| 4.9 CY | STA. 6381+85, 93.91' LT |
| 8.8 CY | STA. 6382+20, 4.41' RT |
| 4.9 CY | STA. 6382+65, 93.15' LT |
| 8.8 CY | STA. 6383+00, 4.41' RT |
| 4.9 CY | STA. 6383+45, 94.75' LT |
| 8.8 CY | STA. 6383+80, 4.41' RT |
| 4.9 CY | STA. 6384+25, 98.09' LT |
| 8.8 CY | STA. 6384+60, 4.41' RT |
| 4.9 CY | STA. 6385+05, 99.68' LT |
| 8.8 CY | STA. 6385+40, 4.41' RT |
| 4.9 CY | STA. 6385+85, 98.34' LT |
| 8.8 CY | STA. 6386+20, 4.41' RT |
| 4.9 CY | STA. 6386+65, 97.28' LT |
| 8.8 CY | STA. 6387+00, 4.41' RT |
| 4.9 CY | STA. 6387+45, 96.40' LT |
| 8.8 CY | STA. 6387+80, 4.41' RT |
| 4.9 CY | STA. 6388+25, 95.31' LT |
| 8.8 CY | STA. 6388+60, 4.41' RT |
| 4.9 CY | STA. 6389+05, 94.92' LT |
| 8.8 CY | STA. 6389+40, 4.41' RT |
| 4.9 CY | STA. 6389+85, 94.29' LT |
| 8.8 CY | STA. 6390+20, 4.41' RT |
| 4.9 CY | STA. 6390+65, 93.86' LT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.

Scale (Feet)
50 0 50 100

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DESIGNED D. ABEDI
DESIGN CHECKED C. MCALISTER
DETAILED P. CONSALVO
DRAWING CHECKED C. MCALISTER

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 24149_DrpI_D202D.DGN
DRAWING DATE: November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT
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DAVID EVANS AND ASSOCIATES INC.

PROJECT NO. A024(149)

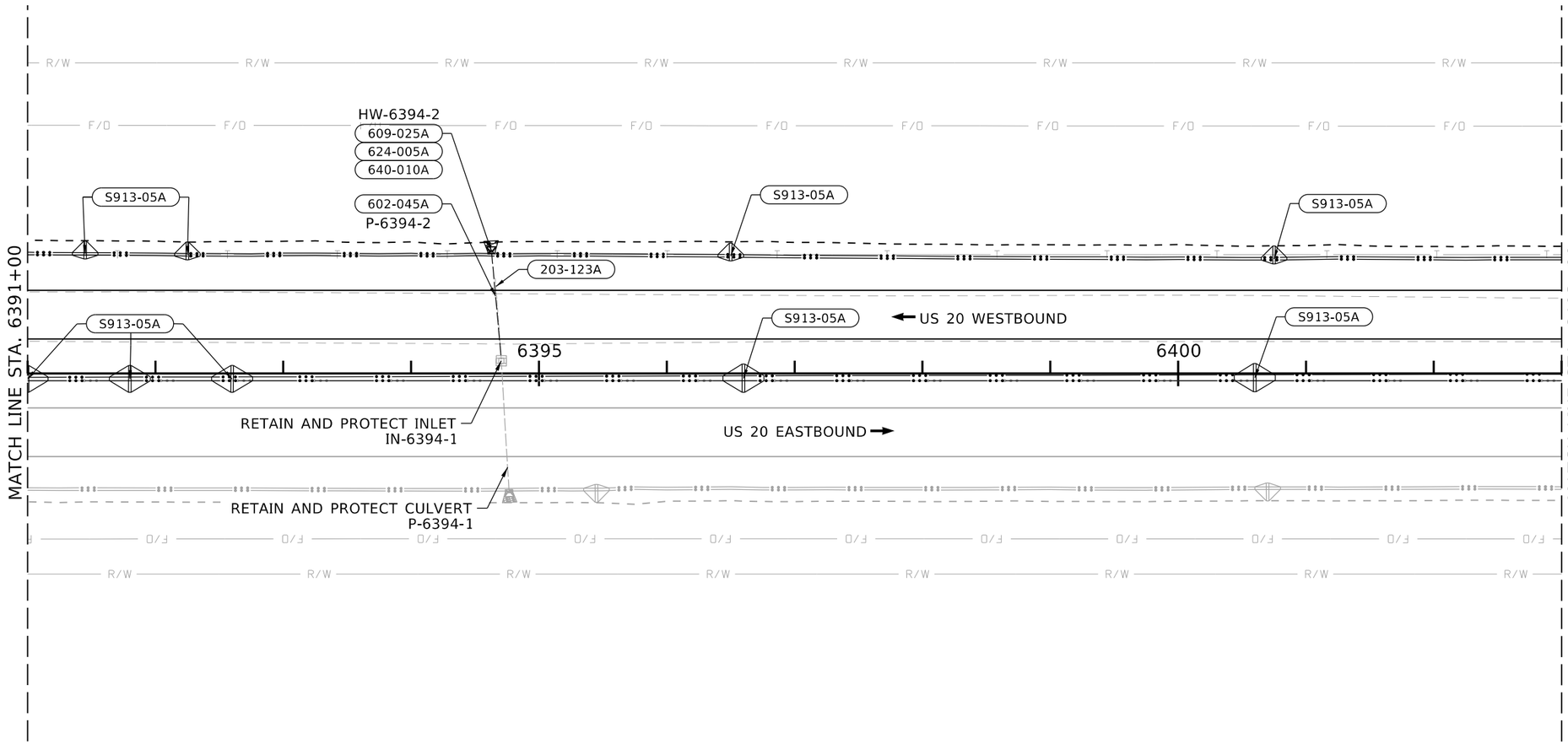
DRAINAGE PLAN
US 20, BONNEVILLE COUNTY
LINE TO MP 291
STA. 6379+00 TO STA. 6391+00
PHASE 2

ENGLISH
COUNTY BINGHAM/BONNEVILLE
KEY NUMBER 24149
SHEET 280 OF 441

NOT APPROVED
INTERMEDIATE
FOR CONSTRUCTION

November 21, 2025 4:52:39 PM
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T.3N., R.35E., B.M.




**203-123A** REMOVAL OF MISCELLANEOUS ITEMS (PIPE)
65 FT — STA. 6394+65.82, 74.81' LT TO STA. 6394+70.58, 10.97' LT

**602-045A** 24" PIPE CULVERT
83 FT — STA. 6394+63.43, 89.78' LT TO STA. 6394+70.91, 11.05' LT

**609-025A** MINOR STRUCTURES (24" CONCRETE HEADWALL)
1 EACH — STA. 6394+63.43, 89.78' LT

**624-005A** LOOSE RIPRAP (CLASS I)
4.7 CY — STA. 6394+63.43, 89.78' LT

**640-010A** RIPRAP/EROSION CONTROL GEOTEXTILE
14 SY — STA. 6394+63.43, 89.78' LT

**S913-05A** SP DITCH BERM
8.8 CY — STA. 6391+00, 4.41' RT
4.9 CY — STA. 6391+45, 93.61' LT
8.8 CY — STA. 6391+80, 4.41' RT
4.9 CY — STA. 6392+25, 92.86' LT
8.8 CY — STA. 6392+60, 4.41' RT
4.9 CY — STA. 6396+50, 92.06' LT
7.9 CY — STA. 6396+60, 3.76' RT
10.4 CY — STA. 6400+60, 3.35' RT
4.9 CY — STA. 6400+75, 89.78' LT

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.
2. IN PHASE 2, REMOVE EXISTING CULVERT, MODIFY INLET OR JUNCTION BOX OPENING TO CONNECT PROPOSED CULVERT AND CONSTRUCT UNDER PHASE 2 ROADWAY.
3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
50 0 50 100

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DESIGNED D. ABEDI
DESIGN CHECKED C. MCALISTER
DETAILED P. CONSALVO
DRAWING CHECKED C. MCALISTER

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 24149_DrpI_D202D.DGN
DRAWING DATE: November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT
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DAVID EVANS AND ASSOCIATES INC.

PROJECT NO. A024(149)

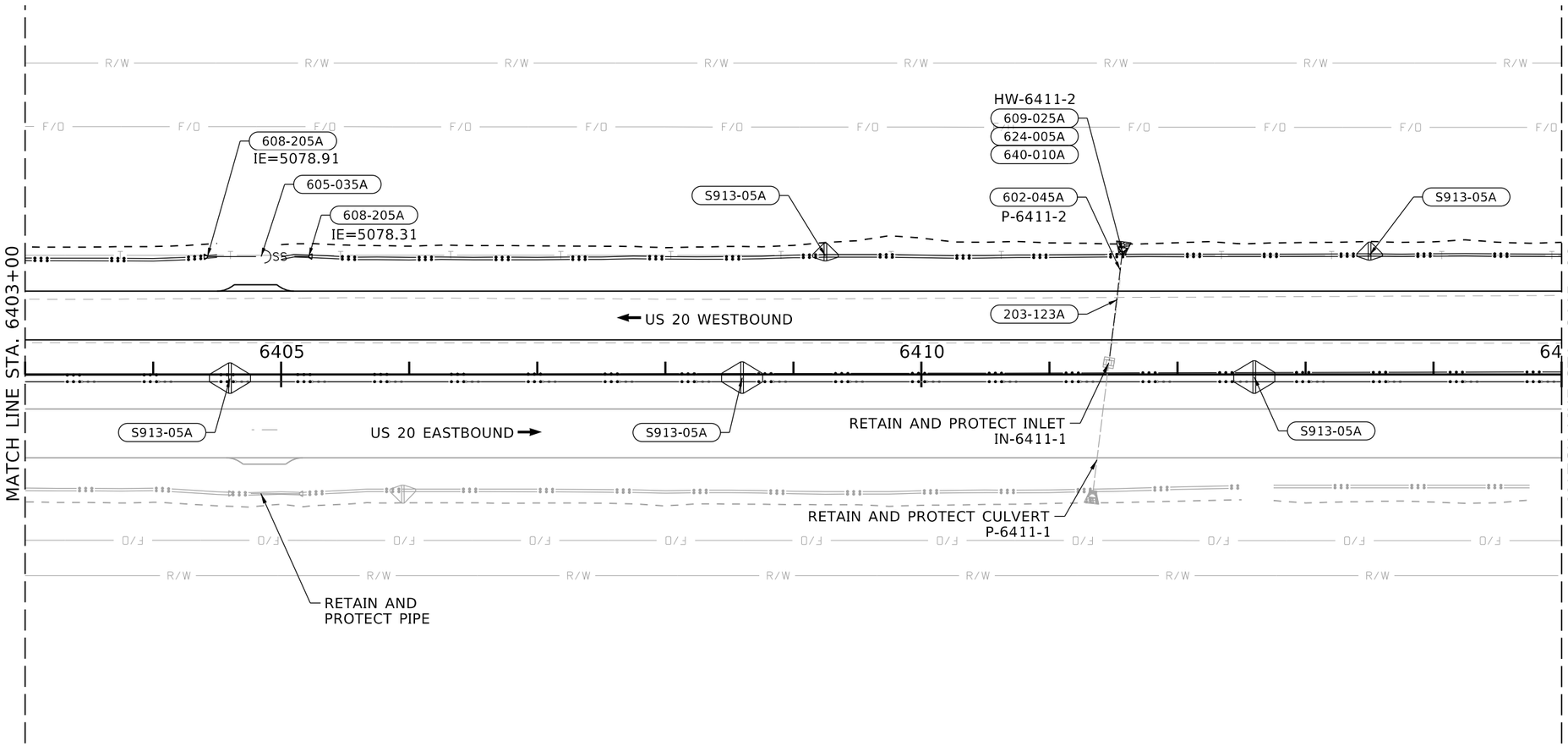
DRAINAGE PLAN
US 20, BONNEVILLE COUNTY
LINE TO MP 291
STA. 6391+00 TO STA. 6403+00
PHASE 2

ENGLISH
COUNTY BINGHAM/BONNEVILLE
KEY NUMBER 24149
SHEET 281 OF 441

NOT APPROVED
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November 21, 2025 4:52:45 PM
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T.3N., R.35E., B.M.




| | |
|---|---|
| **203-123A** | **REMOVAL OF MISCELLANEOUS ITEMS (PIPE)** |
| 66 FT | STA. 6411+46.60, 10.12' LT TO STA. 6411+55.33, 75.18' LT |
| **602-045A** | **24" PIPE CULVERT** |
| 84 FT | STA. 6411+46.65, 8.91' LT TO STA. 6411+56.93, 95.56' LT |
| **605-035A** | **18" STORM SEWER PIPE** |
| 80 FT | STA. 6404+42.40, 91.93' LT TO STA. 6405+21.55, 92.12' LT |
| **608-205A** | **METAL SAFETY APRON (PARALLEL) (18")** |
| 1 EACH | STA. 6404+42.40, 91.93' LT |
| 1 EACH | STA. 6405+21.55, 92.12' LT |
| **609-025A** | **MINOR STRUCTURES (24" CONCRETE HEADWALL)** |
| 1 EACH | STA. 6411+57.01, 90.01' LT |
| **624-005A** | **LOOSE RIPRAP (CLASS I)** |
| 4.7 CY | STA. 6411+57.01, 90.01' LT |
| **640-010A** | **RIPRAP/EROSION CONTROL GEOTEXTILE** |
| 14 SY | STA. 6411+57.01, 90.01' LT |
| **S913-05A** | **SP DITCH BERM** |
| 11.2 CY | STA. 6404+60, 2.93' RT |
| 11.9 CY | STA. 6408+60, 2.52' RT |
| 4.9 CY | STA. 6409+25, 92.59' LT |
| 12.7 CY | STA. 6412+60, 2.08' RT |
| 4.9 CY | STA. 6413+50, 93.22' LT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.

2. IN PHASE 2, REMOVE EXISTING CULVERT, MODIFY INLET OR JUNCTION BOX OPENING TO CONNECT PROPOSED CULVERT AND CONSTRUCT UNDER PHASE 2 ROADWAY.

3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
50 0 50 100

| REVISIONS | | | |
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| DESIGNED D. ABEDI | SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY |
| DESIGN CHECKED C. MCALISTER | |
| DETAILED P. CONSALVO | CADD FILE NAME 24149_Drpl_D202D.DGN |
| DRAWING CHECKED C. MCALISTER | DRAWING DATE: November 21, 2025 |

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
DAVID EVANS AND ASSOCIATES INC.

| PROJECT NO. | DRAINAGE PLAN |
|---|---|
| A024(149) | US 20, BONNEVILLE COUNTY<br>LINE TO MP 291<br>STA. 6403+00 TO STA. 6415+00<br>PHASE 2 |

*ENGLISH*

COUNTY BINGHAM/BONNEVILLE

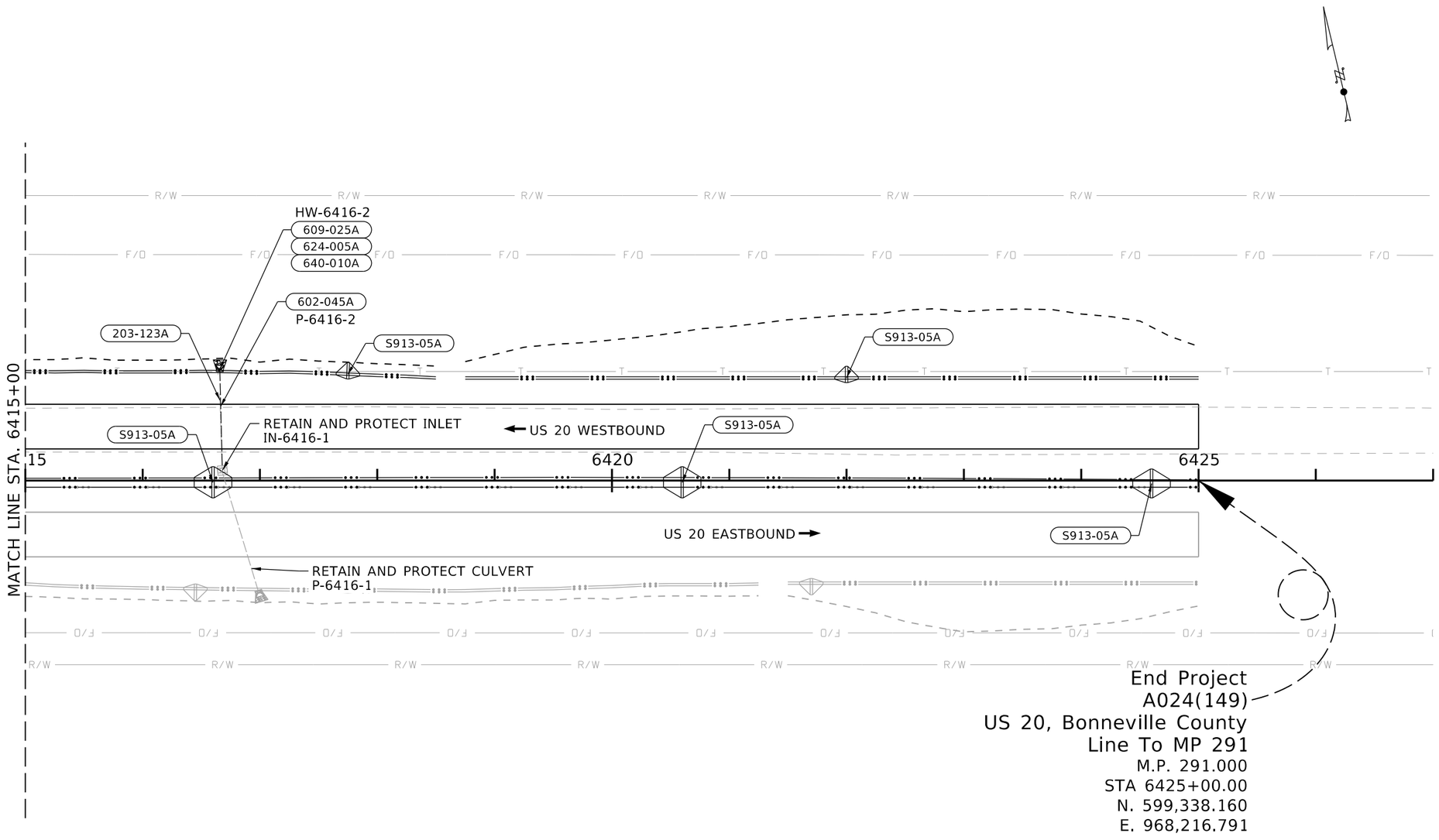
KEY NUMBER 24149

SHEET 282 OF 441

NOT APPROVED
INTERMEDIATE
FOR CONSTRUCTION

November 21, 2025 4:52:50 PM
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T.3N., R.35E., B.M.




| | |
|---|---|
| **203-123A** | **REMOVAL OF MISCELLANEOUS ITEMS (PIPE)** |
| 65 FT | STA. 6416+65.65, 74.09' LT TO STA. 6416+67.89, 10.10' LT |
| **602-045A** | **24" PIPE CULVERT** |
| 85 FT | STA. 6416+65.80, 94.90' LT TO STA. 6416+67.86, 10.15' LT |
| **609-025A** | **MINOR STRUCTURES (24" CONCRETE HEADWALL)** |
| 1 EACH | STA. 6416+65.71, 89.06' LT |
| **624-005A** | **LOOSE RIPRAP (CLASS I)** |
| 4.7 CY | STA. 6416+65.71, 89.06' LT |
| **640-010A** | **RIPRAP/EROSION CONTROL GEOTEXTILE** |
| 14 SY | STA. 6416+65.71, 89.06' LT |
| **S913-05A** | **SP DITCH BERM** |
| 13.5 CY | STA. 6416+60, 1.69' RT |
| 4.9 CY | STA. 6417+75, 90.64' LT |
| 13.5 CY | STA. 6420+60, 1.69' RT |
| 4.9 CY | STA. 6422+00, 87.45' LT |
| 12.1 CY | STA. 6424+60, 2.43' RT |

NOTES:

1. SEE SP DITCH BERM DETAIL FOR DITCH BERM DIMENSIONS.
2. IN PHASE 2, REMOVE EXISTING CULVERT, MODIFY INLET OR JUNCTION BOX OPENING TO CONNECT PROPOSED CULVERT AND CONSTRUCT UNDER PHASE 2 ROADWAY.
3. SEE PIPE COVER AND DAYLIGHT DETAILS FOR GRADING INFORMATION.

Scale (Feet)
50 0 50 100

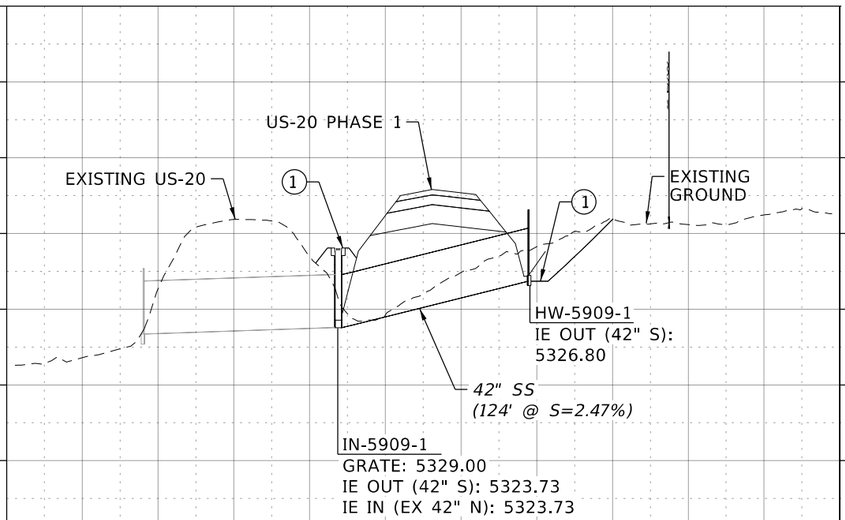
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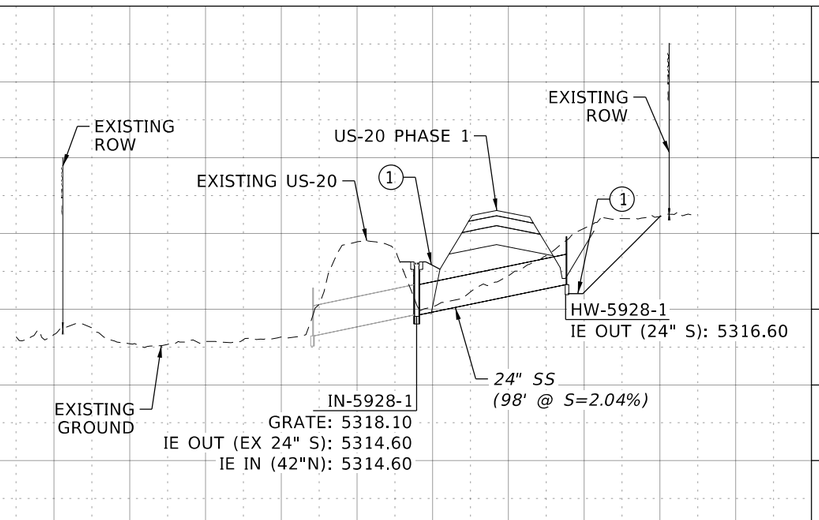
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| DESIGNED D. ABEDI | SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY | IDAHO TRANSPORTATION DEPARTMENT<br>YOUR Safety→YOUR Mobility→YOUR Economic Opportunity<br>DAVID EVANS AND ASSOCIATES INC. |
| DESIGN CHECKED C. MCALISTER | | |
| DETAILED P. CONSALVO | CADD FILE NAME 24149_DrpI_D202D.DGN | |
| DRAWING CHECKED C. MCALISTER | DRAWING DATE: November 21, 2025 | |

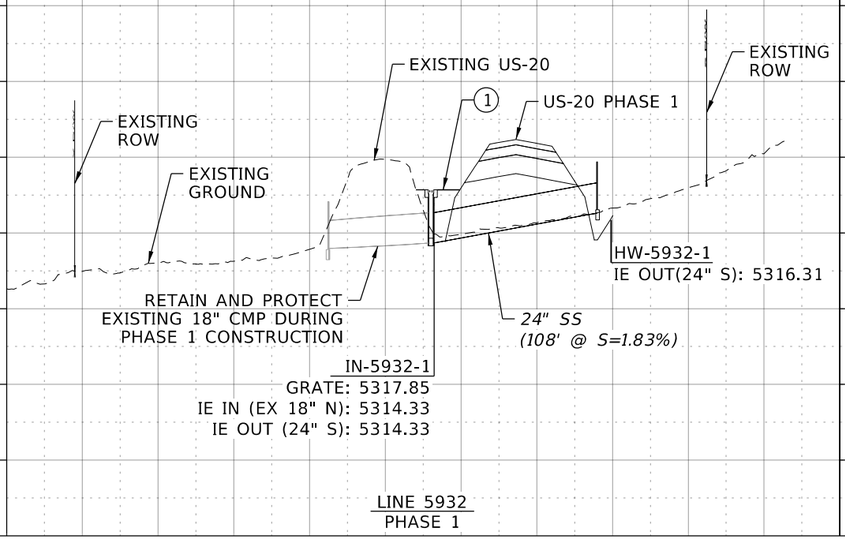
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| A024(149) | US 20, BONNEVILLE COUNTY<br>LINE TO MP 291<br>STA. 6415+00 TO STA. 6427+00<br>PHASE 2 | *ENGLISH*<br>COUNTY BINGHAM/BONNEVILLE<br>KEY NUMBER 24149<br>SHEET 283 OF 441 |

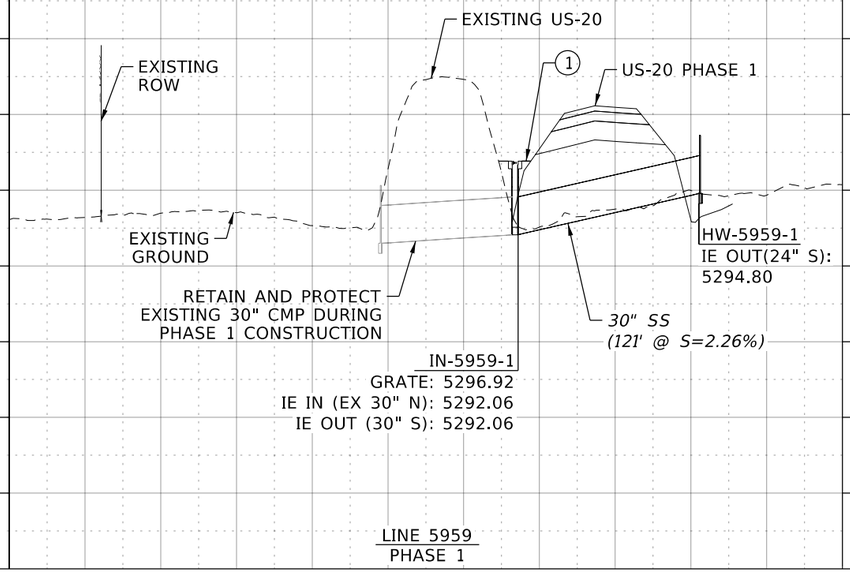
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November 25, 2025 9:52:36 AM
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NOTE:

① SEE PIPE AND DRAINAGE STRUCTURE COVER DETAILS.

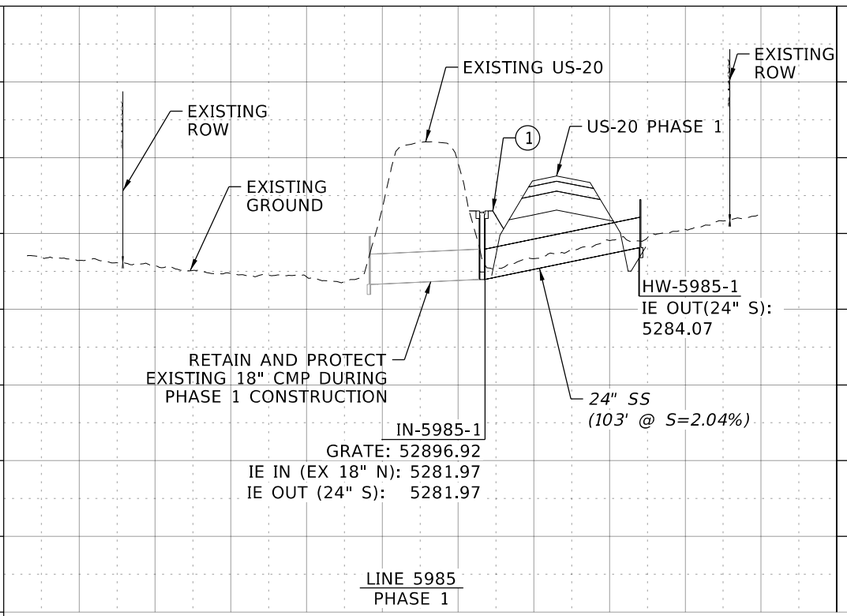
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| DESIGNED D. ABEDI | SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY | IDAHO TRANSPORTATION DEPARTMENT | PROJECT NO. |
| DESIGN CHECKED C. MCALISTER | | YOUR Safety→YOUR Mobility→YOUR Economic Opportunity | A024(149) |
| DETAILED P. CONSALVO | CADD FILE NAME 24149_Drpr_D201.DGN | DAVID EVANS AND ASSOCIATES INC. | |
| DRAWING CHECKED C. MCALISTER | DRAWING DATE: November 21, 2025 | | |

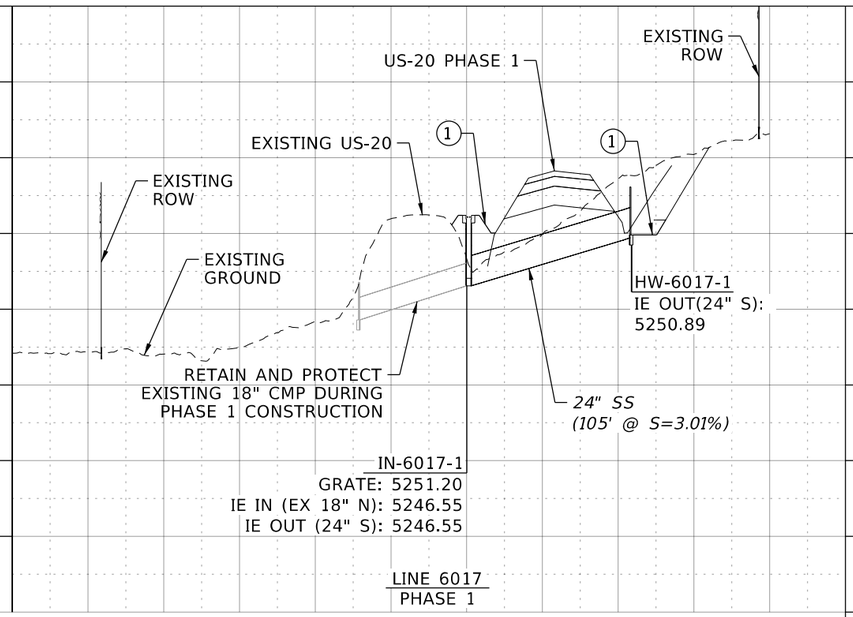
| DRAINAGE PROFILE | ENGLISH |
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| US 20, BONNEVILLE COUNTY<br>LINE TO MP 291<br>PHASE 1 | COUNTY BINGHAM/BONNEVILLE<br>KEY NUMBER 24149<br>SHEET 284 OF 441 |

NOT APPROVED
INTERMEDIATE
FOR CONSTRUCTION

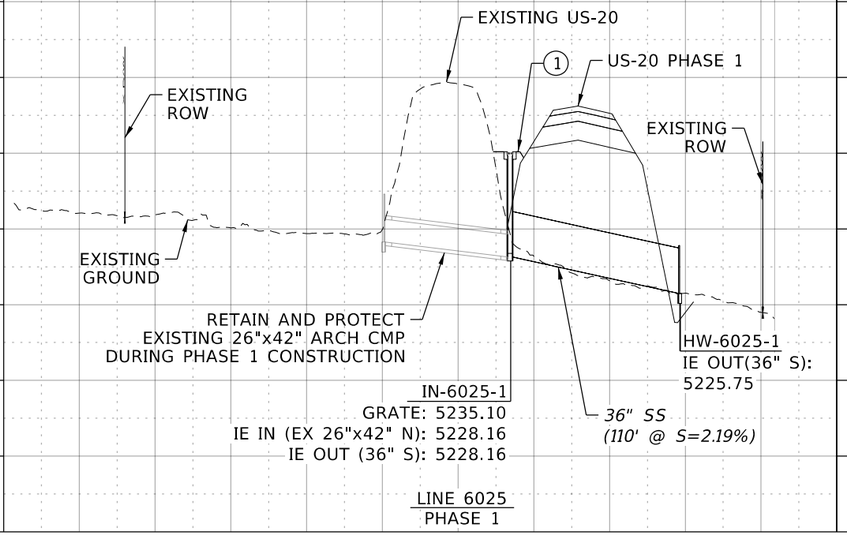
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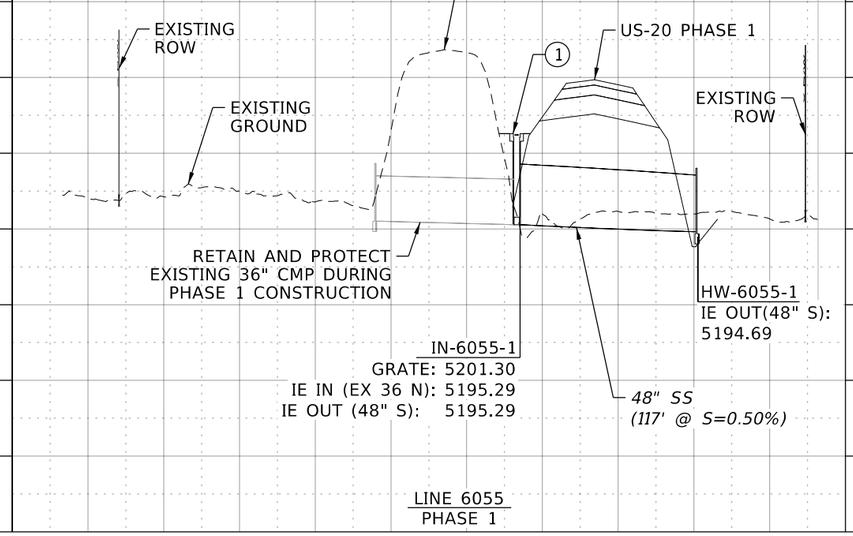

LINE 5985
PHASE 1




LINE 6017
PHASE 1




LINE 6025
PHASE 1




LINE 6055
PHASE 1

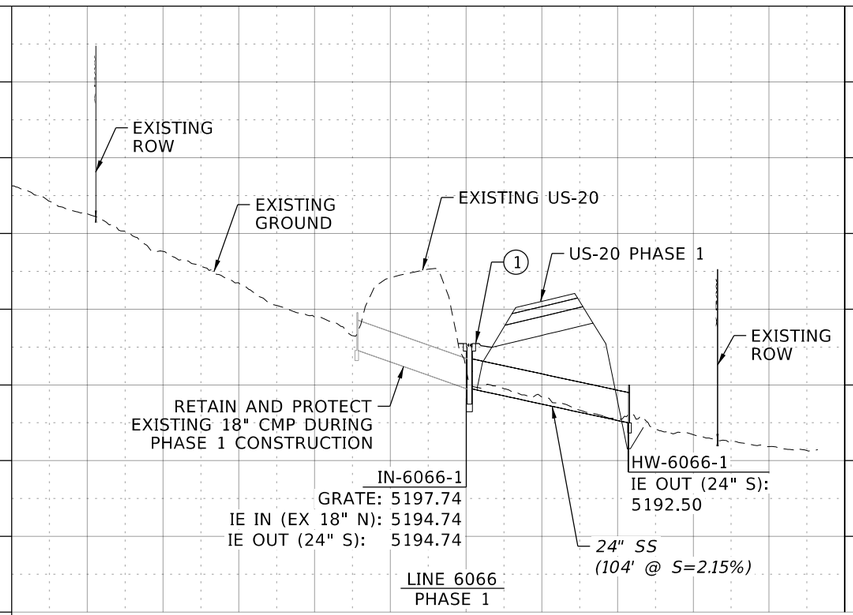
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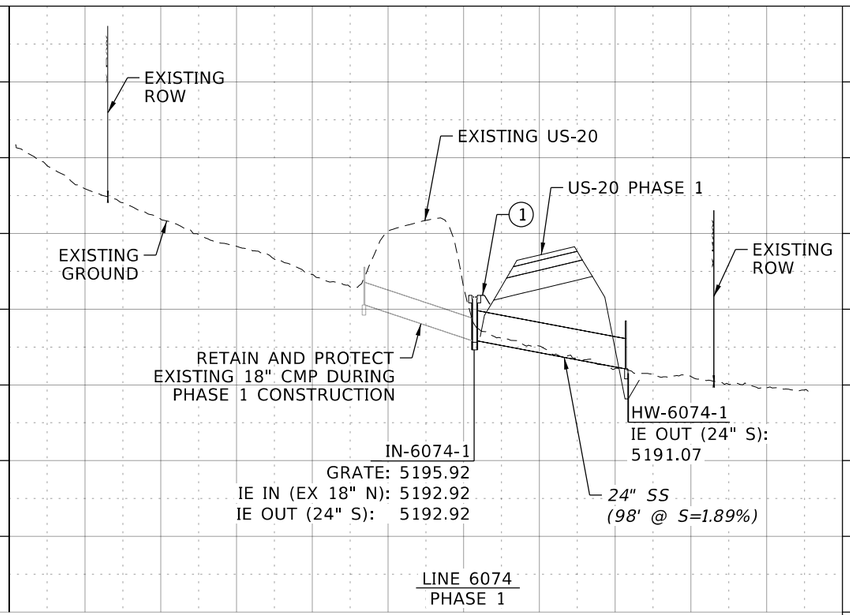
① SEE PIPE AND DRAINAGE STRUCTURE COVER DETAILS.

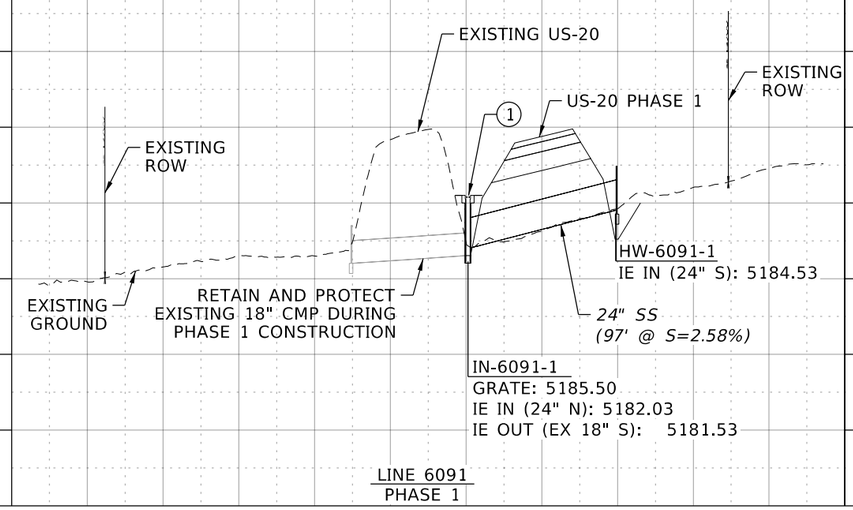
| REVISIONS | | | | DESIGNED | SCALES SHOWN | IDAHO TRANSPORTATION DEPARTMENT | PROJECT NO. | DRAINAGE PROFILE | ENGLISH |
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| NO. | DATE | BY | DESCRIPTION | D. ABEDI | ARE FOR 11" X 17" PRINTS ONLY | | A024(149) | US 20, BONNEVILLE COUNTY LINE TO MP 291 PHASE 1 | COUNTY BINGHAM/BONNEVILLE |
| | | | | DESIGN CHECKED C. MCALISTER | CADD FILE NAME 24149_Drpr_D202.DGN | YOUR Safety→YOUR Mobility→YOUR Economic Opportunity | | | KEY NUMBER 24149 |
| | | | | DETAILED P. CONSALVO | DRAWING DATE: November 21, 2025 | DAVID EVANS AND ASSOCIATES INC. | | | SHEET 285 OF 441 |
| | | | | DRAWING CHECKED C. MCALISTER | | | | | |

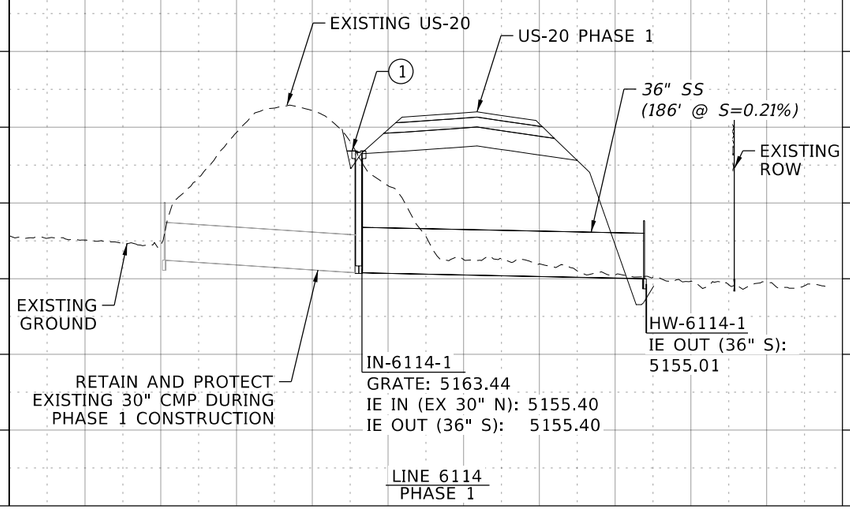
NOT APPROVED
INTERMEDIATE
FOR CONSTRUCTION

November 21, 2025 4:53:30 PM
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NOTE:

① SEE PIPE AND DRAINAGE STRUCTURE COVER DETAILS.

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| DESIGNED | D. ABEDI |
| DESIGN CHECKED | C. MCALISTER |
| DETAILED | P. CONSALVO |
| DRAWING CHECKED | C. MCALISTER |

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 24149_Drpr_D204.DGN

DRAWING DATE: November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity

DAVID EVANS AND ASSOCIATES INC.

PROJECT NO.: A024(149)

DRAINAGE PROFILE: US 20, BONNEVILLE COUNTY LINE TO MP 291 PHASE 1

ENGLISH

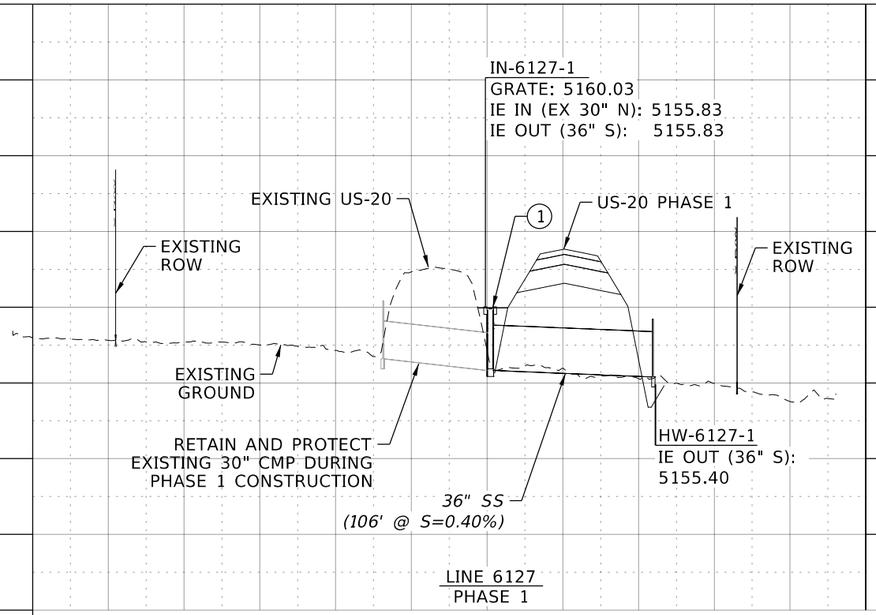
COUNTY: BINGHAM/BONNEVILLE

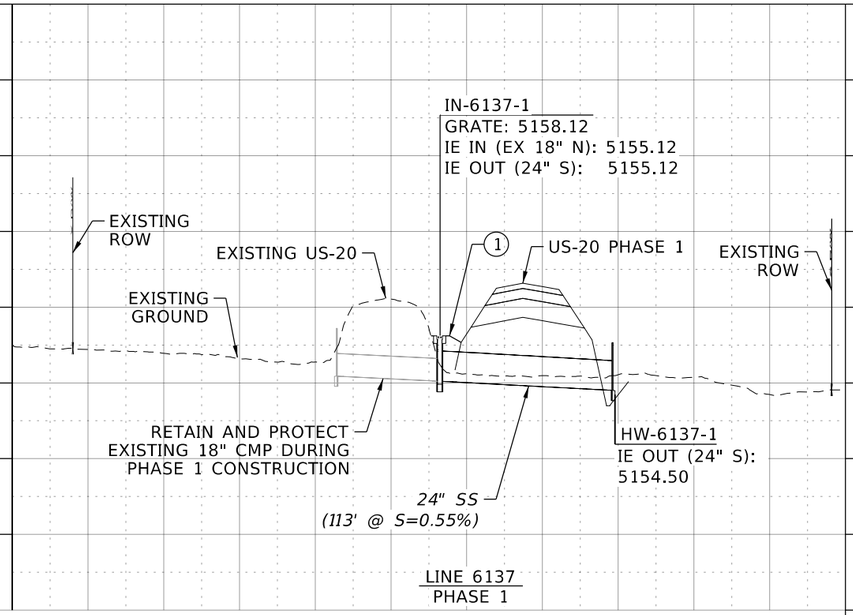
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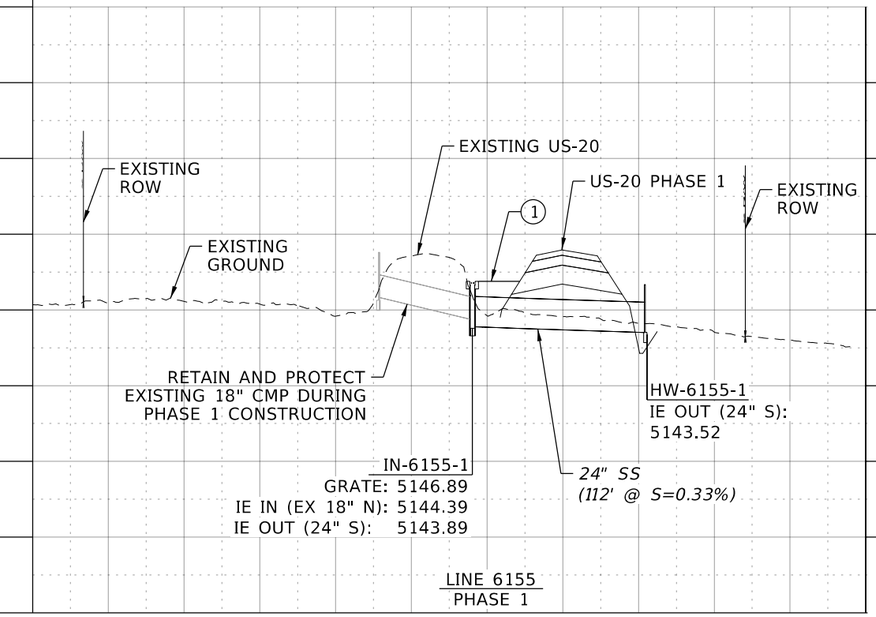
SHEET 286 OF 441

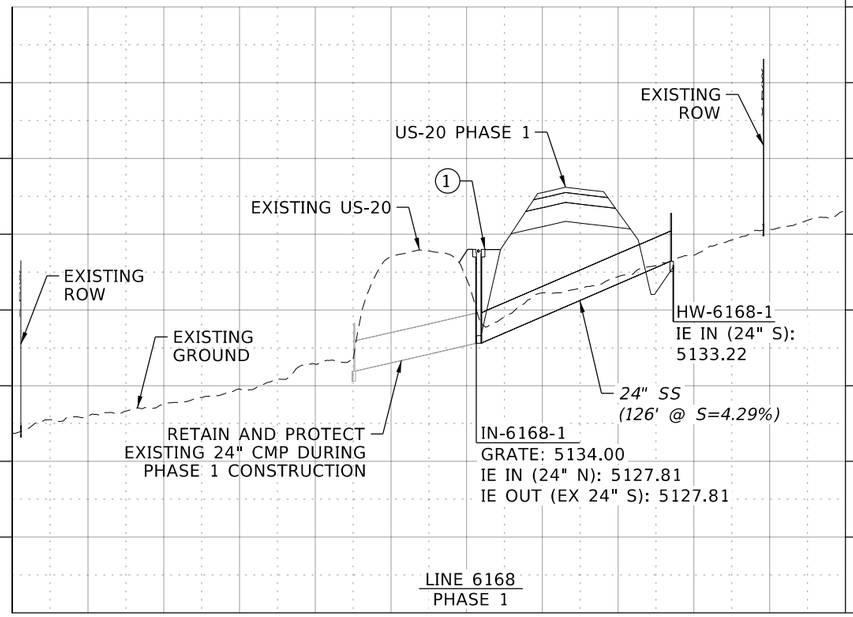
NOT APPROVED FOR INTERMEDIATE CONSTRUCTION

November 21, 2025 4:53:40 PM
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NOTE:

① SEE PIPE AND DRAINAGE STRUCTURE COVER DETAILS.

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| DESIGNED | D. ABEDI |
| DESIGN CHECKED | C. MCALISTER |
| DETAILED | P. CONSALVO |
| DRAWING CHECKED | C. MCALISTER |

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 24149_Drpr_D205.DGN

DRAWING DATE: November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT

YOUR Safety→YOUR Mobility→YOUR Economic Opportunity

DAVID EVANS AND ASSOCIATES INC.

PROJECT NO.: A024(149)

DRAINAGE PROFILE: US 20, BONNEVILLE COUNTY LINE TO MP 291 PHASE 1

ENGLISH

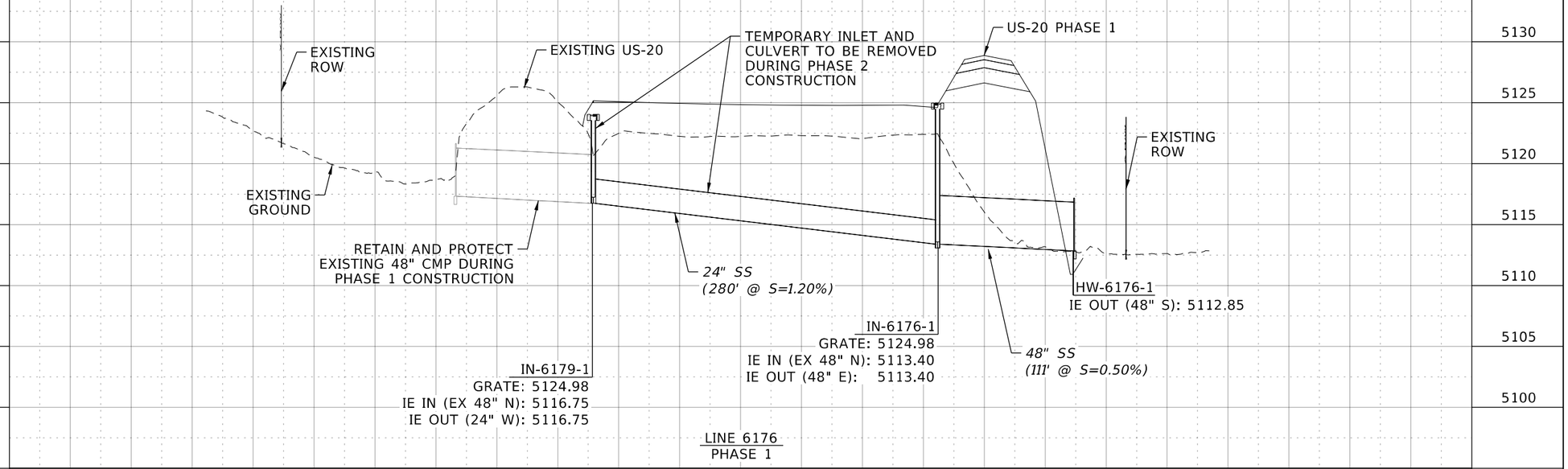
COUNTY: BINGHAM/BONNEVILLE

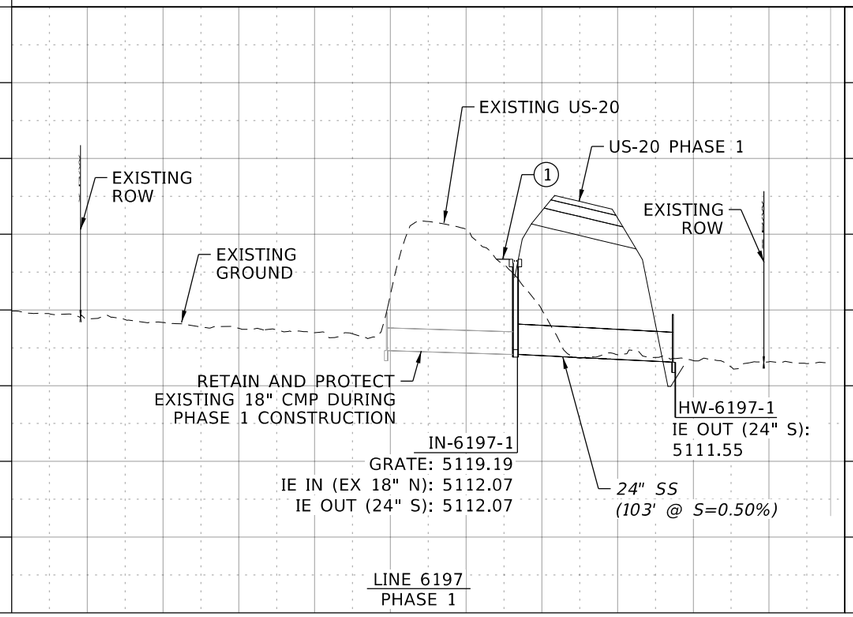
KEY NUMBER: 24149

SHEET 287 OF 441

NOT APPROVED FOR INTERMEDIATE CONSTRUCTION

November 21, 2025 4:53:50 PM
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NOTE:

① SEE PIPE AND DRAINAGE STRUCTURE COVER DETAILS.

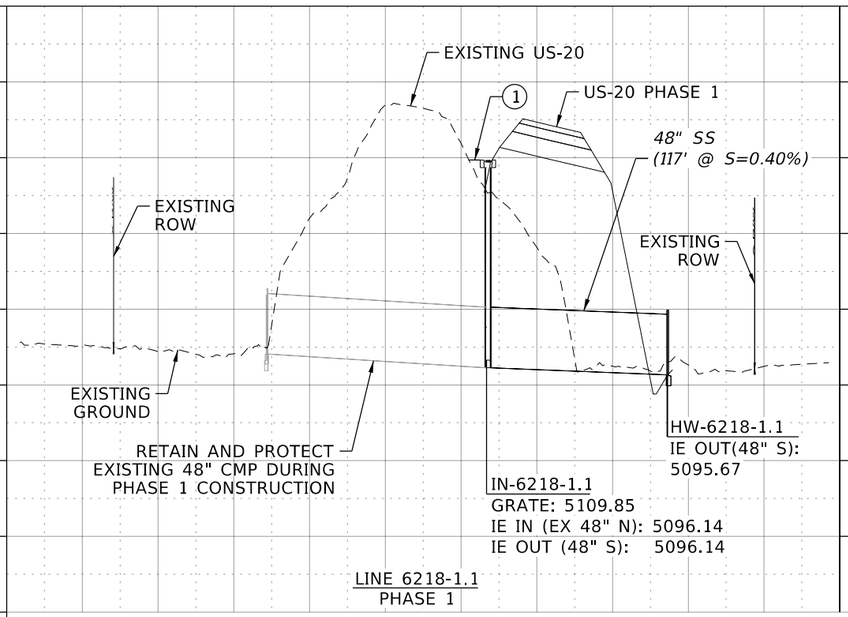
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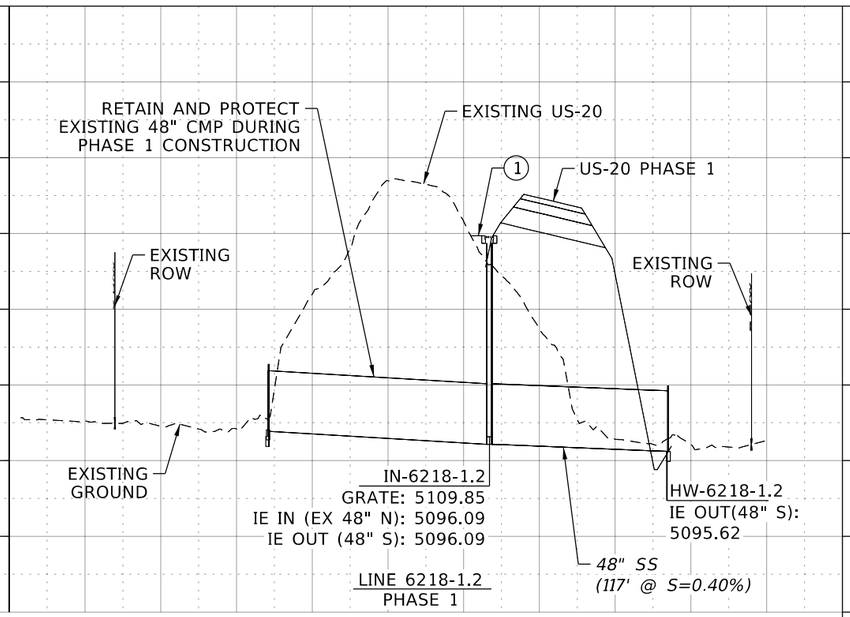
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| DESIGNED D. ABEDI | SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY | IDAHO TRANSPORTATION DEPARTMENT<br>YOUR Safety→YOUR Mobility→YOUR Economic Opportunity<br>DAVID EVANS AND ASSOCIATES INC. |
| DESIGN CHECKED C. MCALISTER | | |
| DETAILED P. CONSALVO | CADD FILE NAME 24149_Drpr_D206.DGN | |
| DRAWING CHECKED C. MCALISTER | DRAWING DATE: November 21, 2025 | |

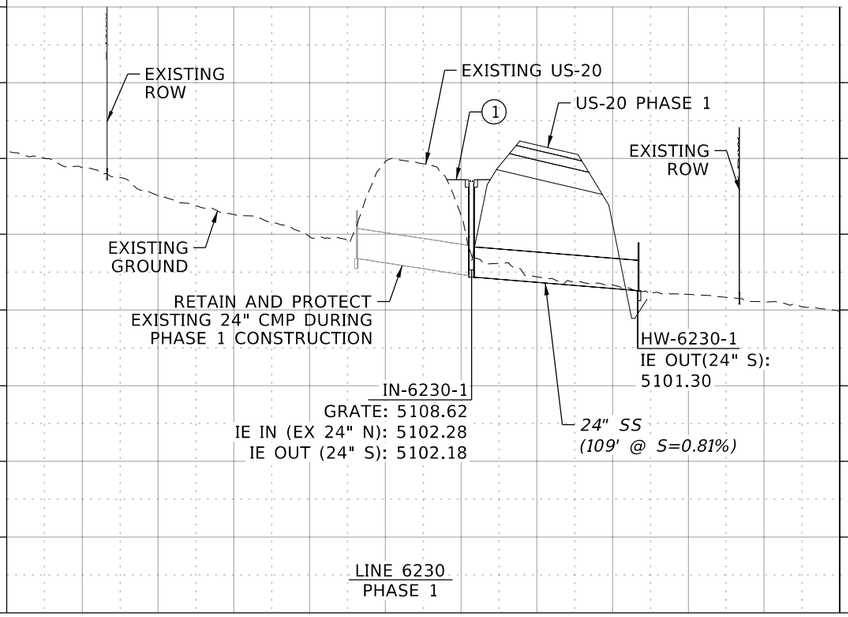
| PROJECT NO. | DRAINAGE PROFILE | ENGLISH |
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| A024(149) | US 20, BONNEVILLE COUNTY<br>LINE TO MP 291<br>PHASE 1 | COUNTY BINGHAM/BONNEVILLE<br>KEY NUMBER 24149<br>SHEET 288 OF 441 |

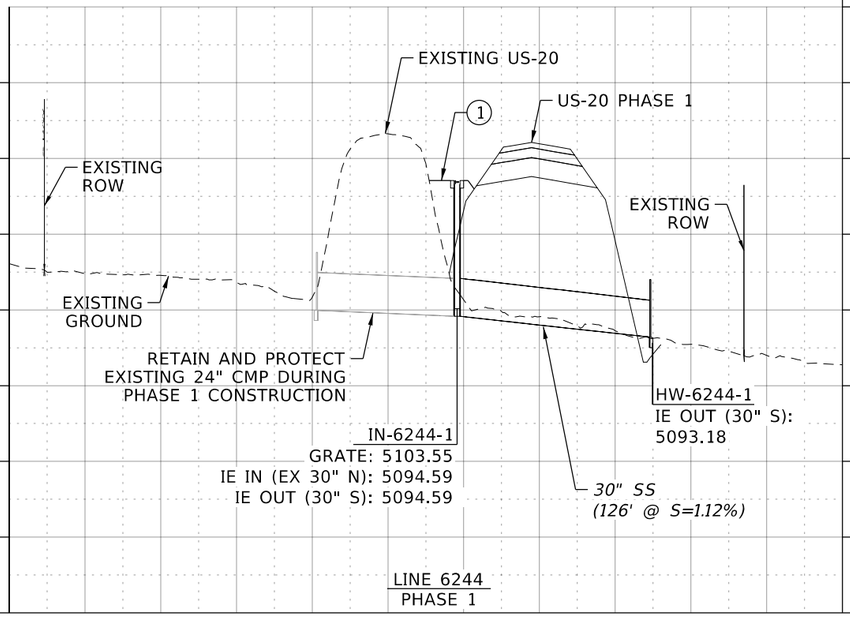
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pw://itd-pw.bentley.com:itd-pw-01/Documents/District 6/Projects/prj24394/Project_Development/Plan Sheets/Package 2 (KN 24149)/Drainage/24149_Drpr_D206.DGN




NOTE:

① SEE PIPE AND DRAINAGE STRUCTURE COVER DETAILS.

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| NO. | DATE | BY | DESCRIPTION |
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| DESIGNED | D. ABEDI |
| DESIGN CHECKED | C. MCALISTER |
| DETAILED | P. CONSALVO |
| DRAWING CHECKED | C. MCALISTER |

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 24149_Drpr_D207.DGN

DRAWING DATE: November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT

YOUR Safety→YOUR Mobility→YOUR Economic Opportunity

DAVID EVANS AND ASSOCIATES INC.

PROJECT NO.: A024(149)

DRAINAGE PROFILE: US 20, BONNEVILLE COUNTY LINE TO MP 291 PHASE 1

ENGLISH

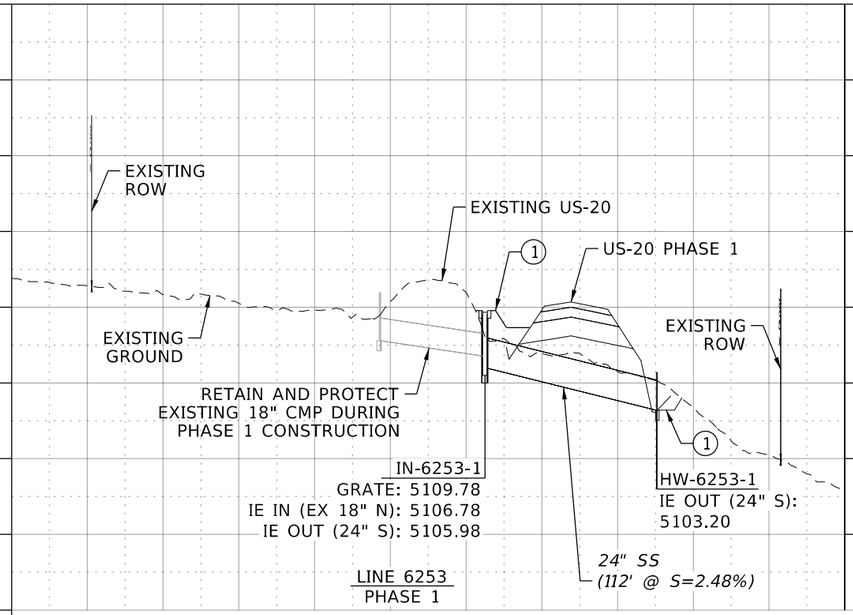
COUNTY: BINGHAM/BONNEVILLE

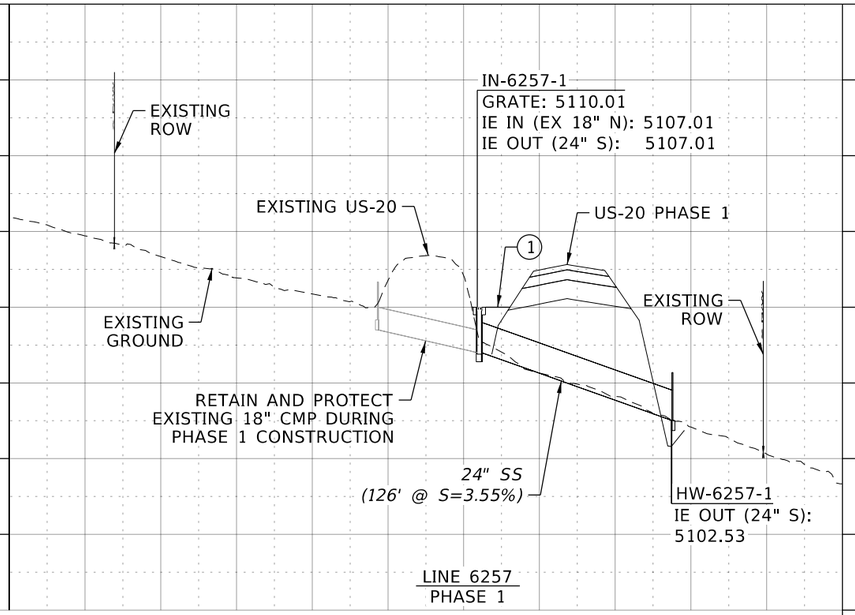
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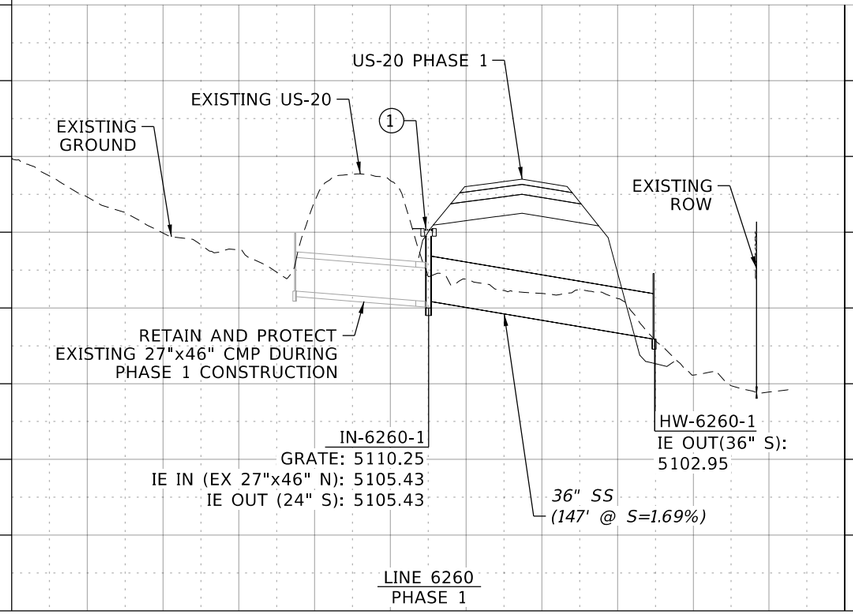
SHEET 289 OF 441

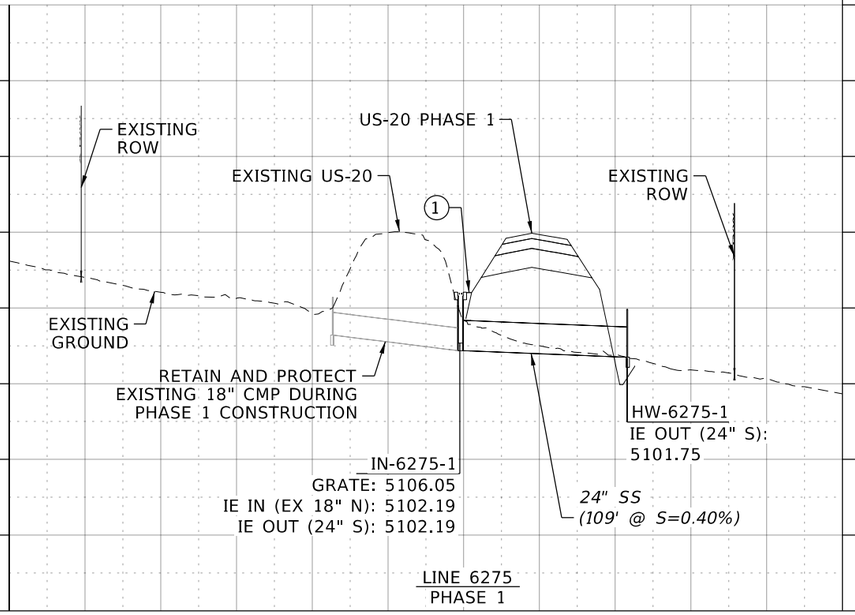
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NOTE:

① SEE PIPE AND DRAINAGE STRUCTURE COVER DETAILS.

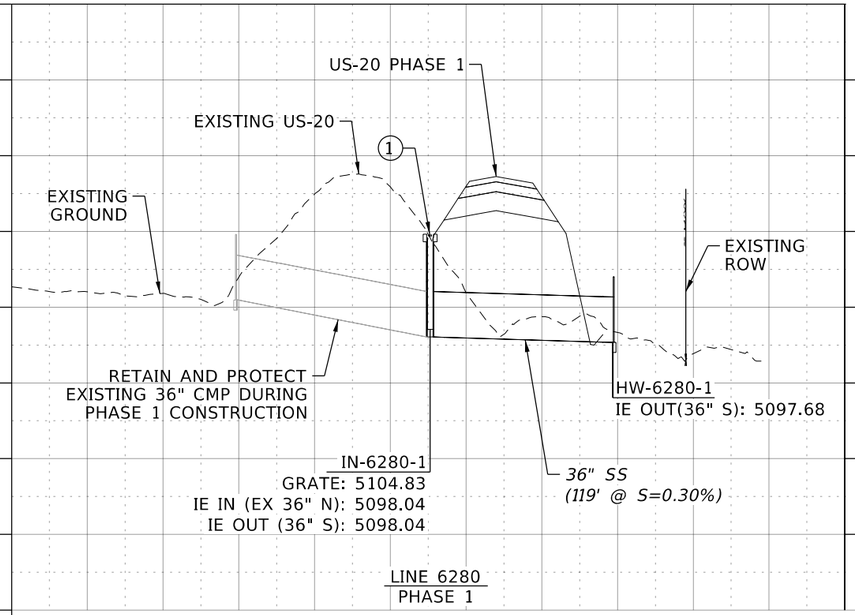
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| DESIGNED D. ABEDI | SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY | IDAHO TRANSPORTATION DEPARTMENT<br>YOUR Safety→YOUR Mobility→YOUR Economic Opportunity<br>DAVID EVANS AND ASSOCIATES INC. |
| DESIGN CHECKED C. MCALISTER | | |
| DETAILED P. CONSALVO | CADD FILE NAME 24149_Drpr_D208.DGN | |
| DRAWING CHECKED C. MCALISTER | DRAWING DATE: November 21, 2025 | |

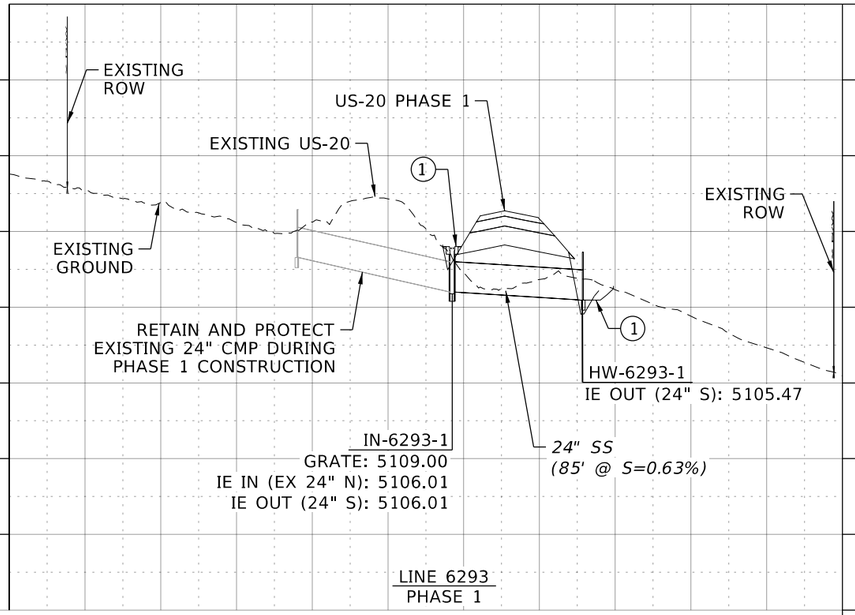
| PROJECT NO. | DRAINAGE PROFILE | ENGLISH |
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| A024(149) | US 20, BONNEVILLE COUNTY<br>LINE TO MP 291<br>PHASE 1 | COUNTY BINGHAM/BONNEVILLE<br>KEY NUMBER 24149<br>SHEET 290 OF 441 |

NOT APPROVED FOR INTERMEDIATE CONSTRUCTION

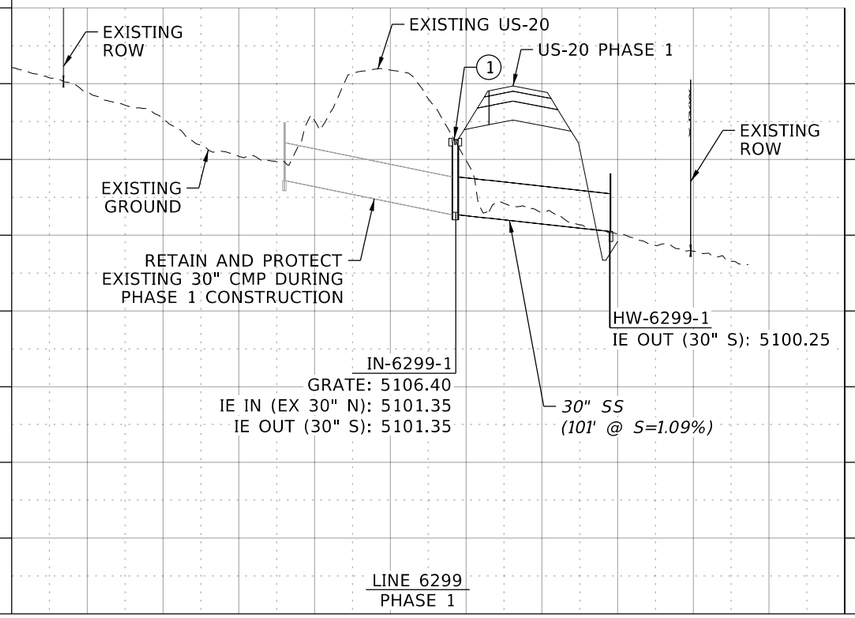
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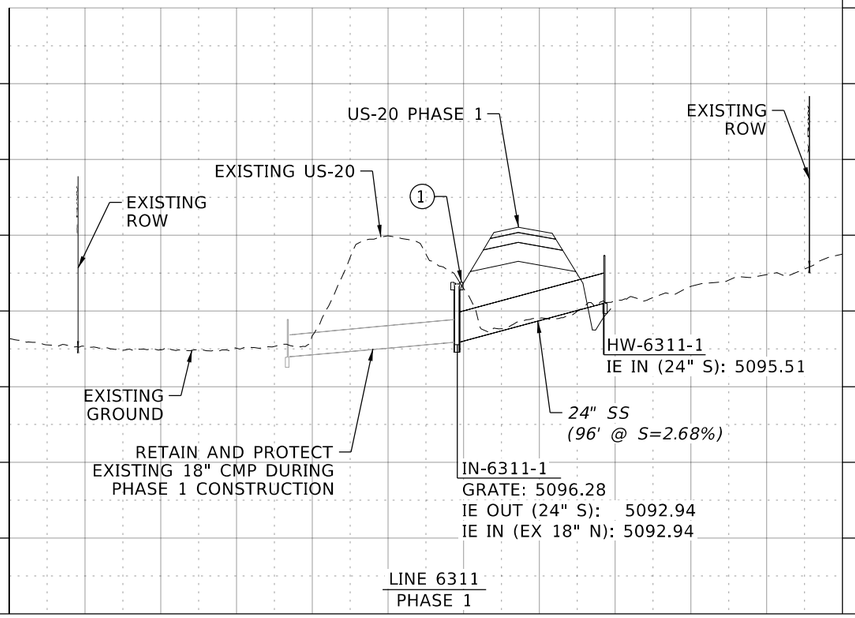

LINE 6280
PHASE 1




LINE 6293
PHASE 1




LINE 6299
PHASE 1




LINE 6311
PHASE 1

NOTE:

① SEE PIPE AND DRAINAGE STRUCTURE COVER DETAILS.

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| DESIGNED | D. ABEDI |
| DESIGN CHECKED | C. MCALISTER |
| DETAILED | P. CONSALVO |
| DRAWING CHECKED | C. MCALISTER |

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME
24149_Drpr_D209.DGN

DRAWING DATE:
November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity

DAVID EVANS AND ASSOCIATES INC.

PROJECT NO.
A024(149)

DRAINAGE PROFILE
US 20, BONNEVILLE COUNTY
LINE TO MP 291
PHASE 1

ENGLISH

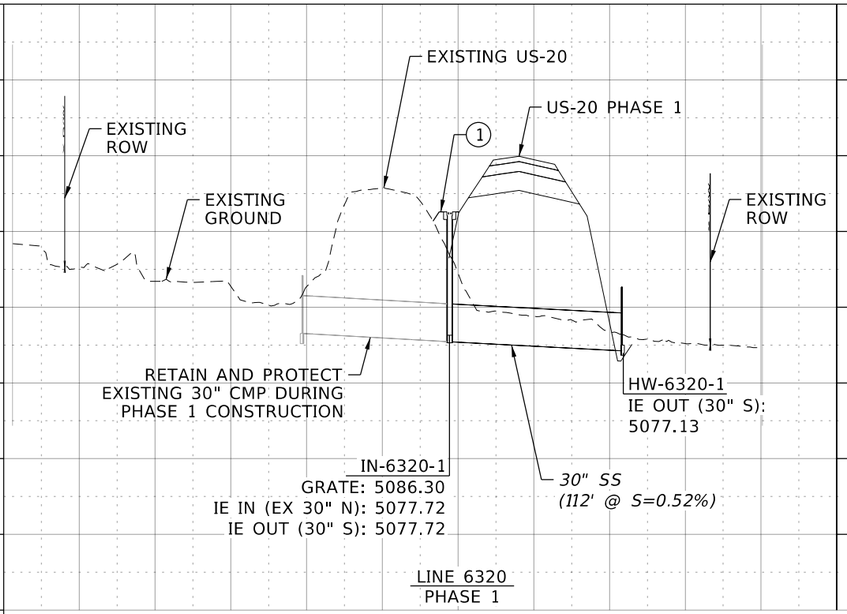
COUNTY
BINGHAM/BONNEVILLE

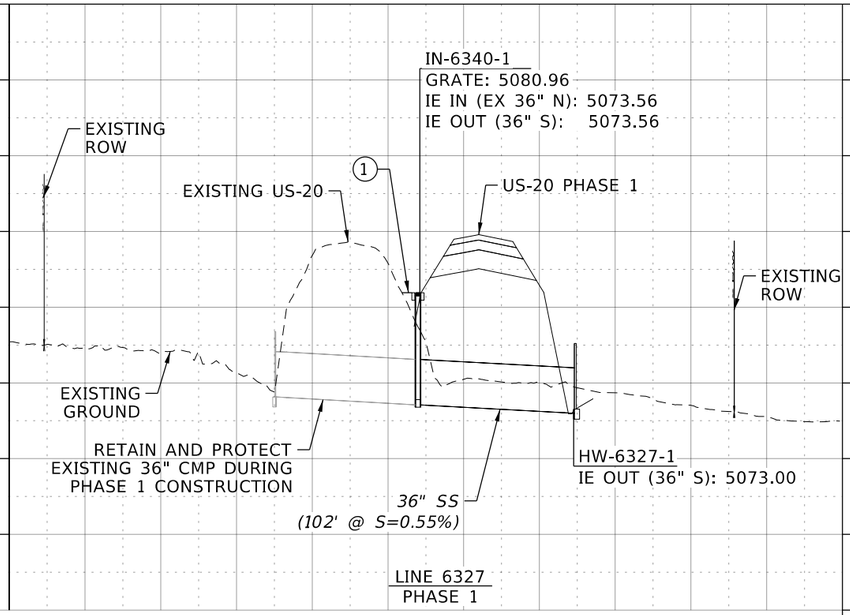
KEY NUMBER
24149

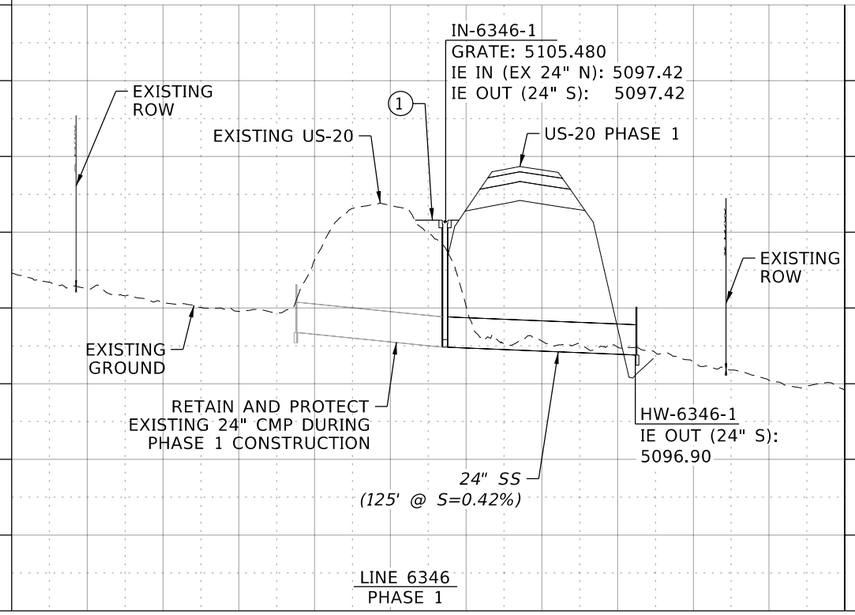
SHEET 291 OF 441

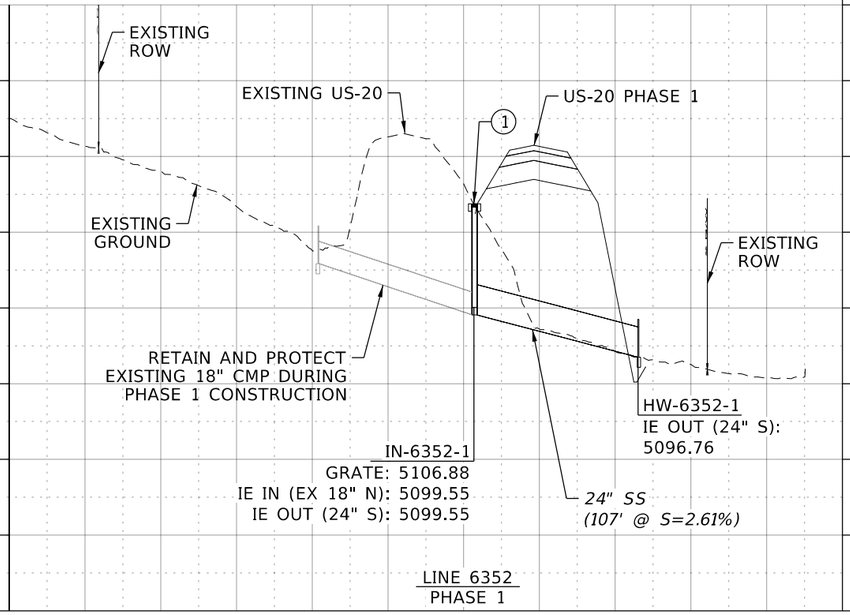
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FOR CONSTRUCTION

November 21, 2025 4:54:48 PM
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NOTE:

① SEE PIPE AND DRAINAGE STRUCTURE COVER DETAILS.

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| DESIGNED | D. ABEDI |
| DESIGN CHECKED | C. MCALISTER |
| DETAILED | P. CONSALVO |
| DRAWING CHECKED | C. MCALISTER |

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME 24149_Drpr_D210.DGN

DRAWING DATE: November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT

YOUR Safety→YOUR Mobility→YOUR Economic Opportunity

DAVID EVANS AND ASSOCIATES INC.

PROJECT NO. A024(149)

DRAINAGE PROFILE

US 20, BONNEVILLE COUNTY
LINE TO MP 291
PHASE 1

ENGLISH

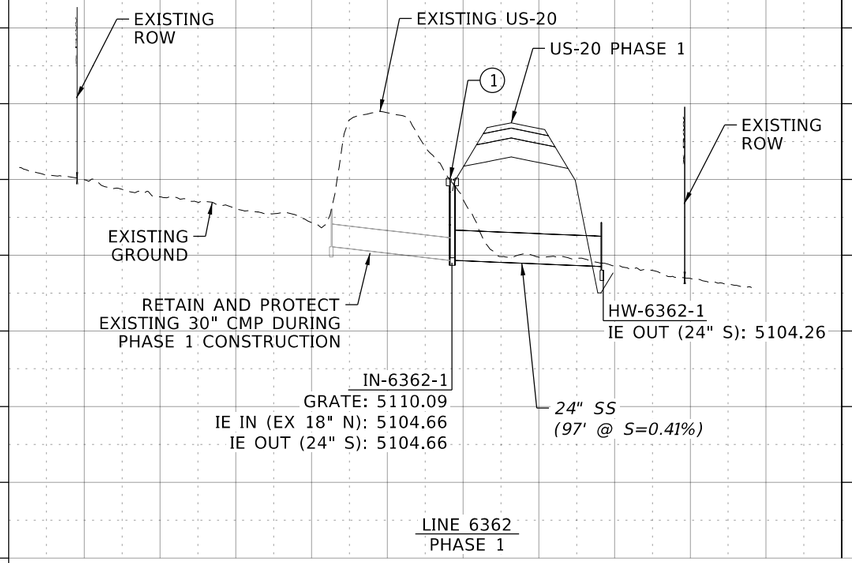
COUNTY BINGHAM/BONNEVILLE

KEY NUMBER 24149

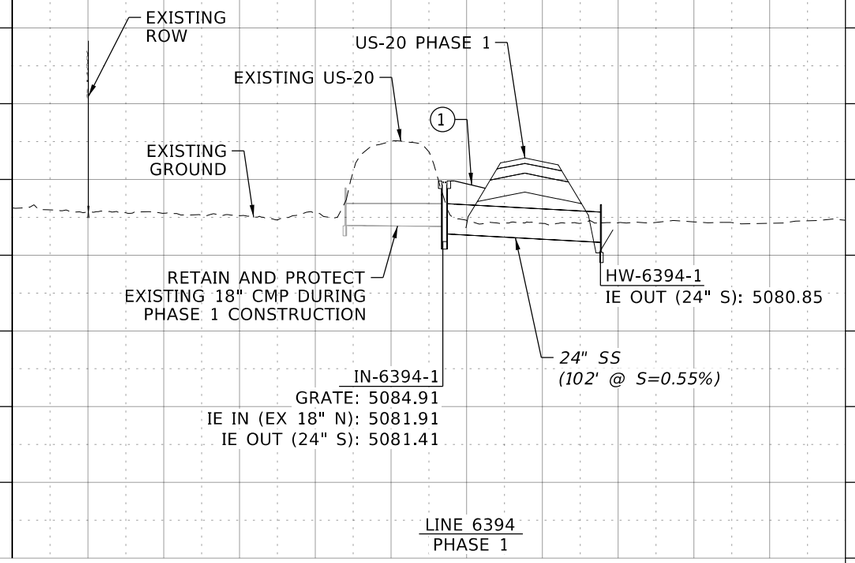
SHEET 292 OF 441

NOT APPROVED FOR CONSTRUCTION
INTERMEDIATE

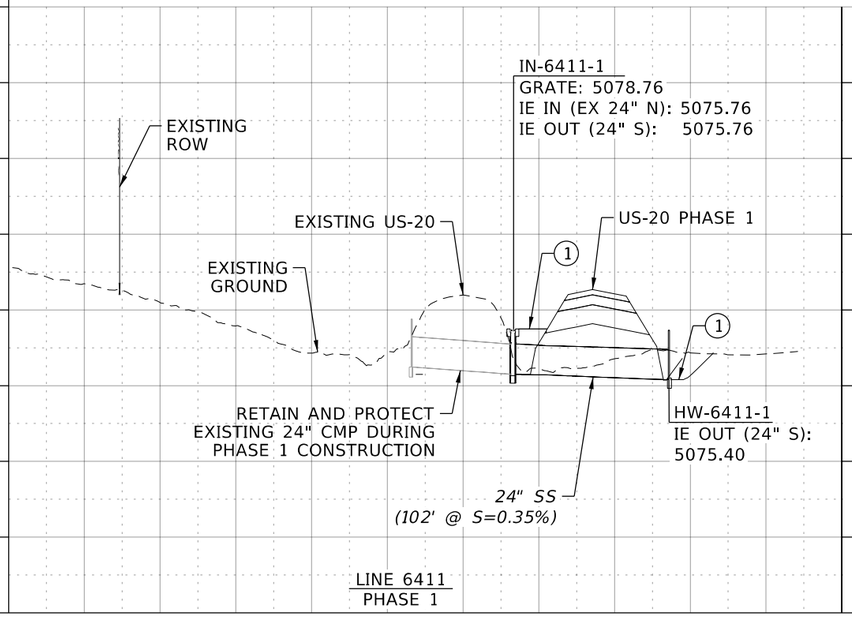
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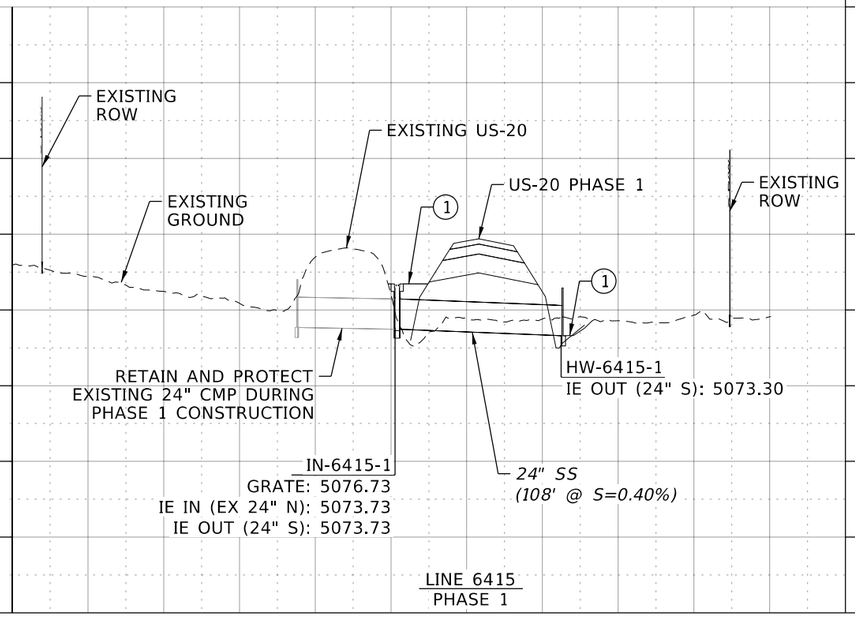

LINE 6362
PHASE 1




LINE 6394
PHASE 1




LINE 6411
PHASE 1




LINE 6415
PHASE 1

NOTE:

① SEE PIPE AND DRAINAGE STRUCTURE COVER DETAILS.

| REVISIONS | | | |
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| DESIGNED | D. ABEDI |
| DESIGN CHECKED | C. MCALISTER |
| DETAILED | P. CONSALVO |
| DRAWING CHECKED | C. MCALISTER |

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME
24149_Drpr_D211.DGN

DRAWING DATE:
November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity

DAVID EVANS AND ASSOCIATES INC.

PROJECT NO.
A024(149)

DRAINAGE PROFILE
US 20, BONNEVILLE COUNTY
LINE TO MP 291
PHASE 1

ENGLISH

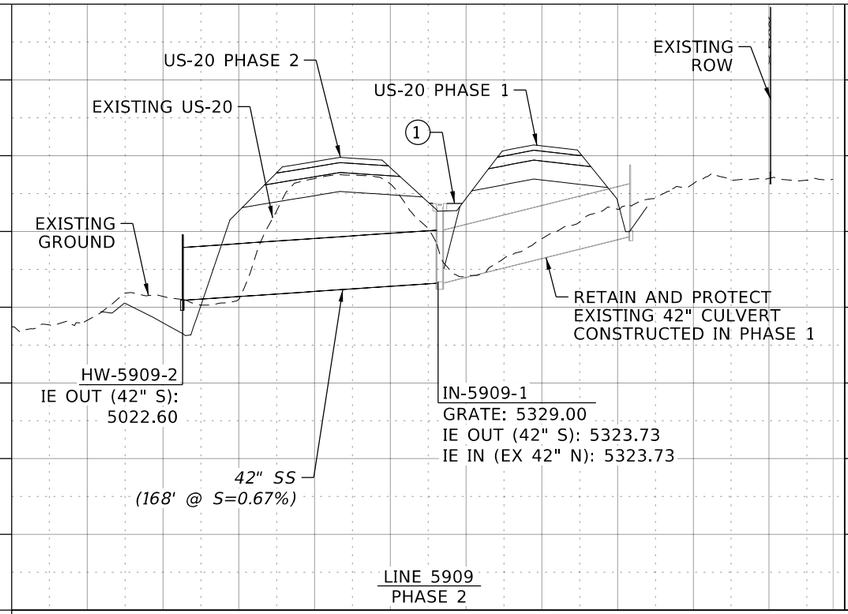
COUNTY
BINGHAM/BONNEVILLE

KEY NUMBER
24149

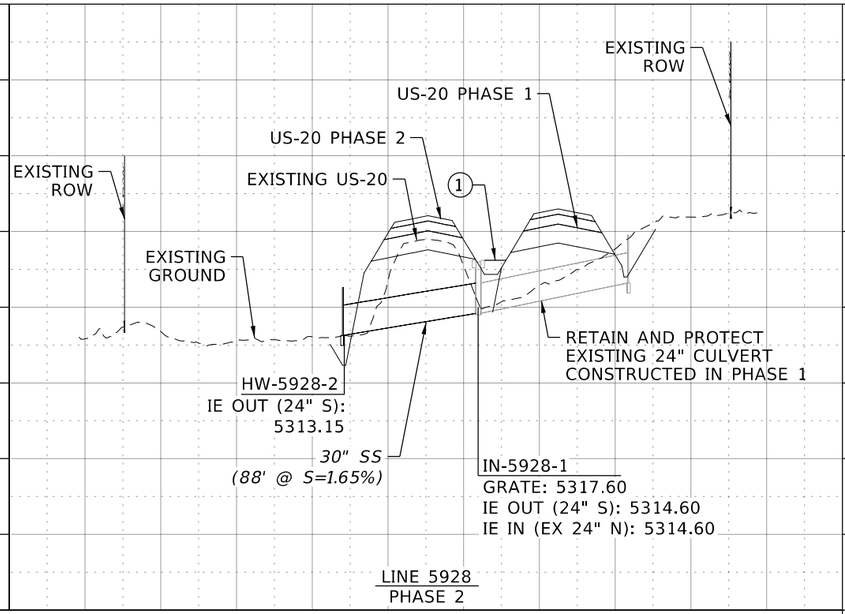
SHEET 293 OF 441

NOT APPROVED FOR INTERMEDIATE CONSTRUCTION

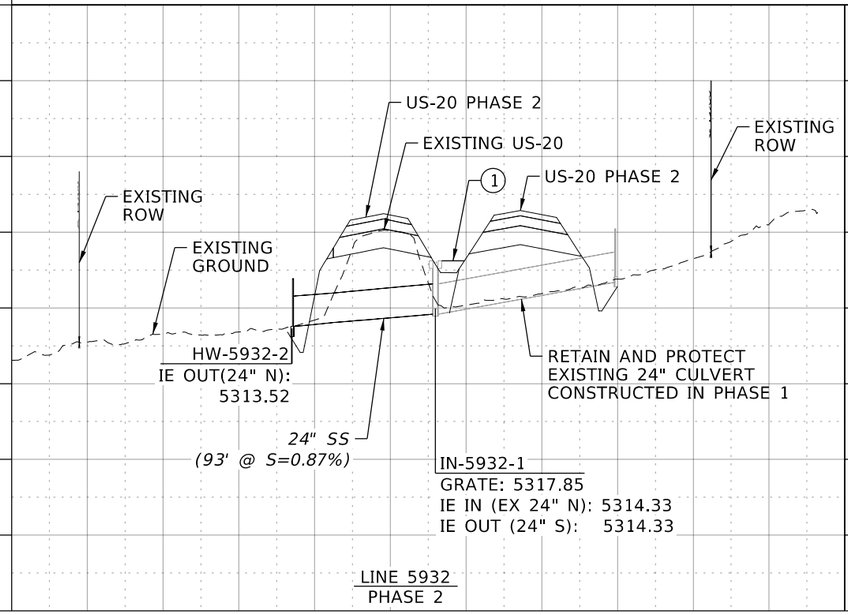
November 21, 2025 4:55:12 PM
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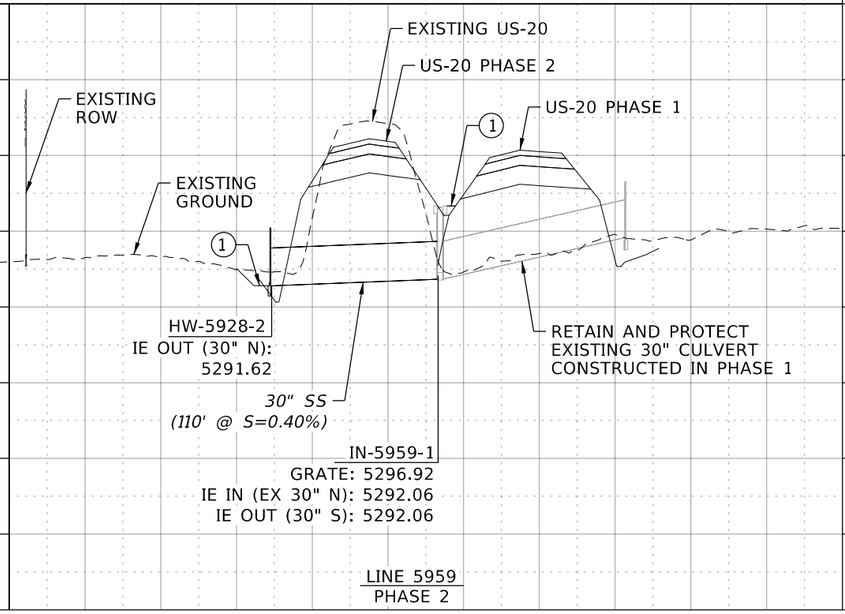

LINE 5909
PHASE 2




LINE 5928
PHASE 2




LINE 5932
PHASE 2




LINE 5959
PHASE 2

NOTE:

① SEE PIPE AND DRAINAGE STRUCTURE COVER DETAILS.

| REVISIONS | | | |
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| DESIGNED | D. ABEDI |
| DESIGN CHECKED | C. MCALISTER |
| DETAILED | P. CONSALVO |
| DRAWING CHECKED | C. MCALISTER |

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 24149_Drpr_D212.DGN

DRAWING DATE: November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity

DAVID EVANS AND ASSOCIATES INC.

PROJECT NO.: A024(149)

DRAINAGE PROFILE: US 20, BONNEVILLE COUNTY LINE TO MP 291 PHASE 2

ENGLISH

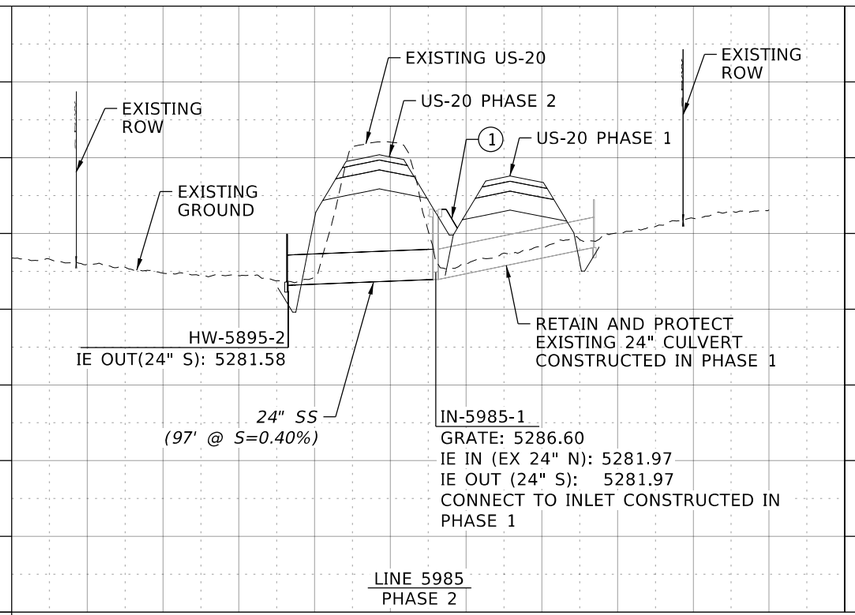
COUNTY: BINGHAM/BONNEVILLE

KEY NUMBER: 24149

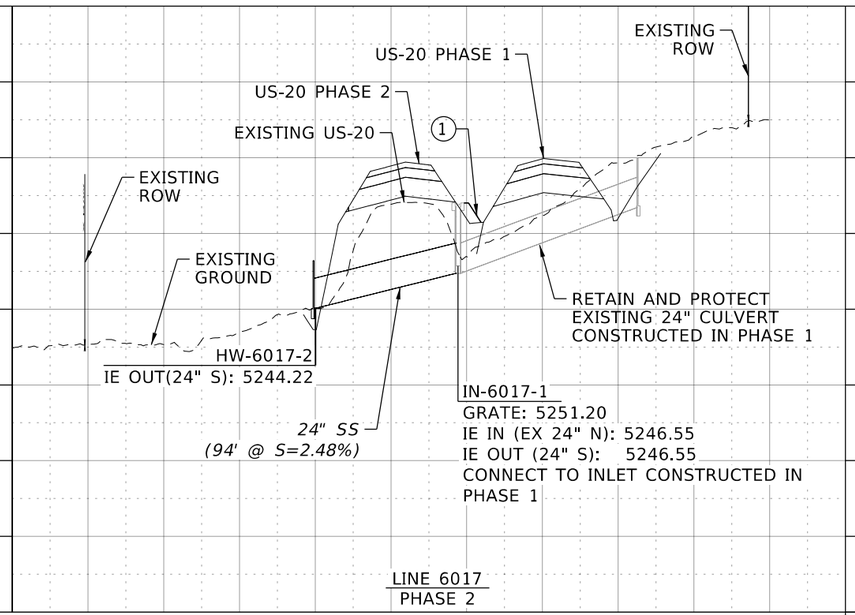
SHEET 294 OF 441

NOT APPROVED FOR INTERMEDIATE CONSTRUCTION

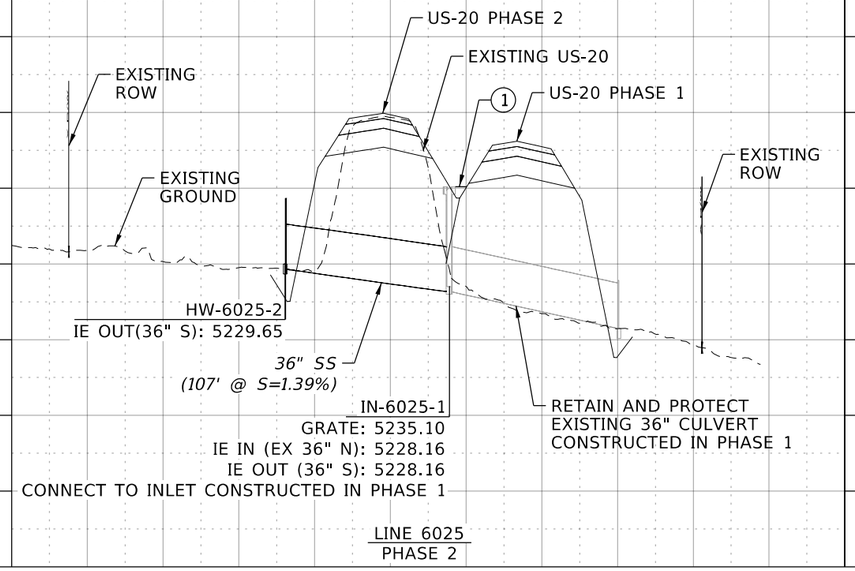
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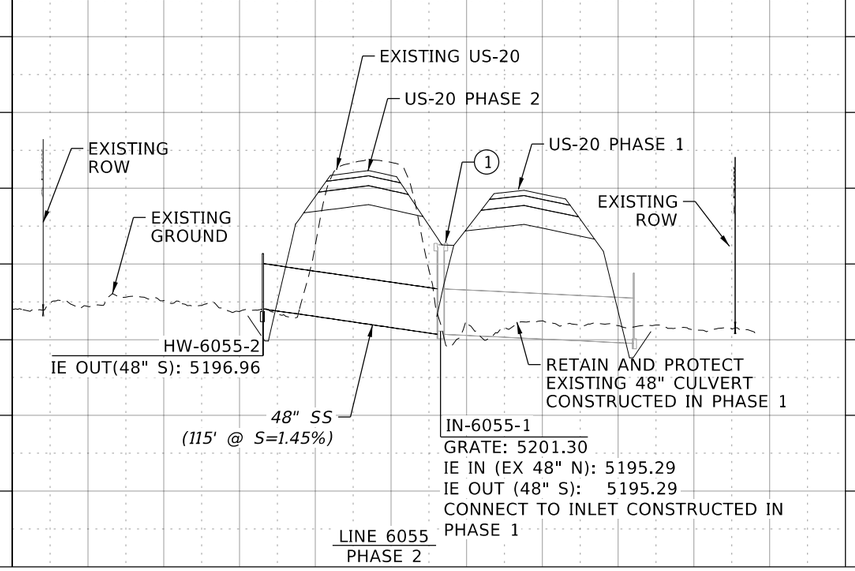

LINE 5985
PHASE 2




LINE 6017
PHASE 2




LINE 6025
PHASE 2




LINE 6055
PHASE 2

NOTE:

① SEE PIPE AND DRAINAGE STRUCTURE COVER DETAILS.

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| DESIGNED | D. ABEDI |
| DESIGN CHECKED | C. MCALISTER |
| DETAILED | P. CONSALVO |
| DRAWING CHECKED | C. MCALISTER |

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME
24149_Drpr_D213.DGN

DRAWING DATE:
November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity

DAVID EVANS AND ASSOCIATES INC.

PROJECT NO.
A024(149)

DRAINAGE PROFILE
US 20, BONNEVILLE COUNTY
LINE TO MP 291
PHASE 2

ENGLISH

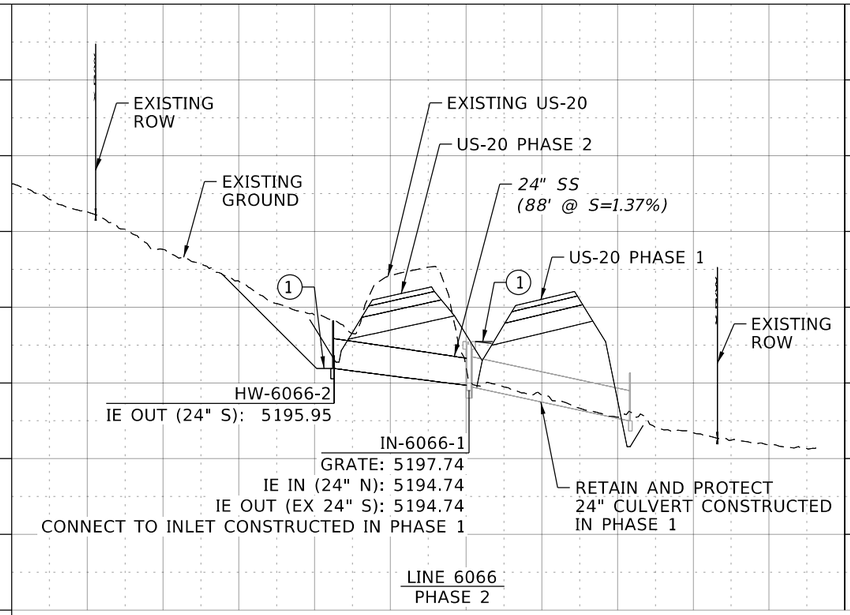
COUNTY
BINGHAM/BONNEVILLE

KEY NUMBER
24149

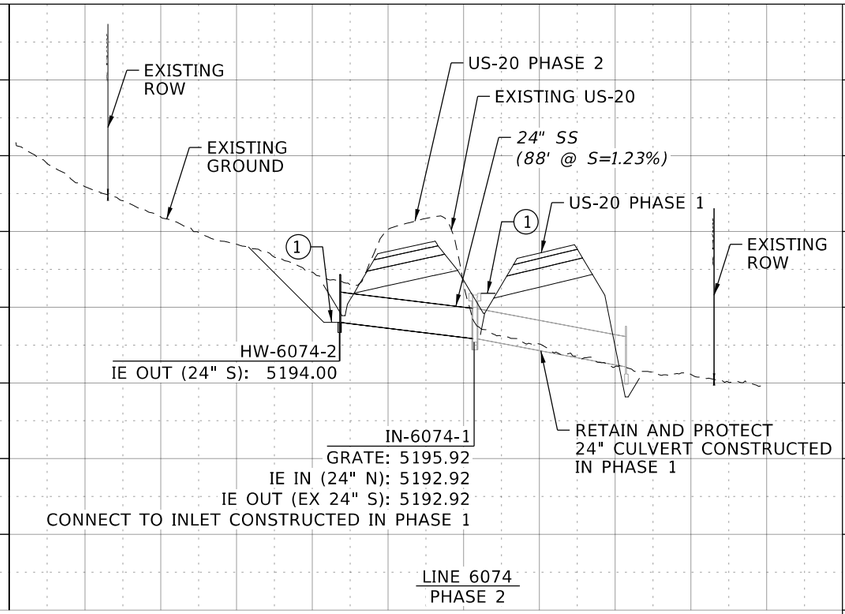
SHEET 295 OF 441

NOT APPROVED FOR INTERMEDIATE CONSTRUCTION

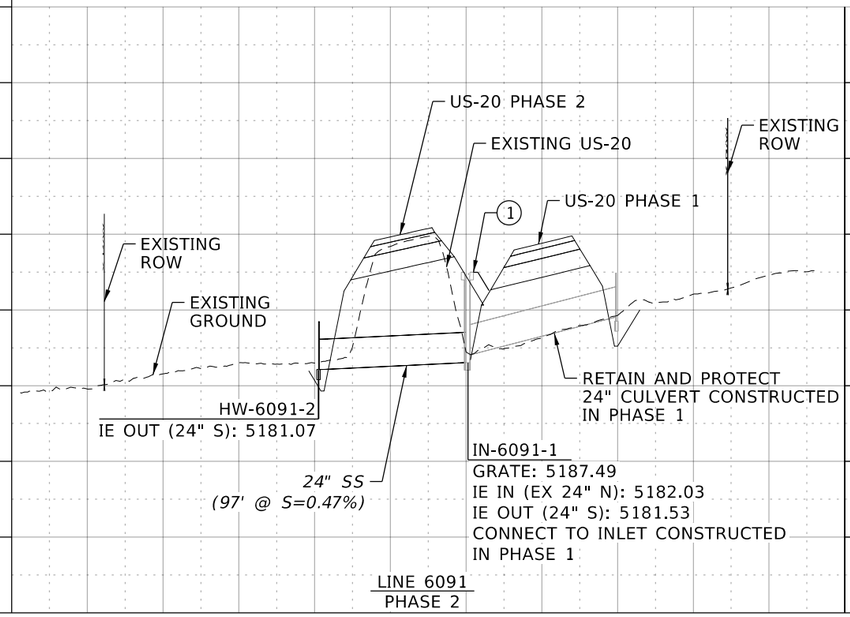
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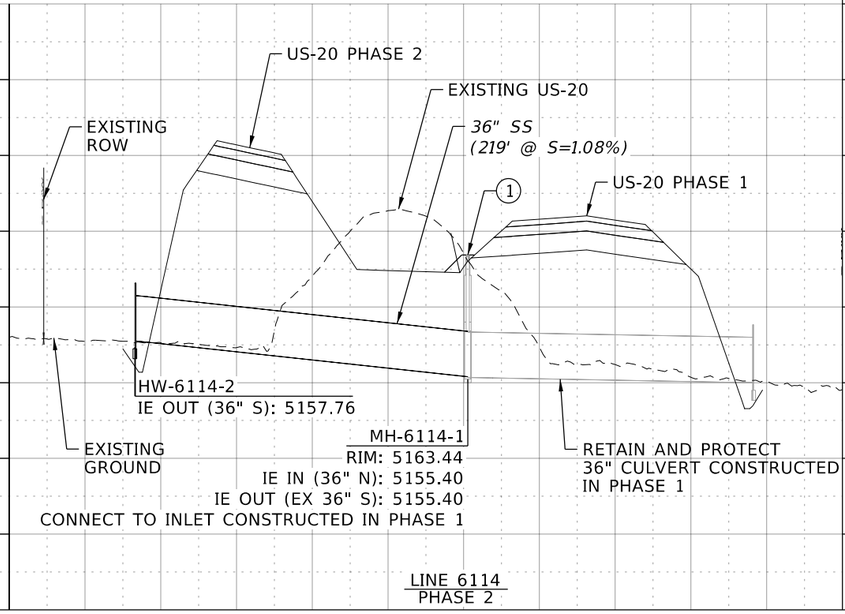

LINE 6066
PHASE 2




LINE 6074
PHASE 2




LINE 6091
PHASE 2




LINE 6114
PHASE 2

NOTE:

① SEE PIPE AND DRAINAGE STRUCTURE COVER DETAILS.

| REVISIONS | | | |
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| DESIGNED | D. ABEDI |
| DESIGN CHECKED | C. MCALISTER |
| DETAILED | P. CONSALVO |
| DRAWING CHECKED | C. MCALISTER |

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME
24149_Drpr_D215.DGN

DRAWING DATE:
November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity

DAVID EVANS AND ASSOCIATES INC.

PROJECT NO.
A024(149)

DRAINAGE PROFILE
US 20, BONNEVILLE COUNTY
LINE TO MP 291
PHASE 2

ENGLISH

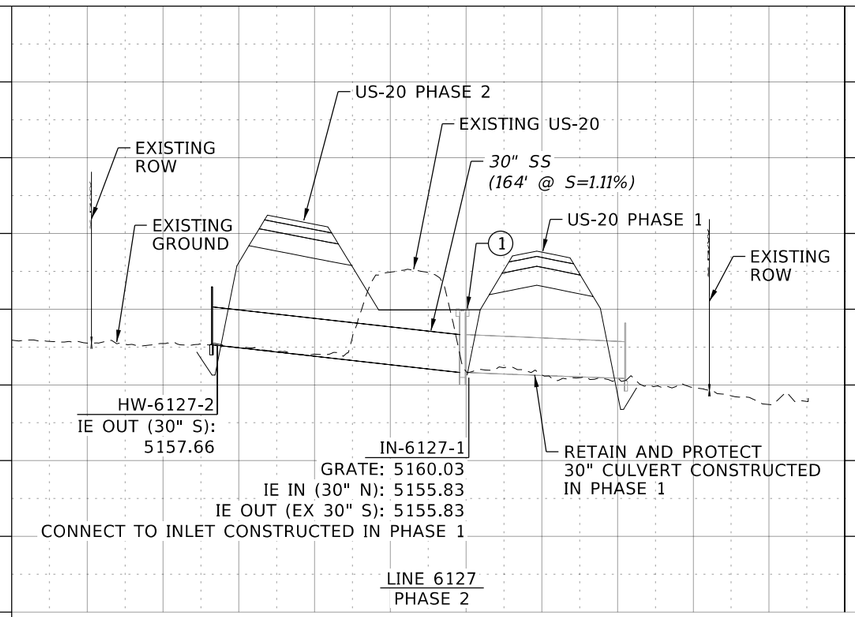
COUNTY
BINGHAM/BONNEVILLE

KEY NUMBER
24149

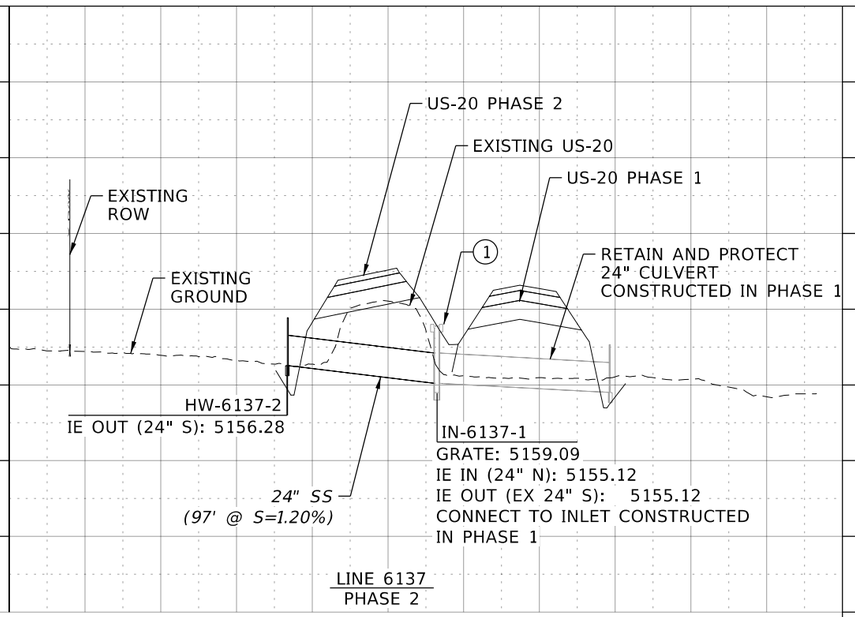
SHEET 296 OF 441

NOT APPROVED FOR INTERMEDIATE CONSTRUCTION

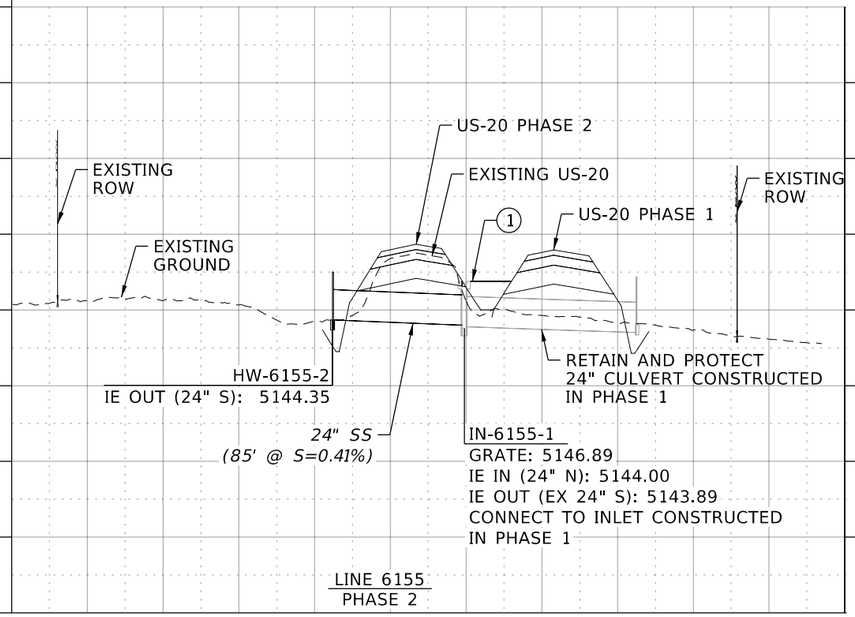
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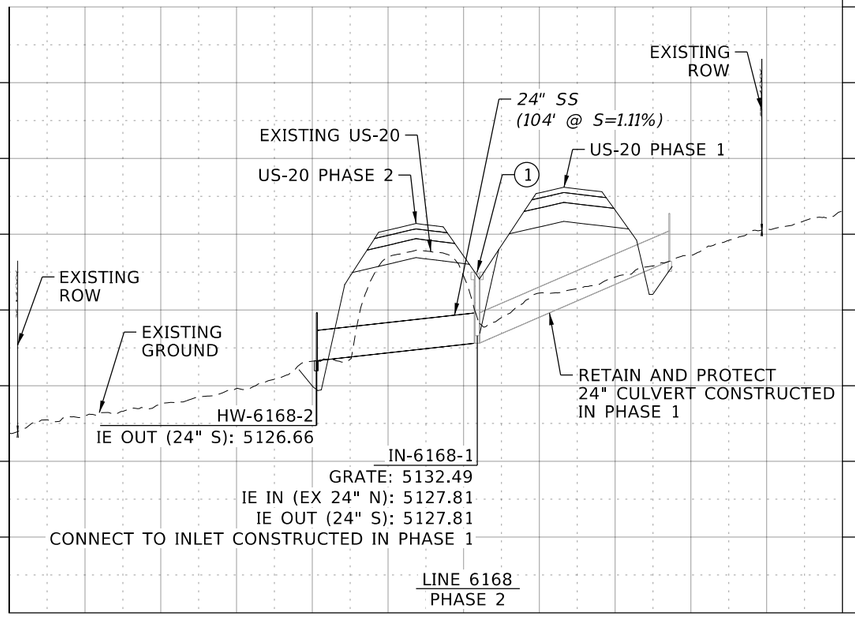

LINE 6127
PHASE 2




LINE 6137
PHASE 2




LINE 6155
PHASE 2




LINE 6168
PHASE 2

NOTE:

① SEE PIPE AND DRAINAGE STRUCTURE COVER DETAILS.

| REVISIONS | | | |
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| DESIGNED | D. ABEDI |
| DESIGN CHECKED | C. MCALISTER |
| DETAILED | P. CONSALVO |
| DRAWING CHECKED | C. MCALISTER |

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME
24149_Drpr_D216.DGN

DRAWING DATE:
November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity

DAVID EVANS AND ASSOCIATES INC.

PROJECT NO.
A024(149)

DRAINAGE PROFILE
US 20, BONNEVILLE COUNTY
LINE TO MP 291
PHASE 2

ENGLISH

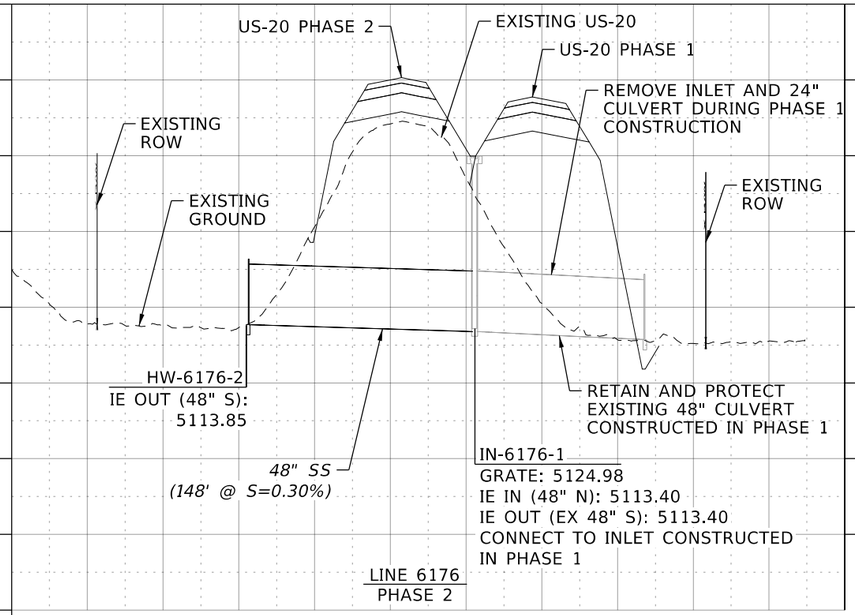
COUNTY
BINGHAM/BONNEVILLE

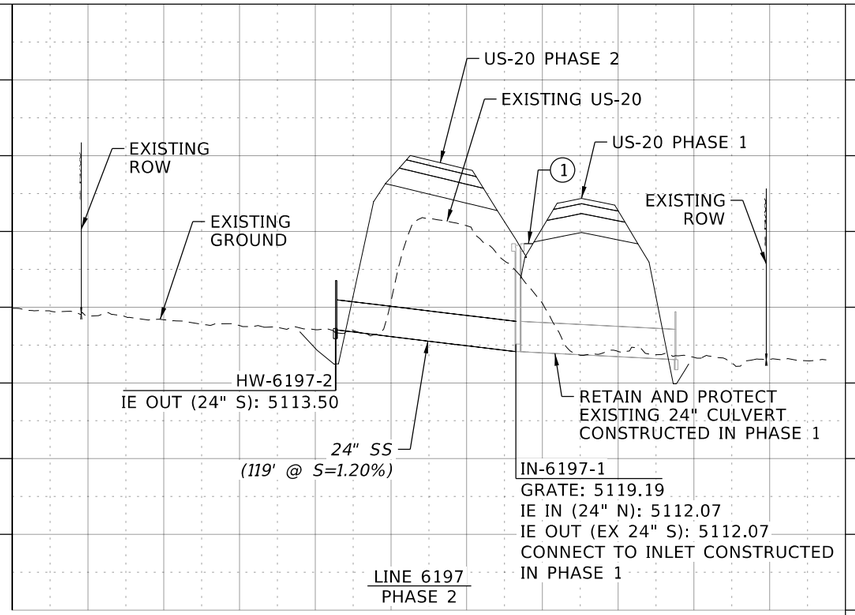
KEY NUMBER
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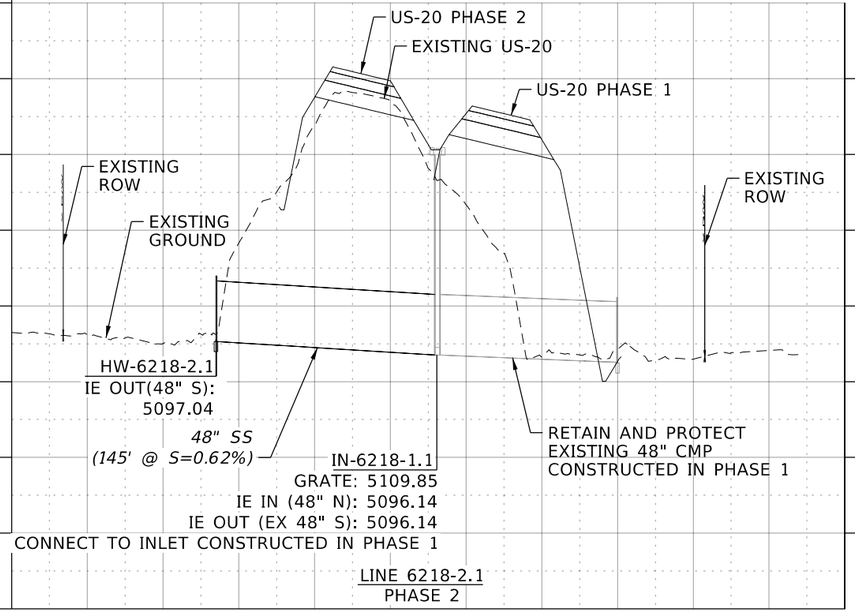
SHEET 297 OF 441

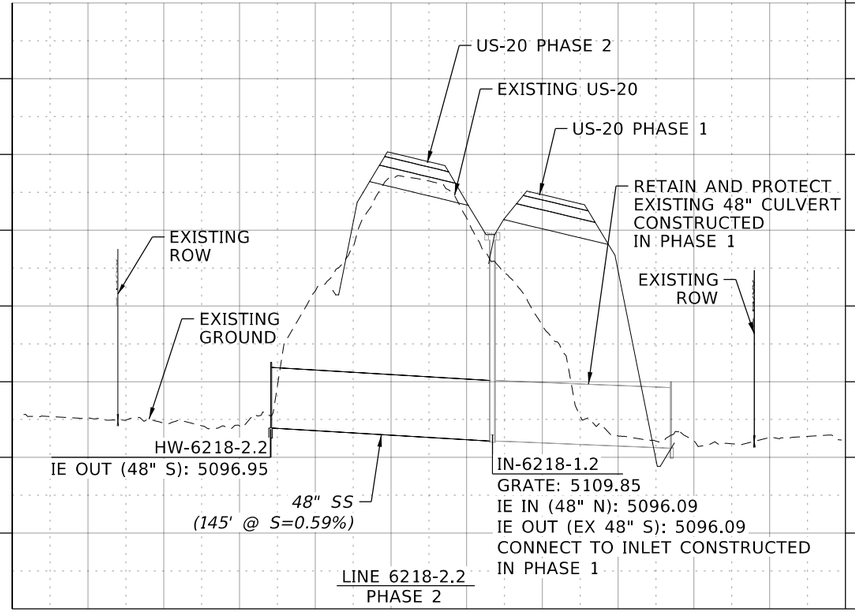
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FOR CONSTRUCTION

November 21, 2025 4:55:59 PM
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NOTE:

① SEE PIPE AND DRAINAGE STRUCTURE COVER DETAILS.

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| DESIGNED | D. ABEDI |
| DESIGN CHECKED | C. MCALISTER |
| DETAILED | P. CONSALVO |
| DRAWING CHECKED | C. MCALISTER |

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME 24149_Drpr_D217.DGN

DRAWING DATE: November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT

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DAVID EVANS AND ASSOCIATES INC.

PROJECT NO. A024(149)

DRAINAGE PROFILE

US 20, BONNEVILLE COUNTY
LINE TO MP 291
PHASE 2

ENGLISH

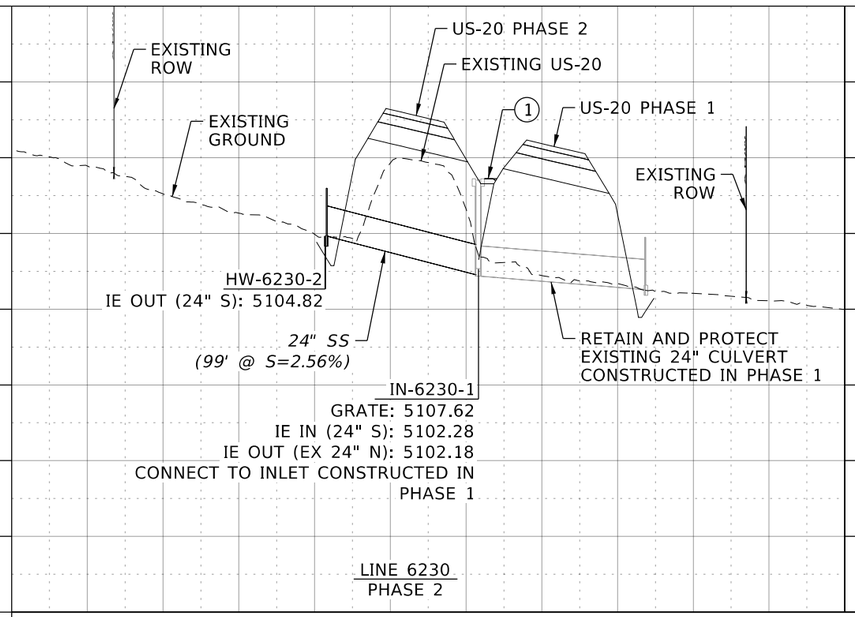
COUNTY BINGHAM/BONNEVILLE

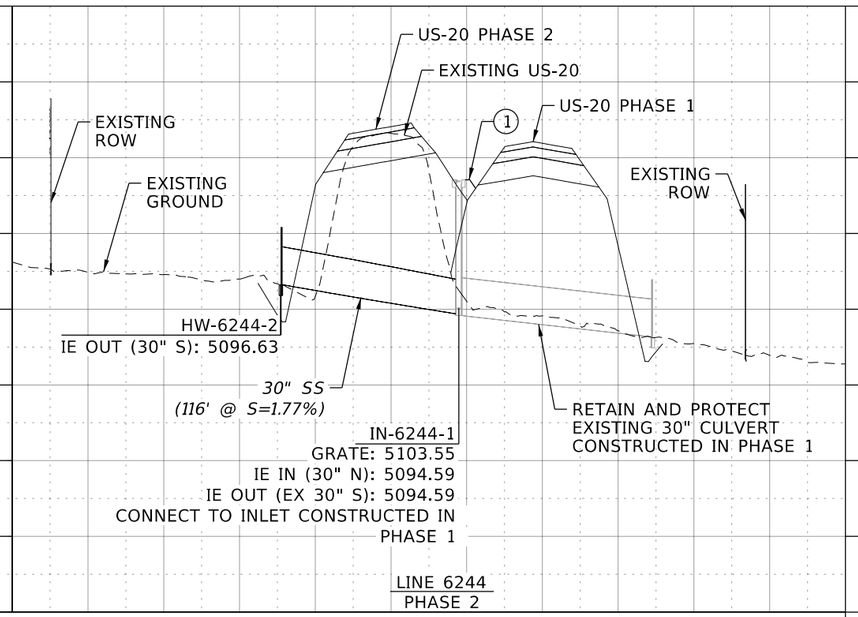
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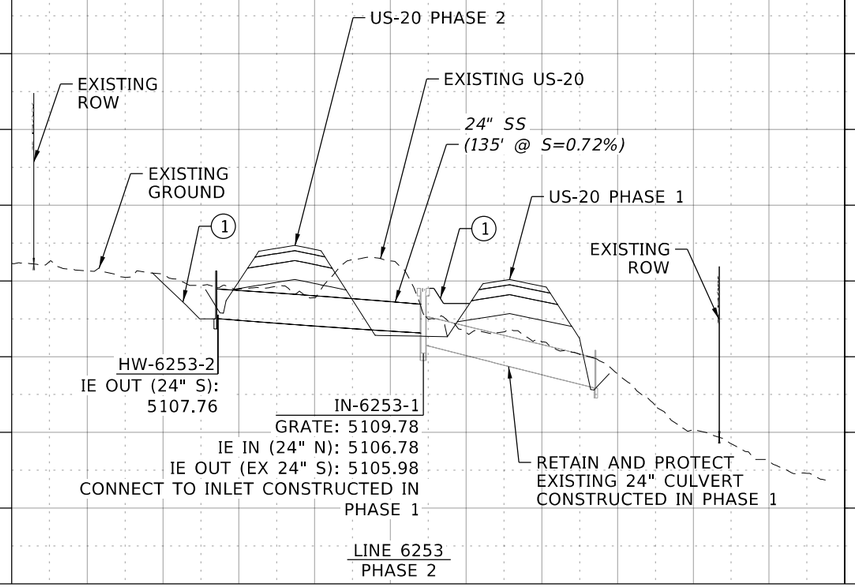
SHEET 298 OF 441

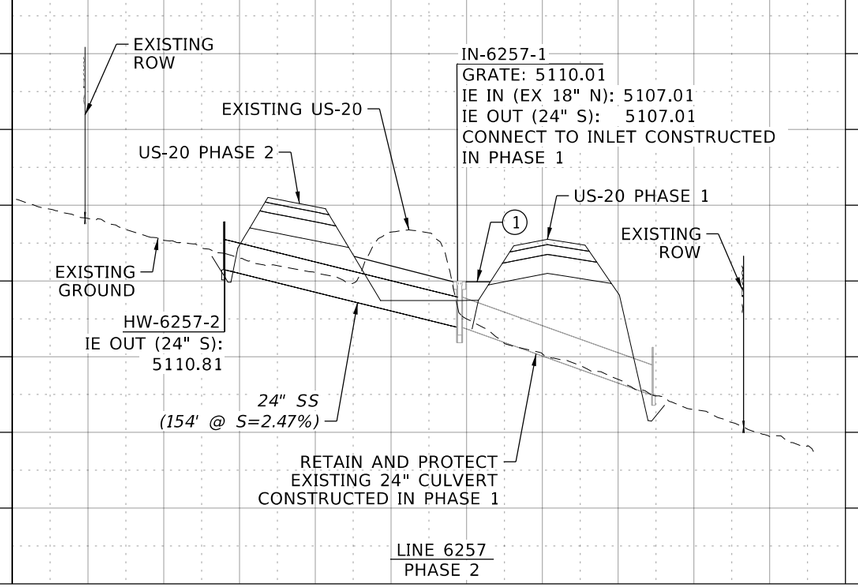
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NOTE:

① SEE PIPE AND DRAINAGE STRUCTURE COVER DETAILS.

| REVISIONS | | | |
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| DESIGNED | D. ABEDI |
| DESIGN CHECKED | C. MCALISTER |
| DETAILED | P. CONSALVO |
| DRAWING CHECKED | C. MCALISTER |

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

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DRAWING DATE: November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT

YOUR Safety→YOUR Mobility→YOUR Economic Opportunity

DAVID EVANS AND ASSOCIATES INC.

PROJECT NO. A024(149)

DRAINAGE PROFILE

US 20, BONNEVILLE COUNTY
LINE TO MP 291
PHASE 2

ENGLISH

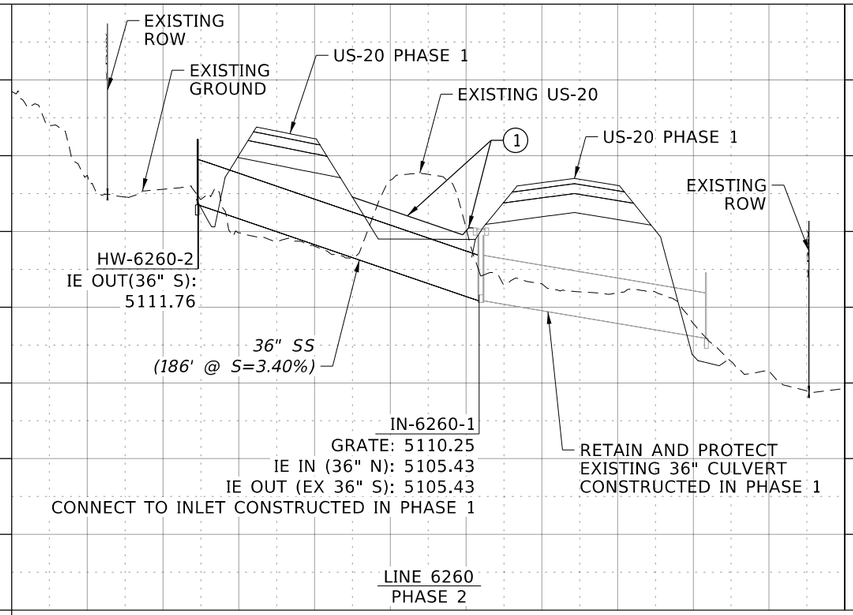
COUNTY BINGHAM/BONNEVILLE

KEY NUMBER 24149

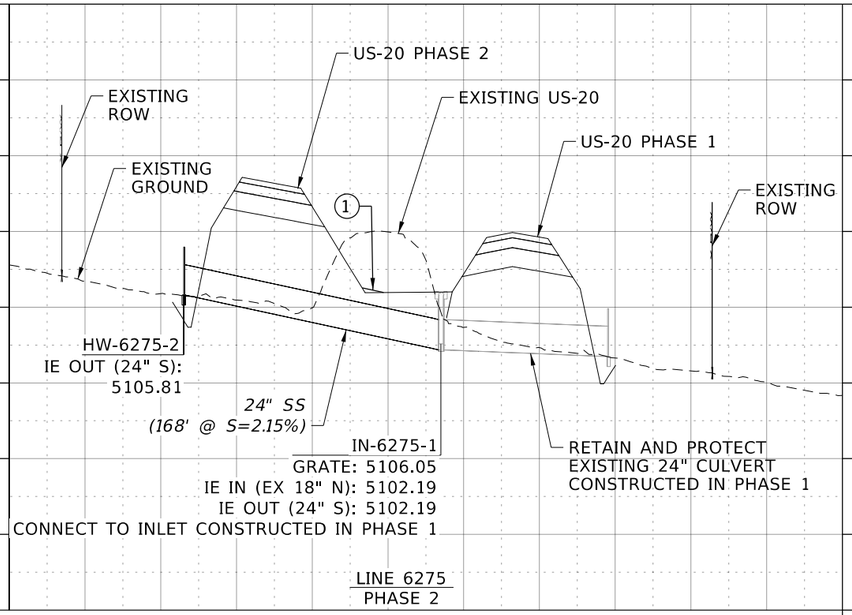
SHEET 299 OF 441

NOT APPROVED FOR CONSTRUCTION
INTERMEDIATE

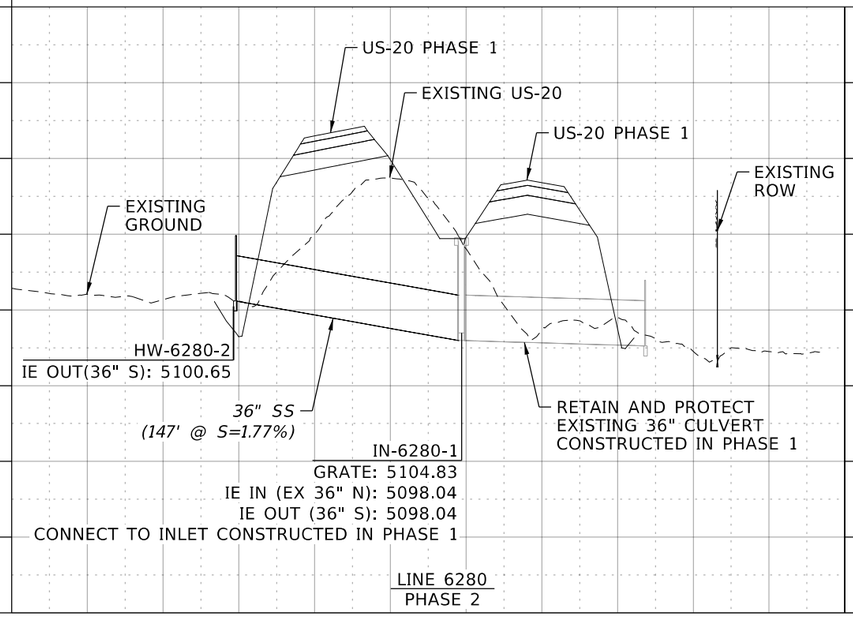
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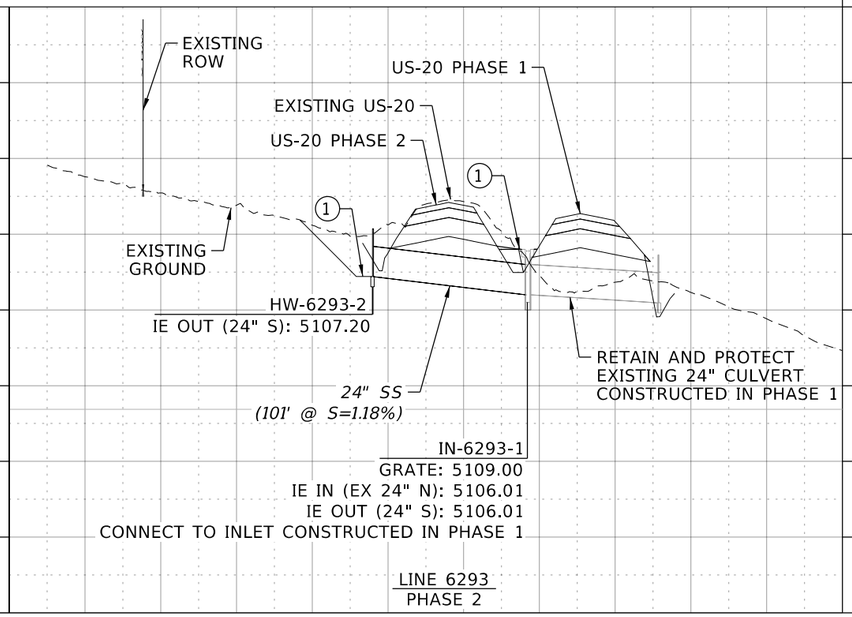

LINE 6260
PHASE 2




LINE 6275
PHASE 2




LINE 6280
PHASE 2




LINE 6293
PHASE 2

NOTE:

① SEE PIPE AND DRAINAGE STRUCTURE COVER DETAILS.

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| DESIGN CHECKED | C. MCALISTER |
| DETAILED | P. CONSALVO |
| DRAWING CHECKED | C. MCALISTER |

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME
24149_Drpr_D219.DGN

DRAWING DATE:
November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity

DAVID EVANS AND ASSOCIATES INC.

| PROJECT NO. | DRAINAGE PROFILE |
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| A024(149) | US 20, BONNEVILLE COUNTY<br>LINE TO MP 291<br>PHASE 2 |

ENGLISH

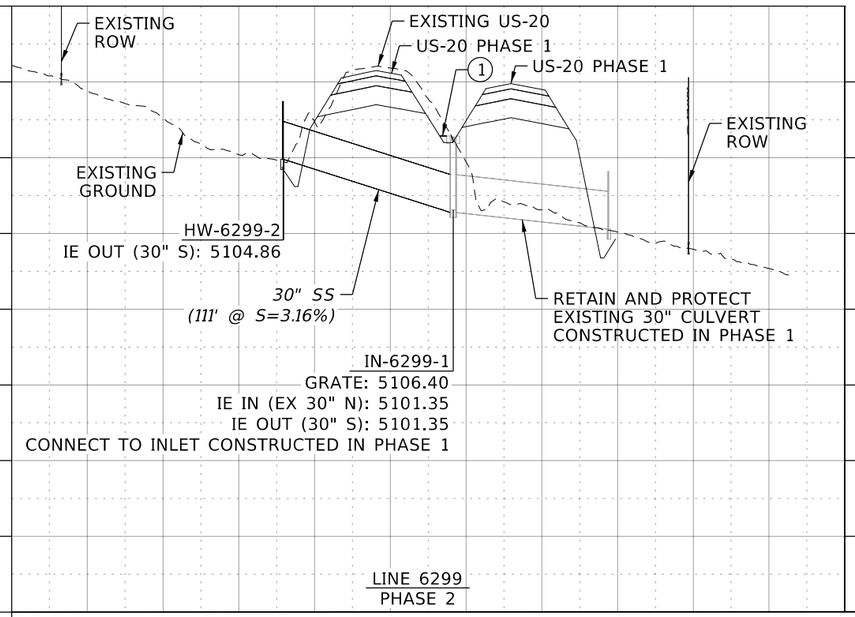
COUNTY
BINGHAM/BONNEVILLE

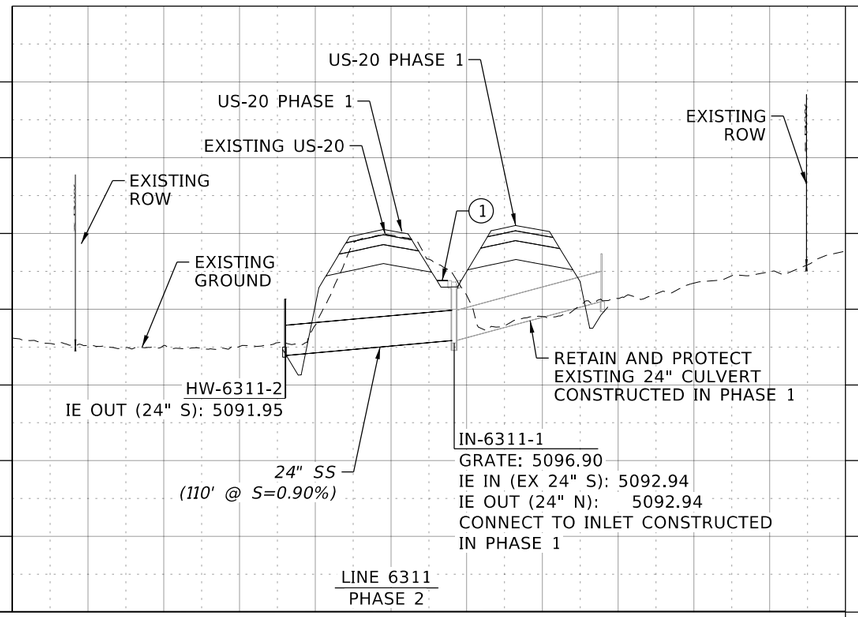
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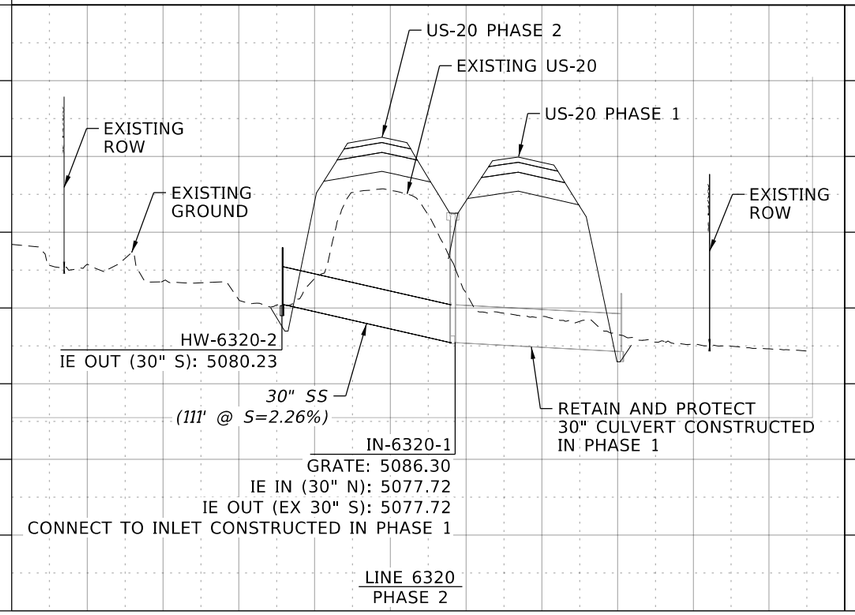
SHEET 300 OF 441

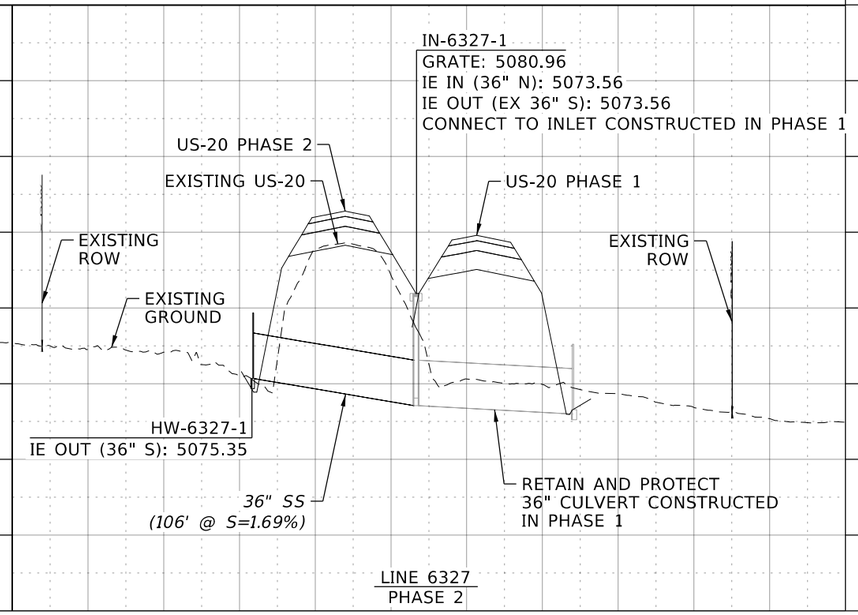
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NOTE:

① SEE PIPE AND DRAINAGE STRUCTURE COVER DETAILS.

| REVISIONS | | | |
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| DESIGNED | D. ABEDI |
| DESIGN CHECKED | C. MCALISTER |
| DETAILED | P. CONSALVO |
| DRAWING CHECKED | C. MCALISTER |

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME
24149_Drpr_D220.DGN

DRAWING DATE:
November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity

DAVID EVANS AND ASSOCIATES INC.

PROJECT NO.
A024(149)

DRAINAGE PROFILE
US 20, BONNEVILLE COUNTY
LINE TO MP 291
PHASE 2

ENGLISH

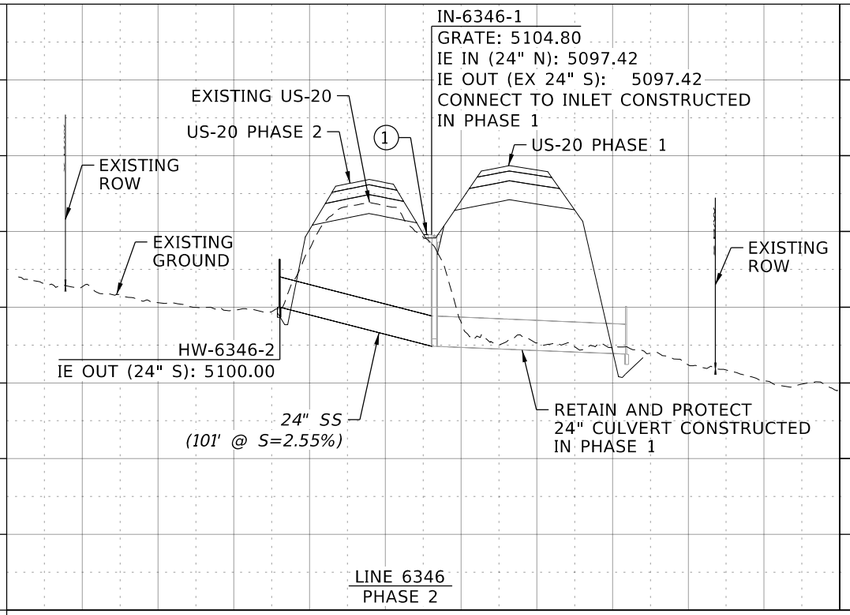
COUNTY
BINGHAM/BONNEVILLE

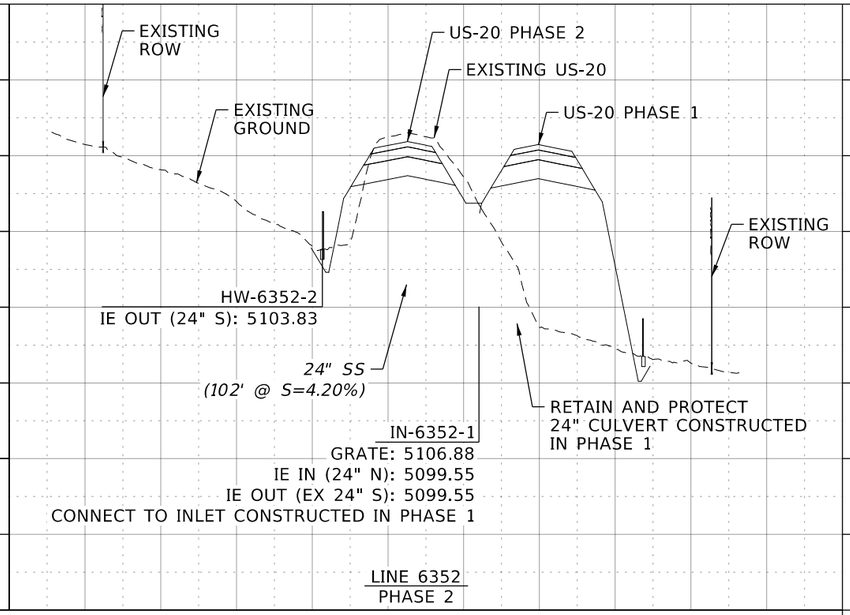
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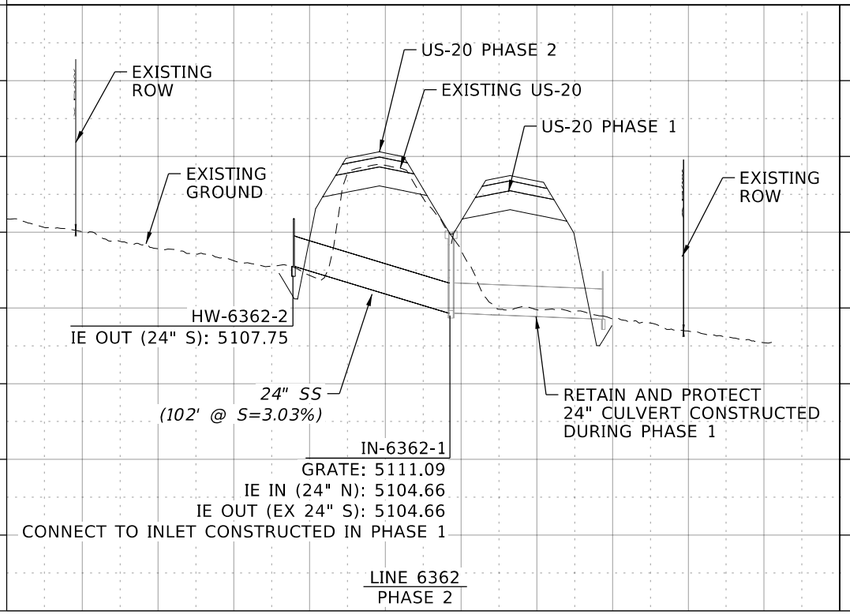
SHEET 301 OF 441

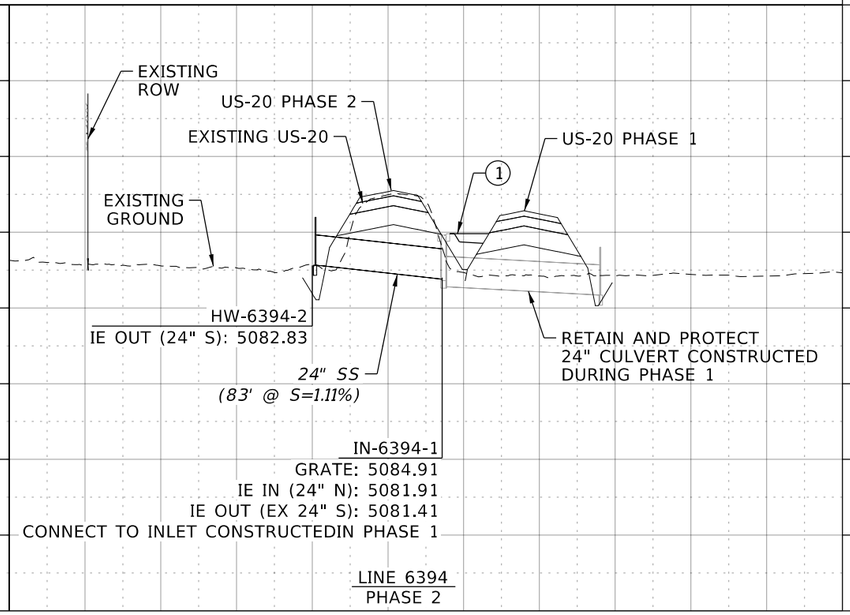
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NOTE:

① SEE PIPE AND DRAINAGE STRUCTURE COVER DETAILS.

| REVISIONS | | | |
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| DESIGNED | D. ABEDI |
| DESIGN CHECKED | C. MCALISTER |
| DETAILED | P. CONSALVO |
| DRAWING CHECKED | C. MCALISTER |

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| PROJECT NO. | DRAINAGE PROFILE |
|---|---|
| A024(149) | US 20, BONNEVILLE COUNTY<br>LINE TO MP 291<br>PHASE 2 |

ENGLISH

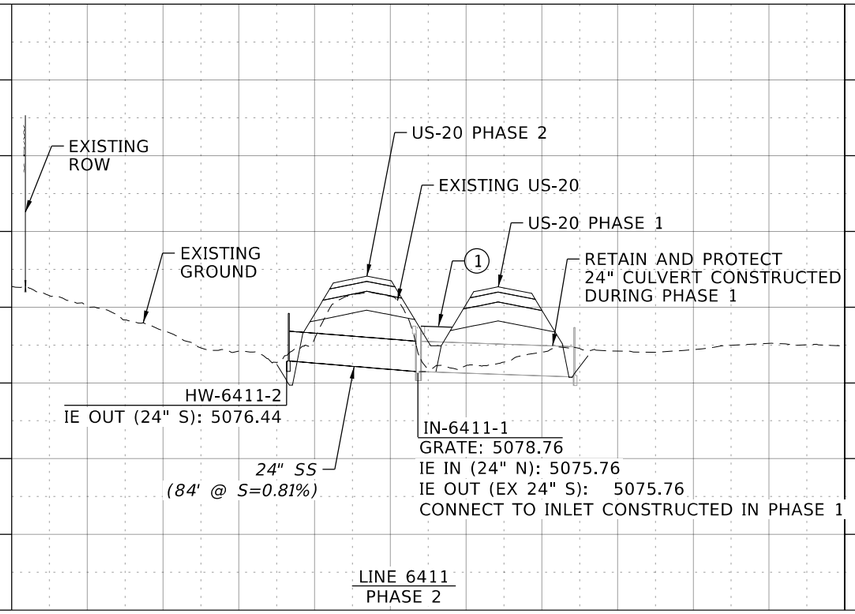
COUNTY BINGHAM/BONNEVILLE

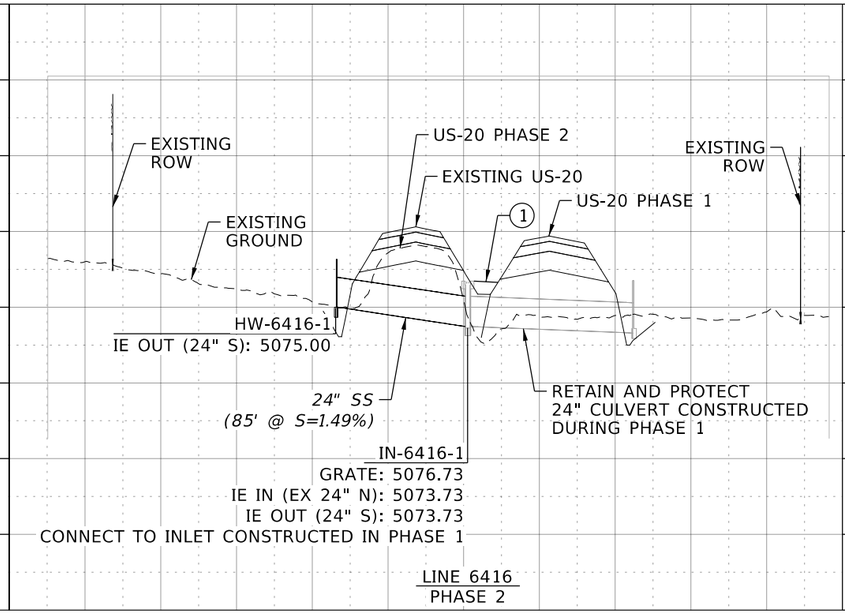
KEY NUMBER 24149

SHEET 302 OF 441

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NOTE:

① SEE PIPE AND DRAINAGE STRUCTURE COVER DETAILS.

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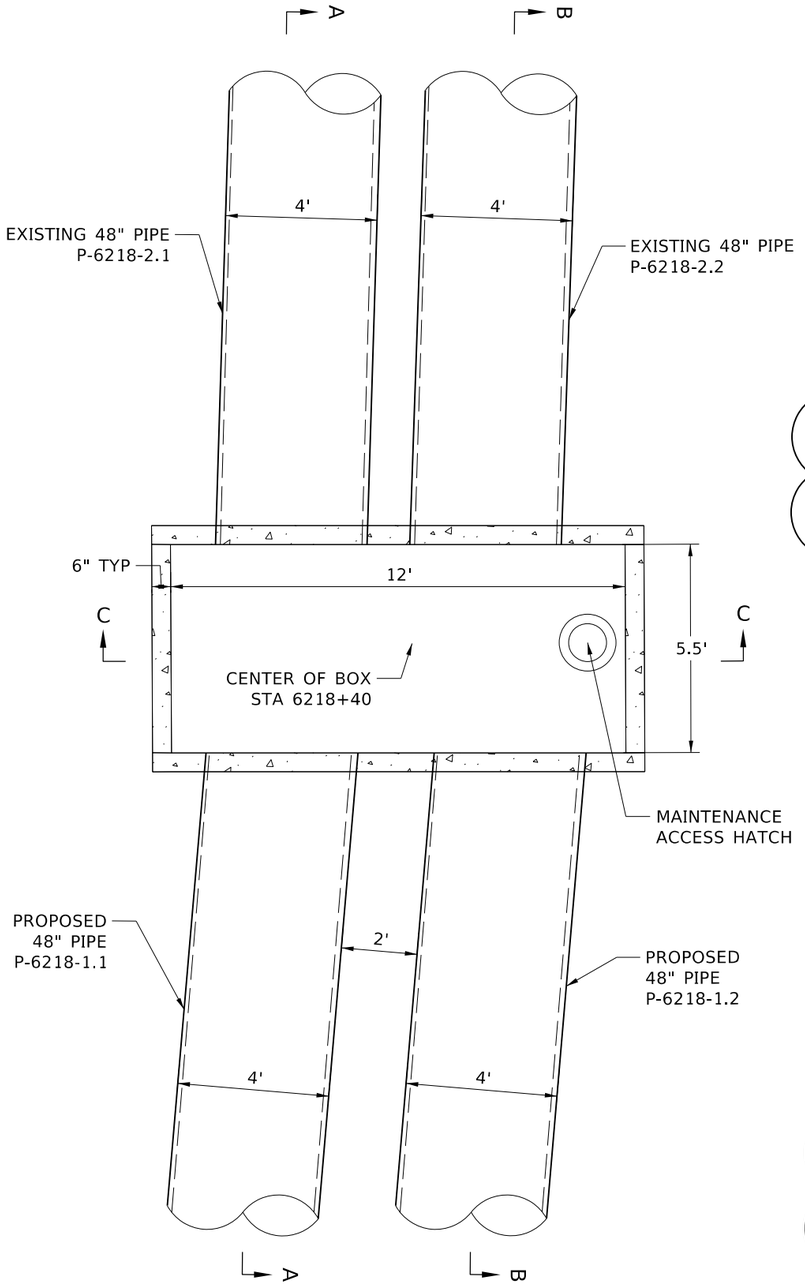
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| DESIGNED D. ABEDI | SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY |
| DESIGN CHECKED C. MCALISTER | |
| DETAILED P. CONSALVO | CADD FILE NAME 24149_Drpr_D222.DGN |
| DRAWING CHECKED C. MCALISTER | DRAWING DATE: November 21, 2025 |

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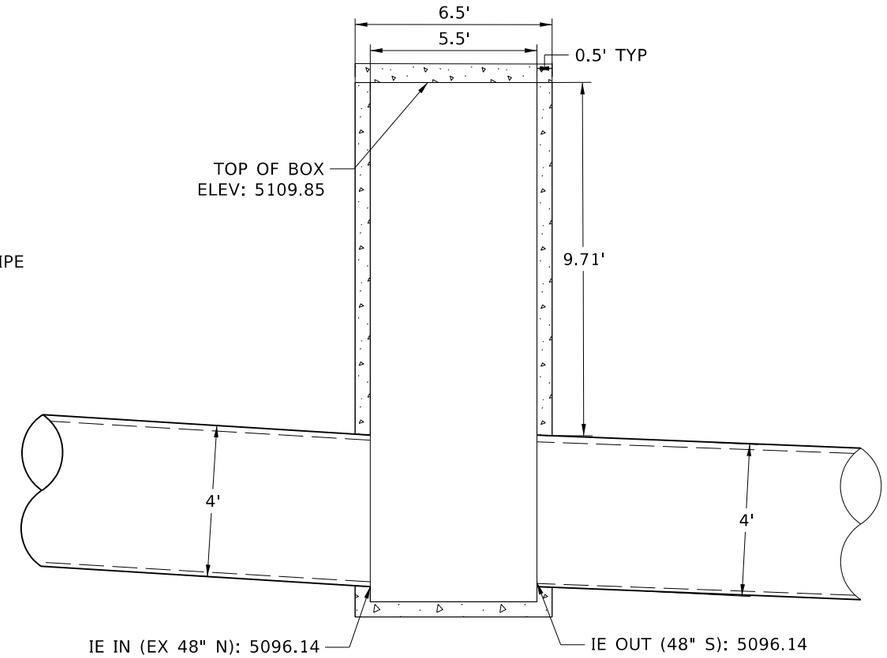
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| A024(149) | US 20, BONNEVILLE COUNTY<br>LINE TO MP 291<br>PHASE 2 | COUNTY BINGHAM/BONNEVILLE<br>KEY NUMBER 24149<br>SHEET 303 OF 441 |

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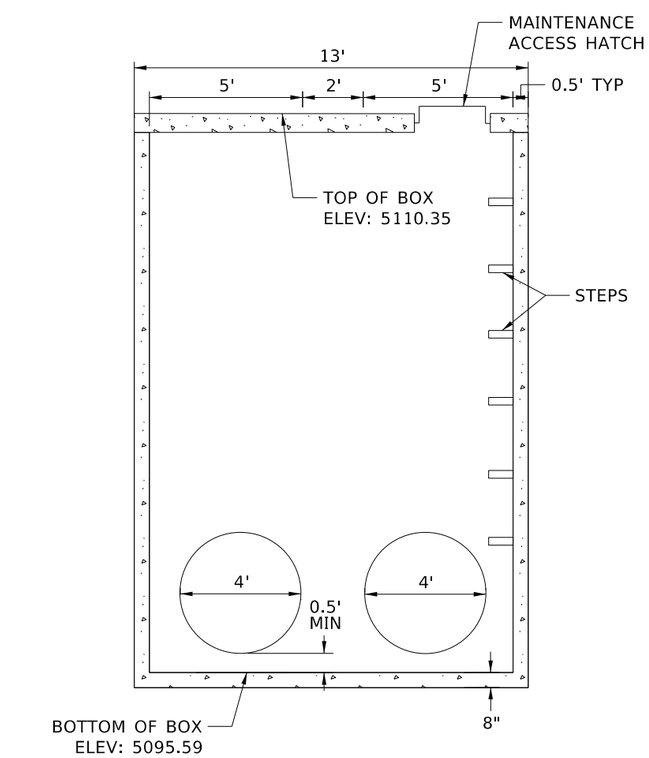

PLAN VIEW
S901-05B
SP CONC JUNCTION BOX




SECTION A-A




SECTION B-B




SECTION C-C

NOTES:

1. CONC JUNCTION BOX CAN BE PRECAST OR CAST-IN-PLACE. PRECAST CONC JUNCTION BOX SHALL MEET THE REQUIREMENTS OF ASTM C913.
2. CAST-IN-PLACE SP CONC JUNCTION BOX SHALL CONFORM TO SECTION 609-MINOR STRUCTURES OF THE CURRENT ITD STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.
3. A 1" SIDE DRAFT IS ALLOWED FOR FORM REMOVAL.
4. REINFORCEMENT DESIGN TO BE COMPLETED BY CONTRACTOR. ALL METAL REINFORCEMENT USED SHALL BE NO. 4 BARS. THE METAL REINFORCEMENT SHALL BE SMOOTH CUT TO ACCOMMODATE PIPES. ALL BARS SHALL HAVE A MINIMUM CONCRETE COVER OF 2" AND/OR 3" MINIMUM COVER IF CAST AGAINST EARTH.
5. SUBMIT ALL SHOP DRAWINGS, ANDMATERIAL SUBMITTALS PRIOR TO CONSTRUCTION FOR REVIEW AND APPROVAL.
6. PROVIDE TOP ACCESS HATCH FOR MAINTENANCE PERSONNEL.
7. INSTALL STEPS IN ACCORDANCE WITH AASHTO M 199.

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| DESIGN CHECKED | C. MCALISTER |
| DETAILED | P. CONSALVO |
| DRAWING CHECKED | C. MCALISTER |

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CADD FILE NAME: 24149_Drdt_D201.dgn

DRAWING DATE: November 21, 2025

IDAHO TRANSPORTATION DEPARTMENT
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DAVID EVANS AND ASSOCIATES INC.

| PROJECT NO. | DRAINAGE DETAIL |
|---|---|
| A024(149) | US 20, BONNEVILLE COUNTY LINE TO MP 291<br>SP CONC JUNCTION BOX |

*ENGLISH*

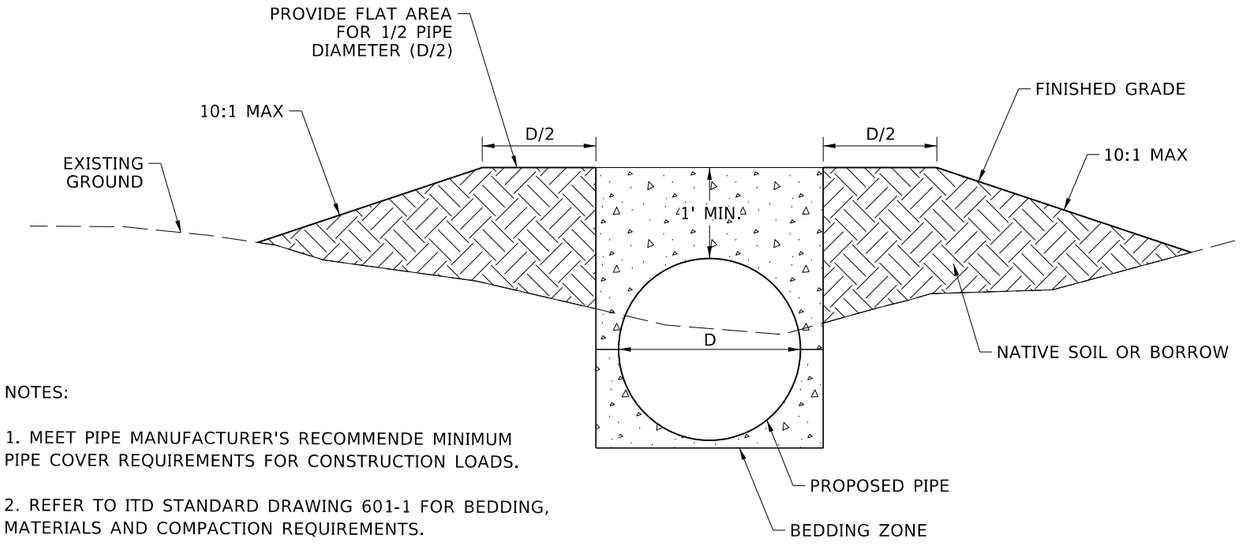
COUNTY: BINGHAM/BONNEVILLE

KEY NUMBER: 24149

SHEET 304 OF 441

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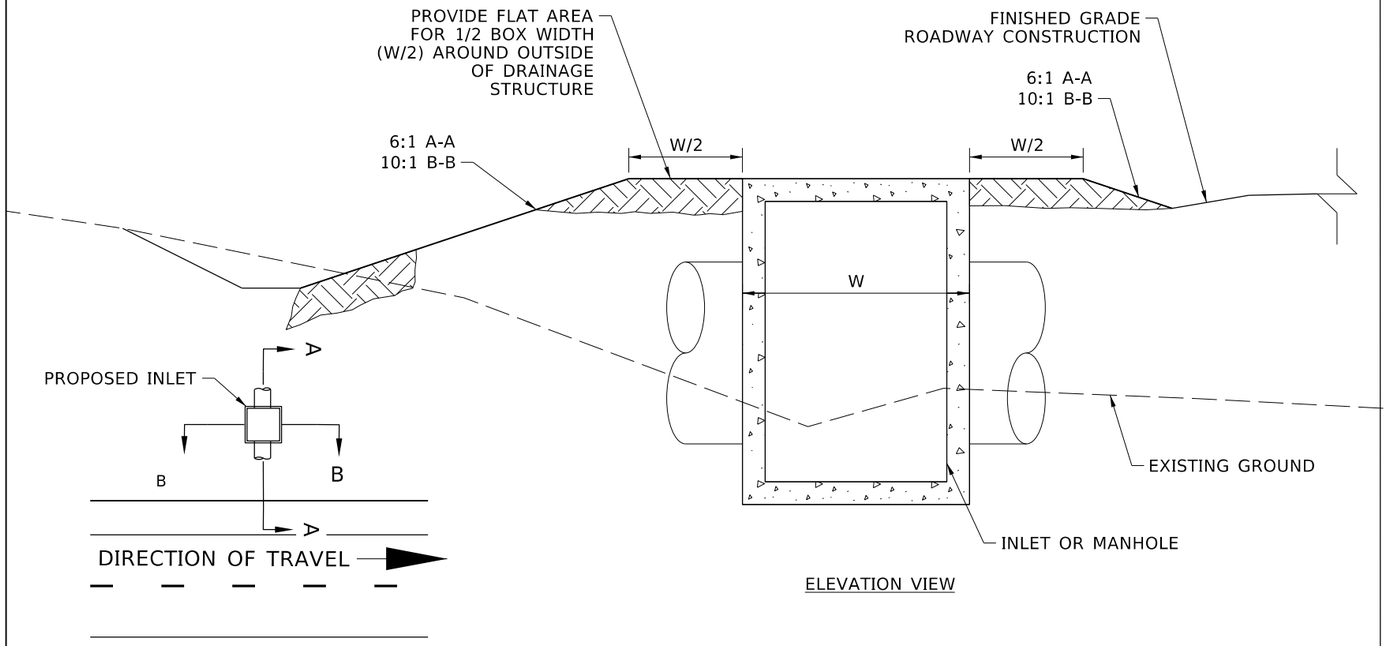



NOTES:

1. MEET PIPE MANUFACTURER'S RECOMMENDE MINIMUM PIPE COVER REQUIREMENTS FOR CONSTRUCTION LOADS.

2. REFER TO ITD STANDARD DRAWING 601-1 FOR BEDDING, MATERIALS AND COMPACTION REQUIREMENTS.

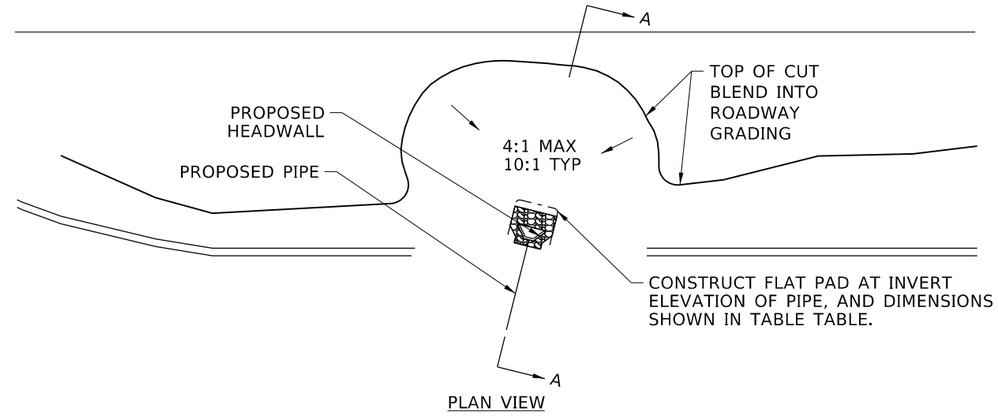
PIPE COVER DETAIL



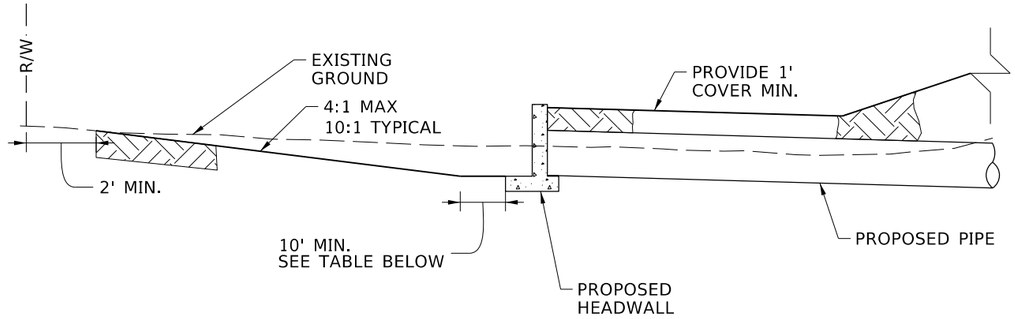

PLAN VIEW

ELEVATION VIEW

DRAINAGE STRUCTURE COVER DETAIL




PLAN VIEW




SECTION A-A

PIPE END DAYLIGHT DETAIL

| LOCATION | PAD DIMENSIONS | ELEVATION | SLOPE |
|---|---|---|---|
| 5909-RT | 10' x 10' | 5326.80' | 10:1 |
| 5928-RT | 10' x 10' | 5316.60' | 10:1 |
| 5959-LT | 10' x 10' | 5291.62' | 10:1 |
| 6017-RT | 10' x 10' | 5280.89' | 10:1 |
| 6066-LT | 10' x 10' | 5195.95' | 10:1 |
| 6074-LT | 10' x 10' | 5194.00' | 10:1 |
| 6253-RT | 10' x 10' | 5103.20' | 10:1 |
| 6253-LT | 10' x 10' | 5107.76' | 10:1 |
| 6293-RT | 10' x 10' | 5105.47' | 10:1 |
| 6293-LT | 10' x 10' | 5107.20' | 10:1 |
| 6411-RT | 10' x 10' | 5075.40' | 10:1 |
| 6415-RT | 10' x 10' | 5073.30' | 10:1 |

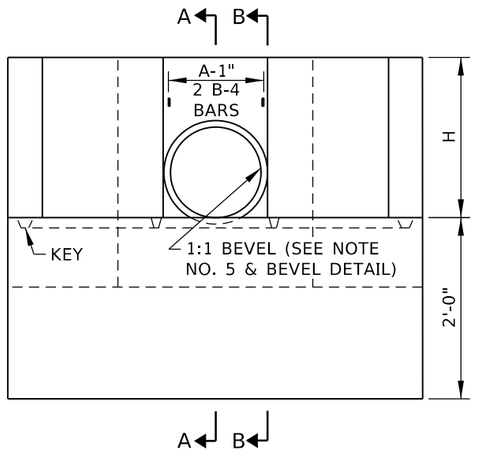
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| DESIGNED D. ABEDI | SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY | IDAHO TRANSPORTATION DEPARTMENT<br>YOUR Safety→YOUR Mobility→YOUR Economic Opportunity<br>DAVID EVANS AND ASSOCIATES INC. |
| DESIGN CHECKED C. MCALISTER | | |
| DETAILED P. CONSALVO | CADD FILE NAME 24149_Drdt_D202.dgn | |
| DRAWING CHECKED C. MCALISTER | DRAWING DATE: November 21, 2025 | |

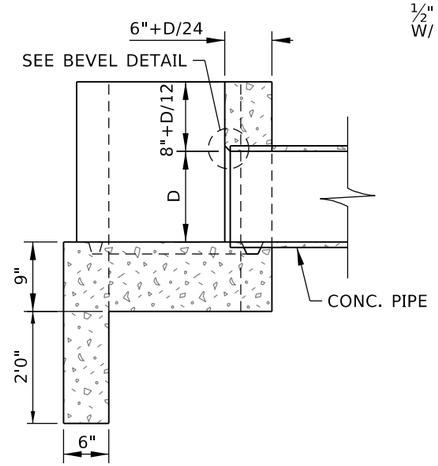
| PROJECT NO. | DRAINAGE DETAIL | |
|---|---|---|
| A024(149) | US 20, BONNEVILLE COUNTY LINE TO MP 291<br>COVER & DAYLIGHT DETAILS | ENGLISH<br>COUNTY BINGHAM/BONNEVILLE<br>KEY NUMBER 24149<br>SHEET 305 OF 441 |

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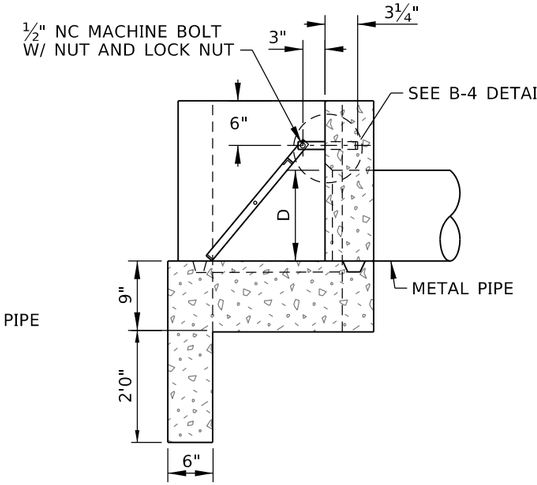
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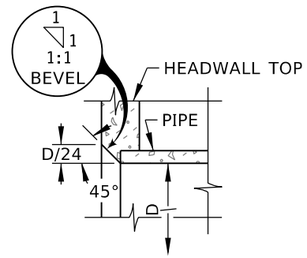

ELEVATION VIEW



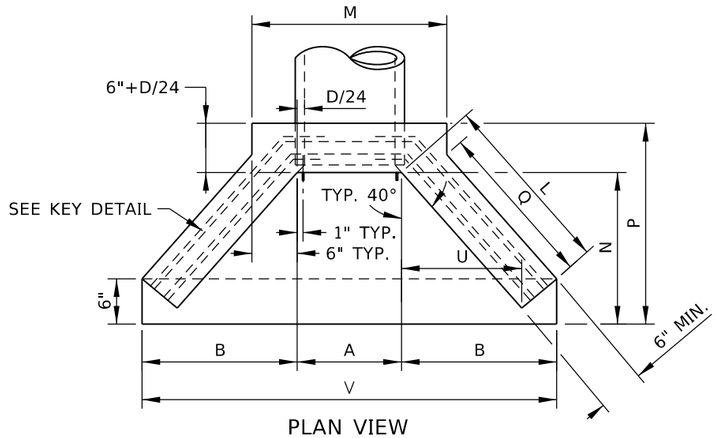

PROFILE VIEW
SECTION A-A




PROFILE VIEW
SECTION B-B




BEVEL DETAIL



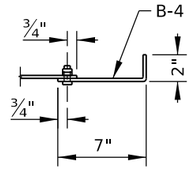

PLAN VIEW

## MINOR STRUCTURE - HEADWALL

ITEM 609-025A MINOR STRUCTURES (24" HEADWALL)
ITEM 609-025B MINOR STRUCTURES (30" HEADWALL)
ITEM 609-025C MINOR STRUCTURES (36" HEADWALL)
ITEM 609-025D MINOR STRUCTURES (42" HEADWALL)
ITEM 609-025E MINOR STRUCTURES (48" HEADWALL)
N.T.S.

| HEADWALL DIMENSION TABLE | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NOMINAL SIZE DIA. (IN.) | IN INCHES | | | | | | | | | | |
| | D/24 | A | B | H | L | M | N | P | Q | U | V |
| 24 | 1 | 26 | 31⅜ | 34 | 41⅝ | 38 | 34 | 41 | 39⅜ | 26¾ | 88¾ |
| 30 | 1¼ | 32½ | 36¾ | 40½ | 50⅛ | 44½ | 40½ | 47¾ | 47⅞ | 32¼ | 106 |
| 36 | 1½ | 39 | 42¼ | 47 | 58⅝ | 51 | 47 | 54½ | 56⅜ | 37⅝ | 123½ |
| 42 | 1¾ | 45½ | 47⅝ | 53½ | 67⅛ | 57½ | 53½ | 61¼ | 64¼ | 43⅛ | 140¾ |
| 48 | 2 | 52 | 53⅛ | 60 | 75⅝ | 64 | 60 | 68 | 73⅜ | 48⅝ | 158¼ |

| METAL REINFORCEMENT TABLE | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| BAR | NOMINAL PIPE SIZE DIAMETER (IN.) | | | | | | | | | |
| | 24 | | 30 | | 36 | | 42 | | 48 | |
| | NO. | LGTH. | NO. | LGTH. | NO. | LGTH. | NO. | LGTH. | NO. | LGTH. |
| F-1 | 1 | 58 | 1 | 70¾ | 1 | 83 | 2 | 79&109 | 2 | 85&115 |
| H-1A | 2 | 112 | 2 | 135 | 2 | 158 | 2 | 182 | 2 | 204 |
| H-1B | 4 | 43 | 4 | 52 | 4 | 58 | 6 | 67 | 6 | 75 |
| L-1 | 2 | 84¾ | 2 | 102 | 2 | 119 | 2 | 136¾ | 2 | 154¼ |
| L-2 | 2 | 19 | 2 | 19 | 2 | 19 | 2 | 19 | 2 | 19 |
| W-1A | 2 | 87½ | 2 | 100½ | 2 | 114 | 2 | 127 | 2 | 140 |
| W-1B | 1 | 53 | 1 | 59 | 1 | 62 | 1 | 68 | 1 | 79 |
| W-1C | 2 | 36 | 2 | 40 | 2 | 43 | 2 | 47 | 2 | 54½ |
| W-2 | 4 | 38¼ | 6 | 44¾ | 6 | 51 | 6 | 57½ | 8 | 64 |
| TOT. WT. | 62 lbs. | | 78 lbs. | | 89 lbs. | | 113 lbs. | | 133 lbs. | |




B-4 DETAIL

NOTE:

FOR INFORMATION NOT SHOWN, SEE "IDAHO STANDARD DRAWING 609-2"

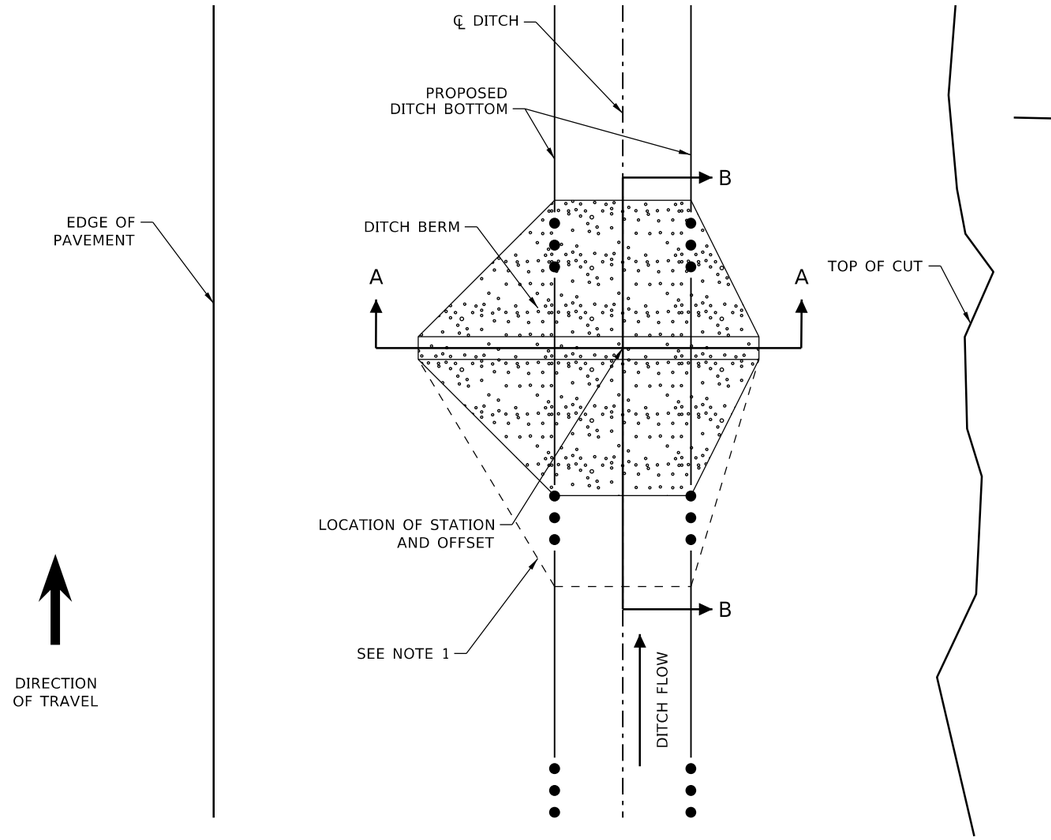
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| DESIGN CHECKED C. MCALISTER | | |
| DETAILED P. CONSALVO | CADD FILE NAME 24149_Drdt_D203a.dgn | |
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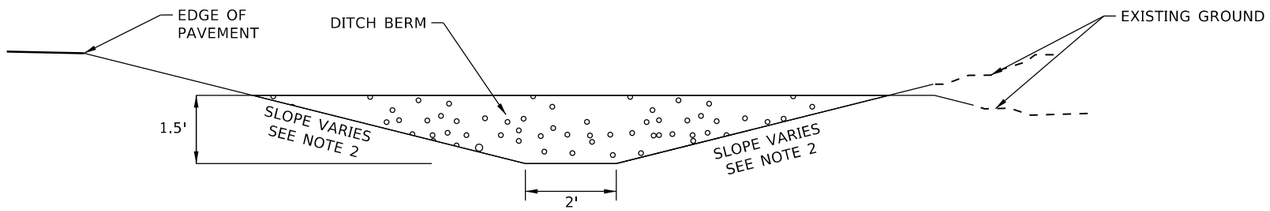
| PROJECT NO. | DRAINAGE DETAIL | ENGLISH |
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| A024(149) | US 20, MP 291<br>TO IDAHO FALLS<br>MINOR STRUCTURE<br>12" TO 48" HEADWALL | COUNTY BINGHAM/BONNEVILLE<br>KEY NUMBER 24149<br>SHEET 306 OF 441 |

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FOR CONSTRUCTION

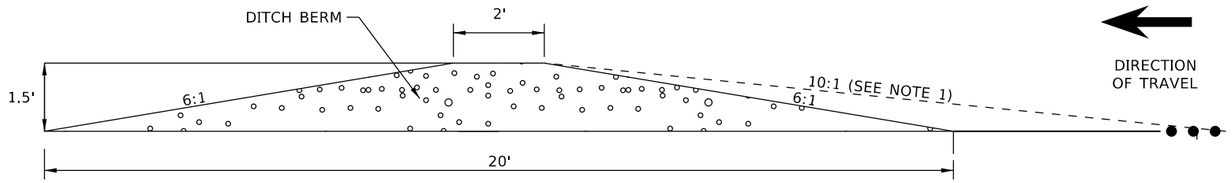
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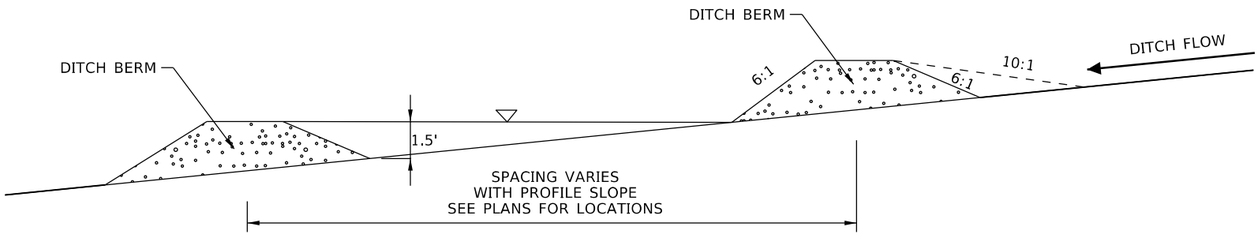

PLAN VIEW
DITCH BERM
ITEM S913-05A
N.T.S.




SECTION A-A
DITCH BERM
N.T.S.




SECTION B-B
DITCH BERM
N.T.S.




PROFILE VIEW
DITCH BERM
N.T.S.

## NOTES

1. DITCH BERMS WITHIN CLEARZONE MUST UTILIZE A 10:1 SLOPE FACING ONCOMING TRAFFIC. THESE LOCATIONS ARE INDENTIFIED ON THE PLAN SHEETS.
2. SEE TYPICAL SECTIONS FOR DITCH SIDE SLOPE INFORMATION.

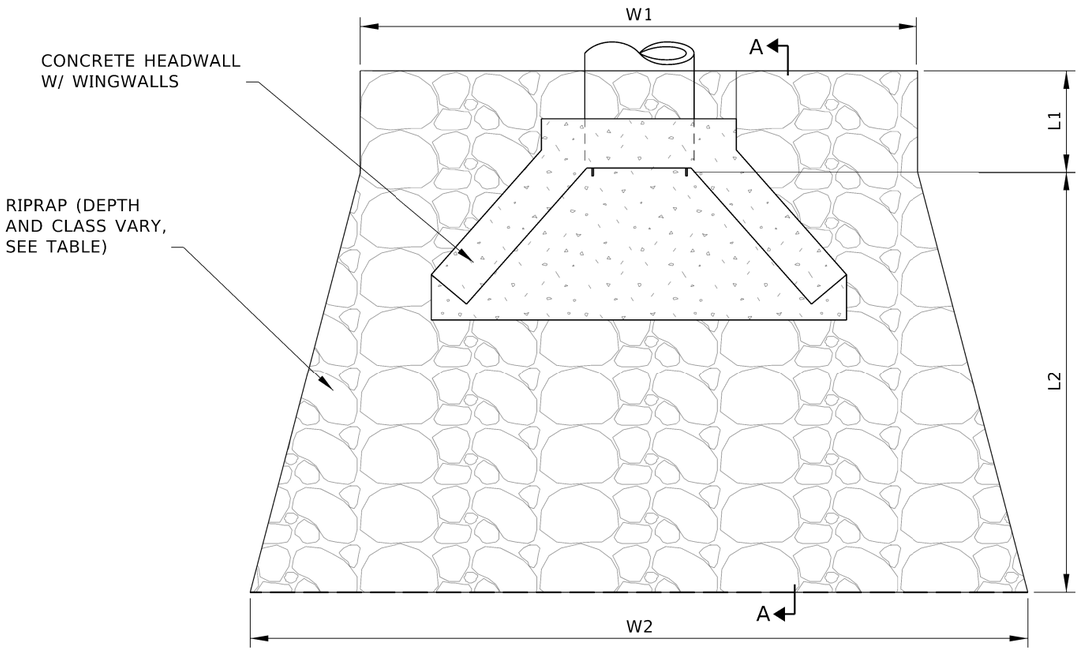
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| DETAILED P. CONSALVO | CADD FILE NAME 24149_Drdt_D204.dgn | |
| DRAWING CHECKED C. MCALISTER | DRAWING DATE: November 21, 2025 | DAVID EVANS AND ASSOCIATES INC. |

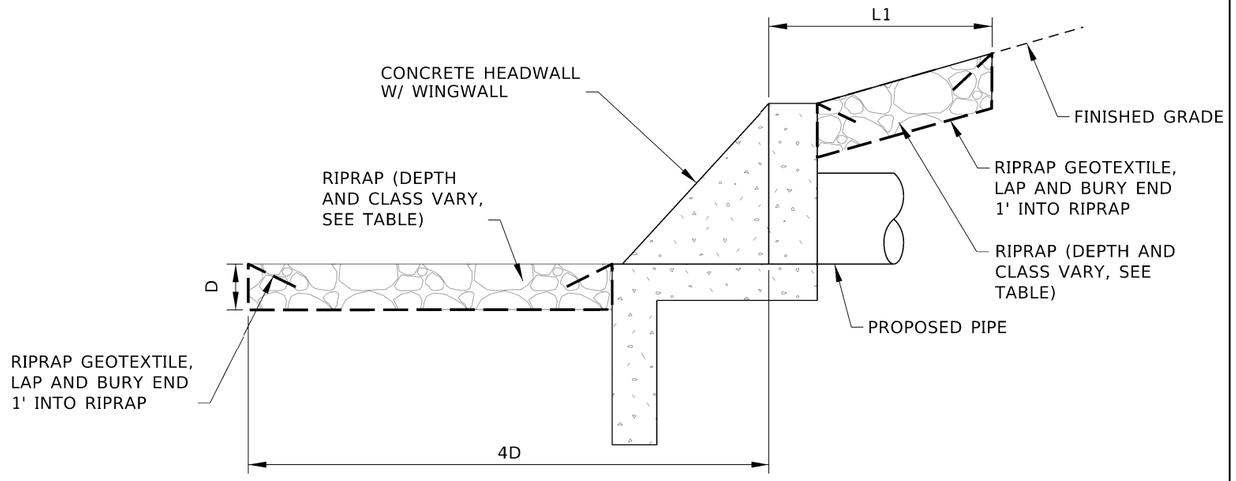
| PROJECT NO. | DRAINAGE DETAIL | ENGLISH |
|---|---|---|
| A024(149) | US 20, MP 291<br>TO IDAHO FALLS<br>SP DITCH BERM | COUNTY BINGHAM/BONNEVILLE<br>KEY NUMBER 24149<br>SHEET 307 OF 441 |

NOT APPROVED
INTERMEDIATE
FOR CONSTRUCTION

November 21, 2025 4:58:07 PM
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PLAN VIEW




PROFILE VIEW
SECTION A-A

| RIPRAP DIMENSION TABLE | | | | | | |
|---|---|---|---|---|---|---|
| CULV SIZE DIA. (IN.) | IN FEET | | | | | |
| | W1 | W2 | L1 | L2 | D | CLASS |
| 24 | 6 | 11.5 | 2 | 8 | 2 | I |
| 30 | 7.5 | 14.5 | 2 | 10 | 2 | I |
| 36 | 9 | 17 | 2 | 12 | 2 | I |
| 42 | 10.5 | 20 | 2 | 14 | 2 | I |
| 48 | 12 | 23 | 2 | 16 | 2 | I |
| DUAL 48 | 18 | 33 | 2 | 24 | 2 | I |

RIPRAP AT HEADWALL DETAIL

| REVISIONS | | | |
|---|---|---|---|
| NO. | DATE | BY | DESCRIPTION |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

| | | |
|---|---|---|
| DESIGNED D. ABEDI | SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY | IDAHO TRANSPORTATION DEPARTMENT<br>YOUR Safety→YOUR Mobility→YOUR Economic Opportunity |
| DESIGN CHECKED C. MCALISTER | | |
| DETAILED P. CONSALVO | CADD FILE NAME 24149_Drdt_D205.dgn | |
| DRAWING CHECKED C. MCALISTER | DRAWING DATE: November 21, 2025 | DAVID EVANS AND ASSOCIATES INC. |

| PROJECT NO. | DRAINAGE DETAIL | |
|---|---|---|
| A024(149) | US 20, BONNEVILLE COUNTY<br>LINE TO MP 291<br>RIPRAP AT HEADWALL DETAIL | *ENGLISH*<br>COUNTY BINGHAM/BONNEVILLE<br>KEY NUMBER 24149<br>SHEET 308 OF 441 |

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