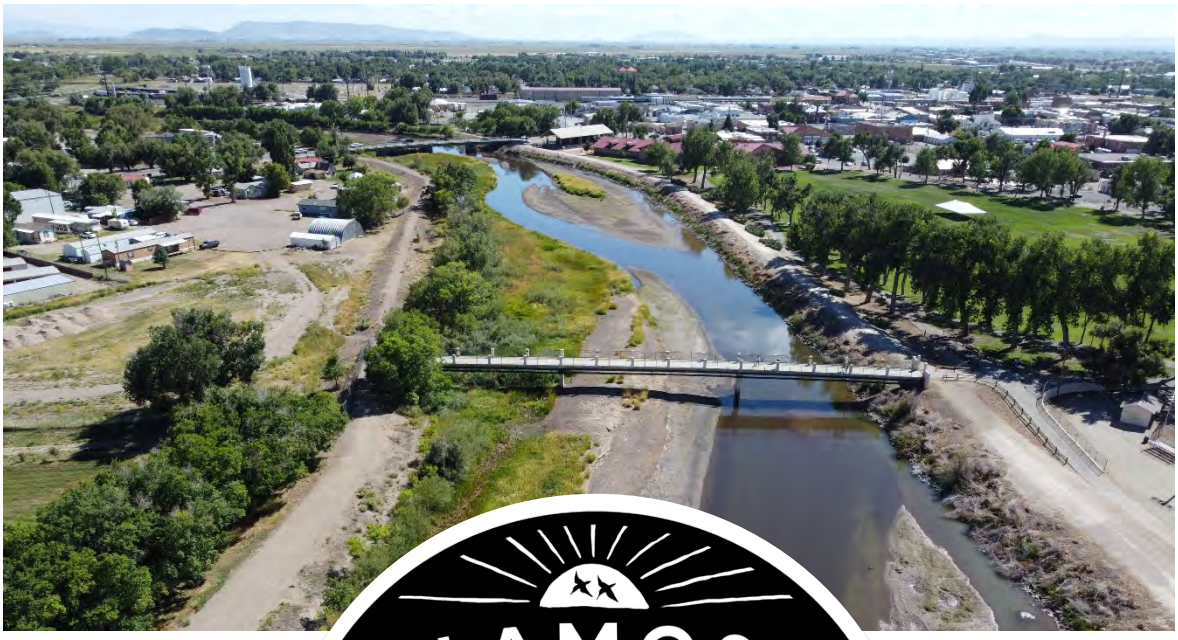
Alamosa Riverfront Project - Phase 1

Final Report prepared for CWCB – March 2025

Colorado Rio Grande Restoration Foundation
Rio Grande Headwaters Restoration Project



The Mission of the Rio Grande Headwaters Restoration Project is to restore and conserve the historical functions and vitality of the Rio Grande Basin in Colorado for improved water quality, agricultural water use, riparian health, wildlife and aquatic species habitat, recreation, and community safety while meeting the requirements of the Rio Grande Compact.

Final Report Executive Summary
Project Title: Alamosa Riverfront Project: Phase 1
CWCB WP Grant Contract Number: POGG1 PDAA 2024-2513, CMS #187213

Project Start Date: November 1, 2023 **Project Completion Date:** March 20, 2025

FUNDING

CASH	
CWCB WP Grant - POGG1 PDAA 2024-2513	$ 182,900.00
City of Alamosa	$ 40,000.00
Trinchera Blanca Foundation	$ 40,000.00
Colorado Health Foundation	$ 20,748.00
Subtotal Cash	*$ 283,648.00*
IN-KIND	
Technical Advisory Team	$ 7,218.60
Subtotal In-kind	*$ 7,218.60*
TOTAL FUNDING	**$290,866.60**

EXPENDITURES

Expenditures of CWCB WP Grant Funds	$ 182,900.00
Other Expenditures	$ 107,966.60
TOTAL EXPENDITURES	**$ 290,866.60**

Summary of Accomplishments
The Alamosa Riverfront Project (Project) is a is a community-led effort to reconnect the community of Alamosa, Colorado to the Rio Grande while also improving agricultural water delivery infrastructure and river health. The Rio Grande within the City of Alamosa lacks infrastructure for water-based recreation and suffers from aquatic habitat degradation. Phase 1 of this project resulted in construction-ready design plans for new public river access and recreation infrastructure, diversion infrastructure improvements at the Westside Ditch, and enhanced aquatic habitat and water quality. Design plans were developed through a robust public engagement and outreach process to gather community input on project design elements, engaging over 2,000 community members through public meetings and other outreach. Additionally, environmental and cultural assessments were completed for state, federal, and local permits and NEPA compliance. Project activities resulted in a plan to revitalize the riverfront in Alamosa and create connectivity between the community and its most important natural resource, the Rio Grande. When implemented, project elements will enhance the river ecosystem and increase accessibility by creating a welcoming, safe space for community members, boaters, and anglers.

INTRODUCTION and BACKGROUND

The Colorado Rio Grande Restoration Foundation (Foundation) is the fiscal agent for the Rio Grande Headwaters Restoration Project (RGHRP). The RGHRP was formed to implement the recommendations of the 2001 Study. The 2001 Study was prompted by a group of citizens who were concerned that the Rio Grande had been impaired, and analyzed the vegetation, human impact, agricultural disturbance, geomorphology, hydrology, wildlife habitat, condition of structures, and aquatic habitat within the 91-mile study reach.

Since its establishment, the RGHRP has worked to complete and implement the recommendations of a variety of assessments and strategic planning efforts, including the initial 2001 Study, the 2007 Watershed Restoration Strategic Plan, the 2020 Stream Management Plans completed for the Rio Grande, Conejos River, and Saguache Creek, and the 2021 Rio Grande Basin Implementation Plan. Using this robust data and planning, RGHRP collaborates with landowners, water users, and local, state, and federal entities to accomplish projects that support the diverse needs of our local communities.
Over the past 14 years, the RGHRP has developed a successful record of working with landowners, and local, state, and federal entities to improve the condition and function of the Rio Grande and Conejos River. Completed projects reduce sediment input by stabilizing the streambanks, improve the riparian and upland habitat by increasing willow and riparian vegetation cover, allow for fish passage, increase the capacity of the Rio Grande and Conejos River to transport sediment, and improve the condition of wetlands throughout the riparian area. In 2010, the RGHRP began working with ditch companies to address concerns surrounding aging and inefficient diversion and headgate structures. Additionally, in 2020 the RGHRP completed the Del Norte Riverfront Project in partnership with the Town of Del Norte, which created new river recreation infrastructure and access on the Rio Grande in the Town of Del Norte.

The vision for the Alamosa Riverfront Project is a result of multiple local, community-driven planning efforts including the Rio Grande Stream Management Plan (SMP), Rio Grande Basin Implementation Plan, City of Alamosa Comprehensive Plan, Alamosa Trails Master Plan, Revitalize the Rio Coalition, and community planning efforts. Each of these plans identified the community's desire to reconnect the City of Alamosa (City) with the Rio Grande and to improve outdoor recreation opportunities in the City. The project is a collaboration between the City of Alamosa, RGHRP, Rio Grande Farm Park, San Luis Valley Great Outdoors, County of Alamosa, Westside Ditch water users, San Luis Valley Water Conservancy District, San Luis Valley Area Health Education Center, Colorado Division of Water Resources and Colorado Parks and Wildlife. Participation from diverse stakeholders and the broader community ensures that both consumptive and non-consumptive needs are being met in the final construction-ready designs for multi-benefit river restoration, recreation, and irrigation infrastructure improvements.

PROJECT OBJECTIVES, TASKS, AND ACTIVITIES

The objectives of the Project were to:

1. Obtain and integrate the community's input on project design elements, engaging at least 350 community members throughout the outreach process.
2. Develop construction-ready designs for new public river access, improved recreation and diversion infrastructure, and enhanced aquatic habitat.
3. Complete environmental and cultural resources compliance and obtain all required permits.
4. Ensure community members are informed and involved throughout project scoping process.

These objectives, except for objective 3, were accomplished through the following tasks:

- Task 1: Project Design, Engineering, and Permitting
- Task 2: Community Engagement
- Task 3: Project Management and Administration

Project site locations are shown below.

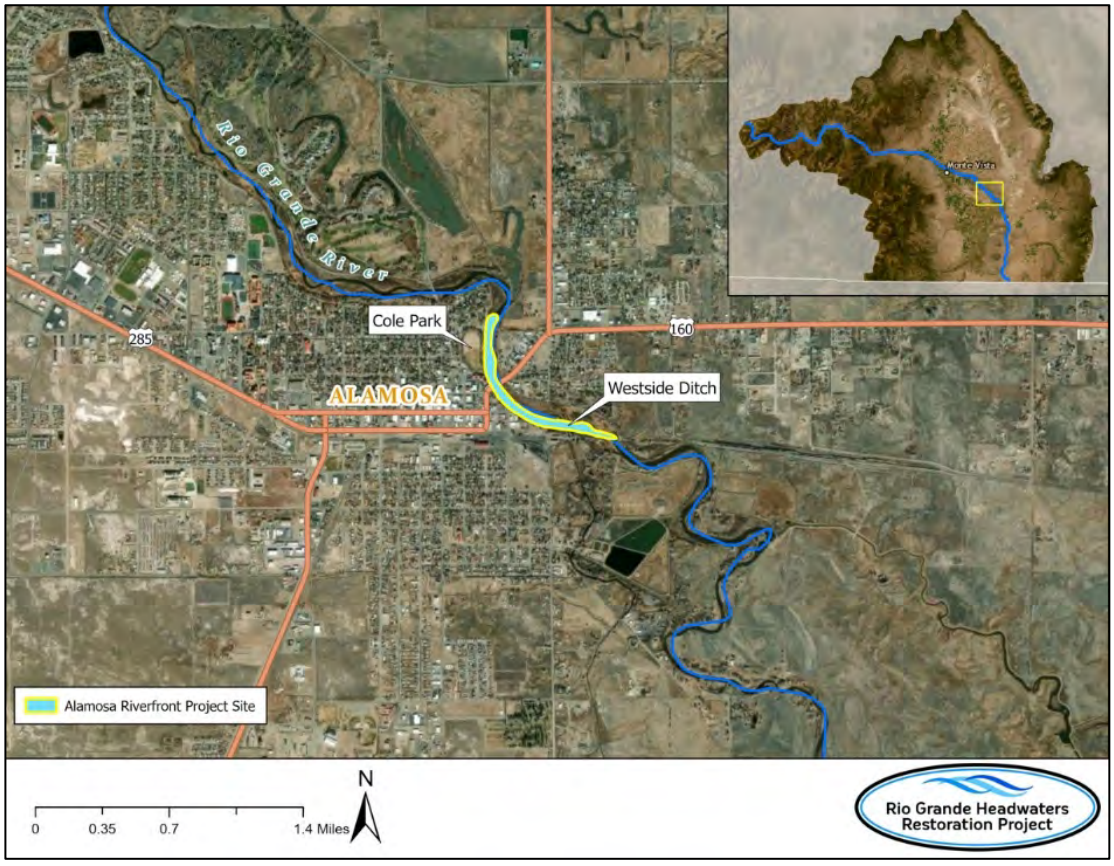


Figure 1. *Location of the Alamosa Riverfront Project*

The following pages detail how these objectives were met, modified, and in some cases exceeded, through the completion and planned completion of Project Tasks.

Task 1: Project Design, Engineering and Permitting

Description of Task: Complete project engineering, final design, and permitting for the Alamosa Riverfront Project river recreation features, diversion infrastructure replacement at the Westside Ditch, flood capacity, and river health improvements in consultation with project partners and the community.

Activities: In November 2023, RGHRP Staff worked with the Project Technical Advisory Team (TAT) partners to develop and advertise a request for proposals for consulting engineering services for the Project. The RFP was released December 1, 2023, and a mandatory on-site pre-proposal walkthrough was held on December 15, 2023, to answer questions from interested contractors. Proposals were due on January 16, 2024, and the TAT met on January 18 to review and select the preferred contractor, which was RiverRestoration, LLC.

A kickoff meeting was held with the TAT and design team on March 4, 2024 to review existing data and discuss project approach and timeline. The TAT worked with the design team to provide them with all relevant planning documents and survey data. RiverRestoration completed a full hydrographic survey of the project reach in March 2024. Subcontractor Alpine Archaeological Consultants completed biological and cultural assessment surveys in March and April 2024. On April 29, 2024, the design team met with the TAT to review all existing data, brainstorm design ideas, and plan for community meetings.

Figure 2: *RiverRestoration surveying the river channel in March 2024.*

First draft designs (30%) were delivered by RiverRestoration LLC on May 31, 2024, and the TAT reviewed designs throughout June. Architectural renderings for these designs were completed in June 2024 to better present design options at public community input meetings. Following public input meetings and community surveys, the design team met with the TAT to review public input and discuss design options. Throughout Fall 2024, the design team incorporated public feedback into final designs and engineering, including designing and modeling a setback of the levee to accommodate flood capacity and recreation improvements.

In January 2025, the design team completed final designs (60%) and engineering for all recreation, agriculture, and river health improvements, as well as final architectural renderings to report back to the public.

Figure 3: *60% design renderings of proposed riverfront beach access, including ADA accessible trails off the levee down to a gently sloped beachy area, complete with stairs and rock jetties that extend river access and provide natural seating options.*

Throughout the design process RGHRP coordinated meetings with key stakeholders and regulatory agencies including the US Army Corps of Engineers, Colorado Department of Water Resources, Colorado Parks and Wildlife, Westside Ditch water users, the Colorado Department of Transportation, the Rio Grande Railroad.

During the design and public input process, it was determined that the preferred design option included the levee setback to better accommodate flood capacity and recreation infrastructure. This selected alternative required additional engineering, permitting, and

approvals than originally anticipated. All environmental and cultural assessments have been completed for state, federal, and local permits and NEPA compliance. Final permits and compliance documents will be submitted when levee setback designs are final and funding for construction is secured.

Deliverables: Final (60%) designs, quantities and cost estimates. Environmental and cultural resources assessments and compliance documents. Draft USACE permit packet awaiting submittal. See **Appendix A** for the final designs.

Task 2: Community Engagement

Description of Task: Conduct community outreach and engagement to raise awareness of project activities and obtain input on project designs.

Activities: Throughout the project timeline, RGHRP worked with the TAT to complete robust community outreach and engagement inform the public of the project and solicit feedback on designs. Outreach and engagement activities included the following:

- **Logo and merchandise:** The TAT worked with a local artist to create a unique project logo to support community engagement efforts and improve reach for the project, including merchandise.
- **Community Events:** The TAT hosted an Alamosa Riverfront Project booth at community festivals and events throughout the year to provide information on the project and encourage participation in the design process. These events included the Rio Frio Ice Fest, City of Alamosa Water Week, Rio Trio Triathlon, and Summerfest on the Rio.
- **Community Input Meetings:** The TAT hosted 3 project-specific public meetings, which included food, Spanish interpretation, and childcare to reduce barriers for attendance. All events were advertised around town and through local media channels. Attendees were encouraged to leave feedback on poster boards and anonymous surveys, and engage with the TAT about the project.
- **Surveys:** The TAT provided an option to take anonymous surveys at project-specific public meetings, and posted conceptual designs on the project website followed by an online survey for community members that weren't able to attend meetings.
- **Communications and Media:** Regular project updates were provided through 10 local newspaper articles, a podcast episode, radio, email newsletters, social media posts, a, project webpage, posters, and informational pamphlets. Newsletters, the website, posters and informational pamphlets were also translated to Spanish.
- **Stakeholder meetings:** Meetings between the design team, TAT, and local interest groups including but not limited to Revitalize the Rio Coalition, Alamosa City

Council, the Department of Water Resources, Colorado Parks and Wildlife, Westside Ditch water users, US Army Corps of Engineers, Colorado Department of Transportation, and the Rio Grande Railroad to review and obtain input on the design proposals.

Deliverables: Through these efforts, the TAT engaged with 500 community members through outreach events and stakeholder meetings, and over 1,500 were reached through media efforts. Engaged community members represented diverse interests, backgrounds and underserved peoples. See **Appendix B** for project articles published in local media outlets.

Figure 4: *Community meetings and events. Top left: Booth at Rio Frio Ice Fest; Top Right: Presentation to the Alamosa Chamber of Commerce; Bottom Left: Community meeting #2; Bottom Right: Community Meeting #3.*

Task 3: Project Administration

Description of Task: Complete project oversight, management, and partner coordination. Complete all necessary contracts, status reports, and internal and external documents. Ensure tasks are completed within the approved costs and timelines.

Activities: RGHRP staff completed project oversight, management, and partner coordination. This included completing contracts with the design team and funding partners, coordinating site visits and partner meetings and completing grant reporting and expense tracking.

Deliverables: All appropriate contracts, external and internal reports, and on-site project activities completed within planned timeline. Changes in the design scope led to increased design costs, which the partners will cover through additional grant and partner funding in the next phase of the project.

ALAMOSA RIVERFRONT PROJECT: PHASE 1

Actual Project Costs by task and funding source

Project Task	Funding Source			TOTAL COST
	CWCB WP Grant	Cash Match	In-Kind Match	
Task 1 - Project Design, Engineering, and Permitting				
River Restoration: Design, engineering, architectural renderings	$ 159,740.39	$ 85,577.21	$ -	$ 245,317.60
SLV Great Outdoors: Support of design process	$ -	$ 1,200.00		$ 1,200.00
Technical Advisory Team: Design input, review and data collection	$ -	$ -	$ 3,927.30	$ 3,927.30
Task 2 - Community Engagement				
Public Meeting Expenses (venue rental, food and drink, Spanish translation, materials, etc.)	$2,353.11	$4,920.79	$ -	$ 7,273.90
Technical Advisory Team: Community Engagement Support	$ -	$ -	$ 3,291.30	$ 3,291.30
CRGRF Staff Time to implement community engagement	$ 10,550.00	$ 5,650.00	$ -	$ 2,500.00
Task 3 - Project Administration				$ -
CRGRF staff time for project mgmt. and admin	$ 10,225.00	$ 3,400.00	$ -	$ 13,625.00
Valley Courier: Public bid notice	$ 31.50	$ -	$ -	$ 31.50
TOTALS	**$ 182,900.00**	**$ 100,748.00**	**$ 7,218.60**	**$ 290,866.60**

LESSONS LEARNED & FUTURE PROJECT RECOMMENDATIONS

The Alamosa Riverfront Project - Phase 1 was the culmination of planning, coordination and fundraising that wouldn't have been possible without the collaboration of each partner, water user, landowner, community member, and funder. Lessons learned from the planning of this project include:

- **The value of strong partnerships and early community engagement:** Prior to the Alamosa Riverfront Project, RGHRP and partners spent years on community engagement and planning, such as the Rio Grande Stream Management Plan and the Alamosa Comprehensive Plan. This groundwork laid the foundation for a project that reflected the needs of the community and led to broad community support and smooth Phase 1 execution. Additionally, trusted local partners with diverse expertise were essential to the project's success. Community engagement will remain a priority during implementation to ensure continued support, transparency, and trust.
    - **Limited reach to underserved communities.** While the Alamosa Riverfront Project engaged a diverse range of community members, we hoped to reach more underserved community members. Despite efforts to remove barriers, some groups remained underrepresented. For future projects, we will explore more targeted outreach through trusted community leaders and local networks, as well as more flexible and varied engagement formats.
- **Effective communication and coordination between partners and stakeholders:** The project faced unique challenges, including integration with the city's levee recertification. Early, ongoing communication helped avoid conflicts and aligned the riverfront project with the recertification process and other ongoing projects and critical infrastructure within the project reach. A collaborative approach ensured all partners' needs were addressed in the final design. This communication will continue to be crucial during permitting, compliance, and construction.

The ARFP Phase 1 resulted in final designs and engineering for river recreation features, diversion infrastructure replacement at the Westside Ditch, flood capacity, and river health improvements. Lessons learned throughout ARFP Phase 1 will be applied to future phases and projects implemented by the RGHRP.

ACKNOWLEDGMENTS

The successful completion of Alamosa Riverfront Project – Phase 1 a testament to hard work, collaboration, and coordination with Technical Advisory Team, design team, landowners, stakeholders and funders. Thank you to these project partners, including RiverRestoration, LLC, the City of Alamosa, Alamosa County, Rio Grande Farm Park, San Luis Valley Great Outdoors, San Luis Valley Health Education Center, Westside Ditch water users, Colorado Division of Water Resources, and the San Luis Valley Water Conservancy District. Funding for this phase was provided by the City of Alamosa, Trinchera Blanca Foundation, Colorado Health Foundation, and the Colorado Water Conservation Board.

Special thanks to the Colorado Water Conservation Board for providing grant funds for the continued efforts to improve the health and function of the Rio Grande and surrounding communities. This project would not have been possible without your support!

For More Information, Contact
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RIO GRANDE HEADWATERS RESTORATION PROJECT
ALAMOSA RIVERFRONT PROJECT
RIO GRANDE - ALAMOSA, CO
JANUARY 2025

60% PRELIMINARY DESIGN SET

SHEET INDEX

SHEET NO.	SHEET TITLE
G01	COVER SHEET
CW00	CARE OF WATER OVERVIEW
CW01	CARE OF WATER PLAN – BOAT RAMP
CW02	CARE OF WATER PLAN – LEVEE SETBACK
CW03	CARE OF WATER PLAN – HWY 160 UNDERPASS TRAIL
CW04	CARE OF WATER PLAN – DIVERSION & BERM
CW05	CARE OF WATER DETAILS
CW06	CARE OF WATER DETAILS
CW07	CARE OF WATER DETAILS
R00	SHEET INDEX & CONTROL
R01	CHANNEL IMPROVEMENTS PLAN AT NORTH BEND
R02	CHANNEL IMPROVEMENTS PLAN AT PEDESTRIAN BRIDGE
R03	CHANNEL IMPROVEMENTS PLAN AT BROADWAY AVE
R04	CHANNEL IMPROVEMENTS PLAN AT DIVERSION
R05	BOAT RAMP PLAN, PROFILE, & SECTIONS
R06	DIVERSION PLAN
R07	DIVERSION PROFILES & SECTION
R08	BERM PLAN
R09	BERM PROFILES & SECTION
R10	LEVEE SETBACK PLAN
R11	LEVEE SETBACK BOULDER VANE SECTIONS
R12	LEVEE SETBACK SLABSTONE TERRACE SECTIONS
R13	LEVEE SETBACK – NORTH TRAILS
R14	LEVEE SETBACK – SOUTH TRAILS
D01	HABITAT/EDDY BOULDER DETAILS
D02	HABITAT POCKET AND LARGE WOOD DETAILS
D03	OHI ADJUSTABLE GATE DETAILS
D04	SLABSTONE TERRACE & BOULDER VANE DETAILS
C–101	WESTSIDE DITCH HEADGATE CIVIL SITE PLAN
C–102	WESTSIDE DITCH HEADGATE STRUCTURE PLAN
C–201	WESTSIDE DITCH HEADGATE PLAN AND PROFILE
C–202	HIGHWAY 160 UNDERPASS TRAIL PLAN AND PROFILE
C–203	HIGHWAY 160 UNDERPASS TRAIL PLAN AND PROFILE
C–301	HIGHWAY 160 UNDERPASS TRAIL SECTION VIEWS
C–302	TYPICAL HEADWALL SECTIONS
C–501	WESTSIDE DITCH HEADGATE CULVERT SECTION DETAILS
C–502	WESTSIDE DITCH HEADGATE DEBRIS BOOM ANCHOR DETAILS
L–100	LANDSCAPE NOTES
L–101	LANDSCAPE PLAN
L–102	LANDSCAPE PLAN
L–501	LANDSCAPE DETAILS

KEY CONTACTS

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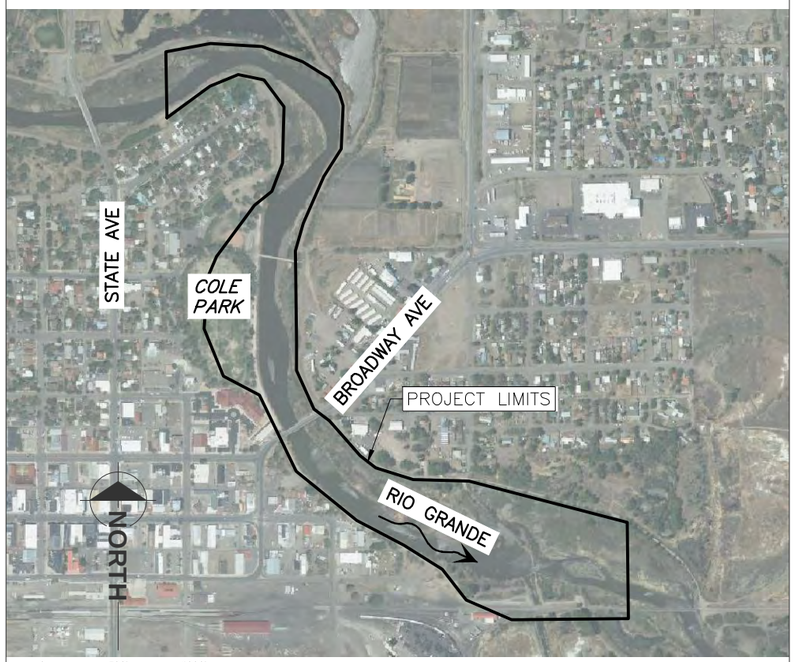
PROJECT LOCATION
HORIZONTAL: COLORADO STATE PLANE, NAD83 DATUM,
SOUTH ZONE, US FOOT
VERTICAL: NAVD–88 DATUM

APPROX. COORDINATES:
LATITUDE: 37°28'02.8" N
LONGITUDE: 105°51'21.7" W

VICINITY MAP

LOCATION MAP



PRELMINARY DESIGN SET (NOT FOR CONSTRUCTION)

PROFESSIONAL ENGINEER STAMP

PRELIMINARY

ALAMOSA RIVERFRONT PROJECT
COVER SHEET

No.	REVISION/UPDATE	Date

CLIENT NAME AND ADDRESS

Rio Grande Headwaters Restoration Project
623 4th Street
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DESIGN FIRM NAMES AND ADDRESSES

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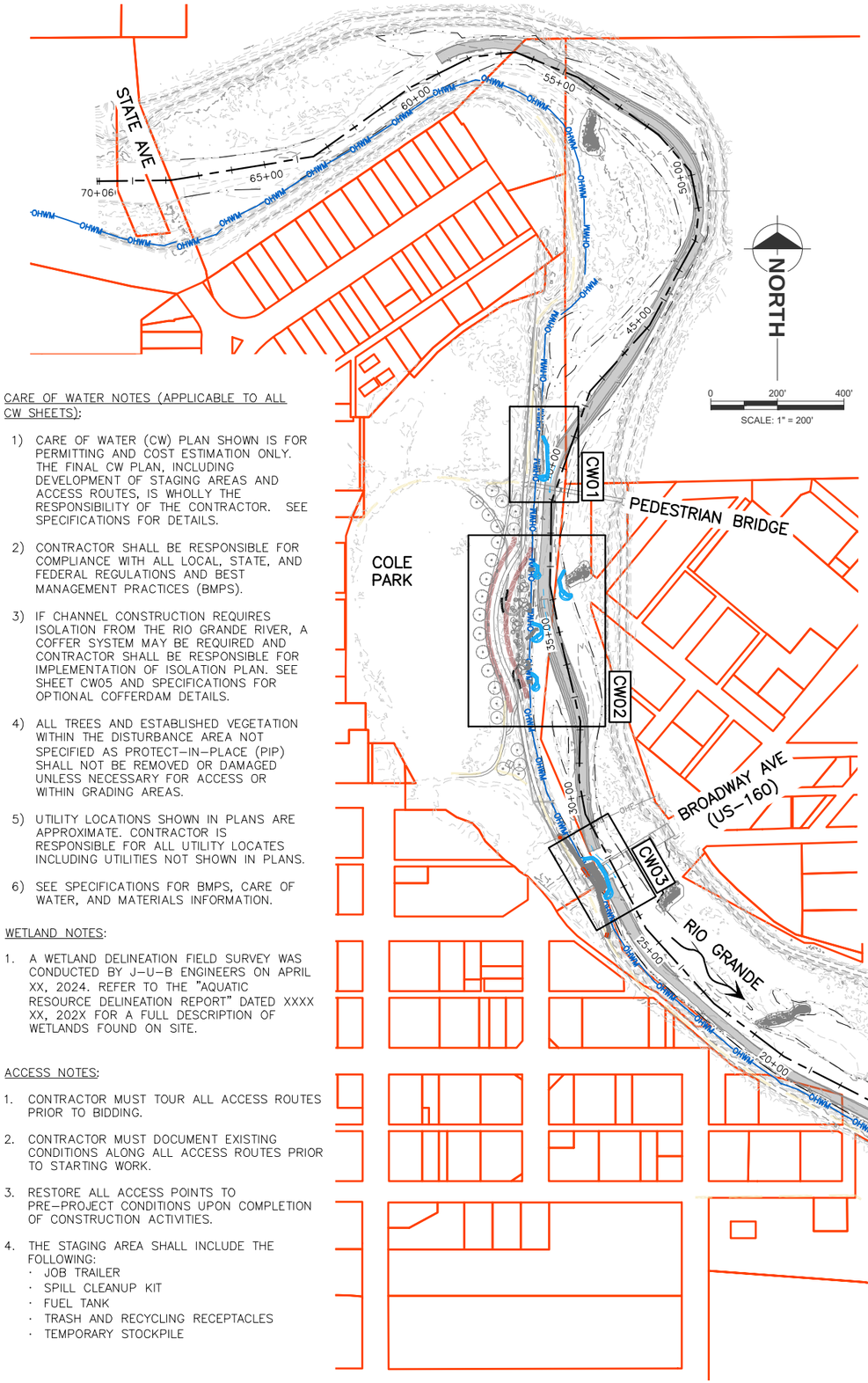
(970)947-9568

J-U-B ENGINEERS, INC.
J-U-B Engineers, Inc.
305 S Main Street, Unit 6
Palisade, CO 81526
www.jub.com
(970) 208-8508

Project	Sheet
38071	G01
Date: January 2025	
Scale: VARIES	



CARE OF WATER NOTES (APPLICABLE TO ALL CW SHEETS):

1) CARE OF WATER (CW) PLAN SHOWN IS FOR PERMITTING AND COST ESTIMATION ONLY. THE FINAL CW PLAN, INCLUDING DEVELOPMENT OF STAGING AREAS AND ACCESS ROUTES, IS WHOLLY THE RESPONSIBILITY OF THE CONTRACTOR. SEE SPECIFICATIONS FOR DETAILS.

2) CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS AND BEST MANAGEMENT PRACTICES (BMPS).

3) IF CHANNEL CONSTRUCTION REQUIRES ISOLATION FROM THE RIO GRANDE RIVER, A COFFER SYSTEM MAY BE REQUIRED AND CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTATION OF ISOLATION PLAN. SEE SHEET CW05 AND SPECIFICATIONS FOR OPTIONAL COFFERDAM DETAILS.

4) ALL TREES AND ESTABLISHED VEGETATION WITHIN THE DISTURBANCE AREA NOT SPECIFIED AS PROTECT-IN-PLACE (PIP) SHALL NOT BE REMOVED OR DAMAGED UNLESS NECESSARY FOR ACCESS OR WITHIN GRADING AREAS.

5) UTILITY LOCATIONS SHOWN IN PLANS ARE APPROXIMATE. CONTRACTOR IS RESPONSIBLE FOR ALL UTILITY LOCATES INCLUDING UTILITIES NOT SHOWN IN PLANS.

6) SEE SPECIFICATIONS FOR BMPS, CARE OF WATER, AND MATERIALS INFORMATION.

WETLAND NOTES:

1. A WETLAND DELINEATION FIELD SURVEY WAS CONDUCTED BY J-U-B ENGINEERS ON APRIL XX, 2024. REFER TO THE "AQUATIC RESOURCE DELINEATION REPORT" DATED XXXX XX, 202X FOR A FULL DESCRIPTION OF WETLANDS FOUND ON SITE.

ACCESS NOTES:

1. CONTRACTOR MUST TOUR ALL ACCESS ROUTES PRIOR TO BIDDING.
2. CONTRACTOR MUST DOCUMENT EXISTING CONDITIONS ALONG ALL ACCESS ROUTES PRIOR TO STARTING WORK.
3. RESTORE ALL ACCESS POINTS TO PRE-PROJECT CONDITIONS UPON COMPLETION OF CONSTRUCTION ACTIVITIES.
4. THE STAGING AREA SHALL INCLUDE THE FOLLOWING:
   - JOB TRAILER
   - SPILL CLEANUP KIT
   - FUEL TANK
   - TRASH AND RECYCLING RECEPTACLES
   - TEMPORARY STOCKPILE

EROSION CONTROL NOTES:

1. ALL PERMIT REGISTRANTS MUST FINALIZE AND IMPLEMENT THE EROSION AND SEDIMENT CONTROL PLAN (ESCP). FAILURE TO IMPLEMENT ANY OF THE CONTROL MEASURES OR PRACTICES DESCRIBED IN THE ESCP IS A VIOLATION OF THE PERMIT.
2. THE ESCP MEASURES SHOWN ON THIS PLAN ARE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, UPGRADE THESE MEASURES AS NEEDED TO COMPLY WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL EROSION AND SEDIMENT CONTROL REGULATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL EROSION CONTROL AND CARE OF WATER BMPS THROUGHOUT CONSTRUCTION. ALL TEMPORARY BMPS, EQUIPMENT, AND STAGING AREAS MUST BE REMOVED UPON PROJECT COMPLETION.
3. PHASE CLEARING AND GRADING TO THE MAXIMUM EXTENT PRACTICAL TO PREVENT EXPOSED INACTIVE AREAS FROM BECOMING A SOURCE OF EROSION.
4. IDENTIFY, MARK, AND PROTECT (BY FENCING OFF OR OTHER MEANS) CRITICAL RIPARIAN AREAS AND VEGETATION INCLUDING ALL TREES AND ASSOCIATED ROOTING ZONES, AND VEGETATION AREAS NOT SPECIFICALLY IDENTIFIED FOR REMOVAL. MARK IN THE FIELD VEGETATIVE BUFFER ZONES BETWEEN THE SITE AND SENSITIVE AREAS (E.G., WETLANDS), AND OTHER AREAS TO BE PRESERVED, ESPECIALLY IN PERIMETER AREAS.
5. PRESERVE EXISTING VEGETATION WHEN PRACTICAL AND RE-VEGETATE OPEN AREAS. RE-VEGETATE OPEN AREAS WHEN PRACTICABLE AFTER GRADING OR CONSTRUCTION. THE TYPE OF VEGETATIVE SEED MIX USED MUST INCLUDE NATIVE VEGETATION. CITY OF AMES STAFF SHALL SPECIFY WITH APPROPRIATE SEED MIX. IF VEGETATION USED TO RE-VEGETATE IS NOT ENDEMIC TO THE AREA, THEN ANY VEGETATION USED SHOULD BE VISUALLY INSPECTED FOR THE PRESENCE OF INVASIVE SPECIES AND REJECTED.
6. EROSION AND SEDIMENT CONTROL MEASURES INCLUDING PERIMETER SEDIMENT CONTROL MUST BE IN PLACE BEFORE VEGETATION IS DISTURBED AND MUST REMAIN IN PLACE AND BE MAINTAINED, CLEANED, REPAIRED OR REPLACED, AND PROMPTLY IMPLEMENTED FOLLOWING PROCEDURES ESTABLISHED FOR THE DURATION OF CONSTRUCTION, INCLUDING PROTECTION FOR ACTIVE STORM DRAIN INLETS AND CATCH BASINS AND APPROPRIATE NON-STORMWATER POLLUTION CONTROLS.
7. ESTABLISH CONCRETE TRUCK AND OTHER CONCRETE EQUIPMENT CONTAINED WASHOUT AREAS BEFORE BEGINNING CONCRETE WORK.
8. APPLY TEMPORARY AND/OR PERMANENT SOIL STABILIZATION MEASURES IMMEDIATELY ON ALL DISTURBED AREAS AS GRADING PROGRESSES AND FOR ALL ROADWAYS INCLUDING GRAVEL ROADWAYS.
9. ESTABLISH MATERIAL AND WASTE STORAGE AREAS, AND OTHER NON-STORMWATER CONTROLS.
10. PREVENT TRACKING OF SEDIMENT ONTO PUBLIC OR PRIVATE ROADS USING BMPS SUCH AS: GRAVELED (OR PAVED) EXITS AND PARKING AREAS, GRAVEL ALL UNPAVED ROADS LOCATED ONSITE, OR USE AN EXIT TIRE WASH. THESE BMPS MUST BE IN PLACE PRIOR TO LAND-DISTURBING ACTIVITIES.
11. WHEN TRUCKING SATURATED SOILS FROM THE SITE, EITHER USE WATER-TIGHT TRUCKS OR DRAIN LOADS ON SITE.
12. BMP'S SHOULD BE IMPLEMENTED AND MONITORED THROUGHOUT THE PROJECT. USE BMPS TO PREVENT OR MINIMIZE STORMWATER EXPOSURE TO POLLUTANTS FROM SPILLS; VEHICLE AND EQUIPMENT FUELING, MAINTENANCE, AND STORAGE; OTHER CLEANING AND MAINTENANCE ACTIVITIES; AND WASTE HANDLING ACTIVITIES. THESE POLLUTANTS INCLUDE FUEL, HYDRAULIC FLUID, AND OTHER OILS FROM VEHICLES AND MACHINERY, AS WELL AS DEBRIS, LEFTOVER PAINTS, SOLVENTS, AND GLUES FROM CONSTRUCTION OPERATIONS.
13. IMPLEMENT THE FOLLOWING BMPS: WRITTEN SPILL PREVENTION AND RESPONSE PROCEDURES, EMPLOYEE TRAINING ON SPILL PREVENTION AND PROPER DISPOSAL PROCEDURES, SPILL KITS IN ALL VEHICLES, REGULAR MAINTENANCE SCHEDULE FOR VEHICLES AND MACHINERY, MATERIAL DELIVERY AND STORAGE CONTROLS, TRAINING AND SIGNAGE, AND COVERED STORAGE AREAS FOR WASTE AND SUPPLIES. HAZARDOUS MATERIALS SHOULD BE STORED AWAY FROM THE CREEK TO ELIMINATE CHANCES FOR ACCIDENTAL SPILL.
14. USE WATER, SOIL-BINDING AGENT OR OTHER DUST CONTROL TECHNIQUE AS NEEDED TO AVOID WIND-BLOWN SOIL.
15. IF USED, THE APPLICATION RATE OF FERTILIZERS USED TO REESTABLISH VEGETATION MUST FOLLOW MANUFACTURER'S RECOMMENDATIONS TO MINIMIZE NUTRIENT RELEASES TO SURFACE WATERS. EXERCISE CAUTION WHEN USING TIME-RELEASE FERTILIZERS WITHIN ANY WATERWAY RIPARIAN ZONE.
16. IF A DEWATERING TREATMENT SYSTEM (FOR EXAMPLE, ELECTRO-COAGULATION, FLOCCULATION, FILTRATION, ETC.) FOR SEDIMENT OR OTHER POLLUTANT REMOVAL IS EMPLOYED, SUBMIT AN OPERATION AND MAINTENANCE PLAN (INCLUDING SYSTEM SCHEMATIC, LOCATION OF SYSTEM, LOCATION OF INLET, LOCATION OF DISCHARGE, DISCHARGE DISPERSION DEVICE DESIGN, AND A SAMPLING PLAN AND FREQUENCY) BEFORE OPERATING THE TREATMENT SYSTEM. OBTAIN ENGINEER'S PLAN REVIEW BEFORE OPERATING THE TREATMENT SYSTEM. OPERATE AND MAINTAIN THE TREATMENT SYSTEM ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
17. TEMPORARILY STABILIZE SOILS AT THE END OF THE SHIFT BEFORE HOLIDAYS AND WEEKENDS, IF NEEDED. THE REGISTRANT IS RESPONSIBLE FOR ENSURING THAT SOILS ARE STABLE DURING RAIN EVENTS AT ALL TIMES OF THE YEAR.
18. AT THE END OF EACH WORKDAY SOIL STOCKPILES MUST BE STABILIZED OR COVERED, OR OTHER BMPS MUST BE IMPLEMENTED TO PREVENT DISCHARGES TO SURFACE WATERS.
19. CONSTRUCTION ACTIVITIES MUST AVOID OR MINIMIZE EXCAVATION AND CREATION OF BARE GROUND DURING WET WEATHER.
20. SEDIMENT FENCE: REMOVE TRAPPED SEDIMENT BEFORE IT REACHES ONE THIRD OF THE ABOVE GROUND FENCE HEIGHT AND BEFORE FENCE REMOVAL.
21. OTHER SEDIMENT BARRIERS (SUCH AS BIOBAGS): REMOVE SEDIMENT BEFORE IT REACHES TWO INCHES DEPTH ABOVE GROUND HEIGHT. AND BEFORE BMP REMOVAL.
22. THE INTENTIONAL WASHING OF SEDIMENT INTO THE RIO GRANDE RIVER MUST NOT OCCUR. VACUUMING OR DRY SWEEPING AND MATERIAL PICKUP MUST BE USED TO CLEANUP RELEASED SEDIMENTS.
23. PROVIDE PERMANENT EROSION CONTROL MEASURES ON ALL EXPOSED AREAS. DO NOT REMOVE TEMPORARY SEDIMENT CONTROL PRACTICES UNTIL PERMANENT VEGETATION OR OTHER COVER OF EXPOSED AREAS IS ESTABLISHED. HOWEVER, DO REMOVE ALL TEMPORARY EROSION CONTROL MEASURES AS EXPOSED AREAS BECOME STABILIZED, UNLESS DOING SO CONFLICTS WITH LOCAL REQUIREMENTS. PROPERLY DISPOSE OF CONSTRUCTION MATERIALS AND WASTE, INCLUDING SEDIMENT RETAINED BY TEMPORARY BMP'S.

LEGEND

- CONSTRUCTION ACCESS
- COFFER DAM, STAGE 1
- COFFER DAM, STAGE 2
- TC—TC TURBIDITY CURTAIN, STAGE 1
- TC—TC TURBIDITY CURTAIN, STAGE 2
- OB—OB OIL BOOM, STAGE 1
- OB—OB OIL BOOM, STAGE 2
- PUMP AND FILTER, STAGE 1
- PUMP AND FILTER, STAGE 2
- OHWM ORDINARY HIGH WATER

PRELIMINARY DESIGN SET (NOT FOR CONSTRUCTION)

PROFESSIONAL ENGINEER STAMP

PRELIMINARY

ALAMOSA RIVERFRONT PROJECT
CARE OF WATER OVERVIEW

No.	REVISION/UPDATE	Date

CLIENT NAME AND ADDRESS

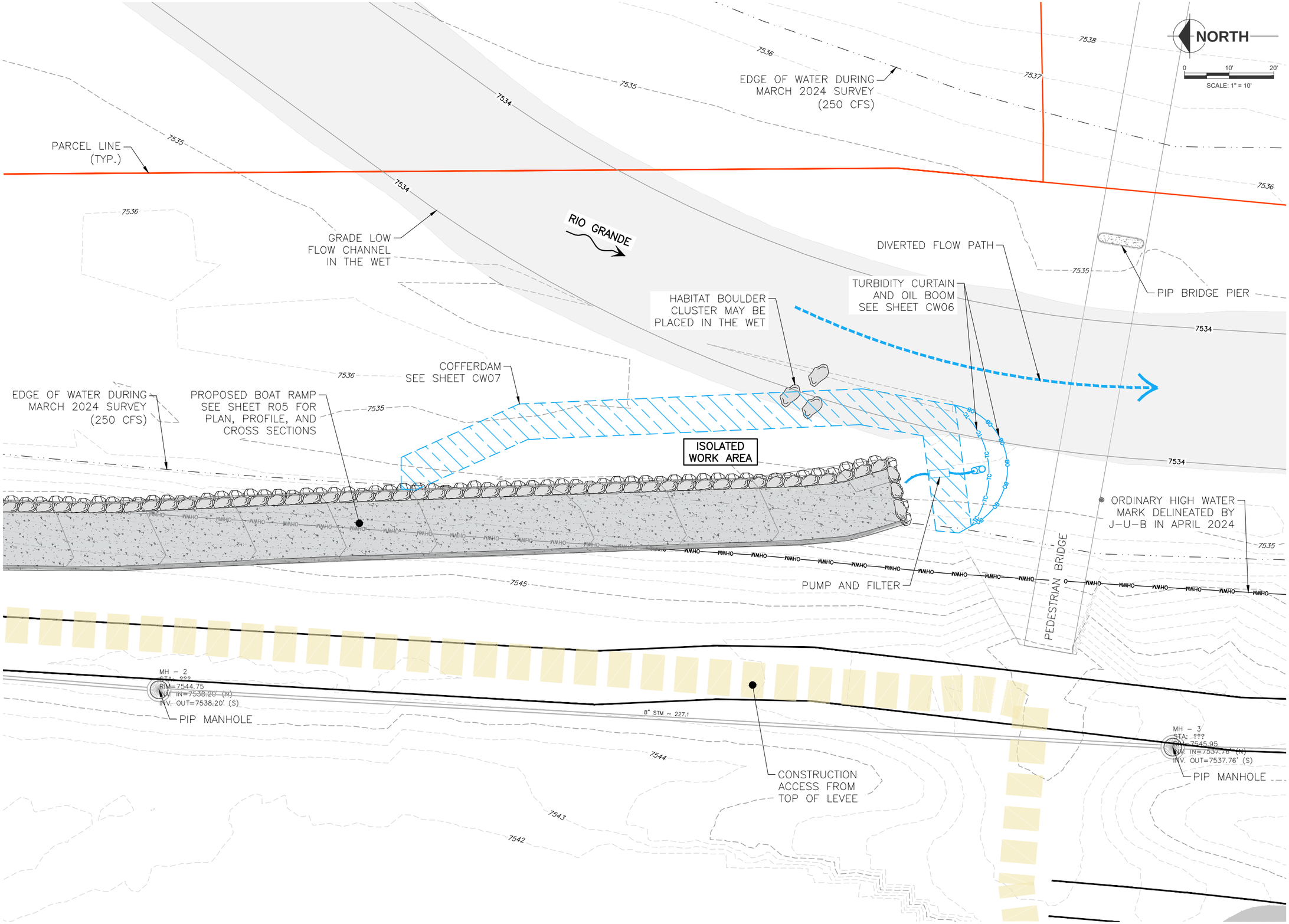
Rio Grande Headwaters Restoration Project
623 4th Street
Alamosa, CO 81101
www.riograndeheadwaters.org
(719) 589-2230

DESIGN FIRM NAMES AND ADDRESSES

RiverRestoration.org, LLC
P.O. Box 248
Carbondale, CO 81623
www.riverrestoration.org
(970)947-9568

J-U-B ENGINEERS, INC.
J-U-B Engineers, Inc.
305 S Main Street, Unit 6
Palisade, CO 81526
www.jub.com
(970) 208-8508

Project	Sheet
38071	CW00
Date: January 2025	
Scale: 1"= 200' (FULL-SIZE)	



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PRELIMINARY

ALAMOSA RIVERFRONT PROJECT
CARE OF WATER PLAN
BOAT RAMP

No.	REVISION/UPDATE	Date

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Project	Sheet
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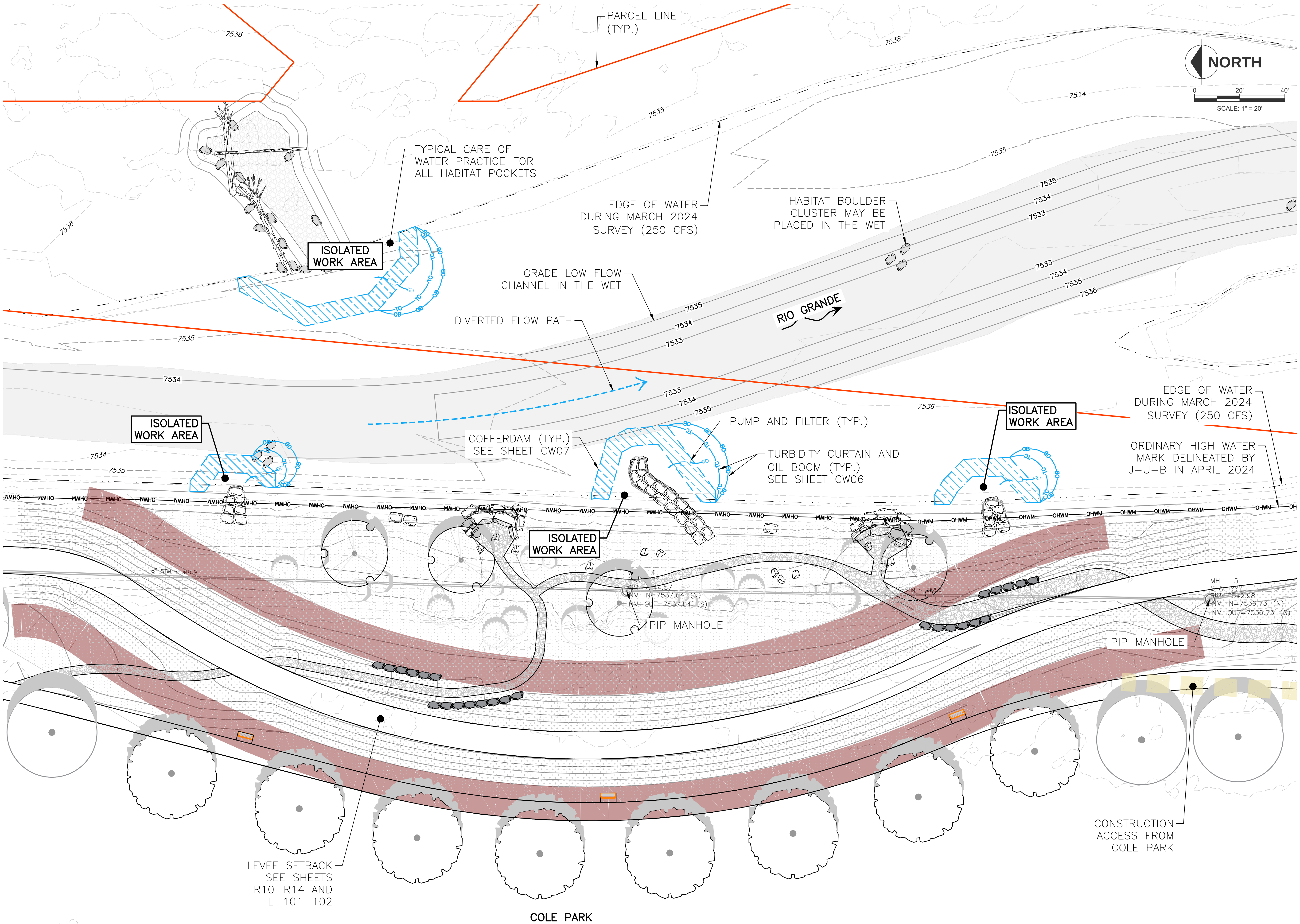
Date: January 2025	
Scale: 1"=10' (FULL-SIZE)	



PARCEL LINE (TYP.)
NORTH
0 20' 40'
SCALE: 1" = 20'
TYPICAL CARE OF WATER PRACTICE FOR ALL HABITAT POCKETS
EDGE OF WATER DURING MARCH 2024 SURVEY (250 CFS)
HABITAT BOULDER CLUSTER MAY BE PLACED IN THE WET
ISOLATED WORK AREA
GRADE LOW FLOW CHANNEL IN THE WET
DIVERTED FLOW PATH
RIO GRANDE
ISOLATED WORK AREA
EDGE OF WATER DURING MARCH 2024 SURVEY (250 CFS)
PUMP AND FILTER (TYP.)
COFFERDAM (TYP.) SEE SHEET CW07
TURBIDITY CURTAIN AND OIL BOOM (TYP.) SEE SHEET CW06
ORDINARY HIGH WATER MARK DELINEATED BY J-U-B IN APRIL 2024
ISOLATED WORK AREA
ISOLATED WORK AREA
PIP MANHOLE
MH - 5
PIP MANHOLE
CONSTRUCTION ACCESS FROM COLE PARK
LEVEE SETBACK SEE SHEETS R10-R14 AND L-101-102
COLE PARK

PRELIMINARY DESIGN SET (NOT FOR CONSTRUCTION)

PROFESSIONAL ENGINEER STAMP

PRELIMINARY

ALAMOSA RIVERFRONT PROJECT
CARE OF WATER PLAN
LEVEE SETBACK

No.	REVISION/UPDATE	Date

CLIENT NAME AND ADDRESS

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Scale: 1"=20' (FULL-SIZE)
Sheet: CW02

PIP BRIDGE PIER

NORTH

0 10' 20'

SCALE: 1" = 10'

EDGE OF WATER DURING MARCH 2024 SURVEY (250 CFS)

GRADE LOW FLOW CHANNEL IN THE WET

DIVERTED FLOW PATH

HABITAT BOULDER CLUSTER MAY BE PLACED IN THE WET

RIO GRANDE

COFFERDAM SEE SHEET CW07

PIP BRIDGE PIER

PARCEL LINE (TYP.)

PUMP AND FILTER

ISOLATED WORK AREA

TURBIDITY CURTAIN AND OIL BOOM SEE SHEET CW06

EDGE OF WATER DURING MARCH 2024 SURVEY (250 CFS)

ORDINARY HIGH WATER MARK DELINEATED BY J-U-B IN APRIL 2024

PIP CONTROL POINT

PIP MANHOLE

MH - 8
STA: ???
RIM=7546.90
INV. OUT=7536.91' (NW)

PIP CONTROL POINT

PROPOSED UNDERPASS TRAIL SEE SHEETS C-202 THROUGH C-301 FOR PLAN, PROFILE, AND CROSS SECTIONS

BROADWAY AVE BRIDGE (US-160)

CONSTRUCTION ACCESS FROM TOP OF LEVEE

PROPOSED LEVEE SETBACK SEE SHEET R10 AND L-101

CONSTRUCTION ACCESS FROM TOP OF LEVEE

PRELIMINARY DESIGN SET (NOT FOR CONSTRUCTION)

PROFESSIONAL ENGINEER STAMP

PRELIMINARY

ALAMOSA RIVERFRONT PROJECT
CARE OF WATER PLAN
HWY 160 UNDERPASS TRAIL

No.	REVISION/UPDATE	Date

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38071	CW03
Date: January 2025	
Scale: 1"=10' (FULL-SIZE)	

CONSTRUCTION ACCESS FROM TOP OF BERM, NORTH NEIGHBORHOOD

BERM AND RECREATION WAVE FEATURE SEE SHEETS R08–R09 FOR PLAN, PROFILE, AND CROSS SECTIONS

STAGE 1 DIVERTED FLOW PATH

STAGE 2 PUMP AND FILTER

STAGE 2 COFFERDAM SEE SHEET CW07

STAGE 2 TURBIDITY CURTAIN AND OIL BOOM SEE SHEET CW06

ISOLATED WORK AREA STAGE 2

SIDE CHANNEL

PARCEL LINE (TYP.)

DO NOT BLOCK SIDE CHANNEL

EDGE OF WATER DURING MARCH 2024 SURVEY (250 CFS)

STAGE 2 COFFERDAM SEE SHEET CW07

RIO GRANDE

STAGE 2 DIVERTED FLOW PATH

STAGE 1 COFFERDAM SEE SHEET CW07

EDGE OF WATER DURING MARCH 2024 SURVEY (250 CFS)

ORDINARY HIGH WATER MARK DELINEATED BY J–U–B IN APRIL 2024

INSTALL TEMPORARY CULVERT DURING STAGE 1 TO ALLOW CONTINUOUS FLOW TO WESTSIDE DITCH THROUGHOUT CONSTRUCTION

NORTH

0 20' 40'

SCALE: 1" = 20'

STAGE 1 COFFERDAM SEE SHEET CW07

HABITAT BOULDER CLUSTER MAY BE PLACED IN THE WET

STAGE 1 TURBIDITY CURTAIN AND OIL BOOM SEE SHEET CW06

STAGE 1 PUMP AND FILTER

ISOLATED WORK AREA STAGE 1

DIVERSION IMPROVEMENTS SEE SHEETS R06–R07 FOR PLAN, PROFILE, AND CROSS SECTIONS

PRELIMINARY DESIGN SET (NOT FOR CONSTRUCTION)

PROFESSIONAL ENGINEER STAMP

PRELIMINARY

ALAMOSA RIVERFRONT PROJECT
CARE OF WATER PLAN
DIVERSION & BERM

No.	REVISION/UPDATE	Date

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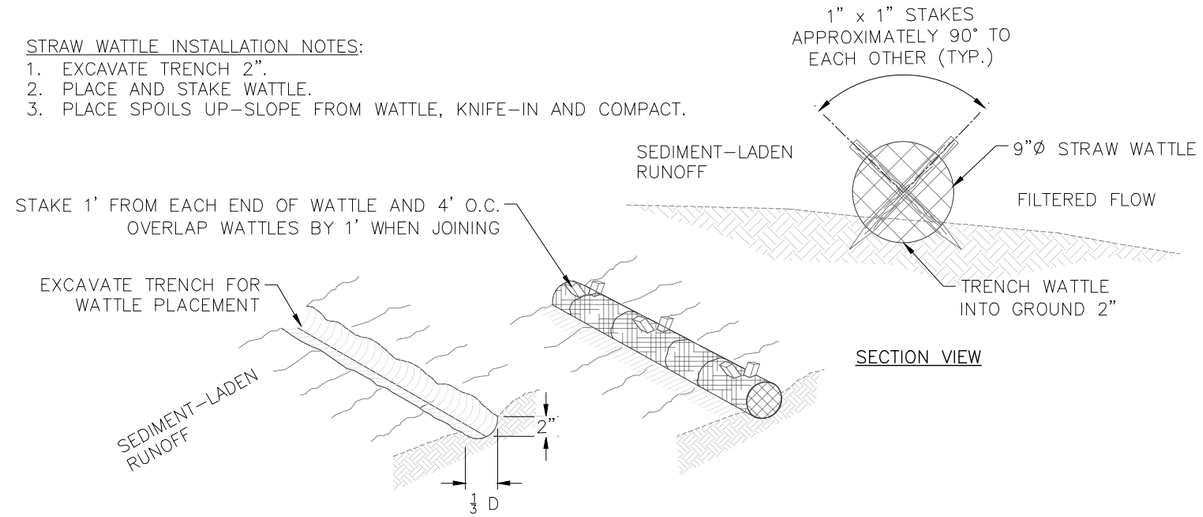
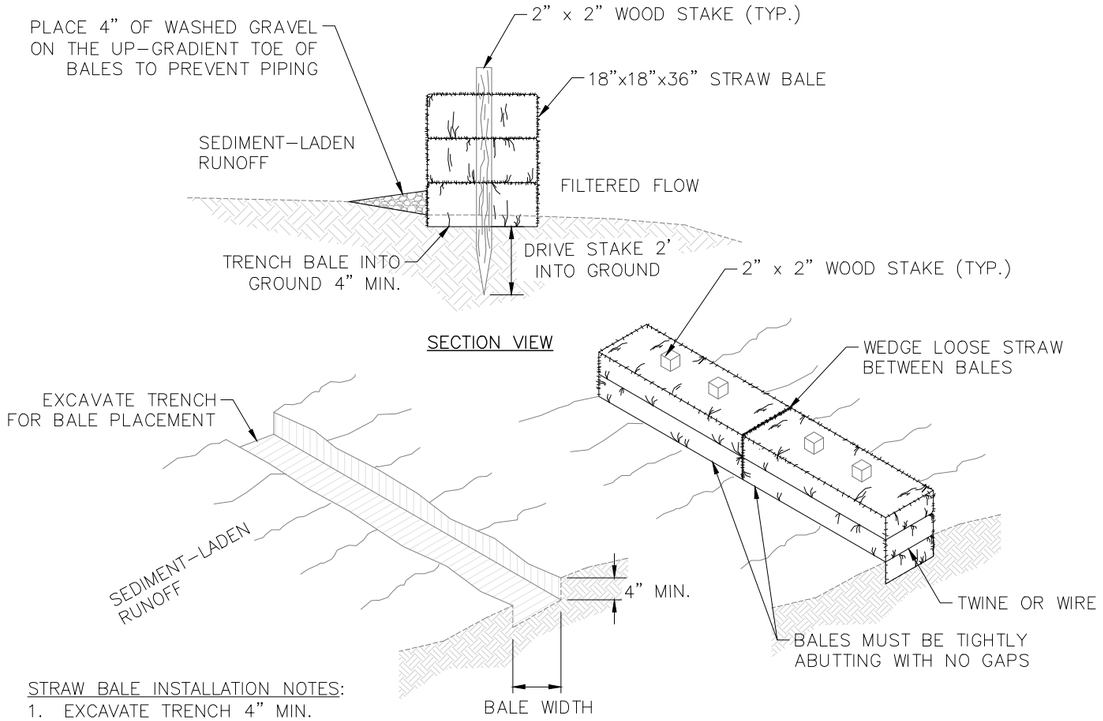
38071	CW04
Date: January 2025	
Scale: 1"= 20' (FULL-SIZE)	

STRAW WATTLE INSTALLATION NOTES:
1. EXCAVATE TRENCH 2".
2. PLACE AND STAKE WATTLE.
3. PLACE SPOILS UP-SLOPE FROM WATTLE, KNIFE-IN AND COMPACT.

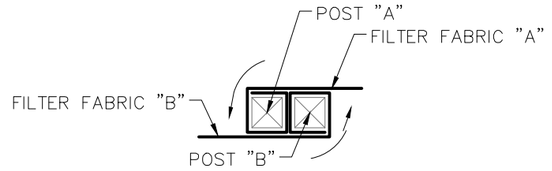


1 CW05 STRAW WATTLE INSTALLATION (TYP)
NTS



STRAW BALE INSTALLATION NOTES:
1. EXCAVATE TRENCH 4" MIN.
2. PLACE AND STAKE STRAW BALES.
3. STRAW BALES SHALL BE CERTIFIED "WEED-FREE" AND NOT HAY.

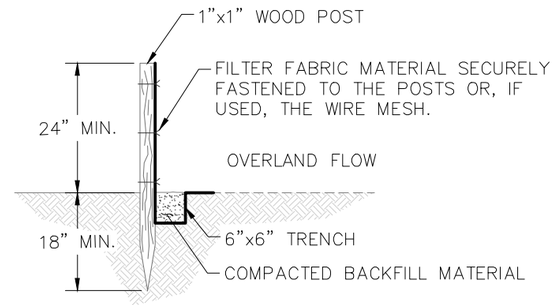
2 CW05 STRAW BALE INSTALLATION (TYP)
NTS



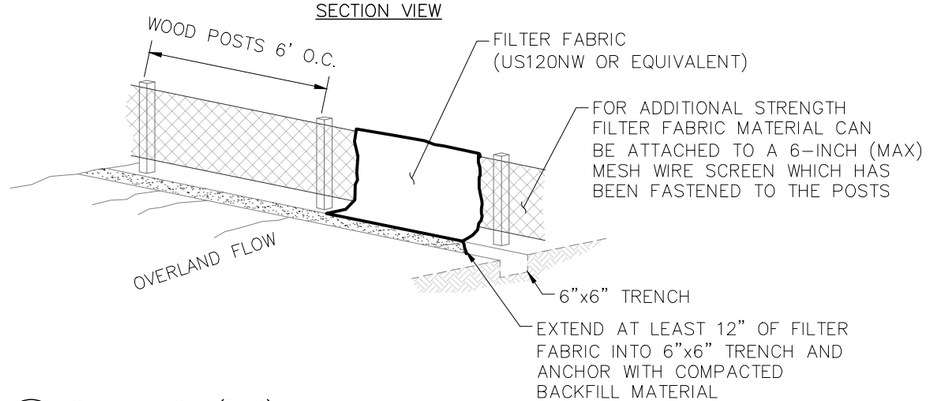
JOINING SECTION DETAIL (PLAN VIEW)

SILT FENCE JOINING NOTES:
1. WRAP APPROXIMATELY 6" OF FILTER FABRIC OF EACH END AROUND A WOODEN POST ONE FULL TURN, THEN SECURED ALONG THE POST WITH HEAVY DUTY WIRE STAPLES AT LEAST 1" LONG.
2. POST SHALL BE TIGHTLY ABUTTED WITH NO GAPS TO PREVENT POTENTIAL FLOW-THROUGH OF SEDIMENT AT JOINT.

END SECTION DETAIL (PLAN VIEW)



SECTION VIEW



3 CW05 SILT FENCE (TYP)
NTS

PROFESSIONAL ENGINEER STAMP

PRELIMINARY

ALAMOSA RIVERFRONT PROJECT
CARE OF WATER DETAILS

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38071	CW05
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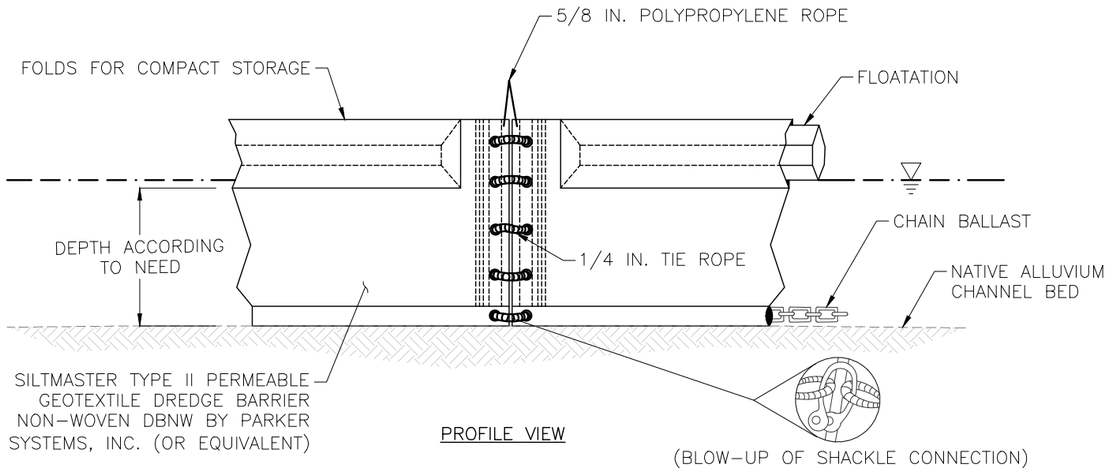
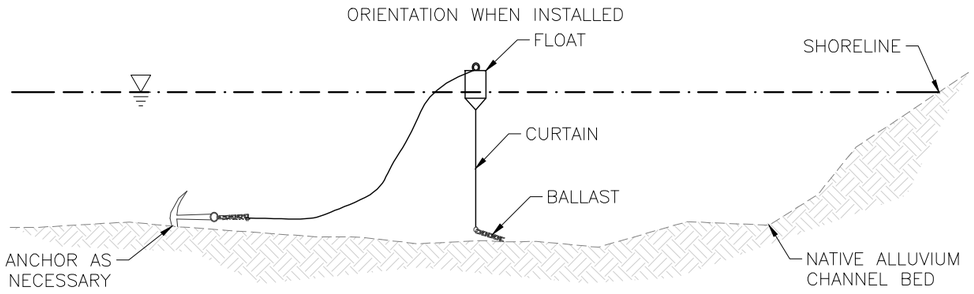
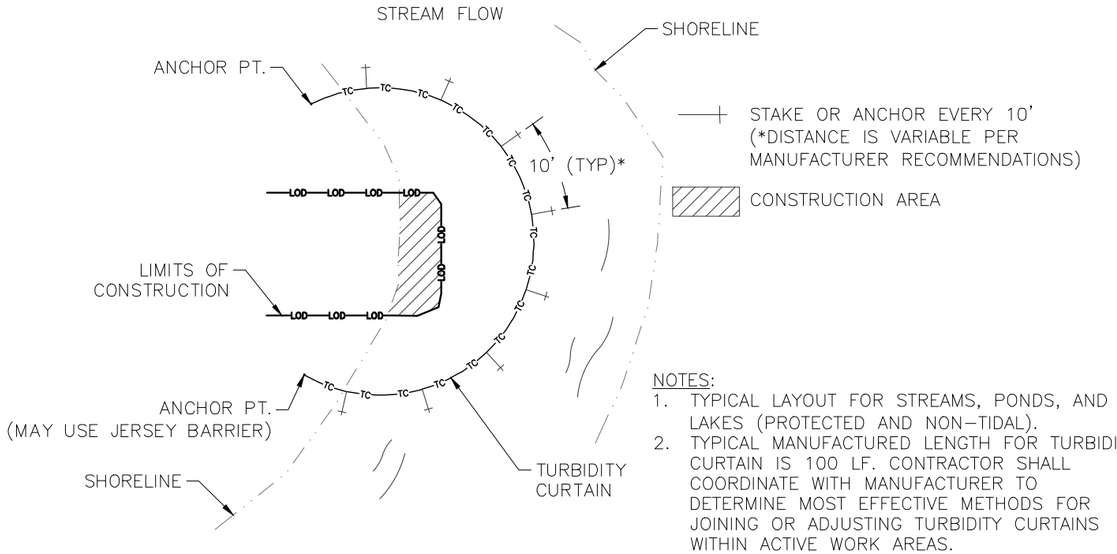


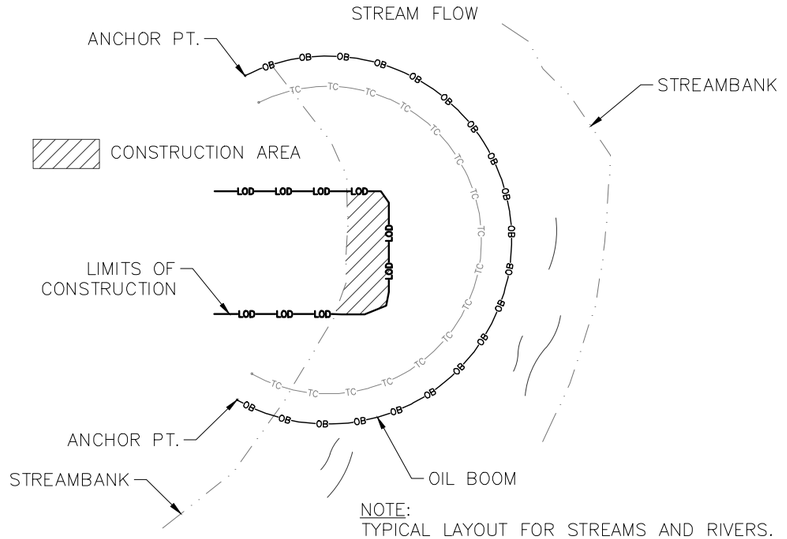




NOTES:
1. TYPICAL LAYOUT FOR STREAMS, PONDS, AND LAKES (PROTECTED AND NON-TIDAL).
2. TYPICAL MANUFACTURED LENGTH FOR TURBIDITY CURTAIN IS 100 LF. CONTRACTOR SHALL COORDINATE WITH MANUFACTURER TO DETERMINE MOST EFFECTIVE METHODS FOR JOINING OR ADJUSTING TURBIDITY CURTAINS WITHIN ACTIVE WORK AREAS.

1 / CW06 TURBIDITY CURTAIN (TYP)

PLAN VIEW – NTS



NOTE:
TYPICAL LAYOUT FOR STREAMS AND RIVERS. OIL BOOM TO BE PLACED BEHIND TURBIDITY CURTAIN AND DOWNSTREAM OF ANY EQUIPMENT WORKING IN THE WET.

2 / CW06 OIL BOOM (TYP)

PLAN VIEW – NTS

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PROFESSIONAL ENGINEER STAMP

PRELIMINARY

ALAMOSA RIVERFRONT PROJECT

CARE OF WATER DETAILS

No.	REVISION/UPDATE	Date

CLIENT NAME AND ADDRESS

Rio Grande Headwaters Restoration Project
623 4th Street
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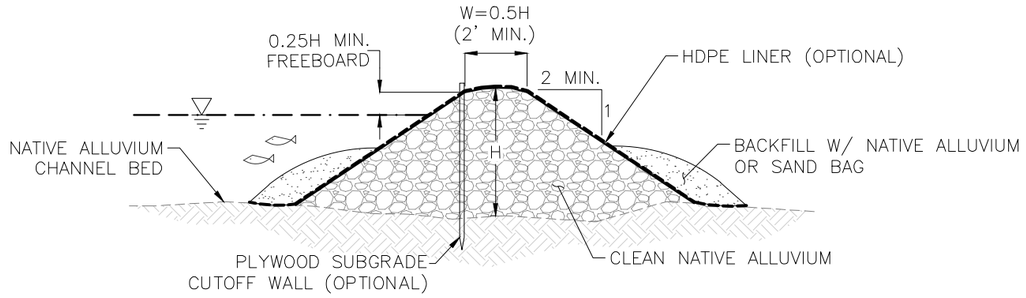
Project	Sheet
38071	CW06
Date: January 2025	
Scale: NTS	

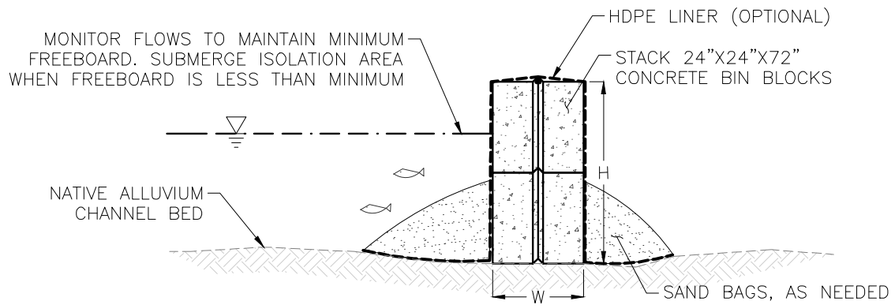


1 CW07 ALLUVIUM COFFERDAM (TYP)

SECTION VIEW – NTS

NOTE:
HMAX=8.0'
WMIN=0.5H
MIN FREEBOARD=0.25H
MAX DEPTH=6'

*SUBMERGE WORK WHEN MIN FREEBOARD IS EXCEEDED.

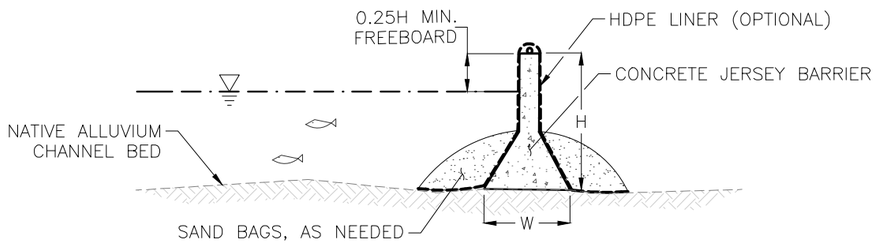


2 CW07 CONCRETE BLOCK COFFERDAM (TYP)

SECTION VIEW – NTS

NOTE:
HMAX=8.0'
WMIN=1.5H–1.5
MIN FREEBOARD=0.25H
MAX DEPTH=0.75H

*SUBMERGE WORK WHEN MIN FREEBOARD IS EXCEEDED

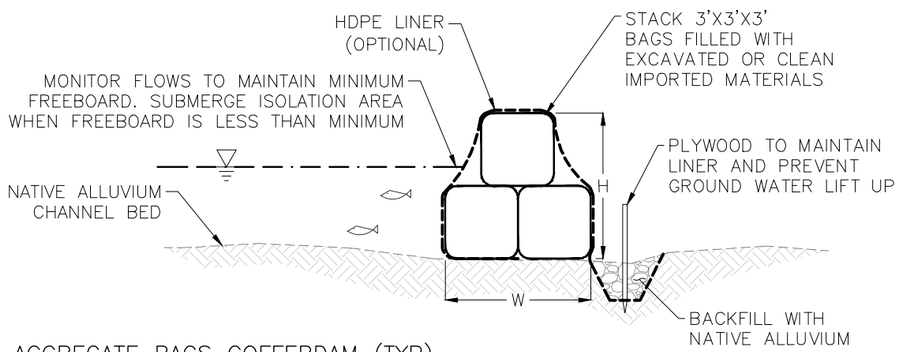


3 CW07 JERSEY BARRIER COFFERDAM (TYP)

SECTION VIEW – NTS

NOTE:
$W=H^2-2.5H$
WMIN = 1.5H–1.5
H MAX = 8.0'
MIN FREEBOARD = 0.25H
MAX DEPTH = 0.75H

*SUBMERGE WORK WHEN MIN FREEBOARD IS EXCEEDED



4 CW07 AGGREGATE BAGS COFFERDAM (TYP)

SECTION VIEW – NTS

PROFESSIONAL ENGINEER STAMP

PRELIMINARY

ALAMOSA RIVERFRONT PROJECT

CARE OF WATER DETAILS

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38071	CW07
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Scale: NTS	

PRELIMINARY DESIGN SET (NOT FOR CONSTRUCTION)

NORTH

0 200' 400'

SCALE: 1" = 200'

STATE AVE

BROADWAY AVE (US-160)

RIO GRANDE

COLE PARK

PEDESTRIAN BRIDGE

RAILROAD

WESTSIDE DITCH

PARCEL LINE (TYP.)

R01 R02 R03 R04 R05 R06 R08 R10

55+00 50+00 45+00 40+00 35+00 30+00 25+00 20+00 15+00 10+00 5+00 0+00 60+00 65+00 70+06

OHWM OHE

500
7542.64
△CP 500 NO6 REBAR – BENT MARCH2024
N=1294419.40
E=2896008.49

154
7541.10
△GSVS 154 – DQ6092
N=1293894.59
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101
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CP-AA3 Bridge Abutment Monument
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E=2895295.78

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7545.94
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WP 503 60D
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7550.88
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302
7544.18
BC – 3.5BC_ACOE_CEPDAA1_NAVD88_2010
N=1292425.25
E=2895104.92

PRELMINARY DESIGN SET (NOT FOR CONSTRUCTION)

PROFESSIONAL ENGINEER STAMP

PRELIMINARY

ALAMOSA RIVERFRONT PROJECT
SHEET INDEX & CONTROL

No.	REVISION/UPDATE	Date

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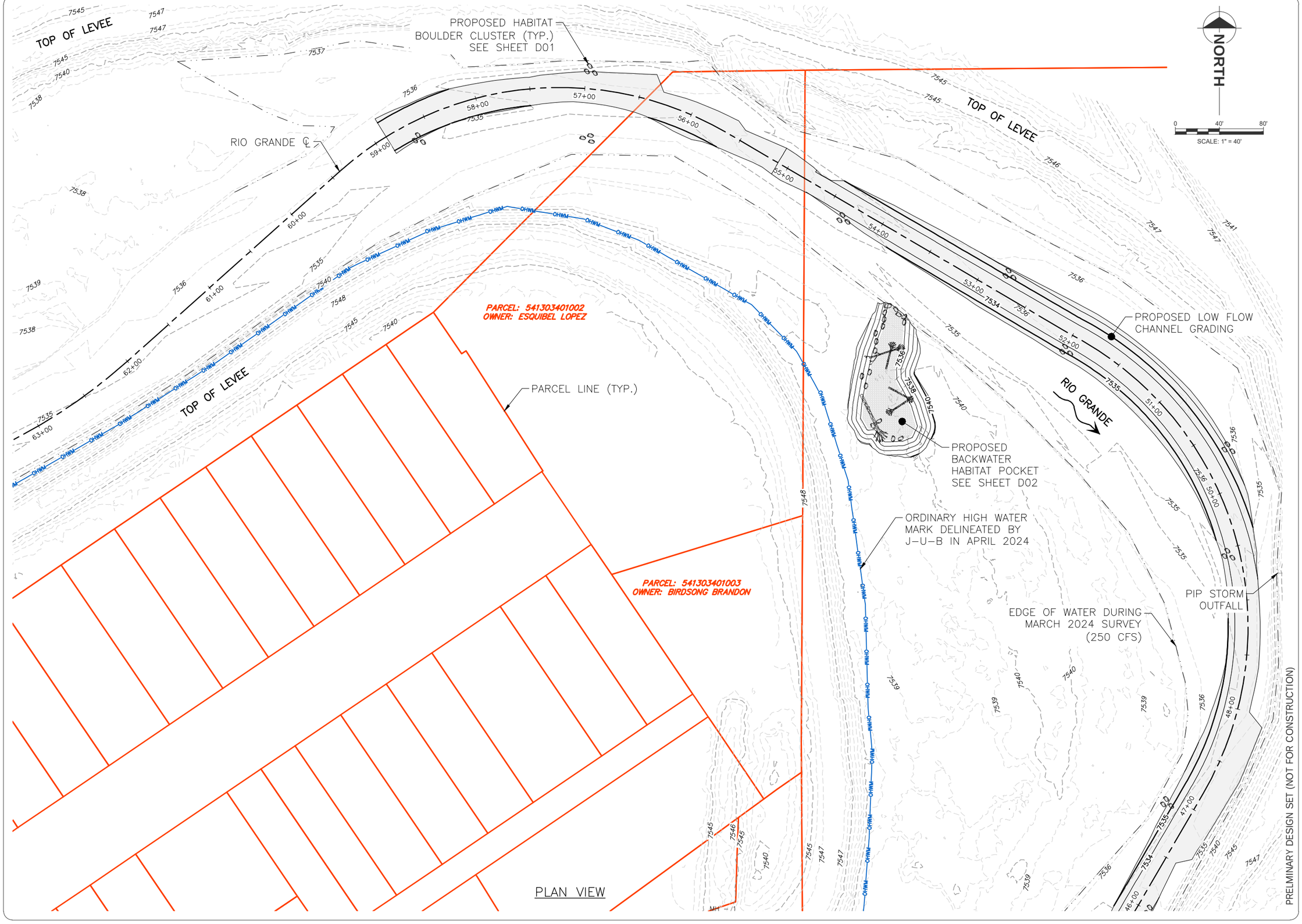

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PRELIMINARY

ALAMOSA RIVERFRONT PROJECT
CHANNEL IMPROVEMENTS PLAN
AT NORTH BEND

No.	REVISION/UPDATE	Date

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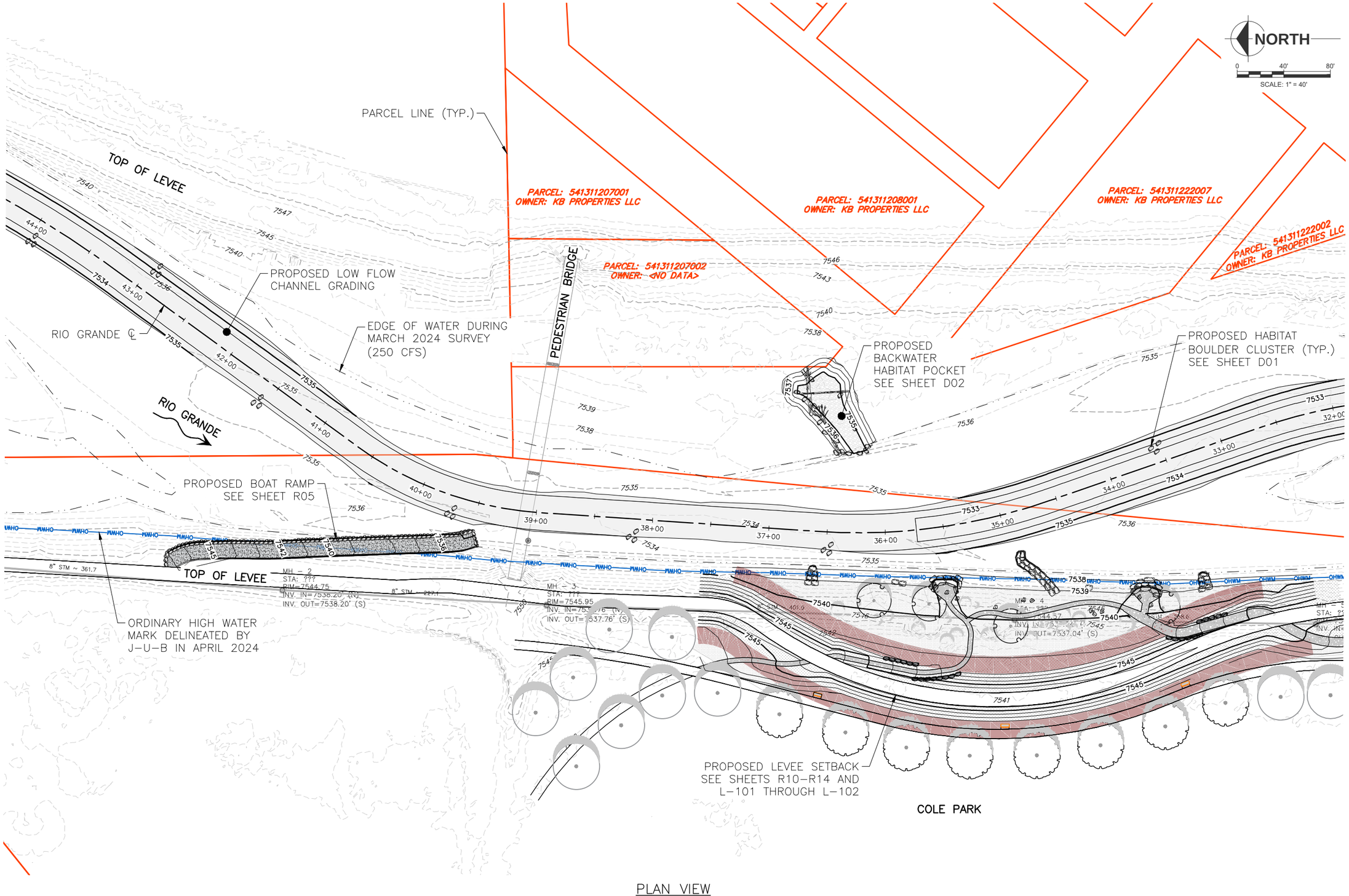
Palisade, CO 81526
www.jub.com
(970) 208-8508

Project	Sheet
38071	R01
Date: January 2025	
Scale: 1"=40' (FULL-SIZE)	



PLAN VIEW

PRELIMINARY DESIGN SET (NOT FOR CONSTRUCTION)

PROFESSIONAL ENGINEER STAMP

PRELIMINARY

ALAMOSA RIVERFRONT PROJECT
CHANNEL IMPROVEMENTS PLAN
AT PEDESTRIAN BRIDGE

No.	REVISION/UPDATE	Date

CLIENT NAME AND ADDRESS

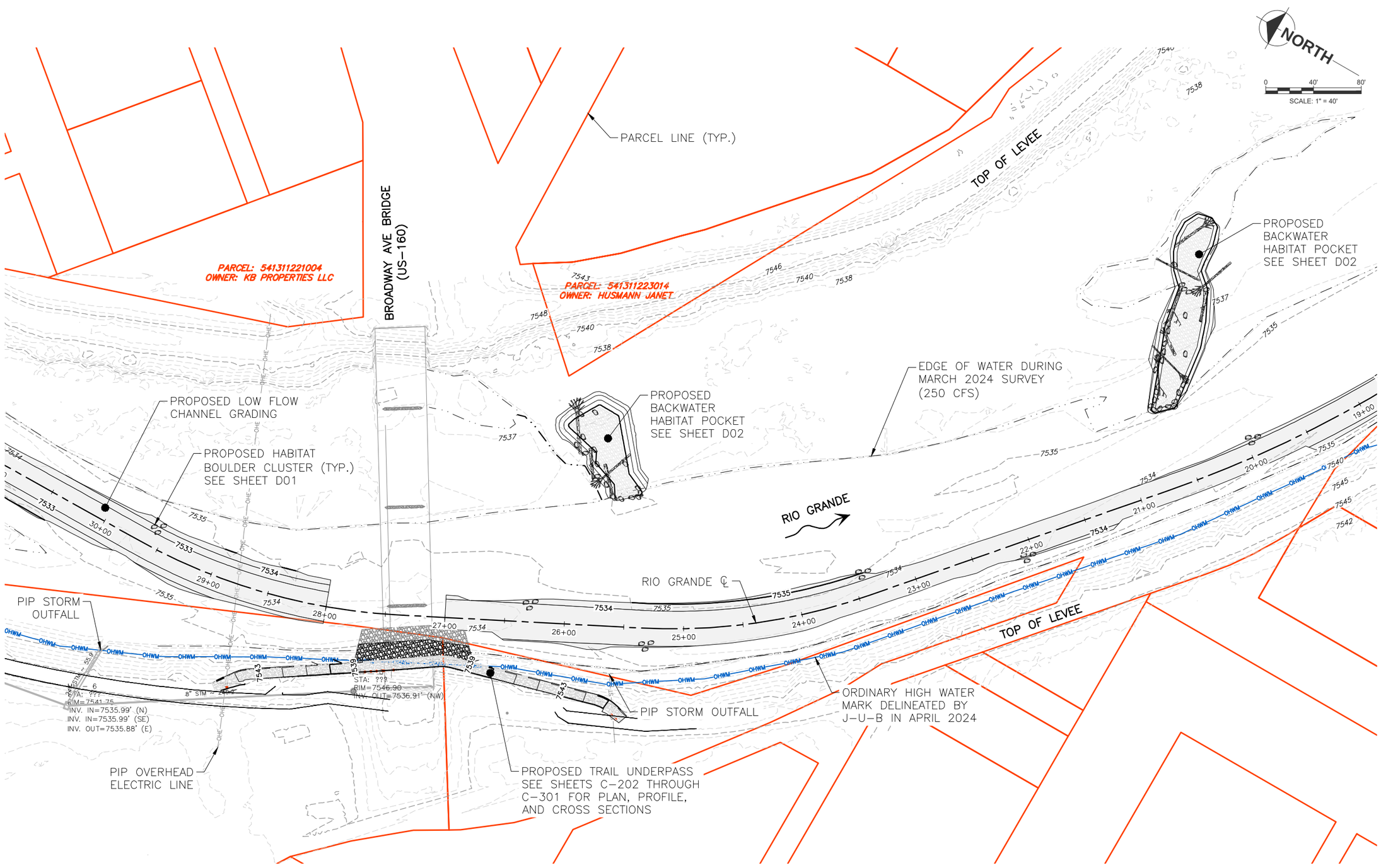
Rio Grande Headwaters Restoration Project
623 4th Street
Alamosa, CO 81101
www.riograndeheadwaters.org
(719) 589-2230

DESIGN FIRM NAMES AND ADDRESSES

RiverRestoration.org, LLC
P.O. Box 248
Carbondale, CO 81623
www.riverrestoration.org
(970)947-9568

J-U-B ENGINEERS, INC.
J-U-B Engineers, Inc.
305 S Main Street, Unit 6
Palisade, CO 81526
www.jub.com
(970) 208-8508

Project	Sheet
38071	R02
Date: January 2025	
Scale: 1"= 40' (FULL-SIZE)	



PLAN VIEW

PRELMINARY DESIGN SET (NOT FOR CONSTRUCTION)

PROFESSIONAL ENGINEER STAMP

PRELIMINARY

ALAMOSA RIVERFRONT PROJECT
CHANNEL IMPROVEMENTS PLAN
AT BROADWAY AVE

No.	REVISION/UPDATE	Date

CLIENT NAME AND ADDRESS

Rio Grande Headwaters Restoration Project
623 4th Street
Alamosa, CO 81101
www.riograndeheadwaters.org
(719) 589-2230

DESIGN FIRM NAMES AND ADDRESSES

RiverRestoration.org, LLC
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Carbondale, CO 81623
www.riverrestoration.org
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Palisade, CO 81526
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(970) 208-8508

Project	Sheet
38071	R03
Date: January 2025	
Scale: 1"=40' (FULL-SIZE)	

OHI = OBERMEYER HYDRO, INC.

NORTH

0 40' 80'
SCALE: 1" = 40'

PARCEL LINE (TYP.)

REBUILD BERM
SEE SHEETS R08–09

HIGHWATER RECREATION FEATURE
SEE SHEETS R08–09

14'

TOP OF LEVEE

PROPOSED FISH PASSAGE CHANNEL
SEE SHEETS R06–R07

PROPOSED HABITAT BOULDER CLUSTER (TYP.)
SEE SHEET D01

RIO GRANDE

RIO GRANDE ℄

REMOVE SHEET PILE ISLAND

PROPOSED BACKWATER HABITAT POCKET
SEE SHEET D02

EDGE OF WATER DURING MARCH 2024 SURVEY (250 CFS)

PNEUMATICALLY ACTUATED OHI STEEL GATES
SEE SHEETS R06–R07

LEVEL SENSOR IN STILLING WELL WITHIN MANHOLE BASE (TYP.)

ORDINARY HIGH WATER MARK DELINEATED BY J–U–B IN APRIL 2024

PIP OVERHEAD ELECTRIC LINE

WESTSIDE DITCH INTAKE

SEE SHEETS C–101 THROUGH C–201
FOR HEADGATE PLAN AND PROFILE

TOP OF LEVEE

RAILROAD

OHI OPERATION VAULT

PLAN VIEW

PRELIMINARY DESIGN SET (NOT FOR CONSTRUCTION)

PROFESSIONAL ENGINEER STAMP

PRELIMINARY

ALAMOSA RIVERFRONT PROJECT
CHANNEL IMPROVEMENTS PLAN
AT DIVERSION

No.	REVISION/UPDATE	Date

CLIENT NAME AND ADDRESS

Rio Grande Headwaters Restoration Project
623 4th Street
Alamosa, CO 81101
www.riograndeheadwaters.org
(719) 589-2230

DESIGN FIRM NAMES AND ADDRESSES

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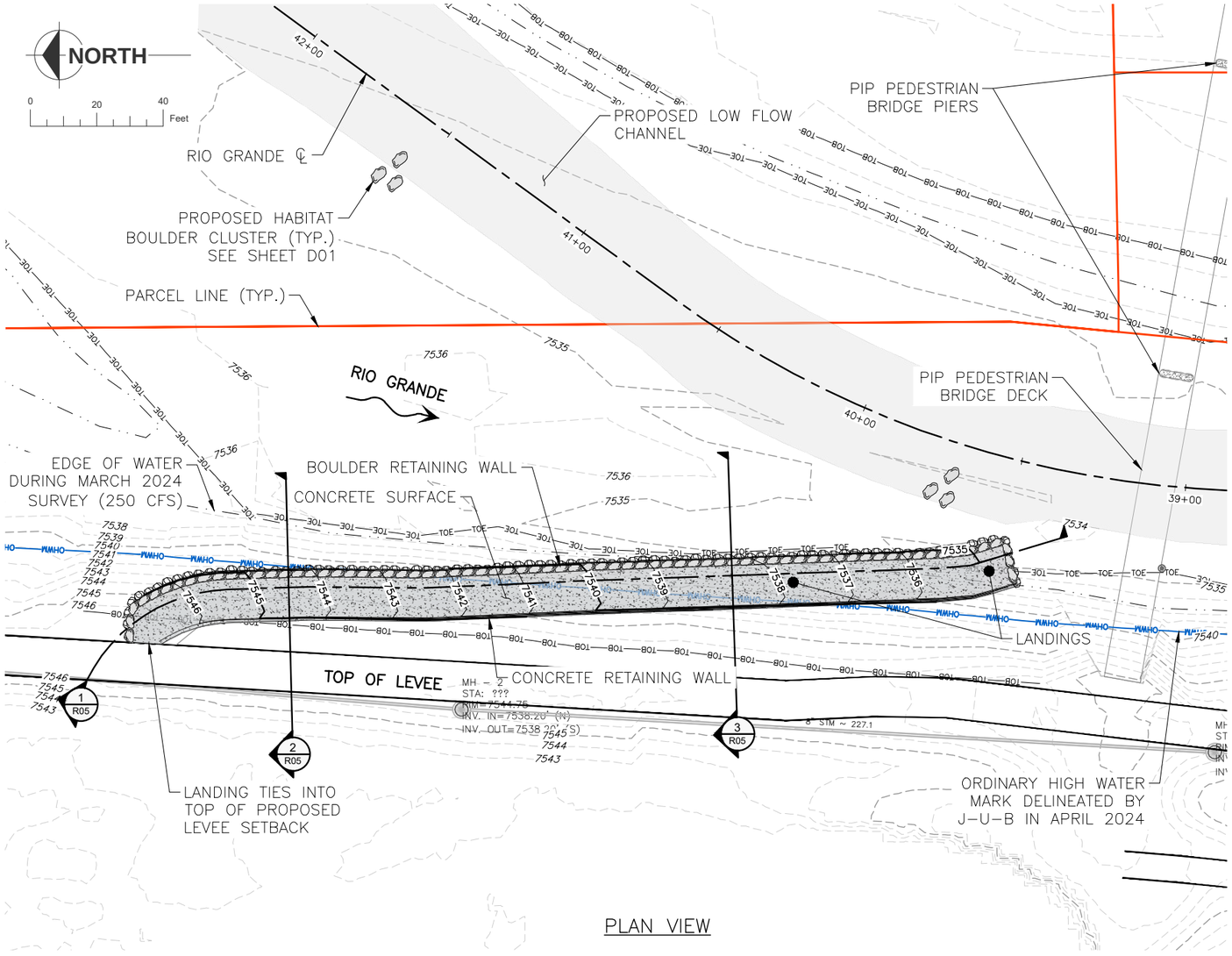
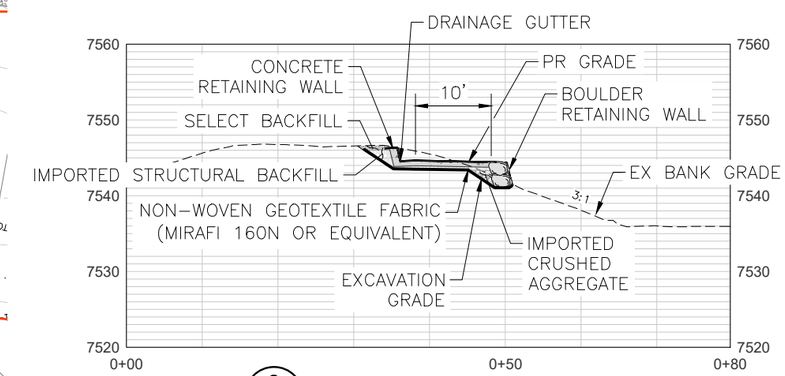
www.jub.com
(970) 208-8508

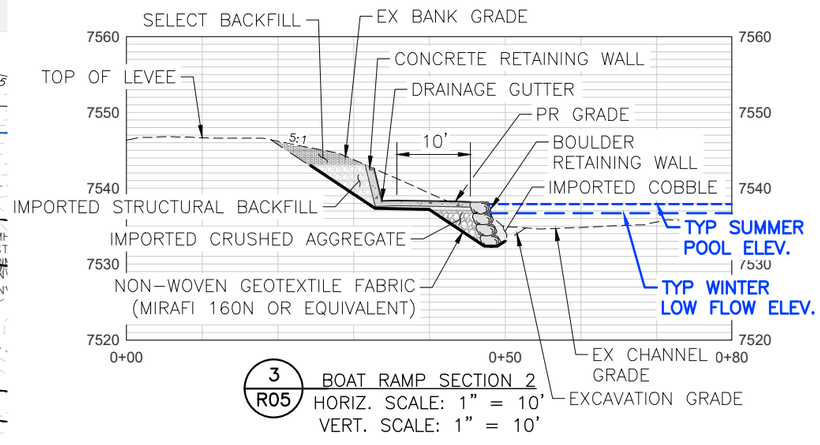
Project	Sheet
38071	R04
Date: January 2025	
Scale: 1"= 40' (FULL-SIZE)	



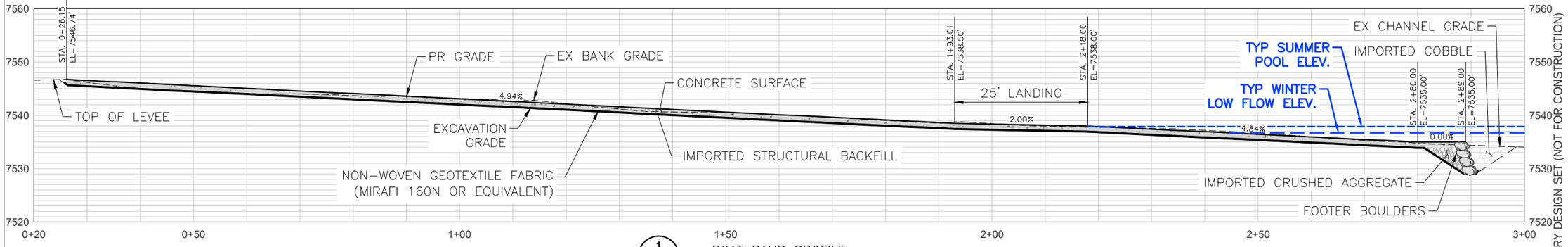
PLAN VIEW



2 R05 BOAT RAMP SECTION 1
HORIZ. SCALE: 1" = 10'
VERT. SCALE: 1" = 10'



3 R05 BOAT RAMP SECTION 2
HORIZ. SCALE: 1" = 10'
VERT. SCALE: 1" = 10'



1 R05 BOAT RAMP PROFILE
HORIZ. SCALE: 1" = 10'
VERT. SCALE: 1" = 10'

PRELIMINARY DESIGN SET (NOT FOR CONSTRUCTION)

PROFESSIONAL ENGINEER STAMP

PRELIMINARY

ALAMOSA RIVERFRONT PROJECT
BOAT RAMP PLAN, PROFILE, AND SECTIONS

No.	REVISION/UPDATE	Date

CLIENT NAME AND ADDRESS

Rio Grande Headwaters Restoration Project
623 4th Street
Alamosa, CO 81101
www.riograndeheadwaters.org
(719) 589-2230

DESIGN FIRM NAMES AND ADDRESSES

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Project	Sheet
38071	R05
Date: January 2025	
Scale: 1"=10' (FULL-SIZE)	

OHI = OBERMEYER HYDRO, INC.

NORTH

0 10' 20'

SCALE: 1" = 10'

TO HIGHWATER RECREATION FEATURE

FISH CHANNEL CREST EL=7534.5'

PROPOSED HABITAT BOULDER CLUSTER (TYP.) SEE SHEET D01

PLACE IMPORTED COBBLE

CONCRETE WALL BETWEEN FISH PASSAGE CHANNEL AND MAIN CHANNEL

PROPOSED FISH PASSAGE CHANNEL ℄ SEE PROFILE SHEET R07

REMOVE SHEET PILE ABUTMENT

REMOVE SHEET PILE ISLAND

CONCRETE SLAB

RIO GRANDE

PROPOSED DIVERSION STRUCTURE ℄ SEE PROFILE SHEET R07

PNEUMATICALLY ACTUATED OHI STEEL GATES (CONCRETE SILL EL=7534.0' TOP EL=7538.0' WHEN FULLY RAISED) SEE SHEET D03

PLACE IMPORTED COBBLE

REMOVE SHEET PILE ABUTMENT

LEVEL SENSOR IN STILLING WELL WITHIN MANHOLE BASE

LEVEL SENSOR IN STILLING WELL WITHIN MANHOLE BASE

EDGE OF WATER DURING MARCH 2024 SURVEY (250 CFS)

WESTSIDE DITCH INTAKE

SEE SHEETS C-101 THROUGH C-201 FOR HEADGATE IMPROVEMENTS

ORDINARY HIGH WATER MARK DELINEATED BY J-U-B IN APRIL 2024

PIP OVERHEAD ELECTRIC LINE

SEE SHEET R04 FOR OHI OPERATION VAULT LOCATION

PLAN VIEW

PRELIMINARY DESIGN SET (NOT FOR CONSTRUCTION)

PROFESSIONAL ENGINEER STAMP

PRELIMINARY

ALAMOSA RIVERFRONT PROJECT
DIVERSION PLAN

No.	REVISION/UPDATE	Date

CLIENT NAME AND ADDRESS

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623 4th Street
Alamosa, CO 81101
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DESIGN FIRM NAMES AND ADDRESSES

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J-U-B ENGINEERS, INC.
J-U-B Engineers, Inc.
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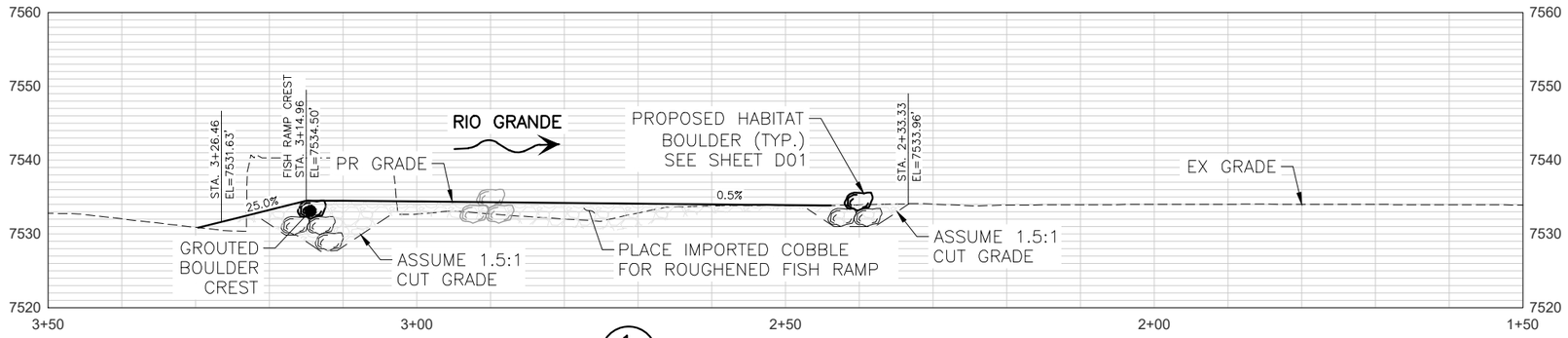
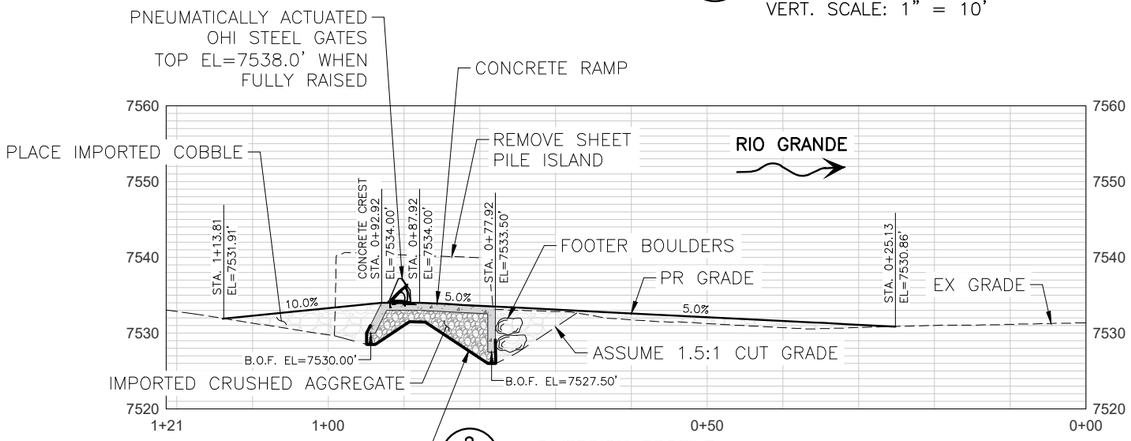
Palisade, CO 81526
www.jub.com
(970) 208-8508

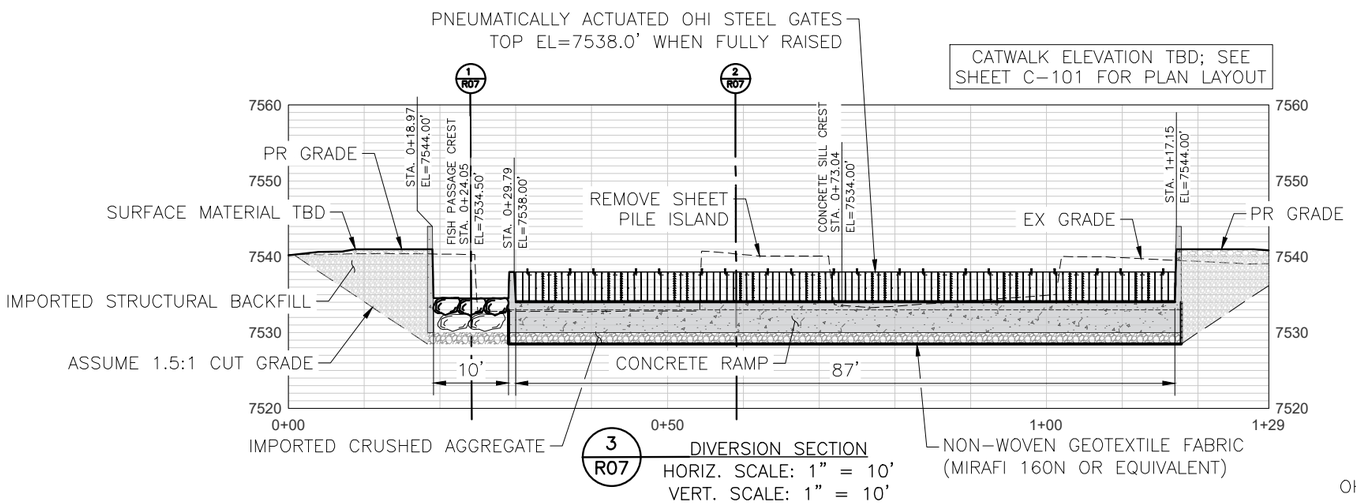
Project	Sheet
38071	R06
Date: January 2025	
Scale: 1"=10' (FULL-SIZE)	



1 / R07 FISH PASSAGE PROFILE
HORIZ. SCALE: 1" = 10'
VERT. SCALE: 1" = 10'



2 / R07 DIVERSION PROFILE
HORIZ. SCALE: 1" = 10'
VERT. SCALE: 1" = 10'



3 / R07 DIVERSION SECTION
HORIZ. SCALE: 1" = 10'
VERT. SCALE: 1" = 10'

OHI = OBERMEYER HYDRO, INC.

0 10' 20'
SCALE: 1" = 10'

PRELIMINARY DESIGN SET (NOT FOR CONSTRUCTION)

PROFESSIONAL ENGINEER STAMP

PRELIMINARY

ALAMOSA RIVERFRONT PROJECT
DIVERSION PROFILES & SECTION

No.	REVISION/UPDATE	Date

CLIENT NAME AND ADDRESS

Rio Grande Headwaters Restoration Project
623 4th Street
Alamosa, CO 81101
www.riograndeheadwaters.org
(719) 589-2230

DESIGN FIRM NAMES AND ADDRESSES

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J-U-B ENGINEERS, INC.
J-U-B Engineers, Inc.
305 S Main Street, Unit 6
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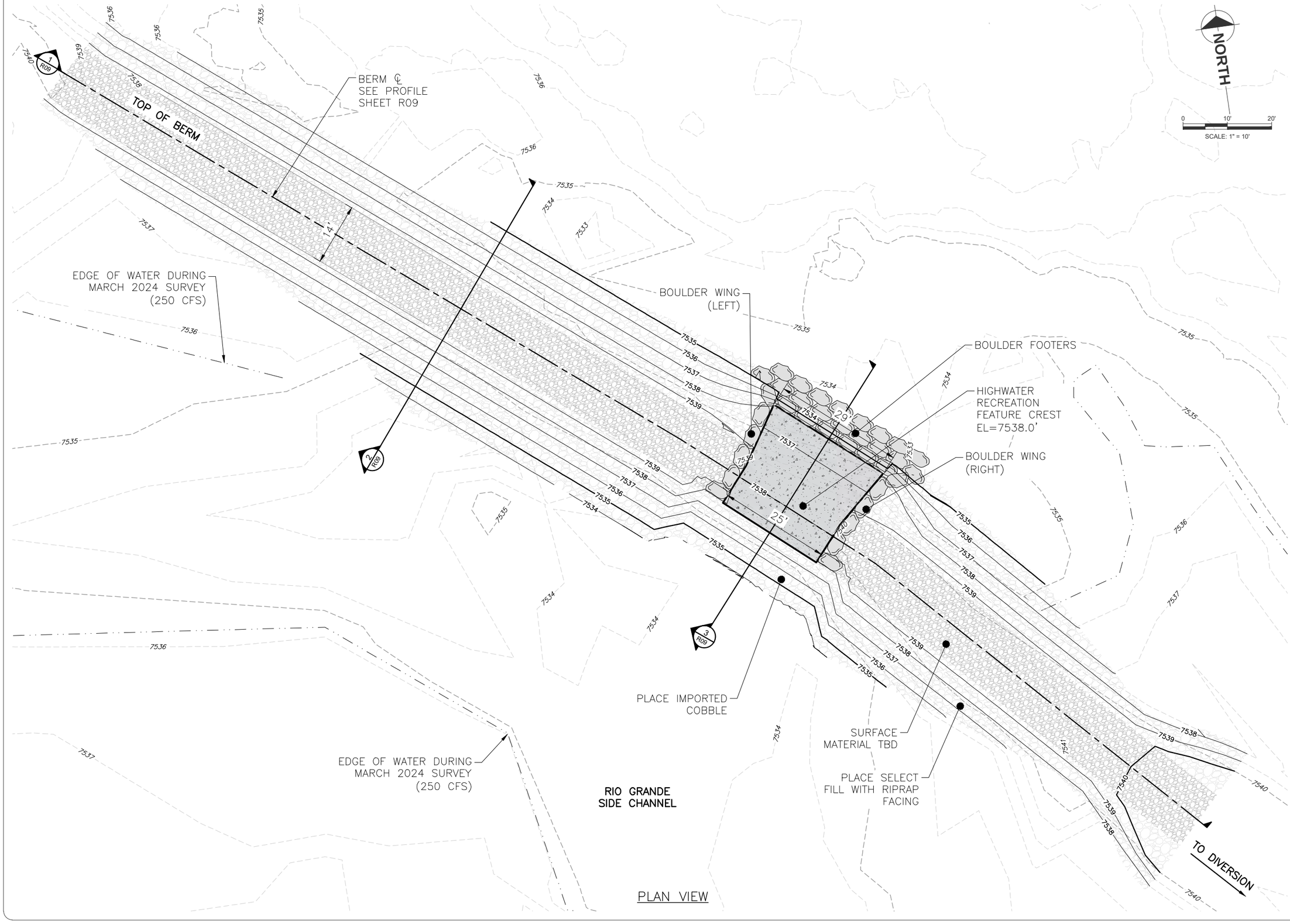
www.jub.com
(970) 208-8508

Project	Sheet
38071	R07
Date: January 2025	
Scale: 1"=10' (FULL-SIZE)	



PLAN VIEW

PRELMINARY DESIGN SET (NOT FOR CONSTRUCTION)

PROFESSIONAL ENGINEER STAMP

PRELIMINARY

ALAMOSA RIVERFRONT PROJECT
BERM PLAN

No.	REVISION/UPDATE	Date

CLIENT NAME AND ADDRESS

Rio Grande Headwaters Restoration Project
623 4th Street
Alamosa, CO 81101
www.riograndeheadwaters.org
(719) 589-2230

DESIGN FIRM NAMES AND ADDRESSES

RiverRestoration.org, LLC
P.O. Box 248
Carbondale, CO 81623
www.riverrestoration.org
(970)947-9568

J-U-B ENGINEERS, INC.
J-U-B Engineers, Inc.
305 S Main Street, Unit 6
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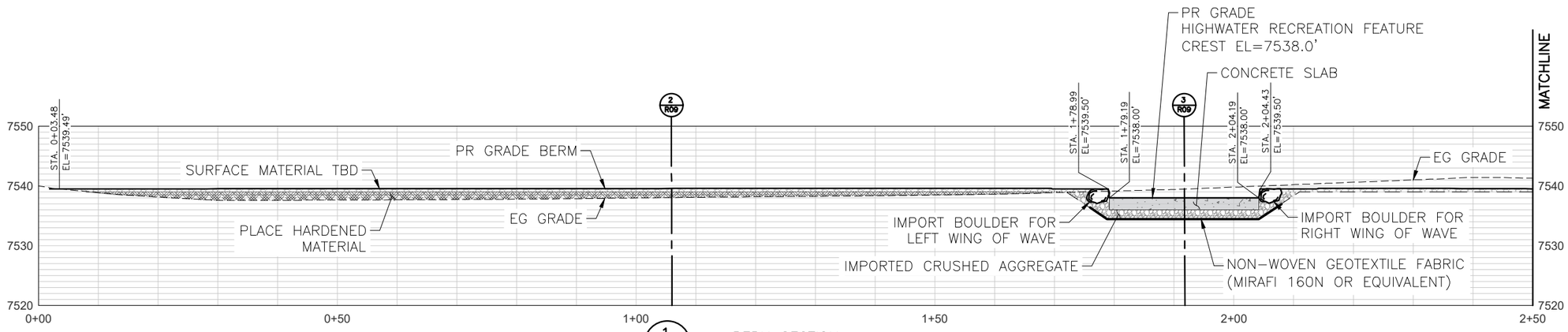
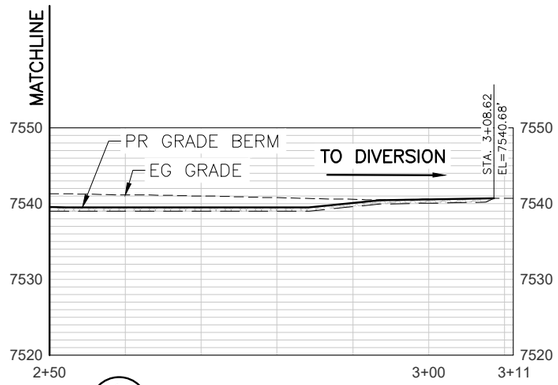
www.jub.com
(970) 208-8508

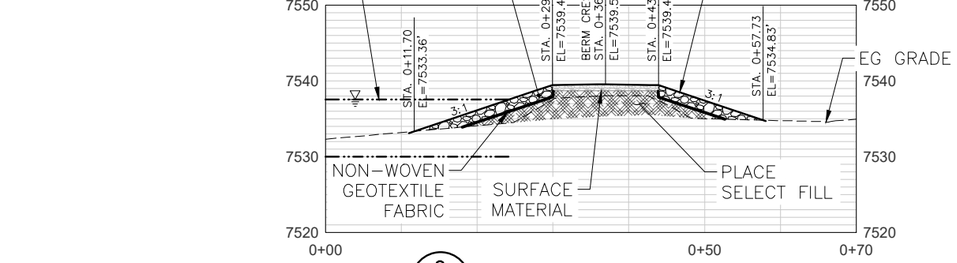
Project	Sheet
38071	R08
Date: January 2025	
Scale: 1"= 10' (FULL-SIZE)	



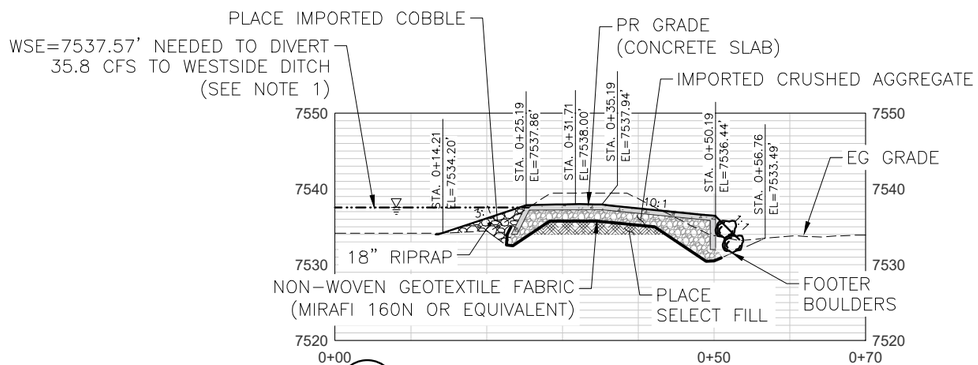
1 R09 BERM SECTION
HORIZ. SCALE: 1" = 10'
VERT. SCALE: 1" = 10'



1 R09 BERM SECTION (CONT.)
HORIZ. SCALE: 1" = 10'
VERT. SCALE: 1" = 10'



2 R09 BERM PROFILE
HORIZ. SCALE: 1" = 10'
VERT. SCALE: 1" = 10'



3 R09 HIGHWATER RECREATION FEATURE PROFILE
HORIZ. SCALE: 1" = 10'
VERT. SCALE: 1" = 10'

NOTES:
1. THE REQUIRED WATER SURFACE ELEVATION (WSE) OF 7537.57' NEEDED TO FULFILL THE WESTSIDE DITCH FULL WATER RIGHT OF 35.8 CFS IS BASED ON THE 60%-LEVEL DESIGN SHOWN ON SHEETS C-101 THROUGH C-201 AND THE EXISTING 48" CULVERT LOCATED APPROXIMATELY 400 LF SOUTH OF THE RAILROAD CROSSING. FUTURE IMPROVEMENTS OF THIS DOWNSTREAM CULVERT TO A 60" ARCH PIPE MAY REDUCE THE REQUIRED WSE TO 7537.36'

0 10' 20'
SCALE: 1" = 10'

PRELIMINARY DESIGN SET (NOT FOR CONSTRUCTION)

PROFESSIONAL ENGINEER STAMP

PRELIMINARY

ALAMOSA RIVERFRONT PROJECT
BERM PROFILES & SECTION

No.	REVISION/UPDATE	Date

CLIENT NAME AND ADDRESS

Rio Grande Headwaters Restoration Project
623 4th Street
Alamosa, CO 81101
www.riograndeheadwaters.org
(719) 589-2230

DESIGN FIRM NAMES AND ADDRESSES

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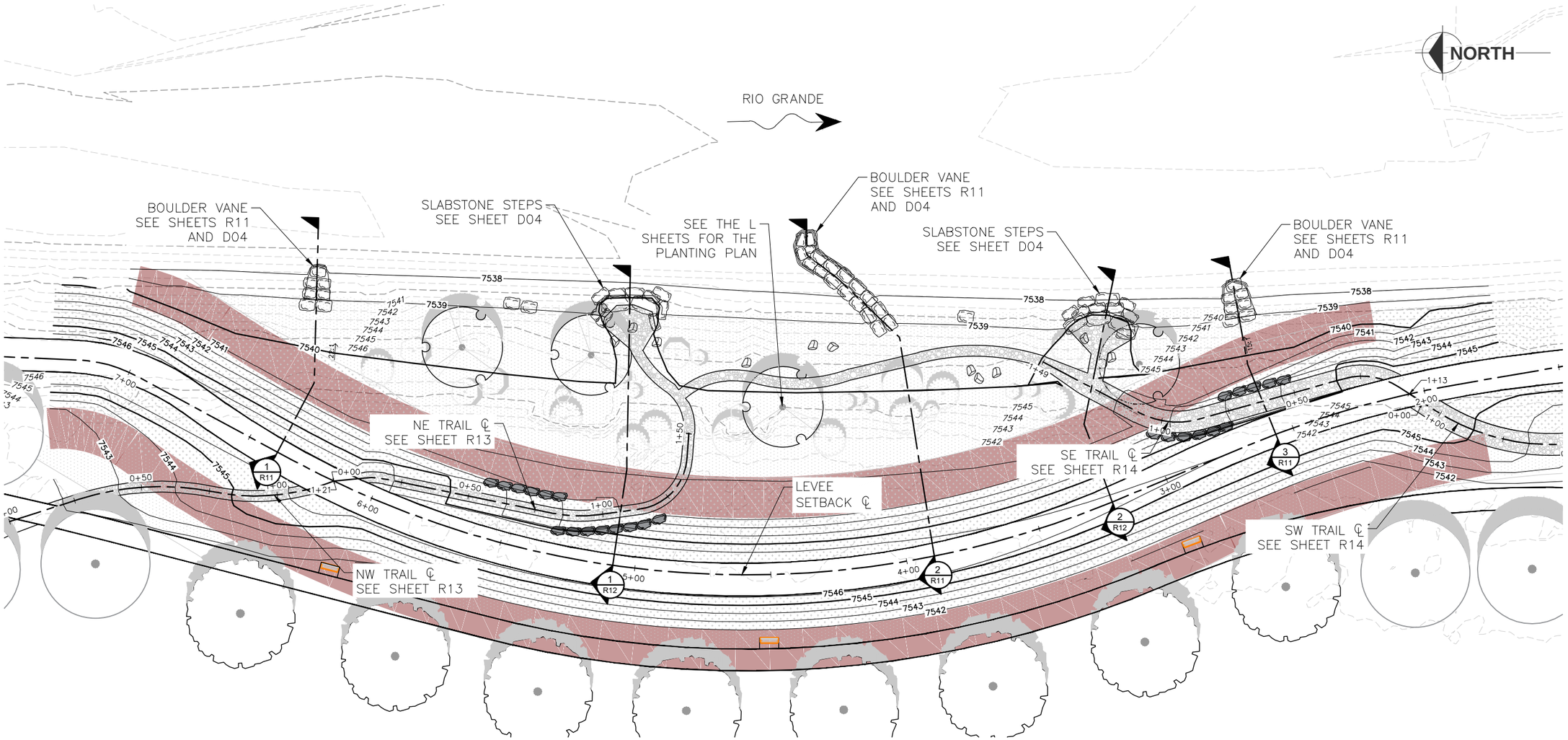
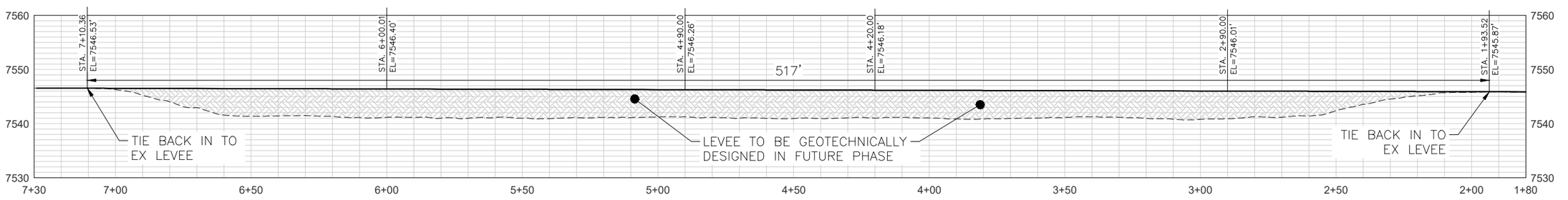
Project	Sheet
38071	R09
Date: January 2025	
Scale: 1"=10' (FULL-SIZE)	



PLAN VIEW

Berm Setback CL PROFILE
HORIZ. SCALE: 1" = 10'
VERT. SCALE: 1" = 5'



0 20' 40'
SCALE: 1" = 20'

PRELIMINARY DESIGN SET (NOT FOR CONSTRUCTION)

PROFESSIONAL ENGINEER STAMP

PRELIMINARY

ALAMOSA RIVERFRONT PROJECT
LEVEE SETBACK PLAN

No.	REVISION/UPDATE	Date

CLIENT NAME AND ADDRESS

Rio Grande Headwaters Restoration Project
623 4th Street
Alamosa, CO 81101
www.riograndeheadwaters.org
(719) 589-2230

DESIGN FIRM NAMES AND ADDRESSES

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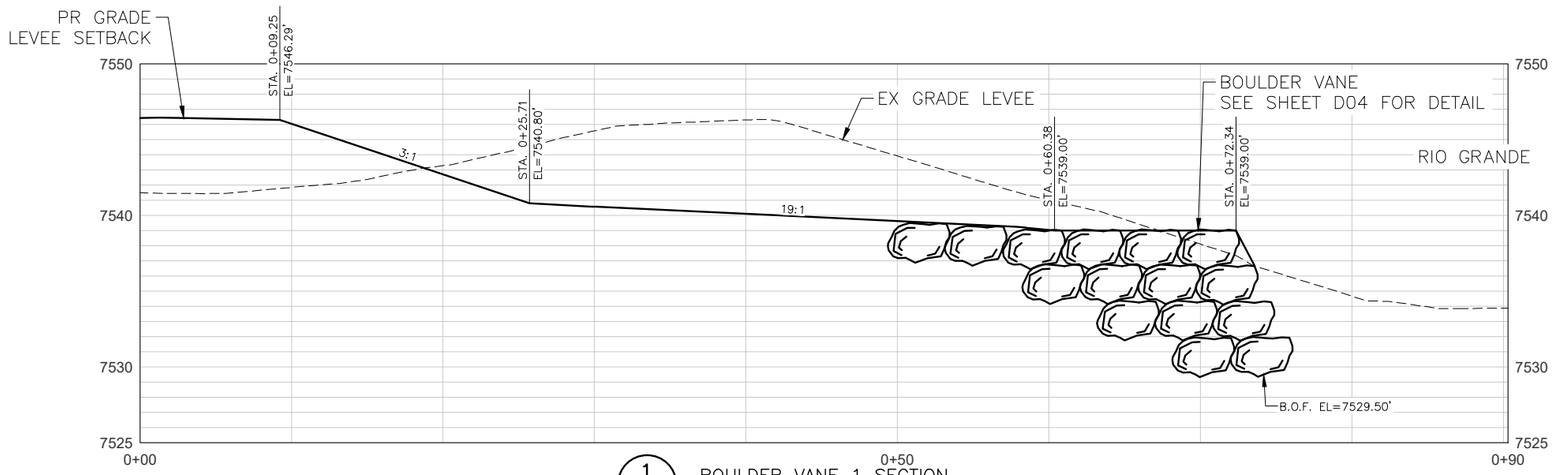
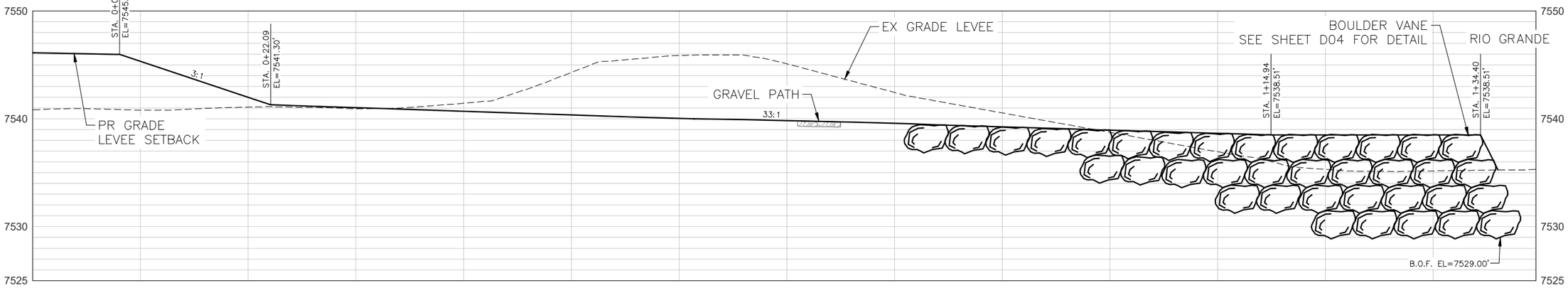
www.riverrestoration.org
(970)947-9568

J-U-B ENGINEERS, INC.
J-U-B Engineers, Inc.
305 S Main Street, Unit 6
Palisade, CO 81526
www.jub.com
(970) 208-8508

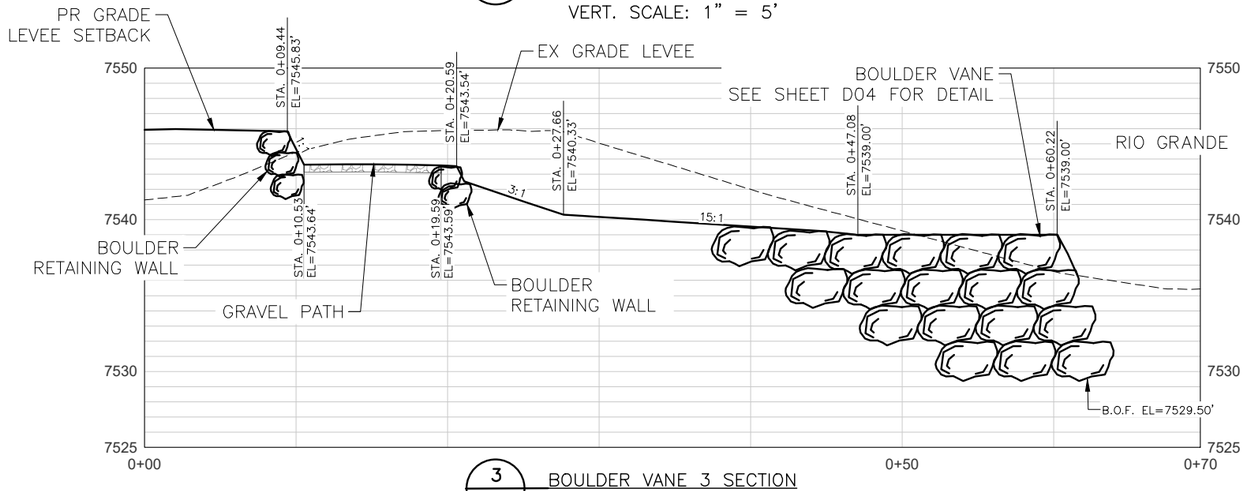
Project	Sheet
38071	R10
Date: January 2025	
Scale: 1"=20' (FULL-SIZE)	



1 / R11 BOULDER VANE 1 SECTION
HORIZ. SCALE: 1" = 5'
VERT. SCALE: 1" = 5'



2 / R11 BOULDER VANE 2 SECTION
HORIZ. SCALE: 1" = 5'
VERT. SCALE: 1" = 5'



3 / R11 BOULDER VANE 3 SECTION
HORIZ. SCALE: 1" = 5'
VERT. SCALE: 1" = 5'

0 5' 10'
SCALE: 1" = 5'

PRELIMINARY DESIGN SET (NOT FOR CONSTRUCTION)

PROFESSIONAL ENGINEER STAMP

PRELIMINARY

ALAMOSA RIVERFRONT PROJECT
LEVEE SETBACK
BOULDER VANE SECTIONS

No.	REVISION/UPDATE	Date

CLIENT NAME AND ADDRESS

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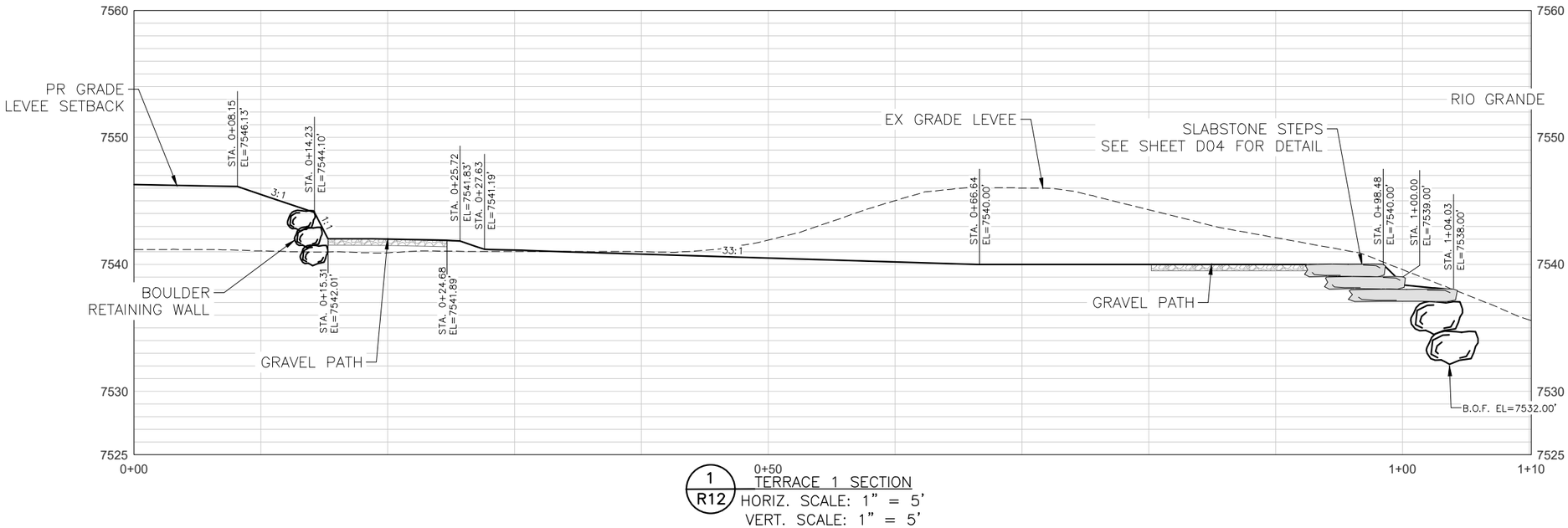
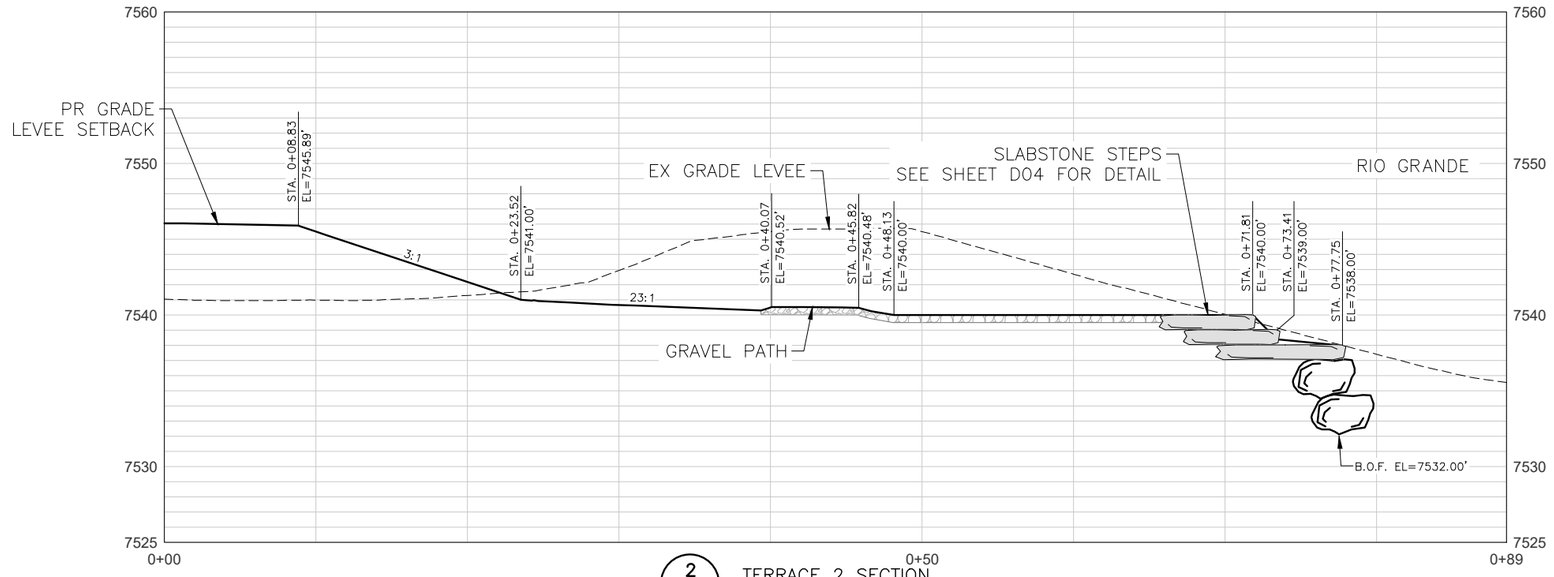
Project	Sheet
38071	R11
Date: January 2025	
Scale: 1"= 5' (FULL-SIZE)	



1 / R12 TERRACE 1 SECTION
HORIZ. SCALE: 1" = 5'
VERT. SCALE: 1" = 5'



2 / R12 TERRACE 2 SECTION
HORIZ. SCALE: 1" = 5'
VERT. SCALE: 1" = 5'

PRELIMINARY DESIGN SET (NOT FOR CONSTRUCTION)

0 5' 10'
SCALE: 1" = 5'

PROFESSIONAL ENGINEER STAMP

PRELIMINARY

ALAMOSA RIVERFRONT PROJECT
LEVEE SETBACK
SLABSTONE TERRACE SECTIONS

No.	REVISION/UPDATE	Date

CLIENT NAME AND ADDRESS

Rio Grande Headwaters Restoration Project
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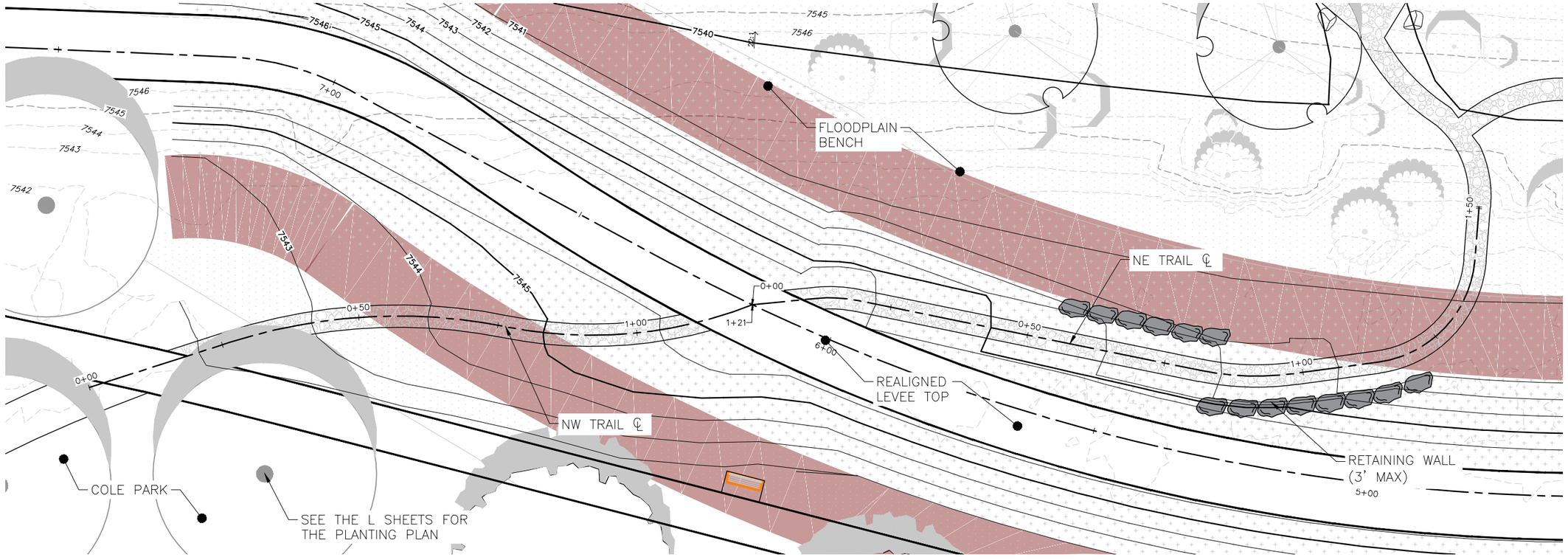
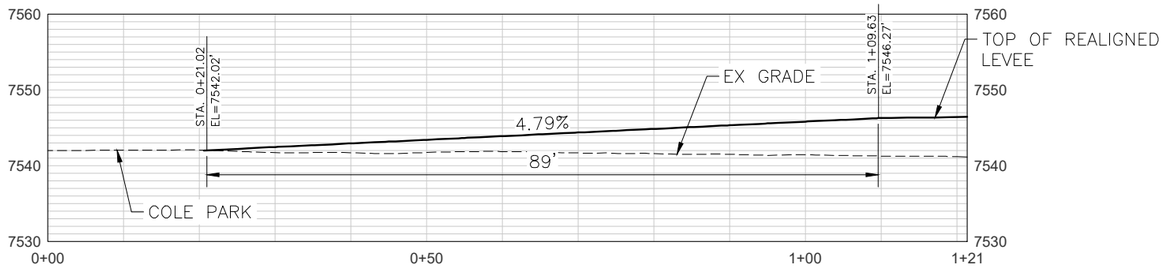
Project	Sheet
38071	R12
Date: January 2025	
Scale: 1"=5' (FULL-SIZE)	

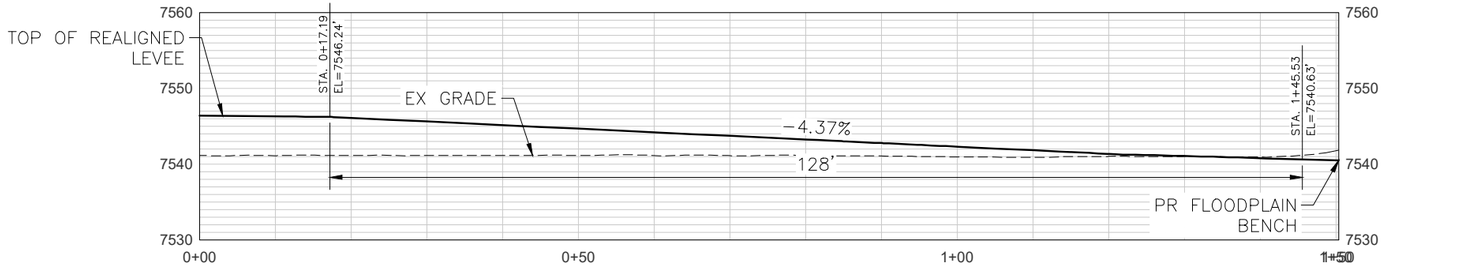


PLAN VIEW

NW Path CL PROFILE
HORIZ. SCALE: 1" = 10'
VERT. SCALE: 1" = 10'



NE Trail CL PROFILE
HORIZ. SCALE: 1" = 10'
VERT. SCALE: 1" = 10'



0 20' 40'
SCALE: 1" = 20'

PRELIMINARY DESIGN SET (NOT FOR CONSTRUCTION)

PROFESSIONAL ENGINEER STAMP

PRELIMINARY

ALAMOSA RIVERFRONT PROJECT
LEVEE SETBACK - NORTH TRAILS

No.	REVISION/UPDATE	Date

CLIENT NAME AND ADDRESS

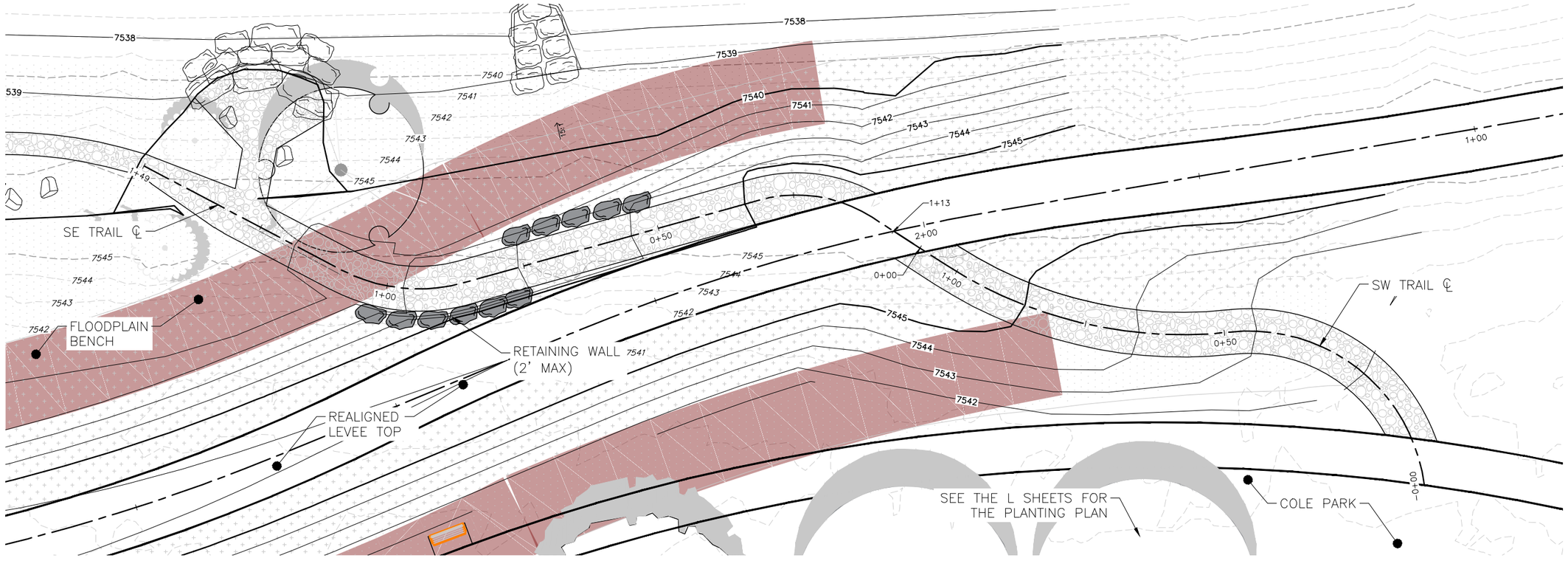
Rio Grande Headwaters Restoration Project
623 4th Street
Alamosa, CO 81101
www.riograndeheadwaters.org
(719) 589-2230

DESIGN FIRM NAMES AND ADDRESSES

RiverRestoration.org, LLC
P.O. Box 248
Carbondale, CO 81623
www.riverrestoration.org
(970)947-9568

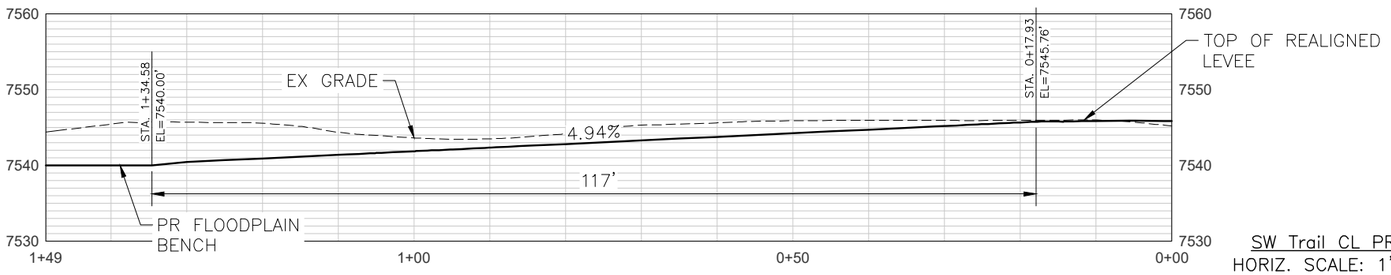
J-U-B ENGINEERS, INC.
J-U-B Engineers, Inc.
305 S Main Street, Unit 6
Palisade, CO 81526
www.jub.com
(970) 208-8508

Project	Sheet
38071	R13
Date: January 2025	
Scale: 1"=10' (FULL-SIZE)	

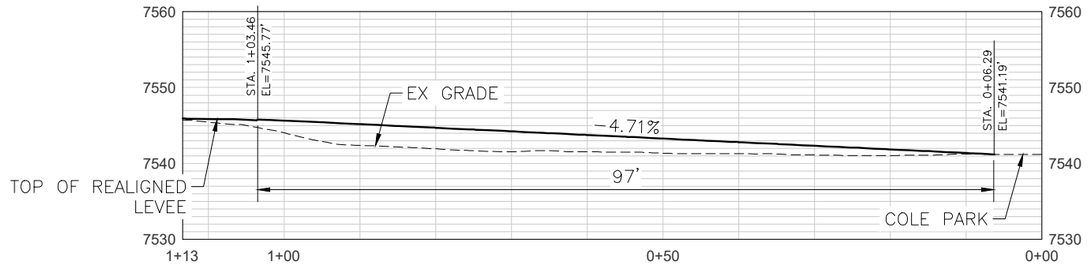


PLAN VIEW

SE Trail CL PROFILE
HORIZ. SCALE: 1" = 10'
VERT. SCALE: 1" = 10'



SW Trail CL PROFILE
HORIZ. SCALE: 1" = 10'
VERT. SCALE: 1" = 10'



0 20' 40'
SCALE: 1" = 20'

PRELIMINARY DESIGN SET (NOT FOR CONSTRUCTION)

PROFESSIONAL ENGINEER STAMP

PRELIMINARY

ALAMOSA RIVERFRONT PROJECT
LEVEE SETBACK - SOUTH TRAILS

No.	REVISION/UPDATE	Date

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623 4th Street
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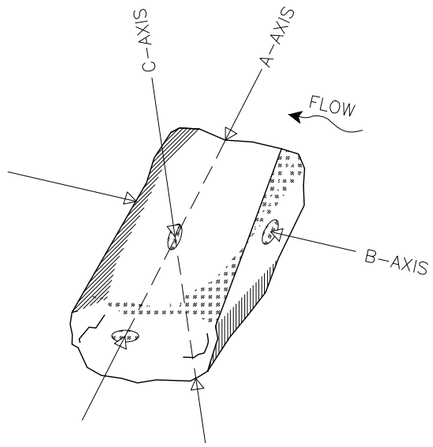
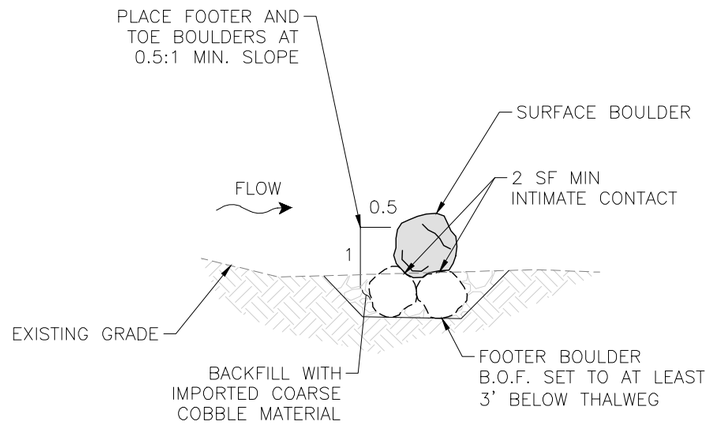
Project	Sheet
38071	R14
Date: January 2025	
Scale: 1"=10' (FULL-SIZE)	



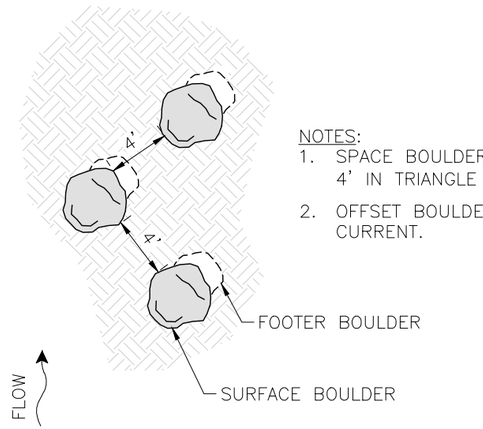
NOTES:
1. SEE SPECIFICATIONS FOR BOUNDER GRADATION.

1/D01 BOULDER AXIAL PLACEMENT (TYP)
NTS



NOTES:
1. WHEN TOP BOULDER IS EXPOSED, OFFSET FOOTER BOULDERS IN THE UPSTREAM & DOWNSTREAM DIRECTIONS, PERPENDICULAR TO FLOW.
2. FOOTER BOULDERS ARE NOT REQUIRED IF BEDROCK IS PRESENT.

2/D01 HABITAT BOULDER CLUSTER (TYP)
SECTION VIEW – NTS



NOTES:
1. SPACE BOULDER A MINIMUM OF 4' IN TRIANGLE PATTERN.
2. OFFSET BOULDERS FROM MAIN CURRENT.

3/D01 HABITAT BOULDER CLUSTER (TYP)
PLAN VIEW – NTS

PRELIMINARY DESIGN SET (NOT FOR CONSTRUCTION)

PROFESSIONAL ENGINEER STAMP

PRELIMINARY

ALAMOSA RIVERFRONT PROJECT
HABITAT / EDDY BOULDER DETAILS

No.	REVISION/UPDATE	Date

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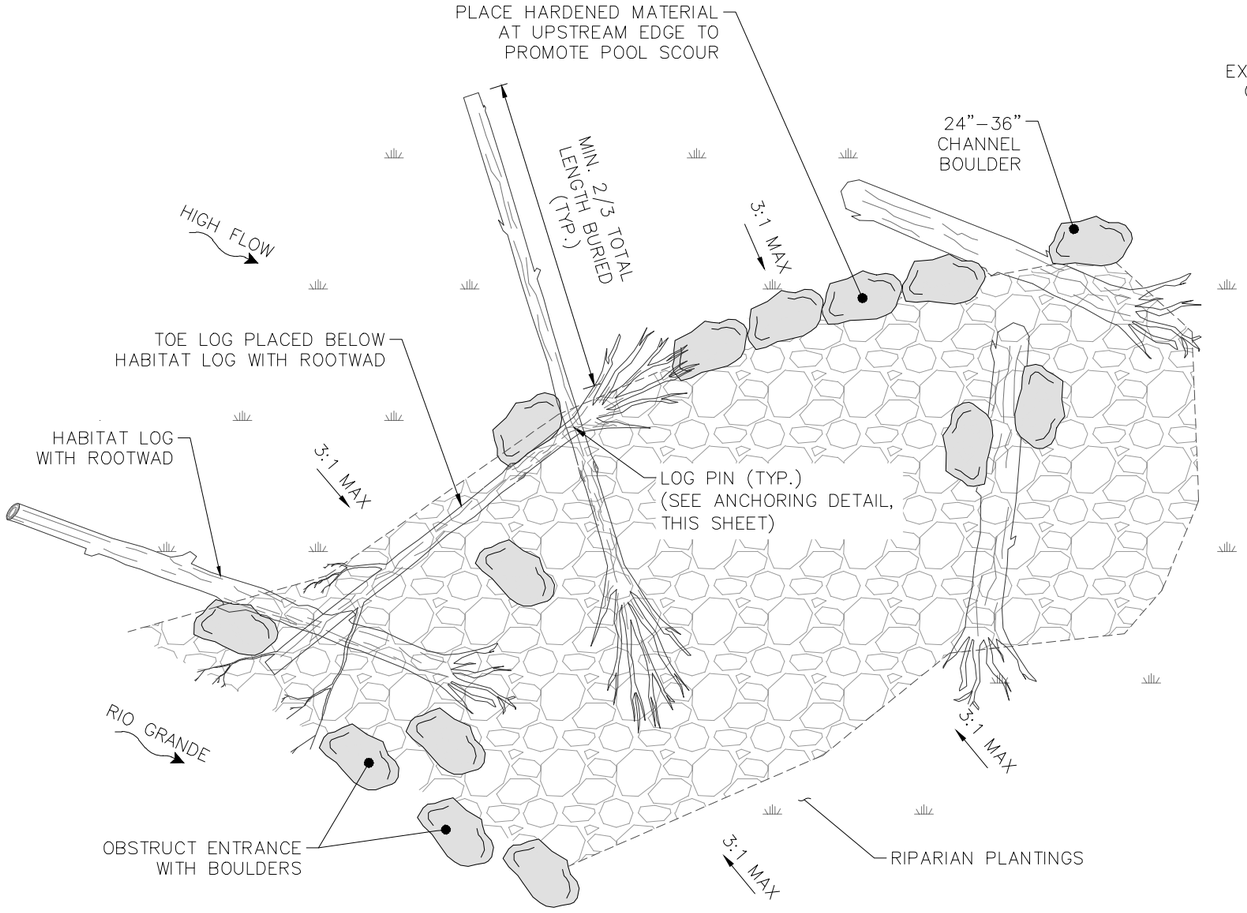
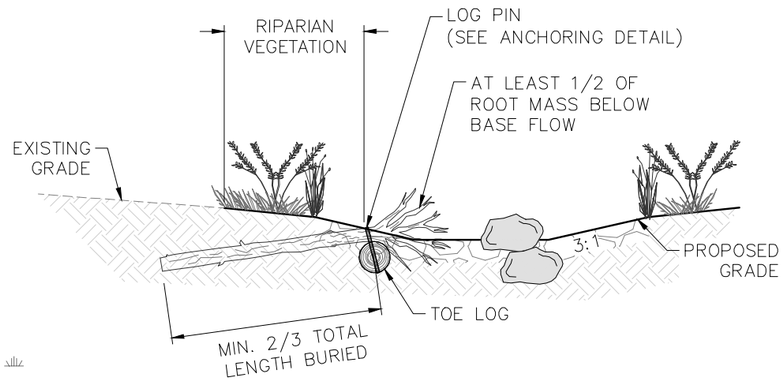
Project	Sheet
38071	D01
Date: January 2025	
Scale: NTS	



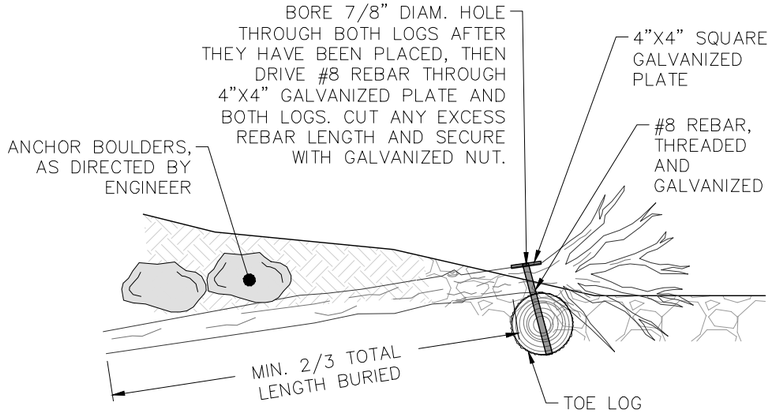
1 / D02 BACKWATER HABITAT POCKET (TYP)

PLAN VIEW – NTS



2 / D02 LWD BANK STABILIZATION (TYP)

SECTION VIEW – NTS



ANCHORING NOTES:

1. THIS ANCHORING DETAIL APPLIES TO ALL WOODY DEBRIS STRUCTURES, INCLUDING LOG WEIRS, LWD BANK STABILIZATION, AND HABITAT CHANNEL STRUCTURES.
2. EVENLY DISTRIBUTE REQUIRED ANCHOR BOULDERS ALONG LENGTH OF BURIED PORTION OF LOG.
3. PLACE BOULDERS SO THEY LOCK TOGETHER. BOULDERS SHOULD NOT ROCK IN PLACE OR SHIFT UNDER WEIGHT OF ONE INDIVIDUAL.

3 / D02 ANCHORING DETAIL

PLAN VIEW – NTS

PROFESSIONAL ENGINEER STAMP

PRELIMINARY

ALAMOSA RIVERFRONT PROJECT
HABITAT POCKET AND LARGE WOOD DETAILS

No.	REVISION/UPDATE	Date

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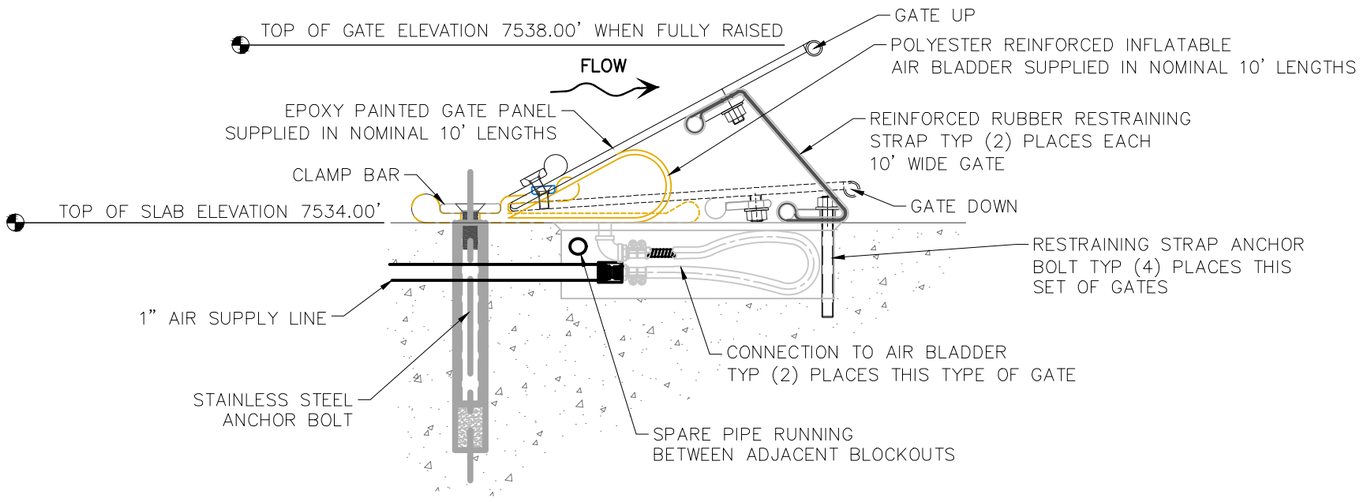
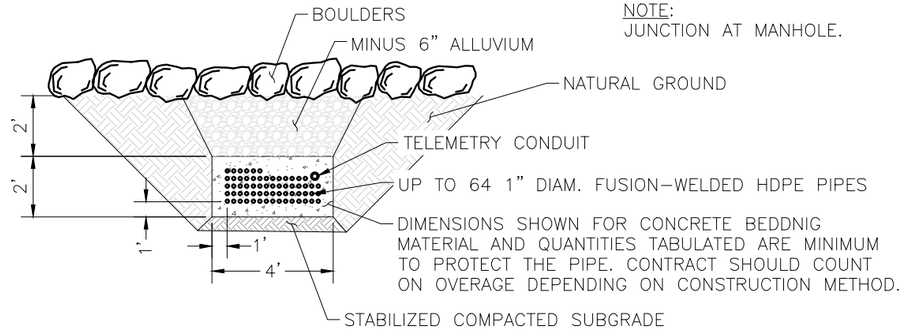
Project	Sheet
38071	D02
Date: January 2025	
Scale: NTS	

PRELIMINARY DESIGN SET (NOT FOR CONSTRUCTION)



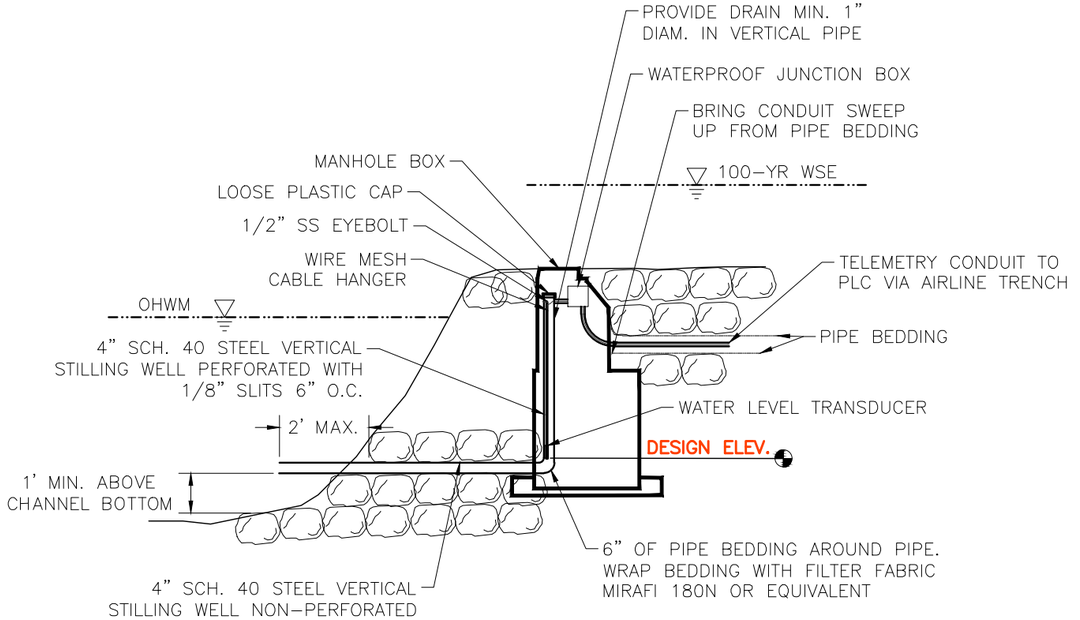
1 / D03 STEEL PNEUMATIC GATE ON CONCRETE SLAB (TYP.)
PROFILE VIEW – NTS

OBERMEYER HYDRO DETAILS ARE SHOWN FOR SCHEMATIC PURPOSES ONLY. DETAILED DESIGN WILL BE PERFORMED IN A FUTURE PHASE.



NOTE:
JUNCTION AT MANHOLE.

2 / D03 AIR LINE BEDDING DETAIL (TYP.)
NTS



3 / D03 WATER LEVEL TRANSDUCER INSTALLATION DETAIL (TYP.)
NTS

PRELIMINARY DESIGN SET (NOT FOR CONSTRUCTION)

PROFESSIONAL ENGINEER STAMP

PRELIMINARY

ALAMOSA RIVERFRONT PROJECT
OHI ADJUSTABLE GATE DETAILS

No.	REVISION/UPDATE	Date

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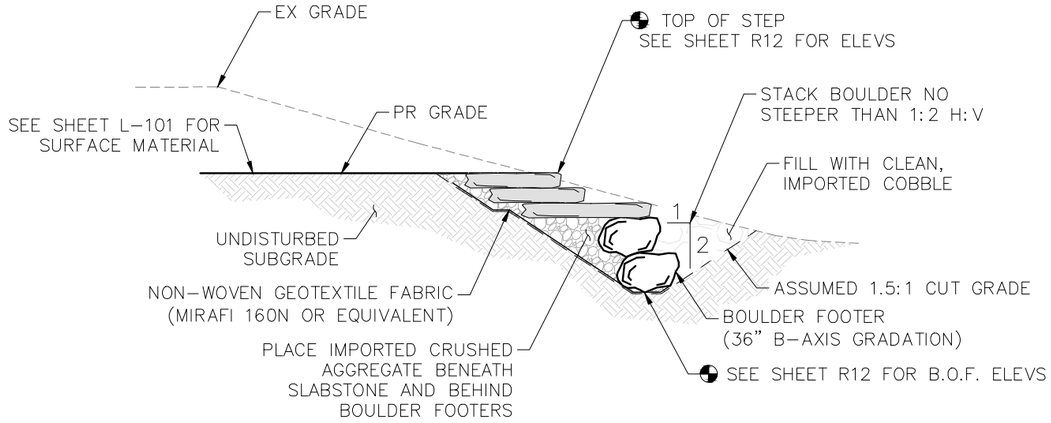
Project	Sheet
38071	D03
Date: January 2025	
Scale: NTS	

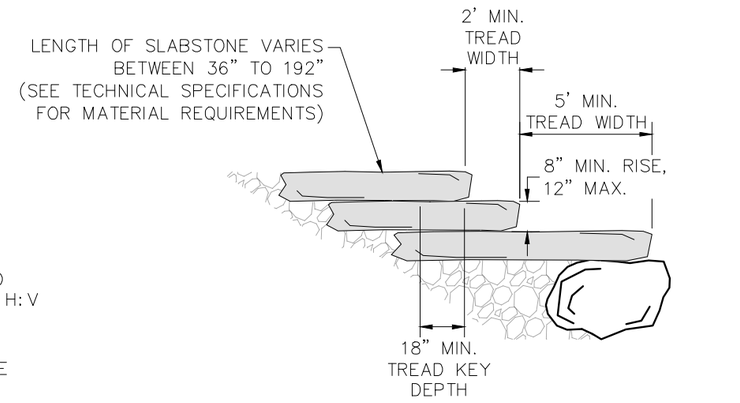
SLABSTONE NOTES

1. CONTRACTOR SHALL LEVEL, FIT, AND STACK INDIVIDUAL SLABS TO MAXIMIZE AESTHETIC VALUE OF FINISHED STEPS AND TERRACING. REFER TO TECHNICAL SPECIFICATIONS FOR MATERIAL AND CONSTRUCTION REQUIREMENTS.



1 / D04 SLABSTONE TERRACE (TYP)

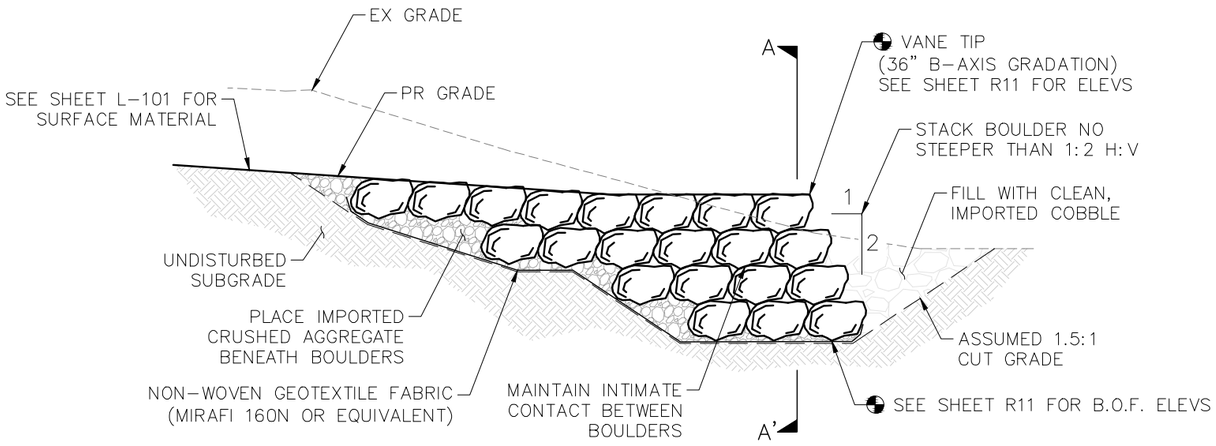
PROFILE VIEW – NTS



2X SCALE FOR TREAD WIDTH AND RISE DETAIL

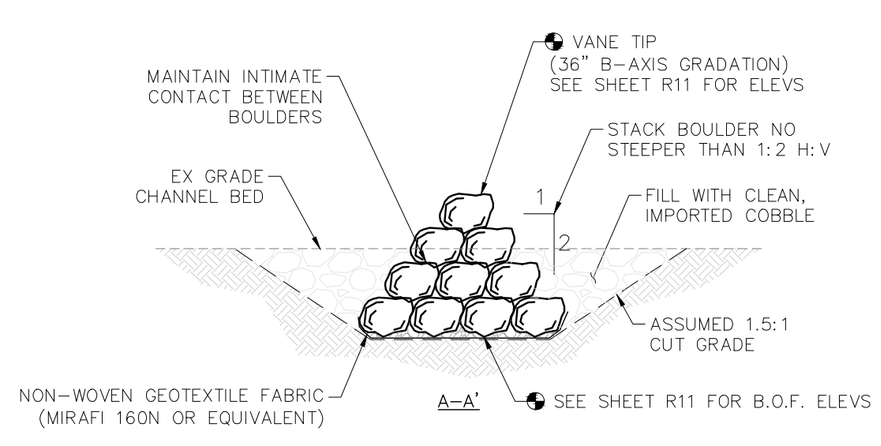
BOULDER VANE CONSTRUCTION NOTES:

1. 48–INCH MINIMUM BOULDER SIZE UNLESS SPECIFIED ON PLANS.
2. CONSTRUCTION OF BOULDER VANES SHALL INCLUDE SELECTION, ROTATION, PLACEMENT, AND ADJUSTMENT OF EACH INDIVIDUAL BOULDER TO MINIMIZE VOID SPACE AND MAXIMIZE INTIMATE CONTACT BETWEEN BOULDERS.
3. SEE SPECIFICATIONS FOR ACCEPTABLE AS–BUILT VARIANCES ON ELEVATIONS OF BOULDER AND ALLUVIAL BACKFILL.
4. HORIZONTAL CONTROL INFORMATION, INCLUDING COORDINATES OF ALIGNMENTS AND CROSS SECTIONS WILL BE PROVIDED ELECTRONICALLY.



2 / D04 BOULDER VANE (TYP)

PROFILE VIEW – NTS



PRELIMINARY DESIGN SET (NOT FOR CONSTRUCTION)

PROFESSIONAL ENGINEER STAMP

PRELIMINARY

ALAMOSA RIVERFRONT PROJECT

SLABSTONE TERRACE & BOULDER VANE DETAILS

No.	REVISION/UPDATE	Date

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Project	Sheet
38071	D04
Date: January 2025	
Scale: NTS	

PROPOSED IN-CHANNEL IMPROVEMENTS. SEE R SHEETS

PROPOSED 4' WIDTH STEEL GRATING CATWALK (DESIGN TO BE INCLUDED IN FINAL PLANS)

RIO GRANDE

PROPOSED DEBRIS BOOM ANCHOR, SEE C-502/B3

PROPOSED DEBRIS BOOM, APPROX. 75 LF

PROPOSED DEBRIS BOOM ANCHOR, SEE C-502/B1

0+00

1+00

2+00

3+00

WESTSIDE DITCH CHANNEL

EXISTING 24" STORM DRAIN, PROTECT IN PLACE

PROPOSED HEADGATE STRUCTURE (SEE SHEET C-102)

REMOVE EXISTING HEADGATES

PROPOSED 30" HDPE DR 32.5 CULVERTS (x2) (SEE SHEET C-201)

EXISTING CONCRETE WALL, PROTECT IN PLACE

PROTECT IN PLACE EXISTING SHEET PILE WALL

30" GRR

EXISTING RAILROAD TRACKS, PROTECT IN PLACE

PROPOSED OUTLET BULKHEAD (SEE C-502/D1)

PROPOSED OHI OPERATION VAULT LOCATION. SEE R06 SHEET

7535 7540 7545 OHP

0 20 40

SCALE IN FEET

PRELIMINARY SET (NOT FOR CONSTRUCTION)

PROFESSIONAL ENGINEER STAMP

PRELIMINARY

ALAMOSA RIVERFRONT PROJECT
WESTSIDE DITCH HEADGATE
CIVIL SITE PLAN

No.	REVISION/UPDATE	Date

CLIENT NAME AND ADDRESS

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623 4th Street
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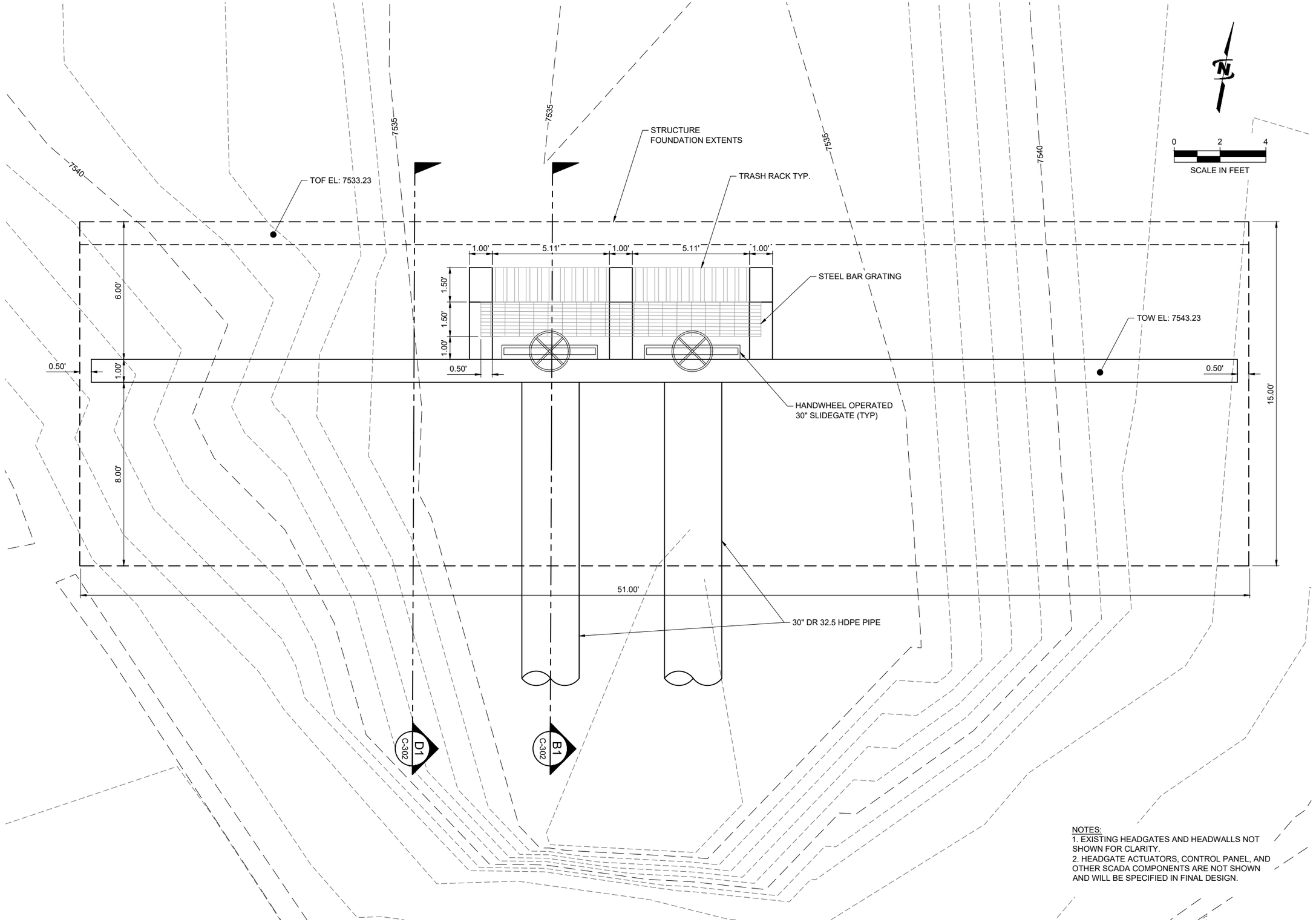
Project	Sheet
38071	C-101
Date: December 2024	
Scale: 1"=20'	



NOTES:
1. EXISTING HEADGATES AND HEADWALLS NOT SHOWN FOR CLARITY.
2. HEADGATE ACTUATORS, CONTROL PANEL, AND OTHER SCADA COMPONENTS ARE NOT SHOWN AND WILL BE SPECIFIED IN FINAL DESIGN.

PRELIMINARY SET (NOT FOR CONSTRUCTION)

PROFESSIONAL ENGINEER STAMP

PRELIMINARY

ALAMOSA RIVERFRONT PROJECT
WESTSIDE DITCH HEADGATE
STRUCTURE PLAN

No.	REVISION/UPDATE	Date

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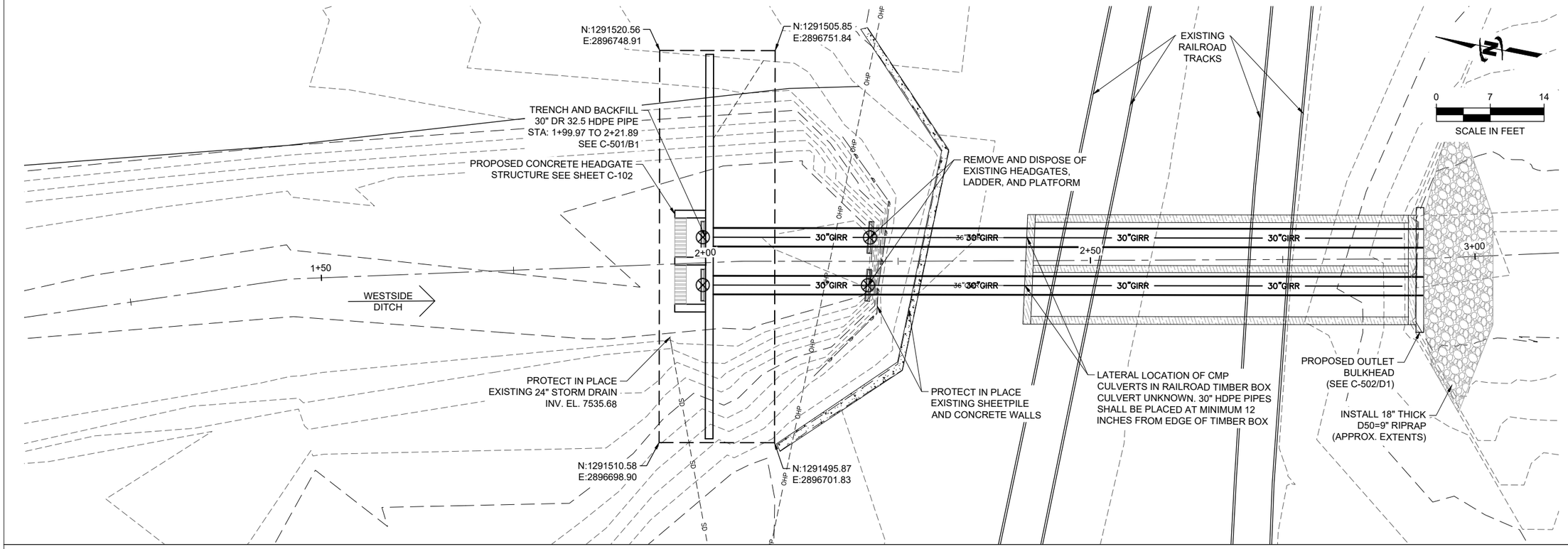
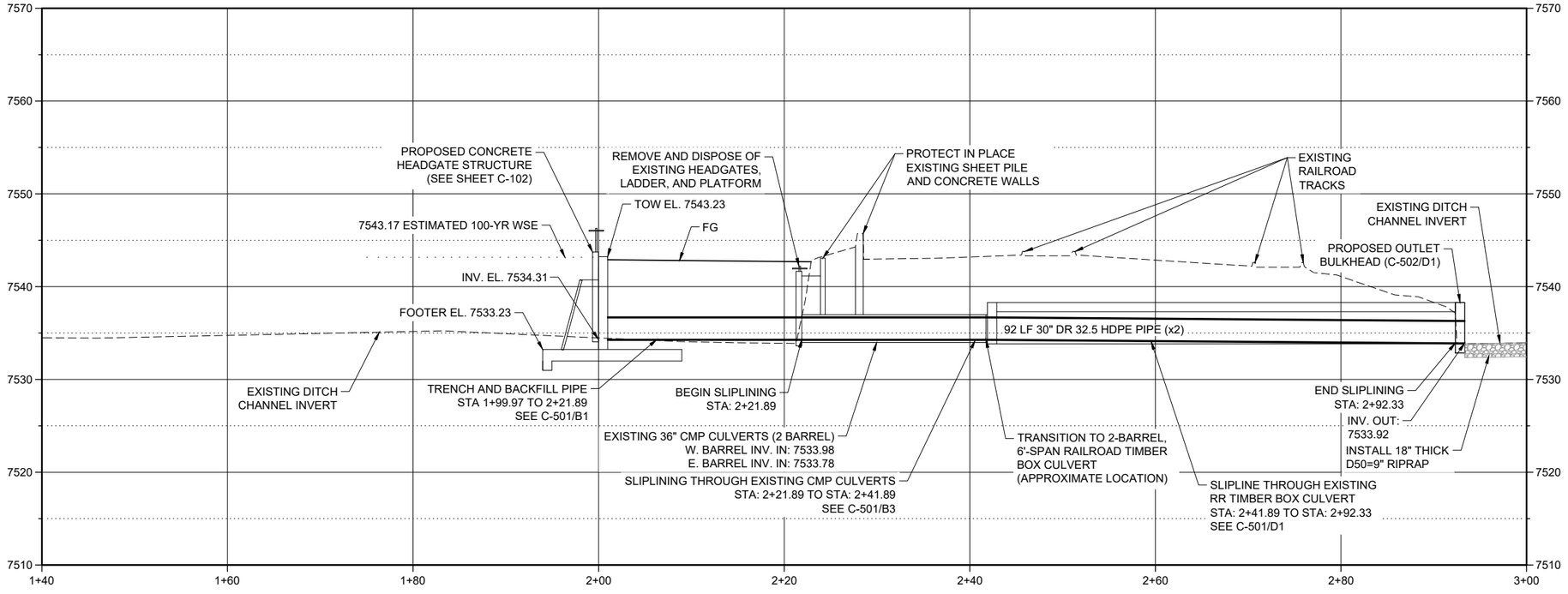
Project	Sheet
38071	C-102
Date: December 2024	
Scale: 1"=2'	



NOTES:

1. EXACT LENGTH AND ELEVATION INFORMATION FOR CMP AND RAILROAD TIMBER BOX CULVERTS (ASIDE FROM CMP INLET AND BOX OUTLET INVERT ELEVATIONS) IS UNKNOWN. DEPICTED PROFILE OF CULVERTS IS SHOWN SOLELY FOR ILLUSTRATIVE PURPOSES.



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PROFESSIONAL ENGINEER STAMP

PRELIMINARY

ALAMOSA RIVERFRONT PROJECT

WESTSIDE DITCH HEADGATE PLAN AND PROFILE

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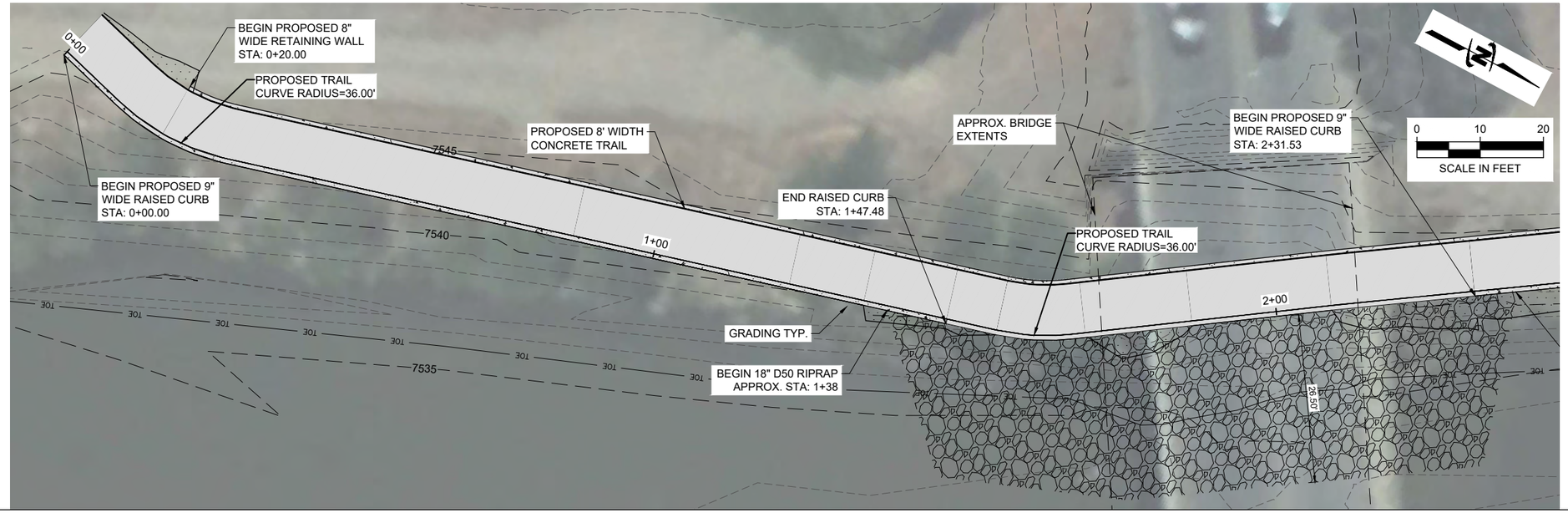
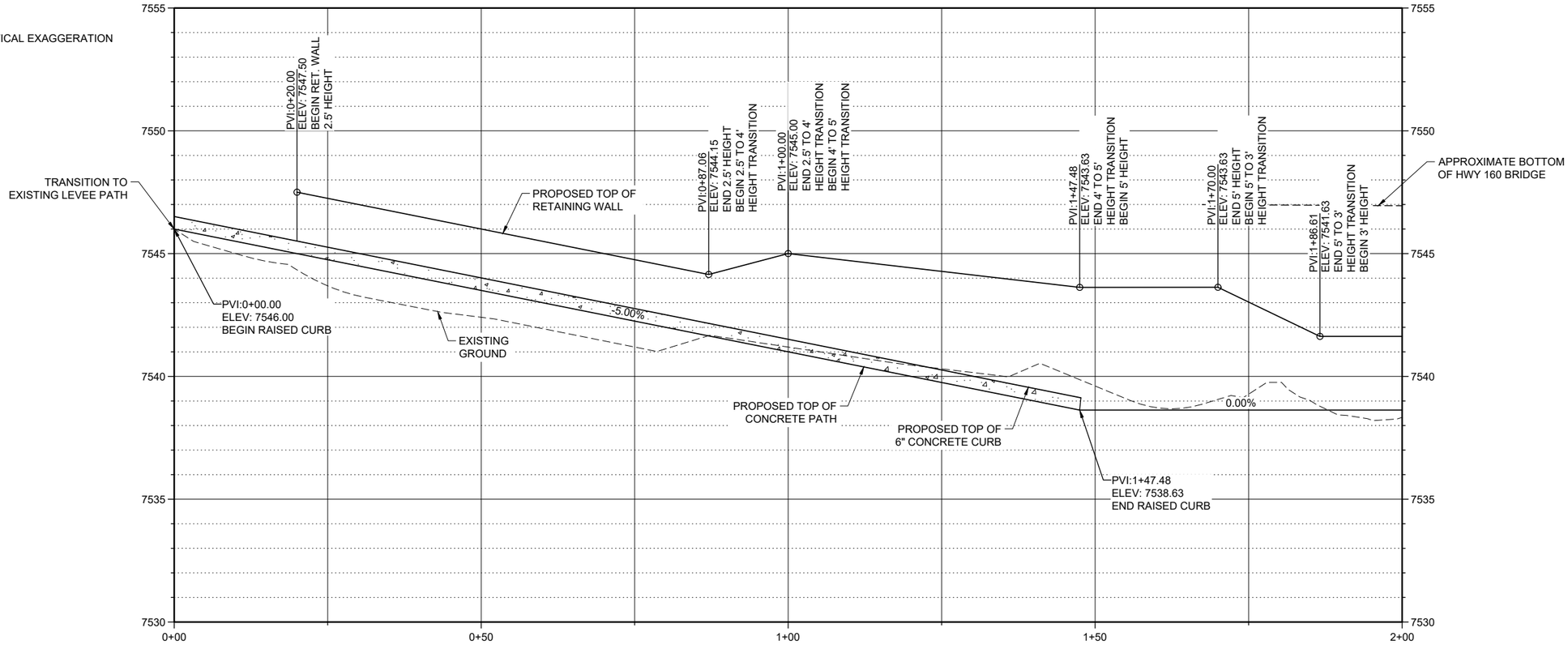
Project	Sheet
38071	C-201
Date: December 2024	
Scale: 1"=7'	

NOTES:
1. ALIGNMENT STATIONING BASED ON RIGHT EDGE OF PROPOSED CONCRETE TRAIL



NOTES:
1. 4x VERTICAL EXAGGERATION



PROFESSIONAL ENGINEER STAMP

PRELIMINARY

ALAMOSA RIVERFRONT PROJECT
HIGHWAY 160 UNDERPASS TRAIL PLAN AND PROFILE

No.	REVISION/UPDATE	Date

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Project	Sheet
38071	C-202
Date: December 2024	
Scale: 1"=10'	

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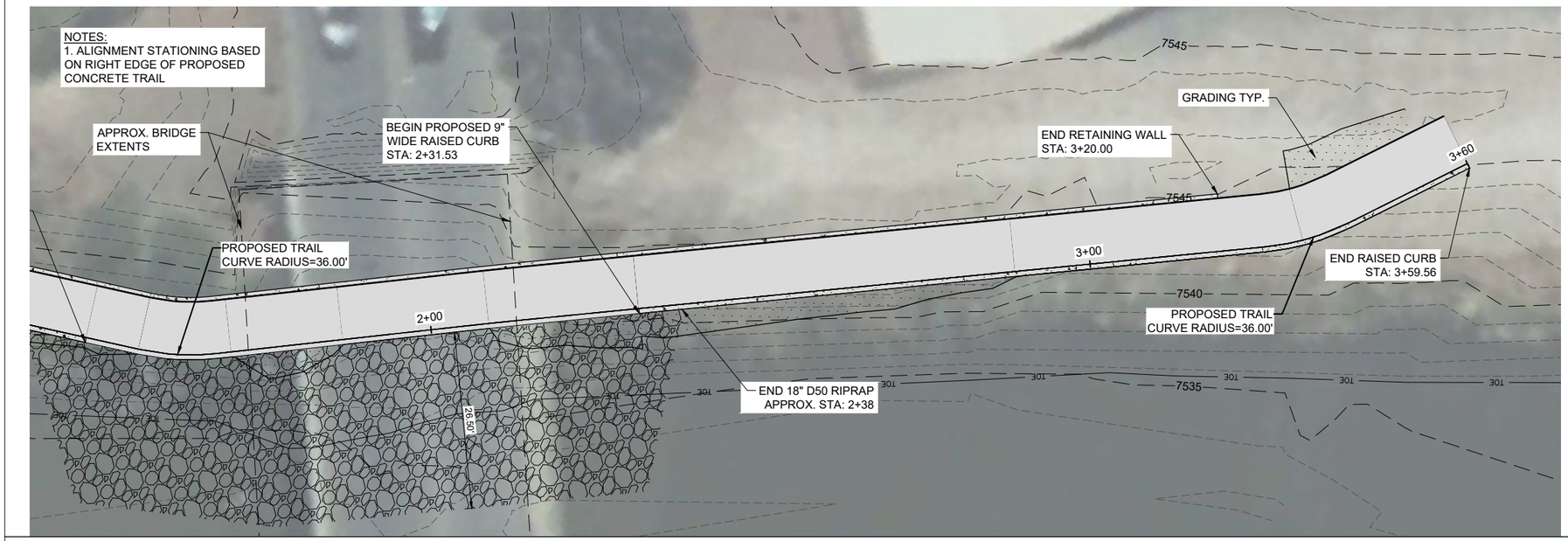
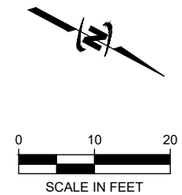
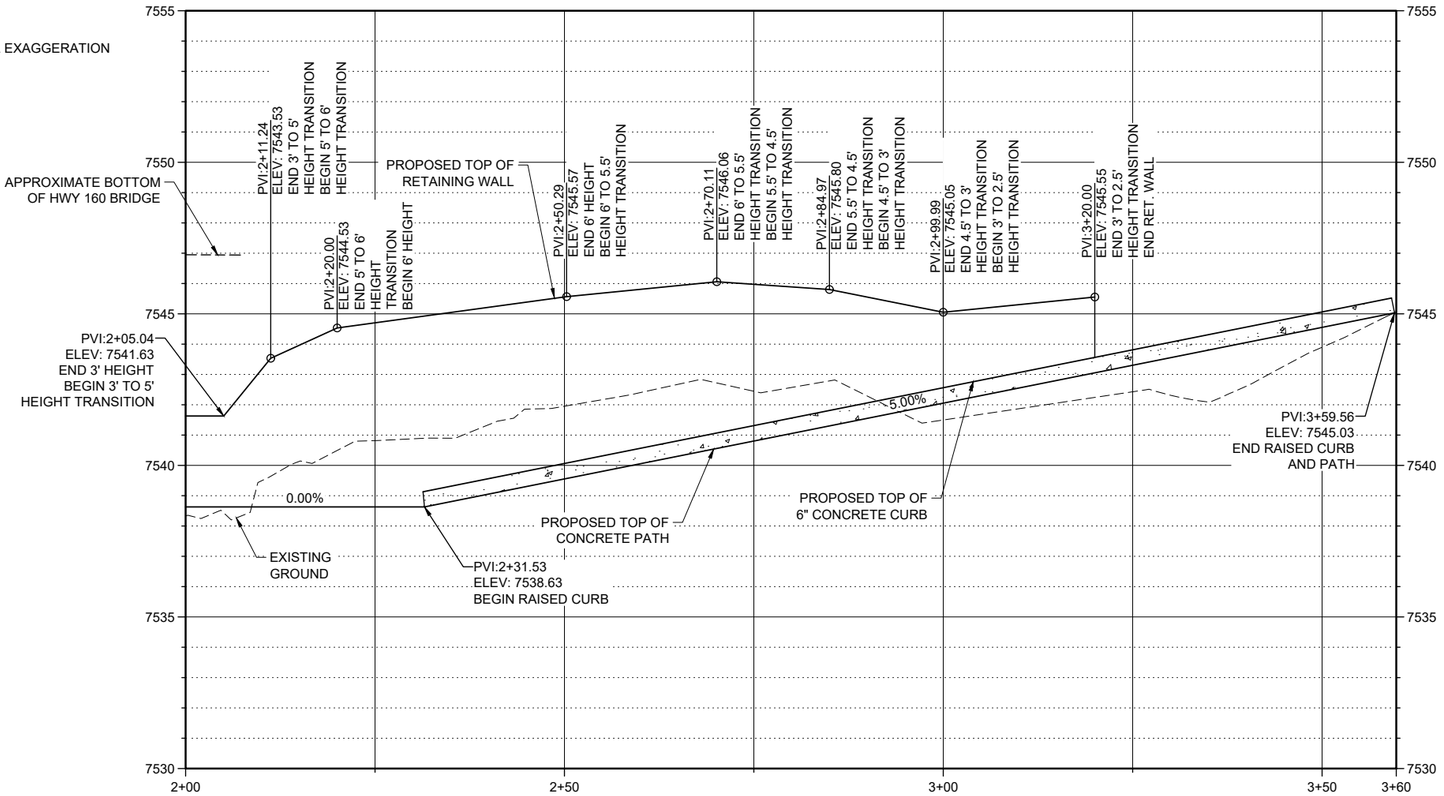




NOTES:
1. 4x VERTICAL EXAGGERATION



PROFESSIONAL ENGINEER STAMP

PRELIMINARY

ALAMOSA RIVERFRONT PROJECT
HIGHWAY 160 UNDERPASS TRAIL PLAN AND PROFILE

No.	REVISION/UPDATE	Date

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Project	Sheet
38071	C-203
Date: December 2024	
Scale: 1"=10'	

PRELIMINARY SET (NOT FOR CONSTRUCTION)

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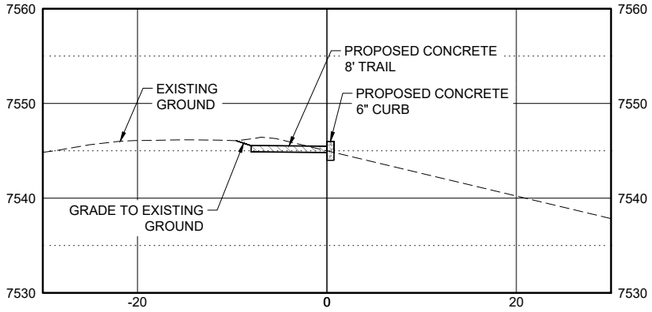

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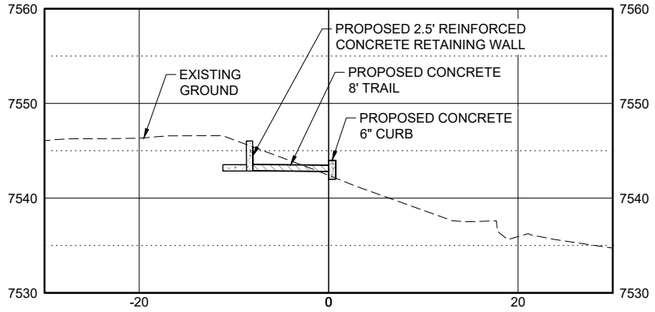

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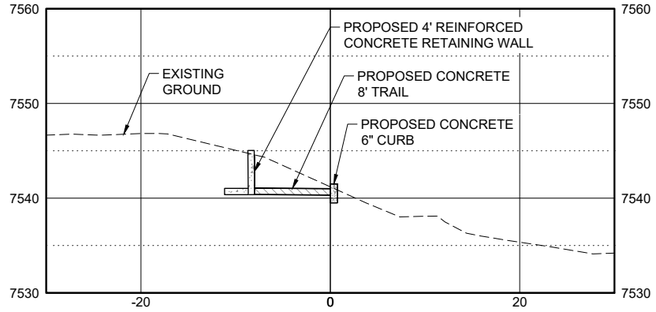

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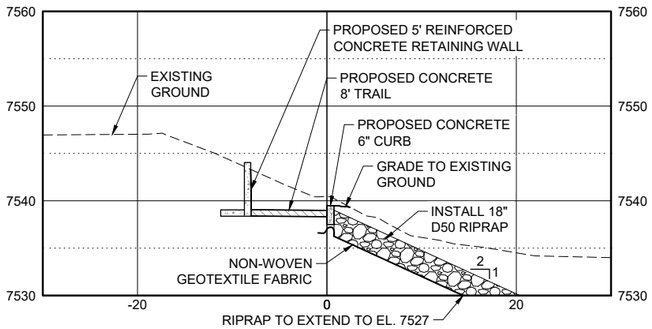

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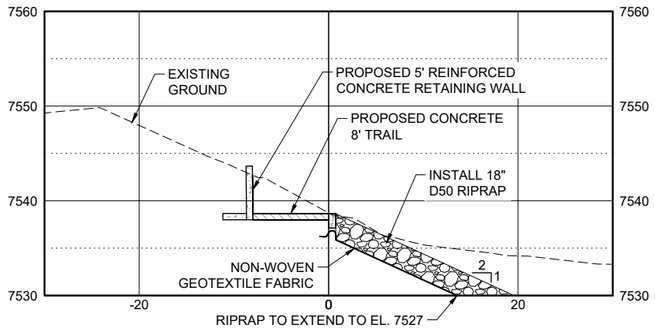

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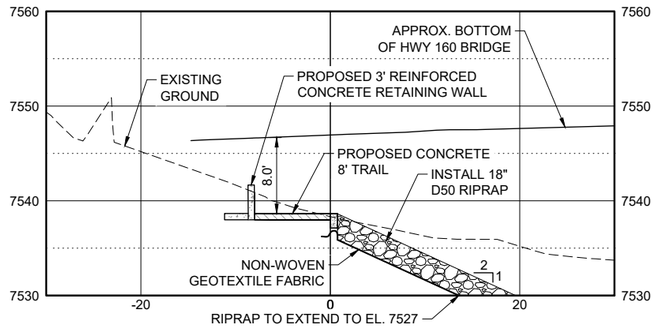

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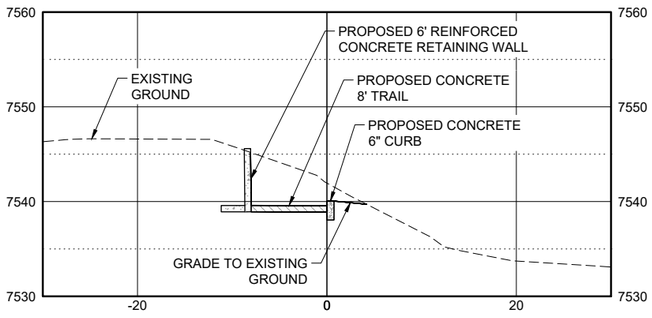

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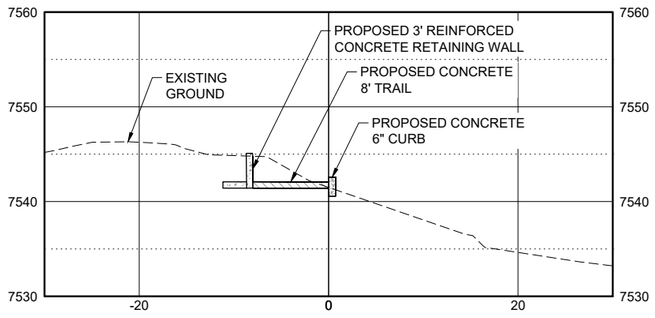

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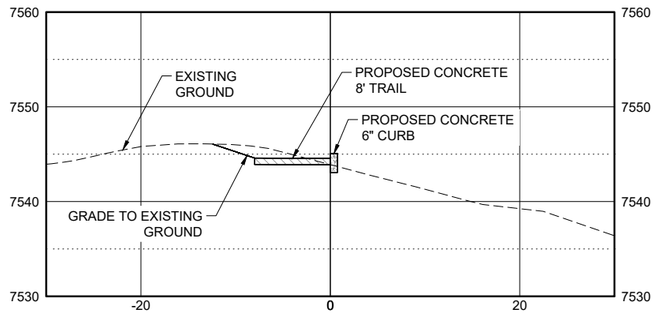

NOTES:
1.PROPOSED 8' WIDTH TRAIL TO BE CONSTRUCTED 8" THICK AND WITH A 0.5% CROSS SLOPE TO PREVENT PONDING.
2.STRUCTURAL DESIGN OF RETAINING WALLS HAS NOT BEEN COMPLETED BUT WILL BE COMPLETED AT FINAL DESIGN STAGE.

PRELIMINARY SET (NOT FOR CONSTRUCTION)

PROFESSIONAL ENGINEER STAMP

PRELIMINARY

ALAMOSA RIVERFRONT PROJECT
HIGHWAY 160 UNDERPASS TRAIL SECTION VIEWS

No.	REVISION/UPDATE	Date

CLIENT NAME AND ADDRESS

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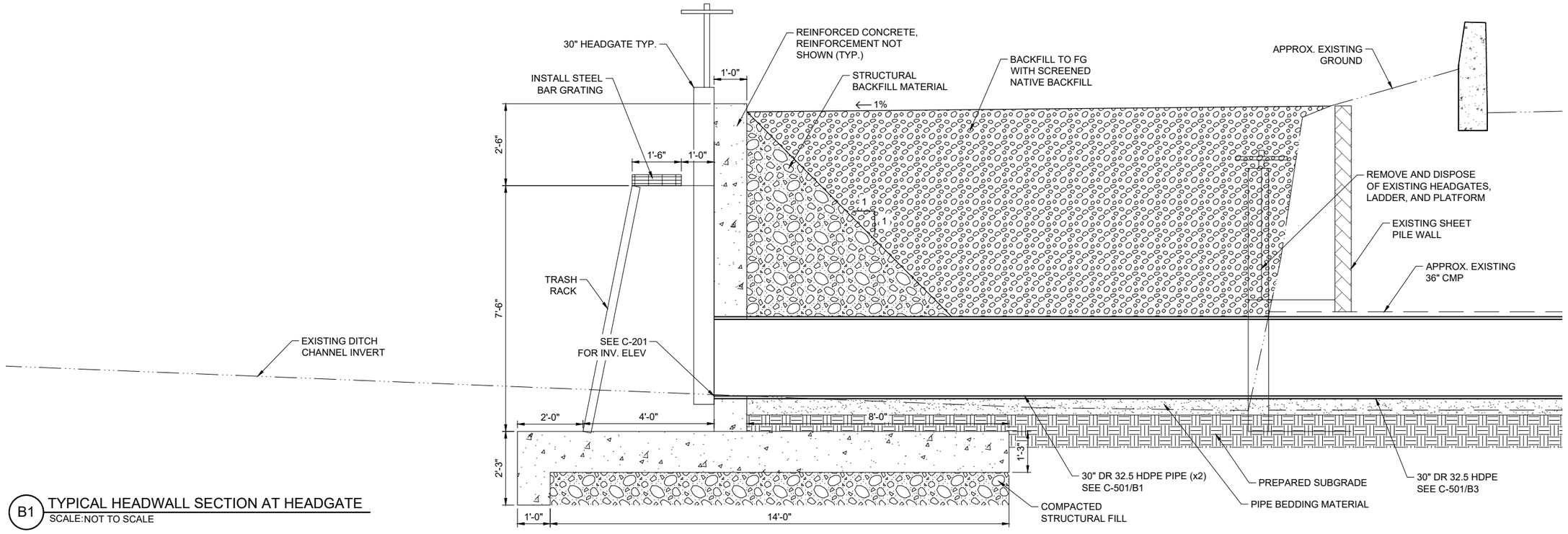
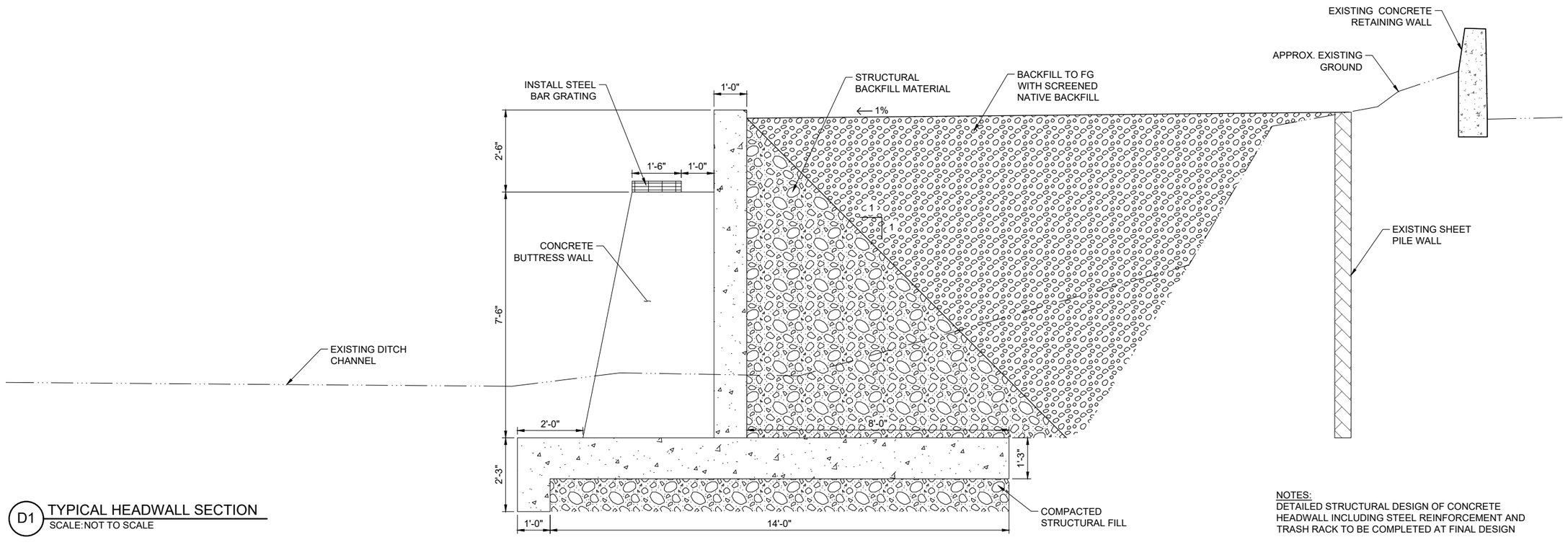
Project	Sheet
38071	C-301
Date: December 2024	
Scale: 1"=8'	



B1 TYPICAL HEADWALL SECTION AT HEADGATE
SCALE: NOT TO SCALE



D1 TYPICAL HEADWALL SECTION
SCALE: NOT TO SCALE

NOTES:
DETAILED STRUCTURAL DESIGN OF CONCRETE HEADWALL INCLUDING STEEL REINFORCEMENT AND TRASH RACK TO BE COMPLETED AT FINAL DESIGN

PRELIMINARY SET (NOT FOR CONSTRUCTION)

PROFESSIONAL ENGINEER STAMP

PRELIMINARY

ALAMOSA RIVERFRONT PROJECT

TYPICAL HEADWALL SECTIONS

No.	REVISION/UPDATE	Date

CLIENT NAME AND ADDRESS

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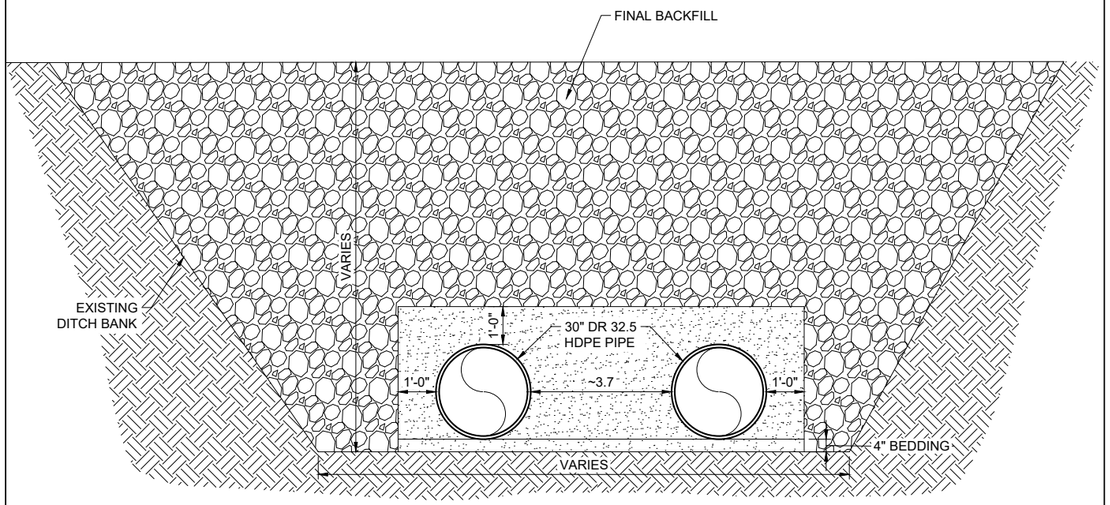
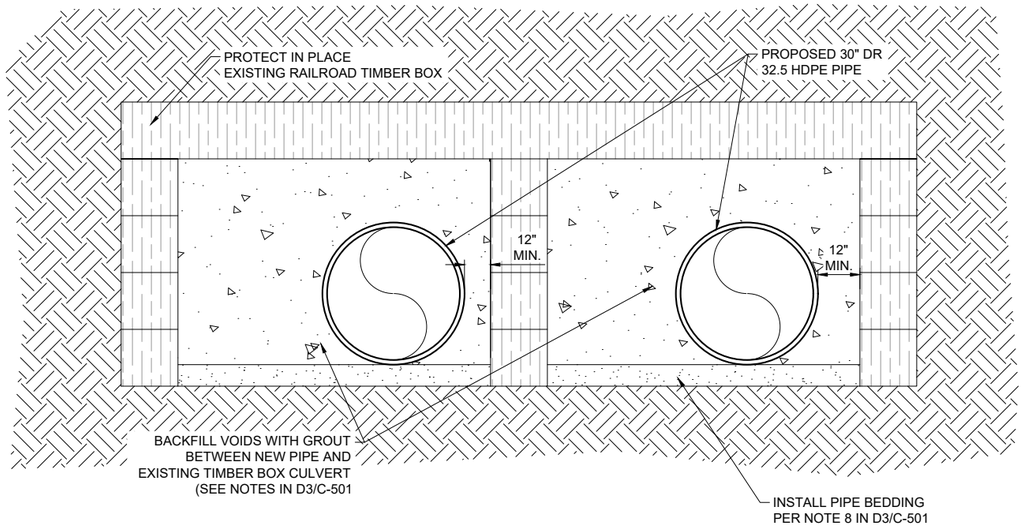
Project	Sheet
38071	C-302
Date: December 2024	
Scale: 1"=20'	

NOTES
1. USE MAXIMUM 1" PARTICLE SIZE FOR PIPE EMBEDMENT
2. FINAL BACKFILL MAXIMUM 6" PARTICLE SIZE



B1 PIPE BEDDING, EMBEDMENT, AND INITIAL BACKFILL DETAIL
SCALE:NOT TO SCALE



D1 PIPE BEDDING, EMBEDMENT, AND INITIAL BACKFILL DETAIL
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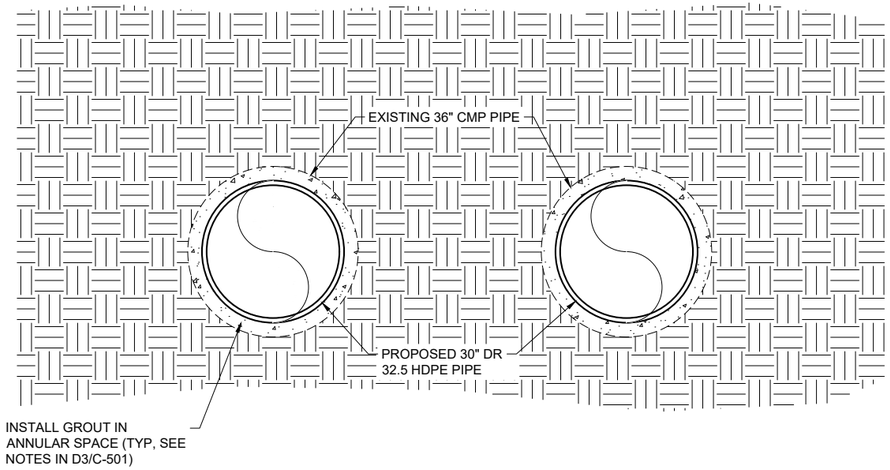

B3 CMP SLIPLINING DETAIL
SCALE:NOT TO SCALE

CMP SLIPLINING NOTES
1. THE CONTRACTOR SHALL DEVELOP AND SUBMIT A GROUTING PLAN TO THE ENGINEER. THE GROUTING PLAN SHALL ADDRESS THE ITEMS BELOW. GROUTING SHALL NOT BEGIN UNTIL THE GROUTING PLAN HAS BEEN APPROVED BY THE ENGINEER. THE ENGINEER WILL HAVE 2 DAYS FOR REVIEW OF THE GROUTING PLAN:
   1.a. THE PROPOSED GROUTING MIX.
   1.b. THE PROPOSED GROUT UNIT WEIGHT AND VISCOSITY.
   1.c. COMPRESSIVE STRENGTH RESULTS (PER ASTM C109) SUPPLIED BY A QUALIFIED INDEPENDENT TESTING LAB VERIFYING THE SPECIFIED MINIMUM 28 DAY GROUT COMPRESSIVE STRENGTH. PREVIOUS TEST RESULTS FOR THE PROPOSED MIX COMPLETED WITHIN ONE YEAR OF THE START OF GROUTING MAY BE SUBMITTED FOR INITIAL VERIFICATION AND START OF PRODUCTION WORK
   1.d. THE GROUT WORKING TIME BEFORE A 15% CHANGE IN VISCOSITY OCCURS.
   1.e. PROPOSED GROUTING METHOD AND PROCEDURES.
   1.f. MAXIMUM INJECTION PRESSURES.
   1.g. PROPOSED GROUT STAGE HEIGHTS AND VOLUMES.
   1.h. BULKHEAD DESIGNS AND LOCATIONS.
   1.i. PRESSURE GAUGE, RECORDER, AND FIELD EQUIPMENT CERTIFICATIONS.
   1.j. THE PROPOSED CASING SPACER TYPE, MODEL, AND LONGITUDINAL SPACING

2. GROUT OPTION 1 (LOW DENSITY FOAM CONCRETE)
   2.a. GROUT SHALL BE COMPOSED OF WATER, CEMENT, FLY ASH (IF REQUIRED), NON-BIODEGRADABLE ADDITIVES (IF REQUIRED), AND A FOAMING AGENT
   2.b. CEMENT SHALL BE TYPE I OR II PORTLAND CEMENT ACCORDING TO ASTM C150
   2.b.a. TYPE IA OR IIA PORTLAND CEMENT IS ACCEPTABLE
   2.c. WATER SHALL BE CLEAN AND NOT DETRIMENTAL TO CONCRETE.
   2.d. FLY ASH SHALL BE CONFORM TO ASTM C618.
   2.e. GROUT SHALL HAVE A UNIT WEIGHT OF BETWEEN 50 PCF AND 70 PCF WHEN TESTED IN ACCORDANCE WITH ASTM C 138
   2.f. GROUT SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 150 PSI AT 28 DAYS WHEN TESTED IN ACCORDANCE WITH ASTM C495
   2.g. THE GROUT WORKING TIME BEFORE A 15 PERCENT CHANGE IN DENSITY OR VISCOSITY OCCURS SHALL BE A MINIMUM OF 2.5 HOURS.
   2.h. THE WATER, CEMENT, FLY ASH (IF REQUIRED) AND ADDITIVES SHALL BE MIXED PRIOR TO ADDING THE FOAMING AGENT.

3. GROUT OPTION 2 (PUMPABLE CEMENT)
   3.a. GROUT SHALL BE COMPOSED OF WATER, CEMENT, AND SAND (IF REQUIRED) AND SHALL BE FREE OF
   3.b. LUMPS AND UN-DISPERSED CEMENT
   3.c. CEMENT SHALL BE TYPE I OR II PORTLAND CEMENT ACCORDING TO ASTM C15
   3.c.a. TYPE IA OR IIA PORTLAND CEMENT IS ACCEPTABLE
   3.d. WATER SHALL BE CLEAN AND NOT DETRIMENTAL TO CONCRETE.
   3.e. GROUT SHALL HAVE A WATER TO CEMENT RATIO OF 0.40 TO 0.60.
   3.f. GROUT SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 150 PSI AT 28 DAYS WHEN TESTED IN ACCORDANCE WITH ASTM C495.

4. EXAMINATION
   4.a. VERIFY THAT EXISTING HOST PIPE AND ANNULAR SPACE SHALL BE FREE FROM WATER, GROUNDWATER AND DEBRIS
   4.b. VERIFY OVALITY OF HOST PIPE AND ENSURE THAT LINER PIPE WITH SPACERS WILL FIT IN HOST PIPE PRIOR TO MIXING GROUT.
5. SLIPLINING
   5.a. INSTALL PIPE SPACERS (AS SHOWN AND SPECIFIED IN PLANS) LONGITUDINALLY ALONG THE PIPE. REST PIPE ON GROUND PRIOR TO PULLING THROUGH HOST PIPE TO ENSURE SPACING IS SUFFICIENT TO PREVENT SAG BETWEEN SPACERS.
   5.b. PULLING ASSEMBLED LINER PIPE THROUGH HOST PIPE, ORIENTING SPACERS SUCH THAT LINER PIPE BARREL IS NOT DRAGGED ALONG GROUND OR HOST PIPE.

6. GROUT PREPARATION, PUMPING, AND PLACING
   6.a. NOTIFY /ENGINEER MINIMUM 24 HOURS PRIOR TO COMMENCEMENT OF OPERATIONS.
   6.b. GROUT INJECTION TUBES AND BREATHER TUBES SHALL BE INSTALLED IN ACCORDANCE WITH GROUTING PLAN.
   6.c. APPLY BULKHEADS IN ANNULAR SPACE AT BOTH ENDS WITH INJECTION AND BREATHER TUBES INSTALLED PRIOR TO GROUTING IN ACCORDANCE WITH GROUTING PLAN.
   6.d. GAUGED PUMPING PRESSURE SHALL NOT EXCEED 5 PSI.
   6.e. MIX GROUT PRIOR TO INTRODUCING FOAMING AGENT (IF USING GROUT OPTION 1)
   6.f. MAINTAIN RECORDS OF CONCRETE PLACEMENT. RECORD DATE, LOCATION, QUANTITY, AIR TEMPERATURE, MAXIMUM PUMPING PRESSURE, AND PUMPING TIME.
   6.g. ENSURE INJECTION TUBES FILL WITH GROUT AND THAT HIGHEST BREATHER TUBE RETURNS GROUT PRIOR TO PUMPING TERMINATION.

WOODEN BOX CULVERT SLIPLINING
7. INSTALL GROUT PER REQUIREMENTS OF CMP SLIPLINING NOTES.
8. PIPE BEDDING: BED PIPE TO ELEVATIONS SHOWN IN PLANS USING LEVEL EMBEDMENT MATERIAL TO PROVIDE CONTINUOUS FIRM SUPPORT ALONG LENGTH OF PIPE.
   8.a. EMBEDMENT MATERIAL SHALL BE TYPE A4 OR IMPORTED EMBEDMENT TYPE A3. LIMIT PARTICLE SIZE TO 1"
9. PIPE SECUREMENT: SECURE PIPE IN BOX CULVERT USING BALLAST OR OTHER APPROVED BRACING PRIOR TO GROUTING.
   9.a. BALLAST: FILL THE PIPE WITH CLEAN POTABLE WATER.
   9.b. BRACING: WOOD, STEEL, OR OTHER SYSTEM THAT IS RIGID UNDER THE IMPOSED LOADS AND DOES NOT DAMAGE THE CARRIER PIPE.
10. WOODEN BOX CULVERT SHALL BE DEWATERED CONTINUOUSLY PRIOR TO PLACEMENT OF BEDDING MATERIAL THROUGH REMOVAL OF BULKHEADS.
11. HDPE CULVERT PIPES SHALL BE PLACED AT MINIMUM 12" FROM EDGE OF RAILROAD TIMBER BOX. PIPES SHALL BE LATERALLY RESTRAINED BY ENGINEER-APPROVED METHOD IF NECESSARY.

D3 PIPE INSTALLATION NOTES
SCALE:NOT TO SCALE

PRELIMINARY SET (NOT FOR CONSTRUCTION)

PROFESSIONAL ENGINEER STAMP

PRELIMINARY

ALAMOSA RIVERFRONT PROJECT
WESTSIDE DITCH HEADGATE CULVERT SECTION DETAILS

No.	REVISION/UPDATE	Date

CLIENT NAME AND ADDRESS

Rio Grande Headwaters Restoration Project
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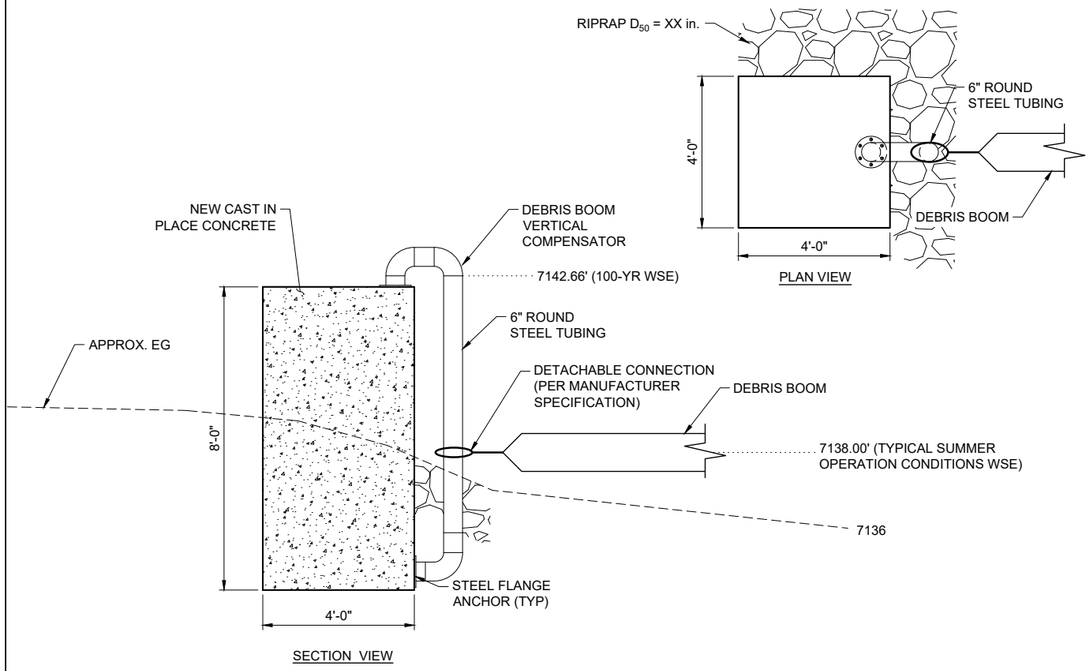
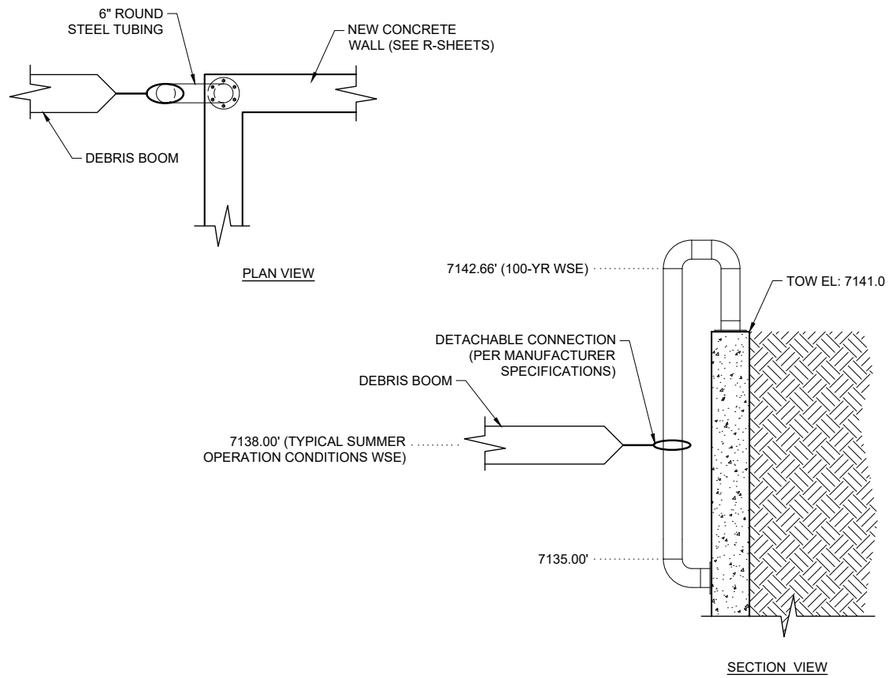
Project	Sheet
38071	C–501
Date: December 2024	
Scale: AS NOTED	



B1 DEBRIS BOOM ANCHOR (DITCH BANK CONNECTION)
SCALE:NOT TO SCALE



B3 DEBRIS BOOM ANCHOR (DIVERSION WALL CONNECTION)
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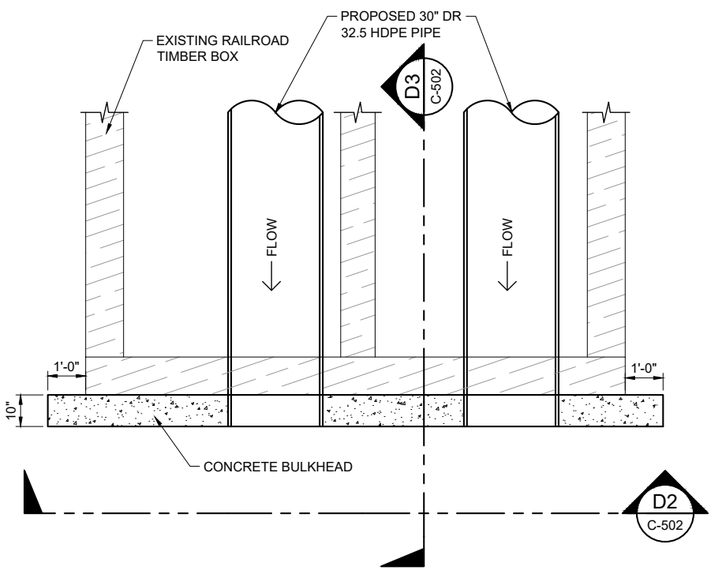
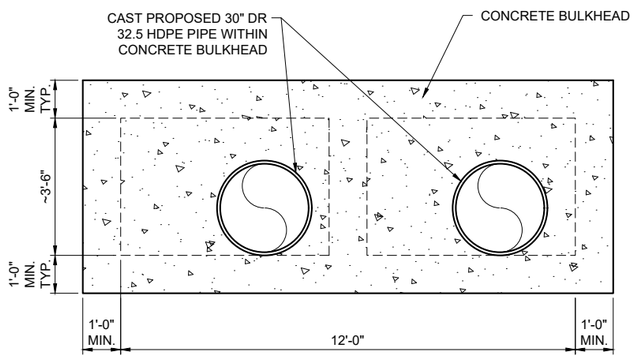
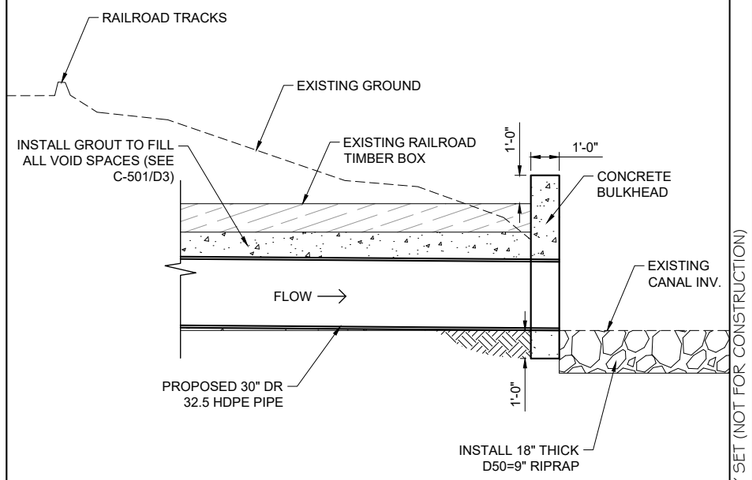


D1 OUTLET BULKHEAD PLAN
SCALE:NOT TO SCALE



D2 OUTLET BULKHEAD ELEVATION
SCALE:NOT TO SCALE



D3 OUTLET HEADWALL SECTION
SCALE:NOT TO SCALE

PRELIMINARY SET (NOT FOR CONSTRUCTION)

PROFESSIONAL ENGINEER STAMP

PRELIMINARY

ALAMOSA RIVERFRONT PROJECT
WESTSIDE DITCH HEADGATE
DEBRIS BOOM ANCHOR DETAILS

No.	REVISION/UPDATE	Date

CLIENT NAME AND ADDRESS

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Project	Sheet
38071	C-502
Date: December 2024	
Scale: AS NOTED	

PLANTING NOTES

1. The Contractor shall be familiar with the planting and irrigation technical specifications -- failure to do so will not relieve the contractor of his responsibility to fulfill all requirements in said specifications.

2. Prior to any planting operations, the irrigation system shall be fully operational and all planting areas shall be thoroughly moistened.

3. The planting plan is diagrammatic, and all plant locations are approximate. Plant symbols and mulch hatches on the plans take precedence over quantities shown in the Plant Material Schedule. The Contractor shall verify all quantities and notify the Landscape Architect of any discrepancies between the quantities listed and the symbols shown. The Plant Material Schedule is for the Contractor's convenience only.

4. No substitution of size, grade, variety or any species shall be permitted except by written permission of the Landscape Architect. Upon receiving Notice to Proceed, the Contractor shall provide written proof that the specified plant material is available and has been secured or reserved specifically for this project. Obtain nursery stock and other plant materials from reliable and stable sources prior to order and delivery.

5. Final Grade Preparation
   A. The subgrade Material Shall be rough graded to plus or minus one tenth (+0.1) foot of the final rough grade, which will allow the Contractor to achieve final finished grade through the placement of the topsoil.
   B. Protect existing trees, shrubs, lawns, existing structures, fences, roads, sidewalks, paving, curb and gutter and other features during Construction.
   C. Protect above or below grade utilities. Contact utility companies to repair damage to utilities. Contractor shall pay all cost of repairs which he causes.
   D. Maintain all benchmarks, control monuments and stakes, whether newly established by surveyor or previously existing. Protect from damage and dislocation.
   E. Grading Intent: Spot elevations and contours indicated are based on the best available data. The intent is to maintain constant slopes between spot elevations.
   F. Conduct work in an orderly manner. Do not create a nuisance. Do not permit soil accumulation on streets or sidewalks. Do not allow soil to be washed into sewers and storm drains.
   G. Grade slopes to provide adequate drainage after compaction. Do not create water pockets or ridges. Use all means necessary to prevent erosion of freshly graded areas during construction until surfaces have been constructed and landscaping areas have taken hold.
   H. Grades shall be smooth, even, and maintain a consistent uniform slope. Grades with undulating surfaces will be rejected and require re-grading.
   I. The Contractor shall maintain a minimum of two (2) percent drainage away from all buildings, structures, and walls. Finished grades shall be smoothed to eliminate puddling or standing water.
   J. All finished grades shall be approved by the Landscape Architect prior to installation of any plant materials.

6. All planting areas shall receive a minimum of four (4) inches of imported topsoil in turf areas and twelve (12) inches in planting beds. All topsoil used on this project shall meet the following criteria:
   A. pH:.....5.5 - 8.0
   B. EC (electrical conductivity):.....<2.0 mmhos per centimeter
   C. SAR (sodium absorption ratio):.....<3.0
   D. % OM (percent organic matter):.....2%
   E. Texture (particle size per USDA classification):
      I. Sand:..... <70%
      II. Silt:.....<70%
      III. Clay:.....<30%
      IV. Stone Fragments (gravels or any soil particle Greater than two (2) mm in size):.....<5% (by volume)
      V. Rocks > 1.5".....None

   In addition, the topsoil shall be fertile, friable, natural loam and shall be capable of sustaining vigorous plant growth. It shall be free of stones, lumps, clods of hard earth, plants or their roots, sticks, and other extraneous matter. The topsoil shall contain neither noxious weeds nor their seeds. It shall not be used for planting operations while in a frozen or muddy condition. An appropriate fertilizer and mycorrhizae inoculant may be used to provide needed nutrients for healthy and vigorous plant growth. Follow recommendation of topsoil report.

7. The following procedure shall be followed in placing all topsoil:
   A. All areas to receive topsoil which have a slope of less than ten (10) percent shall be cross-ripped to a depth of four (4) to six (6) inches.
   B. The surface of the subgrade shall be scarified to a depth of two (2) inches to provide a transition zone between the subgrade and the topsoil. Place the topsoil on the subgrade and fine grade to the final finished grade and topsoil depths as indicated on the drawings and in these notes.
   C. Any required soil amendments (i.e. organic matter, fertilizer, gypsum, etc.) shall be thoroughly blended with imported or screened topsoil prior to placement. (Do not place amendments on top of topsoil and then blend.) Where only a dry, granular fertilizer is to be added, it may be applied to the surface and raked in during the fine grading process.

8. The Contractor shall obtain a soil analysis from any authorized soil testing agency of any existing stockpiled or imported topsoil to be used on the project to verify that it conforms to the topsoil specifications. Test results shall include horticultural nutrient recommendations. The soil samples shall be obtained per the testing agency directions. Allow ten (10) working days to obtain test results. The costs for such testing shall be the responsibility of the Contractor. Prior to delivery of the imported topsoil to the site, the Contractor shall provide to the Landscape Architect the name and location of the topsoil source, along with the certified soil analysis of the topsoil to be used. The analysis shall verify that the proposed topsoil meets the topsoil specifications, and is capable of supporting healthy plant growth.

9. After imported top soil has been delivered to the site, a second soils test may be required to verify that it is indeed the same soil as previously tested and designated for use in this project. No substitution of top soil shall be allowed without prior written authorization from the Landscape Architect.

10. All plants used for this project shall conform to the following:
   A. Any inspection certificates required by law shall accompany each delivery of plants and such certificate shall be filed with the Landscape Architect. All plants shall be subject to inspection and approval at the place of growth or upon delivery to the site for their quality, size, species, and variety. Such approval shall not impair the right of inspection and rejection at the site or during progress of work for size and condition of the plants, latent defects, or injuries. Any and all rejected plants shall be removed immediately from the premises by the Contractor. The Contractor shall make all replacements at his expense should he fail to comply in full with any of the specifications. Necessary replacements will be made as soon as weather conditions permit and all such plants replaced shall conform to all specifications herein.
   B. Plants shall be fresh and vigorous, of normal habit and growth, and free of disease, insects and insect eggs and insect larvae, weeds and weed seed. No heeled-in plants from cold storage shall be accepted except on approval by the Landscape Architect prior to installation.

11. All plants shall be installed using the following procedures:
   A. Plants shall be generally located as indicated by the drawing. The Contractor shall stake out the location of all plants and planting areas, and no excavation or installation shall commence until such locations have been approved by the Landscape Architect.
   B. All trees and shrubs shall be planted in pits as detailed in the planting details contained herein or as noted on the drawings. Tree and shrub pits shall be circular in outline, with 45° angled sides and the base diameter of the plant pit at least two (2) times the diameter of the rootball of each plant to be installed. They shall be one to two and one half (1 - 2 ½) inches shallower than the rootball depth. When the plant is properly placed in the plant pit, the root collar shall be at or approximately one (1) inch above finished grade. The sides of the plant pit shall be roughened, and not smooth or sculpted.
   C. All plant and tree pits shall be backfilled with imported topsoil mix and required amendments. See Notes 6 and 7.
   D. For container grown plants, remove the container and place the plant vertically in the plant pit, directly on undisturbed soil. The root crown or collar shall be at or approximately one (1) inch above the finished grade. Perennial plants and ornamental grasses shall be planted with root collar at finished grade.
   E. For balled and burlapped plants, place the plant vertically in the center of the pit, with the rootball resting on undisturbed soil. Cut and remove the wire basket and burlap or other wrapping material from the rootball. This may be done with the rootball in the pit. Any burlap or wire pieces underneath the rootball may be left in place if they cannot be removed. Do not fold the burlap over, but cut away as much as possible without disturbing the rootball. No burlap shall be pulled from under the rootball. Backfill the bottom one third (1/3) of the pit as the wire and burlap are removed. In all cases, maintain the integrity of the rootball.
   F. Specified backfill material shall be carefully and firmly worked and tamped under and around the rootball to fill all voids. When backfilled and compacted to two thirds (2/3) the depth of the pit, thoroughly water with a hose to completely soak the roots and remove any air pockets.
   G. The plant pit shall then be completely backfilled with the specified backfill mix and tamped well. A shallow watering basin or rain cup shall be formed around each plant. This basin will be equal in diameter to that of the original planting pit.
   H. After planting, the following operations shall be performed:
      I. Stake and mulch all trees per installation details.
      II. Remove all nursery stakes ties, and tags from all plants. Prune and remove any dead, damaged, or broken branches. Maintain side growth on all trees.

12. Staking shall be performed as follows:
   A. Tree staking is only required if necessitated by consistent high winds on site to prevent trees from blowing/tipping over. For bidding purposes, include staking for all trees. During construction the owner, landscape architect, and contractor shall determine if tree staking should be provided. Should staking not be required, contractor shall provide a credit to the owner equal to associated materials and labor costs.
   B. Two (2) 2"x 2" square or 2" diameter round wood stakes, minimum ten (10) feet in length, shall be used to support each tree planted under this contract unless otherwise indicated. Metal t-posts shall not be used.
   C. Tree ties shall conform to the staking detail shown on the planting detail sheet. Wire and vinyl hose shall not be used.
   D. Each stake shall be located adjacent to the rootball, on opposing sides, to provide maximum support to the trunk. Do not penetrate the rootball with the stake.
   E. The stakes shall be driven into the pit bottom after the tree has been placed in the pit, but before backfilling begins so as to avoid damage to the roots.
   F. Stakes and ties shall be removed after one (1) full growing season from the time the tree was installed.

13. All plants shall be thoroughly watered immediately after planting. This shall mean full and thorough saturation of all backfill in the pits and beds during the same day of planting. Water shall be applied only by open end hose at very low pressure to avoid air pockets, injury to the plant, or washing away of backfill. When installed, watered, and fully settled, the plants shall be vertical. Subsequent watering shall be provided by the site's irrigation system. The Contractor shall ensure that all plants, especially trees, receive sufficient water to maintain healthy growth and vigor. Over-watering shall be avoided, and prolonged saturation of the soil around the trees shall be eliminated by appropriately controlling the irrigation circuit which provides water to that area.

16. For projects with turf grass sod, all sod used for this project shall be free of grassy and broad-leaf weeds, contain no bare or burned spots, and be clean and strongly rooted. It shall be of the varieties noted in the plans and Plant Material Schedule. The sod shall be cut using approved methods and equipment. It shall be cut in pieces not exceeding one (1) square yard, with a uniform thickness on all pieces. Sod thickness may vary between a minimum of one (1) inch and maximum one and one half (1 ½) inches, but must be consistent throughout this project. The Contractor shall notify the Landscape Architect of the source of the sod prior to placement. The sod shall be stripped and delivered to the site not more than twenty four (24) hours prior to laying. It shall be maintained in a moist and healthy condition to encourage immediate growth.

17. The following procedure shall be followed when installing the sod:
   A. Lay the sod on smooth, moist topsoil, working off planks if required.
   B. Rake the topsoil to loosen and level prior to placing each course of sod.
   C. Lay strips perpendicular to the direction of the slope. Strips shall be parallel to each other, with their end seams staggered. The sod shall be neither stretched nor overlapped, and all joints shall be butted tightly together.
   D. Roll the sod immediately after placing and thoroughly water with a fine spray to a depth sufficient that the underside of the new sod and the soil immediately below the sod are thoroughly wet.
   E. On slopes two (2) horizontal to one (1) vertical or steeper, lay the sod perpendicular to the slope and secure every row with wooden pegs at two (2) feet maximum on center. Drive the pegs flush with the soil portion of the sod.
   F. Sod pieces shall be laid tightly together. Sod areas with gaps caused by pieces not being laid tightly enough together or areas with ridges from overlapping pieces shall not be accepted and the Contractor will be required to re-lay the sod.

18. For projects with grass seed, hydroseeding shall conform to the following general standards:
   A. Wood fiber mulch shall be Echofiber or Conwed or equal, that is virgin wood fiber, free of growth--or germination--inhibiting substances. The mulch shall be air dried with not more than fifteen (15) percent moisture by weight. The total organic weight shall be a minimum of ninety eight (98) percent. Inorganic ash content shall be 0.7±0.2 percent. Water holding capacity shall be 1000G/100G (oven dried weight). The pH range shall be 4.0 - 6.0. The fiber length shall meet the following:
      I. Fifty (50) percent shall be at least 0.15 inches in length or longer.
      II. Fifty (50) percent shall be retained on the twenty eight (28) mesh screen.
   B. The seed mix shall be as specified on the plans. Provide written certification that the seed conforms to state seed law and is in compliance with State Department of Agriculture regulations.
   C. The tackifier shall be M-Binder or Plantego or equal.
   D. Application rates shall be as follows:
      I. Wood fiber mulch..... 50 pounds (min.)/1,000 SF
      II. Seed mix (see plans).....(7 pounds/1,000 SF typ.)
      III. Tackifier..... 100 pounds/Acre
      IV. Fertilizer..... 7 - 8 pounds/1,000 SF
      V. Water..... 92 gallons/1,000 SF

19. One-step preparation and application of hydroseed mulch shall be as follows:
   A. The wood fiber mulch, seed, tackifier, fertilizer, and water shall be mixed together in a hydroseeding machine having a capacity of at least two thousand (2,000) gallons to allow for homogeneous slurry which is thoroughly mixed and can be applied easily without clogging. The machine shall be mounted on a traveling unit which is either self-propelled or drawn by a separate unit. Equipment used in the hydroseeding process shall be thoroughly cleaned of all seed and other materials used in any previous hydroseeding process, prior to hydroseeding on this project.
   B. The equipment shall have a built in agitation system and operating capacity sufficient to agitate, suspend, and homogeneously mix a slurry containing not less than fifty (50) pounds of organic mulching amendment plus chemical additives and solids for each one hundred (100) gallons of water.
   C. The slurry shall be prepared at the site and its components shall be mixed to supply the rates of application as specified. The slurry preparation shall begin by adding water to the tank when the engine is at one half (½) throttle. The engine throttle shall be open to full speed when the tank is one half (½) filled with water. All organic amendments, fiber, and chemicals shall then be added by the time the tank is two thirds (2/3) to three fourths (3/4) full. At this time and not before, the seed mix shall also be added. Spraying shall commence immediately when the tank is full and the slurry is mixed.
   D. Apply the hydroseed to form even appearing cover over the required areas. The slurry shall be applied in a downward drilling motion via a fan stream nozzle. It is important to ensure that all of the components enter and mix with the soil. Use only qualified and trained personnel to ensure uniformity of the hydroseed applications.
   E. The hydroseeding slurry components shall not be left in the hydroseed machine for more than two (2) hours in order to avoid seed deterioration.

20. Throughout the course of planting, excess and waste materials as well as excavated subsoil shall be continuously and promptly removed. All areas shall be kept clear and all reasonable precautions taken to avoid damage to existing structures, plants, and grass. When planting has been completed in an area, it shall be thoroughly cleaned of all debris, rubbish, subsoil, and waste materials. These shall be removed from the property and disposed of legally. All planting tools shall also be put away.

21. Substantial Completion shall be defined as the complete installation of all plant materials, staking, mulching, and other work on the project in its entirety. Substantial completion shall not be given on designated portions of a project.
   A. At substantial completion of all planting work outlined in these plans, the Contractor shall contact the Landscape Architect to arrange for a walk through to verify that all aspects of the work have been completed. Work must be fully completed (except for final clean-up) according to all plans, notes, and specifications and exhibit professional workmanship.
   B. Notice by the Contractor shall be given, in writing, at least three (3) days in advance to the Owner's Representative and Landscape Architect so that proper scheduling can be made for those who are to attend.
   C. At the appointed time, an inspection of all plant materials, including staking and mulching, shall be made.
   D. A list of uncompleted items (punch list) shall be generated by the Landscape Architect and distributed to the Contractor and other involved parties within three (3) days of the substantial completion inspection. Each item on the punch list shall be corrected before the project will be approved and accepted by the Owner's representative. The Contractor will be back charged for time spent by the Owner and any consultants who have been brought to the site for a final inspection when the project is not ready for said inspection.

22. The maintenance/establishment period shall begin one (1) day after the substantial completion inspection. The Contractor shall complete all punch list items during this period, as well as maintain and operate the entire irrigation system. The Contractor shall maintain all plantings until the turf is fully established. The turf shall be considered fully established when turf grass stands come in uniform and thick, with no bare or thin spots, and roots have begun to spread and knit together. No weeds shall be allowed in the grass areas. The maintenance and establishment shall be a minimum period of sixty (60) days (or greater if so identified in the technical specifications), and shall take place during the growing season defined as April 15th through October 15th. Should the maintenance and establishment period not be fully complete prior to October 15th, the balance of the time shall be carried over and start up again on April 15th. Should mild winter weather allow the continuance of work beyond October 15th, the contractor, owner, and landscape architect may mutually agree if these dates can be adjusted along with specific requirements to do so. The maintenance work required shall include but not be limited to the following:
   A. Appropriate watering of all plant materials.
   B. Weeding and removal of all weeds from groundcover and planting areas.
   C. Replacement of any dead, dying, or damaged trees, shrubs, perennials, or groundcover.
   D. Filling and replanting of any low areas which may cause standing water.
   E. Adjusting of sprinkler head heights and watering patterns.
   F. Filling and re-compaction of eroded areas, along with any required re-seeding and/or replanting.
   G. The turf grass shall be mowed when the blades reach three (3) inches tall and maintained to a minimum height of two (2) inches. No more than one third (1/3) of the blade shall be removed per cutting. The cutting frequency shall be once every five (5) to seven (7) days depending upon turf grass height and growth rate.
   H. Weekly removal of all trash, litter, clippings, and all foreign debris.
   I. At thirty (30) days after planting, a balanced fertilizer (16-16-16) shall be applied to the turf grass areas at a rate of one half (½) pound of nitrogen per one thousand (1,000) square feet.
   J. At intervals of thirty (30) days after the first application of fertilizer to the turf grass, apply a balanced fertilizer (16-16-16) at a rate of one half (½) pound of nitrogen per one thousand (1,000) square feet until the turf grass is established.

23. A final inspection shall be held prior to the end of the maintenance period to ensure that all punch list items have been completed and the entire project is ready for acceptance by the Owner. Upon satisfaction that the Contractor has completed all punch list items, the irrigation system is fully and completely functional, and the required As-Built drawings and maintenance manuals have been submitted, the Owner shall accept the project. An official letter of final acceptance shall be prepared and issued to the Contractor, Landscape Architect, and the Owner's representative. Upon final acceptance of the project by the Owner's representative, the Owner shall assume full responsibility for the project, and the guarantee period shall begin.

24. Upon final acceptance of the project as being properly installed, the Contractor shall guarantee the plant materials as follows:
   A. All shrubs and groundcovers shall be guaranteed by the Contractor as to growth and health for a period of sixty (60) days after completion of the maintenance period and final acceptance.
   B. All trees shall be guaranteed by the Contractor to live and grow in an acceptable upright position for a period of one (1) year after completion of the maintenance period and final acceptance.
   C. Any tree with 30% dead or missing canopy, shall be replaced as part of this plant guarantee.

25. The Contractor shall, within fifteen (15) days after receiving written notification by Owner's representative, remove and replace all guaranteed plant materials which die or become unhealthy or appear to be in a badly impaired condition at any time during the guarantee period. Any plants that settle below or rise above the desired finished grade shall also be reset to the proper grade.
   A. All replacements shall be plants of the same kind, size, and quality as originally specified in the "plant list" and they shall be furnished, planted, staked, and maintained as specified herein at no additional cost to the owner.
   B. The Contractor will not be responsible for plants destroyed or lost due to occupancy of the project, vandalism on the part of others, or improper maintenance or lack thereof.

PRELIMINARY SET (NOT FOR CONSTRUCTION)

PROFESSIONAL ENGINEER STAMP

PRELIMINARY

ALAMOSA RIVERFRONT PROJECT
LANDSCAPE NOTES

No.	REVISION/UPDATE	Date

CLIENT NAME AND ADDRESS

Rio Grande Headwaters Restoration Project
623 4th Street
Alamosa, CO 81101
www.riograndeheadwaters.org
(719) 589-2230

DESIGN FIRM NAMES AND ADDRESSES

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RiverRestoration.org, LLC
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Carbondale, CO 81623
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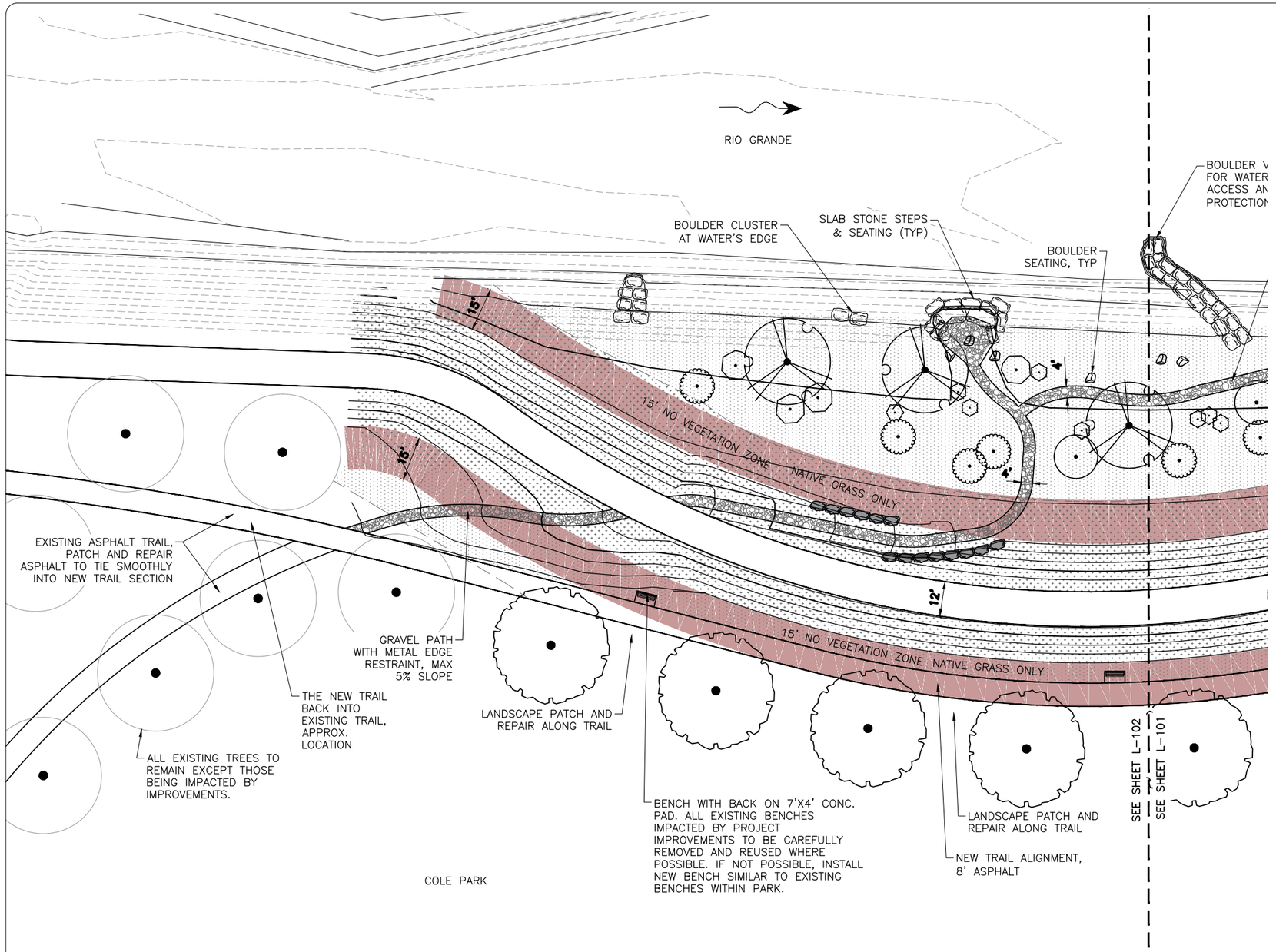
(970)947-9568

Project	Sheet
38071	L-001
Date: January 2025	
Scale: AS NOTED	



PLANT SCHEDULE

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	CONT
TREES				
	EE	14	Existing Tree to remain Existing Tree To Remain	6` Height
RIPARIAN TREES				
	BN	4	Betula nigra River Birch Multi-Trunk	#25
SHADE TREES				
	PA	8	Platanus x acerifolia London Plane Tree	2" CAL
SHRUBS				
	CR	4	Cornus sericea Red Twig Dogwood	5 gal
	RA	12	Ribes alpinum Alpine Currant	5 gal
	SD	9	Salix drummondiana Drummond's Willow	5 gal
	SL	2	Salix lutea Yellow Willow	5 gal
SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	CONT
GROUND COVERS				
	DS	21,578 sf	Drill Seed Native Seed Grass	SEED
ROCKS				
	RK	3,564 sf	3/4" Minus gravel with fines & path stabilizer	3" Depth
SEED				
	SG	23,657 sf	HyrdoseedNative Seed Grass Native Seed Grass	SEED

USACE NO VEGETATION ZONE (15' FROM TOW OF LEVEE)

SEED MIX PROVIDED BY GRANITE SEED

PLS	Bulk	Description	Variety
4.00	4.00	Achnatherum hymenoides Indian ricegrass	Nezpar
1.00	1.00	Bouteloua gracilis Blue grama	Hachita
0.15	0.15	Sporobolus cryptandrus Sand dropseed	VNS
6.00	6.00	Pascopyrum smithii Western wheatgrass	Arriba
4.00	4.00	Elymus lanceolatus ssp. lanceolatus Thickspike wheatgrass	Critana
3.00	3.00	Elymus trachycaulus ssp. trachycaulus Slender wheatgrass	VNS
0.20	0.20	Sporobolus airoides Alkali sacaton	VNS
1.00	1.00	Elymus elymoides Bottlebrush squirreltail	Pueblo
0.50	0.50	Distichlis spicata stricta Saltgrass, Inland	VNS
0.20	0.20	CAREX NEBRASCENSIS Sedge, Nebraska	VNS
0.20	0.20	Beckmannia syzigachne Sloughgrass, American	VNS
0.05	0.05	Artemisia frigida Sagebrush, Fringed	VNS
0.05	0.05	Achillea millefolium var. occidentalis Yarrow, Western	Eagle
1.00	1.00	Linum lewisii Lewis flax	VNS
3.00	3.00	Cleome serrulata Beeplant, Rocky Mountain	VNS
1.00	1.00	Gaillardia aristata Blanketflower	VNS
1.00	1.00	Asclepias speciosa Showy milkweed	VNS

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Project	Sheet
38071	L-101
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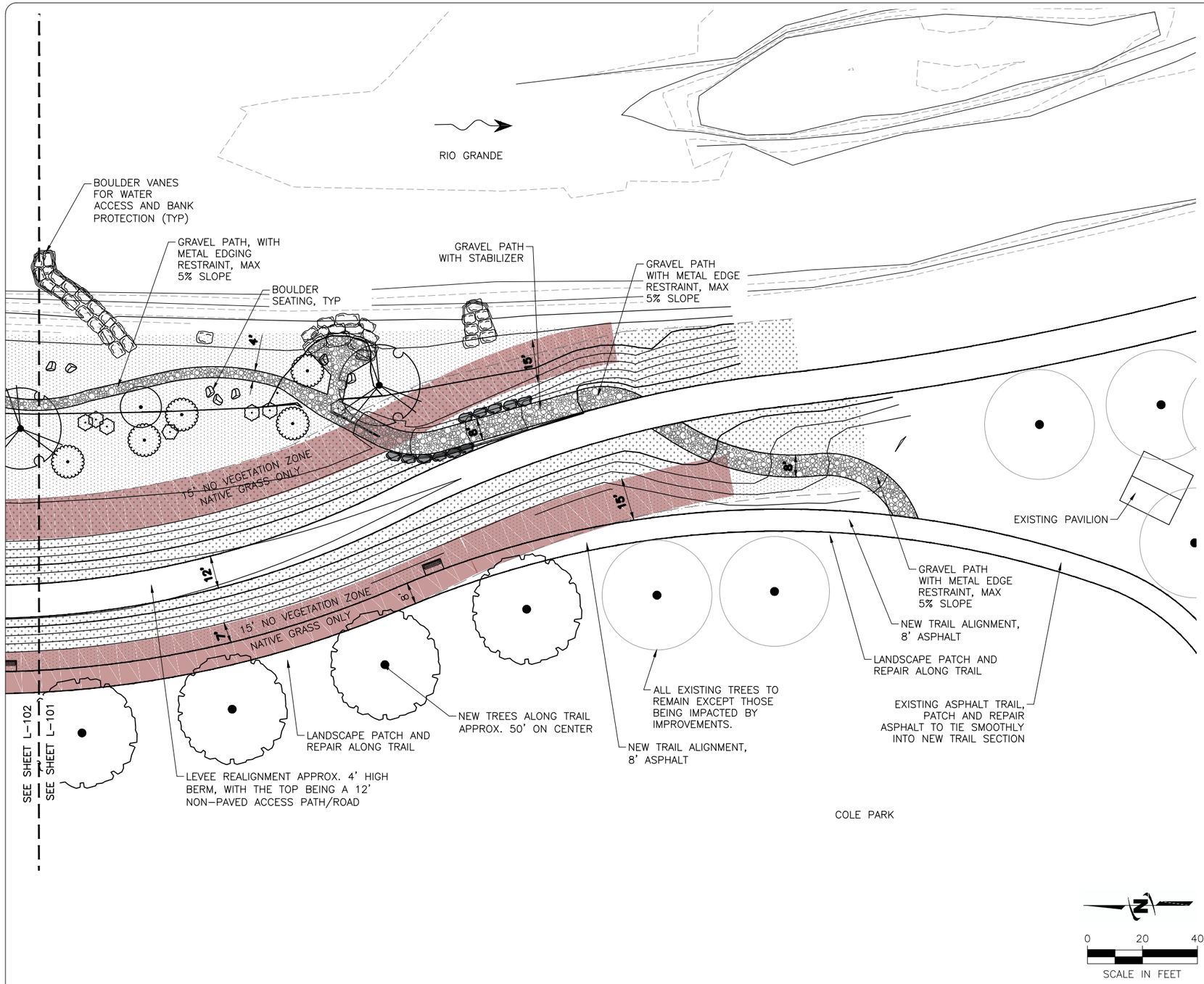

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38071	L-102
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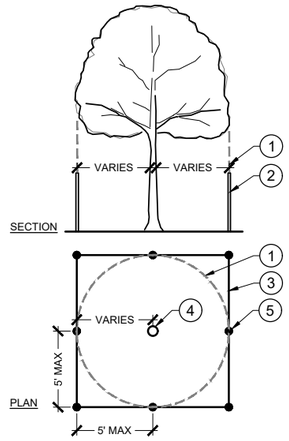
PRELIMINARY SET (NOT FOR CONSTRUCTION)

1. DRIPLINE OF TREE CANOPY
2. ORANGE CONSTRUCTION FENCE STAKED 5'-0" O.C. MAX. W/METAL T-POSTS (SEE SPECS)
3. TREE PROTECTION FENCE OUTSIDE OF DRIPLINE OF TREE. SEE SPECS.
4. TREE TRUNK
5. METAL T-POST 5' O.C.

NOTES:
1. DO NOT STORE OR OPERATE ANY MATERIALS, EQUIPMENT, DEBRIS, ETC. INSIDE FENCE.
2. IF REQUIRED BY CONSTRUCTION, ONLY HAND EXCAVATION IS ALLOWED WITHIN THIS AREA.
3. REMOVE ONLY UPON APPROVAL OF LANDSCAPE ARCHITECT.
4. SEE TREE PROTECTION AND PRESERVATION NOTES AND TECHNICAL SPECIFICATIONS.



1. TREE PROTECTION PRACTICES INCLUDE ESTABLISHING THE TREE PROTECTION ZONE (TPZ) PER DETAIL.
2. THERE WILL BE NO DIGGING, TRENCHING, GRADING, OR STORING OF MATERIALS OR EQUIPMENT IN THE TPZ.
3. NO EQUIPMENT (EXCEPT FOR A SOD CUTTER) SHALL BE ALLOWED INSIDE THE TPZ. IF SPECIAL PROVISION FOR EXCAVATION IS APPROVED BY OWNER, IT SHALL BE DONE BY HAND OR A SOIL VACUUM.
4. USE TUNNELING OR BORING FOR IRRIGATION AND UTILITIES INSIDE THE TPZ. NO ROOTS LARGER THAN 4" IN DIAMETER WILL BE CUT. ALL ROOTS WILL BE CUT CLEANLY WITH A SAW. IN SITUATIONS WHERE A ROOT HAS BEEN DAMAGED, A CLEAN CUT SHALL BE MADE ON THE ROOT AT THE EDGE OF THE TRENCH CLOSEST TO THE TREE TRUNK.
5. TREES SHALL NOT BE USED TO SUPPORT ANY SCAFFOLDING, SIGNS, TEMPORARY UTILITY, OR ANY OTHER DEVICE. IF DAMAGE OCCURS TO A PROTECTED TREE, IMMEDIATE CONTACT SHALL BE MADE WITH THE OWNER.
6. DO NOT CHANGE THE SOIL GRADE BY CUTTING OR FILLING IN THE TPZ.
7. CONTRACTOR SHALL SUBMIT A SCHEDULE FOR WEEKLY WATERING AND INDICATE THE INDIVIDUAL WHO IS RESPONSIBLE TO ENFORCE TREE PROTECTION REQUIREMENTS AS SET FORTH IN THE DRAWINGS, NOTES, DETAILS, AND SPECS. TREE PROTECTION IN ADDITION TO WHAT IS SHOWN ON THE PLAN MAY BE REQUIRED.
8. CONTRACTOR IS RESPONSIBLE TO ENSURE TREES ARE PROPERLY PROTECTED AND MAINTAINED THROUGHOUT CONSTRUCTION. DAMAGED OR DEAD TREES WILL BE REPLACED IN KIND (SIZE, SPECIES, ETC) OR AS INDICATED IN THE SPECS.
9. SEE SPECIFICATION SECTION 005639 TREE PROTECTION & PRESERVATION

1 TREE PROTECTION ZONE (TPZ)
3/16" = 1'-0"

MUN-AR-02

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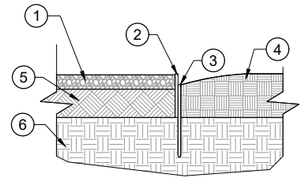
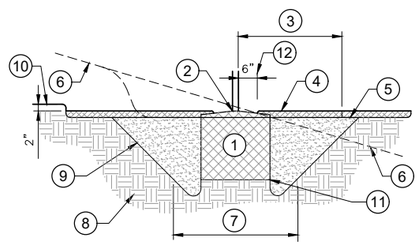
2 TREE PROTECTION & PRESERVATION NOTES
NTS



1. 3/4" MINUS GRAVEL WITH FINES & PATH STABILIZER
2. CUSTOM 5/16"X12" RAW STEEL EDGING
3. 24" STEEL SPIKE WELDED TO STEEL EDGING SPACED AT LEAST EVERY 6' O.C. OR MORE FREQUENTLY AS NEEDED TO ENSURE SMOOTH CURVES AND/OR STRAIGHT LINES
4. MATERIAL PER PLAN
5. COMPACTED NATIVE SOIL
6. UNDISTURBED SUBGRADE

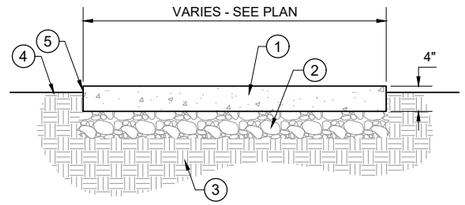
NOTE:
1. EDGING TO BE ¾" ABOVE FINISH GRADE
2. ALL JOINTS TO BE CUT AND WELD TO CREATE CLEAN, CRISP CORNERS

3 EDGING - CUSTOM METAL
NTS



1. ROOTBALL
2. CROWN - APPROXIMATELY 2" ABOVE FINISH GRADE
3. 3' RADIUS CIRCLE OF SHREDDED BARK MULCH WHEN TREE IS LOCATED IN TURF OR SEEDED AREAS
4. 3" LAYER OF MULCH
5. FINISHED GRADE
6. FINISHED GRADE AT SLOPE (WHERE SLOPE OCCURS)
7. 2X ROOTBALL DIA. MIN. W/ 45 DEGREE SIDES
8. UNDISTURBED SOIL
9. BACKFILL MIX (SEE PLANTING NOTES)
10. TOP OF PAVING (WHERE APPLICABLE)
11. 3" HIGH CENTRAL PLATEAU OF FRIM SOIL
12. 6" RADIUS - PULL MULCH AWAY FROM TREE CROWN

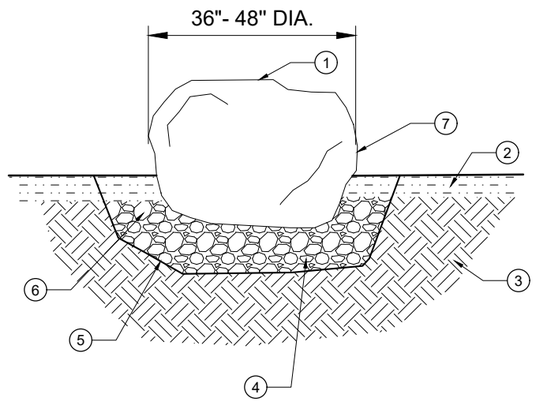
4 TREE/SHRUB PLANTING
NTS



1. CONCRETE WALK
2. 4" UNTREATED BASE COURSE (3/4" MINUS) COMPACTED TO 95% RELATIVE DENSITY
3. UNDISTURBED OR 95% COMPACTED SUBGRADE
4. FINISH GRADE - TOP OF TOPSOIL
5. 1-1/2" MAX. DISTANCE FOR SOD; 1" FOR HYDROSEED;
   FOR PLANTING BEDS, TOP OF MULCH SHALL BE 2" BELOW THE TOP OF ADJACENT HARDSCAPE. ADJUST FINISH GRADE OF TOPSOIL TO ACCOMODATE MULCH THICKNESS.

5 CONCRETE PAVING
1" = 1'-0"

MUN-AR-05



1. LARGE FLAT SIDES PLACED UP AND APPROX. LEVEL FOR SEATING AND LEVELED WITH ADJACENT BOULDERS
2. NATIVE SOIL TO RECEIVE SEED
3. NATIVE SUB-GRADE MATERIAL
4. 6" COMPACTED GRAVEL FOR LEVELING
5. EXCAVATION LIMITS
6. 1/3 MIN. BURIED BELOW FINISHED GRADE
7. 18"-24" ABOVE FINISED GRADE

6 BOULDER SEATING
NTS

DETAIL-FILE

PROFESSIONAL ENGINEER STAMP

PRELIMINARY

ALAMOSA RIVERFRONT PROJECT
LANDSCAPE DETAILS

No.	REVISION/UPDATE	Date

CLIENT NAME AND ADDRESS

Rio Grande Headwaters Restoration Project
623 4th Street
Alamosa, CO 81101
www.riograndeheadwaters.org
(719) 589-2230

DESIGN FIRM NAMES AND ADDRESSES

J-U-B ENGINEERS, INC.

J-U-B Engineers, Inc.
305 S Main Street, Unit 6
Palisade, CO 81526
www.jub.com
(970) 208-8508

RiverRestoration.org, LLC
P.O. Box 248
Carbondale, CO 81623
www.riverrestoration.org
(970)947-9568

Project	Sheet
38071	L-501
Date: January 2025	
Scale: AS NOTED	

PRELIMINARY SET (NOT FOR CONSTRUCTION)

\\jub.com\central\Clients\CO\riverrestoration\Projects\81-24-003_alamosariverfront\Design\CAD\Sheet\81-24-003_L-501X.dwg
Date: 1/9/2025

payments for property taxes. The full payment deadline is April 30. The office can also take payments over the phone or at alamosacounty.org. A service fee will be charged by the credit card company. Call the treasurer's office at 719-589-3626, if you have any questions.

Costilla County Health Fair is April 20

SAN LUIS—Costilla County Public Health and SLV Health will hold a County Health Fair on Saturday, April 20, from 8 to 11 a.m., at the Centennial School in San Luis. Free Health screenings and affordable lab work will be available.

Wildfire season is focus of RGNF series April 24

SAN LUIS VALLEY — Wildfire season is upon us here in the San Luis Valley. Join Doug Currie, Forest Fire Management Officer for the Rio Grande National Forest as he talks about the local fire season outlook and how he is preparing for it. Currie has nearly 30 years of experience in wildfire response, prescribed fire and incident management throughout Alaska, the southern and western U.S.

The online program will be held Wednesday, April 24, at 5 p.m. in partnership with the San Juan Mountains Association. Visit the Rio Grande National Forest website or Facebook page,

items on the agenda for Alamosa City Council's Wednes- for city parks, trails and open spaces and also bans the pres- 6-2024 The Code Of Ordinances Of The City Of Alamosa to cal government bodies in the

■ See **HOURS** page 3

Alamosa river restoration plans

By **JOHN WATERS**
Courier News Editor

ALAMOSA — The Rio Grande Headwaters Restoration Project (RGHRP) is making progress with plans to invigorate the riparian corridor of the Rio Grande in Alamosa. The plan includes recreational opportunities along the river at Cole Park, improving aging and hazardous agricultural diversion infrastructure, and improving aquatic habitat.

The RGHRP is a nonprofit based in Alamosa with the mission of restoring the Rio Grande for all users, recreational, agricultural, and wildlife.

According to Cassandra McCuen, Project Manager with the Rio Grande Headwaters Restoration Project, "We have $310,000 of funding for planning and design for the project this includes community outreach/engagement events, near-final designs, and permitting. Final construction costs will be determined based on the final designs."

Photo courtesy RGHRP

The Rio Grande in Alamosa is the site of improvements planned by the Rio Grande Headwaters Restoration Project. Increased recreational aspects of the plan include a river put-in to facilitate access.

Funders for the planning and design phase include Colorado Health Foundation, Trinchera Blanca Foundation, Colorado Water Conservation Board, City of Alamosa. Partners include the City of Alamosa, SLV GO, Rio Grande Farm Park, Alamosa County, San Luis Valley Water Conservancy District, and Westside Ditch water users.

McCuen said Jub Engineering and RiverRestoration have been hired to work with the community during the planning and design process. RiverRestoration has worked on a portfolio of aquatic projects in both restoration and recreation. The firm was retained by the Bend (Oregon) Parks and Recreation Department in 2010 to replace a hazardous dam on the Deschutes River and transform the area into a recreational paradise. The firm was also hired by the Town of Vail to improve the performance of the Vail Whitewater Park. Both

■ See **RIVER** page 3

Courtesy photo

Sheela Bringi will perform at the Baca Colorado College near Crestone on Sunday, April 21, at 2 p.m.

Sheela Bringi in Baca-Crestone concert

CONTRIBUTED

SAGUACHE COUNTY —Hindustani harpist, vocalist and bamboo flautist Sheela Bringi will bring her crossover music artistry to Crestone on Sunday, April 21, at the Baca Colorado College "amphitheater."

Bringi is a classically-trained Indian musician

■ See **BRINGI** page 3

SLV IRC honors donors and

Court.

to fix and maintain roads with gates so they can case.

River

■ Continued from Page 1

of these sites are tourist destinations.

The plan will increase community access to river-based recreation including a put-in. The improvements will be similar to the work RGHRP did along the Rio in Del Norte to increase recreational opportunities there.

Included in the project are improvements to the aging infrastructure for the Westside Ditch, just east of HWY 160.

Aquatic and riparian habitats will benefit from the construction of a low-flow channel, fish habitat structures, and the removal of invasive species.

Alamosa Mayor Ty Coleman told the Valley Courier, "This is an exciting planning process and we are grateful for the community partnerships that make this project possible. The 2017 Comprehensive Plan lists the activation of the Rio Grande as the number one community priority, so this project helps us move that effort forward."

The Valley Courier will have news of the public meetings regarding the restoration project along the Rio Grande when they become available.

Photo by Lyndsie Ferrell

In this 2021 photo, recreational uses of the Rio Grande celebrate the additions made to the river by the Rio Grande Headwaters Restoration Project in Del Norte. One goal of the enhancements was to increase connectivity between the community and the river. Similar improvements are planned for the river in Alamosa.

"Shakti Sutra" and "Incantations," have received critical acclaim from media outlets like NBC News, NPR, and Public Radio International, highlighting her

of adult, youth, or floor tickets requested. Access to the Baca Colorado College campus is off the T-Road near Crestone in Saguache County.

Hours

■ Continued from Page 1

San Luis Valley, working through the SLV Council of Governments (COG), have been working on a template set of 1041 regulations to be consistently applied across the valley to address the potential for water projects exporting water. Those efforts have resulted in the creation of a uniform template for 1041 regulations to be adopted by all local governments in the Valley.

Alamosa has participated in these efforts to draft the template regulations in meetings hosted by the COG.

While it's not likely that the city of Alamosa would be a target for those wishing to export water for projects elsewhere, the ordinance was created to both stand in solidarity with the other local governments and to also guarantee Alamosa a place at the table, so to speak, if a proposal to export water were to be presented.

As was made in that same coversheet of information to counselors, this would not be the first IGA Alamosa has agreed to as all the communities in the valley are interconnected at a variety of levels.

In addition to votes taken on those two ordinances, the council will be hearing updates from outside funding partners, including the Boys and Girls Clubs of the San Luis Valley, Visit Alamosa and South Central Colorado Seniors.

The meeting will conclude with council members going into executive session, pursuant to C.R.S. § 24-6-402(4)(e), to determine positions, develop strategy, and instruct negotiators concerning development incentives for a downtown boutique hotel.

ALCOHOLICS ANONYMOUS MEETINGS

VALLEY — The San Luis Valley offers many Alcoholics Anonymous and Narcotics Anony-

NA 12-Step Meetings throughout the valley. The 6th Tradition states that we are not affili-

CPW cautions public to avoid Arkansas River below Lake Pueblo due to high, cold water flows

— Page 7

Alamosa 18U Baseball Tournament gets underway

— Page 8

Valley Courier

SATURDAY EDITION | WWW.ALAMOSANEWS.COM

VOLUME 98, NO. 92

LOCAL NEWS... LOCAL VIEWS June 8, 2024 $1

SLV Today

Trinidad State College free digital workshops

ALAMOSA — Do Cover Letters Really Matter, with Dr. Emily Hammer is the subject of a workshop at Trinidad State College on June 11. No pre-registration is necessary and there is no cost to attend. The workshop will be at the TSC Valley Campus, Room 206, on June 11, at 8 a.m. For a complete schedule, visit https://trinidadstate.edu/calendar.

Alamosa Riverfront Project conceptual designs ready for community input

The Alamosa Riverfront Project will bring increased recreational opportunities along the river at Cole Park. A public meeting is scheduled for June 20 at the Rio Grande Farm Park in Alamosa at 6 p.m.

Courier photo by John Waters

By JOHN WATERS
Courier News Editor

ALAMOSA — The Alamosa Riverfront Project team has been working since February developing concept designs for a community-driven project that will bring river recreation opportunities to the Rio Grande at Cole Park, while also improving river health and downstream agricultural infrastructure.

The community is encouraged to participate in the first Alamosa Riverfront Project public input meeting at the Rio Grande Farm Park on

■ See PROJECT page 3

Courier photo by John Waters

For the second year in a row, the Alamosa Public Library will be hosting an outreach program in Zapata Historic Park. This program is free, and provides free books, breakfast and lunch, and a half-day of activities. It will run Monday-Thursday, 9 a.m.-12:30 p.m. from June 10 to July 18 (except for Juneteenth and July 4th). June 10, they will have pizza and ice cream to celebrate the opening day. Spanish-speaking staff are available.

Project

■ Continued from Page 1

Thursday, June 20, at 6 p.m. The public is invited to meet the team over dinner to learn more about the project and give your input on conceptual designs to help shape the future of Alamosa's riverfront. Spanish translation will be available.

RSVPs are not required but are appreciated to estimate attendance. RSVP via the Facebook event, which can be found on the Rio Grande Headwaters Restoration Project Facebook profile. Email alamosariverfront@gmail.com, with further questions.

As previously reported in the Valley Courier, the Rio Grande Headwaters Restoration Project (RGHRP) has made progress with plans to invigorate the riparian corridor of the Rio Grande in Alamosa. The plan includes recreational opportunities along the river at Cole Park, improving aging and hazardous agricultural diversion infrastructure, and improving aquatic habitat.

The RGHRP is a nonprofit based in Alamosa with the mission of restoring the Rio Grande for all users, recreational, agricultural, and wildlife.

Funders for the planning and design phase include the Colorado Health Foundation, Trinchera Blanca Foundation, Colorado Water Conservation Board, City of Alamosa. Partners include the City of Alamosa, SLV GO, Rio Grande Farm Park, Alamosa County, San Luis Valley Water Conservancy District, and Westside Ditch water users.

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The plan will increase community access to river-based recreation including a put-in. The improvements will be similar to the work RGHRP did along the Rio in Del Norte to increase recreational opportunities there.

Included in the project are improvements to the aging infrastructure for the Westside Ditch, just east of Highway 160.

Aquatic and riparian habitats will benefit from the construction of a low-flow channel, fish habitat structures, and the removal of invasive species.

In April, Alamosa Mayor Ty Coleman told the Valley Courier, "This is an exciting planning process and we are grateful for the community partnerships that make this project possible. The 2017 Comprehensive Plan lists the activation of the Rio Grande as the number one community priority, so this project helps us move that effort forward."

ing the tools the crew carries.

According to Gregg Goodland, Public Information Officer with the Forest Service,

"What they were clearing off the trail were downed trees and logs as high up the trail as they can get in a day. This is a common early-season tactic for trail crews. Since the higher country only becomes accessible later in the year, they can focus efforts on the lower-elevation sections of the forest. This typically coincides with the users that are day hiking those trails who turn around when the snow drifts become abundant. Later in the year, the crews will return to those same trails and do more clearing in the higher elevations and, if needed, heavier maintenance that was identified on the early trips."

The 9.5-mile-out-and-back trail that Pounder and Sulahian were clearing, also has an elevation gain of almost 2,900 feet. And yes, they carry their maintaining over 160,000 miles of trails.

Forest Service trail managers apply standardized concepts and tools to administer the many miles of National Forest Service system trails. These concepts help trail managers across all forests and grasslands to design, construct, and maintain trails in a similar way that provides a consistent user experience.

Aside from employees to do trail work, the Forest Service partners with outside groups such as Volunteer for Outdoor Colorado (VOC). In a 2023 interview with the Valley Courier, Anna Zawisza at VOC said that volunteering with the group is easy, "We work statewide engaging people to do active stewardship work, that means pretty much anything that can be done on public lands without a lot of training, we are doing. Planting trees, doing wildfire mitigation of fuel." For more information on Volunteer for Outdoor Colorado, visit:www.voc.org.

Stampede

■ Continued from Page 1

arship application, the applicant must have participated or will be participating in any of the following events: Stampede rodeo, SLV high school rodeo, SLV Little Britches rodeo, or the SLV Regional Fair as a 4-H or FFA participant, or be a stockholder or child of a Stampede stockholder, or be a volunteer during the Stampede event.

To apply, go to www.skihistampede.com/asu-scholorship-application.

ALAMOSA CITIZEN

OUTDOORS

Alamosa Riverfront Project invites community engagement

Thursday meeting will give background on the expanded recreation concept, allow for input

by **Owen Woods**
June 15, 2024

Credit: Adams State

With just a few boat ramps and fishing spots, Alamosa's stretch of the Rio Grande doesn't have many dedicated recreation spots. That could change through the **Alamosa Riverfront Project**. This project is currently in the planning phase and will soon open for public input and feedback.

The first of the community input sessions is Thursday, June 20, at Rio Grande Farm Park, just off Highway 17. Starting at 6:30 p.m., the community can learn about the concept and origin of the project, hear from the team behind it, and provide feedback and comments on what this project should look like. Planners will be seeking more input from the community this summer through more input sessions and community meetings.

Rio Grande Headwaters Restoration Project planners have been deep in the weeds and willows of the Rio Grande, trying to conceptualize what expanded recreation access to the Rio Grande looks like in Alamosa and what that would look like downstream, too. In February, the project's partners hired River Restoration and JUB Engineering to work with the community through the planning and design process.

The RGHRP was formed after a study in 2001 showed deterioration of the historical functions of the Rio Grande, "which included the provision of high quality water, healthy riparian areas, fish and wildlife habitat, and a functioning floodplain." The **2001 study** analyzed the condition of the riparian area and structures along a 91-mile stretch of the Rio Grande and provided recommendations for improvement. Since its establishment, the group's work has expanded to include "a variety of restoration, infrastructure rehabilitation, and watershed stewardship projects throughout the Rio Grande Basin in Colorado."

The work relies on the community and the riverfront project is no exception.

Stemming from a series of community engagement meetings, such as the Alamosa Comprehensive Plan and the Rio Grande Stream Management Plan, the Alamosa Riverfront Project was born.

The Alamosa Riverfront Project isn't just for increasing river recreation in Alamosa. It also addresses conservation and the challenges that impact fish, wildlife, river health and the community. The headwaters restoration group said these challenges include a lack of community access to the river, aging and hazardous agricultural diversion infrastructure, flood risks and a lack of drought resilience.

Through these community input sessions and the project as a whole, the headwaters restoration project and its partners want to use community engagement to develop and implement "holistic solutions" for the Rio Grande corridor.

This addition would file in among the ranks of Rio Grande connectivity that's already taking place. Part of that work includes levee work from the Army Corps of Engineering. That work, along with other river work, will happen simultaneously.

The addition of the North River Pavilion and State Avenue bridge boat ramps gave the community dedicated recreational spots. The imminent construction of the **pedestrian bridge** off Stadium Avenue also will add to

this chain of river recreation and start the revolution of increasing connectivity not just from one side of the river to other, but connecting people back to the river.

“The pulse of our community is reconnecting with our river,” said Alamosa parks and recreation director Andy Rice on an episode of **The Valley Pod** to be posted on Monday,

Through these holistic solutions and connections, the group has identified four primary activities to accomplish its goal:

- **Community Outreach and Engagement:** This project will have a thorough community engagement process that allows for public feedback on potential designs.
- **Aquatic and riparian habitat enhancements:** Potential habitat enhancements include the construction of a low-flow channel, fish habitat structures, and removal of invasive plant species.
- **River access improvements:** Project activities will enhance river recreation opportunities around Cole Park by creating formal access points and more inviting spaces adjacent to the river.
- **Agricultural Infrastructure Improvements:** Located just east of the Highway 160 bridge, the aging infrastructure for the Westside Ditch will be improved to benefit the reliability and efficiency of water delivery. New infrastructure will also eliminate current safety hazards.

The planning phase is supported by Colorado State University Salazar Center’s Peregrine Accelerator Program, Trinchera Blanca Foundation, City of Alamosa, Colorado Health Foundation, and Colorado Water Conservation Board. To help further develop this plan and engage the community, the Rio Grande Headwaters Restoration Project has also partnered with the City and County of Alamosa, San Luis Valley Great Outdoors, the San Luis Valley Water Conservancy District, and the Rio Grande Farm Park.

“When complete, the community of Alamosa will be connected to a healthier and more resilient Rio Grande. Community members will have safe access to river-based recreation opportunities, while agricultural water users will be able to efficiently access their water rights,” the Rio Grande Headwaters Restoration Project wrote in their **project narrative**.

“This is recreation at its most granular level,” Rice said. “Walking down to the river. We’re not talking white water and kayaking, this is getting our community, our families, low cost, at no cost, access to our lifeblood.”

Proposed changes to levee location and riverfront access Credit: JUB Engineering

OUTDOORS

Alamosa Riverfront Project has big plans

Community input sought on list that includes space for recreation, river restoration, pedestrian bridge

by **Owen Woods**
June 29, 2024

The Project

Alamosa's stretch of the Rio Grande will never be as full of rapids as it is in Del Norte, or like Salida's stretch of the Arkansas River. It doesn't have to be. This stretch of the river is low, slow, and pretty much in our backyard. The Alamosa Riverfront Project aims to make Alamosa's connection to the river its own experience and make it as accessible to the community as possible.

▶ PROJECT INFORMATION

The Rio Grande Headwaters Restoration Project, along with a long list of partners and local agencies, is spearheading something that is perhaps long overdue in Alamosa. The riverfront project aims to create a space along Alamosa's stretch of the Rio Grande – from the State Avenue bridge to the railroad bridge – that opens the area up for people to take easy advantage of what has long been just slightly out of reach.

Along with river restoration, levee recertification, a new pedestrian bridge, and the general increase in Rio Grande recreation, this project is a large piece of a puzzle that is quickly revealing itself.

With recreation and restoration at the forefront of this project, it becomes more about longevity and a wholehearted and passionate attempt to reconnect the people back to the river.

Pedestrian underpass and access areas Credit: JUB Engineering

“I think development of Alamosa, through all the plans, is pretty high on everyone’s mind,” said Cassandra McCuen, program manager for the Rio Grande Headwaters Restoration Project. “I think the most important thing, especially with the riverfront project and other development, is that we do it in a way that speaks to the culture of Alamosa.”

In the spirit of that, the Rio Grande Headwaters Restoration Project is inviting the community to provide as much feedback as it can. The vision for the project is to be born in part from the community.

The project is still quite a ways out. Construction on phase one won’t happen until 2026 at the earliest. Permitting, funding, and all the moving parts of this project are factors that could accelerate or postpone the plan. However, McCuen emphasized that “now is the time for the community to give input.”

Once the designs are more settled, work then becomes about keeping the community informed on next steps and gathering input on the smaller details of the project like general aesthetics.

Despite being early in the process, **JUB Engineering** drafted **a series of renderings** that show what the project could look like. While it can’t be stressed enough that the renderings are not final in any way shape or form, they do offer a look at what could be created.

The project will cost somewhere between $3.5 and $4.5 million. Within that amount is a fairly large contingency due to the lasting effects COVID-19 had on the supply chain and general manufacturing of goods and services.

To allow for an evolution, a series of input sessions will take place during the summer and into the fall. The first meeting happened on June 20, with a sizable crowd. The project can be shaped and evolve and move in different directions much like any river can, but there is only so much creativity to be had.

The design of the project has to fall within the Army Corps of Engineer’s plan for the levee system and can’t violate its rules and regulations. With the levee recertification happening soon, the project will work in conjunction with the Army Corps.

At first, the headwaters restoration group saw the levee recertification as a challenge, but after they stepped back and saw how all the work was going to happen at roughly the same time, McCuen said there was a mindset shift: “This is an opportunity.”

The riverfront project, the pedestrian bridge, and levee recertification are a few years from fruition, but the Rio Grande Headwaters Restoration Project wants to make sure they are abreast of everything. “It’s just about efficiency,” McCuen said. “We want to bring the project forward as fast as we can, but as thoughtfully as we can. We’re trying to strike that balance of ‘we don’t want this project to be 10 years out, we want to move on it because people have been waiting.’”

Recreation areas on the river front Credit: JUB Engineering

Recreation

Bringing people back to the river is where recreation will strike its chord. Because Alamosa's stretch is low and slow, the opportunities for everyone in Alamosa to enjoy it are boundless.

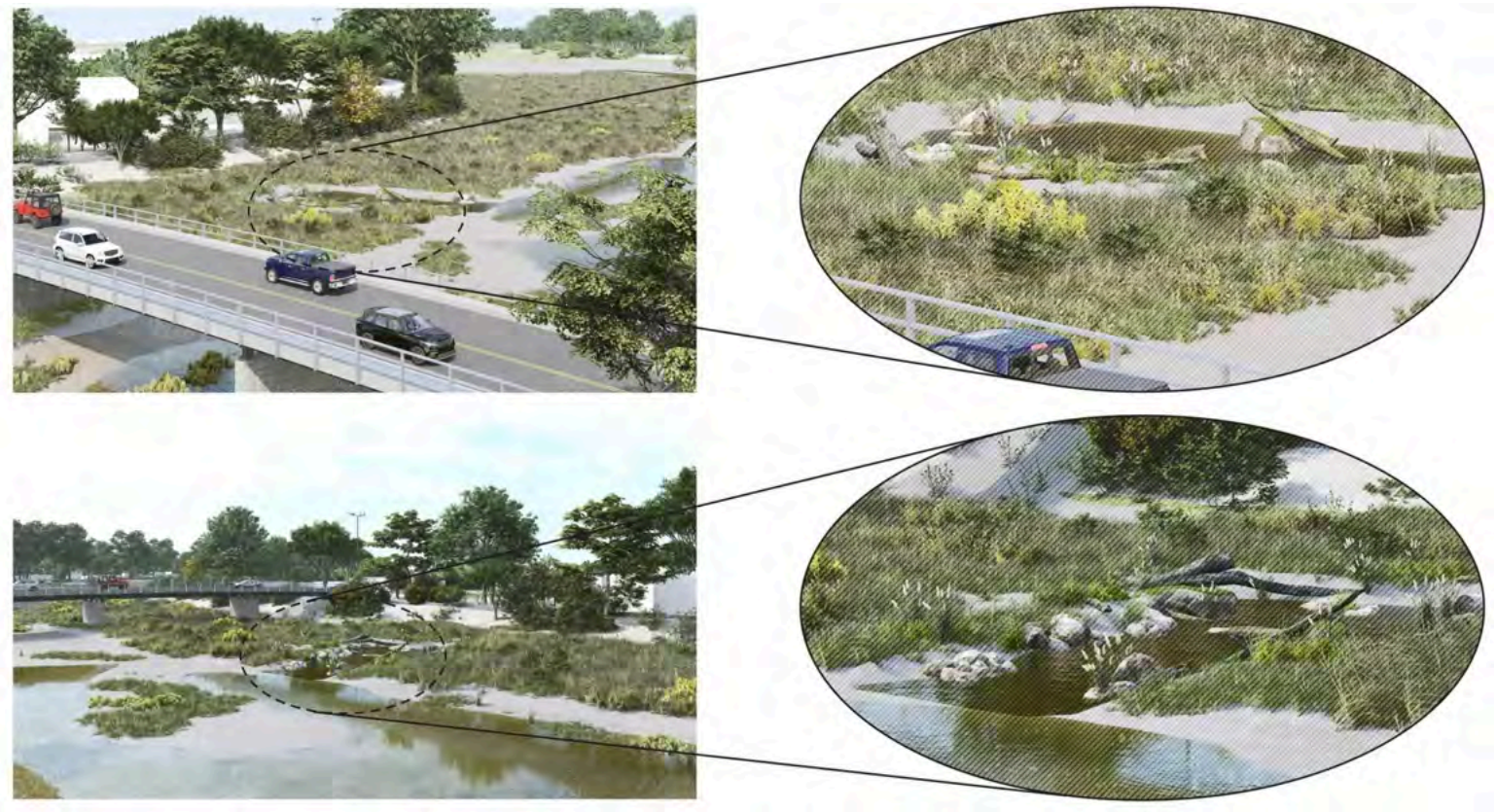
Sean Sluyter, Alamosa's recreation supervisor, said that there are not specific plans on what organized recreation would look like there, but said that it's already starting conversations.

Floating, fishing, kayaking, and playing in the mud will all be available on what could be easily described as a beach.

Salida's stretch of the Arkansas isn't "accessible to everyone," Sluyter said. "The whole river in Alamosa can be accessible to everyone. Bringing in the people and the culture back to the river, reestablishing what's there, and just taking that to the next level and making it available for the community to use it as they once did and continue that process forward."

One of the design ideas the engineers came up with is an underpass that would allow people to walk under the Highway 160 bridge. The bridge has presented crossing problems for people since it was constructed. Getting from one side of the bridge to the other is a challenge for some. Simply crossing the bridge, with its narrow sidewalk, is intimidating. The underpass would allow anyone to easily skirt passing cars and semis and enjoy the water without the stress.

"People grasp onto Salida, grasp onto Del Norte because that's the example they have to pull from. But in the planning and design process, it's really about taking what we have in Alamosa, not making it something that it's not and…. harnessing what we have and making the best of what we have," McCuen said.



Backwater habitat areas Credit: JUB Engineering

Restoration

Along with recreation, which will open doors for both locals and travelers, restoration is a key part of the riverfront project.

The main focus of restoration is “creating aquatic habitat for native species to have a better time.”

McCuen highlighted backwater habitats, which are localized places for native species to find respite and refuge from invasive species. Or as she put it, it gives native species a place “to hang out so they don’t get chomped by pike” and other non-native species.

The group just put in backwater habitats on the Alamosa National Wildlife Refuge. Because many sections of the Rio Grande are shallow, the water temperature increases, so these will provide some shelter from that heat.

A low-flow channel through the riverfront project’s entire reach is also being discussed. This channel would give fish a deeper pathway to travel that is also a much cooler place to be. “A couple of degrees cooler can make a big difference,” McCuen said.

The goal of the fish passage, Sluyter said, is to allow fish more abilities to travel north and south unimpeded.

Re-vegetation is planned for the project area, but the group is “incredibly limited” with the levees going through town as they have to be very specific with what they can and can’t do. McCuen said that this is one of the bigger challenges. “There’s limitations on what vegetation can be where,” she said.

But, the Rio Grande Headwaters Restoration Project has that name for a reason. They are involved in a wealth of restoration projects that span the entire length and width of the San Luis Valley.

Formed in 2001, after a **study** “realized deterioration of the historical functions of the Rio Grande, which included the provision of high quality water, healthy riparian areas, fish and wildlife habitat, and a functioning floodplain.”

According to the RGHRP, the study analyzed the condition of the riparian area and structures along a 91-mile stretch of the Rio and provided recommendations for improvement. Since its establishment, the headwaters restoration group has grown in its ability to include a variety of restoration, infrastructure rehabilitation, and watershed stewardship projects throughout the Rio Grande Basin.

In early 2022, the headwaters restoration group was encouraged to apply for funding from the Colorado State University Salazar Center Peregrin Accelerator Program. After being awarded the money, which McCuen said was “really big for getting momentum going for the project,” the project went into full swing in early 2023.

The group received renderings from the engineers during the week of June 19, which McCuen said was a good thing as they were just as fresh in their minds as they are in the community’s.

“The timing was just right, I guess,” she said.

McCuen said that with just one input meeting so far, the feedback has been promising.

“I might be biased,” she said, “but most people I talk to are like ‘Hell yeah, we’ve been waiting for this for so long’ and they’re just grateful that it’s happening. Everyone seems excited and very happy.”

Even for her this project is as exciting as it gets. “It is mind-boggling that they developed this town on the river but up until this point have not considered access to the river. It’s really exciting. There’s so little water in the San Luis Valley. I want to be able to access everything we have.”

As project manager for the headwaters restoration project, the Alamosa Riverfront Project is her pride and joy right now, which she hopes will become Alamosa’s pride and joy. Much like the Rio Grande, “it’s a big project and I like tackling big things and being a part of it. I have to stay here until this project is done and just nurture my little baby,” she said.

Her little baby being the Rio Grande.

“Nationally,” Sluyter said, “there’s a cultural divide between accessing our waters through riverways and [there’s] not always a positive thought about local waterways. I think this project is amazing at changing that and bringing the community and everyone back to the water and bringing us back to the river.

“Over the past couple decades, communities have looked to their river and lake access and asked ‘how can we bring this back?’ That is an amazing thing and it’s happening here in Alamosa and we’re taking advantage of the beautiful, historic Rio Grande that runs through Alamosa and taking that as a positive and charging into it.”

To which McCuen replied, “That’s why we’re all here. Because of the Rio Grande.”

ALAMOSA CITIZEN

COMMUNITY NEWS

Alamosa Riverfront Project to hold second community meeting

Session offers opportunity to view proposals, give feedback

by **Owen Woods**
August 9, 2024

Proposed changes to levee location and riverfront access Credit: JUB Engineering

The second community meeting to provide feedback on the **Alamosa Riverfront Project** will be held Tuesday, Aug. 27, at the Shooting Stars Cultural and Leadership Center. This meeting will give the public an update on the current status of the project, and offer an opportunity to engage with the Rio Grande Headwaters Restoration Project and provide input on the current design plans. The meeting will be in English and Spanish.

This community input and engagement meeting will also be the last. The last day to provide input on the design plans, the Rio Grande Headwaters Restoration Project said, is Aug. 30. After this second meeting, the

group will incorporate public feedback into the designs. Meetings will be held later in 2024 or in early 2025 to present the public with updated versions.

Those who cannot attend the in-person meeting can take a survey in **English** or **Español** and view current design plans **here**.

The Alamosa Riverfront Project is an idea that stemmed from Alamosa's lack of safe, easy, and recreational access to the stretch of Rio Grande that cuts right through town. Through some redesigning and engineering of the current levee near Cole Park, the low and slow section of the river would act as that convenient and safe place to pop into the water. Whether it's for lounging on a tube, soaking up sunlight, fishing, or just being closer to the river, this project is the first of its kind for Alamosa.

"I think development of Alamosa, through all the plans, is pretty high on everyone's mind," Cassandra McCuen, program manager for the Rio Grande Headwaters Restoration Project, told *The Citizen* in **an earlier interview**. "I think the most important thing, especially with the riverfront project and other development, is that we do it in a way that speaks to the culture of Alamosa."

Next to increasing recreation diversity, the project will also function as a way to restore and maintain the health of this section of river. The Rio Grande Headwaters Restoration Project sees this as an opportunity to give all the life of the Alamosa's stretch of the Rio Grande to thrive. Re-vegetation, providing fish cooler areas to avoid the heat, and giving fish a pathway to move upriver easier is just part of the restoration that will happen here.

Construction is not expected to begin until 2026, with an area of improvement that will stretch from the railroad bridge just southeast of town to the State Avenue bridge. Right next to Cole Park will be, based on the designs, a low-lying area that would act as a beach of sorts.

Anyone can get in the river from just about any point along the banks. There are already boat ramps near the State Avenue bridge and at the North River Pavilion, but those are, arguably, somewhat out of the way. River access at these areas is free for everyone to use. Creating a space near Cole Park opens river access to a far greater number of people.
Alamosa's recreation supervisor, Sean Sluyter, **told *The Citizen***, "The whole river in Alamosa can be accessible to everyone. Bringing in the people and the culture back to the river, reestablishing what's there, and just taking that to the next level and making it available for the community to use it as they once did and continue that process forward."

lamosa. On the Consent genda are: Professional ervices Agreement-County ttorney, a report from ne Alamosa Weed Control istrict, a semi-annual eport from the County reasurer, funding for snow emoval equipment, and ther items. A resolution uthorizing concealed carry nd a resolution on a skilled aming moratorium will be onsidered. The public is vited to attend in person r via ZOOM with meeting D No. 270-314-6874.

SdCSD board meeting is Aug. 13

MOSCA — The Sangre de Cristo School Board of Education regular monthly meeting will be at 6 p.m. on Tuesday, Aug. 13, in the school library, 8751 Lane 7 North, Mosca. Copies of agendas are posted at school site, website, the Hooper and Mosca Post Offices, and the Mosca Pit Stop. Meetings are open to the public.

CO Dept. of Ag stakeholder meeting

MONTE VISTA — The Colorado Department of Agriculture will be holding a stakeholder meeting regarding the requirement for mandatory testing of year-out potato seed at 1:30 p.m. on Wednesday, Aug. 14, at the Ski-Hi complex in Monte Vista. CDA needs input to determine the rules needed to implement this

rectly tied to the purpose of the meeting, and the camp itself, af-

night.

Courtesy photo Tim Dellett

Riverfront Project public meeting in August

Courier photo by John Waters

The proposed Alamosa Riverfront Project includes increased recreational features at Cole Park, a boat ramp, a beach area with small rock jetties and stairs along the river shore and walking and cycling paths. Looking downstream of the Rio Grande, this photo shows the area on the right along Cole Park where new recreational opportunities are planned.

By JOHN WATERS
Courier News Editor

ALAMOSA — The Alamosa Riverfront Project Public Input meeting held on June 20 at the Rio Grande Farm Park was a success, with roughly 55 members of the community attending. The project team received valuable feedback, and more is needed.

The riverfront project to increase recreational features along the Rio Grande at Cole Park in Alamosa is a partnership between the Rio Grande Headwaters Restoration Project, the City of Alamosa, Alamosa County, San Luis Valley Great Outdoors, San Luis Valley Water Conservation District, and the Rio Grande Farm Park. Another public input meeting is scheduled for Aug. 27.

In an interview with the Valley Courier earlier

■ See PROJECT page 3

NPS thanks interns for their work

CONTRIBUTED

GREAT SAND DUNES NATIONAL PARK AND PRESERVE — International Youth Day, Aug. 12, is a time when the national park service celebrates the hard work its interns have done this season.

Ethan Spaulding is one of the education interns helping in the

could have ever expected. The mix of geology and biology in the park makes it fascinating to learn more every day. Educating and talking to visitors about how and why the Great Sand Dunes National Park and Preserve came to be is one of the most rewarding parts of the job. My favorite part is exploring the area and using

them in federal agencies and other non-profit organizations. The resource managers serve a mentor role, creating accessible learning opportunities and hands on experiences throughout the individual's term.

Individual placements run anywhere from 8 to 52 weeks in duration at locations throughout

Park in Alamosa.

A crowd gets samples from 662nd Street BBQ, a company from Denver, at the Beat the Heat BBQ and Brewfest on Saturday at Cole Park in Alamosa. Results not available prior to publication.

Project

■ Continued from Page 1

this year, Alamosa Mayor Ty Coleman said, "This is an exciting planning process, and we are grateful for the community partnerships that make this project possible. The 2017 Comprehensive Plan lists the activation of the Rio Grande as the number one community priority, so this project helps us move that effort forward."

Jub Engineering and RiverRestoration were hired to work with the community during the planning and design process. RiverRestoration has worked on a portfolio of aquatic projects in both restoration and recreation.

The Bend (Oregon) Parks and Recreation Department retained the firm in 2010 to replace a hazardous dam on the Deschutes River and transform the area into a recreational paradise. The Town of Vail also hired the firm to improve the performance of the Vail Whitewater Park. Both sites are now tourist destinations.

The project team will hold another public meeting at 6 p.m. on Aug. 27 at the Shooting Stars Cultural and Leadership Center, 807 Ross Ave., Alamosa. The public can meet the team over dinner to learn more about the project and give your input on draft designs to help shape the future of Alamosa's riverfront. This meeting will be in English and in Spanish, all are welcome to attend. Childcare will be available at the venue. View the Facebook event on the Rio Grande Headwaters Restoration Project Facebook page.

The project team will stop accepting feedback on Friday, Aug. 30. The upcoming public input meeting on Aug. 27 will be the last formal meeting before integrating feedback into final designs, which are expected to be completed in early 2025.

As an additional opportunity to give input, draft designs are also viewable in video or PDF format on the website, followed by a short five-minute survey at riograndeheadwaters.org/alamosa-riverfront. Email alamosariverfront@gmail.com. with further questions.

The City of Alamosa, Colorado Water Conservation Board, Colorado Health Foundation, Trinchera Blanca Foundation, Peregrine Accelerator Program, and the Westside Ditch Water Users have made funding available for the project.

Future

■ Continued from Page 1

city's press release dated July 18, "The City of Alamosa no longer needs St. Benedict in order to enforce the no-camping ordinances on public property (sidewalks, parks, trails, alleys, etc.)."

American Rescue Plan Act (ARPA).

Ongoing and recurring costs – including actual costs and costs offset by in-kind contributions – come in at slightly less than $20,000 a year.

According to Judy McNeilsmith, director of operations and program services with La Puente,

cine Pipe Bearer Award (Spur Award) for Best First Novel, and he was named True West Magazine's Best Western Musician. "Wyoming Wind, A Novel of Tom Horn," was a finalist for the Colorado Book Award.

A seventh-generation Coloradan, Chandler's music and stories reflect his heritage, and his eight CDs, two novels, two non-fiction works, and myriad short stories and nonfiction articles are collected by western lifestyle aficionados worldwide. He hosts the iconic monthly concert series America's Soul Live at the Olde Town Pickin' Parlor in Arvada. "Homage," his new recording of cover songs that have influenced his writing and singing, was released in Summer 2019.

The Los Angeles Daily News dubbed Denver native Chandler the "... best western songsmith since Ian Tyson," while Texas's Country Line Magazine exclaimed, "Thank God for Chandler and his gang of musicians." That about covers it. There's not an ounce of stereotypical Gene 'n Roy retro-cowpoke, Lazy Z Chuckwagon faux-western schtick in his music, voice or prose.

Chandler writes and sings of the historic and contemporary West - not particularly cowboy songs and stories, although they tend to

slightly different forms. But you'll mainly remember the fun."

Tejas Brothers front man and accordionist David Perez echoes this sentiment, "Music is supposed to be fun. They can't put you in jail for combining Tex-Mex music with Honky Tonk music, or an accordion with a steel guitar, so why not do it?" "Mama loves George Jones and daddy loves Freddy Fender," he continues.

With influences from all different styles of music, the audience might find it difficult to describe a live show. Most of them say, "I don't know what to call it. I just know it's good."

The closest description that the band has been able to come up with is Tex-Mex Honky Tonk. A typical trip through a Tejas Brothers medley might start out as a jumpin' tejano polka, hop into steamy engine country train song, and then drop you off into a twisting blue rocker.

As their website says, "If you are one of those people who has all but given up on the music of today, don't worry, there are still some bands putting out the good stuff! If you come to a show, just make sure you can see the stage!"

Tickets can be bought for both at the Society Hall website at www.societyhall.org or at the Green Spot. 71

RGC Museum Board donates to Faith Hinkley Memorial

— Page 6

2024 SLV football schedules

— Page 8

Valley Courier

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VOLUME 98, NO. 13

LOCAL NEWS... LOCAL VIEWS August 24, 2024

SLV Today

Alamosa Riverfront Project meeting

ALAMOSA — The Rio Grande Headwaters Restoration Project will host a public meeting on Tuesday, Aug. 27, at 6 p.m. to discuss the recreation plan for the Rio Grande along Cole Park in Alamosa. The meeting will be at the Shooting Stars Cultural and Leadership Center, 807 Ross Ave., Alamosa.

Felix trial delayed once more

Judge Newmyer-Olsen: 'Next time, a plea or resolution in the case'

By PRISCILLA WAGGONER
Courier reporter

ALAMOSA — Mari Felix appeared in court earlier this week for yet another hearing in connection with the charge of accessory to a crime, a class 5 felony related to the alleged sexual abuse of a child by her husband, Martin Felix-Lopez.

In mid-July, the last time Felix was in court, it was hoped that Wednesday's hearing would determine if the case was going to trial or a resolution had been reached but, in at that time, Felix's attorney, Michael Martin, explained that the district attorney's office "has brought in an attorney to handle specifically these kinds of cases."

Martin was referring to the recent hiring of Assistant District Attorney Wesley Stafford.

He added, "I believe that this will facilitate a probable resolution."

Stafford, who was in court Wednesday with Martin appearing via Webex, told the court he had not yet had time to review the case.

■ See FELIZ page 3

Mari Felix

Storm drain art shines

Navajo dancers at Great Sand Dunes

GREAT SAND DUNES NATIONAL PARK AND PRESERVE — On Saturday, Aug. 31, Great Sand Dunes is hosting Navajo historian Shawn Price and the Dineh Tah' Navajo Dancers for two special presentations:

- At 3 p.m. in the Visitor Center Auditorium, join Price for a 45-minute talk about the profound significance of tribal treaties.
- At 6:30 p.m. at the park's outdoor Amphitheater, the Dineh Tah' Navajo Dancers will present traditional dances, weather permitting.

SHC Bake Sale is Aug. 31

ALAMOSA — The annual Sacred Heart Church Fall Bake Sale begins at 7 a.m. on Aug. 31 at Cole Park via the 2nd Street entrance. It will be stocked with all the favorites – cookies, breads, muffins, brownies, candies, pies and tortillas. A Baker's Delight, an assortment plate, will be available to purchase. All proceeds go toward repairs of Faistl Hall.

4-H ndation

for San Luis Valley Publishing, LLC. "We are grateful that he agreed to stay on for a full year.

"We thank him for his good

newspapers in Wyoming and Nebraska and served as a division manager for News Media Corporation over papers in Colorado, Wyoming, Arizona and

Courier assisting customers with their print and digital advertising needs.

Keith R. Cerny

Alamosa Riverfront Project reels in public input

Courier photo by John Waters

The Alamosa Riverfront Project held a public outreach meeting on Aug. 27. Seated in the foreground from left to right are Diana Jones, Alamosa School District Superintendent, Luis Murillo, ASD Assistant Superintendent, Ty Coleman, Mayor of Alamosa, Charlie Griego, former Alamosa City Council Member, and Erin Minks with Senator Michael Bennet's office.

By JOHN WATERS
Courier News Editor

ALAMOSA — About 40 people attended the second public meeting regarding the Alamosa Riverfront Project held by the Rio Grande Headwaters Restoration Project on Aug. 27.

The meeting was a casual affair, with dinner served and presentations made regarding the plan. The project proposes to increase recreational opportunities along the Rio Grande at Cole Park and restore and maintain river habitat.

Cassandra McCuen told the Valley Courier, "At our first meeting we had about 55 people attend and tonight we have about 35 and I'm impressed with that. We also have people filling out online surveys. We

■ See PROJECT page 3

El Pomar awards $114,000 to 15 organizations in the SLV

STAFF REPORT

COLORADO SPRINGS — Fifteen non-profits and government agencies in the San Luis Valley have been awarded grants from the El Pomar Foun-

tion, totaling $114,000.

about current needs in their own communities.

The remaining two grants were awarded due to a competitive process.

The 13 grant recipients recommended by the SLV Regional

28, caused parts

be without

ac-

SLV REC announced they were providing "mutual aid" to the town and

l Pomar

Continued from Page 1

erating support.
The Center for Restorative Programs in Alamosa was awarded $3,000 for ntal health resilience tiatives in the Alamosa ool District and the ys and Girls Clubs of San Luis Valley plus 000 for general operatsupport.
The Colorado Nonprof- Development Center Denver was awarded),000 for Antonito gether youth mental lth programs and 000 for Antonito Toher general operating port.
The Early Childhood ncil of the San Luis ley in Alamosa was arded $5,000 for the y Corners Program l $1,000 for general erating support.
HadaNou Collective in Denver was awarded $10,000 for Shooting Stars Cultural and Leadership Center, Five Star Riders Car Club and $1,000 for Shooting Stars Cultural and Leadership Center operating support.

High Valley Community Center, Inc in Del Norte was awarded $2,000 for pilot walking club for youth in afterschool programs and $1,000 for operating support.

La Puente Home, Inc. in Alamosa was awarded $10,000 for PALS Children's program and $1,000 for operating support.

Monte Vista Community Fund, Inc. was awarded $7,500 for Monte Vista Kids Connection afterschool programs and $1,000 for Monte Vista Kids Connection general operating support.

Northerners Senior Citizens Association, Inc. in La Jara was awarded $4,000 for furniture and equipment.

San Luis Valley Area Health Education Center, Inc. in Alamosa was awarded $10,000 for Home Instruction for Parents with Preschool Youngsters program supplies and $1,000 for general operating support.

San Luis Valley Board of Cooperative Educational Services in Alamosa was awarded $2,500 for San Luis Valley Foundations Academy play equipment plus $1,000 for San Luis Valley Foundations Academy general operating support.

Valley-Wide Health Systems, Inc. in Alamosa was awarded $3,000 for expansion of behavioral health services for youth and families and $1,000 for general operating support.

The recipients of competitive grants include Tomorrow's Bread of Monte Vista, which received $5,000 for general operating support and Valley Citizens Foundation for Health Care, Inc. in Del Norte, which was awarded $20,000 for Wellness Center Complex equipment.

Founded by Spencer and Julie Penrose in 1937, the El Pomar Foundation has an established legacy of general-purpose grant making. The competitive process remains the Foundation's primary vehicle for organizations to receive funding.

To increase impact and establish connections across the entire state, the Regional Partnerships program was established in 2003. Each of the Foundation's 11 regional councils advises El Pomar Trustees and recommends grants to help support its communities.

ower

Continued from Page 1

vices were restored und 6 p.m. according SLV REC and Ciello, they also warned idents that they may l experience service erruptions while they de permanent repairs. enter resident Barba- Ulibarri spoke about outages and how was worrisome to be hout power.
I was at work when heard what han-

Project

Continued from Page 1

have received great feedback, and our engineers are already incorporating that with all the constructive feedback. We will incorporate the feedback from tonight."

Quinn Donnelly is a river engineer with RiverRestoration and is working on the project. His expertise includes open channel hydraulics and fish passage design. As part of the strategy to help fish in the river, he and others are working on in-stream habitat improvements.

Donnelly said, "In the river, certain native fish have preferences for certain types of habitat, including slow-moving areas that are shallow and warmer. With the levee system, a lot of that habitat is gone. We want to put more of that back. Downstream on the east side of the river (river left) and upstream, on the west side of the river, we will put that back, too."

JUB Engineering is a sub-consultant of River Restoration and has been working on civil and agriculture engineering and landscape architectural work.

"The current estimated project cost is $3.5 million-$4.5 million, which includes a healthy contingency to account for inflation of construction costs over the years. The cost estimate may change as we modify design elements based on the public's feedback, though I don't foresee it changing significantly," according to McCuen.

Lisa Lucero said, "SLV AHEC's (San Luis Valley Area Health Education) Mi Salud y Mi Familia promotora program helped amplify voices of Latino residents during the 2022 City of Alamosa Outdoor Recreation Survey, thereby providing valuable insights for the riverfront project.

"To date, SLV AHEC has informed 2022 survey participants about the river project and community meeting and reached out to other under-represented residents.

"Surveys and community meetings in the SLV often feel extractive. This initiative has shown the community their voices are powerful and can bring about meaningful change – changes we have already seen in action."

McCuen summed up the evening with, "I'm really proud to be part of a community that shows up for these meetings and takes ownership in this."

There will be a final public outreach meeting in January.

For more information on the Alamosa Riverfront Project, visit www.riograndeheadwaters.org/alamosa-riverfront.

going to be played Saturday at 10 a.m. as scheduled.

There is also a change with the Adams State University basketball games. Friday's ASU men's game against Texas-Permian Basin was moved to Sunday at 11 a.m. The women's game against Cameron (Okla.) has been canceled and will not be rescheduled.

Saturday's games are expected to be played as scheduled.

SLV WEATHER

Mostly Sunny, Breezy
37/6

Sun: Morning Fog, Mostly Sunny 39/9

Mon: Morning Fog, Mostly Sunny 40/11

INSIDE

Record ..... Page 2
Valley News ..... Page 3
Opinion ..... Page 4
Religion ..... Page 5
Lifestyle ..... Pages 6 and 10
Public Notice ..... Page 7
Classifieds ..... Page 8
Comics ..... Page 9
Salute to Veterans Pages 11-22

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at the historic Mainstage Theatre with "Xanadu." The book is by Douglas Carter Beane with music

this hilarious, roller skating, musical adventure is about follow-

■ See CRT page 3

Creede Repertory Theatre (CRT) will open its 60th anniversary season in May. Past productions included 'Young Frankenstein.'

Brooke Ashley Photography

City council supports riverfront project

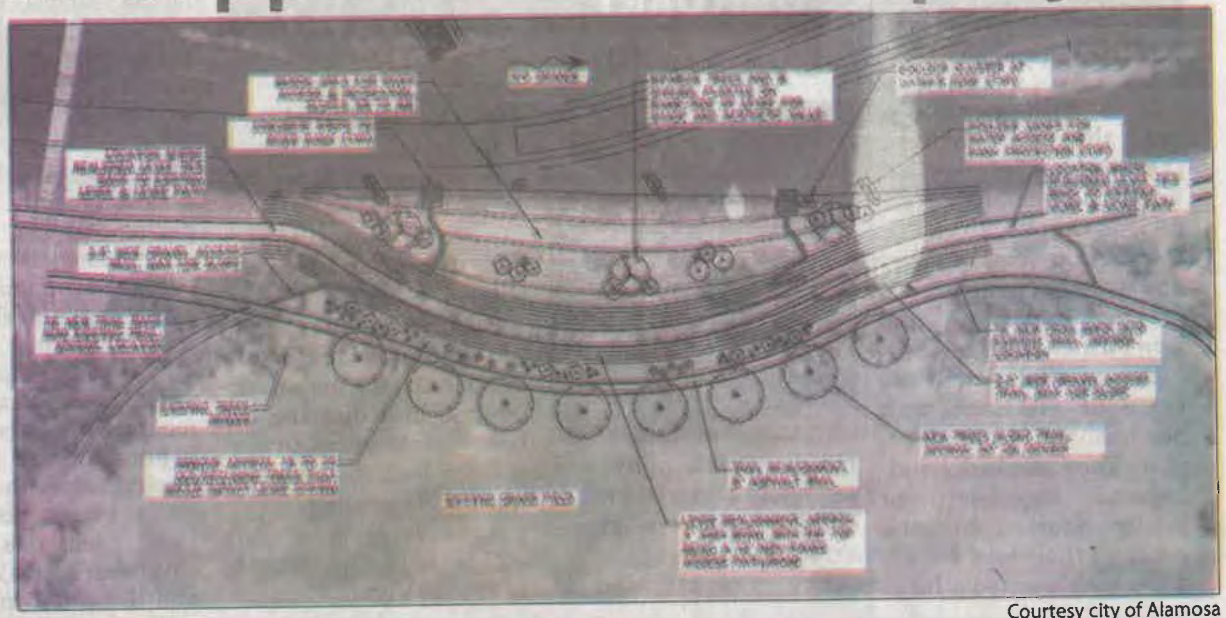
By PRISCILLA WAGGONER
Courier Reporter

ALAMOSA — During Wednesday night's meeting of the Alamosa City Council, a motion expressing support for the Alamosa Riverfront Project passed by unanimous vote.

While the vote to approve took no more than a couple of minutes, the project the motion supports is large in scope and of enormous value to fish and wildlife, farmers hoping to efficiently access their water rights, those people of Alamosa yet to discover or longing to connect with the river and the health of the Rio Grande River itself, the lifeblood of the San Luis Valley.

The project originated with

■ See PROJECT page 3



Courtesy city of Alamosa

Conceptual design of Alamosa Riverfront Project and Cole Park.

The two traveled the world together and photographed wildlife and landscapes. They worked with numerous conservation groups. Their work contributed to the establishment of [illegible] projects throughout the West, Shattil and Rozinski, who passed in 2016, were instrumental in permanently protecting wildlife and natural resources' habitats.

Shattil's global photography [illegible] Award last year.

Said Shattil, "The Sand Dunes are great, and you can spend a lifetime photographing them and there would still be pictures that hadn't been taken."

[illegible] produced playwrights in America. The drama follows the true story of 19th-century scientist Henrietta Leavitt, whose breakthroughs in astronomy profoundly impacted the way we see the

Project

■ Continued from Page 1

the Rio Grande Headwaters Restoration Project (RGHRP), a non-profit created to, in their words, "restore and conserve the historical functions and vitality of the Rio Grande Basin in Colorado."

As the organization has taken on the health of the river that runs about 200 miles through the basin, they recognized it is encountering significant challenges in its passage through Alamosa.

The project is a collaborative effort between RGHRP and Alamosa's Parks and Recreation Department along with SLVGO!, SLV Water Conservancy District and the Rio Grande Farm Park. While the larger vision is to improve overall river health as well as preserve riparian habitat, improve drought resistance and replace an aging irrigation ditch diverting water off the Rio Grande, the project also aims to make the river easier and safer for people to access.

That is where the goals of Alamosa Parks and Recreation intersect with the larger project as the 2017-2018 Comprehensive Plan for the City of Alamosa included "Activating the Rio Grande Corridor" as the department's top priority, according to Andy Rice, director of Parks and Recreation.

With that in mind, Wednesday night's presentation to council largely focused on access to the river from Cole Park, the stretch of the river that is within Alamosa city limits.

As described by Heather Sanchez, Alamosa city manager, the project calls for a new river-right take out location at Cole Park that will complement the river-left take out located at the State Avenue Bridge. It also includes a pedestrian underpass for the levee trail under Highway 160.

As was reported in the Valley Courier, there have also been two meetings with the public to solicit feedback on the project.

"What we heard overwhelmingly from the public," Sanchez says, "was that, if we moved the levee into the park by about 70 feet, we can make the incline into the river more gradual, which makes it ADA accessible. We could also put some jetties in there so people can interact with the river more easily."

Although concerns have been expressed about the move causing the loss of several mature Cottonwoods and grassy areas in the park, moving the levee is needed to improve flood conveyance and create more of a beach type landscape.

Based on that feedback, engineers are already working on the design but "before [Parks and Recreation] told them to go ahead," Sanchez says, "they needed to make sure council knew what was going on with Cole Park."

The project will probably require significant investment. RGHRP has raised over $200,000 in grants and the city has contributed $40,000 toward the design effort for the project. Given the success that both RGHP and the city have had in obtaining funding in the past, it's anticipated that adequate funding can be raised over the next five years.

Council's vote indicated strong support with moving forward.

"This project just fits in with so many things the city is doing," Sanchez says.

dreams and possibility, one that celebrates our 60-year history and invites folks to look ahead to CRT's bright future," says Artistic Director Van Fleet of the anniversary season. "I hope audiences next year will leave the theatre with a renewed sense of wonder, inspiration, adventure, and possibility."

On July 13, Boomtown! Improv comedy returns for its 19th season on a new day and time, Sundays at

grades K-6 across Colorado and the Southwestern US.

Flex Passes for the 2025 season are currently on sale and will once again offer pass holders an exclusive booking window beginning Jan. 8 before single tickets go on sale to the general public on Feb. 3. For tickets, information, or to purchase 2025 Flex and VIP passes, visit www.creederep.org, call the box office at 719-658-2540, or email boxoffice@creederep.com.

Important Notice for Landowners: Opportunity to Sell Water Rights to the Rio Grande Water Conservation District

What's Happening?
Many areas in Colorado rely on groundwater from wells for their irrigation needs. Through Groundwater Management Subdistricts here in the San Luis Valley there have been efforts to reduce the reliance on groundwater, but there's still work to be donelç

What's Funding Is Available?
The state created the "Groundwater Compact Compliance and Sustainability Fund," to help us address our sustainability issues. With these funds, the Rio Grande Water Conservation District created a program and is offering money to landowners who are willing to reduce their use of their groundwater rights either completely or partially.

How Can You Participate?
The Rio Grande Water Conservation District is taking applications from landowners who meet program criteria and are willing to sell their groundwater rights to the District. Successful applicants will receive payment from this Fund.

Details and Application:
- You can find out more and get the program criteria and application form on the District's website at rgwcd.org. You can also visit the District's office at 8805 Independence Way, Alamosa, CO, 81101, or by call the office at (719) 589-6301.
- Applications can be submitted beginning on April 22, 2024, at 8:00 a.m. and will end on May 31, 2024, at 4:30 p.m.
- Completed applications can be emailed to wylie@rgwcd.org or dropped off at the District's Office.

Don't miss this limited opportunity if you're interested in getting paid for conserving groundwater!

ALAMOSA CITIZEN

episode 45: Cassandra McCuen and Brian Puccerella

by **The Citizen**
November 13, 2024

The Outdoor Citizen
episode 45: Cassandra McCuen and Brian Puccerella

1X

00:00 / 00:29:16

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Download file | Play in new window | Duration: 00:29:16 | Recorded on November 13, 2024

Joining us are Cassandra McCuen from the Rio Grande Headwaters Restoration Project and Brian Puccerella from San Luis Valley Great Outdoors! They are spearheading the Alamosa Riverfront Project and working with the community.

ALAMOSA CITIZEN

Credit: Owen Woods

OUTDOORS

Alamosa Riverfront Project: Harnessing the Rio for recreation

Multi-million dollar plan to improve access and habitat on track for 2026 start

by **The Citizen**
November 21, 2024

Alamosa is continuing to piece together its Rio Grande recreation puzzle. With support from the city of Alamosa to pull back the levee to make way for a beach, the Alamosa Riverfront Project is taking a different shape. Support from the city will aid in helping bring the project to completion.

During a city council meeting earlier in November, councilors recognized that the project aids in the city's "Activating the Rio Grande Corridor," a top priority for the Parks and Recreation Department.

As the river's oxbow loops lazily trickle ever southward to the Gulf of Mexico, deciphering how to ensure people can access the river, how the river can maintain its natural biodiversity, and how to prevent thousands from losing their homes in a "100-year" flood make it a daunting and sharp puzzle.

The Alamosa Riverfront Project is looking to expand recreation access and improve river restoration from the State Avenue Bridge, upstream of Alamosa's Cole Park, to the West Side Ditch, downstream of Cole Park. It's a multi-million dollar project that, so far, has received overwhelming support from the community, according to project planners and members of the community who showed up at a series of summer community meetings.

You may be able to take the town from the river, but the river will continue to flow through town.

The project is looking to connect people back to the Rio Grande, not through adrenaline-pumping white water, but instead by leveraging its natural geographic limitations.

> ***…something the community wanted, and I think we're gonna get there because people took time out of their day to be involved in all this.***
>
> — CASSANDRA MCCUEN

Brian Puccerella, San Luis Valley Great Outdoor's outdoor recreation manager, has been involved in this project since about 2016. That's when the conversation about expanding access to paddlers, maybe adding a play wave, and just expanding recreation generally started making the rounds.

The conversation was about "what was possible in our stretch of river in town," Puccerella said. "We didn't know the answer to that."

An engineering study was funded in 2017 to look at what was possible.

“The conclusion,” he laughed, “was not much. It’s pretty flat and we don’t have a lot of flow. That doesn’t mean there isn’t going to be recreational improvement.”

The study equates Alamosa’s stretch of low-flowing river, less than one mile per foot downhill through town, to a “skinny lake.”

Puccerella explained that Alamosa’s portion of the river doesn’t have the flows or drops to ever get whitewater, even in a good year. A lot of the water that flows from the mountains into the river is diverted to different systems throughout the San Luis Valley. By the time the river reaches Alamosa, its flows are quite slow.

What we do have, he said, is flatwater.

That’s not a negative, though. “It creates opportunity for family-friendly recreation.”

Construction is still a ways out. Alamosans can expect construction to begin sometime around fall 2026. A lot of money still needs to be raised, and a lot can happen between now and then. What planners won’t have to worry about is the Army Corps of Engineers’ levee recertification.

Credit: The Alamosa Riverfront Project

BEACHFRONT PROPERTY

When construction is finished, the western levee, the side of the river adjacent to Cole Park, will be **pulled back** and a highly accessible riverfront beach will be added. Right now there's a fairly steep, unfriendly drop to the water. In the future, there will be easy access for everyone.

The **Rio Grande Headwaters Restoration Project** is heading up the funding and providing the support to engineers throughout the project's timeframe. During the summer, the group held two community feedback meetings to both inform and learn. From those meetings, project planners were able to adjust the plans.

Final plans will be revealed to the public in early 2025. These preliminary **renderings** can give us a hint, however.

"We're doing this because this is what the community wanted," said Cassandra McCuen, program manager for the Rio Grande Headwaters Restoration Project. She called the project "amazing and transformative."

McCuen and Puccerella joined Outdoor Citizen podcast host Marty Jones to talk more about the project and provide updates. You can listen to that episode **here**, or wherever you get your podcasts.

From those community meetings, project planners were able to incorporate community feedback. Two of the most important pieces of feedback for engineers and designers: ensuring as much of the project is ADA accessible as possible, and making sure the river and beachfront are safe.

Access from Cole Park will be a priority, as it will serve as a kind of hub. The project calls for a few more boat ramps, adding to the two Alamosa currently has. These boat ramps won't be for motorboats, but personal watercraft such as paddle boards, tubes, kayaks, and canoes.

Increasing recreational potential increases recreational safety. Currently, Puccerella and McCuen said, floating south of Cole Park isn't advised. The West Side Ditch Diversion and the railroad bridge are a bit of a snag of willows, rusty metal, and splintered wood.

So, with that in mind, planners want to ensure the dams downstream are passible. The idea is to not cap where people can float, but to set it up for future downstream flows. Having an unrestricted float down the Rio Grande is Puccerella's big vision.

As dams downstream from Alamosa get updated, he said it's important for there to be access for paddlers to get around or through them, "especially on such a historic stretch, like the Rio Grande."

McCuen said that the Rio Grande Headwaters Restoration Project tries to set the (often literal) groundwork for successful recreational futures in its restoration work.

Credit: Owen Woods

INSIDE THE LEVEE

“Inside the levee it’s more complicated,” McCuen said.

When it comes to changing the levee or potentially changing how water flows through town, you answer to the Army Corps of Engineers.

The Corps is responsible for ensuring that levees don’t fail during a proverbial “hundred-year flood.” Alamosa has a history of regular and **devastating flooding**. The levee system protects Alamosa proper and East Alamosa. Without a certified levee system, property owners are required to pay for flood insurance.

The recertification process is still many years out. The riverfront project is just a few years out. McCuen said the city has been an amazing partner in supporting the project.

With that in mind, project planners were able to meet with the Army Corps of Engineers and provide them with a full rundown of the project, plus the support of the city of Alamosa, and their proposal to pull the levee back.

McCuen said it was a real point of concern, because the project planners were unsure of how the Corps would react to the project's proposal of pulling the levee back and the inner-levee restoration work.

McCuen said they were finally able to meet with the Army Corps in August. During that meeting, the Corps told the project planners they would be willing to work with them, "as long as you do not impact the flows through Alamosa negatively."

Pulling the levee back to make way for a beach won't impact flows in a noticeable way.

"Our project has worked seamlessly with the work that's gone into levee recertification," she said.

Fish species thought to be present at Cole Park, based on CPW fish surveys. Credit: The Alamosa Riverfront Project

FISH PASSAGE

People are not only getting an upgrade, but so are the wildlife. This project is unique and special to Alamosa through both its recreation and restoration efforts. McCuen said the attempt is to improve the natural condition of the Rio Grande through town alongside increasing its recreational value. From the planning phase onward, restoration has been at the forefront of the project.

In-town restoration work can be complicated due to the levee recertification, but also due to the geographical limitations Puccerella mentioned. The river is extremely confined, McCuen explained.

Part of that confinement is because the Rio Grande is a very developed river. For example, diverting the Rio Grande's flow before it reaches Alamosa creates that low flow prime for paddling and floating, but it also makes the water warm.

Warm water is bad for the Rio Grande's fish. "Super-duper low flows make the area hot," McCuen said. So one of the major aspects of the restoration portion is creating a safe, cool fish passage.

"We want fish to be able to flow upstream and downstream."

The fish passage would simply be deeper channels that fish would use as aquatic highways. Also needed are fish refuges, or backwater habitats that exist along the river to serve as places where native fish can take refuge from non-native carp and pike.

Restoring the Rio Grande will take time and effort, but connecting the people back to the river is a start.

"We really wanted to create a project that spoke to the culture of Alamosa, spoke to the community, is something the community wanted, and I think we're gonna get there because people took time out of their day to be involved in all this," McCuen said.

20

THURSDAY, JUNE 20, 2024 AT 6:00 PM MDT

Alamosa Riverfront Project Public Input Meeting

6935 CO-17, Alamosa, CO 81101-9546, United States

About Discussion

Invite

Details

78 people responded

Event by **Rio Grande Headwaters Restoration Project** and **Rio Grande Farm Park**

6935 CO-17, Alamosa, CO 81101-9546, United States

YOU'RE INVITED!

TO THE FIRST ALAMOSA RIVERFRONT PROJECT PUBLIC INPUT MEETING

Rio Grande Farm Park

6935 CO-17, Alamosa, CO 81101

June 20, 2024 at 6:00 PM

ALAMOSA RIVERFRONT PROJECT

PUBLIC INPUT MEETING

The community is invited to provide input on conceptual designs to help shape the Alamosa Riverfront Project. Dinner will be provided. Spanish translation available.

Se invita a la comunidad a brindar su opinión sobre diseños conceptuales para ayudar a dar forma al Proyecto Alamosa Riverfront. Se proporcionará la cena. Traducción al español disponible.

20 June 2024 | At 6:00 PM

Rio Grande Farm Park Education Building
6935 CO-17, Alamosa, CO 81101

For More Information | Para más información :

riograndeheadwaters.org/alamosa-riverfront

alamosariverfront@gmail.com

Please RSVP. Not required to attend.