F) NEIGHBORHOOD/PUBLIC MEETINGS & POWERPOINT PRESENTATIONS/OSAB MINUTES

NEW MEXICO DEPARTMENT OF TRANSPORTATION

NM 500 RIO BRAVO BRIDGES REPLACEMENT PROJECT, BERNALILLO COUNTY, NEW MEXICO

PUBLIC OUTREACH AND COMMENT SUMMARY REPORT

CONTROL NO.: A301000

NMDOT

U.S. Department of Transportation
Federal Highway Administration

wsp

NM 500 RIO BRAVO BRIDGES REPLACEMENT PROJECT, BERNALILLO COUNTY, NEW MEXICO

PUBLIC OUTREACH AND COMMENT REPORT SUMMARY

NEW MEXICO DEPARTMENT OF TRANSPORTATION

CONTROL NO.: CN A301000
DATE: JULY 2021

WSP USA, INC.
2440 LOUISIANA BOULEVARD, SUITE 400
ALBUQUERQUE, NM 87110

WSP.COM

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

1 INTRODUCTION

The following public meeting summary provides a synopsis of the public outreach process and effort to date, including input received, for the NM 500 Rio Bravo Bridges Replacement Project in Albuquerque, Bernalillo County, New Mexico (CN: A301000). Public involvement and stakeholder coordination for the project began in 2020 and has continued into spring 2021.

2 PUBLIC INVOLVEMENT PROCESS

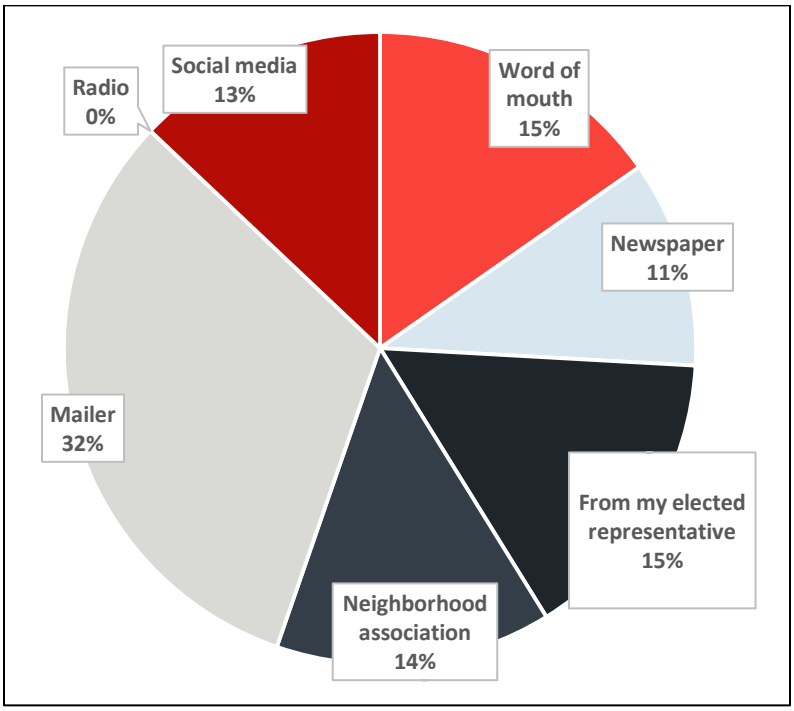
The NM 500 Rio Bravo Bridges Phase IA/B Study Area serves a broad and diverse set of stakeholders including federal, tribal, and state resources agencies; county and local agencies; community residents; commuters; area businesses; elected officials; and other users of the bridge within the Albuquerque Metro area. Due to the COVID-19 pandemic, in-person community and stakeholder engagement was not feasible for the Phase IA/B Study efforts, which necessitated development of a virtual engagement strategy to reach a wide audience and seek effective tools for public participation. Accordingly, the project team held a live, virtual public involvement meeting during the study phase on Wednesday, December 9, 2020. The project team selected the Zoom virtual meeting platform for the meeting because of its versatility in allowing participants to join over the internet or via telephone. The following summarizes our context-sensitive approach to public and stakeholder engagement to date.

To provide notice of the public input request, United States Postal Service Every Door Direct Mailers (EDDM) were sent to 5,541 residents in the immediate vicinity of the project area, and an advertisement was published in the Albuquerque Journal newspaper on November 25, 2020 (**Appendix A**). In addition, a mailing list of over 1,000 contacts was generated using grassroots outreach, which included numerous area neighborhood associations; local trail and biking groups; adjacent businesses and residents; Senator Padilla's constituent mailing list; federal and state regulatory agencies; city, county, tribal, and state officials; and anyone from the public who requested to be added to the mailing list. The public meeting announcement was sent to those on the mailing list through email with follow-up flyers sent to those immediately within the project area using the available County Assessor property owner information. Lastly, notification of the public meeting announcement was posted on the New Mexico Department of Transportation (NMDOT) Projects Website and social media outlets, and distributed through the NMDOT Public Information Officer.

The virtual public meeting included a PowerPoint presentation and a live question-and-answer interaction between the Project Team and participating public. The meeting was recorded, and a video of the meeting was posted to the NMDOT's YouTube website to allow those who were not able to attend to watch the presentation and provide feedback. The presentation began with introductions, and then the Project Team discussed project location, project development process, activities completed, key objectives of the project, bridge and project design, and schedule. A copy of the PowerPoint presentation slide deck is located in **Appendix C**.

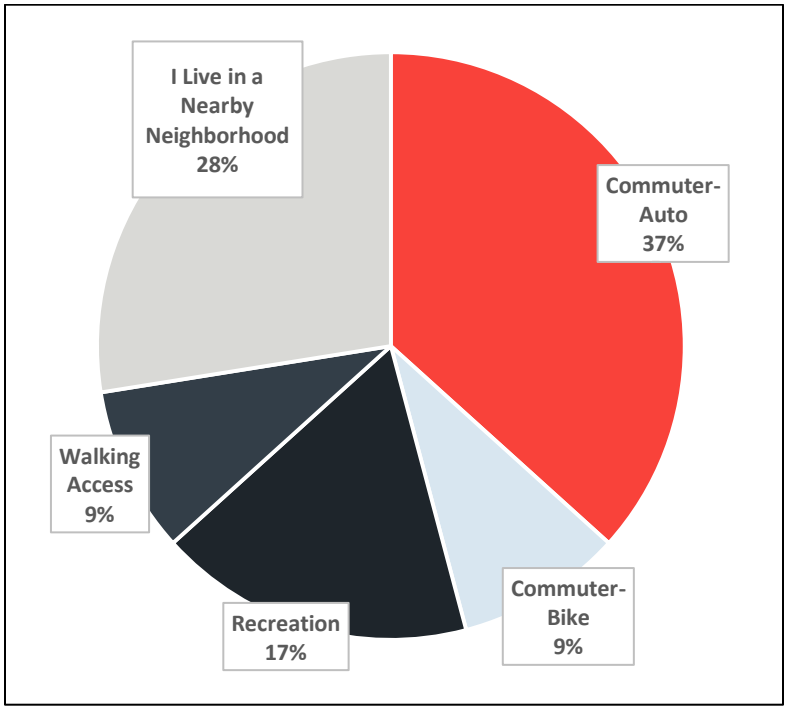
Once the live event was underway, the Project Team polled attendees about how they heard of the event. Most listeners heard about the public meeting through the mailer that was sent two weeks prior. Results are summarized below in Figure 1.

Figure 1: How did you hear about tonight's meeting?



Shortly thereafter, a second poll question was asked to the listeners about how they use the NM 500 Rio Bravo corridor. Most listeners use the corridor for commuting in their vehicle or because they live in a nearby neighborhood. Results are summarized below in Figure 2.

Figure 2: How do you use the NM 500 Rio Bravo Corridor?

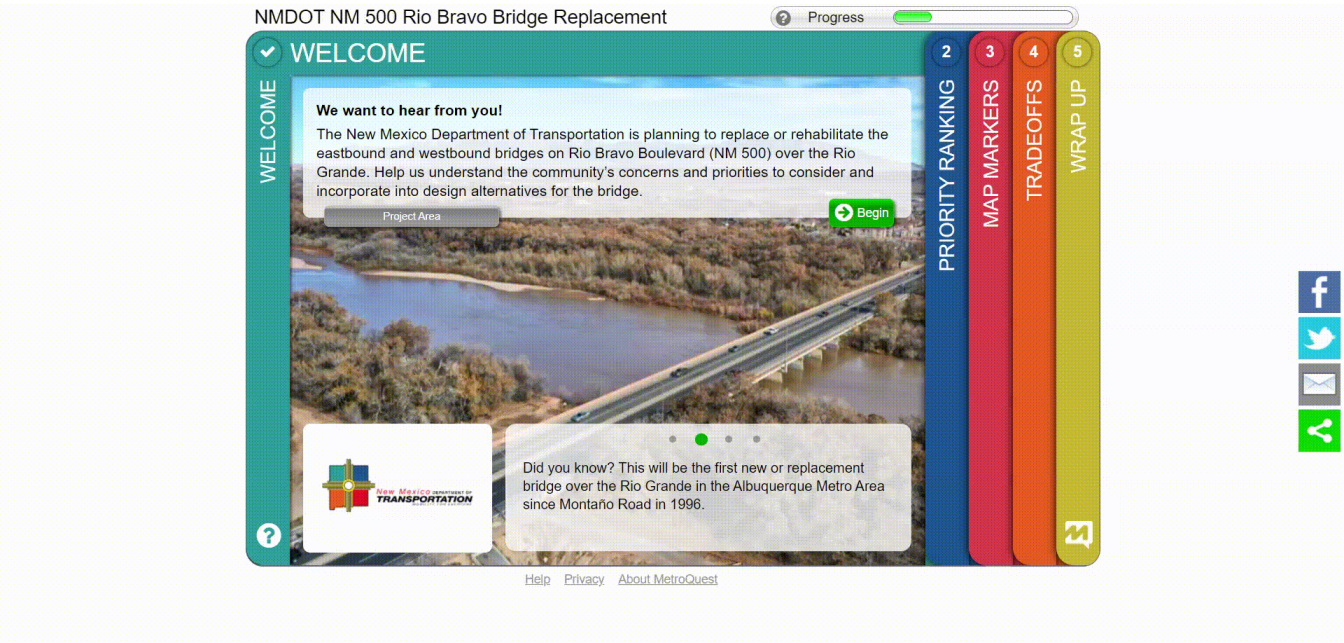


Considering the urban context of the project corridor, the Project Team chose strategies to encourage public participation from a diverse spectrum of the public. The public advertisement included a custom weblink URL (http://linktr.ee/nm500riobravo) that led the public directly to a centralized webpage that offered single-source access to the public meeting registration webpage, NMDOT District 3 Projects webpage, and MetroQuest survey. Participants were encouraged to provide comments via email or through the online MetroQuest survey option during the public comment period.

To aid in the public involvement process, an interactive and informative web-based survey tool was created on the MetroQuest platform (Figure 3), compatible with any internet-connected device (laptops, tablets, and smart phones). MetroQuest allowed the public to receive project background information while providing their input on ranking priorities, providing specific comments with geo-referenced locations, voting on tradeoffs, and volunteering demographic information. The survey was provided in both English and Spanish. Participation in the MetroQuest survey was promoted alongside the virtual public meeting via the project email list, EDDM mailers, and advertisement published in the newspaper and social media outlets. The survey was published two weeks prior to the live meeting event when meeting notices were mailed to the public. The survey remained live until the end of the public comment period on January 31, 2021.

The public comment period, initially set for 30 days, was extended for an additional 20 days, ending on January 31, 2021. The Project Team decided to extend the comment period to allow participants additional time to respond due to variables such as the holiday season and a peak in the COVID-19 pandemic.

Figure 3: NM 500 MetroQuest Survey



Overall, 162 people registered for the live public meeting event ahead of time. On the day of the meeting, a total of 168 people attended the event on Zoom. The video of the meeting posted to the NMDOT YouTube channel following the meeting has garnered an additional 120 views. During the public meeting event on December 9, 2020, the Project Team received 43 questions and comments. Attendees engaged in active discussion and Q&A

for longer than the scheduled meeting time of an hour and a half, which lasted 158 minutes total. A total of 253 people participated in the English-version MetroQuest survey, consisting of 427 comments and 2,644 data points. The Spanish-version MetroQuest survey saw a total of 14 participants who provided 87 data points and 13 comments. Additionally, the Project Team received comments in 34 emails and 7 phone calls.

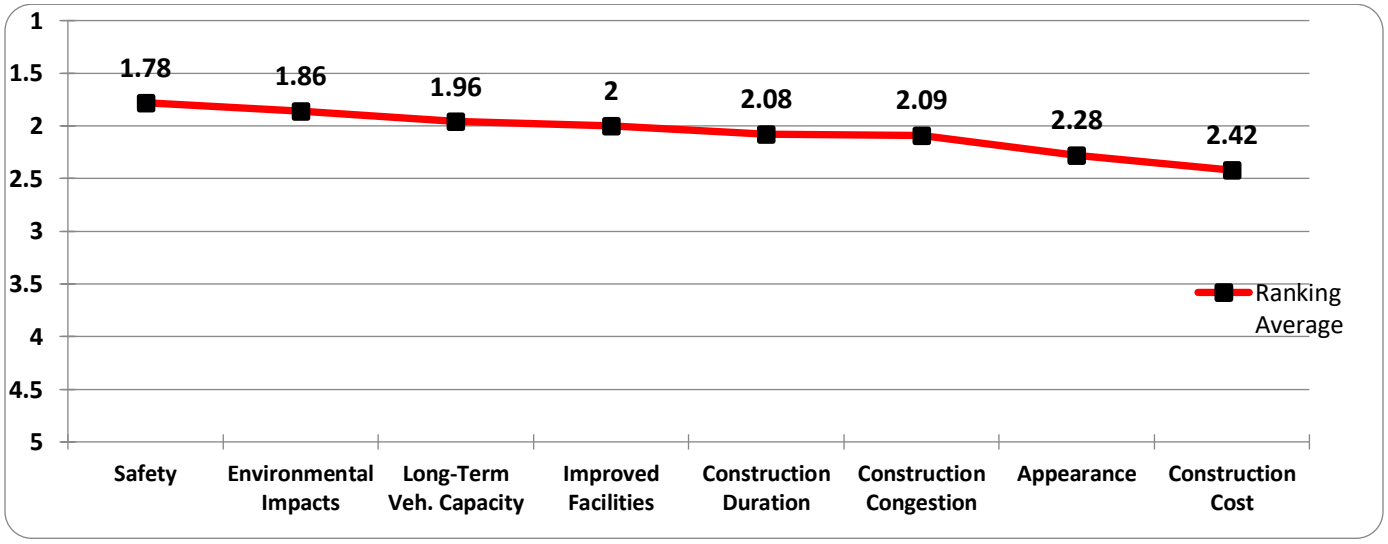
3 PUBLIC MEETING COMMENTS

Comments received from all platforms were combined and organized into general themes. Review and analysis of comments indicate that the public input received falls into the following themes: (1) project priorities, (2) access concerns, (3) safety concerns, (4) multi-modal (pedestrian and bicycle) concerns, and (5) environmental concerns. Comments received that fell outside of the project scope or location were shared with the pertinent land managing agency (e.g., Bernalillo County). The following summary of paraphrased cumulative comments is based on questions or comments received to date from the public. Copies of all comments received through January 31, 2021, and a complete summary categorized into general themes can be found in the *NM 500 Bridges Replacement Project Public Comment Summary Report*, on file at the NMDOT Environmental Bureau.

PRIORITY RANKING

Within the MetroQuest survey, participants were asked to rank priorities based on what they believed to be the most important. Participants ranked safety as the most important priority and construction cost as the least important (Figure 4). *Note that the highest rank is 1.*

Figure 4: Priority Ranking Voting Results from Survey Participants



ACCESS CONCERNS

- Will the bridge be shut down at any point during construction?
- Traffic is extremely heavy on Rio Bravo Blvd. Specifically on 2nd St. to the new portion of Rio Bravo Blvd., the turn lanes, Isleta Blvd., and Poco Loco Dr.,

- Commenters noted access concerns and made comments concerning several locations within the project area, including:
    - The ability to safely access the Bosque, acequia, Rio Bravo Picnic Area, open space trailheads, parking lots, and bike path. Off-road vehicles are often in the ditch and open space paths and sometimes create their own trails.
    - Crossing the river.
    - Accessing I-25 from the residential area on the west side of Isleta.
    - Access concern with 2nd St. northbound traffic turning west then crossing lanes to access current service station.
    - Commenters added access concern markers at the following locations: El Porvenir Circle SW, Del Sur Drive SW, the First Financial Credit Union, along the Rio Bravo Bridge, along Isleta Blvd., the recreation areas, Belvedere Ave SW, 2nd St. intersection, King Rd. SE, Prince St., and at Valley Rd. SW at Esequiel Rd. SW.

- Commenters expressed concerns regarding access during and after construction, specifically:
    - Getting across the river during construction.
    - Being able to access school bus stops during construction.
    - Traffic congestion during construction.
    - Congestion along detour routes during construction, specifically at NM314, the Tribal Road Network from NM314 to NM45, and south on Isleta and NM317 to I-25. One commenter noted that repaving the detour routes should be included in the project because a higher number of vehicles will be traveling along those routes.

- Questions about access included:
    - What will be done to help with traffic flow onto Rio Bravo?
    - Will the new bridges be constructed in a similar fashion to the existing one?
    - With the new I-25 Rio Bravo interchange construction west to Broadway, will there be a possibility of new construction between 2nd Street and Broadway?
    - Why do other bridges get recreation parking lots and citizens on this side of the river get none? There is a lot, but there is no access here.
    - Will the city and neighborhood use this bridge for public mass transit purposes such as extra city bus services or a possible light rail?

SAFETY CONCERNS

- Commenters expressed concerns about safety at Poco Loco Dr., and specifically noted that it is difficult to access Rio Bravo Blvd. from Poco Loco Dr. and vice versa, a traffic light should be installed at this intersection, and drivers who enter westbound traffic from Poco Loco Dr. often make unsafe entries into traffic and cause disruptions to traffic flow.

- Commenters made several comments about the safety of Rio Bravo Blvd. along the entire project area, and specifically noted that speeding is a huge concern, there are potholes, turning conflicts must be minimized, pedestrian access is dangerous, and accidents occur on the bridge. One commenter asked if an adequate barrier will be installed between east and westbound traffic. One commenter suggested using narrow lanes to prevent speeding.

- Commenters expressed concern with the intersection at 2nd St. and specifically noted that the intersection should be safer for pedestrians, vehicles, and cyclists, drivers often run the light to avoid

getting held up by the train, and there are a lot of accidents at this location. One commenter suggested adding right-hand turn lanes to improve safety.

- Several people made comments about the safety of the pedestrian areas within the project boundaries, and noted that:
    - The box culvert under Rio Bravo is useful for pedestrian and bike travel when on the single-track dirt trail, however, lighting should be installed under the bridge. One commenter was concerned that drivers will not see pedestrians at the underpass, which could cause collisions.
    - The path along the drain has a dangerous blind intersection.
- Commenters were concerned about safety during construction and noted that they are concerned about the safety of the workers, and speed bumps may be needed along Quetzal Dr. during construction to prevent speeding in the neighborhood, since drivers use the neighborhood as a detour, take the turn too fast at Poco Loco Dr., and come close to hitting pedestrians and residents.
- Several commenters expressed concerns with the safety at the Isleta Blvd. intersection, and stated that there is too much speeding and too much congestion. Comments suggested that an additional traffic light, longer merge lane, and a double-turn lane would improve safety at the intersection. One commenter also noted concern about pedestrian access and being able to safely cross. One commenter suggested adding a ramp meter for traffic joining eastbound Rio Bravo from northbound Isleta because merging is dangerous and difficult during rush hour.

PEDESTRIAN CONCERNS

- Commenters noted several concerns related to pedestrian facilities and access in the project area:
    - Although the bridge has a pedestrian passage, it does not connect to pedestrian facilities on either side of the bridge. On the east side, the pedestrian part of the bridge is inaccessible to pedestrians and cyclists and does not facilitate travel along Rio Bravo Blvd. People walk on the bridge even at night when visibility is poor. There should be a pedestrian sidewalk on the north side of the bridge and multi-use trail on the south side of the bridge. The pedestrian pathways need to connect to the Chris Chavez Trail to the Riverside Trail.
    - The bike and pedestrian lanes need to be wider, separated from the speeding traffic, and better protected. The existing pedestrian access is very narrow and run-down. It should be upgraded, safer, and have shade. Separate access would benefit those looking to access the bike trails or Rail Runner station and the nearby homeowners.
    - All pedestrians should be banned to make room for safer, wider lanes for vehicles.
    - The slip lanes are incredibly dangerous for pedestrians and cyclists.
    - The intersection at Isleta Blvd. has pedestrian traffic and is unsafe. There needs to be adequate time for pedestrians to cross the intersection at the pedestrian crossing.
    - The intersection at 2nd St. and Rio Bravo Blvd. is unsafe for pedestrians to cross.
    - Commenters requested a sidewalk and bike connection to Dean Dr., a connection that continues from 2nd St. to the school and minimart, access across the river and bridge, a sidewalk on the west side of the bridge, and pedestrian access to the east. Commenters also requested that the pedestrian facilities be well lit and include drainage.
- Commenters noted pedestrian concerns at the following locations: Isleta Blvd. intersection, along the Rio Bravo Bridge, Shaw Dr. SW, the recreation areas, and the 2nd St. intersection.

CYCLING CONCERNS

- Several people made comments about cycling concerns on the existing bridge and stated that there are no dedicated bike paths over the bridge, the shoulder is very narrow and never cleared of debris, access to the existing cycling routes is difficult, and speeding cars make cycling unsafe. Additionally, commenters noted that there is no left-hand turn lane to turn to go southbound on Isleta Blvd., and there is a lack of cycling facilities west of the river. Commenters also noted that the bike lane ends before the intersection, which makes it difficult to merge with traffic and unsafe to turn left onto Isleta Blvd.

- Suggestions and comments on the bicycling opportunities and associated project design included:

    - There should be a dedicated pedestrian bridge.
    - The bike routes need to connect the Chris Chavez Bike Trail to the Riverside Trail. There also should be a bike route on Isleta and on 2nd St. that connects to the open space area.
    - Rio Bravo Blvd. should have adequate and enhanced commuter and recreational bike lanes that are separate from traffic and are protected, such as with a barrier (jersey barrier/flex posts). If only located on one side of the bridge, the multi-use path should be bi-directional and 12-14 feet wide. If the path is located on both sides of the bridge, it should be 6-7 feet wide, which would be beneficial to those looking to access the bike trails or the Rail Runner Station from the west side of the river, and local homeowners.
    - Cyclists often use the sidewalk to cross the bridge because the existing shoulder/bike lane has a lot of debris in it, and the sidewalk offers additional distance from traffic. However, this makes the sidewalk unsafe for pedestrians to walk and leads to dangerous moments when people try to pass each other. When designing the bike lanes, a physical barrier should protect a bike lane alongside a dedicated pedestrian lane.
    - Cyclists will not currently travel under the bridge to orient themselves with traffic and will go "against the flow" of traffic due to convenience. The new bike lanes should be wide enough to allow for cyclists to pass one another without dismounting, even if the bike lane is not explicitly labeled as a two-way lane;
    - The current bridges have wide shoulders that are suitable for bicycling but are almost always covered in debris, including glass. Additionally, the space under the bridge is also covered in trash, which encourages cyclists to cross the bridge into traffic. These should be swept regularly. Any design that could minimize the accumulation of trash would be an improvement. One commenter noted that a lot of the trash accumulation is from trash thrown from vehicles.
    - Commenters noted the need for improved bicycle safety at the 2nd St. intersection and suggested that there needs to be priority signalization at the intersection for bicycles, and the cycle lanes should be painted through the intersection. Commenters noted that it is unsafe for cyclists to access the bridge from 2nd St. because the bike lane does not connect.
    - Bicycles need the ability to maneuver safely around the Isleta/Rio Bravo intersection in all directions. Rio Bravo is the major bicycle artery to access the Bosque Trail system.

ENVIRONMENTAL CONCERNS

- Commenters expressed concern about the impacts to the Bosque and Rio Grande and noted that impacts to the ecosystem (both habitat and wildlife), should be as limited as possible during and after construction and the ecosystem should be protected. Specific comments include:

    - There are a lot of invasive, non-native species and dangerous jetty jack cables stretching through the trees, which may also be dangerous.

  - Increased usage would be harmful to the ecosystem.
  - The water is already not drinkable here. Kicking up more mud will destroy what little life is here. Additionally, runoff from the road is washing off to the river and nearby yards. AUI installed a pipe culvert to fix the flooding.
  - Increased industry and parking are causing a loss of traditional character and environmental health.
  - Concerns about damage to the water from downstream and overall wildlife habitat.
  - The descansos in the forest must be respected.
  - Concerns about air quality.
- Several commenters noted that the noise is already very high for residents in the area, specifically along La Mora Ln. and Kelsey Rd. They also noted that an increase in traffic with a new bridge would increase the noise levels further and add to the disturbances the neighborhood already experiences. Several commenters requested construction of a noise barrier, potentially 6-8 feet tall. One commenter expressed concern about the noise during construction and attached a list of notes from high noise events that occurred in April 2020.

OTHER COMMENTS RELATED TO THE PROJECT

- Several commenters provided positive feedback about the format of the MetroQuest survey. They noted that it was comprehensive and appreciated the ability to learn about the project and comment on it without having to attend an in-person public meeting.

- Commenters expressed concern about their homes and properties adjacent to the bridge, including their livestock, and health. One commenter noted concern about being able to access the ditch with their horses for training purposes. A number of commenters asked if their properties would be acquired as a part of this project, and if so, how much notice they would get.

- Commenters asked what the total cost of construction is and whether NMDOT has sufficient funding for the project. Additionally, commenters made suggestions for funding, including:

  - Request NM State Senator Michael Padilla for additional Capital Outlay funding from the state to start the project a year sooner.
  - Add funds for landscaping and equestrian improvements.
  - Request Bernalillo County to pay for public art work to be added (1% for the arts).

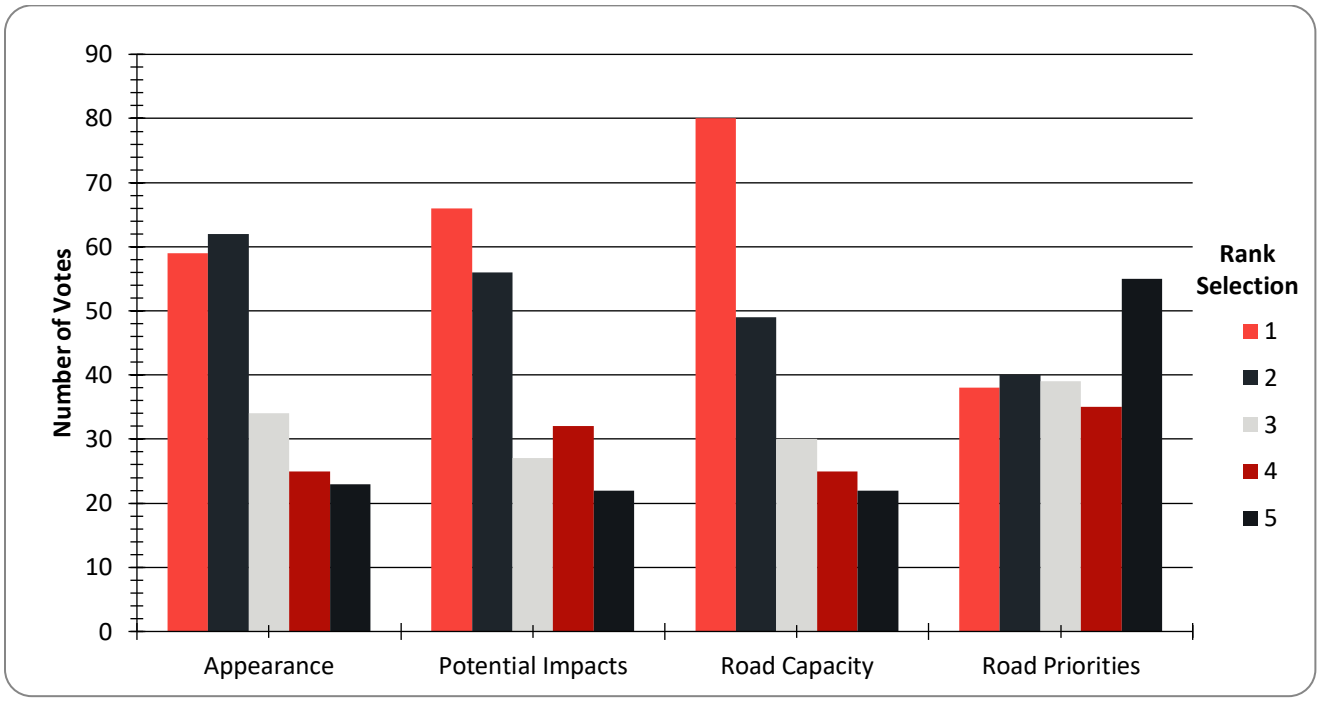
- Commenters made comments about the aesthetics of the bridge, and suggested that:

  - The median be kept and used for maintained landscaping. One commenter noted that, in order for Rio Bravo to meet the definition of a boulevard, nicer trees need to be planted along the roadside.
  - A culturally relevant community space should be included, with a stage or gathering area that respects nature and the history of agriculture in the area.
  - The bridge should include a push-out observation area with informational signage, but only if the pedestrian paths are well-separated multi-use paths, such as the one on I-40.
  - The bridge should look like the bridge on Montano.

TRADEOFFS AND PRIORITIES

The MetroQuest survey allowed participants to choose between project priorities including construction costs, vehicle capacity, and safety. Figure 5 shows those rankings. *Note that the highest rank is 1.*

Figure 5: Priority Rank Selection with the Number of Votes



- Road Priorities:
    - 29% of people voted that more space for bikes and pedestrians is more important than more space for vehicles (18%). Commenters noted that more people using the bridge will be in vehicles but encouraging active transportation will reduce greenhouse gases.
        - There should be adequate space for bikes/pedestrians and enough space for transit and vehicle capacity over the next 50 years without it needing to be a tradeoff.
- Potential Impacts:
    - 31% of people expressed that they would rather have fewer environmental impacts than a shorter construction time (11%). One commenter noted that construction should take longer to avoid cutting down trees because they grow so slowly in the Bosque.
- Appearance:
    - 29% of people said that it was more important to add aesthetic treatments to improve the appearance of the bridge, while 12% said it was more important to prioritize a lower construction cost. Commenters noted that safety is more important than aesthetics, but that the bridge should reflect the beauty of the South Valley and create a sense of pride in the community.
- Road Capacity:
    - 37% of people said it was more important to reduce congestion by providing more lanes of traffic during construction than to reduce costs and impacts of construction (11%). Commenters noted that preserving and increasing mobility of people and goods is more important than saving money on the construction project and that pedestrian access and capacity should also be a priority.

4 DEMOGRAPHIC INFORMATION

During the public meeting, web participants were asked to volunteer demographic information. In addition, the final page of the MetroQuest survey asked for participants to provide demographic details, such as age, zip code, and ethnicity. Combined results are included below in Table 1 and Figures 6-8.

Table 1: Number of Inputs per Zip Code

Zip Code	Number of Inputs
8710X	1
30144	1
87004	1
87031	1
87068	1
87102	9
87104	3
87105	90
87106	7
87107	4
87108	2
87110	5
87112	1
87113	2
87114	2
87120	2
87121	47
87122	2
87123	1
87501	3
87505	1

Figure 6: Demographics – Age of Participants (years)

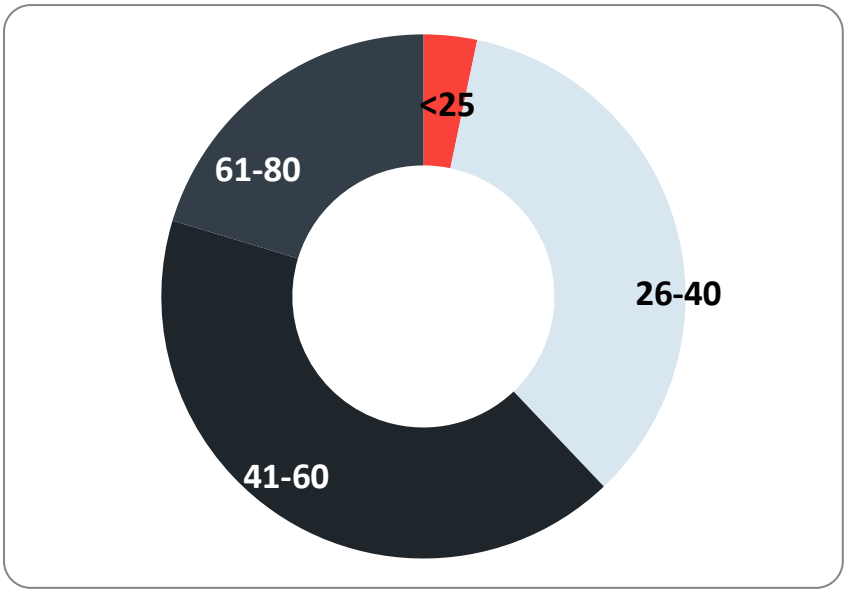


Figure 7: Demographics – Gender of Participants

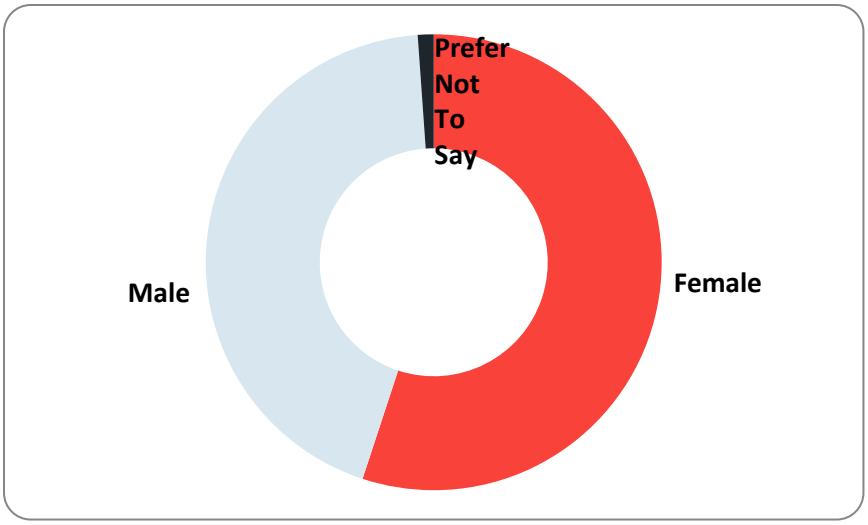
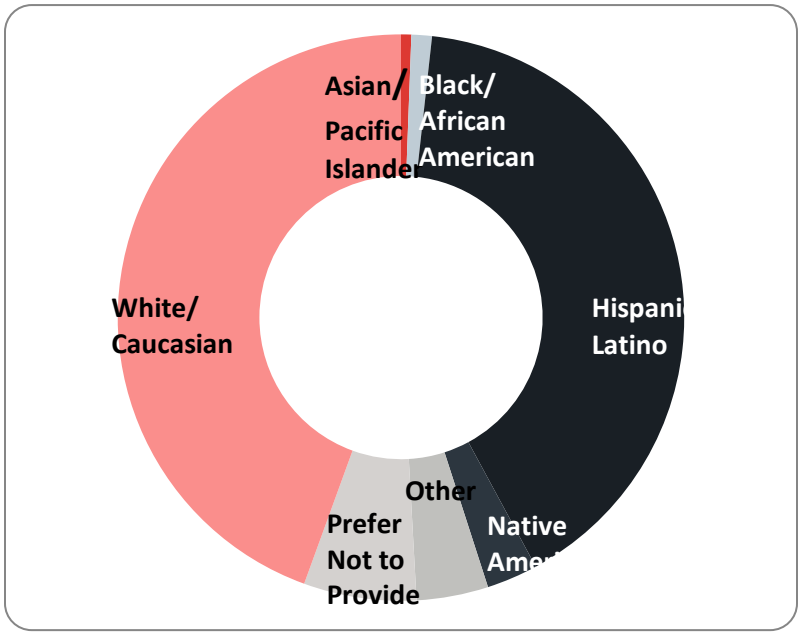


Figure 8: Demographics – Ethnicity of Participants



APPENDIX A: PUBLIC MEETING NOTICES

United States Postal Service Every Door Direct Mailers Postcard

New Mexico DEPARTMENT OF TRANSPORTATION

P.O. Box 91750
Albuquerque, NM 87109-1750

PRSRT STD
ECRWSS
U.S. POSTAGE
PAID
PERMIT #XXXX
SANTA FE, NM

******ECRWSSEDDM*******
Postal Customer

JOIN US!

NM 500 Rio Bravo Bridge Replacement Project
VIRTUAL PUBLIC MEETING
Wednesday, December 9, 2020
6-7:30 PM

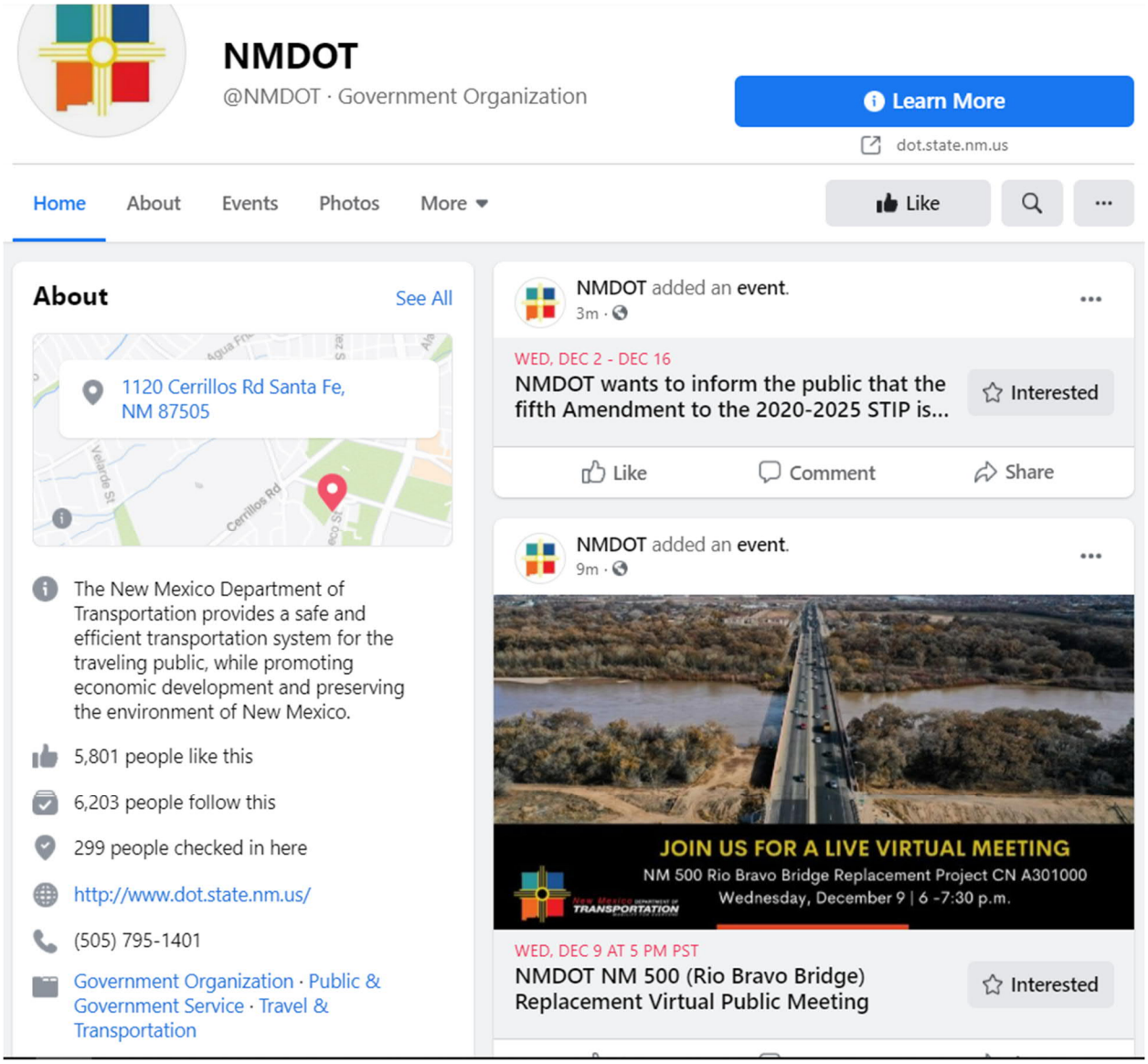
Register at: https://linktr.ee/NM500RioBravo
OR
Call-in at the scheduled meeting time: +1 346 248 7799
Webinar ID: 849 1147 9420

To request ADA accommodations or a translator, contact Jennifer Hyre before December 7, 2020.

NMDOT will use Zoom, a web-based service with call-in capabilities to host the virtual public meeting. Members of the community are encouraged to register for the event and join the discussion, provide comments and ask questions of the project team. Comments can be provided at the meeting or sent by January 9, 2021 to:

WSP USA | Jennifer Hyre | Attn: NM 500
2440 Louisiana Blvd NE, Suite 400
Albuquerque, NM 87110
Jennifer.Hyre@wsp.com | (505)-878-6577

Social Media Advertisement: Facebook



New Mexico Department of Transportation NM 500 Bridge Replacement Social Media Plan | CN A301000
Meeting Date: December 9, 2020 at 6 p.m.

Click here to download images.

FACEBOOK COPY

Image: Facebook1
Post on Wednesday, December 2 at 2 pm MT

Join us for a live, virtual public meeting on Wednesday, December 9 from 6-7:30 PM MT to learn more about plans to replace or rehabilitate the eastbound and westbound bridges on Rio Bravo Boulevard (NM 500) over the Rio Grande in the Albuquerque Metro Area. The event will be held on Zoom. Register to join and ask your questions to the project team: https://linktr.ee/NM500RioBravo.

You may also call in at the scheduled meeting time to 1-346-248-7799 using Webinar ID: 849 1147 9420

Image: Facebook2
Post on Monday, December 7 at 2 pm MT

"NMDOT is planning to replace or rehabilitate the eastbound and westbound bridges on Rio Bravo Boulevard (NM 500) over the Rio Grande in the Albuquerque Metro Area and would like to hear from you! Register now to take part in our virtual, interactive public meeting on Wednesday, December 9, 2020 from 6-7:30 PM MT.

The event will be held on Zoom. Register to join and ask your questions to the project team: https://linktr.ee/NM500RioBravo.

You may also call in at the scheduled meeting time to 1-346-248-7799 using Webinar ID: 849 1147 9420

Don't miss this opportunity to hear directly from the project team and ask them your questions!"

Image: Facebook3

Post on Wednesday, December 9 at 6 pm MT

"Our virtual public meeting is starting now! Join us live to learn about plans to replace or rehabilitate the eastbound and westbound bridges on Rio Bravo Boulevard (NM 500) over the Rio Grande in the Albuquerque Metro Area. Call in to 1-346-248-7799 using Webinar ID: 849 1147 9420 to hear from the project team and ask questions!"

TWITTER COPY

Image: Twitter1

Post on Wednesday, December 2 at 2 pm MT

"Join us for a live, virtual public meeting on Wed, 12/9 at 6 PM MT to learn about plans to replace or rehabilitate the eastbound and westbound bridges on Rio Bravo Boulevard (NM 500) over the Rio Grande in Albuquerque. More info and registration: https://linktr.ee/NM500RioBravo"

Image: Twitter2

Post on Monday, December 7 at 2 pm MT

"NMDOT is planning to replace or rehabilitate the east- and westbound bridges on Rio Bravo Boulevard (NM 500) over the Rio Grande in Albuquerque and would like to hear from you! Register to take part in our virtual public meeting on Wed. 12/9 at 6 PM MT. https://linktr.ee/NM500RioBravo"

Image: Twitter3

Post on Wednesday, December 9 at 6 pm MT

"Our virtual public meeting is starting! Join us live to learn about plans to replace or rehab the east- and westbound bridges on Rio Bravo Boulevard (NM 500) over the Rio Grande in Albuquerque. Call 1-346-248-7799 Webinar ID: 849 1147 9420 to hear from the team and ask questions!"

AFFIDAVIT OF PUBLICATION

STATE OF NEW MEXICO

WSP USA

County of Bernalillo SS

Elise Rodriguez , the undersigned, on oath states that she is an authorized Representative of The Albuquerque Journal, and that this newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Session Laws of 1937, and that payment therefore has been made of assessed as court cost; that the notice, copy of which hereto attached, was published in said paper in the regular daily edition, for 1 time(s) on the following date(s):

11/25/2020

OFFICIAL SEAL
Susan Ramirez
NOTARY PUBLIC - STATE OF NEW MEXICO
My Commission Expires: 2/15/2023

Sworn and subscribed before me, a Notary Public, in and for the County of Bernalillo and State of New Mexico this 25 day of November of 2020

PRICE $3,147.36

Statement to come at the end of month.

ACCOUNT NUMBER 1099443

New Mexico DEPARTMENT OF TRANSPORTATION

NM 500 Rio Bravo Bridge Replacement Project

VIRTUAL PUBLIC MEETING

Wednesday, December 9
6 -7:30 P.M.

The New Mexico Department of Transportation (NMDOT), in cooperation with the Federal Highway Administration, is planning to replace or rehabilitate the east- and west-bound bridges on Rio Bravo Boulevard (NM 500) over the Rio Grande.

The structures are nearing the end of their design-life and are in need of upgrades or replacement. Existing conditions show there is also a need to increase travel capacity along Rio Bravo between Isleta Boulevard and 2nd Street. Additionally, this serves as an opportunity to provide enhanced safety for pedestrians and bicyclists.

PROJECT LOCATION: Rio Bravo Blvd. Between Isleta Blvd. & 2nd St. (CN A301000)

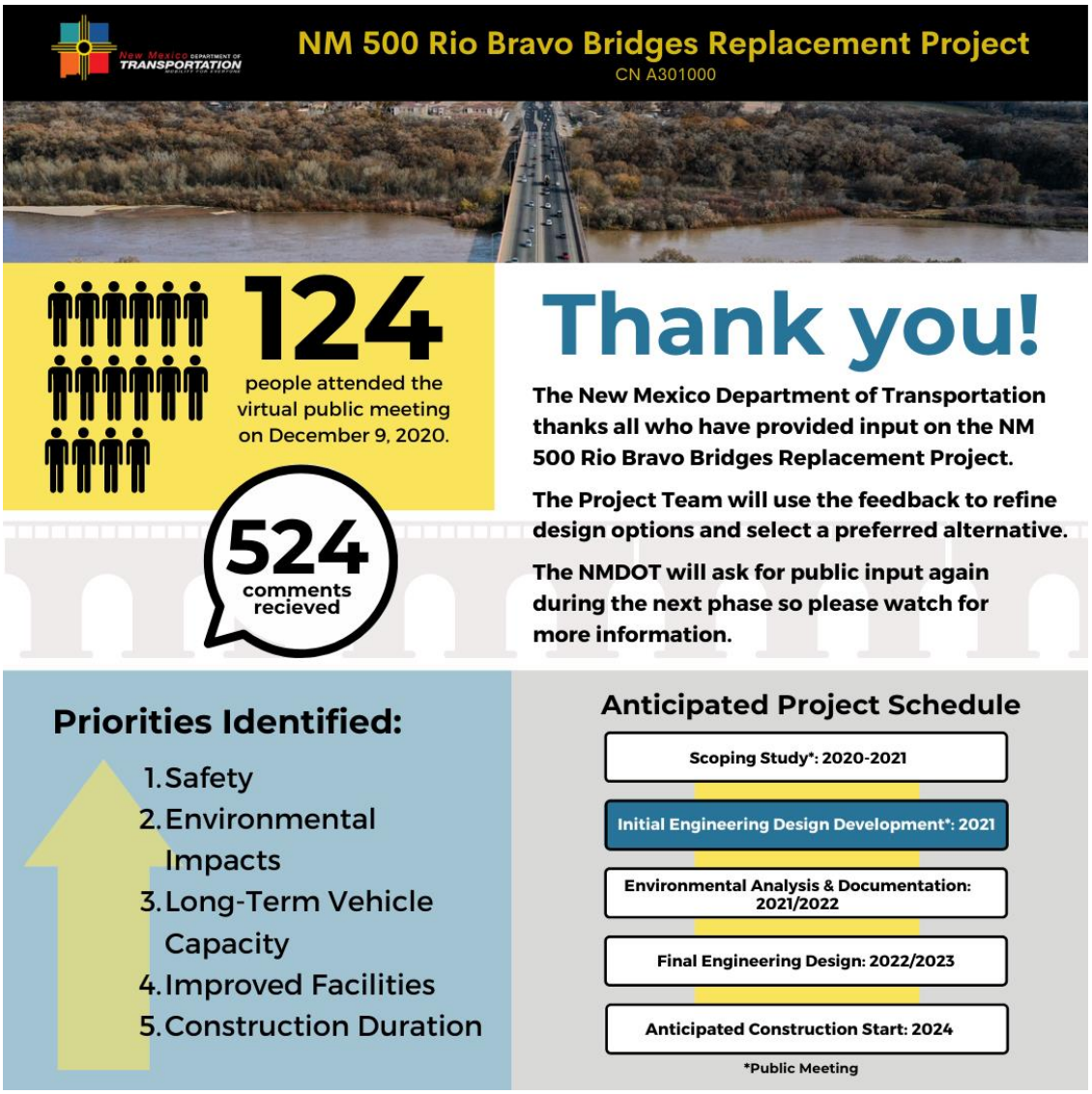
NMDOT invites you to attend the virtual public meeting where we will introduce the project, present existing conditions, present preliminary proposed alternatives and welcome public input. Servicios de interpretación en español estarán disponibles en la reunión. NMDOT will use **Zoom**, a web-based service with call-in capabilities to host the virtual public meeting. Members of the community are encouraged to register for the event and join the discussion, provide comments and ask questions of the project team. Comments can be provided at the meeting or sent by January 9, 2021 to:

WSP USA | Jennifer Hyre | Attn: NM 500
2440 Louisiana Blvd NE, Suite 400
Albuquerque, NM 87110
Jennifer.Hyre@wsp.com | (505)-878-6577

Register at: https://linktr.ee/NM500RioBravo
OR
Call-in at the scheduled meeting time: +1 346 248 7799
Webinar ID: 849 1147 9420

To request ADA accommodations or a translator, contact Jennifer Hyre before December 7, 2020.

Announcement Update to Mailing List



APPENDIX B: VIRTUAL MEETING ATTENDANCE LIST

Section omitted due to personal identifying information

APPENDIX C: POWERPOINT PRESENTATION

New Mexico DEPARTMENT OF TRANSPORTATION
MOBILITY FOR EVERYONE

wsp

FHWA

VIRTUAL PUBLIC INFORMATION MEETING

December 9th, 2020

NM 500 Rio Bravo Blvd. Bridge Replacements Study (MP 8.8 to MP 10.5)

NMDOT CN A301000

Meeting Platform: Zoom

- Zoom Webinar – only presenters will be on video
- This meeting is being recorded
- For Spanish translation, select the Interpretation icon on your Zoom toolbar; select “Spanish”
- *Para escuchar la presentación en español, seleccione el ícono de Interpretación en la barra de herramientas de Zoom; seleccione “Spanish"*

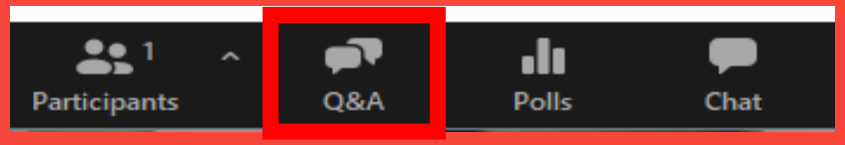
New Mexico DEPARTMENT OF TRANSPORTATION MOBILITY FOR EVERYONE

FHWA

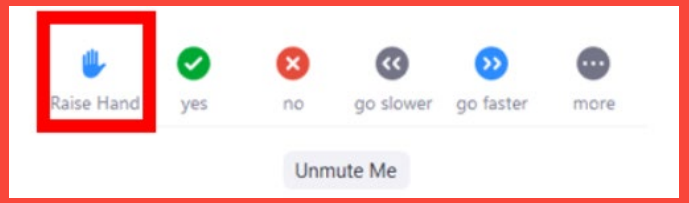
WSP

Meeting Platform: Zoom(Cont.)

- Polling – respond directly in the "pop-up" box
- Questions & Answers – Please add project-related questions in the Q&A dialogue box



- *During Q&A, if you would like to speak, raise your hand (*9 if you have dialed-in)*



New Mexico DEPARTMENT OF TRANSPORTATION
MOBILITY FOR EVERYONE

FHWA

wsp

PRESENTERS

New Mexico Department of Transportation (NMDOT) Team Presenters

- *Priscilla Benavides, NMDOT Central Region Design Manager*
- *Jill Mosher, NMDOT Assistant District Engineer*
- *Justin Gibson, NMDOT District Engineer*
- *Meghan Myers, WSP Project Manager*
- *Jennifer Hyre, WSP Environmental Planner*
- *Nathaniel Miller, WSP Project Engineer*
- *Kevin Alvarado, WSP Communications*

New Mexico DEPARTMENT OF TRANSPORTATION MOBILITY FOR EVERYONE

FHWA

wsp

AGENDA

Presentation Topics

1. *Project Limits and Purpose & Need*
2. *Existing Conditions*
3. *Project Development Process and Schedule*
4. *Proposed Improvements*
5. *Alignment Alternatives & Evaluation*
6. *Next Steps*

Q&A Session (after the presentation)

New Mexico DEPARTMENT OF TRANSPORTATION MOBILITY FOR EVERYONE

FHWA

wsp

New Mexico DEPARTMENT OF TRANSPORTATION
MOBILITY FOR EVERYONE

wsp

FHWA

PROJECT LIMITS

AND

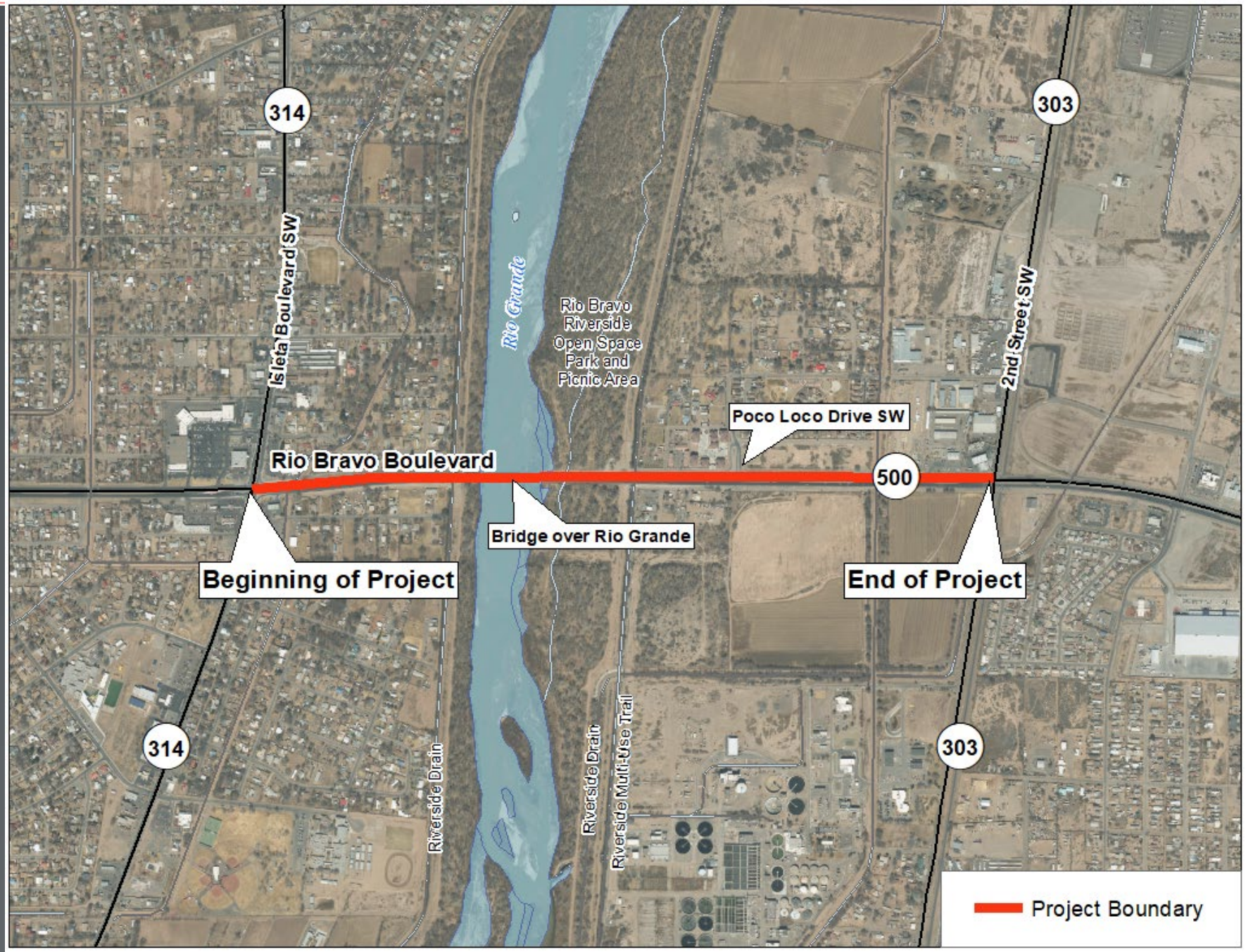
PURPOSE & NEED

NMDOT CN A301000
https://dot.state.nm.us/nmdotprojects

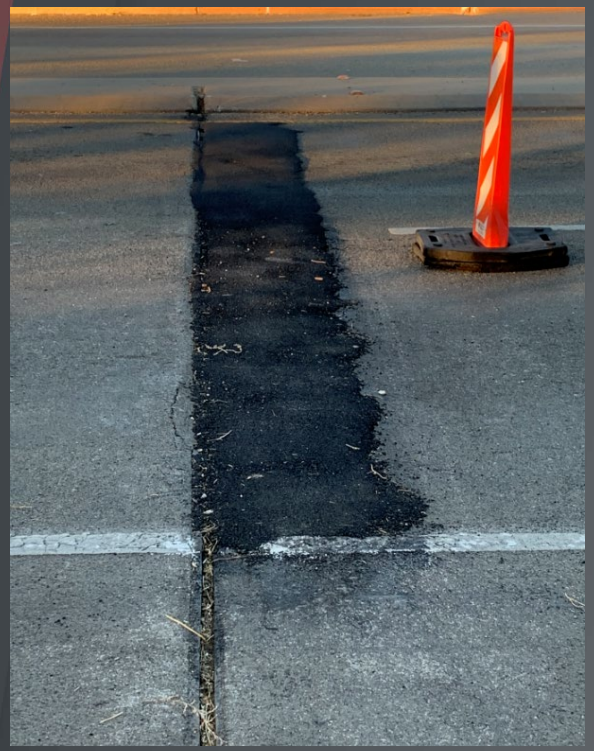
Project Limits

Isleta Boulevard to 2nd Street

Intersection Improvements are not a part of this project



Purpose & Need



Project Purpose

- *To address structural deficiencies and to improve transportation system continuity within the project limits*

Project Need

- *End of Design-Life Infrastructure*
  - The eastbound river bridge is in poor condition and requires replacement
- *Roadway Capacity*
  - Additional river crossing capacity is needed in the metro area
  - Review traffic control needs at the Poco Loco intersection
- *Multi-modal Improvements*
  - Pedestrian and bicycle facilities are discontinuous

Bridge Infrastructure Deficiencies, Traffic Capacity, and Multi-modal Connectivity

Emergency Rehabilitation for Eastbound River Bridge December 2019 thru February 2020

The Damage (Before)

Emergency Repair (After)

Emergency Rehabilitation for Eastbound River Bridge December 2019 thru February 2020

What Happened?

- December 2019 – NMDOT inspector noticed significant bump
- Emergency Bridge Inspection and Traffic Closure
- Emergency Repairs and Traffic Closures

Why this project is different?

- This project was already planned with funding programmed in the Statewide Transportation Plan (STIP) prior to the emergency
- Not an emergency
- Will assess all transportation needs within project limits
- Maintaining traffic flow will be a key project consideration

New Mexico DEPARTMENT OF TRANSPORTATION
MOBILITY FOR EVERYONE

wsp

FHWA

EXISTING CONDITIONS

NMDOT CN A301000
https://dot.state.nm.us/nmdotprojects

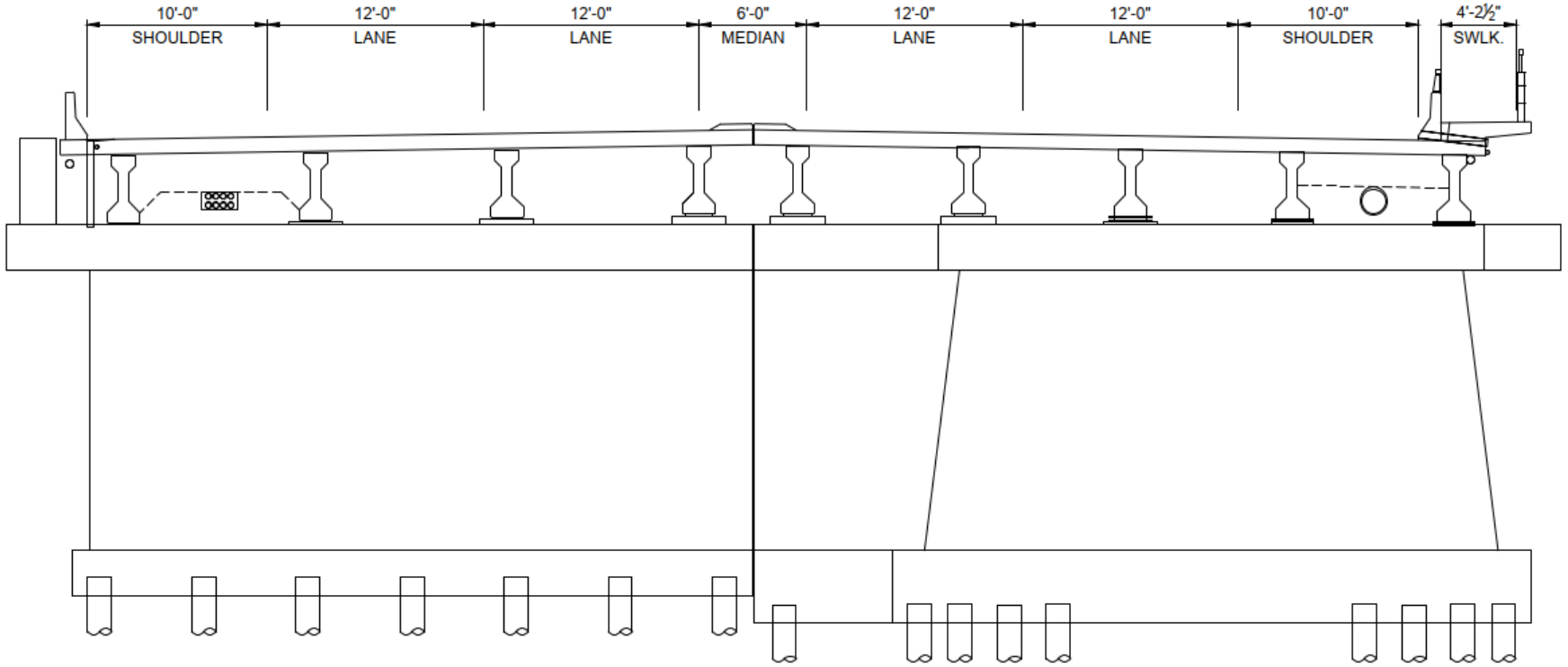
Existing Structural Conditions

- **Rio Grande Bridges**
- **Riverside Drain Bridges**
- **Riverside Drain Culverts**
- **Eastbound Bridges**
  - *Built in 1961, at the end of 50-year design life*
  - *Emergency Repair in February 2020*
- **Westbound Bridges**
  - *Built in 1985, will be 40 years old at the start of new construction*

Existing Roadway Conditions

Existing Typical Section (Rio Grande River Bridges)

- *Four Lanes with outside shoulders*
- *Raised Median*
- *1" Joint between bridges*
- *Sidewalk on south side only; narrow and discontinuous*



Other Infrastructure Existing Conditions

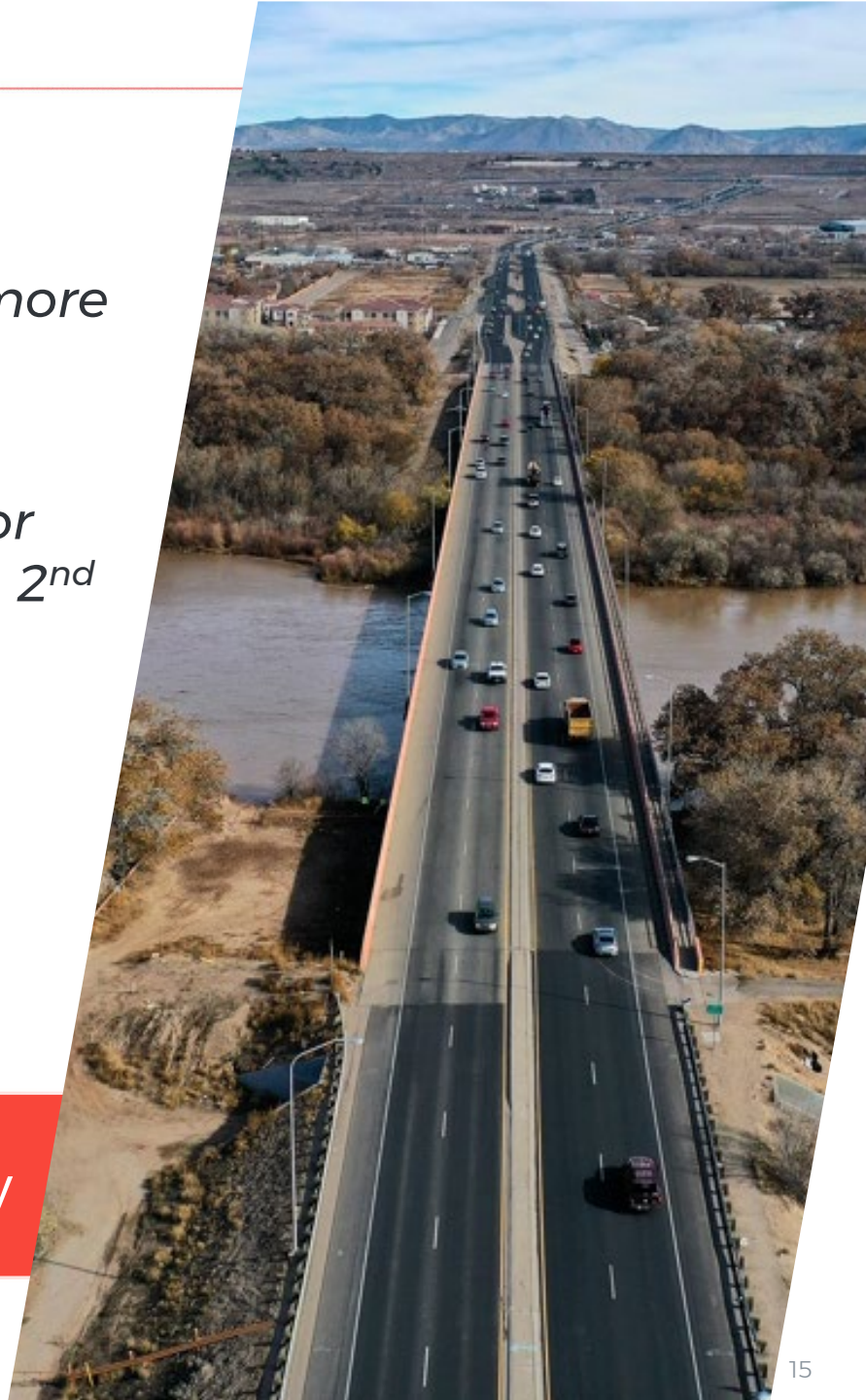
- **Utilities**
  - *Gas*
  - *Fiber-optic Communications*
  - *Electric*
  - *Water*
- **MRGCD Riverside Drains and Access**
  - *Both sides, outside levees*
  - *Box culvert for access on west side*
- **Recreation Facilities**
  - *Rio Bravo Riverside Picnic Area, Fishing Pier, and Trail*
  - *Paseo del Bosque Trail*
  - *Riverside Drain Trail*
- **Lighting**
  - *Both sides of Rio Bravo Blvd*

Existing Traffic Conditions

Traffic Considerations

- *Rio Bravo river crossing serves more than 30,000 vehicles per day*
  - High volume of 35,600 in 2008
- *Rio Bravo Boulevard has been or will be widened to 6 lanes from 2nd Street to I-25*
  - River crossing currently 4 lanes
- *Traffic during construction:*
  - Apply lessons learned from emergency repair project

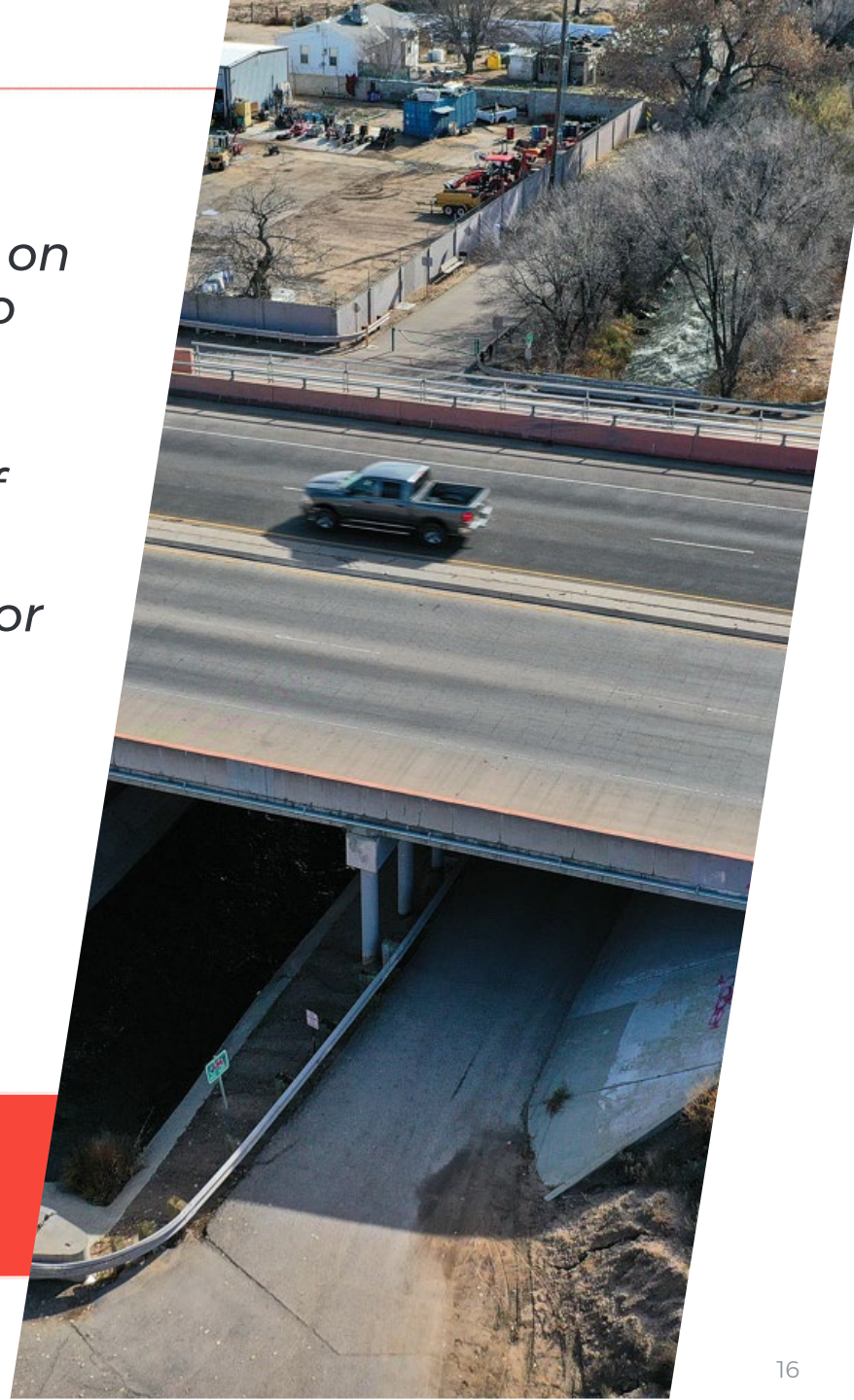
Major River Crossing for South Valley



Existing Traffic Conditions

- **Multi-Modal Uses**
  - *Multi-Use Paseo del Bosque Trail on east side; crosses under Rio Bravo Blvd*
  - *No sidewalk connections on Rio Bravo Boulevard on either side of the bridges*
  - *Existing shoulders may be used for bicycle travel*
- **Poco Loco/Dean Drive Intersection**
  - *Traffic Signal Warrant Study to determine IF there is a need for signal control*

Proposed Improvements will Benefit all Travel Modes



Existing Flood Plain Conditions

- **Floodplain**
  - *FEMA Requirements*
    - No-Rise Allowed
    - Temporary Rise Possible
  - *Levee System*
  - *Height of bridge girders over water level*
  - *Bridge supports in active channel*
  - *Coordination*
    - Army Corps of Engineers, MRGCD, Bureau of Reclamation, Bernalillo County, Interstate Stream Commission, US Fish & Wildlife Service

Bridge Alternatives will be chosen to minimize impacts to floodplain

Existing Environmental Conditions

ENVIRONMENTAL

- *Agency Coordination*
- *Threatened and Endangered Species and Habitats*
- *Bat Roosting and Nesting Birds*
- *Water Resources*
- *Cultural Resources*
- *Noise*
- *Visual Resources*
- *Riverside Recreational Area*

New Mexico DEPARTMENT OF TRANSPORTATION
MOBILITY FOR EVERYONE

WSP

FHWA

Project Development Process and Schedule

NMDOT CN A301000

https://dot.state.nm.us/nmdotprojects

Project Development Process

- **Phase I**
  - ***Currently in this phase***
- **Phase II**
  - *Final Design*
- **Phase III**
  - *Construction*

Phase IA/B: Alignment Study

- *Establish Why Improvements are Needed*
- *Evaluate Alternatives and Select the Preferred Alternative*

Phase IC: Environmental Processing

- *Environmental Investigations*
- *Obtain Authorization to Construct Improvements*

Phase ID: Preliminary Design

- *Preliminary Engineering*
- *Define Right-of-Way Needs*
- *Prepare Engineering Cost Estimate*

Stakeholder and Public Involvement
– Ongoing throughout Phase I

Collect Comprehensive Data

- ✓ Design and R/W Survey
- ✓ Environmental Surveys
- ✓ Geotechnical
- ✓ Bridge Conditions
- ✓ Floodplain
- ✓ Traffic and Access
- ✓ Agency Coordination
- ✓ Stakeholder Input

Project Schedule

- Start of Study (Phase IAB) – **Spring 2020**
- Public Meeting – **Fall 2020**
- Completion of Study – **Spring 2021**
- Initial Engineering Design Development –**2021**
- Environmental Analysis & Documentation – **2021 / 2022**
- Final Engineering Design – **2022 / 2023**
- Anticipated Construction Start – **2024**

We are Here

Study Phase to Construction

New Mexico DEPARTMENT OF TRANSPORTATION
MOBILITY FOR EVERYONE

WSP

FHWA

Proposed Improvements

NMDOT CN A301000
https://dot.state.nm.us/nmdotprojects

Proposed Improvements

- **Highway Improvements**
  - *Additional traffic capacity*
  - *ADA accessible sidewalks and access*
  - *Bridge replacements or rehabilitations*
  - *Bosque trail access improvements*
  - *Bicycle accommodations*
  - *Adjacent road project connectivity*

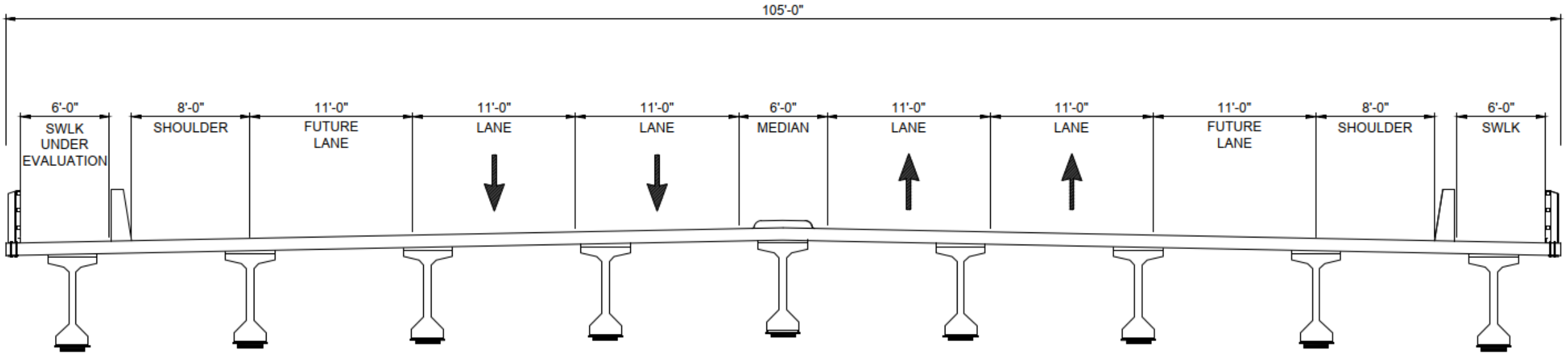
Final conditions will provide an improved, connected corridor

Proposed Improvements

When first opened the bridge may only be striped for 2-lanes in each direction

Proposed Typical Section

- *Provide additional traffic capacity*
- *Provide sidewalk on both sides of the bridge*
- *Maintain outside shoulders*



New Mexico DEPARTMENT OF TRANSPORTATION
MOBILITY FOR EVERYONE

WSP

FHWA

Alignment Alternatives & Evaluation

NMDOT CN A301000

https://dot.state.nm.us/nmdotprojects

Roadway Alignment Alternatives

No Build Alternative

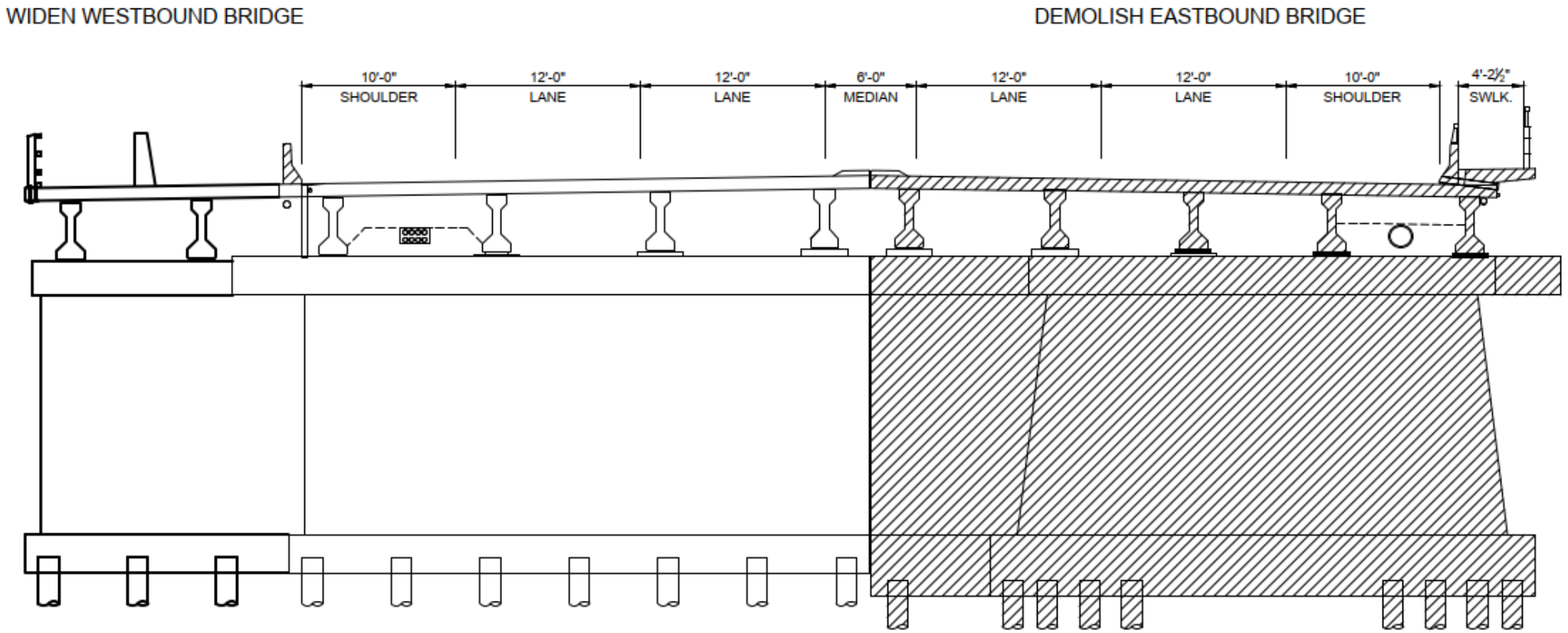
- *Do Nothing Alternative*
- *Does not satisfy the Purpose and Need for this Project*
- *1965 Bridge requires replacement*

How Should the Bridges be Improved?

- *Maintain existing alignment*
- *Build in new offset location on either side of the existing bridges*
- *Combination of existing and offset alignments*

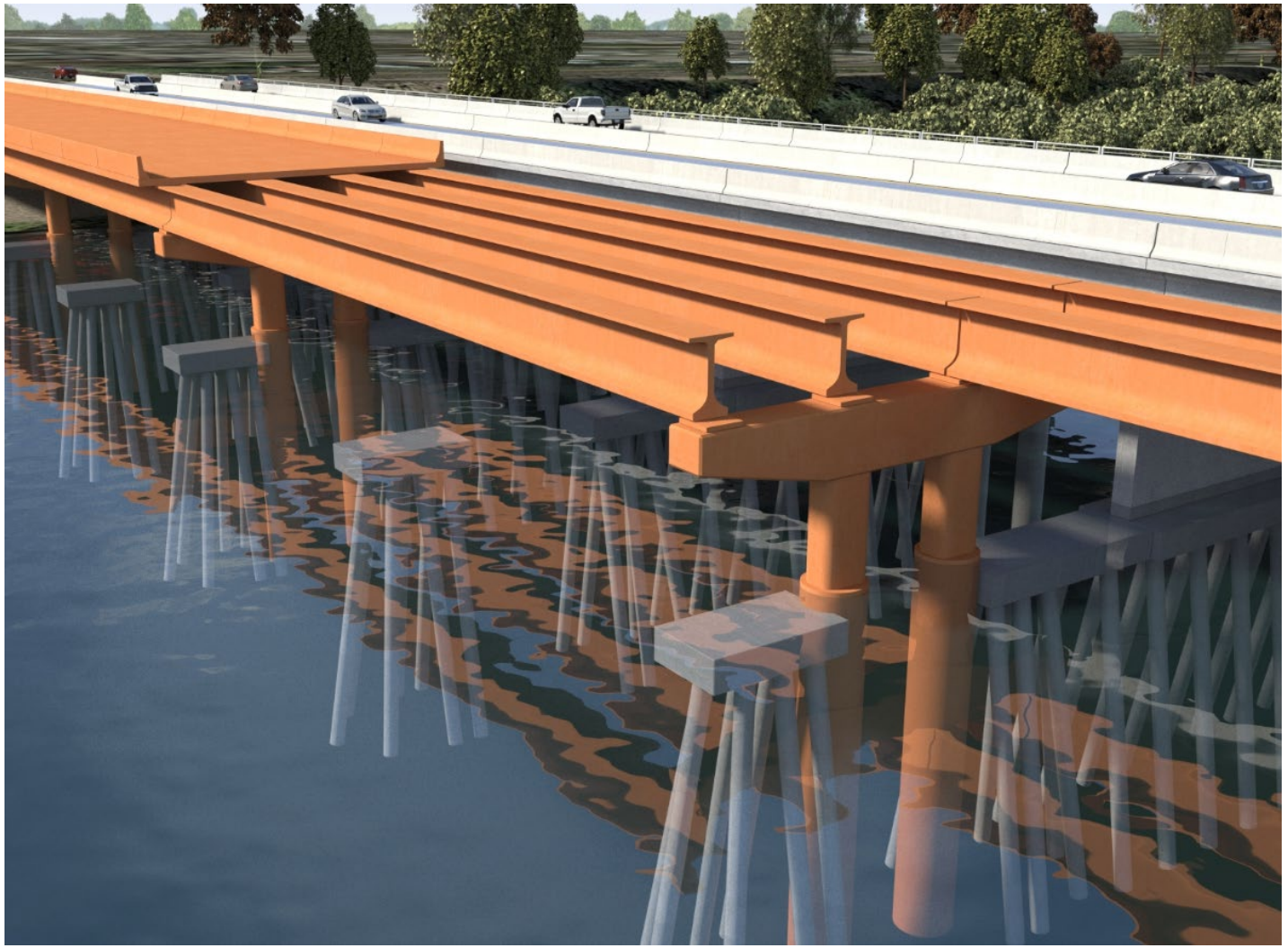
Alternative 1 – Maintain Existing Alignment
Replace the Eastbound Bridge Only

- **Phase 1 – Widen the Westbound Bridge**
- **Phase 2 – Demolish the Eastbound Bridge**



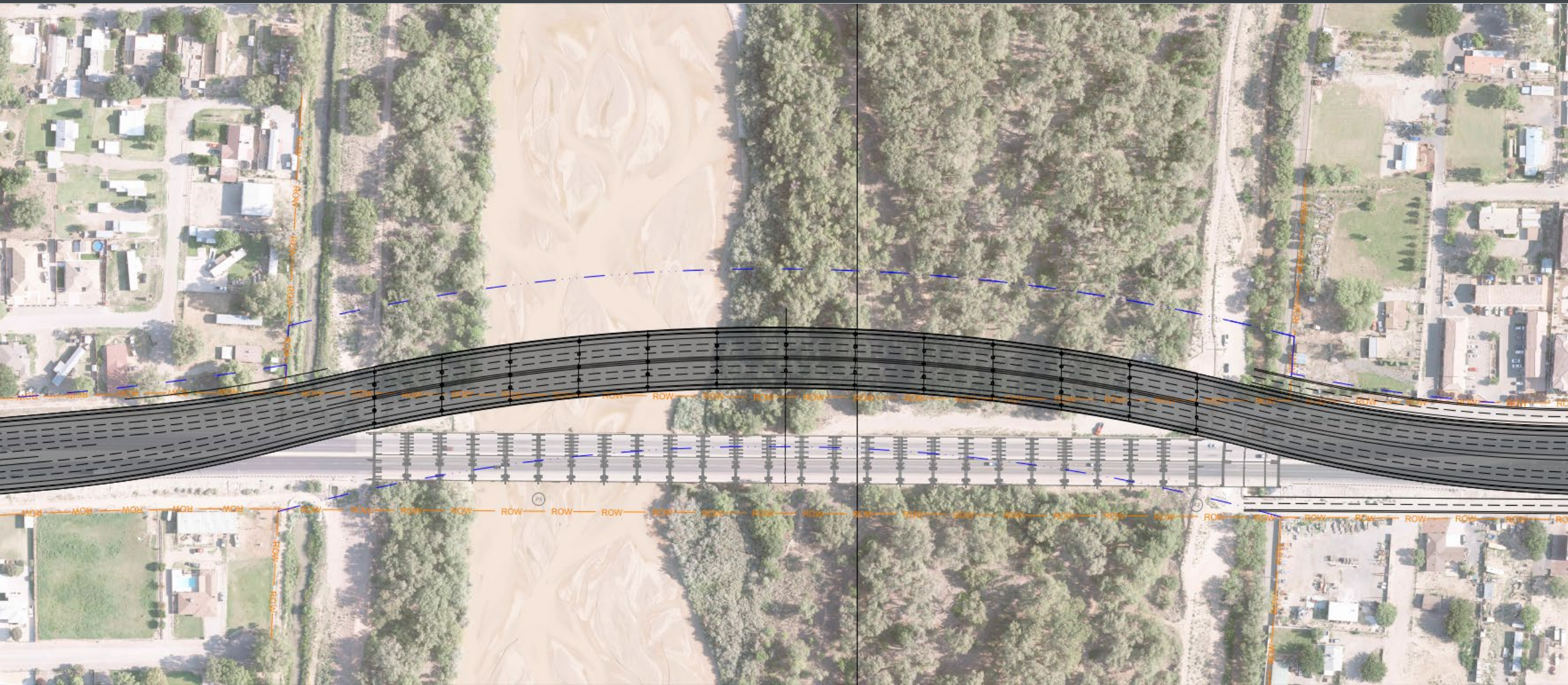
Alternative 1 – Maintain Existing Alignment Replace the Eastbound Bridge Only

- **Phase 3 – Replace the Eastbound Bridge**
- **BUT**
  - *Strict Floodplain requirements will require the replaced Eastbound bridge to line up with the existing piers*
  - *The existing Foundation Elements will present a great challenge accomplishing this*



Alternative 2 – Maintain Existing Alignment
Replace all Bridges

Alternative 3 – New Alignment
North Curve

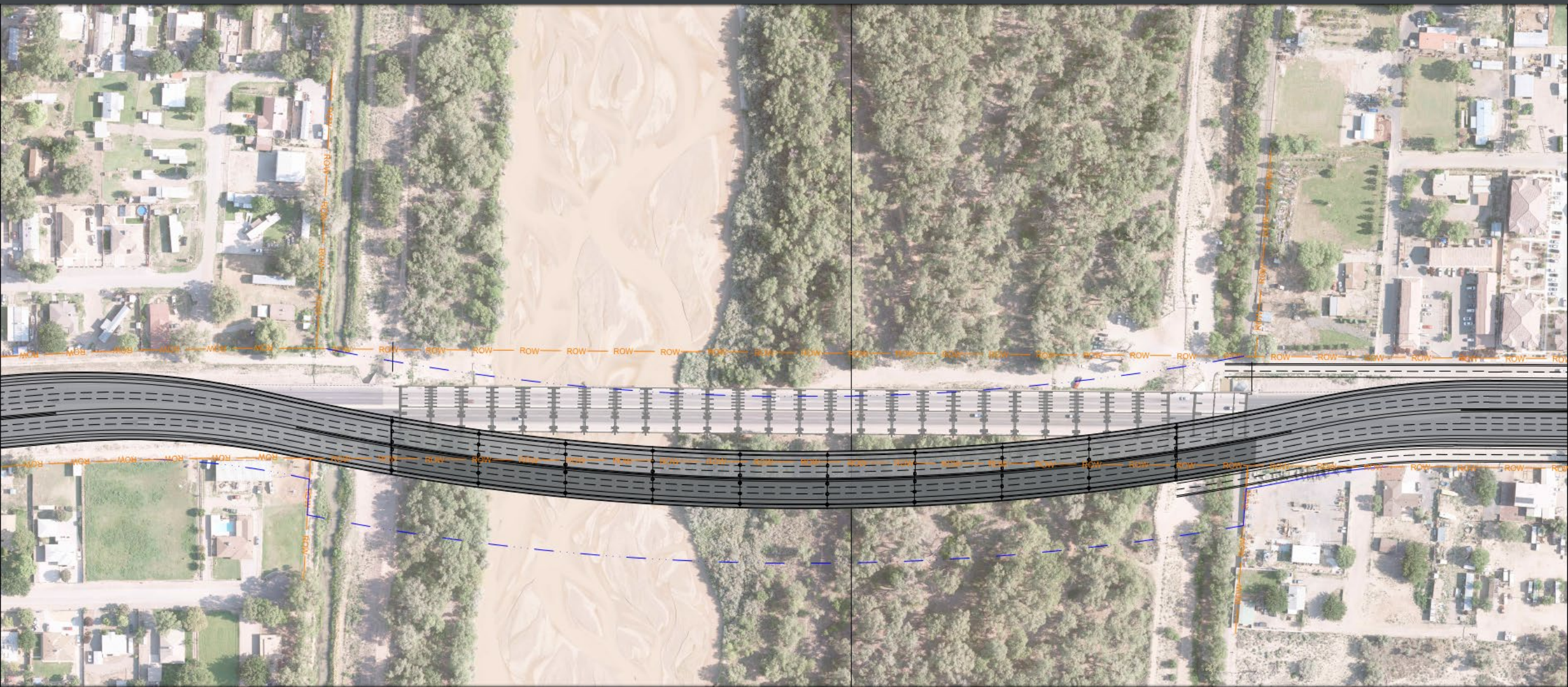


Alternative 4 – New Alignment
Split Bridge

Alternative 5 – Offset Alignment
Offset half the new bridge to the North

Alternative 6 – Offset Alignment
Offset half the new bridge to the North, Straight

Alternative 7 – Offset Alignment
Offset half the new bridge to the South



Evaluation Criteria

Evaluation Criteria for Alternatives

- *Construction Cost*
- *Constructability (e.g., site access)*
- *Environmental Impacts*
- *Property & Right-of-way Impacts*
- *Maintaining Traffic during Construction*
- *Utility Phasing*
- *Pedestrian & Bicycle Mobility*
- *Rio Grande Requirements*
- *Future Maintenance*
- ***Public & Stakeholder Support***

Comparative Evaluation of Alternatives

Rating Scale

Significant Advantage	Advantage	Neutral	Disadvantage	Fatal Flaw

	Alignment Alternatives								
	0	1	2	3	4	5	6	7	8
Evaluation Criteria	No Build	Widen WB in place, replace EB In-Line	In-Line Replacement	North Full Offset	Split	North Half Offset	North Half Offset - Straight	South Half Offset	Rehabilitate all Bridges
Project Purpose & Need									
Initial Construction Cost	N/A								N/A
Future Maintenance	N/A								N/A
Design Life	N/A								N/A
Constructability	N/A								N/A
Maintenance of Traffic during Construction	N/A								N/A
Property Takes & ROW Impact	N/A								N/A
Environmental Impacts	N/A								N/A
4(f) Property Impacts	N/A								N/A
Utility Phasing	N/A								N/A
Pedestrian & Bicycle Mobility	N/A								N/A
Drainage Requirements	N/A								N/A
Roadway Geometry	N/A								N/A
Public and Stakeholder Support	N/A								N/A

New Mexico DEPARTMENT OF TRANSPORTATION
MOBILITY FOR EVERYONE

wsp

FHWA

Next Steps

NMDOT CN A301000
https://dot.state.nm.us/nmdotprojects

Next Steps

- Gather Public Input
- Detailed Evaluation of Improvements
- Prepare Phase IA/B Study
  - *Select Alternative to Advance*
- Complete Environmental Studies & Documentation
- Develop Preliminary Design Plans
- Develop Final Design Plans
- Right-of-way Acquisition
- Construction

PHASE IC & PHASE ID

We Want to Hear from You…

Please provide us with comments by January 9th, 2021.

Electronic submittals preferred

How to Provide Comments?

- Email: jennifer.hyre@wsp.com
- Call: (505) 878-6577
- Mail:

  WSP | Jennifer Hyre | Attn: NM 500
  2440 Louisiana Blvd NE, Suite 400
  Albuquerque, NM 87110

- Complete a MetroQuest Survey:

https://linktr.ee/nm500riobravo

- *More information on the NMDOT Projects Page:*

https://dot.state.nm.us/nmdotprojects

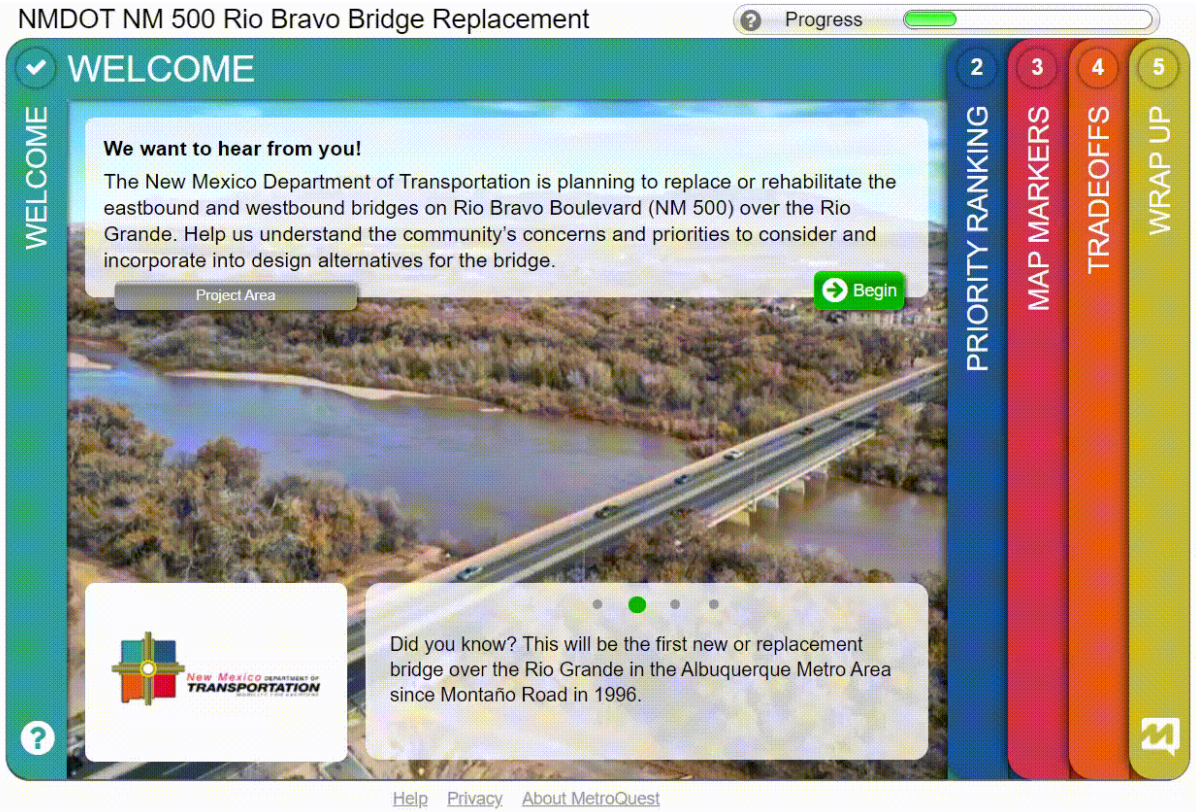
All Comments are Welcome!!

MetroQuest Survey

Access at:
linktr.ee/nm500riobravo

Help us learn about your concerns and priorities

Available in English and Spanish



New Mexico DEPARTMENT OF TRANSPORTATION
MOBILITY FOR EVERYONE

wsp

FHWA

Questions

NMDOT CN A301000
https://dot.state.nm.us/nmdotprojects

APPENDIX D: PUBLIC COMMENTS RECEIVED

Section omitted due to personal identifying information

Tim Keller, Mayor

Greater Albuquerque Active Transportation Committee (GAATC) – AGENDA

April 10, 2023 | 4:00 – 6:00 PM

ONE ALBUQUERQUE municipal development

Meeting will be held virtually.
No in-person option will be provided this month.
Zoom meetings will be recorded for notetaking purposes.
*6 mute/unmute | *9 raise/lower hand

Join by Zoom: https://cabq.zoom.us/j/84571822606
Join by Phone: +1 346 248 7799
ID: 845 7182 2606

- **Welcome and Introductions**

[ ] Ryan Mast (Vice Chair)
NE Quadrant

[ ] Dr. Naomi George
SE Quadrant

[ ] Vacant
NW Quadrant

[ ] Vacant
SW Quadrant

[ ] Richard Meadows
Pedestrians + Transit Users

[ ] Josiah Hooten
Bicyclists

[ ] Vacant
Represent individuals w/a Disability

[ ] Aaron Hill
Youth (Under 24)

[ ] Lanny Tonning
Older Adults (over 60)

- **Approval of April 10, 2023 Meeting Agenda**
- **Approval of March 13, 2023 Meeting Minutes**
- **Public Comments** (Public comment is limited to two (2) minutes per audience member)
  - Please email comments to Valerie Hermanson (vhermanson@cabq.gov) prior to the meeting OR use the virtual raise hand feature during the meeting. In the meeting, please wait until recognized to begin comments.
- **Discussion / Action Items**
  - Galbadon Rd NW & I-40 Trail safety concerns (motion at May 9, 2022 meeting to keep this item on the agenda until a resolution is completed)
    - **Action:** Since this item has been addressed, vote to remove from the GAATC Agenda
  - **Action:** Selection of new Committee Chair
  - **Discussion:** Identify GAATC representatives for the Complete Streets Maintenance Review team & Mid-Region Council of Governments (MRCOG) Active Transportation Committee

Next Meeting: Monday, May 8, 2023

Tim Keller, Mayor

Greater Albuquerque Active Transportation Committee (GAATC) – AGENDA

April 10, 2023 | 4:00 – 6:00 PM

- **Presentations**
    - **NMDOT Rio Bravo Bridge**, Jill Mosher, District 3, New Mexico Department of Transportation (NMDOT)
    - **12th Street/Sawmill Road Diet,** Eric Michalski, PE and Abe Bortz-Johnson, Department of Municipal Development, City of Albuquerque
    - **NOTE: This item was unable to be heard at the meeting, so the Committee voted to amend the agenda to remove this presentation until a future meeting date.**

- **Staff Reports**
    - Municipal Development (DMD)
        - Engineering
        - Vision Zero
    - Council Services
    - Parks and Recreation
    - Planning
    - ABQ RIDE
    - Sustainability
    - Bernalillo County
    - MRCOG
    - NMDOT District 3

- **Public Comments** (Public comment is limited to two (2) minutes per audience member) Please use the virtual raise hand feature during the meeting. In the meeting, please wait until recognized to begin comments.

- **Next Meeting:** May 8, 2023, 4 – 6 pm

- **Adjourn**

Next Meeting: Monday, May 8, 2023

Greater Albuquerque Active Transportation Committee (GAATC)
Meeting Minutes

Tim Keller, Mayor

Monday, April 10, 2023
4:00 – 6:00 PM

ONE ALBUQUERQUE municipal development

Committee Members Present

Ryan Mast (Vice Chair)
Dr. Naomi George
Josiah Hooten
Richard Meadows

Committee Members Absent

Aaron Hill
Lanny Tonning

Staff Members Present

Carrie Barkhurst (ABQ RIDE)
Tim Brown (DMD)
Tara Cok (MRCOG)
Valerie Hermanson (DMD)
Abe Bortz-Johnson (DMD)
Paula Dodge-Kwan (DMD)
Julie Luna (Bern Co)
Eric Michalski (DMD)
Jill Mosher (NMDOT District 3)
Jenae Robertson (TYLin)
Shanna Schultz (Council Services)
Cheryl Somerfeldt (Parks & Rec)
Seth Tinkle (Planning)

Visitors Present

Dianne Cress (Bike ABQ)
Ben Garland (Transit Advisory Board)
Scot Key (AHCH)
Megan Myers (WSP)
Steve Pilon (Bike ABQ)
Peter Rice (Downton Abq News)
Alejandro Villezcas (Together for Brothers)
Omar Villezcas (Together for Brothers)
George Winn

Ryan Mast called the meeting to order at 4:02pm.

Greater Albuquerque Active Transportation Committee (GAATC) Meeting Minutes

Tim Keller, Mayor

Monday, April 10, 2023
4:00 – 6:00 PM

ONE ALBUQUERQUE municipal development

- **Ryan Mast:** Shared about the very sad loss of the Committee Chair, Mr. Dan Jensen. Would like to send his condolences to Dan's family. Services for Dan Jensen will be held 10 AM on May 22, 2023 at the Shrine of Little Flower St. Therese of Infant Jesus Catholic Church on 3424 Fourth Street NW, Albuquerque, NM. Those wishing to honor Dan may make donations in his name to Road Runner Food Bank. For more details, please reach out to Ryan Mast.

- **Motion to Amend April 10, 2023 Meeting Agenda, to Remove the Presentation of 12th Street/Sawmill Road Diet**
  Richard Meadows (motion); Josiah Hooten (second)
  Yes: Dr. Naomi George, Richard Meadows, Josiah Hooten, Ryan Mast

- **Approval of April 10, 2023 Meeting Agenda as Amended**
  Richard Meadows *(motion);* Dr. Naomi George *(second)*
  Yes: Dr. Naomi George, Richard Meadows, Josiah Hooten, Ryan Mast

- **Approval of March 13, 2023 Meeting Minutes**
  Richard Meadows *(motion);* Dr. Naomi George *(second)*
  Yes: Dr. Naomi George, Richard Meadows, Josiah Hooten, Ryan Mast

- **Public Comments**
  - Steve Pilon: Steve shared condolences for Dan Jensen's family and felt it is sad to hear this news. Steve gave recommendations for the budget of active transportation under DMD or Parks Department. He mentioned that the General Obligation bond that was passed in November of 2021 projected what the expenditures were going to be for trails and bikeways for every 2-year cycle as well as the decade starting in 2021. Legally it has to be 5% and is currently 3.6% according to his calculations. It looks like not much money is being spent on bicycles or pedestrians, does GAATC have any intention on getting more money for bike paths? Also, trail maintenance needed for with bicycles and pedestrians. Is GAATC going to provide recommendations regarding gaps on trial system?
    - Ryan Mast: Appreciated Steve's comments and acknowledged that it is budget season and there are things are currently moving around. Perhaps at a future meeting, GAATC can learn more and have a presentation about this.
  - Scot Key: Scot congratulated the County for receiving funding for Coors in South Valley project. Also, an update for everyone to be aware of, there were 10 out of 24 pedestrians in fatal crashes (over 40%). Reiterating the need to do something about that. Came for the Rio Bravo Bridge presentation and looks forward to hearing it.
  - Alejandro Villezcas: Together for Brothers wanted to express their thanks to Esperanza to make an event they hosted as safe as possible for the people participating. We shall continue to support Esperanza Bike Shop

Greater Albuquerque Active Transportation Committee (GAATC) Meeting Minutes

Tim Keller, Mayor

Monday, April 10, 2023
4:00 – 6:00 PM

- **Discussion / Action Items**
  - Galbadon Rd NW & I-40 Trail safety concerns (motion at May 9, 2022 meeting to keep this item on the agenda until a resolution is completed)
    - **Action:** Since this item has been addressed, vote to remove from the GAATC Agenda

      Richard Meadows *(motion);* Dr. Naomi George *(second)*
      Yes: Dr. Naomi George, Richard Meadows, Josiah Hooten, Ryan Mast

  - Action: Selection of new Committee Chair
    - Discussion about selection of new Chair. No volunteers or nominations. In the role as Vice Chair, Ryan will serve as the acting Chair and Richard Meadows can fill in to run meetings if Ryan is unavailable to attend. Ryan suggested keeping this item on the agenda for future meetings for further discussion and/or when current GAATC vacancies will be filled.
      - Richard Meadows (*motion*), Dr. Naomi George (*second)*
      - Yes: Richard Meadows, Dr. Naomi George, Josiah Hooten, Ryan Mast

  - Discussion: Identify GAATC representatives for the City's Complete Streets Maintenance Review team & Mid-Region Council of Governments (MRCOG) Active Transportation Committee
    - Richard Meadows: The City's Complete Street Ordinance looks at restriping and resurfacing roadways around the city. A group of City staff and a GAATC representative look at roadways that will be repaved and identify striping opportunities to add bike lanes, parking, other safety features to roadway. Change look and feel of corridors in the city. Has participated in this group the last few three years. Many residential streets remain the same, but there are opportunities to address arterials and collectors. It's a good process and has noticed a big different in the city.
    - Dr. Naomi George: How frequently does it meet and is it in person?
      - Richard Meadows: The meetings occur remotely. It's once a year and typically over three or four meetings and typically in April, May, and June timeframe. It depends on how many streets will be repaved for that year.
    - Tara Cok: The Active Transportation Committee meetings are currently every other month, 3rd or 4th Friday of the month, from 12-1pm @ MRCOG building downtown or there is a virtual option. The Committee also looks at Active Transportation but the group is looking at the larger MRCOG region, so there are staff members from other jurisdictions such as Rio Rancho and Los Lunas. The next meeting is April 21.
    - Dr. Naomi George: Interested in serving as the GAATC representative for the Complete Streets meetings.

- Ryan Mast: Will serve as the representative for the MRCOG Active Transportation Committee. If anything needs to change in the future for Naomi, please feel free to reach out to Ryan and he can help to fill in.

- **Presentations**
  - **NMDOT Rio Bravo Bridge,** Jill Mosher, District 3, New Mexico Department of Transportation (NMDOT) and Megan Myers (WSP)
    - *Description*: Emergency replacement for 4 bridges in poor condition = top priority, looking for funding – grant currently out
    - *Purpose:* address structural deficiencies to improve multi-modal transportation. EB river bridge is in poor condition and requires replacement for pedestrian and biking facilities, along with river crossing capacity while maintaining a safe environment and accomplishing construction ASAP
    - *Action Dates:*
      - Study phase 2020-2021
      - Preliminary Design 2021-2022
      - Public Involvement with public (during study phase and prelim design)
      - Engineering study performed after prelim design
      - Final Design will be ONGOING
    - *Action Items/Proposals:*
      - Replace both bridges (over Rio Grande and ABQ riverside drain) and widening for 6 lanes + 8 foot sidewalk on north and south side of RB.
      - Shifting road north and replacing bridge on ½ offset to north alignment.
      - Compress river and bosque area and park (will be cut off by bridge)
      - East side improvements include multi-modal access for corridor, provide access to trails and relocate parking for park
      - Access to boat ramp used for emergency access moved from west to east side
      - Inclined walkway to trails for pedestrians on south (underneath)– access to service roads, parking area for park and cross under bridge to opposite side of bridge
      - Poco Loco & Dean Drive – Striping added, improving condition, temp traffic signal during construction **(priority)**
    - *Concerns:*
      - Complete bridge closure
      - Level on traffic on Rio Bravo
      - Traffic during peak hours
      - Impacts to Bosque, Rio Grande and Park
      - Noise
    - *Phases:*
    - *1st (North half)*
      - Maintaining traffic

- North half of bridges and roadways reconstructed to 3 lanes and sidewalk
- Construct transitions
- Some impact to park and trails to have low interference with people and construction

▪ *2nd (South half)*
- *Demolish existing bridges*
- Shifting traffic to north half
- 3 lanes of traffic with middle lane being reversible
- Construct south half of new bridges and roadways

○ **Questions/Comments** for NMDOT Rio Bravo Bridges Presentation:

▪ Richard Meadows: Can you please explain the transition? Currently there is a multi-use trail along Dennis Chavez, when getting to bridge section does it transition to bike lane and sidewalk or is sidewalk multi-use (bike and ped traffic)? Are there bike lanes?
- Megan Myers: Sidewalk will be used for bikes as well – not striping to show it is a bike lane then transitions past Poco Loco.
- Jill Mosher: Shoulder can be used for bike lane or accidents for a car to pull aside onto the shoulder.

▪ Ryan Mast: In the main areas where issues take place are when pedestrians or bicyclist are not as visible to drivers, are they separated vs sharing the road with drivers. Will there be signage so motors can be aware of bicyclists?
- Jill Mosher: Yes, the NE part of project by right turning lane will be separated to be indicated with signage for cyclists. The shoulder bike lane is to be shared with automobiles. If they not comfortable with this, you could use a wider shoulder to be more separated from traffic.

▪ Steve Pilon: I have concerns that this is not friendly to public transportation and bicyclists. There are people driving 50 MPH with bicyclist riding next to them. Have you done an induced traffic study for impact? Is there any bus right-of-way lane?
- Jill Mosher: The bridge should have a 75-year life span. The modeling done for MPO, consideration for noise and air. We have worked with ABQ Ride for improvements for bussing. For the buffer lane for pedestrians and biking in between road and turning lanes, this is already implemented on Tramway so will also be implemented here as well.
- Megan Myers: Will make sure there is signage for ABQ Ride.

▪ Ben Garland: The width of the bike lanes for 8 feet seems narrow. Would you please possibly consider making it 10 or 11 feet? This is not very “future-

proofed" for wheelchairs, families biking, etc. Also, right turn lane/buffer – consider placing barriers for cars who decide to turn last minute to protect those biking.

- Jill Mosher: There is a national AASHTO Design Guide for multi-use-pass allowing 8 feet over the river then it expands out after. So we will be using this.

- Scot Key: I am aware that the focus is more north/south because of Bosque Trail. Please explain walking west from Joy Junction (2nd Street) to Isleta?
  - Jill Mosher: People on 2nd Street will be able to walk on the path either on north or south side of Rio Bravo.
  - Megan Myers: The trail on north and south side and a curb separating from trails. From north side, come down to the sidewalk between Poco Loco and Rio Bravo and ramp up to Rio Bravo- upcoming to a tall barrier. Then it turns into an 8-foot sidewalk that stays behind the barrier and then before bridges come up to incline. When you come onto the westside, it transitions from tall barrier to a curb and ties into existing configurations on Isleta.

- Ryan Mast: Are there any upcoming ongoing opportunities to discuss project or next phase of design?
  - Megan Myers: They are currently in process of speaking with property owners along Isleta. The website also will be updated on statuses. Contact information is also available on website: https://nm500riobravo.nmdotprojects.org/
  - Jill Mosher: Public meeting will not be held until construction is underway.

- **Staff Reports**
  - Municipal Development (DMD)
    - Transportation Engineering/Vision Zero, Valerie Hermanson
    - Louisiana Blvd Vision Zero Project from Gibson to Central – we just had our 90% review at DRC on March 15, and we're proceeding to Final Design.
    - Bikeway & Trail Facilities Plan – our consultants are working on the existing conditions and getting reading for May outreach. We're also working with MRCOG on a survey where folks can share their bicycling priorities. We will also have an interactive map to indicate specific locations where you'd like to see improvements. We're also finalizing the information for two public meetings – one virtual and one in person:
      - May 10 from 12 – 1, Online only
      - May 11, 5:30 – 7 at MRCOG's offices (809 Copper Ave NW 87102)
      - May 19, staff will be pop-up tables as part of Bike 2 Wherever Day

- May 20 & May 27 pop-up outreach at Bike in Coffee and the Downtown Growers Market

- Bike 2 Wherever Day is Friday, May 19. There will be many pop-ups around the city where you can stop to pick up bike safety freebies. Visit the website to learn more, commit to ride, and find a pop-up location" https://bikethruburque.com/
- GAATC vacancies needed to fill – SW Representative, NW Representative, Disability Representative

- Engineering (DMD), Tim Brown
  - Some projects delayed such as at Girard & Marble Crossing and Carlisle & Mackland Crossing where the City will be installing RRFBs.

- Council Services, Shanna Schultz
  - Sharing vacancies with City Councilors to see if they can help to fill the vacant positions mentioned by Val.

- Parks and Recreation, Cheryl Somerfeldt
  - I-40 Gap Feasibility Study - Interagency meetings
  - North Diversion Channel Project – Slow moving because of federal funding expecting kick-off meeting within next month
  - Tom Bolack Park Trail Extension Project – Phase 1 will be starting pre-construction within the next month

- Planning, Seth Tinkle
  - Near-Heights Community Planning Area (CPA) Assessment completed, reviewed and accepted by City Council last week (4/3 – 4/7/2023)
  - Central ABQ and SW Mesa CPA team currently doing public engagement and recently released survey about priorities and policies. https://survey123.arcgis.com/share/342dc7a5b2f84e70a7e6bfdae97b4838
  - *Upcoming Events:*
    - Central team - "Spring into Summer" event on April 29, 2023 @ Tiguex Park, 10 AM to 2 PM
    - SW Mesa team events –
      - Small Business Fair - Saturday, April 15, 2023 @ Ted Gallegos Community Center, 11 AM to 2 PM and
      - Block Party mixed with Nature Fest - Saturday, April 22, 2023 @ Tower Pond Park 10 AM to 2 PM

- East Gateway Community Planning kick off on May 16, 2023 (more info to come)

- ABQ Ride, Carrie Barkhurst
  - Suspended services due to driver shortage and to increase reliability, 10 new drivers
  - 2nd Phase of Network Plan – Looking at routes and develop concepts (high # of riders & bus routes that come close to residency), survey out for opinions, and interactive website for route times
  - https://www.surveymonkey.com/r/abqride-concepts
  - *Upcoming Events within County for Network Plan:*
    - Open House - April 12, 2023 @ South Valley Multi-Purpose Center 4 PM, presentation at 5 PM
    - Open House – April 18, 2023 @ Raymond G. Sanchez Community Center at 4 PM, presentation at 5 PM

- Sustainability, Albert Lee
  - Climate Action Plan Community Engagement (Quarterly) meeting related to Electric Vehicles on Wednesday, April 19, 2023, on Zoom (Virtual), 5 PM to 6 PM
  - https://www.cabq.gov/sustainability/climate-action-plan#CAP-community-engagement

- Bernalillo County, Julie Luna
  - Public Meeting for 2nd Street Corridor Project - April 11, 2023 @ Mountain View Community Center, 5:30 PM to 7:30 PM
  - South Valley Community Meeting – April 12, 2023 @ South Valley Multi-purpose Center, 4 PM to 6 PM
  - North Valley Community Meeting – April 18, 2023 @ Raymond G. Sanchez Community Center, 4 PM

- MRCOG, Tara Cok
  - No updates.

- NMDOT District 3, Jill Mosher
  - Funding for Rio Bravo
  - Montgomery RFP will be moving out to construction design-build team in July 2023, anticipated construction to be started by 2024
  - Gibson Interchange project kick-off soon. Funding team to get design started

Greater Albuquerque Active Transportation Committee (GAATC) Meeting Minutes

Tim Keller, Mayor

Monday, April 10, 2023
4:00 – 6:00 PM

- RSA from Bernalillo County is also being contributed by ABQ and NMDOT (20%) as a joint venture to get road safety audit completed. Will continue to be engaged with them to develop project

- **Public Comments**
  - Steve Pilon: 1) Rio Bravo project is at odds with City and will create global/local pollution along with traffic – hostile to sustainability goals and public transportation including bicyclists. 2) Curious to East, West demarcation. 3) Bond of parks have no projects for bike trails, need to do some research on that.

  - Scot Key: Class 2 electric bikes- committee needs to consider that and have a local option
    - Ryan Mast: State Legislation got signed in just fairly recently so it's still fresh on our end. We will make that a topic of discussion for a future GAATC agenda. Interested in how we can address that.

  - Ben Garland: Bridge (comfort level) barrier between roadway and bike and ped path looks short, road noise is much louder. Consider maybe looking at 7 or 8 foot barrier to lessen road noise
    - Jill Mosher: barrier need to be MASH compliant national standard to prevent deflection into hazard. Also, view-shed, cannot obscure view from the bridge decks. Noise study is adjacent to bridge- the noise threshold was met

- **Next Meeting:** May 8, 2023, 4 – 6 pm

- **Meeting adjourned at 5:39pm.**

New Mexico DEPARTMENT OF TRANSPORTATION
MOBILITY FOR EVERYONE

wsp

FHWA

Greater Albuquerque Active Transportation Committee (GAATC) Meeting

April 10th, 2023

NM 500 Rio Bravo Blvd. Bridge Replacement Project

NMDOT Control Nos. A301000 / A301001

New Mexico DEPARTMENT OF TRANSPORTATION
MOBILITY FOR EVERYONE

wsp

FHWA

Project Limits, Background, and Public Input

NMDOT CN A301000

https://nm500riobravo.nmdotprojects.org/

Background

Project Purpose and Need

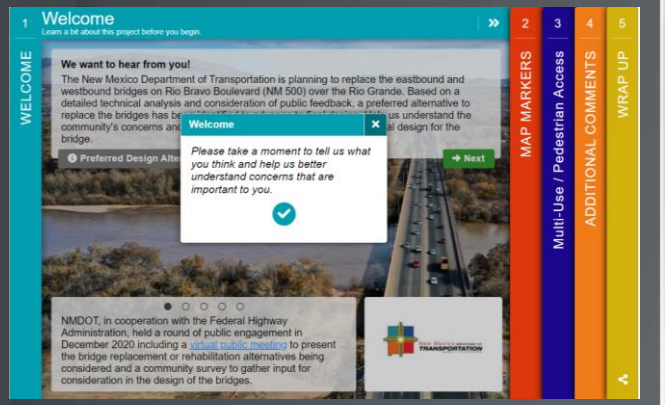
- ***Purpose:*** *to address structural deficiencies while also reducing congestion and improving multi-modal transportation system connectivity within the project limits.*
- ***Need:*** *the eastbound river bridge is in poor condition and requires replacement; pedestrian and bicycle facilities are discontinuous in the project limits; additional river crossing capacity is needed in the metro area.*

Work to Date

- *Study Phase – 2020-2021*
- *Preliminary Design – 2021-2022*
- *Public Involvement*
  - Public meetings held during study phase and preliminary design
  - Property owner interviews conducted during study phase and final design
- *Value Engineering Study – performed after preliminary design*
- *Final Design - ongoing*

Bridge Infrastructure Deficiencies,
Traffic Capacity, and Multi-modal Connectivity

Key Topics from Public Feedback Received



- **Priorities**
  - *Safety and Environmental*
  - *Construction start and end ASAP*
- **Access**
  - *Concern over complete bridge closure*
  - *Level of traffic on Rio Bravo Blvd a concern*
  - *Pedestrian/Multi-modal access to trails*
- **Environmental**
  - *Impacts to Bosque and Rio Grande; Protect ecosystem*
  - *Noise concerns, noise barrier consideration*
- **Other**
  - *Concerns - traffic during peak hours*
  - *Concerns – adjacent homes, properties, livestock, health*
  - *Majority of commenters supportive of project*

New Mexico DEPARTMENT OF TRANSPORTATION
MOBILITY FOR EVERYONE

wsp

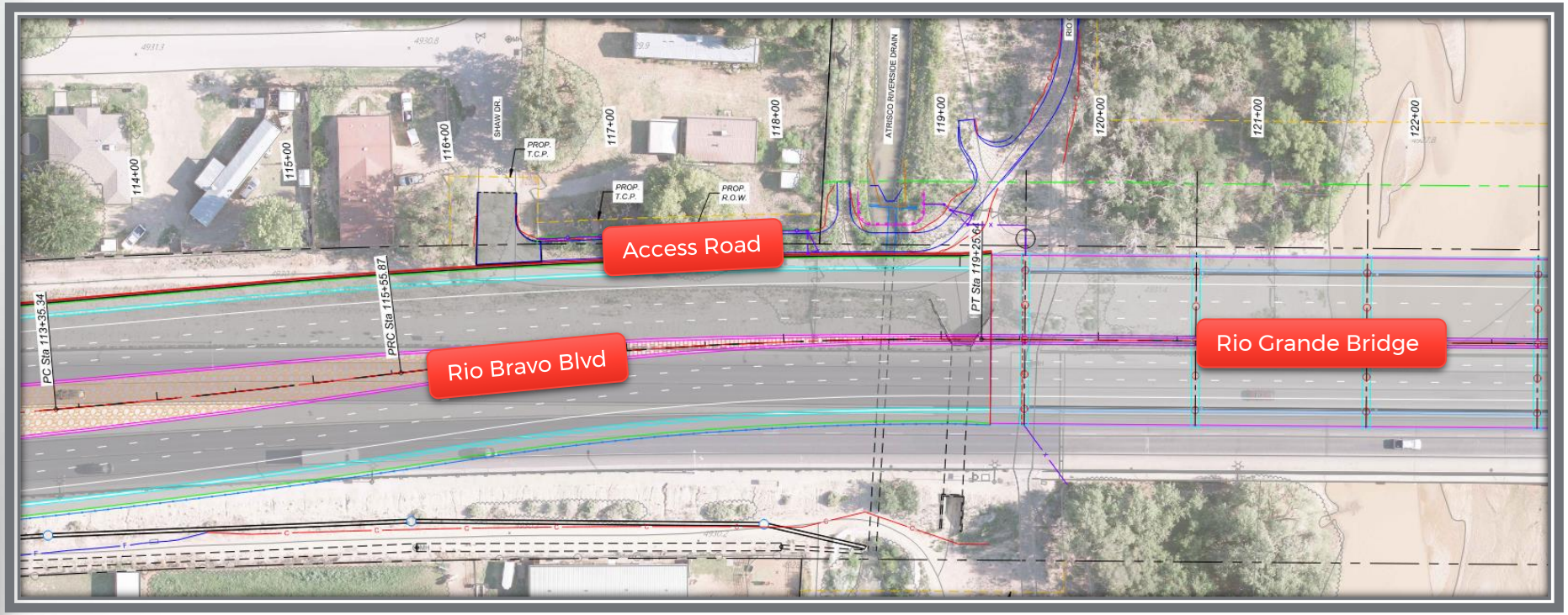
FHWA

Proposed Improvements

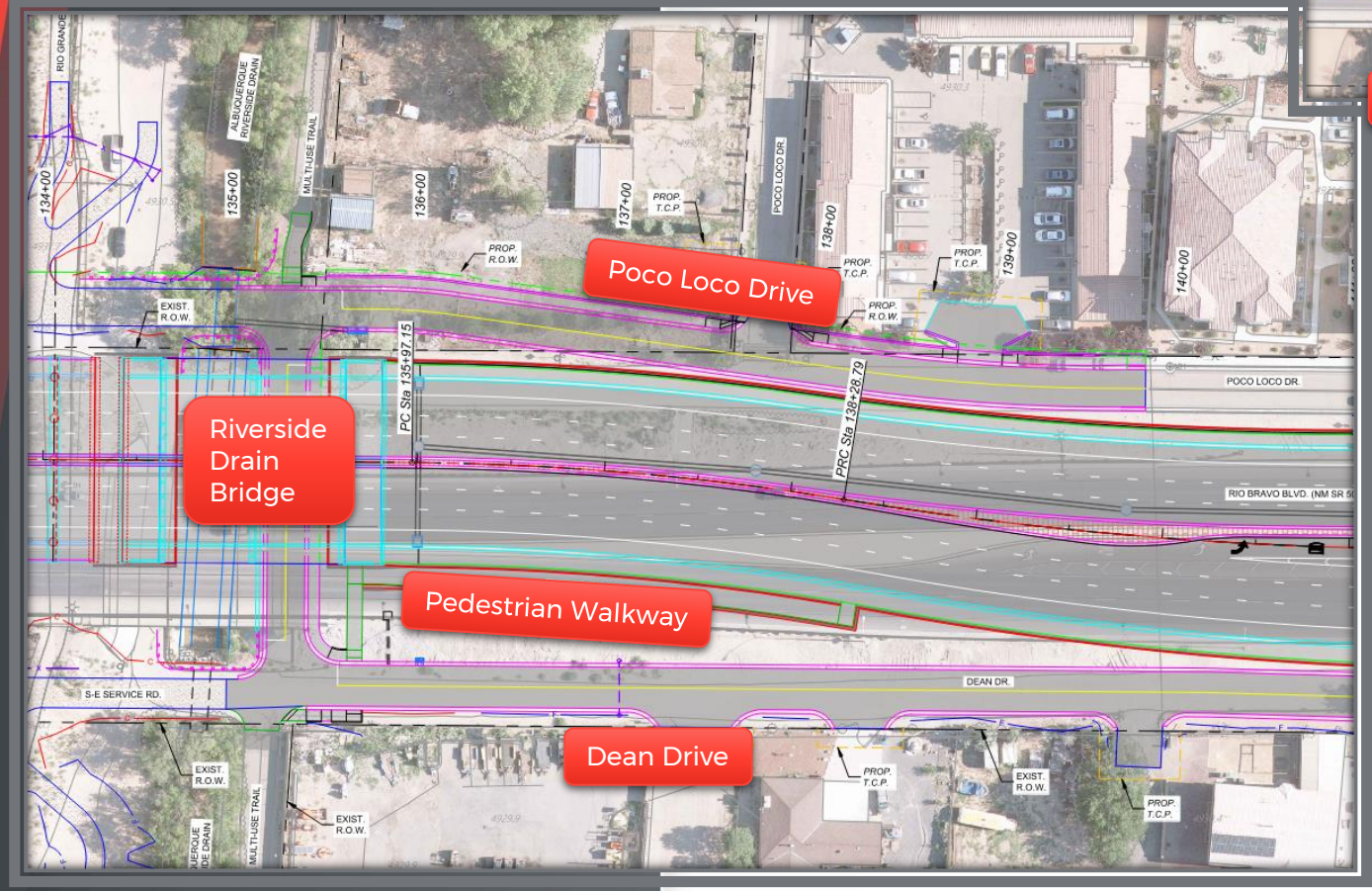
NMDOT CN A301000

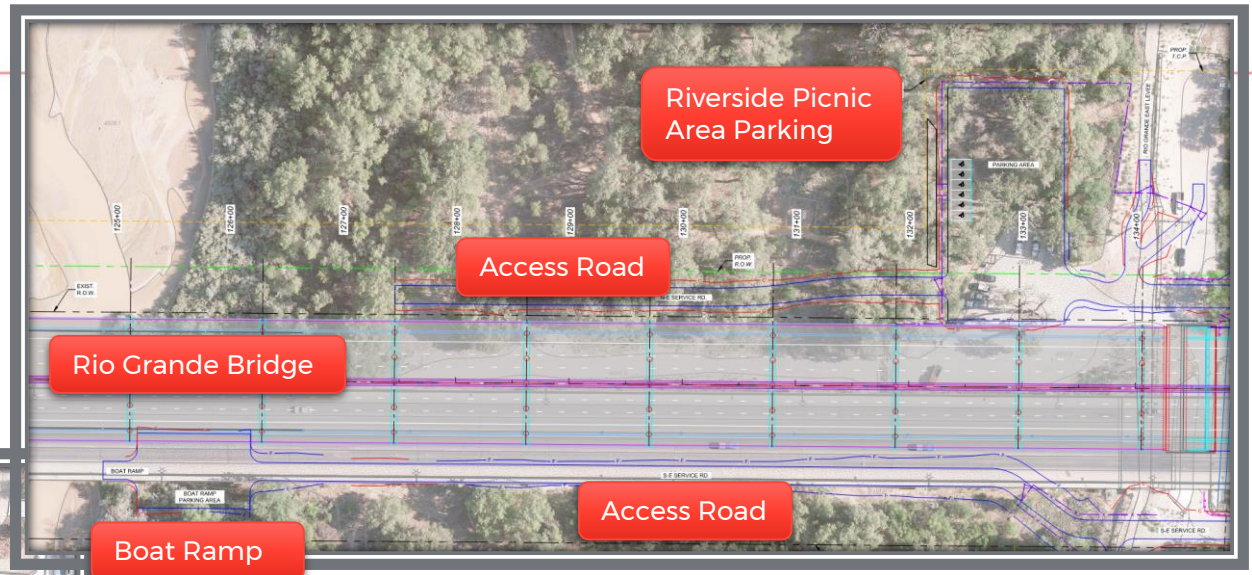
https://nm500riobravo.nmdotprojects.org/

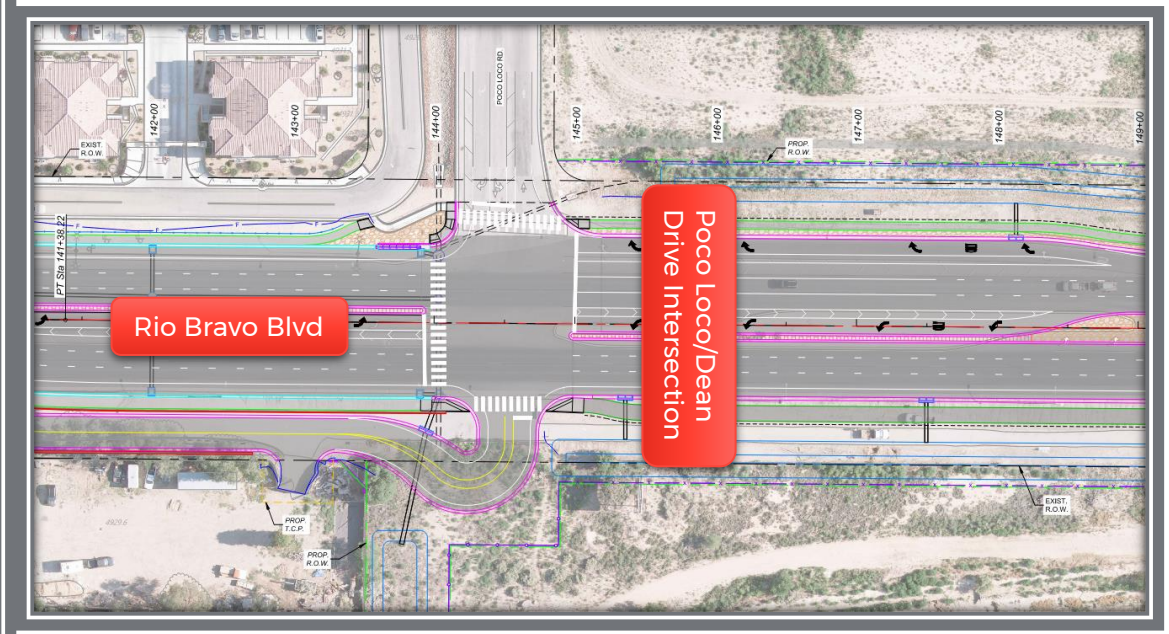
West Side Proposed Improvements



East Side Proposed Improvements



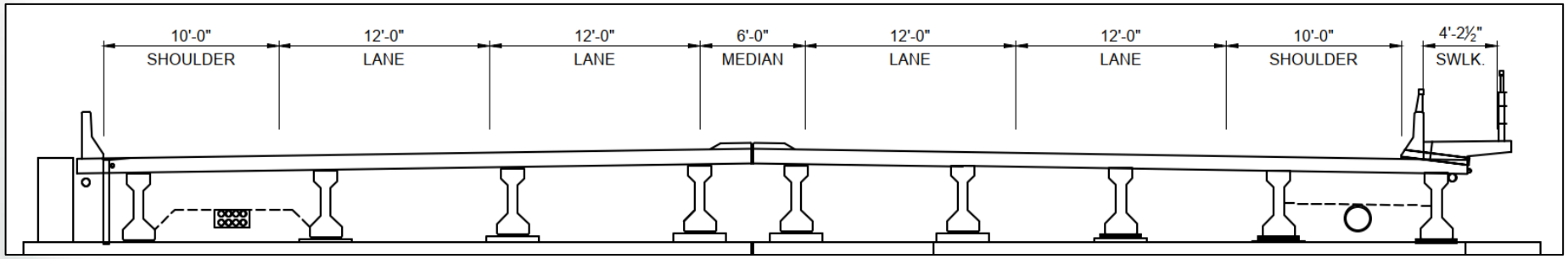




Proposed Improvements

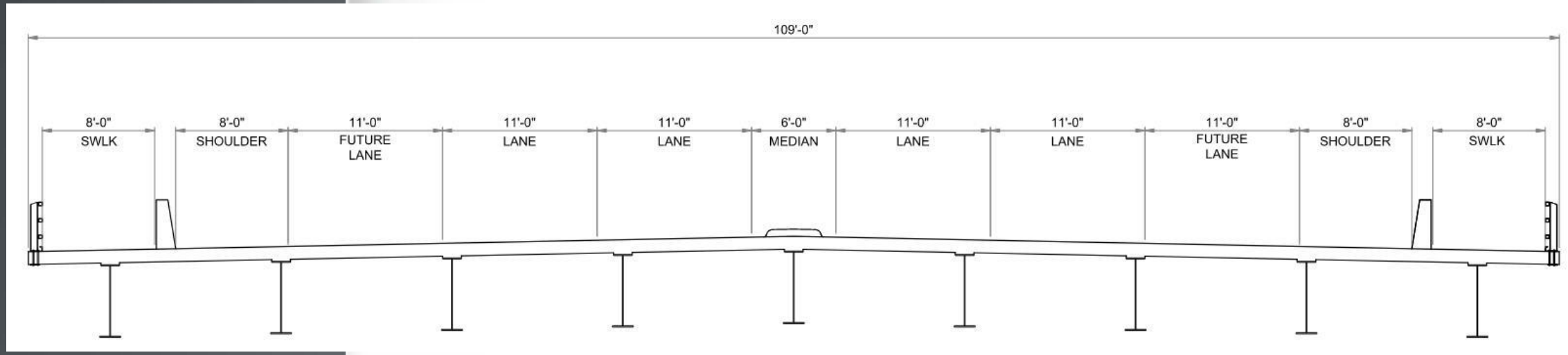
*When first opened, the bridge may only be striped for 2-lanes in each direction

Existing Typical Section



Proposed Typical Section

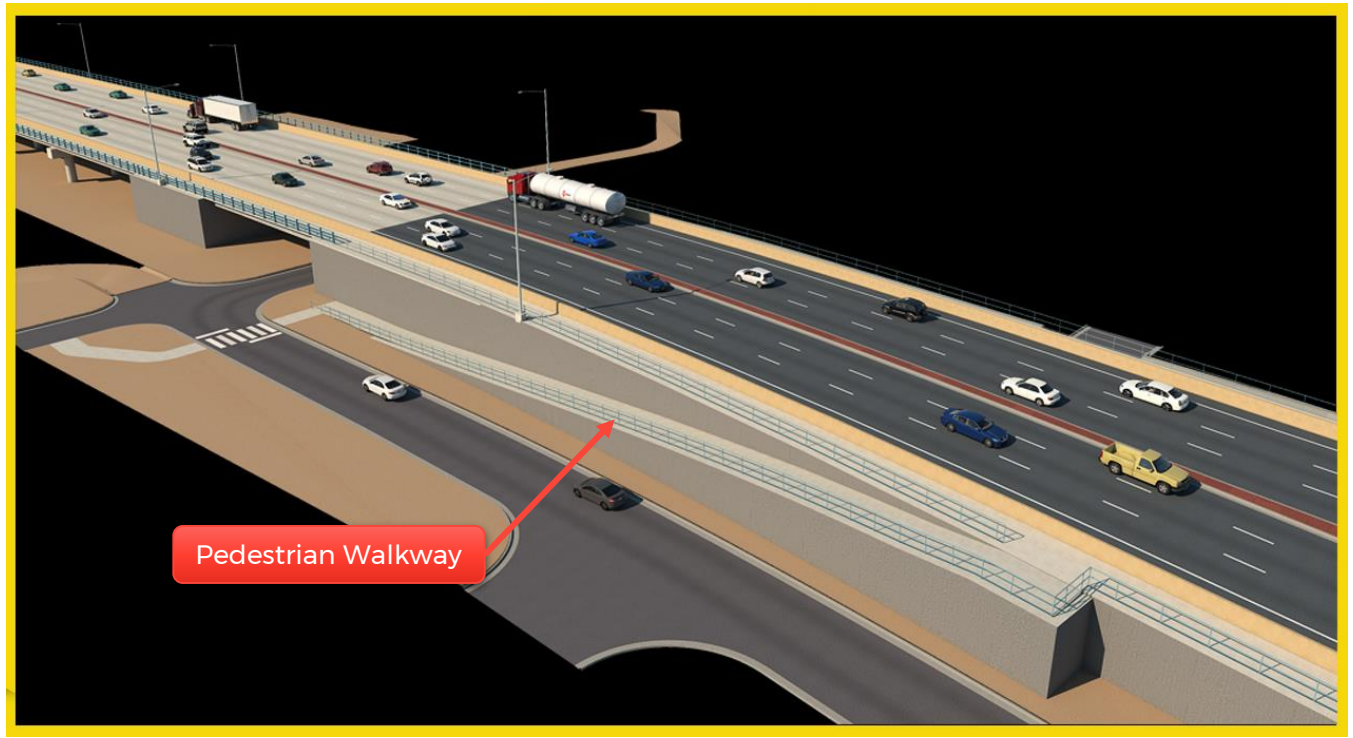
- *Provide additional traffic capacity*
- *Provide sidewalk on both sides of the bridge*
- *Maintain outside shoulders*



Proposed Improvements

Proposed Pedestrian Access

- *Provide inclined walkway to bring pedestrians down from NM 500 to the Chris Chavez / Riverside Trail and the Rio Bravo Picnic Area*
- *Provide sidewalk on both sides of NM 500 throughout the limits of the project*
- *Walkways are Americans with Disabilities Act (ADA) Compliant*



New Mexico DEPARTMENT OF TRANSPORTATION
MOBILITY FOR EVERYONE

wsp

FHWA

Maintenance of Traffic

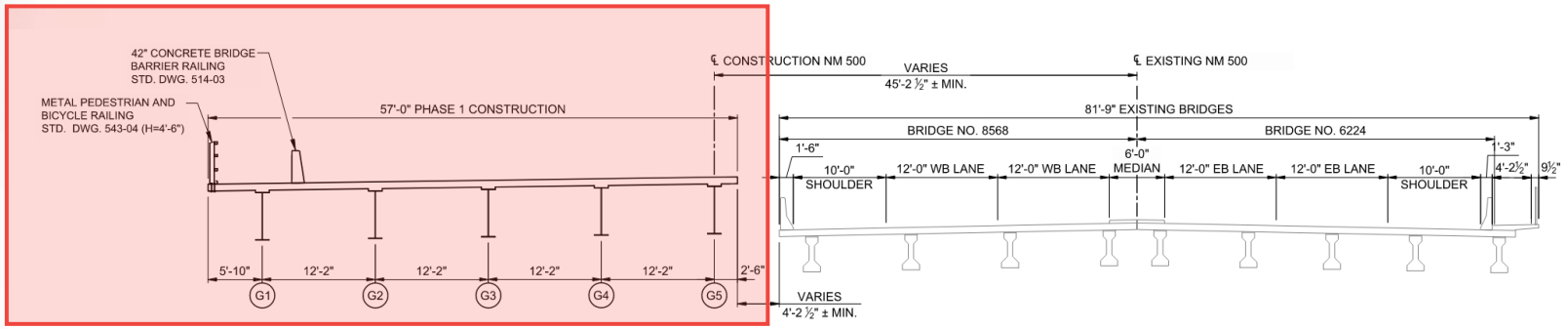
NMDOT CN A301000

https://nm500riobravo.nmdotprojects.org/

Phased Construction

First Major Phase – North Half

- *Maintain traffic on existing bridges*
- *Construct north half of bridges and roadways north of current road alignment for 3 travel lanes and a sidewalk*
- *Construct transitions*

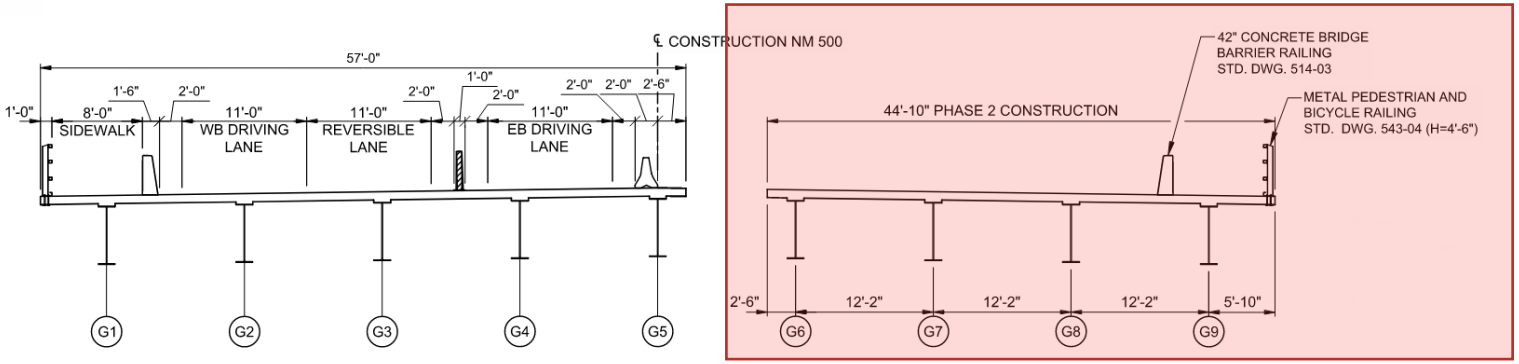


PHASE 1

Phased Construction

Second Major Phase – South Half

- *Shift traffic to newly constructed north half of bridges*
  - *Will require reversible lanes to provide 2 lanes in peak travel direction*
- *Demolish existing bridges*
- *Construct south half of new bridges and roadways*



PHASE 2

Pedestrian/ Bicycle Access

First Phase

- *Multimodal access across the bridges will be as exists*
- *Access to riverside park and trails may be temporarily affected during construction operations to protect the public*

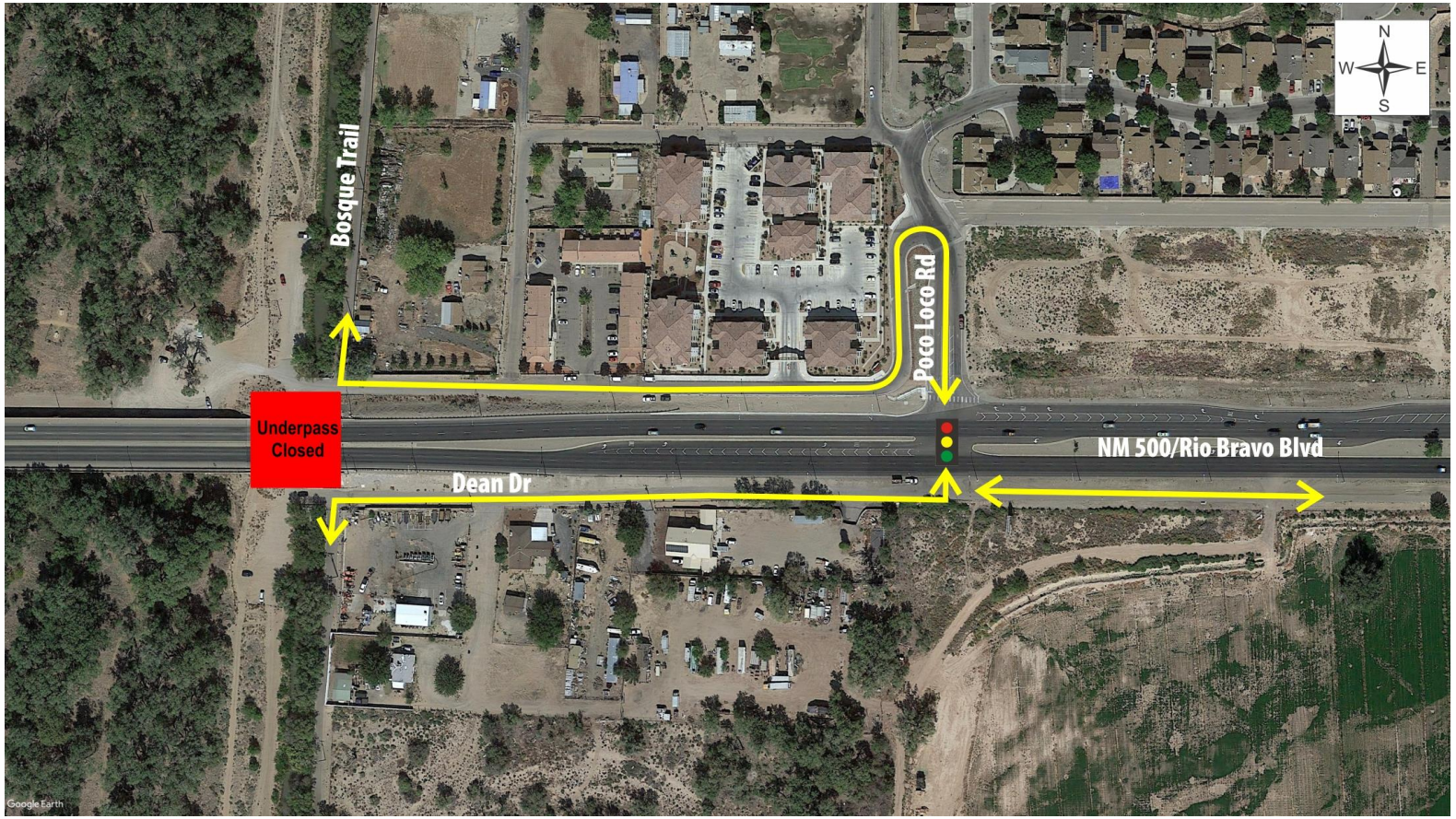
Second Phase

- *Multimodal access on north side of new bridges*
- *Access to riverside park and trails may be temporarily affected during construction operations to protect the public*

Pedestrian/ Bicycle Access

Access under Rio Bravo Blvd. on East Side

- *Full closures will be needed*
- *Temporary signal at Poco Loco/Dean Drive*



Thank You!

New Mexico DEPARTMENT OF TRANSPORTATION
MOBILITY FOR EVERYONE

WSP

FHWA

Questions

NMDOT CN A301000

https://nm500riobravo.nmdotprojects.org/

OPEN SPACE ADVISORY BOARD
MEETING AGENDA

Tuesday, October 24, 2023

Join IN PERSON or ZOOM

Open Space Visitors Center 6500 Coors Blvd NW

https://cabq.zoom.us/j/81929555029

Meeting ID: 819 2955 5029 Passcode: 631966

One tap mobile
+17193594580,,81929555029# US +12532050468,,81929555029# US

Members

Don Meaders	Michael Scisco
Barbara Taylor	Twyla McComb
Tasia Young	Taylor Bui
Corrina Jaramillo-Feldman	

1.	1:30 PM	Call to order and Introductions	Don Meaders (Chair)
2.	1:35 PM	Action: Approval of Agenda	Board
3.	1:40 PM	Action: Approval October 12, 2023 Minutes	Board
4.	1:45 PM	Public Comment	Public
5.	1:50 PM	Announcements and Correspondence	Board
6.	1:55 PM	Action: Rio Bravo Bridge Expansion Project	NMDOT
7.	2:25 PM	Reappoint Committees	Board
8.	2:40 PM	Discussion: Set final meeting of the year	Board/Staff
9.	2:45 PM	Staff Updates and Q&A	Staff
10.	3:05 PM	Board Appreciation	Staff / Board
11.	3:35 PM	Adjournment	Board

Next board meeting **TBD**

NOTICE TO PERSONS WITH DISABILITIES: If you have a disability and you require special assistance to participate in this meeting, please contact the Open Space Division at 452-5200 at least 3 days prior to the meeting.

Amanda Romero 768-4212 or aeromero@cabq.gov

OPEN SPACE ADVISORY BOARD
MEETING MINUTES

October 24, 2023

1:30 PM

Open Space Visitor Center & Zoom

Members Present

Don Meaders, Barbara Taylor, Michael Scisco (Zoom), Corinna Jaramillo-Feldman (Zoom)

Members Absent

No active Board members absent

Staff Members Present

Colleen Langan-McRoberts (Superintendent, Open Space Division), James Lewis (Assistant Superintendent Open Space Division), Dennis Vasquez (Deputy Director, Parks & Recreation Department), Kimberly Selving (Administrative Assistant)

Visitors Present

Jim Heimann (WSP USA/NMDOT), Sandra Lopez (NMDOT), Meghan Myer on Zoom (NMDOT)

1. Call to Order and Introductions

Chair Don Meaders called the meeting to order at **1:35 pm**.

2. Action: Approval of Agenda

Motion made by Barbara Taylor, second by Don Meaders. Motion passes unanimously 4-0

3. Action: Approval of the October 12, 2023 Meeting Minutes

Motion made by Barbara Taylor, second by Don Meaders. Motion passes unanimously 4-0

4. Public Comment

None

5. Announcements and Correspondence

None

6. Action: Rio Bravo Bridge Expansion Project

Sandra Lopez and Jim Heimann presented the project via a powerpoint. Barbara Taylor moved to recommend for approval by the EPS the Rio Bravo Bridge Expansion Project, second by Don Meaders. Passed unanimously 4-0

7. Reappoint committees

Deferred until new appointments are in place

8. Discussion: Set final meeting of the year

December 12, 2023

9. Staff Updates and Q&A

Colleen McRoberts and Dennis Vasquez presented staff updates

10. Board Appreciation

11. Adjournment
Meeting adjourned at 3:32 pm

REMINDERS:
- Action item for next meeting: begin every meeting with Conservation Officer status along with announcements, etc
- Discussion: Finance report for Extraordinary Structures in MPOS (Michael Scisco)
- Susannah Abbey, Sarah Brown, Susan Kelley potential board members
- Presentation from Astrid via Zoom
- Real Property
- Acquisition report
- Special committee meeting to resolve Extraordinary Facility definition / process / language to be a part of the IDO. Members are Barbara, Don, Colleen, Tricia

SOUTH SIDE FARMS COMMUNITY ASSOCIATION

Notice & Agenda For Spring Meeting

Thursday, April 28, 2022

Senior Meal Site 6:30 pm

6:30 PM Meeting call to order
- Introduction of Board Members
- Introduction of Guests
    - Bernalillo County Sheriff Representative - Mark Cerna
    - Rio Bravo Bridge Project - Jennifer Hyre
    - Parks and recreation - John Barney
    - Bernalillo County - Darrell Dady
    - South Valley Coalition - Sue Elliott

6:45 PM Sheriff Report
- Mark Cerna

7:00 PM Rio Bravo Bridge Report
- Jennifer Hyre
    - Rio Bravo Bridge Replace Project

7:15 PM Parks & Recreation
- John Barney
    - Anderson Farm Report

7:30 PM Bernalillo County Report
- Darrell Dady

7:40 PM South Valley Coalition
- Sue Elliott

7:45 PM Old/new business, Open Discussion

8:00 PM Adjourn

G) PROPOSED SITE PLAN/DETAILS

RIVERSIDE PARK PROPOSED PARKING AND PEDESTRIAN ACCESS PLAN - FINAL DRAFT
CN A301001 NM 500 Bridge Reconstruction
June 09, 2023

Note: Parking areas for standard spaces will not be marked except by curb stops, the intent is to show space allocation: Handicap spaces will be as shown with concrete and markings

30 PARKING SPACES + 4 HC SPACES FOR A TOTAL OF 34 SPACES

RELOCATE PICNIC TABLE PREFERABLY BEFORE CONSTRUCTION

PROTECT IN PLACE

RELOCATED TRAIL

PROP. T.C.P.

PROP. T.C.P.

4 - 9.5' x 20' HC PARKING w/ 5' ACCESS AISLE

5 - 12' x 20' PARKING

7 - 12' x 20' PARKING

18 - 12' x 20' PARKING

PROP. R.O.W.

PROP. R.O.W.

EXIST. R.O.W.

EXIST. R.O.W.

23'

131+00

132+00

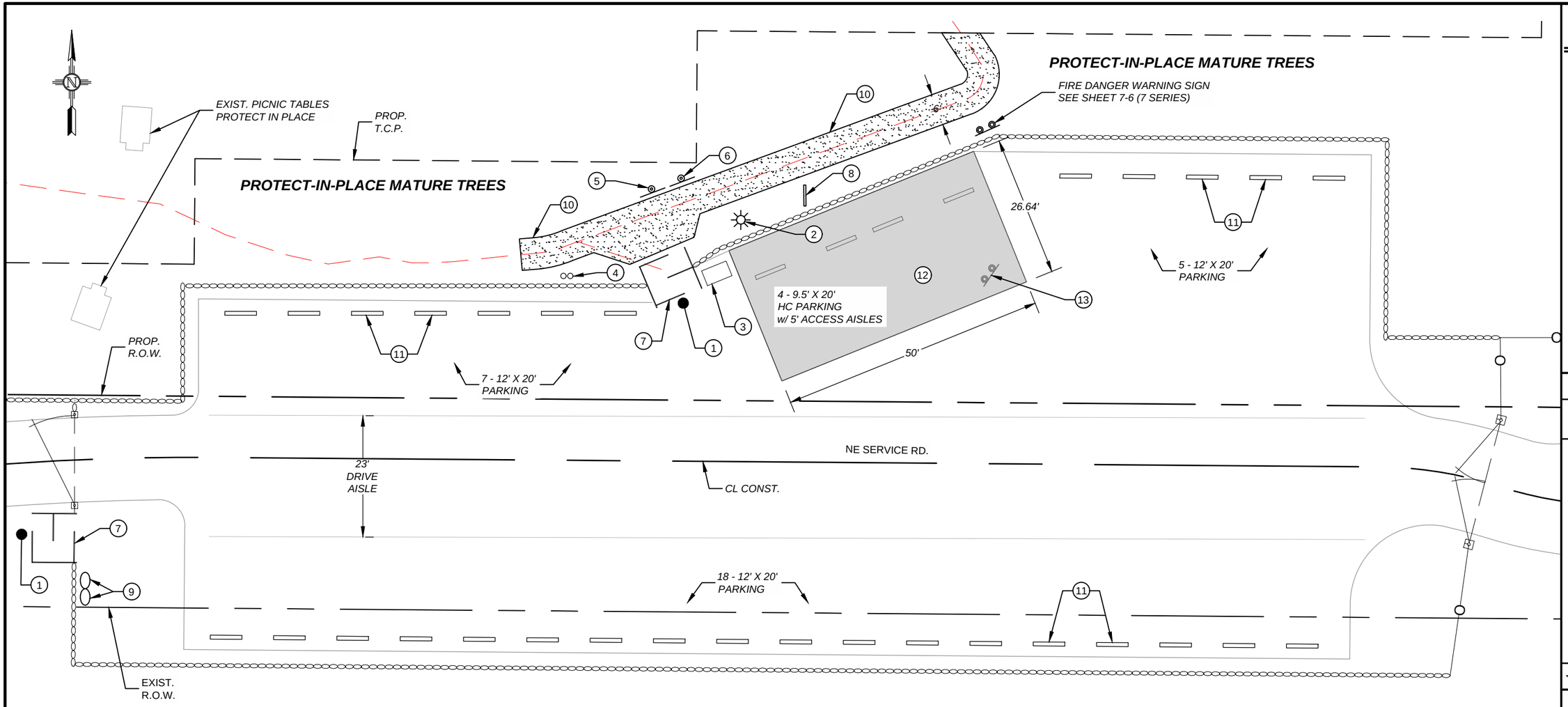
133+00

134+00

135+00

RIO BRAVO BLVD. (NM SR 500)

PROJECT CONTROL NUMBER: A301001



RIVERSIDE PARK AREA LAYOUT PLAN

LEGEND

- PROP. T.C.P.
- PROP. R.O.W.
- EXIST. R.O.W.
- PROP. PEDESTRIAN RAILING
- PROP. HIGH TENSILE WIRE FENCE
- PROP. WHEEL STOP
- PROP. GATE
- PROP. CONCRETE PAD

NOTES:

1. ALL HORIZONTAL CURVES ON THIS PROJECT ARE BASED ON THE ARC DE INITION. RADI S O 1 (ONE DEGREE) 5129.578'
2. STATIONS AND OFFSETS PROVIDED REFER TO CL CONST. NE SERVICE RD.
3. SEE SHEET 3-0A FOR SURVEY CONTROL MAP.
4. SEE SHEETS 3-0B TO 3-0I FOR CL HORIZONTAL CONTROL.
5. SEE SHEETS 3-17 AND 3-18 FOR NE SERVICE RD.
6. SEE SHEET 2-71 FOR FENCING PLAN.
7. CONTOUR INTERVALS ARE SET TO 0.5' INCREMENTS.
8. CONTRACTOR TO COORDINATE WITH CITY OF ALBUQUERQUE OPEN SPACE DIVISION (COA OSD) WHEN INSTALLING PARK FEATURES.
9. WITHIN T.C.P. AREAS, PROTECT MATURE TREES TO EXTENT POSSIBLE.
10. SEE NOTICE TO CONTRACTOR FOR RIVERSIDE PARK AREA LAYOUT ITEMIZED LIST, TO BE PAID ON LUMP SUM BASIS (LS).

KEYED NOTES

1. REMOVE AND RESET TRAIL COUNTER
2. REMOVE AND RESET SOLAR LIGHT POLE
3. REMOVE AND RESET TRASH RECEPTACLE
4. REMOVE AND RESET TRASH CANS
5. REMOVE AND RESET PET WASTE STATION
6. REMOVE AND RESET WELCOME TO OPEN SPACE SIGN
7. INSTALL CHICANE
8. REMOVE AND RESET BIKE RACK
9. REMOVE AND RESET BOULDERS
10. GRADE NEW TRAIL CONNECTION
11. INSTALL 8' CONCRETE WHEEL STOP (TYP. AS SHOWN)
12. CONCRETE PAD FOR HANDICAP PARKING SPACES
13. REMOVE AND SALVAGE KIOSK TO COA OSD
14. REMOVE AND SALVAGE SIGNS NOT SHOWN TO COA OCD

90% DESIGN
NOT FOR CONSTRUCTION

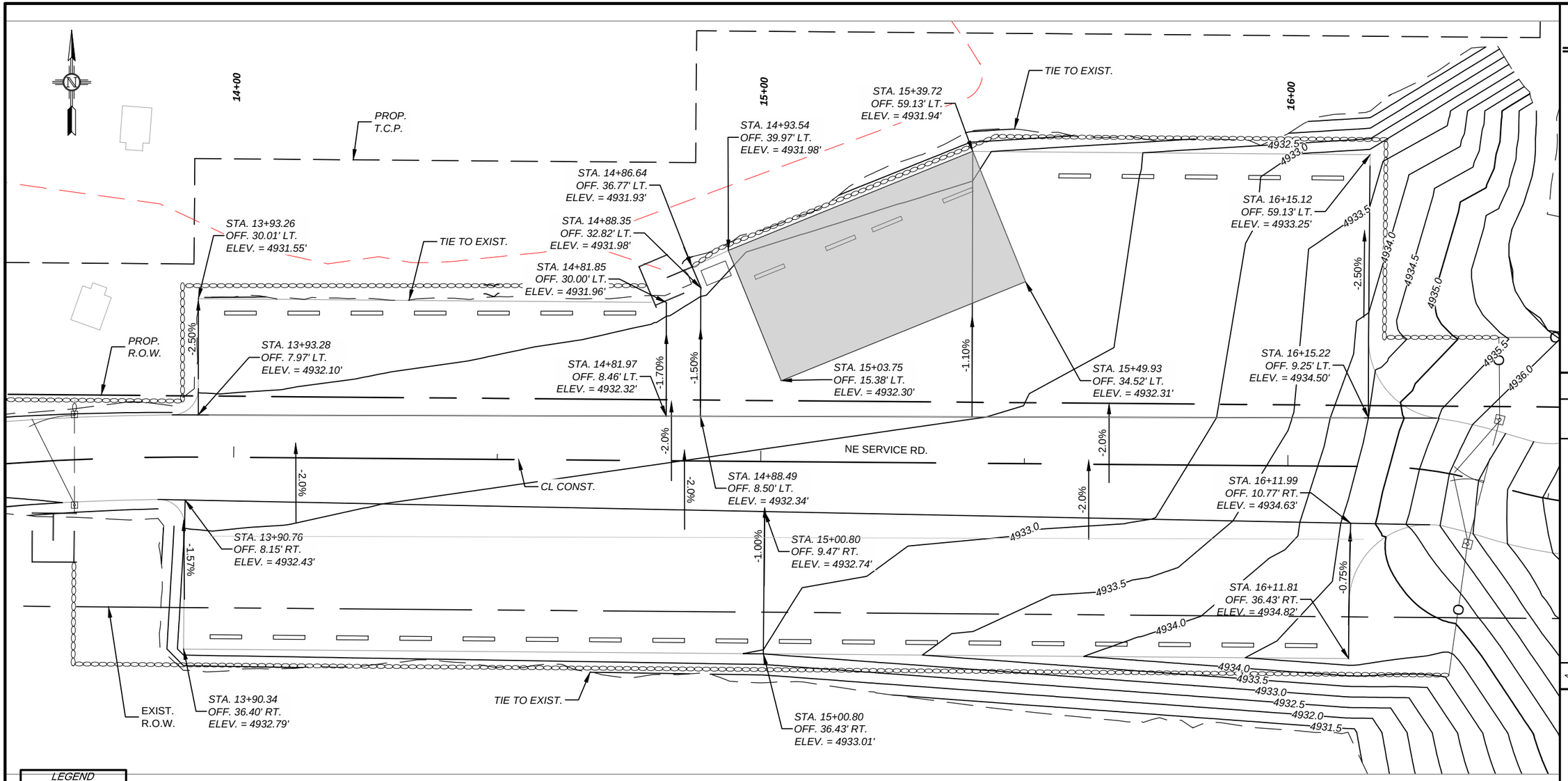
NMDOT

NEW MEXICO DEPARTMENT OF TRANSPORTATION

NO.	DESCRIPTION	DATE	BY
1			
2			
3			
4			

A301001
NM 500 RIO BRAVO BRIDGE REPLACEMENT
RIVERSIDE PARK AREA LAYOUT PLAN

PROJECT CONTROL NUMBER: A301001



LEGEND

- PROP. T.C.P.
- PROP. R.O.W.
- EXIST. R.O.W.
- PROP. PEDESTRIAN RAILING
- PROP. HIGH TENSILE WIRE FENCE
- PROP. WHEEL STOP
- PROP. GATE
- PROP. CONCRETE PAD

RIVERSIDE PARK AREA GRADING PLAN

NOTES:

1. ALL HORIZONTAL CURVES ON THIS PROJECT ARE BASED ON THE ARC DE INITION. RADI S O 1 (ONE DEGREE) 5129.578'
2. STATIONS AND OFFSETS PROVIDED REFER TO CL CONST. NE SERVICE RD.
3. SEE SHEET 3-0A FOR SURVEY CONTROL MAP.
4. SEE SHEETS 3-0B TO 3-0I FOR CL HORIZONTAL CONTROL.
5. SEE SHEETS 3-17 AND 3-18 FOR NE SERVICE RD.
6. SEE SHEET 2-71 FOR FENCING PLAN.
7. CONTOUR INTERVALS ARE SET TO 0.5' INCREMENTS.
8. CONTRACTOR TO COORDINATE WITH CITY OF ALBUQUERQUE OPEN SPACE DIVISION (COA OSD) WHEN INSTALLING PARK FEATURES.
9. WITHIN T.C.P. AREAS, PROTECT MATURE TREES TO EXTENT POSSIBLE.
10. SEE NOTICE TO CONTRACTOR FOR RIVERSIDE PARK AREA LAYOUT ITEMIZED LIST, TO BE PAID ON LUMP SUM BASIS (LS).

90% DESIGN
NOT FOR CONSTRUCTION

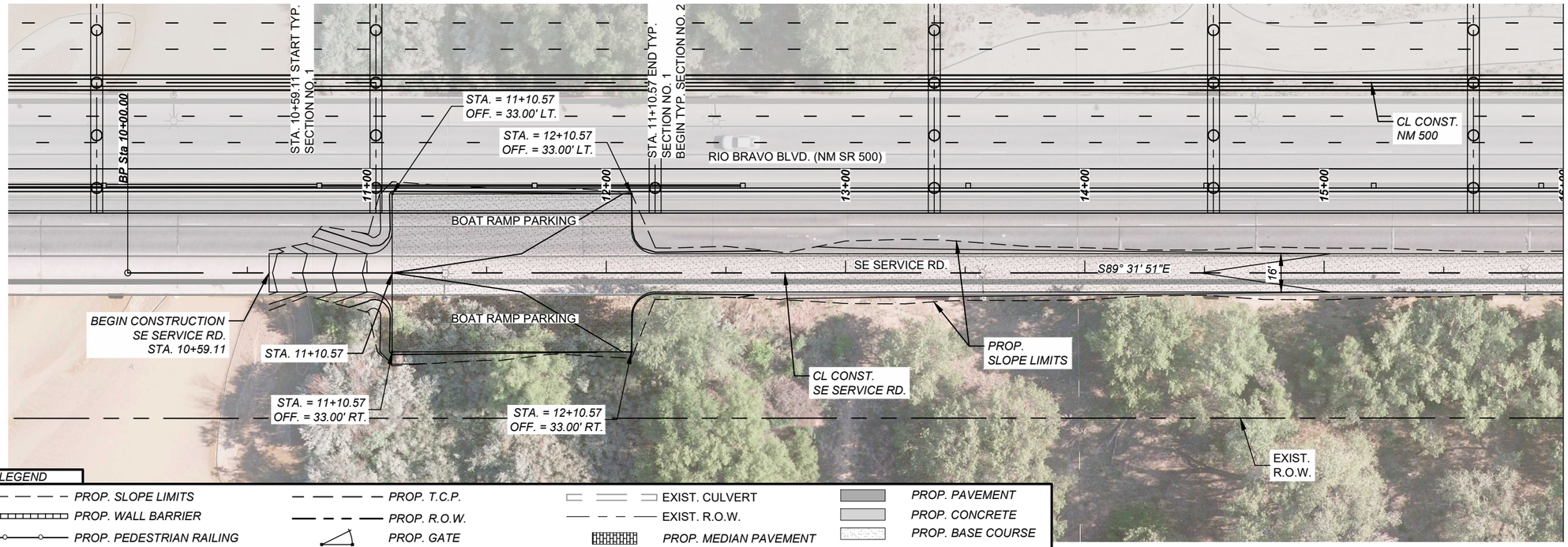
NMDOT

NEW MEXICO DEPARTMENT OF TRANSPORTATION

NO.	DESCRIPTION	DATE	BY
4			
3			
2			
1			

A301001
NM 500 RIO BRAVO BRIDGE REPLACEMENT
RIVERSIDE PARK AREA GRADING PLAN

PROJECT CONTROL NUMBER: A301001

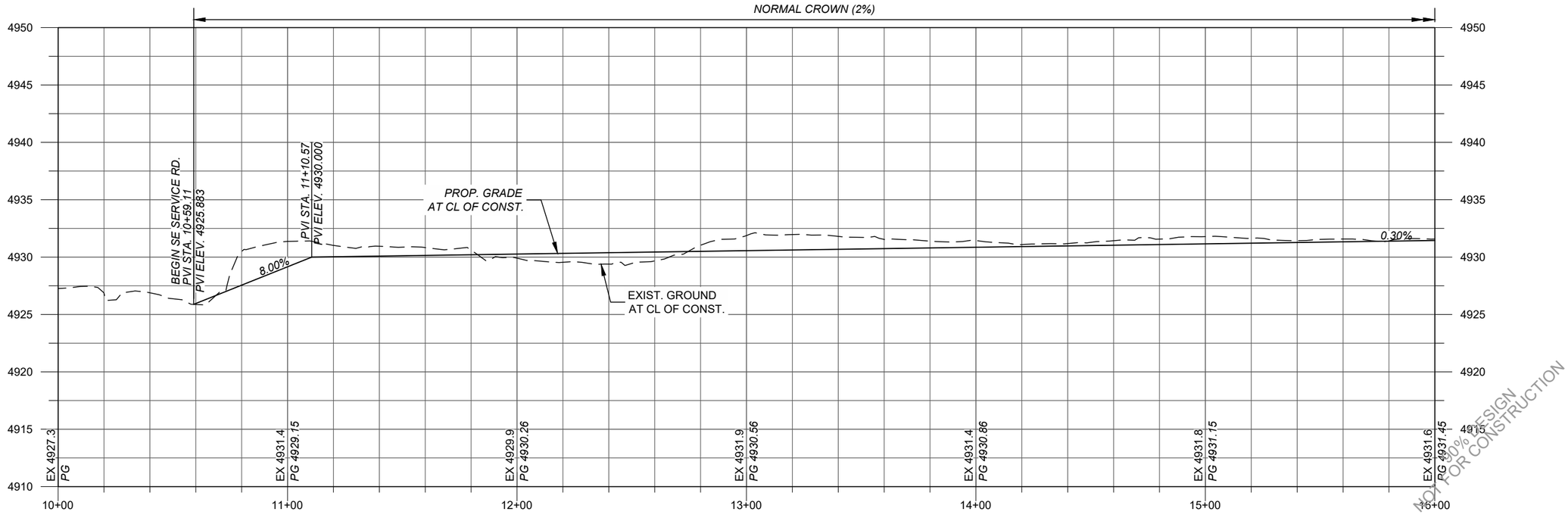


LEGEND

- PROP. SLOPE LIMITS
- PROP. WALL BARRIER
- PROP. PEDESTRIAN RAILING
- PROP. FLOWLINE
- PROP. T.C.P.
- PROP. R.O.W.
- PROP. GATE
- PROP. CULVERT
- EXIST. CULVERT
- EXIST. R.O.W.
- PROP. MEDIAN PAVEMENT
- PROP. LANDSCAPE GRAVEL
- PROP. PAVEMENT
- PROP. CONCRETE
- PROP. BASE COURSE
- PROP. RIPRAP CLASS A

PLAN DRAWING SCALE: 1" = 50'

HORIZONTAL SCALE: 1" = 50' VERTICAL SCALE: 1" = 10'



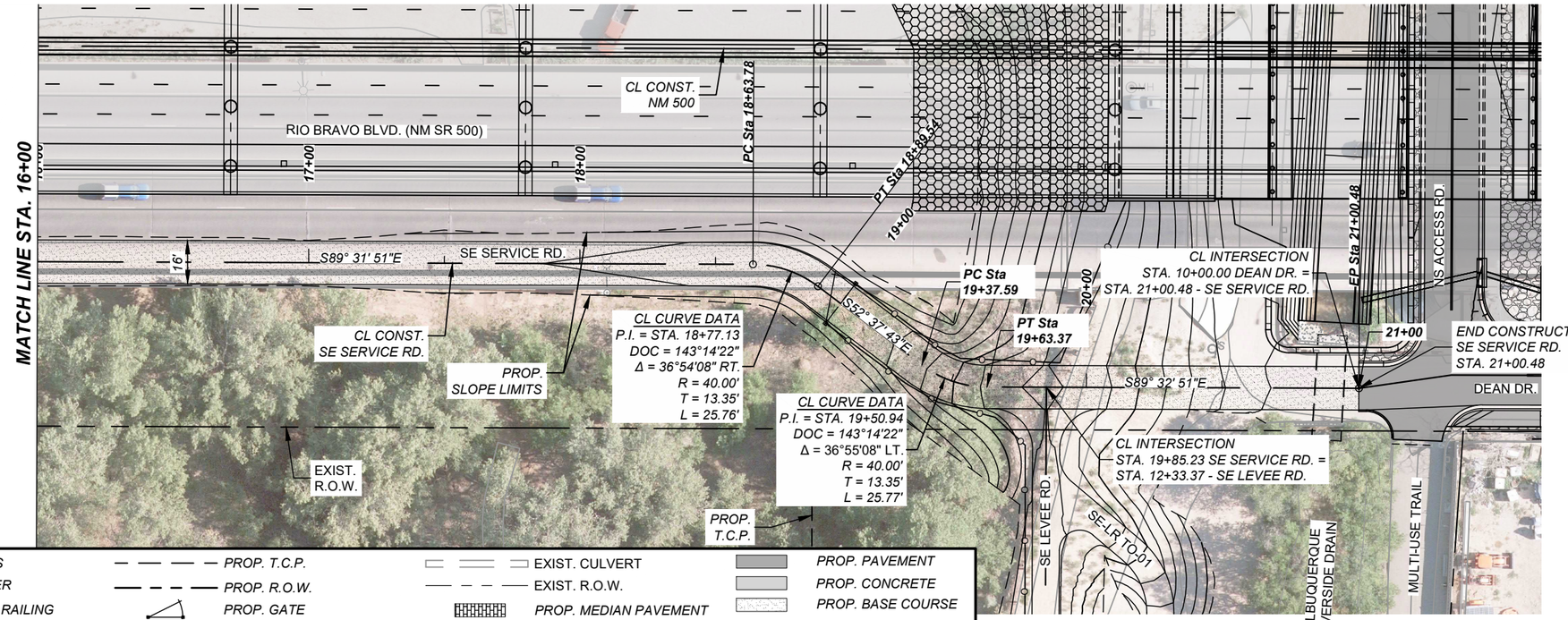
NMDOT

NEW MEXICO DEPARTMENT OF TRANSPORTATION

NO.	DESCRIPTION	DATE	BY
4			
3			
2			
1			

A301001
NM 500 RIO BRAVO BRIDGE REPLACEMENT
SE SERVICE RD. PLAN AND PROFILE

PROJECT CONTROL NUMBER: A301001



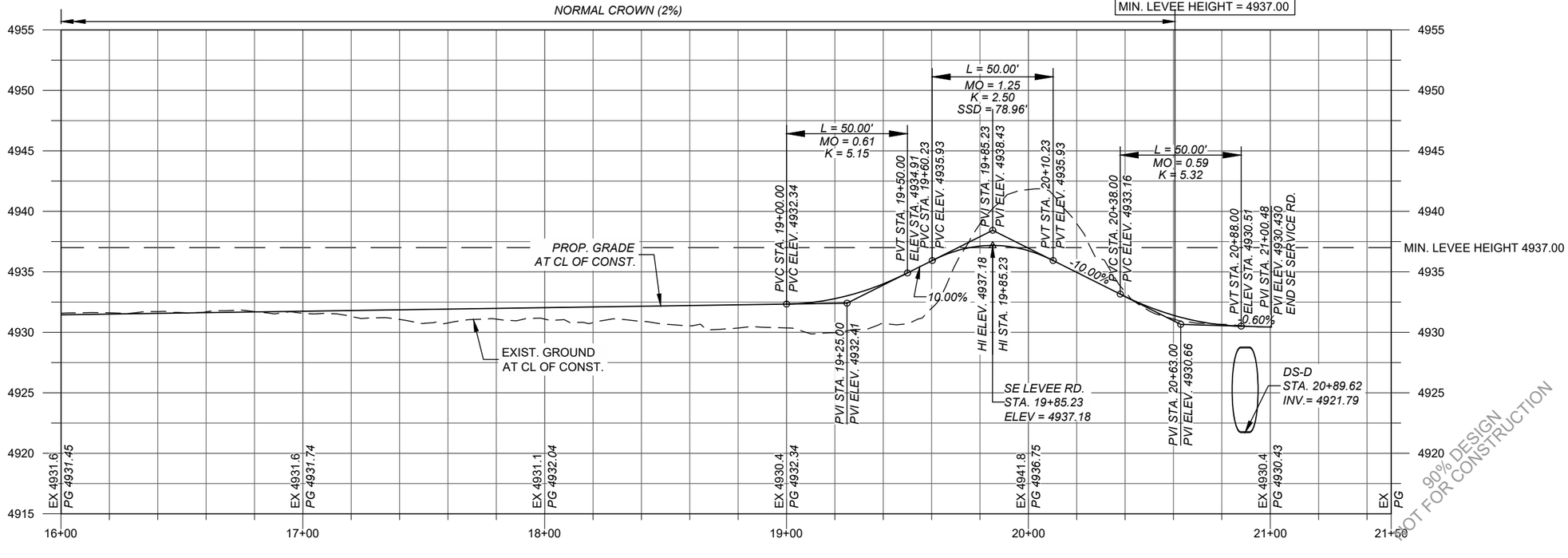
LEGEND

PROP. SLOPE LIMITS	PROP. T.C.P.	EXIST. CULVERT	PROP. PAVEMENT
PROP. WALL BARRIER	PROP. R.O.W.	EXIST. R.O.W.	PROP. CONCRETE
PROP. PEDESTRIAN RAILING	PROP. GATE	PROP. MEDIAN PAVEMENT	PROP. BASE COURSE
PROP. FLOWLINE	PROP. CULVERT	PROP. LANDSCAPE GRAVEL	PROP. RIPRAP CLASS A

PLAN DRAWING SCALE: 1" = 50'

HORIZONTAL SCALE: 1" = 50' VERTICAL SCALE: 1" = 10'

NOTE:
MIN. LEVEE HEIGHT = 4937.00



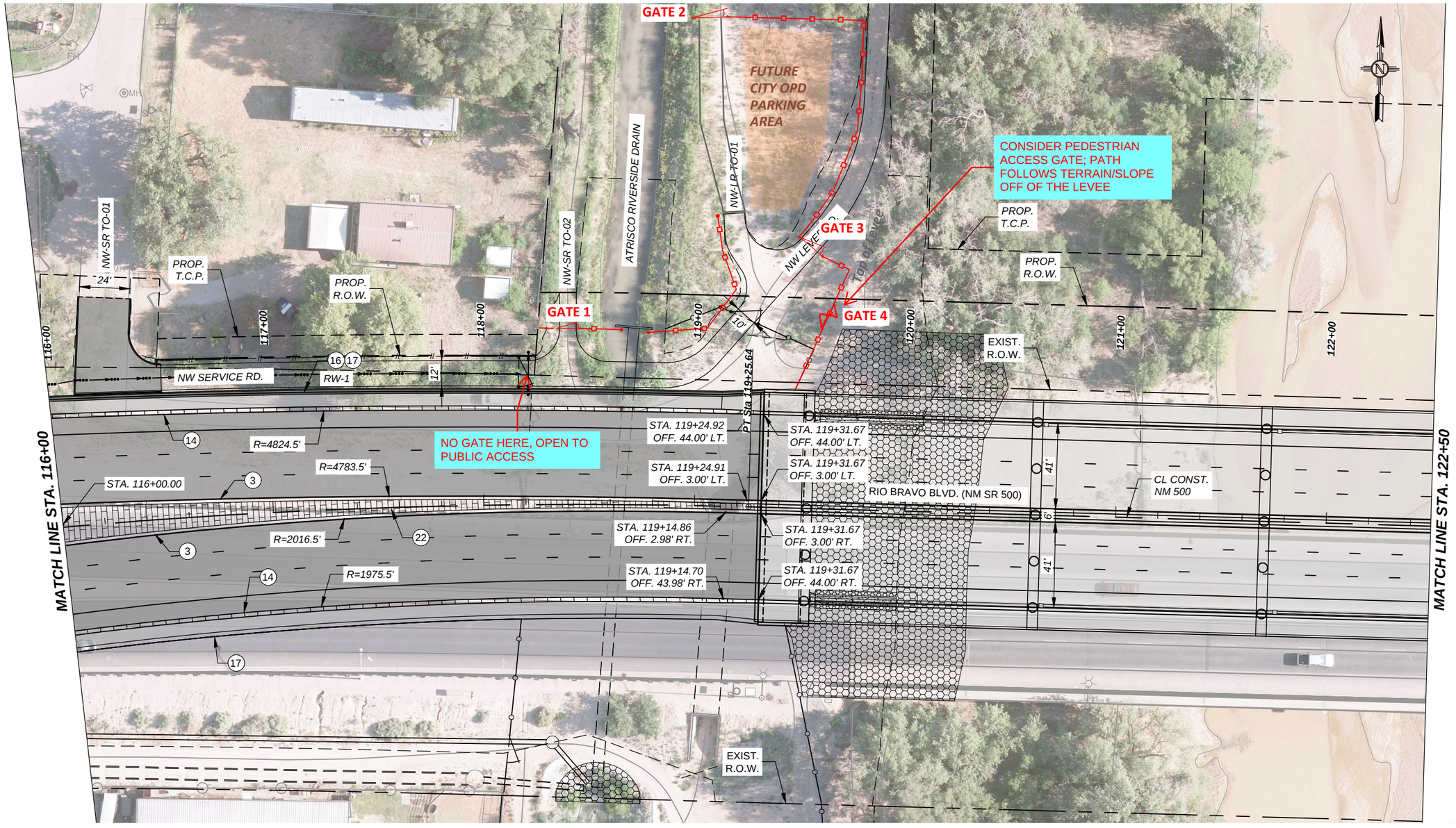
90% DESIGN NOT FOR CONSTRUCTION

NMDOT

NEW MEXICO DEPARTMENT OF TRANSPORTATION

NO.	DESCRIPTION	DATE	BY
4			
3			
2			
1			

A301001
NM 500 RIO BRAVO BRIDGE REPLACEMENT
SE SERVICE RD. PLAN AND PROFILE



NOTES

1. STATIONS AND OFFSETS PROVIDED REFERENCE NM 500 ROADWAY CL OF CONSTRUCTION UNLESS OTHERWISE NOTED.
2. STATIONS, OFFSETS, CURVE DATA PROVIDED FOR CURB AND GUTTER ARE TO LIP OF GUTTER UNLESS OTHERWISE NOTED.
3. SEE CURB RAMP DETAIL SHEETS FOR ADDITIONAL INFORMATION.
4. SEE FENCING AND GATE PLANS FOR ADDITIONAL INFORMATION.
5. SEE RETAINING WALL PLANS FOR ADDITIONAL INFORMATION.

KEYED NOTES

1. CONCRETE VERTICAL CURB AND GUTTER TYPE C 8" X 32"
2. CONCRETE VERTICAL CURB AND GUTTER TYPE B 6" X 24"
3. CONCRETE SLOPED CURB AND GUTTER 6" X 18"
4. CONCRETE SLOPED CURB AND GUTTER 6" X 24"
5. CONCRETE SLOPED CURB AND GUTTER 8" X 30"
6. CONCRETE VALLEY GUTTER 6" X 24"
7. CONCRETE LAYDOWN CURB 6"
8. HEADER CURB
9. CURB RAMP
10. CONCRETE SIDEWALK 4"
11. DRIVE PAD 6"
12. MULTI-USE TRAIL
13. PEDESTRIAN/BICYCLE RAILING
14. CONCRETE WALL BARRIER 42"
15. MSE WALL
16. C.I.P. WALL
17. NOISE WALL
18. GRAVITY WALL
19. CONCRETE CUT OFF WALL
20. PERMANENT VEHICULAR IMPACT ATTENUATOR UNIT
21. HANDICAP PARKING
22. CONCRETE MEDIAN PAVEMENT 4" (COLORED)
23. LANDSCAPE GRAVEL

LEGEND

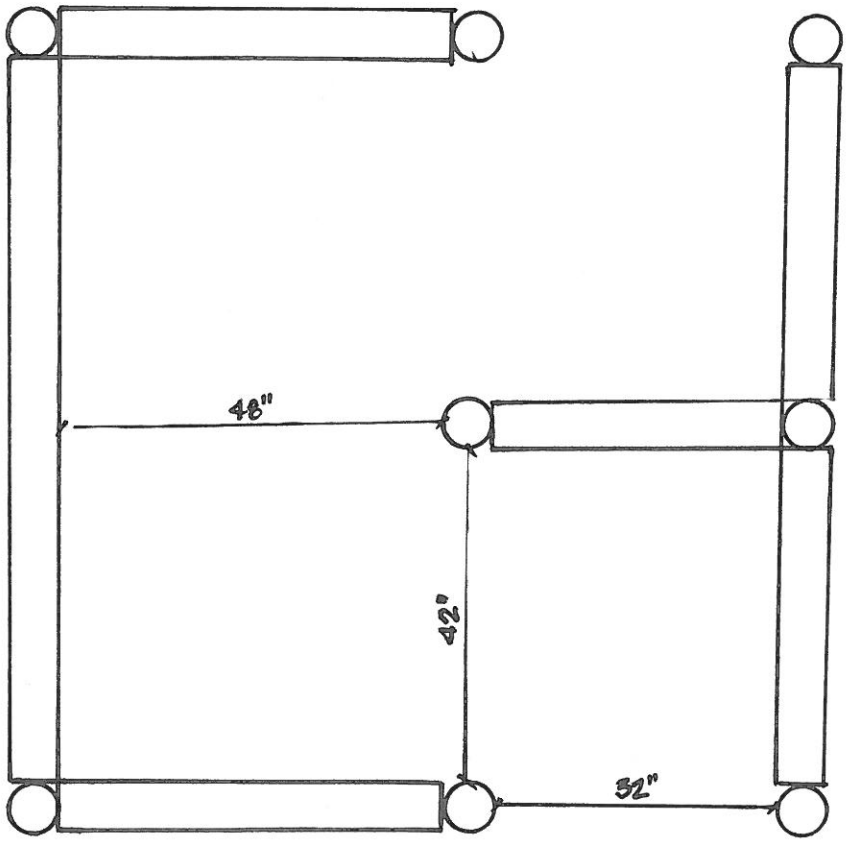
- PROP. SLOPE LIMITS
- PROP. WALL BARRIER
- PROP. PEDESTRIAN RAILING
- PROP. T.C.P.
- PROP. R.O.W.
- PROP. GATE
- PROP. CULVERT
- EXIST. CULVERT
- EXIST. R.O.W.
- PROP. ASPHALT PAVEMENT
- PROP. CONCRETE PAVEMENT
- PROP. BASE COURSE
- PROP. MEDIAN PAVEMENT
- PROP. LANDSCAPE GRAVEL
- PROP. RIPRAP CLASS A

90% DESIGN
NOT FOR CONSTRUCTION

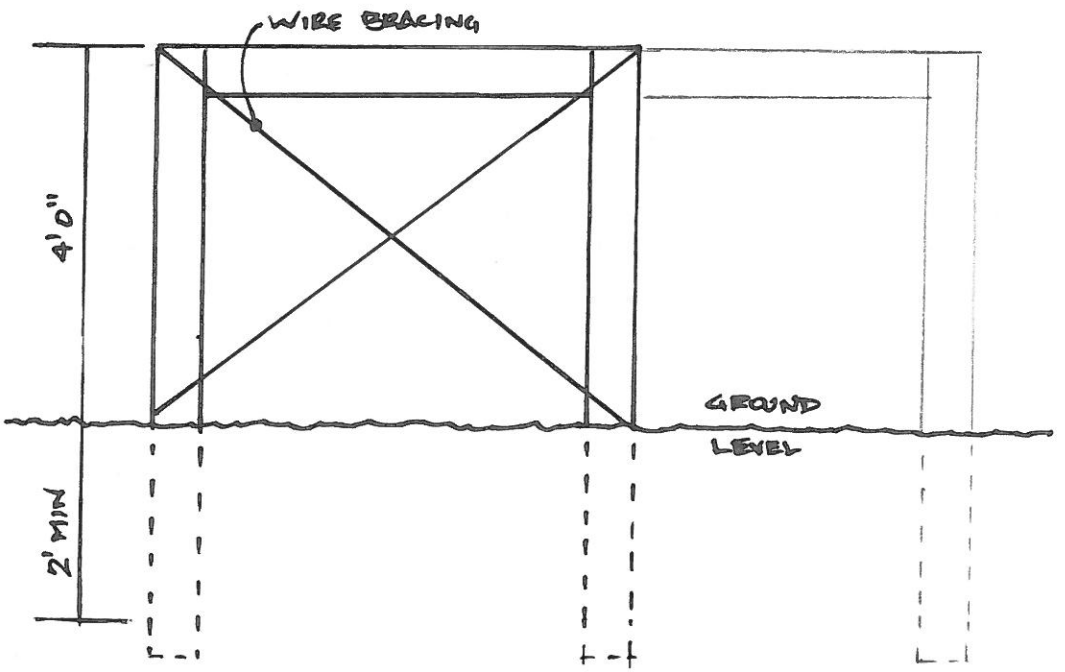
NMDOT
NEW MEXICO DEPARTMENT OF TRANSPORTATION

NO.	DESCRIPTION	DATE	BY
4			
3			
2			
1			

A301001
NM 500 RIO BRAVO BRIDGE REPLACEMENT
ROADWAY LAYOUT PLANS



PLAN



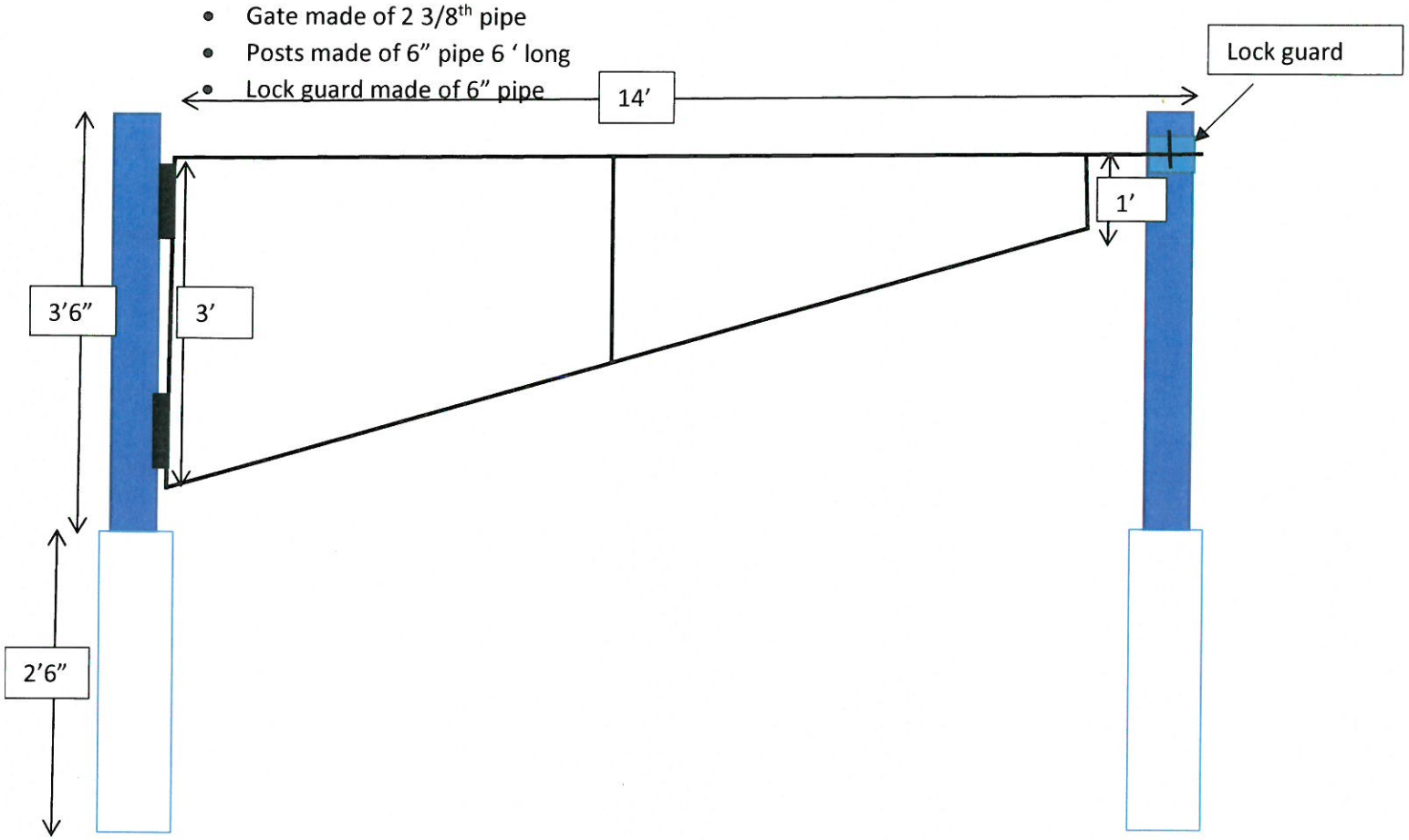
ELEVATION

CHICANE
SCALE ½" = 1'-0"

- ALL POSTS & RAILS 6"-8" DIAMETER TREATED WOOD

Poco loco gate dimensions-

- Gate made of 2 3/8th pipe
- Posts made of 6" pipe 6 ' long
- Lock guard made of 6" pipe



Front view

Top view

Lock guard

Made out of 6" pipe

Pin

Made out of a large washer and 1" solid rod drilled out far a padlock

High Tensile Fence Specs

Posts

6"-8" diameter
4 feet above ground
3.5 feet depth
40 feet apart

Wire

5 strand
Smooth
12 ½ gauge
Class III
170,000 PSI max tensile

Corner Braces

Posts: 8 feet apart
Rail: Top rail
6"-8" diameter
8 feet long
Wire: "X" pattern
Double wire
Twisted tight

Stabilizer Solutions, Inc.
33 South 28th Street
Phoenix, AZ 85034 USA
toll free 800.336.2468
p 602.225.5900 f 602.225.5902
www.StabilizerSolutions.com
info@stabilizersolutions.com

SECTION 32 15 43

STABILIZER® FOR STABILIZED AGGREGATE PATHWAY: PEDESTRIAN ACCESS

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes material and labor requirements for construction with decomposed granite or crushed 3/8" or 1/4" minus aggregate pathway with Stabilizer® binder additive for the following items:

1. Stabilized Aggregate pathway and patios

B. Related Sections:

1. Section 31 00 00 – Earthwork
2. Section 32 11 00 – Stabilizer® for Stabilized Aggregate Pavement: Firelanes, Driveways and Parking Lots.

1.2 PERFORMANCE REQUIREMENTS

A. Perform gradation of decomposed granite material or 3/8" or 1/4" minus crushed aggregate in accordance with ASTM C 136 – Method for Sieve Analysis for Fine and Course Aggregates.

1.3 SUBMITTALS

A. Products Data: For each product specified. Submit a 5 lb. sample and sieve analysis for grading of decomposed granite or crushed 3/8" or 1/4" minus aggregate to be sent to Stabilizer Solutions, Inc. prior to any construction – (allow 2 week turn around). Must be approved by Landscape Architect and Owner.

B. Shop Drawings: Show details of installation, including plans and sections.

C. LEED Submittals:

1. Credit MR 4 – Recycled Content: Attach product data and certification letter indicating percentages by weight of post-consumer and pre-consumer recycled content for products having recycled content. Include statement indicating costs for each product having recycled content.
2. Credit MR 5 – Regional Materials: Attach product data for regional materials indicating location and distance from Project of material manufacturer and point of extraction, harvest, or recovery for each raw material. Include statement indicating cost for each regional material and the fraction by weight that is considered regional.
3. Credit MR 6 – Rapidly Renewable Materials: Attach product data and certification letter indicating percentages by weight of rapidly renewable materials for each product. Include statement indicating costs for each product having rapidly renewable material.

D. Maintenance Instructions: Submit copy(ies) of manufacturer's written maintenance instructions in accordance with 01 73 23 – Operation and Maintenance Data.

1.4 PROJECT/SITE CONDITIONS

A. Field Measurements: Each bidder is required to visit the site of the Work to verify the existing conditions. No adjustments will be made to the Contract Sum for variations in the existing conditions.

1. Where surfacing is indicated to fit with other construction, verify dimensions of other construction by field measurements before proceeding with the work.

B. Environmental Limitations: Do not install Stabilized Aggregate pathway during rainy conditions or below 40 degrees Fahrenheit and falling.

1.5 QUALITY ASSURANCE

A. Installer Qualifications: Installer to provide evidence to indicate successful experience in providing Stabilized Aggregate surface or ability to follow installation instructions.

B. Mock-ups: Install 4 ft. wide x 10 ft. long mock-up of decomposed granite or 3/8" or 1/4" minus crushed aggregate surfacing with Stabilizer® additive at location specified by owner's representative.

C. Compaction testing to be provided by contractor, one test per 2,000 square feet of base course.

D. Manufacturer's technical representative shall visit the site at the start of an installation to ensure the installer understands the correct installation methods to use.

1.6 WARRANTY

A. General Warranty: The special warranty specified in this Article shall not deprive the Owner of other rights the Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by the Contractor under requirements of the Contract Documents.

B. Special Warranty: Submit a written warranty executed by the installer agreeing to repair or replace components of Stabilized Aggregate that fail in materials or workmanship within the specified warranty period. Stabilizer Solutions, Inc. does not warranty "Stabilizer®" purchased from a non-approved Stabilizer Solutions, Inc. licensee. Failures include, but are not limited to, the following:

1. Premature wear and tear, provided the material is maintained in accordance with manufacturer's written maintenance instructions.
2. Failure of system to meet performance requirements.

C. Warranty Period: Contractor shall provide warranty for performance of product. Contractor shall warranty installation of product for the time of one year from completion.

D. Contractor shall provide, for a period of sixty days, unconditional maintenance and repairs as required.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Stabilizer® for Stabilized Aggregate surfaces provided by the following manufacturer:

1. Stabilizer Solutions, Inc. 33 South 28th St., Phoenix, AZ 85034; phone (602) 225-5900, (800) 336-2468; fax (602) 225-5902; website stabilizersolutions.com; email info@stabilizersolutions.com

2.2 MATERIALS

A. Decomposed Granite or 3/8" or 1/4" crushed aggregate screenings

1. Sand and crushed stone shall consist of inert materials that are hard and durable, with stone free from surface coatings and deleterious materials. Gradation requirements shall be as follows:

2. Crushed Stone Sieve Analysis Percentage of Weight Passing a Square Mesh Sieve AASHTO T11-82 and T2782

1/4" MINUS AGGREGATE GRADATION

U.S. Sieve No.	Percent Passing by Weight
# 3/8"	100
# 4	90 – 100
# 8	75 – 80
# 16	55 – 65
# 30	40 – 50
# 50	25 – 35
# 100	15 – 20
# 200 to	10 – 15

3. Acceptable local supplier list to be provided by Architect

B. Stabilizer® Binder

1. Patented, non-toxic, organic binder that is a colorless and odorless concentrated powder that binds decomposed granite or crushed 3/8" or 1/4" minus aggregate.

2. Product to have 64% pre-consumer recycled content.

3. Product shall have 25 years experience at same formulation.

2.3 EXCESS MATERIALS

A. Provide owner's authorized rep. with the following excess materials for use in future Stabilized Aggregate repair: 40 to 50 lb. Bags of the Stabilized Aggregate blended with proper amount of Stabilizer®.

PART 3 - EXECUTION

3.1 PREPARATION

A. Base shall be 3" compacted layer of your state's DOT recommended crushed granular road base. Make any corrections necessary to base furnished and installed to bring gravel to the elevations shown on the drawing.

B. Pre-soak base material with water and compact to 95% determined by Test Method ASTM D 1557 prior to installing Stabilized Aggregate. Compaction testing to be provided by project owner, one test per 2,000 square feet of base.

C. Although porous, it is recommended to have proper drainage available to ensure no standing water on surface or adjacent to Stabilized Aggregate, including downspouts when placed under roof overhang and surface drains.

D. Before proceeding with installation, notify Owner's Representative in writing of unsuitable site/base conditions.

3.2 BLENDING STABILIZER

A. Stabilizer® shall be thoroughly pre-mixed with aggregate at the rate of 15-lbs of Stabilizer® per 1-ton of aggregate. Verify with manufacturer correct Stabilizer® rate for your project and climate. Drop spreading of Stabilizer® over pre-placed aggregate or mixing by rototilling is not acceptable. Stabilizer shall be mechanically pre-mixed per manufacturer's recommendations using an approved mechanical blending unit to adequately blend Stabilizer® with aggregate (Bucket blending is not an approved blending apparatus). Always blend Stabilizer® and aggregate DRY.

3.3 PLACEMENT

A. After pre-blending, place Stabilized Aggregate directly on prepared sub-grade. Level to desired grade and cross section. Depth of pathways shall be 3" for heavy foot traffic and light vehicles. DO NOT place on filter fabric. Contact Stabilizer Solutions, Inc. for installation on slopes greater than 8%.

3.4 WATERING

A. Water heavily for full-depth moisture penetration of profile. Water activates Stabilizer®. Apply 25 to 45-gallons of water per 1-ton to achieve saturation. Randomly test for depth using a probing device, which reaches full depth.

B. Contractor shall wait a minimum of 6 – 72 hours or until such time that the Stabilized Aggregate is able to accept compaction from a 1 to 5 ton roller without separation, plowing or any other physical compromise of the aggregate.

C. If surface aggregate dries significantly quicker than subsurface material, lightly mist surface before compaction.

3.5 COMPACTION

A. Compact Stabilized Aggregate to 85% relative compaction by equipment such as; a 2 to 5-ton double drum roller making 3 to 4 passes. Do not begin compaction for 6 hours after placement and up to 72 hours. DO NOT use a vibratory plate compactor or vibration feature on roller, as vibration separates large aggregate particles. If pumping or pancaking of surface occurs, surface is still too wet to roll.

B. Take care in compacting surface when adjacent to planting and irrigation systems, use 8" or 10" hand tamp. Installation of Stabilized Aggregate more than 3" thick shall be installed in lifts. If 4" thick compacted (2) 2" lifts. If 5" thick compacted (2) 2.5" lifts. If Stabilized Aggregate is pre-moistened before installation entire 4" or 5" lift may be installed.

C. Lightly spray surface area following compaction. Do not disturb aggregate surface with spray action.

3.6 INSPECTION

A. Finished surface shall be smooth, uniform and solid with no evidence of chipping or cracking. Cured and compacted pathway shall be firm throughout profile with no spongy areas. Loose material shall not be present on surface after installation, but may appear after use and according to environmental conditions. Pathway shall remain stable underneath loose granite on top with a "natural" look. Any significant irregularities in path surface shall be repaired to the uniformity of entire installation.

3.7 PROTECTION

A. Contractor shall furnish and install construction fence around new surface to prevent public access. Fencing shall be maintained in place for a minimum of 12 - 72 hours after completion of installation, or as directed by the Owner' Representative. Drying period may take longer due to weather conditions.

B. Contractor shall notify Owner's Representative that landscape irrigation shall be restricted near Stabilized Aggregate surface until drying period is complete. Standing water on surface and adjacent to path shall be restricted at all times.

3.8 MAINTENANCE

A. Remove debris, such as paper, grass clippings, or organic material by mechanically blowing or hand raking as needed. When plowing snow, use rubber baffle on plow blade or wheels on plow to lift blade 1/4" off the surface.

B. During first year, minor amounts of loose aggregate may appear on surface (1/16 to 1/4"). If material exceeds a ¼", redistribute over entire surface. Water to 1" depth and compact with power roller of no less than 1000-lbs. Repeat as needed. If cracking occurs, sweep fines into cracks, water thoroughly and hand tamp with an 8" – 10" hand tamp.

3.9 REPAIRS

A. Excavate damaged area to the depth of the Stabilized Aggregate and square off sidewalls.

B. If area is dry, moisten damaged portion lightly.

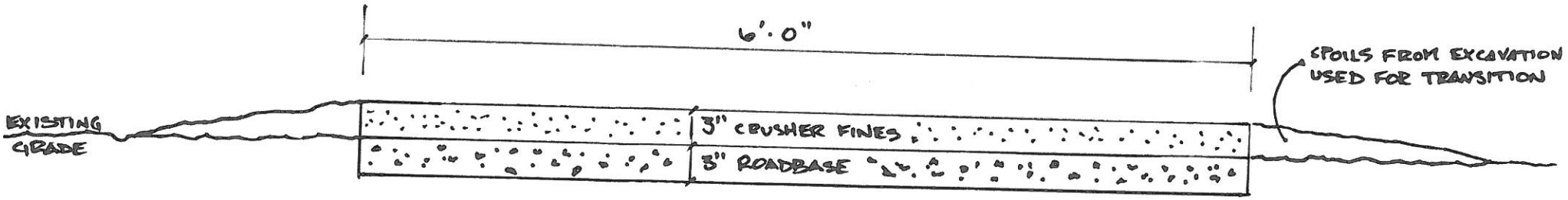
C. Pre-blend the dry required amount of Stabilizer® with the proper amount of aggregate in a concrete mixer.

D. Add water to the pre-blended Stabilized Aggregate. Thoroughly moisten mix with 25 to 45 gallons per 1-ton of pre-blended material or to approximately 10% moisture content.

E. Apply moistened pre-blended Stabilized Aggregate to excavated area to finish grade.

F. Compact with an 8" to 10" hand tamp or 250 to 300 pound roller. Keep traffic off areas for 12 to 48 hours after repair has been completed.

END OF SECTION



STABILIZED CRUSHER FINE TRAIL
TYPICAL CROSS SECTION
SCALE 1"=1' 0"

H) AGENCY COMMENTS – OPEN SPACE DIVISION

CITY OF ALBUQUERQUE

City of Albuquerque

Parks & Recreation Department

Timothy M. Keller, Mayor

September 3, 2024

To: Jonathan R. Hollinger, Chair, Environmental Planning Commission; and members

From: Colleen Langan-McRoberts, Superintendent, Open Space Division

RE: Comments on EPC PR-2024-10771

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

The City of Albuquerque, Parks and Recreation Dept., Open Space Division (OSD) respectfully provides the following comments to the EPC regarding the Site Plan for an Extraordinary Facility for the Rio Bravo Picnic Area adjacent to Major Public Open Space (MPOS) also known as the proposed NM 500 Rio Bravo Bridge Replacement Plan. The property proposed for development is legally described as:

- Legal description of the subject site for this project: Rio Grande Picnic Area Unnamed Road, Albuquerque NM 87105 MRGCD Map 49, T9N R2E 12 & R3E 7 & 8 (Bernalillo County), bounded by the Albuquerque Riverside Drain to the east and Rio Bravo Blvd SW to the south, approximately 9.5 acres.
- Zone atlas pages P12/P13

The City of Albuquerque Open Space Division (OSD) is the operating party responsible for management of the Rio Grande Valley State Park (RGVSP), which includes the lands directly adjacent to the Rio Bravo Bridge that will be impacted by the proposed bridge expansion. The mission of the OSD is to acquire, protect, manage, and maintain the significant natural landscapes and cultural resources while providing low-impact recreation for current and future generations.

General Comments

The NM 500 Rio Bravo Bridge Replacement Project (Project), led by the New Mexico Department of Transportation (NMDOT) in cooperation with the Federal Highway Administration, will replace the east- and west-bound bridges on NM Highway 500 (Rio Bravo Boulevard) spanning the Rio Grande in Albuquerque within Bernalillo County. The NMDOT project aims to address structural deficiencies while reducing congestion and improving multi-modal transportation system connectivity within the project limits. The needs are based on the fact that the eastbound river bridge is in poor condition and requires replacement, and pedestrian and bicycle facilities are discontinuous in the Project limits. The Open Space Division (OSD) supports this significant and critical infrastructure project but emphasizes that the ecological and recreational impact should be minimized as much as possible and ensure that the NMDOT will work with OSD on remediation measures as agreed to and outlined in this letter.

This Project requires shifting the bridge to the north, which will significantly impact the Rio Bravo Riverside Picnic Area and trailhead at the northeast corner, as well as a smaller parking area and trailhead on the northwest side of Rio Bravo. The Rio Bravo Riverside Picnic Area is a day-use area managed by the City of Albuquerque's Open Space Division and is part of the broader Rio Grande Valley State Park. The day-use area includes amenities such as picnic tables, a fishing pier, an ADA-accessible quarter-mile loop trail (which is accessible from the parking lot), and access to a series of trails that are part of the City's Multi-Use Trail system. NMDOT has agreed to work with the City Open Space Division to mitigate any impacts to the existing parking areas on the east and west sides of the river, including all of the site amenities such as picnic tables, trash cans, mutt mitt stations, fencing, signage, and trails. This includes a combination of redesigning the parking areas, reconstruction of the parking areas and impacted trails, and compensation and relocation of the site amenities. Additional improvements to the facility that NMDOT will implement include improved parking with five designated handicap parking area on a cement pad with easy access to new replacement picnic tables and trailhead, 30 additional designated parking spaces with concrete wheel stops, updated access control features including additional updated fencing, gates, pedestrian and equestrian friendly access or chicanes. The current parking area with water access on the northwest side will be re-established by shifting slightly northward with new fencing and access control gates. The current access over the levee is often closed. Under the newly proposed facility, direct access to the proposed parking lot and boat ramp will be open, so the public will gain some important access to this portion of the Open Space from the Project.

The project will also impact the Rio Grande Bosque within the Project site and extended work area. The area is dominated by a mature overstory of cottonwood (*Populus deltoides ssp. Wislizenii*) trees with scattered willow (*Salix* spp.) and invasive species such as salt cedar (*Tamarix chinensis*) and Russian olive (*Eleagnus angustifolia*) trees occurring along the shoreline of the Rio Grande. Scattered shrubs

and herbaceous vegetation occur within the Open Space boundaries. It is the understanding of the OSD that mature cottonwoods and other vegetation will be removed to accommodate the new bridge and roadway alignment within the Project area, and additional vegetation may be removed in the extended temporary work area, identified as the Temporary Construction Permit (TCP) area. NMDOT has made efforts, working with the Open Space Division, to identify ways to minimize the number of mature trees taken as part of the Project. Although mature cottonwood trees cannot be replaced in-kind, NMDOT will develop a landscape plan in coordination with the City OSD and Urban Forestry. The landscape plan will include planting containerized trees, cottonwood and willow cuttings to mitigate the loss of existing vegetation. NMDOT will also replace any trees and shrubs that do not survive as a percentage of tree and shrub mortality is common. Additionally, there will be a concerted effort to retain as many mature cottonwoods as possible in the TWP. In recognition of the desire to preserve large cottonwood trees that don't have to be removed, NMDOT will have a pre-construction meeting to identify and mitigate tree removal with the contractor, City Open Space Division, and Urban Forestry staff.

Following construction, all disturbed ground will be revegetated with a native seed mix per NMDOT Standard Specifications. In addition, willow cuttings will be planted along the edge of the Rio Grande, and cottonwoods will be planted in upland areas. Additional riverine and riparian mitigation measures are currently being developed to satisfy the federal Section 7 Endangered Species Act, which includes consultation requirements with the U.S. Fish and Wildlife Service. These measures may include the purchase of water releases into the Rio Grande for silvery minnow recovery and the performance of off-site cottonwood and willow planting. Final mitigation details will be worked out through the Federal Section 7 consultation process, which is currently underway. NMDOT officials have agreed that the site's restoration and revegetation will be developed and implemented in consultation and coordination with the City's Open Space Division. NMDOT will strive to limit impacts to the larger cottonwoods, take precautions to limit the introduction of weed seeds during construction and mitigate unavoidable impacts to the site's flora and fauna.

Per the City requirements for Extraordinary Facilities in Major Public Open Space, NMDOT presented the Project to the Open Space Advisory Board for review and recommendation. The OSAB recommended approval of the Project.

The OSD recognizes that this Project will have a big impact on the area, temporarily disrupting access and use of the site, and resulting in the loss of many mature cottonwood trees. With that being said, the OSD recognizes the need for this Project and appreciates NMDOT's coordinated effort to minimize the impact of the Project and to replace and improve the area to the current and/or better conditions.

The IDO requires that EPC Site Plan applications be consistent with the ABC Comp Plan (14-16-6-6(H)(3)(a)). Applicable Goals and Policies that need to be addressed by this submittal and some initial PRD issues

and comments include:

Goal 10.I Facilities and Access: Provide parks, Open Space, and recreation facilities that meet the needs of all residents and use natural resources responsibly.

Policy I0.1.4 Water Conservation: Employ low-water use and reclamation strategies to conserve water.

Policy 10.2.1 Park Types: Plan and implement a system of parks to meet a range of needs at different scales, including small neighborhood parks, community parks, active parks, reginal parks and linear parks.

Policy 10.2.3 Multi-use trails: connect parks by designing, building and maintaining trails to accepted standards.

Goal 10.3 Open Space: Protect the integrity and quality of the region's natural features and environmental assets and provide opportunities for outdoor recreation and education.

Policy 10.3.1 Open Space Acquisition: Acquire significant lands throughout the community to shape the urban form, consen1e natural and cultural resources, and protect agricultural land.

Policy 10.3.2 Preservation: Identity and manage sensitive lands within the Open Space network to protect their ecological function.

Policy 10.3.3 Use: Provide low-impact recreational and educational opportunities consistent with the carrying capacity of the Open Space resources.

Policy 10.3.4 Bosque and Rio Grande: Carefully design access to the Rio Grande, the Bosque, and surrounding river lands to provide entry to those portions suitable for recreational, scientific, and educational purposes, while controlling access in other more sensitive areas to preserve the natural wildlife habitat and maintain essential watershed management and drainage functions.

Goal 10.4 Coordination: Coordinate across disciplines, jurisdictions, and geographies to leverage limited resources, maximize efficiencies, and best serve the public's need. For parks and recreation facilities

.

Policy 10.4.2 System Planning: Coordinate among departments and across jurisdictional boundaries to plan interconnected networks, mange natural resources, leverage public investment, eliminate gaps in service, and avoid duplication of effort.

Policy 10.4.4 Arroyos and Drainage: Work with MRGCD and AMAFCA to protect arroyos, drains, and acequias as part of Community Green Space.

Goal 11.3 Cultural Landscapes: Protect, reuse, and/or enhance significant cultural landscapes as important contributors to our heritage and rich and complex identities.

Policy 11.3.1 Natural and Cultural Features: Preserve and enhance the natural and cultural characteristics and features that contribute to the distinct identity of communities, neighborhoods, and cultural landscapes.

Policy 11.3.2 Arroyos: Preserve and enhance arroyos identified in the Rank 2 Facility Plan. for Arroyos as, important cultural landscapes.

Policy 11.3.3 Bosque: Regulate development on adjacent lands to preserve and enhance the Bosque as an important cultural landscape that contributes to the history and distinct identity of the region, as well as nearby neighborhood

Colleen Langan-McRoberts

Colleen Langan-McRoberts
Open Space Superintendent
Parks and Recreation Department

I) JOINT POWERS AGREEMENT/TRAILHEAD DESIGN STANDARDS

JOINT POWERS **AGREEMENT**

This Agreement, made and entered into this 4th day of April , 1997, by and between the CITY OF ALBUQUERQUE, NEW MEXICO, a municipal corporation ("City"), and the MIDDLE RIO GRANDE CONSERVANCY DISTRICT, a special district organized pursuant to NMSA §73-14-1 {"MRGCD") .

WHEREAS, the Legislature of the State of New Mexico approved on March 15, 1983 the Rio Grande Valley State Park Act {"Act"), which requires the operating party for the park created by the Act, the Rio Grande Valley State Park ("Park"), to enter into a Joint Powers Agreement with the MRGCD; and

WHEREAS , the City has entered into an agreement pursuant to the Act with the Parks and Recreation Division of the Natural Resources Department of the State of New Mexico, whereby the City is designated to be the operating party pursuant to the terms of said Act; and

WHEREAS, the purpose of this Agreement as understood by each of the parties hereto is to formalize the means by which the parties will effectuate the provision of the Act; and

WHEREAS, the City's representative for the purpose of administration of this Agreement shall be the City Parks and General Services Department {"Department").

NOW, THEREFORE, in consideration of the premises, the parties agree as follow s:

1. Monitoring of Operations

The City will not interfere with nor obstruct the duties, operations, obligations, construction of new works, functions of the MRGCD in the areas of flood control, irrigation, and drainage, nor will it interfere in the MRGCD' s performance of its contracts with any federal agency. Any plans or new policies to be implemented by the City in the Rio Grande Valley State Park, will be submitted to the MRGCD for review and approval, which approval shall not be unreasonably withheld. The MRGCD agrees to cooperate to review said plans in an expeditious manner; how ever, if the City receives no response to a plan submitted for approval within three (3) months, such approval will be deemed granted.

The MRGCD agrees to abide by the Act and cooperate with the City to insure that the integrity and recreational opportunities of the State Park are maintained to the greatest extent possible consistent with the other duties of MRGCD. The MRGCD will inform the City of projects which will affect the recreational features and

the natural character of the area, and will cooperate to minimize any adverse impact to the Park as a result of its operations.

Any existing or future drainage or flood control projects approved by Bernalillo County, the City or Albuquerque Metropolitan Area Flood Control Authority which affect the Park, shall be reviewed and approved by the MRGCD, pursuant to the requirements of the Act. The goal shall be to minimize adverse impact on the Park or the MRGCD caused by such a project.

The City and MRGCD will have joint approval over utility easements within the Park subject to the guidelines of the Act.

2. Management Plan Adopted

The MRGCD and the City hereby agree and stipulate that the Rio Grande Valley State Park Management Pl an ("Management Plan") will be a guiding policy document for management of the Park. Updates of the Management Plan must be approved by both the City and the MRGCD and these updates must occur within one **(1)** year of the date of this Agreement. Such City, County or State statutes as apply to the management of the Park will be enforced by the City, County or State in accordance with the Management Plan. As part of the Management Plan, the City and the MRGCD will develop a facilities plan which outlines proposed construction of picnic areas, trails, gates, vehicle access barriers, and other appropriate facilities. Such facilities plan will be submitted to the City and MRGCD for review and approval, which approval shall not unreasonably be withheld . Nothing in the plan shall be construed to prevent MRGCD from performing its other duties and functions and from developing other relevant plans as necessary.

3. Jurisdiction

To the extent allowed by law, the City will through its Open Space Rangers, and the MRGCD will through its Bosque Patrol Officers, exercise concurrent jurisdiction to enforce Park rules, the Open Space Ordinance, and State Criminal Statutes. MRGCD will inform the City of their adoption of any rules and regulations with regard to the Park. Those officers will not exercise primary jurisdiction over major crimes and homicides nor be involved in a position of authority for fire control, rescue operations, and environmental health. Those responsibilities will be treated as they have in the past by the respective authorities for City, County and State open space lands.

The City recognizes the primary importance of MRGCD's functions of flood control, irrigation, and drainage and agrees not to interfere with MRGCD operations within the boundaries of their works which include adjacent levees, service roads or riverside drains. If the City requires use of MRGCD works consistent with the Park Act the MRGCD may issue a license to the City for such use. The City shall have

no jurisdiction over such works with the exception of law enforcement purposes as stated above. Any modifications to City facilities must be agreed to by both parties before any modifications occur.

The MRGCD, consistent with the Park Act, may grant use of portions of its property to any public entity for use to further the public welfare. The City shall be notified in advance of any such granted use. Any improvements made by the City within the Park boundaries will remain the property of the City.

The City shall erect signs at all entrances to the Park which identify the MRGCD and the City as cooperating managers of the Park.

4. Rules Governing Use

The City and MRGCD may formulate and post rules regulating the recreational use of the Park in order to accomplish maximum recreational use and visitors' safety. Such rules must be approved by both the City and MRGCD or they shall have no effect. Subject to those rules, the City will issue permits for and monitor any special use recreational activities in the Park and will coordinate such activities so as not to interfere with MRGCD operations.

5. Motor Vehicfe Restrictions

The parties agree that it is in their mutual interest to control unauthorized access by motorized vehicles within the Park. The City agrees to erect and maintain vehicle barriers subject to the approval of the MRGCD. The parties agree to keep these barriers locked or otherwise secured, to prevent vandalism, theft of flood control jetties, levee deterioration, and to control dumping, shooting, fires, resource removal and other illegal or nuisance activities.

6. Wood Cutting

The MRGCD grants the City the authority to issue wood cutting permits. Each wood cutting permit will be coordinated with the MRGCD.

7. Dumping

The City agrees to be responsible for the removal and disposal of all trash, waste and debris within the boundaries of the Park. The MRGCD agrees to be responsible for the removal and disposal of all trash, waste and debris within the boundary of the works, as set forth in Section {3) above .

The parties agree to work together to minimize the widespread dumping of trash, waste and debris within the Park. The parties will cooperate to select

mutually agreeable storage sites for construction materials at periodic intervals within the Park. Thereafter, all such material may only be stored at said sites, except during a construction or maintenance project where materials may be stockpiled at the site of said project prior to or during the construction of the project.

8. .s..a.t.e l y_

The parties will cooperate in formulating and executing a plan to maximize the safety of Park visitors. This may involve public education, signage, written handouts, visitor information programs, public service announcements, the erection of barriers, and other reasonable precautions. Each party agrees to take such safety measures as are feasible to cooperate with the other party in general safety measures in the Park.

9. Liability and Property Damage

Neither party will seek to hold the other responsible for any damage done by third parties to their respective property. If damage is caused by one of the parties to this Agreement, the party shall be responsible for such property damage, unless due to an emergency situation, such damage cannot be prevented.

1O. Designated Personnel

The City and the District will designate liaison personnel to coordinate on matters arising out of th is Agreement or on matters of mutual interest. The parties agree to exchange plans and reports which affect facilities or programs within the Park. At least on a quarterly basis, the City will make a report to the MRGCD Board of Directors concerning the operations of the Park, the status of City plans which affect the Park and other matters of mutual interest.

11. Modification

This Agreement may be modified from time to time in writing approved by the City of Albuquerque and the Board of Directors for the MRGCD.

12. Termination

The Agreement shall remain in force so long as the Act is in force and not modified in any manner and the City of Albuquerque is the designated operating party pursuant to the t erms of the Act.

MIDDLE RIO GRANDE CONSERVANCY

Chairman, Middle Rio Grande Conservancy District

By: _____

Date: _____

CITY OF ALBUQUERQUE

Chief Administrative Officer, City of Alb.

By: _____

Date: 4/15/97

Trail and Trailhead Design Standards for Open Space

Contents

List of Figures

Introduction

Since the inception of the Open Space Division (OSD), design for trailheads and site amenities have been implemented, but not in accordance with overarching guidelines. The result of this has been a wide variety in the visual impact of the built environment between one Open Space facility and another. The purpose of this project is to create a framework on which future design decisions can be hung. The rationale for this is that consistent colors, materials, and forms will allow Open Space to benefit from a distinct identity and, as a result, to enjoy greater recognition and use.

Because of the wide range of land types in the Open Space system, many facilities are unique in terms of topography, vegetation, and wildlife. And each facility occupies a unique position within the urban fabric, is adjacent to different land uses, is different in size and intended use. For these reasons there needs to be some flexibility in the amenities available, as well as the materials and forms employed at the different picnic and event spaces. Similarly, preservation challenges differ depending on context, and so various types of fencing will be required. Therefore, there is no one type of site enhancement that will necessarily work at each and every facility.

This project began with a survey of existing conditions and then an analysis of most successful examples of design and best practices. Extrapolating from these examples, the planners were able to construct an integrated plan for consistency of the City's Open Space Division designed elements, while allowing for flexbility across Albuquerque's varied landscape.

I. Trails

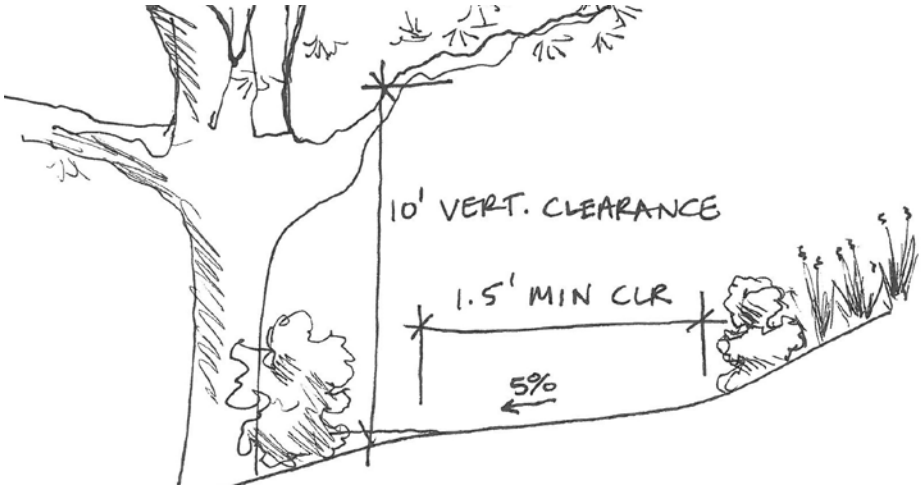
There are hundred of miles of existing trails in Open Space. The design and surface material of each depends on location, topographical conditions, and intended use. Open Space trails should have a minimal impact on the land--not be exceedingly wide, and not require extensive regrading or vegetation removal in their construction. These trails create interest and aesthetic enjoyment for the visitor on foot, mountain bike or horseback, while protecting fragile soils and vegetation.

Natural Surface Trails

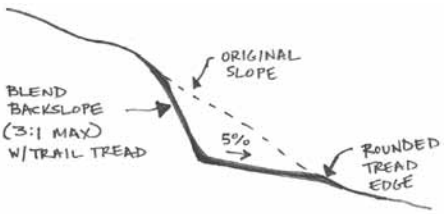
Natural surface trails make up nearly all the trail surfacing in Open Space. They are longer-distance trails (>1.4 mi) and generally intended for use by hikers, mountain bikers and occasionally horseback riding, and so require a great deal of time and care in their construction and maintenance. They are designed to be sustainable but generally require periodic maintenance such as the creation or re-formation of drain dips and the removal of built-up dirt and debris (which can hinder drainage) from the trail's outer edge.

Open Space trails are designed and built by hand according to the International Mountain Bicycling Association recommendations. This means that they should be bench cut along contours of a slope. Full Bench construction results in a trail that rests completely on cut. This is the most stable type of trail. Partial Bench construction balances cut and fill. A rockwork retaining wall supports the portion of trail tread on fill. Different types of trails commonly used in OSD are selected according to context and intended use.

Where the trail tread rests on fill, or where the trail crosses a drainage, a construction of a rock retaining wall is often necessary for tread stability. Trail slope is guided by IMBA's "Half Rule," which states that longitudinal slope should never exceed half the cross slope. In general, trails should never exceed a 10% longitudinal slope and should have a 5% outslope for drainage. Where an outslope is not achievable, rolling grade dips or knicks, installed at intervals, will allow for positive drainage.



1. Natural Surface Trail

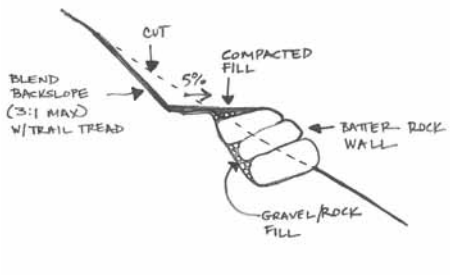


2. Full Bench Cut Configuration

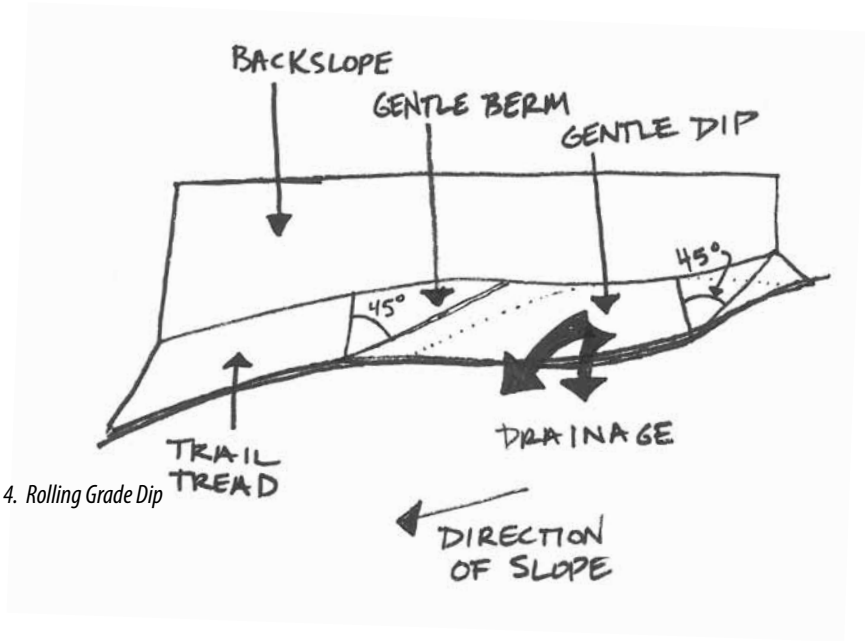
There is an art to installing rolling grade dips. They should cross the trail at 45 degrees and blend smoothly and gradually in with the trail tread. They should not act as or resemble speed bumps. The knick is an outsloped semicircle that is useful for areas in a trail that are subject to ponding. For both rolling grade dips and knicks, the low side should be clear for several feet beyond the trail's edge, and care should be taken to ensure the knick is not over-excavated. Complete recommendations for building rolling grade dips is printed in *IMBA's publication, Trail Solutions: Building Sweet Singletrack.*

Stabilized Soilss

This type of trail surfacing is commonly used for shorter, ADA compliant nature trails, access routes to ADA compliant picnic areas, or loop trails. Trails that are planned for subdivisions to be conveyed to Open Space are invariably required to by paved with stabilized crusher fines, sand/clay mixes, or native



3. Rockwork on a Partial-Bench Trail

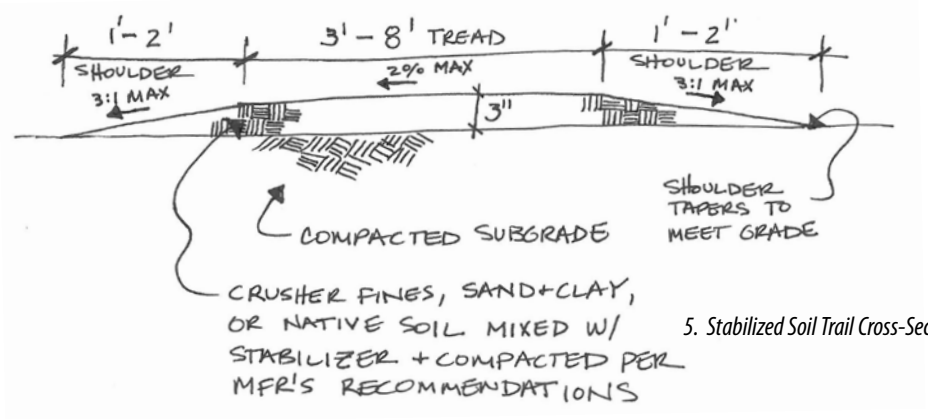


4. Rolling Grade Dip

soils. Stabilizers are proprietary compounds that come in powder or liquid form and are mixed into the soil and rolled out per manufacturer's recommendations. Appendix A lists a selection of stabilizing products.

Concrete

OSD uses colored Portland Cement Concrete for ADA-compliant interpretive or nature trails that are

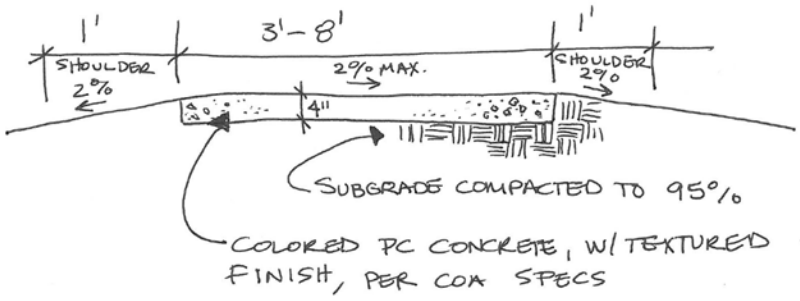


5. Stabilized Soil Trail Cross-Section

shorter (<1/4 miles in length). The Elena Gallegos Nature Trail and the Pueblo Montaño sculpture garden Trail are two examples of this type of trail. Concrete is tinted and given a textured finish. Concrete installation shall follow City of Albuquerque specifications #101, 337, 346, and 349. Standard OSD color choices: Davis Colors "Dune" or "Pebble."

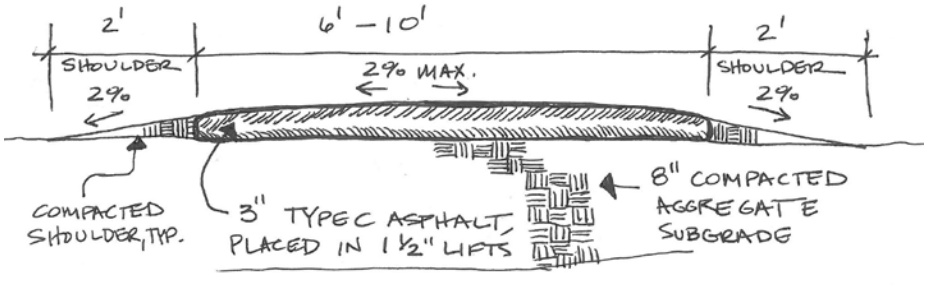
Asphalt

Universally accessible, multi-use trails of longer lengths (>1/4 mi) such as the Paseo del Bosque and



6. Concrete Trail Cross-Section

Paseo de la Mesa trails are asphalt-paved. These trails are primarily used by walkers, runners and cyclists, but also must support heavy used by equestrians and occasional maintenance vehicles. They shall be constructed a 3" thickness of Type C asphalt on 8" compacted aggregate subgrade. Installation and maintenance of this type of trail shall follow the City of Albuquerque's specifications 112, 166, 307, 329 and 336 for asphalt paving.



7. Multi-use Asphalt Trail Cross-section

Americans with Disabilities Act (ADA) Requirements

Accessibility of Open Space trails also varies widely. The United States Access Board's Draft Final Accessibility Guidelines for Outdoor Developed Areas, while offering broad exceptions for outdoor recreational trails and trailheads where certain conditions exist. These conditions are:

1) where compliance would not be feasible due to terrain;
2) where compliance is not feasible due to prevailing construction practices;
3) where compliance would substantially alter the function or purpose of the facility or the setting;
4) where compliance is precluded by the Federal Endangered Species Act, National Environmental Policy Act, National Historic Preservation Act, Wilderness Act, or other Federal, Satate or local law the purpose of which is to preserve threatened or endangered species; the environment; or archaeological, cultural, historical, or other significant natural features.

Much of Open Space land falls under these conditions. However, where Open Space Division is able to construct new or renovate existing facilities for ADA-compliance, their design and construction shall follow the Access Board's guidelines (sections 1011, 1016 and 1017). Where there is an existing ADA-compliant trail, there shall also be ADA-compliant parking near the trail and an accessible route to the trail. The Access Board's guidelines stipulate that trail surfacing should be firm and stable with a minimum clear width of 36," flat resting areas at intervals on sloped trails, and that there be a specified amount of clear ground space around picnic tables, grills, and trash and recycling receptacles. Complete guidelines for trails, trailheads and other outdoor facilities are available at: www.access-board.gov/outdoor/draft-final.html

II. Signage

Signs on Major Public Open Space should be considered and used conservatively. Too many signs result in clutter that overloads visitors with information and can cause confusion. Signs should be limited to those that protect public safety, protect wildlife and sensitive natural resources, and enhance the user experience.

Sign Types

Site or Facility Identification

Facility ID Signs
Trail ID Signs
Adoption Groups
Trail Accessibility/Difficulty

Advisory

After hours lock-ins: What to do
Tree Limbs can fall on you
Dog Waste Carries Disease
Mutt Mitt Station Signs
Fire danger level
Facility Hours of operation
Boating safety
Canoe/Kayak Launch Sites
Wildlife warnings & concerns

Regulatory

Examples:

The Open Space Regulation Sign
Dogs Leash Ordinance
No wood cutting
No Motor Vehicles
Area closed for revegetation
Speed Limit
Trail Rules

Wayfinding

Trail Markers
Maps
Mile Markers

Kiosk or Interpretive

Historic and Ecological Info.
Wildlife interpretation
Area Maps
Trail Maps
News and Events

Design

Standard Open Space Messages can be combined in order to reduce sign clutter. These Signs are designed with the "Kiva-Step" pattern (as seen below) in standard RGB color values and fonts. Large Signs are 24"x36" with 2" margins and can be portrait or landscape orientation. Standard sizes of identification, advisory, and regulatory signs are 9"x12" or 12"x18" and are generally portrait-orientation but can also be landscape-oriented where the information requires it. If possible, combine information on a single sign. The Kiva step is 2"x2" or 1"x1" square, or proportionate to overall size of sign.

Fonts (size to fit)
Lucida Calligraphy: Titles
Verdana: Subtitles, Body

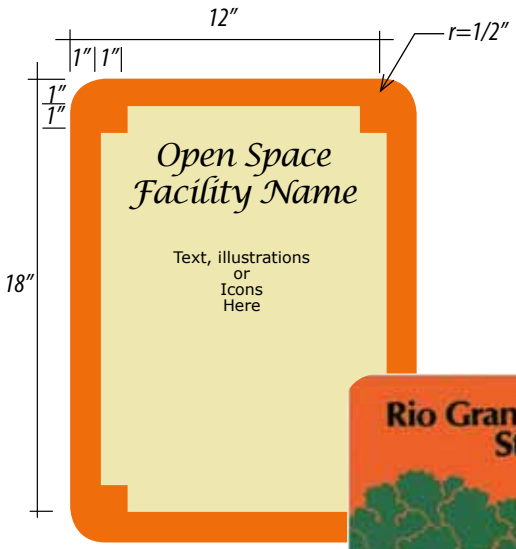
8. Identification/Interpretive —Facility

9. Identification/Interpretive (trail)

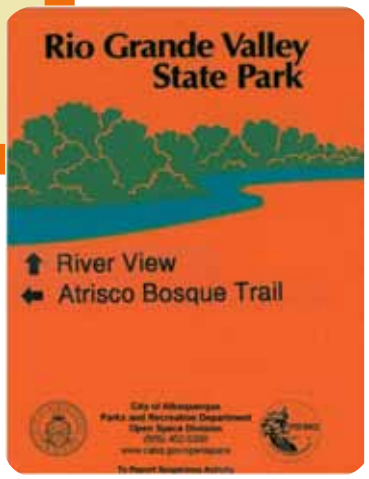
Or use trail-specific icons such as:

For non-ADA trails, replace "Accessibility Information" with the following:

Trail Difficulty Information
Trail Length:
Typical Running Slope:
Max. Running Slope:
Min Trail Width
Typical Trail Width:



10. General Interpretive



11. Identification (RGVSP)

12. Advisory: Text Only

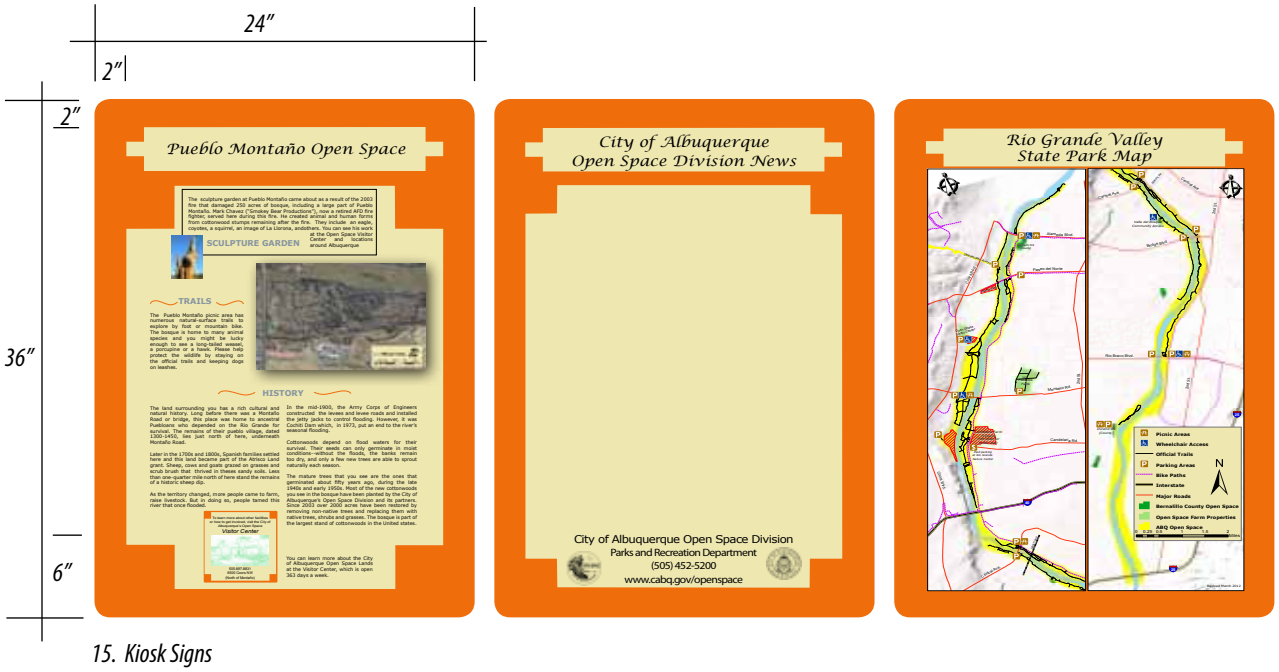
13. Advisory with Image

14. Revegetation 12" x 12"

Trailhead Kiosks can be used to decrease sign clutter by providing wayfinding, identifying and regulation information in one place, while providing site-specific information that generally would require several individual signs.

The OSD has two types of kiosks. The first is a prefabricated, three-panelled metal stand, approximately 7' high and wide. The left-hand panel contains site-specific information, the center panel contains news and upcoming events, and the right-hand panel contains a trail map of the area (bosque or foothills). These are used at larger, more populated facilities.

At smaller trailheads and facilities, simple wooden information boards or, older, custom-fabricated kiosks (such as the eight panelled one at the Candelaria trailhead in the Bosque) still exist. These should be phased out over time and replaced, as needed, by the standard metal kiosk or a similar model.



15. Kiosk Signs

Materials & Mounting

16. Mounting on 4x4 posts

17. 4x4 Post Mounting

The following materials are appropriate for OSD signs:
Aluminum sheet, .125" gauge, (non-reflective)
Digital High-pressure laminate (dHPL)
Wood-plastic composites (WPCs)
Embedded Fiberglass
Recycled high-density polyethylene (HDPE)
HDPV mounted on moisture-resistant Medium-density fiberboard (MDF) (Round corners, prime and paint edges and back of MDF layer prior to mounting)
All signs should have anti-graffiti coating. If not done in the manufacturing process, signs can be sprayed with an anti-graffiti film before mounting.
All regulatory signs should be retro-reflective
Signs can be mounted on metal t-posts, 4x4 wood posts, or other appropriate mounting. Prime and Paint 4x4s prior to mounting.

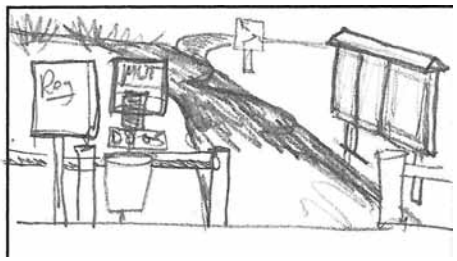
18. Trail Marker on 4x4 post

Placement

Place signs close to trail or parking area so that visitors do not have to wander through vegetation to read them, but not so close that they become a hazard to trail users. On nature trails or natural surface hiking trails, signs and mile markers should not be more than 12" from edge of trail whether perpendicular or parallel to the direction of travel. On paved, multiuse trails, signs should be installed perpendicular to the trail with the inner edge 2' from the trail for bicyclist safety.

19. Multi-Use Trail

20. Natural Surface Trail



21. Trailhead

Color Values for Signs & Maps

RGB values for Trailhead Signs and ESRI-created Maps. These colors should be used throughout the Open Space System.

"Kiva Step" Terra Cotta:
R-239, G-109, B-11

"Kiva Step" Beige:
R-238, G-231, B-176

CMYK/RGB Values from OS Lands Brochure (for distinguishing between OS Areas):

Foothills:
R=199, G=182, B=19

East Mountain & Sandoval County:
R=208, G=74, B=53

West Mesa:
R=134, G=107, B=185

Bosque
R=117, G=162, B=84

Yellow - OS Land (all maps)
R-255, G-255, B-0
("Solar Yellow" in ESRI palette).

Dark Green – USFS Non-wilderness (Foothills maps), Farm properties (Bosque maps)
R-0, G-163, B-34

Light Green - USFS Wilderness (Foothills maps)
R-160, G-225, B-120

White - Private Land
R-255, G-255, B-255

Black – Trails
R-0, G-0, B-0

Red – Streets
R-250, G-52, B-17

(From the ESRI default color palette. Select "Highway" or "Highway Ramp" from the line symbol selector, and adjust the width accordingly)

Purple – Bike Paths
R-169, G-0, B-230
(Select "Anemone Violet" from the ESRI color palette.)

Brown – Symbols & Icons:
R-146, G-80, B-0
(Enable Forestry symbols and adjust color.)

III. Fences and Gates

Fence Types

Nearly all properties in the Open Space system rely on fencing to demarcate boundaries and protect entry by Off-Road Vehicles. Larger areas, especially those adjacent to other public lands, are fenced off using three-strand smooth-wire fences. In areas where wire fence is repeatedly vandalized and breached by ORV users, NMDOT-type guard rail should be installed.

The preferred type for smaller areas (forty acres or smaller) is the three or four-strand high-tensile wire fence. Smooth wires are held in tension between pressure-treated wood end-post assemblies with a combination of posts and battens to keep the wires properly spaced between posts. Tension springs or turnbuckles maintain tension in the wires. Best results are achieved when tensioners are used in conjunction with springs. Wires must be attached to any intermediate posts in such a way that they can move laterally and be retensioned. There should be a diagonal brace-post assembly every 160 feet. Wires should be retensioned at least once a year. At trailheads and other high-use areas, OSD uses post-and-rail fencing to define space and protect revegetation areas from foot traffic.

Typical trailhead entry types used by OSD are the single or double pipe gate (used in conjunction with a walkover or bollards), or the chicane. Choose the entry type based on the permitted uses.

Because the required minimum clear width for wheelchair access is 36" and the typical ORV is 48" wide, openings for wheelchair-accessible trails should fall somewhere in between.

22. High tensile wire

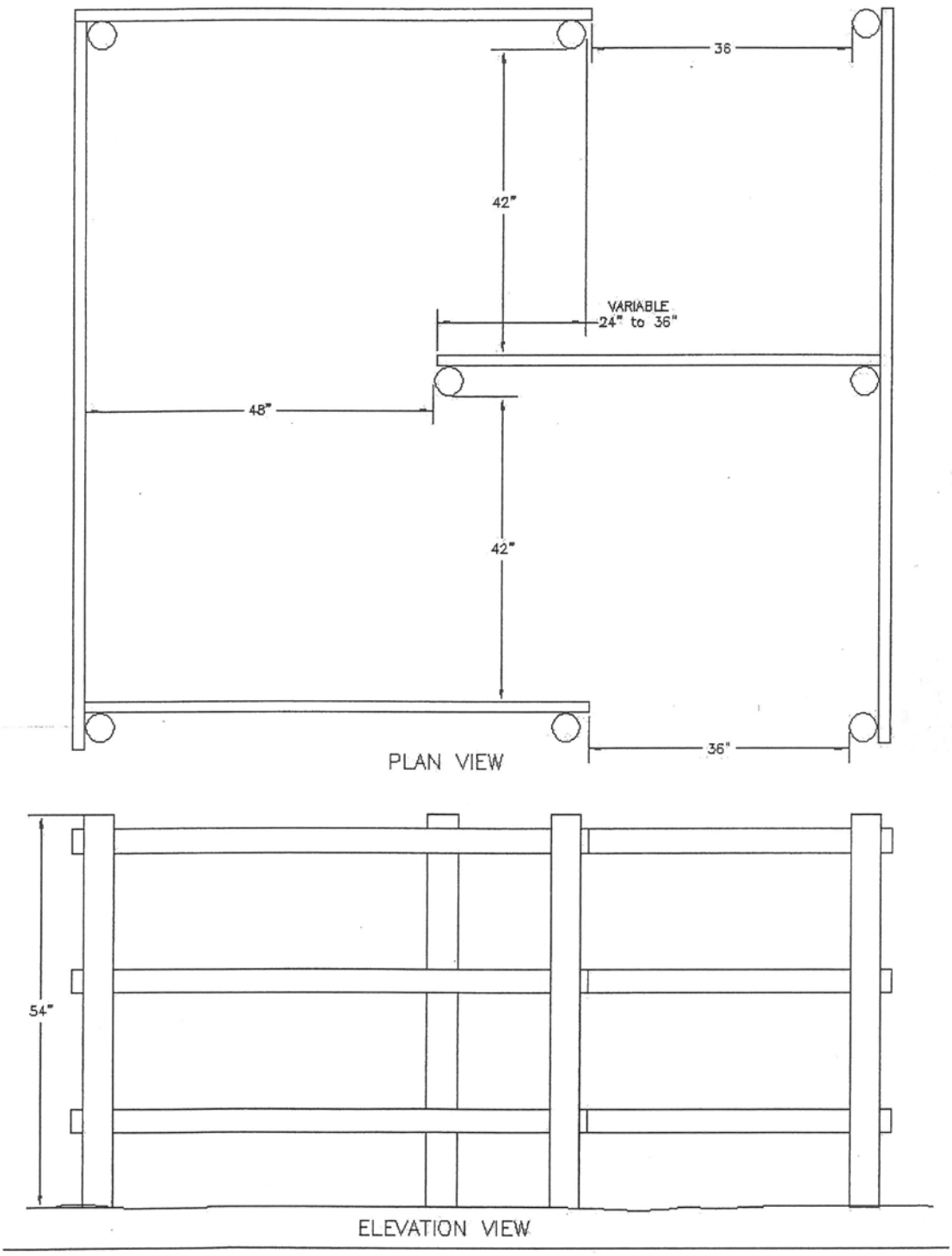
23. Post and Rail

24. Horse Walkover

25. Pipe Gate

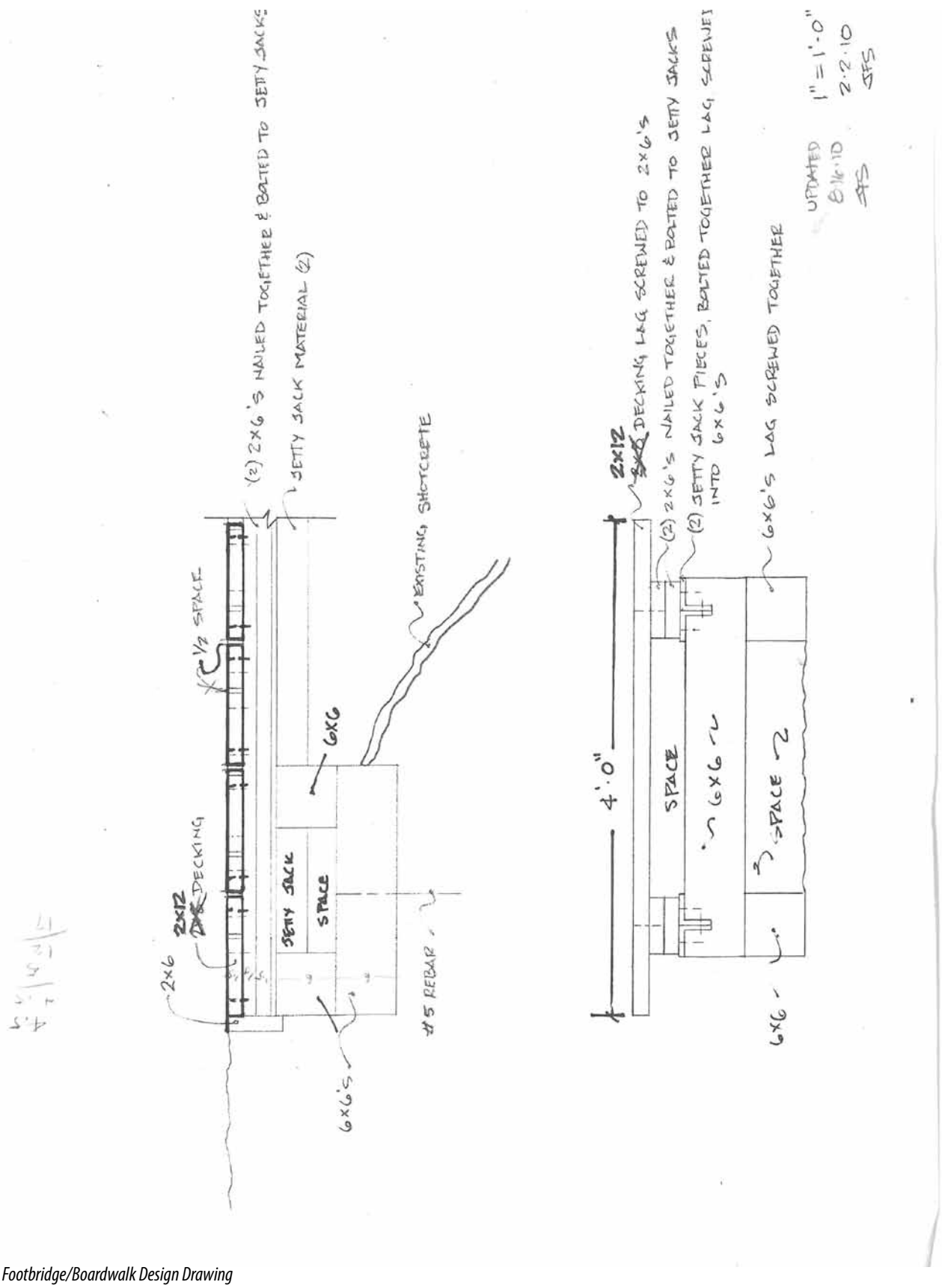
26. Pipe Gate with Pedestrian Opening

27. Chicane



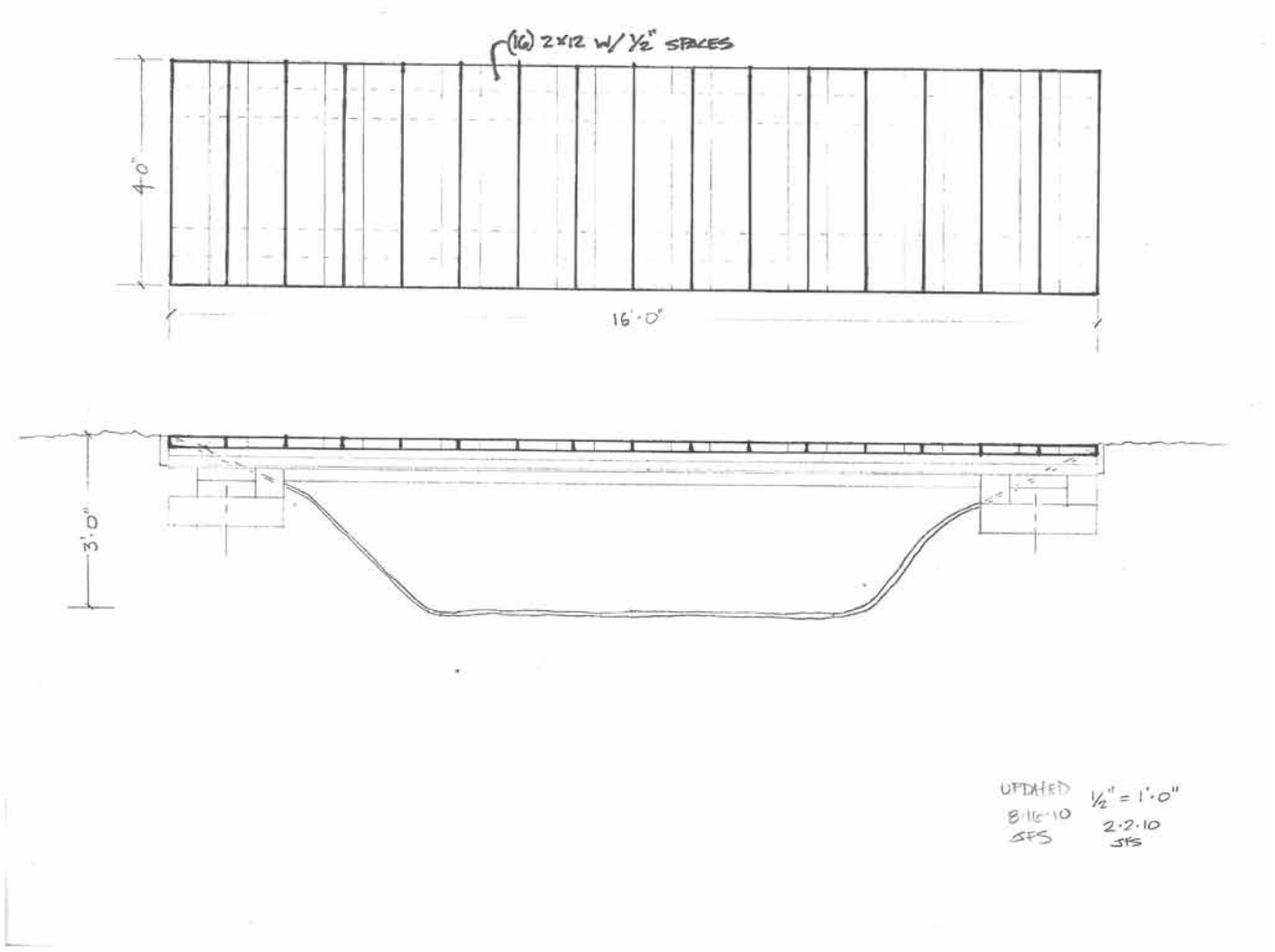
28. Chicane Design Drawing

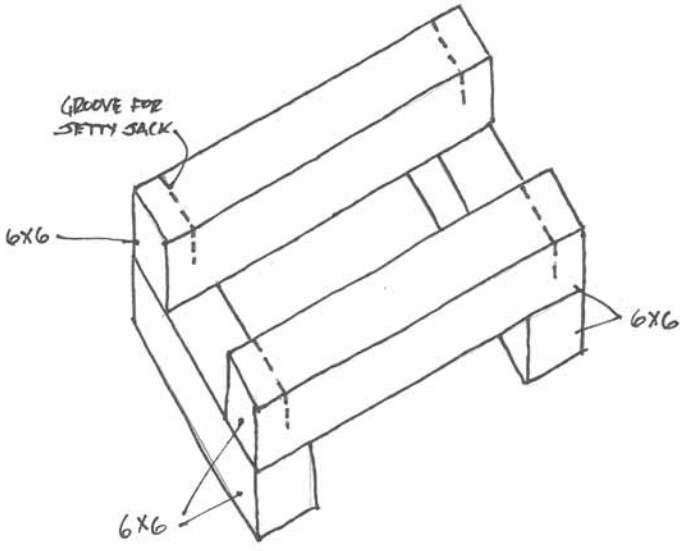
Footbridge or Boardwalk



29. Footbridge/Boardwalk Design Drawing

Footbridge or Boardwalk (cont'd.)





V. Amenities

Site Furnishings and Structures should be context-sensitive. They should be designed so as to reflect the character of the area (Mountain, Foothills, Bosque or Mesa). Using recycled materials and whenever possible, locally-sourced materials will not only allow OSD to conserve resources, it will also result in a built environment that enhances visitors' experience of the landscape without obscuring or detracting from it.

Structures

The style of OSD structured should be suggested by the site and surrounding area. At Elena Gallegos, the rustic style mimics the recreational structures of the Works Progress Administration and the National Park Service. It is constructed of of stone piers with a wooden and corrugated metal roof.

30 & 31. Foothills Shade Structures

In the bosque, wood and recycled metal structures are appropriate, especially if the wood is locally sourced and the metal is from dismantled jetty-jacks.

32 & 33. Pueblo Montaño Shade Structure

There are a miscellany of simple wood structures at Four Hills West, Campbell Road, Menaul, and Elena Gallegos. These are appropriate at less-developed facilities that are occasionally and lightly used. They are not heavy-duty enough for regular use.

34. Bosque Shade Structure

IV. Parking

Accessible Space Scoping

ADA Requirements: Parking areas have a minimum of one universally-accessible parking space per 25 spaces. The route from the parking aisle to the trail should also be ADA-compliant.

Horse Trailer Parking: At facilities where equestrian use is permitted, the parking area should have an area for horse-trailer parking if space is available.

Surfacing and Drainage

Surfacing & Drainage

Asphalt-paved: Paved areas should drain into swales or detention ponds to allow stormwater to infiltrate on-site. Natural-surface parking areas should be graded to infiltrate on site. Structural controls such as vegetated swales and filter strips will help to remove oils and other contaminants from the runoff before it infiltrates into the water table.

Footbridges & Boardwalks

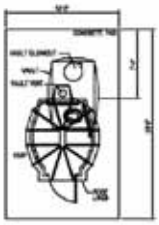
Small footbridges or boardwalks are occasionally necessary for crossing small drainages, intermittent streams, or for allowing visual access to wetlands. They should be constructed from locally-sourced, recycled material whenever possible. They should also be ADA compliant where appropriate; e.g., minimum 36" clear width, 2" and 36" high handrails, one on each side extending 12" beyond the bridge on both ends. For larger drainages requiring longer spans, use a prefabricated metall bridge. Bridge suppliers are listed in Appendix C.

Wildlife Viewing Blinds

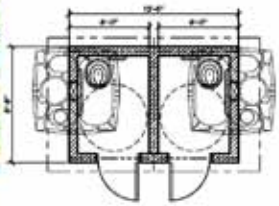
Wildlife Viewing Blinds in the foothills (left) and at the Visitor Center (right) are simple constructions made of natural materials to blend in with surroundings.

35 & 36. Foothills Shade Structure

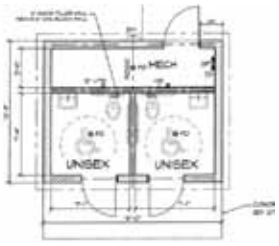
Toilets



Single or double vault toilets are best suited to Open Space trailheads. Manufacturers are listed in Appendix C.



Romtec models that have been used in Open Space include:
1001 – SST® Original Single (Los Poblanos);
Model 1016 – SST Aspen Compact Double; and
Model 2022 – Sierra II Compact Double (Alameda)



37, 38, & 39. OSD Romtec Models

Site Furnishings

40. Bear-Proof Trash Bin

41. Trash Bin With Removable Lid

All trash bins in the foothills and mountain properties should be bear-proof. Trash and recycling bins at other facilities should have lids that close firmly.

42. Rustic Fieldstone and Concrete Picnic Table

43. Prefabricated Concrete Picnic Table

Picnic Tables: Concrete picnic tables and benches (source?)

44. & 45. OSD Custom Designed Benches

Benches: Open Space has developed several handcrafted-wood bench types that will fit into a variety of contexts.

46. Prefabricated Plastic Lumber Bench

Recycled plastic benches are only used where outside individuals have provided them for memorials. Specifications and policies are available in the OSD Memorial Policy, a separate document.

VI. Revegetation

Restoration and Revegetation of disturbed areas should be specified using the following information. Specifics should be determined according to the timeline of the restoration effort, and the ecological and topographical conditions of restoration area.

Revegetation Areas: A description, map or diagram of the area to be revegetated.

Timing: The time of year that ground preparation and seeding will be completed.

Materials and Methods: When using a private contractor for reseeding, the Open Space project manager should use the City of Albuquerque Specifications, which lays out methods for reseeding as well as legal requirements for measurement of materials for payment and criteria for meeting material specifications. A reference within the restoration plan should say:

Areas shall be prepared, seeded, and mulched per attached COA draft specification 1007: Native Grass and Reclamation Seeding. In place of the City seed mix, the following OSD mix shall be used:

Seed Mix: Seed mixes should be devised according to a reference (undisturbed) area near the R&R location. Seed mixes should contain, for each plant, the scientific name, common name, and pounds per acre of Pure Live Seed. PLS is calculated as percent purity x percent germination)/100.

Supplemental Irrigation: If supplemental irrigation is needed, methods and timing can be determined here.

Control of Noxious Weeds: If any evidence of the following noxious weeds is found during monitoring events, the infestation shall be destroyed by appropriate and effective means as soon as possible. Acceptable means of weed removal include mechanical removal (digging and cutting) and chemical (spraying with pesticide). Pesticides should only be applied by a licensed applicator.

Common Name	Scientific Name
Russian Knapweed	Acroptilon repens
Camelthorn	Alhagi pseudoalhagi
Hoary Cress or Whitetop	Cardaria draba
Musk Thistle	Carduus nutans
Canada thistle	Circium arvense
Kochia	Kochia scoparia
Perennial pepperweed	Lepidium latifolium
Dalmation Toadflax	Linaria genistifolia dalmatica
Purple loosestrife	Lythrum salicara
Tumbleweed	Salsola iberica

Monitoring: Periodic assessments during the establishment period should be described here.

Performance Standards: Performance expectations should be based on the reference area and can be laid out here.

VII. Monitoring and Maintenance

Monitoring and Maintenance Activities occur at different intervals. Regular and occasional activities should be planned in advance and recorded. As-needed activities cannot be planned but should be recorded in a maintenance log (Appendix E). There are activities that occur regularly, such as daily bathroom cleaning and emptying trash cans at trailheads. Weekly and monthly activities are scheduled activities that should not be skipped. Occasional activities don't happen less frequently--one to four times a year. They should happen at regular intervals but generally don't. These include trash cleanups, trail work, brushing and tree trimming along trails, weed eradication and wood thinning.
Land Health Assessments should be done at each facility one to four times per year, depending on the condition of the site and the number of visitors it receives on a weekly or monthly basis. These assessments accompany the maintenance logs but contain more quantitative information about a site's conditions, such as erosion problems or poor vegetation cover. The protocol for Land Health Assessments can be found in the Land Health Assessment folder in the OSD Share Drive.

As-needed activities include repairs to broken signs and fences, grafitti removal, revegetation and restoration projects. Keeping track of these activities will help identify problem areas and identify ways to prevent the need for repairs.

Staff Trail Specialist and/or Landscape Architect should be consulted in any situation where heavy equipment is being used near and existing trail.

Regular Maintenance Checklist (Daily or Weekly)

Haul trash and recycling
Check restrooms
Check area for vandalism, including graffiti
Check signs and kiosks for damage or wear

Occasional Maintenance (3-4 Times Per Year)

Trailwork
Trail head and user area cleanups
Brush trimming along trail
Check high traffic areas for new user trails and erosion problems
Check low-traffic areas for vandalism and dumping
Perform Land Health Assessments

As-Needed

Fuel thinning
Graffiti removal
Repairs to broken signs and fences
Repairs to structures
Revegetation
Restriping parking lots

VIII. Sources

Arapahoe County Open Space: Trailhead and Trail Design Standards. Arapahoe County, November 2010.

Draft Final Accessibility Guidelines for Outdoor Developed Areas. U.S. Access Board, 2009. www.access-board.gov/outdoor/draft-final.html

Open Space Memorial Policy

Rio Grande Trail Corridor Study: Trail Surfacing Report. New Mexico State Parks ENMRD, August 2008.

Trail Solutions: IMBA's Guide to Building Sweet Singletrack. International Mountain Biking Association, June 2004.

City of Albuquerque Standard Specifications

Appendices

Appendix A: Stabilizer Products

The following stabilizer products is adapted from the report "Rio Grande Trail Surfacing Study" commissioned by New Mexico State Parks.

StaLock/Stabilizer – Made from ground seed hulls of the plantego plant native to Arizona. Stabilizer is a nontoxic, non-staining organic soil stabilizer. StaLock is a polymer enhanced version of Stabilizer.

Poly Pavement – A liquid soil solidifier that converts native soils into a durable wear surface.

Natural Pave – Natural Pave XL resin pavement binder emulsion is mixed with aggregate materials to produce compacted pavement surfaces that retain the natural coloration and texture of the constituent aggregate material. Resin pavement mixtures contain no petroleum ingredients and are appropriate for use in sensitive natural environments, including access to riparian areas.

EMC Squared – EMC Squared is highly effective in improving the stability behavior of a broad spectrum of aggregate and soil materials for service applications in a wide variety of climatic conditions. The product technology is both user-friendly and environmentally affable.

Soil-Sement – Soil-Sement is an environmentally safe, advanced powerful polymer emulsion that produces highly effective dust control, erosion control and soil stabilization.

Soiltac, a biodegradable, liquid copolymer, is used to stabilize and solidify soil or aggregate and is also used for erosion control and dust suppression.

Roadbond EN-1 – This product contains a strong oxidizer, a powerful solvent and a natural dispersant. The interaction of these components activates the naturally occurring mineral cements in the soil and bonds the soil grains together.

Mountain Grout – Mountain Grout is a soil stabilizer. Sprayed onto or mixed into the sand, Mountain Grout binds with the sand to form a hardened surface within hours.

Dura Road PX-300 – This is a liquid copolymer soil stabilization product which produces an abrasion and water resistant surface made of natural soil.

Lignosite – This is a byproduct of the calcium bisulfite pulping process.

RoadOyl – This product is a resin-modified emulsion that provides treatment for bare earth or unpaved surfaces. Formulated from tree resin, this state-of-the-art emulsion is unique in its high bonding strength and is appropriate for use even in close proximity to wetland areas and other areas of environmental sensitivity.

Klingstone – Klingstone 400 is a moderate viscosity, single component, moisture curing liquid (polymer) designed to stabilize soils for foot traffic and light vehicular traffic.

Permazyme 11X – This product produces all weather roads, increases compaction up to 15% with no extra effort, it is environmentally safe.

Earthzyme – This product is a totally natural bio-degradable product. It improves a soil's physical and chemical properties, which result in significantly less mechanical effort to achieve greater densities. For use in soils less than 20% clay, binds only with clay particles, not silts, sands or gravels.

All of these products come in powder and/or liquid form and are either applied topically, or are mixed into the soils/imported aggregate material.

Appendix B: Recommended Seed Mixes

West Mesa

	Name	**#PLS/AC**
Grasses	Agropyron smithii - Western wheat	1.0
	Bouteloua curtipendula 'Niner' - Sideoats grama	1.0
	Bouteloua gracilis "Hachita" - Blue grama	2.0
	Oryzopsis hymenoides - Indian Rice grass	5.0
	Pleuraphis jamesii 'Viva' --Galleta	7.0
	Sporobolus airoides - Alkali sacaton	1.0
	Sporobolus cryptandrus - Sand dropseed	1.0
Shrubs	Ephedra viridis - Green Mormon tea	0.25
	Atriplex canescens - Four wing saltbush	0.25
	Dalea purpurea - Broom dalea	0.25
	Artemisia filifolia - Sand sage	0.50
	Yucca glauca - Soapweed yucca	0.50
Forbs	Abronia fragrans - Sand verbena	0.25
	Penstemon ambiques - Sand penstemon	0.25
	Baileya mutiradiata - Desert Marigold	0.25
	Sphaeralcea ambigna - Desert globemallow	0.25
	Oenothera pallida - White evening primrose	0.25
	Sphaeralcea parvifolia - Nelson globemallow	0.25
	Totals #PLS/AC	23.5

East Mountains

	Name	**#PLS/AC**
Grasses	Bouteloua gracilis “Hachita” - Blue grama	5.0
	Festuca arizonica - Arizona fescue	5.0
	Hordeum jubatum - Foxtail barley	5.0
	Muhlenbergia montana - Mountain Muhly	2.0
	Poa fendleriana - Muttongrass	1.0
Forbs	Gaura coccinea - Scarlet beeblossom	0.25
	Mirabilis multiflora - Giant four o'clock	0.25
	Penstemon barbatus - Red penstemon	0.25
	Penstemon strictus - Rocky Mountain penstemon	0.25
	Total #PLS/AC	19.25

Foothills & Juniper/Pinon

	Name	#PLS/AC
Grasses	Bouteloua curtipendula 'Niner' - Sideoats grama	5.0
	Bouteloua eriopoda - Black grama	5.0
	Bouteloua gracilis "Hachita" - Blue grama	1.0
	Elymus longifolius - Bottlebrush squirreltail	1.0
	Muhlenbergia porteri - Bush muhly	5.0
	Oryzopsis hymenoides - Indian Rice grass	2.0
	Pleuraphis jamesii 'Viva' --Galleta	1.0
	Stipa neomexicana - New Mexico feathergrass	1.0
Shrubs	Atriplex canescens - Four wing saltbush	0.25
	Krascheninnikovia lanata - Winterfat	0.25
	Yucca glauca - Soapweed yucca	0.25
Forbs	Abronia fragrans - Sand verbena	0.25
	Asclepias tuberosa - Butterfly weed	0.25
	Baileya multiradiata - Desert Marigold	0.25
	Eriogonum jamesii - Sulphur Buckwheat	0.25
	Oenothera pallida - White evening primrose	0.25
	Sphaeralcea coccinea - Scarlet globemallow	0.25
	Total #PLS/AC	23.5

Bosque

	Name	#PLS/AC
Grasses	Agropyron smithii 'Arriba' - Western wheat grass	2.0
	Bouteloua curtipendula 'Niner' - Sideoats grama	2.0
	Bouteloua eriopoda 'Nogal' - Black grama	2.0
	Bouteloua gracilis "Hachita" - Blue grama	2.0
	Elymus longifolius - Bottlebrush squirreltail	2.0
	Hordeum jubatum - Foxtail barley	2.0
	Oryzopsis hymenoides 'Paloma' - Indian Rice grass	2.0
	Pleuraphis jamesii 'Viva' - Galleta	2.0
	Sorghastrum nutans - Indiangrass	2.0
	Sporobolus airoides - Alkali sacaton	2.0
	Sporobolus cryptandrus - Sand dropseed	2.0
	Sporobolus wrightii - Giant sacaton	2.0
Forbs	Anemopsis californica - Yerba mansa	0.25
	Asclepias speciosa - Showy milkweed	0.25
	Baileya multiradiata - Desert marigold	0.25
	Gaillardia pulchella - Indian blanket	0.25
	Gaura coccinea - Scarlet beeblossom	0.25
	Oenothera elata - Hooker's Evening primrose	0.25
	Total #PLS/AC	25.5

Appendix C: Manufacturers List

Structures:

Big R Bridges
Greeley, Colorado
(800) 234-0734
info@bigrbridge.com

Free Span Bridges
Scottsdale, Arizona
(602) 339-1144
info@freespanbridge.com

Contech Bridge Solutions
Alexandria, MN
(800) 328-2047

Romtec (Restrooms)
Rosemont, Oregon
(541) 496.3541
www.romtec.com

Huffcutt Concrete (Restrooms)
Chippewa Falls, Wisconsin
(715) 723-7446

Plants:

Tree New Mexico/OSD Nursery
Albuquerque, NM
(505) 265-4554
tnm@treenm.com

Plant World
Albuquerque, NM
(505) 898-9627

Curtis and Curtis
Clovis, NM
(575) 762-4759
seed@curtisseed.com

Signs:

J-H Supply Co.
Albuquerque, New Mexico
(505) 344-6006

Izone
Temple, TX
(888) 464-9663
info@izoneimaging.com

Anti-graffiti Coatings

Ecological Coatings, Inc.
Clifton Park, NY
(518) 383-9585
info@ecologicalcoatings.com

US Coating Solutions LLC
(800) 925-1840
info@uscoatingsolutions.com

G-Shield
Charlotte, NC
(800) 515-4164

Appendix D: Maintenance Log & Checklists

Maintenance Log

Area/Structure	Date Checked	Condition/ Problems Noted	Maintenance Performed

Appendix E: Glossary

ADA	Americans with Disabilities Act
Bench Cut	A method for trail building along the contours of a slope that involves cutting into the side of the slope. Full bench cut means the entire trail tread rests on cut. Partial bench cut means the tread rests on a combination of cut and fill.
Drain Dip	Smooth, shallow dips in a trail intended to direct rainwater off at a 45 degree angle.
Filter Strips	Unpaved areas of vegetated land designed to capture and infiltrate contaminated runoff from parking lots, roads, or fertilized lawns and croplands.
Grade Dip	Smooth, shallow dips in a trail intended to direct rainwater off at a 45 degree angle.
IMBA	International Mountain Bike Association
Jetty Jacks	Metal structures made of three 15' steel L beams, attached by wire and steel cable, and originally placed by the Army Corps of Engineers to prevent flooding along the Middle Rio Grande. The ACE is removing them in some areas.
OSD	Open Space Division
Vegetated Swale	A swale or shallow ditch that has been planted with native vegetation to slow and infiltrate local runoff.
WPA/NPS rustic	An architectural style, made popular in the mid 20th centural for public recreational structures, and characterized by a rustic style, harmony with the landscape, and the use of materials from the site iself.

J) BIOLOGICAL EVALUATION

NEW MEXICO DEPARTMENT OF TRANSPORTATION

BIOLOGICAL EVALUATION
NM 500 RIO BRAVO BRIDGE REPLACEMENT PROJECT
BERNALILLO COUNTY, NEW MEXICO

Prepared for:
New Mexico Department of Transportation Environmental Bureau and
Federal Highway Administration

Prepared by:
WSP USA Inc.

NMDOT

MARCH 2024

U.S. Department of Transportation
Federal Highway Administration

wsp

BIOLOGICAL EVALUATION

NM 500 RIO BRAVO BRIDGE REPLACEMENT PROJECT, BERNALILLO COUNTY, NEW MEXICO

NEW MEXICO DEPARTMENT OF TRANSPORTATION

CONTROL NO.: A301000, A301001
NMDOT DISTRICT 3

PREPARED BY JOANNA FRANKS AND JENNIFER HYRE

WSP USA, INC.
2440 LOUISIANA BLVD. NE, SUITE 400
ALBUQUERQUE, NM 87110

DATE: MARCH 2024

WSP.COM

TABLE OF CONTENTS

Tables

APPENDICES

1 Project Background

The New Mexico Department of Transportation (NMDOT), in cooperation with Federal Highway Administration (FHWA), is proposing to replace the east- and west-bound bridges on Rio Bravo Boulevard (New Mexico Highway 500 [NM 500]) over the Rio Grande in Albuquerque, New Mexico (Appendix A, Map A-1 and Map A-2). The purpose of this Biological Evaluation (BE) is to document findings of a biological survey conducted for the proposed bridge replacement and roadway improvements project. The project is federally funded and FHWA will serve as the lead agency.

The project limits include the bridges carrying Rio Bravo Boulevard over the Rio Grande and the Middle Rio Grande Conservancy District (MRGCD) Albuquerque Riverside Drain east of the Rio Grande, and the roadway segments on both sides of the bridges. The proposed improvements will tie in east of Isleta Boulevard and west of 2nd Street with no improvements to these intersections. The new bridge structure will be located north of the existing NMDOT NM 500 right-of-way (ROW) and the old bridges will be removed.

This report considers the project area and surrounding action area; describes natural resources and species observed in the project area; provides analyses of potential impacts resulting from the proposed project; and recommends measures to avoid, minimize, and/or mitigate impacts to natural resources, consistent with federal, state, and local laws.

This BE serves to comply with the Endangered Species Act, the Clean Water Act, and other federal regulations pertaining to natural resources and environmental protection. As part of the regulatory compliance requirements, WSP has conducted biological and wetland surveys and prepared this document. The results of the wetland delineation are being summarized in a separate report. WSP also retained RD Wildlife Management, LLC to conduct a bat survey in support of this BE.

1.1 PROJECT PURPOSE AND NEED

The purpose of the NM 500 Rio Bravo Bridge Replacement Project (CN A301000, A301001) is to replace four aging bridges (Bridge #s 6224 [east-bound], 6225 [east-bound], 8568 [west-bound], and 8569 [west-bound]) along a critical east-west route in the Albuquerque South Valley with four new bridge structures over the Rio Grande and the Albuquerque Drain east of the river. The new bridges will address structural deficiencies of the existing bridges while also reducing the burden on maintenance costs, congestion and improving multi-modal connectivity. The project also includes roadway reconstruction, widening, signalization, drainage improvements, street lighting, and multi-modal improvements.

All four structures are nearing the end of their design-life and are in need of upgrades or replacement. The bridges are currently rated in fair condition and are at risk of falling into poor condition. Emergency repairs have already been performed on the eastbound bridge over the Rio Grande in 2020 and 2022 with more repairs planned in the future. These bridges are one of seven river crossings in the metropolitan area and are critical to the transportation network in the southern Albuquerque region. This river crossing supports 35,000 vehicle miles, 53,000 person miles traveled per day and is projected to increase in the coming years. Existing conditions and travel demand show there is also a need to increase travel capacity along NM 500 between Isleta Boulevard and 2nd Street.

The project is also needed to address discontinuous multi-modal facilities. Safe access to trails on either side of the bridge are currently inaccessible to pedestrians as there is no safe method for a pedestrian to traverse the bridge. Pedestrian and bicycle trails will be added, and a concrete barrier will separate travel lanes from the sidewalks increasing safety for pedestrian and cyclists. Improving access and safety for pedestrians and cyclists use will encourage more multi-modal use of Rio Bravo Boulevard and the surrounding transportation network.

1.2 PROJECT LOCATION AND DESCRIPTION

The NM 500 Rio Bravo Bridge Replacement project is located along Rio Bravo Boulevard/NM 500 between Isleta Boulevard and 2nd Street from milepost (MP) 8.98 to MP 10.32. Rio Bravo Boulevard is one of seven crossings of the Rio Grande in the Albuquerque metro area. Rio Bravo Boulevard also provides access to Interstate-25 approximately 1.2 miles east of the project limits and access to Interstate-40 approximately 9 miles northwest of the project limits. The project is located in the South Valley, part of the Albuquerque Urbanized Area (US Census Urban Area 01171).

The project limits include the bridges carrying Rio Bravo Boulevard over the Rio Grande and the roadway segments on both sides of the bridges. The existing bridges span the Rio Grande, the river floodplain, the U.S. Army Corps of Engineers (USACE) levees on both sides of the river, and the MRGCD Albuquerque Riverside Drain east of the river (Appendix A, Map A-3). Along this section of Rio Bravo Boulevard, the roadway typical section consists of four lanes, two in each direction, with variable width outside shoulders, a raised median, and a sidewalk on the south side of the bridge. There are no sidewalk connections east and west of the bridges. A multi-use trail exists on the south side of Rio Bravo from the Poco Loco Road intersection to 2nd Street, continuing east to I-25. The Rio Bravo Riverside Picnic Area, managed by City of Albuquerque Open Space, is located on the northeast side of the bridges.

The existing Rio Bravo Bridges over the Rio Grande consists of two (2) parallel 25-span concrete structures, each approximately 1,413 feet long with 24 piers total (continuous between parallel structures) and 7 piers located within the typical Ordinary High Water Mark (OHWM) of the river. The existing Bridges over the Albuquerque Riverside Drain consist of two (2) parallel 3-span concrete structures, each approximately 95 feet long. The proposed project would involve replacing existing Structures 6224, 6225, 8568, and 8569 with a new set of bridges partially offset to the north of the existing bridge alignment.

The new Rio Bravo Bridge structure over the Rio Grande will consist of 13 spans with 3 piers located within the typical OHWM of the river. The new bridge will be approximately 1,455 feet long. East and westbound traffic will be separated by a raised median. Sidewalks will be separated from traffic by a concrete bridge rail. The superstructure will consist of a concrete deck supported by simple span steel plate girders. The substructure will have 12 cap and column piers on drilled drafts and 2 closed wall abutments on drilled shafts. The bridges over the Albuquerque Riverside Drain will be replaced by a new 2-span steel girder bridge with concrete deck supported on driven pipe piles filled with concrete. The new bridge will be approximately 96 feet long. The lane and sidewalk configuration for these bridges will be identical to that for the structure crossing over the Rio Grande. The vertical profile of Rio Bravo Boulevard is being raised to meet vertical clearance requirements over the access road connecting Dean Drive, Poco Loco Drive, and the Paseo del Bosque trail.

As part of this project, the existing bridges will be entirely removed, with foundations demolished at least two feet below ground surface. Removal of the existing piers in the river, as well as construction of

new piers, would require temporary dewatering or narrowing of the active channel within the river. The expected general sequence of construction for the bridges will be as follows:

- The construction limits north of the existing bridge will be cleared of vegetation. The northern half of the new bridges over the Rio Grande and the Riverside Drain will be constructed north of the existing bridges while the existing bridges are left in place.

- Westbound traffic will be redirected onto the new northern bridge halves, eastbound traffic will stay on the southern half of the old bridges. The northern half of the old bridges will be demolished, including at least some of the old foundations and substructures.

- The new bridge will be extended to the south in the space between the new and old bridge halves.

- Eastbound traffic will be redirected onto the new bridge, and the remaining portion of the old bridge will be demolished. Then the rest of the new bridge will be constructed. Concurrent with the bridge reconstruction, the MRGCD Riverside Drains will also be replaced, and phasing the construction of those with the bridge reconstruction will minimize impacts to traffic, while also minimizing dewatering times.

The proposed project would permanently impact an area consisting of the existing bridge structure, riparian vegetation, open water, dirt access roads and parking, and trails for construction of the new bridge and demolition of the existing bridges. The proposed project would remove mature cottonwood trees for the new bridge alignment. However, the number removed would be the minimum needed in order to safely construct the project. Construction activities on the existing and new bridge would occur year-round; however, work within the active river channel (i.e., installation and removal of diversion platforms) would be restricted to occur during baseflow conditions. It is not feasible for NMDOT to restrict construction from occurring during the migratory bird nesting season.

Following construction, 2.9 acres in the project limits would be revegetated to reestablish riparian vegetation on-site (Appendix A, Map A-5 and Map A-6) to include 2 acres of re-seeding with a native seed mix, 1 acre of willow pole plating, and 1 acre of cottonwood pole planting. To mitigate impacts to moderately suitable flycatcher and cuckoo habitat, NMDOT will seek a partnership with an agency having existing or future planned restoration projects within the Middle Rio Grande Basin to replace riparian habitat offsite for species mitigation (see Section 8.3.3). In addition, exposed soil surfaces would be reseeded in accordance with NMDOT standard specifications, and riparian vegetation would be allowed to naturally recolonize areas previously disturbed by the bridge. To mitigate impacts to the Rio Grande Silvery Minnow and its critical habitat, the NMDOT will complete a one-time purchase of 500 acre-foot of "new" water to be used at the timing discretion of the USFWS toward the conservation and recovery of the species.

2 Project History

The four bridges that presently carry NM 500 over the Rio Grande were built at different times as the need for additional travel capacity was identified by NMDOT. The east-bound bridges were built in 1961

and the west-bound bridges were built in 1985. Emergency rehabilitation on the east-bound bridges was performed in winter 2019 - 2020 to extend its life until it could be replaced. Due to the deteriorating structure condition, additional emergency repairs were performed in 2022, which further demonstrated the need for this project. All of the bridges are at the end of their design life.

Daily vehicle volume on NM500/Rio Bravo has steadily increased in response to expanding urban growth in Albuquerque's South Valley and Westside. In response, Bernalillo County has already undertaken two projects to widen Rio Bravo to 6 lanes between 2nd Street and Interstate 25. This project addresses the segment of Rio Bravo west of the Bernalillo County's projects.

3 Action Area

Impacts from the proposed project on all special-status species were evaluated for both the survey area (corresponding to the project's immediate footprint) and the larger action area (Appendix A, Map A-2). The U.S. Fish and Wildlife Service (USFWS) defines the action area as all areas that will be affected directly or indirectly by the federal action (50 Code of Federal Regulations 402.02). For the purposes of this project, the action area includes the project area and a quarter-mile buffer around the survey area. Impacts in this action area would consist mainly of temporary noise disturbance, localized airborne dust, and minor sediment transport within the river channel and increased turbidity downstream from construction activities.

4 Methods

Methods for this report included (1) a pre-field investigation of the literature and a database review and special-status species identification, (2) a field survey and special-status species evaluation, (3) a delineation of potential waters of the U.S., and (4) stakeholder and agency coordination on behalf of NMDOT. These methods are described in detail below.

4.1 PRE-FIELD INVESTIGATION

Prior to conducting the fieldwork portion of the biological survey, multiple online searches were completed to gather current information on special status species, distribution of wildlife and plants, soils and hydrology, and vegetative communities.

A data request was submitted to the USFWS through the Information for Planning and Conservation System (Consultation Tracking Number 02ENNM00-2017-E-00066) to obtain a list of threatened, endangered, and candidate species—as well as species proposed for listing—for Bernalillo County, New Mexico (USFWS 2023a; Appendix C). A list of special status animal species for Bernalillo County was compiled from the New Mexico Department of Game and Fish (NMDGF) Biota Information System of New Mexico ([BISON-M] NMDGF 2023; Appendix C). The New Mexico State Endangered Plant Species List was downloaded from the New Mexico Energy, Minerals, and Natural Resources Department (EMNRD) Forestry Division website (EMNRD 2020). The current list of state-listed noxious weeds was obtained from the New Mexico Department of Agriculture ([NMDA] 2020).

4.2 FIELD SURVEY

Multiple pedestrian surveys were conducted in support of this BE. A general biological survey of the project area was conducted by WSP biologists Joanna Franks on July 1, 2022, and a supplemental survey was conducted on February 9, 2023. The pedestrian survey consisted of walking within the project area and using binoculars to scan the action area. An initial wetland delineation was completed on May 18, 2021 during the study phase with additional delineation and verification during the 2022 general biological survey. A bat survey was conducted by RD Wildlife LLC in 2022 to evaluate bat use and roosting at the existing bridge structure. Additionally, WSP Biologist Kimberly Score conducted modified USFWS-protocol presence/absence surveys for Southwestern willow flycatcher ([SWFL] *Empidonax traillii extimus*) and yellow-billed cuckoo ([YBCU] *Coccyzus americanus*) within the project area between June 24, 2022 and August 10, 2022. During these surveys, WSP biologists also recorded other signs of wildlife and documented habitat quality for both species. Surveys were generally completed between dawn and approximately 11:00 AM. Surveys were recorded on standard USFWS data sheets. Aquatic surveys for fish were not performed.

All plant and wildlife species and signs of wildlife observed were recorded, and digital data were collected using a handheld GPS unit for all drainages, noxious weed locations, photograph points, and potential sensitive species habitat. Photographs were taken of any significant features, and to document the general conditions within the project area. Binoculars were used to identify bird species and aid in locating nests. The habitat was evaluated for all Endangered Species Act (ESA) and state of New Mexico special status species that have the potential to occur in the project or action area.

4.3 SPECIAL-STATUS SPECIES EVALUATION

All special-status species were first evaluated based on their potential to occur in the survey area and/or action area. The potential for local species occurrence addressed in this biological evaluation was based on (1) existing species distribution information, (2) qualitative comparisons of the habitat requirements of each species with vegetation communities or landscape features in the survey area, and (3) direct field observations. Possible impacts to these species were evaluated based on reasonably foreseeable project-related activities.

4.4 WATERS OF THE U.S. DELINEATION

WSP conducted a wetland delineation of the project area to investigate the presence of potential Waters of the U.S., including wetlands and other special aquatic sites. Wetland delineations include the identification and recording of physical features that may be considered Waters of the U.S., as defined by the USACE. As part of the surveys, all National Hydrography Dataset (NHD)-mapped drainages (USGS 2023) and all National Wetland Institute (NWI)-mapped wetlands (USFWS 2023b) were field verified. The presence/absence of waterways and wetlands were identified in the field using the methods outlined in *A Field Guide to the Identification of the Ordinary High Water Mark* in the *Arid West Region of the Western United States* (USACE 2008), *USACE Wetlands Delineation Manual* (USACE 1987), and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West* (Version 2.0) (USACE 2008). Defining elements of potential Waters of the U.S. include ordinary high-water marks, defined bed and banks, or the three mandatory wetland criteria: hydrophytic vegetation, hydric soils, and wetland hydrology.

4.5 AGENCY AND STAKEHOLDER COORDINATION

Throughout the project development process, focused meetings and coordination have been on-going with key agencies having land, resources, and/or jurisdictional authority along the Rio Grande corridor. A multi-agency kick-off meeting was held on October 19,2019 to introduce the project team, provide an overview of the project and schedule, present the initial study-level alternative concepts, and receive input from the agencies on their areas of interest and frequency of information exchange. The meeting was attended by representatives from NMDOT (lead agency), Bernalillo County, U.S. Bureau of Reclamation (USBR), New Mexico Interstate Stream Commission, USACE, USFWS, MRGCD, and Mid-Region Council of Governments (MRCOG). An additional multi-agency coordination meeting was held on November 1, 2022. The purpose of the meeting was to provide an overall project status and schedule update, present the alternatives development and design changes, and respond to input and questions from the agencies. The meeting was attended by representatives from NMDOT (lead agency), Bernalillo County, USBR, New Mexico Interstate Stream Commission, USACE, USFWS, MRGCD, MRCOG, and City of Albuquerque Open Space. Additional field reviews have been held with Bernalillo County Fire Department/Emergency Search and Rescue and City of Albuquerque Open Space regarding river access and the west bank boat launch site at northwest of the bridge. Stakeholder agencies are also participating in review of engineering design plans.

5 Regulatory Context

Regulatory laws applicable to the project BA include, but are not limited to, the following:

- Endangered Species Act
- Migratory Bird Treaty Act of 1918 (MBTA)
- Bald and Golden Eagle Protection Act
- Clean Water Act (CWA), Sections 401, 402, and 404
- Noxious Weed Management Act Executive Order 11988 (Floodplain Management)
- Executive Order 11990 (Protection of Wetlands)
- New Mexico Wildlife Conservation Act
- New Mexico Endangered Plant Incidental Take Rule, New Mexico Administrative Code 19.21.2

6 General Environmental Setting

The proposed project is located along Rio Bravo Boulevard/NM 500 between Isleta Boulevard and 2nd Street from MP 8.95 to MP 10.320 in the Albuquerque South Valley. Rio Bravo Boulevard is the southern-most of seven river crossings over the Rio Grande in the Albuquerque metropolitan area.

6.1 TOPOGRAPHY

In general, the project area is flat and gently slopes towards the active river channel. The Rio Grande and its floodplain bisect the project area. The Rio Grande floodplain historically was a dynamic riverine system with mosaics of riparian cottonwood woodlands, willows, and wetlands. Human alteration to the Rio Grande floodplain, which includes flood control, irrigation, and agriculture, has changed seasonal river flows and straightened and incised the active river channel (Griffith et al. 2006).

6.2 ELEVATION AND CLIMATE

The average elevation throughout the project area is approximately 4,900 feet above mean sea level. According to the Western Regional Climate Center (2023), Albuquerque has an average annual maximum temperature of 69.9°F, with an average annual minimum temperature of 43.3°F. Mean annual precipitation is 8.65 inches. Mean annual total snowfall is 9.6 inches and largely occurs during December and January.

6.3 MAPPED SOILS AND GEOLOGY

According to the Natural Resource Conservation Service (NRCS) Soil Surveys for Bernalillo County, New Mexico, there are 16 soil units mapped within the project area (Table 6-1; Appendix A, Map A-6). One soil unit, Torrifluvents, meets hydric soil criteria (NRCS 2021). Additionally, one soil unit is classified as partially hydric because the series contains a major soil component rated as hydric, and another soil unit is classified as predominantly nonhydric because the series contains a minor soil component rated as hydric.

No hydric soils were observed during the general biological survey nor during the wetland delineation survey. Refer to the NM 500 Rio Bravo Wetland Delineation Report for detailed information regarding hydric soils.

Table 6-1: Soils in the Proposed Project Area

MAP UNIT	NAME	HYDRIC SOILS	FARMLAND IMPORTANCE	ACREAGE (AC)	PERCENTAGE (%)
Af	Agua loam MLRA 42	Nonhydric	Not prime farmland	3.9	6%
Ar	Armijo clay loam MLRA 42	Nonhydric	Not prime farmland	0.7	1%
BcA	Bluepoint loamy fine sand, 1 to 3 % slopes	Nonhydric	Not prime farmland	2.8	5%
BKD	Bluepoint-Kokan association, hilly	Nonhydric	Not prime farmland	2.7	4%
Br	Brazito fine sandy loam MLRA 42	Nonhydric	Not prime farmland	0.2	1%
Bs	Brazito silty clay loam MLRA 42	Nonhydric	Not prime farmland	0.7	1%

MAP UNIT	NAME	HYDRIC SOILS	FARMLAND IMPORTANCE	ACREAGE (AC)	PERCENTAGE (%)
Bt	Brazito complex	Predominantly Nonhydric	Not prime farmland	2.7	4%
Gb	Gila loam, 0 to 1 % slopes MLRA 42-1	Nonhydric	Not prime farmland	12.4	20%
Gd	Gila loam, moderately alkali	Nonhydric	Not prime farmland	0.3	1%
GF	Gila complex, moderately alkali	Nonhydric	Not prime farmland	2.3	4%
Gm	Glendale clay loam, 0 to 1 % slopes MLRA 42.1	Nonhydric	Not prime farmland	8.6	14%
TP	Torrifluvents, frequently flooded	Hydric	Not prime farmland	7.4	12%
Va	Vinton loamy sand	Nonhydric	Not prime farmland	6.9	11%
VbA	Vinton sandy loam, 0 to 1 % slopes	Nonhydric	Not prime farmland	2.9	5%
Vc	Vinton clay loam MLRA 42	Nonhydric	Not prime farmland	0.2	0%
VF	Vinton and Brazito soils, occasionally flooded	Partially Hydric	Not prime farmland	5.1	8%
Total				**62.2**	**100%**

6.4 ECOREGION AND VEGETATION COMMUNITIES

The proposed project area is situated within the Rio Grande floodplain ecoregion in central New Mexico (Griffith et al.2006). Habitat of this ecoregion is characterized by a mix of river floodplain and grassland areas converted to urban lands. Typical vegetation within this ecoregion includes riparian woodlands of cottonwood and willow with understories of coyote willow, New Mexico olive, false indigo, and seepwillow. It is common for native riparian overstory vegetation to be intermixed or entirely replaced by non-native saltcedar and Russian olive.

6.5 WATERS AND FLOODPLAINS

The NHD depicts multiple mapped waterways intersecting with the project area (USGS 2023; Appendix A, Map A-7). The NWI depicts mapped freshwater forested/shrub wetlands and river habitat within the project area (USFWS 2023b).

The major surface water feature in the project area is the Rio Grande, which bisects the project. It is a Water of the United States regulated by the USACE under the Clean Water Act. Flood control levees, built by USACE in the 1950s, run parallel to the Rio Grande within the historic floodplain. MRGCD-managed irrigation ditches intersecting with the project limits include Armijo Acequia and Atrisco Riverside Drain west of the river and Albuquerque Riverside Drain and Barr Main Canal east of the river. The Rio Grande

at this location is subject to historic and on-going river channel and floodplain management by multiple agencies, including the USACE, USBR, and MRGCD. Over time the river has morphologically changed from being a wide braided, meandering river system to a highly incised river channel with little to no overbank flooding.

The project area has been mapped by the Federal Emergency Management Agency (FEMA) and is a regulated floodway. According to FEMA, the project and action areas are in Zone A, AE, AH, and X areas subject to inundation by the 1-percent-annual-chance flood event. The area surrounding the Rio Grande is an area with reduced flood risk due to the presence of levees and the upstream construction of Cochiti Dam in 1965 to control flooding within the larger Middle Rio Grande Basin. Based on federal authorizations, the levees have been designed and constructed to a height of 4,937 feet and can accommodate a flood event of 4,200 cubic feet per second (cfs).

6.6 LAND USE

Land use within the project area between Isleta Boulevard and 2nd Street is a mix of urban development, flood control and water conveyances, recreation areas, and the riparian woodland and river corridor. Rio Bravo Boulevard crosses the Rio Bravo Riverside Open Space which is part of the Rio Grande Valley State Park system, established in 1983 and managed cooperatively by the City of Albuquerque Open Space Division and the MRGCD. The Rio Bravo Riverside Open Space is located on the east side of the river, north of Rio Bravo Boulevard. Bernalillo County and City of Albuquerque emergency search and rescue teams use a boat ramp launch on the west side of the river north of Rio Bravo. The recreation areas consist of walking trails, picnic areas, access to the river, and parking lots. Recreational running or walking trails parallel the canals on each side of the Rio Grande. Outside of the floodplain and riparian woodlands, land use surrounding the project area is mostly high-density urban residential and commercial development.

Water within the Rio Grande is managed by multiple agencies for multiple uses, including irrigation, water delivery requirements of the Rio Grande Compact, and endangered species (silvery minnow) recovery.

6.7 HUMAN OR NATURAL DISTURBANCE

The project area is affected daily by automobile traffic associated with residential and commercial development in the project and action areas, as well as multi-modal and recreation uses. Rio Bravo Boulevard is a major throughway for the suburban Albuquerque area with high volumes of traffic, noise, and business.

7 Survey Results

This section documents observations during the biological field investigations and species-specific surveys within the project area from July 2022 to February 2023. Map A-8 in Appendix A shows locations natural resource observations.

7.1 FAUNA OBSERVED

Table 7-1 lists fauna observed during field surveys of the proposed project area. No state or federally listed species were detected during the field surveys.

Table 7-1: Fauna Observed within the Project Area

FAUNA TYPE	COMMON NAME (SCIENTIFIC NAME)	INDICATOR	ABUNDANCE
Invertebrates	None observed		
Fish	None observed		
Amphibians	None observed		
Reptiles	Painted Turtle (*Chrysemys picta*)	Live	Few
Birds	American crow (*Corvus brachyrhynchos*)	Live, call	Few
	American robin (*Turdus migratorius*)	Live, song	Few
	Brown-headed cowbird (*Molothrus ater*)	Live	Few
	Cattle egret (*Bubulcus ibis*)	Live	Few
	Cliff swallow (*Petrochelidon pyrrhonota*)	Nests under NM 500 bridge, live	Common
	Curve-billed thrasher (*Toxostoma curvirostre*)	Live	Few
	Great blue heron (*Ardea herodias*)	Live	Few
	House finch (*Haemorhous mexicanus*)	Live, song	Few
	House sparrow (*Passer* domesticus)	Live, song	Common
	Mississippi kite (Ictinia mississippiensis)	Live	Few

FAUNA TYPE	COMMON NAME (SCIENTIFIC NAME)	INDICATOR	ABUNDANCE
	Mourning dove (*Zenaida macroura*)	Live, call	Common
	Rock pigeon (*Columba livia*)	Live	Common
	Sandhill crane (*Antigone canadensis*)	Live	Few
	Western kingbird (*Tyrannus verticalis*)	Live, song	Few
	Western tanager (*Piranga ludoviciana*)	Live, song	Few
	Yellow-breasted chat (*Icteria virens*)	Live, song	Common
Mammals	Mexican free-tailed bat (*Tadarida brasiliensis*)	Live, clicks under bridge and guano	Common
	Yuma myotis (*Myotis yumanensisa)*	Live, clicks under bridge and guano	Common
	Fringed myotis (*Myotis thysanodes*)	Live, clicks under bridge and guano	Common
	Arizona myotis (*Myotis occultus)*	Live, clicks under bridge and guano	Common
	Canine (*Canis* sp.)	Tracks, under the bridge	Common
	Racoon (*Procyon lotor*)	Tracks, under the bridge	Common
	Porcupine (*Erethizon dorsata)*	Tracks, under the bridge	Common
	Black-tailed prairie dog (*Cynomys ludovicianus*)	Live, observed in north center of project area	Common

The project area contains a narrow band of intact riparian vegetation of mixed composition (i.e., native and native/exotic) and permanent water; this would provide cover and resources for wildlife in the area, especially when considering the density of urban development surrounding the project area. Animals may move adjacent and parallel to the Rio Grande. The existing bridges provide opportunities for wildlife movements and crossings under Rio Bravo. The new bridges would continue to provide a similar environment.

INVERTEBRATES OBSERVED

No invertebrates were observed during the general biological surveys. An invertebrate species-specific survey was not performed.

FISH OBSERVED

No fish were observed during the field surveys due to the natural turbidity of the Rio Gande. Additionally, aquatic surveys for fish were not performed for the proposed project. Multiple native and game fish species are known to occupy the Middle Rio Grande through the Albuquerque reach.

AMPHIBIANS OBSERVED

No amphibians were observed during the general biological surveys. An amphibian species-specific survey was not performed.

REPTILES OBSERVED

One painted turtle (*Chrysemys picta)* was observed during the general biological field surveys in an irrigation ditch within the project area.

BIRDS OBSERVED

Multiple bird species were observed during the wetland delineation, protocol species-specific surveys, and biological survey, as noted in Table 4-1. The most common birds detected during the field surveys were American robin (*Turdus migratorius*), house sparrow (*Passer domesticus*), and yellow-breasted chat (*Icteria virens*). All were detected by song or call and visually verified. American robins and sparrows were abundant in the riparian habitat. Biologists located an American robin fledgling near the Rio Bravo Riverside Picnic Area, indicating successful breeding. Yellow-breasted chats were common throughout the project area, in both urban areas and riparian vegetation. There were several active and old cliff swallow (*Petrochelidon pyrrhonota*) nests underneath the NM 500 bridges, and several cliff swallows were observed flying underneath the bridge.

The Rio Grande provides habitat for many species of migratory birds, and specifically shorebirds. During field surveys, sandhill cranes (*Antigone canadensis*), cattle egrets (*Bubulcus ibis*), and a great blue heron (*Ardea herodias*) were observed along the river corridor.

The project and action areas are comprised of riparian woodland and shrubland paralleling the Rio Grande, which provide a variety of nesting opportunities for migratory birds during the breeding season, during migration, and over winter. In the urban areas, suitable habitat for birds is limited.

MAMMALS OBSERVED

Numerous highway bridges in the Southwest provide roosting and maternal colony habitat to bats during the breeding season and migration. The Rio Bravo bridges are known to provide habitat and be used by thousands of bats every year and a multitude of different species. A species-specific bat survey was conducted for the project. Mexican-free tailed bat (T*adarida brasiliensis*), Yuma myotis bats (*Myotis yumanensis*), Fringed myotis (*Myotis thysanodes*), and Arizona myotis bats (*Myotis occultus*) were observed under the existing bridge and west of the Rio Grande. A summary of the bat survey and proposed recommendations can be found in Appendix E.

Additionally, a black-tailed prairie dog (*Cynomys ludovicianus*) colony was observed within the project limits and extending beyond the ROW (Appendix A, Map A-8). Prairie dogs are not a federal or state listed species currently; however, prairie dogs are keystone species that provide homes, food, and habitats for many listed species.

7.2 FLORA OBSERVED

The vegetation within the project area is characteristic of a floodplain riparian community with hydrology, soils, and ecological processes that have been altered by historic and recent human activities within the Rio Grande floodplain. The vegetation in the project area consists of the riverine environment at the Rio Grande and an urbanized, roadside environment beyond the limits of the levees. Table 7-2 lists the flora observed in the project area during the biological surveys. No state- or federally listed species were detected during the field surveys.

Table 7-2: Flora Observed within the Project Area

COMMON NAME	SCIENTIFIC NAME	WETLAND INDICATOR STATUS[1]	STATE OF NEW MEXICO NOXIOUS WEED STATUS[2]
Trees/Shrubs			
False indigo bush	*Amorpha fruticosa*	FACW	—
Fourwing saltbush	*Atriplex canescens*	FACU	—
Willow baccharis	*Baccharis salicina*	FACW	—
Water birch	*Betula occidentalis*	FACW	—
Russian olive	*Elaeagnus angustifolia*	FAC	C
Rubber rabbitbrush	*Ericameria nauseosa*	NI	—
White mulberry	*Morus alba*	FACU	—
Rio Grande cottonwood	*Populus deltoides wislizenii*	FAC	—
Skunkbush sumac	*Rhus trilobata*	FAC	—
Narrowleaf willow	*Salix exigua*	FACW	—
Saltcedar	*Tamarix ramosissima*	FACW	C
Siberian elm	*Ulmus pumila*	UPL	C
Graminoids			
Indian ricegrass	*Achnatherum hymenoides*	UPL	—
Siberian wheatgrass	*Agropyron fragile*	NI	—
Purple threeawn	*Aristida purpurea*	NI	—
Nodding brome	*Bromus anomalus*	NI	—
Emory's sedge	*Carex emoryi*	OBL	—
Saltgrass	*Distichlis spicata*	FACW	—
Barnyardgrass	*Echinochloa crus-galli*	FACW	—
Canada wildrye	*Elymus canadensis*	FAC	—
Stinkgrass	*Eragrostis cilianensis*	FACU	—
Tufted lovegrass	*Eragrostis pectinacea*	FAC	—
Rush	*Juncus* sp.	FACW	—
Witchgrass	*Panicum capillare*	FACU	—
Vine mesquite	*Panicum obtusum*	FACU	—
Knotgrass	*Paspalum distichum*	FACW	—

COMMON NAME	SCIENTIFIC NAME	WETLAND INDICATOR STATUS[1]	STATE OF NEW MEXICO NOXIOUS WEED STATUS[2]
Common reed	*Phragmites australis*	FACW	—
Ravennagrass	*Saccharum ravennae*	FAC	—
Johnsongrass	*Sorghum halepense*	FACW	—
Sand dropseed	*Sporobolus cryptandrus*	FACU	—
Mesa dropseed	*Sporobolus flexuosus*	FACU	—
Forbs			
Annual ragweed	*Ambrosia artemisiifolia*	FACU	—
Yerba mansa	*Anemopsis californica*	OBL	—
Milkweed	*Asclepias* sp.	FAC	—
Burningbush	*Bassia scoparia*	FAC	—
Parry's sandmat	*Chamaesyce parryi*	NI	—
Western tansymustard	*Descurainia pinnata*	NI	—
Horsetail	*Equisetum* sp.	FAC	—
Western goldentop	*Euthamia occidentalis*	FACW	—
Common sunflower	*Helianthus annuus*	FACU	—
Duckweed	*Lemna* sp.	OBL	—
Sweetclover	*Melilotus officinalis*	FACU	—
Velvetweed	*Oenothera curtiflora*	FACU	—
Spotted ladysthumb	*Persicaria maculosa*	FACW	—
Curly dock	*Rumex crispus*	FAC	—
Prickly Russian thistle	*Salsola tragus*	FACU	—
Silverleaf nightshade	*Solanum elaeagnifolium*	NI	—
Spiny sowthistle	*Sonchus asper*	FAC	—
Gray globemallow	*Sphaeralcea incana*	NI	—
Cattail	*Typha* sp.	OBL	—
Common mullein	*Verbascum thapsus*	FACU	—

[1] OBL = Obligate Wetland (hydrophyte); occurs in wetlands > 99% of the time
FACW = Facultative Wetland (hydrophyte); occurs in wetlands 67-99% of the time
FAC = Facultative (hydrophyte); occurs in wetlands 34-66% of time
FACU = Facultative Upland (non-hydrophyte); occurs in wetlands 1-33% of time
UPL = Obligate upland (non-hydrophyte); occurs in uplands < 1% of the time
NI = indicator status not known in this region
Source: Lichvar et al. 2016
[2] Classification per NMDA 2020

ROADSIDE ENVIRONMENT

The urbanized, roadside environment was heavily disturbed, consisting of the paved roadway, sidewalks, businesses and residences, minimal landscaping, and disturbed soils vegetated with invasive species. The vegetation observed was mostly weed forb species such as rag weed and Russian thistle (*Salsola tragus*)

intermixed with pockets of salt cedar (*Tamarisk spp.*), Russian olive (*Elaeagnus angustifolia*), and Siberian elm (*Ulmus pumila*).

RIPARIAN ENVIRONMENT

The riparian environment includes the Rio Grande (active wetted channel), dry sandy sections of the floodplain currently not covered by water, and scrub-shrub and forest riparian vegetation community. Seasonal inundation adjacent to the active channel has resulted in extensive colonization of spiny cocklebur (*Xanthium spinosum*) and curly dock (*Rumex crispus*). Portions of the project area contain patches of dense coyote willow (*Salix exigua*) interspersed with common reed (*Phragmites australis*), saltcedar (*Tamarisk*), and willow baccharis (*Baccharis salicina*). Mature cottonwood trees (*Populus deltoides wislizenii*) and Siberian elms (*Ulmus pumila*) are the dominant overstory trees.

NOXIOUS WEEDS OBSERVED

Three Class C noxious weed species, saltcedar, Russian olive, and Siberian elm, were observed throughout the project area.

RARE PLANTS OBSERVED

No federal or state threatened or endangered plants were observed during the field surveys.

7.3 OBSERVED WATERWAYS AND SOILS

One perennial waterway (Rio Grande) and four man-made irrigation ditches were recorded within the project area. No wetlands were observed along the bankline fringes of the Rio Grande nor along the acequias. A separate Wetland Delineation Report has been prepared for the project.

The Rio Grande is a Water of the United States regulated by the USACE under the Clean Water Act. Work within the river would require Clean Water Act permitting and it is expected that the project could be authorized under Nationwide Permit 14 (Linear Transportation) with a Pre-Construction Notification and a state water quality certification. Removal of the existing piers in the river and construction of new piers would require dewatering within the river. Work at the levees will require Section 408 permitting through USACE. The USACE has participated in multiple stakeholder meetings as part of the project development process.

Based on the current design for the NM 500 bridge replacement, the project will increase the base floodplain elevations of the Rio Grande at this location by 0.038 feet (0.456 inches). Although the increase would be negligible, the project team is consulting with FEMA regarding a revision to the Flood Insurance Rate Map (FIRM) to reflect the elevation increase caused by the project.

7.4 OBSERVED SURROUNDING LANDSCAPE AND LAND USE

Land use within the project and action areas includes transportation, residential and commercial urban development, natural areas, water conveyance, and recreational areas. Rio Bravo Riverside Open Space is a developed recreational area with picnic areas, parking, and maintained trails (Photograph 2). Across

from Rio Bravo Riverside Open Space, on the north side of NM 500 and east of the Rio Grande, walking trails are located adjacent to the river, levee, and irrigation canal, with a small parking area near the road. On the north side of NM 500 and west of the Rio Grande, there is a small parking area and boat launch into the river. Adjacent to the Rio Grande, on both sides of NM 500, the land is mostly cottonwood gallery woodland and some riparian shrubland. Dirt walking trails are also located adjacent to the river and levee on the west side of the project area.

Photograph 1. View of urban habitat in NM 500 project area

Photograph 2. View of Rio Bravo Open Space and Picnic Area in NM 500 project area

7.5 OBSERVED HUMAN OR NATURAL DISTURBANCE

During each of the field surveys, traffic was consistently heavy on the bridge. People were observed using the running/walking trails within the project and action areas. Scattered trash debris is present throughout the project area. Biologists observed signs of recent mowing/brush hogging adjacent to the drainage canal in the northwest corner of the project area. Recreational trails within the project and action areas appeared well used and maintained. There was some evidence of seasonal flooding within the project area, including calcified water lines, ponding water, mud, and wet leaves.

Photograph 3. View of modern development in the NM 500 project area

8 Listed Species and Critical Habitat

Currently, there are nine federally listed threatened, endangered and candidate and 16 state listed wildlife species for Bernalillo County, New Mexico. Additionally, there is one endangered plant species listed in Bernalillo County (EMNRD 2020). All species were screened for their potential to occur in the project area based on their geographic and elevational range, habitat associations, and suitability of habitat in the project area.

8.1 CRITICAL HABITAT ANALYSIS

Federally designated critical habitat for the Rio Grande silvery minnow ([RGSM] *Hybognathus amarus*) is located within the Rio Grande through the entirety of the project area (Appendix A, Map A-2). Analysis of potential project-related impacts to RGSM critical habitat is provided in Section 8.3. The nearest USFWS-designated critical habitat for the SWFL and YBCU is located 16 miles south of the project area near Los Lunas, NM.

8.2 LISTED SPECIES ELIMINATED FROM FURTHER CONSIDERATION

Of the 26 federal and state listed species with potential to occur within the project area, 12 were eliminated from further consideration. Table 8-1 summarizes those species eliminated.

Table 8-1: Listed Species Eliminated from Further Consideration

SPECIES CATEGORY	SPECIES	STATUS	HABITAT ASSOCIATIONS	RATIONALE FOR ELIMINATION FROM FURTHER CONSIDERATION
Plants	Pecos sunflower (*Helianthus paradoxus*)	USFWS Threatened, NM Endangered	This species is found in saturated saline soils of desert wetlands in the Rio Grande valley. Helianthus paradoxus is a true wetland species that requires saturated to inundated wetland soils.	Unlikely to occur. No wetland soils or areas of sustained soil saturation are present within the project area.
	Zuni fleabane (*Erigeron rhizomatus*)	USFWS Threatened	Zuni fleabane is found only in areas of suitable soils. These soils occur most extensively in the Sawtooth Mountains and in the northwestern part of the Datil Mountains in Catron County, New Mexico.	Unlikely to occur. This fleabane only occurs in mountain regions and would not be present at the project area elevation.
	Great Plains Lady's tresses (*Spiranthes magnicamporum*)	NM Endangered	This species is found in saturated calcareous soils of wetland meadows, cienegas, and riverbank edges. This species has been found in wetlands and along roadsides in Santa Rosa.	Unlikely to occur. No wetland soils or areas of sustained soil saturation are present within the project area. Soils are not limestone derived.
Fish	Rio Grande cutthroat trout (*Oncorhynchus clarki virginalis*)	USFWS Candidate	Rio Grande cutthroat trout generally inhabits isolated mountainous headwaters of the Rio Grande, Pecos, and Canadian drainage systems. Prefers clear, cold perennial water with abundant deep pools that flowing through healthy, intact riparian habitat.	Unlikely to occur. The Middle Rio Grande is outside the occupied range of this species.

SPECIES CATEGORY	SPECIES	STATUS	HABITAT ASSOCIATIONS	RATIONALE FOR ELIMINATION FROM FURTHER CONSIDERATION
Birds	Aplomado falcon (*Falco femoralis*)	NM Endangered	Associated with semi-desert grasslands with scattered yuccas, mesquite, and cacti. Naturally occurring populations are restricted to the southern tier of New Mexico. The species has also been reintroduced on the Armendaris Ranch in Socorro and Sierra Counties and on land administered by the BLM, White Sands Missile Range, and the New Mexico State Land Office beginning in 2006.	Unlikely to occur. There are no desert grasslands within the project area, and the project is also outside the known occupied range.
Birds	Baird's sparrow (*Ammodramus bairdii*)	NM Threatened	This species is a winter resident in New Mexico. Habitat includes desert grasslands in the south to prairies in the northeast, particularly in Otero, Luna, and Hidalgo Counties. Prefers tall grass for hiding (BISON-M 2017a, NMDGF 2023).	Unlikely to occur. There are no prairie grasslands within the project area.
	Brown pelican (*Pelecanus occidentalis carolinensis*)	NM Endangered	Inhabits marine habitats or estuary bays where it feeds almost exclusively on fish. Nests on islands either bare and rocky or covered with mangroves or trees in shallow coastal waters. Rarely found inland.	Unlikely to occur. Project area lacks marine habitat.
	Gray vireo (*Vireo vicinior*)	NM Threatened	Strongly associated with piñon-juniper and scrub oak habitats. Distributed mainly across the western two-thirds of the state. Prefers gently sloped canyons, rock outcrops, ridge tops, and moderate scrub cover.	Unlikely to occur. Project area lacks piñon-juniper and scrub oak habitats.
	Least tern (*Sterna antillarum)*	NM Endangered	Migratory species that occurs in North America during the breeding season, when it is associated with water (e.g., lakes, reservoirs, and rivers). In New Mexico, breeding is restricted to the Pecos River basin. It is known to breed primarily at Bitter Lake National Wildlife Refuge in nearby Chaves County. Prefers open sandy or gravelly shoreline areas.	Unlikely to occur. Project area is outside the species' known breeding range within the state.

SPECIES CATEGORY	SPECIES	STATUS	HABITAT ASSOCIATIONS	RATIONALE FOR ELIMINATION FROM FURTHER CONSIDERATION
	Mexican spotted owl (*Strix occidentalis lucida*)	USFWS Threatened, Critical Habitat Designated	Nests in caves, cliffs, or trees in steep-walled canyons of mixed conifer forests. Habitat consists of remote areas with high canopy closure and high stand diversity that is multi-layered with large mature trees, downed logs, snags, and stand decadence, as indicated by the presence of mistletoe (USFWS 1995).	Unlikely to occur. There is no high elevation mixed conifer forest habitat within the project area. There is no designated critical habitat for this species within the project or action areas.
	White eared hummingbird (*Basilinna leucotis*)	NM Threatened	This species is often observed at lower and middle level elevation forested habitats. Their preferred habitat locations are pine-oak, oak, and pine-evergreen forests.	Unlikely to occur. There is no pine-oak forest habitat in project area.
Mammals	New Mexico meadow jumping mouse (*Zapus hudsonius leuteus*)	USFWS Endangered, NM Endangered	Found along permanent water in areas with sedges, forbs, alder, and/or willows; large wet meadows on river floodplains; and along irrigation ditches. Prefers areas with herbaceous vegetation at least 24 inches tall (NatureServe 2023, USFWS 2013).	Unlikely to occur. Project area does not contain wetland grass-sedge or willow-alder riparian meadow habitat.

Source: NMDGF 2023; USFWS 2023a

8.3 LISTED SPECIES EVALUATED FURTHER

This section includes analysis of the species protected by federal and state regulatory authority and the potential effects to these species resulting from the project. Table 8-2 lists those species evaluated further.

Table 8-2: Listed Species with Potential to Occur in the Project Area

SPECIES CATEGORY	SPECIES	STATUS	LOCATION OF HABITAT	SPECIES PRESENT OR ABSENT AT TIME OF SURVEY WITHIN THE SURVEY AREA
Fish	Rio Grande silvery minnow (*Hybognathus amarus*)	USFWS Endangered, Designated Critical Habitat, NM Endangered	Typically occupy perennial stream habitats where water depths are less than 15.75 inches and have low to moderate velocity flow over silt or silt/sand substrate. Such habitats include eddies formed by debris piles, pools, backwaters, the bay, shoreline, and submerged vegetation.	No individuals observed; however, this species is known to inhabit the Albuquerque Reach of the Rio Grande and is presumed to occupy the project or action area. Aquatic surveys for fish were not performed.
Invertebrates	Monarch butterfly (*Danaus plexippus*)	USFWS Candidate	Inhabit prairies, meadows, grasslands, and roadside areas with its obligate species, milkweed (*Asclepias* spp.) and other nectar producing flowering plants. The Rio Grande serves as a primary migration corridor for the butterfly in New Mexico.	No individuals observed, however this species could use cottonwoods in the project area for nocturnal roosting. Milkweed was not observed, indicating the species does not reproduce within the project area.
Birds	American peregrine falcon (*Falco peregrinus*)	NM Threatened	Found in a wide variety of open habitats, from tundra to desert mountains. Nesting is usually located on cliffs 50 to 1500 feet high.	No individuals observed
	Bald eagle (*Haliaeetus leucocephalus*)	NM Threatened	Found in New Mexico during migration and winter months. The species is found chiefly along or near rivers and large water bodies and in grasslands associated with large prairie dog colonies.	No individuals observed
	Bell's vireo (*Vireo bellii*)	NM Threatened	Found in association with low elevation riparian habitat with willows and flowing water and located in upland woodland edges or scrub oak thickets.	No individuals observed

SPECIES CATEGORY	SPECIES	STATUS	LOCATION OF HABITAT	SPECIES PRESENT OR ABSENT AT TIME OF SURVEY WITHIN THE SURVEY AREA
	Broad-billed hummingbird (*Cyanthus latirostris magicus*)	NM Threatened	Occurs in riparian habitat or foothill oak woodlands.	No individuals observed
	Common black hawk (*Buteogallus anthracinus*)	NM Threatened	Near water along streams with lack of human activity. Breeds in tall trees, such as cottonwoods.	No individuals observed
	Neotropic cormorant (*Phalacrocorax brasilianus)*	NM Threatened	Occupies fresh or brackish tidal water and lake environments.	No individuals observed
	Southwestern willow flycatcher (*Empidonax traillii extimus)*	USFWS Endangered, Designated Critical Habitat, NM Endangered	Breeds in moist microclimate and vegetation conditions in proximity to perennial flowing water along dense riparian cottonwood/willow woodlands.	Species occurs in project area.
	Yellow-billed cuckoo (Coccyzus americanus occidentalis)	USFWS Threatened	Found in open riparian woodlands with a dense shrub layer typically in proximity to perennial flowing water.	Species occurs in project area.
Mammals	Spotted bat (*Euderma maculatum*)	NM Threatened	Found in a variety of habitats ranging from high elevation pine forests, pinon-pine woodlands, and desert scrub. Known to forage over water. Roosting habitat preference is unknown.	No individuals observed

Source: NMDGF 2023; USFWS 2023a.

8.3.1 LISTED FISH

RIO GRANDE SILVERY MINNOW (*HYBOGNATHUS AMARUS*)

SPECIES ANALYSIS

Status – Federal Endangered, Designated Critical Habitat

Species Ecology/Threats – The RGSM is a small-bodied minnow reaching a maximum length of approximately 4 inches (10 centimeters) (Propst 1999). It is a pelagic spawning species and is the only surviving species of a native pelagic spawning minnow guild historically abundant in the Middle Rio

Grande. This minnow requires shallow waters associated with a meandering river that includes sidebars, oxbows, and backwaters (Bestgen and Platania 1991; USFWS 2003). Physical modifications to the Rio Grande over the last century, such as dam and levee construction and channelization, have altered much of the habitat that is necessary for the species to persist (USFWS 2003). The species' range has been reduced to approximately 5 percent of the historical extent. The species is extremely vulnerable to catastrophic events, such as a prolonged period of low or no flow. The RGSM is extirpated from the Rio Grande downstream of Elephant Butte Reservoir and upstream of Cochiti Reservoir (USFWS 2003).

In the Middle Rio Grande, spring runoff coincides with (and likely triggers) spawning, typically from late April to June. This species is a pelagic broadcast spawner, meaning that eggs drift in the current. Females release several clutches of eggs (USFWS 2010). Hatching is temperature-dependent and occurs approximately 50 hours after release. Larval silvery minnows move to low velocity habitats (e.g., backwaters and inundated areas of the floodplain). Larvae mature to juvenile fish within approximately 50 days (Propst 1999).

Long-term monitoring of this species has recorded substantial fluctuations in population numbers that is. Long-term monitoring of the RGSM has recorded substantial fluctuations in population numbers associated with hydrologic processes, especially the magnitude and duration of spring runoff (USFWS 2010; Dudley et al. 2020).

Threats to this species include habitat modification (e.g., channelization, channel incision, river desiccation, modified thermal regimes, impoundments), barriers to movement (e.g., diversion dams), predation and competition with non-native fish species, diminished water quality, and loss of natural flow regimes within historical habitats (Propst 1999, USFWS 2003, USFWS 2010, NMDGF 2018). The life span of RGSM is short-lived, and the populations is therefore susceptible to losses from a poor year of reproductive output (Propst 1999).

Habitat Use and Condition – The RGSM typically uses habitats with low to moderate water velocity such as eddies, pools, or backwaters. This species uses different habitat types throughout its life stages. Drifting eggs and larval fish are found throughout all habitats used by this species. Larval fish are found in shallow areas with low to no water velocity and silt or silt/sand substrate. Juvenile and adult fish are typically found at moderate depths of 6 to 16 inches in low to moderate water velocities, depending on the size of the individual fish. This species is rarely found in areas of high water velocities (USFWS 2010).

Habitat use also varies by season. During the winter, this species typically uses habitats in deeper water with cover (e.g., debris piles, overhanging vegetation) in water at low velocities (USFWS 2010). In summer, the RGSM is found in pools and backwaters. This species prefers habitats with silt or sand substrate throughout the year (USFWS 2010).

Status in the Project or Action Area– Local populations of RGSM are known to occupy the Albuquerque Reach of the Middle Rio Grande and both the project and action areas are presumed to be occupied by this species. No quantitative fish sampling was conducted for the subject project. In the project area, the lateral extent of the active river channel fluctuates dramatically from season to season and each year, but typically does not become entirely dry. The USBR funds population and reproductive monitoring for this species throughout its range in collaboration with the Middle Rio Grande Endangered Species Collaborative Program. The NM 500 project and action areas fall within the USBR Angostura Reach monitoring area for RGSM, and the USBR Sampling Site 5 is at the Rio Bravo Boulevard. During USBR's 2020 monitoring efforts, 174 RGSMs were captured within the monitoring reach and 19 were captured at the USBR Rio Bravo sampling site 5 (Dudley et al. 2020).

The Rio Grande in the project and action areas is generally a single-thread channel surrounded by elevated relic floodplain and terraces. Flows are typically controlled by irrigation and diversions. Large spring run-off events are inconsistent. In 2022, spring runoff was barely noticeable and severe low flow caused drying in the Albuquerque Reach. Spring runoff in 2023 was extremely high and long, but the lack of monsoon rains triggered extremely low summer flows and drying south of the Angostura (Albuquerque) Reach. Substrate in the river within the project area is silty and silt/sand, the preferred habitat substrate for this species. Shallow, low-velocity habitats in the project area could be used by adults, larvae, or juveniles of this species.

Direct, Indirect, Interrelated, and Interdependent Effects to Species – Construction of the project and removal of the old bridge elements will require dewatering in the active channel of the Rio Grande which could directly affect any RGSM in the project area. Individual minnows may be harassed during construction and flee or avoid the area. Individuals may be harmed during construction due to placement of equipment access pads or diversion structures, or due to entrapment. Construction activity may reduce cover or food availability in the action area. Excavation may create local increases in sediment resulting in physiological stress (e.g., alteration of normal respiration). Operation of equipment in the channel would create noise and vibration. Diversion flows could physically alter habitat currently providing shelter or prey habitat.

The proposed project would result in temporary alteration of hydrologic flows and increased turbidity downstream from stream diversion during construction, which could impact individual RGSM up to 0.5 mile downstream of the project area. Impacts from increased turbidity would be of short duration (during diversion platform installation and removal) and low intensity.

The new concrete pier foundations would displace potential inundation habitat for RGSM while removal of the existing bridge pier foundations would return previously lost inundation habitat. The project, as currently proposed, would result in fewer piers (3 piers) in the river than the existing bridge (7 piers). The bridge elements currently in suitable RGSM habitat would be replaced with new bridge elements of similar design and material type.

Work activities within the active river channel would be performed during the baseflow conditions for the reach (i.e., winter months), which is typically from September or October to early March. Installation and removal of water diversion platforms in the active river channel would not occur during the typical RGSM spawning season from April 1 – September 30. Construction activities on the existing and new bridge would occur year-round; however, work within the active river channel (i.e., installation and removal of diversion platforms) would be restricted to occur during baseflow conditions.

This species may occur in MRGCD facilities in the project area during the irrigation season. Construction impacting such facilities will be conducted during the baseflow conditions for the Albuquerque Reach, which is typically from September or October to early March.

There would also be the potential for accidental spills of petrochemicals during construction, which would largely be avoided by implementing typical BMPs.

Cumulative Effects to Species – Future state, tribal, local, or private actions that may occur within the project or action area include ongoing use of roadways within the project and action areas, recreation, maintenance of drainages canals and ditches, and maintenance of recreational facilities. The proposed project is not expected to contribute to cumulative effects to this species.

Mitigation Measures – Impacts to RGSM would be minimized and mitigated through implementation of the following best management practices (BMPs):

Timing Restrictions

- Work activities within the active river channel and MRGCD irrigation ditches would be performed during the baseflow conditions for this reach, which is typically from September or October to early March.
- Installation and removal of water diversion platforms in the active river channel would not occur during the typical RGSM spawning season from April 1 – September 30.
- Water flow in the river would be temporarily diverted during construction to minimize downstream transport of sediment and to prevent RGSM from being present in the active river channel work zone at this location.
    - No more than 50% of the river channel will be obstructed at any one time by dewatering measures, and all heavy equipment will be protected and/or evacuated from flooding to avoid waterway contamination. All demolition and concrete work will be contained to avoid entry into the waterway.
- If isolated pools form in the active river channel or floodplain after large precipitation events during construction, the USFWS entrapment/salvage protocol for RGSM identified in the Biological Opinion would be followed by NMDOT personnel or their authorized contractor.
- Dewatering using a non-erodible rock platform is preferred to prevent stranding minnows behind the diversion barrier. If coffer dams are used, the NMDOT Contractor will be required to rescue any minnows that become stranded behind the diversion barrier.

Construction Measures

- A pre-construction meeting between the NMDOT Project Manager, the NMDOT Environmental Bureau and the Contractor's Project Manager is recommended to review all BMPs and ensure all personnel working on the project (Contractor and NMDOT) would be informed of listed species and the importance of avoiding and/or protecting their habitats.
- NMDOT will require the Contractor to comply with CWA Sections 404 and 401 conditions identified by the USACE and State of New Mexico.
- NMDOT will require the Contractor to provide a level of protection for temporary fill structures to prevent them from failing during a high-flow event.
- NMDOT will require the Contractor to store temporary dredged soils in a protected location outside of the immediate floodplain to prevent pollutant contamination or an accidental release of sediments during construction.
- NMDOT will require the Contractor to install and maintain temporary erosion and sediment control measures (e.g., silt fences, hay bales, mulch socks) during construction and in accordance with the Stormwater Pollution Prevention Plan (SWPPP) required by the provisions of the NPDES construction general permitting.
- NMDOT will require the Contractor to develop a spill prevention, control, and countermeasure plan, implement the plan, employ workers trained in spill containment, and notify the NMDOT Project Manager immediately in the event of a spill. The NMDOT will then notify the USFWS, USACE, NMED, and NMDGF.

- NMDOT will require the Contractor to protect the river channel from direct contact with machinery by placing durable rubber mats on driving surfaces, filter fencing or geotextile-lined jersey barriers in the channel, and silt fencing or hay bales along banks as appropriate in the work area.
- NMDOT will prohibit construction or equipment storage/fueling within the Rio Grande floodplain and require the Contractor to refuel and maintain equipment outside the floodplain. Contractor will be required to inspect all heavy equipment daily for leaks and leaking equipment would not be used in or near any watercourse.

Finding (Species)

___ No Effect
___ May affect, but is not likely to adversely affect
_x_ May affect, and is likely to adversely affect

CRITICAL HABITAT ANALYSIS

There are 212 miles (341 kilometers) of the Rio Grande designated as critical habitat for the RGSM. The lateral extent of critical habitat is defined as those areas bounded by existing levees or, in areas without levees, 300 feet of the riparian zone adjacent to the bank-full stage of the river (USFWS 2003). The floodplain at the project area is bounded by levees. The USFWS has identified the following primary constituent elements of this habitat for RGSM conservation:

- A hydrologic regime that provides sufficient flowing water with low to moderate currents capable of forming and maintaining a diversity of aquatic habitats—such as backwaters, shallow side channels, pools, eddies, and runs—which provide habitat for the silvery minnow during various life-history stages. These include sufficient flows from early spring to early summer to trigger spawning, sufficient flows in summer that do not increase prolonged periods of low or no flow, and relatively constant winter flows.

- The presence of low-velocity habitat within un-impounded stretches of flowing water of sufficient length to provide variation of habitats with a wide range of depth and velocities. These include eddies created by debris piles, pools, backwaters, and refuge habitats.

- Riverine substrates of sand or silt.

- Water of sufficient quality to maintain natural daily and seasonally variable water temperatures ranging between 35 degrees F and 85 degrees F, and to reduce degraded water quality conditions (e.g., decreased dissolved oxygen, increased pH).

Typically, areas of overbanking in the floodplain would provide nutrient recharge, sheltering, protection from sediment and pollutants, recolonization and recruitment opportunities, and a variety of other ecosystem services. However, agriculture and flood-control practices in the Rio Grande basin have greatly altered flow regimes and reduced the magnitude and frequency of peak flows, which cause overbank inundation within the floodplain.

Access and stream diversion during construction of the new bridge would alter hydrologic flows. The proposed project may result in increased turbidity downstream of the project area during construction

of the stream diversion structures, which could impact water quality up to 0.5 mile downstream of the project area. Impacts from increased turbidity would be of short duration and low intensity. Removal of vegetation and excavation would increase erosion and sedimentation potential downstream until vegetation is established in cleared areas. BMPs would be implemented to minimize or avoid impacts from sediment transfer and to control erosion.

The proposed project area supports, or would support (if inundated), one or more PCEs of critical habitat. It is estimated that approximately 0.03 acre of designated critical habitat would be taken for the installation of new permanent piers and approximately 0.06 acre of designated critical habitat would be restored by the removal of the existing bridge piers. Temporarily impacted areas would generally return to preconstruction condition after pier and bridge installation, though tree cover would not return because of bridge safety and maintenance requirements.

Mitigation Measures – Impacts to RGSM critical habitat would be minimized and mitigated through implementation of the following best management practices (BMPs):

- To mitigate for loss of critical habitat, the NMDOT will complete a one-time purchase of 500 acre-foot of "new" water to be used at the timing discretion of the USFWS toward the conservation and recovery of the species. A RGSM spawning pulse requires 1,500-acre foot to produce acceptable spawning conditions, and thus the proposed 500-acre foot is 1/3 of the needed spawning pulse and more than adequate mitigation for the installation of bridge piers in critical habitat. NMDOT has programmed funding for this mitigation in the Statewide Transportation Improvement Program (STIP). NMDOT is developing a source/broker plan and a water delivery process that will be provided to USFWS for review in the future after the final Biological Opinion is issued.

Finding (Critical Habitat)

___ No Adverse Modification
___ May affect, but is not likely to adversely modify habitat
_x_ May affect, and is likely to adversely modify habitat

8.3.2 LISTED INVERTEBRATES

MONARCH BUTTERFLY (*DANAUS PLEXIPPUS*)

Status – Federal Candidate

Description – The Monarch butterfly is known to inhabit prairies, grasslands meadows, and road-side areas that are rich in milkweed and other nectar producing flowering plants. Monarch butterflies have been documented in New Mexico from March 2 – December 1 (Cary and DeLay 2016). Monarchs migrating north through New Mexico can be seen primarily in March and April, with courtship and breeding typically beginning in April and ending in September. Oviposition and larvae have been documented from June – October (Cary and DeLay 2016; Western Monarch Milkweed Mapper 2023). The peak months for monarch presence in New Mexico are August – October, with October containing the

largest number of sightings across the state, corresponding with the fall migration (Cary and DeLay 2016). There is no evidence at this time that individuals overwinter in New Mexico. Adult monarchs feed on nectar of many flowers during breeding and migration and only lay eggs on milkweed plants.

In New Mexico, the Rio Grande serves as one of two primary migration corridors for Monarch butterflies, most likely during spring migration. Fall migration shows more roost selection in the eastern grasslands part of the state. The species may use cottonwood trees in and around the project area for nocturnal roosting. Milkweed habitat for Monarch butterfly was not observed, which indicates the species would not be anticipated to reproduce or rear young within the project area. Other nectar producing plants have the potential to occur in the project area. There is no critical habitat for this species.

Impacts – No Monarch butterflies nor milkweed plant species were observed during the biological survey. Any disturbed ground not overlain with pavement or bridge elements will be re-vegetated with a native seed mix containing nectar producing plant species in accordance with NMDOT standard specifications. The proposed project would impact an area consisting of the existing bridge structure, riparian vegetation, open water, dirt access roads and parking, and trails.

The proposed project may impact individuals or habitat, but is not likely to result in a trend toward federal listing or loss of viability to the population or species.

Conservation Measures – Impacts to Monarch butterfly would be minimized through implementation of the following BMP:

- If monarch butterflies are observed roosting in trees marked for removal between March 2 and December 1, those trees will not be cut down until monarch butterflies have vacated the immediate area.

8.3.3 LISTED BIRDS

AMERICAN PEREGRINE FALCON (*FALCO PEREGRINUS ANATUM*)

Status – State Threatened

Description – The peregrine falcon is a widely distributed bird throughout North America. This species prefers habitats with cliffs ranging from 25 feet to 1,200 feet tall for nesting close to open gulfs of air or near large bodies of water. However, peregrine falcons have been known to breed in urban environments and nest on towers or buildings, provided foraging opportunities occur nearby (Grebence and White 1989, White et al. 2002). Nest sites generally consist of small, protected ledges (White et al. 2002).

Impacts – The Rio Grande within the project area could provide suitable foraging habitat for this species. The project and action areas do not contain potential nesting habitat for this species. Construction noise levels would likely not be substantially higher than ambient noise levels currently occurring within the project area. Construction activities adjacent to potential habitat may cause individuals to avoid the project area for the duration of those activities. Avoidance would be limited to the duration of construction.

No long-term impacts to the species or its habitat are anticipated from the proposed project. The proposed project would not likely contribute to a trend towards federal listing or cause a loss of viability to the population or species.

BALD EAGLE *(HALIAEETUS LEUCOCEPHALUS)*

Status – State Threatened

Description – The bald eagle nests and roots in forested or wooded areas along coasts, near large lakes, or in river valleys (Buehler 2022). This species is an uncommon breeder in New Mexico; only seven territories were occupied statewide in 2012 (NMDGF 2023). Nests of bald eagles are typically placed in large trees near large bodies of water or prairie dog towns (NMDGF 2023). Bald eagles are more common in New Mexico during the winter and migratory seasons, where they are found along river valleys, in upland rangelands near water, and by large lakes (Buehler 2022, NMDGF 2023). No breeding bald eagles have been documented in Bernalillo County (Stahlecker 2009).

Impacts – Bald eagles are common winter residents along the Rio Grande. This species is not known to breed within the project or action area. No bald eagles were observed during biological surveys. The proposed project would impact existing fragmented habitat that could serve as potential roosting and foraging habitat for this species. Any vegetation removal during the migratory bird breeding season would be preceded by a pre-construction nesting bird survey. Avoidance buffers would be established around occupied nests until the young have fledged. Construction noise levels would likely not be substantially higher than ambient noise levels currently occurring within the project area. Construction activities adjacent to potential habitat may cause individuals to avoid the project area for the duration of those activities. Avoidance would be limited to the duration of construction.

No long-term impacts to the species or its habitat are anticipated from the proposed project. The proposed project would not likely contribute to a trend towards federal listing or cause a loss of viability to the population or species.

BELL'S VIREO (*VIREO BELLII*)

Status – State Threatened

Description – Bell's vireos are known to occur in the southernmost portion of the state of New Mexico, primarily in the Gila Valley, Guadalupe Canyon, and the lower Rio Grande and Pecos River valleys and associated drainages (NMDGF 2023). This species is found in dense, shrubby riparian vegetation, consisting of hackberry (*Celtis* sp.), mesquite (*Prosopis* sp.), saltcedar, and cottonwood woodlands, usually near perennial water. There are records of these species within the Rio Grande Valley south of the project near Los Lunas (eBird 2021).

Impacts – The riparian woodland habitat and adjacent perennial water in the project area meet the basic habitat criteria for this species. No Bell's vireos were observed during biological surveys. The proposed project would impact existing fragmented habitat that could serve as potential nesting and foraging habitat for this species. Any vegetation removal during the migratory bird breeding season would be preceded by a pre-construction nesting bird survey. Avoidance buffers would be established around occupied nests until the young have fledged. Construction noise levels would likely not be substantially higher than ambient noise levels currently occurring within the project area. Construction activities

adjacent to potential habitat may cause individuals to avoid the project area for the duration of those activities. Avoidance would be limited to the duration of construction.

Following construction, 2.9 acres of disturbed ground would be re-seeded with a native seed mix per NMDOT's Standard Specifications. Native willows and cottonwoods would be allowed to naturally re-colonize these areas. No long-term impacts to the species or its habitat are anticipated from the proposed project. The proposed project would not likely contribute to a trend towards federal listing or cause a loss of viability to the population or species.

BROAD-BILLED HUMMINGBIRD *(CYNANTHUS LATIROSTRIS MAGICUS)*

Status – State Threatened

Description – New Mexico represents the northern limit of this species' range. Broad-billed hummingbirds occur in low to mid-elevation riparian woodlands, typically between elevations of 3,280 to 4,900 feet (NMDGF 2023, Powers and Wethington 1999). In New Mexico, this species is known to breed in Guadalupe Canyon in Hidalgo County and Skeleton Canyon in the Peloncillo Mountains in the southwestern corner of the state (NMDGF 2023). There have been confirmed records of this species in Valencia County, but there has been no documentation of breeding or nesting in Bernalillo County (NMDGF 2023).

Impacts – The riparian woodland habitat and adjacent perennial water in the project area meet the basic habitat criteria for this species; however, it is not known to nest in Bernalillo County. No broad-billed hummingbirds were observed during biological surveys. The proposed project would impact existing fragmented habitat that could serve as potential nesting and foraging habitat for this species. Any vegetation removal during the migratory bird breeding season would be preceded by a pre-construction nesting bird survey. Avoidance buffers would be established around occupied nests until the young have fledged. Construction noise levels would likely not be substantially higher than ambient noise levels currently occurring within the project area. Construction activities adjacent to potential habitat may cause individuals to avoid the project area for the duration of those activities. Avoidance would be limited to the duration of construction.

Following construction, 2.9 acres of disturbed ground would be re-seeded with a native seed mix per NMDOT's Standard Specifications. Native willows and cottonwoods would be allowed to naturally re-colonize these areas. No long-term impacts to the species or its habitat are anticipated from the proposed project. The proposed project would not likely contribute to a trend towards federal listing or cause a loss of viability to the population or species.

COMMON BLACK HAWK *(BUTEOGALLUS ANTHRACINUS)*

Status – State Threatened

Description – The common black hawk is a large black raptor with a prominent white tail band. This species occurs throughout Central America and the southwestern U.S. In New Mexico, common black hawk is primarily found in the San Francisco, Gila, and Mimbres river watersheds, and the range of this species is expanding. This species is migratory in the U.S. and arrives in New Mexico in late February or early March (Schnell 1994). Breeding typically is initiated in March and April. Breeding habitat for this species includes mature riparian forests located near perennial streams with perching substrate such as

exposed boulders and low, bare branches (Schnell 1994). This species typically nests at elevations lower than 7,500 feet (Schnell 1994).

Impacts – The riparian woodland habitat and adjacent perennial water in the project area could provide suitable habitat for this species. This species typically nests in well-developed riparian forest stands (e.g., cottonwood bosques). No common black hawks were seen during biological surveys. The proposed project would impact existing fragmented habitat that could serve as potential nesting and foraging habitat for this species. The project would remove mature cottonwood trees. Any vegetation removal during the migratory bird breeding season would be preceded by a pre-construction nesting bird survey. Avoidance buffers would be established around occupied nests until the young have fledged. Construction noise levels would likely not be substantially higher than ambient noise levels currently occurring within the project area. Construction activities adjacent to potential habitat may cause individuals to avoid the project area for the duration of those activities. Avoidance would be limited to the duration of construction.

Following construction, 2.9 acres of disturbed ground would be re-seeded with a native seed mix per NMDOT's Standard Specifications. Native willows and cottonwoods would be allowed to naturally re-colonize these areas. No long-term impacts to the species or its habitat are anticipated from the proposed project. The proposed project would not likely contribute to a trend towards federal listing or cause a loss of viability to the population or species.

NEOTROPIC CORMORANT *(PHALACROCORAX BRASILIANUS)*

Status – State Threatened

Description – The neotropic cormorant is found in a variety of aquatic habitats including wetlands, large rivers, lakes, reservoirs, swamps, and ocean coasts (Telfair and Morrison 2005). In New Mexico, this species has been observed along the Rio Grande valley, typically south of the project at Elephant Butte and the Bosque del Apache National Wildlife Refuge (NMDGF 2023). Individuals of this species have been observed throughout the state, typically by large bodies of water (NMDGF 2023). This species nests in large trees, on rock outcrops or on man-made structures. Typically, neotropic cormorants are tolerant of human activity, except at extremely close range (Telfair and Morrison 2005).

Impacts – The riparian woodland habitat and adjacent perennial water in the project area could provide suitable habitat for this species. No neotropic cormorants were observed during the biological surveys. The proposed project would impact existing fragmented habitat that could serve as potential nesting and foraging habitat for this species. Any vegetation removal during the migratory bird breeding season would be preceded by a pre-construction nesting bird survey. Avoidance buffers would be established around occupied nests until the young have fledged. Construction noise levels would likely not be substantially higher than ambient noise levels currently occurring within the project area. Construction activities adjacent to potential habitat may cause individuals to avoid the project area for the duration of those activities. Avoidance would be limited to the duration of construction.

Following construction, 2.9 acres of disturbed ground would be re-seeded with a native seed mix per NMDOT's Standard Specifications. Native willows and cottonwoods would be allowed to naturally re-colonize these areas. No long-term impacts to the species or its habitat are anticipated from the proposed project. The proposed project would not likely contribute to a trend towards federal listing or cause a loss of viability to the population or species.

SOUTHWESTERN WILLOW FLYCATCHER (*EMPIDONAX TRAILLII EXTIMUS*)

Status – Federal Endangered, State Endangered

Species Ecology/Threats – SWFLs are neotropical migrants that occur in dense riparian habitats along streams, rivers, and other wetlands (USFWS 2002). This species arrives on territories in the southwestern U.S. starting in May. Nest initiation occurs in late May through June (BISON-M 2017b). Young fledge from late June through August. This species is an insectivore (USFWS 2002).

The SWFL historically occupied much of the southwestern U.S., including southern California, southern Nevada, southern Utah, Arizona, New Mexico, western Texas, and southwestern Colorado. The current range is similar in breadth; however, the quantity of suitable habitat within that range has been significantly reduced (USFWS 2002). The project area is located within the Rio Grande Unit, as defined in the SWFL Recovery Plan (USFWS 2002). In 2002, there were 128 known SWFL territories within this unit, a majority of which occur along the Rio Grande River. The number of known territories within the Rio Grande Recovery Unit increased to 588 territories in 2015 (NMDGF 2023).

Populations have declined primarily due to habitat loss and modification from activities, such as dam construction and operation, groundwater pumping, water diversions, and flood control (Sogge et al. 2010).

Habitat Use and Condition – Southwestern willow flycatchers are found in thickets of trees and shrubs, primarily 13 to 23 feet (4 to 7 meters) in height, and among dense and homogenous foliage (USFWS 2002). The USFWS divides habitat types for SWFL into three categories: native broadleaf riparian, monotypic non-native, and mixed non-native/native broadleaf (Sogge et al. 2010). This species primarily prefers very dense mid-story (i.e., 6.6 to 9.8 feet [2 to 5 meters] tall) stands of riparian vegetation typically dominated by willows that consist of a habitat patch at least 33 feet (10 meters) wide. Proximity to surface water and saturated soils is important. Habitat occurs at elevations below 8,500 feet (USFWS 2002). Habitat structure is typically more important than vegetation composition when considering whether an area is suitable SWFL habitat (Sogge et al. 2010). This species will nest in native willows as well as non-native saltcedar. Flycatchers have only rarely been found nesting in isolated, narrow linear riparian habitats that are less than 33 feet (10 meters) wide, although they will use such habitats during migration.

This species, along with the northern subspecies, may migrate through suitable nesting habitat and riparian corridors with sufficient cover. This species sings during migration, prior to arrival on the nesting territory, which may cause some confusion between subspecies before the nesting season when conducting protocol surveys (Sogge et al. 2010).

Status in the Project or Action Area – Habitat in the bosque at the project area consists primarily of open cottonwood gallery forest with minimal shrub understory. Along the river, dense and narrow stands of native willows mixed with nonnative shrubs occur north and south of the bridge. A small patch (0.4 acres) of moderately suitable habitat comprised of dense native thicket is present along the east bank, north and south of the bridge (Photograph 4). A small patch (0.93 acres) of moderately suitable habitat comprised of mixed native and exotic canopy and understory is present along the west bank, north and south of the bridge (Photograph 5). Both habitats are situated among recreation disturbances, dirt trails, public parking, traffic, and the bridge; all of which fragment the habitat. Due to the high disturbance and minimal size of the willow patch, the project area habitat is not highly suitable breeding or nesting habitat for this species.

[redacted]

[redacted]

[redacted]

Direct, Indirect, Interrelated, and Interdependent Effects to Species – [redacted] No suitable nesting habitat for this species is present in the project or Action Areas. Habitat for this species in the project area is smaller than that required for nesting. It may be used for foraging by nesting birds south of the bridge. SWFLs may migrate through the project or action area due to the availability of marginal roost habitat and open water that support insects.

Direct effects include the removal of approximately 1.33 acres of moderately suitable flycatcher habitat for construction of the new bridge and demolition of the existing bridges. Some grubbing of vegetation will be needed for the new bridge elements. Where feasible, willows would be cut at the base to allow for regrowth. Vegetation clearing associated with the project would occur outside of the migration and nesting seasons for this species, preventing the potential for take or direct adverse effects associated with the resulting noise, disturbance, and habitat removal. Construction activities on the existing and new bridge would occur year-round except for work within the active river channel (i.e., installation and removal of diversion platforms). It is not feasible for NMDOT to restrict construction from occurring during the migratory bird nesting season. Timing of vegetation removal would have timing restrictions to minimize impacts to SWFL.

Following construction, 2.9 acres in the project limits would be revegetated to reestablishing riparian vegetation on-site, which would include re-seeding 2 acres with a native seed mix, 1 acre of willow pole planting, and 1 acre of cottonwood pole planting. NMDOT will seek a partnership with an agency having existing or future planned restoration projects within the Middle Rio Grande Basin to replace 3.86 acres of habitat impacts at a 3:1 ratio to include a combination of on- and off-site riparian tree plantings that are suitable for SWFL. In addition, exposed soil surfaces would be reseeded with NMDOT's standard seed mix, and riparian vegetation would be allowed to naturally recolonize disturbed ground within the floodplain.

SWFLs, if present in the project area during construction, could be disturbed by construction-related noise. However, noise levels would not likely be substantially higher than existing ambient noise levels within the project area which are already elevated due to traffic volumes. Construction activities

adjacent to potential habitat may cause individuals to avoid the project area for the duration of those activities. Avoidance would be limited to the duration of construction. Traffic on the new bridge would result in the same noise levels in the project and action area as that which currently is present.

The proposed action may affect, is likely to adversely affect the southwestern willow flycatcher.

Cumulative Effects to Species – Future state, city, or federal actions that may affect the species include ongoing use of roadways within the project and action areas, recreation, maintenance of drainages canals and ditches, maintenance of recreational facilities, and river and riparian projects. The proposed project is not expected to contribute to cumulative effects to this species.

Mitigation Measures – Impacts to SWFL would be minimized and mitigated through implementation of the following BMPs:

Timing Restrictions

- Vegetation removal in the active and historical floodplains will occur outside the SWFL migration and nesting seasons (May 1 – August 31).

Construction Measures

- The area affected by construction activities will be reseeded with native vegetation per NMDOT specifications.
- Following construction, 2.9 acres in the project limits would be revegetated on-site to reestablish riparian vegetation and offset loss of flycatcher habitat. This will include 2 acres of re-seeding with a native seed mix, 1 acre of willow pole plating, and 1 acre of cottonwood pole planting.
- To mitigate for habitat loss, NMDOT will seek a partnership with an agency having existing or future planned restoration projects within the Middle Rio Grande Basin to replace riparian habitat impacts at a 3:1 ratio to include a combination of on- and off-site riparian tree plantings that are suitable for SWFL. Details on the location and mitigation plan will be finalized at a future date after the final Biological Opinion is issued with approval from USFWS.
- A pre-construction meeting between the NMDOT Project Manager, the NMDOT Environmental Bureau and the Contractor's Project Manager is recommended to review all BMPs and ensure all personnel working on the project (Contractor and NMDOT) would be informed of listed species and the importance of avoiding and/or protecting their habitats.

Finding

___No Effect
___May affect, but is not likely to adversely affect
_x_May affect, and is likely to adversely affect

YELLOW-BILLED CUCKOO (*COCCYZUS AMERICANUS*)

Status – Federal Threatened

Species Ecology/Threats – The western distinct population segment of YBCU is a neotropical migrant that winters in South America and breeds in the southwestern U.S. (Halterman et al. 2015). The western

distinct population segment was distinguished from the eastern population of YBCUs by the USFWS based on genetic analysis and geographical discreteness (USFWS 2013). This species is a late spring migrant, arriving typically in mid-June in New Mexico. Nesting occurs in late June through late July (Halterman et al. 2015). Yellow-billed cuckoos have the shortest nest building and incubation length of any known bird (BISON-M 2017b). Nestlings are fledged 6 to 7 days after hatching. This species feeds on large arthropods, small lizards, frogs, and spiders (Halterman et al. 2015). In New Mexico, this species is found throughout the state where there are large intact riparian woodlands (BISON-M 2017b).

Habitat Use and Condition – The YBCU is a riparian obligate species that breeds in riparian deciduous woodlands usually dominated by cottonwoods with well developed, open canopies and dense understory vegetation throughout its range (Halterman et al. 2015). Breeding areas within riparian woodlands vary in size. Typically, these are greater than 200 acres and at least 325 feet wide; however, in some regions individuals have been known to nest in areas as small as 50 acres.

Preferred species composition within occupied habitats is typically comprised of cottonwood galleries with an understory of willow and other shrubs and trees, such as mesquite and box elder (*Acer negundo*) (Halterman et al. 2015). Non-native species, such as saltcedar and Russian olive, may be present in occupied habitats; however, monoculture stands of non-native species are unsuitable habitat for this species (USFWS 2014a). YBCUs prefer riparian areas with dynamic riverine processes that allow for sediment movement and deposition and allow habitat to regenerate at regular intervals, creating variously aged patches and structure (USFWS 2014a).

Status in the Project or Action Area – Habitat in the bosque at the project area consists primarily of open cottonwood gallery forest with minimal shrub understory. Along the river, dense and narrow stands of native willows mixed with nonnative shrubs occur north and south of the bridge. Cottonwood gallery forest habitat within the project and action areas are moderately suitable habitat for the YBCU (Photograph 6). Vegetation is composed of Rio Grande cottonwoods and elm trees approximately 65 feet (20 meters) tall averaging a canopy cover of approximately 30-40 percent, with sparse patches of understory vegetative cover ranging from 0-50 percent. The understory is composed of mulberry, Russian olive, and willow species. Vegetative cover in the understory measured approximately 16 feet (5 meters) tall. The moderately suitable YBCU habitat on the east side of the Rio Grande is approximately 2.53 acres. A small patch (0.93 acres) of moderately suitable habitat comprised of mixed native and exotic canopy and understory is present along the west bank, north and south of the bridge. Both habitats are situated among recreation disturbances, dirt trails, public parking, traffic, and the bridge; all of which fragment the habitat. Due to the high disturbance and minimal size of the willow patch, the project area habitat is not suitable breeding or nesting for this species.

Photograph 6. Cottonwood forest located north of NM 500 and west of the Rio Grande, exhibiting canopy forest, but lacking understory vegetation.

In 2020, USFWS Species Biologist, Vicky Ryan, provide information that there were no known nesting YBCUs in this area (V. Ryan, personal communication, October 19, 2020). However, USFWS Species Biologist, Jenny Davis, notes that recent species distribution data shows cuckoos moving further north, and cuckoos are regularly being detected approximately 3 miles south of the project area near Valle de Oro National Wildlife Refuge (J, Davis, personal communication, January 25, 2024). In 2023, protocol surveys conducted by the USACE found at least 4 cuckoo pairs found within the Albuquerque Reach and a territorial cuckoo 0.4 mile north of the bridge, indicating that cuckoos can be expected to use habitat within the NM 500 project area. The project area is presumed occupied.

Direct, Indirect, Interrelated, and Interdependent Effects to Species – Cuckoos have been detected within 0.5 miles of the project. There are also known nesting locations for YBCU within 0.5 miles of the project area. Moderately suitable habitat for this species is present in the project or Action Areas. YBCUs may migrate through or forage in the project or action area due to the availability of marginal roost habitat and open water that support insects. The project area habitat is not suitable breeding or nesting for this species.

Direct effects include the removal of up to 3.46 acres of moderately suitable cuckoo habitat for construction of the new bridge and demolition of the existing bridges. The project would remove mature cottonwood trees. Some grubbing of vegetation will be needed for the new bridge elements. Where feasible, willows would be cut at the base to allow for regrowth. Construction activities on the existing and new bridge would occur year-round except for work within the active river channel (i.e., installation and removal of diversion platforms). It is not feasible for NMDOT to restrict construction from occurring

during the migratory bird nesting season. Timing of vegetation removal would have timing restrictions to minimize impacts to YBCU.

Following construction, 2.9 acres in the project limits would be revegetated to reestablish vegetation on-site, which would include re-seeding 2 acres with a native seed mix, 1 acre of willow pole plating, and 1 acre of cottonwood pole planting. NMDOT will seek a partnership with an agency having existing or future planned restoration projects within the Middle Rio Grande Basin to replace habitat impacts at a 3:1 ratio to include a combination of on- and off-site riparian tree plantings that are suitable for YBCU. In addition, exposed soil surfaces would be reseeded with NMDOT's standard seed mix, and riparian vegetation would be allowed to naturally recolonize disturbed ground within the floodplain.

YBCUs, if present in the project area during construction, could be disturbed by construction-related noise. However, noise levels would not likely be substantially higher than existing ambient noise levels within the project area which are already elevated due to traffic volumes. Construction activities adjacent to potential habitat may cause individuals to avoid the project area for the duration of those activities. Avoidance would be limited to the duration of construction. Traffic on the new bridge would result in the same noise levels in the project and action area as that which currently is present.

The proposed action may affect, is likely to adversely affect the yellow-billed cuckoo.

Cumulative Effects to Species – Future state, city, or federal actions that may affect the species include ongoing use of roadways within the project and action areas, recreation, maintenance of drainages canals and ditches, maintenance of recreational facilities, and river and riparian projects. The proposed project is not expected to contribute to cumulative effects to this species.

Mitigation Measures – Impacts to YBCU would be minimized and mitigated through implementation of the following BMPs:

Timing Restrictions

- Vegetation removal in the active and historical floodplains will occur outside the YBCU migration and nesting seasons (June 1 – August 31).

Construction Measures

- Areas affected by construction activities will be reseeded with native vegetation per NMDOT specifications.
- Following construction, 2.9 acres in the project limits would be revegetated on-site to reestablish riparian vegetation and offset loss of cuckoo habitat. This will include 2 acres of re-seeding with a native seed mix, 1 acre of willow pole plating, and 1 acre of cottonwood pole planting.
- To mitigate for habitat loss, NMDOT will seek a partnership with an agency having existing or future planned restoration projects within the Middle Rio Grande Basin to replace habitat impacts at a 3:1 ratio to include a combination of on- and off-site riparian tree plantings that are suitable for YBCU. Details on the location and mitigation plan will be finalized at a future date after the final Biological Opinion is issued with approval from USFWS.
- A pre-construction meeting between the NMDOT Project Manager, the NMDOT Environmental Bureau and the Contractor's Project Manager is recommended to review all BMPs and ensure all personnel working on the project (Contractor and NMDOT) would be informed of listed species and the importance of avoiding and/or protecting their habitats.

Finding

___No Effect
___May affect, but is not likely to adversely affect
_x_May affect, and is likely to adversely affect

8.3.4 LISTED MAMMALS

SPOTTED BAT *(EUDERMA MACULATUM)*

Status - State Threatened

Description –In the U.S. the spotted bat is known to occur in the intermountain states (Montana, Wyoming, Colorado, New Mexico, and Texas). The spotted bat may be found in a variety of vegetative land cover types ranging from arid deserts to high elevation forests. Although this is a broad-ranging species, its distribution is highly associated with prominent rock features and perennial water sources. Rocky cliffs with suitable roosting substrate (e.g., crevices, cracks) are critical to this species. This species forages in forest openings, piñon-juniper woodlands, riparian habitats, meadows, and agricultural fields (Western Bat Working Group 2005). The spotted bat is likely to breed in late summer and will give birth to young the following spring or summer (Luce and Keinath 2007).

Impacts – Suitable roosting and foraging habitat for this species is present within the project area. No spotted bats were detected during the bat survey. Construction activities would occur during daylight hours and would not affect foraging bats. Construction near the Rio Grande may result in the mortality of some aquatic invertebrates, reducing bat prey in the short term. A short-term reduction in prey base is not expected to cause mortality or reduced fitness of this species, since the spotted bat is highly mobile and can alter foraging areas and shift to other prey sources. Bat exclusion measures would be installed on the bridges in the fall outside the bat breeding season for 1 to 2 years prior to construction to minimize the potential for occupation within the project area. New bat boxes will be installed on the new bridge will provide replacement roosting habitat within the project area after construction is complete.

No long-term impacts to the species or its habitat are anticipated from the proposed project. The proposed project would not likely contribute to a trend towards federal listing or cause a loss of viability to the population or species.

9 Project Area Direct Affects Analysis

Direct effects are caused by the action that occur at the same time and place as the action (Council on Environmental Quality [CEQ] 40 CFR 1508.8). This section includes a discussion of direct effects to non-listed species in the project area.

- The proposed project would permanently remove riparian vegetation from construction of the new bridges and demolition of the existing bridges. Following construction, 2.9 acres in the project limits would be revegetated to reestablish riparian vegetation on-site (Appendix A, Map A-4 and MapA-5) to include re-seeding 2 acres with a native seed mix, 1 acre of willow

pole plating, and 1 acre of cottonwood pole planting. Riparian vegetation, such as willows, would be cut at the base to facilitate regeneration. Revegetation with NMDOT standard native seed mixes would occur where the existing bridges are demolished.

- The proposed project would remove mature cottonwood trees for the new bridge alignment. The number removed would be the minimum needed in order to safely construct the project.
- Vegetation removal during the migratory bird breeding season has the potential to impact nesting birds. If feasible, vegetation removal would occur outside of the breeding season. Any vegetation during the migratory bird breeding season would be preceded by a pre-construction nest survey up to two weeks prior to vegetation removal to minimize impacts to migratory breeding birds.
- Diverting the river during construction of the new bridges and dismantling of the existing bridges would minimize impacts to the waterway and aquatic species. Hydrologic flows in the active river channel would be temporarily altered by water diversion during construction. The proposed project may result in increased turbidity downstream during placement of the construction water diversion structures, which could impact water quality up to 0.5 mile downstream of the project area. Impacts from increased turbidity would be of short duration (during diversion installation) and low intensity.
- Construction equipment use in and around the floodplain has the potential for accidental spills of industrial fluids or petrochemicals; however, best management practices (BMPs) would be implemented to minimize impacts from sediment or chemical transfer.
- Construction noise levels would not likely be substantially higher than ambient noise levels currently occurring within the project area. Construction activities adjacent to potential habitat may cause wildlife to avoid the project area during those activities. Avoidance would be limited to the duration of construction.
- The proposed project will result in the direct loss of occupied prairie dog habitat. Impacts may be reduced by relocating individual prairie dogs outside the project limits in adjacent suitable habitat.
- The proposed project will result in the direct loss of a maternal bat colony habitat resulting from demolition of the existing bridges. Mortality to bats is expecting to be avoided with the implementation of mitigation measures, including exclusion prior to demolition and installation of new bat boxes on the new bridge structures.

10 Project Area Indirect Effects Analysis

Indirect effects are effects to species caused by the action, occurring later in time or farther removed in distance from the action, but still are reasonably foreseeable (CEQ 40 CFR 1508.8).

- Vegetation removal in the project area could result in a change in vegetation composition. The loss of suitable habitat would be offset by re-establishment of vegetation where the

existing bridge is located, following its removal as part of the proposed action. Shrubby riparian vegetation in this area would be expected to naturally regenerate in 3 to 5 years.

- There would be long-term potential for existing noxious weed infestations to spread or new noxious weed species to become established in disturbed areas associated with construction.

11 Action Area Direct and Indirect Effects Analysis

- Hydrologic flows in the active river channel would be altered from water diversion during construction of the new bridge and dismantling of the existing bridge. The proposed project may result in increased turbidity downstream of the project area during placement of the construction water diversion structures, which could impact water quality in the action area. Impacts from increased turbidity would be of short duration (during diversion installation) and low intensity. There would also be the potential for accidental spills of industrial materials or petrochemicals; however, installation of stream-diversion structures to isolate the construction area and BMPs would be implemented to minimize impacts from sediment or chemical transfer.
- Conditions that may affect special status and non-listed species outside the project area include fugitive dust, exhaust fumes, elevated noise, and other disturbance from construction activities that have the potential to extend up to 0.5 miles from the project footprint. These impacts would be short term and BMPs would be implemented to minimize impacts.
- Elevated turbidity in the active river channel may occur downstream in the action area as a result of construction activity within the OHWM of the Rio Grande. These impacts would be short term and BMPs would be implemented to minimize impacts.
- Due to displacement of bats within the project area, bat use at other Rio Grande bridge crossings upstream and downstream would be expected to increase during pre-construction exclusion, demolition of the old bridges, and construction of new bat boxes on the new bridges.

12 Measures for Avoidance, Minimization, and Mitigation

The following are measures to avoid, minimize, and/or mitigate project impacts identified in previous sections:

- Waters of the U.S. would be directly affected by the project and permit coverage under Sections 404 and 401 of the CWA would be required prior to construction.

- Prior to commencement of construction, a CWA Compliance Work Plan would be developed by the Construction Contractor and reviewed and approved by NMDOT. The Plan would include all measures necessary to comply with the CWA Section 404 permit and Section 401 Water Quality Certification conditions.
- Prior to commencement of construction, an Aquatic Spill Prevention and Containment Plan would be developed by the Construction Contractor and reviewed and approved by NMDOT. The plan would outline the type of equipment to be used and measures for spill containment.

Monarch Butterfly

- If monarch butterflies are observed roosting in trees marked for removal between March 2 and December 1, those trees will not be cut down until monarch butterflies have vacated the immediate area.

Rio Grande Silvery Minnow

- Installation and removal of water diversion platforms within the active river channel would not occur during the RGSM spawning season from April 1 to September 30, during the expected spawning period.
- Work activities within the active river channel and MRGCD irrigation ditches would be performed during the base flow conditions for this reach, which on average occur from September or October through early March.
- Water flow in the river would be temporarily diverted during construction to minimize downstream transport of sediment and to prevent RGSM from being present in the active river channel work zone at this location.
  - No more than 50% of the river channel will be obstructed at any one time by dewatering measures, and all heavy equipment will be protected and/or evacuated from flooding to avoid waterway contamination.
- To mitigate for loss of critical habitat, the NMDOT will complete a one-time purchase of 500 acre-foot of "new" water to be used at the timing discretion of the USFWS toward the conservation and recovery of the species. NMDOT leadership has already programmed funding for carrying out this mitigation commitment. NMDOT is developing a source/broker plan and a water delivery process that will be provided to USFWS for review in the future after the final Biological Opinion is issued.
  - Information provided by the USFWS indicates that a Rio Grande Silvery Minnow spawning pulse requires 1,500-acre foot to produce acceptable spawning conditions, and thus the District's proposed 500-acre foot is 1/3 of the needed spawning pulse is more than adequate mitigation for the installation of bridge piers in critical habitat.
- If isolated pools form in the active river channel or floodplain after large precipitation events during construction, the USFWS entrapment/salvage protocol for RGSM identified in the Biological Opinion would be followed by NMDOT personnel or their authorized contractor.

Dewatering using a non-erodible rock platform is preferred to prevent stranding minnows behind the diversion barrier. If coffer dams are used, the NMDOT Contractor will be required to rescue/collect any minnows that become stranded behind the diversion barrier.

Southwestern Willow Flycatcher

- Vegetation removal in the active and historical floodplains will occur outside the SWFL migration and nesting seasons (May 1 – August 31).
- To mitigate for loss of SWFL habitat, NMDOT will seek a partnership with an agency having existing or future planned restoration projects within the Middle Rio Grande to replace habitat impacts at a 3:1 ratio to include a combination of on- and off-site riparian tree plantings that are suitable for SWFL.
- The riverbank slopes and active floodplain would be recontoured to pre-construction conditions at the end of construction.

Yellow-billed cuckoo

- Vegetation removal in the active and historical floodplains will occur outside the YBCU migration and nesting seasons (June 1 – August 31).
- To mitigate the loss of YBCU habitat, NMDOT will seek a partnership with an agency having existing or future planned restoration projects within the Middle Rio Grande to replace habitat impacts at a 3:1 ratio to include a combination of on- and off-site riparian tree plantings that are suitable for YBCU.
- The riverbank slopes and active floodplain would be recontoured to pre-construction conditions at the end of construction.

Bats (All species):

- A pre-construction bat survey may be necessary to determine if the bridge is being used by bats for roosting. The survey should be conducted prior to March 1.
- Bat exclusion measures would be installed on the bridges in the fall outside the bat breeding season for 1 to 2 years prior to construction.
- Bat boxes will be installed on the new bridge in accordance with standard NMDOT specifications and as shown on the project plan set. The number of new bat boxes will be based on colony numbers ranging between 8,000 and 16,000 and recommendations from bat specialist RD Wildlife.

Migratory Birds:

- Construction activities would need to comply with MBTA at all times.
    - Any vegetation removal during the migratory bird breeding season (March 15 – September 15) would be preceded by a pre-construction bird survey up to four weeks prior to the removal.
- Any occupied nests (i.e., containing eggs or juvenile birds) would need to be avoided until juvenile birds have fledged from their nests. If nest avoidance is not feasible and

removal/relocation must occur, a USFWS permit would be required and construction activities suspended while the process for nest relocation or removal is coordinated between the NMDOT and USFWS.

- Implementing and maintaining swallow nest prevention or exclusion measures (e.g., bird netting or daily removal of nest building attempts) prior to the seasonal onset of bird nesting activity to prevent nesting on the bridge substructure is recommended.

General:

- Revegetation of the project area would occur after construction is complete. Any disturbed areas not overlain with pavement would be reseeded with weed-free, native seed mixes following the completion of construction in accordance with NMDOT standard specifications.
- The Contractor should wash machinery prior to its arrival at the project site to prevent the introduction and spreading of noxious weeds into the project area from other locations.
- The project would result in more than 1 acre of ground disturbance; therefore, a SWPPP would be prepared in accordance with the provisions of the EPA's National Pollutant Discharge Elimination System Construction General Permit.
- Appropriate temporary erosion and sediment control measures (e.g., silt fences, hay bales, mulch socks) will be developed as the project design advances and implemented prior to construction to minimize any potential sediment erosion or runoff pollution from stormwater leaving the project area.
- Temporary dredged river soils would be stored outside of the immediate floodplain to prevent accidental release of a large sediment load in the event of a high flow event.
- Construction equipment would be refueled and stored outside of the Rio Grande floodplain. All heavy equipment would be inspected on a daily basis for leaks and leaking equipment should not be used in or near any watercourse.
- All demolition and concrete work will be contained to avoid entry into the waterway. Construction plans would include provisions to protect the Rio Grande during bridge removal, including measures to prevent material, equipment, and debris from falling into the water.
- Any prairie dogs occupying habitat within the project limits would be trapped and relocated outside the project area prior to construction.
- A pre-construction meeting between the NMDOT Project Manager, the NMDOT Environmental Bureau and the Contractor's Project Manager is recommended to review all BMPs and ensure all personnel working on the project (Contractor and NMDOT) would be informed of listed species and the importance of avoiding and/or protecting their habitats.
- The City of Albuquerque Open Space has requested an on-site pre-construction meeting between the NMDOT Project Manager and the Contractor's Project Manager prior to removing cottonwood trees in the park. The purpose of the meeting will be to identify and clearly mark cottonwood trees needing to be removed and those that can remain.

13 Conclusion

The proposed project would permanently impact an area consisting of the existing bridge structure, riparian vegetation, open water, dirt access roads and parking, and trails for construction of the new bridge and demolition of the existing bridge. Following construction, 2.9 acres in the project limits would be revegetated to reestablishing riparian vegetation on-site, which would include 2 acres of re-seeding with a native seed mix, 1 acre of willow pole plating, and 1 acre of cottonwood pole planting. Construction activities on the existing and new bridge would occur year-round; however, work within the active river channel (i.e., installation and removal of diversion platforms) would be restricted to occur during baseflow conditions. It is not feasible for NMDOT to restrict construction from occurring during the migratory bird nesting season.

No state-listed or federal-listed species were observed or detected during the field survey; however, it is anticipated that RGSM occupy the Rio Grande in the project area. Formal Section 7 consultation with the USFWS is necessary based on potential impacts to the RGSM and its designated critical habitat.

The proposed action may affect, and is likely to adversely affect RGSM and its designated critical habitat. Hydrologic flows in the active river channel would be altered from water diversion during construction of the new bridge and dismantling of the existing bridge. The new concrete pier foundations would displace potential inundation habitat for RGSM while removal of the existing bridge pier foundations would return previously lost inundation habitat. Specifically, it is estimated that the project would result in loss of approximately 0.03 acre of designated critical habitat for the installation of new piers and restoration of approximately 0.06 acre of designated critical habitat by the removal of the existing bridge piers. The project, as currently proposed, would result in fewer piers in the river than the existing bridge. Work activities within the active river channel and MRGCD irrigation ditches would be performed during the base flow conditions for this reach from September or October to early March, and installation and removal of water diversion platforms would not occur in the active river channel from April 1 – September 30. Moreover, NMDOT will purchase 500 acre-feet of "new" water to be used at the timing discretion of the USFWS toward the conservation and recovery of the species.

The proposed action may affect, and is likely to adversely affect SWFL and YBCU. Both species are known to occur within the project area and nest within 0.5 miles of the project. Approximately 3.86 acres of moderately suitable habitat for SWFL and YBCU are present in the project area. To mitigate for habitat loss, NMDOT will seek a partnership with an agency having existing or future planned restoration projects within the Middle Rio Grande to replace habitat impacts at a 3:1 ratio to include a combination of on- and off-site riparian tree plantings that are suitable for SWFL and YBCU. No vegetation removal would occur during the migration and nesting seasons for these species (May 1/June 1 – August 31).

Additionally, there is suitable habitat for peregrine falcon, bald eagle, Bell's vireo, broad-billed hummingbird, common black hawk, neotropic cormorant, spotted bat, and monarch butterfly in the project area. The proposed project is not expected to contribute to a trend towards federal listing or cause a loss of viability to these species' populations.

There were several active and old cliff swallow nests observed underneath the NM 500 bridge, and several cliff swallows were observed flying underneath the bridge. No other bird nests were observed in the project area at the time of the survey. Suitable nesting habitat in the project area will be removed during construction.

Multiple bat species were detected occupying the NM 500 bridge during the 2022 bat survey. The existing bridge elements provide breeding and roosting habitat to bats. Bat boxes will be installed to offset habitat loss, and bat exclusion devices will be installed prior to construction.

A prairie dog colony was observed in the NM 500 ROW east of the bridge. Any prairie dogs occupying habitat within the project limits would be live-trapped and relocated outside the project area prior to construction by a licensed wildlife removal vendor.

Construction noise levels would not likely be substantially higher than ambient noise levels currently experienced within the project area. Construction activities adjacent to potential habitat may cause wildlife to avoid the project area during those activities. Avoidance would be limited to the duration of construction.

Work within the Rio Grande would require Clean Water Act permitting. It is expected that the project could be authorized under Nationwide Permit 14 with a Pre-Construction Notification and a state water quality certification. Work at the levees will require Section 408 permitting through USACE.

Three New Mexico Class C noxious weed species were observed throughout the project area: saltcedar, Russian olive, and Siberian elm.

14 Report Preparers and Certification

Within the limitations of schedule, budget, and scope of work, WSP warrants that this evaluation was conducted in accordance with accepted environmental science practices, including the technical guidelines, evaluation criteria, and species' listing status in effect at the time this evaluation was performed, as outlined in the species evaluation.

The results and conclusions of this report represent the best professional judgment of WSP scientists and are based on information provided by the project proponent and on information obtained from agencies and other sources during the course of the study. No other warranty, expressed or implied, is made.

Report Author: _Joanna Franks, Biologist__3/22/2024___

Report QA/QC : __Jennifer Hyre, Director Environmental Planning__3/22/2024___

15 References

Bestgen, K. R., and S. P. Platania. 1991. Status and conservation of the Rio Grande silvery minnow, Hybognathus amarus. The Southwestern Naturalist 36: 225-232.

BISON-M. 2017a. Baird's Sparrow Species Booklet. Accessed on October 25, 2017 at http://bison-m.org/booklet.aspx?id=041785.

BISON-M. 2017b. Yellow-billed cuckoo, Western Population Species Booklet. Accessed on October 25, 2017 at http://bison-m.org/booklet.aspx?id=040250

Buehler, D. A. 2022. Bald eagle (*Haliaeetus leucocephalus*). In P. G. Rodewald (ed.), The Birds of North America online. Cornell Laboratory of Ornithology, Ithaca, New York. Retrieved from: https://birdsna.org/Species-Account/bna/species/baleag. Accessed February 9, 2023.

Cary S.J. and L.S. DeLay. 2016. Monarch Butterfly (*Danaus Plexippus*) in New Mexico and a Proposed Framework for its Conservation. *Natural Resources Institute.*

Dudley, R. K., S. P. Platania, and G. C. White. 2020. Rio Grande silvery minnow population monitoring during 2019. Submitted to the U.S. Bureau of Reclamation, Albuquerque, New Mexico.

Dudley, R. K., S. P. Platania, and G. C. White. 2021. Rio Grande silvery minnow population monitoring during September 2021. Submitted to the U.S. Bureau of Reclamation, Albuquerque, New Mexico.

eBird. 2021. eBird: an online database of bird distribution and abundance [web application]. eBird, Ithaca, New York. Available at: http://www.ebird.org. Accessed: February 9, 2023.

Federal Emergency Management Agency (FEMA). 2023. Floodplain Flood Insurance Rate Map online mapper. Available at: https://msc.fema.gov/portal/search. Accessed October 2023.

Foltz, R. B., K. A. Yanosek, and T. M. Brown. 2008. Sediment Concentration and Turbidity Changes During Culvert Removals. Journal of Environmental Management 87(2008): 329-340.

Grebence, B. L. and C. M. White. 1989. Physiographic characteristics of peregrine falcon nesting habitat along the Colorado River system in Utah. Great Basin Nat. 49:408-418.

Griffith, G. E., J. M. Omernik, M. M. McGraw, G. Z. Jacobi, C. M. Canavan, T. S. Schrader, D. Mercer, R. Hill, and B. C. Moran, 2006, Ecoregions of New Mexico (color poster with map, descriptive text, summary tables, and photographs): Reston, Virginia, U.S. Geological Survey (map scale 1:1,400,000).

Halterman, M., M. J. Johnson, J. A. Holmes, and S. A. Laymon. 2015. A Natural History Summary and Survey Protocol for the Western Distinct Population Segment of the Yellow-billed Cuckoo. U.S. Fish and Wildlife Techniques and Methods. 45p.

Hughes, J.M. 2015. Yellow-billed Cuckoo (*Coccyzus americanus*), version 2.0. In The Birds of North America (P. G. Rodewald, editor). Cornell Lab of Ornithology, Ithaca, New York, USA. https://doi.org/10.2173/bna.418. Accessed February 9, 2023.

Luce, R. J. and Keinath, D. 2007. Spotted Bat (*Euderma maculatum*): a technical conservation assessment. [Online] USDA Forest Service, Rocky Mountain Region. Available at: http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5181916.pdf. Accessed February 9, 2023.

Moore, D. 2020a. 2019 Middle Rio Grande Southwestern Willow Flycatcher Study Results – Selected Sites Along the Rio Grande from San Acacia Diversion Dam to Elephant Butte Reservoir, New Mexico. Bureau of Reclamation, Technical Service Center, Fisheries and Wildlife Resources. Denver, CO.

----------. 2020b. Yellow-billed Cuckoo Study Results 2019 – Middle Rio Grande from San Acacia to Elephant Butte Reservoir, New Mexico. Bureau of Reclamation, Technical Service Center, Fisheries and Wildlife Resources. Denver, CO.

Natural Resources Conservation Service, United States Department of Agriculture (NRCS). 2021. Web Soil Survey. Available online at https://websoilsurvey.nrcs.usda.gov/. Accessed February 9, 2023.

NatureServe. 2023. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia. Available at http://explorer.natureserve.org. Accessed February 9, 2023.

New Mexico Department of Agriculture. (NMDA). 2020. Noxious Weeds. Available at https://nmdeptag.nmsu.edu/apr/noxious-weeds.html. Accessed on February 9, 2023.

New Mexico Department of Game and Fish. (NMDGF). 2023. Threatened and endangered species of New Mexico. Available at https://bison-m.org/BisonReportView.aspx. Accessed February 9, 2023.

New Mexico Energy, Minerals, and Natural Resources Department New Mexico State Forestry Division (EMNRD). 2020. New Mexico State Endangered Plant Species. Available online: https://www.emnrd.nm.gov/sfd/wp-content/uploads/sites/4/Weed-List-memo-and-weed-list-2020-1.pdf. Accessed on February 9, 2023.

New Mexico Rare Plant Technical Council. 1999. New Mexico Rare Plants. Albuquerque, NM: New Mexico Rare Plants Home Page. https://nmrareplants.unm.edu (Latest update: 13 Feb 2023).

Powers, Donald R. and Susan M. Wethington. 1999. Broad-billed Hummingbird (*Cynanthus latirostris*), version 2.0. In The Birds of North America (P. G. Rodewald, editor). Cornell Lab of Ornithology, Ithaca, New York, USA. https://doi.org/10.2173/bna.430. Accessed on October 23, 2017.

Propst, D. L. 1999. Threatened and endangered fishes of New Mexico. Tech. Rpt. No. 1. New Mexico Department of Game and Fish, Santa Fe, NM. 84 pp.

Schnell, J. H. 1994. Common Black Hawk (*Buteogallus anthracinus*), version 2.0. In The Birds of North America (P. G. Rodewald, editor). Cornell Lab of Ornithology, Ithaca, New York, USA.

Sogge, M., D. Ahlers, and S. Sferra. 2010. A natural history summary and survey protocol for the southwestern willow flycatcher. United States Geological Survey Techniques and Methods 2A-10, 38 pp.

Stahlecker, D. 2009. Status of breeding bald eagles in New Mexico: 2009. Prepared for New Mexico Department of Game and Fish. 7 pp.

Telfair II, R. C., and M. L. Morrison. 2005. Neotropic Cormorant (*Phalacrocorax brasilianus*), version 2.0. In The Birds of North America (P. G. Rodewald, editor). Cornell Lab of Ornithology, Ithaca, New York, USA. Available at: https://doi.org/10.2173/bna.137. Accessed: February 9, 2023.

U.S. Army Corps of Engineers (USACE). 1987. U.S. Army Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1. Vicksburg, Mississippi: U.S. Army Engineers Waterways Experiment Station Environmental Laboratory.

----------. 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West (Version 2.0). ERDC/EL TR-08-28.

----------. 2008. A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States: A Delineation Manual. ERDC/EL TR-08-12. Vicksburg, Mississippi: USACE, Engineer Research and Development Center.

U.S. Fish and Wildlife Service (USFWS). 1995. Recovery plan for the Mexican spotted owl. Vol. I. Albuquerque, New Mexico. 172 pp.

---------. 2002. Final Recovery Plan for Southwestern Willow Flycatcher (*Empidonax traillii extimus*). Prepared by Southwestern Willow Flycatcher Recovery Team, Technical Subgroup. Region 2 U.S. Fish and Wildlife Service. Albuquerque, NM. 229 pp

---------. 2003. Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the Rio Grande Silvery Minnow, final rule. Federal Register 68:8088–8135.

----------. 2010. Rio Grande Silvery Minnow (*Hybognathus amarus*) Recovery Plan, First Revision. Albuquerque, New Mexico. 210 pp.

----------. 2013. Endangered and Threatened Wildlife and Plants: Designation of Critical Habitat for the New Mexico Meadow Jumping Mouse; Listing Determination for the New Mexico Meadow Jumping Mouse; Proposed Rules. *Federal Register* Vol 78, No 119.

---------. 2014a. Designation of Critical Habitat for the Western Distinct Population Segment of the Yellow-billed Cuckoo: Proposed Rule. *Federal Register*. Vol. 79, No. 158.

---------. 2014b. Southwestern Willow Flycatcher (*Empidonax traillii extimus*). 5-Year Review: Summary and Evaluation. U.S. Fish and Wildlife Service, Arizona Ecological Services, Phoenix, Arizona. 104 pp

--------. 2023a. IPaC – Information for Planning and Consultation Generated from: https://ecos.fws.gov/ipac/Consultation Code 02ENNM00-2017-SLI-0059. Accessed February 2023

--------. 2023b. National Wetlands Inventory. https://www.fws.gov/program/national-wetlands-inventory/wetlands-mapper. Accessed February 2023.

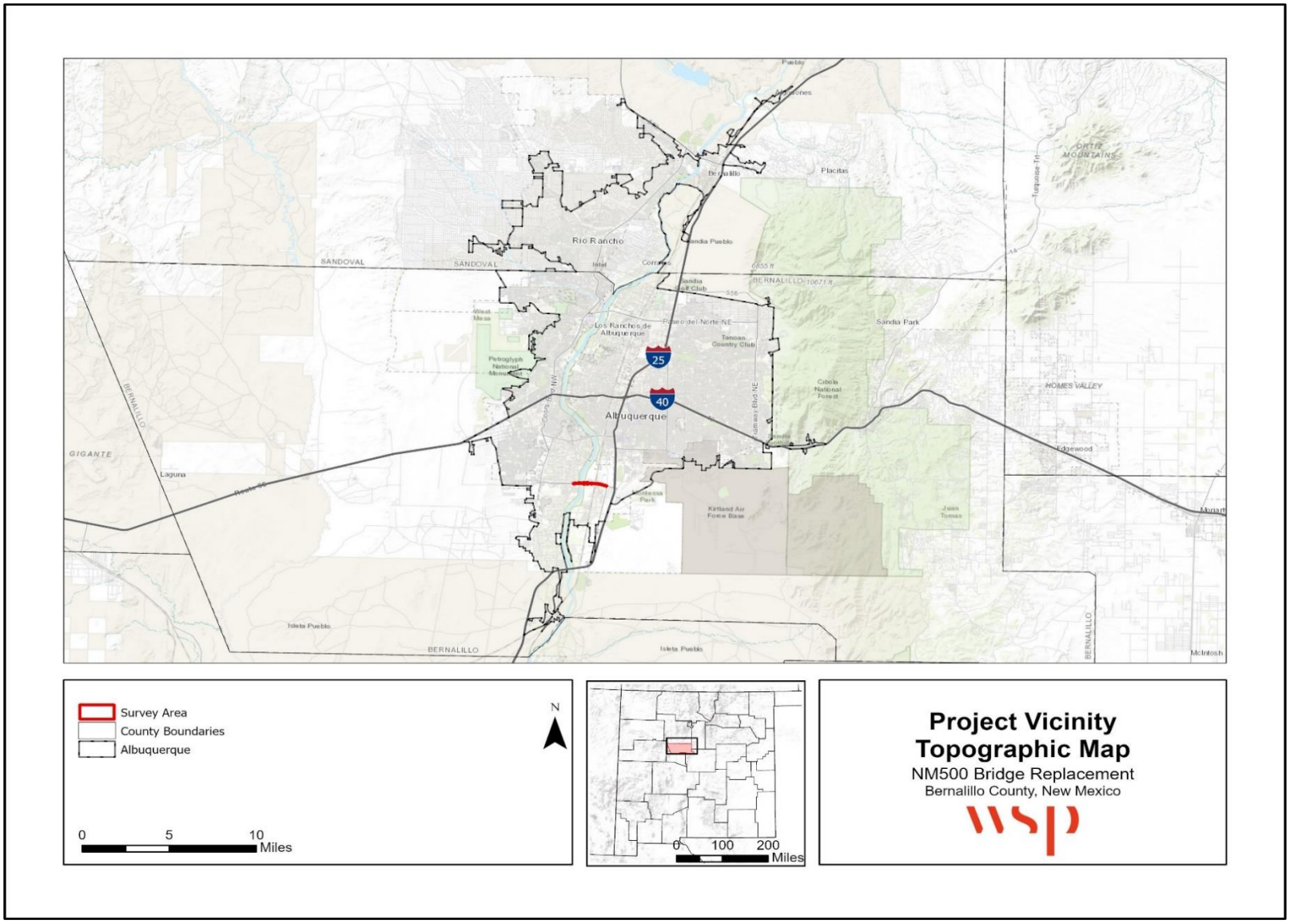
U.S. Geological Society (USGS). 2023. National Hydrography Database. Available at: https://viewer.nationalmap.gov/basic/?basemap=b1&category=nhd&title=NHD%20View. Accessed May 2023

Western Bat Working Group. 2005. Species accounts developed for the 1998 Reno biennial meeting updated at the 2005 Portland biennial meeting. Euderma maculatum spotted pat. Online at http://relicensing.pcwa.net/documents/Library/PCWA-L%20546.pdf.

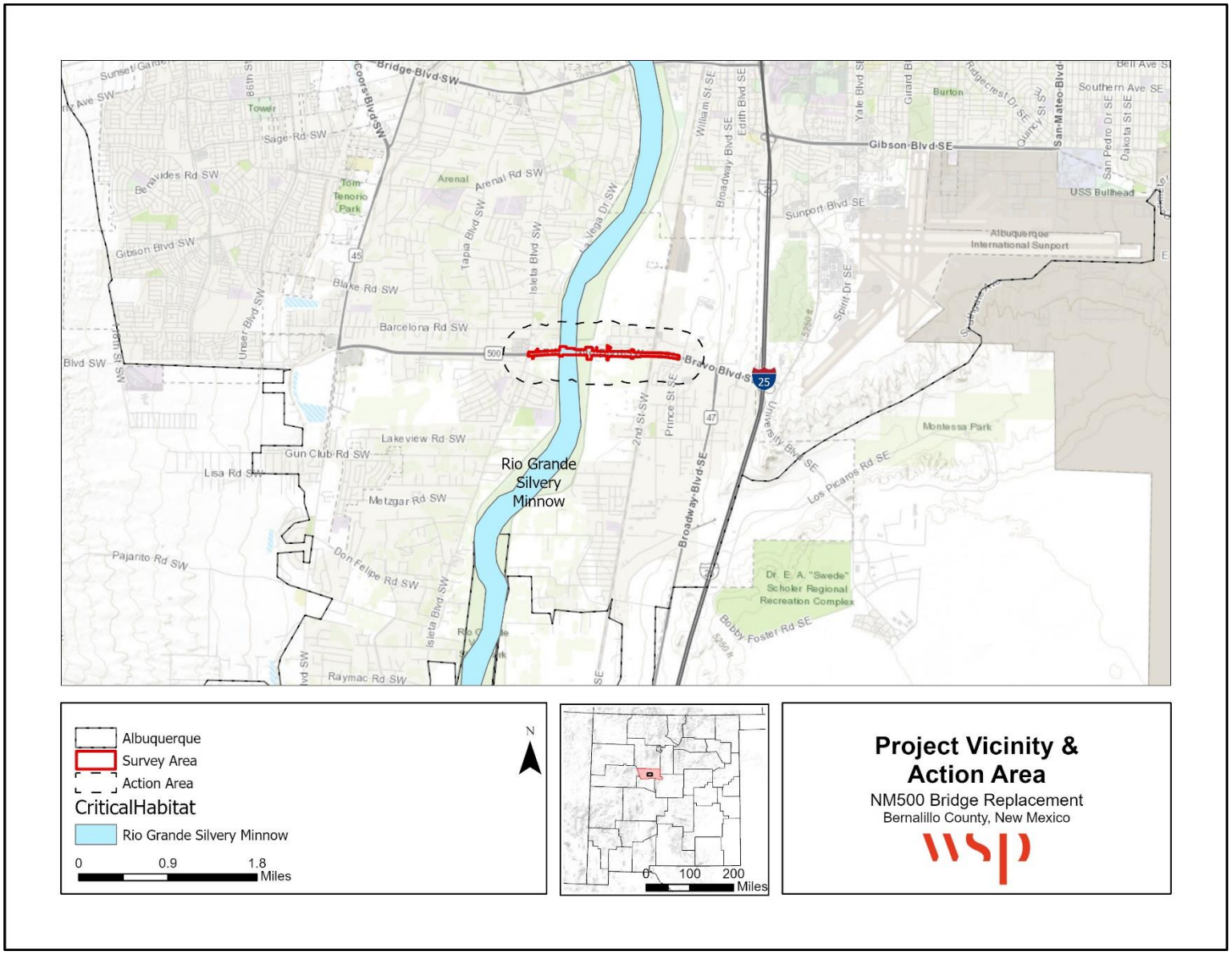
Western Regional Climate Center. 2022. Albuquerue International Airport, New Mexico. Available at: https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?nm0234. Accessed February 9, 2023.

White, C. M., N. J. Clum, T. J. Cade and W. G. Hunt. 2002. Peregrine falcon (*Falco peregrinus*), the birds of North America online (A. Poole, ed.). Ithaca: Cornell Lab of Ornithology; retrieved from the birds of North America online: http://bna.birds.cornell.edu/bna/species/660

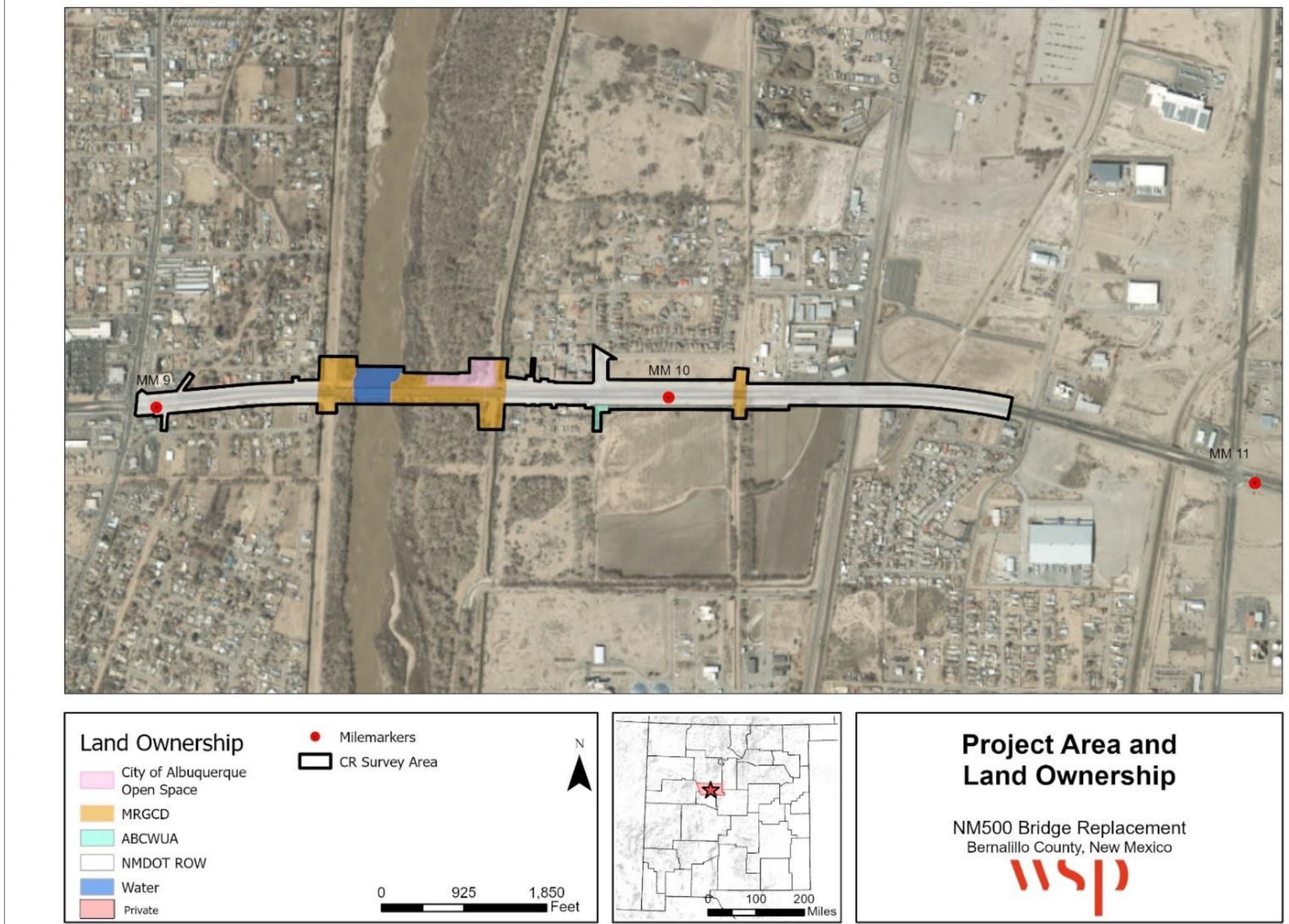
Appendix A Project Maps



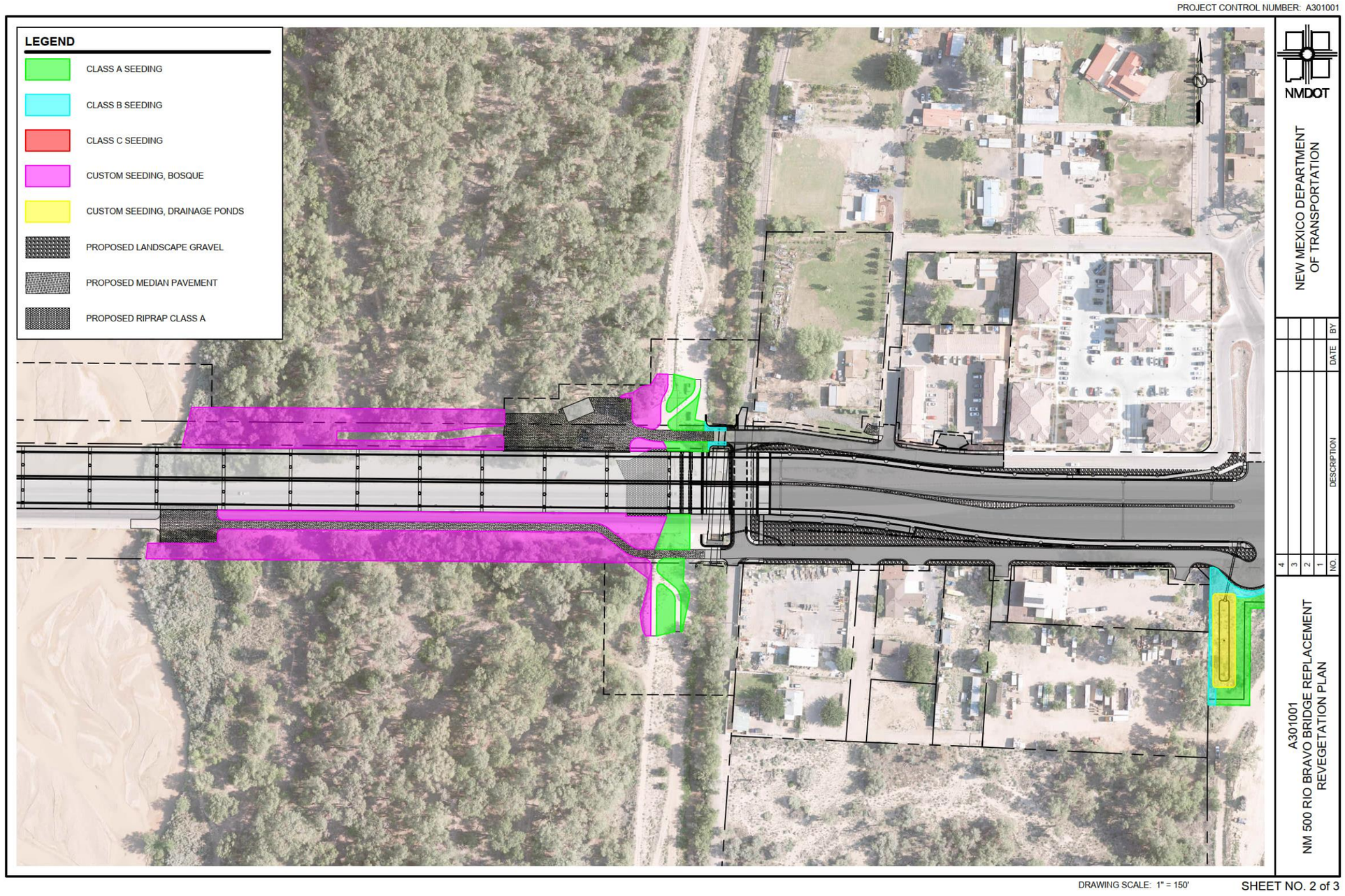
Map A-1. NM 500 Bridge Project Vicinity Map



Map A-2. Project and Action Area Vicinity Map with Critical Habitat



Map A-3. NM 500 Project Area and Land Ownership



Map A-5. NM 500 Revegetation Plan East Bank of River (Riparian Area in Pink)

PROJECT CONTROL NUMBER: A301001

LEGEND

- CLASS A SEEDING
- CLASS B SEEDING
- CLASS C SEEDING
- CUSTOM SEEDING, BOSQUE
- CUSTOM SEEDING, DRAINAGE PONDS
- PROPOSED LANDSCAPE GRAVEL
- PROPOSED MEDIAN PAVEMENT
- PROPOSED RIPRAP CLASS A

SEEDING TYPE	TOTAL AREA (ACRE)	REMARKS
CLASS A SEEDING	5.80	CONSTRUCTION AND SEEDING MIX PER SPECIAL PROVISON SECTION 632
CLASS B SEEDING	0.30	CONSTRUCTION AND SEEDING MIX PER SPECIAL PROVISON SECTION 632
CLASS C SEEDING	0.50	CONSTRUCTION AND SEEDING MIX PER SPECIAL PROVISON SECTION 632
CUSTOM SEEDING, BOSQUE	2.90	CONSTRUCTION SPECIFICATIONS AND SEEDING MIX TO BE DEVELOPED IN COORDINATION WITH MRGCD, COA OPEN SPACE, AND US FISH & WILDLIFE
CUSTOM SEEDING, DRAINAGE PONDS	1.40	CONSTRUCTION SPECIFICATIONS AND SEEDING MIX TO BE DEVELOPED BY NMDOT ENVIRONMENTAL BUREAU

NMDOT

NEW MEXICO DEPARTMENT OF TRANSPORTATION

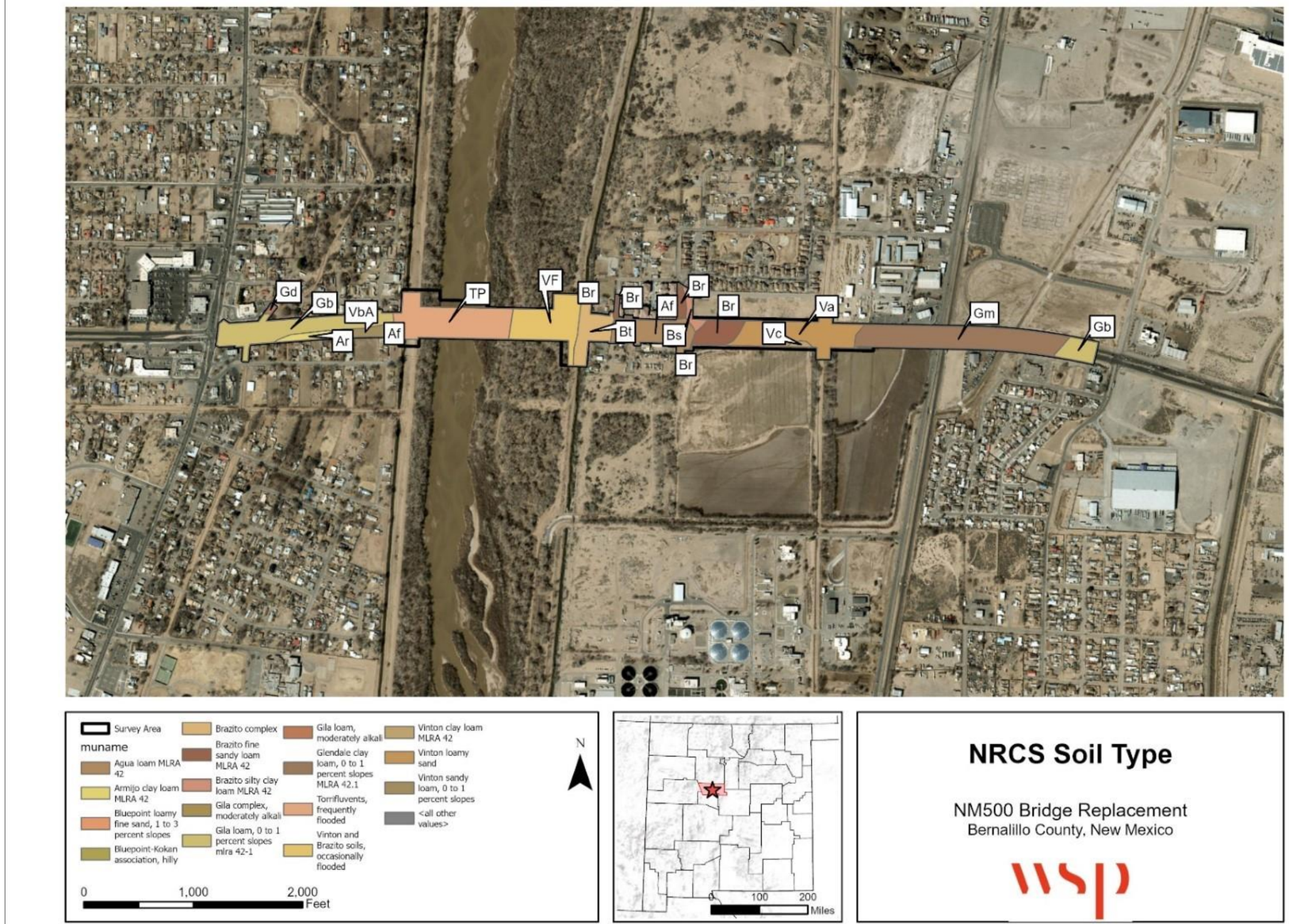
NO.	DESCRIPTION	DATE	BY
1			
2			
3			
4			

A301001
NM 500 RIO BRAVO BRIDGE REPLACEMENT
REVEGETATION PLAN

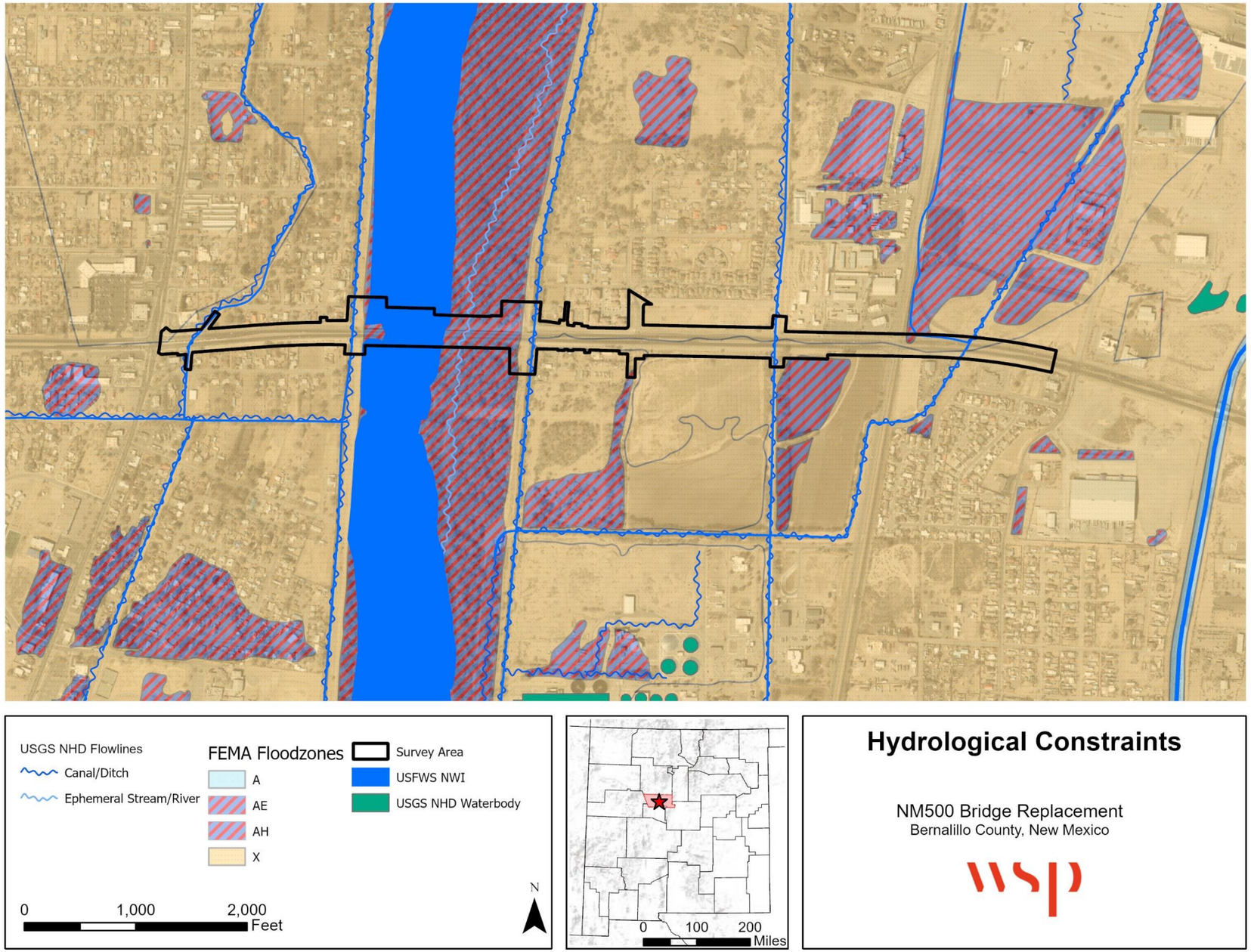
DRAWING SCALE: 1" = 150'

SHEET NO. 1 of 3

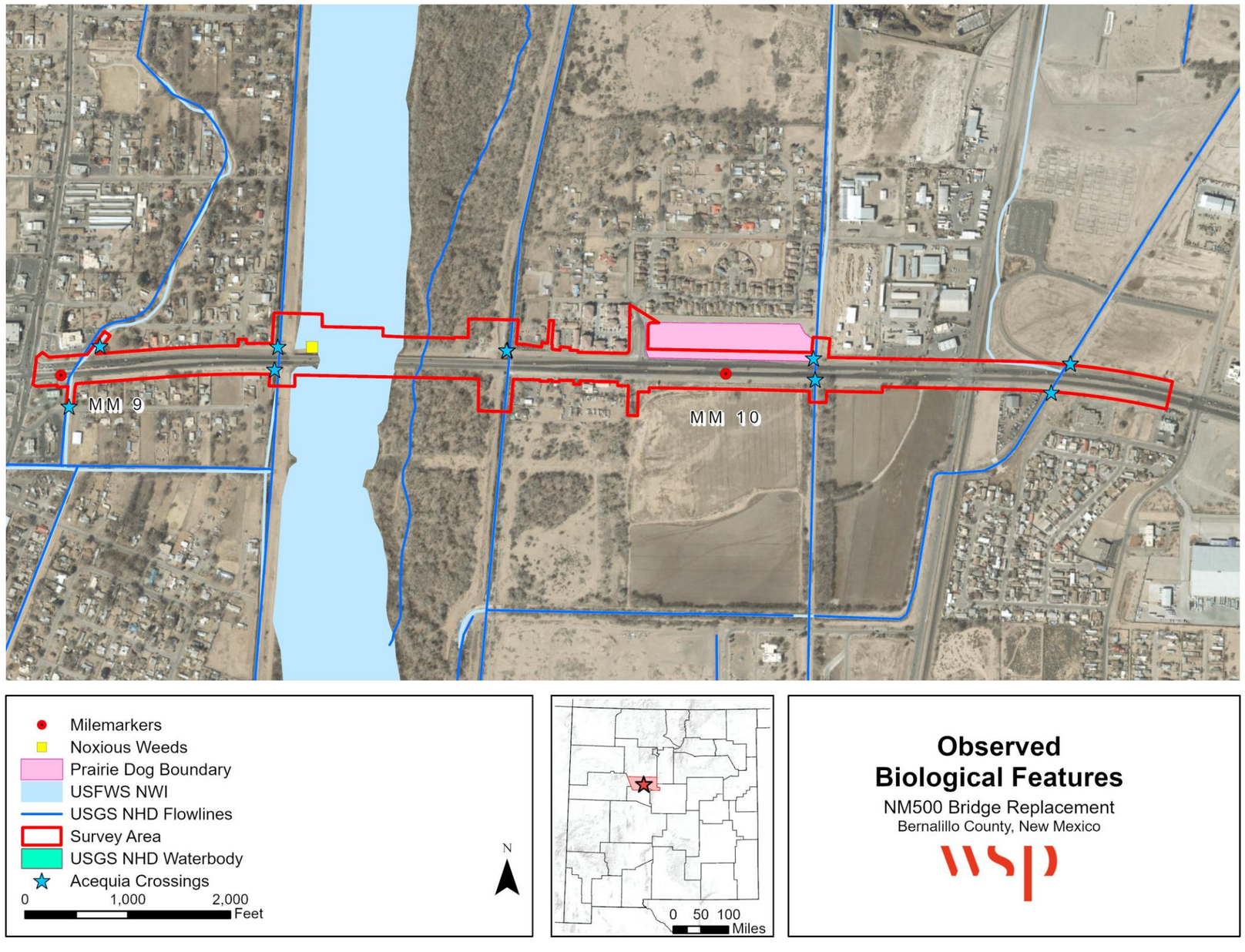
Map A-5. NM 500 Revegetation Plan West Bank of River (Riparian Area in Pink)



Map A-6. NM 500 NRCS Soil Types



Map A-7. NM 500 Mapped Hydrology



Map A-8. NM 500 Observed Biological Features

Appendix B Federal and State Species Lists

Federal or State Threatened/Endangered Species
Bernalillo

Taxonomic Group	# Species	Taxonomic Group	# Species
Birds	15	Fish	1
Lepidoptera; moths and butterflies	1	Mammals	2

TOTAL SPECIES: 19

Common Name	Scientific Name	NMGF	US FWS	Critical Habitat	SGCN	Photo
Spotted Bat	Euderma maculatum	T			Y	View
Meadow Jumping Mouse	Zapus luteus luteus	E	E	Y	Y	View
Yellow-billed Cuckoo (western pop)	Coccyzus americanus occidentalis		T	Y	Y	View
Broad-billed Hummingbird	Cynanthus latirostris	T			Y	View
White-eared Hummingbird	Basilinna leucotis	T				View
Least Tern	Sternula antillarum	E			Y	View
Neotropic Cormorant	Phalacrocorax brasilianus	T			Y	View
Brown Pelican	Pelecanus occidentalis	E				View
Bald Eagle	Haliaeetus leucocephalus	T			Y	View
Common Black Hawk	Buteogallus anthracinus	T			Y	View
Mexican Spotted Owl	Strix occidentalis lucida		T	Y	Y	View
Aplomado Falcon	Falco femoralis	E	E		Y	View
Peregrine Falcon	Falco peregrinus	T			Y	View
Southwestern Willow Flycatcher	Empidonax traillii extimus	E	E	Y	Y	View
Bell's Vireo	Vireo bellii	T			Y	View
Gray Vireo	Vireo vicinior	T			Y	View
Baird's Sparrow	Centronyx bairdii	T			Y	View
Rio Grande Silvery Minnow	Hybognathus amarus	E	E	Y	Y	View
Monarch Butterfly	Danaus plexippus		C			View

2/9/2023 (E=Endangered, T=Threatened) Page 1 of 1

IPaC **U.S. Fish & Wildlife Service**

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Bernalillo County, New Mexico

Local office

New Mexico Ecological Services Field Office

(505) 346-2525
(505) 346-2542

2105 Osuna Road Ne

Albuquerque, NM 87113-1001

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
Mexican Wolf Canis lupus baileyi No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/3916	Endangered
Mexican Wolf Canis lupus baileyi No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/3916	EXPN
New Mexico Meadow Jumping Mouse Zapus hudsonius luteus Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/7965	Endangered

Birds

NAME	STATUS
Mexican Spotted Owl Strix occidentalis lucida Wherever found There is **final** critical habitat for this species. Your location overlaps the critical habitat. https://ecos.fws.gov/ecp/species/8196	Threatened
Southwestern Willow Flycatcher Empidonax traillii extimus Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/6749	Endangered
Yellow-billed Cuckoo Coccyzus americanus There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/3911	Threatened

Fishes

NAME	STATUS
Rio Grande Cutthroat Trout Oncorhynchus clarkii virginalis Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/920	Candidate
Rio Grande Silvery Minnow Hybognathus amarus There is **final** critical habitat for this species. Your location overlaps the critical habitat. https://ecos.fws.gov/ecp/species/1391	Endangered

Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

Flowering Plants

NAME	STATUS
Pecos (=puzzle, =paradox) Sunflower Helianthus paradoxus Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/7211	Threatened
Zuni Fleabane Erigeron rhizomatus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/5700	Threatened

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

This location overlaps the critical habitat for the following species:

NAME	TYPE
Mexican Spotted Owl Strix occidentalis lucida https://ecos.fws.gov/ecp/species/8196#crithab	Final
Rio Grande Silvery Minnow Hybognathus amarus https://ecos.fws.gov/ecp/species/1391#crithab	Final

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern https://www.fws.gov/program/migratory-birds/species
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Dec 1 to Aug 31
Bendire's Thrasher *Toxostoma bendirei* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9435	Breeds Mar 15 to Jul 31
Black Rosy-finch *Leucosticte atrata* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9460	Breeds Jun 15 to Aug 31
Black Swift *Cypseloides niger* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8878	Breeds Jun 15 to Sep 10
Black-chinned Sparrow *Spizella atrogularis* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9447	Breeds Apr 15 to Jul 31
Brown-capped Rosy-finch *Leucosticte australis* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jun 15 to Sep 15
California Gull *Larus californicus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 1 to Jul 31

Cassin's Finch Carpodacus cassinii This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9462	Breeds May 15 to Jul 15
Clark's Grebe Aechmophorus clarkii This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jun 1 to Aug 31
Clark's Nutcracker Nucifraga columbiana This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Jan 15 to Jul 15
Evening Grosbeak Coccothraustes vespertinus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 15 to Aug 10
Grace's Warbler Dendroica graciae This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds May 20 to Jul 20
Lesser Yellowlegs Tringa flavipes This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere
Lewis's Woodpecker Melanerpes lewis This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9408	Breeds Apr 20 to Sep 30
Long-eared Owl asio otus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3631	Breeds Mar 1 to Jul 15
Olive-sided Flycatcher Contopus cooperi This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3914	Breeds May 20 to Aug 31

Pinyon Jay Gymnorhinus cyanocephalus — Breeds Feb 15 to Jul 15
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9420

Virginia's Warbler Vermivora virginiae — Breeds May 1 to Jul 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9441

Western Grebe aechmophorus occidentalis — Breeds Jun 1 to Aug 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/6743

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.

3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

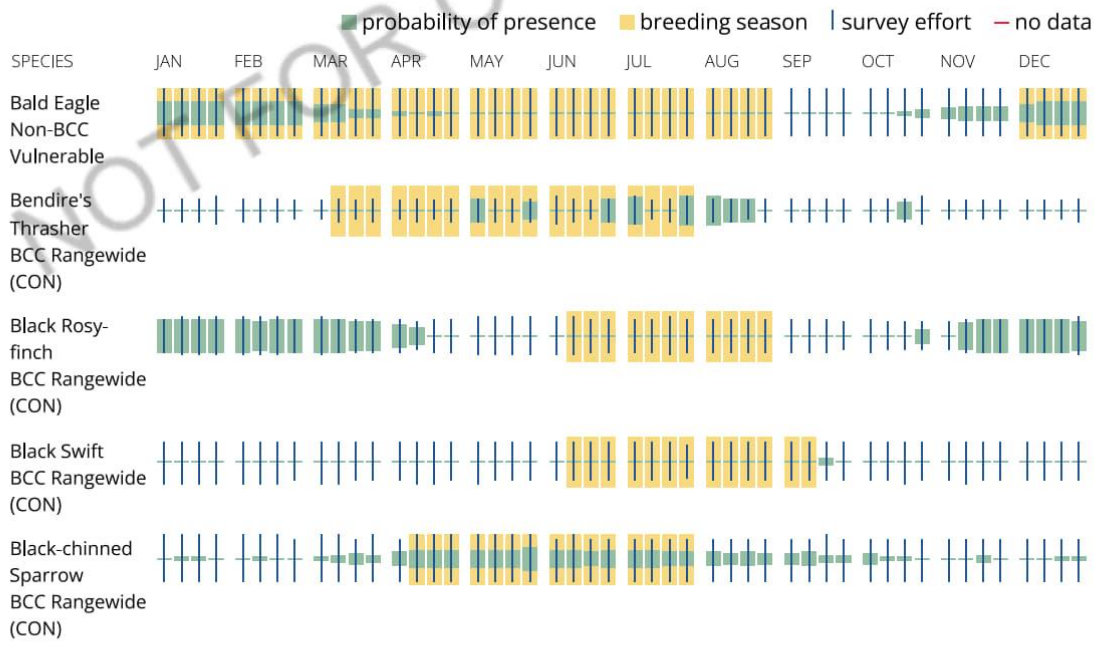
Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

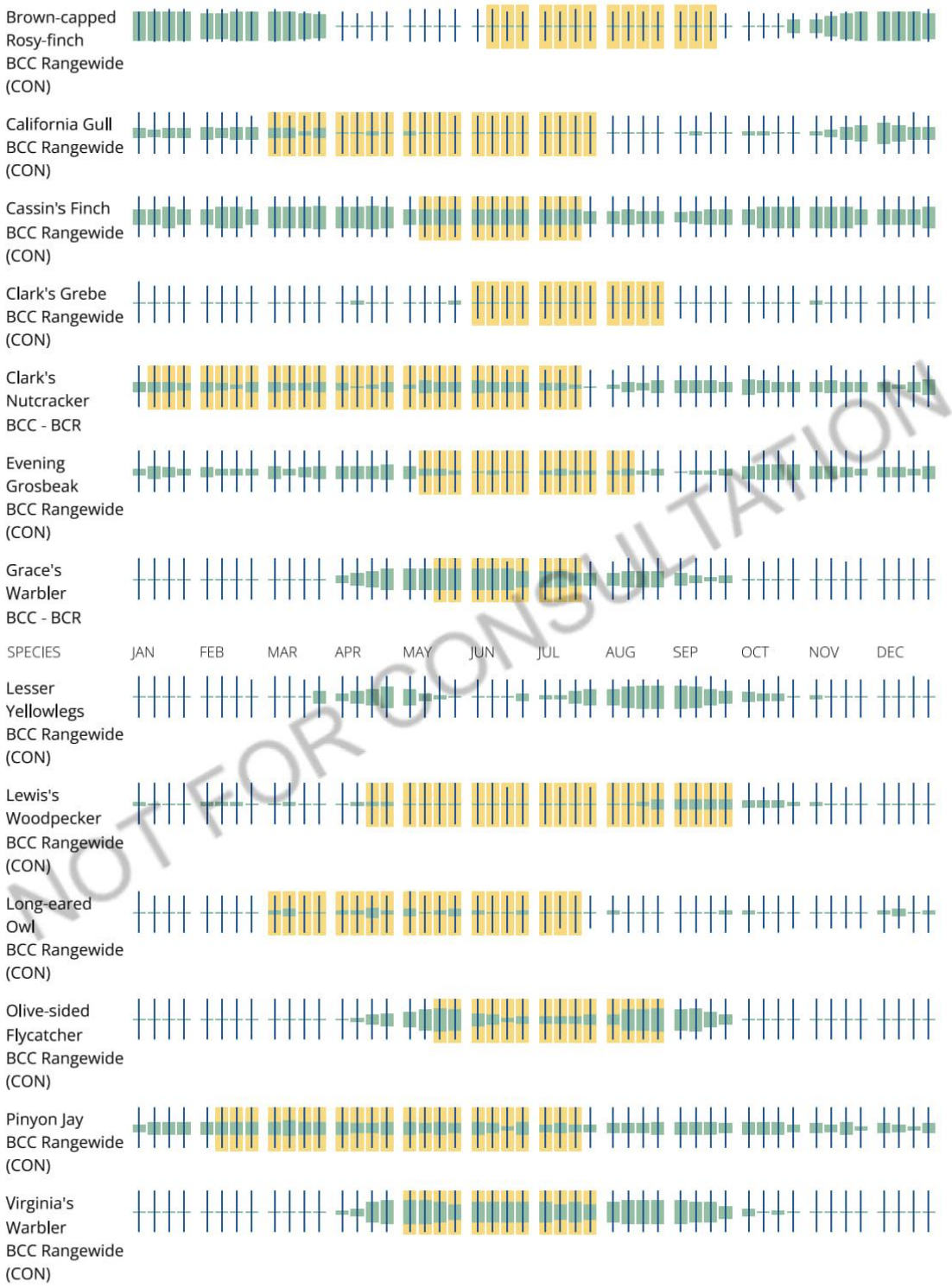
Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

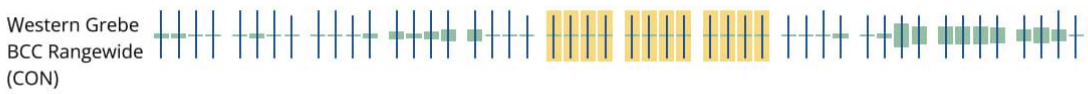
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.







Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird

on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is

the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

This location overlaps the following National Wildlife Refuge lands:

LAND	ACRES
VALLE DE ORO NATIONAL WILDLIFE REFUGE	489.51 acres

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

This location did not intersect any wetlands mapped by NWI.

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

Appendix C Bat Survey Report

NM 500 Rio Bravo Bridge

Bat Survey Report

RD Wildlife Management - Justin Stevenson (Primary) - August 18, 2022

Justin Stevenson
Owner, Primary Wildlife Biologist
RD Wildlife Management
223 NM 50
Glorieta, NM 87031

Prepared for:

Joanna Franks
Senior Environmental Planner - WSP

Documented Bat Activity

The Rio Bravo Bridge over the Rio Grande is one we have surveyed many times over the last decade for bats. The bridge is unique in the Albuquerque area for just how many portions of the bridge structure bats are utilizing during the bulk of each calendar year. Knowledge of the upcoming replacement of this bridge has existed for many years now and as the planning phases continue toward that end, we hope the information shared within this document will serve as guidance resulting in the conservation of the bats currently utilizing the old bridge structure.

The primary roosting location for bats within the Rio Bravo Bridge structure is within the expansion joint between east and westbound portions of the bridge. Bat use is heavy throughout all portions over dry land, and the 5-6 spans over the water at any given time are likely also thoroughly utilized, though due to water access has till now been prohibited.

Additionally, bats have been found through this survey and previous years on site to utilize the north south oriented expansion joints over the support pier structures, living in large colonies in this part of the structure.

Maternity Colonies

Every single year for the last 6+ we have surveyed this bridge and others locally during maternity season, the time of year when bats are giving birth to bat pups. Throughout this time, we have identified the following species utilizing the NM 500 (Rio Bravo Bridge) for this purpose.

- Arizona myotis (*Myotis occultus*)
- Yuma myotis (*Myotis yumanensis*)
- Fringed myotis (*Myotis thysanodes*)
- Mexican free-tailed bat (*Tadarida brasiliensis*)

In terms of total quantity of each species of bat, it is difficult as always to get an exact count on the number of bats utilizing the bridge structure currently. Comfortable estimates of total bat occupancy would be in the neighborhood of 6-10,000 bats with larger numbers of myotis species in this bridge versus Mexican free-tailed bats that we find in most bridge structures.

There are thousands and thousands of returning female myotis species and Mexican free-tailed bat who return to the bridge each spring after hibernation in NM and begin gestation. In addition most of the species identified have the capacity to stay long into late fall, early winter before leaving to hibernate. It is essential for this reason to assure any exclusion done and mitigation be completed during the active time of year, to assure that being able to overwinter in the structure has been reduced down to the most limited amount of space, including the portions over the main river corridor over the water.

During the survey there were 5 support pier structures within the rivers main channel. In order to properly exclude the bridge pre demolition these areas would need to be excluded which will require particular access equipment and tactics. Without proper exclusion there will be great risk to bats during demolition and construction phases.

Additionally, there are thousands of cliff swallow nests on the bridge structure, bats are well documented as utilizing these nests when birds are not present, a critical planning point to make as often planners are focused on the protected federal bird species and when they are not around to remove nests before demolition. In our case, once the birds leave the bats pick up use and can actually be found mid winter inside mud nests across the state. In order to assure no mortality or lowest risks, each nest must be probed and removed in sequence across the structure. We have performed this work on the Los Lunas bridge and that work showed that nearly every single swallow "pot" had bat guano inside.



Summary:

Over the last decade our company has evaluated bridge roosting by bats across the bulk of the state of New Mexico. Without any question this NM 500 bridge is an important one, with more diversity of myotis species than any other we've seen in the Albuquerque area or outlying areas. With the planning phases still ongoing it would be essential to begin implementing bat exclusion as soon as budgets and planning coordination allow. With such a large structure and such an immense diverse group of bat species utilizing this bridge, using a seasonal approach to get ahead of the actual demolition phase is critical.

This survey report is touching on the exclusion necessary and the highlights, in order to fully deliver an exclusion plan and proposal some additional information would be needed from the planners to identify the amount of time available, and discuss access methods for the areas over the waterway.