

City of Flagstaff

Rio de Flag Flood Control
Project Update October 27, 2020





Project Update



- **US Army Corps of Engineers**
- **Project Design**
- **Real Estate**
- **BNSF Railway**
- **Public Involvement**



USACE



Project Construction – Phase I

- US Army Corps – Agency Technical Review Submittal
 - US Army Corps – Internal review for Agency Technical Review
 - Next Submittal to be released upon final US Army Corps review

Project Schedule

- US Army Corps & City of Flagstaff continue to establish critical schedule information
- Contract Award - 2021

Project Team Meeting

- City, US Army Corps, BNSF Project Leadership Meeting – October 6th



Project Design



USACE and their Design Consultant

- Agency Technical – Backcheck submittal comments reconciled by US Army Corps
- Next submittal - October
- Project Design Completion – December 2020

City Utility and Franchise Utility Designs

- Public Utility design – ADOT re-submittal made on October 16, 2020
- Stakeholder's Utility Relocations – ADOT and BNSF



Real Estate



City's consultant (SWI) submitted Segment Map and Tract Register on 9/23 to Army Corps for review and approval.

- Deliverables have gone through 4 revisions based on Army Corps guidance: 9/25, 10/1, and 10/14.
- SWI, Tetra Tech (construction design firm), Army Corps and COF involved in reviewing latest submission to ensure the segment maps properly identify every ROW needed for project.

Completion of Segment Map and Tract Register allows real estate acquisition schedule to proceed to the Appraisal process.



BNSF Railway



Project Coordination with BNSF

- Project design is reviewed and comments have been provided to the Army Corps.
- October 6 meeting with BNSF and the Army Corps.
 - BNSF provided general mitigation measures for the project.
 - Property acquisition
 - Impacts to existing facilities
 - Maintain access to siding tracks during construction
 - Undercrossing protection during construction
 - Utility relocations
- Follow-up meeting to gain more detail the first week of November.



Public Involvement



Upper Reach site walk with Navajo Drive property owners – Flood Wall section

- Occurred on October 1
- The project team showed the residents where the wall is located and how high the wall is proposed to be.

Development of Project Exhibits

- Illustrate completed improvements and landscaping for all reaches.
- Virtual Meeting Room.



UPPER REACH - FLOODWALL IMPROVEMENTS AREA

W. Beal Road

WEST FLAGSTAFF LITTLE LEAGUE PARK

N. Thorpe Road



UPPER REACH - FLOODWALL IMPROVEMENTS AREA

Rio de Flag Flood Control Project
City of Flagstaff, AZ - October 27, 2020

NORRIS DESIGN
Planning | Landscape Architecture | Branding



UPPER REACH - FLOODWALL
TYPICAL IMPROVEMENTS SECTION

Rio de Flag Flood Control Project
City of Flagstaff, AZ - October 27, 2020



UPPER REACH - FLOODWALL
EXISTING CONDITIONS - VIEW SOUTH FROM WEST FLAGSTAFF LITTLE LEAGUE PARK

Rio de Flag Flood Control Project
City of Flagstaff, AZ - October 27, 2020





UPPER REACH - FLOODWALL
PROPOSED CONDITIONS - VIEW SOUTH FROM WEST FLAGSTAFF LITTLE LEAGUE PARK

Rio de Flag Flood Control Project
City of Flagstaff, AZ - October 27, 2020





UPPER REACH - FLOODWALL

EXISTING CONDITIONS - VIEW NORTH FROM EXISTING FUTS TRAIL

Rio de Flag Flood Control Project
City of Flagstaff, AZ - October 27, 2020


NORRIS DESIGN
Planning | Landscape Architecture | Branding



UPPER REACH - FLOODWALL

PROPOSED CONDITIONS - VIEW NORTH FROM EXISTING FUTS TRAIL

Rio de Flag Flood Control Project
City of Flagstaff, AZ - October 27, 2020



UPPER REACH - FLOODWALL

EXISTING CONDITIONS - VIEW NORTH FROM THORPE ROAD BRIDGE

Rio de Flag Flood Control Project
City of Flagstaff, AZ - October 27, 2020





UPPER REACH - FLOODWALL

PROPOSED CONDITIONS - VIEW NORTH FROM THORPE ROAD BRIDGE

Rio de Flag Flood Control Project
City of Flagstaff, AZ - October 27, 2020





**UPPER REACH -
COMPOSITE CHANNEL
IMPROVEMENTS AREA**

**FRANCES
SHORT POND**

HIGH SCHOOL

LIBRARY

CITY HALL

66

N. Bonito Street

W. Santa Fe Avenue



**UPPER REACH - COMPOSITE CHANNEL
IMPROVEMENTS AREA**

Rio de Flag Flood Control Project
City of Flagstaff, AZ - October 27, 2020

NORRIS DESIGN
Planning | Landscape Architecture | Branding

CHANNEL IMPROVEMENTS
RETAIN LOW FLOW CAPACITY &
REVEGETATION

REALIGNED FUTS TRAIL
FLAGSTAFF URBAN TRAIL SYSTEM

EXISTING STREET
WEST ELM AVENUE

ADJACENT LANDSCAPE
VARIES BY LOCATION

STACKED ROCK WALL
VARIES BY LOCATION

PROPOSED BOX CULVERT
INCREASED WATER FLOW CAPACITY
UNDERGROUND. (16' width x 11' height)



UPPER REACH - COMPOSITE CHANNEL TYPICAL IMPROVEMENTS SECTION 1

Rio de Flag Flood Control Project
City of Flagstaff, AZ - October 27, 2020



UPPER REACH - COMPOSITE CHANNEL
TYPICAL IMPROVEMENTS SECTION 2

Rio de Flag Flood Control Project
City of Flagstaff, AZ - October 27, 2020



UPPER REACH - COMPOSITE CHANNEL
EXISTING CONDITIONS - VIEW NORTH TOWARDS BONITO STREET

Rio de Flag Flood Control Project
City of Flagstaff, AZ - October 27, 2020





UPPER REACH - COMPOSITE CHANNEL
PROPOSED CONDITIONS - VIEW NORTH TOWARDS BONITO STREET

Rio de Flag Flood Control Project
City of Flagstaff, AZ - October 27, 2020





UPPER REACH - COMPOSITE CHANNEL
EXISTING CONDITIONS - VIEW SOUTH ADJACENT TO PUBLIC LIBRARY

Rio de Flag Flood Control Project
City of Flagstaff, AZ - October 27, 2020





UPPER REACH - COMPOSITE CHANNEL
EXISTING CONDITIONS - VIEW SOUTH ADJACENT TO PUBLIC LIBRARY

Rio de Flag Flood Control Project
City of Flagstaff, AZ - October 27, 2020





CITY HALL

**LOWER REACH
IMPROVEMENTS AREA**

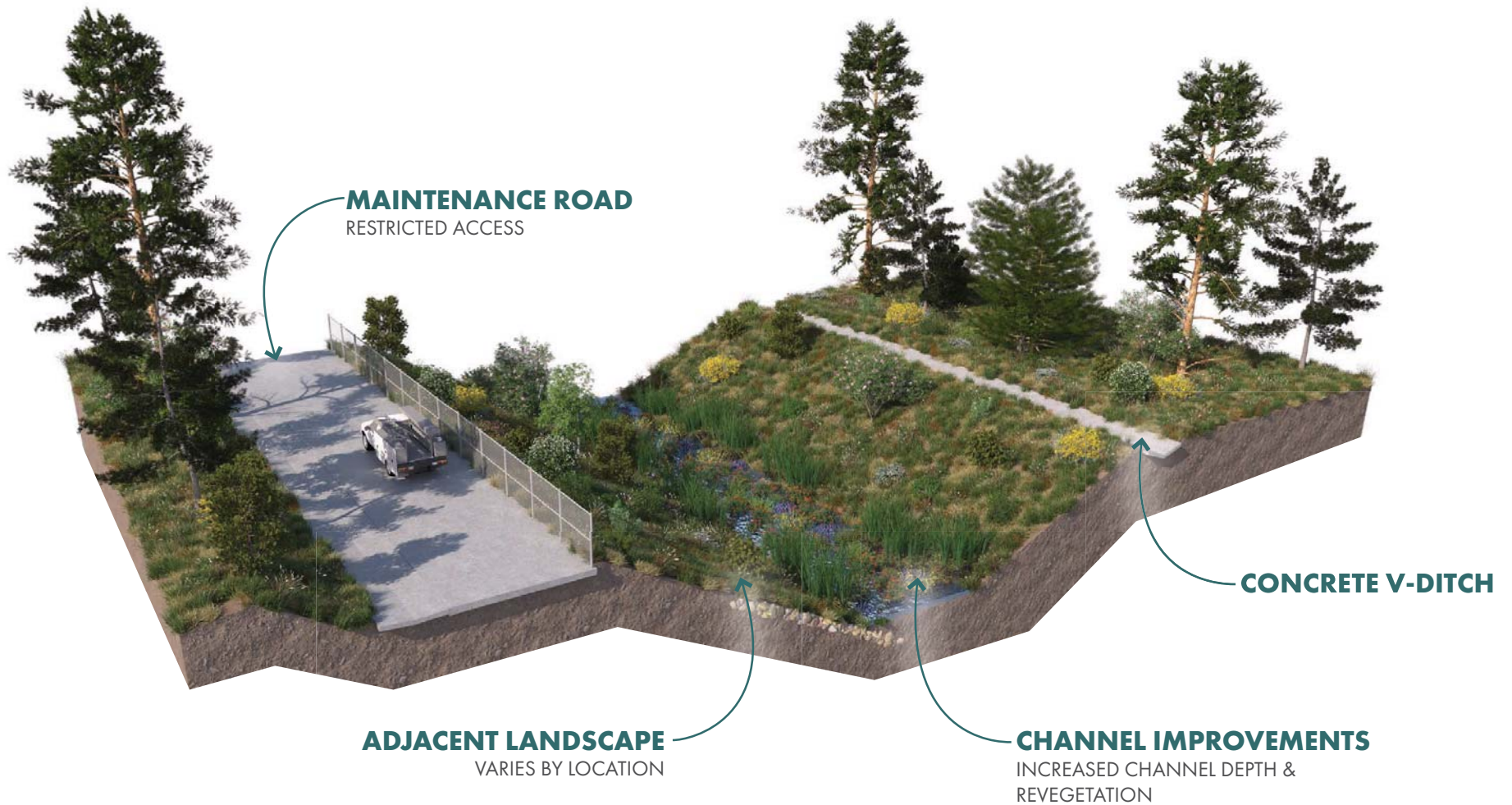
66

E. Butler Avenue



**LOWER REACH
IMPROVEMENTS AREA**

Rio de Flag Flood Control Project
City of Flagstaff, AZ - October 27, 2020



LOWER REACH
 TYPICAL IMPROVEMENTS SECTION
 Rio de Flag Flood Control Project
 City of Flagstaff, AZ - October 27, 2020



LOWER REACH
EXISTING CONDITIONS - VIEW NORTHWEST

Rio de Flag Flood Control Project
City of Flagstaff, AZ - October 27, 2020





LOWER REACH
PROPOSED CONDITIONS - VIEW NORTHWEST

Rio de Flag Flood Control Project
City of Flagstaff, AZ - October 27, 2020

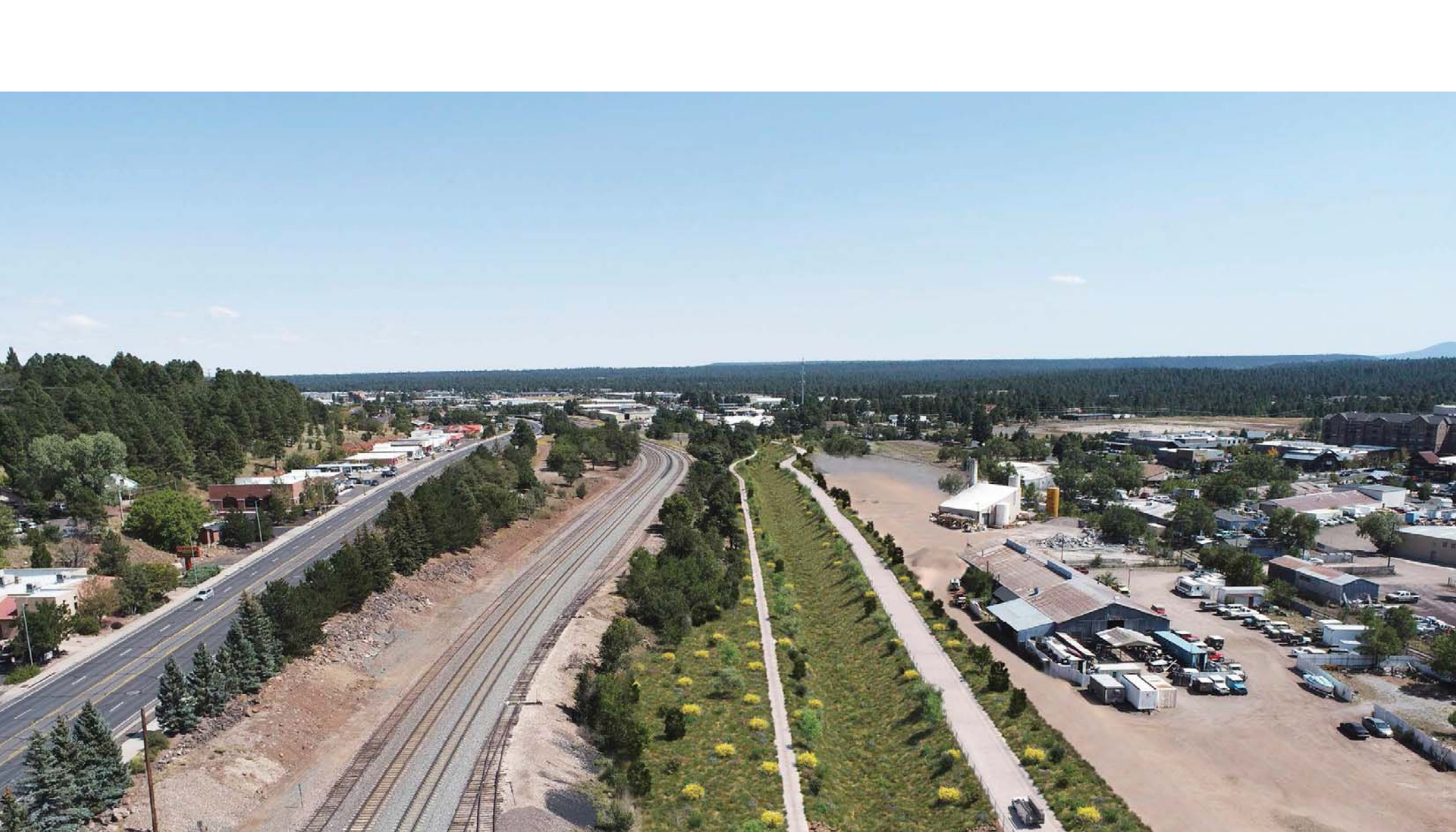




LOWER REACH
EXISTING CONDITIONS - VIEW EAST

Rio de Flag Flood Control Project
City of Flagstaff, AZ - October 27, 2020





LOWER REACH
EXISTING CONDITIONS - VIEW EAST

Rio de Flag Flood Control Project
City of Flagstaff, AZ - October 27, 2020



**CLAY AVENUE WASH
IMPROVEMENTS AREA**

CITY HALL

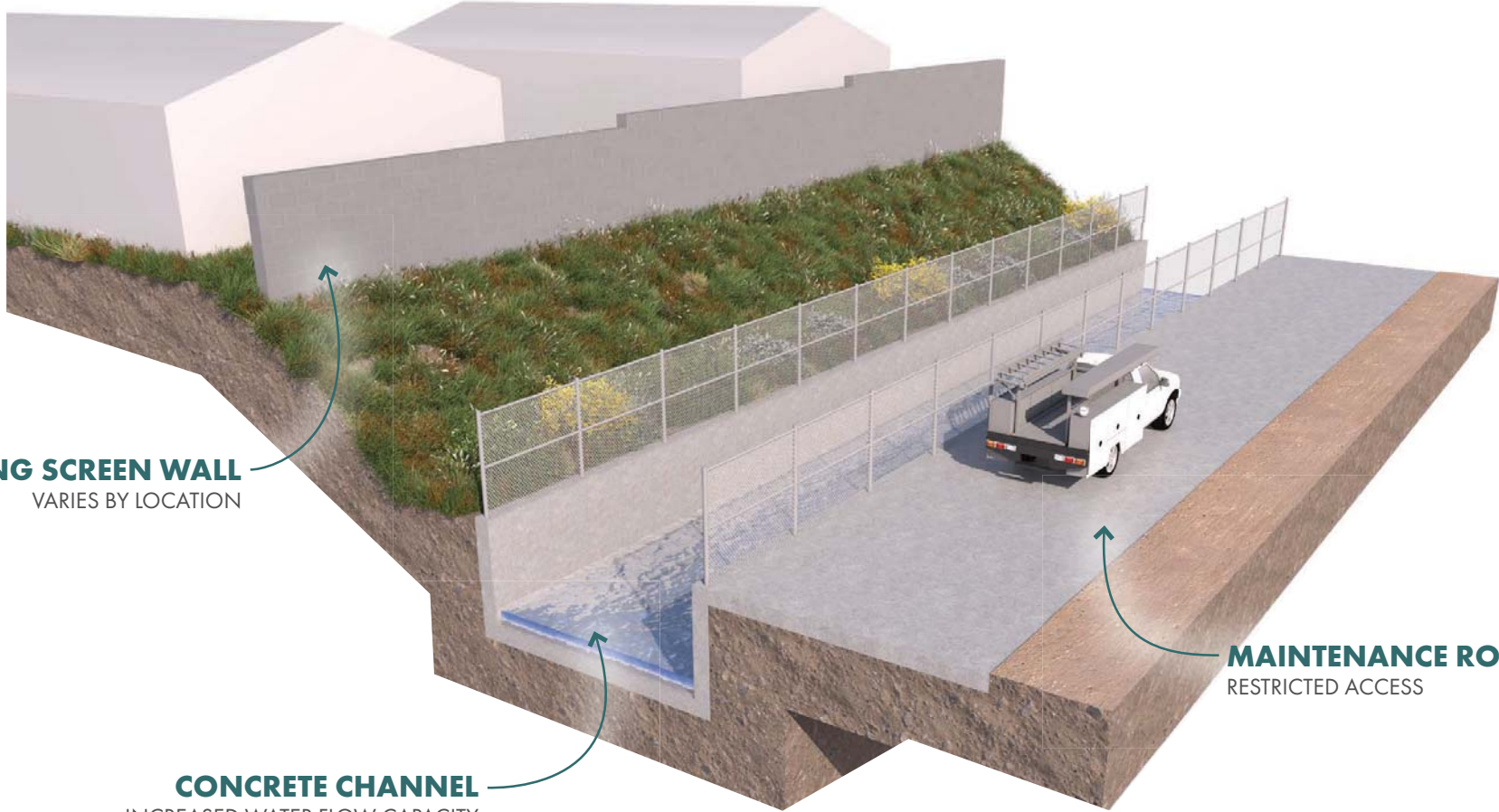
W. Clay Avenue

S. Milton Avenue



**CLAY AVENUE WASH
IMPROVEMENTS AREA**

Rio de Flag Flood Control Project
City of Flagstaff, AZ - October 27, 2020



EXISTING SCREEN WALL
VARIES BY LOCATION

CONCRETE CHANNEL
INCREASED WATER FLOW CAPACITY
(14' width x 6' height)

MAINTENANCE ROAD
RESTRICTED ACCESS



CLAY AVENUE WASH TYPICAL IMPROVEMENTS SECTION

Rio de Flag Flood Control Project
City of Flagstaff, AZ - October 27, 2020



CLAY AVENUE WASH
EXISTING CONDITIONS - VIEW WEST
Rio de Flag Flood Control Project
City of Flagstaff, AZ - October 27, 2020


NORRIS DESIGN
Planning | Landscape Architecture | Branding



CLAY AVENUE WASH
PROPOSED CONDITIONS - VIEW WEST

Rio de Flag Flood Control Project
City of Flagstaff, AZ - October 27, 2020





City Contact Information



- **Trevor Henry, Project Manager**

928-213-2684

thenry@flagstaffaz.gov

- **Christine Cameron, Project Manager**

928-213-2682

ccameron@flagstaffaz.gov

- **Rio de Flag Flood Control Project web site:**

<https://www.flagstaff.az.gov/4189/Rio-De-Flag-Flood-Control>