



Lake Park Bridge over Ravine Road

Public Information Meeting

June 17, 2020

Meeting Agenda

- Welcome and Introductions
- Purpose of Meeting
- Discussion of Meeting Logistics and Procedures
- Overview of Project
- Proposed Structure Rehabilitation
- Proposed Site/Civil Rehabilitation
- Coordination of Historical Aspects of Project
- Questions, Answers and Comments from Audience
- Summary, Conclusions & Adjourn

Welcome and Introductions – Presenters

- **Darrell Berry**, Mead & Hunt, Deputy Project Manager and Meeting Moderator
- **Karl Stave**, Milwaukee County Dept. of Administrative Services, Project Manager
- **Sarah Toomsen**, Milwaukee County Parks Dept., Manager of Planning & Development
- **Rich Johnson**, Olson & Nesvold Engineers (ONE), Project Manager & Lead Structural Engineer
- **Emily Pettis**, Mead & Hunt, Cultural Resources Dept. Manager

Welcome and Introductions

- In attendance: **Greg Hafeman**, Wisconsin Department of Transportation, Local Program Project Manager-Design from the Waukesha Region Office
- ONE is the prime consultant to Milwaukee County for the design of this project
- Mead & Hunt is a major subconsultant to ONE

Purpose of Meeting

- Present information about:
 - project scope
 - work performed to date
 - historical considerations
 - schedules for final design and rehabilitation of the bridge + other milestone dates
- County budget of \$2,500,000 to complete rehabilitation of the Bridge
 - Funded with \$2,000,000 in federal Transportation Alternative Program (TAP) grant funds administered by the Wisconsin Department of Transportation (WisDOT) and a matching \$500,000 in County funds

Purpose of Meeting

- Receive questions, comments, and statements about this project from meeting participants
- Information from the questions, comments and statements will be considered during the final design process
- For information about the meeting and this project visit Milwaukee County's website
 - A recording of today's meeting will be posted the week of June 22, 2020

<https://county.milwaukee.gov/EN/Parks/What-We-Do/Planning--Development>

Project Overview & History

- Bridge built in 1905/1906
- Assessment in 2014 closed the bridge and Ravine Road
- In 2015, an appropriation of \$404,827 was used to fund an inspection report and perform planning and design services for bridge rehabilitation or bridge replacement
- The 2017 capital budget allocated \$2,500,000 for bridge reconstruction. Financing was provided from \$500,000 in general obligation bonds and anticipated \$2,000,000 in private contributions
- In 2018 the County was awarded a \$2,000,000 grant for bridge replacement from the WisDOT's Transportation Alternative Program (TAP)

Project Overview & History

- In 2018 the Lake Park Friends hired a consultant to perform a supplemental engineering analysis which supported rehabilitation of the bridge
- In 2019 WisDOT revised the allowable scope of the TAP grant to include rehabilitation of the bridge
- The County issued a Request for Proposals (RFP) in spring of 2019 that solicited consulting services for bridge rehabilitation, with emphasis on expertise in historic bridge projects
- Olson & Nesvold Engineers, PSC (ONE) was selected and hired in 2019 via a three-party contract with Milwaukee County and WisDOT
- The consultant team consists of qualified staff from ONE, Mead & Hunt, WJE, and Malas Engineering

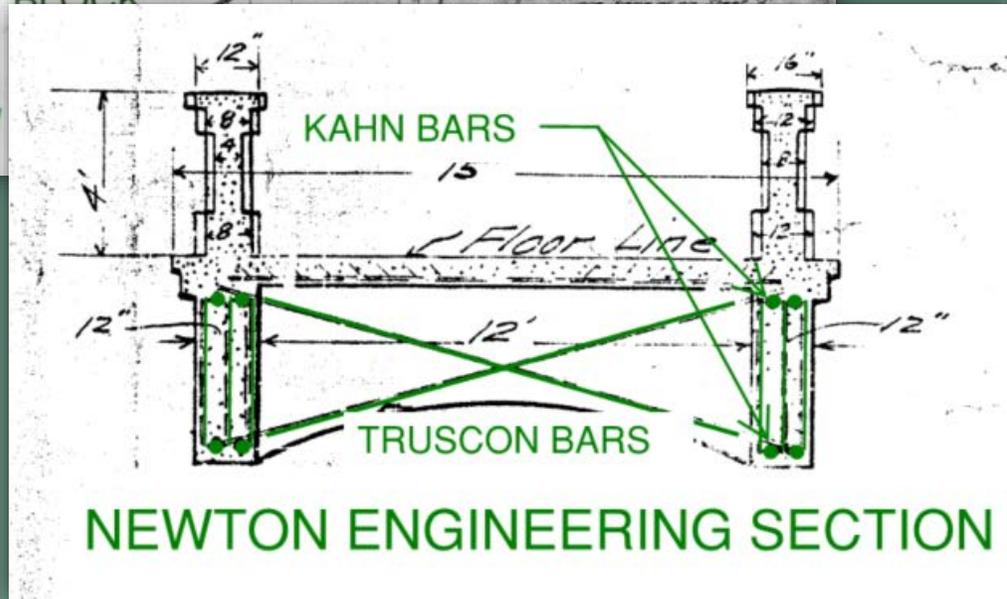
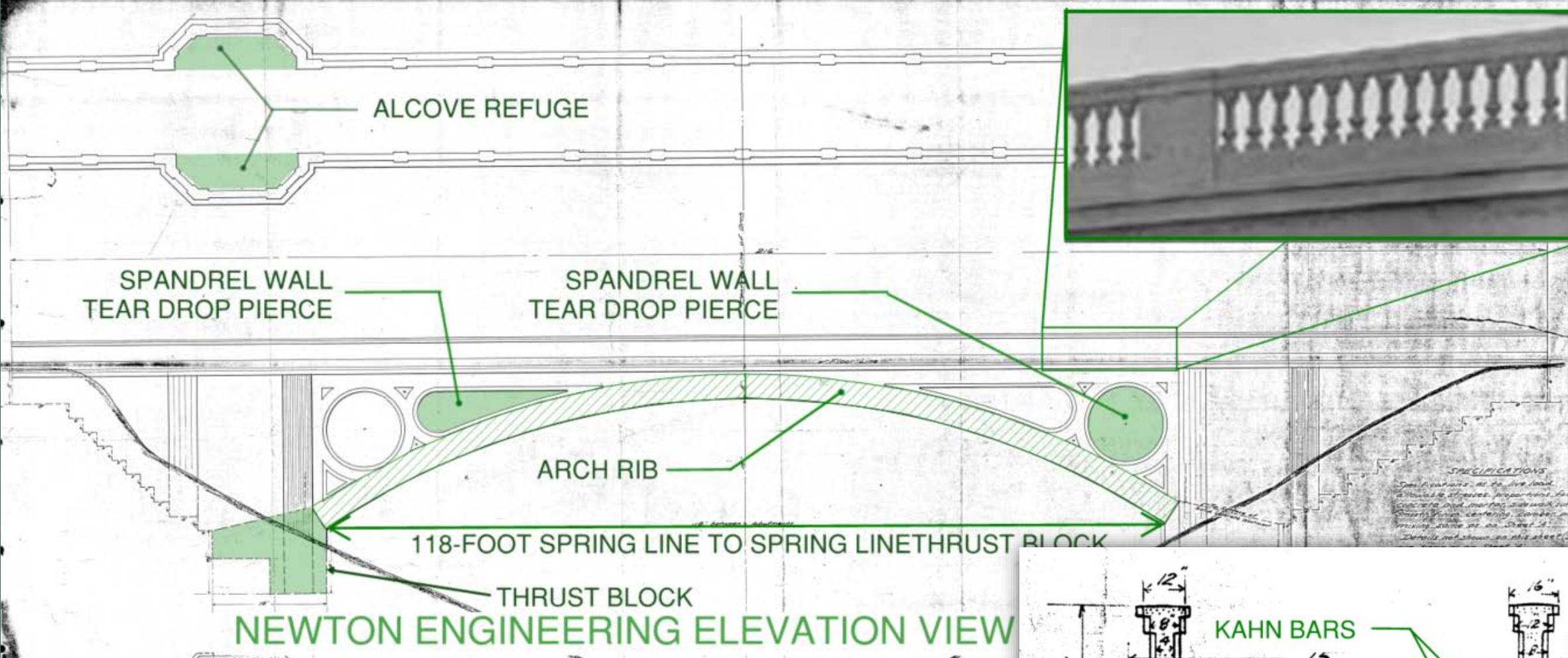
Project schedule

- Design Complete – End of 2020
 - Includes historic review and concurrence from the WisDOT Cultural Resources Team, State Historic Preservation Office (SHPO) and the City of Milwaukee Historic Preservation Commission (HPC)
- Project Bidding for Bridge Rehabilitation – Spring 2021
- Construction Start – After July 1, 2021
- Construction Complete – 2022

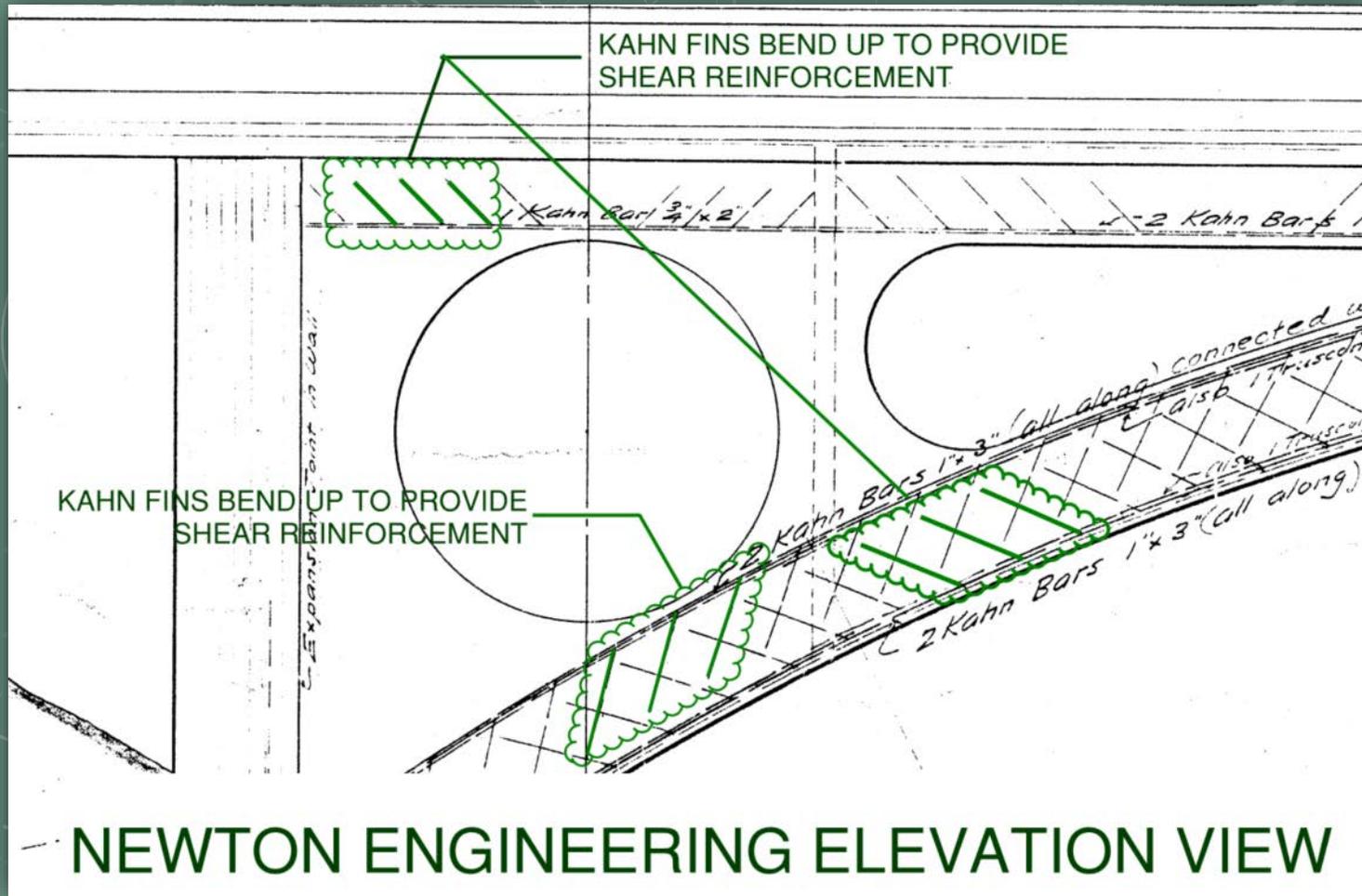


LAKE PARK ARCH BRIDGE PROPOSED STRUCTURE REHABILITATION

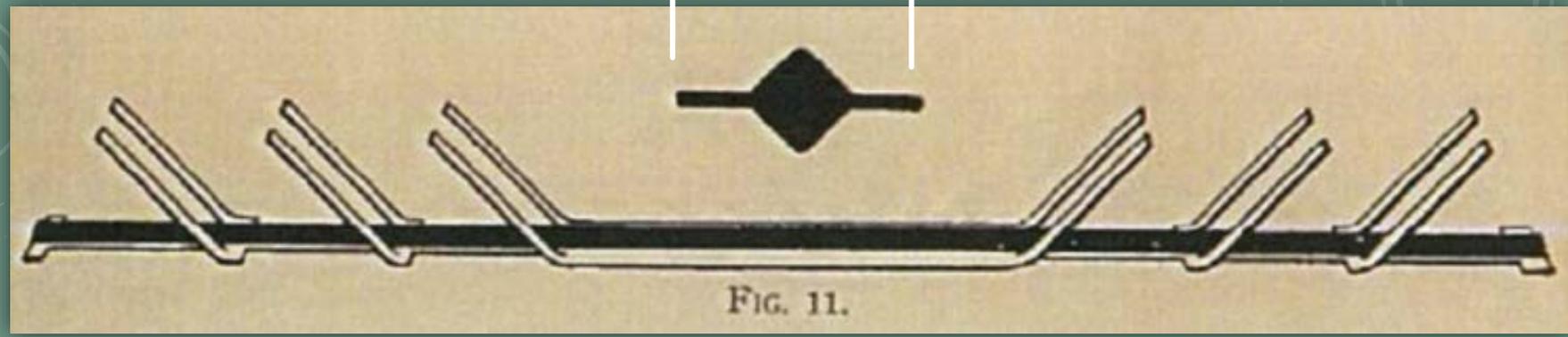
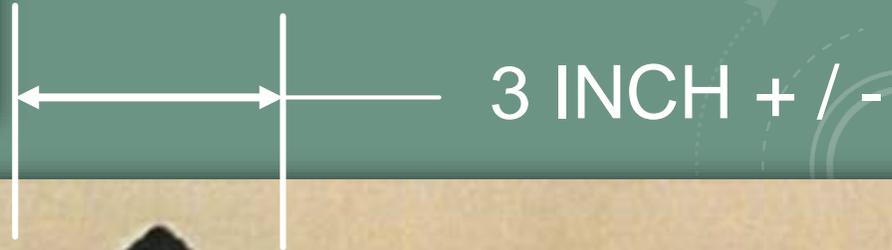




BRIDGE CONFIGURATION



POSSIBLY
FIRST USE OF
KAHN BARS IN
AN ARCH RIB
BRIDGE



CONDITION OF THE BRIDGE





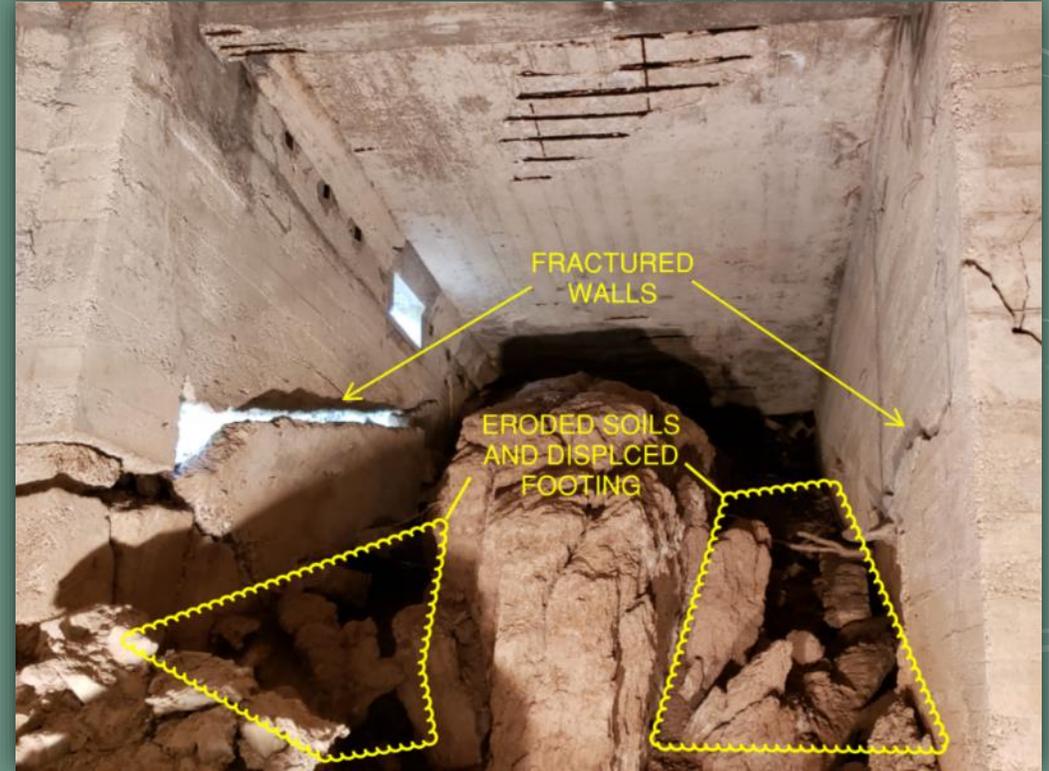
ORIGINAL URN BALUSTERS



EXISTING CONCRETE INFILL PANELS



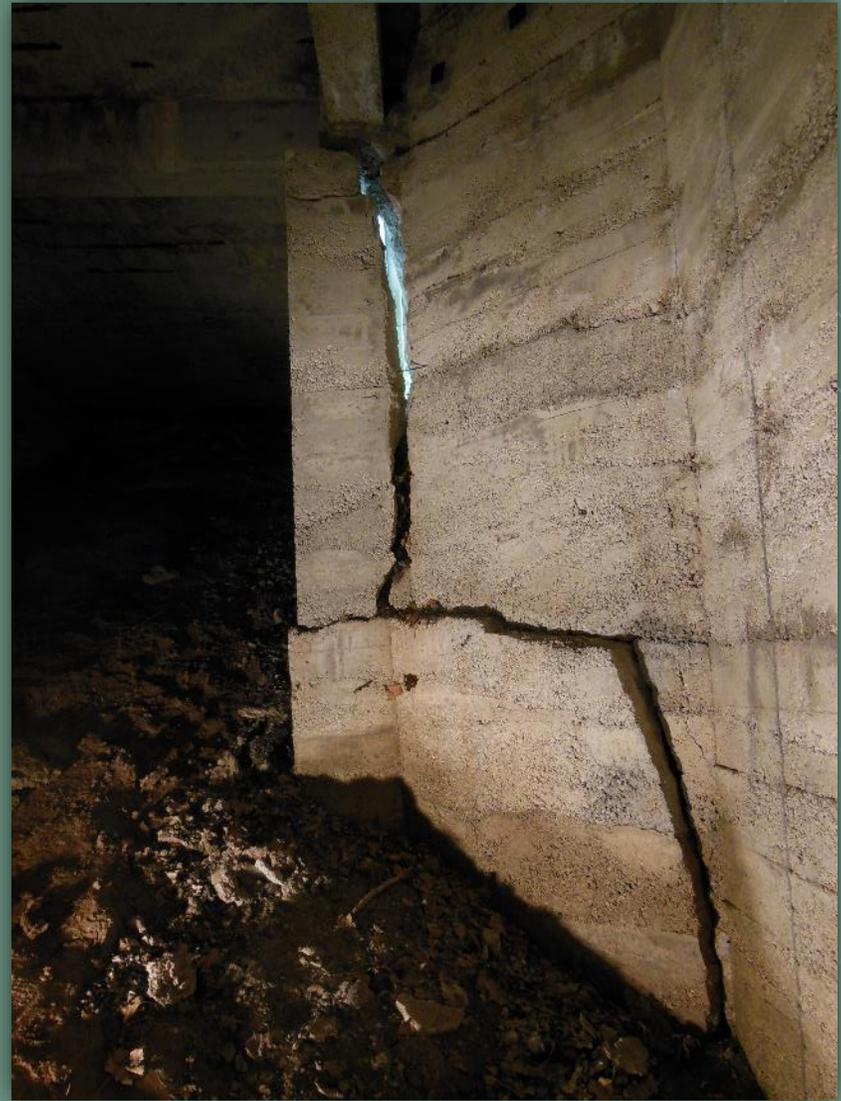
NORTH WING WALLS INTERIOR



SOUTH WING WALLS INTERIOR



SOUTH WING WALL FRACTURED WALL EXTERIOR



NORTH WING WALL FACTURED WALL EXTERIOR



SOUTHEAST TEAR DROP CORROSION



CORROSION CLOSE UP



TEAR DROP FACE

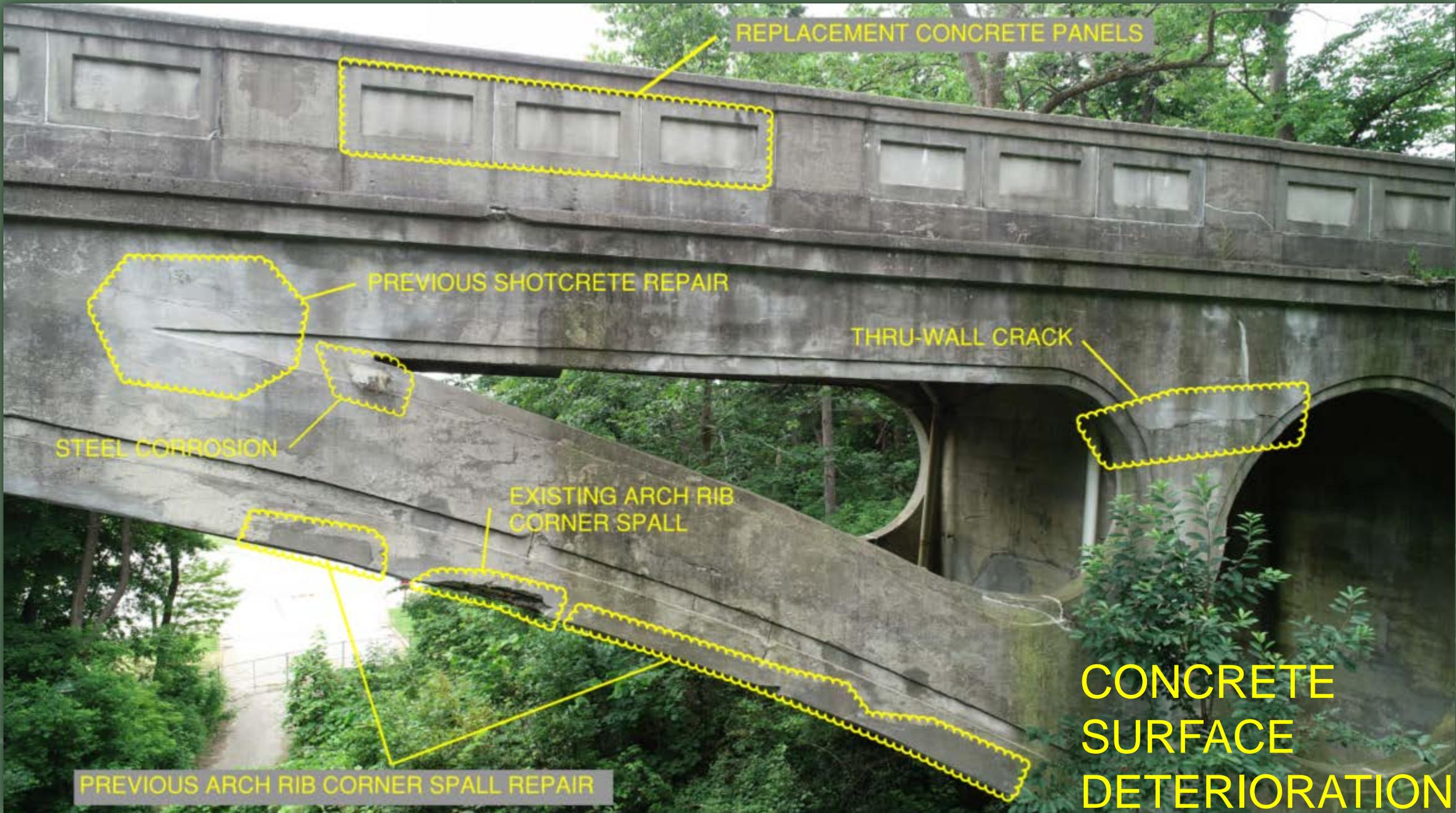
THRU-WALL CRACKS
AT COLD JOINTS



THRU-WALL CRACKS DUE
TO DIFFERENTIAL MOVEMENT



CONCRETE SURFACE DETERIORATION
ON PREVIOUS REPAIR



REPLACEMENT CONCRETE PANELS

PREVIOUS SHOTCRETE REPAIR

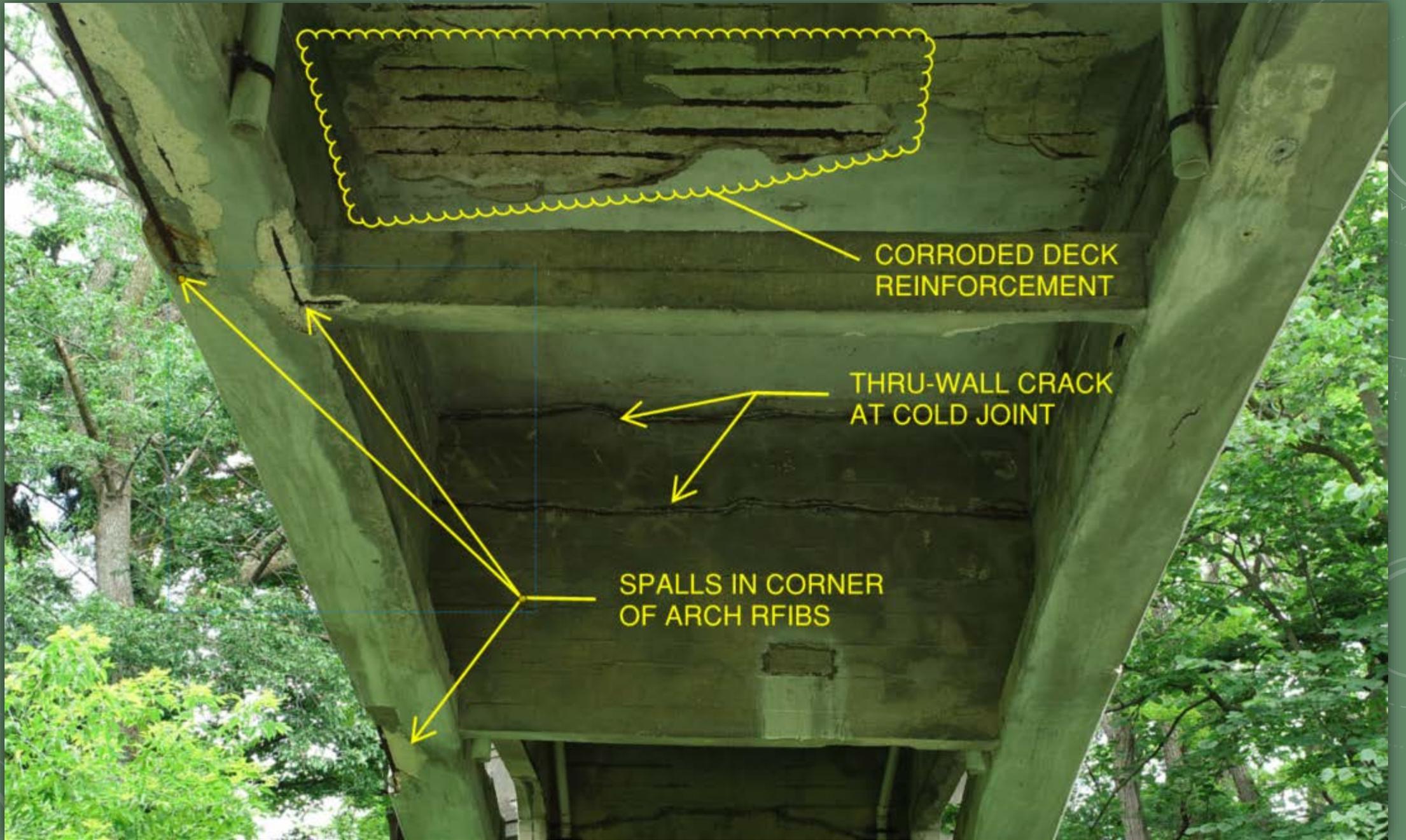
THRU-WALL CRACK

STEEL CORROSION

EXISTING ARCH RIB CORNER SPALL

PREVIOUS ARCH RIB CORNER SPALL REPAIR

CONCRETE SURFACE DETERIORATION



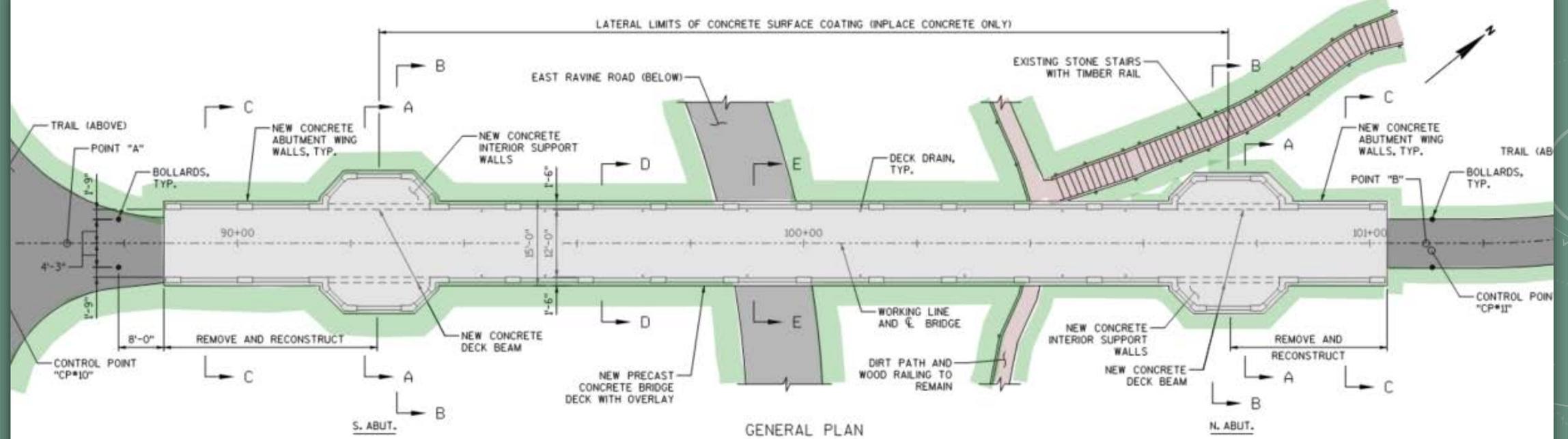
CORRODED DECK REINFORCEMENT

THRU-WALL CRACK AT COLD JOINT

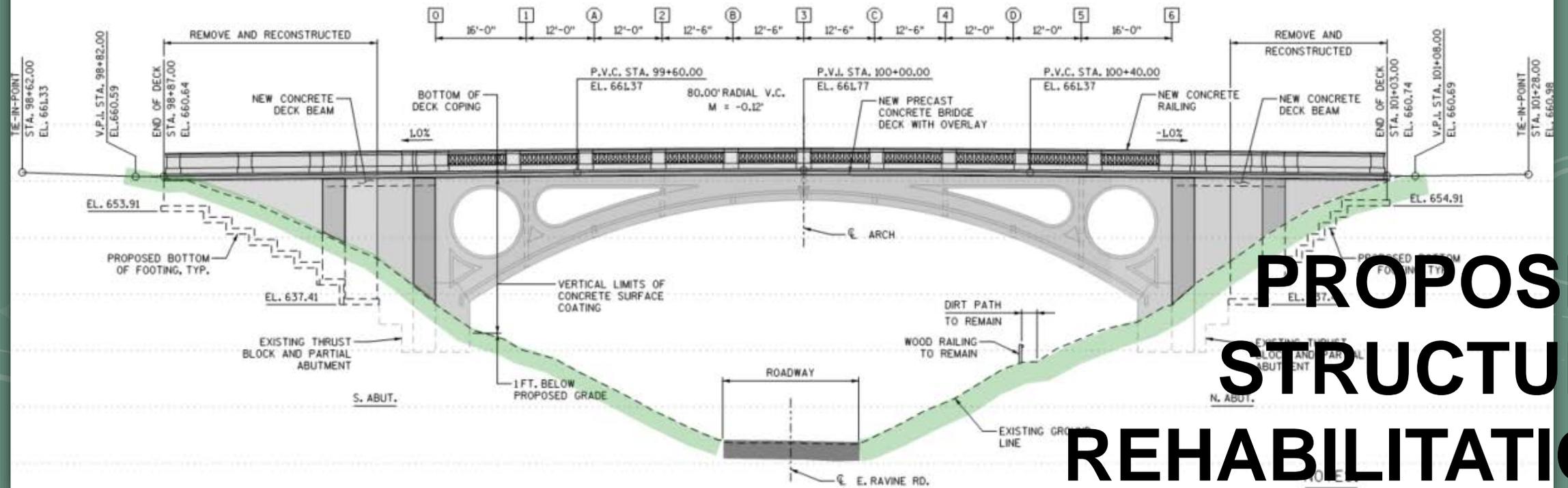
SPALLS IN CORNER OF ARCH RFIBS



- ORIGINAL CONCRETE SURFACE COVERING**
- PARGE COATING
 - PREVIOUS CONCRETE SURFACE REPAIRS
 - PREVIOUS ARCH RIB CORNER REPAIR
 - STAINING

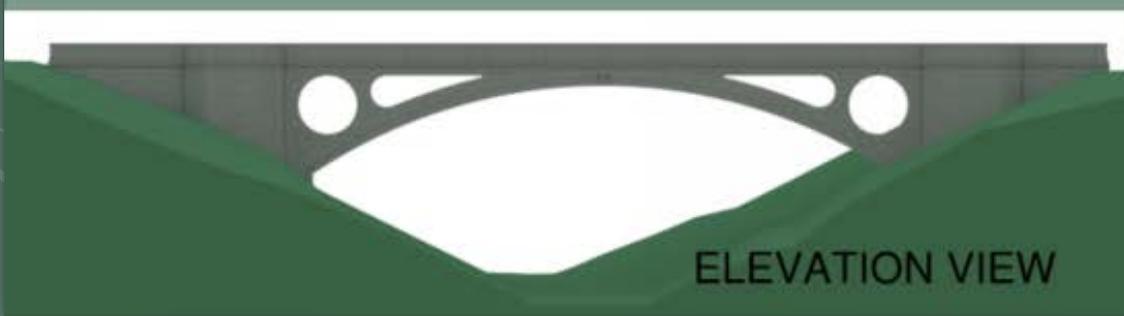
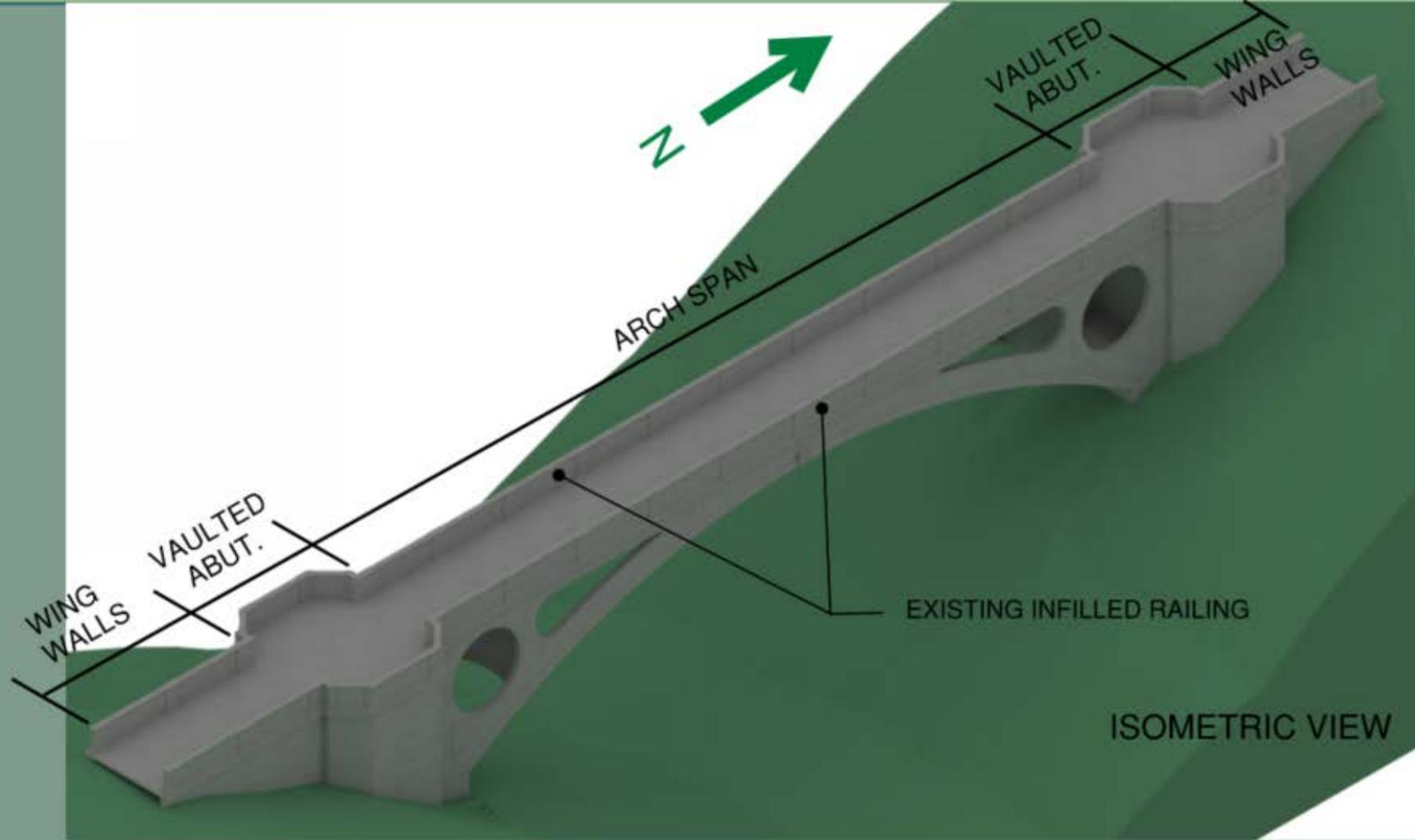


GENERAL PLAN

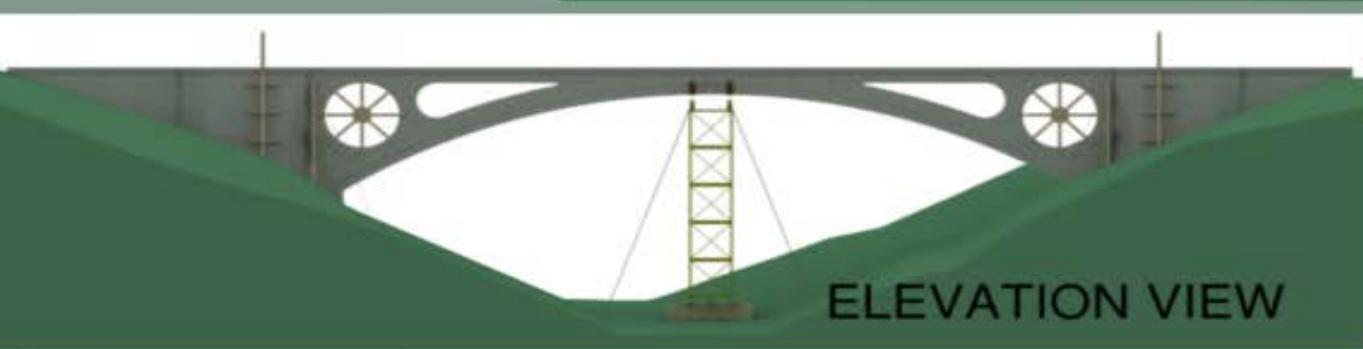
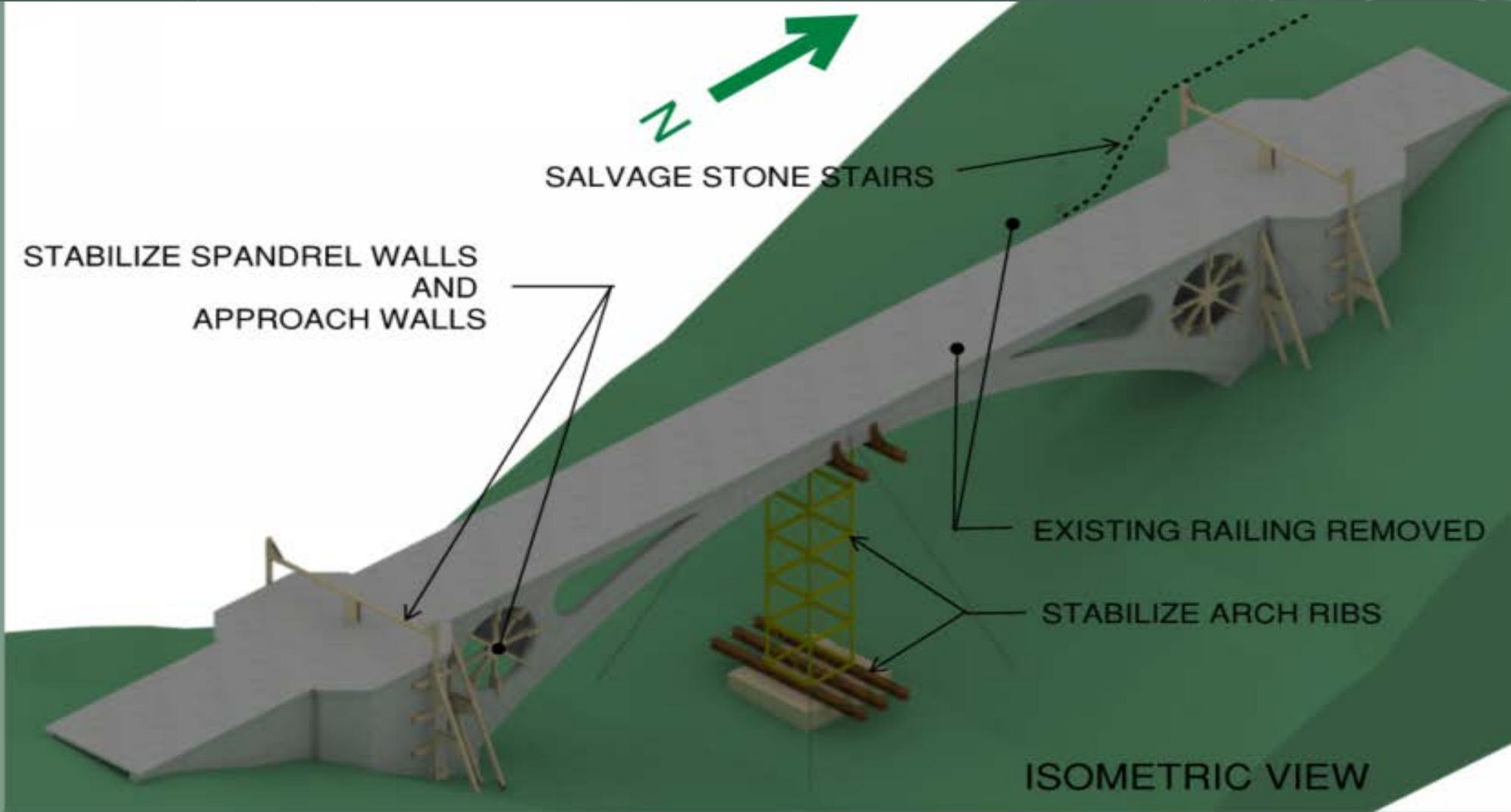


PROPOSED STRUCTURE REHABILITATION

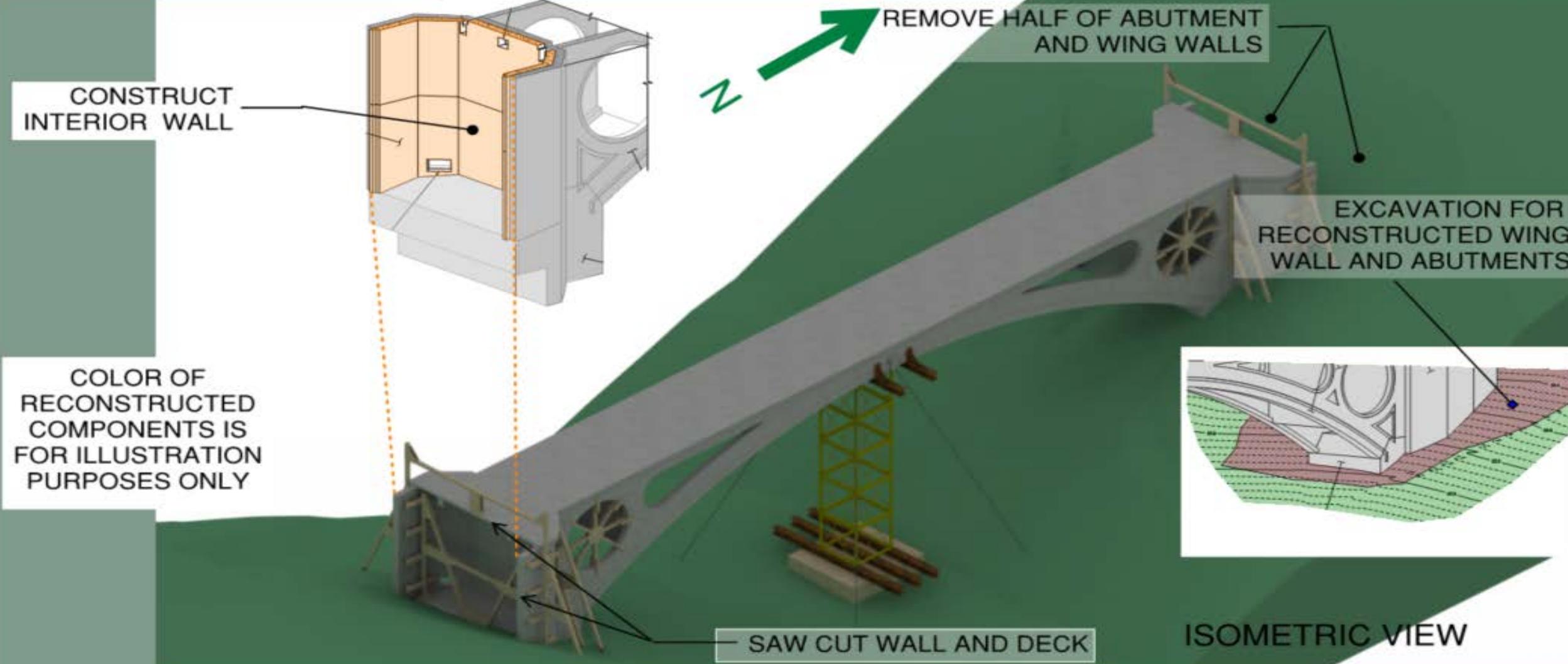
SEE SHEET Y FOR SECTIONS A-A AND B-B



EXISTING BRIDGE



STAGE 1 MODEL

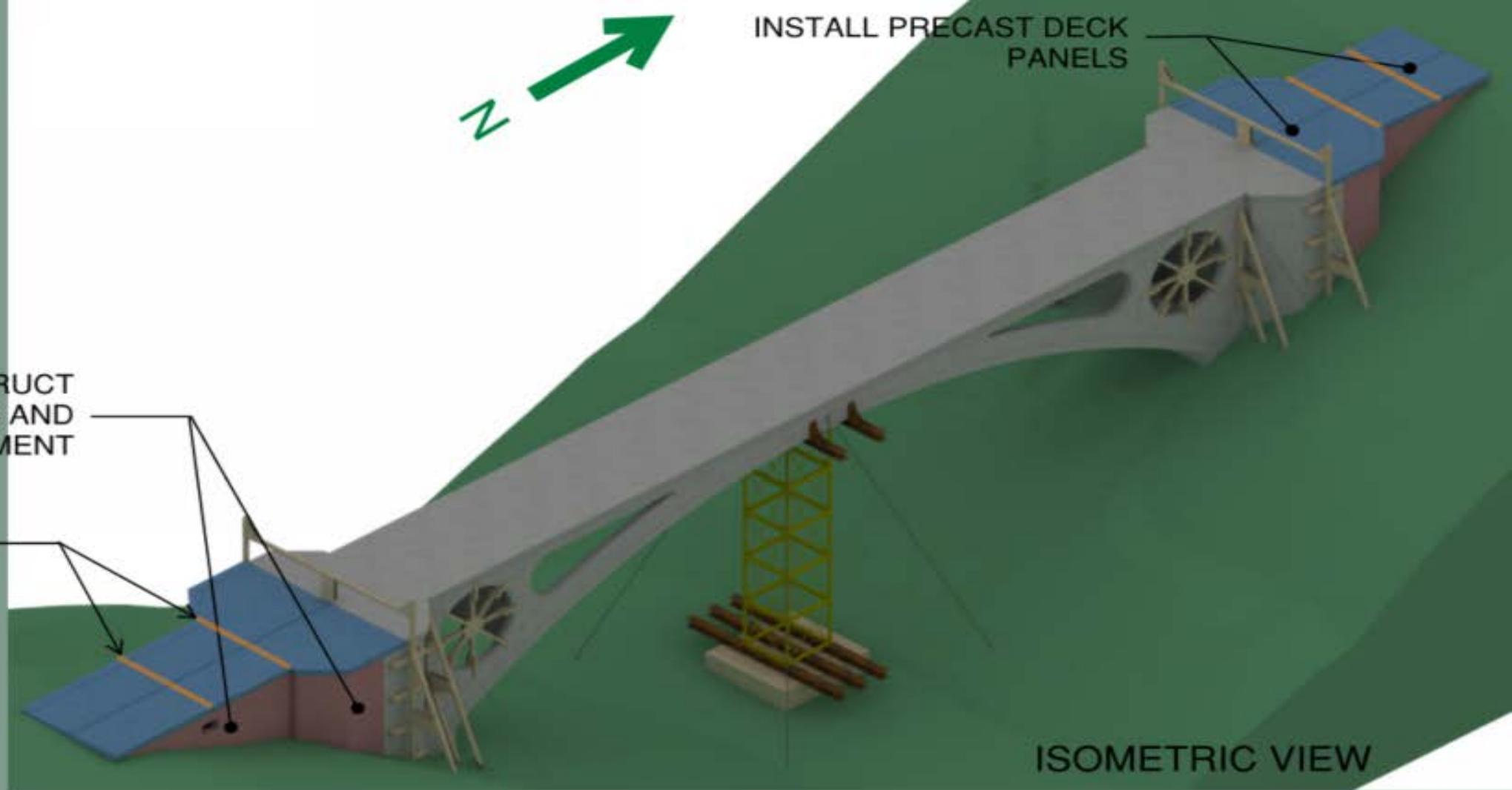


STAGE 2 MODEL

COLOR OF RECONSTRUCTED COMPONENTS IS FOR ILLUSTRATION PURPOSES ONLY



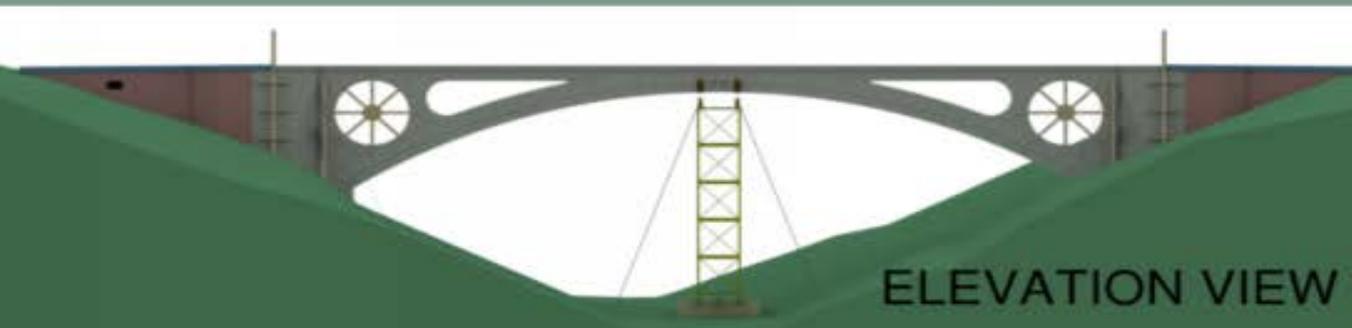
INSTALL PRECAST DECK PANELS



RECONSTRUCT WING WALLS AND HALF OF ABUTMENT

CONSTRUCT CLOSURE JOINTS

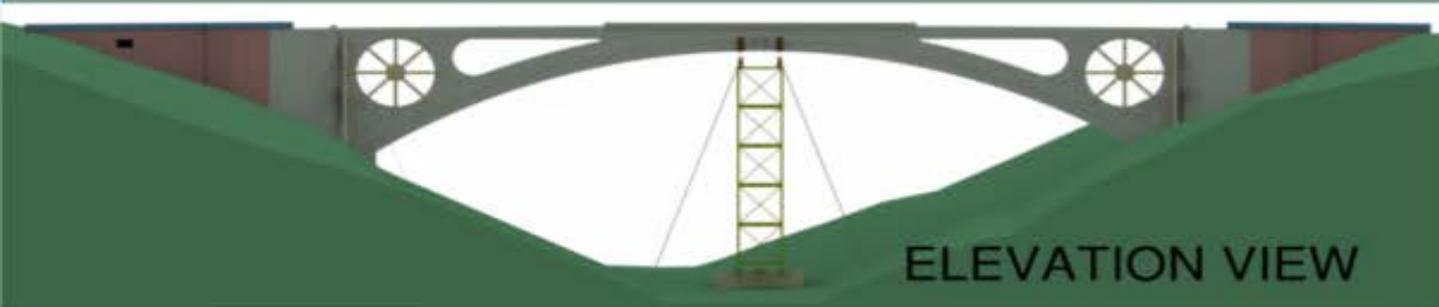
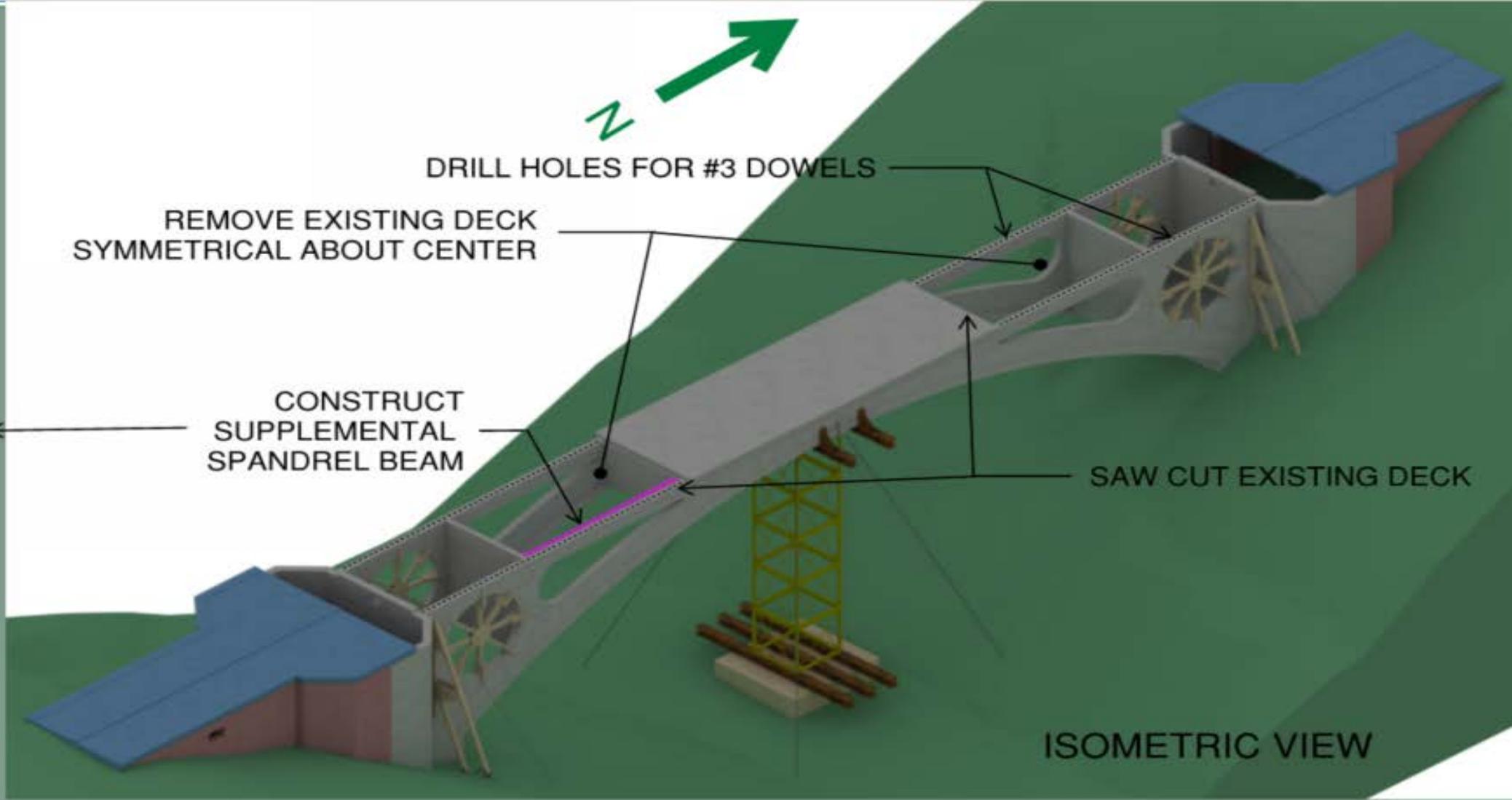
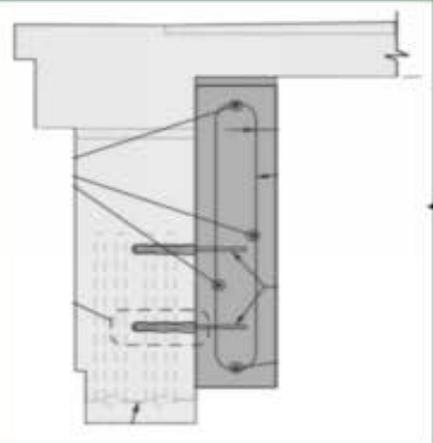
ISOMETRIC VIEW



ELEVATION VIEW

STAGE 3 MODEL

COLOR OF RECONSTRUCTED COMPONENTS IS FOR ILLUSTRATION PURPOSES ONLY



STAGE 4 MODEL

COLOR OF RECONSTRUCTED COMPONENTS IS FOR ILLUSTRATION PURPOSES ONLY

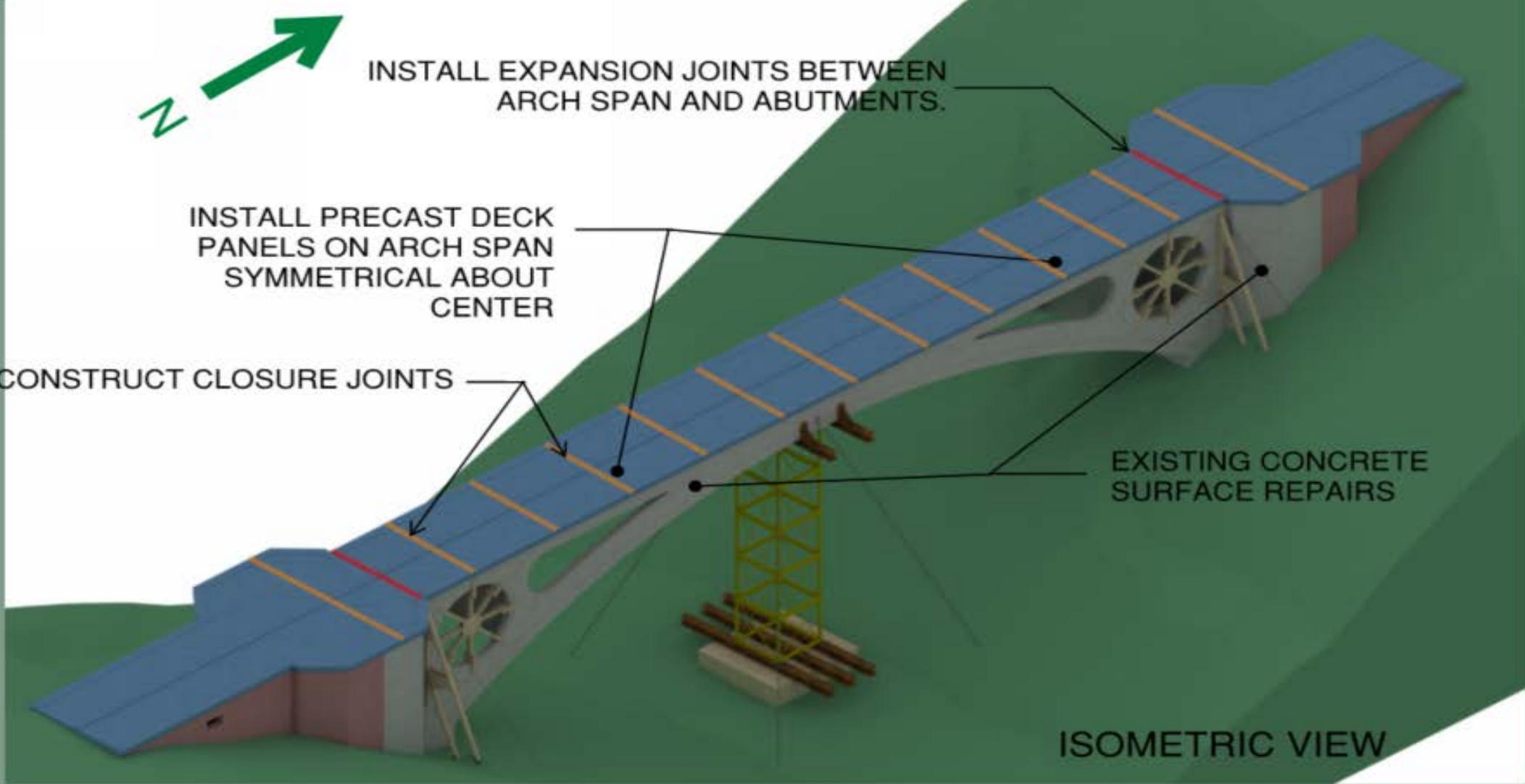


INSTALL EXPANSION JOINTS BETWEEN ARCH SPAN AND ABUTMENTS.

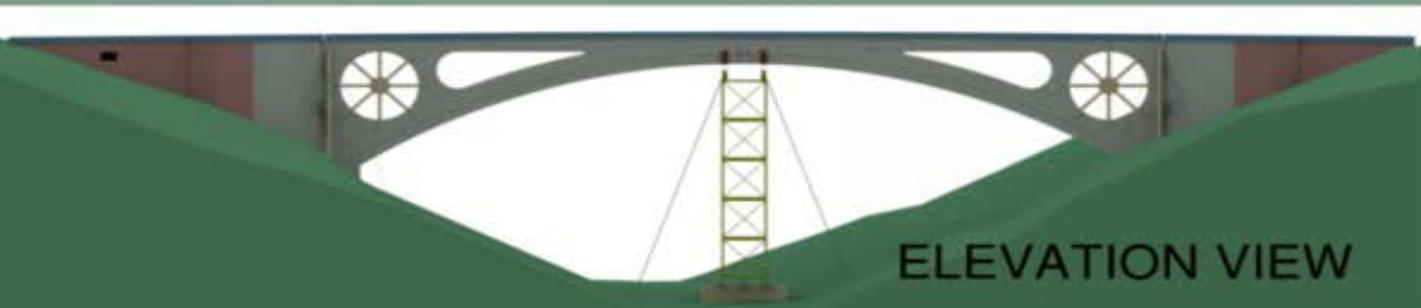
INSTALL PRECAST DECK PANELS ON ARCH SPAN SYMMETRICAL ABOUT CENTER

CONSTRUCT CLOSURE JOINTS

EXISTING CONCRETE SURFACE REPAIRS



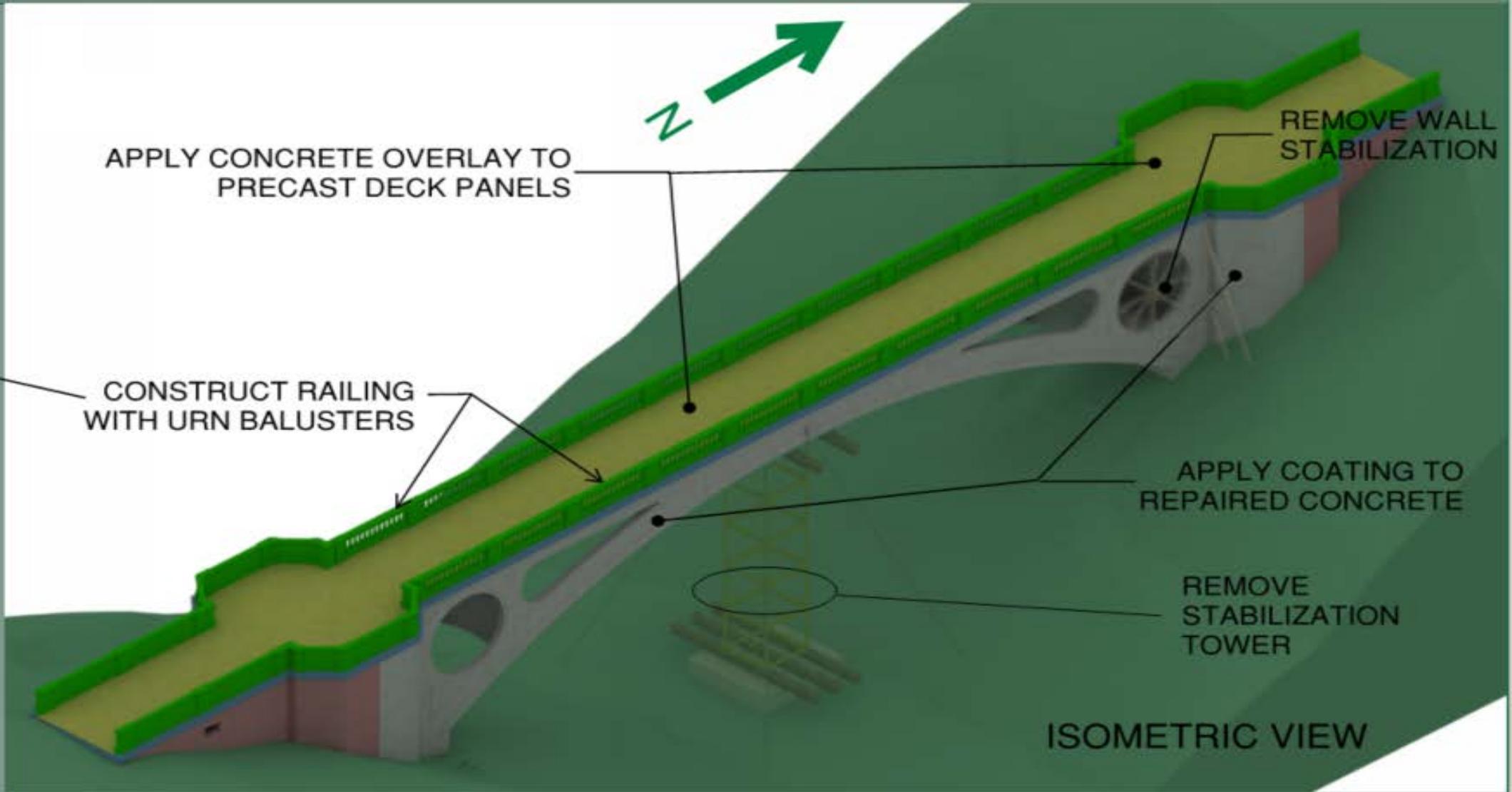
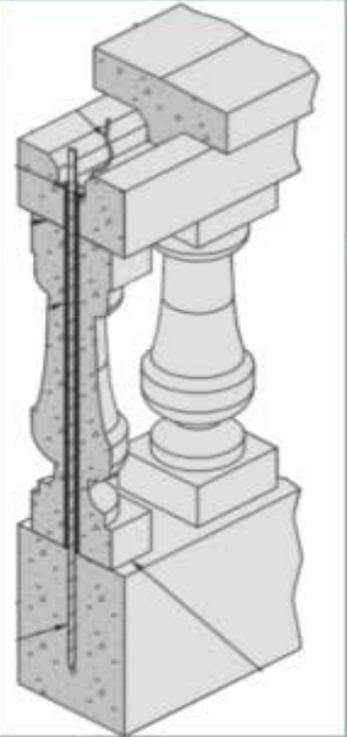
ISOMETRIC VIEW



ELEVATION VIEW

STAGE 5 MODEL

COLOR OF RECONSTRUCTED COMPONENTS IS FOR ILLUSTRATION PURPOSES ONLY



ISOMETRIC VIEW



ELEVATION VIEW

STAGE 6 MODEL

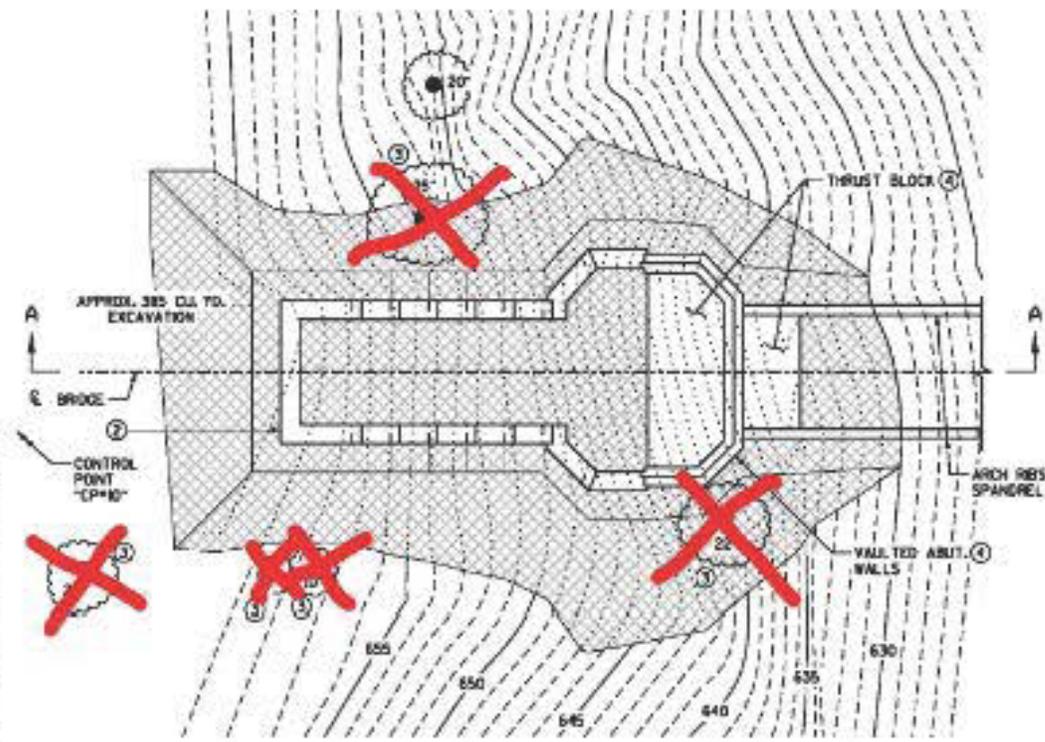


Lake Park Bridge over Ravine Road

Site – Civil
Engineering

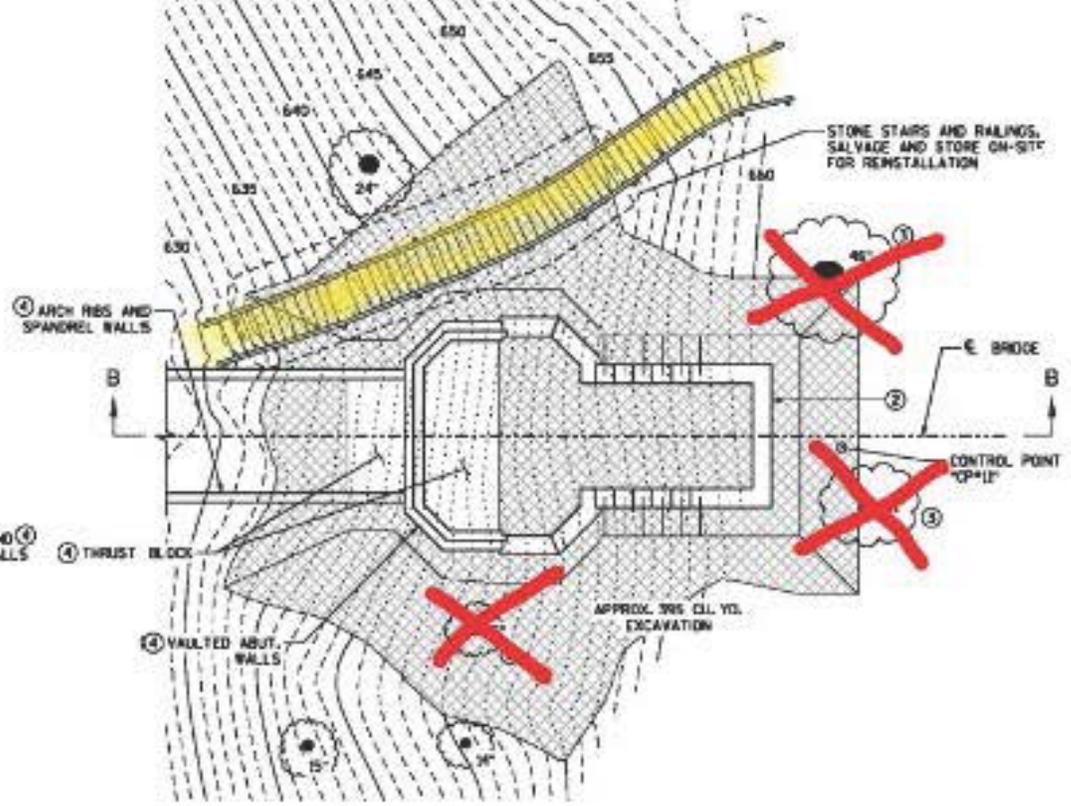
June 17, 2020

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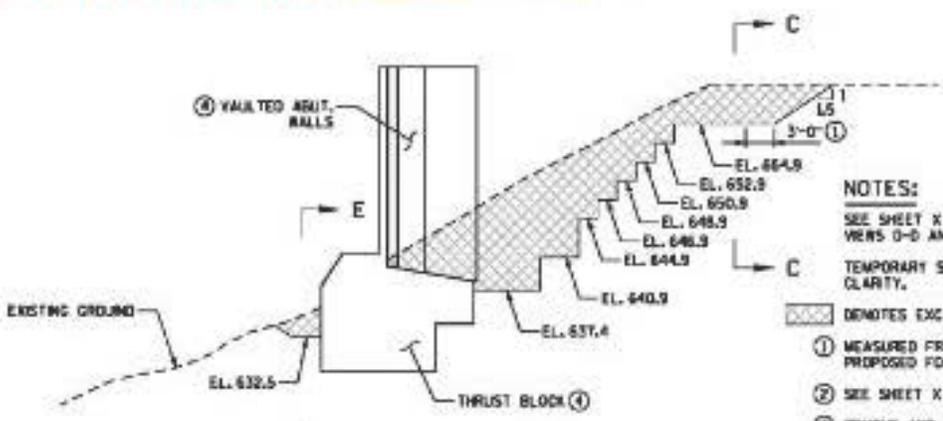
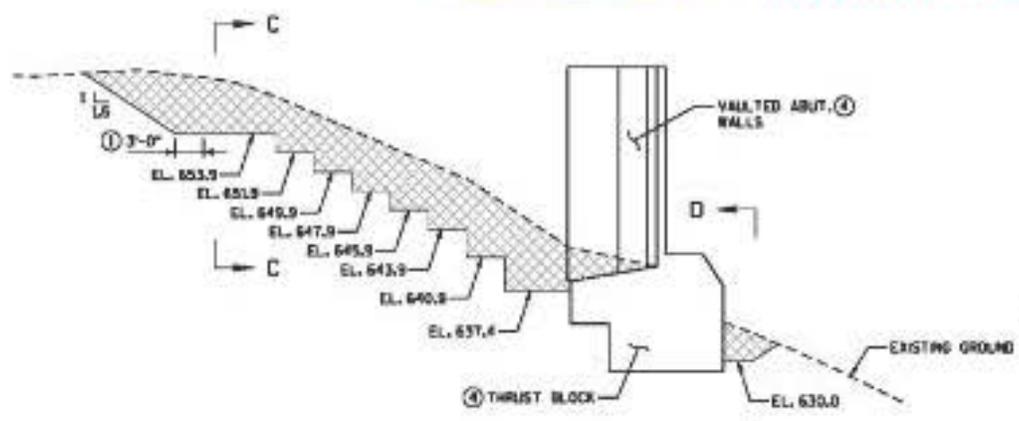


SOUTH ABUT. PLAN

TREES TO BE REMOVED



NORTH ABUT. PLAN



- NOTES:**
- SEE SHEET X FOR SECTION C-C AND VIEWS O-O AND E-E.
 - TEMPORARY SHORING NOT SHOWN FOR CLARITY.
 - ☒ DENOTES EXCAVATION LIMITS.
 - ① MEASURED FROM OUTWARD EDGE OF PROPOSED FOOTING.
 - ② SEE SHEET X FOR FOOTING GEOMETRY.
 - ③ REMOVE AND GRADENGE OF TREES TO 4"

LAKE PARK ARCH BRIDGE RENOVATION
LAKE PARK ON LAKE MILWAUKEE
IN MILWAUKEE
LAKE PARK ARCH BRIDGE OVER RAVINE

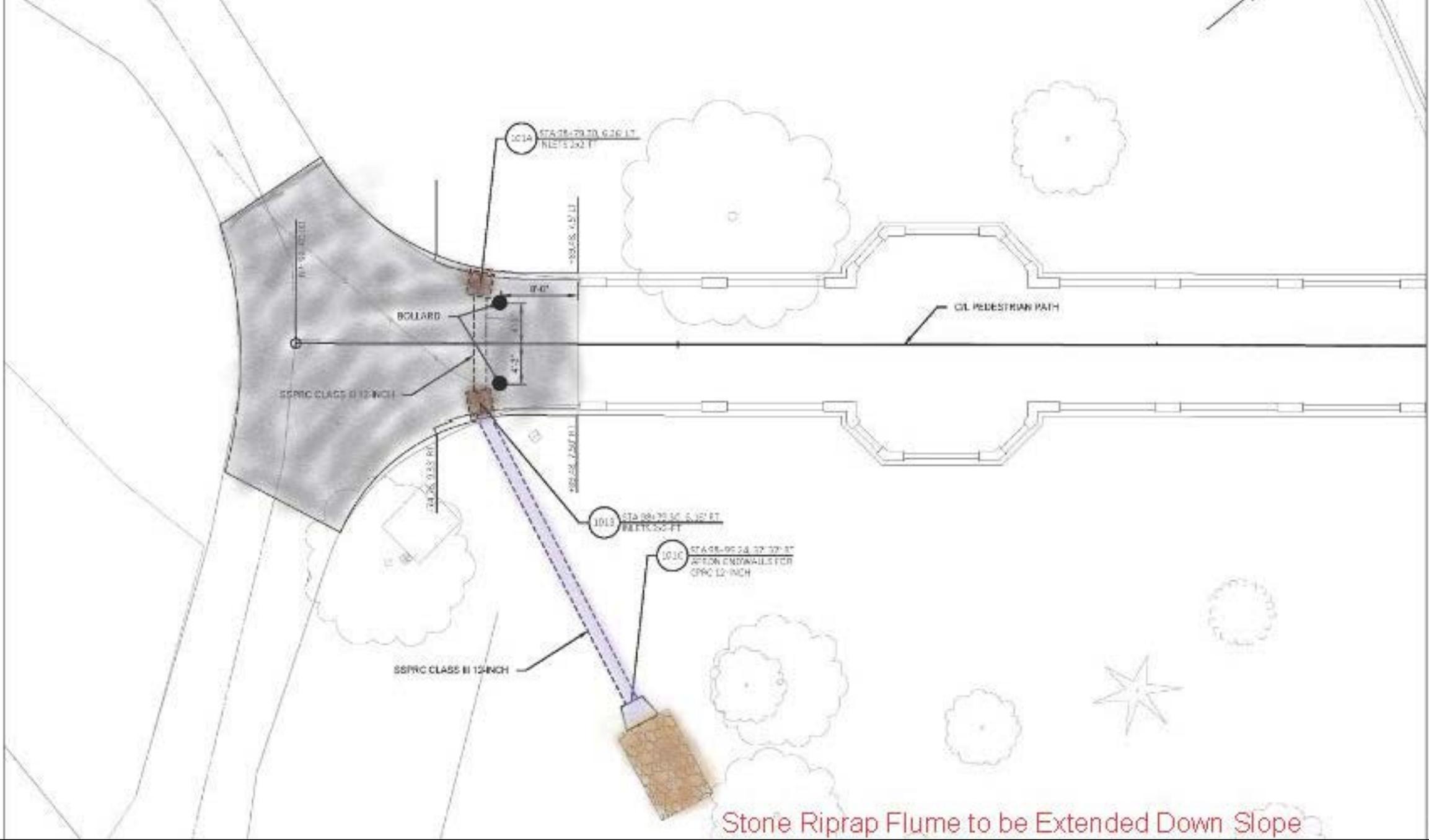


MILWAUKEE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
CITY CAMPUS: 3715 W. VALENT ST., 7TH FLOOR, MILWAUKEE, WI 53208

REVISIONS

DATE: 8/16/2018
PROJECT: P888-10218
STATE ID: 2867-01-03
SHEET NO: 13





Stone Riprap Flume to be Extended Down Slope

LAKE PARK ARCH BRIDGE REHA
 LAKE PARK ON LAKE MIC
 IN MILWAUKEE
 LAKE PARK ARCH BRIDGE OVER RAV

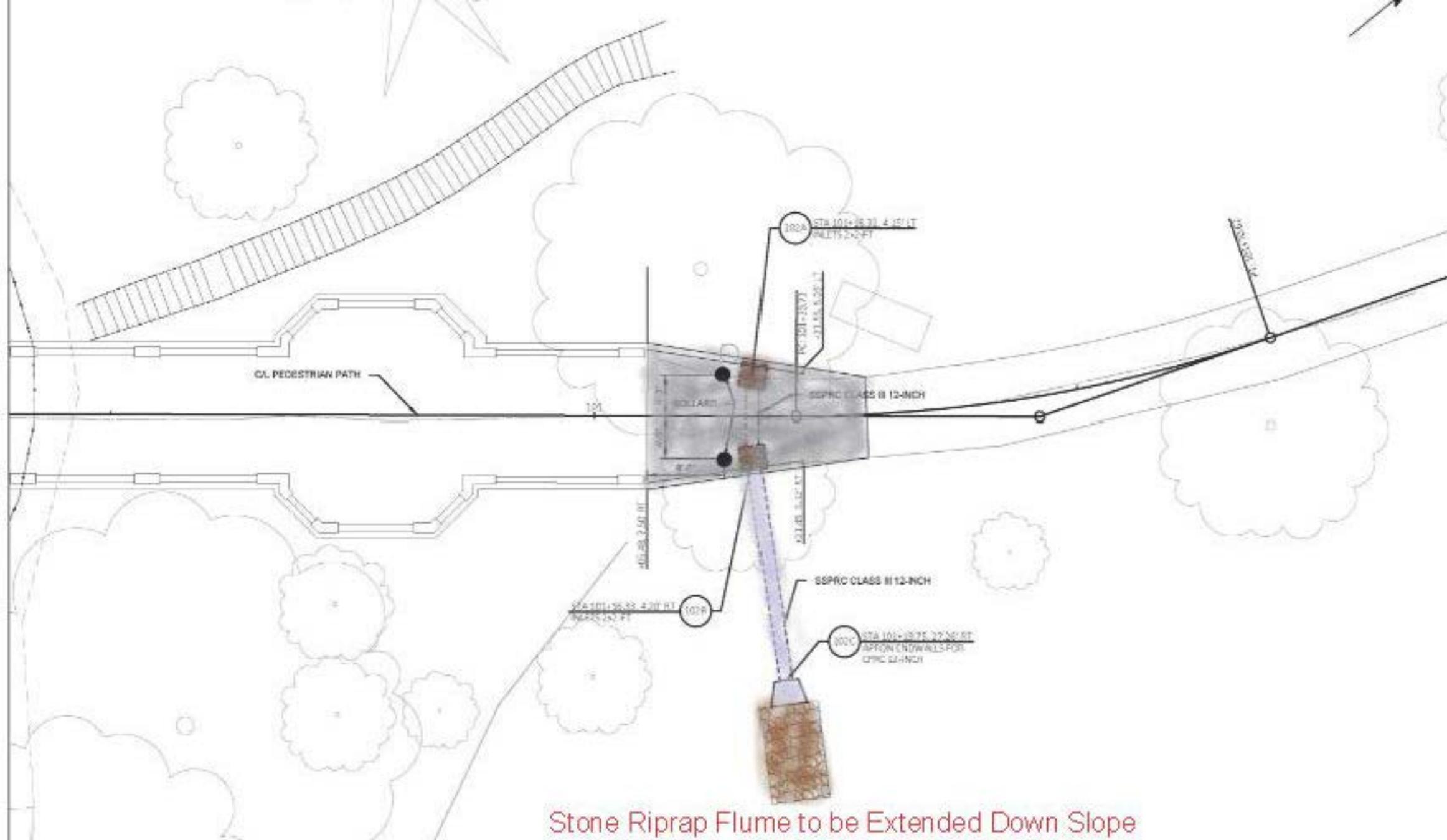


MILWAUKEE COUNTY DEPARTMENT OF
 TRANSPORTATION AND PUBLIC WORKS
 CITY CAMPUS, 2115 W. WIS. ST., 1ST FLOOR, MILWAUKEE, WI 53233

REVISED

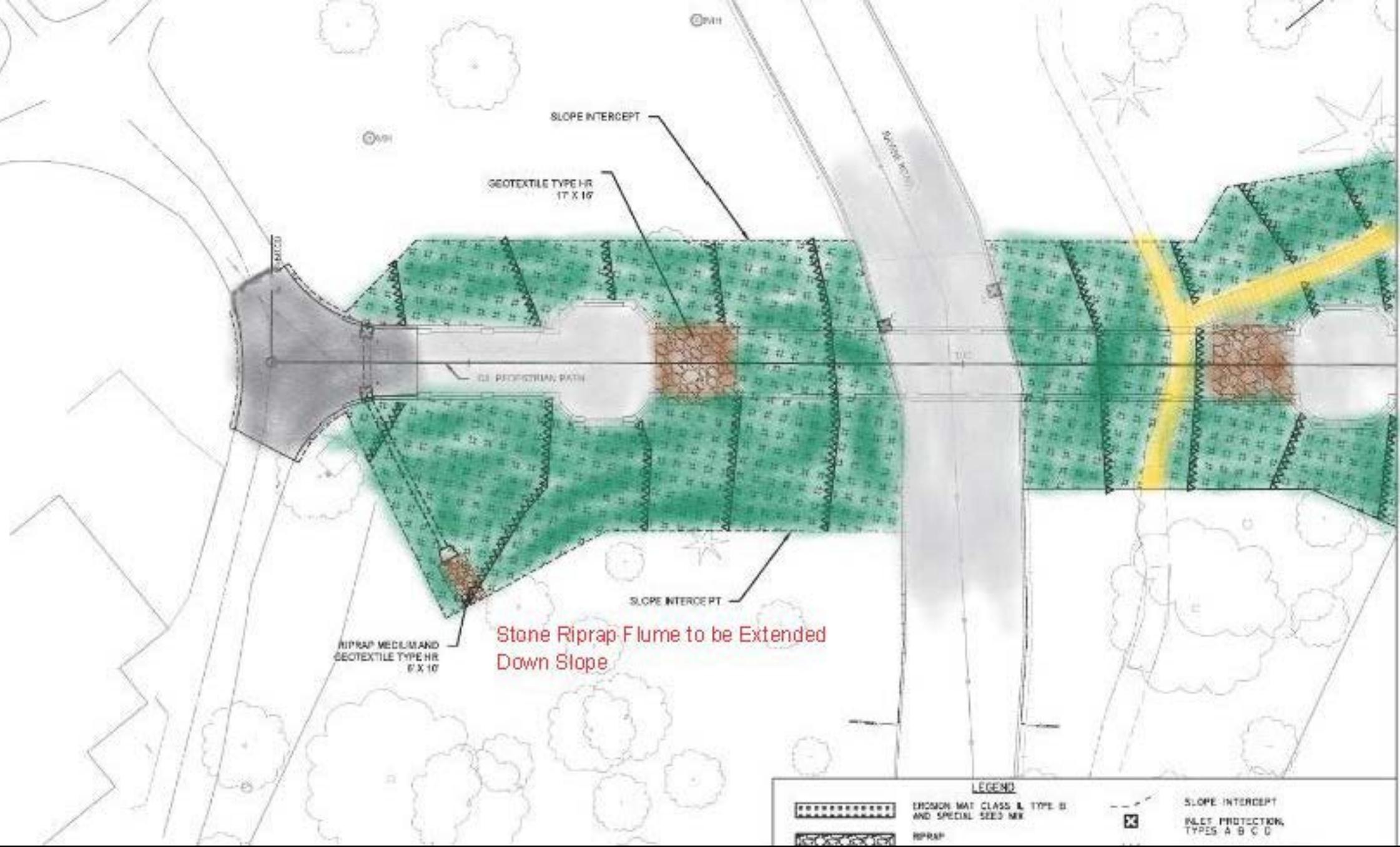
DATE: 9/15/2019
 PROJECT: P484-19019
 STATE ID 2967-01-03
 SHEET:





Stone Riprap Flume to be Extended Down Slope





Stone Riprap Flume to be Extended
 Down Slope

LEGEND	
	EROSION MAT CLASS B, TYPE B AND SPECIAL SEED MIX
	RIPRAP
	SLOPE INTERCEPT
	PALET PROTECTION, TYPES A B C D





Stone Riprap F lume to be Extended
Down Slope

LEGEND	
	EROSION MAT CLASS E, TYPE B AND SPECIAL SEED MIX
	RIPRAP
	SLOPE INTERCEPT
	INLET PROTECTION TYPES A B C D
	TEMPORARY DITCH CHECK



Lake Park Bridge over Ravine Road

Historical Coordination

June 17, 2020

Lake Park

- National Register listed historic district; bridge over Ravine Drive is contributing to the district
- Designated as a City of Milwaukee Landmark within the North Point North Historic District



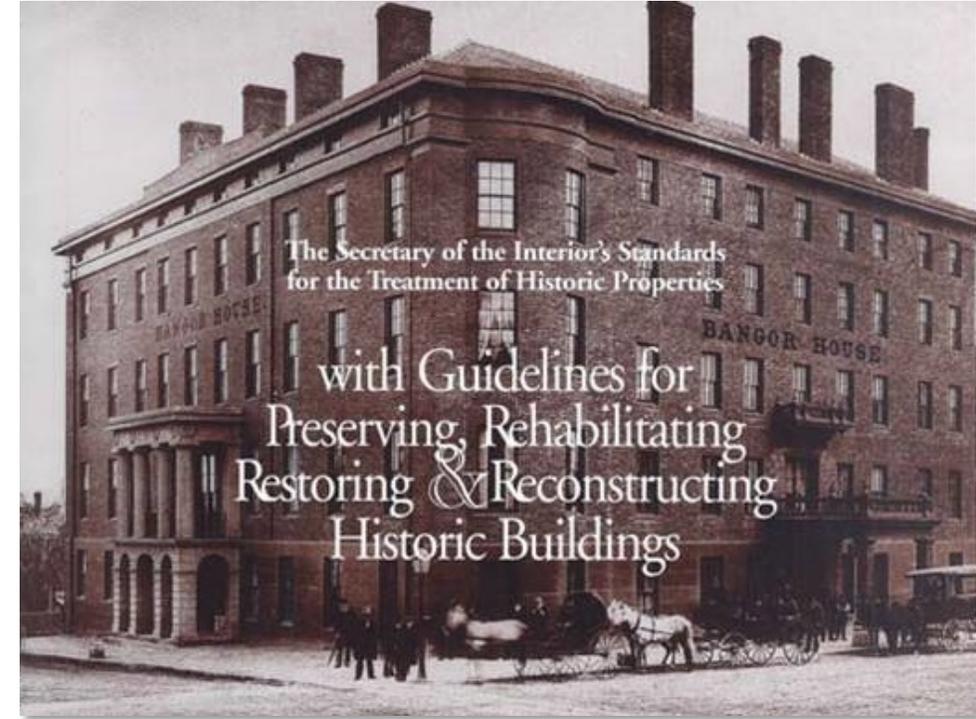
Historical Review Process

- Federal funds require the project comply with Section 106 regulations of the National Historic Preservation Act
- City of Milwaukee Certificate of Appropriateness also required



Rehabilitation

- Rehabilitation to follow the Secretary of the Interior's Standards for Treatment of Historic Properties
- Coordination with WisDOT Cultural Resource Team, State Historic Preservation Office, City of Milwaukee Historic Preservation Commission
- Preliminary assessment that proposed rehabilitation work will retain historic features of the bridge and result in no adverse effect



Next Steps

- Determination of No Adverse Effect documentation: July – September 2020
 - Review by WisDOT Cultural Resources Team
 - Concurrence by State Historic Preservation Office
- Certificate of Appropriateness application: August – September 2020
 - Review by City of Milwaukee Historic Preservation Commission



Questions, Comments, Statements

Questions, Comments, Statements





Summary, Conclusions,
Adjourn