

Jenks Riverwalk Bank Stabilization Evaluation

OFMA Conference

September 23, 2025



Presentation Outline

- Background
- Data Gathering
- Field Investigation
- Findings
- Recommendations



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Background

Jenks Riverwalk

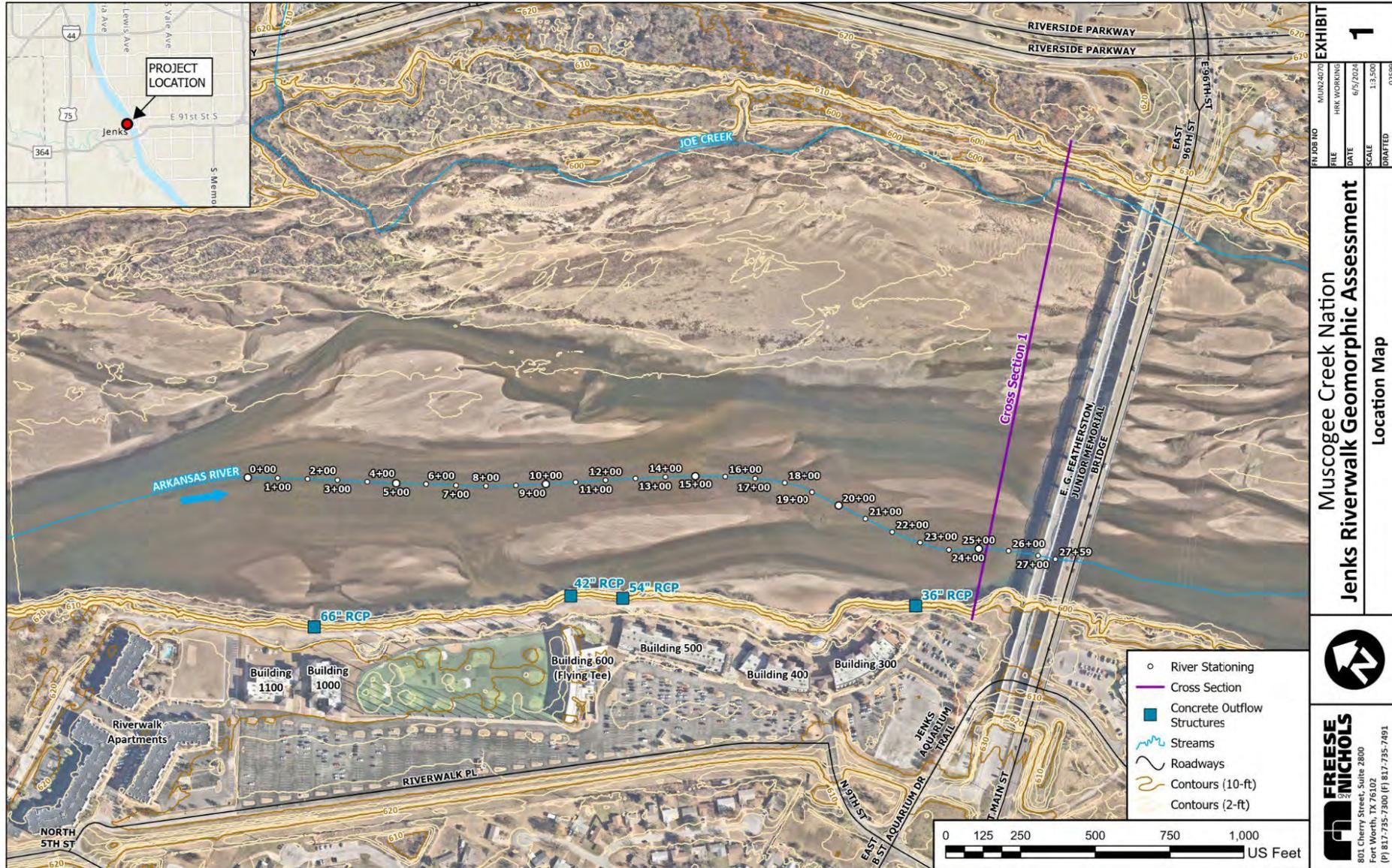


EXHIBIT	1
FILE NO.	MUN24077
FILE	HRR WORKING
DATE	6/15/2024
SCALE	1:350
DRAWN	02599

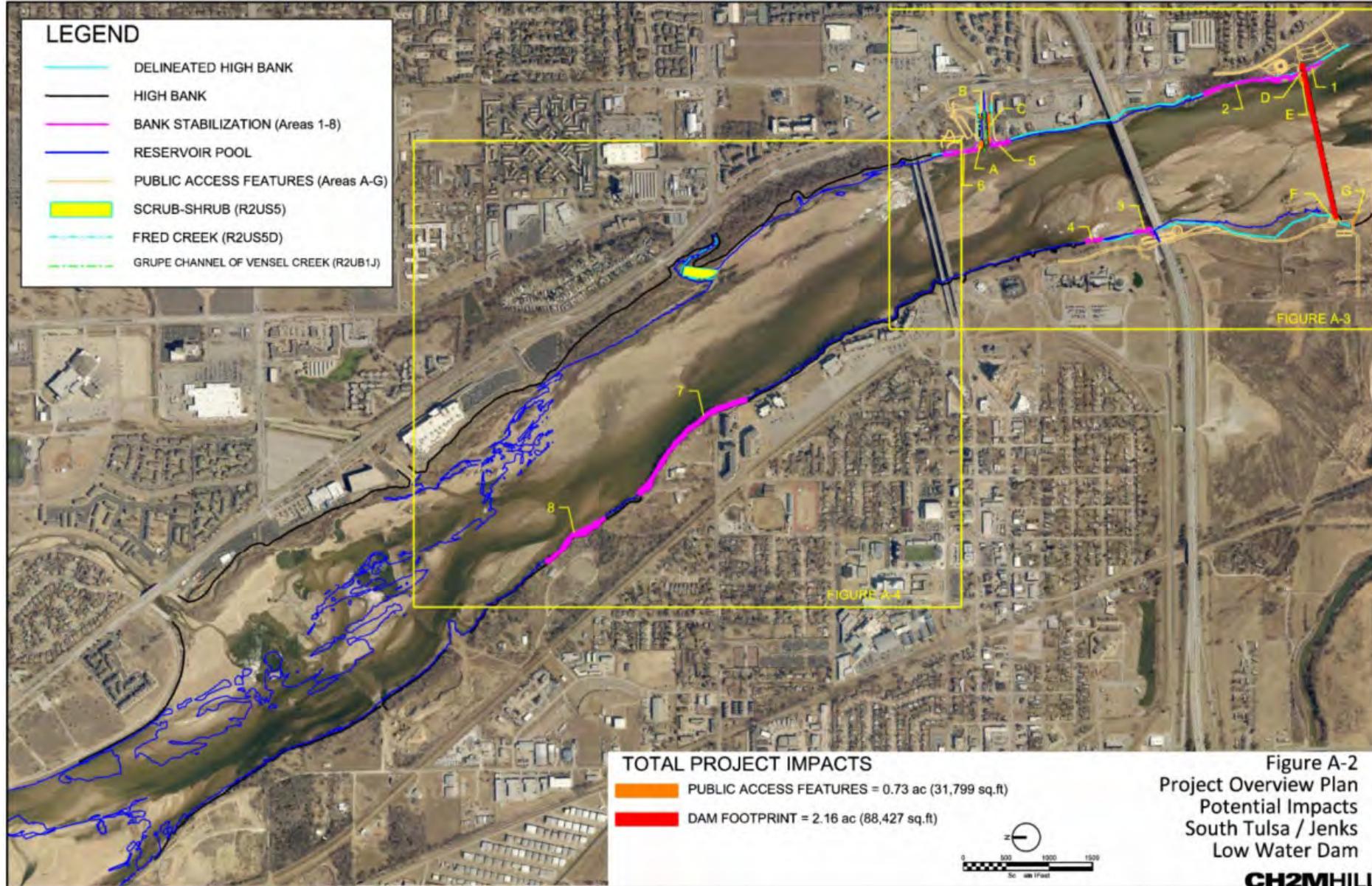
Muscogee Creek Nation
Jenks Riverwalk Geomorphic Assessment
 Location Map



FREESE NICHOLS
 801 Cherry Street, Suite 2800
 Fort Worth, TX 76102
 (F) 817.735-7300 (C) 817.735-7491

- River Stationing
- Cross Section
- Concrete Outflow Structures
- ~ Streams
- ~ Roadways
- ~ Contours (10-ft)
- ~ Contours (2-ft)

Jenks Riverwalk



Jenks Riverwalk

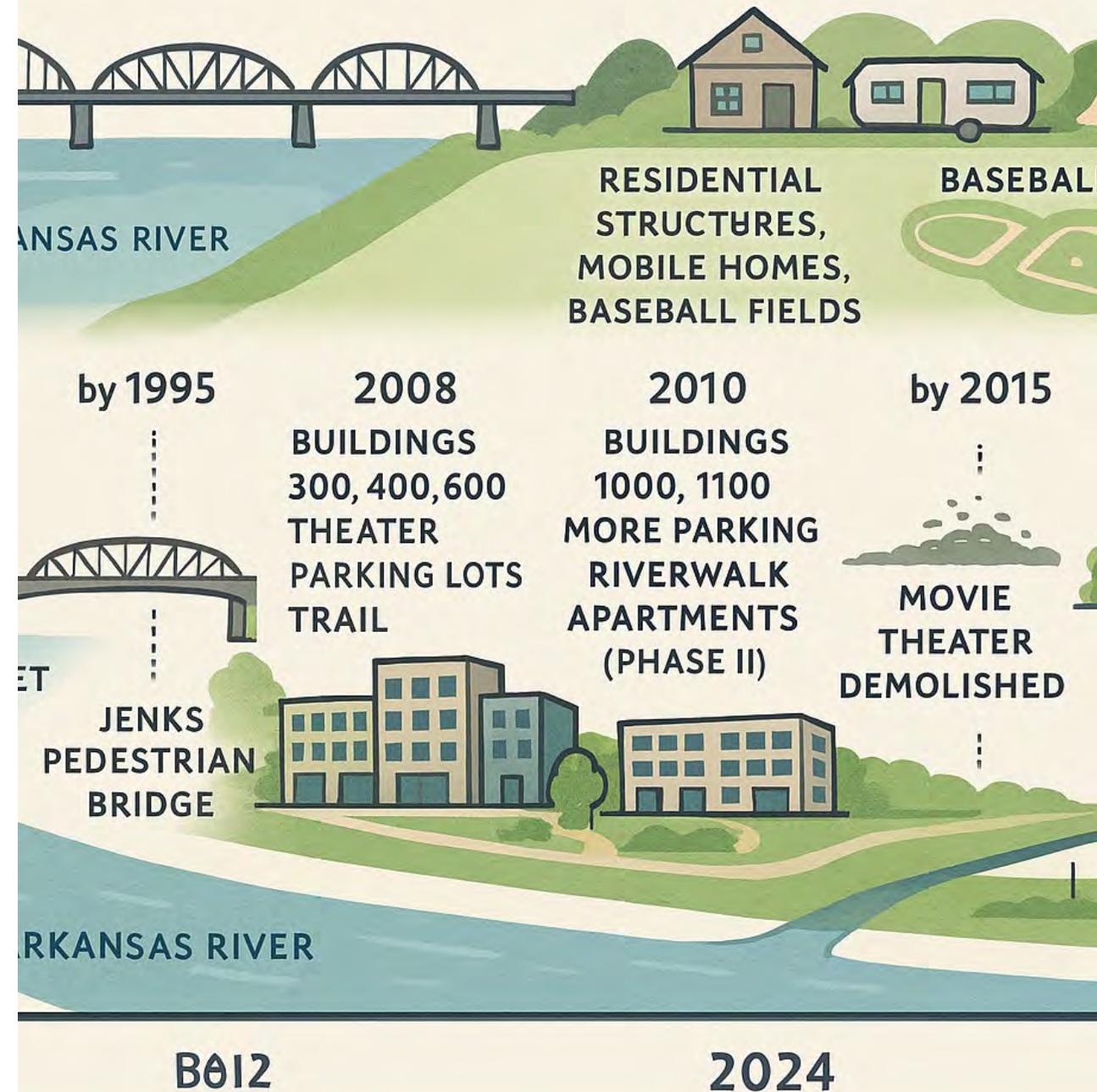




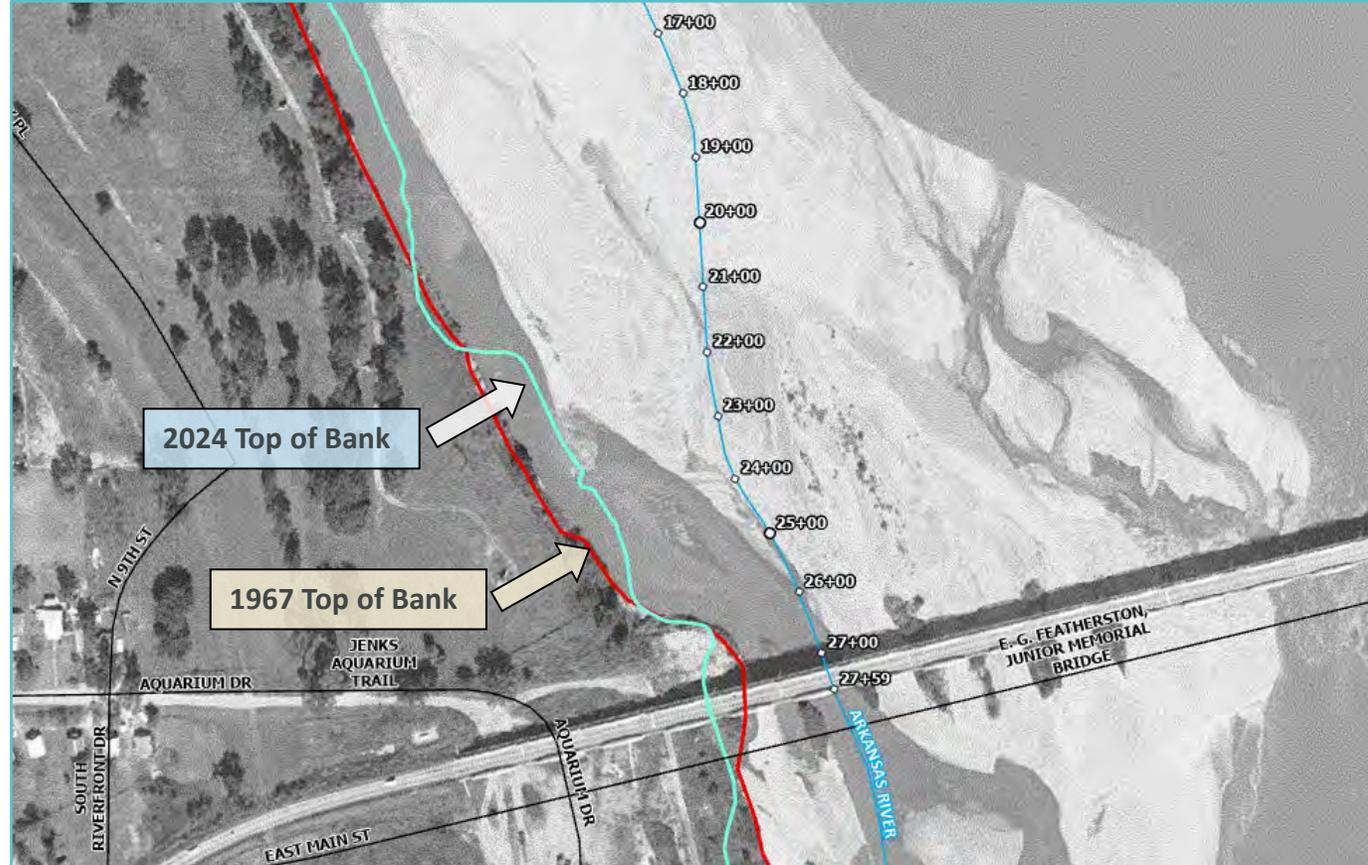
Data Gathering

Data Gathering

- 1995 – E 96th Bridge Constructed
- 2008 – Phase 1 Buildings and Theater Constructed
- 2010 – Phase 2 Buildings Constructed
- 2015 – Removal of Theater
- 2017 – “Suite Shots” constructed

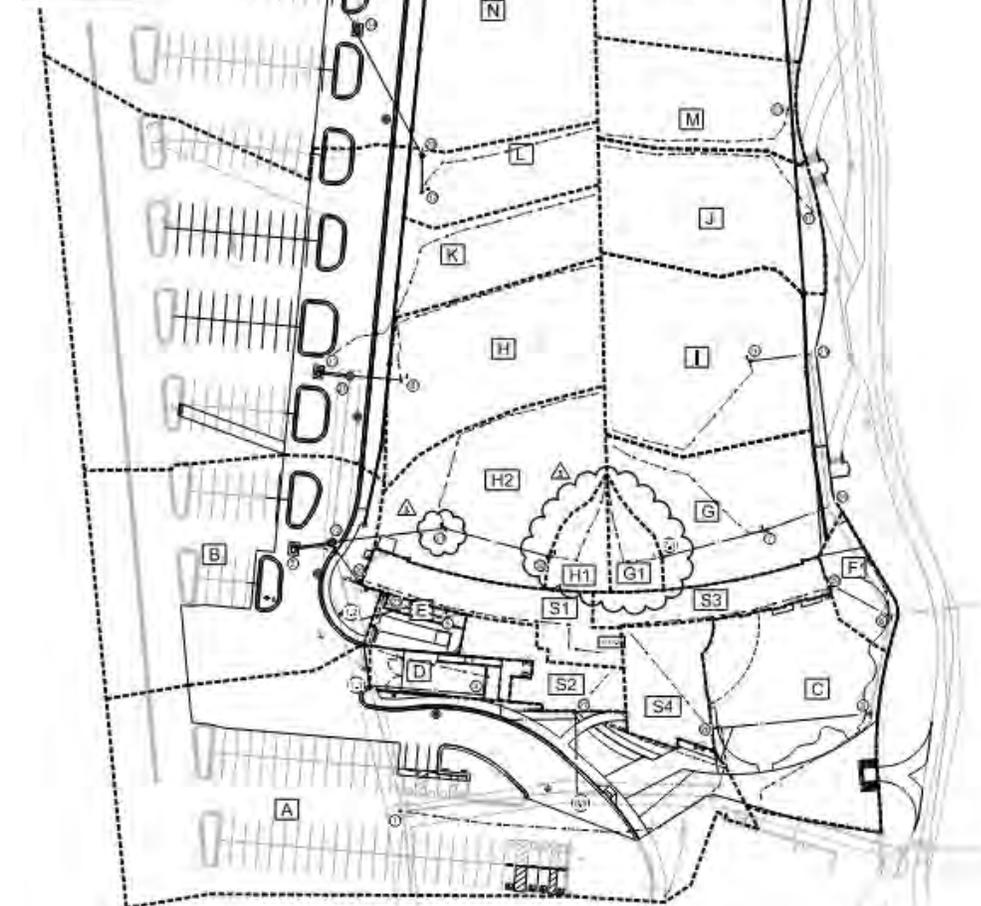


Data Gathering



KEY DESIGN

- Wall 5 Detail
- Wall 3 Detail
- Slab 5
- Slab 4
- Slab 3
- Slab 2
- Slab 1
- Slab 0
- Slab -1
- Slab -2
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Field Investigation

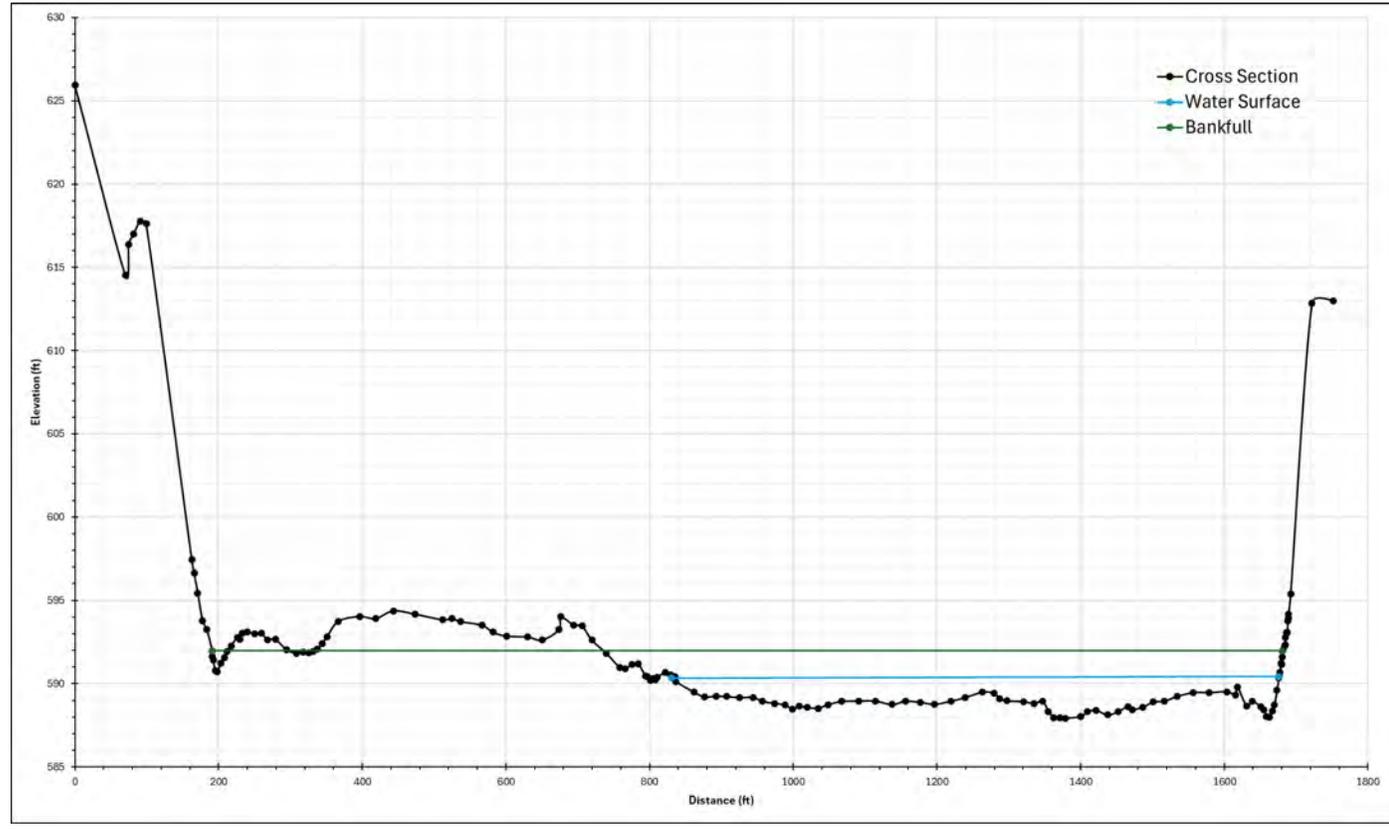
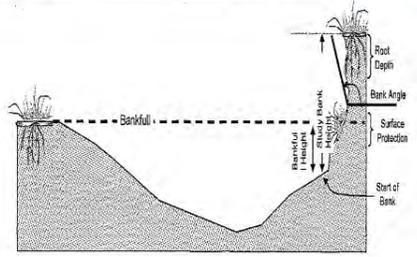
Field Investigation

BEHI Variable Worksheet

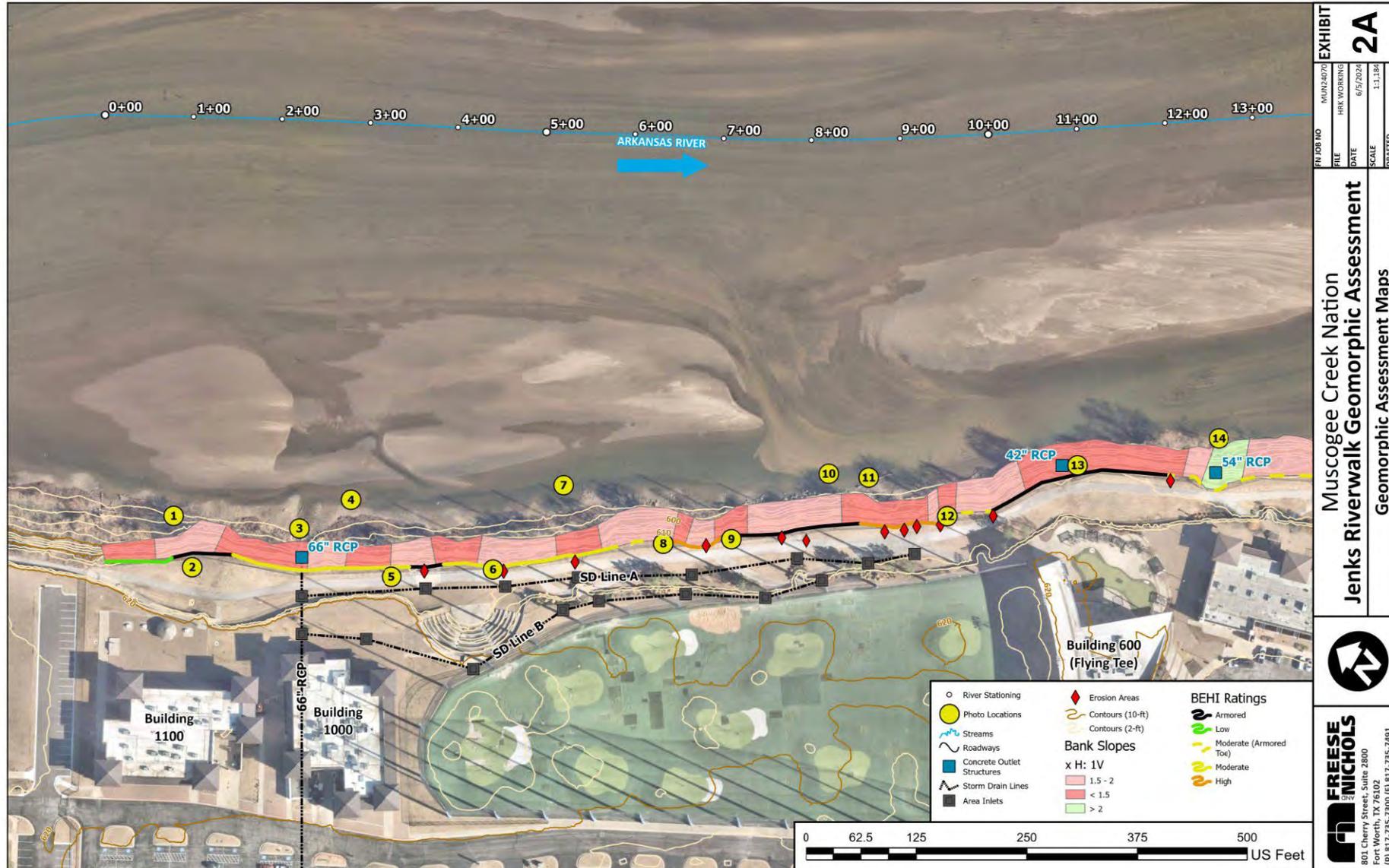
Stream: Arkansas River Station/Cross Section: STA 25+00
 Stream Type: Valley Type: Reach: Date: 3/12/2024
 Observers: SCK, KWB Photos: IMG 7826

	A Bank Ht 25		D Root Depth 12.5
	B Bankfull Ht 4		A Bank Ht 25
	C (A/B) 6.25		E (D/A) 0.5
	↓ 10		↓ 4
	F Root Density 40		H Slope 45
	G (F*E) 20		↓ 3
	↓ 7		
	I Surface Protection 40	Bank Material Adjustment	0.0
	↓ 5	Bedrock (Overall Very Low BEHI)	
		Boulders (Overall Low BEHI)	
		Cobble (-10 if uniform medium to large)	
		Gravel (+5-10 depending on % sand)	
		Sand (+10)	
		Silt/Clay (No adjustment: -20 if mostly clay)	
		Stratification Adjustment	0.0
		Add 5-10 points, depending on position of unstable layers in relation to bankfull stage	

VERY LOW	LOW	MODERATE	HIGH	VERY HIGH	EXTREME	ADJECTIVE RATING
5 - 9.5	10 - 19.5	20 - 29.5	30 - 39.5	40 - 45	46 - 50	Moderate
						and
						TOTAL SCORE
						29.4

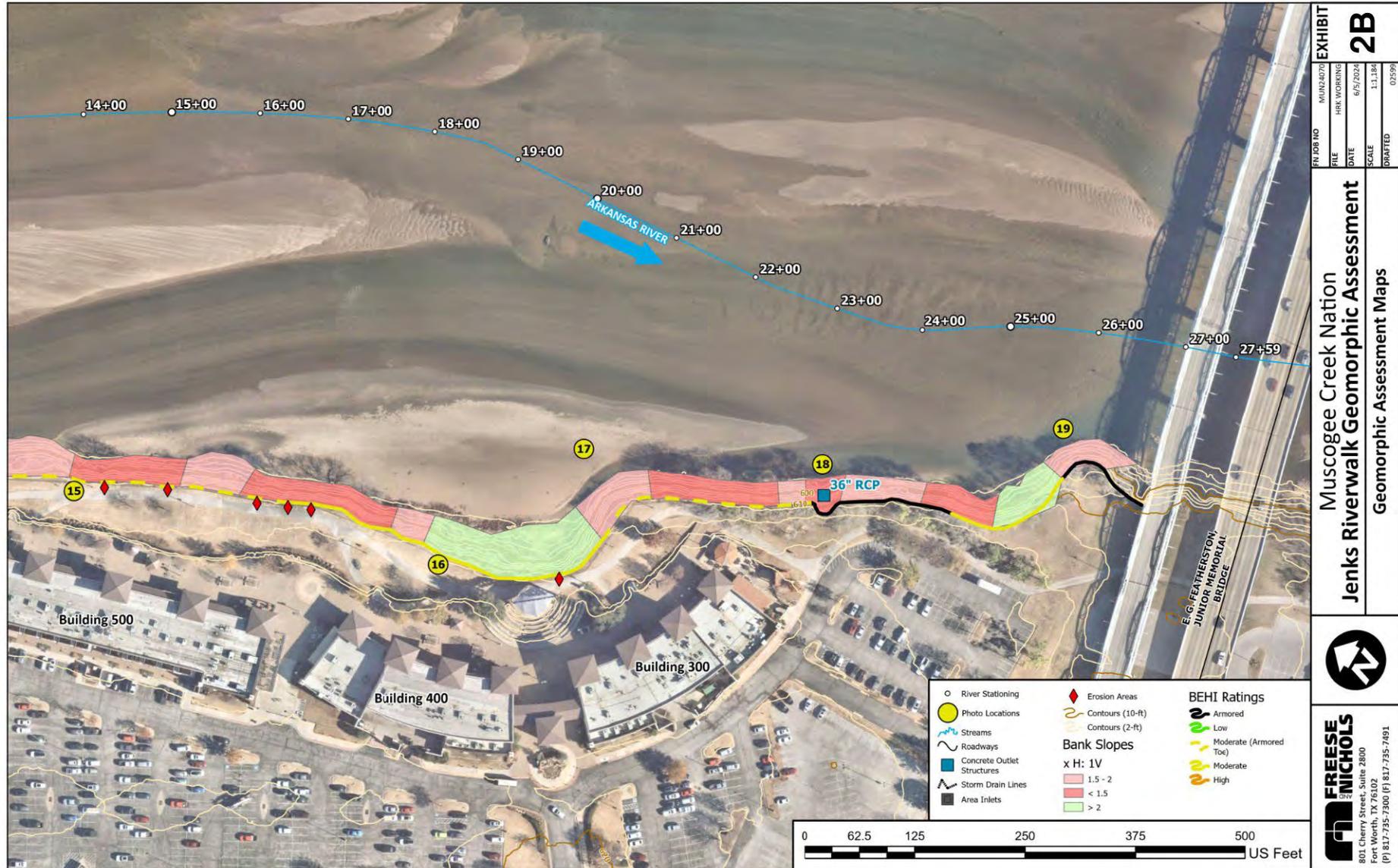


Field Investigation



<p>FN JOB NO. MUNS46702</p> <p>FILE HRK WORKING</p> <p>DATE 6/5/2024</p> <p>SCALE 1:1,184</p> <p>DRAFTED 03/2024</p>	<p>EXHIBIT</p> <p>2A</p>
<p>Muscogee Creek Nation</p> <p>Jenks Riverwalk Geomorphic Assessment</p> <p>Geomorphic Assessment Maps</p>	
<p>FREESH & NICHOLS</p> <p>801 Cherry Street, Suite 2800 Fort Worth, TX 76102 (P) 817-735-7300 (F) 817-735-7491</p>	

Field Investigation



PROJECT NO.	MUN48470	EXHIBIT
FILE	HRK WORKING	2B
DATE	6/5/2024	
SCALE	1:1,184	DRAFTED
		03/2024

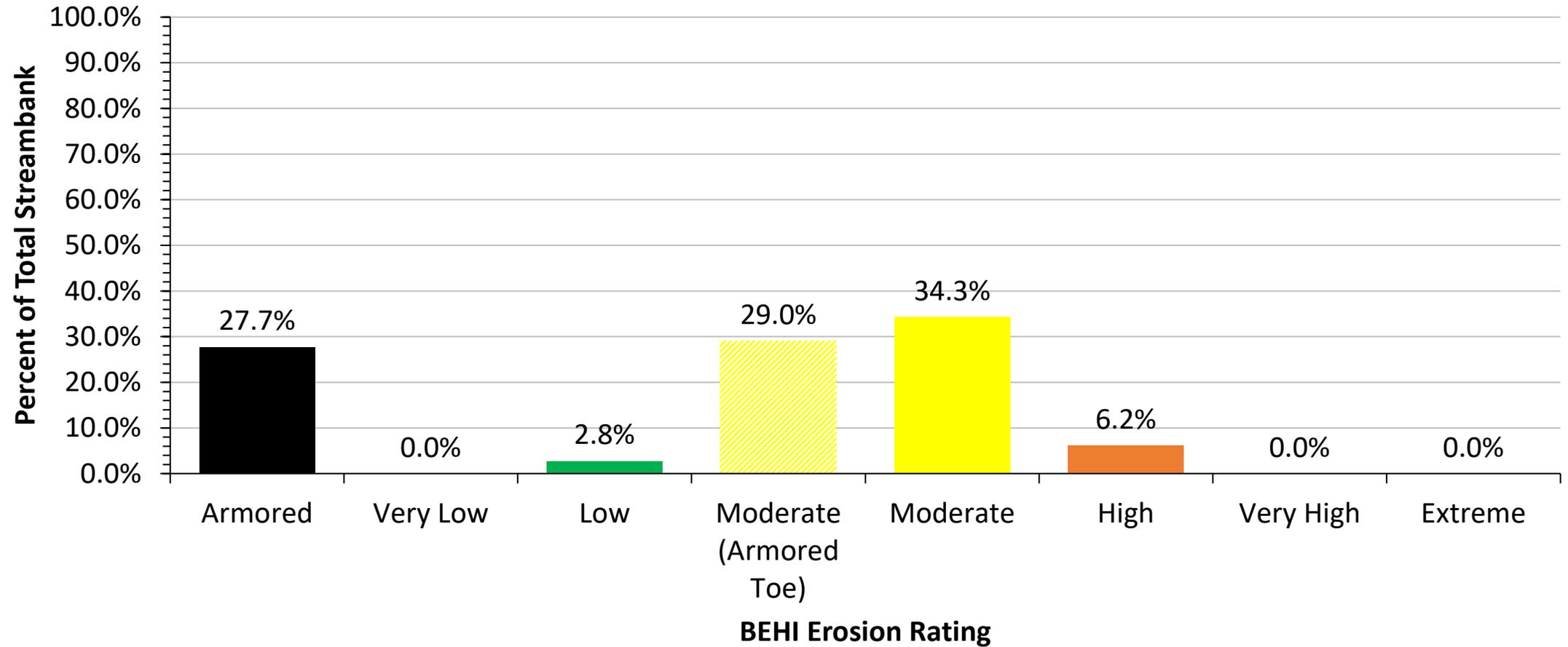
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 Geomorphic Assessment Maps

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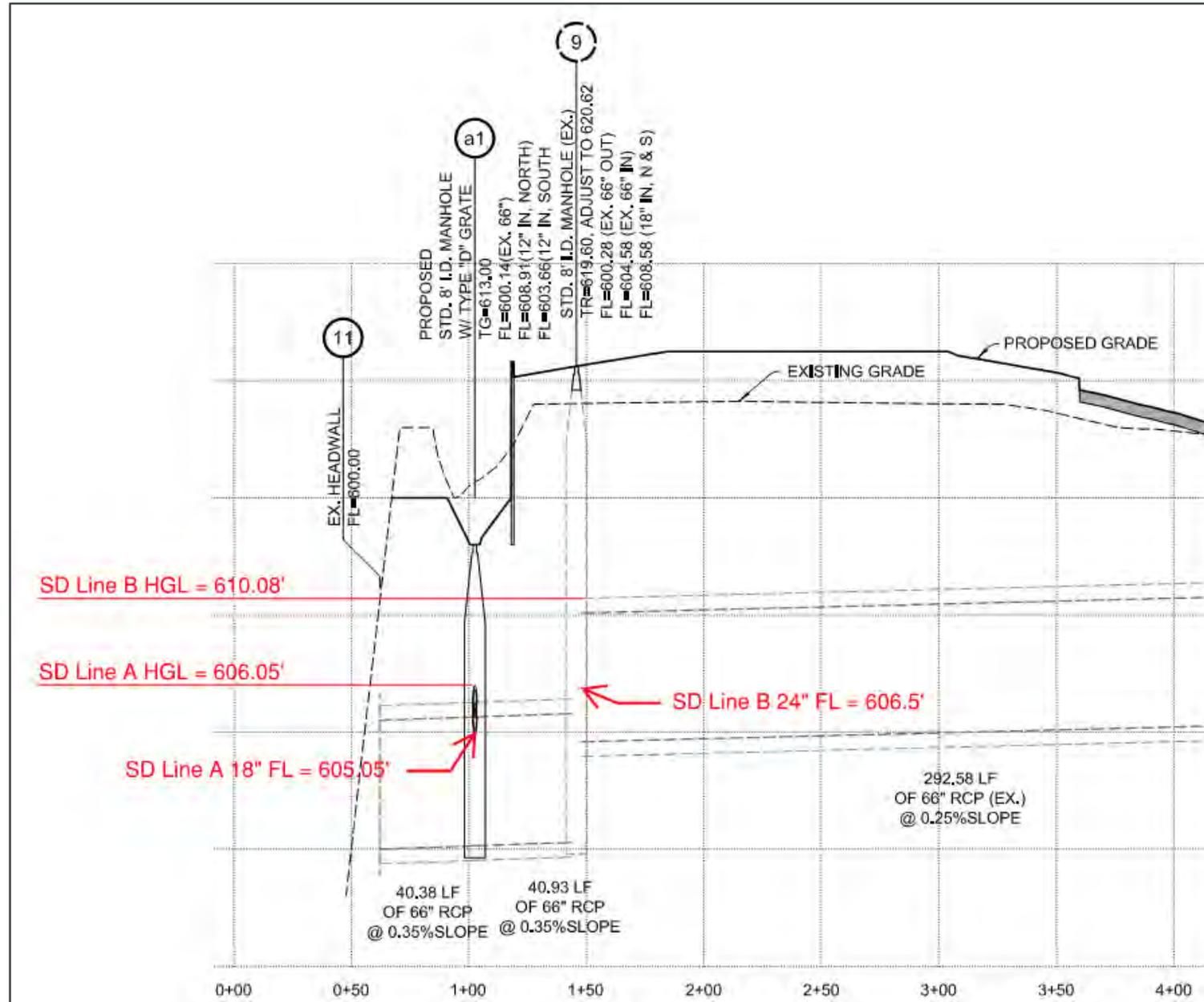


Findings

Geomorphic Assessment



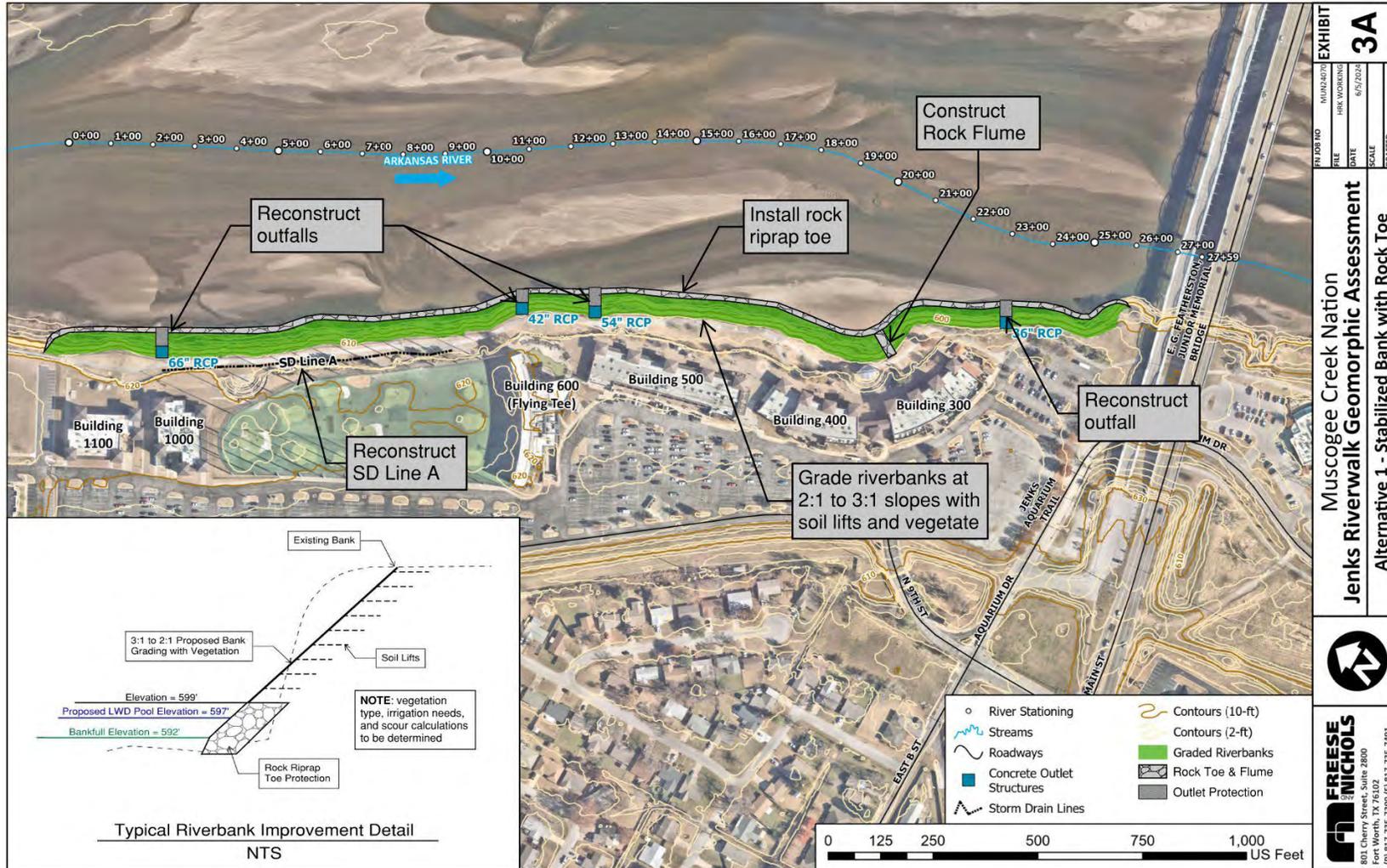
Closed Pipe Analysis



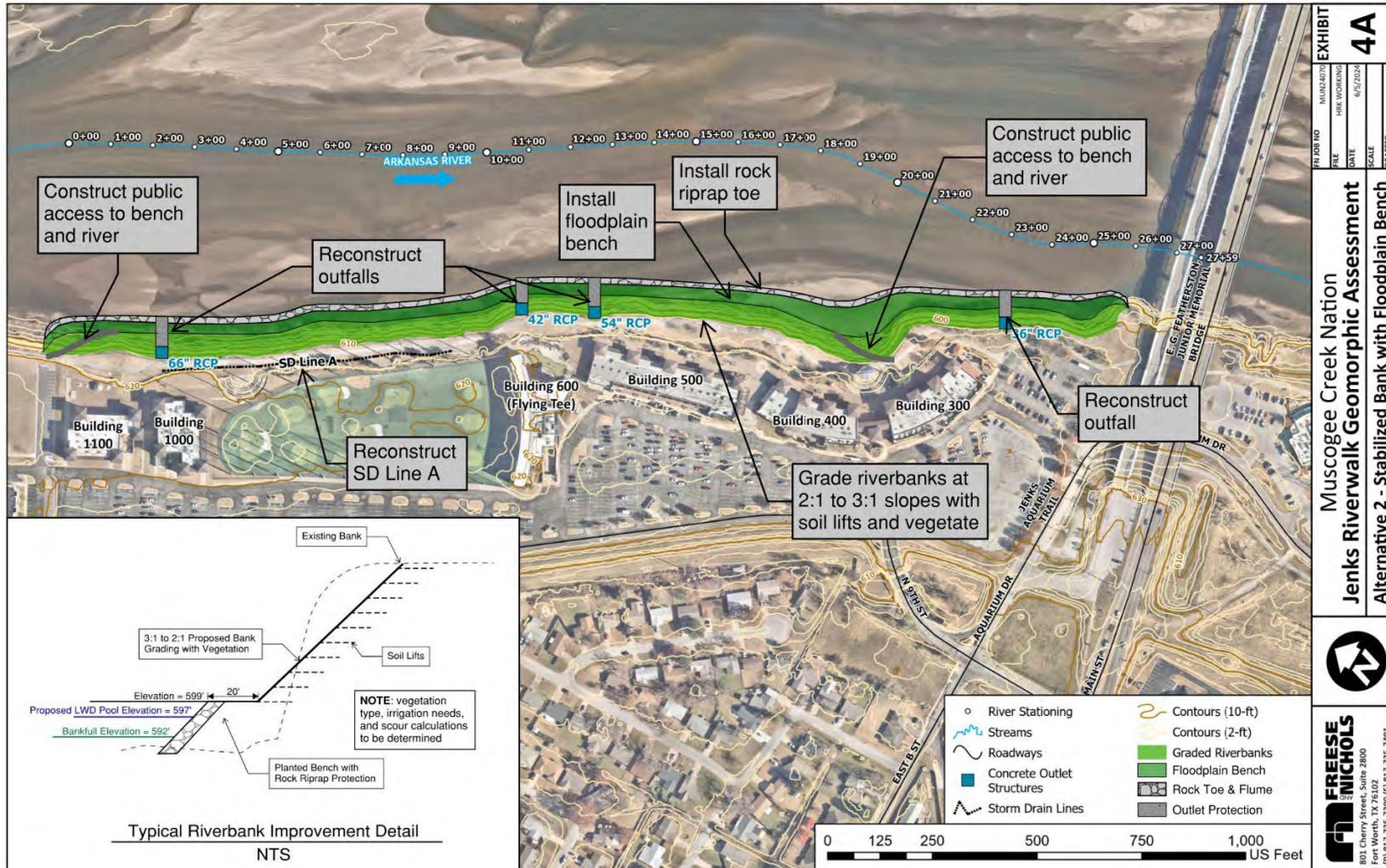
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Conceptual Alternatives

Alternative 1 – Stabilized Bank with Rock Toe



Alternative 2 – Stabilized Bank with Floodplain Bench



PROJECT NO.	M/ANZ/24/07/01	EXHIBIT	4A
FILE	HRA WORKING	DATE	
DATE		SCALE	
DRAWN		CHECKED	03/25/24

Muscogee Creek Nation
Jenks Riverwalk Geomorphic Assessment
 Alternative 2 - Stabilized Bank with Floodplain Bench

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Next Steps

- Report submitted Summer 2024
- Initiate design Fall 2025

Description	Duration*
Survey	2.5 months
Conceptual Design 30%	4 months
Preliminary Design 60%	5 months
Final Design 90%	2.5 months
Construction Documents 100%	2 months
Bid Phase Services	2 months
Construction Phase Services	10 months
Total Project Duration =	28 months



Thank you

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