

Lower Imhoff Creek Stream Bank Rehabilitation Project

(Council Agenda Items 18 & 19)

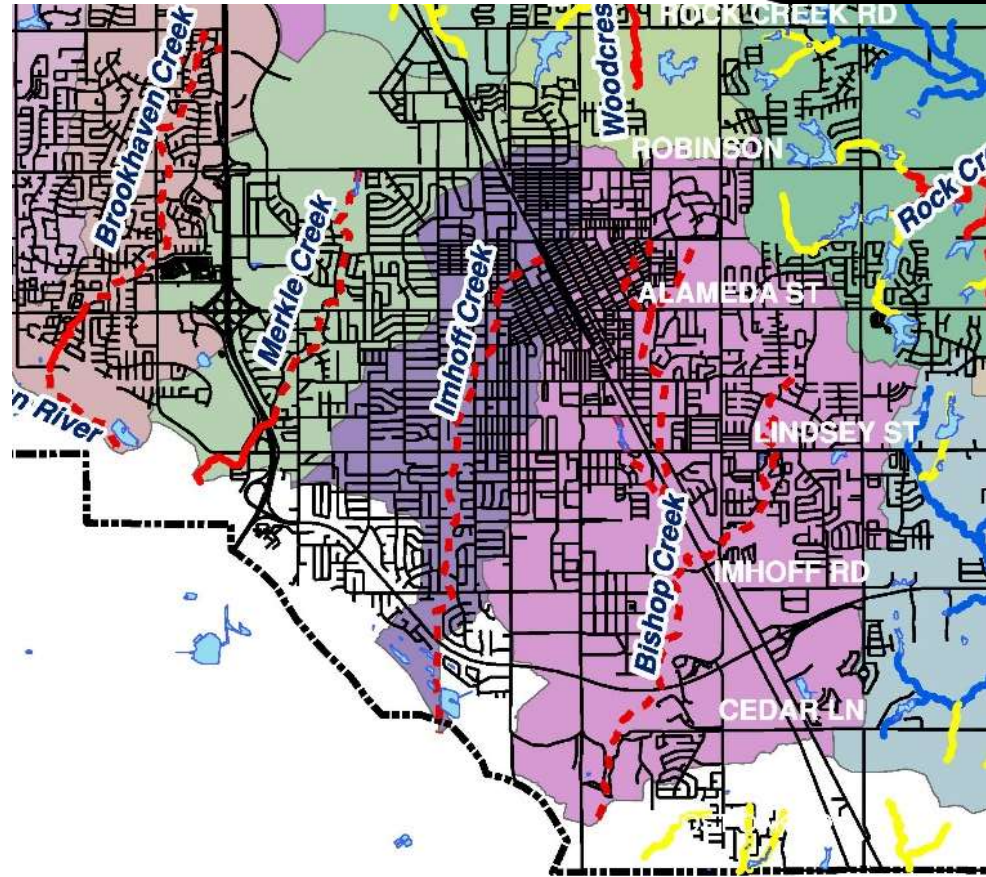
City Council Study Session

June 28, 2022



Imhoff Creek

- Begins at Robinson Underpass and continues to the Canadian River
- Approximately 4.3 miles through Norman
- Collects stormwater from older sections of Norman
- Runs through Andrews Park
- Portions are WPA constructed channels
- Multiple repetitive loss structures
- Has 1 mile of eroded stream banks



Imhoff Creek Time Line



- 2009 - Stormwater Master Plan complete
- 2015 - Council approved contract to do hydraulics and hydrology for Imhoff Creek
- 2017 - Lindsey Street bridge constructed
- 2017 - Repairs to Imhoff Creek segment south of Lindsey Street completed
- 2021 – Imhoff Road bridge closed due to damage. \$1.8 million
- 2021 – City Council approved contract with Meshek and Associates for the design of Lower Imhoff Creek Phase1



Stormwater Master Plan

- Identified all streams in Norman
- Identified significant problems and solutions along the streams
- Top 5 identified projects
 1. McGee and Lindsey Flooding (Lake McGee):
Completed
 2. Indian Hills Road and Little River Mobile Home Park in Floodplain purchased and Removed: **Completed**
 3. Main Street Bridge over Brookhaven Creek:
Completed
 4. Sinclair Drive and Beaumont Drive add pipe to prevent flooding: **Not Completed***
 5. IC-1 and IC-2 Imhoff Creek North of Highway 9 Bank Stabilization: **Not Completed**



Imhoff Creek Channel Liner Repair

- Not identified in SWMP
 - Considered stable in 2009
- Previously lined with articulated concrete block
- Liner failed during 2015 flood
- FEMA-funded project (disaster relief funds)
- Council approved Contract No. K-1617-127 with A-Tech Paving for \$451,245 on July 25, 2017, to complete repairs
- Benefits:
 - Reduced erosion potential
 - Protected adjacent properties
 - Federally funded



Liner Repair Project Location



Liner Repair After Photos



Lower Imhoff Creek Project

Phase I

- From Imhoff Rd Bridge downstream to SH-9E
- Approximately 2200 feet
- Estimated cost \$3.8 million

SWMP Ranking

- Number 5 ranked project in City
- Number 1 ranked project in Ward
- Number 2 ranked project in Watershed



Phase II

- From Imhoff Road Bridge
- Approximately 2000 feet north
- Estimated cost \$4.4 million

Example of Current Issues



Example of Current Issues

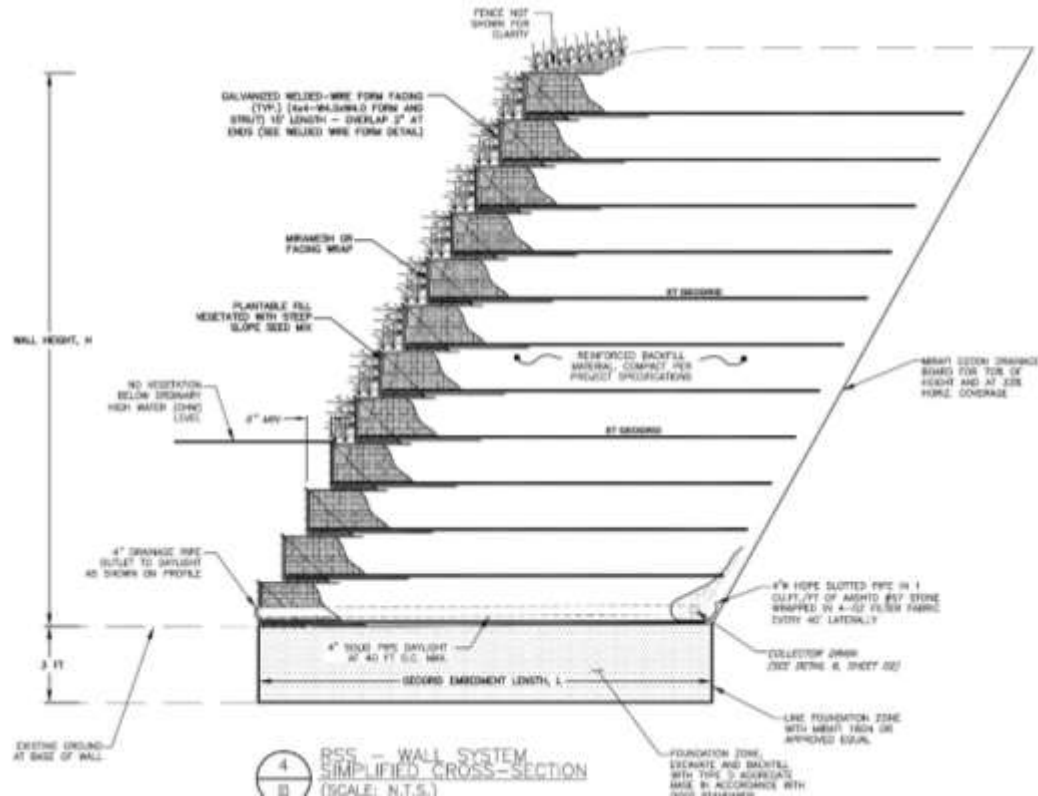


Example of Current Issues



Proposed Project

- Design minimizes the amount of adjacent property necessary to complete the project
- Stream stabilization using natural products to maintain habitats
 - Walls that allow vegetation coverage
 - Stone drop structures/cross vane
 - Native vegetation



Lower Imhoff Creek Project Phase I

(Council Agenda Item 18)

Phase I

- From Imhoff Road Bridge downstream to Highway 9
- Approximately 2200 feet
- Estimated cost \$3.7 million
- Seeking FEMA Hazard Mitigation Grant Program (HMGP) funding at 90% Federal funds



Proposed Schedule

- June 2022 - HMGP application submittal
- August 2022 – Council accepts HMGP grant (\$3.4M)
- September 2022 – Bid project
- December 2022 - Begin construction
- December 2023 – Complete construction

Lower Imhoff Creek Project Phase II

(Council Agenda Item 19)

Phase II

- From Imhoff Road Bridge approximately 2000 feet north
- Estimated cost \$4.4 million



Proposed Schedule

- June 2022 – Appropriate ARPA grant funds (\$3M)
- July 2022 – Engr contract amendment with Meshek to Council
- July 2023 – Bid project
- September 2023 - Begin construction
- September 2024 – Complete construction

Previous Funding Approach

- FYE 2023 CIP Budget includes \$550,000 per year for 7 years to pay for design and construction of Lower Imhoff Creek Project
 - Following years to be approved by Council in CIP budget
 - Total funding \$3,850,000
- Applied for FEMA Building Resilient Infrastructure and Communities (BRIC) Grant for Phase I
 - 75% Federal funds
- Meshek recommended FEMA HMGP Grant application in place of BRIC Grant for Phase I
 - 90% Federal funds
 - HMGP a better fit for this project
- American Rescue Plan Act of 2021 (ARPA) funds
 - September 21, 2021 – Council Study Session - Staff presented Stormwater Projects that may be considered for ARPA funds – Lower Imhoff Creek number one project
 - City Council programmed \$3,000,000 for Stormwater Capital Projects



Current Funding Proposal

Funding with HMGP Grant and ARPA and CIP Funds

Grant & ARPA	Phase I	Phase II	Total
Project Total	\$ 3,775,000	\$ 4,400,000	\$ 8,175,000
HMGP Grant Award	\$ 3,402,000	\$ -	
ARPA	\$ -	\$ 3,000,000	
Sub Total	\$ 3,402,000	\$ 3,000,000	\$ 6,402,000
City CIP Budget Funds			
HMGP Match	\$ 373,000	\$ -	
CIP Funding	\$ -	\$ 1,400,000	
Sub Total	\$ 373,000	\$ 1,400,000	\$ 1,773,000
TOTAL	\$ 3,775,000	\$ 4,400,000	\$ 8,175,000
Project Funded	Yes	Yes	
Timeline to fund	When Grant is approved	In FYE 25	

Council Direction?



- Item 18: Submit revised FEMA HMGP Grant application?
 - \$3.4 million (90/10 federal-local funding)
- Item 19: Appropriate ARPA grant to Imhoff Creek Project?
 - \$3.0 million (80/20 federal-local funding)

