Plano
City of Excellence

Streambank Stabilization Program

Preliminary Open Meeting – August 8, 2022

Director of Engineering – Caleb Thornhill
Engineer, Sr. – Russell Erskine
Engineer, Sr. – Alison Smith

Streambank Stabilization Program - Follow Up

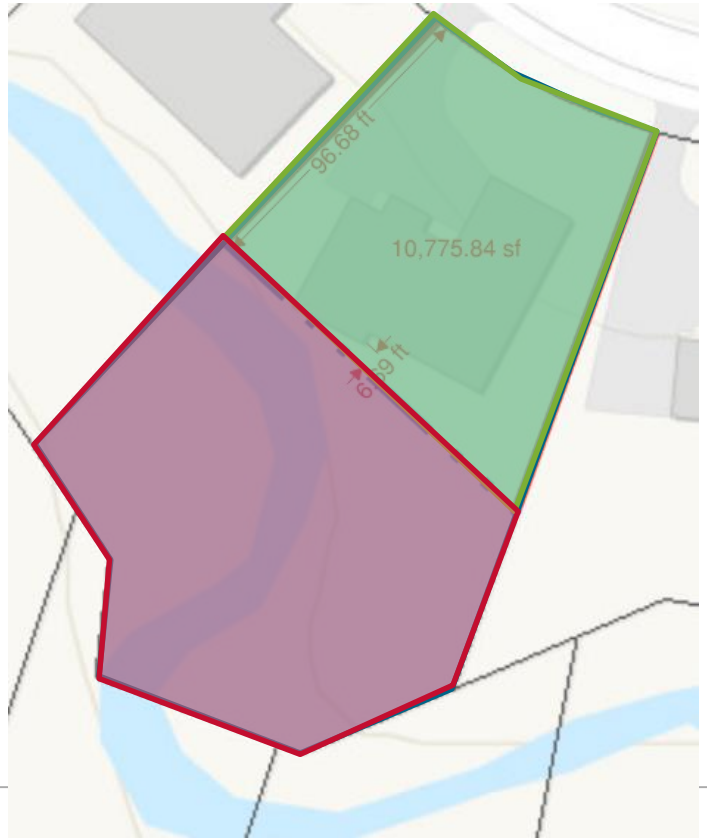
- Follow up discussion from March 28, 2022 Preliminary Open meeting
- Discuss practices for surrounding communities
- Alternatives
- Potential requirements for requested improvements

Streambank Stabilization – Peer Programs

City	Private Property	HOA Responsibility	Notes
Plano	No*	No	*Plat maintenance responsibility not assigned.
Dallas	No*	No	*If location included with a larger project.
Richardson	No*	No	*Will help owners if they pay $5,000. Help Commercial if they pay 50%
Garland	Yes*	Yes	*Non-Residential: 33/67 Residential: 50/50 * Citizens along waterways pay higher drainage rates
Frisco	No	No	
McKinney	No*	No	*Will consider if there is a safety concern.
Arlington	No	No	

Streambank Stabilization – Case Study

- Case by Case evaluation
- Acquire parcel needed for improvements
  - Require removal of any obstructions/violations
- Min. Lot Size – Meet 9000 sqft Min
- Rear Setbacks – Below 10ft Min
- Minimum Lot Depth - Below 100ft Min
- Lot Coverage – Below 45% Max



Citywide Streambank Erosion Assessment

1. Streambank erosion assessment citywide of approx. 120 creek miles.
2. Project will take 3 years to complete. Consultant must perform evaluations from fall to early spring when vegetation is sparse.
3. The assessment will be a collaborative effort between Engineering, Public Works, and Parks.
4. Consultant will prepare a scoring system which will include Risk to Infrastructure, Likelihood of Failure, Safety, Erosion Severity, and Channel Properties (i.e. migration and degradation).
5. A database will be created to include creek inventory with assessments and provide an overall creek scoreboard.
6. The database will identify critical projects and help the City provide preventative maintenance on future planned projects along creeks.
7. The database will be used as a planning tool for future CIP projects and budgeting. Assessments will include estimated time to failure and cost of repairs, as well as projected backlog and possible increases to the drainage fee to fund capital projects.

Streambank Stabilization – Alternatives

1. Perform Citywide Streambank Erosion Assesment - RECOMMENDED
   - Determine magnitude of issue.
2. Provide assistance in life safety instances
   - Clear definition of safety
3. Provide assistance for private and HOA
   - Cost increase to drainage fee
4. Cost Share program
   - Cost increase to drainage fee
5. Keep current policies and procedures in place
   - No budget impacts

Streambank Stabilization Program

Questions

B. Caleb Thornhill

Director of Engineering

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