Mastered! Developing a Successful Stormwater Master Plan for Your Community

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City Limits

TARRANT
DALLAS
ELLIS
JOHNSON

City-Wide Drainage Master Plan Road Map

GOALS:
• Reduce potential for storm water damage
• Address remaining flooding issues
• Provide comprehensive assessment
• Develop a financially sound strategy
• Identify and prioritize CIPs
City-Wide Drainage Master Plan
Road Map

HOW TO ACCOMPLISH ROAD MAP GOALS:
• Examine flooding in each watershed
• Review drainage complaints and data
• Prepare new master plan studies
• Provide updated floodplain mapping
• Prioritize all CIPs
Identified 79 Hot Spots in Road Map

CIP Prioritizations

RANKINGS:
- Project Cost
- Structures Benefited
- Citizens Protected
- Tax Value of Benefited Properties
- Phased projects
- Final rankings – Watershed/City/Size

LiDAR Data
**Roadway Crossings**

117 Total Crossings

- Protection Level:
  - Less than 1 yr (40)
  - 1 yr (13)
  - 10 yr (5)
  - Greater than 100 yr (59)

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**Individual Watershed Studies**

- Scope of works developed in Road Map
- Partnership Opportunities (FEMA & TWDB)
- Developed Updated Regulatory Data (CTP)
- Developed Ultimate Conditions (CWDMP)
- Channel Erosion Assessment (CWDMP)
- Prioritized CIPs (CWDMP)
- Assistance by many firms to accomplish goals

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**Watershed Studies**

- Floodplains in Grand Prairie
  - Townships
  - Cities
  - Lakes
  - Roads
  - Streams
  - Parks
  - County Boundary
  - River
  - Lake
  - Airport
  - Mall
  - Dam
  - Town

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Storm Drain Studies

• Focus 2D Modeling Effort on Hotspots
• Evaluate Existing System Capacities Citywide
• Maintain models into future through 3rd party drainage reviews
• Prioritize CIPs
• Facilitate Development
Conclusion

• Comprehensive Study Effort
• Updated Regulatory Data
• Prioritized CIPs
• Facilitate Development
• Expedite Stormwater Reviews
• Continuous Updates

Questions ??