



New Braunfels

Storm Water Management

City Council Workshop

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February 14, 2011

Federally Mandated Storm Water Requirements

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- Municipal Separate Storm Sewer System (MS4) requirements
- Estimated \$210,000/year
- Applies to Municipalities population 50,000 to 100,000
- Storm Water Management Plan required to:
 - Reduce pollutants into rivers and streams
 - Protect water quality
 - Best management practices for six control measures
- Watershed Advisory committee (mandated)

Watershed Advisory Committee

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- Purpose of committee
 - Community involvement
 - Technical and policy input
 - Advising on Federal Storm Water Requirements
- Policy committee
- Technical committee

Policy Committee

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- Policy Committee (9 voting members)
 - Engineer
 - Developer
 - Landscape Planner/Architect or Arborist
 - Business
 - Biological/Environmental
 - Citizen at Large
 - Agriculture/Watershed Land Owner
 - Citizen - Home Owners Association (2 members)

Technical Committee

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- Technical Committee (Non-voting members)
 - City of NB
 - Public Works Director, Watershed Manager, City Engineer
 - Guadalupe Blanco River Authority
 - Texas Parks and Wildlife
 - Army Corps of Engineers
 - County – Comal/Guadalupe
 - NBU
- Engineering Technical Advisory Committee

Committee Establishment

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- Options
 - Council nominates and appoints
 - Accept applications and council appoints
 - Staff recommends and council appoints

Potential Projects

LIVE OAK/KATY STREET

GREEN MEADOWS/MESQUITE/GARDENIA

EASTMAN AVENUE

CEDAR ELM STREET, LANDA- MADELINE AREA

KERLICK/ MISSION DRIVE/ENCINO DRIVE/LA MESA

WOOD ROAD/INSPIRATION

700 BLOCK OF WOOD

HUNTERS CREEK

PANTHER CANYON

CALIFORNIA/OAKWOOD/LAKEVIEW

RIVERCREST

PEBBLEBROOK AREA

GRUENE CROSSING/SUNDANCE

BLEIDERS/GERMAN CREEK

ALVES LANE AREA

HILL STREET/CASTELL/COLL/GARDEN

FAUST/NACOGDOCHES AREA

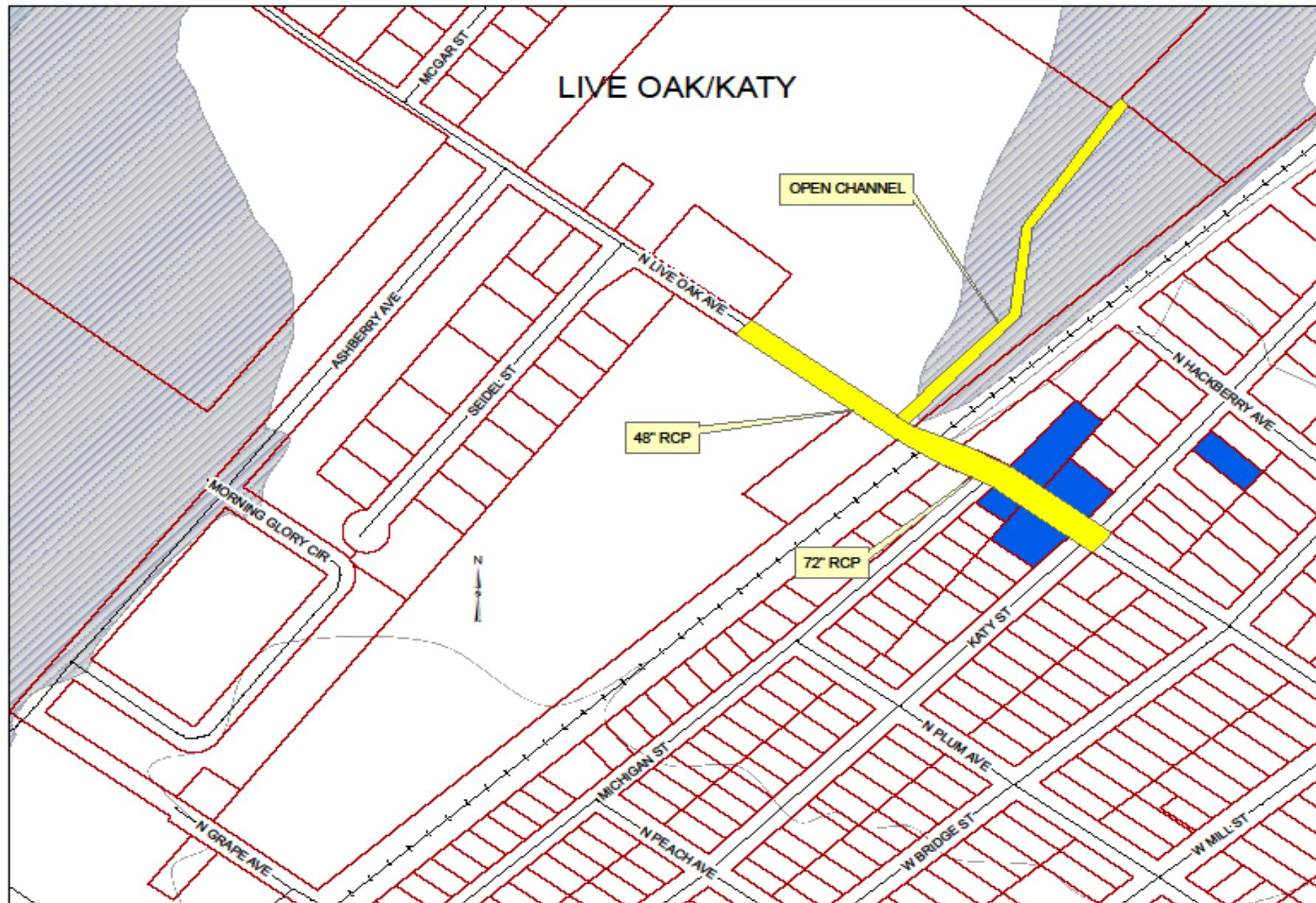
NORTH TRIBUTARY

WALNUT HEIGHTS

Recent Projects – Completed/Planned

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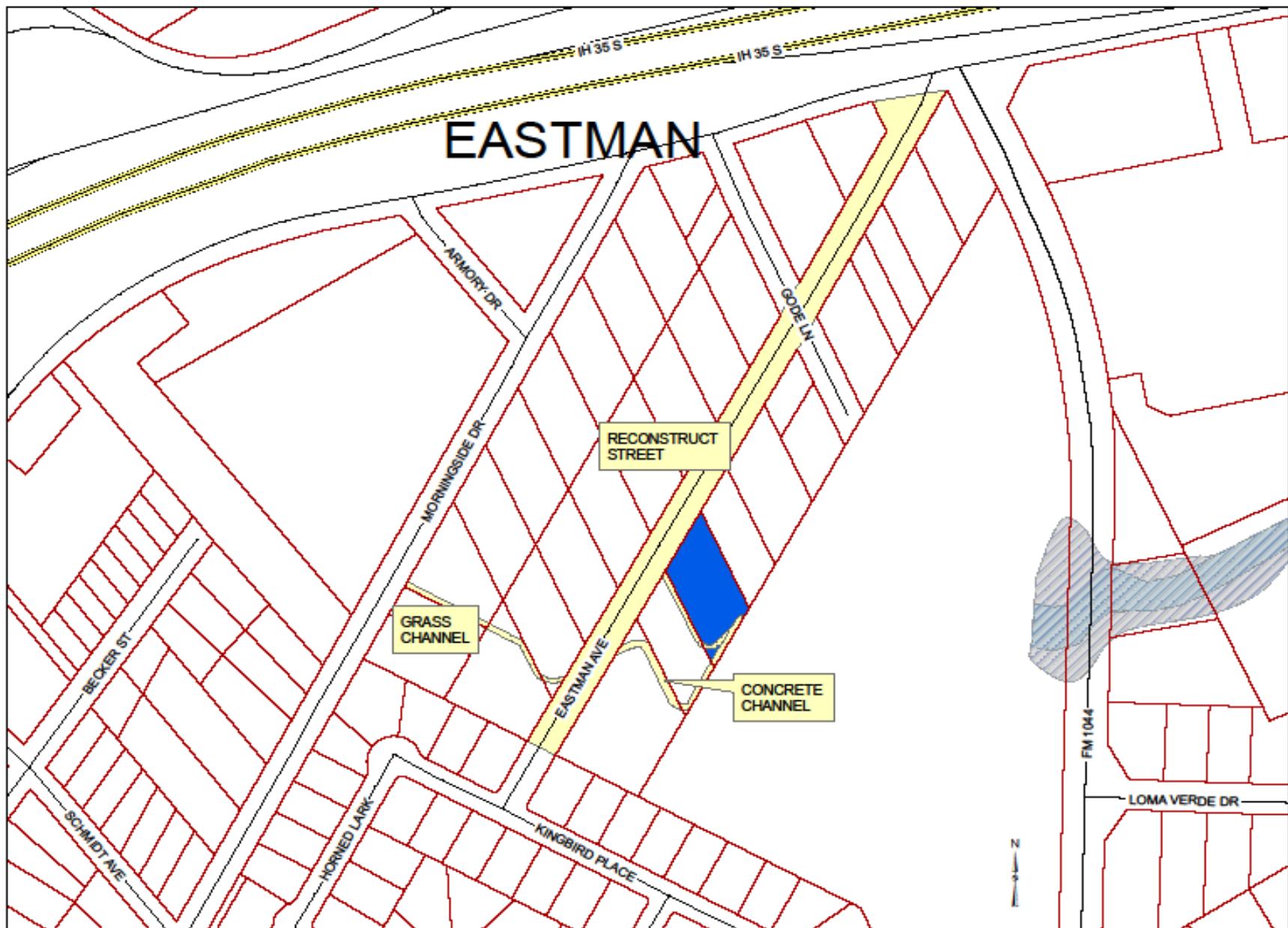
	Cost	Benefits
Churchill Drainage	\$3,800,000	75 Properties 50 structures
Katy/Mesquite	\$1,825,000	Neighborhood Street Drainage
South Tributary	\$7,967,000	110 Properties 102 structures
North Tributary (planned)	\$8,424,000	216 Properties 133 structures



Live Oak/Katy Street

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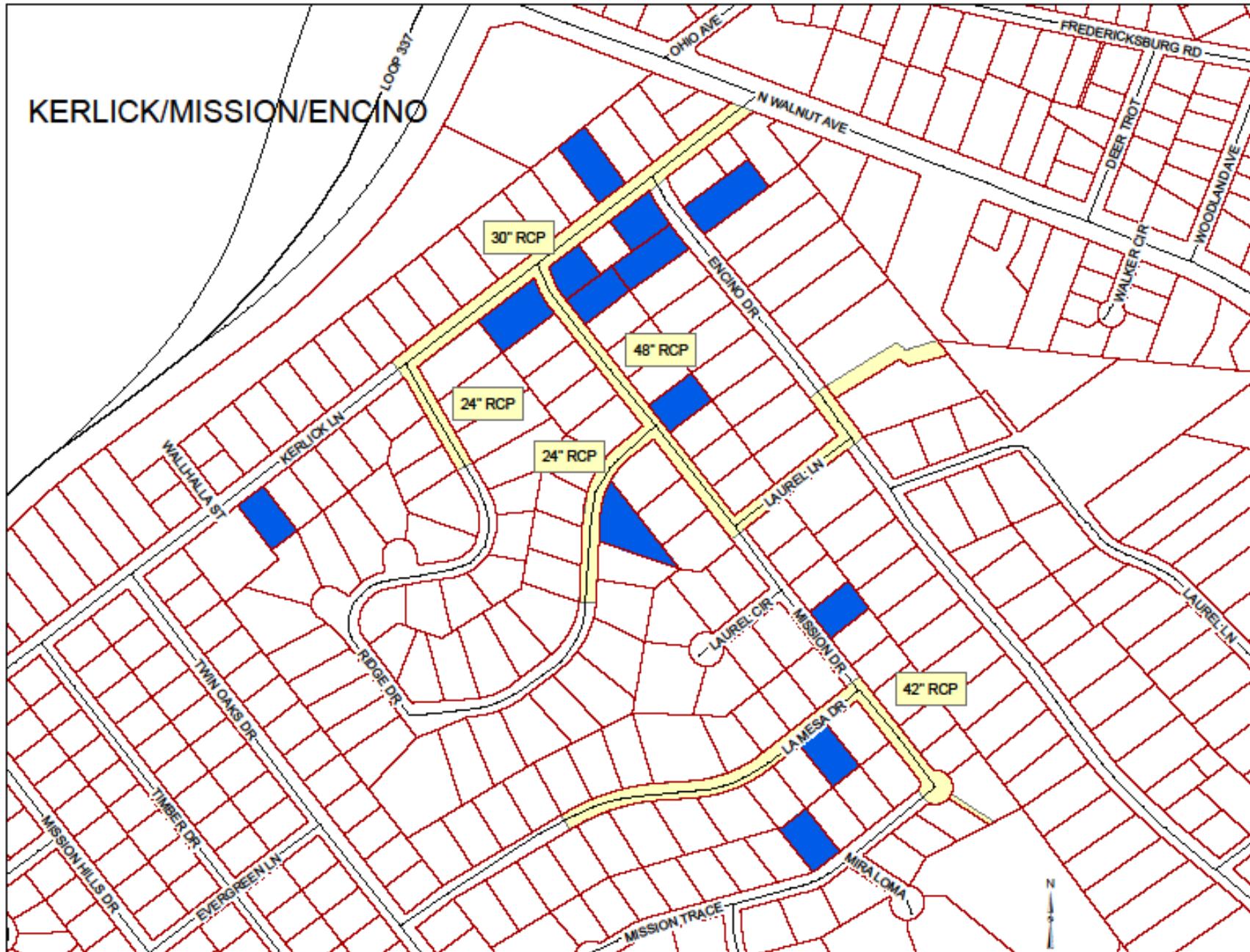
- Project features
 - 72" RCP culvert from Katy Street to under RR
 - 48" RCP culvert from RR to Seidel
 - Open Channel to the NE
- Project benefits
 - Directly benefits 6 properties
 - Improves access on Live Oak to Seidel/McGar
- \$1,941,000 Estimated Project cost



Eastman

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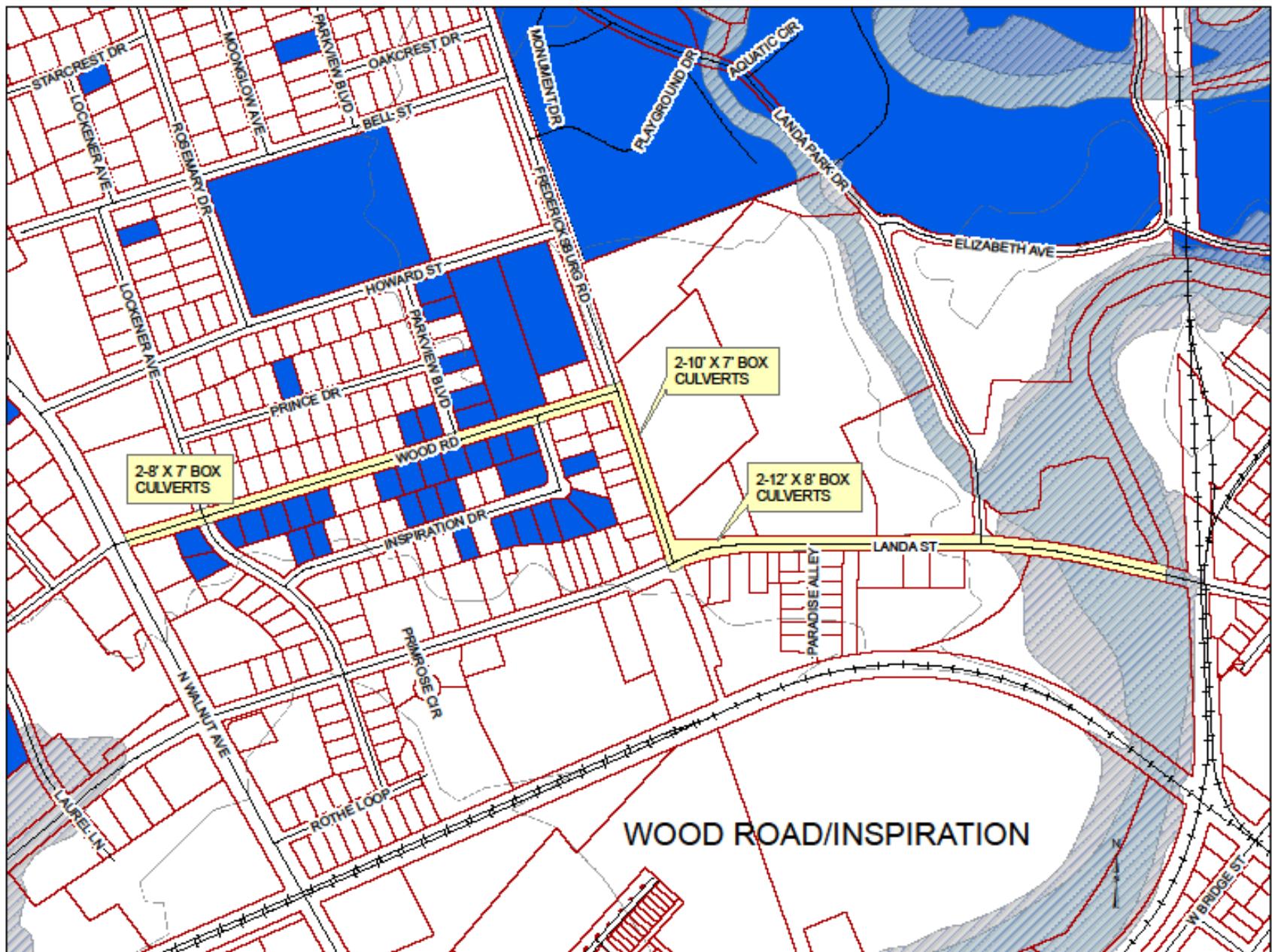
- Project features
 - Channel improvements
 - Reconstruct Eastman from IH 35 NB frontage to Kingbird
- Project benefits
 - Directly benefits 2 properties
 - Improves access to 19 homes along Eastman
- \$1,200,000 Estimated Project cost (does not include real estate)



Kerlick/Mission/Encino

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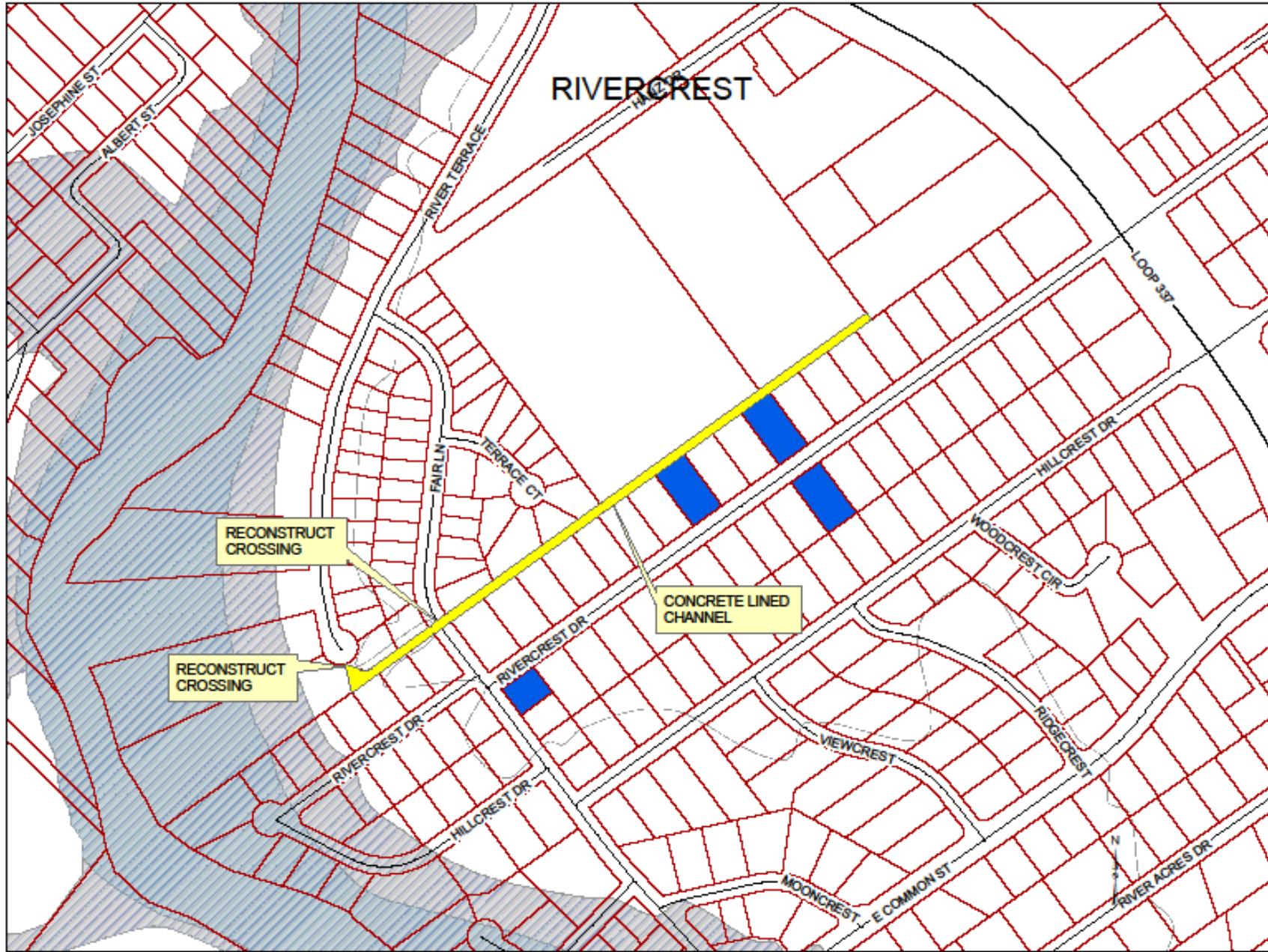
- Project features
 - Reconstruct Kerlick from Ridge Hill to Mission with 30" RCP storm drain
 - Reconstruct Mission from Kerlick to Laurel with 48" RCP storm drain, continuing to an outfall
 - Install a storm drain in part of Ridge Hill
 - Reconstruct a portion of La Mesa with a 42"RCP storm drain, continuing down Mission to an outfall
- Project benefits
 - Directly benefits 45 homes
- \$3,500,000 Estimated Project cost (does not include easements)



Wood Road/Inspiration

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- Project features
 - Install 2-8'x7' box culverts in Wood Road from N Walnut to Fredericksburg, 2-10'x7' box culverts in Fredericksburg from Wood to Landa, and 2-12'x8' box culverts in Landa to Dry Comal Creek
- Project benefits
 - Directly benefits 20 properties
- \$14,800,000 Estimated Project cost

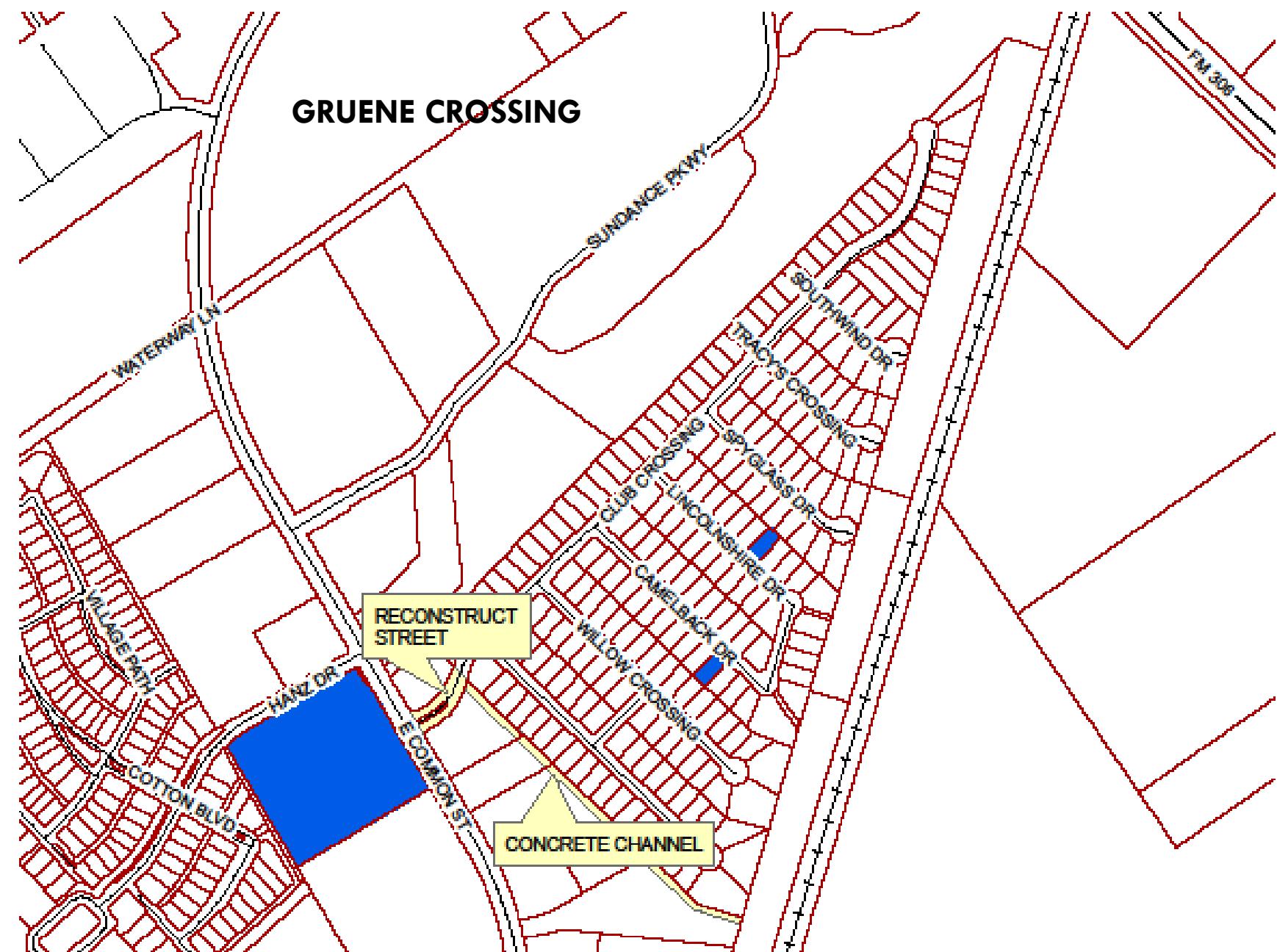


RIVERCREST

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- Project features
 - Concrete line existing channel where it is earthen
 - Reconstruct road crossings on Fair Lane and River Terrace
- Project benefits
 - Directly benefits 4 properties
- \$958,000 Estimated Project cost

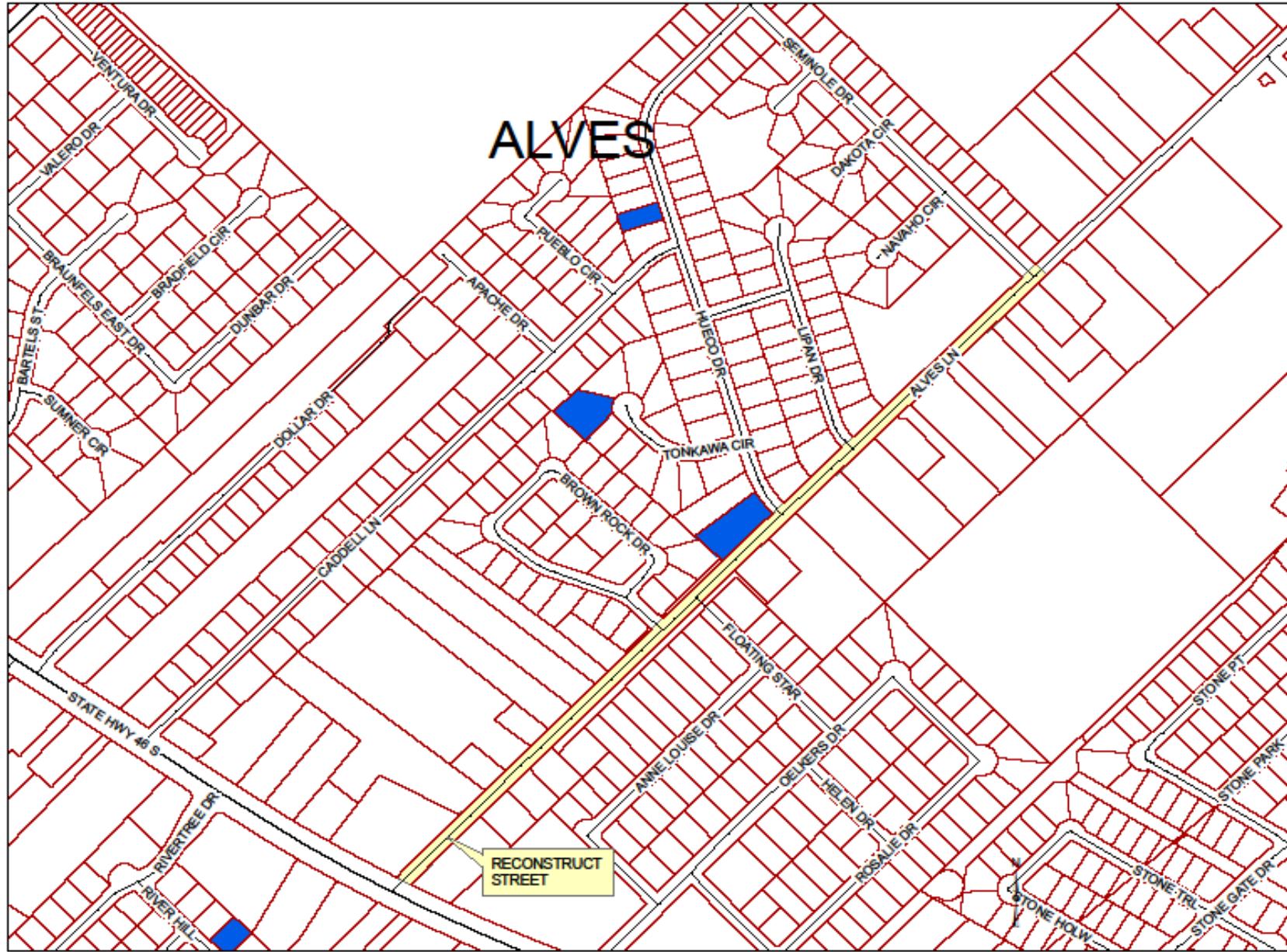
GRUENE CROSSING



Gruene Crossing

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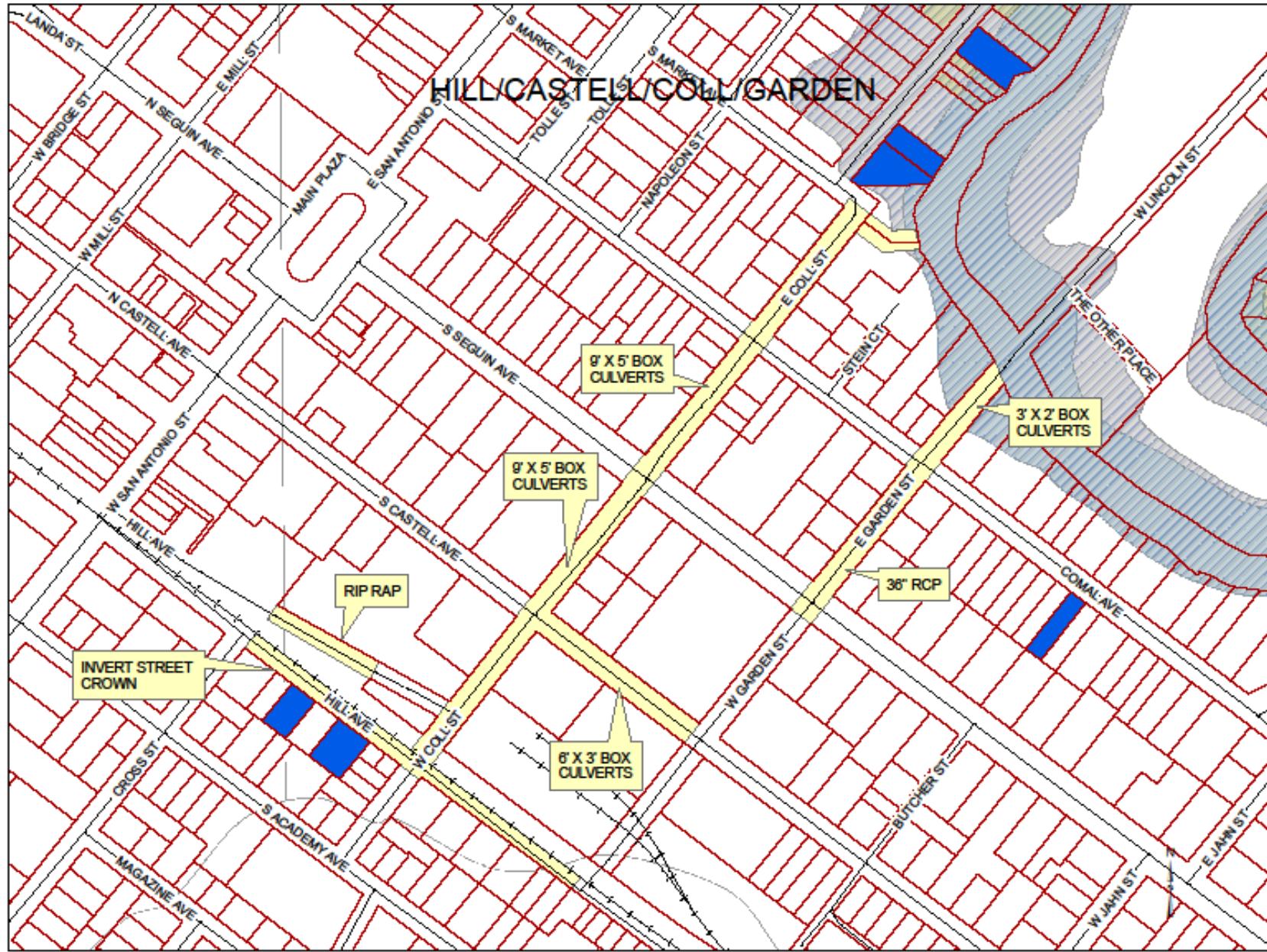
- Project features
 - Channel improvements downstream from Club Crossing
 - Install 3-4'X2' culverts under Club Crossing and raise roadway
- Project benefits
 - Improve access for 226 homes
- \$1,320,000 Estimated Project cost



Alves Lane

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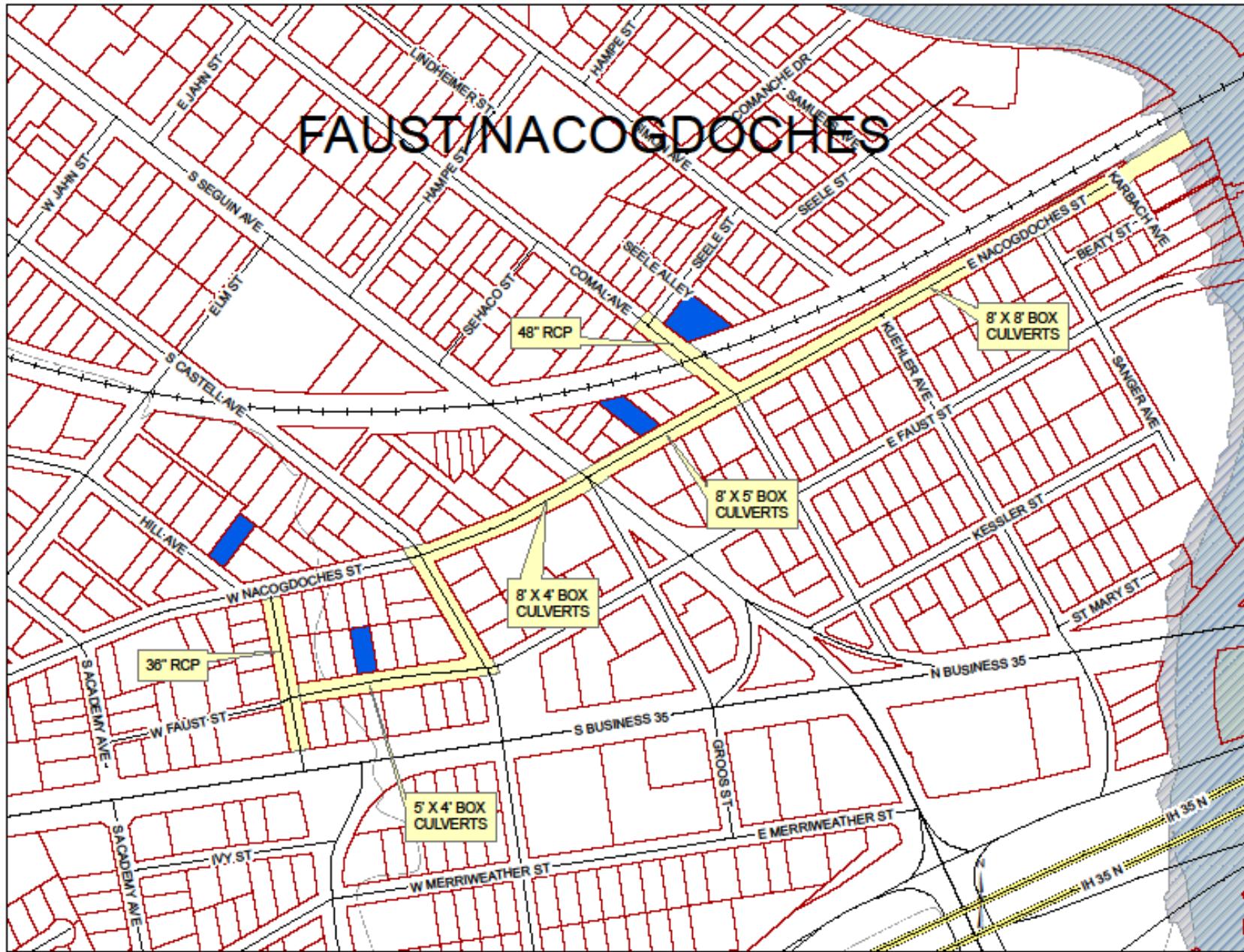
- Project features
 - Reconstruct roadway from SH 46 to Seminole
 - Install concrete box channel along W side
- Project benefits
 - Improves drainage
- \$2,700,000 Estimated Project cost



HILL/CASTELL/COLL/GARDEN

- Project features
 - Reconstruct Hill between W Garden & Cross
 - Const 9'x5' RCB in W Coll from Hill to Comal River
 - Const 6'x3' RCB in S Castell from W Garden to W Coll
 - Const 36" RCP in E Garden from S Seguin to Comal River
- Project benefits
 - Directly benefits 3 properties
 - Improves drainage in the area
- \$7,863,000 Estimated Project cost

FAUST/NACOGDOCHES

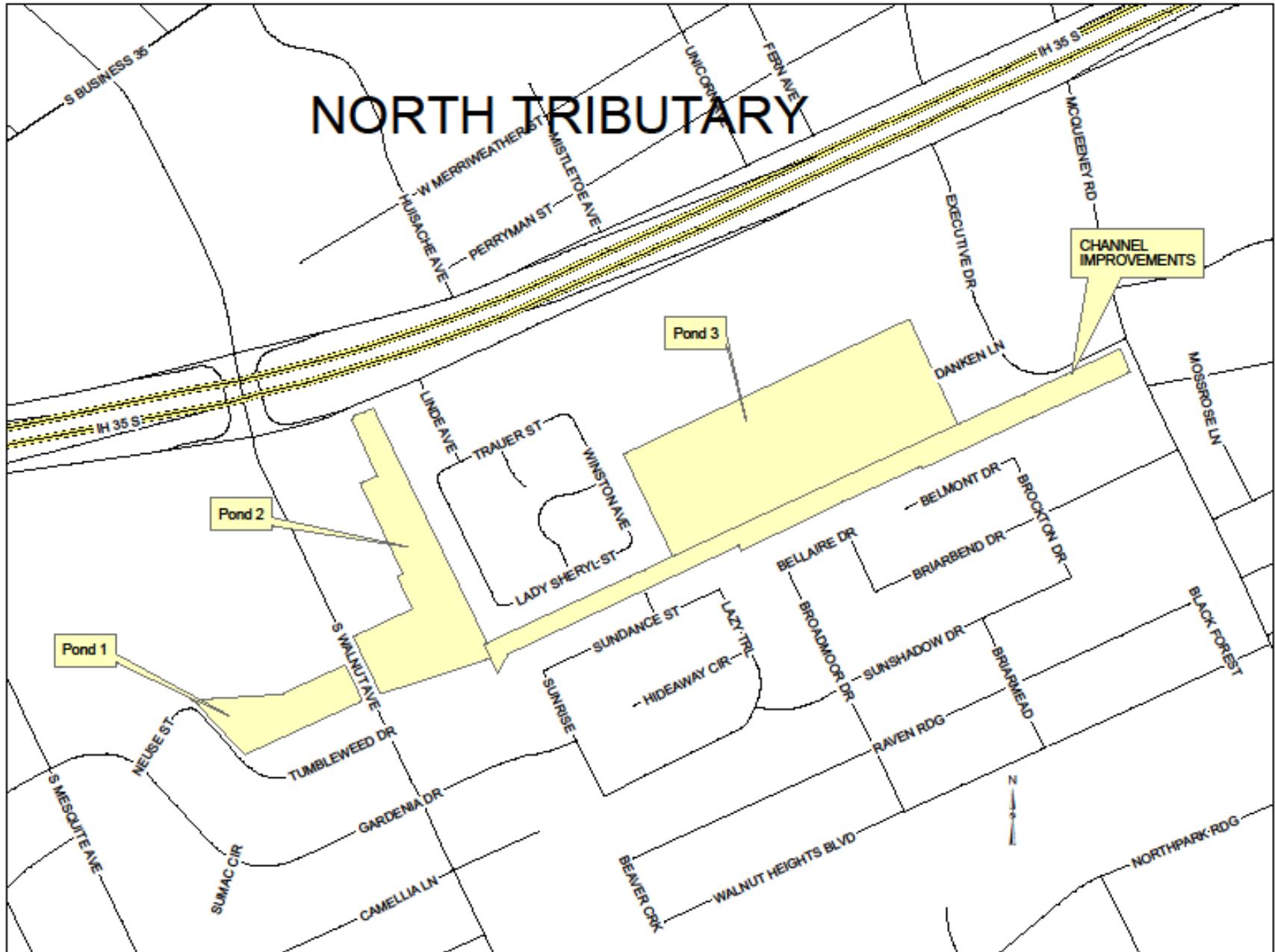


FAUST/NACOGDOCHES AREA

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- Project features
 - 36" RCP in McQueeney Road between Nacogdoches and S Bus 35, 5'x4' RCB in Faust between McQueeney and S Castell, 8'x4' RCB in S Castell, continuing along E Nacogdoches to S Seguin, 8'x8' RCB in E Nacogdoches from S Seguin to Guadalupe River
 - 48" RCP in Comal Ave under RR
- Project benefits
 - 3 properties
 - Improve overall drainage in this area
- \$9,765,000 Estimated Project cost

NORTH TRIBUTARY



North Tributary

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- Project features
 - Construct 3 large detention ponds
 - Channel improvements from Walnut to Old McQueeney
- Project benefits
 - 216 parcels removed from floodplain
 - 133 residential/commercial structures removed from floodplain
- \$8,424,000 Estimated Project cost (includes real estate)

Potential Project Cost Summary

	Estimated Cost	Estimated Cost
LIVE OAK/KATY STREET	\$1,941,000	
GREEN MEADOWS/MESQUITE/GARDENIA	\$380,000	
EASTMAN AVENUE	\$1,200,000	
CEDAR ELM STREET, LANDA- MADELINE AREA	\$1,144,000	
KERLICK/ MISSION DRIVE/ENCINO DRIVE/LA MESA	\$3,500,000	
WOOD ROAD/INSPIRATION	\$14,800,000	
700 BLOCK OF WOOD	\$770,000	
HUNTERS CREEK		
PANTHER CANYON		
CALIFORNIA/OAKWOOD/LAKEVIEW		
RIVERCREST	\$958,000	
PEBBLEBROOK AREA		
GRUENE CROSSING/SUNDANCE		\$1,320,000
BLEIDERS/GERMAN CREEK		
ALVES LANE AREA	\$2,700,000	
HILL STREET/CASTELL/COLL/GARDEN	\$7,863,000	
FAUST/NACOGDOCHES AREA	\$9,765,000	
NORTH TRIBUTARY		\$8,424,000
WALNUT HEIGHTS	\$310,000	
Total	\$ 45,331,000	(9.88 ¢ tax rate)
		\$9,744,000
		(2.12 ¢ tax rate)

Storm Water Program Funding

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Future Expenses

Additional Support	\$	205,000
Flood Warning	\$	8,000
Easment Conversions	\$	160,000
Maintenance Additions	\$	160,000
FM MS4	\$	210,000
Total Expenses	\$	<u><u>743,000</u></u>

Tax rate to support above O & M costs 2.02¢

- Questions**
- Next steps**