



RPS<sup>®</sup> klotz associates

# PROJECT UPDATE

## Conrad Sauer Detention / Mathewson Lane Project

TIRZ 17/Lipex Properties Development Agreement

October 28, 2015

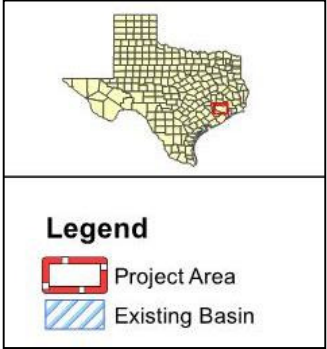
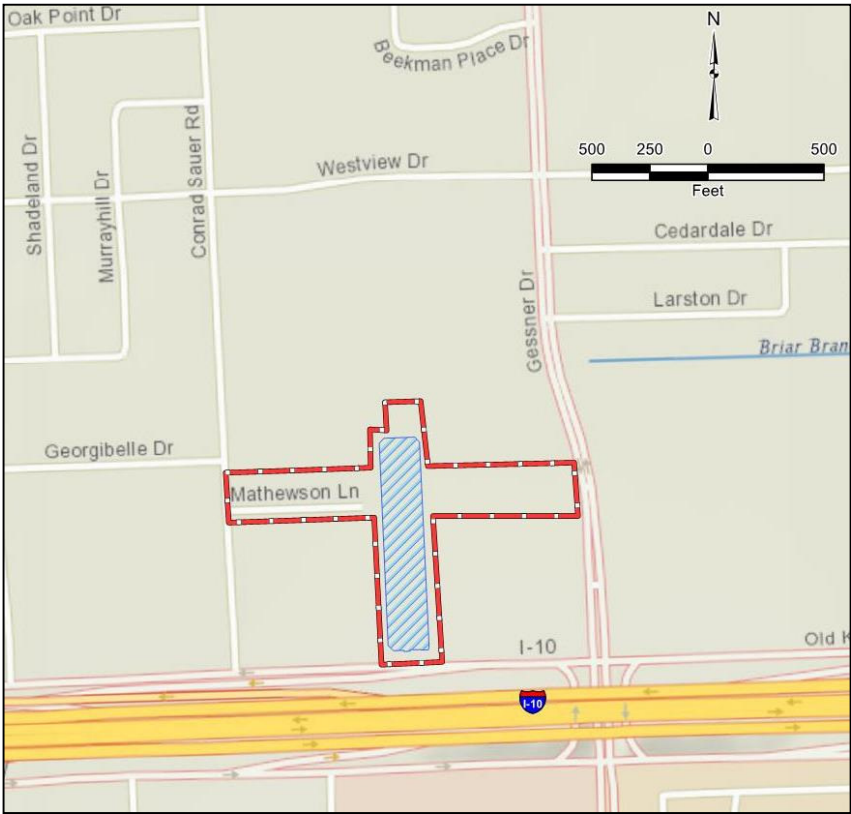
TIRZ 17

REDEVELOPMENT

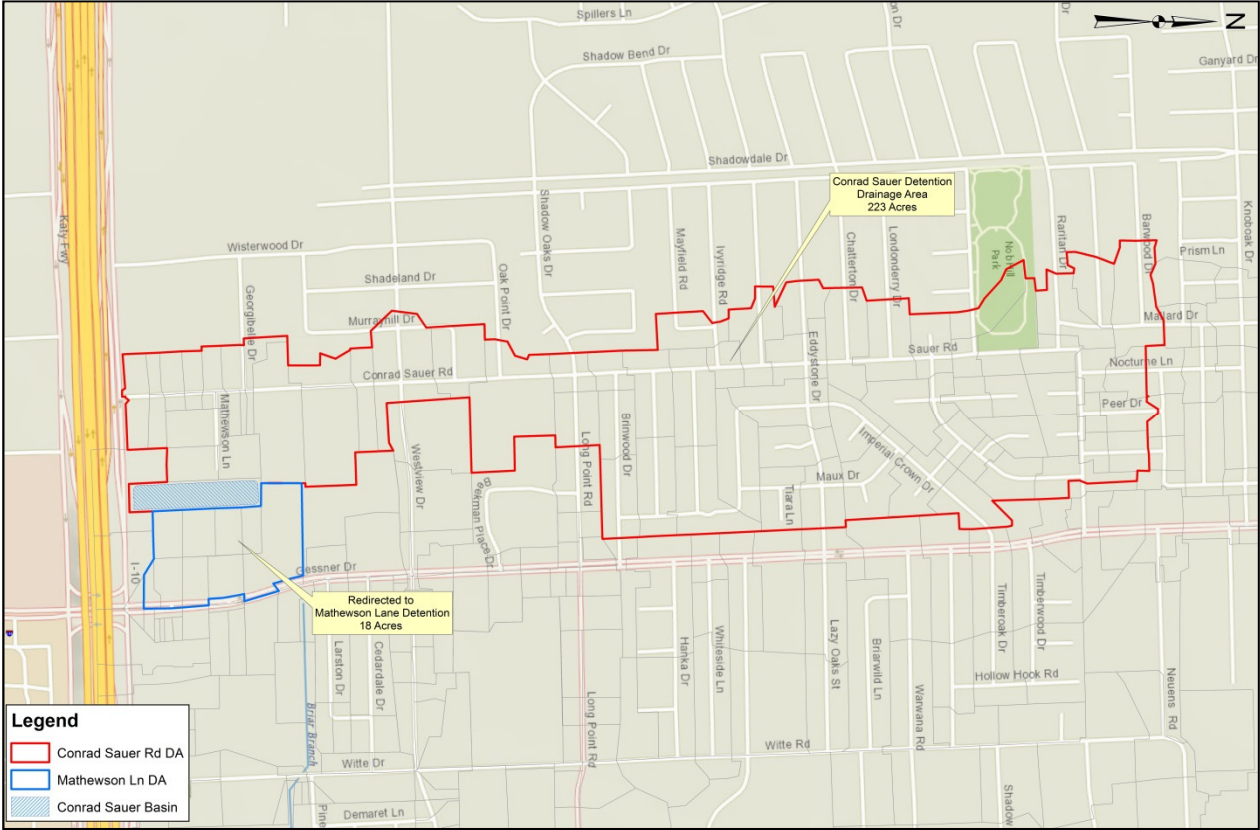
AUTHORITY



# PROJECT LOCATION



# DRAINAGE AREA BOUNDARY



# CONRAD SAUER PROJECT HISTORY

- Designed as a mitigation basin for Royal Oaks subdivision and Conrad Sauer Road street and drainage improvements.
- Property constraints and depth requirements dictated configuration and construction type.
- Outfall constraints define pumping operations.
- Initial design provides 2 yr. level of protection and utilizes approx. 31 ac.ft.
- Initial design provides less than 10 yr. level of protection at full capacity, 60.8 ac.ft.

# PROPOSED IMPROVEMENTS

- **Conrad Sauer Detention Basin Improvements**  
Basin Expansion (add 0.5 ac. = +5.9 ac.ft.)  
Beneficial Use Improvements (Hardscape/Landscape)
- **Mathewson Lane - Road Improvements / Expansion**  
Reconstruction west of detention pond to Conrad Sauer  
New construction east of detention pond to Gessner  
New detention - underground vault storage in Mathewson  
on both sides of detention pond (12.6 ac.ft.)

# CAPACITY BREAKDOWN

CAPACITY BREAKDOWN	April 2014	July 2015 30% Plans
<b>Existing</b>	acre-feet (ac.ft.)	acre-feet (ac.ft.)
Utilized Capacity	31*	31.5
Designed Capacity	62**	60.8***
<b>Proposed</b>		
Revitalized Detention Basin	57.8	56.1
Basin Expansion North	4.7	5.9
Mathewson Drive Underground Vault Detention West	4.0	4.9
Mathewson Drive Underground Vault Detention East	<u>8.0</u>	<u>7.7</u>
	74.5	74.6

\* Estimated Volume 2 yr. storm

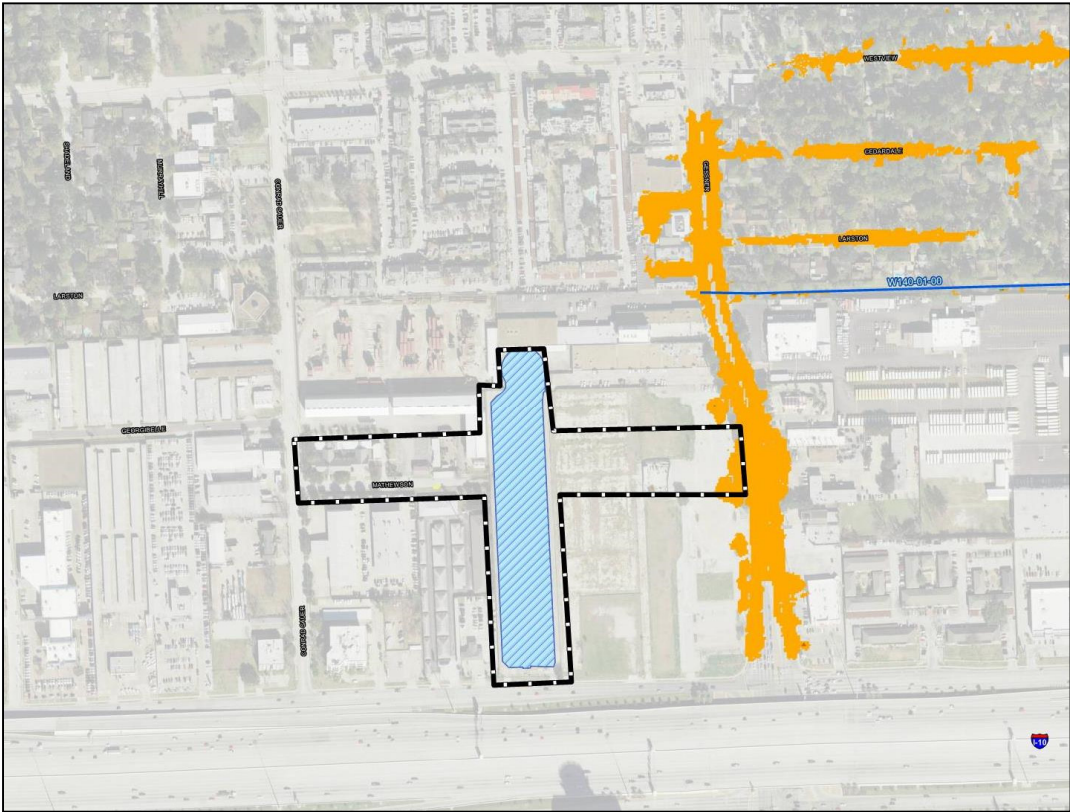
\*\* Volume based on PER - 5 to 10 yr. storm protection

\*\*\* Volume based on original construction drawings

# DETENTION SUMMARY

▪ Existing Detention Pond Volume	+60.8 ac ft
▪ Revitalizing Pond	- <u>4.7 ac ft</u>
Existing Detention Pond Volume	+56.1 ac ft
▪ Expanding Basin to the North	+ 5.9 ac ft
▪ Mathewson Ln. West Vault Storage	+ 4.9 ac ft
▪ Mathewson Ln. East Vault Storage	+ <u>7.7 ac ft</u>
New Detention Volume	+ 18.5 ac ft
Total Proposed Detention Volume	+74.6 ac ft

# FLOOD PROFILE BENEFITS 2 YR.



**Legend**

**2-Yr WSE Reduction (Feet)**

- <-0.05
- 0.05 - 0.05
- 0.05 - 0.5
- 0.5 - 1
- 1 - 2
- >2

— HCFC Channels

▭ Project Area

▨ Proposed Basin



# FLOOD PROFILE BENEFITS 10 YR.



**Legend**

**10-Yr WSE Reduction (Feet)**

- <-0.05
- 0.05 - 0.05
- 0.05 - 0.5
- 0.5 - 1
- 1 - 2
- >2

— HCFC Channels

▭ Project Area

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**QUESTIONS ?**

