

Town and Country West Mobility and Drainage Project Preliminary Engineering Report Presentation



TECHNICAL REVIEW COMMITTEE

WBS No. N-T17000-0017-3

May 15, 2014

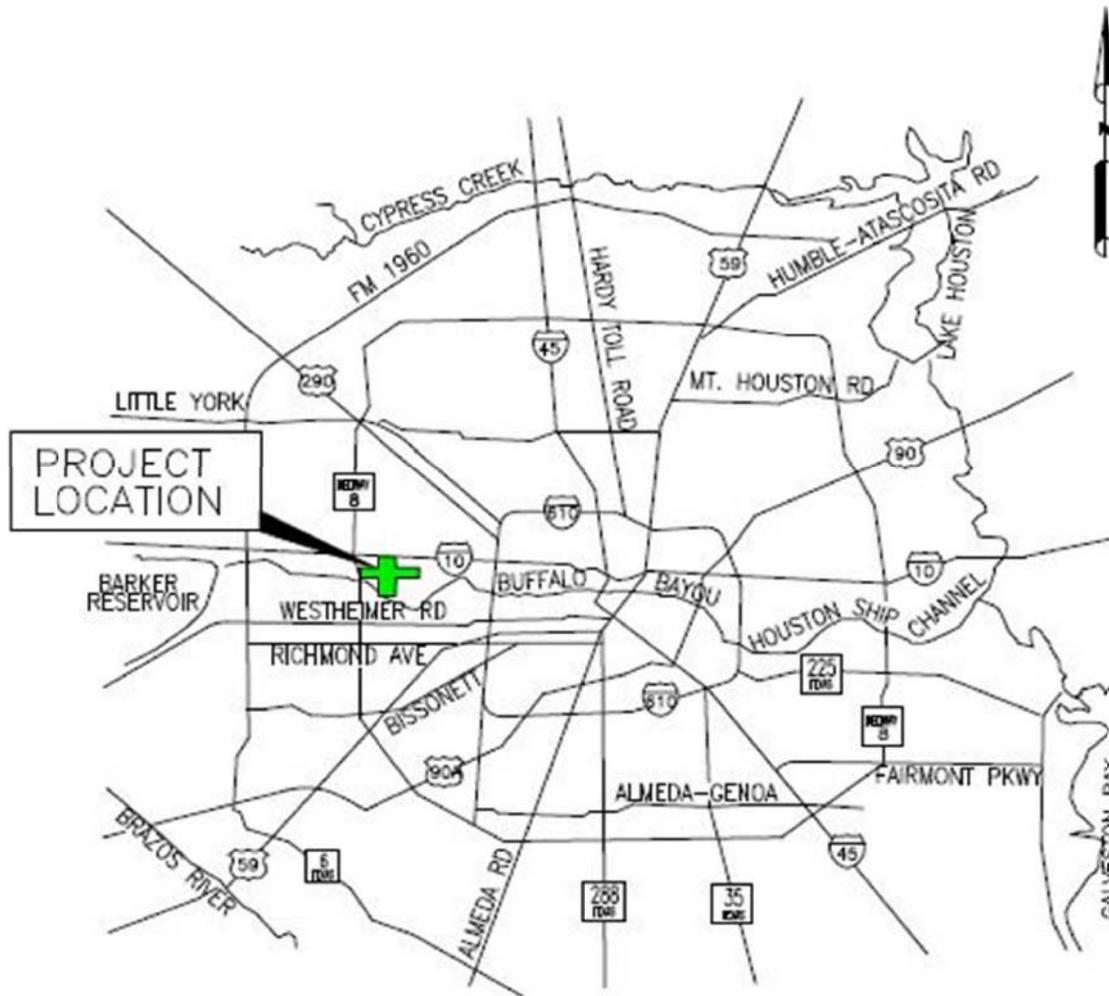


**Lockwood, Andrews
& Newnam, Inc.**

A LEO A DALY COMPANY

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- PROJECT LOCATION



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- PROJECT LIMITS/ADJACENT DEVELOPMENT



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■ UTILITIES



Utility	Existing	PROPOSED
Water Line	12" Cast Iron	REPLACE ALL WATERLINES
Sanitary Sewer	10" & 12" Gravity Unreinforced Conc. Pipes	REPLACE/UPGRADE ALL SEWERS
ATT	PVC Conduits	TBD in Design
CenterPoint Energy	Underground Gas & Electric	TBD in Design
MCI	Fiber	TBD in Design





KEY OBJECTIVES

- Improve Drainage Deficiencies
- Improve Roadway Alignment
- Improve Mobility & Safety



■ EXISTING CONDITIONS – DRAINAGE

- Buffalo Bayou Watershed
- Western Half Drains to IH 10
- Eastern Half Drains to Attingham Drive System
- 24" to 36" RCP's
- Street Flooding
- **Does not meet City's 2 & 100-year Criteria**

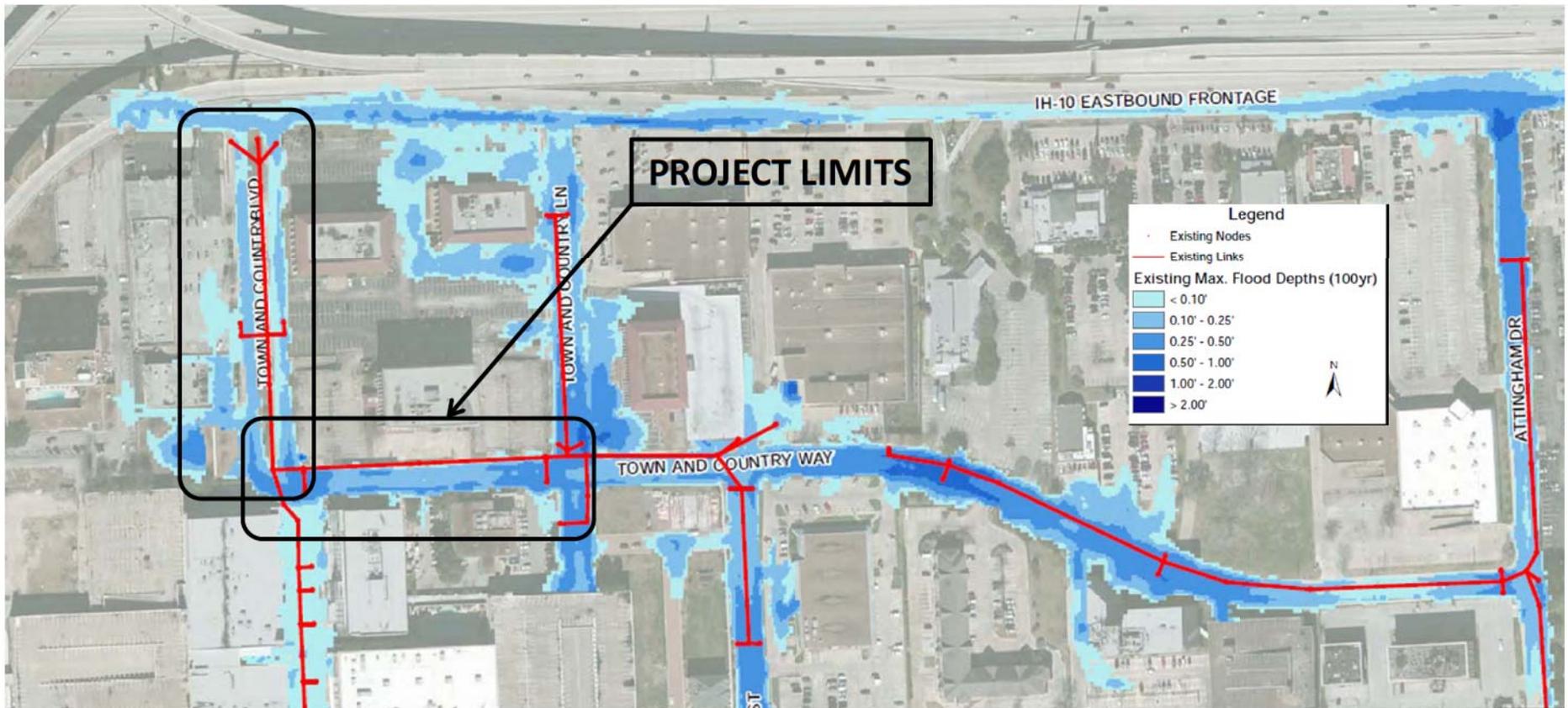


Flood Event 6/6/2010

Ponding depths in the range of 3 to 10 inches

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EXISTING 100 YR SHEET FLOW PONDING





- DRAINAGE BENEFITS

- Meet City criteria for the project area
- Provides additional benefits to the surrounding areas.
- The Attingham drainage system will receive relief for the 100 year in terms of ponding depth and duration.
- Sub-Surface Detention = 8(+) AC-FT

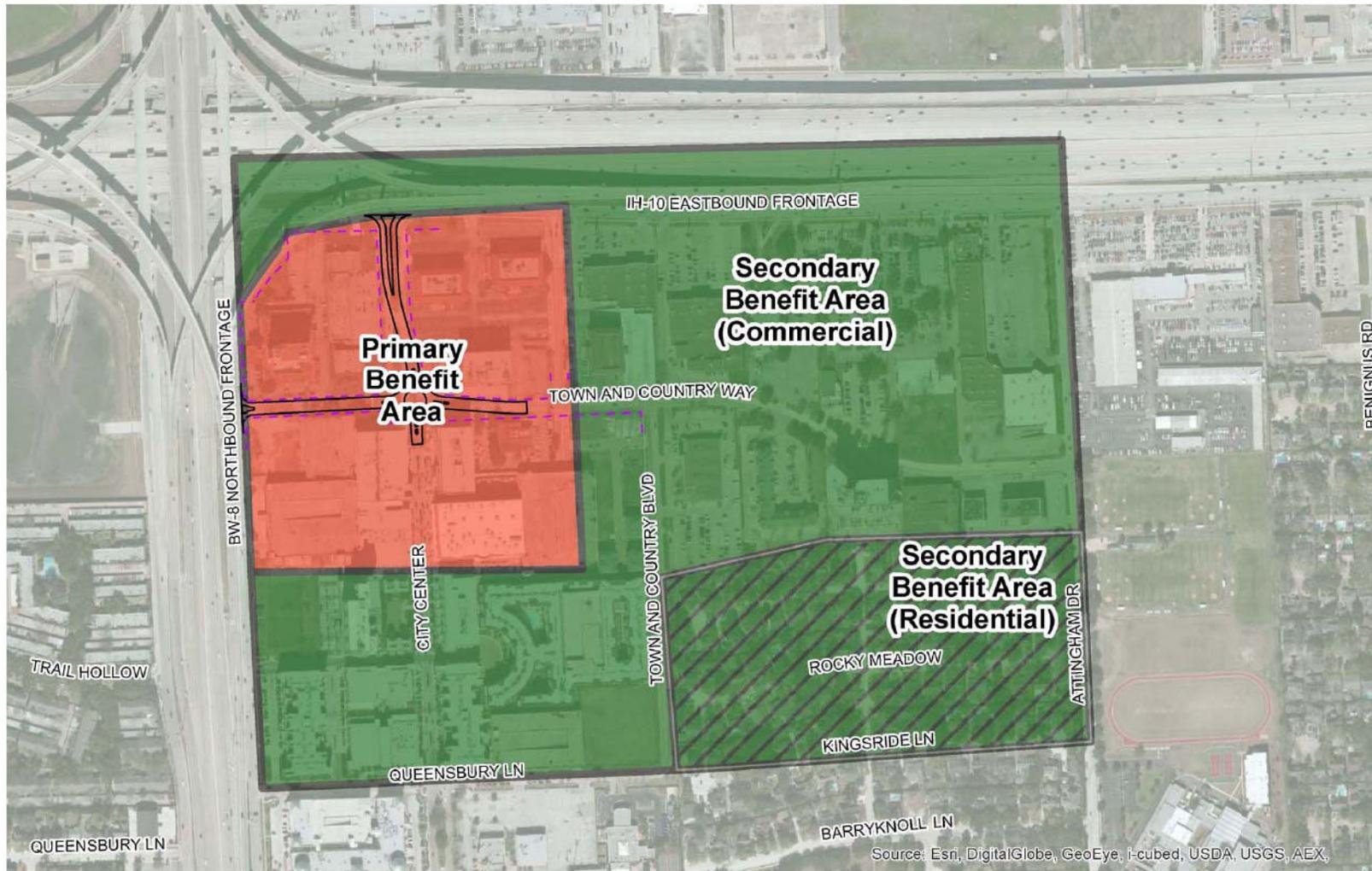
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■ PROPOSED 100 YR SHEET FLOW PONDING – OPTION II



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- OPTION III – BENEFITS TO SURROUNDING AREA



■ RECOMMENDED DRAINAGE IMPROVEMENTS (OPTION III)



- Approximately 5,115 LF of Reinforced Concrete Boxes
(Sizes vary from 6'x9' to up to 10'x10' RCB's)
- New Outfall to Existing IH-10: (7'x5' RCB)
- Sub-Surface Detention = 8(+) AC-FT





KEY OBJECTIVES

- Improve Drainage Deficiencies
- **Improve Mobility & Safety**
- Improve Roadway Alignment

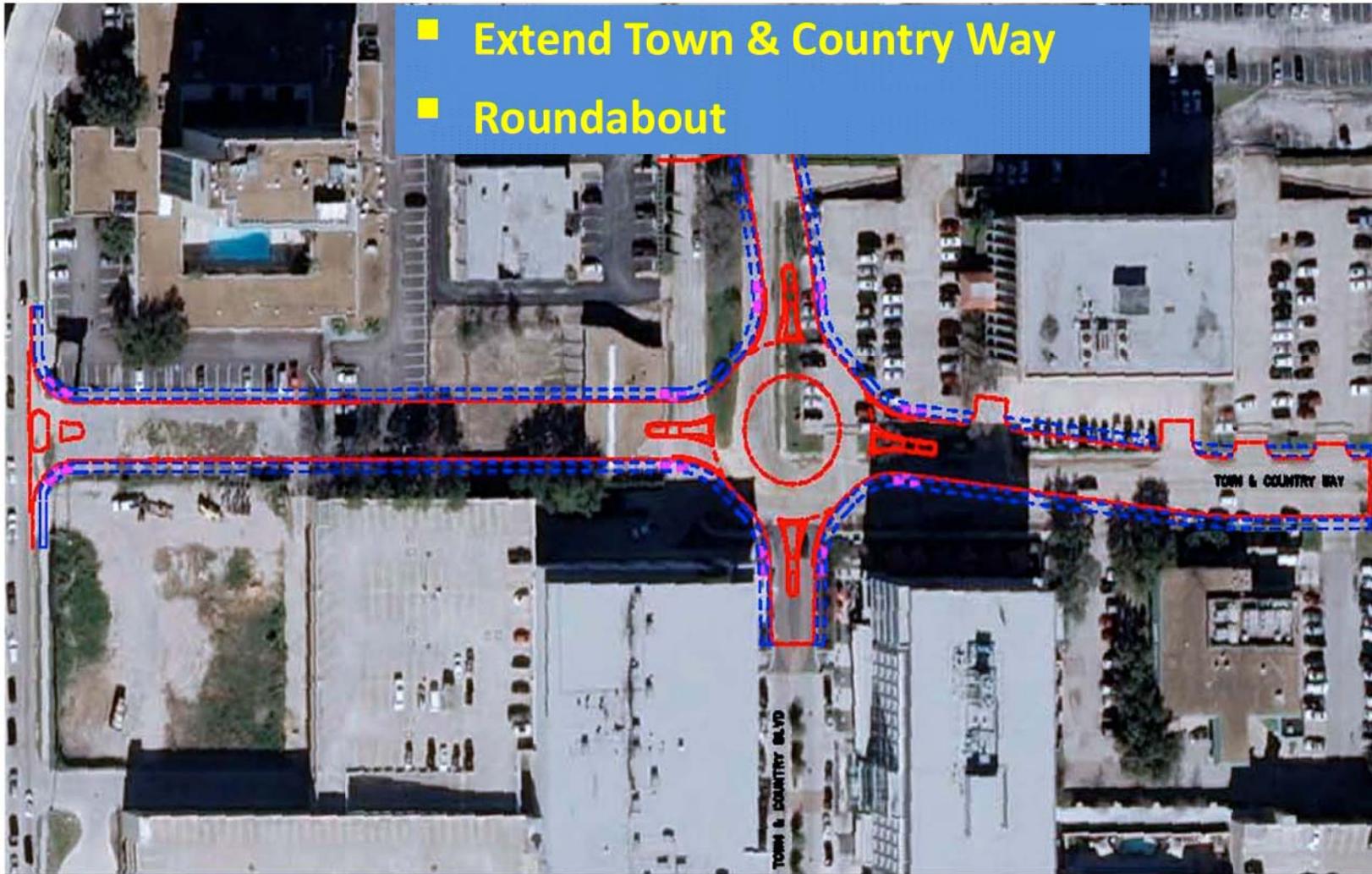


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Mobility & Safety Improvements



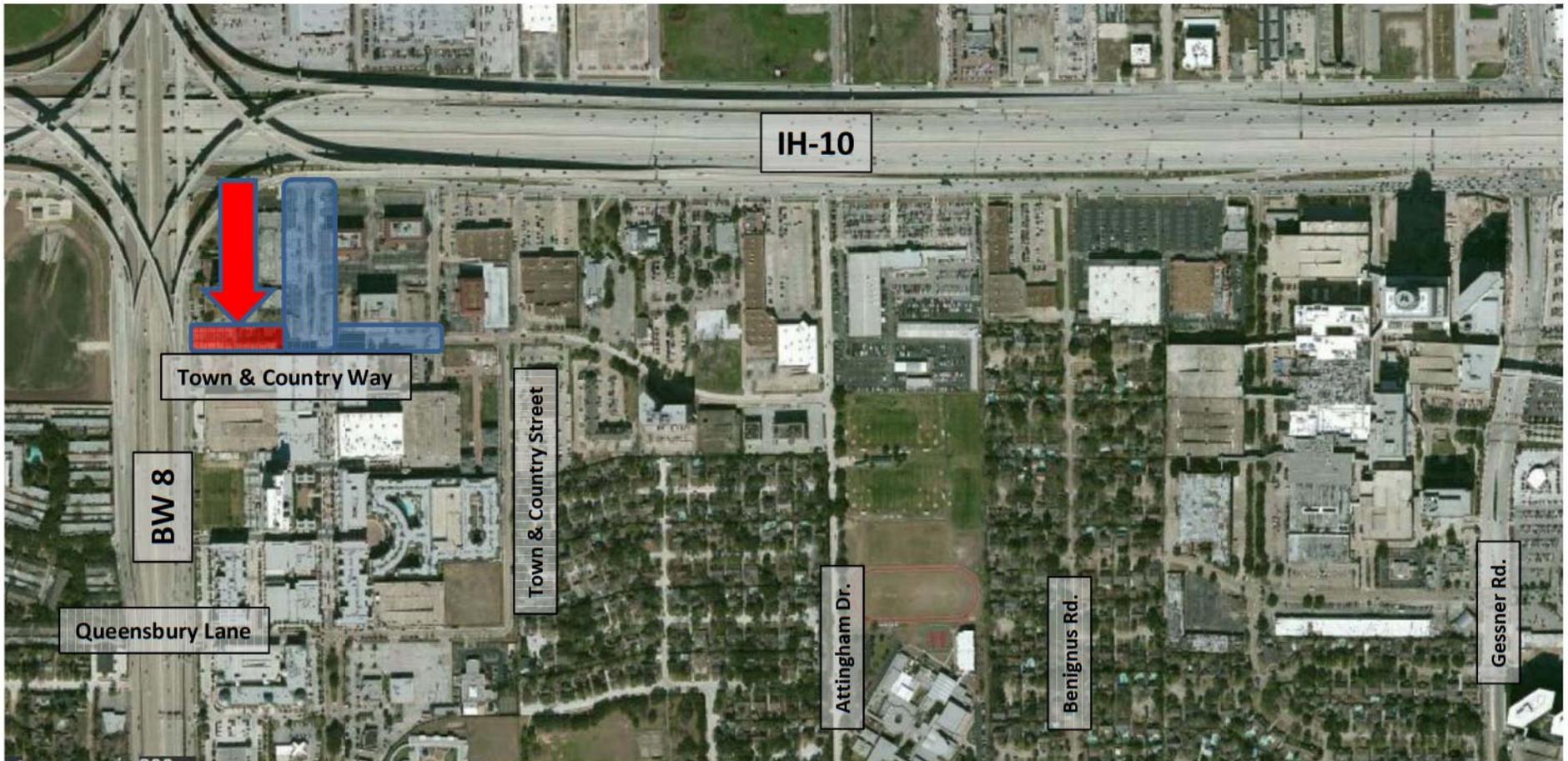
- Extend Town & Country Way
- Roundabout



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Town & Country Way Extension

- Improves Traffic Circulation
- Reduces Cut Through Traffic
- Fixed Route Transit





Town & Country Way Extension

- Serves as a Relief/Alternate Route (Safety)



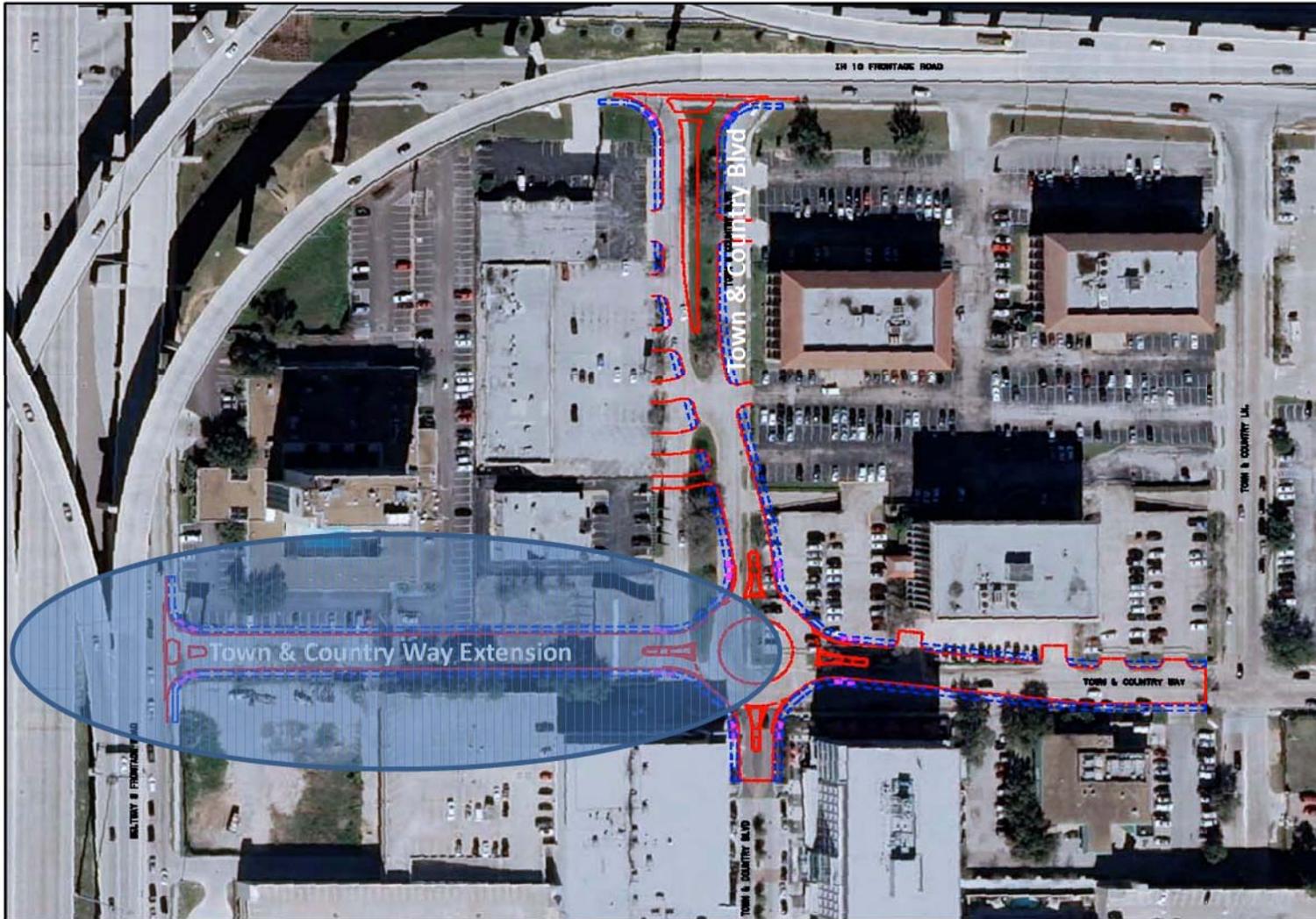
Apr 28 2009 7:46PM

Karen Warren / Chronicle

An ambulance is submerged at Interstate 10 at Beltway 8.

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MOBILITY IMPROVEMENTS – Town & Country Way Extension



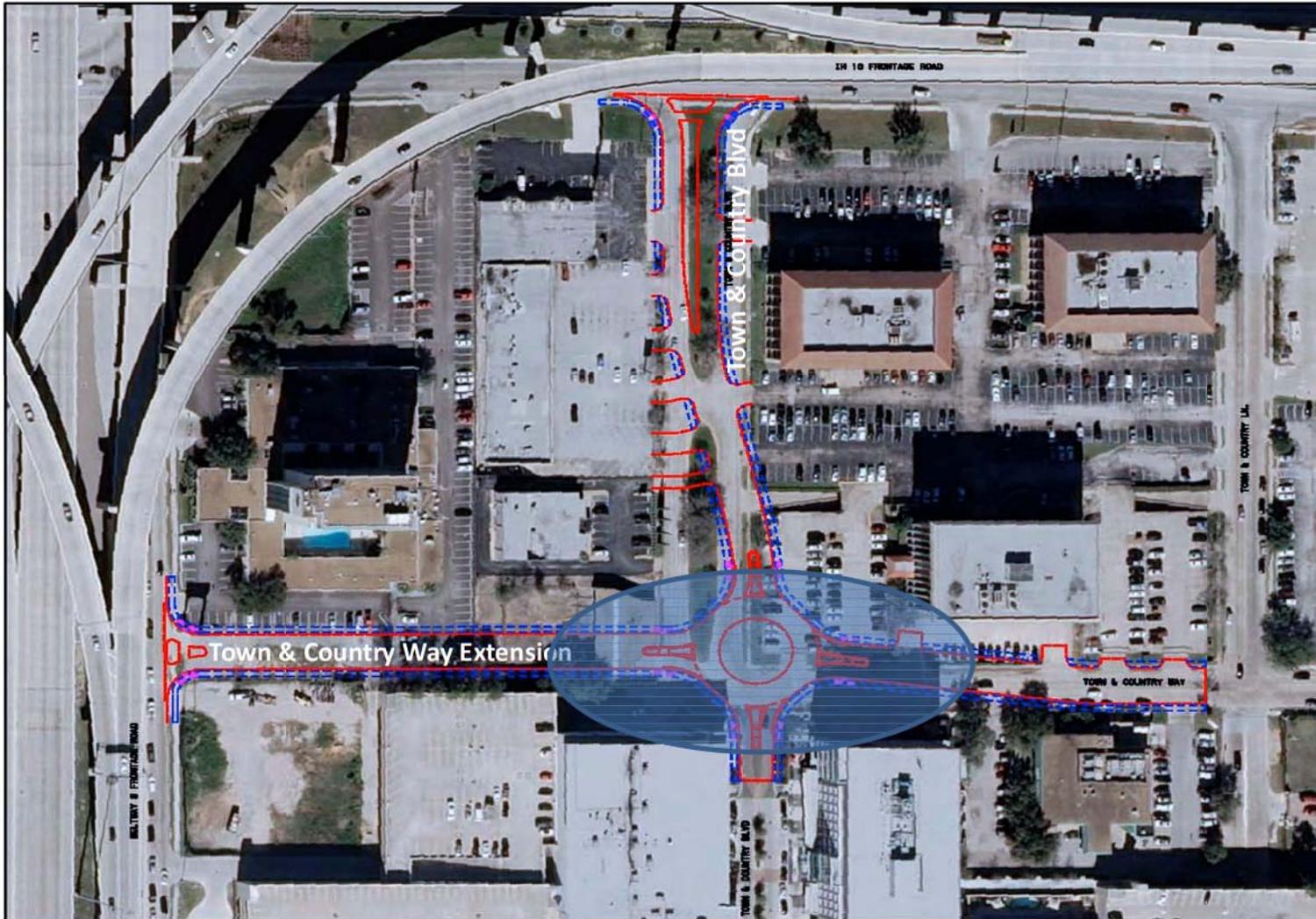
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MOBILITY IMPROVEMENTS – Town & Country Way Extension



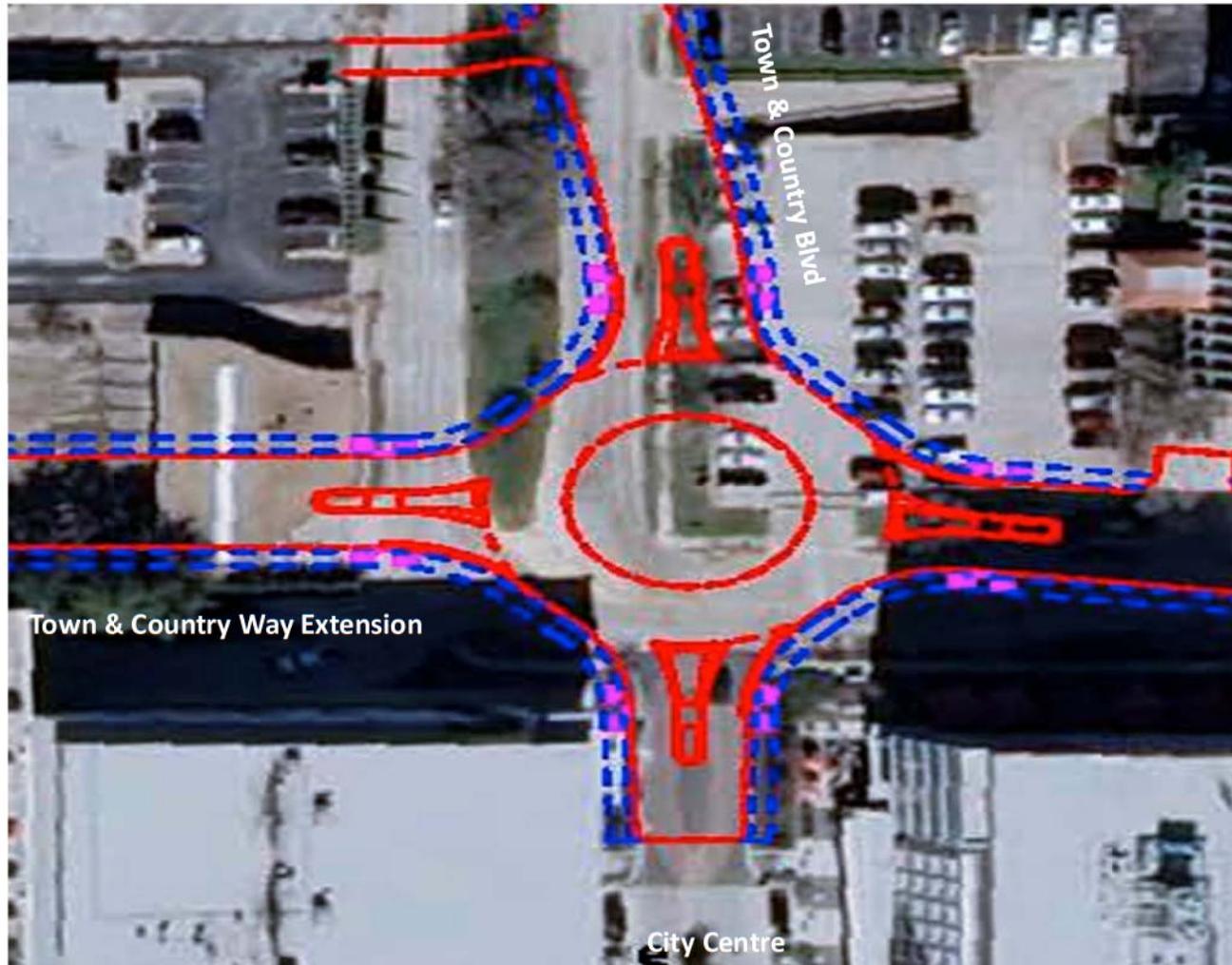
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MOBILITY IMPROVEMENTS – Town & Country Blvd Roundabout



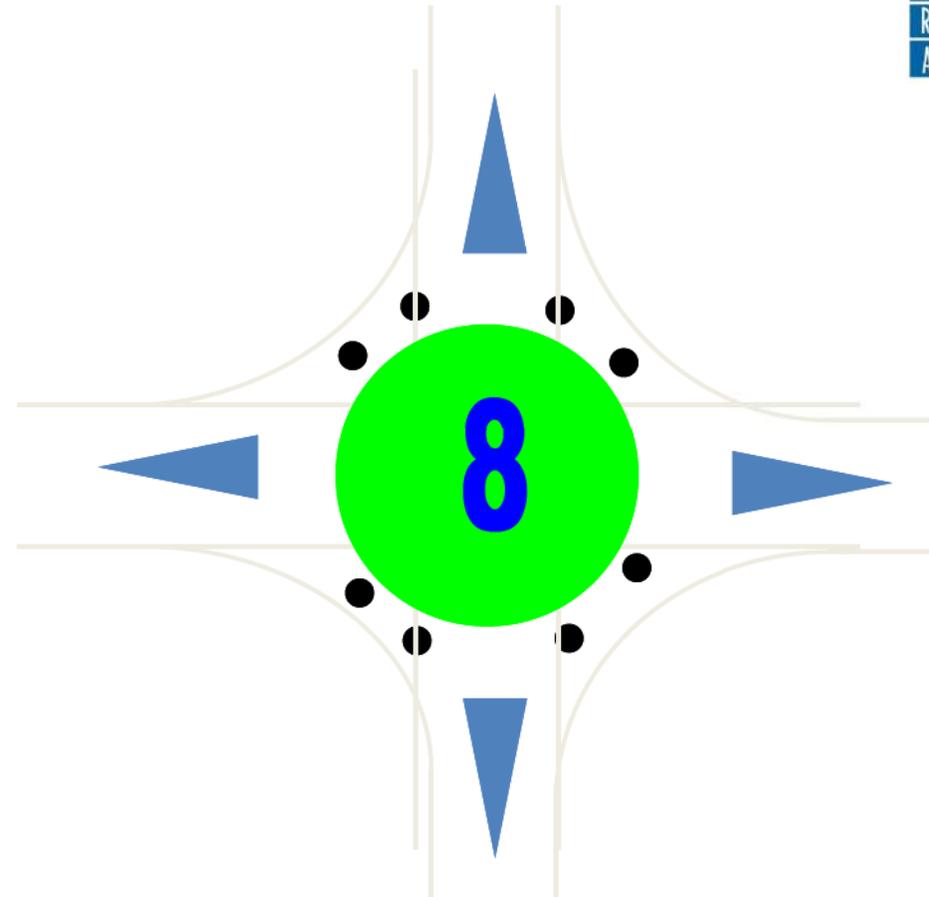
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MOBILITY IMPROVEMENTS – Town & Country Blvd Roundabout





■ BENEFITS OF ROUNDABOUTS



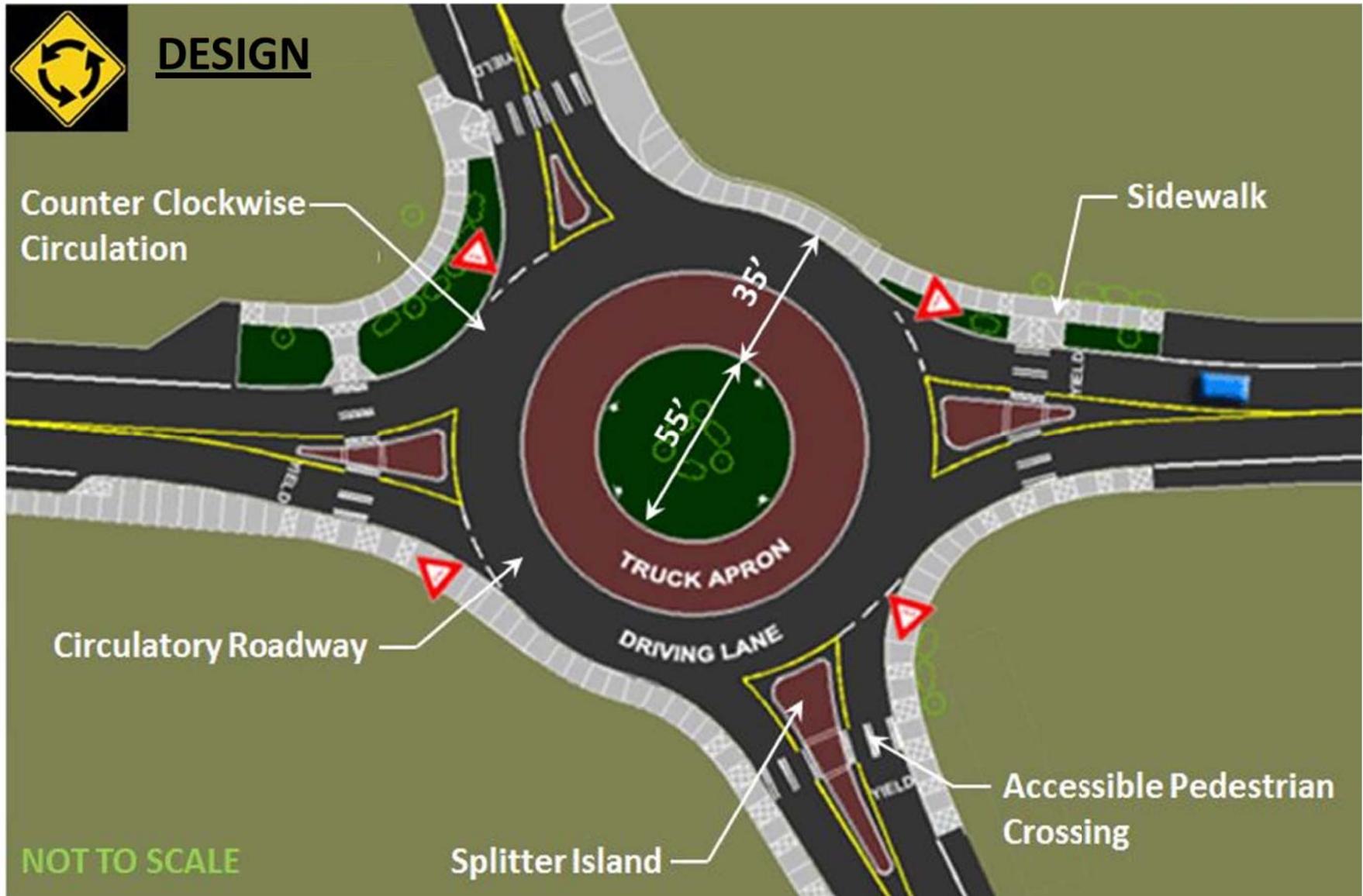
- Reduce Conflicts (32-intersection vs. 8-Roundabout)
- Safety
- Control Speeds
- Efficient Traffic flow
- Reduces Congestion
- Reduces Delays
- Less Pollution
- Traffic Calming

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Better suited for the Extension



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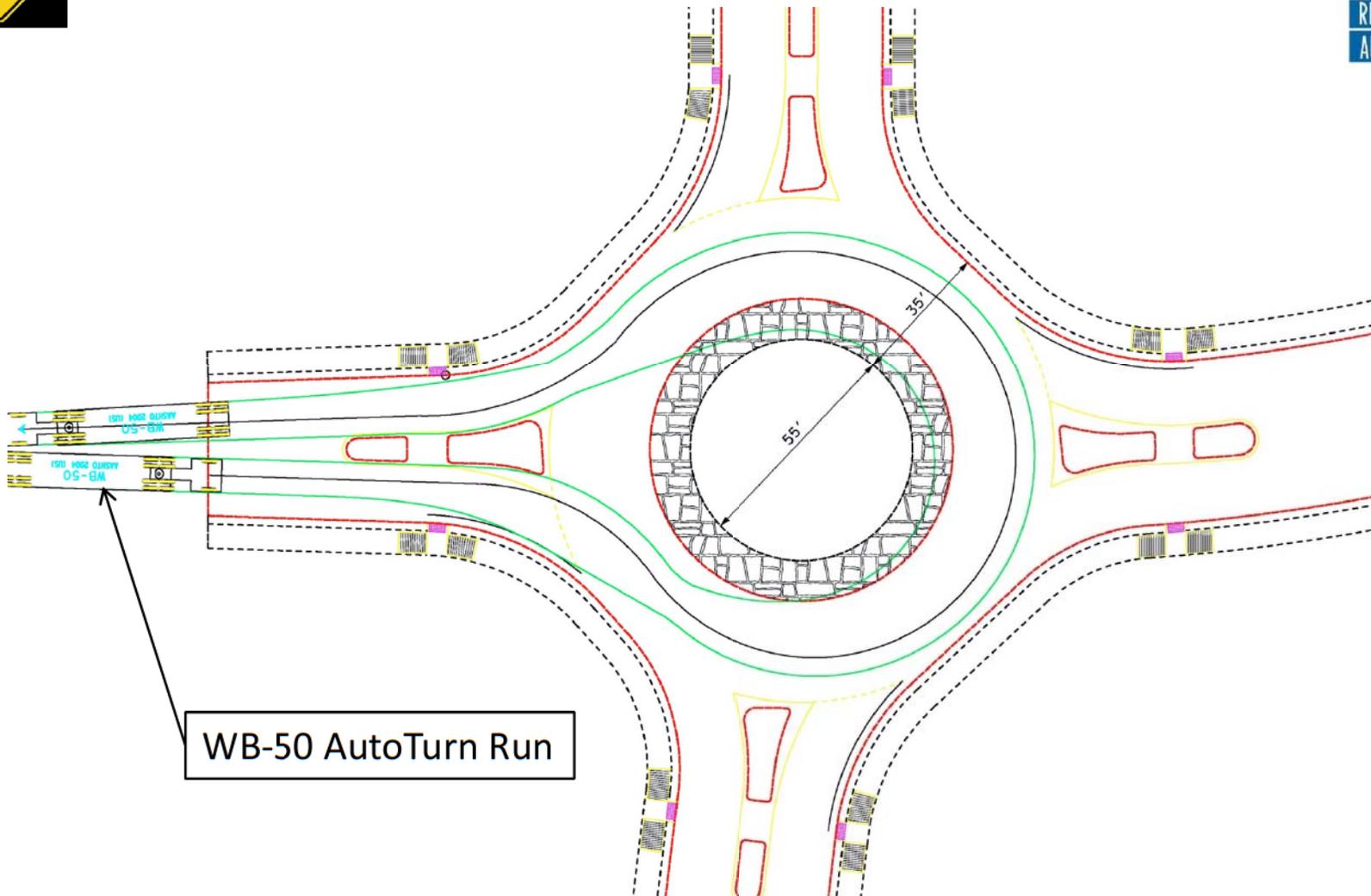


ROADWAY IMPROVEMENTS – ROUNDABOUTS (SIGNING & STRIPING)





■ ROUNDABOUTS – AUTOTURN



WB-50 AutoTurn Run



ROUNDABOUTS – Levels of Service

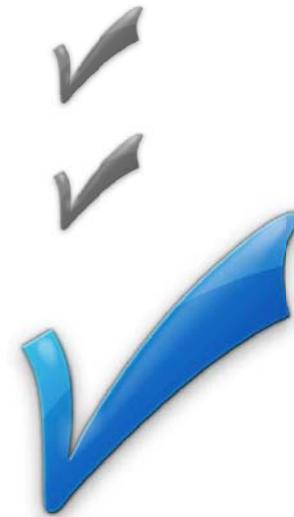


- Opening Year (2015)
 - Roundabout LOS = A
- Projected (2030)
 - Roundabout LOS = A



KEY OBJECTIVES

- Improve Drainage Deficiencies
- Improve Mobility & Safety
- Improve Roadway Alignment



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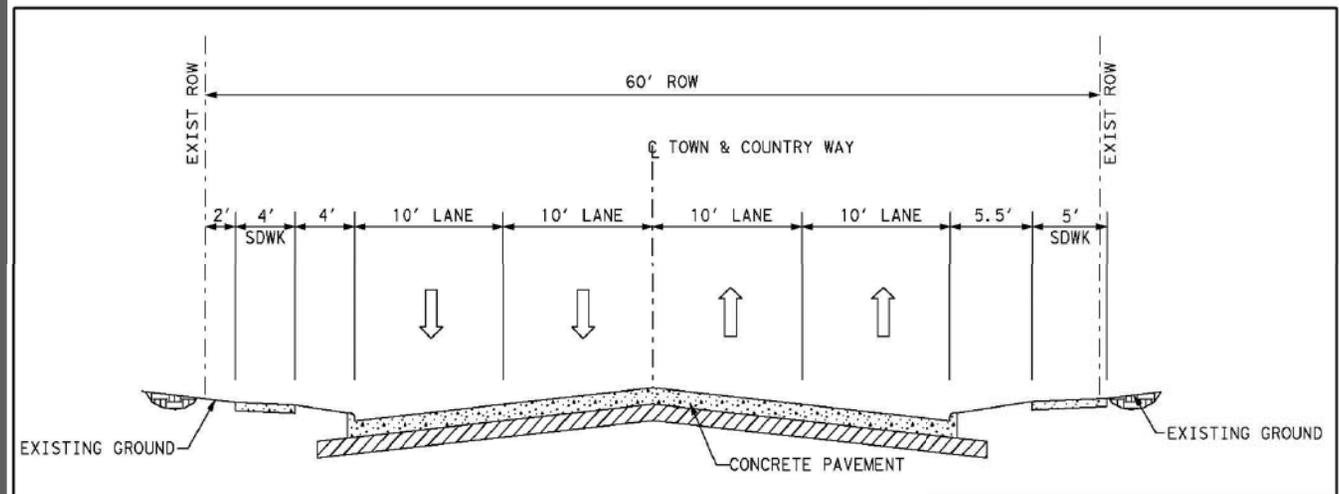
■ EXISTING CONDITIONS – ROADWAY

- Concrete Roadway (7.5" Concrete)
- 4-Lane Undivided
- Built early 1970's
- 4' Sidewalks (Discontinuous)
- Pavement Condition Rating (50 to 67)*

* 35-59=Low

59-64.9=Medium-Low

64.9-72=Medium



Town and Country Way - Typical Section

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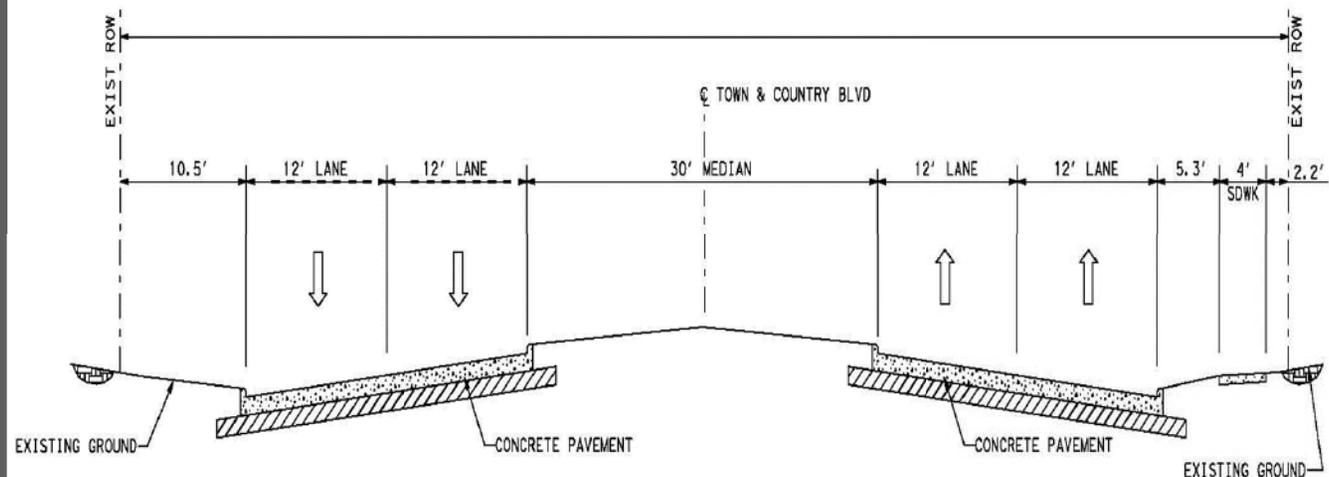
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Town and Country Boulevard - Typical Section

- ALIGNMENT SHIFT



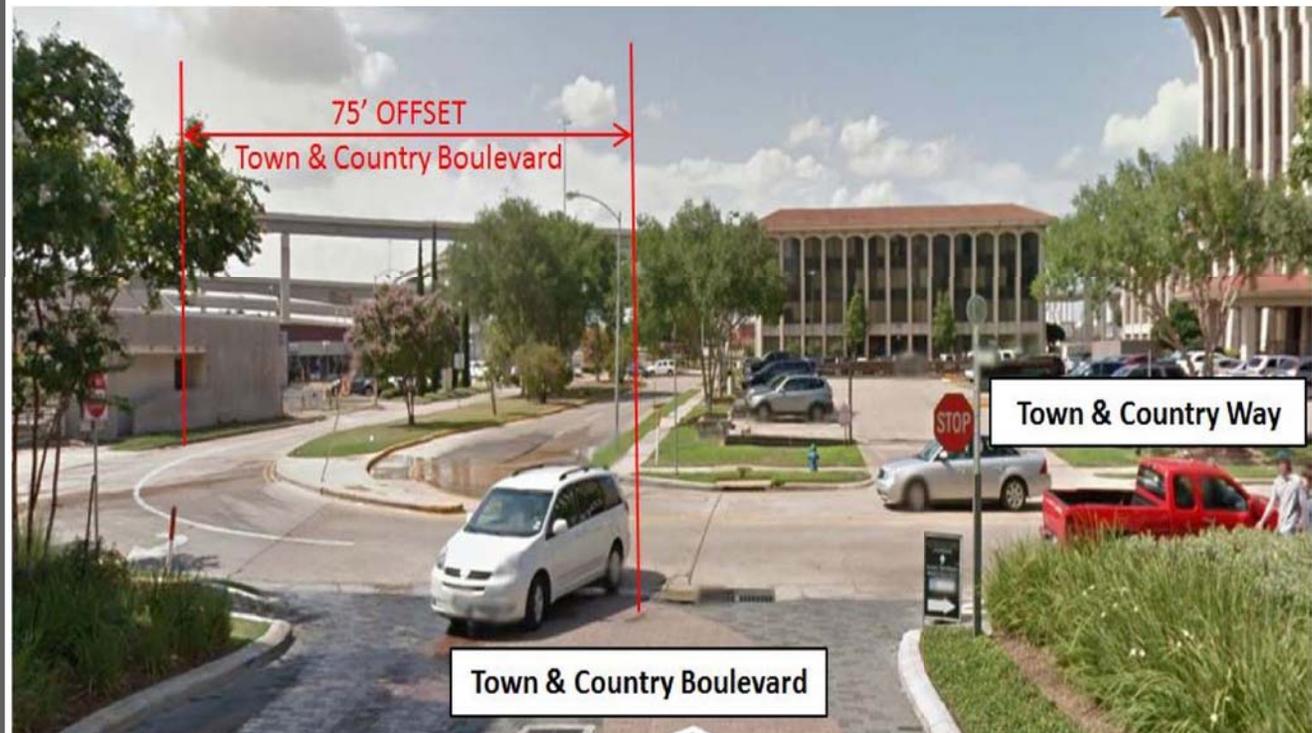
■ EXISTING ALIGNMENT

Town & Country Way

- ROW – 60 FT
- Local Street
- No Posted Speed Limit

Town & Country Blvd.

- ROW – 100 FT
- Local Street
- **75ft Alignment Shift**
- No Posted Speed Limit



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ALTERNATIVE I

- Alignment Shift
- Cross Section Transition

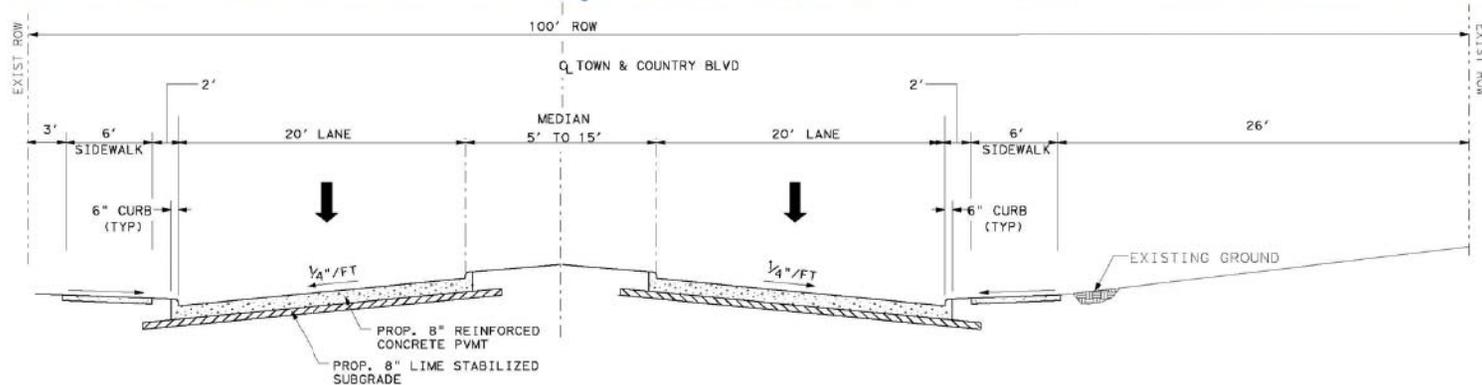


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ALTERNATIVE II - RECOMMENDED

- Alignment Shift
- Cross Section Transition
- Roundabout



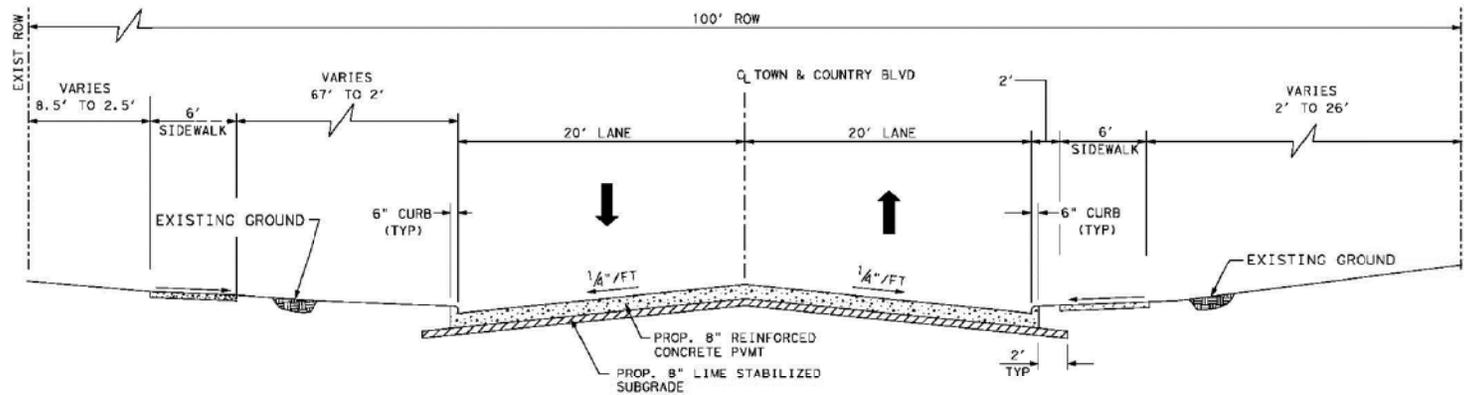
TOWN & COUNTRY BLVD
FROM IH 10 FRONTAGE ROAD TO STA. 6+04

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ALTERNATIVE II - RECOMMENDED

- Alignment Shift
- Cross Section Transition
- Roundabout

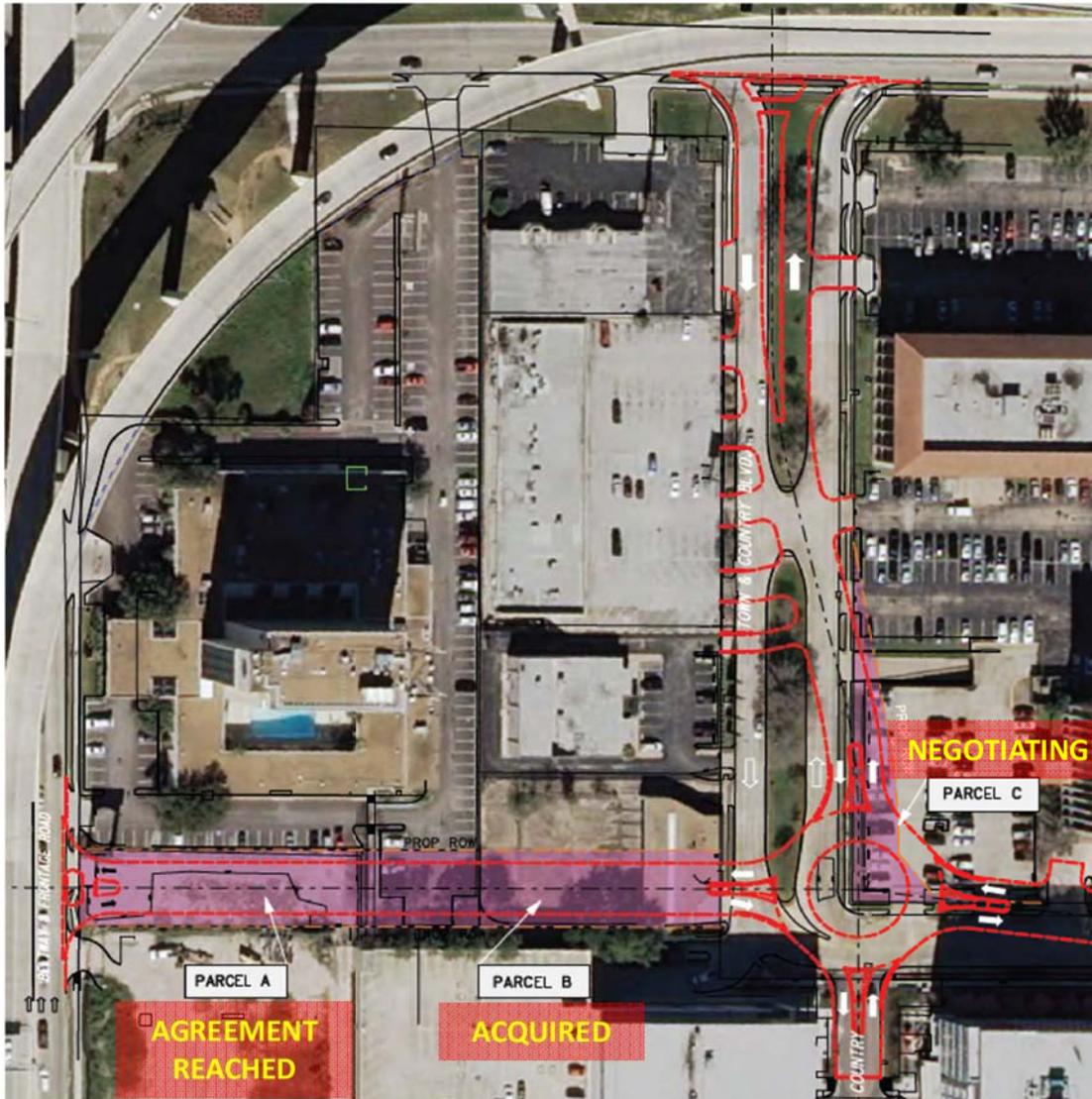


TOWN & COUNTRY BLVD
FROM STA. 6-04 TO
TOWN & COUNTRY WAY



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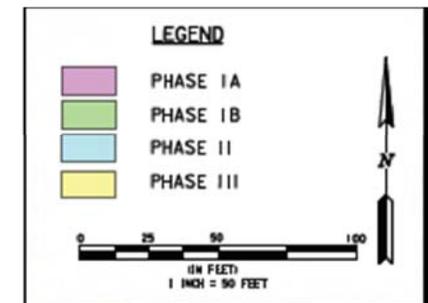
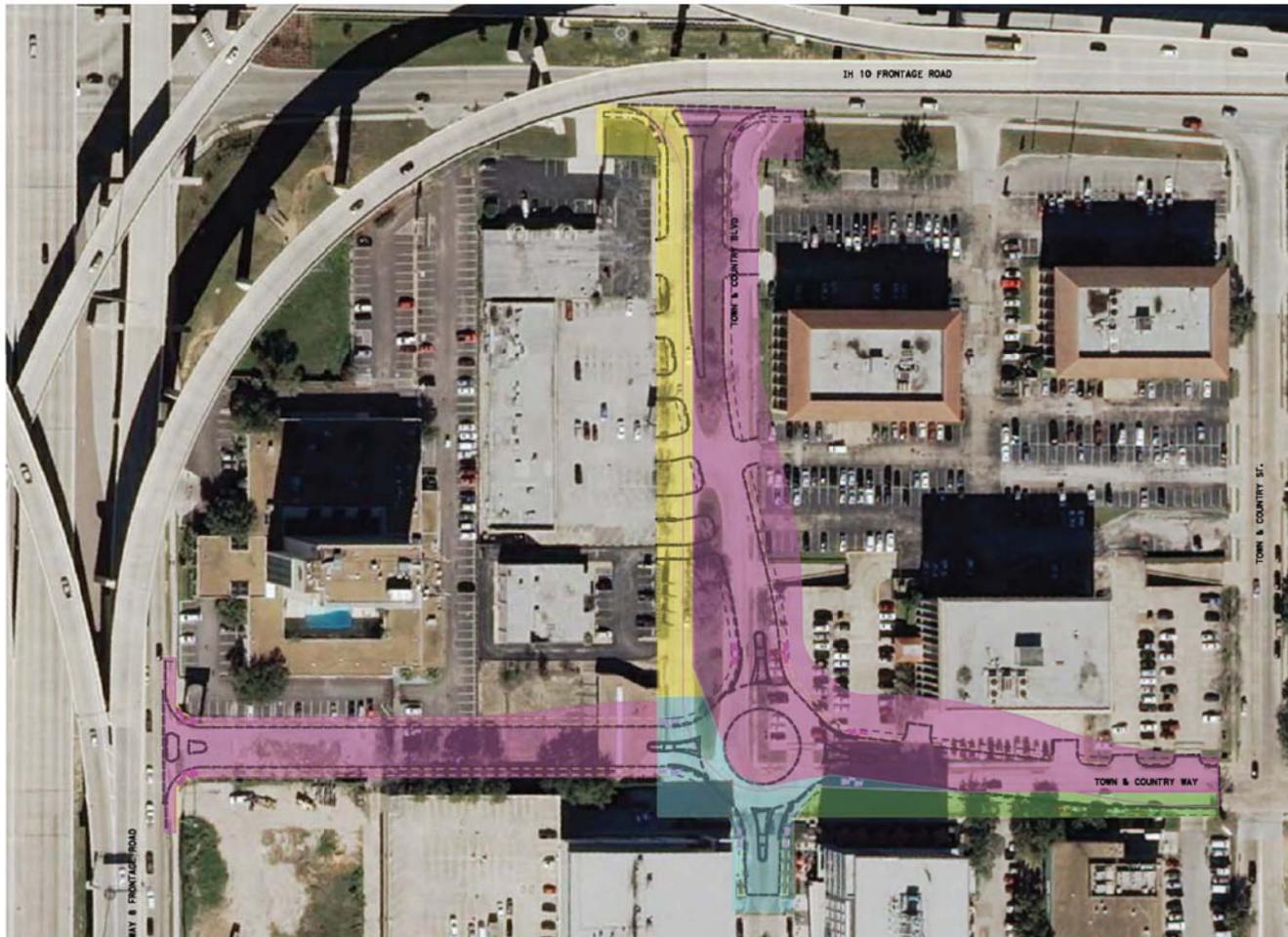
- RIGHT-OF-WAY ACQUISITION



PARCEL	AREA (SqFt)
Parcel A	18,005
Parcel B	10,811
Parcel C	13,637
Total	42,453

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- CONCEPTUAL TRAFFIC CONTROL PLAN
 - Phased Construction





- BUDGET/ SCHEDULE**
Roadway Alternative II
w/Drainage OPTION III

Construction Estimate

- \$7.22 Million

Proposed Schedule

- Design: 9 months
- Construction: 12 months

DESCRIPTION	TOTAL
ROADWAY	\$ 942,000
WATER LINE ITEMS	\$ 304,000
SANITARY SEWER ITEMS	\$ 205,000
DRAINAGE ITEMS (8+ ac/ft detention)	\$ 4,866,000
GENERAL ITEMS (20% Contingency/Mobilization/Misc.)	\$ 908,000
TOTAL	\$ 7,225,000

*** 100% TIRZ Funded**



KEY OBJECTIVES SATISFIED

- Improve Drainage Deficiencies
- Improve Mobility & Safety
- Improve Roadway Alignment



Questions & Answers

