

Town and Country Road Neighborhood Streetscape

Neighborhood Traffic Management Program



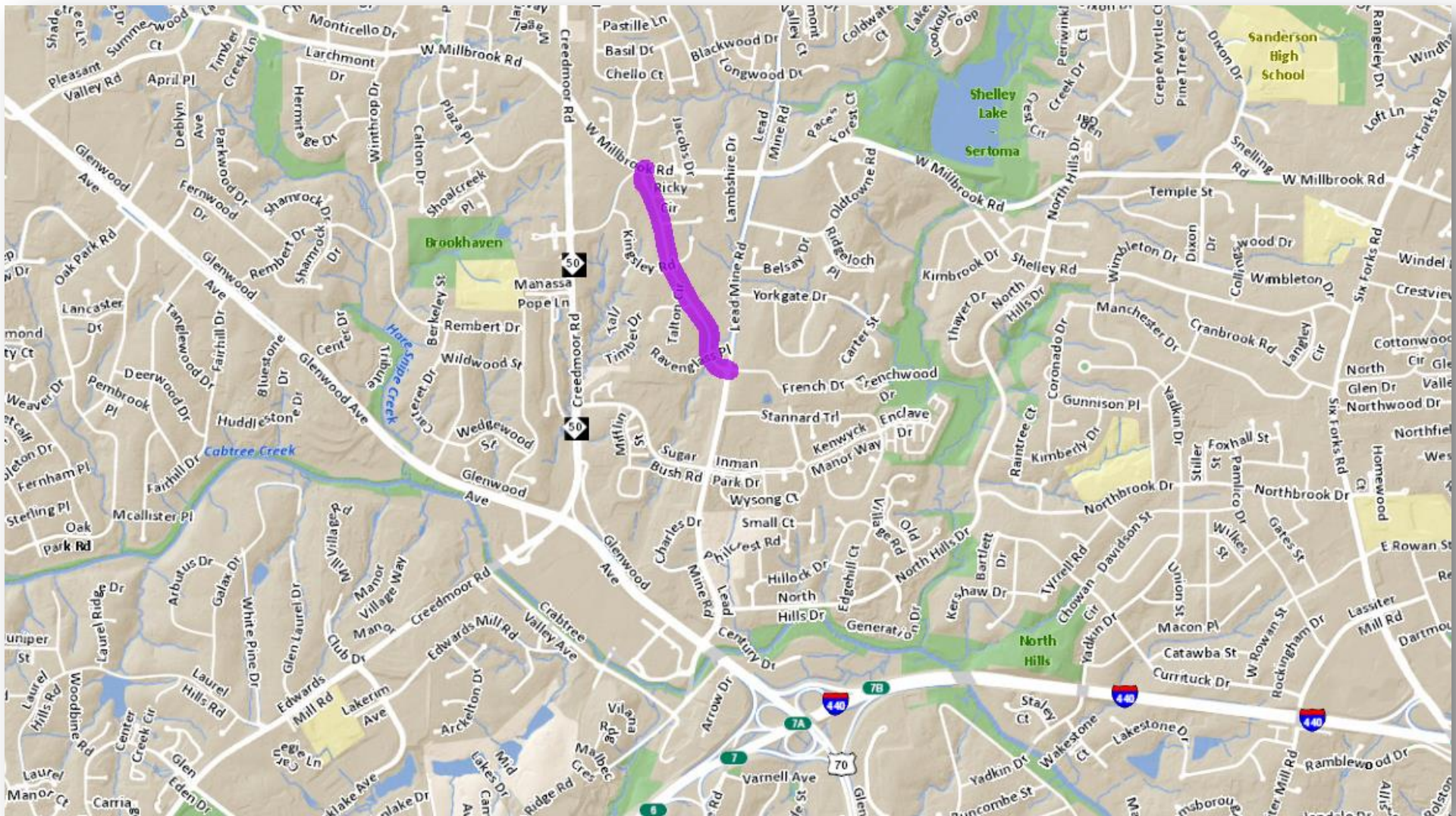
*Public Works
Committee of
City Council*

March 24, 2015

Presentation Overview

- Brief project background
- Overview of design concept
- Review of previous speed hump proposal
- Discussion of proposed treatment D
(neighborhood traffic circle at Kingsley Rd.)
- Slides are available for all other treatments

Project Location



Project Timeline

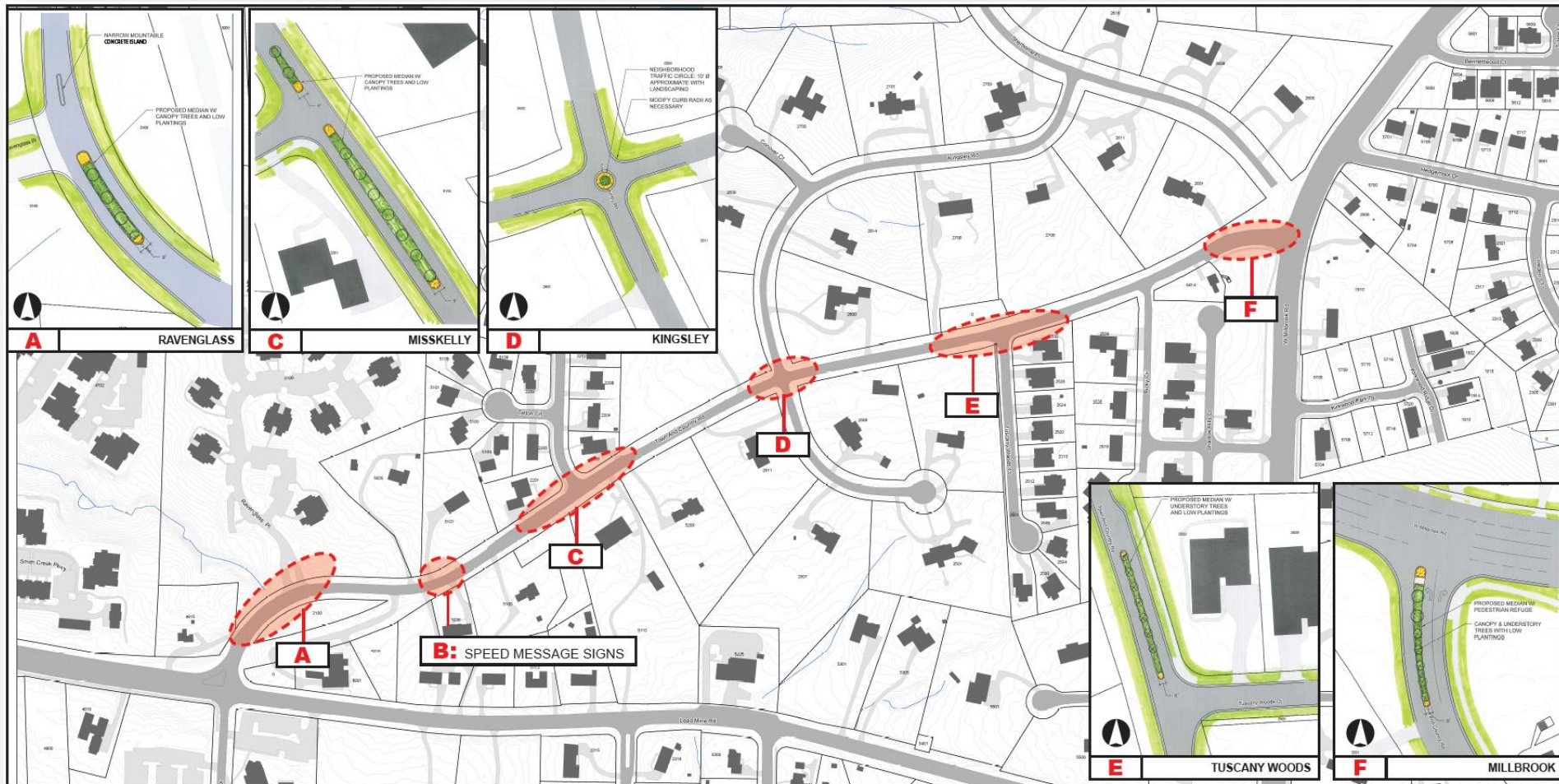
- November 5, 2013 – #6 on priority list adopted by Council (minor traffic calming)
- January 16, 2014 – Information session (10 attendees)
- February 6, 2014 – Successful petition submitted (89% support)
- May 29, 2014 – Minor traffic calming preliminary design meeting (23 attendees)
- August 7, 2014 – Minor traffic calming design pre-marked
- September 18, 2014 – Neighborhood streetscape proposal meeting (18 attendees)
- October 20, 2014 – Neighborhood design review (21 attendees)
- February 5, 2015 – Treatments pre-marked
- March 3, 2015 – City Council Public Design Review
- Today – Public Works Committee of City Council

Traffic Study



- Northbound (north of Kingsley)
 - 50.8 mph 85th percentile
 - 45.6 mph 50th percentile
 - 70.2 mph maximum
 - 2994 vehicles per day
- Northbound (south of Misskelly)
 - 46.8 mph 85th percentile
 - 42.3 mph 50th percentile
 - 80.3 mph maximum
 - 3147 vehicles per day
- Southbound (north of Kingsley)
 - 47.9 mph 85th percentile
 - 43.4 mph 50th percentile
 - 72.1 mph maximum
 - 2050 vehicles per day
- Southbound (south of Misskelly)
 - 42.5 mph 85th percentile
 - 38.9 mph 50th percentile
 - 80.3 mph maximum
 - 2068 vehicles per day

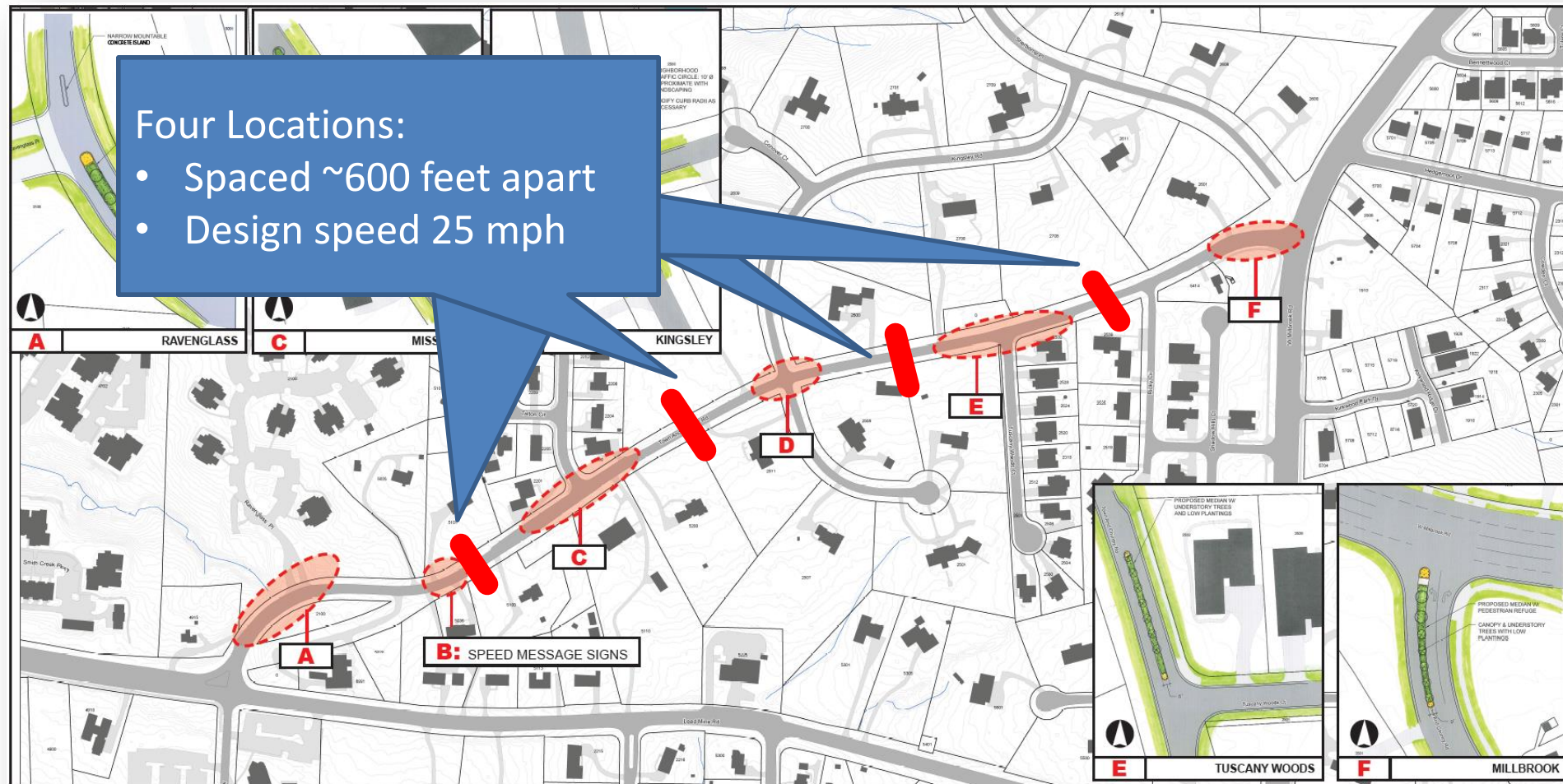
Design Overview



Previously Proposed Speed Humps

Four Locations:

- Spaced ~600 feet apart
- Design speed 25 mph



Location D: Kingsley



(Facing North)

Location D: Kingsley



Neighborhood Traffic Circle

- Conclusively limits speed
- Proven safety record
- Generally less expensive than other intersection treatments
- Limits left turns by very large vehicles

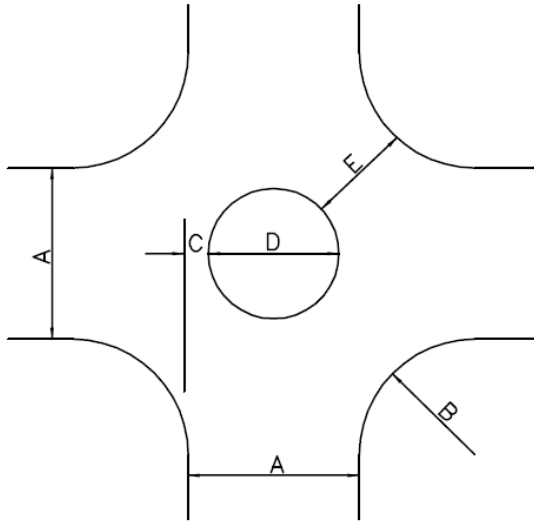
Example Neighborhood Traffic Circle



Location: *Knox St. and Dollar Ave. (NW of Duke University in Durham)*

Circle Design

GEOMETRY



NOTES:

1. USE DIMENSION SCHEDULE AS A DESIGN GUIDE. FINAL DIMENSIONS TO BE DETERMINED BY THE ENGINEER.
2. FOR PLANTER ISLAND SPECIFICATIONS SEE TRAFFIC CIRCLE DETAIL TE-27.

OPTIMUM CRITERIA

OFFSET DISTANCE (C)	OPENING WIDTH (E)
5.5' MAX.	16' MIN.
5.0'	17' ±
4.5'	18' ±
4.0'	19' ±
3.5' OR LESS	20' ±

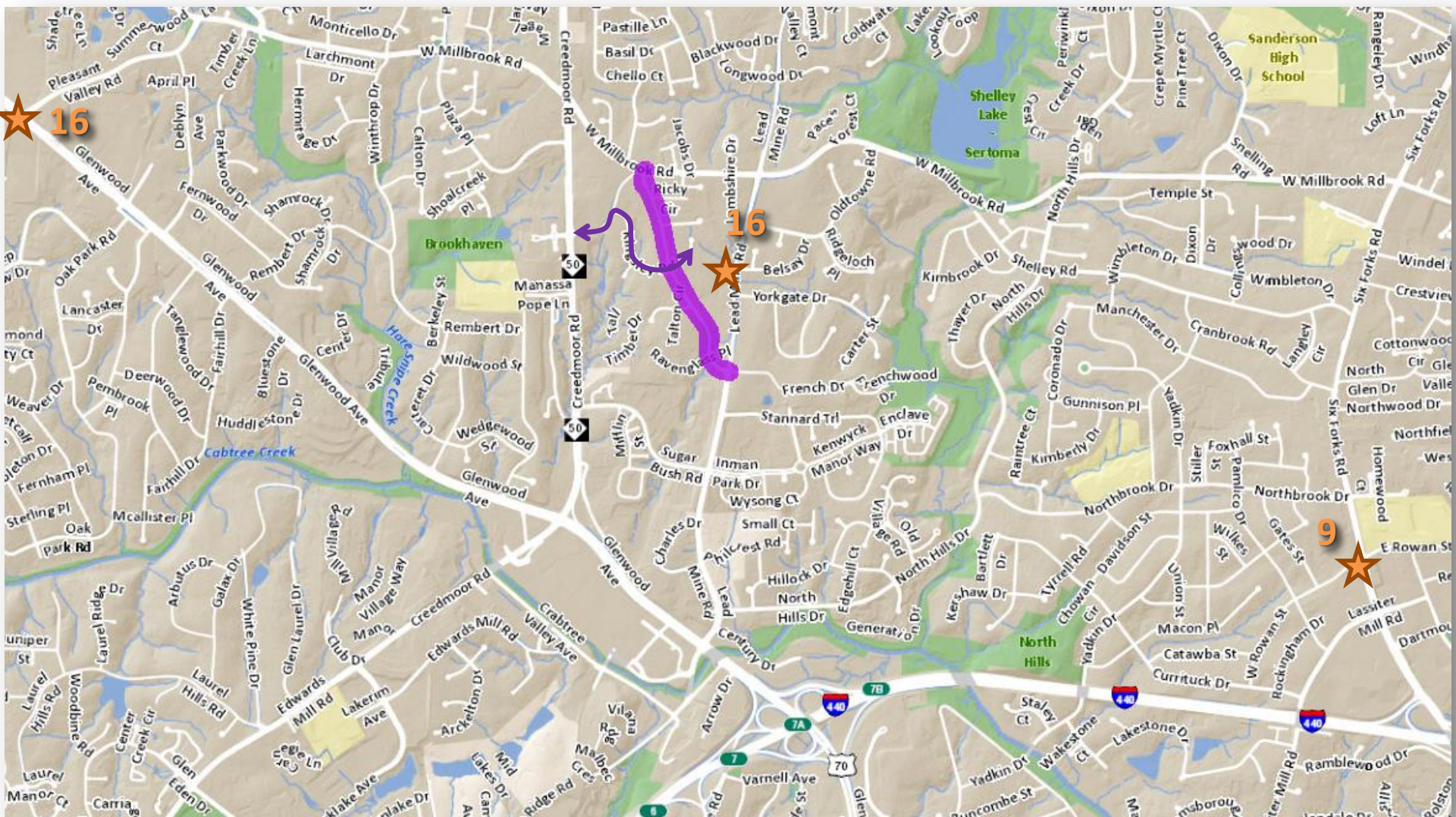
DIMENSIONS

A STREET WIDTH	B CURB RETURN RADIUS	C OFFSET DISTANCE	D CIRCLE DIAMETER	E OPENING WIDTH
20'	<15'	RECONSTRUCT CURBS		
	15'	5.5'	9'	16'+
	18'	5.0'	10'	17'+
	20'	4.5'	11'	18'-
	25'	4.0'	12'	19'+
24'	<12'	RECONSTRUCT CURBS		
	12'	5.5'	13'	16'
	15'	5.0'	14'	17'
	20'	4.5'	15'	18'+
	25'	3.5'	17'	20'-
25'	<12'	RECONSTRUCT CURBS		
	12'	5.5'	14'	16'+
	15'	5.0'	15'	17'-
	18'	4.5'	16'	18'-
	20'	4.5'	16'	18'+
30'	10'	5.5'	19'	16'+
	12'	5.0'	20'	17'-
	15'	5.0'	20'	17'+
	18'	4.5'	21'	18'+
	20'	4.0'	22'	19'+
32'	10'	5.5'	21'	16'+
	12'	5.0'	22'	17'-
	15'	4.5'	23'	18'-
	18'	4.0'	24'	19'-
	20'	4.0'	24'	19'+
36'	10'	5.5'	26'	17'-
	12'	5.0'	26'	17'+
	15'	4.5'	27'	18'+
	18'	4.0'	28'	19'+
	20'	3.5'	29'	20'-
40'	10'	5.0'	30'	17'+
	12'	4.5'	31'	18'+
	15'	4.0'	32'	19'-
	18'	3.5'	33'	20'-
	20'	3.0'	34'	20'
	25'	1.0'	38'	20'

Without Curb and Gutter (approximate)

With Curb and Gutter (approximate)

Large Vehicle Routes



Only Kingsley Road is affected. Stars are Raleigh Fire Department Stations

Visualization: Existing



(Facing South)

Visualization: Proposed



(Facing South)

Potential Alternatives for Kingsley Road

- Circle without curb and gutter
- Circle with curb and gutter on corners
- Mini roundabout (completely mountable)
- Speed hump(s)
- Speed message sign
- Short section of improved street opens up many more alternatives

Location A: Ravenglass

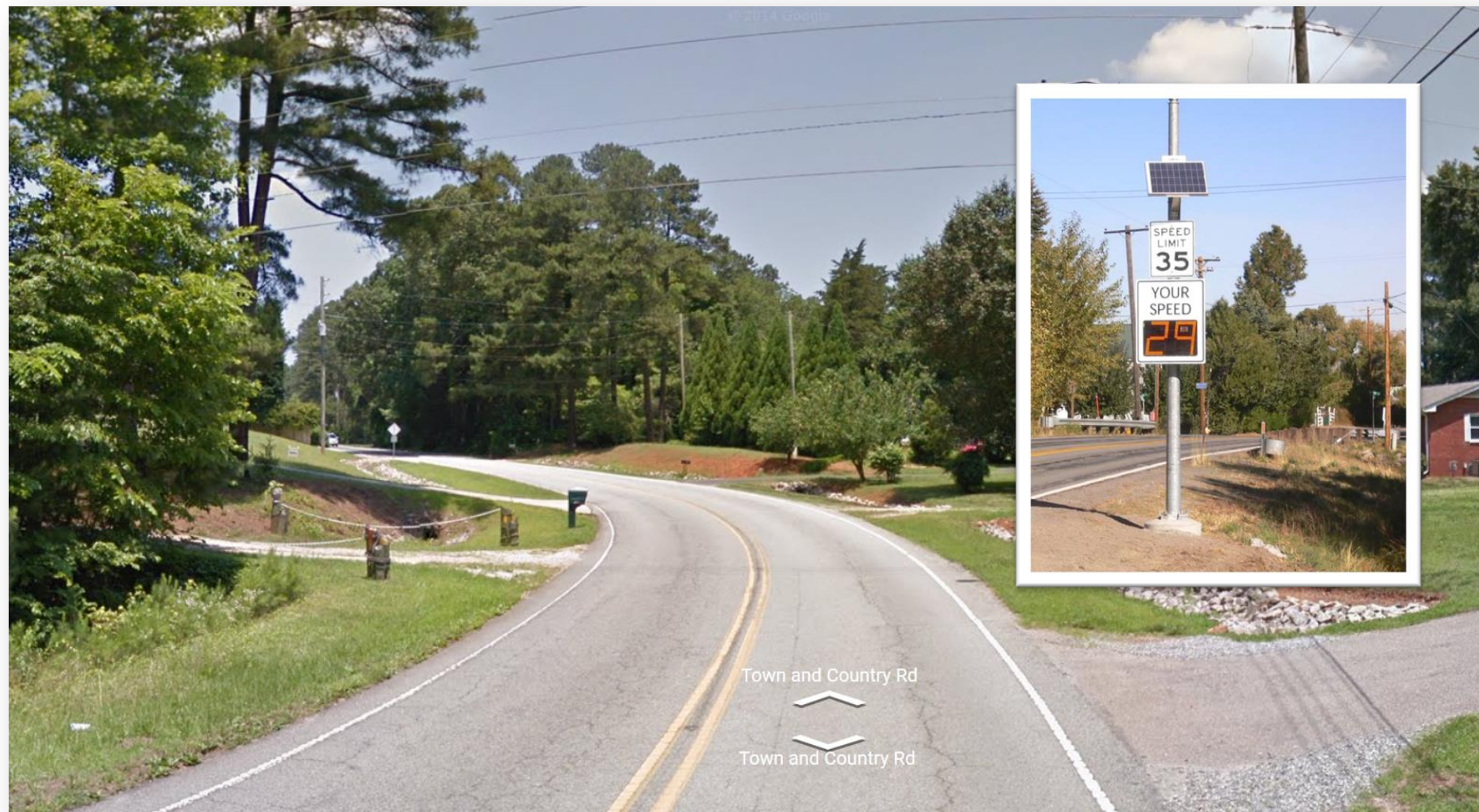


(Facing Northwest)

Location A: Ravenglass



Location B: ~5050 Town & Country



(Facing North)

Location C: Misskelly



(Facing North)

Location C: Misskelly



Location E: Tuscany Woods



Town and Country Rd

Town and Country Rd

(Facing North)

Location E: Tuscany Woods

Note:
During pre-marking,
it was determined
that there is not
sufficient width to
include landscaping
on the median.



Location F: Millbrook



(Facing North)

Location F: Millbrook



Next Steps

- Council authorization to proceed
- Final design to be developed by Public Works