

ROUTE 62 / ROUTE 8 INTERSECTION AND 15TH STREET HILL SAFETY STUDY

Public Input Meeting #2

April 26, 2021

INTRODUCTION (Project Team)



- **Greg Maser** PennDOT PM
- **Tom McClelland** Design
- **Ron Johnson** Design
- **Jill Harry** Media Contact
- **Brian Smith** Traffic
- **Lyndsie DeVito** Ped/Bike
- **Chris Wolfgong** Environmental
- **Don Burden** Historian

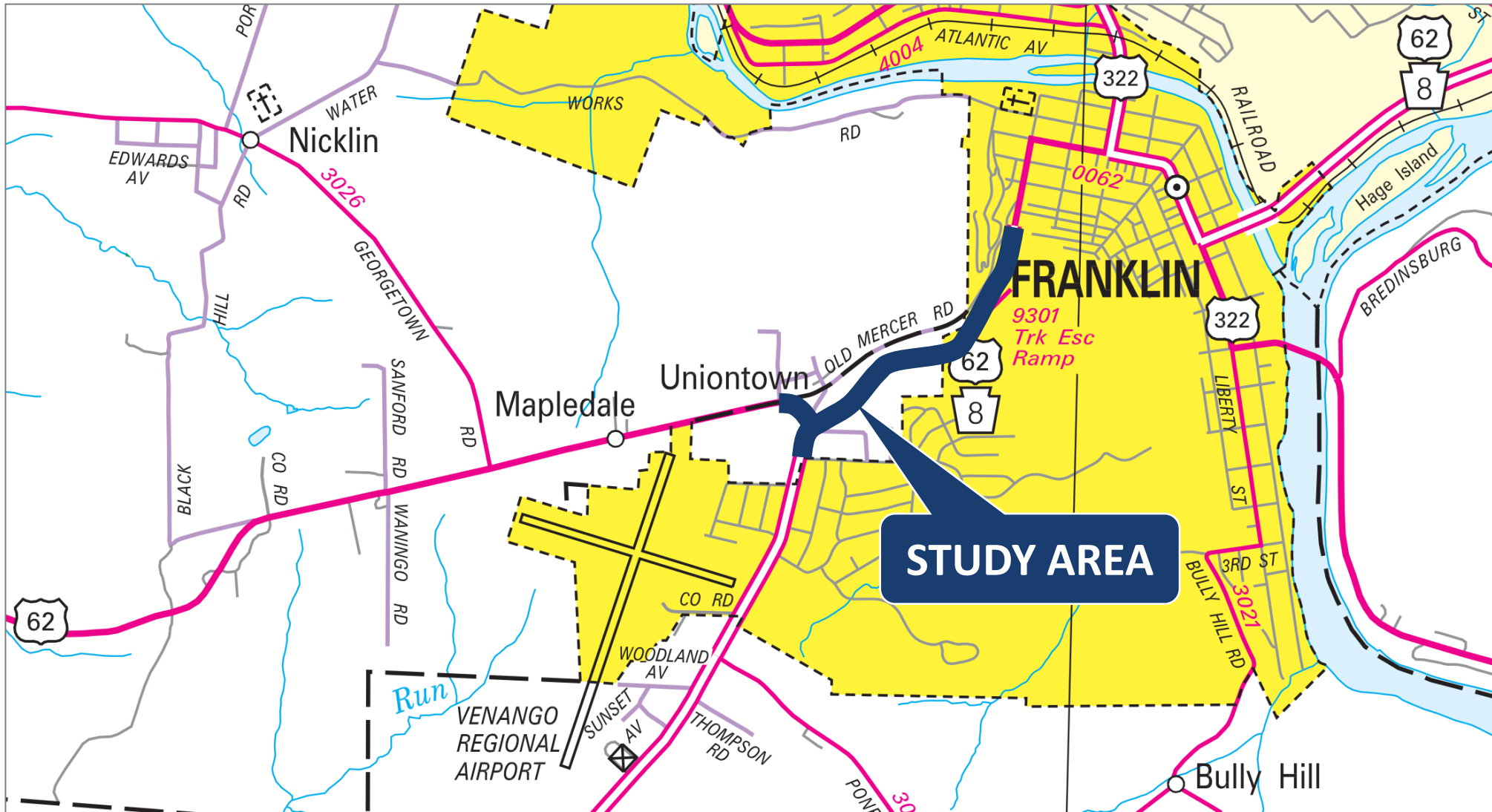


- **Chad Reese** WRA PM
- **Jonathon Balko** Markosky PM
- **Chris Lucia** Traffic
- **Brent Barrett** Roadway
- **Tyler Steele** Roadway
- **Jason Harkcom** Environmental
- **Susan Gerlach** Environmental

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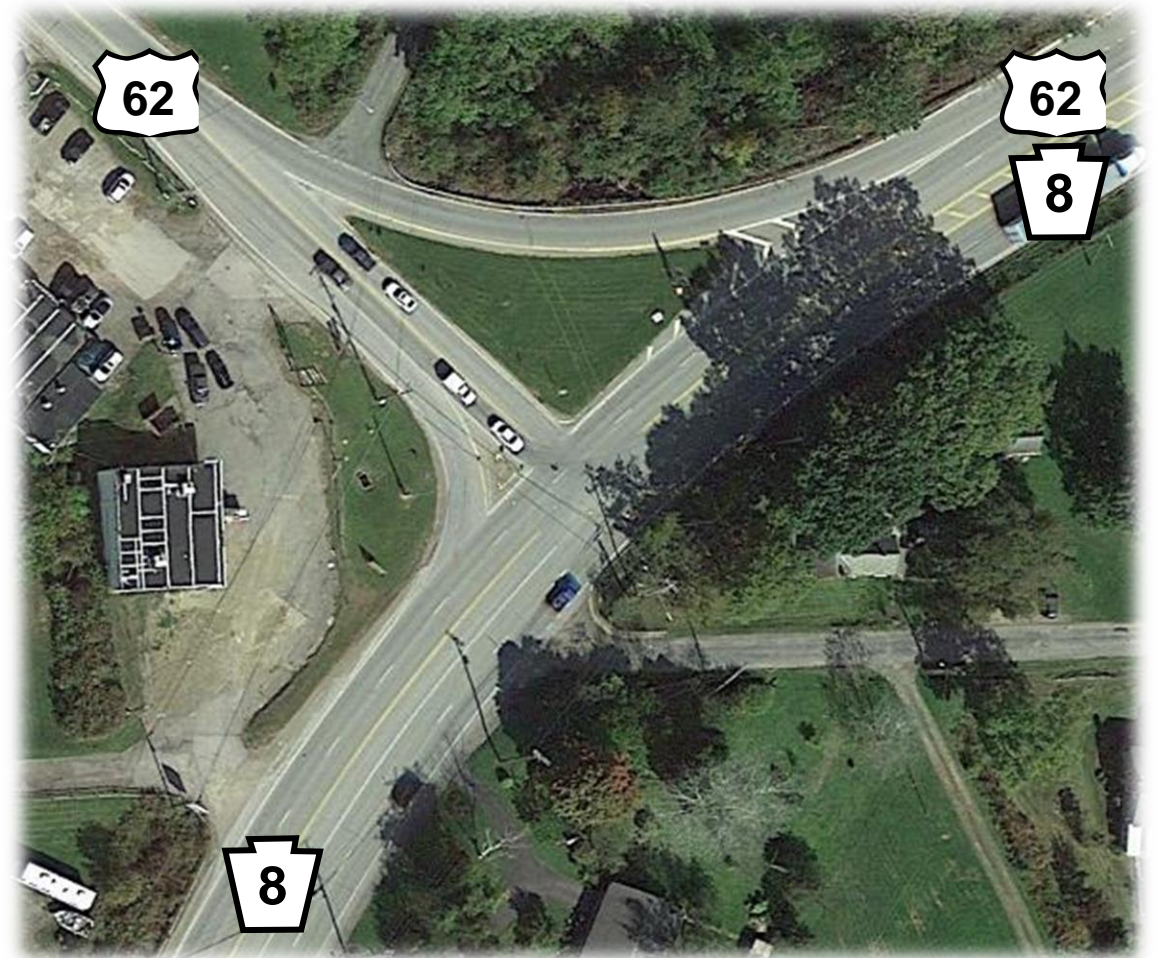


INTRODUCTION (Study Area)



INTRODUCTION (Agenda)

1. Study Background
2. Purpose and Need
3. Initial Improvement Concepts
4. Detailed Alternatives
5. Summary and Feedback



STUDY BACKGROUND

NOV 2020

Baseline Conditions / Future Needs and Opportunities

 *Initial Stakeholder and Public Meetings*

APR 2021

Improvement Alternatives

 *Final Public Meeting*

MAY 2021

Implementation & Funding Plan

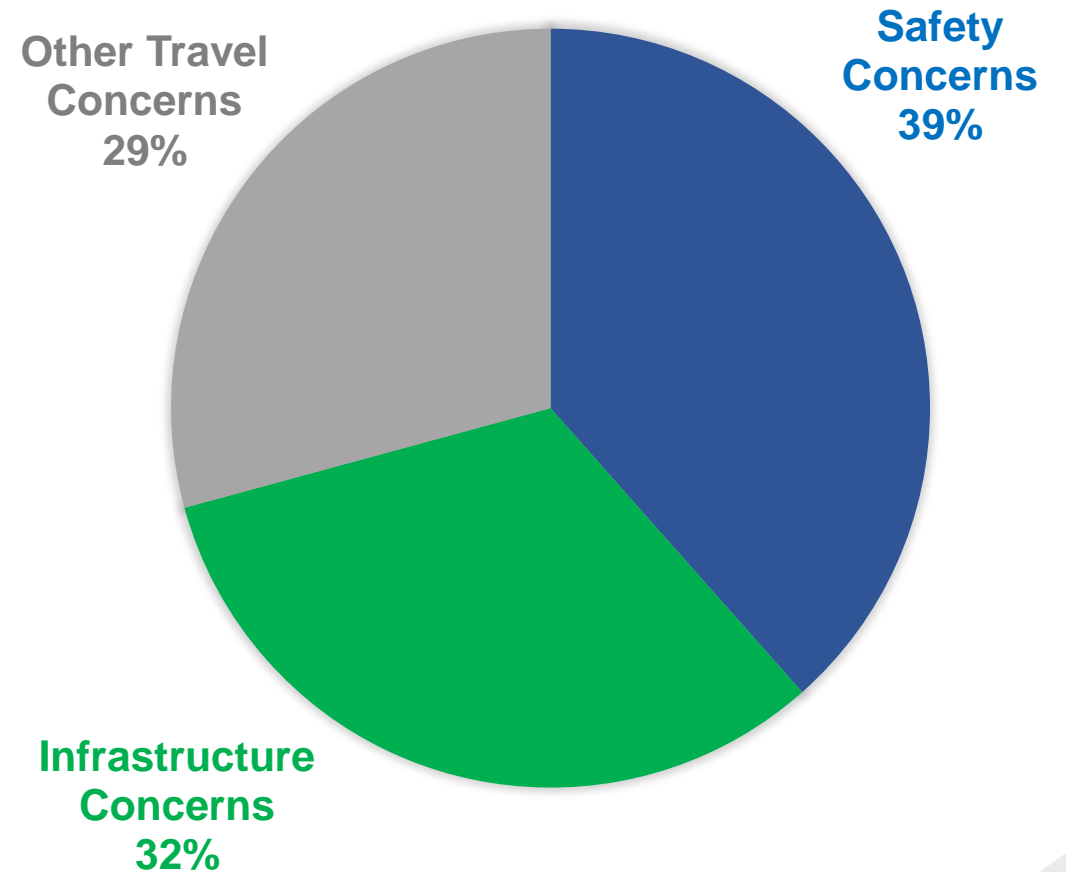
 *Final Plan Reviews*



STUDY BACKGROUND

- Initial Outreach in Oct-Nov 2020
- Stakeholder and Public Coordination
 - Emergency Services
 - Planning
 - Schools & Transportation
 - Businesses
 - Public Officials
 - General Public
- 65 Site-Specific Outreach Comments

COMMENT OVERVIEW



STUDY BACKGROUND



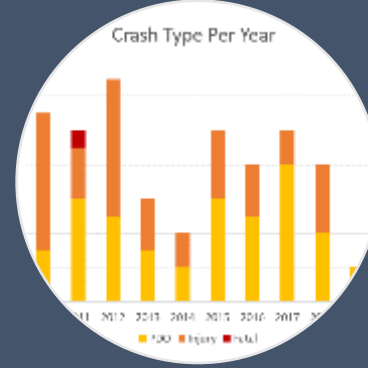
Infrastructure

- Guiderail
- Drainage
- Shoulder
- Sight Distance



Traffic Ops

- Volume
- Delays
- Speeds
- Truck Traffic



Traffic Safety

- Crash Locations
- Crash Patterns
- Weather
- I-80/I-79 Detours



Outreach

- Agency
- Stakeholder
- Public
- Surveys

Evaluate Transportation Needs – Develop Action Plan



PURPOSE AND NEED

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Project PURPOSE

Route 62 / Route 8 Intersection



The **Purpose** of the project is to improve vehicular mobility and operations through the Route 62 / Route 8 intersection and its connection with the 15th Street Hill corridor.



Project NEED

Congestion



Route 62 eastbound left-turns currently operate at Level-of-Service (LOS) D/F in the AM/PM peak hours, respectively, and are projected to worsen to LOS E/F in the future.

Facility Deficiencies



The Route 8 horizontal and vertical geometry through the project intersection make it difficult for Route 62 motorists to adequately judge the speed of approaching traffic, the lane that traffic occupies, and the related gap availability for turns onto Route 8.

This deficiency also affects motorists using Tingley Lane, which meets Route 8 at a skewed angle just south of the Route 62 / Route 8 intersection. Left-turn movements onto Route 8 from Tingley Lane are generally avoided, and movements into this connector are also affected by its position and angle.



INITIAL IMPROVEMENT CONCEPTS

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Route 62 / 8 Intersection – *9 initial concepts w/ combinations of:*

- Signing and pavement marking upgrades
- Enhanced traffic controls via stop-control or traffic signalization
- Installation of a Left-Turn Acceleration (**LTA**) lane
- Turn restrictions using a downstream **Jughandle**
- Turn restrictions using a Restricted-Crossing U-Turn (**RCUT**)

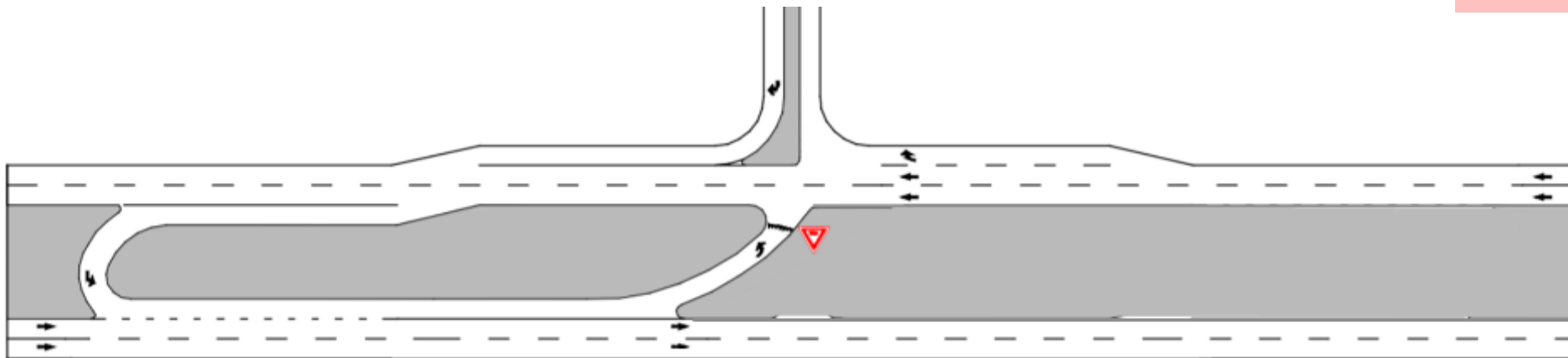


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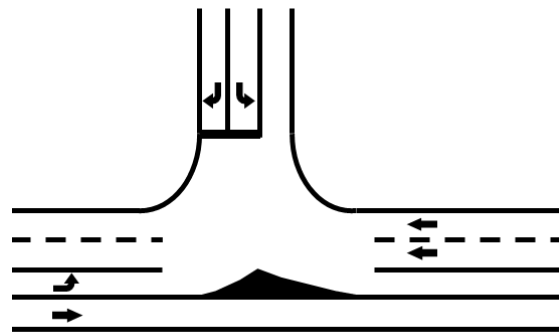
CONCEPT DROPPED
due to cost, property
impact, and concerns
related to weaving and
truck operations



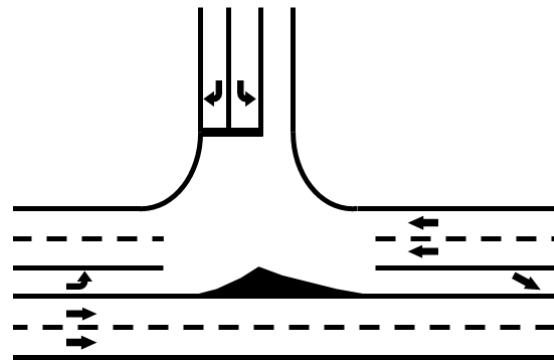
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LTA / 1-Lane



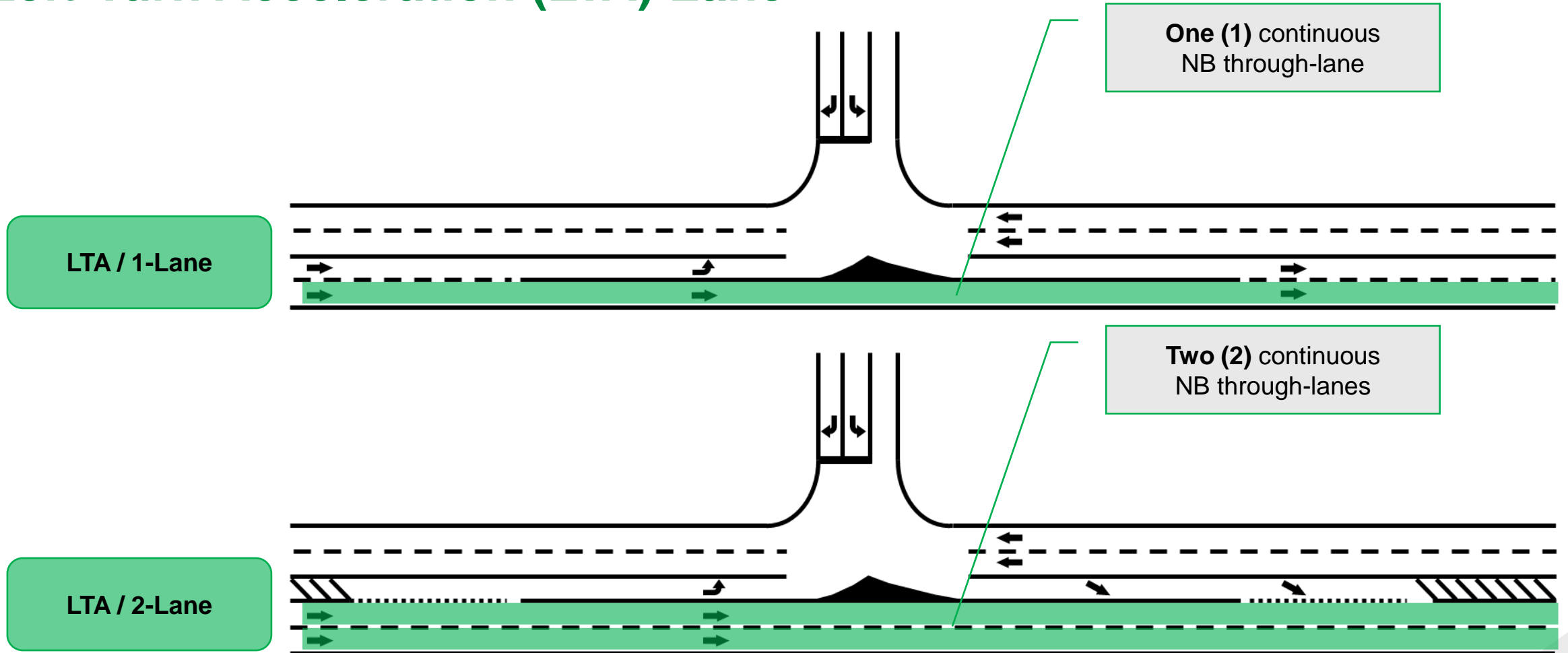
LTA / 2-Lane

CONCEPT EXPANDED
To include 1- and 2-lane versions, with or without traffic signalization



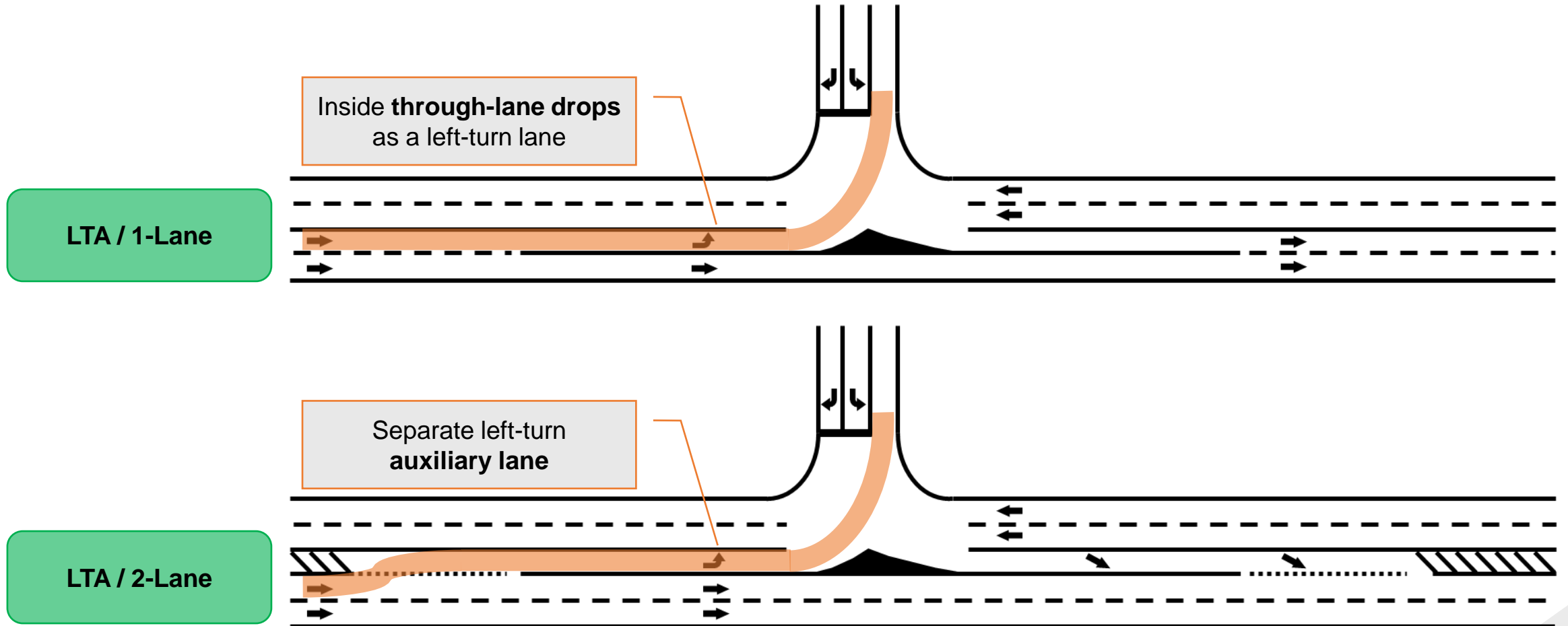
INITIAL IMPROVEMENT CONCEPTS

Left-Turn Acceleration (LTA) Lane

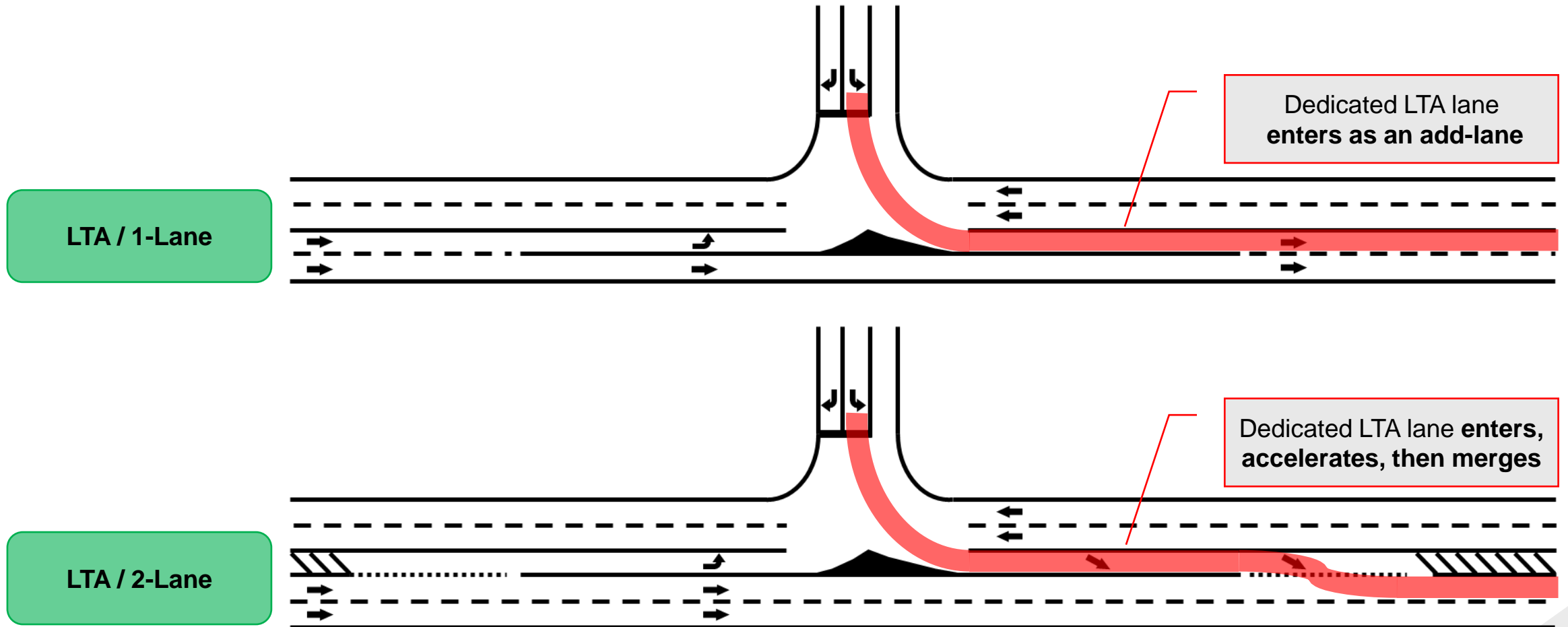


INITIAL IMPROVEMENT CONCEPTS

Left-Turn Acceleration (LTA) Lane



Left-Turn Acceleration (LTA) Lane



INITIAL IMPROVEMENT CONCEPTS

15th Street Hill Corridor – *3 initial concepts w/ combinations of:*

- Limited installation of Two-Way Left-Turn Lane (**TWLTL**)
- Widening for shoulder, median, or lane improvements
- Widening for curve or geometric improvements

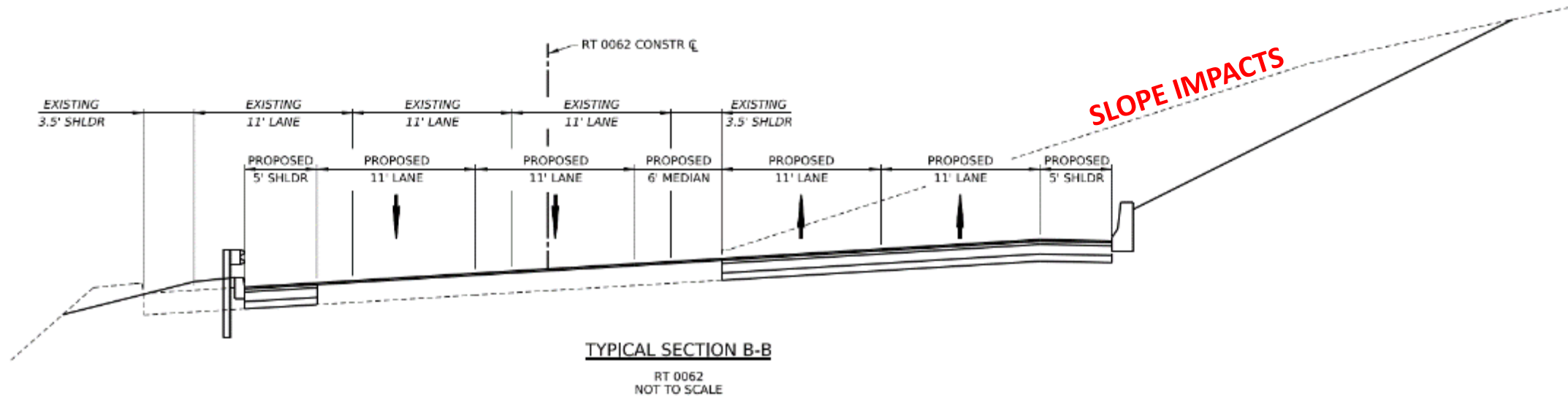


INITIAL IMPROVEMENT CONCEPTS

15th Street Hill Corridor – 3 initial concepts w/ combinations of:

- Limited installation of Two-Way Left-Turn Lane (TWLTL)
- Widening for shoulder, median, or lane improvements
- Widening for curve or geometric improvements

CONCEPTS DROPPED
due to only nominal benefit versus high costs and notable impacts to cut-slopes, drainage and runoff affecting Chubb Run



DETAILED ALTERNATIVES

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Refined Set of Improvement Alternatives

- **ALT 1:** Short-Term Signing/Marking Upgrades
- **ALT 2:** Traffic Signal Installation

- **ALT 3A:** LTA / 1-Lane (Curbed / Stop-Controlled)
- **ALT 3B:** LTA / 1-Lane (Curbed / Signalized)

- **ALT 4A:** LTA / 2-Lane (Painted / Stop-Controlled)
- **ALT 4B:** LTA / 2-Lane (Curbed / Stop-Controlled)
- **ALT 4C:** LTA / 2-Lane (Curbed / Signalized)

- **ALT 5B:** Restricted Lefts (Jughandle / Signalized)

- **ALT 6:** Limited TWLTL with Shoulder Widening





OLD MERCER RD

62

RT 62 WESTBOUND MERGE

OPTIONAL in any Alternative

UNION ST

OAKWOOD DR

MAPLEWOOD LN

8 62

TINGLEY LN. CUL-DE-SAC

OPTIONAL: Right-in / Right-out

TINGLEY LN

RT 8 LEFT TURN LANE

8

2

Traffic Signal Installation

ALT 1: Short-Term Signing/Marking Upgrades

BENEFITS

- Enhanced intersection awareness
- Low cost and minimal design/permitting risk
- Opportunity to incorporate into betterment projects

IMPACTS

- Only nominal effect on existing poor traffic operations
- Only nominal safety benefits
- Does not address visibility issues

ALT 2: Traffic Signal Installation

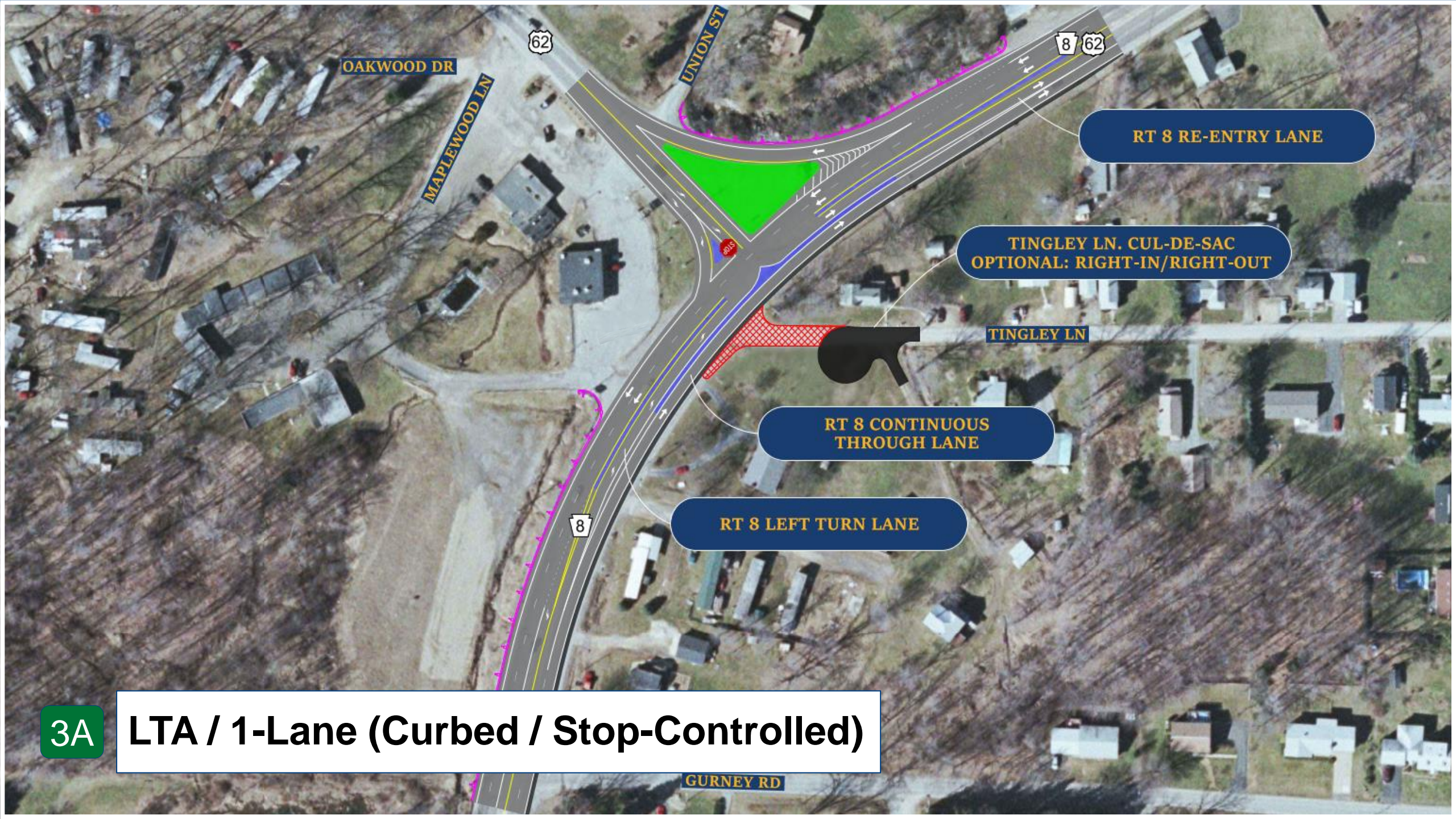
BENEFITS

- Acceptable traffic operations
- Positive safety benefit, especially angle crashes
- Low-cost relative to most other options
- Low to medium design & permitting risk

IMPACTS

- Route 8 NB/SB truck stoppages on red signal
- Rear-end crash potential
- Restricted access for Tingley Lane
- Compliance during low off-peak demand
- Municipal signal maintenance and electrical cost





OAKWOOD DR

MAPLEWOOD LN

62

UNION ST

8 62

RT 8 RE-ENTRY LANE

TINGLEY LN. CUL-DE-SAC
OPTIONAL: RIGHT-IN/RIGHT-OUT

TINGLEY LN

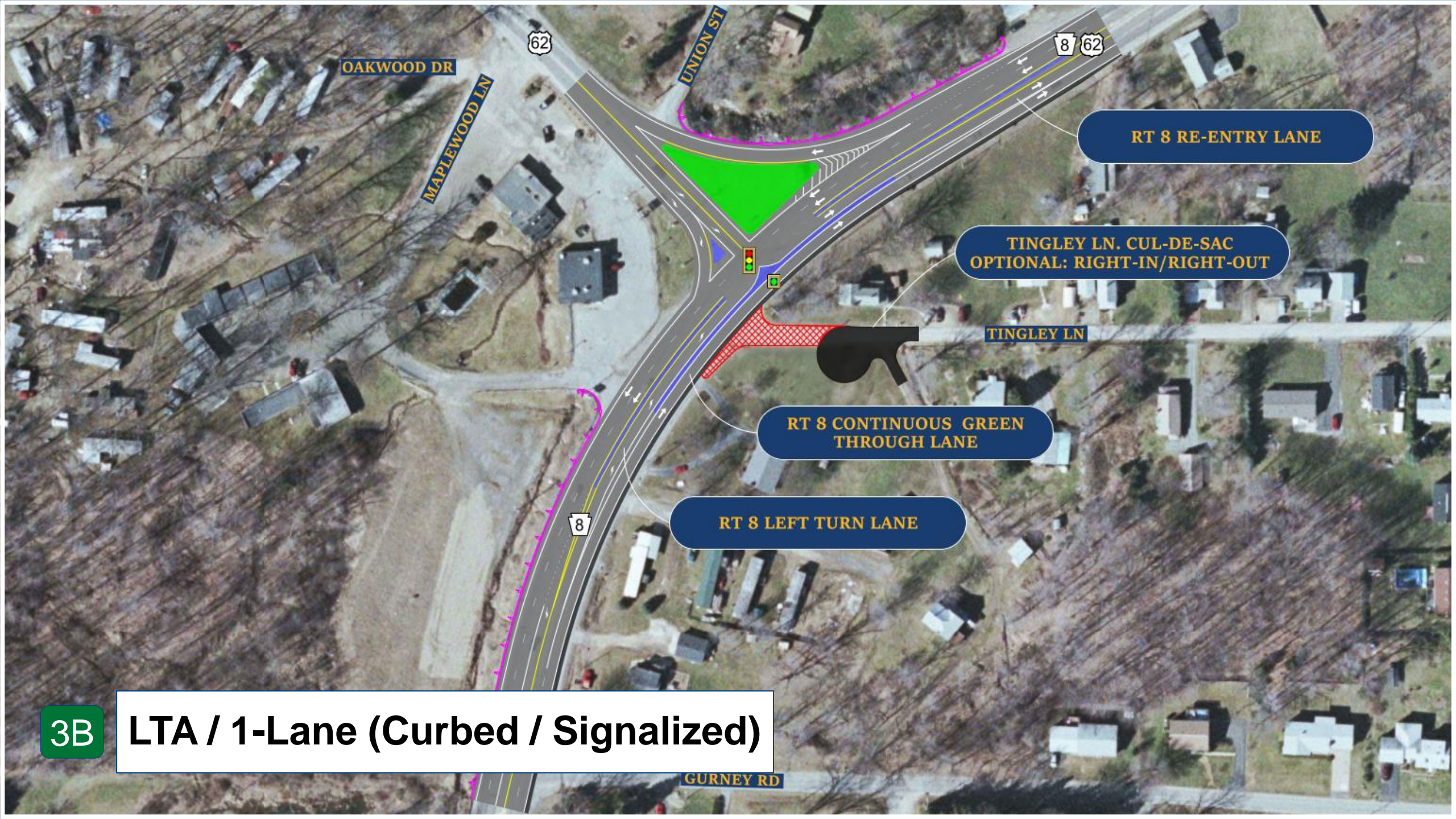
RT 8 CONTINUOUS
THROUGH LANE

RT 8 LEFT TURN LANE

GURNEY RD

3A

LTA / 1-Lane (Curbed / Stop-Controlled)



OAKWOOD DR

MAPLEWOOD LN

UNION ST

8 62

RT 8 RE-ENTRY LANE

TINGLEY LN. CUL-DE-SAC
OPTIONAL: RIGHT-IN/RIGHT-OUT

TINGLEY LN

RT 8 CONTINUOUS GREEN
THROUGH LANE

RT 8 LEFT TURN LANE

62

8

GURNEY RD

3B

LTA / 1-Lane (Curbed / Signalized)

ALT 3A: LTA / 1-Lane (Curbed / Stop-Controlled)

BENEFITS

- Acceptable traffic operations
- Focused improvement for EB left-turn issues
- No Route 8 stoppages
- Add-lane conditions for EB left-turn
- Positive delineation w/ curbed LTA

IMPACTS

- Route 8 NB reduces to a single through-lane
- Route 8 NB inside lane drops as a left-turn lane
- Restricted access for Tingley Lane
- Curb maintenance and snow-plow conflicts

ALT 3B: LTA / 1-Lane (Curbed / Signalized)

BENEFITS

ALT 3A benefits plus...

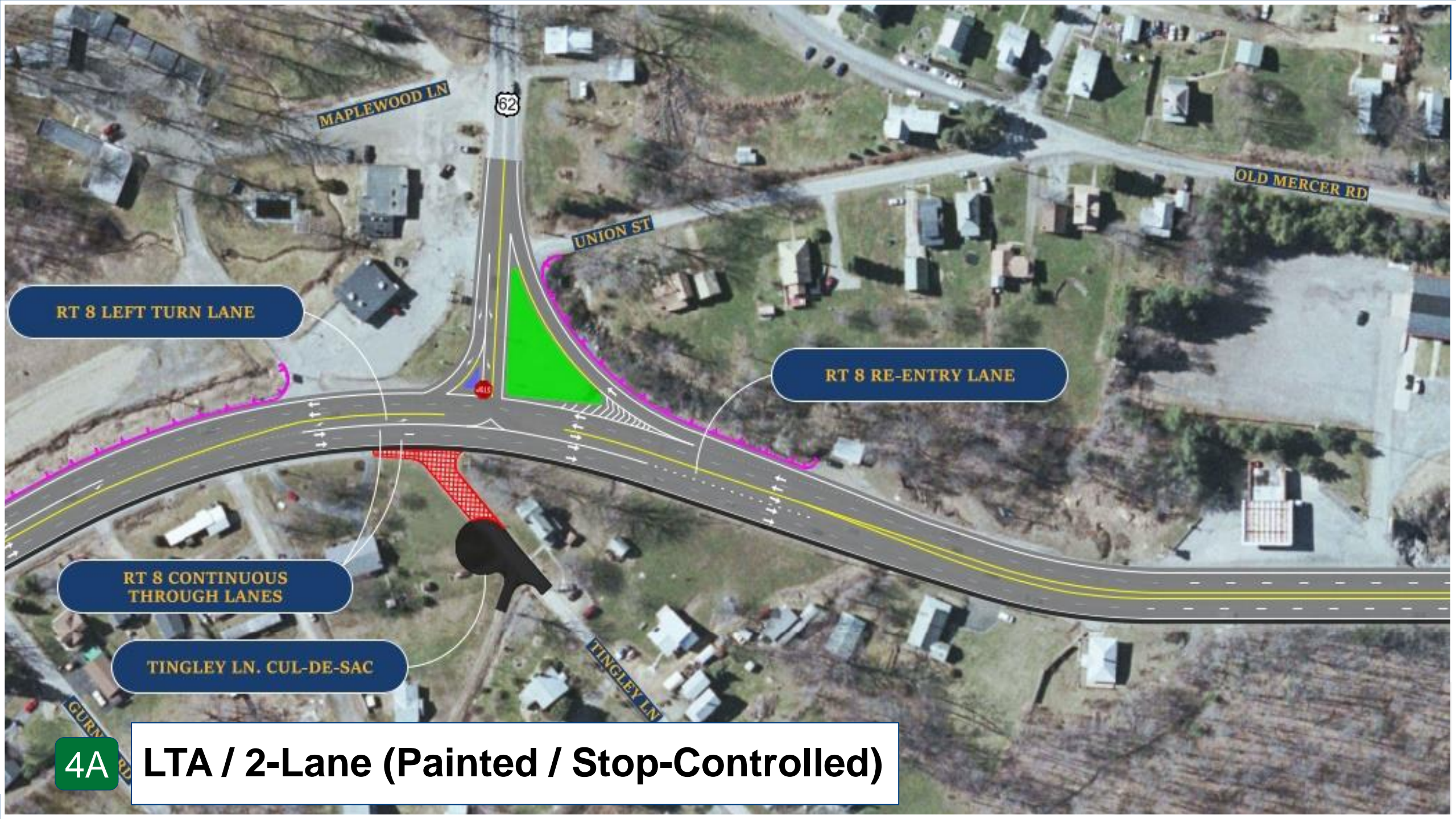
- Improved traffic operations
- Positive control of all turning movements (**but w/ SB stoppage**)

IMPACTS

ALT 3A impacts plus:

- Route 8 SB (uphill) truck stoppages on red signal
- Compliance during low off-peak demand
- Municipal signal maintenance and electrical cost





MAPLEWOOD LN

62

OLD MERCER RD

UNION ST

RT 8 LEFT TURN LANE

RT 8 RE-ENTRY LANE

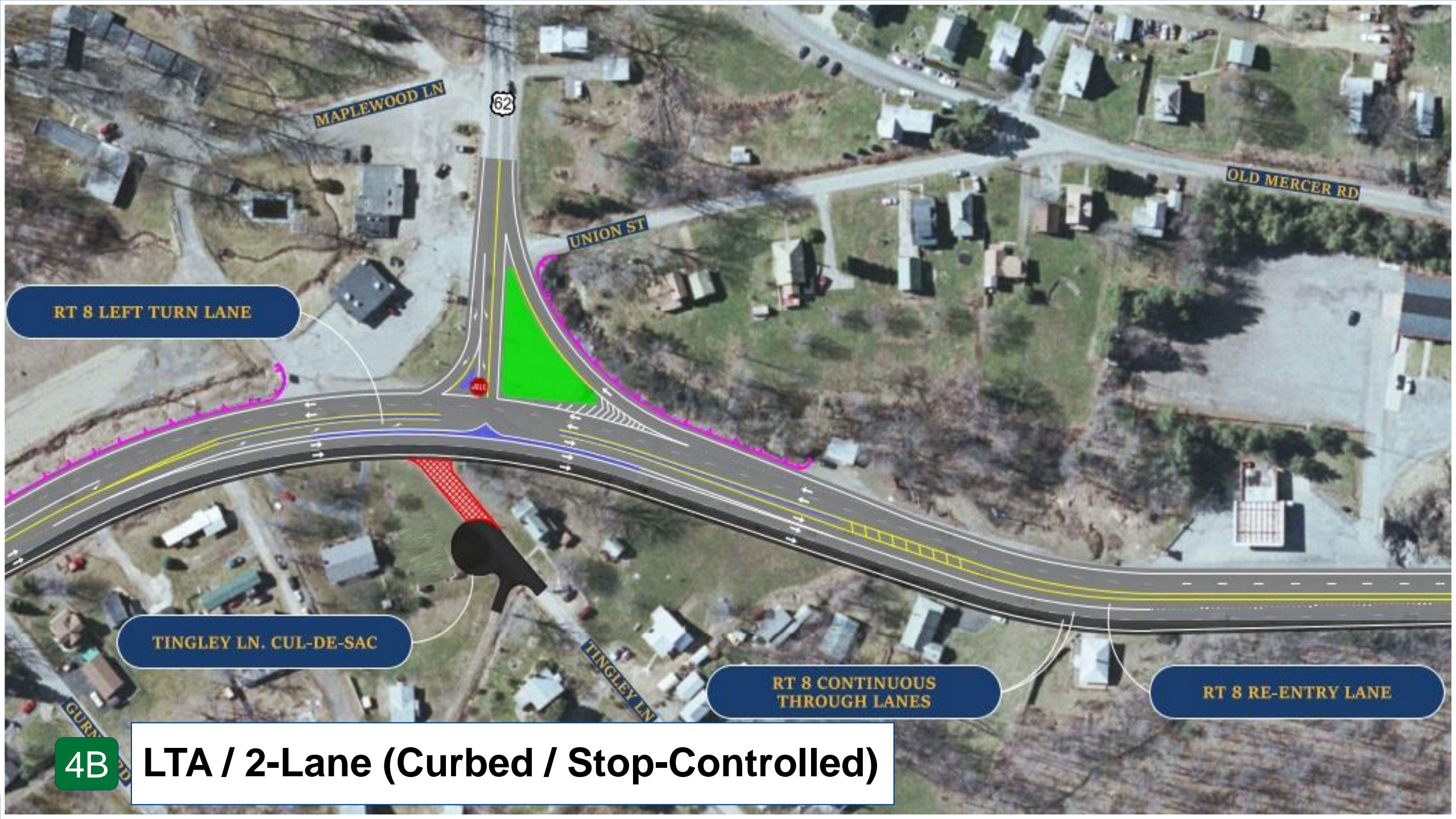
RT 8 CONTINUOUS THROUGH LANES

TINGLEY LN. CUL-DE-SAC

TINGLEY LN

4A

LTA / 2-Lane (Painted / Stop-Controlled)



RT 8 LEFT TURN LANE

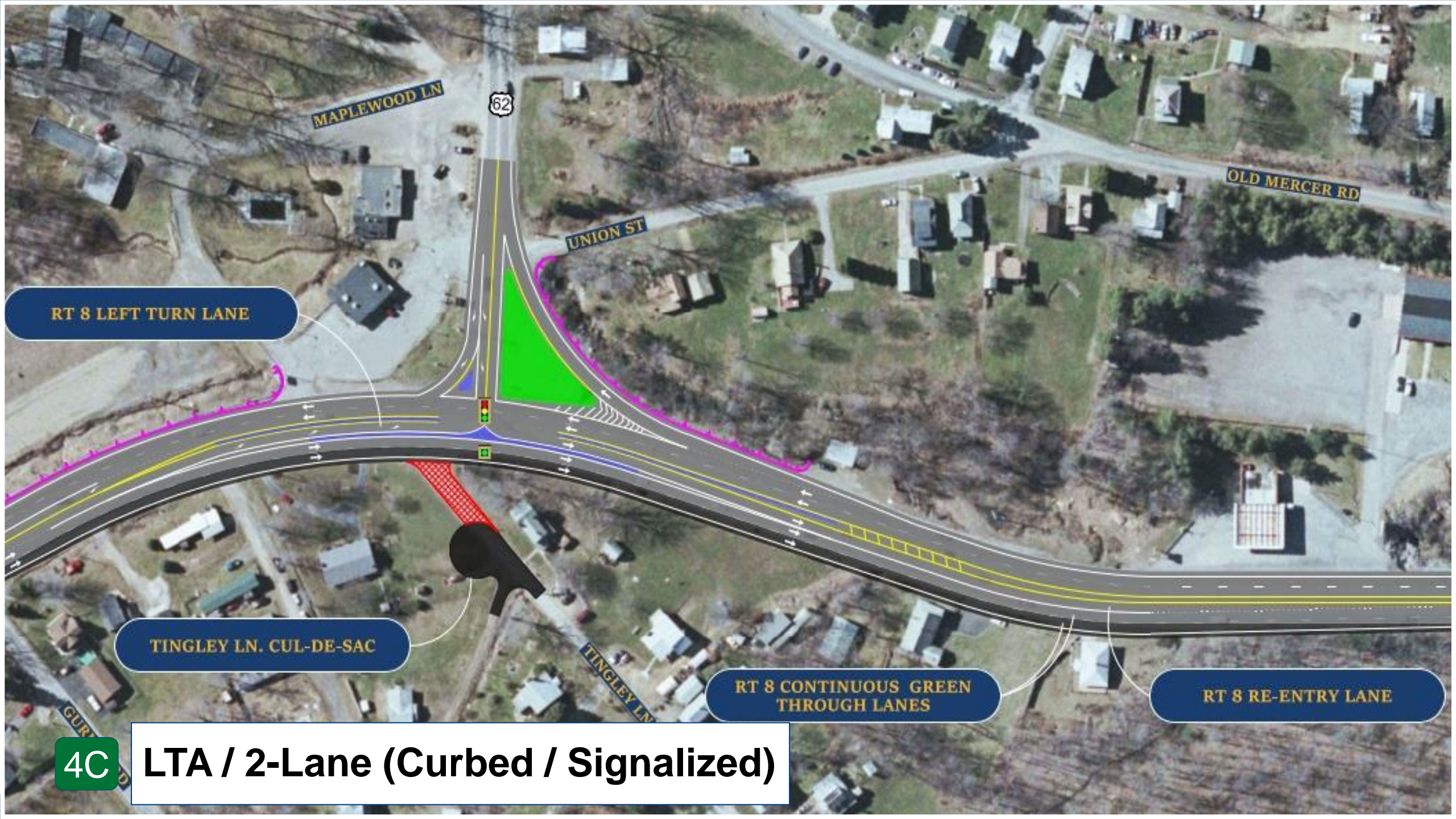
TINGLEY LN. CUL-DE-SAC

RT 8 CONTINUOUS THROUGH LANES

RT 8 RE-ENTRY LANE

4B

LTA / 2-Lane (Curbed / Stop-Controlled)



MAPLEWOOD LN

62

UNION ST

OLD MERCER RD

RT 8 LEFT TURN LANE

TINGLEY LN. CUL-DE-SAC

TINGLEY LN

RT 8 CONTINUOUS GREEN THROUGH LANES

RT 8 RE-ENTRY LANE

4C LTA / 2-Lane (Curbed / Signalized)

ALT 4A: LTA / 2-Lane (Painted / Stop-Controlled)

BENEFITS

- Acceptable traffic operations
- Focuses on EB left-turn issues
- No Route 8 stoppages
- Maintains two-lanes on NB Route 8

IMPACTS

- Only nominal safety benefit
- EB left-turn to a left-hand merge, with potential “third-lane” confusion
- No positive delineation (paint-only)
- Restricted access for Tingley Lane

ALT 4B: LTA / 2-Lane (Curbed / Stop-Controlled)

BENEFITS

- Acceptable traffic operations
- Focuses on EB left-turn issues
- No Route 8 stoppages
- Maintains two-lanes on NB Route 8
- Positive delineation w/ curbed LTA

IMPACTS

- High cost
- Potential widening, right-of-way, and utility impacts (pending final design layout/preferences)
- EB left-turn to a left-hand merge, with potential “third-lane” confusion
- Curb maintenance & plow conflicts
- Restricted access for Tingley Lane

ALT 4C: LTA / 2-Lane (Curbed / Signalized)

BENEFITS

ALT 4B benefits plus:

- Improved traffic operations
- Positive control of all turning movements (but w/ SB stoppage)

IMPACTS

ALT 4B impacts plus:

- Route 8 SB (uphill) truck stoppages on red signal
- Compliance during low off-peak demand
- Municipal signal maintenance and electrical cost



5B

Restricted Lefts (Jughandle)



RT 8 JUGHANDLE

RT 8 RIGHT TURN ONLY

Divert EB left-turn traffic downstream to the Rt 8 jughandle

RT 62 WESTBOUND MERGE

OPTIONAL in any alternative

RT 8 LEFT TURN LANE

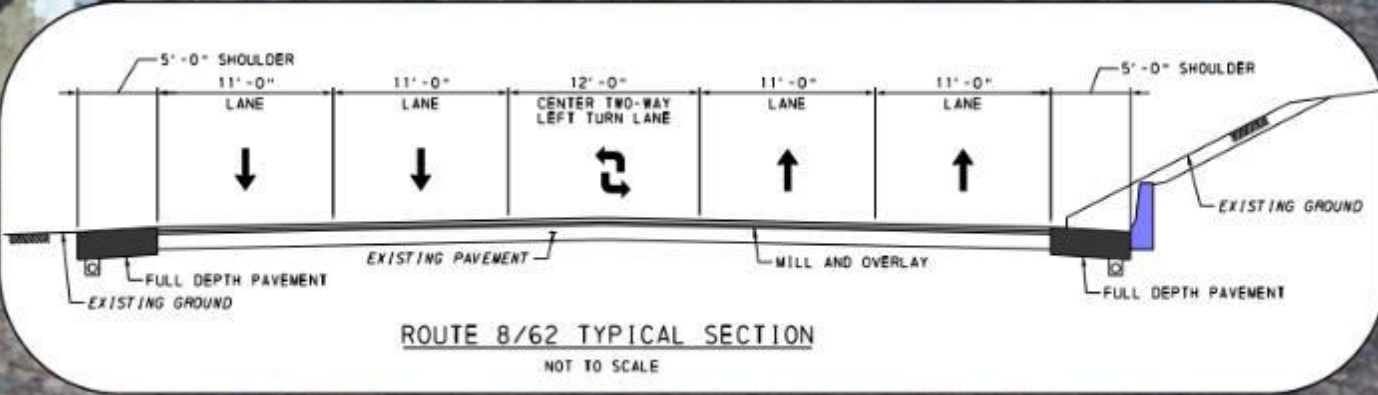
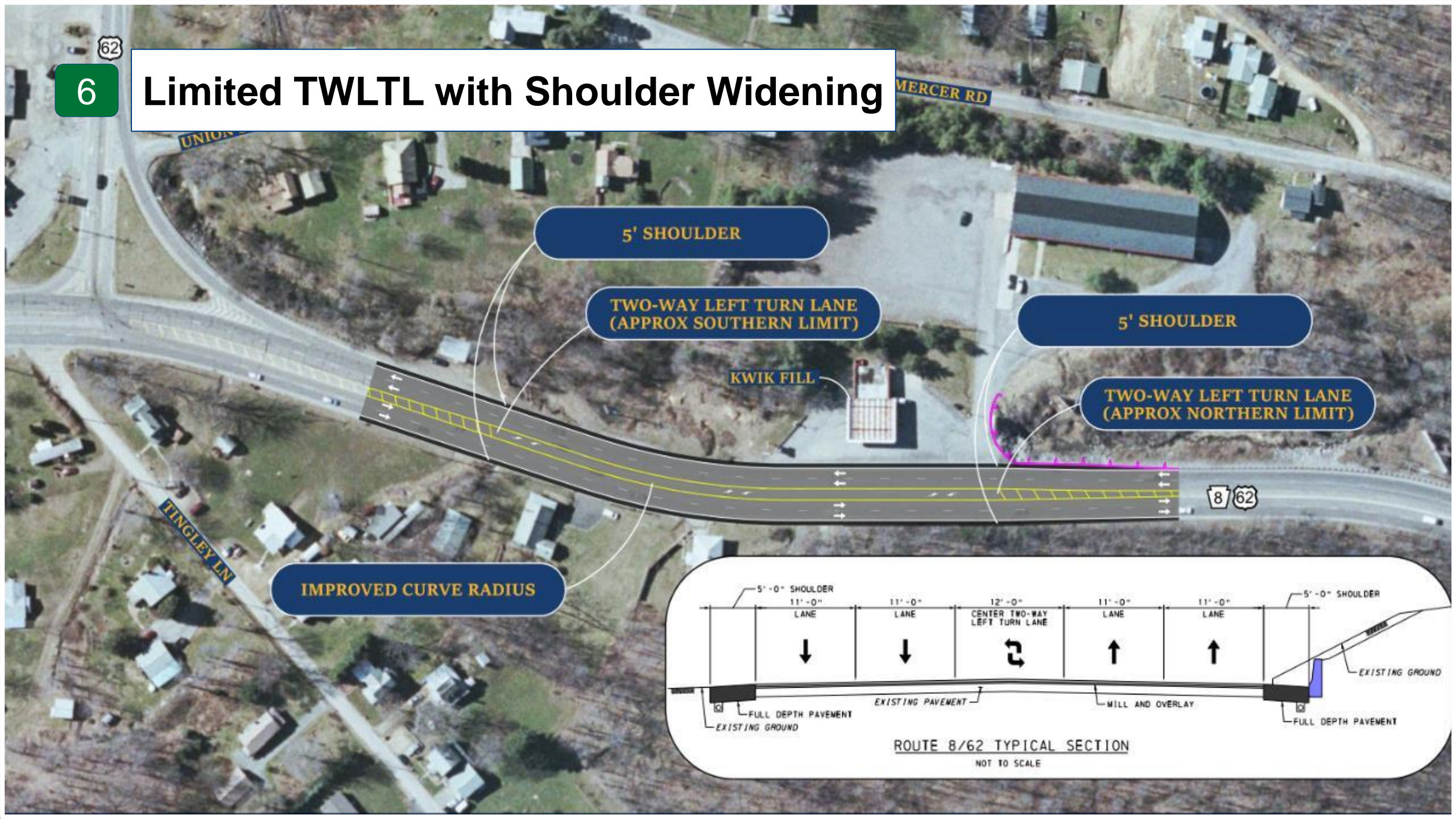
New traffic signal may be required due to the additional jughandle volumes and anticipated side-street left-turn failures if Hemlock Drive continues to operate under side-street stop-control.

OPTIONAL: Right-in / Right-out

TINGLEY LN. CUL-DE-SAC

8 62

Limited TWLTL with Shoulder Widening



ALT 5B: Restricted Lefts (Jughandle)

BENEFITS

- Acceptable traffic operations w/ traffic signal
- Positive safety benefit

IMPACTS

- Diverted travel route (i.e. turn right to go left)
- Poor operations w/o traffic signal (similar to existing)
- Route 8 NB/SB truck stoppages on red signal
- High right-of-way impact and design/permitting risk
- High-cost relative to most other options
- Restricted access for Tingley Lane
- Compliance during low off-peak demand
- Curb maintenance and snow-plow conflicts
- Municipal signal maintenance and electrical cost

ALT 6: Limited TWLTL with Shoulder Widening

BENEFITS

- Enhanced corridor safety by providing a waiting/refuge area for mainline left-turns
- Enhanced access to homes and businesses
- Low to medium design & permitting risk
- Low-cost relative to most other options

IMPACTS

- Only nominal improvements to traffic operations
- Potential right-of-way impacts along Route 8
- Potential business cost/coordination needs



SUMMARY AND FEEDBACK

SUMMARY AND FEEDBACK

Poll 13

Alternative / Description	Timeframe	Cost *	Design & Permitting	ROW Impact	Access Impact	Utility Impact	Safety Benefit	Operations Influence
1: Short-Term Signing/Marking Upgrades	ST	± \$85K	Low	Low	None	Low	nominal	E - F
2: Traffic Signal Installation	MT	± \$2.0M	Low - Med	Low	Low - Med	Low	(+)	B - C
3A: LTA / 1-Lane (Curbed / Stop-Controlled)	MT	± \$2.3M	Medium	Medium	Low - Med	Low	(+)	A - C
3B: LTA / 1-Lane (Curbed / Signalized)	MT	± \$2.8M	Medium	Medium	Low - Med	Low	(+)	B - C
4A: LTA / 2-Lane (Painted / Stop-Controlled)	ST - MT	± \$2.5M	Low - Med	Low - Med	Low - Med	Low - Med	nominal	A - C
4B: LTA / 2-Lane (Curbed / Stop-Controlled)	MT - LT	± \$4.8M	Med - High	High	Low - Med	High	(+)	A - C
4C: LTA / 2-Lane (Curbed / Signalized)	MT - LT	± \$5.3M	Med - High	High	Low - Med	High	(+)	B - C
5B: Restricted Lefts (Jughandle)	LT	± \$6.7M	High	High	Medium	Medium	(++)	A - B
6: Limited TWLTL with Shoulder Widening	MT	± \$1.1M	Low	Medium	(+)	Low	(+++)	(+)

* **NOTE:** all costs shown conservatively assume independent project design and implementation. Final or actual costs would be largely dependent on (1) if the project can be grouped with other activities such as future betterment projects or mill & overlay work, and (2) if the final design layouts could be refined to manage/reduce costs associated with potential impacts related to widening, shoulders, right-of-way, utilities, etc.



SUMMARY AND FEEDBACK

- **Project Comment Form:** www.penndot.gov/District1
 - ... Click on **Public Meetings/Studies** in the Resources panel
 - ... Select the **Venango County** tile
 - ... Click on the **15th Street Hill Study**

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Thank you for your participation!

