



August 19, 2025

TO: Public Works and Environmental Concerns Committee
Public Safety and Transportation Committee

FROM: Carl Goldsmith, Director of Public Works *g*

SUBJECT: N. Main Street – Bicycle & Traffic Calming Improvements

BACKGROUND

As listed in the 10-year Capital Improvement Plan (CIP), Surface Transportation Project funding (Federal dollars administered through the Illinois Department of Transportation) has been secured for the construction and construction engineering of N. Main Street in 2027. The project scope includes roadway patching, resurfacing, and drainage improvements. Accommodations for pedestrians and bicycles are also being investigated per the Bicycle and Pedestrian Master Plan.

This memorandum summarizes the existing conditions along N. Main Street, and outlines, analyzes, and recommends potential bicycle accommodation and traffic calming alternatives.

EXISTING CONDITIONS

N. Main Street is a minor arterial roadway with an average daily traffic (ADT) of 10,800 vehicles and a posted speed limit of 25 mph between St. Charles and Grove and a posted limit of 30 from Grove to North Avenue. A school zone speed limit (20 mph) exists near Pleasant Lane School.

The roadway pavement sections vary as the roadway transitions from a two-lane cross section to a four-lane cross section. Between St. Charles Road and Pleasant Lane there are two 14.5-foot travel lanes separated by yellow centerline striping. Between Pleasant Lane and North Avenue, the roadway is configured with two 10.25-foot travel lanes with a pedestrian activated signalized crosswalk just north of Pleasant Lane that serves the Pleasant Lane School. There are no other signalized intersections within the limits of the project. All minor cross streets are stop-controlled at N. Grace Street.

The Great Western Trail crosses N. Main Street south of Prairie Avenue via a crossing that has stop signs to control the trail users. There are sidewalks on both sides of the roadway.

Civiltech Engineering, Inc. (the project consultant) analyzed the existing conditions of the corridor, including corridor users, roadway cross-section, traffic control, and traffic calming measures. Part of the requirements for the Federal funding is the evaluation of bicycle and pedestrian accommodations for the project. The Village has identified the project limits for the resurfacing project of Grove Street and Goebel Avenue.

The key travel destinations within the project corridor include Downtown Lombard, Pleasant Lane Elementary School, the Great Western Trail, and the Lombard Park District Pickleball courts. At the south end, Grove Street provides a connection to downtown Main Street via Park Avenue. By

extending the bike facilities to Goebel Drive, bike users will have access to all of the key travel destinations listed above.

CONCEPTUAL ALTERNATIVES

As a result of the evaluation of the existing conditions, several on-street and off-street bicycle facilities were investigated on a preliminary basis to identify. Based on this preliminary analysis, staff will be seeking input from the Committees on what level of accommodations should be included in the Phase II engineering for the Main Street project. It is anticipated that following the meeting with the Committees, a determination will be made on which alternative should be recommended as the preferred alternative. Each alternative will include resurfacing the roadway pavement within the project limits. The existing roadway profile and cross slope will be maintained for all alternatives.

It is recommended that the following alternatives be considered:

- ✓ Alternative 1 – Roadway Reconfiguration with Bike Lanes and Sharrows
- ✓ Alternative 2 – Main Street and Park Avenue Bike Route
- ✓ Alternative 3 – Shared-use Path Along East Side
- ✓ Alternative 4 – Shared-use Path Along West Side

A summary of each alternative is provided below.

ALTERNATIVE 1 – ROADWAY RECONFIGURATION WITH BIKE LANES AND SHARROWS

Alternative 1 consists of providing on-street bicycle accommodations throughout the corridor. Between Grove Street and Pleasant Lane, Alternative 1 consists of shared lanes along the existing 14.5-foot travel lanes with the addition of signage and sharrow pavement markings.

Between Pleasant Lane and Goebel Drive, a 3-lane cross section would be provided and would consist of a 10-foot travel lane in each direction with an 11-foot bi-directional center left turn lane and 5-foot bike lanes in each direction (6-foot with gutter). Appropriate signage would be installed to guide cyclists between the shared travel lanes and the on-street bike lanes.

Advantages of Alternative 1 include the following:

- Reconfiguration provides traffic calming effects.
- Reconfiguration provides two-way left turn lanes.
- On-street bike lanes provide separation between pedestrian and bicycle traffic.
- Road reconfiguration reduces the number of travel lanes that a pedestrian would need to cross.
- Potential improvements are limited to pavement markings, which is relatively inexpensive in comparison to other alternatives.

Disadvantages of Alternative 1 include the following:

- Sharrows require cyclists and motorists to share the same lane.
- On-street facilities with no buffers are less comfortable for less experienced cyclists.

ALTERNATIVE 2 – MAIN STREET AND PARK AVENUE BIKE ROUTE

Alternative 2 consists of providing a combination of on street and off-street bicycle accommodations. Between Grove Street and Pleasant Lane, the 14.5-foot travel lanes in each

direction would be replaced with 11-foot travel lanes in each direction and a southbound 5-foot bike lane (6-foot with gutter) with a 2-foot buffer. Park Avenue would be signed as a bike route to accommodate northbound bike traffic between Grove Street and Brown Street. In addition, an 8-foot shared-use path would be installed on the west side of Main Street between Brown Street and the pedestrian crossing just north of Pleasant Lane. Between Pleasant Lane and Goebel Drive. The roadway would feature one 10-foot travel lane in each direction with a center 11-foot bi-directional center left turn lane and 5-foot bike lanes (6-foot with gutter) in each direction. This configuration is similar to the preferred alternative selected from N. Grace Street.

Advantages of Alternative 2 include the following:

- Reconfiguration provides traffic calming effects.
- On-street bike lanes provide separation between pedestrian and bicycle traffic.
- Reconfiguration reduces the number of travel lanes that a pedestrian would need to cross.
- Potential improvements are mostly confined to resurfacing and pavement markings, with a short shared-use path addition, so this option would be relatively inexpensive in comparison to Alternatives 3 and 4.

Disadvantages of Alternative 2 include:

- The bicycle facility for northbound cyclists is inconsistent. It requires northbound users to transition from on-street shared lanes on Brown Street to the off-street shared-use path along Main Street and use the pedestrian crossing north of Pleasant Lane to transition from the off-street facility on the west side to the on-street facility on the east side.
- The Alternative would require the removal of 10 trees to accommodate shared-use path segment.
- Approximately nine driveways would be reconstructed to accommodate the shared-use path segment.

ALTERNATIVE 3 – SHARED-USE PATH ALONG EAST MAIN STREET

Alternative 3 consists of constructing an 8-foot off-street shared-use path along the east side of Main Street between Grove Street and Goebel Drive. The shared-use path would be a minimum of 5 feet from the face of curb. This alternative would maintain the existing lane configuration along the Main Street corridor.

Advantages of Alternative 3 include the following:

- Most comfortable for inexperienced cyclists. Bicyclists are provided with a facility separated from vehicles to travel through the corridor.
- Accommodates both experienced and inexperienced bicyclists.
- Pedestrians are also accommodated through the corridor via the shared-use path.

Disadvantages of Alternative 3 include the following:

- This alternative is substantially more expensive than Alternatives 1 and 2.
- Significant tree removal would be required to accommodate shared-use path installation.
- Approximately 37 driveways would be reconstructed to accommodate the shared-use path.
- Temporary easements would be required.
- Parkway space would be reduced.
- Utility relocation/adjustments would be needed.

ALTERNATIVE 4 – SHARED-USE PATH ALONG WEST MAIN STREET

Alternative 4 consists of constructing an 8-foot off-street shared-use path along the west side of Main Street between Grove Street and Goebel Drive. The shared-use path would be a minimum of 5 feet from the face of curb. The alternative would maintain the existing lane configuration along the Main Street corridor.

Advantages of Alternative 4 include the following:

- Most comfortable for inexperienced bicycle riders. Bicyclists are provided with a facility separated from vehicles to travel through the corridor.
- Accommodates both experienced and inexperienced bicyclists.
- Pedestrians are also accommodated through the corridor via the shared-use path.

Disadvantages of Alternative 4 include the following:

- This alternative is substantially more expensive than Alternatives 1 and 2.
- Extensive tree removal would be required to accommodate shared-use path installation.
- Approximately 47 driveways would be reconstructed to accommodate shared-use path.
- Temporary easements would be required.
- Green parkway space would be reduced.

RECOMMENDATIONS

Staff has reviewed the proposed alternatives and recommends that the Village proceed with Alternative 1 as the preferred option. The reconfiguration of the lanes through the northern sections will provide significant safety improvements and address collisions that are associated with left turn movements. Between 2019 and 2023, there were 7 right angle and 2 sideswipe collisions between Pleasant Lane and LeMoyne. With the bi-directional turn lane, these crash types have the potential to be corrected with a lane reconfiguration.



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Transportation Design

Traffic Engineering

Civil Engineering

Construction Engineering

Environmental Studies

Water Resources

Structural Design

Right of Way

Urban Design

Transportation Planning

Program Management

Landscape Architecture

Nature-based Solutions

Technical Memorandum

Date: August 15, 2025

To: Michael Barbier, P.E., PTOE
Village of Lombard
Public Works Department
Engineering Division

From: Civiltech Engineering, Inc.

Re: Main Street Resurfacing Improvements
Bicycle Accommodations Feasibility Study

Introduction

The Main Street Resurfacing Improvements project limits extend from St. Charles Road to IL Route 64 (North Avenue) as shown on **Exhibit 1 – Location Map**. The purpose of the Bicycle Accommodations Feasibility Study is to evaluate the options for potential bicycle facilities along Main Street, develop concept alternatives, analyze environmental impacts, and provide recommendations for a preferred alternative.

Existing Conditions

Main Street is a minor arterial consisting of one 14.5-foot travel lane in each direction from St. Charles Road to Pleasant Lane. Between Pleasant Lane and North Avenue, Main Street widens to a 4-lane cross section that consists of two 10.25-foot through lanes in each direction. There is a signalized crosswalk in front of Pleasant Lane Elementary School, just north of Pleasant Lane. There are no signalized intersections within the limits of the project, although the intersections of St. Charles Road and North Avenue are signalized. See **Exhibit 2 for Existing Conditions**.

A 24-hour traffic count was conducted at the intersection of Main Street and the Pleasant Lane Elementary School driveway. The Average Daily Traffic (ADT) is 10,800 vehicles per day (vpd) along Main Street and the design hourly volume is 940 vehicles per hour (vph). Existing traffic volumes are within the BLRS Criteria for one lane in each direction (1,400 vph). See **Exhibit 9 for the Peak Hour Diagram**.

Limits of Bicycle Facilities

Grove Street and Goebel Avenue were selected as the limits for all bicycle facility alternatives. The key travel destinations within the project corridor include Downtown Lombard, Pleasant Lane Elementary School, the Great Western Trail, and the Lombard Park District Pickleball courts. At the south end, Grove Street provides a connection to downtown Main Street via Park Avenue. By extending the bike facilities to Goebel Drive, bike users will have access to all of the key travel destinations listed above. Although Sunset Drive has been identified as a future proposed bike route, it is



recommended that the bike facility limits extend to Goebel Drive to connect to the newly constructed Village Pickleball courts.

Conceptual Alternatives

As a result of the analysis of the existing conditions, it was determined that several on-street and off-street bicycle facilities should be investigated on a preliminary basis to identify and compare the benefits and potential impacts. Based on this preliminary analysis, a determination can be made on which alternative should be carried forward as the preferred alternative. Each alternative will include resurfacing the roadway pavement within the project limits. The existing roadway profile and cross slope will be maintained for all alternatives.

It is recommended that the following alternatives be considered:

- Alternative 1 – Roadway Reconfiguration with Bike Lanes and Sharrows
- Alternative 2 – Main Street and Park Avenue Bike Route
- Alternative 3 – Shared-use Path Along East Side
- Alternative 4 – Shared-use Path Along West Side

1. Alternative 1 – Roadway Reconfiguration with Bike Lanes and Sharrows

Alternative 1 consists of providing on-street bicycle accommodations throughout the corridor. Between Grove Street and Pleasant Lane, Alternative 1 consists of shared lanes along the existing 14.5-foot travel lanes with the addition of signage and sharrow pavement markings. **See Exhibit 4a for the Potential Typical Section.** Between Pleasant Lane and Goebel Drive, a 3-lane cross section would be provided and would consist of a 10-foot travel lane in each direction with an 11-foot bi-directional center left turn lane and 5-foot bike lanes in each direction (6-foot with gutter). **See Exhibit 4b for the Potential Typical Section.** Appropriate signage would be installed to guide cyclists between the shared travel lanes and the on-street bike lanes. **See Exhibit 8a for Alternative 1 Concept Plan.**

Per the IDOT-BLRS Manual, sharrows are not recommended for ADT's over 10,000 vpd. Civiltech has coordinated with CMAP to determine the 2050 Build ADT and Opening Day (2028) ADT with the 3-lane cross section. The 2050 Build ADT is 8,000 vpd and the Opening Day (2028) ADT is 9,125 vpd. Both ADT values are less than the maximum allowable ADT value to provide sharrows.

Advantages of Alternative 1 include:

- Roadway reconfiguration provides traffic calming effects.
- Roadway reconfiguration provides two-way left turn lanes.
- On-street bike lanes provide separation between pedestrian and bicycle traffic.
- Road reconfiguration reduces the number of travel lanes that a pedestrian would need to cross.

- Potential improvements are confined to resurfacing and pavement markings, so this option would be relatively inexpensive in comparison to others.

Disadvantages of Alternative 1 include:

- Sharrows require cyclists and motorists to share the same lane.
- On-street facilities with no buffer are less comfortable for less experienced cyclists.

2. Alternative 2 – Main Street and Park Avenue Bike Route

Alternative 2 consists of providing a combination of on-street and off-street bicycle accommodations. Along Main Street, between Grove Street and Pleasant Lane, the 14.5-foot travel lanes in each direction would be replaced with 11-foot travel lanes in each direction and a southbound 5-foot bike lane (6-foot with gutter) with a 2-foot buffer. **See Exhibit 5a for the Potential Typical Section.** Park Avenue would be signed as a bike route to accommodate northbound bike traffic between Grove Street and Brown Street. In addition, an 8-foot shared-use path would be installed on the west side of Main Street between Brown Street and the pedestrian crossing just north of Pleasant Lane. The path would have a 1.5% cross slope with 2-foot grass shoulders at 4%. The shared-use path would be a minimum of 5-feet from the face of curb. **See Exhibit 5b for the Potential Typical Section.** Similar to Alternative 1, a 3-lane cross section would be provided between Pleasant Lane and Goebel Drive. The cross section would consist of one 10-foot travel lane in each direction with a center 11-foot bi-directional center left turn lane and 5-foot bike lanes (6-foot with gutter) in each direction. **See Exhibit 5c for the Potential Typical Section and Exhibit 8b for Alternative 2 Concept Plan.**

Advantages of Alternative 2 include:

- Roadway reconfiguration provides traffic calming effects.
- On-street bike lanes provide separation between pedestrian and bicycle traffic. Bicyclists are provided with a facility separated from vehicles to travel through the corridor.
- Road reconfiguration reduces the number of travel lanes that a pedestrian would need to cross.
- The on-street bike lane and 2-foot buffer provides more separation between cyclists and motorists compared to Alternative 1.
- Potential improvements are mostly confined to resurfacing and pavement markings, with a short shared-use path addition, so this option would be relatively inexpensive in comparison to Alternatives 3 and 4.

Disadvantages of Alternative 2 include:

- The bicycle facility type for northbound cyclists is inconsistent. It requires northbound users to transition from on-street shared lanes on Brown Street to the off-street shared-use path along



Main Street and use the pedestrian crossing north of Pleasant Lane to transition from the off-street facility on the west side to the on-street facility on the east side.

- Some tree removal, 10 trees, would be required to accommodate shared-use path segment.
- Approximately nine driveways would be reconstructed to accommodate the shared-use path segment.

3. Alternative 3 – Shared-use Path Along East Main Street

Alternative 3 consists of constructing an 8-foot off-street shared-use path along the east side of Main Street between Grove Street and Goebel Drive. The path would have a 1.5% cross slope with 2-foot grass shoulders at 4%. The shared-use path would be a minimum of 5-feet from the face of curb. **See Exhibits 6a and 6b for the Potential Typical Sections.** This alternative would maintain the existing lane configuration along the Main Street corridor. **See Exhibit 8c for Alternative 3 Concept Plan.**

Advantages of Alternative 3 include:

- Most comfortable for inexperienced cyclists. Bicyclists are provided with a facility separated from vehicles to travel through the corridor.
- Accommodates both experienced and inexperienced bicyclists.
- Pedestrians are also accommodated through the corridor via the shared-use path.

Disadvantages of Alternative 3 include:

- This alternative is substantially more expensive than Alternatives 1 and 2.
- Extensive tree removal would be required to accommodate shared-use path installation.
- Approximately 37 driveways would be reconstructed to accommodate the shared-use path.
- Temporary easements would be required.
- Green parkway space would be reduced.
- Utility relocation/adjustments would be needed.

4. Alternative 4 – Shared-use Path Along West Main Street

Alternative 4 consists of constructing an 8-foot off-street shared-use path along the west side of Main Street between Grove Street and Goebel Drive. The path would have a 1.5% cross slope with 2-foot grass shoulders at 4%. The shared-use path would be a minimum of 5-feet from the face of curb. **See Exhibits 7a and 7b for the Potential Typical Sections.** The alternative would maintain the existing lane configuration along the Main Street corridor. **See Exhibit 8d for Alternative 4 Concept Plan.**



Advantages of Alternative 4 include:

- Most comfortable for inexperienced bicycle riders. Bicyclists are provided with a facility separated from vehicles to travel through the corridor.
- Accommodates both experienced and inexperienced bicyclists.
- Pedestrians are also accommodated through the corridor via the shared-use path.

Disadvantages of Alternative 4 include:

- This alternative is substantially more expensive than Alternatives 1 and 2.
- Extensive tree removal would be required to accommodate shared-use path installation.
- Approximately 47 driveways would be reconstructed to accommodate shared-use path.
- Temporary easements would be required.
- Green parkway space would be reduced.

Impact Analysis

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Tree Impacts	0	10	40+	40+
Driveway Reconstruction	0	9	37	47
ROW Required	None	None	None	None
Temp. Easements Required	None	Minimal	Yes	Yes
Construction Cost*	\$1.5M	\$1.7M	\$2.5M	\$2.5M
Green Space Reduction	None	Minimal	Yes	Yes

* Construction Cost does not include Temporary Easement Acquisition.

Conclusions and Recommendations

Four alternatives were evaluated for the Main Street corridor to provide a bicycle facility connecting Grove Street and Goebel Drive. Each of the alternatives provides bicycle connectivity at varying costs, levels of bicyclist safety, and impacts to the existing roadway network. Alternatives 1 and 2 both provide a 3-lane cross-section with on-street bicycle facilities, but these facilities might be less comfortable for inexperienced bicycle riders to use. Alternative 2 provides an inconsistent bicycle facility type for northbound cyclists. It transitions from an on-street to an off-street bicycle facility multiple times along the corridor. Alternative 3 and 4 both



provide a separated shared-use path for bicyclists of all experience levels, but require a large number of tree removals, driveway reconstruction, reduction in green parkway space, and substantially higher cost. Alternative 1 provides a bicycle facility to minimize impacts and at a lower cost compared to Alternatives 3 and 4. Therefore, it is recommended that Alternatives 2, 3, and 4 be dropped from further consideration and Alternative 1 be selected as the preferred improvement.

Next Steps

Following review and comment on this Feasibility Study, it is requested that the Village confirm that the recommended preferred alternative be included in the Main Street Resurfacing Phase I Study.



List of Attachments

Location Map

Exhibit 1

Existing Conditions

Exhibit 2

Existing Typical Sections

Exhibits 3a-3b

Potential Typical Sections

Exhibits 4a-7b

Alternative 1

Exhibits 4a-4b

Alternative 2

Exhibits 5a-5c

Alternative 3

Exhibits 6a-6b

Alternative 4

Exhibits 7a-7b

Plan View Concepts

Exhibits 8a-8d

Alternative 1

Exhibits 8a

Alternative 2

Exhibits 8b

Alternative 3

Exhibits 8c

Alternative 4

Exhibits 8d

Peak Hour Diagram

Exhibit 9

Exhibit 1
Location Map

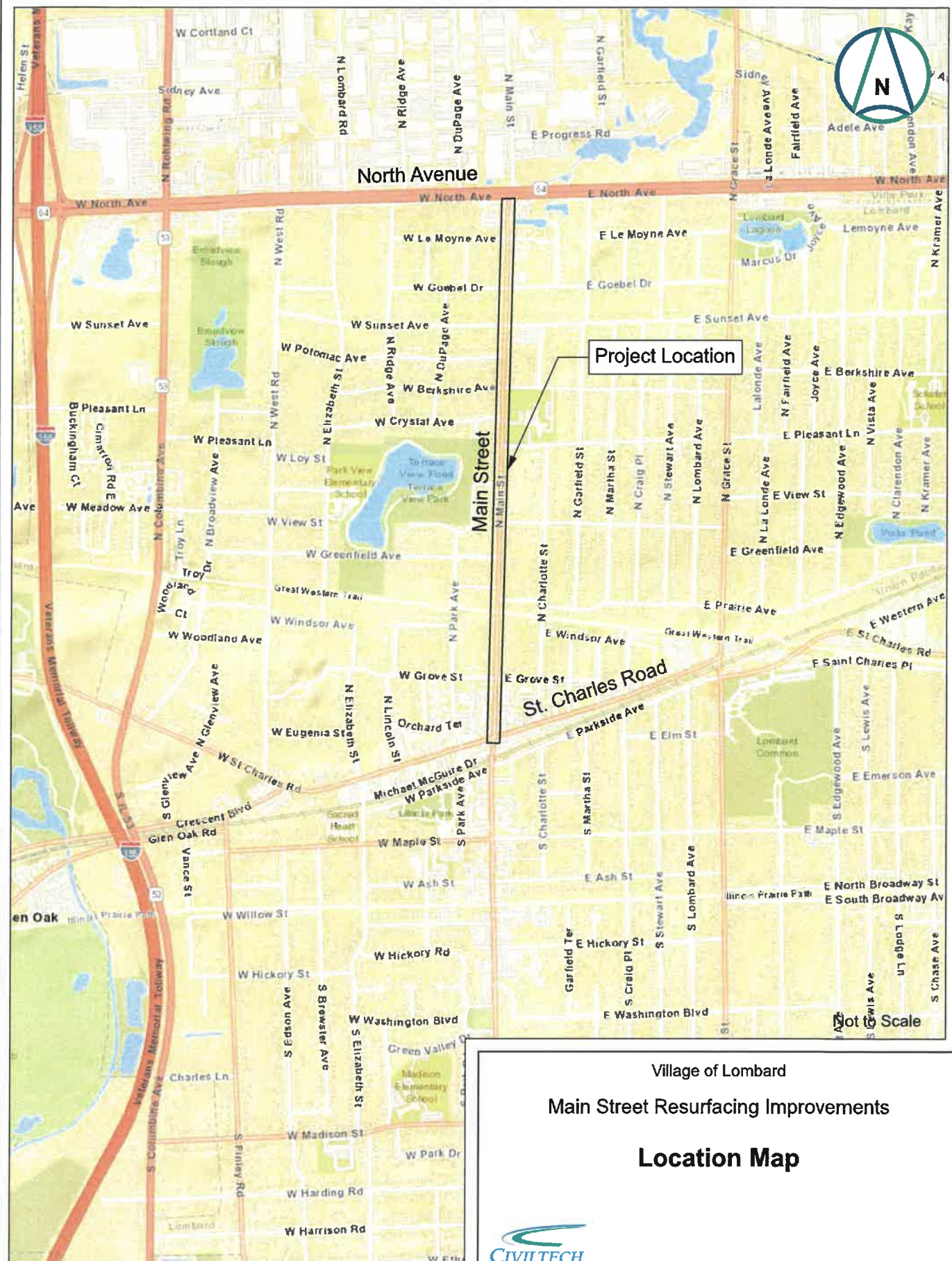


Exhibit 2

Existing Conditions

Exhibit 3
Existing Typical Sections

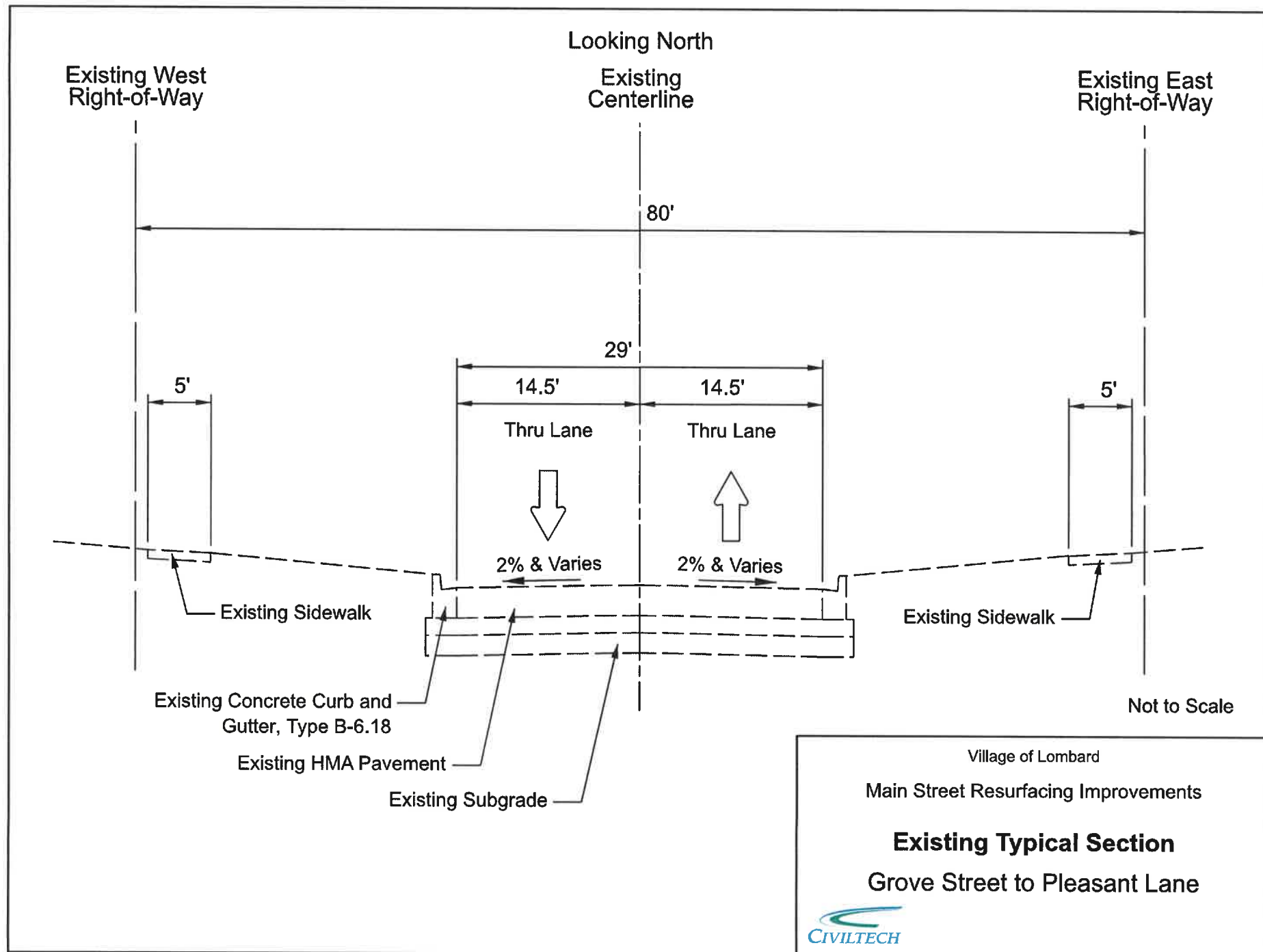


Exhibit A-3a

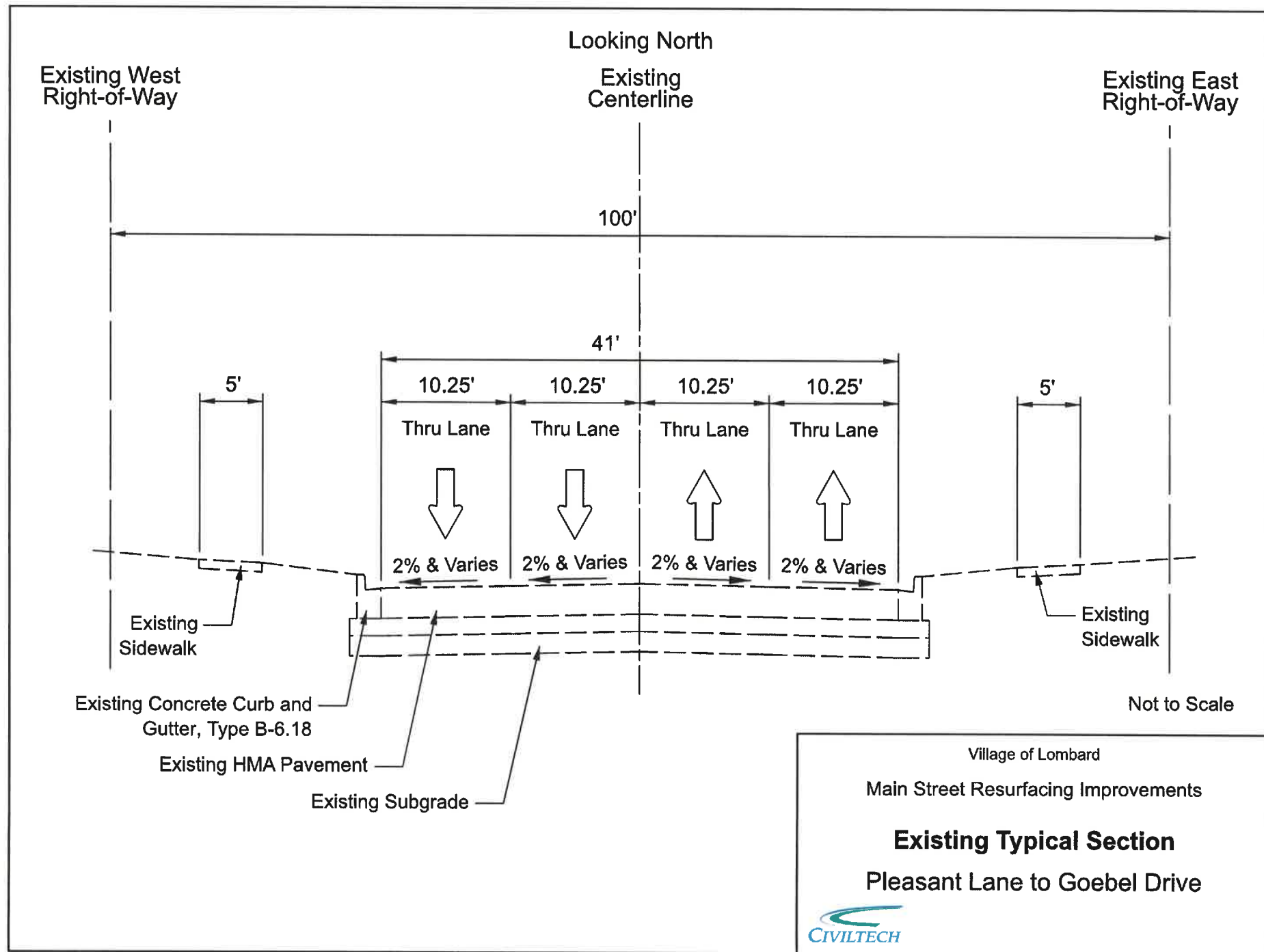
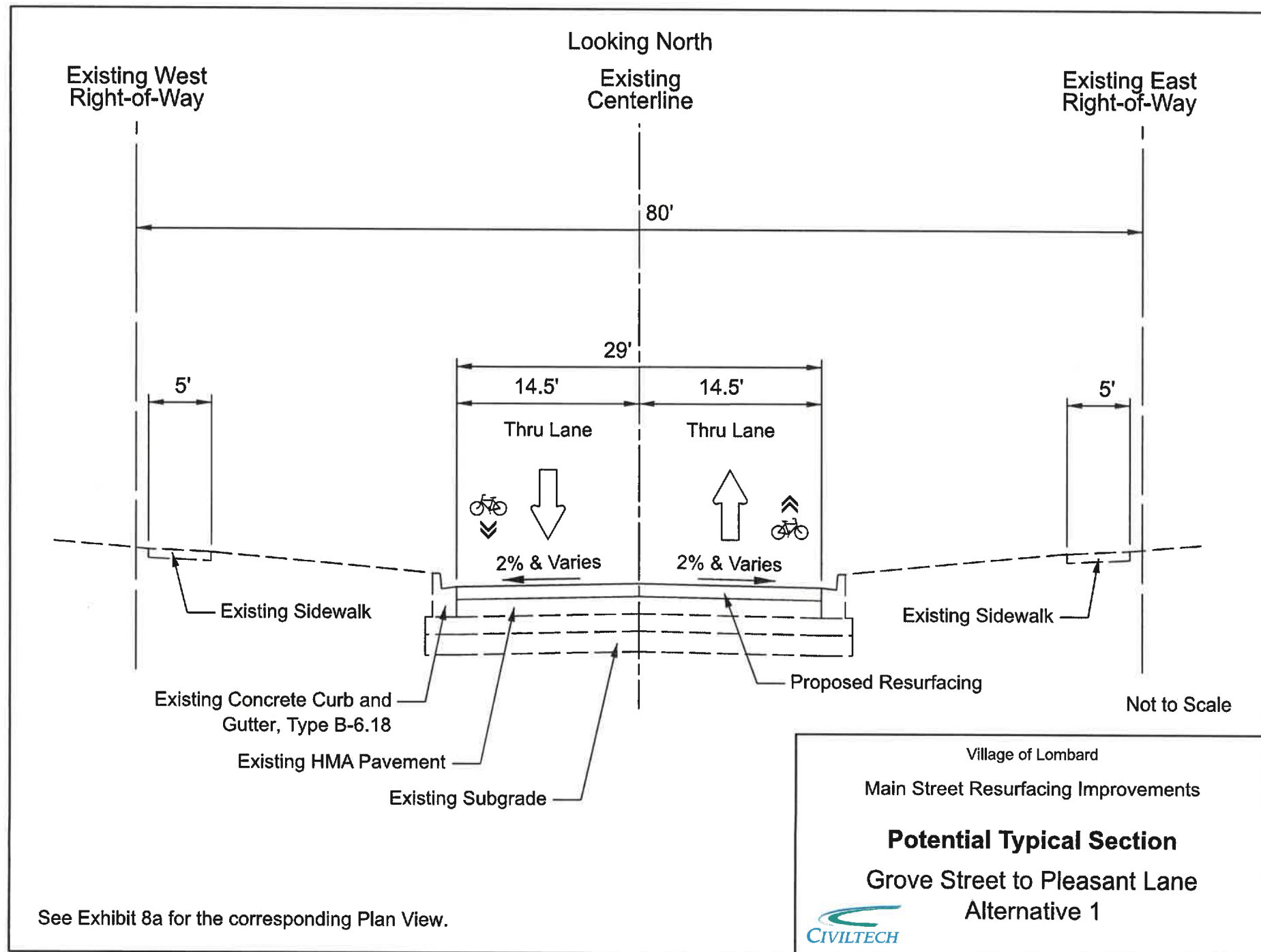
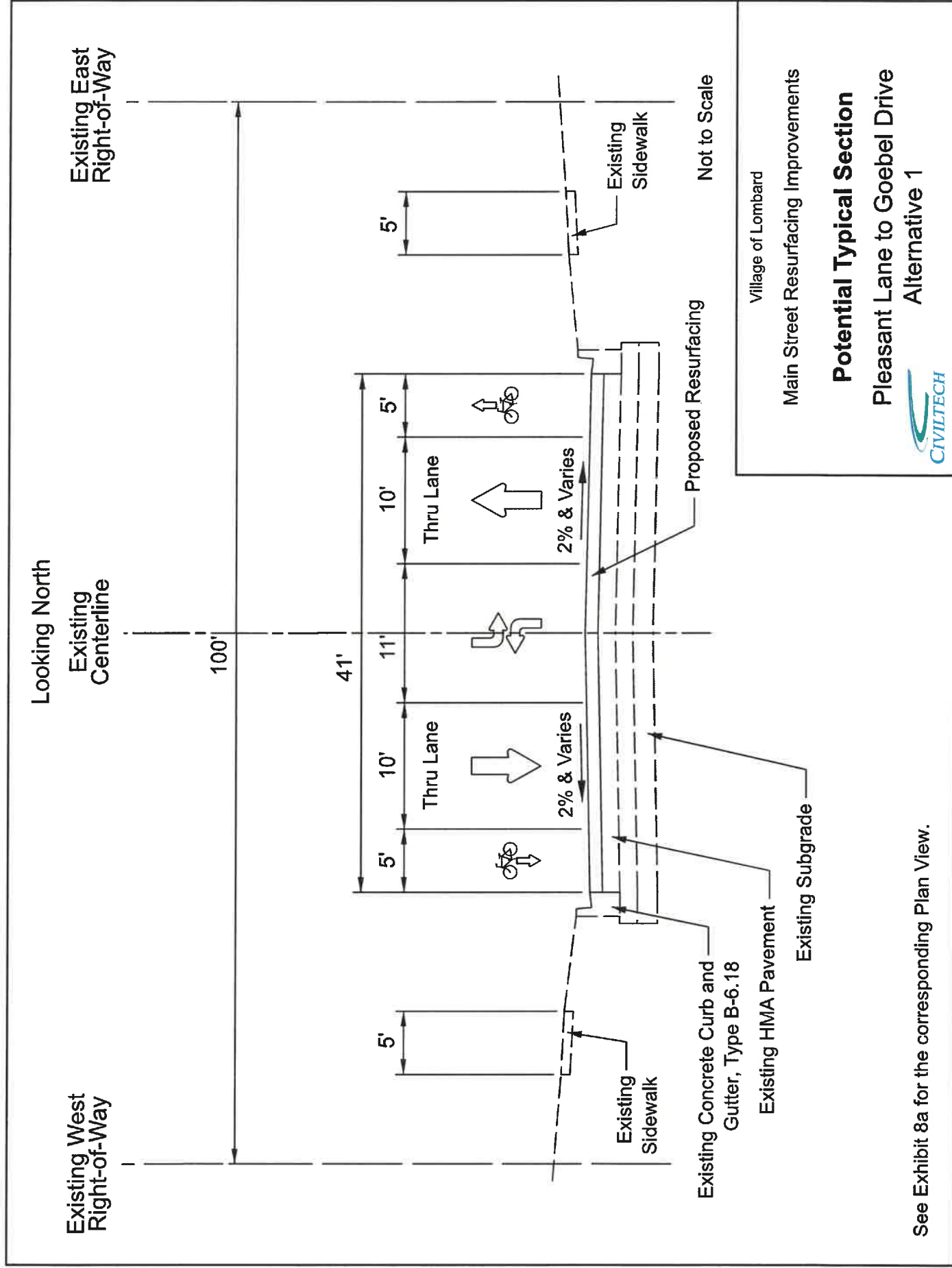


Exhibit A-3b

Exhibits 4-7
Proposed Typical Sections





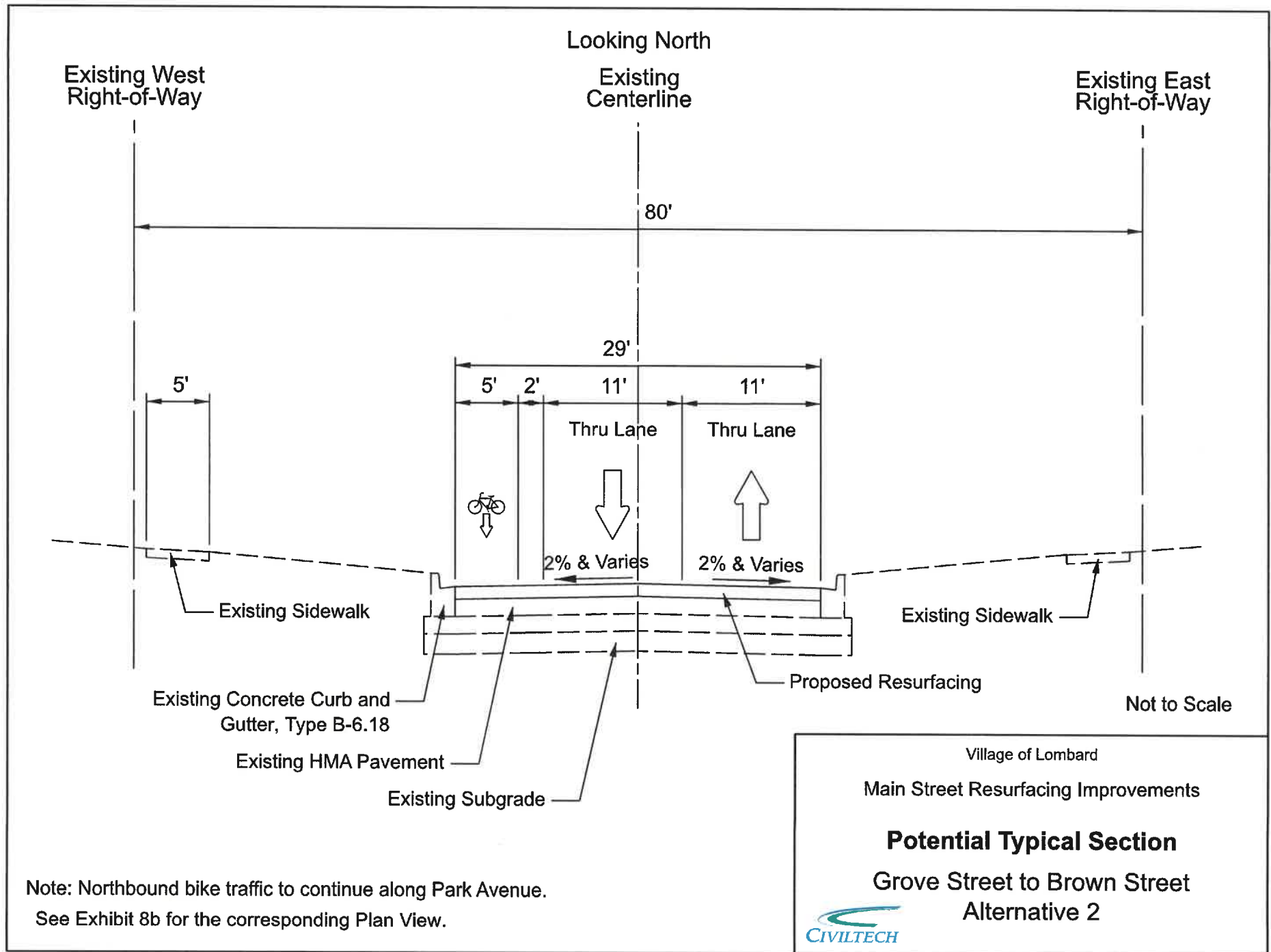


Exhibit A-5a

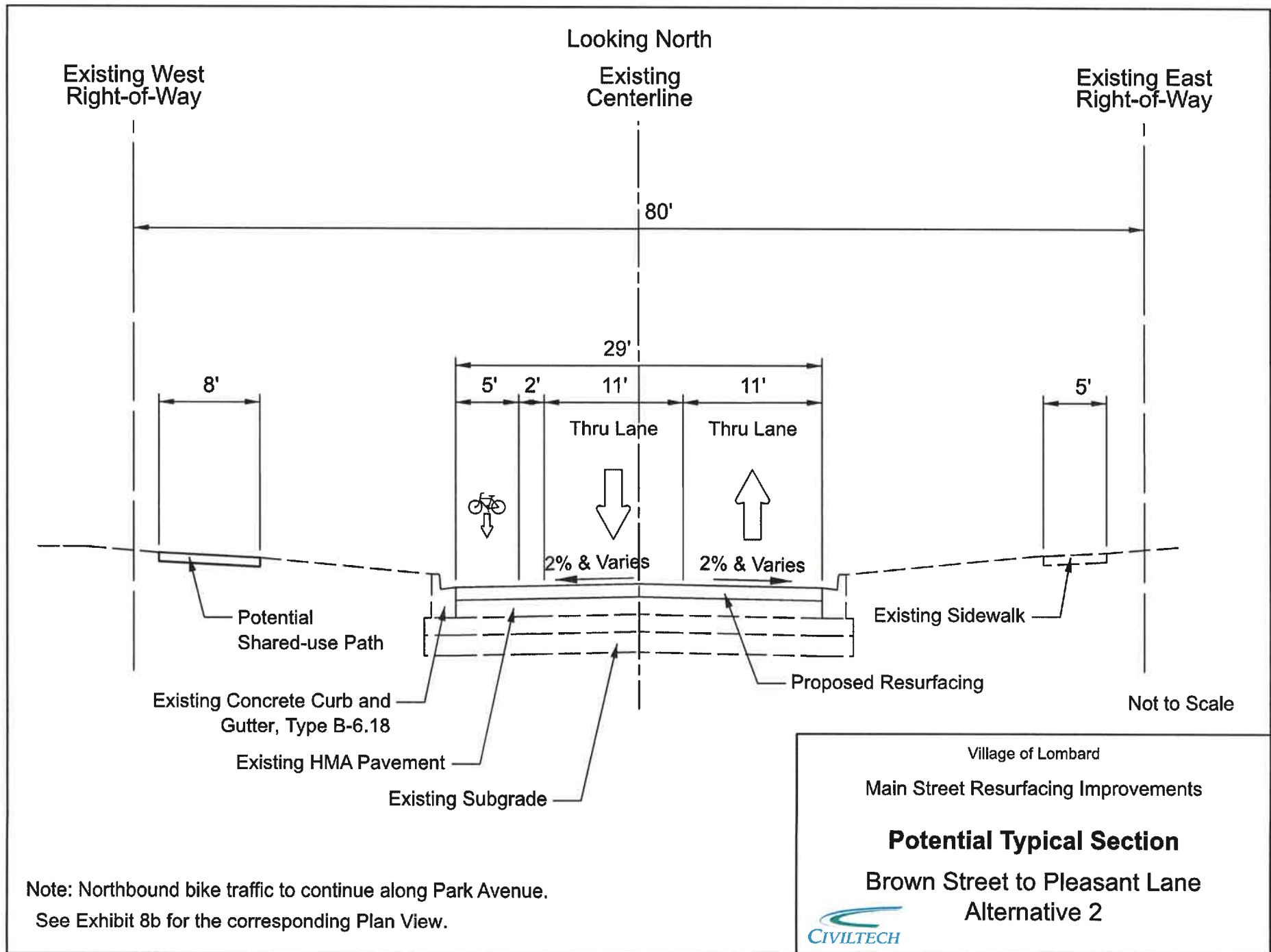


Exhibit A-5b

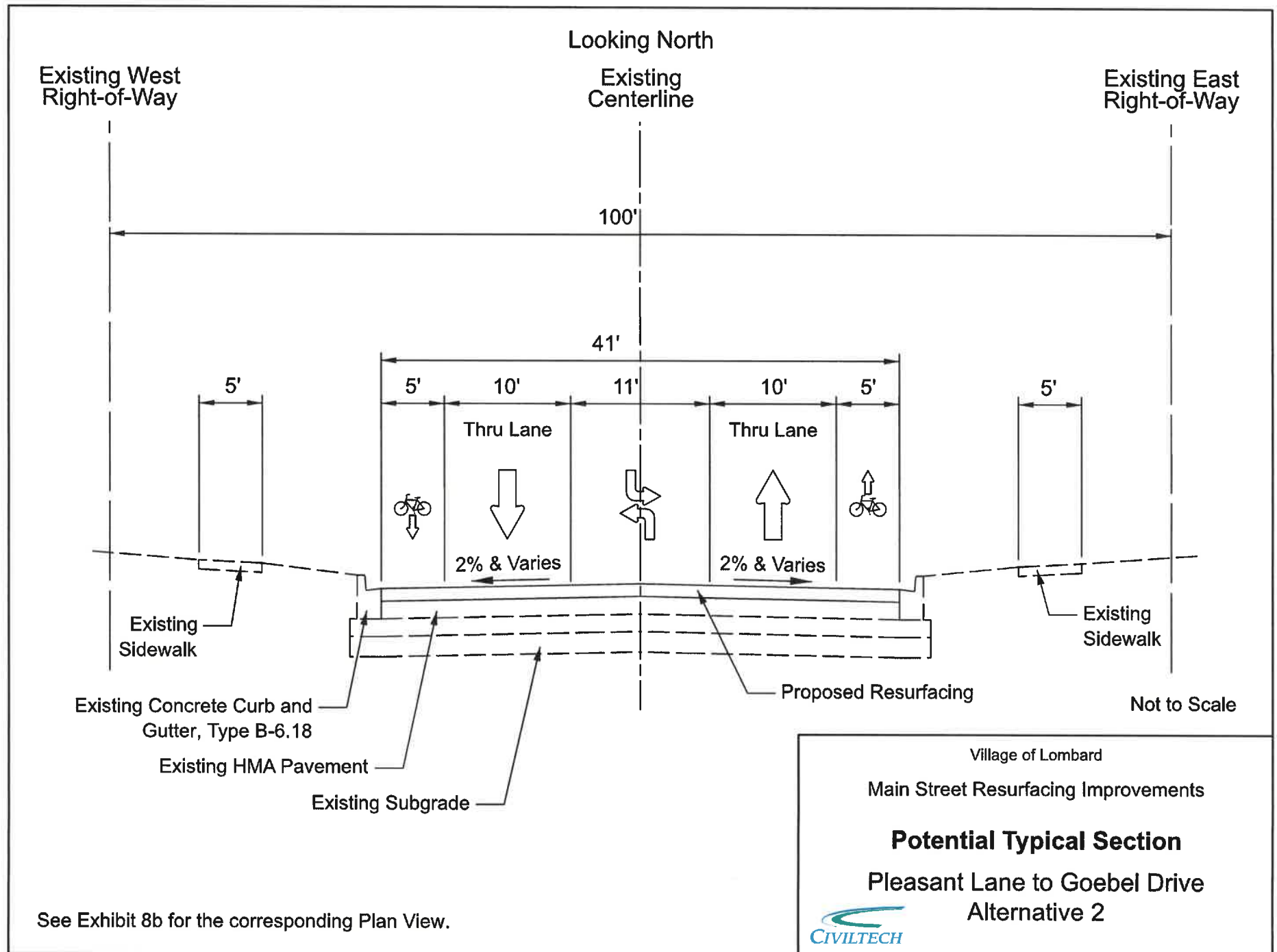


Exhibit A-5c

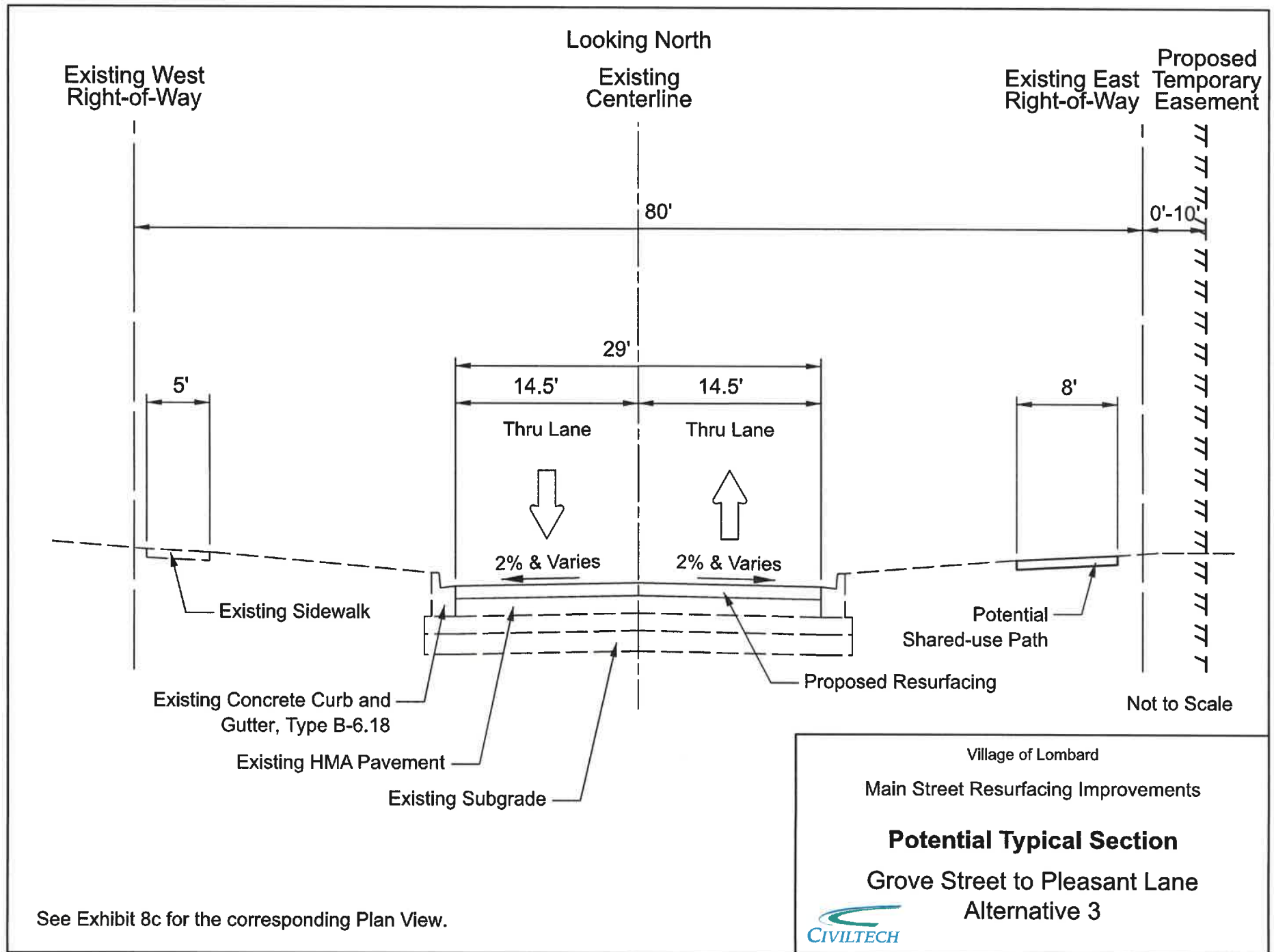


Exhibit A-6a



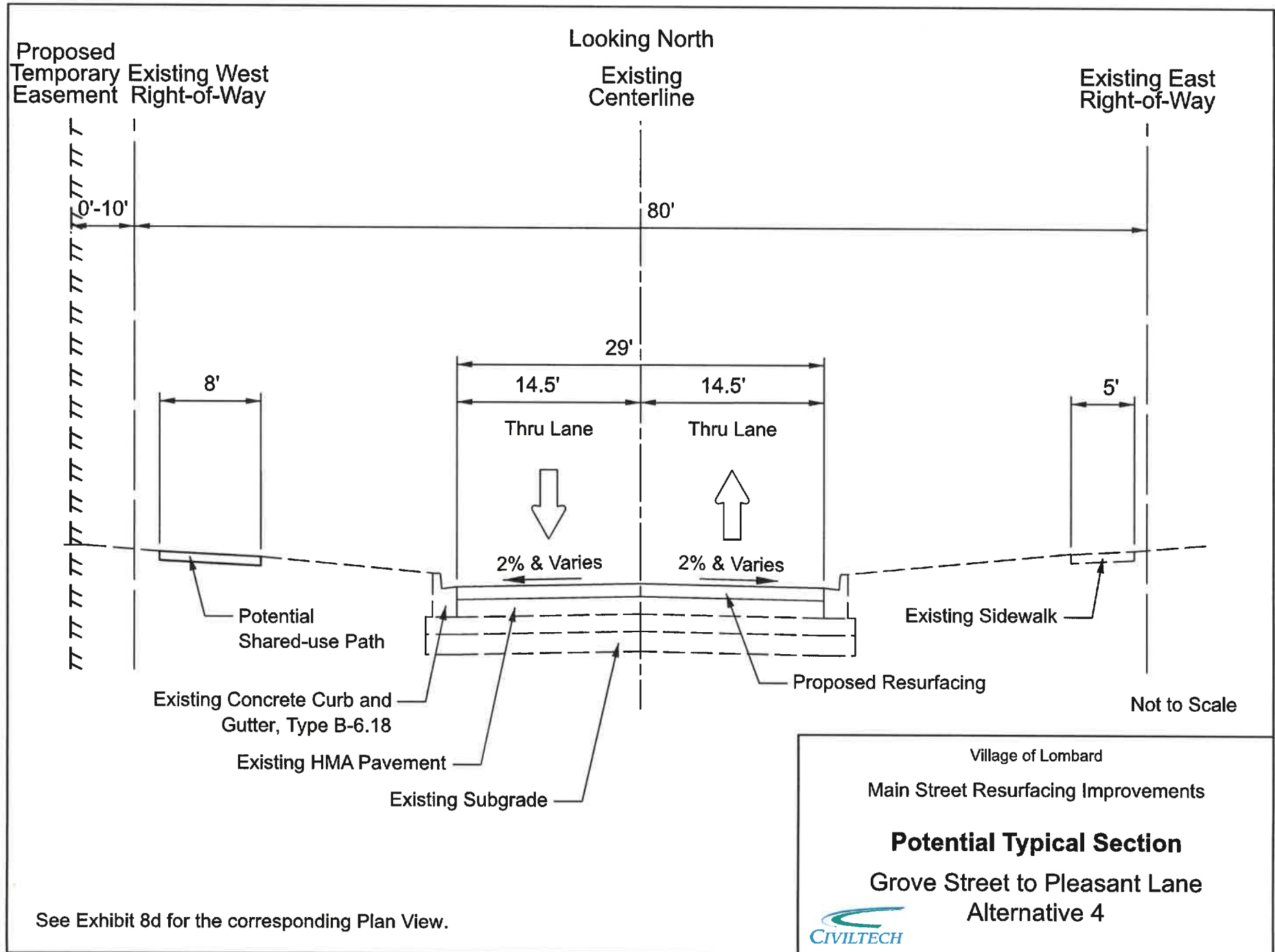


Exhibit A-7a

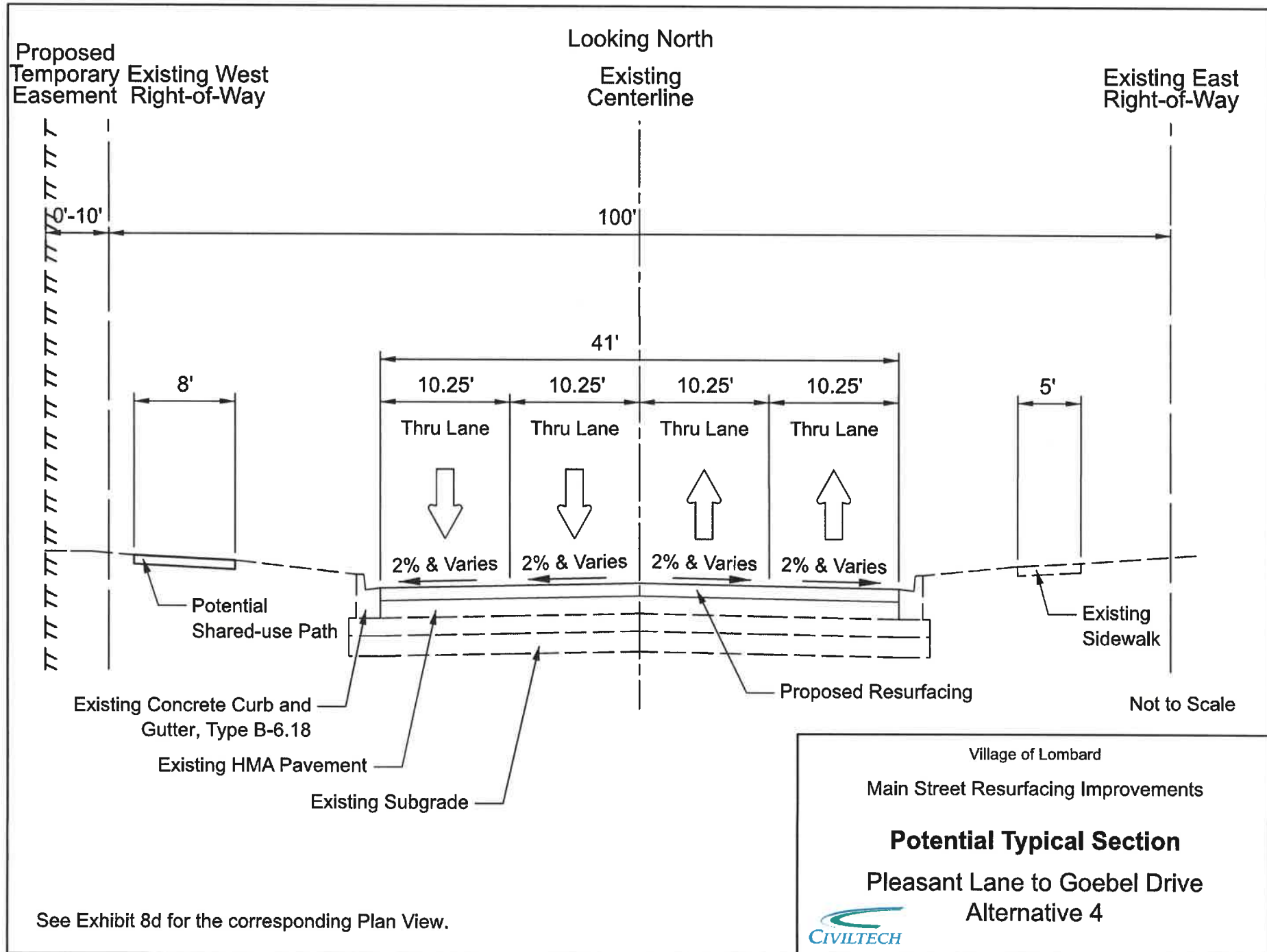


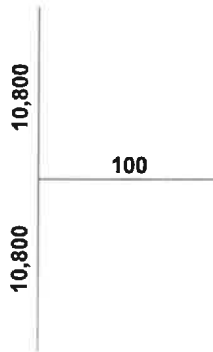
Exhibit A-7b

Exhibit 8
Plan View Concepts





Exhibit 9
Peak Hour Diagram



2025 Existing 24-Hr. Count (vpd)

24-hour Signalized Crosswalk Count:
17 Pedestrians
5 Bicyclists

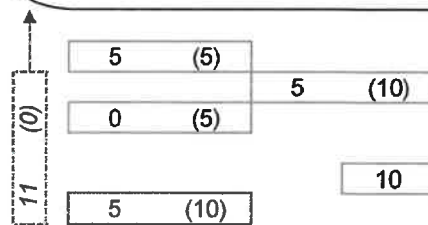
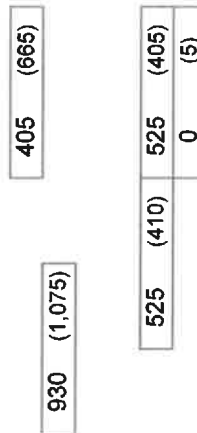
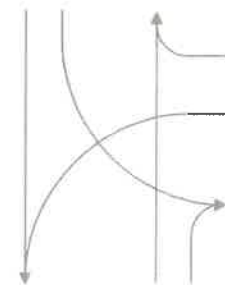
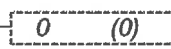
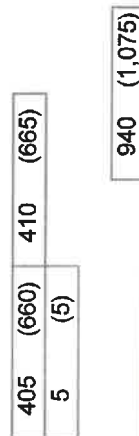
Signalized Crosswalk

Main Street

School Driveway

Wkday A.M. (P.M.) Traffic Counts

Wkday A.M. (P.M.) Ped. Counts



Vehicle Traffic Peak Hours:

7:30 A.M. to 8:30 A.M.
4:15 P.M. to 5:15 P.M.

Count Date(s):

Wednesday, March 19, 2025

Prepared: 4/16/2025

Village of Lombard

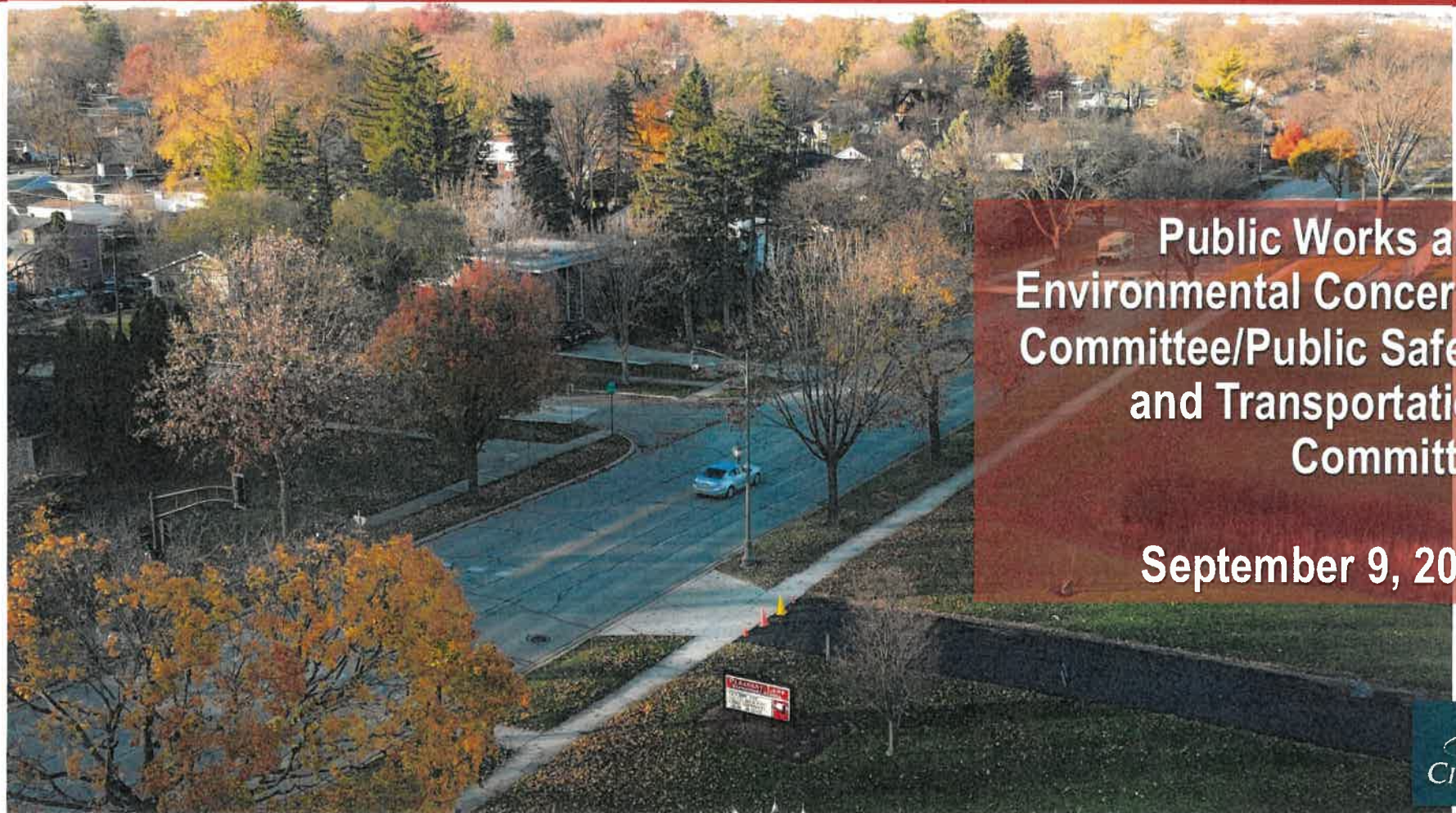
Main Street Resurfacing Project

2025 Existing Peak Hour Traffic

Main Street and School Driveway



Main Street Resurfacing and Bike Accommodations



Public Works and
Environmental Concerns
Committee/Public Safety
and Transportation
Committee

September 9, 2025

Meeting Agenda

- Project Overview
- Bike Accommodation Alternatives
- Lane Configuration
- Request for Concurrence for Preferred Alternative



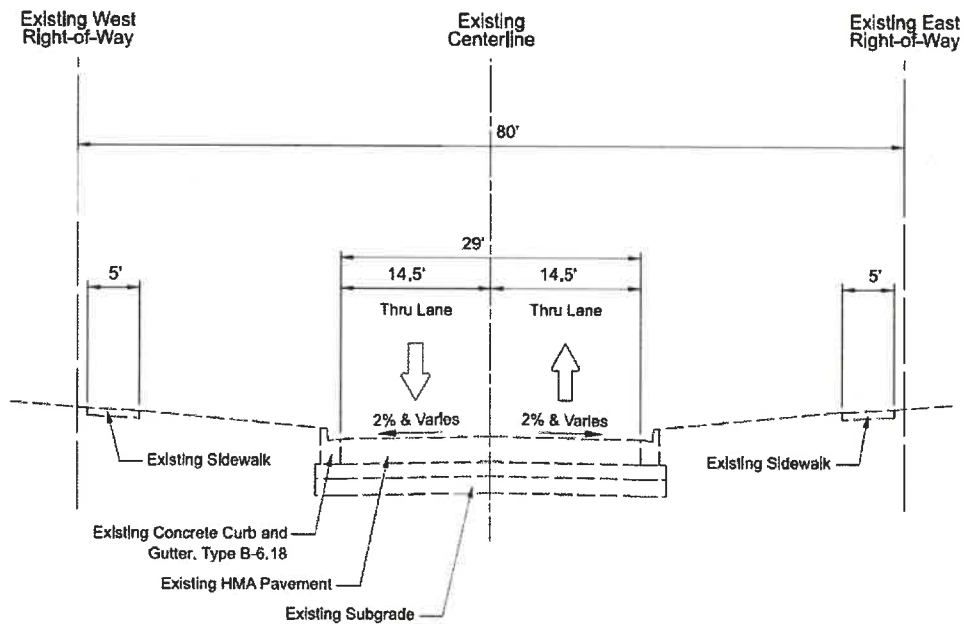
Project Overview

- Resurface Main Street
 - St. Charles Road to North Avenue
- Surface Transportation Funding for Construction
 - \$907,000 Federal
 - \$605,000 Local Match
- Improve Sidewalk Ramps
- Provide Bike Accommodations

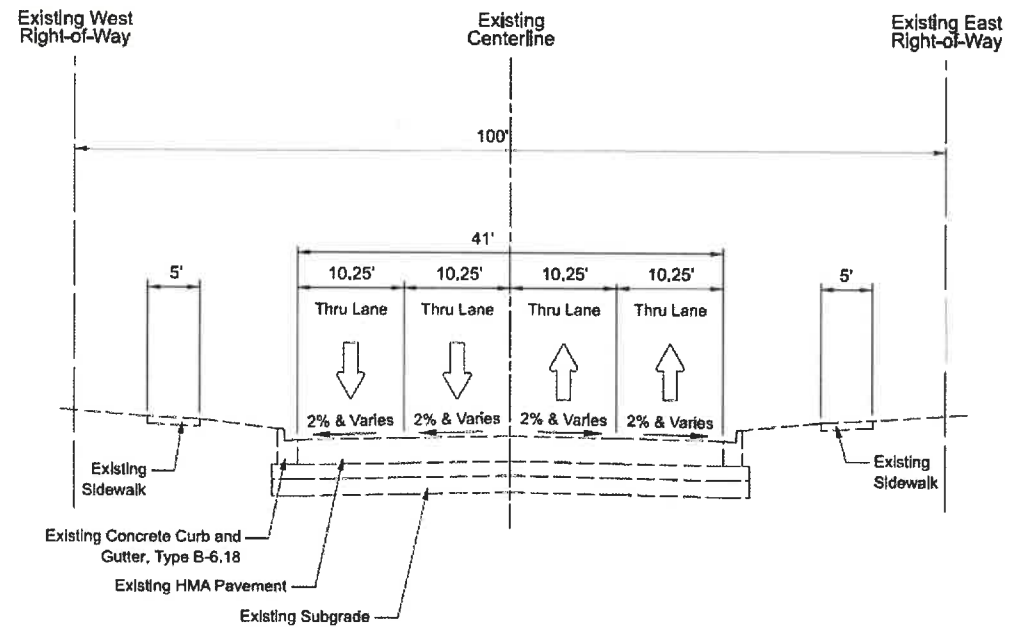


Existing Condition

St. Charles Road to Pleasant Lane



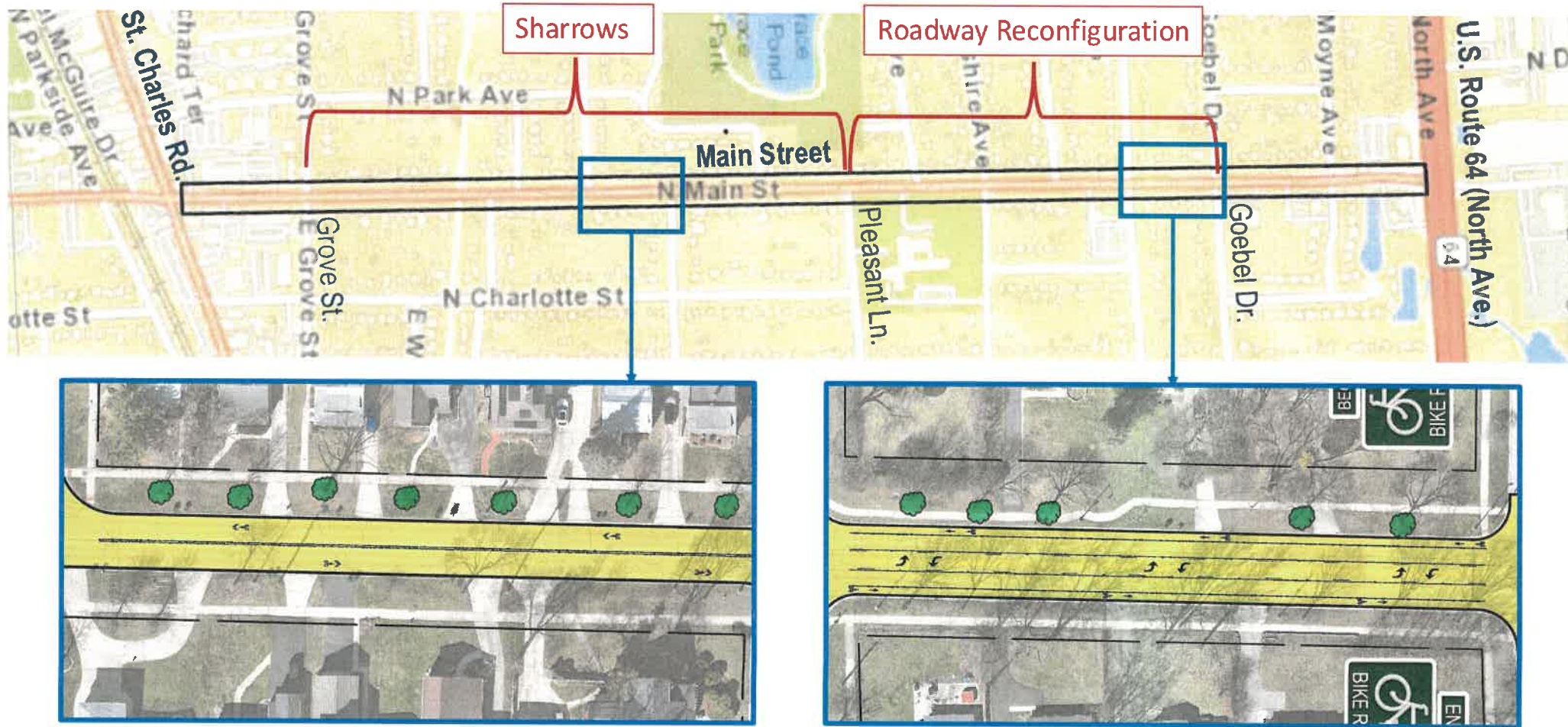
Pleasant Lane to Goebel Drive



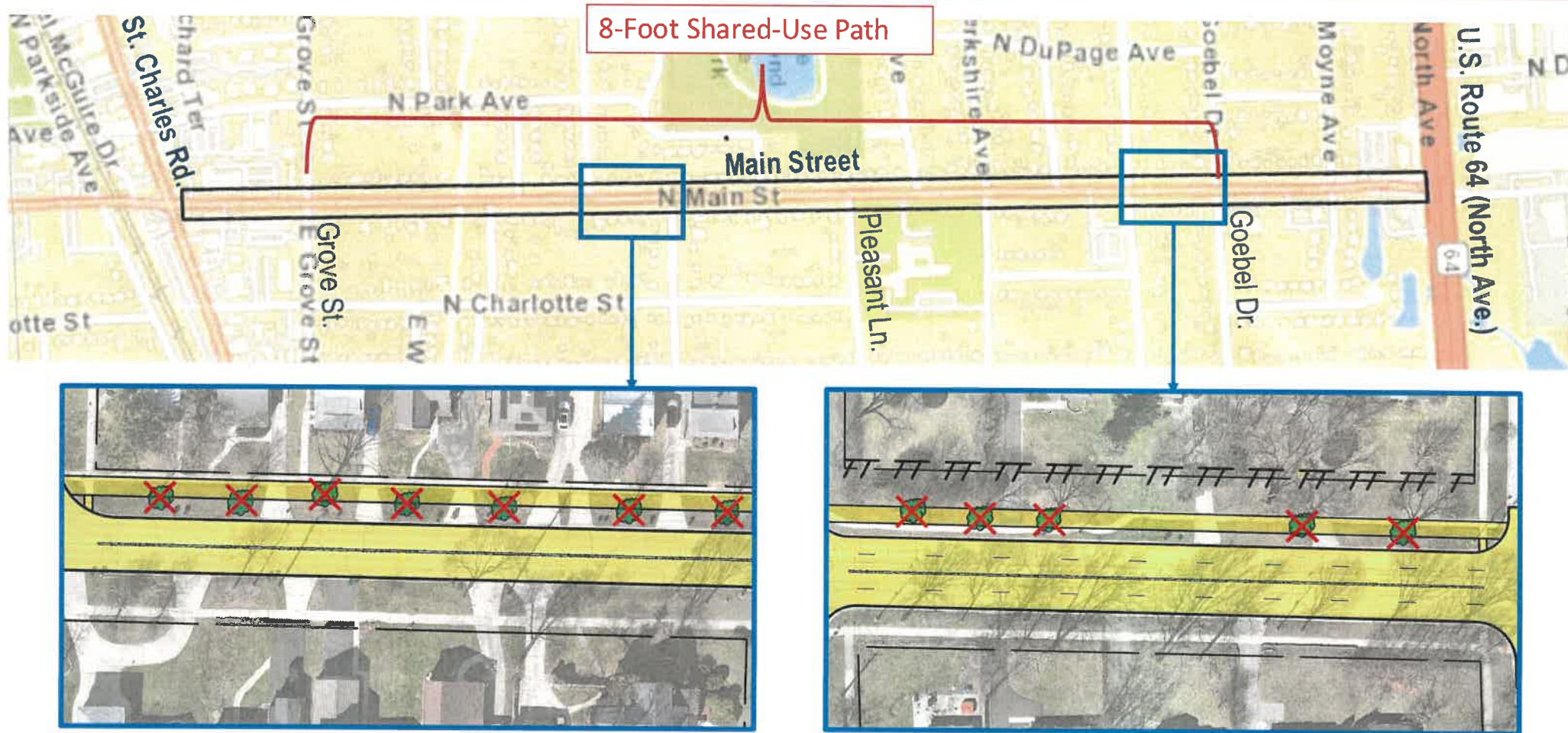
Bike Accommodation Alternatives



On-Street Bike Accommodations



Off-Street Bike Accommodations



Alternative Comparison

On-Street Bike Facilities

- South – Sharrows
- North – Bike Lanes & Lane Reconfiguration

Tree Removal	0
Driveway Reconstruction	0
Green Space Reduction	None
Right-of-Way Impacts	None
Construction Cost	\$1,524,000

Off-Street Bike Facilities

- West Side – 8-foot Shared-Use Path

Tree Removal	40+
Driveway Reconstruction	47
Green Space Reduction	Yes
Right-of-Way Impacts	Some
Construction Cost	\$2,499,000

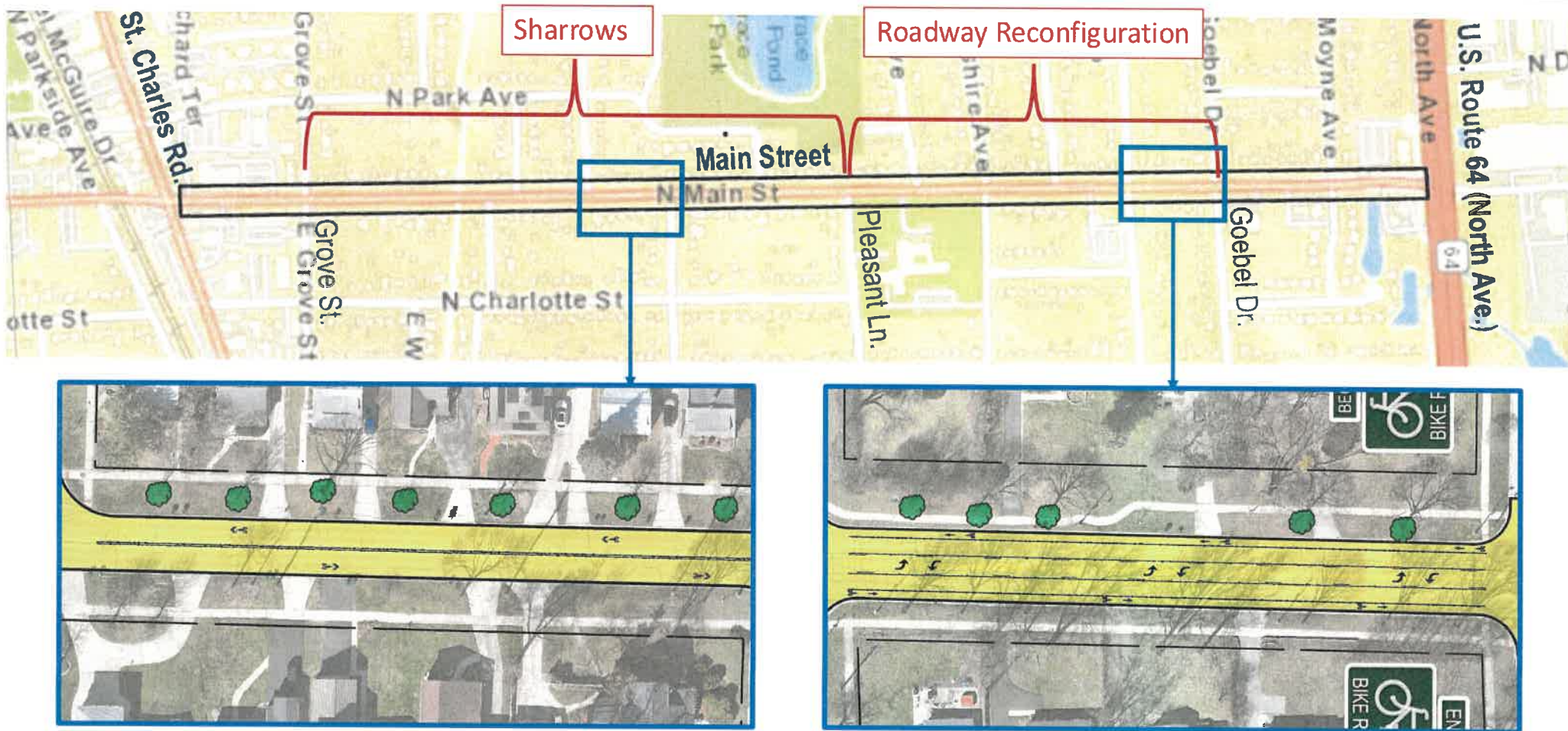
Note: Construction Cost does not include right-of-way acquisition costs.

Roadway Reconfiguration (3-Lane)

- Benefits¹:
 - Crash Reduction – provides dedicated left turn lane
 - 7 angle crashes and 2 sideswipe crashes (2019-2023)
 - 2 of the angle crashes had injuries
 - Increases Pedestrian Safety – provides less lanes for pedestrians to cross
 - Provides the opportunity for bike lanes
 - Traffic Calming
- Recommended Average Daily Traffic (ADT) of 25,000 vpd or less
 - Main Street ADT is 10,800 vpd – this is well under the recommended ADT
 - Main Street volumes only require one through lane in each direction

¹FHWA-SA-21-046

Preferred Alternative Recommendation On-Street Bike Accommodations



Thank You!

- **Questions & Answers**
- **Open Discussion**

