

Date: February 28, 2017 Job No.: 5514
To: Jason L. Mammone, P.E. – Director of Engineering, Town of Dedham
Cc: Darshan Jhaveri, P.E. / Tony Lionetta, P.E.
From: Justin Curewitz, P.E., PTOE
Subject: **McDonald Square Accessibility Study**

Per your request, BETA Group, Inc. (BETA) has performed an accessibility study in the area of McDonald Square in Dedham, Massachusetts. The primary focus was on pedestrian accessibility and safety as well as ADA compliance within the study area as depicted in Figure 1. An attachment to this memorandum is a copy of the February 15 public presentation and concept alternatives plan.

The purpose of this study was to evaluate a series of neighborhood streets within the study area. Study efforts consisted of several tasks including:

- Conducting a field inventory/assessment of existing pedestrian facilities
 - Sidewalk type, condition and compliance with ADA standards
 - Curb ramp location and compliance
 - Existing crosswalk locations and condition
 - Existing signage and pavement markings
- Reviewing pedestrian accessibility
- Reviewing pedestrian likely desire lines and connectivity within the Study Area
- Developing proposed improvements/alternatives for improved pedestrian safety & accessibility

EXISTING CONDITIONS

The study defined three main focus areas, shown in Figure 2, along with an additional focus area, just outside of the initial study area. These focus areas are:

PRIMARY FOCUS AREAS

Focus Area 1: Intersection of Louise Road, Bonham Road, Holmes Road and Sherman Road

Focus Area 2: Louise Road

Focus Area 3: Intersection of Louise Road, Hooper Road and Sprague Street (McDonald Square)

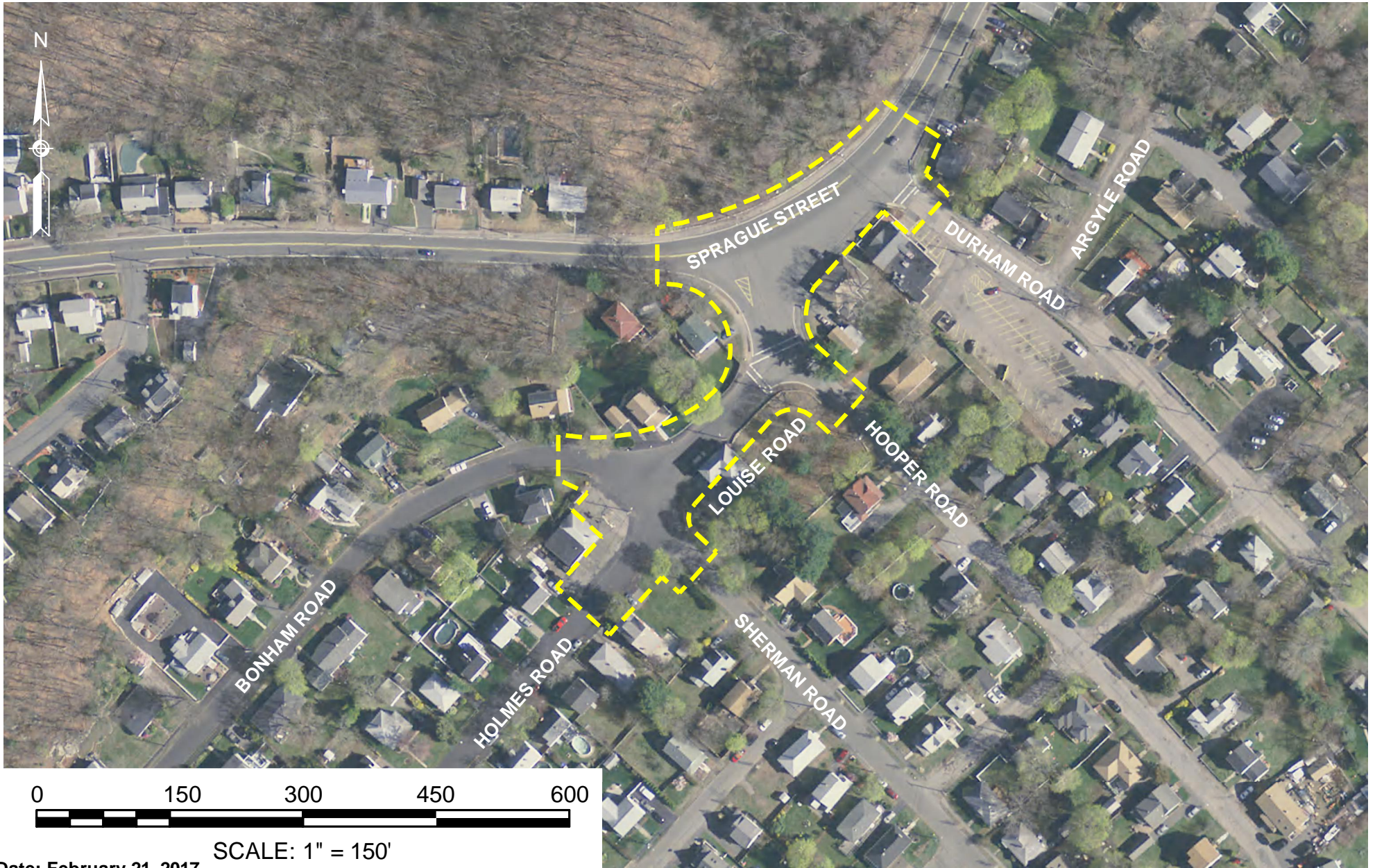
ADDITIONAL FOCUS AREA

Focus Area 4: Intersection of Sprague Street and Durham Road

A brief synopsis of each focus area follows:

FOCUS AREA 1: INTERSECTION OF LOUISE ROAD, BONHAM ROAD, HOLMES ROAD AND SHERMAN ROAD

Deficiencies in accessibility include a lack of curbing delineating the edge of roadway and the existing sidewalk, non-existent wheelchair ramps and a lack of connectivity between streets. Of note are three main parcels: the Automotive Garage parcel (18 Bonham Road), 13 Louise Road and 8 Holmes Road. All three parcels share in the aforementioned deficiencies of the Focus Area, along with some specific to each. The Automotive Garage parcel has an open paved lot with unrestricted access/egress with no defined sidewalk



Date: February 21, 2017

SCALE: 1" = 150'

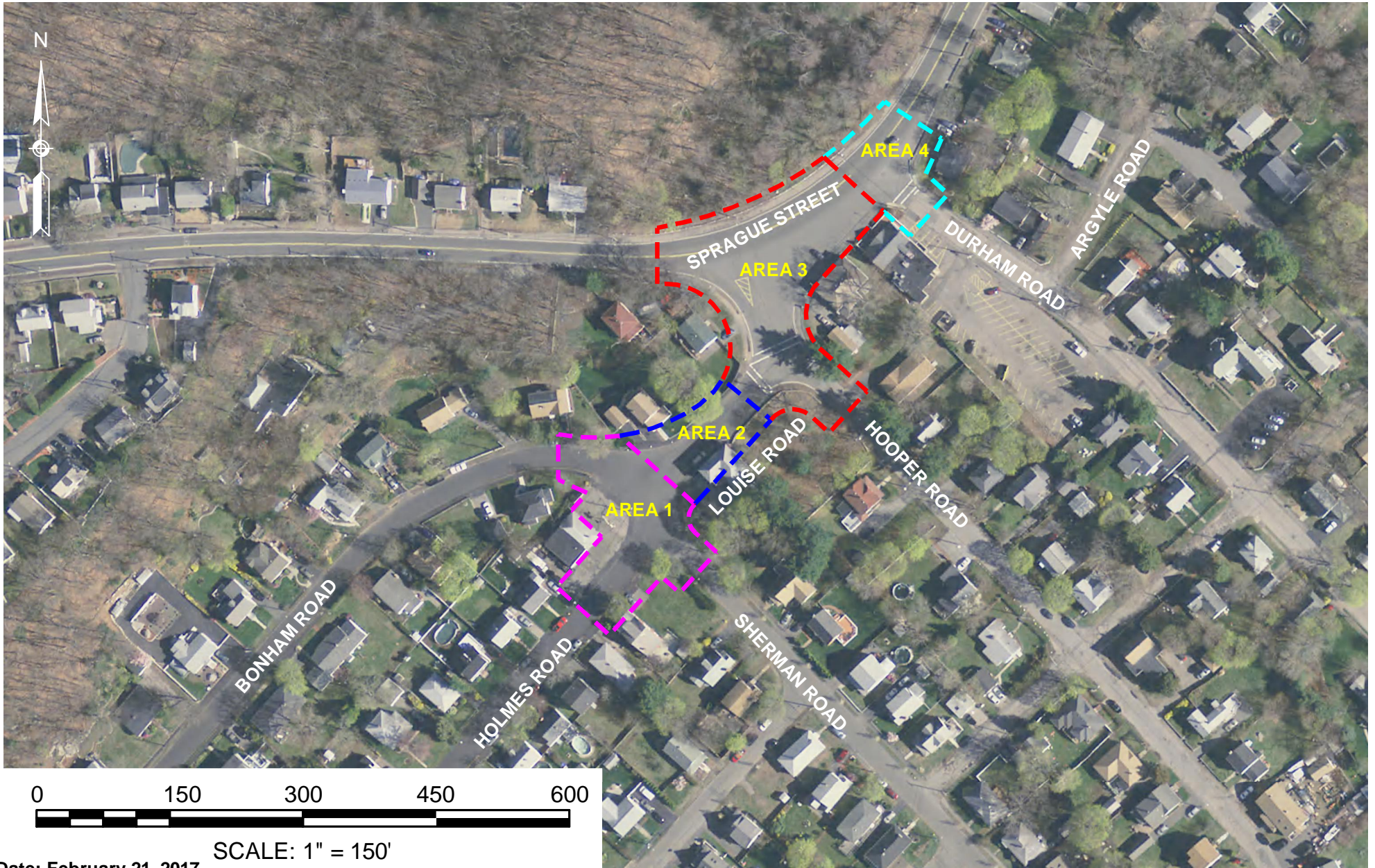


**McDonald Square
Accessibility Study**

Dedham, MA

Figure 1

Location Map



**McDonald Square
Accessibility Study**

Dedham, MA

Figure 2

Study Focus Areas

area, as well as no curbing to delineate the edge of roadway. The lack of a formal sidewalk runs the entire frontage of the parcel along Bonham Road and Holmes Road.

The sidewalk abutting 13 Louise Road and its residential driveway are impacted by vehicles parking on the sidewalk and/or encroaching on the driveway as they frequent Terri's Market. Due to the narrow width of Louise Road and given the lack of curbing, vehicles park on the sidewalk. Barrels have been deployed by the property owner to deter vehicles from blocking his driveway; however, field observations confirm that vehicles park and block the sidewalk along Louise Road.

The existing sidewalk in front of 8 Holmes Road slopes toward the street as a makeshift non compliant wheelchair ramp. There is no crosswalk across Holmes Road or Sherman Road, nor are there ramps to on the receiving sides of the streets.

FOCUS AREA 2: LOUISE ROAD

Louise Road has sidewalks along both sides but curbing is not present and cross-slopes are not within ADA compliance. As in the case noted above, parked vehicles were observed parking on both sides of the street reducing the travel way significantly, limiting sight distance for vehicles entering/exiting the neighborhood. An existing bus stop is located on the southwest corner of the intersection of Louise Road and Hooper Road with no wheelchair ramps or compliant sidewalk connecting to the neighboring roadways.

FOCUS AREA 3: INTERSECTION OF LOUISE ROAD, HOOPER ROAD AND SPRAGUE STREET (MCDONALD SQUARE)

McDonald Square proper is comprised of the intersections of Sprague Street, Hooper Road and Louise Road and features a wide open intersection with very few pavement markings to delineate traffic flow entering and exiting the neighborhood. The sidewalk surface in front of the Blue Jay Sandwich Shop and the Village Manor is in poor condition with significant cracking, most likely due to delivery trucks riding up on the curb. As with the other two Focus Areas, there are no compliant wheelchair ramps connecting the existing crosswalks with one another and a hydrant is located in the middle of the sidewalk, where a wheelchair ramp should exist.

FOCUS AREA 4: INTERSECTION OF SPRAGUE STREET AND DURHAM ROAD (ADDITIONAL)

The intersection of Sprague Street with Durham Road has a wider than required pavement width. There is an existing crosswalk striped across Durham Road with wheelchair ramps; however there is no connection provided across Sprague Street.

PUBLIC MEETING

A public meeting was held with the Manor Neighborhood Association on February 15, 2017 at the Endicott Estate to present the recommendations of the study. A complete copy of the presentation is attached to this memorandum. Residents were given the opportunity to ask questions and voice their opinions. A brief summary of the topics brought up by residents is listed below:

- A question was raised as to if the proposed pavement markings on Sprague Street would impact the current parking situation in front of the Blue Jay Restaurant and Village Manor, specifically with tractor trailer parking. It was also discussed of whether there was a way to define/restrict parking in this area.

- It was explained that the proposed pavement markings would help better define the intersection, especially the travel lane on Sprague Street, and provide drivers more delineation on where to enter and exit the neighborhood. In response to the parking restriction, it was explained that this would be more of an enforcement issue.
- There was discussion about the proposed sidewalk along the frontage of the Automotive Garage Parcel.
 - Several options were discussed, as well as the need to coordinate with the property owner to explore options. The Neighborhood Association stated that it was willing to reach out to the property owner.
- Questions were raised on the type of curbing that would be installed, as well as whether the wheelchair ramps would be asphalt or cement concrete.
 - It was explained that granite curbing would be used in most places and that all wheelchair ramps would be cement concrete and provide detectible warning panels.
- Discussion on the location of the proposed Rectangular Rapid Flashing Beacon (RRFB) was tabled.
 - It was explained that the costs associated with the RRFB would be included in the project and the final location would be discussed in coordination with clearing of trees and proper sight distance.

RECOMMENDATIONS

The study concluded with recommendations to improve pedestrian accessibility, safety and connectivity in the study area. The recommendations are summarized below and shown on the Concept Alternatives Plan (Figure 3) and the attached Public Meeting Presentation.

FOCUS AREA 1: INTERSECTION OF LOUISE ROAD, BONHAM ROAD, HOLMES ROAD AND SHERMAN ROAD

- Coordinate with Automotive Garage parcel owner regarding a formal sidewalk from Bonham Road to Holmes Road with driveway openings for garage access
- Extend sidewalks on Holmes Road and Louise Road
- Reconstruct sections of existing sidewalk to provide connections to new wheelchair ramps
- Provide driveway apron for 13 Louise Road to meet reconstructed sidewalk
- Provide new curb ramps and crosswalks at three locations:
 - Across Bonham Road, Holmes Road and Sherman Road

FOCUS AREA 2: LOUISE ROAD

- Reconstruct existing sidewalks on both sides
- Restripe roadway for two 11-foot lanes (DYCL) and 7-foot parking lane (4 spaces) and bus stop
 - Remove and reset bus stop sign to meet proposed bus stop
- Provide vertical granite curb to discourage vehicles from parking on sidewalks
- Install No Parking signs on north side of Louise Road

FOCUS AREA 3: INTERSECTION OF LOUISE ROAD, HOOPER ROAD AND SPRAGUE STREET (MCDONALD SQUARE)

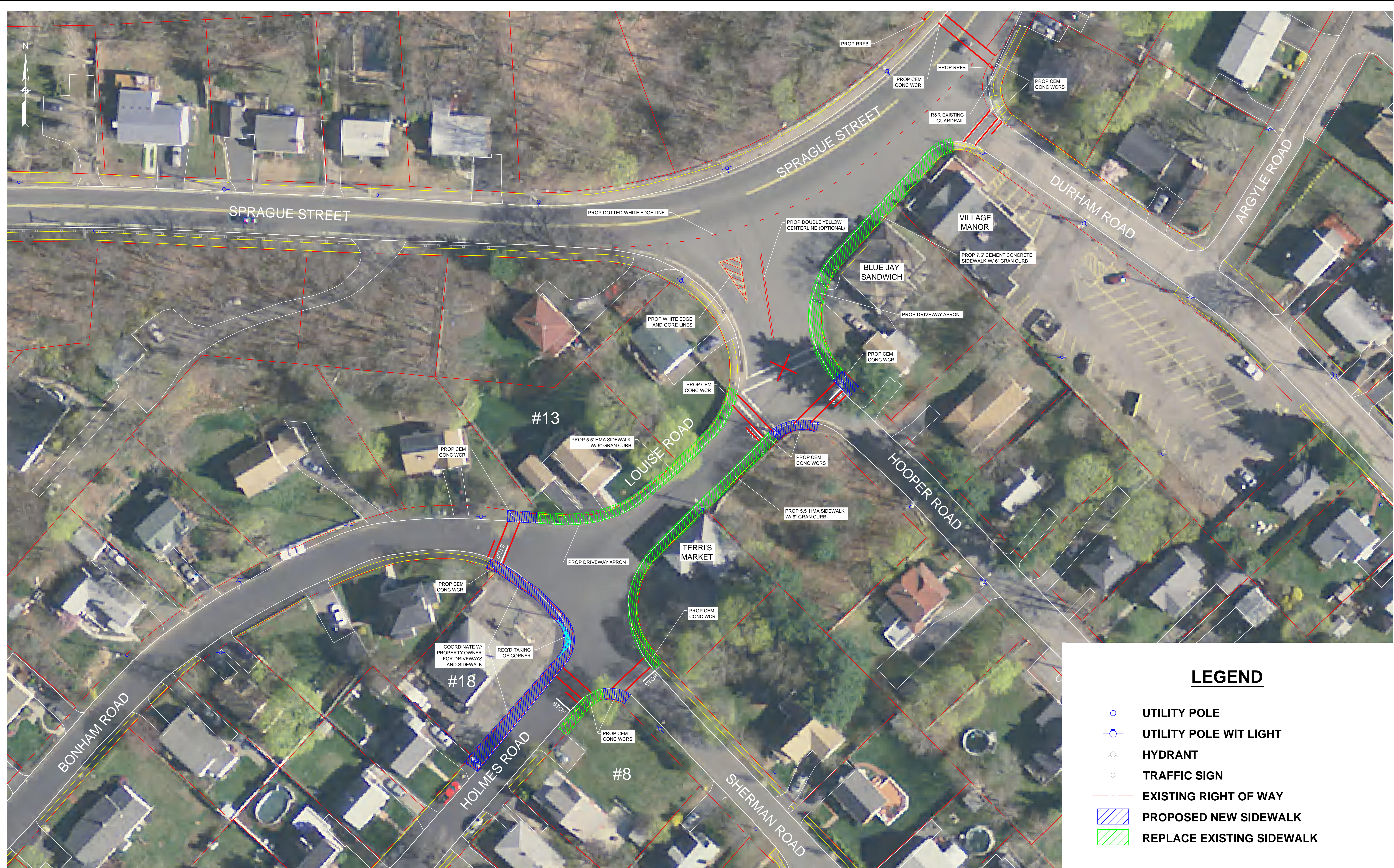
- Remove existing crosswalk in the center of the intersection and restripe to connect with new wheelchair ramps
- Extend sidewalks on Louise Road & Hooper Road

- Reconstruct section of existing sidewalk in front of Blue Jay Sandwich Shop and Village Manor as well as provide connection to new wheelchair ramps
- Provide new pavement markings along Sprague Street to better delineate travel lane and traffic
- Potential addition of double yellow centerline to help guide drivers
- Provide new wheelchair ramps and crosswalks at two locations:
 - Across Louise Road & Hooper Road
- Provide driveway apron for Blue Jay Sandwich Shop to meet reconstructed sidewalk

FOCUS AREA 4: INTERSECTION OF SPRAGUE STREET AND DURHAM ROAD (ADDITIONAL)

- Construct bump-out and add crosswalk across Sprague Street
- Construct new wheelchair ramps to connect with existing crosswalk across Durham Road and proposed crosswalk across Sprague Street
- Install new Rectangular Rapid Flashing Beacons (RRFB) at the Sprague Street crosswalk
- Reset existing guardrail to accommodate new wheelchair ramps and RRFB

The estimated construction cost of recommended improvements is in the range of \$200,000. The project would also require the funding of survey and design cost.



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NUMBER	DATE	MADE BY	CHECKED BY	DESCRIPTION
REVISIONS				

DRAWN BY:
JMC

DESIGNED BY:
JMC

CHECKED BY:
DJ

PREPARED BY:



www.BETA-inc.com



UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

McDONALD SQUARE ADA ASSESSMENT

**FIGURE 3:
CONCEPT ALTERNATIVES PLAN**

DEDHAM, MASSACHUSETTS

ISSUE DATE February 8, 2017

SHEET **1 OF 1**



McDonald Square Accessibility Study

Public Informational Meeting

Endicott Estate

February 15, 2017

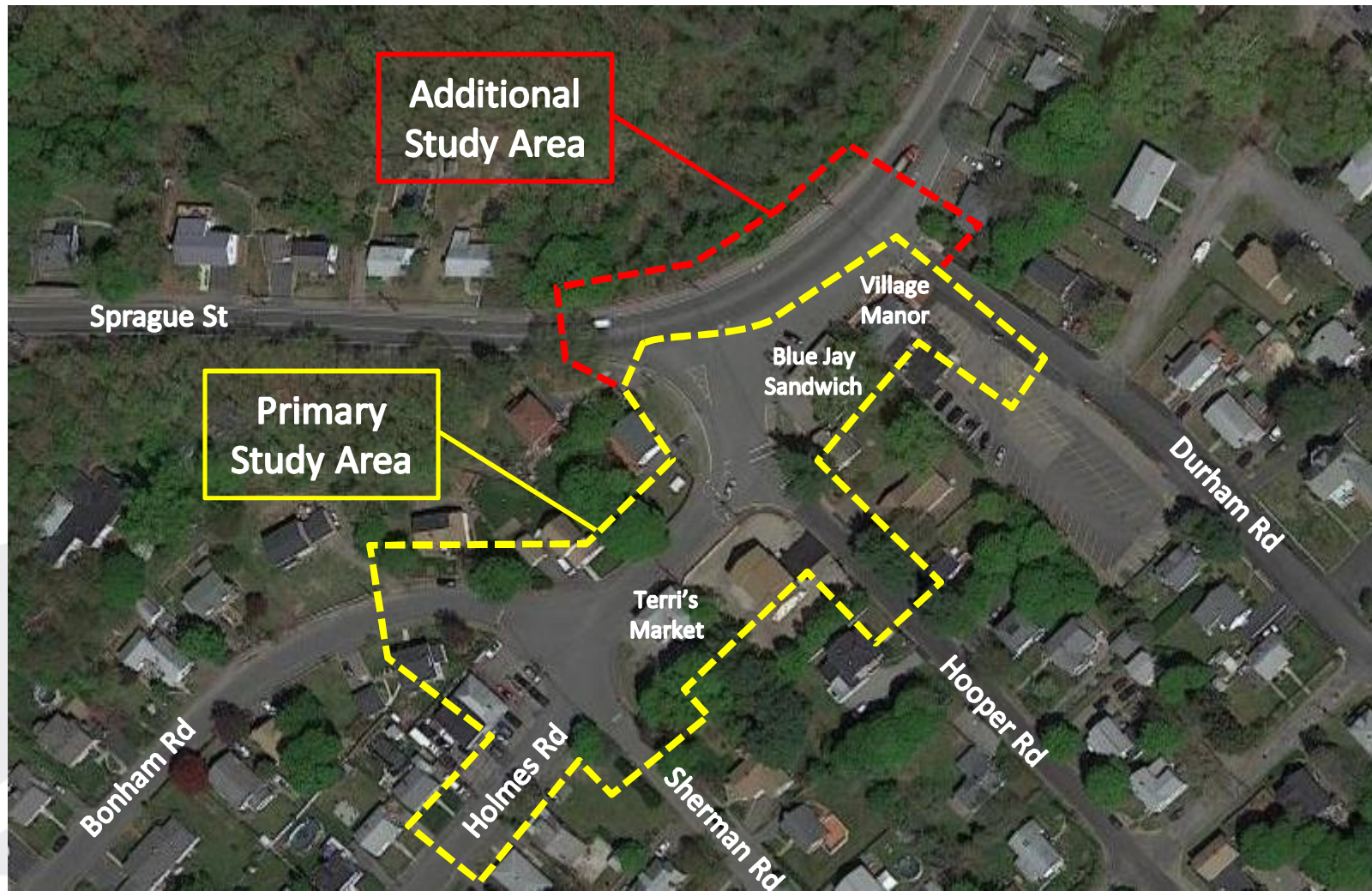


Overview

McDonald Square Accessibility Study

- § Conduct inventory/assessment of existing pedestrian facilities
 - § Sidewalk type/condition/compliance
 - § Curb ramp location/compliance
 - § Existing crosswalks
 - § Signage & pavement markings
- § Review current accessibility and needs
- § Review pedestrian desire lines and connectivity within Study Area
- § Develop proposed improvements/alternatives for improved safety & accessibility

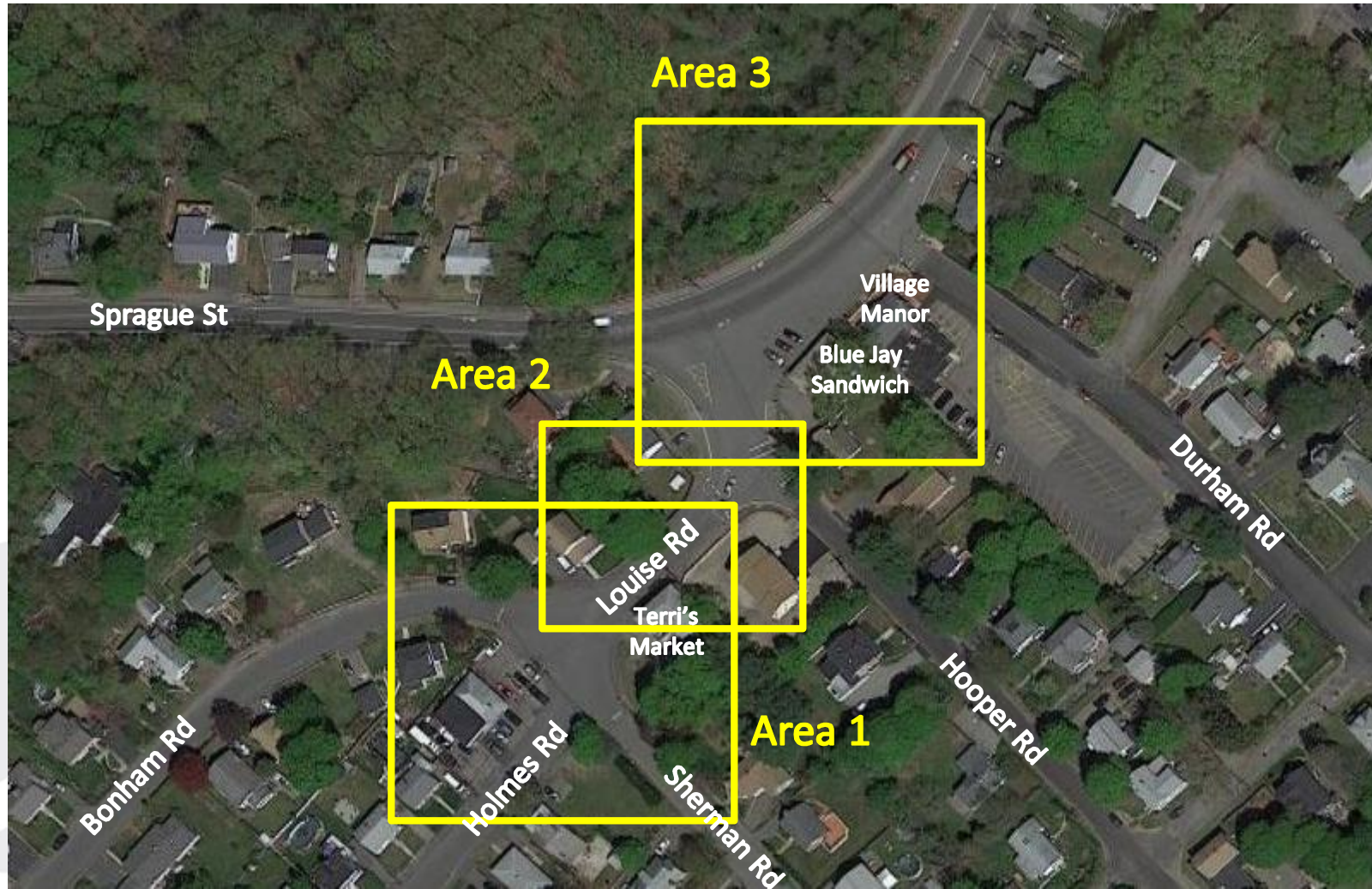
Primary Study Area



Existing Sidewalks (in yellow)



Primary Focus Areas



Additional Focus Area



Area 1 – Key Existing Conditions

Automotive Parcel (18 Bonham Road)

- § Open lot with no defined driveway access
- § No formal sidewalk from Bonham Rd to Holmes Rd
- § Multiple garage/parking lot entrances
- § No curbing to delineate edge of roadway and beginning of parcel



Area 1 – Key Existing Conditions

13 Louise Road

- § No curbing to delineate edge of roadway
- § Vehicles park on sidewalk in front of property & along Louise Rd
- § Barrels placed at driveway to deter parking vehicles, “unofficial no parking signs”



Area 1 – Key Existing Conditions

8 Holmes Road

- § Sloped ramp to street, but no defined or compliant ramp
- § No connection across Sherman Rd or Holmes Rd
- § Room for additional sidewalk connection



Area 2 – Key Existing Conditions

Louise Road/Terri's Market

- § Vehicles park on sidewalk on north side to go to Terri's Market
- § No curbing to delineate edge of roadway and sidewalk
- § Sidewalk on south side has steep slopes
- § Vehicles park across from each other, making it difficult to navigate



Area 3 – Key Existing Conditions

McDonald Square

- § Wide open pavement with few markings to delineate traffic flow
- § Faded pavement markings
- § Poor existing sidewalk condition in front of Blue Jay Sandwich & Village Manor
- § Crosswalk striped through center of intersection with no ramps
- § Possible driver confusion



Area 3 – Key Existing Conditions

Hooper Road at Louise Road

- § No curb ramps connecting crosswalks
- § Hydrant located in middle of sidewalk
- § Poor existing sidewalk condition
- § Missing connection between bus stop and rest of McDonald Square
- § Faded pavement markings



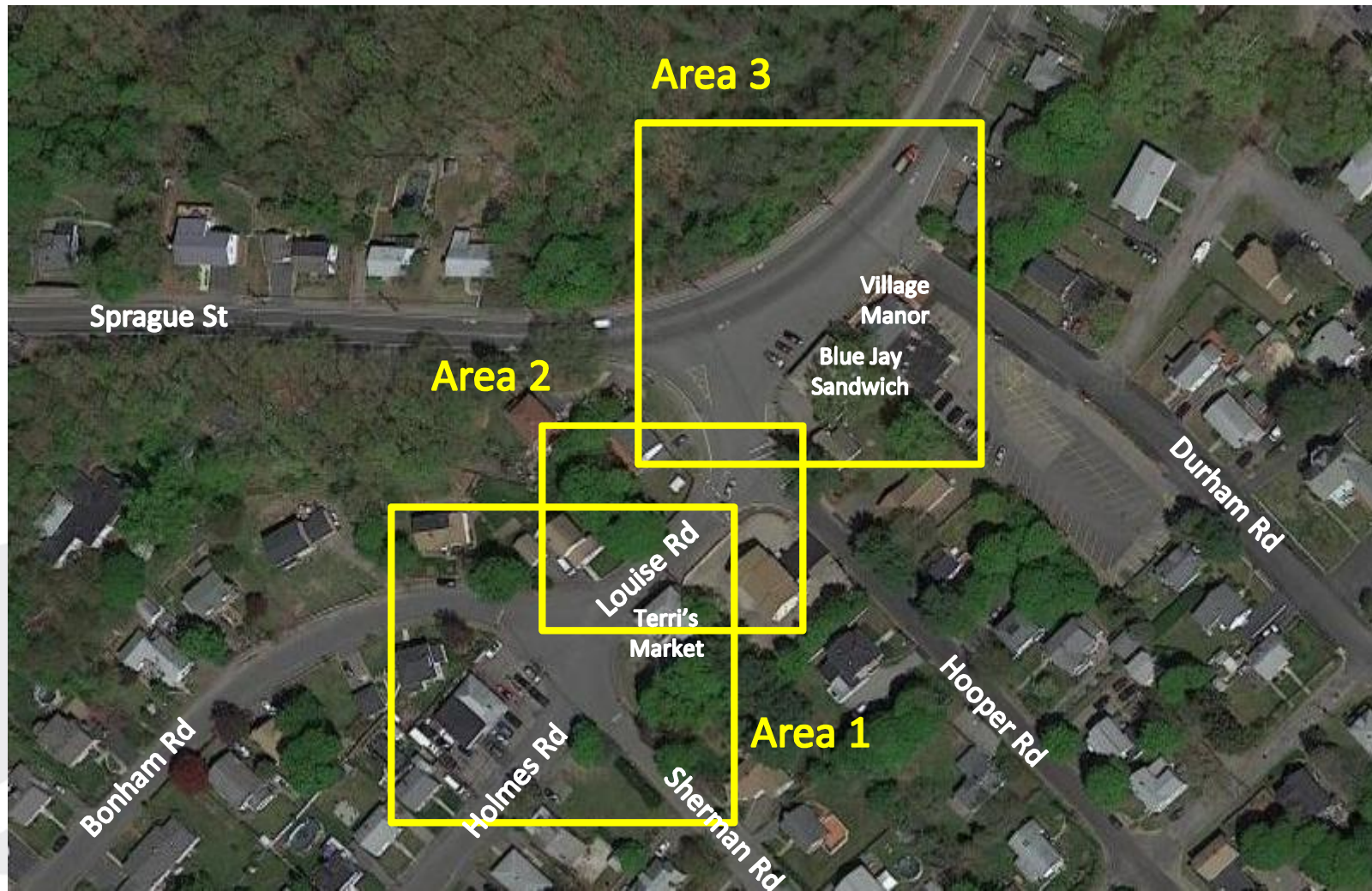
Area 4 – Key Existing Conditions

Sprague Street at Durham Road

- § Existing compliant curb ramps and crosswalk across Durham Road
- § No connection to sidewalk on north side of Sprague St
- § Wide pavement width on Sprague St eastbound
- § Faded pavement markings



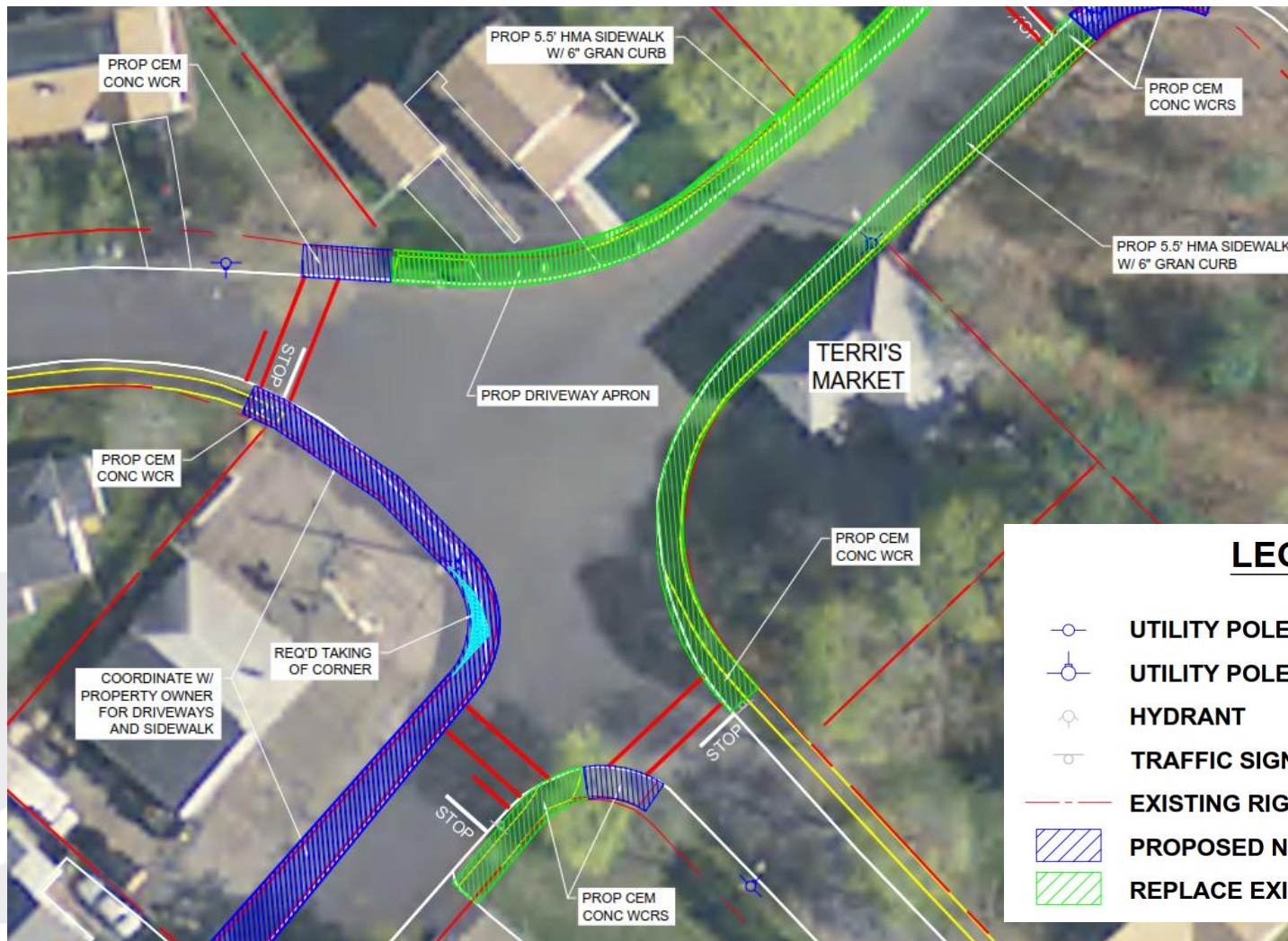
Primary Focus Areas – Improvements










Additional Focus Area - Improvements



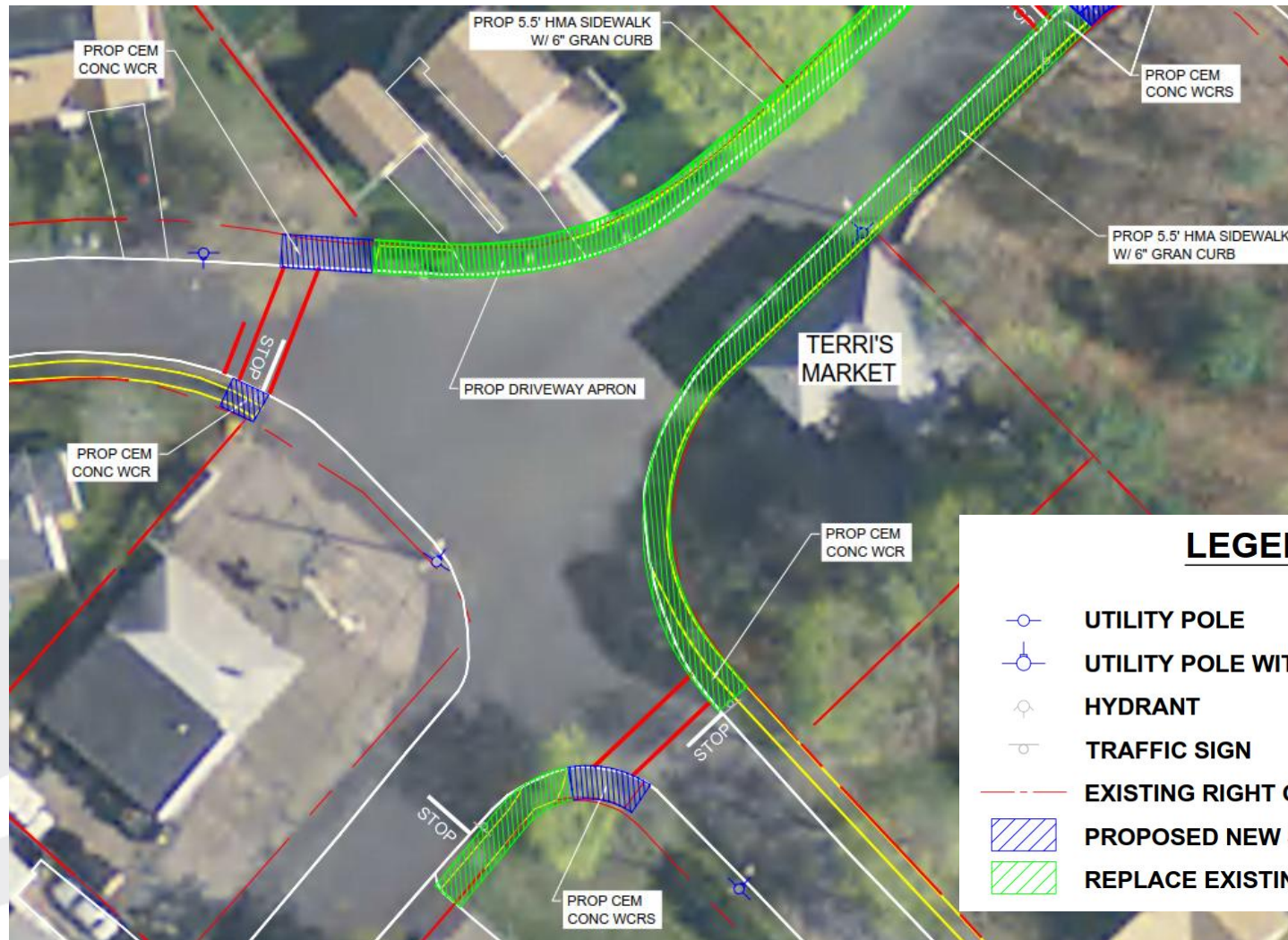
Area 1 Suggested Improvements



LEGEND

-  UTILITY POLE
-  UTILITY POLE WIT LIGHT
-  HYDRANT
-  TRAFFIC SIGN
-  EXISTING RIGHT OF WAY
-  PROPOSED NEW SIDEWALK
-  REPLACE EXISTING SIDEWALK

Area 1A Alternative Improvements



LEGEND

- UTILITY POLE
- UTILITY POLE WITH LIGHT
- HYDRANT
- TRAFFIC SIGN
- EXISTING RIGHT OF WAY
- ▨ PROPOSED NEW SIDEWALK
- ▨ REPLACE EXISTING SIDEWALK

Area 1 Suggested Improvements

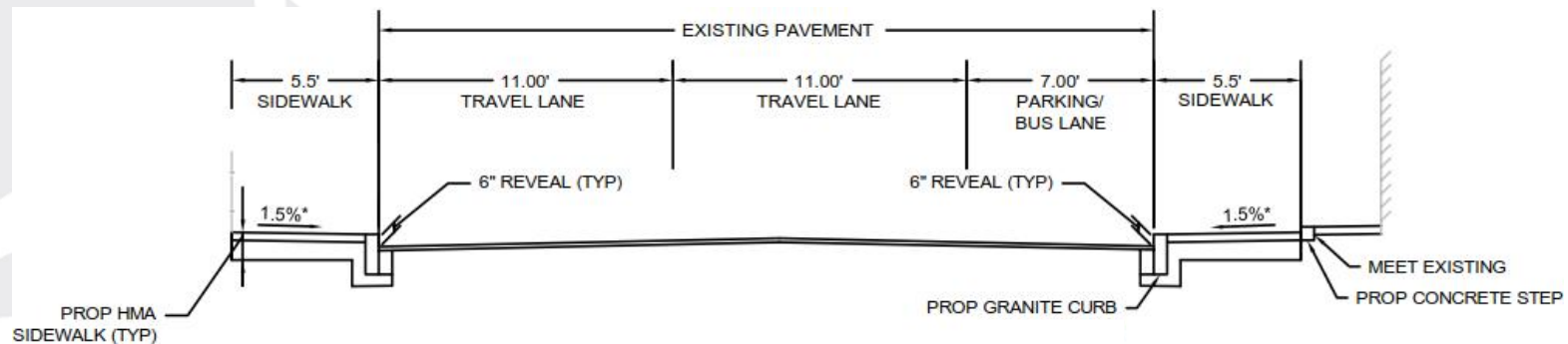
- § Need to Coordinate w/Automotive parcel for sidewalk from Bonham Rd to Holmes Rd with driveways for garage access
- § Extend sidewalks on Holmes Rd and Louise Rd
- § Reconstruct sections of existing sidewalk to provide connections to new curb ramps
- § Provide driveway apron for 13 Louise Rd to meet reconstructed sidewalk
- § Provide new curb ramps & crosswalks at three locations:
 - § Across Bonham Rd, Holmes Rd & Sherman Rd

Area 2 Suggested Improvements

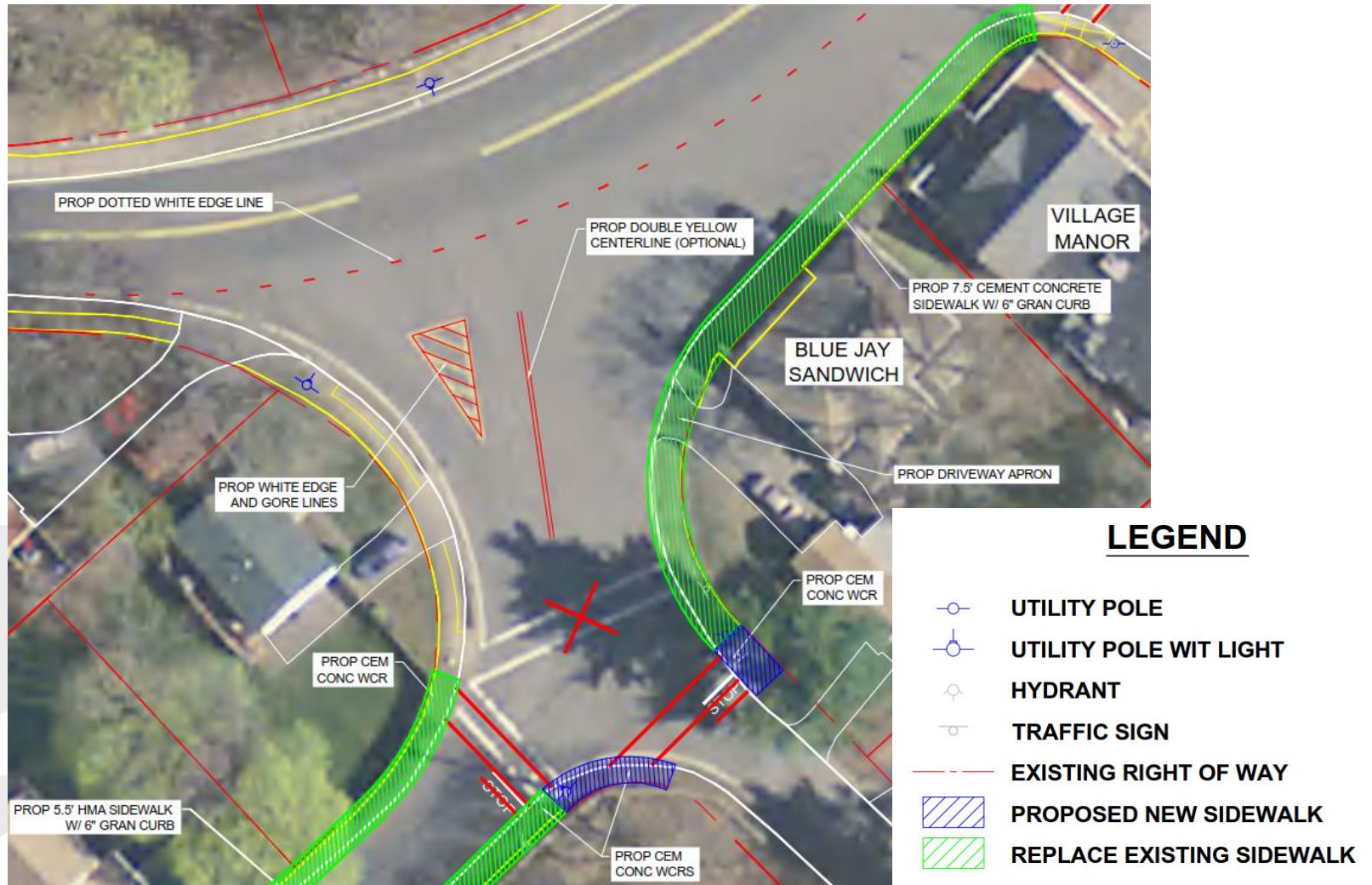


Area 2 Suggested Improvements

- § Reconstruct existing sidewalks on both sides
- § Restripe roadway for two 11-foot lanes (DYCL) and 7-foot parking lane (4 spaces) & bus stop
- § Provide vertical granite curb to discourage vehicles from parking on sidewalks
- § Install NO Parking signs on north side of Louise Rd



Area 3 Suggested Improvements



Area 3 Suggested Improvements

- § Remove existing crosswalk in center of intersection and restripe to connect with new ramps
- § Extend sidewalks on Louise Rd & Hooper Rd
- § Reconstruct section of existing sidewalk in front of Blue Jay & Village Manor & provide connection to new ramps
- § Provide new pavement markings along Sprague St to better delineate traffic
 - § Potential addition of double yellow centerline to help guide drivers

Area 3 Suggested Improvements

- § Provide new ramps and crosswalks at two locations:
 - § Across Louise Rd & Hooper Rd
- § Provide driveway apron for Blue Jay Sandwich to meet reconstructed sidewalk



Area 4 Suggested Improvements



LEGEND

- UTILITY POLE
- UTILITY POLE WIT LIGHT
- HYDRANT
- TRAFFIC SIGN
- EXISTING RIGHT OF WAY
- PROPOSED NEW SIDEWALK
- REPLACE EXISTING SIDEWALK

Area 4 Suggested Improvements

- § Construct bump-out for added crosswalk across Sprague St
- § Construct new wheelchair ramps to connect with existing crosswalk across Durham Rd and proposed crosswalk across Sprague St
- § Install new Rectangular Rapid Flashing Beacons (RRFB) at Sprague St crosswalk
- § Reset existing guardrail to accommodate new ramps and RRFB

Area 4 Suggested Improvements

§ RRFB (Rectangular Rapid Flashing Beacon)



Overall Improvements

- § New/reconstructed sidewalks to be asphalt w/ exception of sidewalk in front of Blue Jay & Village Manor
- § New/reconstructed ramps to be concrete w/ detectable panels
- § Curbing to be vertical granite w/ the exception of the intersection of Sherman and Holmes

Questions/Comments?

