Planning and Zoning Department
Telephone (203) 452-5044
Fax (203) 452-5169

Town of Trumbull
CONNECTICUT

Town Hall
5866 Main Street
Trumbull, Connecticut 06611

PLANNING AND ZONING COMMISSION

To: MEMBERS OF THE PLANNING AND ZONING COMMISSION
RE: REGULAR MEETING – **WEDNESDAY, September16, 2020**

The Planning and Zoning Commission will hold a Regular Meeting on Wednesday, September 16th, 2020 at 7:00 p.m. via videoconferencing.

AGENDA

PUBLIC HEARING
7:00 P.M.

PLEDGE OF ALLEGIANCE

ROLL CALL

PUBLIC HEARING

SPECIAL PERMIT/SITE PLAN/ZONE CHANGE/OTHER

1. **54 Cricket Ln.** Applicant is requesting a Special Permit to establish a 835 sq. ft. 2 bedroom Accessory Apartment in a Residence AA zone pursuant to Art. II, Sec. 1.2.2.7, of the Town of Trumbull Zoning Regulations. **File:#20-08**
2. **225 Strobel Rd.** Applicant is requesting a Special Permit to establish a 550 sq. ft. 1 bedroom Accessory Apartment in a Residence AA zone pursuant to Art. II, Sec. 1.2.2.7, of the Town of Trumbull Zoning Regulations. **File:#20-10**
3. **56 Commerce Dr.** Applicant Make A Wish Foundation of Ct, Inc. is requesting a modification of their Special Permit / Site Plan to remove 9 parking spaces on the west side of the main parking lot. Pursuant to Art. II Section 4.3 and Art. XV of the Town of Trumbull Zoning Regulations. **File:#20-09**
4. **7120 Main Street:** Applicant, Amazon.com Services LLC, is requesting a Special Permit with a site plan to modify and restructure the parking area and traffic flow as previously

approved in December 2019 pursuant to Art. II, Sec. 4.2 and Art. XV, of the Town of Trumbull Zoning Regulations. **File#20-07**

REGULAR MEETING

ACCEPTANCE OF MINUTES
Acceptance of the Minutes from the August 19, 2020 Planning and Zoning Regular Meeting.

Acceptance of the Minutes from the August 26, 2020 Planning and Zoning Special Meeting.

Join the meeting online:
https://zoom.us/j/93383779586?pwd=TGMvOExLVEFRYm42QVFsN29TMVZaQT09
Webinar ID: 933 8377 9586
Password: 559984

Join by telephone:
(312) 626-6799 or (877) 853-5257 (Toll Free)
Webinar ID: 933 8377 9586

Dated at Trumbull, CT this 9th day of September, 2020.

By: Linda Finger, Clerk

Plans for the above listed applications are on file for public inspection in the office of the Planning and Zoning Commission and online on the Town of Trumbull website.

COMMISSION MEMBERS: PLEASE NOTIFY Linda Finger, Clerk, AT 203-452-5044 or lfinger@trumbull-ct.gov, IF YOU ARE UNABLE TO ATTEND.

Planning and Zoning
Department
Telephone (203) 452-5044
Fax (203) 452-5169

Town of Trumbull
CONNECTICUT

Town Hall
5866 Main Street
Trumbull, Connecticut 06611

PLANNING AND ZONING DEPARTMENT

APPLICATION FOR SPECIAL PERMIT FOR ACCESSORY APARTMENT

RECEIVED
AUG 3 1 2020
By PZC # 20-08
PLANNING & ZONING

Property located in:
- ☐ Residence Zone A
- ☐ Residence Zone AA
- ☐ Residence Zone AAA

Applicant: Elizabeth Constante

Address of Applicant: 54 Cricket Lane Trumbull, CT

Telephone Number: Day 203-209-4216 Evening same

Email Address: econstantemeleri@gmail.com

Location of Premises: 54 Cricket Lane

Assessor's Map No.: _____ Parcel No.: _____ Lot No.: Lot #13

Trumbull Land Records: Volume: _____ Page: _____

Owner of Record: Marco and Elizabeth Constante

Address of Owner of Record: 54 Cricket Lane, Trumbull, CT 06611

Description of Proposed Request, including specific use to be conducted:
Addition of the existent property for an accesory apartment for my elderly parents.

State if any Wetlands are located on the property ☐ YES ☑ NO
(If yes, then review is required by Inlands Wetlands)

Signature of Applicant: Elizabeth Constante

Signature of Owner of Record: Elizabeth Constante

A FEE IN ACCORDANCE WITH APPROVED FEE SCHEDULE MUST ACCOMPANY THIS APPLICATION. Make check payable to TOWN OF TRUMBULL.

FOR OFFICE USE ONLY

Date Application and Fee Received: _____ By: _____

Date of Public Hearing: _____ Date Action Taken: _____

List of Abutters Submitted: _____

SPECIAL PERMIT APPLICATION FOR ACCESSORY APARTMENT CHECK LIST

ACCESSORY APARTMENT REQUIREMENTS:

☑ NUMBER OF BEDROOMS 2

☑ MINIMUM - 300 SQUARE FEET

835 TOTAL APARTMENT SQ. FT.

☑ TOTAL FLOOR AREA (MAIN RESIDENCE AND APARTMENT) (REFER TO FIELD CARD FOR CURRENT SQ. FT. OF HOUSE)

3,029 TOTAL SQ. FT.

EXAMPLE:

TOTAL FLOOR AREA OF MAIN HOUSE	2,000 sq. ft.
TOTAL FLOOR AREA OF PROPOSED APARTMENT	500 sq. ft.
TOTAL AREA IN SQ. FT.	2,500 sq. ft.
MAXIMUM APARTMENT – 30% OF TOTAL FLOOR AREA	750 sq. ft.

APARTMENT LIVING AREA CANNOT EXCEED 750 SQ. FT. (30% OF TOTAL FLOOR AREA.)

☑ SINGLE FAMILY HOME APPEARANCE

☑ FOUR (4) OFF-STREET PARKING SPACES

☑ APPROVAL OF HEALTH DISTRICT (SEPTIC)/SEWER AUTHORITY

SPECIAL PERMIT APPLICATION REQUIREMENTS:

☑ SPECIAL PERMIT APPLICATION – COMPLETE **WITH SIGNATURES**
ASSESSORS MAP, PARCEL, LOT NUMBER - CAN BE OBTAINED IN TAX ASSESSORS OFFICE

☑ COPY OF OWNERS DEED (TOWN CLERK)

☑ COPY OF FIELD CARD (TAX ASSESSOR)

☑ NOTARIZED OWNER/OCCUPANT AFFIDAVIT

☑ **12** COPIES OF SITE PLAN WITH BLOCK SHOWING PROPOSED VS. MINIMUM LOT AND BUILDING REQUIREMENTS.

☑ FLOOR PLAN OF HOUSE AND APARTMENT (1"=4')

☑ ARCHITECTURAL DRAWINGS - REQUIRED FOR EXPANSION OF EXISTING STRUCTURE

☑ DIGITAL COPY OF ENTIRE APPLICATION (FLASH DRIVE)

☐ ONE COPY OF NOTIFICATION OF APPLICATION LETTER TO PROPERTY OWNERS WITHIN 150 FEET
LETTERS SHALL BE POSTMARKED NOT LESS THAN **TWELVE (12) DAYS** PRIOR TO SCHEDULED PUBLIC HEARING DATE.

☐ NEIGHBORS MAILING LIST

☐ CERTIFICATE OF MAILING – FILED NOT LESS THAN **FIVE (5) DAYS** PRIOR TO HEARING

TOWN OF TRUMBULL
SEWER COMMISSION

Permit **No.**—10005

CBYD# 20154402624

D&P Const.

RESIDENTIAL OR COMMERCIAL SEWER CONNECTION APPLICATION

To the TOWN OF TRUMBULL: The undersigned, being the Owner or Agent for property located at 54 Cricket Lane does hereby request a permit to install and connect a building sewer to serve the residence or commercial building at said location.

1. The following indicated fixtures will be connected to the proposed building sewer:

Fixture	Number	Fixture	Number	Fixture	Number
Showers		Lavatories		Kitchen Sinks	
Urinals		Water Closets		Laundry tubs	
Bath Tubs		Other		Garbage Disp.	

2. Contractor's Name and Address D&P Const. Inc. 29 Essex Ln. Trumbull
3. Type of Lic.: Conn. Lic. No. Trumbull Reg. No.
4. Plans and specifications for the proposed building sewer are attached hereunto as Exhibit "A", 8½"x11" plot plan of utilities, locations and property line.
5. Interior plumbing alterations required: Yes No ✓

IN CONSIDERATION OF THE GRANTING OF THIS PERMIT, the undersigned agrees:

1. To accept and abide by all the provisions of the SEWER ORDINANCE and REGULATIONS of the TOWN OF TRUMBULL, and the CONNECTICUT STATE HEALTH CODE, and all other pertinent ordinances or regulations that may be adopted in the future.
2. To notify the Sewer Commission when the building sewer is ready for inspection and connection to the public sewer, but before any portion of the work is covered.
3. To maintain the building sewer at no expense to the Town.
4. To assume the responsibility for checking elevations of the building connection and house service line to assure proper grade before actual excavation.

Signed: (Applicant)

29 Essex Ln (Address of Applicant)

$ 25.00 Permit Fee Paid check # 2427

$ ✓ Inspection Fee Paid

Application approved and Permit issued: 12-2-2015 (Date)

Certified by: Michael P. Silva

Signed: (Sewer Commission or Its Agent)

INSPECTOR'S CHECK LIST

1. Layout Inspection ✓
2. Excavation & Grade ✓
3. Bedding, Pipe Laying Align. ✓
4. Final Grade, Clean-up ✓
5. Final Disposition of Septic Tank, if any, as per Sec. IV ✓

Date Completed: 12-03-2015

PERMIT ISSUED TO D&P

Address: Above

Owner:

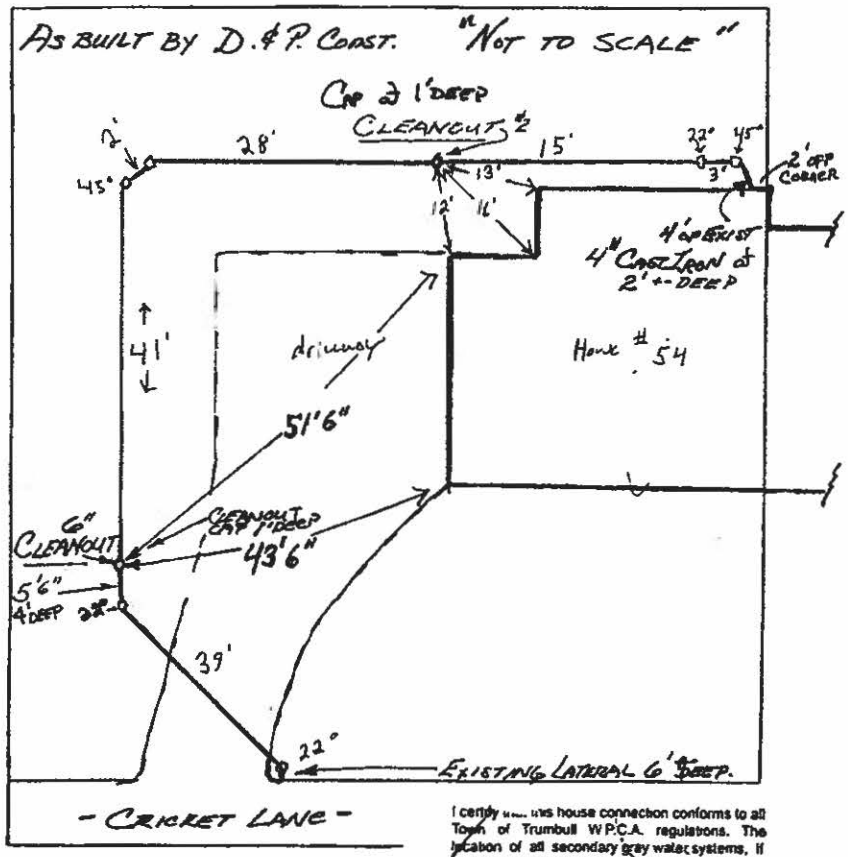
Contractor:

Trumbull Reg. No.:

Issued by:

Inspector Michael P. Silva

TOWN of TRUMBULL RESIDENTIAL SEWER AS-BUILT
CONTRACTOR: D+P Const. Inc DATE COMPLETED: 12/03/15
LOCATION OF WORK: 54 Cricket Lane



I certify that this house connection conforms to all Town of Trumbull W.P.C.A. regulations. The location of all secondary gray water systems, if applicable, have been reviewed with the property owner and the "As built" dimensions shown are accurate.

(Contractor Signature)

5. Final ... Tank, if any, as per ...

Date Completed: 12-03-2015

SWR 3285

05 D.&P. Const.

located at
a building

Number

as Exhibit "A".

ss:
.EGULATIONS c
nd all other pert

on and connecti

tion and house s

P. Sa

(or its Agent)

SUED TO D&

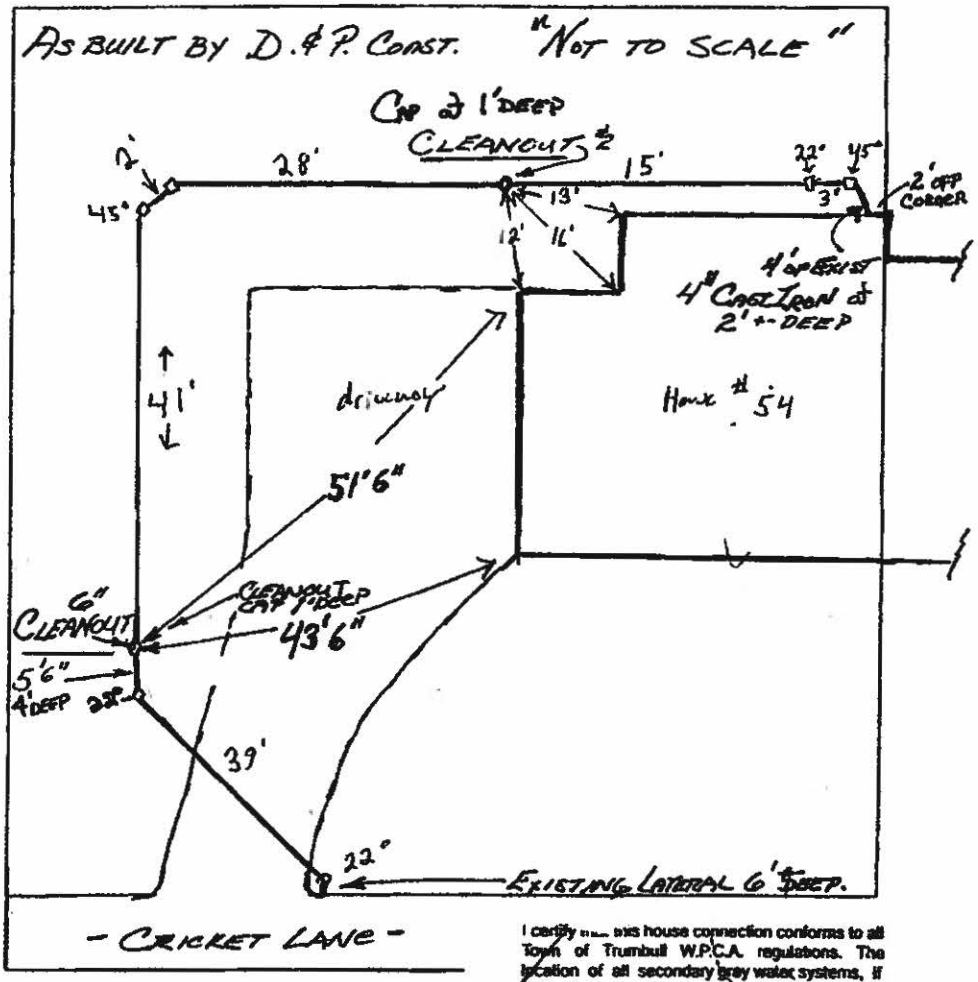
ZONE

FC P. Sa

Permit № —

Contractor to provide "As built" plans on this side of application:

TOWN of TRUMBULL RESIDENTIAL SEWER AS-BUILT
CONTRACTOR: D&P Const. Inc. **DATE COMPLETED:** 12/03/15
LOCATION OF WORK: 54 Cricket Lane

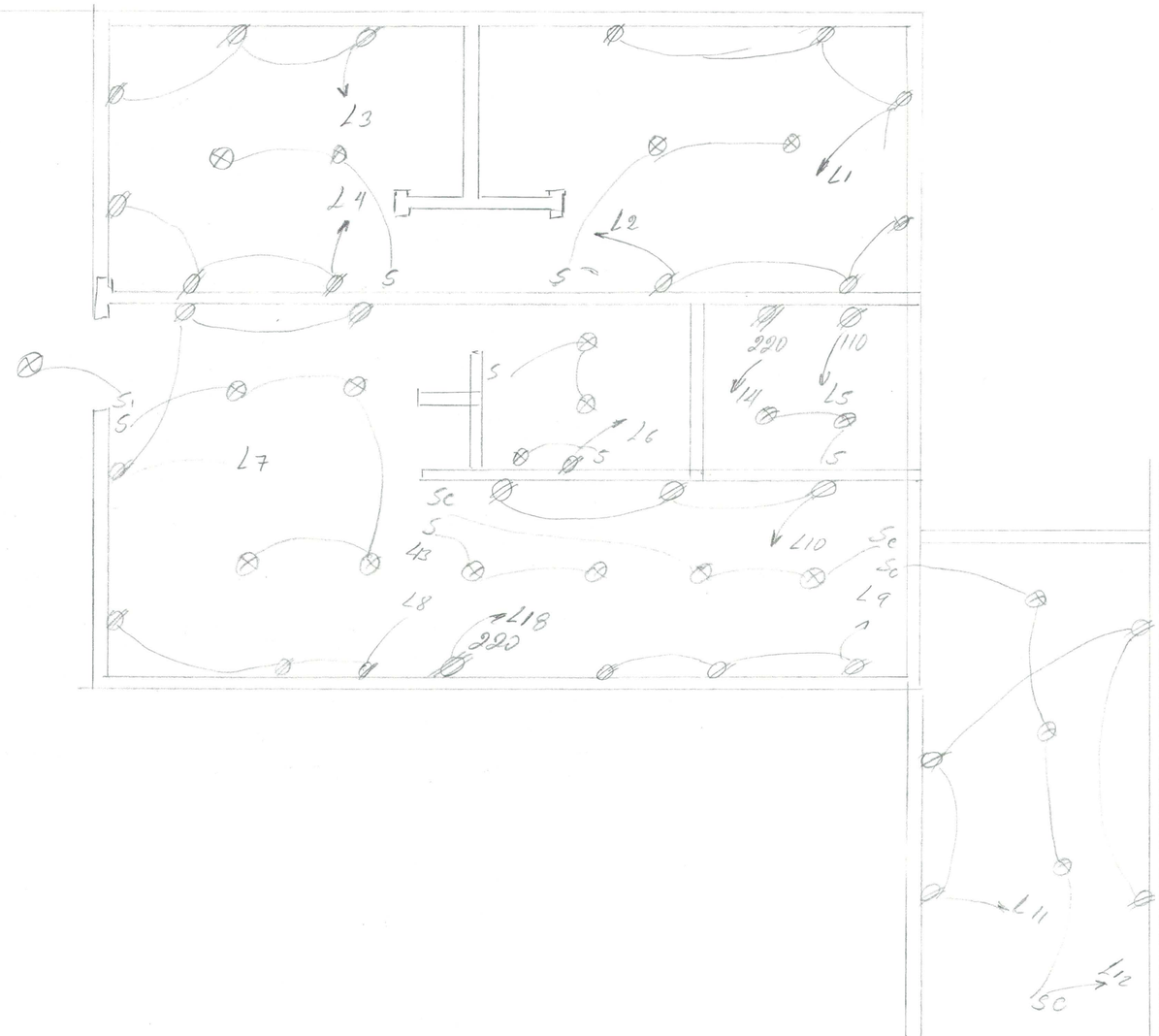


I certify that this house connection conforms to all Town of Trumbull W.P.C.A. regulations. The location of all secondary gray water systems, if applicable, have been reviewed with the property owner and the "As built" dimensions shown are accurate.

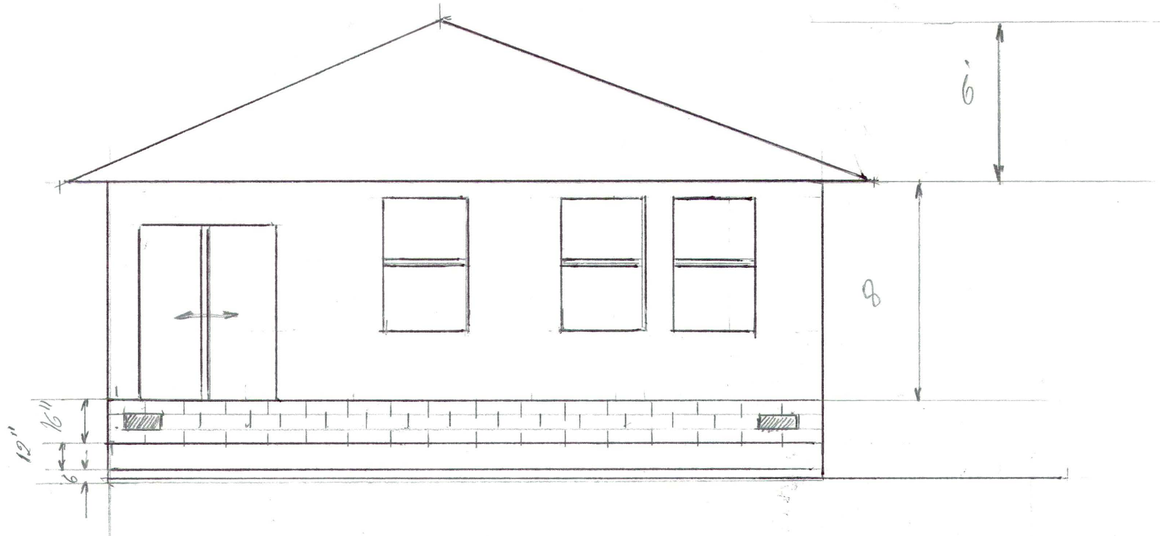
(Contractor Signature)

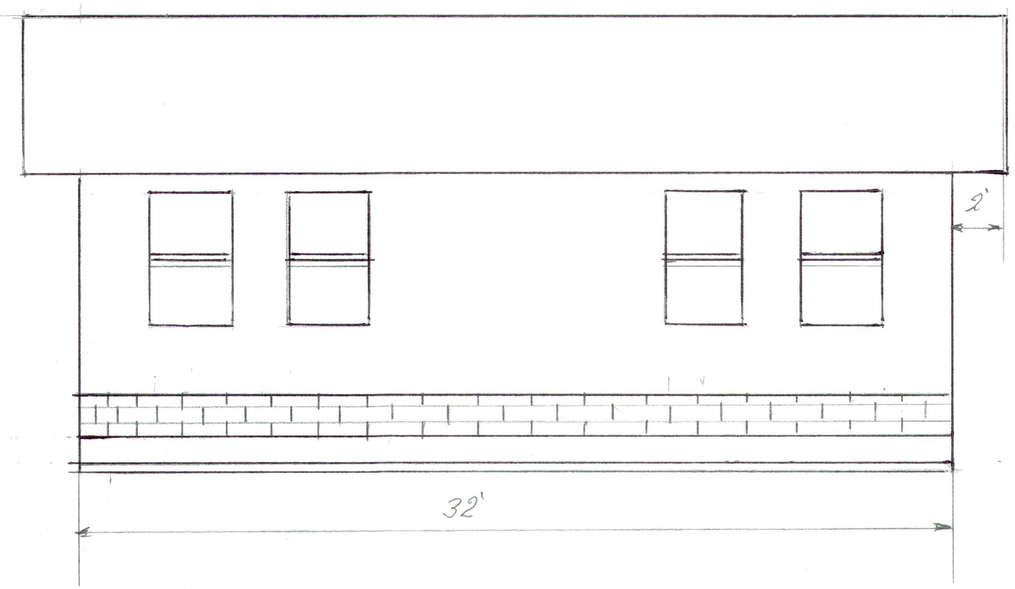
L1	120V	OUTLET
SWITCH	120V	LIGHT
L14	220V	DRY
L16	220V	AC
L18	220V	COOK
L1 -	OUTLET	
S	SWITCH	
SC	SWITCH 3 WAY	

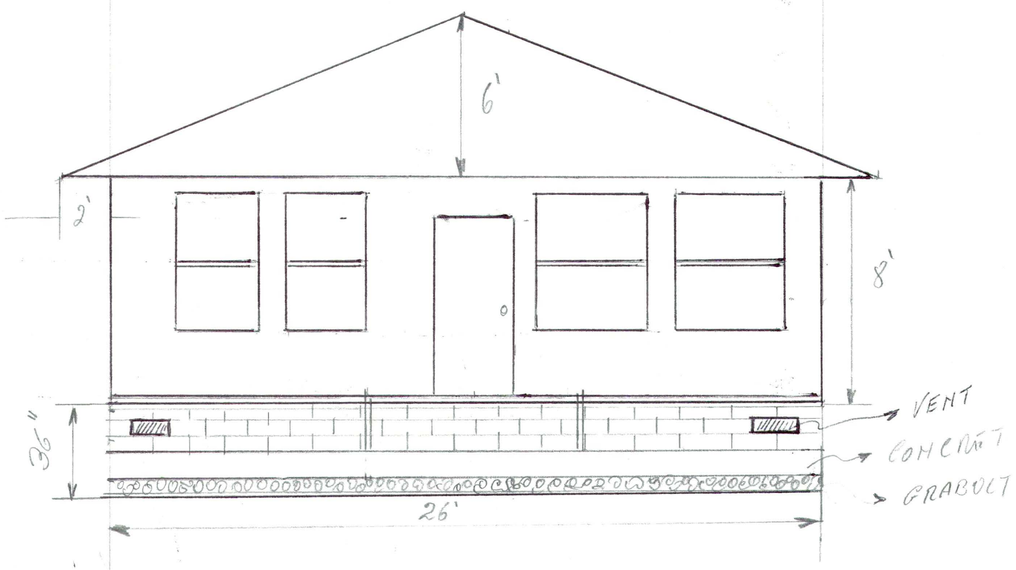
ELIZABETH CONSTANTE
54 CRICKET LANE

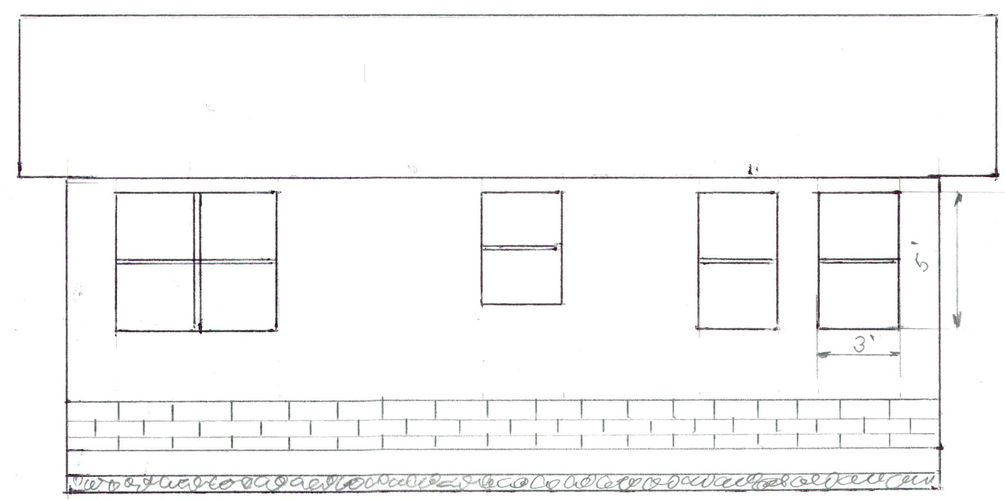


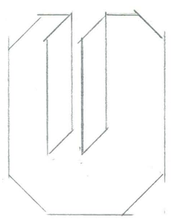
ELIZABETH CONSTANTE
54 CRICKET LANE



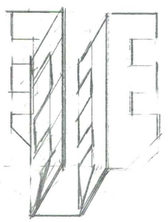




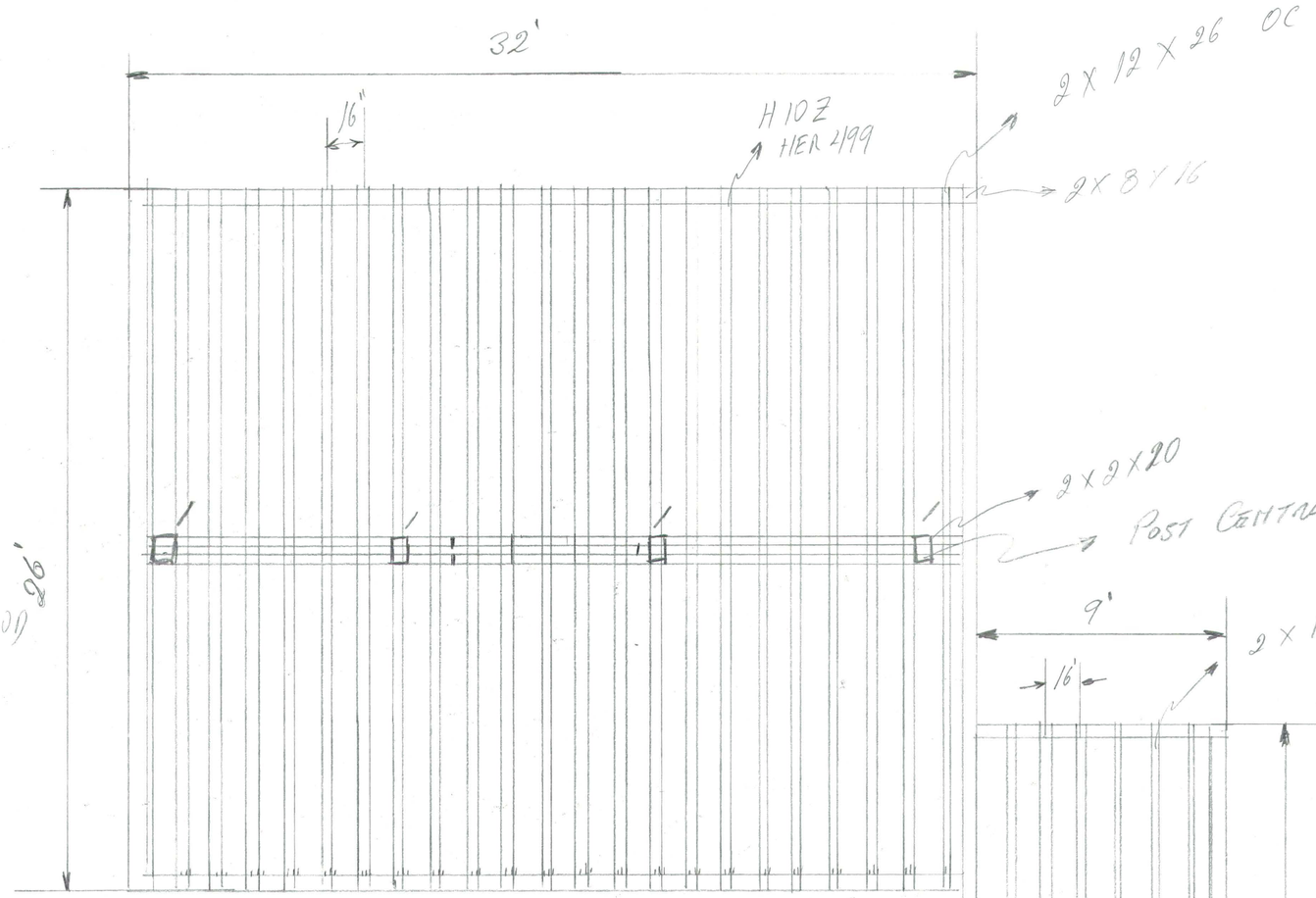


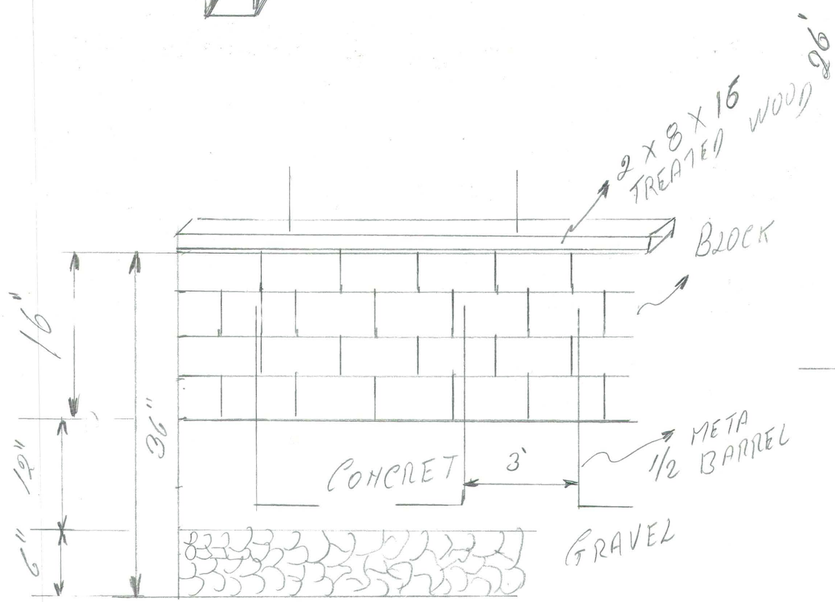


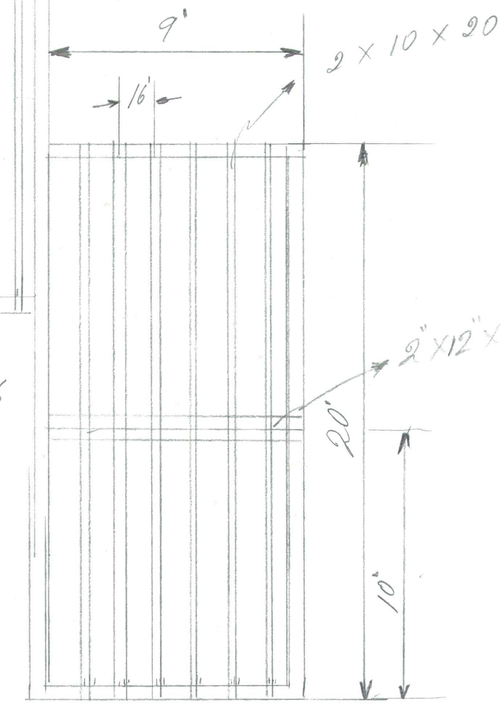
H 10 Z
HER 499

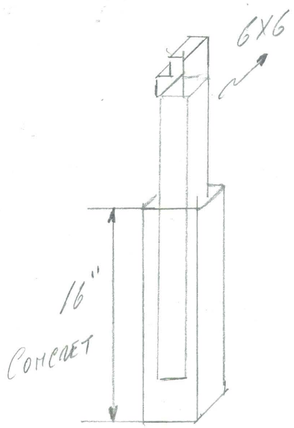


LOS 26 Z
IEC ER 5656
HER 421



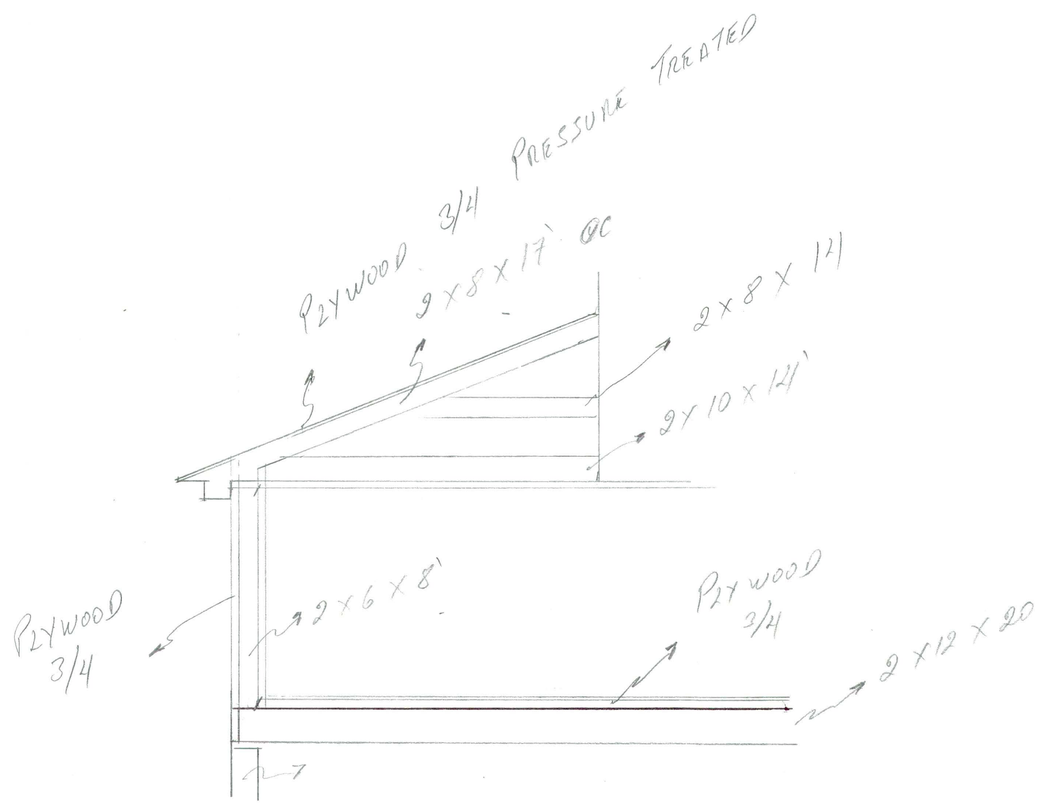






POST CENTRAL # 1

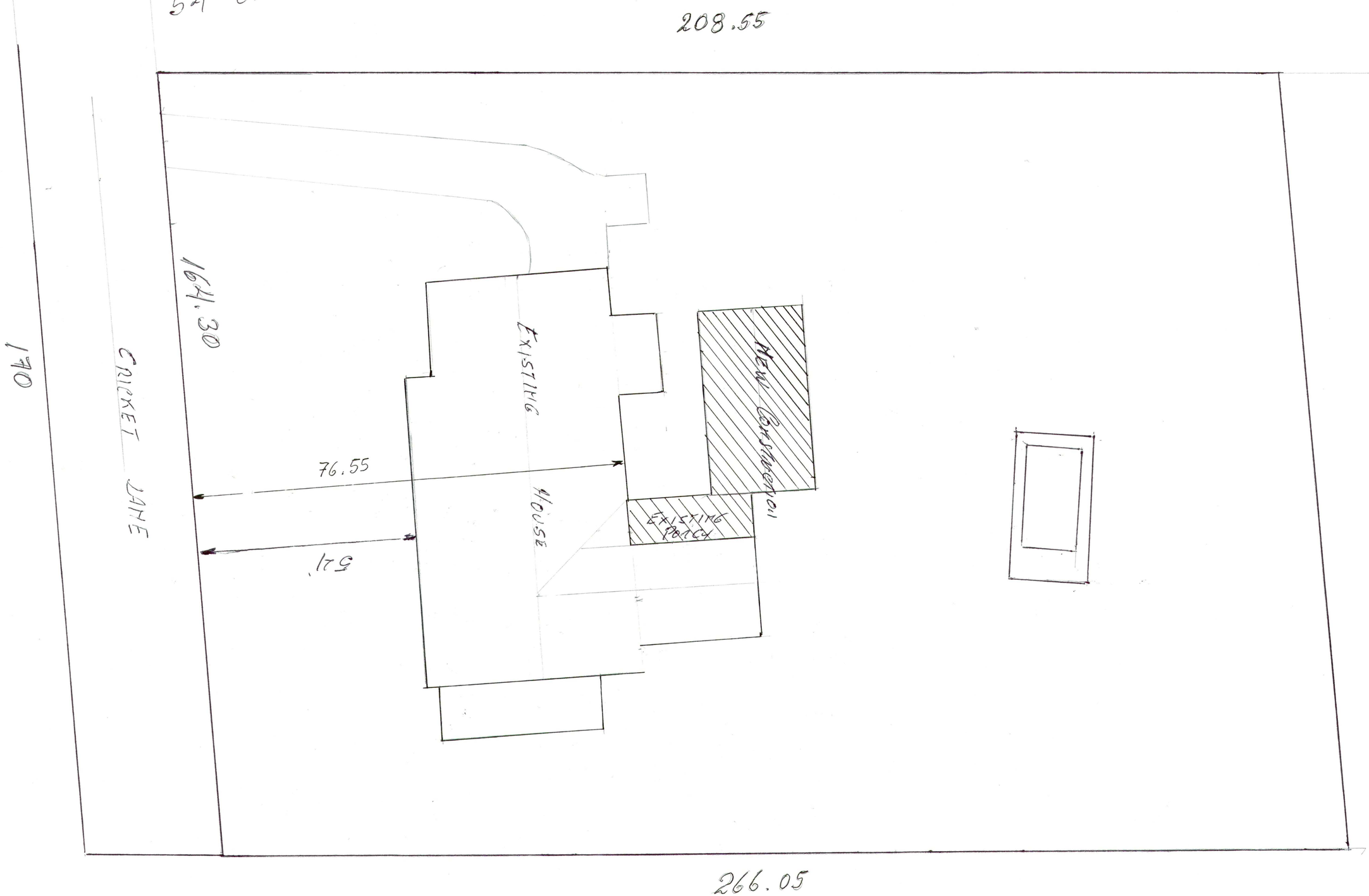
ELIZABETH CONSTANTE
54 CRICKET LANE



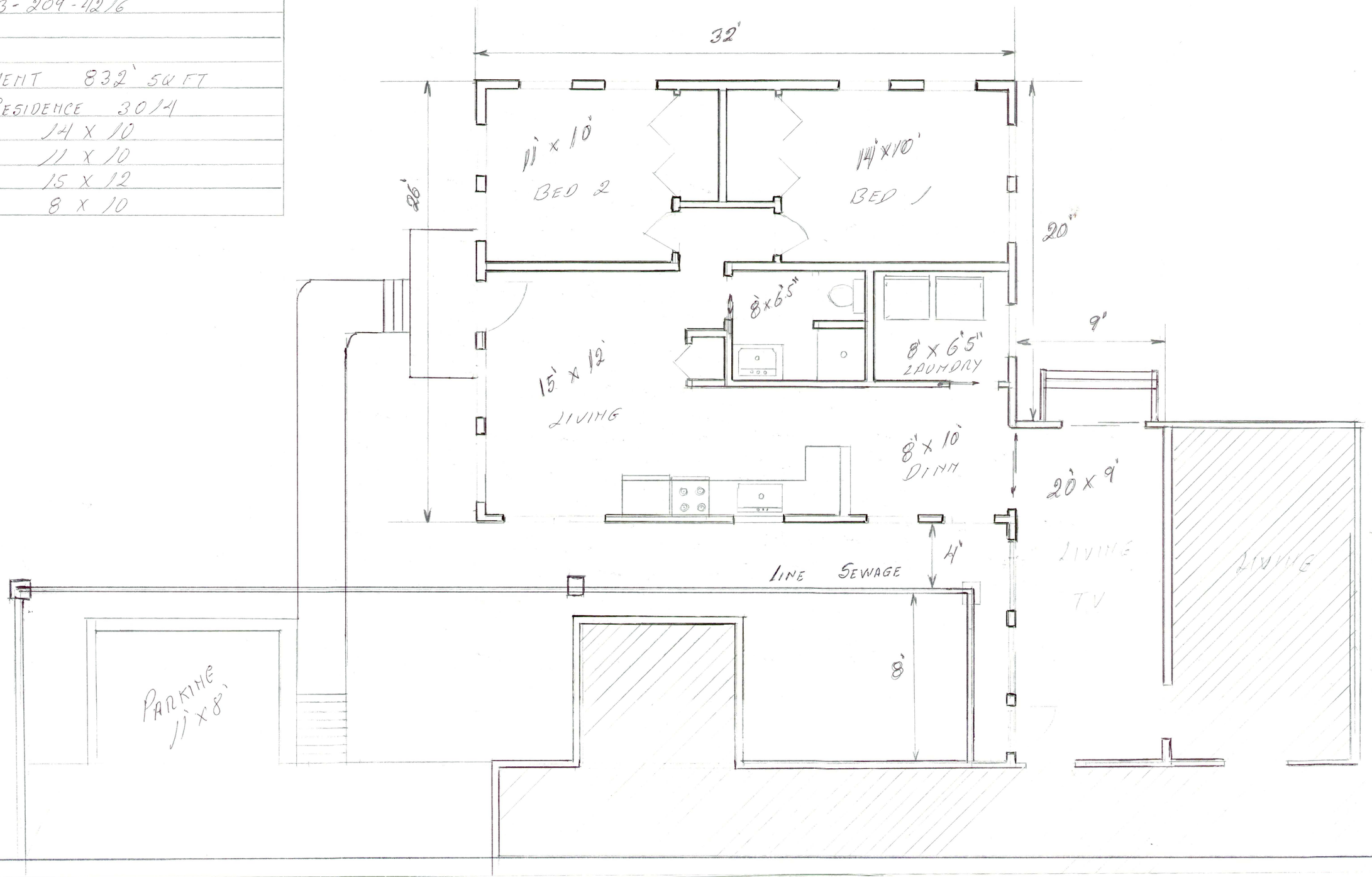
FOOM INSULATION WALLS

ELIZABETH CONSTANTE
54 CRICKET LANE

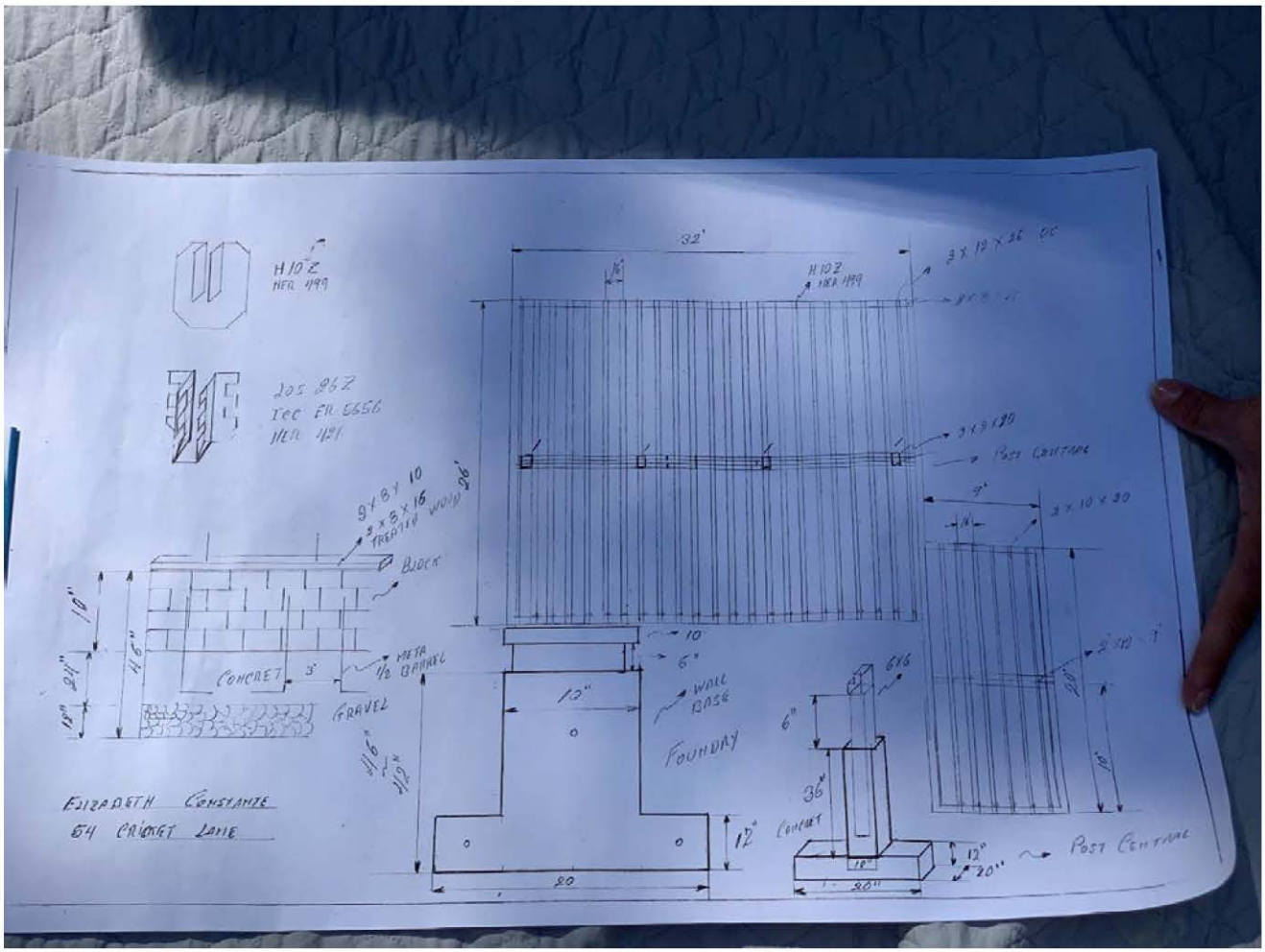
ELIZABETH COMSTAMTE
54 CRICKET LANE



ELIZABETH CONSTANTE	OWNER
54 CRICKET LANE	
TRUMBULL CT 06611	
PHONE 203-209-4216	
ESC 1" = 4'	
TOTAL APARTMENT	832' SQ FT
TOTAL MAIN RESIDENCE	3014
BEDROOM 1	14 X 10
BEDROOM 2	11 X 10
LIVING	15 X 12
DINNING ROOM	8 X 10



New Drawing for 54 Cricket Lane, Trumbull



Planning and Zoning
Department
Telephone (203) 452-5044
Fax (203) 452-5169

Town of Trumbull
CONNECTICUT

Town Hall
5866 Main Street
Trumbull, Connecticut 06611

PLANNING AND ZONING DEPARTMENT

APPLICATION FOR SPECIAL PERMIT OR SITE PLAN APPROVAL

☐ **SPECIAL PERMIT**

☒ **SITE PLAN REVIEW**

ZONE:

☐ **Commercial Zone B-C, B-C LH, TH Node, MDD**

☒ **Industrial Zone I-L, I-L2, I-L3**

☐ **Residential Zone A, AA, AAA**

☐ **Overlay Zone** _____

Location of Property: 56 Commerce Drive, Trumbull, CT 06611

Assessor's Map No.: K/09 Parcel No.: 00432800 Lot No.: 00020/000

Trumbull Land Records: Volume: 1787 Page: 0291

Applicant: Make-A-Wish Foundation of Connecticut, Inc. (Attn: Pam Keough)

Address of Applicant: 56 Commerce Drive, Trumbull, CT 06611

Telephone Number: Day 203-880-6974 Evening 203-822-1519

Email Address: pkeough@ct.wish.org

Owner of Record: Make-A-Wish Foundation of Connecticut, Inc. (Attn: Pam Keough)

Address of Owner of Record: 56 Commerce Drive, Trumbull, CT 06611

Telephone Number: 203-880-6974 (day) Email pkeough@ct.wish.org
203-822-1519 (evening)

Party to be notified: John W. Knuff, Esq., Hurwitz Sagarin Slossberg & Knuff, LLC

Address of Attorney or Agent: 147 North Broad Street, Milford, CT 06460

Telephone Number: (203) 877-8000 Email: JKnuff@hssklaw.com

Site Engineer: Joseph Lenahan, P.E., LEED AP BD+C, Fuss & O'Neill, Inc.

Address of Owner of Record: 56 Quarry Road, Trumbull, CT 06611

Telephone Number: (203) 374-3748 x3509 Email: jlenahan@fando.com

Relevant Article(s) and Section(s) of the Regulations: (i.e. Art__, Sec __)

Section 4.3 - Industrial Zone I-L3

Description of the proposed request, including specific use to be conducted:

This is a modification to the PZC Permit #19-32 which was approved November 20, 2019. Proposed improvements to the 6.50 acre property located at 56 Commerce Drive, in Trumbull, CT include the removal of the 9 parking spaces on the west side of the main parking lot. Per the Zoning Regulations, 41 parking spaces are required and 52 parking spaces are proposed. The building will continue use as commercial/ office space, with occasional events with visitors through the Make-A-Wish Foundation.

Is the property within 500 feet of another municipality?

☒ YES ☐ NO

Does this proposal involve a structure that was built before 1940?

☐ YES ☒ NO

Does this proposal require the approval of the Inland Wetlands Agency?

☐ YES ☒ NO

Are there any deed restrictions on this property that may affect this application?

☐ YES ☒ NO

Has a previous application been filed for this property?

☒ YES ☐ NO Permit #19-32

If yes, when? Nov 20, 2019 Attach a copy of decision letter. Attached

Project is to be started on Under construction Completed on September 2020

List of Federal and State permits required and their status:

Not applicable

Certification

I/We certify that all of the above information and statements contained in any documentation submitted with the application are true to the best of my/our knowledge.

I/We fully understand that the Planning and Zoning Commission reserves the right to revoke any permit should the information contained herein not be true or that the information requested by the application has not been fully disclosed.

Signature of Owner

Signature of Applicant (if not property owner)

8/19/2020

Date

Date

NOTICE: By signing this application, owner and applicant consent to site inspections by Town Staff and/or Commissioners.

A FEE IN ACCORDANCE WITH APPROVED FEE SCHEDULE MUST ACCOMPANY THIS APPLICATION. Make check payable to TOWN OF TRUMBULL.

FOR OFFICE USE ONLY

Date Application and Fee Received:_____ By:_____

Date of Public Hearing:_____ Date Action Taken:_____

List of Abutters Submitted:_____

Revised 2/25/2020

Departmental Application Sign-off

for receipt of Special Permit/Site Plans prior to scheduled Planning & Zoning Commission Public Hearing

(not to be confused with sign-off for application approval).

Return to Planning & Zoning Office when completed.

Location of Premises: _____

Permit Application Number: _____

Required:

( ) **Planning** _____ **Date:** _____

( ) **Zoning** _____ **Date:** _____

( ) **Engineering** _____ **Date:** _____

( ) **Inland Wetlands** _____ **Date:** _____

( ) **W.P.C.A.** _____ **Date:** _____

( ) **Health Dept.** _____ **Date:** _____

( ) **Fire Marshal** _____ **Date:** _____

( ) **Police Dept.** _____ **Date:** _____

( ) **Building Dept.** _____ **Date:** _____

Town of Trumbull
CONNECTICUT

Planning and Zoning Department
Telephone (203) 452-5044
Fax (203) 452-5169

Town Hall
5866 Main Street
Trumbull, Connecticut 06611

PLANNING AND ZONING DEPARTMENT

SITE PLAN CHECKLIST

1 APPLICATION

- ☒ Signed Application
- ☒ Fee
- ☒ Name, address and zoning classification of abutting property owners

2 SITE PLAN

- ☒ Scale: Not Smaller than 1" = 40'
- ☒ Certified Survey to A-2 Standards
- ☒ Name of Development
- ☒ Address of Development
- ☒ Assessor's Map and Parcel Number
- ☒ Name and Address of Developer
- ☒ Name and Address of Owner, if different
- ☒ Location Map Scale (1" = 1000')
    - Showing location of site to existing roads
    - Water courses adjoining properties
    - Any Major geographic features that would assist someone to orient themselves to the location.
- ☒ North Point
- ☒ Date of Plan Preparation
- ☒ Signature and Seal of Connecticut State Licensed Surveyor
- ☒ Distance to nearest street in all directions
- ☒ Existing Zoning Classification of Property
- ☒ Square Footage of Property
- ☒ Percentage of Existing Lot Coverage
- ☒ Percentage of Existing Open Space
- ☒ Survey Distances, Angle and Bearings

- ☒ Location of ALL Existing Buildings
- ☒ Easements and Right of Way
- ☒ Existing Contours at Two (2) Foot Intervals
- ☒ Locations of Wetlands as mapped by a Certified Soil Scientist and 100 feet Regulated Area Buffer
    - Soil Types
- ☒ Location of Existing Trees Over Eight (8) inches in diameter at Four(4) Foot Height
- ☒ Flood Plan Designation
- ☒ Development Narrative
    - Nature of Development
    - Use of Building
    - Development Timetable
    - Photographs of Existing Building and Site
- ☒ Proposed Building
    - Square Footage of any Proposed Building
    - Percentage of Building Coverage
    - Percentage of Open Space
    - Setbacks
    - Distance between Buildings
    - Number of Parking Spaces and Loading Docks
- ☒ Engineering Data
    - Ground Elevation at Each Corner of Building
    - Location of Curbs
    - Direction of Traffic Flow
    - Catch Basins, Drywells, Underground Stormwater Storage Tanks, Pipe Type and Size and Drainage Calculations
    - Parking Lot and Driveway Slope
    - Fire Hydrants and Fire Lanes
    - Locations of Buildings on Adjacent and Abutting Lots
    - Street Names
    - Location of Utilities on and Adjacent to the Site
    - Curb Cut Width and Radii
    - Parking Lot Islands and Pedestrian Travel Routes
    - Location and Elevation of Stormwater Sewers
    - Location and Elevations of Sanitary Sewers and Manholes
    - Signature and Seal of Connecticut Licensed Engineer

- ☐ Elevation Drawings
  - Rendering of Building
  - Front, Side and Rear Elevations
  - Façade Material and Ornaments
  - Concrete Sidewalks and Pedestrian Travel
  - Landscaping Plan Showing Travel Routes
  - Signature and Seal of Connecticut Registered Architect
- ☐ Signage
  - Location, Size and Height of Wall Signage
  - Location, Size and Height of Pole Monument Sign
  - Location of Directional Signs
  - Total Square Feet of Signage with Bulk Requirements
  - Illumination Type of Signage
- ☒ Landscaping Plan with Plan Material List
  - List of Plan Species and Specifications
  - Example of Tree and Shrub Planting Details
  - Locations of Trees and Shrubs
    - Parking Lot Shade Tree Locations
  - Location and Details of Retaining Walls and Fences
  - Location and Design of Berms and Buffers
  - Location, Type, Species and Size of Existing and Proposed Street Trees
  - Location, Height, Design and Details of Outside Storage and/or Dumpsters
  - Signature from a Licensed Landscape Architect
- ☒ Site Lighting
  - Location, Type and Size of Exterior Lighting
  - Parking Lot Lighting
  - Photometric Plan Showing Foot-candle Measurements around Property Lines
  - Height of Light Poles
  - Type of Light Fixture
  - Sketch of Fixture
- ☒ Other Information, If Necessary
  - Refer to Article XV, Section 2 of the Town of Trumbull Zoning Regulations for Required Information for Special Permit/Exception
  - Traffic Study
  - ☒ Erosion and Sediment Control Plan

Planning and Zoning
Department
Telephone (203) 452-5044
Fax (203) 452-5169

Town of Trumbull
CONNECTICUT

Town Hall
5866 Main Street
Trumbull, Connecticut 06611

PLANNING AND ZONING COMMISSION
FEE SCHEDULE

SPECIAL PERMIT/SITE PLAN:

NEW CONSTRUCTION $560.00*
OTHER $360.00*
MULTI-UNIT RESIDENTIAL:
EACH UNIT $260.00*
MINIMUM $1,060.00*
IN-LAW/ACCESSORY APARTMENTS $260.00*
TELECOMMUNICATIONS $1,560.00*
MINOR DEVIATION BY RESOLUTION OF THE COMMISSION $160.00*
HOLIDAY DECORATIONS (NON-PROFIT ORGANIZATIONS) $30.00
HOLIDAY DECORATIONS (BUSINESS/COMMERCIAL & INDUSTRIAL) .. $360.00*
PRE APPLICATION/PRELIMINARY REVIEW $100.00
EXTENSION OF TIME $100.00

ZONE CHANGE:

AMENDMENT $460.00*
BOUNDARY $460.00*

SUBDIVISION:

MINIMUM (1-5 LOTS) $560.00*
MINIMUM (6-10 LOTS) $1,060.00*
EACH LOT (OVER 10 LOTS) $160.00*
LOT LINE REVISIONS $180.00
FIRST CUT DIVISIONS OF LAND $180.00
INSPECTION FEE – 5% OF ESTIMATED IMPROVEMENT COSTS

MISCELLANEOUS:

LIQUOR LOCATION $460.00*

ZONING REGULATIONS $30.00
SUBDIVISION REGULATIONS $15.00

*STATE SURCHARGE OF $60.00 HAS BEEN ADDED

Revised: 8/01/11

Planning and Zoning
Department
Telephone (203) 452-5044
Fax (203) 452-5169

Town of Trumbull
CONNECTICUT

Town Hall
5866 Main Street
Trumbull, Connecticut 06611

PLANNING AND ZONING COMMISSION

SCHEDULE OF PLANNING AND ZONING 2020 MEETING DATES

APPLICATION SUBMISSION DEADLINE	PUBLIC HEARING DATE
Friday, December 27, 2019	Wednesday, January 15, 2020
Thursday, January 30, 2020	Wednesday, February 19, 2020
Thursday, February 27, 2020	Wednesday, March 18, 2020
Thursday, March 26, 2020	Wednesday, April 15, 2020
Thursday, April 30, 2020	Wednesday, May 20, 2020
Thursday, May 28, 2020	Wednesday, June 17, 2020
NO JULY MEETING	
Thursday, July 30, 2020	Wednesday, August 19, 2020
Thursday, August 27, 2020	Wednesday, September 16, 2020
Thursday, October 1, 2020	Wednesday, October 21, 2020
Thursday, October 29, 2020	Wednesday, November 18, 2020
Wednesday, November 25, 2020	Wednesday, December 16, 2020
Wednesday, December 30, 2020	Wednesday, January 20, 2021

PUBLIC HEARINGS BEGIN PROMPTLY AT 7:30 P.M. IN THE COUNCIL CHAMBERS

****ALL APPLICATIONS MUST BE TURNED IN BY 3 P.M. on APPLICATION DEADLINE DATE****

Ulintnn of Ulrumhull
CONNECTICUT

Planning and Zoning Department
Telephone (203) 452-5047
Fax (203) 452-5169

Town Hall
5866 Main Street
Trumbull, Connecticut 06611

PLANNING AND ZONING COMMISSION

November 26, 2019

Make-A-Wish Foundation of Connecticut
126 Monroe Turnpike
Trumbull CT 06611

Re: Application #19-32, dated 09/25/2019
Map K-09-00020-0, 56 Commerce Drive
Public Hearing Decision Date: 11/20/2019

Dear Applicant:

Your application requesting Special Permit and Site Plan to modify PZC Permit #18-40 which was filed under 60 Commerce Drive and approved October 17, 2018 to include additional site and parking improvements in an IL-3 Zone pursuant to Art. II, Sec. 4.3 of the Town of Trumbull Zoning Regulations, has been APPROVED WITH CONDITIONS.

1. Applicant must install a sidewalk across the total frontage of their center island within 12 months of the installation of the sidewalk of the adjscent property at 50 Commerce Drive.

A recording fee, in the amount of $10.00 (cash or check payable to the Town of Trumbull), shall be submitted to the Planning and Zoning office for the purpose of recording the Special Permit on the land records. Once recorded, the Special Permit becomes a permanent and official document.

The effective date of action has been set for December 7, 2019 **(expiration of appeal period).** If you have any questions about the above process, please feel free to contact us Monday through Friday, during regular business hours, at (203) 452-5044.

Very truly yours,

Rob Librandi,
Town Planner
Planning and Zoning

cc: Town Clerk, Town Engineer, Building Official, **ZEO,** Tax Assessor

Narrative

The Applicant, Make-A-Wish Foundation of Connecticut (the "Applicant"), seeks a modification to the approved site plan for the property located at 56 Commerce Drive in Trumbull (the "Property"), which was previously issued on November 20, 2019. The Applicant seeks this modification in order to remove nine (9) parking spaces that are in excess of what is required under the Town of Trumbull Zoning Regulations (the "Regulations").

The currently approved site plan requires 61 parking spaces, an allotment that is well in excess of the 41 spaces required for the Property's intended use (commercial office space). The current application seeks to reduce the total number of required parking spaces to 52, which remains in excess of what is required under the Regulations and is more than sufficient to meet the Applicant's parking needs.

Importantly, approving this modification will minimize overall site disruption on the Property by (1) reducing impervious surface area, (2) decreasing required earth excavation and fill, and (3) alleviating the need for significant improvements and alterations to the existing parking area. Decreasing the total number of required parking spaces will also reduce the total cost of this project, thereby allowing the Applicant to allocate additional funding towards its primary purpose – making life-changing wishes come true for children with critical illnesses.

Accordingly, the Applicant requests that the proposed modification to the existing site plan be approved.

Property Location: 56 COMMERCE DRIVE | MAP ID: K/09 / 00020/ 000/ | Bldg Name: | State Use: 977

Vision ID: 8889 | Account # | Bldg #: 1 of 1 | Sec #: 1 of 1 | Card 1 of 1 | Print Date: 08/27/2019 13:56

CONSTRUCTION DETAIL

Element	Cd.	Ch.	Description
Style	37		Office Bldg
Model	94		Commercial
Grade	09		C
Stories	2		2 Stories
Occupancy	1		
Exterior Wall 1	19		Brick Veneer
Exterior Wall 2			
Roof Structure	01		Flat
Roof Cover	04		Tar & Gravel
Interior Wall 1	05		Drywall
Interior Wall 2			
Interior Floor 1	14		Carpet
Interior Floor 2			
Heating Fuel	03		Gas
Heating Type	04		Forced Air
AC Type	03		Central
Bldg Use	977		Charitable Bldg
Heat/AC	01		Heat/AC Pkgs
Frame Type	06		Fireprf Steel
Baths/Plumbing	02		Average
Ceiling/Walls	05		Sus-Ceil & WL
Rooms/Prtns	02		Average
Wall Height	12		
% Comn Wall			

CONSTRUCTION DETAIL (CONTINUED)

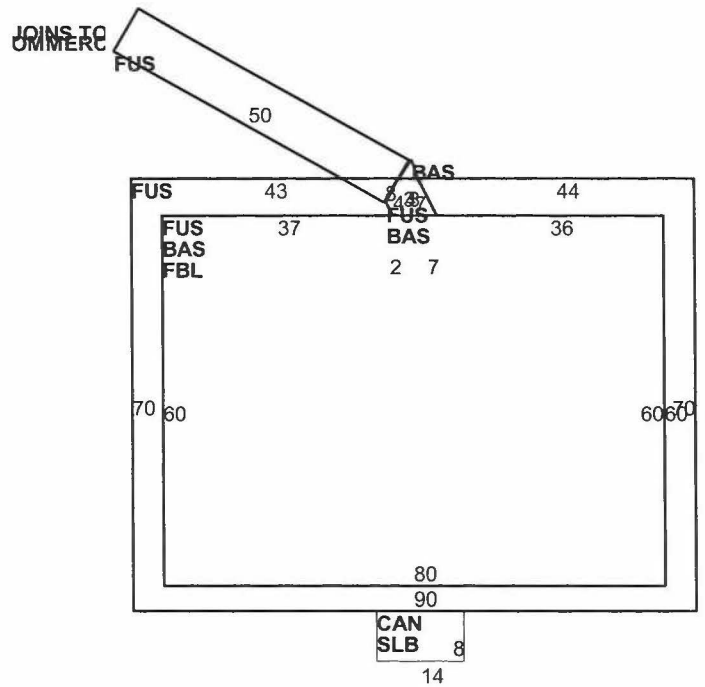
Element	Cd.	Ch.	Description

MIXED USE

Code	Description	Percentage
977	Charitable Bldg	100

COST/MARKET VALUATION

Adj. Base Rate:	92.89
Replace Cost	1,430,506
AYB	1983
Dep Code	A
Remodel Rating	
Year Remodeled	
Dep %	25
Functional Obslnc	
External Obslnc	25
Cost Trend Factor	
Status	
% Complete	
Overall % Cond	50
Apprais Val	715,300
Dep % Ovr	0
Dep Ovr Comment	
Misc Imp Ovr	0
Misc Imp Ovr Comment	
Cost to Cure Ovr	0
Cost to Cure Ovr Comment	



OB-OUTBUILDING & YARD ITEMS(L) / XF-BUILDING EXTRA FEATURES(B)

Code	Description	Sub	Sub Descript	L/B	Units	Unit Price	Yr	Gde	Dp Rt	Cnd	%Cnd	Apr Value
PAV1	Paving Asph.			L	29,00	2.10	1983			A	50	30,500
LT1	Light - 1			L	9	1,985.00	2005			E	90	16,100
LT2	Light - 2			L	1	2,935.00	2005			E	90	2,600
ELV	Elevator	P	Passenger	B	1	75,000.00	1990		1		100	37,500
SPR	Sprinklers	WT	Wet	B	15,93	2.20	1990		1		100	17,500

BUILDING SUB-AREA SUMMARY SECTION

Code	Description	Living Area	Gross Area	Eff. Area	Unit Cost	Undeprec. Value
BAS	First Floor	4,838	4,838	4,838	92.89	449,402
CAN	Canopy	0	112	22	18.25	2,044
FBL	Fin Bsmt Living Area	4,800	4,800	3,840	74.31	356,698
FUS	Finished Upper Story	6,700	6,700	6,700	92.89	622,363
SLB	Slab	0	112	0	0.00	0
	Ttl. Gross Liv/Lease Area:	16,338	16,562			1,430,506

Property Location: 56 COMMERCE DRIVE | MAP ID: K/09 / 00020/ 000/ | Bldg Name: | State Use: 977

Vision ID: 8889 | Account # | Bldg #: 1 of 1 | Sec #: 1 of 1 | Card 1 of 1 | Print Date: 08/27/2019 13:56

CURRENT OWNER	TOPO.	UTILITIES	STRT./ROAD	LOCATION
MAKE-A-WISH FOUNDATION OF CT				
126 MONROE TURNPIKE				
TRUMBULL, CT 06611				
Additional Owners:				

SUPPLEMENTAL DATA

Other ID:	00432800	Dev Lot:	LOT 4
Census Trac:	0905	Survey Map:	
Fire Dist:	N	Survey Map:	
Border Prop		Section # :	A4
Voting Dist		CB Letter:	
GIS ID: 00432800		ASSOC PID#	

CURRENT ASSESSMENT

Description	Code	Appraised Value	Assessed Value
EX COM LN	21	1,660,300	1,162,210
EX COM BL	22	770,300	539,210
EX CM OTB	25	49,200	34,440
	Total	2,479,800	1,735,860

6144 TRUMBULL, CT

VISION

RECORD OF OWNERSHIP

	BK-VOL/PAGE	SALE DATE	q/u	v/i	SALE PRICE	V.C.
MAKE-A-WISH FOUNDATION OF CT INC	1787/ 291	06/06/2019	Q	I	2,100,000	
CITY PARK COMMERCE DRIVE LLC &	1666/ 601	06/25/2014	Q	I	4,450,000	
PILOT CORP OF AMERICA	470/ 50	10/13/1982	U	I	0	

PREVIOUS ASSESSMENTS (HISTORY)

Yr.	Code	Assessed Value	Yr.	Code	Assessed Value	Yr.	Code	Assessed Value
2018	2-1	1,595,370	2017	2-1	1,595,370	2016	2-1	1,595,370
2018	2-2	527,100	2017	2-2	527,100	2016	2-2	527,100
2018	2-5	197,190	2017	2-5	197,190	2016	2-5	197,190
2018	3-2	1,537,760	2017	3-2	1,537,760	2016	3-2	1,537,760
2018	3-3	13,510	2017	3-3	13,510	2016	3-3	13,510
	Total:	3,870,930		Total:	3,870,930		Total:	3,870,930

EXEMPTIONS

Year	Type	Description	Amount
		Total:	

OTHER ASSESSMENTS

Code	Description	Number	Amount	Comm. Int.

This signature acknowledges a visit by a Data Collector or Assessor

ASSESSING NEIGHBORHOOD

NBHD/ SUB	NBHD Name	Street Index Name	Tracing	Batch
5/A				

APPRAISED VALUE SUMMARY

Appraised Bldg. Value (Card)	715,300
Appraised XF (B) Value (Bldg)	55,000
Appraised OB (L) Value (Bldg)	49,200
Appraised Land Value (Bldg)	1,660,300
Special Land Value	0
Total Appraised Parcel Value	2,479,800
Valuation Method:	C
Adjustment:	0
Net Total Appraised Parcel Value	**2,479,800**

NOTES

FMR PILOT PEN CORP OFCS

ELV = 3 STOPS

2019 LAND SPLIT SEE 70 COMMERCE

56 USED TO BE KNOWN AS 60

BUILDING PERMIT RECORD

Permit ID	Issue Date	Type	Description	Amount	Insp. Date	% Comp.	Date Comp.	Comments
CO1419560		CM	Commercial	770,000		0		RECONFIG ENTIRE RI
CO1726456		CM	Commercial	49,600		100	10/01/2017	LOBBY IMPROV AND
CO1726480	03/09/2017	CM	Commercial	96,783		100	10/01/2017	MODERNIZE ELEVAT

VISIT/ CHANGE HISTORY

Date	Type	IS	ID	Cd.	Purpose/Result
06/10/2019	7	5	MD	11	QC - Check
01/17/2012	1	5	REV	41	Hearing-Change
01/27/2006			JL	41	Hearing-Change
07/19/2005	1	5	TH	00	Measur+Listed

LAND LINE VALUATION SECTION

B #	Use Code	Use Description	Zone	D	Front	Depth	Units		Unit Price	I. Factor	S.A.		C. Factor	ST. Idx	Adj.	Notes- Adj	Special Pricing		S Adj Fact	Adj. Unit Price	Land Value
1	977	Charitable Bldg	IL-3				6.50	AC	175,000.00	1.0066	5		1.00	545	1.45				1.00		1,660,300

Total Card Land Units: 6.50 AC | Parcel Total Land Area: 6.5 AC | Total Land Value: 1,660,300

Doc ID: 004919010005 Type: LAN
Book 1787 Page 291 - 295
File# 8956

RECORD & RETURN TO:
First American Title Insurance Company
600 Summer Street, 6th Fl.
Stamford, CT 06901
Attn: P. Davis

LIMITED WARRANTY DEED

CITY PARK COMMERCE DRIVE, LLC a Connecticut Limited Liability Company and **CH COMMERCE DRIVE ASSOCIATES, LLC**, a Connecticut Limited Liability Company, with offices at 65 Locust Ave., New Canaan, CT, hereafter referred to as the "Grantors," in consideration of the sum of Two Million One Hundred Thousand Dollars & 00/100 ($2,100,000.00) received to its full satisfaction of **MAKE-A-WISH FOUNDATION OF CONNECTICUT, INC.**, a Connecticut non-stock Corporation, with offices at 126 Monroe Turnpike, Trumbull, CT, hereafter referred to as the "Grantee", hereby gives, grants, bargains, sells and conveys unto the said GRANTEE, all that certain piece or parcel of land more particularly described in **Schedule A** attached hereto, subject to such additional matters set forth on **Schedule B** attached hereto and made a part hereof.

TO HAVE AND TO HOLD the premises hereby conveyed, with the appurtenances thereof, unto Grantee, its heirs and assigns forever, to its and its own proper use and behoof.

AND ALSO, Grantors, for themselves, their heirs, successors and assigns, do hereby covenant with Grantee, its heirs, successors and assigns, that Grantors have not done or suffered anything whereby the premises have been encumbered, except as may be set forth herein.

AND FURTHERMORE, Grantors, their heirs, successors and assigns, do hereby covenant with Grantee, its heirs, successors and assigns, to warrant and defend the premises hereby conveyed to the Grantee, its heirs, successors and assigns, against the claims and demands of any and all persons claiming by, through or under the Grantors, but against no others.

IN WITNESS WHEREOF, these presents have been executed on this the 4th day of June, 2019

Witnesses:

William Randon

Tyler Gilsenan

Witnesses: Tyler Gilsenan

CITY PARK COMMERCE DRIVE, LLC a Connecticut Limited Liability Company

By: CH Commerce Drive Management, LLC, a Connecticut Limited Liability Company, its Manager

By: _____
Jonathan P. Garrity, duly authorized

William Randon

Tyler Gilsenan
Tyler Gilsenan

CH COMMERCE DRIVE ASSOCIATES, LLC a Connecticut Limited Liability Company

By: CH Commerce Drive Management, LLC, a Connecticut Limited Liability Company, its Manager

By: _____
Jonathan P. Garrity, duly authorized

26 250.00 Conveyance Tax Received
Suzanne Burr Monaco 5250.00
State Town Clerk of Trumbull Town

State of Connecticut
County of Fairfield ss: New Canaan

On this the 3rd day of June, 2019, before me, Nancy A. Laskowski the undersigned officer, personally appeared Jonathan P. Garrity, who acknowledged himself to be the president of CH Commerce Drive Management, LLC, the manager of CH Commerce Drive Associates, LLC, a limited liability company, and that he, as such president, being authorized so to do, executed the foregoing instrument for the purposes therein contained, by signing the name of the limited liability company by himself as member.

In witness whereof I hereunto set my hand.

Nancy A. Laskowski
Notary Public

NANCY A. LASKOWSKI
Notary Public, State of Connecticut
My Commission Expires January 31, 2020

State of Connecticut
County of Fairfield ss: New Canaan

On this the 3rd day of June, 2019, before me, Nancy A. Laskowski, the undersigned officer, personally appeared Jonathan P. Garrity, who acknowledged himself to be the president of CH Commerce Drive Management, LLC, the manager of City Park Commerce Drive, LLC, a limited liability company, and that he, as such president, being authorized so to do, executed the foregoing instrument for the purposes therein contained, by signing the name of the limited liability company by himself as member.

In witness whereof I hereunto set my hand.

Nancy A. Laskowski
Notary Public

NANCY A. LASKOWSKI
Notary Public, State of Connecticut
My Commission Expires January 31, 2020

NANCY A. LASKOWSKI NOTARY PUBLIC CONNECTICUT

SCHEDULE A

PROPERTY DESCRIPTION

ALL THAT CERTAIN piece or parcel of land, together with the buildings and improvements thereon, situated in the Town of Trumbull, County of Fairfield and State of Connecticut, and being shown and designated as "LOT 1 AREA: 283.255 SF+/- 6.50 AC +/-" on the map entitled "RESUBDIVISION PREPARED FOR CITY PARK COMMERCE DRIVE LLC & CH COMMERCE DRIVE ASSOCIATES LLC #60 COMMERCE DRIVE TRUMBULL, CONNECTICUT" dated August 9, 2018, made by The Huntington Company, LLC and on file in the Trumbull Town Clerk's Office as Map #3468

SCHEDULE B

1. Easement to The United Illuminating Company dated September 21, 1964 and recorded in Volume 167 at Page 364 and the document intending to correct such easement dated September 30, 1964 and recorded in Volume 168 at Page 191 of the Trumbull Land Records.

2. Right of way in favor of Bridgeport Hydraulic Company dated September 28, 1964 and recorded in Volume 167 at Page 578 of the Trumbull Land Records.

3. Easement to Optique DuMonde, Limited recorded April 13, 1978 in Volume 392 at Page 105 of the Trumbull Land Records.

4. Rights of others in and to the brook crossing said property.

5. Inland Wetlands and Water Courses Commission Notices recorded in Volume 462 at Page 449, in Volume 464 at Page 197 and in Volume 488 at Page 189 of the Trumbull Land Records.

6. Special Permits from the Town of Trumbull, Planning and Zoning Commission recorded in Volume 503 at Page 10, in Volume 544 at Page 49 and in Volume 629 at Page 402 of the Trumbull Land Records.

7. Access Agreement by and between Pilot Corporation of America and The Southern New England Telephone Company recorded in Volume 662 at Page 229 of the Trumbull Land Records.

8. Special Permit from the Town of Trumbull, Planning and Zoning Commission recorded December 9, 1993 in Volume 826 at Page 669 of the Trumbull Land Records.

9. Easement to The United Illuminating Company recorded in Volume 1579 at Page 477 of the Trumbull Land Records.

10. Trumbull Inland Wetlands and Watercourses Commission Permit Approval dated April 10, 2012, effective April 25, 2012. (Not found of record)

11. Special Permit from the Town of Trumbull, Planning and Zoning Commission recorded April 26, 2012 in Volume 1598 at Page 12 of the Trumbull Land Records.

12. Waiver of Right of First Refusal by and between Pilot Corporation of America and Cellco Partnership, d/b/a Verizon Wireless dated June 23, 2014 and recorded in Volume 1666 at Page 600 of the Trumbull Land Records.

13. Special Permit from the Town of Trumbull, Planning and Zoning Commission recorded March 23, 2015 in Volume 1684 at Page 858 of the Trumbull Land Records.

14. Variance from the Town of Trumbull, Zoning Board of Appeals recorded October 1, 2018 in Volume 1774 at Page 158 of the Trumbull Land Records.

15. Subdivision Notice from the Town of Trumbull, Planning and Zoning Commission recorded December 10, 2018 in Volume 1777 at Page 764 of the Trumbull Land Records.

16. Notes, notations and conditions as shown on Map Nos. 1223, 2063 and 2213.

17. Terms and Conditions contained in that certain Declaration of Easements, Covenants and Restrictions, dated 6/3/19, and recorded in the Trumbull land records on 6/6/19 in Volume 1787 at page 276.

18. Any and all provisions of any ordinance, municipal regulation or public or private law which regulate the use of the Premises, including but not limited to zoning, planning and building laws, rules and regulations established in and for the Town of Trumbull

19. Real property taxes of the Town of Trumbull becoming due and payable after the date of the Deed to which this Schedule is attached,

20. Fire district taxes to the Nichols Fire District becoming due and payable after the date of the Deed to which this Schedule is attached

21. Assessment or use fees of governmental authority from municipal or public works, becoming due and payable after the date of the Deed to which this Schedule is attached

22. Such state of facts as would be disclosed by a current accurate survey and by a personal inspection of the Premises provided the same do not render title unmarketable

TOWN CLERK OFFICE, TRUMBULL, CT
RECEIVED FOR RECORD JUN 06 2019
AT 12:12 P M. ATTEST
TOWN CLERK

MAKE-A-WISH CONNECTICUT

56 COMMERCE DRIVE · TRUMBULL · CONNECTICUT

MAKE-A-WISH HEADQUARTERS

PHASE II - EXTERIORS

SITE PLAN APPLICATION

AUGUST 27, 2020

PREPARED FOR

MAKE-A-WISH FOUNDATION OF CONNECTICUT, INC.
56 COMMERCE DRIVE
TRUMBULL, CT 06611

PREPARED BY

FUSS & O'NEILL
56 QUARRY ROAD
TRUMBULL, CONNECTICUT 06611
203.374.3748
www.fando.com

SHEET INDEX

SHEET No.	SHEET TITLE
COV-01	COVER SHEET
AL-1	ALTA/ACSM LAND TITLE SURVEY
GI-001	GENERAL NOTES & LEGEND
CV-101	500' RADIUS CONTOUR MAP
EX-101	EXISTING SITE CONDITIONS
CS-101	SITE LAYOUT PLAN
CG-101	SITE GRADING & DRAINAGE PLAN
CE-101	SITE PREPARATION, EROSION & SEDIMENTATION PLAN
CE-501	EROSION AND SEDIMENT CONTROL DETAILS
CD-501 - 503	CONSTRUCTION DETAILS
L-1.0	LANDSCAPE LAYOUT PLAN: OVERALL
L-1.1	LANDSCAPE LAYOUT PLAN: ENLARGEMENT
L-1.2	UPPER PATIO LAYOUT ENLARGEMENT
L-2.0	SITE AND LANDSCAPE DETAILS

PROJECT TEAM

AVISON YOUNG
1120 HEAD QUARTERS PLAZA
NORTH TOWER 8TH FLOOR
MORRISTOWN, NJ 07960
(973) 898-6360

BISMARK CONSTRUCTION
100 BRIDGEPORT AVE
MILFORD, CT 06460
(203) 876-8331

BAVIER DESIGN, LLC
277 ROWAYTON AVENUE
ROWAYTON, CT 06853
(203) 388-18181

WESLEY STOUT ASSOCIATES
96 MAIN STREET
NEW CANAAN, CT 06840
(203) 802-2100

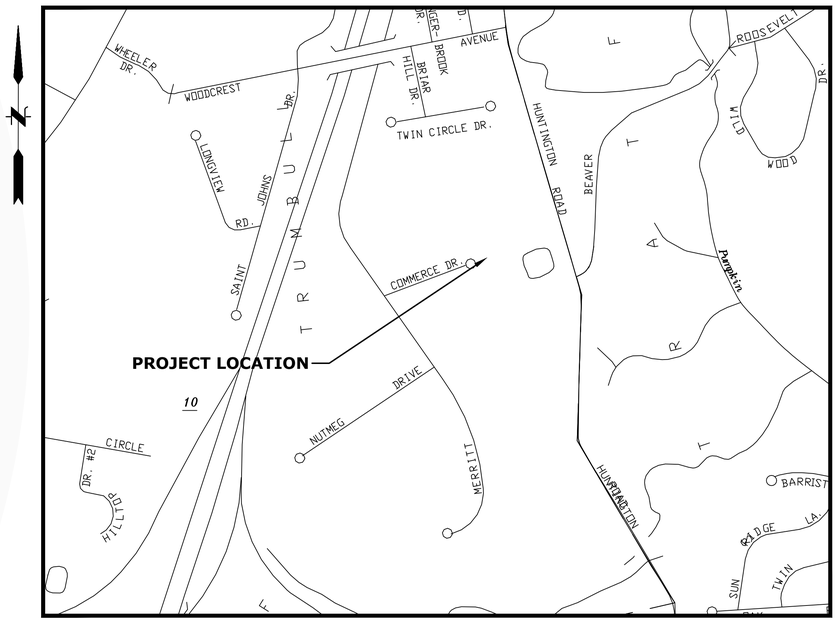
PETERSON ENGINEERING GROUP, LLC
25 VAN ZANT STREET
NORWALK, CT 06855
(203) 810-4191

HARRISON-HAMNETT, P.C.
40 KNOWLES STREET
PENNINGTON, NJ 08534
(609) 818-1808

FUSS & O'NEILL, INC.
56 QUARRY ROAD
TRUMBULL, CT 06611
(203) 374-3748

OWNER

MAKE-A-WISH FOUNDATION OF CONNECTICUT
56 COMMERCE DRIVE
TRUMBULL, CT 06611
203-880-6974



LOCATION MAP
1" = 500'

Map K-09-00020-0, 56 Commerce Drive

Special Permit and Site Plan to modify PZC Permit #18-40 which was filed under 60 Commerce Drive and approved October 17, 2018 to include additional site and parking improvements in an IL-3 Zone pursuant to Art. II, Sec. 4.3 of the Town of Trumbull Zoning Regulations

INLAND WETLANDS AND WATERCOURSES COMMISSION
Application #19-50
Meeting Decision Date: 11/12/2019

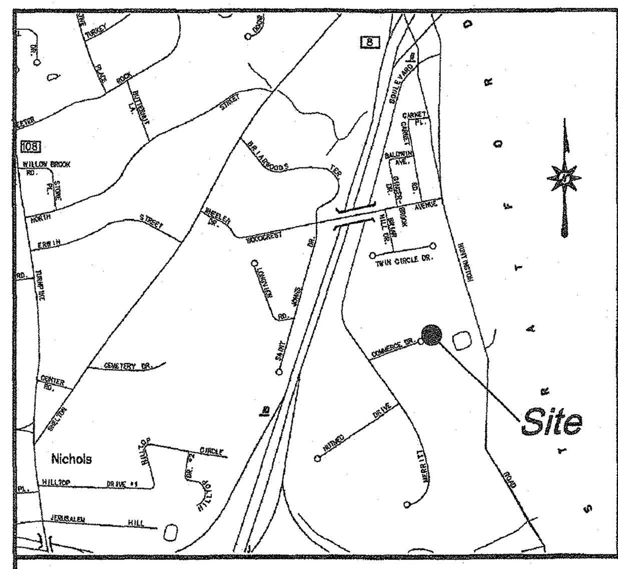
PLANNING AND ZONING COMMISSION
Application #19-32
Meeting Decision Date: 11/20/2019

STATE OF CONNECTICUT · JOSEPH E. LENZA · No. 24024 · LICENSED PROFESSIONAL ENGINEER

PROJ. No.: 20190339.A11
DATE: 8/27/2020

COV-01

File Path: \\private\dfs\CadProj\DWG\P2019\0339\A11\Civil\Plan\20190339.A11_COV01.dwg, Layout: COV-01, Plotted: Tuesday, August 25, 2020, User: rrittgers Plotter: DWG TO PDF.PC3 CTB File: FO.STB



LOCATION MAP
NOT TO SCALE

BULK AREA REQUIREMENTS

LOCATION: 60 COMMERCE DRIVE TRUMBULL, CONNECTICUT	
ZONE: IL-3 ZONE	
ITEM	REQUIREMENTS
MINIMUM LOT AREA	3 ACRES
MINIMUM STREET SETBACK	100 FEET
MINIMUM SIDE SETBACK	50 FEET
MINIMUM REAR SETBACK	50 FEET
MINIMUM RESIDENTIAL ZONE SETBACK	200 FEET
MAXIMUM BUILDING HEIGHT	40 FEET
MAXIMUM BUILDING COVERAGE	33 1/3%

REFERENCE: MAP OF TRUMBULL, CONNECTICUT, ZONING MAP, UPDATED FEBRUARY, 2011.

TITLE COMMITMENT INFORMATION

TITLE COMMITMENT REFERENCE NUMBER	RECORDING REFERENCE	DESCRIPTION	STATUS ON PLAT
12	Vol. 167, Pg. 364 Vol. 168, Pg. 191	PERPETUAL EASEMENT, PRIVILEGE AND RIGHT OF WAY IN FAVOR OF THE UNITED ILLUMINATING COMPANY	PLOTTED
13	Vol. 167, Pg. 578	RIGHT OF WAY IN FAVOR OF BRIDGEPORT HYDRAULIC COMPANY	PLOTTED
14	Vol. 187, Pg. 402	EASEMENT FOR INSTALLATION OF AND MAINTENANCE OF UTILITY LINES	PLOTTED
15	Vol. 392, Pg. 105	EASEMENT TO OPTIQUE DUMONDE	PLOTTED
16	Maps #1223, 1294, 2063, & 2213	BUFFER STRIP	PLOTTED
25	Vol. 662, Pg. 229	ACCESS AGREEMENT BY AND BETWEEN PILOT CORPORATION OF AMERICA AND THE SOUTHERN NEW ENGLAND TELEPHONE COMPANY	PLOTTED
27	Vol. 1579, Pg. 477	UTILITY EASEMENT IN FAVOR OF THE UNITED ILLUMINATING COMPANY	PLOTTED
28	Map # 2063, 2213	NOTES EASEMENT AND CONDITIONS	PLOTTED
30	Vol. 1651, Pg. 901	MEMORANDUM OF LAND LEASE AGREEMENT TO CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS	PLOTTED

REFERENCE: COMMONWEALTH LAND TITLE INSURANCE COMPANY, NO. C21118, DATED: 4/17/2014, REVISED 5/14/2014.

MAP REFERENCES

A. "BOUNDARY MAP LOT NO. 4 COMMERCE DRIVE TRUMBULL, CONNECTICUT PREPARED FOR COMMERCE DRIVE ASSOCIATES" SCALE 1"=50' DATE DEC. 4, 1981 REISSUED 5/4/82 SHEET 1 OF 1 PREPARED BY J & D KASPER & ASSOCIATES AND FILED IN THE TRUMBULL CLERKS OFFICE AS MAP 2213.

B. "RESUBDIVISION PLAN LOT NO. 4 COMMERCE DRIVE & HUNTINGTON ROAD TRUMBULL, CONNECTICUT PREPARED FOR DAVID MACK" SCALE 1"=50' DATE: FEB. 20, 1979 SHEET 2 OF 3 PREPARED BY J & D KASPER & ASSOCIATES AND FILED IN THE TRUMBULL CLERKS OFFICE AS MAP 2063.

C. "MAP OF PROPERTY FOR PAULINE NEMERGUT HUNTINGTON ROAD TRUMBULL, CONNECTICUT SCALE: 1"=30' DEC. 6, 1980 PREPARED BY CHARLES J. BUYOVSKY AND FILED IN THE TRUMBULL CLERKS OFFICE AS MAP 2690.

D. "LOT NO. 12 MERRITT PARKWAY IND. PARK HUNTINGTON ROAD TRUMBULL, CONN. SCALE 1 IN.=30 FT. OCT., 15, 1967" PREPARED BY J & D KASPER & ASSOCIATES AND FILED IN THE TRUMBULL CLERKS OFFICE AS MAP 1473.

E. "SUBDIVISION PROPERTY OF CHRISTINE LUNDGREN TRUMBULL, CONN. SCALE: 1"=40' DEC. 30, 1967" PREPARED BY DANIEL B. GUION AND FILED IN THE TRUMBULL CLERKS OFFICE AS MAP 1484.

F. "MAP NO. 2 MERRITT PARKWAY INDUSTRIAL PARK, INC. TRUMBULL, CONN. SCALE 1 IN.=100 FT. MAY 3, 1965" PREPARED BY JOSEPH T. KASPER & SONS AND FILED IN THE TRUMBULL CLERKS OFFICE AS MAP 1294.

G. "MAP NO. 3 SUBDIVISION OF LOTS IN TRUMBULL, CONN. FOR:- SPRING DEVELOPMENT CO. STRATFORD, CONN. SCALE 1 IN=30 FT. MAY 2, 1964" PREPARED BY JOSEPH T. KASPER & SONS AND FILED IN THE TRUMBULL CLERKS OFFICE AS MAP 1221.

H. "MAP NO. 1 SUBDIVISION OF LOTS MERRITT PARKWAY INDUSTRIAL PARK, INC. TRUMBULL, CONN. SCALE 1 IN.=100 FT. JUNE 3, 1964" PREPARED BY JOSEPH T. KASPER & SONS AND FILED IN THE TRUMBULL CLERKS OFFICE AS MAP 1223.

I. "PROPERTY/TOPOGRAPHIC SURVEY, LAND OF PILOT CORPORATION OF AMERICA, 60 COMMERCE DRIVE, TRUMBULL, CONNECTICUT," SCALE 1"=50', DATE 8/1/2008, PREPARED BY BL COMPANIES, MERIDEN, CT.

GENERAL NOTES

1. A) THIS MAP HAS BEEN PREPARED IN ACCORDANCE WITH THE REGULATIONS OF CONNECTICUT STATE AGENCIES, SECTIONS 20-300b-1 THROUGH 20-300b-20 AND THE "STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPTEMBER 26, 1996.

   B) THIS PLAN CONFORMS TO HORIZONTAL ACCURACY CLASS A-2 AND TOPOGRAPHIC ACCURACY T-2.

   C) BOUNDARY DETERMINATION IS BASED UPON A DEPENDANT RESURVEY OF MAP REFERENCES A, B AND G AND DEED VOLUME 470 PAGE 50.

   D) THE TYPE OF SURVEY PERFORMED IS A ALTA/ACSM LAND TITLE SURVEY AND IS INTENDED TO DEPICT THE POSITION OF THE BOUNDARIES WITH RESPECT TO MONUMENTATION FOUND, STRUCTURES, EASEMENTS, ENCROACHMENTS, VISIBLE UTILITIES, ROADWAYS AND CONTOURS.

2. NORTH ARROW AND BEARINGS ARE BASED ON MAP REFERENCES A AND B.

3. ELEVATIONS REFER TO NGVD 1929 DATUM AND ARE BASED ON TOWN BENCHMARK #755.

4. PARCEL IS LOCATED IN FEMA FIRM ZONE "X", (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) AS DEPICTED ON F.I.R.M. COMMUNITY PANEL NO. 0900147 0432 F PANEL 432 OF 626 EFFECTIVE DATE: JUNE 18, 2010.

5. THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED THOUGH THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. THE CONTRACTOR SHALL CONFIRM THE LOCATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF EXCAVATION.

6. TOTAL ONSITE PARKING IS:

   4 HANDICAP SPACES
   165 REGULAR SPACES
   =169 TOTAL SPACES

RECORD LEGAL DESCRIPTION

ALL THAT CERTAIN PIECE OR PARCEL OF LAND WITH ALL OF THE IMPROVEMENTS THEREON SITUATED IN THE TOWN OF TRUMBULL, COUNTY OF FAIRFIELD AND STATE OF CONNECTICUT, CONTAINING 14.02 ACRES AND SHOWN ON A CERTAIN MAP ENTITLED "RESUBDIVISION PLAN, LOT NO. 4, COMMERCE DRIVE & HUNTINGTON ROAD, TRUMBULL, CONNECTICUT, PREPARED FOR DAVID MACK" PREPARED BY J. & D. KASPER & ASSOCIATES, ENGINEERS, SURVEYORS, PLANNERS, BRIDGEPORT, CONNECTICUT, SCALE 1"=50' DATED FEB. 20, 1979, SHEET 2 OF 2, ON FILE IN THE TRUMBULL TOWN CLERK'S OFFICE AND FURTHER SHOWN ON A REVISION OF SAID MAP DATED DEC. 4, 1981 AND BOUNDED AND DESCRIBED AS FOLLOWS:

WESTERLY: IN PART BY LAND NOW OR FORMERLY OF DOW CORNING CORP., IN PART BY THE TERMINUS OF COMMERCE DRIVE, AS SHOWN ON SAID MAP, AND IN PART, BY LAND NOW OR FORMERLY OF OPTIQUE DUMONDE, LTD., IN ALL 793.21 FEET, SAID BOUNDARY HAVING A BEARING OF N19°37'25"W, THE TERMINI OF SAID BOUNDARY BEING MARKED BY IRON PIPES;

NORTHWESTERLY: BY LAND NOW OR FORMERLY OF OPTIQUE DUMONDE, LTD., 264.90 FEET, SAID BOUNDARY HAVING A BEARING OF N25°32'15"E, THE TERMINI OF SAID BOUNDARY BEING MARKED BY IRON PIPES;

NORTHERLY: BY LAND NOW OR FORMERLY OF CHRISTINE LUNDGREN, 47.14 FEET, SAID BOUNDARY HAVING A BEARING OF S79°31'53"E;

NORTHERLY: AGAIN, BY LAND NOW OR FORMERLY OF CHRISTINE LUNDGREN, 60.33 FEET, SAID BOUNDARY HAVING A BEARING OF N83°40'15"E;

NORTHERLY: AGAIN, BY LAND NOW OR FORMERLY OF CHRISTINE LUNDGREN, 58.83 FEET, SAID BOUNDARY HAVING A BEARING OF N75°33'27"E;

NORTHERLY: AGAIN, BY LAND NOW OR FORMERLY OF CHRISTINE LUNDGREN, 66.26 FEET, SAID BOUNDARY HAVING A BEARING OF N77°36'19"E;

NORTHERLY: AGAIN, IN PART BY LAND NOW OR FORMERLY OF CHRISTINE LUNDGREN AND IN PART BY LAND NOW OR FORMERLY OF E.V. & M.B. BOWEN, IN ALL, 51.36 FEET, SAID BOUNDARY HAVING A BEARING OF N75°24'40"E;

NORTHERLY: AGAIN, BY LAND NOW OR FORMERLY OF E.V. & M.B. BOWEN, 38.96 FEET, SAID BOUNDARY HAVING A BEARING OF N80°42'12"E;

NORTHERLY: AGAIN, BY LAND NOW OR FORMERLY OF E.V. & M.B. BOWEN, 76.08 FEET, SAID BOUNDARY HAVING A BEARING OF N76°46'19"E, ALL OF SAID NORTHERLY BOUNDARIES BEING THE CENTER LINE OF A STONE WALL;

EASTERLY: IN PART BY LAND NOW OR FORMERLY OF E.J. & A.M. OVERWISE AND IN PART BY LAND NOW OR FORMERLY OF THOMAS & CAROL DONEGAN, IN ALL, 222.47 FEET, SAID BOUNDARY HAVING A BEARING OF S25°36'55"E;

EASTERLY: AGAIN, IN PART BY LAND NOW OR FORMERLY OF THOMAS & CAROL DONEGAN, IN PART BY LAND NOW OR FORMERLY OF R.D. & L.S. SUTTON, AND IN PART BY LAND NOW OR FORMERLY OF M.H. & V.M. SHAW, IN ALL, 167.89 FEET, SAID BOUNDARY HAVING A BEARING OF S17°42'45"E;

EASTERLY: AGAIN, IN PART BY LAND NOW OR FORMERLY OF M.H. & V.M. SHAW, AND IN PART BY LAND NOW OR FORMERLY OF DORIS CHENEY AND LINDA BEEMAN, IN ALL, 205.70 FEET, SAID BOUNDARY HAVING A BEARING OF S14°15'35"E;

EASTERLY: AGAIN, IN PART BY LAND NOW OR FORMERLY OF DORIS CHENEY AND LINDA BEEMAN, AND IN PART BY LAND NOW OR FORMERLY OF PETER EVERETTS, IN ALL, 211.25 FEET, SAID BOUNDARY HAVING A BEARING OF S07°16'25"E;

SOUTHEASTERLY: BY LAND NOW OR FORMERLY OF TIMOTHY & CAROL RYAN, 24.59 FEET, SAID BOUNDARY HAVING A BEARING OF S60°35'50"W, SAID BOUNDARY BEING THE CENTER LINE OF A STONE WALL;

SOUTHEASTERLY: AGAIN, BY LAND NOW OR FORMERLY OF TIMOTHY & CAROL RYAN, 88.04 FEET, SAID BOUNDARY HAVING A BEARING OF S61°24'49"W, SAID BOUNDARY BEING THE CENTER LINE OF A STONE WALL;

SOUTHEASTERLY: AGAIN, BY LAND NOW OR FORMERLY OF TIMOTHY & CAROL RYAN, 12.65 FEET, SAID BOUNDARY HAVING A BEARING OF S67°09'05"W, SAID BOUNDARY BEING THE CENTER LINE OF A STONE WALL;

EASTERLY: AGAIN, IN PART BY LAND NOW OR FORMERLY OF TIMOTHY & CAROL RYAN, AND IN PART BY LAND NOW OR FORMERLY OF ROBERT & CAROL BRUMPER, IN ALL, 192.32 FEET, SAID BOUNDARY HAVING A BEARING OF S07°52'21"W;

NORTHERLY: AGAIN, BY LAND NOW OR FORMERLY OF ROBERT & CAROL BRUMPER, 4.00 FEET, SAID BOUNDARY HAVING A BEARING OF S80°30'31"E;

EASTERLY: AGAIN, BY LAND NOW OR FORMERLY OF C.B. & J.R. KELLY, 120.00 FEET, SAID BOUNDARY HAVING A BEARING OF S01°51'40"W;

EASTERLY: AGAIN, BY LAND NOW OR FORMERLY OF WALTER & BRIAN HOLINKO, 251.93 FEET, SAID BOUNDARY HAVING A BEARING OF S17°00'58"E;

SOUTHERLY: BY LAND NOW OR FORMERLY OF PAULINE NEMERGUT, 8.594 FEET, SAID BOUNDARY HAVING A BEARING OF S77°10'51"W;

SOUTHERLY: AGAIN, BY LAND NOW OR FORMERLY OF PAULINE NEMERGUT, 96.60 FEET, SAID BOUNDARY HAVING A BEARING OF S87°06'11"W;

SOUTHWESTERLY: BY LAND NOW OR FORMERLY OF BELMAR CORPORATION, 48.31 FEET, SAID BOUNDARY HAVING A BEARING OF N13°55'47"W;

SOUTHWESTERLY: AGAIN, BY LAND NOW OR FORMERLY OF BELMAR CORPORATION, 66.23 FEET, SAID BOUNDARY HAVING A BEARING OF N25°50'46"W;

SOUTHWESTERLY: AGAIN, BY LAND NOW OR FORMERLY OF BELMAR CORPORATION, 46.73 FEET, SAID BOUNDARY HAVING A BEARING OF N33°26'08"W;

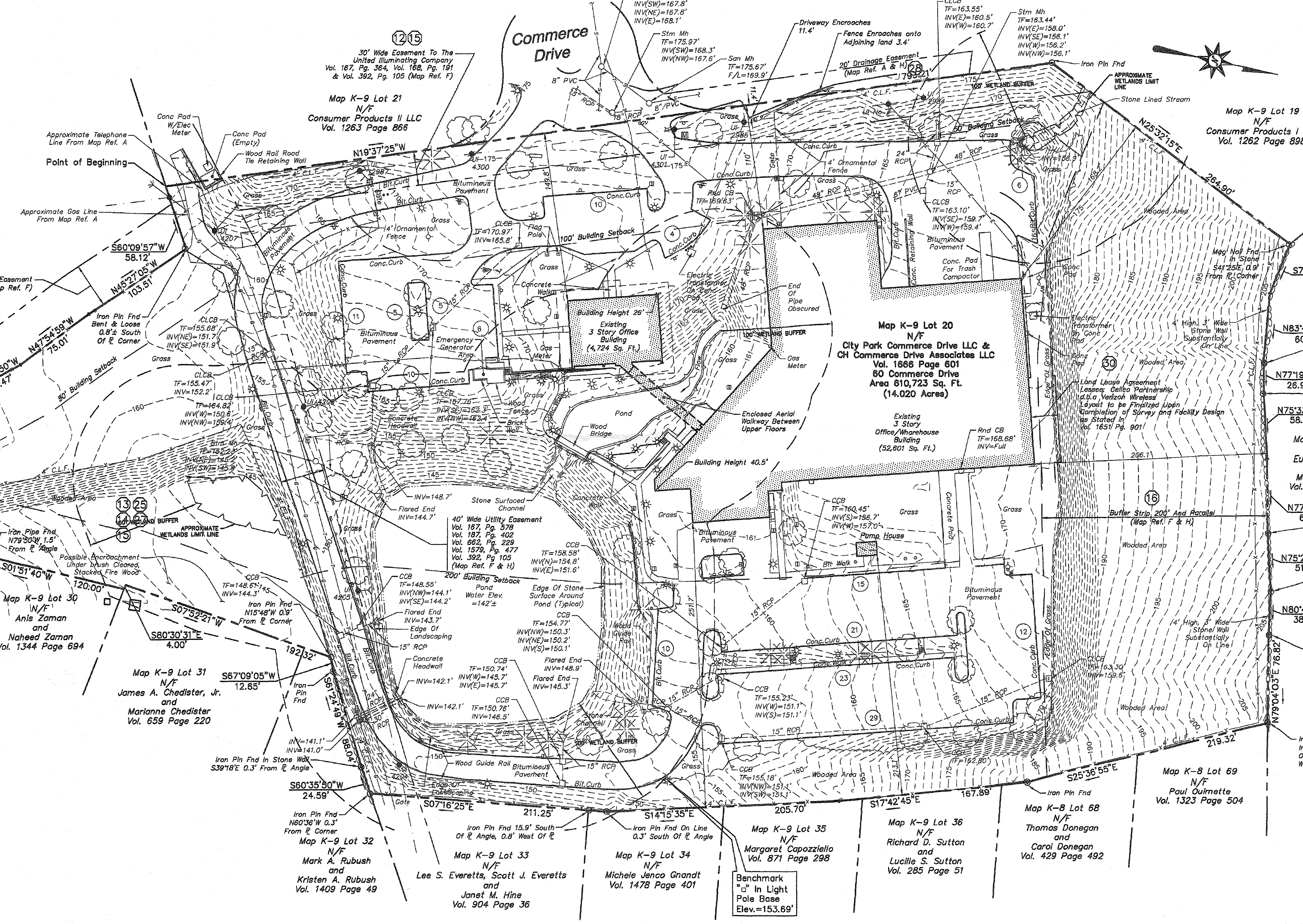
SOUTHWESTERLY: AGAIN, BY LAND NOW OR FORMERLY OF BELMAR CORPORATION, 72.44 FEET, SAID BOUNDARY HAVING A BEARING OF N38°14'47"W;

SOUTHWESTERLY: AGAIN, BY LAND NOW OR FORMERLY OF BELMAR CORPORATION, 46.47 FEET, SAID BOUNDARY HAVING A BEARING OF N40°31'50"W;

SOUTHWESTERLY: AGAIN, BY LAND NOW OR FORMERLY OF BELMAR CORPORATION, 75.01 FEET, SAID BOUNDARY HAVING A BEARING OF N47°54'59"W;

SOUTHWESTERLY: AGAIN, BY LAND NOW OR FORMERLY OF BELMAR CORPORATION, 103.51 FEET, SAID BOUNDARY HAVING A BEARING OF N45°27'05"W, ALL OF SAID SOUTHWESTERLY BOUNDARIES BEING THE CENTER LINE OF A STONE WALL;

SOUTHERLY: BY LAND NOW OR FORMERLY OF BELMAR CORPORATION, 58.12 FEET, SAID BOUNDARY HAVING A BEARING OF S60°09'57"W.



LEGEND

Symbol	Description	Symbol	Description
	Property Line	(5)	Parking Space Counts
	Easement Line		Irrigation Control Box
	Stonewall	C.L.F.	Chain Link Fence
	Water	RCP	Reinforced Concrete Pipe
	Zone Line	PVC	Polyvinyl Chloride Pipe
W	Water Line		Hydrant
G	Gas Line	WV	Water Valve
T	Telephone Line	WM	Water Meter
E	Electric Line	GV	Gas Valve
	Overhead Wires		Bollard
x	Metal Fence		Sign
	Guide Rail		Shrub
	Utility Pole		Deciduous Tree
	Utility Pole W/ Light	(30)	Reference # to Title Commitment Schedule B, Section 2
	Light Pole		
	Flood Light		
	Hand Hole		
	Mail Box		
CB	Catch Basin		
MH	Manhole		

SURVEYOR'S CERTIFICATION

I HEREBY CERTIFY TO: CITY PARK COMMERCE DRIVE, LLC., CH COMMERCE DRIVE ASSOCIATES, LLC., THE WASHINGTON TRUST COMPANY, NATIONAL ASSOCIATION, ITS SUCCESSORS AND ASSIGNS AND COMMONWEALTH LAND TITLE INSURANCE COMPANY THAT AS OF THE DATE HEREOF (a) THIS SURVEY AND MAP HAS BEEN PREPARED IN ACCORDANCE WITH THE REGULATIONS OF CONNECTICUT STATE AGENCIES, SECTIONS 20-300b-1 THROUGH 300b-20, AS AMENDED, THE MINIMUM STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT ADOPTED SEPTEMBER 26, 1996 BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC., (b) THIS SURVEY WAS MADE ON THE GROUNDS OF THE SURVEYED PROPERTY AND WAS PREPARED IN ACCORDANCE WITH, AND THE BOUNDS AND MEASUREMENTS SHOWN HEREON ARE CORRECT WITHIN, THE STANDARDS OF A CLASS A-2 SURVEY AS DEFINED IN THE MINIMUM STANDARDS; (c) THE TITLE LINES AND LINES OF POSSESSION ARE THE SAME; (d) ALL BUILDINGS AND IMPROVEMENTS ARE LOCATED AS SHOWN, ARE ERECTED ENTIRELY WITHIN THE PROPERTY LINES, AND DO NOT ENCROACH OVER OR UPON STREET, TITLE OR BUILDING LINES OR ANY RIGHT OF WAY OR EASEMENT ON OR APPURTENANT TO THE PROPERTY; (e) THERE ARE NO UTILITY OR OTHER EASEMENTS OR RIGHTS OF WAY EFFECTING THIS PROPERTY OTHER THAN THOSE SHOWN HEREON; (f) THERE ARE NO ENCROACHMENTS OR PROJECTIONS ON OR OVER THE PROPERTY OR ON RIGHTS OF WAY OR EASEMENTS APPURTENANT TO THE SAME BY BUILDINGS OR IMPROVEMENTS ERECTED ON ADJACENT LANDS; (g) NO PORTION OF THE PROPERTY IS LOCATED IN A HUD SPECIAL FLOOD HAZARD ZONE; AND (h) THE BUILDINGS AND IMPROVEMENTS ON THIS PROPERTY DO NOT VIOLATE ANY BUILDING OR ZONING REGULATION, RELATING TO THE LOCATION AND EXTENT THEREOF.

STATE OF CONNECTICUT ROBERT H. ROPER No. 18469 LICENSED LAND SURVEYOR

DATE: 12/04/2017

ROBERT H. ROPER L.S. #18469

NO CERTIFICATION IS EXPRESSED OR IMPLIED UNLESS THIS MAP BEARS THE ORIGINAL SIGNATURE AND EMBOSSED SEAL OF THE ABOVE NAMED LAND SURVEYOR.

BL Companies
ARCHITECTURE
ENGINEERING
ENVIRONMENTAL
LAND SURVEYING

355 Research Parkway
Meriden, CT 06450
(203) 630-1406
(203) 630-2615 Fax

LAND OF
PILOT CORPORATION OF AMERICA
60 COMMERCE DRIVE
TRUMBULL, CONNECTICUT

REVISIONS

No.	Date	Desc.
1.	12-04-17	Changed Bank Name in Certification

Surveyed	SS/AV/JT/JC/CW
Drawn	AV/SS/JS
Checked	RHR
Approved	RHR
Scale	1"=50'
Project No.	08S1047
Date	5/29/2014
Field Book	431
CAD File:	AL08S104701

Title
ALTA/ACSM LAND TITLE SURVEY

Sheet No.
AL-1

Dec 04, 2017 10:04am broper G:\JOBS08\08S\08s1047-F\DWG\AL08S104701.dwg
Layout: AL-1 30x42 50SC

Xref (s): ; XY08S104702-Topo Update ; XY08S104701

©2008 BL COMPANIES, INC. THESE DRAWINGS SHALL NOT BE UTILIZED BY ANY PERSON, FIRM OR CORPORATION WITHOUT THE SPECIFIC WRITTEN PERMISSION OF BL COMPANIES

EROSION & SEDIMENT CONTROL NOTES

1. CONSTRUCTION STANDARDS – CONSTRUCT ALL EROSION AND SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE MOST RECENT EDITION OF THE "CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL" (CT DEEP BULLETIN 34). ALL MEASURES SHALL BE MAINTAINED AND UPGRADED TO ACHIEVE PROPER SEDIMENT CONTROL DURING CONSTRUCTION.

2. PLAN IMPLEMENTATION – IMPLEMENT THE EROSION AND SEDIMENT CONTROL PLAN. THIS IMPLEMENTATION INCLUDES THE INSTALLATION AND MAINTENANCE OF CONTROL MEASURES UNTIL PERMANENT STABILIZATION IS ACHIEVED, INFORMING ALL SUBCONTRACTORS OF THE REQUIREMENTS AND OBJECTIVES OF THE PLAN, AND NOTIFYING THE PROPER MUNICIPAL AGENCY OF ANY TRANSFER OF THIS RESPONSIBILITY. THE OWNER SHALL BE RESPONSIBLE FOR CONVEYING A COPY OF THE EROSION AND SEDIMENT CONTROL PLAN TO THE NEW OWNER IF THE TITLE OF THE LAND IS TRANSFERRED PRIOR TO ACHIEVING PERMANENT STABILIZATION.

3. INSTALLATION SCHEDULE – INSTALL THE CONSTRUCTION ENTRANCE BEFORE CONSTRUCTION TRAFFIC INTO AND OUT OF THE PROJECT AREA BEGINS. INSTALL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO SOIL DISTURBANCE AND CONSTRUCTION. INSTALL ADDITIONAL CONTROL MEASURES DURING THE CONSTRUCTION PERIOD, IF DEEMED NECESSARY BY THE OWNER, HIS AGENTS OR AGENTS OF THE MUNICIPALITY.

4. FUGITIVE DUST – CONTROL FUGITIVE DUST THROUGH THE APPLICATION OF WATER OR CALCIUM CHLORIDE ON SOIL SURFACES, SWEEPING OF PAVED AREAS, PLACEMENT OF TEMPORARY WINDBREAKS, OR APPLICATION OF NON–ASPHALTIC SOIL TACKIFIERS.

5. HAY BALE LIFE SPAN – INSTALL HAY BALES WHERE PROTECTION AND EFFECTIVENESS IS REQUIRED FOR LESS THAN 90 DAYS. OTHERWISE, INSTALL SILT FENCE.

6. CATCH BASINS – PROTECT CATCH BASINS WITH PROPER CONTROLS THROUGHOUT THE CONSTRUCTION PERIOD UNTIL ALL DISTURBED AREAS ARE PERMANENTLY STABILIZED.

7. STOCKPILES – ENCIRCLE STOCKPILES OF ERODIBLE SOIL MATERIALS WITH A HAY BALE OR SILT FENCE BARRIER. THE SIDE SLOPES OF ERODIBLE STOCKPILED MATERIAL SHALL BE NO STEEPER THAN 2:1. STOCKPILES THAT ARE NOT TO BE USED WITHIN 30 DAYS SHALL BE SEEDED AND MULCHED IMMEDIATELY AFTER THEY ARE FORMED.

8. TOE OF SLOPE – ESTABLISH AN EROSION CONTROL BARRIER (SILT FENCE OR HAY BALE BARRIER) APPROXIMATELY 5 TO 10 FEET FROM THE PROPOSED TOE OF THE CUT OR FILL AREA PRIOR TO BEGINNING EARTHWORK.

9. SEDIMENT REMOVAL – SEDIMENT REACHING ½ THE HEIGHT OF THE EROSION CONTROL BARRIER SHALL BE REMOVED. REMOVE AND DISPOSE OF SEDIMENT IN A MANNER CONSISTENT WITH THE INTENT OF THE PLAN.

10. SOIL STABILIZATION SCHEDULE – APPLY PERMANENT SOIL STABILIZATION MEASURES TO ALL GRADED AREAS WITHIN 7 DAYS OF ESTABLISHING FINAL GRADE. APPLY TEMPORARY SOIL STABILIZATION MEASURES IF FINAL GRADING IS TO BE DELAYED MORE THAN 30 DAYS.

11. TEMPORARY SEEDING – TEMPORARILY SEED ERODIBLE SOILS THAT WILL BE EXPOSED GREATER THAN 1 BUT LESS THAN 12 MONTHS WITHIN THE FIRST 7 DAYS OF SUSPENDING GRADING OPERATIONS. APPLY LIME AT A RATE OF 90 LBS/1000 SQ. FT. APPLY 10–10–10 FERTILIZER AT A RATE OF 7 ½ LBS/1000 SQ. FT. APPLY PERENNIAL RYE GRASS AT A RATE OF 2 LBS/1000 SQ. FT. TO A DEPTH OF ½ INCH. OPTIMUM SEEDING DATES ARE MARCH 15 TO JULY 1 AND AUGUST 1 TO OCTOBER 15. MULCH FOR SEED APPLIED WITHIN THE OPTIMUM SEEDING DATES SHALL BE APPLIED EVENLY SUCH THAT IT PROVIDES 80%–95% SOIL COVERAGE. MULCH FOR SEED APPLIED OUTSIDE OF THE OPTIMUM SEEDING DATES SHALL BE APPLIED EVENLY SUCH THAT IT PROVIDES 95%–100% COVERAGE.

12. PERMANENT SEEDING – SEED PERMANENT LAWN AREAS IN ACCORDANCE WITH THE SPECIFICATIONS.

OPERATIONS AND MAINTENANCE PLAN

1. CATCH BASIN SUMPS MUST BE INSPECTED AT REGULAR INTERVALS AND CLEANED WHEN NECESSARY. AT A MINIMUM, INSPECTIONS SHOULD BE CONDUCTED TWICE PER YEAR, ONCE IN THE SPRING AND AGAIN IN THE FALL. MORE INSPECTIONS MAY BE REQUIRED DURING WINTER MONTHS WHERE HEAVY SANDING OPERATIONS MAY LEAD TO RAPID SEDIMENT ACCUMULATION WITHIN THE STRUCTURES. CLEANING OPERATIONS ARE TYPICALLY DONE USING A VACUUM TRUCK.

2. LANDSCAPED AREAS AND PARKING LOTS ARE TO BE PROPERLY MAINTAINED AND KEPT FREE OF LITTER. LITTER ON THE SITE IS TO BE PICKED UP AND PROPERLY DISPOSED OF.

3. PAVED SURFACES WILL BE SWEPT A MINIMUM OF TWO TIMES PER YEAR. GRAVEL, LAWN, AND LANDSCAPED SURFACES WILL BE MAINTAINED AS NECESSARY TO PROVIDE A WELL–GRADED AND STABLE SURFACE FREE OF RUTS AND WASHOUTS.

4. ALL STORMWATER FACILITIES/ DRAINAGE SWALES/ BIO–FILTRATION BASIN/ OUTFALLS ARE TO BE INSPECTED FOLLOWING HEAVY RAINS. ANY EROSION IS TO BE STABILIZED AS SOON AS POSSIBLE, AND ANY CLOGGED STRUCTURES ARE TO BE UNCLOGGED.

5. STORMWATER DRAINAGE SWALES, BIO–FILTRATION BASIN, AND RIPRAP ENERGY DISSIPATERS ASSOCIATED WITH THE OUTFALLS ARE TO BE INSPECTED AND CLEANED TWICE A YEAR. EXCESS ACCUMULATED SEDIMENT AND DEBRIS SHALL BE REMOVED BY HAND AND PROPERLY DISPOSED OF EITHER ON SITE (IN NON–WETLAND AREAS), OR OFF–SITE.

CIVIL GENERAL NOTES

GENERAL

1. SYMBOLS AND LEGENDS OF PROJECT FEATURES ARE GRAPHIC REPRESENTATIONS AND ARE NOT NECESSARILY SHOWN ON THE DRAWINGS TO SCALE OR TO THEIR ACTUAL DIMENSION OR LOCATION. COORDINATE DETAIL SHEET DIMENSIONS, MANUFACTURERS' LITERATURE, SHOP DRAWINGS AND FIELD MEASUREMENTS OF SUPPLIED PRODUCTS FOR LAYOUT OF THE PROJECT FEATURES.
2. DO NOT RELY SOLELY ON ELECTRONIC VERSIONS OF DRAWINGS, SPECIFICATIONS, AND DATA FILES THAT ARE PROVIDED BY THE ENGINEER. FIELD VERIFY LOCATION OF PROJECT FEATURES.
3. PERFORM NECESSARY CONSTRUCTION NOTIFICATIONS, APPLY FOR AND OBTAIN NECESSARY PERMITS, PAY FEES, AND POST BONDS ASSOCIATED WITH THE WORK AS REQUIRED BY THE CONTRACT DOCUMENTS.
4. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS OF BUILDINGS AND ADJACENT SITE ELEMENTS INCLUDING SIDEWALKS, RAMPS, BUILDING ENTRANCES, STAIRWAYS, UTILITY PENETRATIONS, CONCRETE DOOR PADS, COMPACTOR PAD, LOADING DOCKS, BOLLARDS, ETC.
5. BASE PLAN: THE EXISTING PROPERTY LINES, TOPOGRAPHY, AND PHYSICAL FEATURES SHOWN WERE DETERMINED BY ACTUAL FIELD SURVEYS CONDUCTED BY SPATH–BJORKLUN ASSOCIATES, INC. AND AND BL COMPANIES, AND FROM PLANS OF RECORD.

WORK RESTRICTIONS

1. DO NOT CLOSE OR OBSTRUCT ROADWAYS, SIDEWALKS, FIRE HYDRANTS, AND UTILITIES WITHOUT APPROPRIATE PERMITS.
2. WORK IS RESTRICTED TO THE TOWN OF TRUMBULL STANDARD HOURS OF OPERATION.

REGULATORY REQUIREMENTS

1. WITHIN LOCAL RIGHTS–OF–WAY, PERFORM THE WORK IN ACCORDANCE WITH LOCAL MUNICIPAL STANDARDS.
2. WITHIN STATE RIGHTS–OF–WAY, PERFORM THE WORK IN ACCORDANCE WITH THE LATEST EDITION OF THE DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS AND ISSUED REVISIONS/SUPPLEMENTS.
3. PROVIDE TRAFFIC SIGNAGE AND PAVEMENT MARKINGS IN CONFORMANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
4. BE RESPONSIBLE FOR SITE SECURITY AND JOB SAFETY. PERFORM CONSTRUCTION ACTIVITIES IN ACCORDANCE WITH OSHA STANDARDS AND LOCAL REQUIREMENTS.
5. DISPOSE OF DEMOLITION DEBRIS IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, ORDINANCES AND STATUTES.

EROSION AND SEDIMENT CONTROL

1. INSTALL EROSION CONTROL MEASURES PRIOR TO STARTING ANY WORK ON THE SITE THAT WILL RESULT IN SOIL DISTURBANCE. REFER TO THE EROSION AND SEDIMENT CONTROL DRAWINGS.
2. IMPLEMENT ALL NECESSARY MEASURES REQUIRED TO CONTROL STORMWATER RUNOFF, DUST, SEDIMENT, AND DEBRIS FROM EXITING THE SITE. PERFORM CORRECTIVE ACTION AS NEEDED FOR EROSION CLEANUP AND REPAIRS TO OFF SITE AREAS, IF ANY, AT NO COST TO OWNER.
3. INSPECT AND MAINTAIN EROSION CONTROL MEASURES PER THE SCHEDULE IN THE EROSION AND SEDIMENT CONTROL DRAWINGS & NOTES. DISPOSE OF SEDIMENT IN AN UPLAND AREA. DO NOT ENCUMBER OTHER DRAINAGE STRUCTURES AND PROTECTED AREAS.
4. PERFORM CONSTRUCTION SEQUENCING IN SUCH A MANNER TO CONTROL EROSION AND TO MINIMIZE THE TIME THAT EARTH MATERIALS ARE EXPOSED BEFORE THEY ARE COVERED, SEEDED, OR OTHERWISE STABILIZED.
5. UPON COMPLETION OF CONSTRUCTION AND ESTABLISHMENT OF PERMANENT GROUND COVER, REMOVE AND DISPOSE OF TEMPORARY EROSION CONTROL MEASURES. CLEAN SEDIMENT AND DEBRIS FROM TEMPORARY MEASURES AND FROM PERMANENT STORM DRAIN AND SANITARY SEWER SYSTEMS.

DEMOLITION

1. REMOVE AND DISPOSE OF EXISTING SITE FEATURES AND UTILITIES AS REQUIRED TO ACCOMMODATE PROPOSED SITE FEATURES.
2. LIMIT DEMOLITION ACTIVITIES TO THE LIMITS OF WORK IDENTIFIED ON THE DRAWINGS. ANY DAMAGE THAT OCCURS TO EXISTING SITE FEATURES OUTSIDE OF THE INDICATED WORK LIMITS SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

CONSTRUCTION LAYOUT

1. PROVIDE PROPER TRANSITIONS BETWEEN EXISTING AND PROPOSED SITE IMPROVEMENTS. FIELD VERIFY EXISTING PAVEMENT AND GROUND ELEVATIONS AT THE INTERFACE WITH PROPOSED PAVEMENTS AND DRAINAGE STRUCTURES BEFORE START OF CONSTRUCTION.
2. PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION, FIELD VERIFY PROPOSED UTILITY ROUTES AND IDENTIFY ANY INTERFERENCES OR OBSTRUCTIONS WITH EXISTING UTILITIES OR PUBLIC RIGHTS–OF–WAY.
3. IMMEDIATELY INFORM THE ENGINEER IN WRITING IF EXISTING UTILITY CONDITIONS CONFLICT OR DIFFER FROM THAT INDICATED AND IF THE WORK CANNOT BE COMPLETED AS INDICATED.
4. DIMENSIONS ARE FROM FACE OF CURB, FACE OF BUILDING, FACE OF WALL, AND CENTER LINE OF PAVEMENT MARKINGS, UNLESS NOTED OTHERWISE.
5. BOUNDS OR MONUMENTATION DISTURBED DURING CONSTRUCTION SHALL BE SET OR RESET BY A PROFESSIONAL LICENSED SURVEYOR.

EARTHWORK

1. NOTIFY UTILITY LOCATOR SERVICE AT LEAST 72 HOURS BEFORE STARTING EXCAVATION. "CALL BEFORE YOU DIG" AT 1–800–922–4455.
2. STOP WORK IN THE VICINITY OF SUSPECTED CONTAMINATED SOIL, GROUNDWATER OR OTHER MEDIA. IMMEDIATELY NOTIFY THE OWNER SO THAT APPROPRIATE TESTING AND SUBSEQUENT ACTION CAN BE TAKEN. RESUME WORK IN THE IMMEDIATE VICINITY ONLY UPON DIRECTION BY THE OWNER.

UTILITIES

1. TERMINATE EXISTING UTILITIES IN CONFORMANCE WITH LOCAL, STATE AND INDIVIDUAL UTILITY COMPANY STANDARD SPECIFICATIONS AND DETAILS. COORDINATE UTILITY SERVICE DISCONNECTS WITH UTILITY REPRESENTATIVES.
2. THE TYPE, SIZE AND LOCATION OF DEPICTED UNDERGROUND UTILITIES ARE APPROXIMATE REPRESENTATIONS OF INFORMATION OBTAINED FROM FIELD LOCATIONS OF VISIBLE FEATURES, EXISTING MAPS AND PLANS OF RECORD, UTILITY MAPPING, AND OTHER SOURCES OF INFORMATION OBTAINED BY THE ENGINEER. ASSUME NO GUARANTEE AS TO THE COMPLETENESS, SERVICEABILITY, EXISTENCE, OR ACCURACY OF UNDERGROUND FACILITIES. FIELD VERIFY THE EXACT LOCATIONS, SIZES, AND ELEVATIONS OF THE POINTS OF CONNECTIONS TO EXISTING UTILITIES.
3. PAY ALL FEES AND COSTS ASSOCIATED WITH UTILITY MODIFICATIONS AND CONNECTIONS, REGARDLESS OF THE ENTITY THAT PERFORMS THE WORK.
4. COORDINATE THE WORK AND WORK SCHEDULE WITH UTILITY COMPANIES. PROVIDE ADEQUATE NOTICE TO UTILITIES TO PREVENT DELAYS IN CONSTRUCTION.
5. INTERIOR DIAMETERS OF STORM DRAIN AND SANITARY SEWER STRUCTURES SHALL BE DETERMINED BY THE PRECAST MANUFACTURER, BASED ON THE INDICATED PIPE SYSTEM LAYOUT AND LOCAL MUNICIPAL STANDARDS.

   MINIMUM INTERIOR DIAMETERS:
   0 TO 20 FEET DEEP; 4 FEET.
   20 FEET OR GREATER; 5 FEET.

6. RIM ELEVATIONS FOR MANHOLES, VALVE COVERS, GATE AND PULL BOXES, AND OTHER STRUCTURES ARE APPROXIMATE. SET OR RESET RIM ELEVATIONS AS FOLLOWS:

   –IN PAVEMENTS AND CONCRETE SURFACES: FLUSH
   –IN SURFACES ALONG ACCESSIBLE ROUTES: FLUSH
   –IN LANDSCAPE, SEEDED, AND OTHER EARTH SURFACE AREAS:
   1 INCH ABOVE SURROUNDING AREA; TAPER EARTH TO RIM ELEVATION.

7. INSTALL PROPOSED PRIVATE UTILITY SERVICES ACCORDING TO THE REQUIREMENTS PROVIDED BY, AND APPROVED BY THE AUTHORITY HAVING JURISDICTION (WATER, SEWER, GAS, TELEPHONE, ELECTRIC, FIRE ALARM, ETC.). COORDINATE FINAL DESIGN LOADS AND LOCATIONS WITH OWNER AND ARCHITECT.

PAVEMENT

1. AT A MINIMUM, CONSTRUCT ACCESSIBLE ROUTES, PARKING SPACES, RAMPS, SIDEWALKS AND WALKWAYS IN CONFORMANCE WITH THE FEDERAL AMERICANS WITH DISABILITIES ACT AND WITH STATE AND LOCAL LAWS AND REGULATIONS (WHICHEVER ARE MORE STRINGENT).

SITE RESTORATION

1. PROVIDE 6 INCHES OF TOPSOIL AND SEED TO AREAS DISTURBED DURING CONSTRUCTION AND NOT DESIGNATED TO BE RESTORED WITH IMPERVIOUS SURFACES (BUILDINGS, PAVEMENTS, WALKS, ETC.) UNLESS OTHERWISE NOTED.
2. REPAIR DAMAGES RESULTING FROM CONSTRUCTION LOADS, AT NO ADDITIONAL COST TO OWNER.
3. RESTORE AREAS DISTURBED BY CONSTRUCTION OPERATIONS TO THEIR ORIGINAL CONDITION OR BETTER, AT NO ADDITIONAL COST TO OWNER.

LEGEND

Symbol	Description
200	PROPOSED CONTOURS
+ 201.0	PROPOSED SPOT ELEVATION
	PROPERTY LINE
FM	PROPOSED FORCEMAIN
R	PROPOSED ROOF DRAIN
C	PROPOSED CABLE LINE
S	PROPOSED SANITARY SEWER LINE
	PROPOSED STORM DRAINAGE LINE
T	PROPOSED TELEPHONE LINE
W	PROPOSED WATER MAIN
G	PROPOSED GAS MAIN
E	PROPOSED ELECTRICAL SERVICE
	PROPOSED GUIDE RAIL
	PROPOSED HYDRANT AND GATE VALVE
	PROPOSED REINFORCED CONCRETE CULVERT END
	PROPOSED YARD DRAIN
	PROPOSED TYPE "C–L" CATCH BASIN
	PROPOSED TYPE "C" CATCH BASIN
D	PROPOSED STORM MANHOLE
	PROPOSED STORM DRAIN
S	PROPOSED SANITARY MANHOLE
	PROPOSED SIGN
	PROPOSED LIGHT POLE
	PROPOSED CURB
	PROPOSED RETAINING WALL
	TOWN WETLANDS LINE
	PROPOSED CONCRETE WALK
	PROPOSED CHAIN LINK FENCE
SF	PROPOSED SILT FENCE
HB	PROPOSED HAY BALES
SS	PROPOSED SILT SACK
200	EXISTING CONTOURS
	EXISTING DECIDUOUS TREE
	EXISTING EVERGREEN TREE
	EXISTING HYDRANT
	EXISTING CATCH BASIN
S	EXISTING SANITARY MANHOLE
D	EXISTING STORM MANHOLE
W	EXISTING WATER MAIN
G	EXISTING GAS MAIN
E	EXISTING ELECTRICAL SERVICE

SURVEY MAP REFERENCE

"SITE & EROSION CONTROL PLAN 60 COMMERCE DRIVE TRUMBULL, CONNECTICUT PREPARED FOR CITY PARK COMMERCE DRIVE LLC & CH COMMERCE DRIVE ASSOCIATES LLC" SURVEY PREPARED BY SPATH–BJORKLUND ASSOCIATES, INC. DATED 9/26/2018. SURVEY ELEVATIONS MUST BE FIELD VERIFIED BY CONTRACTOR PRIOR TO STARTING CONSTRUCTION.

EXISTING TREE LOCATIONS DIGITIZED FROM HARD–COPY SCAN OF "ALTA/ACSM LAND TITLE SURVEY" PREPARED AND CERTIFIED BY BL COMPANIES, DATED 12/4/2017.

CALL before you DIG
Call Toll Free In Conn.
1–800–922–4455

CALL–BEFORE–YOU–DIG: THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING "CALL BEFORE YOU DIG" AT 1–800–922–4455 TO ARRANGE FOR MARKING OUT EXISTING UNDERGROUND UTILITIES AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATION.

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
1.				

SEAL

SEAL

SCALE:
HORZ.: NTS
VERT.:
DATUM:
HORZ.:
VERT.:

FUSS & O'NEILL
56 QUARRY ROAD
TRUMBULL, CONNECTICUT 06611
203.374.3748
www.fando.com

MAKE-A-WISH FOUNDATION OF CONNECTICUT, INC.

GENERAL NOTES & LEGEND

56 COMMERCE DRIVE

TRUMBULL CONNECTICUT

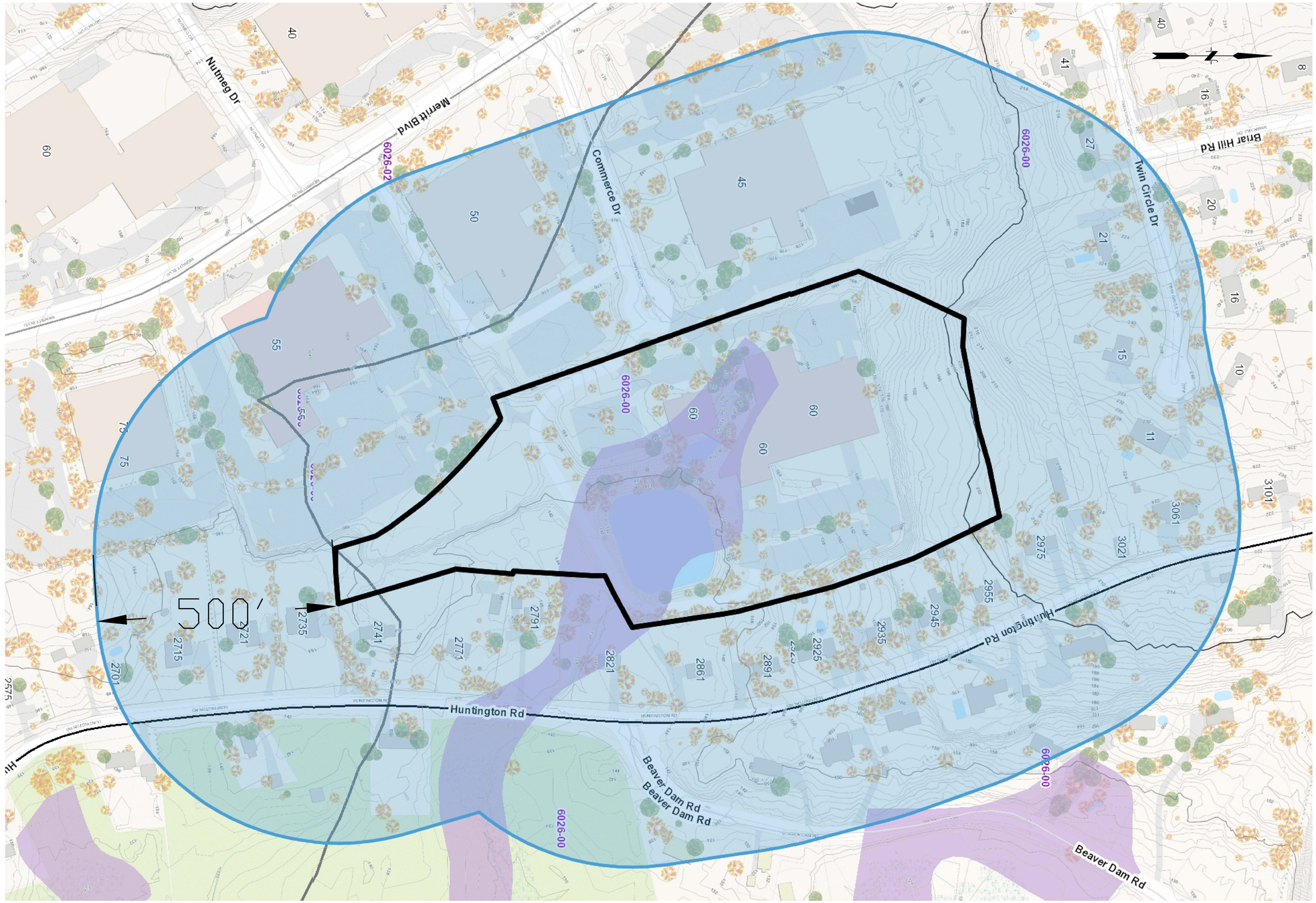
PROJ. No.: 20190339.A11
DATE: 9/17/2019

GI-001

File Path: J:\DWG\P2019\0339\A11\Civil\Plan\20190339.A11_DET01.dwg Layout: GI-001 Plotted: Mon, September 16, 2019 - 1:28 PM User: tgriffing
MS VIEW: LAYER STATE: Plotter: AUTOCAD PDF (GENERAL DOCUMENTATION).PC3 CTB File: FO.STB

Legend

- Streetname
- Roadways
  - Local
  - Collector
  - Minor Collector
  - Minor Arterial
  - Major Collector
  - PA Other
  - PA Other Expwy
  - PA Interstate
- Inland Wetland Soils
  - Poorly Drained and Very Poorly Dr
  - Alluvial and Floodplain Soils
- Local Basin Boundary
  - Major
  - Regional
  - Subregional
  - Local
- Local Basin Area
- Citations



NOTES:

1. MAP DOWNLOADED FROM TOWN OF TRUMBULL ONLINE GIS MAPPING SYSTEM PROVIDED BY METROCOG.
2. ONLINE GIS MAPPING SYSTEM HAS NOT BEEN UPDATED SINCE NOVEMBER 2018 RESUBDIVISION. PROPERTY LINE INCLUDES 56 COMMERCE DRIVE AND 60 COMMERCE DRIVE, AND 500' BUFFER SHOWN IS THEREFORE MORE EXTENSIVE THAN WHAT IS ACTUALLY WITHIN 500' OF THE NEW PROPERTY LINE FOR 56 COMMERCE DRIVE.
3. THIS MAP IS A USER GENERATED STATIC OUTPUT FROM AN INTERNET MAPPING SITE AND IS FOR REFERENCE ONLY. DATA LAYERS THAT APPEAR ON THIS MAP MAY OR MAY NOT BE ACCURATE, CURRENT, OR OTHERWISE RELIABLE. THIS MAP IS NOT TO BE USED FOR NAVIGATION.

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
1.			XX/XX	XX

SEAL

SEAL

STATE OF CONNECTICUT · PIERRE LERANDUS · No. 24034 · LICENSED PROFESSIONAL ENGINEER

SCALE:
HORZ.: 1" = 100'
VERT.:
DATUM:
HORZ.:
VERT.:
100 50 0 100
GRAPHIC SCALE

FUSS & O'NEILL
56 QUARRY ROAD
TRUMBULL, CONNECTICUT 06611
203.374.3748
www.fando.com

MAKE-A-WISH FOUNDATION OF CONNECTICUT, INC.

500' RADIUS CONTOUR MAP

56 COMMERCE DRIVE

TRUMBULL CONNECTICUT

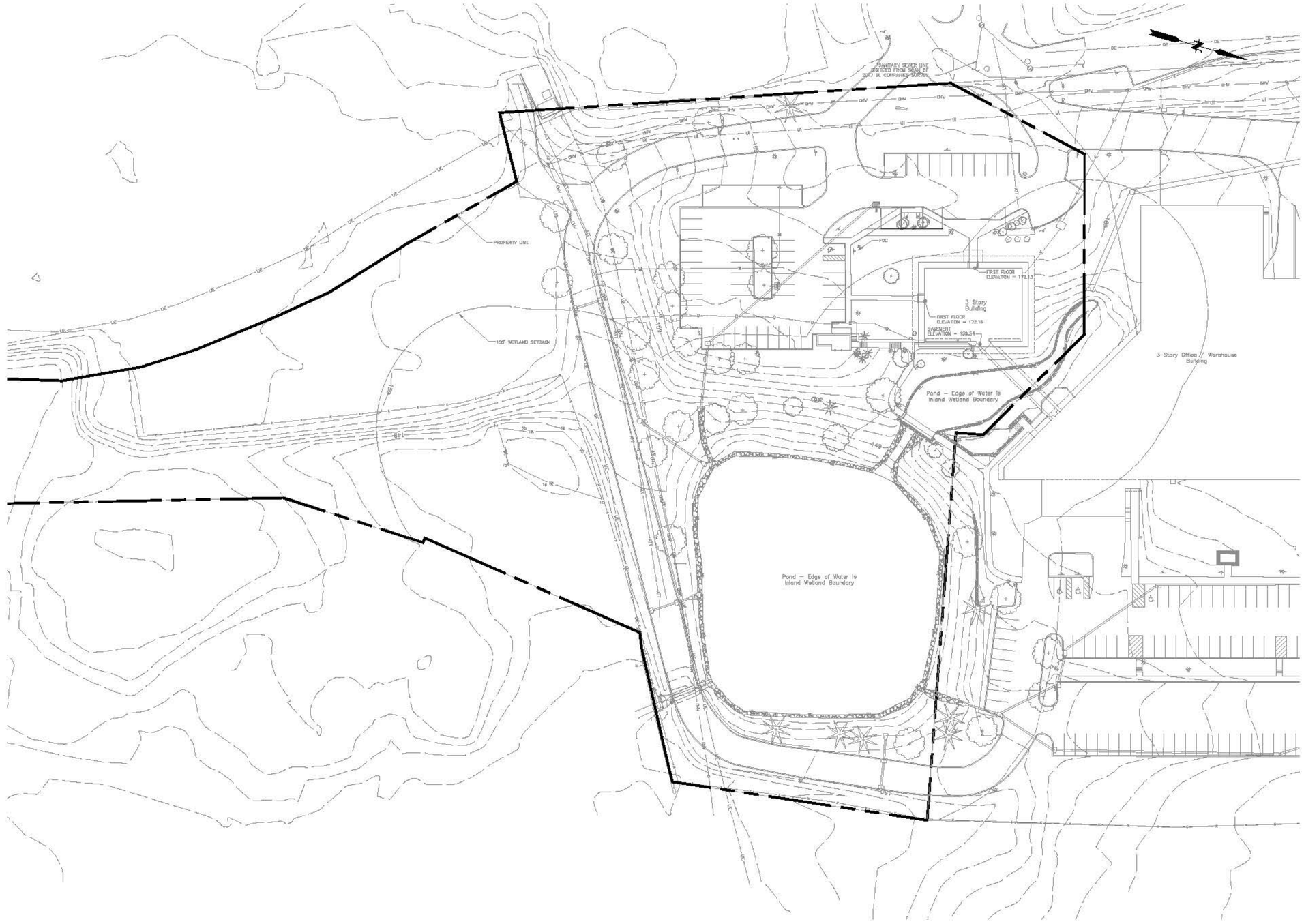
PROJ. No.: 20190339.A11
DATE: 09/17/2019

CV-101

File Path: J:\DWG\P\20190339\A11\Civil\Plan\Trumbull GIS_Radius Contour Map.dwg Layout: 24X36-L Plotted: Fri, September 13, 2019 - 3:24 PM User: kmain
Plotter: DWG TO PDF.PC3 CTB File: FO.STB
LAYER STATE:
MS VIEW:

LEGEND

- HYDRANT
- MANHOLE
- GAS VALVE
- UTILITY POLE
- WATER VALVE
- LAMP POST
- CATCH BASIN
- SIGN
- MAILBOX
- FLARED END
- EXISTING IRON PIN
- EXISTING CONCRETE MONUMENT
- WELL
- STONE BOUND
- STONEWALL
- WOOD GUIDERAIL
- METAL FENCE
- WOOD FENCE
- WL — INLAND WETLANDS
- DE — DRAINAGE EASEMENT
- UE — UTILITY EASEMENT
- UI — UNITED ILLUMINATING COMPANY EASEMENT
- G — BURIED GAS LINE
- ATT — BURIED ATT LINE
- E — BURIED ELECTRIC LINE
- OHW — OVERHEAD WIRES
- SF — SILT FENCE



NOTE: EXISTING CONDITIONS INCLUDE SITE CHANGES AS APPROVED BY TOWN OF TRUMBULL PLANNING & ZONING COMMISSION AND INLAND WETLANDS AND WATERCOURSES COMMISSION AS PART OF NOVEMBER 2018 RESUBDIVISION.

SURVEY MAP REFERENCE

"SITE & EROSION CONTROL PLAN 60 COMMERCE DRIVE TRUMBULL, CONNECTICUT PREPARED FOR CITY PARK COMMERCE DRIVE LLC & CH COMMERCE DRIVE ASSOCIATES LLC" SURVEY PREPARED BY SPATH-BJORKLUND ASSOCIATES, INC. DATED 9/26/2018.

EXISTING TREE LOCATIONS DIGITIZED FROM HARD-COPY SCAN OF "ALTA/ACSM LAND TITLE SURVEY" PREPARED AND CERTIFIED BY BL COMPANIES, DATED 12/4/2017.

FIELD SURVEY OF TREES AND ADDITIONAL SPOT ELEVATIONS CONDUCTED BY FUSS & O'NEILL, INC. ON 10/23/2019.

SURVEY ELEVATIONS MUST BE FIELD VERIFIED BY CONTRACTOR PRIOR TO STARTING CONSTRUCTION.

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
1.	11/8/2019	IWWC RESUBMISSION – ADDITIONAL SURVEY SPOT ELEVATIONS	KM	VC

SEAL

SEAL

SCALE:
HORZ.: 1" = 40'
VERT.:
DATUM:
HORZ.:
VERT.: NAVD 88
40 20 0 40
GRAPHIC SCALE

FUSS & O'NEILL
56 QUARRY ROAD
TRUMBULL, CONNECTICUT 06611
203.374.3748
www.fando.com

MAKE-A-WISH FOUNDATION OF CONNECTICUT, INC.

EXISTING SITE CONDITIONS

56 COMMERCE DRIVE

TRUMBULL CONNECTICUT

PROJ. No.: 20190339.A11
DATE: 9/17/2019

EX-101

File Path: J:\DWG\P2019\0339\A11\Civil\Plan\20190339.A11_STP01.dwg Layout: EX-001 Plotted: Fri, November 08, 2019 - 1:35 PM User: kmain
Plotter: AUTOCAD PDF (GENERAL DOCUMENTATION).PC3 CTB File: FO.STB
LAYER STATE:
MS VIEW:

ZONING CODE SUMMARY– Make-A-Wish Foundation of Connecticut, INC.

Zoning District: IL-3 — 2018 Zoning Regulations

	Required	Existing	Approved Nov. 2018 (Note 1)	Proposed
Minimum Lot Size (ac)	3	6.5	6.5	6.5
Minimum Road Frontage (ft)	200	125	125	125
Building Coverage (%)	33.3	3	3	3
Total Lot Coverage (%)	80	19.4	20.446	20.447
Street Yard (ft)	100	144.60	144.6	144.6
Side or Rear Yard (ft)	50	0	0	0
Residential Zone Yard (ft)	200	382.5	382.5	382.5
Building Height (ft)	40	3 Story	3 Story	3 Story
Parking Spaces (Note 2)	41	51	64	52 (4)
ADA Parking Spaces	3	1	3	3
ADA Van Parking Spaces	1	0	1	3

GENERAL NOTES:

1. PROPOSED SITE IMPROVEMENTS DO NOT INCLUDE SITE CHANGES AS APPROVED BY TOWN OF TRUMBULL PLANNING & ZONING AND INLAND WETLANDS AND WATERCOURSES COMMISSION AS PART OF NOVEMBER 2018 RESUBDIVISION.
2. PARKING SPACE COUNT IN ZONING TABLE INCLUDES HANDICAP PARKING SPACES; REQUIREMENT BASED ON ESTIMATED 10,250 SF BUILDING SPACE (1 SPACE REQUIRED PER 250 SF)

CALL before you DIG
Call Toll Free in Conn.
1-800-922-4455

CALL-BEFORE-YOU-DIG: THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING "CALL BEFORE YOU DIG" AT 1-800-922-4455 TO ARRANGE FOR MARKING OUT EXISTING UNDERGROUND UTILITIES AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATION.

UTILITY NOTE

1. THE UNDERGROUND UTILITIES DEPICTED HEREON ARE BASED ON FIELD LOCATION OF VISIBLE FEATURES, MAPS AND PLANS OF RECORD, UTILITY MAPPING OR OTHER SOURCES OF INFORMATION. THE ENGINEER MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE ENGINEER FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THE ENGINEER DOES DECLARE THAT THEY ARE DEPICTED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE ENGINEER HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.
2. SHRUBS OR OTHER OBSTRUCTIONS SHALL BE KEPT A MINIMUM OF 5 FEET FROM THE REAR AND SIDES AND 12 FEET FROM THE COMPARTMENT DOORS OF PADMOUNT TRANSFORMERS.
3. COORDINATE WITH SITE ELECTRICAL, SITE LIGHTING AND LANDSCAPE PLANS.

SURVEY MAP REFERENCE

"SITE & EROSION CONTROL PLAN 60 COMMERCE DRIVE TRUMBULL, CONNECTICUT PREPARED FOR CITY PARK COMMERCE DRIVE LLC & CH COMMERCE DRIVE ASSOCIATES LLC" SURVEY PREPARED BY SPATH-BJORKLUND ASSOCIATES, INC. DATED 9/26/2018.

EXISTING TREE LOCATIONS DIGITIZED FROM HARD-COPY SCAN OF "ALTA/ACSM LAND TITLE SURVEY" PREPARED AND CERTIFIED BY BL COMPANIES, DATED 12/4/2017.

FIELD SURVEY OF TREES AND ADDITIONAL SPOT ELEVATIONS CONDUCTED BY FUSS & O'NEILL, INC. ON 10/23/2019.

SURVEY ELEVATIONS MUST BE FIELD VERIFIED BY CONTRACTOR PRIOR TO STARTING CONSTRUCTION.

OPERATIONS AND MAINTENANCE PLAN

1. CATCH BASIN SUMPS MUST BE INSPECTED AT REGULAR INTERVALS AND CLEANED WHEN NECESSARY. AT A MINIMUM, INSPECTIONS SHOULD BE CONDUCTED TWICE PER YEAR, ONCE IN THE SPRING AND AGAIN IN THE FALL. MORE INSPECTIONS MAY BE REQUIRED DURING WINTER MONTHS WHERE HEAVY SANDING OPERATIONS MAY LEAD TO RAPID SEDIMENT ACCUMULATION WITHIN THE STRUCTURES. CLEANING OPERATIONS ARE TYPICALLY DONE USING A VACUUM TRUCK.

2. LANDSCAPED AREAS, AND PARKING LOTS ARE TO BE PROPERLY MAINTAINED AND KEPT FREE OF LITTER. LITTER ON THE SITE IS TO BE PICKED UP AND PROPERLY DISPOSED OF.

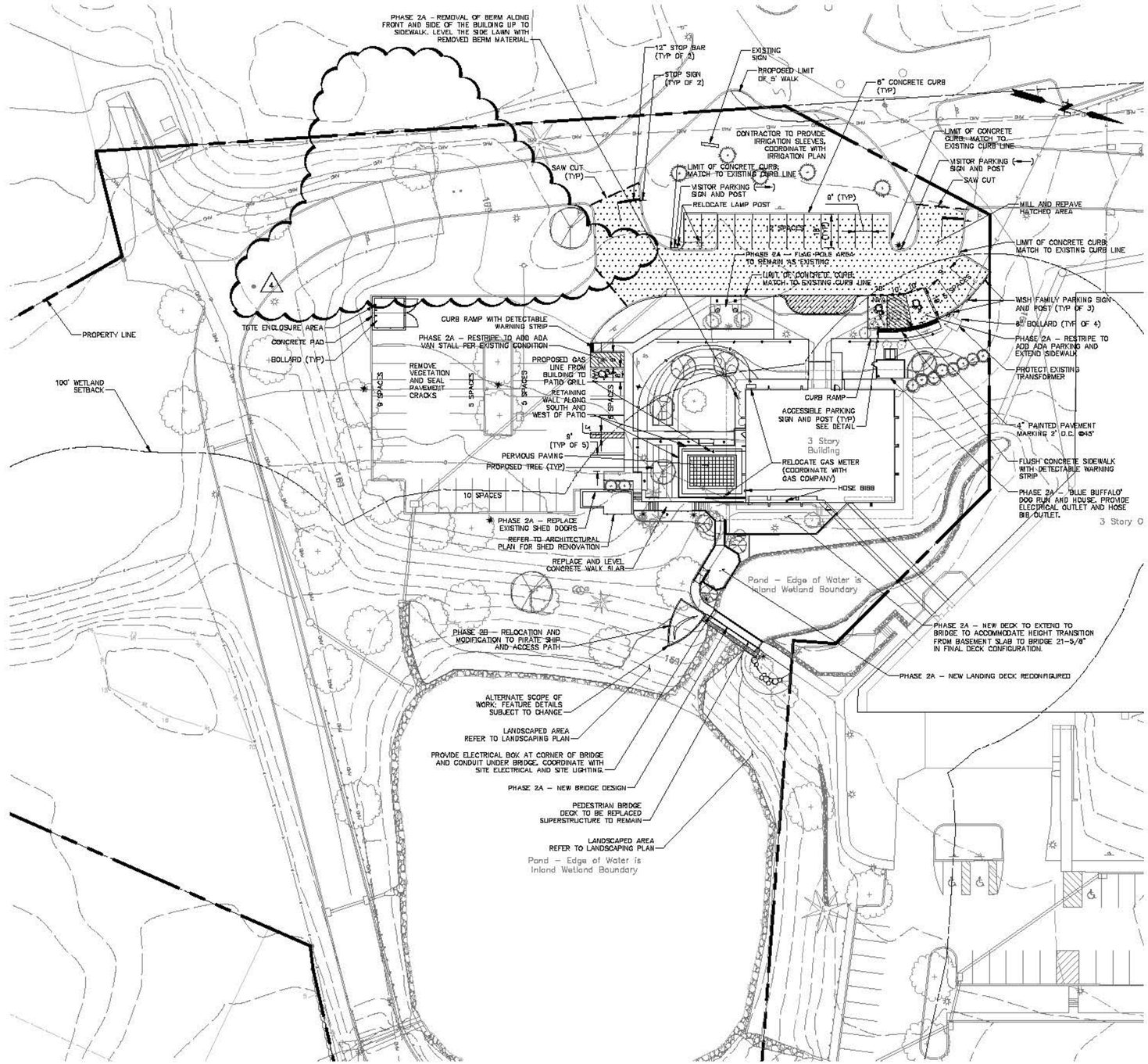
3. PAVED SURFACES WILL BE SWEPT A MINIMUM OF TWO TIMES PER YEAR.

4. ALL STORMWATER FACILITIES/ DRAINAGE SWALES/ OUTFALLS ARE TO BE INSPECTED FOLLOWING HEAVY RAINS. ANY EROSION IS TO BE STABILIZED AS SOON AS POSSIBLE, AND ANY CLOGGED STRUCTURES ARE TO BE UNCLOGGED.

5. STORMWATER DRAINAGE SWALES, AND RIPRAP ENERGY DISSIPATERS ASSOCIATED WITH THE OUTFALLS ARE TO BE INSPECTED AND CLEANED TWICE A YEAR. EXCESS ACCUMULATED SEDIMENT AND DEBRIS SHALL BE REMOVED BY HAND AND DISPOSED OF EITHER ON SITE IN NON-WETLAND AREAS, OR OFF-SITE.

2A & 2B COMPONENTS

1. PHASE 2A:
   a. BUILD THE ADA SPACES AND CONCRETE SIDEWALKS
   b. BUILD THE DUMPSTER ENCLOSURE.
   c. REPLACE THE SHED DOORS.
   d. INSTALL THE 2 ROWS OF PLANTINGS AT THE FRONT AND PARTIAL SIDE OF THE BUILDING.
   e. PAINT THE BUILDING.
   f. INSTALL SIGNAGE (PREVIOUSLY APPROVED).
   g. BUILD FULL LOWER REVISED DECK.
   h. REVISED VESTIBULE.
   i. REVISED BRIDGE DESIGN.
   j. BLUE BUFFALO DOG RUN.
2. PHASE 2B:
   a. CHANGES TO LANDSCAPE.
   b. REVISED SIDE PATIO.
   c. RELOCATION/MODIFICATION TO PIRATE SHIP. (4)



No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
4.	8/27/2020	SITE PLAN APPLICATION – REMOVAL OF 8 PARKING SPACES	RR	JL
3.	6/10/2020	ADMINISTRATIVE REVIEW	ST	JL
2.	2/14/2020	RESPONSE TO COMMENTS	KM	JL
1.	11/8/2019	IWWC RESUBMISSION	KN	VC

SEAL

SEAL

SCALE:
HORZ.: 1" = 30'
VERT.:
DATUM:
HORZ.:
VERT.: NAVD 88
30 15 0 30
GRAPHIC SCALE

FUSS & O'NEILL
56 QUARRY ROAD
TRUMBULL, CONNECTICUT 06611
203.374.3748
www.fando.com

MAKE-A-WISH FOUNDATION OF CONNECTICUT, INC.

SITE LAYOUT PLAN

56 COMMERCE DRIVE

TRUMBULL CONNECTICUT

PROJ. No.: 20190339.A11
DATE: 9/17/2019

CS-101

File Path: J:\DWG\P2019\0339\A11\Civil\Plan\20190339.A11_STP01.dwg Layout: CS-101 Plotted: Wed, August 05, 2020 - 11:58 AM User: rrittgers
Plotter: AUTOCAD PDF (GENERAL DOCUMENTATION).PC3 CTB File: FO.STB
MS VIEW:
LAYER STATE:

NOTE: PROPOSED SITE IMPROVEMENTS DO NOT INCLUDE SITE CHANGES AS APPROVED BY TOWN OF TRUMBULL PLANNING & ZONING AND INLAND WETLANDS AND WATERCOURSES COMMISSION AS PART OF NOVEMBER 2018 RESUBDIVISION.

GENERAL NOTES

1. CONTRACTOR MUST FIELD VERIFY EXISTING ELEVATIONS PRIOR TO CONSTRUCTION. THE ENGINEER MUST BE NOTIFIED OF ANY DIFFERENCE IN EXISTING CONDITIONS THAT AFFECTS THE PROPOSED DESIGN.
2. SITE SHALL BE GRADED SMOOTHLY AND EVENLY IN ACCORDANCE WITH THE PROPOSED TOP FRAMES AND SPOT GRADE ELEVATIONS DEPICTED HEREON. CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING POSITIVE DRAINAGE FLOW TO ALL CATCH BASINS WITHOUT CREATING ANY FLAT SPOTS THAT WILL RESULT IN STANDING WATER.
3. ALL RESERVED PARKING STALLS SHALL BE GRADED WITH A MAXIMUM PITCH OF 2% IN ANY DIRECTION.
4. ALL SIDEWALKS SHALL BE GRADED WITH A MAXIMUM CROSS-PITCH OF 2%.

CALL before you DIG
Call Toll Free in Conn.
1-800-922-4455

CALL-BEFORE-YOU-DIG: THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING "CALL BEFORE YOU DIG" AT 1-800-922-4455 TO ARRANGE FOR MARKING OUT EXISTING UNDERGROUND UTILITIES AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATION.

UTILITY NOTE

1. THE UNDERGROUND UTILITIES DEPICTED HEREON ARE BASED ON FIELD LOCATION OF VISIBLE FEATURES, MAPS AND PLANS OF RECORD, UTILITY MAPPING OR OTHER SOURCES OF INFORMATION. THE ENGINEER MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE ENGINEER FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THE ENGINEER DOES DECLARE THAT THEY ARE DEPICTED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE ENGINEER HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.
2. SHRUBS OR OTHER OBSTRUCTIONS SHALL BE KEPT A MINIMUM OF 5 FEET FROM THE REAR AND SIDES AND 12 FEET FROM THE COMPARTMENT DOORS OF PADMOUNT TRANSFORMERS.
3. COORDINATE WITH SITE ELECTRICAL, SITE LIGHTING AND LANDSCAPE PLANS.

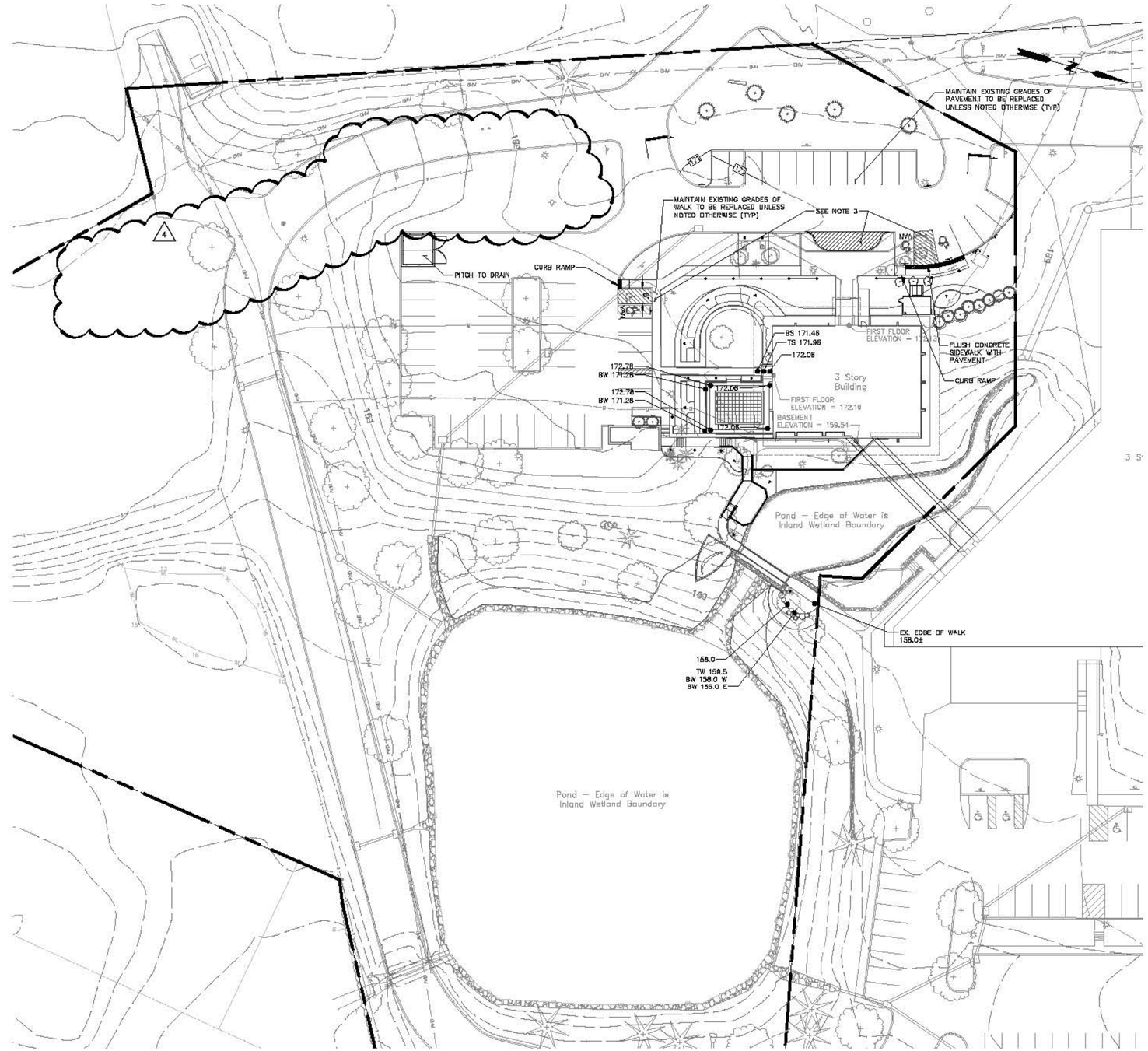
SURVEY MAP REFERENCE

"SITE & EROSION CONTROL PLAN 60 COMMERCE DRIVE TRUMBULL, CONNECTICUT PREPARED FOR CITY PARK COMMERCE DRIVE LLC & CH COMMERCE DRIVE ASSOCIATES LLC" SURVEY PREPARED BY SPATH-BJORKLUND ASSOCIATES, INC. DATED 9/26/2018.

EXISTING TREE LOCATIONS DIGITIZED FROM HARD-COPY SCAN OF "ALTA/ACSM LAND TITLE SURVEY" PREPARED AND CERTIFIED BY BL COMPANIES, DATED 12/4/2017.

FIELD SURVEY OF TREES AND ADDITIONAL SPOT ELEVATIONS CONDUCTED BY FUSS & O'NEILL, INC. ON 10/23/2019.

SURVEY ELEVATIONS MUST BE FIELD VERIFIED BY CONTRACTOR PRIOR TO STARTING CONSTRUCTION.



No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
4.	8/27/2020	SITE PLAN APPLICATION – REMOVAL OF 9 PARKING SPACES	RR	JL
3.	6/10/2020	ADMINISTRATIVE REVIEW	ST	JL
2.	2/14/2020	RESPONSE TO COMMENTS	KM	JL
1.	11/8/2019	IWWC RESUBMISSION	KM	VC

SEAL

SEAL

SCALE:
HORZ.: 1" = 30'
VERT.:
DATUM:
HORZ.:
VERT.: NAVD 88
30 15 0 30
GRAPHIC SCALE

FUSS & O'NEILL
56 QUARRY ROAD
TRUMBULL, CONNECTICUT 06611
203.374.3748
www.fando.com

MAKE-A-WISH FOUNDATION OF CONNECTICUT, INC.

SITE GRADING & DRAINAGE PLAN

56 COMMERCE DRIVE

TRUMBULL CONNECTICUT

PROJ. No.: 20190339.A11
DATE: 9/17/2019

CG-101

File Path: J:\DWG\P2019\0339\A11\Civil\Plan\20190339.A11_STP01.dwg Layout: CG-101 Plotted: Wed, August 05, 2020 - 11:59 AM User: rrittgers
Plotter: AUTOCAD PDF (GENERAL DOCUMENTATION).PC3 CTB File: FO.STB
MS VIEW:
LAYER STATE:

EROSION & SEDIMENT CONTROL NOTES

1. **CONSTRUCTION STANDARDS** – CONSTRUCT ALL EROSION AND SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE MOST RECENT EDITION OF THE "CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL" (CT DEP BULLETIN 34). ALL MEASURES SHALL BE MAINTAINED AND UPGRADED TO ACHIEVE PROPER SEDIMENT CONTROL DURING CONSTRUCTION.

2. **PLAN IMPLEMENTATION** – IMPLEMENT THIS EROSION AND SEDIMENT CONTROL PLAN. THIS IMPLEMENTATION INCLUDES THE INSTALLATION AND MAINTENANCE OF CONTROL MEASURES UNTIL PERMANENT STABILIZATION IS ACHIEVED, INFORMING ALL SUBCONTRACTORS OF THE REQUIREMENTS AND OBJECTIVES OF THE PLAN, AND NOTIFYING THE PROPER MUNICIPAL AGENCY OF ANY TRANSFER OF THIS RESPONSIBILITY. THE OWNER SHALL BE RESPONSIBLE FOR CONVEYING A COPY OF THE EROSION AND SEDIMENT CONTROL PLAN TO THE NEW OWNER IF THE TITLE OF THE LAND IS TRANSFERRED PRIOR TO ACHIEVING PERMANENT STABILIZATION.

3. **INSTALLATION SCHEDULE** – INSTALL THE CONSTRUCTION ENTRANCE BEFORE CONSTRUCTION TRAFFIC INTO AND OUT OF THE PROJECT AREA BEGINS. INSTALL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO STUMP REMOVAL AND CONSTRUCTION. INSTALL ADDITIONAL CONTROL MEASURES DURING THE CONSTRUCTION PERIOD, IF DEEMED NECESSARY BY THE OWNER, HIS AGENTS OR AGENTS OF THE MUNICIPALITY.

4. **FUGITIVE DUST** – CONTROL FUGITIVE DUST USING WATER SPRAYS OR CALCIUM CHLORIDE ON SOIL SURFACES, SWEEPING PAVED AREAS, TEMPORARY WINDBREAKS OR NON-ASPHALTIC SOIL TACKIFIERS.

5. **STRAW BALE LIFE SPAN** – INSTALL STRAW BALES WHERE PROTECTION AND EFFECTIVENESS IS REQUIRED FOR LESS THAN 90 DAYS. OTHERWISE, INSTALL SILT FENCE.

6. **CATCH BASINS** – PROTECT CATCH BASINS WITH PROPER CONTROLS THROUGHOUT THE CONSTRUCTION PERIOD UNTIL ALL DISTURBED AREAS ARE PERMANENTLY STABILIZED.

7. **STOCKPILES** – ENCIRCLE STOCKPILES OF ERODIBLE SOIL WITH A STRAW BALE OR SILT FENCE BARRIER. THE SIDE SLOPES OF ERODIBLE STOCKPILED MATERIAL SHALL BE NO STEEPER THAN 2:1. STOCKPILES THAT ARE NOT TO BE USED WITHIN 30 DAYS SHALL BE SEEDED AND MULCHED IMMEDIATELY AFTER THEY ARE FORMED.

8. **TOE OF SLOPE** – ESTABLISH AN EROSION CONTROL BARRIER (SILT FENCE OR STRAW BALE BARRIER) APPROXIMATELY 5 TO 10 FEET FROM THE PROPOSED TOE OF THE CUT OR FILL AREA PRIOR TO BEGINNING EARTHWORK.

9. **SEDIMENT REMOVAL** – SEDIMENT REACHING ½ THE HEIGHT OF THE EROSION CONTROL BARRIER SHALL BE REMOVED. REMOVE AND DISPOSE OF SEDIMENT IN A MANNER CONSISTENT WITH THE INTENT OF THE PLAN.

10. **SOIL STABILIZATION SCHEDULE** – APPLY PERMANENT SOIL STABILIZATION MEASURES TO ALL GRADED AREAS WITHIN 7 DAYS OF ESTABLISHING FINAL GRADE. APPLY TEMPORARY SOIL STABILIZATION MEASURES IF FINAL GRADING IS TO BE DELAYED MORE THAN 30 DAYS.

11. **TEMPORARY SEEDING** – TEMPORARILY SEED ERODIBLE SOILS THAT WILL BE EXPOSED GREATER THAN 1 BUT LESS THAN 12 MONTHS WITHIN THE FIRST 7 DAYS OF SUSPENDING GRADING OPERATIONS. APPLY LIME AT A RATE OF 90 LBS/1000 SQ. FT. APPLY 10-10-10 FERTILIZER AT A RATE OF 7 ½ LBS/1000 SQ. FT. APPLY PERENNIAL RYE GRASS AT A RATE OF 2 LBS/1000 SQ. FT. TO A DEPTH OF ¼ INCH. OPTIMUM SEEDING DATES ARE MARCH 15 TO JULY 1 AND AUGUST 1 TO OCTOBER 15. MULCH FOR SEED APPLIED WITHIN THE OPTIMUM SEEDING DATES SHALL BE APPLIED EVENLY SUCH THAT IT PROVIDES 80%-95% SOIL COVERAGE. MULCH FOR SEED APPLIED OUTSIDE OF THE OPTIMUM SEEDING DATES SHALL BE APPLIED EVENLY SUCH THAT IT PROVIDES 95%-100% COVERAGE.

12. **PERMANENT SEEDING** – SEED PERMANENT LAWN AREAS IN ACCORDANCE WITH THE SPECIFICATIONS.

NOTE: PROPOSED SITE IMPROVEMENTS DO NOT INCLUDE SITE CHANGES AS APPROVED BY TOWN OF TRUMBULL PLANNING & ZONING AND INLAND WETLANDS AND WATERCOURSES COMMISSION AS PART OF NOVEMBER 2018 RESUBDIVISION.

CALL before you DIG
Call Toll Free In Conn.
1-800-922-4455

CALL-BEFORE-YOU-DIG: THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING "CALL BEFORE YOU DIG" AT 1-800-922-4455 TO ARRANGE FOR MARKING OUT EXISTING UNDERGROUND UTILITIES AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATION.

UTILITY NOTE

1. THE UNDERGROUND UTILITIES DEPICTED HEREON ARE BASED ON FIELD LOCATION OF VISIBLE FEATURES, MAPS AND PLANS OF RECORD, UTILITY MAPPING OR OTHER SOURCES OF INFORMATION. THE ENGINEER MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE ENGINEER FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THE ENGINEER DOES DECLARE THAT THEY ARE DEPICTED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE ENGINEER HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

2. SHRUBS OR OTHER OBSTRUCTIONS SHALL BE KEPT A MINIMUM OF 5 FEET FROM THE REAR AND SIDES AND 12 FEET FROM THE COMPARTMENT DOORS OF PADMOUNT TRANSFORMERS.

3. COORDINATE WITH SITE ELECTRICAL, SITE LIGHTING AND LANDSCAPE PLANS.

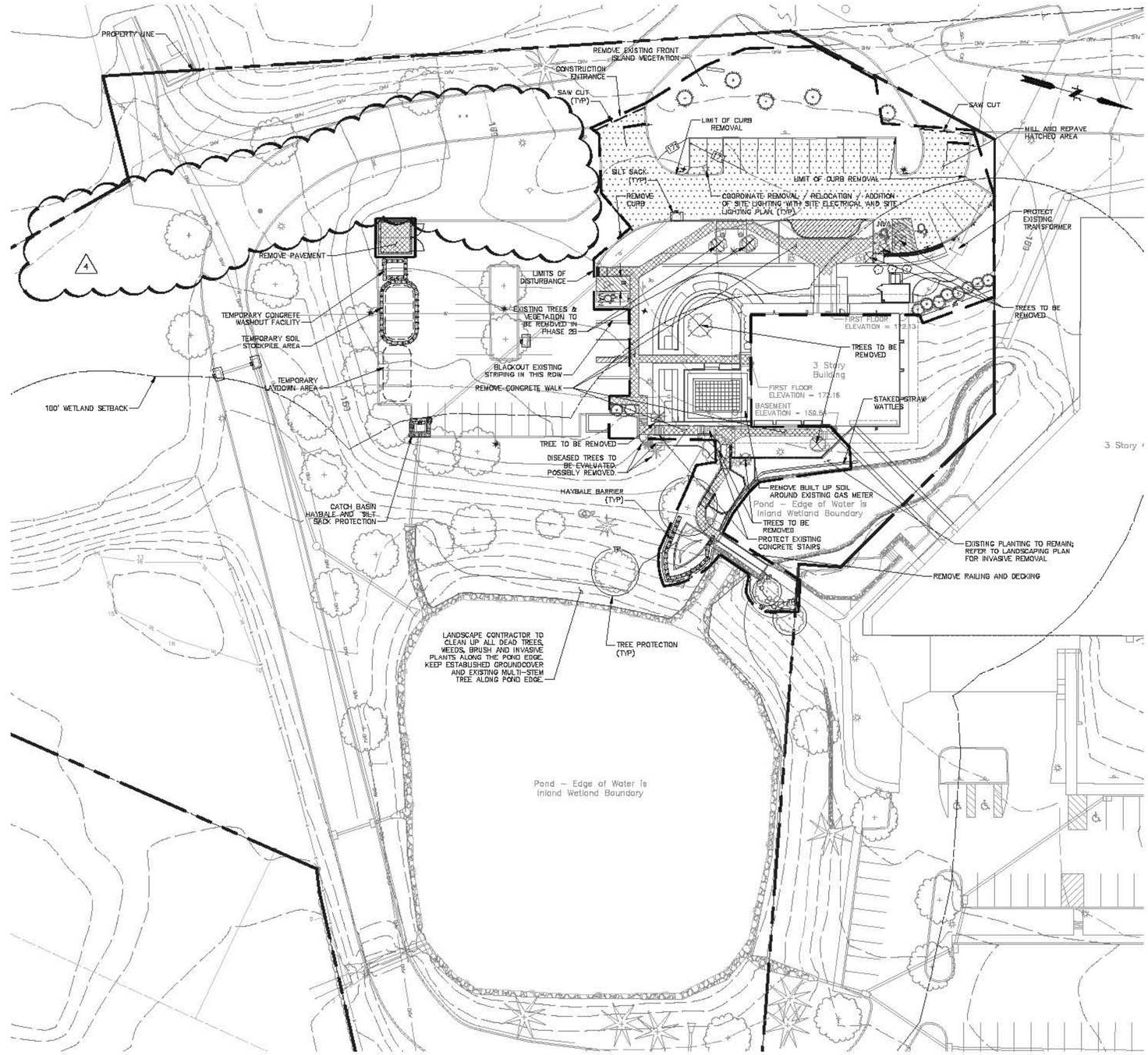
SURVEY MAP REFERENCE

"SITE & EROSION CONTROL PLAN 60 COMMERCE DRIVE TRUMBULL, CONNECTICUT PREPARED FOR CITY PARK COMMERCE DRIVE LLC & CH COMMERCE DRIVE ASSOCIATES LLC" SURVEY PREPARED BY SPATH-BJORKLUND ASSOCIATES, INC. DATED 9/28/2018.

EXISTING TREE LOCATIONS DIGITIZED FROM HARD-COPY SCAN OF "ALTA/ACSM LAND TITLE SURVEY" PREPARED AND CERTIFIED BY BL COMPANIES, DATED 12/4/2017.

FIELD SURVEY OF TREES AND ADDITIONAL SPOT ELEVATIONS CONDUCTED BY FUSS & O'NEILL, INC. ON 10/23/2019.

SURVEY ELEVATIONS MUST BE FIELD VERIFIED BY CONTRACTOR PRIOR TO STARTING CONSTRUCTION.



No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
4.	8/27/2020	SITE PLAN APPLICATION – REMOVAL OF 8 PARKING SPACES	RR	JL
3.	6/10/2020	ADMINISTRATIVE REVIEW	ST	JL
2.	2/14/2020	RESPONSE TO COMMENTS	KM	JL
1.	11/8/2019	IWWC RESUBMISSION	KM	VC

SEAL

SEAL

SCALE:
HORZ.: 1" = 30'
VERT.:
DATUM:
HORZ.:
VERT.: NAVD 88
30 15 0 30
GRAPHIC SCALE

FUSS & O'NEILL
56 QUARRY ROAD
TRUMBULL, CONNECTICUT 06611
203.374.3748
www.fando.com

MAKE-A-WISH FOUNDATION OF CONNECTICUT, INC.

SITE PREPARATION, EROSION & SEDIMENTATION PLAN

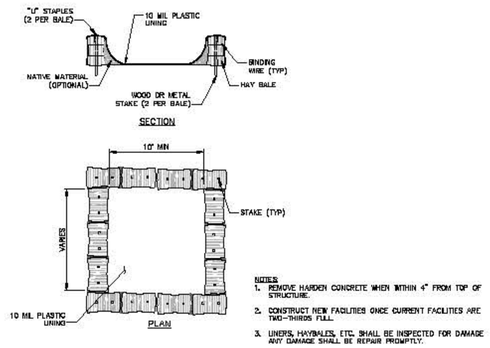
56 COMMERCE DRIVE

TRUMBULL CONNECTICUT

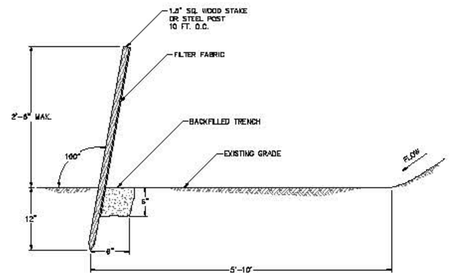
PROJ. No.: 20190339.A11
DATE: 9/17/2019

CE-101

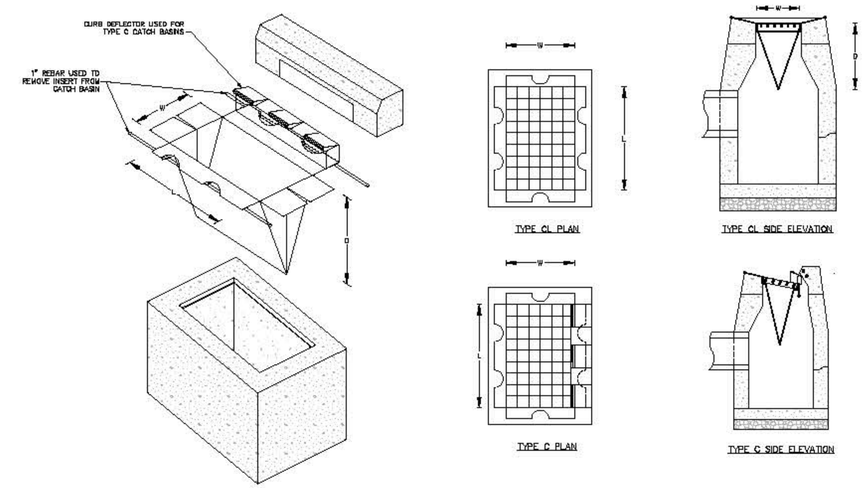
File Path: J:\DWG\P2019\0339\A11\Civil\Plan\20190339.A11_STP01.dwg Layout: CE-101 Plotted: Wed, August 05, 2020 - 11:58 AM User: mttgers
Plotter: AUTOCAD PDF (GENERAL DOCUMENTATION).PC3 CTB File: FO.STB
MS VIEW:
LAYER STATE:



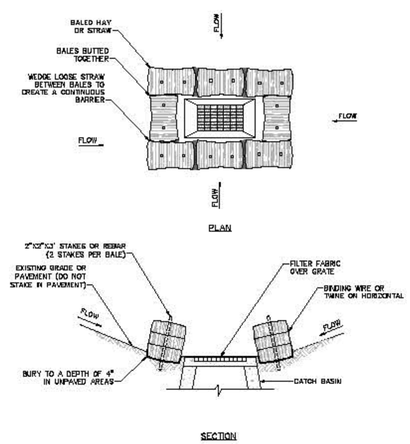
ABOVE GROUND TEMPORARY CONCRETE WASHOUT FACILITY
NOT TO SCALE



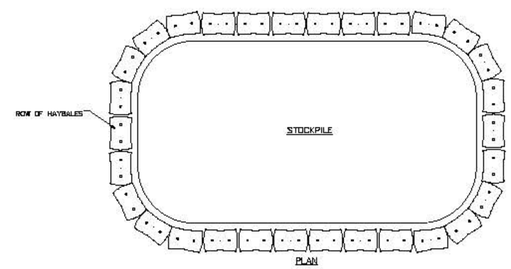
SILT FENCE
NOT TO SCALE



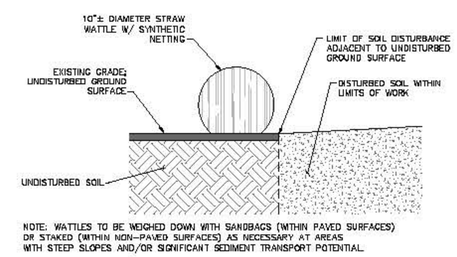
SILT SACK CATCH BASIN INSERT
NOT TO SCALE



LOW POINT HAY BALE BARRIER
NOT TO SCALE



STOCKPILE CONTAINMENT
NOT TO SCALE



STRAW WATTLE BARRIER
NOT TO SCALE

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
1.				

SEAL

SEAL

SCALE:
HORZ.: NTS
VERT.:
DATUM:
HORZ.:
VERT.:

FUSS & O'NEILL
56 QUARRY ROAD
TRUMBULL, CONNECTICUT 06611
203.374.3748
www.fando.com

MAKE-A-WISH FOUNDATION OF CONNECTICUT, INC.

EROSION AND SEDIMENT CONTROL DETAILS

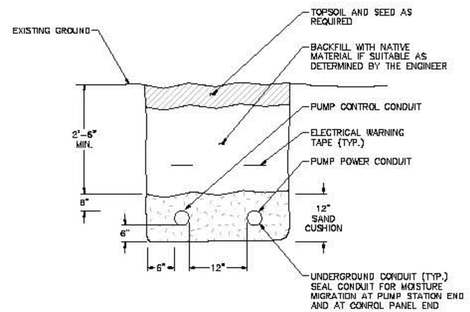
56 COMMERCE DRIVE

TRUMBULL CONNECTICUT

PROJ. No.: 20190339.A11
DATE: 9/17/2019

CE-501

File Path: J:\DWG\P\20190339\A11\Civil\Plan\20190339.A11_DET01.dwg Layout: CE-501 Plotted: Wed, June 03, 2020 - 9:34 AM User: stanski Plotter: AUTOCAD PDF (GENERAL DOCUMENTATION).PC3 CTB File: FO.STB
MS VIEW:
LAYER STATE:

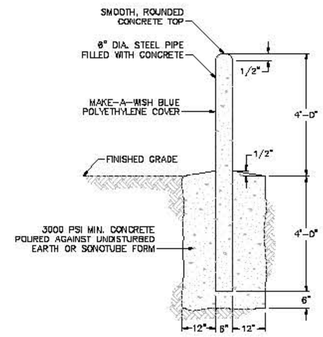


UNDERGROUND CONDUIT TRENCH NOTES

1. INSTALL ELECTRICAL MARKING TAPE ABOVE THE ELECTRIC CONDUIT AND BURIED ELECTRIC WIRING.

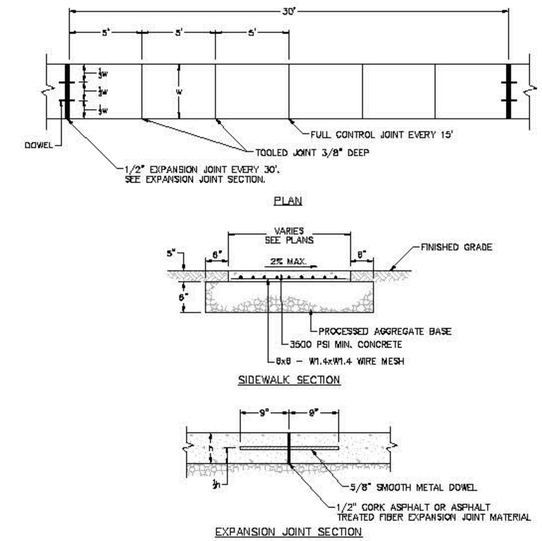
UNDERGROUND CONDUIT TRENCH DETAIL

SCALE: N.T.S.



BOLLARD

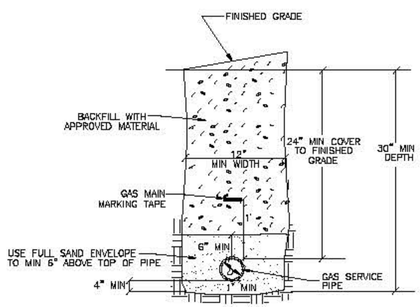
NOT TO SCALE



NOTE: SALT GUARD PROTECTIVE SEALANT TO BE APPLIED TO ALL CONCRETE SIDEWALKS ONCE CONCRETE HAS FULLY CURED

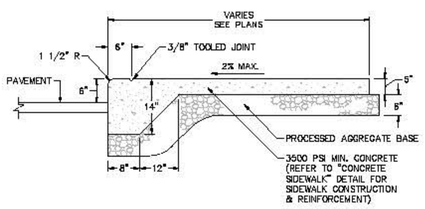
CONCRETE SIDEWALK

NOT TO SCALE



GAS SERVICE TRENCH

NOT TO SCALE

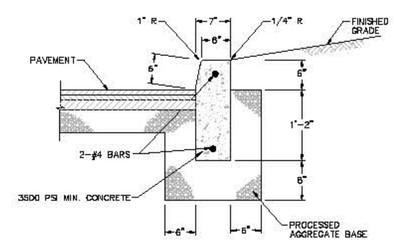


NOTE: SALT GUARD PROTECTIVE SEALANT TO BE APPLIED TO ALL CONCRETE SIDEWALKS ONCE CONCRETE HAS FULLY CURED.

NOTE: THIS DETAIL TO BE USED AT ALL LOCATIONS WHERE CURBING DIRECTLY ABUTS A CONCRETE SIDEWALK.

MONOLITHIC CONCRETE CURB AND WALK

NOT TO SCALE

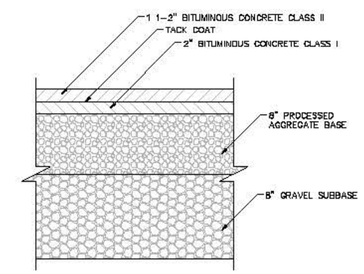


NOTES

1. 1 INCH DEEP BEVELED JOINT AT TOP AND FACE OF CURB EVERY 10 FEET.
2. 1/2 INCH EXPANSION JOINT AND FILLER EVERY 30 FEET.
3. 1/2 INCH EXPANSION JOINT AND FILLER WHEN CURB IS ADJACENT TO CONCRETE SIDEWALK.

CONCRETE CURB

NOT TO SCALE



BITUMINOUS CONCRETE PAVEMENT (STD. DUTY)

NOT TO SCALE

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
3.	8/10/2020	ADMINISTRATIVE REVIEW	ST	JL

SEAL

SEAL

SCALE:
HORZ.: NTS
VERT.:
DATUM:
HORZ.:
VERT.:

FUSS & O'NEILL
56 QUARRY ROAD
TRUMBULL, CONNECTICUT 06611
203.374.3748
www.fando.com

MAKE-A-WISH FOUNDATION OF CONNECTICUT, INC.

CONSTRUCTION DETAILS

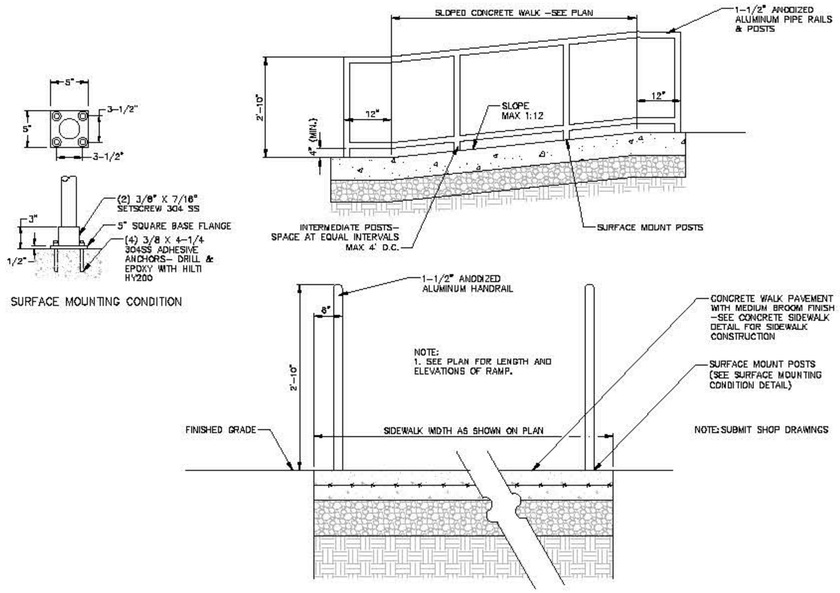
56 COMMERCE DRIVE

TRUMBULL CONNECTICUT

PROJ. No.: 20190339.A11
DATE: 9/17/2019

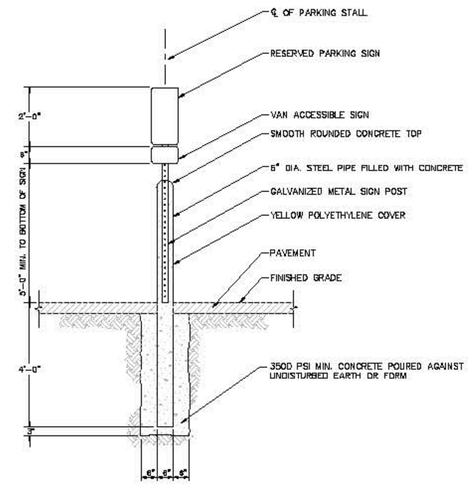
CD-501

File Path: J:\DWG\P2019\0339\A11\Civil\Plan\20190339.A11_DET01.dwg Layout: CD-501 Plotted: Fri, July 24, 2020 - 10:54 AM User: rrittgers
Plotter: DWG TO PDF.PC3 CTB File: FO.STB
LAYER STATE:
MS VIEW:



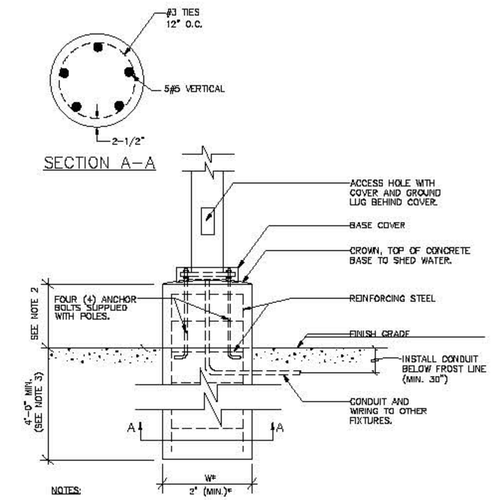
ADA-ACCESSIBLE SLOPED CONCRETE WALK WITH METAL HANDRAIL (FOR WALKS EXCEEDING 5% SLOPE)

SCALE: N.T.S.



ACCESSIBLE PARKING SIGN POST

NOT TO SCALE



NOTES:

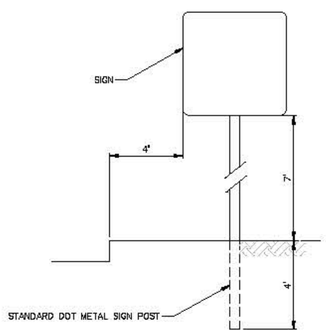
1. REFER TO PROPOSED SITE LIGHTING PHOTOMETRIC PLAN FOR LUMINARE FIXTURE.

2. EXTEND CONCRETE POLE BASE 2'-6" ABOVE FINISHED GRADE IN PARKING AREAS & 4" ABOVE FINISHED GRADE OF LAWN OR MULCHED LANDSCAPE AREAS. POLES TO BE MINIMUM 30" BACK FROM FACE OF CURB.

3. CONTRACTOR SHALL CONFIRM FOOTING SIZE AND BOLT PATTERN WITH LIGHT POLE MANUFACTURER.

LIGHT POLE BASE

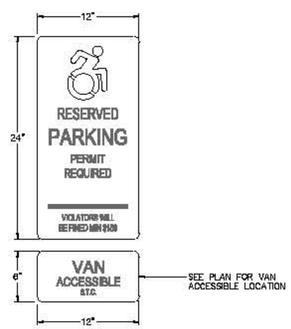
NOT TO SCALE



NOTE:
TYPICAL SIGN DETAIL; REFER TO CTDOT STANDARD SHEET – METAL SIGN POST AND SIGN MOUNTING DETAILS TR-1208_02

SIGN

NOT TO SCALE

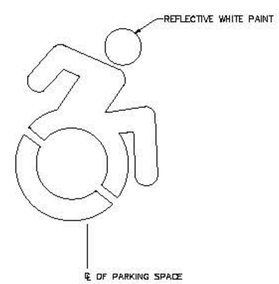


NOTES

CDOT NUMBER:
ALUMINUM THICKNESS: .080"
BACKGROUND: BLUE (REF.)
LEGEND: SILVER (REF.)
POSTS: SEE "RESERVED PARKING SIGN AND POST" DETAIL

RESERVED PARKING SIGN

NOT TO SCALE

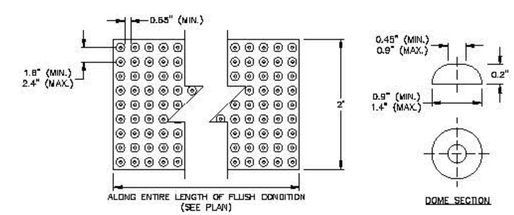


NOTE: SYMBOL DIMENSIONS SHALL CONFORM TO THE 2016 CONNECTICUT STATE BUILDING CODE SECTION 703.5.3.1 INTERNATIONAL SYMBOL OF ACCESSIBILITY.

RESERVED SYMBOL

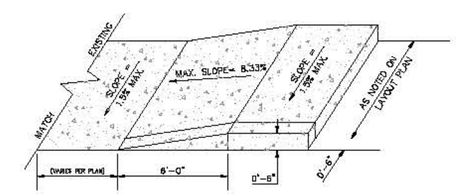
NOT TO SCALE

NOTE: ALL RAMPS REQUIRING DETECTABLE WARNING STRIPS (AS DEPICTED ON PLANS) SHALL BE CONCRETE REGARDLESS OF SIDEWALK PAVEMENT TYPE. PROVIDE A MINIMUM WIDTH OF 6" OF CONCRETE AROUND PERIMETER OF ALL TACTILE STRIPS.



DETECTABLE WARNING STRIP

NOT TO SCALE



ACCESSIBLE RAMP SLOPE

NOT TO SCALE

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
1.				

SEAL

SEAL

SCALE:
HORZ.: NTS
VERT.:
DATUM:
HORZ.:
VERT.:

FUSS & O'NEILL
56 QUARRY ROAD
TRUMBULL, CONNECTICUT 06611
203.374.3748
www.fando.com

MAKE-A-WISH FOUNDATION OF CONNECTICUT, INC.

CONSTRUCTION DETAILS

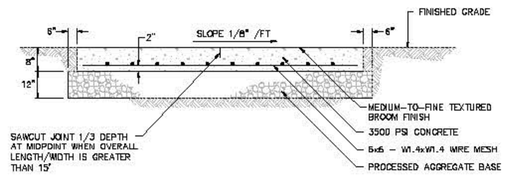
56 COMMERCE DRIVE

TRUMBULL CONNECTICUT

PROJ. No.: 20190339.A11
DATE: 9/17/2019

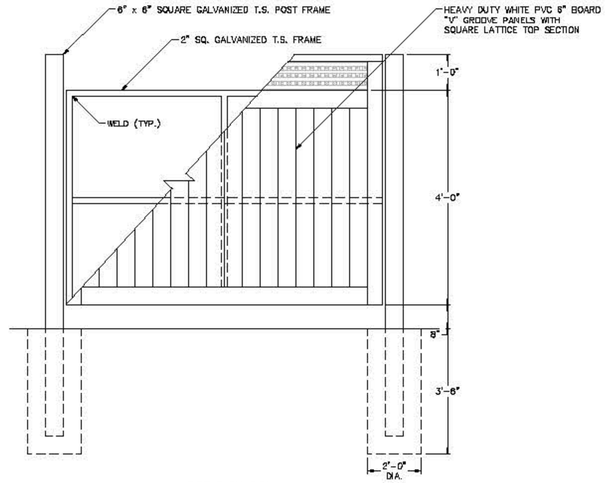
CD-502

File Path: J:\DWG\P2019\0339\A11\Civil\Plan\20190339.A11_DET01.dwg Layout: CD-502 Plotted: Wed, June 03, 2020 - 9:34 AM User: stanski
Plotter: AUTOCAD PDF (GENERAL DOCUMENTATION).PC3 CTB File: FO.STB
LAYER STATE:
MS VIEW:

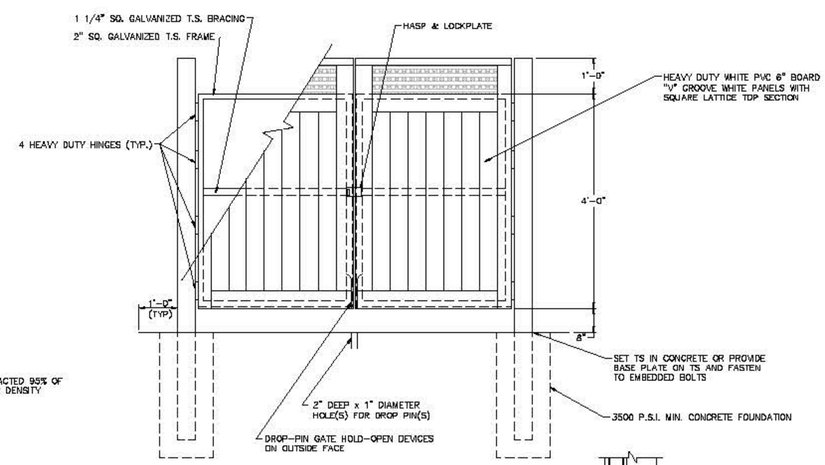


CONCRETE PAD

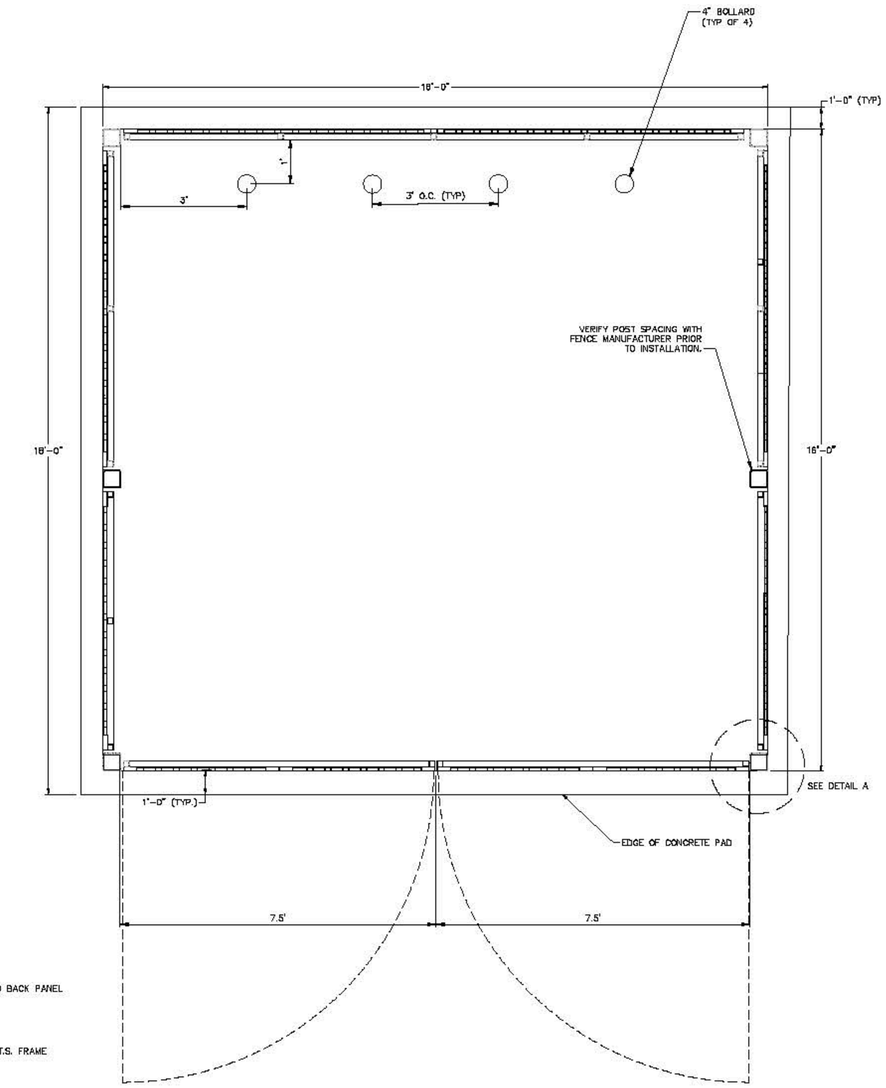
NOT TO SCALE



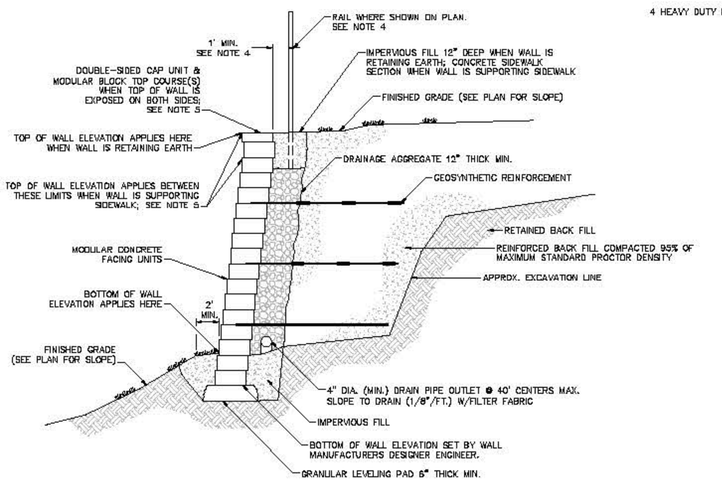
SIDE ELEVATION



FRONT ELEVATION



PLAN



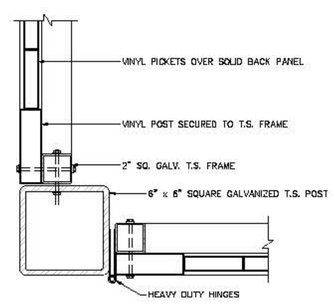
TYPICAL SECTION

NOTES

1. DETAILS AND NOTES HEREON ARE GENERIC AND ARE INTENDED TO GIVE A GENERAL DESCRIPTION OF THE WALL. THEY ARE NOT FOR CONSTRUCTION.
2. DETAILED WALL CONSTRUCTION PLANS, STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF CONNECTICUT, SHALL BE SUBMITTED TO AND APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.
3. APPROVED WALL MANUFACTURERS INCLUDE VERSA-LOK, KEYSTONE, MESA OR EQUAL.
4. DEPTH OF GUIDE RAIL POST OR FENCE POST SHALL BE DETERMINED BY THE WALL DESIGNER WHEN IN PROXIMITY TO BACK OF WALL.
5. FOR WALLS SUPPORTING A CONCRETE SIDEWALK (IE. SIDEWALK IS PROPOSED ALONG THE BACK SIDE OF THE WALL), THE TOP OF WALL ELEVATIONS SHOWN ON SHEET CG-101 DEPICT THE FINISHED GRADE OF THE CONCRETE WALKING SURFACE. THE WALL SHALL BE STEPPED SUCH THAT THE TOP OF THE CAP UNIT IS SLIGHTLY ABOVE THE CONCRETE SIDEWALK ELEVATION, OR FLUSH WITH THE CONCRETE SIDEWALK AT A MINIMUM.

MODULAR CONCRETE BLOCK RETAINING WALL

NOT TO SCALE



DETAIL A

TOTE ENCLOSURE (OR APPROVED EQUAL)

SCALE: N.T.S.

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
3.	8/10/2020	ADMINISTRATIVE REVIEW	ST	JL

SEAL

SEAL

SCALE:
HORZ.: NTS
VERT.:
DATUM:
HORZ.:
VERT.:

FUSS & O'NEILL
56 QUARRY ROAD
TRUMBULL, CONNECTICUT 06611
203.374.3748
www.fando.com

MAKE-A-WISH FOUNDATION OF CONNECTICUT, INC.

CONSTRUCTION DETAILS

56 COMMERCE DRIVE

TRUMBULL CONNECTICUT

PROJ. No.: 20190339.A11
DATE: 9/17/2019

CD-503

File Path: J:\DWG\P2019\0339\A11\Civil\Plan\20190339.A11_DET01.dwg Layout: CD-503 Plotted: Wed, June 10, 2020 - 10:49 AM User: stanski
Plotter: AUTOCAD PDF (GENERAL DOCUMENTATION).PC3 CTB File: FO.STB
MS VIEW:
LAYER STATE:

Proposed Plant List

Trees

Qty.	Symbol	Botanical Name	Common Name	Size	Cond	Remarks
3	AC	*Amelanchier canadensis*	Service Berry	10'-12' HT.	B&B	Full canopy, nicely shaped, multi-stem
8	AT	*Thuja occidentalis 'Techny'*	Techny Arborvitae	10'-12' HT.	B&B	Full, heavy foliage, nicely shaped, matching
7	JCK	*Juniperus chiniensis 'Kaizuka'*	Hollywood Juniper	6'-7' HT.	B&B	Full, nicely shaped, matching specimen
5	PA	*Prunus autumnalis*	Higan Cherry	3.5"-4" CAL.	B&B	Full, nicely shaped, matching specimen
2	QR	*Quercus rubra*	Red Oak	3.5"-4" CAL.	B&B	Full, nicely shaped, specimen

Shrubs

Qty.	Symbol	Botanical Name	Common Name	Size	Cond	Remarks
65	Dgn	*Deutzia gracilis 'Nikko'*	Slender Deutzia	3 GAL.	CONT.	Full, heavy flowers, nicely shaped
2	Imb	Ilex meserve 'Blue Princess'	Blue Princess Holly	5'-6' HT.	B&B	Full, nicely shaped, for Hedging
85	Icg	Ilex crenata 'Green Lustre'	Green Lustre Holly	24" HT.	B&B	Full, nicely shaped, for hedging
50	Ich1	Ilex crenata 'Helleri'	Helleri Holly	36" HT.x WD.	B&B	Full, nicely shaped, matching specimen
2	Ich2	Ilex crenata 'Helleri'	Helleri Holly	48" HT.x WD.	B&B	Full, nicely shaped, matching specimen
30	Igs	Ilex glabra 'Shamrock'	Shamrock Holly	36" HT.x 48" WD.	B&B	Full, nicely shaped, matching specimen
27	Sjp	Spirea japonic ' Little Princess'	Little Princess Spirea	24"-36" HT.	CONT.	Full, heavy flowers, nicely shaped

Perennials, Grasses, Groundcovers and Vines

Qty.	Symbol	Botanical Name	Common Name	Size	Cond	Remarks
70	aff	*Ahtyrium filix-femina*	Lady Fern	1 GAL.	CONT.	Full, well rooted, nicely shaped,
500	ame	*Allium 'Mt. Everest'*	Mt. Everest Ornamental Onion	BULB	BULB	Full, nicely shaped, mixed evenly
575	aps	*Allium 'Purple Sensation'*	Purple Sensation Ornamental Onion	BULB	BULB	Full, nicely shaped, mixed evenly
165	cb	*Calamangrotis brachyticha'*	Reed Grass	3 GAL.	CONT.	Full, well rooted, nicely shaped
575	cid	*Carex 'Ice Dance'*	Sedge	1 GAL.	CONT.	Full, well rooted, nicely shaped
4	ct	*Clematis terniflora*	Sweet Autumn Clematis	2 GAL.	CONT.	Full, well rooted, vine trained on rack
825	nm	*Narcissus 'Minnow'*	Minnow Daffodil	BULB	BULB	Full, nicely shaped, mixed evenly
825	ntt	*Narcissus 'Tete-a-Tete'*	Tete-a-Tete Daffodil	BULB	BULB	Full, nicely shaped, mixed evenly
2500	ls	*Liriope spicata*	Creeping Lilyturf	2 QUART	CONT.	Full, well rooted, planted at +/- 8" o.c.
115	pvs	*Panicum virgatum 'Shenandoah'*	Shenandoah Switch Grass	1 GAL.	CONT.	Full, well rooted, nicely shaped

Irrigation Notes

1. Irrigation System shall be provided as a Design/Build contract, by Owner. Contractor shall identify location of items that require interface with other disciplines (power to controller, water supply connection, backflow preventor, etc.)
2. Intent is to create a system consistent with LEED criteria to provide 50% reduction in use of potable water. Therefore planting is heavily oriented to native / adaptive plantings, but will include irrigation for both temporary and permanent irrigation.
3. Permanent irrigation shall generally include planted areas adjacent to the Main Entry and Upper Patio. Drip should be used wherever possible.
4. Temporary drip irrigation will be used for establishing trees, shrubs , perennials, and ground covers , including the planted island adjacent to Front Entry Parking and Lower Deck area.
5. Once plantings are established in areas with temporary irrigation, the systems maybe be turned off and/or only used during extreme weather conditions.
6. Landscape Architect shall review irrigation shop drawings and approve irrigation types and locations

Soil Chart

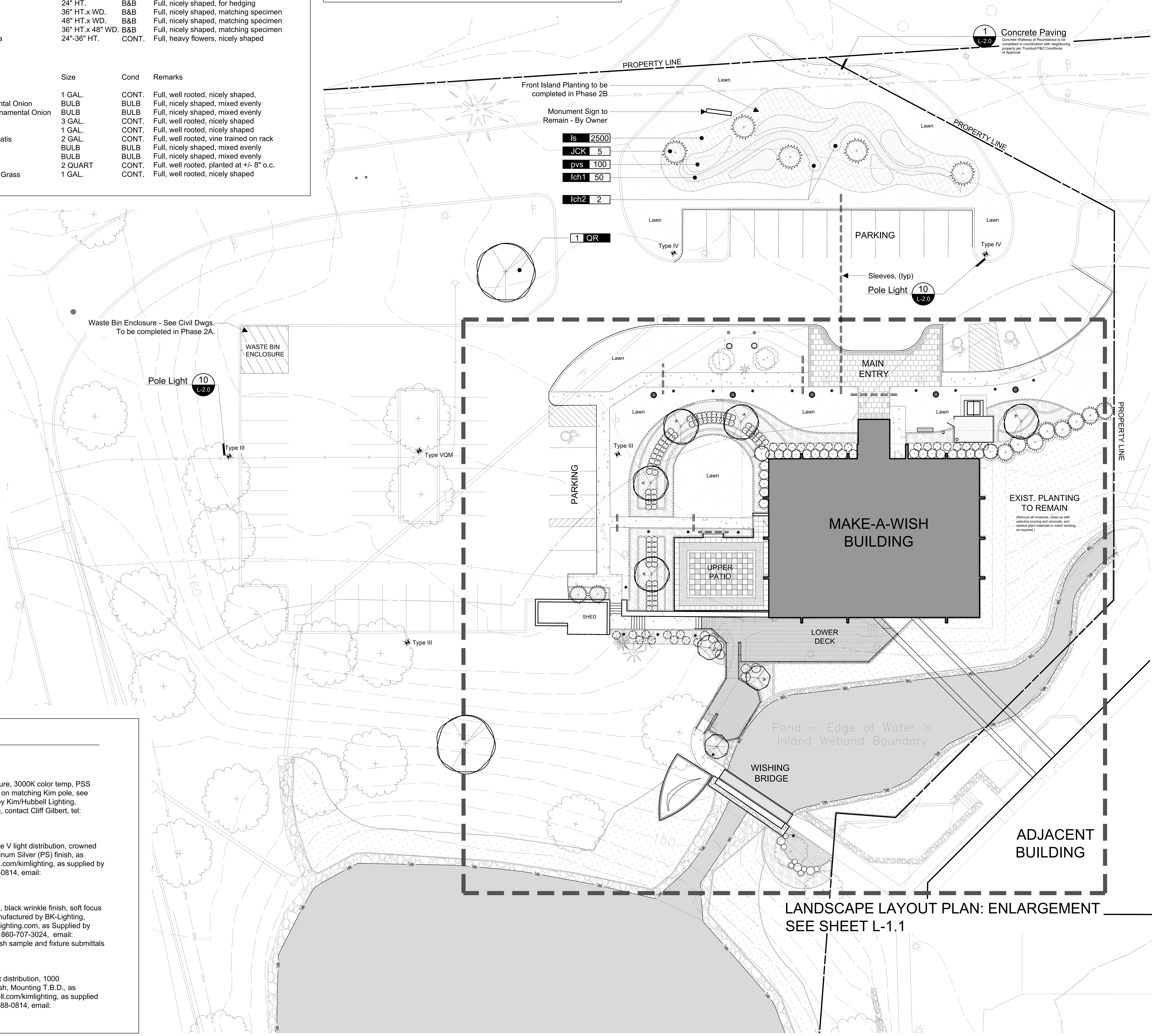
Post construction soil condition	Type of preparation
Good soil	Loosen existing soil
Compacted soil	Loosen existing soil, add composted organic matter to bring organic content to 5% dry weight
Clay content 5-35%	Loosen existing soil, add composted organic matter to bring organic content to 5% dry weight
Poor quality, heavy clay soil	Remove existing soil, add loam topsoil

Planting Notes

1. Be aware of all underground utilities prior to any planting operations. Contact "CALL BEFORE YOU DIG" prior to excavation.
2. All plantings are to be installed by a qualified landscape contractor.
3. The contractor shall be required to carry workmen's compensation insurance and comprehensive general liability insurance. Certificates will be required prior to signing contracts.
4. Notify owner or landscape architect 72 hours minimum in advance of starting planting operations. Receive approval for layout of all bed lines and material locations prior to installation.
5. The landscape architect reserves the right to reject inferior plant materials and substitutions. The landscape architect is willing to make two trips to suppliers to review and approve materials. Previously unapproved materials may be rejected at the site. Minimally, all materials will conform to the "American Standard for Nursery Stock" (ANSI Z60.1 - 2004) of the american association of nurserymen.
6. When there is a discrepancy between plant quantities shown on the plant list & the plan, use the quantities from the plant list.
7. Test soil for ph and nutrients, adjust as required and receive approval prior to planting.
8. Pit to be 2 times wider than root ball or widest spread of container or bare roots.
9. Set crown of root ball 2" above finished grade.
10. Do not add fertilizer to planting soil for fall plantings.
11. All plant material shall be guaranteed by the contractor to be in good, healthy and flourishing condition for a period of one year from the date of acceptance. The contractor shall replace, as soon as weather and seasonal conditions permit, all dead plants and all plants not in a vigorous, thriving condition, as determined by the landscape architect during, and at the end of the guarantee period. Warranty replacement will be provided at no cost to the owner and include materials and labor. Contractor is responsible for repair of any damage incurred during replacement of warranty materials. Warranty period to begin at the final approval of plantings by Landscape Architect and client. Contractor is responsible for maintaining the plant material until final approval is given. This will include watering the plants.

Proposed Lighting Schedule

Qty.	Symbol	Type	Description
3 Type III 2 Type IV 1 Type VQM		*Pole Light*	'OURO' UR20 LED Post Lights, FM44 Post Top Fixture, 3000K color temp, PSS Platinum Silver smooth finish, mounted at 14' height on matching Kim pole, see overall plan for distribution types, as manufactured by Kim/Hubbell Lighting, www.hubbell.com, as supplied by Illuminate Lighting, contact Cliff Gilbert, tel: 203-788-0814, email: cgilbert@illuminatene.com.
18		*Bollard Light*	'PA7R' Pavilion Bollards - LED with symmetrical Type V light distribution, crowned top, 1000 Lumen/3000K color temp, 24" height, Platinum Silver (PS) finish, as manufactured by Kim/Hubbell Lighting, www.hubbell.com/kimlighting, as supplied by Illuminate Lighting, contact Cliff Gilbert, tel: 203-788-0814, email: cgilbert@illuminatene.com.
7		*Accent Light*	'DELTA STAR' Solid State LED Accent Light, 3000K, black wrinkle finish, soft focus lens, honeycomb baffle, 45 degree cap style, as manufactured by BK-Lighting, 40429 Brickyard Drive, Madera, CA 93636, www.bklighting.com, as Supplied by Apex Lighting Solutions, contact Sylvia Perdikis, tel: 860-707-3024, email: SPerdikis@apexltg.com. Contractor shall submit finish sample and fixture submittals for approval by Landscape Architect.
2		*Flag Pole Light*	'KFL2' Kim Floodlight - LED, Vertical Flood (VF) light distribution, 1000 Lumen/3000K color temp, 24" height, Black (BL) finish, Mounting T.B.D., as manufactured by Kim/Huybbell Lighting, www.hubbell.com/kimlighting, as supplied by Illuminate Lighting, contact Cliff Gilbert, tel: 203-788-0814, email: cgilbert@illuminatene.com.



General Notes

1. Existing Conditions and Site Plan information taken from drawing titled: "Resubdivision" at 60 Commerce Drive in Trumbull, CT," Drawing Dated: August 9, 2018 and Prepared for City Park Commerce Drive LLC & CH Commerce Drive Associates LLC by The Huntington Company LLC, Consulting Engineers & Surveyors, 303 Linwood Avenue, Fairfield, CT, tel: 203-259-1091.
2. Verify locations, elevations and dimensions in field prior to construction. Notify the owner and/or landscape architect of any discrepancies.
3. Contact "CALL-BEFORE-YOU-DIG" at 800-922-4455 prior to beginning any site work activities.
4. All development activities to be undertaken with street rights of-way and other public lands shall comply fully with applicable state and/or town standards. Notify appropriate agency at least 72 hours prior to any excavation or clearing or construction on state or town property. Install erosion controls and tree protection prior to any excavation and/or clearing.
5. All work shall conform to the requirements of the town of Trumbull, Connecticut. Notify appropriate agencies at least 48 hours prior to performing work under their jurisdiction. Obtain all necessary approval from appropriate agencies prior to commencing construction activities.
6. Removal and disposal of all materials to comply with any and all state and/or local codes.
7. Existing plant material to be saved and protected where possible.
8. Protect trees to remain with a 4 ft. ht. snow or construction fence in accordance with the tree protection detail. Maintain protection throughout construction period. Do not store materials or equipment within fence or drip line of tree. Install tree protection prior to any earthwork or clearing.
9. Layout all paving and curbing prior to construction. Receive landscape architects approval on layout prior to starting work.
10. Provide samples of all stone, brick and mortar materials for landscape architects approval.
11. Contract limit lines are property lines. Contractor is responsible for repair of damage or disturbance to other areas which may occur as the result of their work whether within or outside of the contract limit lines.
12. Contractor is responsible for securing all construction permits and licenses required to complete the work.
13. Paving dimensions are from the edge of pavement or face wall to edge of pavement or face of wall opposite, unless otherwise noted.
14. Final grade in all cases shall slope away from the building at least 1/4" per foot.
15. All walks and steps shall have a minimum wash of 1/8" per foot.
16. Strip topsoil from all areas to be paved or filled, stockpile as indicated for reuse in lawn areas. Supply additional topsoil needed to bring all lawn and planting areas to a minimum depth of 6".
17. Screen all topsoil and spread to a 6" depth over all disturbed areas. Fine grade and seed to create finished lawn, or as otherwise directed by landscape architect for future planting areas.
18. Blend new work smoothly with existing grades. Avoid sharp breaks in grade. Round tops and bottoms of grades.
19. Fill: To be clean and have no foreign material, or stone larger than 3" in any dimension.

Lighting Notes

1. Notify Landscape Architect 72 hours minimum in advance of starting onsite operations. Receive approval for layout of all fixture locations prior to installation.
2. Be aware of all underground utilities prior to any excavation operations. Contact "CALL BEFORE YOU DIG" prior to excavation. Contractor shall be responsible for repir of existing utilities damaged, without further charge to the owner.
3. All work to be performed by a qualified state of Connecticut licensed electrical contractor.
4. All work to meet or exceed all local and national building code requirements.
5. Contractor is responsible for obtaining all necessary licenses and permits required to perform all work shown on drawings.
6. Contractor shall be required to carry workmen's compensation insurnace and comprehensive general liability insurance. Certificates will be required prior to signing contracts.
7. Contractor shall provide all fixtures and related materials for complete installation. See engineers drawings for additional information.
8. Lighting shown on these plans for location only - See electrical plans for details and specification of all lighting.
9. Pole Lights and Bollards to be on single circuit with shut off timer.
10. Accent lights and Orb Lights to be on two separate switches with dimmers.
11. See architectural drawings for additional layout and detail information.
12. All light fixtures have a lead time. Contractor to call supplier to order as needed.
13. See Proposed Lighting Schedule on sheet L-1.0 for additional information on lighting fixtures.

MAKE-A-WISH CONNECTICUT

60 Commerce Drive
Trumbull, CT 06611

Symbol Legend

- Property Line
- Note Call-Off
- Detail Call-Off (1 L-1.0)
- Planting Call-off (1 AC)
- Building
- Architectural Paving
- Architectural Paving
- Concrete Paving
- Pervious Paving
- Wood Decking
- Wood Stumps
- Sculptural Decor
- Existing Tree to Remain
- Existing Planting to Remain
- Proposed Deciduous Trees
- Proposed Evergreen Trees
- Proposed Shrubs
- Proposed Planting
- Proposed Lawn
- Pole Light
- Bollard Light
- Accent Light

NOTES

1. Landscape Layout Plan: Overall and Enlargements - See Sheets L-1.0, L-1.1 and L-1.2
2. Site and Landscape Details - See Sheet L-2.0
3. Site Development Plan, Grading and Drainage - See Civil Drawings.
4. See Arch. Dwgs. for Building Exterior Treatments
5. Proposed Site Improvements do not include site changes as approved by Town of Trumbull Planning & Zoning Commission as part of November 2018 Resubdivision.

STATE OF CONNECTICUT · THOMAS JOSEPH CROSS · LAR.0001525 · LICENSED LANDSCAPE ARCHITECT

Professional Seal:

No:	Revision:	Date:
3	Site Plan App - Removal of 9 Spaces	8/27/2020
2	Administrative Review	6/10/2020
1	Revised for Wetlands	11/08/2019

0 10 20 40

WESLEY STOUT ASSOCIATES
96 Main Street, New Canaan, CT 06840
203 966-3100 FAX 203 966-3131
www.wesleystout.com

Landscape Layout Plan: Overall

Date: 2019-09-17
Scale: 1" = 20'
Sheet:

L-1.0

MAKE-A-WISH CONNECTICUT

60 Commerce Drive
Trumbull, CT 06611

PARKING

PHASE 2A - FRONT ENTRY AREA + WALKWAYS
Front entry pavers, concrete walkways and bollard lighting will be completed in Phase 2A.
Blue Buffalo Dog House, Enclosure & Bench to be competed in Phase 2A.
Additional plantings outside of dashed box to be completed in Phase 2B.
Sculptural Decor with Orb Lights Phase T.B.D. by Owner.

DROP OFF

MAIN ENTRY

Flag Pole Light 13 L-2.0

Existing Flag Poles to Remain.

Existing Trees to Remain and be pruned in Phase 2A.
Trees to be Removed in Phase 2B when additional landscaping is installed.

Bollard Light 11 L-2.0

Sculptural Decor w/ Orb Light 9 L-2.0
QTY - (3) Three at 3'-0" Diameter
@ Left Side of Entry

PA 3

Steel Edge 5 L-2.0

Pole Light 10 L-2.0
Provide back light shielding option for this fixture.

Dgn 21

Concrete Paving 1 L-2.0

cb 100
nm 300
ntt 300

cid 800
ame 400
aps 400

cb 35
nm 125
ntt 125

Icg 24
PA 1
Dgn 10

Patio Paving 4 L-2.0

JCK 2
ct 4

Existing Site Wall + Stairs To Remain

Existing Shed to Remain and be Renovated in Phase 2A.
See Arch. Dwgs. for Renovations.

Bollard Light 11 L-2.0

Existing Evergreen Trees to be evaluated for health and longevity.
If unhealthy trees will be removed and replaced with new landscaping in Phase 2B.

Accent Light 12 L-2.0

AC 3
aff 70

Existing Tree to Remain, (typ)

Concrete Paving 1 L-2.0

Pirate Ship 8 L-2.0
ADD ALTERNATE

Lawn or gravel surfacing below Pirate Ship

QR 1

Landscape contractor to cleanup all dead trees, weeds, brush and invasive plants along the pond edge. Keep established groundcover and existing multi-stem tree along pond edge.
Install native wetland seed mix at all disturbed areas.

Type VQM

Type III

Lawn

75 cid
150 nm
150 ntt

Icg 61

Imb 1

Sjp 9

Igs 15

Dgn 12

PHASE 2A - FOUNDATION PLANTINGS + VESTIBULE
Foundation plantings inside the dashed box to be completed in Phase 2A.
Eliminate berm against building and spread soil in adjacent lawn area and make level in Phase 2A.
Additional plantings and upper patio outside of dashed box to be completed in Phase 2B.

FF 172.16
FIRST FLOOR

MAKE-A-WISH BUILDING

2 L-1.2 Upper Patio Layout Enlargement

NOTE:Contractor to Verify Interior Finished Floor Elevations prior to Construction.

FF 159.54
LOWER LEVEL

PHASE 2A - LOWER DECK + BRIDGE
Lower Deck construction and concrete walkway to be completed in Phase 2A for life safety and egress.
Renovated Bridge design to be competed in Phase 2A.
Additional site improvements and plantings outside of dashed box to be completed in Phase 2B.

UPPER PATIO

SHED

75 cid
10 Sjp
7 Igs

LOWER DECK
(See Arch. Dwgs.)

Pond – Edge of Water is Inland Wetland Boundary

WISHING BRIDGE

Existing Bridge and Structure to Remain.
Bridge Renovation and Accent Lighting - By Others

Dgn 10
pvs 15
aps 75
ADD ALTERNATE

3 L-2.0 Pervious Paving
ADD ALTERNATE

5 L-2.0 Steel Edge
ADD ALTERNATE

7 L-2.0 Wood Stumps
ADD ALTERNATE

ADJACENT BUILDING

EXIST. PLANTING TO REMAIN
(Remove all invasives, clean-up with selective pruning and removals, and replace plant materials to match existing, as required.)

PROPERTY LINE

Sleeves, (typ)

Parking Lot and Site Improvements - See Civil Dwgs.

1 L-1.2 Front Entry Paving Layout Enlargement

2 L-2.0 Arch. Paving

1 L-2.0 Concrete Paving

9 L-2.0 Sculptural Decor w/ Orb Light
QTY - (2) Two at 3'-0" Diameter
@ Right Side of Entry

7 L-2.0 Synthetic Turf
Blue Buffalo Dog House, Enclosure & Accessories - By Others

12 L-2.0 Accent Light

5 L-2.0 Steel Edge

8 AT

30 cb
100 ame
100 aps

12 Dgn

1 PA

75 cid
150 nm
150 ntt

1 Imb

8 Sjp

8 Igs

50 cid
100 nm
100 ntt

Symbol Legend

- Property Line
- Note Call-Off
- 1 L-1.0 Detail Call-Off
- 1 AC Planting Call-off
- Building
- Architectural Paving
- Architectural Paving
- Concrete Paving
- Pervious Paving
- Wood Decking
- Wood Stumps
- Sculptural Decor
- Existing Tree to Remain
- Existing Planting to Remain
- Proposed Deciduous Trees
- Proposed Evergreen Trees
- Proposed Shrubs
- Proposed Planting
- Proposed Lawn
- Pole Light
- Bollard Light
- Accent Light

NOTES

1. Landscape Layout Plan: Overall and Enlargements - See Sheets L-1.0, L-1.1 and L-1.2
2. Site and Landscape Details - See Sheet L-2.0
3. Site Development Plan, Grading and Drainage - See Civil Drawings.
4. See Arch. Dwgs. for Building Exterior Treatments
5. Proposed Site Improvements do not include site changes as approved by Town of Trumbull Planning & Zoning Commission as part of November 2018 Resubdivision.

STATE OF CONNECTICUT
THOMAS JOSEPH DONOHUE
LANDSCAPE ARCHITECT
149.000159

Professional Seal:

No:	Revision:	Date:
3	Site Plan App - Removal of 9 Spaces	8/27/2020
2	Administrative Review	6/10/2020
1	Revised for Wetlands	11/08/2019

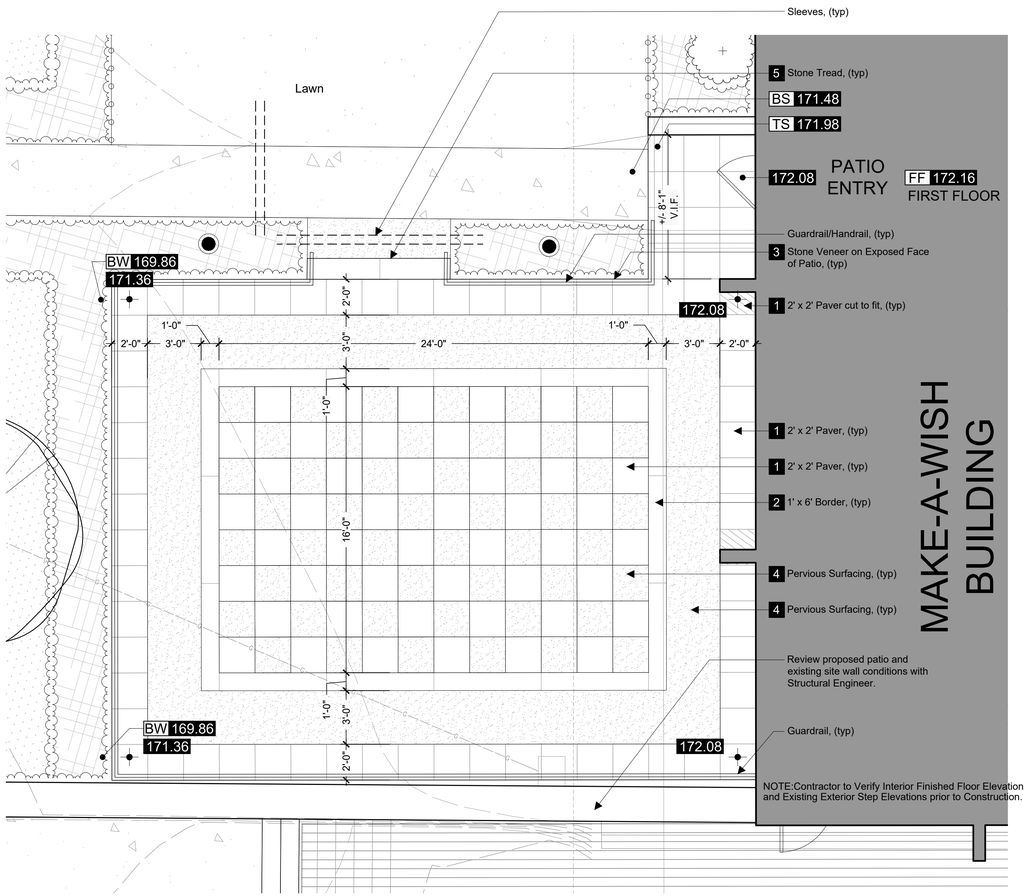
0 5 10 20

WESLEY STOUT ASSOCIATES
96 Main Street, New Canaan, CT 06840
203 966-3100 FAX 203 966-3131
www.wesleystout.com

Landscape Layout Plan: Enlargement

Date: 2019-09-17
Scale: 1" = 10'
Sheet:

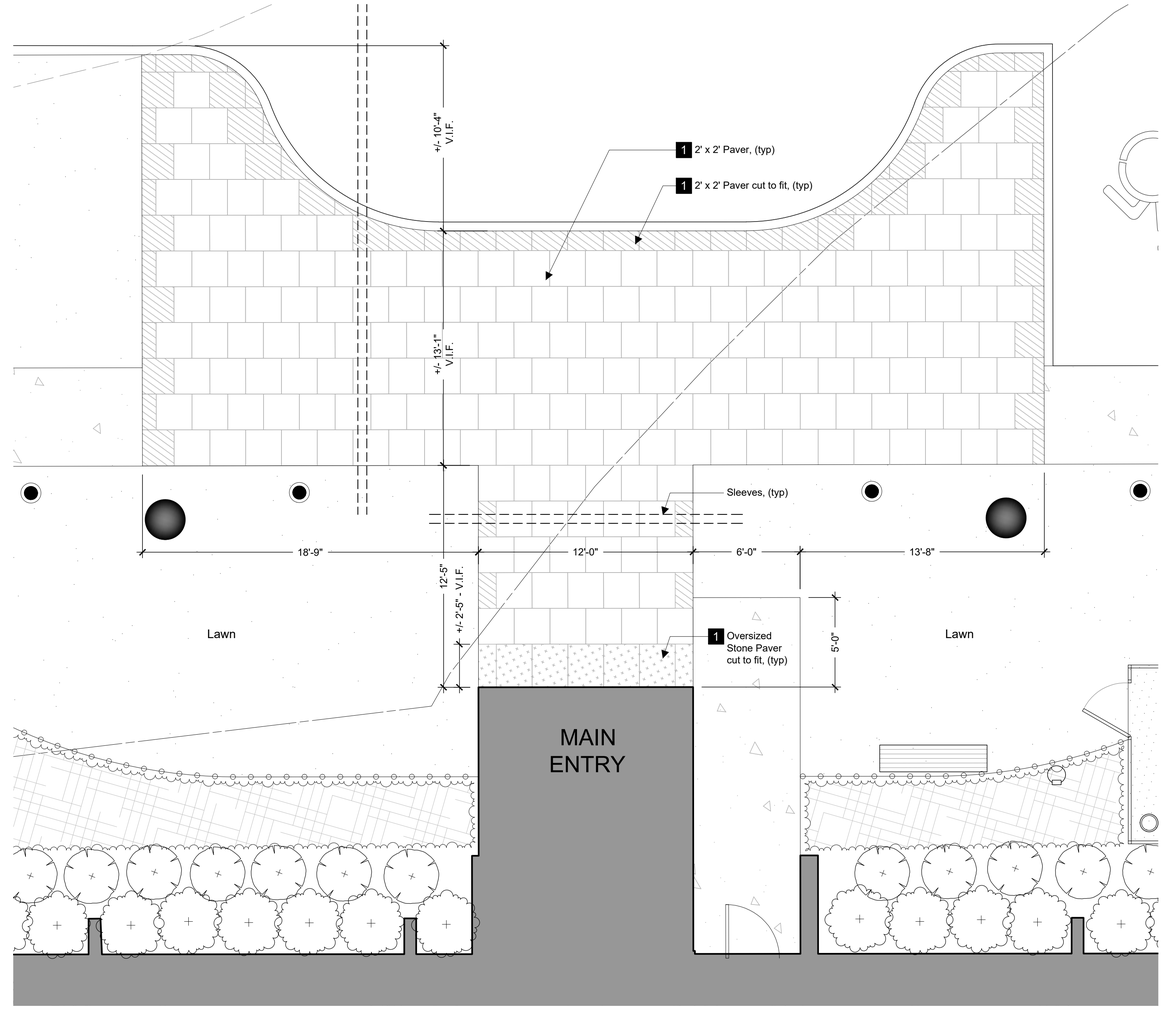
L-1.1



2 Upper Patio Layout Enlargement

L-1.2

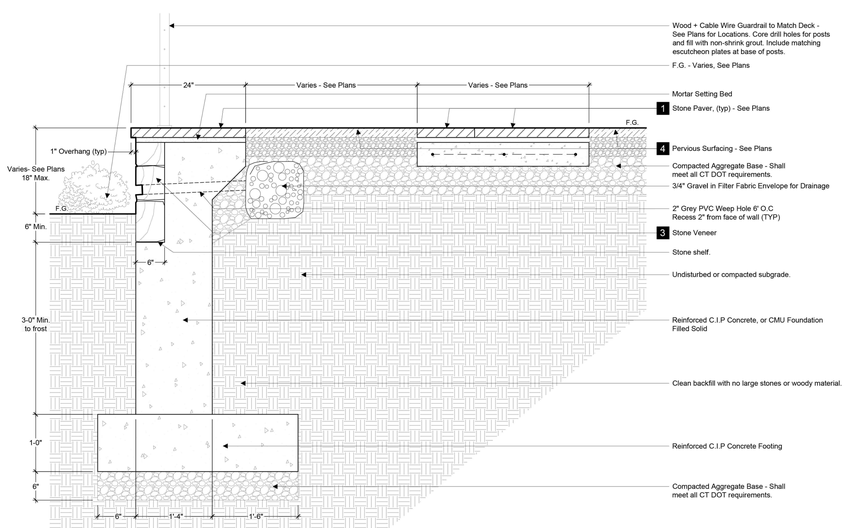
Scale: 1" = 4'



1 Front Entry Paving Layout Enlargement

L-1.2

Scale: 1/4" = 1'



3 Upper Patio Perimeter Wall Detail

L-1.2

Not to Scale

1 Stone Paver: Standard Paver: 2" Thick x 2' Wide x 2' Length 'Imperial Grey' Granite Paver, as supplied by Gault Stone & Landscape Supplies, Westport, CT, contact Chris Domagala, tel: 203-222-3250, email: cdomagala@gaultfamilyco.com, website: www.gaultstone.com

Oversized Paver: 2" Thick x 2' Wide x 30" Length 'Imperial Grey' Granite Paver, as supplied by Gault Stone & Landscape Supplies, Westport, CT, contact Chris Domagala, tel: 203-222-3250, email: cdomagala@gaultfamilyco.com, website: www.gaultstone.com

2 Stone Border: 2" Thick x 12" Wide x 6' Length 'Imperial Grey' Granite Paver, as supplied by Gault Stone & Landscape Supplies, Westport, CT, contact Chris Domagala, tel: 203-222-3250, email: cdomagala@gaultfamilyco.com, website: www.gaultstone.com

3 Stone Veneer: Full Depth 'Lake Avenue Blend' Natural Stone Veneer to match character image, Strip Cut Pattern, as supplied by Gault Stone & Landscape Supplies, Westport, CT, contact Chris Domagala, tel: 203-222-3250, email: cdomagala@gaultfamilyco.com, website: www.gaultstone.com

4 Pervious Surfacing: $\frac{1}{4}$" 'New York Blend' Permi-Drive Porous Pavement, contractor shall provide preparation and installation methods per manufacturer's specification, as supplied by Tri-State Flexi-Pave, contact Henri Hillmann, tel: 914-874-3988, email: hhillmann@flexi-pave.com, website: www.flexi-pave.com

5 Stone Tread: 2" Thick x 14" Wide x 4' Length 'Imperial Grey' Granite Paver, as supplied by Gault Stone & Landscape Supplies, Westport, CT, contact Chris Domagala, tel: 203-222-3250, email: cdomagala@gaultfamilyco.com, website: www.gaultstone.com

PAVER + SURFACING SYMBOL LEGEND:

- Standard Stone Paver
- Standard Stone Paver cut to fit
- Oversized Stone Paver cut to fit
- Stone Border / Tread Paver
- Pervious Surfacing

PAVER + SURFACING CHARACTER IMAGES:

Stone Paver / Stone Border

Stone Veneer

Pervious Surfacing

4 Upper Patio & Front Entry Materials List

L-1.2

Not to Scale

MAKE-A-WISH CONNECTICUT

60 Commerce Drive
Trumbull, CT 06611

Symbol Legend

- Property Line
- Note Call-Off
- Detail Call-Off (1 / L-1.0)
- Planting Call-off (1 AC)
- Building
- Architectural Paving
- Architectural Paving
- Concrete Paving
- Pervious Paving
- Wood Decking
- Wood Stumps
- Sculptural Decor
- Existing Tree to Remain
- Existing Planting to Remain
- Proposed Deciduous Trees
- Proposed Evergreen Trees
- Proposed Shrubs
- Proposed Planting
- Proposed Lawn
- Pole Light
- Bollard Light
- Accent Light

NOTES

1. Landscape Layout Plan: Overall and Enlargements - See Sheets L-1.0, L-1.1 and L-1.2
2. Site and Landscape Details - See Sheet L-2.0
3. Site Development Plan, Grading and Drainage - See Civil Drawings.
4. See Arch. Dwgs. for Building Exterior Treatments
5. Proposed Site Improvements do not include site changes as approved by Town of Trumbull Planning & Zoning Commission as part of November 2018 Resubdivision.

Professional Seal:

No:	Revision:	Date:
3	Site Plan App - Removal of 9 Spaces	8/27/2020
2	Administrative Review	6/10/2020
1	Revised for Wetlands	11/08/2019

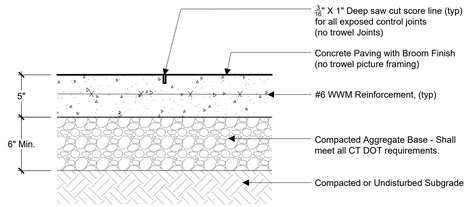
0 2 4 8

WESLEY STOUT ASSOCIATES
96 Main Street, New Canaan, CT 06840
203 966-3100 FAX 203 966-3131
www.wesleystout.com

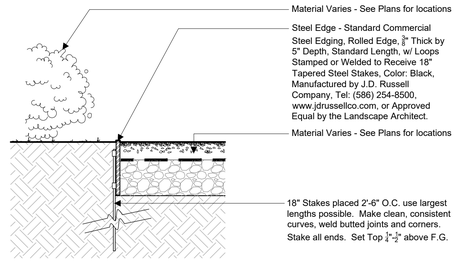
Upper Patio Layout Plan: Enlargement

Date: 2020-09-17
Scale: As noted
Sheet:

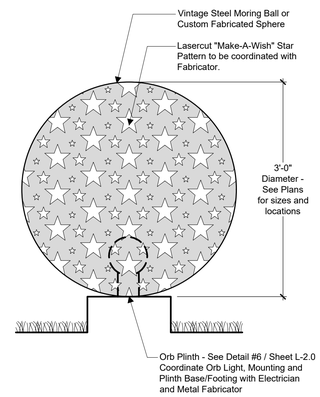
L-1.2



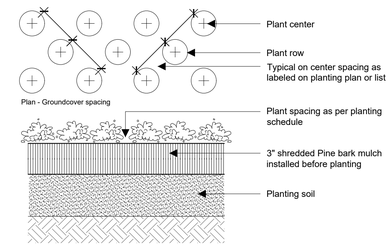
1 Concrete Paving
L-2.0 — Not to Scale



5 Steel Edging
L-2.0 — Not to Scale

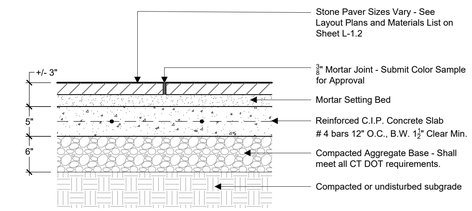


SCULPTURAL DECOR: (QTY - 5) 3'-0" diameter vintage steel morning balls or fabricated sphere with custom lasercut "Make-A-Wish Star" pattern, powder coated color finish to be selected by Owner, include mounting base or anchor for sculptural decor to be secured in landscaped beds. As manufactured by Sorge Industries - Welding and Metal Fabrication, 289 Coram Rd, Shelton, CT 06484, contact Tom Sorge, tel: 203-924-8900, website: www.sorgeindustries.com. Contractor shall provide manufactured shop drawings and material samples for approval by L.A. prior to fabrication.



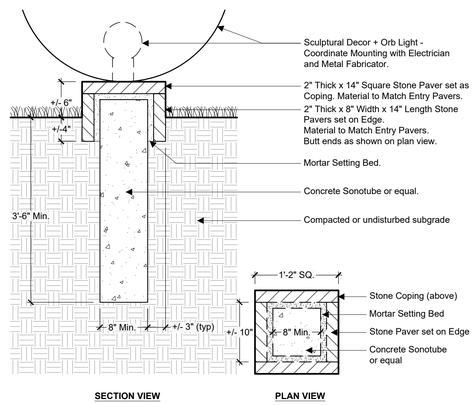
14 Groundcover Planting
L-2.0 — Not to Scale

MAKE-A-WISH CONNECTICUT
60 Commerce Drive
Trumble, CT 06611



NOTE: CONTRACTOR SHALL SUBMIT MATERIAL SAMPLES AND PROVIDE A MIN. 25 SF. MOCK-UP FOR APPROVAL BY L.A. PRIOR TO INSTALLATION.

2 Architectural Paving
L-2.0 — Not to Scale



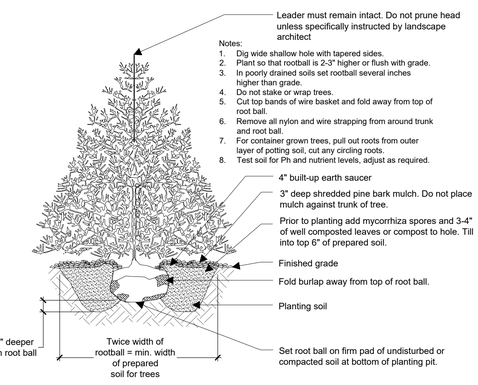
6 Orb Plinth
L-2.0 — Not to Scale

POLE LIGHT: 24" height round bollard with symmetrical distribution by Kim Lighting or approved equal. See Proposed Lighting Schedule and plans for additional information.

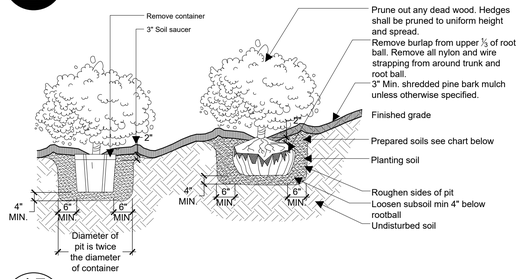
9 Sculptural Decor w/ Orb Light
L-2.0 — Not to Scale

POLE LIGHT: 14'-0" Height 'OURO' LED Post Top Light by Kim/Hubbell Lighting or approved equal. See Proposed Lighting Schedule and plans for additional information.

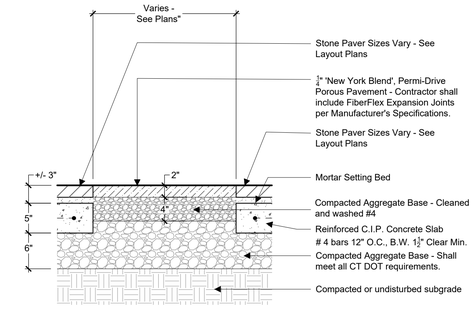
10 Pole Light
L-2.0 — Not to Scale



15 Planting Pit for Shrubs
L-2.0 — Not to Scale

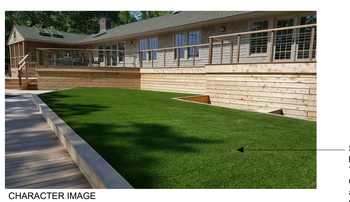


16 Evergreen Tree Planting
L-2.0 — Not to Scale



NOTE: CONTRACTOR SHALL SUBMIT MATERIAL SAMPLES AND PROVIDE A MIN. 25 SF. MOCK-UP FOR APPROVAL BY L.A. PRIOR TO INSTALLATION.

3 Pervious Paving
L-2.0 — Not to Scale



CHARACTER IMAGE

Synthetic Turf for Blue Buffalo Dog House & Dog Run - As manufactured by TurfTek USA or approved equal. Contact Sales Manager Todd Zepernick at email: todd@turftekusa.com or tel: 631-651-5777. Base and edge details per manufacturer's recommendation. Submit shop drawings for approval by L.A. See Plans for layout and locations.

7 Synthetic Turf
L-2.0 — Not to Scale

BOLLARD LIGHT: 24" height round bollard with symmetrical distribution by Kim Lighting or approved equal. See Proposed Lighting Schedule and plans for additional information.

11 Bollard Light
L-2.0 — Not to Scale

NOTE: CONTRACTOR SHALL SUBMIT MATERIAL SAMPLES AND PROVIDE A MIN. 25 SF. MOCK-UP FOR APPROVAL BY L.A. PRIOR TO INSTALLATION.

4 Patio Paving
L-2.0 — Not to Scale

ADD ALTERNATE: Wooden Pirate Ship (or equal) and related elements will be painted in playful colors and built on hillside overlooking pond to animate the space and act as a destination for visiting children. This landscape feature and related elements will be dependent on a Make-A-Wish (MAW) donor/sponsor and will be phased in at a later date to be determined by MAW. Additional design and details to be provide by others.

ADD ALTERNATE: Wood Stumps set into hillside to stabilize slope and walkway. Paint in various playful colors to match Make-A-Wish company color palette. Additional design and coordination required for Playscape Exhibits.

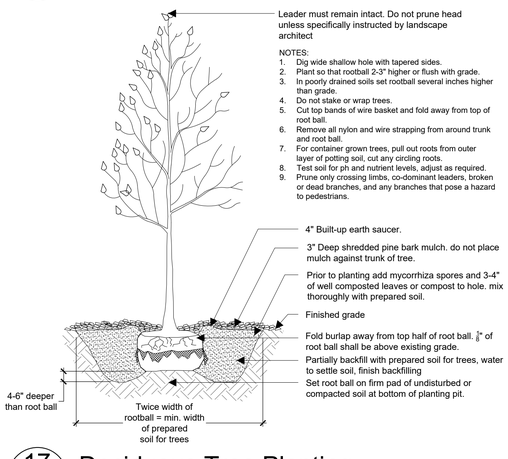
8 Wood Pirate Ship & Wood Stumps
L-2.0 — Not to Scale

ACCENT LIGHT: 'DELTA STAR' Solid State LED Accent Light by BK Lighting or approved equal. See Proposed Lighting Schedule and plans for additional information.

12 Accent Light
L-2.0 — Not to Scale

FLAG POLE LIGHT: 'KFL2' LED Flood Light by Kim Lighting or approved equal. See Proposed Lighting Schedule and plans for additional information.

13 Flag Pole Light
L-2.0 — Not to Scale



17 Deciduous Tree Planting
L-2.0 — Not to Scale

NOTES

1. Landscape Layout Plan: Overall and Enlargements - See Sheets L-1.0, L-1.1 and L-1.2
2. Site and Landscape Details - See Sheet L-2.0
3. Site Development Plan, Grading and Drainage - See Civil Drawings.
4. See Arch. Dwgs. for Building Exterior Treatments
5. Proposed Site Improvements do not include site changes as approved by Town of Trumbull Planning & Zoning Commission as part of November 2018 Resubdivision.

Professional Seal:

No:	Revision:	Date:
3	Site Plan App - Removal of 9 Spaces	8/27/2020
2	Administrative Review	6/10/2020
1	Revised for Wetlands	11/08/2019

WESLEY STOUT ASSOCIATES
96 Main Street, New Canaan, CT 06840
203 966-3100 FAX 203 966-3131
www.wesleystout.com

Site and Landscape Details

Date: 2019-09-17
Scale: As noted
Sheet:

L-2.0

RECEIVED
AUG 31 2020
By PZC # 20-10
PLANNING & ZONING

Town of Trumbull
CONNECTICUT

Planning and Zoning Department
Telephone (203) 452-5044
Fax (203) 452-5169

Town Hall
5866 Main Street
Trumbull, Connecticut 06611

PLANNING AND ZONING DEPARTMENT

APPLICATION FOR SPECIAL PERMIT FOR ACCESSORY APARTMENT

Property located in:
- ☐ Residence Zone A
- ☐ Residence Zone AA
- ☐ Residence Zone AAA

Applicant: JENNIFER MORAWSKI

Address of Applicant: 225 STROBEL RD.

Telephone Number: Day 203 650 0597 Evening

Email Address: worldpeace359@gmail.com

Location of Premises: 225 STROBEL RD.

Assessor's Map No.: Parcel No.: Lot No.:

Trumbull Land Records: Volume: Page:

Owner of Record: JENNIFER + JANE MORAWSKI & MARIANNE ROSATO

Address of Owner of Record: 225 STROBEL RD.

Description of Proposed Request, including specific use to be conducted:

Attached accessory apartment. That my mom Jane will use

State if any Wetlands are located on the property ☐ YES ☑ NO

(If yes, then review is required by Inlands Wetlands)

Signature of Applicant:

Signature of Owner of Record: Jane Marianne Rosato

A FEE IN ACCORDANCE WITH APPROVED FEE SCHEDULE MUST ACCOMPANY THIS APPLICATION. Make check payable to TOWN OF TRUMBULL.

FOR OFFICE USE ONLY

Date Application and Fee Received: By:

Date of Public Hearing: Date Action Taken:

List of Abutters Submitted:

SPECIAL PERMIT APPLICATION FOR ACCESSORY APARTMENT CHECK LIST

ACCESSORY APARTMENT REQUIREMENTS:

- ☐ NUMBER OF BEDROOMS 1
- ☐ MINIMUM - 300 SQUARE FEET
  550 TOTAL APARTMENT SQ. FT.
- ☐ TOTAL FLOOR AREA (MAIN RESIDENCE AND APARTMENT) (REFER TO FIELD CARD FOR CURRENT SQ. FT. OF HOUSE)
  2458 TOTAL SQ. FT.

EXAMPLE:

TOTAL FLOOR AREA OF MAIN HOUSE	2,000 sq. ft.
TOTAL FLOOR AREA OF PROPOSED APARTMENT	500 sq. ft.
TOTAL AREA IN SQ. FT.	2,500 sq. ft.
MAXIMUM APARTMENT – 30% OF TOTAL FLOOR AREA	750 sq. ft.

APARTMENT LIVING AREA CANNOT EXCEED 750 SQ. FT. (30% OF TOTAL FLOOR AREA.)

- ☑ SINGLE FAMILY HOME APPEARANCE
- ☑ FOUR (4) OFF-STREET PARKING SPACES
- ☐ APPROVAL OF HEALTH DISTRICT (SEPTIC)/SEWER AUTHORITY

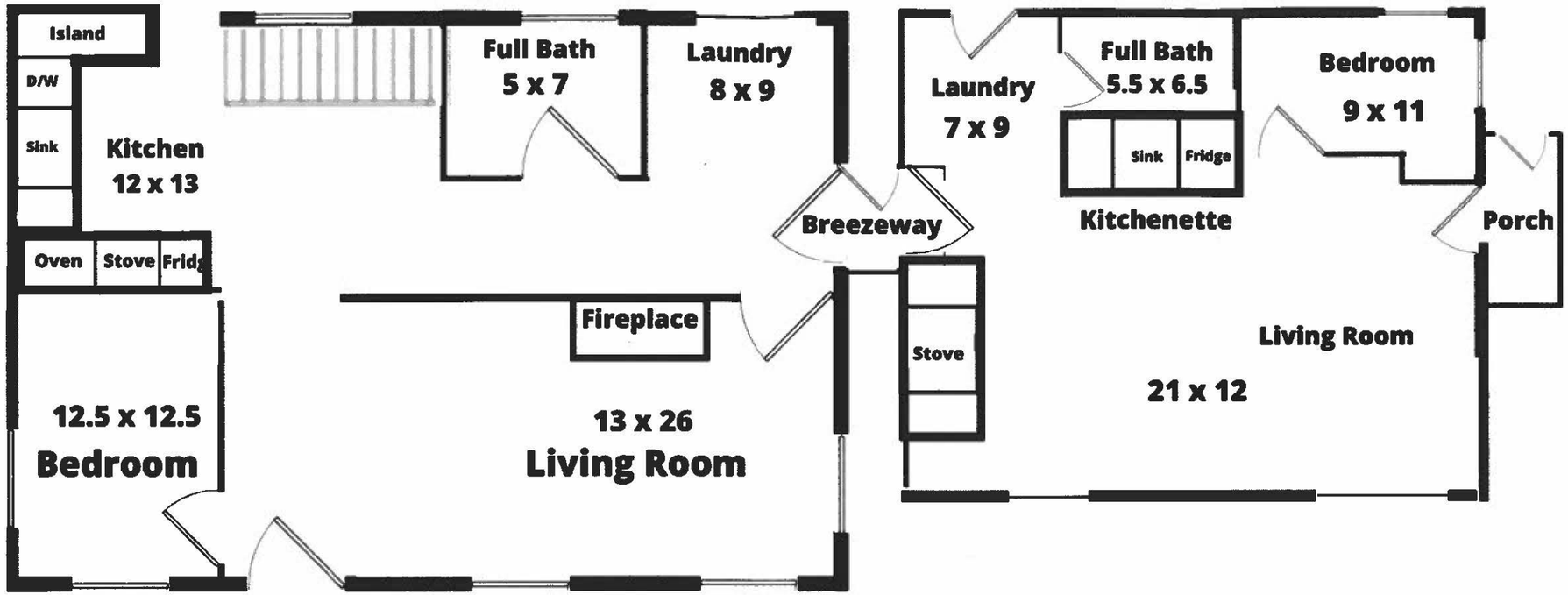
SPECIAL PERMIT APPLICATION REQUIREMENTS:

- ☑ SPECIAL PERMIT APPLICATION – COMPLETE WITH SIGNATURES
  ASSESSORS MAP, PARCEL, LOT NUMBER - CAN BE OBTAINED IN TAX ASSESSORS OFFICE
- ☑ COPY OF OWNERS DEED (TOWN CLERK)
- ☑ COPY OF FIELD CARD (TAX ASSESSOR)
- ☑ NOTARIZED OWNER/OCCUPANT AFFIDAVIT
- ☐ 12 COPIES OF SITE PLAN WITH BLOCK SHOWING PROPOSED VS. MINIMUM LOT AND BUILDING REQUIREMENTS.
- ☑ FLOOR PLAN OF HOUSE AND APARTMENT (1"=4')
- ☑ ARCHITECTURAL DRAWINGS - REQUIRED FOR EXPANSION OF EXISTING STRUCTURE
- ☑ DIGITAL COPY OF ENTIRE APPLICATION (FLASH DRIVE)
- ☑ ONE COPY OF NOTIFICATION OF APPLICATION LETTER TO PROPERTY OWNERS WITHIN 150 FEET
  LETTERS SHALL BE POSTMARKED NOT LESS THAN TWELVE (12) DAYS PRIOR TO SCHEDULED PUBLIC HEARING DATE.
- ☑ NEIGHBORS MAILING LIST
- ☐ CERTIFICATE OF MAILING – FILED NOT LESS THAN FIVE (5) DAYS PRIOR TO HEARING

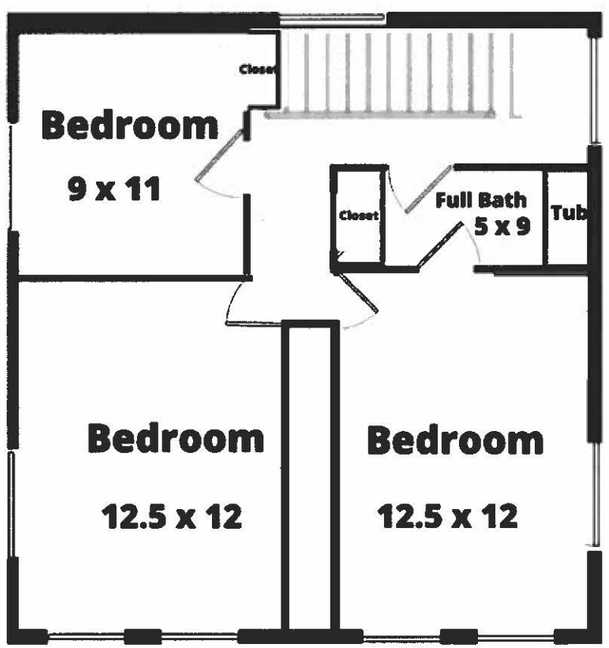
Main House - 2,458 SF

In-Law Apartment - 550 SF

Main Floor
1,675 SF



2nd Floor
783 SF

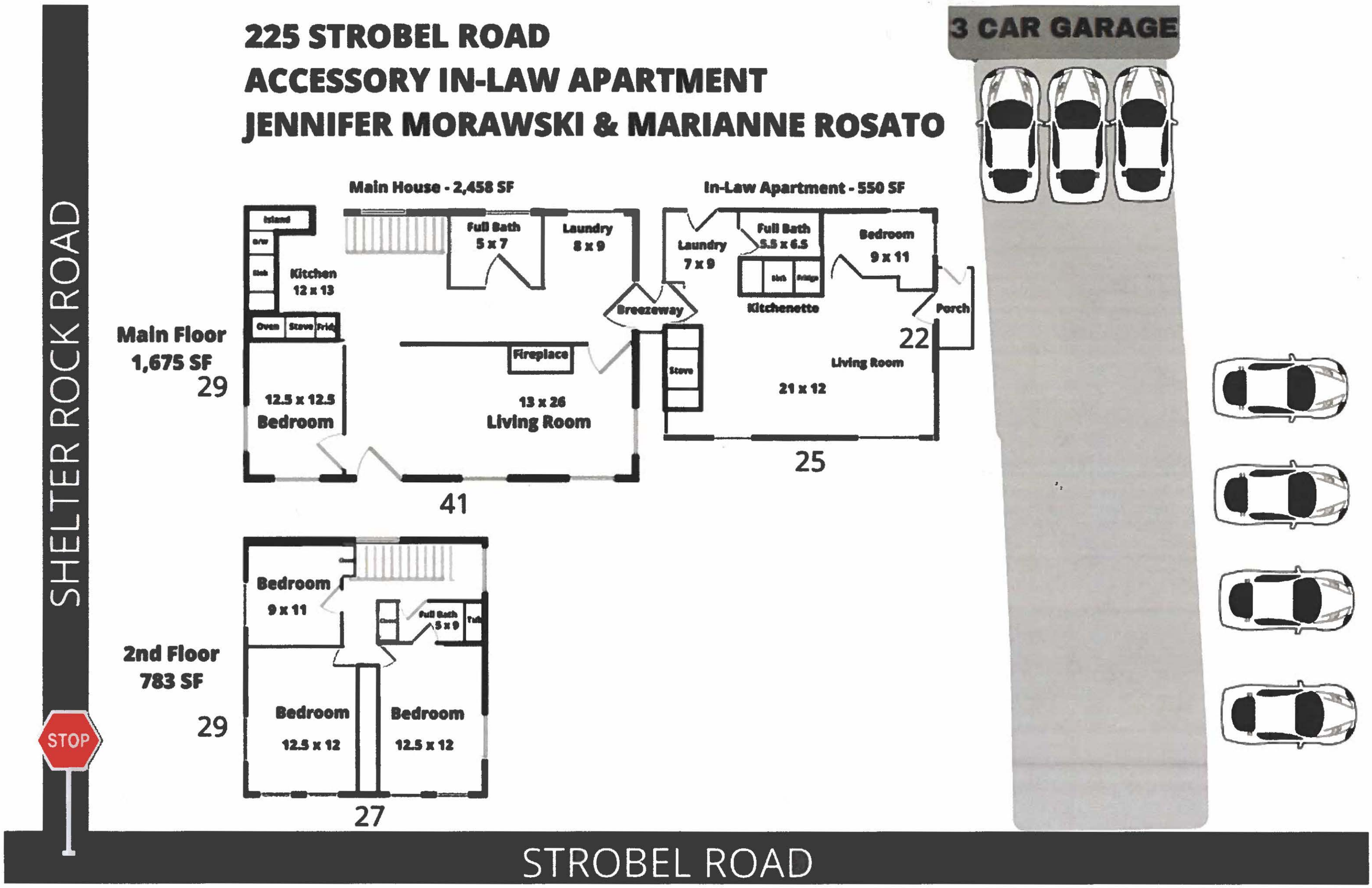


Accessory In Law Apartment

225 Strobel Road, Trumbull, CT

Jennifer Morawski & Marianne Rosato

225 STROBEL ROAD
ACCESSORY IN-LAW APARTMENT
JENNIFER MORAWSKI & MARIANNE ROSATO



Planning and Zoning
Department
Telephone (203) 452-5044
Fax (203) 452-5169

Town of Trumbull
CONNECTICUT

Town Hall
5866 Main Street
Trumbull, Connecticut 06611

PLANNING AND ZONING DEPARTMENT

APPLICATION FOR SPECIAL PERMIT OR SITE PLAN APPROVAL

☒ **SPECIAL PERMIT**

☒ **SITE PLAN REVIEW**

ZONE:

☐ **Commercial Zone B-C, B-C LH, TH Node, MDD**

☒ **Industrial Zone I-L, I-L2, I-L3**

☐ **Residential Zone A, AA, AAA**

☐ **Overlay Zone** _____

Location of Property: 7120 Main Street

Assessor's Map No.: C Parcel No.: 01 Lot No.: 00023/000

Trumbull Land Records: Volume: 1803 Page: 581

Applicant: Amazon.com Services, LLC

Address of Applicant: PO Box 80416, Seattle, WA 98108-0416

Telephone Number: Day 203-528-0590 Evening 203-528-0590

Email Address: Chris@russorizio

Owner of Record: Amazon.com Services, LLC

Address of Owner of Record: PO Box 80416, Seattle, WA 98108-0416

Telephone Number: 203-528-0590 Email Chris@russorizio.com

Party to be notified: Chris Russo, Russo & Rizio, LLC

Address of Attorney or Agent: 10 Sasco Hill Rd, Fairfield, CT 06824

Telephone Number: 203-528-0590 Email: Chris@russorizio.com

Site Engineer: BL Companies

Address of Owner of Record: 355 Research Parkway, Meriden, CT 06450

Telephone Number: 203-630-1406 Email: Chris@russorizio.com

Relevant Article(s) and Section(s) of the Regulations: (i.e. Art__, Sec __)
Art. II, Section 4.2; Art XV

Description of the proposed request, including specific use to be conducted:
See Attached

Is the property within 500 feet of another municipality?

☒ YES ☐ NO

Does this proposal involve a structure that was built before 1940?

☐ YES ☒ NO

Does this proposal require the approval of the Inland Wetlands Agency?

☐ YES ☒ NO

Are there any deed restrictions on this property that may affect this application?

☐ YES ☒ NO

Has a previous application been filed for this property?

☒ YES ☐ NO

If yes, when? 12/18/19 - Approved Attach a copy of decision letter.

Project is to be started on ASAP Completed on ASAP

List of Federal and State permits required and their status:
N/A

Certification

I/We certify that all of the above information and statements contained in any documentation submitted with the application are true to the best of my/our knowledge.

I/We fully understand that the Planning and Zoning Commission reserves the right to revoke any permit should the information contained herein not be true or that the information requested by the application has not been fully disclosed.

Signature of Owner	Signature of Applicant (if not property owner)
07/22/20	07/22/20
Date	Date

NOTICE: By signing this application, owner and applicant consent to site inspections by Town Staff and/or Commissioners.

A FEE IN ACCORDANCE WITH APPROVED FEE SCHEDULE MUST ACCOMPANY THIS APPLICATION. Make check payable to TOWN OF TRUMBULL.

FOR OFFICE USE ONLY

Date Application and Fee Received:_____ By:_____

Date of Public Hearing:_____ Date Action Taken:_____

List of Abutters Submitted:_____

Revised 2/25/2020

Russo & Rizio, LLC
ATTORNEYS AT LAW

Colin B. Connor
Elizabeth A. Falkoff*
Robert G. Golger
Michael C. Jankovsky
David K. Kurata
Katherine M. Macol
Leah M. Parisi
William M. Petroccio*
Raymond Rizio*
Christopher B. Russo
Robert D. Russo
John J. Ryan
Vanessa R. Wambolt
(*Also Admitted in NY)

July 29, 2020

Rob Librandi
Land Use Planner
Trumbull Planning & Zoning Department
5866 Main Street
Trumbull, CT 06611

Re: Special Permit and Site Plan Review Application to the Trumbull Planning and Zoning Commission for the property located at 7120 Main Street

Dear Mr. Librandi:

Please accept the following narrative as part of a modification of a previously approved Special Permit and Site Plan Review to the Trumbull Planning and Zoning Commission for the property located at 7120 Main Street (the "Site") in the Industrial I-L2 Zone to support the approved warehousing and distribution use.

Proposed Development

The Applicant was previously approved on December 18, 2019, for a warehousing and distribution use within the existing building located at the Site (the "Prior Approval"). The Applicant did not propose to increase the building footprint of the Site at that time and do not propose the same with this Application. As the Applicant has begun work on the Site, they have realized some slight modifications and restructuring of the parking area are necessary for a more safe and efficient use. The Site will serve as a package delivery warehouse and distribution for the "last mile" of package delivery for Amazon, which means distribution will be to residences and businesses within an approximate Sixty (60) minute driving time radius of the Site.

The Site itself is 10.17 ac. and contains an existing building with approximately 114,000 SF of usable floor area. The Site is located on the corner of Main Street (Rte. 25) and Spring Hill Road. The building is surrounded on three (3) sides by off-street parking areas and drive aisles. The Site features Two (2) curb cuts along Main Street and a single curb cut on Spring Hill Road.

The main modification under the Application from the Prior Approval is to change the side of the existing building where the delivery vans will enter. Under the Prior Approval, delivery vans entered the building on its west side and exited on its east side. The Application proposes to reverse this traffic flow so delivery vans will enter on the east side and will exit on the west side of the building. As a consequence of such change, the Applicant also proposes

1 Post Road
Fairfield, CT 06824

Tel 203-255-9928
Fax 203-255-6618

slight modifications to the interior traffic flow of the southern parking area, so it does not conflict with the proposed delivery vans circulation.

Under the Prior Approval, the traffic flow of the delivery vans crossed in one location. An "empty" delivery van entering the Site from Spring Hill Road to load the van would have to cross in front of a "loaded" delivery van exiting the Site onto Spring Hill Road near the Spring Hill Road curb cut. The Application eliminates this "crossing." Under the Application, the "empty" delivery vans will still enter the Site from Spring Hill Road, but they will then exit onto Main Street. In addition, delivery vans exiting the Site to head north on Main Street will only exit the Site via the southern curb cut on Main Street. This right-turn only exit will be the closest to the existing traffic signal at the intersection of Main Street and Spring Hill Road. Delivery vans exiting the Site to head south on Main Street, which will require crossing the northbound lane of Main Street, will only exit the Site via the northern curb cut on Main Street. This exit will give delivery vans enough space in between the curb cut and the above-described traffic signal. Operationally, the Applicant will be revising its schedule to reduce trips during the peak hour periods of the surrounding roadway network. Together, the above-stated revisions will improve the traffic flow and circulation within the Site and its surrounding roadways.

The Amazon tractor trailers, which will actually bring the consumer goods to the Site that are to be loaded on the delivery vans, will still utilize the same route as the Prior Approval. The vehicles of Amazon Employees will also enter and exit the same as the Prior Approval. The Application proposes a parking area of Two Hundred and Thirteen (213) off-street parking spaces, which still far exceeds the requirement under the Regulations.

For the reasons stated above, the Applicant respectfully requests approval of the modification to its Special Permit and Site Plan Review.

Sincerely,

Raymond Rizio

Properties within 250' of 7120 Main Street

Name	Address
Alan R. Stewart and Suzanne D. Skinn	7125 Old Turnpike Rd, Trumbull, CT 06611
The Baghdady Family Ltd Partnership	7090 Main St, Trumbull, CT 06611
Trumbull Properties LLC	1428 Monroe Turnpike, Monroe, CT 06468
Estate of David Preusser, c/o Eloise R. Johnson, Ancillary Executor	7100 Main Street, Trumbull, CT 06611
Town of Trumbull	5866 Main St, Trumbull, CT 06611
7120 Main LLC, c/o Ed Harsche	120 Oneida Drive, Greenwich, CT 06830
Rowan Properties LLC	7176 Main St, Trumbull, CT 06611
State of Connecticut, Office of the Attorney General	55 Elm Street, Hartford, CT 06106
Jacques Family LLC	62 Spring Hill Rd, Trumbull, CT 06611

3672

TOWN OF TRUMBULL
NOTICE

VOL 1802 PAGE 0431

VARIANCE [ ] SPECIAL EXCEPTION [ ] SPECIAL PERMIT [X]

GRANTED BY:
PLANNING AND ZONING COMMISSION [X] ZONING BOARD OF APPEALS [ ]

OWNER(S) OF RECORD: 7120 Main LLC c/o Raymond Rizio
120 Oneida Drive, Greenwich CT 06830

Doc ID: 004998410002 Type: LAN
Book 1802 Page 431 - 432
File# 3672

LOCATION OF PREMISES: 7120 Main Street, Trumbull CT 06611

Assessor's Map No.: C-01 Parcel No. 00023 Lot No. 0
Trumbull Land Records: Volume 1129 Page 207

ZONING REGULATIONS:

ARTICLE(S) II, XV SECTION(S) 4.2
PARAGRAPH(S) SUBPARAGRAPH(S)

NATURE OF APPLICATION: Special Permit/Site Plan to use the existing building in an IL-2 Zone for warehousing and distribution purposes with site improvements consisting of restructuring and expansion of the parking area and the addition of loading bays pursuant to Art II, Sec 4.2 and Art XV of the Town of Trumbull Zoning Regulations.

Special Conditions: Applicant must provide a snow removal plan to be approved by the Town Planner and adjusted by the Town Planner and applicant must provide a dark sky compliant plan to be approved by the Town Planner.

SPECIFIC CONDITIONS IMPOSED UPON THE GRANT OF SUCH APPLICATION MAY BE FOUND IN COPIES OF ACTION TAKEN ON FILE IN THE OFFICE OF THE TOWN CLERK.

DATE OF APPLICATION 11/27/19 DATE OF PUBLIC HEARING 12/18/19
DATE OF ACTION TAKEN 12/18/19 FIXED EFFECTIVE DATE 01/04/20

Larry LaConte, Sr
(Secretary)

CERTIFICATION

I, Linda Finger, Clerk of the Planning and Zoning Commission of the Town of Trumbull, do, hereby, certify this notice of decision to contain true accurate statements for Special Permit granted with respect to the application of 7120 Main LLC dated November 27, 2019 for premises owned by 7120 Main LLC and as more fully appears in the files of said Planning and Zoning Commission.

Linda Finger
(Clerk)

SCHEDULE A

All that certain piece or parcel of land, together with the buildings and improvements thereon, situated in the Town of Trumbull, County of Fairfield and State of Connecticut, and shown on that certain map entitled "Map of Survey of Property in Trumbull, CT for: Allied Stores, Inc." dated April 27, 1965 and on file in the Trumbull Town Clerk's Office as Map No. 1300, said parcel being bounded as follows:

Northwesterly:	by land now or formerly of Howard S. Rowan, 676.15 feet;
Northeasterly:	by land of the Town of Trumbull, 807.26 feet;
Southeasterly:	by Spring Hill Road, 58.98 feet;
Southwesterly:	by land of the Town of Trumbull, 106.20 feet;
Southeasterly again:	by land of the Town of Trumbull, 110.19 feet;
Northeasterly again:	by land of the Town of Trumbull; 77.97 feet;
Southerly:	by Spring Hill Road, 474.27 feet;
Southerly again:	by land now or formerly of Kenneth and Grace Farrar, 89.73 feet;
Southeasterly again:	by land now or formerly of Kenneth and Grace Farrar, 150.00 feet; and
Southwesterly again:	by Newtown Turnpike, 384.50 feet.

Being all and the same premises conveyed to Alstores Realty Corporation by that certain Warranty Deed recorded in Volume 175 at Page 34 of the Trumbull Land Records, less that small portion of property conveyed to the Town of Trumbull by that certain Quit Claim Deed recorded in Volume 179 at Page 211 of the Trumbull Land Records.

JAN 7 2020

TOWN CLERK OFFICE, TRUMBULL, CT

RECEIVED FOR RECORD

AT 11:26 A M. ATTEST

TOWN CLERK

7120 MAIN STREET

Location	7120 MAIN STREET	**Mblu**	C/01 / 00023/ 000/
Acct#		**Owner**	AMAZON.COM SERVICES LLC
Assessment	$4,036,620	**Appraisal**	$5,766,600
PID	10325	**Building Count**	1
Fire District	L		

Current Value

Appraisal	
Valuation Year	**Total**
2015	$5,766,600
Assessment	
Valuation Year	**Total**
2015	$4,036,620

Owner of Record

Owner	AMAZON.COM SERVICES LLC	**Sale Price**	$7,500,000
Co-Owner		**Book & Page**	1803/ 581
Address	P O BOX 80416 SEATTLE, WA 98108-0416	**Sale Date**	01/22/2020

Ownership History

Ownership History			
Owner	**Sale Price**	**Book & Page**	**Sale Date**
AMAZON.COM SERVICES LLC	$7,500,000	1803/ 581	01/22/2020
SEVENTY-ONE TWENTY MAIN LLC	$0	1129/ 207	05/09/2002

Building Information

Building 1 : Section 1

Year Built: 2004
Living Area: 114,000

Building Attributes

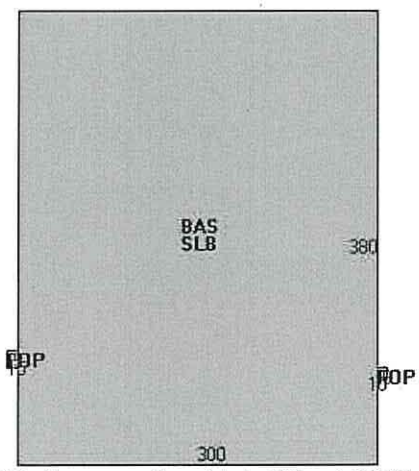
Field	Description
STYLE	Office/Warehs
Stories:	1 Story
Occupancy	1
Exterior Wall 1	Concrete
Exterior Wall 2	
Roof Structure	Flat
Roof Cover	Tar & Gravel
Interior Wall 1	Minimum
Interior Wall 2	Drywall
Interior Floor 1	Concrete
Interior Floor 2	
Heating Fuel	Gas
Heating Type	Hot Water
AC Type	Central
Bldg Use	Off/Whse
1st Floor Use:	
Heat/AC	Heat/AC Pkgs
Frame Type	Fireprf Steel
Baths/Plumbing	Average
Ceiling/Walls	Sus-Ceil & WL
Rooms/Prtns	Average
Wall Height	24
% Comn Wall	

Building Photo

C01-23 05/02/2015

(http://images.vgsi.com/photos2/TrumbullCTPhotos//\00\01\62/52.JPG)

Building Layout



(http://images.vgsi.com/photos2/TrumbullCTPhotos//Sketches/10325_1032

Building Sub-Areas (sq ft)			Legend
Code	Description	Gross Area	Living Area
BAS	First Floor	114,000	114,000
FOP	Open Porch	215	0
SLB	Slab	114,000	0
		228,215	114,000

Extra Features

Extra Features			Legend
Code	Description	Size	Bldg #
SPR	Sprinklers	114000 S.F.	1

Land

Land Use

Land Line Valuation

Use Code	407	**Size (Acres)**	10.1
Description	Off/Whse	**Frontage**	
Zone	IL2	**Depth**	
Neighborhood	255		
Alt Land Appr	No		
Category			

Outbuildings

Outbuildings					Legend
Code	**Description**	**Sub Code**	**Sub Description**	**Size**	**Bldg #**
PAV1	Paving Asph.			120000 S.F.	1

Valuation History

Appraisal	
Valuation Year	**Total**
2018	$5,766,600
2017	$5,766,600
2016	$5,766,600

Assessment	
Valuation Year	**Total**
2018	$4,036,620
2017	$4,036,620
2016	$4,036,620

(c) 2020 Vision Government Solutions, Inc. All rights reserved.

5735

Please record and return to:
Amazon.com Services LLC
P.O. Box 80416
Seattle, WA 98108-0416

Doc ID: 005007990004 Type: LAN
Book 1803 Page 581 - 584
File# 5735

STATUTORY FORM
WARRANTY DEED

TO ALL PEOPLE TO WHOM THESE PRESENTS SHALL COME, GREETING:

Know Ye That **7120 Main, LLC**, a Connecticut limited liability company with a business address of 120 Oneida Drive, Greenwich, Connecticut ("Grantor"), for the consideration of **Seven Million Five Hundred Thousand Dollars ($7,500,000.00)** received to its full satisfaction from **Amazon.com Services LLC**, a Delaware limited liability company with an of P.O. Box 80416, Seattle, Washington 98108-0416 (the "Grantee") does hereby give, grant, bargain, sell and confirm unto the Grantee, **WITH WARRANTY COVENANTS**, all that real property situated in the Town of Trumbull, County of Fairfield and State of Connecticut, commonly known as **7120 Main Street**, as more particularly described on **SCHEDULE A** attached hereto.

[Remainder of page intentionally left blank]

Conveyance Tax Received
Mary Markham
State Town Clerk of Trumbull Town

9375.00 18750.00

IN WITNESS WHEREOF, the Grantor has hereunto set its hand and seal this 15th day January, 2020.

Signed and Delivered
in the presence of:

Christopher Russo

Ane Rio

7120 Main, LLC

By: _____
Joseph Pontoriero
Its Manager

STATE OF CONNECTICUT)
) **ss. Fairfield**
COUNTY OF FAIRFIELD)

On this 14th day of January, 2020, personally appeared, **Joseph Pontoriero,** Manager of 7120 Main, LLC, signer of the foregoing instrument and acknowledged to be his free act and deed, and the free act and deed of 7120 Main, LLC before me.

_____
Raymond Rizio
Commissioner of the Superior Court

SCHEDULE A

ALL THAT CERTAIN piece or parcel of land, together with the buildings and improvements thereon, situated in the Town of Trumbull, County of Fairfield, and State of Connecticut, and shown on that certain map entitled, "Map of Survey of Property in Trumbull, CT for: Allied Stores, Inc.", dated April 27, 1965, and on file in the Trumbull Town Clerk's Office as Map No. 1300, said parcel being bounded as follows:

NORTHWESTERLY: NORTHEASTERLY: SOUTHEASTERLY: SOUTHWESTERLY: SOUTHEASTERLY AGAIN: NORTHEASTERLY AGAIN: SOUTHERLY:
SOUTHERLY AGAIN: SOUTHEASTERLY AGAIN: SOUTHWESTERLY AGAIN:

by land now or formerly of Howard S. Rowan, 676.15 feet;
by land now or formerly of the Town of Trumbull, 807.26 feet;
by Spring Hill Road, 58.98 feet;
by land now or formerly of the Town of Trumbull, 106.20 feet;
by land now or formerly of the Town of Trumbull, 110.19 feet;
by land now or formerly of the Town of Trumbull, 77.97 feet;
by Spring Hill Road, 474.27 feet;
by land now or formerly of Kenneth and Grace Farrar, 89.73 feet;
by land now or formerly of Kenneth and Grace Farrar, 150.00 feet; and
by Newtown Turnpike, 384.50 feet.

LESS AND EXCEPTING THEREFROM that certain piece or parcel of land situated in the Town of Trumbull, County of Fairfield, and State of Connecticut, on the northwesterly side of Present Spring Hill Road, containing 1,387 square feet, more or less, as more particularly shown on a map filed in the Trumbull Town Clerk's Office as Map No. C-510 entitled: "TOWN OF TRUMBULL MAP SHOWING LAND ACQUIRED FROM 7120 MAIN, LLC BY THE STATE OF CONNECTICUT DEPT. OF TRANSPORTATION INTERSECTION IMPROVEMENTS ALONG ROUTE 25 SCALE: 1" = 20' DECEMBER, 2003 ARTHUR W. GRUHN, P.E. - TRANSPORTATION CHIEF ENGINEER DEPARTMENT OF TRANSPORTATION-BUREAU OF ENGINEERING AND HIGHWAY OPERATIONS." Sheet 1 of 1, Last revised 2/2/05, (144181-7), and bounded and described as follows:
SOUTHEASTERLY: by Present Spring Hill Road, 266 feet, more or less;
SOUTHWESTERLY: running to a point;
NORTHWESTERLY: by Owner's remaining land, 219 feet, more or less, by a line designated "TAKING LINE," as shown on said map;
NORTHERLY: by said Owner's remaining land, 48 feet, more or less, by a line designated "TAKING LINE," as shown on said map;
NORTHEASTERLY: running to a point.

Subject to:

1. Real estate taxes on the Grand List of October 1, 2018, hereafter due and payable which the Grantee herein assumes and agrees to pay.

2. Any and all provisions of any statute, ordinance, municipal regulation, zoning planning and wetland laws and regulations, building lines, if established, or public or private law, local, state or federal.

3. Sewer use charges hereafter due and payable.

4. Sewer Assessment charges hereafter due and payable.

5. Long Hill Fire District Taxes hereafter due and payable.

6. Special Permit granted by the Town of Trumbull Planning and Zoning Commission recorded October 7, 1977 in Volume 378 at Page 48 of the Trumbull Land Records.

7. Special Permit granted by the Town of Trumbull Planning and Zoning Commission recorded November 5, 1979 in Volume 432 at Page 426 of the Trumbull Land Records.

8. Special Permit granted by the Town of Trumbull Planning and Zoning Commission recorded June 15, 1993 in Volume 808 at Page 241 of the Trumbull Land Records.

9. Special Permit granted by the Town of Trumbull Planning and Zoning Commission recorded October 11, 1996 in Volume 907 at Page 532 of the Trumbull Land Records.

10. Easements in favor of the State of Connecticut set forth in a Certificate of Taking dated September 1, 2005 and recorded in Volume 1356 at Page 155 of the Trumbull Land Records.

11. Planning and Zoning Commission Special Permit recorded January 7, 2020 in Volume 1802 at Page 431 of the Trumbull Land Records.

JAN 22 2020

TOWN CLERK OFFICE, TRUMBULL, CT
RECEIVED FOR RECORD
AT 3:34 P M. ATTEST Gloria A Murphy
TOWN CLERK

Town of Trumbull
CONNECTICUT

PLANNING AND ZONING DEPARTMENT

Planning and Zoning Department
Telephone (203) 452-5047
Fax (203) 452-5169

Town Hall
5866 Main Street Trumbull,
Connecticut 06611

September 9, 2020

Trumbull Planning and Zoning Commission
Town Hall
5866 Main St.
Trumbull CT. 06611

Applicant: Amazon.Com Services. LLC.

RE: Staff Report 7120 Main St File # 20-07
Special Permit / Site Plan Application. Modification
Applicable Zoning: IL-2
Article II Section 4.2
Acres: 10.10
Building built: assessor card 2004
Building size: 114,000 sqft.

File # 20-07
Overview: Special Permit / Site Plan Application to modify and restructure the parking area and traffic flow as previously approved in December of 2019.

The applicant received an approval from the Police commission concerning their modifications on Tuesday September 8th. Before the Police meeting the applicant revised their traffic flow plans which were digitally sent to the commissioners.

Conclusion:
The Applicant is requesting that the flow of the vans and the hours of operation change. The Vans will be going into the building on the east side and leave out the west side. This is the reverse of the approved interior traffic flow. The changes being made are that all Vans that are leaving the property for deliveries that are going south will be going out onto Spring Hill Rd. No left turns onto Main St. The Vans main delivery times will be changed during the mid-day rather than morning and rush hour time.

Sincerely,

Rob Librandi, Trumbull Land use Planner

William C. Maurer, PE, LS
Town Engineer

TOWN OF TRUMBULL
CONNECTICUT

Town Hall
5866 Main Street
Trumbull, Connecticut 06611
Phone: 203.452.5050
Fax: 203.452.5061

August 20, 2020

Mr. Robert Librandi
Town of Trumbull Planning and Zoning

RE: 7120 Main Street

Dear Mr. Rob Librandi,

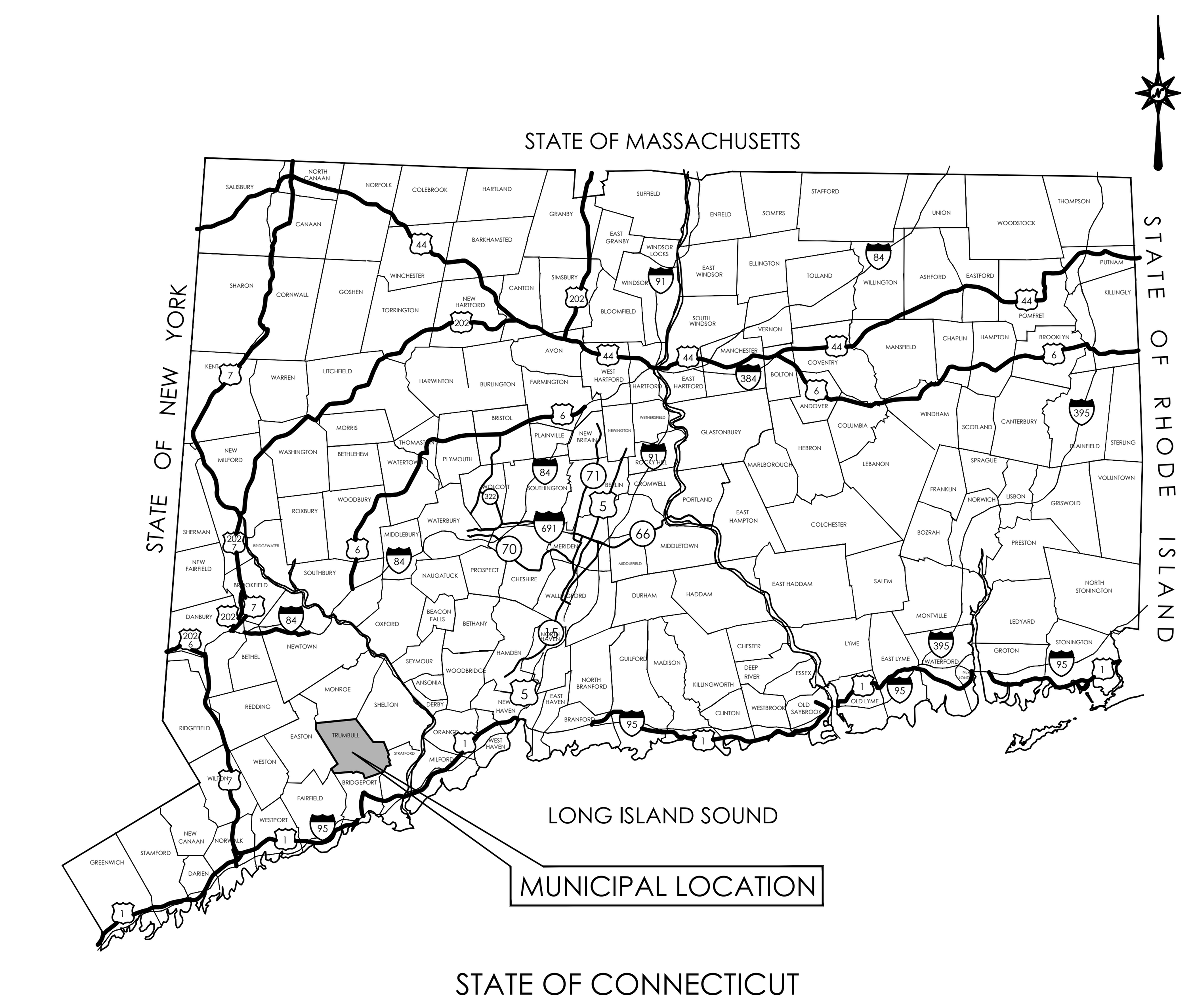
As part of the Special Permit Application #20-07, a copy has been submitted to the Engineering Department for review on August 17, 2020. Upon review of the submitted material, we offer the following comments:

1. **A certification letter and a final as-built must be submitted to the Engineering Department for review and approval prior to sign-off on the Certificate of Occupancy.**

Sincerely,

Tatiana Solovey, P.E.
Assistant Town Engineer

CC: Chairmen Garrity

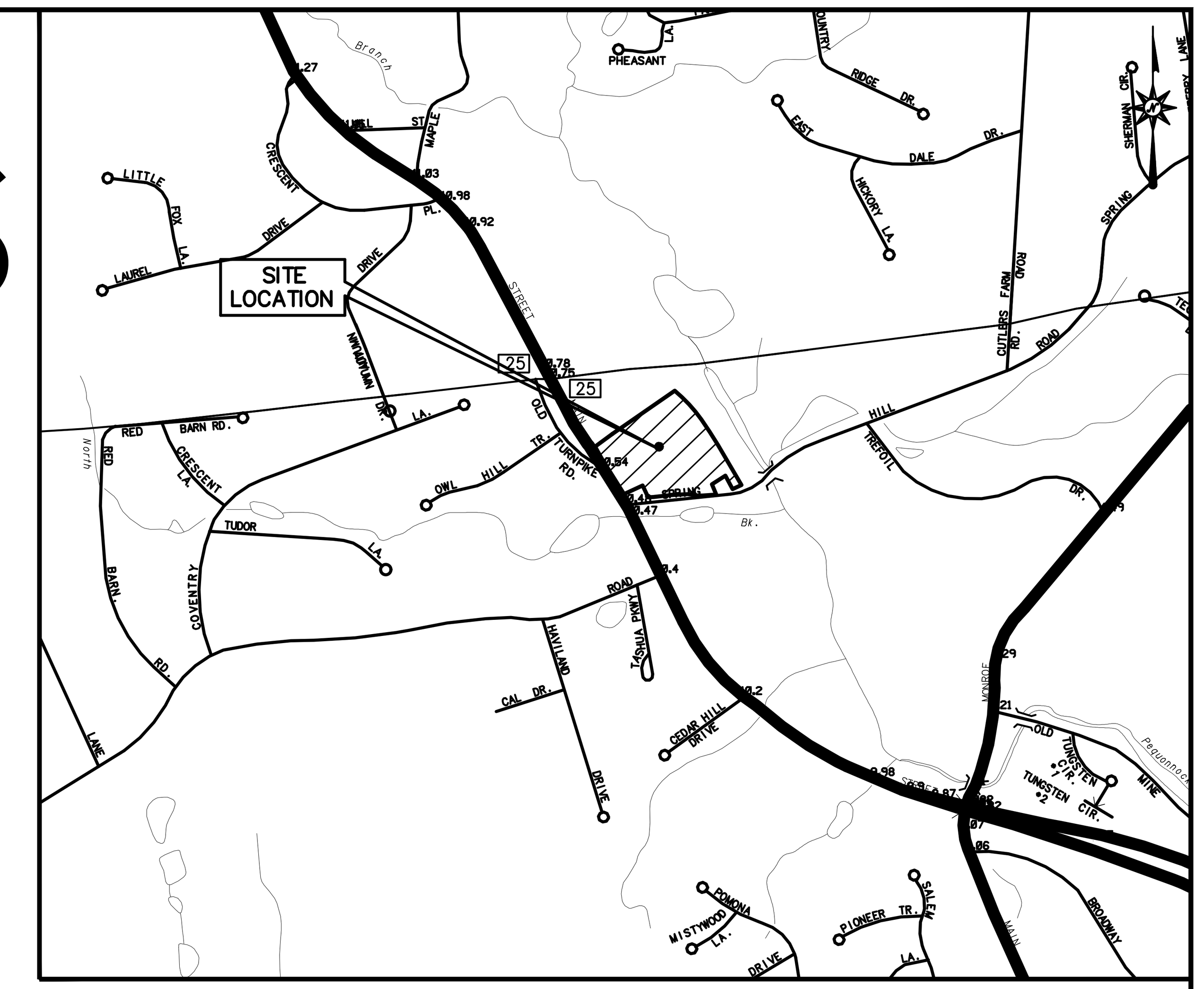


LOCATION MAP

N.T.S.

LAND DEVELOPMENT PLANS ISSUED FOR PROPOSED DEVELOPMENT

7120 MAIN STREET TRUMBULL, CONNECTICUT



VICINITY MAP

SCALE: 1"=1000'

CONTENTS

	TITLE SHEET
EX-1, 2	COMPILED EXISTING CONDITION PLAN
DM-0	OVERALL DEMOLITION PLAN
DM-1, 2	DEMOLITION PLAN
SP-0	OVERALL SITE PLAN
SP-1, 2	SITE PLAN
GD-0	OVERALL GRADING, DRAINAGE, AND SITE UTILITIES PLAN
GD-1, 2	GRADING, DRAINAGE, AND SITE UTILITIES PLAN
EC-0	OVERALL SEDIMENT AND EROSION CONTROL PLAN
EC-1, 2	SEDIMENT AND EROSION CONTROL PLAN
EC-3	SEDIMENT AND EROSION CONTROL NOTES AND DETAILS
LL-0	OVERALL LANDSCAPE PLAN
LL-1, 2	LANDSCAPE PLAN
LL-3	LANDSCAPE NOTES AND DETAILS
LP-0	OVERALL LIGHTING PLAN
LP-1,2	LIGHTING PLAN
GN-1	GENERAL NOTES
DN-1 THRU 2	DETAILS SHEETS

PREPARED BY:

BL Companies

ARCHITECTURE
ENGINEERING
ENVIRONMENTAL
LAND SURVEYING

355 RESEARCH PARKWAY
MERIDEN, CONNECTICUT 06450
(203) 630-1406
(203) 630-2615 Fax

OWNER:

SEVENTY-ONE TWENTY MAIN LLC
120 ONEIDA DR
GREENWICH, CT 06830

DATES

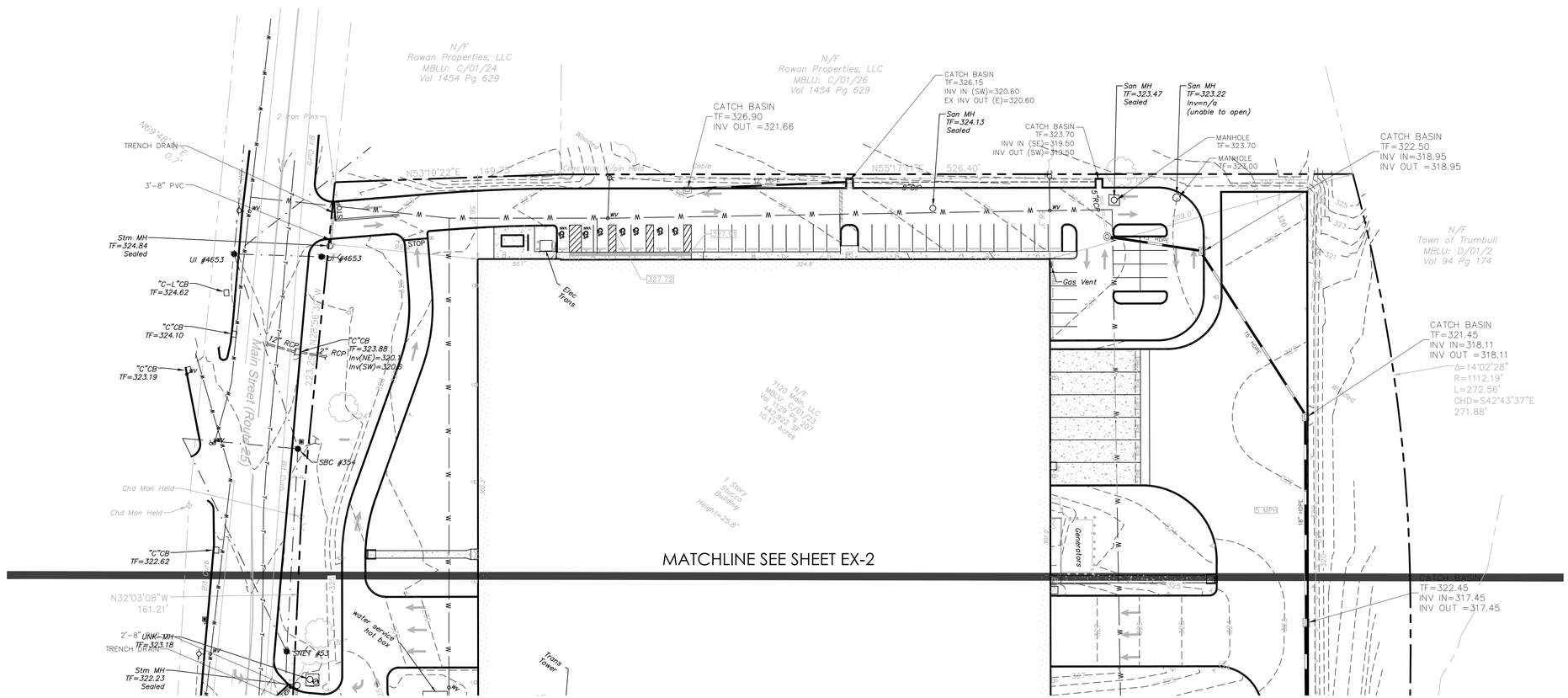
ISSUE DATE: JUNE 24, 2020
REVISION:

CAD FILE: CV190114131

© 2020 BL COMPANIES, INC. THESE DRAWINGS SHALL NOT BE UTILIZED BY ANY PERSON, FIRM OR CORPORATION WITHOUT THE SPECIFIC WRITTEN PERMISSION OF BL COMPANIES.

GENERAL NOTE

EXISTING CONDITIONS MAP IS COMPILED FROM ALL AVAILABLE MAPPING INCLUDING A LIMITED FIELD SURVEY CONDUCTED BY BL COMPANIES DATED JULY 29, 2019. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS PRIOR TO CONSTRUCTION.



FOR PERMITTING PURPOSES ONLY
NOT RELEASED FOR CONSTRUCTION

GRAPHIC SCALE
40 20 0 40
SCALE IN FEET

Architecture
Engineering
Environmental
Land Surveying

BL Companies

355 Research Parkway
Meriden, CT 06450
(203) 630-1406
(203) 630-2615 Fax

PROPOSED DEVELOPMENT

7120 MAIN STREET
TRUMBULL, FAIRFIELD COUNTY, CONNECTICUT

REVISIONS

No.	Date	Desc.

Designed	K.A.K.
Drawn	K.A.K.
Reviewed	
Scale	1"=40'
Project No.	1901141
Date	06/24/2019
CAD File: EX190114131	

Title

COMPILED EXISTING CONDITION PLAN

Sheet No.

EX-1

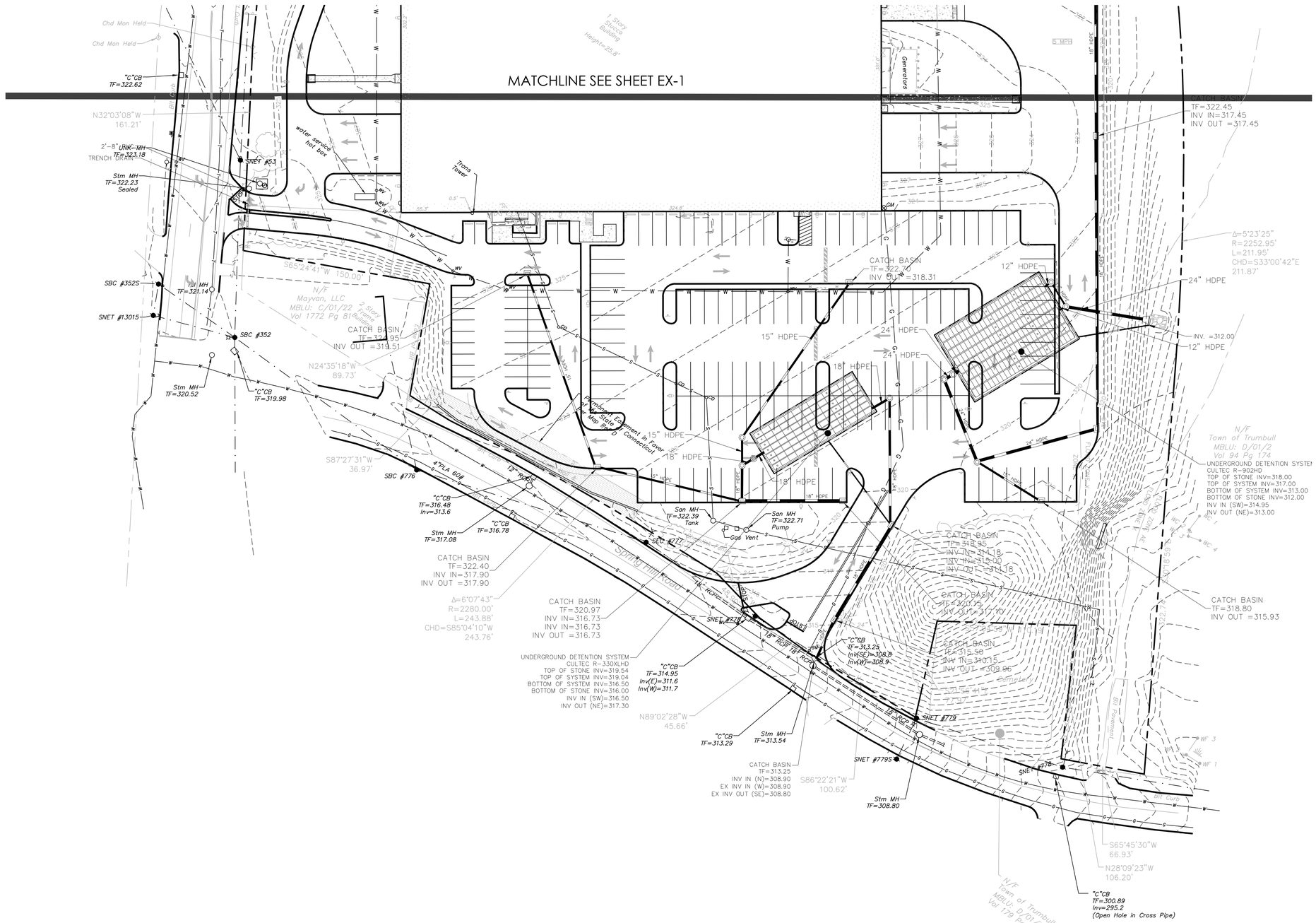
Xref (s): B0190114131 ; XC190114131 ; X2190114131

4/25/2020, KAK,GISS, G:\JOBS19\70\1901141\DWG\EX\1901141310WG,EX-1, 24X36, 40SC

© 2020 BL COMPANIES, INC. THESE DRAWINGS SHALL NOT BE UTILIZED BY ANY PERSON, FIRM OR CORPORATION WITHOUT THE SPECIFIC WRITTEN PERMISSION OF BL COMPANIES.

GENERAL NOTE

EXISTING CONDITIONS MAP IS COMPILED FROM ALL AVAILABLE MAPPING INCLUDING A LIMITED FIELD SURVEY CONDUCTED BY BL COMPANIES DATED JULY 29, 2019. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS PRIOR TO CONSTRUCTION.



FOR PERMITTING PURPOSES ONLY
NOT RELEASED FOR CONSTRUCTION

GRAPHIC SCALE
40 20 0 40
SCALE IN FEET

Architecture
Engineering
Environmental
Land Surveying

BL Companies

355 Research Parkway
Meriden, CT 06450
(203) 630-1406
(203) 630-2615 Fax

PROPOSED DEVELOPMENT

7120 MAIN STREET
TRUMBULL, FAIRFIELD COUNTY, CONNECTICUT

REVISIONS

No.	Date	Desc.

Designed	K.A.K.
Drawn	K.A.K.
Reviewed	
Scale	1"=40'
Project No.	1901141
Date	06/24/2019

CAD File: EX190114131

Title

COMPILED EXISTING CONDITION PLAN

Sheet No.

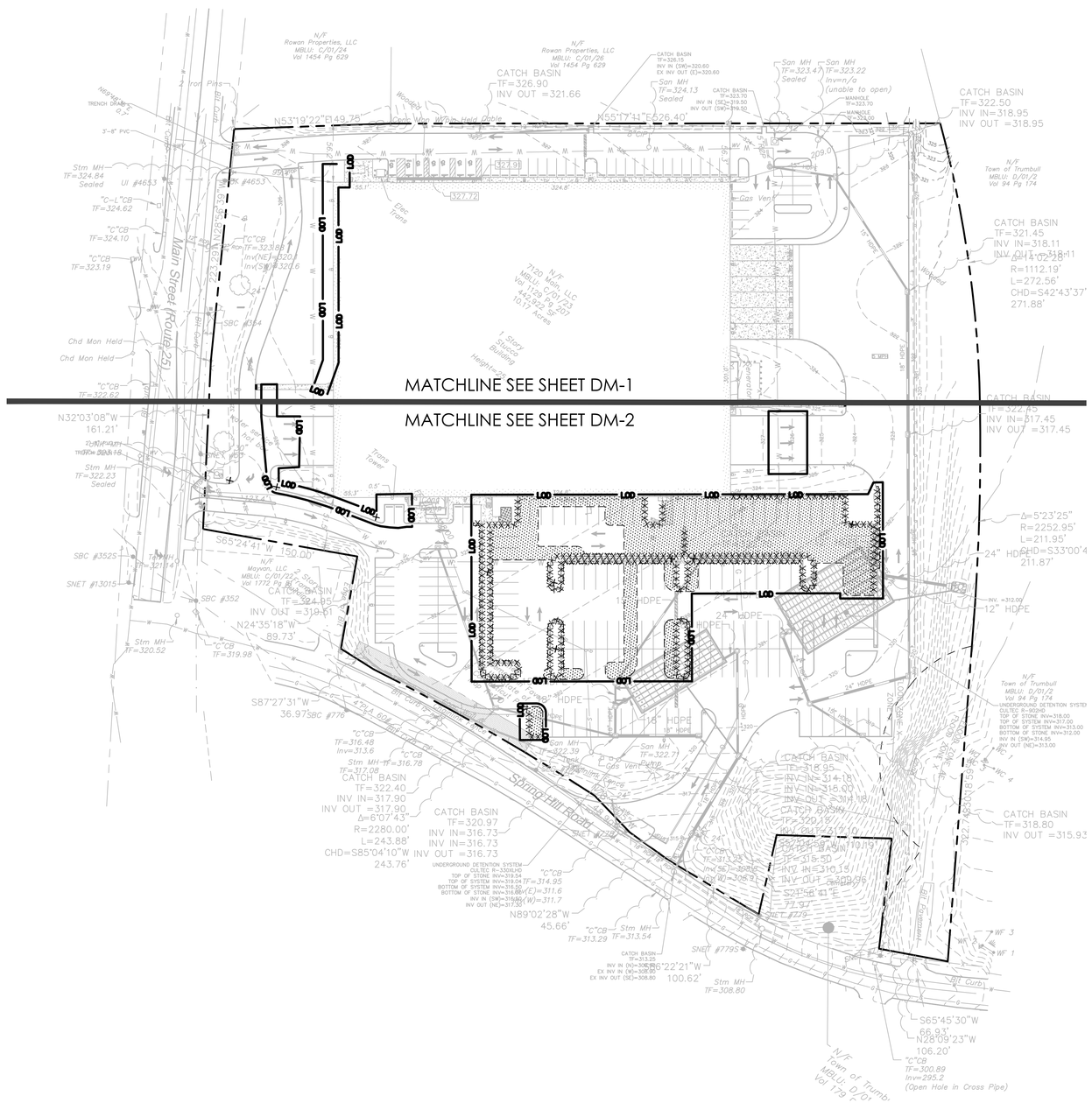
EX-2

Xref (s): BD190114131; XC190114131; X2190114131

© 2020 BL COMPANIES, INC. THESE DRAWINGS SHALL NOT BE UTILIZED BY ANY PERSON, FIRM OR CORPORATION WITHOUT THE SPECIFIC WRITTEN PERMISSION OF BL COMPANIES.

DEMOLITION LEGEND:

PROPERTY LINE	PROPERTY LINE
LOD	LIMIT OF DISTURBANCE LINE AND CONTRACT LIMIT LINE
	SAWCUT LINE
XXXXXXXXXXXXXXXXXXXX	REMOVE AND DISPOSE OF UNDERGROUND STORMWATER OR UTILITY PIPE, CURB, FENCING, WALLS, OVERHEAD WIRES, ETC.
X	REMOVE AND DISPOSE OF SIGN, PIPING, UTILITY STRUCTURE, APPURTENANCE, FIXTURE, TREE, AND/OR TREE STUMP ETC.
	REMOVE AND DISPOSE OF EXISTING CONCRETE PADS AND/OR CONCRETE SIDEWALKS
	REMOVE AND DISPOSE OF EXISTING BITUMINOUS CONCRETE PAVEMENT STRUCTURE



REFER TO SHEET GN-1 FOR SITE WORK AND GENERAL NOTES

FOR PERMITTING PURPOSES ONLY NOT RELEASED FOR CONSTRUCTION

GRAPHIC SCALE
60 30 0 60
SCALE IN FEET

Architecture Engineering Environmental Land Surveying
BL Companies
355 Research Parkway
Meriden, CT 06450
(203) 630-1406
(203) 630-2615 Fax

PROPOSED DEVELOPMENT
7120 MAIN STREET
TRUMBULL, FAIRFIELD COUNTY, CONNECTICUT

REVISIONS

No.	Date	Desc.

Designed	C.G.
Drawn	N.A.N.
Reviewed	
Scale	1"=60'
Project No.	1901141
Date	06/24/2019
CAD File: DM190114131	

Title
OVERALL DEMOLITION PLAN

Sheet No.
DM-0

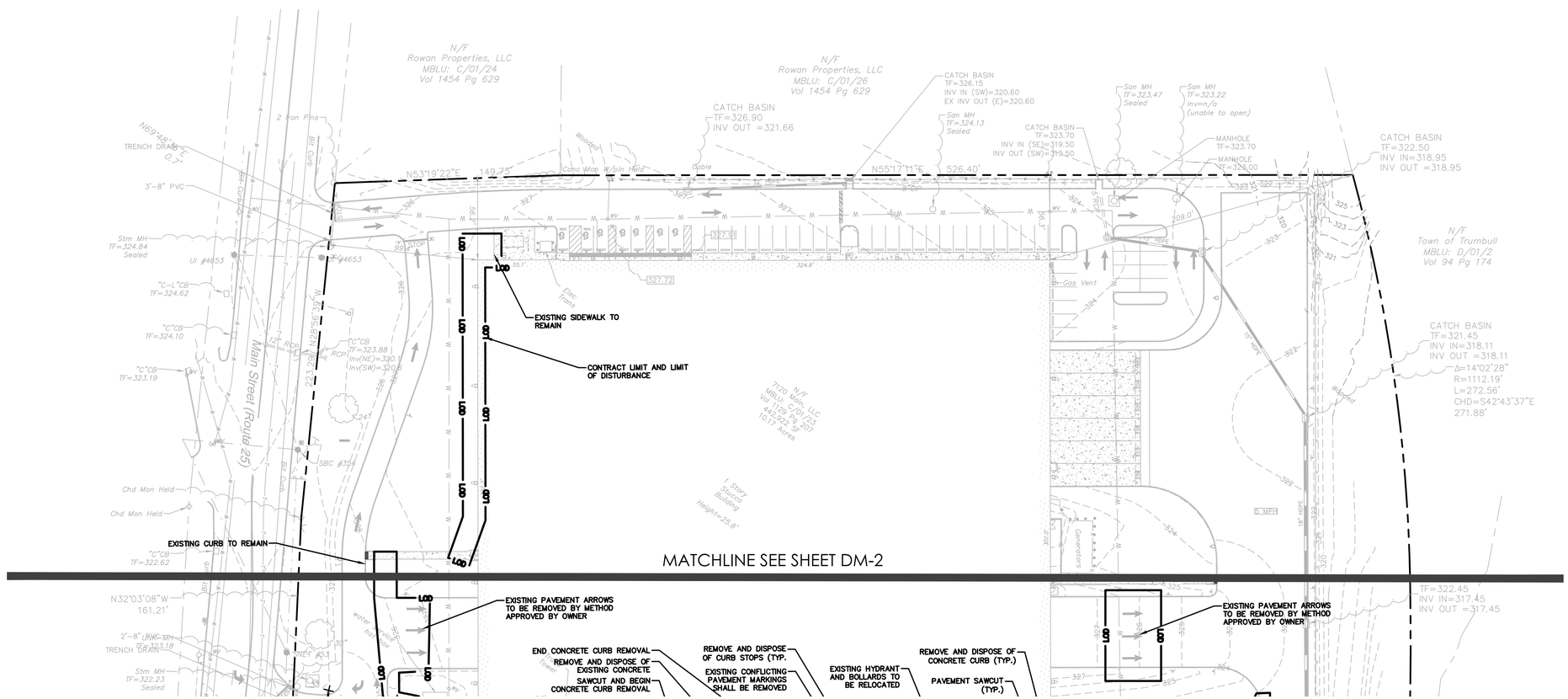
Xref (s): : BD190114131 ; X2190114131 ; XC190114131

4/25/2020, KEK/GJSS, C:\-DRIVE\X\1901141\DWG\DM190114131.DWG;DM-0 24X36.dcl;BC

© 2020 BL COMPANIES, INC. THESE DRAWINGS SHALL NOT BE UTILIZED BY ANY PERSON, FIRM OR CORPORATION WITHOUT THE SPECIFIC WRITTEN PERMISSION OF BL COMPANIES.

DEMOLITION LEGEND:

	PROPERTY LINE
LOD	LIMIT OF DISTURBANCE LINE AND CONTRACT LIMIT LINE
	SAWCUT LINE
XXXXXXXXXXXXXXXXXX	REMOVE AND DISPOSE OF UNDERGROUND STORMWATER OR UTILITY PIPE, CURB, FENCING, WALLS, OVERHEAD WIRES, ETC.
X	REMOVE AND DISPOSE OF SIGN, PIPING, UTILITY STRUCTURE, APPURTENANCE, FIXTURE, TREE, AND/OR TREE STUMP ETC.
	REMOVE AND DISPOSE OF EXISTING CONCRETE PADS AND/OR CONCRETE SIDEWALKS
	REMOVE AND DISPOSE OF EXISTING BITUMINOUS CONCRETE PAVEMENT STRUCTURE



REFER TO SHEET GN-1 FOR SITE WORK AND GENERAL NOTES

FOR PERMITTING PURPOSES ONLY
NOT RELEASED FOR CONSTRUCTION

GRAPHIC SCALE
40 20 0 40
SCALE IN FEET

Architecture
Engineering
Environmental
Land Surveying

BL Companies

355 Research Parkway
Meriden, CT 06450
(203) 630-1406
(203) 630-2615 Fax

PROPOSED DEVELOPMENT

7120 MAIN STREET
TRUMBULL, FAIRFIELD COUNTY, CONNECTICUT

REVISIONS

No.	Date	Desc.

Designed	C.G.
Drawn	N.A.N.
Reviewed	
Scale	1"=40'
Project No.	1901141
Date	06/24/2019
CAD File: DM190114131	

Title

DEMOLITION PLAN

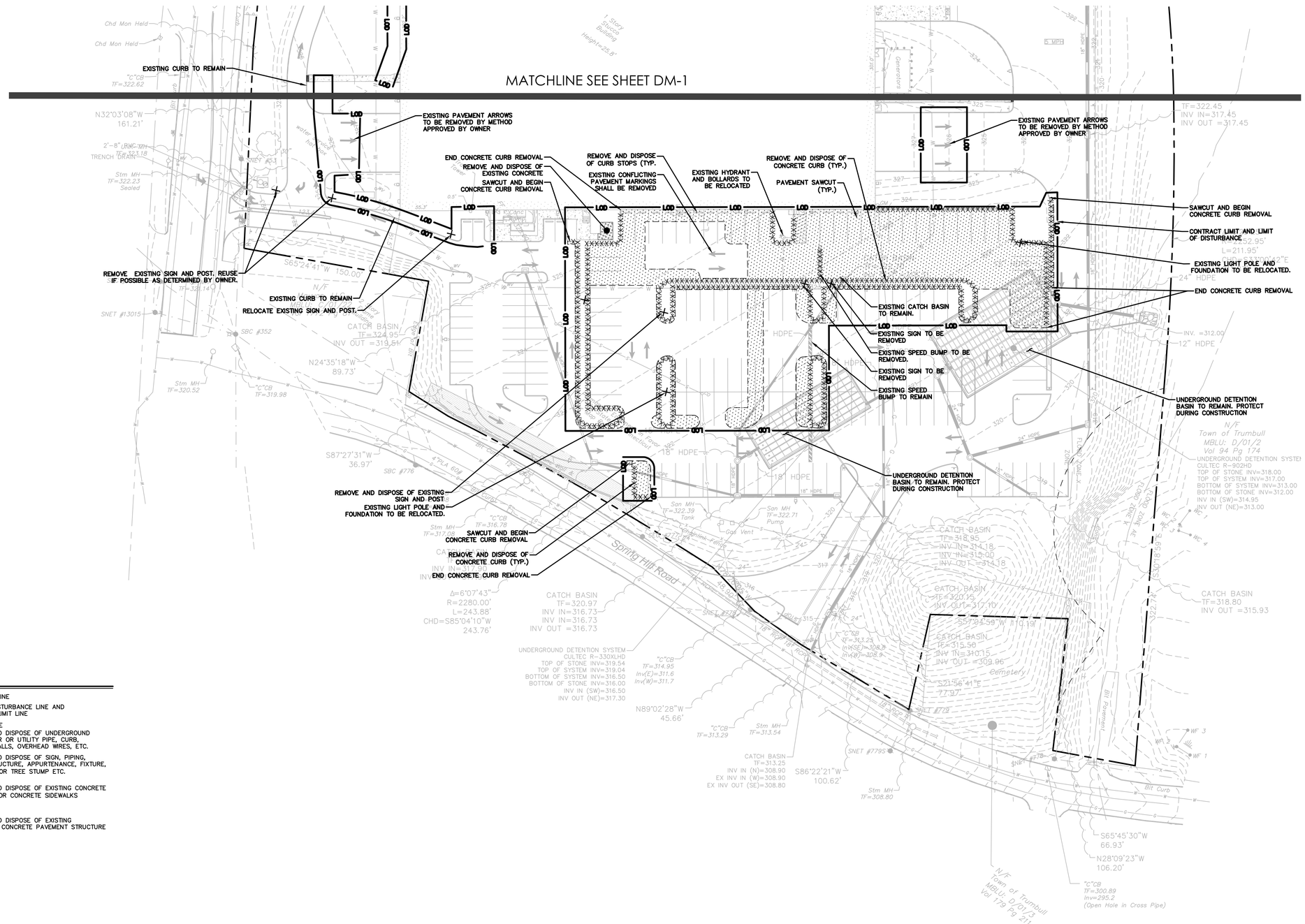
Sheet No.

DM-1

Xref (s): B3190114131; XC190114131; XC190114131

4/25/2020 8:44:25,05; C:\-JOBS\19-101\1901141\DWG\DM190114131.DWG;DM-1 24X36.dwg;C

© 2020 BL COMPANIES, INC. THESE DRAWINGS SHALL NOT BE UTILIZED BY ANY PERSON, FIRM OR CORPORATION WITHOUT THE SPECIFIC WRITTEN PERMISSION OF BL COMPANIES.



DEMOLITION LEGEND:

— — — —	PROPERTY LINE
LOD	LIMIT OF DISTURBANCE LINE AND CONTRACT LIMIT LINE
— — — —	SAWCUT LINE
XXXXXXXXXXXXXXXXXXXX	REMOVE AND DISPOSE OF UNDERGROUND STORMWATER OR UTILITY PIPE, CURB, FENCING, WALLS, OVERHEAD WIRES, ETC.
X	REMOVE AND DISPOSE OF SIGN, PIPING, UTILITY STRUCTURE, APPURTENANCE, FIXTURE, TREE, AND/OR TREE STUMP ETC.
	REMOVE AND DISPOSE OF EXISTING CONCRETE PADS AND/OR CONCRETE SIDEWALKS
	REMOVE AND DISPOSE OF EXISTING BITUMINOUS CONCRETE PAVEMENT STRUCTURE

REFER TO SHEET GN-1 FOR SITE WORK AND GENERAL NOTES

FOR PERMITTING PURPOSES ONLY NOT RELEASED FOR CONSTRUCTION

GRAPHIC SCALE
40 20 0 40
SCALE IN FEET

Architecture
Engineering
Environmental
Land Surveying

BL Companies

355 Research Parkway
Meriden, CT 06450
(203) 630-1406
(203) 630-2615 Fax

PROPOSED DEVELOPMENT

7120 MAIN STREET
TRUMBULL, FAIRFIELD COUNTY, CONNECTICUT

REVISIONS

No.	Date	Desc.

Designed	C.G.
Drawn	N.A.N.
Reviewed	
Scale	1"=40'
Project No.	1901141
Date	06/24/2019
CAD File: DM190114131	

Title

DEMOLITION PLAN

Sheet No.

DM-2

Xref (s): BD190114131 ; XZ190114131 ; XC190114131

4/25/2020, KEILGUS, G:\JOBS19\70\1901141\DWG\DM190114131.DWG\DM-2 XAVIN, 40SC

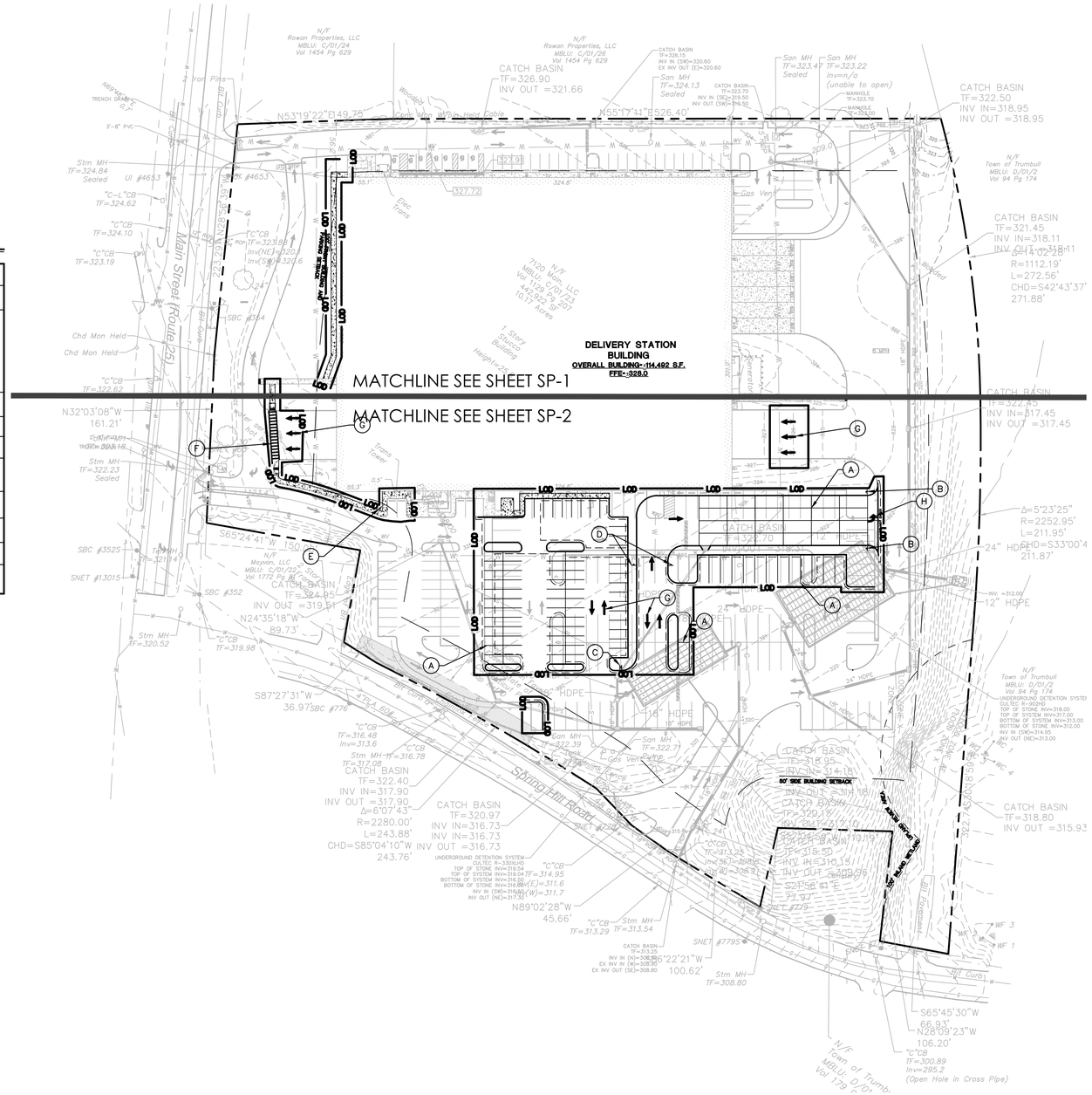
© 2020 BL COMPANIES, INC. THESE DRAWINGS SHALL NOT BE UTILIZED BY ANY PERSON, FIRM OR CORPORATION WITHOUT THE SPECIFIC WRITTEN PERMISSION OF BL COMPANIES.

ZONING INFORMATION

LOCATION: TRUMBULL, FAIRFIELD COUNTY, CONNECTICUT (<500 FEET FROM TOWN OF MONROE)				
ZONE: I-L2 (LIGHT INDUSTRY-2 ACRES)				
USE: WAREHOUSING (SPECIAL PERMITTED USE)				
ITEM #	ITEM	REQUIREMENTS	PROPOSED	VARIANCE
1	MINIMUM LOT AREA	2 ACRES	442,922 S.F. (10.17 AC.)	NO
2	MINIMUM LOT FRONTAGE	250 FEET	927.45 FEET	NO
3	MINIMUM FRONT SETBACK	100 FEET[1]	99 FEET (EXISTING NON-CONFORMING)	NO
4	MINIMUM SIDE SETBACK	50 FEET[1]	51 FEET	NO
5	MINIMUM REAR SETBACK	50 FEET[1]	209 FEET	NO
6	MAXIMUM BUILDING HEIGHT	40 FEET	26 FEET	NO
7	MAXIMUM IMPERVIOUS COVERAGE	80 PERCENT	70 PERCENT	NO
8	MAXIMUM BUILDING COVERAGE	33.33 PERCENT	26 PERCENT	NO

PARKING INFORMATION

ITEM #	ITEM	REQUIREMENTS	PROPOSED	VARIANCE
1	BUILDING SIZE	NONE REQUIRED	114,492.2 S.F.	NO
2	PARKING REQUIRED	ASSEMBLY/FACTORY: 1 SPACE PER EVERY 1.5 EMPLOYEES (97 EMPLOYEES) REQUIRED = 65 SPACES BUSINESS/OFFICE 1 SPACE PER 250SF OFFICE AREA = 2,618SF REQUIRED = 11 SPACES TOTAL REQUIRED = 76 SPACES	213 SPACES	NO
3	MINIMUM HANDICAPPED PARKING SPACES REQUIRED	6 SPACES (FOR 151 SPACES) 7 SPACES (FOR 213 SPACES)	7 SPACES	NO
4	MINIMUM PARKING DIMENSIONS	9 FEET X 18 FEET	9 FEET X 18 FEET	NO
5	MINIMUM AISLE WIDTH	24 FEET – 2-WAY	24 FEET – 2-WAY 15 FEET – 1-WAY	NO
6	MINIMUM FRONT SETBACK	15 FEET (100 FEET)[2]	SPRING HILL ROAD: 9 FEET (EXISTING NON-CONFORMING)	NO
			MAIN STREET: 149 FEET	NO
7	MINIMUM SIDE SETBACK	20 FEET[2]	6 FEET (EXISTING NON-CONFORMING)	NO
8	MINIMUM REAR SETBACK	20 FEET[2]	70 FEET	NO
9	MINIMUM INTERIOR LANDSCAPING	ONE TREE PER 10 SPACES, 20 S.F. PER PARKING SPACE	>ONE TREE PER 10 SPACES, >20 S.F. PER PARKING SPACE	NO



SITE PLAN LEGEND

- PROPERTY LINE
- EXISTING CONTOUR
- LOD — LIMIT OF DISTURBANCE (LOD) AND CONTRACT LIMIT LINE
- BUILDING SETBACK LINE
- PROVIDE AND INSTALL CONCRETE PAVEMENT STRUCTURE
- XX — PARKING STALL COUNT
- PROVIDE AND INSTALL STANDARD DUTY BITUMINOUS CONCRETE PAVEMENT STRUCTURE

SIGNAGE KEYNOTE LEGEND

- (A) PROVIDE AND INSTALL 4" WIDE WHITE STRIPE (TYP.)
- (B) PROVIDE AND INSTALL S-2 SIGN
- (C) PROVIDE AND INSTALL S-3 SIGN
- (D) PROVIDE AND INSTALL AS-53G SIGN
- (E) RELOCATED S-4 SIGN
- (F) PROVIDE AND INSTALL PAINTED CROSS WALK (PG-11)
- (G) PROVIDE AND INSTALL PAVEMENT ARROW (PG-5)
- (H) PROVIDE AND INSTALL PAVEMENT ARROW (PG-6)

REFER TO SHEET GN-1 FOR SITEWORK GENERAL NOTES

FOR PERMITTING PURPOSES ONLY
NOT RELEASED FOR CONSTRUCTION

GRAPHIC SCALE
60 30 0 60
SCALE IN FEET

Architecture
Engineering
Environmental
Land Surveying
BL Companies
355 Research Parkway
Meriden, CT 06450
(203) 630-1406
(203) 630-2615 Fax

PROPOSED DEVELOPMENT
7120 MAIN STREET
TRUMBULL, FAIRFIELD COUNTY, CONNECTICUT

REVISIONS
No. Date Desc.

Designed	C.G.
Drawn	N.A.N.
Reviewed	
Scale	1"=60'
Project No.	1901141
Date	06/24/2019
CAD File: SP190114131	

Title
OVERALL SITE PLAN

Sheet No.
SP-0

Xref (s): : BD190114131 ; X219011413 1 ; XC190114131

© 2020 BL COMPANIES, INC. THESE DRAWINGS SHALL NOT BE UTILIZED BY ANY PERSON, FIRM OR CORPORATION WITHOUT THE SPECIFIC WRITTEN PERMISSION OF BL COMPANIES.

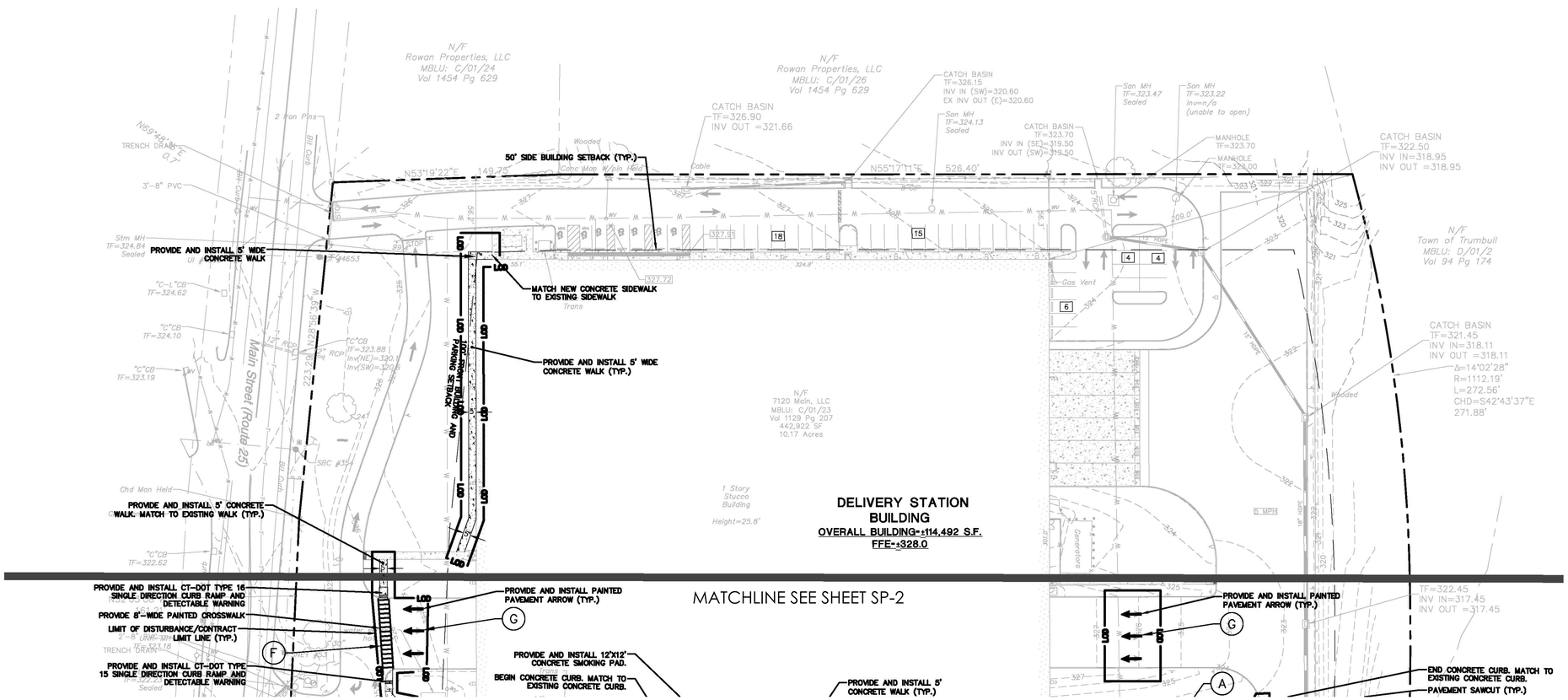
4/25/2020, KEK/GJSS, C:\-1D8159\X\1901141\DWG\SP190114131.DWG\SP-0 24X36.49SC

SITE PLAN LEGEND

- PROPERTY LINE
- EXISTING CONTOUR
- LOD — LIMIT OF DISTURBANCE (LOD) AND CONTRACT LIMIT LINE
- BUILDING SETBACK LINE
- PROVIDE AND INSTALL CONCRETE PAVEMENT STRUCTURE
- XX — PARKING STALL COUNT
- PROVIDE AND INSTALL STANDARD DUTY BITUMINOUS CONCRETE PAVEMENT STRUCTURE

SIGNAGE KEYNOTE LEGEND

- (A) PROVIDE AND INSTALL 4" WIDE WHITE STRIPE (TYP.)
- (B) PROVIDE AND INSTALL S-2 SIGN
- (C) PROVIDE AND INSTALL S-3 SIGN
- (D) PROVIDE AND INSTALL AS-53G SIGN
- (E) RELOCATED S-4 SIGN
- (F) PROVIDE AND INSTALL PAINTED CROSS WALK (PG-11)
- (G) PROVIDE AND INSTALL PAVEMENT ARROW (PG-5)
- (H) PROVIDE AND INSTALL PAVEMENT ARROW (PG-6)



REFER TO SHEET GN-1 FOR SITEWORK GENERAL NOTES

FOR PERMITTING PURPOSES ONLY NOT RELEASED FOR CONSTRUCTION

GRAPHIC SCALE
40 20 0 40
SCALE IN FEET

Architecture
Engineering
Environmental
Land Surveying
BL Companies
355 Research Parkway
Meriden, CT 06450
(203) 630-1406
(203) 630-2615 Fax

PROPOSED DEVELOPMENT
7120 MAIN STREET
TRUMBULL, FAIRFIELD COUNTY, CONNECTICUT

REVISIONS

No.	Date	Desc.

Designed	C.G.
Drawn	N.A.N.
Reviewed	
Scale	1"=40'
Project No.	1901141
Date	06/24/2019
CAD File: SP190114131	

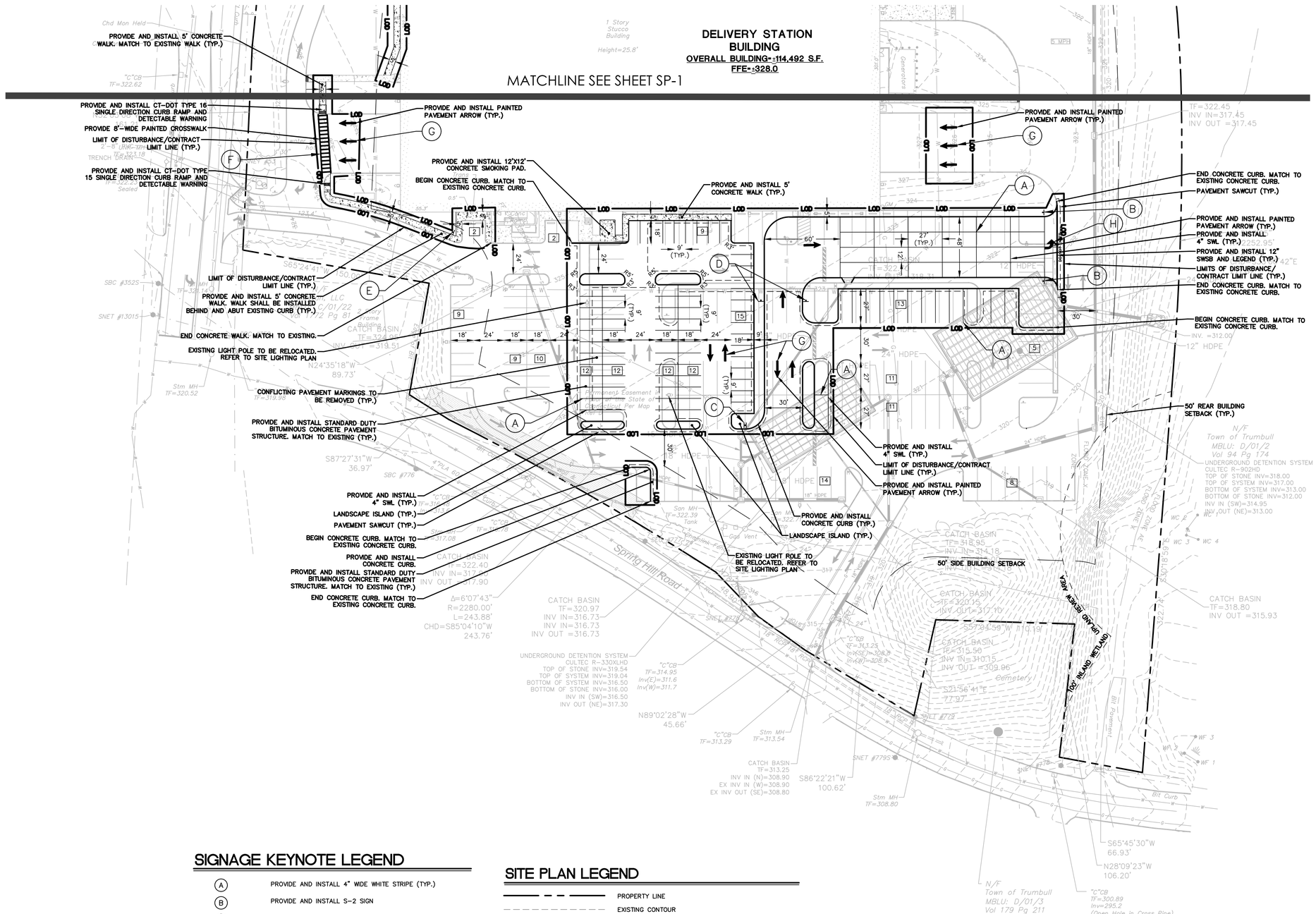
Title
SITE PLAN

Sheet No.
SP-1

Xref (s): BD190114131; XC190114131; XC190114131

4/25/2020 KKR;CLIS;C:\LOREN\N:\DOWN\SP190114131.DWG;SP-1 24X36.40C

© 2020 BL COMPANIES, INC.. THESE DRAWINGS SHALL NOT BE UTILIZED BY ANY PERSON, FIRM OR CORPORATION WITHOUT THE SPECIFIC WRITTEN PERMISSION OF BL COMPANIES.



SIGNAGE KEYNOTE LEGEND

A	PROVIDE AND INSTALL 4" WIDE WHITE STRIPE (TYP.)
B	PROVIDE AND INSTALL S-2 SIGN
C	PROVIDE AND INSTALL S-3 SIGN
D	PROVIDE AND INSTALL AS-53G SIGN
E	RELOCATED S-4 SIGN
F	PROVIDE AND INSTALL PAINTED CROSS WALK (PG-11)
G	PROVIDE AND INSTALL PAVEMENT ARROW (PG-5)
H	PROVIDE AND INSTALL PAVEMENT ARROW (PG-6)

SITE PLAN LEGEND

	PROPERTY LINE
	EXISTING CONTOUR
LOD	LIMIT OF DISTURBANCE (LOD) AND CONTRACT LIMIT LINE
	BUILDING SETBACK LINE
	PROVIDE AND INSTALL CONCRETE PAVEMENT STRUCTURE
XX	PARKING STALL COUNT
	PROVIDE AND INSTALL STANDARD DUTY BITUMINOUS CONCRETE PAVEMENT STRUCTURE

REFER TO SHEET GN-1 FOR SITEWORK GENERAL NOTES

FOR PERMITTING PURPOSES ONLY NOT RELEASED FOR CONSTRUCTION

GRAPHIC SCALE
40 20 0 40
SCALE IN FEET

Architecture
Engineering
Environmental
Land Surveying
BL Companies
355 Research Parkway
Meriden, CT 06450
(203) 630-1406
(203) 630-2615 Fax

PROPOSED DEVELOPMENT
7120 MAIN STREET
TRUMBULL, FAIRFIELD COUNTY, CONNECTICUT

REVISIONS
No. Date Desc.

Designed	C.G.
Drawn	N.A.N.
Reviewed	
Scale	1"=40'
Project No.	1901141
Date	06/24/2019
CAD File: SP190114131	

Title
SITE PLAN

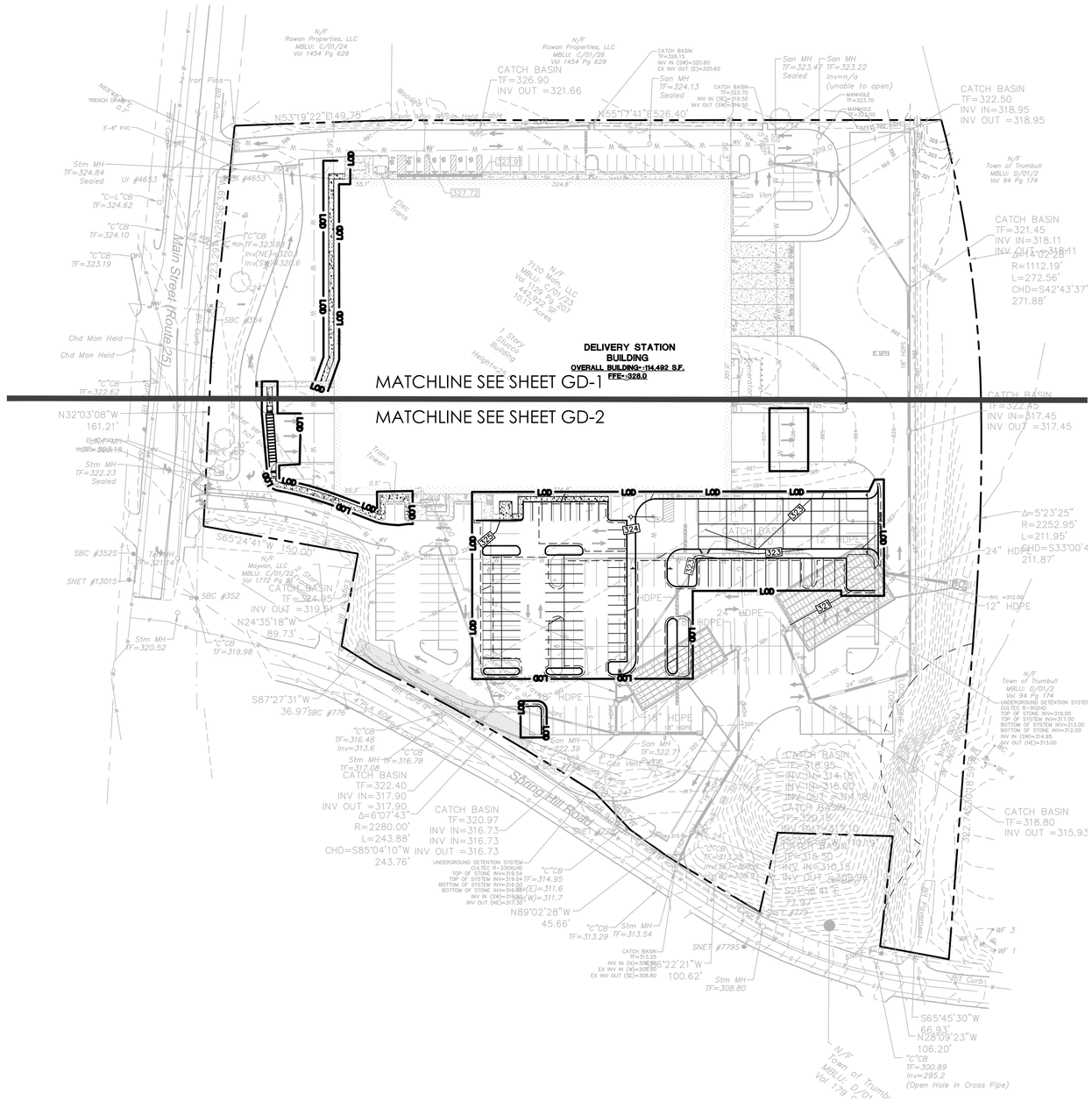
Sheet No.
SP-2

© 2020 BL COMPANIES, INC. THESE DRAWINGS SHALL NOT BE UTILIZED BY ANY PERSON, FIRM OR CORPORATION WITHOUT THE SPECIFIC WRITTEN PERMISSION OF BL COMPANIES.

4/25/2020, KKEGLER, G:\CIVIL\19\01901141\DWG\SP190114131.DWG:SP-2 24X36.DWG
Xref (s): BD190114131; XZ190114131; XC190114131

GRADING AND DRAINAGE LEGEND

PROPERTY LINE	
LIMIT OF DISTURBANCE LINE AND CONTRACT LIMIT LINE	LOD
PROPOSED STORM LINE	
PROPOSED CATCH BASIN	
PROPOSED STORM MANHOLE	
PROPOSED FLARED END	
PROPOSED END WALL OR HEADWALL	
PROPOSED OUTLET CONTROL STRUCTURE	
PROPOSED HYDRODYNAMIC SEPARATOR	
PROPOSED CONTOUR LINE	228
PROPOSED SPOT GRADE	x 100.00
ABBREVIATIONS – TC=TOP OF CURB – BC=BOTTOM OF CURB – TW=TOP OF WALL – BW=BOTTOM OF WALL	x TC=100.00 BC=99.50 x TW=108.00 BW=100.00
PROPOSED SURFACE SLOPE	2%
PROPOSED WATER LINE	W W
PROPOSED HYDRANT	
EXISTING TEST PIT LOCATION	
PERCOLATION TEST LOCATION	
EXISTING ELECTRIC LINE	E E
EXISTING ELECTRIC AND TELECOMMUNICATIONS LINES	E/T
EXISTING GAS LINE	G G
EXISTING SANITARY SEWER LINE	S
EXISTING SANITARY SEWER FORCE MAIN	SFM
EXISTING OVERHEAD LINE	OH OH
EXISTING TRANSFORMER	T
EXISTING UTILITY POLE	
EXISTING SANITARY/STORM MANHOLE	
EXISTING SANITARY/STORM CLEANOUT	CO
EXISTING WATER VALVE	WV
EXISTING GATE VALVE	GV
EXISTING THRUST BLOCK	
EXISTING GREASE TRAP	
EXISTING CONTOUR	



REFER TO SHEET GN-1 FOR SITEWORK GENERAL NOTES

FOR PERMITTING PURPOSES ONLY
NOT RELEASED FOR CONSTRUCTION

GRAPHIC SCALE
60 30 0 60
SCALE IN FEET

Architecture
Engineering
Environmental
Land Surveying
BL Companies
355 Research Parkway
Meriden, CT 06450
(203) 630-1406
(203) 630-2615 Fax

PROPOSED DEVELOPMENT
7120 MAIN STREET
TRUMBULL, FAIRFIELD COUNTY, CONNECTICUT

REVISIONS

No.	Date	Desc.

Designed	C.G.
Drawn	N.A.N.
Reviewed	
Scale	1"=60'
Project No.	1901141
Date	06/24/2019
CAD File: GD190114131	

Title
OVERALL GRADING, DRAINAGE, AND SITE UTILITIES PLAN

Sheet No.
GD-0

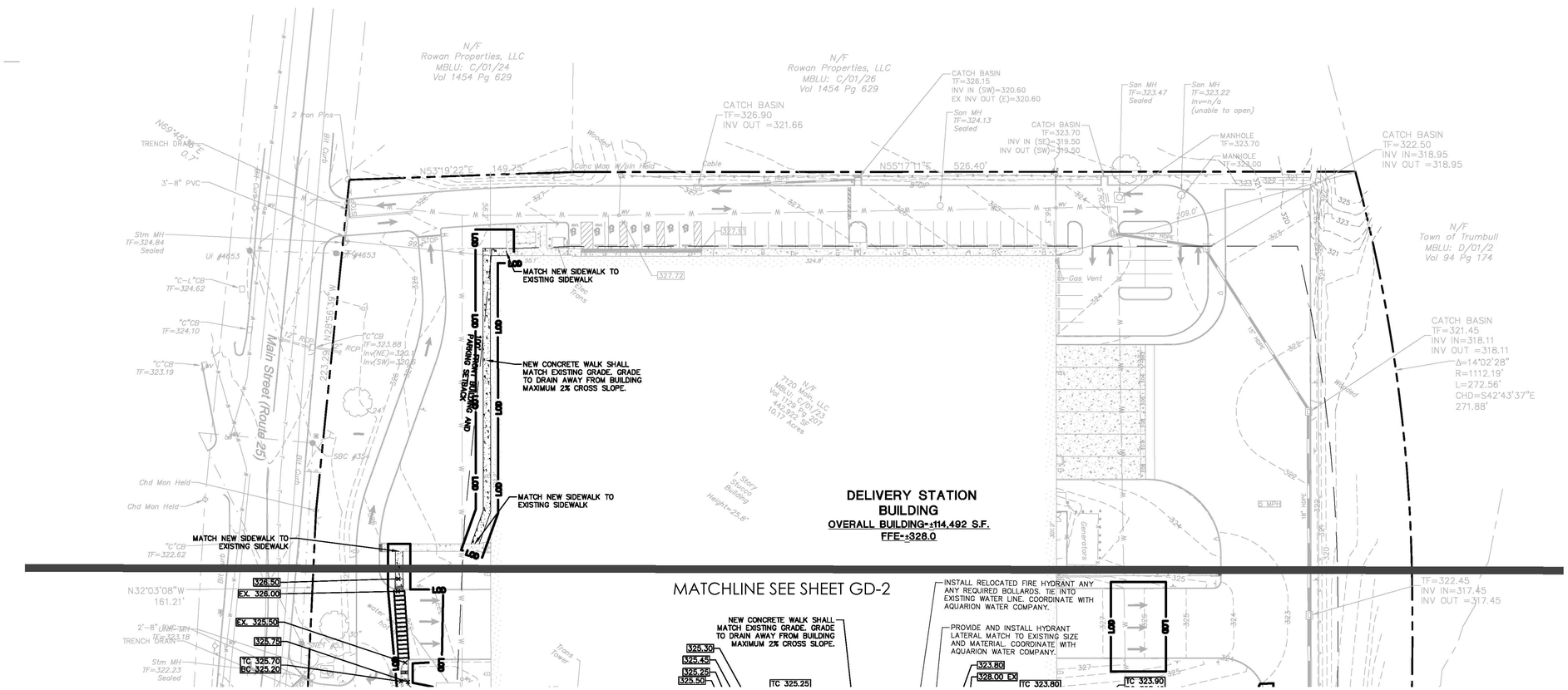
Xref (s): : BD190114131 : X2190114131 : XC190114131 : XC190114132

4/25/2020, KEKGUSS, C:\-1D8551X\1901141\DWG\GD190114131.DWG\GD-0 24X36.4DSC

© 2020 BL COMPANIES, INC. THESE DRAWINGS SHALL NOT BE UTILIZED BY ANY PERSON, FIRM OR CORPORATION WITHOUT THE SPECIFIC WRITTEN PERMISSION OF BL COMPANIES.

GRADING AND DRAINAGE LEGEND

PROPERTY LINE	
LIMIT OF DISTURBANCE LINE AND CONTRACT LIMIT LINE	LOD
PROPOSED STORM LINE	
PROPOSED CATCH BASIN	
PROPOSED STORM MANHOLE	
PROPOSED FLARED END	
PROPOSED END WALL OR HEADWALL	
PROPOSED OUTLET CONTROL STRUCTURE	
PROPOSED HYDRODYNAMIC SEPARATOR	
PROPOSED CONTOUR LINE	228
PROPOSED SPOT GRADE	x 100.00
ABBREVIATIONS – TC=TOP OF CURB – BC=BOTTOM OF CURB – TW=TOP OF WALL – BW=BOTTOM OF WALL	x TC=100.00 BC=99.50 x TW=108.00 BW=100.00
PROPOSED SURFACE SLOPE	2%
PROPOSED WATER LINE	W W
PROPOSED HYDRANT	
EXISTING TEST PIT LOCATION	
PERCOLATION TEST LOCATION	
EXISTING ELECTRIC LINE	E E
EXISTING ELECTRIC AND TELECOMMUNICATIONS LINES	E/T
EXISTING GAS LINE	G G
EXISTING SANITARY SEWER LINE	S
EXISTING SANITARY SEWER FORCE MAIN	SFM
EXISTING OVERHEAD LINE	OH OH
EXISTING TRANSFORMER	T
EXISTING UTILITY POLE	
EXISTING SANITARY/STORM MANHOLE	
EXISTING SANITARY/STORM CLEANOUT	CO
EXISTING WATER VALVE	WV
EXISTING GATE VALVE	GV
EXISTING THRUST BLOCK	
EXISTING GREASE TRAP	
EXISTING CONTOUR	



REFER TO SHEET GN-1 FOR SITEWORK GENERAL NOTES

FOR PERMITTING PURPOSES ONLY NOT RELEASED FOR CONSTRUCTION

GRAPHIC SCALE
40 20 0 40
SCALE IN FEET

Architecture
Engineering
Environmental
Land Surveying
BL Companies
355 Research Parkway
Meriden, CT 06450
(203) 630-1406
(203) 630-2615 Fax

PROPOSED DEVELOPMENT
7120 MAIN STREET
TRUMBULL, FAIRFIELD COUNTY, CONNECTICUT

REVISIONS

No.	Date	Desc.

Designed	C.G.
Drawn	N.A.N.
Reviewed	
Scale	1"=40'
Project No.	1901141
Date	06/24/2019
CAD File: GD190114131	

Title

GRADING, DRAINAGE, AND SITE UTILITIES PLAN

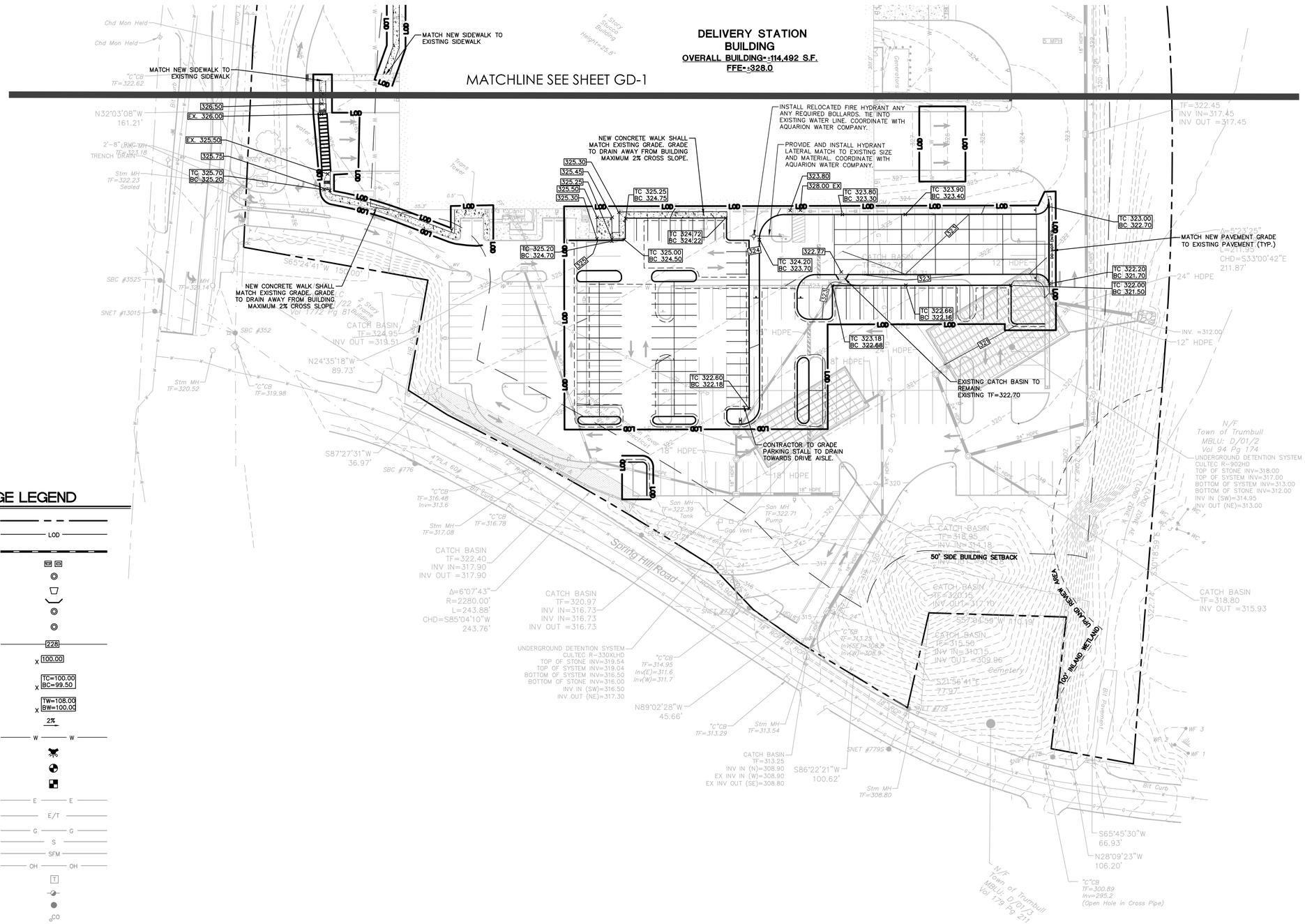
Sheet No.

GD-1

Xref (s): BD190114131 ; XZ190114131 ; XC190114131 ; XC190114132

4/29/2020 KKR,CGJ,SS; G:\JOBS\19-1\01901141\DWG\GD190114131.DWG;GD-1 24X36 ARCH

© 2020 BL COMPANIES, INC.. THESE DRAWINGS SHALL NOT BE UTILIZED BY ANY PERSON, FIRM OR CORPORATION WITHOUT THE SPECIFIC WRITTEN PERMISSION OF BL COMPANIES.



GRADING AND DRAINAGE LEGEND

PROPERTY LINE	
LIMIT OF DISTURBANCE LINE AND CONTRACT LIMIT LINE	LOD
PROPOSED STORM LINE	
PROPOSED CATCH BASIN	
PROPOSED STORM MANHOLE	
PROPOSED FLARED END	
PROPOSED END WALL OR HEADWALL	
PROPOSED OUTLET CONTROL STRUCTURE	
PROPOSED HYDRODYNAMIC SEPARATOR	
PROPOSED CONTOUR LINE	228
PROPOSED SPOT GRADE	x 100.00
ABBREVIATIONS – TC=TOP OF CURB – BC=BOTTOM OF CURB – TW=TOP OF WALL – BW=BOTTOM OF WALL	x TC=100.00 BC=99.50 x TW=108.00 BW=100.00
PROPOSED SURFACE SLOPE	2%
PROPOSED WATER LINE	W W
PROPOSED HYDRANT	
EXISTING TEST PIT LOCATION	
PERCOLATION TEST LOCATION	
EXISTING ELECTRIC LINE	E E
EXISTING ELECTRIC AND TELECOMMUNICATIONS LINES	E/T
EXISTING GAS LINE	G G
EXISTING SANITARY SEWER LINE	S
EXISTING SANITARY SEWER FORCE MAIN	SFM
EXISTING OVERHEAD LINE	OH OH
EXISTING TRANSFORMER	T
EXISTING UTILITY POLE	
EXISTING SANITARY/STORM MANHOLE	
EXISTING SANITARY/STORM CLEANOUT	CO
EXISTING WATER VALVE	WV
EXISTING GATE VALVE	GV
EXISTING THRUST BLOCK	
EXISTING GREASE TRAP	
EXISTING CONTOUR	

REFER TO SHEET GN-1 FOR SITEWORK GENERAL NOTES

FOR PERMITTING PURPOSES ONLY NOT RELEASED FOR CONSTRUCTION

GRAPHIC SCALE
40 20 0 40
SCALE IN FEET

© 2020 BL COMPANIES, INC. THESE DRAWINGS SHALL NOT BE UTILIZED BY ANY PERSON, FIRM OR CORPORATION WITHOUT THE SPECIFIC WRITTEN PERMISSION OF BL COMPANIES.

4/26/2020, KKEGLISS, G:\CIVIL\19\1901141\DWG\GD\1901141.DWG,GD-2 24X36,40SC

Architecture
Engineering
Environmental
Land Surveying
BL Companies
355 Research Parkway
Meriden, CT 06450
(203) 630-1406
(203) 630-2615 Fax

PROPOSED DEVELOPMENT
7120 MAIN STREET
TRUMBULL, FAIRFIELD COUNTY, CONNECTICUT

REVISIONS
No. Date Desc.

Designed	C.G.
Drawn	N.A.N.
Reviewed	
Scale	1"=40'
Project No.	1901141
Date	06/24/2019
CAD File: GD190114131	

Title
GRADING, DRAINAGE, AND SITE UTILITIES PLAN

Sheet No.
GD-2

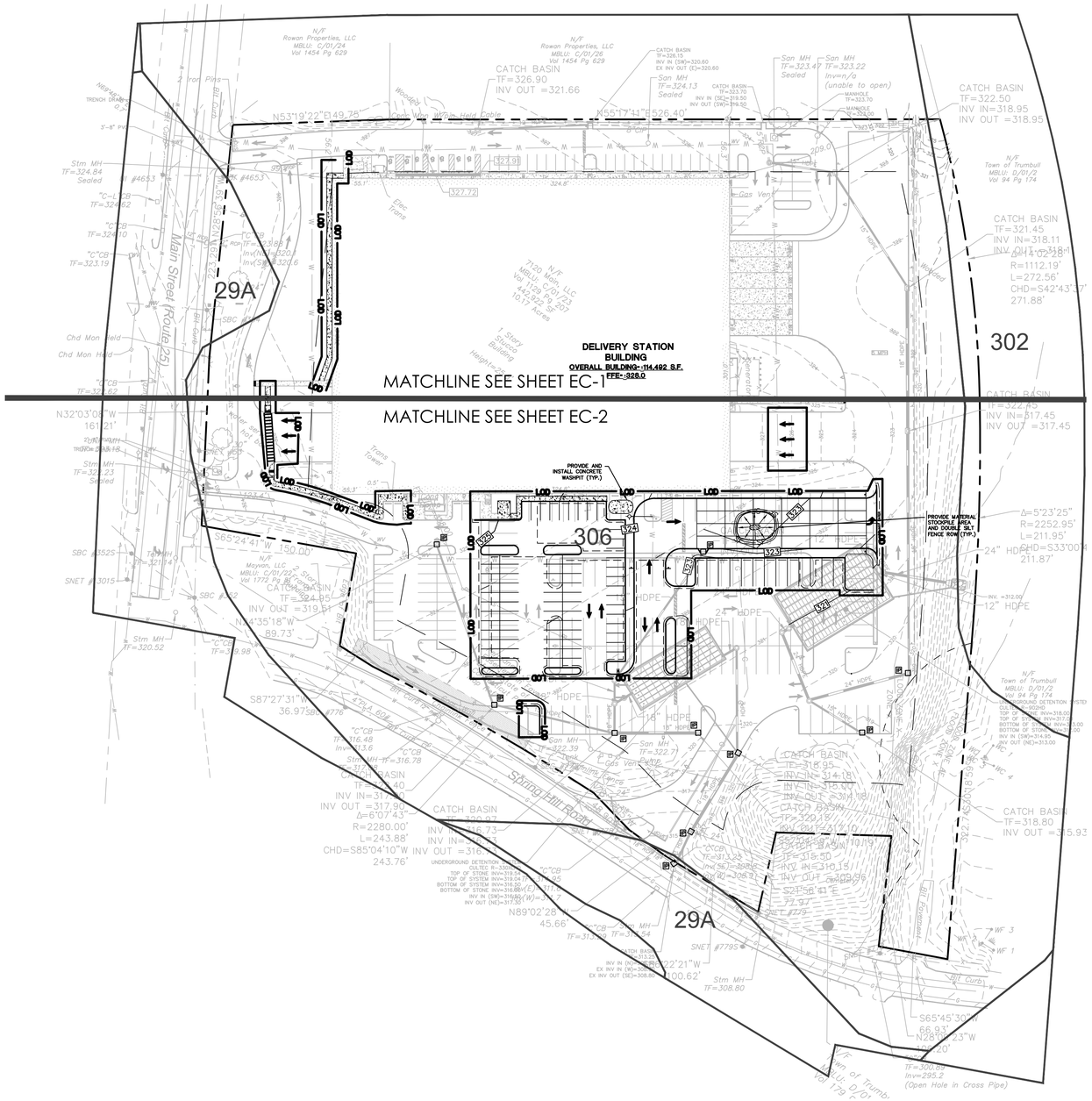
Xref (s): BD190114131; XZ190114131; XC190114132

EROSION CONTROL LEGEND:

CONTROL MEASURE	ILLUSTRATION
SILT SACKS AT CATCH BASINS	
LIMIT OF DISTURBANCE LINE AND CONTRACT LIMIT LINE	LOD
CONCRETE WASH PIT	
STOCKPILE AREA WITH DOUBLE ROW OF SILT FENCE	

SOIL TYPE

29A	AGAWAM FINE SANDY LOAM, 0 TO 3 PERCENT SLOPES (HSG B)
302	DUMPS (NO HSG)
306	UDORTHENTS–URBAN LAND COMPLEX (HSG B/D)
	SOIL TYPE DELINEATION



REFER TO SHEET EC-3 FOR SEDIMENT AND EROSION CONTROL NOTES AND DETAILS

FOR PERMITTING PURPOSES ONLY
NOT RELEASED FOR CONSTRUCTION

GRAPHIC SCALE
60 30 0 60
SCALE IN FEET

Architecture
Engineering
Environmental
Land Surveying
BL Companies
355 Research Parkway
Meriden, CT 06450
(203) 630-1406
(203) 630-2615 Fax

PROPOSED DEVELOPMENT
7120 MAIN STREET
TRUMBULL, FAIRFIELD COUNTY, CONNECTICUT

REVISIONS

No.	Date	Desc.

Designed	C.G.
Drawn	N.A.N.
Reviewed	
Scale	1"=60'
Project No.	1901141
Date	06/24/2019
CAD File: EC190114131	

Title
OVERALL SEDIMENT AND EROSION CONTROL PLAN

Sheet No.
EC-0

Xref (s): : BD190114131 ; X219011413 1 ; XC190114131 ; XC190114132 ; XC190114134

4/25/2020, KEK GUSS, G:\-DRSTR\D\190141\DWG\EC190141X1.DWG EC-0 24X36.dwg

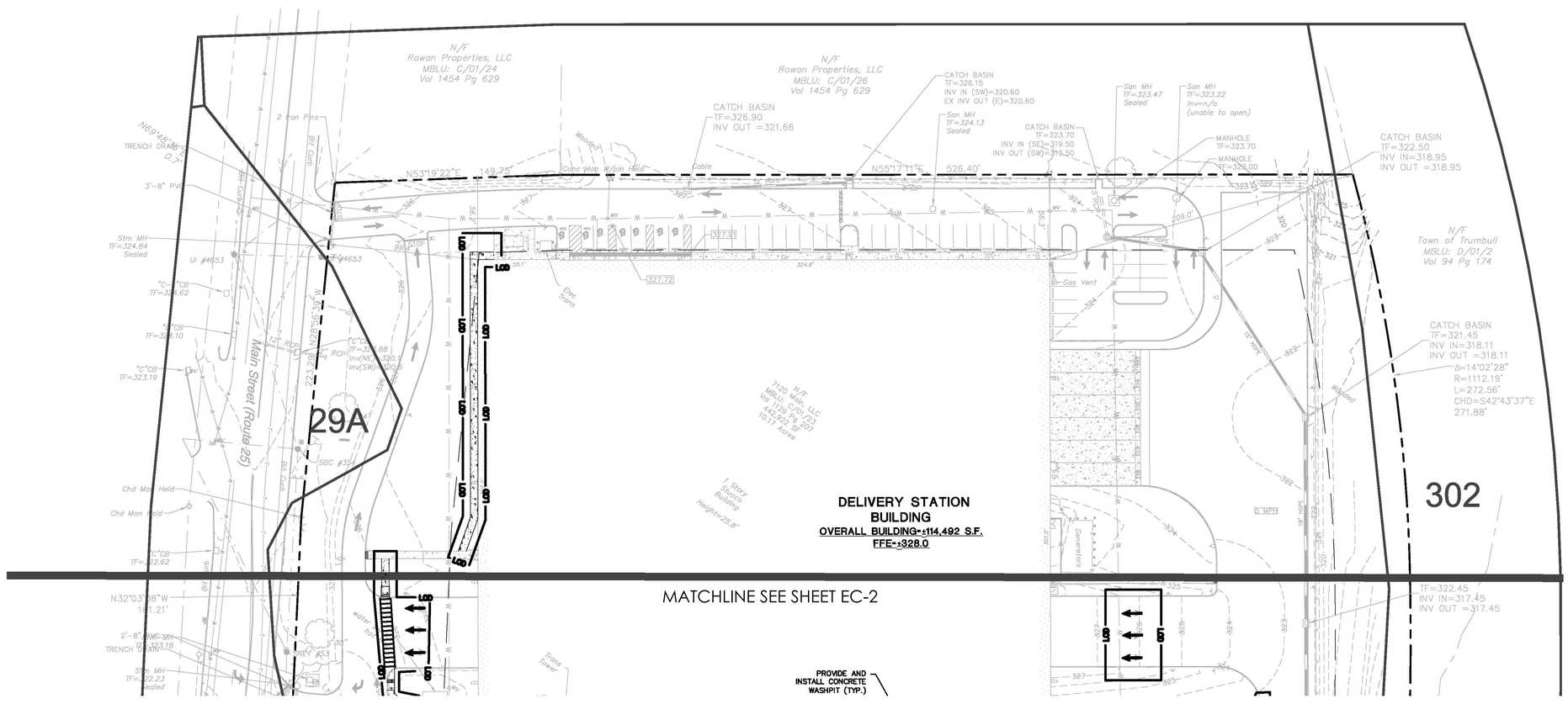
© 2020 BL COMPANIES, INC. THESE DRAWINGS SHALL NOT BE UTILIZED BY ANY PERSON, FIRM OR CORPORATION WITHOUT THE SPECIFIC WRITTEN PERMISSION OF BL COMPANIES.

EROSION CONTROL LEGEND:

CONTROL MEASURE	ILLUSTRATION
SILT SACKS AT CATCH BASINS	
LIMIT OF DISTURBANCE LINE AND CONTRACT LIMIT LINE	LOD
CONCRETE WASH PIT	
STOCKPILE AREA WITH DOUBLE ROW OF SILT FENCE	

SOIL TYPE

29A	AGAWAM FINE SANDY LOAM, 0 TO 3 PERCENT SLOPES (HSG B)
302	DUMPS (NO HSG)
306	UDORTHENTS–URBAN LAND COMPLEX (HSG B/D)
	SOIL TYPE DELINEATION



REFER TO SHEET EC-3 FOR SEDIMENT AND EROSION CONTROL NOTES AND DETAILS

FOR PERMITTING PURPOSES ONLY
NOT RELEASED FOR CONSTRUCTION

GRAPHIC SCALE
40 20 0 40
SCALE IN FEET

Architecture
Engineering
Environmental
Land Surveying

BL Companies

355 Research Parkway
Meriden, CT 06450
(203) 630-1406
(203) 630-2615 Fax

PROPOSED DEVELOPMENT
7120 MAIN STREET
TRUMBULL, FAIRFIELD COUNTY, CONNECTICUT

REVISIONS

No.	Date	Desc.

Designed	C.G.
Drawn	N.A.N.
Reviewed	
Scale	1"=40'
Project No.	1901141
Date	06/24/2019

CAD File: EC190114131

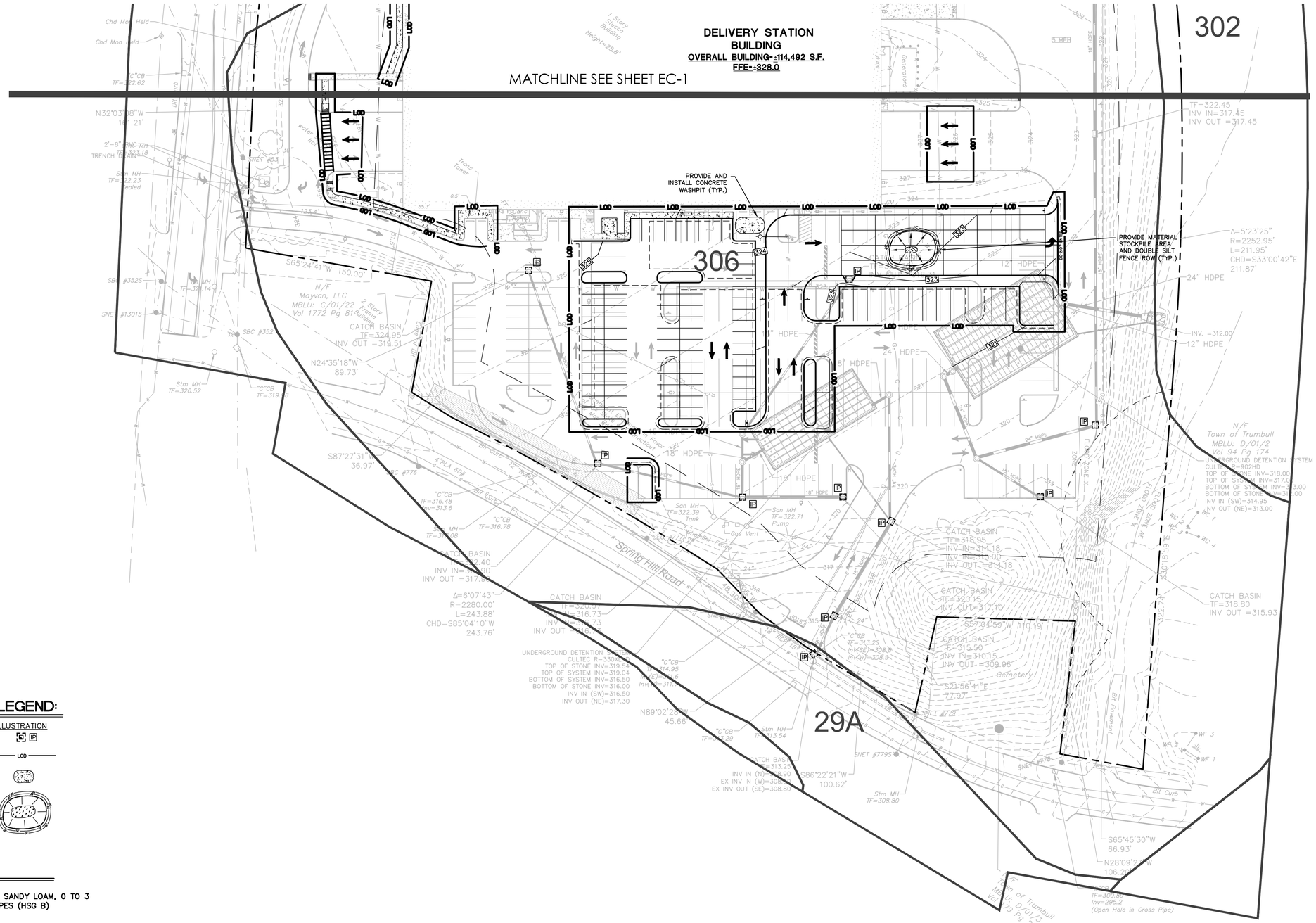
Title
SEDIMENT AND EROSION CONTROL PLAN

Sheet No.
EC-1

Xref (s): 1BD190114131; X2190114131; XC190114131; XC190114132; XC190114134

6/25/2020 KKLOUS, G:\JOBS\91\01901141\DWG\EC190114131.DWG-EC-1-24X36.4PDC

© 2020 BL COMPANIES, INC. THESE DRAWINGS SHALL NOT BE UTILIZED BY ANY PERSON, FIRM OR CORPORATION WITHOUT THE SPECIFIC WRITTEN PERMISSION OF BL COMPANIES.



EROSION CONTROL LEGEND:

CONTROL MEASURE	ILLUSTRATION
SILT SACKS AT CATCH BASINS	SS IP
LIMIT OF DISTURBANCE LINE AND CONTRACT LIMIT LINE	LOD
CONCRETE WASH PIT	
STOCKPILE AREA WITH DOUBLE ROW OF SILT FENCE	

SOIL TYPE

29A	AGAWAM FINE SANDY LOAM, 0 TO 3 PERCENT SLOPES (HSG B)
302	DUMPS (NO HSG)
306	UDORTHENTS–URBAN LAND COMPLEX (HSG B/D)
———	SOIL TYPE DELINEATION

REFER TO SHEET EC-3 FOR SEDIMENT AND EROSION CONTROL NOTES AND DETAILS

FOR PERMITTING PURPOSES ONLY NOT RELEASED FOR CONSTRUCTION

GRAPHIC SCALE
40 20 0 40
SCALE IN FEET

Architecture
Engineering
Environmental
Land Surveying
BL Companies
355 Research Parkway
Meriden, CT 06450
(203) 630-1406
(203) 630-2615 Fax

PROPOSED DEVELOPMENT
7120 MAIN STREET
TRUMBULL, FAIRFIELD COUNTY, CONNECTICUT

REVISIONS
No. Date Desc.

Designed	C.G.
Drawn	N.A.N.
Reviewed	
Scale	1"=40'
Project No.	1901141
Date	06/24/2019
CAD File: EC190114131	

Title
SEDIMENT AND EROSION CONTROL PLAN

Sheet No.
EC-2

Xref (s): : 1901141 31 ; XC190114131 ; XC190114131 ; XC190114132 ; XC190114134

4/25/2020, KEKLOSS, G:\JOBS\19\1901141\DWG\EC190114131.DWG,EC-2 24X36,40SC

© 2020 BL COMPANIES, INC. THESE DRAWINGS SHALL NOT BE UTILIZED BY ANY PERSON, FIRM OR CORPORATION WITHOUT THE SPECIFIC WRITTEN PERMISSION OF BL COMPANIES.

SEDIMENT AND EROSION CONTROL NOTES

SEDIMENT AND EROSION CONTROL NOTES – CONNECTICUT

SEDIMENT & EROSION CONTROL NARRATIVE
THE SEDIMENT AND EROSION CONTROL PLAN WAS DEVELOPED TO PROTECT THE EXISTING ROADWAY AND STORM DRAINAGE SYSTEMS, ADJACENT PROPERTIES, AND ANY ADJACENT WETLAND AREA AND ANY ADJACENT WATER COURSE FROM SEDIMENT LADEN SURFACE RUNOFF AND EROSION. A CONSTRUCTION SEQUENCE IS PROVIDED TO PROVIDE SURFACE RUNOFF EROSION CONTROLS PRIOR TO THE BEGINNING OF PROJECT DEMOLITION AND/OR CONSTRUCTION.

CONSTRUCTION SCHEDULE
THE ANTICIPATED STARTING DATE FOR CONSTRUCTION IS SPRING 2020 WITH COMPLETION ANTICIPATED SPRING 2021. APPROPRIATE SEDIMENT AND EROSION CONTROL MEASURES AS DESCRIBED HEREIN SHALL BE INSTALLED BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF ALL DEMOLITION OR CONSTRUCTION ACTIVITY. SCHEDULE WORK TO MINIMIZE THE LENGTH OF TIME THAT BARE SOIL WILL BE EXPOSED.

CONTINGENCY EROSION PLAN
THE CONTRACTOR SHALL INSTALL ALL SPECIFIED SEDIMENT AND EROSION CONTROL MEASURES AND WILL BE REQUIRED TO MAINTAIN THEM IN THEIR INTENDED FUNCTIONING CONDITION. THE AGENTS OF THE MUNICIPALITY AND/OR INLAND WETLANDS AND WATERCOURSES COMMISSION AND/OR CIVIL ENGINEER SHALL HAVE THE AUTHORITY TO REQUIRE SUPPLEMENTAL MAINTENANCE OR ADDITIONAL MEASURES IF FIELD CONDITIONS ARE ENCOUNTERED BEYOND WHAT WOULD NORMALLY BE ANTICIPATED.

CONSTRUCTION SEQUENCE
THE FOLLOWING CONSTRUCTION SEQUENCE IS RECOMMENDED:

1. CONTACT MUNICIPALITY AND/OR INLAND WETLANDS AND WATERCOURSES COMMISSION AGENT AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO COMMENCEMENT OF ANY DEMOLITION, CONSTRUCTION OR REGULATED ACTIVITY ON THIS PROJECT.
2. CLEARING LIMITS SHALL BE PHYSICALLY MARKED IN THE FIELD AND APPROVED BY THE MUNICIPALITY AND/OR INLAND WETLANDS AND WATERCOURSES COMMISSION AGENT PRIOR TO THE START OF WORK ON THE SITE. INSTALL INLET PROTECTION.
3. SITE DEMOLITION AND REMOVAL. PAVEMENT REMOVAL.
4. CONSTRUCTION STAKING OF ALL SIDEWALKS, UTILITIES, ACCESS DRIVES, AND PARKING AREAS.
5. ROUGH GRADING AND FILLING OF SUBGRADES AND SLOPES.
6. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO ELIMINATE THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION.
7. BEFORE DISPOSING OF SOIL OR RECEIVING BORROW FOR THE SITE, THE CONTRACTOR MUST PROVIDE EVIDENCE THAT EACH SPOIL OR BORROW AREA HAS A SEDIMENT AND EROSION CONTROL PLAN APPROVED BY THE APPROPRIATE MUNICIPALITY AND/OR COUNTY SOILS CONSERVATION DISTRICT AND/OR INLAND WETLANDS COMMISSION AND WHICH IS BEING IMPLEMENTED AND MAINTAINED. THE CONTRACTOR SHALL ALSO NOTIFY THE MUNICIPALITY AND/OR INLAND WETLANDS AND WATERCOURSES COMMISSION IN WRITING OF ALL RECEIVING SPOIL AND BORROW AREAS WHEN THEY HAVE BEEN IDENTIFIED.
8. THROUGHOUT CONSTRUCTION SEQUENCE, REMOVE SEDIMENT FROM BEHIND SILT FENCES, HAY BALES AND OTHER EROSION CONTROL DEVICES, AND FROM SEDIMENT BASINS AND SEDIMENT TRAPS AS REQUIRED. REMOVAL SHALL BE ON A PERIODIC BASIS (EVERY SIGNIFICANT RAINFALL OF 0.25 INCH OR GREATER). INSPECTION OF SEDIMENT AND EROSION CONTROL MEASURES SHALL BE ON A WEEKLY BASIS AND AFTER EACH RAINFALL OF 0.25 INCHES OR GREATER. SEDIMENT COLLECTED SHALL BE DEPOSITED AND SPREAD EVENLY UPLAND ON SLOPES DURING CONSTRUCTION.
9. INSTALL UTILITIES.
10. INSTALL SITE LIGHTING.
11. COMPLETE GRADING TO SUBGRADES AND CONSTRUCT PARKING AREA SUBGRADE.
12. CONSTRUCT CURBS, PAVEMENT STRUCTURE AND SIDEWALKS.
13. CONDUCT FINE GRADING.
14. PAVING OF PARKING AREAS AND DRIVEWAYS
15. FINAL FINE GRADING OF SLOPE AND NON-PAVED AREAS.
16. PLACE 4" TOPSOIL ON SLOPES AFTER FINAL GRADING IS COMPLETED. FERTILIZE SEED AND MULCH. SEED MIXTURE TO BE INSTALLED APRIL 15, 2020 – JUNE 30, 2020 AND AUGUST 15, 2020 – OCTOBER 1, 2020 USE EROSION CONTROL BLANKETS AS REQUIRED OR ORDERED FOR SLOPES GREATER THAN 3:1 AND AS SHOWN ON LANDSCAPE PLANS OR EROSION CONTROL PLANS. FOR TEMPORARY STABILIZATION BEYOND SEEDING DATES USE ANNUAL RYE AT 4.0 LBS/1,000 S.F. FERTILIZE WITH 10-10-10 AT 1.0 LBS. OF NITROGEN PER 1,000 S.F. AND LIME AT 100 LBS/1,000 S.F. (MAX.).
17. LANDSCAPE ISLANDS, INTERIOR NON-PAVED AREAS, AND PERIMETER AREAS.
18. INSTALL SIGNING AND PAVEMENT MARKINGS
19. CLEAN STORM DRAINAGE PIPE STRUCTURES, DETENTION SYSTEMS AND WATER QUALITY DEVICES OF DEBRIS AND SEDIMENT.
20. UPON DIRECTION OF THE MUNICIPALITY AND/OR INLAND WETLANDS AND WATERCOURSES COMMISSION AGENT, SEDIMENT AND EROSION CONTROL MEASURES SHALL BE REMOVED FOLLOWING STABILIZATION OF THE SITE.

OPERATION REQUIREMENTS

ROUGH GRADING OPERATIONS

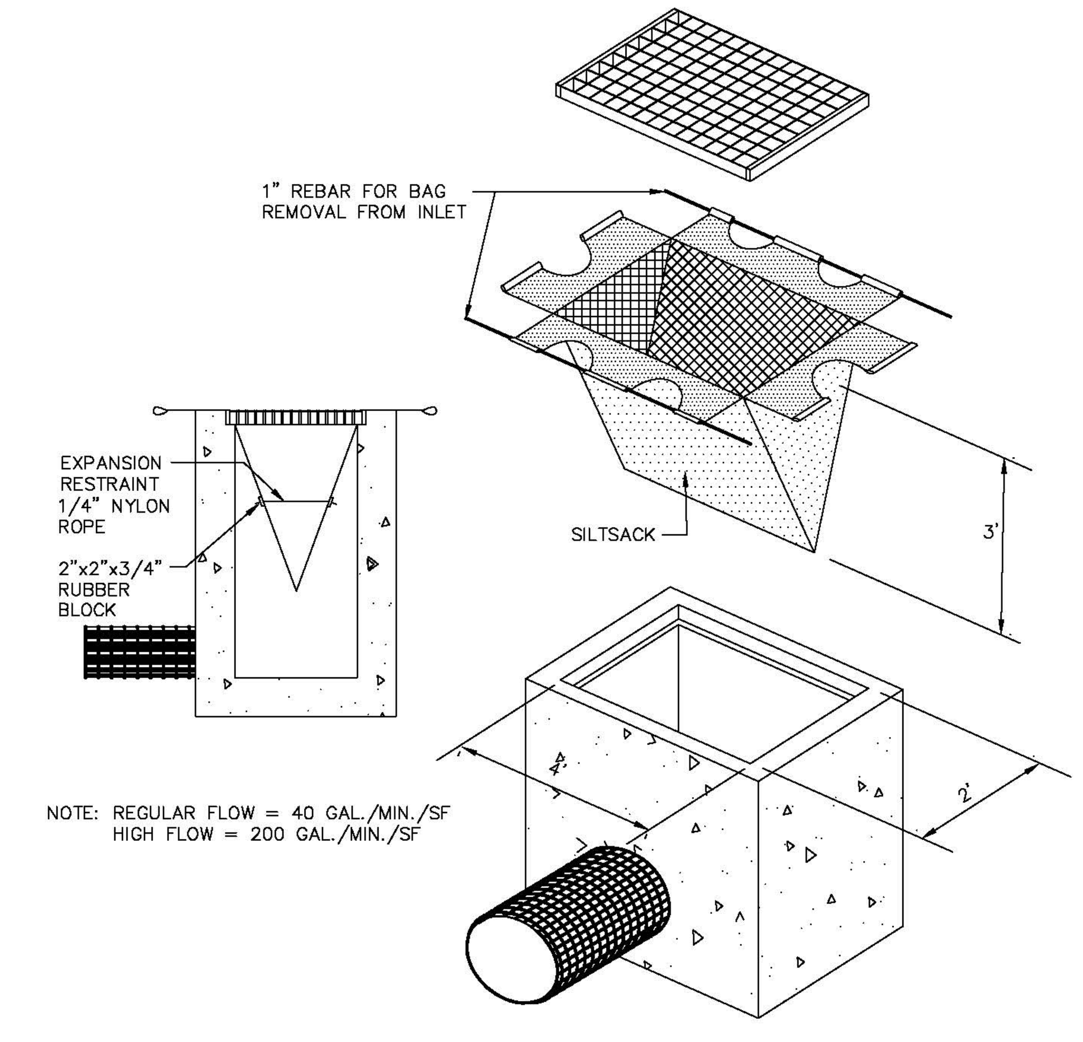
1. DURING THE REMOVAL AND/OR PLACEMENT OF EARTH AS INDICATED ON THE GRADING PLAN, TOPSOIL SHALL BE STRIPPED AND APPROPRIATELY STOCKPILED FOR REUSE.
2. ALL STOCKPILED TOPSOIL SHALL BE SEEDED, MULCHED WITH HAY, AND ENCLOSED BY A SILTATION FENCE.

FINAL GRADING AND PAVING OPERATIONS

1. ALL INLET AND OUTLET PROTECTION SHALL BE PLACED AND MAINTAINED AS SHOWN ON SEDIMENT AND EROSION CONTROL PLANS AND DETAILS, AND AS DESCRIBED IN SPECIFICATIONS AND AS DESCRIBED HEREIN.
2. NO CUT OR FILL SLOPES SHALL EXCEED 3:1 EXCEPT WHERE STABILIZED BY ROCK FACED EMBANKMENTS OR EROSION CONTROL BLANKETS, OR JUTE MESH AND VEGETATION. ALL SLOPES SHALL BE SEEDED, AND ANY ROAD OR DRIVEWAY SHOULDER AND BANKS SHALL BE STABILIZED IMMEDIATELY UPON COMPLETION OF FINAL GRADING UNTIL TURF IS ESTABLISHED.
3. PAVEMENT SUB-BASE AND BASE COURSES SHALL BE INSTALLED OVER AREAS TO BE PAVED AS SOON AS FINAL SUB-GRADES ARE ESTABLISHED AND UNDERGROUND UTILITIES AND STORM DRAINAGE SYSTEMS HAVE BEEN INSTALLED.
4. AFTER CONSTRUCTION OF PAVEMENT, TOPSOIL, FINAL SEED, MULCH AND LANDSCAPING, REMOVE ALL TEMPORARY SEDIMENT AND EROSION CONTROL DEVICES ONLY AFTER ALL AREAS HAVE BEEN PAVED AND/OR GRASS HAS BEEN WELL ESTABLISHED AND THE SITE IS STABLE AND HAS BEEN INSPECTED AND APPROVED BY THE MUNICIPALITY AND/OR INLAND WETLANDS AND WATERCOURSES COMMISSION AGENT.

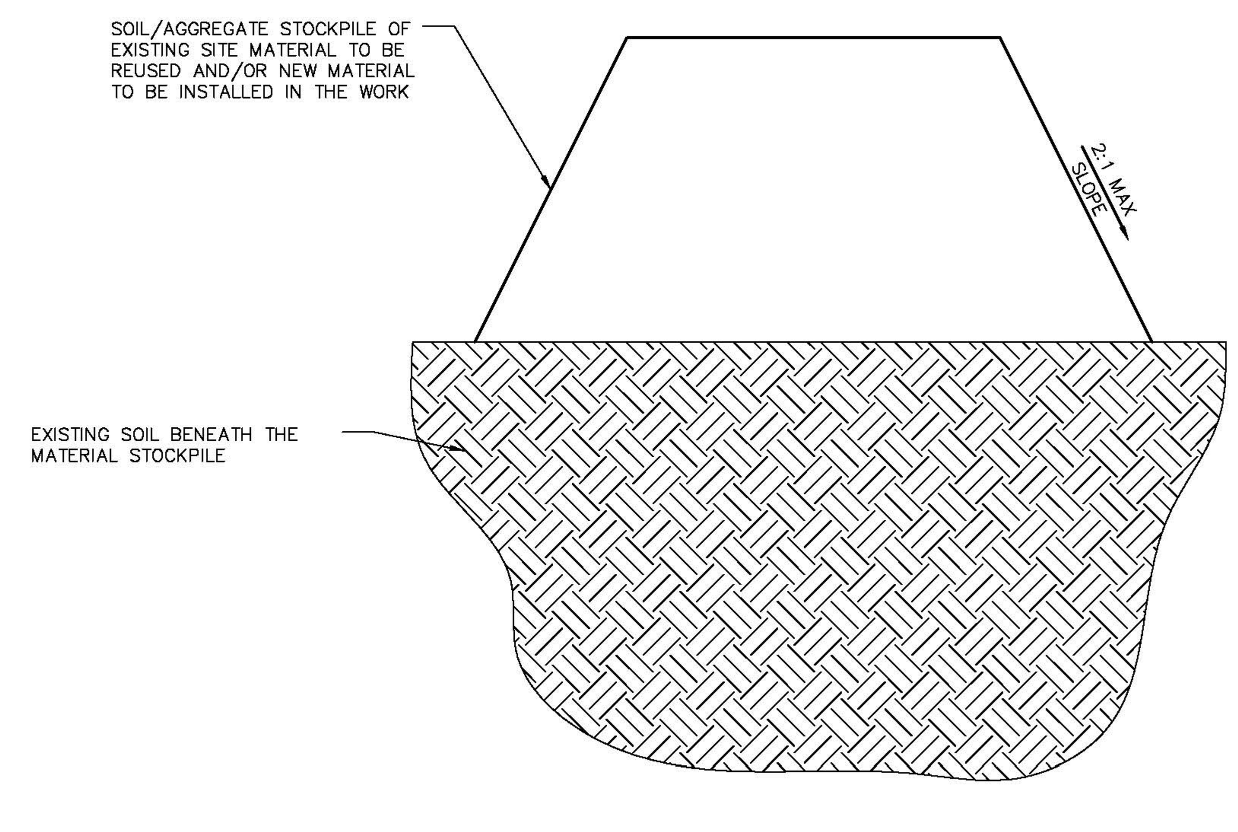
SEDIMENT AND EROSION CONTROL NOTES

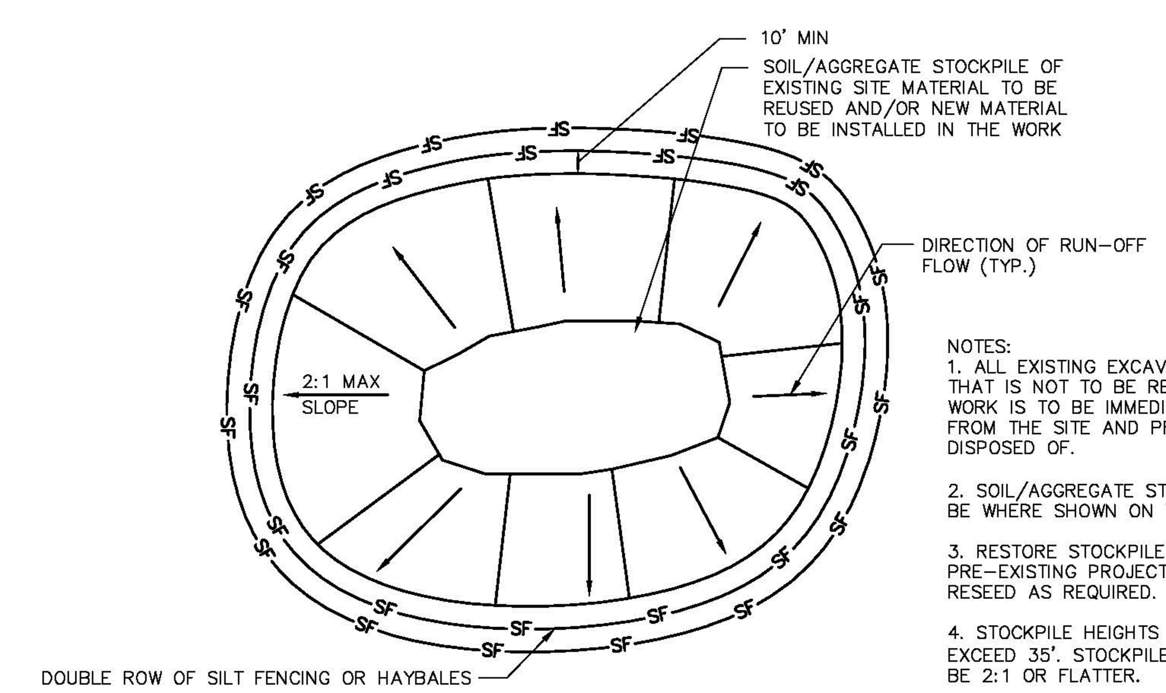
1. THE SEDIMENT AND EROSION CONTROL PLAN IS ONLY INTENDED TO DESCRIBE THE SEDIMENT AND EROSION CONTROL TREATMENT FOR THIS SITE. SEE SEDIMENT AND EROSION CONTROL DETAILS AND CONSTRUCTION SEQUENCE. REFER TO SITE PLAN FOR GENERAL INFORMATION AND OTHER CONTRACT PLANS FOR APPROPRIATE INFORMATION.
2. THE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTING THIS SEDIMENT AND EROSION CONTROL PLAN. THIS RESPONSIBILITY INCLUDES THE PROPER INSTALLATION AND MAINTENANCE OF SEDIMENT AND EROSION CONTROL MEASURES, INFORMING ALL PARTIES ENGAGED WITH CONSTRUCTION ON THE SITE OF THE REQUIREMENTS AND OBJECTIVES OF THIS PLAN, INFORMING THE AUTHORITY HAVING JURISDICTION OR INLAND WETLANDS AND WATERCOURSES COMMISSION AGENCY OF ANY TRANSFER OF THIS RESPONSIBILITY, AND FOR CONVEYING A COPY OF THE SEDIMENT & EROSION CONTROL PLAN IF THE TITLE TO THE LAND IS TRANSFERRED.
3. AN EROSION CONTROL BOND MAY BE REQUIRED TO BE POSTED WITH THE TOWN OF TRUMBULL TO ENSURE IMPLEMENTATION OF THE SEDIMENT AND EROSION CONTROL MEASURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE POSTING OF THIS BOND AND FOR INQUIRIES TO THE TOWN OF TRUMBULL FOR INFORMATION ON THE METHOD, TYPE AND AMOUNT OF THE BOND POSTING UNLESS OTHERWISE DIRECTED BY THE OWNER.
4. VISUAL SITE INSPECTIONS SHALL BE CONDUCTED WEEKLY, AND AFTER EACH MEASURABLE PRECIPITATION EVENT OF 0.25 INCHES OR GREATER BY QUALIFIED PERSONNEL, TRAINED AND EXPERIENCED IN SEDIMENT AND EROSION CONTROL, TO ASCERTAIN THAT THE SEDIMENT AND EROSION CONTROL (E&S) BMPS ARE OPERATIONAL AND EFFECTIVE IN PREVENTING POLLUTION. A WRITTEN REPORT OF EACH INSPECTION SHALL BE KEPT, AND INCLUDE:
A)A SUMMARY OF THE SITE CONDITIONS, E&S BMPS, AND COMPLIANCE; AND
B)THE DATE, TIME, AND THE NAME OF THE PERSON CONDUCTING THE INSPECTION
5. THE CONTRACTOR SHALL CONSTRUCT ALL SEDIMENT AND EROSION CONTROLS IN ACCORDANCE WITH THE 2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL LATEST EDITION IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, AND AS DIRECTED BY THE MUNICIPALITY AND/OR INLAND WETLANDS AND WATERCOURSES COMMISSION AGENT. THE CONTRACTOR SHALL KEEP A COPY OF THE GUIDELINES ON-SITE FOR REFERENCE DURING CONSTRUCTION.
6. ADDITIONAL AND/OR ALTERNATIVE SEDIMENT AND EROSION CONTROL MEASURES MAY BE INSTALLED DURING THE CONSTRUCTION PERIOD IF FOUND NECESSARY BY THE CONTRACTOR, OWNER, SITE ENGINEER, MUNICIPALITY AND/OR INLAND WETLANDS AND WATERCOURSES COMMISSION AGENT, OR GOVERNING AGENCIES. THE CONTRACTOR SHALL CONTACT THE OWNER AND APPROPRIATE GOVERNING AGENCIES FOR APPROVAL IF ALTERNATIVE CONTROLS OTHER THAN THOSE SHOWN ON THE PLANS ARE PROPOSED.
7. THE CONTRACTOR SHALL INSPECT ALL SEDIMENT AND EROSION CONTROLS BEFORE AND AFTER EACH STORM (0.25 INCHES OR GREATER RAINFALL), OR AT LEAST WEEKLY, TO VERIFY THAT THE CONTROLS ARE OPERATING PROPERLY AND MAKE REPAIRS WHERE NECESSARY.
8. THE CONTRACTOR SHALL KEEP A SUPPLY OF SEDIMENT AND EROSION CONTROL MATERIAL (SILT SACKS) ON-SITE FOR MAINTENANCE AND EMERGENCY REPAIRS.
9. PROTECT EXISTING TREES THAT ARE TO BE SAVED BY FENCING AT THE DRIP LINE OR AS SHOWN WITH SNOW FENCE, ORANGE SAFETY FENCE, OR EQUIVALENT FENCING. ANY LIMB TRIMMING SHOULD BE DONE BEFORE CONSTRUCTION BEGINS IN THAT AREA; FENCING SHALL BE MAINTAINED AND REPAIRED DURING CONSTRUCTION.
10. TOPSOIL SHALL BE STRIPPED AND STOCKPILED FOR USE IN FINAL LANDSCAPING. ALL EARTH STOCKPILES SHALL HAVE HAY BALES OR SILT FENCE AROUND THE LIMIT OF PILE. PILES SHALL BE TEMPORARILY SEEDED IF PILE IS TO REMAIN IN PLACE FOR MORE THAN ONE (1) MONTH.
11. ANY SEDIMENT TRAPS SHALL PROVIDE 134 CUBIC YARDS OF SEDIMENT STORAGE PER ACRE CONTRIBUTING TO THE BASIN. PROVIDE BASIN VOLUMES FOR ALL DISTURBANCE ON SITE.
12. COMPLY WITH REQUIREMENTS OF CGS SECTION 22A 430B, FOR STORMWATER DISCHARGE FROM CONSTRUCTION ACTIVITIES AND WITH DEEP RECORD KEEPING AND INSPECTION REQUIREMENTS.
13. MINIMIZE LAND DISTURBANCES. SEED AND MULCH DISTURBED AREAS WITH TEMPORARY MIX AS SOON AS PRACTICABLE (ONE WEEK MAXIMUM UNSTABILIZED PERIOD) USING PERENNIAL RYEGRASS AT 40 LBS PER ACRE. MULCH ALL CUT AND FILL SLOPES AND SWALES WITH LOOSE HAY AT A RATE OF 2 TONS PER ACRE. IF NECESSARY, REPLACE LOOSE HAY ON SLOPES WITH EROSION CONTROL BLANKETS OR JUTE CLOTH. MODERATELY GRADED AREAS, ISLANDS, AND TEMPORARY CONSTRUCTION STAGING AREAS MAY BE HYDROSEEDED WITH TACKIFIER.
14. MAINTAIN EXISTING PAVED AREAS FOR CONSTRUCTION STAGING FOR AS LONG AS POSSIBLE.
15. DIRECT ALL DEWATERING PUMP DISCHARGE TO A SEDIMENT CONTROL DEVICE SUCH AS TEMPORARY PITS, SEDIMENT TRAP, SEDIMENT BASINS OR GRASS FILTERS WITHIN THE APPROVED LIMIT OF DISTURBANCE. DISCHARGE TO STORM DRAINAGE SYSTEM OR SURFACE WATERS FROM SEDIMENT CONTROLS SHALL BE CLEAR.
16. BLOCK END OF STORM SEWERS IN EXPOSED TRENCHES WITH BOARDS AND SANDBAGS AT THE END OF EACH WORKING DAY WHEN RAIN IS EXPECTED.
17. SWEEP AFFECTED PORTIONS OF OFF SITE ROADS ONE OR MORE TIMES A DAY (OR LESS FREQUENTLY IF TRACKING IS NOT A PROBLEM) DURING CONSTRUCTION. OTHER DUST CONTROL MEASURES TO BE USED AS NECESSARY INCLUDE WATERING DOWN DISTURBED AREAS, USING CALCIUM CHLORIDE, AND COVERING LOADS ON DUMP TRUCKS.
18. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO ELIMINATE THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION.
19. ALL PUMPING OF SEDIMENT LADEN WATER SHALL BE THROUGH A SEDIMENT CONTROL BMP, SUCH AS A PUMPED WATER FILTER BAG OR EQUIVALENT SEDIMENT REMOVAL FACILITY, OVER UNDISTURBED VEGETATED AREAS.
20. ALL EXCAVATED MATERIAL SHALL BE PLACED ON THE HIGH SIDE OF UTILITY AND STORM PIPE TRENCHES SO AS TO ALLOW THE TRENCH TO INTERCEPT ALL SILT LADEN RUNOFF.
21. CONTRACTOR SHALL ONLY EXCAVATE AS MUCH UTILITY AND STORM PIPE TRENCH WORK AS CAN BE COMPLETED, BACKFILLED AND STABILIZED IN ONE DAY SO AS TO LIMIT THE AMOUNT OF OPEN, DISTURBED TRENCHING.
22. ANY STOCKPILES OF STRIPPED MATERIALS ARE TO BE PERIODICALLY SPRAYED WITH WATER OR A CRUSTING AGENT TO STABILIZE POTENTIALLY WIND-BLOWN MATERIAL. HAUL ROADS BOTH INTO AND AROUND THE SITE ARE TO BE SPRAYED AS NEEDED TO SUPPRESS DUST. TRUCKS HAULING IMPORT FILL MATERIAL ARE TO BE TARPED TO AID IN THE CONTROL OF AIRBORNE DUST. DURING HIGH WIND EVENTS (20 TO 30 MPH SUSTAINED) CONSTRUCTION ACTIVITY SHALL BE LIMITED OR CEASED IF DUST CANNOT BE CONTROLLED BY WETTING.
23. INSTALL TEMPORARY DIVERSION DITCHES, PLUNGE POOLS, SEDIMENT BASIN, SEDIMENT TRAPS, CONCRETE WASH PITS, AND DEWATERING PITS AS SHOWN AS NECESSARY DURING VARIOUS PHASES OF CONSTRUCTION TO CONTROL RUNOFF UNTIL UPHILL AREAS ARE DETERMINED TO BE STABILIZED BY THE AUTHORITY HAVING JURISDICTION. LOCATION OF ANY TEMPORARY SEDIMENT BASINS WILL REQUIRE REVIEW AND APPROVAL BY THE CIVIL ENGINEER AND AUTHORITY HAVING JURISDICTION,
24. AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM OF 70% UNIFORM PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION AND SUBSURFACE CHARACTERISTICS SUFFICIENT TO RESIST SLIDING OR OTHER MOVEMENTS UNLESS OTHERWISE DETERMINED BY THE AUTHORITY HAVING JURISDICTION.
25. MAINTAIN ALL PERMANENT AND TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES IN EFFECTIVE CONDITION THROUGHOUT THE CONSTRUCTION PERIOD. UPON COMPLETION OF WORK SWEEP PARKING LOT AND REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROLS WHEN AUTHORIZED BY AUTHORITY HAVING JURISDICTION. FILE NOT (NOTICE OF TERMINATION) WITH AUTHORITY HAVING JURISDICTION RESPONSIBLE FOR REGULATING STORM WATER DISCHARGES FROM CONSTRUCTION ACTIVITIES PER NPDES.



SILTSACK DETAIL

N.T.S. BLEC-005





NOTES:
1. ALL EXISTING EXCAVATED MATERIAL THAT IS NOT TO BE REUSED IN THE WORK IS TO BE IMMEDIATELY REMOVED FROM THE SITE AND PROPERLY DISPOSED OF.
2. SOIL/AGGREGATE STOCKPILE SITES TO BE WHERE SHOWN ON THE DRAWINGS.
3. RESTORE STOCKPILE SITES TO PRE-EXISTING PROJECT CONDITION AND RESEED AS REQUIRED.
4. STOCKPILE HEIGHTS MUST NOT EXCEED 35'. STOCKPILE SLOPES MUST BE 2:1 OR FLATTER.

MATERIALS STOCKPILE DETAIL

N.T.S. BLEC-006

FOR PERMITTING PURPOSES ONLY
NOT RELEASED FOR CONSTRUCTION

Architecture
Engineering
Environmental
Land Surveying

BL Companies

355 Research Parkway
Meriden, CT 06450
(203) 630-1406
(203) 630-2615 Fax

PROPOSED DEVELOPMENT
7120 MAIN STREET
TRUMBULL, FAIRFIELD COUNTY, CONNECTICUT

REVISIONS
No. Date Desc.

Designed	C.G.
Drawn	N.A.N.
Reviewed	
Scale	NONE
Project No.	1901141
Date	06/24/2019
CAD File: EC190114131	

Title
SEDIMENT AND EROSION CONTROL NOTES AND DETAILS

Sheet No.
EC-3

Xref (s): : BD190114131 ; XZ190114131 ; XC190114131 ; XC190114132 ; XC190114134

6/25/2020, KKILGUSS, G:\JOBS19\10\1901141\DWG\EC190114131.DWG,EC-3 24X36 NTS

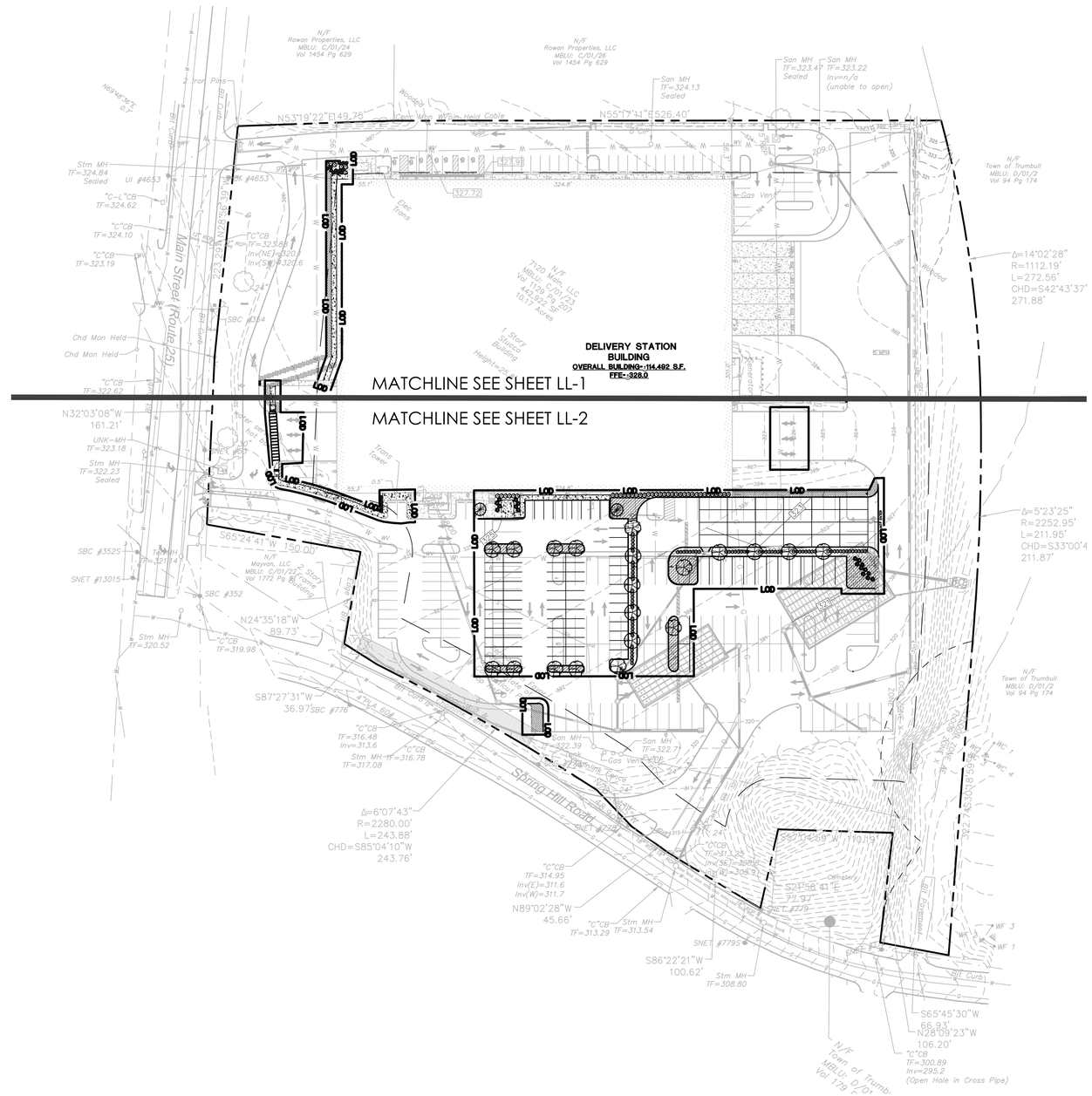
© 2020 BL COMPANIES, INC. THESE DRAWINGS SHALL NOT BE UTILIZED BY ANY PERSON, FIRM OR CORPORATION WITHOUT THE SPECIFIC WRITTEN PERMISSION OF BL COMPANIES.

LANDSCAPE PLANT SCHEDULE						
SHADE TREES						
KEY	QTY	BOTANICAL NAME	COMMON NAME	ROOT	SIZE	COMMENTS
GT	9	Gleditsia triacanthos var. inermis 'Shademaster'	SHADEMASTER HONEYLOCUST	B&B	2"–2.5" CAL.	MIN. 7' BRANCH HT.
PL	5	Platanus x acerifolia 'Morton's Circle'	EXCLAMATION! PLANETREE	B&B	2"–2.5" CAL.	MIN. 7' BRANCH HT.
QR	1	Quercus rubra	RED OAK	B&B	2"–2.5" CAL.	MIN. 7' BRANCH HT.
ORNAMENTAL TREES						
AA	5	Amelanchier arborea	DOWNY SERVICEBERRY	B&B	8' HT. MIN.	MULTI–STEM
PI	2	Prunus x incam	PRUNUS X INCAM 'OKAME'	B&B	1.5"–2" CAL.	
SHRUBS						
FG	18	Fothergilla gardenii	DWARF FOTHERGILLA	CONT.	30'–36" HT.	4' O.C.
IG	42	Ilex glabra 'Shamrock'	SHAMROCK INKBERRY	CONT.	30'–36" HT.	4' O.C.
GROUNDCOVERS, FLOWERING PERENNIALS & ORNAMENTAL GRASSES						
AM	76	Aronia melanocarpa 'UCONNAM165'	LOW SCAPE MOUND CHOKEBERRY	CONT.	12" HT. MIN.	3' O.C.
HM	20	Hemerocallis spp.	DAYLILY (BLEND OF THREE COLOR VARIETIES)	CONT.	12"–18" HT.	18" O.C.
JC	18	Juniperus chinensis 'Pfitzeriana Compacta'	COMPACT PFITZER JUNIPER	CONT.	12"–18" HT.	4' O.C.
JH	40	Juniperus horizontalis 'Plumosa Compacta'	COMPACT PLUMOSA JUNIPER	CONT.	12"–18" SPD.	4' O.C.
PA	20	Pennisetum alopecuroides	FOUNTAIN GRASS	CONT.	18"–24" HT.	36" O.C.
PV	75	Panicum virgatum 'Northwind'	NORTHWIND SWITCHGRASS	CONT.	18"–24" HT.	36" O.C.

NOTES:
1) ALL SUBSTITUTIONS MUST RECEIVE APPROVAL FROM THE LANDSCAPE ARCHITECT PRIOR TO DELIVERY TO SITE.

2) PROVIDE AND INSTALL ALL PLANTS SHOWN ON THE PLANTING PLAN DRAWINGS; THE QUANTITIES IN THE PLANT LIST ARE PROVIDED FOR THE CONTRACTOR'S CONVENIENCE ONLY. IF DISCREPANCIES OCCUR, THE LARGER QUANTITY SHALL APPLY.

3) IF THERE IS A DISCREPANCY BETWEEN BOTANICAL AND COMMON NAME, BOTANICAL NAME PREVAILS.



SEE SHEET LL-3 FOR LANDSCAPE NOTES AND DETAILS

FOR PERMITTING PURPOSES ONLY
NOT RELEASED FOR CONSTRUCTION

GRAPHIC SCALE
60 30 0 60
SCALE IN FEET

© 2020 BL COMPANIES, INC. THESE DRAWINGS SHALL NOT BE UTILIZED BY ANY PERSON, FIRM OR CORPORATION WITHOUT THE SPECIFIC WRITTEN PERMISSION OF BL COMPANIES.

Architecture
Engineering
Environmental
Land Surveying
BL Companies
355 Research Parkway
Meriden, CT 06450
(203) 630-1406
(203) 630-2615 Fax

PROPOSED DEVELOPMENT
7120 MAIN STREET
TRUMBULL, FAIRFIELD COUNTY, CONNECTICUT

REVISIONS
No. Date Desc.

Designed	L.M.W.
Drawn	L.M.W.
Reviewed	
Scale	1"=60'
Project No.	1901141
Date	06/24/2019
CAD File: LL190114131	

Title
OVERALL LANDSCAPE PLAN

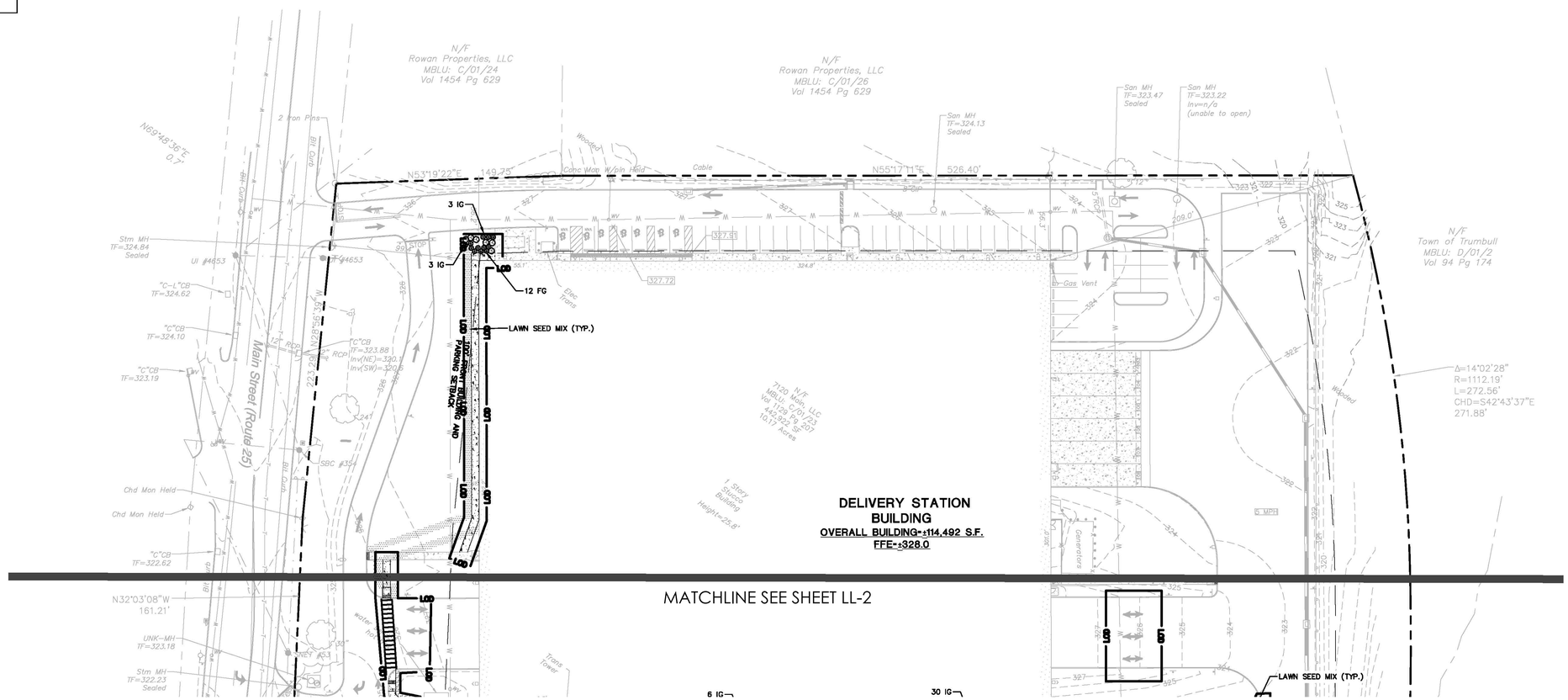
Sheet No.
LL-0

Xref (s): : X2190114131 ; XC190114131 ; XC190114132 ; XL190114131 ; BD190114131

LANDSCAPE PLANT SCHEDULE		
SHADE TREES		
KEY	BOTANICAL NAME	COMMON NAME
GT	Gleditsia triacanthos var. inermis 'Shademaster'	SHADEMASTER HONEYLOCUST
PL	Platanus x acerifolia 'Morton's Circle'	EXCLAMATION! PLANETREE
QR	Quercus rubra	RED OAK
ORNAMENTAL TREES		
AA	Amelanchier arborea	DOWNY SERVICEBERRY
PI	Prunus x incam	PRUNUS X INCAM 'OKAME'
SHRUBS		
FG	Fothergilla gardenii	DWARF FOTHERGILLA
IG	Ilex glabra 'Shamrock'	SHAMROCK INKBERRY
GROUNDCOVERS, FLOWERING PERENNIALS & ORNAMENTAL GRASSES		
AM	Aronia melanocarpa 'UCONNAM165'	LOW SCAPE MOUND CHOKEBERRY
HM	Hemerocallis spp.	DAYLILY (BLEND OF THREE COLOR VARIETIES)
JC	Juniperus chinensis 'Pfitzeriana Compacta'	COMPACT PFITZER JUNIPER
JH	Juniperus horizontalis 'Plumosa Compacta'	COMPACT PLUMOSA JUNIPER
PA	Pennisetum alopecuroides	FOUNTAIN GRASS
PV	Panicum virgatum 'Northwind'	NORTHWIND SWITCHGRASS

LEGEND

PATTERN	DESCRIPTION
	LAWN SEED MIX (REFER TO SEED MIXES ON SHEET LL-3)
	PERENNIALS/GROUNDCOVERS (REFER TO PLANT SCHEDULE ON SHEET LL-0)



SEE SHEET LL-0 FOR LANDSCAPE SCHEDULE

SEE SHEET LL-3 FOR LANDSCAPE NOTES AND DETAILS

FOR PERMITTING PURPOSES ONLY
NOT RELEASED FOR CONSTRUCTION

GRAPHIC SCALE
40 20 0 40
SCALE IN FEET

Architecture
Engineering
Environmental
Land Surveying

BL Companies

355 Research Parkway
Meriden, CT 06450
(203) 630-1406
(203) 630-2615 Fax

PROPOSED DEVELOPMENT

7120 MAIN STREET
TRUMBULL, FAIRFIELD COUNTY, CONNECTICUT

REVISIONS

No.	Date	Desc.

Designed	L.M.W.
Drawn	L.M.W.
Reviewed	
Scale	1"=40'
Project No.	1901141
Date	06/24/2019
CAD File: LL190114131	

Title

LANDSCAPE PLAN

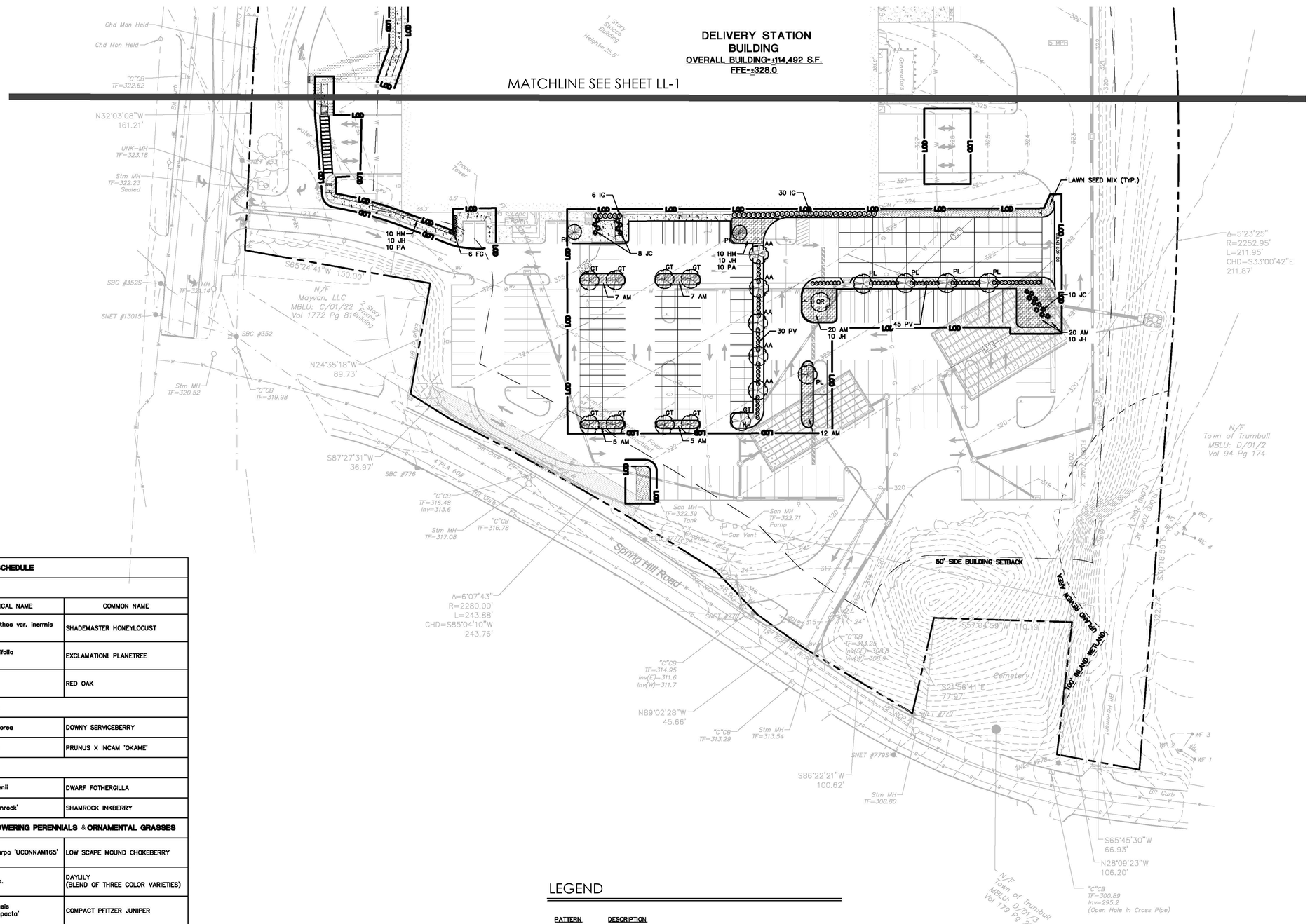
Sheet No.

LL-1

© 2020 BL COMPANIES, INC. THESE DRAWINGS SHALL NOT BE UTILIZED BY ANY PERSON, FIRM OR CORPORATION WITHOUT THE SPECIFIC WRITTEN PERMISSION OF BL COMPANIES.

4/23/2020, KKB/GXS, G:\JOBS\19\1901141\DWG\LL190114131.DWG\LL1-24X36.4DSC

Xref (s): X219014131; XC190114131; XC190114132; XL190114131; BD190114131



LANDSCAPE PLANT SCHEDULE		
SHADE TREES		
KEY	BOTANICAL NAME	COMMON NAME
GT	Gleditsia triacanthos var. inermis 'Shademaster'	SHADEMASTER HONEYLOCUST
PL	Platanus x acerifolia 'Morton's Circle'	EXCLAMATIONI PLANETREE
QR	Quercus rubra	RED OAK
ORNAMENTAL TREES		
AA	Amelanchier arborea	DOWNY SERVICEBERRY
PI	Prunus x incam	PRUNUS X INCAM 'OKAME'
SHRUBS		
FG	Fothergilla gardenii	DWARF FOTHERGILLA
IG	Ilex glabra 'Shamrock'	SHAMROCK INKBERRY
GROUNDCOVERS, FLOWERING PERENNIALS & ORNAMENTAL GRASSES		
AM	Aronia melanocarpa 'UCONNAM165'	LOW SCAPE MOUND CHOKEBERRY
HM	Hemerocallis spp.	DAYLILY (BLEND OF THREE COLOR VARIETIES)
JC	Juniperus chinensis 'Pfitzeriana Compacta'	COMPACT PFITZER JUNIPER
JH	Juniperus horizontalis 'Plumosa Compacta'	COMPACT PLUMOSA JUNIPER
PA	Pennisetum alopecuroides	FOUNTAIN GRASS
PV	Panicum virgatum 'Northwind'	NORTHWIND SWITCHGRASS

LEGEND

PATTERN	DESCRIPTION
	LAWN SEED MIX (REFER TO SEED MIXES ON SHEET LL-3)
	PERENNIALS/GROUNDCOVERS (REFER TO PLANT SCHEDULE ON SHEET LL-0)

SEE SHEET LL-0 FOR LANDSCAPE SCHEDULE

SEE SHEET LL-3 FOR LANDSCAPE NOTES AND DETAILS

FOR PERMITTING PURPOSES ONLY NOT RELEASED FOR CONSTRUCTION

GRAPHIC SCALE
40 20 0 40
SCALE IN FEET

Architecture
Engineering
Environmental
Land Surveying
BL Companies
355 Research Parkway
Meriden, CT 06450
(203) 630-1406
(203) 630-2615 Fax

PROPOSED DEVELOPMENT
7120 MAIN STREET
TRUMBULL, FAIRFIELD COUNTY, CONNECTICUT

REVISIONS
No. Date Desc.

Designed	L.M.W.
Drawn	L.M.W.
Reviewed	
Scale	1"=40'
Project No.	1901141
Date	06/24/2019
CAD File: LL190114131	

Title
LANDSCAPE PLAN

Sheet No.
LL-2

© 2020 BL COMPANIES, INC. THESE DRAWINGS SHALL NOT BE UTILIZED BY ANY PERSON, FIRM OR CORPORATION WITHOUT THE SPECIFIC WRITTEN PERMISSION OF BL COMPANIES.

LANDSCAPE NOTES

1. THE LANDSCAPE PLAN AND DETAIL SHEET ARE FOR LANDSCAPING INFORMATION ONLY. REFER TO THE OTHER PLANS FOR ALL OTHER INFORMATION.

2. COORDINATE PLANT MATERIAL LOCATIONS WITH SITE UTILITIES. UTILITY LOCATIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE. EXERCISE CARE WHEN DIGGING IN AREAS OF POTENTIAL CONFLICT WITH UNDERGROUND OR OVERHEAD UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE DUE TO CONTRACTOR'S NEGLIGENCE AND SHALL REPLACE OR REPAIR ANY DAMAGE AT CONTRACTOR'S EXPENSE. PRIOR TO DIGGING AND INSTALLATION OF PLANT MATERIAL, THE CONTRACTOR SHALL CONTACT "CALL BEFORE YOU DIG" 72 HOURS BEFORE COMMENCEMENT OF WORK AT "(800)922-4455" AND VERIFY ALL UTILITY SYSTEM LOCATIONS.

3. THE LOCATIONS FOR PLANT MATERIAL ARE APPROXIMATE AND ARE SUBJECT TO FIELD ADJUSTMENT DUE TO UTILITY LOCATIONS AND SITE CONDITIONS. THE CONTRACTOR SHALL ACCURATELY STAKE OUT THE LOCATIONS FOR ALL PLANTS FOR THE REVIEW, ADJUSTMENT, AND APPROVAL BY OWNER OR LANDSCAPE ARCHITECT PRIOR TO PLANTING.

4. THE CONTRACTOR SHALL GUARANTEE THAT ALL PLANTS SHALL BE HEALTHY AND FREE OF DISEASE FOR A PERIOD OF ONE YEAR OR JUNE 1ST OF THE YEAR FOLLOWING INSTALLATION, WHICHEVER IS LONGER, AFTER SUBSTANTIAL COMPLETION AND ACCEPTANCE BY OWNER OR LANDSCAPE ARCHITECT. CONTRACTOR SHALL REPLACE ANY DEAD OR UNHEALTHY PLANTS AT CONTRACTOR'S EXPENSE. PLANT MATERIAL REPLACEMENTS SHALL BE GUARANTEED FOR ONE FULL YEAR FROM DATE OF REPLACEMENT. REPLACEMENT PLANTS SHALL BE THE SAME AS SPECIFIED FOR THE ORIGINAL PLANTING. REPLACEMENTS SHALL BE MADE AS MANY TIMES AS NECESSARY TO ENSURE HEALTHY PLANTS. FINAL ACCEPTANCE SHALL BE MADE IF ALL PLANTS MEET THE GUARANTEE REQUIREMENTS INCLUDING MAINTENANCE. MAINTENANCE RESPONSIBILITIES INCLUDE CULTIVATING, SPRAYING, WEEDING, WATERING, TIGHTENING GUYS, PRUNING, FERTILIZING, MULCHING, AND ANY OTHER OPERATIONS NECESSARY TO MAINTAIN PLANT VIABILITY. MAINTENANCE SHALL BEGIN IMMEDIATELY AFTER PLANTING AND CONTINUE UNTIL THE END OF THE GUARANTEE PERIOD. DURING THE LANDSCAPE MAINTENANCE PERIOD (GUARANTEE) THE LANDSCAPE CONTRACTOR SHALL NOTIFY THE OWNER IN WRITING OF ANY SITE CONSTRAINTS (PHYSICAL, ENVIRONMENT, ETC.) OR MAINTENANCE DEFICIENCIES THAT MAY AFFECT LANDSCAPE VEGETATION ESTABLISHMENT.

5. THE CONTRACTOR SHALL SUPPLY ALL LABOR, PLANTS, AND MATERIALS IN QUANTITIES SUFFICIENT TO COMPLETE THE WORK SHOWN ON THE DRAWINGS AND LISTED IN THE PLANT SCHEDULE. IN THE EVENT OF A DISCREPANCY BETWEEN QUANTITIES SHOWN IN THE PLANT SCHEDULE AND THOSE REQUIRED BY THE DRAWINGS, THE LARGER SHALL APPLY. ALL PLANTS SHALL BE ACCLIMATED BY THE SUPPLY NURSERY TO THE LOCAL HARDINESS ZONE AND BE CERTIFIED THAT THE PLANTING MATERIAL HAS BEEN GROWN FOR A MINIMUM OF TWO YEARS AT THE SOURCE AND OBTAINED WITHIN 200 MILES OF PROJECT SITE UNLESS OTHERWISE APPROVED BY OWNER OR LANDSCAPE ARCHITECT.

6. PLANTS SHALL HAVE TAGS THAT IDENTIFY PLANT GENUS, SPECIES, CULTIVAR (IF APPLICABLE), PLANT COMMON NAME, NAME OF SOURCE NURSERY, AND SIZE OF PLANT FOR REVIEW OF OWNER OR LANDSCAPE ARCHITECT.

7. NO PLANT SHALL BE PLACED IN THE GROUND BEFORE ROUGH GRADING HAS BEEN COMPLETED AND APPROVED BY THE OWNER OR LANDSCAPE ARCHITECT. STAKING THE LOCATION OF ALL TREES AND SHRUBS SHALL BE COMPLETED PRIOR TO PLANTING FOR APPROVAL BY THE OWNER OR LANDSCAPE ARCHITECT.

8. FINAL GRADES SHALL BLEND SMOOTHLY WITH EXISTING GRADES, AND TOP AND BOTTOM OF SLOPES SHALL BE ROUNDED.

9. ALL TREE AND SHRUB MASSINGS SHALL BE MULCHED TO A DEPTH OF 3". ANNUAL AND PERENNIAL BEDS SHALL BE MULCHED TO A DEPTH OF 2". MULCH SHALL BE UNCOLORED TRIPLE-SHREDDED HARDWOOD BARK MULCH, AGED AT LEAST 6 MONTHS.

10. IF TREE STAKING IS PROPOSED, TREE STAKING MUST BE COMPLETED THE SAME DAY AS THE TREE IS INSTALLED. ALL TREES SHALL BE STAKED OR GUYED PER DETAIL.

11. LANDSCAPE PLANTING AREAS MUST BE FREE DRAINING. PAVEMENT, COMPACTED SUBGRADE, DEAD OR DYING PLANT MATERIAL, BLASTED ROCK, STONES GREATER THAN 1" IN DIAMETER, AND ANY OTHER MATERIAL HARMFUL TO PLANT GROWTH AND DEVELOPMENT SHALL BE REMOVED FROM AREAS TO BE LANDSCAPED AS REQUIRED BY PLANTING DETAILS OR SPECIFICATIONS.

12. PLANTING SOIL:

DEPTH: PLANTING SOIL SHALL BE INSTALLED AT A MINIMUM DEPTH OF 4" OR AS NOTED IN THE LANDSCAPE DETAILS. PLANTING SOIL SHALL BE UTILIZED IN ALL PLANTING AREAS INCLUDING SEEDED AREAS.

TESTING: CONTRACTOR SHALL SUBMIT (2) SOIL SAMPLES PER SOIL STOCKPILE TO A CERTIFIED TESTING LABORATORY TO DETERMINE ACIDITY, ORGANIC CONTENT, MECHANICAL ANALYSIS, AVAILABLE NUTRIENTS (N,P,K,Ca,Mg,S,Fe,Mn,Zn,Cu,B,Al,Pb) AND NECESSARY AMENDMENTS TO SOIL. THE CONTRACTOR SHALL SUBMIT THE TEST RESULTS TO THE OWNER OR LANDSCAPE ARCHITECT FOR REVIEW AND APPROVAL. TEST RESULTS SHALL RECOMMEND AMENDMENTS THAT WILL ALTER THE SOIL CHARACTERISTICS SUCH THAT THE CHARACTERISTICS DESCRIBED BELOW ARE ACHIEVED AND THE SPECIFIED PLANTS (CONTRACTOR TO PROVIDE LIST TO TESTING LABORATORY) WILL ACHIEVE PROPER GROWTH THAT IS NEITHER DEFICIENT NOR EXCESSIVE. THE CONTRACTOR SHALL INCORPORATE THESE AMENDMENTS AT NO INCREASE IN CONTRACT PRICE.

CHARACTERISTICS: PLANTING SOIL MAY CONSIST OF EXISTING ON-SITE SOILS, AMENDED ON-SITE SOILS, OR IMPORTED SOILS MEETING THE FOLLOWING CRITERIA:

A. NOT TO CONTAIN MATERIALS HARMFUL TO PLANT LIFE, TO BE CLEAN, FERTILE, FRIABLE, AND WELL DRAINING. ALL PLANTING SOIL SHALL BE FREE OF ANY SUBSOIL EARTH CLODS, SODS, STONES OVER 1" IN ANY DIMENSION, STICKS, ROOTS, WEEDS, LITTER AND OTHER DELETERIOUS MATERIAL. PLANTING SOIL SHALL BE UNIFORM IN QUALITY AND TEXTURE.

B. PLANTING SOIL SHALL HAVE THE FOLLOWING OPTIMUM RANGES UNLESS OTHERWISE APPROVED BY THE OWNER OR LANDSCAPE ARCHITECT.

ORGANIC CONTENT	3% – 6% FOR LAWN OR GRASS AREAS.
	4% – 8% FOR TREE AND SHRUB PLANTERS.
	8%–16% FOR RETENTION OR DETENTION BASINS.
(BY LOSS OF IGNITION AT 375 C METHOD OF TESTING)	
PH	6.0 – 7.3

C. NUTRIENT LEVELS SHALL BE ACHIEVED BY THE CONTRACTOR'S ADDITION OF AMENDMENTS TO THE PLANTING SOIL TO MEET THE OPTIMUM NUTRIENT LEVELS SPECIFIED IN THE TESTING LABORATORY REPORT FOR EACH OF PLANTS TO BE INSTALLED.

D. SOIL SHALL BE COMPACTED TO A SURFACE PENETRATION RESISTANCE OF 75–125 LBS/SQ.IN.

E. SOIL MAY BE TREATED FOR WEEDS WITH PRE-EMERGENT OR POST-EMERGENT HERBICIDE, AS NEEDED AND AS APPROPRIATE FOR THE APPLICATION SEASON OR LOCATION, OR ELIMINATE GROWTH OF UNWANTED PLANT MATERIAL. APPLY HERBICIDES IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS. HERBICIDE APPLICATOR MUST BE LICENSED IN THE STATE OF CONNECTICUT, AND PERFORM APPLICATIONS IN ACCORDANCE WITH LOCAL REQUIREMENTS, PERMITTING STIPULATIONS, AND ANY OTHER RESTRICTIONS INCLUDING AND IN EXCESS OF STATE AND FEDERAL REGULATIONS.

F. PROPOSED TOPSOIL SHALL MEET THE USDA SOILS TEXTURAL PERCENTAGES OF SAND, SILT, AND CLAY FOR FOLLOWING CLASSIFICATIONS:
- LOAM
- SANDY LOAM WHERE SAND DOES NOT EXCEED 70% AND CLAY IS NOT LESS THAN 5%.
- SANDY CLAY LOAM WHERE SAND DOES NOT EXCEED 70% AND CLAY IS LESS THAN 28%.

G. BIORETENTION SOILS: SOIL TO BE INSTALLED IN RETENTION BASINS, PONDS, OR OTHER STORMWATER MANAGEMENT ENVIRONS SHALL MEET THE ABOVE DESCRIBED CHARACTERISTICS AND AS FOLLOWS:
- SOIL SHALL NOT CONTAIN MORE THAN 20% CLAY AND LESS THAN 40% SILT.
- SOIL SHALL HAVE AN INFILTRATION RATE BETWEEN 1/2" AND 3" PER HOUR.

H. MODIFICATION TO THE PLANTING SOIL CHARACTERISTICS DESCRIBED ABOVE MAY BE SUBMITTED FOR APPROVAL BY THE LANDSCAPE ARCHITECT. CONTRACTOR MUST DEMONSTRATE PROPOSED CHARACTERISTICS ARE EQUAL TO OR SUPERIOR TO THE SPECIFIED CHARACTERISTICS WITH RESPECT TO SUPPORTING PLANT GROWTH, AND STORMWATER MANAGEMENT.

12. PLANTING AMENDMENTS:
APPLY FERTILIZER AND OTHER AMENDMENTS AS RECOMMENDED FOR EACH PLANTING AREA BY SOIL ANALYSIS. APPLY AMENDMENTS IN A MANNER CONSISTENT WITH MANUFACTURER'S RECOMMENDATIONS. ANY ORGANIC AMENDMENTS SHALL HAVE A pH BETWEEN 4.5 AND 5.5 UNLESS OTHERWISE RECOMMENDED.

13. PLANT REQUIREMENTS: ALL PLANTS SHALL CONFORM IN SIZE AND GRADE TO THE AMERICAN STANDARD FOR NURSERY STOCK, ANSI Z60.1 (LATEST EDITION). ALL PLANTS SHALL MEET THE ADDITIONAL REQUIREMENTS SET FORTH BELOW AND IN WRITTEN SPECIFICATIONS AS APPLICABLE. ALL TREES AND SHRUBS SHALL HAVE BEEN GROWN AT A COMMERCIAL NURSERY WITHIN 200 MILES OF THE PROJECT SITE UNLESS OTHERWISE APPROVED BY OWNER OR LANDSCAPE ARCHITECT. THEY SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY. THEY SHALL BE HEALTHY, SYMMETRICAL, EVENLY AND DENSELY BRANCHED, AND DENSELY FOLIATED WHEN IN LEAF. THEY SHALL BE FREE OF BARK INJURY, DISEASE, AND INSECT PESTS. ALL TREES SHALL HAVE A STRAIGHT TRUNK WITH A SINGLE MAIN LEADER UNLESS OTHERWISE CHARACTERISTIC OF THE SPECIES OR VARIETY. THE OWNER OR LANDSCAPE ARCHITECT WILL ALLOW SUBSTITUTIONS ONLY UPON WRITTEN APPROVAL. SIZES SHALL CONFORM TO THE MEASUREMENT SPECIFIED ON THE DRAWINGS. PLANTS LARGER THAN SPECIFIED MAY BE USED IF APPROVED, BUT THE USE OF SUCH PLANTS SHALL NOT INCREASE THE CONTRACT PRICE. ALL OVERSTORY TREES PLANTED ALONG PARKING AREAS, SIDEWALKS AND PEDESTRIAN ACCESSES SHALL NOT BRANCH BELOW 7' FEET IF THE TREE CALIPER IS 3" INCHES OR GREATER. ALL PLANT MATERIALS ARE SUBJECT TO INSPECTION AND ACCEPTANCE BY THE OWNER OR LANDSCAPE ARCHITECT AT THE NURSERY SOURCE. THE CONTRACTOR SHALL COORDINATE SOURCE VISITS WITH THE LANDSCAPE ARCHITECT AND SHALL ACCOMPANY THE OWNER AND/OR LANDSCAPE ARCHITECT FOR ALL INSPECTIONS. CERTIFICATES OF COMPLIANCE WITH SPECIFICATIONS ARE REQUIRED FOR ALL PLANTS.

14. INSPECTION AND REVIEW:
ALL PLANT MATERIAL SHALL BE SUBJECT TO INSPECTION AND ACCEPTANCE BY THE OWNER OR LANDSCAPE ARCHITECT AT THE NURSERY SOURCE OR PLACE OF GROWTH. THE CONTRACTOR SHALL COORDINATE WITH THE LANDSCAPE ARCHITECT ON A SCHEDULE FOR SOURCE VISITS AND ACCOMPANY THE OWNER OR LANDSCAPE ARCHITECT FOR ALL SOURCE INSPECTIONS. CERTIFICATES OF COMPLIANCE ARE REQUIRED FOR ALL PLANT MATERIALS.
PHOTOGRAPHIC REVIEW OF PLANT MATERIAL IS ACCEPTABLE IF APPROVED BY LANDSCAPE ARCHITECT. PHOTOGRAPHS MUST BE PROVIDED IN QUANTITY AND VARIETY TO ALLOW LANDSCAPE ARCHITECT SUFFICIENT INFORMATION TO MAKE A REASONABLE DETERMINATION AS TO THE PLANTS' QUALITY. OWNER AND LANDSCAPE ARCHITECT RESERVES THE RIGHT TO REJECT PLANT MATERIAL DELIVERED TO THE SITE BUT PREVIOUSLY ACCEPTED IF DAMAGED OR NOT PROPERLY MAINTAINED DURING THE DELIVERY PROCESS.

15. PLANTING SEASONS (UNLESS OTHERWISE APPROVED BY THE OWNER OR LANDSCAPE ARCHITECT)

	SPRING	FALL
EVERGREEN TREES AND SHRUBS	APRIL 1 TO JUNE 15	SEPTEMBER 1 TO OCTOBER 15
DECIDUOUS TREES AND SHRUBS	APRIL 1 TO JUNE 15	SEPTEMBER 15 TO NOVEMBER 15
GROUNDCOVERS	APRIL 1 TO JUNE 15	SEPTEMBER 1 TO OCTOBER 15
PERENNIALS	MAY 15 TO JUNE 15	SEPTEMBER 1 TO OCTOBER 15
BULBS	N/A	SEPTEMBER 15 TO NOVEMBER 15
SEED MIXES	PER MANUFACTURERS RECOMMENDATIONS OR AS LISTED IN SEED MIX NOTES	

16. SEEDING MIXTURES: REFER TO SEED MIX NOTES. SEEDED AREA SHALL BE ACCEPTED WHEN SEED AREA ACHIEVES 90% COVERAGE.

17. ALL SLOPES 3:1 OR STEEPER THAN 3:1 RECEIVING A SEED MIX SHALL BE COVERED WITH AN EROSION CONTROL BLANKET OF STRAW FIBER AND BIODEGRADABLE OR PHOTODEGRADABLE NETTING.

18. UNLESS OTHERWISE NOTED IN DRAWING SET, NEW TREELINES SHALL EQUAL CLEARING AND GRUBBING LIMIT FOR CONSTRUCTION.

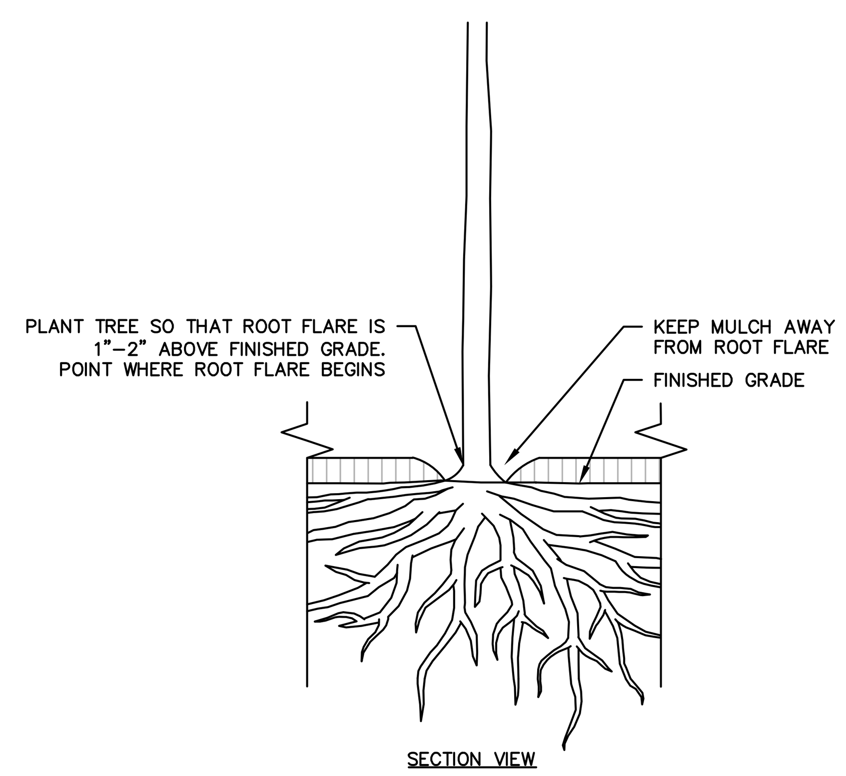
19. ALL DISTURBED AREAS NOT OTHERWISE DEVELOPED SHALL BE SEEDED WITH THE LAWN SEED MIX.

SEED MIX NOTES

A. LAWN SEEDING MIX:
- 15 % PERENNIAL RYEGRASS (BLEND OF 3 IMPROVED HYBRIDS)
- 25 % FINE LEAF OR CREEPING FESCUE (BLEND OF 3 IMPROVED HYBRIDS)
- 60 % KENTUCKY BLUEGRASS (BLEND OF 3 IMPROVED HYBRIDS)

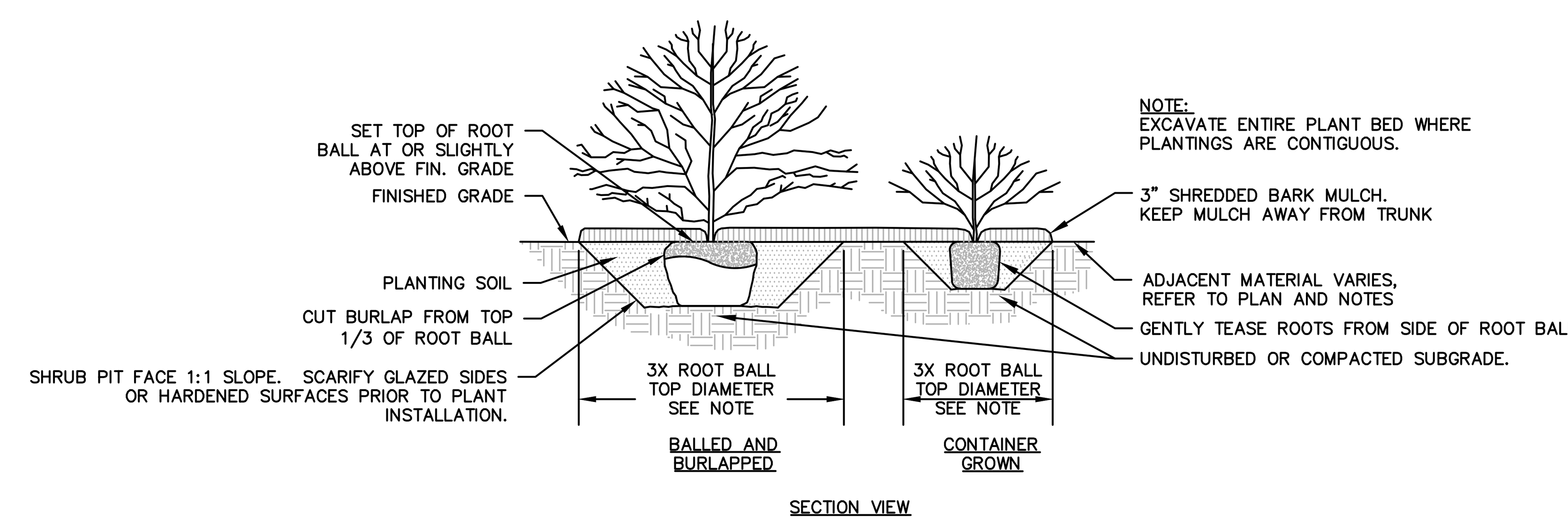
SEEDING RATE: 5 LBS/1,000 S.F.

SEEDING DATES: AUGUST 15 – OCTOBER 1 AND APRIL 15 – JUNE 30 UNLESS OTHERWISE APPROVED BY THE OWNER OR LANDSCAPE ARCHITECT.



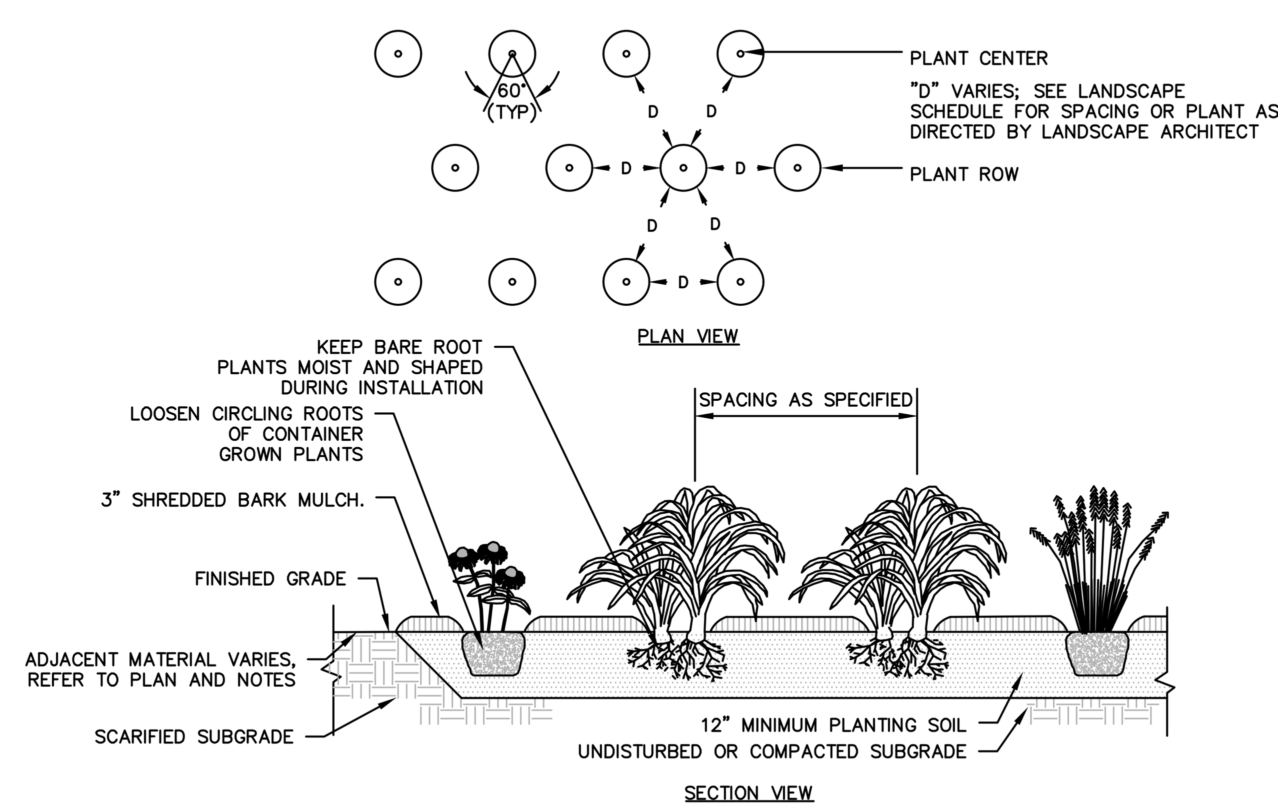
ROOT FLARE DIAGRAM

N.T.S



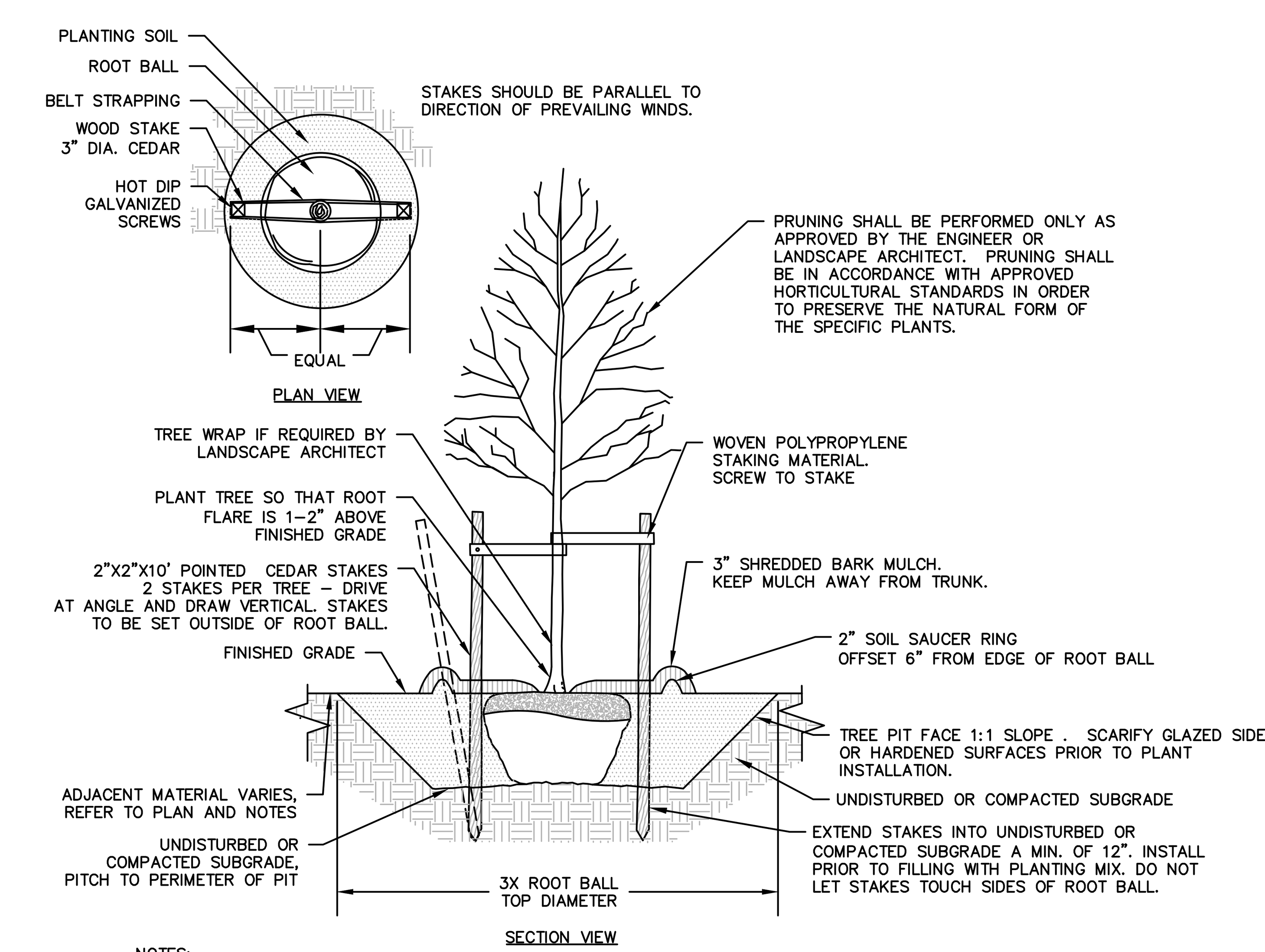
SHRUB PLANTING

N.T.S



GROUNDCOVER PLANTING

N.T.S



NOTES:
1. STAKING FOR TREES ON 4:1 SLOPES OR LESS THAN 3" CALIPER TO BE PERFORMED AT CONTRACTORS DISCRETION.
2. WOVEN POLYPROPYLENE STAKING MATERIAL SHALL BE DEEPROOT ARBORTIE (GREEN) OR APPROVED EQUIVALENT. MATERIAL SHALL BE LOOPED AROUND TREE THROUGH EACH OTHER, TWISTED, AND SECURED TO THE STAKE. INSTALL SPECIFIED MATERIAL IN ACCORDANCE WITH MANUFACTURER'S DIRECTIONS.
3. BEFORE IN HOLE, REMOVE BOTTOM OF CAGE. ONCE IN HOLE, REMOVE REST OF CAGE FROM ROOT BALL. REMOVE TWINE AND BURLAP FROM TOP 1/3 OF ROOT BALL – SCORE REMAINING 2/3 OF BURLAP. IF BURLAP IS SYNTHETIC OR HAS BEEN TREATED WITH ANTI-DESSICANT, COMPLETELY REMOVE IT FROM ROOT BALL.

DECIDUOUS TREE PLANTING

N.T.S

FOR PERMITTING PURPOSES ONLY
NOT RELEASED FOR CONSTRUCTION

Architecture
Engineering
Environmental
Land Surveying

BL Companies

355 Research Parkway
Meriden, CT 06450
(203) 630-1406
(203) 630-2615 Fax

PROPOSED DEVELOPMENT
7120 MAIN STREET
TRUMBULL, FAIRFIELD COUNTY, CONNECTICUT

REVISIONS
No. Date Desc.

Designed	L.M.W.
Drawn	L.M.W.
Reviewed	
Scale	NONE
Project No.	1901141
Date	06/24/2019
CAD File:	LL190114131

Title
LANDSCAPE NOTES AND DETAILS

Sheet No.
LL-3

Xref (s): ; XZ190114131 ; XC190114131 ; XC190114132 ; XL190114131 ; BD190114131

6/25/2020, KKILGUSS, G:\JOBS19\10\1901141\DWG\LL190114131.DWG,LL-3 24X36 NTS.

© 2020 BL COMPANIES, INC. THESE DRAWINGS SHALL NOT BE UTILIZED BY ANY PERSON, FIRM OR CORPORATION WITHOUT THE SPECIFIC WRITTEN PERMISSION OF BL COMPANIES.

LIGHTING NOTES

1. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH ALL REQUIREMENTS OF ANY LOCAL APPLICABLE CODES OR ORDINANCES, PUBLIC UTILITY COMPANY REGULATIONS, STATE CODE, AND NATIONAL ELECTRICAL CODE WITH INTERIM AMENDMENTS THERETO.

2. ALL MATERIALS SHALL CONFORM TO THE LATEST ISSUE OF ALL APPLICABLE STANDARDS AS ESTABLISHED BY EEI, NEMA, ASTM, IPCEA, NATIONAL BOARD OF FIRE UNDERWRITERS, AND UNDERWRITERS LABORATORIES, INC.

3. THE CONTRACTOR SHALL TEST THE LIGHTING AFTER INSTALLATION WITH THE DEVELOPER/OWNER, AND PROVIDE TO DEVELOPER/OWNER WARRANTY AND MAINTENANCE INFORMATION. THE CONTRACTOR SHALL MAKE ADJUSTMENTS AND/OR MODIFICATIONS AS REQUIRED BY THE DEVELOPER/OWNER TO OBTAIN EVEN LIGHT DISTRIBUTION.

4. CONTRACTOR SHALL LEAVE ENTIRE ELECTRICAL SYSTEM INSTALLED BY THE CONTRACTOR IN PROPER WORKING CONDITION AND REPLACE WITHOUT ADDITIONAL CHARGE ALL WORK OR MATERIALS WHICH MAY DEVELOP DEFECTS WITHIN A PERIOD OF ONE (1) YEAR FROM DATE OF FINAL ACCEPTANCE BY THE OWNER.

5. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ALL PRODUCTS, BASES AND CONDUITS TO SITE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO DELIVERY OF MATERIAL TO SITE. ALLOW A MINIMUM OF 14 WORKING DAYS FOR REVIEW. IF ALTERNATIVE LIGHTING IS PROPOSED SUBMIT A PHOTOMETRIC FOOT-CANDLE LAYOUT ALONG WITH ANNUAL MAINTENANCE REQUIREMENTS AND ANTICIPATED COSTS.

6. LIGHTS ARE DESIGNED TO PROVIDE EVEN LEVELS OF ILLUMINATION AND AVOID GLARE ONTO NEIGHBORING PROPERTIES. FINAL DESIGN MAY VARY PENDING MANUFACTURER'S RECOMMENDATIONS.

7. ALL LIGHTING CONTROLS, PANELS, CIRCUIT BREAKERS ETC. ARE TO BE PROVIDED UNDER A SEPARATE CONTRACT BY BUILDING CONTRACTOR. CAREFUL COORDINATION IS REQUIRED BETWEEN SITE CONTRACTOR AND BUILDING CONTRACTOR TO PROVIDE A COMPLETE INSTALLATION FOR SITE LIGHTING.

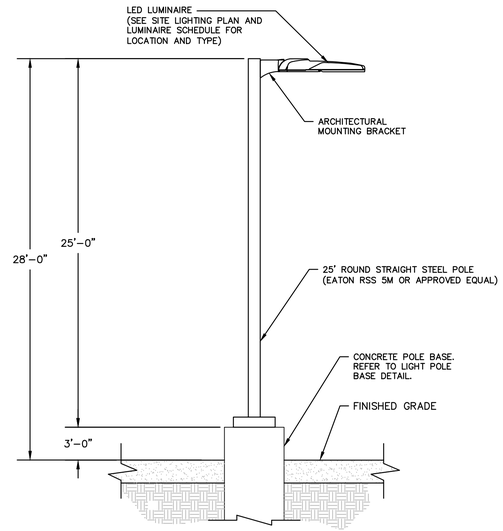
8. THE CONTRACTOR WILL PROVIDE AND INSTALL ALL MATERIAL NECESSARY TO COMPLETE THE SITE LIGHTING SYSTEM INCLUDING BUT NOT LIMITED TO CONDUIT, BASES, ANCHOR BOLTS, POLES, SITE LIGHTS AND LAMPS. THE CONTRACTOR WILL COORDINATE WIRING AND POWERING OF LIGHTS WITH OWNER, ARCHITECT, AND BUILDING CONTRACTOR IF DIFFERENT FROM THE SITE CONTRACTOR.

9. ALL LIGHTS TO BE AS LISTED IN SCHEDULE OR APPROVED EQUIVALENT. LIGHTS SHALL BE MOUNTED ON POLES ATOP 3' HIGH CONCRETE BASES THAT ARE SET 3' (CLEAR) BEHIND CURBS UNLESS OTHERWISE INDICATED ON CONTRACT DRAWINGS. ILLUMINATION ANALYSIS MODELED USING LIGHTING FIXTURES LISTED IN SCHEDULE.

10. LIGHT POLES AND BRACKETS TO BE AS SHOWN ON DETAILS OR APPROVED EQUIVALENT.

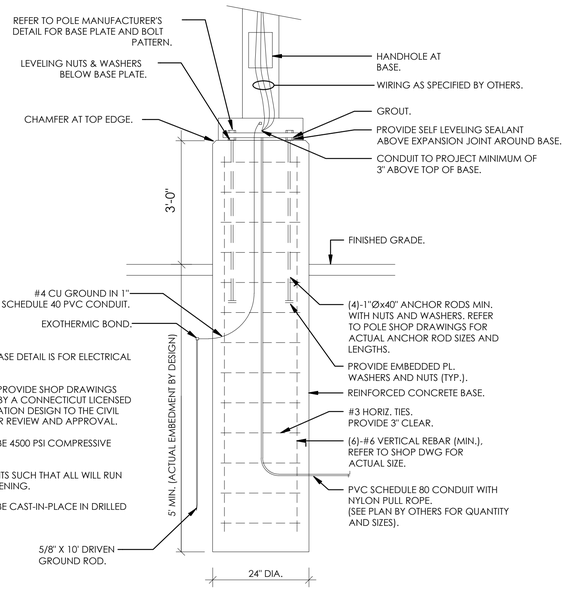
11. WIRE AND CABLE SHALL BE COPPER AND CONFORM TO THE FOLLOWING NEC TYPE THHN/THWN SOLID FOR NO. 12 AND NO. 10. NEC TYPE THHN/THWN STRANDED FOR NO. 8 AND LARGER. RIGID STEEL CONDUIT SHALL BE GALVANIZED. FITTINGS SHALL BE CAST FERROUS MATERIAL WITH A CADMIUM OR ZINC PLATED FINISH.

12. ALL EQUIPMENT SHALL BE GROUNDED AND BONDED IN ACCORDANCE TO NEC.



TYPICAL LUMINAIRE MOUNTING DETAIL

N.T.S



NOTES:

1. CONCRETE POLE BASE DETAIL IS FOR ELECTRICAL FEATURES ONLY.

2. CONTRACTOR TO PROVIDE SHOP DRAWINGS SIGNED AND SEALED BY A CONNECTICUT LICENSED ENGINEER OF FOUNDATION DESIGN TO THE CIVIL DESIGN ENGINEER FOR REVIEW AND APPROVAL.

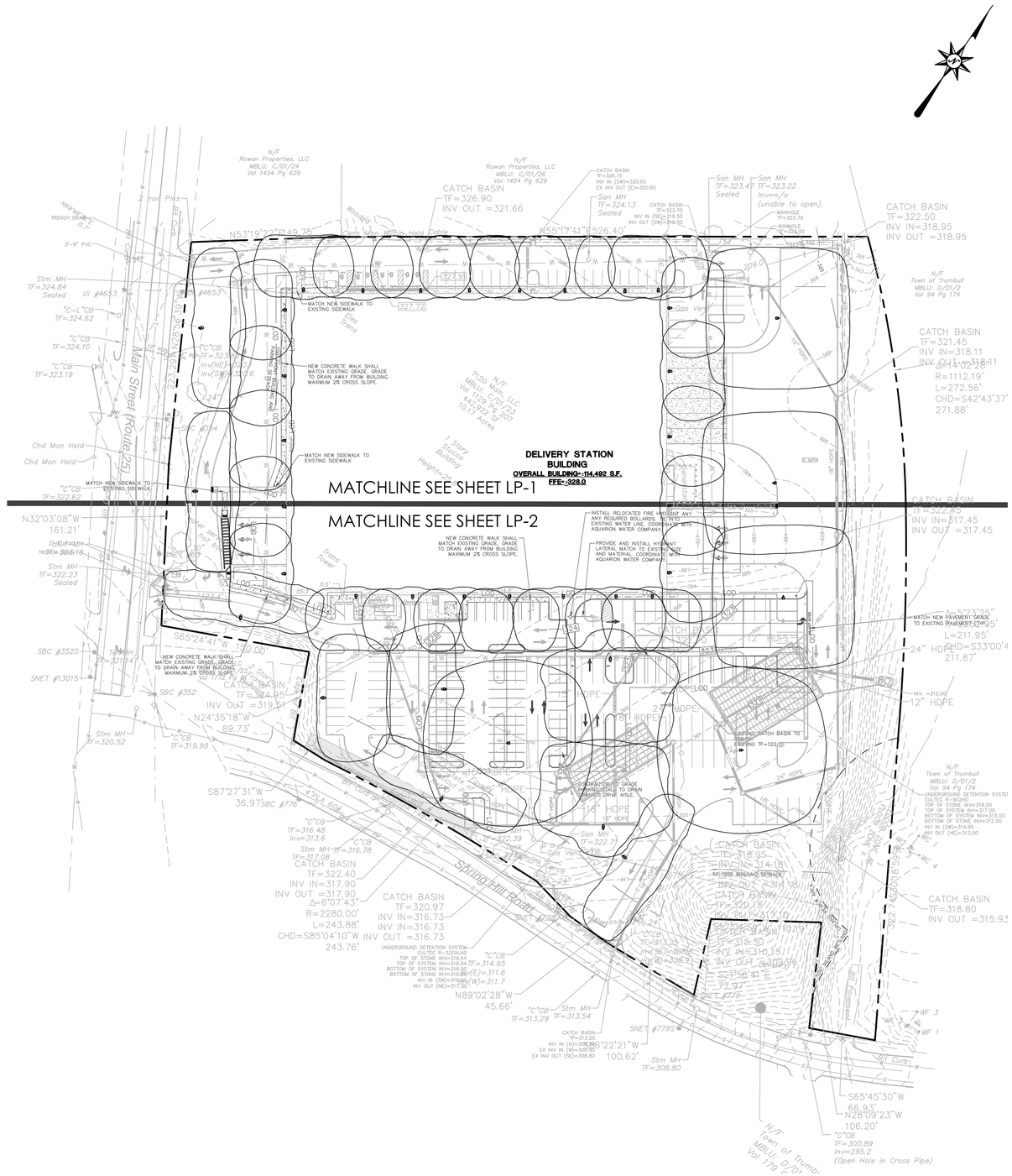
3. CONCRETE SHALL BE 4500 PSI COMPRESSIVE STRENGTH.

4. ARRANGE CONDUITS SUCH THAT ALL WILL RUN WITHIN POLE BASE OPENING.

5. CONCRETE SHALL BE CAST-IN-PLACE IN DRILLED EXCAVATION.

TYPICAL CONCRETE LIGHT POLE BASE DETAIL

N.T.S



SEE SHEET LP-1 FOR LIGHTING SCHEDULE AND STATISTICS

FOR PERMITTING PURPOSES ONLY NOT RELEASED FOR CONSTRUCTION

GRAPHIC SCALE
60 30 0 60
SCALE IN FEET

Architecture Engineering Environmental Land Surveying
BL Companies
355 Research Parkway
Meriden, CT 06450
(203) 630-1406
(203) 630-2615 Fax

PROPOSED DEVELOPMENT

7120 MAIN STREET
TRUMBULL, FAIRFIELD COUNTY, CONNECTICUT

REVISIONS

No.	Date	Desc.

Designed	L.M.W.
Drawn	L.M.W.
Reviewed	
Scale	1"=60'
Project No.	1901141
Date	06/24/2019
CAD File: LP190114131	

Title

OVERALL LIGHTING PLAN

Sheet No.

LP-0

Xref (s): : XC190114131; XC190114132; XZ190114131; XE190114131; XB190114131

4/25/2020, KEK/GJSS, C:\-DRIVE\VOL190141\DWG\LP190114131.DWG LP-0 3-MONA.PDF

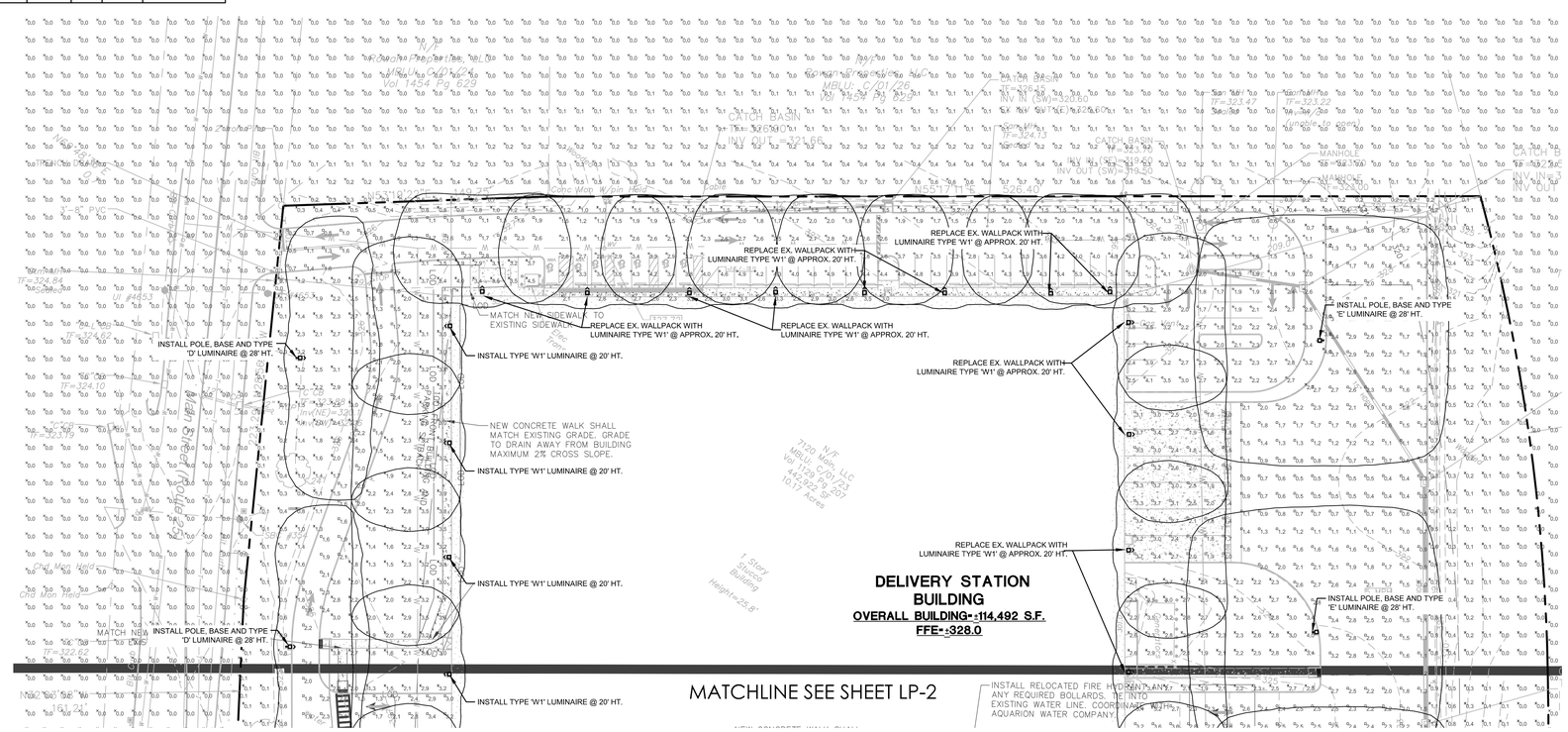
© 2020 BL COMPANIES, INC. THESE DRAWINGS SHALL NOT BE UTILIZED BY ANY PERSON, FIRM OR CORPORATION WITHOUT THE SPECIFIC WRITTEN PERMISSION OF BL COMPANIES.

Schedule

Symbol	Label	QTY	Catalog Number	Description	Lamp	Number Lamps	Lumens per Lamp	LLF	Wattage	Polar Plot
	W1	25	GLEON-AF-02-LED-E1-SL4 WALL MOUNT	GALLEON AREA AND ROADWAY LUMINAIRE (2) 70 CRI, 4000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV SPILL LIGHT ELIMINATOR OPTICS Retail, Roadway, Sidewalk, Site, Street, Substation, Security, Corrosion Resistant, Vandal Resistant, Wet Location ABSOLUTE PHOTOMETRY IS BASED ON CALIBRATION FACTORS CREATED USING LAB LUMEN STANDARDS IN GONIOPHOTOMETER WITH TEST DISTANCE OF 28.75 FEET	LED	32	362	0.9	113	Max: 9720cd
	B	2	GLEON-AF-07-LED-E1-5WQ	GALLEON AREA AND ROADWAY LUMINAIRE (7) 70 CRI, 4000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V WIDE OPTICS Retail, Roadway, Sidewalk, Site, Street, Substation, Security, Corrosion Resistant, Vandal Resistant, Wet Location ABSOLUTE PHOTOMETRY IS BASED ON CALIBRATION FACTORS CREATED USING LAB LUMEN STANDARDS IN GONIOPHOTOMETER WITH TEST DISTANCE OF 28.75 FEET	LED	112	396	0.9	391	Max: 17759cd
	C	1	GLEON-AF-03-LED-E1-SL4-HSS	GALLEON AREA AND ROADWAY LUMINAIRE (3) 70 CRI, 4000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD Retail, Roadway, Sidewalk, Site, Street, Substation, Security, Corrosion Resistant, Vandal Resistant, Wet Location ABSOLUTE PHOTOMETRY IS BASED ON CALIBRATION FACTORS CREATED USING LAB LUMEN STANDARDS IN GONIOPHOTOMETER WITH TEST DISTANCE OF 28.75 FEET	LED	48	307	0.9	166	Max: 12120cd
	D	5	GLEON-AF-03-LED-E1-SL2-HSS	GALLEON AREA AND ROADWAY LUMINAIRE (3) 70 CRI, 4000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD Retail, Roadway, Sidewalk, Site, Street, Substation, Security, Corrosion Resistant, Vandal Resistant, Wet Location ABSOLUTE PHOTOMETRY IS BASED ON CALIBRATION FACTORS CREATED USING LAB LUMEN STANDARDS IN GONIOPHOTOMETER WITH TEST DISTANCE OF 28.75 FEET	LED	48	313	0.9	166	Max: 20728cd
	E	3	GLEON-AF-06-LED-E1-5MQ	GALLEON AREA AND ROADWAY LUMINAIRE (6) 70 CRI, 4000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V MEDIUM OPTICS Retail, Roadway, Sidewalk, Site, Street, Substation, Security, Corrosion Resistant, Vandal Resistant, Wet Location ABSOLUTE PHOTOMETRY IS BASED ON CALIBRATION FACTORS CREATED USING LAB LUMEN STANDARDS IN GONIOPHOTOMETER WITH TEST DISTANCE OF 28.75 FEET	LED	96	390	0.9	333	Max: 22012cd
	F	1	GLEON-AF-02-LED-E1-T4W	GALLEON AREA AND ROADWAY LUMINAIRE (2) 70 CRI, 4000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS Retail, Roadway, Sidewalk, Site, Street, Substation, Security, Corrosion Resistant, Vandal Resistant, Wet Location ABSOLUTE PHOTOMETRY IS BASED ON CALIBRATION FACTORS CREATED USING LAB LUMEN STANDARDS IN GONIOPHOTOMETER WITH TEST DISTANCE OF 28.75 FEET	LED	32	378	0.9	113	Max: 9703cd
	G	2	GLEON-AF-04-LED-E1-T4FT	GALLEON AREA AND ROADWAY LUMINAIRE (4) 70 CRI, 4000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV FORWARD THROW OPTICS Retail, Roadway, Sidewalk, Site, Street, Substation, Security, Corrosion Resistant, Vandal Resistant, Wet Location ABSOLUTE PHOTOMETRY IS BASED ON CALIBRATION FACTORS CREATED USING LAB LUMEN STANDARDS IN GONIOPHOTOMETER WITH TEST DISTANCE OF 28.75 FEET	LED	64	377	0.9	225	Max: 22106cd

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
DRIVEWAY #1		2.1 fc	4.7 fc	0.8 fc	5.9:1	2.6:1
DRIVEWAY #2		1.6 fc	3.7 fc	0.3 fc	12.3:1	5.3:1
ENTRANCE DRICE #2		1.1 fc	1.8 fc	0.6 fc	3.0:1	1.8:1
ENTRANCE DRIVE #1		1.0 fc	1.6 fc	0.3 fc	5.3:1	3.3:1
ENTRANCE DRIVE #3		1.9 fc	3.3 fc	0.2 fc	16.5:1	9.5:1
INTERIOR LANDSCAPING		1.0 fc	5.5 fc	0.0 fc	N/A	N/A
LOADING AREA		2.5 fc	3.7 fc	1.3 fc	2.8:1	1.9:1
PARKING LOT		2.2 fc	5.9 fc	0.6 fc	9.8:1	3.7:1
SPILL		0.0 fc	0.7 fc	0.0 fc	N/A	N/A
WALKWAYS		3.8 fc	6.0 fc	2.7 fc	2.2:1	1.4:1



SEE SHEET LP-0 FOR LIGHTING NOTES AND DETAILS

FOR PERMITTING PURPOSES ONLY NOT RELEASED FOR CONSTRUCTION

GRAPHIC SCALE
40 20 0 40
SCALE IN FEET

Architecture
Engineering
Environmental
Land Surveying
BL Companies
355 Research Parkway
Meriden, CT 06450
(203) 630-1406
(203) 630-2615 Fax

PROPOSED DEVELOPMENT
7120 MAIN STREET
TRUMBULL, FAIRFIELD COUNTY, CONNECTICUT

REVISIONS

No.	Date	Desc.

Designed	L.M.W.
Drawn	L.M.W.
Reviewed	
Scale	1"=40'
Project No.	1901141
Date	06/24/2019
CAD File: LP190114131	

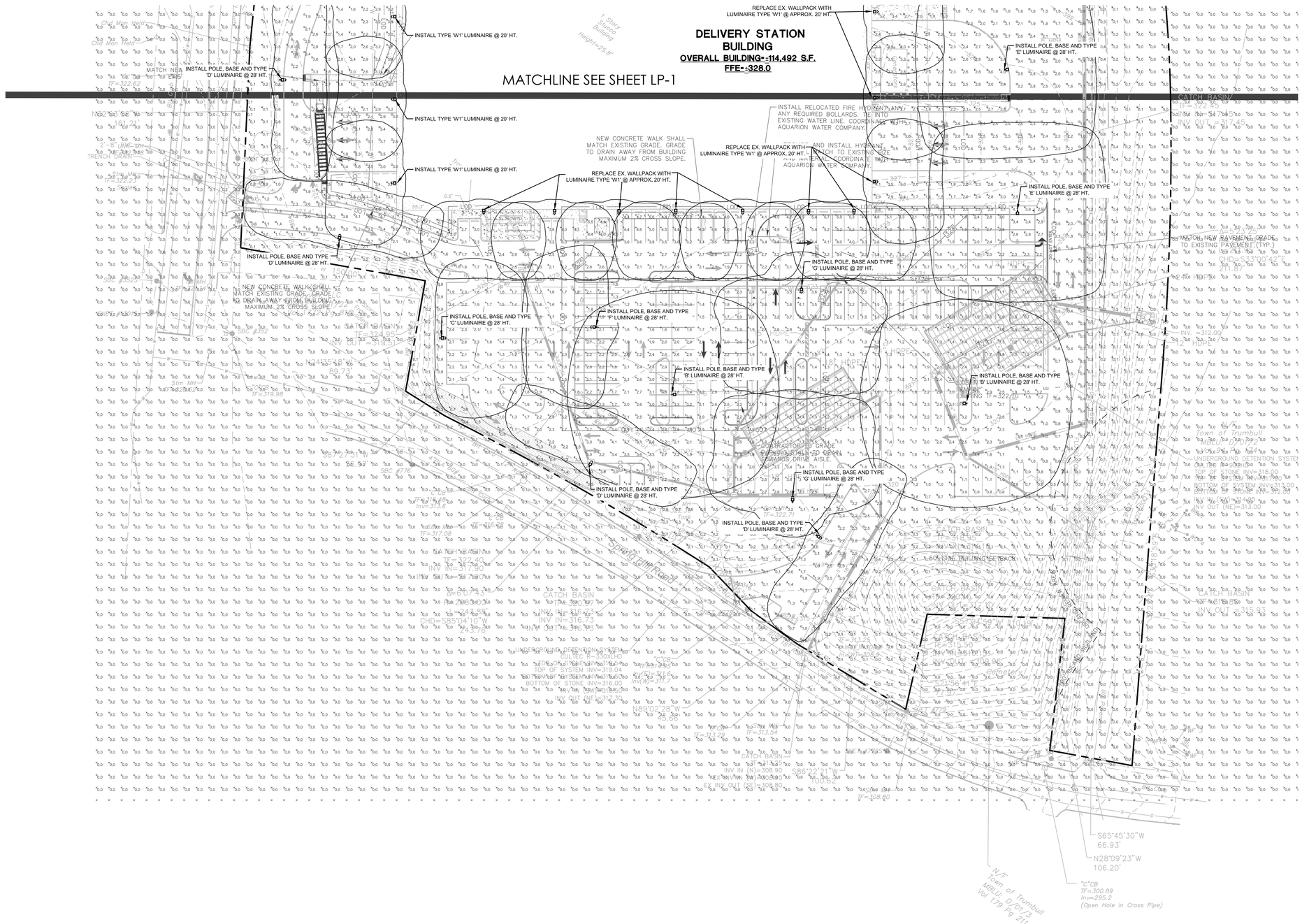
Title
LIGHTING PLAN

Sheet No.
LP-1

4/23/2020, KEN GILSS, C:_JOBS\P\1901141\DWG\LP\190114131.DWG,LP-1 24X36 40PC.

Xref (s): - XC:1901141-31; XC:1901141-32; X2:1901141-31; X8:1901141-31; B3:1901141-31

© 2020 BL COMPANIES, INC. THESE DRAWINGS SHALL NOT BE UTILIZED BY ANY PERSON, FIRM OR CORPORATION WITHOUT THE SPECIFIC WRITTEN PERMISSION OF BL COMPANIES.



SEE SHEET LP-0 FOR LIGHTING NOTES AND DETAILS

SEE SHEET LP-1 FOR LIGHTING SCHEDULE AND STATISTICS

FOR PERMITTING PURPOSES ONLY
NOT RELEASED FOR CONSTRUCTION

GRAPHIC SCALE
40 20 0 40
SCALE IN FEET

© 2020 BL COMPANIES, INC. THESE DRAWINGS SHALL NOT BE UTILIZED BY ANY PERSON, FIRM OR CORPORATION WITHOUT THE SPECIFIC WRITTEN PERMISSION OF BL COMPANIES.

4/25/2020, KEILCASS, G:\JOBS19\70\1901141\DWG\LP1901141D.DWG;LP-2 24X36 ASSC.

Architecture
Engineering
Environmental
Land Surveying

BL Companies

355 Research Parkway
Meriden, CT 06450
(203) 630-1406
(203) 630-2615 Fax

PROPOSED DEVELOPMENT

7120 MAIN STREET
TRUMBULL, FAIRFIELD COUNTY, CONNECTICUT

REVISIONS

No.	Date	Desc.

Designed	L.M.W.
Drawn	L.M.W.
Reviewed	
Scale	1"=40'
Project No.	1901141
Date	06/24/2019
CAD File: LP190114131	

Title

LIGHTING PLAN

Sheet No.

LP-2

XREF(S): - XC190114131 - XC190114132 - XLP190114131 - XB190114131

SITE WORK GENERAL NOTES

1. THESE PLANS ARE FOR PERMITTING PROPOSES ONLY.
2. ALL CONSTRUCTION SHALL COMPLY WITH THE PROJECT SPECIFICATION MANUAL; TENANT STANDARDS, MUNICIPAL STANDARDS AND SPECIFICATIONS, CONNECTICUT DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS, 2010 ADA STANDARDS, AND STATE BUILDING CODE IN THE ABOVE REFERENCED INCREASING HIERARCHY. IF SPECIFICATIONS ARE IN CONFLICT, THE MORE STRINGENT SPECIFICATION SHALL APPLY. ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE OSHA, FEDERAL, STATE AND LOCAL REGULATIONS.
3. REFER TO OTHER PLANS BY OTHER DISCIPLINES, DETAILS AND PROJECT MANUAL FOR ADDITIONAL INFORMATION. THE CONTRACTOR SHALL VERIFY ALL SITE AND BUILDING CONDITIONS IN THE FIELD AND CONTACT THE CIVIL ENGINEER AND ARCHITECT IF THERE ARE ANY QUESTIONS OR CONFLICTS REGARDING THE CONSTRUCTION DOCUMENTS AND/OR FIELD CONDITIONS, SO THAT APPROPRIATE REVISIONS CAN BE MADE PRIOR TO BIDDING. ANY CONFLICT BETWEEN THE DRAWINGS AND SPECIFICATIONS SHALL BE CONFIRMED WITH THE OWNER'S CONSTRUCTION MANAGER PRIOR TO BIDDING.
4. DO NOT INTERRUPT EXISTING UTILITIES SERVICING FACILITIES OCCUPIED AND USED BY THE OWNER OR OTHERS DURING OCCUPIED HOURS EXCEPT WHEN SUCH INTERRUPTIONS HAVE BEEN AUTHORIZED IN WRITING BY THE OWNER AND THE LOCAL MUNICIPALITIES. INTERRUPTIONS SHALL ONLY OCCUR AFTER ACCEPTABLE TEMPORARY SERVICE HAS BEEN PROVIDED.
5. THE CONTRACTOR SHALL ABIDE BY ALL OSHA, FEDERAL, STATE, AND LOCAL REGULATIONS WHEN OPERATING CRANES, BOOMS, HOISTS, ETC. IN CLOSE PROXIMITY TO OVERHEAD ELECTRIC LINES. IF CONTRACTOR MUST OPERATE EQUIPMENT CLOSE TO ELECTRIC LINES, CONTACT POWER COMPANY TO MAKE ARRANGEMENTS FOR PROPER SAFEGUARDS. ANY UTILITY COMPANY FEES SHALL BE PAID FOR BY THE CONTRACTOR.
6. THE CONTRACTOR SHALL PROVIDE AS-BUILT RECORD DRAWINGS OF ALL CONSTRUCTION (INCLUDING UNDERGROUND UTILITIES AND STORMWATER SYSTEM) TO THE OWNER AT THE END OF CONSTRUCTION.
7. THE ARCHITECT OR ENGINEER IS NOT RESPONSIBLE FOR SITE SAFETY MEASURES TO BE EMPLOYED DURING CONSTRUCTION. THE ARCHITECT AND ENGINEER HAVE NO CONTRACTUAL DUTY TO CONTROL THE SAFEST METHODS OR MEANS OF THE WORK, JOB SITE RESPONSIBILITIES, SUPERVISION OR TO SUPERVISE SAFETY AND DOES NOT VOLUNTARILY ASSUME ANY SUCH DUTY OR RESPONSIBILITY.
8. THE CONTRACTOR SHALL COMPLY WITH CFR 29 PART 1926 FOR EXCAVATION, TRENCHING, AND TRENCH PROTECTION REQUIREMENTS.
9. INFORMATION ON EXISTING UTILITIES AND STORM DRAINAGE SYSTEMS HAS BEEN COMPILED FROM AVAILABLE INFORMATION INCLUDING UTILITY COMPANY AND MUNICIPAL OR STATE RECORD MAPS AND/OR FIELD SURVEY AND IS NOT GUARANTEED CORRECT OR COMPLETE. UTILITIES AND STORM DRAINAGE SYSTEMS ARE SHOWN TO ALERT THE CONTRACTOR TO THEIR PRESENCE AND THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DETERMINING ACTUAL LOCATIONS AND ELEVATIONS OF ALL UNDERGROUND AND OVERHEAD UTILITIES AND STORM DRAINAGE SYSTEMS INCLUDING SERVICES. PRIOR TO DEMOLITION OR CONSTRUCTION, THE CONTRACTOR SHALL CONTACT CALL BEFORE YOU DIG (CBYD) 72 HOURS BEFORE COMMENCEMENT OF WORK AT (800) 922-4455 OR AT 811 AND VERIFY ALL UTILITY AND STORM DRAINAGE SYSTEM LOCATIONS. THE CONTRACTOR SHALL EMPLOY THE USE OF A UTILITY LOCATING COMPANY TO PROVIDE SUBSURFACE UTILITY ENGINEERING CONSISTING OF DESIGNATING UTILITIES AND STORM PIPING ON PRIVATE PROPERTY WITHIN THE CONTRACT LIMIT AND CONSISTING OF DESIGNATING AND LOCATING WHERE PROPOSED UTILITIES AND STORM PIPING CROSS EXISTING UTILITIES AND STORM PIPING WITHIN THE CONTRACT LIMITS.
10. DO NOT SCALE DRAWINGS. DIMENSIONS GOVERN OVER SCALED DIMENSIONS.
11. IF PLANS AND OR SPECIFICATIONS ARE IN CONFLICT, THE MOST COSTLY SHALL APPLY.
12. ALL CONTRACTORS AND SUBCONTRACTORS SHALL OBTAIN COMPLETE DRAWING PLAN SETS FOR BIDDING AND CONSTRUCTION. PLAN SETS OR PLAN SET ELECTRONIC POSTINGS SHALL NOT BE DISASSEMBLED INTO PARTIAL PLAN SETS FOR USE BY CONTRACTORS AND SUBCONTRACTORS OF INDIVIDUAL TRADES. IT SHALL BE THE CONTRACTOR'S AND SUBCONTRACTOR'S RESPONSIBILITY TO OBTAIN COMPLETE PLAN SETS OR COMPLETE PLAN SET ELECTRONIC POSTINGS FOR USE IN BIDDING AND CONSTRUCTION.
13. ALL NOTES AND DIMENSIONS DESIGNATED "TYPICAL" APPLY TO ALL LIKE OR SIMILAR CONDITIONS THROUGHOUT THE PROJECT.
14. CONTRACTOR(S) TO TAKE AND VERIFY ALL DIMENSIONS AND CONDITIONS OF THE WORK AND BE RESPONSIBLE FOR COORDINATION OF SAME. FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO START OF WORK.
15. BL COMPANIES HAS PREPARED FINAL CONSTRUCTION DOCUMENTS SUITABLE FOR BIDDING AND CONSTRUCTION. PROGRESS AND PERMITTING SETS OF THESE DOCUMENTS ARE NOT SUITABLE FOR THOSE PURPOSES. IF CLIENT ELECTS TO SOLICIT BIDS OR ENTER INTO CONSTRUCTION CONTRACTS UTILIZING CONSTRUCTION DOCUMENTS THAT ARE NOT YET FINAL, CONSULTANT SHALL NOT BE RESPONSIBLE FOR ANY COSTS OR DELAY ARISING AS A RESULT.
16. NO CONSTRUCTION OR DEMOLITION SHALL BEGIN UNTIL APPROVAL OF THE FINAL PLANS IS GRANTED BY ALL GOVERNING AND REGULATORY AGENCIES.
17. THE OWNER IS RESPONSIBLE FOR OBTAINING ALL NECESSARY ZONING PERMITS REQUIRED BY GOVERNMENT AGENCIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL CONTACT AND OBTAIN FROM MUNICIPAL SOURCES AND STATE SOURCES ALL CONSTRUCTION PERMITS, INCLUDING ANY STATE DOT PERMITS, SEWER AND WATER CONNECTION PERMITS, AND ROADWAY CONSTRUCTION PERMITS. THE CONTRACTOR SHALL POST ALL BONDS, PAY ALL FEES, PROVIDE PROOF OF INSURANCE AND PROVIDE TRAFFIC CONTROL NECESSARY FOR THIS WORK, EXCEPT CTDOT ENCROACHMENT PERMIT BOND.
18. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ALL PRODUCTS AND MATERIALS PER PLANS AND SPECIFICATIONS TO THE OWNER AND CIVIL ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION OR DELIVERY TO THE SITE. ALLOW A MINIMUM OF 14 WORKING DAYS FOR REVIEW.
19. THE CONTRACTOR SHALL FOLLOW THE SEQUENCE OF CONSTRUCTION NOTES PROVIDED ON THE SEDIMENT AND EROSION CONTROL NOTES SHEET.
20. THE CONTRACTOR SHALL REFERENCE ARCHITECTURAL PLANS FOR EXACT DIMENSIONS AND CONSTRUCTION DETAILS OF BUILDING, AND THE RAISED CONCRETE SIDEWALKS, LANDINGS, RAMPS, AND STAIRS.
21. SHOULD ANY UNCHARTED OR INCORRECTLY CHARTED, EXISTING PIPING OR OTHER UTILITY BE UNCOVERED DURING EXCAVATION, CONSULT THE CIVIL ENGINEER IMMEDIATELY FOR DIRECTIONS BEFORE PROCEEDING FURTHER WITH WORK IN THIS AREA.
22. ALL SITE DIMENSIONS ARE REFERENCED TO THE FACE OF CURBS OR EDGE OF PAVING AS APPLICABLE UNLESS OTHERWISE NOTED. ALL BUILDING DIMENSIONS ARE REFERENCED TO THE OUTSIDE FACE OF THE STRUCTURE.
23. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN TRAFFIC DEVICES FOR PROTECTION OF VEHICLES AND PEDESTRIANS CONSISTING OF DRUMS, BARRIERS, SIGNS, LIGHTS, FENCES, TEMPORARY WALKWAYS, TRAFFIC CONTROLLERS AND UNIFORMED TRAFFIC OFFICERS AS REQUIRED OR AS ORDERED BY THE ENGINEER OR AS REQUIRED BY THE LOCAL GOVERNING AUTHORITIES OR AS REQUIRED BY PERMIT STIPULATIONS OR AS REQUIRED BY THE OWNER. CONTRACTOR SHALL MAINTAIN ALL TRAFFIC LANES AND PEDESTRIAN WALKWAYS FOR USE AT ALL TIMES UNLESS WRITTEN APPROVAL FROM THE APPROPRIATE GOVERNING AGENCY IS GRANTED.
24. TRAFFIC CONTROL SIGNAGE SHALL CONFORM TO THE STATE DOT STANDARD DETAIL SHEETS AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. SIGNS SHALL BE INSTALLED PLUMB WITH THE EDGE OF THE SIGN 2' OFF THE FACE OF THE CURB, AND WITH 7' VERTICAL CLEARANCE UNLESS OTHERWISE DETAILED OR NOTED.
25. REFER TO DETAIL SHEETS FOR PAVEMENT, CURBING, AND SIDEWALK INFORMATION.
26. THE CONTRACT LIMIT IS THE PROPERTY LINE UNLESS OTHERWISE SPECIFIED OR SHOWN ON THE CONTRACT DRAWINGS.
27. THE CONTRACTOR SHALL SUBMIT A SHOP DRAWING OF THE PAVEMENT MARKING PAINT MIXTURE PRIOR TO STRIPING.
28. PAVEMENT MARKING KEY:

    4" SYDL 4' SOLID YELLOW DOUBLE LINE
    4" SYL 4" SOLID YELLOW LINE
    4" SWL 4" SOLID WHITE LINE
    4" SBL 4" SOLID BLUE LINE
    12" SWSB 12" SOLID WHITE STOP BAR
    4" BWL 4" BROKEN WHITE LINE 10' STRIPE 30' SPACE

29. PARKING SPACES SHALL BE STRIPED FOR ASSOCIATE PARKING WITH 4" SWL ON ASPHALT; HATCHED AREA SHALL BE STRIPED AT A 45° ANGLE, 2' ON CENTER. HATCHING, SYMBOLS, AND STRIPING FOR HANDICAPPED SPACES SHALL BE PAINTED BLUE, WHITE, AND SBL. OTHER MARKINGS SHALL BE PAINTED WHITE ON ASPHALT AND YELLOW ON CONCRETE OR AS NOTED.
30. ALL PARKING SPACES AND HATCHED AREAS SHALL HAVE TWO COATS OF PAVEMENT MARKINGS APPLIED TO STRIPING.
31. ALL STRIPING SHALL BE LONG LIFE EPOXY RESIN AND 4" WIDE UNLESS OTHERWISE NOTED. ALL PAVEMENT GRAPHICS SHALL BE HOT APPLIED THERMOPLASTIC (REFLECTIVE). COLOR SHALL BE WHITE ON ASPHALT AND YELLOW ON CONCRETE. ALL PROPOSED SIGNAGE AND STRIPING SHALL BE INSTALLED IN ACCORDANCE WITH THE TENANT FULFILLMENT WORLDWIDE REAL ESTATE SIGNAGE STANDARDS.
32. THE CONTRACTOR SHALL RESTORE ANY UTILITY STRUCTURE, DRAINAGE STRUCTURE, PIPE, UTILITY, PAVEMENT, CURBS, SIDEWALKS, LANDSCAPED AREAS, SWALE, PAVEMENT MARKINGS, OR SIGNAGE DISTURBED DURING DEMOLITION AND/OR CONSTRUCTION TO THEIR ORIGINAL CONDITION OR BETTER, AS APPROVED BY THE CIVIL ENGINEER, AND TO THE SATISFACTION OF THE OWNER AND THE TOWN OF TRUMBULL, AND STATE OF CONNECTICUT.
33. EXISTING BOUNDARY AND TOPOGRAPHY IS BASED ON DRAWING TITLED "LAND OF 7120 MAIN, LLC, 7120 MAIN STREET, TRUMBULL, FAIRFIELD COUNTY CONNECTICUT" SCALE 1"=50', DATED JULY 29, 2019, BY BL COMPANIES INC. AND ON COMPILED EXISTING CONDITIONS PLAN PROPOSED DEVELOPMENT 7120 MAIN STREET, TRUMBULL, FAIRFIELD COUNTY CONNECTICUT SCALE 1"=40', DATED JUNE 24, 2020 BY BL COMPANIES INC.
34. ALTERNATIVE METHODS AND PRODUCTS OTHER THAN THOSE SPECIFIED MAY BE USED IF REVIEWED AND APPROVED BY THE OWNER, CIVIL ENGINEER, AND APPROPRIATE REGULATORY AGENCY PRIOR TO INSTALLATION DURING THE BIDDING PROCESS.
35. AN EROSION CONTROL BOND IS REQUIRED TO BE POSTED BY THE CONTRACTOR BEFORE THE START OF ANY ACTIVITY ON OR OFF SITE. THE AMOUNT OF THE EROSION CONTROL BOND WILL BE DETERMINED BY THE AUTHORITY HAVING JURISDICTION.
36. A DEMOLITION PERMIT IS REQUIRED FOR EXISTING BUILDINGS.
37. THE PROJECT PARCEL IS LOCATED PARTLY WITHIN A FEMA DESIGNATED FLOOD HAZARD AREA.
38. THERE ARE NO WETLANDS LOCATED ON THE SITE AS INDICATED BY THE WETLANDS/WATERCOURSES AND SOIL REPORT DATED JULY 19, 2019 BY SOIL SCIENCE AND ENVIRONMENTAL SERVICES, INC..
39. THE EXISTING BUILDING IS TO REMAIN ACCESSIBLE THROUGH COMPLETION OF CONSTRUCTION.
40. FIRE LANES SHALL BE ESTABLISHED AND PROPERLY DESIGNATED IN ACCORDANCE WITH THE REQUIREMENTS OF THE FIRE DISTRICT FIRE MARSHAL.
41. THE CONTRACTOR SHALL REMOVE CONFLICTING PAVEMENT MARKINGS IN THE ROADWAY BY METHOD APPROVED BY THE AUTHORITY HAVING JURISDICTION, OWNER OR DOT AS APPLICABLE FOR THE LOCATION OF THE WORK.
42. ALL ADA DESIGNATED PARKING STALLS, ACCESS AISLES AND PEDESTRIAN WALKWAYS SHALL CONFORM TO THE CURRENT VERSION OF THE AMERICANS WITH DISABILITIES ACT STANDARDS FOR ACCESSIBLE DESIGN AND ANSI STANDARDS AND AS MAY BE SUPERCEDED BY THE STATE BUILDING CODE.
43. CONSTRUCTION OCCURRING ON THIS SITE SHALL COMPLY WITH NFPA 241 STANDARD FOR SAFEGUARDING CONSTRUCTION, ALTERATION AND DEMOLITION OPERATIONS, AND NFPA 1 FIRE CODE.
44. CONTRACTOR SHALL SECURE ANY PERMITS, PAY ALL FEES AND PERFORM CLEARING AND GRUBBING AND DEBRIS REMOVAL PRIOR TO COMMENCEMENT OF GRADING OPERATIONS.
45. SEDIMENT AND EROSION CONTROLS AS SHOWN ON THE SEDIMENT AND EROSION CONTROL PLAN AND/OR DEMOLITION PLAN SHALL BE INSTALLED BY THE DEMOLITION CONTRACTOR PRIOR TO START OF DEMOLITION AND CLEARING AND GRUBBING OPERATIONS.
46. REMOVE AND DISPOSE OF ANY SIDEWALKS, FENCES, STAIRS, WALLS, DEBRIS AND RUBBISH REQUIRING REMOVAL FROM THE WORK AREA IN AN APPROVED OFF SITE LANDFILL, BY AN APPROVED HAULER. HAULER SHALL COMPLY WITH ALL REGULATORY REQUIREMENTS.
47. THE CONTRACTOR SHALL SECURE ALL PERMITS FOR HIS DEMOLITION AND DISPOSAL OF HIS DEMOLITION MATERIAL TO BE REMOVED FROM THE SITE. THE CONTRACTOR SHALL POST BONDS AND PAY PERMIT FEES AS REQUIRED. BUILDING DEMOLITION CONTRACTOR SHALL BE RESPONSIBLE FOR PERMITS AND DISPOSAL OF ALL BUILDING DEMOLITION DEBRIS IN AN APPROVED OFF-SITE LANDFILL.
48. ASBESTOS OR HAZARDOUS MATERIAL, IF FOUND ON SITE, SHALL BE REMOVED BY A LICENSED HAZARDOUS MATERIAL ABATEMENT CONTRACTOR.
49. THE CONTRACTOR SHALL PREPARE ALL MANIFEST DOCUMENTS AS REQUIRED PRIOR TO COMMENCEMENT OF DEMOLITION.
50. CTDOT ENCROACHMENT PERMIT SHALL BE OBTAINED BY CONTRACTOR WHO SHALL PAY ALL FEES, PROVIDE PROOF OF INSURANCE AND PROVIDE TRAFFIC PROTECTION NECESSARY FOR THE WORK. THE OWNER SHALL POST CTDOT ENCROACHMENT BOND.
51. THE CONTRACTOR SHALL PROTECT ALL IRON PINS, MONUMENTS AND PROPERTY CORNERS DURING DEMOLITION AND CONSTRUCTION ACTIVITIES. ANY CONTRACTOR DISTURBED PINS, MONUMENTS, AND OR PROPERTY CORNERS, ETC. SHALL BE RESET BY A LICENSED LAND SURVEYOR AT THE EXPENSE OF THE CONTRACTOR.
52. 12" SWSB (STOP BAR) AND 4" SYDL AND SWL PAVEMENT MARKINGS LOCATED IN DRIVEWAYS AND IN STATE HIGHWAY SHALL BE EPOXY RESIN TYPE ACCORDING TO CTDOT SPECIFICATIONS.
53. THE CONTRACTOR SHALL PUMP OUT BUILDING FUEL AND WASTE OIL TANKS (IF ANY ARE ENCOUNTERED) AND REMOVE FUEL TO AN APPROVED DISPOSAL AREA BY A LICENSED WASTE OIL HANDLING CONTRACTOR IN STRICT ACCORDANCE WITH STATE REQUIREMENTS.
54. IF IMPACTED OR CONTAMINATED SOIL IS ENCOUNTERED BY THE CONTRACTOR, THE CONTRACTOR SHALL SUSPEND EXCAVATION WORK OF IMPACTED SOIL AND NOTIFY THE OWNER AND/OR OWNER'S ENVIRONMENTAL CONSULTANT PRIOR TO PROCEEDING WITH FURTHER WORK IN THE IMPACTED SOIL LOCATION UNTIL FURTHER INSTRUCTED BY THE OWNER AND/OR OWNER'S ENVIRONMENTAL CONSULTANT.
55. THE CONTRACTOR SHALL PROVIDE DISCONNECT NOTIFICATION TO THE TELECOMMUNICATIONS UTILITY PROVIDER, GAS UTILITY PROVIDER, ELECTRIC UTILITY PROVIDER, AT LEAST THREE WEEKS PRIOR TO BEGINNING DEMOLITION.
56. THE CONTRACTOR IS RESPONSIBLE FOR SECURING A DEMOLITION PERMIT FROM THE TOWN OF TRUMBULL BUILDING DEPARTMENT AND MUST FURNISH THE REQUIRED APPLICATION MATERIAL AND PAY ALL FEES.
57. BACK FILL DEPRESSIONS, FOUNDATION HOLES AND REMOVED DRIVEWAY AREAS IN LOCATIONS NOT SUBJECT TO FURTHER EXCAVATION WITH SOIL MATERIAL APPROVED BY THE OWNER'S GEOTECHNICAL ENGINEER AND COMPACT, FERTILIZE, SEED AND MULCH DISTURBED AREAS NOT SUBJECT TO FURTHER SITE CONSTRUCTION. ANY DEMOLISHED BUILDING FOUNDATION AREA AND BASEMENT IF PRESENT TO BE BACKFILLED WITH GRAVEL FILL OR MATERIAL SPECIFIED IN THE PROJECT GEOTECHNICAL REPORT IN LIFT THICKNESS SPECIFIED IN THE GEOTECHNICAL REPORT. COMPACT TO 95% MAX. DRY DENSITY PER ASTM D1557 AT MOISTURE CONTENT SPECIFIED IN GEOTECHNICAL REPORT AND EARTHWORK SPECIFICATION. EMPLOY WATERING EQUIPMENT FOR DUST CONTROL.
58. THE CONTRACTOR SHALL REPAIR PAVEMENTS BY INSTALLING TEMPORARY AND PERMANENT PAVEMENTS IN PUBLIC RIGHTS OF WAYS AS REQUIRED BY LOCAL GOVERNING AUTHORITIES AND THE STATE AND MUNICIPALITY AND PER PERMIT REQUIREMENTS DUE TO DEMOLITION AND PIPE REMOVAL ACTIVITIES.
59. THE CONTRACTOR SHALL CUT AND REMOVE AT LUMINARE AND ANY SIGN LOCATIONS ANY PROTRUDING CONDUITS TO 24" BELOW GRADE. THE CONTRACTOR SHALL REMOVE ALL CABLE AND CONDUCTORS FROM REMAINING LIGHTING AND ANY SIGNING CONDUITS TO BE ABANDONED. ANY REMAINING LIGHTING TO REMAIN IN PLACE SHALL BE RECIRCUITED OR REWIRED AS NECESSARY TO REMAIN IN OPERATION.
60. NO WORK ON THIS SITE SHALL BE INITIATED BY THE CONTRACTOR UNTIL A PRE-CONSTRUCTION MEETING WITH OWNER AND THE CIVIL ENGINEER IS PERFORMED. THE CONTRACTOR SHOULD BE AWARE OF ANY SITE INFORMATION AVAILABLE SUCH AS GEOTECHNICAL AND ENVIRONMENTAL REPORTS. THE CONTRACTOR SHALL HAVE CBYD MARK OUTS OF EXISTING UTILITIES COMPLETED PRIOR TO MEETING.
61. THE CONTRACTOR SHALL ARRANGE FOR AND INSTALL TEMPORARY OR PERMANENT UTILITY CONNECTIONS WHERE INDICATED ON PLAN OR AS REQUIRED. MAINTAIN UTILITY SERVICES TO BUILDINGS OR TO SERVICES TO REMAIN. CONTRACTOR TO COORDINATE WITH UTILITY PROVIDERS FOR INSTALLATION AND PAY UTILITY PROVIDER FEES.
62. THE CONTRACTOR SHALL NOT COMMENCE DEMOLITION OR UTILITY DISCONNECTIONS UNTIL AUTHORIZED TO DO SO BY THE OWNER.
63. THE CONTRACTOR OR DEMOLITION CONTRACTOR SHALL INSTALL TEMPORARY SHEETING OR SHORING AS NECESSARY TO PROTECT EXISTING AND NEW BUILDINGS, STRUCTURES AND UTILITIES DURING CONSTRUCTION AND DEMOLITION. SHEETING OR SHORING SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER, LICENSED IN THIS STATE AND EVIDENCE OF SUCH SUBMITTED TO THE OWNER PRIOR TO INSTALLATION.
64. NO SALVAGE SHALL BE PERMITTED UNLESS PAID TO THE OWNER AS A CREDIT.
65. ANY EXISTING POTABLE WELL AND ANY EXISTING SEPTIC TANKS/ABSORPTION AREAS SHALL BE ABANDONED AND REMOVED PER THE CT DEEP AND HEALTH CODE REQUIREMENTS, AND LOCAL SANITARIAN REQUIREMENTS.
66. THE CONTRACTOR SHALL PRESERVE EXISTING VEGETATION WHERE POSSIBLE AND/OR AS NOTED ON DRAWINGS. REFER TO SEDIMENT AND EROSION CONTROL PLAN FOR LIMIT OF DISTURBANCE AND TO EROSION CONTROL NOTES SHEET.
67. TOPSOIL SHALL BE STRIPPED AND STOCKPILED ON SITE FOR USE IN FINAL LANDSCAPING.
68. SUBGRADE SHALL BE FORMED WITH REMOVAL AND REPLACEMENT OF FILL AND REMOVAL AND REPLACEMENT OF UNSUITABLE AND SOFT SUBGRADE MATERIAL AS REQUIRED BY THE GEOTECHNICAL ENGINEER. SEE GEOTECHNICAL REPORT AND EARTHWORK SPECIFICATIONS FOR FURTHER DESCRIPTION.
69. THE CONTRACTOR SHALL COMPACT FILL IN LIFT THICKNESS PER THE GEOTECHNICAL REPORT UNDER ALL PARKING, BUILDING, DRIVE, AND STRUCTURE AREAS TO 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D1557 (MODIFIED PROCTOR TEST), OR AS REQUIRED BY THE GEOTECHNICAL ENGINEER.
70. UNDERDRAINS SHALL BE ADDED, IF DETERMINED NECESSARY IN THE FIELD BY THE OWNER/GEOTECHNICAL ENGINEER, AFTER SUBGRADE IS ROUGH GRADED.
71. VERTICAL DATUM IS NAVD 88.
72. CLEARING LIMITS SHALL BE PHYSICALLY MARKED IN THE FIELD AND APPROVED BY THE TOWN OF TRUMBULL AGENT PRIOR TO THE START OF WORK ON THE SITE.
73. PROPER CONSTRUCTION PROCEDURES SHALL BE FOLLOWED ON ALL IMPROVEMENTS WITHIN THIS PARCEL SO AS TO PREVENT THE SILTING OF ANY WATERCOURSE OR WETLANDS IN ACCORDANCE WITH THE REGULATIONS OF THE CT DEEP AND THE 2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL, LATEST EDITION. IN ADDITION, THE CONTRACTOR SHALL STRICTLY ADHERE TO THE SEDIMENT AND EROSION CONTROL PLAN CONTAINED HEREIN. THE CONTRACTOR SHALL BE RESPONSIBLE TO POST ALL BONDS AS REQUIRED BY THE LOCAL MUNICIPALITIES, OR SOIL CONSERVATION DISTRICT OR THE TOWN OF TRUMBULL WHICH WOULD GUARANTEE THE PROPER IMPLEMENTATION OF THE PLAN.
74. ALL SITE WORK, MATERIALS OF CONSTRUCTION, AND CONSTRUCTION METHODS FOR EARTHWORK AND STORM DRAINAGE WORK SHALL CONFORM TO THE SPECIFICATIONS AND DETAILS AND APPLICABLE SECTIONS OF THE PROJECT SPECIFICATIONS MANUAL. OTHERWISE THIS WORK SHALL CONFORM TO THE STATE DEPARTMENT OF TRANSPORTATION SPECIFICATIONS AND PROJECT GEOTECHNICAL REPORT IF THERE IS NO PROJECT SPECIFICATIONS MANUAL. ALL FILL MATERIAL UNDER STRUCTURES AND PAVED AREAS SHALL BE PER THE ABOVE STATED APPLICABLE SPECIFICATIONS, AND/OR PROJECT GEOTECHNICAL REPORT, AND SHALL BE PLACED IN ACCORDANCE WITH THE APPLICABLE SPECIFICATIONS UNDER THE SUPERVISION OF A QUALIFIED PROFESSIONAL ENGINEER. MATERIAL SHALL BE COMPACTED IN LIFT THICKNESSES PER THE PROJECT GEOTECHNICAL REPORT TO 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D 1557 AT MOISTURE CONTENT INDICATED IN PROJECT GEOTECHNICAL REPORT.
75. ALL DISTURBANCE INCURRED TO MUNICIPAL AND STATE PROPERTY DUE TO CONSTRUCTION SHALL BE RESTORED TO ITS PREVIOUS CONDITION OR BETTER, TO THE SATISFACTION OF THE MUNICIPALITY AND STATE AS APPLICABLE FOR THE LOCATION OF THE WORK.
76. ALL CONSTRUCTION WITHIN A DOT RIGHT OF WAY SHALL COMPLY WITH ALL DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS.
77. REFER TO ARCHITECTURAL AND MEP DRAWINGS FOR BUILDING CONNECTIONS. SITE CONTRACTOR SHALL SUPPLY AND INSTALL PIPE ADAPTERS AS NECESSARY AT BUILDING CONNECTION POINT OR AT EXISTING UTILITY OR PIPE CONNECTION POINT.
78. THE CONTRACTOR SHALL VISIT THE SITE AND VERIFY THE ELEVATION AND LOCATION OF ALL UTILITIES BY VARIOUS MEANS PRIOR TO BEGINNING ANY EXCAVATION. TEST PITS SHALL BE DUG AT ALL LOCATIONS WHERE PROPOSED SANITARY SEWERS AND WHERE PROPOSED STORM PIPING WILL CROSS EXISTING UTILITIES, AND THE HORIZONTAL AND VERTICAL LOCATIONS OF THE UTILITIES SHALL BE DETERMINED. THE CONTRACTOR SHALL CONTACT THE CIVIL ENGINEER IN THE EVENT OF ANY DISCOVERED OR UNFORESEEN CONFLICTS BETWEEN EXISTING AND PROPOSED SANITARY SEWERS, STORM PIPING AND UTILITIES SO THAT AN APPROPRIATE MODIFICATION MAY BE MADE.
79. UTILITY CONNECTION DESIGN AS REFLECTED ON THE PLAN MAY CHANGE SUBJECT TO UTILITY PROVIDER AND GOVERNING AUTHORITY STAFF REVIEW.
80. THE CONTRACTOR SHALL ENSURE THAT ALL UTILITY PROVIDERS AND GOVERNING AUTHORITY STANDARDS FOR MATERIALS AND CONSTRUCTION METHODS ARE MET. THE CONTRACTOR SHALL PERFORM PROPER COORDINATION WITH THE RESPECTIVE UTILITY PROVIDER.
81. THE CONTRACTOR SHALL ARRANGE FOR AND COORDINATE WITH THE RESPECTIVE UTILITY PROVIDERS FOR SERVICE INSTALLATIONS AND CONNECTIONS. THE CONTRACTOR SHALL COORDINATE WORK TO BE PERFORMED BY THE VARIOUS UTILITY PROVIDERS AND SHALL PAY ALL FEES FOR CONNECTIONS, DISCONNECTIONS, RELOCATIONS, INSPECTIONS, AND DEMOLITION UNLESS OTHERWISE STATED IN THE PROJECT SPECIFICATIONS MANUAL AND/OR GENERAL CONDITIONS OF THE CONTRACT.
82. ALL EXISTING PAVEMENT WHERE UTILITY PIPING IS TO BE INSTALLED SHALL BE SAW CUT. AFTER UTILITY INSTALLATION IS COMPLETED, THE CONTRACTOR SHALL INSTALL TEMPORARY AND/OR PERMANENT PAVEMENT REPAIR AS DETAILED ON THE DRAWINGS OR AS REQUIRED BY THE OWNER HAVING JURISDICTION.
83. ALL PIPES SHALL BE LAID ON STRAIGHT ALIGNMENTS AND EVEN GRADES USING A PIPE LASER OR OTHER ACCURATE METHOD.
84. SANITARY LATERAL SHALL MAINTAIN (10' MIN. HORIZONTAL 1.5' VERTICAL MIN.) SEPARATION DISTANCE FROM WATER LINES, OR ADDITIONAL PROTECTION MEASURES WILL BE REQUIRED WHERE PERMITTED, WHICH SHALL INCLUDE CONCRETE ENCASEMENT OF PIPING UNLESS OTHERWISE DIRECTED BY THE UTILITY PROVIDERS AND CIVIL ENGINEER.
85. RELOCATION OF UTILITY PROVIDER FACILITIES SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE UTILITY PROVIDER.
86. THE CONTRACTOR SHALL COMPACT THE PIPE BACKFILL IN 8" LIFTS ACCORDING TO THE PIPE BEDDING DETAILS. TRENCH BOTTOM SHALL BE STABLE IN HIGH GROUNDWATER AREAS. A PIPE FOUNDATION SHALL BE USED PER THE TRENCH DETAILS AND IN AREAS OF ROCK EXCAVATION.
87. CONTRACTOR TO PROVIDE STEEL SLEEVES AND ANNULAR SPACE SAND FILL FOR UTILITY PIPE AND CONDUIT CONNECTIONS UNDER FOOTINGS.
88. BUILDING UTILITY PENETRATIONS AND LOCATIONS MAY BE SHOWN FOR THE CONTRACTOR'S INFORMATION AND SHALL BE VERIFIED WITH THE BUILDING MEP, STRUCTURAL, AND ARCHITECTURAL DRAWINGS AND WITH THE OWNER'S CONSTRUCTION MANAGER.
89. ALL UTILITY CONSTRUCTION IS SUBJECT TO INSPECTION FOR APPROVAL PRIOR TO BACKFILLING, IN ACCORDANCE WITH THE APPROPRIATE UTILITY PROVIDER REQUIREMENTS.
90. A ONE-FOOT MINIMUM VERTICAL CLEARANCE BETWEEN WATER, GAS, ELECTRICAL, AND TELECOMMUNICATION LINES AND STORM PIPING SHALL BE PROVIDED. A SIX-INCH MINIMUM CLEARANCE SHALL BE MAINTAINED BETWEEN STORM PIPING AND SANITARY SEWER WITH A CONCRETE ENCASEMENT. AN 18-INCH TO 6-INCH VERTICAL CLEARANCE BETWEEN SANITARY SEWER PIPING AND STORM PIPING SHALL REQUIRE CONCRETE ENCASEMENT OF THE PROPOSED PIPING.
91. GRAVITY SANITARY SEWER PIPING AND PRESSURIZED WATERLINES SHALL BE LOCATED IN SEPARATE TRENCHES AT LEAST 10 FEET APART WHENEVER POSSIBLE. WHEN INSTALLED IN THE SAME TRENCH, THE WATER PIPE SHALL BE LAID ON A TRENCH BENCH AT LEAST 18 INCHES ABOVE THE TOP OF THE SANITARY SEWER PIPE AND AT LEAST 12 INCHES (PREFERABLY 18 INCHES) FROM THE SIDE OF THE SANITARY SEWER PIPE TRENCH.
92. SITE CONTRACTOR SHALL PROVIDE ALL BENDS, FITTINGS, ADAPTERS, ETC., AS REQUIRED FOR PIPE CONNECTIONS TO BUILDING STUB OUTS, INCLUDING ANY ROOF DRAIN CONNECTIONS TO ROOF LEADERS AND TO STORM DRAINAGE SYSTEM, AND FOOTING DRAIN CONNECTIONS TO STORM DRAINAGE SYSTEM AS APPLICABLE.
93. MANHOLE RIMS AND CATCH BASIN GRATES SHALL BE SET TO ELEVATIONS SHOWN. SET ALL EXISTING MANHOLE RIMS AND VALVE COVERS TO BE RAISED OR LOWERED FLUSH WITH FINAL GRADE AS NECESSARY.
94. SITE CONTRACTOR SHALL COORDINATE INSTALLATION OF CONDUIT AND CABLES FOR SITE LIGHTING WITH THE BUILDING ELECTRICAL CONTRACTOR.
95. CONTRACTOR SHALL COORDINATE INSTALLATION FOR ANY ELECTRICAL SERVICES TO THE MONUMENT SIGN (IF APPLICABLE) AND SITE LIGHTING WITH THE BUILDING ELECTRICAL CONTRACTOR.
96. THE CONTRACTOR SHALL ARRANGE AND COORDINATE WITH UTILITY PROVIDERS FOR WORK TO BE PERFORMED BY UTILITY PROVIDERS. THE CONTRACTOR SHALL PAY ALL UTILITY FEES UNLESS OTHERWISE STATED IN THE PROJECT SPECIFICATION MANUAL AND GENERAL CONDITIONS, AND REPAIR PAVEMENTS AS NECESSARY.
97. THE EXISTING ELECTRIC, AND TELECOMMUNICATIONS SERVICES SHALL BE USED UNDERGROUND FROM SERVICE POLE #UI 4653.
98. ALL WATER LINES TO HAVE A MINIMUM COVER OF 4'-6". ALL LINES SHALL BE BEDDED IN 6" SAND AND INITIALLY BACKFILLED WITH 12" SAND.
99. ALL WATER MAINS, WATER SERVICES AND SANITARY SEWER LATERALS SHALL CONFORM TO THE APPLICABLE WATER UTILITY PROVIDER SPECIFICATIONS, AND TO THE APPLICABLE SANITARY SEWER PROVIDER SPECIFICATIONS, AS WELL AS TO OTHER APPLICABLE INDUSTRY CODES (AWWA) AND PROJECT SPECIFICATIONS FOR POTABLE WATER SYSTEMS, AND FOR SANITARY SEWER SYSTEMS.
100. THE CONTRACTOR SHALL MAINTAIN ALL FLOWS AND UTILITY CONNECTIONS TO EXISTING BUILDINGS WITHOUT INTERRUPTION UNLESS/UNTIL AUTHORIZED TO DISCONNECT BY THE OWNERS, THE CIVIL ENGINEER, UTILITY PROVIDERS AND GOVERNING AUTHORITIES.
101. THE CONTRACTOR MAY SUBSTITUTE MASONRY STRUCTURES FOR PRECAST STRUCTURES IF APPROVED BY THE CIVIL ENGINEER AND ALLOWED BY THE GOVERNING AUTHORITY ENGINEER OR OTHER GOVERNING AUTHORITY.
102. PIPING SHALL BE LAID FROM DOWNGRADIENT END OF PIPE RUN IN AN UPGRADIENT DIRECTION WITH BELL END FACING UPGRADE IN THE DIRECTION OF PIPE LAYING.
103. DUCTILE IRON PIPE SHALL CONFORM TO AWWA C151 FOR CLASS 52 WITH CEMENT LINING IN ACCORDANCE WITH ANSI A21.4 FOR WATER MAINS AND SERVICES 3" ID AND LARGER. JOINTS SHALL BE MADE WITH CONCRETE THRUST BLOCKS OR WITH MEGAULUG RETAINER GLANDS OR WITH RODDING IN ACCORDANCE WITH PROJECT MANUAL SPECIFICATIONS AND IN ACCORDANCE WITH WATER UTILITY PROVIDER REQUIREMENTS TO EXTEND A MINIMUM OF 2 PIPE LENGTHS IN EITHER DIRECTION FROM FITTINGS AND ELBOWS (40 FT MINIMUM). ALL OTHER JOINTS SHALL BE PUSH-ON WITH RUBBER GASKETS (TYTON). USE OF OTHER TYPES OF RETAINER GLANDS SHALL REQUIRE USE WITH CLASS 53 OR GREATER DUCTILE IRON PIPE.
104. CONTRACTOR SHALL VERIFY LOCATION OF ROOF LEADERS OUTFALL PRIOR TO CONSTRUCTION. CONTRACTOR TO NOTIFY ENGINEER OF ANY ADDITIONAL DRAINAGE STRUCTURES AND PIPES ENCOUNTERED DURING CONSTRUCTION.
105. CONTRACTOR SHALL VERIFY EXISTING SANITARY PUMP, VALVES, ALARMS AND OTHER ASSOCIATED EQUIPMENT ARE IN WORKING CONDITION PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY ENGINEER OF ALL SANITARY PUMP FLOW, ALARM AND FUNCTION TEST RESULTS.

FORM 817 CONSTRUCTION NOTES

ALL WORK WITHIN THE STATE RIGHT-OF-WAY WILL COMPLY WITH FORM 817, 'THE STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADS, BRIDGES AND INCIDENTAL CONSTRUCTION ' WITH THE LATEST SPECIAL PROVISIONS AND TYPICAL STATE STANDARD DETAILS. IN ANY CASE WHERE THE CONSTRUCTION IS NOT SPECIFICALLY DETAILED IN THE FORM 817, THE WORK WILL BE COMPLETED AS DIRECTED BY THE ENGINEER OR DISTRICT PERMIT SECTION REPRESENTATIVE.

REMOVAL OF PAVEMENT MARKINGS ALONG STATE ROADWAYS SHALL BE COMPLETED BY A NON-DESTRUCTIVE METHOD IN COMPLIANCE WITH THE STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD, BRIDGES, AND INCIDENTAL CONSTRUCTION FORM 817 SECTION 12.11 AS REVISED.

NEW PAVEMENT MARKINGS SHALL BE PAINTED WITH EPOXY RESIN PAINT IN COMPLIANCE WITH THE STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADS, BRIDGES, AND INCIDENTAL CONSTRUCTION FORM 817 SECTION 12.10 AS REVISED.

NEW SIGN MATERIAL AND SHEETING SHALL BE MADE OF REFLECTIVE MATERIAL IN COMPLIANCE WITH STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADS, BRIDGES, AND INCIDENTAL CONSTRUCTION FORM 817 SECTION 12.08 AS REVISED. TYPE 1 REFLECTIVE SHEETING SHALL BE USED FOR SIGNS WITH WHITE BACKGROUND , TYPE 3 REFLECTIVE SHEETING SHALL BE USED FOR SIGNS WITH COLORED BACKGROUND EXCEPT FOR SIGNS WITH RED BACKGROUND THAT SHALL BE TYPE 8 OR 9 REFLECTIVE SHEETING.

ALL SIGNS AND PAVEMENT MARKINGS INSTALLED WITHIN THE STATE RIGHT OF WAY MUST CONFORM TO THE 'MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES' AND THE LATEST STATE OF CONNECTICUT CATALOG OF SIGNS AS REVISED.

ANY DAMAGE TO THE EXISTING CURB, SIDEWALK OR ANY OTHER HIGHWAY APPURTENANCES DURING THE DEVELOPMENT OF THE PERMITTED SITE WILL BE REPLACED BY THE CONTRACTOR AS DIRECTED BY THE DISTRICT 3 PERMIT SECTION AT NO COST TO THE STATE.

<u>DEFINITIONS</u>

MUNICIPALITY SHALL MEAN TOWN OF TRUMBULL

STATE SHALL MEAN: CONNECTICUT

WATER UTILITY PROVIDER SHALL MEAN: AQUARION WATER COMPANY OF CONNECTICUT

SANITARY UTILITY PROVIDER SHALL MEAN: BRIDGEPORT WATER POLLUTION CONTROL AUTHORITY

GAS UTILITY PROVIDER SHALL MEAN: SOUTHERN CONNECTICUT GAS COMPANY

TELECOMMUNICATIONS UTILITY PROVIDER SHALL MEAN: FRONTIER COMMUNICATIONS

ELECTRIC UTILITY PROVIDER SHALL MEAN: UNITED ILLUMINATING COMPANY

FOR PERMITTING PURPOSES ONLY
NOT RELEASED FOR CONSTRUCTION

Architecture
Engineering
Environmental
Land Surveying

BL Companies

355 Research Parkway
Meriden, CT 06450
(203) 630-1406
(203) 630-2615 Fax

PROPOSED DEVELOPMENT
7120 MAIN STREET
TRUMBULL, FAIRFIELD COUNTY, CONNECTICUT

REVISIONS
No. Date Desc.

Designed	C.G.
Drawn	N.A.N.
Reviewed	
Scale	NONE
Project No.	1901141
Date	06/24/2019
CAD File: GN190114131	

Title
GENERAL NOTES

Sheet No.
GN-1

Xref (s): ; BD190114131

6/25/2020, KKILGUSS, G:\JOBS19\10\1901141\DWG\GN190114131.DWG,GN-1 24X36 NTS.

© 2020 BL COMPANIES, INC. THESE DRAWINGS SHALL NOT BE UTILIZED BY ANY PERSON, FIRM OR CORPORATION WITHOUT THE SPECIFIC WRITTEN PERMISSION OF BL COMPANIES.

WHITE TEXT W/ RED GRAPHIC ON WHITE BACKGROUND

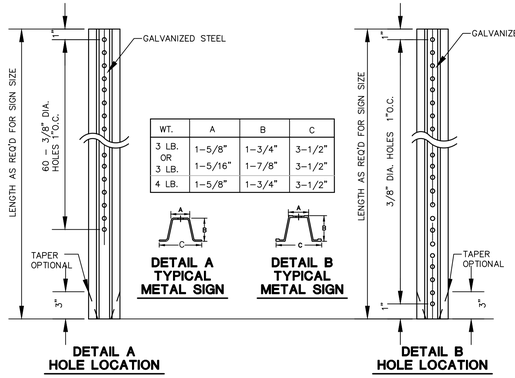
S-2
30" X 30"
DOT STANDARD "DO NOT ENTER" SIGN. USE TO PROHIBIT TRAVEL IN THE WRONG DIRECTION. TYPICAL AT ONE-WAY ROADS. POST AND PANEL MOUNT.

BLACK TEXT ON WHITE BACKGROUND

S-3
30" X 36"
DOT STANDARD "SPEED LIMIT 5 MPH" SIGN. USE TO CONTROL SPEED ALONG DRIVE AISLES WITHOUT ADJACENT PARKING SPOTS. POST AND PANEL MOUNT.

S-4
30" X 36"
DOT STANDARD "SPEED LIMIT 10 MPH" SIGN. USE TO CONTROL SPEED ALONG DRIVE AISLES WITHOUT ADJACENT PARKING SPOTS. POST AND PANEL MOUNT.

3 DIRECTIONAL SIGNS
1/2" = 1'-0"



WT.	A	B	C
3 LB. OR 3 LB.	1-5/8"	1-3/4"	3-1/2"
	1-5/16"	1-7/8"	3-1/2"
4 LB.	1-5/8"	1-3/4"	3-1/2"

NOTES:
1.STEEL FOR POSTS SHALL CONFORM TO THE MECHANICAL REQUIREMENTS OF ASTM A 499-81 GRADE 60 AND TO THE CHEMICAL REQUIREMENTS OF ASTM A1-76 CARBON STEEL TEE RAIL HAVING NOMINAL WEIGHT OF "30 LBS OR GREATER PER LINEAR FOOT.

2.AFTER FABRICATION ALL STEEL POSTS SHALL BE GALVANIZED TO MEET THE REQUIREMENTS OF ASTM A-123.

3.SIGN MOUNTING HEIGHT TO BE PER MUTCD REQUIREMENTS.

4.ALL SIGN POSTS SHALL HAVE "BREAK AWAY" FEATURES THAT MEET AASHTO REQUIREMENTS CONTAINED IN "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS". THE "BREAK AWAY" FEATURES SHALL BE STRUCTURALLY ADEQUATE TO CARRY THE SIGN SHOWN ON THE PLANS AT 60 MPH WIND LOADINGS. INSTALLATIONS SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

6 TYPICAL SIGN POST
NTS

SITE SIGNAGE COLOR GENERAL NOTES

ALL SIGNS INDICATED "DOT" SHALL CONFORM TO COLOR AND REFLECTANCE SPECIFICATIONS OF THE MUTCD

MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES)
HTTP://MUTCD.FHWA.DOT.GOV/KNO-COLORSPEC.HTM

MUTCD COLOR SPECIFICATIONS
COLOR SPECIFICATIONS (23 CFR 655)
THE COLOR SPECIFICATIONS ARE USED TO DETERMINE THE COLOR OF SIGN SHEETING AND PAVEMENT MARKING MATERIALS FOR DESIGN PURPOSES. MOST OF THE COLOR SPECIFICATIONS WERE LAST REVISED BY THE FINAL RULE; AMENDMENT DATED NOVEMBER 21, 2002. HOWEVER, SOME COLOR SPECIFICATIONS WERE REVISED AND SPECIFICATIONS FOR SOME NEW COLORS WERE ADDED BY THE FINAL RULE DATED DECEMBER 16, 2009. VISIT THE ABOVE LINK FOR MORE INFO.

PANTONE MATCHING COLORS
THE FOLLOWING ARE PANTONE SPECIFICATIONS, FOR PRINTING PURPOSES. THEY PROVIDE A GUIDE FOR SELECTING APPROPRIATE LINK COLORS TO CLOSELY MATCH THE STANDARD COLORS OF TRAFFIC CONTROL SIGNS. NOTE: THERE ARE NO PANTONES AVAILABLE FOR FLUORESCENT COLOR SIGNS.

PANTONE SPECIFICATIONS FOR PRINTING
BROWN - 469, RED - 187, YELLOW - 116, PURPLE - 259, GREEN - 342, BLUE - 294, ORANGE - 152

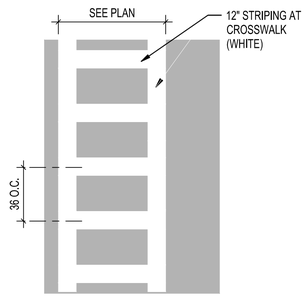
CUSTOM SIGNAGE COLORS

	Gloss Vinyl	Reflective Vinyl	Paint
C1 White	Scotchcal White 230-20	Scotchcal 280 White 280-10	Gloss White Two part catalyst hardened acrylic enamel
C2 Black	Scotchcal Black 230-22 (Pantone Black/C)	Scotchcal Black 280-85	
C3 Yellow	Oracal OPAQUE 020 GOLDEN YELLOW TRANSLUCENT 615 YELLOW ORANGE (Color to match tenant branding guidelines. Tenant orange= Pantone 137 U, Pantone 1375 C)		
C4 Gray	Scotchcal Medium Gray 230-31		Satin Finish Two part catalyst hardened acrylic enamel
C5 Red	Scotchcal Red 230-33 (Pantone 485C2X)	Scotchcal Red 280-72	
C6 Blue	Scotchcal Cobalt Blue (Pantone 288C)	Scotchcal Blue 230-75	
C7 Blue	Scotchcal Blue (Pantone 2995C)(RAL 5012)		

TENANT LOGO
ALL DSP
NO VISITORS & ASSOCIATES

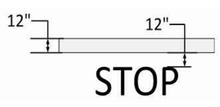
AS-53G
36" X 24"
TENANT SIGNAGE - SORTATION WAYFINDING USE AT SORTATION SITES AS NECESSARY FOR WAYFINDING. POST AND PANEL MOUNT. WHITE TEXT (ARIAL) ON BLACK BACKGROUND. ADJUST TEXT AND ARROW(S) DIRECTION BASED ON SITE LOCATION.

2 WAYFINDING SIGNS
1/2" = 1'-0"



PG-11
WHITE 12" STRIPING OUTLINE AND HATCH FILL AT 36" O.C. PAVEMENT GRAPHICS -PEDESTRIAN CROSSWALK. USE TO INDICATE PEDESTRIAN CROSSING. SEE PLAN FOR WIDTH OF CROSSWALK (BLACK INDICATES ASPHALT)

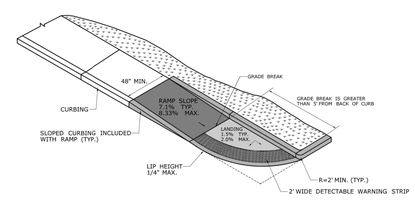
2 PAVEMENT STRIPING
1/4" = 1'-0"



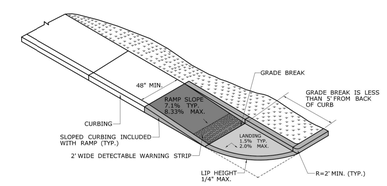
WHITE STOP LINE
USED WHEN LEAVING TENANT PROPERTY AT ANY INTERSECTION, WHEN MAKING A TURN LESS THAN 90 DEGREES, WHEN CROSSING DIRECTIONAL TRAFFIC, AND WHEN AN OVERFLOW SECONDARY TRAILER PARKING AREA INTERSECTS WITH THE TRAILER YARD. WHITE LINE AND 4' TALL PAINTED WHITE GRAPHIC TEXT "STOP"

VEHICLE STOP LINE
12" WIDE VEHICLE STOP LINE USED TO DESIGNATE WHEN A VEHICLE MUST COME TO A FULL COMPLETE STOP BEFORE MOVING FORWARD AND/OR MAKING A TURN.

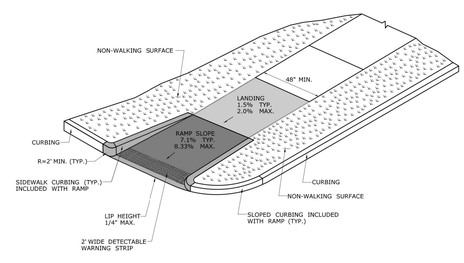
4 VEHICLE STOP LINE
1" = 1'-0"



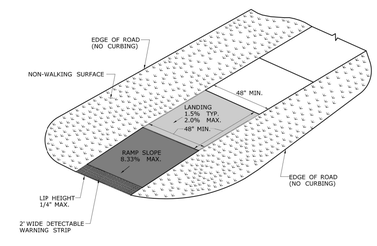
SINGLE DIRECTION RAMP WITHOUT NON-WALKING SURFACE GRADE BREAK GREATER THAN 5' (TYPE 14)



SINGLE DIRECTION RAMP WITHOUT NON-WALKING SURFACE GRADE BREAK LESS THAN 5' (TYPE 15)



SINGLE DIRECTION - RETURN CURB WITH NON-WALKING SURFACE (TYPE 16)



SINGLE DIRECTION - NO CURB WITH NON-WALKING SURFACE (TYPE 17)

DESIGN INITIATED CHANGE ORDER NO. Y - mm/dd/yy

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE PLANS WAS OBTAINED FROM INVESTIGATIONS BY THE STATE AND IS PRESENTED TO ACCURATELY REPRESENT THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

DESIGNER/DRAFTER: -
CHECKED BY: -
Plotted Date: 5/30/2019
Filename: U:\TOOT_HIGHWAY_GD_01-39-192.dgn

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

SIGNATURE/ BLOCK:
OFFICE OF ENGINEERING
APPROVED BY:

PROJECT TITLE: - - -

TOWN: - -

DRAWING TITLE: CONCRETE SIDEWALK RAMPS SHEET 6

PROJECT NO.: -
DRAWING NO.:
SHEET NO.:

NOT RELEASED FOR CONSTRUCTION

Architecture
Engineering
Environmental
Land Surveying
BL Companies
355 Research Parkway
Meriden, CT 06450
(203) 630-1406
(203) 630-2615 Fax

PROPOSED DEVELOPMENT
7120 MAIN STREET
TRUMBULL, FAIRFIELD COUNTY, CONNECTICUT

REVISIONS
No. Date Desc.

Designed	K.A.K.
Drawn	K.A.K.
Reviewed	
Scale	NONE
Project No.	1901141
Date	06/24/2019

CAD File: DN190114131

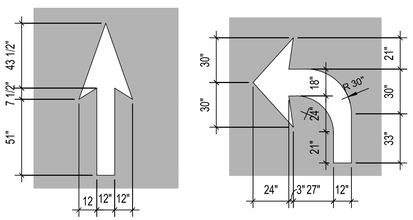
Title
DETAILS SHEET

Sheet No.
DN-1

Xref (s): - BD190114131

6/25/2020, KKLOUS, C:\JOBS\PA1\N190114131\DWG\DN190114131.DWG(DN-1 24 X 36 H.T.S.

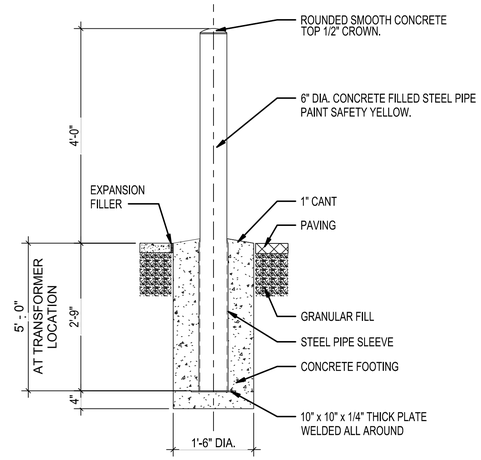
© 2020 BL COMPANIES, INC. THESE DRAWINGS SHALL NOT BE UTILIZED BY ANY PERSON, FIRM OR CORPORATION WITHOUT THE SPECIFIC WRITTEN PERMISSION OF BL COMPANIES.



PG-5
8'-0" X 10'-0"
WHITE PAVEMENT GRAPHICS -STRAIGHT ARROW. USE TO DIRECT TRAFFIC AT ONE-WAY DRIVE AISLES. (BLACK INDICATES ASPHALT)

PG-6L (PG-6R OPP.)
8'-0" X 8'-0"
WHITE PAVEMENT GRAPHICS - LEFT TURN ARROW. USE TO INDICATE TURNING LANES. (BLACK INDICATES ASPHALT)

1 PAVEMENT ARROWS
1/4" = 1'-0"



9 TYPICAL SITE PROTECTIVE BOLLARD DETAIL
3/4" = 1'-0"

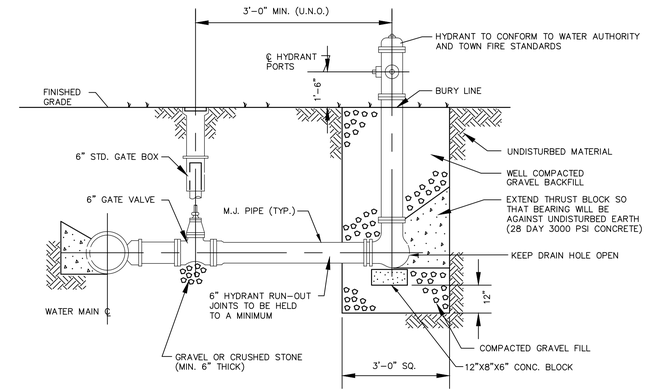
PAVEMENT GRAPHIC NOTES:

1. TWO COAT APPLICATION REQUIRED FOR ALL PAVEMENT GRAPHICS.
2. REFER TO CIVIL FOR PAINTED GRAPHIC ARROWS AND ADDITIONAL PAVEMENT GRAPHIC CRITERIA.

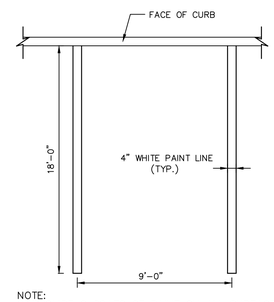
PAVEMENT PAINT

TA1/PP1	WHITE	
TA2/PP2	RED	(PANTONE 485C)
TA3/PP3	BLUE	(PANTONE 294)
TA4/PP4	GREEN	(PANTONE 342)
TA5/PP5	YELLOW	(PANTONE 116)

NOTE: TWO COAT APPLICATION REQUIRED FOR ALL PAVEMENT GRAPHICS.

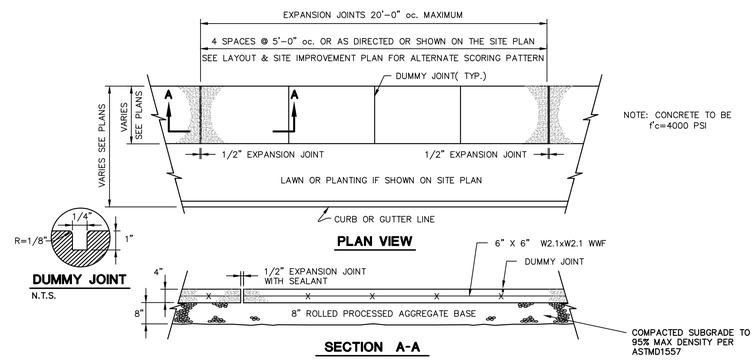


HYDRANT ASSEMBLY DETAIL
N.T.S. BLWD-003

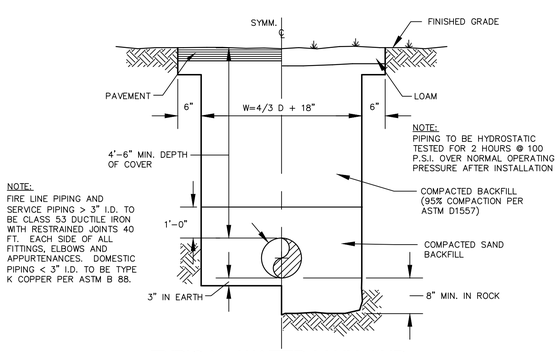


NOTE:
1. PROVIDE 2 COATS OF PAINT ON ALL SURFACES.
2. SEE PLAN FOR ACTUAL SPACE LOCATION AND DIMENSIONS.
3. STALL STRIPING SHALL HAVE 2 COATS OF PAINT.

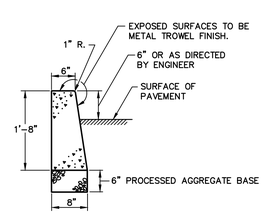
TYPICAL PARKING SPACE DETAIL
N.T.S.



CONCRETE SIDEWALK DETAIL
N.T.S. BLSR-001

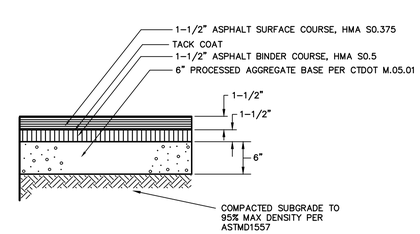


TYPICAL WATER MAIN AND SERVICE TRENCH DETAIL
N.T.S.

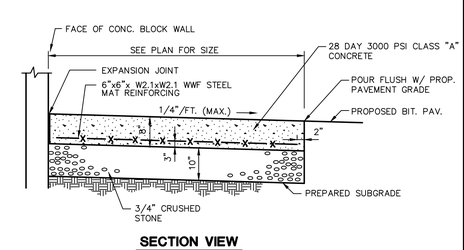


NOTES:
1. CONSTRUCTION JOINTS SHALL BE SPACED APPROXIMATELY EVERY 10 FEET BUT NOT LESS THAN 6 FEET. 1/4" THICK PREFORMED EXPANSION JOINT FILLER SHALL BE INSTALLED EVERY OTHER JOINT.
2. FORMWORK SHALL REMAIN INPLACE FOR 24 HOURS FOLLOWING CONCRETE POURING.

CONCRETE CURB
N.T.S.



STANDARD DUTY BITUMINOUS CONCRETE PAVEMENT STRUCTURE
N.T.S. ZPC-029



CONCRETE SMOKING PAD
N.T.S. BLPC-002

FOR PERMITTING PURPOSES ONLY NOT RELEASED FOR CONSTRUCTION

Architecture
Engineering
Environmental
Land Surveying
BL Companies
355 Research Parkway
Meriden, CT 06450
(203) 630-1406
(203) 630-2615 Fax

PROPOSED DEVELOPMENT
7120 MAIN STREET
TRUMBULL, FAIRFIELD COUNTY, CONNECTICUT

REVISIONS
No. Date Desc.

Designed	K.A.K.
Drawn	K.A.K.
Reviewed	
Scale	NONE
Project No.	1901141
Date	06/24/2019
CAD File: DN190114131	

Title
DETAILS SHEET

Sheet No.
DN-2

6/25/2020, KKLEGUS, G:\JOBS\P\TOWN\1901141\DWG\DN\1901141DWG\DN2-2X4-3X4.T.S.
© 2020 BL COMPANIES, INC. THESE DRAWINGS SHALL NOT BE UTILIZED BY ANY PERSON, FIRM OR CORPORATION WITHOUT THE SPECIFIC WRITTEN PERMISSION OF BL COMPANIES.
Xref (s): - BD190114131

Architecture
Engineering
Environmental
Land Surveying
BL Companies

An Employee-Owned Company

June 24, 2020

Project Stormwater Summary

Proposed Improvements to
71250 Main Street
Trumbull, Connecticut

Purpose and Description

On December 18, 2019, the Trumbull Planning and Zoning Commission approved the Special Permit and Site Plan Review for the warehouse and distribution facility located at 7120 Main Street. The site is currently under construction in accordance with the approved plans.

Our client is constantly investigating ways to improve their site operations for efficiency and safety. In a recent analysis of the approved site plan, it was determined that the efficiency and safety of the site operations logistics could be improved with a few minor site alterations to the easterly parking area. For this reason, we are proposing minor modifications to the easterly parking area and site access/egress. All other aspects of the approved site plan will remain as originally approved by the Commission.

These proposed site modifications include the realignment of parking and building access/egress to allow the delivery vans to access the building from the east (rear) and exit on the west (front) side of the building. These site modifications will not have any significant impacts upon the stormwater management system that was originally approved and constructed. All stormwater inlets, conveyance piping, treatment and detention features will remain as per the originally approved plans. These plan modifications will result in minor changes to the watershed areas for each inlet system. As the original system had been designed to provide more than ample capacity, these minor changes will not impact the capacity or function of each system component or the overall system design. For more detailed information, reference the project Stormwater Management Report dated April 2020.

The proposed stormwater system has been designed in accordance with the *Town of Trumbull Inland Wetlands and Watercourses Regulations,* the *Town of Trumbull Zoning Regulations,* the *Town of Trumbull 2014 Administrative Policy for Stormwater Management and Drainage Design Standards,* the *2002 Connecticut Guidelines for Soil Erosion and Sediment Control and the 2004 Connecticut Stormwater Quality Manual.*

Stormwater Impact Assessment

As originally designed, the stormwater management system greatly reduces the peak runoff flow rates from the site as well as significantly improves the water quality of the stormwater leaving the site. The site plan modifications result in a net 192 square foot reduction in impervious areas.

There are no modifications planned or proposed along the northern and western portions of the site. The proposed site modifications mainly occur in the southern and eastern parking areas. These modifications result in small changes to the watershed areas contributing to individual inlets, however the resulting watersheds to the Stormwater Management Basins (SWMB) have not been significantly altered. The stormwater collection, conveyance, pre-treatment and detention/infiltration systems will be maintained and function as originally designed.

Water Quality

The water quality improvements are developed with a multi-tier approach.

- Tier 1: The first flush of runoff is collected and directed into a hydrodynamic separator.
- Tier 2: The first flush is then directed into the subsurface infiltration system where the majority of the first flush will be infiltrated into the ground.
- Tier 3: All flows exceeding the first flush will be directed into the subsurface infiltration system where a portion of the runoff will be infiltrated into the ground.

The remainder will be detained and released to assure there is no increase in the peak runoff flow rates.

The Stormwater Management Basins (SWMB) provide more than ample storage to completely store and infiltrate the Water Quality Volume (WQV). The minor modifications to the parking lot will not impact the required water quality volume. For the WQV calculations prepared for the original design, please reference Appendix E of the Stormwater Management Report.

Required design WQV and provided WQV are as follow:

Management Basin	**Contributing Sub-Watershed**	**Impervious Area (sf)**	**Required WQV (cf)**	**Provided WQV (cf)**
SWMB-1	PDA-220	99,273	8,625	13,282
SWMB-2	PDA-300	68,785	4,531	4,810

Water Quantity

The subsurface infiltration systems installed onsite provide for a significant reduction in the peak runoff flow rate from the project site. The minor modifications to the parking lot will not impact the peak runoff flow rates due to the reduction in impervious area onsite. For more detailed information, reference the Stormwater Management Report. Below is a table defining the reductions anticipated:

Existing vs. Proposed Peak Runoff Rates

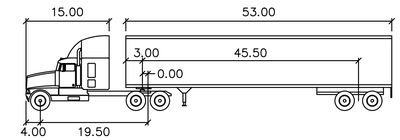
Peak Flow (cfs)			
Drainage Area	**2-YR**	**10-YR**	**100-YR**
POI-100			
Existing	2.42	4.14	6.82
Proposed	2.49	4.08	6.52
Percent Change	2.89%	-1.45%	-4.40%
POI-200			
Existing	22.44	35.07	54.75
Proposed	12.55	29.23	41.08
Percent Change	-44.07%	-16.65%	-24.97%
POI-300			
Existing	8.85	13.18	19.91
Proposed	6.66	10.73	17.28
Percent Change	-24.75%	-18.59%	-13.21%
Overall Total			
Existing	33.71	52.39	81.48
Proposed	21.70	44.04	64.88
Percent Change	-35.63%	-15.94%	-20.37%

Summary

The proposed site plan modifications will not result in any significant changes to the originally designed stormwater management system. As previously designed and installed, the stormwater collection, conveyance and management system provide significant improvement to the quality of the water leaving the site, as well as provides a significant reduction in the peak flow rate leaving the site.

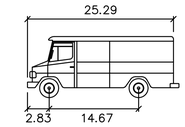
PARKING BREAKDOWN

PARKING	REQUIRED	PROPOSED ON-SITE	PROPOSED OFF-SITE	DELTA (+/-)
ASSOCIATE	89	102	0	+13
MANAGER/DSP MANAGER	20	20	0	0
CUSTOMER PICK-UP (HUB)	15	15	0	0
ADA SPACES	6	7	0	+1
VAN PERSONAL VEHICLE	24	24	293	+293
TOTAL AUTO SPACES (9'x18')	154	168	293	307
VAN PARKING	267	62	226	+21
VAN PERSONAL VEHICLE	72	0	0	-72
VAN BUFFER	15	0	15	0
TOTAL VAN SPACES (11'x27')	**354**	**62**	**241**	**-51**
TOTAL PARKING	**508**	**230**	**534**	**256**
UTR/ VAN LOADING	23	24	–	+1
VAN QUEUING	24	24	–	0
TRAILER/BOX TRUCK LOADING	6	6	–	0
53' TRAILER PARKING	0	0	–	0



WB-67 feet

Tractor Width	: 8.00	Lock to Lock Time	: 6.0
Trailer Width	: 8.50	Steering Angle	: 28.4
Tractor Track	: 8.00	Articulating Angle	: 75.0
Trailer Track	: 8.50		



Ford-E450 feet

Width	: 9.75
Track	: 9.75
Lock to Lock Time	: 6.0
Steering Angle	: 34.3

ZONING INFORMATION

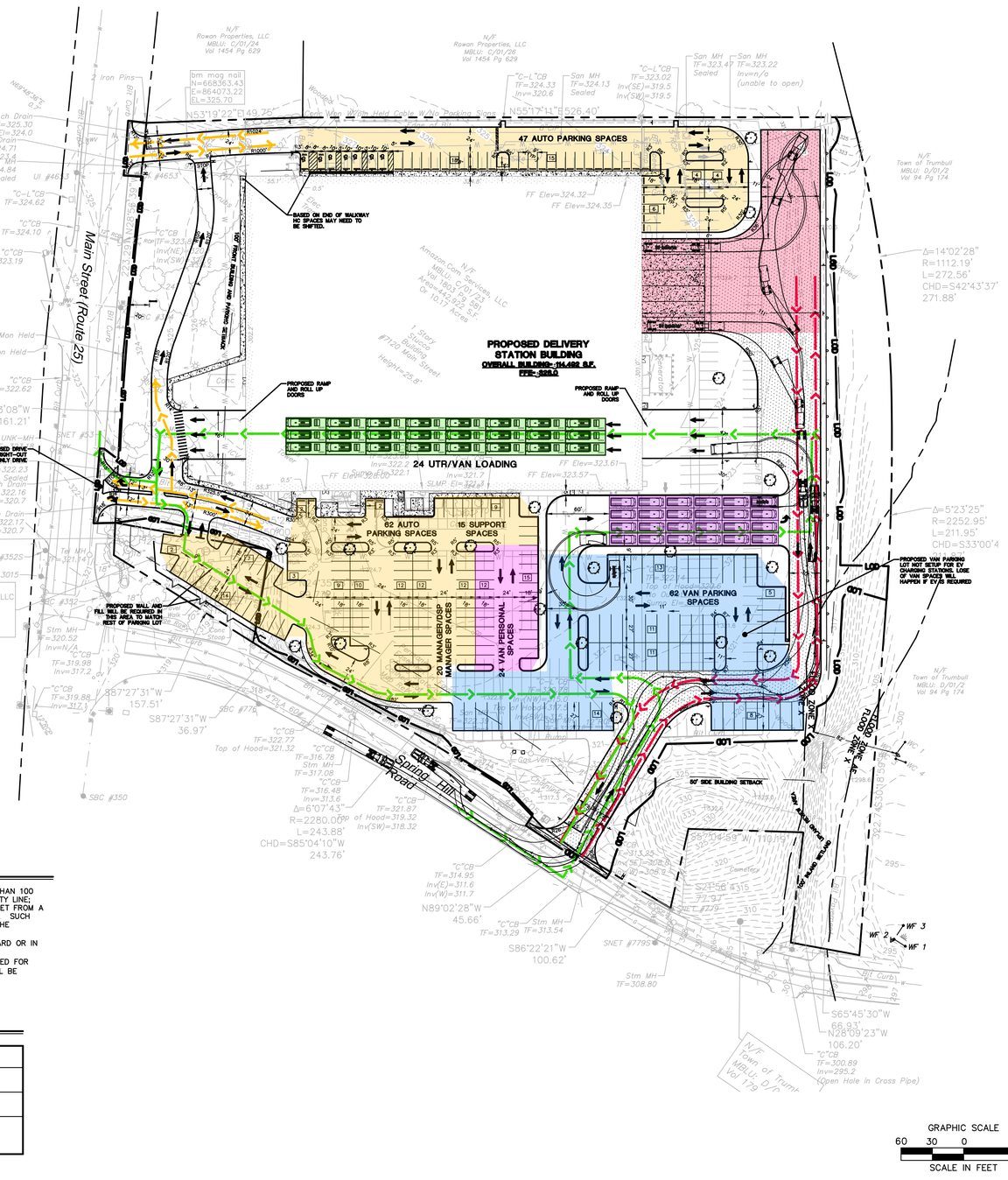
LOCATION: TRUMBULL, FAIRFIELD COUNTY, CONNECTICUT (<500 FEET FROM TOWN OF MONROE)				
ZONE: I-L2 (LIGHT INDUSTRY-2 ACRES)				
USE: WAREHOUSING (SPECIAL PERMITTED USE)				
ITEM #	ITEM	REQUIREMENTS	PROPOSED	VARIANCE
1	MINIMUM LOT AREA	2 ACRES	451,765 S.F. (10.37 AC.)	NO
2	MINIMUM LOT FRONTAGE	250 FEET	927.45 FEET	NO
3	MINIMUM FRONT SETBACK	100 FEET[1]	99 FEET (EXISTING NON-CONFORMING)	NO
4	MINIMUM SIDE SETBACK	50 FEET[1]	51 FEET	NO
5	MINIMUM REAR SETBACK	50 FEET[1]	209 FEET	NO
6	MAXIMUM BUILDING HEIGHT	40 FEET	26 FEET	NO
7	MAXIMUM IMPERVIOUS COVERAGE	80 PERCENT	70 PERCENT	NO
8	MAXIMUM BUILDING COVERAGE	33.33 PERCENT	25.5 PERCENT	NO

LEGEND

- ASSOCIATE TRAFFIC FLOW DIRECTION
- DSP/FLEX TRAFFIC FLOW DIRECTION
- TRUCK TRAFFIC FLOW DIRECTION
- INDICATES PAINTED ISLAND
- INDICATES ISLAND THAT NEEDS TO BE LANDSCAPED PER CODE. (TYPE AND QUANTITY TO BE DETERMINED DURING DETAILED DESIGN)

SITE PLAN LEGEND

- PROPERTY LINE
- EXISTING CONTOUR
- LOD — LIMIT OF DISTURBANCE (LOD) AND CONTRACT LIMIT LINE
- BUILDING SETBACK LINE
- PROVIDE AND INSTALL HEAVY DUTY BITUMINOUS CONCRETE PAVEMENT STRUCTURE
- PROVIDE AND INSTALL CONCRETE PAVEMENT STRUCTURE
- XX — PARKING STALL COUNT
- PROVIDE AND INSTALL STANDARD DUTY BITUMINOUS CONCRETE PAVEMENT STRUCTURE



ZONING INFORMATION

LOCATION: TRUMBULL, FAIRFIELD COUNTY, CONNECTICUT (<500 FEET FROM TOWN OF MONROE)				
ZONE: I-L2 (LIGHT INDUSTRY-2 ACRES)				
USE: WAREHOUSING (SPECIAL PERMITTED USE)				
ITEM #	ITEM	REQUIREMENTS	PROPOSED	VARIANCE
1	MINIMUM LOT AREA	2 ACRES	451,765 S.F. (10.37 AC.)	NO
2	MINIMUM LOT FRONTAGE	250 FEET	927.45 FEET	NO
3	MINIMUM FRONT SETBACK	100 FEET[1]	99 FEET (EXISTING NON-CONFORMING)	NO
4	MINIMUM SIDE SETBACK	50 FEET[1]	51 FEET	NO
5	MINIMUM REAR SETBACK	50 FEET[1]	209 FEET	NO
6	MAXIMUM BUILDING HEIGHT	40 FEET	26 FEET	NO
7	MAXIMUM IMPERVIOUS COVERAGE	80 PERCENT	70 PERCENT	NO
8	MAXIMUM BUILDING COVERAGE	33.33 PERCENT	25.5 PERCENT	NO

PARKING INFORMATION

ITEM #	ITEM	REQUIREMENTS	PROPOSED	VARIANCE
1	BUILDING SIZE	NONE REQUIRED	114,492.2 S.F.	NO
2	PARKING REQUIRED	ASSEMBLY/FACTORY: 1 SPACE PER EVERY 1.5 EMPLOYEES (97 EMPLOYEES) REQUIRED = 65 SPACES BUSINESS/OFFICE 1 SPACE PER 250SF OFFICE AREA = 2,618SF REQUIRED = 11 SPACES TOTAL REQUIRED = 76 SPACES	230 SPACES	NO
3	MINIMUM HANDICAPPED PARKING SPACES REQUIRED	6 SPACES (FOR 151 SPACES) 7 SPACES (FOR 213 SPACES)	7 SPACES	NO
4	MINIMUM PARKING DIMENSIONS	9 FEET X 18 FEET	9 FEET X 18 FEET	NO
5	MINIMUM AISLE WIDTH	24 FEET – 2-WAY	24 FEET – 2-WAY 15 FEET – 1-WAY	NO
6	MINIMUM FRONT SETBACK	15 FEET (100 FEET)[2]	SPRING HILL ROAD: 9 FEET (EXISTING NON-CONFORMING)	NO
			MAIN STREET: 149 FEET	NO
7	MINIMUM SIDE SETBACK	20 FEET[2]	6 FEET (EXISTING NON-CONFORMING)	NO
8	MINIMUM REAR SETBACK	20 FEET[2]	70 FEET	NO
9	MINIMUM INTERIOR LANDSCAPING	ONE TREE PER 10 SPACES, 20 S.F. PER PARKING SPACE	>ONE TREE PER 10 SPACES, >20 S.F. PER PARKING SPACE	NO

NOTES

1. SECTION II.4.2.5, "NO BUILDING SHALL BE LOCATED LESS THAN 100 FEET FROM A STREET, LESS THAN 100 FEET FROM A RESIDENTIAL ZONE BOUNDARY, NOR LESS THAN 50 FEET FROM ANY OTHER PROPERTY LINE; PROVIDED, HOWEVER, THAT THE COMMISSION MAY ALLOW A BUILDING TO BE NO LESS THAN 50 FEET FROM A STREET WHERE BUFFERING IS PROVIDED BY MEANS OF LANDSCAPED BERM AT LEAST 4 FEET HIGH. SUCH BERM SHALL CURVE WITHIN THE SETBACK SO AS TO REPLICATE NATURAL FEATURES AND AVOID THE APPEARANCE OF DIKE."
2. SECTION II.4.2.6, "PARKING, OTHER THAN FOR VISITORS, SHALL NOT BE PERMITTED IN A FRONT YARD OR IN ANY SIDE YARD THAT ABUTS A RESIDENTIAL ZONE"
3. SECTION IV.4.6.6, "A STANDARD OF ONE ISLAND FOR EVERY TEN PARKING SPACES SHOULD BE USED FOR DESIGN PURPOSES. NO MORE THAN FIFTEEN (15) SPACES IN A ROW OR FOUR ROWS ACROSS WILL BE PERMITTED WITHOUT AN INTERVENING INTERIOR LANDSCAPE AREA."
4. ALL PARKING SHALL BE DOUBLE STRIPED.

SIGN INFORMATION

ITEM #	ITEM	REQUIREMENT	PROPOSED
1	MAX. FREESTANDING SIGN AREA	0.5 S.F. PER 1,000 FEET G.F.A. (MAX. 40 S.F.) (1)	<40 S.F.
2	MAXIMUM GROUND SIGN HEIGHT	5 FEET ABOVE THE GROUND	<5 FEET
3	MAX. WALL SIGN AREA	MAX. 3 WALL SIGNS, MAX. 32 S.F. EACH	<32 S.F.

(1) GROUND SIGNS SHALL BE LOCATED AT LEAST 20 FEET BEHIND THE FRONT LOT LINE.

Architecture Engineering Environmental Land Surveying
BL Companies
355 Research Parkway
Meriden, CT 06450
(203) 630-1406
(203) 630-2615 Fax

PROPOSED DEVELOPMENT
7120 MAIN STREET
TRUMBULL, FAIRFIELD COUNTY, CONNECTICUT

Desc. VAN EGRESS TO ROUTE 25 MAIN STREET

REVISIONS

No.	Date
1	9/4/2020

Designed	C.G.
Drawn	T.A.M.
Reviewed	
Scale	1"=60'
Project No.	1901141
Date	08/10/2020

CAD File: SC190114103-REV JPD 9.4.2020

Title
SITE CONCEPT - DYO5_E1

Sheet No.
SC (R2)

© 2020 BL COMPANIES, INC. THESE DRAWINGS SHALL NOT BE UTILIZED BY ANY PERSON, FIRM OR CORPORATION WITHOUT THE SPECIFIC WRITTEN PERMISSION OF BL COMPANIES.

Architecture
Engineering
Environmental
Land Surveying
Companies

September 2020

Traffic Analysis Addendum #2

Proposed Delivery Station Building Improvements
7120 Main Street
Trumbull, CT

BL Companies was tasked with evaluating the improvements proposed at the current delivery station located at 7120 Main Street in Trumbull, CT. This addendum revises the analysis supplied in the Addendum #1 dated August 2020.

After discussions with the Town of Trumbull, the left turn out of Site Drive #1 has been eliminated due to safety concerns. Traffic is now being rerouted through the Site to Site Drive #3 on Spring Hill Road. Traffic will then make a left onto Route 25 via Spring Hill Road.

This addendum analyzes this change to Site Circulation as it relates to the overall traffic analysis.

Trip Distribution and Site Traffic Volumes

The peak hour traffic volumes were assigned to the adjacent street network based on the revised Site Generated Traffic Volumes. The trip distribution to the surrounding area was not impacted to the changes at the Site Driveway. The revised site traffic volumes are shown in **Figure 5A-2**.

Build Traffic Volumes

The assigned site traffic volumes were superimposed onto the No Build Traffic Volumes, which are in the original study. The Build Traffic Volumes are shown in **Figure 6A-2**.

Intersection Analysis

The capacity calculations for the revised site access are attached to this Addendum and are summarized in **Table 6A-2** below. The table summarized Levels of Service, overall intersection delay, individual movement delay, volume to capacity (v/c) ratio, and the 95th percentile queue length in feet.

After the revision to the analysis, there was overall improvement of Site Drive #1 and minimal impacts to the traffic capacity and analysis to Site Drive #3. These driveways operate at acceptable Levels of Service.

The additional traffic on the Spring Hill Road left movement at Route 25 in the PM Peak Hour did have an impact to the overall level of service at Tashua Road. The intersection of Route 25 and Tashua Road runs on the same controller as Route 25 and Spring Hill Road, which caused the intersection to have longer delays and lower level of service. The overall delay increased by 17" and deteriorated from LOS D to LOS E. In order to mitigate the delays, timings will need to be modified. The timings were adjusted with Tashua Road to balance the needs of both intersections and provide as little impact as possible. The Spring Hill Road WB Left will deteriorate from LOS D to LOS E, but this increase in delay is only 6". Overall, the impacts to the change in trip distribution will be beneficial to operations and safety.

Table 6A-2 – Peak Hour Levels of Service

	AM		Mid-Day		PM		
	2021 No Build	2021 Build	2021 No Build	2021 Build	2021 No Build	2021 Build	2021 Build W/ Improvements
Route 25 at Judd Road and Purdy Hill Road[1]	**D/36.3**	**D/36.3**	**C/27.2**	**C/27.5**	**E/61.2**	**E/65.0**	**-**
Judd Road EB Left	F/0.83/155	F/0.83/155	D/0.47/90	D/0.48/90	D/0.35/75	D/0.34/75	-
Judd Road EB Thru/Right	C/0.34/90	C/0.34/90	B/0.34/70	B/0.35/70	D/0.81/255	E/0.82/260	-
Purdy Hill Road WB Left	D/0.36/100	D/0.36/100	C/0.38/80	C/0.39/80	E/0.65/105	E/0.67/105	-
Purdy Hill Road WB Thru/Right	E/0.82/315	E/0.82/315	D/0.60/150	D/0.61/150	D/0.62/175	D/0.61/175	-
Route 25 NB Left	D/0.38/60	D/0.38/60	D/0.31/60	D/0.36/70	E/0.51/80	E/0.52/85	-
Route 25 NB Thru/Right	C/0.88/860	C/0.88/860	C/0.80/635	C/0.81/665	E/1.03/1040	E/1.04/1050	-
Routh 25 SB Left	D/0.16/35	D/0.16/35	D/0.31/60	D/0.32/60	E/0.62/100	E/0.62/100	-
Route 25 SB Thru/Right	D/0.94/895	D/0.94/895	C/0.83/665	C/0.82/670	E/1.07/1095	E/1.09/1120	-
Route 25 at Victoria Drive[1]	**B/12.6**	**B/12.6**	**A/7.8**	**A/8.0**	**C/21.1**	**C/22.3**	**-**
Victoria Drive WB Left	C/0.06/25	C/0.06/25	C/0.14/40	C/0.15/40	C/0.36/75	C/0.36/75	-
Victoria Drive WB Right	B/0.08/25	B/0.08/25	B/0.12/25	B/0.12/25	B/0.15/25	B/0.15/25	-
Route 25 NB Thru/Right	B/0.72/700	B/0.72/700	A/0.53/345	A/0.55/370	B/0.84/820	B/0.84/830	-
Route 25 SB Left	A/0.08/25	A/0.08/25	A/0.04/25	A/0.04/25	A/0.02/25	A/0.02/25	-
Route 25 SB Thru	B/0.71/700	B/0.71/700	A/0.59/440	A/0.59/450	C/0.91/910	C/0.93/930	-

Overall Intersection – X/XX.X - Level of Service/Intersection Signal Delay in sec
Approaches - X/X.XX/XXX – Level of Service/Volume to Capacity Ratio/95% Queue Length in ft
[1] – Signalized Intersection
[2] – Unsignalized Intersection, Analysis for controlled movements
[3] – PM Peak Hour includes signal timing modifications

	AM		Mid-Day		PM		
	2021 No Build	2021 Build	2021 No Build	2021 Build	2021 No Build	2021 Build	2021 Build W/ Improvements
Route 25 at Spring Hill Road[1,3]	**B/16.8**	**B/16.8**	**B/10.7**	**B/13.4**	**C/33.1**	**D/43.6**	**C/30.7**
Spring Hill Road WB Left	D/0.50/110	D/0.50/110	D/0.45/110	D/0.65/165	D/0.52/120	D/0.58/135	E/0.59/145
Spring Hill Road WB Right	B/0.29/40	B/0.29/40	B/0.32/45	B/0.32/45	B/0.25/40	B/0.24/40	B/0.25/40
Route 25 NB Thru	A/0.81/805	A/0.81/805	A/0.54/85	A/0.60/85	A/0.81/890	A/0.87/160	A/0.83/135
Route 25 NB Right	A/0.07/25	A/0.07/25	A/0.09/25	A/0.10/25	A/0.08/25	A/0.12/25	A/0.12/25
Route 25 SB Left	A/0.19/25	A/0.19/25	A/0.13/25	A/0.15/20	A/0.20/25	A/0.35/25	A/0.36/25
Route 25 SB Thru	C/0.88/890	C/0.88/890	B/0.67/470	B/0.70/470	E/1.04/1200	E/1.08/1220	E/0.99/1265
Route 25 at Tashua Road[1,3]	**C/20.6**	**C/20.6**	**B/10.5**	**B/14.3**	**D/48.4**	**E/64.9**	**D/44.6**
Tashua Road EB Left	D/0.24/65	D/0.24/65	D/0.22/65	D/0.21/65	D/0.21/60	D/0.22/65	D/0.23/70
Tashua Road EB Right	B/0.37/90	B/0.37/90	A/0.21/35	A/0.18/35	B/0.29/70	B/0.26/75	B/0.30/80
Route 25 NB Left	A/0.27/25	A/0.27/25	A/0.27/25	A/0.35/25	C/0.60/100	C/0.61/105	E/0.85/175
Route 25 NB Thru	B/0.83/845	B/0.83/845	B/0.59/420	B/0.65/430	C/0.84/965	C/0.93/1050	C/0.90/1085
Route 25 SB Thru/Right	C/0.96/325	C/0.96/325	A/0.76/135	B/0.84/195	E/1.13/345	F/1.19/335	E/1.10/370

Overall Intersection – X/XX.X - Level of Service/Intersection Signal Delay in sec
Approaches - X/X.XX/XXX – Level of Service/Volume to Capacity Ratio/95% Queue Length in ft
[1] – Signalized Intersection
[2] – Unsignalized Intersection, Analysis for controlled movements
[3] – PM Peak Hour includes signal timing modifications

	AM		Mid-Day		PM		
	2021 No Build	2021 Build	2021 No Build	2021 Build	2021 No Build	2021 Build	2021 Build W/ Improvements
Route 111 at Route 25[1]	**E/57.6**	**E/57.6**	**D/39.9**	**D/40.6**	**E/61.1**	**E/62.2**	**-**
Route 25 EB Left	F/0.80/155	F/0.80/155	E/0.67/145	E/0.68/155	F/0.78/175	F/0.78/175	-
Route 25 EB Thru	E/0.97/640	E/0.97/640	D/0.82/315	D/0.82/335	E/0.99/630	E/1.00/640	-
Route 25 EB Right	A/0.13/30	A/0.13/30	A/0.24/40	A/0.24/40	A/0.27/85	A/0.27/85	-
Route 25 WB Left	F/0.82/165	F/0.82/165	E/0.65/135	E/0.66/140	F/0.99/285	F/0.99/285	-
Route 25 WB Thru	D/0.71/395	D/0.71/395	D/0.76/285	D/0.72/285	D/0.87/535	D/0.89/565	-
Route 25 WB Right	C/0.82/670	C/0.82/670	B/0.55/225	B/0.54/225	B/0.70/470	B/0.70/470	-
Route 111 NB Left	F/1.74/370	F/1.74/370	E/0.73/240	E/0.74/255	F/0.82/240	F/0.83/250	-
Route 111 NB Thru	E/0.82/205	E/0.82/205	D/0.55/180	D/0.57/190	F/0.97/285	F/0.97/285	-
Route 111 NB Right	B/0.48/60	B/0.48/60	A/0.25/25	A/0.26/25	A/0.32/25	A/0.32/25	-
Route 111 SB Left	D/0.91/430	D/0.91/430	D/0.85/345	D/0.86/355	F/1.02/525	F/1.02/525	-
Route 111 SB Thru/Right	C/0.47/245	C/0.47/245	D/0.85/515	D/0.87/535	F/1.04/665	F/1.05/665	-

Overall Intersection – X/XX.X - Level of Service/Intersection Signal Delay in sec
Approaches - X/X.XX/XXX – Level of Service/Volume to Capacity Ratio/95% Queue Length in ft
[1] – Signalized Intersection
[2] – Unsignalized Intersection, Analysis for controlled movements
[3] – PM Peak Hour includes signal timing modifications

	AM		Mid-Day		PM		
	2021 No Build	2021 Build	2021 No Build	2021 Build	2021 No Build	2021 Build	2021 Build W/ Improvements
Home Depot Drive/Trefoil Drive & Route 111[1]	**B/15.9**	**B/15.9**	**B/13.7**	**B/13.7**	**B/19.6**	**B/19.6**	**-**
Route 111 EB Left	D/0.61/145	D/0.61/145	C/0.38/70	C/0.38/70	D/0.55/135	D/0.55/135	-
Route 111 EB Thru	B/0.44/215	B/0.44/215	A/0.39/180	A/0.39/180	B/0.61/365	B/0.61/365	-
Route 111 EB Right	A/0.08/25	A/0.08/25	A/0.09/25	A/0.09/25	A/0.09/25	A/0.09/25	-
Route 111 WB Left	C/0.30/60	C/0.30/60	C/0.30/60	C/0.30/60	C/0.38/70	C/0.38/70	-
Route 111 WB Thru/Right	B/0.60/245	B/0.60/245	B/0.54/255	B/0.54/255	C/0.78/405	C/0.78/405	-
Home Depot Drive NB Left	C/0.34/50	C/0.34/50	C/0.43/60	C/0.43/60	D/0.60/80	D/0.60/80	-
Home Depot Drive NB Thru/Right	B/0.22/40	B/0.22/40	B/0.40/55	B/0.40/55	B/0.31/50	B/0.31/50	-
Trefoil Drive SB Left	C/0.47/75	C/0.47/75	C/0.41/65	C/0.41/65	C/0.35/60	C/0.35/60	-
Trefoil Drive SB Thru/Right	B/0.46/55	B/0.46/55	B/0.48/65	B/0.48/65	A/0.47/55	A/0.47/55	-
Trefoil Drive/Private Drive & Spring Hill Road[2]	-	-	-	-	-	-	-
Trefoil Drive NB	B/0.14/25	B/0.14/25	B/0.20/25	B/0.21/25	B/0.20/25	B/0.21/25	-
Spring Hill Road EB	A/0.00/25	A/0.00/25	A/0.00/25	A/0.00/25	A/0.00/25	A/0.00/25	-
Spring Hill Road WB Left	B/0.07/25	B/0.07/25	A/0.04/25	A/0.04/25	A/0.04/25	A/0.04/25	-
Private Drive SB	B/0.03/25	B/0.03/25	B/0.00/25	B/0.00/25	A/0.00/25	A/0.00/25	-
Route 111 & Spring Hill Road/Office Drive[1]	**A/3.9**	**A/3.9**	**A/5.1**	**A/6.5**	**A/4.9**	**A/5.3**	**-**
Spring Hill Road EB	C/0.34/45	C/0.34/45	C/0.47/60	C/0.58/80	C/0.41/50	C/0.45/55	-
Route 111 NB Left/Thru/Right	A/0.27/70	A/0.27/70	A/0.39/120	A/0.40/140	A/0.52/175	A/0.52/185	-
Route 111 SB Left/Thru/Right	A/0.45/150	A/0.45/150	A/0.42/140	A/0.43/165	A/0.34/100	A/0.35/105	-

Overall Intersection – X/XX.X - Level of Service/Intersection Signal Delay in sec
Approaches - X/X.XX/XXX – Level of Service/Volume to Capacity Ratio/95% Queue Length in ft
[1] – Signalized Intersection
[2] – Unsignalized Intersection, Analysis for controlled movements
[3] – PM Peak Hour includes signal timing modifications

	AM		Mid-Day		PM		
	2021 No Build	2021 Build	2021 No Build	2021 Build	2021 No Build	2021 Build	2021 Build W/ Improvements
Route 25 & Site Drive #1[2]	-	-	-	-	-	-	-
Site Drive #1 WB Right	-	A/0.00/25	-	C/0.06/25	-	C/0.02/25	-
Route 25 & Site Drive #2[2]	-	-	-	-	-	-	-
Site Drive #2 WB Right	-	A/0.00/25	-	C/0.03/25	-	C/0.01/25	-
Spring Hill Road & Site Drive #3[2]	-	-	-	-	-	-	-
Site Drive #3 SB Left/Right	-	A/0.00/25	-	C/0.23/25	-	B/0.04/25	-

Overall Intersection – X/XX.X - Level of Service/Intersection Signal Delay in sec
Approaches - X/X.XX/XXX – Level of Service/Volume to Capacity Ratio/95% Queue Length in ft
[1] – Signalized Intersection
[2] – Unsignalized Intersection, Analysis for controlled movements
[3] – PM Peak Hour includes signal timing modifications

Conclusion

BL Companies was tasked with evaluating the improvements proposed at the current delivery station located at 7120 Main Street in Trumbull, CT. This addendum revises the analysis supplied in the Addendum #1 dated August 2020.

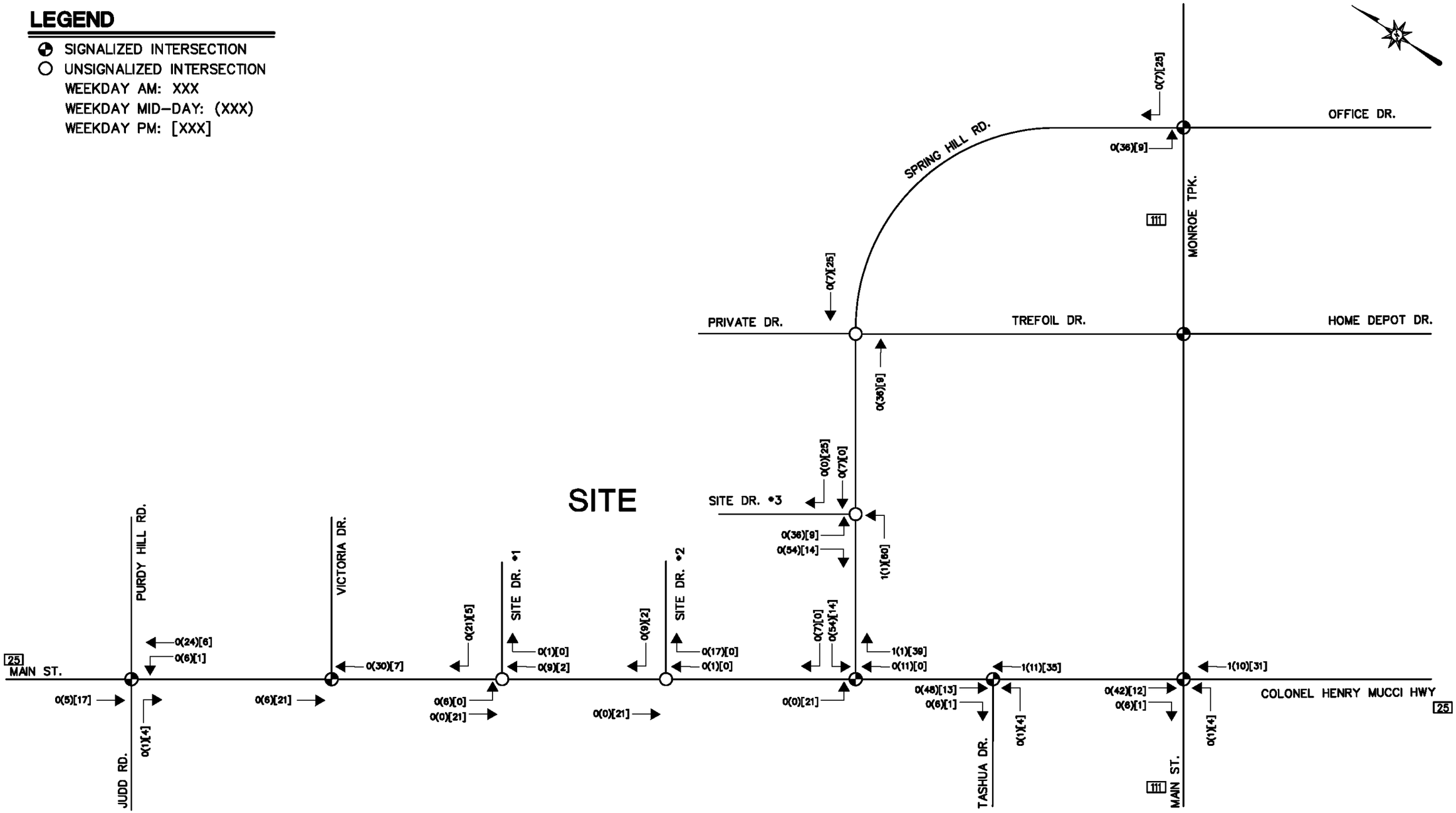
After discussions with the Town of Trumbull, the left turn out of Site Drive #1 has been eliminated due to safety concerns. Traffic is now being rerouted through the Site to Site Drive #3 on Spring Hill Road. Traffic will then make a left onto Route 25 via Spring Hill Road.

The change in site circulation had minimum impacts to the overall operation and capacity of the Site Driveways. The Spring Hill Road left movement did cause poor performance in the PM Peak Hour, however, with signal timing modifications, the impact will be minimized.

LEGEND

- SIGNALIZED INTERSECTION
- UNSIGNALIZED INTERSECTION

WEEKDAY AM: XXX
WEEKDAY MID-DAY: (XXX)
WEEKDAY PM: [XXX]



ARCHITECTURE
ENGINEERING
ENVIRONMENTAL
LAND SURVEYING
BL Companies

SITE GENERATION TRAFFIC VOLUMES
PROPOSED IMPROVEMENT
7120 MAIN STREET
TRUMBULL, CONNECTICUT
SCHEMATIC, NOT TO SCALE

SEPTEMBER 2020

FIGURE 5A-2

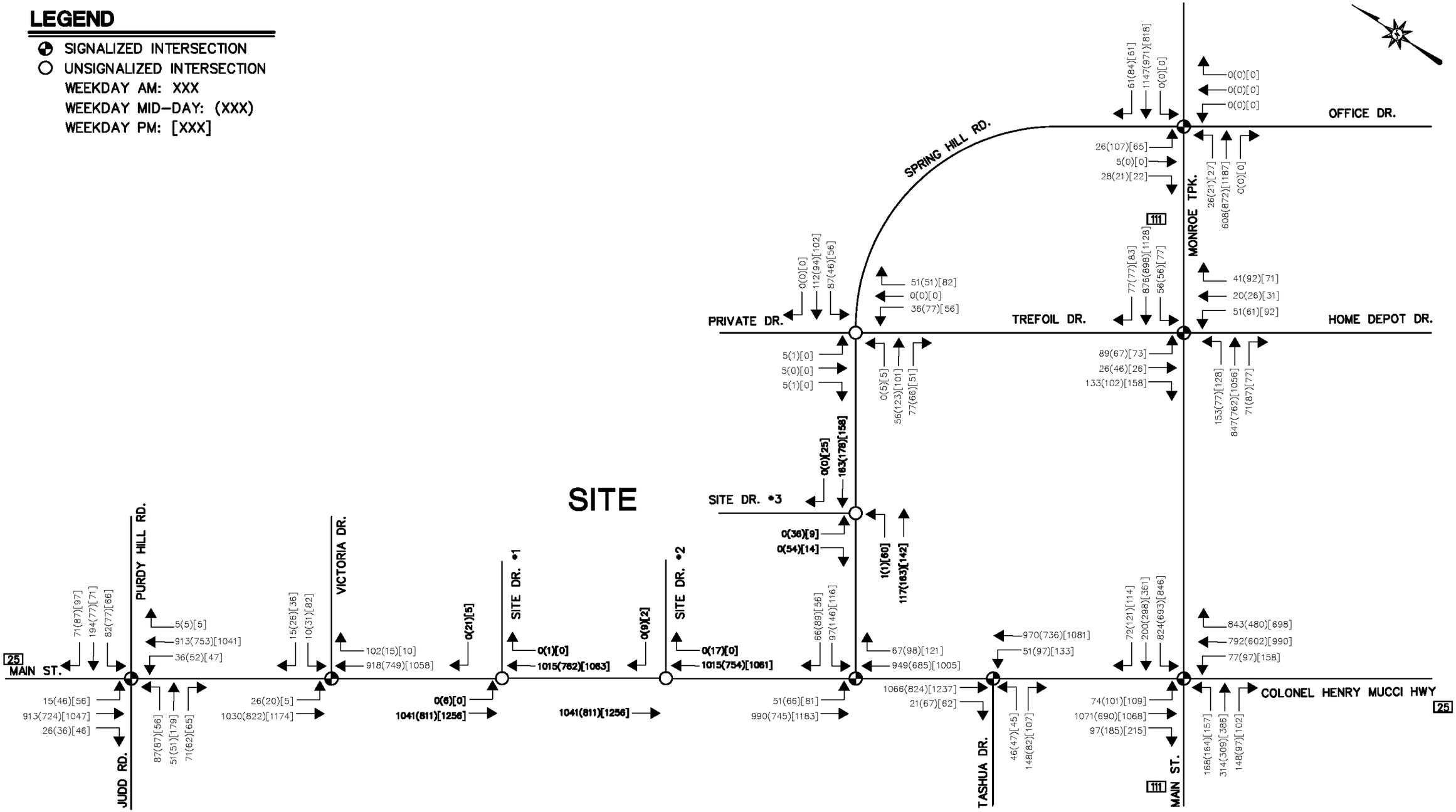
© 2020 BL COMPANIES, INC. THESE DRAWINGS SHALL NOT BE UTILIZED BY ANY PERSON, FIRM OR CORPORATION WITHOUT THE SPECIFIC WRITTEN PERMISSION OF BL COMPANIES.

9/4/2020, MSHEPLEY, G:\JOBS19\10\1901141\DWG\TFI-O1901141-E1.DWG,FIGURE 5A-2.

LEGEND

- SIGNALIZED INTERSECTION
- UNSIGNALIZED INTERSECTION

WEEKDAY AM: XXX
WEEKDAY MID-DAY: (XXX)
WEEKDAY PM: [XXX]



9/4/2020, MSHEPLEY, G:\JOBS19\10\190114\DWG\TFLO190114-E1.DWG,FIGURE 6A-2.

ARCHITECTURE
ENGINEERING
ENVIRONMENTAL
LAND SURVEYING
BL Companies

BUILD (2021) TRAFFIC VOLUMES
PROPOSED IMPROVEMENT
7120 MAIN STREET
TRUMBULL, CONNECTICUT
SCHEMATIC, NOT TO SCALE

SEPTEMBER 2020

FIGURE 6A-2

© 2020 BL COMPANIES, INC. THESE DRAWINGS SHALL NOT BE UTILIZED BY ANY PERSON, FIRM OR CORPORATION WITHOUT THE SPECIFIC WRITTEN PERMISSION OF BL COMPANIES.

CAPACITY ANALYSIS

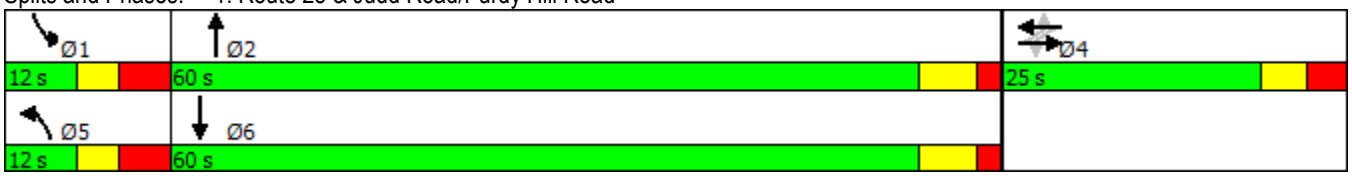
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	87	51	71	82	194	71	36	913	5	15	913	26
Future Volume (vph)	87	51	71	82	194	71	36	913	5	15	913	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	135		0	85		0	130		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	75			96			96			96		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.912			0.960			0.999			0.996	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1699	0	1770	1788	0	1770	1861	0	1770	1855	0
Flt Permitted	0.317			0.673			0.950			0.950		
Satd. Flow (perm)	590	1699	0	1254	1788	0	1770	1861	0	1770	1855	0
Right Turn on Red			Yes			No			Yes			No
Satd. Flow (RTOR)		64										
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		373			328			2210			332	
Travel Time (s)		8.5			7.5			37.7			5.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	95	55	77	89	211	77	39	992	5	16	992	28
Shared Lane Traffic (%)												
Lane Group Flow (vph)	95	132	0	89	288	0	39	997	0	16	1020	0
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		4			4		5	2		1	6	
Permitted Phases	4			4								
Detector Phase	4	4		4	4		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	25.0		5.0	25.0	
Minimum Split (s)	11.4	11.4		11.4	11.4		11.8	31.0		11.8	31.0	
Total Split (s)	25.0	25.0		25.0	25.0		12.0	60.0		12.0	60.0	
Total Split (%)	25.8%	25.8%		25.8%	25.8%		12.4%	61.9%		12.4%	61.9%	
Maximum Green (s)	18.6	18.6		18.6	18.6		5.2	54.0		5.2	54.0	
Yellow Time (s)	3.3	3.3		3.3	3.3		3.0	4.2		3.0	4.2	
All-Red Time (s)	3.1	3.1		3.1	3.1		3.8	1.8		3.8	1.8	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.4	6.4		6.4	6.4		6.8	6.0		6.8	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		1.5	2.5		1.5	2.5	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)	17.4	17.4		17.4	17.4		5.2	54.2		5.2	52.0	
Actuated g/C Ratio	0.20	0.20		0.20	0.20		0.06	0.61		0.06	0.59	
v/c Ratio	0.83	0.34		0.36	0.82		0.38	0.88		0.16	0.94	
Control Delay	86.6	21.3		38.4	56.5		54.7	27.0		47.4	35.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	86.6	21.3		38.4	56.5		54.7	27.0		47.4	35.8	
LOS	F	C		D	E		D	C		D	D	
Approach Delay		48.6			52.2			28.0			36.0	
Approach LOS		D			D			C			D	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	57	36		48	173		24	373		10	583	
Queue Length 95th (ft)	#152	88		96	#311		58	#858		31	#891	
Internal Link Dist (ft)		293			248			2130			252	
Turn Bay Length (ft)	135			85			130			100		
Base Capacity (vph)	126	413		268	382		105	1202		105	1152	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.75	0.32		0.33	0.75		0.37	0.83		0.15	0.89	

Intersection Summary	
Area Type:	Other
Cycle Length: 97	
Actuated Cycle Length: 88.6	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 36.3	Intersection LOS: D
Intersection Capacity Utilization 84.6%	ICU Level of Service E
Analysis Period (min) 15	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Route 25 & Judd Road/Purdy Hill Road



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	10	15	918	102	26	1030
Future Volume (vph)	10	15	918	102	26	1030
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	210	145		0	150	
Storage Lanes	0	1		0	1	
Taper Length (ft)	120				96	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850	0.986			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	1837	0	1770	1863
Flt Permitted	0.950				0.137	
Satd. Flow (perm)	1770	1583	1837	0	255	1863
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		16	10			
Link Speed (mph)	25		40			40
Link Distance (ft)	526		1826			466
Travel Time (s)	14.3		31.1			7.9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	16	998	111	28	1120
Shared Lane Traffic (%)						
Lane Group Flow (vph)	11	16	1109	0	28	1120
Turn Type	Prot	Perm	NA		pm+pt	NA
Protected Phases	4		2		1	2
Permitted Phases		4			2	
Detector Phase	4	4	2		1	2
Switch Phase						
Minimum Initial (s)	7.0	7.0	18.0		5.0	18.0
Minimum Split (s)	11.5	11.5	22.8		9.5	22.8
Total Split (s)	22.0	22.0	45.0		15.0	45.0
Total Split (%)	26.8%	26.8%	54.9%		18.3%	54.9%
Maximum Green (s)	17.5	17.5	40.2		10.5	40.2
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5
All-Red Time (s)	1.0	1.0	1.3		1.0	1.3
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.5	4.5	4.8		4.5	4.8
Lead/Lag			Lag		Lead	Lag
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	2.5		2.0	2.5
Recall Mode	None	None	Min		None	Min
Act Effct Green (s)	7.0	7.0	52.6		51.9	52.6
Actuated g/C Ratio	0.11	0.11	0.84		0.83	0.84
v/c Ratio	0.06	0.08	0.72		0.08	0.71
Control Delay	27.0	15.1	12.6		2.3	12.6
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	27.0	15.1	12.6		2.3	12.6
LOS	C	B	B		A	B
Approach Delay	20.0		12.6			12.3
Approach LOS	B		B			B

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Queue Length 50th (ft)	4	0	0		1	0
Queue Length 95th (ft)	17	16	#699		6	#698
Internal Link Dist (ft)	446		1746			386
Turn Bay Length (ft)	210	145			150	
Base Capacity (vph)	497	456	1550		474	1571
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.02	0.04	0.72		0.06	0.71

Intersection Summary	
Area Type: Other	
Cycle Length: 82	
Actuated Cycle Length: 62.4	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 12.6	Intersection LOS: B
Intersection Capacity Utilization 68.1%	ICU Level of Service C
Analysis Period (min) 15	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Route 25 & Victoria Drive

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø5
Lane Configurations							
Traffic Volume (vph)	97	66	949	67	51	990	
Future Volume (vph)	97	66	949	67	51	990	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	220		150	145		
Storage Lanes	1	1		1	1		
Taper Length (ft)	25				205		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		0.850		0.850			
Flt Protected	0.950				0.950		
Satd. Flow (prot)	1770	1583	1863	1583	1770	1863	
Flt Permitted	0.950				0.136		
Satd. Flow (perm)	1770	1583	1863	1583	253	1863	
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)		72		46			
Link Speed (mph)	25		40			40	
Link Distance (ft)	563		462			204	
Travel Time (s)	15.4		7.9			3.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	105	72	1032	73	55	1076	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	105	72	1032	73	55	1076	
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA	
Protected Phases	4		2		1	6	5
Permitted Phases		4		2	6		
Detector Phase	4	4	2	2	1	6	
Switch Phase							
Minimum Initial (s)	7.0	7.0	18.0	18.0	5.0	18.0	5.0
Minimum Split (s)	11.0	11.0	23.7	23.7	9.0	23.7	9.0
Total Split (s)	19.0	19.0	65.7	65.7	14.0	65.7	14.0
Total Split (%)	19.3%	19.3%	66.6%	66.6%	14.2%	66.6%	14%
Maximum Green (s)	15.0	15.0	60.0	60.0	10.0	60.0	10.0
Yellow Time (s)	3.0	3.0	4.3	4.3	3.0	4.3	3.0
All-Red Time (s)	1.0	1.0	1.4	1.4	1.0	1.4	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	5.7	5.7	4.0	5.7	
Lead/Lag			Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?							
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	3.0	3.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	Min	Min	None	Min	None
Act Effct Green (s)	10.8	10.8	62.4	62.4	68.1	60.1	
Actuated g/C Ratio	0.12	0.12	0.68	0.68	0.75	0.66	
v/c Ratio	0.50	0.29	0.81	0.07	0.19	0.88	
Control Delay	46.2	12.4	8.4	1.4	4.0	23.6	
Queue Delay	0.0	0.0	0.4	0.0	0.0	0.0	
Total Delay	46.2	12.4	8.8	1.4	4.0	23.6	

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø5
LOS	D	B	A	A	A	C	
Approach Delay	32.5		8.4			22.6	
Approach LOS	C		A			C	
Queue Length 50th (ft)	57	0	84	0	5	437	
Queue Length 95th (ft)	110	38	#801	m1	15	#889	
Internal Link Dist (ft)	483		382			124	
Turn Bay Length (ft)		220		150	145		
Base Capacity (vph)	291	320	1275	1098	366	1229	
Starvation Cap Reductn	0	0	40	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	
Reduced v/c Ratio	0.36	0.23	0.84	0.07	0.15	0.88	

Intersection Summary

Area Type: Other
Cycle Length: 98.7
Actuated Cycle Length: 91.1
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.96
Intersection Signal Delay: 16.8 Intersection LOS: B
Intersection Capacity Utilization 66.0% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Route 25 & Spring Hill Road

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø1
Lane Configurations							
Traffic Volume (vph)	46	148	51	970	1066	21	
Future Volume (vph)	46	148	51	970	1066	21	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	185	390			0	
Storage Lanes	1	1	1			0	
Taper Length (ft)	25		90				
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		0.850			0.997		
Flt Protected	0.950		0.950				
Satd. Flow (prot)	1770	1583	1770	1863	1857	0	
Flt Permitted	0.950		0.064				
Satd. Flow (perm)	1770	1583	119	1863	1857	0	
Right Turn on Red		Yes				Yes	
Satd. Flow (RTOR)		86			2		
Link Speed (mph)	25			40	40		
Link Distance (ft)	287			1984	462		
Travel Time (s)	7.8			33.8	7.9		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	50	161	55	1054	1159	23	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	50	161	55	1054	1182	0	
Turn Type	Prot	pm+ov	pm+pt	NA	NA		
Protected Phases	4	5	5	2	6		1
Permitted Phases		4	2				
Detector Phase	4	5	5	2	6		
Switch Phase							
Minimum Initial (s)	7.0	5.0	5.0	18.0	18.0		5.0
Minimum Split (s)	11.0	9.0	9.0	23.7	23.7		9.0
Total Split (s)	19.0	14.0	14.0	65.7	65.7		14.0
Total Split (%)	19.3%	14.2%	14.2%	66.6%	66.6%		14%
Maximum Green (s)	15.0	10.0	10.0	60.0	60.0		10.0
Yellow Time (s)	3.0	3.0	3.0	4.3	4.3		3.0
All-Red Time (s)	1.0	1.0	1.0	1.4	1.4		1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	4.0	4.0	4.0	5.7	5.7		
Lead/Lag		Lead	Lead	Lag	Lag		Lead
Lead-Lag Optimize?							
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0		3.0
Time Before Reduce (s)	0.0	0.0	0.0	3.0	0.0		0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0		0.0
Recall Mode	None	None	None	Min	Min		None
Act Effct Green (s)	10.8	21.2	69.3	62.4	60.1		
Actuated g/C Ratio	0.12	0.23	0.76	0.68	0.66		
v/c Ratio	0.24	0.37	0.27	0.83	0.96		
Control Delay	39.1	16.5	6.0	19.6	21.6		
Queue Delay	0.0	0.0	0.0	0.3	0.0		
Total Delay	39.1	16.5	6.0	19.9	21.6		

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø1
LOS	D	B	A	B	C		
Approach Delay	21.9			19.3	21.6		
Approach LOS	C			B	C		
Queue Length 50th (ft)	26	35	5	417	125		
Queue Length 95th (ft)	61	87	16	#845	m#324		
Internal Link Dist (ft)	207			1904	382		
Turn Bay Length (ft)		185	390				
Base Capacity (vph)	291	493	275	1275	1226		
Starvation Cap Reductn	0	0	0	0	0		
Spillback Cap Reductn	0	0	0	26	0		
Storage Cap Reductn	0	0	0	0	0		
Reduced v/c Ratio	0.17	0.33	0.20	0.84	0.96		

Intersection Summary

Area Type: Other
Cycle Length: 98.7
Actuated Cycle Length: 91.1
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.96
Intersection Signal Delay: 20.6 Intersection LOS: C
Intersection Capacity Utilization 74.6% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Route 25 & Tashua Road

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	74	1071	97	77	792	843	168	314	148	824	200	72
Future Volume (vph)	74	1071	97	77	792	843	168	314	148	824	200	72
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	190		500	165		320	350		135	500		0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (ft)	230			220			65			95		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00
Frt			0.850			0.850			0.850		0.960	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	3433	1788	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	3539	1583	3433	1788	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			116			72			170		17	
Link Speed (mph)		40			40			40			40	
Link Distance (ft)		860			711			438			1769	
Travel Time (s)		14.7			12.1			7.5			30.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	80	1164	105	84	861	916	183	341	161	896	217	78
Shared Lane Traffic (%)												
Lane Group Flow (vph)	80	1164	105	84	861	916	183	341	161	896	295	0
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	
Protected Phases	5	2	7	1	6	3	7	4		3	8	
Permitted Phases			2			6			4			
Detector Phase	5	2	7	1	6	3	7	4	4	3	8	
Switch Phase												
Minimum Initial (s)	5.0	15.0	7.0	5.0	15.0	7.0	7.0	7.0	7.0	7.0	7.0	
Minimum Split (s)	10.0	22.0	12.0	10.0	22.0	12.0	12.0	13.0	13.0	12.0	13.0	
Total Split (s)	12.0	47.0	12.0	12.0	47.0	42.0	12.0	21.0	21.0	42.0	51.0	
Total Split (%)	9.8%	38.5%	9.8%	9.8%	38.5%	34.4%	9.8%	17.2%	17.2%	34.4%	41.8%	
Maximum Green (s)	7.0	40.0	7.0	7.0	40.0	37.0	7.0	15.0	15.0	37.0	45.0	
Yellow Time (s)	3.0	5.0	3.0	3.0	5.0	3.0	3.0	4.0	4.0	3.0	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	7.0	5.0	5.0	7.0	5.0	5.0	6.0	6.0	5.0	6.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	1.0	2.5	3.0	1.0	2.5	2.0	3.0	2.0	2.0	2.0	2.0	
Recall Mode	None	Min	None	None	Min	None	None	None	None	None	None	
Act Effct Green (s)	6.7	40.1	54.1	6.8	40.2	81.1	7.0	13.8	13.8	33.9	40.7	
Actuated g/C Ratio	0.06	0.34	0.46	0.06	0.34	0.69	0.06	0.12	0.12	0.29	0.35	
v/c Ratio	0.80	0.97	0.13	0.82	0.71	0.82	1.74	0.82	0.48	0.91	0.47	
Control Delay	103.3	58.0	3.3	107.1	38.5	20.1	403.6	68.0	11.4	54.0	30.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	103.3	58.0	3.3	107.1	38.5	20.1	403.6	68.0	11.4	54.0	30.7	
LOS	F	E	A	F	D	C	F	E	B	D	C	
Approach Delay		56.4			32.5			144.3			48.3	
Approach LOS		E			C			F			D	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	63	~484	0	67	316	439	~217	139	0	342	163	
Queue Length 95th (ft)	#153	#640	27	#161	393	670	#366	#204	57	#429	245	
Internal Link Dist (ft)		780			631			358			1689	
Turn Bay Length (ft)	190		500	165		320	350		135	500		
Base Capacity (vph)	105	1205	790	105	1209	1154	105	452	350	1082	696	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.76	0.97	0.13	0.80	0.71	0.79	1.74	0.75	0.46	0.83	0.42	

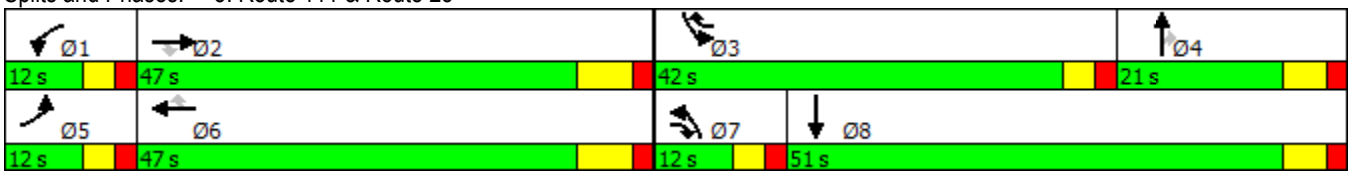
Intersection Summary

Area Type: Other
Cycle Length: 122
Actuated Cycle Length: 117.7
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.74
Intersection Signal Delay: 57.6 Intersection LOS: E
Intersection Capacity Utilization 85.2% ICU Level of Service E
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Route 111 & Route 25



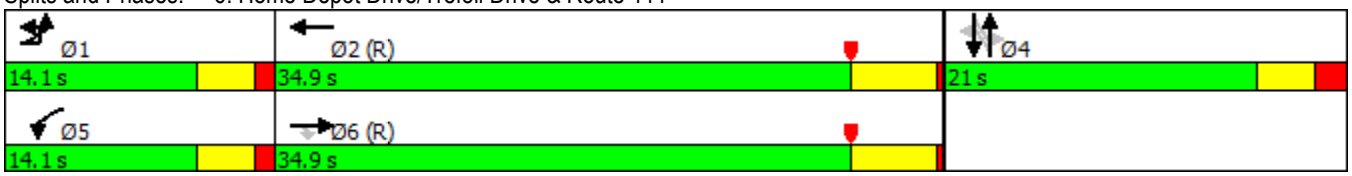
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	153	847	71	56	876	77	51	20	41	89	26	133
Future Volume (vph)	153	847	71	56	876	77	51	20	41	89	26	133
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	230		230	200		0	90		0	100		0
Storage Lanes	1		1	1		0	1		0	1		0
Taper Length (ft)	115			120			90			96		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.988			0.899			0.874	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3497	0	1770	1675	0	1770	1628	0
Flt Permitted	0.950			0.950			0.560			0.713		
Satd. Flow (perm)	1770	3539	1583	1770	3497	0	1043	1675	0	1328	1628	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			92		16			45			145	
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		481			302			288			263	
Travel Time (s)		8.2			5.1			7.9			7.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	166	921	77	61	952	84	55	22	45	97	28	145
Shared Lane Traffic (%)												
Lane Group Flow (vph)	166	921	77	61	1036	0	55	67	0	97	173	0
Turn Type	Prot	NA	Perm	Prot	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			4	
Permitted Phases			6				4			4		
Detector Phase	1	6	6	5	2		4	4		4	4	
Switch Phase												
Minimum Initial (s)	5.0	15.0	15.0	5.0	15.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	9.1	19.9	19.9	9.1	19.9		11.8	11.8		11.8	11.8	
Total Split (s)	14.1	34.9	34.9	14.1	34.9		21.0	21.0		21.0	21.0	
Total Split (%)	20.1%	49.9%	49.9%	20.1%	49.9%		30.0%	30.0%		30.0%	30.0%	
Maximum Green (s)	10.0	30.0	30.0	10.0	30.0		16.2	16.2		16.2	16.2	
Yellow Time (s)	3.0	4.4	4.4	3.0	4.4		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.1	0.5	0.5	1.1	0.5		1.8	1.8		1.8	1.8	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.1	4.9	4.9	4.1	4.9		4.8	4.8		4.8	4.8	
Lead/Lag	Lead	Lag	Lag	Lead	Lag							
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	None		None	None	
Act Effct Green (s)	10.8	41.5	41.5	7.9	34.5		10.9	10.9		10.9	10.9	
Actuated g/C Ratio	0.15	0.59	0.59	0.11	0.49		0.16	0.16		0.16	0.16	
v/c Ratio	0.61	0.44	0.08	0.30	0.60		0.34	0.22		0.47	0.46	
Control Delay	38.1	10.9	2.6	31.9	15.4		30.9	13.5		33.5	11.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	38.1	10.9	2.6	31.9	15.4		30.9	13.5		33.5	11.1	
LOS	D	B	A	C	B		C	B		C	B	
Approach Delay		14.2			16.3			21.3			19.2	
Approach LOS		B			B			C			B	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	66	119	0	25	160		22	8		39	11	
Queue Length 95th (ft)	#143	212	18	56	245		49	37		75	55	
Internal Link Dist (ft)		401			222			208			183	
Turn Bay Length (ft)	230		230	200			90			100		
Base Capacity (vph)	285	2099	976	254	1730		241	422		307	488	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.58	0.44	0.08	0.24	0.60		0.23	0.16		0.32	0.35	

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.61
Intersection Signal Delay: 15.9 Intersection LOS: B
Intersection Capacity Utilization 66.0% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: Home Depot Drive/Trefoil Drive & Route 111



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	56	77	87	112	0	36	0	51	5	5	5
Future Volume (vph)	0	56	77	87	112	0	36	0	51	5	5	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.922						0.921			0.955	
Flt Protected					0.979			0.980			0.984	
Satd. Flow (prot)	0	1717	0	0	1824	0	0	1681	0	0	1750	0
Flt Permitted					0.979			0.980			0.984	
Satd. Flow (perm)	0	1717	0	0	1824	0	0	1681	0	0	1750	0
Link Speed (mph)		25			25			25			30	
Link Distance (ft)		1279			533			365			165	
Travel Time (s)		34.9			14.5			10.0			3.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	61	84	95	122	0	39	0	55	5	5	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	145	0	0	217	0	0	94	0	0	15	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 35.7%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	56	77	87	112	0	36	0	51	5	5	5
Future Vol, veh/h	0	56	77	87	112	0	36	0	51	5	5	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	61	84	95	122	0	39	0	55	5	5	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	122	0	0	145	0	0	420	415	103	443	457	122
Stage 1	-	-	-	-	-	-	103	103	-	312	312	-
Stage 2	-	-	-	-	-	-	317	312	-	131	145	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1465	-	-	1437	-	-	544	528	952	525	500	929
Stage 1	-	-	-	-	-	-	903	810	-	699	658	-
Stage 2	-	-	-	-	-	-	694	658	-	873	777	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1465	-	-	1437	-	-	507	491	952	468	465	929
Mov Cap-2 Maneuver	-	-	-	-	-	-	507	491	-	468	465	-
Stage 1	-	-	-	-	-	-	903	810	-	699	611	-
Stage 2	-	-	-	-	-	-	635	611	-	822	777	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	3.4	11	11.6
HCM LOS			B	B

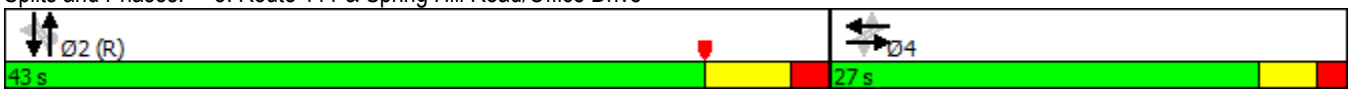
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	698	1465	-	-	1437	-	-	559
HCM Lane V/C Ratio	0.135	-	-	-	0.066	-	-	0.029
HCM Control Delay (s)	11	0	-	-	7.7	0	-	11.6
HCM Lane LOS	B	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.5	0	-	-	0.2	-	-	0.1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	26	5	28	0	0	0	26	608	0	0	1147	61
Future Volume (vph)	26	5	28	0	0	0	26	608	0	0	1147	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.936									0.992	
Flt Protected		0.978						0.998				
Satd. Flow (prot)	0	1705	0	0	1863	0	0	3532	0	0	3511	0
Flt Permitted		0.857						0.868				
Satd. Flow (perm)	0	1494	0	0	1863	0	0	3072	0	0	3511	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		30									11	
Link Speed (mph)		25			30			40			40	
Link Distance (ft)		238			96			211			211	
Travel Time (s)		6.5			2.2			3.6			3.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	28	5	30	0	0	0	28	661	0	0	1247	66
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	63	0	0	0	0	0	689	0	0	1313	0
Turn Type	Perm	NA					Perm	NA			NA	
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Detector Phase	4	4		4	4		2	2		2	2	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		15.0	15.0		15.0	15.0	
Minimum Split (s)	25.0	25.0		25.0	25.0		29.0	29.0		29.0	29.0	
Total Split (s)	27.0	27.0		27.0	27.0		43.0	43.0		43.0	43.0	
Total Split (%)	38.6%	38.6%		38.6%	38.6%		61.4%	61.4%		61.4%	61.4%	
Maximum Green (s)	22.3	22.3		22.3	22.3		36.5	36.5		36.5	36.5	
Yellow Time (s)	3.0	3.0		3.0	3.0		4.4	4.4		4.4	4.4	
All-Red Time (s)	1.7	1.7		1.7	1.7		2.1	2.1		2.1	2.1	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.7			4.7			6.5			6.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	
Act Effct Green (s)		7.6						58.5			58.5	
Actuated g/C Ratio		0.11						0.84			0.84	
v/c Ratio		0.34						0.27			0.45	
Control Delay		22.9						2.8			3.6	
Queue Delay		0.0						0.0			0.0	
Total Delay		22.9						2.8			3.6	
LOS		C						A			A	
Approach Delay		22.9						2.8			3.6	
Approach LOS		C						A			A	
Queue Length 50th (ft)		13						39			92	
Queue Length 95th (ft)		45						67			149	
Internal Link Dist (ft)		158			16			131			131	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)												
Base Capacity (vph)		496						2568			2937	
Starvation Cap Reductn		0						0			0	
Spillback Cap Reductn		0						0			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.13						0.27			0.45	

Intersection Summary	
Area Type:	Other
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 14 (20%), Referenced to phase 2:NBSB, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.45	
Intersection Signal Delay: 3.9	Intersection LOS: A
Intersection Capacity Utilization 51.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 8: Route 111 & Spring Hill Road/Office Drive



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	1	117	163	0	0	0
Future Volume (vph)	1	117	163	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	0	1863	1863	0	1863	0
Flt Permitted						
Satd. Flow (perm)	0	1863	1863	0	1863	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		563	1279		166	
Travel Time (s)		12.8	29.1		3.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	127	177	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	128	177	0	0	0
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 11.9%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	117	163	0	0	0
Future Vol, veh/h	1	117	163	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	127	177	0	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	177	0	-	0	306	177
Stage 1	-	-	-	-	177	-
Stage 2	-	-	-	-	129	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1399	-	-	-	686	866
Stage 1	-	-	-	-	854	-
Stage 2	-	-	-	-	897	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1399	-	-	-	685	866
Mov Cap-2 Maneuver	-	-	-	-	685	-
Stage 1	-	-	-	-	853	-
Stage 2	-	-	-	-	897	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1399	-	-	-	-
HCM Lane V/C Ratio	0.001	-	-	-	-
HCM Control Delay (s)	7.6	0	-	-	0
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	1015	0	0	1041
Future Volume (vph)	0	0	1015	0	0	1041
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	0	1863	1863	0	0	1863
Flt Permitted						
Satd. Flow (perm)	0	1863	1863	0	0	1863
Link Speed (mph)	30		40			40
Link Distance (ft)	154		277			1826
Travel Time (s)	3.5		4.7			31.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	1103	0	0	1132
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	1103	0	0	1132
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 58.1%	ICU Level of Service B
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	1015	0	0	1041
Future Vol, veh/h	0	0	1015	0	0	1041
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	1103	0	0	1132

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	1103	0	0	1103	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	4.12	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	0	257	-	-	633	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	257	-	-	633	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	633	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	1015	0	0	1041
Future Volume (vph)	0	0	1015	0	0	1041
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	0	1863	1863	0	0	1863
Flt Permitted						
Satd. Flow (perm)	0	1863	1863	0	0	1863
Link Speed (mph)	30		40			40
Link Distance (ft)	176		204			277
Travel Time (s)	4.0		3.5			4.7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	1103	0	0	1132
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	1103	0	0	1132
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 58.1%	ICU Level of Service B
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	1015	0	0	1041
Future Vol, veh/h	0	0	1015	0	0	1041
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	1103	0	0	1132

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	1103	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	257	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	257	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	-
HCM Lane LOS	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	-

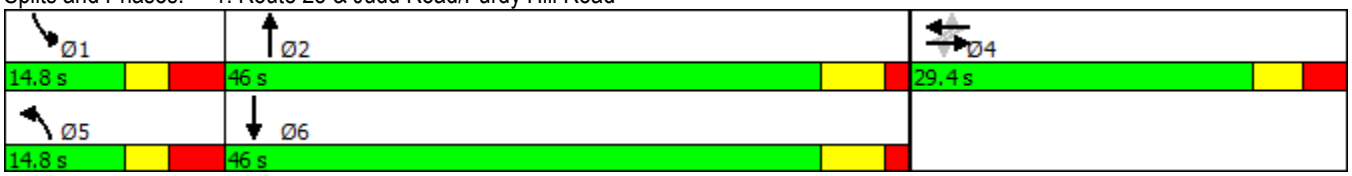
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	87	51	62	77	77	87	52	753	5	46	724	36
Future Volume (vph)	87	51	62	77	77	87	52	753	5	46	724	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	135		0	85		0	130		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	75			96			96			96		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.918			0.920			0.999			0.993	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1710	0	1770	1714	0	1770	1861	0	1770	1850	0
Flt Permitted	0.619			0.679			0.950			0.950		
Satd. Flow (perm)	1153	1710	0	1265	1714	0	1770	1861	0	1770	1850	0
Right Turn on Red			Yes			No			Yes			No
Satd. Flow (RTOR)		65										
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		373			328			2210			483	
Travel Time (s)		8.5			7.5			37.7			8.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	95	55	67	84	84	95	57	818	5	50	787	39
Shared Lane Traffic (%)												
Lane Group Flow (vph)	95	122	0	84	179	0	57	823	0	50	826	0
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		4			4		5	2		1	6	
Permitted Phases	4			4								
Detector Phase	4	4		4	4		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	25.0		5.0	25.0	
Minimum Split (s)	11.4	11.4		11.4	11.4		11.8	31.0		11.8	31.0	
Total Split (s)	29.4	29.4		29.4	29.4		14.8	46.0		14.8	46.0	
Total Split (%)	32.6%	32.6%		32.6%	32.6%		16.4%	51.0%		16.4%	51.0%	
Maximum Green (s)	23.0	23.0		23.0	23.0		8.0	40.0		8.0	40.0	
Yellow Time (s)	3.3	3.3		3.3	3.3		3.0	4.2		3.0	4.2	
All-Red Time (s)	3.1	3.1		3.1	3.1		3.8	1.8		3.8	1.8	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.4	6.4		6.4	6.4		6.8	6.0		6.8	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		1.5	2.5		1.5	2.5	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)	12.5	12.5		12.5	12.5		6.5	39.5		6.4	39.4	
Actuated g/C Ratio	0.17	0.17		0.17	0.17		0.09	0.55		0.09	0.55	
v/c Ratio	0.48	0.35		0.39	0.61		0.36	0.81		0.32	0.82	
Control Delay	37.8	18.3		34.2	38.6		41.4	24.8		40.7	25.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	37.8	18.3		34.2	38.6		41.4	24.8		40.7	25.6	
LOS	D	B		C	D		D	C		D	C	
Approach Delay		26.8			37.2			25.9			26.5	
Approach LOS		C			D			C			C	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	43	24		37	83		27	328		24	335	
Queue Length 95th (ft)	90	70		80	148		66	#663		60	#670	
Internal Link Dist (ft)		293			248			2130			403	
Turn Bay Length (ft)	135			85			130			100		
Base Capacity (vph)	380	608		417	565		203	1071		203	1062	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.25	0.20		0.20	0.32		0.28	0.77		0.25	0.78	

Intersection Summary	
Area Type: Other	
Cycle Length: 90.2	
Actuated Cycle Length: 72.2	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 27.5	Intersection LOS: C
Intersection Capacity Utilization 73.1%	ICU Level of Service D
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Route 25 & Judd Road/Purdy Hill Road



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	31	26	749	15	20	822
Future Volume (vph)	31	26	749	15	20	822
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	210	145		0	150	
Storage Lanes	0	1		0	1	
Taper Length (ft)	120				96	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850	0.997			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	1857	0	1770	1863
Flt Permitted	0.950				0.262	
Satd. Flow (perm)	1770	1583	1857	0	488	1863
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		28	2			
Link Speed (mph)	25		40			40
Link Distance (ft)	526		1834			466
Travel Time (s)	14.3		31.3			7.9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	34	28	814	16	22	893
Shared Lane Traffic (%)						
Lane Group Flow (vph)	34	28	830	0	22	893
Turn Type	Prot	Perm	NA		pm+pt	NA
Protected Phases	4		2		1	2
Permitted Phases		4			2	
Detector Phase	4	4	2		1	2
Switch Phase						
Minimum Initial (s)	7.0	7.0	18.0		5.0	18.0
Minimum Split (s)	11.5	11.5	22.8		9.5	22.8
Total Split (s)	22.0	22.0	45.0		15.0	45.0
Total Split (%)	26.8%	26.8%	54.9%		18.3%	54.9%
Maximum Green (s)	17.5	17.5	40.2		10.5	40.2
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5
All-Red Time (s)	1.0	1.0	1.3		1.0	1.3
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.5	4.5	4.8		4.5	4.8
Lead/Lag			Lag		Lead	Lag
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	2.5		2.0	2.5
Recall Mode	None	None	Min		None	Min
Act Effct Green (s)	7.5	7.5	46.2		45.1	46.2
Actuated g/C Ratio	0.13	0.13	0.81		0.79	0.81
v/c Ratio	0.15	0.12	0.55		0.04	0.59
Control Delay	26.4	12.2	7.1		2.5	8.2
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	26.4	12.2	7.1		2.5	8.2
LOS	C	B	A		A	A
Approach Delay	20.0		7.1			8.0
Approach LOS	B		A			A

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Queue Length 50th (ft)	12	0	107		2	123
Queue Length 95th (ft)	37	21	368		6	#450
Internal Link Dist (ft)	446		1754			386
Turn Bay Length (ft)	210	145			150	
Base Capacity (vph)	554	515	1502		632	1506
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.06	0.05	0.55		0.03	0.59

Intersection Summary	
Area Type: Other	
Cycle Length: 82	
Actuated Cycle Length: 57.1	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.59	
Intersection Signal Delay: 8.0	Intersection LOS: A
Intersection Capacity Utilization 56.8%	ICU Level of Service B
Analysis Period (min) 15	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Route 25 & Victoria Drive

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø5
Lane Configurations							
Traffic Volume (vph)	146	89	685	98	66	745	
Future Volume (vph)	146	89	685	98	66	745	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	220		150	145		
Storage Lanes	1	1		1	1		
Taper Length (ft)	25				205		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		0.850		0.850			
Flt Protected	0.950				0.950		
Satd. Flow (prot)	1770	1583	1863	1583	1770	1863	
Flt Permitted	0.950				0.292		
Satd. Flow (perm)	1770	1583	1863	1583	544	1863	
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)		97		94			
Link Speed (mph)	25		40			40	
Link Distance (ft)	520		462			222	
Travel Time (s)	14.2		7.9			3.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	159	97	745	107	72	810	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	159	97	745	107	72	810	
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA	
Protected Phases	4		2		1	6	5
Permitted Phases		4		2	6		
Detector Phase	4	4	2	2	1	6	
Switch Phase							
Minimum Initial (s)	7.0	7.0	18.0	18.0	5.0	18.0	5.0
Minimum Split (s)	11.0	11.0	23.7	23.7	9.0	23.7	9.0
Total Split (s)	19.0	19.0	65.7	65.7	14.0	65.7	14.0
Total Split (%)	19.3%	19.3%	66.6%	66.6%	14.2%	66.6%	14%
Maximum Green (s)	15.0	15.0	60.0	60.0	10.0	60.0	10.0
Yellow Time (s)	3.0	3.0	4.3	4.3	3.0	4.3	3.0
All-Red Time (s)	1.0	1.0	1.4	1.4	1.0	1.4	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	5.7	5.7	4.0	5.7	
Lead/Lag			Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?							
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	3.0	3.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	Min	Min	None	Min	None
Act Effct Green (s)	12.6	12.6	60.2	60.2	64.6	56.3	
Actuated g/C Ratio	0.14	0.14	0.66	0.66	0.71	0.62	
v/c Ratio	0.65	0.32	0.60	0.10	0.15	0.70	
Control Delay	51.5	11.2	5.3	0.4	3.6	16.0	
Queue Delay	0.0	0.0	0.1	0.0	0.0	0.0	
Total Delay	51.5	11.2	5.5	0.4	3.6	16.0	

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø5
LOS	D	B	A	A	A	B	
Approach Delay	36.2		4.9			15.0	
Approach LOS	D		A			B	
Queue Length 50th (ft)	92	0	69	0	8	295	
Queue Length 95th (ft)	161	45	85	m1	18	466	
Internal Link Dist (ft)	440		382			142	
Turn Bay Length (ft)		220		150	145		
Base Capacity (vph)	297	346	1277	1114	546	1252	
Starvation Cap Reductn	0	0	78	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	
Reduced v/c Ratio	0.54	0.28	0.62	0.10	0.13	0.65	

Intersection Summary

Area Type: Other
Cycle Length: 98.7
Actuated Cycle Length: 90.7
Natural Cycle: 65
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.84
Intersection Signal Delay: 13.4 Intersection LOS: B
Intersection Capacity Utilization 59.7% ICU Level of Service B
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Route 25 & Spring Hill Road

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø1
Lane Configurations							
Traffic Volume (vph)	47	82	97	736	824	67	
Future Volume (vph)	47	82	97	736	824	67	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	185	390			0	
Storage Lanes	1	1	1			0	
Taper Length (ft)	25		90				
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		0.850			0.990		
Flt Protected	0.950		0.950				
Satd. Flow (prot)	1770	1583	1770	1863	1844	0	
Flt Permitted	0.950		0.120				
Satd. Flow (perm)	1770	1583	224	1863	1844	0	
Right Turn on Red		Yes				Yes	
Satd. Flow (RTOR)		89			8		
Link Speed (mph)	25			40	40		
Link Distance (ft)	287			1984	462		
Travel Time (s)	7.8			33.8	7.9		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	51	89	105	800	896	73	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	51	89	105	800	969	0	
Turn Type	Prot	pm+ov	pm+pt	NA	NA		
Protected Phases	4	5	5	2	6		1
Permitted Phases		4	2				
Detector Phase	4	5	5	2	6		
Switch Phase							
Minimum Initial (s)	7.0	5.0	5.0	18.0	18.0		5.0
Minimum Split (s)	11.0	9.0	9.0	23.7	23.7		9.0
Total Split (s)	19.0	14.0	14.0	65.7	65.7		14.0
Total Split (%)	19.3%	14.2%	14.2%	66.6%	66.6%		14%
Maximum Green (s)	15.0	10.0	10.0	60.0	60.0		10.0
Yellow Time (s)	3.0	3.0	3.0	4.3	4.3		3.0
All-Red Time (s)	1.0	1.0	1.0	1.4	1.4		1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	4.0	4.0	4.0	5.7	5.7		
Lead/Lag		Lead	Lead	Lag	Lag		Lead
Lead-Lag Optimize?							
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0		3.0
Time Before Reduce (s)	0.0	0.0	0.0	3.0	0.0		0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0		0.0
Recall Mode	None	None	None	Min	Min		None
Act Effct Green (s)	12.6	24.6	68.2	60.2	56.3		
Actuated g/C Ratio	0.14	0.27	0.75	0.66	0.62		
v/c Ratio	0.21	0.18	0.35	0.65	0.84		
Control Delay	38.6	7.0	6.0	13.4	15.3		
Queue Delay	0.0	0.0	0.0	0.0	0.0		
Total Delay	38.6	7.0	6.0	13.4	15.4		

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø1
LOS	D	A	A	B	B		
Approach Delay	18.5			12.5	15.4		
Approach LOS	B			B	B		
Queue Length 50th (ft)	28	0	12	273	149		
Queue Length 95th (ft)	63	35	25	429	#195		
Internal Link Dist (ft)	207			1904	382		
Turn Bay Length (ft)		185	390				
Base Capacity (vph)	297	530	344	1277	1242		
Starvation Cap Reductn	0	0	0	0	3		
Spillback Cap Reductn	0	0	0	0	0		
Storage Cap Reductn	0	0	0	0	0		
Reduced v/c Ratio	0.17	0.17	0.31	0.63	0.78		

Intersection Summary

Area Type: Other
Cycle Length: 98.7
Actuated Cycle Length: 90.7
Natural Cycle: 65
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.84
Intersection Signal Delay: 14.3 — Intersection LOS: B
Intersection Capacity Utilization 70.1% — ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 4: Route 25 & Tashua Road

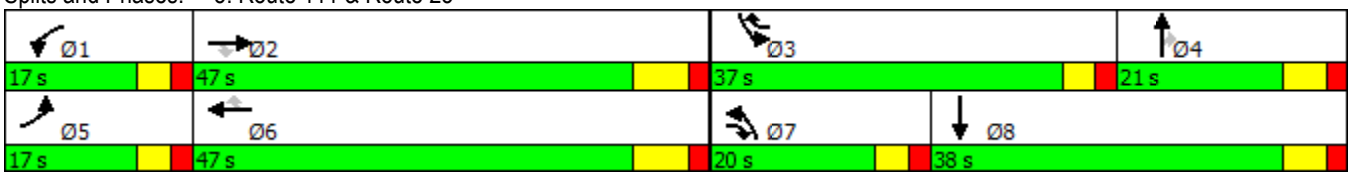
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	101	690	185	97	602	480	164	309	97	693	298	121
Future Volume (vph)	101	690	185	97	602	480	164	309	97	693	298	121
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	190		500	165		320	350		135	500		0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (ft)	230			220			65			95		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00
Frt			0.850			0.850			0.850		0.957	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	3433	1783	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	3539	1583	3433	1783	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			201			128			170		16	
Link Speed (mph)		40			40			40			40	
Link Distance (ft)		860			711			438			727	
Travel Time (s)		14.7			12.1			7.5			12.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	110	750	201	105	654	522	178	336	105	753	324	132
Shared Lane Traffic (%)												
Lane Group Flow (vph)	110	750	201	105	654	522	178	336	105	753	456	0
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	
Protected Phases	5	2	7	1	6	3	7	4		3	8	
Permitted Phases			2			6			4			
Detector Phase	5	2	7	1	6	3	7	4	4	3	8	
Switch Phase												
Minimum Initial (s)	5.0	15.0	7.0	5.0	15.0	7.0	7.0	7.0	7.0	7.0	7.0	
Minimum Split (s)	10.0	22.0	12.0	10.0	22.0	12.0	12.0	13.0	13.0	12.0	13.0	
Total Split (s)	17.0	47.0	20.0	17.0	47.0	37.0	20.0	21.0	21.0	37.0	38.0	
Total Split (%)	13.9%	38.5%	16.4%	13.9%	38.5%	30.3%	16.4%	17.2%	17.2%	30.3%	31.1%	
Maximum Green (s)	12.0	40.0	15.0	12.0	40.0	32.0	15.0	15.0	15.0	32.0	32.0	
Yellow Time (s)	3.0	5.0	3.0	3.0	5.0	3.0	3.0	4.0	4.0	3.0	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	7.0	5.0	5.0	7.0	5.0	5.0	6.0	6.0	5.0	6.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	1.0	2.5	3.0	1.0	2.5	2.0	3.0	2.0	2.0	2.0	2.0	
Recall Mode	None	Min	None	None	Min	None	None	None	None	None	None	
Act Effct Green (s)	9.4	26.6	47.6	9.2	26.4	60.0	13.9	17.3	17.3	26.4	29.8	
Actuated g/C Ratio	0.09	0.26	0.46	0.09	0.26	0.58	0.13	0.17	0.17	0.26	0.29	
v/c Ratio	0.68	0.82	0.24	0.66	0.72	0.54	0.74	0.57	0.26	0.86	0.87	
Control Delay	69.9	44.7	3.0	68.9	40.3	11.4	65.3	46.6	2.2	47.9	53.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	69.9	44.7	3.0	68.9	40.3	11.4	65.3	46.6	2.2	47.9	53.1	
LOS	E	D	A	E	D	B	E	D	A	D	D	
Approach Delay		39.4			30.9			44.4			49.9	
Approach LOS		D			C			D			D	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	74	256	0	70	217	153	118	110	0	251	281	
Queue Length 95th (ft)	#153	334	38	139	285	223	#252	#188	5	354	#534	
Internal Link Dist (ft)		780			631			358			647	
Turn Bay Length (ft)	190		500	165		320	350		135	500		
Base Capacity (vph)	211	1406	859	211	1406	1064	263	596	408	1091	577	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.52	0.53	0.23	0.50	0.47	0.49	0.68	0.56	0.26	0.69	0.79	

Intersection Summary	
Area Type: Other	
Cycle Length: 122	
Actuated Cycle Length: 103	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 40.6	Intersection LOS: D
Intersection Capacity Utilization 75.8%	ICU Level of Service D
Analysis Period (min) 15	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Route 111 & Route 25

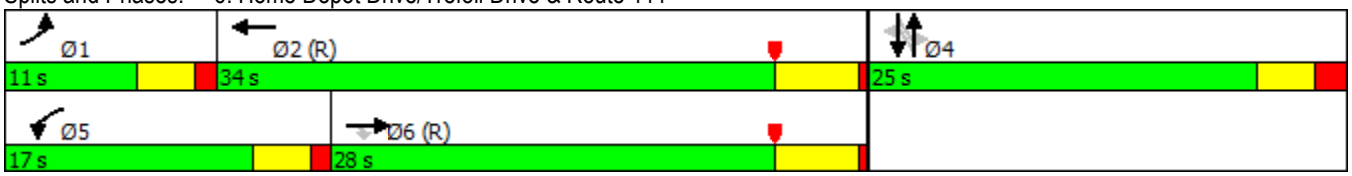


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	77	762	87	56	898	77	61	26	92	67	46	102
Future Volume (vph)	77	762	87	56	898	77	61	26	92	67	46	102
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	230		230	200		0	90		0	100		0
Storage Lanes	1		1	1		0	1		0	1		0
Taper Length (ft)	115			120			90			96		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.988			0.883			0.897	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3497	0	1770	1645	0	1770	1671	0
Flt Permitted	0.950			0.950			0.583			0.675		
Satd. Flow (perm)	1770	3539	1583	1770	3497	0	1086	1645	0	1257	1671	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			156		16			100			111	
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		1534			302			288			263	
Travel Time (s)		26.1			5.1			7.9			7.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	84	828	95	61	976	84	66	28	100	73	50	111
Shared Lane Traffic (%)												
Lane Group Flow (vph)	84	828	95	61	1060	0	66	128	0	73	161	0
Turn Type	Prot	NA	Perm	Prot	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			4	
Permitted Phases			6				4			4		
Detector Phase	1	6	6	5	2		4	4		4	4	
Switch Phase												
Minimum Initial (s)	5.0	15.0	15.0	5.0	15.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	9.1	19.9	19.9	9.1	19.9		11.8	11.8		11.8	11.8	
Total Split (s)	11.0	28.0	28.0	17.0	34.0		25.0	25.0		25.0	25.0	
Total Split (%)	15.7%	40.0%	40.0%	24.3%	48.6%		35.7%	35.7%		35.7%	35.7%	
Maximum Green (s)	6.9	23.1	23.1	12.9	29.1		20.2	20.2		20.2	20.2	
Yellow Time (s)	3.0	4.4	4.4	3.0	4.4		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.1	0.5	0.5	1.1	0.5		1.8	1.8		1.8	1.8	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.1	4.9	4.9	4.1	4.9		4.8	4.8		4.8	4.8	
Lead/Lag	Lead	Lag	Lag	Lead	Lag							
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	None		None	None	
Act Effct Green (s)	8.7	42.3	42.3	8.0	39.4		10.0	10.0		10.0	10.0	
Actuated g/C Ratio	0.12	0.60	0.60	0.11	0.56		0.14	0.14		0.14	0.14	
v/c Ratio	0.38	0.39	0.09	0.30	0.54		0.43	0.40		0.41	0.48	
Control Delay	32.4	9.8	0.9	31.7	12.5		35.0	12.7		33.2	15.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	32.4	9.8	0.9	31.7	12.5		35.0	12.7		33.2	15.0	
LOS	C	A	A	C	B		C	B		C	B	
Approach Delay		10.9			13.6			20.3			20.7	
Approach LOS		B			B			C			C	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	34	100	0	25	142		27	11		29	20	
Queue Length 95th (ft)	69	180	8	56	255		58	51		62	64	
Internal Link Dist (ft)		1454			222			208			183	
Turn Bay Length (ft)	230		230	200			90			100		
Base Capacity (vph)	226	2140	1018	326	1976		313	545		362	561	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.37	0.39	0.09	0.19	0.54		0.21	0.23		0.20	0.29	

Intersection Summary	
Area Type:	Other
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.54	
Intersection Signal Delay: 13.7	Intersection LOS: B
Intersection Capacity Utilization 61.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 6: Home Depot Drive/Trefoil Drive & Route 111



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	123	66	46	94	0	77	0	51	1	0	1
Future Volume (vph)	5	123	66	46	94	0	77	0	51	1	0	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.954						0.947			0.932	
Flt Protected		0.999			0.984			0.971			0.976	
Satd. Flow (prot)	0	1775	0	0	1833	0	0	1713	0	0	1694	0
Flt Permitted		0.999			0.984			0.971			0.976	
Satd. Flow (perm)	0	1775	0	0	1833	0	0	1713	0	0	1694	0
Link Speed (mph)		25			25			25			30	
Link Distance (ft)		1325			533			365			137	
Travel Time (s)		36.1			14.5			10.0			3.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	134	72	50	102	0	84	0	55	1	0	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	211	0	0	152	0	0	139	0	0	2	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 38.2%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	123	66	46	94	0	77	0	51	1	0	1
Future Vol, veh/h	5	123	66	46	94	0	77	0	51	1	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	134	72	50	102	0	84	0	55	1	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	102	0	0	206	0	0	383	382	170	410	418	102
Stage 1	-	-	-	-	-	-	180	180	-	202	202	-
Stage 2	-	-	-	-	-	-	203	202	-	208	216	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1490	-	-	1365	-	-	575	551	874	552	526	953
Stage 1	-	-	-	-	-	-	822	750	-	800	734	-
Stage 2	-	-	-	-	-	-	799	734	-	794	724	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1490	-	-	1365	-	-	555	527	874	500	503	953
Mov Cap-2 Maneuver	-	-	-	-	-	-	555	527	-	500	503	-
Stage 1	-	-	-	-	-	-	819	747	-	797	705	-
Stage 2	-	-	-	-	-	-	767	705	-	741	721	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	2.5	12.1	10.5
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	649	1490	-	-	1365	-	-	656
HCM Lane V/C Ratio	0.214	0.004	-	-	0.037	-	-	0.003
HCM Control Delay (s)	12.1	7.4	0	-	7.7	0	-	10.5
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.8	0	-	-	0.1	-	-	0

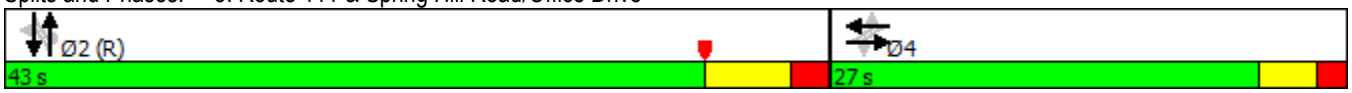
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	107	0	21	0	0	0	21	872	0	0	971	84
Future Volume (vph)	107	0	21	0	0	0	21	872	0	0	971	84
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.978									0.988	
Flt Protected		0.960						0.999				
Satd. Flow (prot)	0	1749	0	0	1863	0	0	3536	0	0	3497	0
Flt Permitted		0.761						0.910				
Satd. Flow (perm)	0	1386	0	0	1863	0	0	3221	0	0	3497	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		55									19	
Link Speed (mph)		25			30			40			40	
Link Distance (ft)		238			96			211			211	
Travel Time (s)		6.5			2.2			3.6			3.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	116	0	23	0	0	0	23	948	0	0	1055	91
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	139	0	0	0	0	0	971	0	0	1146	0
Turn Type	Perm	NA					Perm	NA			NA	
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Detector Phase	4	4		4	4		2	2		2	2	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		15.0	15.0		15.0	15.0	
Minimum Split (s)	25.0	25.0		25.0	25.0		29.0	29.0		29.0	29.0	
Total Split (s)	27.0	27.0		27.0	27.0		43.0	43.0		43.0	43.0	
Total Split (%)	38.6%	38.6%		38.6%	38.6%		61.4%	61.4%		61.4%	61.4%	
Maximum Green (s)	22.3	22.3		22.3	22.3		36.5	36.5		36.5	36.5	
Yellow Time (s)	3.0	3.0		3.0	3.0		4.4	4.4		4.4	4.4	
All-Red Time (s)	1.7	1.7		1.7	1.7		2.1	2.1		2.1	2.1	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.7			4.7			6.5			6.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	
Act Effct Green (s)		9.8						52.7			52.7	
Actuated g/C Ratio		0.14						0.75			0.75	
v/c Ratio		0.58						0.40			0.43	
Control Delay		26.9						5.1			5.2	
Queue Delay		0.0						0.0			0.0	
Total Delay		26.9						5.1			5.2	
LOS		C						A			A	
Approach Delay		26.9						5.1			5.2	
Approach LOS		C						A			A	
Queue Length 50th (ft)		34						72			86	
Queue Length 95th (ft)		79						140			164	
Internal Link Dist (ft)		158			16			131			131	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)												
Base Capacity (vph)		479						2423			2635	
Starvation Cap Reductn		0						0			0	
Spillback Cap Reductn		0						0			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.29						0.40			0.43	

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 70
Offset: 14 (20%), Referenced to phase 2:NBSB, Start of Yellow
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.58
Intersection Signal Delay: 6.5 — Intersection LOS: A
Intersection Capacity Utilization 55.7% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 8: Route 111 & Spring Hill Road/Office Drive



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	1	163	178	0	36	54
Future Volume (vph)	1	163	178	0	36	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.919	
Flt Protected					0.980	
Satd. Flow (prot)	0	1863	1863	0	1678	0
Flt Permitted					0.980	
Satd. Flow (perm)	0	1863	1863	0	1678	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		520	1325		152	
Travel Time (s)		11.8	30.1		3.5	
Confl. Peds. (#/hr)	199					
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	177	193	0	39	59
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	178	193	0	98	0
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 21.4%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	163	178	0	36	54
Future Vol, veh/h	1	163	178	0	36	54
Conflicting Peds, #/hr	199	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	177	193	0	39	59

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	392	0	-	0	571	392
Stage 1	-	-	-	-	392	-
Stage 2	-	-	-	-	179	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1167	-	-	-	482	657
Stage 1	-	-	-	-	683	-
Stage 2	-	-	-	-	852	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	946	-	-	-	316	532
Mov Cap-2 Maneuver	-	-	-	-	316	-
Stage 1	-	-	-	-	553	-
Stage 2	-	-	-	-	690	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	16.2
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	946	-	-	-	418
HCM Lane V/C Ratio	0.001	-	-	-	0.234
HCM Control Delay (s)	8.8	0	-	-	16.2
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.9

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	9	754	17	0	811
Future Volume (vph)	0	9	754	17	0	811
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865	0.997			
Flt Protected						
Satd. Flow (prot)	0	1611	1857	0	0	1863
Flt Permitted						
Satd. Flow (perm)	0	1611	1857	0	0	1863
Link Speed (mph)	30		40			40
Link Distance (ft)	213		222			251
Travel Time (s)	4.8		3.8			4.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	10	820	18	0	882
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	10	838	0	0	882
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 50.7%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	9	754	17	0	811
Future Vol, veh/h	0	9	754	17	0	811
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	10	820	18	0	882

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	829	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	370	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	370	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	370	-
HCM Lane V/C Ratio	-	-	0.026	-
HCM Control Delay (s)	-	-	15	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	0.1	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	21	762	1	6	811
Future Volume (vph)	0	21	762	1	6	811
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865				
Flt Protected						
Satd. Flow (prot)	0	1611	1863	0	0	1863
Flt Permitted						
Satd. Flow (perm)	0	1611	1863	0	0	1863
Link Speed (mph)	30		40			40
Link Distance (ft)	133		251			1834
Travel Time (s)	3.0		4.3			31.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	23	828	1	7	882
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	23	829	0	0	889
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 50.8%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	21	762	1	6	811
Future Vol, veh/h	0	21	762	1	6	811
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	23	828	1	7	882

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	829	0	0	829	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	4.12	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	0	370	-	-	803	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	370	-	-	803	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.4	0	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	370	803	-
HCM Lane V/C Ratio	-	-	0.062	0.008	-
HCM Control Delay (s)	-	-	15.4	9.5	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-

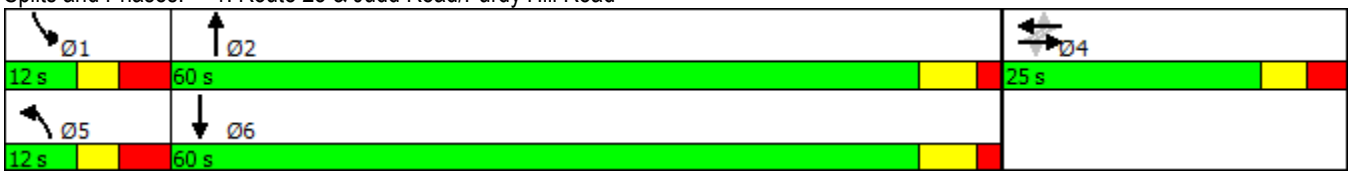
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	56	179	65	66	71	97	47	1041	5	56	1047	46
Future Volume (vph)	56	179	65	66	71	97	47	1041	5	56	1047	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	135		0	85		0	130		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	75			96			96			96		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.960			0.913			0.999			0.994	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1788	0	1770	1701	0	1770	1861	0	1770	1852	0
Flt Permitted	0.549			0.334			0.950			0.950		
Satd. Flow (perm)	1023	1788	0	622	1701	0	1770	1861	0	1770	1852	0
Right Turn on Red			Yes			No			Yes			No
Satd. Flow (RTOR)		17										
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		373			328			2210			332	
Travel Time (s)		8.5			7.5			37.7			5.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	61	195	71	72	77	105	51	1132	5	61	1138	50
Shared Lane Traffic (%)												
Lane Group Flow (vph)	61	266	0	72	182	0	51	1137	0	61	1188	0
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		4			4		5	2		1	6	
Permitted Phases	4			4								
Detector Phase	4	4		4	4		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	25.0		5.0	25.0	
Minimum Split (s)	11.4	11.4		11.4	11.4		11.8	31.0		11.8	31.0	
Total Split (s)	25.0	25.0		25.0	25.0		12.0	60.0		12.0	60.0	
Total Split (%)	25.8%	25.8%		25.8%	25.8%		12.4%	61.9%		12.4%	61.9%	
Maximum Green (s)	18.6	18.6		18.6	18.6		5.2	54.0		5.2	54.0	
Yellow Time (s)	3.3	3.3		3.3	3.3		3.0	4.2		3.0	4.2	
All-Red Time (s)	3.1	3.1		3.1	3.1		3.8	1.8		3.8	1.8	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.4	6.4		6.4	6.4		6.8	6.0		6.8	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		1.5	2.5		1.5	2.5	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)	16.1	16.1		16.1	16.1		5.2	54.5		5.2	54.5	
Actuated g/C Ratio	0.17	0.17		0.17	0.17		0.06	0.59		0.06	0.59	
v/c Ratio	0.34	0.82		0.67	0.61		0.52	1.04		0.62	1.09	
Control Delay	40.1	55.4		66.8	45.4		63.7	59.2		71.9	76.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	40.1	55.4		66.8	45.4		63.7	59.2		71.9	76.6	
LOS	D	E		E	D		E	E		E	E	
Approach Delay		52.6			51.5			59.4			76.4	
Approach LOS		D			D			E			E	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	33	146		41	102		31	~798		38	~868	
Queue Length 95th (ft)	72	#260		#105	172		#82	#1047		#100	#1117	
Internal Link Dist (ft)		293			248			2130			252	
Turn Bay Length (ft)	135			85			130			100		
Base Capacity (vph)	208	376		126	345		100	1098		100	1093	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.29	0.71		0.57	0.53		0.51	1.04		0.61	1.09	

Intersection Summary

Area Type: Other
Cycle Length: 97
Actuated Cycle Length: 92.3
Natural Cycle: 120
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.09
Intersection Signal Delay: 65.0 Intersection LOS: E
Intersection Capacity Utilization 91.1% ICU Level of Service F
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Route 25 & Judd Road/Purdy Hill Road



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	82	36	1058	10	5	1174
Future Volume (vph)	82	36	1058	10	5	1174
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	210	145		0	150	
Storage Lanes	0	1		0	1	
Taper Length (ft)	120				96	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850	0.999			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	1861	0	1770	1863
Flt Permitted	0.950				0.088	
Satd. Flow (perm)	1770	1583	1861	0	164	1863
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		39	1			
Link Speed (mph)	25		40			40
Link Distance (ft)	526		1826			466
Travel Time (s)	14.3		31.1			7.9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	89	39	1150	11	5	1276
Shared Lane Traffic (%)						
Lane Group Flow (vph)	89	39	1161	0	5	1276
Turn Type	Prot	Perm	NA		pm+pt	NA
Protected Phases	4		2		1	2
Permitted Phases		4			2	
Detector Phase	4	4	2		1	2
Switch Phase						
Minimum Initial (s)	7.0	7.0	18.0		5.0	18.0
Minimum Split (s)	11.5	11.5	22.8		9.5	22.8
Total Split (s)	22.0	22.0	45.0		15.0	45.0
Total Split (%)	26.8%	26.8%	54.9%		18.3%	54.9%
Maximum Green (s)	17.5	17.5	40.2		10.5	40.2
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5
All-Red Time (s)	1.0	1.0	1.3		1.0	1.3
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.5	4.5	4.8		4.5	4.8
Lead/Lag			Lag		Lead	Lag
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	2.5		2.0	2.5
Recall Mode	None	None	Min		None	Min
Act Effct Green (s)	8.8	8.8	46.6		46.8	46.6
Actuated g/C Ratio	0.14	0.14	0.74		0.74	0.74
v/c Ratio	0.36	0.15	0.84		0.02	0.93
Control Delay	28.9	10.6	18.3		3.2	25.9
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	28.9	10.6	18.3		3.2	25.9
LOS	C	B	B		A	C
Approach Delay	23.3		18.3			25.8
Approach LOS	C		B			C

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Queue Length 50th (ft)	28	0	249		1	327
Queue Length 95th (ft)	74	24	#826		3	#929
Internal Link Dist (ft)	446		1746			386
Turn Bay Length (ft)	210	145			150	
Base Capacity (vph)	494	470	1375		392	1376
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.18	0.08	0.84		0.01	0.93

Intersection Summary	
Area Type: Other	
Cycle Length: 82	
Actuated Cycle Length: 63.1	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay: 22.3	Intersection LOS: C
Intersection Capacity Utilization 75.4%	ICU Level of Service D
Analysis Period (min) 15	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Route 25 & Victoria Drive

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø5
Lane Configurations							
Traffic Volume (vph)	116	56	1005	121	81	1183	
Future Volume (vph)	116	56	1005	121	81	1183	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	220		150	145		
Storage Lanes	1	1		1	1		
Taper Length (ft)	25				205		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		0.850		0.850			
Flt Protected	0.950				0.950		
Satd. Flow (prot)	1770	1583	1863	1583	1770	1863	
Flt Permitted	0.950				0.095		
Satd. Flow (perm)	1770	1583	1863	1583	177	1863	
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)		61		79			
Link Speed (mph)	25		40			40	
Link Distance (ft)	534		462			221	
Travel Time (s)	14.6		7.9			3.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	126	61	1092	132	88	1286	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	126	61	1092	132	88	1286	
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA	
Protected Phases	4		2		1	6	5
Permitted Phases		4		2	6		
Detector Phase	4	4	2	2	1	6	
Switch Phase							
Minimum Initial (s)	7.0	7.0	18.0	18.0	5.0	18.0	5.0
Minimum Split (s)	11.0	11.0	23.7	23.7	9.0	23.7	9.0
Total Split (s)	19.0	19.0	65.7	65.7	14.0	65.7	14.0
Total Split (%)	19.3%	19.3%	66.6%	66.6%	14.2%	66.6%	14%
Maximum Green (s)	15.0	15.0	60.0	60.0	10.0	60.0	10.0
Yellow Time (s)	3.0	3.0	4.3	4.3	3.0	4.3	3.0
All-Red Time (s)	1.0	1.0	1.4	1.4	1.0	1.4	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	5.7	5.7	4.0	5.7	
Lead/Lag			Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?							
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	3.0	3.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	Min	Min	None	Min	None
Act Effct Green (s)	11.6	11.6	63.4	63.4	69.0	60.1	
Actuated g/C Ratio	0.12	0.12	0.68	0.68	0.74	0.64	
v/c Ratio	0.58	0.24	0.87	0.12	0.35	1.08	
Control Delay	49.8	12.6	10.4	1.4	7.0	69.4	
Queue Delay	0.0	0.0	1.7	0.0	0.0	8.7	
Total Delay	49.8	12.6	12.1	1.4	7.0	78.1	

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø5
LOS	D	B	B	A	A	E	
Approach Delay	37.7		10.9			73.5	
Approach LOS	D		B			E	
Queue Length 50th (ft)	72	0	91	1	9	~874	
Queue Length 95th (ft)	131	36	m#158	m2	21	#1200	
Internal Link Dist (ft)	454		382			141	
Turn Bay Length (ft)		220		150	145		
Base Capacity (vph)	283	305	1258	1095	305	1194	
Starvation Cap Reductn	0	0	66	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	23	
Storage Cap Reductn	0	0	0	0	0	0	
Reduced v/c Ratio	0.45	0.20	0.92	0.12	0.29	1.10	

Intersection Summary

Area Type: Other
Cycle Length: 98.7
Actuated Cycle Length: 93.8
Natural Cycle: 120
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.19
Intersection Signal Delay: 43.6 Intersection LOS: D
Intersection Capacity Utilization 76.8% ICU Level of Service D
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Route 25 & Spring Hill Road

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø1
Lane Configurations							
Traffic Volume (vph)	45	107	133	1081	1237	62	
Future Volume (vph)	45	107	133	1081	1237	62	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	185	390			0	
Storage Lanes	1	1	1			0	
Taper Length (ft)	25		90				
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		0.850			0.994		
Flt Protected	0.950		0.950				
Satd. Flow (prot)	1770	1583	1770	1863	1852	0	
Flt Permitted	0.950		0.063				
Satd. Flow (perm)	1770	1583	117	1863	1852	0	
Right Turn on Red		Yes				Yes	
Satd. Flow (RTOR)		56			5		
Link Speed (mph)	25			40	40		
Link Distance (ft)	287			1984	462		
Travel Time (s)	7.8			33.8	7.9		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	49	116	145	1175	1345	67	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	49	116	145	1175	1412	0	
Turn Type	Prot	pm+ov	pm+pt	NA	NA		
Protected Phases	4	5	5	2	6		1
Permitted Phases		4	2				
Detector Phase	4	5	5	2	6		
Switch Phase							
Minimum Initial (s)	7.0	5.0	5.0	18.0	18.0		5.0
Minimum Split (s)	11.0	9.0	9.0	23.7	23.7		9.0
Total Split (s)	19.0	14.0	14.0	65.7	65.7		14.0
Total Split (%)	19.3%	14.2%	14.2%	66.6%	66.6%		14%
Maximum Green (s)	15.0	10.0	10.0	60.0	60.0		10.0
Yellow Time (s)	3.0	3.0	3.0	4.3	4.3		3.0
All-Red Time (s)	1.0	1.0	1.0	1.4	1.4		1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	4.0	4.0	4.0	5.7	5.7		
Lead/Lag		Lead	Lead	Lag	Lag		Lead
Lead-Lag Optimize?							
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0		3.0
Time Before Reduce (s)	0.0	0.0	0.0	3.0	0.0		0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0		0.0
Recall Mode	None	None	None	Min	Min		None
Act Effct Green (s)	11.6	24.0	72.0	63.4	60.1		
Actuated g/C Ratio	0.12	0.26	0.77	0.68	0.64		
v/c Ratio	0.22	0.26	0.61	0.93	1.19		
Control Delay	39.6	16.5	27.4	30.8	99.7		
Queue Delay	0.0	0.0	0.0	2.7	0.0		
Total Delay	39.6	16.5	27.4	33.5	99.7		

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø1
LOS	D	B	C	C	F		
Approach Delay	23.4			32.8	99.7		
Approach LOS	C			C	F		
Queue Length 50th (ft)	27	28	31	585	~349		
Queue Length 95th (ft)	61	71	101	#1049	m#333		
Internal Link Dist (ft)	207			1904	382		
Turn Bay Length (ft)		185	390				
Base Capacity (vph)	283	473	267	1258	1188		
Starvation Cap Reductn	0	0	0	0	1		
Spillback Cap Reductn	0	0	0	38	0		
Storage Cap Reductn	0	0	0	0	0		
Reduced v/c Ratio	0.17	0.25	0.54	0.96	1.19		

Intersection Summary

Area Type: Other
Cycle Length: 98.7
Actuated Cycle Length: 93.8
Natural Cycle: 120
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.19
Intersection Signal Delay: 64.9 — Intersection LOS: E
Intersection Capacity Utilization 93.5% — ICU Level of Service F
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Route 25 & Tashua Road

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	109	1068	215	158	990	698	157	386	102	846	361	114
Future Volume (vph)	109	1068	215	158	990	698	157	386	102	846	361	114
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	190		500	165		320	350		135	500		0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (ft)	230			220			65			95		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00
Frt			0.850			0.850			0.850		0.964	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	3433	1796	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	3539	1583	3433	1796	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			139			107			170		13	
Link Speed (mph)		40			40			40			40	
Link Distance (ft)		860			711			438			727	
Travel Time (s)		14.7			12.1			7.5			12.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	118	1161	234	172	1076	759	171	420	111	920	392	124
Shared Lane Traffic (%)												
Lane Group Flow (vph)	118	1161	234	172	1076	759	171	420	111	920	516	0
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	
Protected Phases	5	2	7	1	6	3	7	4		3	8	
Permitted Phases			2			6			4			
Detector Phase	5	2	7	1	6	3	7	4	4	3	8	
Switch Phase												
Minimum Initial (s)	5.0	15.0	7.0	5.0	15.0	7.0	7.0	7.0	7.0	7.0	7.0	
Minimum Split (s)	10.0	22.0	12.0	10.0	22.0	12.0	12.0	13.0	13.0	12.0	13.0	
Total Split (s)	17.0	47.0	20.0	17.0	47.0	37.0	20.0	21.0	21.0	37.0	38.0	
Total Split (%)	13.9%	38.5%	16.4%	13.9%	38.5%	30.3%	16.4%	17.2%	17.2%	30.3%	31.1%	
Maximum Green (s)	12.0	40.0	15.0	12.0	40.0	32.0	15.0	15.0	15.0	32.0	32.0	
Yellow Time (s)	3.0	5.0	3.0	3.0	5.0	3.0	3.0	4.0	4.0	3.0	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	7.0	5.0	5.0	7.0	5.0	5.0	6.0	6.0	5.0	6.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	1.0	2.5	3.0	1.0	2.5	2.0	3.0	2.0	2.0	2.0	2.0	
Recall Mode	None	Min	None	None	Min	None	None	None	None	None	None	
Act Effct Green (s)	10.5	40.0	61.2	12.0	41.5	80.5	14.2	15.0	15.0	32.0	32.8	
Actuated g/C Ratio	0.09	0.33	0.50	0.10	0.34	0.66	0.12	0.12	0.12	0.26	0.27	
v/c Ratio	0.78	1.00	0.27	0.99	0.89	0.70	0.83	0.97	0.32	1.02	1.05	
Control Delay	86.0	67.8	7.6	120.5	49.2	15.7	83.4	88.7	3.7	80.2	97.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	86.0	67.8	7.6	120.5	49.2	15.7	83.4	88.7	3.7	80.2	97.0	
LOS	F	E	A	F	D	B	F	F	A	F	F	
Approach Delay		59.9			42.6			74.0			86.2	
Approach LOS		E			D			E			F	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	91	~481	38	138	428	313	133	175	0	~396	~445	
Queue Length 95th (ft)	#175	#637	85	#284	#562	469	#246	#281	11	#525	#663	
Internal Link Dist (ft)		780			631			358			647	
Turn Bay Length (ft)	190		500	165		320	350		135	500		
Base Capacity (vph)	174	1160	872	174	1204	1080	217	435	343	900	491	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.68	1.00	0.27	0.99	0.89	0.70	0.79	0.97	0.32	1.02	1.05	

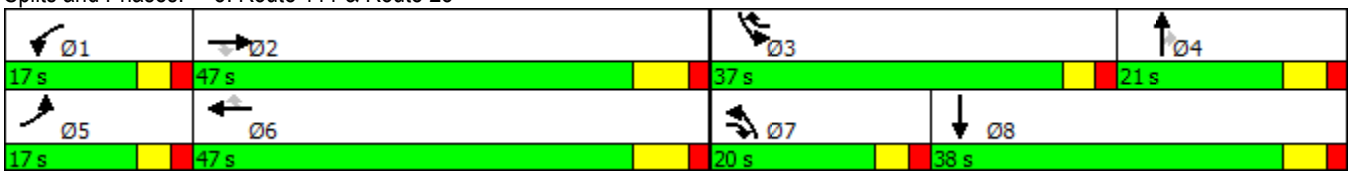
Intersection Summary

Area Type: Other
Cycle Length: 122
Actuated Cycle Length: 122
Natural Cycle: 120
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.05
Intersection Signal Delay: 62.2 Intersection LOS: E
Intersection Capacity Utilization 92.2% ICU Level of Service F
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Route 111 & Route 25



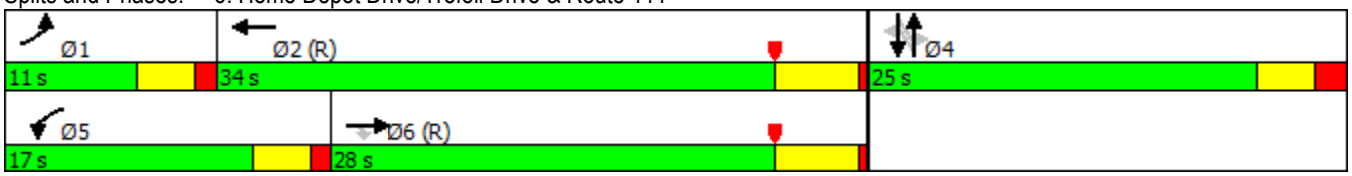
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	128	1056	77	77	1128	83	92	31	71	73	26	158
Future Volume (vph)	128	1056	77	77	1128	83	92	31	71	73	26	158
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	230		230	200		0	90		0	100		0
Storage Lanes	1		1	1		0	1		0	1		0
Taper Length (ft)	115			120			90			96		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.990			0.896			0.871	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3504	0	1770	1669	0	1770	1622	0
Flt Permitted	0.950			0.950			0.510			0.685		
Satd. Flow (perm)	1770	3539	1583	1770	3504	0	950	1669	0	1276	1622	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			156		13			77			172	
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		1532			302			288			263	
Travel Time (s)		26.1			5.1			7.9			7.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	139	1148	84	84	1226	90	100	34	77	79	28	172
Shared Lane Traffic (%)												
Lane Group Flow (vph)	139	1148	84	84	1316	0	100	111	0	79	200	0
Turn Type	Prot	NA	Perm	Prot	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			4	
Permitted Phases			6				4			4		
Detector Phase	1	6	6	5	2		4	4		4	4	
Switch Phase												
Minimum Initial (s)	5.0	15.0	15.0	5.0	15.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	9.1	19.9	19.9	9.1	19.9		11.8	11.8		11.8	11.8	
Total Split (s)	11.0	28.0	28.0	17.0	34.0		25.0	25.0		25.0	25.0	
Total Split (%)	15.7%	40.0%	40.0%	24.3%	48.6%		35.7%	35.7%		35.7%	35.7%	
Maximum Green (s)	6.9	23.1	23.1	12.9	29.1		20.2	20.2		20.2	20.2	
Yellow Time (s)	3.0	4.4	4.4	3.0	4.4		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.1	0.5	0.5	1.1	0.5		1.8	1.8		1.8	1.8	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.1	4.9	4.9	4.1	4.9		4.8	4.8		4.8	4.8	
Lead/Lag	Lead	Lag	Lag	Lead	Lag							
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	None		None	None	
Act Effct Green (s)	10.0	37.0	37.0	8.7	33.7		12.4	12.4		12.4	12.4	
Actuated g/C Ratio	0.14	0.53	0.53	0.12	0.48		0.18	0.18		0.18	0.18	
v/c Ratio	0.55	0.61	0.09	0.38	0.78		0.60	0.31		0.35	0.47	
Control Delay	38.4	16.7	0.6	32.4	20.7		39.7	11.5		27.7	9.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	38.4	16.7	0.6	32.4	20.7		39.7	11.5		27.7	9.4	
LOS	D	B	A	C	C		D	B		C	A	
Approach Delay		17.9			21.4			24.9			14.6	
Approach LOS		B			C			C			B	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	55	175	0	34	240		41	13		31	10	
Queue Length 95th (ft)	#135	#363	5	69	#404		77	46		60	55	
Internal Link Dist (ft)		1452			222			208			183	
Turn Bay Length (ft)	230		230	200			90			100		
Base Capacity (vph)	253	1868	909	326	1695		274	536		368	590	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.55	0.61	0.09	0.26	0.78		0.36	0.21		0.21	0.34	

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.78
Intersection Signal Delay: 19.6 Intersection LOS: B
Intersection Capacity Utilization 73.4% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: Home Depot Drive/Trefoil Drive & Route 111



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	101	51	56	102	0	56	0	82	0	0	0
Future Volume (vph)	5	101	51	56	102	0	56	0	82	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.956						0.920				
Flt Protected		0.999			0.983			0.980				
Satd. Flow (prot)	0	1779	0	0	1831	0	0	1679	0	0	1863	0
Flt Permitted		0.999			0.983			0.980				
Satd. Flow (perm)	0	1779	0	0	1831	0	0	1679	0	0	1863	0
Link Speed (mph)		25			25			25			30	
Link Distance (ft)		1315			533			365			175	
Travel Time (s)		35.9			14.5			10.0			4.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	110	55	61	111	0	61	0	89	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	170	0	0	172	0	0	150	0	0	0	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 35.3%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	101	51	56	102	0	56	0	82	0	0	0
Future Vol, veh/h	5	101	51	56	102	0	56	0	82	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	110	55	61	111	0	61	0	89	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	111	0	0	165	0	0	381	381	138	425	408	111
Stage 1	-	-	-	-	-	-	148	148	-	233	233	-
Stage 2	-	-	-	-	-	-	233	233	-	192	175	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1479	-	-	1413	-	-	577	552	910	540	533	942
Stage 1	-	-	-	-	-	-	855	775	-	770	712	-
Stage 2	-	-	-	-	-	-	770	712	-	810	754	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1479	-	-	1413	-	-	555	524	910	469	506	942
Mov Cap-2 Maneuver	-	-	-	-	-	-	555	524	-	469	506	-
Stage 1	-	-	-	-	-	-	852	772	-	767	679	-
Stage 2	-	-	-	-	-	-	735	679	-	728	751	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	2.7	11.3	0
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	722	1479	-	-	1413	-	-	-
HCM Lane V/C Ratio	0.208	0.004	-	-	0.043	-	-	-
HCM Control Delay (s)	11.3	7.4	0	-	7.7	0	-	0
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.8	0	-	-	0.1	-	-	-

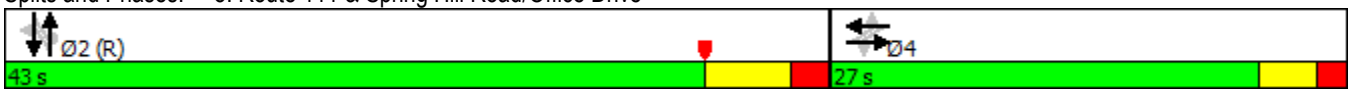
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	65	0	22	0	0	0	27	1187	0	0	818	61
Future Volume (vph)	65	0	22	0	0	0	27	1187	0	0	818	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.966									0.990	
Flt Protected		0.964						0.999				
Satd. Flow (prot)	0	1735	0	0	1863	0	0	3536	0	0	3504	0
Flt Permitted		0.780						0.918				
Satd. Flow (perm)	0	1404	0	0	1863	0	0	3249	0	0	3504	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		55									16	
Link Speed (mph)		25			30			40			40	
Link Distance (ft)		238			96			211			211	
Travel Time (s)		6.5			2.2			3.6			3.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	71	0	24	0	0	0	29	1290	0	0	889	66
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	95	0	0	0	0	0	1319	0	0	955	0
Turn Type	Perm	NA					Perm	NA			NA	
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Detector Phase	4	4		4	4		2	2		2	2	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		15.0	15.0		15.0	15.0	
Minimum Split (s)	25.0	25.0		25.0	25.0		29.0	29.0		29.0	29.0	
Total Split (s)	27.0	27.0		27.0	27.0		43.0	43.0		43.0	43.0	
Total Split (%)	38.6%	38.6%		38.6%	38.6%		61.4%	61.4%		61.4%	61.4%	
Maximum Green (s)	22.3	22.3		22.3	22.3		36.5	36.5		36.5	36.5	
Yellow Time (s)	3.0	3.0		3.0	3.0		4.4	4.4		4.4	4.4	
All-Red Time (s)	1.7	1.7		1.7	1.7		2.1	2.1		2.1	2.1	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.7			4.7			6.5			6.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	
Act Effct Green (s)		8.1						54.4			54.4	
Actuated g/C Ratio		0.12						0.78			0.78	
v/c Ratio		0.45						0.52			0.35	
Control Delay		21.7						5.1			3.8	
Queue Delay		0.0						0.0			0.0	
Total Delay		21.7						5.1			3.8	
LOS		C						A			A	
Approach Delay		21.7						5.1			3.8	
Approach LOS		C						A			A	
Queue Length 50th (ft)		16						98			57	
Queue Length 95th (ft)		55						181			104	
Internal Link Dist (ft)		158			16			131			131	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)												
Base Capacity (vph)		484						2523			2724	
Starvation Cap Reductn		0						0			0	
Spillback Cap Reductn		0						0			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.20						0.52			0.35	

Intersection Summary

Area Type:	Other
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 14 (20%), Referenced to phase 2:NBSB, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.52	
Intersection Signal Delay: 5.3	Intersection LOS: A
Intersection Capacity Utilization 67.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 8: Route 111 & Spring Hill Road/Office Drive



Lane Group	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Volume (vph)	60	142	158	25	9	14
Future Volume (vph)	60	142	158	25	9	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.982		0.919	
Flt Protected		0.985			0.980	
Satd. Flow (prot)	0	1835	1829	0	1678	0
Flt Permitted		0.985			0.980	
Satd. Flow (perm)	0	1835	1829	0	1678	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		534	1315		163	
Travel Time (s)		12.1	29.9		3.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	65	154	172	27	10	15
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	219	199	0	25	0
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 34.0%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	1.7

Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Vol, veh/h	60	142	158	25	9	14
Future Vol, veh/h	60	142	158	25	9	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	65	154	172	27	10	15

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	199	0	-	0	470	186
Stage 1	-	-	-	-	186	-
Stage 2	-	-	-	-	284	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1373	-	-	-	552	856
Stage 1	-	-	-	-	846	-
Stage 2	-	-	-	-	764	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1373	-	-	-	523	856
Mov Cap-2 Maneuver	-	-	-	-	523	-
Stage 1	-	-	-	-	802	-
Stage 2	-	-	-	-	764	-

Approach	NB	SB	SE
HCM Control Delay, s	2.3	0	10.5
HCM LOS			B

Minor Lane/Major Mvmt	NBL	NBT	SELn1	SBT	SBR
Capacity (veh/h)	1373	-	685	-	-
HCM Lane V/C Ratio	0.047	-	0.036	-	-
HCM Control Delay (s)	7.8	0	10.5	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	5	1063	0	0	1256
Future Volume (vph)	0	5	1063	0	0	1256
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865				
Flt Protected						
Satd. Flow (prot)	0	1611	1863	0	0	1863
Flt Permitted						
Satd. Flow (perm)	0	1611	1863	0	0	1863
Link Speed (mph)	30		40			40
Link Distance (ft)	186		260			1826
Travel Time (s)	4.2		4.4			31.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	5	1155	0	0	1365
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	5	1155	0	0	1365
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 69.4%		ICU Level of Service C	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	5	1063	0	0	1256
Future Vol, veh/h	0	5	1063	0	0	1256
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	5	1155	0	0	1365

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	1155	0	0	1155	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	4.12	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	0	240	-	-	605	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	240	-	-	605	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20.3	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	240	605	-
HCM Lane V/C Ratio	-	-	0.023	-	-
HCM Control Delay (s)	-	-	20.3	0	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	2	1061	0	0	1256
Future Volume (vph)	0	2	1061	0	0	1256
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865				
Flt Protected						
Satd. Flow (prot)	0	1611	1863	0	0	1863
Flt Permitted						
Satd. Flow (perm)	0	1611	1863	0	0	1863
Link Speed (mph)	30		40			40
Link Distance (ft)	188		221			260
Travel Time (s)	4.3		3.8			4.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	2	1153	0	0	1365
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	2	1153	0	0	1365
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 69.4%		ICU Level of Service C	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	2	1061	0	0	1256
Future Vol, veh/h	0	2	1061	0	0	1256
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	2	1153	0	0	1365

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	1153	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	240	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	240	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20.1	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	240	-
HCM Lane V/C Ratio	-	-	0.009	-
HCM Control Delay (s)	-	-	20.1	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	0	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø5
Lane Configurations							
Traffic Volume (vph)	116	56	1005	121	81	1183	
Future Volume (vph)	116	56	1005	121	81	1183	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	220		150	145		
Storage Lanes	1	1		1	1		
Taper Length (ft)	25				205		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		0.850		0.850			
Flt Protected	0.950				0.950		
Satd. Flow (prot)	1770	1583	1863	1583	1770	1863	
Flt Permitted	0.950				0.120		
Satd. Flow (perm)	1770	1583	1863	1583	224	1863	
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)		61		68			
Link Speed (mph)	25		40			40	
Link Distance (ft)	534		462			221	
Travel Time (s)	14.6		7.9			3.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	126	61	1092	132	88	1286	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	126	61	1092	132	88	1286	
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA	
Protected Phases	4		2		1	6	5
Permitted Phases		4		2	6		
Detector Phase	4	4	2	2	1	6	
Switch Phase							
Minimum Initial (s)	7.0	7.0	18.0	18.0	5.0	18.0	5.0
Minimum Split (s)	11.0	11.0	23.7	23.7	9.0	23.7	9.0
Total Split (s)	30.0	30.0	81.0	81.0	9.0	80.0	10.0
Total Split (%)	25.0%	25.0%	67.5%	67.5%	7.5%	66.7%	8%
Maximum Green (s)	26.0	26.0	75.3	75.3	5.0	74.3	6.0
Yellow Time (s)	3.0	3.0	4.3	4.3	3.0	4.3	3.0
All-Red Time (s)	1.0	1.0	1.4	1.4	1.0	1.4	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	5.7	5.7	4.0	5.7	
Lead/Lag			Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?							
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	3.0	3.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	Min	Min	None	Min	None
Act Effct Green (s)	13.0	13.0	75.4	75.4	81.1	74.4	
Actuated g/C Ratio	0.12	0.12	0.70	0.70	0.76	0.69	
v/c Ratio	0.59	0.25	0.83	0.12	0.36	0.99	
Control Delay	55.9	13.4	7.8	1.3	7.1	41.6	
Queue Delay	0.0	0.0	1.3	0.0	0.0	10.5	
Total Delay	55.9	13.4	9.1	1.3	7.1	52.1	

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø5
LOS	E	B	A	A	A	D	
Approach Delay	42.0		8.2			49.2	
Approach LOS	D		A			D	
Queue Length 50th (ft)	83	0	91	1	10	769	
Queue Length 95th (ft)	144	38	m134	m2	24	#1265	
Internal Link Dist (ft)	454		382			141	
Turn Bay Length (ft)		220		150	145		
Base Capacity (vph)	430	431	1311	1134	242	1294	
Starvation Cap Reductn	0	0	84	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	47	
Storage Cap Reductn	0	0	0	0	0	0	
Reduced v/c Ratio	0.29	0.14	0.89	0.12	0.36	1.03	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 107.1
Natural Cycle: 120
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.10
Intersection Signal Delay: 30.7 — Intersection LOS: C
Intersection Capacity Utilization 76.8% — ICU Level of Service D
Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Route 25 & Spring Hill Road

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø1
Lane Configurations							
Traffic Volume (vph)	45	107	133	1081	1237	62	
Future Volume (vph)	45	107	133	1081	1237	62	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	185	390			0	
Storage Lanes	1	1	1			0	
Taper Length (ft)	25		90				
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		0.850			0.994		
Flt Protected	0.950		0.950				
Satd. Flow (prot)	1770	1583	1770	1863	1852	0	
Flt Permitted	0.950		0.053				
Satd. Flow (perm)	1770	1583	99	1863	1852	0	
Right Turn on Red		Yes				Yes	
Satd. Flow (RTOR)		60			4		
Link Speed (mph)	25			40	40		
Link Distance (ft)	287			1984	462		
Travel Time (s)	7.8			33.8	7.9		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	49	116	145	1175	1345	67	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	49	116	145	1175	1412	0	
Turn Type	Prot	pm+ov	pm+pt	NA	NA		
Protected Phases	4	5	5	2	6		1
Permitted Phases		4	2				
Detector Phase	4	5	5	2	6		
Switch Phase							
Minimum Initial (s)	7.0	5.0	5.0	18.0	18.0		5.0
Minimum Split (s)	11.0	9.0	9.0	23.7	23.7		9.0
Total Split (s)	30.0	10.0	10.0	81.0	80.0		9.0
Total Split (%)	25.0%	8.3%	8.3%	67.5%	66.7%		8%
Maximum Green (s)	26.0	6.0	6.0	75.3	74.3		5.0
Yellow Time (s)	3.0	3.0	3.0	4.3	4.3		3.0
All-Red Time (s)	1.0	1.0	1.0	1.4	1.4		1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	4.0	4.0	4.0	5.7	5.7		
Lead/Lag		Lead	Lead	Lag	Lag		Lead
Lead-Lag Optimize?							
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0		3.0
Time Before Reduce (s)	0.0	0.0	0.0	3.0	0.0		0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0		0.0
Recall Mode	None	None	None	Min	Min		None
Act Effct Green (s)	13.0	23.0	83.1	75.4	74.4		
Actuated g/C Ratio	0.12	0.21	0.78	0.70	0.69		
v/c Ratio	0.23	0.30	0.85	0.90	1.10		
Control Delay	44.6	20.0	62.2	24.5	61.1		
Queue Delay	0.0	0.0	0.0	0.6	0.0		
Total Delay	44.6	20.0	62.2	25.1	61.1		

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø1
LOS	D	B	E	C	E		
Approach Delay	27.3			29.2	61.1		
Approach LOS	C			C	E		
Queue Length 50th (ft)	31	31	47	567	~280		
Queue Length 95th (ft)	67	80	#174	#1082	m#368		
Internal Link Dist (ft)	207			1904	382		
Turn Bay Length (ft)		185	390				
Base Capacity (vph)	430	386	170	1311	1287		
Starvation Cap Reductn	0	0	0	0	0		
Spillback Cap Reductn	0	0	0	21	0		
Storage Cap Reductn	0	0	0	0	0		
Reduced v/c Ratio	0.11	0.30	0.85	0.91	1.10		

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 107.1
Natural Cycle: 120
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.10
Intersection Signal Delay: 44.6 — Intersection LOS: D
Intersection Capacity Utilization 93.5% — ICU Level of Service F
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Route 25 & Tashua Road

June 2020

Addendum #1 - TRAFFIC STUDY

Proposed Delivery Station Building Improvements

7120 Main Street
Trumbull, CT

PREPARED BY:
BL Companies
355 Research Parkway
Meriden, CT 06450

Architecture
Engineering
Environmental
Land Surveying
Companies

TABLE OF CONTENTS

EXECUTIVE SUMMARY **i**

I. INTRODUCTION **3**

II. EXISTING CONDITIONS **6**
Access Network 6
Intersection Characteristics 8
Existing Traffic Volumes 10
Crash Data Analysis 12

III. PROJECTED TRAFFIC CONDITIONS **14**
No Build Traffic Volumes 14
Trip Generation and On-Site Circulation 16
Trip Distribution 19
Build Traffic Volumes 22

IV. ROADWAY ADEQUACY **24**
Signalized Intersections 24
Unsignalized Intersections 25

V. CONCLUSIONS AND RECOMMENDATIONS **34**

TABLE OF CONTENTS

ILLUSTRATIONS

FIGURE 1 – LOCATION MAP 5
FIGURE 2 – EXISTING (2019) TRAFFIC VOLUMES 11
FIGURE 3 – NO BUILD (2021) TRAFFIC VOLUMES 15
FIGURE 4 – TRIP DISTRIBUTION 20
FIGURE 5 – SITE GENERATED TRAFFIC VOLUMES 21
FIGURE 6 – BUILD (2021) TRAFFIC VOLUMES 23

TABLES

TABLE 1 – CRASH DATA SUMMARY 13
TABLE 2 – 2019 APPROVED OPERATING SCHEDULE TRIP GENERATION 16
TABLE 3 – PROPOSED REVISED OPERATING SCHEDULE TRIP GENERATION 18
TABLE 4 – SIGNALIZED INTERSECTION - LEVEL OF SERVICE 25
TABLE 5 – UNSIGNALIZED INTERSECTION – LEVEL OF SERVICE 26
TABLE 6 – PEAK HOUR LEVELS OF SERVICE 27

APPENDIX

NO BUILD TRAFFIC VOLUMES
CAPACITY ANALYSES

EXECUTIVE SUMMARY

On December 18, 2019 the Trumbull Planning and Zoning Commission approved the Special Permit and Site Plan Review for the warehouse and distribution facility located at 7120 Main Street. The site is currently under construction in accordance with the approved plans.

The client is constantly investigating ways to improve the site operations for efficiency and safety. In a recent analysis of the approved site plan, it was determined that the efficiency and safety of the site operations logistics can be improved with some minor site alterations. These alterations pertain to the easterly parking area. For this reason, some minor modifications to the easterly parking area and site access/egress are proposed. All other aspects of the approved site plan will remain as originally approved by the Commission. The proposed site modifications include the realignment of parking and building access/egress to allow the delivery vans to access the building from the east (rear) and exit on the west (front) side of the building. The site also has proposed a revised operating schedule to reduce trips during the peak hour periods of the roadway network.

This traffic study has been prepared for the proposed improvements and revised operating schedule to the warehouse and distribution facility located at 7120 Main Street. The focus of this study was to evaluate the traffic flows and operating conditions on the roadways and intersections projected to be used by motorists traveling to and from the proposed improvements and revised operating schedule and to quantify the potential traffic impacts on these roadways and intersections.

This study investigated the potential traffic impacts of the proposed improvements and revised operating schedule during the weekday morning, midday and evening peak periods. Traffic turning movement counts were obtained at each of the study intersections during the peak periods. A 2% annual growth rate was applied to the existing traffic volumes to develop the 2021 horizon year traffic volumes. In addition to applying this growth rate, traffic volumes from a proposed mixed-use development at 205 Monroe Turnpike were used to determine the No Build (2021) Traffic Volumes.

The site will remain as a package delivery station which will provide “last mile” package delivery services to residences and businesses with an approximate 60-minute driving time radius of the site. As indicated in this table, the proposed improvements and revised operating schedule for the delivery station is projected to generate 1 (1 enter, 0 exit) vehicle trip during the weekday morning peak hour, 145 (25 enter, 120 exit) vehicle trips during the midday peak hour and 115 (85 enter, 30 exit) during the weekday evening peak hour.

A detailed traffic analysis was also conducted at the intersections and roadways in the general vicinity of the site in accordance with methodologies outlined in the Highway Capacity Manual 2010, published by the Transportation Research Board. The greatest cumulative impacts of project related traffic are likely to occur during the weekday morning, mid-day, and evening peak hours, when traffic consists mostly of commuters. As such, traffic operating conditions at the study intersections were analyzed during these peak periods.

In the 2021 Build Scenarios, there is insignificant impact to the network from the proposed development and revised operating schedule. The revised operating schedule is proposed to significantly improve the network compared to the December 19, 2019 approved conditions. The only movement in the study that experiences a change in LOS is in the evening peak hour at the Route 25 at Judd Road and Purdy Hill Road intersection; the Judd Road EB Thru/Right movement changes from a D to an E with only a 5’ increase in queue length from 255’ in the no build to 260’ in the build condition.

It was determined from the analysis no mitigation and/or road improvements are not needed for these proposed improvements. No LOS for an intersection or a specific movement becomes substantially worse than existing. No specific intersection movements that have a LOS “D” or less in the background condition and the control delay per vehicle for such specific movement is increased by more than 15 seconds per vehicle as a result of the development’s added traffic at signalized intersections.

I. INTRODUCTION

On December 18, 2019 the Trumbull Planning and Zoning Commission approved the Special Permit and Site Plan Review for the warehouse and distribution facility located at 7120 Main Street. The site is currently under construction in accordance with the approved plans.

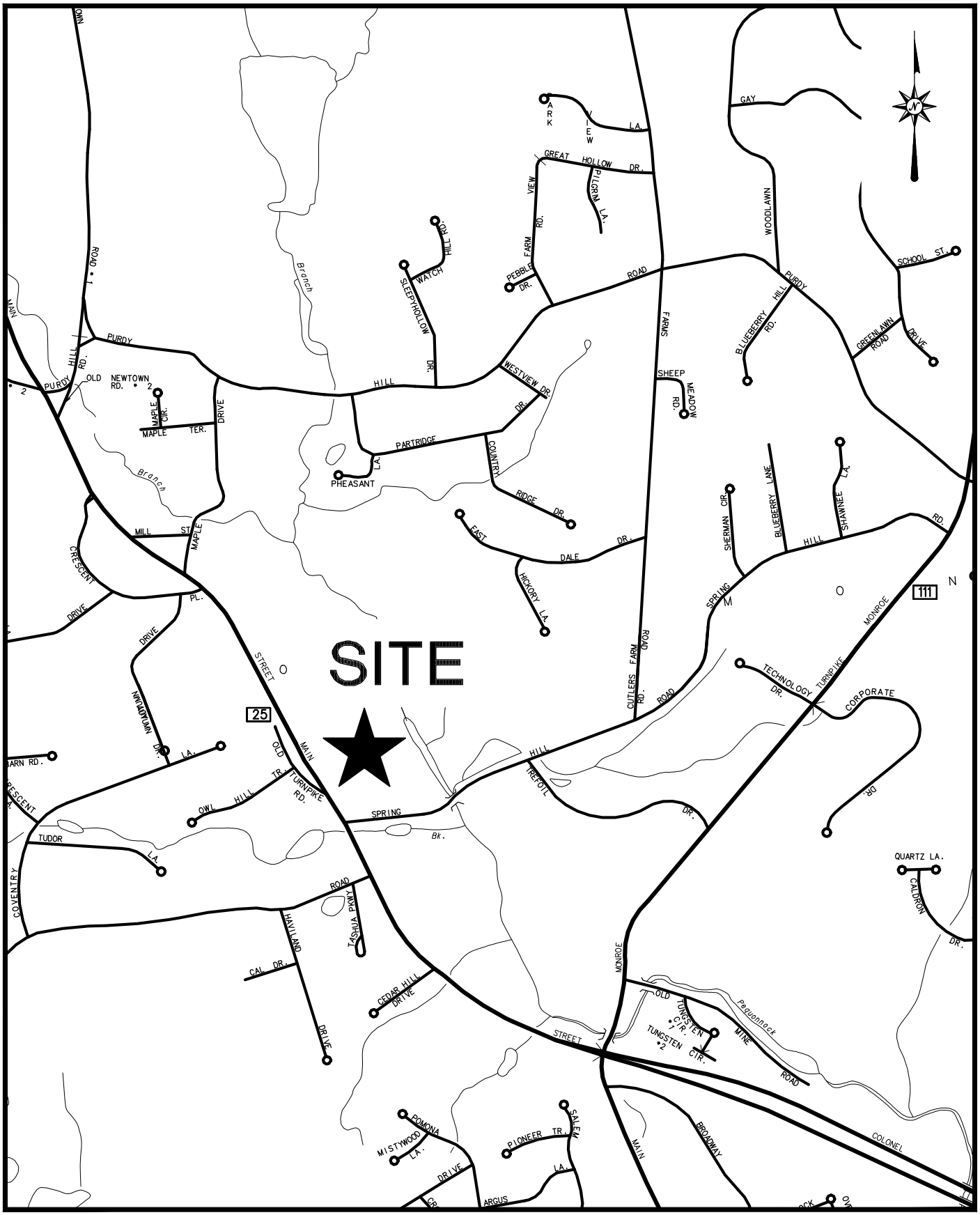
The client is constantly investigating ways to improve the site operations for efficiency and safety. In a recent analysis of the approved site plan, it was determined that the efficiency and safety of the site operations logistics can be improved with some minor site alterations. These alterations pertain to the easterly parking area. For this reason, some minor modifications to the easterly parking area and site access/egress are proposed. All other aspects of the approved site plan will remain as originally approved by the Commission. The proposed site modifications include the realignment of parking and building access/egress to allow the delivery vans to access the building from the east (rear) and exit on the west (front) side of the building. The site also has proposed a revised operating schedule to reduce trips during the peak hour periods of the roadway network.

This traffic study has been prepared for the proposed improvements and revised operating schedule to the warehouse and distribution facility located at 7120 Main Street. The focus of this study was to evaluate the traffic flows and operating conditions on the roadways and intersections projected to be used by motorists traveling to and from the proposed improvements and revised operating schedule and to quantify the potential traffic impacts on these roadways and intersections.

The study area is along a suburban stretch of CT Route 25 (Main Street) that has numerous apartment complexes and residential neighborhoods. See **Figure 1** for a location map.

The site will remain as a package delivery station which will provide “last mile” package delivery services to residences and businesses with an approximate 60-minute driving time radius of the site. The project will include retrofitting the existing 114,000 SF warehouse building. Access to the site will be via curb cuts on Spring Hill Road and Route 25 (Main Street).

The study investigated the potential traffic impacts associated with the development in the weekday morning, mid-day, and evening peak periods. Three existing curb cuts are to remain in the redevelopment of the site. The greatest cumulative impacts of project related traffic are likely to occur during the weekday morning, mid-day, and evening peak hours, when traffic consists mostly of commuters. As such, traffic operating conditions at the study intersections were analyzed during these peak periods.



ARCHITECTURE
ENGINEERING
ENVIRONMENTAL
LAND SURVEYING

BL Companies

LOCATION MAP
PROPOSED DEVELOPMENT
7120 MAIN STREET
TRUMBULL, CONNECTICUT
NOT TO SCALE

FIGURE 1

II. EXISTING CONDITIONS

An investigation of the existing traffic conditions on the adjacent roadway network formed the basis for assessing any traffic issues associated with the proposed improvements and revised operating schedule. This investigation included a field reconnaissance, traffic counting, and research of pertinent planning and traffic data available with Connecticut Department of Transportation (CTDOT) and the Town of Trumbull.

Access Network

The project study area consists of the signalized intersection at the following locations:

- CT Route 25 (Main Street) at Judd and Purdy Hill Road
- CT Route 25 (Main Street) at Victoria Drive
- CT Route 25 (Main Street) at Spring Hill Road
- CT Route 25 (Main Street) at Tashua Road
- CT Route 25 (Main Street) at CT Route 111 (Main Street/Monroe Turnpike)
- CT Route 111 (Monroe Turnpike) at Trefoil Drive and Old Mine Plaza Driveway
- CT Route 111 (Monroe Turnpike) at Spring Hill Road

The unsignalized intersection of Trefoil Drive and Spring Hill Road was also included in this study. Major roadways in the vicinity of the project include CT Route 25 (Main Street), CT Route 111 (Main Street/Monroe Turnpike), Trefoil Drive, Tashua Road, Purdy Hill Road, Judd Road, and Spring Hill Road.

CT Route 25 (Main Street) is an urban principal arterial that originates to the south in the City of Bridgeport at an interchange with I-95 and extends to the Town of Brookfield in the north at an intersection with US Route 202. In the vicinity of the project, CT Route 25 (Main Street) currently has one travel lane in each direction. The road has an expressway section south of the intersection with CT Route 111, which is three-lanes in both directions. The speed limit is 40 mph and the average daily traffic, provided by CTDOT, is approximately 20,500 near CT Route

111 and approximately 28,500 north of the intersection of Judd and Purdy Hill Road. The road provides access to primarily residential neighborhoods and small retail developments.

Route 111 (Main Street/Monroe Turnpike) is an urban minor arterial, that originates to the southwest at an interchange with CT Route 15 (Merritt Parkway) and terminates at an intersection with CT Route 34 in Monroe. The average daily traffic, provided by CTDOT, ranges from 12,800 vehicles just south of CT Route 25 (Main Street) to 27,700 vehicles at the Monroe-Trumbull Town Line. It generally has two travel lanes in both directions. The speed limit is 40 mph and provides access to major retail and industrial developments.

Tashua Road is an urban collector that originates at an intersection with North Madison and Madison Avenue and terminates at CT Route 25 (Main Street). The average daily traffic, provided by CTDOT, is approximately 2,500 vehicles. The speed limit is 25 mph and provides access to residential neighborhoods.

Spring Hill Road is an urban local street that originates at CT Route 25 (Main Street) in Trumbull and terminates at an intersection with CT Route 111 in Monroe. The speed limit is 25 mph and provides access to residential neighborhoods and industrial developments. Along Spring Hill Road north of the site there is a school bus company. Existing counts were collected while summer school was in session.

Judd Road is a major urban collector that originates at an intersection with CT Route 59 in Easton and ends at CT Route 25 (Main Street) and Purdy Hill Road. The speed limit is 25 mph and the average daily traffic, provided by CTDOT, was 2,500 vehicles just west of the intersection with CT Route 25 (Main Street). It provides access to residential neighborhoods.

Purdy Hill Road is a major urban collector that originates at the intersection with CT Route 25 (Main Street) and Judd Road and terminates in Monroe at an intersection with Elm Street. The speed limit is 25 mph and it provides access to residential neighborhoods.

Intersection Characteristics

Several key intersections were reviewed in this study to determine if they would be impacted by the expected site traffic volumes. They are as follows:

- **CT Route 25 (Main Street) at Judd and Purdy Hill Road –** At this signalized intersection, every approach has an exclusive left turn lane and a shared thru/right lane. The five-phase fully actuated traffic signal includes protected phasing for the exclusive left turns on both approaches of CT Route 25 (Main Street). Both Purdy Hill Road and Judd Road's approaches have permitted phasing. There is a "No Turn on Red" on the southbound CT Route 25 (Main Street) and Purdy Hill Road approaches.

- **CT Route 25 (Main Street) at Victoria Drive-** At this signalized intersection, CT Route 25 (Main Street) has an exclusive left turn lane and thru lane on the southbound approach. On the northbound approach, there is one thru lane and a shared thru/right-turn lane. On the Victoria Drive approach, there is an exclusive left and right-turn lane. The signal is three-phased and fully actuated with a protected/permitted phasing for the exclusive left-turn on southbound CT Route 25 (Main Street).

- **CT Route 25 (Main Street) at Spring Hill Road and Tashua Road–** The two side street approaches, Spring Hill Road and Tashua Road, are on the same signal controller, but are offset by 450'. Each side street approach has an exclusive left and right-turn lane. There is an exclusive left-turn lane on the southbound side of CT Route 25 (Main Street) approaching Spring Hill Road and an exclusive left turn lane on northbound CT Route 25 approaching Tashua Road. An exclusive right turn lane is on northbound CT Route 25 (Main Street) approaching Spring Hill Road. The signal is 5-phased and fully actuated.

- **CT Route 25 (Main Street) at Route 111 (Monroe Turnpike/Main Street) –** At this signalized intersection, the CT Route 25 (Main Street) approaches have two

travel lanes in both directions. There is an exclusive left and right-turn lane in the northbound direction and an exclusive left-turn and channelized right-turn lane. The channelized right is signalized. CT Route 111 northbound approach has an exclusive left-turn, an exclusive right-turn, and two through lanes. The southbound approach has dual exclusive left-turn lanes and a shared thru/right turn lane. The eight-phase traffic signal is fully actuated and includes protected left turn phasing for both CT Route 25 (Main Street) approaches. A permitted/overlapping right-turn is on the CT Route 25 (Main Street) northbound approach. The Route 111 exclusive left turns have protected phasing. Emergency pre-emption is installed at this location for the northbound CT Route 25 (Main Street) approach.

- **CT Route 111 (Monroe Turnpike) at Trefoil Drive and Old Mine Plaza Driveway –** At this signalized intersection, there are two travel lanes in both directions of CT Route 111. The northbound approach has an exclusive left and right-turn lane and the southbound approach has an exclusive left turn lane only both directions have through lanes. Both side street approaches, Trefoil Drive and the Old Mine Plaza driveway have an exclusive left-turn lane and a shared thru/right-turn lane. The signal is 5-phased and has protected left-turns on both CT Route 111 approaches. The side street approaches are permitted phasing. The cycle length in all peak period analyzed for this study is 70” system.

- **CT Route 111 (Monroe Turnpike) at Spring Hill Road and Office Driveway –** At this signalized intersection, there are two travel lanes in both directions of CT Route 111, with one being a shared left/thru lane and the other being a shared thru/right turn lane. The side street approaches of Trefoil Drive and the office driveway have a shared left/thru/right turn lane. The signal has time-based coordination on a system present along CT Route 111 (Monroe Turnpike). The cycle length in all peak periods analyzed for this study is 70”.

- **Spring Hill Road at Trefoil Drive –** At this unsignalized intersection, Trefoil Drive is stop-controlled. Every approach has a single lane.

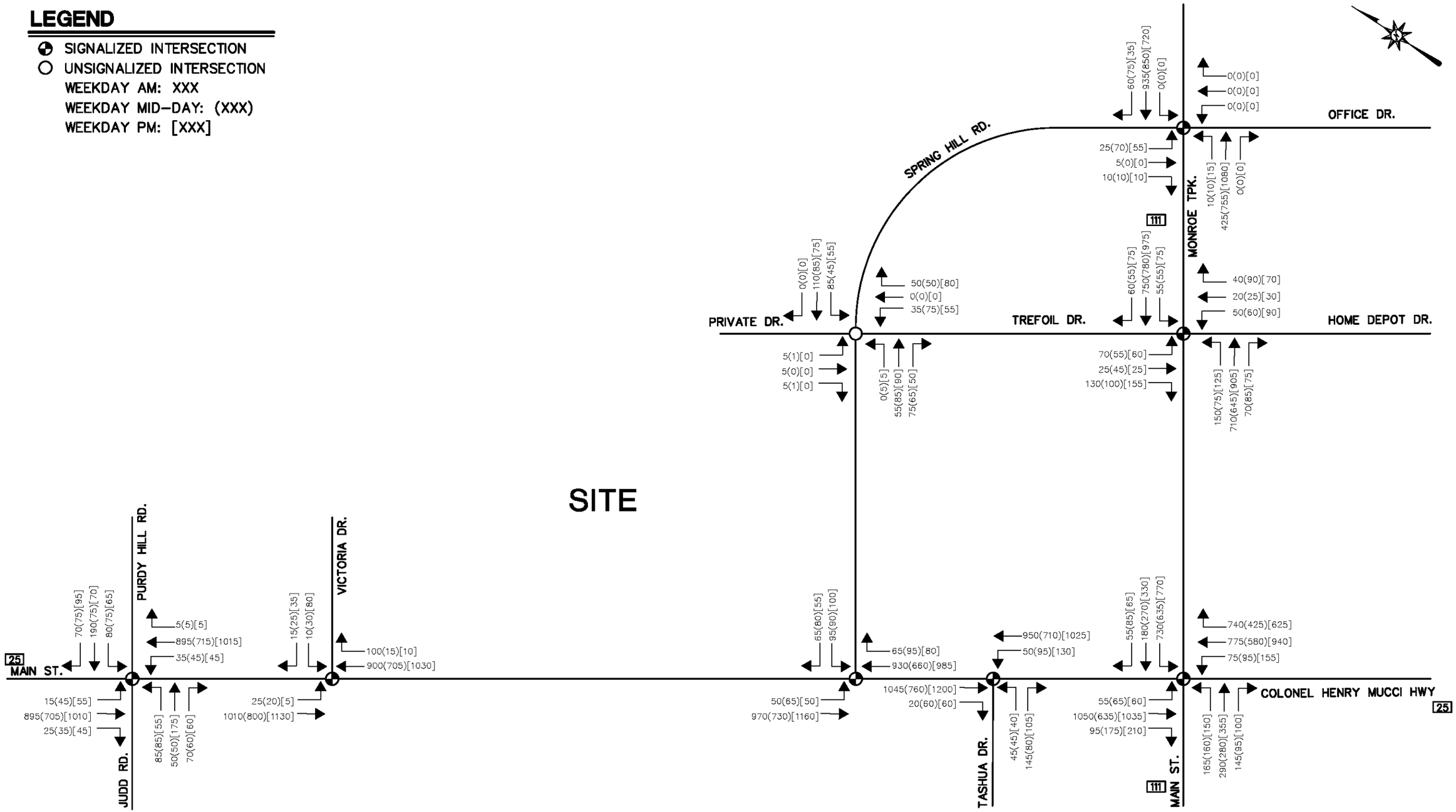
Existing Traffic Volumes

To asses existing traffic conditions in the vicinity of the site, peak hour manual turning movement traffic volumes, vehicle classification and pedestrian counts were recorded at the intersections above. The counts were recorded during typical weekday morning (7am-9am), evening (4pm-6pm) and midday (11am-1pm) peak traffic periods in July of 2019. The current peak hour traffic volumes for the intersections are illustrated in **Figure 2**. These are the existing counts that were approved by Trumbull Planning and Zoning Commission on December 18, 2019 and have no impact from the global pandemic, COVID-19.

LEGEND

- SIGNALIZED INTERSECTION
- UNSIGNALIZED INTERSECTION

WEEKDAY AM: XXX
WEEKDAY MID-DAY: (XXX)
WEEKDAY PM: [XXX]



ARCHITECTURE
ENGINEERING
ENVIRONMENTAL
LAND SURVEYING
BL Companies

EXISTING (2019) TRAFFIC VOLUMES
PROPOSED IMPROVEMENT
7120 MAIN STREET
TRUMBULL, CONNECTICUT
SCHEMATIC, NOT TO SCALE

JUNE 2020

FIGURE 2

© 2020 BL COMPANIES, INC. THESE DRAWINGS SHALL NOT BE UTILIZED BY ANY PERSON, FIRM OR CORPORATION WITHOUT THE SPECIFIC WRITTEN PERMISSION OF BL COMPANIES.

6/10/2020, SSEPERACK, \\BLCOMPANIES.COM\DFS\PROJ\JOB519\10\1901141\DWG\TFLO1901141-E1.DWG,FIGURE 2.

Crash Data Analysis

As part of the existing condition analysis, crash data from the most recent three-year period, January 1, 2017 to December 31, 2019, was obtained from the Connecticut Crash Data Repository.

Two hundred forty-six (246) crashes in the study area were reviewed, the most common crashes were the front to rear at seventy-eight percent (78%). The majority of crashes resulted in “No Apparent Injury” at seventy-five percent (75%). There were no fatalities in the corridor for the three-year period. However, there were two crashes that resulted in “Suspected Serious Injury”. One of those crashes occurred at each of the following intersections: Route 25 (Main Street) at Tashua Road and Route 25 (Main Street) at Judd Road. The signalized intersection of Route 25 (Main Street) at Route 11 and Route 111 experienced the majority of the crashes in the corridor at forty four percent (44%). Below **Table 1** summarizes the crash data.

Table 1 – Crash Data Summary

	Route 25 (Main Street) at Spring Hill Road	Route 25 (Main Street) at Tashua Road	Route 25 (Main Street) at Victoria Drive	Route 25 (Main Street) at Judd Road	Route 25 (Main Street) at Route 111	Route 111 at Spring Hill Road	Route 111 at Trefoil Drive	Spring Hill Road at Trefoil Drive
Year								
2017	16	11	1	8	42	4	7	1
2018	17	16	2	9	27	1	11	0
2019	6	11	0	3	40	5	8	0
Total	39	38	3	20	109	10	26	1
Crash Type								
Angle	1	1	0	5	8	2	5	0
Front to Front	1	0	1	0	1	0	0	0
Front to Rear	36	36	2	14	83	5	17	0
Not Applicable	0	0	0	0	0	2	0	1
Other/Unknown	0	1	0	0	2	0	0	0
Rear to Side	0	0	0	0	0	0	2	0
Sideswipe, Opposite Direction	1	0	0	0	1	0	0	0
Sideswipe, Same Direction	0	0	0	1	14	1	2	0
Total	39	38	3	20	109	10	26	1
Severity								
Fatal Injury (K)	0	0	0	0	0	0	0	0
Suspected Serious Injury (A)	0	1	0	1	0	0	0	0
Suspected Minor Injury (B)	8	6	1	1	9	0	2	0
Possible Injury (C)	7	6	0	3	9	2	5	0
No Apparent Injury (O)	24	25	2	15	91	8	19	1
Unknown	0	0	0	0	0	0	0	0
Total	39	38	3	20	109	10	26	1
Note: Data collected from the Connecticut Crash Data Repository								

III. PROJECTED TRAFFIC CONDITIONS

In order to evaluate traffic conditions when the proposed improvements are completed in 2021, future traffic volumes networks were forecast under the 2021 No-Build Conditions (without the proposed improvements) and under 2021 Build Conditions (with the proposed improvements). The projected traffic volumes on the roadway network under 2021 No-Build conditions were assumed to include all existing traffic and new traffic resulting from background sources of traffic growth, independent of the proposed improvements and revised operating schedule. The project traffic volumes on the roadway network under 2021 Build conditions were assumed to include the anticipated project site-generated traffic volumes in addition to the assumed background traffic growth.

No Build Traffic Volumes

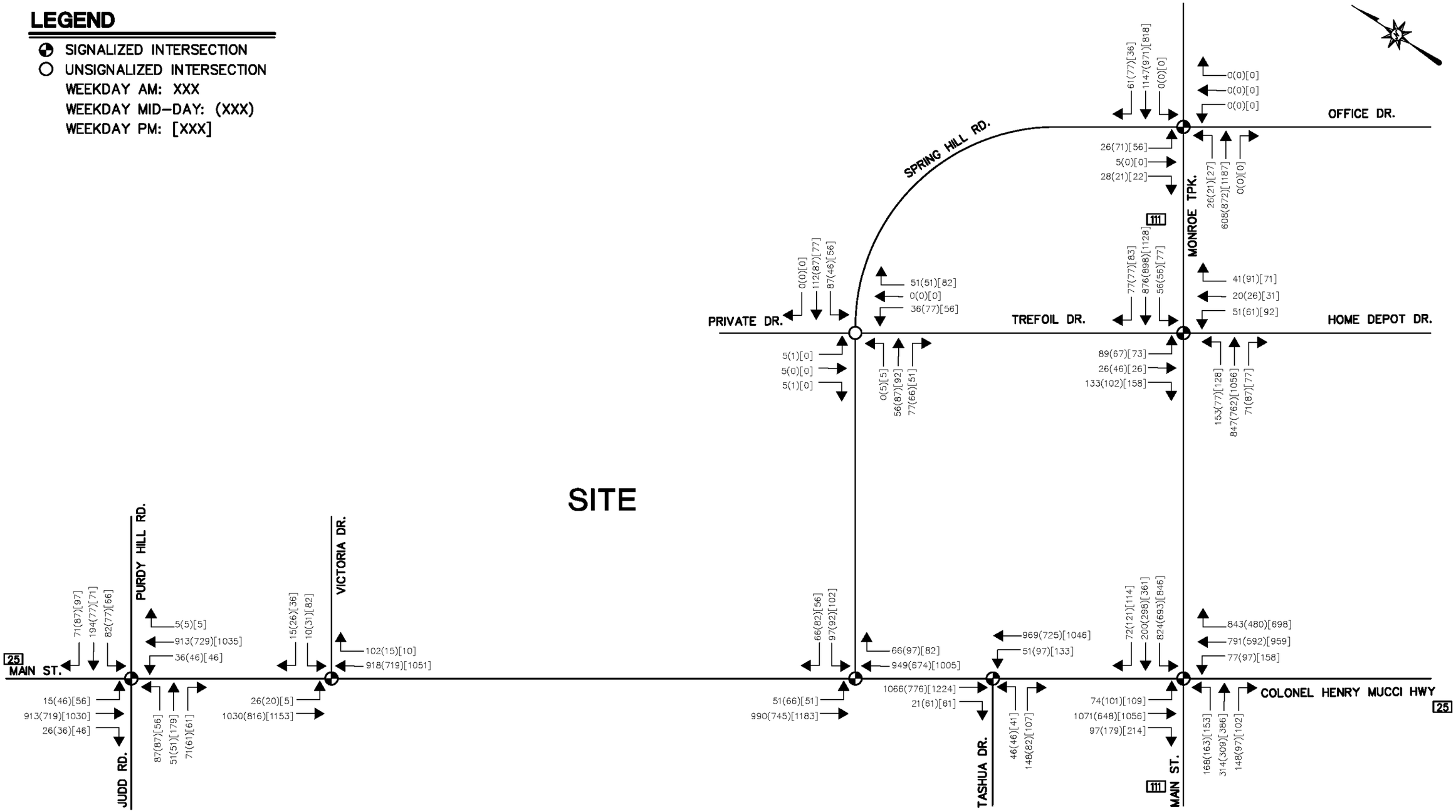
A 2% annual growth rate was applied to the 2019 existing traffic volumes to develop the 2021 No-Build traffic volumes. In addition to applying this growth rate, any approved or pending developments in the area that may add substantial traffic volume to the study intersections were considered. In discussions with Connecticut Department of Transportation, there is one planned mixed-use development at 205 Monroe Turnpike was identified. The proposed development consists of mix uses totaling about 36,726 square feet. Proposed volumes from the mixed-use development are shown in the Appendix and were included in the No Build Traffic Volumes for the weekday morning, midday and evening peak hours.

The annual growth and other project volumes were added to the Existing Traffic Volumes to determine the No Build (2021) Traffic Volumes. **Figure 3** graphically illustrates the No Build Traffic Volumes.

LEGEND

- SIGNALIZED INTERSECTION
- UNSIGNALIZED INTERSECTION

WEEKDAY AM: XXX
WEEKDAY MID-DAY: (XXX)
WEEKDAY PM: [XXX]



ARCHITECTURE
ENGINEERING
ENVIRONMENTAL
LAND SURVEYING
BL Companies

NO BUILD (2021) TRAFFIC VOLUMES
PROPOSED IMPROVEMENT
7120 MAIN STREET
TRUMBULL, CONNECTICUT
SCHEMATIC, NOT TO SCALE

JUNE 2020

FIGURE 3

© 2020 BL COMPANIES, INC. THESE DRAWINGS SHALL NOT BE UTILIZED BY ANY PERSON, FIRM OR CORPORATION WITHOUT THE SPECIFIC WRITTEN PERMISSION OF BL COMPANIES.

6/10/2020, SSEPERACK, \\BLCOMPANIES.COM\DFS\PROJ\JOB519\10\1901141\DWG\TFLO1901141-E1.DWG,FIGURE 3.

Trip Generation and On-Site Circulation

From the previous study that was approved by Trumbull Planning and Zoning Commission on December 18, 2019, a summary of the existing trip generation projections for the approved delivery station from the December study is presented in **Table 2**.

As indicated in this table, the 2019 approved delivery station is projected to generate 62 (49 enter, 13 exit) vehicle trips during the weekday morning peak hour, 81 (34 enter, 47 exit) vehicle trips during the midday peak hour and 58 (24 enter, 34 exit) during the weekday evening peak hour. The schedule from the previous proposed study had a traditional operating pattern where high volume of trips came during the adjacent street traffic's peak hours.

Table 2 – 2019 Approved Operating Schedule Trip Generation

2019 Approved Operating Schedule Trip Generation										
Trips By	**Trips**									
	AM Peak Hour of Adjacent Street			Midday Peak Hour of Adjacent Street			PM Peak Hour of Adjacent Street		
	Total	In	Out	Total	In	Out	Total	In	Out
Associates/Managers	24	24	0	13	0	13	10	0	10
DSP	36	24	12	48	24	24	48	24	24
Flex Drivers	0	0	0	20	10	10	0	0	0
Trucks	2	1	1	0	0	0	0	0	0
Trips	**62**	**49**	**13**	**81**	**34**	**47**	**58**	**24**	**34**

The client has proposed revising the operating schedule to allow for the least amount of impact to the public, daily commuters and its own employees. The operating schedule has shifted majority of its site generated trips throughout the day to better accommodate loading and delivery of packages.

The level of traffic likely generated by the proposed improvements and revised operating schedule from the delivery station has been estimated by the tenant to determine the potential traffic impact on the study intersections. The tenant completed a detailed analysis for the new operating schedule determining the number and time of site traffic arrivals and departures at the site.

The Tenant anticipates that this facility will employ approximately 169 associates/managers on-site over various shifts during the course of the day. These employees will have two parking areas on site with access from U.S. Route 25 via full access site drive 1 and right in right out restrictions for site drive 2.

In addition to the associates/managers working in the facility, the tenant expects that 239 delivery service personnel (DSP) and 84 flex drivers will be utilized for daily package deliveries within an approximately 60-minute radius of the facility. Flex drivers will arrive on-site in the evening (two shifts of 68 and 16 drivers between 4:00 and 4:30 p.m.) through the site drive on Spring Hill Road. The flex drivers enter the building in their personal vehicle, the vehicle will be loaded and then the flex drivers will leave via the Route 25 access drives and make deliveries in their personal vehicles.

Delivery stations operate 24/7, with most of the sortation activity done early in the morning when the line haul trucks arrive with customer packages DSP drivers will arrive on-site in the morning (three shifts of 120, 60 and 59 drivers between 10:30 and 11:30 a.m.) through the site drive on Spring Hill Road. The DSP drivers will park their personal vehicles on-site and then leave the site in a delivery van, exiting on Route 25 via site drives 1 and 2. The first set of 24 vans will be pre-loaded within the building overnight so that the first wave of DSP drivers arrives on-site and leave quickly. Subsequent shifts of vans will enter the building, get loaded and then proceed out for deliveries. As DSP drivers finish their deliveries, they return to the site on Spring Hill Road, park the delivery vans and leave the site in their personal vehicles (four shifts of 45, 105, 74 and 15 drivers between 9:00 and 11:00 p.m.)

The site is expected to process 18 tractor-trailers per day, generally between 9:00 p.m. and 2:00 a.m. Tractor trailers will enter and exit on Spring Hill Road.

After the check out and release of all delivery vehicles by 10:00 PM, delivery station associates prepare the delivery station for the next day's packages.

A summary of the existing trip generation projections for the proposed improvements and revised operating schedule of the delivery station is presented in **Table 3**.

As indicated in this table, the proposed improvements and revised operating schedule for the delivery station is projected to generate 1 (1 enter, 0 exit) vehicle trip during the weekday morning peak hour, 145 (25 enter, 120 exit) vehicle trips during the midday peak hour and 115 (85 enter, 30 exit) during the weekday evening peak hour. This reflects the revised operating schedule to remove the trips from the adjacent street peak hour. The Net Trips are for comparison showing the positive impact to the roadway network the revised operating schedule will have.

Table 3 – Proposed Revised Operating Schedule Trip Generation

Proposed Revised Operating Schedule Trip Generation										
Trips By		**Trips**								
		AM Peak Hour of Adjacent Street			Midday Peak Hour of Adjacent Street			PM Peak Hour of Adjacent Street		
		Total	In	Out	Total	In	Out	Total	In	Out
Associates/Managers		0	0	0	24	24	0	0	0	0
DSP		0	0	0	119	0	119	0	0	0
Flex Drivers		0	0	0	0	0	0	114	84	30
Trucks		1	1	0	2	1	1	1	1	0
Revised Operating Trips		**1**	**1**	**0**	**145**	**25**	**120**	**115**	**85**	**30**
2019 Approved Trips		62	49	13	81	34	47	58	24	34
Net Trips		**-61**	**-48**	**-13**	**+64**	**-9**	**+73**	**+57**	**+61**	**-4**

Trip Distribution

The directional distribution of traffic is typically a function of population densities, competing opportunities, existing travel patterns adjacent to the site, and the efficiency and limitations of the existing roadway system. Based upon the site's close proximity to Route 25 (Main Street) and Route 111, it is anticipated that the majority of employees/delivery vehicles will utilize these roadways for access and egress from the site. The distribution of the anticipated traffic volumes was based on arrival/departure patterns shown in **Figure 4**. The distribution remained the same from the previous study that was approved by Trumbull Planning and Zoning Commission on December 18, 2019.

Assigned Site Generated Traffic Volumes

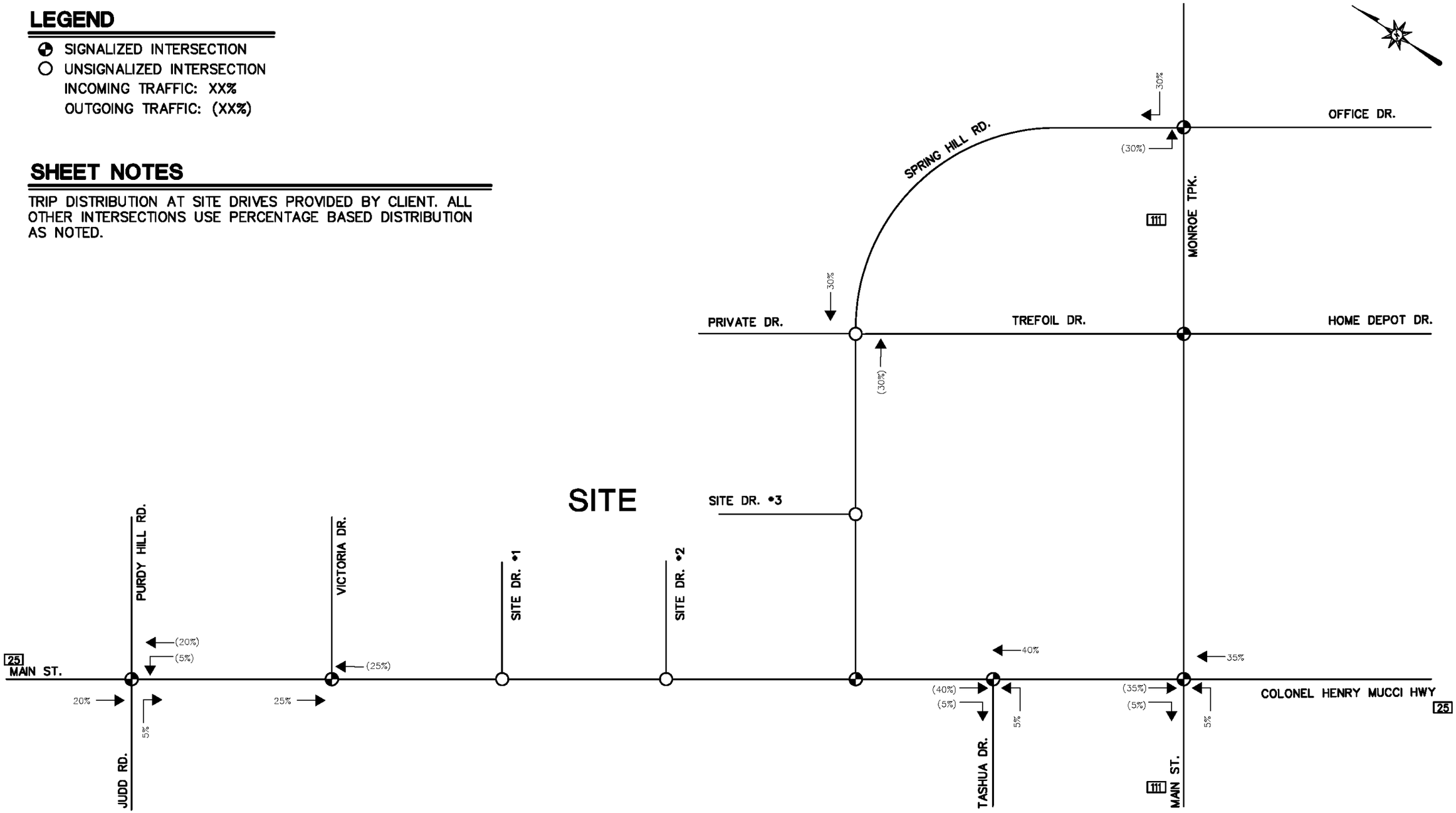
The generated trips are multiplied by the corresponding proportions to ascertain the site-generated traffic volumes. Site driveway specific traffic volumes were provided by the client. **Figure 5** shows the site generated peak hour traffic generated by the site assigned to the nearby roadway network.

LEGEND

- SIGNALIZED INTERSECTION
- UNSIGNALIZED INTERSECTION
  INCOMING TRAFFIC: XX%
  OUTGOING TRAFFIC: (XX%)

SHEET NOTES

TRIP DISTRIBUTION AT SITE DRIVES PROVIDED BY CLIENT. ALL OTHER INTERSECTIONS USE PERCENTAGE BASED DISTRIBUTION AS NOTED.



6/10/2020, SSEPERACK, \\BLCOMPANIES.COM\DFS\PROJ\JOBS19\10\1901141\DWG\TFLO1901141-E1.DWG,FIGURE 4,

ARCHITECTURE
ENGINEERING
ENVIRONMENTAL
LAND SURVEYING
BL Companies

TRIP DISTRIBUTION
PROPOSED IMPROVEMENT
7120 MAIN STREET
TRUMBULL, CONNECTICUT
SCHEMATIC, NOT TO SCALE

JUNE 2020

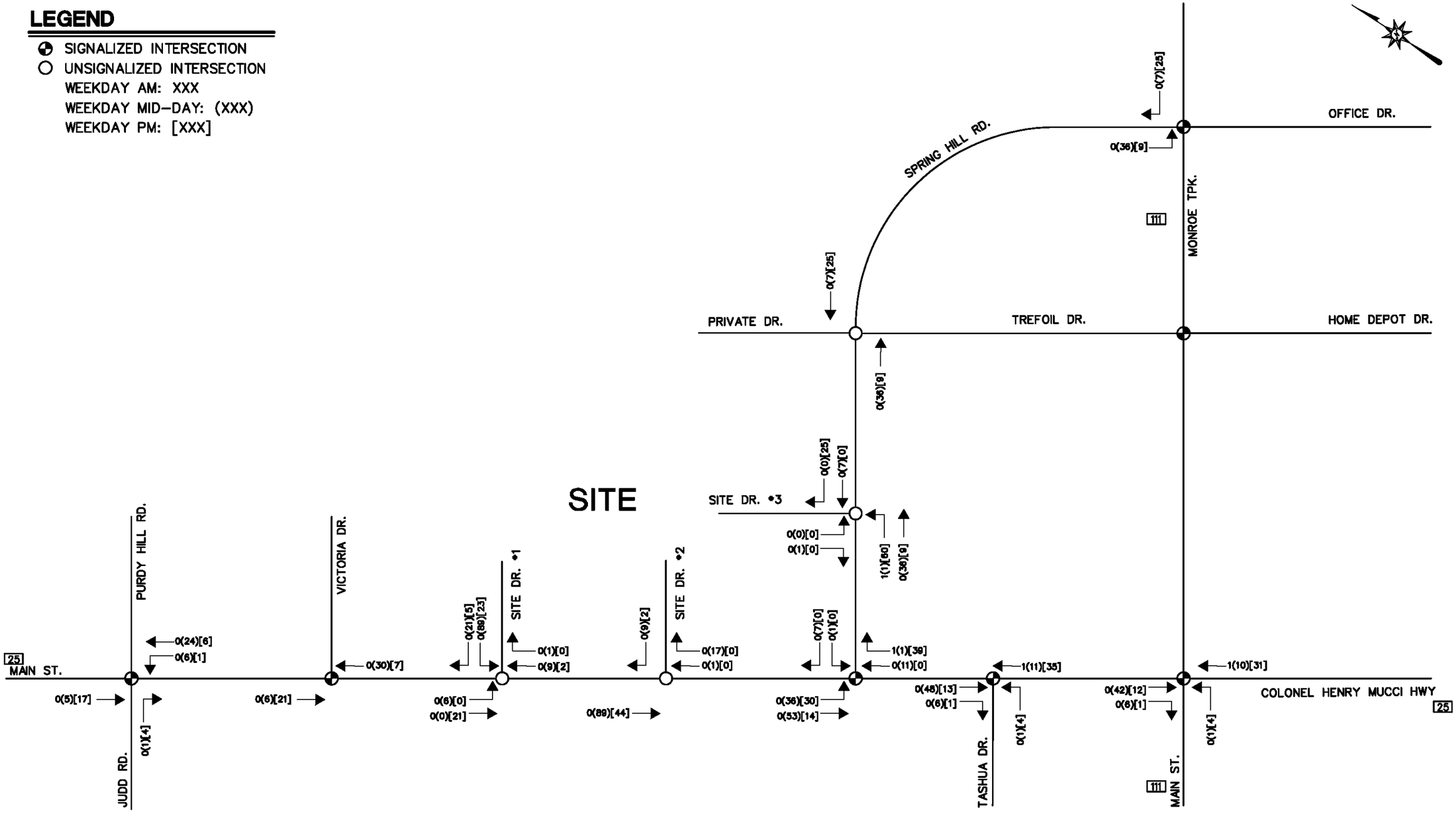
FIGURE 4

© 2020 BL COMPANIES, INC. THESE DRAWINGS SHALL NOT BE UTILIZED BY ANY PERSON, FIRM OR CORPORATION WITHOUT THE SPECIFIC WRITTEN PERMISSION OF BL COMPANIES.

LEGEND

- SIGNALIZED INTERSECTION
- UNSIGNALIZED INTERSECTION

WEEKDAY AM: XXX
WEEKDAY MID-DAY: (XXX)
WEEKDAY PM: [XXX]



6/10/2020, SSEPERACK, \\BLCOMPANIES.COM\DFS\PROJ\JOB319\0\1901141\DWG\FIG\1901141-E1.DWG,FIGURE 5.

ARCHITECTURE
ENGINEERING
ENVIRONMENTAL
LAND SURVEYING
BL Companies

SITE GENERATION TRAFFIC VOLUMES
PROPOSED IMPROVEMENT
7120 MAIN STREET
TRUMBULL, CONNECTICUT
SCHEMATIC, NOT TO SCALE

JUNE 2020

FIGURE 5

© 2020 BL COMPANIES, INC. THESE DRAWINGS SHALL NOT BE UTILIZED BY ANY PERSON, FIRM OR CORPORATION WITHOUT THE SPECIFIC WRITTEN PERMISSION OF BL COMPANIES.

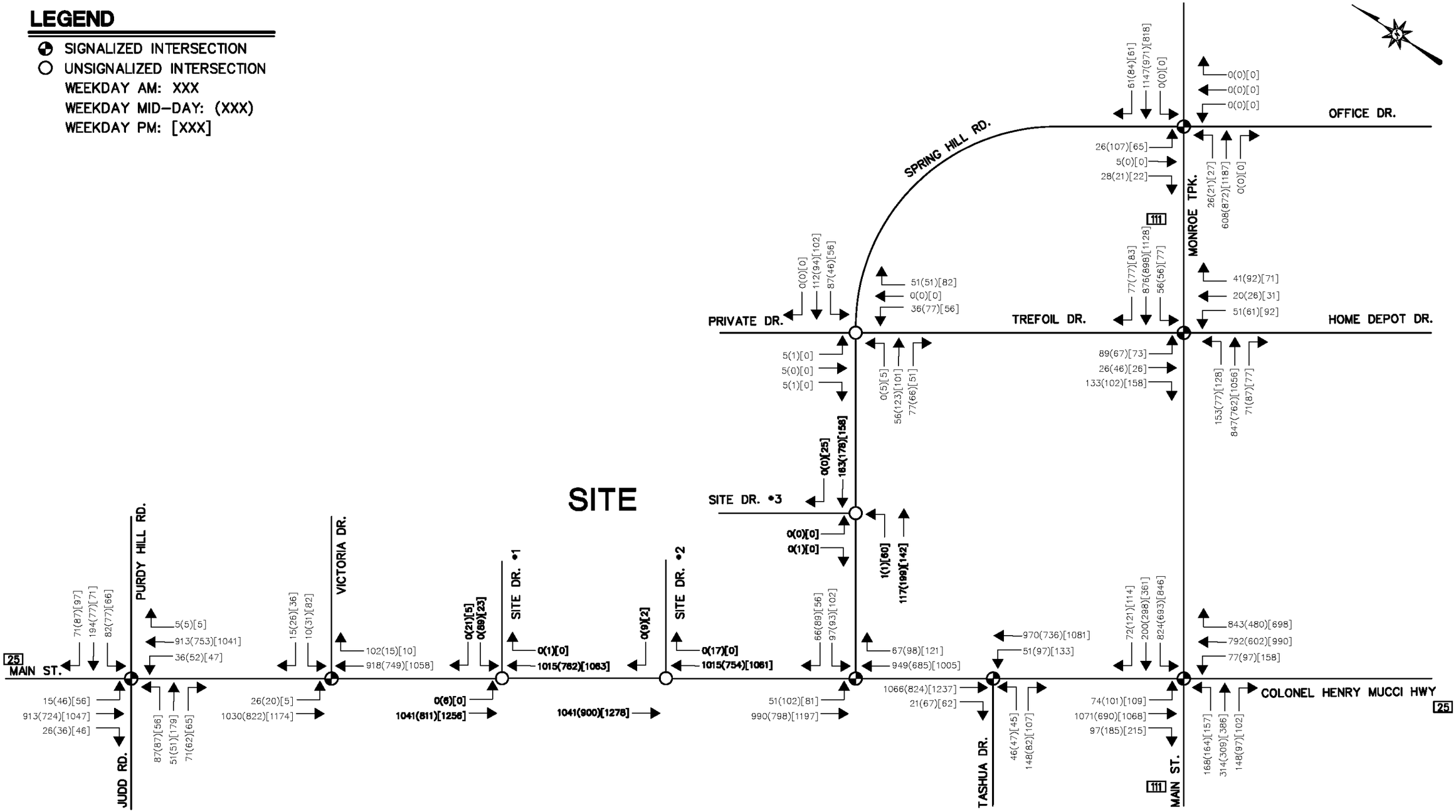
Build Traffic Volumes

The assigned site-generated volumes were superimposed onto the 2021 No Build Traffic volumes to establish the future 2021 Build Traffic volumes, as illustrated in **Figure 6**.

LEGEND

- SIGNALIZED INTERSECTION
- UNSIGNALIZED INTERSECTION

WEEKDAY AM: XXX
WEEKDAY MID-DAY: (XXX)
WEEKDAY PM: [XXX]



6/11/2020, DGEHRING, G:\JOBS19\10\1901141\DWG\TFL01901141-E1.DWG,FIGURE 6.

ARCHITECTURE
ENGINEERING
ENVIRONMENTAL
LAND SURVEYING
BL Companies

BUILD (2021) TRAFFIC VOLUMES
PROPOSED IMPROVEMENT
7120 MAIN STREET
TRUMBULL, CONNECTICUT
SCHEMATIC, NOT TO SCALE

JUNE 2020

FIGURE 6

© 2020 BL COMPANIES, INC. THESE DRAWINGS SHALL NOT BE UTILIZED BY ANY PERSON, FIRM OR CORPORATION WITHOUT THE SPECIFIC WRITTEN PERMISSION OF BL COMPANIES.

IV. ROADWAY ADEQUACY

The intersection capacity analyses were prepared using the methodology described in the Highway Capacity Manual (HCM), published by the Transportation Research Board (TRB) for the no build and build traffic volume scenarios to simulate the traffic impact of proposed improvements and revised operating schedule on the adjacent roadway network. As documented in the HCM, intersection performance is influenced by a number of factors, including: traffic demand; lane configurations; lane widths; turning restrictions; roadway grades; and signal phasing. The existing physical roadway characteristics and signal phasing and timing settings were determined by observing conditions in the field and reviewing the current traffic control signal plans provided by the Connecticut Department of Transportation.

Synchro™ software (Version 10) was used to model the study intersections based on the parameters mentioned above. The Synchro software is widely utilized by the traffic engineering industry and is consistent with the procedures in the HCM.

Signalized Intersections

Signalized intersections are analyzed in terms of vehicle capacity and motorist delay. Capacity is the maximum rate of vehicle flow through an intersection given typical operating conditions. The number of vehicles traveling through an intersection is divided by the capacity of the intersection to determine an overall volume to capacity ratio (v/c). A v/c value under 1.00 indicates that the number of vehicles traveling through an intersection is less than capacity.

As stated in the HCM, level of service for signalized intersections is defined in terms of control delay. Control delay measures the increase in delay a motorist experiences while encountering a traffic control signal. These factors include initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. This delay is measured per vehicle for a 15-minute analysis period and is associated with the levels of service, which are summarized in **Table 4** below:

Table 4 – Signalized Intersection - Level of Service

Level of Service	Average Control Delay (seconds per vehicle)
A	≤ 10
B	> 10 and ≤ 20
C	> 20 and ≤ 35
D	> 35 and ≤ 55
E	> 55 and ≤ 80
F	> 80

Level of service A represents the optimum level where most motorists arrive at the subject intersection during the green phase and thus experience virtually no delay. Conversely, level of service F indicates that motorists are delayed over 80 seconds while traveling through the intersection, and can often imply a complete breakdown of that location. Level of service D is generally considered the limit of acceptable motorist delay.

Unsignalized Intersections

Unsignalized intersections are generally evaluated in terms of average side street delay, as well as the capacity of the roadway approach. This analysis is based on the random arrival of vehicles and the associated gaps generated by this random arrival within the traffic stream. There is no overall level of service for unsignalized intersections. The relationship between levels of service and average side street delay are summarized in **Table 5** below:

Table 5 – Unsignalized Intersection – Level of Service

Level of Service	Average Control Delay (seconds per vehicle)
A	≤ 10
B	> 10 and ≤ 15
C	> 15 and ≤ 25
D	> 25 and ≤ 35
E	> 35 and ≤ 50
F	> 50

It should be noted that unsignalized levels of service do not correspond to those for signalized intersections, nor do they constitute warrants for the installation of traffic control signals. It is also recognized that the methodology is overly conservative and that computations can indicate operations at poor levels of service (E or F) with even very low side street volumes, although they often function without serious problems in the real world.

Table 6 shows the levels of service (LOS) at the subject intersections. A more detailed table is included in the Appendix.

Table 6 – Peak Hour Levels of Service

	AM		Mid-Day		PM	
	2021 No Build	2021 Build	2021 No Build	2021 Build	2021 No Build	2021 Build
Route 25 at Judd Road and Purdy Hill Road[1]	**D/36.3**	**D/36.3**	**C/27.2**	**C/27.5**	**E/61.2**	**E/65.0**
Judd Road EB Left	F/0.83/155	F/0.83/155	D/0.47/90	D/0.48/90	D/0.35/75	D/0.34/75
Judd Road EB Thru/Right	C/0.34/90	C/0.34/90	B/0.34/70	B/0.35/70	D/0.81/255	E/0.82/260
Purdy Hill Road WB Left	D/0.36/100	D/0.36/100	C/0.38/80	C/0.39/80	E/0.65/105	E/0.67/105
Purdy Hill Road WB Thru/Right	E/0.82/315	E/0.82/315	D/0.60/150	D/0.61/150	D/0.62/175	D/0.61/175
Route 25 NB Left	D/0.38/60	D/0.38/60	D/0.31/60	D/0.36/70	E/0.51/80	E/0.52/85
Route 25 NB Thru/Right	C/0.88/860	C/0.88/860	C/0.80/635	C/0.81/665	E/1.03/1040	E/1.04/1050
Routh 25 SB Left	D/0.16/35	D/0.16/35	D/0.31/60	D/0.32/60	E/0.62/100	E/0.62/100
Route 25 SB Thru/Right	D/0.94/895	D/0.94/895	C/0.83/665	C/0.82/670	E/1.07/1095	E/1.09/1120
Route 25 at Victoria Drive[1]	**B/12.6**	**B/12.6**	**A/7.8**	**A/8.0**	**C/21.1**	**C/22.3**
Victoria Drive WB Left	C/0.06/25	C/0.06/25	C/0.14/40	C/0.15/40	C/0.36/75	C/0.36/75
Victoria Drive WB Right	B/0.08/25	B/0.08/25	B/0.12/25	B/0.12/25	B/0.15/25	B/0.15/25
Route 25 NB Thru/Right	B/0.72/700	B/0.72/700	A/0.53/345	A/0.55/370	B/0.84/820	B/0.84/830
Route 25 SB Left	A/0.08/25	A/0.08/25	A/0.04/25	A/0.04/25	A/0.02/25	A/0.02/25
Route 25 SB Thru	B/0.71/700	B/0.71/700	A/0.59/440	A/0.59/450	C/0.91/910	C/0.93/930

Overall Intersection – X/XX.X - Level of Service/Intersection Signal Delay in sec
Approaches - X/X.XX/XXX – Level of Service/Volume to Capacity Ratio/95% Queue Length in ft
[1] – Signalized Intersection
[2] – Unsignalized Intersection, Analysis for controlled movements

	AM		Mid-Day		PM	
	2021 No Build	2021 Build	2021 No Build	2021 Build	2021 No Build	2021 Build
Route 25 at Spring Hill Road[1]	**B/16.8**	**B/16.8**	**B/10.7**	**B/12.0**	**C/33.1**	**D/37.1**
Spring Hill Road WB Left	D/0.50/110	D/0.50/110	D/0.45/110	D/0.48/110	D/0.52/120	D/0.52/120
Spring Hill Road WB Right	B/0.29/40	B/0.29/40	B/0.32/45	B/0.35/45	B/0.25/40	B/0.25/40
Route 25 NB Thru	A/0.81/805	A/0.81/805	A/0.54/85	A/0.59/85	A/0.81/890	A/0.82/850
Route 25 NB Right	A/0.07/25	A/0.07/25	A/0.09/25	A/0.10/25	A/0.08/25	A/0.11/25
Route 25 SB Left	A/0.19/25	A/0.19/25	A/0.13/25	A/0.22/30	A/0.20/25	A/0.31/25
Route 25 SB Thru	C/0.88/890	C/0.88/890	B/0.67/470	B/0.73/535	E/1.04/1200	E/1.05/1220
Route 25 at Tashua Road[1]	**C/20.6**	**C/20.6**	**B/10.5**	**B/12.3**	**D/48.4**	**D/52.0**
Tashua Road EB Left	D/0.24/65	D/0.24/65	D/0.22/65	D/0.24/65	D/0.21/60	D/0.23/65
Tashua Road EB Right	B/0.37/90	B/0.37/90	A/0.21/35	A/0.19/35	B/0.29/70	B/0.29/75
Route 25 NB Left	A/0.27/25	A/0.27/25	A/0.27/25	A/0.32/25	C/0.60/100	C/0.60/105
Route 25 NB Thru	B/0.83/845	B/0.83/845	B/0.59/420	B/0.64/445	C/0.84/965	C/0.88/1050
Route 25 SB Thru/Right	C/0.96/325	C/0.96/325	A/0.76/135	B/0.83/165	E/1.13/345	E/1.15/345

Overall Intersection – X/XX.X - Level of Service/Intersection Signal Delay in sec
Approaches - X/X.XX/XXX – Level of Service/Volume to Capacity Ratio/95% Queue Length in ft
[1] – Signalized Intersection
[2] – Unsignalized Intersection, Analysis for controlled movements

	AM		Mid-Day		PM	
	2021 No Build	2021 Build	2021 No Build	2021 Build	2021 No Build	2021 Build
Route 111 at Route 25[1]	**E/57.6**	**E/57.6**	**D/39.9**	**D/40.6**	**E/61.1**	**E/62.2**
Route 25 EB Left	F/0.80/155	F/0.80/155	E/0.67/145	E/0.68/155	F/0.78/175	F/0.78/175
Route 25 EB Thru	E/0.97/640	E/0.97/640	D/0.82/315	D/0.82/335	E/0.99/630	E/1.00/640
Route 25 EB Right	A/0.13/30	A/0.13/30	A/0.24/40	A/0.24/40	A/0.27/85	A/0.27/85
Route 25 WB Left	F/0.82/165	F/0.82/165	E/0.65/135	E/0.66/140	F/0.99/285	F/0.99/285
Route 25 WB Thru	D/0.71/395	D/0.71/395	D/0.76/285	D/0.72/285	D/0.87/535	D/0.89/565
Route 25 WB Right	C/0.82/670	C/0.82/670	B/0.55/225	B/0.54/225	B/0.70/470	B/0.70/470
Route 111 NB Left	F/1.74/370	F/1.74/370	E/0.73/240	E/0.74/255	F/0.82/240	F/0.83/250
Route 111 NB Thru	E/0.82/205	E/0.82/205	D/0.55/180	D/0.57/190	F/0.97/285	F/0.97/285
Route 111 NB Right	B/0.48/60	B/0.48/60	A/0.25/25	A/0.26/25	A/0.32/25	A/0.32/25
Route 111 SB Left	D/0.91/430	D/0.91/430	D/0.85/345	D/0.86/355	F/1.02/525	F/1.02/525
Route 111 SB Thru/Right	C/0.47/245	C/0.47/245	D/0.85/515	D/0.87/535	F/1.04/665	F/1.05/665

Overall Intersection – X/XX.X - Level of Service/Intersection Signal Delay in sec
Approaches - X/X.XX/XXX – Level of Service/Volume to Capacity Ratio/95% Queue Length in ft
[1] – Signalized Intersection
[2] – Unsignalized Intersection, Analysis for controlled movements

	AM		Mid-Day		PM	
	2021 No Build	2021 Build	2021 No Build	2021 Build	2021 No Build	2021 Build
Home Depot Drive/Trefoil Drive & Route 111[1]	**B/15.9**	**B/15.9**	**B/13.7**	**B/13.7**	**B/19.6**	**B/19.6**
Route 111 EB Left	D/0.61/145	D/0.61/145	C/0.38/70	C/0.38/70	D/0.55/135	D/0.55/135
Route 111 EB Thru	B/0.44/215	B/0.44/215	A/0.39/180	A/0.39/180	B/0.61/365	B/0.61/365
Route 111 EB Right	A/0.08/25	A/0.08/25	A/0.09/25	A/0.09/25	A/0.09/25	A/0.09/25
Route 111 WB Left	C/0.30/60	C/0.30/60	C/0.30/60	C/0.30/60	C/0.38/70	C/0.38/70
Route 111 WB Thru/Right	B/0.60/245	B/0.60/245	B/0.54/255	B/0.54/255	C/0.78/405	C/0.78/405
Home Depot Drive NB Left	C/0.34/50	C/0.34/50	C/0.43/60	C/0.43/60	D/0.60/80	D/0.60/80
Home Depot Drive NB Thru/Right	B/0.22/40	B/0.22/40	B/0.40/55	B/0.40/55	B/0.31/50	B/0.31/50
Trefoil Drive SB Left	C/0.47/75	C/0.47/75	C/0.41/65	C/0.41/65	C/0.35/60	C/0.35/60
Trefoil Drive SB Thru/Right	B/0.46/55	B/0.46/55	B/0.48/65	B/0.48/65	A/0.47/55	A/0.47/55
Trefoil Drive/Private Drive & Spring Hill Road[2]	-	-	-	-	-	-
Trefoil Drive NB	B/0.14/25	B/0.14/25	B/0.20/25	B/0.21/25	B/0.20/25	B/0.21/25
Spring Hill Road EB	A/0.00/25	A/0.00/25	A/0.00/25	A/0.00/25	A/0.00/25	A/0.00/25
Spring Hill Road WB Left	B/0.07/25	B/0.07/25	A/0.04/25	A/0.04/25	A/0.04/25	A/0.04/25
Private Drive SB	B/0.03/25	B/0.03/25	B/0.00/25	B/0.00/25	A/0.00/25	A/0.00/25
Route 111 & Spring Hill Road/Office Drive[1]	**A/3.9**	**A/3.9**	**A/5.1**	**A/6.5**	**A/4.9**	**A/5.3**
Spring Hill Road EB Left/Thru/Right	C/0.34/45	C/0.34/45	C/0.47/60	C/0.58/80	C/0.41/50	C/0.45/55
Route 111 NB Left/Thru/Right	A/0.27/70	A/0.27/70	A/0.39/120	A/0.40/140	A/0.52/175	A/0.52/185
Route 111 SB Left/Thru/Right	A/0.45/150	A/0.45/150	A/0.42/140	A/0.43/165	A/0.34/100	A/0.35/105

Overall Intersection – X/XX.X - Level of Service/Intersection Signal Delay in sec
Approaches - X/X.XX/XXX – Level of Service/Volume to Capacity Ratio/95% Queue Length in ft
[1] – Signalized Intersection
[2] – Unsignalized Intersection, Analysis for controlled movements

	AM		Mid-Day		PM	
	2021 No Build	2021 Build	2021 No Build	2021 Build	2021 No Build	2021 Build
Route 25 & Site Drive #1[2]	-	-	-	-	-	-
Site Drive #1 WB Left/Right	-	A/0.00/25	-	F/1.07/180	-	F/0.82/75
Route 25 SB Left	-		-	A/0.01/25	-	A/0.00/25
Route 25 & Site Drive #2[2]	-	-	-	-	-	-
Site Drive #2 WB Right	-	A/0.00/25	-	C/0.03/25	-	C/0.01/25
Spring Hill Road & Site Drive #3[2]	-	-	-	-	-	-
Spring Hill Road NB Left	-	A/0.00/25	-	A/0.00/25	-	A/0.05/25
Spring Hill Road NB Thru	-	A/0.00/25	-	A/0.00/25	-	A/0.00/25
Site Drive #3 EB Left/Right	-	A/0.00/25	-	B/0.00/25	-	A/0.00/25

Overall Intersection – X/XX.X - Level of Service/Intersection Signal Delay in sec
Approaches - X/X.XX/XXX – Level of Service/Volume to Capacity Ratio/95% Queue Length in ft
[1] – Signalized Intersection
[2] – Unsignalized Intersection, Analysis for controlled movements

As illustrated in **Table 6**, the 2021 No-Build Scenarios traffic operations were analyzed as the base conditions for comparison with the 2021 Build Scenarios. In the 2021 No Build Scenarios, several intersections and approaches are projected to operate at unacceptable Levels of Service. Specific movements that experience Levels of Service D, E or F in the 2021 No Build Scenarios for the respective peak hours (AM, MIDDAY, PM) are as follows:

Route 25 (Main Street) at Judd Road and Purdy Hill Road

- Judd Road EB Left (F, D, D)
- Judd Road EB Thru/Right (D PM)
- Purdy Hill Road WB Left (D AM, E PM)
- Purdy Hill Road WB Thru/Right (E, D, D)
- Route 25 (Main Street) NB Left (D, D, E)
- Route 25 (Main Street) NB Thru/Right (E PM)
- Route 25 (Main Street) SB Left (D, D, E)
- Route 25 (Main Street) SB Thru/Right (D AM, E PM)

Route 25 at Spring Hill Road

- Spring Hill Road WB Left (D, D, D)
- Route 25 SB Thru (E PM)

Route 25 at Tashua Road

- Tashua Road EB Left (D, E, E)
- Route 25 SB Thru (E PM)

Route 111 at Route 25 (Main Street)

- Route 25 (Main Street) EB Left (F, E, F)
- Route 25 (Main Street) EB Thru (E, D, E)
- Route 25 (Main Street) WB Left (F, E, F)
- Route 25 (Main Street) WB Thru (D, D, D)
- Route 111 NB Left (F, E, F)
- Route 111 NB Thru (E, D, F)
- Route 111 SB Left (D, D, F)

- Route 111 SB Thru/Right (D MIDDAY, F PM)

Home Depot Drive/Trefoil Drive & Route 111

- Route 111 EB Left (D AM, D PM)
- Home Depot Drive NB Left (D PM)

In the 2021 Build Scenarios, there is insignificant impact to the network from the proposed improvements and revised operating schedule. The revised operating schedule is proposed to significantly improve the network compared to the December 19, 2019 approved conditions. The only movement in the study that experiences a change in LOS is in the evening peak hour at the Route 25 at Judd Road and Purdy Hill Road intersection; the Judd Road EB Thru/Right movement changes from a D to an E with only a 5’ increase in queue length from 255’ in the no build to 260’ in the build condition.

V. CONCLUSIONS AND RECOMMENDATIONS

This traffic study has been prepared for the proposed improvements and revised operating schedule to the warehouse and distribution facility located at 7120 Main Street. The focus of this study was to evaluate the traffic flows and operating conditions on the roadways and intersections projected to be used by motorists traveling to and from the proposed improvements and revised operating schedule and to quantify the potential traffic impacts on these roadways and intersections.

In the 2021 Build Scenarios, there is insignificant impact to the network from the proposed improvements and revised operating schedule. The revised operating schedule is proposed to significantly improve the network compared to the December 19, 2019 approved conditions. The only movement in the study that experiences a change in LOS is in the evening peak hour at the Route 25 at Judd Road and Purdy Hill Road intersection; the Judd Road EB Thru/Right movement changes from a D to an E with only a 5’ increase in queue length from 255’ in the no build to 260’ in the build condition.

It was determined from the analysis no mitigation and/or road improvements are not needed for these proposed improvements. No LOS for an intersection or a specific movement becomes substantially worse than existing. No specific intersection movements that have a LOS “D” or less in the background condition and the control delay per vehicle for such specific movement is increased by more than 15 seconds per vehicle as a result of the development’s added traffic at signalized intersections.

APPENDIX

NO BUILD TRAFFIC VOLUMES

July 11, 2018

Mr. Jim Jurczyk
Connecticut Department of Transportation
Office of the State Traffic Administration
2800 Berlin Turnpike
Newington, Connecticut 06131-7546

RE: OSTA Step 1: Pre-Certificate Application Response to Comments
Proposed Mixed-Use Development
OSTA # 084-1806-01
205 Monroe Turnpike, Monroe, CT 06468
Project Number: 1402801

Dear Mr. Jurczyk:

Please find enclosed a revised package for the major traffic generator pre-certificate application for the proposed development at 205 Monroe Turnpike in Monroe, Connecticut. The package has been revised to address the comment dated June 21, 2018 to include background trips associated with the refill of the United Healthcare Facility and projected trips from the Trefoil Corporate Park.

Enclosed are one (1) paper copy and one (1) DVD copy of the revised application materials. We look forward to working with you in the processing of this application.

Respectfully,

Solli Engineering, LLC

Collene Byrne
Project Manager

Kevin Solli, PE
Principal

Enclosures
CC: Mike Schinella
Thomas Schinella

X:\SE Files\Project Data\2014\1402801 - 205 Monroe Tpke\Engineering Data\Traffic\OSTA\Step 1\1402801 - CT DOT_OSTA Step 1 Cover Letter (2018-07-11).docx

S T A T E O F C O N N E C T I C U T
Office of the State Traffic Administration
Department of Transportation
2800 Berlin Turnpike, P.O. Box 317546
Newington, CT 06131-7546
Phone: (860) 594-3020 Fax: (860) 594-2552

Print Form

Date: 06/01/18

STEP 1
Major Traffic Generator
Pre-Certificate Application
Traffic Volume Data Requirements

Name of Facility:

Proposed Mixed-Use Development

Location (complete street address; if none, provide map/block/lot information):

205 Monroe Turnpike

Town and Zip Code:

Monroe, Connecticut 06468

Proposed Gross Floor Area (GSF) and Land Use of Expansion:

N/A

Proposed GSF and Land Use of Land Use Change (i.e. xx retail to xx office etc.):

N/A

Total Gross Floor Area: Categorized By Land Use:

Retail: 15,000sf, Medical Office: 10,000sf, High-Turnover Restaurant: 4,950sf, Drive-In Bank: 2,500sf, Gas Station w/ Convenience Store: 3,276sf, Coffee Shop w/ Drive Thru: 1,000sf

Development financing includes State or Federal funding sources? Yes No

If "Yes," then the Step 2 Checklist will require completion of the Connecticut Department of Transportation's Bicycle and Pedestrian Travel Needs Assessment Form.

Submit one (1) paper copy and one (1) DVD of the following materials, along with confirmation that the development has been submitted for local planning and zoning approval, to the Office of the State Traffic Administration.

MAJOR TRAFFIC GENERATOR
Traffic Volume Data Requirements

Submitted	N/A	
		I. PROJECT DESCRIPTION
✔		Provide a detailed narrative describing the nature of the proposal.
		II. SITE LOCATION PLAN
✔		A site location plan showing State highways and major intersecting Town roads in the vicinity of the site is to be submitted. Typically 8 ½' X 11" or it may be shown on the Site Plan if space allows.
		III. OVERALL SITE PLAN
✔		An overall site plan showing the entire certifiable area shall be provided, sized to fit on a single 2' x 3' plan sheet. The entire certifiable area shall include all parcels whose traffic must use the applicant development's access drive(s) (not an access of convenience), and shall be distinguishable by a distinct peripheral property line with the call out "OSTA Certifiable Area". The plan is to identify all new buildings (including gross floor area and land use for each), parking spaces, property lines, internal connections to abutting properties, names of all property owners (including the abutting property owners) and the complete street address(es) for all properties within the certifiable area. If street address information is not available, show map/block/lot information. An aerial photograph may be used.
		IV. TRAFFIC VOLUME INFORMATION
✔	☐	Traffic information is required for all site drives and for intersections in proximity to the site that will be **significantly** affected by newly generated traffic.
		Significantly *is defined as: 100 or more peak hour vehicle trips at any given intersection or; 50 or more peak hour vehicle trips on any left-hand turning movement.*
		A. Existing Traffic Volumes
✔	☐	1. Identify the hours of the day, day of week and how the peak hours were determined in relation to the proposed development. The morning/afternoon weekday and weekend midday peak hours are the most typical time periods analyzed. Depending on the type of proposed development, all or some combination of these hours will be required. In some cases, the peak hour of the generator may be needed (e.g. movie theatre – evenings, school – afternoon peak). Areas experiencing a significant recreational peak shall be counted during the peak season. When this is not possible, traffic volumes may be seasonally adjusted to reflect the heaviest peak hour volume using Department seasonal adjustment factors. All traffic counts shall specify non-motorized users (pedestrians and bicycles).

Submitted	N/A	
		B. Background Traffic Volumes – the existing traffic volumes adjusted to the year of the development's opening.
☑	☐	1. Identify any annual growth or seasonal adjustment factors used and explain their selection. Identify other developments, including those previously approved by the STC, or pending, but not yet operational, and include that volume to develop the background traffic.
☑	☐	2. Submit flow diagrams showing the appropriate background peak hour traffic volumes for the proposed development as determined in the Existing Traffic Volumes section above. Diagrams must indicate both the date of submission and date (year) of the background traffic. Approach volumes must be totaled and checked for accuracy before submission. Traffic volumes between intersections shall be balanced or an explanation for the break in traffic flow must be provided. Background traffic flow diagrams must be consistent with existing traffic diagrams.
☑	☐	3. If there are overlapping intersections studied by a recently approved MTG, the combined traffic figures from the prior MTG shall be used as the base traffic for the new project.
		C. Trip Distribution
☑	☐	1. Provide a description of the methodology used to develop the trip distribution. Any differences in the approach and departure distribution shall be explained.
☑	☐	2. Submit flow diagrams showing the percent distribution of generated traffic, by direction, for each major road leading to the area and at all access points. Diagrams must indicate the date of submission and shall be consistent with the peak hours analyzed in the existing and background traffic conditions.
		D. Site Generated Traffic/Combined Traffic Volumes
☑	☐	1. Submit flow diagrams for the applicable peak hour(s) for the site generated traffic volumes. Diagrams must include the date of submission and date (year) for the site generated traffic. In most cases, trip generation data derived from the latest ITE Trip Generation Report will be acceptable. Approved ConnDOT studies are currently utilized to derive trip generation data for home improvement stores, super food stores and Dunkin' Donuts locations. Other studies will be taken into consideration, but will be subject to approval. Out parcels contained within retail developments shall utilize the most specific land use code available via ITE or other acceptable study data. For restaurants, indicate whether it is a fast-food or sit-down, and if there is a drive-up window proposed. Trip generation for the Christmas Season, as defined by ITE, is not currently required. Trip generation shall reflect a successful day, not abnormally high-peak periods such as holiday weekends. For retail developments, Friday afternoon and Saturday midday peak are required study periods. For apartments, condominiums, hotels and motels, the number of 1-, 2- and 3-bedroom units, and the square foot area of each type of unit shall be noted. For hotels and motels, list the number of rooms.
☑	☐	2. Submit flow diagrams for the applicable peak hour(s) for the combined traffic volumes (the sum of the background and site generated traffic volumes). Diagrams must include date of submission and date (year) of combined traffic and shall be consistent with the peak hours analyzed in the existing and background traffic conditions. Flow diagrams shall be consistent with the peak hours analyzed in the existing and background traffic conditions.
		3. Contact the Trip Analysis Section at (860) 594-2025 with any questions.

PROJECT NARRATIVE

To: The Connecticut Department of Transportation
Office of the State Traffic Administration

From: Kevin Solli, P.E. / Solli Engineering, LLC
Collene Byrne / Solli Engineering, LLC

Subject: OSTA Step 1: Major Traffic Generator Pre-Certificate Application
Proposed Mixed-Use Development
OSTA # 084-1806-01
205 Monroe Turnpike, Monroe, CT
Project #: 1402801

Date: 6/1/2018
Revised: 7/11/2018

This project consists of 8.63± acres of undeveloped land in Monroe, Connecticut and is bound by Monroe Turnpike (Route 111) to the east, the Residential-Farming District (RF-1) to the north and west, and the Limited Office Retail District (LOR) to the south. Refer to Figure 1, Site Location Map, for more details on the project location.

The proposed development is estimated to include approximately 36,726± square feet of gross floor space on the 8.63± acre project site located along Monroe Turnpike (Route 111) in Monroe, Connecticut. The proposed development will be a mixed-use complex comprised of two (2) primary lots that are proposed to include retailers, a restaurant, medical office, a drive-in bank, a gas station with convenience store and an integrated drive-thru coffee shop. The proposed development consists of the following land uses on each parcel:

Lot 1:

- 15,000 sf retail (Shopping Center)
- 10,000 sf medical office
- 2,500 sf drive-in bank
- 4,950 sf high-turnover restaurant

Lot 2:

- 3,276 sf gas station with convenience store (10 pumps)
- 1,000 sf coffee shop with drive-thru (integrated into gas station building)

Access will be provided from Monroe Turnpike (Route 111) via a proposed full-movement, signalized, site access driveway as well as a STOP-controlled, right-out only driveway exiting the gas station area on Lot 2. Refer to Figure 8, the OSTA Certifiable Area Map, for more detail on the proposed site layout and access.

Traffic volume information was obtained for the following seven (7) key intersections that were identified as being affected by the newly generated traffic of the proposed development:

- Monroe Turnpike (Route 111) & Purdy Hill Road
- Monroe Turnpike (Route 111) & Spring Hill Road
- Monroe Turnpike (Route 111) & Technology Drive / Corporate Drive
- Monroe Turnpike (Route 111) & Trefoil Drive / Home Depot Driveway
- Monroe Turnpike (Route 111) & United Healthcare Driveway
- Monroe Turnpike (Route 111) & Trefoil Plaza (Chips/Edge Driveway)
- Monroe Turnpike (Route 111) & Main Street (Route 25)

Existing traffic volumes were compiled through manual turning movement count data collected during the month of August 2016. Traffic volumes for the study area intersections were obtained during the AM, PM and Saturday peak periods. This data was obtained from data published in a study prepared by Tighe & Bond for Metro-COG entitled "Engineering Planning Study for Route 25 and Route 111, Monroe & Trumbull, CT". Figure 2 illustrates the 2016 Existing Traffic Volumes for the AM, PM, and Saturday midday peak hours of the study area intersections.

The anticipated distribution of traffic entering and exiting the site was developed based on area populations, existing traffic patterns, layout of the adjacent roadway network, and geographic locations of similar residential, business and commercial retail developments. Due to the mixed-use nature of the site and the directional distributions along Monroe Turnpike (Route 111), each peak period was determined to have its own distribution of trips. The anticipated distributions of the new site generated trips are illustrated in Figure 3, Trip Distribution.

The anticipated number of trips that will be generated by proposed development was estimated using data from the Institute of Transportation Engineers (ITE) Trip Generation, 9th Edition. The trip generation for each proposed land use was calculated for the AM, PM and Saturday midday peak hours. The trip generation for the proposed development was calculated based on the proposed land uses and resulted in 666 (350 entering, 316 exiting) new trips during the AM peak hour, 483 (241 entering, 242 exiting) new trips during the PM peak hour, and 563 (290 entering, 273 exiting) new trips during the Saturday midday peak hour. The new site generated trips anticipated to be generated by the proposed development were assigned to the study area roadway network based on the anticipated percent distributions and the resulting trip assignment is illustrated in Figure 4, Trip Assignments.

As per CTDOT and OSTA standards, a "pass-by" trip credit of 20% of the retail component of the site generated trips was applied at the site driveway intersections. Pass-by trips are trips associated with the proposed development which are already on the adjacent roadway network who will patronize the retail

development and continue along their route. The resulting pass-by trips at the site driveway intersections are illustrated on Figure 5.

As the proposed development is anticipated to be opened in 2019, background traffic growth is estimated to account for the traffic increase as a result of regional population growth. Existing traffic volumes were projected to the 2019 design year using a conservative 2.0 percent per year growth factor.

Several background generator projects were identified in the project study area. The traffic volumes associated with these projects have been included as part of this analysis. The table below summarizes the trip generation for these projects.

BACKGROUND GENERATOR PROJECTS
TRIP GENERATION SUMMARY

USE	AM PEAK HOUR			PM PEAK HOUR			SAT PEAK HOUR		
	ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
Certificate#1601-A[1,2]	184	149	333	405	398	804	519	499	1,018
Pondview Shopping Center[3]	174	114	288	474	479	953	538	518	1,056
UHC Refill/Trefoil Corporate Park[4]	420	60	480	70	380	450	60	50	110
Total Proposed Trips	**778**	**323**	**1,101**	**949**	**1,257**	**2,207**	**1,117**	**1,067**	**2,184**

[1]Based on Frederick P. Clark Associates, Inc., Traffic Impact Study: Canterbury Square, Monroe, Connecticut; July 10, 2002
[2] Based on Solli Engineering, LLC, Traffic Impact Study: Victoria Place, Monroe, Connecticut; September 18, 2013
[3] Based on Fuss & O'Neill, Traffic Impact Study: Pond View Shopping Center, Monroe, Connecticut; March 1, 2012
[4] Based on data provided by CTDOT; June 21, 2018

The total proposed trips were distributed to the study area intersections according to data provided in the respective traffic impact studies. Those distributed trips were added together to comprise the total background generator trips added to the network.

The traffic volumes associated with the background generators were added to the 2016 existing volumes, along with the 2% annual background growth, to obtain the 2019 background volumes. The AM, PM and Saturday midday peak hour volumes for the 2019 Background Condition are illustrated in Figure 6.

The trip assignment volumes illustrated in Figure 4 and the pass-by trips illustrated in Figure 5 were combined with the 2019 background volumes illustrated in Figure 6 to develop the 2019 Build Volumes. The AM, PM and Saturday midday peak hour volumes for the 2019 build condition are illustrated in Figure 7.

Peak Hour Trip Generation Summary
Proposed Development, 205 Monroe Turnpike, Monroe, Connecticut

			AM Peak Hour			PM Peak Hour			SAT Peak Hour		
	Variable	LUC	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
Medical Office	10.00	720	19	5	24	11	25	36	22	15	37
Shopping Center	15.00	820	10	5	15	27	29	56	38	35	73
Drive-In Bank	2.50	912	18	13	31	31	30	61	34	32	66
High Turnover (Sit Down) Restaurant	4.95	932	38	31	70	38	25	63	48	43	91
Coffee Shop w/ Drive Thru	1.00	937	200	200	400	22	21	43	43	42	85
Gas Station w/ Convenience	3.28	945	138	132	270	160	160	320	160	160	320
Total New Trips			**423**	**386**	**810**	**289**	**290**	**579**	**345**	**327**	**672**
20% Pass-By			*73*	*70*	*143*	*48*	*48*	*96*	*55*	*54*	*109*
Net Trips			**350**	**316**	**666**	**241**	**242**	**483**	**290**	**273**	**563**

CT DOT Dunkin' Donuts Trip Generation

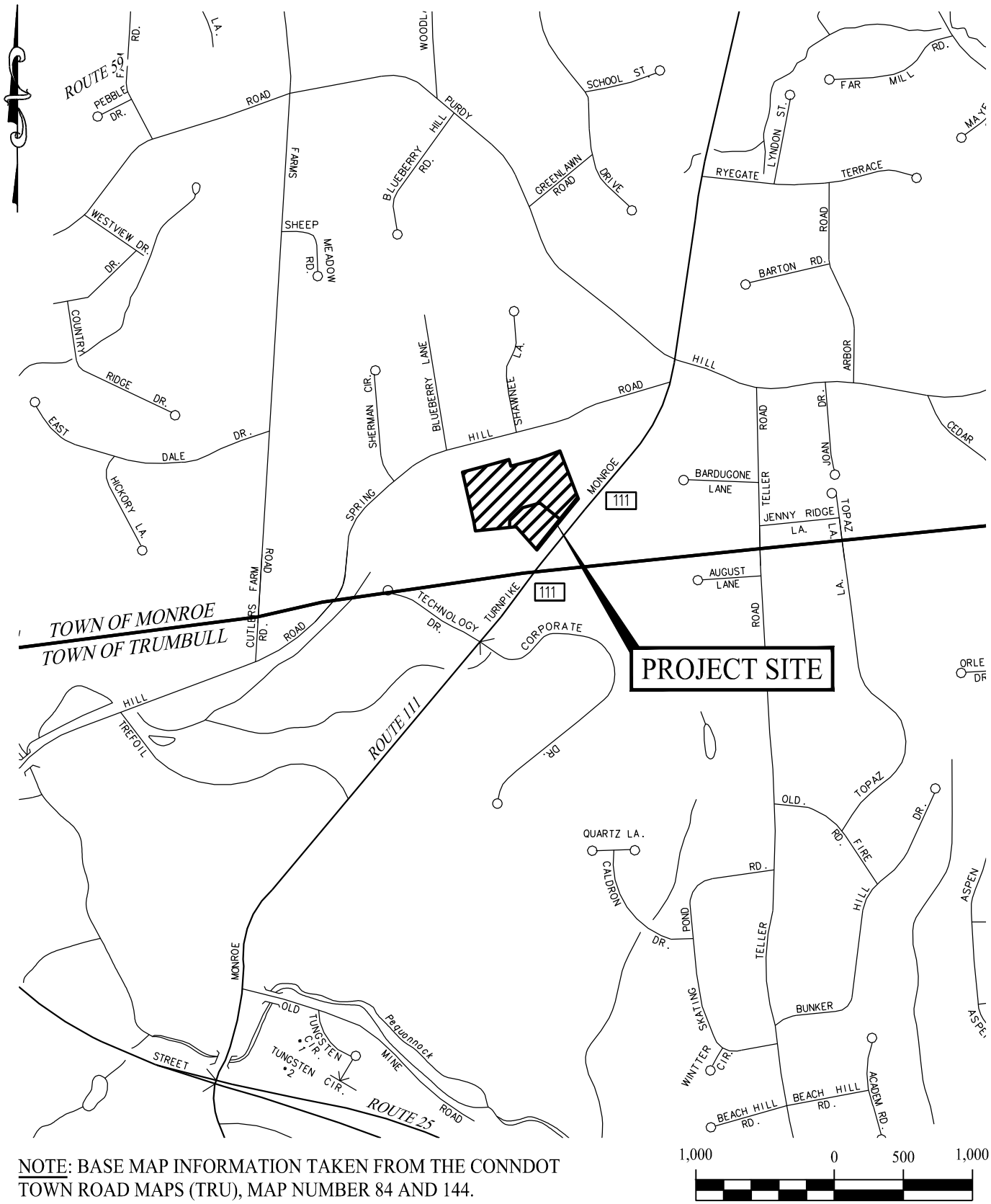
Source: ITE Trip Generation, 9th Edition

Land Use	Time Period	Avg. Rate	Entering	Exiting
LUC 720 - Medical Office	AM	2.39	79%	21%
	PM	3.57	28%	72%
	SAT	3.63	57%	43%
LUC 820 - Shopping Center	AM	0.96	62%	38%
	PM	3.71	48%	52%
	SAT	4.82	52%	48%
LUC 912 - Drive - In Bank	AM	12.08	57%	43%
	PM	24.30	50%	50%
	SAT	26.31	51%	49%
LUC 932 - High Turnover (Sit Down) Restaurant	AM	10.81	55%	45%
	PM	9.85	60%	40%
	SAT	14.07	53%	47%
LUC 937 - Coffee Shop w/ Drive Thru	AM	100.58	51%	49%
	PM	42.8	50%	50%
	SAT	84.52	50%	50%
LUC 945 - Gas Station w/ Conveinience	AM	82.13	51%	49%
	PM	97.47	50%	50%
	SAT	97.47	50%	50%

CT DOT Dunkin' Donuts Trip Generation

Based on LUC 945 - Gas Station w/ Coneivience (PM)

SOLLI ENGINEERING



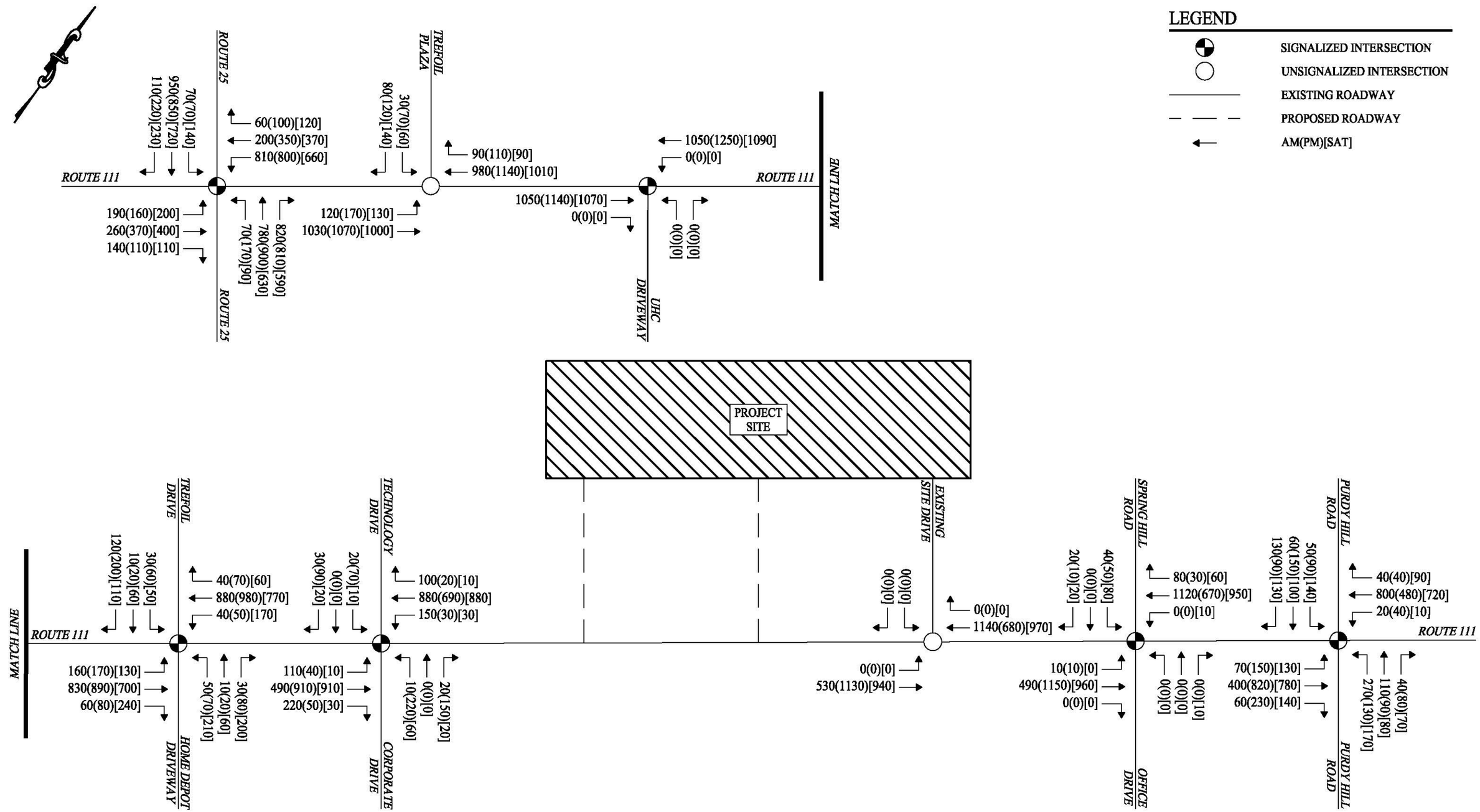
NOTE: BASE MAP INFORMATION TAKEN FROM THE CONNDOT TOWN ROAD MAPS (TRU), MAP NUMBER 84 AND 144.

SOLLI ENGINEERING
501 Main Street, Monroe, CT 06468
T: (203) 880-5455 F: (203) 880-9695

SITE LOCATION MAP

205 MONROE TURNPIKE
MONROE, CONNECTICUT

Project #:	1402801
Plan Date:	06/01/18
Scale:	1" = 1,000'
Figure:	1



Rev. #:	Date	Description

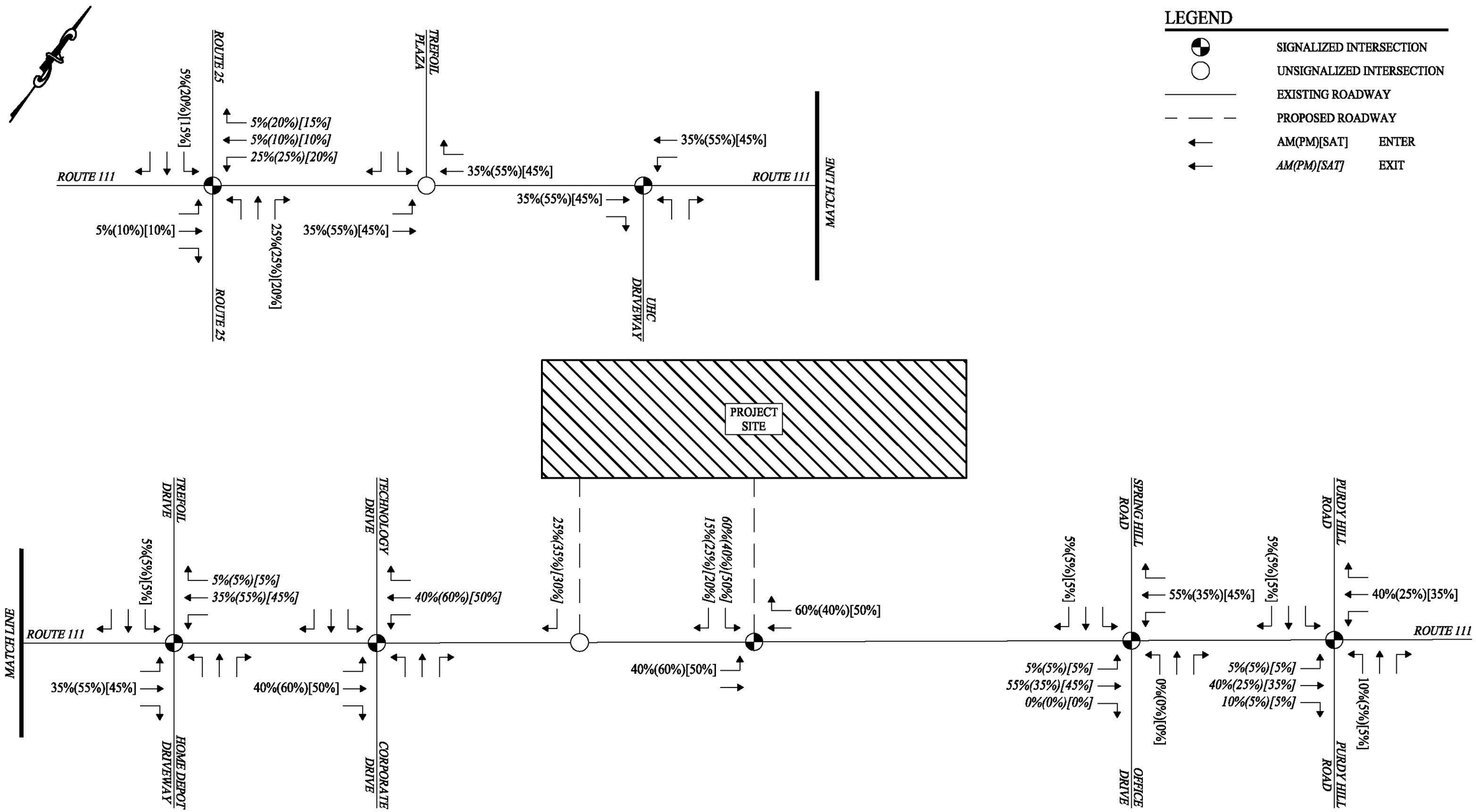
SOLLI ENGINEERING
501 Main Street, Monroe, CT 06468
T: (203) 880-5455 | F: (203) 880-9695

Drawn By:	RAS
Checked By:	KMS
Project #:	1402801
Plan Date:	06/01/18
Scale:	NTS

Project: PROPOSED MIXED-USE DEVELOPMENT
205 MONROE TURNPIKE
MONROE, CONNECTICUT

Sheet Title: 2016 EXISTING TRAFFIC VOLUMES

SHEET #: FIGURE 2



Rev. #:	Date	Description

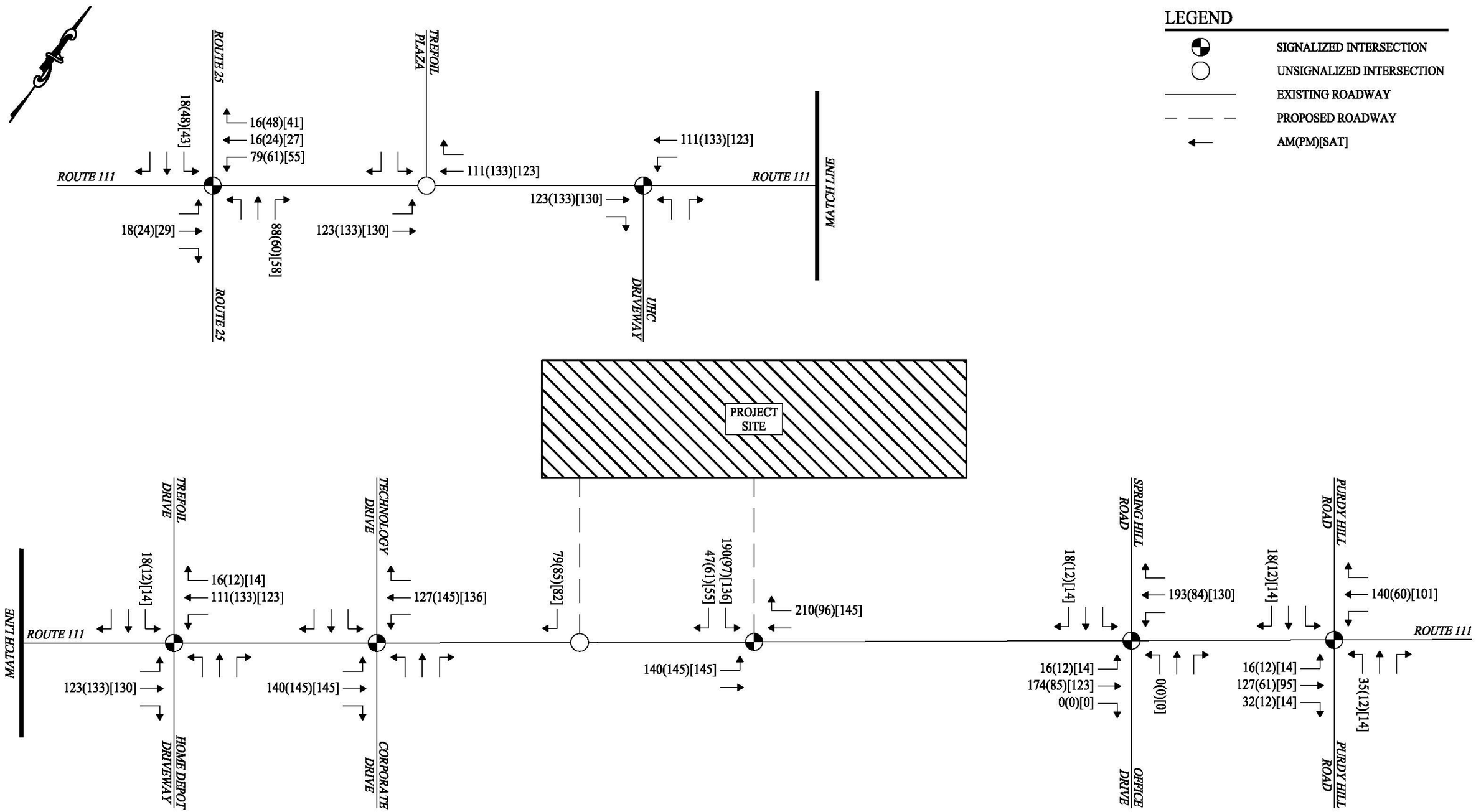
SOLLI ENGINEERING
501 Main Street, Monroe, CT 06468
T: (203) 880-5455 | F: (203) 880-9695

Drawn By:	RAS
Checked By:	KMS
Project #:	1402801
Plan Date:	06/01/18
Scale:	NTS

Project: PROPOSED MIXED-USE DEVELOPMENT
205 MONROE TURNPIKE
MONROE, CONNECTICUT

Sheet Title: TRIP DISTRIBUTION

SHEET #: FIGURE 3



Rev. #:	Date	Description

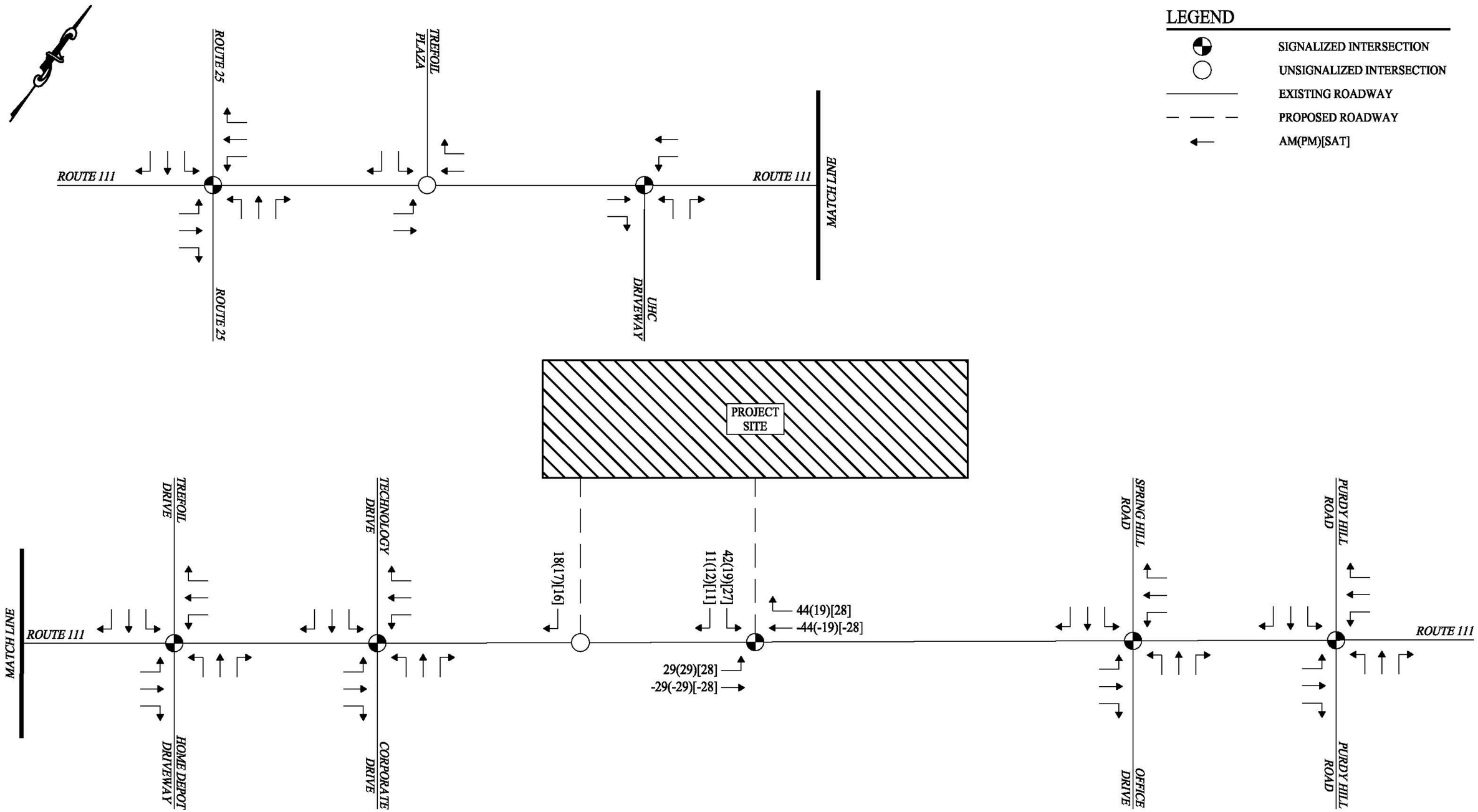
SOLLI ENGINEERING
501 Main Street, Monroe, CT 06468
T: (203) 880-5455 | F: (203) 880-9695

Drawn By:	RAS
Checked By:	KMS
Project #:	1402801
Plan Date:	06/01/18
Scale:	NTS

Project: PROPOSED MIXED-USE DEVELOPMENT
205 MONROE TURNPIKE
MONROE, CONNECTICUT

Sheet Title: TRIP ASSIGNMENT

SHEET #: FIGURE 4



Rev. #:	Date	Description

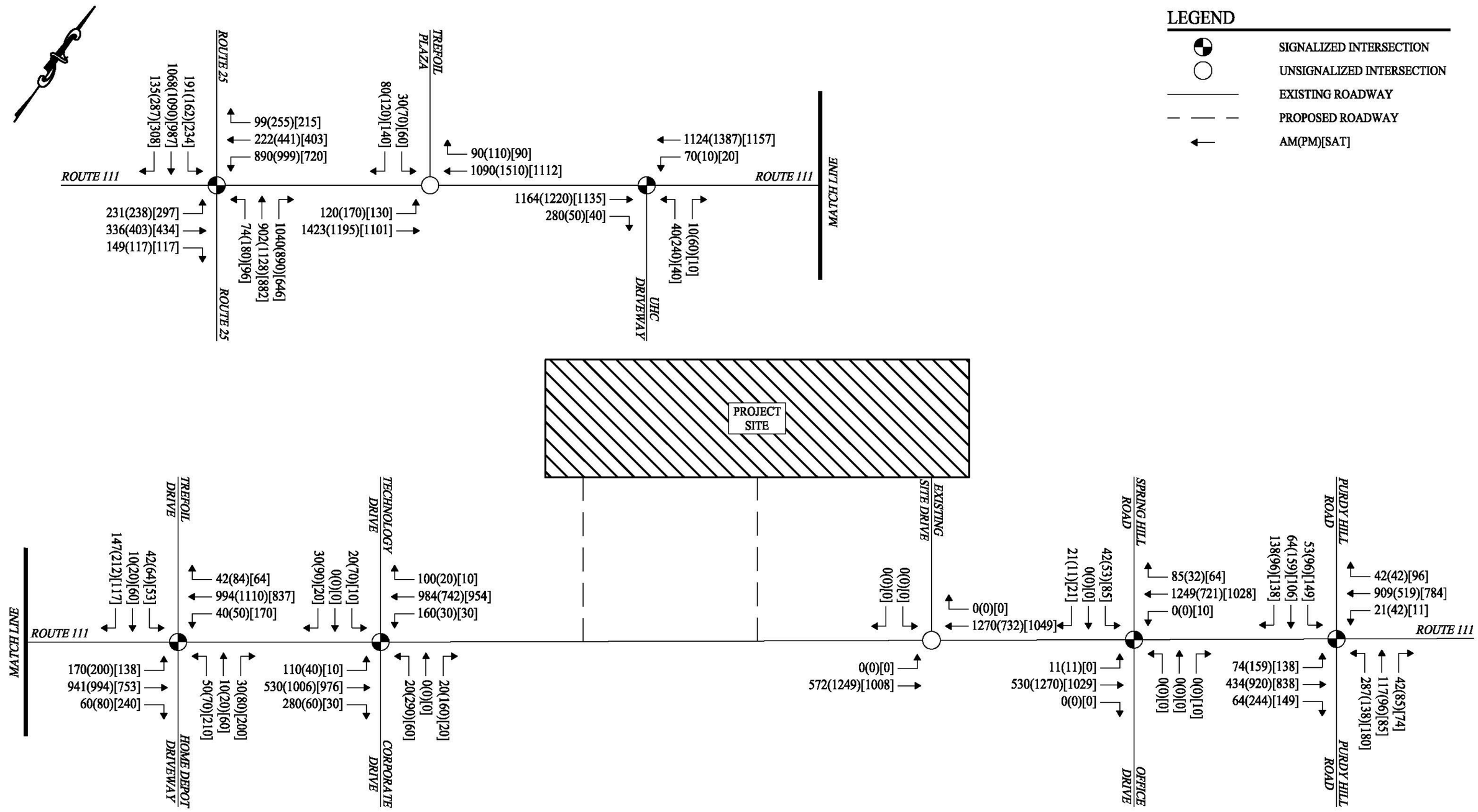
SOLLI ENGINEERING
501 Main Street, Monroe, CT 06468
T: (203) 880-5455 | F: (203) 880-9695

Drawn By:	RAS
Checked By:	KMS
Project #:	1402801
Plan Date:	06/01/18
Scale:	NTS

Project: PROPOSED MIXED-USE DEVELOPMENT
205 MONROE TURNPIKE
MONROE, CONNECTICUT

Sheet Title: PASS-BY TRIPS

SHEET #: FIGURE 5



Rev. #:	Date	Description
1	06/28/18	Response to CT DOT Comments

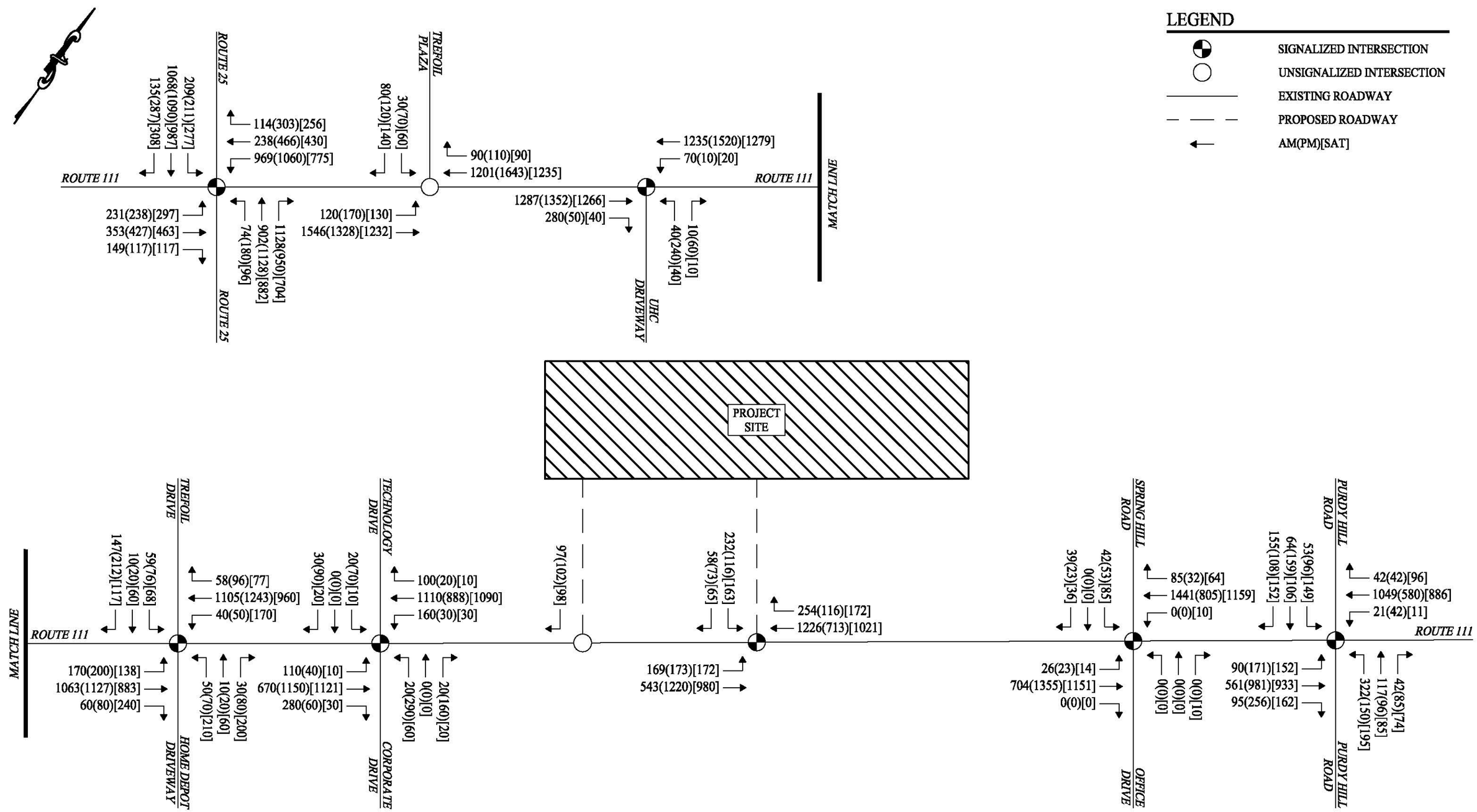
SOLLI ENGINEERING
501 Main Street, Monroe, CT 06468
T: (203) 880-5455 | F: (203) 880-9695

Drawn By:	RAS
Checked By:	KMS
Project #:	1402801
Plan Date:	06/01/18
Scale:	NTS

Project: PROPOSED MIXED-USE DEVELOPMENT
205 MONROE TURNPIKE
MONROE, CONNECTICUT

Sheet Title: 2019 BACKGROUND TRAFFIC VOLUMES

SHEET #: FIGURE 6



Rev. #:	Date	Description
1	06/28/18	Response to CT DOT Comments

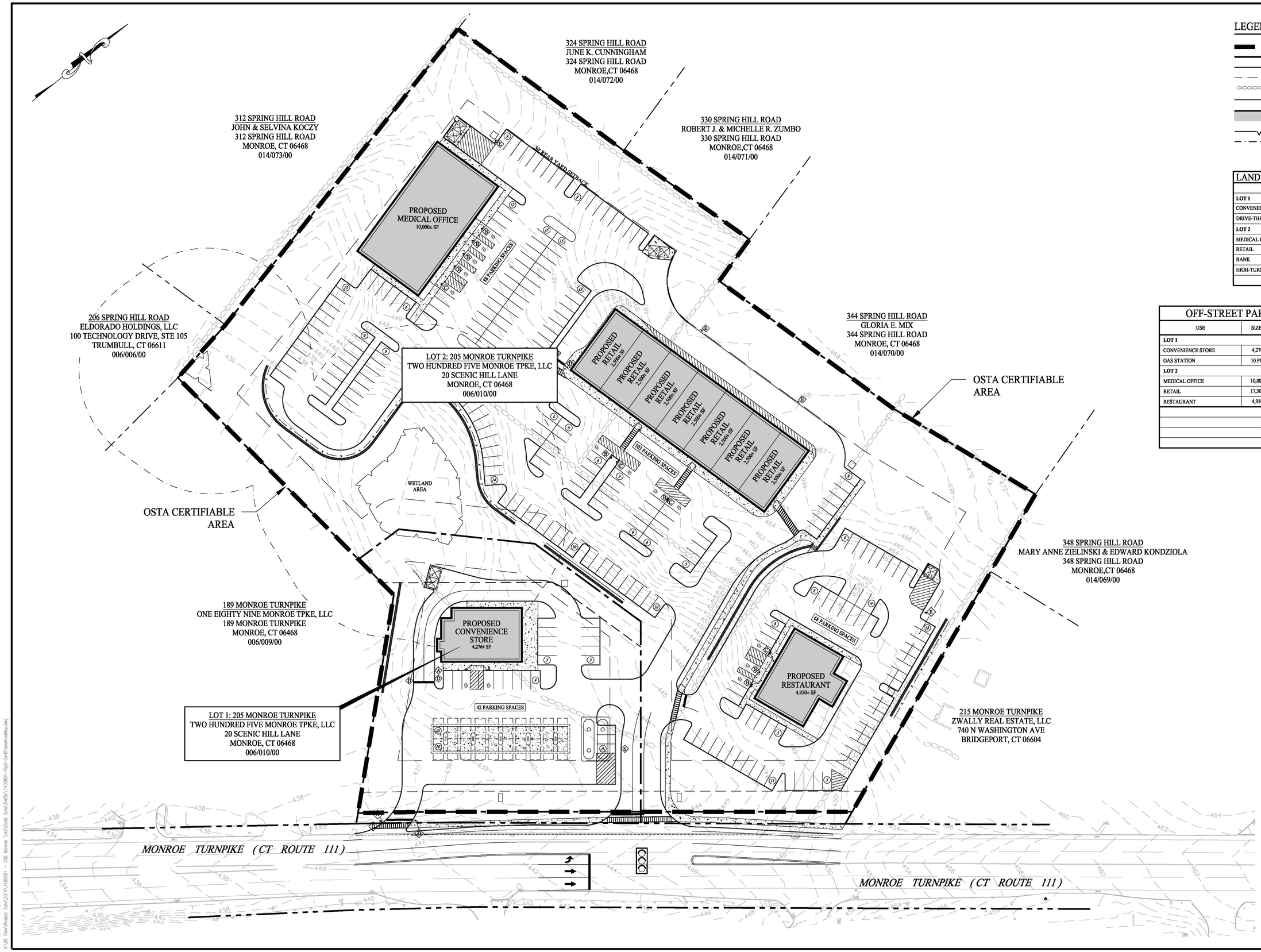
SOLLI ENGINEERING
501 Main Street, Monroe, CT 06468
T: (203) 880-5455 | F: (203) 880-9695

Drawn By:	RAS
Checked By:	KMS
Project #:	1402801
Plan Date:	06/01/18
Scale:	NTS

Project: PROPOSED MIXED-USE DEVELOPMENT
205 MONROE TURNPIKE
MONROE, CONNECTICUT

Sheet Title: 2019 BUILD TRAFFIC VOLUMES

SHEET #: FIGURE 7



LEGEND

- OSTA CERTIFIABLE AREA
- PROPERTY LINE
- ADJOINING LOT LINE
- BUILDING SETBACK
- ROCK WALL
- BITUMINOUS CONCRETE CURB
- BUILDING LIMITS
- LIMIT OF WETLANDS
- LIMIT OF 100' UPLAND REVIEW AREA

LAND USE SUMMARY

LAND USE	SQUARE FOOTAGE
LOT 1	
CONVENIENCE STORE	3,276 ± SF
DRIVE-THRU COFFEE SHOP	1,000 ± SF
LOT 2	
MEDICAL OFFICE	10,000 ± SF
RETAIL	15,000 ± SF
BANK	2,500 ± SF
HIGH-TURNOVER RESTAURANT	4,950 ± SF
TOTAL	36,726 ± SF

OFF-STREET PARKING COMPLIANCE TABLE

USE	SIZE GFA	ZONING STANDARD	REQUIRED SPACES
LOT 1			
CONVENIENCE STORE	4,276± SF	5 SPACES / 1,000 SF	22
GAS STATION	10 PUMPS	2 SPACES / PUMP	20
LOT 2			
MEDICAL OFFICE	10,000± SF	6 SPACES / 1,000 SF	60
RETAIL	17,500± SF	5 SPACES / 1,000 SF	88
RESTAURANT	4,950± SF	18 SPACES / 1,000 SF	90
TOTAL OFF-STREET PARKING REQUIRED			280
PROPOSED PARKING SPACES			287
PROPOSED ADA ACCESSIBLE PARKING SPACES			14
TOTAL PROPOSED PARKING SPACES			301

Rev. #:	Date	Description

Graphic Scale: 40 0 40 80

SOLLI ENGINEERING
501 Main Street, Monroe, CT 06468 T: (203) 880-5455 | F: (203) 880-9695

Drawn By:	RAS
Checked By:	CAB
Approved By:	KMS
Project #:	1402801
Plan Date:	06/01/18
Scale:	1" = 40'

Kevin Solli, P.E.
CT 25759

Project:

PROPOSED DEVELOPMENT

205 MONROE TURNPIKE
MONROE, CONNECTICUT

Sheet Title: OSTA CERTIFIABLE AREA PLAN

Sheet #: FIG. 8

Jun 01, 2018 – 3:28pm rich
X:\SE Files\Project Data\2014\1402801 – 205 Monroe Tpke\Cadd Data\Traffic\1402801–Fig8–CertifiableAreaMap.dwg

SOLLI ENGINEERING

May 22, 2018

Hand Delivery

Inland Wetlands Commission
Town of Monroe
7 Fan Hill Road
Monroe, CT 06468

RE: Proposed Development
Two Hundred Five Monroe Turnpike LLC
205 Monroe Turnpike
Monroe, Connecticut 06468
Project Number: 1402801

Dear Commission Members:

On behalf of Two Hundred Five Monroe Turnpike, LLC, please find enclosed an application for the proposed development and associated activity located at 205 Monroe Turnpike, Monroe, Connecticut.

The project proposes to consolidate the existing parcels that make up 205 Monroe Turnpike into two new lots, labeled Lot 1 and Lot 2 for the purposes of this application. Lot 1 consists of the construction of a convenience store with retail space, with a coffee shop, and associated driveways, parking lots, drainage, utilities, landscaping, and lighting. Lot 2 will contain three separate buildings: a proposed restaurant, a proposed retail building, and a proposed medical office with associated driveways, parking lots, drainage, utilities, landscaping, and lighting.

The proposed development includes a central 38 foot wide main driveway providing access to both lots of the development. In addition, there is an exit-only driveway proposed on Lot 1 for the convenience store.

While the project involves work within the upland review area, no direct wetland impact is proposed. All known wetlands have been flagged by William Kenny Associates and were located by Accurate Land Surveying.

Also enclosed are the requisite copies and a check in the amount of $710.00 representing the requisite filing fee. We look forward to working with you in the processing of this application

Respectfully,

Solli Engineering, LLC

Douglas R. Reich, RLA
Landscape Architect

RECEIVED
MAY 22 2018
Town of Monroe
Inland Wetlands Department

Enclosures

CC: Mike Schinella
Thomas Schinella

X:\SE Files\Project Data\2014\1402801 - 205 Monroe Tpke\Office Data\Applications\2018-05-22 IW Initial Submission\2018-05-22 - IWC Submission Letter.docx

Appendix - No Build Traffic Volume Support

Proposed Mixed Use Development
Trip Generation

5/2019

Land Use	ITE Land Use Code	Size	Trips		
			MIDDAY Peak Hour		
			Total	In	Out
Medical	720 - Medical Office	10	28	14	14
Retail	820 - Shopping Center	15.00	56	28	28
Bank	912 - Drive-in Bank	2.50	29	15	14
Restaurant	932 - High Turnover (Sit Down) Restaurant	4.95	68	34	34
Coffee Shop	937 - Coffee Shop w/Drive Thru[2]	1.00	85	43	42
Gas Station	945 - Gas Station w/Convenience	3.28	279	140	139
	Gross Trips		**545**	**274**	**271**
	Less pass-by (use 20% of LUC 820,912,937,945 traffic)[1]		-88	-44	-44
Total	**Net New Trips**		**457**	**230**	**227**

[1]20% max per CTDOT; [2]Per SAT Peak used by Solli Engineers for Proposed Mixed-Used Development at 205 Monroe Turnpike
Ref: Trip Generation, 10th Edition

CAPACITY ANALYSES

NO BUILD

Map - Proposed Delivery Station Building Improvements
Levels of Service

No Build
Timing Plan: AM Peak

BL Companies
G:\JOBS19\10\1901141\TRAF\Adendum #1 - 2020\SYNCHRO\T-1901141-NOBUILD-AM.syn

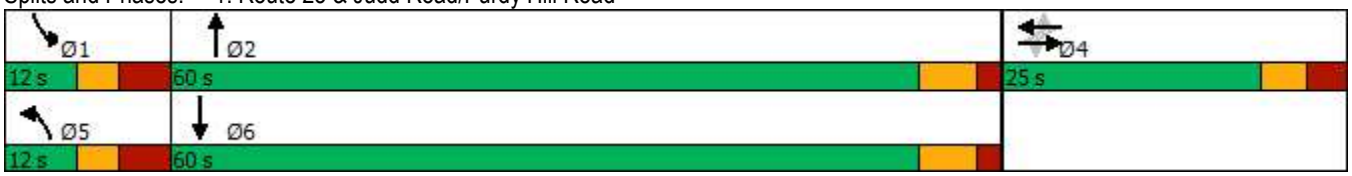
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	87	51	71	82	194	71	36	913	5	15	913	26
Future Volume (vph)	87	51	71	82	194	71	36	913	5	15	913	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	135		0	85		0	130		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	75			96			96			96		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.912			0.960			0.999			0.996	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1699	0	1770	1788	0	1770	1861	0	1770	1855	0
Flt Permitted	0.317			0.673			0.950			0.950		
Satd. Flow (perm)	590	1699	0	1254	1788	0	1770	1861	0	1770	1855	0
Right Turn on Red			Yes			No			Yes			No
Satd. Flow (RTOR)		64										
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		373			328			2210			332	
Travel Time (s)		8.5			7.5			37.7			5.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	95	55	77	89	211	77	39	992	5	16	992	28
Shared Lane Traffic (%)												
Lane Group Flow (vph)	95	132	0	89	288	0	39	997	0	16	1020	0
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		4			4		5	2		1	6	
Permitted Phases	4			4								
Detector Phase	4	4		4	4		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	25.0		5.0	25.0	
Minimum Split (s)	11.4	11.4		11.4	11.4		11.8	31.0		11.8	31.0	
Total Split (s)	25.0	25.0		25.0	25.0		12.0	60.0		12.0	60.0	
Total Split (%)	25.8%	25.8%		25.8%	25.8%		12.4%	61.9%		12.4%	61.9%	
Maximum Green (s)	18.6	18.6		18.6	18.6		5.2	54.0		5.2	54.0	
Yellow Time (s)	3.3	3.3		3.3	3.3		3.0	4.2		3.0	4.2	
All-Red Time (s)	3.1	3.1		3.1	3.1		3.8	1.8		3.8	1.8	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.4	6.4		6.4	6.4		6.8	6.0		6.8	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		1.5	2.5		1.5	2.5	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)	17.4	17.4		17.4	17.4		5.2	54.2		5.2	52.0	
Actuated g/C Ratio	0.20	0.20		0.20	0.20		0.06	0.61		0.06	0.59	
v/c Ratio	0.83	0.34		0.36	0.82		0.38	0.88		0.16	0.94	
Control Delay	86.6	21.3		38.4	56.5		54.7	27.0		47.4	35.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	86.6	21.3		38.4	56.5		54.7	27.0		47.4	35.8	
LOS	F	C		D	E		D	C		D	D	
Approach Delay		48.6			52.2			28.0			36.0	
Approach LOS		D			D			C			D	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	57	36		48	173		24	373		10	583	
Queue Length 95th (ft)	#152	88		96	#311		58	#858		31	#891	
Internal Link Dist (ft)		293			248			2130			252	
Turn Bay Length (ft)	135			85			130			100		
Base Capacity (vph)	126	413		268	382		105	1202		105	1152	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.75	0.32		0.33	0.75		0.37	0.83		0.15	0.89	

Intersection Summary	
Area Type:	Other
Cycle Length: 97	
Actuated Cycle Length: 88.6	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 36.3	Intersection LOS: D
Intersection Capacity Utilization 84.6%	ICU Level of Service E
Analysis Period (min) 15	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Route 25 & Judd Road/Purdy Hill Road



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	10	15	918	102	26	1030
Future Volume (vph)	10	15	918	102	26	1030
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	210	145		0	150	
Storage Lanes	0	1		0	1	
Taper Length (ft)	120				96	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850	0.986			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	1837	0	1770	1863
Flt Permitted	0.950				0.137	
Satd. Flow (perm)	1770	1583	1837	0	255	1863
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		16	10			
Link Speed (mph)	25		40			40
Link Distance (ft)	526		2307			466
Travel Time (s)	14.3		39.3			7.9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	16	998	111	28	1120
Shared Lane Traffic (%)						
Lane Group Flow (vph)	11	16	1109	0	28	1120
Turn Type	Prot	Perm	NA		pm+pt	NA
Protected Phases	4		2		1	2
Permitted Phases		4			2	
Detector Phase	4	4	2		1	2
Switch Phase						
Minimum Initial (s)	7.0	7.0	18.0		5.0	18.0
Minimum Split (s)	11.5	11.5	22.8		9.5	22.8
Total Split (s)	22.0	22.0	45.0		15.0	45.0
Total Split (%)	26.8%	26.8%	54.9%		18.3%	54.9%
Maximum Green (s)	17.5	17.5	40.2		10.5	40.2
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5
All-Red Time (s)	1.0	1.0	1.3		1.0	1.3
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.5	4.5	4.8		4.5	4.8
Lead/Lag			Lag		Lead	Lag
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	2.5		2.0	2.5
Recall Mode	None	None	Min		None	Min
Act Effct Green (s)	7.0	7.0	52.6		51.9	52.6
Actuated g/C Ratio	0.11	0.11	0.84		0.83	0.84
v/c Ratio	0.06	0.08	0.72		0.08	0.71
Control Delay	27.0	15.1	12.6		2.3	12.6
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	27.0	15.1	12.6		2.3	12.6
LOS	C	B	B		A	B
Approach Delay	20.0		12.6			12.3
Approach LOS	B		B			B

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Queue Length 50th (ft)	4	0	0		1	0
Queue Length 95th (ft)	17	16	#699		6	#698
Internal Link Dist (ft)	446		2227			386
Turn Bay Length (ft)	210	145			150	
Base Capacity (vph)	497	456	1550		474	1571
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.02	0.04	0.72		0.06	0.71

Intersection Summary	
Area Type: Other	
Cycle Length: 82	
Actuated Cycle Length: 62.4	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 12.6	Intersection LOS: B
Intersection Capacity Utilization 68.1%	ICU Level of Service C
Analysis Period (min) 15	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Route 25 & Victoria Drive

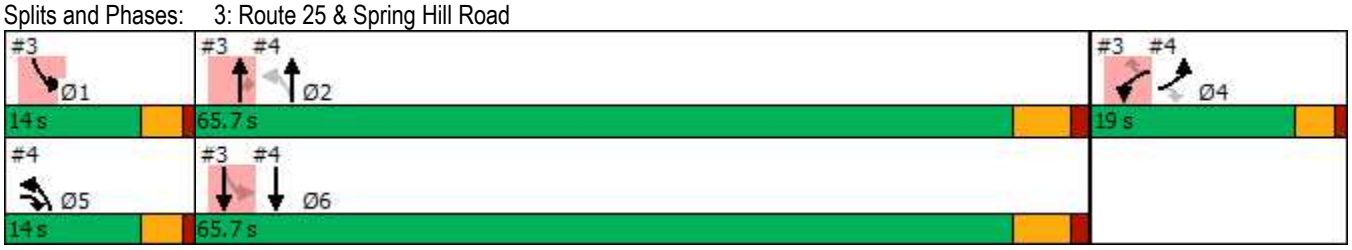
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø5
Lane Configurations							
Traffic Volume (vph)	97	66	949	66	51	990	
Future Volume (vph)	97	66	949	66	51	990	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	220		150	145		
Storage Lanes	1	1		1	1		
Taper Length (ft)	25				205		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		0.850		0.850			
Flt Protected	0.950				0.950		
Satd. Flow (prot)	1770	1583	1863	1583	1770	1863	
Flt Permitted	0.950				0.136		
Satd. Flow (perm)	1770	1583	1863	1583	253	1863	
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)		72		45			
Link Speed (mph)	25		40			40	
Link Distance (ft)	563		462			2307	
Travel Time (s)	15.4		7.9			39.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	105	72	1032	72	55	1076	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	105	72	1032	72	55	1076	
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA	
Protected Phases	4		2		1	6	5
Permitted Phases		4		2	6		
Detector Phase	4	4	2	2	1	6	
Switch Phase							
Minimum Initial (s)	7.0	7.0	18.0	18.0	5.0	18.0	5.0
Minimum Split (s)	11.0	11.0	23.7	23.7	9.0	23.7	9.0
Total Split (s)	19.0	19.0	65.7	65.7	14.0	65.7	14.0
Total Split (%)	19.3%	19.3%	66.6%	66.6%	14.2%	66.6%	14%
Maximum Green (s)	15.0	15.0	60.0	60.0	10.0	60.0	10.0
Yellow Time (s)	3.0	3.0	4.3	4.3	3.0	4.3	3.0
All-Red Time (s)	1.0	1.0	1.4	1.4	1.0	1.4	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	5.7	5.7	4.0	5.7	
Lead/Lag			Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?							
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	3.0	3.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	Min	Min	None	Min	None
Act Effct Green (s)	10.8	10.8	62.4	62.4	68.1	60.1	
Actuated g/C Ratio	0.12	0.12	0.68	0.68	0.75	0.66	
v/c Ratio	0.50	0.29	0.81	0.07	0.19	0.88	
Control Delay	46.2	12.4	8.5	1.4	4.0	23.6	
Queue Delay	0.0	0.0	0.4	0.0	0.0	0.0	
Total Delay	46.2	12.4	8.8	1.4	4.0	23.6	

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø5
LOS	D	B	A	A	A	C	
Approach Delay	32.5		8.4			22.6	
Approach LOS	C		A			C	
Queue Length 50th (ft)	57	0	84	0	5	437	
Queue Length 95th (ft)	110	38	#801	m1	15	#889	
Internal Link Dist (ft)	483		382			2227	
Turn Bay Length (ft)		220		150	145		
Base Capacity (vph)	291	320	1275	1097	366	1229	
Starvation Cap Reductn	0	0	40	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	
Reduced v/c Ratio	0.36	0.23	0.84	0.07	0.15	0.88	

Intersection Summary

Area Type: Other
Cycle Length: 98.7
Actuated Cycle Length: 91.1
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.96
Intersection Signal Delay: 16.8 — Intersection LOS: B
Intersection Capacity Utilization 66.0% — ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Route 25 & Spring Hill Road



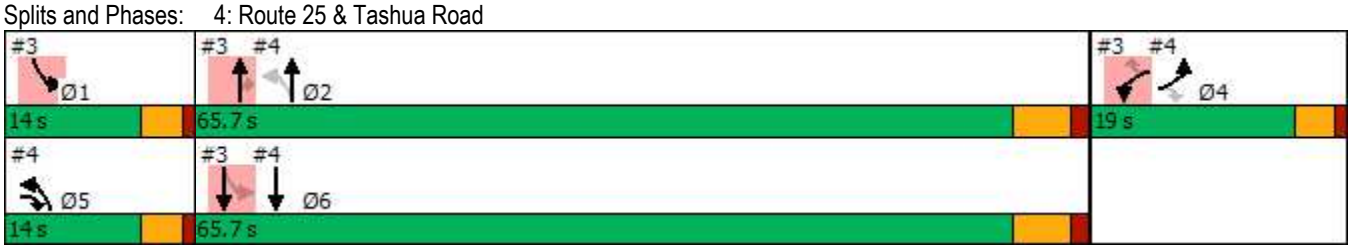
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø1
Lane Configurations							
Traffic Volume (vph)	46	148	51	969	1066	21	
Future Volume (vph)	46	148	51	969	1066	21	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	185	390			0	
Storage Lanes	1	1	1			0	
Taper Length (ft)	25		90				
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		0.850			0.997		
Flt Protected	0.950		0.950				
Satd. Flow (prot)	1770	1583	1770	1863	1857	0	
Flt Permitted	0.950		0.064				
Satd. Flow (perm)	1770	1583	119	1863	1857	0	
Right Turn on Red		Yes				Yes	
Satd. Flow (RTOR)		86			2		
Link Speed (mph)	25			40	40		
Link Distance (ft)	287			1984	462		
Travel Time (s)	7.8			33.8	7.9		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	50	161	55	1053	1159	23	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	50	161	55	1053	1182	0	
Turn Type	Prot	pm+ov	pm+pt	NA	NA		
Protected Phases	4	5	5	2	6		1
Permitted Phases		4	2				
Detector Phase	4	5	5	2	6		
Switch Phase							
Minimum Initial (s)	7.0	5.0	5.0	18.0	18.0		5.0
Minimum Split (s)	11.0	9.0	9.0	23.7	23.7		9.0
Total Split (s)	19.0	14.0	14.0	65.7	65.7		14.0
Total Split (%)	19.3%	14.2%	14.2%	66.6%	66.6%		14%
Maximum Green (s)	15.0	10.0	10.0	60.0	60.0		10.0
Yellow Time (s)	3.0	3.0	3.0	4.3	4.3		3.0
All-Red Time (s)	1.0	1.0	1.0	1.4	1.4		1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	4.0	4.0	4.0	5.7	5.7		
Lead/Lag		Lead	Lead	Lag	Lag		Lead
Lead-Lag Optimize?							
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0		3.0
Time Before Reduce (s)	0.0	0.0	0.0	3.0	0.0		0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0		0.0
Recall Mode	None	None	None	Min	Min		None
Act Effct Green (s)	10.8	21.2	69.3	62.4	60.1		
Actuated g/C Ratio	0.12	0.23	0.76	0.68	0.66		
v/c Ratio	0.24	0.37	0.27	0.83	0.96		
Control Delay	39.1	16.5	6.0	19.6	21.6		
Queue Delay	0.0	0.0	0.0	0.3	0.0		
Total Delay	39.1	16.5	6.0	19.9	21.6		

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø1
LOS	D	B	A	B	C		
Approach Delay	21.9			19.2	21.6		
Approach LOS	C			B	C		
Queue Length 50th (ft)	26	35	5	416	125		
Queue Length 95th (ft)	61	87	16	#843	m#324		
Internal Link Dist (ft)	207			1904	382		
Turn Bay Length (ft)		185	390				
Base Capacity (vph)	291	493	275	1275	1226		
Starvation Cap Reductn	0	0	0	0	0		
Spillback Cap Reductn	0	0	0	26	0		
Storage Cap Reductn	0	0	0	0	0		
Reduced v/c Ratio	0.17	0.33	0.20	0.84	0.96		

Intersection Summary

Area Type: Other
Cycle Length: 98.7
Actuated Cycle Length: 91.1
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.96
Intersection Signal Delay: 20.6 — Intersection LOS: C
Intersection Capacity Utilization 74.6% — ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Route 25 & Tashua Road



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	74	1071	97	77	791	843	168	314	148	824	200	72
Future Volume (vph)	74	1071	97	77	791	843	168	314	148	824	200	72
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	190		500	165		320	350		135	500		0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (ft)	230			220			65			95		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00
Frt			0.850			0.850			0.850		0.960	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	3433	1788	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	3539	1583	3433	1788	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			116			72			170		17	
Link Speed (mph)		40			40			40			40	
Link Distance (ft)		860			711			438			1769	
Travel Time (s)		14.7			12.1			7.5			30.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	80	1164	105	84	860	916	183	341	161	896	217	78
Shared Lane Traffic (%)												
Lane Group Flow (vph)	80	1164	105	84	860	916	183	341	161	896	295	0
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	
Protected Phases	5	2	7	1	6	3	7	4		3	8	
Permitted Phases			2			6			4			
Detector Phase	5	2	7	1	6	3	7	4	4	3	8	
Switch Phase												
Minimum Initial (s)	5.0	15.0	7.0	5.0	15.0	7.0	7.0	7.0	7.0	7.0	7.0	
Minimum Split (s)	10.0	22.0	12.0	10.0	22.0	12.0	12.0	13.0	13.0	12.0	13.0	
Total Split (s)	12.0	47.0	12.0	12.0	47.0	42.0	12.0	21.0	21.0	42.0	51.0	
Total Split (%)	9.8%	38.5%	9.8%	9.8%	38.5%	34.4%	9.8%	17.2%	17.2%	34.4%	41.8%	
Maximum Green (s)	7.0	40.0	7.0	7.0	40.0	37.0	7.0	15.0	15.0	37.0	45.0	
Yellow Time (s)	3.0	5.0	3.0	3.0	5.0	3.0	3.0	4.0	4.0	3.0	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	7.0	5.0	5.0	7.0	5.0	5.0	6.0	6.0	5.0	6.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	1.0	2.5	3.0	1.0	2.5	2.0	3.0	2.0	2.0	2.0	2.0	
Recall Mode	None	Min	None	None	Min	None	None	None	None	None	None	
Act Effct Green (s)	6.7	40.1	54.1	6.8	40.2	81.1	7.0	13.8	13.8	33.9	40.7	
Actuated g/C Ratio	0.06	0.34	0.46	0.06	0.34	0.69	0.06	0.12	0.12	0.29	0.35	
v/c Ratio	0.80	0.97	0.13	0.82	0.71	0.82	1.74	0.82	0.48	0.91	0.47	
Control Delay	103.3	58.0	3.3	107.1	38.5	20.1	403.6	68.0	11.4	54.0	30.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	103.3	58.0	3.3	107.1	38.5	20.1	403.6	68.0	11.4	54.0	30.7	
LOS	F	E	A	F	D	C	F	E	B	D	C	
Approach Delay		56.4			32.5			144.3			48.3	
Approach LOS		E			C			F			D	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	63	~484	0	67	315	439	~217	139	0	342	163	
Queue Length 95th (ft)	#153	#640	27	#161	392	670	#366	#204	57	#429	245	
Internal Link Dist (ft)		780			631			358			1689	
Turn Bay Length (ft)	190		500	165		320	350		135	500		
Base Capacity (vph)	105	1205	790	105	1209	1154	105	452	350	1082	696	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.76	0.97	0.13	0.80	0.71	0.79	1.74	0.75	0.46	0.83	0.42	

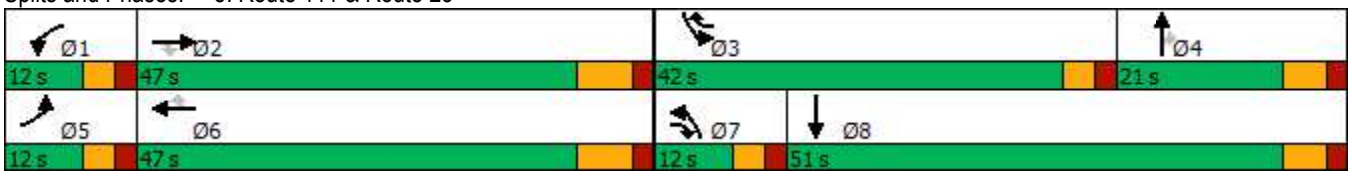
Intersection Summary

Area Type: Other
Cycle Length: 122
Actuated Cycle Length: 117.7
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.74
Intersection Signal Delay: 57.6 Intersection LOS: E
Intersection Capacity Utilization 85.2% ICU Level of Service E
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Route 111 & Route 25



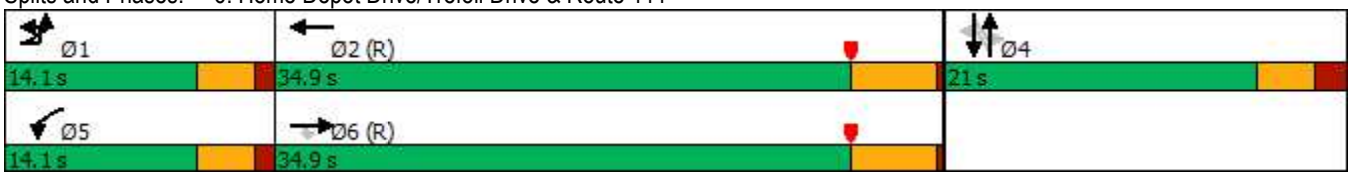
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	153	847	71	56	876	77	51	20	41	89	26	133
Future Volume (vph)	153	847	71	56	876	77	51	20	41	89	26	133
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	230		230	200		0	90		0	100		0
Storage Lanes	1		1	1		0	1		0	1		0
Taper Length (ft)	115			120			90			96		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.988			0.899			0.874	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3497	0	1770	1675	0	1770	1628	0
Flt Permitted	0.950			0.950			0.560			0.713		
Satd. Flow (perm)	1770	3539	1583	1770	3497	0	1043	1675	0	1328	1628	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			92		16			45			145	
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		481			302			288			263	
Travel Time (s)		8.2			5.1			7.9			7.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	166	921	77	61	952	84	55	22	45	97	28	145
Shared Lane Traffic (%)												
Lane Group Flow (vph)	166	921	77	61	1036	0	55	67	0	97	173	0
Turn Type	Prot	NA	Perm	Prot	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			4	
Permitted Phases			6				4			4		
Detector Phase	1	6	6	5	2		4	4		4	4	
Switch Phase												
Minimum Initial (s)	5.0	15.0	15.0	5.0	15.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	9.1	19.9	19.9	9.1	19.9		11.8	11.8		11.8	11.8	
Total Split (s)	14.1	34.9	34.9	14.1	34.9		21.0	21.0		21.0	21.0	
Total Split (%)	20.1%	49.9%	49.9%	20.1%	49.9%		30.0%	30.0%		30.0%	30.0%	
Maximum Green (s)	10.0	30.0	30.0	10.0	30.0		16.2	16.2		16.2	16.2	
Yellow Time (s)	3.0	4.4	4.4	3.0	4.4		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.1	0.5	0.5	1.1	0.5		1.8	1.8		1.8	1.8	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.1	4.9	4.9	4.1	4.9		4.8	4.8		4.8	4.8	
Lead/Lag	Lead	Lag	Lag	Lead	Lag							
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	None		None	None	
Act Effct Green (s)	10.8	41.5	41.5	7.9	34.5		10.9	10.9		10.9	10.9	
Actuated g/C Ratio	0.15	0.59	0.59	0.11	0.49		0.16	0.16		0.16	0.16	
v/c Ratio	0.61	0.44	0.08	0.30	0.60		0.34	0.22		0.47	0.46	
Control Delay	38.1	10.9	2.6	31.9	15.4		30.9	13.5		33.5	11.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	38.1	10.9	2.6	31.9	15.4		30.9	13.5		33.5	11.1	
LOS	D	B	A	C	B		C	B		C	B	
Approach Delay		14.2			16.3			21.3			19.2	
Approach LOS		B			B			C			B	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	66	119	0	25	160		22	8		39	11	
Queue Length 95th (ft)	#143	212	18	56	245		49	37		75	55	
Internal Link Dist (ft)		401			222			208			183	
Turn Bay Length (ft)	230		230	200			90			100		
Base Capacity (vph)	285	2099	976	254	1730		241	422		307	488	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.58	0.44	0.08	0.24	0.60		0.23	0.16		0.32	0.35	

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.61
Intersection Signal Delay: 15.9 Intersection LOS: B
Intersection Capacity Utilization 66.0% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: Home Depot Drive/Trefoil Drive & Route 111



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	56	77	87	112	0	36	0	51	5	5	5
Future Volume (vph)	0	56	77	87	112	0	36	0	51	5	5	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.922						0.921			0.955	
Flt Protected					0.979			0.980			0.984	
Satd. Flow (prot)	0	1717	0	0	1824	0	0	1681	0	0	1750	0
Flt Permitted					0.979			0.980			0.984	
Satd. Flow (perm)	0	1717	0	0	1824	0	0	1681	0	0	1750	0
Link Speed (mph)		25			25			25			30	
Link Distance (ft)		1279			533			365			165	
Travel Time (s)		34.9			14.5			10.0			3.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	61	84	95	122	0	39	0	55	5	5	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	145	0	0	217	0	0	94	0	0	15	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 35.7%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	56	77	87	112	0	36	0	51	5	5	5
Future Vol, veh/h	0	56	77	87	112	0	36	0	51	5	5	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	61	84	95	122	0	39	0	55	5	5	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	122	0	0	145	0	0	420	415	103	443	457	122
Stage 1	-	-	-	-	-	-	103	103	-	312	312	-
Stage 2	-	-	-	-	-	-	317	312	-	131	145	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1465	-	-	1437	-	-	544	528	952	525	500	929
Stage 1	-	-	-	-	-	-	903	810	-	699	658	-
Stage 2	-	-	-	-	-	-	694	658	-	873	777	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1465	-	-	1437	-	-	507	491	952	468	465	929
Mov Cap-2 Maneuver	-	-	-	-	-	-	507	491	-	468	465	-
Stage 1	-	-	-	-	-	-	903	810	-	699	611	-
Stage 2	-	-	-	-	-	-	635	611	-	822	777	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	3.4	11	11.6
HCM LOS			B	B

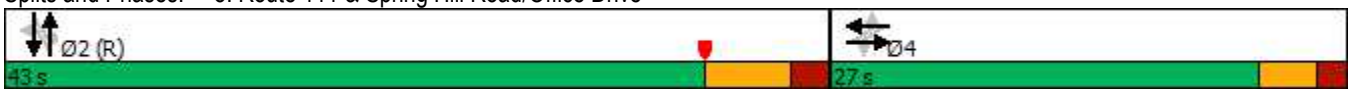
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	698	1465	-	-	1437	-	-	559
HCM Lane V/C Ratio	0.135	-	-	-	0.066	-	-	0.029
HCM Control Delay (s)	11	0	-	-	7.7	0	-	11.6
HCM Lane LOS	B	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.5	0	-	-	0.2	-	-	0.1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	26	5	28	0	0	0	26	608	0	0	1147	61
Future Volume (vph)	26	5	28	0	0	0	26	608	0	0	1147	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.936									0.992	
Flt Protected		0.978						0.998				
Satd. Flow (prot)	0	1705	0	0	1863	0	0	3532	0	0	3511	0
Flt Permitted		0.857						0.868				
Satd. Flow (perm)	0	1494	0	0	1863	0	0	3072	0	0	3511	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		30									11	
Link Speed (mph)		25			30			40			40	
Link Distance (ft)		238			96			211			211	
Travel Time (s)		6.5			2.2			3.6			3.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	28	5	30	0	0	0	28	661	0	0	1247	66
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	63	0	0	0	0	0	689	0	0	1313	0
Turn Type	Perm	NA					Perm	NA			NA	
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Detector Phase	4	4		4	4		2	2		2	2	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		15.0	15.0		15.0	15.0	
Minimum Split (s)	25.0	25.0		25.0	25.0		29.0	29.0		29.0	29.0	
Total Split (s)	27.0	27.0		27.0	27.0		43.0	43.0		43.0	43.0	
Total Split (%)	38.6%	38.6%		38.6%	38.6%		61.4%	61.4%		61.4%	61.4%	
Maximum Green (s)	22.3	22.3		22.3	22.3		36.5	36.5		36.5	36.5	
Yellow Time (s)	3.0	3.0		3.0	3.0		4.4	4.4		4.4	4.4	
All-Red Time (s)	1.7	1.7		1.7	1.7		2.1	2.1		2.1	2.1	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.7			4.7			6.5			6.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	
Act Effct Green (s)		7.6						58.5			58.5	
Actuated g/C Ratio		0.11						0.84			0.84	
v/c Ratio		0.34						0.27			0.45	
Control Delay		22.9						2.8			3.6	
Queue Delay		0.0						0.0			0.0	
Total Delay		22.9						2.8			3.6	
LOS		C						A			A	
Approach Delay		22.9						2.8			3.6	
Approach LOS		C						A			A	
Queue Length 50th (ft)		13						39			92	
Queue Length 95th (ft)		45						67			149	
Internal Link Dist (ft)		158			16			131			131	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)												
Base Capacity (vph)		496						2568			2937	
Starvation Cap Reductn		0						0			0	
Spillback Cap Reductn		0						0			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.13						0.27			0.45	

Intersection Summary	
Area Type: Other	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 14 (20%), Referenced to phase 2:NBSB, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.45	
Intersection Signal Delay: 3.9	Intersection LOS: A
Intersection Capacity Utilization 51.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 8: Route 111 & Spring Hill Road/Office Drive



Map - Proposed Delivery Station Building Improvements
Levels of Service

No Build
Timing Plan: MID Peak

BL Companies
G:\JOBS19\10\1901141\TRAF\Adendum #1 - 2020\SYNCHRO\T-1901141-NOBUILD-MID.syn

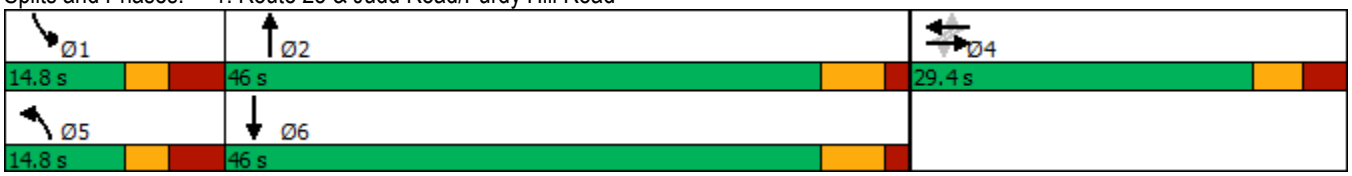
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	87	51	61	77	77	87	46	729	5	46	719	36
Future Volume (vph)	87	51	61	77	77	87	46	729	5	46	719	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	135		0	85		0	130		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	75			96			96			96		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.918			0.920			0.999			0.993	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1710	0	1770	1714	0	1770	1861	0	1770	1850	0
Flt Permitted	0.629			0.679			0.950			0.950		
Satd. Flow (perm)	1172	1710	0	1265	1714	0	1770	1861	0	1770	1850	0
Right Turn on Red			Yes			No			Yes			No
Satd. Flow (RTOR)		64										
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		373			328			2210			483	
Travel Time (s)		8.5			7.5			37.7			8.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	95	55	66	84	84	95	50	792	5	50	782	39
Shared Lane Traffic (%)												
Lane Group Flow (vph)	95	121	0	84	179	0	50	797	0	50	821	0
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		4			4		5	2		1	6	
Permitted Phases	4			4								
Detector Phase	4	4		4	4		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	25.0		5.0	25.0	
Minimum Split (s)	11.4	11.4		11.4	11.4		11.8	31.0		11.8	31.0	
Total Split (s)	29.4	29.4		29.4	29.4		14.8	46.0		14.8	46.0	
Total Split (%)	32.6%	32.6%		32.6%	32.6%		16.4%	51.0%		16.4%	51.0%	
Maximum Green (s)	23.0	23.0		23.0	23.0		8.0	40.0		8.0	40.0	
Yellow Time (s)	3.3	3.3		3.3	3.3		3.0	4.2		3.0	4.2	
All-Red Time (s)	3.1	3.1		3.1	3.1		3.8	1.8		3.8	1.8	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.4	6.4		6.4	6.4		6.8	6.0		6.8	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		1.5	2.5		1.5	2.5	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)	12.2	12.2		12.2	12.2		6.4	37.7		6.4	37.7	
Actuated g/C Ratio	0.17	0.17		0.17	0.17		0.09	0.54		0.09	0.54	
v/c Ratio	0.47	0.34		0.38	0.60		0.31	0.80		0.31	0.83	
Control Delay	36.7	18.2		33.7	37.8		40.0	24.1		40.0	25.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	36.7	18.2		33.7	37.8		40.0	24.1		40.0	25.9	
LOS	D	B		C	D		D	C		D	C	
Approach Delay		26.3			36.5			25.0			26.7	
Approach LOS		C			D			C			C	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	43	24		37	82		24	310		24	328	
Queue Length 95th (ft)	90	70		80	148		60	#631		60	#663	
Internal Link Dist (ft)		293			248			2130			403	
Turn Bay Length (ft)	135			85			130			100		
Base Capacity (vph)	403	630		435	590		212	1114		212	1108	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.24	0.19		0.19	0.30		0.24	0.72		0.24	0.74	

Intersection Summary	
Area Type: Other	
Cycle Length: 90.2	
Actuated Cycle Length: 70.1	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay: 27.2	Intersection LOS: C
Intersection Capacity Utilization 69.9%	ICU Level of Service C
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Route 25 & Judd Road/Purdy Hill Road



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	31	26	719	15	20	816
Future Volume (vph)	31	26	719	15	20	816
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	210	145		0	150	
Storage Lanes	0	1		0	1	
Taper Length (ft)	120				96	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850	0.997			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	1857	0	1770	1863
Flt Permitted	0.950				0.278	
Satd. Flow (perm)	1770	1583	1857	0	518	1863
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		28	2			
Link Speed (mph)	25		40			40
Link Distance (ft)	526		2307			466
Travel Time (s)	14.3		39.3			7.9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	34	28	782	16	22	887
Shared Lane Traffic (%)						
Lane Group Flow (vph)	34	28	798	0	22	887
Turn Type	Prot	Perm	NA		pm+pt	NA
Protected Phases	4		2		1	2
Permitted Phases		4			2	
Detector Phase	4	4	2		1	2
Switch Phase						
Minimum Initial (s)	7.0	7.0	18.0		5.0	18.0
Minimum Split (s)	11.5	11.5	22.8		9.5	22.8
Total Split (s)	22.0	22.0	45.0		15.0	45.0
Total Split (%)	26.8%	26.8%	54.9%		18.3%	54.9%
Maximum Green (s)	17.5	17.5	40.2		10.5	40.2
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5
All-Red Time (s)	1.0	1.0	1.3		1.0	1.3
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.5	4.5	4.8		4.5	4.8
Lead/Lag			Lag		Lead	Lag
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	2.5		2.0	2.5
Recall Mode	None	None	Min		None	Min
Act Effct Green (s)	7.5	7.5	45.8		44.6	45.8
Actuated g/C Ratio	0.13	0.13	0.81		0.79	0.81
v/c Ratio	0.14	0.12	0.53		0.04	0.59
Control Delay	26.3	12.2	6.8		2.5	8.1
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	26.3	12.2	6.8		2.5	8.1
LOS	C	B	A		A	A
Approach Delay	19.9		6.8			8.0
Approach LOS	B		A			A

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Queue Length 50th (ft)	12	0	100		2	122
Queue Length 95th (ft)	37	21	341		6	#437
Internal Link Dist (ft)	446		2227			386
Turn Bay Length (ft)	210	145			150	
Base Capacity (vph)	561	521	1474		653	1479
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.06	0.05	0.54		0.03	0.60

Intersection Summary	
Area Type: Other	
Cycle Length: 82	
Actuated Cycle Length: 56.6	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.59	
Intersection Signal Delay: 7.8	Intersection LOS: A
Intersection Capacity Utilization 56.5%	ICU Level of Service B
Analysis Period (min) 15	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Route 25 & Victoria Drive

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø5
Lane Configurations							
Traffic Volume (vph)	92	82	674	97	66	745	
Future Volume (vph)	92	82	674	97	66	745	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	220		150	145		
Storage Lanes	1	1		1	1		
Taper Length (ft)	25				205		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		0.850		0.850			
Flt Protected	0.950				0.950		
Satd. Flow (prot)	1770	1583	1863	1583	1770	1863	
Flt Permitted	0.950				0.320		
Satd. Flow (perm)	1770	1583	1863	1583	596	1863	
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)		89		93			
Link Speed (mph)	25		40			40	
Link Distance (ft)	734		462			2307	
Travel Time (s)	20.0		7.9			39.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	100	89	733	105	72	810	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	100	89	733	105	72	810	
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA	
Protected Phases	4		2		1	6	5
Permitted Phases		4		2	6		
Detector Phase	4	4	2	2	1	6	
Switch Phase							
Minimum Initial (s)	7.0	7.0	18.0	18.0	5.0	18.0	5.0
Minimum Split (s)	11.0	11.0	23.7	23.7	9.0	23.7	9.0
Total Split (s)	19.0	19.0	65.7	65.7	14.0	65.7	14.0
Total Split (%)	19.3%	19.3%	66.6%	66.6%	14.2%	66.6%	14%
Maximum Green (s)	15.0	15.0	60.0	60.0	10.0	60.0	10.0
Yellow Time (s)	3.0	3.0	4.3	4.3	3.0	4.3	3.0
All-Red Time (s)	1.0	1.0	1.4	1.4	1.0	1.4	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	5.7	5.7	4.0	5.7	
Lead/Lag			Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?							
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	3.0	3.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	Min	Min	None	Min	None
Act Effct Green (s)	10.7	10.7	61.3	61.3	63.4	55.0	
Actuated g/C Ratio	0.13	0.13	0.72	0.72	0.75	0.65	
v/c Ratio	0.45	0.32	0.54	0.09	0.13	0.67	
Control Delay	44.6	12.0	4.5	0.4	3.1	14.0	
Queue Delay	0.0	0.0	0.1	0.0	0.0	0.0	
Total Delay	44.6	12.0	4.6	0.4	3.1	14.0	

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø5
LOS	D	B	A	A	A	B	
Approach Delay	29.2		4.1			13.1	
Approach LOS	C		A			B	
Queue Length 50th (ft)	56	0	66	0	7	262	
Queue Length 95th (ft)	107	43	83	m1	18	466	
Internal Link Dist (ft)	654		382			2227	
Turn Bay Length (ft)		220		150	145		
Base Capacity (vph)	329	367	1361	1181	619	1341	
Starvation Cap Reductn	0	0	80	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	
Reduced v/c Ratio	0.30	0.24	0.57	0.09	0.12	0.60	

Intersection Summary

Area Type: Other
Cycle Length: 98.7
Actuated Cycle Length: 84.7
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 10.7 — Intersection LOS: B
Intersection Capacity Utilization 56.9% — ICU Level of Service B
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Route 25 & Spring Hill Road

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø1
Lane Configurations							
Traffic Volume (vph)	46	82	97	725	776	61	
Future Volume (vph)	46	82	97	725	776	61	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	185	390			0	
Storage Lanes	1	1	1			0	
Taper Length (ft)	25		90				
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		0.850			0.990		
Flt Protected	0.950		0.950				
Satd. Flow (prot)	1770	1583	1770	1863	1844	0	
Flt Permitted	0.950		0.171				
Satd. Flow (perm)	1770	1583	319	1863	1844	0	
Right Turn on Red		Yes				Yes	
Satd. Flow (RTOR)		89			7		
Link Speed (mph)	25			40	40		
Link Distance (ft)	287			1984	462		
Travel Time (s)	7.8			33.8	7.9		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	50	89	105	788	843	66	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	50	89	105	788	909	0	
Turn Type	Prot	pm+ov	pm+pt	NA	NA		
Protected Phases	4	5	5	2	6		1
Permitted Phases		4	2				
Detector Phase	4	5	5	2	6		
Switch Phase							
Minimum Initial (s)	7.0	5.0	5.0	18.0	18.0		5.0
Minimum Split (s)	11.0	9.0	9.0	23.7	23.7		9.0
Total Split (s)	19.0	14.0	14.0	65.7	65.7		14.0
Total Split (%)	19.3%	14.2%	14.2%	66.6%	66.6%		14%
Maximum Green (s)	15.0	10.0	10.0	60.0	60.0		10.0
Yellow Time (s)	3.0	3.0	3.0	4.3	4.3		3.0
All-Red Time (s)	1.0	1.0	1.0	1.4	1.4		1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	4.0	4.0	4.0	5.7	5.7		
Lead/Lag		Lead	Lead	Lag	Lag		Lead
Lead-Lag Optimize?							
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0		3.0
Time Before Reduce (s)	0.0	0.0	0.0	3.0	0.0		0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0		0.0
Recall Mode	None	None	None	Min	Min		None
Act Effct Green (s)	10.7	19.5	67.3	61.3	55.0		
Actuated g/C Ratio	0.13	0.23	0.79	0.72	0.65		
v/c Ratio	0.22	0.21	0.27	0.59	0.76		
Control Delay	39.3	7.4	4.2	11.3	9.2		
Queue Delay	0.0	0.0	0.0	0.0	0.0		
Total Delay	39.3	7.4	4.2	11.3	9.2		

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø1
LOS	D	A	A	B	A		
Approach Delay	18.9			10.4	9.2		
Approach LOS	B			B	A		
Queue Length 50th (ft)	27	0	10	233	107		
Queue Length 95th (ft)	62	35	25	417	134		
Internal Link Dist (ft)	207			1904	382		
Turn Bay Length (ft)		185	390				
Base Capacity (vph)	329	476	438	1361	1330		
Starvation Cap Reductn	0	0	0	0	1		
Spillback Cap Reductn	0	0	0	0	0		
Storage Cap Reductn	0	0	0	0	0		
Reduced v/c Ratio	0.15	0.19	0.24	0.58	0.68		

Intersection Summary

Area Type: Other
Cycle Length: 98.7
Actuated Cycle Length: 84.7
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 10.5 — Intersection LOS: B
Intersection Capacity Utilization 67.2% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 4: Route 25 & Tashua Road

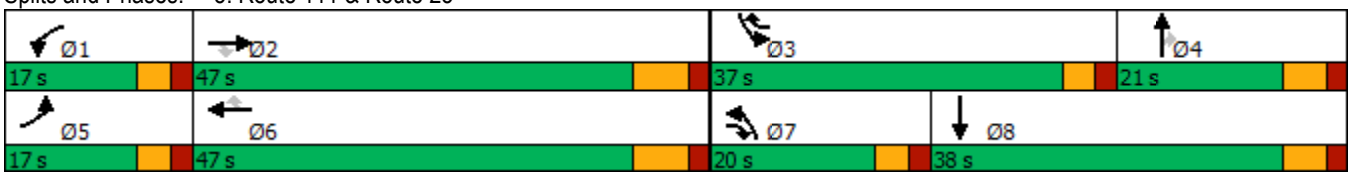
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	101	648	179	97	592	480	163	309	97	693	298	121
Future Volume (vph)	101	648	179	97	592	480	163	309	97	693	298	121
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	190		500	165		320	350		135	500		0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (ft)	230			220			65			95		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00
Frt			0.850			0.850			0.850		0.957	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	3433	1783	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	3539	1583	3433	1783	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			195			128			170		16	
Link Speed (mph)		40			40			40			40	
Link Distance (ft)		860			711			438			727	
Travel Time (s)		14.7			12.1			7.5			12.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	110	704	195	105	643	522	177	336	105	753	324	132
Shared Lane Traffic (%)												
Lane Group Flow (vph)	110	704	195	105	643	522	177	336	105	753	456	0
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	
Protected Phases	5	2	7	1	6	3	7	4		3	8	
Permitted Phases			2			6			4			
Detector Phase	5	2	7	1	6	3	7	4	4	3	8	
Switch Phase												
Minimum Initial (s)	5.0	15.0	7.0	5.0	15.0	7.0	7.0	7.0	7.0	7.0	7.0	
Minimum Split (s)	10.0	22.0	12.0	10.0	22.0	12.0	12.0	13.0	13.0	12.0	13.0	
Total Split (s)	17.0	47.0	20.0	17.0	47.0	37.0	20.0	21.0	21.0	37.0	38.0	
Total Split (%)	13.9%	38.5%	16.4%	13.9%	38.5%	30.3%	16.4%	17.2%	17.2%	30.3%	31.1%	
Maximum Green (s)	12.0	40.0	15.0	12.0	40.0	32.0	15.0	15.0	15.0	32.0	32.0	
Yellow Time (s)	3.0	5.0	3.0	3.0	5.0	3.0	3.0	4.0	4.0	3.0	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	7.0	5.0	5.0	7.0	5.0	5.0	6.0	6.0	5.0	6.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	1.0	2.5	3.0	1.0	2.5	2.0	3.0	2.0	2.0	2.0	2.0	
Recall Mode	None	Min	None	None	Min	None	None	None	None	None	None	
Act Effct Green (s)	9.3	24.3	45.2	9.1	24.1	57.2	13.8	17.4	17.4	26.0	29.6	
Actuated g/C Ratio	0.09	0.24	0.45	0.09	0.24	0.57	0.14	0.17	0.17	0.26	0.30	
v/c Ratio	0.67	0.82	0.24	0.65	0.76	0.55	0.73	0.55	0.25	0.85	0.85	
Control Delay	66.9	45.2	3.2	66.2	42.2	11.8	62.3	44.5	2.2	46.1	50.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	66.9	45.2	3.2	66.2	42.2	11.8	62.3	44.5	2.2	46.1	50.0	
LOS	E	D	A	E	D	B	E	D	A	D	D	
Approach Delay		39.5			31.7			42.4			47.5	
Approach LOS		D			C			D			D	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	72	237	0	69	212	155	114	107	0	247	274	
Queue Length 95th (ft)	#141	312	38	135	281	225	#239	180	6	341	#512	
Internal Link Dist (ft)		780			631			358			647	
Turn Bay Length (ft)	190		500	165		320	350		135	500		
Base Capacity (vph)	216	1443	842	216	1443	1056	270	618	416	1120	592	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.51	0.49	0.23	0.49	0.45	0.49	0.66	0.54	0.25	0.67	0.77	

Intersection Summary	
Area Type: Other	
Cycle Length: 122	
Actuated Cycle Length: 100.3	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 39.9	Intersection LOS: D
Intersection Capacity Utilization 74.5%	ICU Level of Service D
Analysis Period (min) 15	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Route 111 & Route 25

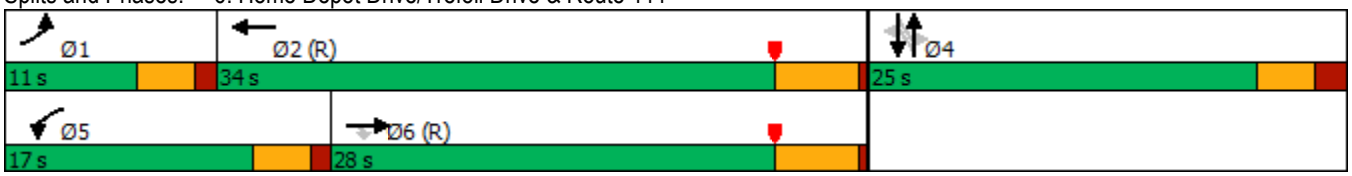


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	77	762	87	56	898	77	61	26	92	67	46	102
Future Volume (vph)	77	762	87	56	898	77	61	26	92	67	46	102
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	230		230	200		0	90		0	100		0
Storage Lanes	1		1	1		0	1		0	1		0
Taper Length (ft)	115			120			90			96		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.988			0.883			0.897	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3497	0	1770	1645	0	1770	1671	0
Flt Permitted	0.950			0.950			0.583			0.675		
Satd. Flow (perm)	1770	3539	1583	1770	3497	0	1086	1645	0	1257	1671	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			156		16			100			111	
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		1534			302			288			263	
Travel Time (s)		26.1			5.1			7.9			7.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	84	828	95	61	976	84	66	28	100	73	50	111
Shared Lane Traffic (%)												
Lane Group Flow (vph)	84	828	95	61	1060	0	66	128	0	73	161	0
Turn Type	Prot	NA	Perm	Prot	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			4	
Permitted Phases			6				4			4		
Detector Phase	1	6	6	5	2		4	4		4	4	
Switch Phase												
Minimum Initial (s)	5.0	15.0	15.0	5.0	15.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	9.1	19.9	19.9	9.1	19.9		11.8	11.8		11.8	11.8	
Total Split (s)	11.0	28.0	28.0	17.0	34.0		25.0	25.0		25.0	25.0	
Total Split (%)	15.7%	40.0%	40.0%	24.3%	48.6%		35.7%	35.7%		35.7%	35.7%	
Maximum Green (s)	6.9	23.1	23.1	12.9	29.1		20.2	20.2		20.2	20.2	
Yellow Time (s)	3.0	4.4	4.4	3.0	4.4		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.1	0.5	0.5	1.1	0.5		1.8	1.8		1.8	1.8	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.1	4.9	4.9	4.1	4.9		4.8	4.8		4.8	4.8	
Lead/Lag	Lead	Lag	Lag	Lead	Lag							
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	None		None	None	
Act Effct Green (s)	8.7	42.3	42.3	8.0	39.4		10.0	10.0		10.0	10.0	
Actuated g/C Ratio	0.12	0.60	0.60	0.11	0.56		0.14	0.14		0.14	0.14	
v/c Ratio	0.38	0.39	0.09	0.30	0.54		0.43	0.40		0.41	0.48	
Control Delay	32.4	9.8	0.9	31.7	12.5		35.0	12.7		33.2	15.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	32.4	9.8	0.9	31.7	12.5		35.0	12.7		33.2	15.0	
LOS	C	A	A	C	B		C	B		C	B	
Approach Delay		10.9			13.6			20.3			20.7	
Approach LOS		B			B			C			C	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	34	100	0	25	142		27	11		29	20	
Queue Length 95th (ft)	69	180	8	56	255		58	51		62	64	
Internal Link Dist (ft)		1454			222			208			183	
Turn Bay Length (ft)	230		230	200			90			100		
Base Capacity (vph)	226	2140	1018	326	1976		313	545		362	561	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.37	0.39	0.09	0.19	0.54		0.21	0.23		0.20	0.29	

Intersection Summary	
Area Type:	Other
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.54	
Intersection Signal Delay: 13.7	Intersection LOS: B
Intersection Capacity Utilization 61.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 6: Home Depot Drive/Trefoil Drive & Route 111



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	87	66	46	87	0	77	0	51	1	0	1
Future Volume (vph)	5	87	66	46	87	0	77	0	51	1	0	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.943						0.947			0.932	
Flt Protected		0.999			0.983			0.971			0.976	
Satd. Flow (prot)	0	1755	0	0	1831	0	0	1713	0	0	1694	0
Flt Permitted		0.999			0.983			0.971			0.976	
Satd. Flow (perm)	0	1755	0	0	1831	0	0	1713	0	0	1694	0
Link Speed (mph)		25			25			25			30	
Link Distance (ft)		1116			533			365			137	
Travel Time (s)		30.4			14.5			10.0			3.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	95	72	50	95	0	84	0	55	1	0	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	172	0	0	145	0	0	139	0	0	2	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 36.0%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	87	66	46	87	0	77	0	51	1	0	1
Future Vol, veh/h	5	87	66	46	87	0	77	0	51	1	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	95	72	50	95	0	84	0	55	1	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	95	0	0	167	0	0	337	336	131	364	372	95
Stage 1	-	-	-	-	-	-	141	141	-	195	195	-
Stage 2	-	-	-	-	-	-	196	195	-	169	177	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1499	-	-	1411	-	-	617	585	919	592	558	962
Stage 1	-	-	-	-	-	-	862	780	-	807	739	-
Stage 2	-	-	-	-	-	-	806	739	-	833	753	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1499	-	-	1411	-	-	597	561	919	539	535	962
Mov Cap-2 Maneuver	-	-	-	-	-	-	597	561	-	539	535	-
Stage 1	-	-	-	-	-	-	859	777	-	804	712	-
Stage 2	-	-	-	-	-	-	775	712	-	780	750	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	2.6	11.5	10.2
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	694	1499	-	-	1411	-	-	691
HCM Lane V/C Ratio	0.2	0.004	-	-	0.035	-	-	0.003
HCM Control Delay (s)	11.5	7.4	0	-	7.6	0	-	10.2
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.7	0	-	-	0.1	-	-	0

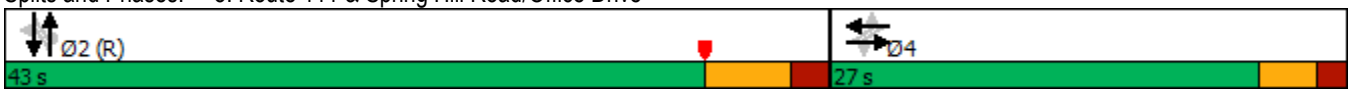
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	71	0	21	0	0	0	21	872	0	0	971	77
Future Volume (vph)	71	0	21	0	0	0	21	872	0	0	971	77
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.969									0.989	
Flt Protected		0.963						0.999				
Satd. Flow (prot)	0	1738	0	0	1863	0	0	3536	0	0	3500	0
Flt Permitted		0.775						0.911				
Satd. Flow (perm)	0	1399	0	0	1863	0	0	3224	0	0	3500	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		55									18	
Link Speed (mph)		25			30			40			40	
Link Distance (ft)		238			96			211			211	
Travel Time (s)		6.5			2.2			3.6			3.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	77	0	23	0	0	0	23	948	0	0	1055	84
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	100	0	0	0	0	0	971	0	0	1139	0
Turn Type	Perm	NA					Perm	NA			NA	
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Detector Phase	4	4		4	4		2	2		2	2	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		15.0	15.0		15.0	15.0	
Minimum Split (s)	25.0	25.0		25.0	25.0		29.0	29.0		29.0	29.0	
Total Split (s)	27.0	27.0		27.0	27.0		43.0	43.0		43.0	43.0	
Total Split (%)	38.6%	38.6%		38.6%	38.6%		61.4%	61.4%		61.4%	61.4%	
Maximum Green (s)	22.3	22.3		22.3	22.3		36.5	36.5		36.5	36.5	
Yellow Time (s)	3.0	3.0		3.0	3.0		4.4	4.4		4.4	4.4	
All-Red Time (s)	1.7	1.7		1.7	1.7		2.1	2.1		2.1	2.1	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.7			4.7			6.5			6.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	
Act Effct Green (s)		8.2						54.2			54.2	
Actuated g/C Ratio		0.12						0.77			0.77	
v/c Ratio		0.47						0.39			0.42	
Control Delay		22.5						4.2			4.3	
Queue Delay		0.0						0.0			0.0	
Total Delay		22.5						4.2			4.3	
LOS		C						A			A	
Approach Delay		22.5						4.2			4.3	
Approach LOS		C						A			A	
Queue Length 50th (ft)		18						62			74	
Queue Length 95th (ft)		57						117			137	
Internal Link Dist (ft)		158			16			131			131	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)												
Base Capacity (vph)		483						2496			2714	
Starvation Cap Reductn		0						0			0	
Spillback Cap Reductn		0						0			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.21						0.39			0.42	

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 70
Offset: 14 (20%), Referenced to phase 2:NBSB, Start of Yellow
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.47
Intersection Signal Delay: 5.1 — Intersection LOS: A
Intersection Capacity Utilization 54.3% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 8: Route 111 & Spring Hill Road/Office Drive



Map - Proposed Delivery Station Building Improvements
Levels of Service

No Build
Timing Plan: PM Peak

BL Companies
G:\JOBS19\10\1901141\TRAF\Adendum #1 - 2020\SYNCHRO\T-1901141-NOBUILD-PM.syn

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	56	179	61	66	71	97	46	1035	5	56	1030	46
Future Volume (vph)	56	179	61	66	71	97	46	1035	5	56	1030	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	135		0	85		0	130		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	75			96			96			96		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.962			0.913			0.999			0.994	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1792	0	1770	1701	0	1770	1861	0	1770	1852	0
Flt Permitted	0.548			0.343			0.950			0.950		
Satd. Flow (perm)	1021	1792	0	639	1701	0	1770	1861	0	1770	1852	0
Right Turn on Red			Yes			No			Yes			No
Satd. Flow (RTOR)		16										
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		373			328			2210			332	
Travel Time (s)		8.5			7.5			37.7			5.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	61	195	66	72	77	105	50	1125	5	61	1120	50
Shared Lane Traffic (%)												
Lane Group Flow (vph)	61	261	0	72	182	0	50	1130	0	61	1170	0
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		4			4		5	2		1	6	
Permitted Phases	4			4								
Detector Phase	4	4		4	4		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	25.0		5.0	25.0	
Minimum Split (s)	11.4	11.4		11.4	11.4		11.8	31.0		11.8	31.0	
Total Split (s)	25.0	25.0		25.0	25.0		12.0	60.0		12.0	60.0	
Total Split (%)	25.8%	25.8%		25.8%	25.8%		12.4%	61.9%		12.4%	61.9%	
Maximum Green (s)	18.6	18.6		18.6	18.6		5.2	54.0		5.2	54.0	
Yellow Time (s)	3.3	3.3		3.3	3.3		3.0	4.2		3.0	4.2	
All-Red Time (s)	3.1	3.1		3.1	3.1		3.8	1.8		3.8	1.8	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.4	6.4		6.4	6.4		6.8	6.0		6.8	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		1.5	2.5		1.5	2.5	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)	15.9	15.9		15.9	15.9		5.2	54.5		5.2	54.5	
Actuated g/C Ratio	0.17	0.17		0.17	0.17		0.06	0.59		0.06	0.59	
v/c Ratio	0.35	0.81		0.65	0.62		0.51	1.03		0.62	1.07	
Control Delay	40.3	54.9		65.1	45.7		62.8	56.7		71.8	69.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	40.3	54.9		65.1	45.7		62.8	56.7		71.8	69.9	
LOS	D	D		E	D		E	E		E	E	
Approach Delay		52.1			51.2			56.9			70.0	
Approach LOS		D			D			E			E	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	33	143		41	102		31	~783		37	~838	
Queue Length 95th (ft)	72	#254		#103	172		#80	#1036		#100	#1094	
Internal Link Dist (ft)		293			248			2130			252	
Turn Bay Length (ft)	135			85			130			100		
Base Capacity (vph)	207	377		130	346		100	1100		100	1095	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.29	0.69		0.55	0.53		0.50	1.03		0.61	1.07	

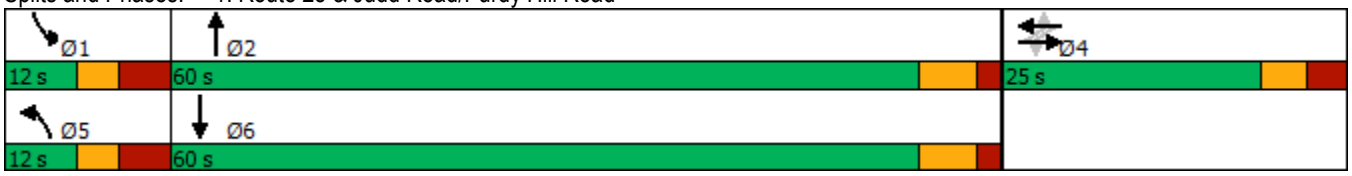
Intersection Summary

Area Type: Other
Cycle Length: 97
Actuated Cycle Length: 92.1
Natural Cycle: 120
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.07
Intersection Signal Delay: 61.3 Intersection LOS: E
Intersection Capacity Utilization 90.0% ICU Level of Service E
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Route 25 & Judd Road/Purdy Hill Road



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	82	36	1051	10	5	1153
Future Volume (vph)	82	36	1051	10	5	1153
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	210	145		0	150	
Storage Lanes	0	1		0	1	
Taper Length (ft)	120				96	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850	0.999			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	1861	0	1770	1863
Flt Permitted	0.950				0.088	
Satd. Flow (perm)	1770	1583	1861	0	164	1863
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		39	1			
Link Speed (mph)	25		40			40
Link Distance (ft)	526		2307			466
Travel Time (s)	14.3		39.3			7.9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	89	39	1142	11	5	1253
Shared Lane Traffic (%)						
Lane Group Flow (vph)	89	39	1153	0	5	1253
Turn Type	Prot	Perm	NA		pm+pt	NA
Protected Phases	4		2		1	2
Permitted Phases		4			2	
Detector Phase	4	4	2		1	2
Switch Phase						
Minimum Initial (s)	7.0	7.0	18.0		5.0	18.0
Minimum Split (s)	11.5	11.5	22.8		9.5	22.8
Total Split (s)	22.0	22.0	45.0		15.0	45.0
Total Split (%)	26.8%	26.8%	54.9%		18.3%	54.9%
Maximum Green (s)	17.5	17.5	40.2		10.5	40.2
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5
All-Red Time (s)	1.0	1.0	1.3		1.0	1.3
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.5	4.5	4.8		4.5	4.8
Lead/Lag			Lag		Lead	Lag
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	2.5		2.0	2.5
Recall Mode	None	None	Min		None	Min
Act Effct Green (s)	8.8	8.8	46.6		46.8	46.6
Actuated g/C Ratio	0.14	0.14	0.74		0.74	0.74
v/c Ratio	0.36	0.15	0.84		0.02	0.91
Control Delay	28.9	10.6	17.9		3.2	23.9
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	28.9	10.6	17.9		3.2	23.9
LOS	C	B	B		A	C
Approach Delay	23.3		17.9			23.8
Approach LOS	C		B			C

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Queue Length 50th (ft)	28	0	245		1	309
Queue Length 95th (ft)	74	24	#818		3	#907
Internal Link Dist (ft)	446		2227			386
Turn Bay Length (ft)	210	145			150	
Base Capacity (vph)	494	470	1375		392	1376
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.18	0.08	0.84		0.01	0.91

Intersection Summary	
Area Type: Other	
Cycle Length: 82	
Actuated Cycle Length: 63.1	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.91	
Intersection Signal Delay: 21.1	Intersection LOS: C
Intersection Capacity Utilization 74.3%	ICU Level of Service D
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Route 25 & Victoria Drive

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø5
Lane Configurations							
Traffic Volume (vph)	102	56	1005	82	51	1183	
Future Volume (vph)	102	56	1005	82	51	1183	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	220		150	145		
Storage Lanes	1	1		1	1		
Taper Length (ft)	25				205		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		0.850		0.850			
Flt Protected	0.950				0.950		
Satd. Flow (prot)	1770	1583	1863	1583	1770	1863	
Flt Permitted	0.950				0.123		
Satd. Flow (perm)	1770	1583	1863	1583	229	1863	
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)		61		53			
Link Speed (mph)	25		40			40	
Link Distance (ft)	566		462			2307	
Travel Time (s)	15.4		7.9			39.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	111	61	1092	89	55	1286	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	111	61	1092	89	55	1286	
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA	
Protected Phases	4		2		1	6	5
Permitted Phases		4		2	6		
Detector Phase	4	4	2	2	1	6	
Switch Phase							
Minimum Initial (s)	7.0	7.0	18.0	18.0	5.0	18.0	5.0
Minimum Split (s)	11.0	11.0	23.7	23.7	9.0	23.7	9.0
Total Split (s)	19.0	19.0	65.7	65.7	14.0	65.7	14.0
Total Split (%)	19.3%	19.3%	66.6%	66.6%	14.2%	66.6%	14%
Maximum Green (s)	15.0	15.0	60.0	60.0	10.0	60.0	10.0
Yellow Time (s)	3.0	3.0	4.3	4.3	3.0	4.3	3.0
All-Red Time (s)	1.0	1.0	1.4	1.4	1.0	1.4	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	5.7	5.7	4.0	5.7	
Lead/Lag			Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?							
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	3.0	3.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	Min	Min	None	Min	None
Act Effct Green (s)	11.0	11.0	66.2	66.2	68.6	60.5	
Actuated g/C Ratio	0.12	0.12	0.73	0.73	0.75	0.66	
v/c Ratio	0.52	0.25	0.81	0.08	0.20	1.04	
Control Delay	47.6	12.8	8.5	1.5	4.4	55.3	
Queue Delay	0.0	0.0	0.4	0.0	0.0	1.5	
Total Delay	47.6	12.8	8.9	1.5	4.4	56.8	

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø5
LOS	D	B	A	A	A	E	
Approach Delay	35.3		8.3			54.7	
Approach LOS	D		A			D	
Queue Length 50th (ft)	63	0	85	0	5	~856	
Queue Length 95th (ft)	118	36	#889	m2	15	#1200	
Internal Link Dist (ft)	486		382			2227	
Turn Bay Length (ft)		220		150	145		
Base Capacity (vph)	294	314	1354	1165	352	1239	
Starvation Cap Reductn	0	0	49	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	5	
Storage Cap Reductn	0	0	0	0	0	0	
Reduced v/c Ratio	0.38	0.19	0.84	0.08	0.16	1.04	

Intersection Summary

Area Type: Other
Cycle Length: 98.7
Actuated Cycle Length: 91
Natural Cycle: 110
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.13
Intersection Signal Delay: 33.1 — Intersection LOS: C
Intersection Capacity Utilization 76.2% — ICU Level of Service D
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Route 25 & Spring Hill Road

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø1
Lane Configurations							
Traffic Volume (vph)	41	107	133	1046	1224	61	
Future Volume (vph)	41	107	133	1046	1224	61	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	185	390			0	
Storage Lanes	1	1	1			0	
Taper Length (ft)	25		90				
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		0.850			0.994		
Flt Protected	0.950		0.950				
Satd. Flow (prot)	1770	1583	1770	1863	1852	0	
Flt Permitted	0.950		0.062				
Satd. Flow (perm)	1770	1583	115	1863	1852	0	
Right Turn on Red		Yes				Yes	
Satd. Flow (RTOR)		58			5		
Link Speed (mph)	25			40	40		
Link Distance (ft)	287			1984	462		
Travel Time (s)	7.8			33.8	7.9		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	45	116	145	1137	1330	66	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	45	116	145	1137	1396	0	
Turn Type	Prot	pm+ov	pm+pt	NA	NA		
Protected Phases	4	5	5	2	6		1
Permitted Phases		4	2				
Detector Phase	4	5	5	2	6		
Switch Phase							
Minimum Initial (s)	7.0	5.0	5.0	18.0	18.0		5.0
Minimum Split (s)	11.0	9.0	9.0	23.7	23.7		9.0
Total Split (s)	19.0	14.0	14.0	65.7	65.7		14.0
Total Split (%)	19.3%	14.2%	14.2%	66.6%	66.6%		14%
Maximum Green (s)	15.0	10.0	10.0	60.0	60.0		10.0
Yellow Time (s)	3.0	3.0	3.0	4.3	4.3		3.0
All-Red Time (s)	1.0	1.0	1.0	1.4	1.4		1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	4.0	4.0	4.0	5.7	5.7		
Lead/Lag		Lead	Lead	Lag	Lag		Lead
Lead-Lag Optimize?							
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0		3.0
Time Before Reduce (s)	0.0	0.0	0.0	3.0	0.0		0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0		0.0
Recall Mode	None	None	None	Min	Min		None
Act Effct Green (s)	11.0	20.7	73.3	66.2	60.5		
Actuated g/C Ratio	0.12	0.23	0.81	0.73	0.66		
v/c Ratio	0.21	0.29	0.60	0.84	1.13		
Control Delay	39.6	16.7	26.0	20.9	75.8		
Queue Delay	0.0	0.0	0.0	0.4	0.0		
Total Delay	39.6	16.7	26.0	21.3	75.8		

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø1
LOS	D	B	C	C	E		
Approach Delay	23.1			21.8	75.8		
Approach LOS	C			C	E		
Queue Length 50th (ft)	24	27	31	510	~317		
Queue Length 95th (ft)	58	70	99	#965	m#341		
Internal Link Dist (ft)	207			1904	382		
Turn Bay Length (ft)		185	390				
Base Capacity (vph)	294	435	277	1354	1233		
Starvation Cap Reductn	0	0	0	0	0		
Spillback Cap Reductn	0	0	0	31	0		
Storage Cap Reductn	0	0	0	0	0		
Reduced v/c Ratio	0.15	0.27	0.52	0.86	1.13		

Intersection Summary

Area Type: Other
Cycle Length: 98.7
Actuated Cycle Length: 91
Natural Cycle: 110
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.13
Intersection Signal Delay: 48.4 — Intersection LOS: D
Intersection Capacity Utilization 92.7% — ICU Level of Service F
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Route 25 & Tashua Road

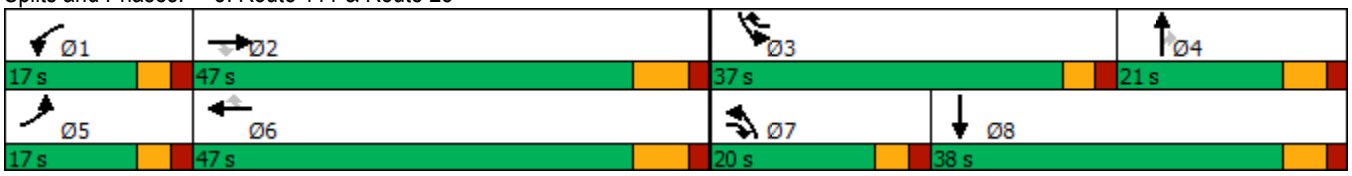
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	109	1056	214	158	959	698	153	386	102	846	361	114
Future Volume (vph)	109	1056	214	158	959	698	153	386	102	846	361	114
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	190		500	165		320	350		135	500		0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (ft)	230			220			65			95		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00
Frt			0.850			0.850			0.850		0.964	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	3433	1796	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	3539	1583	3433	1796	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			139			107			170		13	
Link Speed (mph)		40			40			40			40	
Link Distance (ft)		860			711			438			727	
Travel Time (s)		14.7			12.1			7.5			12.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	118	1148	233	172	1042	759	166	420	111	920	392	124
Shared Lane Traffic (%)												
Lane Group Flow (vph)	118	1148	233	172	1042	759	166	420	111	920	516	0
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	
Protected Phases	5	2	7	1	6	3	7	4		3	8	
Permitted Phases			2			6			4			
Detector Phase	5	2	7	1	6	3	7	4	4	3	8	
Switch Phase												
Minimum Initial (s)	5.0	15.0	7.0	5.0	15.0	7.0	7.0	7.0	7.0	7.0	7.0	
Minimum Split (s)	10.0	22.0	12.0	10.0	22.0	12.0	12.0	13.0	13.0	12.0	13.0	
Total Split (s)	17.0	47.0	20.0	17.0	47.0	37.0	20.0	21.0	21.0	37.0	38.0	
Total Split (%)	13.9%	38.5%	16.4%	13.9%	38.5%	30.3%	16.4%	17.2%	17.2%	30.3%	31.1%	
Maximum Green (s)	12.0	40.0	15.0	12.0	40.0	32.0	15.0	15.0	15.0	32.0	32.0	
Yellow Time (s)	3.0	5.0	3.0	3.0	5.0	3.0	3.0	4.0	4.0	3.0	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	7.0	5.0	5.0	7.0	5.0	5.0	6.0	6.0	5.0	6.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	1.0	2.5	3.0	1.0	2.5	2.0	3.0	2.0	2.0	2.0	2.0	
Recall Mode	None	Min	None	None	Min	None	None	None	None	None	None	
Act Effct Green (s)	10.5	40.0	61.1	12.0	41.5	80.5	14.1	15.0	15.0	32.0	32.9	
Actuated g/C Ratio	0.09	0.33	0.50	0.10	0.34	0.66	0.12	0.12	0.12	0.26	0.27	
v/c Ratio	0.78	0.99	0.27	0.99	0.87	0.70	0.82	0.97	0.32	1.02	1.04	
Control Delay	86.0	65.1	7.6	120.5	46.8	15.7	82.0	88.7	3.7	80.2	95.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	86.0	65.1	7.6	120.5	46.8	15.7	82.0	88.7	3.7	80.2	95.3	
LOS	F	E	A	F	D	B	F	F	A	F	F	
Approach Delay		57.8			41.3			73.6			85.6	
Approach LOS		E			D			E			F	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	91	472	38	138	409	313	129	175	0	~396	~445	
Queue Length 95th (ft)	#175	#626	84	#284	#532	469	#236	#281	11	#525	#663	
Internal Link Dist (ft)		780			631			358			647	
Turn Bay Length (ft)	190		500	165		320	350		135	500		
Base Capacity (vph)	174	1160	872	174	1204	1080	217	435	343	900	494	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.68	0.99	0.27	0.99	0.87	0.70	0.76	0.97	0.32	1.02	1.04	

Intersection Summary

Area Type: Other
Cycle Length: 122
Actuated Cycle Length: 122
Natural Cycle: 110
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.04
Intersection Signal Delay: 61.1 Intersection LOS: E
Intersection Capacity Utilization 91.9% ICU Level of Service F
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Route 111 & Route 25



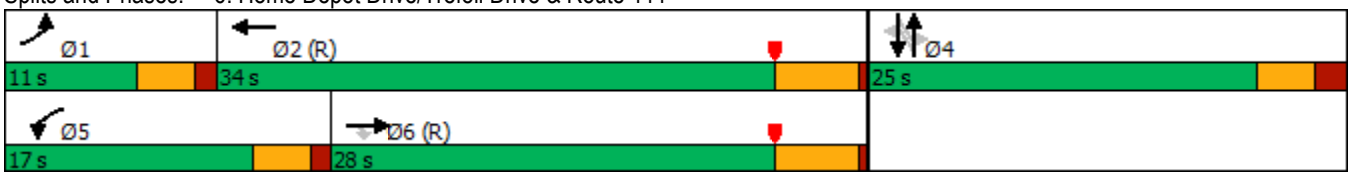
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	128	1056	77	77	1128	83	92	31	71	73	26	158
Future Volume (vph)	128	1056	77	77	1128	83	92	31	71	73	26	158
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	230		230	200		0	90		0	100		0
Storage Lanes	1		1	1		0	1		0	1		0
Taper Length (ft)	115			120			90			96		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.990			0.896			0.871	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3504	0	1770	1669	0	1770	1622	0
Flt Permitted	0.950			0.950			0.510			0.685		
Satd. Flow (perm)	1770	3539	1583	1770	3504	0	950	1669	0	1276	1622	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			156		13			77			172	
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		1532			302			288			263	
Travel Time (s)		26.1			5.1			7.9			7.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	139	1148	84	84	1226	90	100	34	77	79	28	172
Shared Lane Traffic (%)												
Lane Group Flow (vph)	139	1148	84	84	1316	0	100	111	0	79	200	0
Turn Type	Prot	NA	Perm	Prot	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			4	
Permitted Phases			6				4			4		
Detector Phase	1	6	6	5	2		4	4		4	4	
Switch Phase												
Minimum Initial (s)	5.0	15.0	15.0	5.0	15.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	9.1	19.9	19.9	9.1	19.9		11.8	11.8		11.8	11.8	
Total Split (s)	11.0	28.0	28.0	17.0	34.0		25.0	25.0		25.0	25.0	
Total Split (%)	15.7%	40.0%	40.0%	24.3%	48.6%		35.7%	35.7%		35.7%	35.7%	
Maximum Green (s)	6.9	23.1	23.1	12.9	29.1		20.2	20.2		20.2	20.2	
Yellow Time (s)	3.0	4.4	4.4	3.0	4.4		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.1	0.5	0.5	1.1	0.5		1.8	1.8		1.8	1.8	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.1	4.9	4.9	4.1	4.9		4.8	4.8		4.8	4.8	
Lead/Lag	Lead	Lag	Lag	Lead	Lag							
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	None		None	None	
Act Effct Green (s)	10.0	37.0	37.0	8.7	33.7		12.4	12.4		12.4	12.4	
Actuated g/C Ratio	0.14	0.53	0.53	0.12	0.48		0.18	0.18		0.18	0.18	
v/c Ratio	0.55	0.61	0.09	0.38	0.78		0.60	0.31		0.35	0.47	
Control Delay	38.4	16.7	0.6	32.4	20.7		39.7	11.5		27.7	9.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	38.4	16.7	0.6	32.4	20.7		39.7	11.5		27.7	9.4	
LOS	D	B	A	C	C		D	B		C	A	
Approach Delay		17.9			21.4			24.9			14.6	
Approach LOS		B			C			C			B	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	55	175	0	34	240		41	13		31	10	
Queue Length 95th (ft)	#135	#363	5	69	#404		77	46		60	55	
Internal Link Dist (ft)		1452			222			208			183	
Turn Bay Length (ft)	230		230	200			90			100		
Base Capacity (vph)	253	1868	909	326	1695		274	536		368	590	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.55	0.61	0.09	0.26	0.78		0.36	0.21		0.21	0.34	

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.78
Intersection Signal Delay: 19.6 Intersection LOS: B
Intersection Capacity Utilization 73.4% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: Home Depot Drive/Trefoil Drive & Route 111



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	92	51	56	77	0	56	0	82	0	0	0
Future Volume (vph)	5	92	51	56	77	0	56	0	82	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.954						0.920				
Flt Protected		0.998			0.979			0.980				
Satd. Flow (prot)	0	1774	0	0	1824	0	0	1679	0	0	1863	0
Flt Permitted		0.998			0.979			0.980				
Satd. Flow (perm)	0	1774	0	0	1824	0	0	1679	0	0	1863	0
Link Speed (mph)		25			25			25			30	
Link Distance (ft)		1282			533			365			175	
Travel Time (s)		35.0			14.5			10.0			4.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	100	55	61	84	0	61	0	89	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	160	0	0	145	0	0	150	0	0	0	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 33.5%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	92	51	56	77	0	56	0	82	0	0	0
Future Vol, veh/h	5	92	51	56	77	0	56	0	82	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	100	55	61	84	0	61	0	89	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	84	0	0	155	0	0	344	344	128	388	371	84
Stage 1	-	-	-	-	-	-	138	138	-	206	206	-
Stage 2	-	-	-	-	-	-	206	206	-	182	165	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1513	-	-	1425	-	-	610	579	922	571	559	975
Stage 1	-	-	-	-	-	-	865	782	-	796	731	-
Stage 2	-	-	-	-	-	-	796	731	-	820	762	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1513	-	-	1425	-	-	587	551	922	497	532	975
Mov Cap-2 Maneuver	-	-	-	-	-	-	587	551	-	497	532	-
Stage 1	-	-	-	-	-	-	862	779	-	793	698	-
Stage 2	-	-	-	-	-	-	760	698	-	738	759	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	3.2	11	0
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	749	1513	-	-	1425	-	-	-
HCM Lane V/C Ratio	0.2	0.004	-	-	0.043	-	-	-
HCM Control Delay (s)	11	7.4	0	-	7.6	0	-	0
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.7	0	-	-	0.1	-	-	-

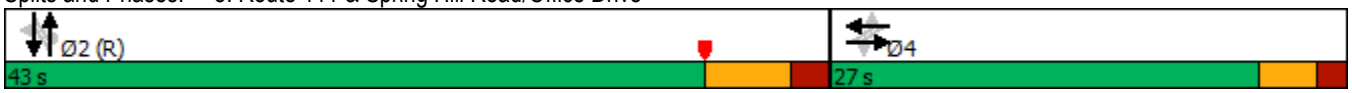
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	56	0	22	0	0	0	27	1187	0	0	818	36
Future Volume (vph)	56	0	22	0	0	0	27	1187	0	0	818	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.962									0.994	
Flt Protected		0.965						0.999				
Satd. Flow (prot)	0	1729	0	0	1863	0	0	3536	0	0	3518	0
Flt Permitted		0.787						0.919				
Satd. Flow (perm)	0	1410	0	0	1863	0	0	3253	0	0	3518	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		55									9	
Link Speed (mph)		25			30			40			40	
Link Distance (ft)		238			96			211			211	
Travel Time (s)		6.5			2.2			3.6			3.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	61	0	24	0	0	0	29	1290	0	0	889	39
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	85	0	0	0	0	0	1319	0	0	928	0
Turn Type	Perm	NA					Perm	NA			NA	
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Detector Phase	4	4		4	4		2	2		2	2	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		15.0	15.0		15.0	15.0	
Minimum Split (s)	25.0	25.0		25.0	25.0		29.0	29.0		29.0	29.0	
Total Split (s)	27.0	27.0		27.0	27.0		43.0	43.0		43.0	43.0	
Total Split (%)	38.6%	38.6%		38.6%	38.6%		61.4%	61.4%		61.4%	61.4%	
Maximum Green (s)	22.3	22.3		22.3	22.3		36.5	36.5		36.5	36.5	
Yellow Time (s)	3.0	3.0		3.0	3.0		4.4	4.4		4.4	4.4	
All-Red Time (s)	1.7	1.7		1.7	1.7		2.1	2.1		2.1	2.1	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.7			4.7			6.5			6.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	
Act Effct Green (s)		7.8						54.6			54.6	
Actuated g/C Ratio		0.11						0.78			0.78	
v/c Ratio		0.41						0.52			0.34	
Control Delay		20.1						4.9			3.6	
Queue Delay		0.0						0.0			0.0	
Total Delay		20.1						4.9			3.6	
LOS		C						A			A	
Approach Delay		20.1						4.9			3.6	
Approach LOS		C						A			A	
Queue Length 50th (ft)		12						98			55	
Queue Length 95th (ft)		49						172			96	
Internal Link Dist (ft)		158			16			131			131	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)												
Base Capacity (vph)		486						2539			2748	
Starvation Cap Reductn		0						0			0	
Spillback Cap Reductn		0						0			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.17						0.52			0.34	

Intersection Summary

Area Type:	Other
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 14 (20%), Referenced to phase 2:NBSB, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.52	
Intersection Signal Delay: 4.9	Intersection LOS: A
Intersection Capacity Utilization 67.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 8: Route 111 & Spring Hill Road/Office Drive



BUILD

Map - Proposed Delivery Station Building Improvements
Levels of Service

Build
Timing Plan: AM Peak

BL Companies
G:\JOBS19\10\1901141\TRAF\Adendum #1 - 2020\SYNCHRO\T-1901141-BUILD-AM.syn

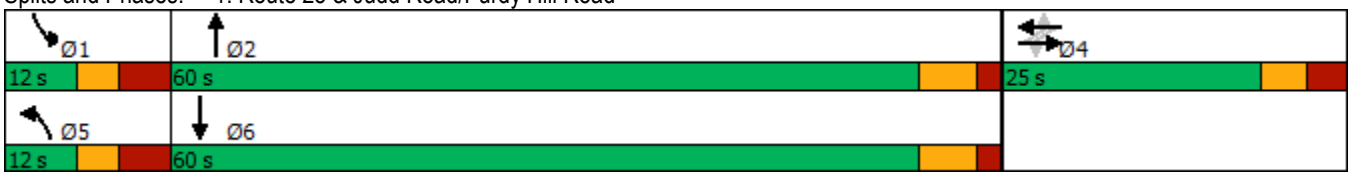
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	87	51	71	82	194	71	36	913	5	15	913	26
Future Volume (vph)	87	51	71	82	194	71	36	913	5	15	913	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	135		0	85		0	130		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	75			96			96			96		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.912			0.960			0.999			0.996	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1699	0	1770	1788	0	1770	1861	0	1770	1855	0
Flt Permitted	0.317			0.673			0.950			0.950		
Satd. Flow (perm)	590	1699	0	1254	1788	0	1770	1861	0	1770	1855	0
Right Turn on Red			Yes			No			Yes			No
Satd. Flow (RTOR)		64										
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		373			328			2210			332	
Travel Time (s)		8.5			7.5			37.7			5.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	95	55	77	89	211	77	39	992	5	16	992	28
Shared Lane Traffic (%)												
Lane Group Flow (vph)	95	132	0	89	288	0	39	997	0	16	1020	0
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		4			4		5	2		1	6	
Permitted Phases	4			4								
Detector Phase	4	4		4	4		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	25.0		5.0	25.0	
Minimum Split (s)	11.4	11.4		11.4	11.4		11.8	31.0		11.8	31.0	
Total Split (s)	25.0	25.0		25.0	25.0		12.0	60.0		12.0	60.0	
Total Split (%)	25.8%	25.8%		25.8%	25.8%		12.4%	61.9%		12.4%	61.9%	
Maximum Green (s)	18.6	18.6		18.6	18.6		5.2	54.0		5.2	54.0	
Yellow Time (s)	3.3	3.3		3.3	3.3		3.0	4.2		3.0	4.2	
All-Red Time (s)	3.1	3.1		3.1	3.1		3.8	1.8		3.8	1.8	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.4	6.4		6.4	6.4		6.8	6.0		6.8	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		1.5	2.5		1.5	2.5	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)	17.4	17.4		17.4	17.4		5.2	54.2		5.2	52.0	
Actuated g/C Ratio	0.20	0.20		0.20	0.20		0.06	0.61		0.06	0.59	
v/c Ratio	0.83	0.34		0.36	0.82		0.38	0.88		0.16	0.94	
Control Delay	86.6	21.3		38.4	56.5		54.7	27.0		47.4	35.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	86.6	21.3		38.4	56.5		54.7	27.0		47.4	35.8	
LOS	F	C		D	E		D	C		D	D	
Approach Delay		48.6			52.2			28.0			36.0	
Approach LOS		D			D			C			D	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	57	36		48	173		24	373		10	583	
Queue Length 95th (ft)	#152	88		96	#311		58	#858		31	#891	
Internal Link Dist (ft)		293			248			2130			252	
Turn Bay Length (ft)	135			85			130			100		
Base Capacity (vph)	126	413		268	382		105	1202		105	1152	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.75	0.32		0.33	0.75		0.37	0.83		0.15	0.89	

Intersection Summary	
Area Type:	Other
Cycle Length: 97	
Actuated Cycle Length: 88.6	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 36.3	Intersection LOS: D
Intersection Capacity Utilization 84.6%	ICU Level of Service E
Analysis Period (min) 15	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Route 25 & Judd Road/Purdy Hill Road



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	10	15	918	102	26	1030
Future Volume (vph)	10	15	918	102	26	1030
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	210	145		0	150	
Storage Lanes	0	1		0	1	
Taper Length (ft)	120				96	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850	0.986			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	1837	0	1770	1863
Flt Permitted	0.950				0.137	
Satd. Flow (perm)	1770	1583	1837	0	255	1863
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		16	10			
Link Speed (mph)	25		40			40
Link Distance (ft)	526		1826			466
Travel Time (s)	14.3		31.1			7.9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	16	998	111	28	1120
Shared Lane Traffic (%)						
Lane Group Flow (vph)	11	16	1109	0	28	1120
Turn Type	Prot	Perm	NA		pm+pt	NA
Protected Phases	4		2		1	2
Permitted Phases		4			2	
Detector Phase	4	4	2		1	2
Switch Phase						
Minimum Initial (s)	7.0	7.0	18.0		5.0	18.0
Minimum Split (s)	11.5	11.5	22.8		9.5	22.8
Total Split (s)	22.0	22.0	45.0		15.0	45.0
Total Split (%)	26.8%	26.8%	54.9%		18.3%	54.9%
Maximum Green (s)	17.5	17.5	40.2		10.5	40.2
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5
All-Red Time (s)	1.0	1.0	1.3		1.0	1.3
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.5	4.5	4.8		4.5	4.8
Lead/Lag			Lag		Lead	Lag
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	2.5		2.0	2.5
Recall Mode	None	None	Min		None	Min
Act Effct Green (s)	7.0	7.0	52.6		51.9	52.6
Actuated g/C Ratio	0.11	0.11	0.84		0.83	0.84
v/c Ratio	0.06	0.08	0.72		0.08	0.71
Control Delay	27.0	15.1	12.6		2.3	12.6
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	27.0	15.1	12.6		2.3	12.6
LOS	C	B	B		A	B
Approach Delay	20.0		12.6			12.3
Approach LOS	B		B			B

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Queue Length 50th (ft)	4	0	0		1	0
Queue Length 95th (ft)	17	16	#699		6	#698
Internal Link Dist (ft)	446		1746			386
Turn Bay Length (ft)	210	145			150	
Base Capacity (vph)	497	456	1550		474	1571
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.02	0.04	0.72		0.06	0.71

Intersection Summary	
Area Type: Other	
Cycle Length: 82	
Actuated Cycle Length: 62.4	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 12.6	Intersection LOS: B
Intersection Capacity Utilization 68.1%	ICU Level of Service C
Analysis Period (min) 15	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Route 25 & Victoria Drive

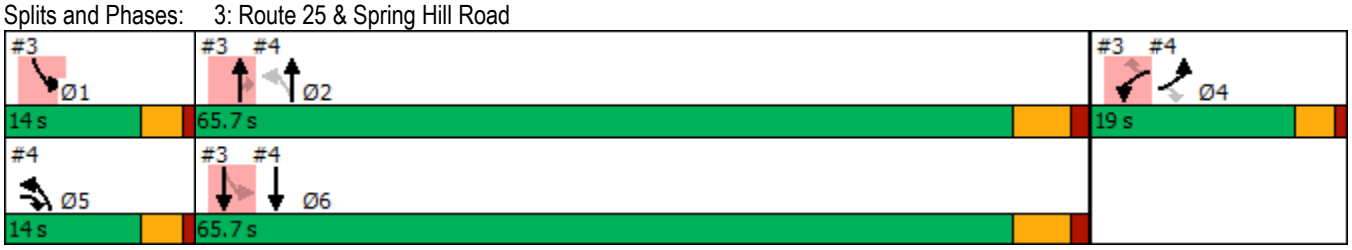
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø5
Lane Configurations							
Traffic Volume (vph)	97	66	949	67	51	990	
Future Volume (vph)	97	66	949	67	51	990	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	220		150	145		
Storage Lanes	1	1		1	1		
Taper Length (ft)	25				205		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		0.850		0.850			
Flt Protected	0.950				0.950		
Satd. Flow (prot)	1770	1583	1863	1583	1770	1863	
Flt Permitted	0.950				0.136		
Satd. Flow (perm)	1770	1583	1863	1583	253	1863	
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)		72		46			
Link Speed (mph)	25		40			40	
Link Distance (ft)	563		462			204	
Travel Time (s)	15.4		7.9			3.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	105	72	1032	73	55	1076	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	105	72	1032	73	55	1076	
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA	
Protected Phases	4		2		1	6	5
Permitted Phases		4		2	6		
Detector Phase	4	4	2	2	1	6	
Switch Phase							
Minimum Initial (s)	7.0	7.0	18.0	18.0	5.0	18.0	5.0
Minimum Split (s)	11.0	11.0	23.7	23.7	9.0	23.7	9.0
Total Split (s)	19.0	19.0	65.7	65.7	14.0	65.7	14.0
Total Split (%)	19.3%	19.3%	66.6%	66.6%	14.2%	66.6%	14%
Maximum Green (s)	15.0	15.0	60.0	60.0	10.0	60.0	10.0
Yellow Time (s)	3.0	3.0	4.3	4.3	3.0	4.3	3.0
All-Red Time (s)	1.0	1.0	1.4	1.4	1.0	1.4	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	5.7	5.7	4.0	5.7	
Lead/Lag			Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?							
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	3.0	3.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	Min	Min	None	Min	None
Act Effct Green (s)	10.8	10.8	62.4	62.4	68.1	60.1	
Actuated g/C Ratio	0.12	0.12	0.68	0.68	0.75	0.66	
v/c Ratio	0.50	0.29	0.81	0.07	0.19	0.88	
Control Delay	46.2	12.4	8.4	1.4	4.0	23.6	
Queue Delay	0.0	0.0	0.4	0.0	0.0	0.0	
Total Delay	46.2	12.4	8.8	1.4	4.0	23.6	

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø5
LOS	D	B	A	A	A	C	
Approach Delay	32.5		8.4			22.6	
Approach LOS	C		A			C	
Queue Length 50th (ft)	57	0	84	0	5	437	
Queue Length 95th (ft)	110	38	#801	m1	15	#889	
Internal Link Dist (ft)	483		382			124	
Turn Bay Length (ft)		220		150	145		
Base Capacity (vph)	291	320	1275	1098	366	1229	
Starvation Cap Reductn	0	0	40	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	
Reduced v/c Ratio	0.36	0.23	0.84	0.07	0.15	0.88	

Intersection Summary

Area Type: Other
Cycle Length: 98.7
Actuated Cycle Length: 91.1
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.96
Intersection Signal Delay: 16.8 Intersection LOS: B
Intersection Capacity Utilization 66.0% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Route 25 & Spring Hill Road



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø1
Lane Configurations							
Traffic Volume (vph)	46	148	51	970	1066	21	
Future Volume (vph)	46	148	51	970	1066	21	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	185	390			0	
Storage Lanes	1	1	1			0	
Taper Length (ft)	25		90				
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		0.850			0.997		
Flt Protected	0.950		0.950				
Satd. Flow (prot)	1770	1583	1770	1863	1857	0	
Flt Permitted	0.950		0.064				
Satd. Flow (perm)	1770	1583	119	1863	1857	0	
Right Turn on Red		Yes				Yes	
Satd. Flow (RTOR)		86			2		
Link Speed (mph)	25			40	40		
Link Distance (ft)	287			1984	462		
Travel Time (s)	7.8			33.8	7.9		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	50	161	55	1054	1159	23	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	50	161	55	1054	1182	0	
Turn Type	Prot	pm+ov	pm+pt	NA	NA		
Protected Phases	4	5	5	2	6		1
Permitted Phases		4	2				
Detector Phase	4	5	5	2	6		
Switch Phase							
Minimum Initial (s)	7.0	5.0	5.0	18.0	18.0		5.0
Minimum Split (s)	11.0	9.0	9.0	23.7	23.7		9.0
Total Split (s)	19.0	14.0	14.0	65.7	65.7		14.0
Total Split (%)	19.3%	14.2%	14.2%	66.6%	66.6%		14%
Maximum Green (s)	15.0	10.0	10.0	60.0	60.0		10.0
Yellow Time (s)	3.0	3.0	3.0	4.3	4.3		3.0
All-Red Time (s)	1.0	1.0	1.0	1.4	1.4		1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	4.0	4.0	4.0	5.7	5.7		
Lead/Lag		Lead	Lead	Lag	Lag		Lead
Lead-Lag Optimize?							
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0		3.0
Time Before Reduce (s)	0.0	0.0	0.0	3.0	0.0		0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0		0.0
Recall Mode	None	None	None	Min	Min		None
Act Effct Green (s)	10.8	21.2	69.3	62.4	60.1		
Actuated g/C Ratio	0.12	0.23	0.76	0.68	0.66		
v/c Ratio	0.24	0.37	0.27	0.83	0.96		
Control Delay	39.1	16.5	6.0	19.6	21.6		
Queue Delay	0.0	0.0	0.0	0.3	0.0		
Total Delay	39.1	16.5	6.0	19.9	21.6		

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø1
LOS	D	B	A	B	C		
Approach Delay	21.9			19.3	21.6		
Approach LOS	C			B	C		
Queue Length 50th (ft)	26	35	5	417	125		
Queue Length 95th (ft)	61	87	16	#845	m#324		
Internal Link Dist (ft)	207			1904	382		
Turn Bay Length (ft)		185	390				
Base Capacity (vph)	291	493	275	1275	1226		
Starvation Cap Reductn	0	0	0	0	0		
Spillback Cap Reductn	0	0	0	26	0		
Storage Cap Reductn	0	0	0	0	0		
Reduced v/c Ratio	0.17	0.33	0.20	0.84	0.96		

Intersection Summary

Area Type: Other
Cycle Length: 98.7
Actuated Cycle Length: 91.1
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.96
Intersection Signal Delay: 20.6 Intersection LOS: C
Intersection Capacity Utilization 74.6% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Route 25 & Tashua Road

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	74	1071	97	77	792	843	168	314	148	824	200	72
Future Volume (vph)	74	1071	97	77	792	843	168	314	148	824	200	72
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	190		500	165		320	350		135	500		0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (ft)	230			220			65			95		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00
Frt			0.850			0.850			0.850		0.960	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	3433	1788	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	3539	1583	3433	1788	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			116			72			170		17	
Link Speed (mph)		40			40			40			40	
Link Distance (ft)		860			711			438			1769	
Travel Time (s)		14.7			12.1			7.5			30.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	80	1164	105	84	861	916	183	341	161	896	217	78
Shared Lane Traffic (%)												
Lane Group Flow (vph)	80	1164	105	84	861	916	183	341	161	896	295	0
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	
Protected Phases	5	2	7	1	6	3	7	4		3	8	
Permitted Phases			2			6			4			
Detector Phase	5	2	7	1	6	3	7	4	4	3	8	
Switch Phase												
Minimum Initial (s)	5.0	15.0	7.0	5.0	15.0	7.0	7.0	7.0	7.0	7.0	7.0	
Minimum Split (s)	10.0	22.0	12.0	10.0	22.0	12.0	12.0	13.0	13.0	12.0	13.0	
Total Split (s)	12.0	47.0	12.0	12.0	47.0	42.0	12.0	21.0	21.0	42.0	51.0	
Total Split (%)	9.8%	38.5%	9.8%	9.8%	38.5%	34.4%	9.8%	17.2%	17.2%	34.4%	41.8%	
Maximum Green (s)	7.0	40.0	7.0	7.0	40.0	37.0	7.0	15.0	15.0	37.0	45.0	
Yellow Time (s)	3.0	5.0	3.0	3.0	5.0	3.0	3.0	4.0	4.0	3.0	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	7.0	5.0	5.0	7.0	5.0	5.0	6.0	6.0	5.0	6.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	1.0	2.5	3.0	1.0	2.5	2.0	3.0	2.0	2.0	2.0	2.0	
Recall Mode	None	Min	None	None	Min	None	None	None	None	None	None	
Act Effct Green (s)	6.7	40.1	54.1	6.8	40.2	81.1	7.0	13.8	13.8	33.9	40.7	
Actuated g/C Ratio	0.06	0.34	0.46	0.06	0.34	0.69	0.06	0.12	0.12	0.29	0.35	
v/c Ratio	0.80	0.97	0.13	0.82	0.71	0.82	1.74	0.82	0.48	0.91	0.47	
Control Delay	103.3	58.0	3.3	107.1	38.5	20.1	403.6	68.0	11.4	54.0	30.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	103.3	58.0	3.3	107.1	38.5	20.1	403.6	68.0	11.4	54.0	30.7	
LOS	F	E	A	F	D	C	F	E	B	D	C	
Approach Delay		56.4			32.5			144.3			48.3	
Approach LOS		E			C			F			D	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	63	~484	0	67	316	439	~217	139	0	342	163	
Queue Length 95th (ft)	#153	#640	27	#161	393	670	#366	#204	57	#429	245	
Internal Link Dist (ft)		780			631			358			1689	
Turn Bay Length (ft)	190		500	165		320	350		135	500		
Base Capacity (vph)	105	1205	790	105	1209	1154	105	452	350	1082	696	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.76	0.97	0.13	0.80	0.71	0.79	1.74	0.75	0.46	0.83	0.42	

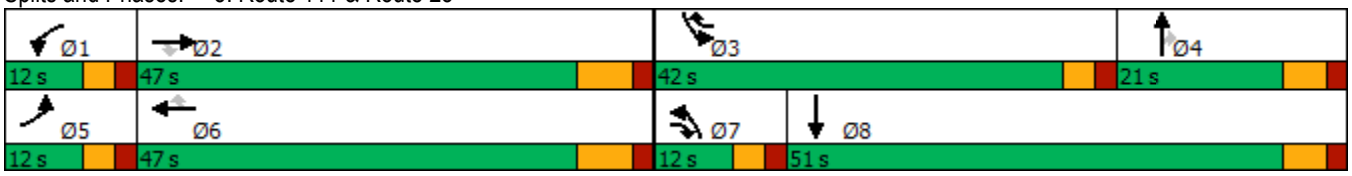
Intersection Summary

Area Type: Other
Cycle Length: 122
Actuated Cycle Length: 117.7
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.74
Intersection Signal Delay: 57.6 Intersection LOS: E
Intersection Capacity Utilization 85.2% ICU Level of Service E
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Route 111 & Route 25



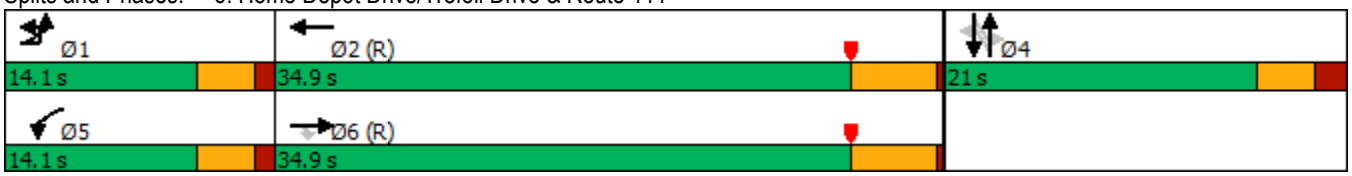
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	153	847	71	56	876	77	51	20	41	89	26	133
Future Volume (vph)	153	847	71	56	876	77	51	20	41	89	26	133
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	230		230	200		0	90		0	100		0
Storage Lanes	1		1	1		0	1		0	1		0
Taper Length (ft)	115			120			90			96		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.988			0.899			0.874	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3497	0	1770	1675	0	1770	1628	0
Flt Permitted	0.950			0.950			0.560			0.713		
Satd. Flow (perm)	1770	3539	1583	1770	3497	0	1043	1675	0	1328	1628	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			92		16			45			145	
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		481			302			288			263	
Travel Time (s)		8.2			5.1			7.9			7.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	166	921	77	61	952	84	55	22	45	97	28	145
Shared Lane Traffic (%)												
Lane Group Flow (vph)	166	921	77	61	1036	0	55	67	0	97	173	0
Turn Type	Prot	NA	Perm	Prot	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			4	
Permitted Phases			6				4			4		
Detector Phase	1	6	6	5	2		4	4		4	4	
Switch Phase												
Minimum Initial (s)	5.0	15.0	15.0	5.0	15.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	9.1	19.9	19.9	9.1	19.9		11.8	11.8		11.8	11.8	
Total Split (s)	14.1	34.9	34.9	14.1	34.9		21.0	21.0		21.0	21.0	
Total Split (%)	20.1%	49.9%	49.9%	20.1%	49.9%		30.0%	30.0%		30.0%	30.0%	
Maximum Green (s)	10.0	30.0	30.0	10.0	30.0		16.2	16.2		16.2	16.2	
Yellow Time (s)	3.0	4.4	4.4	3.0	4.4		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.1	0.5	0.5	1.1	0.5		1.8	1.8		1.8	1.8	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.1	4.9	4.9	4.1	4.9		4.8	4.8		4.8	4.8	
Lead/Lag	Lead	Lag	Lag	Lead	Lag							
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	None		None	None	
Act Effct Green (s)	10.8	41.5	41.5	7.9	34.5		10.9	10.9		10.9	10.9	
Actuated g/C Ratio	0.15	0.59	0.59	0.11	0.49		0.16	0.16		0.16	0.16	
v/c Ratio	0.61	0.44	0.08	0.30	0.60		0.34	0.22		0.47	0.46	
Control Delay	38.1	10.9	2.6	31.9	15.4		30.9	13.5		33.5	11.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	38.1	10.9	2.6	31.9	15.4		30.9	13.5		33.5	11.1	
LOS	D	B	A	C	B		C	B		C	B	
Approach Delay		14.2			16.3			21.3			19.2	
Approach LOS		B			B			C			B	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	66	119	0	25	160		22	8		39	11	
Queue Length 95th (ft)	#143	212	18	56	245		49	37		75	55	
Internal Link Dist (ft)		401			222			208			183	
Turn Bay Length (ft)	230		230	200			90			100		
Base Capacity (vph)	285	2099	976	254	1730		241	422		307	488	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.58	0.44	0.08	0.24	0.60		0.23	0.16		0.32	0.35	

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.61
Intersection Signal Delay: 15.9 Intersection LOS: B
Intersection Capacity Utilization 66.0% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: Home Depot Drive/Trefoil Drive & Route 111



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	56	77	87	112	0	36	0	51	5	5	5
Future Volume (vph)	0	56	77	87	112	0	36	0	51	5	5	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.922						0.921			0.955	
Flt Protected					0.979			0.980			0.984	
Satd. Flow (prot)	0	1717	0	0	1824	0	0	1681	0	0	1750	0
Flt Permitted					0.979			0.980			0.984	
Satd. Flow (perm)	0	1717	0	0	1824	0	0	1681	0	0	1750	0
Link Speed (mph)		25			25			25			30	
Link Distance (ft)		1279			533			365			165	
Travel Time (s)		34.9			14.5			10.0			3.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	61	84	95	122	0	39	0	55	5	5	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	145	0	0	217	0	0	94	0	0	15	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 35.7%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	56	77	87	112	0	36	0	51	5	5	5
Future Vol, veh/h	0	56	77	87	112	0	36	0	51	5	5	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	61	84	95	122	0	39	0	55	5	5	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	122	0	0	145	0	0	420	415	103	443	457	122
Stage 1	-	-	-	-	-	-	103	103	-	312	312	-
Stage 2	-	-	-	-	-	-	317	312	-	131	145	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1465	-	-	1437	-	-	544	528	952	525	500	929
Stage 1	-	-	-	-	-	-	903	810	-	699	658	-
Stage 2	-	-	-	-	-	-	694	658	-	873	777	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1465	-	-	1437	-	-	507	491	952	468	465	929
Mov Cap-2 Maneuver	-	-	-	-	-	-	507	491	-	468	465	-
Stage 1	-	-	-	-	-	-	903	810	-	699	611	-
Stage 2	-	-	-	-	-	-	635	611	-	822	777	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	3.4	11	11.6
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	698	1465	-	-	1437	-	-	559
HCM Lane V/C Ratio	0.135	-	-	-	0.066	-	-	0.029
HCM Control Delay (s)	11	0	-	-	7.7	0	-	11.6
HCM Lane LOS	B	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.5	0	-	-	0.2	-	-	0.1

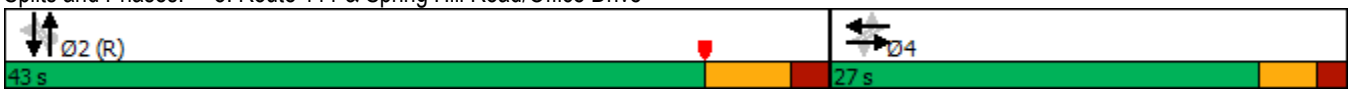
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	26	5	28	0	0	0	26	608	0	0	1147	61
Future Volume (vph)	26	5	28	0	0	0	26	608	0	0	1147	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.936									0.992	
Flt Protected		0.978						0.998				
Satd. Flow (prot)	0	1705	0	0	1863	0	0	3532	0	0	3511	0
Flt Permitted		0.857						0.868				
Satd. Flow (perm)	0	1494	0	0	1863	0	0	3072	0	0	3511	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		30									11	
Link Speed (mph)		25			30			40			40	
Link Distance (ft)		238			96			211			211	
Travel Time (s)		6.5			2.2			3.6			3.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	28	5	30	0	0	0	28	661	0	0	1247	66
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	63	0	0	0	0	0	689	0	0	1313	0
Turn Type	Perm	NA					Perm	NA			NA	
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Detector Phase	4	4		4	4		2	2		2	2	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		15.0	15.0		15.0	15.0	
Minimum Split (s)	25.0	25.0		25.0	25.0		29.0	29.0		29.0	29.0	
Total Split (s)	27.0	27.0		27.0	27.0		43.0	43.0		43.0	43.0	
Total Split (%)	38.6%	38.6%		38.6%	38.6%		61.4%	61.4%		61.4%	61.4%	
Maximum Green (s)	22.3	22.3		22.3	22.3		36.5	36.5		36.5	36.5	
Yellow Time (s)	3.0	3.0		3.0	3.0		4.4	4.4		4.4	4.4	
All-Red Time (s)	1.7	1.7		1.7	1.7		2.1	2.1		2.1	2.1	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.7			4.7			6.5			6.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	
Act Effct Green (s)		7.6						58.5			58.5	
Actuated g/C Ratio		0.11						0.84			0.84	
v/c Ratio		0.34						0.27			0.45	
Control Delay		22.9						2.8			3.6	
Queue Delay		0.0						0.0			0.0	
Total Delay		22.9						2.8			3.6	
LOS		C						A			A	
Approach Delay		22.9						2.8			3.6	
Approach LOS		C						A			A	
Queue Length 50th (ft)		13						39			92	
Queue Length 95th (ft)		45						67			149	
Internal Link Dist (ft)		158			16			131			131	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)												
Base Capacity (vph)		496						2568			2937	
Starvation Cap Reductn		0						0			0	
Spillback Cap Reductn		0						0			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.13						0.27			0.45	

Intersection Summary

Area Type:	Other
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 14 (20%), Referenced to phase 2:NBSB, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.45	
Intersection Signal Delay: 3.9	Intersection LOS: A
Intersection Capacity Utilization 51.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 8: Route 111 & Spring Hill Road/Office Drive



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	1	117	163	0	0	0
Future Volume (vph)	1	117	163	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	0	1863	1863	0	1863	0
Flt Permitted						
Satd. Flow (perm)	0	1863	1863	0	1863	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		563	1279		166	
Travel Time (s)		12.8	29.1		3.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	127	177	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	128	177	0	0	0
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 11.9%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	117	163	0	0	0
Future Vol, veh/h	1	117	163	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	127	177	0	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	177	0	-	0	306	177
Stage 1	-	-	-	-	177	-
Stage 2	-	-	-	-	129	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1399	-	-	-	686	866
Stage 1	-	-	-	-	854	-
Stage 2	-	-	-	-	897	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1399	-	-	-	685	866
Mov Cap-2 Maneuver	-	-	-	-	685	-
Stage 1	-	-	-	-	853	-
Stage 2	-	-	-	-	897	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1399	-	-	-	-
HCM Lane V/C Ratio	0.001	-	-	-	-
HCM Control Delay (s)	7.6	0	-	-	0
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	1015	0	0	1041
Future Volume (vph)	0	0	1015	0	0	1041
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	1863	0	1863	0	0	1863
Flt Permitted						
Satd. Flow (perm)	1863	0	1863	0	0	1863
Link Speed (mph)	30		40			40
Link Distance (ft)	154		277			1826
Travel Time (s)	3.5		4.7			31.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	1103	0	0	1132
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	1103	0	0	1132
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 58.1%	ICU Level of Service B
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	1015	0	0	1041
Future Vol, veh/h	0	0	1015	0	0	1041
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	1103	0	0	1132

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2235	1103	0	0	1103	0
Stage 1	1103	-	-	-	-	-
Stage 2	1132	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	47	257	-	-	633	-
Stage 1	318	-	-	-	-	-
Stage 2	308	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	47	257	-	-	633	-
Mov Cap-2 Maneuver	47	-	-	-	-	-
Stage 1	318	-	-	-	-	-
Stage 2	308	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	633	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	1015	0	0	1041
Future Volume (vph)	0	0	1015	0	0	1041
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	0	1863	1863	0	0	1863
Flt Permitted						
Satd. Flow (perm)	0	1863	1863	0	0	1863
Link Speed (mph)	30		40			40
Link Distance (ft)	176		204			277
Travel Time (s)	4.0		3.5			4.7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	1103	0	0	1132
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	1103	0	0	1132
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 58.1%	ICU Level of Service B
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	1015	0	0	1041
Future Vol, veh/h	0	0	1015	0	0	1041
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	1103	0	0	1132

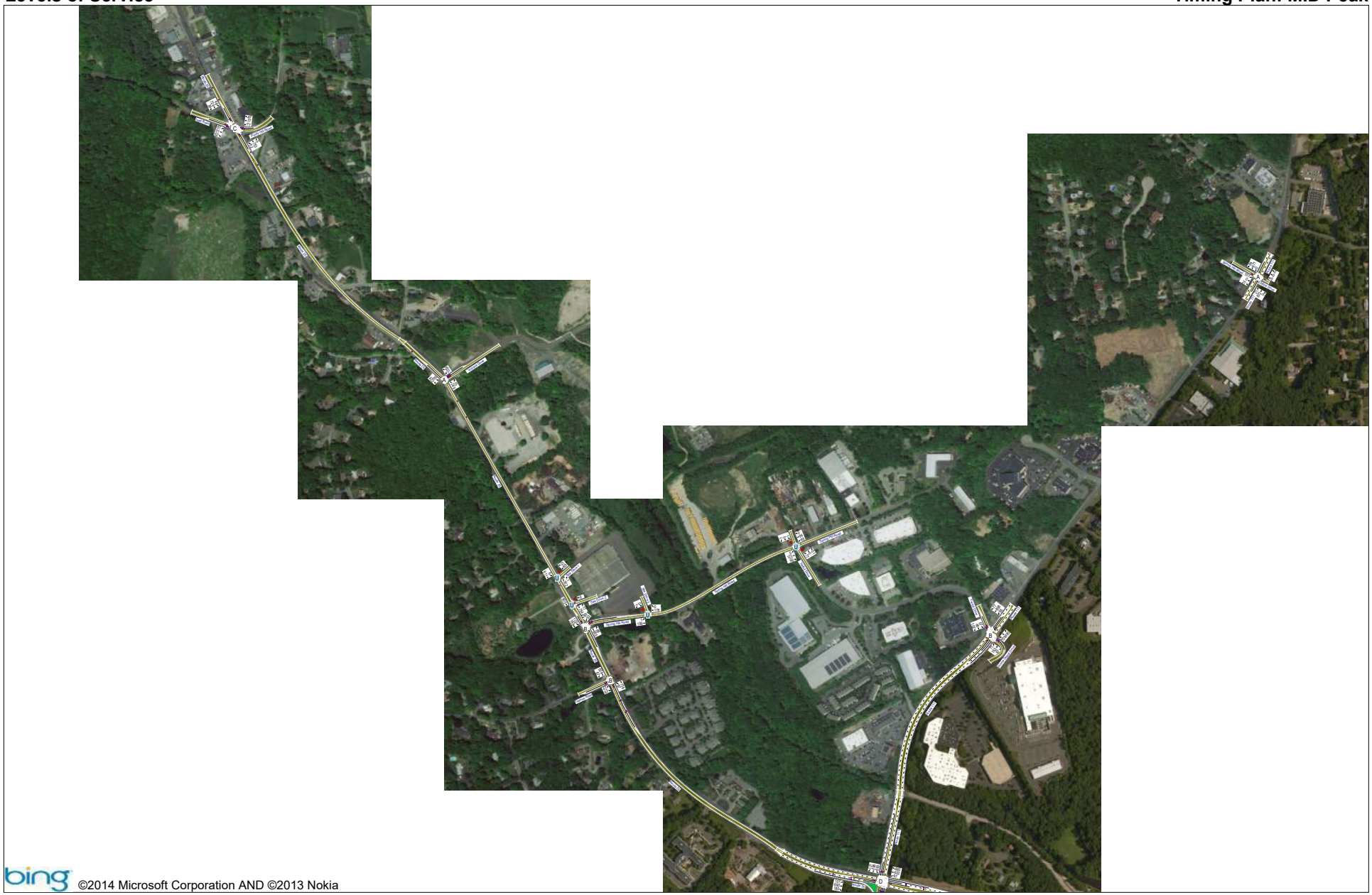
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	1103	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	257	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	257	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	-
HCM Lane LOS	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	-

Map - Proposed Delivery Station Building Improvements
Levels of Service

Build
Timing Plan: MID Peak



BL Companies
G:\JOBS19\10\1901141\TRAF\Adendum #1 - 2020\SYNCHRO\T-1901141-BUILD-MID.syn

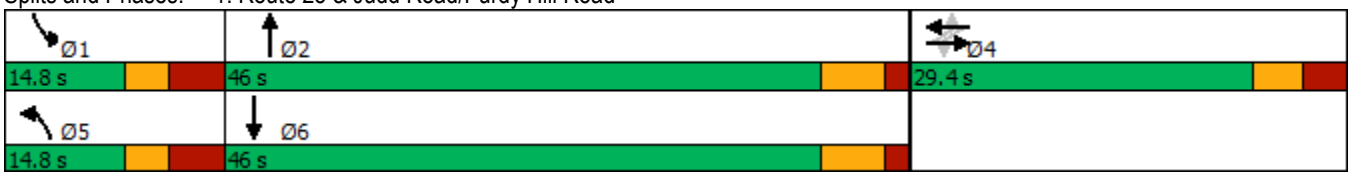
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	87	51	62	77	77	87	52	753	5	46	724	36
Future Volume (vph)	87	51	62	77	77	87	52	753	5	46	724	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	135		0	85		0	130		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	75			96			96			96		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.918			0.920			0.999			0.993	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1710	0	1770	1714	0	1770	1861	0	1770	1850	0
Flt Permitted	0.619			0.679			0.950			0.950		
Satd. Flow (perm)	1153	1710	0	1265	1714	0	1770	1861	0	1770	1850	0
Right Turn on Red			Yes			No			Yes			No
Satd. Flow (RTOR)		65										
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		373			328			2210			483	
Travel Time (s)		8.5			7.5			37.7			8.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	95	55	67	84	84	95	57	818	5	50	787	39
Shared Lane Traffic (%)												
Lane Group Flow (vph)	95	122	0	84	179	0	57	823	0	50	826	0
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		4			4		5	2		1	6	
Permitted Phases	4			4								
Detector Phase	4	4		4	4		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	25.0		5.0	25.0	
Minimum Split (s)	11.4	11.4		11.4	11.4		11.8	31.0		11.8	31.0	
Total Split (s)	29.4	29.4		29.4	29.4		14.8	46.0		14.8	46.0	
Total Split (%)	32.6%	32.6%		32.6%	32.6%		16.4%	51.0%		16.4%	51.0%	
Maximum Green (s)	23.0	23.0		23.0	23.0		8.0	40.0		8.0	40.0	
Yellow Time (s)	3.3	3.3		3.3	3.3		3.0	4.2		3.0	4.2	
All-Red Time (s)	3.1	3.1		3.1	3.1		3.8	1.8		3.8	1.8	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.4	6.4		6.4	6.4		6.8	6.0		6.8	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		1.5	2.5		1.5	2.5	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)	12.5	12.5		12.5	12.5		6.5	39.5		6.4	39.4	
Actuated g/C Ratio	0.17	0.17		0.17	0.17		0.09	0.55		0.09	0.55	
v/c Ratio	0.48	0.35		0.39	0.61		0.36	0.81		0.32	0.82	
Control Delay	37.8	18.3		34.2	38.6		41.4	24.8		40.7	25.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	37.8	18.3		34.2	38.6		41.4	24.8		40.7	25.6	
LOS	D	B		C	D		D	C		D	C	
Approach Delay		26.8			37.2			25.9			26.5	
Approach LOS		C			D			C			C	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	43	24		37	83		27	328		24	335	
Queue Length 95th (ft)	90	70		80	148		66	#663		60	#670	
Internal Link Dist (ft)		293			248			2130			403	
Turn Bay Length (ft)	135			85			130			100		
Base Capacity (vph)	380	608		417	565		203	1071		203	1062	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.25	0.20		0.20	0.32		0.28	0.77		0.25	0.78	

Intersection Summary	
Area Type: Other	
Cycle Length: 90.2	
Actuated Cycle Length: 72.2	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 27.5	Intersection LOS: C
Intersection Capacity Utilization 73.1%	ICU Level of Service D
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Route 25 & Judd Road/Purdy Hill Road



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	31	26	749	15	20	822
Future Volume (vph)	31	26	749	15	20	822
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	210	145		0	150	
Storage Lanes	0	1		0	1	
Taper Length (ft)	120				96	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850	0.997			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	1857	0	1770	1863
Flt Permitted	0.950				0.262	
Satd. Flow (perm)	1770	1583	1857	0	488	1863
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		28	2			
Link Speed (mph)	25		40			40
Link Distance (ft)	526		1834			466
Travel Time (s)	14.3		31.3			7.9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	34	28	814	16	22	893
Shared Lane Traffic (%)						
Lane Group Flow (vph)	34	28	830	0	22	893
Turn Type	Prot	Perm	NA		pm+pt	NA
Protected Phases	4		2		1	2
Permitted Phases		4			2	
Detector Phase	4	4	2		1	2
Switch Phase						
Minimum Initial (s)	7.0	7.0	18.0		5.0	18.0
Minimum Split (s)	11.5	11.5	22.8		9.5	22.8
Total Split (s)	22.0	22.0	45.0		15.0	45.0
Total Split (%)	26.8%	26.8%	54.9%		18.3%	54.9%
Maximum Green (s)	17.5	17.5	40.2		10.5	40.2
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5
All-Red Time (s)	1.0	1.0	1.3		1.0	1.3
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.5	4.5	4.8		4.5	4.8
Lead/Lag			Lag		Lead	Lag
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	2.5		2.0	2.5
Recall Mode	None	None	Min		None	Min
Act Effct Green (s)	7.5	7.5	46.2		45.1	46.2
Actuated g/C Ratio	0.13	0.13	0.81		0.79	0.81
v/c Ratio	0.15	0.12	0.55		0.04	0.59
Control Delay	26.4	12.2	7.1		2.5	8.2
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	26.4	12.2	7.1		2.5	8.2
LOS	C	B	A		A	A
Approach Delay	20.0		7.1			8.0
Approach LOS	B		A			A

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Queue Length 50th (ft)	12	0	107		2	123
Queue Length 95th (ft)	37	21	368		6	#450
Internal Link Dist (ft)	446		1754			386
Turn Bay Length (ft)	210	145			150	
Base Capacity (vph)	554	515	1502		632	1506
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.06	0.05	0.55		0.03	0.59

Intersection Summary	
Area Type: Other	
Cycle Length: 82	
Actuated Cycle Length: 57.1	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.59	
Intersection Signal Delay: 8.0	Intersection LOS: A
Intersection Capacity Utilization 56.8%	ICU Level of Service B
Analysis Period (min) 15	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Route 25 & Victoria Drive

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø5
Lane Configurations							
Traffic Volume (vph)	93	89	685	98	102	798	
Future Volume (vph)	93	89	685	98	102	798	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	220		150	145		
Storage Lanes	1	1		1	1		
Taper Length (ft)	25				205		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		0.850		0.850			
Flt Protected	0.950				0.950		
Satd. Flow (prot)	1770	1583	1863	1583	1770	1863	
Flt Permitted	0.950				0.296		
Satd. Flow (perm)	1770	1583	1863	1583	551	1863	
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)		97		94			
Link Speed (mph)	25		40			40	
Link Distance (ft)	520		462			222	
Travel Time (s)	14.2		7.9			3.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	101	97	745	107	111	867	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	101	97	745	107	111	867	
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA	
Protected Phases	4		2		1	6	5
Permitted Phases		4		2	6		
Detector Phase	4	4	2	2	1	6	
Switch Phase							
Minimum Initial (s)	7.0	7.0	18.0	18.0	5.0	18.0	5.0
Minimum Split (s)	11.0	11.0	23.7	23.7	9.0	23.7	9.0
Total Split (s)	19.0	19.0	65.7	65.7	14.0	65.7	14.0
Total Split (%)	19.3%	19.3%	66.6%	66.6%	14.2%	66.6%	14%
Maximum Green (s)	15.0	15.0	60.0	60.0	10.0	60.0	10.0
Yellow Time (s)	3.0	3.0	4.3	4.3	3.0	4.3	3.0
All-Red Time (s)	1.0	1.0	1.4	1.4	1.0	1.4	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	5.7	5.7	4.0	5.7	
Lead/Lag			Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?							
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	3.0	3.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	Min	Min	None	Min	None
Act Effct Green (s)	10.6	10.6	59.9	59.9	65.1	56.5	
Actuated g/C Ratio	0.12	0.12	0.67	0.67	0.73	0.64	
v/c Ratio	0.48	0.35	0.59	0.10	0.22	0.73	
Control Delay	46.0	12.0	5.1	0.4	3.6	16.2	
Queue Delay	0.0	0.0	0.1	0.0	0.0	0.0	
Total Delay	46.0	12.0	5.3	0.4	3.6	16.2	

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø5
LOS	D	B	A	A	A	B	
Approach Delay	29.3		4.6			14.8	
Approach LOS	C		A			B	
Queue Length 50th (ft)	56	0	68	0	10	297	
Queue Length 95th (ft)	108	45	85	m1	26	532	
Internal Link Dist (ft)	440		382			142	
Turn Bay Length (ft)		220		150	145		
Base Capacity (vph)	303	351	1292	1126	562	1276	
Starvation Cap Reductn	0	0	78	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	
Reduced v/c Ratio	0.33	0.28	0.61	0.10	0.20	0.68	

Intersection Summary

Area Type: Other
Cycle Length: 98.7
Actuated Cycle Length: 88.9
Natural Cycle: 65
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.83
Intersection Signal Delay: 12.0 Intersection LOS: B
Intersection Capacity Utilization 59.0% ICU Level of Service B
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Route 25 & Spring Hill Road

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø1
Lane Configurations							
Traffic Volume (vph)	47	82	97	736	824	67	
Future Volume (vph)	47	82	97	736	824	67	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	185	390			0	
Storage Lanes	1	1	1			0	
Taper Length (ft)	25		90				
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		0.850			0.990		
Flt Protected	0.950		0.950				
Satd. Flow (prot)	1770	1583	1770	1863	1844	0	
Flt Permitted	0.950		0.133				
Satd. Flow (perm)	1770	1583	248	1863	1844	0	
Right Turn on Red		Yes				Yes	
Satd. Flow (RTOR)		89			8		
Link Speed (mph)	25			40	40		
Link Distance (ft)	287			1984	462		
Travel Time (s)	7.8			33.8	7.9		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	51	89	105	800	896	73	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	51	89	105	800	969	0	
Turn Type	Prot	pm+ov	pm+pt	NA	NA		
Protected Phases	4	5	5	2	6		1
Permitted Phases		4	2				
Detector Phase	4	5	5	2	6		
Switch Phase							
Minimum Initial (s)	7.0	5.0	5.0	18.0	18.0		5.0
Minimum Split (s)	11.0	9.0	9.0	23.7	23.7		9.0
Total Split (s)	19.0	14.0	14.0	65.7	65.7		14.0
Total Split (%)	19.3%	14.2%	14.2%	66.6%	66.6%		14%
Maximum Green (s)	15.0	10.0	10.0	60.0	60.0		10.0
Yellow Time (s)	3.0	3.0	3.0	4.3	4.3		3.0
All-Red Time (s)	1.0	1.0	1.0	1.4	1.4		1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	4.0	4.0	4.0	5.7	5.7		
Lead/Lag		Lead	Lead	Lag	Lag		Lead
Lead-Lag Optimize?							
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0		3.0
Time Before Reduce (s)	0.0	0.0	0.0	3.0	0.0		0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0		0.0
Recall Mode	None	None	None	Min	Min		None
Act Effct Green (s)	10.6	22.6	67.9	59.9	56.5		
Actuated g/C Ratio	0.12	0.25	0.76	0.67	0.64		
v/c Ratio	0.24	0.19	0.32	0.64	0.83		
Control Delay	39.9	7.2	5.2	12.6	11.7		
Queue Delay	0.0	0.0	0.0	0.0	0.0		
Total Delay	39.9	7.2	5.2	12.6	11.7		

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø1
LOS	D	A	A	B	B		
Approach Delay	19.1			11.8	11.7		
Approach LOS	B			B	B		
Queue Length 50th (ft)	28	0	10	245	111		
Queue Length 95th (ft)	63	35	25	441	#164		
Internal Link Dist (ft)	207			1904	382		
Turn Bay Length (ft)		185	390				
Base Capacity (vph)	303	506	366	1292	1265		
Starvation Cap Reductn	0	0	0	0	1		
Spillback Cap Reductn	0	0	0	0	0		
Storage Cap Reductn	0	0	0	0	0		
Reduced v/c Ratio	0.17	0.18	0.29	0.62	0.77		

Intersection Summary

Area Type: Other
Cycle Length: 98.7
Actuated Cycle Length: 88.9
Natural Cycle: 65
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.83
Intersection Signal Delay: 12.3 — Intersection LOS: B
Intersection Capacity Utilization 70.1% — ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 4: Route 25 & Tashua Road

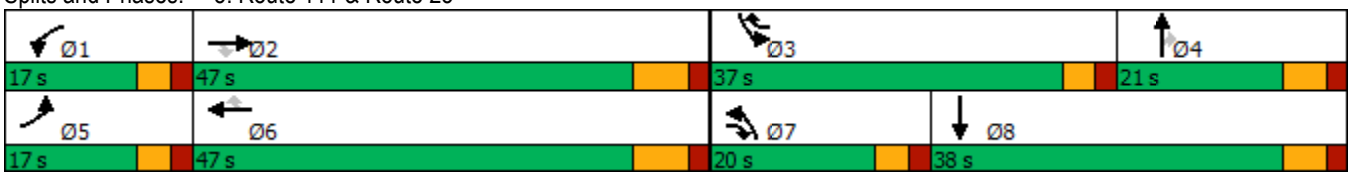
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	101	690	185	97	602	480	164	309	97	693	298	121
Future Volume (vph)	101	690	185	97	602	480	164	309	97	693	298	121
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	190		500	165		320	350		135	500		0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (ft)	230			220			65			95		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00
Frt			0.850			0.850			0.850		0.957	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	3433	1783	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	3539	1583	3433	1783	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			201			128			170		16	
Link Speed (mph)		40			40			40			40	
Link Distance (ft)		860			711			438			727	
Travel Time (s)		14.7			12.1			7.5			12.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	110	750	201	105	654	522	178	336	105	753	324	132
Shared Lane Traffic (%)												
Lane Group Flow (vph)	110	750	201	105	654	522	178	336	105	753	456	0
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	
Protected Phases	5	2	7	1	6	3	7	4		3	8	
Permitted Phases			2			6			4			
Detector Phase	5	2	7	1	6	3	7	4	4	3	8	
Switch Phase												
Minimum Initial (s)	5.0	15.0	7.0	5.0	15.0	7.0	7.0	7.0	7.0	7.0	7.0	
Minimum Split (s)	10.0	22.0	12.0	10.0	22.0	12.0	12.0	13.0	13.0	12.0	13.0	
Total Split (s)	17.0	47.0	20.0	17.0	47.0	37.0	20.0	21.0	21.0	37.0	38.0	
Total Split (%)	13.9%	38.5%	16.4%	13.9%	38.5%	30.3%	16.4%	17.2%	17.2%	30.3%	31.1%	
Maximum Green (s)	12.0	40.0	15.0	12.0	40.0	32.0	15.0	15.0	15.0	32.0	32.0	
Yellow Time (s)	3.0	5.0	3.0	3.0	5.0	3.0	3.0	4.0	4.0	3.0	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	7.0	5.0	5.0	7.0	5.0	5.0	6.0	6.0	5.0	6.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	1.0	2.5	3.0	1.0	2.5	2.0	3.0	2.0	2.0	2.0	2.0	
Recall Mode	None	Min	None	None	Min	None	None	None	None	None	None	
Act Effct Green (s)	9.4	26.6	47.6	9.2	26.4	60.0	13.9	17.3	17.3	26.4	29.8	
Actuated g/C Ratio	0.09	0.26	0.46	0.09	0.26	0.58	0.13	0.17	0.17	0.26	0.29	
v/c Ratio	0.68	0.82	0.24	0.66	0.72	0.54	0.74	0.57	0.26	0.86	0.87	
Control Delay	69.9	44.7	3.0	68.9	40.3	11.4	65.3	46.6	2.2	47.9	53.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	69.9	44.7	3.0	68.9	40.3	11.4	65.3	46.6	2.2	47.9	53.1	
LOS	E	D	A	E	D	B	E	D	A	D	D	
Approach Delay		39.4			30.9			44.4			49.9	
Approach LOS		D			C			D			D	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	74	256	0	70	217	153	118	110	0	251	281	
Queue Length 95th (ft)	#153	334	38	139	285	223	#252	#188	5	354	#534	
Internal Link Dist (ft)		780			631			358			647	
Turn Bay Length (ft)	190		500	165		320	350		135	500		
Base Capacity (vph)	211	1406	859	211	1406	1064	263	596	408	1091	577	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.52	0.53	0.23	0.50	0.47	0.49	0.68	0.56	0.26	0.69	0.79	

Intersection Summary	
Area Type: Other	
Cycle Length: 122	
Actuated Cycle Length: 103	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 40.6	Intersection LOS: D
Intersection Capacity Utilization 75.8%	ICU Level of Service D
Analysis Period (min) 15	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Route 111 & Route 25



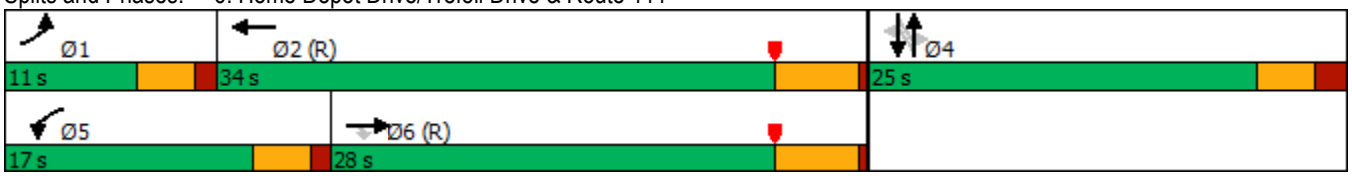
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	77	762	87	56	898	77	61	26	92	67	46	102
Future Volume (vph)	77	762	87	56	898	77	61	26	92	67	46	102
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	230		230	200		0	90		0	100		0
Storage Lanes	1		1	1		0	1		0	1		0
Taper Length (ft)	115			120			90			96		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.988			0.883			0.897	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3497	0	1770	1645	0	1770	1671	0
Flt Permitted	0.950			0.950			0.583			0.675		
Satd. Flow (perm)	1770	3539	1583	1770	3497	0	1086	1645	0	1257	1671	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			156		16			100			111	
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		1534			302			288			263	
Travel Time (s)		26.1			5.1			7.9			7.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	84	828	95	61	976	84	66	28	100	73	50	111
Shared Lane Traffic (%)												
Lane Group Flow (vph)	84	828	95	61	1060	0	66	128	0	73	161	0
Turn Type	Prot	NA	Perm	Prot	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			4	
Permitted Phases			6				4			4		
Detector Phase	1	6	6	5	2		4	4		4	4	
Switch Phase												
Minimum Initial (s)	5.0	15.0	15.0	5.0	15.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	9.1	19.9	19.9	9.1	19.9		11.8	11.8		11.8	11.8	
Total Split (s)	11.0	28.0	28.0	17.0	34.0		25.0	25.0		25.0	25.0	
Total Split (%)	15.7%	40.0%	40.0%	24.3%	48.6%		35.7%	35.7%		35.7%	35.7%	
Maximum Green (s)	6.9	23.1	23.1	12.9	29.1		20.2	20.2		20.2	20.2	
Yellow Time (s)	3.0	4.4	4.4	3.0	4.4		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.1	0.5	0.5	1.1	0.5		1.8	1.8		1.8	1.8	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.1	4.9	4.9	4.1	4.9		4.8	4.8		4.8	4.8	
Lead/Lag	Lead	Lag	Lag	Lead	Lag							
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	None		None	None	
Act Effct Green (s)	8.7	42.3	42.3	8.0	39.4		10.0	10.0		10.0	10.0	
Actuated g/C Ratio	0.12	0.60	0.60	0.11	0.56		0.14	0.14		0.14	0.14	
v/c Ratio	0.38	0.39	0.09	0.30	0.54		0.43	0.40		0.41	0.48	
Control Delay	32.4	9.8	0.9	31.7	12.5		35.0	12.7		33.2	15.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	32.4	9.8	0.9	31.7	12.5		35.0	12.7		33.2	15.0	
LOS	C	A	A	C	B		C	B		C	B	
Approach Delay		10.9			13.6			20.3			20.7	
Approach LOS		B			B			C			C	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	34	100	0	25	142		27	11		29	20	
Queue Length 95th (ft)	69	180	8	56	255		58	51		62	64	
Internal Link Dist (ft)		1454			222			208			183	
Turn Bay Length (ft)	230		230	200			90			100		
Base Capacity (vph)	226	2140	1018	326	1976		313	545		362	561	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.37	0.39	0.09	0.19	0.54		0.21	0.23		0.20	0.29	

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.54
Intersection Signal Delay: 13.7 Intersection LOS: B
Intersection Capacity Utilization 61.6% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 6: Home Depot Drive/Trefoil Drive & Route 111



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	123	66	46	94	0	77	0	51	1	0	1
Future Volume (vph)	5	123	66	46	94	0	77	0	51	1	0	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.954						0.947			0.932	
Flt Protected		0.999			0.984			0.971			0.976	
Satd. Flow (prot)	0	1775	0	0	1833	0	0	1713	0	0	1694	0
Flt Permitted		0.999			0.984			0.971			0.976	
Satd. Flow (perm)	0	1775	0	0	1833	0	0	1713	0	0	1694	0
Link Speed (mph)		25			25			25			30	
Link Distance (ft)		1325			533			365			137	
Travel Time (s)		36.1			14.5			10.0			3.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	134	72	50	102	0	84	0	55	1	0	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	211	0	0	152	0	0	139	0	0	2	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 38.2%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	123	66	46	94	0	77	0	51	1	0	1
Future Vol, veh/h	5	123	66	46	94	0	77	0	51	1	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	134	72	50	102	0	84	0	55	1	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	102	0	0	206	0	0	383	382	170	410	418	102
Stage 1	-	-	-	-	-	-	180	180	-	202	202	-
Stage 2	-	-	-	-	-	-	203	202	-	208	216	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1490	-	-	1365	-	-	575	551	874	552	526	953
Stage 1	-	-	-	-	-	-	822	750	-	800	734	-
Stage 2	-	-	-	-	-	-	799	734	-	794	724	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1490	-	-	1365	-	-	555	527	874	500	503	953
Mov Cap-2 Maneuver	-	-	-	-	-	-	555	527	-	500	503	-
Stage 1	-	-	-	-	-	-	819	747	-	797	705	-
Stage 2	-	-	-	-	-	-	767	705	-	741	721	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	2.5	12.1	10.5
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	649	1490	-	-	1365	-	-	656
HCM Lane V/C Ratio	0.214	0.004	-	-	0.037	-	-	0.003
HCM Control Delay (s)	12.1	7.4	0	-	7.7	0	-	10.5
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.8	0	-	-	0.1	-	-	0

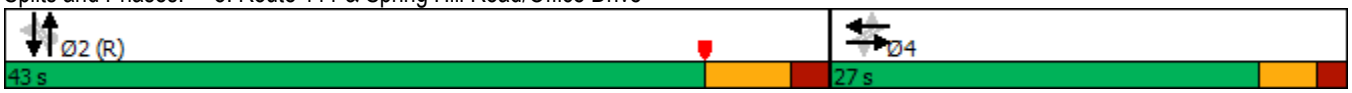
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	107	0	21	0	0	0	21	872	0	0	971	84
Future Volume (vph)	107	0	21	0	0	0	21	872	0	0	971	84
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.978									0.988	
Flt Protected		0.960						0.999				
Satd. Flow (prot)	0	1749	0	0	1863	0	0	3536	0	0	3497	0
Flt Permitted		0.761						0.910				
Satd. Flow (perm)	0	1386	0	0	1863	0	0	3221	0	0	3497	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		55									19	
Link Speed (mph)		25			30			40			40	
Link Distance (ft)		238			96			211			211	
Travel Time (s)		6.5			2.2			3.6			3.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	116	0	23	0	0	0	23	948	0	0	1055	91
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	139	0	0	0	0	0	971	0	0	1146	0
Turn Type	Perm	NA					Perm	NA			NA	
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Detector Phase	4	4		4	4		2	2		2	2	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		15.0	15.0		15.0	15.0	
Minimum Split (s)	25.0	25.0		25.0	25.0		29.0	29.0		29.0	29.0	
Total Split (s)	27.0	27.0		27.0	27.0		43.0	43.0		43.0	43.0	
Total Split (%)	38.6%	38.6%		38.6%	38.6%		61.4%	61.4%		61.4%	61.4%	
Maximum Green (s)	22.3	22.3		22.3	22.3		36.5	36.5		36.5	36.5	
Yellow Time (s)	3.0	3.0		3.0	3.0		4.4	4.4		4.4	4.4	
All-Red Time (s)	1.7	1.7		1.7	1.7		2.1	2.1		2.1	2.1	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.7			4.7			6.5			6.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	
Act Effct Green (s)		9.8						52.7			52.7	
Actuated g/C Ratio		0.14						0.75			0.75	
v/c Ratio		0.58						0.40			0.43	
Control Delay		26.9						5.1			5.2	
Queue Delay		0.0						0.0			0.0	
Total Delay		26.9						5.1			5.2	
LOS		C						A			A	
Approach Delay		26.9						5.1			5.2	
Approach LOS		C						A			A	
Queue Length 50th (ft)		34						72			86	
Queue Length 95th (ft)		79						140			164	
Internal Link Dist (ft)		158			16			131			131	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)												
Base Capacity (vph)		479						2423			2635	
Starvation Cap Reductn		0						0			0	
Spillback Cap Reductn		0						0			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.29						0.40			0.43	

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 70
Offset: 14 (20%), Referenced to phase 2:NBSB, Start of Yellow
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.58
Intersection Signal Delay: 6.5 Intersection LOS: A
Intersection Capacity Utilization 55.7% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 8: Route 111 & Spring Hill Road/Office Drive



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	1	199	178	0	0	1
Future Volume (vph)	1	199	178	0	0	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.865	
Flt Protected						
Satd. Flow (prot)	0	1863	1863	0	1611	0
Flt Permitted						
Satd. Flow (perm)	0	1863	1863	0	1611	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		520	1325		152	
Travel Time (s)		11.8	30.1		3.5	
Confl. Peds. (#/hr)	199					
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	216	193	0	0	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	217	193	0	1	0
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 21.3%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	199	178	0	0	1
Future Vol, veh/h	1	199	178	0	0	1
Conflicting Peds, #/hr	199	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	216	193	0	0	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	392	0	-	0	610	392
Stage 1	-	-	-	-	392	-
Stage 2	-	-	-	-	218	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1167	-	-	-	458	657
Stage 1	-	-	-	-	683	-
Stage 2	-	-	-	-	818	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	946	-	-	-	300	532
Mov Cap-2 Maneuver	-	-	-	-	300	-
Stage 1	-	-	-	-	553	-
Stage 2	-	-	-	-	663	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	946	-	-	-	532
HCM Lane V/C Ratio	0.001	-	-	-	0.002
HCM Control Delay (s)	8.8	0	-	-	11.8
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	9	754	17	0	900
Future Volume (vph)	0	9	754	17	0	900
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865	0.997			
Flt Protected						
Satd. Flow (prot)	0	1611	1857	0	0	1863
Flt Permitted						
Satd. Flow (perm)	0	1611	1857	0	0	1863
Link Speed (mph)	30		40			40
Link Distance (ft)	213		222			251
Travel Time (s)	4.8		3.8			4.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	10	820	18	0	978
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	10	838	0	0	978
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 50.7%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	9	754	17	0	900
Future Vol, veh/h	0	9	754	17	0	900
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	10	820	18	0	978

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	829	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	370	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	370	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	370	-
HCM Lane V/C Ratio	-	-	0.026	-
HCM Control Delay (s)	-	-	15	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	0.1	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	89	21	762	1	6	811
Future Volume (vph)	89	21	762	1	6	811
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.974					
Flt Protected	0.961					
Satd. Flow (prot)	1744	0	1863	0	0	1863
Flt Permitted	0.961					
Satd. Flow (perm)	1744	0	1863	0	0	1863
Link Speed (mph)	30		40			40
Link Distance (ft)	133		251			1834
Travel Time (s)	3.0		4.3			31.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	97	23	828	1	7	882
Shared Lane Traffic (%)						
Lane Group Flow (vph)	120	0	829	0	0	889
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 60.3%	ICU Level of Service B
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	11.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	89	21	762	1	6	811
Future Vol, veh/h	89	21	762	1	6	811
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	97	23	828	1	7	882

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1725	829	0	0	829	0
Stage 1	829	-	-	-	-	-
Stage 2	896	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	98	370	-	-	803	-
Stage 1	429	-	-	-	-	-
Stage 2	399	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 96	370	-	-	803	-
Mov Cap-2 Maneuver	~ 96	-	-	-	-	-
Stage 1	429	-	-	-	-	-
Stage 2	392	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	177.5	0	0.1
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	112	803	-
HCM Lane V/C Ratio	-	-	1.068	0.008	-
HCM Control Delay (s)	-	-	177.5	9.5	0
HCM Lane LOS	-	-	F	A	A
HCM 95th %tile Q(veh)	-	-	7.2	0	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Map - Proposed Delivery Station Building Improvements
Levels of Service

Build
Timing Plan: PM Peak

BL Companies
G:\JOBS19\10\1901141\TRAF\Adendum #1 - 2020\SYNCHRO\T-1901141-BUILD-PM.syn

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	56	179	65	66	71	97	47	1041	5	56	1047	46
Future Volume (vph)	56	179	65	66	71	97	47	1041	5	56	1047	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	135		0	85		0	130		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	75			96			96			96		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.960			0.913			0.999			0.994	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1788	0	1770	1701	0	1770	1861	0	1770	1852	0
Flt Permitted	0.549			0.334			0.950			0.950		
Satd. Flow (perm)	1023	1788	0	622	1701	0	1770	1861	0	1770	1852	0
Right Turn on Red			Yes			No			Yes			No
Satd. Flow (RTOR)		17										
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		373			328			2210			332	
Travel Time (s)		8.5			7.5			37.7			5.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	61	195	71	72	77	105	51	1132	5	61	1138	50
Shared Lane Traffic (%)												
Lane Group Flow (vph)	61	266	0	72	182	0	51	1137	0	61	1188	0
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		4			4		5	2		1	6	
Permitted Phases	4			4								
Detector Phase	4	4		4	4		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	25.0		5.0	25.0	
Minimum Split (s)	11.4	11.4		11.4	11.4		11.8	31.0		11.8	31.0	
Total Split (s)	25.0	25.0		25.0	25.0		12.0	60.0		12.0	60.0	
Total Split (%)	25.8%	25.8%		25.8%	25.8%		12.4%	61.9%		12.4%	61.9%	
Maximum Green (s)	18.6	18.6		18.6	18.6		5.2	54.0		5.2	54.0	
Yellow Time (s)	3.3	3.3		3.3	3.3		3.0	4.2		3.0	4.2	
All-Red Time (s)	3.1	3.1		3.1	3.1		3.8	1.8		3.8	1.8	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.4	6.4		6.4	6.4		6.8	6.0		6.8	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		1.5	2.5		1.5	2.5	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)	16.1	16.1		16.1	16.1		5.2	54.5		5.2	54.5	
Actuated g/C Ratio	0.17	0.17		0.17	0.17		0.06	0.59		0.06	0.59	
v/c Ratio	0.34	0.82		0.67	0.61		0.52	1.04		0.62	1.09	
Control Delay	40.1	55.4		66.8	45.4		63.7	59.2		71.9	76.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	40.1	55.4		66.8	45.4		63.7	59.2		71.9	76.6	
LOS	D	E		E	D		E	E		E	E	
Approach Delay		52.6			51.5			59.4			76.4	
Approach LOS		D			D			E			E	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	33	146		41	102		31	~798		38	~868	
Queue Length 95th (ft)	72	#260		#105	172		#82	#1047		#100	#1117	
Internal Link Dist (ft)		293			248			2130			252	
Turn Bay Length (ft)	135			85			130			100		
Base Capacity (vph)	208	376		126	345		100	1098		100	1093	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.29	0.71		0.57	0.53		0.51	1.04		0.61	1.09	

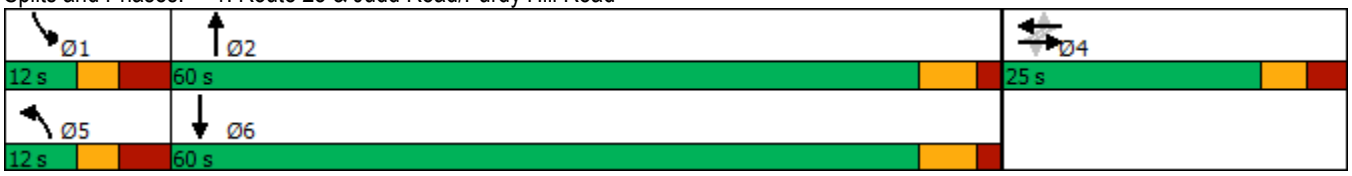
Intersection Summary

Area Type: Other
Cycle Length: 97
Actuated Cycle Length: 92.3
Natural Cycle: 120
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.09
Intersection Signal Delay: 65.0 Intersection LOS: E
Intersection Capacity Utilization 91.1% ICU Level of Service F
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Route 25 & Judd Road/Purdy Hill Road



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	82	36	1058	10	5	1174
Future Volume (vph)	82	36	1058	10	5	1174
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	210	145		0	150	
Storage Lanes	0	1		0	1	
Taper Length (ft)	120				96	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850	0.999			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	1861	0	1770	1863
Flt Permitted	0.950				0.088	
Satd. Flow (perm)	1770	1583	1861	0	164	1863
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		39	1			
Link Speed (mph)	25		40			40
Link Distance (ft)	526		1826			466
Travel Time (s)	14.3		31.1			7.9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	89	39	1150	11	5	1276
Shared Lane Traffic (%)						
Lane Group Flow (vph)	89	39	1161	0	5	1276
Turn Type	Prot	Perm	NA		pm+pt	NA
Protected Phases	4		2		1	2
Permitted Phases		4			2	
Detector Phase	4	4	2		1	2
Switch Phase						
Minimum Initial (s)	7.0	7.0	18.0		5.0	18.0
Minimum Split (s)	11.5	11.5	22.8		9.5	22.8
Total Split (s)	22.0	22.0	45.0		15.0	45.0
Total Split (%)	26.8%	26.8%	54.9%		18.3%	54.9%
Maximum Green (s)	17.5	17.5	40.2		10.5	40.2
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5
All-Red Time (s)	1.0	1.0	1.3		1.0	1.3
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.5	4.5	4.8		4.5	4.8
Lead/Lag			Lag		Lead	Lag
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	2.5		2.0	2.5
Recall Mode	None	None	Min		None	Min
Act Effct Green (s)	8.8	8.8	46.6		46.8	46.6
Actuated g/C Ratio	0.14	0.14	0.74		0.74	0.74
v/c Ratio	0.36	0.15	0.84		0.02	0.93
Control Delay	28.9	10.6	18.3		3.2	25.9
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	28.9	10.6	18.3		3.2	25.9
LOS	C	B	B		A	C
Approach Delay	23.3		18.3			25.8
Approach LOS	C		B			C

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Queue Length 50th (ft)	28	0	249		1	327
Queue Length 95th (ft)	74	24	#826		3	#929
Internal Link Dist (ft)	446		1746			386
Turn Bay Length (ft)	210	145			150	
Base Capacity (vph)	494	470	1375		392	1376
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.18	0.08	0.84		0.01	0.93

Intersection Summary	
Area Type: Other	
Cycle Length: 82	
Actuated Cycle Length: 63.1	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay: 22.3	Intersection LOS: C
Intersection Capacity Utilization 75.4%	ICU Level of Service D
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Route 25 & Victoria Drive

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø5
Lane Configurations							
Traffic Volume (vph)	102	56	1005	121	81	1197	
Future Volume (vph)	102	56	1005	121	81	1197	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	220		150	145		
Storage Lanes	1	1		1	1		
Taper Length (ft)	25				205		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		0.850		0.850			
Flt Protected	0.950				0.950		
Satd. Flow (prot)	1770	1583	1863	1583	1770	1863	
Flt Permitted	0.950				0.114		
Satd. Flow (perm)	1770	1583	1863	1583	212	1863	
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)		61		79			
Link Speed (mph)	25		40			40	
Link Distance (ft)	534		462			221	
Travel Time (s)	14.6		7.9			3.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	111	61	1092	132	88	1301	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	111	61	1092	132	88	1301	
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA	
Protected Phases	4		2		1	6	5
Permitted Phases		4		2	6		
Detector Phase	4	4	2	2	1	6	
Switch Phase							
Minimum Initial (s)	7.0	7.0	18.0	18.0	5.0	18.0	5.0
Minimum Split (s)	11.0	11.0	23.7	23.7	9.0	23.7	9.0
Total Split (s)	19.0	19.0	65.7	65.7	14.0	65.7	14.0
Total Split (%)	19.3%	19.3%	66.6%	66.6%	14.2%	66.6%	14%
Maximum Green (s)	15.0	15.0	60.0	60.0	10.0	60.0	10.0
Yellow Time (s)	3.0	3.0	4.3	4.3	3.0	4.3	3.0
All-Red Time (s)	1.0	1.0	1.4	1.4	1.0	1.4	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	5.7	5.7	4.0	5.7	
Lead/Lag			Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?							
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	3.0	3.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	Min	Min	None	Min	None
Act Effct Green (s)	11.0	11.0	65.4	65.4	69.4	60.5	
Actuated g/C Ratio	0.12	0.12	0.72	0.72	0.76	0.66	
v/c Ratio	0.52	0.25	0.82	0.11	0.31	1.05	
Control Delay	47.6	12.8	9.1	1.4	5.7	59.2	
Queue Delay	0.0	0.0	0.7	0.0	0.0	6.7	
Total Delay	47.6	12.8	9.9	1.4	5.7	65.9	

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø5
LOS	D	B	A	A	A	E	
Approach Delay	35.3		9.0			62.1	
Approach LOS	D		A			E	
Queue Length 50th (ft)	63	0	86	1	9	~875	
Queue Length 95th (ft)	118	36	m#849	m2	21	#1220	
Internal Link Dist (ft)	454		382			141	
Turn Bay Length (ft)		220		150	145		
Base Capacity (vph)	294	314	1338	1159	341	1239	
Starvation Cap Reductn	0	0	67	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	20	
Storage Cap Reductn	0	0	0	0	0	0	
Reduced v/c Ratio	0.38	0.19	0.86	0.11	0.26	1.07	

Intersection Summary

Area Type: Other
Cycle Length: 98.7
Actuated Cycle Length: 91
Natural Cycle: 110
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.15
Intersection Signal Delay: 37.1 — Intersection LOS: D
Intersection Capacity Utilization 76.9% — ICU Level of Service D
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Route 25 & Spring Hill Road

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø1
Lane Configurations							
Traffic Volume (vph)	45	107	133	1081	1237	62	
Future Volume (vph)	45	107	133	1081	1237	62	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	185	390			0	
Storage Lanes	1	1	1			0	
Taper Length (ft)	25		90				
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		0.850			0.994		
Flt Protected	0.950		0.950				
Satd. Flow (prot)	1770	1583	1770	1863	1852	0	
Flt Permitted	0.950		0.062				
Satd. Flow (perm)	1770	1583	115	1863	1852	0	
Right Turn on Red		Yes				Yes	
Satd. Flow (RTOR)		56			5		
Link Speed (mph)	25			40	40		
Link Distance (ft)	287			1984	462		
Travel Time (s)	7.8			33.8	7.9		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	49	116	145	1175	1345	67	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	49	116	145	1175	1412	0	
Turn Type	Prot	pm+ov	pm+pt	NA	NA		
Protected Phases	4	5	5	2	6		1
Permitted Phases		4	2				
Detector Phase	4	5	5	2	6		
Switch Phase							
Minimum Initial (s)	7.0	5.0	5.0	18.0	18.0		5.0
Minimum Split (s)	11.0	9.0	9.0	23.7	23.7		9.0
Total Split (s)	19.0	14.0	14.0	65.7	65.7		14.0
Total Split (%)	19.3%	14.2%	14.2%	66.6%	66.6%		14%
Maximum Green (s)	15.0	10.0	10.0	60.0	60.0		10.0
Yellow Time (s)	3.0	3.0	3.0	4.3	4.3		3.0
All-Red Time (s)	1.0	1.0	1.0	1.4	1.4		1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	4.0	4.0	4.0	5.7	5.7		
Lead/Lag		Lead	Lead	Lag	Lag		Lead
Lead-Lag Optimize?							
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0		3.0
Time Before Reduce (s)	0.0	0.0	0.0	3.0	0.0		0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0		0.0
Recall Mode	None	None	None	Min	Min		None
Act Effct Green (s)	11.0	20.7	72.5	65.4	60.5		
Actuated g/C Ratio	0.12	0.23	0.80	0.72	0.66		
v/c Ratio	0.23	0.29	0.60	0.88	1.15		
Control Delay	39.9	17.1	26.8	24.6	79.9		
Queue Delay	0.0	0.0	0.0	0.8	0.0		
Total Delay	39.9	17.1	26.8	25.4	79.9		

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø1
LOS	D	B	C	C	E		
Approach Delay	23.9			25.6	79.9		
Approach LOS	C			C	E		
Queue Length 50th (ft)	27	28	31	564	~328		
Queue Length 95th (ft)	61	71	102	#1049	m#342		
Internal Link Dist (ft)	207			1904	382		
Turn Bay Length (ft)		185	390				
Base Capacity (vph)	294	433	276	1338	1233		
Starvation Cap Reductn	0	0	0	0	0		
Spillback Cap Reductn	0	0	0	38	0		
Storage Cap Reductn	0	0	0	0	0		
Reduced v/c Ratio	0.17	0.27	0.53	0.90	1.15		

Intersection Summary

Area Type: Other
Cycle Length: 98.7
Actuated Cycle Length: 91
Natural Cycle: 110
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.15
Intersection Signal Delay: 52.0 Intersection LOS: D
Intersection Capacity Utilization 93.5% ICU Level of Service F
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Route 25 & Tashua Road

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	109	1068	215	158	990	698	157	386	102	846	361	114
Future Volume (vph)	109	1068	215	158	990	698	157	386	102	846	361	114
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	190		500	165		320	350		135	500		0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (ft)	230			220			65			95		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00
Frt			0.850			0.850			0.850		0.964	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	3433	1796	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	3539	1583	3433	1796	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			139			107			170		13	
Link Speed (mph)		40			40			40			40	
Link Distance (ft)		860			711			438			727	
Travel Time (s)		14.7			12.1			7.5			12.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	118	1161	234	172	1076	759	171	420	111	920	392	124
Shared Lane Traffic (%)												
Lane Group Flow (vph)	118	1161	234	172	1076	759	171	420	111	920	516	0
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	
Protected Phases	5	2	7	1	6	3	7	4		3	8	
Permitted Phases			2			6			4			
Detector Phase	5	2	7	1	6	3	7	4	4	3	8	
Switch Phase												
Minimum Initial (s)	5.0	15.0	7.0	5.0	15.0	7.0	7.0	7.0	7.0	7.0	7.0	
Minimum Split (s)	10.0	22.0	12.0	10.0	22.0	12.0	12.0	13.0	13.0	12.0	13.0	
Total Split (s)	17.0	47.0	20.0	17.0	47.0	37.0	20.0	21.0	21.0	37.0	38.0	
Total Split (%)	13.9%	38.5%	16.4%	13.9%	38.5%	30.3%	16.4%	17.2%	17.2%	30.3%	31.1%	
Maximum Green (s)	12.0	40.0	15.0	12.0	40.0	32.0	15.0	15.0	15.0	32.0	32.0	
Yellow Time (s)	3.0	5.0	3.0	3.0	5.0	3.0	3.0	4.0	4.0	3.0	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	7.0	5.0	5.0	7.0	5.0	5.0	6.0	6.0	5.0	6.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	1.0	2.5	3.0	1.0	2.5	2.0	3.0	2.0	2.0	2.0	2.0	
Recall Mode	None	Min	None	None	Min	None	None	None	None	None	None	
Act Effct Green (s)	10.5	40.0	61.2	12.0	41.5	80.5	14.2	15.0	15.0	32.0	32.8	
Actuated g/C Ratio	0.09	0.33	0.50	0.10	0.34	0.66	0.12	0.12	0.12	0.26	0.27	
v/c Ratio	0.78	1.00	0.27	0.99	0.89	0.70	0.83	0.97	0.32	1.02	1.05	
Control Delay	86.0	67.8	7.6	120.5	49.2	15.7	83.4	88.7	3.7	80.2	97.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	86.0	67.8	7.6	120.5	49.2	15.7	83.4	88.7	3.7	80.2	97.0	
LOS	F	E	A	F	D	B	F	F	A	F	F	
Approach Delay		59.9			42.6			74.0			86.2	
Approach LOS		E			D			E			F	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	91	~481	38	138	428	313	133	175	0	~396	~445	
Queue Length 95th (ft)	#175	#637	85	#284	#562	469	#246	#281	11	#525	#663	
Internal Link Dist (ft)		780			631			358			647	
Turn Bay Length (ft)	190		500	165		320	350		135	500		
Base Capacity (vph)	174	1160	872	174	1204	1080	217	435	343	900	491	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.68	1.00	0.27	0.99	0.89	0.70	0.79	0.97	0.32	1.02	1.05	

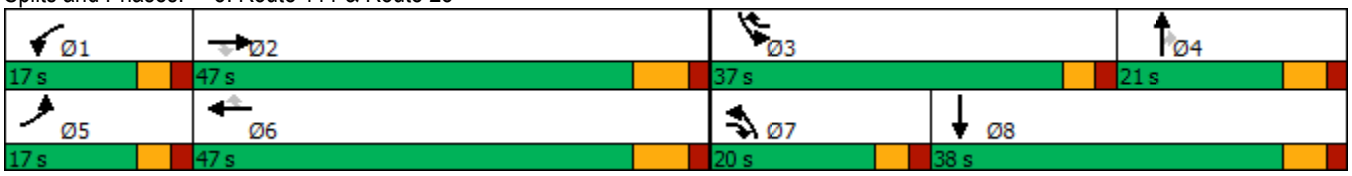
Intersection Summary

Area Type: Other
Cycle Length: 122
Actuated Cycle Length: 122
Natural Cycle: 120
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.05
Intersection Signal Delay: 62.2 Intersection LOS: E
Intersection Capacity Utilization 92.2% ICU Level of Service F
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Route 111 & Route 25



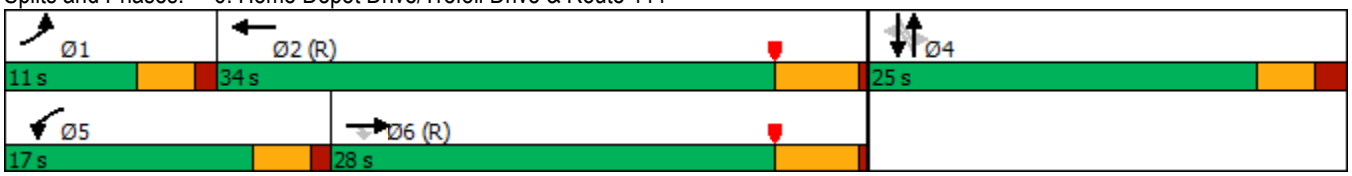
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	128	1056	77	77	1128	83	92	31	71	73	26	158
Future Volume (vph)	128	1056	77	77	1128	83	92	31	71	73	26	158
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	230		230	200		0	90		0	100		0
Storage Lanes	1		1	1		0	1		0	1		0
Taper Length (ft)	115			120			90			96		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.990			0.896			0.871	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3504	0	1770	1669	0	1770	1622	0
Flt Permitted	0.950			0.950			0.510			0.685		
Satd. Flow (perm)	1770	3539	1583	1770	3504	0	950	1669	0	1276	1622	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			156		13			77			172	
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		1532			302			288			263	
Travel Time (s)		26.1			5.1			7.9			7.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	139	1148	84	84	1226	90	100	34	77	79	28	172
Shared Lane Traffic (%)												
Lane Group Flow (vph)	139	1148	84	84	1316	0	100	111	0	79	200	0
Turn Type	Prot	NA	Perm	Prot	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			4	
Permitted Phases			6				4			4		
Detector Phase	1	6	6	5	2		4	4		4	4	
Switch Phase												
Minimum Initial (s)	5.0	15.0	15.0	5.0	15.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	9.1	19.9	19.9	9.1	19.9		11.8	11.8		11.8	11.8	
Total Split (s)	11.0	28.0	28.0	17.0	34.0		25.0	25.0		25.0	25.0	
Total Split (%)	15.7%	40.0%	40.0%	24.3%	48.6%		35.7%	35.7%		35.7%	35.7%	
Maximum Green (s)	6.9	23.1	23.1	12.9	29.1		20.2	20.2		20.2	20.2	
Yellow Time (s)	3.0	4.4	4.4	3.0	4.4		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.1	0.5	0.5	1.1	0.5		1.8	1.8		1.8	1.8	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.1	4.9	4.9	4.1	4.9		4.8	4.8		4.8	4.8	
Lead/Lag	Lead	Lag	Lag	Lead	Lag							
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	None		None	None	
Act Effct Green (s)	10.0	37.0	37.0	8.7	33.7		12.4	12.4		12.4	12.4	
Actuated g/C Ratio	0.14	0.53	0.53	0.12	0.48		0.18	0.18		0.18	0.18	
v/c Ratio	0.55	0.61	0.09	0.38	0.78		0.60	0.31		0.35	0.47	
Control Delay	38.4	16.7	0.6	32.4	20.7		39.7	11.5		27.7	9.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	38.4	16.7	0.6	32.4	20.7		39.7	11.5		27.7	9.4	
LOS	D	B	A	C	C		D	B		C	A	
Approach Delay		17.9			21.4			24.9			14.6	
Approach LOS		B			C			C			B	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	55	175	0	34	240		41	13		31	10	
Queue Length 95th (ft)	#135	#363	5	69	#404		77	46		60	55	
Internal Link Dist (ft)		1452			222			208			183	
Turn Bay Length (ft)	230		230	200			90			100		
Base Capacity (vph)	253	1868	909	326	1695		274	536		368	590	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.55	0.61	0.09	0.26	0.78		0.36	0.21		0.21	0.34	

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.78
Intersection Signal Delay: 19.6 Intersection LOS: B
Intersection Capacity Utilization 73.4% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: Home Depot Drive/Trefoil Drive & Route 111



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	101	51	56	102	0	56	0	82	0	0	0
Future Volume (vph)	5	101	51	56	102	0	56	0	82	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.956						0.920				
Flt Protected		0.999			0.983			0.980				
Satd. Flow (prot)	0	1779	0	0	1831	0	0	1679	0	0	1863	0
Flt Permitted		0.999			0.983			0.980				
Satd. Flow (perm)	0	1779	0	0	1831	0	0	1679	0	0	1863	0
Link Speed (mph)		25			25			25			30	
Link Distance (ft)		1315			533			365			175	
Travel Time (s)		35.9			14.5			10.0			4.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	110	55	61	111	0	61	0	89	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	170	0	0	172	0	0	150	0	0	0	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 35.3%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	101	51	56	102	0	56	0	82	0	0	0
Future Vol, veh/h	5	101	51	56	102	0	56	0	82	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	110	55	61	111	0	61	0	89	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	111	0	0	165	0	0	381	381	138	425	408	111
Stage 1	-	-	-	-	-	-	148	148	-	233	233	-
Stage 2	-	-	-	-	-	-	233	233	-	192	175	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1479	-	-	1413	-	-	577	552	910	540	533	942
Stage 1	-	-	-	-	-	-	855	775	-	770	712	-
Stage 2	-	-	-	-	-	-	770	712	-	810	754	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1479	-	-	1413	-	-	555	524	910	469	506	942
Mov Cap-2 Maneuver	-	-	-	-	-	-	555	524	-	469	506	-
Stage 1	-	-	-	-	-	-	852	772	-	767	679	-
Stage 2	-	-	-	-	-	-	735	679	-	728	751	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	2.7	11.3	0
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	722	1479	-	-	1413	-	-	-
HCM Lane V/C Ratio	0.208	0.004	-	-	0.043	-	-	-
HCM Control Delay (s)	11.3	7.4	0	-	7.7	0	-	0
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.8	0	-	-	0.1	-	-	-

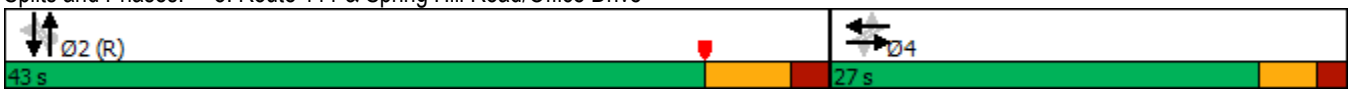
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	65	0	22	0	0	0	27	1187	0	0	818	61
Future Volume (vph)	65	0	22	0	0	0	27	1187	0	0	818	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.966									0.990	
Flt Protected		0.964						0.999				
Satd. Flow (prot)	0	1735	0	0	1863	0	0	3536	0	0	3504	0
Flt Permitted		0.780						0.918				
Satd. Flow (perm)	0	1404	0	0	1863	0	0	3249	0	0	3504	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		55									16	
Link Speed (mph)		25			30			40			40	
Link Distance (ft)		238			96			211			211	
Travel Time (s)		6.5			2.2			3.6			3.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	71	0	24	0	0	0	29	1290	0	0	889	66
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	95	0	0	0	0	0	1319	0	0	955	0
Turn Type	Perm	NA					Perm	NA			NA	
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Detector Phase	4	4		4	4		2	2		2	2	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		15.0	15.0		15.0	15.0	
Minimum Split (s)	25.0	25.0		25.0	25.0		29.0	29.0		29.0	29.0	
Total Split (s)	27.0	27.0		27.0	27.0		43.0	43.0		43.0	43.0	
Total Split (%)	38.6%	38.6%		38.6%	38.6%		61.4%	61.4%		61.4%	61.4%	
Maximum Green (s)	22.3	22.3		22.3	22.3		36.5	36.5		36.5	36.5	
Yellow Time (s)	3.0	3.0		3.0	3.0		4.4	4.4		4.4	4.4	
All-Red Time (s)	1.7	1.7		1.7	1.7		2.1	2.1		2.1	2.1	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.7			4.7			6.5			6.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	
Act Effct Green (s)		8.1						54.4			54.4	
Actuated g/C Ratio		0.12						0.78			0.78	
v/c Ratio		0.45						0.52			0.35	
Control Delay		21.7						5.1			3.8	
Queue Delay		0.0						0.0			0.0	
Total Delay		21.7						5.1			3.8	
LOS		C						A			A	
Approach Delay		21.7						5.1			3.8	
Approach LOS		C						A			A	
Queue Length 50th (ft)		16						98			57	
Queue Length 95th (ft)		55						181			104	
Internal Link Dist (ft)		158			16			131			131	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)												
Base Capacity (vph)		484						2523			2724	
Starvation Cap Reductn		0						0			0	
Spillback Cap Reductn		0						0			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.20						0.52			0.35	

Intersection Summary

Area Type:	Other
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 14 (20%), Referenced to phase 2:NBSB, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.52	
Intersection Signal Delay: 5.3	Intersection LOS: A
Intersection Capacity Utilization 67.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 8: Route 111 & Spring Hill Road/Office Drive



Lane Group	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Volume (vph)	60	142	158	25	0	0
Future Volume (vph)	60	142	158	25	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.982			
Flt Protected		0.985				
Satd. Flow (prot)	0	1835	1829	0	1863	0
Flt Permitted		0.985				
Satd. Flow (perm)	0	1835	1829	0	1863	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		534	1315		163	
Travel Time (s)		12.1	29.9		3.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	65	154	172	27	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	219	199	0	0	0
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 27.3%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	1.2

Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Vol, veh/h	60	142	158	25	0	0
Future Vol, veh/h	60	142	158	25	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	65	154	172	27	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	199	0	-	0	470	186
Stage 1	-	-	-	-	186	-
Stage 2	-	-	-	-	284	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1373	-	-	-	552	856
Stage 1	-	-	-	-	846	-
Stage 2	-	-	-	-	764	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1373	-	-	-	523	856
Mov Cap-2 Maneuver	-	-	-	-	523	-
Stage 1	-	-	-	-	802	-
Stage 2	-	-	-	-	764	-

Approach	NB	SB	SE
HCM Control Delay, s	2.3	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBL	NBT	SELn1	SBT	SBR
Capacity (veh/h)	1373	-	-	-	-
HCM Lane V/C Ratio	0.047	-	-	-	-
HCM Control Delay (s)	7.8	0	0	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	23	5	1063	0	0	1255
Future Volume (vph)	23	5	1063	0	0	1255
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.977					
Flt Protected	0.960					
Satd. Flow (prot)	1747	0	1863	0	0	1863
Flt Permitted	0.960					
Satd. Flow (perm)	1747	0	1863	0	0	1863
Link Speed (mph)	30		40			40
Link Distance (ft)	186		260			1826
Travel Time (s)	4.2		4.4			31.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	25	5	1155	0	0	1364
Shared Lane Traffic (%)						
Lane Group Flow (vph)	30	0	1155	0	0	1364
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 76.1%		ICU Level of Service D	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	3.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	23	5	1063	0	0	1255
Future Vol, veh/h	23	5	1063	0	0	1255
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	25	5	1155	0	0	1364

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2519	1155	0	0	1155	0
Stage 1	1155	-	-	-	-	-
Stage 2	1364	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	31	240	-	-	605	-
Stage 1	300	-	-	-	-	-
Stage 2	238	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	31	240	-	-	605	-
Mov Cap-2 Maneuver	31	-	-	-	-	-
Stage 1	300	-	-	-	-	-
Stage 2	238	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	256.3	0	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	37	605	-
HCM Lane V/C Ratio	-	-	0.823	-	-
HCM Control Delay (s)	-	-	256.3	0	-
HCM Lane LOS	-	-	F	A	-
HCM 95th %tile Q(veh)	-	-	3	0	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	2	1061	0	0	1278
Future Volume (vph)	0	2	1061	0	0	1278
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865				
Flt Protected						
Satd. Flow (prot)	0	1611	1863	0	0	1863
Flt Permitted						
Satd. Flow (perm)	0	1611	1863	0	0	1863
Link Speed (mph)	30		40			40
Link Distance (ft)	188		221			260
Travel Time (s)	4.3		3.8			4.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	2	1153	0	0	1389
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	2	1153	0	0	1389
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 70.6%		ICU Level of Service C	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	2	1061	0	0	1278
Future Vol, veh/h	0	2	1061	0	0	1278
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	2	1153	0	0	1389

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	1153	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	240	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	240	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20.1	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	240	-
HCM Lane V/C Ratio	-	-	0.009	-
HCM Control Delay (s)	-	-	20.1	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	0	-