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DATE: 5/26/2023 FEE: \$	705.50	CK #:	APP	#: 23-	24
PROPERTY ADDRESS: 1263 Hopmes	adow Street				
NAME OF OWNER: Prospect Enterp	rises, LLC				
MAILING ADDRESS: 231 Farmingtor	n Avenue, Farming	ton, CT 06032			
EMAIL ADDRESS: g.nanni@thepros	pectco.com	TEI	LEPHONE # 86	0-249-2242 (ex	t 102)
NAME OF AGENT: Paul Vitaliano (V	HB)				
MAILING ADDRESS: 100 Great Mea	dow Road, Suite 2	00			
EMAIL ADDRESS: pvitaliano@vhb.c			LEPHONE # 86	0-807-4379	
ZONING DISTRICT: B2		LOT A	AREA: 4.5	SQ FT/A	CRES
Does this site have wetlands? TYES		e you applied for a v			]NO
w.					
REQUESTED ACTION (PLEASE CHECK	APPROPRIATE BOX):				
TEXT AMENDMENT: Please attact  SPECIAL EXCEPTION: The apple  SITE PLAN APPROVAL: The app  ■PRELIMINARY  SIGN PERMIT  OTHER (PLEASE EXPLAIN):	icant hereby requests a pub olicant hereby requests	olic hearing pursuant to	DMENT pursua	nt to Section 11	
NOTE: Each application must fully comply	· <del>-</del>		-		
Commission. Each application for zone chability about the commission. Each application for zone chapter to the commission of the commission.			e a ust of names	s ana aaaresses	<u>01</u>
A check payable to the Town of Simsbury (folded) sets of plans, one (1) paper copy be included. If you have a PDF of your pla	must accompany this or	riginal signed and d	ication and cor	respondence mu	ıst also
Signature of Owner Date	Sig	nature of Agent	FINE	Date	
Telephore (860) 658-3245 Facsimile (860) 658-3206	www.simsbury	y-ctgv 05 <mark>-24-202<b>3A</b>^</mark>	y 204602023	983 Homer Simbury, C	

TOWN OF COSBURY PLANNING CORRECT



May 26, 2023

Ref: 42810.00

Mr. George McGregor Director of Community Planning & Development 933 Hopmeadow Street Simsbury, CT 06070

Re: Proposed Commercial Development – 1263 Hopmeadow Street, Simsbury, CT

Mr. McGregor,

VHB, on behalf of our client, Prospect Enterprises LLC, is submitting the following documents to support an application to the Simsbury Zoning Commission for the proposed commercial development located at 1263 Hopmeadow Street. VHB is requesting to be placed on the agenda for the public hearing scheduled for June 21, 2023. Plans have been submitted to the Design Review Board concurrently for review on the scheduled June 5<sup>th</sup> meeting.

The proposed project consists of the construction of an approximately 2,400 sf restaurant with drive thru, a 2,325 sf restaurant with drive thru, an 11,600sf retail building, and drive up ATM, along with all associated utilities, drive aisles, parking areas, stormwater management facilities and landscaping to support this use.

The project as proposed will require Special Exception approval per section 4.5 of the Town Zoning Regulations. The plans and reports support the proposed development's conformance with the Special Exception as outlined below:

- 1. Orderly Development The development is proposed within the Business zone among various commercial properties including Dunkin' (south abutter) and Big Y supermarket (north abutter). Floor plans and elevations of the proposed buildings are included in the planset which have been submitted for review to the Design Review Board.
- 2. Property Values The proposed commercial development use is in the Business zone and proposed to redevelop a former car dealership now comprised of vacant buildings and deteriorating parking areas. The new development as designed will therefore enhance the surrounding neighborhood. The site planset is included as part of the submission.
- 3. Public Safety- The site is accessible by two entrance points, utilizing the existing traffic signal at the Big Y entrance, and adequate access is provided around each building for emergency personnel.
- 4. Traffic Considerations Sufficient off-street parking is provided (115 parking spaces vs 96 required parking spaces), drive through queue areas are contained within each pad site area and driveways have been designed as to not create any hazards or congestion to the adjoining roadways. Detailed information can be found in the submitted traffic impact assessment.



- 5. Landscaping and Buffers Proposed landscaping shown on the Planting Plan (sheet L-1) within the planset includes a mix of deciduous trees, flowering trees, shrubs, ornamental grasses, and perennials throughout the site and has been designed using the Simsbury Design Guidelines.
- 6. Relationship to Utility Systems, Drainage Systems and Impact on Community Facilities The drainage system has been designed to reduce peak flows and pipes have been sized to the 25-year storm event as required by Town Code. Conversations with the utility companies, including local WPCA, are on-going and will continue through the design and construction phases.

Enclosed to support this submission are the following:

- 1. Application to the Town of Simsbury Zoning Commission dated May 26, 2023.
- 2. Fee for \$705.50 made payable to The Town of Simsbury.
- 3. Three (3) 24"x36" copies of the Planset titled "Proposed Commercial Development" dated May 26, 2023.
- 4. Three (3) copies of the Stormwater Report titled "Proposed Commercial Development" dated May 2023.
- 5. Three (3) copies of the Traffic Impact Assessment dated May 2023.
- 6. Three (3) copies of an Exterior Design Package prepared by BKA Architects dated May 25, 2023

Please let me know if you have any questions or require additional information.

Sincerely,

Paul Vitaliano, P.E.

CT Director of Land Development

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# Site Plans

Issued for Local Approvals

Date Issued May 26, 2023

Latest Issue May 26, 2023

# Proposed Commercial Development

1263 Hopmeadow Street Simsbury, Connecticut

# **Owner/Applicant**

Prospect Enterprises, LLC 231 Farmington Avenue Farmington, CT 06032

Zone: General Business (B2)
Assessor's Map: 105
Block: 403
Lots: 017, 017R, 018, 020-1



She	et Index		Reference	Drawings	
No.	Drawing Title	Latest Issue	No. Drav	ving Title	Latest Issue
C-1	Legend & General Notes	May 26, 2023	TT-1	Truck Movement Plan	May 26, 2023
C-2	Layout and Materials Plan	May 26, 2023	SD-1	Intersection Sight Distance Plan	May 26, 2023
C-3	Grading and Drainage Plan	May 26, 2023	Sv-1	Property Survey and Topographic Survey	April 20, 2022
C-4	Utility Plan	May 26, 2023	SL-IA	Site Lighting Photometric Calculation	April 19, 2023
C-5	Erosion and Sediment Control Plan	May 26, 2023	A-9	Retail Building-Exterior Elevations	May 25, 2023
C-6	Site Details	May 26, 2023	A-12	Starbucks Exterior Elevations	May 25, 2023
C-7	Site Details	May 26, 2023	A-15	Chipotle Elevations	May 25, 2023
C-8	Site Details	May 26, 2023	HWY-0815_01	Bituminous Concrete Curbing	September 27, 2022
C-9	Site Details	May 26, 2023	HWY-0921_01	Concrete Sidewalk	September 27, 2022
C-10	Site Details	May 26, 2023	TR_1210_04	Pavement Markings, Lines & Symbols	August 17, 2018
C-11	Site Details	May 26, 2023	TR_1210_08	Pavement Markings for Non Freeways	August 17, 2018
C-12	Site Details	May 26, 2023		-	-
L-1	Planting Plan	May 26, 2023			
_		*			

May 26, 2023

L-2 Planting Details



VHB, Inc. 100 Great Meadow Rd Suite 200 Wethersfield, CT 06109 860-807-4300

**Land Surveyor** 

# Architect

BKA Architects 142 Crescent St Brockton, MA 02302 508-583-5603

# **Lighting Consultant**

Wethersfield, CT 06109

860.807.4300

Apex Lighting Solutions 20 Beaver Rd Wethersfield, CT 06109 860-632-8766



Exist.	Prop.		Exist.	Prop.	
		PROPERTY LINE		The state of the s	CONCRETE
		PROJECT LIMIT LINE			HEAVY DUTY PAVEMENT
		RIGHT-OF-WAY/PROPERTY LINE			BUILDINGS
		EASEMENT			RIPRAP
		BUILDING SETBACK	DSULVOSU		CONSTRUCTION EXIT
		PARKING SETBACK			
10+00	10+00	BASELINE	27.35 TC×	27.35 TC×	TOP OF CURB ELEVATION
		CONSTRUCTION LAYOUT	26.85 BC×	26.85 BC×	BOTTOM OF CURB ELEVATION
		ZONING LINE	132.75 ×	132.75 ×	SPOT ELEVATION
		TOWN LINE	45.0 TW × 38.5 FG	45.0 TW 38.5 FG	TOP OF WALL ELEVATION & FINISH GRADI
			-	•	BORING LOCATION
		LIMIT OF DISTURBANCE		E AAAA	TEST PIT LOCATION
		WETLAND LINE WITH FLAG	<b>○</b> MW	→ MW	MONITORING WELL
		FLOODPLAIN	UD	——UD ——	UNDERDRAIN
BLSF		BORDERING LAND SUBJECT TO FLOODING	12"D	12"D»	DRAIN
BZ		WETLAND BUFFER ZONE	6"RD	6"RD»	ROOF DRAIN
NDZ			12"S	12 <b>"</b> S	SEWER
		NO DISTURB ZONE	FM	FM	
200'RA		200' RIVERFRONT AREA	OHW	OHW	FORCE MAIN
		GRAVEL ROAD			OVERHEAD WIRE
EOP	EOP	EDGE OF PAVEMENT	6"W	6"W	WATER
BB	BB	BITUMINOUS BERM	4"FP	4"FP	FIRE PROTECTION
BC	ВС		_10 _	2"DW	DOMESTIC WATER
CC	CC	BITUMINOUS CURB	3"G	———G——	GAS
	CG	CONCRETE CURB	——Е——	——Е——	ELECTRIC
		CURB AND GUTTER	STM	——STM——	STEAM
CC	ECC	EXTRUDED CONCRETE CURB	——Т——	——т—	TELEPHONE
CC	MCC	MONOLITHIC CONCRETE CURB	———FA———	——FA——	FIRE ALARM
CC	PCC	PRECAST CONC. CURB	—— CATV——	—— CATV——	CABLE TV
SGE	SGE	SLOPED GRAN. EDGING			CATCH BASIN CONCENTRIC
VGC	VGC	VERT. GRAN. CURB			CATCH BASIN ECCENTRIC
		LIMIT OF CURB TYPE			DOUBLE CATCH BASIN CONCENTRIC
		SAWCUT	_		DOUBLE CATCH BASIN ECCENTRIC
K				<b>=</b>	GUTTER INLET
1111111		BUILDING	©	•	DRAIN MANHOLE CONCENTRIC
](	<b>]</b> ⊲EN	BUILDING ENTRANCE	(D)	•	
	] LD	LOADING DOCK	=TD=	J	DRAIN MANHOLE ECCENTRIC
0	•	BOLLARD	— ID—		TRENCH DRAIN
D	D	DUMPSTER PAD	CO	co	PLUG OR CAP
-	•	SIGN			CLEANOUT
	<b>=</b>	DOUBLE SIGN			FLARED END SECTION
					HEADWALL
		STEEL GUARDRAIL	(\$)	lacktriangle	SEWER MANHOLE CONCENTRIC
		WOOD GUARDRAIL	(S)	lacksquare	SEWER MANHOLE ECCENTRIC
		DATU	CS	CS ●	CURB STOP & BOX
		PATH	WV	WV ●	
W Y )	~~~~	TREE LINE	TSV	TSV	WATER VALVE & BOX TAPPING SLEEVE, VALVE & BOX
<u> </u>	<del>-x                                    </del>	WIRE FENCE	<b>→</b>	<b>→</b>	FIRE DEPARTMENT CONNECTION
	_	FENCE STOCKARE FENCE	HYD	HYD <b>⊚</b>	FIRE HYDRANT
		STOCKADE FENCE	WM	WM ⊡	WATER METER
000000		STONE WALL	PIV	PIV ●	
		RETAINING WALL	<b>(</b> ()	<b>®</b>	POST INDICATOR VALVE
		STREAM / POND / WATER COURSE			WATER WELL
		DETENTION BASIN	GG O	GG O	GAS GATE
0 10 0 0 0 0 0 0 0 0		HAY BALES	GM ▼	GM ⊡	GAS METER
——×——	——×——	SILT FENCE	Ē	<b>●</b> EMH	ELECTRIC MANHOLE
· <::::::> ·	· CIIIII ·	SILT SOCK / STRAW WATTLE	EM	EM	ELECTRIC METER
4	<del></del> 4 <del></del>	MINOR CONTOUR	<u></u>	*	LIGHT POLE
— — 20 — —	20	MAJOR CONTOUR		<b>→</b> TMH	
40	<u> </u>		_ ①	•	TELEPHONE MANHOLE
(10)	(10)	PARKING COUNT	T	T	TRANSFORMER PAD
Ph + 10	©10)	COMPACT PARKING STALLS	-0-	•	UTILITY POLE
DYL	DYL	DOUBLE YELLOW LINE	0-	•-	
SL	SL	STOP LINE	<u></u>	1	GUY POLE
		CROSSWALK	HH	HH	GUY WIRE & ANCHOR
/ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		ACCESSIBLE CURB RAMP	⊡ PB	⊡ PB	HAND HOLE
گل	کلیان گی	ACCESSIBLE PARKING	•	•	PULL BOX
£	فر	VAN-ACCESSIBLE PARKING			

VAN-ACCESSIBLE PARKING

# **Abbreviations**

Ab	brevia	tions
	General	
	ABAN	ABANDON
	ACR	ACCESSIBLE CURB RAMP
	ADJ	ADJUST
	APPROX	APPROXIMATE
	BIT	BITUMINOUS
	BS	BOTTOM OF SLOPE
	BWLL	BROKEN WHITE LANE LINE
	CONC	CONCRETE
	DYCL	DOUBLE YELLOW CENTER LINE
	EL	ELEVATION
	ELEV	ELEVATION
	EX	EXISTING
	FDN	FOUNDATION
	FFE	FIRST FLOOR ELEVATION
	GRAN	GRANITE
	GTD	GRADE TO DRAIN
	LA	LANDSCAPE AREA
	LOD	LIMIT OF DISTURBANCE
	MAX	MAXIMUM
	MIN	MINIMUM
	NIC	NOT IN CONTRACT
	NTS	NOT TO SCALE
	PERF	PERFORATED
	PROP	PROPOSED
	REM	REMOVE
	RET	RETAIN
	R&D	REMOVE AND DISPOSE
	R&R	REMOVE AND RESET
	SWEL	SOLID WHITE EDGE LINE
	SWLL	SOLID WHITE LANE LINE
	TS	TOP OF SLOPE
	TYP	TYPICAL
	Utility	
	СВ	CATCH BASIN
	CMP	CORRUGATED METAL PIPE
	CO	CLEANOUT
	DCB	DOUBLE CATCH BASIN
	DMH	DRAIN MANHOLE
	CIP	CAST IRON PIPE
	COND	CONDUIT
	DIP	DUCTILE IRON PIPE
	FES	FLARED END SECTION
	FM	FORCE MAIN
	F&G	FRAME AND GRATE
		FRAME AND COVER
	GI	GUTTER INLET
	GT	GREASE TRAP
	HDPE HH	HIGH DENSITY POLYETHYLENE PIPE
	нw	HANDHOLE HEADWALL
	HYD	HYDRANT
	INV	INVERT ELEVATION
	=	INVERT ELEVATION
	LP	LIGHT POLE
	MES	METAL END SECTION
	PIV	POST INDICATOR VALVE
	PWW	PAVED WATER WAY
	PVC	POLYVINYLCHLORIDE PIPE
	RCP	REINFORCED CONCRETE PIPE
	R=	RIM ELEVATION
	RIM=	RIM ELEVATION
	SMH	SEWER MANHOLE
	TSV	TAPPING SLEEVE, VALVE AND BOX
	UG	UNDERGROUND

UTILITY POLE

# Notes

### General

- 1. CONTRACTOR SHALL NOTIFY "DIG-SAFE" (1-800-922-4455) AT LEAST 72 HOURS BEFORE EXCAVATING.
- 2. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SECURITY AND JOB SAFETY. CONSTRUCTION ACTIVITIES SHALL BE IN ACCORDANCE WITH OSHA STANDARDS AND LOCAL REQUIREMENTS.
- 3. ACCESSIBLE ROUTES, PARKING SPACES, RAMPS, SIDEWALKS AND WALKWAYS SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE FEDERAL AMERICANS WITH DISABILITIES ACT AND WITH STATE AND LOCAL LAWS AND REGULATIONS (WHICHEVER ARE MORE STRINGENT).
- 4. AREAS DISTURBED DURING CONSTRUCTION AND NOT RESTORED WITH IMPERVIOUS SURFACES (BUILDINGS, PAVEMENTS, WALKS, ETC.) SHALL RECEIVE 6 INCHES LOAM AND SEED.
- 5. WITHIN THE LIMITS OF THE BUILDING FOOTPRINT, THE SITE CONTRACTOR SHALL PERFORM EARTHWORK OPERATIONS REQUIRED UP TO SUBGRADE ELEVATIONS.
- WORK WITHIN THE LOCAL RIGHTS-OF-WAY SHALL CONFORM TO LOCAL MUNICIPAL STANDARDS. WORK WITHIN STATE RIGHTS-OF-WAY SHALL CONFORM TO THE LATEST EDITION OF THE STATE
- HIGHWAY DEPARTMENTS STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES. 7. UPON AWARD OF CONTRACT, CONTRACTOR SHALL MAKE NECESSARY CONSTRUCTION NOTIFICATIONS AND APPLY FOR AND OBTAIN NECESSARY PERMITS, PAY FEES, AND POST BONDS ASSOCIATED WITH THE WORK INDICATED ON THE DRAWINGS, IN THE SPECIFICATIONS, AND IN THE CONTRACT

DOCUMENTS. DO NOT CLOSE OR OBSTRUCT ROADWAYS, SIDEWALKS, AND FIRE HYDRANTS, WITHOUT

- 8. TRAFFIC SIGNAGE AND PAVEMENT MARKINGS SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- 9. AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S
- 10. IN THE EVENT THAT SUSPECTED CONTAMINATED SOIL, GROUNDWATER, AND OTHER MEDIA ARE ENCOUNTERED DURING EXCAVATION AND CONSTRUCTION ACTIVITIES BASED ON VISUAL, OLFACTORY, OR OTHER EVIDENCE, THE CONTRACTOR SHALL STOP WORK IN THE VICINITY OF THE SUSPECT MATERIAL TO AVOID FURTHER SPREADING OF THE MATERIAL, AND SHALL NOTIFY THE OWNER IMMEDIATELY SO THAT THE APPROPRIATE TESTING AND SUBSEQUENT ACTION CAN BE TAKEN.
- 11. CONTRACTOR SHALL PREVENT DUST, SEDIMENT, AND DEBRIS FROM EXITING THE SITE AND SHALL BE RESPONSIBLE FOR CLEANUP, REPAIRS AND CORRECTIVE ACTION IF SUCH OCCURS.
- 12. DAMAGE RESULTING FROM CONSTRUCTION LOADS SHALL BE REPAIRED BY THE CONTRACTOR AT NO
- 13. CONTRACTOR SHALL CONTROL STORMWATER RUNOFF DURING CONSTRUCTION TO PREVENT ADVERSE IMPACTS TO OFF SITE AREAS, AND SHALL BE RESPONSIBLE TO REPAIR RESULTING DAMAGES, IF ANY, AT NO COST TO OWNER.
- 14. THIS PROJECT DOES NOT DISTURB MORE THAN FIVE ACRES OF LAND AND THEREFORE DOES NOT FALL WITHIN THE NPDES CONSTRUCTION GENERAL PERMIT (CGP) PROGRAM OR CTDEEP JURISDICTION. SOIL EROSION AND SEDIMENT CONTROL PLAN TO BE APPROVED LOCALLY.

- THE LOCATIONS, SIZES, AND TYPES OF EXISTING UTILITIES ARE SHOWN AS AN APPROXIMATE REPRESENTATION ONLY. THE OWNER OR ITS REPRESENTATIVE(S) HAVE NOT INDEPENDENTLY VERIFIED THIS INFORMATION AS SHOWN ON THE PLANS. THE UTILITY INFORMATION SHOWN DOES NOT GUARANTEE THE ACTUAL EXISTENCE, SERVICEABILITY, OR OTHER DATA CONCERNING THE UTILITIES, NOR DOES IT GUARANTEE AGAINST THE POSSIBILITY THAT ADDITIONAL UTILITIES MAY BE PRESENT THAT ARE NOT SHOWN ON THE PLANS. PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY AND DETERMINE THE EXACT LOCATIONS, SIZES, AND ELEVATIONS OF THE POINTS OF CONNECTIONS TO EXISTING UTILITIES AND, SHALL CONFIRM THAT THERE ARE NO INTERFERENCES WITH EXISTING UTILITIES AND THE PROPOSED UTILITY ROUTES, INCLUDING ROUTES WITHIN THE PUBLIC RIGHTS OF WAY.
- WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, OR EXISTING CONDITIONS DIFFER FROM THOSE SHOWN SUCH THAT THE WORK CANNOT BE COMPLETED AS NTENDED, THE LOCATION, ELEVATION, AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED IN WRITING TO THE OWNER'S REPRESENTATIVE FOR THE RESOLUTION OF THE CONFLICT AND CONTRACTOR'S FAILURE TO NOTIFY PRIOR TO PERFORMING ADDITIONAL WORK RELEASES OWNER FROM OBLIGATIONS FOR ADDITIONAL PAYMENTS WHICH OTHERWISE MAY BE WARRANTED TO RESOLVE THE CONFLICT.
- 3. SET CATCH BASIN RIMS, AND INVERTS OF SEWERS, DRAINS, AND DITCHES IN ACCORDANCE WITH ELEVATIONS ON THE GRADING AND UTILITY PLANS.
- 4. RIM ELEVATIONS FOR DRAIN AND SEWER MANHOLES, WATER VALVE COVERS, GAS GATES, ELECTRIC AND TELEPHONE PULL BOXES, AND MANHOLES, AND OTHER SUCH ITEMS, ARE APPROXIMATE AND SHALL BE SET/RESET AS FOLLOWS:
  - A. PAVEMENTS AND CONCRETE SURFACES: FLUSH
  - B. ALL SURFACES ALONG ACCESSIBLE ROUTES: FLUSH
  - C. LANDSCAPE, LOAM AND SEED, AND OTHER EARTH SURFACE AREAS: ONE INCH ABOVE SURROUNDING AREA AND TAPER EARTH TO THE RIM ELEVATION.

5. THE LOCATION, SIZE, DEPTH, AND SPECIFICATIONS FOR CONSTRUCTION OF PROPOSED PRIVATE UTILITY SERVICES SHALL BE INSTALLED ACCORDING TO THE REQUIREMENTS PROVIDED BY, AND APPROVED BY,

- THE RESPECTIVE UTILITY COMPANY (GAS, TELEPHONE, ELECTRIC, FIRE ALARM, ETC.). FINAL DESIGN LOADS AND LOCATIONS TO BE COORDINATED WITH OWNER AND ARCHITECT. 6. CONTRACTOR SHALL MAKE ARRANGEMENTS FOR AND SHALL BE RESPONSIBLE FOR PAYING FEES FOR POLE RELOCATION AND FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE, FIRE
- ALARM, AND ANY OTHER PRIVATE UTILITIES, WHETHER WORK IS PERFORMED BY CONTRACTOR OR BY THE UTILITIES COMPANY.
- 7. UTILITY PIPE MATERIALS SHALL BE AS FOLLOWS, UNLESS OTHERWISE NOTED ON THE PLAN:
  - B. SANITARY SEWER PIPES SHALL BE SDR-35 POLYVINYL CHLORIDE (PVC) SEWER PIPE

  - C. STORM DRAINAGE PIPES SHALL BE HIGH DENSITY POLYETHYLENE (HDPE) UNLESS STATED OTHERWISE ON THE PLANS. BUILDING ROOF DRAINS SHALL BE PVC AS REQUIRED BY THE BUILDING CODE.
  - D. PIPE INSTALLATION AND MATERIALS SHALL COMPLY WITH THE STATE PLUMBING CODE WHERE APPLICABLE. CONTRACTOR SHALL COORDINATE WITH LOCAL PLUMBING INSPECTOR PRIOR TO

A. WATER PIPES 2" DIAMETER AND SMALLER SHALL BE TYPE K COPPER, LARGER DIAMETER SHALL

- 8. CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR AND SHALL FURNISH EXCAVATION, INSTALLATION, AND BACKFILL OF ELECTRICAL FURNISHED SITEWORK RELATED ITEMS SUCH AS PULL BOXES, CONDUITS, DUCT BANKS, LIGHT POLE BASES, AND CONCRETE PADS. SITE CONTRACTOR SHALL FURNISH CONCRETE ENCASEMENT OF DUCT BANKS IF REQUIRED BY THE UTILITY COMPANY AND AS INDICATED ON THE DRAWINGS.
- 9. CONTRACTOR SHALL EXCAVATE AND BACKFILL TRENCHES FOR GAS IN ACCORDANCE WITH GAS COMPANY'S REQUIREMENTS.
- 10. ALL DRAINAGE AND SANITARY STRUCTURE INTERIOR DIAMETERS (4' MIN.) SHALL BE DETERMINED BY THE MANUFACTURER BASED ON THE PIPE CONFIGURATIONS SHOWN ON THESE PLANS AND LOCAL MUNICIPAL STANDARDS. FOR MANHOLES THAT ARE 20 FEET IN DEPTH AND GREATER, THE MINIMUM DIAMETER SHALL BE 5 FEET.

### Layout and Materials

- 1. DIMENSIONS ARE FROM THE FACE OF CURB, FACE OF BUILDING, FACE OF WALL, AND CENTER LINE OF PAVEMENT MARKINGS, UNLESS OTHERWISE NOTED.
- 2. CURB RADII ARE 3 FEET UNLESS OTHERWISE NOTED.
- 3. CURBING SHALL BE EXTRUDED CONCRETE CURB (ECC) WITHIN THE SITE UNLESS OTHERWISE INDICATED ON THE PLANS.
- 4. SEE ARCHITECTURAL DRAWINGS FOR EXACT BUILDING DIMENSIONS AND DETAILS CONTIGUOUS TO THE BUILDING, INCLUDING SIDEWALKS, RAMPS, BUILDING ENTRANCES, STAIRWAYS, UTILITY PENETRATIONS, CONCRETE DOOR PADS, COMPACTOR PAD, LOADING DOCKS, BOLLARDS, ETC.
- 5. PROPOSED BOUNDS AND ANY EXISTING PROPERTY LINE MONUMENTATION DISTURBED DURING CONSTRUCTION SHALL BE SET OR RESET BY A PROFESSIONAL LAND SURVEYOR.
- 6. PRIOR TO START OF CONSTRUCTION, CONTRACTOR SHALL VERIFY EXISTING PAVEMENT ELEVATIONS AT INTERFACE WITH PROPOSED PAVEMENTS, AND EXISTING GROUND ELEVATIONS ADJACENT TO DRAINAGE OUTLETS TO ASSURE PROPER TRANSITIONS BETWEEN EXISTING AND PROPOSED FACILITIES.

- CONTRACTOR SHALL REMOVE AND DISPOSE OF EXISTING MANMADE SURFACE FEATURES WITHIN THE LIMIT OF WORK INCLUDING BUILDINGS, STRUCTURES, PAVEMENTS, SLABS, CURBING, FENCES, UTILITY POLES, SIGNS, ETC. UNLESS INDICATED OTHERWISE ON THE DRAWINGS. REMOVE AND DISPOSE OF EXISTING UTILITIES, FOUNDATIONS AND UNSUITABLE MATERIAL BENEATH AND FOR A DISTANCE OF 10 FEET BEYOND THE PROPOSED BUILDING FOOTPRINT INCLUDING EXTERIOR COLUMNS.
- 2. EXISTING UTILITIES SHALL BE TERMINATED, UNLESS OTHERWISE NOTED, IN CONFORMANCE WITH LOCAL, STATE AND INDIVIDUAL UTILITY COMPANY STANDARD SPECIFICATIONS AND DETAILS. THE CONTRACTOR SHALL COORDINATE UTILITY SERVICE DISCONNECTS WITH THE UTILITY REPRESENTATIVES.
- 3. CONTRACTOR SHALL DISPOSE OF DEMOLITION DEBRIS IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, ORDINANCES AND STATUTES.
- 4 THE DEMOLITION LIMITS DEPICTED IN THE PLANS IS INTENDED TO AID THE CONTRACTOR DURING THE BIDDING AND CONSTRUCTION PROCESS AND IS NOT INTENDED TO DEPICT EACH AND EVERY ELEMENT OF DEMOLITION. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING THE DETAILED SCOPE OF DEMOLITION BEFORE SUBMITTING ITS BID/PROPOSAL TO PERFORM THE WORK AND SHALL MAKE NO CLAIMS AND SEEK NO ADDITIONAL COMPENSATION FOR CHANGED CONDITIONS OR UNFORESEEN OR LATENT SITE CONDITIONS RELATED TO ANY CONDITIONS DISCOVERED DURING EXECUTION OF THE
- UNLESS OTHERWISE SPECIFICALLY PROVIDED ON THE PLANS OR IN THE SPECIFICATIONS, THE ENGINEER HAS NOT PREPARED DESIGNS FOR AND SHALL HAVE NO RESPONSIBILITY FOR THE PRESENCE, DISCOVERY, REMOVAL, ABATEMENT OR DISPOSAL OF HAZARDOUS MATERIALS, TOXIC WASTES OR POLLUTANTS AT THE PROJECT SITE. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR ANY CLAIMS OF LOSS, DAMAGE, EXPENSE, DELAY, INJURY OR DEATH ARISING FROM THE PRESENCE OF HAZARDOUS MATERIAL AND CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE ENGINEER FROM ANY CLAIMS MADE IN CONNECTION THEREWITH. MOREOVER, THE ENGINEER SHALL HAVE NO ADMINISTRATIVE OBLIGATIONS OF ANY TYPE WITH REGARD TO ANY CONTRACTOR AMENDMENT INVOLVING THE ISSUES OF PRESENCE, DISCOVERY, REMOVAL, ABATEMENT OR DISPOSAL OF ASBESTOS OR OTHER HAZARDOUS MATERIALS.

### Erosion Control

- PRIOR TO STARTING ANY OTHER WORK ON THE SITE, THE CONTRACTOR SHALL NOTIFY APPROPRIATE AGENCIES AND SHALL INSTALL EROSION CONTROL MEASURES AS SHOWN ON THE PLANS AND AS IDENTIFIED IN FEDERAL, STATE, AND LOCAL APPROVAL DOCUMENTS PERTAINING TO THIS PROJECT.
- CONTRACTOR SHALL INSPECT AND MAINTAIN EROSION CONTROL MEASURES ON A WEEKLY BASIS (MINIMUM) OR AS REQUIRED PER THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP). THE CONTRACTOR SHALL ADDRESS DEFICIENCIES AND MAINTENANCE ITEMS WITHIN TWENTY-FOUR HOURS OF INSPECTION. CONTRACTOR SHALL PROPERLY DISPOSE OF SEDIMENT SUCH THAT IT DOES NOT ENCUMBER OTHER DRAINAGE STRUCTURES AND PROTECTED AREAS.
- CONTRACTOR SHALL BE FULLY RESPONSIBLE TO CONTROL CONSTRUCTION SUCH THAT SEDIMENTATION SHALL NOT AFFECT REGULATORY PROTECTED AREAS, WHETHER SUCH
- 4. CONTRACTOR SHALL PERFORM CONSTRUCTION SEQUENCING SUCH THAT EARTH MATERIALS ARE EXPOSED FOR A MINIMUM OF TIME BEFORE THEY ARE COVERED, SEEDED, OR OTHERWISE STABILIZED TO PREVENT EROSION.
- 5. UPON COMPLETION OF CONSTRUCTION AND ESTABLISHMENT OF PERMANENT GROUND COVER. CONTRACTOR SHALL REMOVE AND DISPOSE OF EROSION CONTROL MEASURES AND CLEAN SEDIMENT AND DEBRIS FROM ENTIRE DRAINAGE AND SEWER SYSTEMS.

# **Existing Conditions Information**

1. EXISTING CONDITIONS BASE PLAN SHOWN IS FROM PLAN TITLED "PROPERTY SURVEY & TOPOGRAPHIC SURVEY" SHEET Sv-1 DATED APRIL 20, 2022 BY VHB.

# Document Use

- THESE PLANS AND CORRESPONDING CADD DOCUMENTS ARE INSTRUMENTS OF PROFESSIONAL SERVICE, AND SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE OTHER THAN FOR WHICH IT WAS CREATED WITHOUT THE EXPRESSED, WRITTEN CONSENT OF VHB. ANY UNAUTHORIZED USE REUSE MODIFICATION OR ALTERATION, INCLUDING AUTOMATED CONVERSION OF THIS DOCUMENT SHALL BE AT THE USER'S SOLE RISK WITHOUT LIABILITY OR LEGAL EXPOSURE TO VHB.
- CONTRACTOR SHALL NOT RELY SOLELY ON ELECTRONIC VERSIONS OF PLANS, SPECIFICATIONS, AND DATA FILES THAT ARE OBTAINED FROM THE DESIGNERS, BUT SHALL VERIFY LOCATION OF PROJECT FEATURES IN ACCORDANCE WITH THE PAPER COPIES OF THE PLANS AND SPECIFICATIONS THAT ARE SUPPLIED AS PART OF THE CONTRACT DOCUMENTS.
- 3. SYMBOLS AND LEGENDS OF PROJECT FEATURES ARE GRAPHIC REPRESENTATIONS AND ARE NOT NECESSARILY SCALED TO THEIR ACTUAL DIMENSIONS OR LOCATIONS ON THE DRAWINGS. THE CONTRACTOR SHALL REFER TO THE DETAIL SHEET DIMENSIONS, MANUFACTURERS' LITERATURE, SHOP DRAWINGS AND FIELD MEASUREMENTS OF SUPPLIED PRODUCTS FOR LAYOUT OF THE PROJECT



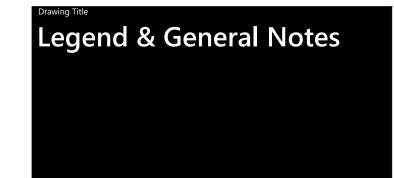
100 Great Meadow Road Suite 200 Wethersfield, CT 06109 860.807.4300

# **Proposed Commercial** Development

1263 Hopmeadow Street Simsbury, Connecticut

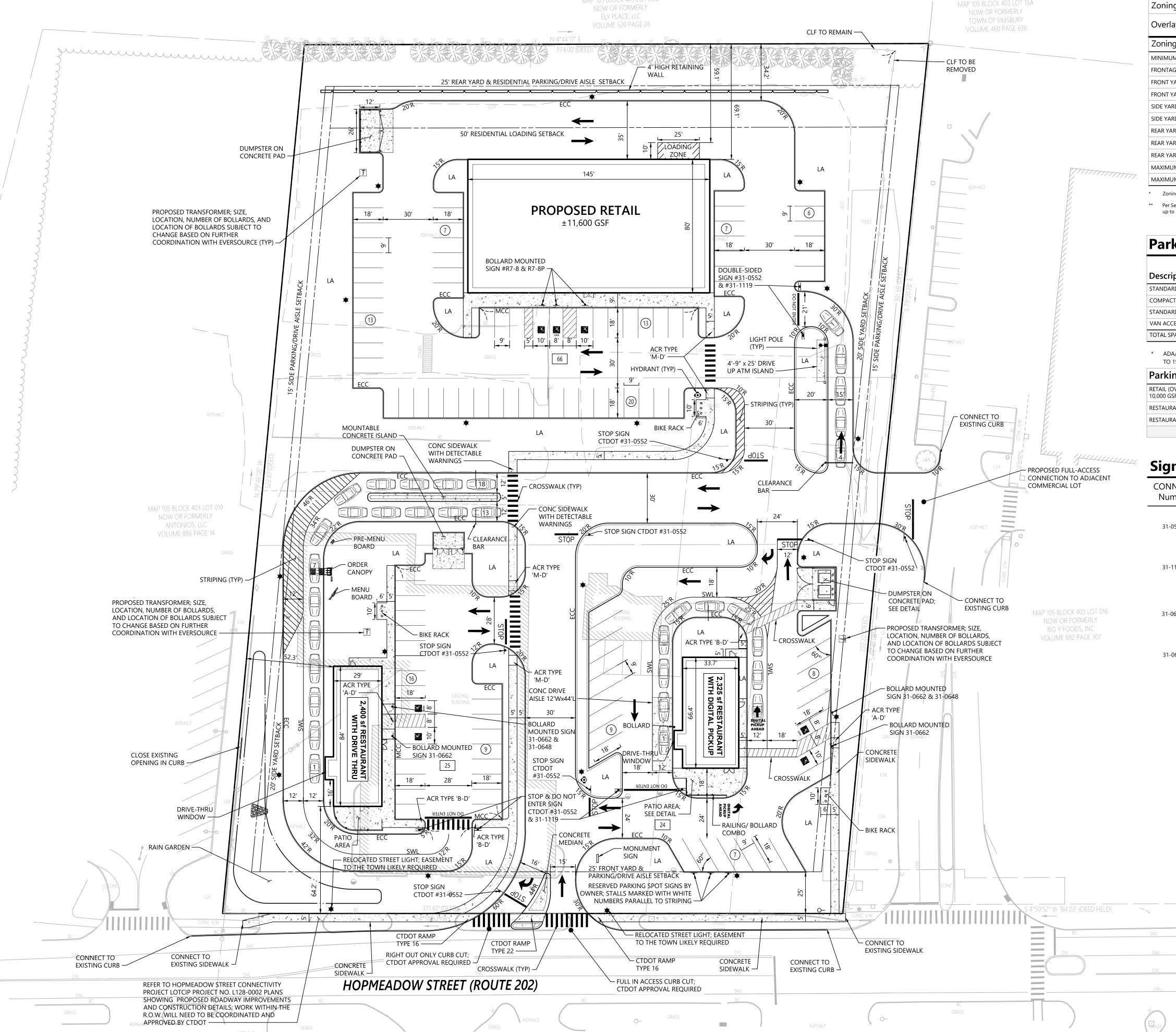
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Issued for	Date
Designed by	Checked by





42810.00



# **Zoning Summary Chart**

Zoning District(S):	B2 - General Busin	ness
Overlay District(S):	Level A - Aquifer F	Projection Zone
Zoning Regulation Requirements	Required*	Provided
MINIMUM LOT AREA	NONE	±4.45 AC
FRONTAGE	NONE	371.7 Feet
FRONT YARD BUILDING SETBACK	25 Feet	64.2 Feet
FRONT YARD PARKING SETBACK	25 Feet	25 Feet
SIDE YARD BUILDING SETBACK	20 Feet	52.3 Feet
SIDE YARD PARKING SETBACK	15 Feet	15 Feet
REAR YARD BUILDING SETBACK	25 Feet	69.1 Feet
REAR YARD PARKING SETBACK	25 Feet	34.2 Feet
REAR YARD RESIDENTIAL LOADING SETBACK	50 Feet	59.1 Feet
MAXIMUM BUILDING HEIGHT	40 Feet	<40 Feet
MAXIMUM IMPERVIOUS	40.0%/60.0% **	59.7 %

- \* Zoning regulation requirements as specified in Simsbury Zoning Regulations dated 03/01/2022
- \*\* Per Section 4.4.B; The Zoning Commission may, after notice and public hearing, grant a special exception to allow up to 50 pecent increase to the maximum coverage allowed in any zone.

# **Parking Summary Chart**

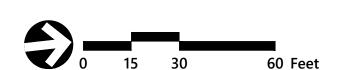
	Size (FT)		Spaces	
Description	Required	Provided	Required	Provided
STANDARD SPACES	9 x 18	9 x 18	92	108
COMPACT SPACES (50% ALLOWED W/ SE)	8 x 16	8 x 16	N/A	N/A
STANDARD ACCESSIBLE SPACES *	15 x 18	15 x 18	3	4
VAN ACCESSIBLE SPACES	16 x 18	16 x 18	1	3
TOTAL SPACES			96	115

\* ADA/STATE/LOCAL REGULATIONS REQUIRE 5 ACCESSIBLE PARKING SPACES FOR LOTS BETWEEN 101 TO 150 PARKING SPACES - 1 OF WHICH BEING VAN ACCESSIBLE

Parking Re	quireme	nt	s:				
RETAIL (OVER 10,000 GSF)	11,600 SF	х	2.75	/	500	=	64 SPACES
RESTAURANT 1	2,400 SF	х	3.3	/	500	=	16 SPACES
RESTAURANT 2	2,325 SF	х	3.3	/	500	=	16 SPACES
			TOTAL PARK	ING I	REQUIRED	=	96 SPACES

# Sign Summary

Sign Su	IIIIIIa	пу	
CONNDOT	Specif	ication	Doss
Number	Width	Height	Desc.
31-0552	30"	30"	STOP
31-1119	30"	30"	DO NOT ENTER
31-0662	12"	24"	ETECTIONS FARMING FEATURES FROMES FROMES
31-0648	12"	6"	VAN ACCESSIBLE



100 Great Meadow Road

Wethersfield, CT 06109

Suite 200

860.807.4300

# Proposed Commercial Development

1263 Hopmeadow Street Simsbury, Connecticut

).	Revision	Date	Appvd.

Date
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Layout and
Materials Plan



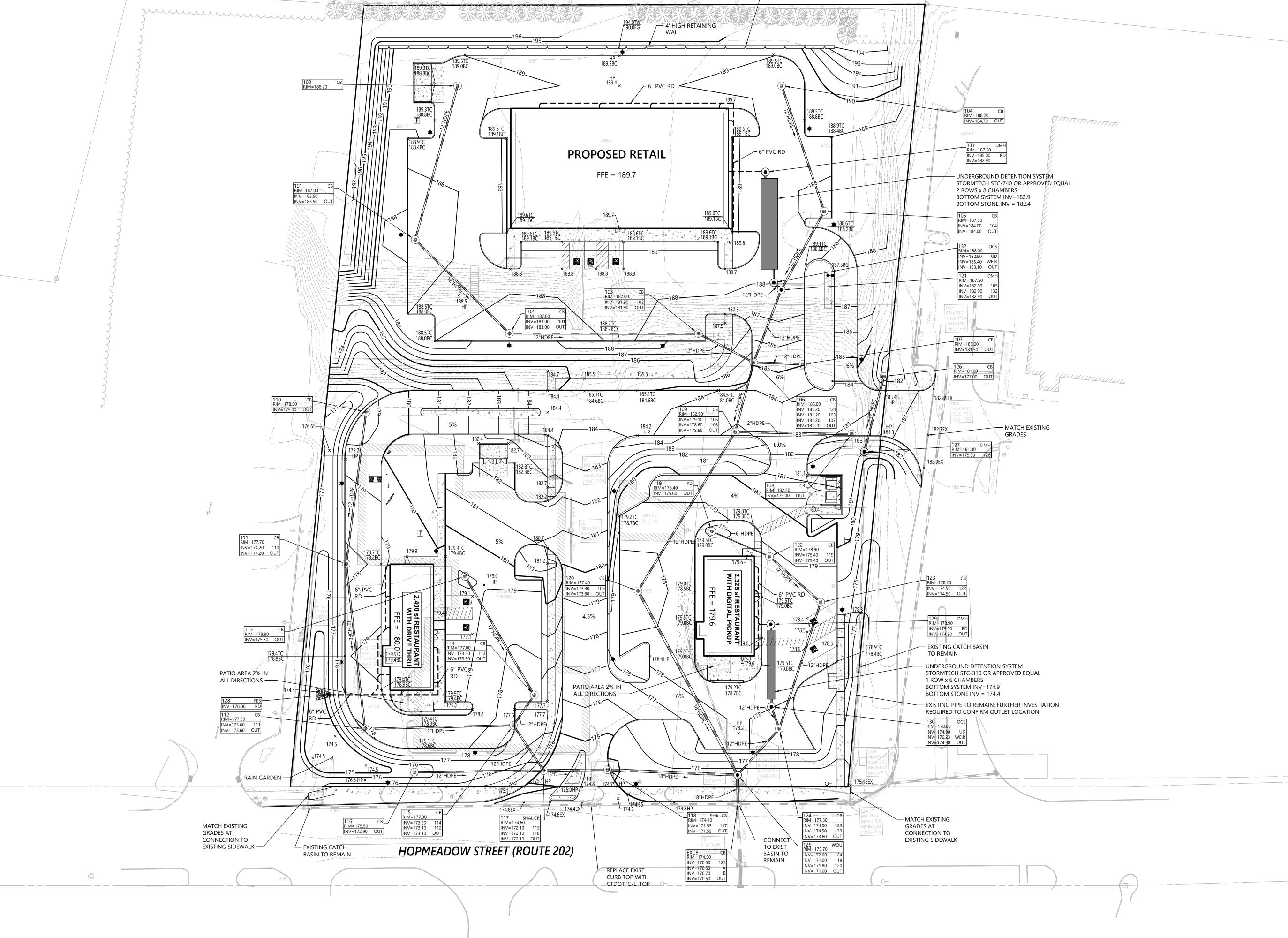
**C-2** 



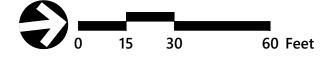
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GRADE AREA BEHIND WALL
TO DRAIN OVER WALL



# Proposed Commercial Development

1263 Hopmeadow Street Simsbury, Connecticut

Revision	Date	Appvd.
igned by	Checked b	ру

Local Approvals	May 26, 2023	
Issued for	Date	
Designed by	Checked by	

Local Approvais

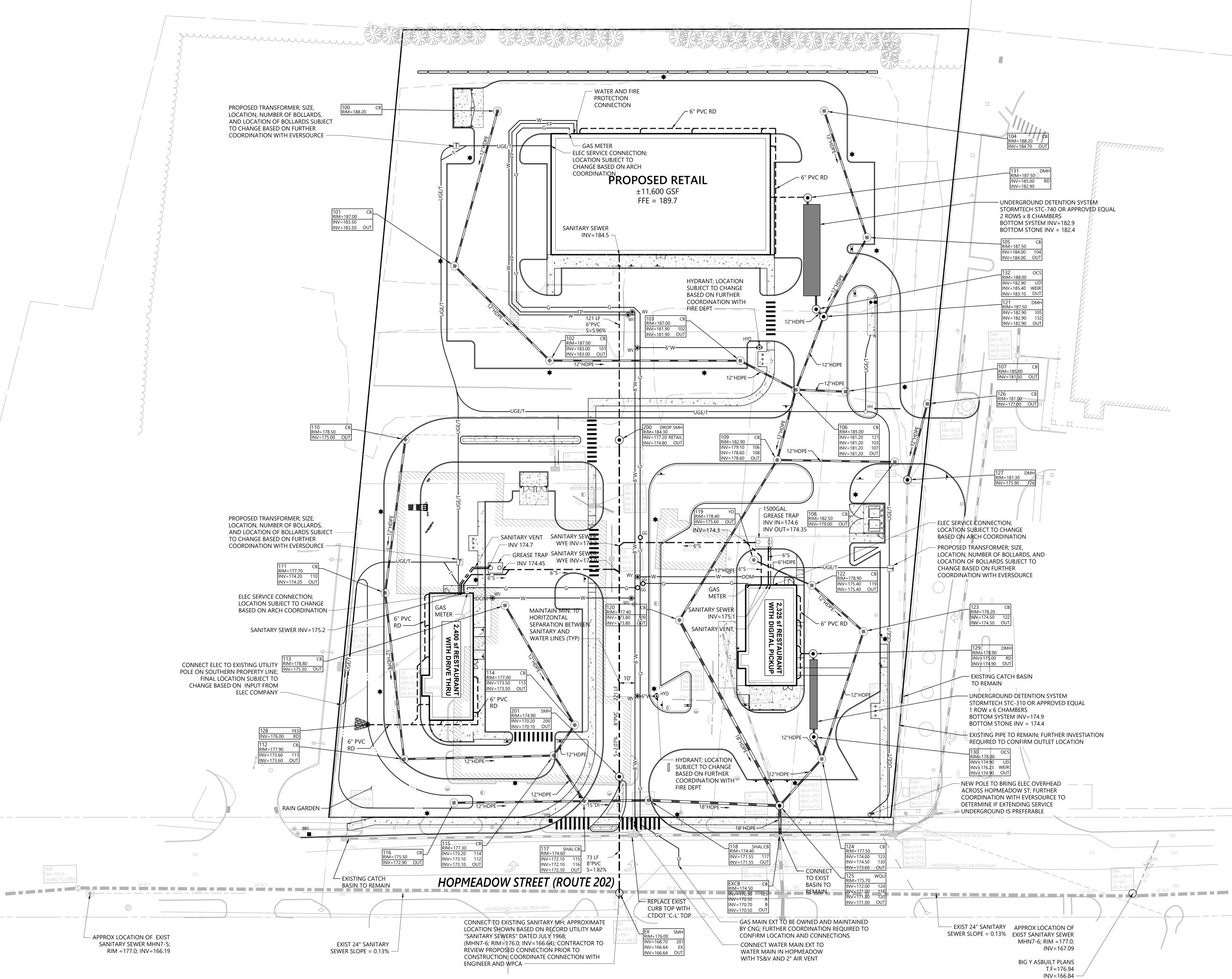
Grading and Drainage Plan



**C**-3



100 Great Meadow Road Suite 200 Wethersfield, CT 06109 860.807.4300





# Proposed Commercial Development

1263 Hopmeadow Street Simsbury, Connecticut

. Revision	Date	Appvd.
		_

Local Approvals	May 26, 2023
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C-4

### Site S&E Narrative:

THE PROPOSED PROJECT CONSISTS OF CONSTRUCTING AN APPROXIMATELY 2,400SF COFFEE SHOP WITH DRIVE THROUGH, 2,325SF FAST FOOD RESTAURANT WITH DRIVE THROUGH, AND A 11,600SF RETAIL BUILDLING WITH ASSOCIATED PARKING, DRIVEWAYS AND UNDERGROUND UTILITIES.

THE APPROXIMATELY 4.5 ACRE SITE WILL BE DEVELOPED IN A SINGLE PHASE PROJECT. TO CONTROL SEDIMENT EROSION DURING EARTH FILLING OPERATIONS, THE CONTRACTOR SHALL EMPLOY TECHNIQUES OUTLINED IN THE CONSTRUCTION SEQUENCE AND EROSION CONTROL NOTES TO ENSURE THAT EROSION DOES NOT OCCUR AND THAT SEDIMENT IS NOT TRANSPORTED OFF.

THE EARTHWORK IS PLANNED TO START SUMMER 2024 AND BE COMPLETED SPRING 2025. THE EROSION AND SEDIMENTATION CONTROLS SHALL BE EMPLOYED BY THE CONTRACTOR DURING THE EARTHWORK AND CONSTRUCTION PHASES OF THE PROJECT IN ACCORDANCE WITH THE CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION 2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND

REFER TO THE DRAINAGE/STORMWATER MANAGEMENT REPORT FOR MORE INFORMATION.

# **Temporary Erosion and Sedimentation Control Maintenance**

### (throughtout construction ):

THE SITE CONTRACTOR WILL BE RESPONSIBLE FOR IMPLEMENTING EACH CONTROL SHOWN ON THE SEDIMENTATION AND EROSION CONTROL PLAN.

THE SITE CONTRACTOR WILL INSPECT ALL SEDIMENT AND EROSION CONTROL STRUCTURES PERIODICALLY AND AFTER EACH RAINFALL EVENT. RECORDS OF THE INSPECTIONS WILL BE PREPARED AND MAINTAINED ON-SITE BY THE CONTRACTOR.

SILT SHALL BE REMOVED FROM BEHIND BARRIERS IF GREATER THAN 6-INCHES DEEP OR AS NEEDED.

DAMAGED OR DETERIORATED ITEMS WILL BE REPAIRED IMMEDIATELY AFTER IDENTIFICATION.

THE UNDERSIDE OF STRAW BALES SHOULD BE KEPT IN CLOSE CONTACT WITH THE EARTH AND RESET AS NECESSARY.

SEDIMENT THAT IS COLLECTED IN STRUCTURES SHALL BE DISPOSED OF PROPERLY AND COVERED IF STORED ON-SITE.

INSPECT THE TEMPORARY SEDIMENT TRAP AT LEAST ONCE A WEEK AND WITHIN 24 HOURS OF A RAINFALL EVENT TO DETERMINE THE CONDITIONS OF THE BASINS DURING CONSTRUCTION. CLEAN OUT SEDIMENT BASINS WHEN ACCUMULATION REACHES 12". SEDIMENT LEVELS SHALL BE MARKED WITHIN THE SEDIMENT STORAGE AREA BY STAKES. DO NOT ALLOW ACCUMULATED SEDIMENTS TO FLUSH INTO WETLAND AREAS.

EROSION CONTROL STRUCTURES SHALL REMAIN IN PLACE UNTIL ALL DISTURBED EARTH HAS BEEN SECURELY STABILIZED. AFTER REMOVAL OF STRUCTURES, DISTURBED AREAS SHALL BE REGRADED AND STABILIZED AS SOON AS PRACTICAL.

MAINTAIN THE CONSTRUCTION ENTRANCE IN A CONDITION WHICH WILL PREVENT TRACKING AND WASHING OF SEDIMENTS ONTO PAVED SURFACES.

### **Construction Sequence:**

- 1. THE SITE CONTRACTOR SHALL BE FULLY RESPONSIBLE TO CONTROL CONSTRUCTION SUCH THAT SEDIMENTATION SHALL NOT AFFECT ROADS/HIGHWAYS AND THEIR DRAINAGE SYSTEM, NEIGHBORING PROPERTIES, AND REGULATORY PROTECTED AREAS, WHETHER SUCH SEDIMENTATION IS CAUSED BY WATER, WIND, OR DIRECT DEPOSIT. PRIOR TO CONSTRUCTION, THE APPLICANT SHALL PROVIDE THE TOWN OF SIMSBURY WITH THE NAME OF CONTACT AND 24 HOUR CONTACT INFORMATION
- CONTRACTOR SHALL ADHERE TO CONNECTICUT GUIDELINES FOR EROSION AND SEDIMENT CONTROL.
- FLAG THE LIMITS OF CONSTRUCTION NECESSARY TO FACILITATE THE PRECONSTRUCTION MEETING. HOLD PRECONSTRUCTION MEETING. (REMEMBER TO CALL BEFORE YOU DIG 1-800-922-4455).
- NOTIFY THE TOWN OF SIMSBURY AGENT, ZONING ENFORCEMENT OFFICER AND ENGINEERING DEPARTMENT, 48 HOURS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITY
- INSTALL STABILIZED VEHICLE CONSTRUCTION ENTRANCE/EXIT.
- PRIOR TO INSTALLING SURFACE WATER CONTROLS SUCH AS TEMPORARY DIVERSION SWALES, INSPECT EXISTING CONDITIONS TO ENSURE DISCHARGE LOCATIONS ARE STABLE. IF NOT STABLE, REVIEW DISCHARGE CONDITIONS WITH THE DESIGN ENGINEER AND IMPLEMENT ADDITIONAL STABILIZATION MEASURES PRIOR TO INSTALLING SURFACE WATER CONTROLS.
- INSTALL EROSION AND SEDIMENT CONTROLS IN ACCORDANCE WITH THE E&S PLAN FOR THE SITE INCLUDING SILTFENCE BARRIERS AND SILT SACKS. COMPLETE CLEARING AND GRUBBING
- 10. ESTABLISH ROUGH GRADE ON THE SITE. 11. CONSTRUCT BUILDING AND UNDERGROUND UTILITIES. INSTALL SILT SACK SEDIMENT TRAPS IN ALL NEW AND EXISTING CATCH BASINS WITHIN THE SITE
- AREA AND VICINITY. 12. INSTALL PAVEMENT BASE & FIRST COURSE OF BITUMINOUS CONCRETE.
- 13. INSTALL LANDSCAPING & LOAM AND SEED ALL DISTURBED AREAS.
- 14. AFTER SITE IS STABILIZED REMOVE TEMPORARY EROSION AND SEDIMENT CONTROLS. 15. LOAM AND SEED ALL DISTURBED AREAS.
- 16. WHEN ALL OTHER WORK HAS BEEN COMPLETED, REPAIR AND SWEEP ALL PAVED AREAS FOR THE FINAL COURSE OF PAVING. INSPECT THE DRAINAGE SYSTEM AND CLEAN AS NEEDED.
- INSTALL FINAL COURSE OF PAVEMENT.

### **Erosion and Sedimentation Control Techniques:**

THE FOLLOWING EROSION AND SEDIMENTATION CONTROLS SHALL BE EMPLOYED BY THE CONTRACTOR DURING THE EARTHWORK AND CONSTRUCTION PHASES OF THE PROJECT IN ACCORDANCE WITH THE CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION 2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL.

IN AREAS WHERE HIGH RUNOFF VELOCITIES OR HIGH SEDIMENT LOADS ARE EXPECTED, STRAW BALE BARRIERS WILL BE BACKED UP WITH SILT FENCING. THIS

SEMI-PERMEABLE BARRIER MADE OF A SYNTHETIC POROUS FABRIC WILL PROVIDE ADDITIONAL PROTECTION. THE SILT FENCES AND STRAW BALE BARRIER WILL BE REPLACED AS DETERMINED BY PERIODIC FIELD INSPECTIONS.

# NEWLY CONSTRUCTED AND EXISTING CATCH BASINS WILL BE PROTECTED WITH SILT SACKS THROUGHOUT CONSTRUCTION.

A TEMPORARY CRUSHED-STONE CONSTRUCTION ENTRANCE/EXIT WILL BE CONSTRUCTED. A CROSS SLOPE WILL BE PLACED IN THE ENTRANCE TO DIRECT RUNOFF TO THE SEDIMENT TRAP.

VEGETATIVE SLOPE STABILIZATION
STABILIZATION OF OPEN SOIL SURFACES WILL BE IMPLEMENTED WITHIN 14 DAYS AFTER GRADING OR CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, UNLESS THERE IS SUFFICIENT SNOW COVER TO PROHIBIT IMPLEMENTATION. VEGETATIVE SLOPE STABILIZATION WILL BE USED T MINIMIZE EROSION ON SLOPES OF 3:1 OR FLATTER. ANNUAL GRASSES, SUCH AS ANNUAL RYE, WILL BE USED TO ENSURE RAPID GERMINATION AND PRODUCTION OF ROOTMASS. PERMANENT STABILIZATION WILL BE COMPLETED WITH THE PLANTING OF PERENNIAL GRASSES OR LEGUMES. ESTABLISHMENT OF TEMPORARY AND PERMANENT VEGETATIVE COVER MAY BE ESTABLISHED BY HYDRO-SEEDING OR SODDING. A SUITABLE TOPSOIL, GOOD SEEDBED PREPARATION, AND ADEQUATE LIME, FERTILIZER AND WATER WILL BE PROVIDED FOR EFFECTIVE ESTABLISHMENT OF THESE VEGETATIVE STABILIZATION METHODS. MULCH WILL ALSO BE USED AFTER PERMANENT SEEDING TO PROTECT SOIL FROM THE IMPACT OF FALLING RAIN AND TO INCREASE THE CAPACITY

STOCKPILE MANAGEMENT
SIDESLOPES OF STOCKPILED MATERIAL SHALL BE NO STEEPER THAN 2:1. STOCKPILES NOT USED WITHIN 30 DAYS NEED TO BE SEEDED AND MULCHED IMMEDIATELY AFTER FORMATION OF THE STOCKPILE. HAYBALES AND SILT FENCE ARE TO BE PLACED AROUND THE STOCKPILE AREA APPROXIMATELY 10 FEET

SEED MIX TO BE INTEGRALLY MIXED INTO COMPOST-MULCH SLURRY SHALL BE THE "NEW ENGLAND EROSION CONTROL/RESTORATION MIX FOR DETENTION BASINS AND MOIST SITES" BY NEW ENGLAND WETLAND PLANTS, AMHERST, MA OR EQUAL. SEED SHALL BE APPLIED WITHIN THE SLURRY AT THE SUPPLIER'S RECOMMENDED SEEDING RATE OF 35 LBS. PER ACRE. IN ADDITION, A NURSE SEED CONSISTING OF ANNUAL RYEGRASS SHALL ALSO BE APPLIED WITHIN THE SLURRY AT A SEEDING RATE OF 15 LBS. PER ACRE. SPECIES TO BE INCLUDED IN THE SPECIFIED NATIVE WETLAND MIX WILL INCLUDE:

SWITCHGRASS (PANICUM VIRGATUM), VIRGINIA WILD RYE (ELYMUS VIRGINICUS), CREEPING RED FESCUE (FESTUCA RUBRA), FOX SEDGE (CAREX VULPINOIDEA), CREEPING BENTGRASS (AGROSTIS STOLONIFERA), SOFT RUSH (JUNCUS EFFUSUS), NEW ENGLAND ASTER (ASTER NOVAE-ANGLIAE), GRASS-LEAVED GOLDENROD (EUTHAMIA GRAMINIFOLIA), NODDING BUR MARIGOLD (BIDENS CERNUA), GREEN BULRUSH (SCIRPUS ATROVIRENS), JOE-PYE WEED (EUPATORIUM MACULATUM), BONESET (EUPATORIUM PERFOLIATUM), BLUE VERVAIN (VERBENA HASTATA), PRIOR TO SEED/COMPOST-MULCH APPLICATION, ENTIRE SURFACE OF DISTURBED AREA TO BE SEEDED SHALL BE SCARIFIED (ROUGHENED OR "RAKED") TO A DEPTH OF 1/2 INCH TO FOSTER STRONG SEED-SOIL BOND. SOIL SCARIFICATION WILL ONLY AUGMENT THE HIGH LEVEL OF SEED/GROWTH MEDIA BOND ACHIEVED BY INTEGRAL APPLICATION OF SEED WITHIN COMPOST-MULCH MATERIAL.

COMPOST-MULCH IS HIGHLY FERTILE GROWTH MEDIUM WITH A PH IN THE 6.0-7.0 RANGE THAT WILL REQUIRE NO ADDITIONAL SOIL AMENDMENTS SUCH AS SPECIFICATIONS FOR TEMPORARY AND PERMANENT SEEDING MIXTURES, RATES, DATES, AND SOIL PREPARATION MEASURES HAVE BEEN ADDED TO THE SOIL EROSION AND SEDIMENT CONTROL PLAN.

DUST CONTROL
PERIODICALLY MOISTEN EXPOSED SURFACES ON UNPAVED TRAVELWAYS TO KEEP THE TRAVELWAY DAMP AND REDUCE DUST.

# Post Construction Stormwater Management:

THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR ENSURING THAT STORMWATER MANAGEMENT SYSTEMS BE INSPECTED AND MAINTAINED. THE FOLLOWING PLAN COMPONENTS SHALL BE ADHERED TO:

SOURCE CONTROL

A COMPREHENSIVE SOURCE CONTROL PROGRAM WILL BE IMPLEMENTED AT THE SITE, WHICH INCLUDES REGULAR PAVEMENT SWEEPING AT A MINIMUM 2

COMPREHENSIVE SOURCE CONTROL PROGRAM WILL BE IMPLEMENTED AT THE SITE, WHICH INCLUDES REGULAR PAVEMENT SWEEPING AT A MINIMUM 2

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COMPREHENSIVE SOURCE CONTROL PROGRAM WILL BE IMPLEMENTED AT THE SITE, WHICH INCLUDES REGULAR PAVEMENT SWEEPING AT A MINIMUM 2 TIMES PER YEAR, CATCH BASIN CLEANING, AND MAINTENANCE AND CLEARING OF LITTER FROM PARKING AREAS AND PERIMETER LANDSCAPED AREAS. CLEAN ALL CATCH BASINS AND STRUCTURES TWICE ANNUALLY TO REMOVE ACCUMULATED SAND, SEDIMENT, AND FLOATABLE PRODUCTS OR AS NEEDED BASED ON

# SNOW SHELF INSPECT SNOW SHELVES ONCE ANNUALLY, IN THE SPRING, FOR ACCUMULATED SEDIMENT. NECESSARY SEDIMENT REMOVAL, EARTH REPAIR, AND/OR

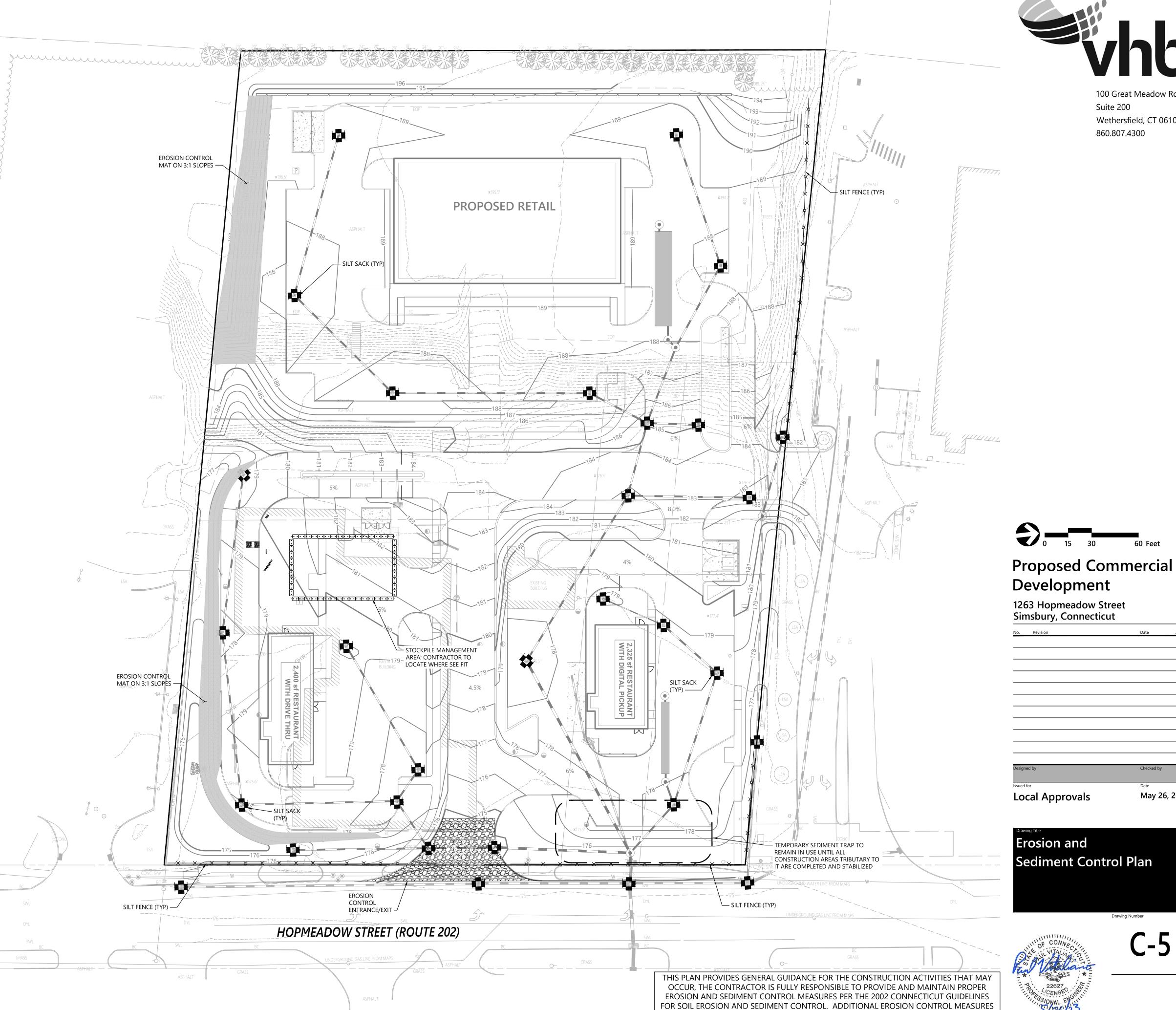
DEEP SUMP CATCH BASINS CATCH BASINS AT THE SITE ARE TO BE CONSTRUCTED WITH SUMPS (MINIMUM 4-FEET) TO TRAP DEBRIS AND SEDIMENTS. CATCH BASINS WILL BE CLEANED

AN ABOVE GROUND RAIN GARDEN (INFILTRATION BASIN) WILL BE CONSTRUCTED TO COLLECT AND INFILTRATE STORMWATER RUNOFF. THE BASIN WILL BE INSPECTED TWICE ANNUALLY AND ACCUMULATED SEDIMENT WILL BE REMOVED. VEGETATION WITHIN THE BASIN WILL BE MAINTAINED ON A REGULAR BASIS. HYDRODYNAMIC SEPARATOR WATER QUALITY UNIT

A HYDRODYNAMIC SEPARATOR WATER QUALITY UNIT WILL BE USED TO TREAT STORMWATER BEFORE IT REACHES THE DISCHARGE POINT. THIS ALLOWS

SUSPENDED SEDIMENTS TO BE REMOVED AND REDUCES SEDIMENTATION ACCUMULATION. INSPECT THE WATER QUALITY UNIT FOR ACCUMULATED SEDIMENT AND DEBRIS. NECESSARY SEDIMENT AND/OR DEBRIS REMOVAL WILL BE PERFORMED IMMEDIATELY UPON IDENTIFICATION.

ALL E&S CONTROL MEASURES WILL BE INSPECTED WEEKLY AND AFTER RAINFALL OF 0.5 INCHES IN 24 HOURS.



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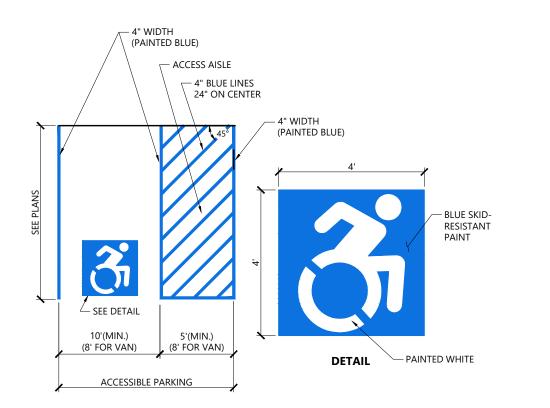
May 26, 2023

42810.00

MAY BE REQUIRED THROUGHOUT CONSTRUCTION BY THE TOWN, ENGINEER OR OTHER INSPECTORS.

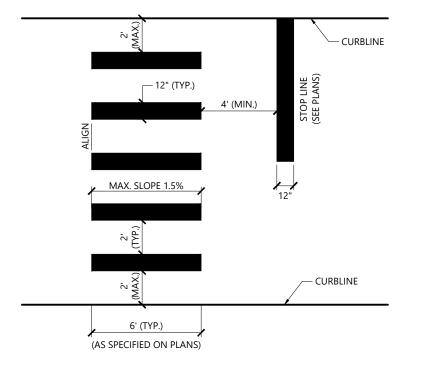
Suite 200

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- 1. ALL DIMENSIONS TO EDGES OF 4" PAVEMENT STRIPING.
- 2. 8' STALL WIDTH REFERS TO 8' CLEAR BETWEEN INSIDE EDGES OF
- 3. ALL SLOPES THROUGHOUT THE ACCESSIBLE PARKING AND AISLE AREAS SHALL NOT EXCEED 1.5%.

<b>Accessible Parkin</b>	g Space		1/16
N.T.S.	Source: VHB	REV	LD_552d



Crosswalk

N.T.S.

1. TWELVE INCH (12") LINES SHALL BE APPLIED IN ONE APPLICATION, NO COMBINATION OF LINES (TWO - 6 INCH LINES) WILL BE ACCEPTED.

Source: VHB

- 2. LONGITUDINAL CROSSWALK LINES TO BE PARALLEL TO CURBLINE.
- 3. ALL LONGITUDINAL CROSSWALK LINES TO BE THE SAME LENGTH AND PROPERLY ALIGNED.
- 4. CROSS WALK SIDESLOPE SHALL NOT EXCEED 1.5%.

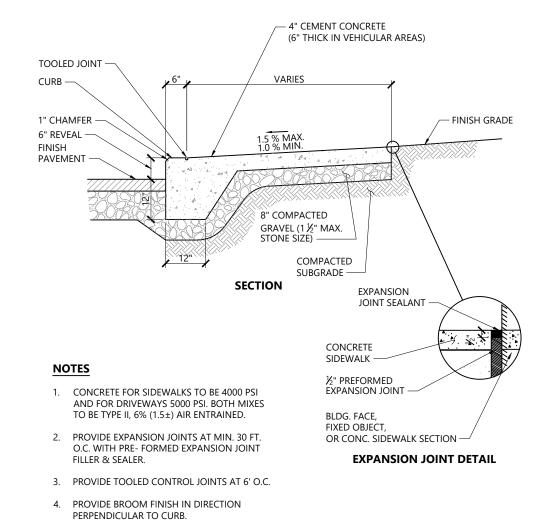
WHITE PAINT (TYP.)  4" WHITE PAINT (TYP.)	LENGTH AS REQUIRED (SEE STRIPING PLAN)  WHITE PAINT  TO BE A STOP LINE  A WHITE PAINTED  STOP LINE  A WHITE PAINTE
NOTES	

# 1. PAVEMENT MARKINGS TO BE INSTALLED FOR ON

SITE WORK IN LOCATIONS SHOWN.

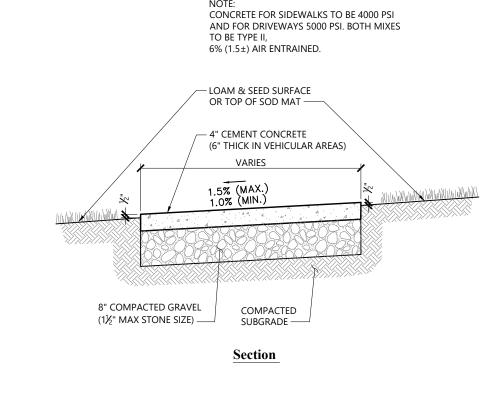


- CAP STEEL PIPE POST



<b>Monolithic Co</b>	ncrete Curb (MCC) & Sidewalk	1/16
N.T.S.	Source: VHB	LD_421

TREATMEN<sup>3</sup>



- 1. PROVIDE EXPANSION JOINTS AT MIN. 30 FT. O.C. WITH PRE- FORMED JOINT FILLER.
- 2. PROVIDE TOOLED CONTROL JOINTS AT 6' O.C. 3. PROVIDE BROOM FINISH IN DIRECTION PERPENDICULAR

TO SIDEWALK DIKE	CTION.	

— BITUMINOUS

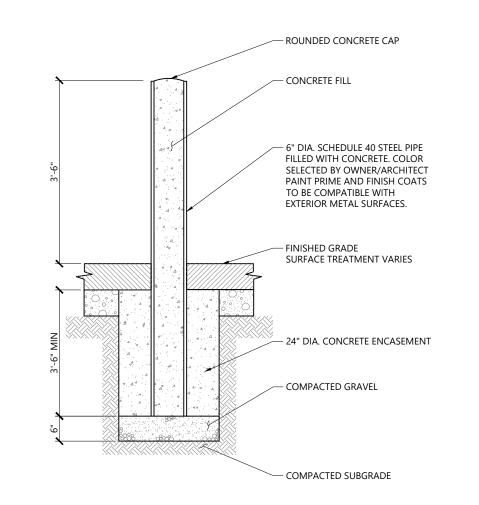
CONCRETE

PAVEMENT

**BOTH WAYS** 

(CENTERED)







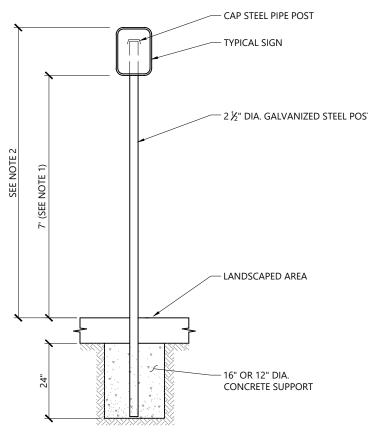
OF 6x6xW2.0xW2.0 (WELDED WIRE OR EQUIVALENT).

PORTLAND CEMENT CONCRETE, TYPE II,

MINIMUM COMPRESSIVE STRENGTH OF 5,000 PSI, 6% (1.5±) AIR ENTRAINED -

NOTES:

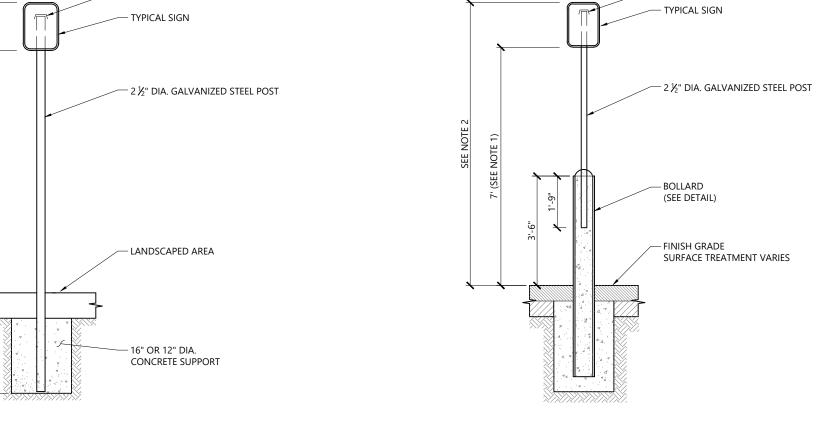
**Mountable Concrete Island** 



1. THIS DIMENSION SHALL BE A MINIMUM OF 5' FOR ACCESSIBLE SIGNAGE.

Sign Post - Type 'A'

2. THIS DIMENSION SHALL BE A MAXIMUM OF 8' FOR ACCESSIBLE SIGNAGE

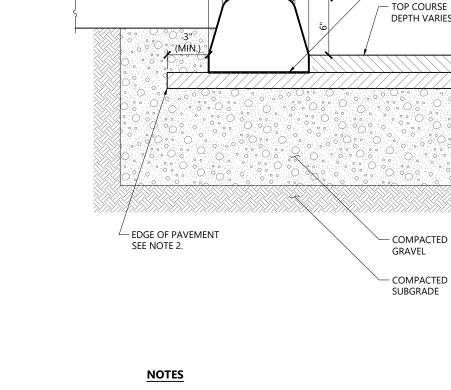


1/16

LD\_553

Source: VHB

OR 12" DIA. CRETE SUPPORT			
	1.	THIS DIMENSION SHALL BE A MINIMUM OF 5' FOR ACCESSIBLE SIGNAGE.	
	2.	THIS DIMENSION SHALL BE A MAXIMUM OF 8' FOR ACCESSIBLE SIGNAGE	
3/19	Bollard Mou	unted Sign	2//





- BOTTOM OF RAMP TO BE LEVEL WITH ADJACENT SURFACE.

1. THE MAXIMUM ALLOWABLE SIDEWALK AND CURB RAMP CROSS SLOPES SHALL BE 1.5 (1% MIN.).

2. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE EXCLUDING CURB RAMPS SHALL BE 5%.

4. A MINIMUM OF 3 FEET CLEAR SHALL BE MAINTAINED AT ANY PERMANENT OBSTACLE IN ACCESSIBLE ROUTE (I.E., HYDRANTS, UTILITY POLES, TREE WELLS, SIGNS, ETC.).

8. WHERE ACCESSIBLE ROUTES ARE LESS THAN 5' IN WIDTH (EXCLUDING CURBING) A 5' x 5' PASSING AREA SHALL BE PROVIDED AT INTERVALS NOT TO EXCEED 200 FEET.

9. ELIMINATE CURBING AT RAMP WHERE IT ABUTS ROADWAY, EXCEPT WHERE VERTICAL CURBING IS INDICATED ON THE DRAWINGS TO BE INSTALLED AND SET FLUSH.

3. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE AT CURB RAMPS SHALL BE 7.5%.

6. RAMP, CURB AND ADJACENT PAVEMENTS SHALL BE GRADED TO PREVENT PONDING.

10. DETECTABLE WARNINGS SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES.

11. DETECTABLE WARNINGS SHALL BE INSTALLED PERPENDICULAR TO THE ACCESSIBLE ROUTE.

SEE NOTE 9.

LANDSCAPE AREA (TYP.)

5. CURB TREATMENT VARIES, SEE PLANS FOR CURB TYPE.

7. SEE TYPICAL SIDEWALK SECTION FOR RAMP CONSTRUCTION.

TRUNCATED DOMES —

COMPACTED	
GRAVEL ——	
	COMPACTED 12"
	SUBGRADE

- 1. SIZE OF PAD TO BE AS INDICATED ON PLANS. 2. CONSTRUCTION JOINTS SHALL BE SPACED NO MORE THAN 30 FEET ON
- CENTER AND SHALL BE EQUALLY SPACED OVER THE LENGTH AND WIDTH OF THE PAD.

— 5000 PSI CEMENT

CONCRETE (TYPE II)

6%(1.5%±) AIR ENTRAINED

ed Concrete Curb (ECC)	1/16	<b>Dumpster Pad</b>	
Source: VHB	LD_408	N.T.S.	Source: VI

- AREA OF COLORED SURFACE

TRUNCATED DOMES

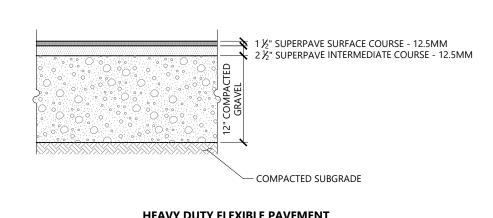
\*DIMENSIONS ARE CENTER TO CENTER

2.35" (TYP.)\*

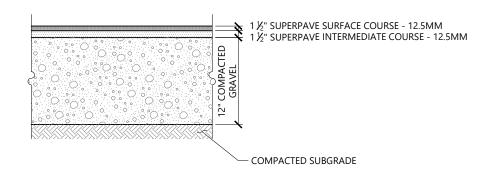
(PLAN VIEW)

- EPOXY BONDING AGENT





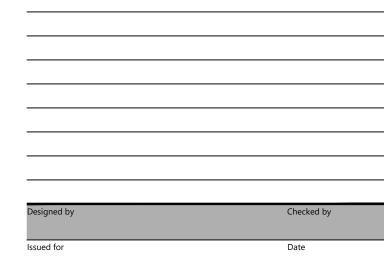
**HEAVY DUTY FLEXIBLE PAVEMENT** 



# STANDARD DUTY FLEXIBLE PAVEMENT

PAVEMENT SECTIONS ARE SUBJECT TO CHANGE AND WILL BE BASED ON THE RESULTS OF FURTHER GEOTECHNICAL INVESTIGATIONS.

<b>Bituminous C</b>	oncrete Pavement Sections	7
N.T.S.	Source: VHB	LD



**Proposed Commercial** 

Development

1263 Hopmeadow Street

Simsbury, Connecticut

100 Great Meadow Road

Wethersfield, CT 06109

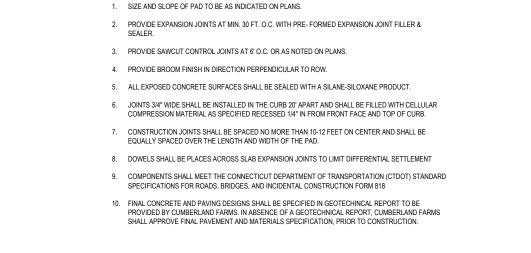
Suite 200

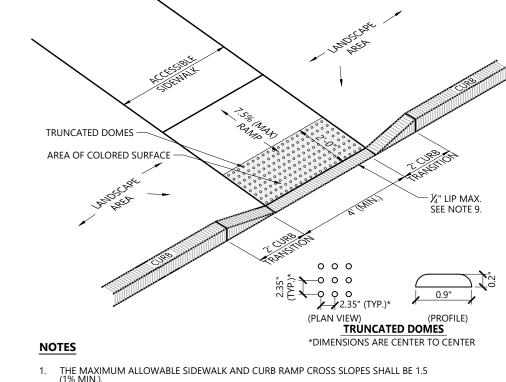
860.807.4300

sued for	Date
ocal Approvals	May 26, 202

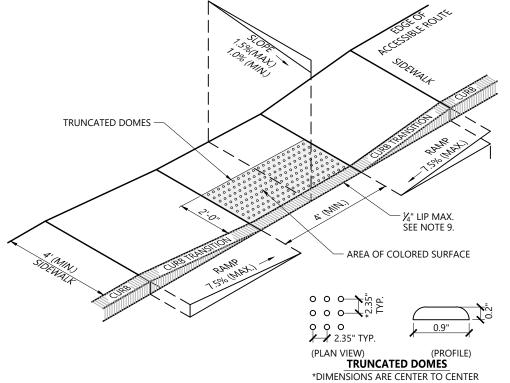








- 1. THE MAXIMUM ALLOWABLE SIDEWALK AND CURB RAMP CROSS SLOPES SHALL BE 1.5 (1% MIN.).
- 2. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE EXCLUDING CURB RAMPS SHALL BE 5%.
- 3. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE AT CURB RAMPS SHALL BE 7.5%.
- A MINIMUM OF 3 FEET CLEAR SHALL BE MAINTAINED AT ANY PERMANENT OBSTACLE IN ACCESSIBLE ROUTE (I.E., HYDRANTS, UTILITY POLES, TREE WELLS, SIGNS, ETC.).
- 5. CURB TREATMENT VARIES, SEE PLANS FOR CURB TYPE.
- 6. RAMP, CURB AND ADJACENT PAVEMENTS SHALL BE GRADED TO PREVENT PONDING.
- 7. SEE TYPICAL SIDEWALK SECTION FOR RAMP CONSTRUCTION.
- WHERE ACCESSIBLE ROUTES ARE LESS THAN 5' IN WIDTH (EXCLUDING CURBING) A 5
   x 5' PASSING AREA SHALL BE PROVIDED AT INTERVALS NOT TO EXCEED 200 FEET.
- ELIMINATE CURBING (OTHER THAN VERTICAL CURBING, WHICH SHALL BE SET FLUSH) WHERE IT ABUTS ROADWAYS.
- 10. DETECTABLE WARNINGS SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES. 11. DETECTABLE WARNINGS SHALL BE INSTALLED PERPENDICULAR TO THE ACCESSIBLE
- Accessible Curb Ramp (ACR) Type 'M-D' N.T.S. LD\_512



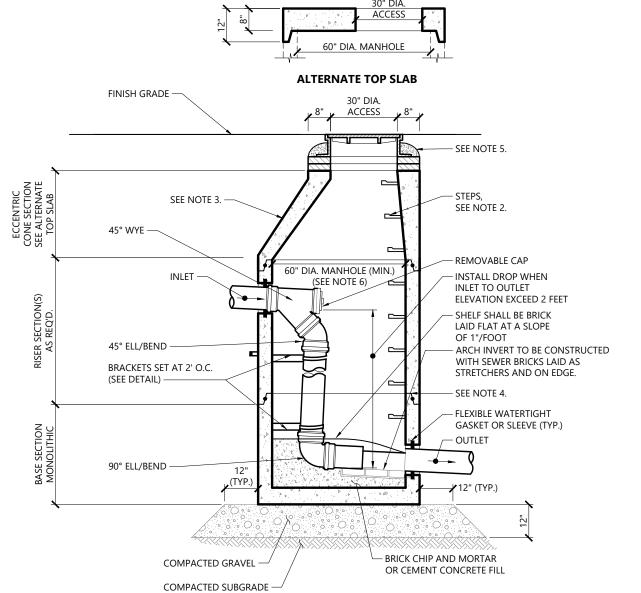
Source: VHB

- 1. THE MAXIMUM ALLOWABLE SIDEWALK AND CURB RAMP CROSS SLOPES SHALL BE 1.5 (1% MIN.).
- 2. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE EXCLUDING CURB RAMPS SHALL BE 5%.
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- 6. RAMP, CURB, AND ADJACENT PAVEMENTS SHALL BE GRADED TO PREVENT PONDING.
- 7. SEE TYPICAL SIDEWALK SECTION FOR RAMP CONSTRUCTION.
- 8. WHERE ACCESSIBLE ROUTES ARE LESS THAN 5' IN WIDTH (EXCLUDING CURBING) A 5' x 5' PASSING AREA SHALL BE PROVIDED AT INTERVALS NOT TO EXCEED 200 FEET.
- ELIMINATE CURBING AT RAMP (OTHER THAN VERTICAL CURBING, WHICH SHALL BE SET FLUSH) WHERE IT ABUTS ROADWAY. 10. DETECTABLE WARNINGS SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES.
- 11. DETECTABLE WARNINGS SHALL BE INSTALLED PERPENDICULAR TO ACCESSIBLE ROUTE.

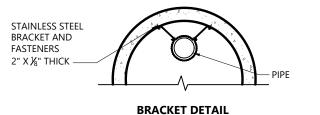
Accessible Curb Ramp (ACR) Type 'A-D' LD\_500 N.T.S.

12. CONTRACTOR TO SUBMIT R.F.I. FOR THIS TYPE OF ACCESSIBLE CURB RAMP FOR APEX ROADWAY CROSSINGS. Accessible Curb Ramp (ACR) - Type 'B-D' LD\_501

42810.00



Source: VHB



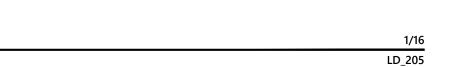
# **BRACKET DETAIL**

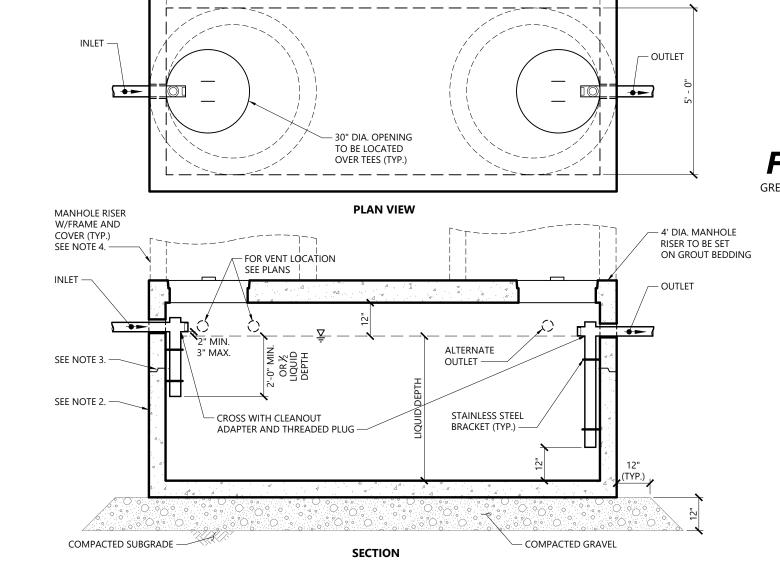
BE BUTYL RUBBER.

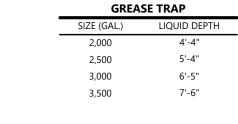
- 1. STRUCTURE SHALL BE DESIGNED FOR HS-20 LOADING.
- 2. COPOLYMER MANHOLE STEPS SHALL BE INSTALLED AT 12" O.C. FOR THE FULL DEPTH OF THE STRUCTURE
- 3. EXTERIOR SURFACES SHALL BE GIVEN TWO COATS OF

4. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL

- SEWER MANHOLE FRAME AND COVER SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH SEWER BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM)
- 6. MANHOLE DIAMETER SHALL BE VERIFIED BY CONTRACTOR AND MANUFACTURER BASED ON PIPE GEOMETRICS AND SIZES







# For Reference Only GREASE TRAPS TO BE SIZED BY OR IN COORDINATION WITH MEP ENGINEER

- 1. STRUCTURE SHALL BE DESIGNED FOR HS-20 LOADING.
- 2. EXTERIOR SURFACES SHALL BE GIVEN TWO COATS OF BITUMINOUS WATER-PROOFING MATERIAL
- 3. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL 4. STANDARD 30-INCH SEWER MANHOLE FRAME AND

COVER SHALL BE LOCATED OVER CROSSES AND SET IN

FULL MORTAR BED. ADJUST TO GRADE WITH SEWER

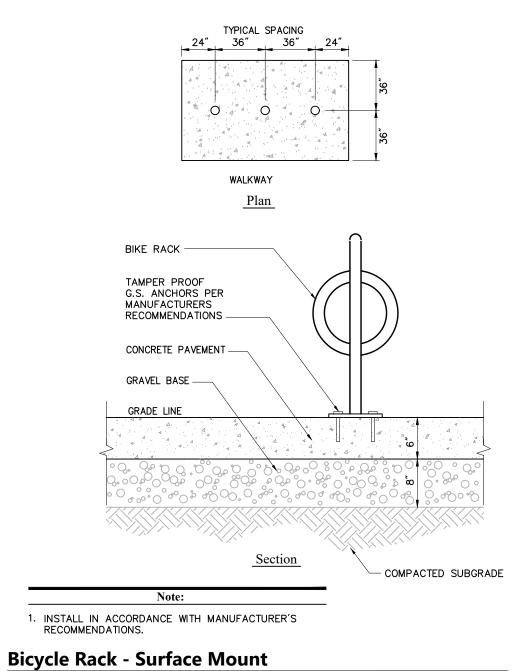
BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5

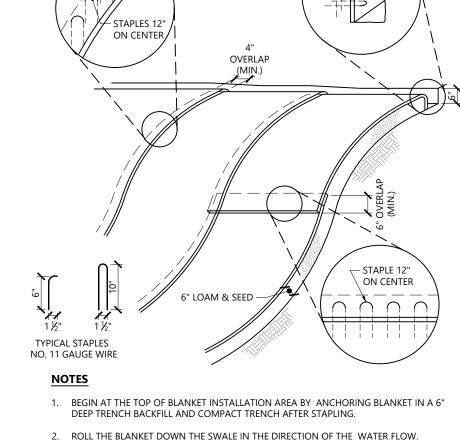
- 5. PIPING SHALL BE SCH 40 PVC WITH SOLVENT WELDED JOINTS. INTERNAL PIPE DIAMETER SHALL BE SAME SIZE
- 6. FINAL DESIGN OF GREASE TRAP TO BE BY PLUMBING

BRICK COURSES MAXIMUM)

7. THE INSTALLATION OF GREASE TRAP, THE PIPING TO

**Precast Concrete Grease Trap (GT)** Source: VHB





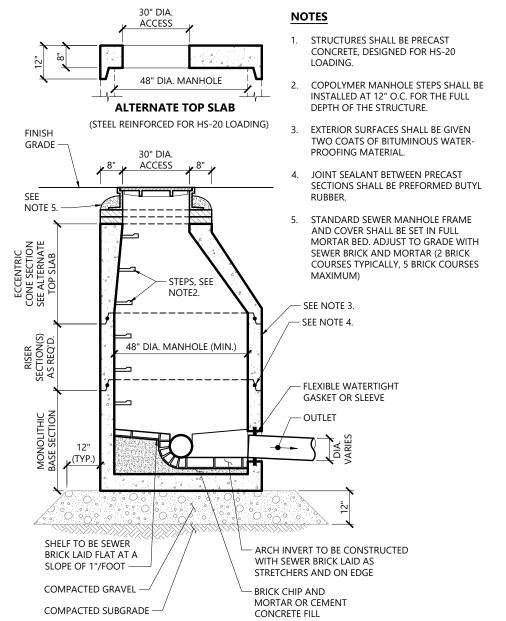
**Interior Drop Sewer Manhole (SMH)** 

- 3. THE EDGES OF BLANKETS MUST BE STAPLED WITH APPROX. 4 INCH OVERLAP WHERE 2
- 4. WHEN BLANKETS MUST BE SPLICED DOWN THE SWALE, PLACE UPPER BLANKET END OVER LOWER END WITH 6 INCH (MIN.) OVERLAP AND STAPLE BOTH TOGETHER.

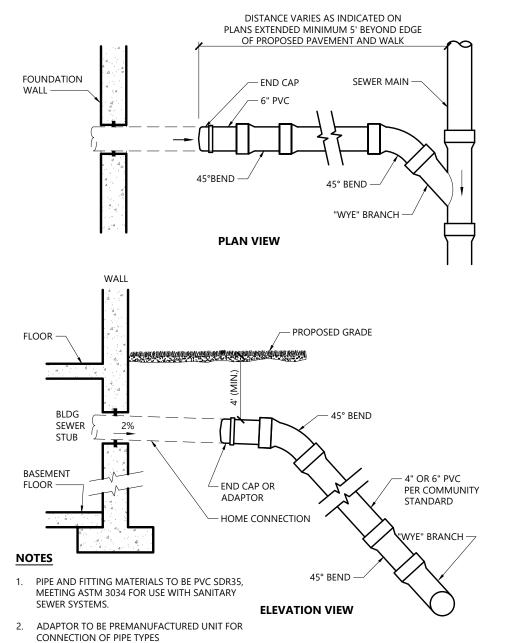
OR MORE STRIP WIDTHS ARE REQUIRED.

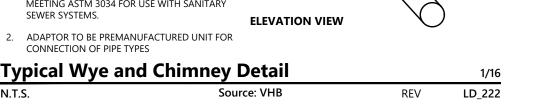
5. METHOD OF INSTALLATION SHALL BE AS PER MANUFACTURER'S RECOMMENDATIONS. 6. EROSION CONTROL BLANKETS SHALL BE USED IN ALL AREAS WHERE SLOPES EXCEED 3:1.

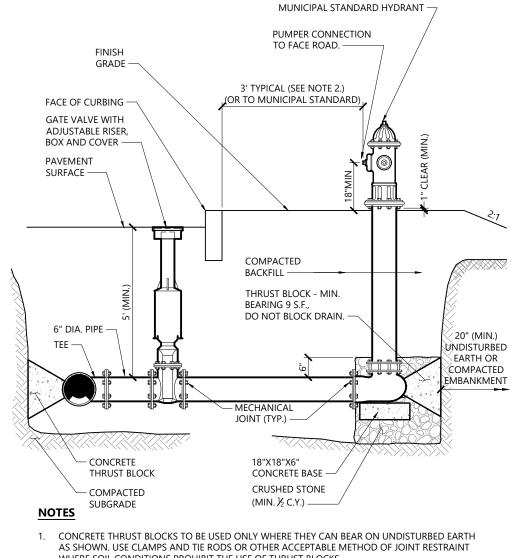
<b>Erosion Cont</b>	rol Blanket Slope Installation	10/20
N.T.S.	Source: VHB	LD_680



Sanitary Sewe	er Manhole (SMH)	1/16
N.T.S.	Source: VHB	LD_200



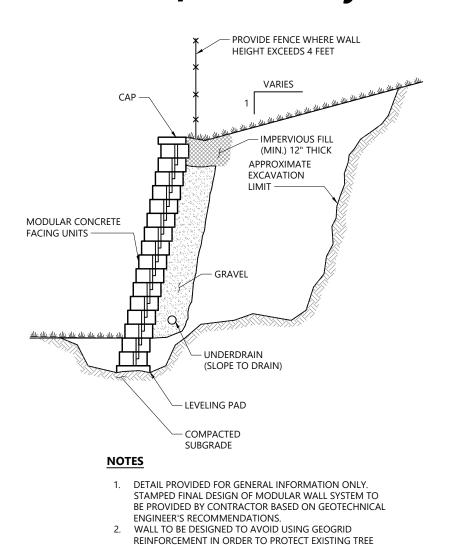




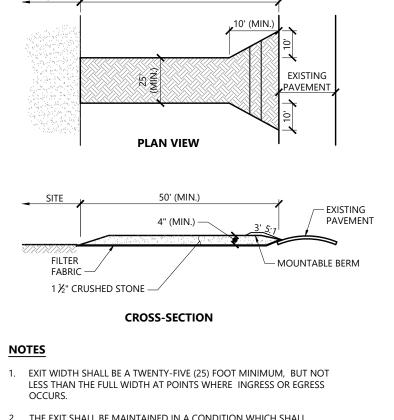
- WHERE SOIL CONDITIONS PROHIBIT THE USE OF THRUST BLOCKS.
- 2. HYDRANT IN SIDEWALK AREAS TO BE LOCATED TO PROVIDE MINIMUM CLEAR SIDEWALK PASSAGE WIDTH OF 3 FEET AT HYDRANT. 3. A 36-INCH CLEAR SPACE SHALL BE MAINTAINED AROUND THE CIRCUMFERENCE OF THE HYDRANT UNLESS OTHERWISE APPROVED BY AUTHORITY HAVING JURISDICTION.

<b>Hydrant Const</b>	ruction	12/19
N.T.S.	Source: VHB	LD_250

# For Reference Only



**Modular Retaining Wall** 



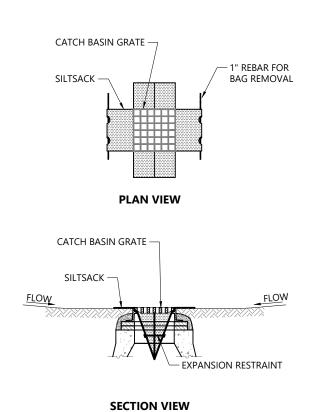
2. THE EXIT SHALL BE MAINTAINED IN A CONDITION WHICH SHALL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY. BERM SHALL BE PERMITTED. PERIODIC INSPECTION AND MAINTENANCE SHALL BE PROVIDED AS NEEDED.

3. STABILIZED CONSTRUCTION EXIT SHALL BE REMOVED PRIOR TO FINAL

FINISH MATERIALS BEING INSTALLED.

LD\_750

**Stabilized Construction Exit** 



1. INSTALL SILTSACK IN ALL CATCH BASINS WHERE INDICATED ON THE PLAN BEFORE COMMENCING WORK OR IN PAVED AREAS AFTER BINDER COURSE IS PLACED AND HAY BALES HAVE BEEN REMOVED.

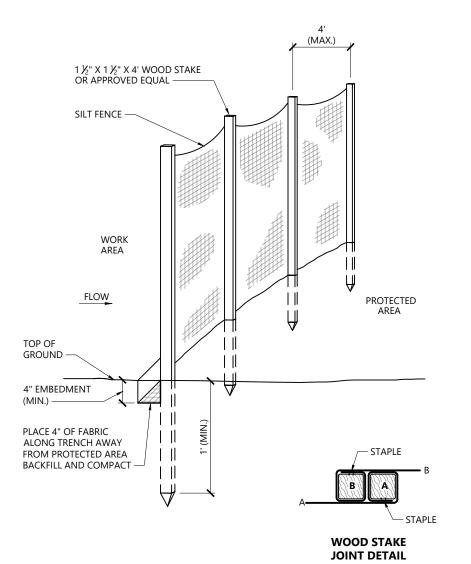
EVENTS AND CLEANING OR REPLACEMENT SHALL BE PERFORMED

PROMPTLY AS NEEDED. MAINTAIN UNTIL UPSTREAM AREAS HAVE BEEN

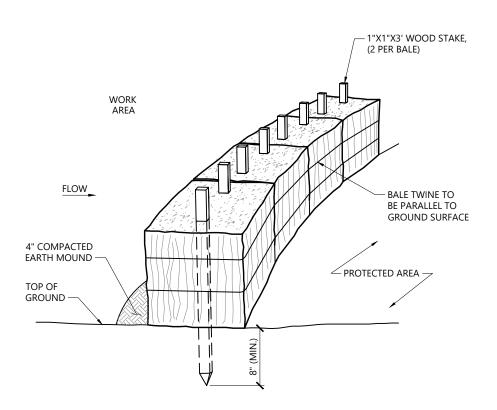
2. GRATE TO BE PLACED OVER SILTSACK. 3. SILTSACK SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM

PERMANENTLY STABILIZED

**Siltsack Sediment Trap** LD\_674



Silt Fence Barrier		1/16
N.T.S.	Source: VHB	LD 650



Source: VHB

**Straw Bale Barrier** 



**Local Approvals** 

**Site Details** 



LD\_653

May 26, 2023

100 Great Meadow Road

Wethersfield, CT 06109

Suite 200

**Proposed Commercial** 

Development

1263 Hopmeadow Street

Simsbury, Connecticut

860.807.4300

42810.00

PAVED AREA

COMPACTED GRANULAR FILL -SAWCUT -

**Utility Trench** 

SAFETY BAR(S)

18" - 1 BAR 24" - 1 BAR 30" - 2 BARS 36" - 2 BARS

48" - 3 BARS

NOTES: SAFETY BARS TO BE

**OMITTED WHERE** 

INDICATED ON PLANS

ENERGY DISSIPATION BOWL

COMPACTED SUBGRADE —

DRILL AND MORTAR HORIZONTALLY NO. 6 REBAR EQUALLY SPACED

PAVEMENT SECTION LANDSCAPED AREA

1. WHERE UTILITY TRENCHES ARE CONSTRUCTED THROUGH

2. USE METALLIC TRACING/WARNING TAPE OVER ALL PIPES.

3. COMPACTED GRANULAR FILL MAY CONSIST OF GRAVEL,

SPECIAL SECTION REQUIREMENTS.

DETENTION BASIN BERMS OR OTHER SUCH SPECIAL SECTIONS, PLACE TRENCH BACKFILL WITH MATERIALS SIMILAR TO THE

CRUSHED STONE, SAND, OR OTHER MATERIAL AS APPROVED BY

- PRECAST CONCRETE FLARED

- STONE FOR PIPE ENDS

END SECTION - SLOPE 1:1 (MAX.)

SECTION A-A

Source: VHB

COMMON FILL ORDINARY BORROW

- DEPTH AND SURFACE

TREATMENT VARIES

- HAND TAMPED HAUNCHING

LD\_300

APRON EDGE TO

WITH FLARED END

INVERT ELEVATION

 CRUSHED STONE BEDDING

(2" STONE SIZE)

BE SET LEVEL

WARNING TAPE

SUBGRADE

# ACCESS 1. ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING. DIAMETER OF STRUCTURES SHALL BE COORDINATED WITH PIPE CONFIGURATIONS. COPOLYMER MANHOLE STEPS SHALL BE INSTALLED AT 12" O.C. FOR THE FULL DEPTH OF THE STRUCTURE. ALTERNATE TOP SLAB 3. FOR HDPE, PVC, AND DI PIPE, PROVIDE FLEXIBLE BOOT CONNECTION INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. FOR RCP, PROVIDE OPENINGS FOR PIPES ACCESS 8" WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE AND MORTAR CONNECTIONS. SEE NOTE 5. -4. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER. . DRAIN MANHOLE FRAME AND COVER SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM) NOTE 2 SEE NOTE 4. - SHELF TO BE CONCRETE FORMED AT SLOPE OF 1" PER FOOT. CEMENT CONCRETE INVERT COMPACTED GRAVEL — COMPACTED SUBGRADE

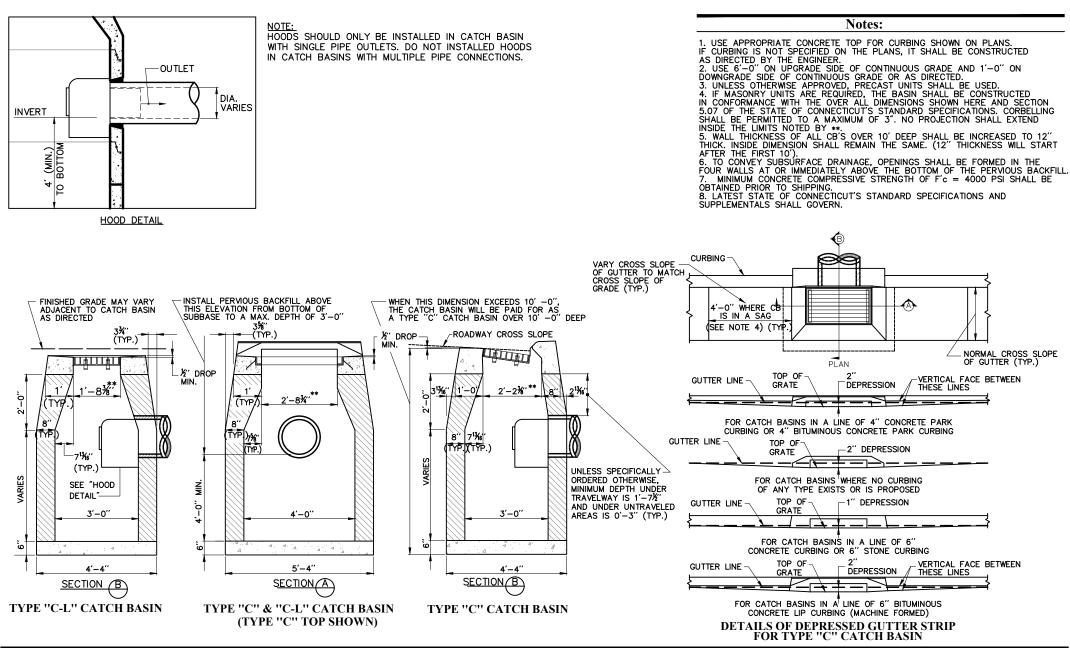
Drain

N.T.S.

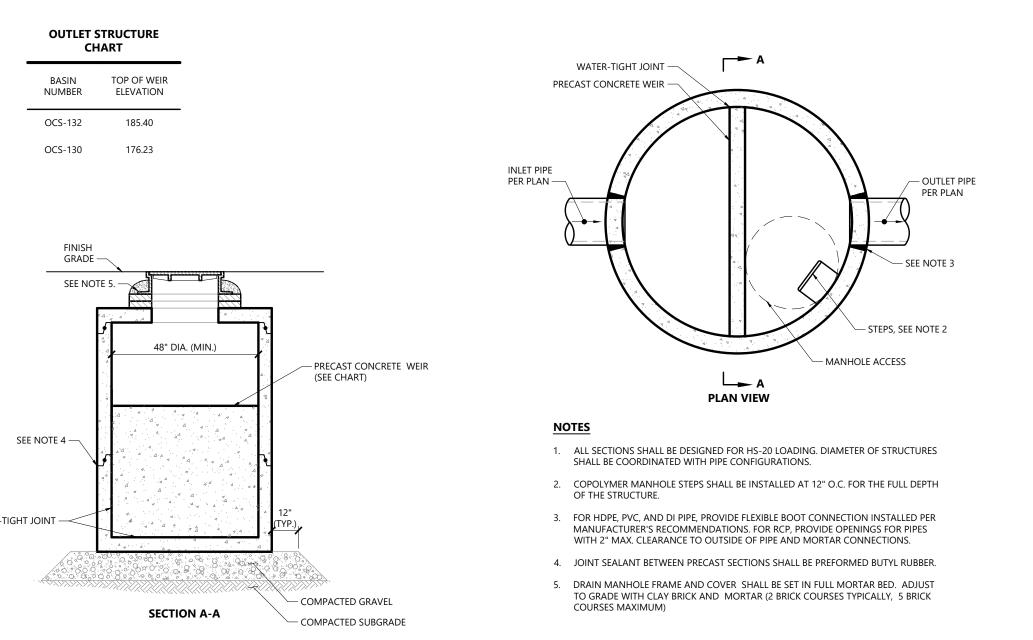
# - FINISH GRADE SEE NOTE 4. TOP OUTSIDE OF PIPE - SEE NOTE 3. - "DOGHOUSE" OPENING SEE NOTE 2. — COMPACTED SUBGRADE COMPACTED GRAVEL -

- 1. ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING.
- 2. PROVIDE DOGHOUSE OPENING FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE. TOP SLAB SHALL NOT REST DIRECTLY ON PIPE. GROUT ALL PIPE CONNECTIONS
- 3. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER. 4. CATCH BASIN FRAME AND GRATE (4"DEPTH) SHALL BE SET IN FULL MORTAR BED.
- 5. ADJUST TO FINISH GRADE WITH CLAY BRICK AND MORTAR AS REQUIRED.

Manhole (DMH)		Catch Basin (	(CB) Shallow Cover with Oil/Debris Tr	
Source: VHB	LD_115	N.T.S.	Source: VHB	



Miscellaneous Connecticut Detail Type "C" & "C-L" Catch Basins N.T.S.



Source: BY OTHERS

# ACCEPTABLE FILL MATERIALS: STORMTECH SC-310 CHAMBER SYSTEMS

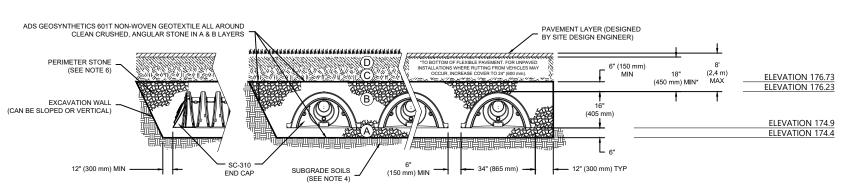
	MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
С	INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE (B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	OR	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kM). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (63 kN).
В	EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43 <sup>1</sup> 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
А	FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43¹ 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. <sup>2 3</sup>

PLEASE NOTE:

1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".

2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (150 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.

3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.



- SC-310 CHAMBERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F2418 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS", OR ASTM "STANDARD SPECIFICATION FOR POLYETHYLENE (PE) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- 2. SC-310 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION
- 3. "ACCEPTABLE FILL MATERIALS" TABLE ABOVE PROVIDES MATERIAL LOCATIONS, DESCRIPTIONS, GRADATIONS, AND COMPACTION REQUIREMENTS FOR FOUNDATION, EMBEDMENT, AND FILL MATERIALS. 4. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
- 5. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
- 6. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.

Subsurface Detention/Infiltration System (StormTech SC-310)	
N.T.S.	Source: StormTech

# ACCEPTABLE FILL MATERIALS: STORMTECH SC-740 CHAMBER SYSTEMS

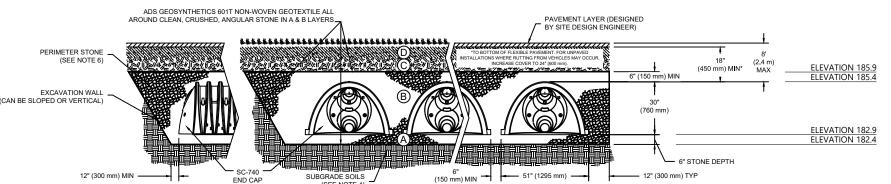
	MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
С	STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145¹ A-1, A-2-4, A-3  OR  AASHTO M43¹ 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 ibs (58 MM). DYNAMIC FORCE NOT TO EXCEED 20,000 ibs (89 MN).
В	CHAMBERS FROM THE FOUNDATION STONE ('A'	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43¹ 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
Α	FROM THE SUBGRADE UP TO THE FOOT (BOTTOM)	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43¹ 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. 2 3
	D C B	FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM D OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER  INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT C STONE (B' LAYER) TO 18" (450 mm) ABOVE THE	FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER  INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE (B' LAYER) TO 18' (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.  EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.  EMBEDMENT STONE: FILL BELOW CHAMBERS A FROM THE SUBGRADE UP TO THE FOOT (BOTTOM)  CLEAN, CRUSHED, ANGULAR STONE	FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER  INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER, NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.  GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE.  OR  AASHTO M145' A-1, A-2-4, A-3  OR  AASHTO M43' 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10  EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE (A' LAYER) TO THE 'C' LAYER ABOVE.  FOUNDATION STONE: FILL BELOW CHAMBERS FOON THE SUBGRADE UP TO THE FOOT (BOTTOM)  CLEAN, CRUSHED, ANGULAR STONE  AASHTO M43' 3, 357, 4, 467, 5, 56, 57  AASHTO M43' 3, 357, 4, 467, 5, 56, 57  AASHTO M43' 3, 357, 4, 467, 5, 56, 57  AASHTO M43' 3, 357, 4, 467, 5, 56, 57  AASHTO M43' 3, 357, 4, 467, 5, 56, 57  AASHTO M43' 3, 357, 4, 467, 5, 56, 57  AASHTO M43' 3, 357, 4, 467, 5, 56, 57  AASHTO M43' 3, 357, 4, 467, 5, 56, 57  CLEAN, CRUSHED, ANGULAR STONE  AASHTO M43' 3, 357, 4, 467, 5, 56, 57

PLEASE NOTE:

1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".

2. STORNITECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (150 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.

3. WHERE INFILITRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGNAL LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION FOR MATERIAL FOR PROPERTY AND ARE DESIGNAL ORDER OF THE PROPERTY FOR PROPERTY AND ARE DESIGNAL ORDER OF THE PROPERTY FOR PROPERTY FOR



LD\_162A

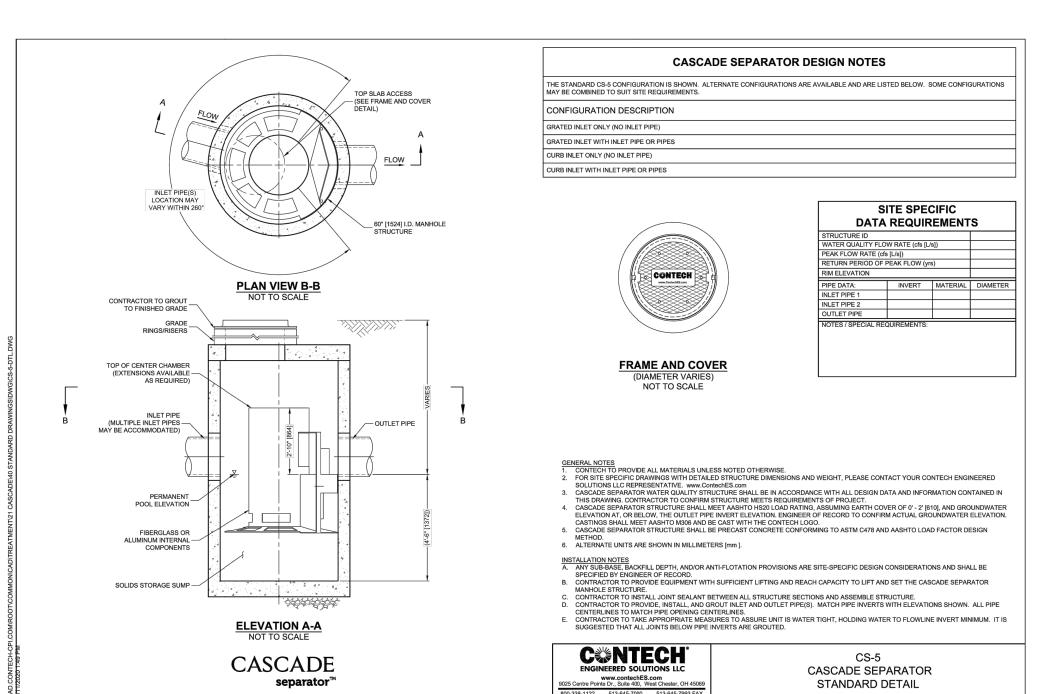
- 1. SC-740 CHAMBERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F2418 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS", OR ASTM F2922 "STANDARD SPECIFICATION FOR POLYETHYLENE (PE) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- 2. SC-740 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION
- 3. \*ACCEPTABLE FILL MATERIALS\* TABLE ABOVE PROVIDES MATERIAL LOCATIONS, DESCRIPTIONS, GRADATIONS, AND COMPACTION REQUIREMENTS FOR FOUNDATION, EMBEDMENT, AND FILL
- 4. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS. 5. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.

EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS

6. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.

# **Subsurface Detention/Infiltration System (StormTech SC-740)**

10/20 LD\_182-740





Suite 200 Wethersfield, CT 06109 860.807.4300

# **Proposed Commercial** Development

1263 Hopmeadow Street Simsbury, Connecticut

LD\_182-310

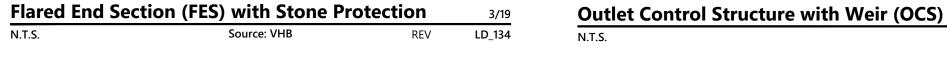
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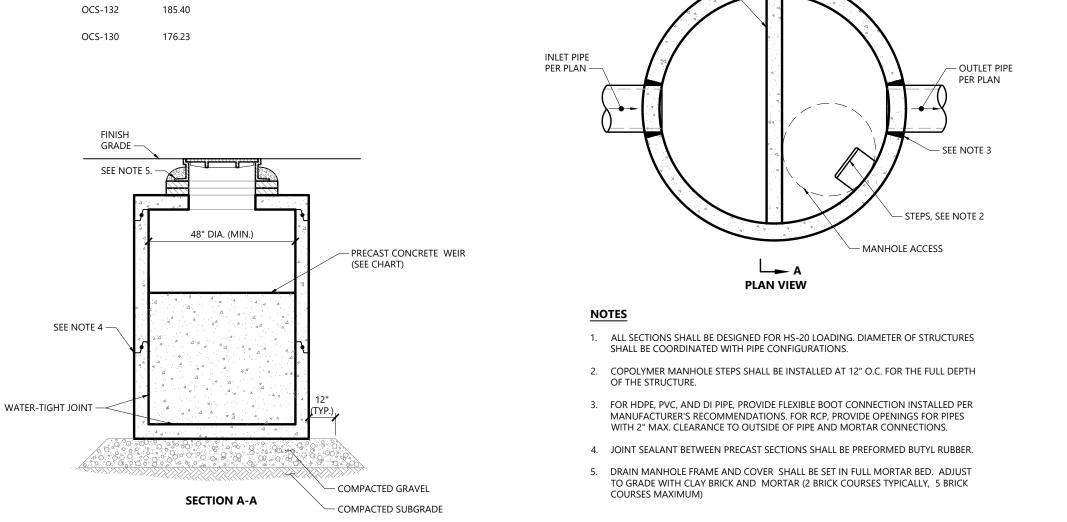
May 26, 2023 **Local Approvals** 



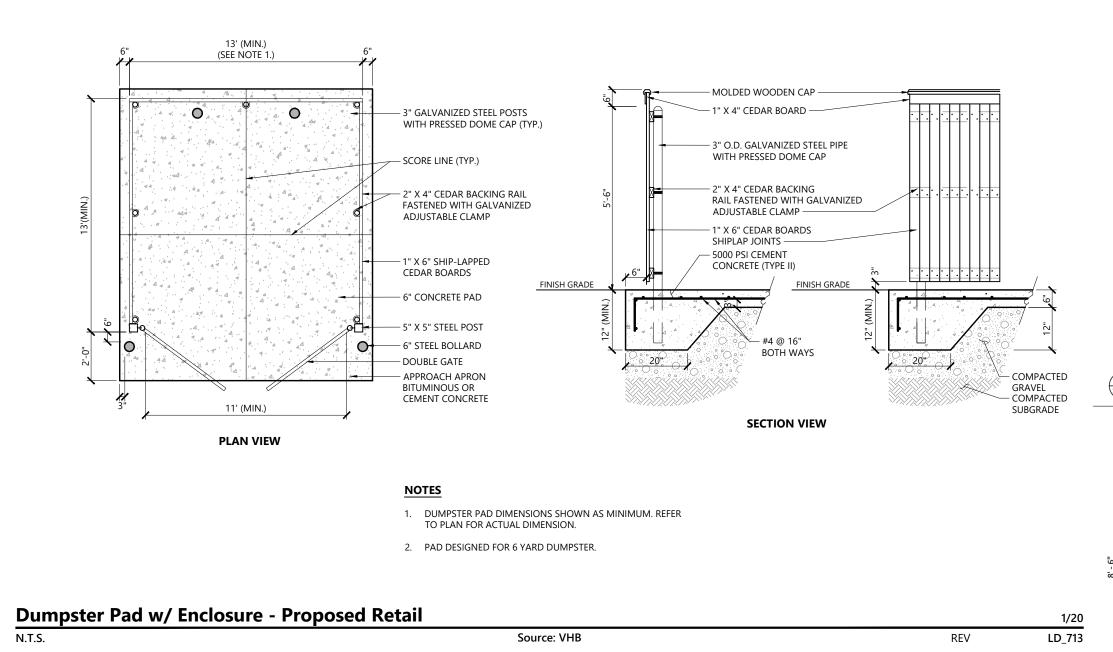






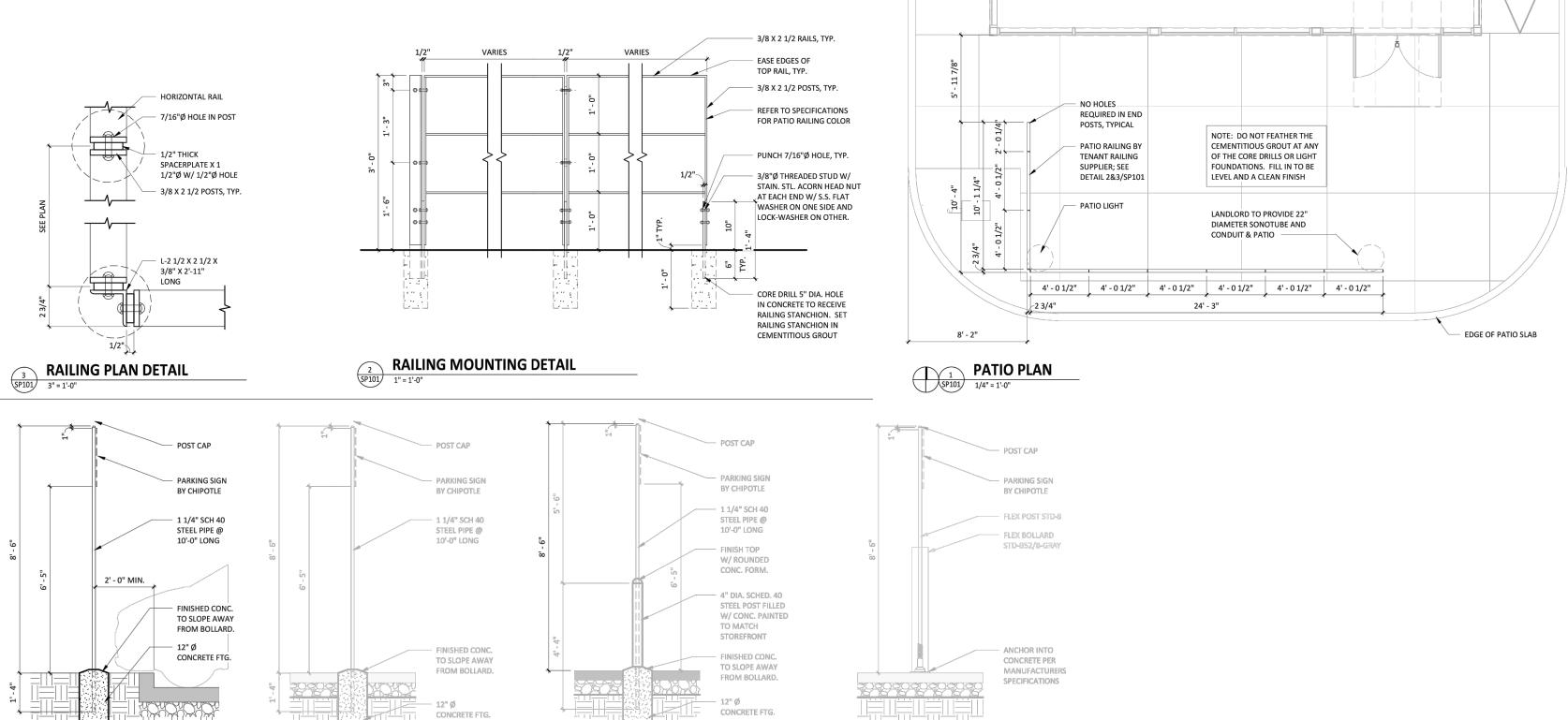


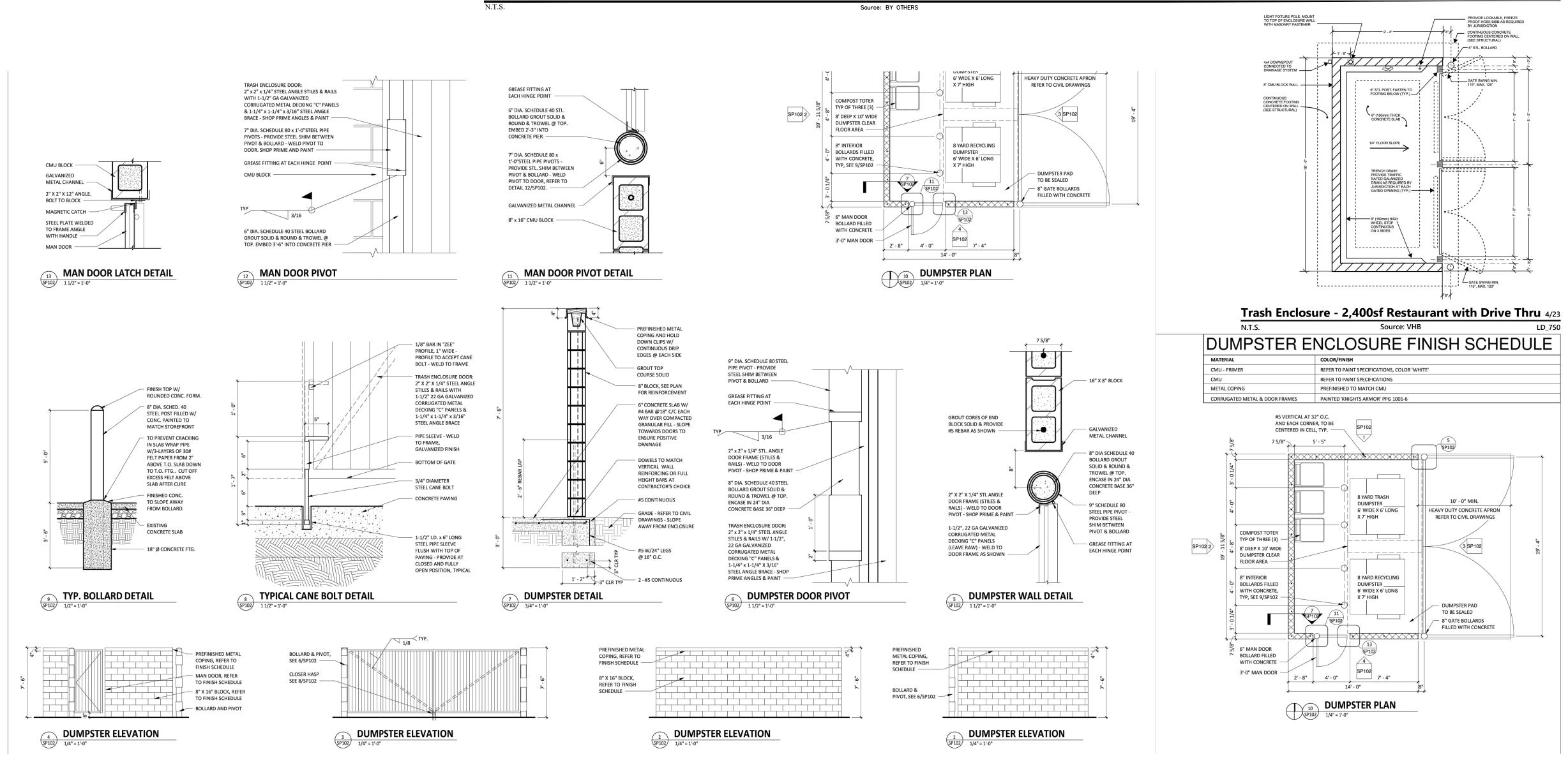
Source: VHB



**Dumpster Detail for 2,325 Restaurant with Digital Pickup** 

Source: BY OTHERS





Patio Railing Details for 2,325 Restaurant with Digital Pickup

# Proposed Commercial Development

100 Great Meadow Road

Wethersfield, CT 06109

Suite 200

860.807.4300

1263 Hopmeadow Street Simsbury, Connecticut

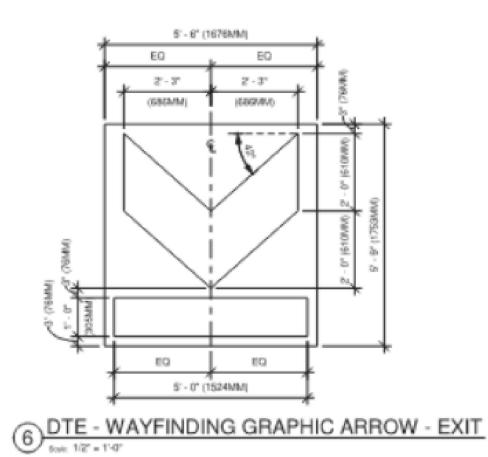
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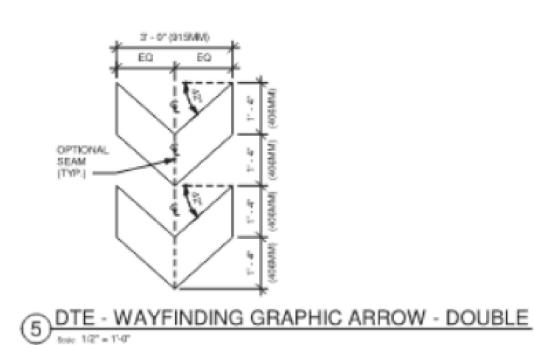


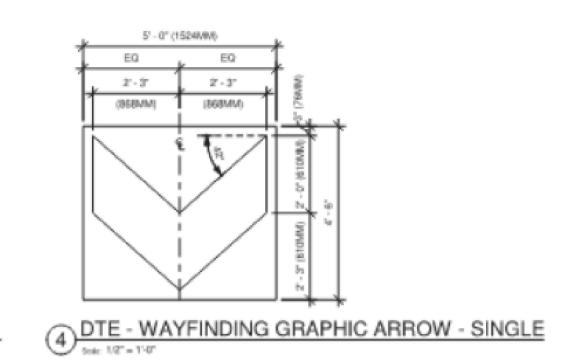


**C-9** 

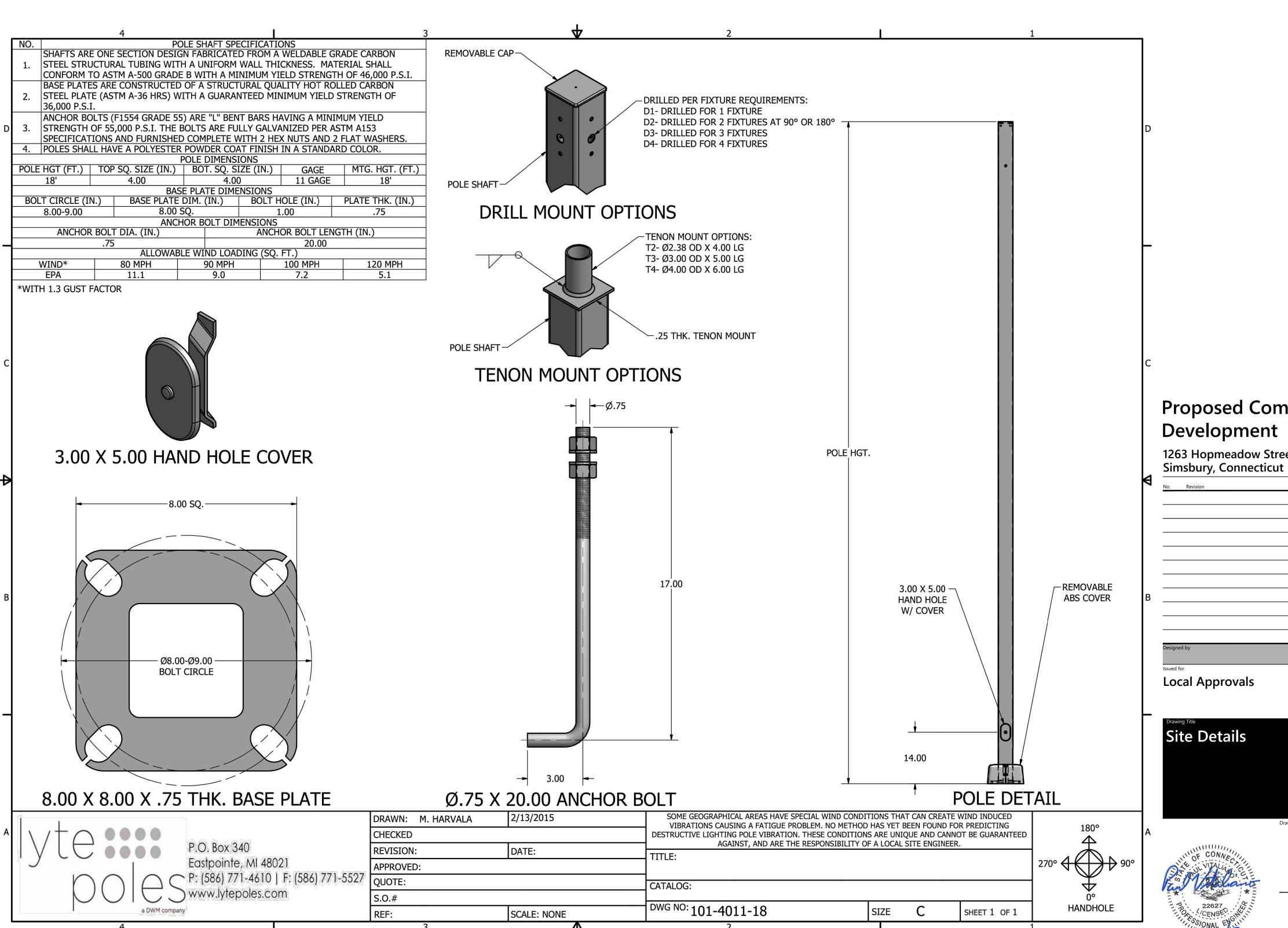








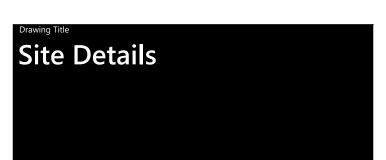




# **Proposed Commercial** Development

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1263 Hopmeadow Street

No.	Revision	Date	Appvd.
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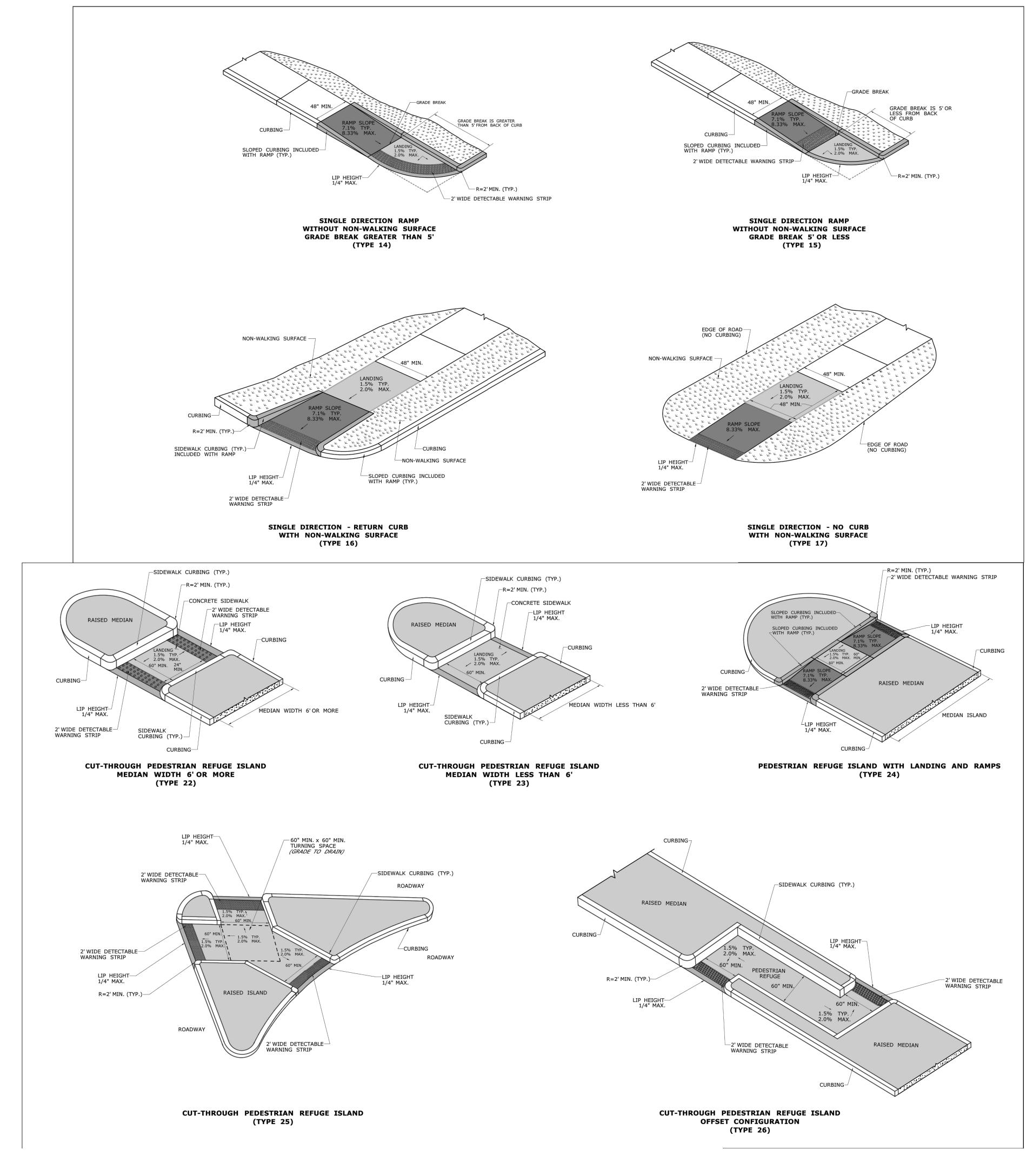




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# Proposed Commercial Development

1263 Hopmeadow Street Simsbury, Connecticut

Local Approvals	May 26, 2023
Issued for	Date
Designed by	Checked by





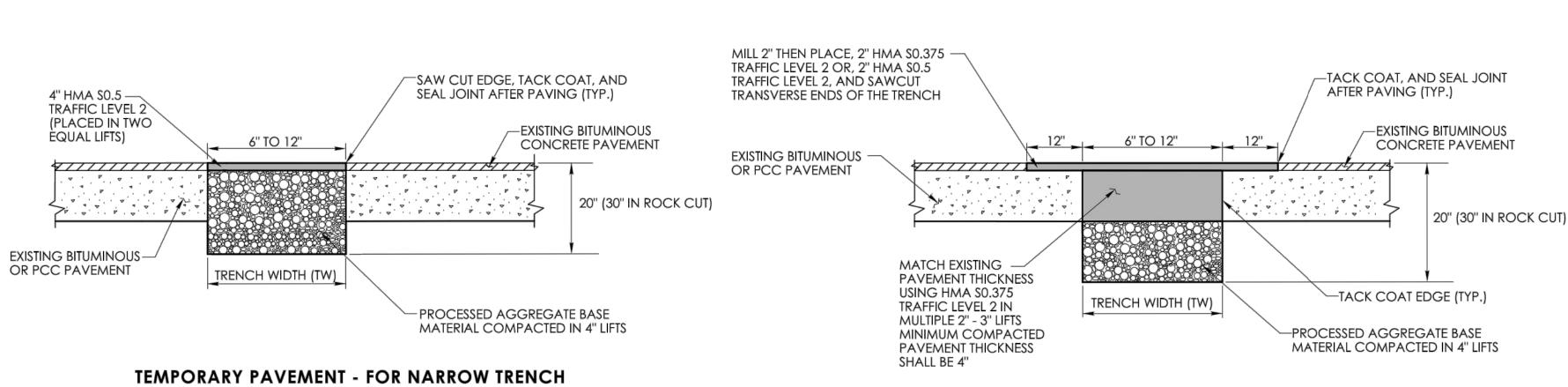
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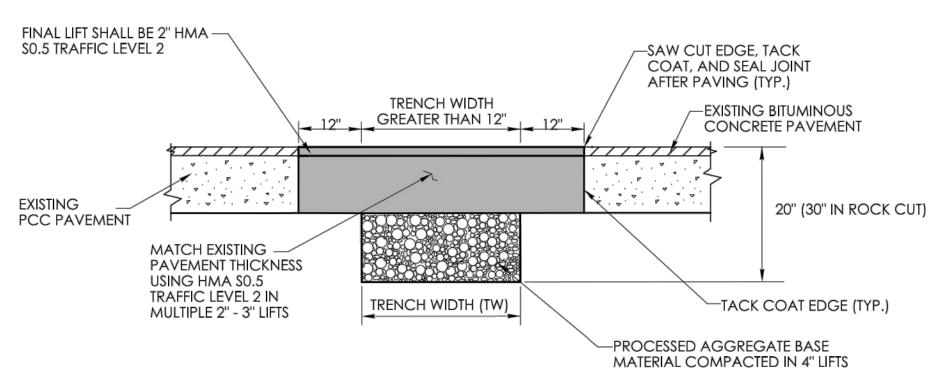
Suite 200

860.807.4300

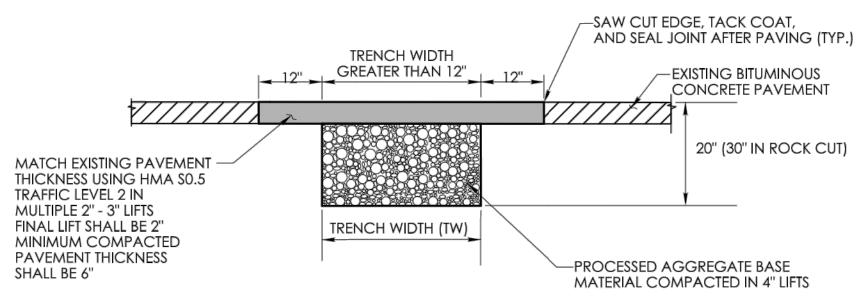
Wethersfield, CT 06109



# PERMANENT PAVEMENT - FOR NARROW TRENCH THROUGH BITUMINOUS CONCRETE OR OVERLAID PORTLAND CEMENT CONCRETE (PCC) (TRENCH WIDTH BETWEEN 6" AND 12"



# PERMANENT PAVEMENT FOR TRENCH THROUGH OVERLAID PORTLAN CEMENT CONCRETE (PCC) (TRENCH WIDTH GREATER THAN 12")



PERMANENT PAVEMENT FOR TRENCH THROUGH BITUMINOUS CONCRETE

# **GENERAL NOTES:**

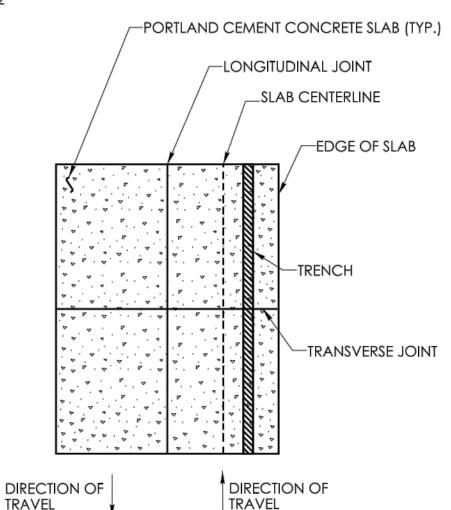
### 1. LONGITUDINAL TRENCHING FOR JOINTED CONCRETE PAVEMENT:

- A. IF THE LONGITUDINAL TRENCH FALLS BETWEEN THE SLAB CENTERLINE AND THE EDGE OF SLAB, REMOVE CONCRETE AND BITUMINOUS CONCRETE PAVEMENT FROM THE TRENCH EDGE TO THE EDGE OF ROAD. IF THE LONGITUDINAL TRENCH FALLS BETWEEN THE LONGITUDINAL JOINT AND THE SLAB CENTERLINE, REMOVE THE ENTIRE CONCRETE SLAB AND BITUMINOUS CONCRETE PAVEMENT TO THE EDGE OF ROAD. IN EITHER CASE REBUILD WITH THE FOLLOWING:
  - a. PLACE HMA \$1.0 TRAFFIC LEVEL 2 IN TWO EQUAL 4" 5" LIFTS TO MATCH EXISTING CONCRETE PAVEMENT THICKNESS b. PLACE HMA SO.5 TRAFFIC LEVEL 2 IN 2" - 3" LIFTS TO MATCH EXISTING BITUMINOUS CONCRETE PAVEMENT THICKNESS, WITH THE FINAL LIFT BEING 2"

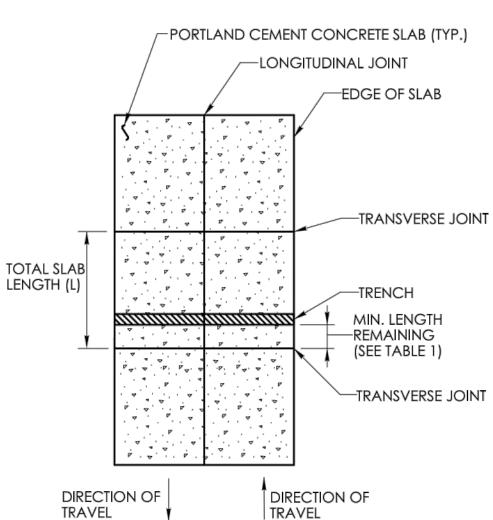
### 2. TRANSVERSE TRENCHING FOR JOINTED CONCRETE PAVEMENT:

	:	
TABLE 1		
TOTAL SLAB LENGTH (L)	MIN. LENGTH REMAINING	
40' OR LONGER	1/4 L	
15' - 40'	10'	
15' OR SHORTER	REBUILD TO NEAREST JOINT	

- A. FOR TRANSVERSE TRENCHES, THE MINIMUM SLAB LENGTH AS SHOWN IN TABLE 1 SHALL BE LEFT IN PLACE TO THE NEAREST TRANSVERSE JOINT. IF THIS CRITERIA CANNOT BE MET, THE EXISTING SLAB AREA FROM THE TRENCH EDGE TO THE NEAREST TRANSVERSE JOINT SHALL BE REMOVED AND REBUILT AS FOLLOWS:
  - a. PLACE HMA \$1.0 TRAFFIC LEVEL 2 IN TWO EQUAL 4" 5" LIFTS TO MATCH EXISTING CONCRETE PAVEMENT THICKNESS b. PLACE HMA SO.5 TRAFFIC LEVEL 2 IN 2" - 3" LIFTS TO MATCH EXISTING BITUMINOUS CONCRETE PAVEMENT THICKNESS, WITH THE FINAL LIFT BEING 2"



LONGITUDINAL TRENCHING FOR JOINTED CONCRETE PAVEMENT (SEE NOTE 1)



TRANSVERSE TRENCHING FOR JOINTED CONCRETE PAVEMENT (SEE NOTE 2)

# **Proposed Commercial** Development

1263 Hopmeadow Street Simsbury, Connecticut

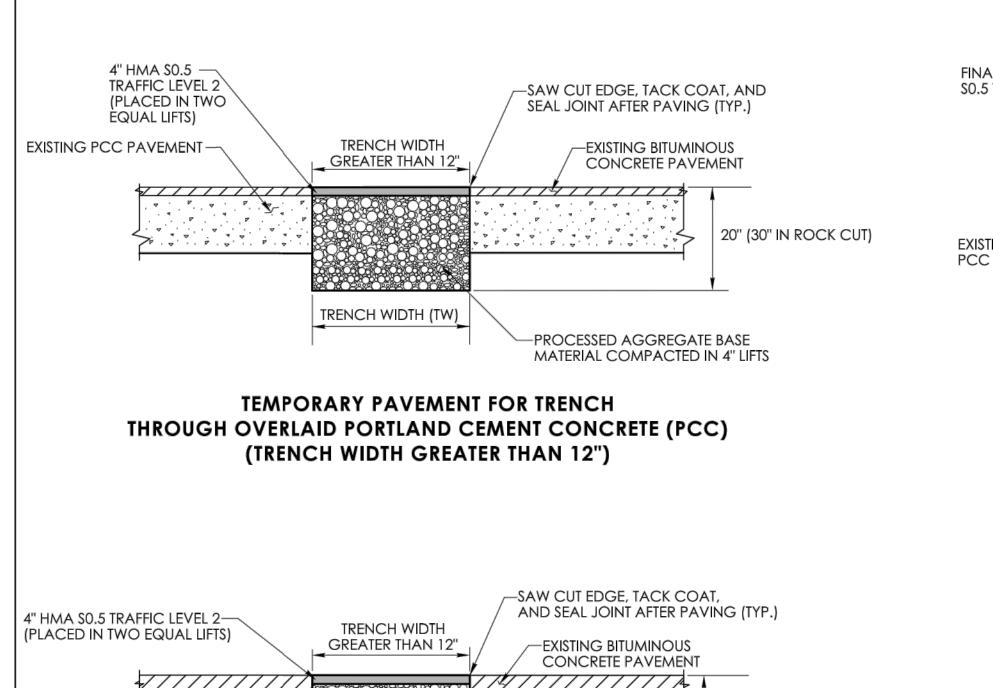
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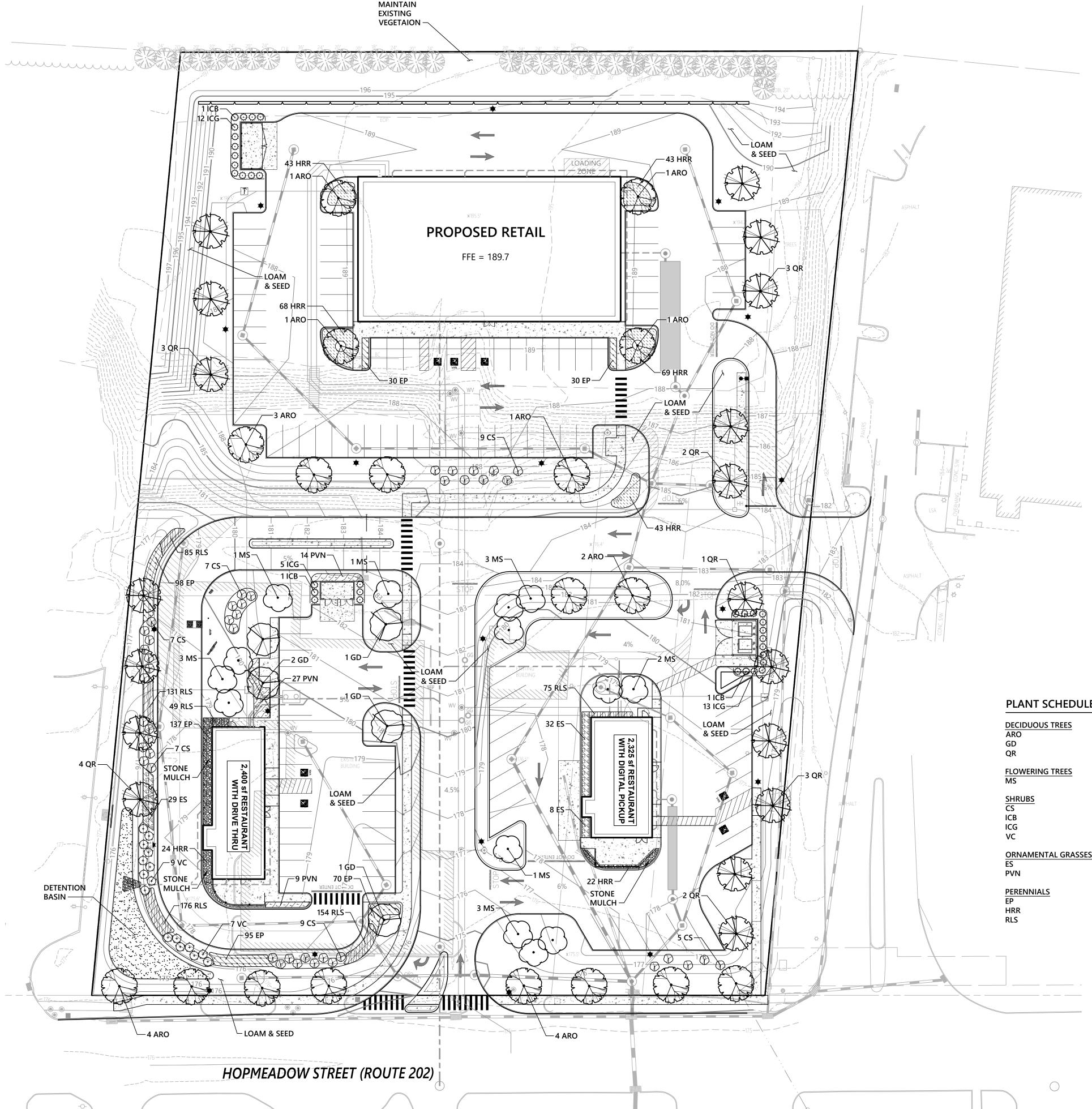
THROUGH BITUMINOUS CONCRETE OR

OVERLAID PORTLAND CEMENT CONCRETE (PCC)

(TRENCH WIDTH BETWEEN 6" AND 12")

20" (30" IN ROCK CUT) TRENCH WIDTH (TW) PROCESSED AGGREGATE BASE MATERIAL COMPACTED IN 4" LIFTS

> TEMPORARY PAVEMENT FOR TRENCH THROUGH BITUMINOUS CONCRETE (TRENCH WIDTH GREATER THAN 12")



# **Planting Notes**

- 1. ALL PROPOSED PLANTING LOCATIONS SHALL BE STAKED AS SHOWN ON THE PLANS FOR FIELD REVIEW AND APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
- 2. CONTRACTOR SHALL VERIFY LOCATIONS OF ALL BELOW GRADE AND ABOVE GROUND UTILITIES AND NOTIFY OWNERS REPRESENTATIVE OF CONFLICTS.
- 3. NO PLANT MATERIALS SHALL BE INSTALLED UNTIL ALL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA. CONTRACTOR SHALL NOTIFY OWNER'S REPRESENTATIVE OF ANY CONFLICT.
- 4. A 3-INCH DEEP MULCH PER SPECIFICATION SHALL BE INSTALLED UNDER ALL TREES AND SHRUBS, AND IN ALL PLANTING BEDS, UNLESS OTHERWISE INDICATED ON THE PLANS, OR AS DIRECTED BY OWNER'S REPRESENTATIVE.
- 5. ALL TREES SHALL BE BALLED AND BURLAPPED, UNLESS OTHERWISE NOTED IN THE DRAWINGS OR SPECIFICATION, OR APPROVED BY THE OWNER'S
- 6. FINAL QUANTITY FOR EACH PLANT TYPE SHALL BE AS GRAPHICALLY SHOWN ON THE PLAN. THIS NUMBER SHALL TAKE PRECEDENCE IN CASE OF ANY DISCREPANCY BETWEEN QUANTITIES SHOWN ON THE PLANT LIST AND ON THE PLAN. THE CONTRACTOR SHALL REPORT ANY DISCREPANCIES BETWEEN THE NUMBER OF PLANTS SHOWN ON THE PLANT LIST AND PLANT LABELS PRIOR TO BIDDING.
- 7. ANY PROPOSED PLANT SUBSTITUTIONS MUST BE REVIEWED BY LANDSCAPE ARCHITECT AND APPROVED IN WRITING BY THE OWNER'S REPRESENTATIVE.
- 8. ALL PLANT MATERIALS INSTALLED SHALL MEET THE SPECIFICATIONS OF THE "AMERICAN STANDARDS FOR NURSERY STOCK" BY THE AMERICAN ASSOCIATION OF NURSERYMEN AND CONTRACT DOCUMENTS.
- 9. ALL PLANT MATERIALS SHALL BE GUARANTEED FOR ONE YEAR FOLLOWING DATE OF FINAL ACCEPTANCE.
- 10. AREAS DESIGNATED "LOAM & SEED" SHALL RECEIVE MINIMUM 6" OF LOAM AND SPECIFIED SEED MIX. LAWNS OVER 2:1 SLOPE SHALL BE PROTECTED WITH EROSION CONTROL FABRIC.
- 11. ALL DISTURBED AREAS NOT OTHERWISE NOTED ON CONTRACT DOCUMENTS SHALL BE LOAM AND SEEDED OR MULCHED AS DIRECTED BY OWNER'S REPRESENTATIVE.
- 12. THIS PLAN IS INTENDED FOR PLANTING PURPOSES. REFER TO SITE / CIVIL DRAWINGS FOR ALL OTHER SITE CONSTRUCTION INFORMATION.

# **Plant Maintenance Notes**

- 1. CONTRACTOR SHALL PROVIDE COMPLETE MAINTENANCE OF THE LAWNS AND PLANTINGS. NO IRRIGATION IS PROPOSED FOR THIS SITE. THE CONTRACTOR SHALL SUPPLY SUPPLEMENTAL WATERING FOR NEW LAWNS AND PLANTINGS DURING THE ONE YEAR PLANT GUARANTEE PERIOD.
- CONTRACTOR SHALL PROVIDE ALL MATERIALS, LABOR, AND EQUIPMENT FOR THE COMPLETE LANDSCAPE MAINTENANCE WORK. WATER SHALL BE PROVIDED BY THE CONTRACTOR.
- WATERING SHALL BE REQUIRED DURING THE GROWING SEASON, WHEN NATURAL RAINFALL IS BELOW ONE INCH PER WEEK.
- 4. WATER SHALL BE APPLIED IN SUFFICIENT QUANTITY TO THOROUGHLY SATURATE THE SOIL IN THE ROOT ZONE OF EACH PLANT.
- 5. CONTRACTOR SHALL REPLACE DEAD OR DYING PLANTS AT THE END OF THE ONE YEAR GUARANTEE PERIOD. CONTRACTOR SHALL TURN OVER MAINTENANCE TO THE FACILITY MAINTENANCE STAFF AT THAT TIME.

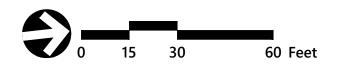
DECIDUOUS TREES	<u>QTY</u> 18	BOTANICAL NAME	COMMON NAME	SIZE	
ARO	18	Acer rubrum 'October Glory'	October Glory Maple	2 1/2 - 3" CAL.	
GD	5	Gymnocladus dioica 'Prarie Titan'	Prairie Titan® Kentucky Coffeetree	2 1/2 - 3" CAL.	
QR	18	Quercus rubra	Red Oak	2 1/2 - 3" CAL.	
FLOWERING TREES	<u>QTY</u> 14	BOTANICAL NAME	COMMON NAME	<u>SIZE</u> 2 - 3" CAL.	
MS	14	Malus hybrid `Spring Snow`	Spring Snow Crab Apple	2 - 3" CAL.	
SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	
CS	<u>QTY</u> 44	Cornus sericea `Arctic Fire`	Arctic Fire Red Twig Dogwood	<del>24 -</del> 30" HT.	
ICB	3	Ilex x meserveae 'China Boy'	China Boy® Holly	18 - 24" HT.	
ICG	30	Ilex x meserveae 'China Girl'	China Girl® Holly	18 - 24" HT.	
VC	16	Vaccinium corymbosum	Highbush Blueberry	2 - 3` HT.	
ORNAMENTAL GRASSES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING
ES	<del>69</del>	Eragrostis spectabilis	Purple Lovegrass	2 GAL.	30" o.c.
PVN	50	Panicum virgatum `Northwind`	Northwind Switch Grass	2 GAL.	36" o.c.
PERENNIALS	QTY	BOTANICAL NAME	COMMON NAME	<u>SIZE</u> 2 GAL.	SPACING
EP	460	Echinacea purpurea	Coneflower	2 GAL.	18" o.c.
HRR	312	Hemerocallis x 'Rosy Returns'	Rosy Returns Daylily	1 GAL.	24" o.c.
RLS	670	Rudbeckia fx 'Little Suzy'	Little Suzy Coneflower	1 GAL.	12" o.c.

# **Seed Mixtures:**

1. AREAS INDICATED AS "DETENTION BASIN" ARE TO BE SEEDED WITH NEW ENGLAND EROSION CONTROL / RESTORATION MIX FOR DETENTION PONDS AND MOIST AREAS, AS MANUFACTURED BY NEW ENGLAND WETLAND PLANTS, INC. AMHERST, MA (413) 548-8000, www.NEWP.com,OR AN APPROVED EQUAL. APPLY IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.



100 Great Meadow Road Suite 200 Wethersfield, CT 06109 860.807.4300



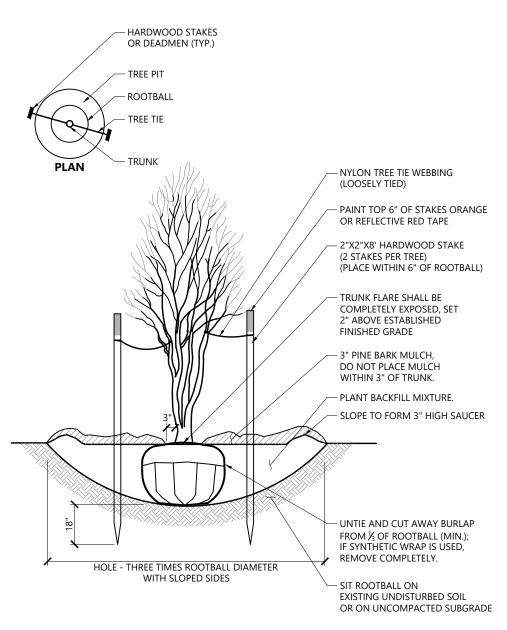
# **Proposed Commercial** Development

1263 Hopmeadow Street Simsbury, Connecticut

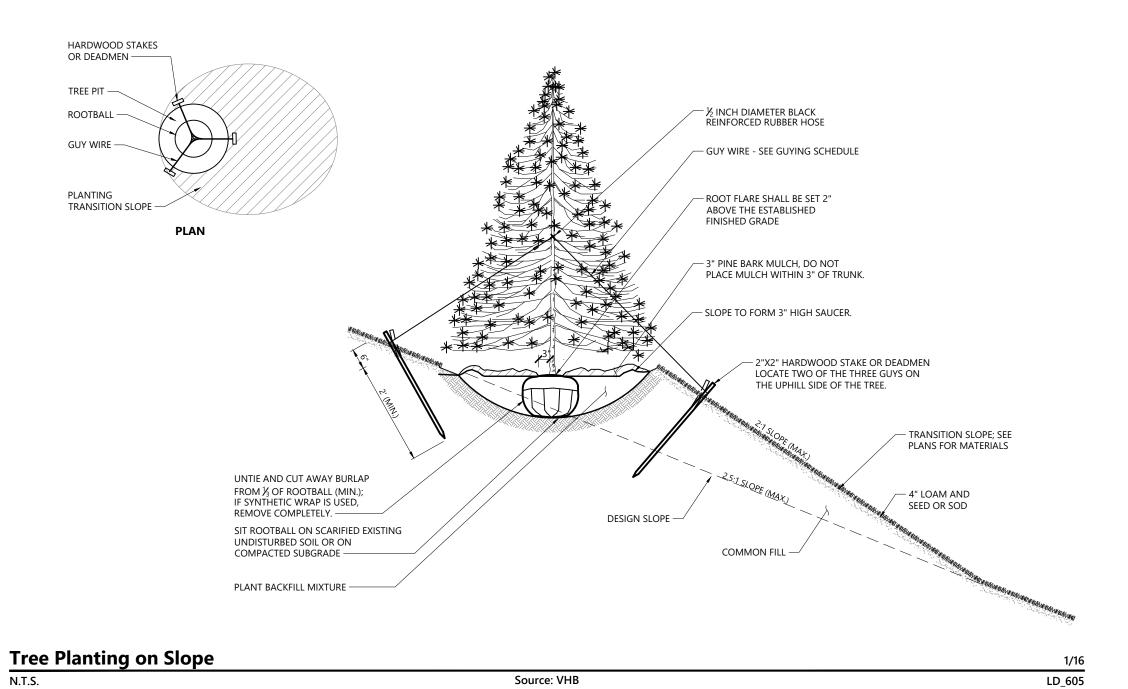
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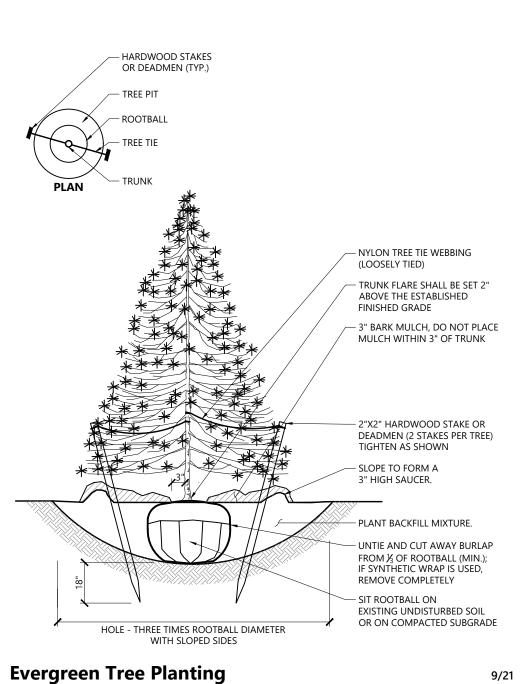


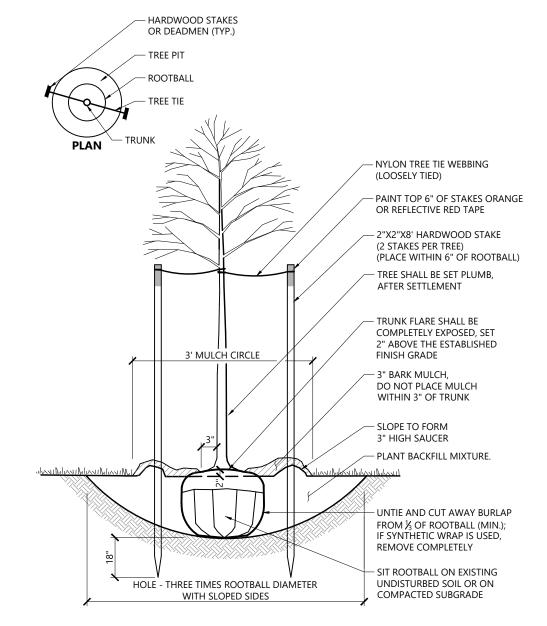


**Multistem Tree Planting** 9/21 LD\_606

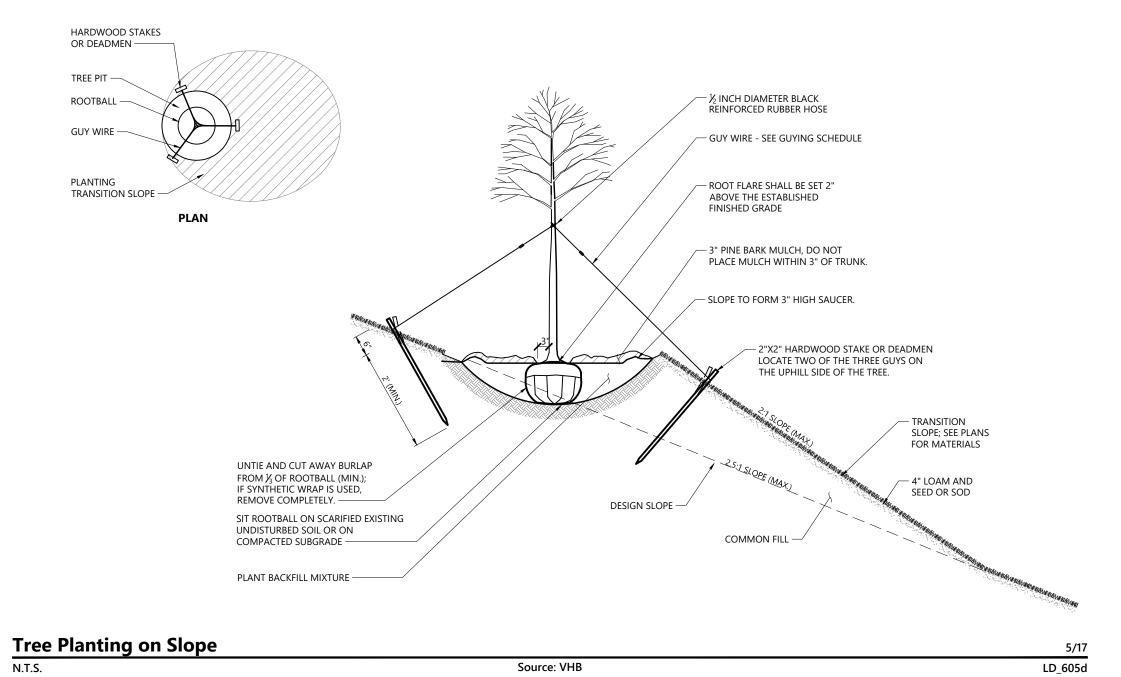


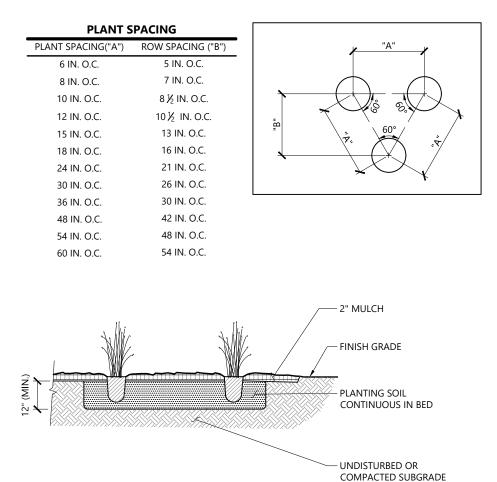
Source: VHB





**Tree Planting (For Trees Under 4" Caliper)** 9/21 LD\_604 LD\_602

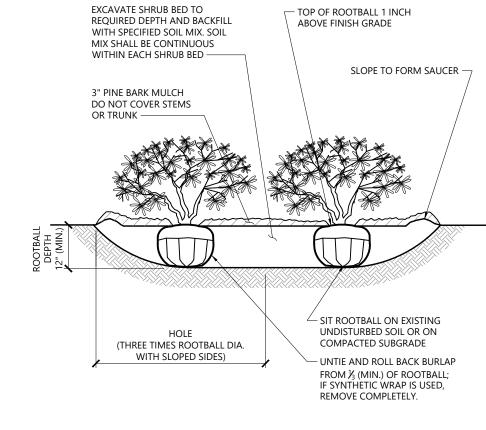




54 IN. O.C.	48 IN. O.C.
60 IN. O.C.	54 IN. O.C.
	2
	2" MULCH
a Wilco	s. Wile
	— FINISH GRADE
2	
12" (MIN.)	PLANTING SOIL
<u>-</u>	CONTINUOUS IN BED
	UNDISTURBED OR
	COMPACTED SUBGRADE

Perennial and	Ornamental Grass Planting	1/16
N.T.S.	Source: VHB	LD_618

LD\_605d



LOOSEN ROOTS AT THE OUTER EDGE
 OF ROOTBALL OF CONTAINER
 GROWN SHRUBS.

Shrub Bed Planting LD\_601





1263 Hopmeadow Street Simsbury, Connecticut

Development

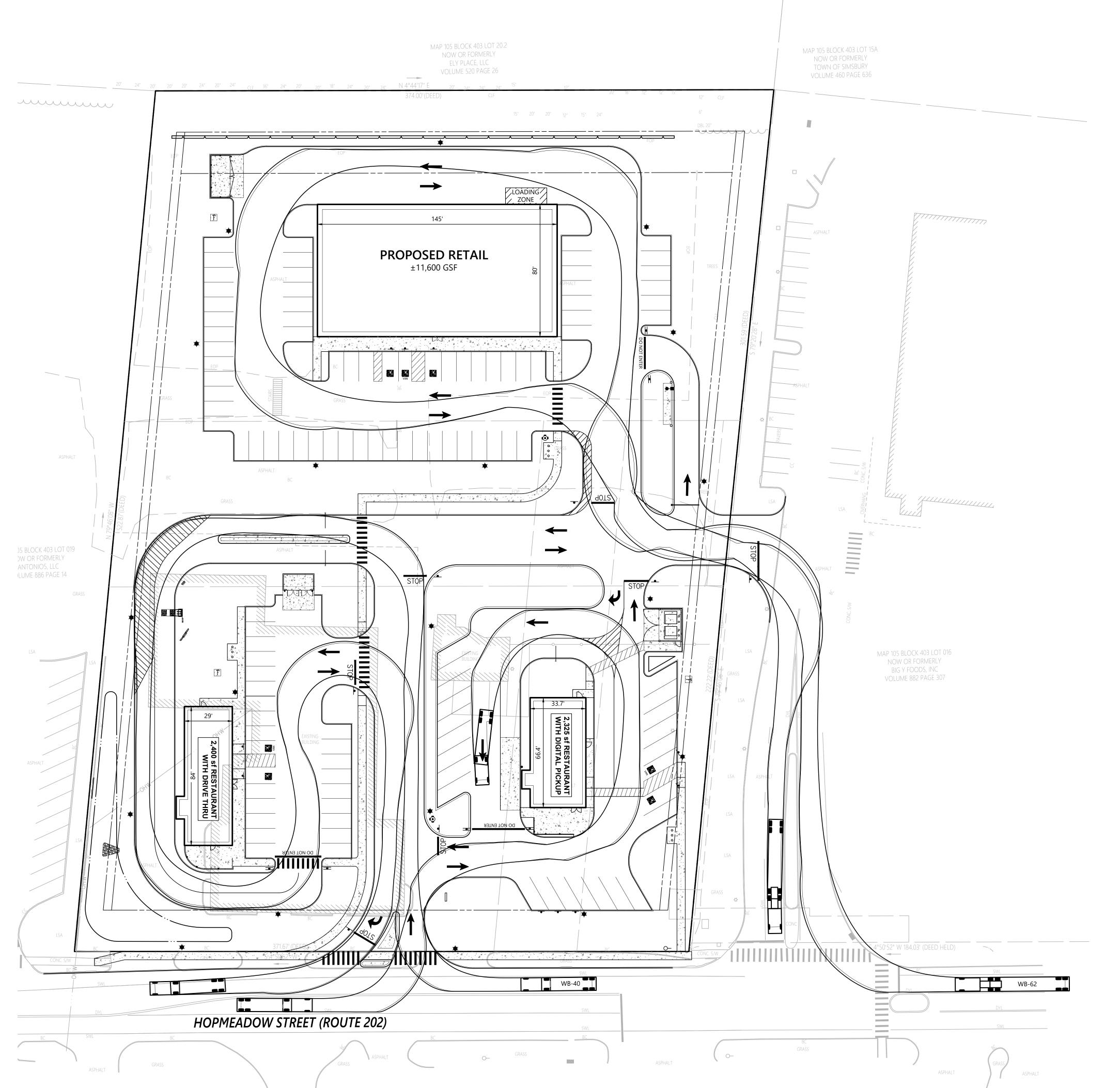
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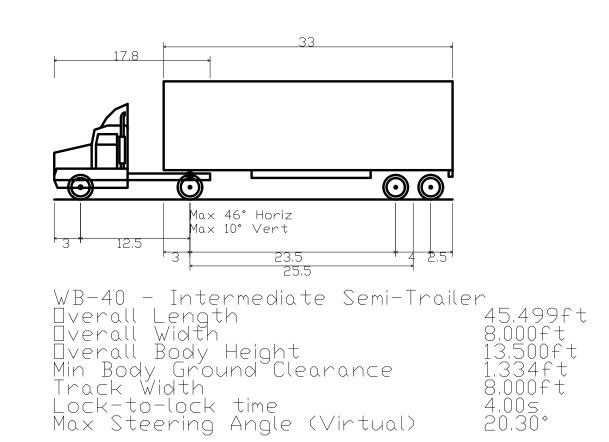
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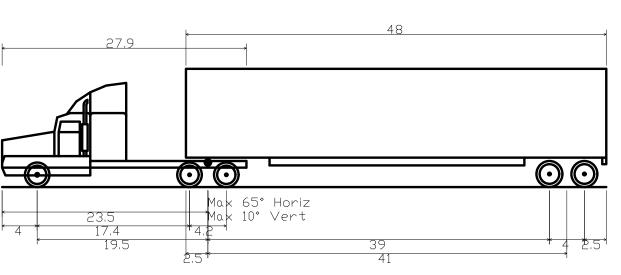




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WB-62 - Interstate Semi-Trailer

Overall Length
Overall Width
Overall Body Height
Min Body Ground Clearance
Max Track Width
Lock-to-lock time
Max Steering Angle (Virtual)

13.500ft
13.334ft
8.500ft
6.00s



100 Great Meadow Road

Wethersfield, CT 06109

Suite 200

860.807.4300

# Proposed Commercial Development

1263 Hopmeadow Street Simsbury, Connecticut

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Local Approvals	May 26, 2023		
Issued for	Date		
Designed by	Checked by		

Truck Movement
Plan



TT-1

HOPMEADOW STREET (ROUTE 202)



100 Great Meadow Road Suite 200 Wethersfield, CT 06109 860.807.4300

V	0	15	30	60 Feet

# Proposed Commercial Development

1263 Hopmeadow Street Simsbury, Connecticut

Revision	Date	Appvd.

Local Approvals	May 26, 2023
Issued for	Date
Designed by	Checked by

11

Intersection Sight
Distance Plan



SD-1

# Legend ■ CATCH BASIN CATCH BASIN FLARED END SECTION DS • DOWNSPOUT D DRAIN MANHOLE S SEWER MANHOLE E ELECTRIC MANHOLE TELEPHONE MANHOLE MANHOLE © SIGNAL MANHOLE W WATER MANHOLE WATER GATE ♦♦ SIAMESE CONNECTION FIRE HYDRANT GAS GATE STREET SIGN □ LIGHT POLE ₩ FLOOD LIGHT O UTILITY POLE ⇒ UTILITY POLE W/LIGHT -**⊕** GUY POLE BOLLARD/POST BORING mw 👄 monitoring well TP-1 🛨 TEST PIT WF 1-100 ▲ WETLAND FLAG 100.0 × SPOT ELEVATION 长 HANDICAP SYMBOL — — EDGE OF GRAVEL/LANDSCAPE ——— EDGE OF TRAVELED WAY ······ EDGE OF PATH ---- BUILDING OVERHANG STEEL GUARD RAIL — " " " WOOD GUARD RAII ———————— UNDERGROUND DRAINAGE L**i**ne — — — — — UNDERGROUND SEWER LINE OVERHEAD WIRE — E — UNDERGROUND ELECTRIC LINE ------ G ------- UNDERGROUND GAS LINE —— UNDERGROUND WATER LINE ---- UNDERGROUND TELEPHONE LINE ——— UNDERGROUND FIBER OPTIC LINE · COCOCO · STONE WALL TREE LINE <del>- - - - - - S</del>TATE H**I**GHWAY LINE ———— — CITY/TOWN LAYOUT LINE

# Map References

- 1. MAP TITLED "CONNECT STATE HIGHWAY DEPARTMENT RIGHT OF WAY MAP TOWN OF SIMSBURY COLLEGE HIGHWAY FROM THE GRANBY TOWN LINE SOUTHERLY TO HOSKINS CROSSING ROUTE NO. 116" SCALE 1"=40' DATED DEC. 30, 1931 REVISED AUGUST 15, 1986, NUMBER 338 SHEET NO. 3 OF 3.
- 2. MAP TITLED "RIGHT OF WAY SURVEY TOWN OF SIMSBURY MAP SHOWING EASEMENTS ACQUIRED FROM BIG Y FOODS, INC. BY THE STATE OF CONNECTICUT HOPMEADOW STREET (CT ROUTE 10 & U.S. ROUTE 202)" SCALE 1"=40' DATE: 03-25-2020, REVISED TO 04-17-2020.
- 3. MAP TITLED "FOUNDATION LOCATION IMPROVEMENT LOCATION PLAN-RECORD PROPERTY OF BIG Y FOODS, INC. HOPMEADOW STREET SIMSBURY. CONNECTICUT" SCALE 1"=40' DATED 03-06-2020 REVISED 09-30-2020.
- 4. MAP TITLED "SURVEY-WAGNER FORD COLLEGE HIGHWAY SIMSBURY, CONN." SCALE 1"=40' DATED 5-21-56.
- 5. MAP TITLED "PROPERTY OF PENTAGON BUILDING CORPORATION COLLEGE HIGHWAY-CONN. RT. 10 & ELY LANE SIMSBURY, CONNECTICUT" SCALE 1"=100' DATED FEBRUARY 8, 1965.
- MAP TITLED "PROPERTY OF WAGNER FORD & SALES INC. MADELINE F. AND RICHARD D. WAGNER HOPMEADOW STREET SIMSBURY, CONNECTICUT" SCALE 1"=40' DATED AUGUST 1964 REVISED TO SEPT. 9, 1969.
- 7. MAP TITLED "ESTATE OF HILDA WESTERBERG OSBORNE 1313 HOPMEADOW STREET SIMSBURY, CONNECTICUT" SCALE 1"=40' DATED OCTOBER 1968.
- 8. MAP TITLED "EXHIBIT A-3 TO DECLARATION OF ELY PLACE CONDOMINIUM PROPERTY OF STEPHEN D. FISH ELY LANE & HOSKINS ROAD SIMSBURY, CONNECTICUT" SCALE 1"=40' DATED OCTOBER 1984.
- 9. MAP TITLED "BOUNDARY LINE ADJUSTMENT PREPARED FOR WAGNER FORD SALES, INC. & CHARLES GERSTEN TRUSTEE HOPMEADOW STREET-SIMSBURY, CONNECTICUT" SCALE 1"=20' DATED JANUARY 27, 2003.
- 10. MAP TITLED "EXISTING CONDITIONS PLAN PREPARED FOR WAGNER HOPMEADOW STREET & ELY LANE SIMSBURY, CONNECTICUT" SCALE 1"=40' DATED JANUARY 28, 2003.

THIS SURVEY AND MAP HAS BEEN PREPARED PURSUANT TO 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.

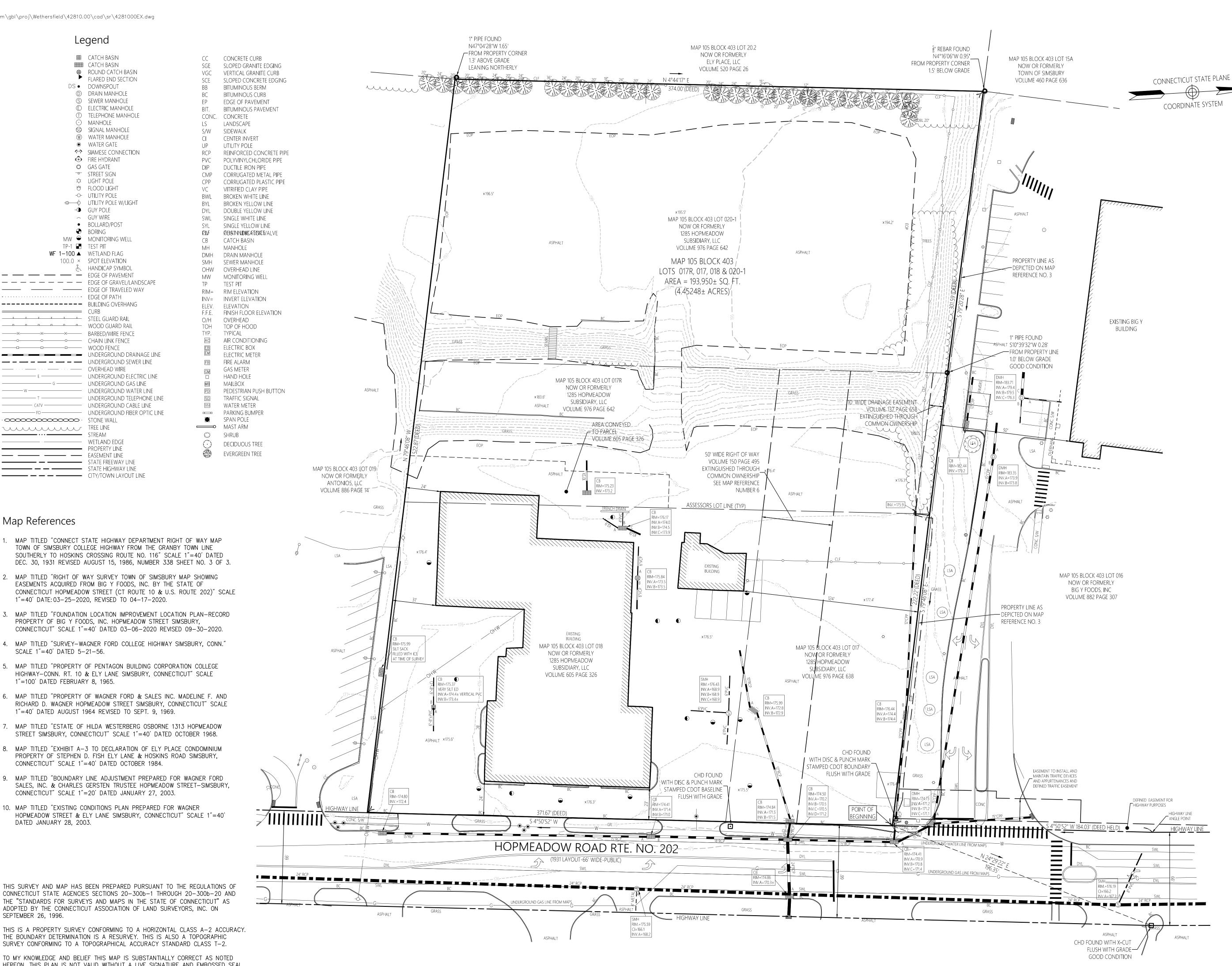
THIS IS A PROPERTY SURVEY CONFORMING TO A HORIZONTAL CLASS A-2 ACCURACY. THE BOUNDARY DETERMINATION IS A RESURVEY. THIS IS ALSO A TOPOGRAPHIC

TO MY KNOWLEDGE AND BELIEF THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON. THIS PLAN IS NOT VALID WITHOUT A LIVE SIGNATURE AND EMBOSSED SEAL

CHRISTOPHER C. DANFORTH, L.S. #70118

DATE

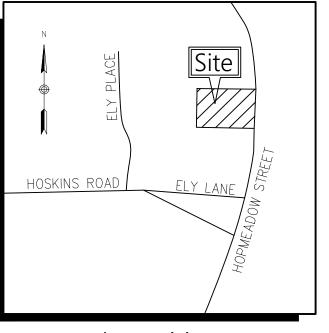
4/20/2022



SCALE IN FEET

100 Great Meadow Road Suite 200

Wethersfield, CT 06109 860.807.4300



Locus Map (NOT TO SCALE)

# General Notes

- 1. THE PROPERTY LINES DEPICTED ON THIS PLAN ARE BASED UPON AN ACTUAL FIELD SURVEY CONDUCTED BY VHB BETWEEN FEBRUARY 28, 2022 AND MARCH 1, 2022.
- 2. THE EXISTING CONDITIONS DEPICTED ON THIS PLAN ARE BASED UPON AN ACTUAL ON-THE-GROUND INSTRUMENT SURVEY PERFORMED BY VHB BETWEEN BETWEEN FEBRUARY 28, 2022 AND MARCH 1, 2022
- THIS EXISTING CONDITIONS DEPICTED ON THIS PLAN WERE DEVELOPED FROM A COMBINED EFFORT OF AERIAL PHOTOGRAMMETRIC MAPPING BY ????????, BASED OF AERIAL PHOTOGRAPHS TAKEN ON ????????, ????? AND AUGMENTED BY AN ON-THE-GROUND SURVEY PERFORMED BY VHB BETWEEN FEBRUARY 28, 2022 AND MARCH 1, 2022.
- 4. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A CURRENT TITLE COMMITMENT. ACCORDINGLY, ALL ENCUMBRANCES MAY NOT BE DEPICTED.
- 5. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES DEPICTED ON THIS PLAN ARE BASED ON FIELD OBSERVATIONS AND INFORMATION OF RECORD. THEY ARE NOT WARRANTED TO BE EXACTLY LOCATED NOR IS IT WARRANTED THAT ALL UNDERGROUND UTILITIES OR OTHER STRUCTURES ARE DEPICTED ON THIS PLAN.
- 6. COORDINATES, HORIZONTAL DATUM AND BEARINGS DEPICTED ON THIS SURVEY ARE REFERENCED TO THE CONNECTICUT STATE PLANE COORDINATE GRID SYSTEM - NAD 83. THE VERTICAL DATUM DEPICTED ON THIS SURVEY IS REFERENCED TO THE NAVD88. BOTH DATUMS WERE COMPUTED AND MEASURED USING AVERAGED REAL TIME NETWORK (RTN) GPS SOLUTION.

# Map 10 Block 403 Lots 017, 017R, 018, & 020-1

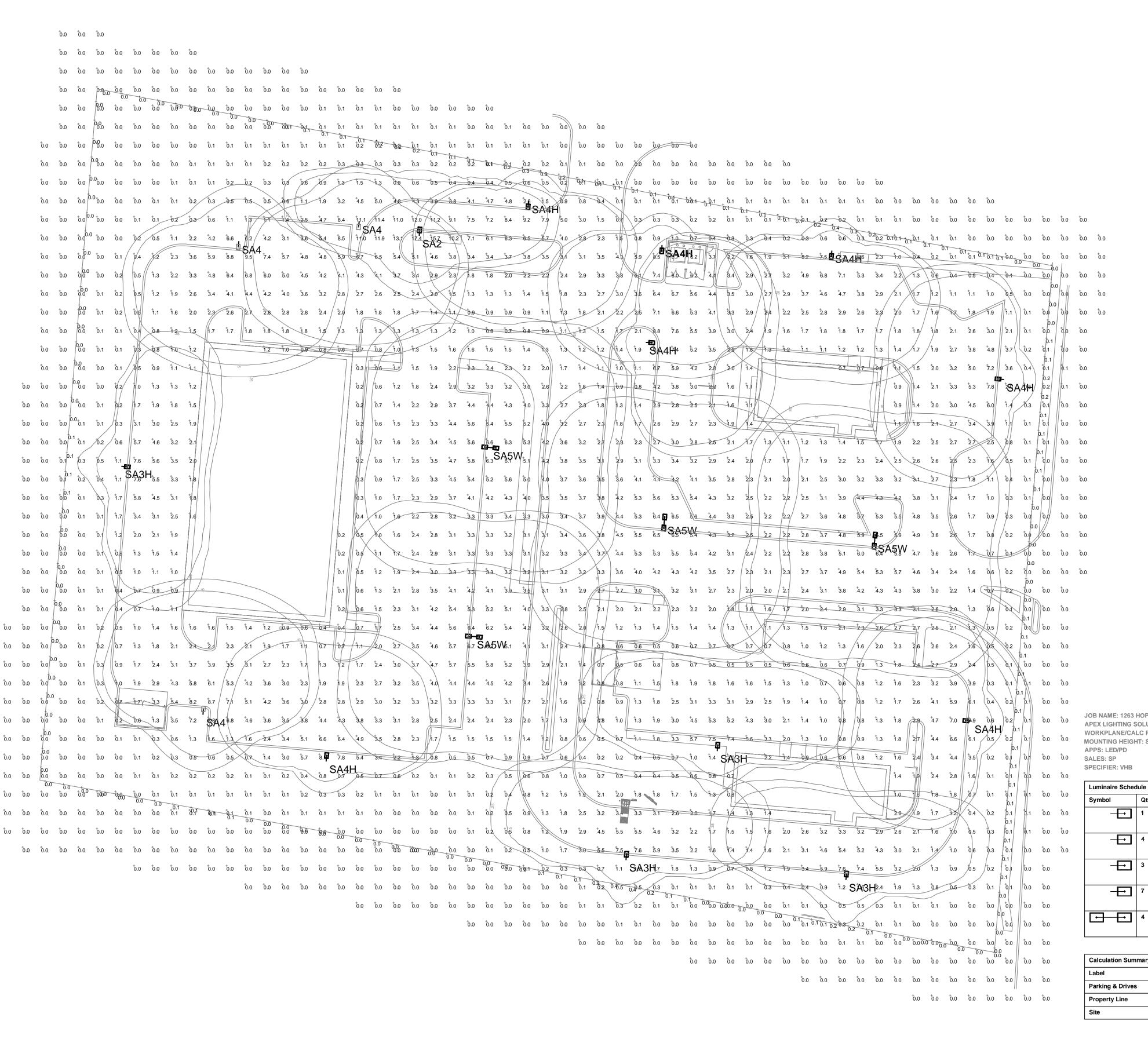
**Hopmeadow Street** Simsbury, Connecticut

April 20, 2022 Review

**Property Survey** & Topographic Survey



42810.00



JOB NAME: 1263 HOPEMEADOW ST - SIMSBURY, CT APEX LIGHTING SOLUTIONS WORKPLANE/CALC PLANE: AT FINISH GRADE MOUNTING HEIGHT: SEE LUMINAIRE SCHEDULE APPS: I FD/PD

LLF [MANUFAC] Qty Lum. Lumens Lum. Watts Description Filename Arrangement ECF-S-64L-900-WW-G2-AR-2-VOLT, 18ft 22652 177.8 SIGNIFY GARDCO +Single ecf-s-64l-900-ww-g2-2.ies SSS Lytepole SA3H 177.8 ECF-S-64L-900-WW-G2-AR-3-VOLT-HIS, ECF-S-64L-900-WW-G2-3-HIS.ies Single 17653 0.850 Gardco 18ft SSS Lytepole ECF-S-64L-900-WW-G2-AR-4-VOLT, 18ft **─** 3 23185 177.8 SIGNIFY GARDCO ecf-s-64l-900-ww-g2-4.ies Single SSS Lytepole +ECF-S-64L-900-WW-G2-AR-4-VOLT-HIS, ECF-S-64L-900-WW-G2-4-HIS.ies 18179 177.8 Gardco 18ft SSS Lytepole 4 SA5W Back-Back 23045 177.8 ECF-S-64L-900-WW-G2-AR-5W-VOLT, SIGNIFY GARDCO ecf-s-64I-900-ww-g2-5w.ies 18ft SSS Lytepole

PROJECT TITLE:

Calculation Summary								
Label	СаІсТуре	Units	Avg	Max	Min	Avg/Min	Max/Min	Description
Parking & Drives	Illuminance	Fc	2.99	17.3	0.5	5.98	34.60	10ft Grid
Property Line	Illuminance	Fc	0.06	0.4	0.0	N.A.	N.A.	10ft Spacing
Site	Illuminance	Fc	1.67	17.4	0.0	N.A.	N.A.	10ft Grid

GENERAL DISCLAIMER:

Calculations have been performed according to IES standards and good practice Some differences between measured values and calculated results may occur due to tolerances in calculation methods, testing procedures, component performance, measurement techniques and field conditions such as voltage and temperature variations. Input data used to generate the attached calculations such as room dimensions, reflectances, furniture and architectural elements significantly affect the lighting calculations. If the real environment conditions do not match the

input data, differences will occur between measured values and calculated values.

\* LLF Determined Using Current Published Lamp Data

NOTE TO REVIEWER:

Total Light Loss Factor (LLF) applied at time of design is determined by applying the Lamp Lumen Depreciation (LLD) from current lamp manufacturer's catalog, a Luminaire Dirt Depreciation Factor (LDD) based on IES recommended values and a Ballast Factor (BF) from current ballast specification sheets. Application of an incorrect Light Loss Factor (LLF) will result in forecasts of performance that will not accurately depict actual results.

For proper comparison of photometric layouts, it is essential that you insist all designers use correct Light Loss Factors.



20-30 BEAVER ROAD, WETHERSFIELD, CT 06109

TELEPHONE 860.632.8766 / WWW.APEXLTG.COM

G SOLUTIONS

1263 HOPEMEADOW ST SIMSBURY, CT

DRAWING TITLE:

SITE LIGHTING PHOTOMETRIC CALCULATION

SL-1E

SCALE: 1"=30'-0"

DATE: 4/19/23

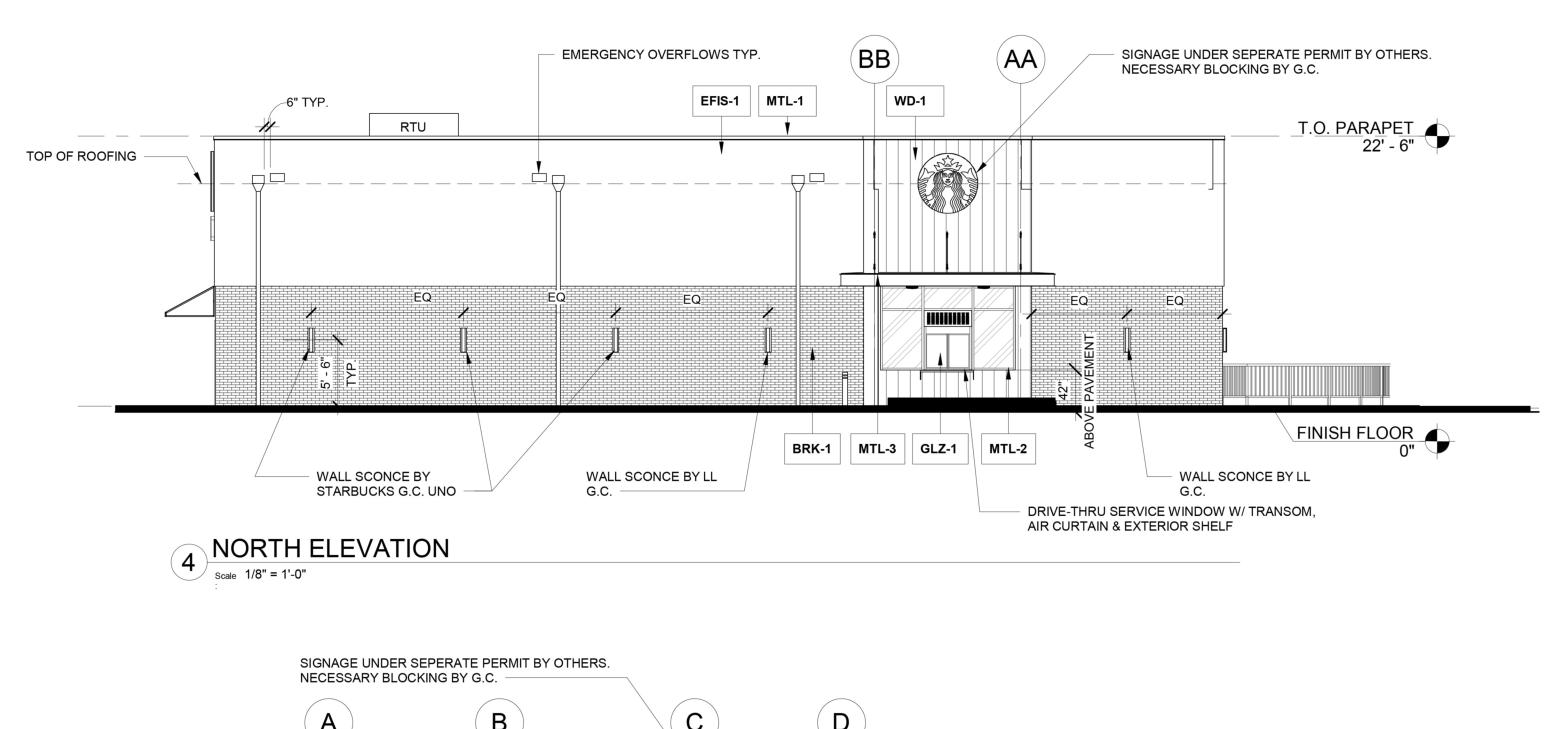
DRAWN BY: LED/PD

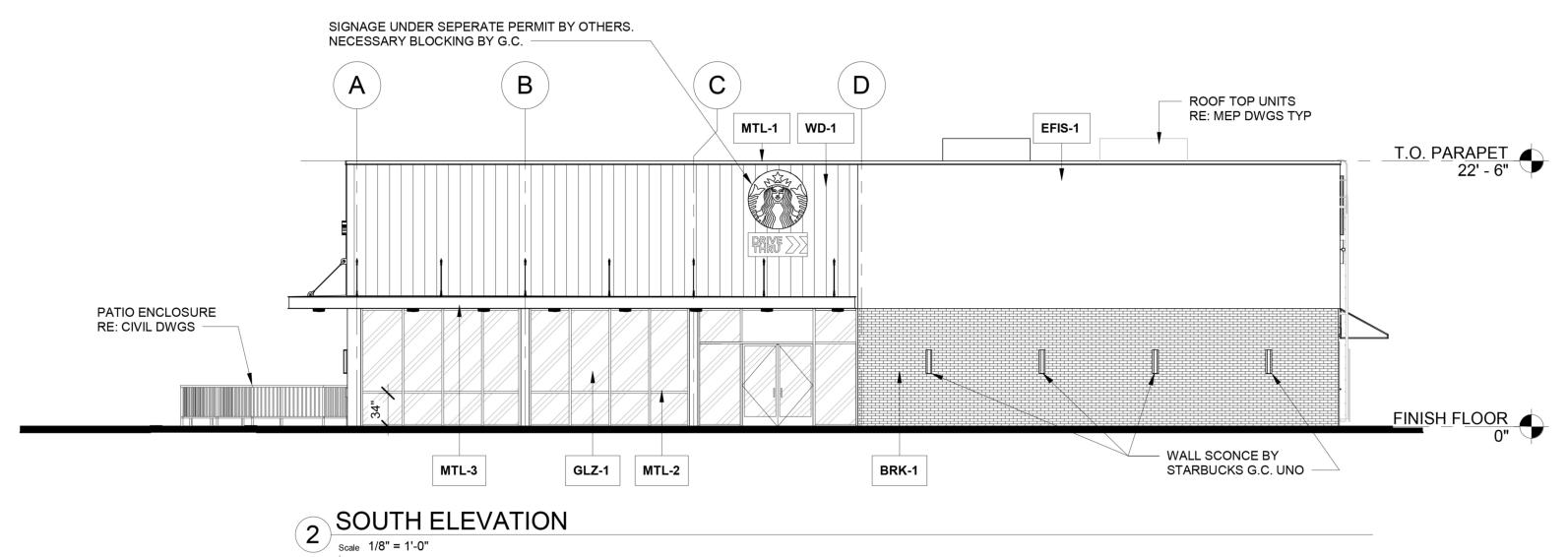


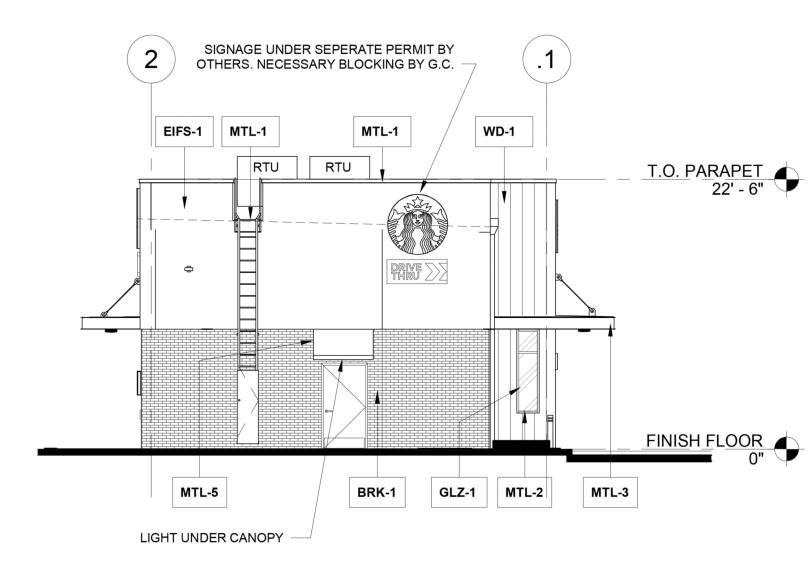


Simsbury Retail Development

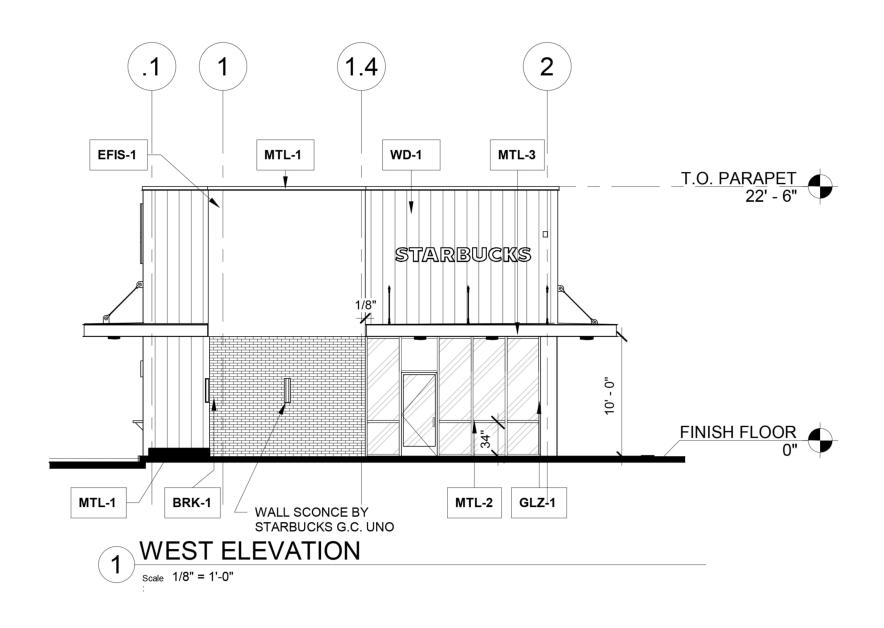
1263 Hopmeadow Street Simsbury, CT 06070











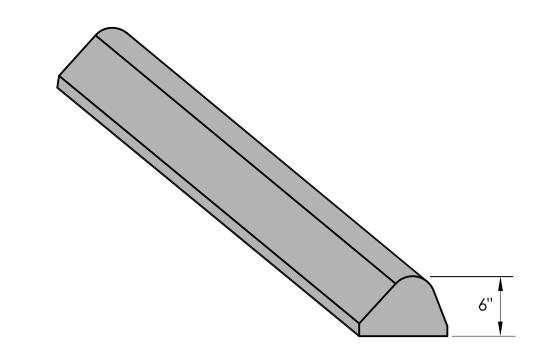
BKA#

1263 Hopmeadow Street Simsbury, CT 06070

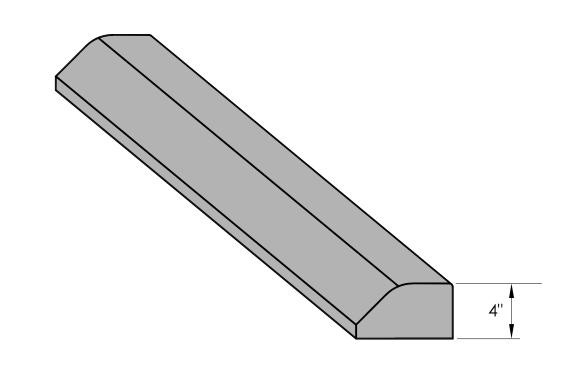


Simsbury Retail Development 1263 Hopmeadow Street Simsbury, CT 06070

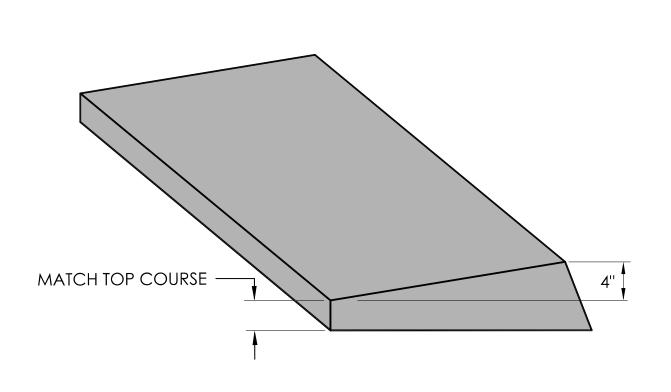




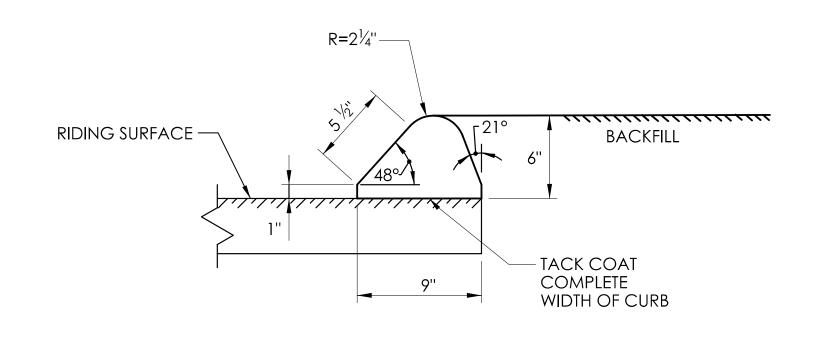




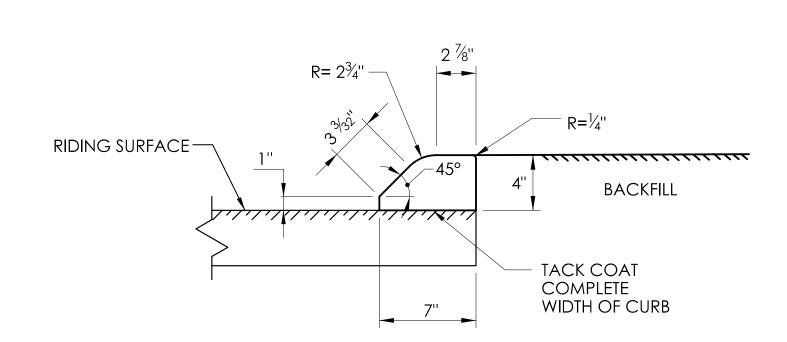
BITUMINOUS CONCRETE PARK CURBING (4" HIGH)



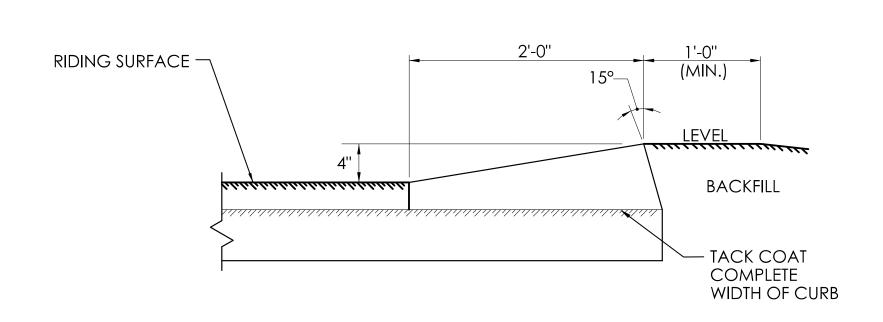
BITUMINOUS CONCRETE BERM CURBING (4" HIGH)



**SECTION** 



**SECTION** 



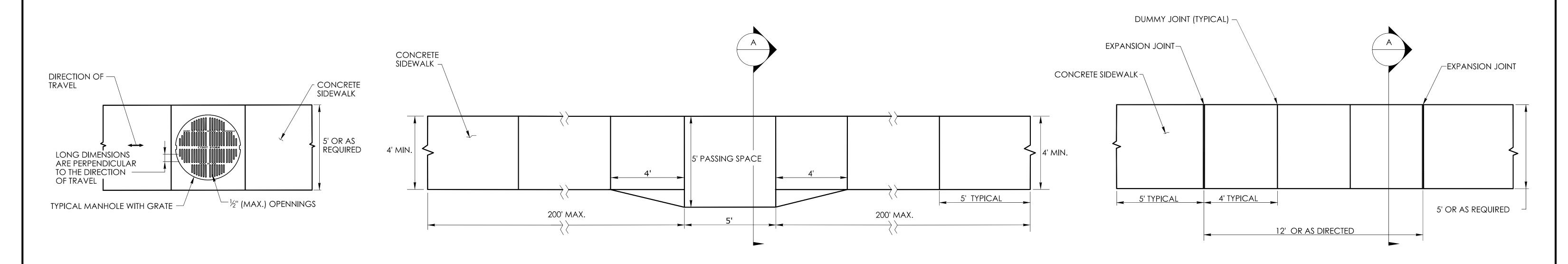
**SECTION** 



HW-815\_01

# **GENERAL NOTES:**

- 1. SEE CONCRETE SIDEWALK RAMPS GUIDE SHEETS for pedestrian ramp types.
- 2. ALL CURBING SHALL BE INSTALLED AS EITHER PRECAST OR CAST IN PLACE AS DIRECTED.

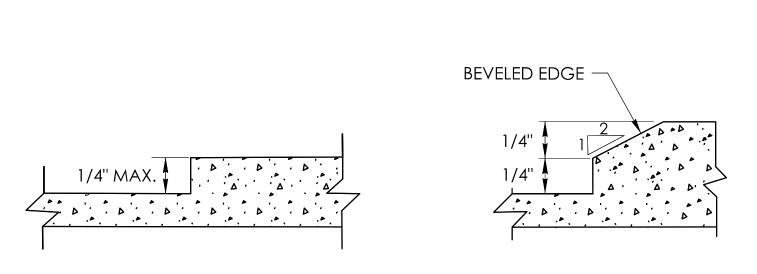


# PEDESTRIAN ACCESS ROUTE OVER A MANHOLE WITH GRATE

- HORIZONTAL OPENINGS IN GRATES AND JOINTS MUST NOT BE MORE THAN ½ INCH
- 2. ELONGATED OPENINGS IN GRATES MUST BE PLACED SO THAT THE LONG DIMENSION IS PERPENDICULAR TO THE DIRECTION OF TRAVEL

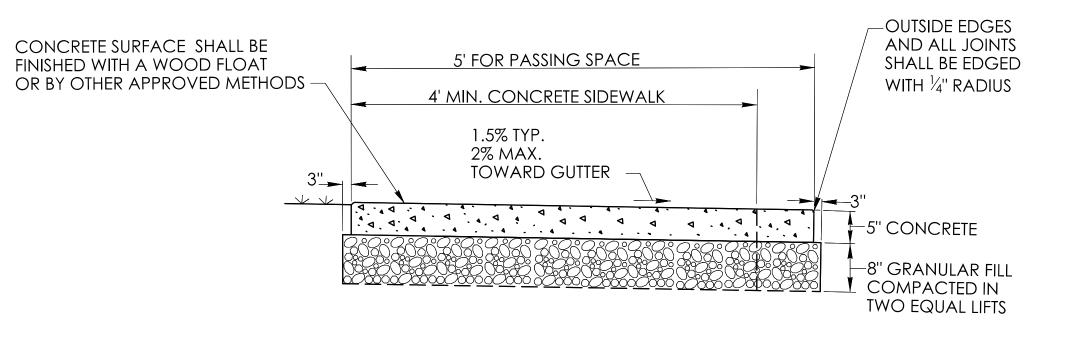
# 5' PASSING SPACE FOR 4' WIDE SIDEWALK PLAN

PASSING SPACES SHALL BE PROVIDED AT INTERVALS OF 200' MAXIMUM FOR SIDEWALKS LESS THAN 5' IN WIDTH 5' WIDE SIDEWALK **PLAN** 



# VERTICAL SURFACE DISCONTINUITIES

VERTICAL SURFACE DISCONTINUITIES MUST BE BEVELED TO A HEIGHT NOT GREATER THAN 1/4 INCH. THE BEVEL MUST BE THE ENTIRE WIDTH OF THE DISCONTINUITY



# 5' PASSING SPACE FOR 4' WIDE SIDEWALK

SECTION A

NOT TO SCALE

SIGNATURE BLOCK: OFFICE OF ENGINEERING 2800 BERLIN TURNPIKE NEWINGTON, CT 06111

SUBMITTED BY:

APPROVED BY: Digitally signed by Calabrese, Digitally signed by Leo Fontaine, P.E. Date: 2022.09.27 15:15:58-04'00'

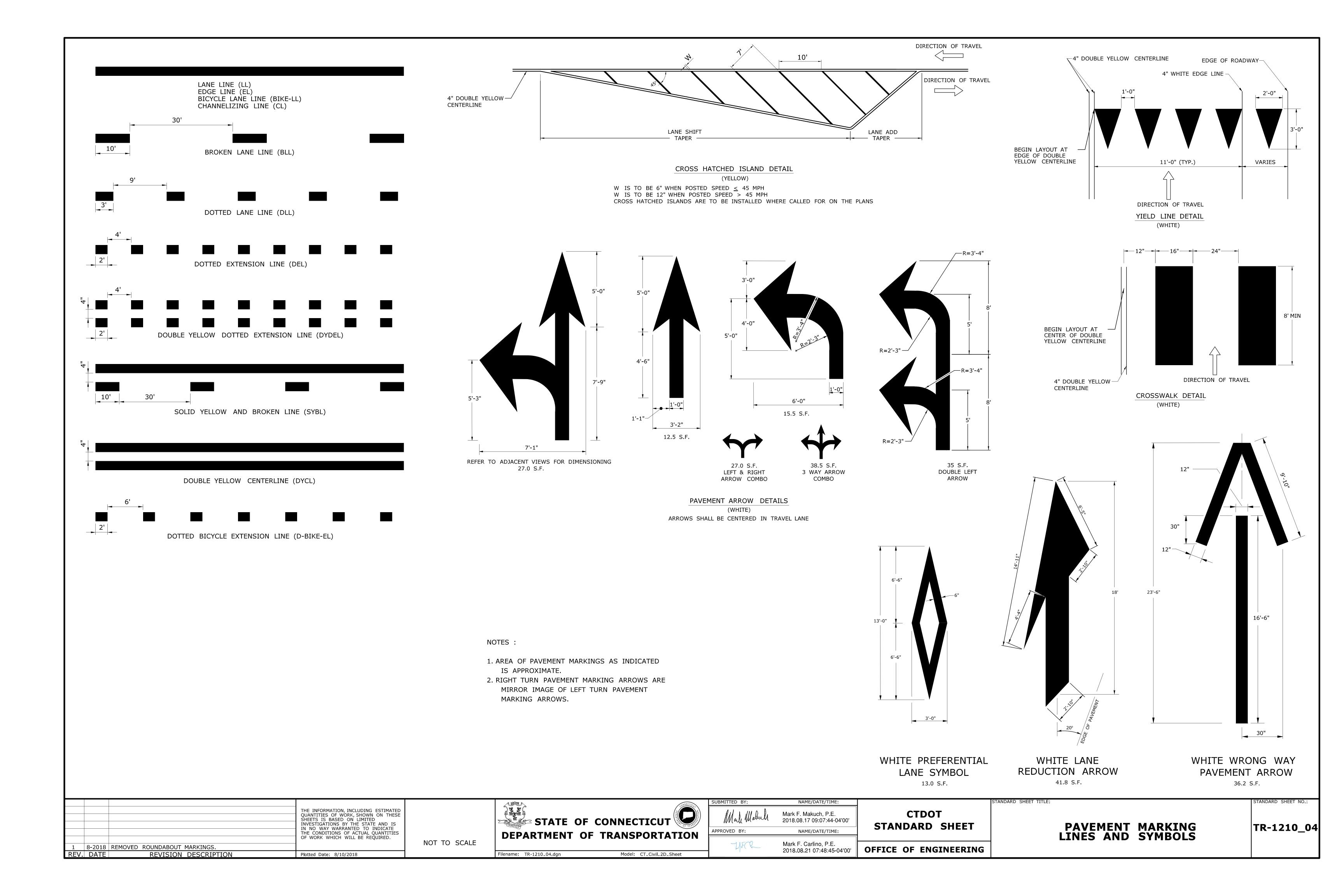
Digitally signed by by Calabre by Calabre Date: 2022 09:42:54-0 Date: 2022.11.08 09:42:54-05'00'

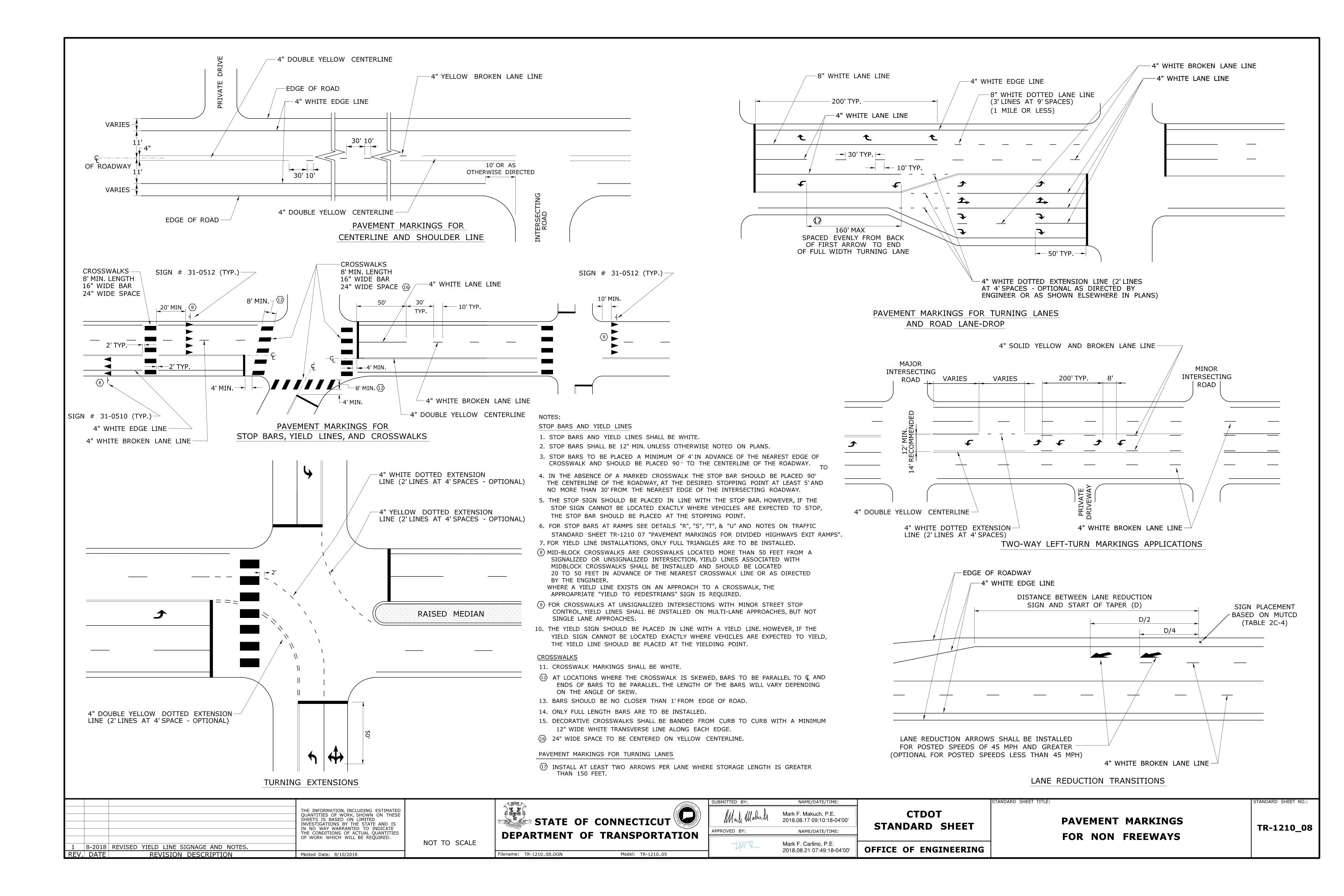




CTDOT STANDARD SHEET STANDARD SHEET TITLE: **CONCRETE SIDEWALKS** 

HW-921\_01





# Proposed Retail Development

1263 Hopmeadow Street (Route 10) Simsbury, Connecticut

### PREPARED FOR

Gregg R. Nanni General Manager Prospect Enterprises, LLC 231 Farmington Avenue Farmington, CT 06032

### PREPARED BY



100 Great Meadow Road Suite 200 Wethersfield, CT 06109 860.807.4300

# **Table of Contents**

INTRODUCTION	
Project Description and Background	
Study Methodology	3
Study Area	3
EXISTING CONDITIONS ASSESSMENT	4
Roadway Network	4
ROADWAYS	4
Intersections	5
Traffic Volumes	6
SAFETY ASSESSMENT	8
FUTURE CONDITIONS	
NO-BUILD TRAFFIC VOLUMES	10
Build Condition	13
TRAFFIC OPERATIONS ANALYSIS	18
Level of Service and Delay Criteria	
SIGNALIZED INTERSECTION CAPACITY ANALYSIS	
Unsignalized Intersection Capacity Analysis	23
CONCLUSIONS	25

I

# **List of Tables**

Γable No.	Description	Page
Table 1	Crash Analysis Summary	9
Table 2	Site Generated Traffic Summary	14
Table 3	Trip Distribution Summary	15
Table 4	Level of Service Criteria	19
Table 5	Signalized Intersection Capacity Analysis Summary	21
Table 5	cont. Signalized Intersection Capacity Analysis Summary	22
Table 6	Unsignalized Intersection Capacity Analysis Summary	24

II Table of Contents 42810.00

# **List of Figures**

Figure No.	Description	
Figure 1	Site Location Map	2
Figure 2	2022 Existing Conditions Peak Hour Traffic Volumes	7
Figure 3	2023 No-Build Conditions Peak Hour Traffic Volumes	12
Figure 4	Site-Generated Traffic Volumes	16
Figure 5	2023 Build Conditions Peak Hour Traffic Volumes	17

III Table of Contents



1

# Introduction

Vanasse Hangen Brustlin, Inc. (VHB) has been retained by Prospect Enterprises, LLC to conduct a Transportation Impact Assessment (TIA) for a proposed development to be located at 1263 Hopmeadow Street (Route 202) in Simsbury, Connecticut. VHB has evaluated existing traffic operations in the area, assessed the impacts of this development, and evaluated if transportation improvements are necessary to accommodate this development and potential traffic growth in this area.

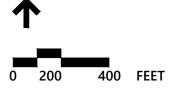
# **Project Description and Background**

The Project site is currently a vacant lot located at 1263 Hopmeadow Street (Route 202) in Simsbury, Connecticut. The Project involves the construction of a 2,400 square foot coffee shop with drive through and patio, a 2,325 square foot fast-food restaurant with online order pick-up window and patio, a 11,600 square foot retail building, and a drive-up ATM. A new full-access entrance/right-out only driveway onto Route 202 is proposed between the coffee shop and fast-food restaurant pad sites. A new internal connection to the adjacent Big Y shopping plaza is also proposed, which will provide access to the project site via the existing signalized driveway to the Big Y shopping plaza.

A site location map is provided in Figure 1. This transportation study analyzes the traffic impacts that can be expected by the proposed development.

1 Introduction 42810.00







Study Location Map Commercial Development Figure 1

Simsbury, CT



# **Study Methodology**

This traffic study was conducted in three stages. The first stage involved an assessment of existing traffic conditions in the study area and included an inventory of roadway geometrics and observations of traffic flow.

In the second stage of the study, future traffic conditions both with and without the project were estimated and analyzed. This study assessed specific travel demand forecasts for the project, and the estimated background growth unrelated to this project.

The third and final stage involved conducting traffic analyses to identify both existing and projected future roadway capacity and demand. From this information and other factors, the likely traffic impacts associated with the project can be determined. This analysis was used as the basis for determining if any resulting roadway improvements or measures would be required in support of the site-generated traffic.

# **Study Area**

The study area includes those locations that are expected to be affected by this project. The roads and intersections included in the study area were selected based on VHB's knowledge of the traffic patterns in the area and from discussion with the Town of Simsbury. The specific study area encompasses the following intersections:

- Hopmeadow Street (Route 202) at Big Y Plaza (signalized);
- Hopmeadow Street (Route 202) at Ely Lane (unsignalized); and,
- Hopmeadow Street (Route 202) at Hoskins Road (signalized)

An inventory of the existing conditions for each of the study intersection is provided in the following chapter.

3 Introduction 42810.00



2

# **Existing Conditions Assessment**

Effective evaluation of the transportation impacts associated with the proposed development project requires a thorough understanding of the existing transportation system surrounding the project study area. A complete inventory of the existing transportation system was conducted and is presented in this section. The analysis of the existing transportation conditions is based on the existing network, roadway and intersection geometry, traffic control, existing traffic volumes, traffic safety, and pedestrian facilities.

## **Roadway Network**

The principal roadways and intersections in the study area are described below.

### **Roadways**

The description of the roadways includes the physical characteristics, geometric conditions, adjacent land uses, and current operating conditions.

#### **Hopmeadow Street (Route 202)**

Hopmeadow Street (Route 202) in the vicinity of the project site is an urban principal arterial roadway under state jurisdiction that runs through Simsbury in a primarily north/south direction. Hopmeadow Street to the north connects to the Town of Granby, to the south Hopmeadow Street (Route 202) connects to Downtown Simsbury. This roadway provides two travel lanes in the vicinity of the project area, one lane in each direction, with accessory lanes



provided at key intersections. The primary land use along this portion of Hopmeadow Street (Route 202) is commercial land use. Hopmeadow Street (Route 202) provides sidewalk accommodations intermittently along the west side of the roadway.

#### **Ely Lane**

Ely Lane is an urban collector roadway in the vicinity of the project site under local jurisdiction and runs through Simsbury in an east/west direction. This roadway is short and measures approximately 730 feet in length. To the east it connects Hopmeadow Street (Route 202) with Hoskins Road to the west. Ely Lane provides two travel lanes, one in each direction. Sidewalks are not available along this roadway. The primary land use along Ely Lane is commercial with some residential.

#### **Hoskins Road**

Hoskins Road is an urban collector roadway at its junction with Ely Lane. At the intersection with Route 202, Hoskins Road is a local roadway. To the east it connects Hopmeadow Street (Route 202) with residential communities to the west. Hoskins Road provides two travel lanes, one in each direction, with accessory lanes at key intersections. Sidewalks are not present on this roadway. The primary land use along Hoskins Road is residential land use.

### **Intersections**

The description of the intersections includes the physical characteristics, geometric conditions, and current operating conditions.

#### Hopmeadow Street (Route 202) at Big Y Plaza (signalized)

The Big Y Plaza Driveway intersects Hopmeadow Street (Route 202) from the west to form a three-legged signalized intersection. The northbound approach consists of one exclusive left-turn lane and one through lane. In the southbound direction Hopmeadow Street (Route 202) consists of a single multi-purpose lane. The eastbound driveway approach provides an exclusive left-turn lane and an exclusive right-turn lane. Crosswalks with pedestrian signal heads are present at this intersection across the western and northern legs.

### **Hopmeadow Street (Route 202) at Ely Lane (unsignalized)**

Ely Lane intersects Hopmeadow Street (Route 202) from the west to form a three-legged unsignalized intersection. All approaches to the intersection consist of one multi-purpose lane. The eastbound approach to the intersection operates under stop control, while the northbound/southbound direction operate freely. Crosswalks and pedestrian accommodations are not provided at this intersection.

#### Hopmeadow Street (Route 202) at Hoskins Road (signalized)

Hoskins Road intersects Hopmeadow Street (Route 202) from the west to form a three-legged signalized intersection. The eastbound and northbound approaches to the intersection contain



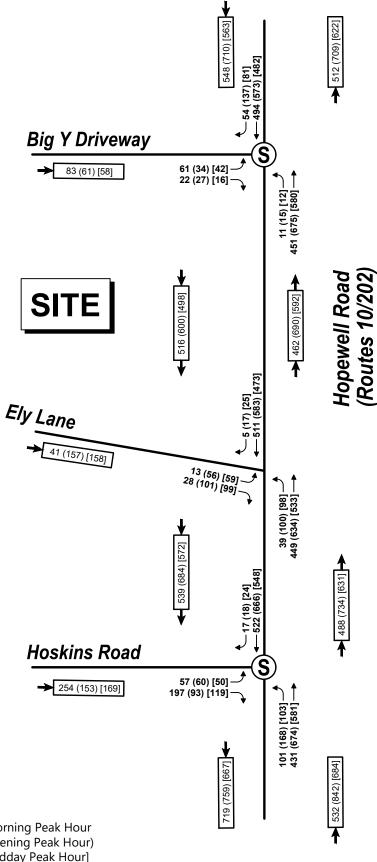
an exclusive left-turn lane, and a right-turn lane or through lane respectively. The southbound approach contains one multi-purpose lane. Crosswalks and pedestrian accommodations are present across the southbound approach.

### **Traffic Volumes**

VHB obtained TMC counts from the Connecticut Department of Transportation (CT DOT) for the study area intersection of Route 202 at Hoskins Road. This data was taken from the state MioVision system and balanced between intersections to account for any discrepancies in data. Manual turning movement and classification (TMC) counts were collected by VHB in July 2022 at the study area intersections of Route 202 at Big Y Plaza and Route 202 at Ely Lane. The counts were collected from 7:00 to 9:00 AM during a typical weekday morning, 4:00 to 6:00 PM during a typical weekday evening, and 11 AM to 1 PM during a typical Saturday midday peak hour. The July 2022 counts were balanced with the DOT provided December 2021 counts to account for seasonality in the collected data.

Overall, the peak hours of the network occurred from 8:00 to 9:00 AM during the weekday morning peak hour, from 4:00 PM to 5:00 PM during the weekday evening peak hour, and from approximately 11:45 AM to 12:45 PM during the Saturday midday peak hour.

The 2022 Existing conditions weekday morning, evening, and Saturday midday peak hour traffic volume networks are summarized in Figure 2.



- # Weekday Morning Peak Hour
- # (Weekday Evening Peak Hour)
- # [Saturday Midday Peak Hour]







## **Safety Assessment**

To identify potential vehicle crash trends and/or roadway deficiencies near the project site, VHB conducted a review of the UConn Crash Database to document the number of geolocated vehicular collisions that have taken place over the most recent three years (2019-2021).

The review revealed no crashes reported at the intersection of Hopmeadow Street at Big Y Plaza Driveway, three reported crashes occurred at the intersection of Hopmeadow Street at Ely Lane, and five crashes were reported at the intersection of Hoskins Road at Hopmeadow Street It should be noted that the results of the Crash Database review were dependent on the accuracy of crash reporting and geolocating.

Table presents the number of crashes and crash characteristics for the study intersections. No crashes resulted in a fatality, and no crashes included a non-motorist within the three years at the study intersections.

Approximately 75% (6 of 8) of all the crashes in the study area resulted in property damage only, with 25% of crashes resulting in injuries. Angle crashes occurred the most frequently at the study intersections with rear-end collisions following closely. The crashes occurred at varying times and under primarily dry pavement and daylight conditions.

8



Table 1 Crash Analysis Summary

	Route 10/202 at Big Y Driveway	Route 10/202 at Ely Lane	Route 10/202 at Hoskins Road
Year			
2019	0	2	3
2020	0	1	2
<u>2021</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total	0	3	
Collision Type			
Angle	0	2	2
Head-on	0	0	0
Rear-end	0	0	2
Sideswipe, same direction	0	1	0
<u>Unknown</u>	<u>0</u>	<u>0</u>	<u>1</u>
Total	0	3	5
Severity			
Fatal Injury	0	0	0
Non-Fatal Injury	0	1	1
Property Damage Only	0	2	4
Not Reported/Unknown	<u>0</u>	<u>0</u>	<u>0</u>
Total	0	3	5
Time of day			
Weekday, 7:00 AM - 9:00 AM	0	2	1
Weekday, 4:00 – 6:00 PM	0	0	1
Saturday, 11:00 AM – 2:00 PM	0	0	0
Weekday, other time	0	1	3
Weekend, other time	<u>0</u>	<u>0</u>	<u>0</u>
Total	0	3	5
Season			
Dec – Feb	0	1	1
Mar – May	0	0	3
June – Aug	0	1	0
<u>Sept – Nov</u>	<u>0</u>	<u>1</u>	<u>1</u>
Total	0	3	5
Pavement Conditions			
Dry	0	3	4
Wet	0	0	0
Snow	0	0	1
<u>lce</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total	0	3	
Light Conditions			
Daylight	0	3	4
Dawn/Dusk	0	0	0
Dark, Not Lighted	0	0	1
<u>Dark, Lighted</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total	0	3	<u> </u>
Non-Motorist (Bike, Pedestrian)	0	0	0

Source: UConn Connecticut Crash Data Repository 2019-2021.



3

## **Future Conditions**

To determine the impacts of the future site-generated traffic volumes on the roadway network when the site is fully operational, traffic conditions were projected to the year 2023. Future traffic projections include regional background traffic growth and planned roadway improvements. Consideration of these factors resulted in the development of the 2023 No-Build traffic volumes. Anticipated Future Site-generated traffic volumes were then added to the 2023 No-Build traffic flow networks to reflect the 2023 Build scenario with the proposed development.

### **No-Build Traffic Volumes**

Traffic growth on area roadways is a function of the expected land development, economic activity, and changes in demographics. A frequently used procedure is to estimate traffic that could be generated by planned new major developments, potentially affecting the project study area roadways. An alternative procedure is to estimate an overall area annual percentage increase and apply that increase to study area traffic volumes. For the purpose of this assessment, a conservative overall annual percentage increase was utilized and is detailed further below.



#### **Background Projects**

The CTDOT indicated that there were no significant recent developments in the area that would impact the traffic volume network. Within the last three years, a Big Y supermarket was constructed, however this has been accounted for in the traffic count data.

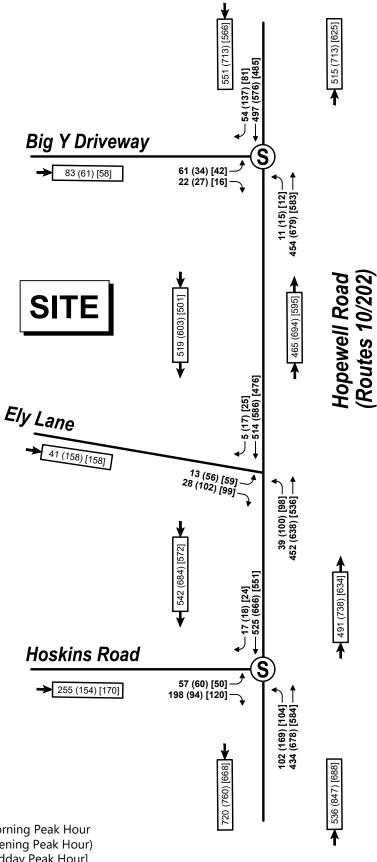
#### **Historic Growth**

11

Per discussion with the CT DOT, an appropriate growth rate for this area is approximately 0.6-percent per year.

#### **2023 No-Build Traffic Volumes**

The 0.6-percent per year annual growth rate was added to the 2022 Existing traffic volumes, to develop the projected 2023 No-Build (without the proposed project) weekday morning, weekday evening, and Saturday midday peak hour traffic volumes, which can be seen in Figure 3.



- # Weekday Morning Peak Hour
- # (Weekday Evening Peak Hour)
- # [Saturday Midday Peak Hour]







## **Build Condition**

Build traffic volumes for study area roadways were determined by estimating site generated traffic volumes and distributing these volumes over the study area roadways.

#### **Site Generated Traffic**

The Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition<sup>1</sup> was used to estimate vehicle trips to be generated by the proposed development. The following ITE land use codes (LUC) were used to account for the proposed future conditions:

- LUC 822 "Strip Retail Plaza (<40k)" was used to estimate the vehicle trips with the 11,600 SF retail building
- LUC 934 "Fast-Food Restaurant with Drive-Through Window" was used to estimate the vehicle trips with the proposed 2,325 SF fast-food restaurant
- LUC 937 "Coffee/Donut Shop with Drive-Through Window" was used to estimate the vehicle trips with the proposed 2,400 SF coffee shop

In addition, a drive-up ATM is proposed within the parking lot. No data is available in the Trip Generation Manual for a drive-up ATM. Therefore, VHB conservatively assumed that the ATM would generate 20 standalone trips per hour (10 enter, 10 exit) during the peak periods.

It should be noted that the layout of the site and the connection to the adjacent Big Y Plaza will facilitate multi-purpose trips on the site. For example, customers to the Big Y plaza could visit one of the proposed restaurants or the ATM without traveling out onto the external road network. As such, an internal capture rate was applied to the trip generation rates to account for internal multi-purpose trips. As recommended by the CTDOT Bureau of Policy and Planning, a 10% internal capture rate was utilized to account for internal multi-purpose trips.

Not all the projected site traffic represents new vehicles on the adjacent roadway network. A portion of the trips generated by retail establishments are classified as "pass-by" traffic. Pass-by traffic consists of vehicles already on the roadway that are attracted to a site when passing through the area. The primary destination of this traffic is elsewhere, and the primary trip will be resumed following a stop at the proposed development. In accordance with CTDOT guidelines, a 50 percent pass-by rate was utilized for the coffee shop and a 20 percent pass-by rate was utilized for the retail and fast-food uses.

The resulting site traffic generation is presented on Table 2. As indicated in this table, the project is anticipated to generate 206 net new trips (108 entering, 98 exiting) during the morning peak hour, 168 trips (85 entering, 83 exiting) during the evening peak hour, and 256

<sup>&</sup>lt;sup>1</sup> <u>Trip Generation</u>; Eleventh Edition; Institute of Transportation Engineers; Washington, D.C.; 2021.



trips (130 entering, 126 exiting) during the Saturday midday peak hour. The ITE Trip Generation data are included in the Appendix.

**Table 2** Site Generated Traffic Summary

Time Period	Retail (11,600 SF) <sup>1</sup>	Fast-Food with Drive- Through (2,325 SF) <sup>2</sup>	Coffee Shop with Drive- Through (2,400 SF) <sup>3</sup>	Drive- up ATM	Internal Capture Trips <sup>5</sup>	Total External Trips	Pass-By Trips <sup>4</sup>	Net New Trips
Weekday AM Peak Hour b								
Enter	16	53	105	10	-18	166	-58	108
<u>Exit</u>	<u>11</u>	<u>51</u>	<u>101</u>	<u>10</u>	<u>-17</u>	<u>156</u>	<u>-58</u>	<u>98</u>
Total	27	104	206	20	-35	322	-116	206
Weekday PM Peak Hour <sup>b</sup>								
Enter	38	40	47	10	-14	121	-36	85
<u>Exit</u>	<u>38</u>	<u>37</u>	<u>47</u>	<u>10</u>	<u>-13</u>	<u>119</u>	<u>-36</u>	<u>83</u>
Total	76	77	94	20	-27	240	-72	168
Saturday Midday Peak Hour								
Enter	39	66	105	10	-22	198	-68	130
<u>Exit</u>	<u>37</u>	<u>63</u>	<u>106</u>	<u>10</u>	<u>-22</u>	<u>194</u>	<u>-68</u>	<u>126</u>
Total	76	129	211	20	-44	392	-136	256

Source: Trip Generation, 11th Edition; Institute of Transportation Engineers (ITE); Washington, D.C. (2021).

- a vehicles per day
- b vehicles per hour
- 1 Future trip generation based on LUC 822 Strip Retail Plaza (<40k), 11,600 SF
- Future trip generation based on LUC 934 Fast-Food Restaurant with Drive-Through Window, 2,325 SF
- 3 Future trip generation based on LUC 937 Coffee/Donut Shop with Drive-Through Window, 2,400 SF
- 4 Pass-by Trips, per CTDOT 50% for coffee shop, 20% for retail, fast-food, and ATM
- 5 Internal Capture Rate, per CTDOT 10%

### **Trip Distribution**

The distribution for the site generated traffic was determined by examining the site location in relation to major routes and populations within the Town of Simsbury. Based on the site's proximity to both downtown Simsbury and downtown Granby, it was assumed that the directional distribution would be close to an even split.

Site-generated traffic was allocated across the major routes in the area based on the traffic percentages that are summarized in Table 3. The resulting net site-generated traffic volumes are depicted on Figure 4.

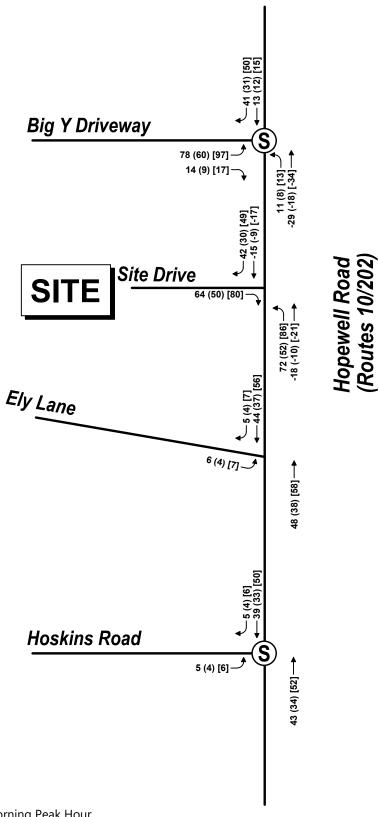


**Table 3** Trip Distribution Summary

Roadway	Direction [From/To]	Proposed Site Generated Trip Distribution To/From the Site
Route 202	North	50%
Route 202	South	40%
Ely Lane/Hoskins Road	<u>West</u>	<u>10%</u>
Total		100%

#### **Build Conditions Traffic Volumes**

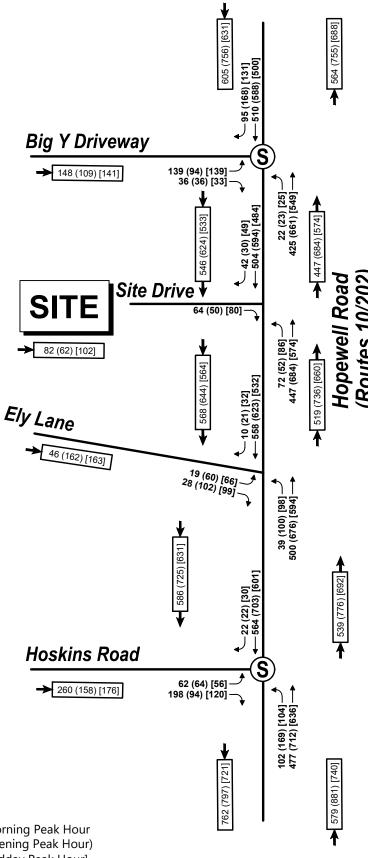
The future site-generated volumes will be assigned to the roadway network according to the distribution patterns and off-site improvements described above and combined with the 2023 No-Build traffic volumes to develop the 2023 Build peak hour networks. The 2023 Build peak hour network can be seen in Figure 5.



- # Weekday Morning Peak Hour
- # (Weekday Evening Peak Hour)
- # [Saturday Midday Peak Hour]







- # Weekday Morning Peak Hour
- # (Weekday Evening Peak Hour)
- # [Saturday Midday Peak Hour]







4

# **Traffic Operations Analysis**

Measuring existing traffic volumes and projecting future traffic volumes quantifies traffic flow within the study area. To assess the roadway and intersection capacity, analyses were conducted with respect to existing traffic volume conditions. Capacity analyses provide an indication of how well the roadway facilities serve the traffic demands placed on them. The following sections describe the methodology used to evaluate the study area intersections.

## **Level of Service and Delay Criteria**

The evaluation criteria used to analyze area intersections in this traffic study are based on the 2000 Highway Capacity Manual (HCM). The HCM 2000 methodology was used instead of HCM 2010 or HCM 6<sup>th</sup> Edition due to limitations in these newer HCM methodologies that would preclude analysis of some signalized study intersections. For instance, the HCM 2010 and HCM 6<sup>th</sup> Edition methodologies do not support analysis of intersections with non-NEMA phasing, more than four approaches, or clustered intersections. The term 'Level of service' (LOS) is used to denote the different operating conditions that occur on a given roadway segment under various traffic volume loads. It is a qualitative measure that considers several factors including roadway geometry, speed, travel delay and freedom to maneuver. Level of service provides an index to the operational qualities of a roadway segment or an intersection. Level-of-service designations range from A to F, with LOS A representing the best operating conditions and LOS F representing the worst operating conditions.



In addition to LOS, two other measures of effectiveness (MOEs) are typically used to quantify the traffic operations at intersections; volume-to-capacity ratio (v/c) and delay (expressed in seconds per vehicle). For example, an existing v/c ratio of 0.9 for an intersection indicates that the intersection is operating at 90 percent of its available capacity. A delay of 15 seconds for a particular vehicular movement or approach indicates that vehicles on the movement or approach will experience an average additional travel time of 15 seconds. It should be noted that v/c and delay could have a range of values for a given LOS letter designation.

Comparison of intersection capacity results therefore requires that, in addition to the LOS, the other MOEs should also be considered.

The level-of-service designations, which are based on delay, are reported differently for signalized and unsignalized intersections. For signalized intersections, the analysis considers the operation of all traffic entering the intersection and the LOS designation is for overall conditions at the intersection. For unsignalized intersections, however, the analysis assumes that traffic on the mainline is not affected by traffic on the side streets. Thus, the LOS designation is for the critical movement exiting the side street, which is generally the left turn out of the side street or site driveway. Table 4 shows the level of service criteria for both signalized intersections and unsignalized intersections.

It should be noted that the analytical methodologies typically used for the analysis of unsignalized intersections use conservative analysis parameters, such as long critical gaps. Actual field observations indicate that drivers on minor streets generally accept shorter gaps in traffic than those used in the analysis procedures and therefore experience less delay than reported by the analysis software. The analysis methodologies also do not fully consider the beneficial grouping effects caused by nearby signalized intersections. The net effect of these analysis procedures is the over-estimation of calculated delays at unsignalized intersections in the study area. Cautious judgment should therefore be exercised when interpreting the capacity analysis results at unsignalized intersections.

**Table 4** Level of Service Criteria

Level of Service	Signalized Intersection	Unsignalized Intersection
Α	0 to 10 seconds	0 to 10 seconds
В	10 to 20 seconds	10 to 15 seconds
С	20 to 35 seconds	15 to 25 seconds
D	35 to 55 seconds	25 to 35 seconds
E	55 to 80 seconds	35 to 50 seconds
F	Greater than 80 seconds	Greater than 50 seconds

Source: 2000 Highway Capacity Manual Exhibits 16-2 and 17-2



## **Signalized Intersection Capacity Analysis**

Capacity analyses were conducted for the signalized study area intersections of Big Y at Hopmeadow Street (Route 202) and Hoskins Road at Hopmeadow Street (Route 202) during the 2022 Existing Conditions, the 2023 No-Build conditions (without the proposed development) and the 2023 Build conditions (with the development). A summary of this analysis is presented below in Table 5.

The signalized intersection of Hopmeadow Street (Route 202) at Big Y Driveway operates at an overall LOS B or better under existing conditions and future No-Build conditions. The additional traffic generated by the proposed development is expected to cause increases in delays of 8 to 15 seconds per vehicle during the peak traffic periods. However, the intersection is expected to operate at an overall acceptable LOS C or better condition under future Build conditions.

The signalized intersection of Hopmeadow Street (Route 202) at Hoskins Road operates at an overall LOS B or better under existing conditions and future No-Build conditions. Under Build conditions, the LOS is expected to remain as LOS B during the weekday morning and Saturday midday peak hour conditions and degrade to LOS C for the weekday evening peak hour.

Overall, the additional traffic generated by the proposed mixed-use development is expected to have only a nominal impact on traffic operating conditions in the study area, and all signalized study intersections are expected to continue operating at overall acceptable LOS C or better during the peak traffic periods.



**Table 5** Signalized Intersection Capacity Analysis Summary

	Lane -		2022 E	xisting Con	ditions			2023 No-Build Conditions				2023 Build Conditions				
Approach	Group	V/C¹	Delay <sup>2</sup>	LOS³	50 <sup>th4</sup>	95 <sup>th5</sup>	V/C	Delay	LOS	50 <sup>th</sup>	95 <sup>th</sup>	V/C	Delay	LOS	50th	95th
Big Y at Hopmeadow Stre	et (Route 2	02)– Week	kday Mornin	g Peak Hou	r											
Big Y Driveway	EB L	0.41	23.6	С	57	52	0.41	23.4	C	27	52	0.59	24.7	C	67	100
Big Y Driveway	EB R	0.02	11.1	В	0	8	0.02	13.7	В	0	8	0.03	12.2	В	0	9
Hopmeadow St	NB L	0.03	5.1	Α	1	4	0.03	5.2	Α	1	4	0.06	8.6	Α	3	10
Hopmeadow St	NB T	0.41	3.5	Α	57	99	0.42	3.5	Α	57	100	0.42	5.3	Α	65	138
Hopmeadow St	SB TR	0.79	18.0	В	194	#377	0.79	18.2	В	196	#380	0.98	45.7	D	255	#508
·	Overall	0.65	12.3	В	-	-	0.65	12.4	В	-	-	0.76	27.9	c	-	-
Big Y at Hopmeadow Stre	et (Route 2	02)– Week	kday Evening	Peak Hour			•					•				
Big Y Driveway	EB L	0.30	30.6	С	20	42	0.30	30.7	С	20	42	0.54	31.6	С	59	90
Big Y Driveway	EB R	0.02	14.7	В	0	11	0.02	14.6	В	0	11	0.03	13.3	В	0	12
Hopmeadow St	NB L	0.03	6.8	Α	1	4	0.03	6.9	Α	1	4	0.06	10.5	Α	2	9
Hopmeadow St	NB T	0.56	3.5	Α	106	151	0.56	3.6	Α	107	153	0.58	5.2	Α	115	221
Hopmeadow St	SB TR	0.86	23.4	C	336	#581	0.86	24.0	C	340	#585	1.00	52.6	D	~411	#714
	Overall	0.73	14.0	В	-	-	0.73	14.3	В	-	-	0.82	29.5	c	-	-
Big Y at Hopmeadow Stre	et (Route 2	02)– Satur	rday Midday	Peak Hour												
Big Y Driveway	EB L	0.36	27.1	С	25	47	0.37	24.2	С	26	47	0.67	34.0	С	94	122
Big Y Driveway	EB R	0.02	12.6	В	0	8	0.01	15.3	В	0	8	0.03	15.1	В	0	9
Hopmeadow St	NB L	0.02	4.3	Α	1	4	0.02	4.3	Α	1	4	0.06	8.1	Α	3	13
Hopmeadow St	NB T	0.48	3.3	Α	79	131	0.48	3.3	Α	80	133	0.49	5.8	Α	110	223
Hopmeadow St	SB TR	0.68	14.9	В	190	357	0.68	15.0	В	192	361	0.82	25.5	С	278	#595
	Overall	0.60	9.7	Α	-	_	0.60	9.8	Α	-	-	0.72	18.3	В	-	_

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V/C – Volume-to-capacity ratio Delay – Control delay per vehicle

LOS – Level-of-Service

<sup>50&</sup>lt;sup>th</sup> – 50<sup>th</sup> percentile queue length estimate, in feet

<sup>95&</sup>lt;sup>th</sup> – 95th percentile queue length estimate, in feet

Proposed Build Condition lane group

Volume exceeds capacity, queue is theoretically infinite

<sup>95&</sup>lt;sup>th</sup> percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles Volume for 95<sup>th</sup> percentile queue is metered by upstream signal

NB = Northbound; SB = Southbound; EB = Eastbound; WB = Westbound; L = left-turn; T = through; R = right-turn



 Table 5 cont.
 Signalized Intersection Capacity Analysis Summary

			2022 I	xisting Co	nditions			2023 N	o-Build Co	nditions			2023	Build Cond	litions	
Approach	Lane Group	V/C <sup>1</sup>	Delay <sup>2</sup>	LOS <sup>3</sup>	50 <sup>th4</sup>	95 <sup>th5</sup>	V/C	Delay	LOS	50 <sup>th</sup>	95 <sup>th</sup>	V/C	Delay	LOS	50th	95th
Hoskins Road at Hop	omeadow Street (	Route 20	2)– Weekda	y Morning	y Peak Hou	r										
Hoskins Road	EB L	0.25	32.3	C	39	57	0.25	32.1	C	38	57	0.26	31.7	C	42	60
Hoskins Road	EB R	0.48	26.2	C	88	94	0.47	26.0	C	89	94	0.48	25.7	C	95	99
Hopmeadow St	NB L	0.25	6.9	Α	16	39	0.25	7.1	Α	16	39	0.28	8.0	Α	17	40
Hopmeadow St	NB T	0.45	11.9	В	150	287	0.46	12.2	В	153	291	0.51	13.3	В	179	335
Hopmeadow St	SB TR	0.59	14.3	В	210	399	0.59	14.6	В	214	403	0.65	16.3	В	247	#502
	Overall	0.61	15.9	В	-	-	0.61	16.1	В	-	-	0.66	17.0	В	-	-
Hoskins Road at Hop	omeadow Street (	Route 20	2)– Weekda	y Evening	Peak Hour											
Hoskins Road	EB L	0.37	38.0	D	39	71	0.36	37.9	D	39	71	0.38	38.0	D	42	74
Hoskins Road	EB R	0.21	24.1	C	37	61	0.22	24.0	C	38	62	0.22	24.0	C	40	63
Hopmeadow St	NB L	0.45	10.0	Α	17	39	0.46	10.3	В	17	43	0.50	12.5	В	18	68
Hopmeadow St	NB T	0.66	15.4	В	258	490	0.67	15.7	В	262	495	0.71	16.7	В	287	#598
Hopmeadow St	SB TR	0.78	19.3	В	326	#510	0.78	19.8	В	332	#524	0.83	22.5	C	373	#626
	Overall	0.71	17.9	В	-	-	0.71	18.2	В	-	-	0.76	20.0	C	-	-
Hoskins Road at Hop	omeadow Street (	Route 20	2)– Saturda	y Midday	Peak Hour											
Hoskins Road	EB L	0.32	42.2	D	32	68	0.32	42.2	D	32	68	0.35	42.3	D	36	75
Hoskins Road	EB R	0.11	31.2	С	5	49	0.12	31.1	C	6	50	0.17	30.5	С	17	59
Hopmeadow St	NB L	0.20	3.9	Α	9	21	0.20	3.9	Α	9	21	0.22	4.6	Α	9	22
Hopmeadow St	NB T	0.50	8.9	Α	158	290	0.50	8.9	Α	159	294	0.56	10.4	В	190	366
Hopmeadow St	SB TR	0.51	9.1	Α	157	291	0.51	9.2	Α	158	295	0.57	10.7	В	192	372
	Overall	0.48	11.6	В	-	-	0.49	11.7	В	-	-	0.54	12.8	В	_	-

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V/C – Volume-to-capacity ratio

Delay – Control delay per vehicle

LOS – Level-of-Service

<sup>50&</sup>lt;sup>th</sup> – 50<sup>th</sup> percentile queue length estimate, in feet

<sup>95&</sup>lt;sup>th</sup> – 95th percentile queue length estimate, in feet

Volume exceeds capacity, queue is theoretically infinite

<sup>95&</sup>lt;sup>th</sup> percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles Volume for 95<sup>th</sup> percentile queue is metered by upstream signal

NB = Northbound; SB = Southbound; EB = Eastbound; WB = Westbound; L = left-turn; T = through; R = right-turn



## **Unsignalized Intersection Capacity Analysis**

Unsignalized intersection capacity analyses were conducted for the existing intersection of Hopmeadow Street (Route 202) at Ely Lane and the proposed full access entry/right-out only site drive (Site Drive) on Hopmeadow Street (Route 202). Capacity analyses were conducted for the 2022 Existing, 2023 No-Build (without the proposed project), and the 2023 Build conditions (with the development). The results of the analysis are shown in Table 6.

The existing intersection of Hopmeadow Street (Route 202) at Ely Lane currently operates with LOS C or better during all peak hours and is expected to do so through the 2023 No-Build Conditions. Under 2023 Build conditions, the Ely Lane approach degrades to LOS D during the weekday evening and Saturday midday peak periods. However, the additional traffic generated by the development is only expected to cause a minimal increase in delays of approximately 7 seconds per vehicle.

The proposed full access entry/right-out only site drive on Hopmeadow Street (Route 202) operates with acceptable levels of service B or better during all peak hours under 2023 Build conditions.



**Unsignalized Intersection Capacity Analysis Summary** Table 6

				2022 Ex	cisting			2023 No-	Build			202	3 Build	
Location	Period	Movement	Queue <sup>a</sup>	v/c <sup>b</sup>	Delay <sup>c</sup>	LOSd	Queue	v/c	Delay	LOS	Queue	v/c	Delay	LOS
Ely Lane at Hopmeadow Street (Route 202)	Weekday Morning	EB-LR	11	0.12	14.0	В	11	0.13	14.0	В	15	0.17	16.1	C
		NB-LT	4	0.05	1.3	Α	4	0.05	1.3	Α	4	0.05	1.3	Α
		SB-TR	0	0.35	0.0	_	0	0.36	0.0	-	0	0.39	0.0	_
	Weekday Evening	EB-LR	66	0.49	21.8	C	66	0.49	21.8	C	77	0.54	24.5	C
		NB-LT	9	0.11	2.8	Α	9	0.11	2.8	Α	10	0.12	3.0	Α
		SB-TR	0	0.38	0.0	-	0	0.39	0.0	-	0	0.41	0.0	-
	Saturday Midday	EB-LR	77	0.54	24.7	C	77	0.54	24.9	C	104	0.64	32.4	D
		NB-LT	9	0.11	2.7	Α	9	0.11	2.7	Α	10	0.12	2.9	Α
		SB-TR	0	0.33	0.0	-	0	0.33	0.0	-	0	0.37	0.0	-
Site Drive at Hopmeadow	Weekday Morning	EB-R	-	-	-	-	-	-	-	-	9	0.11	11.1	В
Street (Route 202)		NB-LT	-	-	-	-	-	-	-	-	7	0.08	1.2	Α
	Weekday Evening	EB-R	-	_	-	-	-	_	-	-	7	0.09	11.6	В
To the state of th		NB-LT	-	-	-	-	-	-	-	-	5	0.06	0.7	Α
	Saturday Midday	EB-R	-	_	-	_	-	_	-	-	12	0.14	11.5	В
	, ,	NB-LT	-	-	-	-	-	-	-	-	8	0.10	1.2	Α

95<sup>th</sup> percentile vehicle queue in feet

volume-to-capacity ratio for the critical movement

delay of critical approach only

level of service of the critical movement

EB, WB Eastbound, westbound,

NB, SB Northbound, southbound

LR shared left/right-turn movements;

LTR shared left/through/right turn movements

L left-turn movement

LT shared left/through movement



# 5

## **Conclusions**

This study has been prepared to evaluate the traffic impacts associated with a proposed mixed-use development on currently a vacant lot located at 1263 Hopmeadow Street (Route 202) in Simsbury, Connecticut. The Project involves the creation of a 2,400 square foot coffee shop with drive through and patio, a 2,325 square foot fast-food restaurant with online order pick-up window and patio, a 11,600 square foot retail building, and a drive-up ATM.

A new full-access entrance/right-out only driveway onto Route 202 is proposed between the coffee shop and fast-food restaurant pad sites. A new internal connection to the adjacent Big Y shopping plaza is also proposed, which will provide access to the project site via the existing signalized driveway to the Big Y shopping plaza.

The project is anticipated to generate 206 net new trips (108 entering, 98 exiting) during the morning peak hour, 168 trips (85 entering, 83 exiting) during the evening peak hour, and 256 trips (130 entering, 126 exiting) during the Saturday midday peak hour.

Capacity analyses indicate that the signalized intersections of Hopmeadow Street (Route 202) at Big Y Driveway and Hopmeadow Street (Route 202) at Hoskins Road will continue operating at an overall acceptable LOS C or better under future Build conditions.

25 Conclusions 42810.00



Capacity analyses were also conducted for the unsignalized intersections of Hopmeadow Street (Route 202) at Ely Lane and Hopmeadow Street (Route 202) at the proposed Site Drive. The proposed site driveway is expected to operate at LOS B or better during the peak traffic periods with minimal delays. The intersection of Hopmeadow Street at Ely Lane is projected to operate with LOS D or better conditions during the peak hours under future Build conditions, and the additional traffic generated by the development is only expected to cause a minimal increase in delays of approximately 7 seconds per vehicle.

It is therefore the conclusion of this Traffic Impact Assessment that the surrounding roadway network will not be greatly impacted by the traffic increases anticipated by the proposed development.

26 Conclusions 42810.00



# Appendix

## Appendix No. & Title

Attachment A – Preliminary Site Plan

Attachment B – Traffic Counts

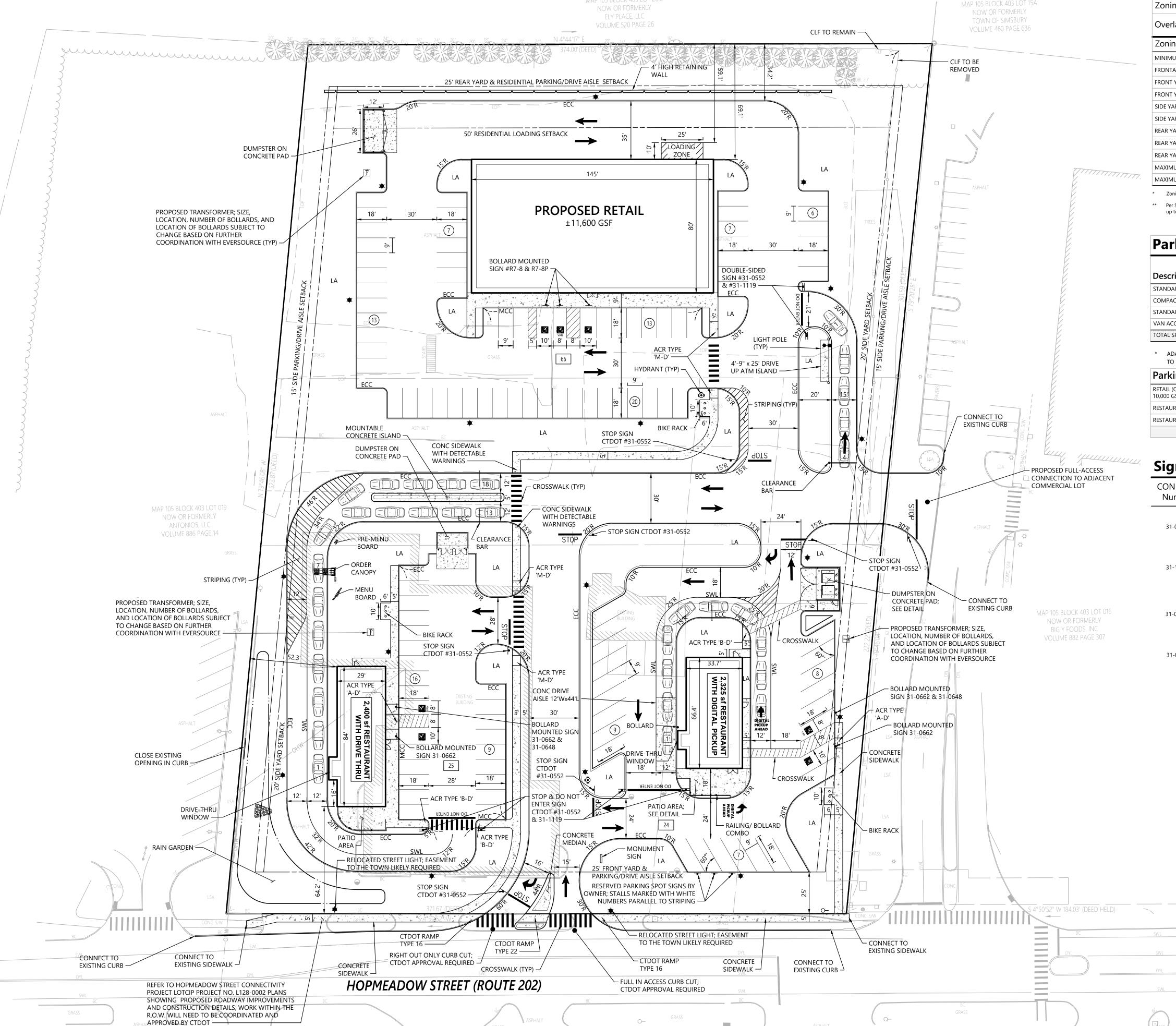
Attachment C – Crash Data

Attachment D – Trip Generation and Distribution

Attachment E – Capacity Analyses



# Attachment A – Preliminary Site Plan



# **Zoning Summary Chart**

Zoning District(S):	B2 - General Busin	iess
Overlay District(S):	Level A - Aquifer F	Projection Zone
Zoning Regulation Requirements	Required*	Provided
MINIMUM LOT AREA	NONE	±4.45 AC
FRONTAGE	NONE	371.7 Feet
FRONT YARD BUILDING SETBACK	25 Feet	64.2 Feet
FRONT YARD PARKING SETBACK	25 Feet	25 Feet
SIDE YARD BUILDING SETBACK	20 Feet	52.3 Feet
SIDE YARD PARKING SETBACK	15 Feet	15 Feet
REAR YARD BUILDING SETBACK	25 Feet	69.1 Feet
REAR YARD PARKING SETBACK	25 Feet	34.2 Feet
REAR YARD RESIDENTIAL LOADING SETBACK	50 Feet	59.1 Feet
MAXIMUM BUILDING HEIGHT	40 Feet	<40 Feet
MAXIMUM IMPERVIOUS	40.0%/60.0% **	59.7 %

- \* Zoning regulation requirements as specified in Simsbury Zoning Regulations dated 03/01/2022
- \*\* Per Section 4.4.B; The Zoning Commission may, after notice and public hearing, grant a special exception to allow up to 50 pecent increase to the maximum coverage allowed in any zone.

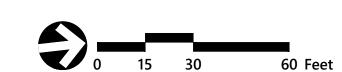
# **Parking Summary Chart**

	Size (FT)		Spaces	
Description	Required	Provided	Required	Provided
STANDARD SPACES	9 x 18	9 x 18	92	108
COMPACT SPACES (50% ALLOWED W/ SE)	8 x 16	8 x 16	N/A	N/A
STANDARD ACCESSIBLE SPACES *	15 x 18	15 x 18	3	4
VAN ACCESSIBLE SPACES	16 x 18	16 x 18	1	3
TOTAL SPACES			96	115

\* ADA/STATE/LOCAL REGULATIONS REQUIRE 5 ACCESSIBLE PARKING SPACES FOR LOTS BETWEEN 101 TO 150 PARKING SPACES - 1 OF WHICH BEING VAN ACCESSIBLE

Parking Requirements:										
RETAIL (OVER 10,000 GSF)	11,600 SF	х	2.75	/	500	=	64 SPACES			
RESTAURANT 1	2,400 SF	х	3.3	/	500	=	16 SPACES			
RESTAURANT 2	2,325 SF	х	3.3	/	500	=	16 SPACES			
			TOTAL PARK	ING I	REQUIRED	=	96 SPACES			

Sign Su	mma	ry	
CONNDOT	Specif	ication	Desc.
Number	Width	Height	Desc.
31-0552	30"	30"	STOP
31-1119	30"	30"	DO NOT ENTER
31-0662	12"	24"	AND THAT IS FARMING PERFORMANCE PERFORMANC
31-0648	12"	6"	VAN ACCESSIBLE



# **Proposed Commercial** Development

100 Great Meadow Road

Wethersfield, CT 06109

Suite 200

860.807.4300

1263 Hopmeadow Street Simsbury, Connecticut

Revision	Date	Appvd.

Local Approvals	May 26, 2023
Issued for	Date
Designed by	Checked by

Layout and **Materials Plan** 

42810.00



# **Attachment B - Traffic Counts**

Kensington, Connecticut 06037 (860) 828-1693

Route 202 at Big Y Drive Simsbury, Connecticut

File Name: 23307 Site Code: 23307

Start Date : 7/14/2022

Page No : 1

Groups Printed- Lights - Trucks - Buses

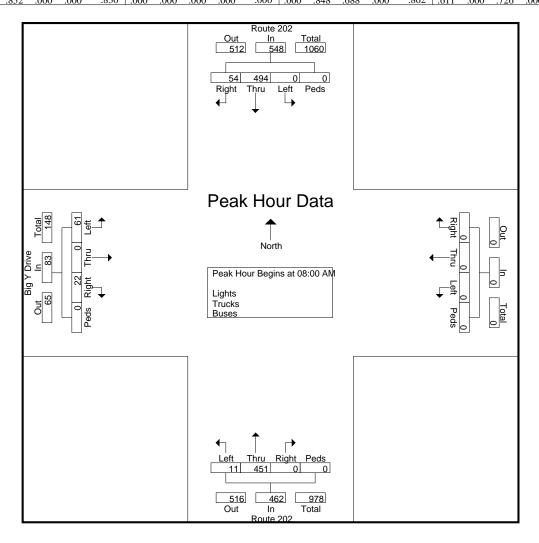
		R	oute 20	02								R	oute 2	02			Bi	g Y D	rive		
		Fr	om No	rth			F	rom Ea	ıst			Fr	om So	uth			Fr	om W	est		
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
07:00 AM	5	77	0	0	82	0	0	0	0	0	0	72	2	0	74	2	1	11	0	14	170
07:15 AM	9	100	0	0	109	0	0	0	0	0	0	89	3	0	92	1	0	8	0	9	210
07:30 AM	14	102	0	0	116	0	0	0	0	0	0	68	4	0	72	5	0	20	0	25	213
07:45 AM	11	108	0	0	119	0	0	0	0	0	0	75	3	0	78	3	0	18	0	21	218
Total	39	387	0	0	426	0	0	0	0	0	0	304	12	0	316	11	1	57	0	69	811
08:00 AM	13	121	0	0	134	0	0	0	0	0	0	93	4	0	97	4	0	15	0	19	250
08:15 AM	15	130	0	0	145	0	0	0	0	0	0	114	4	0	118	9	0	20	0	29	292
08:30 AM	20	145	0	0	165	0	0	0	0	0	0	133	1	0	134	5	0	21	0	26	325
08:45 AM	6	98	0	0	104	0	0	0	0	0	0	111	2	0	113	4	0	5	0	9	226_
Total	54	494	0	0	548	0	0	0	0	0	0	451	11	0	462	22	0	61	0	83	1093
Grand Total	93	881	0	0	974	0	0	0	0	0	0	755	23	0	778	33	1	118	0	152	1904
Apprch %	9.5	90.5	0	0		0	0	0	0		0	97	3	0		21.7	0.7	77.6	0		
Total %	4.9	46.3	0	0	51.2	0	0	0	0	0	0	39.7	1.2	0	40.9	1.7	0.1	6.2	0	8	
Lights	92	859	0	0	951	0	0	0	0	0	0	738	23	0	761	32	1	117	0	150	1862
% Lights	98.9	97.5	0	0	97.6	0	0	0	0	0	0	97.7	100	0	97.8	97	100	99.2	0	98.7	97.8
Trucks	1	18	0	0	19	0	0	0	0	0	0	14	0	0	14	1	0	1	0	2	35
% Trucks	1.1	2	0	0	2	0	0	0	0	0	0	1.9	0	0	1.8	3	0	0.8	0	1.3	1.8
Buses	0	4	0	0	4	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	7
% Buses	0	0.5	0	0	0.4	0	0	0	0	0	0	0.4	0	0	0.4	0	0	0	0	0	0.4

Kensington, Connecticut 06037 (860) 828-1693

File Name : 23307 Site Code : 23307 Start Date : 7/14/2022

Page No : 2

			oute 20										oute 2					ig Y D			
		Fr	om No	rth			F	rom Ea	ist			Fr	om So	uth			Fı	om W	est		
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour A	nalysis	From (	7:00 A	M to 0	8:45 AN	1 - Peal	k 1 of 1														
Peak Hour for	r Entire	Inters	ection l	Begins	at 08:00	AM															_
08:00 AM	13	121	0	0	134	0	0	0	0	0	0	93	4	0	97	4	0	15	0	19	250
08:15 AM	15	130	0	0	145	0	0	0	0	0	0	114	4	0	118	9	0	20	0	29	292
08:30 AM	20	145	0	0	165	0	0	0	0	0	0	133	1	0	134	5	0	21	0	26	325
08:45 AM	6	98	0	0	104	0	0	0	0	0	0	111	2	0	113	4	0	5	0	9	226
Total Volume	54	494	0	0	548	0	0	0	0	0	0	451	11	0	462	22	0	61	0	83	1093
% App. Total	9.9	90.1	0	0		0	0	0	0		0	97.6	2.4	0		26.5	0	73.5	0		
PHE	675	852	000	000	830	000	000	000	000	000	000	8/18	688	000	862	611	000	726	000	716	841



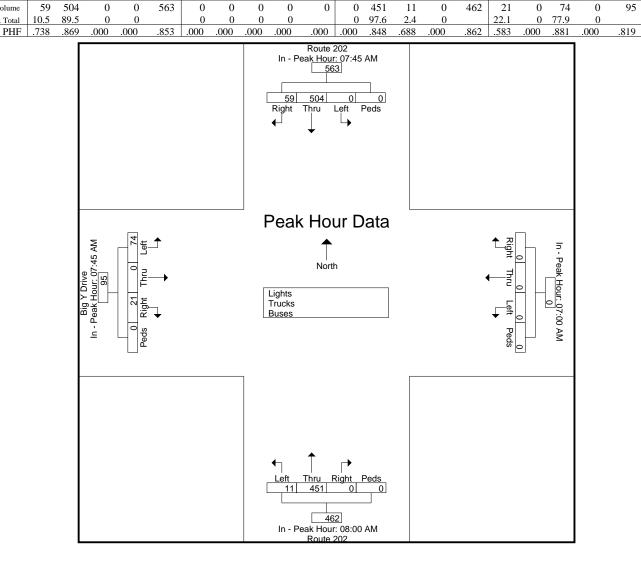
Kensington, Connecticut 06037 (860) 828-1693

File Name : 23307 Site Code : 23307 Start Date : 7/14/2022

Page No : 3

			oute 20				F	rom Ea	ast				oute 2					ig Y D om W			
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour An Peak Hour for	•					1 - Peal	k 1 of 1		•				•						•		
	07:45 AM	I				07:00 AM	ī				08:00 AM					07:45 AM	ī				
+0 mins.	11	108	0	0	119	0	0	0	0	0	0	93	4	0	97	3	0	18	0	21	
+15 mins.	13	121	0	0	134	0	0	0	0	0	0	114	4	0	118	4	0	15	0	19	
+30 mins.	15	130	0	0	145	0	0	0	0	0	0	133	1	0	134	9	0	20	0	29	
+45 mins.	20	145	0	0	165	0	0	0	0	0	0	111	2	0	113	5	0	21	0	26	
Total Volume	59	504	0	0	563	0	0	0	0	0	0	451	11	0	462	21	0	74	0	95	

% App. Total



# Kensington, Connecticut 06037 (860) 828-1693

Route 202 at Big Y Drive Simsbury, Connecticut

File Name: 23308 Site Code: 23308

Start Date : 7/14/2022

Page No : 1

Groups Printed- Lights - Trucks - Buses

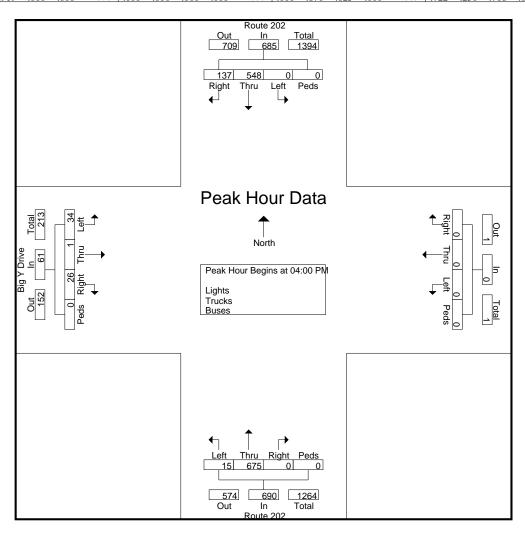
		R	oute 2	02.								R	Route 2	02.			Bi	ig Y D	rive		]
			om No				F	rom Ea	ast				rom So					om W			
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
04:00 PM	28	136	0	0	164	0	0	0	0	0	0	146	3	0	149	7	0	8	0	15	328
04:15 PM	33	129	0	0	162	0	0	0	0	0	0	158	3	0	161	7	1	6	0	14	337
04:30 PM	46	149	0	0	195	0	0	0	0	0	0	194	6	0	200	9	0	12	0	21	416
04:45 PM	30	134	0	0	164	0	0	0	0	0	0	177	3	0	180	3	0	8	0	11	355
Total	137	548	0	0	685	0	0	0	0	0	0	675	15	0	690	26	1	34	0	61	1436
05:00 PM	28	130	0	0	158	0	0	0	0	0	0	155	2	0	157	2	0	10	0	12	327
05:15 PM	26	132	0	0	158	0	0	0	0	0	0	135	4	0	139	2	0	17	0	19	316
05:30 PM	23	104	0	0	127	0	0	0	0	0	0	150	0	0	150	2	0	7	0	9	286
05:45 PM	31	135	0	0	166	0	0	0	0	0	0	132	4	0	136	1	0	12	0	13	315
Total	108	501	0	0	609	0	0	0	0	0	0	572	10	0	582	7	0	46	0	53	1244
Grand Total	245	1049	0	0	1294	0	0	0	0	0	0	1247	25	0	1272	33	1	80	0	114	2680
Apprch %	18.9	81.1	0	0		0	0	0	0		0	98	2	0		28.9	0.9	70.2	0		
Total %	9.1	39.1	0	0	48.3	0	0	0	0	0	0	46.5	0.9	0	47.5	1.2	0	3	0	4.3	
Lights	245	1044										1233									
% Lights	100	99.5	0	0	99.6	0	0	0	0	0	0	98.9	100	0	98.9	100	100	100	0	100	99.3
Trucks	0	3	0	0	3	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	13
% Trucks	0	0.3	0	0	0.2	0	0	0	0	0	0	0.8	0	0	0.8	0	0	0	0	0	0.5
Buses	0	2	0	0	2	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	6
% Buses	1 ()	0.2	()	0	0.2	. 0	()	()	()	0	0	0.3	0	()	0.3	0	0	0	0	0	0.2

Kensington, Connecticut 06037 (860) 828-1693

> File Name : 23308 Site Code : 23308 Start Date : 7/14/2022

Page No : 2

		R	oute 20	02								R	oute 2	02			В	ig Y D	rive		]
		Fr	om No	orth			F	rom Ea	ast			Fr	om So	uth			Fı	rom W	est		
Start	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds		Right	Thru	Left	Peds		Right	Thru	Left	Peds		Int. Total
Time	Rigin	Tinu	Leit	1 cus	App. Total	Rigin	Tinu	Leit	1 cus	App. Total	Kigitt	Tinu	Leit	1 cus	App. Total	Kigiit	Tinu	Leit	1 cus	App. Total	III. Total
Peak Hour Ar	alysis	From (	04:00 P	M to 0	5:45 PM	- Peak	1 of 1														
Peak Hour for	Entire	Inters	ection 1	Begins	at 04:00	PM															
04:00 PM	28	136	0	0	164	0	0	0	0	0	0	146	3	0	149	7	0	8	0	15	328
04:15 PM	33	129	0	0	162	0	0	0	0	0	0	158	3	0	161	7	1	6	0	14	337
04:30 PM	46	149	0	0	195	0	0	0	0	0	0	194	6	0	200	9	0	12	0	21	416
04:45 PM	30	134	0	0	164	0	0	0	0	0	0	177	3	0	180	3	0	8	0	11	355
Total Volume	137	548	0	0	685	0	0	0	0	0	0	675	15	0	690	26	1	34	0	61	1436
% App. Total	20	80	0	0		0	0	0	0		0	97.8	2.2	0		42.6	1.6	55.7	0		
PHF	.745	.919	.000	.000	.878	.000	.000	.000	.000	.000	.000	.870	.625	.000	.863	.722	.250	.708	.000	.726	.863



Kensington, Connecticut 06037 (860) 828-1693

> File Name: 23308 Site Code: 23308 Start Date : 7/14/2022

> > 19

63

Page No : 3

17

		R	oute 20	02								R	oute 2	02			B	ig Y D	rive		
		Fr	om No	orth			F	rom Ea	ast			Fr	om So	uth			Fı	om W	est		
Start	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Time					1471.1											8					
Peak Hour A	nalysis	From (	04:00 P	M to 0	5:45 PM	I - Peak	1 of 1														
Peak Hour fo	r Each	Approa	ch Beg	gins at:																	_
	04:00 PM	1				04:00 PM					04:15 PM					04:30 PM					
+0 mins.	28	136	0	0	164	0	0	0	0	0	0	158	3	0	161	9	0	12	0	21	
+15 mins.	33	129	0	0	162	0	0	0	0	0	0	194	6	0	200	3	0	8	0	11	
$\pm 30$ mins	46	149	0	0	195	0	0	0	0	0	0	177	3	0	180	2	0	10	0	12	1

0

+45 mins.

Total Volume

% App. Total

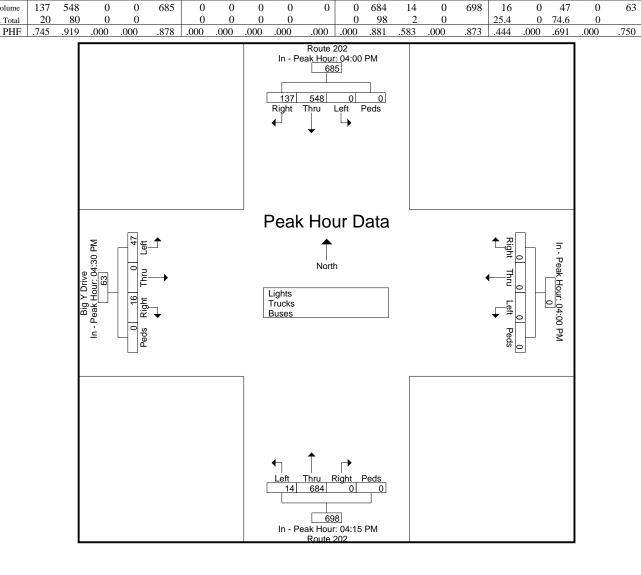
30 134 164

0

155

0

157



Kensington, Connecticut 06037 (860) 828-1693

Route 202 at Big Y Drive Simsbury, Connecticut

File Name: 23309 Site Code: 23309

Start Date : 7/16/2022

Page No : 1

Groups Printed- Lights - Trucks - Buses

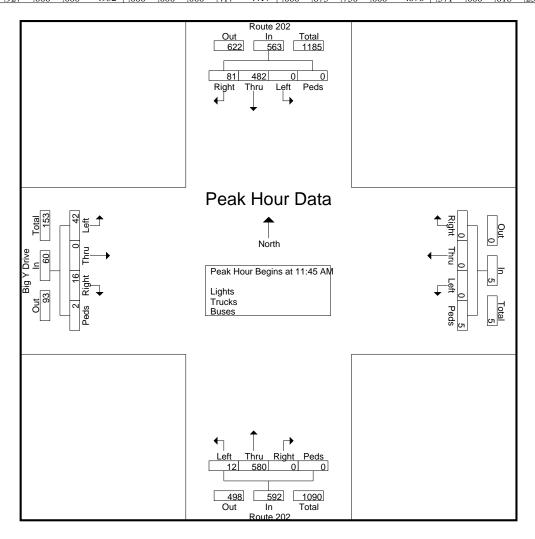
				0.2										0.2			ъ.	T/ D			1
			oute 20										Coute 20					g Y D			
		Fı	om No	orth			F	rom E	ast			Fr	om So	uth			Fr	om W	est		
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
11:00 AM	18	110	0	0	128	0	0	0	0	0	0	123	3	0	126	8	0	18	0	26	280
11:15 AM	19	111	0	0	130	0	0	0	0	0	0	127	1	0	128	9	0	12	0	21	279
11:30 AM	25	105	0	0	130	0	0	0	0	0	0	136	2	0	138	2	0	7	3	12	280
11:45 AM	21	123	0	0	144	0	0	0	0	0	0	159	4	0	163	3	0	17	2	22	329
Total	83	449	0	0	532	0	0	0	0	0	0	545	10	0	555	22	0	54	5	81	1168
12:00 PM	13	105	0	0	118	0	0	0	0	0	0	128	1	0	129	3	0	2	0	5	252
12:15 PM	20	130	0	0	150	0	0	0	3	3	0	166	3	0	169	7	0	11	0	18	340
12:30 PM	27	124	0	0	151	0	0	0	2	2	0	127	4	0	131	3	0	12	0	15	299
12:45 PM	25	99	0	0	124	0	0	0	0	0	0	160	3	0	163	3	0	9	0	12	299
Total	85	458	0	0	543	0	0	0	5	5	0	581	11	0	592	16	0	34	0	50	1190
																					•
Grand Total	168	907	0	0	1075	0	0	0	5	5	0	1126	21	0	1147	38	0	88	5	131	2358
Apprch %	15.6	84.4	0	0		0	0	0	100		0	98.2	1.8	0		29	0	67.2	3.8		
Total %	7.1	38.5	0	0	45.6	0	0	0	0.2	0.2	0	47.8	0.9	0	48.6	1.6	0	3.7	0.2	5.6	
Lights	168	906	0	0	1074	0	0	0	0	0	0	1126									
% Lights	100	99.9	0	0	99.9	0	0	0	0	0	0	100	100	0	100	100	0	100	0	96.2	99.5
Trucks	0	1	0	0	1	0	0	0	5	5	0	0	0	0	0	0	0	0	5	5	11
% Trucks	0	0.1	0	0	0.1	0	0	0	100	100	0	0	0	0	0	0	0	0	100	3.8	0.5
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Kensington, Connecticut 06037 (860) 828-1693

File Name : 23309 Site Code : 23309 Start Date : 7/16/2022

Page No : 2

		R	oute 20	)2								R	oute 20	02			Bi	ig Y D	rive		
		Fr	om No	rth			F	rom Ea	ıst			Fr	om So	uth			Fı	om W	est		
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Ar	nalysis	From 1	1:00 A	M to 1	2:45 PM	I - Peak	1 of 1														
Peak Hour for	r Entire	Inters	ection 1	Begins	at 11:45	AM					_										
11:45 AM	21	123	0	0	144	0	0	0	0	0	0	159	4	0	163	3	0	17	2	22	329
12:00 PM	13	105	0	0	118	0	0	0	0	0	0	128	1	0	129	3	0	2	0	5	252
12:15 PM	20	130	0	0	150	0	0	0	3	3	0	166	3	0	169	7	0	11	0	18	340
12:30 PM	27	124	0	0	151	0	0	0	2	2	0	127	4	0	131	3	0	12	0	15	299
Total Volume	81	482	0	0	563	0	0	0	5	5	0	580	12	0	592	16	0	42	2	60	1220
% App. Total	14.4	85.6	0	0		0	0	0	100		0	98	2	0		26.7	0	70	3.3		
PHF	.750	.927	.000	.000	.932	.000	.000	.000	.417	.417	.000	.873	.750	.000	.876	.571	.000	.618	.250	.682	.897

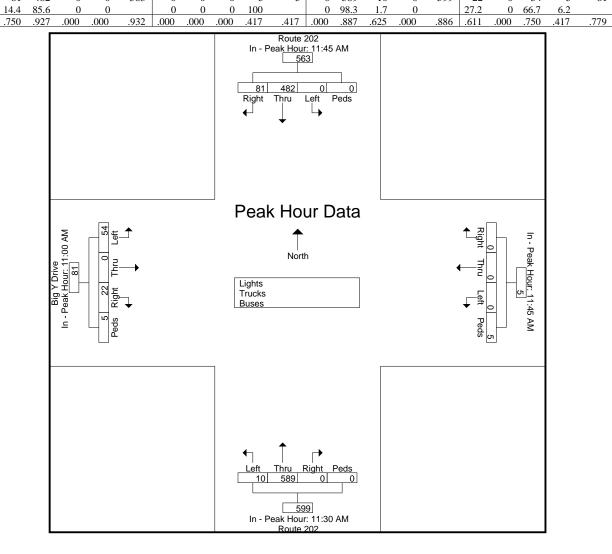


Kensington, Connecticut 06037 (860) 828-1693

File Name : 23309 Site Code : 23309 Start Date : 7/16/2022

Page No : 3

		R	oute 2	02								R	oute 20	02			Bi	ig Y D	rive		
		Fı	om No	orth			F	rom Ea	ast			Fr	om So	uth			Fı	om W	est		
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int.
Peak Hour A	nalysis	From	1:00 A	M to 1	2:45 PM	I - Peak	1 of 1		l	l	l		l				<u> </u>				
Peak Hour for	r Each	Approa	ach Beg	gins at:																	_
	11:45 AM	1				11:45 AM	I				11:30 AM	I				11:00 AM					
+0 mins.	21	123	0	0	144	0	0	0	0	0	0	136	2	0	138	8	0	18	0	26	
+15 mins.	13	105	0	0	118	0	0	0	0	0	0	159	4	0	163	9	0	12	0	21	
+30 mins.	20	130	0	0	150	0	0	0	3	3	0	128	1	0	129	2	0	7	3	12	
+45 mins.	27	124	0	0	151	0	0	0	2	2	0	166	3	0	169	3	0	17	2	22	
Total Volume	81	482	0	0	563	0	0	0	5	5	0	589	10	0	599	22	0	54	5	81	1
% App. Total	14.4	85.6	0	0		0	0	0	100		0	98.3	1.7	0		27.2	0	66.7	6.2		
DLIE	750	027	000	000	032	000	000	000	417	417	000	997	625	000	886	611	000	750	417	770	1



Kensington, Connecticut 06037 (860) 828-1693

Route 202 at Ely Lane Simsbury, Connecticut

File Name: 23310 Site Code: 23310

Start Date : 7/14/2022

Page No : 1

Groups Printed- Lights - Trucks - Buses

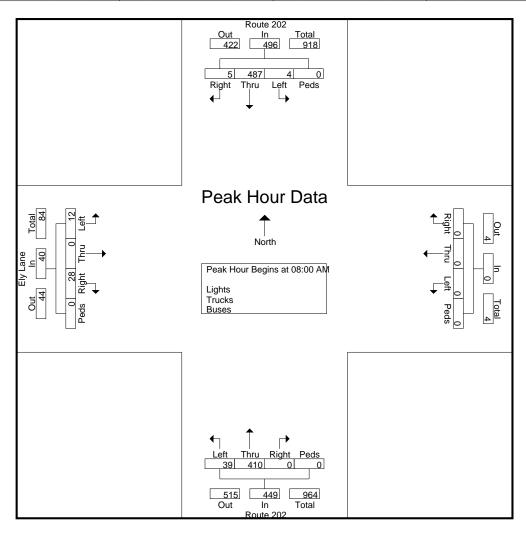
		R	oute 2	02								Ę	Coute 2	02			Ī	Ely Laı	ne		]
			om No				E	rom Ea	act				om So					om W			
Start Time	Dista	Thru	Left	Peds		Right	Thru	Left	Peds		Right	Thru	Left	Peds		Dista	Thru	Left	Peds		
	Right				App. Total	- 0				App. Total	-		Len		App. Total	Right				App. Total	Int. Total
07:00 AM	2	80	0	0	82	0	0	0	0	0	0	76	/	0	83	0	0	2	0	2	167
07:15 AM	3	134	0	0	137	0	0	0	0	0	0	96	7	0	103	5	0	3	0	8	248
07:30 AM	0	74	0	0	74	0	0	0	0	0	0	56	2	0	58	2	0	0	0	2	134
07:45 AM	2	130	0	0	132	0	0	0	0	0	0	77	6	0	83	7	0	2	0	9	224
Total	7	418	0	0	425	0	0	0	0	0	0	305	22	0	327	14	0	7	0	21	773
08:00 AM	1	117	0	0	118	0	0	0	0	0	0	91	5	0	96	4	0	3	0	7	221
08:15 AM	2	138	4	0	144	0	0	0	0	ő	0	106	13	0	119	8	0	2	0	10	273
08:30 AM	2	117	0	0	119	0	0	0	0	0	0	98	9	0	107	4	0	5	0	9	235
08:45 AM	0	115	0	0	115	0	0	0	0	0	0	115	12	0	127	12	0	2	0	14	256
													39			+					
Total	5	487	4	0	496	0	0	0	0	0	0	410	39	0	449	28	0	12	0	40	985
																1					I
Grand Total	12	905	4	0	921	0	0	0	0	0	0	715	61	0	776	42	0	19	0	61	1758
Apprch %	1.3	98.3	0.4	0		0	0	0	0		0	92.1	7.9	0		68.9	0	31.1	0		
Total %	0.7	51.5	0.2	0	52.4	0	0	0	0	0	0	40.7	3.5	0	44.1	2.4	0	1.1	0	3.5	
Lights	12	884	4	0	900	0	0	0	0	0	0	701	60	0	761	42	0	19	0	61	1722
% Lights	100	97.7	100	0	97.7	0	0	0	0	0	0	98	98.4	0	98.1	100	0	100	0	100	98
Trucks	0	17	0	0	17	0	0	0	0	0	0	12	1	0	13	0	0	0	0	0	30
% Trucks	0	1.9	0	0	1.8	0	0	0	0	0	0	1.7	1.6	0	1.7	0	0	0	0	0	1.7
Buses	0	4	0	0	4	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	6
% Buses	0	0.4	0	0	0.4	0	0	0	0	0	0	0.3	0	0	0.3	0	0	0	0	0	0.3

Kensington, Connecticut 06037 (860) 828-1693

> File Name : 23310 Site Code : 23310 Start Date : 7/14/2022

Page No : 2

		R	oute 20	02								R	oute 2	02			I	Ely Laı	ne		
		Fr	om No	orth			F	rom Ea	ast			Fr	om So	uth			Fı	om W	est		
Start	Right	Thru	Left	Peds		Right	Thru	Left	Peds		Right	Thru	Left	Peds		Right	Thru	Left	Peds		Int. Total
Time	Kigiii	Tillu	Leit	reus	App. Total	Kigiii	Tillu	Leit	reus	App. Total	Kigiii	Tillu	Len	reus	App. Total	Kigiii	Tillu	Leit	reus	App. Total	Int. I otai
Peak Hour Ar	nalysis	From (	07:00 A	M to 0	8:45 AM	1 - Peal	k 1 of 1														
Peak Hour for	Entire	Inters	ection 1	Begins	at 08:00	AM															
08:00 AM	1	117	0	0	118	0	0	0	0	0	0	91	5	0	96	4	0	3	0	7	221
08:15 AM	2	138	4	0	144	0	0	0	0	0	0	106	13	0	119	8	0	2	0	10	273
08:30 AM	2	117	0	0	119	0	0	0	0	0	0	98	9	0	107	4	0	5	0	9	235
08:45 AM	0	115	0	0	115	0	0	0	0	0	0	115	12	0	127	12	0	2	0	14	256
Total Volume	5	487	4	0	496	0	0	0	0	0	0	410	39	0	449	28	0	12	0	40	985
% App. Total	1	98.2	0.8	0		0	0	0	0		0	91.3	8.7	0		70	0	30	0		
PHF	.625	.882	.250	.000	.861	.000	.000	.000	.000	.000	.000	.891	.750	.000	.884	.583	.000	.600	.000	.714	.902



Kensington, Connecticut 06037 (860) 828-1693

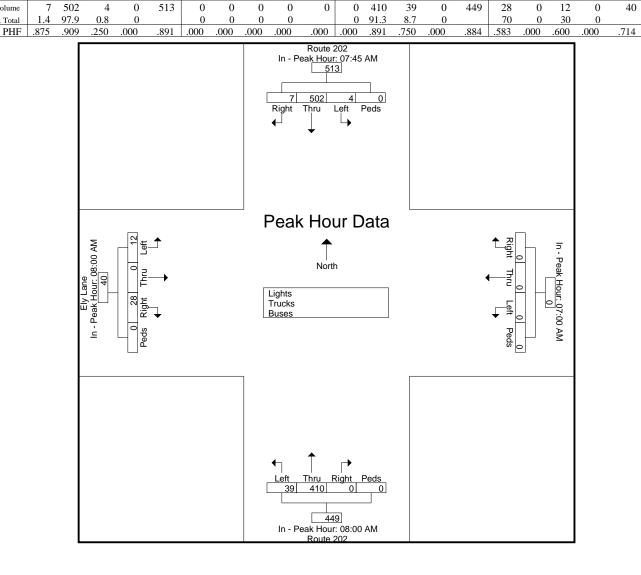
File Name : 23310 Site Code : 23310 Start Date : 7/14/2022

Page No : 3

		R	oute 20	02								R	oute 20	02			I	Ely Laı	ne		
		Fr	om No	rth			F	rom Ea	ıst			Fr	om So	uth			Fı	om W	est		
Start		T1	Left	, , l		D	T1	T . C.				T1	T - C4	, ,		D	T1	T - £4	, ,		
Time	Right	Thru	Len	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Tota
Peak Hour Ar	nalysis	From (	)7:00 A	M to 0	8:45 AN	1 - Peal	k 1 of 1	l													
Peak Hour for	Each	Approa	ich Beg	gins at:																	_
	07:45 AM	I				07:00 AM	I				08:00 AM	I				08:00 AM					
+0 mins.	2	130	0	0	132	0	0	0	0	0	0	91	5	0	96	4	0	3	0	7	
+15 mins.	1	117	0	0	118	0	0	0	0	0	0	106	13	0	119	8	0	2	0	10	
+30 mins.	2	138	4	0	144	0	0	0	0	0	0	98	9	0	107	4	0	5	0	9	
+45 mins.	2	117	0	0	119	0	0	0	0	0	0	115	12	0	127	12	0	2	0	14	

Total Volume

% App. Total



## Kensington, Connecticut 06037 (860) 828-1693

Route 202 at Ely Lane Simsbury, Connecticut

File Name : 23311 Site Code : 23311

Start Date : 7/14/2022

Page No : 1

Groups Printed- Lights - Trucks - Buses

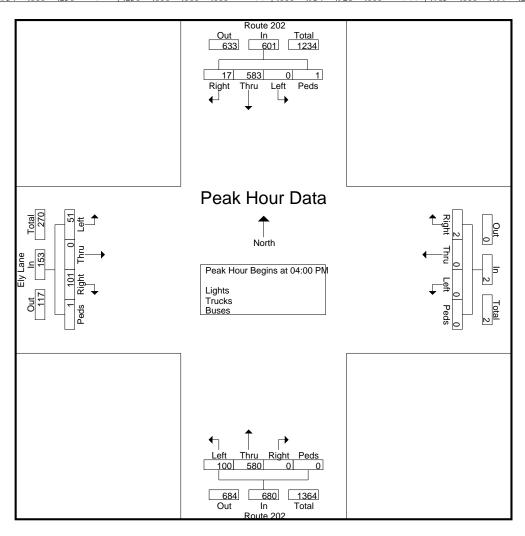
		D	oute 20	02								D	Route 2	റാ			T	Ely Laı	20		]
							_	Б										-			
			om No					rom Ea					rom So					om W			
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
04:00 PM	7	156	0	0	163	0	0	0	0	0	0	139	27	0	166	33	0	16	1	50	379
04:15 PM	4	146	0	0	150	0	0	0	0	0	0	152	20	0	172	20	0	12	0	32	354
04:30 PM	4	126	0	1	131	0	0	0	0	0	0	144	26	0	170	20	0	11	0	31	332
04:45 PM	2	155	0	0	157	2	0	0	0	2	0	145	27	0	172	28	0	12	0	40	371
Total	17	583	0	1	601	2	0	0	0	2	0	580	100	0	680	101	0	51	1	153	1436
05:00 PM	5	147	0	1	153	0	0	0	0	0	0	152	26	0	178	28	0	11	0	39	370
05:15 PM	2	139	0	0	141	0	0	0	0	0	0	135	28	0	163	26	0	13	0	39	343
05:30 PM	4	104	0	0	108	0	0	0	0	0	0	144	14	0	158	29	0	7	0	36	302
05:45 PM	6	132	0	0	138	0	0	0	0	0	0	116	19	0	135	28	0	9	0	37	310
Total	17	522	0	1	540	0	0	0	0	0	0	547	87	0	634	111	0	40	0	151	1325
																					•
Grand Total	34	1105	0	2	1141	2	0	0	0	2	0	1127	187	0	1314	212	0	91	1	304	2761
Apprch %	3	96.8	0	0.2		100	0	0	0		0	85.8	14.2	0		69.7	0	29.9	0.3		
Total %	1.2	40	0	0.1	41.3	0.1	0	0	0	0.1	0	40.8	6.8	0	47.6	7.7	0	3.3	0	11	
Lights	33	1097									Ť	1118									
% Lights	97.1	99.3	0	100	99.2	100	0	0	0	100	0	99.2	100	0	99.3	100	0	100	100	100	99.3
Trucks	1	4	0	0	5	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	10
% Trucks	2.9	0.4	0	0	0.4	0	0	0	0	0	o o	0.4	0	0	0.4	0	0	0	0	0	0.4
Buses	0	4	0	0	4	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	8
% Buses	0	0.4	0	0	0.4	0	0	0	0	0	0	0.4	0	0	0.3	0	0	0	0	0	0.3

Kensington, Connecticut 06037 (860) 828-1693

> File Name : 23311 Site Code : 23311 Start Date : 7/14/2022

Page No : 2

		R	oute 20	02								R	oute 2	02			]	Ely La	ne		]
		Fr	om No	orth			F	rom Ea	ast			Fr	om So	uth			Fı	rom W	est		
Start	Distr	Then	Left	Peds		Dista	Thru	Left	D- J-		Distri	Thru	Left	D- J-		Dista	Thru	Left	D- J-		
Time	Right	Thru	Leit	Peas	App. Total	Right	Tillu	Len	Peds	App. Total	Right	Tiiru	Len	Peds	App. Total	Right	Iniu	Len	Peds	App. Total	Int. Total
Peak Hour Ar	nalysis	From (	04:00 P	M to 0	5:45 PM	- Peak	1 of 1														
Peak Hour for	r Entire	Inters	ection 1	Begins	at 04:00	PM															
04:00 PM	7	156	0	0	163	0	0	0	0	0	0	139	27	0	166	33	0	16	1	50	379
04:15 PM	4	146	0	0	150	0	0	0	0	0	0	152	20	0	172	20	0	12	0	32	354
04:30 PM	4	126	0	1	131	0	0	0	0	0	0	144	26	0	170	20	0	11	0	31	332
04:45 PM	2	155	0	0	157	2	0	0	0	2	0	145	27	0	172	28	0	12	0	40	371_
Total Volume	17	583	0	1	601	2	0	0	0	2	0	580	100	0	680	101	0	51	1	153	1436
% App. Total	2.8	97	0	0.2		100	0	0	0		0	85.3	14.7	0		66	0	33.3	0.7		
PHF	.607	.934	.000	.250	.922	.250	.000	.000	.000	.250	.000	.954	.926	.000	.988	.765	.000	.797	.250	.765	.947



Kensington, Connecticut 06037 (860) 828-1693

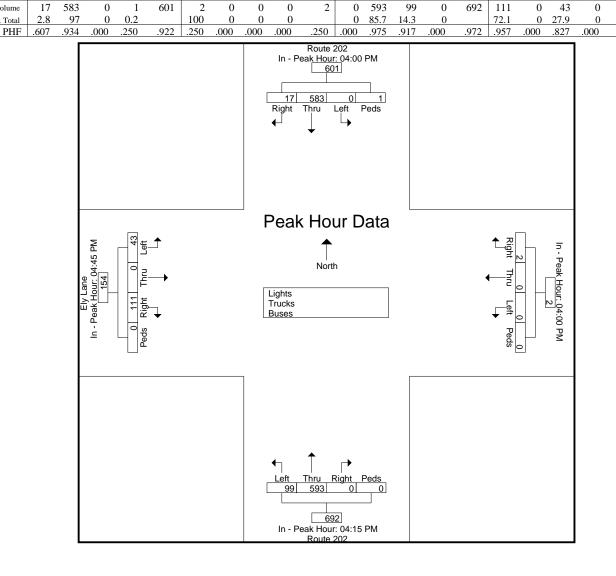
File Name : 23311 Site Code : 23311 Start Date : 7/14/2022

.963

Page No : 3

			oute 2					-					oute 2					Ely Lai			
		FI	om No	orth			F:	rom Ea	ast			Fr	om So	uth			FI	om W	est		
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int.
Peak Hour Ar	nalysis	From (	04:00 P	M to 0	5:45 PM	- Peak	1 of 1														
Peak Hour for	Each	Approa	ch Beg	gins at:																	
	04:00 PM					04:00 PM					04:15 PM					04:45 PM					
+0 mins.	7	156	0	0	163	0	0	0	0	0	0	152	20	0	172	28	0	12	0	40	
+15 mins.	4	146	0	0	150	0	0	0	0	0	0	144	26	0	170	28	0	11	0	39	
+30 mins.	4	126	0	1	131	0	0	0	0	0	0	145	27	0	172	26	0	13	0	39	
+45 mins.	2	155	0	0	157	2	0	0	0	2	0	152	26	0	178	29	0	7	0	36	
Total Volume	17	583	0	1	601	2	0	0	0	2	0	593	99	0	692	111	0	43	0	154	

% App. Total



## Kensington, Connecticut 06037 (860) 828-1693

Route 202 at Ely Lane Simsbury, Connecticut

File Name: 23312 Site Code: 23312

Start Date : 7/16/2022

Page No : 1

Groups Printed- Lights - Trucks - Buses

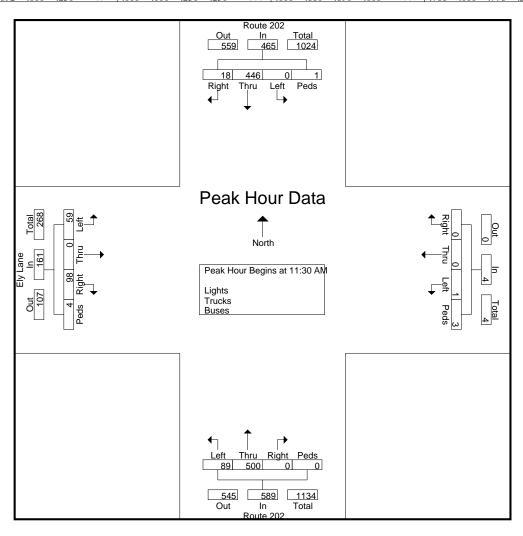
	_																				1
		R	oute 20	02								F	Route 2	02			I	Ely Lai	ne		
		Fr	om No	rth			F	rom Ea	ast			Fı	rom So	uth			Fr	om W	est		
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
11:00 AM	4	129	0	0	133	0	0	0	0	0	0	109	24	0	133	18	0	15	0	33	299
11:15 AM	4	96	1	0	101	0	0	0	0	0	0	106	32	0	138	22	0	10	0	32	271
11:30 AM	4	125	0	1	130	0	0	1	0	1	0	139	16	0	155	32	0	19	2	53	339
11:45 AM	4	111	0	0	115	0	0	0	0	0	0	128	25	0	153	21	0	13	0	34	302
Total	16	461	1	1	479	0	0	1	0	1	0	482	97	0	579	93	0	57	2	152	1211
12:00 PM	6	85	0	0	91	0	0	0	0	0	0	91	24	0	115	21	0	15	2	38	244
12:15 PM	4	125	0	0	129	0	0	0	3	3	0	142	24	0	166	24	0	12	0	36	334
12:30 PM	9	118	0	0	127	0	0	0	2	2	0	107	25	0	132	33	0	12	0	45	306
12:45 PM	4	91	0	0	95	0	0	0	0	0	0	125	30	0	155	24	0	8	0	32	282_
Total	23	419	0	0	442	0	0	0	5	5	0	465	103	0	568	102	0	47	2	151	1166
Grand Total	39	880	1	1	921	0	0	1	5	6	0	947	200	0	1147	195	0	104	4	303	2377
Apprch %	4.2	95.5	0.1	0.1		0	0	16.7	83.3		0	82.6	17.4	0		64.4	0	34.3	1.3		
Total %	1.6	37	0	0	38.7	0	0	0	0.2	0.3	0	39.8	8.4	0	48.3	8.2	0	4.4	0.2	12.7	
Lights	39	879	0	1	919	0	0	1	0	1	0	947	199	0	1146	195	0	104	0	299	2365
% Lights	100	99.9	0	100	99.8	0	0	100	0	16.7	0	100	99.5	0	99.9	100	0	100	0	98.7	99.5
Trucks	0	1	1	0	2	0	0	0	5	5	0	0	1	0	1	0	0	0	4	4	12
% Trucks	0	0.1	100	0	0.2	0	0	0	100	83.3	0	0	0.5	0	0.1	0	0	0	100	1.3	0.5
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Kensington, Connecticut 06037 (860) 828-1693

File Name : 23312 Site Code : 23312 Start Date : 7/16/2022

Page No : 2

		R	oute 20	02								R	oute 2	02			]	Ely La	ne		
		Fr	om No	orth			F	rom Ea	ast			Fr	om So	uth			Fı	rom W	est		
Start	Right	Thru	Left	Peds		Right	Thru	Left	Peds		Right	Thru	Left	Peds		Right	Thru	Left	Peds		Int. Total
Time	Kigiii	Tillu	Leit	1 eus	App. Total	Kigiii	Tillu	Len	reus	App. Total	Kigiit	Tillu	Lett	1 cus	App. Total	Kigiii	Tillu	Lett	1 cus	App. Total	Int. Total
Peak Hour Ar	nalysis	From 1	1:00 A	M to 1	2:45 PM	I - Peak	1 of 1														
Peak Hour for	Entire	Inters	ection 1	Begins	at 11:30	AM															
11:30 AM	4	125	0	1	130	0	0	1	0	1	0	139	16	0	155	32	0	19	2	53	339
11:45 AM	4	111	0	0	115	0	0	0	0	0	0	128	25	0	153	21	0	13	0	34	302
12:00 PM	6	85	0	0	91	0	0	0	0	0	0	91	24	0	115	21	0	15	2	38	244
12:15 PM	4	125	0	0	129	0	0	0	3	3	0	142	24	0	166	24	0	12	0	36	334
Total Volume	18	446	0	1	465	0	0	1	3	4	0	500	89	0	589	98	0	59	4	161	1219
% App. Total	3.9	95.9	0	0.2		0	0	25	75		0	84.9	15.1	0		60.9	0	36.6	2.5		
PHF	.750	.892	.000	.250	.894	.000	.000	.250	.250	.333	.000	.880	.890	.000	.887	.766	.000	.776	.500	.759	.899



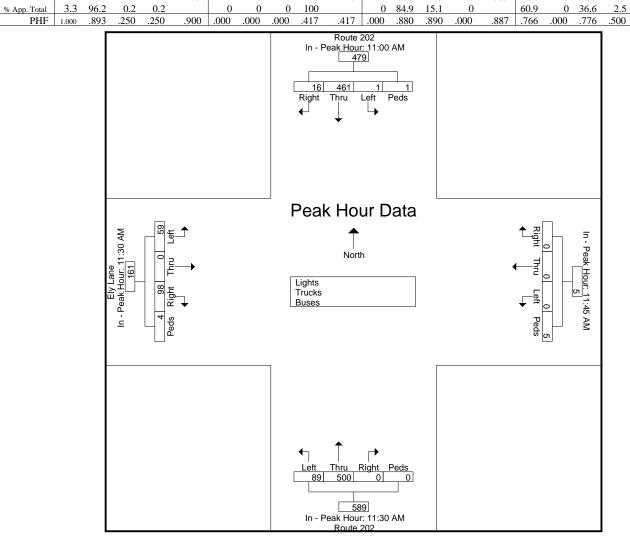
Kensington, Connecticut 06037 (860) 828-1693

File Name : 23312 Site Code : 23312 Start Date : 7/16/2022

.759

Page No : 3

		R	oute 20	02								R	oute 2	02			I	Ely Laı	ne		
		Fr	om No	orth			F:	rom Ea	ast			Fr	om So	uth			Fı	om W	est		
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	1
Peak Hour A	nalysis	From 1	1:00 A	M to 1	2:45 PM	1 - Peak	1 of 1														
Peak Hour fo	Each	Approa	ich Beg	gins at:																	,
	11:00 AM	I				11:45 AM	I				11:30 AM					11:30 AM	I				
+0 mins.	4	129	0	0	133	0	0	0	0	0	0	139	16	0	155	32	0	19	2	53	
+15 mins.	4	96	1	0	101	0	0	0	0	0	0	128	25	0	153	21	0	13	0	34	
+30 mins.	4	125	0	1	130	0	0	0	3	3	0	91	24	0	115	21	0	15	2	38	
+45 mins.	4	111	0	0	115	0	0	0	2	2	0	142	24	0	166	24	0	12	0	36	
Total Volume	16	461	1	1	479	0	0	0	5	5	0	500	89	0	589	98	0	59	4	161	



Newington, Connecticut, United States 06131 (860) 594-2087 dhruval.patel@ct.gov

Count Name: Route 10/U.S. Route 202 at Hoskins Road (128-245) - Simsbury Site Code: 12 Start Date: 12/08/2021 Page No: 1

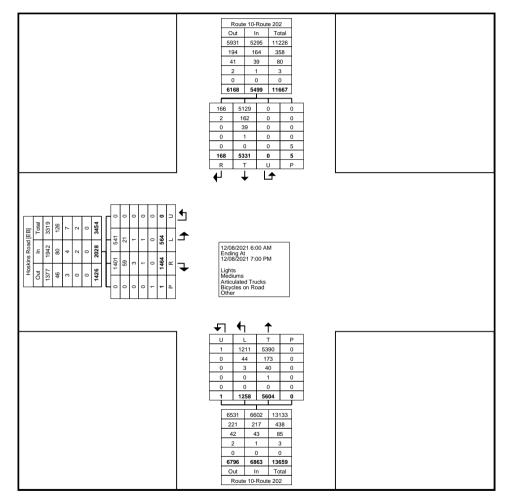
## **Turning Movement Data**

	1	Route 10-Re	oute 202 (Hopmea	adow Street)			Route 10-R	oute 202 (Hopme	adow Street)				Hoskins Road			
			Southbound	,				Northbound	,				Eastbound			
Start Time	Right	Thru	U-Turn	Peds	App. Total	Thru	Left	U-Turn	Peds	App. Total	Right	Left	U-Turn	Peds	App. Total	Int. Total
6:00 AM	0	37	0	0	37	26	3	0	0	29	18	2	0	0	20	86
6:15 AM	0	52	0	0	52	39	2	0	0	41	13	2	0	0	15	108
6:30 AM	1	64	0	0	65	54	2	0	0	56	21	4	0	0	25	146
6:45 AM	2	95	0	0	97	70	4	0	0	74	35	2	0	0	37	208
Hourly Total	3	248	0	0	251	189	11	0	0	200	87	10	0	0	97	548
7:00 AM	1	74	0	0	75	69	14	0	0	83	49	6	0	0	55	213
7:15 AM	1	97	. 0	0	98	76	16	. 0	0	92	50	6	. 0	0	56	246
7:30 AM	1	140	0	0	141	93	11	0	0	104	40	5	0	0	45	290
7:45 AM	1	127	0	0	128	84	20	0	0	104	59	3	0	0	62	294
Hourly Total	4	438	. 0	0	442	322	61	0	0	383	198	20	0	0	218	1043
8:00 AM	7	115	0	0	122	102	26	0	0	128	37	7	0	0	44	294
8:15 AM	4	135	0	0	139	89	21	0	0	110	53	13	0	0	66	315
8:30 AM	2	99	. 0	0	101	90	. 27	0	0	117	69	17	0	0	86	304
8:45 AM	2	117	0	0	119	116	27	0	0	143	38	16	0	0	54	316
Hourly Total	15	466	0	0	481	397	101	0	0	498	197	53	0	0	250	1229
9:00 AM	3	. 87	. 0	0	90	91	25	0	0	116	44	13	0	0	57	263
9:15 AM	4	102	0	0	106	83	23	0	0	106	22	5	0	0	27	239
9:30 AM	1	103	0	0	104	87	17	0	0	104	21	13	0	0	34	242
9:45 AM	3	. 87	. 0	0	90	90	13	0	0	103	26	12	0	0	38	231
Hourly Total	11	379	0	0	390	351	78	0	0	429	113	43	0	0	156	975
10:00 AM	4	81	0	0	85	83	14	0	0	97	14	9	0	0	23	205
10:15 AM	2	105	0	0	107	103	12	0	0	115	17	8	0	0	25	247
10:30 AM	2	125	0	0	127	98	11	0	0	109	33	13	0	0	46	282
10:45 AM	2	94	0	0	96	98	16	0	0	114	25	10	0	0	35	245
Hourly Total	10	405	0	0	415	382	53	0	0	435	89	40	0	0	129	979
11:00 AM	2	98	0	0	100	86	20	0	0	106	20	12	0	0	32	238
11:15 AM	1	87	0	0	88	115	18	0	0	133	21	16	0	0	37	258
11:30 AM	3	109	0	0	112	126	18	0	0	144	15	9	0	0	24	280
11:45 AM	1	123	0	1	124	126	24	0	0	150	36	9	0	0	45	319
Hourly Total	7	417	0	1	424	453	80	0	0	533	92	46	0	0	138	1095
12:00 PM	8	107	0	0	115	133	30	0	0	163	27	9	0	0	36	314
12:15 PM	6	113	0	0	119	122	24	0	0	146	16	11	0	0	27	292
12:30 PM	5	118	0	0	123	128	25	1	0	154	40	15	0	0	55	332
12:45 PM	1	117	0	0	118	109	25	0	0	134	42	24	0	0	66	318
Hourly Total	20	455	0	0	475	492	104	1	0	597	125	59	0	0	184	1256
1:00 PM	1	107	0	0	108	100	31	0	0	131	30	11	0	0	41	280
1:15 PM	8	93	0	0	101	105	27	0	0	132	30	17	0	0	47	280
1:30 PM	4	113	0	0	117	107	25	0	0	132	24	14	0	0	38	287
1:45 PM	5	109	0	0	114	101	15	0	0	116	29	13	0	0	42	272

Hourly Total	18	422	0	0	440	413	98	0	0	511	113	55	0	0	168	1119
2:00 PM	2	103	0	0	105	116	19	0	0	135	23	8	0	0	31	271
2:15 PM	2	119	0	0	121	128	24	0	0	152	31	9	0	0	40	313
2:30 PM	4	92	0	0	96	144	19	0	0	163	17	7	0	0	24	283
2:45 PM	5	122	0	0	127	141	24	0	0	165	17	11	0	1	28	320
Hourly Total	13	436	0	0	449	529	86	0	0	615	88	35	0	1	123	1187
3:00 PM	6	112	0	0	118	119	18	0	0	137	18	11	0	0	29	284
3:15 PM	4	92	0	0	96	153	34	0	0	187	37	15	0	0	52	335
3:30 PM	10	112	0	3	122	135	39	0	0	174	29	12	0	0	41	337
3:45 PM	5	112	0	0	117	144	39	0	0	183	23	18	0	0	41	341
Hourly Total	25	428	0	3	453	551	130	0	0	681	107	56	0	0	163	1297
4:00 PM	4	148	0	0	152	141	41	0	0	182	16	15	0	0	31	365
4:15 PM	4	114	0	0	118	157	43	0	0	200	25	13	0	0	38	356
4:30 PM	3	98	0	0	101	171	50	0	0	221	31	14	0	0	45	367
4:45 PM	2	119	0	0	121	154	34	0	0	188	21	13	0	0	34	343
Hourly Total	13	479	0	0	492	623	168	0	0	791	93	55	0	0	148	1431
5:00 PM	6	98	0	. 1	104	134	44	0	0	178	29	19	0	0	48	330
5:15 PM	4	95	0	0	99	140	50	0	0	190	30	19	0	0	49	338
5:30 PM	5	111	0	0	116	148	37	0	0	185	21	16	0	0	37	338
5:45 PM	5	107	0	. 0	112	117	42	. 0	0	159	19	7	0	0	26	297
Hourly Total	20	411	0	1	431	539	173	0	0	712	99	61	0	0	160	1303
6:00 PM	2	101	0	0	103	109	34	0	0	143	17	6	0	0	23	269
6:15 PM	4	87	0	. 0	91	104	. 37	. 0	0	141	20	6	0	0	26	258
6:30 PM	3	81	0	0	84	67	28	0	0	95	11	7	0	0	18	197
6:45 PM	0	78	0	0	78	83	16	0	0	99	15	12	0	0	27	204
Hourly Total	9	347	0	0	356	363	115	0	0	478	63	31	0	0	94	928
Grand Total	168	5331	0	5	5499	5604	1258	1	0	6863	1464	564	0	1	2028	14390
Approach %	3.1	96.9	0.0	-	-	81.7	18.3	0.0	-	-	72.2	27.8	0.0	-	-	-
Total %	1.2	37.0	0.0	-	38.2	38.9	8.7	0.0	-	47.7	10.2	3.9	0.0	-	14.1	-
Lights	166	5129	0	-	5295	5390	1211	1	-	6602	1401	541	0	-	1942	13839
% Lights	98.8	96.2	-	-	96.3	96.2	96.3	100.0	-	96.2	95.7	95.9		-	95.8	96.2
Mediums	2	162	0	-	164	173	. 44	. 0	-	217	59	21	. 0	-	80	461
% Mediums	1.2	3.0	-	-	3.0	3.1	3.5	0.0	-	3.2	4.0	3.7	<del>-</del>	-	3.9	3.2
Articulated Trucks	0	39	0	-	39	40	3	0	-	43	3	1	0		4	86
% Articulated Trucks	0.0	0.7	-	-	0.7	0.7	0.2	0.0	-	0.6	0.2	0.2	-	-	0.2	0.6
Bicycles on Road	0	1	0	-	1	1	0	0	-	1	1	1	0	-	2	4
% Bicycles on Road	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	0.0	0.1	0.2	-		0.1	0.0
Bicycles on Crosswalk	-	-	-	. 2		-	-		0	-	-	-	-	. 0	-	-
% Bicycles on Crosswalk	-	<u> </u>	-	40.0	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	<u> </u>	-	3	-	-	-	-	0	-	-	-	-	1	-	-
% Pedestrians	-	-	-	60.0	-	-	-		-	-	-	-	-	100.0	-	-

## Newington, Connecticut, United States 06131 (860) 594-2087 dhruval.patel@ct.gov

Count Name: Route 10/U.S. Route 202 at Hoskins Road (128-245) - Simsbury Site Code: 12 Start Date: 12/08/2021 Page No: 3



**Turning Movement Data Plot** 

## Newington, Connecticut, United States 06131 (860) 594-2087 dhruval.patel@ct.gov

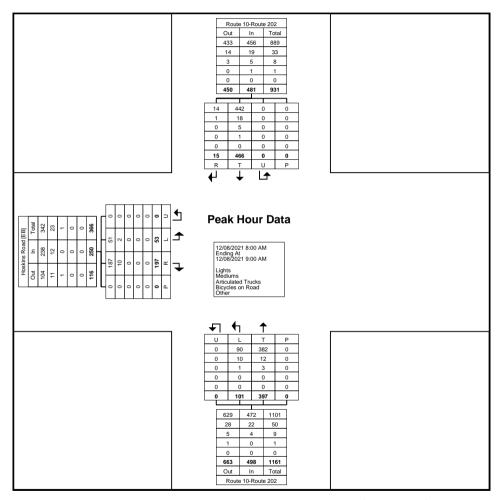
Count Name: Route 10/U.S. Route 202 at Hoskins Road (128-245) - Simsbury Site Code: 12 Start Date: 12/08/2021 Page No: 4

#### Turning Movement Peak Hour Data (8:00 AM)

					1 01111111	9 1410 4011		ait i loai	Jaia (J.	.00 / ((1))						
		Route 10-R	oute 202 (Hopme	adow Street)			Route 10-Ro	oute 202 (Hopme	adow Street)	-			Hoskins Road			
Otant Time			Southbound					Northbound					Eastbound			
Start Time	Right	Thru	U-Turn	Peds	App. Total	Thru	Left	U-Turn	Peds	App. Total	Right	Left	U-Turn	Peds	App. Total	Int. Total
8:00 AM	7	115	0	0	122	102	26	0	0	128	37	7	0	0	44	294
8:15 AM	4	135	0	0	139	89	21	0	0	110	53	13	0	0	66	315
8:30 AM	2	99	0	0	101	90	27	0	0	117	69	17	0	0	86	304
8:45 AM	2	117	0	0	119	116	27	0	0	143	38	16	0	0	54	316
Total	15	466	0	0	481	397	101	0	0	498	197	53	0	0	250	1229
Approach %	3.1	96.9	0.0	-	-	79.7	20.3	0.0	-	-	78.8	21.2	0.0	-	-	-
Total %	1.2	37.9	0.0	-	39.1	32.3	8.2	0.0	-	40.5	16.0	4.3	0.0	-	20.3	-
PHF	0.536	0.863	0.000	-	0.865	0.856	0.935	0.000	-	0.871	0.714	0.779	0.000	-	0.727	0.972
Lights	14	442	0	-	456	382	90	0	-	472	187	51	0	-	238	1166
% Lights	93.3	94.8	-	-	94.8	96.2	89.1	-	-	94.8	94.9	96.2	-	-	95.2	94.9
Mediums	1	18	0	-	19	12	10	0	-	22	10	2	0	-	12	53
% Mediums	6.7	3.9	-	-	4.0	3.0	9.9	-	-	4.4	5.1	3.8	-	-	4.8	4.3
Articulated Trucks	0	5	0	-	5	3	1	0	-	4	0	0	0	-	0	9
% Articulated Trucks	0.0	1.1	-	-	1.0	0.8	1.0	-	-	0.8	0.0	0.0	-	-	0.0	0.7
Bicycles on Road	0	1	0	-	1	0	0	0	-	0	0	0	0	-	0	1
% Bicycles on Road	0.0	0.2	-	-	0.2	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.1
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	1	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	i	-	-	-	-	ı	-	-	-	-	-
Pedestrians	-	-		0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

## Newington, Connecticut, United States 06131 (860) 594-2087 dhruval.patel@ct.gov

Count Name: Route 10/U.S. Route 202 at Hoskins Road (128-245) - Simsbury Site Code: 12 Start Date: 12/08/2021 Page No: 5



Turning Movement Peak Hour Data Plot (8:00 AM)

## Newington, Connecticut, United States 06131 (860) 594-2087 dhruval.patel@ct.gov

Count Name: Route 10/U.S. Route 202 at Hoskins Road (128-245) - Simsbury Site Code: 12 Start Date: 12/08/2021 Page No: 6

#### Turning Movement Peak Hour Data (4:00 PM)

					1 01111111	9 1410 401		ait i ioai i	Data ( I	.00 1 111)						
		Route 10-Ro	oute 202 (Hopme	eadow Street)			Route 10-Ro	oute 202 (Hopme	adow Street)	-			Hoskins Road			
Otant Time			Southbound					Northbound					Eastbound			
Start Time	Right	Thru	U-Turn	Peds	App. Total	Thru	Left	U-Turn	Peds	App. Total	Right	Left	U-Turn	Peds	App. Total	Int. Total
4:00 PM	4	148	0	0	152	141	41	0	0	182	16	15	0	0	31	365
4:15 PM	4	114	0	0	118	157	43	0	0	200	25	13	0	0	38	356
4:30 PM	3	98	0	0	101	171	50	0	0	221	31	14	0	0	45	367
4:45 PM	2	119	0	0	121	154	34	0	0	188	21	13	0	0	34	343
Total	13	479	0	0	492	623	168	0	0	791	93	55	0	0	148	1431
Approach %	2.6	97.4	0.0	-	-	78.8	21.2	0.0	-	-	62.8	37.2	0.0	-	-	-
Total %	0.9	33.5	0.0	-	34.4	43.5	11.7	0.0	-	55.3	6.5	3.8	0.0	-	10.3	-
PHF	0.813	0.809	0.000	-	0.809	0.911	0.840	0.000	-	0.895	0.750	0.917	0.000	-	0.822	0.975
Lights	13	472	0	-	485	614	168	0	-	782	92	52	0	-	144	1411
% Lights	100.0	98.5	-	-	98.6	98.6	100.0	-	-	98.9	98.9	94.5	-	-	97.3	98.6
Mediums	0	6	0	-	6	6	0	0	-	6	1	3	0	-	4	16
% Mediums	0.0	1.3	-	-	1.2	1.0	0.0	-	-	0.8	1.1	5.5	-	-	2.7	1.1
Articulated Trucks	0	1	0	-	1	3	0	0	-	3	0	0	0	-	0	4
% Articulated Trucks	0.0	0.2	-	-	0.2	0.5	0.0	-	-	0.4	0.0	0.0	-	-	0.0	0.3
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	_	-	0	<u>-</u>	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-

## Newington, Connecticut, United States 06131 (860) 594-2087 dhruval.patel@ct.gov

	Route 10-Route 202 Out In Total 666 485 1151 9 6 15 3 1 4 0 0 0 0 0 0 0 678 492 1170  13 472 0 0 0 0 6 0 0 0 0 1 0 0 0 0 1 0 0 0 0 0 0 0 0 13 479 0 0 R T U P
Hoskins Road [EB]  Out In Total  181 144 325  0 0 0 0 0  181 148 329  181 148 329  0 0 0 0 0  0 0 0 0  0 0 0 0 0 0  0 0 0 0 0  0 0 0 0 0 0  0 0 0 0 0 0  0 0 0 0 0 0  0 0 0 0 0 0  0 0 0 0 0 0  0 0 0 0 0 0  0 0 0 0 0 0  0 0 0 0 0 0  0 0 0 0 0 0 0  0 0 0 0 0 0  0 0 0 0 0 0 0 0  0 0 0 0 0 0 0 0  0 0 0 0 0 0 0 0  0 0 0 0 0 0 0 0  0 0 0 0 0 0 0 0  0 0 0 0 0 0 0 0  0 0 0 0 0 0 0 0  0 0 0 0 0 0 0 0  0 0 0 0 0 0 0 0  0 0 0 0 0 0 0 0  0 0 0 0 0 0 0 0  0 0 0 0 0 0 0 0  0 0 0 0 0 0 0 0  0 0 0 0 0 0 0 0  0 0 0 0 0 0 0 0  0 0 0 0 0 0 0 0 0  0 0 0 0 0 0 0 0 0  0 0 0 0 0 0 0 0 0  0 0 0 0 0 0 0 0 0 0  0 0 0 0 0 0 0 0 0 0  0 0 0 0 0 0 0 0 0 0  0 0 0 0 0 0 0 0 0 0  0 0 0 0 0 0 0 0 0 0 0  0 0 0 0 0 0 0 0 0 0 0  0 0 0 0 0 0 0 0 0 0 0 0  0 0 0 0 0 0 0 0 0 0 0 0  0	Peak Hour Data  12/08/2021 4:00 PM Ending At 12/08/2021 5:00 PM Lights Mediums Articulated Trucks Bicycles on Road Other
	U L T P 0 168 614 0 0 0 6 0 0 0 3 0 0 0 0 0 0 0 0 0 0 168 623 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

Turning Movement Peak Hour Data Plot (4:00 PM)

Count Name: Route 10/U.S. Route 202 at Hoskins Road (128-245) - Simsbury Site Code: 12 Start Date: 12/08/2021 Page No: 7



## Attachment C – Crash Data

### 2019-2021 Crash Data: Hopmeadow Street at Ely Lane

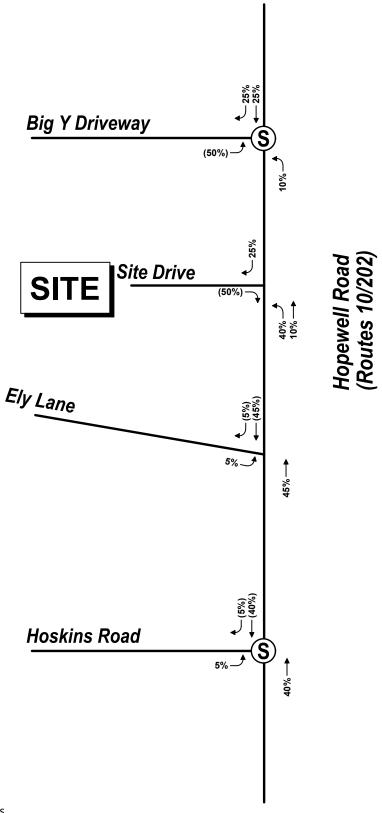
CrashId	Town Name	Date Of Crash	Time of Crash	Crash Severity	Manner of Crash / Collision Impact	Light Condition	Road Surface Condition
584066	Simsbury	8/21/2019	8:34:00	Injury of any type (Serious, Minor, Possible)	Angle	Daylight	Dry
608224	Simsbury	10/25/2019	8:43:00	Property Damage Only	Front to rear	Daylight	Dry
776370	Simsbury	12/31/2020	14:29:00	Property Damage Only	Angle	Daylight	Dry

#### 2019-2021 Crash Data: Hopmeadow Street at Hoskins Road

CrashId	Town Name	Date Of Crash	Time of Crash	Crash Severity	Manner of Crash / Collision Impact	Light Condition	Road Surface Condition
510935	Simsbury	1/30/2019	17:25:00	Property Damage Only	Not Applicable	Dark-Not Lighted	Snow
564784	Simsbury	5/29/2019	8:28:00	Property Damage Only	Front to rear	Daylight	Dry
611840	Simsbury	10/28/2019	6:49:00	Injury of any type (Serious, Minor, Possible)	Angle	Daylight	Dry
674897	Simsbury	3/31/2020	14:06:00	Property Damage Only	Angle	Daylight	Dry
685245	Simsbury	5/26/2020	12:44:00	Property Damage Only	Front to rear	Daylight	Dry



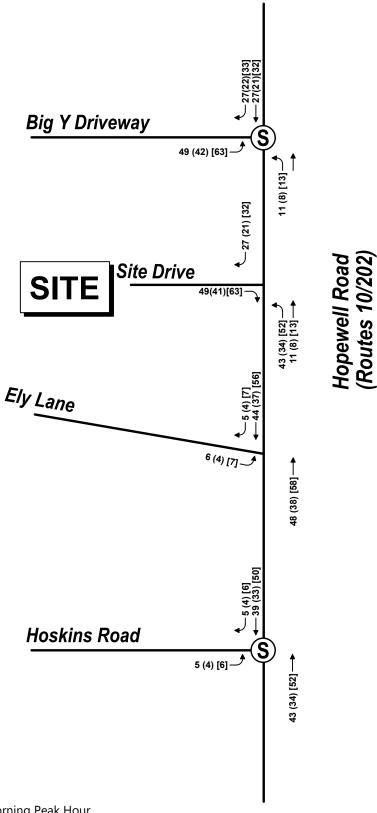
## Attachment D – Trip Generation and Distribution



- **Entering Trips**
- (Exiting Trips)



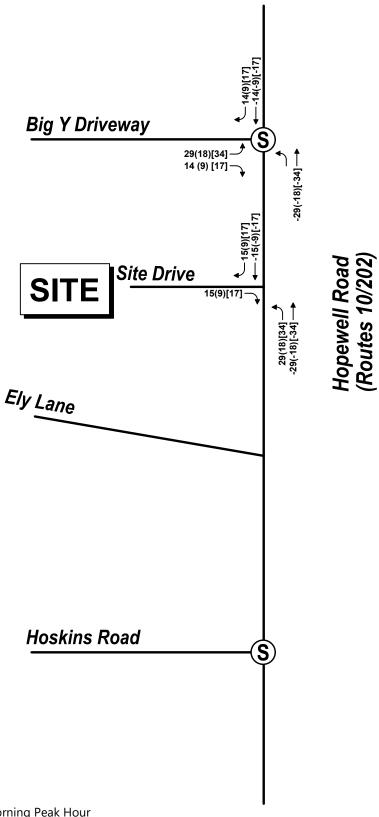




- # Weekday Morning Peak Hour
- # (Weekday Evening Peak Hour)
- # [Saturday Midday Peak Hour]



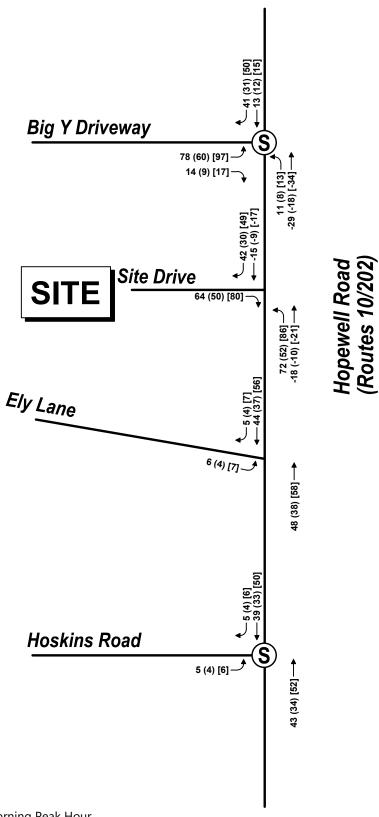




- # Weekday Morning Peak Hour
- # (Weekday Evening Peak Hour)
- # [Saturday Midday Peak Hour]







- # Weekday Morning Peak Hour
- # (Weekday Evening Peak Hour)
- # [Saturday Midday Peak Hour]





## Strip Retail Plaza (<40k)

(822)

Vehicle Trip Ends vs: 1000 Sq. Ft. GLA

On a: Weekday,

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Number of Studies: 5 Avg. 1000 Sq. Ft. GLA: 18

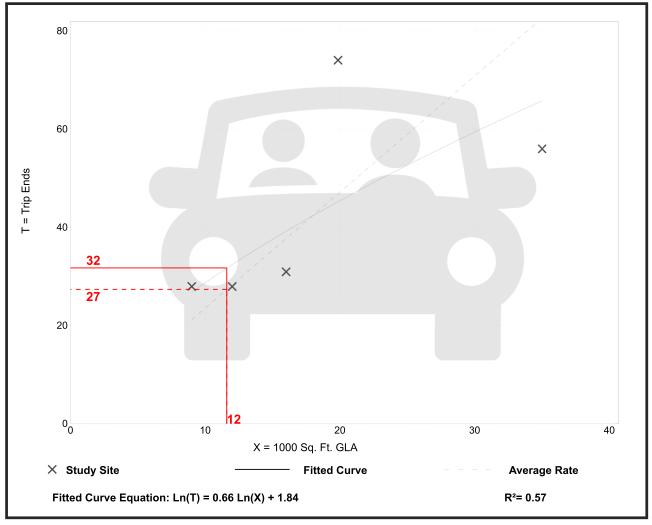
Directional Distribution: 60% entering, 40% exiting

### Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
2.36	1.60 - 3.73	0.94

### **Data Plot and Equation**

#### Caution - Small Sample Size



## Strip Retail Plaza (<40k)

(822)

Vehicle Trip Ends vs: 1000 Sq. Ft. GLA

On a: Weekday,

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.

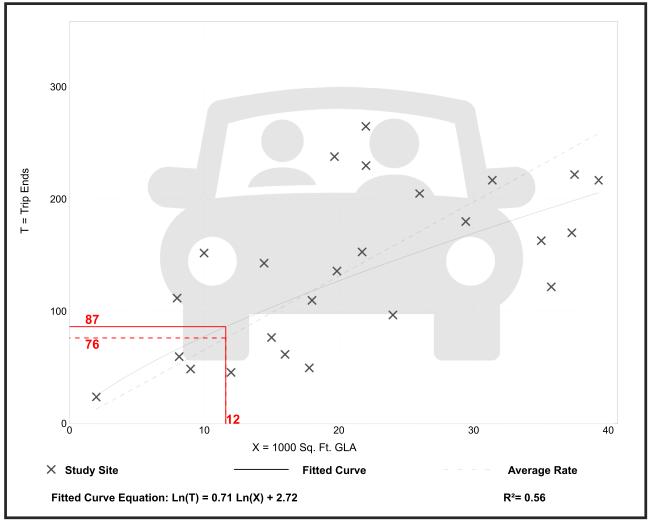
Setting/Location: General Urban/Suburban

Number of Studies: 25 Avg. 1000 Sq. Ft. GLA: 21

Directional Distribution: 50% entering, 50% exiting

### Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
6.59	2.81 - 15.20	2.94



## Strip Retail Plaza (<40k)

(822)

Vehicle Trip Ends vs: 1000 Sq. Ft. GLA

On a: Saturday, Peak Hour of Generator

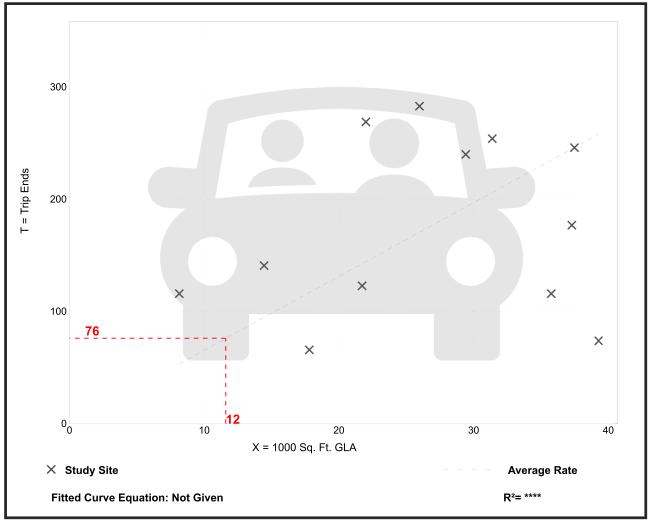
Setting/Location: General Urban/Suburban

Number of Studies: 12 Avg. 1000 Sq. Ft. GLA: 27

Directional Distribution: 51% entering, 49% exiting

### Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
6.57	1.88 - 14.23	3.45



# Fast-Food Restaurant with Drive-Through Window (934)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.

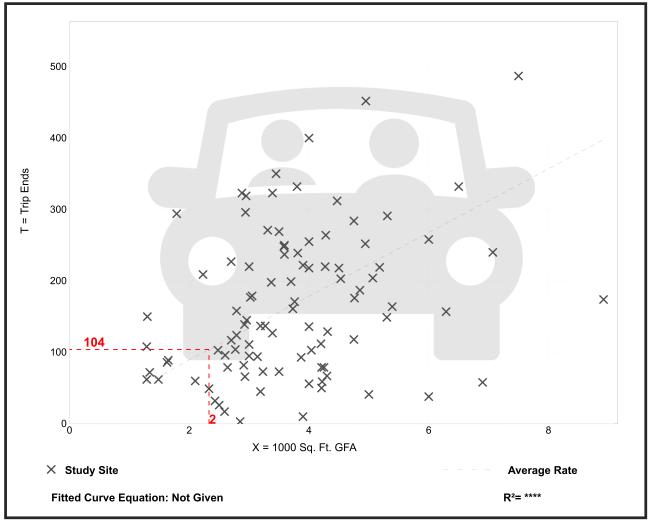
Setting/Location: General Urban/Suburban

Number of Studies: 96 Avg. 1000 Sq. Ft. GFA: 4

Directional Distribution: 51% entering, 49% exiting

### Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
44.61	1.05 - 164.25	27.14



# Fast-Food Restaurant with Drive-Through Window (934)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.

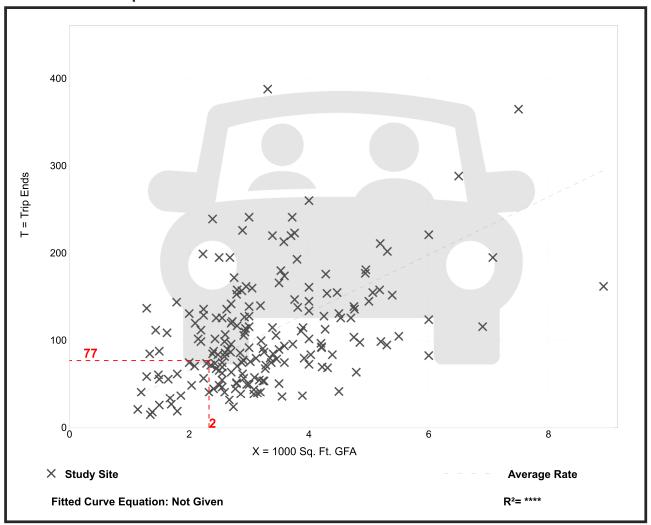
Setting/Location: General Urban/Suburban

Number of Studies: 190 Avg. 1000 Sq. Ft. GFA: 3

Directional Distribution: 52% entering, 48% exiting

### Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
33.03	8.77 - 117.22	17.59



# Fast-Food Restaurant with Drive-Through Window (934)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Saturday, Peak Hour of Generator

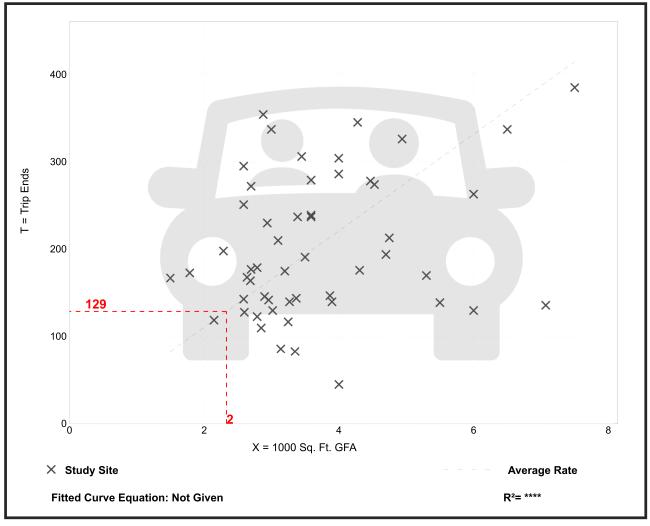
Setting/Location: General Urban/Suburban

Number of Studies: 53 Avg. 1000 Sq. Ft. GFA: 4

Directional Distribution: 51% entering, 49% exiting

### Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
55.25	11.25 - 122.92	24.62



# Coffee/Donut Shop with Drive-Through Window (937)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.

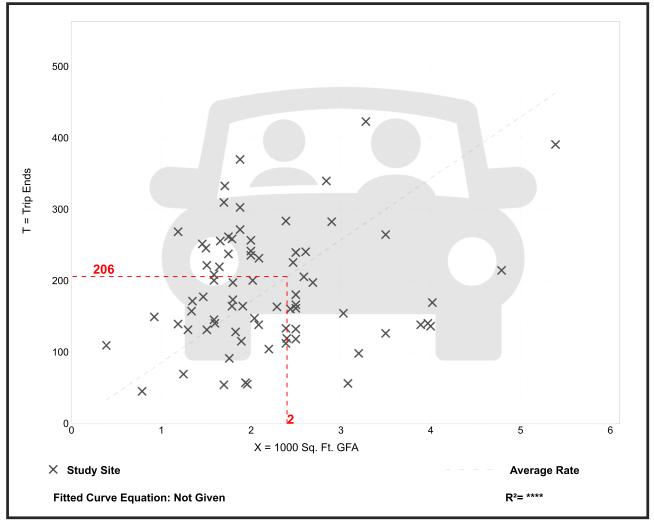
Setting/Location: General Urban/Suburban

Number of Studies: 78 Avg. 1000 Sq. Ft. GFA: 2

Directional Distribution: 51% entering, 49% exiting

### Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
85.88	18.51 - 282.05	44.92



# Coffee/Donut Shop with Drive-Through Window (937)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.

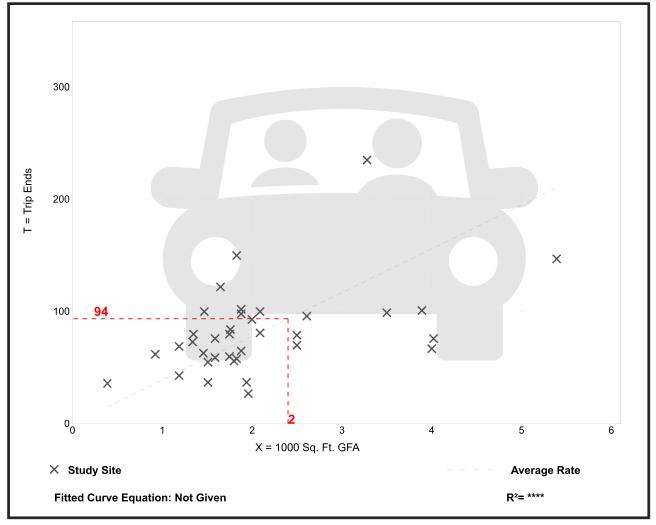
Setting/Location: General Urban/Suburban

Number of Studies: 36 Avg. 1000 Sq. Ft. GFA: 2

Directional Distribution: 50% entering, 50% exiting

### Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
38.99	13.78 - 92.31	17.79



# Coffee/Donut Shop with Drive-Through Window (937)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Saturday, Peak Hour of Generator

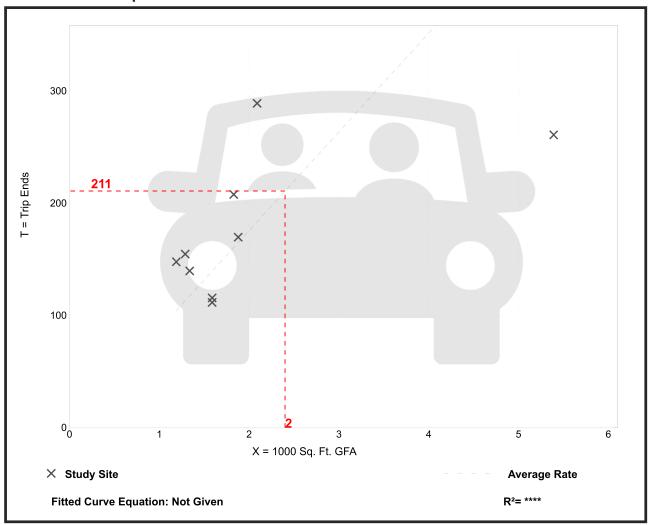
Setting/Location: General Urban/Suburban

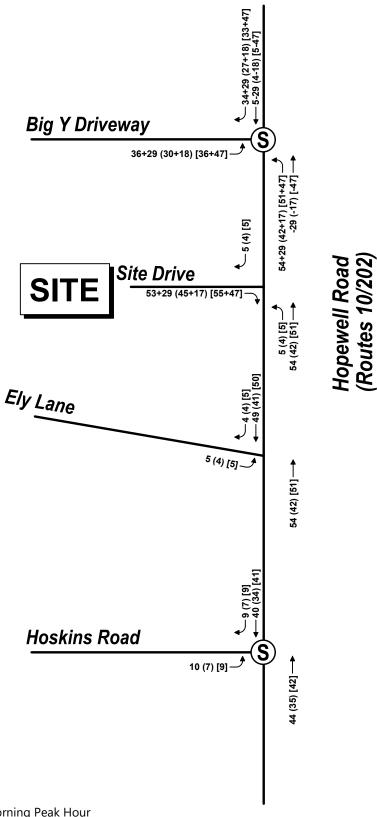
Number of Studies: 9 Avg. 1000 Sq. Ft. GFA: 2

Directional Distribution: 50% entering, 50% exiting

### Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation		
87.91	48.42 - 138.28	34.34		





- # Weekday Morning Peak Hour
- # (Weekday Evening Peak Hour)
- # [Saturday Midday Peak Hour]







## Attachment E – Capacity Analyses

	۶	•	•	†	ļ	✓	
Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations	¥			ર્ન	f)		
Traffic Volume (veh/h)	13	28	39	449	511	5	
Future Volume (Veh/h)	13	28	39	449	511	5	
Sign Control	Stop			Free	Free		
Grade	0%			0%	0%		
Peak Hour Factor	0.71	0.71	0.88	0.88	0.86	0.86	
Hourly flow rate (vph)	18	39	44	510	594	6	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type				None	None		
Median storage veh)							
Upstream signal (ft)				365	948		
pX, platoon unblocked	0.80	0.72	0.72				
vC, conflicting volume	1195	597	600				
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	688	251	255				
tC, single (s)	6.4	6.2	4.1				
tC, 2 stage (s)							
tF (s)	3.5	3.3	2.2				
p0 queue free %	94	93	95				
cM capacity (veh/h)	317	573	947				
Direction, Lane #	EB 1	NB 1	SB 1				
Volume Total	57	554	600				
Volume Left	18	44	000				
Volume Right	39	0	6				
cSH	456	947	1700				
Volume to Capacity	0.12	0.05	0.35				
Queue Length 95th (ft)	11	4	0.55				
Control Delay (s)	14.0	1.3	0.0				
• • • • • • • • • • • • • • • • • • • •			0.0				
Lane LOS	14.0	A 1.3	0.0				
Approach LOS	14.0 B	1.3	0.0				
Approach LOS	Б						
Intersection Summary							
Average Delay			1.2				
Intersection Capacity Utilizatio	n		65.9%	IC	CU Level o	of Service	
Analysis Period (min)			15				

Mixed-Use Development Synchro 11 Report
Simsbury, CT Page 1

	•	•	•	<b>†</b>	ļ	
Lane Group	EBL	EBR	NBL	NBT	SBT	Ø5
Lane Configurations	*	7	Ť	<b>†</b>	f)	
Traffic Volume (vph)	57	197	101	431	522	
Future Volume (vph)	57	197	101	431	522	
Lane Group Flow (vph)	78	270	116	495	620	
Turn Type	Prot	custom	custom	NA	NA	
Protected Phases	4	145	1	2	2	5
Permitted Phases			2 5			
Detector Phase	4	4	1	2	2	
Switch Phase						
Minimum Initial (s)	9.0		6.0	15.0	15.0	6.0
Minimum Split (s)	22.5		10.5	22.5	22.5	10.0
Total Split (s)	29.0		14.0	33.0	33.0	14.0
Total Split (%)	32.2%		15.6%	36.7%	36.7%	16%
Yellow Time (s)	3.0		3.0	4.4	4.4	3.0
All-Red Time (s)	1.0		1.0	1.7	1.7	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	4.0		4.0	6.1	6.1	
Lead/Lag	Lead		Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes		Yes	Yes	Yes	Yes
Recall Mode	None		None	C-Min	C-Min	None
v/c Ratio	0.25	0.54	0.23	0.44	0.58	
Control Delay	31.9	20.8	5.6	14.3	17.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	31.9	20.8	5.6	14.3	17.0	
Queue Length 50th (ft)	39	88	16	150	210	
Queue Length 95th (ft)	57	94	39	287	399	
Internal Link Dist (ft)	612			389	285	
Turn Bay Length (ft)	230		160			
Base Capacity (vph)	484	548	525	1113	1072	
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	0.16	0.49	0.22	0.44	0.58	
Intono - 1 0						

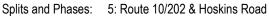
Cycle Length: 90

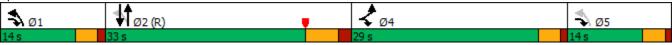
Actuated Cycle Length: 90

Offset: 10 (11%), Referenced to phase 2:NBSB, Start of Yellow

Natural Cycle: 80

Control Type: Actuated-Coordinated





	۶	•	4	<b>†</b>	ļ	4			
Movement	EBL	EBR	NBL	NBT	SBT	SBR			
Lane Configurations	ሻ	7	ሻ	<b>1</b>	1>				
Traffic Volume (vph)	57	197	101	431	522	17			
Future Volume (vph)	57	197	101	431	522	17			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Lane Width	11	10	10	12	11	11			
Total Lost time (s)	4.0	4.0	4.0	6.1	6.1				
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00				
Frt	1.00	0.85	1.00	1.00	1.00				
Flt Protected	0.95	1.00	0.95	1.00	1.00				
Satd. Flow (prot)	1745	1507	1668	1881	1811				
Flt Permitted	0.95	1.00	0.32	1.00	1.00				
Satd. Flow (perm)	1745	1507	559	1881	1811				
Peak-hour factor, PHF	0.73	0.73	0.87	0.87	0.87	0.87			
Adj. Flow (vph)	78	270	116	495	600	20			
RTOR Reduction (vph)	0	52	0	0	1	0			
Lane Group Flow (vph)	78	218	116	495	619	0			
Heavy Vehicles (%)	0%	0%	1%	1%	1%	1%			
Turn Type	Prot	custom	custom	NA	NA				
Protected Phases	4	145	1	2	2				
Permitted Phases			2 5						
Actuated Green, G (s)	16.0	27.4	59.9	52.5	52.5				
Effective Green, g (s)	16.0	27.4	59.9	52.5	52.5				
Actuated g/C Ratio	0.18	0.30	0.67	0.58	0.58				
Clearance Time (s)	4.0		4.0	6.1	6.1				
Vehicle Extension (s)	3.0		3.0	3.0	3.0				
Lane Grp Cap (vph)	310	458	463	1097	1056				
v/s Ratio Prot	0.04	c0.14	0.02	0.26	c0.34				
v/s Ratio Perm			0.15						
v/c Ratio	0.25	0.48	0.25	0.45	0.59				
Uniform Delay, d1	31.8	25.5	6.6	10.6	11.9				
Progression Factor	1.00	1.00	1.00	1.00	1.00				
Incremental Delay, d2	0.4	0.8	0.3	1.3	2.4				
Delay (s)	32.3	26.2	6.9	11.9	14.3				
Level of Service	С	С	Α	В	В				
Approach Delay (s)	27.6			11.0	14.3				
Approach LOS	С			В	В				
Intersection Summary									
HCM 2000 Control Delay			15.9	Н	CM 2000	Level of Service		В	
HCM 2000 Volume to Capac	ity ratio		0.61						
Actuated Cycle Length (s)			90.0		um of lost		1	8.1	
Intersection Capacity Utilizati	on		53.3%	IC	CU Level o	of Service		Α	
Analysis Period (min)			15						

NBT ↑ 451 451	SBT 1> 494
451	
451	
451	494
	494
524	660
NA	NA
12	2
12	2
	15.0
	30.6
	30.6
	38.9%
	4.0
	1.6
	0.0
	5.6
	Lag
	Yes
	Min
0.38	0.78
4.3	24.6
0.0	0.0
4.3	24.6
57	194
-	#377
868	614
369	847
	0
	0
	0
0.38	0.78
0	.38 4.3 0.0 4.3 57 99 868 869 0 0

Cycle Length: 78.6

Actuated Cycle Length: 56.1

Natural Cycle: 65

Control Type: Actuated-Uncoordinated

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 8: Route 10/202 & Big Y



Synchro 11 Report Mixed-Use Development Simsbury, CT Page 4

	•	•	4	<b>†</b>	ļ	4			
Movement	EBL	EBR	NBL	NBT	SBT	SBR			
Lane Configurations	ሻ	7	ሻ	<b>†</b>	î,				
Traffic Volume (vph)	61	22	11	451	494	54			
Future Volume (vph)	61	22	11	451	494	54			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Lane Width	10	12	12	11	12	12			
Total Lost time (s)	4.0	4.0	4.0	4.0	5.6				
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00				
Frt	1.00	0.85	1.00	1.00	0.99				
Flt Protected	0.95	1.00	0.95	1.00	1.00				
Satd. Flow (prot)	1668	1599	1770	1801	1838				
Flt Permitted	0.95	1.00	0.21	1.00	1.00				
Satd. Flow (perm)	1668	1599	400	1801	1838				
Peak-hour factor, PHF	0.72	0.72	0.86	0.86	0.83	0.83			
Adj. Flow (vph)	85	31	13	524	595	65			
RTOR Reduction (vph)	0	19	0	0	4	0			
Lane Group Flow (vph)	85	12	13	524	656	0			
Heavy Vehicles (%)	1%	1%	2%	2%	2%	2%			
Turn Type	Perm	pt+ov	D.P+P	NA	NA				
Protected Phases		14	1	12	2				
Permitted Phases	4		2						
Actuated Green, G (s)	7.0	21.5	36.3	40.3	25.8				
Effective Green, g (s)	7.0	21.5	36.3	40.3	25.8				
Actuated g/C Ratio	0.12	0.38	0.64	0.71	0.45				
Clearance Time (s)	4.0		4.0		5.6				
Vehicle Extension (s)	2.0		1.5		2.5				
Lane Grp Cap (vph)	205	604	507	1275	833				
v/s Ratio Prot		0.01	0.00	c0.29	c0.36				
v/s Ratio Perm	c0.05		0.01						
v/c Ratio	0.41	0.02	0.03	0.41	0.79				
Uniform Delay, d1	23.1	11.1	5.1	3.4	13.2				
Progression Factor	1.00	1.00	1.00	1.00	1.00				
Incremental Delay, d2	0.5	0.0	0.0	0.1	4.8				
Delay (s)	23.6	11.1	5.1	3.5	18.0				
Level of Service	С	В	Α	Α	В				
Approach Delay (s)	20.2			3.5	18.0				
Approach LOS	С			Α	В				
Intersection Summary									
HCM 2000 Control Delay			12.3	Н	CM 2000	Level of Service		В	
HCM 2000 Volume to Capac	city ratio		0.65						
Actuated Cycle Length (s)			56.9		um of lost		1	3.6	
Intersection Capacity Utilizat	ion		44.8%	IC	CU Level c	of Service		Α	
Analysis Period (min)			15						

	۶	•	4	<b>†</b>	ļ	4
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			ર્ન	1>	
Traffic Volume (veh/h)	56	101	100	634	583	17
Future Volume (Veh/h)	56	101	100	634	583	17
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.77	0.77	0.99	0.99	0.92	0.92
Hourly flow rate (vph)	73	131	101	640	634	18
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				365	948	
pX, platoon unblocked	0.80	0.66	0.66			
vC, conflicting volume	1485	643	652			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	713	210	224			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	74	76	89			
cM capacity (veh/h)	286	555	902			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	204	741	652			
Volume Left	73	101	032			
Volume Right	131	0	18			
cSH	415	902	1700			
	0.49	0.11	0.38			
Volume to Capacity	66		0.36			
Queue Length 95th (ft)		9 2.8				
Control Delay (s)	21.8		0.0			
Lane LOS	C	A	0.0			
Approach Delay (s)	21.8	2.8	0.0			
Approach LOS	С					
Intersection Summary						
Average Delay			4.1			
Intersection Capacity Utilization	on		89.9%	IC	U Level o	f Service
Analysis Period (min)			15			

	•	•	4	<b>†</b>	ţ			
Lane Group	EBL	EBR	NBL	NBT	SBT	Ø5		
Lane Configurations	ሻ	7	ሻ	<b>†</b>	f)			
Traffic Volume (vph)	60	93	168	674	666			
Future Volume (vph)	60	93	168	674	666			
Lane Group Flow (vph)	73	113	187	749	844			
Turn Type	Prot	custom	custom	NA	NA			
Protected Phases	4	145	1	2	2	5		
Permitted Phases			2 5					
Detector Phase	4	4	1	2	2			
Switch Phase								
Minimum Initial (s)	9.0		5.0	15.0	15.0	6.0		
Minimum Split (s)	16.0		9.0	32.6	32.6	10.0		
Total Split (s)	29.0		14.0	33.0	33.0	14.0		
Total Split (%)	32.2%		15.6%	36.7%	36.7%	16%		
Yellow Time (s)	3.0		3.0	4.4	4.4	3.0		
All-Red Time (s)	1.0		1.0	1.7	1.7	1.0		
Lost Time Adjust (s)	0.0		0.0	0.0	0.0			
Total Lost Time (s)	4.0		4.0	6.1	6.1			
Lead/Lag	Lead		Lead	Lag	Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes	Yes	Yes		
Recall Mode	None		None	C-Min	C-Min	None		
v/c Ratio	0.36	0.24	0.44	0.67	0.78			
Control Delay	41.7	18.1	6.4	17.5	22.1			
Queue Delay	0.0	0.0	0.0	0.0	0.0			
Total Delay	41.7	18.1	6.4	17.5	22.1			
Queue Length 50th (ft)	39	37	17	258	326			
Queue Length 95th (ft)	71	61	39	490	#510			
Internal Link Dist (ft)	612			389	285			
Turn Bay Length (ft)	230		160					
Base Capacity (vph)	484	487	435	1126	1085			
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	0.15	0.23	0.43	0.67	0.78			
. 100000 1/0 1 10110	0.10	0.20	00	0.01	00			

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 39 (43%), Referenced to phase 2:NBSB, Start of Yellow

Natural Cycle: 80

Control Type: Actuated-Coordinated

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 5: Route 10/202 & Hoskins Road



	۶	•	4	<b>†</b>	ļ	4	
Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations	ሻ	7	ሻ	<b>†</b>	<b>∱</b>		
raffic Volume (vph)	60	93	168	674	666	18	
uture Volume (vph)	60	93	168	674	666	18	
eal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
ne Width	11	10	10	12	11	11	
tal Lost time (s)	4.0	4.0	4.0	6.1	6.1		
ne Util. Factor	1.00	1.00	1.00	1.00	1.00		
	1.00	0.85	1.00	1.00	1.00		
Protected	0.95	1.00	0.95	1.00	1.00		
d. Flow (prot)	1745	1507	1685	1900	1830		
Permitted	0.95	1.00	0.18	1.00	1.00		
d. Flow (perm)	1745	1507	315	1900	1830		
ak-hour factor, PHF	0.82	0.82	0.90	0.90	0.81	0.81	 
. Flow (vph)	73	113	187	749	822	22	
OR Reduction (vph)	0	18	0	0	1	0	
ne Group Flow (vph)	73	95	187	749	843	0	
avy Vehicles (%)	0%	0%	0%	0%	0%	0%	
n Type	Prot	custom	custom	NA	NA		
tected Phases	4	145	1	2	2		
mitted Phases			25				
uated Green, G (s)	10.3	26.5	65.6	53.4	53.4		
ective Green, g (s)	10.3	26.5	65.6	53.4	53.4		
uated g/C Ratio	0.11	0.29	0.73	0.59	0.59		
arance Time (s)	4.0		4.0	6.1	6.1		
nicle Extension (s)	3.0		3.0	3.0	3.0		
ne Grp Cap (vph)	199	443	415	1127	1085		
Ratio Prot	c0.04	0.06	c0.06	0.39	c0.46		
Ratio Perm			0.27				
Ratio	0.37	0.21	0.45	0.66	0.78		
iform Delay, d1	36.8	23.9	9.2	12.3	13.8		
gression Factor	1.00	1.00	1.00	1.00	1.00		
cremental Delay, d2	1.1	0.2	8.0	3.1	5.5		
lay (s)	38.0	24.1	10.0	15.4	19.3		
vel of Service	D	С	Α	В	В		
proach Delay (s)	29.6			14.3	19.3		
proach LOS	С			В	В		
ersection Summary							
M 2000 Control Delay			17.9	Н	CM 2000	Level of Service	В
M 2000 Volume to Capac	city ratio		0.71				
tuated Cycle Length (s)			90.0		um of lost		18.1
ersection Capacity Utilizat	ion		64.7%	IC	CU Level o	of Service	С
llysis Period (min)			15				

	•	$\rightarrow$	•	<b>†</b>	ţ
Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations	*	7	ሻ	<b>1</b>	f)
Traffic Volume (vph)	34	27	15	675	573
Future Volume (vph)	34	27	15	675	573
Lane Group Flow (vph)	47	37	17	785	807
Turn Type	Perm	pt+ov	D.P+P	NA	NA
Protected Phases		14	1	12	2
Permitted Phases	4		2		
Detector Phase	4	14	1	12	2
Switch Phase					
Minimum Initial (s)	9.0		5.0		15.0
Minimum Split (s)	22.5		9.0		32.6
Total Split (s)	29.0		24.0		40.6
Total Split (%)	31.0%		25.6%		43.4%
Yellow Time (s)	3.0		3.0		4.0
All-Red Time (s)	1.0		1.0		1.6
Lost Time Adjust (s)	0.0		0.0		0.0
Total Lost Time (s)	4.0		4.0		5.6
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None		None		Min
v/c Ratio	0.21	0.06	0.03	0.53	0.85
Control Delay	33.6	5.1	2.1	4.6	29.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	33.6	5.1	2.1	4.6	29.5
Queue Length 50th (ft)	20	0	1	106	336
Queue Length 95th (ft)	42	11	4	151	#581
Internal Link Dist (ft)	149		•	868	614
Turn Bay Length (ft)	130		215	,,,,	
Base Capacity (vph)	611	743	636	1482	948
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	0.08	0.05	0.03	0.53	0.85
. todaood 770 Hatio	0.00	0.00	0.00	0.00	5.00

Cycle Length: 93.6

Actuated Cycle Length: 70.8

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 8: Route 10/202 & Big Y



	•	•	4	<b>†</b>	ļ	4			
Movement	EBL	EBR	NBL	NBT	SBT	SBR			
Lane Configurations	ች	7	ሻ	<b>+</b>	f)				
Traffic Volume (vph)	34	27	15	675	573	137			
Future Volume (vph)	34	27	15	675	573	137			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Lane Width	10	12	12	11	12	12			
Total Lost time (s)	4.0	4.0	4.0	4.0	5.6				
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00				
Frt	1.00	0.85	1.00	1.00	0.97				
Flt Protected	0.95	1.00	0.95	1.00	1.00				
Satd. Flow (prot)	1685	1615	1787	1818	1850				
Flt Permitted	0.95	1.00	0.13	1.00	1.00				
Satd. Flow (perm)	1685	1615	241	1818	1850				
Peak-hour factor, PHF	0.73	0.73	0.86	0.86	0.88	0.88			
Adj. Flow (vph)	47	37	17	785	651	156			
RTOR Reduction (vph)	0	24	0	0	7	0			
Lane Group Flow (vph)	47	13	17	785	800	0			
Heavy Vehicles (%)	0%	0%	1%	1%	0%	0%			
Turn Type	Perm	pt+ov	D.P+P	NA	NA				
Protected Phases		14	1	12	2				
Permitted Phases	4		2						
Actuated Green, G (s)	6.7	25.9	51.2	55.2	36.0				
Effective Green, g (s)	6.7	25.9	51.2	55.2	36.0				
Actuated g/C Ratio	0.09	0.36	0.72	0.77	0.50				
Clearance Time (s)	4.0		4.0		5.6				
Vehicle Extension (s)	2.0		1.5		2.5				
Lane Grp Cap (vph)	157	585	501	1403	931				
v/s Ratio Prot		0.01	0.01	c0.43	c0.43				
v/s Ratio Perm	c0.03		0.02						
v/c Ratio	0.30	0.02	0.03	0.56	0.86				
Uniform Delay, d1	30.2	14.7	6.8	3.3	15.5				
Progression Factor	1.00	1.00	1.00	1.00	1.00				
Incremental Delay, d2	0.4	0.0	0.0	0.3	7.9				
Delay (s)	30.6	14.7	6.8	3.5	23.4				
Level of Service	С	В	Α	Α	С				
Approach Delay (s)	23.6			3.6	23.4				
Approach LOS	С			Α	С				
Intersection Summary									
HCM 2000 Control Delay			14.0	Н	CM 2000	Level of Service		В	
HCM 2000 Volume to Capac	city ratio		0.73						
Actuated Cycle Length (s)			71.5	S	um of lost	time (s)	13	3.6	
Intersection Capacity Utilizat	ion		54.0%		U Level c			Α	
Analysis Period (min)			15						

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Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations	¥			ર્ન	f)		
Traffic Volume (veh/h)	59	99	98	533	473	25	
Future Volume (Veh/h)	59	99	98	533	473	25	
Sign Control	Stop			Free	Free		
Grade	0%			0%	0%		
Peak Hour Factor	0.76	0.76	0.89	0.89	0.89	0.89	
Hourly flow rate (vph)	78	130	110	599	531	28	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type				None	None		
Median storage veh)							
Upstream signal (ft)				365	948		
pX, platoon unblocked	0.87	0.78	0.78		0.0		
vC, conflicting volume	1364	545	559				
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	889	277	295				
tC, single (s)	6.4	6.2	4.1				
tC, 2 stage (s)	0.1	0.2					
tF (s)	3.5	3.3	2.2				
p0 queue free %	68	78	89				
cM capacity (veh/h)	243	597	998				
, , ,							
Direction, Lane #	EB 1	NB 1	SB 1				
Volume Total	208	709	559				
Volume Left	78	110	0				
Volume Right	130	0	28				
cSH	386	998	1700				
Volume to Capacity	0.54	0.11	0.33				
Queue Length 95th (ft)	77	9	0				
Control Delay (s)	24.7	2.7	0.0				
Lane LOS	C	A	0.0				
Approach Delay (s)	24.7	2.7	0.0				
Approach LOS	С						
Intersection Summary							
Average Delay			4.8				
Intersection Capacity Utilizati	ion		79.2%	IC	CU Level o	of Service	D
Analysis Period (min)			15				
naiyaa r enou (miii)			10				

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Lane Group	EBL	EBR	NBL	NBT	SBT	Ø5
Lane Configurations	ሻ	7	ሻ	<b>†</b>	f)	
Traffic Volume (vph)	50	119	103	581	548	
Future Volume (vph)	50	119	103	581	548	
Lane Group Flow (vph)	54	129	112	632	622	
Turn Type	Prot	custom	custom	NA	NA	
Protected Phases	4	145	1	2	2	5
Permitted Phases			2 5			
Detector Phase	4	4	1	2	2	
Switch Phase						
Minimum Initial (s)	9.0		6.0	15.0	15.0	6.0
Minimum Split (s)	22.5		10.0	24.1	24.1	10.0
Total Split (s)	29.0		14.0	41.0	41.0	14.0
Total Split (%)	29.6%		14.3%	41.8%	41.8%	14%
Yellow Time (s)	3.0		3.0	4.4	4.4	3.0
All-Red Time (s)	1.0		1.0	1.7	1.7	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	4.0		4.0	6.1	6.1	
Lead/Lag	Lead		Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes		Yes	Yes	Yes	Yes
Recall Mode	None		None	C-Min	C-Min	None
v/c Ratio	0.32	0.31	0.20	0.50	0.51	
Control Delay	46.1	9.0	2.7	9.6	9.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	46.1	9.0	2.7	9.6	9.8	
Queue Length 50th (ft)	32	5	9	158	157	
Queue Length 95th (ft)	68	49	21	290	291	
Internal Link Dist (ft)	612			389	285	
Turn Bay Length (ft)	230		160			
Base Capacity (vph)	436	468	613	1271	1222	
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	0.12	0.28	0.18	0.50	0.51	
Internation Comment						

Cycle Length: 98

Actuated Cycle Length: 98

Offset: 10 (10%), Referenced to phase 2:NBSB and 6:, Start of Yellow

Natural Cycle: 80

Control Type: Actuated-Coordinated

Splits and Phases: 5: Route 10/202 & Hoskins Road



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Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations	ሻ	7	7	<b>1</b>	1>			
Traffic Volume (vph)	50	119	103	581	548	24		
Future Volume (vph)	50	119	103	581	548	24		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Lane Width	11	10	10	12	11	11		
Total Lost time (s)	4.0	4.0	4.0	6.1	6.1			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00			
Frt	1.00	0.85	1.00	1.00	0.99			
Flt Protected	0.95	1.00	0.95	1.00	1.00			
Satd. Flow (prot)	1711	1478	1652	1863	1790			
Flt Permitted	0.95	1.00	0.36	1.00	1.00			
Satd. Flow (perm)	1711	1478	631	1863	1790			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92		
Adj. Flow (vph)	54	129	112	632	596	26		
RTOR Reduction (vph)	0	94	0	0	1	0		
Lane Group Flow (vph)	54	36	112	632	621	0		
Turn Type	Prot			NA	NA			
Protected Phases	4	145	1	2	2			
Permitted Phases	-	1 + 0	2 5	_				
Actuated Green, G (s)	9.7	21.0	74.2	66.9	66.9			
Effective Green, g (s)	9.7	21.0	74.2	66.9	66.9			
Actuated g/C Ratio	0.10	0.21	0.76	0.68	0.68			
Clearance Time (s)	4.0	0.21	4.0	6.1	6.1			
Vehicle Extension (s)	3.0		3.0	3.0	3.0			
Lane Grp Cap (vph)	169	316	553	1271	1221			
v/s Ratio Prot	c0.03	0.02	c0.02	0.34	c0.35			
v/s Ratio Perm	00.00	0.02	0.14	0.04	00.00			
v/c Ratio	0.32	0.11	0.20	0.50	0.51			
Uniform Delay, d1	41.1	31.0	3.7	7.5	7.6			
Progression Factor	1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2	1.1	0.2	0.2	1.4	1.5			
Delay (s)	42.2	31.2	3.9	8.9	9.1			
Level of Service	72.2 D	01.2 C	3.3 A	0.5 A	Α			
Approach Delay (s)	34.4	J	Λ	8.1	9.1			
Approach LOS	C			A	Α			
Intersection Summary								
HCM 2000 Control Delay			11.6	Н	CM 2000	Level of Service	В	
HCM 2000 Volume to Capaci	ity ratio		0.48					
Actuated Cycle Length (s)			98.0	S	um of lost	time (s)	18.1	
Intersection Capacity Utilizati	on		55.3%			of Service	В	
Analysis Period (min)			15					
c Critical Lane Group								

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Lane Group	EBL	EBR	NBL	NBT	SBT	
Lane Configurations	, j	7	¥	<b>+</b>	ĵ»	
Traffic Volume (vph)	42	16	12	580	482	
Future Volume (vph)	42	16	12	580	482	
Lane Group Flow (vph)	62	24	14	659	605	
Turn Type	Perm	pt+ov	D.P+P	NA	NA	
Protected Phases		14	1	12	2	
Permitted Phases	4		2			
Detector Phase	4	14	1	12	2	
Switch Phase						
Minimum Initial (s)	9.0		5.0		15.0	
Minimum Split (s)	22.5		9.0		32.6	
Total Split (s)	29.0		24.0		40.6	
Total Split (%)	31.0%		25.6%		43.4%	
Yellow Time (s)	3.0		3.0		4.0	
All-Red Time (s)	1.0		1.0		1.6	
Lost Time Adjust (s)	0.0		0.0		0.0	
Total Lost Time (s)	4.0		4.0		5.6	
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Recall Mode	None		None		Min	
v/c Ratio	0.24	0.04	0.02	0.45	0.68	
Control Delay	32.2	5.9	2.2	4.1	19.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	32.2	5.9	2.2	4.1	19.5	
Queue Length 50th (ft)	25	0	1	79	190	
Queue Length 95th (ft)	47	8	4	131	357	
Internal Link Dist (ft)	149		0.15	868	614	
Turn Bay Length (ft)	130	000	215	4500	4444	
Base Capacity (vph)	709	836	848	1523	1111	
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	0.09	0.03	0.02	0.43	0.54	
Intersection Summary						
Cycle Length: 93.6	-					
Actuated Cycle Length: 63.7						
Natural Cycle: 65						
Control Type: Actuated-Unc	coordinated					
Splits and Phases: 8: Rou	ute 10/202	& Big Y				
<b>औ</b> ø1	4	↑ Ø2				<b>₹</b> ø4
<b>♦1</b> Ø 1	40	6 s				→ Ø4

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Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations	ሻ	7	*	<b>†</b>	1>			
Traffic Volume (vph)	42	16	12	580	482	81		
Future Volume (vph)	42	16	12	580	482	81		
deal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
_ane Width	10	12	12	11	12	12		
Total Lost time (s)	4.0	4.0	4.0	4.0	5.6			
_ane Util. Factor	1.00	1.00	1.00	1.00	1.00			
-rt	1.00	0.85	1.00	1.00	0.98			
Flt Protected	0.95	1.00	0.95	1.00	1.00			
Satd. Flow (prot)	1620	1553	1805	1837	1863			
FIt Permitted	0.95	1.00	0.27	1.00	1.00			
Satd. Flow (perm)	1620	1553	517	1837	1863			
Peak-hour factor, PHF	0.68	0.68	0.88	0.88	0.93	0.93		
Adj. Flow (vph)	62	24	14	659	518	87		
RTOR Reduction (vph)	0	15	0	0	5	0		
Lane Group Flow (vph)	62	9	14	659	600	0		
Heavy Vehicles (%)	4%	4%	0%	0%	0%	0%		
Turn Type	Perm	pt+ov	D.P+P	NA	NA			
Protected Phases		14	1	12	2			
Permitted Phases	4		2					
Actuated Green, G (s)	6.7	23.9	43.5	47.5	30.3			
Effective Green, g (s)	6.7	23.9	43.5	47.5	30.3			
Actuated g/C Ratio	0.11	0.37	0.68	0.74	0.47			
Clearance Time (s)	4.0		4.0		5.6			
Vehicle Extension (s)	2.0		1.5		2.5			
_ane Grp Cap (vph)	170	581	618	1367	884			
//s Ratio Prot		0.01	0.00	c0.36	c0.32			
//s Ratio Perm	c0.04		0.01					
v/c Ratio	0.36	0.02	0.02	0.48	0.68			
Uniform Delay, d1	26.6	12.5	4.3	3.2	13.0			
Progression Factor	1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2	0.5	0.0	0.0	0.1	1.9			
Delay (s)	27.1	12.6	4.3	3.3	14.9			
Level of Service	С	В	Α	Α	В			
Approach Delay (s)	23.0			3.4	14.9			
Approach LOS	С			Α	В			
ntersection Summary								
HCM 2000 Control Delay			9.7	Н	ICM 2000	Level of Service		Α
HCM 2000 Volume to Capa	acity ratio		0.60					
Actuated Cycle Length (s)			63.8		um of lost		1	3.6
Intersection Capacity Utiliza	ation		45.8%	IC	CU Level o	of Service		Α
Analysis Period (min)			15					
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Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations	W			ર્ન	f)		
Traffic Volume (veh/h)	13	28	39	452	514	5	
Future Volume (Veh/h)	13	28	39	452	514	5	
Sign Control	Stop			Free	Free		
Grade	0%			0%	0%		
Peak Hour Factor	0.71	0.71	0.88	0.88	0.86	0.86	
Hourly flow rate (vph)	18	39	44	514	598	6	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type				None	None		
Median storage veh)							
Upstream signal (ft)				365	948		
pX, platoon unblocked	0.80	0.72	0.72				
vC, conflicting volume	1203	601	604				
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	687	251	255				
tC, single (s)	6.4	6.2	4.1				
tC, 2 stage (s)							
tF (s)	3.5	3.3	2.2				
p0 queue free %	94	93	95				
cM capacity (veh/h)	316	571	943				
Direction, Lane #	EB 1	NB 1	SB 1				
Volume Total	57	558	604				
Volume Left	18	44	0				
Volume Right	39	0	6				
cSH	455	943	1700				
Volume to Capacity	0.13	0.05	0.36				
Queue Length 95th (ft)	11	4	0				
Control Delay (s)	14.0	1.3	0.0				
Lane LOS	В	Α					
Approach Delay (s)	14.0	1.3	0.0				
Approach LOS	В						
Intersection Summary							
Average Delay			1.2				
Intersection Capacity Utilizatio	n		66.1%	IC	CU Level c	of Service	
Analysis Period (min)			15				

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Lane Group	EBL	EBR	NBL	NBT	SBT	Ø5
Lane Configurations	ሻ	7	ሻ	<b>†</b>	f)	
Traffic Volume (vph)	57	198	102	434	525	
Future Volume (vph)	57	198	102	434	525	
Lane Group Flow (vph)	78	271	117	499	623	
Turn Type	Prot	custom	custom	NA	NA	
Protected Phases	4	145	1	2	2	5
Permitted Phases			25			
Detector Phase	4	4	1	2	2	
Switch Phase						
Minimum Initial (s)	9.0		6.0	15.0	15.0	6.0
Minimum Split (s)	22.5		10.5	22.5	22.5	10.0
Total Split (s)	29.0		14.0	33.0	33.0	14.0
Total Split (%)	32.2%		15.6%	36.7%	36.7%	16%
Yellow Time (s)	3.0		3.0	4.4	4.4	3.0
All-Red Time (s)	1.0		1.0	1.7	1.7	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	4.0		4.0	6.1	6.1	
Lead/Lag	Lead		Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes		Yes	Yes	Yes	Yes
Recall Mode	None		None	C-Min	C-Min	None
v/c Ratio	0.25	0.54	0.24	0.45	0.58	
Control Delay	31.7	20.9	5.7	14.5	17.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	31.7	20.9	5.7	14.5	17.3	
Queue Length 50th (ft)	38	89	16	153	214	
Queue Length 95th (ft)	57	94	39	291	403	
Internal Link Dist (ft)	612			389	285	
Turn Bay Length (ft)	230		160			
Base Capacity (vph)	484	549	520	1109	1069	
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	0.16	0.49	0.23	0.45	0.58	
TOUROUS VIOTALIO	0.10	0.70	0.20	0.70	0.00	

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 10 (11%), Referenced to phase 2:NBSB, Start of Yellow

Natural Cycle: 80

Control Type: Actuated-Coordinated

Splits and Phases: 5: Route 10/202 & Hoskins Road



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Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations	, j	7	¥	<b>†</b>	f)			
Traffic Volume (vph)	57	198	102	434	525	17		
Future Volume (vph)	57	198	102	434	525	17		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Lane Width	11	10	10	12	11	11		
Total Lost time (s)	4.0	4.0	4.0	6.1	6.1			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00			
Frt	1.00	0.85	1.00	1.00	1.00			
FIt Protected	0.95	1.00	0.95	1.00	1.00			
Satd. Flow (prot)	1745	1507	1668	1881	1811			
It Permitted	0.95	1.00	0.31	1.00	1.00			
Satd. Flow (perm)	1745	1507	552	1881	1811			
Peak-hour factor, PHF	0.73	0.73	0.87	0.87	0.87	0.87		
Adj. Flow (vph)	78	271	117	499	603	20		
RTOR Reduction (vph)	0	51	0	0	1	0		
_ane Group Flow (vph)	78	220	117	499	622	0		
Heavy Vehicles (%)	0%	0%	1%	1%	1%	1%		
Turn Type	Prot	custom	custom	NA	NA			
Protected Phases	4	145	1	2	2			
Permitted Phases			25					
Actuated Green, G (s)	16.2	27.7	59.7	52.2	52.2			
Effective Green, g (s)	16.2	27.7	59.7	52.2	52.2			
Actuated g/C Ratio	0.18	0.31	0.66	0.58	0.58			
Clearance Time (s)	4.0		4.0	6.1	6.1			
Vehicle Extension (s)	3.0		3.0	3.0	3.0			
ane Grp Cap (vph)	314	463	459	1090	1050			
/s Ratio Prot	0.04	c0.15	0.02	0.27	c0.34			
//s Ratio Perm			0.15					
ı/c Ratio	0.25	0.47	0.25	0.46	0.59			
Jniform Delay, d1	31.7	25.3	6.8	10.8	12.1			
Progression Factor	1.00	1.00	1.00	1.00	1.00			
ncremental Delay, d2	0.4	0.8	0.3	1.4	2.5			
Delay (s)	32.1	26.0	7.1	12.2	14.6			
_evel of Service	С	С	Α	В	В			
Approach Delay (s)	27.4			11.2	14.6			
Approach LOS	С			В	В			
ntersection Summary								
HCM 2000 Control Delay			16.1	Н	CM 2000	Level of Service	В	
HCM 2000 Volume to Capac	city ratio		0.61					
Actuated Cycle Length (s)			90.0		um of lost		18.1	
Intersection Capacity Utiliza	tion		53.6%	IC	CU Level o	of Service	Α	
Analysis Period (min)			15					
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Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations	ሻ	7	ሻ	<b>+</b>	<b>f</b>
Traffic Volume (vph)	61	22	11	454	497
Future Volume (vph)	61	22	11	454	497
Lane Group Flow (vph)	85	31	13	528	664
Turn Type	Perm	custom	D.P+P	NA	NA
Protected Phases		4	1	12	2
Permitted Phases	4	1	2		
Detector Phase	4	4	1	12	2
Switch Phase					
Minimum Initial (s)	9.0	9.0	5.0		15.0
Minimum Split (s)	22.5	22.5	9.0		30.6
Total Split (s)	29.0	29.0	19.0		30.6
Total Split (%)	36.9%	36.9%	24.2%		38.9%
Yellow Time (s)	3.0	3.0	3.0		4.0
All-Red Time (s)	1.0	1.0	1.0		1.6
Lost Time Adjust (s)	0.0	0.0	0.0		0.0
Total Lost Time (s)	4.0	4.0	4.0		5.6
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None		Min
v/c Ratio	0.30	0.05	0.03	0.38	0.78
Control Delay	26.2	4.4	2.8	4.3	24.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	26.2	4.4	2.8	4.3	24.6
Queue Length 50th (ft)	27	0	1	57	196
Queue Length 95th (ft)	52	8	4	100	#380
Internal Link Dist (ft)	149			868	614
Turn Bay Length (ft)	130		215		
Base Capacity (vph)	767	778	667	1373	849
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	0.11	0.04	0.02	0.38	0.78

Cycle Length: 78.6 Actuated Cycle Length: 56 Natural Cycle: 65

Control Type: Actuated-Uncoordinated

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 8: Route 10/202 & Big Y



Synchro 11 Report Mixed-Use Development Simsbury, CT Page 4

	۶	•	4	<b>†</b>	ļ	4		
Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations	ሻ	7	ሻ	<b>†</b>	f)			
Traffic Volume (vph)	61	22	11	454	497	54		
Future Volume (vph)	61	22	11	454	497	54		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Lane Width	10	12	12	11	12	12		
Total Lost time (s)	4.0	4.0	4.0	4.0	5.6			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00			
Frt	1.00	0.85	1.00	1.00	0.99			
Flt Protected	0.95	1.00	0.95	1.00	1.00			
Satd. Flow (prot)	1668	1599	1770	1801	1838			
Flt Permitted	0.95	1.00	0.21	1.00	1.00			
Satd. Flow (perm)	1668	1599	396	1801	1838			
Peak-hour factor, PHF	0.72	0.72	0.86	0.86	0.83	0.83		
Adj. Flow (vph)	85	31	13	528	599	65		
RTOR Reduction (vph)	0	22	0	0	4	0		
Lane Group Flow (vph)	85	9	13	528	660	0		
Heavy Vehicles (%)	1%	1%	2%	2%	2%	2%		
Turn Type	Perm	custom	D.P+P	NA	NA			
Protected Phases		4	1	12	2			
Permitted Phases	4	1	2					
Actuated Green, G (s)	7.0	17.3	36.0	40.0	25.7			
Effective Green, g (s)	7.0	17.3	36.0	40.0	25.7			
Actuated g/C Ratio	0.12	0.31	0.64	0.71	0.45			
Clearance Time (s)	4.0	4.0	4.0		5.6			
Vehicle Extension (s)	2.0	2.0	1.5		2.5			
Lane Grp Cap (vph)	206	601	501	1272	834			
v/s Ratio Prot		0.00	0.00	c0.29	c0.36			
v/s Ratio Perm	c0.05	0.00	0.01					
v/c Ratio	0.41	0.02	0.03	0.42	0.79			
Uniform Delay, d1	22.9	13.7	5.2	3.4	13.2			
Progression Factor	1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2	0.5	0.0	0.0	0.1	5.0			
Delay (s)	23.4	13.7	5.2	3.5	18.2			
Level of Service	С	В	Α	Α	В			
Approach Delay (s)	20.8			3.6	18.2			
Approach LOS	С			Α	В			
Intersection Summary								
HCM 2000 Control Delay					CM 2000	Level of Service	В	
ICM 2000 Volume to Capacity ratio 0.65								
Actuated Cycle Length (s)			56.6		um of lost		 13.6	
Intersection Capacity Utilizat	tion		44.9%	IC	CU Level c	of Service	Α	
Analysis Period (min)			15					

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Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	¥			ર્ન	<b>∱</b>	
Traffic Volume (veh/h)	56	102	100	638	586	17
Future Volume (Veh/h)	56	102	100	638	586	17
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.77	0.77	0.99	0.99	0.92	0.92
Hourly flow rate (vph)	73	132	101	644	637	18
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				365	948	
pX, platoon unblocked	0.80	0.66	0.66	000	0.10	
vC, conflicting volume	1492	646	655			
vC1, stage 1 conf vol	1102	010	000			
vC2, stage 2 conf vol						
vCu, unblocked vol	708	206	220			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)	0.4	0.2	7.1			
tF (s)	3.5	3.3	2.2			
p0 queue free %	75	76	89			
cM capacity (veh/h)	287	554	899			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	205	745	655			
Volume Left	73	101	0			
Volume Right	132	0	18			
cSH	416	899	1700			
Volume to Capacity	0.49	0.11	0.39			
Queue Length 95th (ft)	66	9	0			
Control Delay (s)	21.8	2.8	0.0			
Lane LOS	С	Α				
Approach Delay (s)	21.8	2.8	0.0			
Approach LOS	С					
Intersection Summary						
Average Delay			4.1			
Intersection Capacity Utiliza	ition		90.4%	IC	CU Level o	of Service
Analysis Period (min)	. •		15			
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Lane Group	EBL	EBR	NBL	NBT	SBT	Ø5	
Lane Configurations	, j	7	Ť	<b>†</b>	f)		
Traffic Volume (vph)	60	94	169	678	670		
Future Volume (vph)	60	94	169	678	670		
Lane Group Flow (vph)	73	115	188	753	849		
Turn Type	Prot	custom	custom	NA	NA		
Protected Phases	4	145	1	2	2	5	
Permitted Phases			2 5				
Detector Phase	4	4	1	2	2		
Switch Phase							
Minimum Initial (s)	9.0		5.0	15.0	15.0	6.0	
Minimum Split (s)	16.0		9.0	32.6	32.6	25.5	
Total Split (s)	29.0		14.0	33.0	33.0	14.0	
Total Split (%)	32.2%		15.6%	36.7%	36.7%	16%	
Yellow Time (s)	3.0		3.0	4.4	4.4	3.0	
All-Red Time (s)	1.0		1.0	1.7	1.7	1.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0		
Total Lost Time (s)	4.0		4.0	6.1	6.1		
Lead/Lag	Lead		Lead	Lag	Lag	Lag	
Lead-Lag Optimize?	Yes		Yes	Yes	Yes	Yes	
Recall Mode	None		None	C-Min	C-Min	None	
v/c Ratio	0.36	0.25	0.45	0.67	0.78		
Control Delay	41.5	18.2	6.8	17.8	22.5		
Queue Delay	0.0	0.0	0.0	0.0	0.0		
Total Delay	41.5	18.2	6.8	17.8	22.5		
Queue Length 50th (ft)	39	38	17	262	332		
Queue Length 95th (ft)	71	62	43	495	#524		
Internal Link Dist (ft)	612			389	285		
Turn Bay Length (ft)	230		160				
Base Capacity (vph)	484	488	430	1123	1084		
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	0.15	0.24	0.44	0.67	0.78		
	0.10	0.27	U. 17	0.01	0.70		

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 39 (43%), Referenced to phase 2:NBSB, Start of Yellow

Natural Cycle: 105

Control Type: Actuated-Coordinated

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 5: Route 10/202 & Hoskins Road



	•	•	•	<b>†</b>	<b>↓</b>	✓		
Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations	ች	1	ች	<b>*</b>	1>			
raffic Volume (vph)	60	94	169	678	670	18		
iture Volume (vph)	60	94	169	678	670	18		
eal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
ne Width	11	10	10	12	11	11		
otal Lost time (s)	4.0	4.0	4.0	6.1	6.1			
ane Util. Factor	1.00	1.00	1.00	1.00	1.00			
t	1.00	0.85	1.00	1.00	1.00			
t Protected	0.95	1.00	0.95	1.00	1.00			
atd. Flow (prot)	1745	1507	1685	1900	1830			
t Permitted	0.95	1.00	0.17	1.00	1.00			
atd. Flow (perm)	1745	1507	306	1900	1830			
eak-hour factor, PHF	0.82	0.82	0.90	0.90	0.81	0.81		
dj. Flow (vph)	73	115	188	753	827	22		
TOR Reduction (vph)	0	18	0	0	1	0		
ane Group Flow (vph)	73	97	188	753	848	0		
eavy Vehicles (%)	0%	0%	0%	0%	0%	0%		
urn Type	Prot	custom	custom	NA	NA			
otected Phases	4	145	1	2	2			
ermitted Phases			25					
ctuated Green, G (s)	10.4	26.7	65.5	53.2	53.2			
fective Green, g (s)	10.4	26.7	65.5	53.2	53.2			
ctuated g/C Ratio	0.12	0.30	0.73	0.59	0.59			
earance Time (s)	4.0		4.0	6.1	6.1			
ehicle Extension (s)	3.0		3.0	3.0	3.0			
ane Grp Cap (vph)	201	447	411	1123	1081			
s Ratio Prot	c0.04	0.06	c0.06	0.40	c0.46			
s Ratio Perm			0.27					
c Ratio	0.36	0.22	0.46	0.67	0.78			
niform Delay, d1	36.7	23.8	9.5	12.5	14.0			
ogression Factor	1.00	1.00	1.00	1.00	1.00			
cremental Delay, d2	1.1	0.2	0.8	3.2	5.7			
elay (s)	37.9	24.0	10.3	15.7	19.8			
evel of Service	D	С	В	В	В			
pproach Delay (s)	29.4			14.6	19.8			
oproach LOS	С			В	В			
tersection Summary								
CM 2000 Control Delay			18.2	Н	CM 2000	Level of Service		В
CM 2000 Volume to Capa	city ratio		0.71		2 2000			_
actuated Cycle Length (s)			90.0	S	um of lost	time (s)	1	8.1
ntersection Capacity Utiliza	ation		65.0%		CU Level o			С
Analysis Period (min)			15					
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Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations	ሻ	7	ሻ	<b>1</b>	f)
Traffic Volume (vph)	34	27	15	679	576
Future Volume (vph)	34	27	15	679	576
Lane Group Flow (vph)	47	37	17	790	811
Turn Type	Perm	pt+ov	D.P+P	NA	NA
Protected Phases		14	1	12	2
Permitted Phases	4		2		
Detector Phase	4	14	1	12	2
Switch Phase					
Minimum Initial (s)	9.0		5.0		15.0
Minimum Split (s)	22.5		9.0		32.6
Total Split (s)	29.0		24.0		40.6
Total Split (%)	31.0%		25.6%		43.4%
Yellow Time (s)	3.0		3.0		4.0
All-Red Time (s)	1.0		1.0		1.6
Lost Time Adjust (s)	0.0		0.0		0.0
Total Lost Time (s)	4.0		4.0		5.6
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None		None		Min
v/c Ratio	0.21	0.06	0.03	0.53	0.86
Control Delay	33.6	5.1	2.1	4.6	30.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	33.6	5.1	2.1	4.6	30.0
Queue Length 50th (ft)	20	0	1	107	340
Queue Length 95th (ft)	42	11	4	153	#585
Internal Link Dist (ft)	149		•	868	614
Turn Bay Length (ft)	130		215		
Base Capacity (vph)	610	742	632	1482	947
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	0.08	0.05	0.03	0.53	0.86
	3.30			0.00	

Cycle Length: 93.6

Actuated Cycle Length: 70.9

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 8: Route 10/202 & Big Y



Synchro 11 Report Mixed-Use Development Simsbury, CT Page 4

	۶	•	•	<b>†</b>	ļ	✓		
Movement	EBL	EBR	NBL	NBT	SBT	SBR		
ane Configurations	ሻ	7	ሻ	<b>†</b>	ĵ»			
raffic Volume (vph)	34	27	15	679	576	137		
uture Volume (vph)	34	27	15	679	576	137		
leal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
ane Width	10	12	12	11	12	12		
otal Lost time (s)	4.0	4.0	4.0	4.0	5.6			
ane Util. Factor	1.00	1.00	1.00	1.00	1.00			
rt	1.00	0.85	1.00	1.00	0.97			
It Protected	0.95	1.00	0.95	1.00	1.00			
atd. Flow (prot)	1685	1615	1787	1818	1851			
t Permitted	0.95	1.00	0.12	1.00	1.00			
atd. Flow (perm)	1685	1615	233	1818	1851			
eak-hour factor, PHF	0.73	0.73	0.86	0.86	0.88	0.88	 	
dj. Flow (vph)	47	37	17	790	655	156		
TOR Reduction (vph)	0	24	0	0	7	0		
ane Group Flow (vph)	47	13	17	790	804	0		
eavy Vehicles (%)	0%	0%	1%	1%	0%	0%		
ırn Type	Perm	pt+ov	D.P+P	NA	NA			
otected Phases		1 4	1	12	2			
ermitted Phases	4		2					
ctuated Green, G (s)	6.7	26.0	51.3	55.3	36.0			
fective Green, g (s)	6.7	26.0	51.3	55.3	36.0			
ctuated g/C Ratio	0.09	0.36	0.72	0.77	0.50			
earance Time (s)	4.0		4.0		5.6			
ehicle Extension (s)	2.0		1.5		2.5			
nne Grp Cap (vph)	157	586	499	1404	930			
s Ratio Prot		0.01	0.01	c0.43	c0.43			
s Ratio Perm	c0.03		0.02					
c Ratio	0.30	0.02	0.03	0.56	0.86			
niform Delay, d1	30.3	14.6	6.9	3.3	15.6			
rogression Factor	1.00	1.00	1.00	1.00	1.00			
cremental Delay, d2	0.4	0.0	0.0	0.3	8.3			
elay (s)	30.7	14.6	6.9	3.6	24.0			
evel of Service	С	В	Α	Α	С			
pproach Delay (s)	23.6			3.7	24.0			
proach LOS	С			Α	С			
tersection Summary								
CM 2000 Control Delay			14.3	Н	CM 2000	Level of Service	В	
CM 2000 Volume to Capac	city ratio		0.73					
ctuated Cycle Length (s)			71.6		um of lost		13.6	
ntersection Capacity Utiliza	tion		54.1%	IC	CU Level o	of Service	Α	
nalysis Period (min)			15					

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Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			ર્ન	ĵ.	
Traffic Volume (veh/h)	59	99	98	536	476	25
Future Volume (Veh/h)	59	99	98	536	476	25
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.76	0.76	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	78	130	110	602	535	28
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				365	948	
pX, platoon unblocked	0.87	0.78	0.78			
vC, conflicting volume	1371	549	563			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	891	278	296			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	68	78	89			
cM capacity (veh/h)	242	594	994			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	208	712	563			
Volume Left	78	110	0			
Volume Right	130	0	28			
cSH	385	994	1700			
Volume to Capacity	0.54	0.11	0.33			
Queue Length 95th (ft)	77	9	0.00			
Control Delay (s)	24.9	2.7	0.0			
Lane LOS	C C	A	0.0			
Approach Delay (s)	24.9	2.7	0.0			
Approach LOS	C C	۷.,	0.0			
Intersection Summary						
Average Delay			4.8			
Intersection Capacity Utilization	on		79.5%	IC	CU Level o	f Service
Analysis Period (min)			15			

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Lane Group	EBL	EBR	NBL	NBT	SBT	Ø5
Lane Configurations	, T	7	J.	<b>†</b>	£	
Traffic Volume (vph)	50	120	104	584	551	
Future Volume (vph)	50	120	104	584	551	
Lane Group Flow (vph)	54	130	113	635	625	
Turn Type	Prot	custom	custom	NA	NA	
Protected Phases	4	145	1	2	2	5
Permitted Phases			2 5			
Detector Phase	4	4	1	2	2	
Switch Phase						
Minimum Initial (s)	9.0		6.0	15.0	15.0	6.0
Minimum Split (s)	22.5		10.0	24.1	24.1	10.0
Total Split (s)	29.0		14.0	41.0	41.0	14.0
Total Split (%)	29.6%		14.3%	41.8%	41.8%	14%
Yellow Time (s)	3.0		3.0	4.4	4.4	3.0
All-Red Time (s)	1.0		1.0	1.7	1.7	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	4.0		4.0	6.1	6.1	
Lead/Lag	Lead		Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes		Yes	Yes	Yes	Yes
Recall Mode	None		None	C-Min	C-Min	None
v/c Ratio	0.32	0.32	0.20	0.50	0.51	
Control Delay	46.1	9.3	2.8	9.7	9.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	46.1	9.3	2.8	9.7	9.9	
Queue Length 50th (ft)	32	6	9	159	158	
Queue Length 95th (ft)	68	50	21	294	295	
Internal Link Dist (ft)	612			389	285	
Turn Bay Length (ft)	230		160			
Base Capacity (vph)	436	467	611	1269	1220	
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	0.12	0.28	0.18	0.50	0.51	
Intersection Summary	· -					

Cycle Length: 98

Actuated Cycle Length: 98

Offset: 10 (10%), Referenced to phase 2:NBSB and 6:, Start of Yellow

Natural Cycle: 80

Control Type: Actuated-Coordinated

Splits and Phases: 5: Route 10/202 & Hoskins Road



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Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations	ሻ	7	ሻ	<b>1</b>	1>			
Traffic Volume (vph)	50	120	104	584	551	24		
Future Volume (vph)	50	120	104	584	551	24		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Lane Width	11	10	10	12	11	11		
Total Lost time (s)	4.0	4.0	4.0	6.1	6.1			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00			
Frt	1.00	0.85	1.00	1.00	0.99			
Flt Protected	0.95	1.00	0.95	1.00	1.00			
Satd. Flow (prot)	1711	1478	1652	1863	1791			
Flt Permitted	0.95	1.00	0.36	1.00	1.00			
Satd. Flow (perm)	1711	1478	627	1863	1791			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92		
Adj. Flow (vph)	54	130	113	635	599	26		
RTOR Reduction (vph)	0	93	0	0	1	0		
Lane Group Flow (vph)	54	37	113	635	624	0		
Turn Type	Prot	custom	custom	NA	NA			
Protected Phases	4	145	1	2	2			
Permitted Phases			2 5					
Actuated Green, G (s)	9.7	21.1	74.2	66.8	66.8			
Effective Green, g (s)	9.7	21.1	74.2	66.8	66.8			
Actuated g/C Ratio	0.10	0.22	0.76	0.68	0.68			
Clearance Time (s)	4.0		4.0	6.1	6.1			
Vehicle Extension (s)	3.0		3.0	3.0	3.0			
Lane Grp Cap (vph)	169	318	552	1269	1220			
v/s Ratio Prot	c0.03	0.03	c0.02	0.34	c0.35			
v/s Ratio Perm			0.14					
v/c Ratio	0.32	0.12	0.20	0.50	0.51			
Uniform Delay, d1	41.1	31.0	3.8	7.5	7.6			
Progression Factor	1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2	1.1	0.2	0.2	1.4	1.5			
Delay (s)	42.2	31.1	3.9	8.9	9.2			
Level of Service	D	С	Α	Α	Α			
Approach Delay (s)	34.4			8.2	9.2			
Approach LOS	С			Α	Α			
Intersection Summary								
HCM 2000 Control Delay			11.7	Н	CM 2000	Level of Service	В	
HCM 2000 Volume to Capa	city ratio		0.49					
Actuated Cycle Length (s)			98.0	S	um of lost	t time (s)	18.1	
Intersection Capacity Utiliza	ation		55.5%	IC	CU Level of	of Service	В	
Analysis Period (min)			15					
HCM 2000 Control Delay HCM 2000 Volume to Capa Actuated Cycle Length (s) Intersection Capacity Utiliza	_		0.49 98.0 55.5%	S	um of lost	t time (s)	18.1	

	۶	•	•	†	<b></b>	
Lane Group	EBL	EBR	NBL	NBT	SBT	
Lane Configurations	ሻ	7	ሻ	<b>↑</b>	₽	
Traffic Volume (vph)	42	16	12	583	485	
Future Volume (vph)	42	16	12	583	485	
Lane Group Flow (vph)	62	24	14	663	609	
Turn Type	Perm	custom	D.P+P	NA	NA	
Protected Phases		4	1	12	2	
Permitted Phases	4	1	2			
Detector Phase	4	4	1	12	2	
Switch Phase						
Minimum Initial (s)	9.0	9.0	5.0		15.0	
Minimum Split (s)	22.5	22.5	9.0		32.6	
Total Split (s)	29.0	29.0	24.0		40.6	
Total Split (%)	31.0%	31.0%	25.6%		43.4%	
Yellow Time (s)	3.0	3.0	3.0		4.0	
All-Red Time (s)	1.0	1.0	1.0		1.6	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	
Total Lost Time (s)	4.0	4.0	4.0		5.6	
Lead/Lag	1.0	1.0	Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Recall Mode	None	None	None		Min	
v/c Ratio	0.24	0.04	0.02	0.45	0.68	
Control Delay	32.3	5.9	2.2	4.1	19.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	32.3	5.9	2.2	4.1	19.5	
Queue Length 50th (ft)	26	0	1	80	192	
Queue Length 95th (ft)	47	8	4	133	361	
nternal Link Dist (ft)	149		•	868	614	
Turn Bay Length (ft)	130		215		<b>.</b>	
Base Capacity (vph)	705	755	844	1519	1107	
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	0.09	0.03	0.02	0.44	0.55	
ntersection Summary						
Cycle Length: 93.6						
Actuated Cycle Length: 64						
Natural Cycle: 65						
Control Type: Actuated-Unc	oordinated	d				
Splits and Phases: 8: Rou	ıte 10/202	& Big Y				
<b>औ</b> ø1	1	M <sub>Ø2</sub>				<b>→</b> Ø4

	•	•	4	<b>†</b>	<b>↓</b>	✓			
Movement	EBL	EBR	NBL	NBT	SBT	SBR			
Lane Configurations	ሻ	7	ሻ	<b>†</b>	ĵ»				
Traffic Volume (vph)	42	16	12	583	485	81			
Future Volume (vph)	42	16	12	583	485	81			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Lane Width	10	12	12	11	12	12			
Total Lost time (s)	4.0	4.0	4.0	4.0	5.6				
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00				
Frt	1.00	0.85	1.00	1.00	0.98				
Flt Protected	0.95	1.00	0.95	1.00	1.00				
Satd. Flow (prot)	1620	1553	1805	1837	1863				
Flt Permitted	0.95	1.00	0.27	1.00	1.00				
Satd. Flow (perm)	1620	1553	513	1837	1863				
Peak-hour factor, PHF	0.68	0.68	0.88	0.88	0.93	0.93			
Adj. Flow (vph)	62	24	14	662	522	87			
RTOR Reduction (vph)	0	17	0	0	5	0			
Lane Group Flow (vph)	62	7	14	663	604	0			
Heavy Vehicles (%)	4%	4%	0%	0%	0%	0%			
Turn Type	Perm	custom	D.P+P	NA	NA				
Protected Phases		4	1	12	2				
Permitted Phases	4	1	2						
Actuated Green, G (s)	6.7	19.9	43.7	47.7	30.5				
Effective Green, g (s)	6.7	19.9	43.7	47.7	30.5				
Actuated g/C Ratio	0.10	0.31	0.68	0.75	0.48				
Clearance Time (s)	4.0	4.0	4.0		5.6				
Vehicle Extension (s)	2.0	2.0	1.5		2.5				
Lane Grp Cap (vph)	169	579	616	1369	887				
v/s Ratio Prot		0.00	0.00	c0.36	c0.32				
v/s Ratio Perm	c0.04	0.00	0.01						
v/c Ratio	0.37	0.01	0.02	0.48	0.68				
Uniform Delay, d1	26.7	15.3	4.3	3.2	13.0				
Progression Factor	1.00	1.00	1.00	1.00	1.00				
Incremental Delay, d2	0.5	0.0	0.0	0.1	2.0				
Delay (s)	27.2	15.3	4.3	3.3	15.0				
Level of Service	С	В	Α	Α	В				
Approach Delay (s)	23.8			3.4	15.0				
Approach LOS	С			А	В				
Intersection Summary									
HCM 2000 Control Delay			9.8	Н	CM 2000	Level of Service		Α	
HCM 2000 Volume to Capac	city ratio		0.60						
Actuated Cycle Length (s)			64.0	S	um of lost	time (s)	1	3.6	
Intersection Capacity Utilizat	tion		45.9%		CU Level o			Α	
Analysis Period (min)			15						

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Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			ર્ન	ĵ.	
Traffic Volume (veh/h)	19	28	39	500	558	10
Future Volume (Veh/h)	19	28	39	500	558	10
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.71	0.71	0.88	0.88	0.86	0.86
Hourly flow rate (vph)	27	39	44	568	649	12
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				365	948	
pX, platoon unblocked	0.83	0.74	0.74	000	0.10	
vC, conflicting volume	1311	655	661			
vC1, stage 1 conf vol	1011	000	001			
vC2, stage 2 conf vol						
vCu, unblocked vol	781	362	371			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)	0.1	0.2				
tF (s)	3.5	3.3	2.2			
p0 queue free %	91	92	95			
cM capacity (veh/h)	290	510	882			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	66	612	661			
Volume Left	27	44	0			
Volume Right	39	0	12			
cSH	389	882	1700			
Volume to Capacity	0.17	0.05	0.39			
Queue Length 95th (ft)	15	4	0			
Control Delay (s)	16.1	1.3	0.0			
Lane LOS	С	Α				
Approach Delay (s)	16.1	1.3	0.0			
Approach LOS	С					
Intersection Summary						
Average Delay			1.4			
Intersection Capacity Utilizat	tion		68.5%	IC	CU Level o	f Service
Analysis Period (min)			15	10	. 5 2510. 0	. 55, 1100
Analysis i Gliou (IIIIII)			10			

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Lane Group	EBL	EBR	NBL	NBT	SBT	Ø5
Lane Configurations	ሻ	7	ሻ	<b>†</b>	f)	
Traffic Volume (vph)	62	198	102	477	564	
Future Volume (vph)	62	198	102	477	564	
Lane Group Flow (vph)	85	271	117	548	673	
Turn Type	Prot	custom	custom	NA	NA	
Protected Phases	4	145	1	2	2	5
Permitted Phases			25			
Detector Phase	4	4	1	2	2	
Switch Phase						
Minimum Initial (s)	9.0		6.0	15.0	15.0	6.0
Minimum Split (s)	22.5		10.5	22.5	22.5	10.0
Total Split (s)	29.0		14.0	33.0	33.0	14.0
Total Split (%)	32.2%		15.6%	36.7%	36.7%	16%
Yellow Time (s)	3.0		3.0	4.4	4.4	3.0
All-Red Time (s)	1.0		1.0	1.7	1.7	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	4.0		4.0	6.1	6.1	
Lead/Lag	Lead		Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes		Yes	Yes	Yes	Yes
Recall Mode	None		None	C-Min	C-Min	None
v/c Ratio	0.26	0.54	0.26	0.50	0.64	
Control Delay	31.5	21.8	6.1	15.9	19.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	31.5	21.8	6.1	15.9	19.4	
Queue Length 50th (ft)	42	95	17	179	247	
Queue Length 95th (ft)	60	99	40	335	#502	
Internal Link Dist (ft)	612			389	285	
Turn Bay Length (ft)	230		160			
Base Capacity (vph)	484	545	477	1092	1052	
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	0.50	0.25	0.50	0.64	
Todasou vio Hado	5.10	0.00	0.20	0.00	0.01	

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 10 (11%), Referenced to phase 2:NBSB and 6:, Start of Yellow

Natural Cycle: 80

Control Type: Actuated-Coordinated

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 5: Route 10/202 & Hoskins Road



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Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations	ሻ	7	ሻ	<b>†</b>	<b>∱</b>			
Traffic Volume (vph)	62	198	102	477	564	22		
Future Volume (vph)	62	198	102	477	564	22		
deal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Lane Width	11	10	10	12	11	11		
Total Lost time (s)	4.0	4.0	4.0	6.1	6.1			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00			
Frt	1.00	0.85	1.00	1.00	0.99			
FIt Protected	0.95	1.00	0.95	1.00	1.00			
Satd. Flow (prot)	1745	1507	1668	1881	1809			
FIt Permitted	0.95	1.00	0.27	1.00	1.00			
Satd. Flow (perm)	1745	1507	483	1881	1809			
Peak-hour factor, PHF	0.73	0.73	0.87	0.87	0.87	0.87		
Adj. Flow (vph)	85	271	117	548	648	25		
RTOR Reduction (vph)	0	41	0	0	1	0		
Lane Group Flow (vph)	85	230	117	548	672	0		
Heavy Vehicles (%)	0%	0%	1%	1%	1%	1%		
Turn Type	Prot	custom	custom	NA	NA			
Protected Phases	4	145	1	2	2			
Permitted Phases			25					
Actuated Green, G (s)	16.8	28.4	59.1	51.5	51.5			
Effective Green, g (s)	16.8	28.4	59.1	51.5	51.5			
Actuated g/C Ratio	0.19	0.32	0.66	0.57	0.57			
Clearance Time (s)	4.0		4.0	6.1	6.1			
Vehicle Extension (s)	3.0		3.0	3.0	3.0			
Lane Grp Cap (vph)	325	475	417	1076	1035			
v/s Ratio Prot	0.05	c0.15	0.02	0.29	c0.37			
v/s Ratio Perm			0.16					
v/c Ratio	0.26	0.48	0.28	0.51	0.65			
Uniform Delay, d1	31.3	24.9	7.6	11.6	13.1			
Progression Factor	1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2	0.4	0.8	0.4	1.7	3.2			
Delay (s)	31.7	25.7	8.0	13.3	16.3			
Level of Service	С	С	Α	В	В			
Approach Delay (s)	27.1			12.4	16.3			
Approach LOS	С			В	В			
Intersection Summary								
HCM 2000 Control Delay			17.0	Н	CM 2000	Level of Service	В	
HCM 2000 Volume to Capac	ity ratio		0.66					
Actuated Cycle Length (s)			90.0		um of lost		18.1	
Intersection Capacity Utilizat	ion		55.9%	IC	CU Level c	of Service	В	
Analysis Period (min)			15					

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EBL	EBR	NBL	NBT	SBT
*	7	ሻ	<b></b>	1>
139	36	22	425	510
139	36	22	425	510
193	50	26	494	728
Perm	custom	D.P+P	NA	NA
	4	1	12	2
4	1	2		
4	4	1	12	2
9.0	9.0	5.0		15.0
22.5	22.5	9.0		30.6
29.0	29.0	19.0		30.6
36.9%	36.9%	24.2%		38.9%
3.0	3.0	3.0		4.0
1.0	1.0	1.0		1.6
0.0	0.0	0.0		0.0
4.0	4.0	4.0		5.6
		Lead		Lag
		Yes		Yes
None	None	None		Min
0.59	0.07	0.06	0.41	0.98
31.4	3.3	4.5	6.2	51.3
0.0	0.0	0.0	0.0	0.0
31.4	3.3	4.5	6.2	51.3
67	0	3	65	255
100	9	10	138	#508
149			114	614
130		132		
673	770	550	1196	744
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0.29	0.06	0.05	0.41	0.98
	BL 139 139 139 193 Perm 4 4 9.0 22.5 29.0 36.9% 3.0 1.0 0.0 4.0  None 0.59 31.4 67 100 149 130 673 0 0 0 0	EBL EBR  139 36 139 36 193 50 Perm custom  4 1 4 4  9.0 9.0 22.5 22.5 29.0 29.0 36.9% 36.9% 3.0 3.0 1.0 1.0 0.0 0.0 4.0 4.0  None None 0.59 0.07 31.4 3.3 0.0 0.0 31.4 3.3 67 0 100 9 149 130 673 770 0 0 0 0 0 0	EBL         EBR         NBL           139         36         22           139         36         22           193         50         26           Perm         custom         D.P+P           4         1         2           4         4         1           9.0         9.0         5.0           22.5         22.5         9.0           29.0         29.0         19.0           36.9%         36.9%         24.2%           3.0         3.0         3.0           1.0         1.0         1.0           0.0         0.0         0.0           4.0         4.0         4.0           Lead         Yes           None         None         None           0.59         0.07         0.06           31.4         3.3         4.5           0.0         0.0         0.0           31.4         3.3         4.5           67         0         3           100         9         10           149         130         132           673         770         550	EBL EBR NBL NBT  139 36 22 425 139 36 22 425 193 50 26 494  Perm custom D.P+P NA

Cycle Length: 78.6

Actuated Cycle Length: 62.4

Natural Cycle: 65

Control Type: Actuated-Uncoordinated

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 8: Route 10/202 & Big Y



	•	•	4	<b>†</b>	ļ	4		
Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations	ሻ	7	ሻ	<b>1</b>	ĵ»			
Traffic Volume (vph)	139	36	22	425	510	95		
Future Volume (vph)	139	36	22	425	510	95		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Lane Width	10	12	12	11	12	12		
Total Lost time (s)	4.0	4.0	4.0	4.0	5.6			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00			
-rt	1.00	0.85	1.00	1.00	0.98			
FIt Protected	0.95	1.00	0.95	1.00	1.00			
Satd. Flow (prot)	1668	1599	1770	1801	1823			
It Permitted	0.95	1.00	0.16	1.00	1.00			
Satd. Flow (perm)	1668	1599	296	1801	1823			
Peak-hour factor, PHF	0.72	0.72	0.86	0.86	0.83	0.83		
Adj. Flow (vph)	193	50	26	494	614	114		
RTOR Reduction (vph)	0	31	0	0	7	0		
ane Group Flow (vph)	193	19	26	494	721	0		
Heavy Vehicles (%)	1%	1%	2%	2%	2%	2%		
Turn Type	Perm	custom	D.P+P	NA	NA			
Protected Phases		4	1	12	2			
Permitted Phases	4	1	2					
Actuated Green, G (s)	12.2	23.5	36.5	40.5	25.2			
Effective Green, g (s)	12.2	23.5	36.5	40.5	25.2			
Actuated g/C Ratio	0.20	0.38	0.59	0.65	0.40			
Clearance Time (s)	4.0	4.0	4.0		5.6			
Vehicle Extension (s)	2.0	2.0	1.5		2.5			
_ane Grp Cap (vph)	326	705	440	1170	737			
//s Ratio Prot		0.01	0.01	c0.27	c0.40			
//s Ratio Perm	c0.12	0.01	0.02					
ı/c Ratio	0.59	0.03	0.06	0.42	0.98			
Jniform Delay, d1	22.8	12.2	8.6	5.3	18.3			
Progression Factor	1.00	1.00	1.00	1.00	1.00			
ncremental Delay, d2	1.9	0.0	0.0	0.1	27.4			
Delay (s)	24.7	12.2	8.6	5.3	45.7			
_evel of Service	С	В	Α	Α	D			
Approach Delay (s)	22.1			5.5	45.7			
Approach LOS	С			Α	D			
ntersection Summary								
HCM 2000 Control Delay			27.9	Н	CM 2000	Level of Service	С	
HCM 2000 Volume to Capa	city ratio		0.76					
Actuated Cycle Length (s)			62.3	S	um of lost	time (s)	13.6	
Intersection Capacity Utiliza	ation		48.3%	IC	CU Level c	of Service	Α	
Analysis Period (min)			15					

Movement
Traffic Volume (veh/h)         60         102         100         676         623         21           Future Volume (Veh/h)         60         102         100         676         623         21           Sign Control         Stop         Free         Free         Free           Grade         0%         0%         0%         0%           Peak Hour Factor         0.77         0.77         0.99         0.99         0.92         0.92           Hourly flow rate (vph)         78         132         101         683         677         23           Pedestrians         Lane Width (ft)         Walking Speed (ft/s)           Percent Blockage         Right turn flare (veh)           Median type         None         None           Median storage veh)         Upstream signal (ft)         365         948           pX, platoon unblocked         0.79         0.64         0.64         vC, conflicting volume           vC1, stage 1 conf vol         vC2, stage 2 conf vol         vC2, stage 2 conf vol           vC2, stage (s)         15         6.4         6.2         4.1         15
Traffic Volume (veh/h)         60         102         100         676         623         21           Future Volume (Veh/h)         60         102         100         676         623         21           Sign Control         Stop         Free         Free         Free           Grade         0%         0%         0%         0%           Peak Hour Factor         0.77         0.77         0.99         0.99         0.92         0.92           Hourly flow rate (vph)         78         132         101         683         677         23           Pedestrians         Lane Width (ft)         Walking Speed (ft/s)         Vercent Blockage         Value (ft/s)         Vercent Blockage         Right turn flare (veh)         None         N
Future Volume (Veh/h) 60 102 100 676 623 21  Sign Control Stop Free Free  Grade 0% 0% 0% 0%  Peak Hour Factor 0.77 0.77 0.99 0.99 0.92 0.92  Hourly flow rate (vph) 78 132 101 683 677 23  Pedestrians  Lane Width (ft)  Walking Speed (ft/s)  Percent Blockage  Right turn flare (veh)  Median type None None  Median storage veh)  Upstream signal (ft) 365 948  pX, platoon unblocked 0.79 0.64 0.64  vC, conflicting volume vC1, stage 1 conf vol vC2, stage 2 conf vol vC2, stage 2 conf vol vC2, stage (s)  tC, single (s) 6.4 6.2 4.1  tC, 2 stage (s)  tF (s) 3.5 3.3 2.2  p0 queue free % 72 75 88
Sign Control         Stop         Free         Free           Grade         0%         0%         0%           Peak Hour Factor         0.77         0.77         0.99         0.92         0.92           Hourly flow rate (vph)         78         132         101         683         677         23           Pedestrians         Pedestrians         Percent Blockage         Percent Blockage         None         None         None           Right turn flare (veh)         Median storage veh)         None         None         None           Median storage veh)         Upstream signal (ft)         365         948           pX, platoon unblocked vC, conflicting volume         1574         688         700           vC1, stage 1 conf vol vC2, stage 2 conf vol vCu, unblocked vol tC, single (s)         6.4         6.2         4.1           tC, single (s)         6.4         6.2         4.1           tC, 2 stage (s)         tF (s)         3.5         3.3         2.2           p0 queue free %         72         75         88
Grade         0%         0%         0%           Peak Hour Factor         0.77         0.77         0.99         0.92         0.92           Hourly flow rate (vph)         78         132         101         683         677         23           Pedestrians         23         23         24         23         24         24         23         24         24         23         24         24         24         24         24         24         24         23         25         24
Peak Hour Factor         0.77         0.79         0.99         0.92         0.92           Hourly flow rate (vph)         78         132         101         683         677         23           Pedestrians         Lane Width (ft)           Walking Speed (ft/s)         Percent Blockage           Right turn flare (veh)         Mone None           Median type         None None           Median storage veh)         Upstream signal (ft)         365         948           pX, platoon unblocked         0.79         0.64         0.64           vC, conflicting volume         1574         688         700           vC1, stage 1 conf vol         vC2, stage 2 conf vol           vCu, unblocked vol         731         238         255           tC, single (s)         6.4         6.2         4.1           tC, 2 stage (s)         tF (s)         3.5         3.3         2.2           p0 queue free %         72         75         88
Hourly flow rate (vph) 78 132 101 683 677 23  Pedestrians  Lane Width (ft)  Walking Speed (ft/s)  Percent Blockage  Right turn flare (veh)  Median type  None  Median storage veh)  Upstream signal (ft)  pX, platoon unblocked  vC, conflicting volume  vC1, stage 1 conf vol  vC2, stage 2 conf vol  vCu, unblocked vol  vCu, unblocked vol  tC, single (s)  tC, 2 stage (s)  tF (s)  3.5  3.3  2.2  p0 queue free %  72  75  88
Pedestrians Lane Width (ft) Walking Speed (ft/s) Percent Blockage Right turn flare (veh) Median type None Median storage veh) Upstream signal (ft) pX, platoon unblocked vC, conflicting volume vC1, stage 1 conf vol vC2, stage 2 conf vol vC4, unblocked vol vC5, single (s) tC, 2 stage (s) tF (s) p3.5 p3.5 p3.3 p3.2 p0 queue free % p3.5 p3.6 p3.6 p3.6 p3.6 p3.6 p3.6 p3.6 p3.6
Lane Width (ft)  Walking Speed (ft/s)  Percent Blockage  Right turn flare (veh)  Median type  None  Median storage veh)  Upstream signal (ft)  pX, platoon unblocked  vC, conflicting volume  vC1, stage 1 conf vol  vC2, stage 2 conf vol  vCu, unblocked vol  vCu, unblocked vol  tC, single (s)  tC, 2 stage (s)  tF (s)  3.5  3.3  2.2  p0 queue free %  72  75  88
Walking Speed (ft/s)         Percent Blockage         Right turn flare (veh)         Median type       None         Median storage veh)         Upstream signal (ft)       365         pX, platoon unblocked       0.79       0.64         vC, conflicting volume       1574       688       700         vC1, stage 1 conf vol       vC2, stage 2 conf vol         vCu, unblocked vol       731       238       255         tC, single (s)       6.4       6.2       4.1         tC, 2 stage (s)       tF (s)       3.5       3.3       2.2         p0 queue free %       72       75       88
Percent Blockage         Right turn flare (veh)       None       None       None         Median type       None       None       None         Median storage veh)       Upstream signal (ft)       365       948         pX, platoon unblocked       0.79       0.64       0.64         vC, conflicting volume       1574       688       700         vC1, stage 1 conf vol       vC2, stage 2 conf vol         vCu, unblocked vol       731       238       255         tC, single (s)       6.4       6.2       4.1         tC, 2 stage (s)       tF (s)       3.5       3.3       2.2         p0 queue free %       72       75       88
Right turn flare (veh)  Median type  Median storage veh)  Upstream signal (ft)  pX, platoon unblocked  vC, conflicting volume  vC1, stage 1 conf vol  vC2, stage 2 conf vol  vCu, unblocked vol  vCu, unblocked vol  tC, single (s)  tC, 2 stage (s)  tF (s)  365  948  700  948  700  948  700  949  948  948  948  948  948  948  9
Median type       None       None         Median storage veh)       Upstream signal (ft)       365       948         pX, platoon unblocked       0.79       0.64       0.64         vC, conflicting volume       1574       688       700         vC1, stage 1 conf vol       vC2, stage 2 conf vol         vCu, unblocked vol       731       238       255         tC, single (s)       6.4       6.2       4.1         tC, 2 stage (s)       tF (s)       3.5       3.3       2.2         p0 queue free %       72       75       88
Median storage veh) Upstream signal (ft) 365 948 pX, platoon unblocked 0.79 0.64 0.64 vC, conflicting volume 1574 688 700 vC1, stage 1 conf vol vC2, stage 2 conf vol vCu, unblocked vol 731 238 255 tC, single (s) 6.4 6.2 4.1 tC, 2 stage (s) tF (s) 3.5 3.3 2.2 p0 queue free % 72 75 88
Upstream signal (ft) 365 948  pX, platoon unblocked 0.79 0.64 0.64  vC, conflicting volume 1574 688 700  vC1, stage 1 conf vol  vC2, stage 2 conf vol  vCu, unblocked vol 731 238 255  tC, single (s) 6.4 6.2 4.1  tC, 2 stage (s)  tF (s) 3.5 3.3 2.2  p0 queue free % 72 75 88
pX, platoon unblocked 0.79 0.64 0.64 vC, conflicting volume 1574 688 700 vC1, stage 1 conf vol vC2, stage 2 conf vol vCu, unblocked vol 731 238 255 tC, single (s) 6.4 6.2 4.1 tC, 2 stage (s) tF (s) 3.5 3.3 2.2 p0 queue free % 72 75 88
vC, conflicting volume       1574       688       700         vC1, stage 1 conf vol       vC2, stage 2 conf vol         vCu, unblocked vol       731       238       255         tC, single (s)       6.4       6.2       4.1         tC, 2 stage (s)       4       5       5         tF (s)       3.5       3.3       2.2         p0 queue free %       72       75       88
vC1, stage 1 conf vol vC2, stage 2 conf vol vCu, unblocked vol 731 238 255 tC, single (s) 6.4 6.2 4.1 tC, 2 stage (s) tF (s) 3.5 3.3 2.2 p0 queue free % 72 75 88
vC2, stage 2 conf vol vCu, unblocked vol 731 238 255 tC, single (s) 6.4 6.2 4.1 tC, 2 stage (s) tF (s) 3.5 3.3 2.2 p0 queue free % 72 75 88
vCu, unblocked vol       731       238       255         tC, single (s)       6.4       6.2       4.1         tC, 2 stage (s)       4.1       4.1       4.1         tF (s)       3.5       3.3       2.2         p0 queue free %       72       75       88
tC, single (s) 6.4 6.2 4.1 tC, 2 stage (s) tF (s) 3.5 3.3 2.2 p0 queue free % 72 75 88
tC, 2 stage (s) tF (s) 3.5 3.3 2.2 p0 queue free % 72 75 88
tF (s) 3.5 3.3 2.2 p0 queue free % 72 75 88
p0 queue free % 72 75 88
Direction, Lane # EB 1 NB 1 SB 1
Volume Total 210 784 700
Volume Left 78 101 0
Volume Right 132 0 23
cSH 390 849 1700
Volume to Capacity 0.54 0.12 0.41
Queue Length 95th (ft) 77 10 0
Control Delay (s) 24.5 3.0 0.0
Lane LOS C A
Approach Delay (s) 24.5 3.0 0.0
Approach LOS C
Intersection Summary
Average Delay 4.4
Intersection Capacity Utilization 94.8% ICU Level of Service
Analysis Period (min) 15

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Lane Group	EBL	EBR	NBL	NBT	SBT	Ø5
Lane Configurations	, j	7	, j	<b>†</b>	f)	
Traffic Volume (vph)	64	94	169	712	703	
Future Volume (vph)	64	94	169	712	703	
Lane Group Flow (vph)	78	115	188	791	899	
Turn Type	Prot	custom	custom	NA	NA	
Protected Phases	4	145	1	2	2	5
Permitted Phases			25			
Detector Phase	4	4	1	2	2	
Switch Phase						
Minimum Initial (s)	9.0		5.0	15.0	15.0	6.0
Minimum Split (s)	16.0		9.0	32.6	32.6	10.0
Total Split (s)	29.0		14.0	33.0	33.0	14.0
Total Split (%)	32.2%		15.6%	36.7%	36.7%	16%
Yellow Time (s)	3.0		3.0	4.4	4.4	3.0
All-Red Time (s)	1.0		1.0	1.7	1.7	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	4.0		4.0	6.1	6.1	
Lead/Lag	Lead		Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes		Yes	Yes	Yes	Yes
Recall Mode	None		None	C-Min	C-Min	None
v/c Ratio	0.38	0.25	0.49	0.71	0.83	
Control Delay	41.9	19.2	9.9	19.1	25.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	41.9	19.2	9.9	19.1	25.5	
Queue Length 50th (ft)	42	40	18	287	373	
Queue Length 95th (ft)	74	63	68	#598	#626	
Internal Link Dist (ft)	612			389	285	
Turn Bay Length (ft)	230		160			
Base Capacity (vph)	484	487	393	1121	1078	
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	0.16	0.24	0.48	0.71	0.83	
	55	J 1	3 3	J., ,	3.00	

#### Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 39 (43%), Referenced to phase 2:NBSB, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 5: Route 10/202 & Hoskins Road



	٠	•	4	<b>†</b>	ļ	4		
Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations	ሻ	7	ሻ	<b>1</b>	1>			
Traffic Volume (vph)	64	94	169	712	703	25		
Future Volume (vph)	64	94	169	712	703	25		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
_ane Width	11	10	10	12	11	11		
Total Lost time (s)	4.0	4.0	4.0	6.1	6.1			
_ane Util. Factor	1.00	1.00	1.00	1.00	1.00			
-rt	1.00	0.85	1.00	1.00	1.00			
It Protected	0.95	1.00	0.95	1.00	1.00			
Satd. Flow (prot)	1745	1507	1685	1900	1828			
It Permitted	0.95	1.00	0.14	1.00	1.00			
Satd. Flow (perm)	1745	1507	248	1900	1828			
Peak-hour factor, PHF	0.82	0.82	0.90	0.90	0.81	0.81		
Adj. Flow (vph)	78	115	188	791	868	31		
RTOR Reduction (vph)	0	15	0	0	1	0		
_ane Group Flow (vph)	78	100	188	791	898	0		
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%		
Turn Type	Prot	custom	custom	NA	NA			
Protected Phases	4	145	1	2	2			
Permitted Phases			25					
Actuated Green, G (s)	10.5	26.8	65.4	53.1	53.1			
Effective Green, g (s)	10.5	26.8	65.4	53.1	53.1			
Actuated g/C Ratio	0.12	0.30	0.73	0.59	0.59			
Clearance Time (s)	4.0		4.0	6.1	6.1			
/ehicle Extension (s)	3.0		3.0	3.0	3.0			
ane Grp Cap (vph)	203	448	376	1121	1078			
ı/s Ratio Prot	c0.04	0.07	c0.07	0.42	c0.49			
//s Ratio Perm			0.30					
//c Ratio	0.38	0.22	0.50	0.71	0.83			
Jniform Delay, d1	36.8	23.8	11.5	13.0	14.9			
Progression Factor	1.00	1.00	1.00	1.00	1.00			
ncremental Delay, d2	1.2	0.3	1.0	3.7	7.6			
Delay (s)	38.0	24.0	12.5	16.7	22.5			
_evel of Service	D	С	В	В	С			
Approach Delay (s)	29.7			15.9	22.5			
Approach LOS	С			В	С			
ntersection Summary								
HCM 2000 Control Delay			20.0	Н	CM 2000	Level of Service	С	
HCM 2000 Volume to Capa	city ratio		0.76					
Actuated Cycle Length (s)			90.0		um of lost		18.1	
Intersection Capacity Utiliza	ation		67.1%	IC	CU Level o	of Service	С	
Analysis Period (min)			15					

c Critical Lane Group

	۶	$\rightarrow$	•	<b>†</b>	ļ
Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations	ሻ	7	ሻ	<b>1</b>	f)
Traffic Volume (vph)	94	36	23	661	588
Future Volume (vph)	94	36	23	661	588
Lane Group Flow (vph)	129	49	27	769	859
Turn Type	Perm	pt+ov	D.P+P	NA	NA
Protected Phases		14	1	12	2
Permitted Phases	4		2		
Detector Phase	4	14	1	12	2
Switch Phase					
Minimum Initial (s)	9.0		5.0		15.0
Minimum Split (s)	22.5		9.0		32.6
Total Split (s)	29.0		24.0		40.6
Total Split (%)	31.0%		25.6%		43.4%
Yellow Time (s)	3.0		3.0		4.0
All-Red Time (s)	1.0		1.0		1.6
Lost Time Adjust (s)	0.0		0.0		0.0
Total Lost Time (s)	4.0		4.0		5.6
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None		None		Min
v/c Ratio	0.53	0.07	0.05	0.56	1.00
Control Delay	39.7	4.3	3.2	6.3	55.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	39.7	4.3	3.2	6.3	55.9
Queue Length 50th (ft)	59	0	2	115	~411
Queue Length 95th (ft)	90	12	9	221	#714
Internal Link Dist (ft)	149			117	614
Turn Bay Length (ft)	130		132		3
Base Capacity (vph)	552	766	567	1354	855
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	0.23	0.06	0.05	0.57	1.00
11044004 7/0 11440	0.20	0.00	0.00	0.07	1.50

#### Intersection Summary

Cycle Length: 93.6 Actuated Cycle Length: 76.7

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

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: 8: Route 10/202 & Big Y



	۶	•	4	<b>†</b>	ļ	4	
Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations	ሻ	7	ሻ	<b>†</b>	ĵ»		
Traffic Volume (vph)	94	36	23	661	588	168	
Future Volume (vph)	94	36	23	661	588	168	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width	10	12	12	11	12	12	
Total Lost time (s)	4.0	4.0	4.0	4.0	5.6		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		
Frt	1.00	0.85	1.00	1.00	0.97		
Flt Protected	0.95	1.00	0.95	1.00	1.00		
Satd. Flow (prot)	1685	1615	1787	1818	1843		
FIt Permitted	0.95	1.00	0.11	1.00	1.00		
Satd. Flow (perm)	1685	1615	214	1818	1843		
Peak-hour factor, PHF	0.73	0.73	0.86	0.86	0.88	0.88	
Adj. Flow (vph)	129	49	27	769	668	191	
RTOR Reduction (vph)	0	29	0	0	10	0	
Lane Group Flow (vph)	129	20	27	769	849	0	
Heavy Vehicles (%)	0%	0%	1%	1%	0%	0%	
Turn Type	Perm	pt+ov	D.P+P	NA	NA		
Protected Phases		14	1	12	2		
Permitted Phases	4		2				
Actuated Green, G (s)	11.0	31.8	52.0	56.0	35.2		
Effective Green, g (s)	11.0	31.8	52.0	56.0	35.2		
Actuated g/C Ratio	0.14	0.42	0.68	0.73	0.46		
Clearance Time (s)	4.0		4.0		5.6		
Vehicle Extension (s)	2.0		1.5		2.5		
Lane Grp Cap (vph)	241	670	490	1329	846		
v/s Ratio Prot		0.01	0.01	c0.42	c0.46		
v/s Ratio Perm	c0.08		0.03				
v/c Ratio	0.54	0.03	0.06	0.58	1.00		
Uniform Delay, d1	30.4	13.3	10.5	4.8	20.7		
Progression Factor	1.00	1.00	1.00	1.00	1.00		
Incremental Delay, d2	1.1	0.0	0.0	0.4	31.9		
Delay (s)	31.6	13.3	10.5	5.2	52.6		
Level of Service	С	В	В	Α	D		
Approach Delay (s)	26.5			5.4	52.6		
Approach LOS	С			Α	D		
Intersection Summary							
HCM 2000 Control Delay			29.5	Н	CM 2000	Level of Service	С
HCM 2000 Volume to Capa	acity ratio		0.82				
Actuated Cycle Length (s)			76.6	S	um of lost	time (s)	13.6
Intersection Capacity Utiliza	ation		56.7%	IC	CU Level c	of Service	В
Analysis Period (min)			15				
Critical Lane Group							

c Critical Lane Group

	•	•	4	<b>†</b>	ţ	4
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		7	ሻ	<b>1</b>	f)	
Traffic Volume (veh/h)	0	50	52	684	594	30
Future Volume (Veh/h)	0	50	52	684	594	30
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	54	57	743	646	33
Pedestrians	•	<u> </u>	<u> </u>		<b>V</b> .0	
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)				140110	140110	
Upstream signal (ft)				1116	197	
pX, platoon unblocked	0.68	0.56	0.56	1110	131	
vC, conflicting volume	1520	662	679			
vC1, stage 1 conf vol	1320	002	013			
vC1, stage 1 conf vol						
vCu, unblocked vol	756	11	41			
	6.4	6.2	4.1			
tC, single (s)	0.4	0.2	4.1			
tC, 2 stage (s)	3.5	3.3	2.2			
tF (s)						
p0 queue free %	100	91	94			
cM capacity (veh/h)	239	602	883			
Direction, Lane #	EB 1	NB 1	NB 2	SB 1		
Volume Total	54	57	743	679		
Volume Left	0	57	0	0		
Volume Right	54	0	0	33		
cSH	602	883	1700	1700		
Volume to Capacity	0.09	0.06	0.44	0.40		
Queue Length 95th (ft)	7	5	0	0		
Control Delay (s)	11.6	9.4	0.0	0.0		
Lane LOS	В	Α				
Approach Delay (s)	11.6	0.7		0.0		
Approach LOS	В					
Intersection Summary						
Average Delay			0.8			
Intersection Capacity Utiliz	ration		43.1%	IC	CU Level o	f Service
Analysis Period (min)	Lauon		15	IC	O LEVEI U	I OCIVICE
Analysis Penou (min)			15			

Mixed-Use Development
Simsbury, CT
Synchro 11 Report
Page 6

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Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	¥			ર્ન	f)	
Traffic Volume (veh/h)	66	99	98	594	532	32
Future Volume (Veh/h)	66	99	98	594	532	32
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.76	0.76	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	87	130	110	667	598	36
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				365	948	
pX, platoon unblocked	0.87	0.76	0.76			
vC, conflicting volume	1503	616	634			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	954	339	363			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)	<b>V</b>	V. <u>–</u>				
tF (s)	3.5	3.3	2.2			
p0 queue free %	60	76	88			
cM capacity (veh/h)	220	537	919			
Direction, Lane # Volume Total	EB 1 217	NB 1	SB 1 634			
		777				
Volume Left	87	110	0			
Volume Right	130	0	36			
cSH	341	919	1700			
Volume to Capacity	0.64	0.12	0.37			
Queue Length 95th (ft)	104	10	0			
Control Delay (s)	32.4	2.9	0.0			
Lane LOS	D	Α				
Approach Delay (s)	32.4	2.9	0.0			
Approach LOS	D					
Intersection Summary						
Average Delay			5.7			
Intersection Capacity Utilizat	tion		86.4%	IC	CU Level o	f Service
Analysis Period (min)			15			
raidiyolo i ollod (ililii)			10			

Lane Group         EBL         EBR         NBL         NBT         SBT         Ø5           Lane Configurations         1         2         1         2         1         2         1         2         1         2         2         5         1         2         1         2         2         5         1         2         2         5         5         2         5         5         2         5         5         2         5         5         2         5         5         2         5         5         2         5         5         2         5         5         5         2         5         5         6         0         0         6         0         1         1         1         0         1         0         1         0         1         0         1         0         1         0         1		•	•	•	<b>†</b>	ļ	
Traffic Volume (vph)         56         120         104         636         601           Future Volume (vph)         56         120         104         636         601           Lane Group Flow (vph)         61         130         113         691         686           Turn Type         Prot         custom         custom         NA         NA           Protected Phases         4         1 4 5         1         2         2         5           Permitted Phases         2         5         5         5         5         5         5         6.0         15.0         15.0         6.0         6.0         15.0         15.0         6.0         6.0         15.0         15.0         6.0         6.0         6.0         15.0         15.0         6.0	Lane Group	EBL	EBR	NBL	NBT	SBT	Ø5
Traffic Volume (vph)         56         120         104         636         601           Future Volume (vph)         56         120         104         636         601           Lane Group Flow (vph)         61         130         113         691         686           Turn Type         Prot         custom         custom         NA         NA           Protected Phases         2         5         5         5           Detector Phase         4         4         1         2         2         5           Permitted Phases         2         5         6.0         8         1         1         1         2         2         5         5         6.0         8         1         1         1         0         1         0         1         0         1         0         1         0         1         0         1	Lane Configurations	ሻ	7	ሻ	<b>†</b>	£	
Lane Group Flow (vph)         61         130         113         691         686           Turn Type         Prot         custom         custom         NA         NA           Protected Phases         4         1 4 5         1         2         2         5           Permitted Phases         25         5         5         5         5         5         5         5         6.0         15.0         6.0         6.0         6.0         15.0         6	Traffic Volume (vph)	56	120	104	636		
Turn Type	Future Volume (vph)	56	120	104	636	601	
Protected Phases         4         1 4 5         1         2         2         5           Permitted Phases         2 5         2 5         2 5         2 5         2 5         2 5         2 5         2 5         2 5         2 5         3 6         3 8	Lane Group Flow (vph)	61	130	113	691	686	
Permitted Phases   2 5	Turn Type	Prot	custom	custom	NA	NA	
Detector Phase   4	Protected Phases	4	145	1	2	2	5
Switch Phase         Minimum Initial (s)         9.0         6.0         15.0         15.0         6.0           Minimum Split (s)         22.5         10.0         24.1         24.1         10.0           Total Split (s)         29.0         14.0         41.0         41.0         14.0           Total Split (%)         29.6%         14.3%         41.8%         41.8%         14%           Yellow Time (s)         3.0         3.0         4.4         4.4         3.0           All-Red Time (s)         1.0         1.0         1.7         1.7         1.0           Lost Time Adjust (s)         0.0         0.0         0.0         0.0         0.0           Total Lost Time (s)         4.0         4.0         6.1         6.1           Lead/Lag         Lead         Lead         Lag         Lag           Lead-Lag Optimize?         Yes	Permitted Phases			2 5			
Minimum Initial (s)         9.0         6.0         15.0         15.0         6.0           Minimum Split (s)         22.5         10.0         24.1         24.1         10.0           Total Split (s)         29.0         14.0         41.0         41.0         14.0           Total Split (%)         29.6%         14.3%         41.8%         41.8%         14%           Yellow Time (s)         3.0         3.0         4.4         4.4         3.0           All-Red Time (s)         1.0         1.0         1.7         1.7         1.0           Lost Time Adjust (s)         0.0         0.0         0.0         0.0         0.0           Total Lost Time (s)         4.0         4.0         6.1         6.1         6.1           Lead/Lag         Lead         Lead         Lag	Detector Phase	4	4	1	2	2	
Minimum Split (s)         22.5         10.0         24.1         24.1         10.0           Total Split (s)         29.0         14.0         41.0         41.0         14.0           Total Split (%)         29.6%         14.3%         41.8%         41.8%         14%           Yellow Time (s)         3.0         3.0         4.4         4.4         3.0           All-Red Time (s)         1.0         1.0         1.7         1.7         1.0           Lost Time Adjust (s)         0.0         0.0         0.0         0.0         0.0           Total Lost Time (s)         4.0         4.0         6.1         6.1           Lead/Lag         Lead         Lead         Lag         Lag           Lead-Lag Optimize?         Yes         Yes         Yes         Yes         Yes           Recall Mode         None         None         None         C-Min         C-Min         None           V/c Ratio         0.35         0.32         0.22         0.56         0.57           Control Delay         46.5         11.8         3.0         11.5         11.9           Queue Delay         0.0         0.0         0.0         0.0         0.0     <	Switch Phase						
Total Split (s)         29.0         14.0         41.0         41.0         14.0           Total Split (%)         29.6%         14.3%         41.8%         41.8%         14%           Yellow Time (s)         3.0         3.0         4.4         4.4         3.0           All-Red Time (s)         1.0         1.0         1.7         1.7         1.0           Lost Time Adjust (s)         0.0         0.0         0.0         0.0         0.0           Total Lost Time (s)         4.0         4.0         6.1         6.1         6.1           Lead/Lag         Lead         Lead         Lag         Lag         Lag         Lag           Lead-Lag Optimize?         Yes	Minimum Initial (s)	9.0		6.0	15.0	15.0	6.0
Total Split (%)         29.6%         14.3%         41.8%         41.8%         14%           Yellow Time (s)         3.0         3.0         4.4         4.4         3.0           All-Red Time (s)         1.0         1.0         1.7         1.7         1.0           Lost Time Adjust (s)         0.0         0.0         0.0         0.0         0.0           Total Lost Time (s)         4.0         4.0         6.1         6.1         6.1           Lead/Lag         Lead         Lead         Lag         Lag         Lag         Lag           Lead-Lag Optimize?         Yes	Minimum Split (s)	22.5		10.0	24.1	24.1	10.0
Yellow Time (s)         3.0         3.0         4.4         4.4         3.0           All-Red Time (s)         1.0         1.0         1.7         1.7         1.0           Lost Time Adjust (s)         0.0         0.0         0.0         0.0           Total Lost Time (s)         4.0         4.0         6.1         6.1           Lead/Lag         Lead         Lead         Lag         Lag           Lead-Lag Optimize?         Yes         Yes         Yes         Yes           Recall Mode         None         None         C-Min         C-Min         None           V/c Ratio         0.35         0.32         0.22         0.56         0.57           Control Delay         46.5         11.8         3.0         11.5         11.9           Queue Delay         0.0         0.0         0.0         0.0         0.0           Total Delay         46.5         11.8         3.0         11.5         11.9           Queue Length 50th (ft)         36         17         9         190         192           Queue Length 95th (ft)         75         59         22         366         372           Internal Link Dist (ft)         612	Total Split (s)	29.0		14.0	41.0	41.0	14.0
All-Red Time (s)       1.0       1.0       1.7       1.7       1.0         Lost Time Adjust (s)       0.0       0.0       0.0       0.0       0.0         Total Lost Time (s)       4.0       4.0       6.1       6.1         Lead/Lag       Lead       Lead       Lag       Lag       Lag         Lead-Lag Optimize?       Yes       Yes       Yes       Yes       Yes       Yes         Recall Mode       None       None       None       C-Min       C-Min       None         v/c Ratio       0.35       0.32       0.22       0.56       0.57         Control Delay       46.5       11.8       3.0       11.5       11.9         Queue Delay       0.0       0.0       0.0       0.0       0.0         Total Delay       46.5       11.8       3.0       11.5       11.9         Queue Length 50th (ft)       36       17       9       190       192         Queue Length 95th (ft)       75       59       22       366       372         Internal Link Dist (ft)       612       389       285         Turn Bay Length (ft)       230       160         Base Capacity (vph)       <	Total Split (%)	29.6%		14.3%	41.8%	41.8%	14%
Lost Time Adjust (s)         0.0         0.0         0.0         0.0           Total Lost Time (s)         4.0         4.0         6.1         6.1           Lead/Lag         Lead         Lead         Lag         Lag           Lead-Lag Optimize?         Yes         Yes         Yes         Yes           Recall Mode         None         None         C-Min         C-Min         None           v/c Ratio         0.35         0.32         0.22         0.56         0.57           Control Delay         46.5         11.8         3.0         11.5         11.9           Queue Delay         0.0         0.0         0.0         0.0         0.0           Total Delay         46.5         11.8         3.0         11.5         11.9           Queue Length 50th (ft)         36         17         9         190         192           Queue Length 95th (ft)         75         59         22         366         372           Internal Link Dist (ft)         612         389         285           Turn Bay Length (ft)         230         160           Base Capacity (vph)         436         459         558         1244         1196	Yellow Time (s)	3.0		3.0	4.4	4.4	3.0
Total Lost Time (s)         4.0         4.0         6.1         6.1           Lead/Lag         Lead         Lead         Lag         Lag           Lead-Lag Optimize?         Yes         Yes         Yes         Yes           Recall Mode         None         None         C-Min         C-Min         None           V/c Ratio         0.35         0.32         0.22         0.56         0.57           Control Delay         46.5         11.8         3.0         11.5         11.9           Queue Delay         0.0         0.0         0.0         0.0         0.0           Total Delay         46.5         11.8         3.0         11.5         11.9           Queue Length 50th (ft)         36         17         9         190         192           Queue Length 95th (ft)         75         59         22         366         372           Internal Link Dist (ft)         612         389         285           Turn Bay Length (ft)         230         160           Base Capacity (vph)         436         459         558         1244         1196           Starvation Cap Reductn         0         0         0         0         0	All-Red Time (s)	1.0		1.0	1.7	1.7	1.0
Lead/Lag         Lead         Lead         Lag         Lag         Lag           Lead-Lag Optimize?         Yes         Yes         Yes         Yes         Yes           Recall Mode         None         None         C-Min         C-Min         None           V/c Ratio         0.35         0.32         0.22         0.56         0.57           Control Delay         46.5         11.8         3.0         11.5         11.9           Queue Delay         0.0         0.0         0.0         0.0         0.0           Total Delay         46.5         11.8         3.0         11.5         11.9           Queue Length 50th (ft)         36         17         9         190         192           Queue Length 95th (ft)         75         59         22         366         372           Internal Link Dist (ft)         612         389         285           Turn Bay Length (ft)         230         160           Base Capacity (vph)         436         459         558         1244         1196           Starvation Cap Reductn         0         0         0         0         0           Storage Cap Reductn         0         0	Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Lead-Lag Optimize?         Yes         Yes	Total Lost Time (s)	4.0		4.0	6.1	6.1	
Recall Mode         None         None         C-Min         C-Min         None           v/c Ratio         0.35         0.32         0.22         0.56         0.57           Control Delay         46.5         11.8         3.0         11.5         11.9           Queue Delay         0.0         0.0         0.0         0.0         0.0           Total Delay         46.5         11.8         3.0         11.5         11.9           Queue Length 50th (ft)         36         17         9         190         192           Queue Length 95th (ft)         75         59         22         366         372           Internal Link Dist (ft)         612         389         285           Turn Bay Length (ft)         230         160           Base Capacity (vph)         436         459         558         1244         1196           Starvation Cap Reductn         0         0         0         0         0           Spillback Cap Reductn         0         0         0         0         0           Storage Cap Reductn         0         0         0         0         0	Lead/Lag	Lead		Lead	Lag	Lag	Lag
v/c Ratio         0.35         0.32         0.22         0.56         0.57           Control Delay         46.5         11.8         3.0         11.5         11.9           Queue Delay         0.0         0.0         0.0         0.0         0.0           Total Delay         46.5         11.8         3.0         11.5         11.9           Queue Length 50th (ft)         36         17         9         190         192           Queue Length 95th (ft)         75         59         22         366         372           Internal Link Dist (ft)         612         389         285           Turn Bay Length (ft)         230         160           Base Capacity (vph)         436         459         558         1244         1196           Starvation Cap Reductn         0         0         0         0         0           Spillback Cap Reductn         0         0         0         0         0           Storage Cap Reductn         0         0         0         0         0	Lead-Lag Optimize?	Yes		Yes	Yes	Yes	Yes
Control Delay         46.5         11.8         3.0         11.5         11.9           Queue Delay         0.0         0.0         0.0         0.0         0.0           Total Delay         46.5         11.8         3.0         11.5         11.9           Queue Length 50th (ft)         36         17         9         190         192           Queue Length 95th (ft)         75         59         22         366         372           Internal Link Dist (ft)         612         389         285           Turn Bay Length (ft)         230         160           Base Capacity (vph)         436         459         558         1244         1196           Starvation Cap Reductn         0         0         0         0         0           Spillback Cap Reductn         0         0         0         0         0           Storage Cap Reductn         0         0         0         0         0	Recall Mode	None		None	C-Min	C-Min	None
Queue Delay       0.0       0.0       0.0       0.0       0.0         Total Delay       46.5       11.8       3.0       11.5       11.9         Queue Length 50th (ft)       36       17       9       190       192         Queue Length 95th (ft)       75       59       22       366       372         Internal Link Dist (ft)       612       389       285         Turn Bay Length (ft)       230       160         Base Capacity (vph)       436       459       558       1244       1196         Starvation Cap Reductn       0       0       0       0       0         Spillback Cap Reductn       0       0       0       0       0         Storage Cap Reductn       0       0       0       0       0	v/c Ratio	0.35	0.32	0.22	0.56	0.57	
Total Delay       46.5       11.8       3.0       11.5       11.9         Queue Length 50th (ft)       36       17       9       190       192         Queue Length 95th (ft)       75       59       22       366       372         Internal Link Dist (ft)       612       389       285         Turn Bay Length (ft)       230       160         Base Capacity (vph)       436       459       558       1244       1196         Starvation Cap Reductn       0       0       0       0       0         Spillback Cap Reductn       0       0       0       0       0         Storage Cap Reductn       0       0       0       0       0	Control Delay	46.5	11.8	3.0	11.5	11.9	
Queue Length 50th (ft)       36       17       9       190       192         Queue Length 95th (ft)       75       59       22       366       372         Internal Link Dist (ft)       612       389       285         Turn Bay Length (ft)       230       160         Base Capacity (vph)       436       459       558       1244       1196         Starvation Cap Reductn       0       0       0       0       0         Spillback Cap Reductn       0       0       0       0       0         Storage Cap Reductn       0       0       0       0       0	Queue Delay	0.0	0.0	0.0	0.0	0.0	
Queue Length 95th (ft)       75       59       22       366       372         Internal Link Dist (ft)       612       389       285         Turn Bay Length (ft)       230       160         Base Capacity (vph)       436       459       558       1244       1196         Starvation Cap Reductn       0       0       0       0       0         Spillback Cap Reductn       0       0       0       0       0         Storage Cap Reductn       0       0       0       0       0	Total Delay	46.5	11.8	3.0	11.5	11.9	
Internal Link Dist (ft) 612 389 285  Turn Bay Length (ft) 230 160  Base Capacity (vph) 436 459 558 1244 1196  Starvation Cap Reductn 0 0 0 0 0  Spillback Cap Reductn 0 0 0 0 0  Storage Cap Reductn 0 0 0 0 0	Queue Length 50th (ft)	36	17	9	190	192	
Turn Bay Length (ft)     230     160       Base Capacity (vph)     436     459     558     1244     1196       Starvation Cap Reductn     0     0     0     0       Spillback Cap Reductn     0     0     0     0       Storage Cap Reductn     0     0     0     0	Queue Length 95th (ft)	75	59	22	366	372	
Base Capacity (vph)       436       459       558       1244       1196         Starvation Cap Reductn       0       0       0       0       0         Spillback Cap Reductn       0       0       0       0       0         Storage Cap Reductn       0       0       0       0       0	Internal Link Dist (ft)	612			389	285	
Starvation Cap Reductn         0         0         0         0         0           Spillback Cap Reductn         0         0         0         0         0           Storage Cap Reductn         0         0         0         0         0	Turn Bay Length (ft)	230		160			
Spillback Cap Reductn 0 0 0 0 0 Storage Cap Reductn 0 0 0 0 0	Base Capacity (vph)	436	459	558	1244	1196	
Storage Cap Reductn 0 0 0 0	Starvation Cap Reductn	0	0	0	0	0	
	Spillback Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio 0.14 0.28 0.20 0.56 0.57	Storage Cap Reductn	0	0	0	0	0	
	Reduced v/c Ratio	0.14	0.28	0.20	0.56	0.57	

#### Intersection Summary

Cycle Length: 98

Actuated Cycle Length: 98

Offset: 10 (10%), Referenced to phase 2:NBSB, Start of Yellow

Natural Cycle: 80

Control Type: Actuated-Coordinated

Splits and Phases: 5: Route 10/202 & Hoskins Road



	•	•	4	<b>†</b>	ļ	4		
Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations	ች	7	*	<b>†</b>	<b>1</b>			
Traffic Volume (vph)	56	120	104	636	601	30		
Future Volume (vph)	56	120	104	636	601	30		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Lane Width	11	10	10	12	11	11		
Total Lost time (s)	4.0	4.0	4.0	6.1	6.1			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00			
Frt	1.00	0.85	1.00	1.00	0.99			
FIt Protected	0.95	1.00	0.95	1.00	1.00			
Satd. Flow (prot)	1711	1478	1652	1863	1789			
FIt Permitted	0.95	1.00	0.32	1.00	1.00			
Satd. Flow (perm)	1711	1478	553	1863	1789			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92		
Adj. Flow (vph)	61	130	113	691	653	33		
RTOR Reduction (vph)	0	74	0	0	1	0		
Lane Group Flow (vph)	61	56	113	691	685	0		
Turn Type		custom		NA	NA	· · · · ·		
Protected Phases	4	145	1	2	2			
Permitted Phases	•		25	_	<del>-</del>			
Actuated Green, G (s)	9.9	22.4	74.0	65.5	65.5			
Effective Green, g (s)	9.9	22.4	74.0	65.5	65.5			
Actuated g/C Ratio	0.10	0.23	0.76	0.67	0.67			
Clearance Time (s)	4.0		4.0	6.1	6.1			
Vehicle Extension (s)	3.0		3.0	3.0	3.0			
Lane Grp Cap (vph)	172	337	512	1245	1195			
//s Ratio Prot	c0.04	0.04	c0.02	0.37	c0.38			
v/s Ratio Perm		0.0	0.15	0.0.	00.00			
v/c Ratio	0.35	0.17	0.22	0.56	0.57			
Uniform Delay, d1	41.1	30.3	4.3	8.6	8.7			
Progression Factor	1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2	1.3	0.2	0.2	1.8	2.0			
Delay (s)	42.3	30.5	4.6	10.4	10.7			
Level of Service	D	С	Α	В	В			
Approach Delay (s)	34.3			9.5	10.7			
Approach LOS	С			А	В			
Intersection Summary								
HCM 2000 Control Delay			12.8	H	CM 2000	Level of Service	 В	
HCM 2000 Volume to Capac	city ratio		0.54					
Actuated Cycle Length (s)			98.0	S	um of lost	time (s)	18.1	
Intersection Capacity Utilizat	tion		58.5%		CU Level o		В	
Analysis Period (min)			15					
c Critical Lane Group								

	۶	•	•	<b>†</b>	ţ
Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations	ሻ	7	ሻ	<b></b>	1>
Traffic Volume (vph)	139	33	25	549	500
Future Volume (vph)	139	33	25	549	500
Lane Group Flow (vph)	204	49	28	624	684
Turn Type	Perm	custom	D.P+P	NA	NA
Protected Phases		4	1	12	2
Permitted Phases	4	1	2		
Detector Phase	4	4	1	12	2
Switch Phase					
Minimum Initial (s)	9.0	9.0	5.0		15.0
Minimum Split (s)	22.5	22.5	9.0		32.6
Total Split (s)	29.0	29.0	24.0		40.6
Total Split (%)	31.0%	31.0%	25.6%		43.4%
Yellow Time (s)	3.0	3.0	3.0		4.0
All-Red Time (s)	1.0	1.0	1.0		1.6
Lost Time Adjust (s)	0.0	0.0	0.0		0.0
Total Lost Time (s)	4.0	4.0	4.0		5.6
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None		Min
v/c Ratio	0.67	0.07	0.06	0.48	0.83
Control Delay	42.1	3.9	4.6	7.1	31.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	42.1	3.9	4.6	7.1	31.6
Queue Length 50th (ft)	94	0	3	110	278
Queue Length 95th (ft)	122	9	13	223	#595
Internal Link Dist (ft)	149			117	614
Turn Bay Length (ft)	130		132		
Base Capacity (vph)	527	710	600	1325	849
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	0.39	0.07	0.05	0.47	0.81
	2.50			<b></b>	

#### Intersection Summary

Cycle Length: 93.6

Actuated Cycle Length: 78.2

Natural Cycle: 65

Control Type: Actuated-Uncoordinated

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 8: Route 10/202 & Big Y



	•	•	4	<b>†</b>	ţ	4		
Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations	ሻ	7	ሻ	<b>^</b>	1>			
Traffic Volume (vph)	139	33	25	549	500	131		
Future Volume (vph)	139	33	25	549	500	131		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Lane Width	10	12	12	11	12	12		
Total Lost time (s)	4.0	4.0	4.0	4.0	5.6			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00			
-rt	1.00	0.85	1.00	1.00	0.97			
FIt Protected	0.95	1.00	0.95	1.00	1.00			
Satd. Flow (prot)	1620	1553	1805	1837	1847			
FIt Permitted	0.95	1.00	0.16	1.00	1.00			
Satd. Flow (perm)	1620	1553	304	1837	1847			
Peak-hour factor, PHF	0.68	0.68	0.88	0.88	0.92	0.93		
Adj. Flow (vph)	204	49	28	624	543	141		
RTOR Reduction (vph)	0	30	0	0	9	0		
Lane Group Flow (vph)	204	19	28	624	675	0		
Heavy Vehicles (%)	4%	4%	0%	0%	0%	0%		
Turn Type	Perm	custom	D.P+P	NA	NA			
Protected Phases		4	1	12	2			
Permitted Phases	4	1	2					
Actuated Green, G (s)	14.6	29.7	49.7	53.7	34.6			
Effective Green, g (s)	14.6	29.7	49.7	53.7	34.6			
Actuated g/C Ratio	0.19	0.38	0.64	0.69	0.44			
Clearance Time (s)	4.0	4.0	4.0		5.6			
Vehicle Extension (s)	2.0	2.0	1.5		2.5			
_ane Grp Cap (vph)	303	671	484	1266	820			
//s Ratio Prot		0.01	0.01	c0.34	c0.37			
v/s Ratio Perm	c0.13	0.01	0.03					
v/c Ratio	0.67	0.03	0.06	0.49	0.82			
Jniform Delay, d1	29.4	15.1	8.1	5.7	19.0			
Progression Factor	1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2	4.6	0.0	0.0	0.1	6.6			
Delay (s)	34.0	15.1	8.1	5.8	25.5			
Level of Service	С	В	Α	Α	С			
Approach Delay (s)	30.3			5.9	25.5			
Approach LOS	С			А	С			
Intersection Summary								
HCM 2000 Control Delay			18.3	Н	ICM 2000	Level of Service	В	
HCM 2000 Volume to Capa	city ratio		0.72					
Actuated Cycle Length (s)			77.9		um of lost		13.6	
Intersection Capacity Utiliza	ition		50.0%	IC	CU Level o	of Service	Α	
Analysis Period (min)			15					

c Critical Lane Group

	۶	•	1	<b>†</b>	<b></b>	4	
Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations		7	ሻ	<b>†</b>	ĥ		
Traffic Volume (veh/h)	0	80	86	574	484	49	
Future Volume (Veh/h)	0	80	86	574	484	49	
Sign Control	Stop			Free	Free		
Grade	0%			0%	0%		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	0	87	93	624	526	53	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type				None	None		
Median storage veh)							
Upstream signal (ft)				1116	197		
pX, platoon unblocked	0.74	0.69	0.69				
vC, conflicting volume	1362	552	579				
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	975	117	156				
tC, single (s)	6.4	6.2	4.1				
tC, 2 stage (s)							
tF (s)	3.5	3.3	2.2				
p0 queue free %	100	86	90				
cM capacity (veh/h)	187	641	976				
Direction, Lane #	EB 1	NB 1	NB 2	SB 1			
Volume Total	87	93	624	579			_
Volume Left	0	93	0	0			
Volume Right	87	0	0	53			
cSH	641	976	1700	1700			
Volume to Capacity	0.14	0.10	0.37	0.34			
Queue Length 95th (ft)	12	8	0	0			
Control Delay (s)	11.5	9.1	0.0	0.0			
Lane LOS	В	Α					
Approach Delay (s)	11.5	1.2		0.0			
Approach LOS	В	· ·-		0.0			
Intersection Summary							
Average Delay			1.3				
Intersection Capacity Utiliza	tion		40.1%	IC	CU Level of	Service	
Analysis Period (min)			15		22.0.0	3000	
Alialysis Fellou (IIIIII)			10				

Mixed-Use Development
Simsbury, CT
Synchro 11 Report
Page 6





Zoning District(S):	B2 - General Busin	ness
Overlay District(S):	Level A - Aquifer F	Projection Zone
Zoning Regulation Requirements	Required*	Provided
MINIMUM LOT AREA	NONE	±4.45 AC
FRONTAGE	NONE	371.7 Feet
FRONT YARD BUILDING SETBACK	25 Feet	64.2 Feet
FRONT YARD PARKING SETBACK	25 Feet	25 Feet
SIDE YARD BUILDING SETBACK	20 Feet	52.3 Feet
SIDE YARD PARKING SETBACK	15 Feet	15 Feet
REAR YARD BUILDING SETBACK	25 Feet	69.1 Feet
REAR YARD PARKING SETBACK	25 Feet	34.2 Feet
REAR YARD RESIDENTIAL LOADING SETBACK	50 Feet	59.1 Feet
MAXIMUM BUILDING HEIGHT	40 Feet	<40 Feet

- \* Zoning regulation requirements as specified in Simsbury Zoning Regulations dated 03/01/2022
- \*\* Per Section 4.4.B; The Zoning Commission may, after notice and public hearing, grant a special exception to allow up to 50 pecent increase to the maximum coverage allowed in any zone.

40.0%/60.0% \*\*

#### **Parking Summary Chart**

MAXIMUM IMPERVIOUS

	Size (FT)		Spaces		
Description	Required	Provided	Required	Provided	
STANDARD SPACES	9 x 18	9 x 18	92	108	
COMPACT SPACES (50% ALLOWED W/ SE)	8 x 16	8 x 16	N/A	N/A	
STANDARD ACCESSIBLE SPACES *	15 x 18	15 x 18	3	4	
VAN ACCESSIBLE SPACES	16 x 18	16 x 18	1	3	
TOTAL SPACES			96	115	

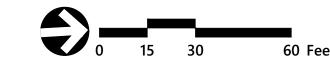
\* ADA/STATE/LOCAL REGULATIONS REQUIRE 5 ACCESSIBLE PARKING SPACES FOR LOTS BETWEEN 101 TO 150 PARKING SPACES - 1 OF WHICH BEING VAN ACCESSIBLE

TOTAL PARKING REQUIRED = 96 SPACES

#### Parking Requirements:

RETAIL (OVER 10,000 GSF)	11,600 SF	х	2.75	/	500	=	64 SPAC
RESTAURANT 1	2,400 SF	х	3.3	/	500	=	16 SPAC
RESTAURANT 2	2,325 SF	х	3.3	/	500	=	16 SPAC

PLANT SCHEDULE					
DECIDUOUS TREES ARO GD QR	QTY 18 5 18	BOTANICAL NAME Acer rubrum `October Glory` Gymnocladus dioica 'Prarie Titan' Quercus rubra	COMMON NAME October Glory Maple Prairie Titan® Kentucky Coffeetree Red Oak	SIZE 2 1/2 - 3" CAL. 2 1/2 - 3" CAL. 2 1/2 - 3" CAL.	
FLOWERING TREES MS	<u>QTY</u> 14	BOTANICAL NAME Malus hybrid `Spring Snow`	COMMON NAME Spring Snow Crab Apple	SIZE 2 - 3" CAL.	
SHRUBS CS ICB ICG VC	QTY 44 3 30 16	BOTANICAL NAME Cornus sericea `Arctic Fire` Ilex x meserveae 'China Boy' Ilex x meserveae 'China Girl' Vaccinium corymbosum	COMMON NAME Arctic Fire Red Twig Dogwood China Boy® Holly China Girl® Holly Highbush Blueberry	SIZE 24 - 30" HT. 18 - 24" HT. 18 - 24" HT. 2 - 3` HT.	
ORNAMENTAL GRASSES ES PVN	QTY 69 50	BOTANICAL NAME Eragrostis spectabilis Panicum virgatum `Northwind`	COMMON NAME Purple Lovegrass Northwind Switch Grass	SIZE 2 GAL. 2 GAL.	SPACING 30" o.c. 36" o.c.
PERENNIALS EP HRR RLS	QTY 460 312 670	BOTANICAL NAME Echinacea purpurea Hemerocallis x `Rosy Returns` Rudbeckia fx 'Little Suzy'	COMMON NAME Coneflower Rosy Returns Daylily Little Suzy Coneflower	SIZE 2 GAL. 1 GAL. 1 GAL.	SPACING 18" o.c. 24" o.c. 12" o.c.

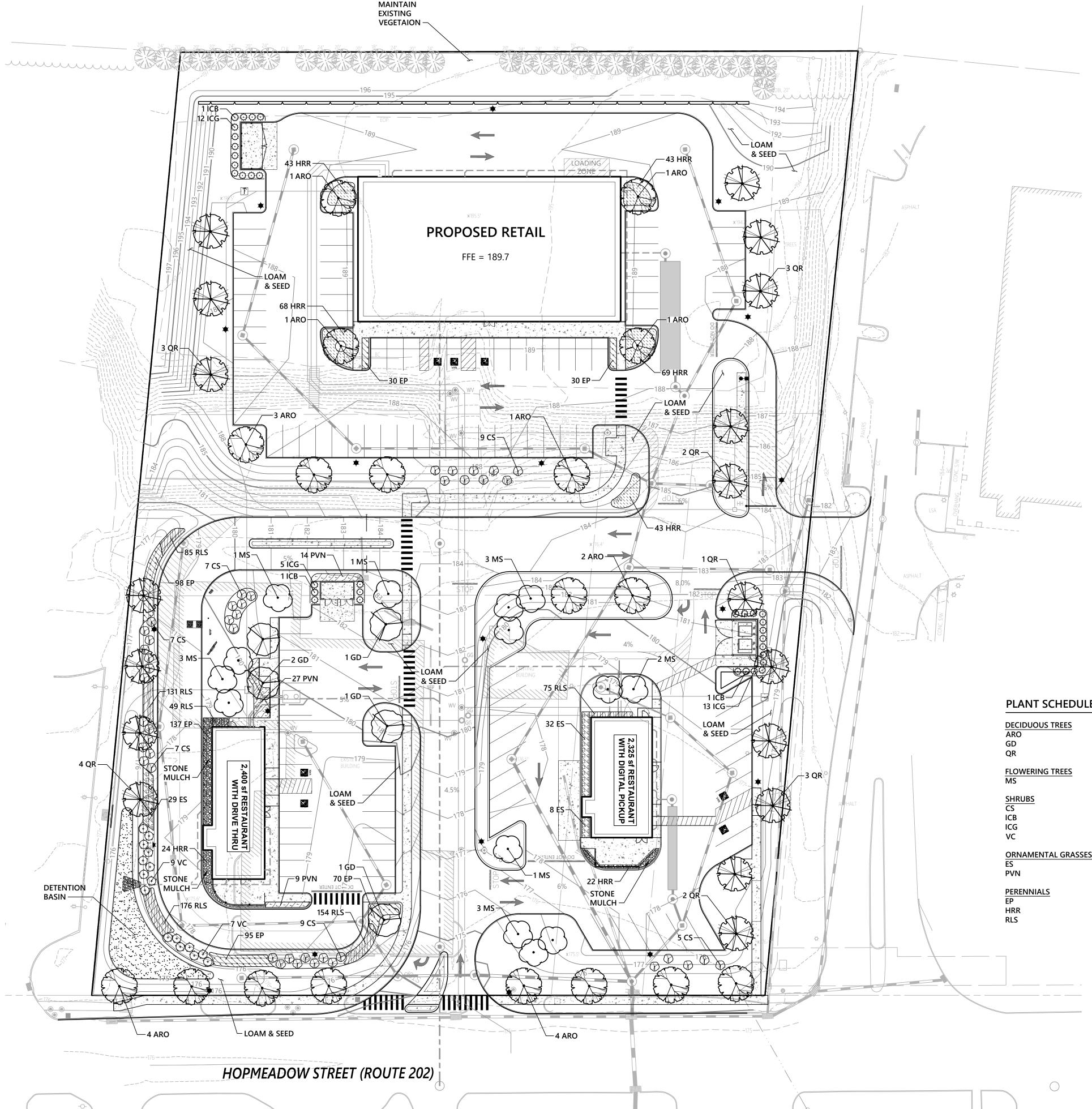


# Proposed Commercial Development

1263 Hopmeadow St Simsbury, CT

Source: VHB
Prepared for: Local Approval
Date: 6/5/23





#### **Planting Notes**

- 1. ALL PROPOSED PLANTING LOCATIONS SHALL BE STAKED AS SHOWN ON THE PLANS FOR FIELD REVIEW AND APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
- 2. CONTRACTOR SHALL VERIFY LOCATIONS OF ALL BELOW GRADE AND ABOVE GROUND UTILITIES AND NOTIFY OWNERS REPRESENTATIVE OF CONFLICTS.
- 3. NO PLANT MATERIALS SHALL BE INSTALLED UNTIL ALL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA. CONTRACTOR SHALL NOTIFY OWNER'S REPRESENTATIVE OF ANY CONFLICT.
- 4. A 3-INCH DEEP MULCH PER SPECIFICATION SHALL BE INSTALLED UNDER ALL TREES AND SHRUBS, AND IN ALL PLANTING BEDS, UNLESS OTHERWISE INDICATED ON THE PLANS, OR AS DIRECTED BY OWNER'S REPRESENTATIVE.
- 5. ALL TREES SHALL BE BALLED AND BURLAPPED, UNLESS OTHERWISE NOTED IN THE DRAWINGS OR SPECIFICATION, OR APPROVED BY THE OWNER'S
- 6. FINAL QUANTITY FOR EACH PLANT TYPE SHALL BE AS GRAPHICALLY SHOWN ON THE PLAN. THIS NUMBER SHALL TAKE PRECEDENCE IN CASE OF ANY DISCREPANCY BETWEEN QUANTITIES SHOWN ON THE PLANT LIST AND ON THE PLAN. THE CONTRACTOR SHALL REPORT ANY DISCREPANCIES BETWEEN THE NUMBER OF PLANTS SHOWN ON THE PLANT LIST AND PLANT LABELS PRIOR TO BIDDING.
- 7. ANY PROPOSED PLANT SUBSTITUTIONS MUST BE REVIEWED BY LANDSCAPE ARCHITECT AND APPROVED IN WRITING BY THE OWNER'S REPRESENTATIVE.
- 8. ALL PLANT MATERIALS INSTALLED SHALL MEET THE SPECIFICATIONS OF THE "AMERICAN STANDARDS FOR NURSERY STOCK" BY THE AMERICAN ASSOCIATION OF NURSERYMEN AND CONTRACT DOCUMENTS.
- 9. ALL PLANT MATERIALS SHALL BE GUARANTEED FOR ONE YEAR FOLLOWING DATE OF FINAL ACCEPTANCE.
- 10. AREAS DESIGNATED "LOAM & SEED" SHALL RECEIVE MINIMUM 6" OF LOAM AND SPECIFIED SEED MIX. LAWNS OVER 2:1 SLOPE SHALL BE PROTECTED WITH EROSION CONTROL FABRIC.
- 11. ALL DISTURBED AREAS NOT OTHERWISE NOTED ON CONTRACT DOCUMENTS SHALL BE LOAM AND SEEDED OR MULCHED AS DIRECTED BY OWNER'S REPRESENTATIVE.
- 12. THIS PLAN IS INTENDED FOR PLANTING PURPOSES. REFER TO SITE / CIVIL DRAWINGS FOR ALL OTHER SITE CONSTRUCTION INFORMATION.

#### **Plant Maintenance Notes**

- 1. CONTRACTOR SHALL PROVIDE COMPLETE MAINTENANCE OF THE LAWNS AND PLANTINGS. NO IRRIGATION IS PROPOSED FOR THIS SITE. THE CONTRACTOR SHALL SUPPLY SUPPLEMENTAL WATERING FOR NEW LAWNS AND PLANTINGS DURING THE ONE YEAR PLANT GUARANTEE PERIOD.
- CONTRACTOR SHALL PROVIDE ALL MATERIALS, LABOR, AND EQUIPMENT FOR THE COMPLETE LANDSCAPE MAINTENANCE WORK. WATER SHALL BE PROVIDED BY THE CONTRACTOR.
- WATERING SHALL BE REQUIRED DURING THE GROWING SEASON, WHEN NATURAL RAINFALL IS BELOW ONE INCH PER WEEK.
- 4. WATER SHALL BE APPLIED IN SUFFICIENT QUANTITY TO THOROUGHLY SATURATE THE SOIL IN THE ROOT ZONE OF EACH PLANT.
- 5. CONTRACTOR SHALL REPLACE DEAD OR DYING PLANTS AT THE END OF THE ONE YEAR GUARANTEE PERIOD. CONTRACTOR SHALL TURN OVER MAINTENANCE TO THE FACILITY MAINTENANCE STAFF AT THAT TIME.

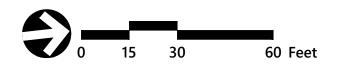
DECIDUOUS TREES	<u>QTY</u> 18	BOTANICAL NAME	COMMON NAME	SIZE	
ARO	18	Acer rubrum 'October Glory'	October Glory Maple	2 1/2 - 3" CAL.	
GD	5	Gymnocladus dioica 'Prarie Titan'	Prairie Titan® Kentucky Coffeetree	2 1/2 - 3" CAL.	
QR	18	Quercus rubra	Red Oak	2 1/2 - 3" CAL.	
FLOWERING TREES	<u>QTY</u> 14	BOTANICAL NAME	COMMON NAME	<u>SIZE</u> 2 - 3" CAL.	
MS	14	Malus hybrid `Spring Snow`	Spring Snow Crab Apple	2 - 3" CAL.	
SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	
CS	<u>QTY</u> 44	Cornus sericea `Arctic Fire`	Arctic Fire Red Twig Dogwood	<del>24 -</del> 30" HT.	
ICB	3	Ilex x meserveae 'China Boy'	China Boy® Holly	18 - 24" HT.	
ICG	30	Ilex x meserveae 'China Girl'	China Girl® Holly	18 - 24" HT.	
VC	16	Vaccinium corymbosum	Highbush Blueberry	2 - 3` HT.	
ORNAMENTAL GRASSES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING
ES	69	Eragrostis spectabilis	Purple Lovegrass	2 GAL.	30" o.c.
PVN	50	Panicum virgatum `Northwind`	Northwind Switch Grass	2 GAL.	36" o.c.
PERENNIALS	QTY	BOTANICAL NAME	COMMON NAME	<u>SIZE</u> 2 GAL.	SPACING
EP	460	Echinacea purpurea	Coneflower	2 GAL.	18" o.c.
HRR	312	Hemerocallis x 'Rosy Returns'	Rosy Returns Daylily	1 GAL.	24" o.c.
RLS	670	Rudbeckia fx 'Little Suzy'	Little Suzy Coneflower	1 GAL.	12" o.c.

#### **Seed Mixtures:**

1. AREAS INDICATED AS "DETENTION BASIN" ARE TO BE SEEDED WITH NEW ENGLAND EROSION CONTROL / RESTORATION MIX FOR DETENTION PONDS AND MOIST AREAS, AS MANUFACTURED BY NEW ENGLAND WETLAND PLANTS, INC. AMHERST, MA (413) 548-8000, www.NEWP.com,OR AN APPROVED EQUAL. APPLY IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.



100 Great Meadow Road Suite 200 Wethersfield, CT 06109 860.807.4300



### **Proposed Commercial** Development

1263 Hopmeadow Street Simsbury, Connecticut

			- In In
-			
Designed b	ру	Checked by	
Innued for		Data	
Issued for		Date	
Loca	al Approvals	May 26, 2	023
	11 / \PP108413	, -,	





Project Number 42810.00

# EXTERIOR DESIGN PACKAGE

## Proposed Commercial Development

## 1263 Hopmeadow Street Simsbury, CT 06070

### **Owner / Applicant**

Prospect Enterprises, LLC 231 Farmington Avenue Farmington, CT 06032

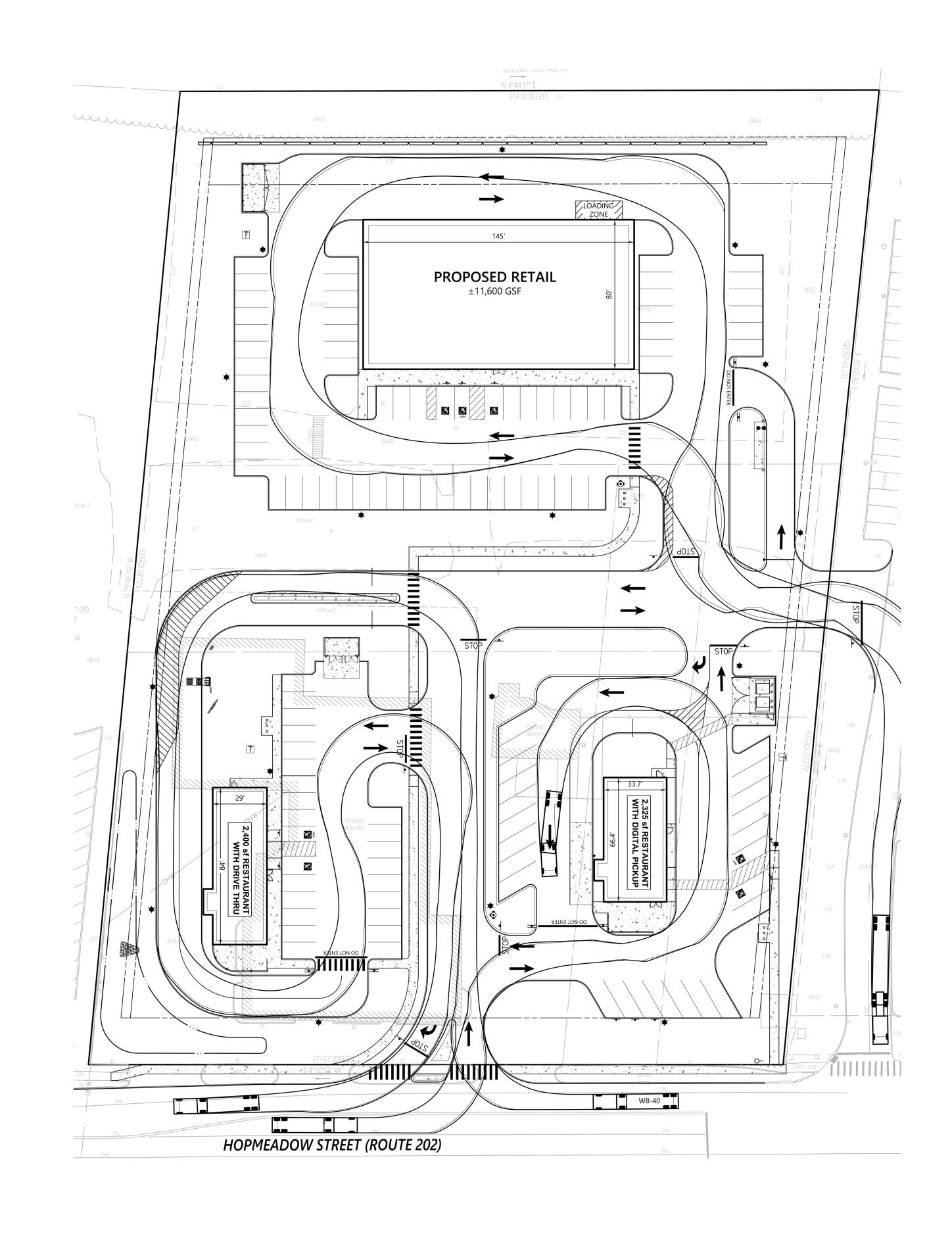
General Busines (B2) Zone:

Map: **Block:** 

017, 017R, 018, 020-1 Lots:

#### **Sheet Index**

- **Cover Sheet**
- Overall Rendering Birds Eye
- Overall Rendering Birds Eye
- Overall Rendering Birds Eye
- Overall Rendering From Street Entrance
- Retail Building Exterior Rendering
- Retail Building Exterior Rendering
- Retail Building Exterior Rendering
- Retail Building Exterior Elevations
- Starbucks Exterior Rendering
- Starbucks Exterior Rendering
- A-12 Starbucks Site Context South
- A-13 Starbucks Exterior Elevations
- A-14 Chipotle Exterior Rendering
- A-15 Chipotle Exterior Rendering
- A-16 Chipotle Site Context North
- A-17 Chipotle Exterior Elevations
- A-18 Exterior Material Board Starbucks
- A-19 Exterior Material Board Chipotle



A-1

Prospect Enterprises, LLC













BKA#

Prospect Enterprises, LLC



Simsbury Retail Development 1263 Hopmeadow Street Simsbury, CT 06070

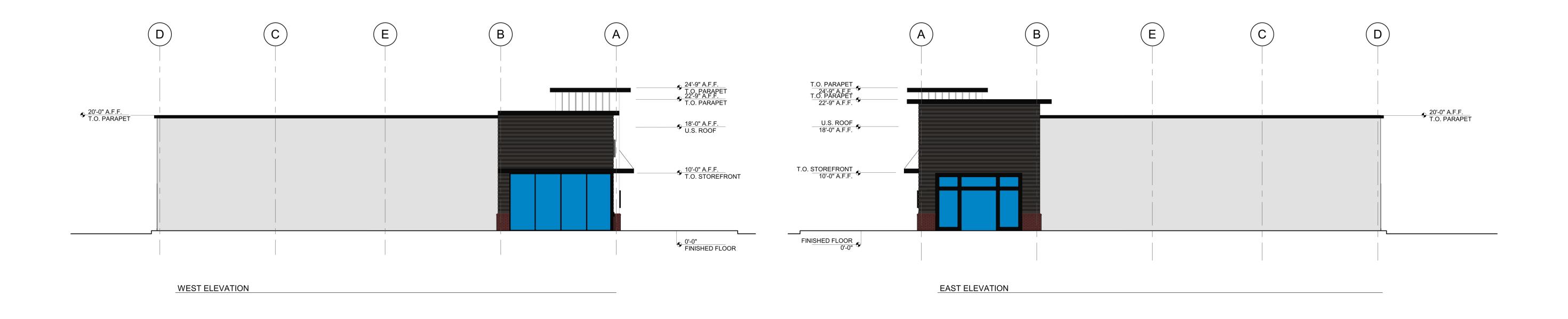
Retail Building - Exterior Rendering

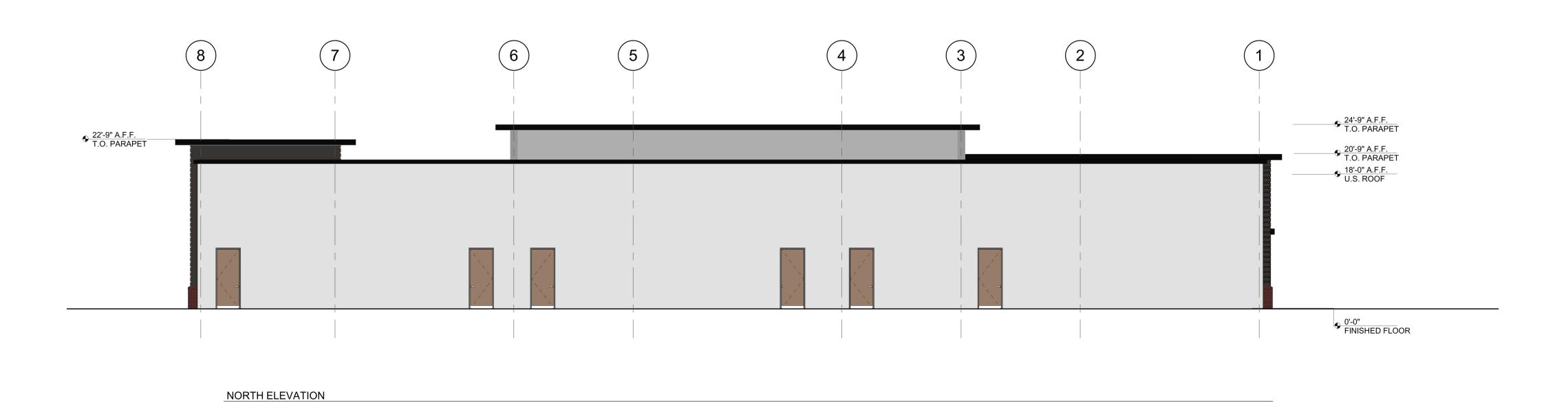
Drawn by: LMH

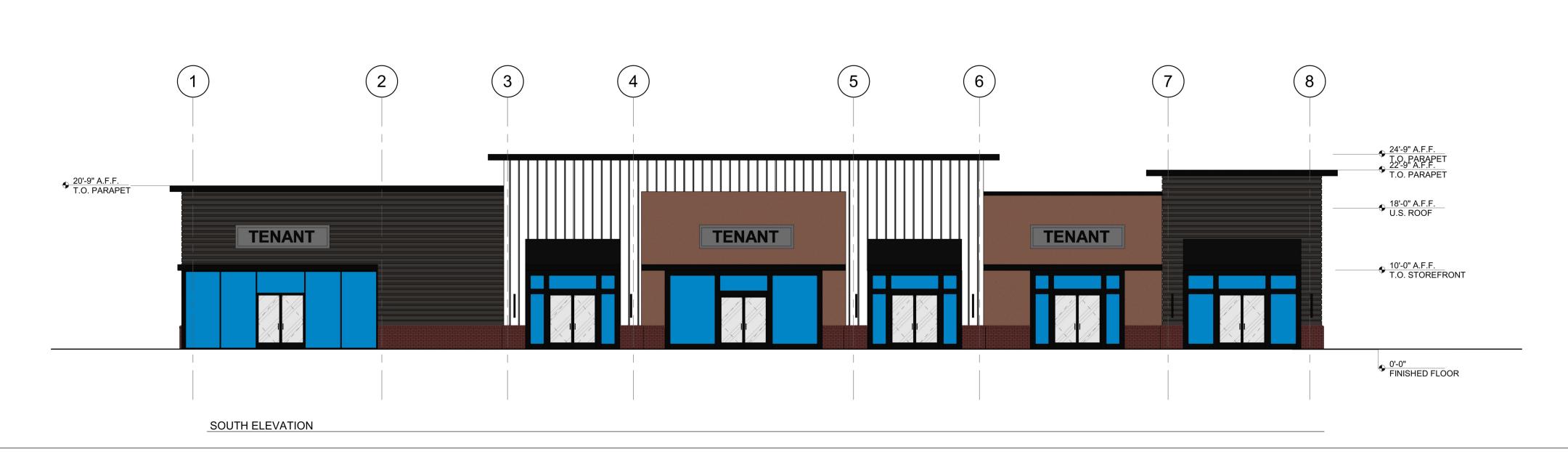
BKA#

223066 Date: 06/20/2023

BKA ARCHITECTS



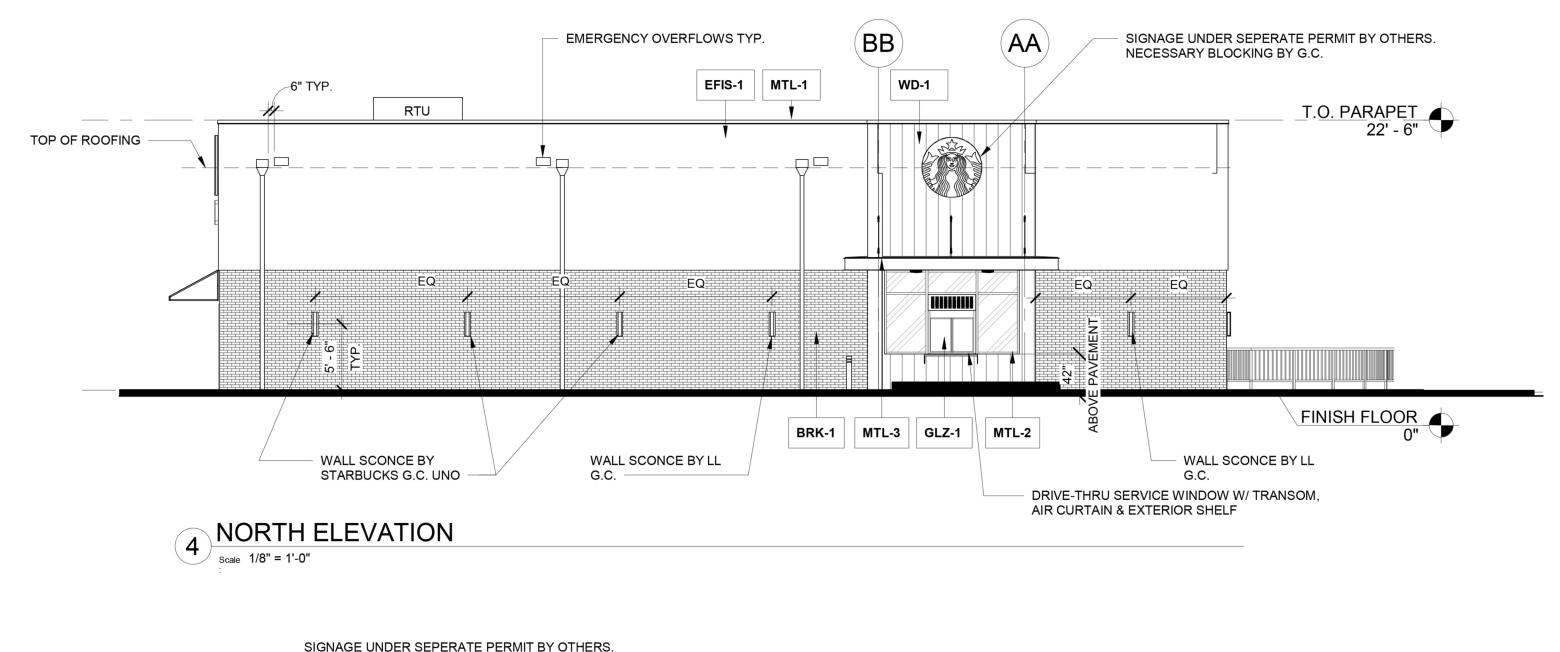


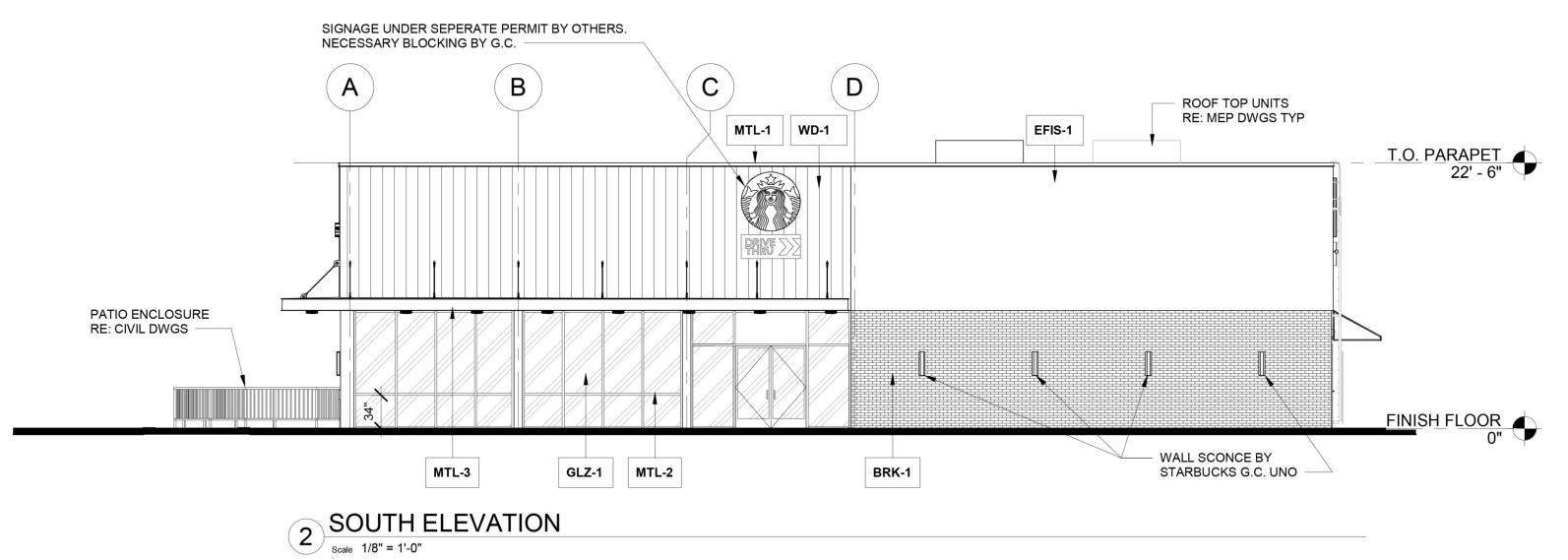


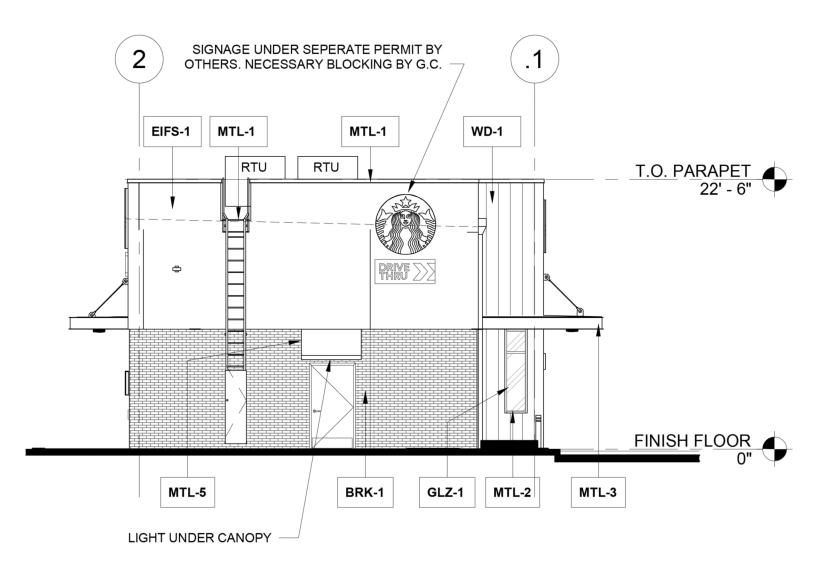




223066 Date: 06/20/2023

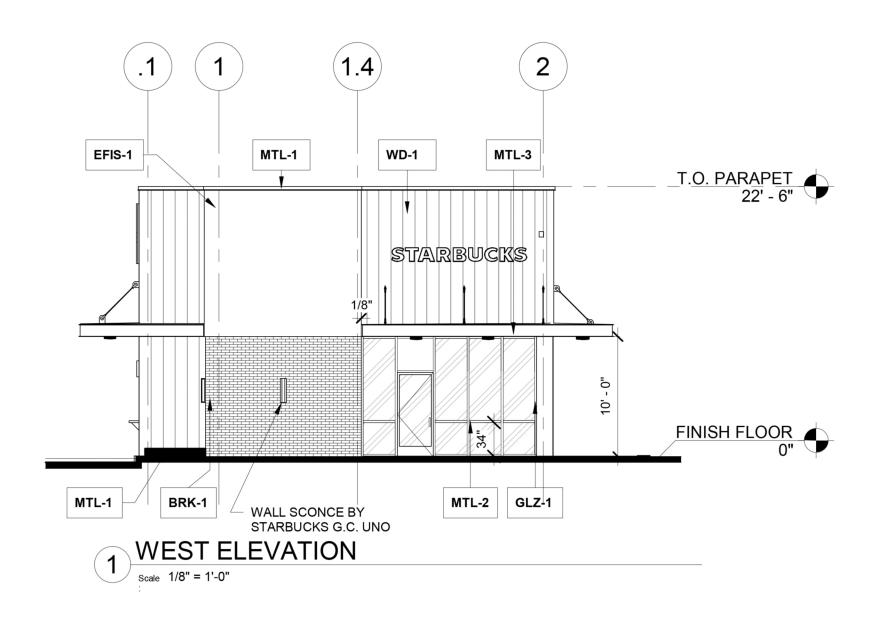






3 EAST ELEVATION

| Scale | 1/8" = 1'-0"





Simsbury Retail Development 1263 Hopmeadow Street Simsbury, CT 06070

Chipotle - Exterior Rendering

BKA#

Drawn by: LMH

22

223066 Date: 06/20/2023

A-14

BKA ARCHITECTS

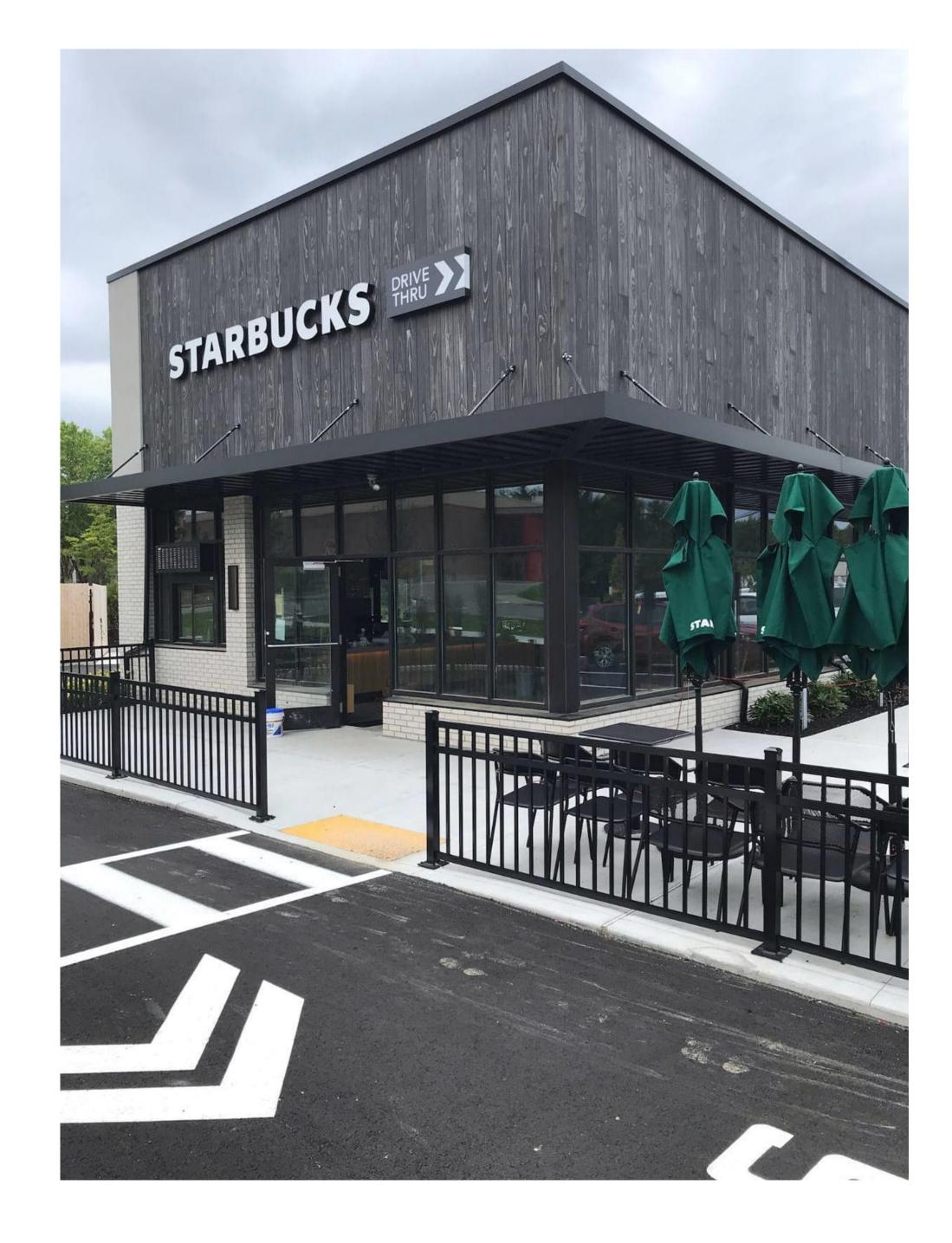


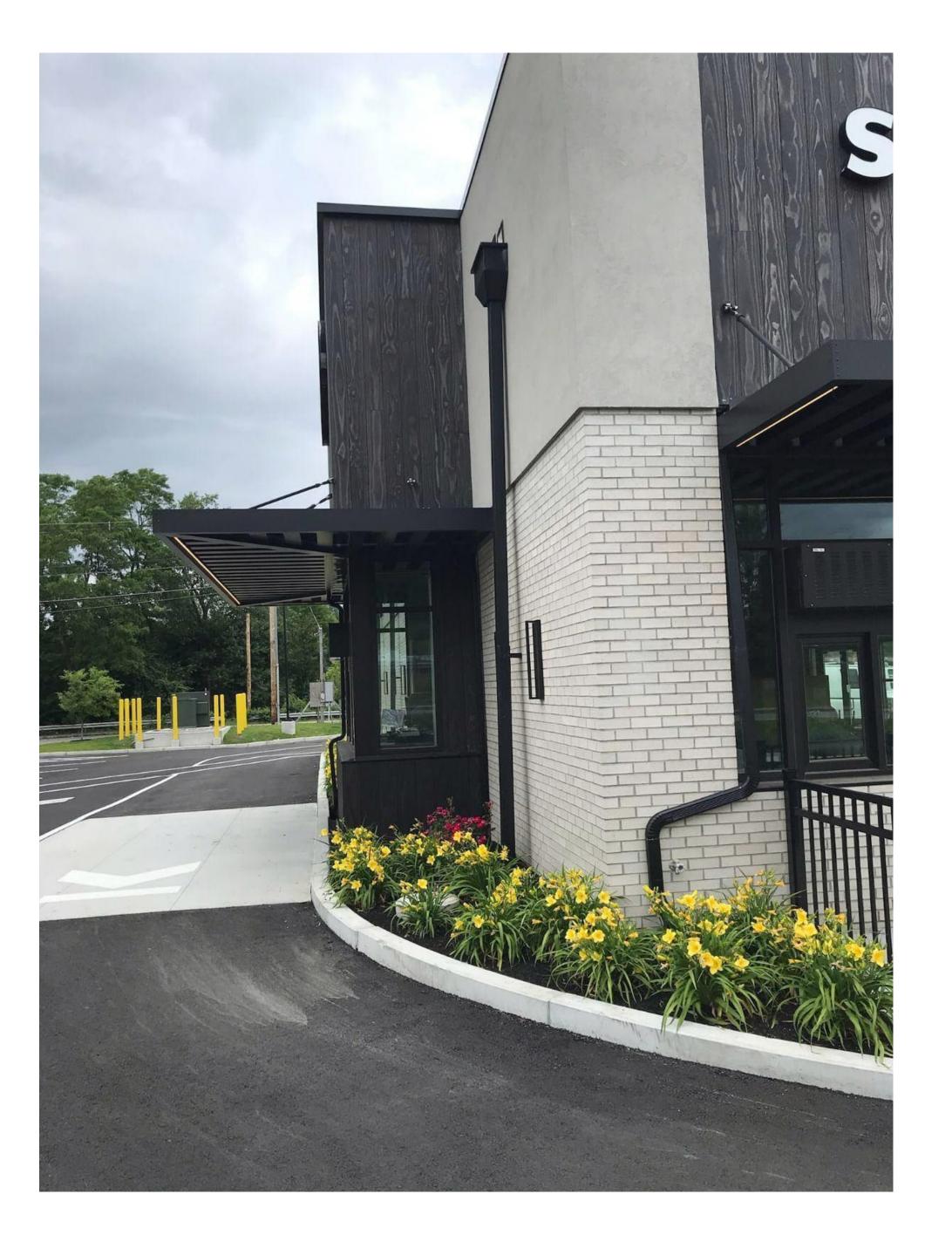
BKA#













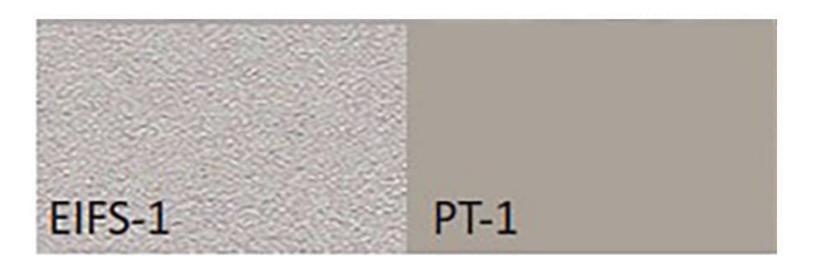
WD-1: TONGUE AND GROOVE ACCOYA WOOD SIDING SHOU SUGI BAN



WD-4: ACCOYA WOOD SIDING (UNDERSIDE OF CANOPIES) RAILAY 1C



BRK-1: SMOOTH SILVER GREY BRICK **GROUT TO MATCH** 

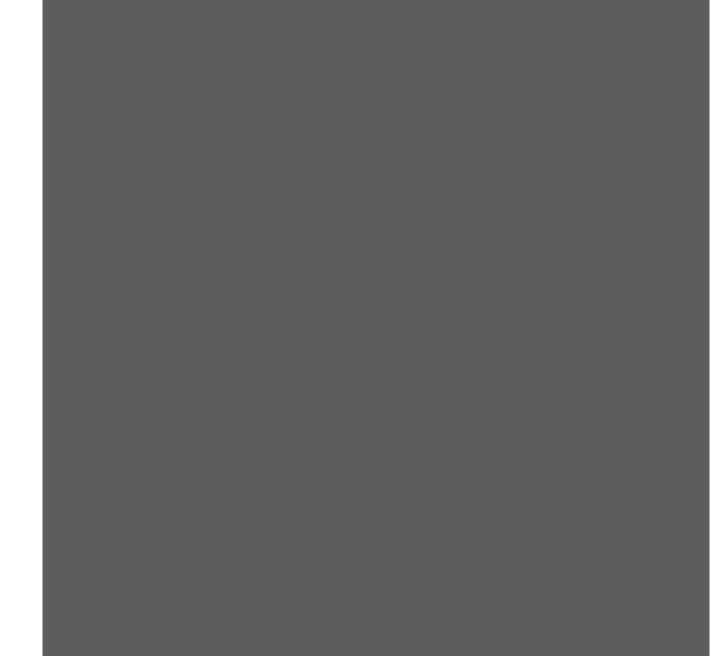


EIFS-1: EIFS SANDPEBBLE FINE TEXTURE PT-1:

PAINT - SW7024 FUNCTIONAL GRAY



PPG 1010-2 "FOG"



PPG 1001-6 "KNIGHTS ARMOR"



ANODIZED BLACK/DARK BRONZE