



LOCUS PLAN
.....

SITE PLAN SET
FOR A
PROPOSED CAR WASH
1650 WASHINGTON STREET
HOLLISTON, MA 01746

APPROVED BY THE
TOWN OF HOLLISTON PLANNING BOARD
DATE SITE PLAN ENDORSED: _____

PREPARED BY:
CIVIL DESIGN GROUP, LLC

21 HIGH STREET SUITE 207
NORTH ANDOVER, MA 01845
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CONTACT: PHILIP HENRY, P.E.

PREPARED FOR:
1650 WASHINGTON STREET, LLC
3 MICHAUD DRIVE
FRAMINGHAM, MA 01701

DATE	DATE REVISED	SHEET NUMBER	SHEET DESCRIPTION
07/14/2023	-	1	COVER SHEET
12/30/2022	-	2	EXISTING CONDITIONS SURVEY
07/14/2023	-	3	DEMOLITION & EROSION CONTROL PLAN
07/14/2023	-	4	SITE PLAN
07/14/2023	-	5	GRADING & DRAINAGE PLAN
07/14/2023	-	6	UTILITY PLAN
07/14/2023	-	7	CONSTRUCTION DETAILS
07/14/2023	-	8	CONSTRUCTION DETAILS
07/14/2023	-	9	CONSTRUCTION DETAILS
07/14/2023	-	10	CONSTRUCTION DETAILS
07/14/2023	-	11	CONSTRUCTION DETAILS
07/13/2023	-	-	APPROVAL NOT REQUIRED PLAN

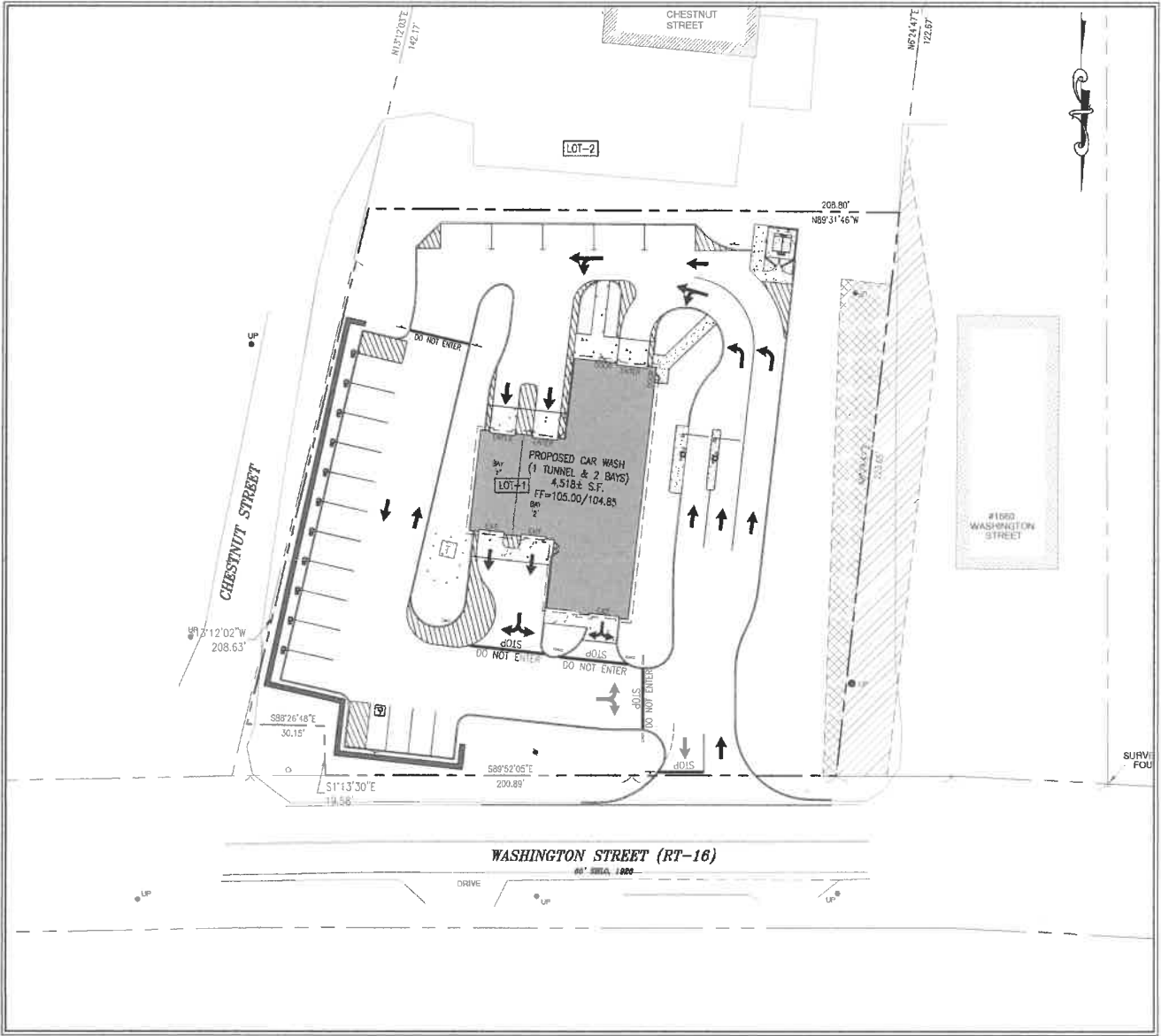
SUBMITTED UNDER SEPARATE COVER

DATE	DATE REVISED	SHEET NUMBER	SHEET DESCRIPTION
06/12/2023	-	1-2	SUBSURFACE SEWERAGE DISPOSAL SYSTEM

PROPERTY:
1650 WASHINGTON STREET (RT-16)
HOLLISTON, MA 01746

ASSESSORS MAP 5, LOT 4-28.1


OWNER OF RECORD:
1650 REALTY TRUST
11 SAWIN STREET
SHERBORN, MA 01770



OVERALL LAYOUT PLAN
SCALE: 1"=30'

NOT FOR CONSTRUCTION

ISSUED:
TOWN OF HOLLISTON

SEAL:

PHILIP R. HENRY, P.E.

SHEET:
COVER SHEET

1

SOIL EROSION AND SEDIMENTATION CONTROL NOTES

1. THIS SITE IS SUBJECT TO THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PROGRAM OF THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY. SITE OPERATORS SHALL CONFORM TO MEET THE CRITERIA FOR A NPDES GENERAL PERMIT FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES.
2. ADAPTATION TO ACTUAL FIELD CONDITIONS MAY WARRANT VARIATIONS FROM WHAT IS SHOWN ON THESE PLANS FOR EROSION CONTROLS IN ORDER TO MAXIMIZE THE EFFECTIVENESS OF THE CONTROLS.
3. THE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTING AND MAINTAINING ALL CONSTRUCTION RELATED CONDITIONS OUTLINED IN THE APPROVALS IN ADDITION TO THE ITEMS OUTLINED IN THESE CONSTRUCTION DOCUMENTS. THE PLANS INCLUDED HEREIN ARE PROVIDED AS A GUIDANCE DOCUMENT TO ASSIST IN THE IMPLEMENTATION OF EROSION/SEDIMENTATION CONTROLS AND STABILIZATION OF THE SITE. ADAPTATION TO ACTUAL FIELD CONDITIONS MAY WARRANT VARIATIONS FROM WHAT IS SHOWN ON THESE PLANS TO MAXIMIZE THE EFFECTIVENESS OF THE CONTROLS.
4. THE CONTRACTOR SHALL ADHERE TO PROCEDURES OUTLINED IN THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IN ACCORDANCE WITH THE EPA NPDES CONSTRUCTION GENERAL PERMIT REQUIREMENTS.
5. IN ACCORDANCE WITH THE NPDES CONSTRUCTION GENERAL PERMIT AND ASSOCIATED STORMWATER POLLUTION PREVENTION PLAN (SWPPP), EROSION CONTROL MEASURES SHALL BE INSPECTED AT LEAST EVERY 14 DAYS AND WITHIN 24 HOURS OF A 0.25" STORM. REPORTS DOCUMENTING THE RESULTS OF EACH INSPECTION AND ANY CORRECTIVE ACTIONS SHALL BE KEPT ON-FILE WITH THE SWPPP.
6. PROPOSED EROSION AND SEDIMENTATION CONTROL MEASURES WILL INCLUDE SILT SOCKS, CRUSHED STONE, RIPRAP, LOAM/SEED, HYDROSEEDING, MULCHING, EROSION CONTROL MATTING, DIVERSION BERMS, AND SEDIMENTATION BASINS AS FURTHER DESCRIBED HEREIN.
7. SILT SOCKS WILL BE USED FOR THE PERIMETER EROSION CONTROL BARRIER AS SHOWN ON THIS PLAN AND ELSEWHERE AS CONDITIONS WARRANT. SILT SOCKS WILL BE USED TO PROTECT OFFLINE CATCH BASINS (PRIOR TO BINDER) AND ELSEWHERE AS CONDITIONS WARRANT. THE CONTRACTOR WILL BE REQUIRED TO KEEP A REASONABLE STOCK OF SILT SOCKS ON SITE TO BE ABLE TO SUPPLEMENT OR MAKE REPAIRS AS NECESSARY.
8. LOAMING AND SEEDING OR HYDROSEEDING WILL BE USED AS A PERMANENT STABILIZATION MEASURE FOR ALL REVEGETATED AREAS OF THE SITE.
9. ALL PROPOSED SLOPES 3:1 AND STEEPER SHALL BE STABILIZED WITH AN EROSION CONTROL MATTING AND SHALL BE HYDROSEEDED.
10. MULCHING MAY BE USED TO REINFORCE SEEDED AREAS WHERE EROSION CONTROL MATTING IS NOT REQUIRED OR WARRANTED, BUT WHERE SOME PROTECTION IS WARRANTED. MULCHING MAY ALSO BE USED TO STABILIZE AREAS WHERE CONSTRUCTION ACTIVITIES WILL TEMPORARILY CEASE FOR MORE THAN 14 DAYS.
11. SEDIMENTATION BASINS SHALL BE USED THROUGHOUT THE SITE TO TREAT RUNOFF. DIVERSION BERMS SHALL BE UTILIZED TO DIVERT UNTREATED STORMWATER TO THE SEDIMENTATION BASINS. SEDIMENTATION BASINS AND DIVERSION BERMS SHALL BE ADDED, REMOVED, AND ADJUSTED AS THE SITE EVOLVES THROUGHOUT THE CONSTRUCTION PROCESS.
12. UPON CONVERTING ANY TEMPORARY SEDIMENTATION BASINS TO PERMANENT DETENTION/INFILTRATION BASINS, THE BASINS SHALL BE CLEANED OF ALL ACCUMULATED SEDIMENT TO ENSURE THAT THE VOLUMETRIC AND INFILTRATION DESIGN CAPACITIES ARE MAINTAINED.
13. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, IN ACCORDANCE WITH THE NPDES CONSTRUCTION GENERAL PERMIT. STABILIZATION MEASURES SHALL BE IMPLEMENTED NOT MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED, UNLESS PRECLUDED BY SNOW COVER OR FROZEN GROUND CONDITIONS IN WHICH CASE STABILIZATION MEASURES MUST BE INITIATED AS SOON AS PRACTICABLE. WHERE CONSTRUCTION ACTIVITY ON A PORTION OF THE SITE IS TEMPORARILY CEASED, AND EARTH DISTURBING ACTIVITIES WILL BE RESUMED WITHIN 14 DAYS, TEMPORARY STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF THE SITE.
14. EROSION AND SEDIMENTATION CONTROLS WILL BE REQUIRED TO BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT TO ENSURE THAT THEY FUNCTION AS INTENDED. DEFICIENCIES WILL BE CORRECTED BY CLEANING, REPAIRING, OR REPLACING THE AFFECTED CONTROLS OR PORTIONS THEREOF TO REESTABLISH PROPER FUNCTIONING AS QUICKLY AS POSSIBLE. SEDIMENTATION CONTROLS WILL BE REQUIRED TO BE CLEANED OR REPLACED WHEN THE ACCUMULATED SEDIMENT EXCEEDS 50 PERCENT OF THE DESIGN CAPACITY OF THE CONTROL. ANY OFF-SITE ACCUMULATIONS OF SEDIMENT WILL BE REQUIRED TO BE REMOVED AS QUICKLY AS POSSIBLE IN A MANNER THAT MINIMIZES ADDITIONAL DISTURBANCE.
15. EROSION CONTROL BARRIER (WHERE SHOWN) REPRESENTS THE LIMIT OF WORK, WHERE NO EROSION CONTROL BARRIER IS REQUIRED (SUCH AS UPSLOPE AREAS), A LIMIT OF WORK LINE HAS BEEN SHOWN. WHERE NO EROSION CONTROL BARRIER IS REQUIRED, THE LIMIT OF WORK SHALL BE DELINEATED IN THE FIELD BY A VISUAL BARRIER SUCH AS TEMPORARY CONSTRUCTION FENCING IN ORDER TO KEEP CONSTRUCTION ACTIVITIES OUT OF THOSE AREAS.
16. THE PROPOSED ONSITE DRAINAGE SYSTEM SHALL BE INSTALLED AS SOON AS PRACTICABLE. ALL EXISTING AND PROPOSED CATCH BASIN INLETS SHALL BE PROTECTED WITH A SILT SACK (SEE DETAIL).
17. DEWATERING OPERATIONS MUST DISCHARGE DIRECTLY INTO A SEDIMENT BASIN OR OTHER SETTLING AREA TO ALLOW FOR SUFFICIENT SETTLING PRIOR TO DISCHARGE.
18. DUST SHALL BE CONTROLLED BY AN APPROVED METHOD ACCORDING TO LOCAL, STATE AND FEDERAL STANDARDS.
19. ADJUTING PROPERTIES SHALL BE PROTECTED FROM EXCAVATION AND FILLING OPERATIONS FROM THIS PROJECT AT ALL TIMES. WORK ON ADJUTING PROPERTY SHALL REQUIRE WRITTEN AUTHORIZATION FROM THE OWNER PRIOR TO ANY LAND DISTURBANCE.
20. THE EROSION CONTROL MEASURES ILLUSTRATED IN THIS PLAN SET SHALL BE THE MINIMUM REQUIRED CONTROLS IMPLEMENTED.
21. STOCKPILING LOCATIONS SHALL BE FIELD DETERMINED AND SHALL NOT LIE WITHIN THE 100-FOOT WETLAND BUFFER. DIVERSION BERMS AND EROSION CONTROL BARRIERS SHALL BE INSTALLED DOWNGRADIENT OF STOCKPILES IN

SITE & DEMOLITION NOTES

1. THE LOCATION AND ELEVATION OF EXISTING UTILITIES AND STRUCTURES SHOWN ON THESE PLANS ARE BASED ON MEASUREMENTS TAKEN IN THE FIELD AND DISCOVERED RECORDS FROM VARIOUS UTILITY COMPANIES AND/OR FROM THE MUNICIPALITY. THIS INFORMATION SHALL NOT BE CONSIDERED EXACT AND THE CONTRACTOR SHALL VERIFY ALL UNDERGROUND UTILITY LOCATIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL NOTIFY "DIG SAFE" (811) AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXISTING UTILITY MARK OUT LOCATIONS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IF EXISTING UTILITIES CONFLICT WITH THE PROPOSED DEVELOPMENT PROGRAM SO THAT A REMEDIAL ACTION CAN TAKE PLACE PRIOR TO ANY WORK. THE CONTRACTOR IS RESPONSIBLE FOR RELOCATING ALL EXISTING UTILITIES AS A RESULT OF THE PROPOSED DEVELOPMENT.
2. EXISTING BASE INFORMATION INCLUDING PROPERTY LINE, STRUCTURES, UTILITIES AND TOPOGRAPHY ARE TAKEN FROM EXISTING CONDITIONS PLAN, PREPARED BY J2M CONSULTING ASSOCIATES, LLC.
3. ELEVATIONS SHOWN ARE BASED ON THE DATUM REFERENCED ON THE EXISTING CONDITIONS PLAN.
4. EXISTING STRUCTURES MAY BE UNDER A DEMO DELAY, THEREFORE, THESE STRUCTURES SHALL NOT BE RAZED ON OR BEFORE THE END OF THE DEMO DELAY DATE.
5. ALL WORK MUST BE INSPECTED PER TOWN REQUIREMENTS. CONTRACTOR SHALL CONTACT THE TOWN BUILDING DEPARTMENT PRIOR TO THE START OF WORK.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING AND MAINTAINING ALL CONSTRUCTION RELATED CONDITIONS OUTLINED IN THE APPROVALS IN ADDITION TO THE ITEMS OUTLINED IN THESE CONSTRUCTION DOCUMENTS.
7. THE LIMIT OF WORK FOR THIS PROJECT SHALL BE SHOWN ON THE PLANS AS SAWHUT LINES. EROSION CONTROL BARRIER LINES, AND/OR LIMIT OF WORK LINES AND SHALL BE MARKED IN THE FIELD PRIOR TO CONSTRUCTION. EXISTING FEATURES OUTSIDE LIMIT OF WORK LINE ARE TO REMAIN UNLESS OTHERWISE SPECIFIED AND THE EXISTING FEATURES WITHIN LIMIT OF WORK LINE SHALL BE REMOVED UNLESS OTHERWISE SPECIFIED.
8. THE CONTRACTOR SHALL ARRANGE A PRE-CONSTRUCTION MEETING WITH THE ENGINEER PRIOR TO THE START OF CONSTRUCTION.
9. ALL DISTURBED OFF-SITE AREAS SHALL BE RESTORED TO PRE-CONSTRUCTION CONDITION.
10. A STABILIZED CONSTRUCTION ENTRANCE SHALL BE INSTALLED PER THE DETAIL WHEREVER CONSTRUCTION ACCESS EXISTS. PAVED AREAS SHALL BE KEPT CLEAN AT ALL TIMES.
11. PEDESTRIAN AND VEHICULAR ACCESS WITHIN THE PUBLIC RIGHT-OF-WAY AND SHARED ACCESS DRIVE SHALL BE KEPT IN GOOD CONDITION THROUGHOUT CONSTRUCTION.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND PAYING FOR ALL PERMITS AND UTILITY CONNECTION/DISCONNECTION FEES RELATED TO THE PROJECT. CONTRACTOR SHALL NOTIFY AND COORDINATE ALL UTILITY WORK WITH THE APPLICABLE UTILITY COMPANIES AND/OR LOCAL DEPARTMENTS. ALL PERMITS SHALL BE KEPT WITHIN THE TRAILER AND CLEARLY VISIBLE.
13. THE OFFSITE DISPOSAL OF ALL DEMOLISHED MATERIALS SHALL COMPLY WITH THE APPLICABLE LOCAL, STATE AND FEDERAL GUIDELINES.
14. FILL MATERIAL(S) SHALL NOT CONTAIN HAZARDOUS MATERIALS.
15. CONSTRUCTION DUMPSTERS SHALL BE LOCATED ON A STABLE SURFACE, PROPERLY MAINTAINED, AND EMPTIED ON A REGULAR BASIS.
16. THE CONTRACTOR IS RESPONSIBLE FOR THE GENERAL UPKEEP OF THE SITE DURING THE CONSTRUCTION PROCESS.
17. ALL WALLS GREATER THAN 4 FEET EXPOSED HEIGHT SHALL BE DESIGNED BY A STRUCTURAL ENGINEER, IF APPLICABLE.
18. CONTRACTOR SHALL PERFORM CONSTRUCTION SEQUENCING SUCH THAT EARTH MATERIALS ARE EXPOSED FOR A MINIMUM AMOUNT OF TIME BEFORE THEY ARE COVERED, SEEDED, OR OTHERWISE STABILIZED TO PREVENT EROSION.
19. REFUELING AND ANY WORK ASSOCIATED WITH THE MAINTENANCE OF CONSTRUCTION EQUIPMENT TO BE PERFORMED IN COMPLIANCE WITH APPLICABLE REGULATIONS.

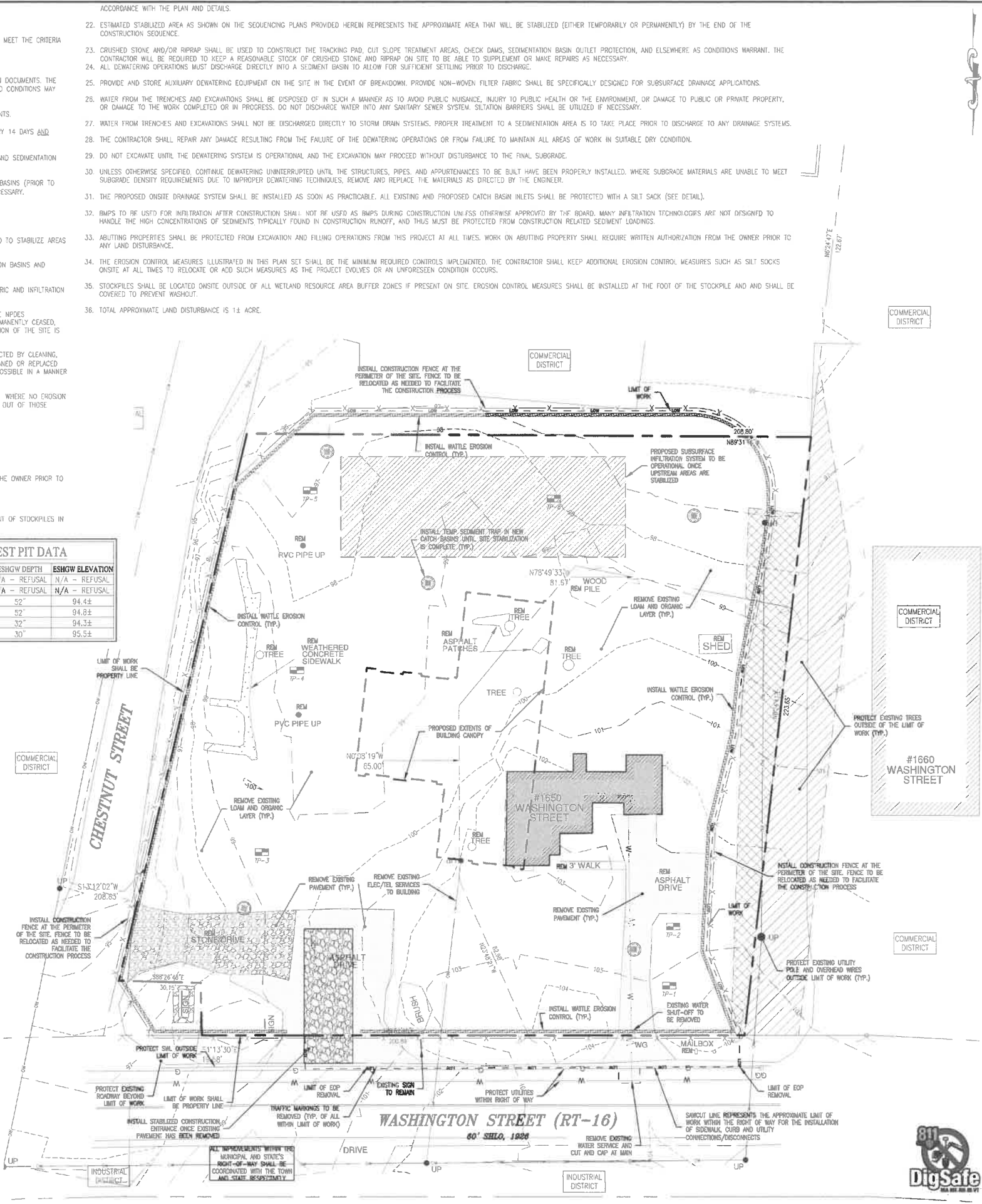
GENERAL ABBREVIATIONS

ASSESSOR'S PARCEL	A.P.
BOTTOM OF CURB	BC
BITUMINOUS CONCRETE CURB	BCC
BITUMINOUS CONCRETE	BIT.
BOTTOM OF WALL	BC
CATCH BASIN	CB
CHAIN LINK FENCE	C.L.F.
CLEANOUT	CO
CONCRETE SURFACE	CONC
DRILL HOLE FOUND	DH (F)
DRAIN MANHOLE	DMH
DOUBLE WALL FIBER GLASS	DWFG
DASHED WHITE LINE	DWL
DOUBLE YELLOW CENTERLINE	DYCL
EDGE OF PAVEMENT	EOP
EXTRUDED CONCRETE CURB	ECC
ELECTRIC HANDHOLE	EHH
FINISHED FLOOR ELEVATION	FF
FRONT YARD	FY
VERTICAL GRANITE CURB	GC
GAS METER	GM
HIGH DENSITY POLYETHYLENE PIPE	HDPE
INVERT ELEVATION	I=
LINEAL FEET	LF
LANDSCAPED AREA	LA
MONOLITHIC CONCRETE CURB	MCC
MATCH EXISTING	ME
INVERT NOT AVAILABLE	N/A
NOW OR FORMERLY ON CENTER	N/O
RIM ELEVATION	R=
ROOF DRAIN	RD
REMOVE	REM
REAR YARD	RY
SEWER FORCE MAIN	SFM
SOLID WHITE EDGE LINE	SWEL
SOLID WHITE LINE	SWL
SIDE YARD	SY
TOP OF CURB	TC
TOP OF WALL	TW
UTILITY POLE	UP
VERTIFIED CLAY	VC
WATER GATE	WG
WATER SHUT-OFF	WSO

LEGEND		DESCRIPTION
EXISTING	PROPOSED	
		PROPERTY LINE
		DRAIN MANHOLE
		CATCH BASIN
		SEWER MANHOLE
		DRAIN PIPE
		GAS LINE
		OVERHEAD WIRES
		WATER LINE
		SEWER LINE
		HYDRANT
		SIGN
		SITE LIGHT
		UTILITY POLE
		INDEX CONTOUR
		MINOR CONTOUR
		TREE LINE
		CONCRETE SIDEWALK
		IRON PIPE/IRON PIN
		EXISTING BUILDINGS & APPURTENANCES TO BE DEMOLISHED
		CONSTRUCTION FENCE
		WATTLES
		PROPOSED BUILDING PAD
		PAVEMENT TO BE RECLAIMED (IF SUITABLE)
		STABILIZED CONSTRUCTION ENTRANCE
		BORING LOCATION

TEST PIT DATA		
TEST PIT	ESHOW DEPTH	ESHOW ELEVATION
TP-1	N/A - REFUSAL	N/A - REFUSAL
TP-2	N/A - REFUSAL	N/A - REFUSAL
TP-3	52"	94.4±
TP-4	52"	94.8±
TP-5	32"	94.3±
TP-6	30"	95.5±

20. THE AREAS OF CONSTRUCTION SHALL REMAIN IN A STABLE CONDITION AT THE CLOSE OF EACH CONSTRUCTION DAY. EROSION CONTROLS SHALL BE CHECKED AT THIS TIME AND MAINTAINED OR REINFORCED IF NECESSARY.
21. CONTRACTOR SHALL COORDINATE THE LOCATION OF STAGING AREAS AND JOB TRAILER WITH THE ENGINEER AND OWNER PRIOR TO MOBILIZATION OF ANY EQUIPMENT ON THE SITE.
22. CONTRACTOR SHALL NOT STOCKPILE OR LOCATE DUMPSTERS WITHIN WETLAND RESOURCE AREA BUFFER ZONES IF PRESENT ON SITE.
23. CONTRACTOR SHALL REMOVE ALL EXCESS MATERIAL, DEBRIS, AND EQUIPMENT AND RESTORE OR REPAIR ANY DAMAGE THAT OCCURS TO THE SITE RESULTING FROM CONSTRUCTION ACTIVITY.
24. DISPOSE OF ANY AND ALL DEMOLISHED BUILDING MATERIALS, STORAGE TANKS, PAVEMENT, BITUMINOUS CURBING, CONCRETE, VEGETATION, SURPLUS MATERIAL, AND SITE RUBBLE OFF-SITE IN ACCORDANCE WITH LOCAL ORDINANCES, THE MASSACHUSETTS WETLAND PROTECTION ACT, CHAPTER 131 SECTION 40, G.L., AND ALL APPLICABLE STATE AND FEDERAL ENVIRONMENTAL REGULATIONS.
25. CONTRACTOR SHALL ADHERE TO APPLICABLE PRE-BLASTING & BLASTING PROTOCOLS, INCLUDING DUST REGULATIONS IF ROCK IS ENCOUNTERED DURING CONSTRUCTION.



NOT FOR CONSTRUCTION

CDG PROJECT #: 23011

REVISIONS:

REV	DATE	COMMENT
1		
2		
3		
4		
5		
6		
7		
8		
9		

SEAL:



PHILIP R. HENRY, P.E.

PLANNING BOARD:

CIVIL ENGINEER:

Civil Design Group, LLC

21 HIGH STREET, SUITE 207
NORTH ANDOVER, MA 01845
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PREPARED FOR:

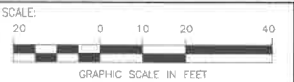
1650 WASHINGTON STREET, LLC

3 MICHAUD DRIVE
FRAMINGHAM, MA 01701

PROJECT:

PROPOSED CAR WASH DEVELOPMENT

1650 WASHINGTON STREET (RT-16)
HOLLISTON, MA 01746



SHEET:

DEMOLITION & EROSION CONTROL PLAN






3

DATE: 07/14/2023

1. ZONING INFORMATION OBTAINED FROM THE TOWN OF HOLLISTON ZONING BYLAW AS AMENDED THROUGH MAY 2022.
2. THE PROJECT SITE INCLUDES ASSESSOR PARCELS 5-4-28.1 AND 5-4-28.2, EACH TOTALING 0.44 ACRES AND 1.34+ ACRES, CORRESPONDING TO 1650 WASHINGTON STREET AND 35 CHESTNUT STREET, RESPECTIVELY.
3. THE PROJECT LIES WITHIN THE COMMERCIAL DISTRICT (C-1) AND DOES NOT APPEAR TO LIE WITHIN AN OVERLAY DISTRICT.
4. MODIFICATIONS TO THIS PLAN MAY OCCUR AS UNFORESEEN CONSTRUCTION AREAS OR CHANGES SHALL BE APPROVED BY THE ENGINEER & MUNICIPALITY.
5. ALTERNATIVE METHODS AND PRODUCTS OTHER THAN THOSE SPECIFIED MAY BE USED IF REVIEWED AND APPROVED BY THE OWNER, SITE ENGINEER, AND APPROPRIATE REGULATORY AGENCY PRIOR TO INSTALLATION.
6. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ALL PRODUCTS, MATERIALS, AND PLANT SPECIFICATIONS TO THE OWNER AND SITE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION OR DELIVERY TO THE SITE. ALLOW A MINIMUM OF 14 WORKING DAYS FOR REVIEW.
7. THE CONTRACTOR SHALL PROVIDE AS-BUILT RECORDS OF ALL CONSTRUCTION (INCLUDING UNDERGROUND UTILITIES) TO THE OWNER AT THE END OF THE CONSTRUCTION.
8. THE SITE DOES NOT APPEAR TO INCLUDE A NHESP AREA, AN ACEC OR A WETLAND RESOURCE AREA.
9. THE PROPERTY IS LOCATED WITHIN THE RATE X FLOOD ZONE, AS SHOWN ON THE FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 25019506372 WHICH BEARS AN EFFECTIVE DATE OF JUNE 4, 2010.

ZONING DISTRICT : COMMERCIAL DISTRICT (C-1)		
REGULATION	REQUIRED	PROPOSED
MIN. LOT AREA	15,000 SF	48,972 SF±
MIN. LOT FRONTAGE	80'	200'
MIN. LOT DEPTH	120'	233'±
MIN. FY SETBACK	10'	60.3'±
MIN. SY SETBACK	15'	61.5'±
MIN. RY SETBACK	20'	56.9'±
MAX. BUILDING HEIGHT	3 STORIES/40'	<40'
MAX. FLOOR AREA RATIO	0.5	0.09±
MAX. BUILDING COVERAGE	50%	9%±

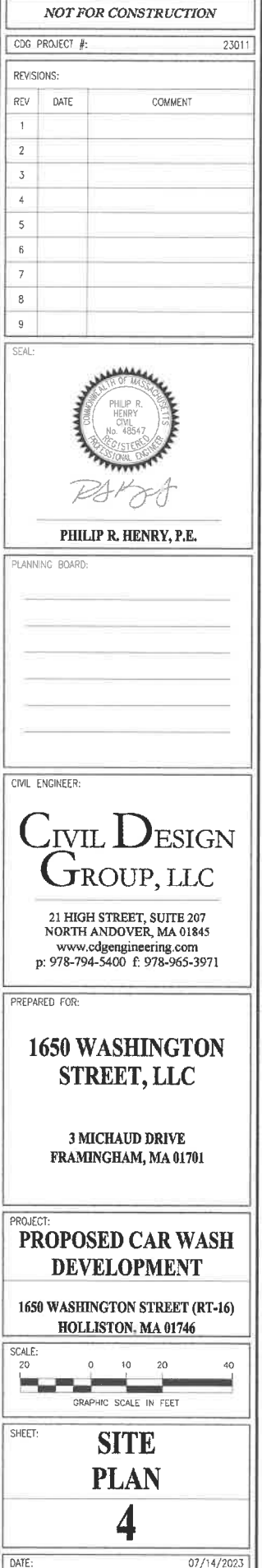
USE	REQUIRED	PROVIDED
PARKING: CAR WASH: SECTION III. D. 6 - PERSONAL SERVICE ESTABLISHMENT	SECTION V.C.1 - OTHER USES: NUMBER OF SPACES TO BE DETERMINED BY PLANNING BOARD (ASSUME 5 EMPL.)	9 SPACES

MUTCD REFERENCE	SIGN
R1-1 30"x30"	
R7-8 12"x18"	
R7-8c 12"x6"	
R5-1 24"x24"	
R6-1L 8"x24"	

1. THE FINISH OUTLINE SHOWN ON THIS PLAN DEPICTS THE FINISH TO BUILDING EXTENTS OF THE BUILDING. CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR FOUNDATION PLANS FOR THE PURPOSE OF STAKING OUT THE BUILDING. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT BUILDING DIMENSIONS AND FEATURES INCLUDING UTILITY METERS, BOLLARDS, DOORS, PLASTERS, RAMPS, ETC.
2. BUILDING SIDEWALK DIMENSIONS ARE MEASURED FROM EXTERIOR FINISH MATERIAL OF STRUCTURE.
3. ALL LIMITS OF PAVEMENT SHALL BE CURBED, UNLESS OTHERWISE NOTED.
4. ALL ONSITE CURB SHALL BE BITUMINOUS CONCRETE UNLESS OTHERWISE SPECIFIED.
5. PARALLEL PARKING SPACE DIMENSIONS AS SHOWN ON THE PLAN ARE 10' WIDE X 20' LONG. PERPENDICULAR VACUUM SPACE DIMENSIONS AS SHOWN ON THE PLAN ARE 12' WIDE X 18' LONG.
6. ALL PAVEMENT MARKINGS SHALL BE ACCOMPLISHED WITH USE OF PAINTING MACHINES AND/OR STENCILS. ALL PAINT FOR PAVEMENT MARKING SHALL MEET THE REQUIREMENTS OF SOLVENTBORNE APPLICATION RECOMMENDED FOR LATEX PAINT BY BENJAMIN MOORE #D58 LOW VOC. PARKING SLAT AND ISLAND STRIPING SHALL BE A 4" WIDE AND SHALL BE STRAIGHT WITH A CURB LINE AND ALL TRAFFIC ARROWS, STOP BARs, ETC. SHALL CONFORM WITH MUTCD.
7. PAVEMENT LETTERS SHALL BE 2' WIDE X 2' LONG.
8. STOP BARs SHALL BE 12" WIDE AND SOLID LINES SHALL BE 4" IN WIDTH (SEE SITE PLAN FOR LENGTH & COLOR).
9. ACCESSIBLE PARKING SPACES SHALL CONFORM TO THE LATEST EDITION OF THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (ADA) AND THE ARCHITECTURAL ACCESS BOARD (AAB) AS SHOWN ON THE SITE LAYOUT PLAN.
10. ACCESSIBLE PARKING AISLE STRIPING SHALL CONSIST OF 4" SOLID LINES OF LATEX TRAFFIC PAINT BY BENJAMIN MOORE #D58 LOW VOC BLUE COLOR ORIENTED AT A 45 DEGREE ANGLE AND SPACED 3' ON CENTER.
11. DIRECTIONAL AND ACCESSIBLE SIGNS SHALL CONFORM TO THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) FOR COLOR AND SIZE.
12. ALL PLAT WORK WITHIN THE RIGHT OF WAY SHALL CONFORM TO MUNICIPAL/STATE STANDARDS.
13. REPLACEMENT PAVEMENT AS A RESULT OF UTILITY AND DRAINAGE TRENCHING WITHIN THE RIGHT-OF-WAY SHALL MATCH EXISTING PAVEMENT THICKNESS.
14. SNOW SHALL NOT BE STORED IN ANY LANDSCAPED AREAS, EXCEPT FOR DESIGNATED SNOW STORAGE AREAS, AND SHALL NOT BE STORED IN ANY MANICURED AREAS. THE CLEARING OF SNOW MUST COMMENCE WHEN STOCKPILED SNOW EITHER IMPEDES THE SIDEWALK OR PARKING SPACE ACCESS AT WHICH TIME THE APPLICANT WOULD BE EXPECTED TO REMOVE THE SNOW WITHIN 24 HOURS.
15. SITE LIGHTS ARE TO BE INSTALLED PER DETAIL. CONTRACTOR SHALL NOTIFY THE ENGINEER IF THIS DISTANCE CANNOT BE ACHIEVED. SEE DETAIL FOR SITE LIGHT POLE BASE DETAILS AND SPECIFICATIONS.

ASSESSORS PARCEL	A.P.
BOTTOM OF CURB	B.C.
BUTTIMOUS CONCRETE CURB	BCC
BUTTIMOUS CONCRETE	BT CONC
BOTTOM OF WALL	BW
CATCH BASIN	CB
CAPE COD BERM	CCB
CHAIN LINK FENCE	CL.F.
CLEAN	CL
CONCRETE SURFACE	CONC
DRAIN MANHOLE	DMH
DOUBLE WALL FIBER GLASS	DWF
DASHED WHITE LINE	DWL
DOUBLE YELLOW CENTERLINE	DYCL
EDGE OF CONCRETE	EC
EDGE OF PAVEMENT	EOP
EXTRUDED CONCRETE CURB	ECG
FINISHED FLOOR ELEVATION	FF
FRONT YARD	FY
VERTICAL GRANITE CURB	VC
SLOPED GRANITE CURB	SGC
GAS METER	GM
HIGH DENSITY	HD
POLYETHYLENE PIPE	PE
INVERT ELEVATION	INVERT
LINEAL FEET	LF
LANDSCAPED AREA	LA
MONOLITHIC CONCRETE CURBS	MCC
MATCH EXISTING	MCE
INVERT NOT AVAILABLE	N/A
NOW OR FORMERLY	N/O
ON CENTER	OC
PRECAST CONCRETE CURB	PCC
RIM ELEVATION	RCE
ROOF DRAIN	RD
REMOVE	REM
REAR YARD	RY
SOLID WHITE EDGE LINE	SWEL
SOLID WHITE LINE	SWL
SIDE YARD	SY
SOLID YELLOW LINE	SYL
TOP OF CURB	TC
TOP OF WALL	TW
UTILITY POLE	UP

LEGEND		
EXISTING	PROPOSED	DESCRIPTION
		PROPERTY LINE
		BUILDING SETBACK/ BUFFER
		PARKING SPACES
	6	
	2' R	
		ACCESSIBLE PAVEMENT MARKINGS
		RAMP UPSLOPE: DIRECTION
		SIGN
		LIGHT
		UTILITY POLE
		WOODEN GUIDE RAIL
		PAINTED ARROW
		DIRECTIONAL ARROW
		CONCRETE PAD/SIDEWALK
		ACCESSIBLE RAMP
		IRON PIPE/IRON PIN



GRADING & DRAINAGE NOTES

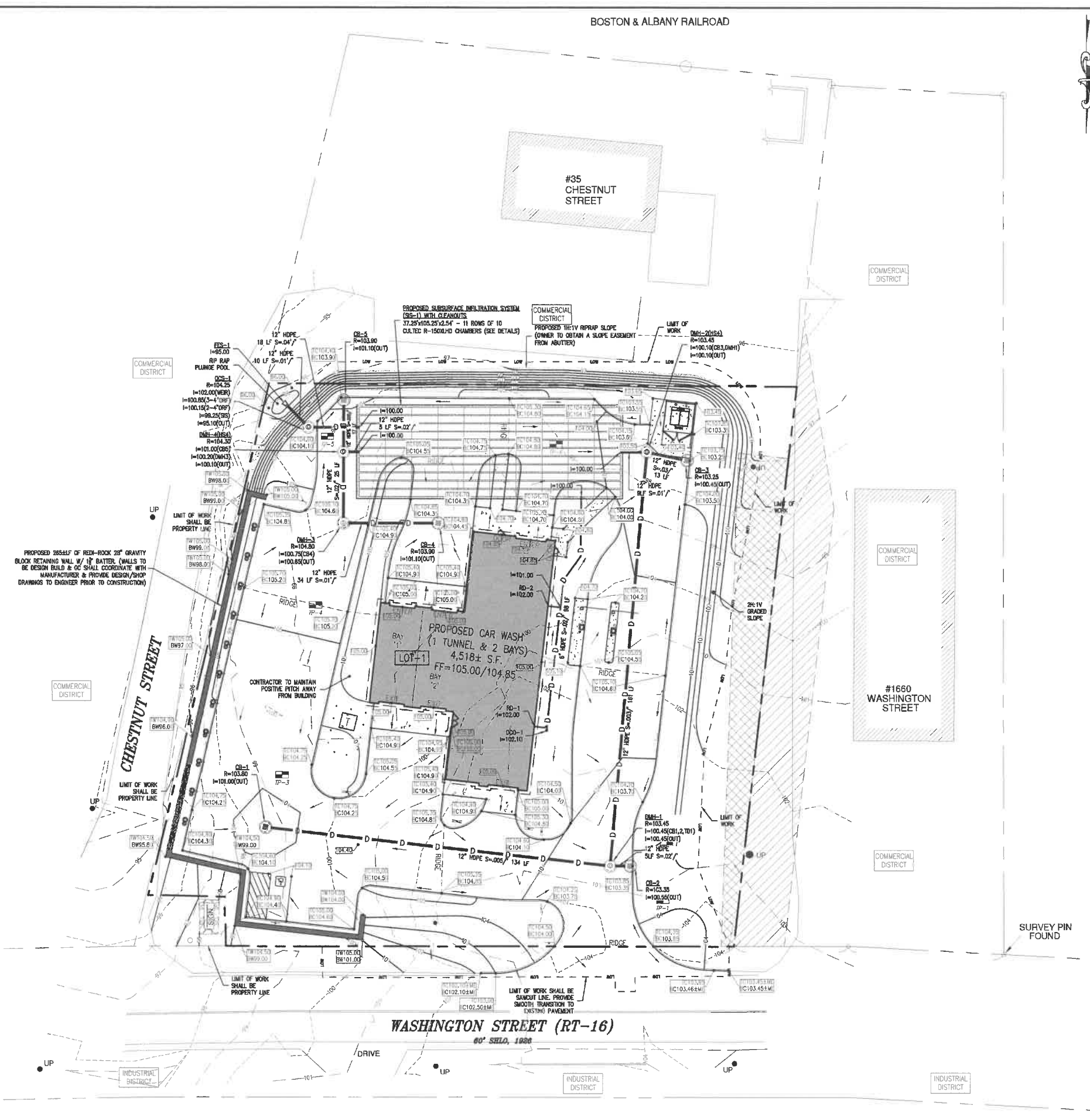
1. THE ELEVATIONS SHOWN ON THIS PLAN ARE BASED ON THE DATUM REFERENCE ON THE EXISTING CONDITIONS PLAN.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING ALL CONTROL POINTS AND ELEVATION BENCHMARKS THROUGHOUT CONSTRUCTION.
3. EXTERIOR ELEVATIONS ALONG EACH BUILDING SIDE MAY VARY IN ORDER TO ACHIEVE GRADE IN CERTAIN AREAS. CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE AWAY FROM THE PROPOSED BUILDING.
4. NEW SIDEWALKS SHALL HAVE A MAXIMUM CROSS SLOPE OF 2.0% AND A MAXIMUM RUNNING SLOPE OF 5.0% UNLESS AN ADA COMPLIANT RAMP IS PROVIDED. RAMPS SHALL NOT EXCEED AN 8.0% RUNNING SLOPE AND SHALL NOT EXCEED A 6" RISE UNLESS A HANDRAIL IS PROVIDED. FURTHERMORE, ACCESSIBLE PARKING SPACES AND PROXIMATE ACCESS AISLES SHALL BE SLOPED AT A MAXIMUM OF 2.0% IN ALL DIRECTIONS. SHOULD ANY DISCREPANCIES WITH THESE REQUIREMENTS ARISE DURING CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY SO THAT AN ACCEPTABLE SOLUTION CAN BE DETERMINED.
5. CONTRACTOR SHALL NOTIFY ENGINEER IF THE ILLUSTRATED GRADES CANNOT BE ACHIEVED WITHIN ACCESSIBLE AREAS, INCLUDING PARKING SPACES, ROUTES AND RAMPS.
6. UNLESS OTHERWISE SPECIFIED, THE CONTRACTOR SHALL PROVIDE AS-BUILT RECORDS OF ALL CONSTRUCTION (INCLUDING UNDERGROUND UTILITIES) TO THE OWNER AT THE END OF THE CONSTRUCTION.
7. CURB SHALL TRANSITION FROM FLUSH TO FULL DEPTH REVEAL WITHIN 6 FEET.
8. PROPOSED BOTTOM OF CURB ELEVATIONS ALONG EXISTING STREETS ARE BASED ON EXISTING CONDITIONS INFORMATION AND SHALL BE CONSIDERED APPROXIMATE. CONTRACTOR SHALL MATCH EXISTING EDGE OF PAVEMENT GRADE.
9. EXISTING DRAINAGE AND UTILITY RIM ELEVATIONS LOCATED WITHIN THE LIMIT OF WORK TO REMAIN SHALL BE ADJUSTED BY THE CONTRACTOR TO MATCH NEW FINISHED GRADE.
10. ALL FLAT WORK WITHIN THE RIGHT OF WAY SHALL CONFORM TO MUNICIPAL/STATE STANDARDS.
11. EXISTING TREES OUTSIDE OF THE LIMIT OF WORK SHALL BE PROTECTED DURING CONSTRUCTION.
12. ALL DISTURBED AREAS OUTSIDE OF THE LIMIT OF WORK SHALL BE RESTORED IN KIND.
13. NEW DRAINAGE PIPE SHALL BE DUAL WALL CORRUGATED HDPE (ADS N-12 OR APPROVED EQUAL), UNLESS OTHERWISE SPECIFIED.
14. ROOF DRAIN LEADERS SHALL BE 6" HDPE PIPE, UNLESS OTHERWISE SPECIFIED.
15. ELEVATION OF LANDSCAPED AREAS ARE GIVEN AT PLANTED/SOD GRADE.
16. THE AREA BELOW THE SUBSURFACE INFILTRATION AREA SHALL BE LEFT UNCOMPACTED.
17. ANY DISTURBED AREAS THAT WILL NOT BE STABILIZED BY PAVEMENT OR BUILDING BASE COURSES SHALL BE SODDED OR SEEDED & MULCHED. MULCHING SHALL BE USED TO STABILIZE DISTURBED AREAS.
18. ALL BACK FILL SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER. BACK FILL SHALL BE NON-PLASTIC IN NATURE, FREE FROM ROOTS, VEGETATIVE MATTER, WASTE, CONSTRUCTION MATERIALS, OR OTHER OBJECTIONABLE MATERIAL. BACK FILL MATERIALS SHALL BE CAPABLE OF BEING COMPACTED BY MECHANICAL MEANS AND THE MATERIAL SHALL HAVE NO TENDENCY TO FLOW OR BEHAVE IN A PLASTIC MANNER UNDER TAMPING BLOWS OR PROOF ROLLING. ALL BACK FILL MATERIAL SHALL BE PLACED IN LOOSE 6-IN. LIFTS AND COMPACTED BY MECHANICAL MEANS, AS SPECIFIED BY THE GEOTECHNICAL ENGINEER.
19. ALL BUILDINGS, SIDEWALK, AND PAVEMENT SUB-GRADES SHALL BE COMPACTED TO 98% OF ASTM D698 TO A DEPTH OF 12-IN. AND TO 95% OF ASTM D698 BELOW 12-IN DEPTHS. ALL OTHER NON-STRUCTURAL AREAS SHALL BE COMPACTED TO 90% OF ASTM D698.
20. PROPOSED CATCH BASINS SHALL INCLUDE ELIMINATOR HOODS AS SPECIFIED IN THE DETAILS.
21. PROVIDE A SMOOTH, FLUSH TRANSITION BETWEEN ALL NEW AND EXISTING PAVEMENTS.

GENERAL ABBREVIATIONS

ASSESSOR'S PARCEL	A.P.
BOTTOM OF CURB	BC
BITUMINOUS CONCRETE CURB	BCC
BITUMINOUS CONCRETE	BIT. CONC.
BOTTOM OF WALL	BW
CATCH BASIN	CB
CHAIN LINK FENCE	CL.F.
DRAINAGE CLEANOUT	DOO
CONCRETE SURFACE	CONC
DRILL HOLE FOUND	DH (F)
DRAIN MANHOLE	DWH
DOUBLE WALL FIBER GLASS	DWFG
DASHED WHITE LINE	DWL
DOUBLE YELLOW CENTERLINE	DYCL
EDGE OF PAVEMENT	EOP
EXTRUDED CONCRETE CURB	ECC
ELECTRIC HANDHOLE	EHH
FINISHED FLOOR ELEVATION	FF
FRONT YARD	FY
VERTICAL GRANITE CURB	CC
GAS METER	GM
HIGH DENSITY POLYETHYLENE PIPE	HDPE
INDEX CONTOUR	IN
MINOR CONTOUR	LF
TOP/BOTTOM CURB ELEVATION	LA
LANDSCAPED AREA	MCC
MONOLITHIC CONCRETE CURB	ME
MATCH EXISTING	N/A
INVERT NOT AVAILABLE	N/A
NOW OR FORMERLY	N/F
ON CENTER	OC
RIM ELEVATION	RM
ROOF DRAIN	RD
REMOVE	REM
REAR YARD	RY
SEWER FORCE MAIN	SFM
SOLID WHITE EDGE LINE	SWEL
SOLID WHITE LINE	SWL
SIDE YARD	SY
TOP OF CURB	TC
TOP OF WALL	TW
UTILITY POLE	UP
VETRIFIED CLAY	VC
WATER GATE	WG
WATER SHUT-OFF	WSO

LEGEND

EXISTING	PROPOSED	DESCRIPTION
		PROPERTY LINE
		DRAIN MANHOLE
		CATCH BASIN
		DRAIN PIPE
		INDEX CONTOUR
		MINOR CONTOUR
		TOP/BOTTOM CURB ELEVATION
		SPOT ELEVATION
		ACCESSIBLE PAVEMENT
		MARKINGS
		RAMP UPSLOPE DIRECTION
		LIGHT
		UTILITY POLE
		CONCRETE SIDEWALK/PAD
		BIT. CONC. SIDEWALK
		IRON PIPE/IRON PIN



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PREPARED FOR:

1650 WASHINGTON STREET, LLC

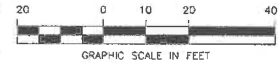
3 MICHAUD DRIVE
FRAMINGHAM, MA 01701

PROJECT:

PROPOSED CAR WASH DEVELOPMENT

1650 WASHINGTON STREET (RT-16)
HOLLISTON, MA 01746

SCALE:



SHEET:

GRADING & DRAINAGE PLAN

5

DATE: 07/14/2023

UTILITY NOTES

1. ALL WATER SERVICES SHALL BE INSTALLED WITH A MINIMUM 5' AND A MAXIMUM OF 6' OF COVER EXCEPT AS NOTED OR DETAILED OTHERWISE. GREATER DEPTHS ARE PERMITTED WHERE REQUIRED TO AVOID CONFLICTS WITH OTHER UTILITIES.
2. ALL WATER SERVICE INSTALLATION METHODS AND TESTING REQUIREMENTS SHALL MEET OR EXCEED ALL LOCAL MUNICIPAL REQUIREMENTS.
3. WATER, ELECTRICAL, TELEPHONE AND GAS MAINS DEPICTED IN THE RIGHT OF WAY ARE BASED ON RECORD DRAWINGS. CONTRACTOR SHALL VERIFY SIZE AND LOCATION OF ALL UTILITIES PRIOR TO CONNECTION.
4. PROPOSED GAS SERVICE LOCATION IS APPROXIMATE ONLY. THE CONTRACTOR SHALL CONFIRM WITH THE GAS COMPANY THAT GAS LINE INSTALLATION SHALL BE BY THE LOCAL GAS COMPANY. THE CONTRACTOR SHALL GIVE THE GAS COMPANY ADVANCE NOTICE OF WHEN THE GAS LINE CAN BE INSTALLED. THE CONTRACTOR IS RESPONSIBLE FOR ALL EXCAVATION, BACKFILL AND COMPACTION FOR THE GAS LINE.
5. DUE TO THE SCALE OF THE SITEWORK DRAWINGS, THE EXACT LOCATION OF UTILITY SERVICES TO THE BUILDING SHALL BE VERIFIED WITH THE BUILDING DRAWINGS.
6. ALL UTILITIES, PIPE MATERIALS, STRUCTURES, AND INSTALLATION METHODS SHALL CONFORM TO MUNICIPALITY STANDARDS AND REQUIREMENTS.
7. SUITABLE, TEMPORARY PLUGS SHALL BE INSTALLED IN THE OPEN ENDS OF UTILITY SERVICES TO THE BUILDING PRIOR TO BACKFILLING. STUB LOCATIONS SHALL BE MARKED IN THE FIELD SO THAT THEY MAY BE EASILY LOCATED.
8. WATER SERVICES TO BE CUT & CAPPED AT MAIN AND SERVICE LINES SHALL BE ABANDONED IN PLACE, UNLESS OTHERWISE SPECIFIED.
9. GAS SERVICES TO BE CUT & CAPPED AT PROPERTY LINE AND ABANDONED IN PLACE, UNLESS OTHERWISE SPECIFIED.
10. WATER SERVICE CONNECTIONS SHALL BE INSPECTED BY THE MUNICIPAL WATER & SEWER DEPARTMENT.
11. ALL SITE DRAINAGE, WATER, AND SEWER WORK OUTSIDE THE BUILDING FOOTPRINT SHALL BE PERFORMED BY A LICENSED DRAIN LAYER.
12. EXISTING DRAINAGE AND UTILITY RIM ELEVATIONS LOCATED WITHIN THE LIMIT OF WORK TO REMAIN SHALL BE ADJUSTED BY THE CONTRACTOR TO MATCH NEW FINISHED GRADE.
13. CONTRACTOR TO FIELD VERIFY DEPTH OF EXISTING UTILITIES ALONG THE PATH OF THE PROPOSED UTILITY CONNECTIONS AND NOTIFY ENGINEER IMMEDIATELY IF A CONFLICT EXISTS.
14. EXCAVATION, CONDUIT INSTALLATION AND BACKFILLING FOR ELECTRICAL AND TELEPHONE SERVICES TO BE PERFORMED BY SITE CONTRACTOR.
15. ALL UTILITIES ARE TO BE LOCATED UNDERGROUND UNLESS OTHERWISE NOTED.
16. WASTEWATER FROM THE PROJECT WILL BE DIRECTED VIA GRAVITY SEWER PIPES TO INDIVIDUAL LOT SEWAGE DISPOSAL SYSTEMS. THE SEWAGE DISPOSAL SYSTEMS WILL BE DESIGNED/FINALIZED UNDER SEPARATE COVER.
17. SEWER SHALL NOT BE PLACED WITHIN 10' (HORIZONTALLY) OF A WATER LINE AND THE SEWER MUST BE 18" BELOW THE WATER LINE AT NECESSARY CROSSINGS.
18. THE ONSITE SEPTIC SYSTEMS HAVE BEEN DESIGNED BY OTHERS UNDER SEPARATE COVER. CONTRACTOR SHALL REFER TO THE SEPTIC DESIGN PLANS FOR ADDITIONAL INFORMATION AND DETAILS.
19. THE CONTRACTOR, ON BEHALF OF THE DEVELOPER, SHALL SUBMIT UTILITY AS-BUILT PLANS IN PAPER AND PDF FORMAT INCLUDING SWING TIES FOR SEWER AND WATER TO THE TOWN ENGINEERING DEPARTMENT.
20. THE CONTRACTOR SHALL COORDINATE ALL PROPOSED GAS, ELECTRIC, TELEPHONE, AND CABLE UTILITY WORK WITH THE RESPECTIVE UTILITY COMPANIES. THE PROPOSED CONNECTION LOCATIONS AND DETAILS PROVIDED HEREIN ARE FOR REPRESENTATION PURPOSES ONLY. FINAL CONNECTION POINTS AND DETAILS SHALL BE AS DETERMINED AND REQUIRED BY THE UTILITY COMPANIES.
21. TRANSFORMERS AND ASSOCIATED PROTECTIVE BOLLARDS SHALL BE PAINTED YELLOW, UNLESS OTHERWISE SPECIFIED BY THE OWNER OR UTILITY COMPANY.
22. GUY WIRES SHALL BE INSTALLED AS REQUIRED/DESIGNED BY THE UTILITY COMPANY.

CAR WASH EXTERIOR STRUCTURE INFORMATION

STRUCTURE	RIM ELEVATION	INVERT ELEVATION
RECLAIM TANK #1	104.45±	100.20(2"4"6"IN), 99.70(6"OUT)
RECLAIM TANK #2	104.60±	99.70(6"IN)x2, 99.70(6"OUT)x2
RECLAIM TANK #3	104.90±	99.70(6"IN)x2, 100.70(10"OUT), 99.45(6"OUT)
WATER TANK #1	104.50±	99.15(2"IN), 92.00(6"EO)
WATER TANK #2	104.75±	99.15(6"IN), 92.00(6"EO)



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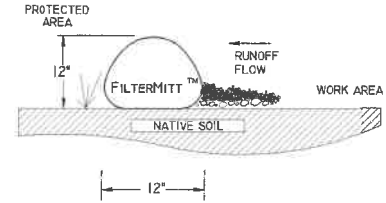


SHEET:

UTILITY PLAN

6

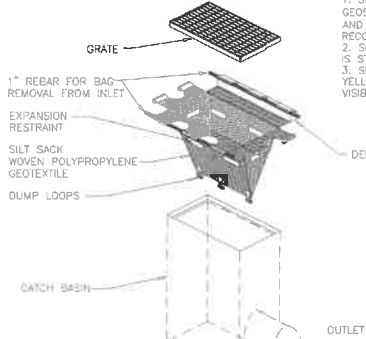
DATE: 07/14/2023



- NOTES:
1. WATTLES SHALL BE FILTERMITT, SILTBOX, OR APPROVED EQUAL.
 2. WATTLES SHALL BE A MINIMUM OF 12" AND SHALL BE BIODEGRADABLE.
 3. WATTLES SHALL NOT CONSIST OF STRAW.
 4. WATTLES SHALL BE INSPECTED REGULARLY.

TYPICAL WATTLE DETAIL

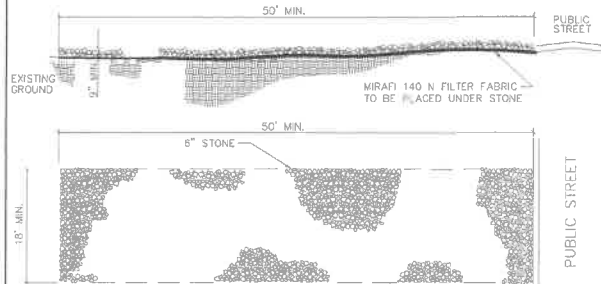
NOT TO SCALE



- NOTES:
1. SILT SACK MANUFACTURED BY SI GEOSOLUTION (800-621-0444); INSTALL AND REMOVE PER MANUFACTURER'S RECOMMENDATIONS.
 2. SILT SACK TO BE REMOVED WHEN SITE IS STABILIZED.
 3. SILT SACK SHALL BE EMPTIED WHEN YELLOW RESTRAINT CORD IS NO LONGER VISIBLE.

TYPICAL SILT SACK DETAIL

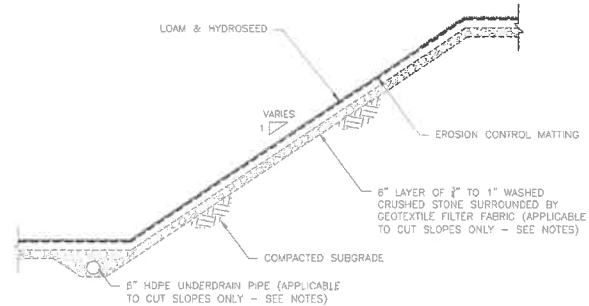
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- NOTES:
1. A STABILIZED CONSTRUCTION ENTRANCE COMPRISED OF 6" CRUSHED STONE SHALL BE LOCATED WHERE CONSTRUCTION RELATED VEHICLES WILL ACCESS THE CONSTRUCTION SITE ONTO A PUBLIC STREET.
 2. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC STREETS OR ADJACENT LAND. ADDITIONAL STONE SHALL BE ADDED AS CONDITIONS WARRANT.
 3. ANY SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC STREETS SHALL BE REMOVED IMMEDIATELY.
 4. WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTERING A PUBLIC STREET, IF APPLICABLE. WHEEL WASHING SHALL BE DONE IN AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS TO A DESIGNATED SEDIMENT TRAP.

TYPICAL STABILIZED CONSTRUCTION ENTRANCE DETAIL

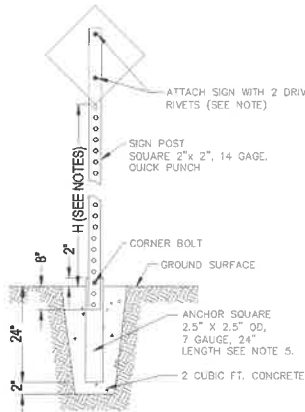
NOT TO SCALE



- NOTES:
1. THIS DETAIL APPLIES TO ALL SLOPES 3H:1V AND STEEPER.
 2. STONE LAYER AND ASSOCIATED UNDERDRAIN ONLY APPLY WHERE SLOPE IS IN A CUT (NOT APPLICABLE TO FILL SLOPES).

TYPICAL SLOPE STABILIZATION DETAIL

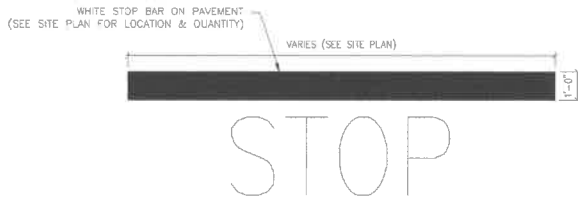
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- NOTES:
1. TYPICAL HEIGHT (H) SHALL BE 7'-0", EXCEPT FOR ACCESSIBLE PARKING SIGNAGE, WHICH SHALL HAVE A HEIGHT AS SPECIFIED IN THE APPLICABLE DETAIL.
 2. METAL POSTS SHALL BE QUICK PUNCH POST.
 3. FOR IN-SIDEWALK INSTALLATIONS, CORE 4" DIA. HOLE, ANCHOR LENGTH MAY BE DECREASED TO 12".
 4. POST SHALL BE GALVANIZED ROLLED CARBON SHEET STEEL, ASTM A570 GRADE 50 AND SHALL HAVE 7/16" DIE-PUNCHED KNOCKOUTS ON 1" CENTERS FULL LENGTH, FOUR SIDES. ANCHOR SHALL HAVE 4 7/16" HOLES ONE EACH SIDE 2" FROM TOP END. FINISH SHALL BE ZINC HOT DIPPED GALVANIZED MATERIAL TO MEET ASTM A500 GRADE B.
 5. DRIVE RIVETS TO BE "L3806 3/8" DIA.
 6. CORNER BOLTS TO BE "L3806 3/8" DIA.
 7. CORNER BOLTS TO BE "L3806 3/8" DIA.
 8. SIGNS SHALL BE MOUNTED 7" FROM BOTTOM OF SIGN TO GROUND SURFACE AND 6" FROM THE BOTTOM OF THE LOWER SIGN FOR MULTIPLE SIGNS ON A SINGLE POST, UNLESS OTHERWISE SPECIFIED.

TYPICAL SIGN POST DETAIL

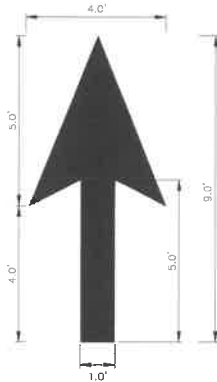
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- NOTE:
1. ALL PAVEMENT STRIPING AND MARKINGS SHALL CONSIST OF CHLORINATED RUBBER PAINT APPLIED TO A DRY SURFACE WHEN THE TEMPERATURE IS GREATER THAN 40°F. PAINT SHALL BE APPLIED AT A MINIMUM OF 0.015" (15 MIL) FILM THICKNESS.

TYPICAL PAINTED STOP BAR

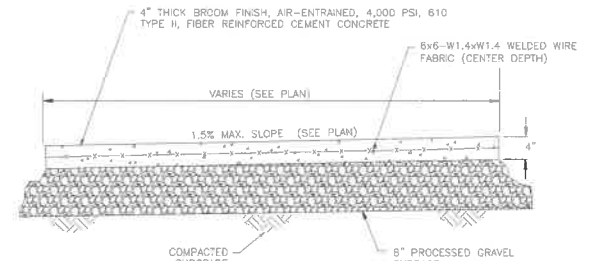
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- NOTES:
1. SEE PLAN FOR ARROW LOCATIONS.
 2. ARROWS TO BE PAINTED WHITE UNLESS OTHERWISE NOTED.
 3. ARROW SIZE MAY BE REDUCED UP TO 33% FOR LOW-SPEED URBAN AREAS.

TYPICAL PAINTED ARROW DETAIL

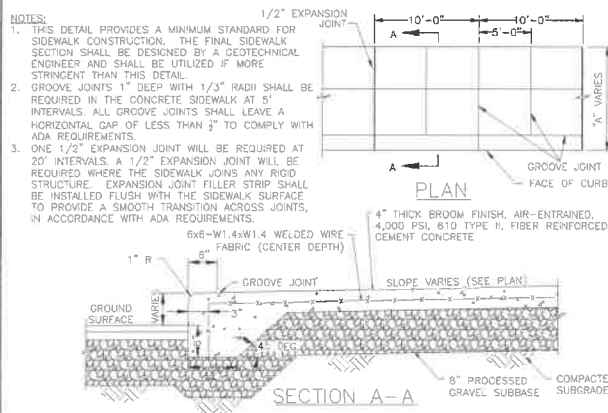
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- NOTES:
1. THIS DETAIL PROVIDES A MINIMUM STANDARD FOR SIDEWALK CONSTRUCTION. THE FINAL SIDEWALK SECTION SHALL BE DESIGNED BY A GEOTECHNICAL ENGINEER AND SHALL BE UTILIZED IF MORE STRINGENT THAN THIS DETAIL.
 2. GROOVE JOINTS 1" DEEP WITH 1/3" RADI SHALL BE REQUIRED IN THE CONCRETE SIDEWALK AT 5' INTERVALS. ALL GROOVE JOINTS SHALL LEAVE A HORIZONTAL GAP OF LESS THAN 1/2" TO COMPLY WITH ADA REQUIREMENTS.
 3. ONE 1/2" EXPANSION JOINT WILL BE REQUIRED AT 40' INTERVALS. A 1/2" EXPANSION JOINT WILL BE REQUIRED WHERE THE SIDEWALK JOINS ANY RIGID STRUCTURE. EXPANSION JOINT FILLER STRIP SHALL BE INSTALLED FLUSH WITH THE SIDEWALK SURFACE TO PROVIDE A SMOOTH TRANSITION ACROSS JOINTS, IN ACCORDANCE WITH ADA REQUIREMENTS.
 4. FLAT WORK WITHIN THE MUNICIPAL RIGHT OF WAY SHALL BE CONSTRUCTED IN CONFORMANCE WITH MUNICIPAL STANDARD SPECIFICATIONS.

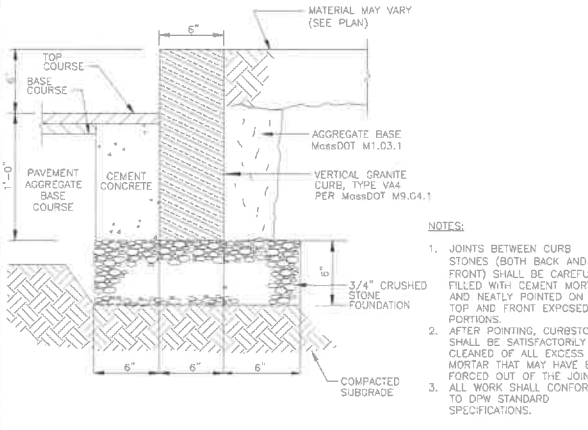
TYPICAL CONCRETE SIDEWALK DETAIL

NOT TO SCALE



TYPICAL MONOLITHIC CURB AND SIDEWALK DETAIL

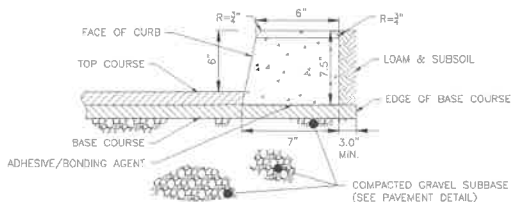
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- NOTES:
1. JOINTS BETWEEN CURB STONES (BOTH BACK AND FRONT) SHALL BE CAREFULLY FILLED WITH CEMENT MORTAR AND NEATLY POINTED ON THE TOP AND FRONT EXPOSED PORTIONS.
 2. AFTER POINTING, CURBSTONES SHALL BE SATISFACTORILY CLEANED OF ALL EXCESS MORTAR THAT MAY HAVE BEEN FORCED OUT OF THE JOINTS.
 3. ALL WORK SHALL CONFORM TO DPW STANDARD SPECIFICATIONS.

TYPICAL VERTICAL GRANITE CURB DETAIL

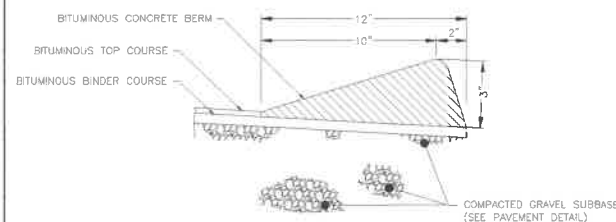
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- NOTE:
1. THE CONCRETE SHALL BE A MIXTURE OF APPROXIMATELY 65% STATE APPROVED CONCRETE SAND, 20% 3/8" STONE, AND 15% CEMENT. CONCRETE SHALL CONTAIN ONE (1) LB. OF FIBER MESH PER CUBIC YARD AND HAVE COMPRESSIVE STRENGTH OF 4,000 PSI AFTER 28 DAYS. THE CONCRETE SHALL MEET OR EXCEED ASTM C94 STANDARD SPECIFICATION FOR READY MIX CONCRETE.
 2. THE ASPHALT PAVEMENT SHALL BE CLEANED BY SCRAPING OR WASHING TO REMOVE ALL DUST, OIL AND LOOSE MATERIAL PRIOR TO APPLYING A TWO COMPONENT EPOXY OR SUITABLE CONCRETE ADHESIVE DESIGNED TO BOND FRESH CONCRETE TO EXISTING PAVEMENT SHALL BE USED.
 3. CONTROL JOINTS SHALL BE INSTALLED AT NINE FOOT INTERVALS (OR AS RECOMMENDED BY THE MANUFACTURER/INSTALLER) AND AT ALL RADIUS POINTS TO MINIMIZE CRACKING.
 4. THE FINISHED CURBING SHALL BE COATED WITH A CURING COMPOUND DESIGNED TO SEAL THE SURFACE AND FORM A WATERPROOF MEMBRANE TO RETARD THE LOSS OF WATER FROM THE FRESH CONCRETE. THE MANUFACTURER'S INSTRUCTIONS SHALL BE FOLLOWED.

TYPICAL EXTRUDED CURB DETAIL

NOT TO SCALE



- NOTES:
1. REFER TO LAYOUT PLANS FOR LOCATIONS OF VARIOUS CURB TYPES.

TYPICAL MONOLITHIC CAPE COD BERM DETAIL

NOT TO SCALE

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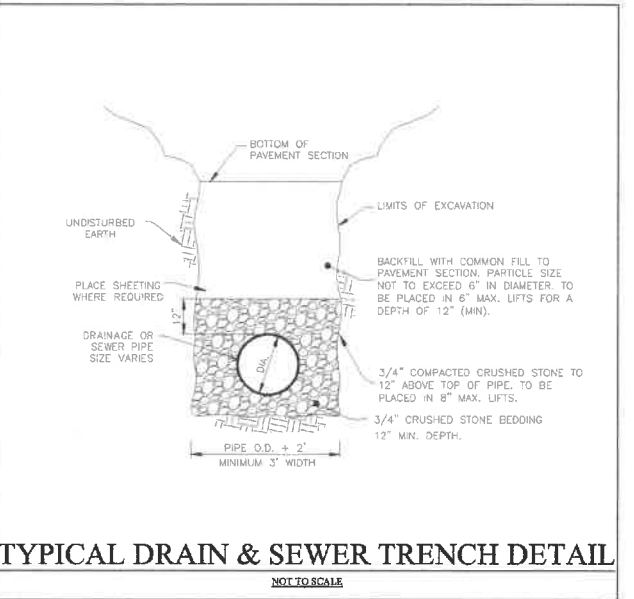
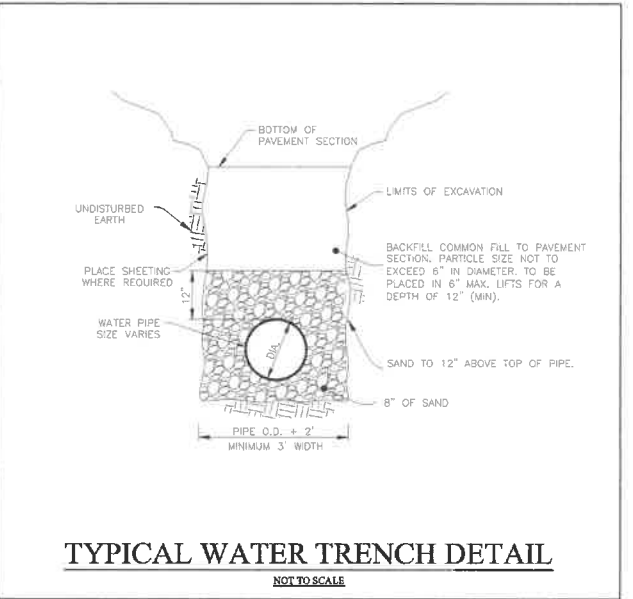
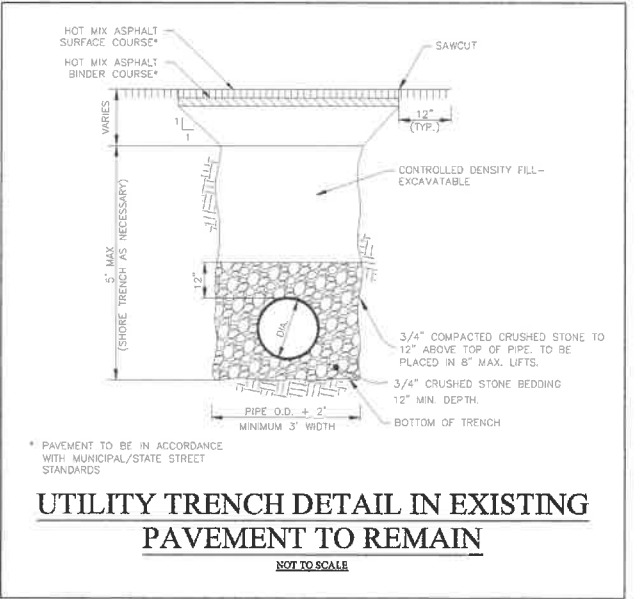
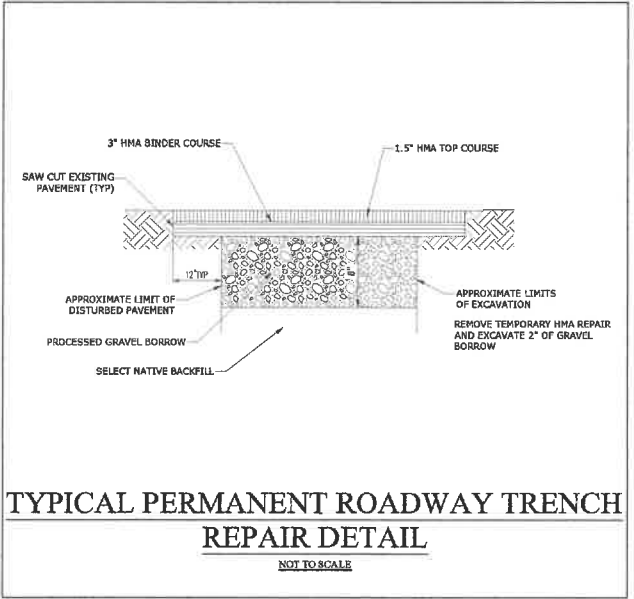
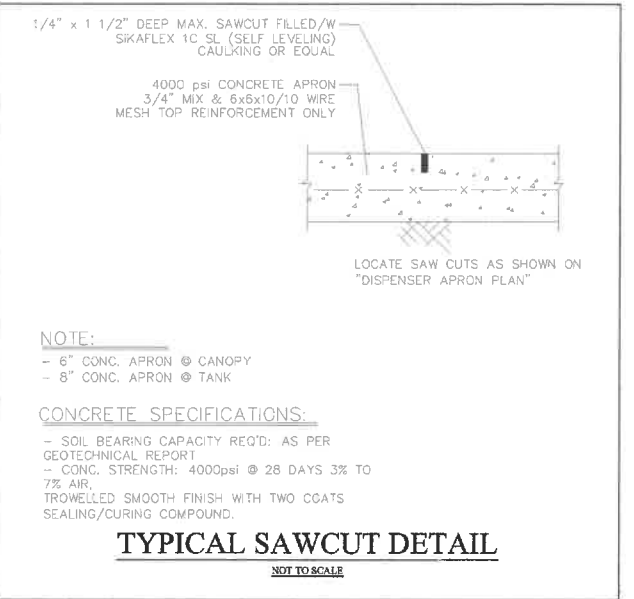
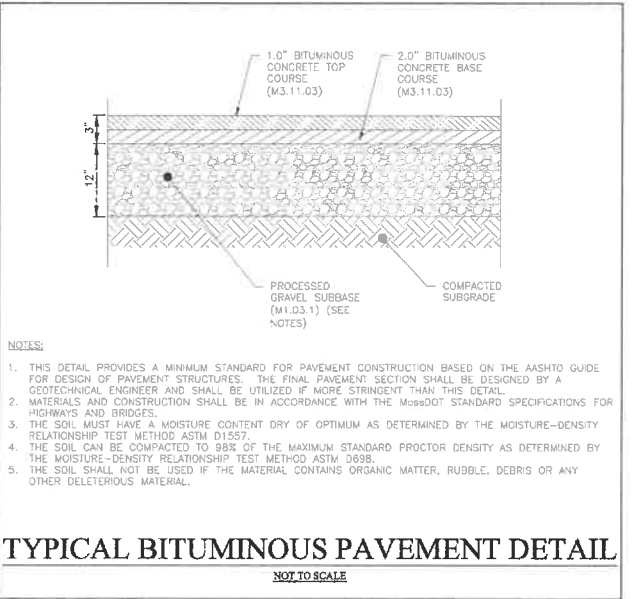
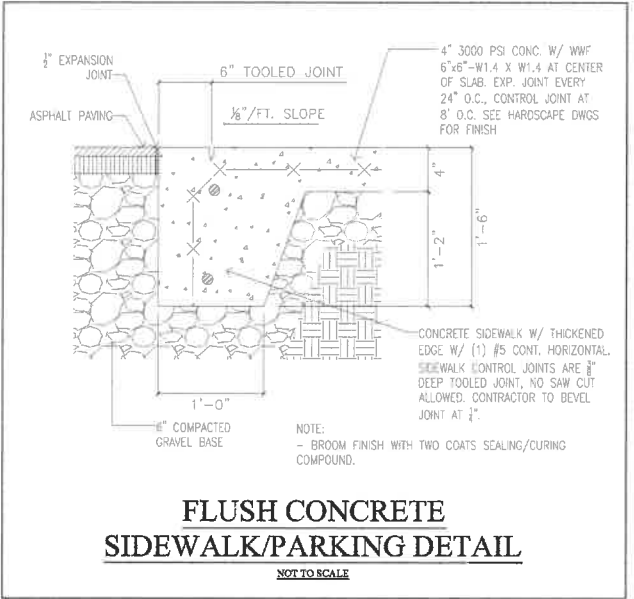
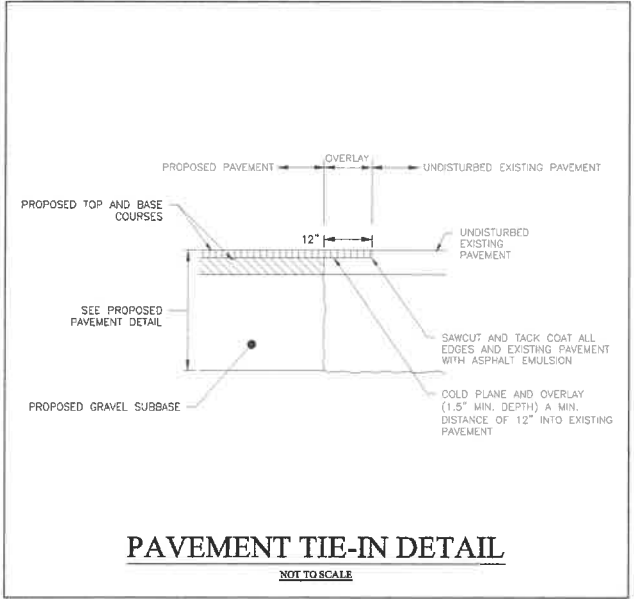
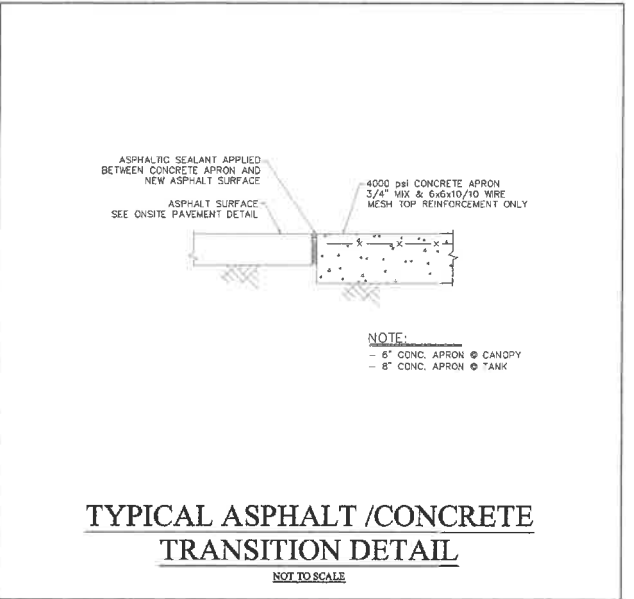
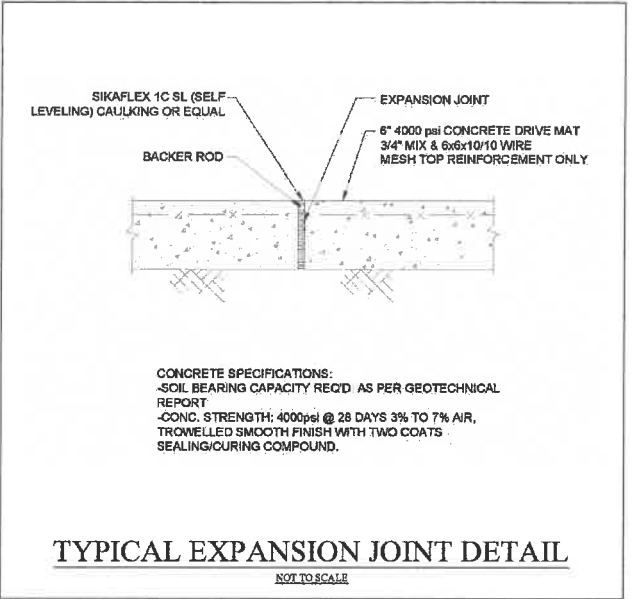
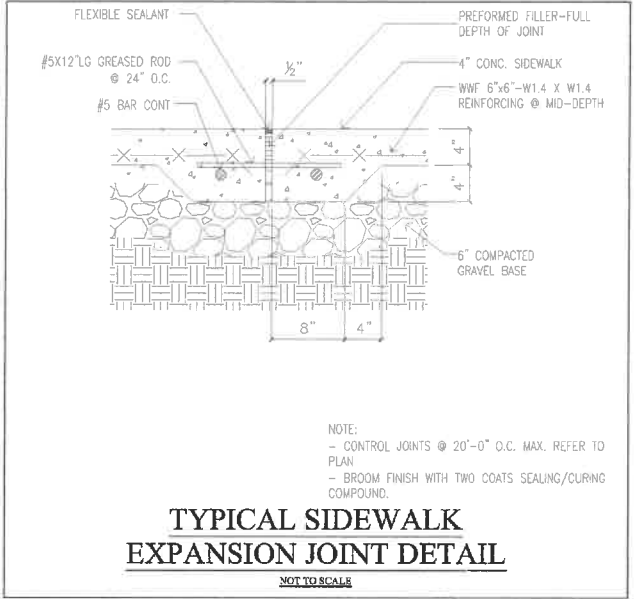
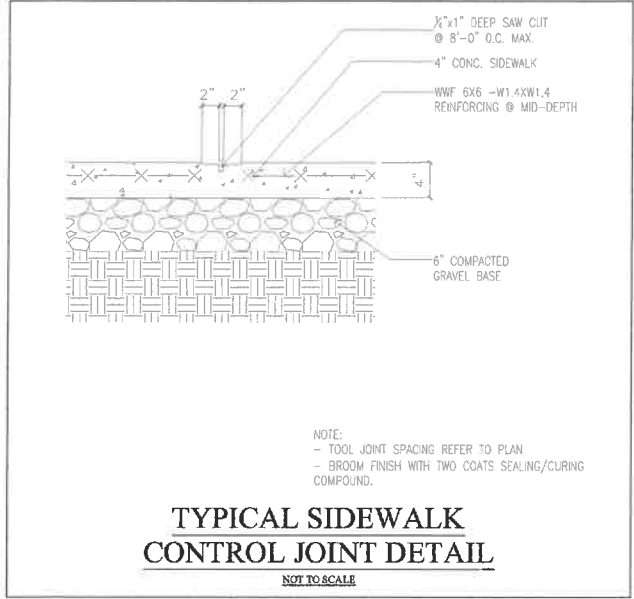
AS NOTED

SHEET:

CONSTRUCTION DETAILS

7

DATE: 07/14/2023




NOT FOR CONSTRUCTION

CDG PROJECT #: 23011

REVISIONS:

REV	DATE	COMMENT
1		
2		
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SEAL:



PHILIP R. HENRY, P.E.

PLANNING BOARD:

CIVIL ENGINEER:

CIVIL DESIGN GROUP, LLC

21 HIGH STREET, SUITE 207
NORTH ANDOVER, MA 01845
www.cdengineering.com
p: 978-794-5400 f: 978-965-3971

PREPARED FOR:

1650 WASHINGTON STREET, LLC

3 MICHAUD DRIVE
FRAMINGHAM, MA 01701

PROJECT:

PROPOSED CAR WASH DEVELOPMENT

1650 WASHINGTON STREET (RT-16)
HOLLISTON, MA 01746

SCALE:

AS NOTED

SHEET:

CONSTRUCTION DETAILS

8

DATE: 07/14/2023

NOT FOR CONSTRUCTION

CDG PROJECT #: 23011

REVISIONS:

REV	DATE	COMMENT
1		
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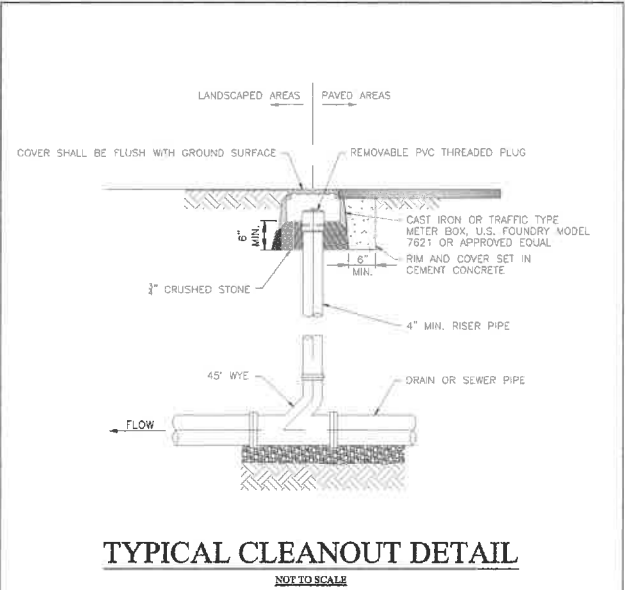
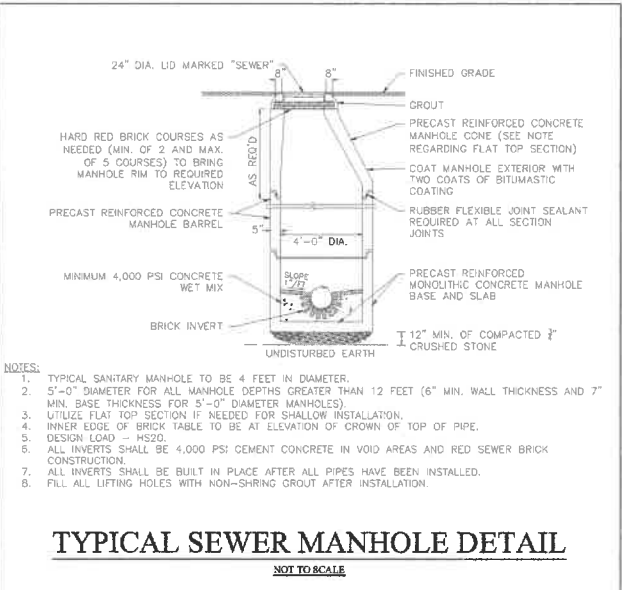
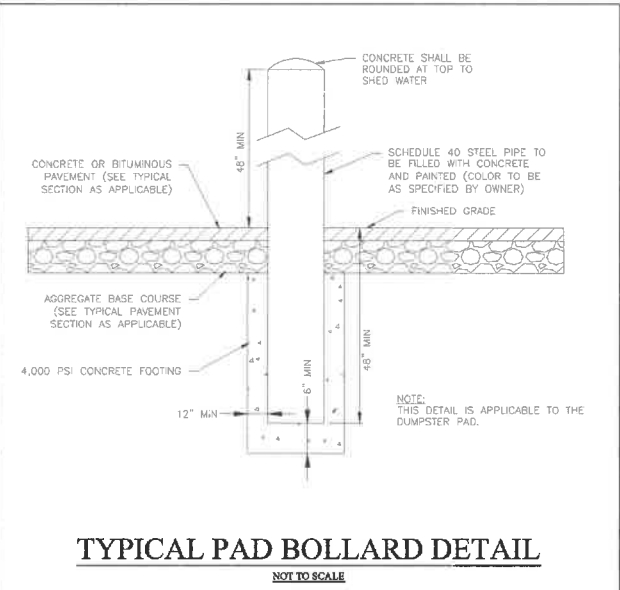
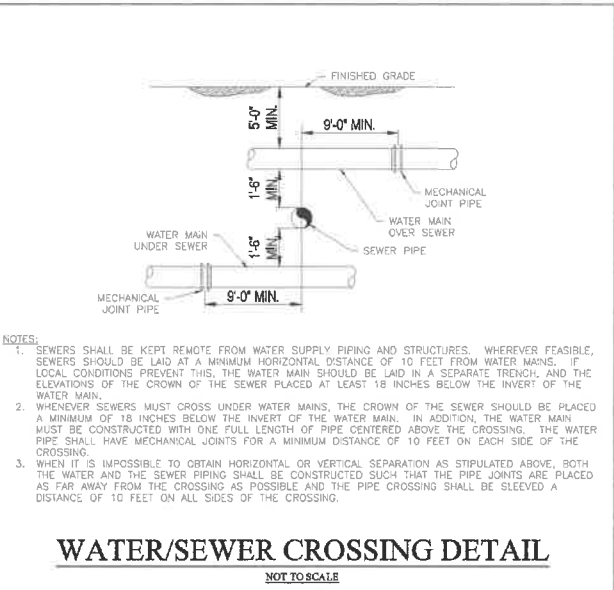
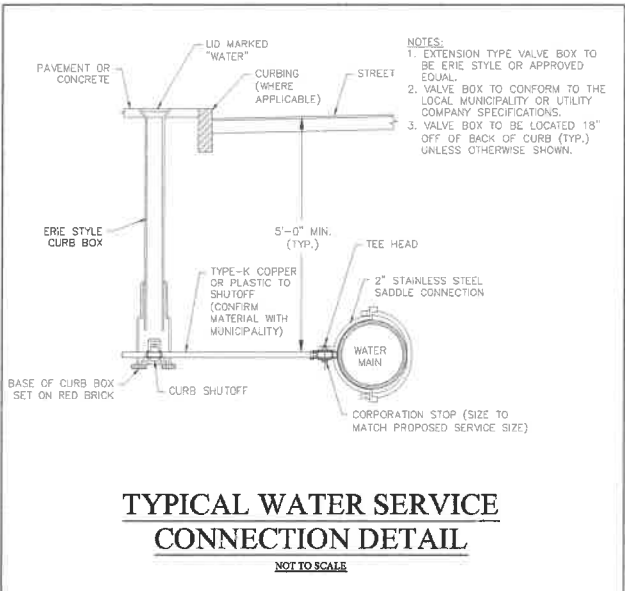
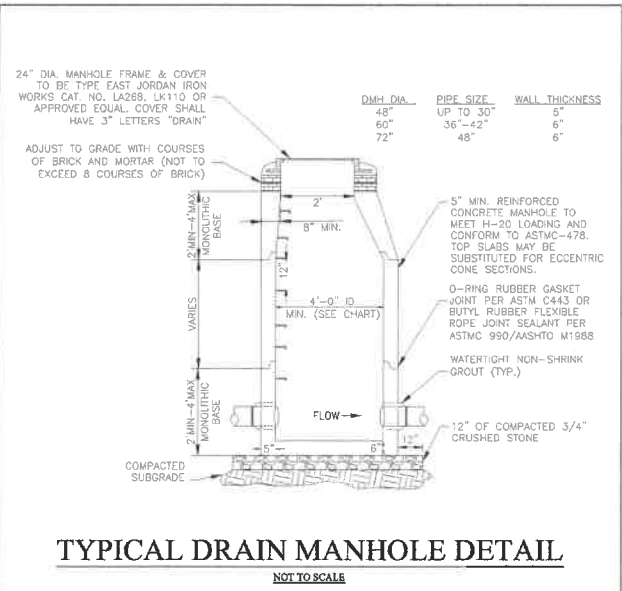
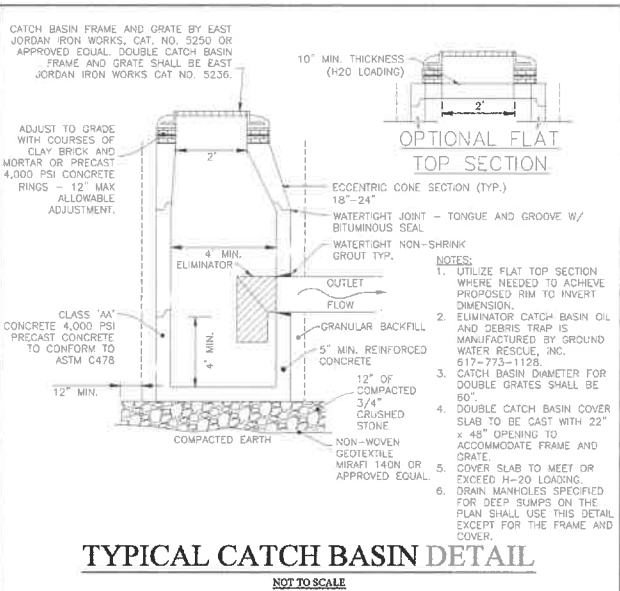
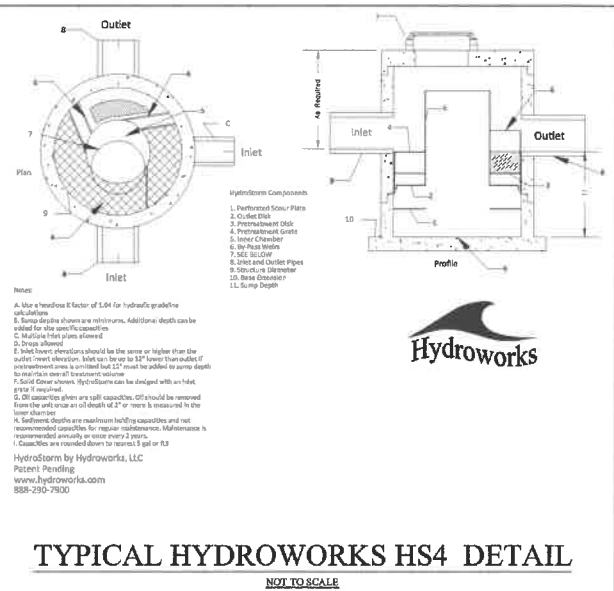
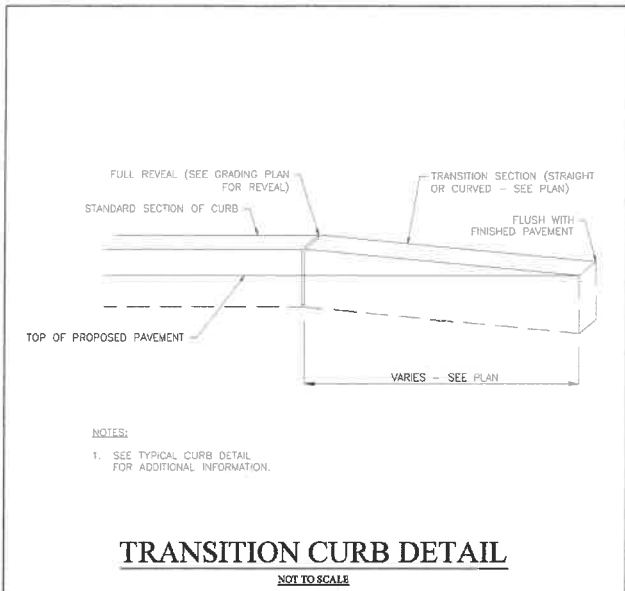
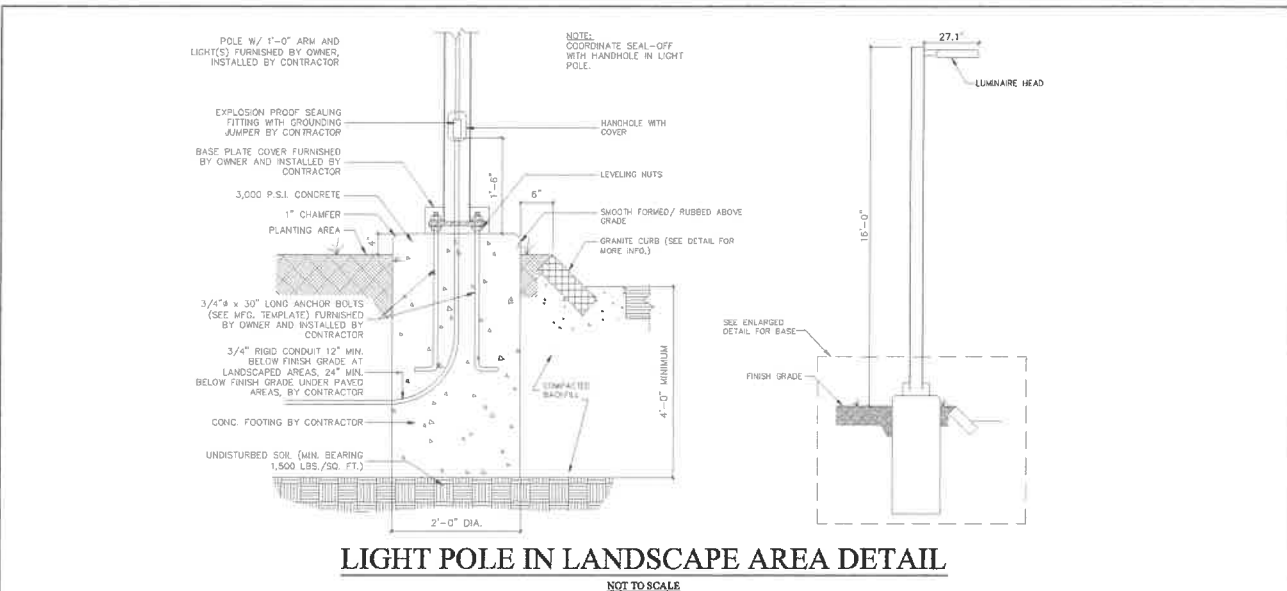
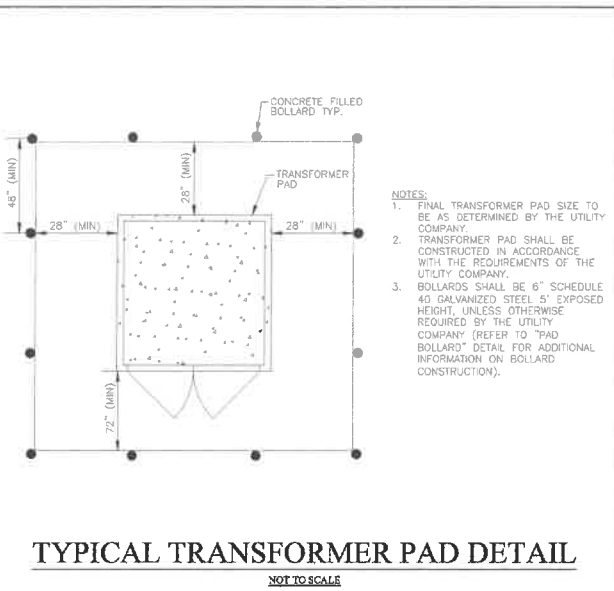
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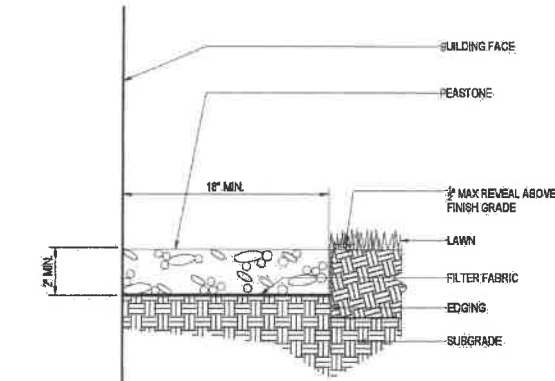
SHEET:

CONSTRUCTION DETAILS

9

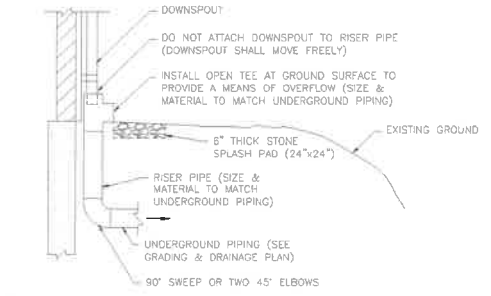
DATE: 07/14/2023





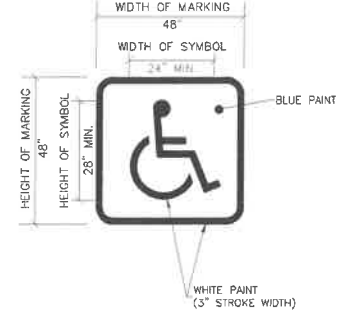
PEASTONE FOUNDATION STRIP DETAIL

NOT TO SCALE



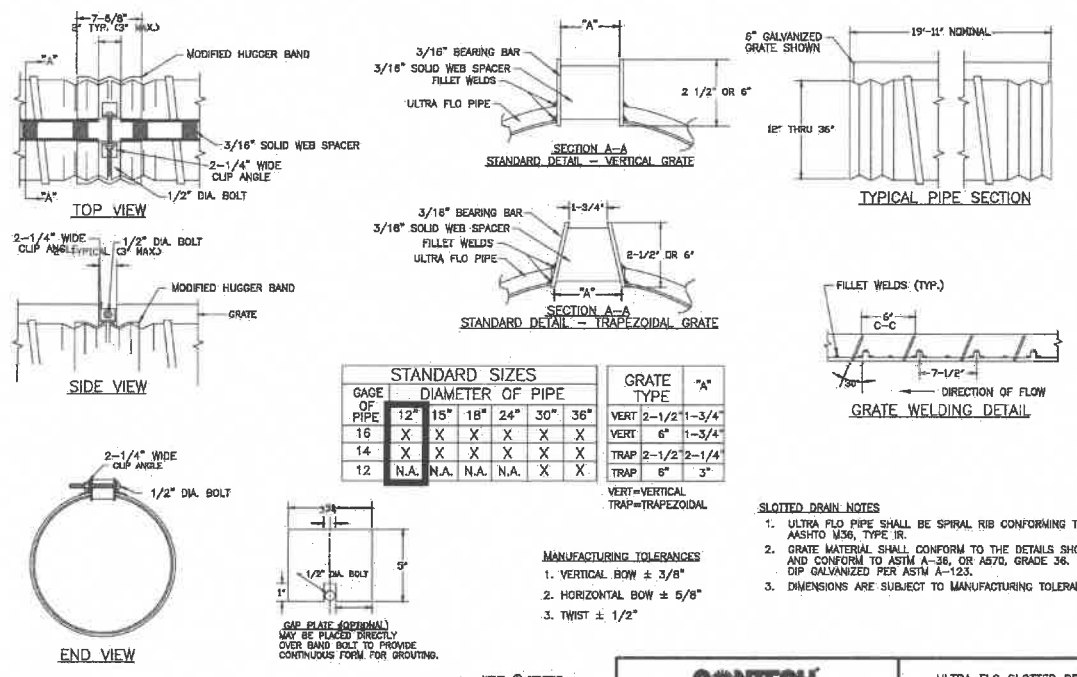
GUTTER DOWNSPOUT DETAIL

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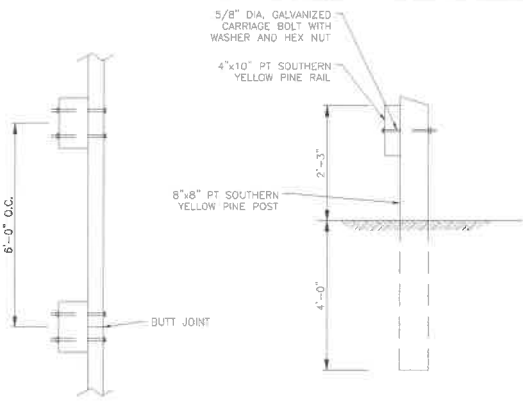
TYPICAL ACCESSIBLE PARKING SPACE MARKING DETAIL

NOT TO SCALE



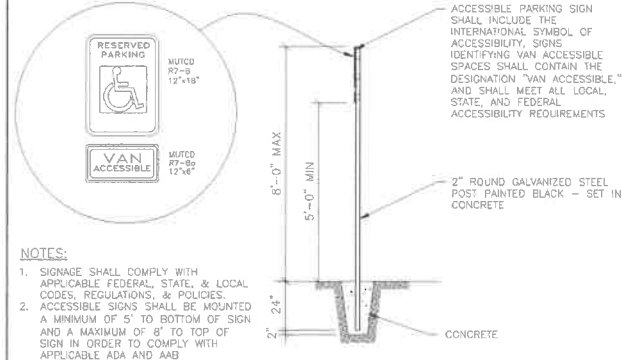
12" DIAMETER TRENCH DRAIN DETAIL

NOT TO SCALE



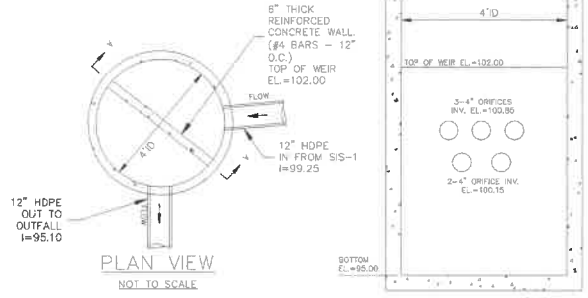
WOODEN GUIDE RAIL DETAIL

NOT TO SCALE



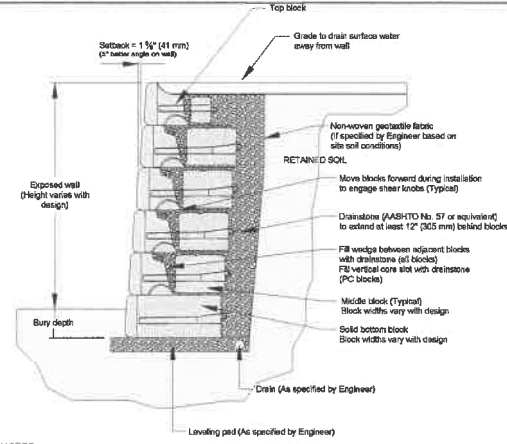
ACCESSIBLE PARKING SIGNAGE DETAIL

NOT TO SCALE



OUTLET CONTROL STRUCTURE (OCS-1) DETAIL

NOT TO SCALE



TYPICAL GRAVITY WALL DETAIL

NOT TO SCALE

NOT FOR CONSTRUCTION

CDG PROJECT #: 23011

REVISIONS:		
REV	DATE	COMMENT
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SEAL:

PHILIP R. HENRY, P.E.

PLANNING BOARD:

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FRAMINGHAM, MA 01701

PROJECT:

PROPOSED CAR WASH DEVELOPMENT

1650 WASHINGTON STREET (RT-16)
HOLLISTON, MA 01746

SCALE:

AS NOTED

SHEET:

CONSTRUCTION DETAILS

10

DATE: 07/14/2023

ZONING CHART

		LOT AREA	FRONTAGE	LOT DEPTH	SETBACKS			STORIES	BUILDING HEIGHT	LOT COVERAGE	FAR
REQUIRED		15,000 SF	80 LF	120 LF	10' MIN	15' MIN	20' MIN	3 MAX	40' MAX	50%	.5 MAX
EXISTING	LOT A	17,624 SF	80'	159.82'	63.19'	17.19'	63.92'	2	<40'	8%	
	LOT B	58,526 SF	371.82'	209.80'	71.16'	32.26'	62.91'	1	<40'	4%	
PROPOSED	LOT A1	48,971 SF	200.89'	229.81'	63.19'	39.85'	63.92'	2	<40'	3%	
	LOT B1	27,182 SF	371.82'	209.80'	71.16'	32.26'	62.91'	1	<40'	8%	

ENDORSEMENT OF THIS PLAN DOES NOT ASSURE COMPLIANCE WITH THE TOWN OF HOLLISTON ZONING BY-LAWS



ZONING REQUIREMENTS
 ZONED COMMERCIAL DISTRICT
 MIN LOT AREA 15000 SF
 MIN FRONTAGE 80 FT
 MIN LOT DEPTH 120 FT
 MIN LOT COVERAGE STRUCT 50%

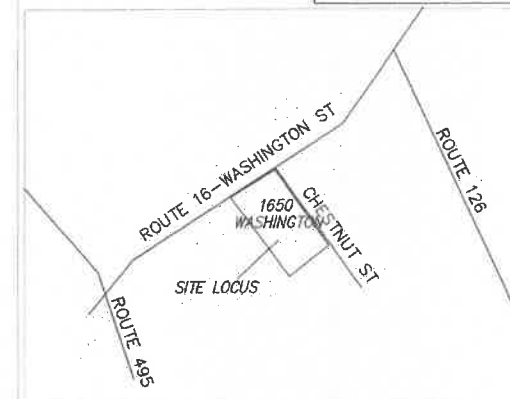
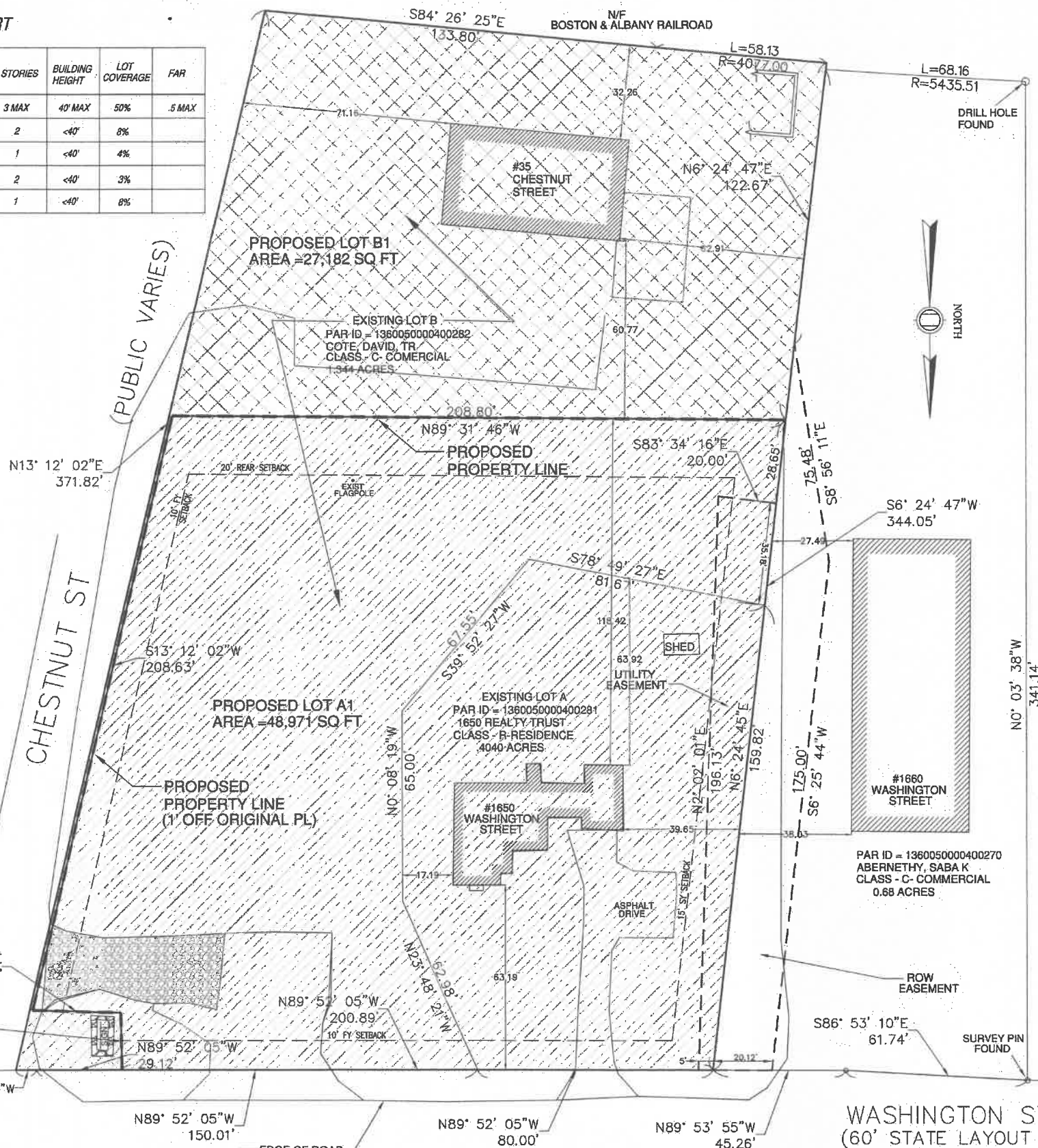
SETBACKS
 FRONT 10'
 SIDE 15'
 REAR 20'

PLAN REFERENCES:
 PLAN OF LAND IN HOLLISTON (#246) OF 2005
 PLAN OF LAND IN HOLLISTON (#916) OF 1984
 WASHINGTON ST 1926 ALTERATION
 STATE LAYOUT #2402

DEED REFERENCES:
 BK 44708, PG 8
 BK44706, PG 17
 BK 15433, PG 276

LEGEND

-  PROPOSED LOT A-1
-  PROPOSED LOT B-1



APPROVAL UNDER THE SUBDIVISION LAW NOT REQUIRED
HOLLISTON PLANNING BOARD

DATE

NO DETERMINATION AS TO COMPLIANCE WITH THE BY-LAW REQUIREMENTS HAS BEEN MADE OR INTENDED BY THE ABOVE ENDORSEMENT

I CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN CONFORMITY WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS.
 THIS SURVEY AND PLAN WERE PREPARED IN ACCORDANCE WITH THE PROCEDURAL AND TECHNICAL STANDARDS FOR THE PRACTICE OF LAND SURVEYING IN THE COMMONWEALTH OF MASSACHUSETTS.



Michael Robert Neenan July 13, 2023
 REGISTERED PROFESSIONAL LAND SURVEYOR DATE

No.	DATE	DESCRIPTION	BY
		REVISIONS	

PROJ. MANAGER: MBL
 CHIEF DESIGNER: MBL
 REVIEWED BY: DATE

SEAL SEAL

PREPARED FOR
 1650 WASHINGTON ST, LLC

HOLLISTON MASSACHUSETTS

SCALE:
 HORZ.: 1"=20 FT
 VERT.:
 DATUM:
 HORZ.:
 VERT.:
 GRAPHIC SCALE

J2M CONSULTING ASSOCIATES, LLC
 CIVIL ENGINEERING, SURVEYING, AND SAFETY
 44 WOOD AVENUE
 MANSFIELD, MASSACHUSETTS
 508-962-7255

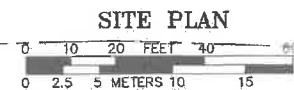
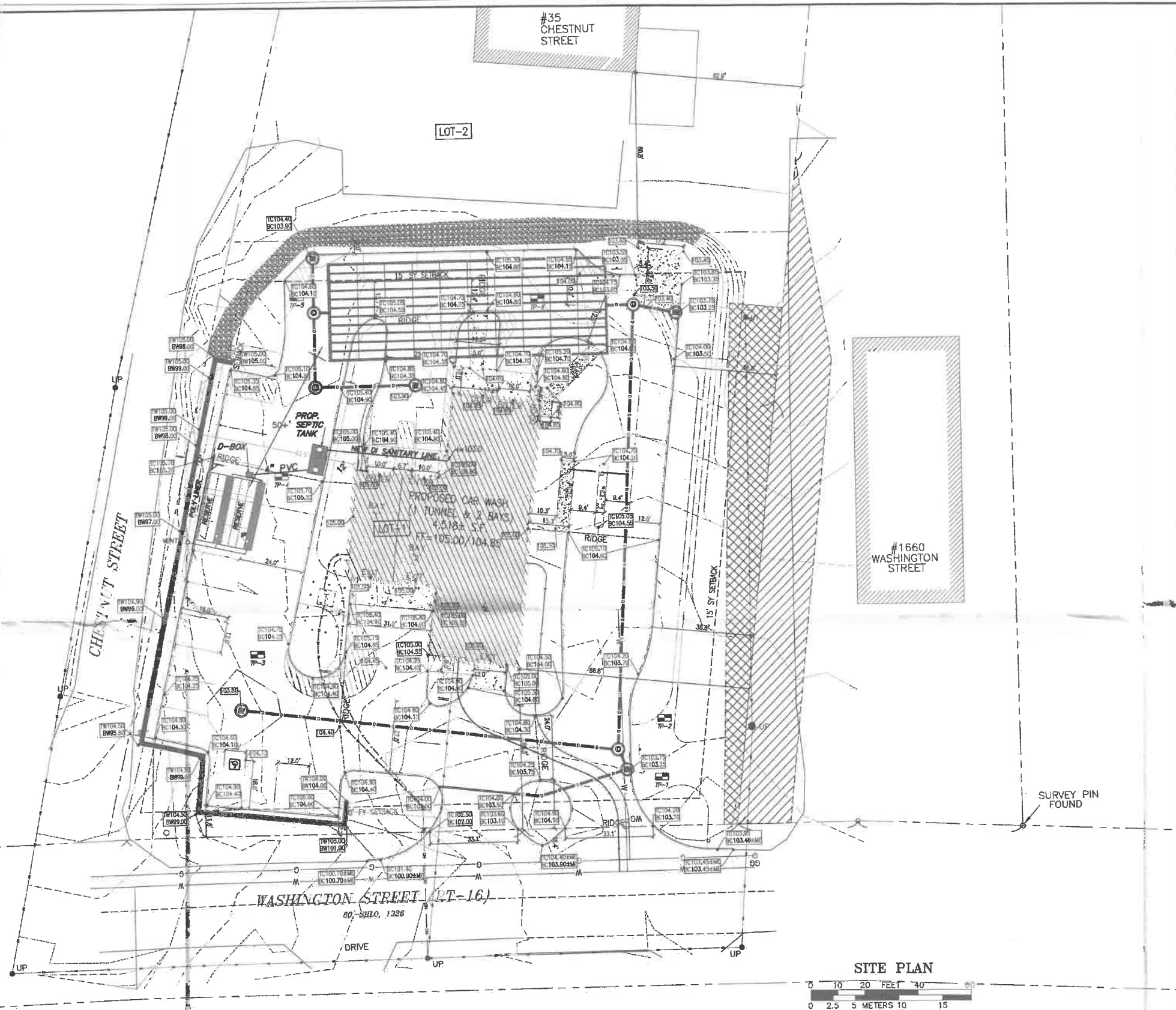
APPROVAL NOT REQUIRED PLAN
 1650 WASHINGTON STREET
 35 CHESTNUT STREET

HOLLISTON MASSACHUSETTS

PROJ. No.
 DATE: DRWG DATE

ANR

LEGEND	
---	PROP. LINE
---	TREE LINE
=====	STONE WALL
=====	WETLAND BUFFERS
---	WATER SERVICE
---	SOIL TESTING LOCATION
---	EXISTING CONTOUR
---	PROPOSED GRADING
---	PROPOSED SPOT ELEV.
---	EXISTING TREE
---	REMOVED TREE



DIG SAFE NOTE:

UTILITIES ARE PLOTTED FROM FIELD LOCATION AND ANY RECORD INFORMATION AVAILABLE, AND SHOULD BE CONSIDERED APPROXIMATE. OTHER UTILITIES MAY EXIST WHICH ARE NOT EVIDENT OR FOR WHICH RECORD INFORMATION WAS NOT AVAILABLE. CONTRACTORS (IN ACCORDANCE WITH MASS.G.L. CHAPTER 92 SECTION 40 AS AMENDED) MUST CONTACT ALL UTILITY COMPANIES BEFORE EXCAVATING AND DRILLING. ALSO, CALL "DIG-SAFE" AT (888)344-7233 (1(888)DIG-SAFE).

THE OFFSETS AS SHOWN ON THIS PLAN ARE NOT TO BE USED FOR THE ESTABLISHMENT OF PROPERTY LINES OR FOR THE ESTABLISHMENT OF ANY PROPOSED CONSTRUCTION UNLESS SAID CONSTRUCTION IS SHOWN HEREON.

THIS PLAN WAS PREPARED FOR THE EXCLUSIVE USE AND PURPOSE OF THE PARTY STATED HEREON AND SHALL NOT BE USED BY ANY THIRD PARTY WITHOUT THE EXPRESSED WRITTEN PERMISSION OF RONALD TIBBETTS, P.E.

CONSTRUCTION ON THIS LAND IS SUBJECT TO ANY EASEMENTS, RIGHTS-OF-WAY, RESTRICTIONS, RESERVATIONS, OR OTHER LIMITATIONS WHICH MAY BE REVEALED BY AN EXAMINATION OF THE TITLE.

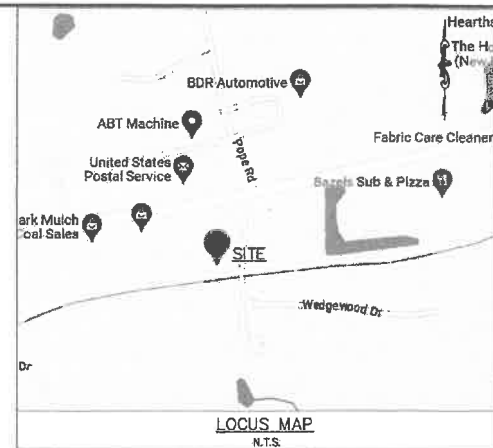
NOTES & SPECIFICATIONS

- The system for the subsurface disposal of sanitary sewage shall be constructed in accordance with the latest requirements of the State Sanitary Code, Title 8, Minimum Requirements for the Subsurface Disposal of Sanitary Sewage. The system shall also meet the local municipal Board of Health requirements.
- Sewer pipe and fittings shall be Schedule 40 PVC (polyvinyl chloride) manufactured in accordance with the latest requirements of ASTM D3034. Joints shall be solvent welded type (tight joints). Flow to be in firm compacted base.
- Cast iron access manholes and cover, when required, shall have an interior dimension as noted or required by code and shall be made of heavy duty, as noted.
- Perforated pipe, when required, shall be schedule 40 PVC (ASTM D1785) for entire length of system. All joints shall be tight joint, unless noted 3/8" to 5/8".
- All unsuitable material in leaching area is to be excavated and back filled with clean gravel or coarse sand.
- Whenever system is to be constructed in zone of topsoil & subsoil or other deleterious material the material shall be removed and replaced for 1' around system when below grade, and 6' around system when above grade. Fill material shall be clean granular material with a permeability rate of 2 min./inch or less, be free of deleterious material, and properly compacted to minimize settlement, or allowed to settle for twelve months.
- This plan has been prepared for septic system construction purposes and shall not be used to establish property boundaries.
- No changes shall be made in this plan without the authorization of the engineer and the Board of Health.
- Contractor must notify dig safe & the local water department prior to beginning excavation work.
- There are no public wells within 100' bordering vegetated wetlands within 150 feet; inland bore within 150 feet; surface waters within 150 feet; surface drains within 50 feet; open surface, subsurface, subsurface or foundation drains which intersect high ground water within 50 feet; water table within 100 feet; storm drainage (including catch basins or dry wells) within 50 feet; perennial stream within 200 feet; and any boundary of a regulatory floodway or 100 year flood within 150 feet; unless as shown on the plan.
- There are no known private wells located within 100 ft. of the system.
- Construction access is limited to the existing driveway. Prior approval and permitting from the Town of Dover Highway Department will be required for any area of disturbance within the right of way to obtain access or install any proposed system.
- Notify Town of Holliston Board of Health 3 days prior to start of construction.
- Retaining walls to be designed by Registered MA P.E.
- System components shall not be backfilled or concealed until agent for B.O.H. has inspected construction and permission obtained from B.O.H.
- The designer of the Septic System shall prepare an As-Built of the location and elevation of the system components and shall observe the system construction in order to certify it. Contractor to notify designer of construction activities so this can be accomplished.
- Installer shall certify system construction.
- Vehicle traffic over, parking of vehicles on, or storage of equipment on system shall not be allowed at any time.
- System area shall be staked and flagged or otherwise barricaded from date of installation until Certificate of Compliance is issued.
- There are no industrial category or prohibited wastewater are used currently at this site.
- Fill to be placed at edge of foundation where accessible during construction and pushed or cast inward over excavated and pushed or cast inward over excavated area.
- Fill shall not be placed during rain or snow storms.
- De-watering is required if fill is to be placed below ground water.
- Vent header shall be above invert of distribution piping.
- Vent piping shall be watertight solid wall 4-inch SCH-40 PVC.
- Excavation shall be dry and aerated.
- It is recommended that septic tanks be inspected for cleaning once a year.
- This land refers to Holliston Assessor's Lot 1.
- At the time of excavation for the septic tank and pump chamber, elevation of the ground water shall be verified. If encountered the buoyancy effect will be verified.
- 310CMR 15.225(3)(f) materials for systems constructed in fill shall consist of select on-site or imported soil material. The fill shall be comprised of clean granular sand, free from organic matter and deleterious substances. Mudstone and layers of different classes of soil shall not be used. The fill shall not contain any material larger than two inches. A sieve analysis, using a #4 sieve, shall be performed on a representative sample of the fill. Up to 45% by weight of the fill sample may be retained on the #4 sieve. Sieve analysis shall be performed on the fraction of the fill sample passing the #4 sieve, such analyses must demonstrate that the material meets each of the following specifications:

SEIVE SIZE	EFFECTIVE SEIVE SIZE	% THAT MUST PASS SEIVE
#4	4.75mm	100%
#20	0.85mm	10%-100%
#60	0.25mm	5%-25%
#100	0.15mm	0%-5%

A plot of the sieve analysis of the portion of the sample passing the #4 sieve shall fall on or between the lines on the graph which is a part of this section of 310CMR 15.225(3).

35. All system components shall be marked with magnetic tape.



LEACHING FACILITY DESIGN CRITERIA

TYPE OF BUILDING CAR WASH/3 EMPLOYEES

OFFICE SPACE MIN. DAILY FLOW 200 GPD

SOIL CLASS II
EFFLUENT LOADING RATE (GPD/SF) = 0.56

CALCULATION:
STD. REQUIRED AREA = 200 GPD/0.56 GPD/SF = 357.1SF
Stone Trench Req'd = 357.1SF / 7 SF/LF = 51LF
2 TRENCHES @ 26' = 52'x51'

NITROGEN LOADING RESTRICTION IS NOT REQUIRED

I certify that the septic system shown hereon has been designed & installed in accordance with 310 CMR 15.000 (Title V) State Environmental Code and local Board of Health Regulations.

Ronald Tibbets

PROFESSIONAL ENGINEER

6-12-23

REVISIONS

No.	DATE	DESCRIPTION
1		
2		
3		
4		
5		

SEPT 5 Review Approved
Scott Males 7-19-2023

SUBSURFACE SEWERAGE DISPOSAL SYSTEM IN HOLLISTON, MASSACHUSETTS

1650 WASHINGTON STREET

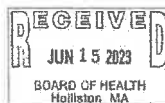
PREPARED FOR:
1650 WASHINGTON STREET LLC
1 NASHUA STREET
BOSTON MASS

DRAWING SCALE: 1 inch = 20 feet

PROJECT NUMBER: 3W91

DATE: JUNE 12, 2023

SHEET 1 OF 1



GREGORY A. BUNAWICZ
SEP. SOIL EVALUATOR No. 2712
BORDERLAND ENGINEERING, INC.
781-555-5500

PROJECT NUMBER: 3W91

CLIENT: JERRY BROWN
DATE: 12-23-21
SITE: 1650 WASHINGTON STREET, BOSTON, MA 02118
PERFORMED BY: GREGORY A. BUNAWICZ
WITNESSED BY: SCOTT MOLES
BACKGROUND: CO-CAPITOL

SURFACE STONES: NONE
VEGETATION: GRASS
LAND USE: RESIDENTIAL
COMMERCIAL
SLOPE: 0-5%
DEPTH TO BEDROCK: N/A

DEPT. TEST: UNSATURATED TENSILE LOG

DEPTH (IN INCHES)	SOIL TYPE	SOIL COLOR (MANGEL)	SOIL MOISTURE (ON INCHES)	STRUCTURE: STONES (CONCRETE, BRICK, & GRAVEL)
0-12	REFUSAL			
12-24	REFUSAL			
24-36	REFUSAL			
36-48	REFUSAL			
48-60	REFUSAL			
60-72	REFUSAL			
72-84	REFUSAL			
84-96	REFUSAL			
96-108	REFUSAL			
108-120	REFUSAL			

APPROXIMATE DISTANCES FROM:

HOLE #	1	2
OPEN WATER BODY	2100	2100
POSSIBLE WET AREA	2100	2100
DRAINAGE WATER WELLS	2100	2100
DRAINAGE WELLS	2100	2100
PROPERTY LINE	2100	2100
OTHER (SPECIFY)		

DEPTH TO GROUND WATER:

HOLE #	1	2
STANDING WATER IN THE HOLE	78	82
WATER FROM P.T. FACE	78	82
EST. HIGH GROUND WATER	12	12

PERCOLATION TEST

HOLE #	1	2
DEPTH OF HOLE (INCHES)		
START TIME (H:M)		
TIME AT 1"		
TIME AT 2"		
TIME AT 4"		
TIME AT 8"		
TIME AT 16"		
TIME AT 32"		
TIME AT 64"		
TIME AT 128"		
TIME AT 256"		
TIME AT 512"		
TIME AT 1024"		
TIME AT 2048"		
TIME AT 4096"		
TIME AT 8192"		
TIME AT 16384"		
TIME AT 32768"		
TIME AT 65536"		
TIME AT 131072"		
TIME AT 262144"		
TIME AT 524288"		
TIME AT 1048576"		
TIME AT 2097152"		
TIME AT 4194304"		
TIME AT 8388608"		
TIME AT 16777216"		
TIME AT 33554432"		
TIME AT 67108864"		
TIME AT 134217728"		
TIME AT 268435456"		
TIME AT 536870912"		
TIME AT 1073741824"		
TIME AT 2147483648"		
TIME AT 4294967296"		
TIME AT 8589934592"		
TIME AT 17179869184"		
TIME AT 34359738368"		
TIME AT 68719476736"		
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GENERAL NOTES

- ZONING INFORMATION OBTAINED FROM THE TOWN OF HOLLISTON ZONING BYLAW AS AMENDED THROUGH MAY 2022.
- THE PROJECT SITE INCLUDES ASSESSOR PARCELS 5-4-28.1 AND 5-4-28.2, EACH TOTALING 0.43 ACRES AND 0.43 ACRES CORRESPONDING TO 1650 WASHINGTON STREET AND 35 CHESTNUT STREET, RESPECTIVELY.
- THE PROJECT LIES WITHIN THE COMMERCIAL DISTRICT (C-1) AND DOES NOT APPEAR TO BE WITHIN AN OVERLAY DISTRICT.
- MODIFICATIONS TO THIS PLAN MAY OCCUR AS UNFORESEEN CONDITIONS ARISE. ALL CHANGES SHALL BE APPROVED BY THE ENGINEER & MUNICIPALITY.
- ALTERNATIVE METHODS AND PRODUCTS OTHER THAN THOSE SPECIFIED MAY BE USED IF REVIEWED AND APPROVED BY THE OWNER, SITE ENGINEER, AND APPROPRIATE REGULATORY AGENCY PRIOR TO INSTALLATION.
- THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ALL PRODUCTS, MATERIALS, AND PLANT SPECIFICATIONS TO THE OWNER AND SITE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION OR DELIVERY TO THE SITE. ALLOW A MINIMUM OF 14 WORKING DAYS FOR REVIEW.
- THE CONTRACTOR SHALL PROVIDE AS-BUILT RECORDS OF ALL CONSTRUCTION (INCLUDING UNDERGROUND UTILITIES) TO THE OWNER AT THE END OF THE CONSTRUCTION.
- THE SITE DOES NOT APPEAR TO INCLUDE A NHESP AREA, AN ACEC OR A WETLAND RESOURCE AREA.
- THE PROPERTY IS LOCATED WITHIN THE ZONE X FLOOD ZONE, AS SHOWN ON THE FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 2501950037E WHICH BEGINS AN EFFECTIVE DATE OF JUNE 4, 2010.

SITE LAYOUT NOTES

- THE BUILDING OUTLINE SHOWN ON THIS PLAN DEPICTS THE FINISH TO FINISH EXTENTS OF THE BUILDING. CONTRACTOR SHALL REFER TO THE ARCHITECTURAL DRAWINGS FOR FOUNDATION PLANS FOR THE PURPOSE OF STAKING OUT THE BUILDING. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT BUILDING DIMENSIONS AND EXTERIOR FEATURES INCLUDING UTILITY METERS, BOLLARDS, DOORS, PLASTERS, RAMPS, ETC.
- BUILDING SIDEWALK DIMENSIONS ARE MEASURED FROM EXTERIOR FINISH MATERIAL OF STRUCTURE.
- ALL LIMITS OF PAVEMENT SHALL BE CURBED, UNLESS OTHERWISE NOTED.
- ALL ON-SITE CURB SHALL BE BITUMINOUS CONCRETE UNLESS OTHERWISE SPECIFIED.
- PARALLEL PARKING SPACE DIMENSIONS AS SHOWN ON THE PLAN ARE 10' WIDE X 20' LONG. PERPENDICULAR VACUUM SPACE DIMENSIONS AS SHOWN ON THE PLAN ARE 12' WIDE X 18' LONG.
- ALL PAVEMENT MARKINGS SHALL BE ACCOMPLISHED WITH USE OF PAINTING MACHINES AND/OR STENCILS. ALL PAINT FOR PAVEMENT MARKING SHALL MEET THE REQUIREMENTS OF SOLVENTBORNE APPLICATION RECOMMENDATIONS (LATEX TRAFFIC PAINT BY BENJAMIN MOORE #T058 LOW VOC). PARKING STALL AND ISLAND STRIPING SHALL BE 4" WIDE AND SHALL BE STRAIGHT WITH A CLEAN EDGE. ALL DIRECTIONAL ARROWS, STOP BARS, ETC. SHALL CONFORM WITH MUTCD.
- PAVEMENT LETTERS SHALL BE 2" WIDE X 2" LONG.
- STOP BARS SHALL BE 12" WIDE AND SOLID LINES SHALL BE 4" IN WIDTH (SEE SITE PLAN FOR LENGTH & COLOR).
- ACCESSIBLE PARKING SPACES SHALL CONFORM TO THE LATEST EDITION OF THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (ADA) AND THE ARCHITECTURAL ACCESS BOARD (AAB) AS SHOWN ON THE SITE LAYOUT PLAN.
- ACCESSIBLE PARKING ASLE STRIPING SHALL CONSIST OF 4" SOLID LINES OF LATEX TRAFFIC PAINT BY BENJAMIN MOORE #T058 LOW VOC ADA BLUE COLOR ORIENTED AT A 45 DEGREE ANGLE AND SPACED 3' ON CENTER.
- DIRECTIONAL AND ACCESSIBLE SIGNS SHALL CONFORM TO THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) FOR COLOR AND SIZE.
- ALL PLAT WORK WITHIN THE RIGHT OF WAY SHALL CONFORM TO MUNICIPAL/STATE STANDARDS.
- REPLACEMENT PAVEMENT AS A RESULT OF UTILITY AND DRAINAGE TRENCHING WITHIN THE RIGHT-OF-WAY SHALL MATCH EXISTING PAVEMENT THICKNESS.
- SNOW SHALL NOT BE STORED IN ANY LANDSCAPED AREAS, EXCEPT FOR DESIGNATED SNOW STORAGE AREAS, AND SHALL NOT BE STORED IN ANY MANNER WHICH AFFECTS VISIBILITY FOR PEDESTRIANS AND VEHICLES. THE CLEARING OF SNOW MUST COMMENCE WHEN STOCKPILED SNOW EITHER IMPEDES THE SIDEWALK OR PARKING SPACE ACCESS, AT WHICH TIME, THE APPLICANT WOULD BE EXPECTED TO REMOVE THE SNOW WITHIN 24 HOURS.
- SITE LIGHTS TO BE INSTALLED PER DETAIL. CONTRACTOR SHALL NOTIFY THE ENGINEER IF THIS DISTANCE CANNOT BE ACHIEVED DUE TO DRAINAGE OR UTILITY CONFLICTS. REFER TO DETAILS FOR SITE LIGHT POLE BASE DETAILS AND SPECIFICATIONS.

ZONING INFORMATION

ZONING DISTRICT: COMMERCIAL DISTRICT (C-1)		
REGULATION	REQUIRED	PROPOSED
MIN. LOT AREA	15,000 SF	48,972 SF±
MIN. LOT FRONTAGE	80'	200'±
MIN. LOT DEPTH	120'	233'±
MIN. FY SETBACK	10'	60.3'±
MIN. SY SETBACK	15'	61.5'±
MIN. RY SETBACK	20'	56.9'±
MAX. BUILDING HEIGHT	3 STORIES/40'	<40'
MAX. FLOOR AREA RATIO	0.5	0.09±
MAX. BUILDING COVERAGE	50%	9%±

PARKING & LOADING INFORMATION

USE	REQUIRED	PROVIDED
PARKING: CAR WASH SECTION B, D, G - PERSONAL SERVICE ESTABLISHMENT	SECTION V.C.J - OTHER USES: NUMBER OF SPACES TO BE DETERMINED BY PLANNING BOARD (ASSUME 5 EMP.)	9 SPACES

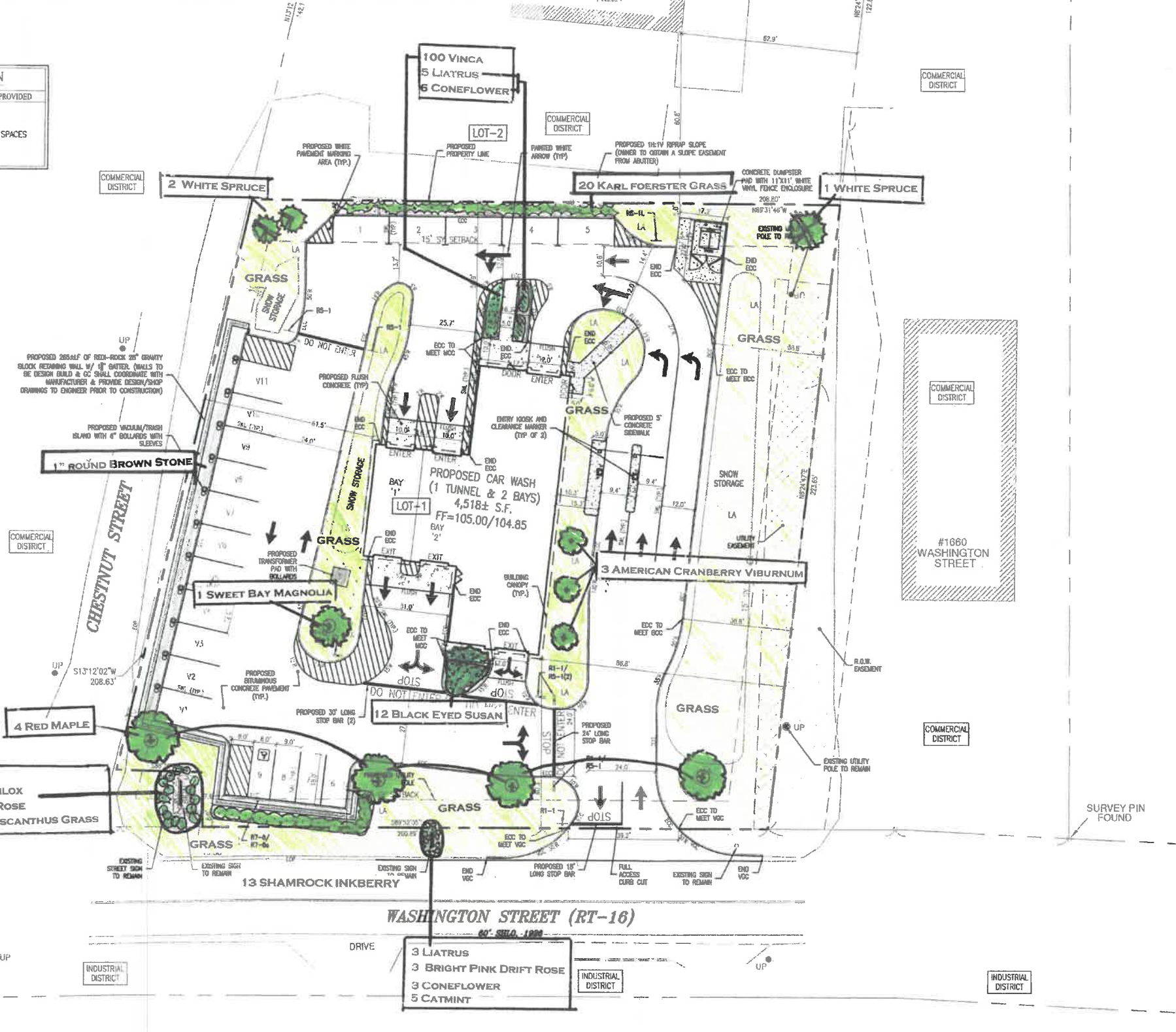
NOTE: THE PROJECT ALSO INCLUDES 11 VACUUM SPACES

MUTCD REFERENCE	SIGN
R1-1 30"x30"	STOP
R7-8 12"x18"	RESERVED PARKING
R7-8a 12"x6"	VAN ACCESSIBLE
R5-1 24"x24"	DO NOT ENTER
R6-1L 8"x24"	ONE WAY

LEGEND		
EXISTING	PROPOSED	DESCRIPTION
		PROPERTY LINE
		BUILDING SETBACK/ BUFFER
		PARKING SPACES
		CURB RADIUS
		ACCESSIBLE PAVEMENT MARKINGS
		RAMP UPSLOPE DIRECTION
		SIGN
		UTILITY POLE
		WOODEN GUIDE RAIL
		PAINTED ARROW
		DIRECTIONAL ARROW
		CONCRETE PAD/SIDEWALK
		ACCESSIBLE RAMP
		IRON PIPE/IRON PIN

Plant Schedule

Qty.	Latin Name	Common Name	Size	Features
4	Acer rubrum 'October Glory'	October Glory Red Maple	B&B	2.5-3" c. Red fall leaves, oval canopy, native, very tolerant
20	Calamagrostis Karl Foerster	Karl Foerster Feather Reed Grass	CONT	3 Gal. Upright habit, 3' H, very neat, drought tolerant and hardy
6	Echinacea 'White Swan'	White Coneflower	CONT	1 Gal. 24-30" H, perennial, sun loving, June-frost, elegant
3	Echinacea	Purple Coneflower	CONT	1 Gal. 24" H, native, drought tolerant, flowers until frost
8	Liatris	Liatris	CONT	1 Gal. 2-3' H, spreading perennial, purple flowers July-Sept. Native
13	Ilex glabra 'Shamrock'	Dwarf Inkberry	CONT	3 Gal. Native, rounded, hardy, evergreen hedge, no care, neat habit
5	Ilex	Sweetpire	CONT	2 Gal. Native, white drooping flowers, bright red fall leaves, hardy
1	Magnolia virginiana	Sweet Bay Magnolia	B&B	7-8' White spring flowers, native, beautiful white spring flowers
1	Miscanthus sinensis Morning Light	Morning Light Miscanthus	CONT	2 Gal. 3-4' Variegated thin leaves, silvery arching grass, very hardy
1	Nepeta 'Cat's Paws'	Cat Mint	CONT	1 Gal. 12-18" H, lavender flowers May-Sept., spreading, sun-semi
5	Phlox paniculata	Sweet William Phlox	CONT	1 Gal. 24-30" H, various colors, July-August, perennial, native
3	Picea glauca	White Spruce	B&B	7-8' Evergreen, very tolerant, native, stays dense
3	Rosa Drift Bright Pink	Bright Pink Drift Rose	CONT	2 Gal. Small shrub, pink double blossoms, easy care, hardy
5	Rosa Drift Light Pink	Light Pink Drift Rose	CONT	2 Gal. Color from June until frost, very hardy, likes full sun
12	Rudbeckia Goldstrum	Black Eyed Susan	CONT	1 Gal. Yellow flowers, dark center, 24" H, sun, Aug-dorm, native
3	Viburnum trilobum	Highbush Cranberry Viburnum	CONT	5 Gal. 8-10' H, white spring flowers, red fruit late summer, native
100	Vinca minor	Common Periwinkle	TRAY	25 tray Evergreen groundcover, purple flowers, hardy, native



NOT FOR CONSTRUCTION

CDG PROJECT #:		23011
REVISIONS:		
REV	DATE	COMMENT
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8		
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SEAL:

PHILIP R. HENRY, P.E.

PLANNING BOARD:

LANDSCAPE DESIGNER:

CARIN GOSSELIN
CMG DESIGN
203 CROSS STREET
NORWELL, MA 02061
781-249-2211

PREPARED FOR:

1650 WASHINGTON STREET, LLC

3 MICHAUD DRIVE
FRAMINGHAM, MA 01701

PROJECT:

PROPOSED CAR WASH
DEVELOPMENT

1650 WASHINGTON STREET (RT-16)
HOLLISTON, MA 01746

SCALE:



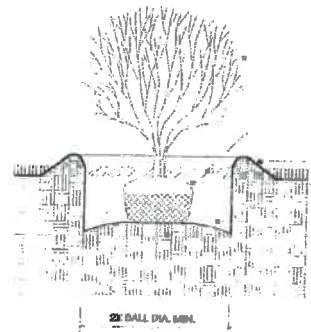
SHEET

LANDSCAPE
PLAN

12

DATE:

07/14/2023



GROUND COVER PLANTING
NOT TO SCALE

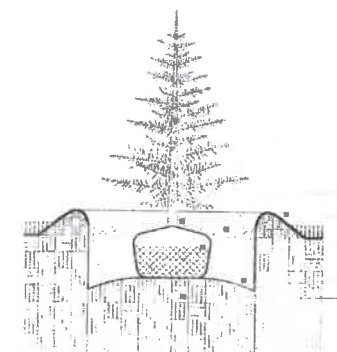
THIN BRANCHES BY 1/3 RETAINING FORM PLANT SHAPE.

--- BARK MULCH 75mm (3") MIN.

CREATE BAUCER WITH TOPSOIL 150mm (6")

ROWES AT TOP OF BALL SHALL BE CUT. BE TOP 1/3 OF BURLAP. NON-Biodegradable MATERIAL SHALL BE TOTALLY REMOVED.

GENTLY COMPACTED TOPSOIL MIXTURE TAMPED ADJUTURE BACKFILL



CROWN OF ROOT BALL SHALL BEAR SAME RELD (OR SLIGHTLY ABOVE) TO FINISH GRADE AS IT BORE TO PREVIOUS GRADE.

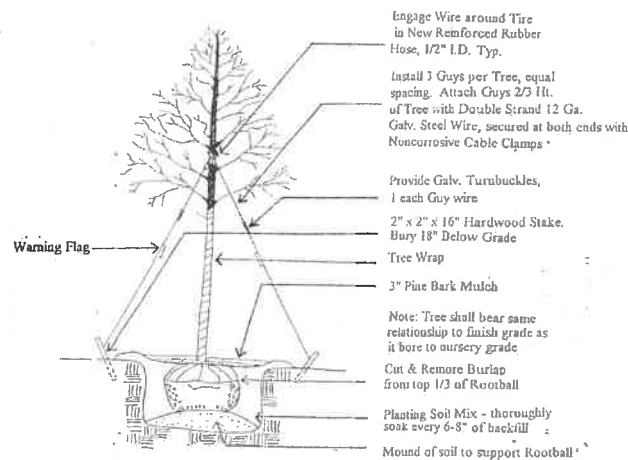
PINE BARK MULCH 75mm (3") MIN.

CREATE SOIL BAUCER WITH TOPSOIL 150mm (6")

TOLD DOWN OR CUT AND REMOVE TOP 1/3 OF BURLAP IF NON-BIODEGRADABLE MARY IS USED. REMOVE

PREPARED SOIL BACKFILL

PREPARED ADJUTURE BACKFILL ON NATIVE SOIL



Deciduous Tree Planting & Guying
N.T.S.

Notes & Goals:

- To create a landscape that maximizes and retains open space.
- Using native and drought tolerant species of plants.
- To provide open areas for snow storage on site.
- To provide street trees, such as the Red Maple that are tolerant to many conditions such as salt/sand and plowing in the winter, drought tolerant, and easy to maintain. The Red Maple trees maintain a neat, oval canopy, not getting too large. Setting them back off the street will allow for open view points and keep back from the utility poles on site.
- The existing street signs will remain and be planted with a hardy, neat, colorful landscapes around them.
- Provide low growing plants near the exit and entrances to the car wash so all site lines are kept open for vehicles and pedestrians. This can be done with long time, low growing, native perennials.
- Provide seasonal color with evergreens, that also provide shelter for birds in the winter, and Spring, Summer and Fall flowers that will also be pollinators for birds, butterflies, bees, and hummingbirds. There will be plants that bloom early in the Spring right until Frost. With continual color throughout the seasons, this property will always provide a welcoming atmosphere.
- To provide a easy to maintain, drought tolerant, with a nice neat appearance so this property will always look tidy and appealing to the customers and pedestrian/vehicular traffic on Washington Street.



Plant Schedule

Qty.	Latia Name	Common Name	Size	Features
4	Acer rubrum 'October Glory'	October Glory Red Maple	B&B 2.5-3"	Red fall leaves, oval canopy, native, very tolerant.
20	Calamagrostis Karl Foerster	Karl Foerster Feather Reed Grass	CONT 3 Gal.	Upright habit, 3'H. very neat, drought tolerant and hardy
6	Echinacea 'White Swan'	White Coneflower	CONT 1 Gal.	24-30"H. perennial, sun loving, June-frost, elegant
3	Echinacea	Purple Coneflower	CONT 1 Gal.	24"H. Native, drought tolerant, flowers until Frost
8	Liatris	Liatris	CONT 1 Gal.	2-3'H. spreading perennials, purple flowers July-Sept. Native
13	Ilex glabra 'Shamrock'	Dwarf Inkberry	CONT 3 Gal.	Native, rounded, hardy, evergreen hedge, no care, neat habit
5	Ilex	Sweetpire	CONT 2 Gal.	Native, white drooping flowers, bright red fall leaves, hardy
1	Magnolia virginiana	Sweet Bay Magnolia	B&B 7-8'	White spring flowers, native, beautiful white spring flowers
1	Miscanthus sinensis Morning Light	Morning Light Miscanthus	CONT 2 Gal.	3-4', Variegated thin leaves, silvery arching grass, very hardy
5	Nepeta 'Cat's Meow'	Cat Mint	CONT 1 Gal.	12-18"H. Lavender flowers May-Sept., spreading, sun-semi
5	Phlox paniculata	Sweet William Phlox	CONT 1 Gal.	24-30"H. various colors, July-August, perennial, native
3	Picea glauca	White Spruce	B&B 7-8'	Evergreen, very tolerant, native, stays dense
3	Rosa Drift Bright Pink	Bright Pink Drift Rose	CONT 2 Gal.	Small shrub, pink double blossoms, easy care, hardy
5	Rosa Drift Light Pink	Light Pink Drift Rose	CONT 2 Gal.	Color from June until Frost, very hardy, likes full sun
12	Rudbeckia Goldstrum	Black Eyed Susan	CONT 1 Gal.	Yellow flowers, dark center, 24"H. sun. Aug-frost, native
3	Viburnum trilobum	Highbush Cranberry Viburnum	CONT 5 Gal.	8-10'H. white spring flowers, red fruit late summer, native
100	Vinca minor	Common Periwinkle	TRAY 25/tny	Evergreen groundcover, purple flowers, hardy, native



Planting Schedule:

Planting may commence as soon as the ground has thawed at the nursery, and at the site of planting, and weather conditions make it practicable to work both at the nursery and at the site.

Planting shall not occur any later than the following:

Deciduous Trees and Shrubs	July 15	Sept 1- Nov 1
Evergreen Trees and Shrubs	June 30	Sept 1- Nov 1

Mulch:

Mulch shall be 100% fine-shredded dark pine back of uniform size applied to a uniform depth of 3".

Seeding:

Seeding shall be hydroseeded.

Composed of the following varieties, mixed to the specified proportions.

Kentucky Blue grass	70%
Chewings Fescue	15%
Creeping Red Rescue	15%

Seeding Rate 3 lbs/1000 sq ft.

NOT FOR CONSTRUCTION

PROJECT #: 23011

REVISIONS:

REV	DATE	COMMENT
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SEAL:



PHILIP R. HENRY, P.E.

PLANNING BOARD:

LANDSCAPE DESIGNER:

CARIN GOSSELIN
CMG DESIGN
203 CROSS STREET
NORWELL, MA 02061
781-249-2211

PREPARED FOR:

1650 WASHINGTON
STREET, LLC

3 MICHAUD DRIVE
FRAMINGHAM, MA 01701

PROJECT:

PROPOSED CAR WASH
DEVELOPMENT

1650 WASHINGTON STREET (RT-16)
HOLLISTON, MA 01746

SCALE:

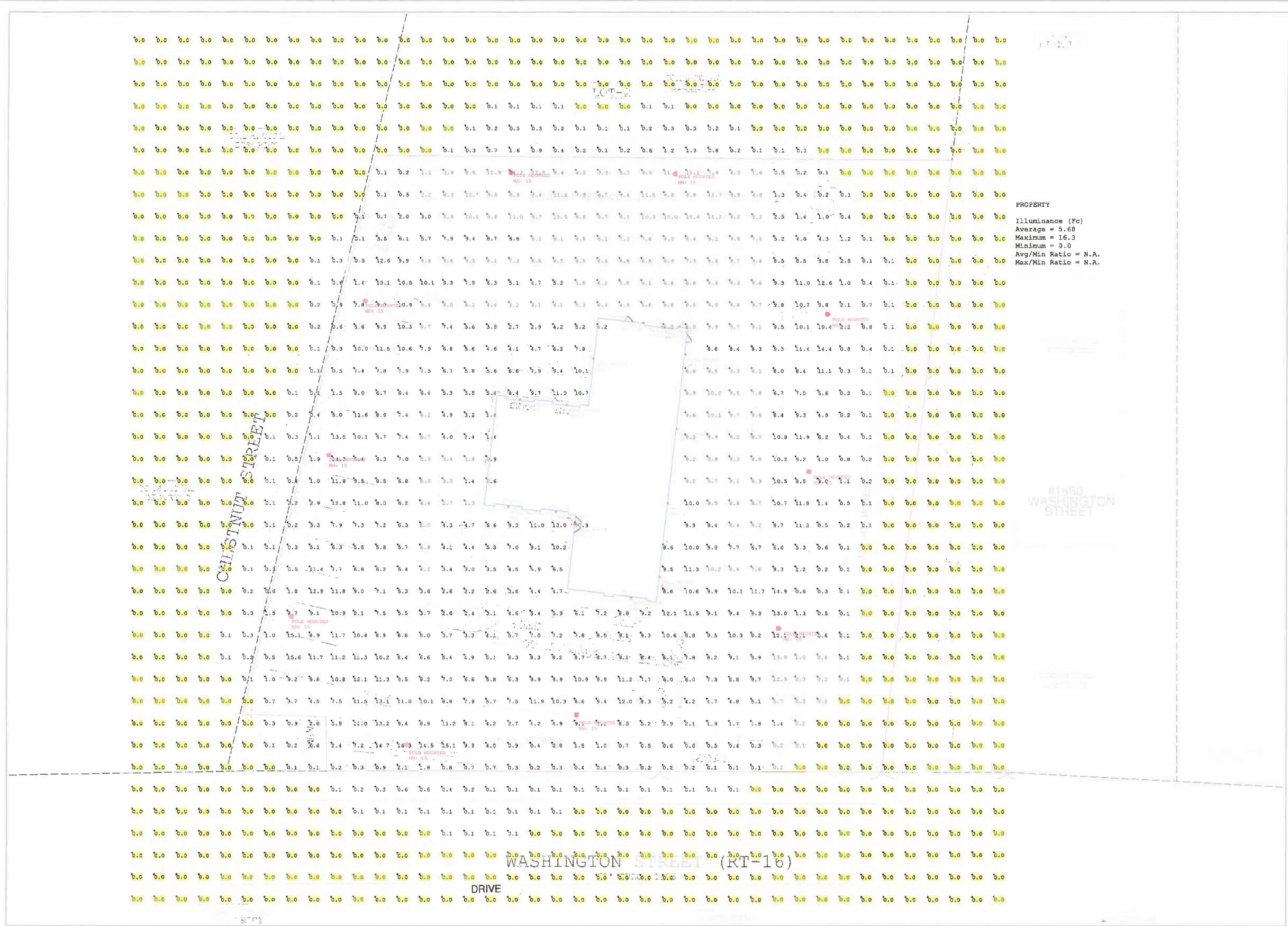
AS NOTED

SHEET:

LANDSCAPE
DETAILS

13

DATE: 07/14/2023



PROPERTY
Illuminance (Fc)
Average = 5.68
Maximum = 16.3
Minimum = 0.0
Avg/Min Ratio = N.A.
Max/Min Ratio = N.A.

Luminaire Schedule		Qty	Label	Description	Tag
Symbol					
11		12	WALL MOUNT	MCGRW EDISON: GWC-SA1A-760-U-T3-XX	
12		10	POLE MOUNTED	MCGRW EDISON: GALN-SA4D-760-U-T4FT-XX-HSS	

Calculation Summary						
Label	Units	Avg	Max	Min	Avg/Min	Max/Min
SITE	Fc	2.61	16.3	0.0	N.A.	N.A.
PROPERTY	Fc	5.68	16.3	0.0	N.A.	N.A.



www.reflexlighting.com

1650 WASHINGTON STREET

CAR WASH

Drawn By: AES
Date: 8/8/2023

Specified:
Salesperson:
Scale: Not to Scale

DISCLAIMER: CALCULATIONS SHOULD BE USED AS A GUIDE ONLY.
LIGHT LEVELS ARE SUBJECT TO CONDITIONS IN THE FIELD.

specifications@reflexlighting.com

Page 1 of 1



Consultant:

Revision:

Architect of Record:

Drawn: Author

Checked: Checker

Scale:

Key Plan:

Project Name:

CAR WASH @
HOLLISTON

1650 WASHINGTON ST,
HOLLISTON

Sheet Name:

COVER PAGE

Project Number:

2023-002

Issue Date:

08/22/2023

Sheet Number:

T0.01

SHEET LIST					
SHEET NUMBER	SHEET NAME	SUBMISSION 01	SUBMISSION 02	SUBMISSION 03	SUBMISSION 04
T0.01	COVER PAGE				
A0.01	ARCHITECTURAL SITE PLAN				
A1.01	FLOOR PLANS				
A1.02	FLOOR PLANS				
A1.03	BUILDING ELEVATIONS				
A1.03.	EXTERIOR ELEVATIONS				
A1.04.	EXTERIOR ELEVATIONS				

Consultant:

Revision:

Architect of Record:

Drawn: Author

Checked: Checker

Scale: 3/16" = 1'-0"

Key Plan:

Project Name:

CAR WASH @
HOLLISTON

1650 WASHINGTON ST,
HOLLISTON

Sheet Name:

EXTERIOR ELEVATIONS

Project Number:

2023-002

Issue Date:

08/22/23

Sheet Number:

A1.03.



OVERALL FLOOR PLAN - LEVEL 7
31' - 0"

TRUSS BEARING
26' - 0"

TRUSS BEARING @ HIGH ROOF
22' - 6"

TOP OF CMU. (PARAPET WALL)
17' - 6"

MEZZANINE
13' - 6"

LEVEL 1
0' - 0"

FOOTING
-4' - 8"

11 SIDE ELEVATION - 01
Scale: 3/16" = 1'-0"



OVERALL FLOOR PLAN - LEVEL 7
31' - 0"

TRUSS BEARING
26' - 0"

TRUSS BEARING @ HIGH ROOF
22' - 6"

TOP OF CMU. (PARAPET WALL)
17' - 6"

MEZZANINE
13' - 6"

LEVEL 1
0' - 0"

FOOTING
-4' - 8"

10 FRONT ELEVATION
Scale: 3/16" = 1'-0"

Consultant:

Revision:

Architect of Record:

Drawn: Author
Checked: Checker
Scale: 3/16" = 1'-0"
Key Plan:

Project Name:
**CAR WASH @
HOLLISTON**

1650 WASHINGTON ST,
HOLLISTON

Sheet Name:
EXTERIOR ELEVATIONS

Project Number:
2023-002

Issue Date:
08/22/23

Sheet Number:

A1.04.



11 REAR ELEVATION
Scale: 3/16" = 1'-0"



10 SIDE ELEVATION
Scale: 3/16" = 1'-0"