

REVISION	DATE	BY
REVISION 1	12/4/23	GGF
REVISION 2	1/16/24	GGF
PARKING REV.	2/9/24	GGF

PLANTING NOTES
 TREE SPECIES TO CHOOSE FROM
 ACER PSEUDOPLATANUS (SYCAMORE MAPLE)
 ACER RUBRUM (RED MAPLE)
 PYRUS CALLERYANA 'ARISTOCRAT' (ARISTOCRAT CALLERY PEAR)
 GLEDITSIA TRICANTHOS VAR. INERMIS (HONEY LOCUST)
 GINKGO BILOBA 'MAGYAR' OR 'SENTRY' VARIETIES (MAIDENFERN TREE)
 PLATANUS ACERIFOLIA X HYBRIDA 'BLOODGOOD' (BLOODGOOD LONDON PLANE)
 TILIA TOMENTOSA (SILVER LINDEN)
 SOPHORA JAPONICA (SCHOLAR TREE)
 ZEKLOVA SERRATA (ZEKLOIVA)
 TREES SHALL HAVE A CALIPER OF 3-3.5 INCHES WHEN PLANTED.

SHRUBS TO CHOOSE FROM
 VIBURNUM TRILOBUM (AMERICAN CRANBERRY BUSH)
 LIGUSTRUM AMURENSE (PRIVET)
 THUJA OCCIDENTALIS (EVERGREEN EASTERN ARBORVITAE)
 PHLODELPHUS CORONARIUS (MOCK ORANGE)
 TSUGA CANADENSIS (EASTERN HEMLOCK)

PROJECT LOCATION:
 214 HAMILTON ST.
 WORCESTER, MA 01604
 PARCEL ID:
 18_046_00001

PLAN SET:
PROPOSED MULTI-FAMILY, HIGH RISE
 214 HAMILTON STREET
 WORCESTER, MA 01604
 PERMIT SET
 OCTOBER 6, 2023
 SCALE: 1" = 10'

PROFESSIONAL SEAL:

 GAETANO FODERA
 No. 54884
 REGISTERED PROFESSIONAL ENGINEER

JOB NO.: 23317-363

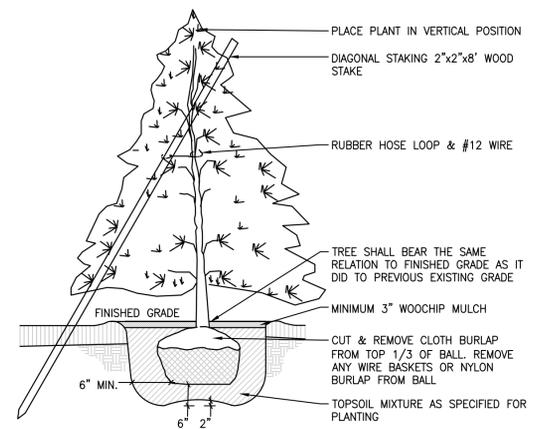
SHEET TITLE:
PROPOSED SITE PLAN

SHEET NUMBER:
C-2 2 OF 7

PROPERTY INFORMATION
 ADDRESS: 214 HAMILTON STREET
 WORCESTER, MA 01604
 PARCEL ID: 18_046_00001
 LOT SIZE: 12,500± S.F. (0.287± AC.)

RECORD OWNER
 REI GROUP, LLC
 214 HAMILTON STREET,
 WORCESTER, MA 01604

GENERAL NOTES
 1. THIS PLAN WAS PREPARED BY AN ON-THE-GROUND FIELD SURVEY BY DAVID P. TEREZONI, P.L.S. IN MAY 2023.
 2. AS DISPLAYED ON THE STATE'S GEOGRAPHIC INFORMATION SYSTEM (GIS) ONLINE DATABASE MASSMAPPER, THERE ARE NO JURISDICTIONAL ENVIRONMENTAL PROTECTION RESOURCE AREAS WITHIN THE PROPERTY.
 3. FROM GRAPHICAL GIS DISPLAY FROM MASSMAPPER, THE PROPERTY DOES NOT CONTAIN ANY 100 YEAR FLOOD ZONES.



EVERGREEN PLANTING
 N.T.S.

PLANTING SCHEDULE

SYMBOL	NAME	QUANTITY
	TREE	7
	SHRUB	17

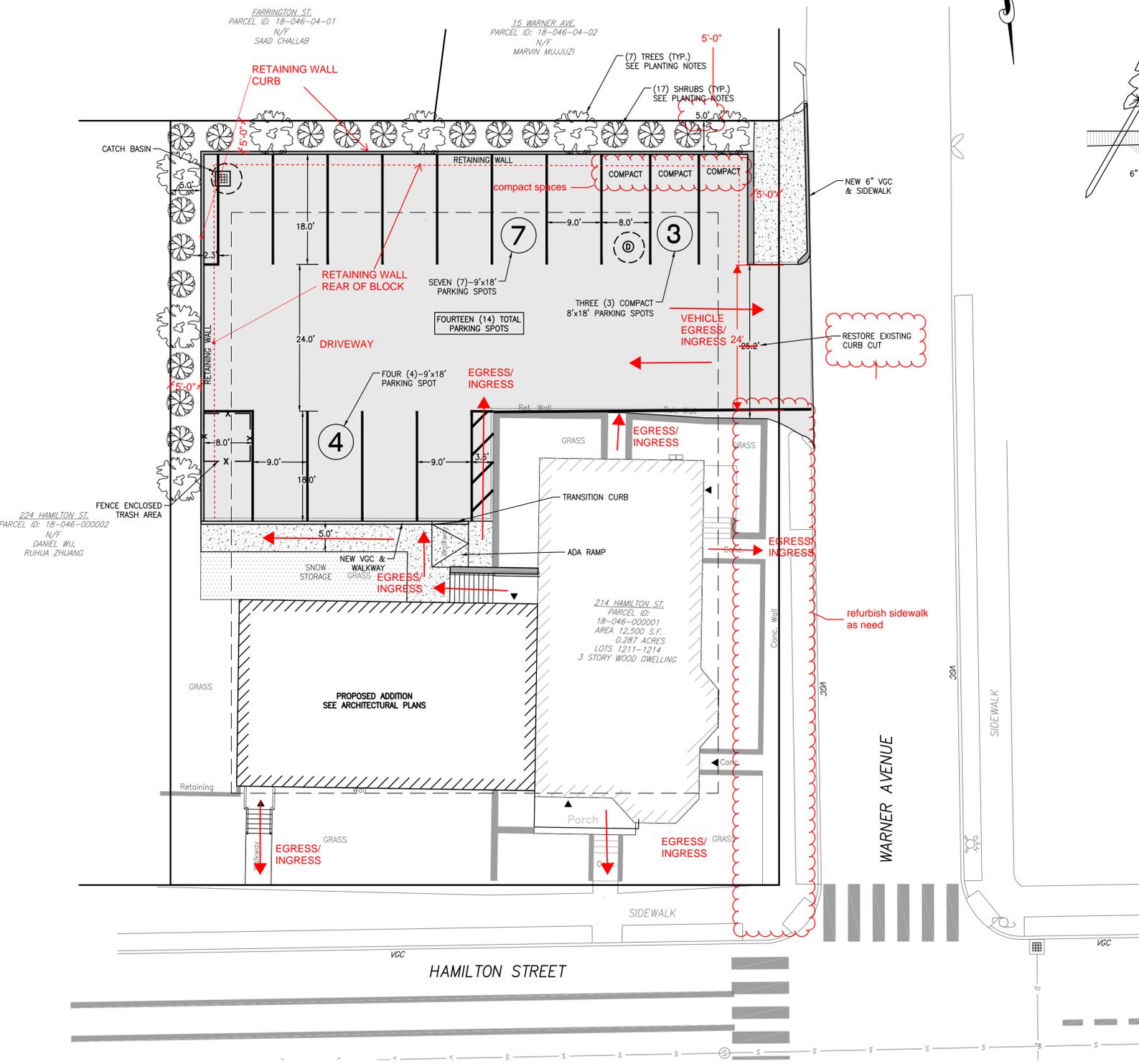
GENERAL NOTES
 1. ALL PLANT STOCK SHALL CONFORM TO ANSI Z260.1 - NURSERY STOCK, LATEST EDITION (AMERICAN ASSOCIATION OF NURSERYMEN, INC.).
 2. NO TREES OR SHRUBS SHALL BE PLANTED AT THE STREET INTERSECTION WHERE THEY COULD BECOME A TRAFFIC HAZARD BY OBSTRUCTING VISION.
 3. ALL TREES SHALL BE GUARANTEED BY THE DEVELOPER FOR THEIR ERRECTNESS AND GOOD HEALTH FOR TWO (2) YEARS AFTER PLANTING.
 4. ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE LOAMED AND SEEDED. LOAM DEPTH SHALL BE A MINIMUM OF 4 INCHES. ALL LOAM PLACED SHALL BE PH CORRECTED AND FREE OF CLODS, LUMPS, STONES AND OTHER DELETERIOUS MATERIAL.
 5. ANY DEAD VEGETATION SHALL BE REMOVED IMMEDIATELY AND REPLACED IN ACCORDANCE WITH THE SPECIFICATION ON PLAN.
 6. OWNER SHALL MAINTAIN LANDSCAPE PLANTINGS TO ENSURE THE AESTHETIC APPEARANCE AND OVERALL PLANT HEALTHINESS IS RETAINED. THIS INCLUDES INSPECTING AND REPLACING PLANTINGS AS NECESSARY, WEEKLY MOWING AND MULCHING.
 7. AN APPROVED SET OF PLANS AND ALL APPLICABLE PERMITS MUST BE AVAILABLE AT THE CONSTRUCTION SITE.
 8. ANY DAMAGE TO PUBLIC OR PRIVATE PROPERTY RESULTING FROM CONSTRUCTION ACTIVITIES SHALL BE REPAIRED BY THE CONTRACTOR AT THEIR EXPENSE.
 9. THE CONSTRUCTION SITE SHALL BE SECURED IN A MANNER SO AS TO PREVENT INJURY OR PROPERTY DAMAGE TO THE RESIDENTS OF THE TOWN.

PARKING COUNT

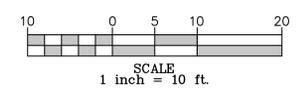
- 2 PARKING SPOTS PER D.U. REQUIRED.
- 8 DWELLING UNITS.
- PARKING REQUIRED = 16 SPOTS
- PARKING PROVIDED = 14 SPOTS

LEGEND

	PROPERTY LINE
	FENCE LINE
	SNOW STORAGE AREA
	CURB LINE
	GAS LINE
	STORM DRAIN LINE
	SANITARY SEWER LINE
	WATER LINE
	OVERHEAD UTILITY WIRES
	FIBER OPTIC LINE
	GAS VALVE
	WATER GATE/ VALVE
	FIRE HYDRANT
	UTILITY POLE
	SEWER MANHOLE
	DRAIN MANHOLE
	CATCH BASIN
	ELECTRICAL MANHOLE
	TELEPHONE MANHOLE
	STONE BOUND DRILL HOLE
	IRON PIN
	VERTICAL GRANITE CURB
	EDGE OF PAVEMENT
	ENTRY POINT BUILDING



PROPOSED SITE PLAN
 SCALE: 1" = 10'



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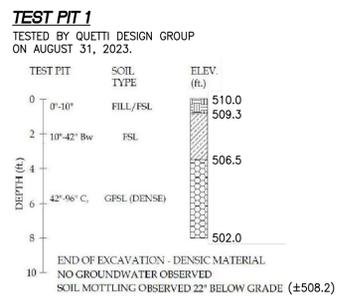
JOB NO.: 23317-363

SHEET TITLE:
GRADING AND UTILITIES PLAN

SHEET NUMBER:
 C-3 3 OF 7

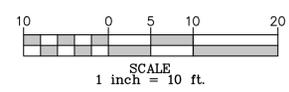
LEGEND

---	PROPERTY LINE
-X-	FENCE LINE
RL	PAVEMENT RIDGE LINE
---	MAJOR CONTOUR
---	MINOR CONTOUR
---	CURB LINE
G	GAS LINE
D	STORM DRAIN LINE
S	SANITARY SEWER LINE
W	WATER LINE
OHW	OVERHEAD UTILITY WIRES
FO	FIBER OPTIC LINE
GV	GAS VALVE
WG	WATER GATE/ VALVE
FH	FIRE HYDRANT
UP	UTILITY POLE
SMH	SEWER MANHOLE
DMH	DRAIN MANHOLE
CB	CATCH BASIN
EMH	ELECTRICAL MANHOLE
TMH	TELEPHONE MANHOLE
SBDRH	STONE BOUND DRILL HOLE
IP	IRON PIN
VGC	VERTICAL GRANITE CURB
EOP	EDGE OF PAVEMENT
TP-#	TEST PIT

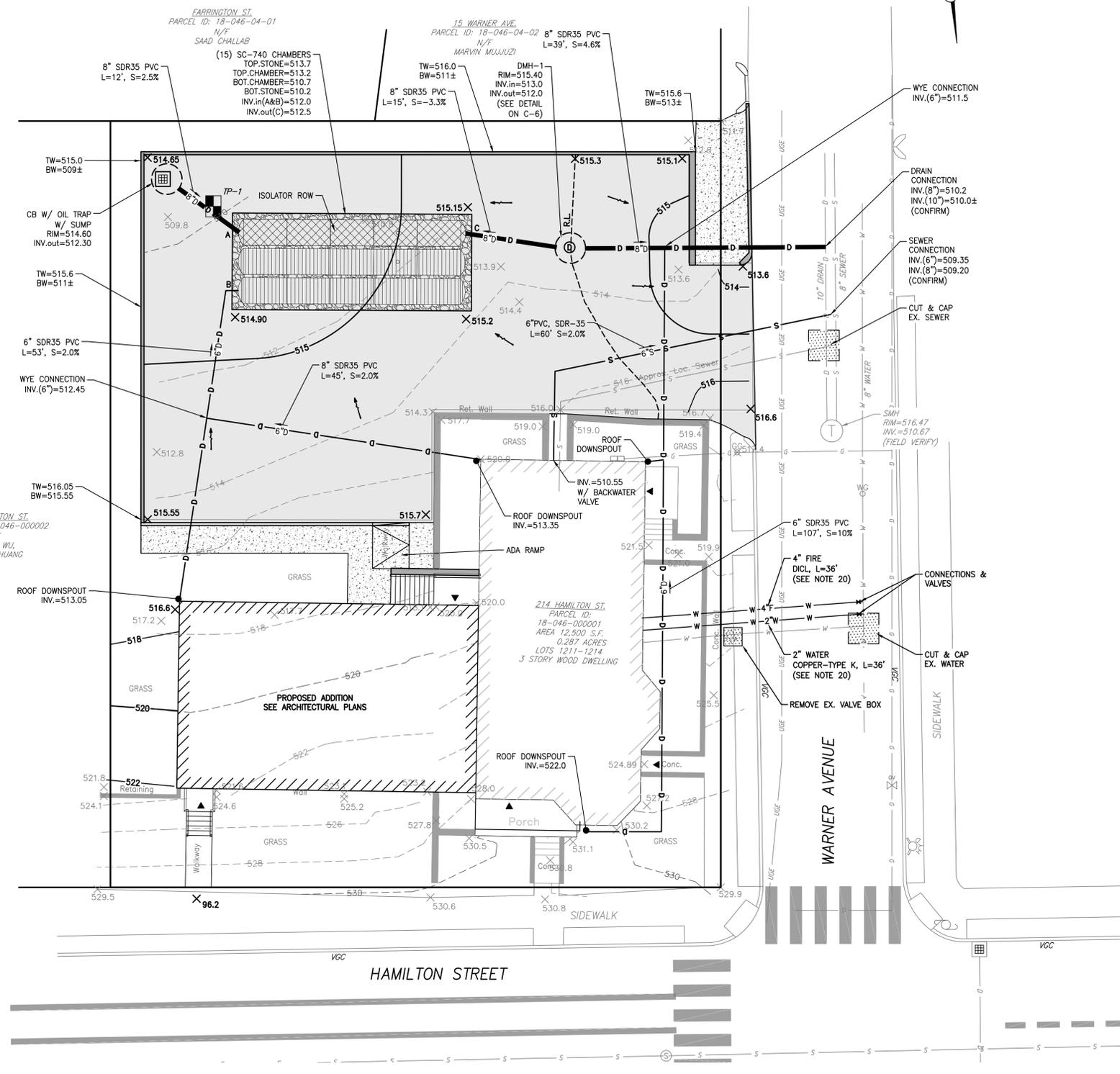


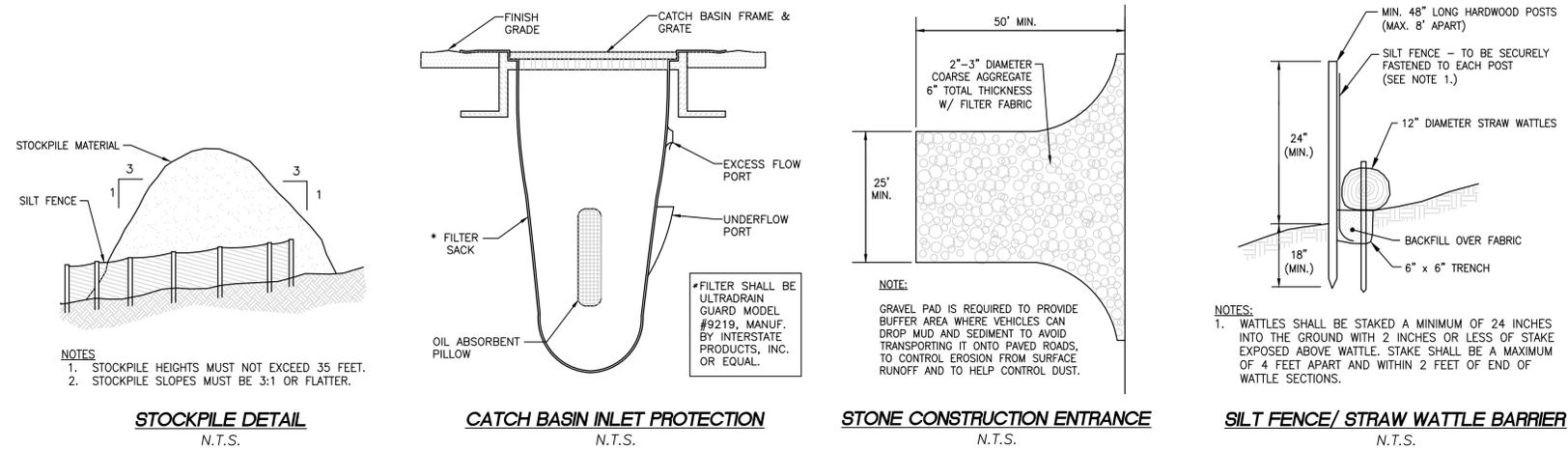
- UTILITY NOTES**
- CONTRACTOR IS TO VERIFY THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION AND ENSURE NO CONFLICTS EXIST WITH PROPOSED IMPROVEMENTS. NOTIFY ENGINEER IMMEDIATELY IF UTILITIES ARE LOCATED DIFFERENTLY THAN SHOWN. THE CONTRACTOR SHALL COORDINATE WITH EACH RESPECTIVE UTILITY COMPANY IN ORDER TO RELOCATE IF NEEDED IN CONFORMANCE WITH THEIR GUIDELINES.
 - CONTRACTOR SHALL NOTIFY AND COORDINATE WITH THE APPROPRIATE UTILITY COMPANY PRIOR TO THE REMOVAL OF INDICATED UTILITIES ON SITE. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY PERMITS REQUIRED FOR DEMOLITION AND HAUL OFF FROM THE APPROPRIATE AUTHORITIES.
 - THE DEPARTMENT OF PUBLIC WORKS OR APPLICABLE GOVERNING DEPARTMENT MUST AUTHORIZE AND PERMIT TO CONSTRUCT, ALTER OR MODIFY A WATER OR SEWER LINE.
 - AT THE COMPLETION OF THE WATER AND/OR SEWER CONSTRUCTION AND PRIOR TO RECORDING THE FINAL PLAN (IF APPLICABLE), THE CONTRACTOR WILL FURNISH THE WATER SYSTEM INSPECTOR RECORD DRAWINGS OF THE PROJECT.
 - BUILDING CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH THE GAS COMPANY FOR THE CONSTRUCTION OF THE GAS LINE BETWEEN METER AND MAIN.
 - BUILDING CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH THE POWER COMPANY FOR THE CONSTRUCTION OF ELECTRICAL CONDUIT TO PROVIDE SERVICE AND IF A TRANSFORMER IS REQUIRED TO BE INSTALLED.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING, PRIOR TO CONSTRUCTION, ALL EXISTING LOCATIONS AND INVERT ELEVATIONS OF SANITARY SEWERS, STORM DRAINAGE, AND WATER MAINS. IF ANY INVERT ELEVATION VARIES MORE THAN 0.1 FT. FROM RECORD ELEVATIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY. WORK SHALL NOT PROCEED UNTIL THE CONTRACTOR IS NOTIFIED BY THE ENGINEER.
 - CONNECT TO EXISTING UTILITIES AND INSTALL UTILITIES IN COMPLIANCE WITH REQUIREMENTS OF APPROPRIATE JURISDICTIONAL AGENCIES.
 - COORDINATE WITH BUILDING PLANS TO ASSURE ACCURACY OF UTILITY CONNECTIONS AND COMPLIANCE WITH LOCAL CODES.
 - ALL SEWERS TO BE MAINTAINED THROUGHOUT CONSTRUCTION, INCLUDING CLEANING OF ANY SILT OR DEBRIS ACCUMULATED IN STRUCTURES.
 - ALL SURPLUS EXCAVATED MATERIAL FROM THE TRENCH SHALL BE DISPOSED OFF THE SITE BY CONTRACTOR.
 - TRENCHING SHOULD BE CONDUCTED IN ACCORDANCE WITH ALL OSHA REGULATIONS.
 - COORDINATE EXACT TRENCHING, ROUTING, AND POINT OF TERMINATION WITH ALL UTILITY COMPANIES.
 - BACKFILL MATERIAL SHALL BE SUITABLE MATERIAL IN COMPLIANCE WITH LOCAL SPECIFICATIONS AND/OR THE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION (MASSDOT).
 - WATER MAIN SHALL HAVE A MINIMUM COVER OF FIVE (5) FEET.
 - THE SANITARY SEWER AND POTABLE WATER LINES ARE TO BE SEPARATED BY AT LEAST 10 FEET HORIZONTALLY, OR THE POTABLE WATER LINE SHALL BE AT LEAST 18 INCHES VERTICALLY ABOVE THE SANITARY SEWER.
 - CONTRACTOR TO RECONFIGURE PROPOSED ELECTRIC/TELEPHONE/CABLE CONDUITS AS NECESSARY TO AVOID CONFLICT WITH TREES/LANDSCAPING.
 - THRUST BLOCKS TO BE PLACED AT ALL BEND LOCATIONS WITHIN THE POTABLE WATER LINES. SEE DETAIL SHEETS.
 - ALL UTILITIES SHALL BE APPROVED MATERIALS AND INSTALLED IN ACCORDANCE WITH THE MUNICIPALITIES STANDARDS.
 - PRIOR TO ISSUING A BUILDING PERMIT, THE FIRE AND WATER LINES SHALL BE CONFIRMED BY A MEP ENGINEER.

- GRADING AND DRAINAGE NOTES**
- BOTTOM OF WALL ELEVATIONS ALONG THE SOUTH AND EAST ABUTTERS SHALL BE FURTHER EXAMINED.
 - ALL CONSTRUCTION MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE TO THE CITY'S AND/OR MASSDOT'S LATEST CONSTRUCTION SPECIFICATIONS AND DETAILS.
 - GRADING IN THE RIGHT-OF-WAY SHALL IN ACCORDANCE WITH LOCAL REGULATIONS, UNLESS OTHERWISE APPROVED BY THE CITY.
 - THE CONTRACTOR SHALL NOTIFY DIG SAFE AND THE CITY A MINIMUM OF 72 HOURS PRIOR TO THE START OF ANY EXCAVATIONS.
 - INSTALL ALL APPROPRIATE TREE PROTECTION MEASURES PRIOR TO GRADING AND EXCAVATION.
 - EXACT LOCATIONS OF SAW-CUTTING MAY BE FIELD DETERMINED BASED ON EXISTING PAVEMENT CONDITIONS.
 - THE CONTRACTOR SHALL CAREFULLY PRESERVE BENCHMARKS, REFERENCE POINTS AND STAKES.
 - EROSION CONTROL MEASURES SHALL BE STABILIZED IN PLACE BEFORE BEGINNING SITE WORK. THESE MEASURES SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.
 - ALL INDICATED ELEVATIONS ARE FINISHED ELEVATIONS.
 - LOCATE AND PROTECT ALL UTILITIES PRIOR TO CONSTRUCTION.
 - ALL EXCAVATION SHALL INCLUDE CLEARING, STRIPPING AND STOCKPILING TOPSOIL, REMOVING UNSUITABLE MATERIALS, THE CONSTRUCTION OF EMBANKMENTS, CONSTRUCTION FILLS, AND THE FINAL SHAPING AND TRIMMING TO THE LINES AND GRADES SHOWN ON THE PLANS.
 - ALL TREES, BRUSH, AND ORGANIC TOPSOIL AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED, UNLESS OTHERWISE SPECIFIED, AND DISPOSED OF AT AN OFF-SITE LOCATION, WITH THE EXCEPTION THAT ENOUGH TOPSOIL SHALL BE RETAINED FOR RE-SPREAD AND GENERAL LANDSCAPING. AREAS WHICH ARE TO BE FILLED SHALL BE COMPACTED TO A MINIMUM DENSITY OF 95% AS DETERMINED BY THE MODIFIED PROCTOR (ASTM D1557, METHOD C) COMPACTION TEST IN THE PAVED AREAS AND 90% IN THE OTHER AREAS.
 - CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE TO ALL INLETS AND CATCH BASINS. AREAS OF SURFACE PONDING SHALL BE CORRECTED BY CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER.
 - IF AREAS ARE DISTURBED BEYOND PROPOSED GRADES BY NEGLIGENCE OF THE CONTRACTOR, THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY REGRADING OR REPAIR TO MATCH ORIGINAL EXISTING CONDITIONS.
 - SHORING SHALL BE DONE AS NECESSARY FOR THE PROTECTION OF THE WORK AND FOR THE SAFETY OF PERSONNEL. SHORING SHALL BE IN ACCORDANCE WITH ALL O.S.H.A AND LOCAL REGULATIONS.
 - CONTRACTOR SHALL ADJUST GRADES BY VARYING THE PAVEMENT SECTIONS ACCORDINGLY. EXISTING COMPACTED SUBGRADE TO BE DISTURBED AS LITTLE AS POSSIBLE.
 - ALL PROPOSED SPOT ELEVATIONS SHOWN INDICATE FINISHED GRADED ELEVATIONS AT EDGE OF PAVEMENT AND/OR GRADE BREAKS, UNLESS OTHERWISE NOTED.
 - MAINTAIN PROPER SITE DRAINAGE AT ALL TIMES DURING THE COURSE OF CONSTRUCTION, AND PREVENT STORM WATER FROM RUNNING INTO OR STANDING IN EXCAVATED AREAS.
 - SPREAD AND COMPACT UNIFORMLY TO THE DEGREE SPECIFIED ALL EXCESS TRENCH SPOIL AFTER COMPLETION OF THE UNDERGROUND IMPROVEMENTS (EARTHWORK CONTRACTOR SHALL MAKE APPROPRIATE ADJUSTMENTS IN ROUGH GRADING TO ACCOMMODATE TRENCH SPOIL).
 - PROVIDE WATER TO ADD TO DRY MATERIAL IN ORDER TO ADJUST THE MOISTURE CONTENT FOR THE PURPOSE OF ACHIEVING THE SPECIFIED COMPACTION.
 - UNSUITABLE MATERIAL SHALL BE CONSIDERED AS MATERIAL WHICH IS NOT SUITABLE FOR THE SUPPORT OF PAVEMENT AND BUILDING CONSTRUCTION, AND IS ENCOUNTERED BELOW NORMAL TOPSOIL DEPTHS AND THE PROPOSED SUB-GRADE ELEVATION. THE DECISION TO REMOVE SAID MATERIAL, AND TO WHAT EXTENT, SHALL BE MADE BY A SOILS ENGINEER WITH THE CONCURRENCE OF THE OWNER.
 - REPAIR ANY BASE COURSE AND BINDER COURSE FAILURES PRIOR TO THE INSTALLATION OF THE FINAL BITUMINOUS CONCRETE SURFACE COURSE.
 - SWEEP CLEAN THE BINDER COURSE PRIOR TO THE INSTALLATION OF THE FINAL BITUMINOUS CONCRETE SURFACE COURSE. EXCESSIVE CLEANING OF THE BINDER COURSE THAT MAY BE REQUIRED, AND IS NOT THE FAULT OF THE PAVING CONTRACTOR, SHALL BE PAID FOR ON A TIME AND MATERIAL BASIS BY PRIOR AGREEMENT WITH THE GENERAL CONTRACTOR.
 - CONFIRM INVERTS OF ALL EXISTING STORM INLETS AND SANITARY SEWER MANHOLES BEFORE COMMENCING CONSTRUCTION.
 - A GEOTEXTILE MATTING (LANDLOCK TRM 450 OR EQUIVALENT) SHALL BE USED FOR EROSION CONTROL ON ALL SLOPES GREATER THAN 3H:1V IF NECESSARY.
 - DRAINAGE STRUCTURES AND UNDERGROUND INFILTRATION FACILITIES SHALL BE INSPECTED SEMIANNUALLY TO ENSURE PROPER WORKING ORDER.
 - UNSUITABLE EXISTING SOILS, SILT, AND DEBRIS SHALL BE ADEQUATELY REMOVED FROM THE AREA OF THE PROPOSED INFILTRATION BASIN. REMOVE ALL ORGANICS.
 - IF THE CONTRACTOR IN THE COURSE OF WORK FINDS ANY DISCREPANCIES BETWEEN THE PLANS AND THE PHYSICAL CONDITIONS OF THE LOCALITY, OR ANY ERRORS OR OMISSIONS IN THE PLANS OR IN THE LAYOUT AS GIVEN BY THE ENGINEER, IT SHALL BE HIS DUTY TO IMMEDIATELY INFORM THE ENGINEER, IN WRITING AND THE ENGINEER WILL PROMPTLY VERIFY THE SAME. ANY WORK DONE AFTER SUCH A DISCOVERY, UNTIL AUTHORIZED, WILL BE AT THE CONTRACTOR'S RISK.



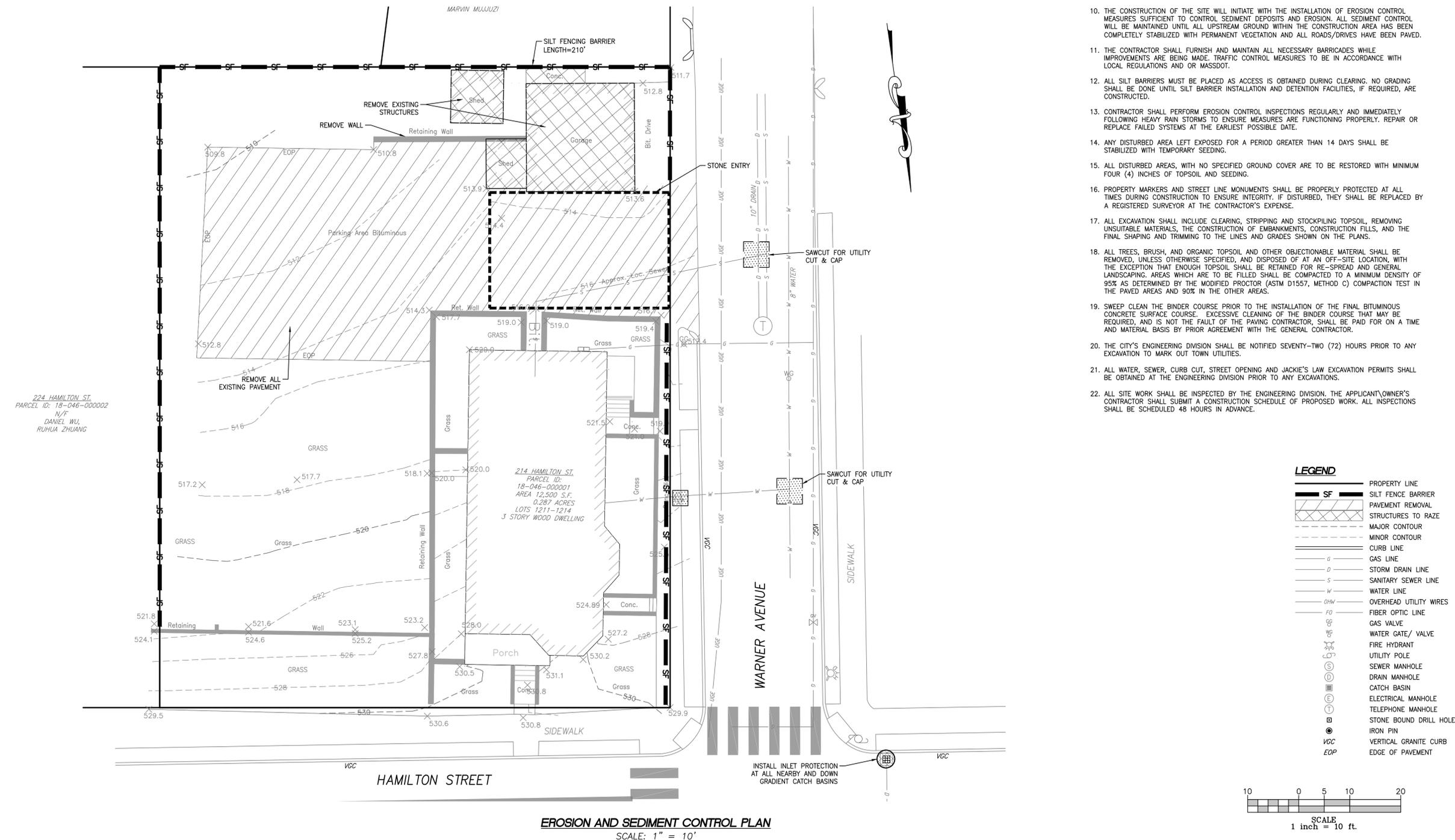
PROPOSED GRADING AND UTILITIES PLAN
 SCALE: 1" = 10'





EROSION CONTROL NOTES

- PRIOR TO COMMENCING LAND DISTURBANCE ACTIVITY THE LIMITS OF LAND DISTURBANCE SHALL BE CLEARLY AND ACCURATELY DEMARCATED WITH STAKES, RIBBONS, OR OTHER APPROPRIATE MEANS.
- INSTALL SEDIMENTATION AND EROSION CONTROL MEASURES PRIOR TO CLEARING, GRADING AND DEMOLITION WORK. MAINTAIN ALL SEDIMENT CONTROL, AND TREE PROTECTION MEASURES UNTIL PERMANENT GROUND COVER IS ESTABLISHED.
- ALL EROSION AND SEDIMENT CONTROL PRACTICES ARE SUBJECT TO FIELD MODIFICATIONS AT THE DIRECTION OF THE CITY'S DPW AND/OR ENGINEERING DEPARTMENT.
- PRIOR TO ANY OTHER CONSTRUCTION, A STABILIZED CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED AT EACH ENTRY TO OR EXIT FROM THE SITE. CONTRACTOR SHALL MAINTAIN CONSTRUCTION ENTRANCE UNTIL SITE PAVING IS COMPLETE.
- INLET PROTECTIONS SHALL BE INSTALLED ON ALL EXISTING CATCH BASINS AS INDICATED ON THE PLAN, AND IMMEDIATELY AFTER THE INSTALLATION OF ALL NEWLY INSTALLED INLETS.
- THE CONSTRUCTION ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO THE ACCESSING ROADWAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH STONE, AS CONDITIONS DEMAND, AND REPAIR AND/OR CLEAN-OUT OF ANY STRUCTURES USED TO TRAP SEDIMENT. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED BY VEHICLE OFF-SITE ONTO THE ROADWAY OR INTO STORM DRAINS MUST BE REMOVED.
- IMMEDIATELY AFTER THE ESTABLISHMENT OF CONSTRUCTION ENTRANCES/EXITS, ALL PERIMETER EROSION CONTROL DEVICES AND STORM WATER MANAGEMENT DEVICES SHALL BE INSTALLED PRIOR TO ANY OTHER CONSTRUCTION.
- ADD EROSION BARRIER AROUND PERIMETER OF PROPOSED RECHARGE AREA IF THE EXCAVATED PIT WILL REMAIN EXPOSED FOR MORE THAN TWO (2) DAYS, WEATHER PERMITTING. THE EXCAVATED PIT SHALL BE CLEAN OF ALL SEDIMENT.
- EROSION CONTROL DEVICES SHALL BE INSTALLED BEFORE GROUND DISTURBANCE OCCURS. THE LOCATION OF SOME OF THE EROSION CONTROL DEVICES MAY HAVE TO BE ALTERED FROM THAT SHOWN ON THE APPROVED PLANS IF DRAINAGE PATTERNS DURING CONSTRUCTION ARE DIFFERENT FROM THE FINAL PROPOSED DRAINAGE PATTERNS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ACCOMPLISH EROSION CONTROL FOR ALL DRAINAGE PATTERNS CREATED AT VARIOUS STAGES DURING CONSTRUCTION. ANY DIFFICULTY IN CONTROLLING EROSION DURING ANY PHASE OF CONSTRUCTION SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY.
- THE CONSTRUCTION OF THE SITE WILL INITIATE WITH THE INSTALLATION OF EROSION CONTROL MEASURES SUFFICIENT TO CONTROL SEDIMENT DEPOSITS AND EROSION. ALL SEDIMENT CONTROL WILL BE MAINTAINED UNTIL ALL UPSTREAM GROUND WITHIN THE CONSTRUCTION AREA HAS BEEN COMPLETELY STABILIZED WITH PERMANENT VEGETATION AND ALL ROADS/DRIVES HAVE BEEN PAVED.
- THE CONTRACTOR SHALL FURNISH AND MAINTAIN ALL NECESSARY BARRICADES WHILE IMPROVEMENTS ARE BEING MADE. TRAFFIC CONTROL MEASURES TO BE IN ACCORDANCE WITH LOCAL REGULATIONS AND OR MASSDOT.
- ALL SILT BARRIERS MUST BE PLACED AS ACCESS IS OBTAINED DURING CLEARING. NO GRADING SHALL BE DONE UNTIL SILT BARRIER INSTALLATION AND DETENTION FACILITIES, IF REQUIRED, ARE CONSTRUCTED.
- CONTRACTOR SHALL PERFORM EROSION CONTROL INSPECTIONS REGULARLY AND IMMEDIATELY FOLLOWING HEAVY RAIN STORMS TO ENSURE MEASURES ARE FUNCTIONING PROPERLY. REPAIR OR REPLACE FAILED SYSTEMS AT THE EARLIEST POSSIBLE DATE.
- ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH TEMPORARY SEEDING.
- ALL DISTURBED AREAS, WITH NO SPECIFIED GROUND COVER ARE TO BE RESTORED WITH MINIMUM FOUR (4) INCHES OF TOPSOIL AND SEEDING.
- PROPERTY MARKERS AND STREET LINE MONUMENTS SHALL BE PROPERLY PROTECTED AT ALL TIMES DURING CONSTRUCTION TO ENSURE INTEGRITY. IF DISTURBED, THEY SHALL BE REPLACED BY A REGISTERED SURVEYOR AT THE CONTRACTOR'S EXPENSE.
- ALL EXCAVATION SHALL INCLUDE CLEARING, STRIPPING AND STOCKPILING TOPSOIL, REMOVING UNSUITABLE MATERIALS, THE CONSTRUCTION OF EMBANKMENTS, CONSTRUCTION FILLS, AND THE FINAL SHAPING AND TRIMMING TO THE LINES AND GRADES SHOWN ON THE PLANS.
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- SWEEP CLEAN THE BINDER COURSE PRIOR TO THE INSTALLATION OF THE FINAL BITUMINOUS CONCRETE SURFACE COURSE. EXCESSIVE CLEANING OF THE BINDER COURSE THAT MAY BE REQUIRED, AND IS NOT THE FAULT OF THE PAVING CONTRACTOR, SHALL BE PAID FOR ON A TIME AND MATERIAL BASIS BY PRIOR AGREEMENT WITH THE GENERAL CONTRACTOR.
- THE CITY'S ENGINEERING DIVISION SHALL BE NOTIFIED SEVENTY-TWO (72) HOURS PRIOR TO ANY EXCAVATION TO MARK OUT TOWN UTILITIES.
- ALL WATER, SEWER, CURB CUT, STREET OPENING AND JACKIE'S LAW EXCAVATION PERMITS SHALL BE OBTAINED AT THE ENGINEERING DIVISION PRIOR TO ANY EXCAVATIONS.
- ALL SITE WORK SHALL BE INSPECTED BY THE ENGINEERING DIVISION. THE APPLICANT/OWNER'S CONTRACTOR SHALL SUBMIT A CONSTRUCTION SCHEDULE OF PROPOSED WORK. ALL INSPECTIONS SHALL BE SCHEDULED 48 HOURS IN ADVANCE.



PREPARED BY:

FODERA ENGINEERING
(617) 992-8492
contact@foderaengineering.com
28 Harbor St., Suite 204
Danvers, MA 01923

PREPARED FOR:

REI GROUP, LLC
214 HAMILTON STREET
WORCESTER, MA 01604

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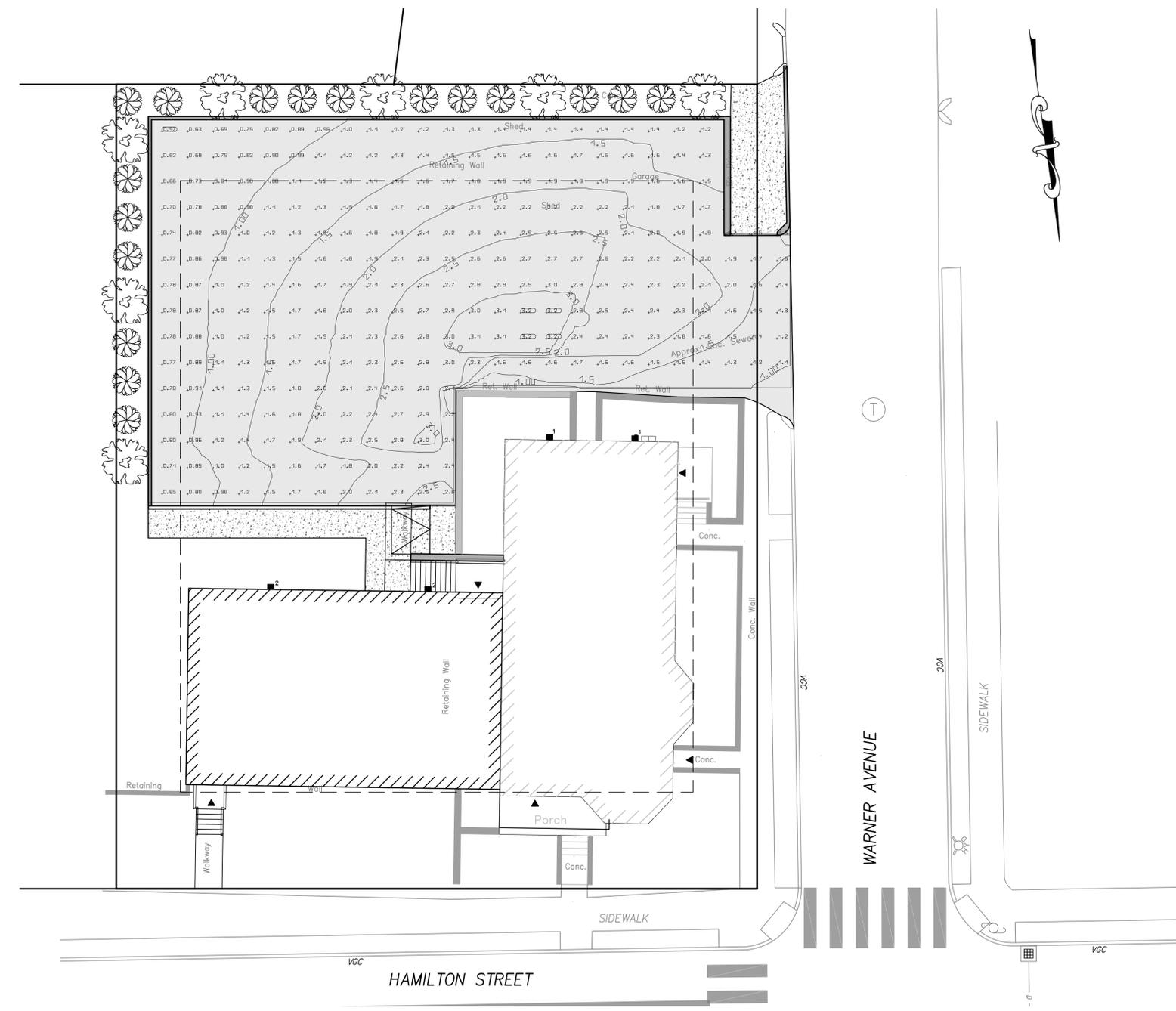
SHEET TITLE:
E+S CONTROL PLAN

SHEET NUMBER:
C-4

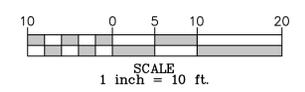
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Luminaire list (Site 1)								
Index	Manufacturer	Article name	Item number	Fitting	Luminous flux	Maintenance factor	Connected load	Quantity
1	Not yet a DIALux member	RSX Area Fixture Size 1 P2 Lumen Package 4000K CCT Type AFR Distribution with EGS Shield	RSX1 LED P2 40K AFR EGS	1x	9044 lm	0.80	72.9 W	2
2	Not yet a DIALux member	RSX Area Fixture Size 1 P4 Lumen Package 4000K CCT Type R5S Distribution with EGS Shield	RSX1 LED P4 40K R5S EGS	1x	13033 lm	0.80	133.1 W	2



PHOTOMETRICS PLAN
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PROPOSED MULTI-FAMILY, HIGH RISE
 214 HAMILTON STREET
 WORCESTER, MA 01604
PERMIT SET



JOB NO.: 23317-363

SHEET TITLE:
 PHOTOMETRICS PLAN

SHEET NUMBER:
 C-5 5 OF 7

REVISION	DATE	BY
REVISION 1	12/4/23	GGF
REVISION 2	1/16/24	GGF
PARKING REV.	2/9/24	GGF

PROJECT LOCATION:
 214 HAMILTON ST.
 WORCESTER, MA 01604
 PARCEL ID:
 18_046_00001

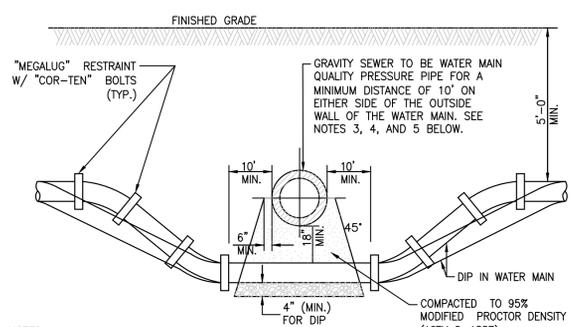
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PROFESSIONAL SEAL:
 COMMONWEALTH OF MASSACHUSETTS
 REGISTERED PROFESSIONAL ENGINEER
 No. 54884
 GAETANO FODERA
 DATE: 2/9/24

JOB NO.: 23317-363

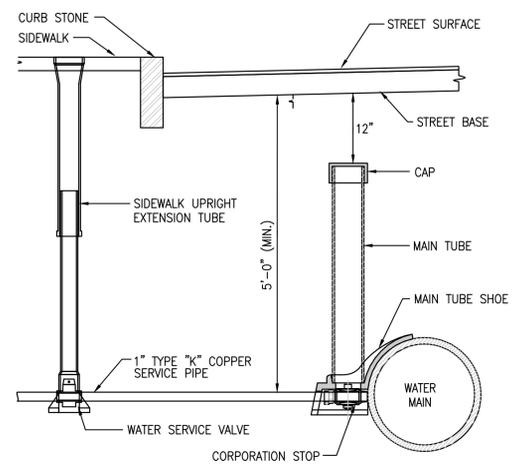
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SHEET NUMBER:
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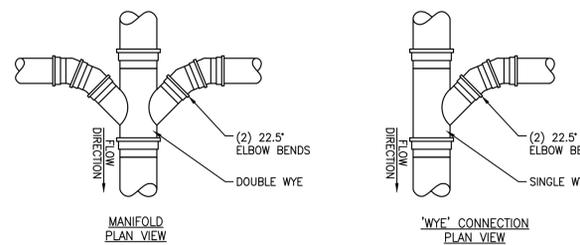


- NOTES:
- HORIZONTAL AND VERTICAL SEPARATION BETWEEN WATERMAINS AND SEWERS SHALL COMPLY WITH APPLICABLE SECTIONS OF LOCAL OR STATE REQUIREMENTS, WHICHEVER IS MORE STRINGENT.
 - CONTRACTOR MAY BEND WATER MAIN PIPE UNIFORMLY UNDER SEWERS WITHOUT USING FITTINGS. PROVIDED THAT JOINT DEFLECTION DOES NOT EXCEED 5 DEGREES PER JOINT FOR PIPE UNDER 14" IN DIAMETER AND 3 DEGREES PER JOINT FOR PIPE 14" AND OVER IN DIAMETER. IF FITTINGS ARE USED, CONTINUOUS STRAPPING WITH RODS, STRAPS, NUTS AND BOLTS BELOW NORMAL WATERMAIN DEPTH ARE REQUIRED, OR RETAINER GLANDS MAY BE USED IN LIEU OF STRAPPING. RETAINER GLANDS TO BE CLOW No. F-1058 OR APPROVED EQUAL.
 - ALL SANITARY SEWER (INCLUDING SERVICE) CROSSINGS WHERE THE WATER MAINS OR WATER SERVICES ARE LESS THAN 18" VERTICALLY ABOVE THE SEWER SHALL BE POLYVINYL CHLORIDE PRESSURE PIPE (SDR 26-160 PSI) AND SHALL CONFORM WITH THE LATEST REVISION OF ASTM D-2241. JOINTS SHALL CONFORM TO ASTM D-3139 AND ELASTOMERIC GASKETS SHALL CONFORM TO ASTM F-477. THE SAME PIPE AND JOINT MATERIALS SHALL BE USED WHENEVER WATER MAIN CROSSES BELOW THE SEWER.
 - ALL STORM SEWER (INCLUDING SERVICE) CROSSINGS WHERE THE WATER MAINS ARE LESS THAN 18" VERTICALLY ABOVE THE SEWER SHALL BE REINFORCED CONCRETE PIPE, ASTM C-361, CLASS D-25, WITH BELL AND SPIGOT JOINTS AND RUBBER GASKETS, OR PVC SDR 26 AS SPECIFIED IN NOTE 3 ABOVE. THE SAME PIPE AND JOINT MATERIAL SHALL BE USED WHENEVER WATER MAIN CROSSES BELOW THE SEWER.
 - FOR NEW SEWER INSTALLATIONS CROSSING OVER WATER MAINS, THE ENTIRE RUN OF NEW SEWER SHALL BE WATER MAIN QUALITY PIPE, EXTENDING FROM STRUCTURE TO STRUCTURE ON EACH SIDE OF THE CROSSING.

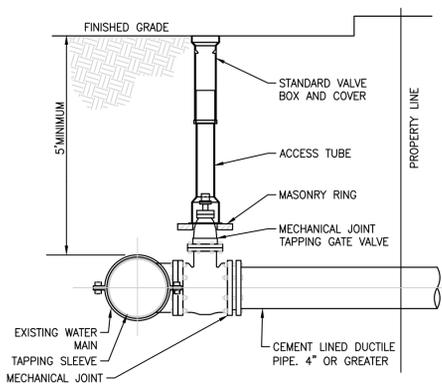
WATER MAIN CROSSING
 N.T.S.



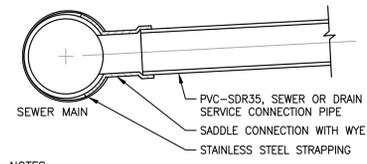
TYPICAL WATER SERVICE CONNECTION
 N.T.S.



MANIFOLD AND WYE CONNECTIONS
 N.T.S.

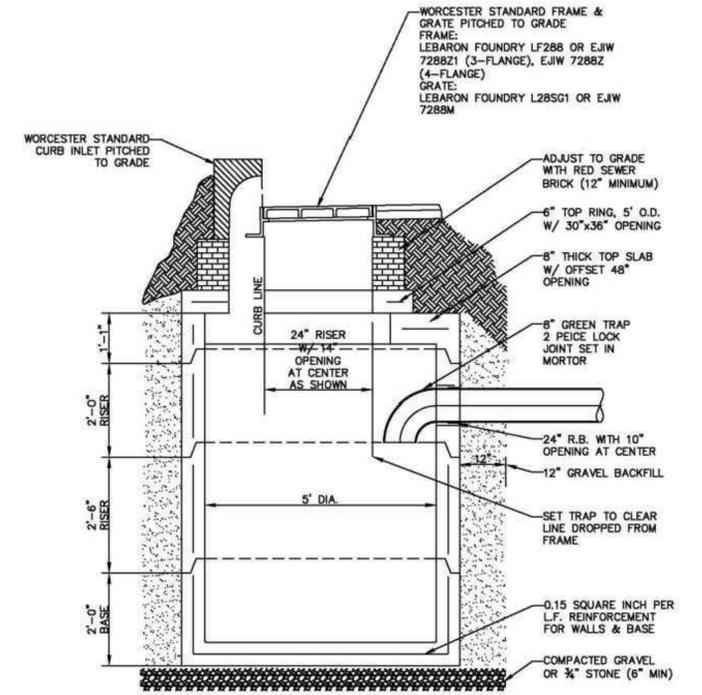


WATER CONNECTION WITH TAPPING SLEEVE AND VALVE
 N.T.S.

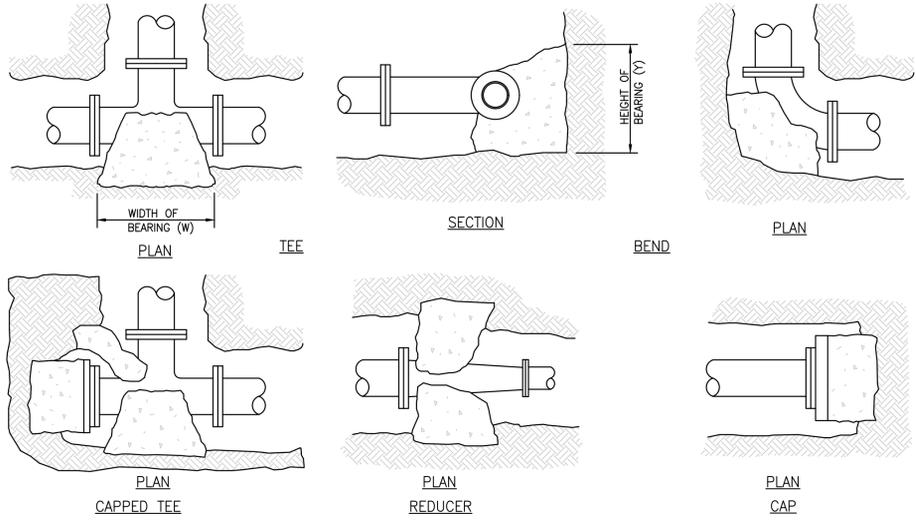


- NOTES:
- FULL PVC OR IRON SADDLE MAY BE USED TO CONNECT TO EXISTING PVC, CLAY, CONCRETE, OR IRON PIPE. SADDLES MUST HAVE RUBBER GASKETS AND SHALL BE TIGHTENED WITH STRAPS. SADDLES SHALL NOT BE CEMENTED ONTO PIPE.
 - FULL NEW WYE CONNECTION FITTINGS MAY BE SUBSTITUTED FOR SADDLE CONNECTIONS.
 - PIPE SHALL BE CUT TO CONFORM TO THE OPENING IN THE SADDLE.
 - NO CONNECTION TO EXISTING PIPE WITHOUT SADDLE OR FULL NEW WYE FITTING SHALL BE MADE.
 - SHALL BE INSTALLED WITH A DOWNWARD ANGLE AND IN THE WYE FLOW DIRECTION.

TYPICAL SADDLE CONNECTION
 N.T.S.



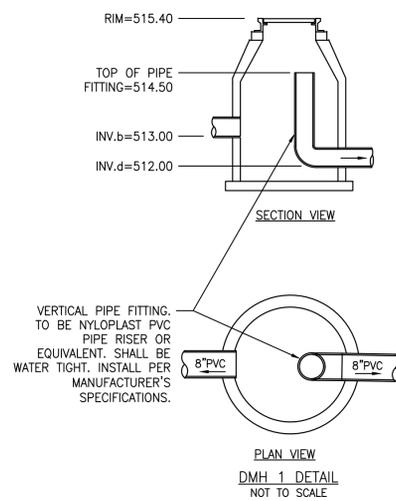
TYPICAL PRECAST CATCH BASIN



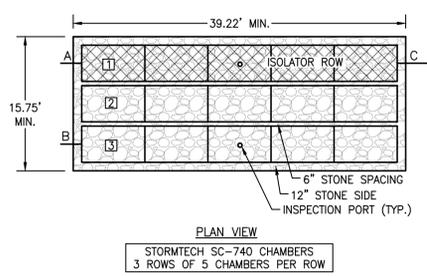
PIPE SIZE	WATER PIPE	
	TEE, DEAD END, 90° BEND	45° & 22~8° BENDS
4" OR LESS	3 SQ. FEET	3 SQ. FEET
6"	4 SQ. FEET	3 SQ. FEET
8"	6 SQ. FEET	3 SQ. FEET
10"	9 SQ. FEET	5 SQ. FEET
12"	13 SQ. FEET	7 SQ. FEET
16"	23 SQ. FEET	12 SQ. FEET

- NOTES:
- THRUST BLOCKS TO EXTEND TO UNDISTURBED GROUND.
 - ALL CONCRETE SHALL BE CLASS B.
 - TABLE IS BASED ON 3000 LB./SQ. FT. SOIL. IF SOIL CONDITIONS ARE FOUND TO INDICATE SOIL BEARING LESS, THE AREAS SHALL BE INCREASED ACCORDINGLY.
 - AREAS FOR PIPES GREATER THAN 16" SHALL BE CALCULATED FOR EACH PROJECT.
 - FOR ALL NON BEARING VERTICAL SURFACES.

THRUST BLOCKS FOR WATER SYSTEM
 N.T.S.



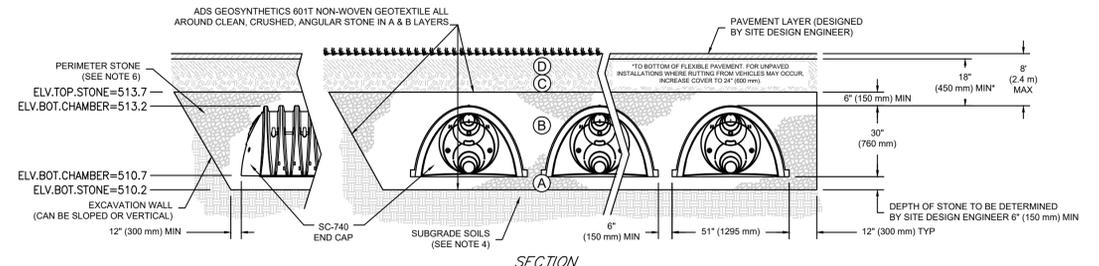
DMH 1 DETAIL
 NOT TO SCALE



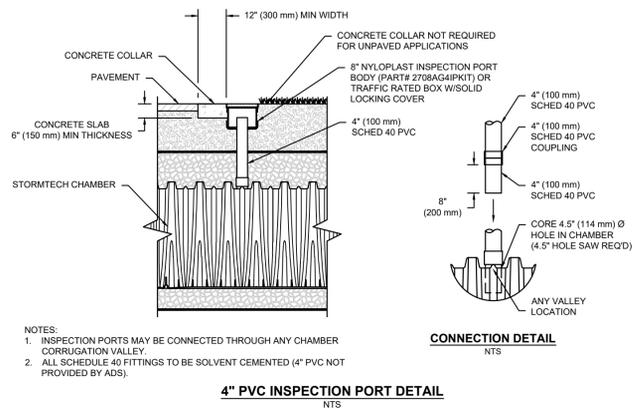
PLAN VIEW
 STORMTECH SC-740 CHAMBERS
 3 ROWS OF 5 CHAMBERS PER ROW

- NOTES:
- SC-740 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
 - "ACCEPTABLE FILL MATERIALS" TABLE ABOVE PROVIDES MATERIAL LOCATIONS, DESCRIPTIONS, GRADATIONS, AND COMPACTION REQUIREMENTS FOR FOUNDATION, EMBEDMENT, AND FILL MATERIALS.
 - 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.
 - PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
 - 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.

- (A) DOUBLE WASHED 3/4"-1 1/2" STONE
 (B) DOUBLE WASHED 1/2"-1 1/2" STONE
 (C) CLEAN GRANULAR FILL MATERIAL
 (D) 4"-6" TOPSOIL (LAWN AREA) OR 12" COMPACTED GRAVEL BASE (PAVEMENT AREA)



STORMTECH SC-740 INFILTRATION SYSTEM
 N.T.S.



4" PVC INSPECTION PORT DETAIL
 N.T.S.

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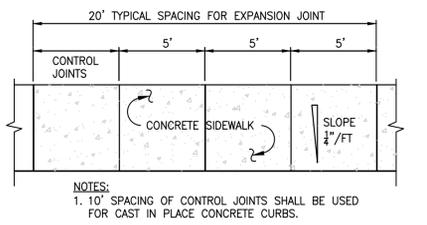
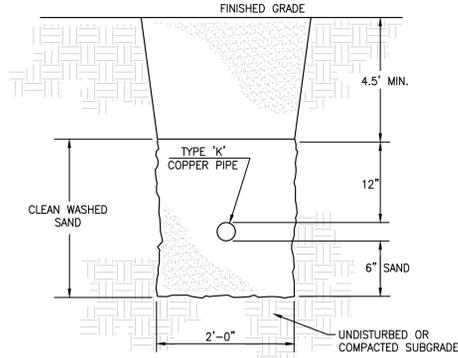
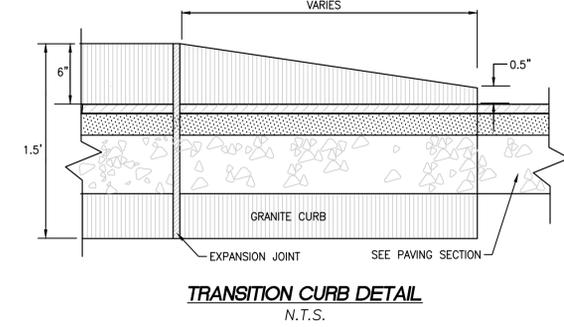
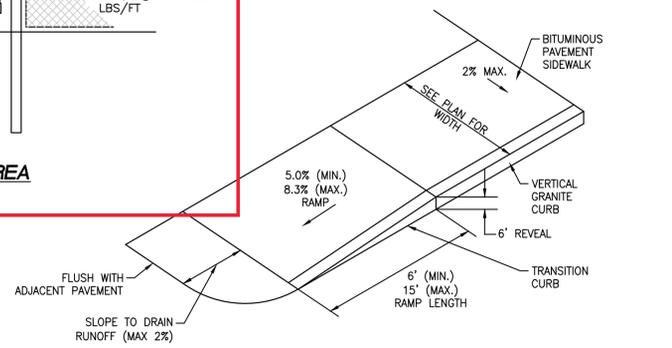
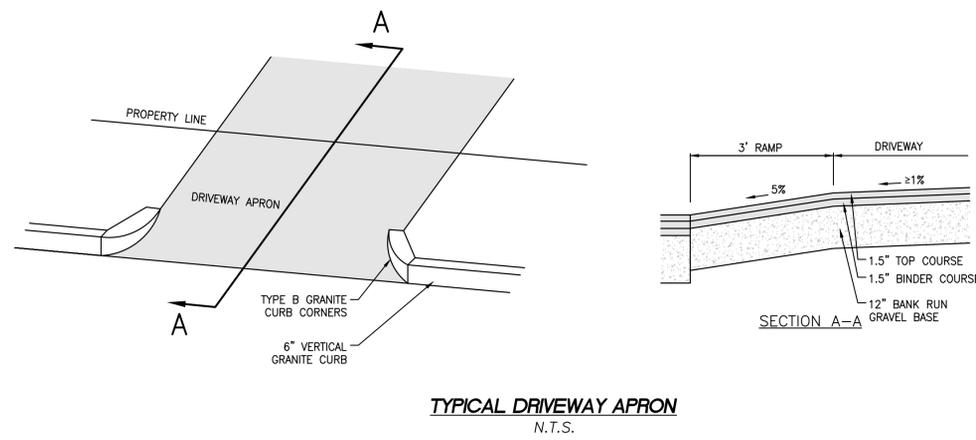
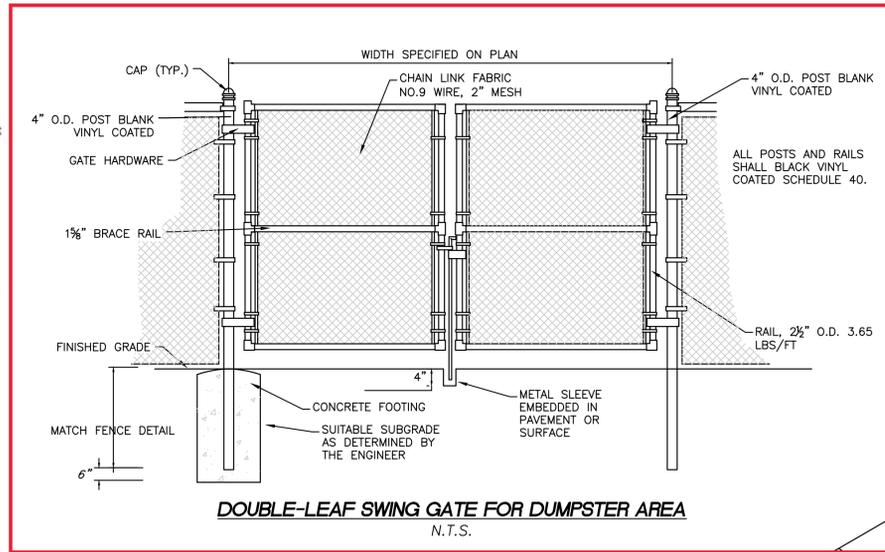
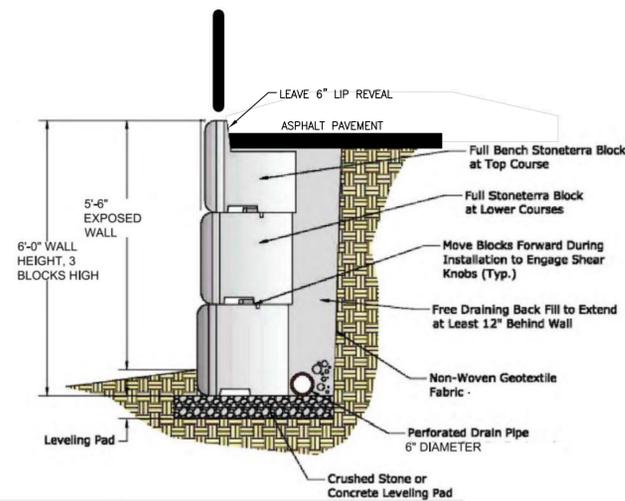
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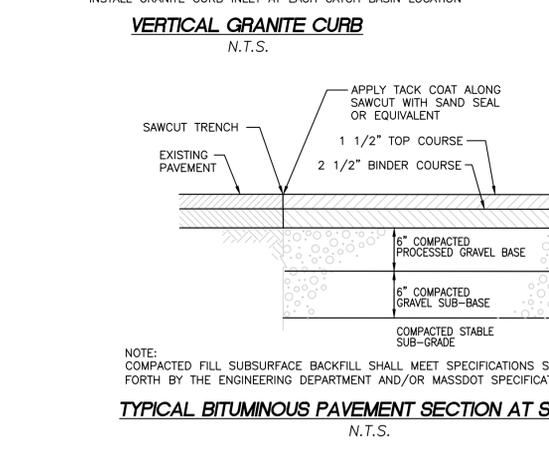
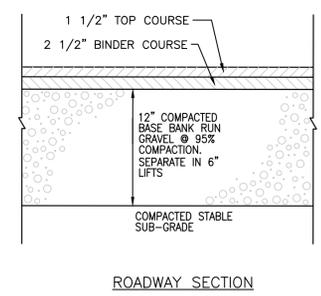
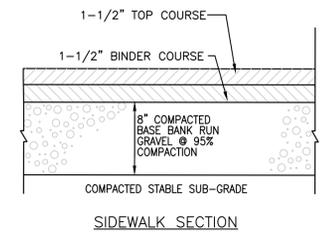
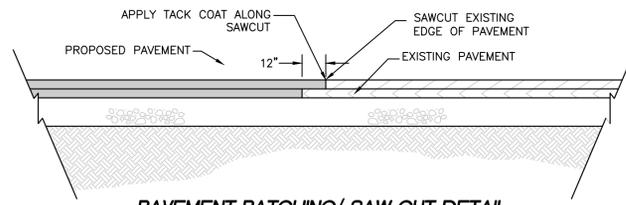
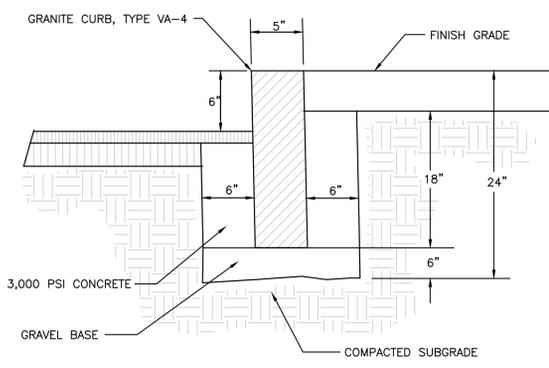
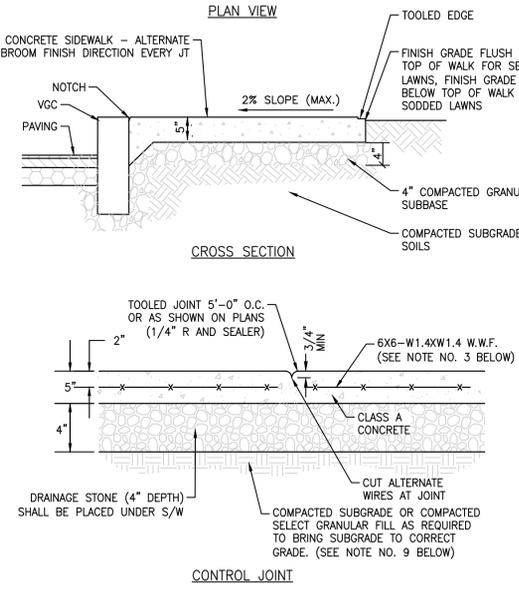
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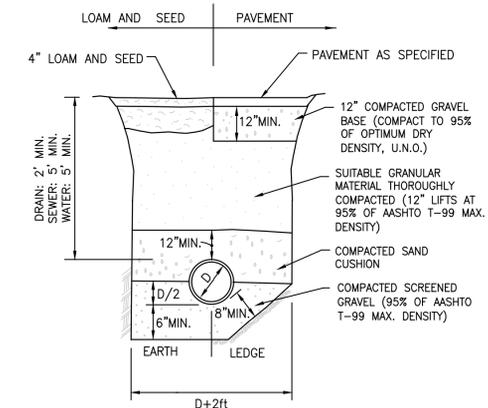


- NOTES:**
- MATERIAL AND METHODS OF CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE STATE DEPARTMENT OF TRANSPORTATION.
 - ALL CONCRETE SHALL BE 3,000 PSI CLASS A CONCRETE. CONCRETE MATERIALS, PLACEMENT, AND CONSTRUCTION SHALL CONFORM STATE DOT STANDARD SPECIFICATIONS.
 - REINFORCING STEEL FOR CONCRETE SHALL CONFORM WITH THE ABOVE REFERENCED STATE DOT STANDARD SPECIFICATIONS AND AS SPECIFICALLY CALLED OUT IN THE DRAWINGS.
 - ALL EXPOSED SURFACES SHALL HAVE A BROOM TEXTURED FINISH.
 - EXPANSION JOINTS SHALL BE LOCATED A MAXIMUM OF 20'-0" ON CENTER, OR AS INDICATED ON PLANS.
 - JOINTS SHALL NOT BE SAW CUT.
 - EXPOSED CONCRETE SURFACES SHALL BE TREATED WITH "SUREBOND"/"SAFEbond" SB-7000 INTENSIFIER BRIGHT PROTECTOR AND SIDEWALK SEALER, OR EQUAL RATE AND METHOD OF APPLICATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
 - SUBBASE MATERIAL SHALL CONFORM WITH STATE DOT STANDARD.
 - WHERE IT IS NECESSARY TO PLACE FILL FOR PURPOSE OF BRINGING THE SUBGRADE ELEVATION UP TO A SPECIFIED GRADE, THE FILL MATERIAL PLACED SHALL BE IN CONFORMANCE WITH STATE DOT STANDARD SPECIFICATIONS.
 - CURB SHALL BE REVEALED BY 6 INCHES ABOVE GRADE UNLESS OTHERWISE NOTED ON THE GRADING PLAN.



NOTE: COMPACTED FILL SUBSURFACE BACKFILL SHALL MEET SPECIFICATIONS SET FORTH BY THE ENGINEERING DEPARTMENT AND/OR MASSDOT SPECIFICATIONS.

BITUMINOUS PAVEMENT SECTION
 N.T.S.



OCTOBER 6, 2023

SCALE: 1" = 10'