

PROJECT: PROPOSED PARKING EXPANSION
12 FORGE PARKWAY
FRANKLIN, MASSACHUSETTS

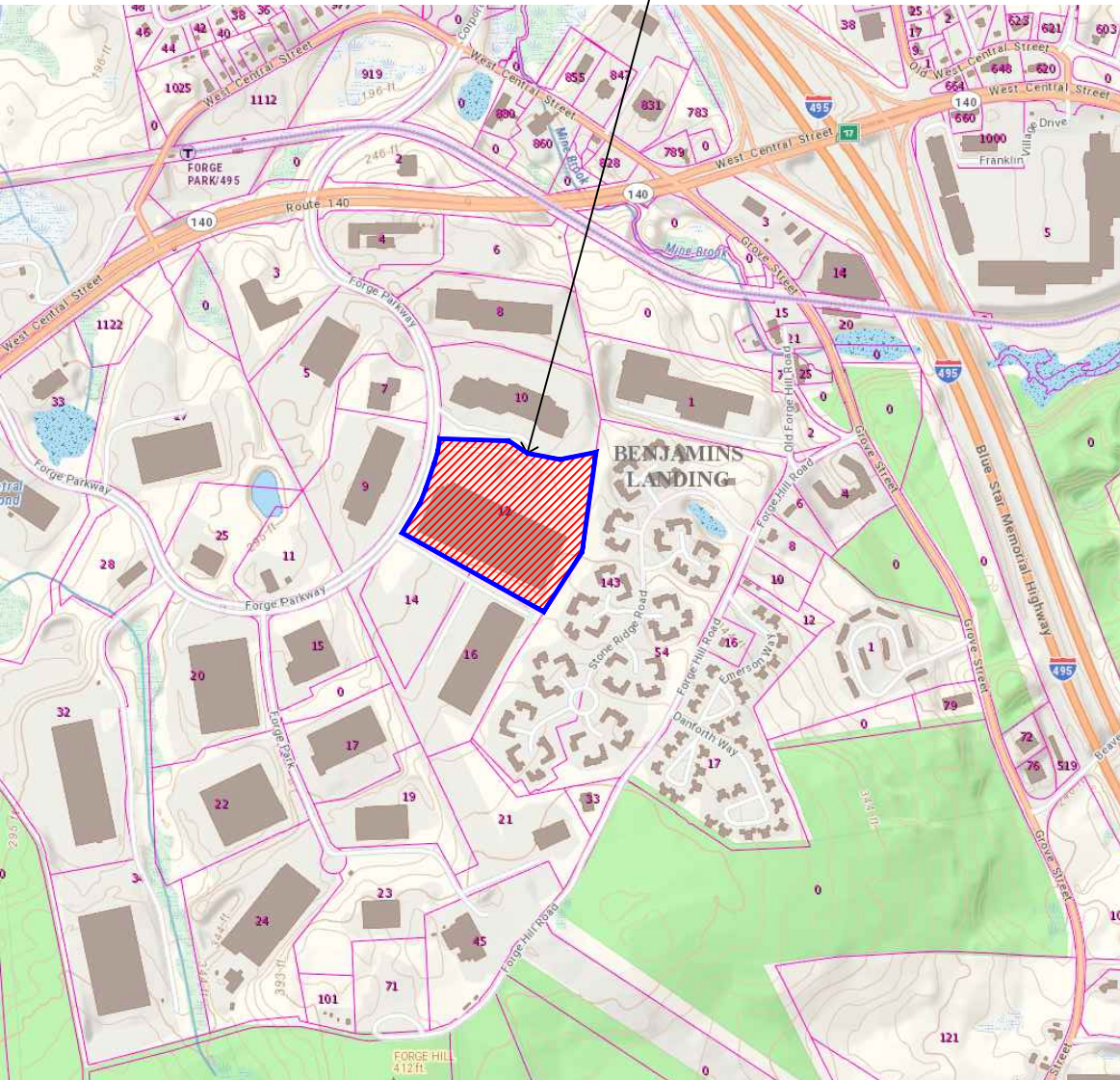
APPLICANT: P8/GFI 12 FORGE PARK LLC
133 PEARL STREET
BOSTON, MASSACHUSETTS

CIVIL ENGINEER: EUGENE T. SULLIVAN, INC.
230 LOWELL STREET- SUITE 2A
WILMINGTON, MASSACHUSETTS

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12 FORGE PARKWAY SITE



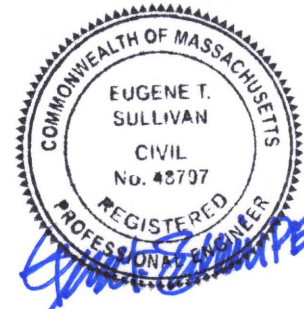
SITE LOCUS

APPROVED BY THE TOWN OF
FRANKLIN PLANNING BOARD:

DATE:

GENERAL NOTES:

1. THE CONTRACTOR SHALL NOTIFY "DIG-SAFE" [888.344.7233] AND VERIFY ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.
2. THE UNDERGROUND UTILITIES SHOWN ON THESE PLANS HAVE BEEN LOCATED BY FIELD SURVEY AND EXISTING DRAWINGS. THIS ENGINEER MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA EITHER IN USE OR ABANDONED. THE ENGINEER FURTHER DOES NOT WARRANT THAT THE UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE.
3. THESE SITE PLANS ARE BASED UPON AN ON-THE-GROUND TOPOGRAPHICAL SURVEY. NO ATTEMPT WAS MADE IN PREPARING THESE PLANS TO ASCERTAIN THE LOCATION OF NON-VISUALLY APPARENT SUBSURFACE UTILITIES AND STRUCTURES OR CONDITIONS.
4. THESE PLANS HAVE BEEN PREPARED FOR THIS CLIENT AND THIS PROJECT. REPRODUCTION IN WHOLE OR IN PART FOR OTHER PURPOSES IS STRICTLY PROHIBITED.
5. THESE DRAWINGS SHALL NOT BE SCALED. IF CLARIFICATION OF INTENT IS REQUIRED, THE CONTRACTOR SHALL REQUEST CLARIFICATION PRIOR TO CONTINUING HIS WORK.
6. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO INITIATION OF THE WORK AND SHALL NOTIFY THE CIVIL ENGINEER OF RECORD AND THE OWNER OF ANY DISCREPANCIES WITH THE SITE CONDITIONS OR PROPOSED CONSTRUCTION IMMEDIATELY UPON DISCOVERY.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING PROPOSED CONSTRUCTION WITH EXISTING CONDITIONS.
8. THE CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN ALL REQUIRED PERMITS AND LICENSES.
9. ALL WORK SHALL CONFORM TO ALL LOCAL AND STATE REGULATORY AGENCIES AND UTILITY REQUIREMENTS.
10. UPON ENTERING THE SITE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EROSION CONTROL, DEWATERING AND SHALL UNDERTAKE ALL MEASURES TO PROTECT WETLANDS, THE DRAINAGE SYSTEMS, ADJACENT PROPERTIES AND STREETS FROM SILTATION, STORMWATER RUNOFF, AND DUST DURING THE ENTIRE PROJECT DURATION.
11. THE LIMIT OF WORK SHALL BE AS DESIGNATED ON THESE PLANS, AND/OR THE EDGE OF PROPOSED GRADING AND/OR THE PROPERTY LINES IF NOT INDICATED OTHERWISE.
12. THE CONTRACTOR SHALL CLEARLY MARK THE LIMITS OF WORK PRIOR TO THE START OF CONSTRUCTION.
13. MATERIALS IMPORTED TO THE SITE SHALL BE FREE OF HAZARDOUS WASTE AND NOXIOUS MATERIALS, STORED AS DESIGNATED AND SHALL NOT HAMPER THE SITE ACTIVITIES.
14. MATERIALS EXPORTED FROM THE SITE SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND DISPOSED OF IN A LEGAL MANNER.
15. ALL NECESSARY PROJECT DETAILS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE DETAILS WITH THE LOCAL POLICE DEPARTMENT.
16. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL EXISTING UTILITIES IN WORKING ORDER AND FREE FROM DAMAGE DURING THE ENTIRE DURATION OF THE PROJECT. ALL COSTS RELATED TO THE REPAIR OF DAMAGED UTILITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. EXCAVATION REQUIRED WITHIN THE PROXIMITY OF EXISTING UTILITY LINES SHALL BE DONE BY HAND. THE CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING UTILITY LINES OR STRUCTURES INCURRED DURING CONSTRUCTION AT NO ADDITIONAL COSTS TO THE OWNER.
17. THE CONTRACTOR SHALL UTILIZE ALL PRECAUTIONS AND MEASURES NECESSARY TO ENSURE THE SAFETY OF THE PUBLIC, ALL PERSONNEL AND PROPERTY DURING CONSTRUCTION IN ACCORDANCE WITH OSHA STANDARDS, INCLUDING BARRICADES, SAFETY LIGHTING, CONES, POLICE DETAILS, AND/OR FLAGMEN AS NECESSARY.
18. ALL TRENCHING WORK WITHIN A ROADWAY SHALL BE COORDINATED WITH THE PROPER LOCAL AND/OR STATE AGENCY. TRENCH SAFETY SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR DURING THE TRENCH WORK, INCLUDING ANY LOCAL AND/OR STATE PERMITS REQUIRED FOR THE TRENCHWORK.
19. ALL TRENCHWORK WITHIN EXISTING PAVEMENT SHALL BE SAWCUT PER THE APPLICABLE DETAILS. TRENCHWORK BACKFILL AND COMPACTION SHALL HAVE MAXIMUM 8" LIFTS. THE CONTRACTOR SHALL BE REQUIRED TO REMOVE THE PATCH AND REPAVE AFTER ONE COMPLETE 12-MONTH CYCLE IF SETTLEMENT OCCURS DUE TO INADEQUATE COMPACTION.
20. SITE LAYOUT SURVEY REQUIRED FOR CONSTRUCTION WILL BE PROVIDED BY THE CONTRACTOR AND SHALL BE CONDUCTED BY A MASSACHUSETTS REGISTERED PROFESSIONAL LAND SURVEYOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING ALL CONTROL POINTS AND BENCHMARKS DURING CONSTRUCTION.
21. CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL LAWS AND REGULATIONS REGARDING NOISE, VIBRATION, DUST, SEDIMENTATION CONTAINMENT, TRENCHWORK AND ROADWAY WORK.
22. SOLID WASTES SHALL BE COLLECTED AND STORED IN A SECURED DUMPSTER. THE DUMPSTER SHALL MEET ALL LOCAL AND STATE SOLID WASTE MANAGEMENT REGULATIONS.
23. THE CONTRACTOR SHALL RESTORE ALL SURFACES EQUAL TO THEIR ORIGINAL CONDITION AFTER CONSTRUCTION IS COMPLETE. AREAS NOT DISTURBED BY CONSTRUCTION SHALL BE LEFT NATURAL. THE CONTRACTOR SHALL TAKE CARE TO PREVENT DAMAGE TO SHRUBS, TREES AND OTHER LANDSCAPING AND/OR NATURAL FEATURES.
24. LEDGE OR BOULDER EXCAVATION IS ANTICIPATED FOR THIS SITE. THE CONTRACTOR SHALL PROVIDE A UNIT COST PER CUBIC YARD FOR LEDGE AND/OR BOULDER REMOVAL. LEDGE AND/OR BOULDERS LESS THAN ONE CUBIC YARD IN SIZE WILL NOT BE CONSIDERED PAYABLE ROCK.



EROSION AND SEDIMENT CONTROLS:

THE FOLLOWING EROSION AND SEDIMENT CONTROL TECHNIQUES AND PROCEDURES ARE TO BE EMPLOYED TO PROTECT THE ADJACENT WETLANDS AND NEIGHBORING PROPERTIES AND ROADWAYS.

1. PRIOR TO ANY SITE ACTIVITIES, SILT FENCE AND HAY BALES ARE TO BE PLACED WHERE SHOWN ON THESE PLANS. SILT FENCE/HAY BALE BARRIERS ARE TO TRAP SEDIMENT TRANSPORTED BY RUN-OFF BEFORE IT IMPACTS THE WETLANDS OR LEAVES THE CONSTRUCTION SITE. THESE SILT FENCES AND HAY BALES ARE TO BE INSPECTED PERIODICALLY AND REPAIRED OR REPLACED AS NECESSARY DURING THE CONSTRUCTION PROJECT. INSPECTIONS OF THE EROSION CONTROLS ARE TO BE PERFORMED WEEKLY AND AFTER EVERY SIGNIFICANT PRECIPITATION EVENT [EXCEEDING 3" OF PRECIPITATION].
2. THE EROSION CONTROLS ARE TO BE IN PLACE PRIOR TO ANY EXCAVATION OR CLEARING OF THE SITE. AREAS OUTSIDE THE EROSION CONTROLS ARE NOT TO BE DISTURBED DURING CONSTRUCTION.
3. SEDIMENT BUILDUP AT THE EROSION CONTROLS SHALL BE REMOVED ONCE THE SEDIMENT VOLUME REACHES THE HEIGHT OF THE HAY BALES.
4. DIVERT RUNOFF FROM OFF-SITE AND UNDISTURBED AREAS AWAY FROM CONSTRUCTION TO MINIMIZE SOIL EROSION AND SEDIMENTATION ON AND OFF-SITE. TEMPORARILY STABILIZE ALL HIGHLY ERODIBLE SOILS AND SLOPES IMMEDIATELY.
5. LAND DISTURBANCE ACTIVITIES EXCEEDING TWO ACRES IN SIZE SHALL NOT BE DISTURBED WITHOUT A SEQUENCING PLAN THAT REQUIRES STORMWATER CONTROLS TO BE INSTALLED AND EXPOSED SOILS STABILIZED. AS DISTURBANCES BEYOND THE TWO ACRES CONTINUE, A CONSTRUCTION PHASING PLAN, INCLUDING EROSION CONTROL AND SEDIMENT CONTROL PLAN FOR EACH PHASE, SHALL BE SUBMITTED TO THE DEC PRIOR TO ANY CONSTRUCTION ON THE SITE. MASS CLEARINGS AND GRADING OF THE ENTIRE SITE SHOULD BE AVOIDED.
6. SOIL STOCKPILES MUST BE STABILIZED OR COVERED AT THE END OF EACH WORKDAY. STOCKPILE SIDE SLOPES SHALL NOT BE GREATER THAN 2:1. ALL STOCKPILES SHALL BE SURROUNDED BY SEDIMENT CONTROLS.
7. DISTURBED AREAS REMAINING IDLE FOR MORE THAN 14 DAYS SHALL BE TEMPORARILY OR PERMANENTLY STABILIZED.
8. PERMANENT SEEDING SHALL BE UNDERTAKEN IN THE SPRING FROM MARCH THRU MAY, AND IN LATE SUMMER AND EARLY FALL FROM AUGUST TO OCTOBER 15. DURING THE PEAK SUMMER MONTHS AND IN THE FALL AFTER OCTOBER 15 AN APPROPRIATE TEMPORARY MULCH AND/OR NON-ASPHALTIC SOIL TACKIFIER WITH WINTER RYE SHALL BE APPLIED.
9. ALL SLOPES STEEPER THAN 3:1, AS WELL AS PERIMETER DIKES, SEDIMENT BASINS OR TRAPS, AND EMBANKMENTS MUST, UPON COMPLETION, BE IMMEDIATELY STABILIZED WITH SOIL, SEED AND ANCHORED STRAW MULCH OR OTHER APPROVED STABILIZATION MEASURES.
10. TEMPORARY SEDIMENT TRAPPING DEVICES MUST NOT BE REMOVED UNTIL PERMANENT STABILIZATION IS ESTABLISHED IN ALL CONSTRUCTION AREAS ASSOCIATED WITH THE PROJECT. SIMILARLY, STABILIZATION MUST BE ESTABLISHED PRIOR TO CONVERTING TEMPORARY SEDIMENT TRAPS/BASINS INTO PERMANENT (POST-CONSTRUCTION) STORMWATER MANAGEMENT FACILITIES. ALL FACILITIES USED FOR TEMPORARY MEASURES SHALL BE CLEANED AND RE-STABILIZED PRIOR TO BEING PUT INTO FINAL OPERATION.
11. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED AFTER FINAL SITE STABILIZATION. DISTURBED SOIL AREAS RESULTING FROM THE REMOVAL OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED WITHIN 30 DAYS OF REMOVAL. TO REDUCE THE TRACKING OF SEDIMENT ONTO PUBLIC WAYS, PROVIDE A CRUSHED STONE FILTER AT THE DRIVE ENTRANCE. ALL CONSTRUCTION VEHICLES ENTERING AND LEAVING THE SITE SHALL USE THE PROPOSED CONSTRUCTION ENTRANCE.
13. PROPER MEASURES SHALL BE IMPLEMENTED BY THE CONTRACTOR IF DEWATERING IS NECESSARY DURING CONSTRUCTION. THESE MEASURES SHALL INCLUDE DEWATERING BARGE, TEMPORARY HAYBALES, SILT FENCES, SILT SOCKS AND/OR OTHER APPROVED DEVICES. THE DEWATERING SETUP SHALL BE APPROVED BY THE ENGINEER PRIOR TO IMPLEMENTATION.
14. THE CONTRACTOR SHALL REGULARLY INSPECT THE PERIMETER OF THE PROPERTY TO CLEAN UP LOOSE CONSTRUCTION DEBRIS BEFORE IT LEAVES THE SITE.
15. THE CONTRACTOR IS RESPONSIBLE FOR THE INSPECTION AND MAINTENANCE DURING CONSTRUCTION OF ALL STORMWATER FACILITIES INSTALLED OR AFFECTED BY THE PROJECT. ANY SEDIMENT OR DEBRIS COLLECTED WITHIN THESE FACILITIES FROM THE PROJECT WORK SHALL BE REMOVED PRIOR TO THE OWNER'S ACCEPTANCE.
16. STREET SWEEPING SHALL BE PERFORMED ON ADJACENT ROADS AND STREETS AS NECESSARY DURING THE PROJECT DURATION.

CONSTRUCTION SEQUENCING:

THE FOLLOWING EROSION CONTROL PRINCIPLES SHALL APPLY TO THE LAND GRADING AND CONSTRUCTION PHASES:

1. STRIPPING OF VEGETATION, GRADING, OR OTHER SOIL DISTURBANCE SHALL BE DONE IN A MANNER TO MINIMIZE SOIL EROSION.
2. WHENEVER FEASIBLE, NATURAL VEGETATION SHALL BE RETAINED AND PROTECTED.
3. THE EXTENT OF THE AREA AND DURATION OF PERIOD WHICH THE AREA IS EXPOSED AND FREE OF VEGETATION SHALL BE KEPT WITHIN PRACTICAL LIMITS.
4. TEMPORARY SEEDING, MULCHING, OR OTHER SUITABLE STABILIZATION MEASURES SHALL BE USED TO PROTECT EXPOSED CRITICAL AREAS DURING PROLONGED CONSTRUCTION OR OTHER LAND DISTURBANCE.
5. ALL SEDIMENT SHALL BE CONTAINED ONSITE AND REMOVED AS NECESSARY. CUT AND FILL SLOPES AND STOCKPILED MATERIALS SHALL BE PROTECTED USING SILT FENCE AND FILTER LOGS TO PREVENT EROSION. SLOPES, ESPECIALLY DOWNGRADIENT OF PAVED AREAS, SHALL BE STABILIZED AS SOON AS POSSIBLE AND PROTECTED WITH PERMANENT EROSION PROTECTION WHEN EROSION EXPOSURE PERIOD IS EXPECTED TO BE GREATER THAN OR EQUAL TO THREE MONTHS, AND TEMPORARY EROSION PROTECTION HAS BEEN INCORPORATED PRIOR TO CONSTRUCTION.
6. PERMANENT EROSION PROTECTION SHALL BE ACCOMPLISHED BY SEEDING WITH GRASS OR OTHER MIXTURES AS SHOWN ON THESE PLANS.
7. TEMPORARY EROSION PROTECTION SHALL BE ACCOMPLISHED BY COVERING WITH EROSION PROTECTION MATERIALS AS REQUIRED BY THE ORDER OF CONDITIONS.
8. EXCEPT WHERE SPECIFIED SOIL IS INDICATE ON THESE PLANS, FILL SLOPES SHALL BE LIMITED TO A GRADE OF 2:1 [HORIZONTAL TO VERTICAL]. CUT SLOPES AT 1.5:1 SHOULD BE NETTED WITH BIODEGRADABLE JUTE MESH OR EQUAL.

GRADING NOTES:

COMPACTION REQUIREMENTS:

MINIMUM COMPACTION	LOCATION
95 %	BELOW PAVED OR CONCRETE AREAS
95 %	TRENCH BEDDING MATERIALS
90 %	BELOW LOAM AND SEED AREAS

1. ALL PERCENTAGES OF COMPACTION TESTING SHALL BE OF THE MAXIMUM DRY DENSITY AT THE OPTIMUM MOISTURE CONTENT AS DETERMINED AND CONTROLLED IN ACCORDANCE WITH ASTM D-1557, METHOD C. FIELD DENSITY TESTS MUST BE MADE IN ACCORDANCE WITH ASTM D-1556 OR ASTM-2922.
2. THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS AND SPECIFICATIONS FOR EARTHWORK AND COMPACTION REQUIREMENTS FOR ALL SLABS AND BUILDING FOUNDATIONS.
3. SPRINKLER OR USE A WATER TRUCK AS NECESSARY TO APPLY WATER DURING GRADING OPERATIONS IN ORDER TO MINIMIZE SEDIMENT TRANSPORT AND MAINTAIN ACCEPTABLE AIR QUALITY CONDITIONS. REPETITIVE TREATMENTS SHALL BE DONE AS NEEDED UNTIL THE GRADES ARE PAVED OR SEED.
4. ONCE THE PERIMETER EROSION CONTROL MEASURES HAVE BEEN IMPLEMENTED, CUTTING AND EARTH PREPARATION SHALL COMMENCE FOR THE PROPOSED CONSTRUCTION ENTRANCE.
5. DIVERSION BERMS AND SEDIMENT TRAPS SHALL BE CONSTRUCTED, AS NEEDED, TO CAPTURE SILT LADEN RUNOFF FROM THE SITE.
6. SITE CLEARING AND GRUBBING CAN PROCEED UP TO THE LIMIT OF WORK. NO ALTERATIONS SHALL TAKE PLACE OUTSIDE THE LIMIT OF WORK FOR THE PROJECT WITHOUT PRIOR AUTHORIZATION FROM THE CIVIL ENGINEER OF RECORD AND THE CONSERVATION AGENT.
7. PROCEED WITH ROUGH GRADING OF SUB-SOILS IN PREPARATION FOR GRAVEL BASE COURSES.
8. ALL EARTHWORK AND SITE PREPARATION SHALL BE DONE IN STRICT ACCORDANCE WITH THE RECOMMENDATIONS OF ANY SUBSURFACE INVESTIGATION OR GEOTECHNICAL REPORTS PREPARED FOR THIS SITE.
9. 2" BINDER COURSE AND 1 1/2" FINISH COURSE OF BITUMINOUS PAVEMENT TO BE INSTALLED ON SITE ON ALL PARKING AREAS. GRAVEL BASE CROSS-SECTION TO BE PREPARED AND INSPECTED BY THE CIVIL ENGINEER OF RECORD PRIOR TO PAVEMENT INSTALLATION.
10. THE CONTRACTOR SHALL ADJUST AND/OR CUT EXISTING PAVEMENT AS NECESSARY TO ENSURE A SMOOTH FIT AND CONTINUOUS GRADE.
11. ALL AREAS DISTURBED DURING CONSTRUCTION SHALL RECEIVE A MINIMUM OF 6" OF LOAM AND SEED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEWATERING ANY LOAMED AND SEEDED AREAS UNTIL LAWN GROWTH IS ESTABLISHED AND APPROVED BY THE ENGINEER / OWNER.
12. CONTRACTOR TO PROVIDE A FINISH PAVEMENT SURFACE AND LAWN AREAS FREE OF LOW SPOTS AND PONDING AREAS. THE CONTRACTOR SHALL ASSURE POSITIVE DRAINAGE AWAY FROM ANY BUILDINGS FOR ALL NATURAL AND PAVED AREAS.

DRAINAGE AND UTILITIES NOTES:

1. ALL UNDERGROUND STRUCTURES, INCLUDING MANHOLES, CATCH BASINS, AREA DRAINS, THE PUMP STATION AND GREASE TRAP, SHALL BE DESIGNED TO WITHSTAND H-20 LOADING.
2. ALL STORM DRAINAGE PIPING TO BE HIGH DENSITY POLYETHYLENE [HDPE: ADS N-12 OR APPROVED EQUAL] OR RCP CLASS IV CAPABLE OF WITHSTANDING H-20 LOADING. MINIMUM CLEARANCE BETWEEN PROPOSED DRAINAGE PIPING AND OTHER UTILITIES/STRUCTURES SHALL BE 18 INCHES VERTICALLY AND 4 FEET HORIZONTALLY. THE MINIMUM COVER OF THE HDPE PIPE IS 1'-0" FOR H-20 LOADS. THIS COVER IS MEASURED FROM THE PIPE OD TO THE TOP OF RIGID PAVEMENT.
3. THE MAINTENANCE OF ALL DRAINAGE STRUCTURES IS THE RESPONSIBILITY OF THE OWNER.
4. ALL CONSTRUCTION AND TESTING METHODS SHALL COMPLY WITH THE LOCAL RULES AND REGULATIONS. IN CASES WHERE THE DRAWINGS DIFFER FROM THESE REGULATIONS, THE MOST RESTRICTIVE REQUIREMENT SHALL APPLY.
5. ALL DRAINAGE STRUCTURES AND DETAILS TO BE BE CONSTRUCTED AND INSPECTED CONSISTENT WITH THE REQUIREMENTS OF THE LOCAL AUTHORITY.
6. THE CONTRACTOR SHALL INSPECT AND RESTORE / CLEAN ALL FACILITIES [INLETS, MANHOLES, BASINS, ETC] OF SEDIMENT AND DEBRIS PRIOR TO THE ENGINEER'S ACCEPTANCE.
7. PROPOSED GAS, ELECTRIC, WATER, TELEPHONE AND TELEVISION SERVICE LOCATIONS MUST BE COORDINATED WITH THE APPROPRIATE UTILITY COMPANY. THIS COVER IS MEASURED FROM THE PIPE OD TO THE TOP OF RIGID PAVEMENT. STANDARDS AND REQUIREMENTS.
8. CONTRACTOR TO PROVIDE EXCAVATION, BEDDING, BACKFILL AND COMPACTION FOR NATURAL GAS SERVICES.
9. ALL WATER MAINS AND WATER SERVICES SHALL HAVE A MINIMUM OF FIVE [5] FEET OF COVER.
10. ALL WATER MAIN INSTALLATIONS SHALL BE CLASS 52, CEMENT LINED DUCTILE IRON PIPE. ALL WATER MAIN INSTALLATIONS SHALL BE PRESSURE TESTED AND CHLORINATED AFTER CONSTRUCTION PRIOR TO ACTIVATING THE SYSTEM.
11. HYDRANTS, GATE VALVES, FITTINGS, ETC. SHALL MEET THE REQUIREMENTS OF THE LOCAL AUTHORITY. THE CONTRACTOR SHALL CONSTRUCT THE WATER MAIN AND ITS APPURTENANCE WORK IN ACCORDANCE WITH THE LOCAL WATER DEPARTMENT'S STANDARDS AND SPECIFICATIONS AND PAY FOR ALL ASSOCIATED FEES AS REQUIRED BY THE WATER DEPARTMENT. THE CONTRACTOR SHALL CONTACT THE WATER DEPARTMENT TO ENSURE PROPER INSPECTIONS OF WATER PIPING PRIOR TO BACKFILLING.
12. ALL SEWER PIPE SHALL BE PVC SDR 35 UNLESS OTHERWISE STATED. COORDINATE TESTING OF SEWER CONSTRUCTION WITH THE LOCAL AUTHORITY.
13. ALL SEWER PIPE WITH LESS THAN 5' OF COVER UNDER PAVEMENT AND LESS THAN 4' OF COVER UNDER LOAMED AREAS SHALL BE INSULATED. INSULATION SHALL BE 2" THICK POLYURETHANE INSULATION WITH PVC JACKET PLACED AROUND PIPE.
14. A 10 FOOT MINIMUM EDGE TO EDGE HORIZONTAL SEPARATION SHALL BE PROVIDED BETWEEN ANY WATER AND SANITARY SEWER LINES. AN 18" INCH MINIMUM OUTSIDE TO OUTSIDE VERTICAL SEPARATION SHALL BE PROVIDED AT ALL WATER/SANITARY SEWER CROSSINGS.
15. THE RELOCATION OF THE WATER AND SEWER SERVICES ALONG THE EAST END OF THE PROPOSED ADDITION WILL REQUIRE CLOSE COORDINATION WITH THE DEVENS UTILITIES DEPARTMENT TO MINIMIZE POTENTIAL IMPACTS ON ADJACENT PROPERTIES. THE NEW SEWER CONNECTIONS WILL REQUIRE A BYPASS PUMP STATION TO ENSURE SERVICE TO THE OTHER PROPERTIES.
16. MECHANICAL AND FIRE PROTECTION ENGINEERS TO VERIFY DESIGN AND SIZES OF PROPOSED WATER AND SEWER SERVICES TO SITE.
17. CONTRACTOR SHALL COORDINATE ALL ELECTRICAL WORK INCLUDING BUT NOT LIMITED TO: CONDUIT CONSTRUCTION, MANHOLE CONSTRUCTION, UTILITY POLE CONSTRUCTION, OVERHEAD WIRE RELOCATION, AND TRANSFORMER CONSTRUCTION WITH THE POWER COMPANY.
18. SITE LIGHTING SPECIFICATIONS, CONDUIT LAYOUT AND CIRCUITRY FOR PROPOSED SITE LIGHTING SHALL BE PROVIDED BY THE PROJECT ELECTRICAL ENGINEER.
19. WHERE MANUFACTURERS ARE SPECIFIED ON THESE DRAWINGS, APPROVED EQUALS MAY BE SUBSTITUTED UPON WRITTEN APPROVAL FROM THE CIVIL ENGINEER OF RECORD.
20. IF AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, OR EXISTING CONDITIONS DIFFER FROM THOSE SHOWN SUCH THAT THE WORK CANNOT BE COMPLETED AS INTENDED, THE LOCATION, ELEVATION, AND SIZE OF THE UTILITY OR OTHER CONFLICT SHALL BE ACCURATELY DETERMINED BY THE CONTRACTOR WITHOUT DELAY, AND THE INFORMATION FURNISHED IN WRITING TO CIVIL ENGINEER OF RECORD TO RESOLVE THE CONFLICT.
21. THE CONTRACTOR SHALL COORDINATE THE EXACT LOCATION OF NEW UTILITY SERVICES, LOCATIONS AND ELEVATIONS WITH THE UTILITY COMPANIES AND THE BUILDING DRAWINGS.
22. THE CONTRACTOR IS RESPONSIBLE TO SUBMIT TESTING REPORTS, SHOP DRAWINGS AND PRODUCT SPECIFICATIONS TO THE CIVIL ENGINEER OF RECORD FOR MATERIALS, STRUCTURES, EQUIPMENT, RETAINING WALLS, ETC. FOR APPROVAL PRIOR TO INSTALLATION.
23. THE CONTRACTOR IS TO SUBMIT AS-BUILT PLANS IN ELECTRONIC CAD FORMAT TO THE OWNER AND CIVIL ENGINEER OF RECORD UPON COMPLETION OF THE PROJECT. THE AS-BUILTS SHALL BE PREPARED AND CERTIFIED BY A MA LICENSED LAND SURVEYOR OR PROFESSIONAL ENGINEER.

INFILTRATION BASIN/SWALE NOTES:

1. THE CONTRACTOR SHALL USE LIGHT EARTH MOVING EQUIPMENT TO EXCAVATE THE BASIN TO MINIMIZE COMPACTION AND INFILTRATION CAPACITY OF THE SOILS BENEATH THE BASIN FLOOR AND ALONG THE SIDE SLOPES.
2. INITIAL BASIN EXCAVATION SHOULD BE CARRIED TO WITHIN 2 FEET OF THE FINAL ELEVATION OF THE BASIN FLOOR.
3. FINAL EXCAVATION TO THE FINISH GRADE AND CONSTRUCTION OF THE FOREBAY STONE FILTER SHALL NOT BE COMPLETED UNTIL ALL DISTURBED AREAS WITHIN THE WATERSHED HAVE BEEN STABILIZED. BECAUSE SOME COMPACTION OF THE SOIL IS INEVITABLE DURING CONSTRUCTION, THE BASIN FLOOR SOILS SHALL BE DEEPLY TILLED TO A DEPTH OF 12" AFTER FINAL GRADING IS COMPLETED.
4. IMMEDIATELY AFTER THE BASIN CONSTRUCTION IS COMPLETED, STABILIZE THE BASIN FLOOR, SIDE SLOPES, AND ALL REMAINING DISTURBED AREAS AROUND THE BASIN WITH DENSE TURF BY SEEDING.
5. THE CONTRACTOR IS NOT TO DIRECT ANY RUNOFF INTO THE BASIN UNTIL THE BASIN BOTTOM AND SIDE SLOPES ARE FULLY STABILIZED.
6. THE CONTRACTOR IS RESPONSIBLE TO REMOVE ANY SEDIMENT WHICH ENTERS INTO THE BASIN DURING THE CONSTRUCTION PHASE.
7. BASIN SIDE SLOPES AND SEEDED AREAS NEAR THE BUILDING TO BE A MAXIMUM OF 3:1. BASIN FLOOR AND SIDE SLOPES TO BE SEEDED WITH NEW ENGLAND WETLAND SEED MIX OR APPROVED EQUAL.
8. THE LOAM MATERIAL, SHALL CONSIST OF 60 - 70 % WASHED SCREENED SAND, 20 - 30 % TOPSOIL, AND 10 - 20 % ORGANIC MATTER. THE LOAM MATERIAL SHALL BE MIXED TO A UNIFORM CONSISTENCY.
9. THE TOPSOIL SHALL BE NATURAL, FERTILE, FRIABLE, LOAM OR SANDY LOAM TYPICAL OF CULTIVATED TOPSOIL. THE TOPSOIL SHALL BE FREE OF SUB-SOIL, LARGE STONES, EARTH CLODS, STICKS, STUMPS, CLAY LUMPS, ROOTS, OR OTHER OBJECTIONABLE MATTER. TOPSOIL SHALL ALSO BE FREE OF NOXIOUS WEEDS, AND SHALL HAD A PH FACTOR BETWEEN 6.0 AND 7.0.

LANDSCAPING NOTES:

1. REFER TO CIVIL PLANS FOR HARDSCAPE LAYOUT AND MATERIALS, UTILITIES, GRADING, EROSION CONTROLS, AND DRAINAGE.
2. ALL DISTURBED AREAS SHALL RECEIVE LOAM AND SEED USING SEED MIX FOR GENERAL LAWN AREAS FOR AREAS CLOSE TO BUILDINGS PARKING AND DRIVE LANES.
3. ALL EXISTING TREES WITHIN THE LIMIT OF DISTURBANCE SHALL BE REMOVED FOR DEVELOPMENT. TREES OUTSIDE OF THE LIMIT OF DISTURBANCE SHALL BE PROTECTED.
4. THE CONTRACTOR SHALL GRADE ALL AREAS OF THE SITE AS NEEDED TO CREATE SMOOTH TRANSITIONS TO EXISTING AREAS OF THE SITE AS NEEDED TO CREATE SMOOTH TRANSITIONS TO EXISTING GRADES AND DIRECT WATER AWAY FROM STRUCTURES.
5. ALL EXISTING UNDISTURBED LAWN AREAS SHALL BE OVER-SEEDED TO LIMIT OF DISTURBANCE (LOD) UNLESS OTHERWISE NOTED ON THE PLANS.
6. ALL PLANTING AREAS TO BE COVERED WITH A 6" MINIMUM DEPTH OF TOPSOIL.
7. ALL NEW PLANTS SHALL BE HEALTHY, VIGOROUS AND WITHOUT BROKEN BRANCHES IN ACCORDANCE WITH ASNS.
8. DISTURBED AREAS OF GROUND AROUND THE DETENTION BASIN SHALL BE HYDROSEEDED WITH A SHADE TOLERANT GRASS SEED.
9. INDIVIDUAL TREES SHALL RECEIVE A FIVE FOOT DIAMETER MULCH BED AROUND EACH TREE AS SHOWN. BED LINES FOR GROUPS OF PLANTINGS WITHIN A MULCH BED ARE AS INDICATED ON THE PLAN.
10. THE CONTRACTOR SHALL GUARANTEE ALL PLANTS AND LAWN AREAS FOR ONE YEAR FROM ACCEPTANCE OF FINAL PLANTING.

ALL AREAS DISTURBED DURING CONSTRUCTION TO RECIEVE A MINIMUM OF 6" OF LOAM AND SEEDED. LOAM SHALL BE A FERTILE, FRIABLE,MEDIUM TEXTURED SANDY LOAM FREE OF MATERIALS TOXIC TO HEALTHY PLANT GROWTH. LOAM SHALL BE FREE OF STUMPS, ROOTS, STONES AND FREE OF OTHER EXTRANEOUS MATER ONE INCH [1"] OR GREATER IN DIAMETER.

ALL MIX TO BE AS PROVIDED BY ALLEN SEED OR APPROVED EQUIVALENT AT 5-7 LBS PER ACRE IN ALL DISTURBED AREAS AS SHOWN ON THE PLANS. [ALL AREAS WITHIN 10 FEET OF PARKING AND DRIVEWAYS AND 30 FEET OF THE BUILDING]

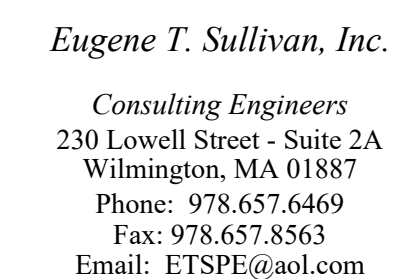
25% IMPROVED PERENNIAL RYE
25% IMPROVED ANNUAL RYE
25% CREEPING RED FESCUE
15.5% TURF TYPE TALL FESCUE
5% KENTUCKY BLUE GRASS
1% RED TOP
.5% COLONIAL BENTGRASS

ALL INFILTRATION/DETENTION BASINS TO BE SEED MIX "A": NEW ENGLAND CONSERVATIONWILDLIFE MIX- 25 LBS PER ACRE NURSE GRASS AND PERENNIAL RYE 5 LBS PER ACRE.

Elymus virginicus
Schizachyrium scoparium
Andropogon gerardii
Festuca rubra
Panicum virgatum
Chamaecrista fasciculata
Panicum clandestinum
Sorghastrum nutans
Helipopsis helianthoides
Asclepias syriaca
Eupatorium maculatum
Euthamia graminifolia
Verbena hastata
Aster novae-angliae
Solidago juncea

ALL AREAS OUTSIDE OF 10 FEET OF PARKING AND DRIVEWAYS AND 30 FEET FROM THE BUILDING SHALL RECEIVE SEED MIX "B": NEW ENGLAND NATIVE WARM SEASON GRASS MIX- 23 LBS PER ACRE NURSE GRASS- AND ANNUAL RYE 5 LBS PER ACRE

Elymus Virginicus
Schizachyrium scoparium
Andropogon gerardii
Sorghastrum nutans
Panicum virgatum
Festuca rubra

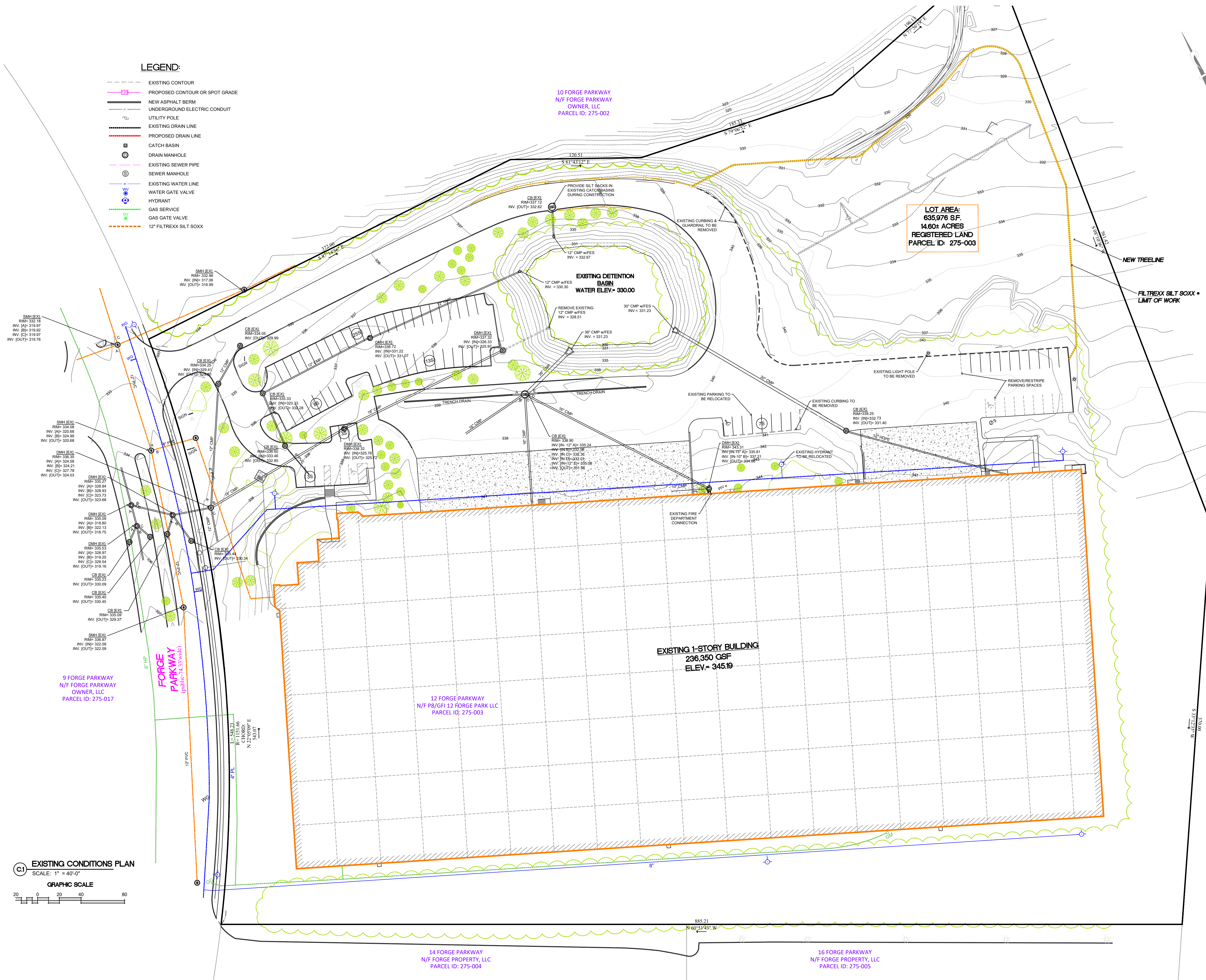


THE EXISTING VEGETATION WITHIN THE LIMIT OF
WORK IS TO REMAIN TO THE MAXIMUM EXTENT
POSSIBLE



EXISTING CONDITIONS PLAN

C.1



DATE: _____

LEGEND

PROPERTY USES:

THE EXISTING USES FOR THIS PROPERTY ARE BUSINESS OFFICE [2.3.d] AND WAREHOUSING [3.10] WHICH ARE APPROVED USES IN THE INDUSTRIAL ZONING DISTRICT IN ACCORDANCE WITH PRINCIPAL USE SCHEDULE OF THE TOWN OF FRANKLIN ZONING BYLAWS.

Eugene T. Sullivan, Inc

Consulting Engineers
230 Lowell Street - Suite 2A
Wilmington, MA 01887
Phone: 978.657.6469
Fax: 978.657.8563
Email: ETSPE@aol.com

[illegible]

NOTE:

THIS PROJECT DOES NOT INCLUDE ANY ADDITIONS OR CHANGES TO THE EXISTING BUILDING FOOTPRINT. THE PROJECT ONLY EXPANDS PARKING AREAS TO ACCOMMODATE POTENTIAL TENANT NEEDS.

W TREELINE

**FILTREXX SILT SOXX •
LIMIT OF WORK**

NEW GARDCO ECF SERIES LED POLE
FIXTURE MOUNTED @ 30' AFG

EXISTING OFFICE

EXISTING 1-STORY BUILDING
236,350 GSF
ELEV. = 345.19

6" HP
FORGE
PARKWAY
Public 74 33'wide)

NOV 19 1964

60.81" REAR SETBACK

PREPARED FOR:

P8/GFI 12 FORGE
PARK, LLC
133 PEARL STREET
BOSTON, MA

PROJECT:

PARKING EXPANSION
12 FORGE PARKWAY
FRANKLIN, MA

DRAWING:

SITE PLAN LAYOUT

APPROVED BY THE TOWN OF
FRANKLIN PLANNING BOARD:

SCALE: 1" = 40'-0"

DATE: 02/28/2020

DRAWING NUMBER

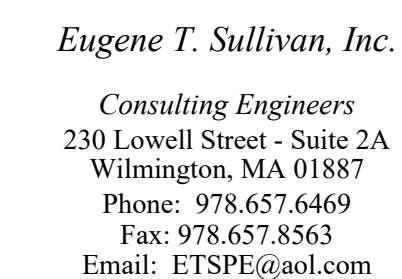
DATE: _____

C.2

C2 SITE LAYOUT PLAN
SCALE: 1" = 40'-0"

GRAPHIC SCALE

A horizontal graphic scale bar with tick marks and labels. The labels are 20, 0, 20, 40, and 80, representing distances in feet. The bar is divided into segments corresponding to these values.



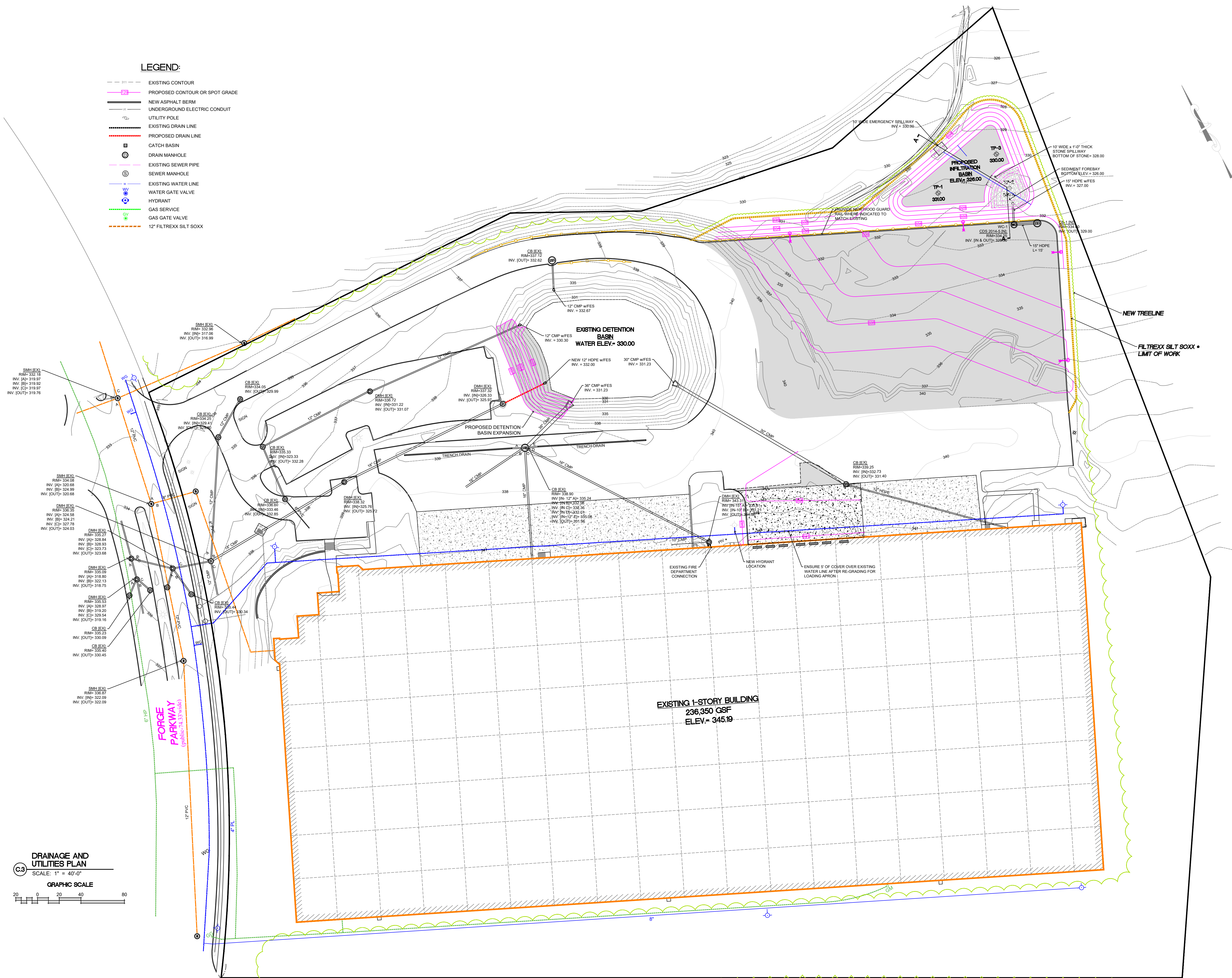
PREPARED FOR:
P8/GFI 12 FORGE
PARK, LLC
133 PEARL STREET
BOSTON, MA

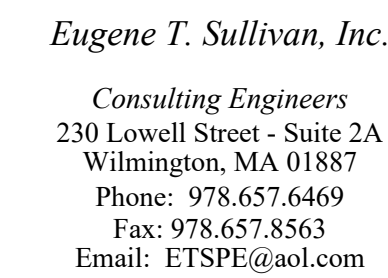
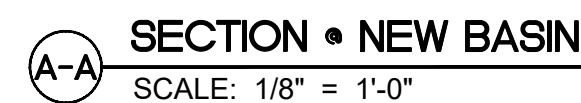
PROJECT:
PARKING EXPANSION
12 FORGE PARKWAY
FRANKLIN, MA



SCALE:	1" = 40'-0"
DATE:	02/28/2020
DRAWING NUMBER	

C.3



[illegible]

DATE: _____

PREPARED FOR:

P8/GFI 12 FORGE
PARK, LLC
133 PEARL STREET
BOSTON, MA

PROJECT:
PARKING EXPANSION
12 FORGE PARKWAY
FRANKLIN, MA

DRAWING:

CONSTRUCTION DETAILS

SCALE: AS NOTED

DATE: 02/28/2020

DRAWING NUMBER

C.4