

NOT TO SCALE

APPLICANT/OWNER:
TMC HOLDINGS & DEVELOPMENT 2, LLC
25 FORGE PARKWAY
FRANKLIN, MA 02038

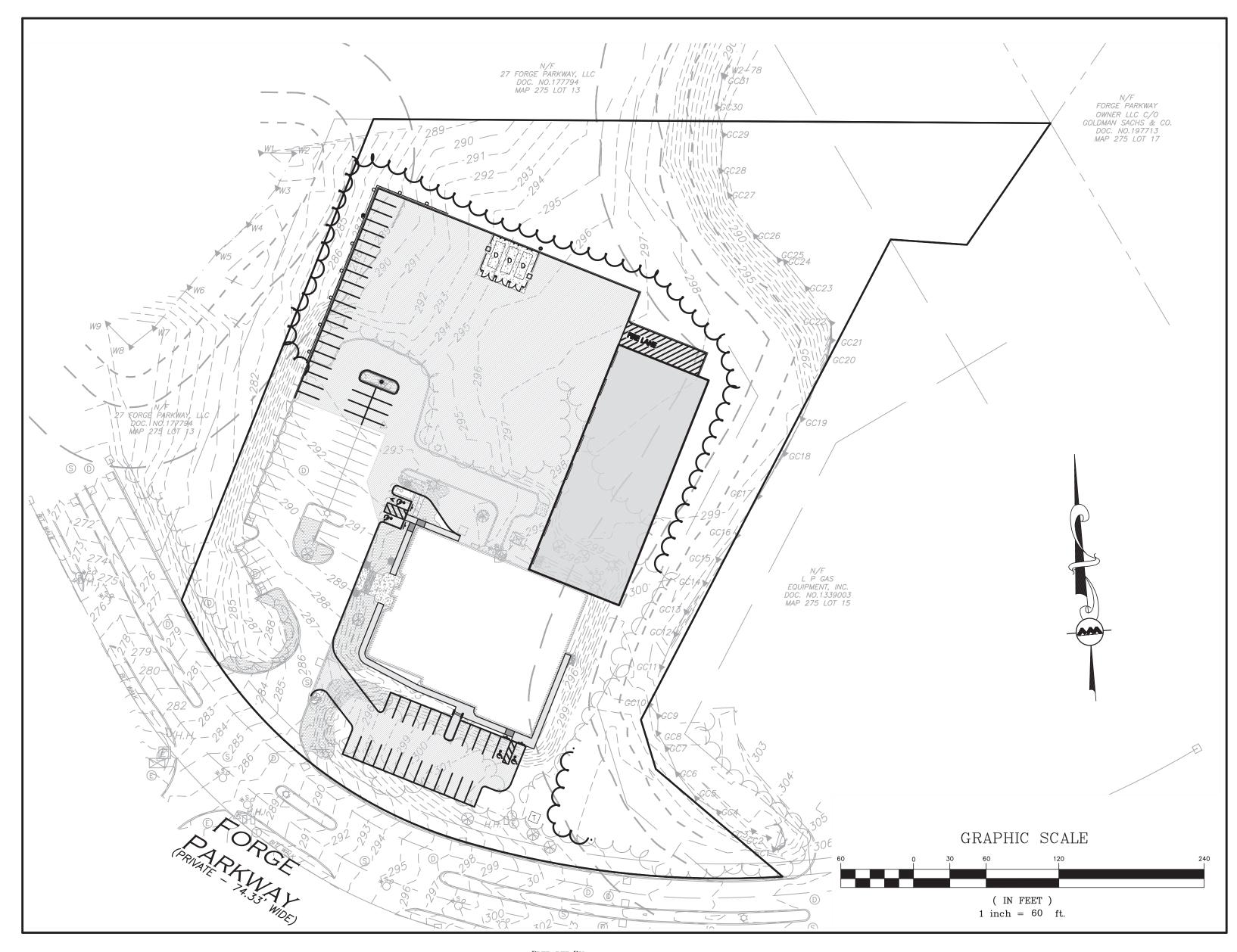
CIVIL ENGINEER\LANDSCAPE ARCHITECT:
ALLEN & MAJOR ASSOCIATES, INC.
400 HARVEY ROAD
MANCHESTER, NH 03103

SURVEYOR:
ALLEN & MAJOR ASSOCIATES, INC.
100 COMMERCE WAY
WOBURN, MA 01801

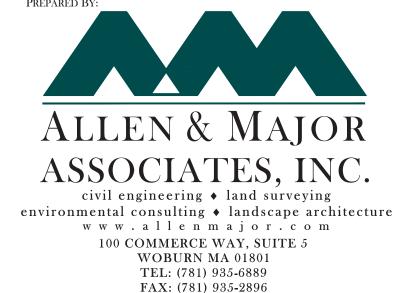
APPROVED: TOWN OF FRANKLIN PLANNING BOARD DATE APPROVED DATE SIGNED PLANNING BOARD MEMBER PLANNING BOARD MEMBER PLANNING BOARD MEMBER

SITE DEVELOPMENT PLANS FOR 25 FORGE PARKWAY

FRANKLIN, MA 02038
TAX MAP 275, LOT 14







WOBURN, MA ◆ LAKEVILLE, MA ◆ MANCHESTER, NH

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LIST OF DRAWINGS									
DRAWING TITLE	SHEET NO.	ISSUED	REV 1	REV 2	REV 3	REV 4	REV 5	REV 6	REV 7
EXISTING CONDITIONS	V-101	02-21-23	04-04-23	-	-	-	-	-	-
EROSION CONTROL & SITE PREPARATION NOTES	C-100	-	04-04-23	04-14-23	05-31-23	-	-	-	12-14-23
SITE PREPARATION PLAN	C-101	02-21-23	04-04-23	04-14-23	05-01-23	-	05-18-23	-	12-14-23
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DETAILS	C-502	02-21-23	04-04-23	04-14-23	05-01-23	05-11-23	-	-	12-14-23
DETAILS	C-503	02-21-23	04-04-23	04-14-23	05-01-23	05-11-23	-	-	12-14-23
DETAILS	C-504	12-14-23	-	-	-	-	-	-	-
DETAILS	C-505	12-14-23	-	-	-	-	-	-	-
LANDSCAPE PLAN	L-101	-	04-04-23	04-14-23	05-01-23	-	-	-	12-14-23
LANDSCAPE NOTES & DETAILS	L-501	-	04-04-23	04-14-23	05-01-23	-	-	-	12-14-23
LANDSCAPE NOTES & DETAILS	L-502	12-14-23	-	-	-	-	-	-	-

CERTIFICATE OF VOTE / CONDITIONS OF APPROVAL

PLEASE BE ADVISED THAT AT ITS MEETING ON MONDAY, MAY 22, 2023 THE PLANNING BOARD VOTED (5-0), UPON MOTION DULY MADE AND SECONDED TO APPROVE, WITH CONDITIONS, THE SITE PLAN SHOWN HEREON. THE CONDITIONS OF APPROVAL ARE LISTED BELOW. BOTH THE CERTIFICATE OF VOTE AS WELL AS THE CONDITIONS OF APPROVAL SHALL BE REFERENCED ON THE SITE PLAN.

- 1. THE PLANNING BOARD WILL USE OUTSIDE CONSULTANT SERVICE TO COMPLETE CONSTRUCTION INSPECTIONS UPON THE COMMENCEMENT OF CONSTRUCTION. THE FRANKLIN DEPARTMENT OF PUBLIC WORKS DIRECTOR, DIRECTLY AND THROUGH EMPLOYEES OF THE DEPARTMENT OF PUBLIC WORKS AND OUTSIDE CONSULTANT SERVICES SHALL ACT AS THE PLANNING BOARD'S INSPECTOR TO ASSIST THE BOARD WITH INSPECTIONS NECESSARY TO ENSURE COMPLIANCE WITH ALL RELEVANT LAWS, REGULATIONS AND PLANNING BOARD APPROVED PLAN SPECIFICATIONS. SUCH CONSULTANTS SHALL BE SELECTED AND RETAINED UPON A MAJORITY VOTE OF THE BOARD.
- . ACTUAL AND REASONABLE COSTS OF INSPECTION CONSULTING SERVICES SHALL BE PAID BY THE OWNER/APPLICANT BEFORE OR AT THE TIME OF THE PRE—CONSTRUCTION MEETING. SHOULD ADDITIONAL INSPECTIONS BE REQUIRED BEYOND THE ORIGINAL SCOPE OF WORK, THE OWNER/APPLICANT SHALL BE REQUIRED TO SUBMIT FEES PRIOR TO THE ISSUANCE OF A FINAL CERTIFICATE OF COMPLETION BY THE PLANNING BOARD (FORM H). SAID INSPECTION IS FURTHER OUTLINED IN CONDITION #1.
- 3. NO ALTERATION OF THESE PLANS SHALL BE MADE OR AFFECTED OTHER THAT BY AN AFFIRMATIVE VOTE OF THE MEMBERS OF THE BOARD AT A DULY POSTED MEETING AND UPON THE ISSUANCE OF A WRITTEN AMENDED DECISION.
- 4. ALL APPLICABLE LAWS, BY-LAWS, RULES, REGULATIONS, AND CODES SHALL BE COMPLIED WITH, AND ALL NECESSARY LICENSES, PERMITS AND APPROVALS SHALL BE OBTAINED BY THE OWNER/APPLICANT.
- 5. PRIOR TO THE ENDORSEMENT OF THE SITE PLAN, THE FOLLOWING SHALL BE DONE:
- A NOTATION SHALL BE MADE ON THE PLANS THAT ALL EROSION MITIGATION MEASURES SHALL BE IN PLACE PRIOR TO MAJOR CONSTRUCTION OR SOIL DISTURBANCE COMMENCING ON THE SITE.
 ALL OUTSTANDING INVOICES FOR SERVICES RENDERED BY THE TOWN'S ENGINEERS AND OTHER REVIEWING DEPARTMENTS OF THE TOWN RELATIVE TO THEIR REVIEW OF THE OWNER/APPLICANT'S APPLICATION AND PLANS SHALL HAVE BEEN PAID IN FULL.
- 6. ALL REQUIRED IMPROVEMENTS SPECIFIED IN THIS CERTIFICATE OF VOTE SHALL BE CONSTRUCTED WITHIN A ONE—YEAR PERIOD UNLESS THE BOARD GRANTS AN EXTENSION. NO FINAL CERTIFICATE OF OCCUPANCY SHALL BE ISSUED UNTIL ALL REQUIREMENTS OF THE APPROVED PLAN HAVE BEEN COMPLETED TO THE SATISFACTION OF THE BOARD UNLESS THE APPLICANT HAS SUBMITTED A PARTIAL CERTIFICATE OF COMPLETION FOR THE REMAINDER OF THE REQUIRED IMPROVEMENTS. THE APPLICANT'S ENGINEER OR SURVEYOR, UPON COMPLETION OF ALL REQUIRED IMPROVEMENTS, SHALL SUBMIT A CERTIFICATE OF COMPLETION. THE BOARD OR ITS AGENT(S) SHALL COMPLETE A FINAL INSPECTION OF THE SITE UPON FILING OF THE CERTIFICATE OF COMPLETION BY THE APPLICANT. SAID INSPECTION IS FURTHER OUTLINED IN CONDITION #1.
- 7. PRIOR TO ANY WORK COMMENCING ON THE SUBJECT PROPERTY, THE OWNER/APPLICANT SHALL PROVIDE PLANS TO LIMIT CONSTRUCTION DEBRIS AND MATERIALS ON THE SITE. IN THE EVENT THAT DEBRIS IS CARRIED ONTO ANY PUBLIC WAY, THE OWNER/APPLICANT AND HIS ASSIGNS SHALL BE RESPONSIBLE FOR ALL CLEANUP OF THE ROADWAY. ALL CLEANUPS SHALL OCCUR WITHIN TWENTY—FOUR (24) HOURS AFTER FIRST WRITTEN NOTIFICATION TO THE OWNER/APPLICANT BY THE BOARD OR ITS DESIGNEE. FAILURE TO COMPLETE SUCH CLEANUP MAY RESULT IN SUSPENSION OF CONSTRUCTION OF THE SITE UNTIL SUCH PUBLIC WAY IS CLEAR OF DEBRIS.
- 8. THE OWNER/APPLICANT SHALL INSTALL EROSION CONTROL DEVICES AS NECESSARY AND AS DIRECTED BY THE TOWN'S CONSTRUCTION INSPECTOR.
- 9. MAINTENANCE AND REPAIR OF THE PARKING AREA, WATER SUPPLY SYSTEM, SEWER PIPES, ELECTRIC DISTRIBUTION SYSTEM, AND STORM WATER SYSTEM SHALL BE THE RESPONSIBILITY OF THE OWNER/APPLICANT AND SHALL NEVER BE THE RESPONSIBILITY OF THE TOWN AND THE TOWN SHALL NEVER BE REQUIRED TO PERFORM ANY SERVICE, REPAIR OR MAINTENANCE WITH RESPECT TO SAID AREAS, OR ANY OF THE AFOREMENTIONED SYSTEMS WITHIN THE SUBJECT PROPERTY. THE TOWN WILL NEVER BE REQUIRED TO PROVIDE SNOW PLOWING OR TRASH PICKUP, WITH RESPECT TO THE SUBJECT PROPERTY.
- 10. PRIOR TO CONSTRUCTION ACTIVITIES, THERE SHALL BE A PRE—CONSTRUCTION MEETING WITH THE OWNER/APPLICANT, AND HIS CONTRACTOR(S), THE DEPARTMENT OF PUBLIC WORKS AND THE PLANNING BOARD'S OBSERVATION CONTRACTOR.
- 11. PRIOR TO ENDORSEMENT, THE APPLICANT IS TO SHOW THE GARAGE BAY DOORS ON THE SITE PLAN.
- 12. THE BOARD ALSO NOTES THAT A MEMO WAS RECEIVED THE APPLICANT'S ENGINEER DATED MAY 18, 2023, INDICATING CHANGES WERE MADE TO THE PLANS.

WAIVERS:

1. TO ALLOW THE USE OF HDPE PIPING INSTEAD OF REINFORCED CONCRETE PIPING 2. 185-21.C(S) - ALLOW 2 TREES INSTEAD OF THE REQUIRED 7 TREES

ISSUED FOR INITIAL REVIEW: FEBRUARY 21, 2023

REVISION 1: APRIL 4, 2023

REVISION 2: APRIL 14, 2023

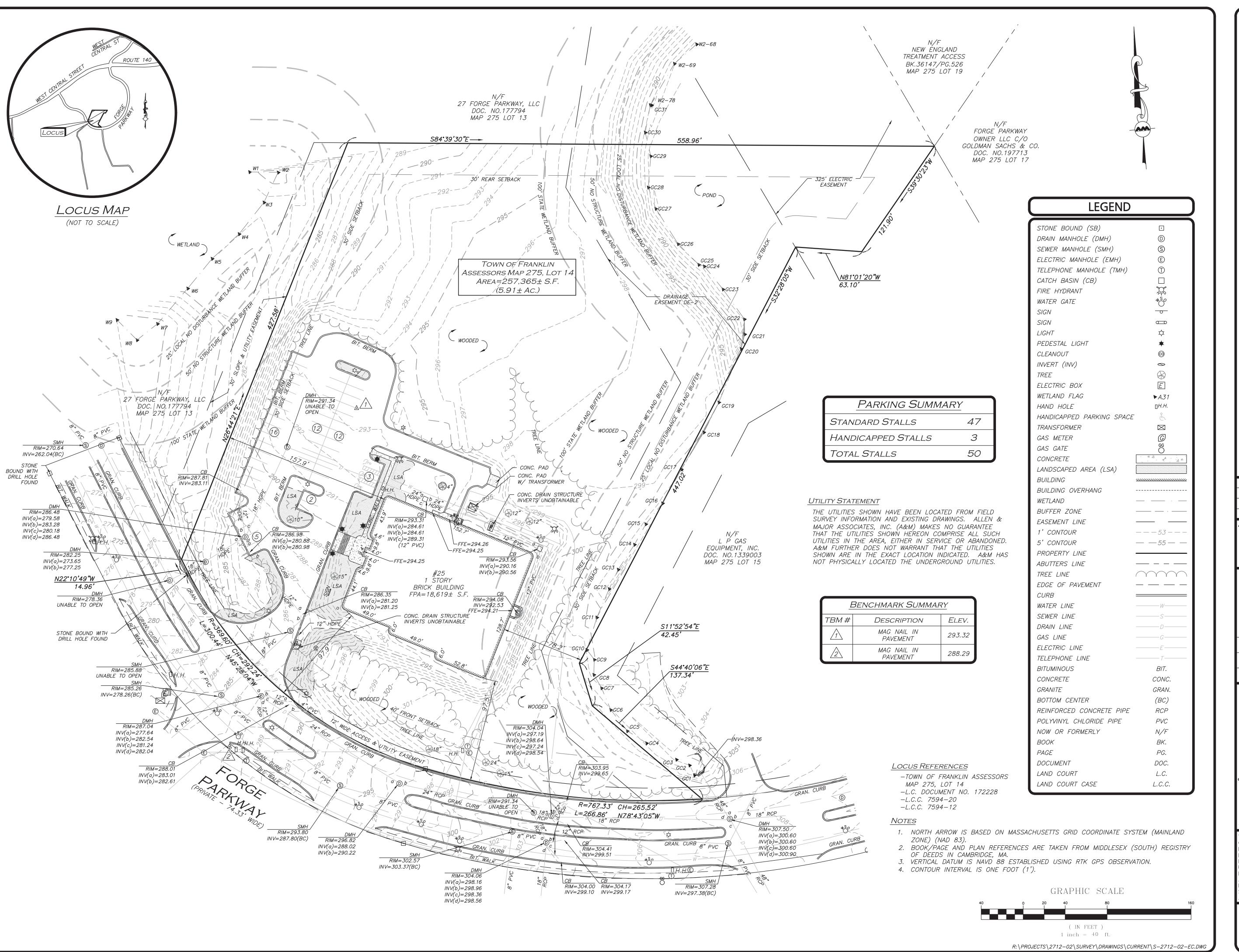
REVISION 3: MAY 1, 2023

REVISION 4: MAY 11, 2023

REVISION 5: MAY 18, 2023

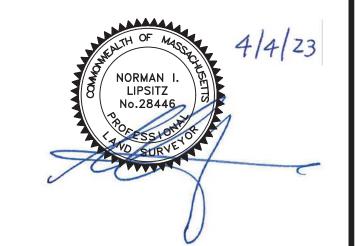
FINAL SITE PLAN: OCTOBER 24, 2023

ISSUED FOR SITE PLAN AMENDMENT: DECEMBER 14, 2023



WE HEREBY CERTIFY THAT THIS PLAN IS THE RESULT OF AN ACTUAL ON THE GROUND SURVEY PERFORMED ON OR BETWEEN APRIL 1, 2021 AND FEBRUARY 15, 2023.

PROFESSIONAL LAND SURVEYOR FOR ALLEN & MAJOR ASSOCIATES, INC.



04/04/23 PEER REVIEW COMMENTS

APPLICANT\OWNER:

REV DATE DESCRIPTION

GREEN SITE SERVICES GROUP 24 WILLIAM WAY BELLINGHAM, MA 02019

PROJECT:

25 FORGE PARKWAY FRANKLIN, MA

2712-02 DATE: PROJECT NO. 2/15/23 1" = 40' DWG. NAME: S-2712-02-EC SCALE: DRAFTED BY: AJR | CHECKED BY:





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DRAWING TITLE:

SHEET No.

EXISTING CONDITIONS

EROSION CONTROL NOTES

EROSION & SEDIMENTATION CONTROL NOTES:

- EROSION CONTROL SHALL BE INSTALLED PRIOR TO CONSTRUCTION AND SHALL BE ADEQUATE TO MAINTAIN SEDIMENT ON SITE. ANY MODIFICATIONS TO SILT CONTROLS SHOWN ON THE APPROVED PLANS AS A RESULT OF ACTUAL FIELD CONDITIONS OR CONSTRUCTION PRACTICES SHALL BE INSTALLED IN ACCORDANCE WITH B.M.P. (BEST MANAGEMENT PRACTICES) PER THE E.P.A. 2022 "CONSTRUCTION GENERAL PERMIT" MANUAL, AND MASSACHUSETTS 2003 EROSION & SEDIMENT CONTROL GUIDELINES FOR URBAN AND SUBURBAN AREAS, ANY SUCH MODIFICATIONS FROM THE ABOVE MANUALS SHALL BE INSTALLED AS APPROVED BY THE ENGINEER OR THE LOCAL MUNICIPALITY.
- AREAS OF EXPOSED SOIL UNDERGOING CONSTRUCTION THAT WILL NOT BE COVERED AND OR FINISHED GRADED SHALL BE STABILIZED AS SOON AS PRACTICABLE BUT IN NO CASE MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY (UNLESS MUNICIPALITY HAS STRICTER REQUIREMENTS WHICH SHALL BE FOLLOWED) IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. TEMPORARY EROSION CONTROL MEASURES SHALL INCLUDE EROSION CONTROL MESH, NETTING OR MULCH AS DIRECTED BY THE OWNER'S REPRESENTATIVE AND SHOWN ON THE DESIGN PLANS. IF MULCH IS USED, STRAW MULCH SHALL BE APPLIED AT THE RATE OF 4 BALES PER 1,000 SQUARE FEET. APPLICATION AREA SHALL BE SUFFICIENTLY COVERED WITH MULCH TO AVOID ANY VISIBLE SOIL EXPOSURE. MULCH SHALL BE KEPT MOIST TO AVOID LOSS DUE TO WIND. MULCH AND NETTING SHALL BE APPLIED IN THE BASE OF ALL GRASSED WATERWAYS, IN VEGETATIVE SLOPES WHICH EXCEED 15% AND DISTURBED AREAS WITHIN 100 FEET OF WETLANDS OR STREAMS.
- 3. IF DISTURBED AREAS DO NOT RECEIVE FINAL SEEDING BY OCTOBER 1ST OF THE CONSTRUCTION YEAR, THEN ALL DISTURBED AREAS SHALL BE SEEDED WITH A WINTER COVER CROP AT THE RATE OF 3 LBS PER 1,000 SQUARE FEET. WINTER SEEDING SHALL BE COVERED WITH EROSION CONTROL MESH (MULCH AND NETTING). HEAVY GRADE MATS SHALL BE USED IN THE BASE OF ALL GRASSED WATERWAYS ON VEGETATED SLOPES IN EXCESS OF 15%, AND ANY DISTURBED AREAS WITHIN 100 FEET OF WETLANDS OR STREAMS. MULCH AND NETTING SHALL ALSO BE PROVIDED FOR ADDITIONAL WINTER PROTECTION.
- ALL TOPSOIL SHALL BE COLLECTED, STOCKPILED, SEEDED WITH RYE AT 3LBS PER 1,000 SQUARE FOOT AND MULCHED, AND REUSED AS REQUIRED. TUBULAR BARRIERS SHALL BE PLACED DOWN GRADIENT FROM STOCKPILED LOAM. LOAM SHALL BE STOCKPILED AT LOCATIONS DESIGNATED BY THE OWNER AND ENGINEER.
- ALL TUBULAR BARRIERS, SILT SACKS, AND EROSION CONTROL BERMS SHALL BE INSTALLED ACCORDING TO THE SITE PREPARATION PLAN. THESE SHALL BE MAINTAINED DURING DEVELOPMENT TO REMOVE SEDIMENT FROM RUNOFF WATER. ALL THE FILTER BARRIERS AND EROSION CONTROL BERMS SHALL BE INSPECTED AFTER ANY RAINFALL OR RUNOFF EVENT, MAINTAINED AND CLEANED UNTIL ALL AREAS HAVE AT LEAST 85-90% VIGOROUS PERENNIAL COVER OF GRASSES.
- ADJACENT ROADS SHALL BE PERIODICALLY SWEPT OR WASHED TO AVOID TRACKING MUD, DUST OR DEBRIS FROM THE CONSTRUCTION AREA AS OFTEN AS NECESSARY (WHICH COULD BE ON A DAILY BASIS) TO REMOVE ANY SOIL OR SEDIMENTS AT NO ADDITIONAL COST TO THE OWNER. A WATERING TRUCK WILL BE USED TO PERIODICALLY SPRINKLE CONSTRUCTION AREAS IN ORDER TO KEEP THE LEVEL OF DUST TO A MINIMUM DURING THE DRY MONTHS AT NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR SHALL USE EXTREME CAUTION TO AVOID ALLOWING SEDIMENTS TO ENTER THE STORM DRAIN SYSTEM DURING CONSTRUCTION. BOTH EXISTING AND PROPOSED CATCH BASIN INLETS SHALL BE PROTECTED DURING CONSTRUCTION BY THE USE SILT SACKS AND/OR TUBULAR BARRIERS AROUND EACH INLET AS NOTED ON THE PLANS. INLET PROTECTION MAY BE REMOVED ONLY AFTER FINISHED AREAS ARE PAVED AND THE VEGETATED SLOPES ARE ESTABLISHED WITH AT LEAST 85-90% OF VIGOROUS PERENNIAL GROWTH.
- AS APPLICABLE, EROSION CONTROL MESH SHALL BE APPLIED IN ACCORDANCE WITH THE PLANS OVER ALL FINISHED SEEDED AREAS AS SPECIFIED ON THE DESIGN PLANS.
- AT A MINIMUM, ALL TUBULAR BARRIFRS AND FILTER FABRIC SHALL REMAIN IN PLACE UNTIL SEEDINGS OR PLANTINGS HAVE BECOME 85-90% ESTABLISHED. THE LOCAL CONSERVATION COMMISSION MUST APPROVE THE REMOVAL OR RELOCATION OF ANY OF THE TUBULAR BARRIERS AND FILTER FABRIC. ONCE THE TUBULAR BARRIERS ARE REMOVED THE AREAS ARE TO BE LOAMED AND SEEDED TO ACHIEVE FULL STABILIZATION.
- 10. AT THE OWNER'S DISCRETION ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED TO MAINTAIN STABILITY OF EARTHWORKS AND FINISHED GRADED AREAS. THE CONTRACTOR, AT HIS EXPENSE, WILL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ANY ADDITIONAL MEASURES AS SPECIFIED BY THE OWNER. THIS INCLUDES BUT IS NOT LIMITED TO REQUESTS BY MA DEP, THE ENGINEER AND THE LOCAL MUNICIPALITY, AS AUTHORIZED BY THE OWNER. FAILURE TO COMPLY WITH THE OWNER'S DIRECTIONS WILL RESULT IN DISCONTINUATION OF CONSTRUCTION ACTIVITIES.
- 11. INSPECTIONS AND MONITORING MAINTENANCE MEASURES SHALL BE APPLIED AS NEEDED DURING THE ENTIRE CONSTRUCTION CYCLE. WEEKLY INSPECTIONS SHALL BE HELD THROUGH THE DURATION OF CONSTRUCTION ACTIVITY. WEEKLY INSPECTION REPORTS SHALL BE MAINTAINED BY THE CONTRACTOR AND LOCATED IN THE CONTRACTORS FIELD OFFICE ONSITE. IN ADDITION TO THE NORMAL WEEKLY INSPECTIONS. THE CONTRACTOR SHALL PERFORM AN INSPECTION OF ALL EROSION CONTROL MEASURES AFTER EACH RAINFALL OF 0.25" OR MORE, AND PERFORM THE NECESSARY REPAIRS. THE INSPECTIONS SHALL INCLUDE BUT NOT BE LIMITED TO THE SITE'S DOWN STREAM DISCHARGE POINTS.
- 12. IF ANY EVIDENCE OF SEDIMENTATION IS OBSERVED AT THE STORMWATER MANAGEMENT AREA INLETS, THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, PROVIDE A PLAN TO THE ENGINEER TO REMOVE ANY ACCUMULATED SEDIMENT IN THESE AREAS. THE CONTRACTOR SHALL ALSO IMMEDIATELY PROVIDE ADDITIONAL ON SITE EROSION AND SEDIMENTATION CONTROL MEASURES TO PREVENT FURTHER DEGRADATION OF THE AREA.
- 13. FOLLOWING THE TEMPORARY OR FINAL SEEDINGS, THE CONTRACTOR SHALL INSPECT THE WORK AREA SEMI-MONTHLY TO ENSURE THE AREAS HAVE A MINIMUM OF 85-90% VEGETATED VIGOROUS GROWTH. RE-SEEDING SHALL BE CARRIED OUT BY THE CONTRACTOR WITH FOLLOW UP INSPECTIONS IN THE EVENT OF ANY FAILURES UNTIL VEGETATION IS ADEQUATELY ESTABLISHED.
- 14. CONTRACTOR & ALL SITE SUBCONTRACTORS SHALL BE FAMILIAR WITH & FOLLOW ALL APPROVED PERMITS AND CONDITIONS. CONTRACTOR SHALL MAINTAIN A COPY OF ALL APPROVED PERMITS ONSITE. ALL CONDITIONS & RECOMMENDATIONS WITHIN THE APPROVED PERMITS SHALL BE COMPLETED.
- 15. ALL EROSION MEASURES SHALL BE INSTALLED PRIOR TO CONSTRUCTION AND SHALL BE ADEQUATE TO MAINTAIN SEDIMENT ON SITE. ANY MODIFICATIONS SHALL BE INSTALLED AS DIRECTED BY THE ENGINEER OR THE LOCAL MUNICIPALITY.
- 16. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE MAINTAINED DURING CONSTRUCTION, AND SHALL REMAIN IN PLACE UNTIL ALL SITE WORK IS COMPLETE AND GROUND COVER IS ESTABLISHED.
- 17. TOP OF STOCKPILES SHALL BE COVERED IN SUCH MANNER THAT STORMWATER DOES NOT INFILTRATE THE MATERIALS AND THEREBY RENDER THE SAME UNSUITABLE FOR FILL USE.

EROSION & SEDIMENTATION CONTROL NOTES (CONTINUED):

- 18. ALL DISTURBED OR EXPOSED AREAS SUBJECT TO EROSION SHALL BE STABILIZED WITH MULCH OR SEEDED FOR TEMPORARY VEGETATIVE COVER. NO AREA, SUBJECT TO EROSION SHALL BE LEFT DISTURBED AND UNSTABILIZED FOR PERIODS LONGER THAN IS ABSOLUTELY NECESSARY TO CARRY OUT THAT PORTION OF THE CONSTRUCTION WORK OR SIX MONTHS AFTER SOIL HAS BEEN DISTURBED WHICHEVER IS LESS.
- 19. CULVERT/PIPE INLETS AND OUTFALLS SHALL BE PROTECTED BY TUBULAR BARRIER FILTERS AND STONE CHECK DAMS UNTIL DISTURBED AREAS ARE PERMANENTLY STABILIZED.
- 20. TUBULAR BARRIER DIKES SHALL BE CONSTRUCTED AT ALL EXISTING & PROPOSED CATCH BASINS. NO SEDIMENTATION SHALL ENTER THE ON-SITE OR OFF-SITE DRAINAGE SYSTEMS AT ANY TIME.
- 21. ALL EROSION CONTROL MEASURES SHALL BE ROUTINELY INSPECTED, CLEANED AND REPAIRED OR REPLACED AS NECESSARY THROUGHOUT ALL PHASES OF CONSTRUCTION. IN ADDITION, INSPECTIONS SHALL TAKE PLACE WEEKLY AND BEFORE AND AFTER EACH RAINFALL EVENT.
- 22. ALL PROPOSED SLOPES STEEPER THAN 3:1 SHALL BE STABILIZED WITH JUTE MESH AND PROTECTED FROM EROSION UNTIL WORK IS COMPLETE AND GROUND COVER IS ESTABLISHED.
- 23. THE CONTRACTOR SHALL KEEP ON SITE AT ALL TIMES ADDITIONAL TUBULAR BARRIERS FOR INSTALLATION AT THE DIRECTION OF THE ENGINEER OR THE TOWN ENGINEER TO MITIGATE ANY EMERGENCY CONDITION.
- 24. AS CONSTRUCTION DISTURBANCE IS GREATER THAN 1 ACRE, A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) CONSTRUCTION GENERAL PERMIT NOI, AND STORM WATER POLLUTION PREVENTION PLAN (SWPPP) WILL NEED TO BE SUBMITTED TO THE EPA. THE NPDES PERMIT FOR STORM WATER DISCHARGE, & CONSTRUCTION GENERAL PERMIT NOI WILL BE REQUIRED TO BE SUBMITTED AT LEAST 14 DAYS PRIOR TO COMMENCING CONSTRUCTION BY THE CONTRACTOR.
- 25. OWNER AND CONTRACTOR ARE RESPONSIBLE FOR COMPLIANCE WITH THE CONSTRUCTION GENERAL PERMIT NOI. WEEKLY SWPPP INSPECTION REPORTS TO BE PERFORMED BY CONTRACTOR. COPIES OF ALL SWPPP INSPECTION REPORTS SHALL BE PROVIDED TO THE LOCAL MUNICIPALITY, EPA, DEP, OR ANY OTHER AUTHORITY REQUESTING WITHIN 3 DAYS OF EACH INSPECTION.
- 26. APPLICABLE WORK AND MATERIALS SHALL COMPLY WITH ALL LOCAL, MA DEP, EPA CONSTRUCTION GENERAL PERMIT STANDARDS. ALL CONSTRUCTION SHALL CONFORM TO THE APPLICABLE SITE PLAN REGULATIONS FROM THE LOCAL AND USDA SOIL CONSERVATION SERVICE VEGETATIVE PRACTICES IN SITE DEVELOPMENT.
- 27. A WATERING TRUCK SHALL BE USED TO PERIODICALLY SPRINKLE CONSTRUCTION AREAS IN ORDER TO KEEP THE LEVEL OF DUST TO A MINIMUM DURING THE DRY MONTHS AND AS REQUIRED.
- 28. IF DEWATERING IS NECESSARY IT SHALL ONLY BE COMPLETED AS FOLLOWS: THE DISCHARGE SHALL BE STOPPED IMMEDIATELY IF THE RECEIVING AREA SHOWS ANY SIGN OF INSTABILITY OR EROSION. ALL CHANNELS, SWALES, AND DITCHES DUG FOR DISCHARGING WATER FROM THE EXCAVATED AREA SHALL BE STABLE PRIOR TO DIRECTING DISCHARGE TO THEM. IF A CONSTRUCTION EQUIPMENT BUCKET IS USED, IT SHALL EMPTY THE MATERIAL TO A STABLE AREA. NO DEWATERING SHALL OCCUR DURING PERIODS OF INTENSE, HEAVY RAIN. FLOW TO THE SEDIMENT REMOVAL STRUCTURE SHALL NOT EXCEED THE STRUCTURE'S CAPACITY TO SETTLE AND FILTER FLOW OR ITS VOLUME CAPACITY. WHENEVER POSSIBLE, THE DISCHARGE FROM THE SEDIMENT REMOVAL STRUCTURE SHALL DRAIN TO A WELL-VEGETATED BUFFER BY SHEET FLOW WHILE MAXIMIZING THE DISTANCE TO THE NEAREST WATER RESOURCE AND MINIMIZING THE SLOPE OF THE BUFFER AREA. THERE SHALL BE NO DIRECT DISCHARGE TO EXISTING WETLANDS OR STREAMS. ALL DISCHARGE SHALL BE IN COMPLIANCE WITH STATE, LOCAL, AND FEDERAL REQUIREMENTS.
- 29. INITIATE STABILIZATION OF EXPOSED AREAS IMMEDIATELY IF CONSTRUCTION WORK TEMPORARILY OR PERMANENTLY CEASES.
- 30. ALL DISCHARGES FROM POLLUTION SOURCES ARE PROHIBITED ONSITE SUCH AS FUELS. WASTEWATER FROM WASH OUT OF CONCRETE, WASTEWATER FROM CLEAN OUT OF PAINTS, FORM RELEASE OILS, SOLVENTS, ADHESIVES, CURING COMPOUNDS, POLLUTANTS USED FOR MAINTENANCE OF VEHICLES AND EQUIPMENT, SOAPS & SOLVENTS, TOXIC OR HAZARDOUS SUBSTANCES, CHEMICALS AND OILS, IF A POLLUTANT IS DISCHARGED IT NEEDS TO BE IMMEDIATELY CLEANED UP BY REMOVING THE CHEMICAL AND AFFECTED SOIL OR AREA OF SPILL FROM THE SITE IN ACCORDANCE WITH BOTH THE MANUFACTURER RECOMMENDATIONS, FEDERAL, STATE, AND LOCAL REQUIREMENTS. DO NOT HOSE DOWN AND SPREAD SPILLED ITEM. ALL CHEMICALS USED ON THE SITE SHALL BE IN LEAK-PROOF CONTAINERS STORED AWAY FROM WETLANDS, SURFACE WATERS, STORMWATER INLETS, AND DRAINAGE MEASURES. SPILL KITS SHALL BE AVAILABLE ONSITE FOR EMERGENCY USE. THERE SHALL BE A SECONDARY CONTAINMENT MEASURE OF ALL CHEMICALS IN ADDITION TO SPILL-PROOF CONTAINERS.
- 31. PRIOR TO COMMENCEMENT OF CONSTRUCTION, APPLICABLE CONTRACTOR PERSONNEL MUST HAVE AN UNDERSTANDING OF THE EPA CONSTRUCTION GENERAL PERMIT REQUIREMENTS AND THEIR SPECIFIC RESPONSIBILITIES UNDER THE PERMIT. AT A MINIMUM, PERSONNEL MUST BE TRAINED AND UNDERSTAND THE FOLLOWING: LOCATION OF ALL STORMWATER CONTROLS AND HOW TO MAINTAIN THEM, PROCEDURES FOR COMPLYING WITH THE POLLUTION PREVENTION REQUIREMENTS. PROCEDURES FOR CONDUCTING INSPECTIONS, RECORDING FINDINGS, AND TAKING CORRECTIVE ACTION.
- 32. ALL SEDIMENT TRACKED ONTO ROADWAYS MUST BE REMOVED AT END OF EACH WORK
- 33. ALL USE OF CATIONIC TREATMENT CHEMICALS (EXAMPLES INCLUDE POLYMERS. CHITOSAN, CATIONIC PAM, FLOCCULANTS OR OTHER CHEMICAL UTILIZED FOR STABILIZATION) ARE PROHIBITED. IF ALL OTHER AVAILABLE STABILIZATION MEASURES ARE NOT POSSIBLE AND USE OF CATIONIC CHEMICALS IS ABSOLUTELY NECESSARY THE CONTRACTOR WILL NEED TO CONTACT THE EPA NEW ENGLAND OFFICE IN WRITING FOR APPROVAL AND SPECIFIC REQUIREMENTS (MAXIMUM DOSAGE RATE, RESIDUAL TESTING, SPECIFIC LIMITATIONS, ETC) PRIOR TO USE.
- 34. IF USING NON-VEGETATIVE STABILIZATION MEASURES, IT MUST BE COMPLETED NO LATER THAN 14 DAYS AFTER INITIATING STABILIZATION. ALL AREAS OF EXPOSED SOILS MUST BE COVERED.
- 35. INSPECTIONS OF EROSION CONTROL MEASURES SHALL BE AT LEAST ONCE EVERY 7 DAYS BY THE CONTRACTOR. AT A MINIMUM INSPECTIONS SHALL INCLUDE ALL DISTURBED AREAS, ALL STORMWATER CONTROLS AND POLLUTION PREVENTION MEASURES, ALL LOCATIONS WHERE STABILIZATION MEASURES HAVE BEEN IMPLEMENTED, EQUIPMENT AND MATERIAL STORAGE AREAS, ALL AREAS WHERE STORMWATER FLOWS AND ALL POINTS OF DISCHARGE. WHEN CORRECTIVE ACTIONS ARE REQUIRED, THE CONTRACTOR MUST IMMEDIATELY TAKE ALL STEPS TO PREVENT POLLUTANT DISCHARGES UNTIL A PERMANENT SOLUTION IS IMPLEMENTED. AS NECESSARY NEW OR MODIFIED CONTROLS MUST BE INSTALLED AND OPERATIONAL, THE REPAIR MUST BE COMPLETED WITHIN 7 DAYS FROM THE TIME OF DISCOVERY. WITHIN 24 HOURS OF A TRIGGERING CONDITION OCCURRING THAT REQUIRES A CORRECTIVE ACTION, A CORRECTIVE ACTION REPORT MUST BE COMPLETED.

MAINTENANCE:

ALL MEASURES STATED ON THE STORMWATER POLLUTION PREVENTION PLANS, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION BY CONTRACTOR UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON IN ACCORDANCE WITH THE CONTRACT DOCUMENTS OR THE APPLICABLE PERMIT, WHICHEVER IS MORE STRINGENT, AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:

- 1. INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING, OR DETERIORATION.
- 2. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A HEALTHY STAND OF GRASS IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED, AND RESEEDED AS
- 3. ALL SEDIMENT CONTROLS SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE TUBULAR SEDIMENT CONTROLS WHEN IT REACHES HALF THE HEIGHT OF THE CONTROL MEASURE OR AS REQUESTED BY THE OWNER OR ENGINEER.
- 4. THE CONSTRUCTION ENTRANCES SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION ENTRANCES AS CONDITIONS DEMAND.
- THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AS CONDITIONS DEMAND.
- 6. OUTLET STRUCTURES IN THE SEDIMENTATION BASINS SHALL BE MAINTAINED IN OPERATIONAL CONDITIONS AT ALL TIMES. SEDIMENT SHALL BE REMOVED FROM SEDIMENT BASINS OR TRAPS WHEN THE DESIGN CAPACITY HAS BEEN REDUCED BY 50%.

CONSTRUCTION GENERAL PERMIT NOTES AND NARRATIVE:

NARRATIVE: THE STORMWATER POLLUTION PREVENTION PLANS CONSIST OF THE SITE PREPARATION PLAN TOGETHER WITH AN EXISTING CONDITIONS PLANS, GRADING PLANS, ABBREVIATIONS AND NOTES SHEETS, AND DETAIL SHEETS.

- THE EROSION CONTROL PLAN WILL BE IMPLEMENTED TO:
- A. TREAT EROSION AS SOON AS POSSIBLE AFTER DISTURBANCE
- B. PREVENT SEDIMENT FROM LEAVING THE CONSTRUCTION AREA AND ENTERING THE RECEIVING WATERS.
- C. CONSTRUCTION ACTIVITIES SHALL BE SCHEDULED TO MINIMIZE EROSION.
- D. ONLY DISTURB, CLEAR, OR GRADE AREAS NECESSARY FOR CONSTRUCTION.



PROFESSIONAL ENGINEER FOR ALLEN & MAJOR ASSOCIATES, INC.

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REV	DATE	DESCRIPTION

APPLICANT\OWNER:

PROJECT NO.

TMC HOLDINGS & DEVELOPMENT 2, LLC | 24 WILLIAM WAY BELLINGHAM, MA 02019

PROJECT:

25 FORGE PARKWAY FRANKLIN, MA

SCALE: NONE DWG. NAME: C-2712-02A **DESIGNED BY:** SM/JRG | CHECKED BY:

2712-02A DATE:

02-21-23



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DRAWING TITLE:

SHEET No. **EROSION CONTROL &** SITE PREPARATION NOTES

- . INSTALL STABILIZED CONSTRUCTION ENTRANCES. SITE ACCESS SHALL BE ACHIEVED ONLY FROM THE DESIGNATED CONSTRUCTION ENTRANCE.
- PREPARE TEMPORARY PARKING AND STORAGE AREA. UPON IMPLEMENTATION AND INSTALLATION OF THE FOLLOWING AREAS: TRAILER, PARKING, LAY DOWN, WHEEL WASH, CONCRETE WASHOUT, MASONS AREA, FUEL AND MATERIAL STORAGE CONTAINERS, SOLID WASTE CONTAINERS, ETC., DENOTE THEM ON THE SITE MAPS IMMEDIATELY AND NOTE ANY CHANGES IN THE LOCATIONS AS THEY OCCUR THROUGHOUT THE CONSTRUCTION PROCESS.
- 4. INSTALL THE TUBULAR BARRIERS AND SILT SACKS AS SHOWN HEREON. EROSION CONTROL BARRIERS MUST BE INSPECTED AND APPROVED BY A PROFESSIONAL ENGINEER OR LICENSED WETLANDS SCIENTIST. NO SEDIMENTATION BARRIER MAY BE REMOVED WITHOUT PRIOR APPROVAL OF THE COMMISSION OR ITS STAFF.
- 5. CLEAR AND GRUB THE SITE.

RIM=270.64

PERFORM TEST PIT TO

VENT PIPE PRIOR TO

CONSTRUCTION

STONE BOUND WITH -

DRILL HOLE FOUND

UNABLE TO OPEN

RIM=285.26

INV = 278.26(BC)

DETERMINE PURPOSE OF

DIG SAFE

BEFORE YOU DIG

CALL 811 OR

1-888-DIG-SAFE

1-888-344-7233

INV=262.04(BC)

BOUND WITH

DRILL HOLE

FOUND

6. CONSTRUCT TEMPORARY SEDIMENTATION AND SEDIMENT TRAP BASINS AS

- 7. CONSTRUCT STORMWATER MEASURES. SITE SHALL BE STABILIZED PRIOR TO STORMWATER MEASURES RECEIVING RUNOFF.
- 8. START CONSTRUCTION OF BUILDING PAD AND STRUCTURES. TEMPORARILY ACCORDANCE WITH ALL APPLICABLE REGULATIONS. SEED DENUDED AREAS. ALL CUT AND FILL SLOPES SHALL BE SEEDED / LOAMED WITHIN 72 HOURS OF ACHIEVING FINISH GRADE, EXCEPT WHERE RIP

ROW OF TUBULAR

WHERE SLOPE

EXCEEDS 3:1

APPOXIMATE ; OCATION OF **TEMPORARY DEWATERING** RECHARGE AREA

SEDIMENT BARRIER

& GRUB

EXISTING TRANSFORMER -

TO BE RELOCATED, SEE

UTILITIES PLAN.

GAS METER, FDC

- INSTALL SILT SACK INLET

CATCH BASIN, TYP.

1 STORY

BRICK BUILDING

FPA=18,619± S.F

PROTECT & MAINTAIN -

EXISTING BUILDING TO

PROTECT & MATINTAIN -

EXISTING TELE/DATA AND

& GRUB

ELECTRICAL MANHOLES

PROTECTION WITHIN EXISTING

CLEAR & GRUB. REMOVE TREES -

(AND VEGETATION WITHIN SIGHT

LINES. LOAM & SEED.

RIM=302.57

INV=303.37(BC)

POV TO REMAIN.

COORDINATE W/ MEP.

- 9. INSTALL BUILDING, UTILITIES, STORM SEWERS, CURBS AND GUTTERS.
- 10. INSTALL INLET PROTECTION DEVICES AROUND ALL STORM DRAIN
- 11. INSTALL RIP RAP AROUND OUTLET STRUCTURES.

LIMIT OF WORK

INSTALL DOUBLE

ROW OF TUBULAR

SEDIMENT BARRIER

WHERE SLOPE

EXCEEDS 3:1

TEMPORARY CONSTRUCTION -

LOCATION ÁS NECESSARY

THROUGHOUT CONSTRUCTION.

CONC. STEPS

LIMIT OF WORK -

INSTALLOSILT SACK INLET -

CATCH BASIN, TYP

PROTECTION WITHIN EXISTING

EXISTING SEWER

SHEET C-104.

CUT & CAP

OPGE

SEWER LINE

LINE T.B.R. SEE

T.B.R.

ENTRANCE/EXIT. ADJUST

TO BE RELOCATED,

SEE UTILITIES PLAN

EXISTING CATCH -

BASIN T.B.R.

CUT & CAP -

DRAIN LINE

//V=287.80(BC) INSTALL TUBULAR -

SEDIMENT BARRIER

OF WORK, TYP.

AT DOWNHILL LIMIT

─ WETLAND ~

- 12. FINALIZE GRADING, AND PREPARE SITE FOR PAVING. NOTE, ALL PARKING LOTS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISH GRADE.
- 13. PAVE SITE. COMPLETE FINISH GRADING AND INSTALL PERMANENT SEEDING AND PLANTING.
- 14. ONCE SITE IS STABILIZED, REMOVE ALL TEMPORARY EROSION AND SEDIMENT
- 15. ALL EROSION CONTROL MEASURES SHALL BE INSPECTED WEEKLY AND AFTER ALL RAINFALL EVENTS GREATER THAN 0.25", AND SHALL BE MAINTAINED, REPAIRED OR REPLACED AS REQUIRED OR AT THE DIRECTION OF THE OWNER'S ENGINEER, OR THE TOWN ENGINEER.

- 16. SEDIMENT ACCUMULATION UP-GRADIENT OF THE TUBULAR BARRIERS GREATER THAN 6" IN DEPTH SHALL BE REMOVED AND DISPOSED OF IN
 - 17. IF IT APPEARS THAT SEDIMENT IS EXITING THE SITE, SILT SACKS SHALL BE INSTALLED IN ALL CATCH BASINS ADJACENT TO THE SITE. SEDIMENT ACCUMULATION ON ALL ADJACENT CATCH BASIN INLETS SHALL BE REMOVED AND THE SILT SACK REPLACED IF TORN OR DAMAGED.
 - 18. THE CONTRACTOR SHALL COMPLY WITH THE GENERAL AND EROSION NOTES AS SHOWN ON THE SITE DEVELOPMENT PLANS, SEE ALSO SHEET C-001.

MATERIAL STOCKPILE/STAGING

AREA. ADJUST LOCATION AS

PROPOSED

BUILDING

ADDITION.

EXISTING WATER

LINE T.B.R. SEE

- EXISTING CATCH

BASIN T.B.R.

SHEET C-104.

NECESSARY THROUGHOUT

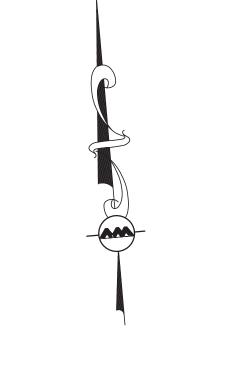
CONSTRUCTION.

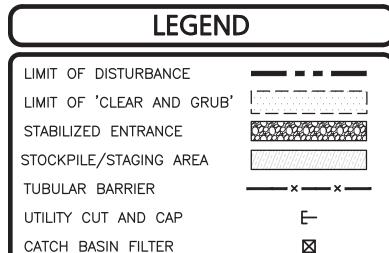
· INSTALL TÚBULAR

OF WORK, TYP.

SÉDIMENT BARRIER

AT DOWNHILL LIMIT





NOTES:

GOLDI

EASEMENT

- POND -

GC19

L P GAS

EQUIPMENT, INC.

DOC. NO.1339003

MAP 275 LOT 15

GC18

GC17

HYDRANT T.B.R.

- EXISTING

— EXISTING DRAIN

- EXISTING GAS & TELE/DATA

COORDINATE CONNECTION TO

PROPOSED ADDITION W/ MEP. - EXISTING ELECTRICAL CONDUIT TO BE REROUTED

EXISTING CATCH BASIN TO

GRAN. CURB 6" PVC

CONDUITS TO REMAIN.

EXISTING BUILDING AND

TO ACCOMMODATE

RELOCATED TRANSFORMER.

SEE UTILITIES PLAN.

BE REMOVED.

LINE T/B.R.

— EXISTING DRAIN

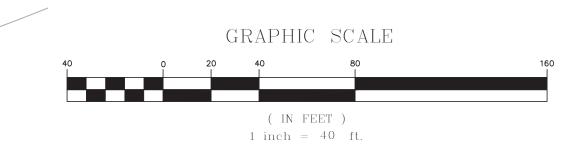
TREES T.B.R.

- EXISTING CATCH

BASIN T.B.R.

— LIMIT OF WORK

- 1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AND STRUCTURES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE LOCATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION.
- 2. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
- 3. THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANY, ANY GOVERNING PERMITTING AUTHORITY, AND "DIGSAFE" AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION WORK TO REQUEST EXACT FIELD LOCATION OF UTILITIES. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES INTERFERING WITH THE PROPOSED CONSTRUCTION AND APPROPRIATE REMEDIAL ACTION TAKEN BEFORE PROCEEDING WITH THE WORK. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE
- 4. ALTHOUGH CERTAIN ITEMS HAVE BEEN NOTED ON THIS DRAWING FOR DEMOLITION, NO ATTEMPT HAS BEEN MADE TO DELINEATE EACH AND EVERY ITEM THAT REQUIRES DEMOLITION FOR THE COMPLETION OF THE PROJECT. THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL NECESSARY DEMOLITION WORK TO COMPLETE THE PROJECT. ALLEN & MAJOR ASSOCIATES, INC. IS NOT RESPONSIBLE FOR SITE DEMOLITION ITEMS NOT SHOWN ON THE SURVEY, OR SPECIFICALLY NOTED. THE DEMOLITION NOTES AND ARROWS ON THIS PLAN ARE TYPICAL AND DO NOT REFLECT
- 5. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES INTERFERING WITH THE PROPOSED CONSTRUCTION AND APPROPRIATE REMEDIAL ACTION TAKEN BEFORE PROCEEDING WITH THE WORK. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE
- 6. EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE START OF CONSTRUCTION. IF IT ADDITIONAL MEASURES ARE NECESSARY DURING CONSTRUCTION THEY SHALL BE INSTALLED IMMEDIATELY AND WITHOUT DELAY. SEE DETAIL SHEET C-501 FOR ADDITIONAL INFORMATION.
- 7. INLET PROTECTION SHALL BE INSTALLED IN PROPOSED CATCH BASINS IMMEDIATELY UPON CONSTRUCTION.
- 8. THE INFORMATION SHOWN ON THIS PLAN IS THE SOLE PROPERTY OF ALLEN & MAJOR ASSOCIATES, INC. ITS INTENDED USE IS TO PROVIDE INFORMATION. ANY ALTERATION, MISUSE, OR RECALCULATION OF INFORMATION OR DATA WITHOUT THE EXPRESSED, WRITTEN CONSENT OF ALLEN & MAJOR ASSOCIATES, INC. IS STRICTLY PROHIBITED.





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REV	DATE	DESCRIPTION

APPLICANT\OWNER:

TMC HOLDINGS & DEVELOPMENT 2, LLC 24 WILLIAM WAY BELLINGHAM, MA 02019

PROJECT:

25 FORGE PARKWAY FRANKLIN, MA

PROJECT NO. 2712-02A DATE: 02-21-23 1" = 40' DWG. NAME: C-2712-02A SCALE:

SM/JRG | CHECKED BY: **DESIGNED BY:**



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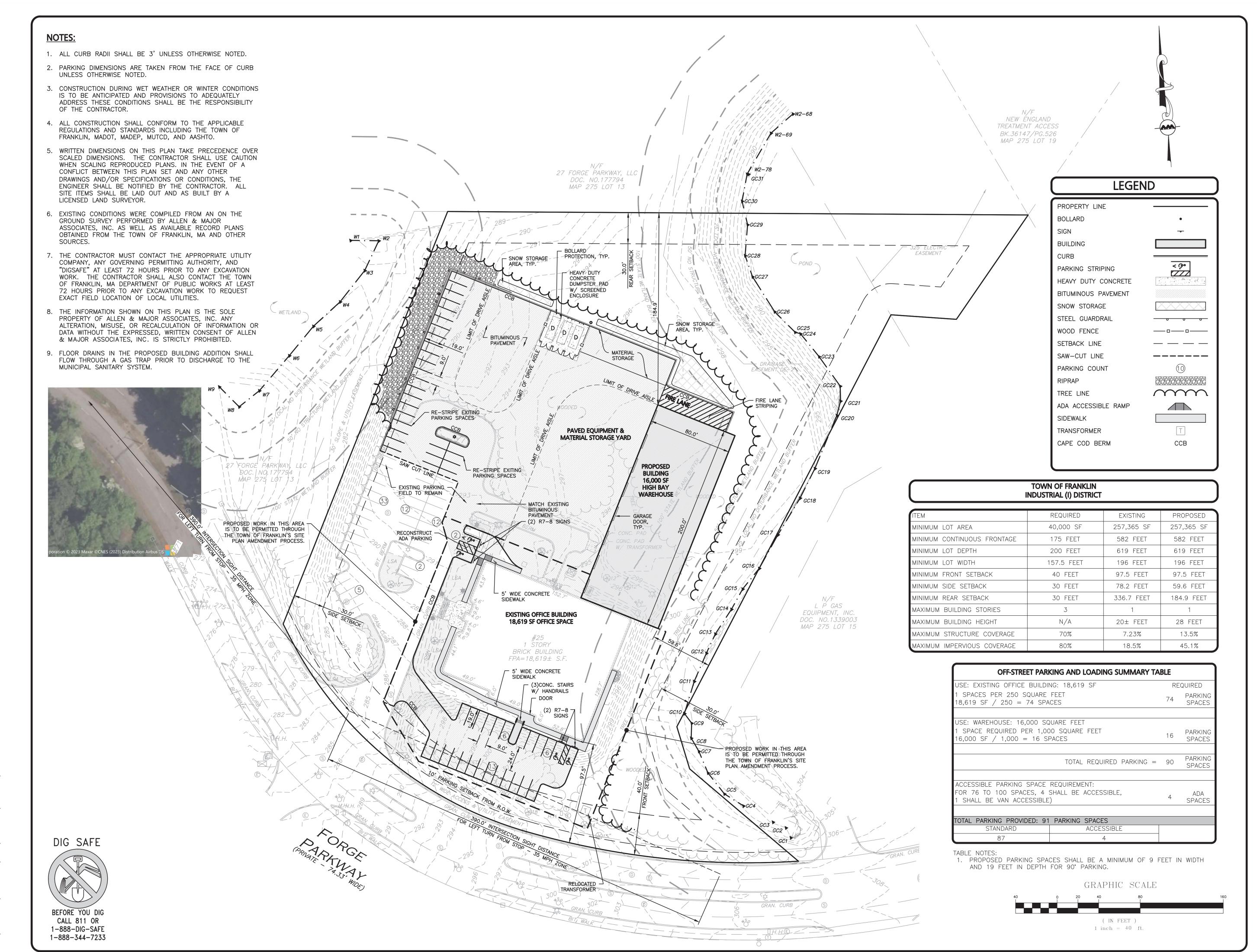
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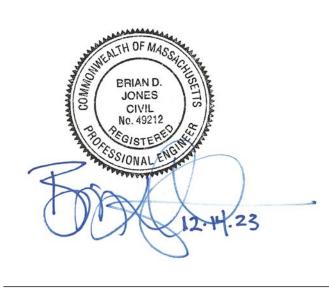
SHEET No.

C-101

DRAWING TITLE:

SITE PREPARATION PLAN





PROFESSIONAL ENGINEER FOR ALLEN & MAJOR ASSOCIATES, INC.

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SCALE:

25 FORGE PARKWAY FRANKLIN, MA

2712-02A DATE:

02-21-23

DESIGNED BY: SM/JRG | CHECKED BY: ALLEN & MAJOR

1" = 40' DWG. NAME: C-2712-02A

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LAYOUT & MATERIALS PLAN | C-102

INV(a) = 298.16

INV(b) = 298.96

INV(c)=298.36

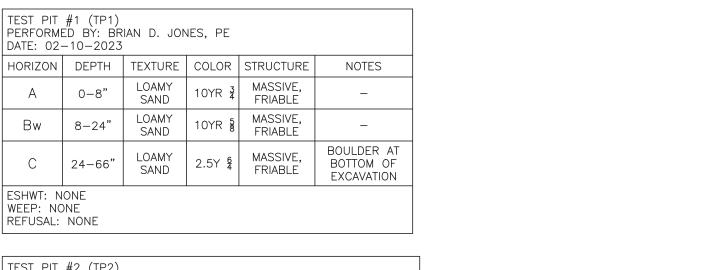
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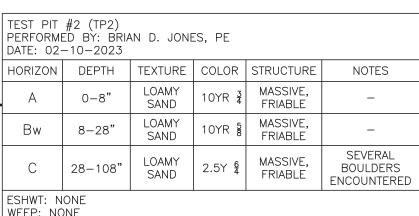
RIM=304.00 RIM=304.17

INV=299.10 INV=299.17

RIM=307.28

INV=297.38(BC)





TEST PIT #3 (TP3) PERFORMED BY: BRIAN D. JONES, PE DATE: 02-10-2023							
HORIZON	DEPTH	TEXTURE	COLOR	STRUCTURE	NOTES		
НТМ	0-36"	LOAMY SAND	10YR 4	MASSIVE, FRIABLE	_		
C1	36-60"	LOAMY SAND	2.5Y 4	MASSIVE, FRIABLE	_		
C2	60-100"	SANDY LOAM	10YR 5	MASSIVE, FIRM	_		
ESHWT: NONE WEEP: NONE REFUSAL: NONE							

SAND

SAND

LOAMY

LOAMY SAND

LOAMY

SAND

LOAMY

SAND

LOAMY

SAND

LOAMY SAND

SAND

FRIARI F

FRIABLE

FRIABLE

MASSIVE,

FRIABLE

MASSIVE

FRIABLE

FRIABLE

MASSIVE, FRIABLE

TOPSOIL

5% COBBLES

LARGER

BOULDER AT

NOTES

TOPSOIL

NOTES

TOPSOIL

5% COBBLES

MASSIVE, 5% COBBLES

THE BOTTOM

10YR 5 FRIABLE

2.5Y 🔓

7.5YR ¾

7.5YR 🔞

2.5Y §

7.5YR 🔏

LOAMY 2.5Y 6 MASSIVE, FRIABLE

NOTES:

 EXISTING CONDITIONS WERE COMPILED FROM AN ON THE GROUND SURVEY PERFORMED BY ALLEN & MAJOR ASSOCIATES, INC. AS WELL AS AVAILABLE RECORD PLANS OBTAINED FROM THE TOWN OF FRANKLIN, MA AND OTHER SOURCES.

LEGEND

DRAIN MANHOLE

AREA DRAIN (AD)

OUTLET CONTROL

RIPRAP OUTFALL

5' CONTOUR

1' CONTOUR

ISOLATOR ROW

FLOW DIRECTION

INFILTRATION SYSTEM

INFILTRATION CHAMBE

SPOT GRADE

HEADWALL

DRAIN LINE

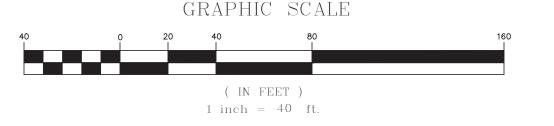
CATCH BASIN - DOUBLE GRATE

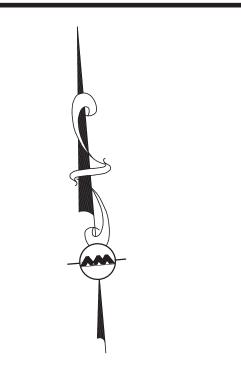
CATCH BASIN

- 2. VERTICAL DATUM IS NAVD88. EXISTING GRADE CONTOUR INTERVALS SHOWN AT 1 FOOT. PROPOSED GRADE CONTOUR INTERVALS SHOWN AT 1 FOOT.
- 3. ALL CUT OR FILL SLOPES SHALL BE 3:1 OR FLATTER UNLESS OTHERWISE NOTED.

4. PIPE DIMENSIONS ARE MEASURED FROM THE INSIDE EDGE OF THE

- STRUCTURE. 5. ROOF DRAIN LOCATIONS TO BE BASED ON FINAL BUILDING PLANS.
- CONNECTION POINTS SHALL BE AS SHOWN HEREON.
- 6. IF ANY EXISTING STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXISTING CONDITIONS OR BETTER.
- 7. ALL STORM DRAIN MANHOLES IN PAVED AREAS SHALL BE FLUSH WITH PAVEMENT AND SHALL HAVE TRAFFIC BEARING RING & COVERS, H-20 MINIMUM.
- THE CONTRACTOR SHALL ADHERE TO ALL TERMS & CONDITIONS AS OUTLINED IN THE GENERAL N.P.D.E.S. PERMIT FOR STORMWATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITIES.
- 9. CONTRACTOR SHALL ADJUST AND/OR CUT EXISTING PAVEMENT AS NECESSARY TO ENSURE A SMOOTH FIT AND CONTINUOUS GRADE.
- 10. CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS FOR ALL NATURAL AND PAVED AREAS.
- 11. ALL DRAINAGE SHALL CONFORM TO LOCAL REQUIREMENTS.
- 12. THE INFORMATION SHOWN ON THIS PLAN IS THE SOLE PROPERTY OF ALLEN & MAJOR ASSOCIATES, INC. ANY ALTERATION, MISUSE, OR RECALCULATION OF INFORMATION OR DATA WITHOUT THE EXPRESSED, WRITTEN CONSENT OF ALLEN & MAJOR ASSOCIATES, INC. IS STRICTLY PROHIBITED.
- 13. THE PROJECT RESULTS IN A NET EXPORT OF APPROXIMATELY 7,300 CUBIC YARDS OF MATERIAL. THIS VALUE DOES NOT INCLUDE EXCAVATION REQUIRED FOR BUILDING FOUNDATION, UTILITIES, OR STORMWATER INFRASTRUCTURE.
- 14. PRIOR TO CONSTRUCTION, ONE ADDITIONAL TEST PIT SHALL BE PERFORMED WITHIN THE FOOTPRINT OF THE PROPOSED INFILTRATION SYSTEM TO CONFIRM SEPARATION TO ESTIMATED SEASONAL HIGH GROUND WATER. THE TEST PIT SHALL BE OBSERVED BY THE ENGINEER OF RECORD.





-----297

 $\times 298.50$

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 \Longrightarrow

300



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PREPARED BY:			
DESIGNED BY:	SM/JRG	CHECKED BY:	
SCALE:	1" = 40'	DWG. NAME:	C-2712-
PROJECT NO.	2712-02A	DATE:	02-2



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DRAWING TITLE:

C-103 GRADING & DRAINAGE PLAN

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BEFORE YOU DIG

CALL 811 OR

1-888-DIG-SAFE

1-888-344-7233

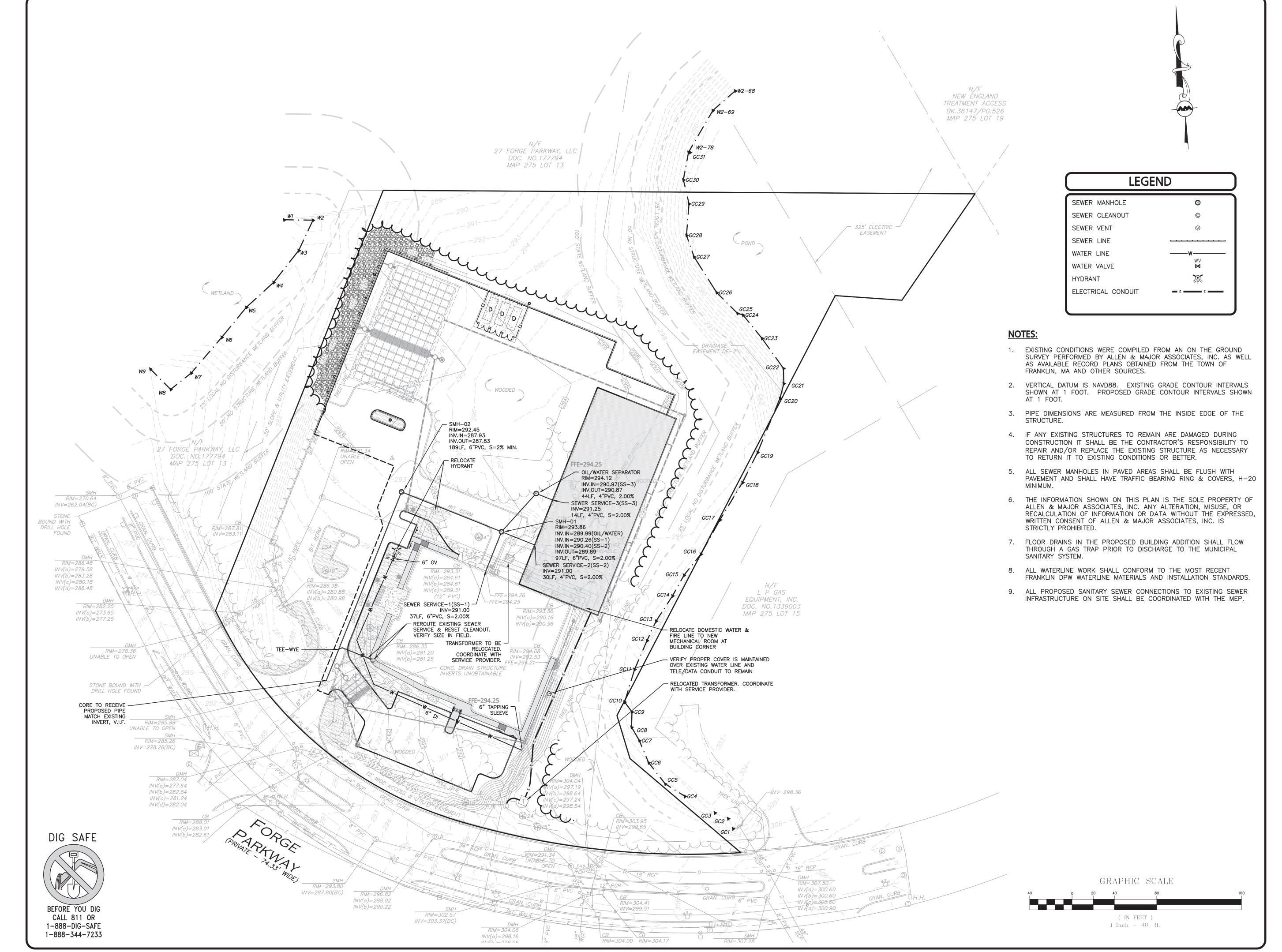
<u>INFILTRATION SYSTEM PROTECTION NOTES</u>

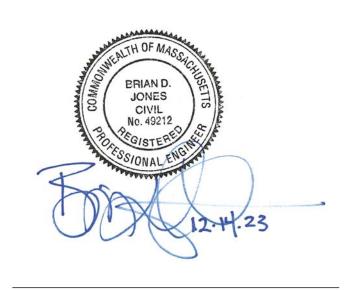
CONSTRUCTION EQUIPMENT. IF FEASIBLE, PERFORM

EXCAVATIONS WITH EQUIPMENT POSITIONED OUTSIDE

1. DO NOT TRAFFIC EXPOSED SOIL SURFACE WITH

SHEET No.





PROFESSIONAL ENGINEER FOR ALLEN & MAJOR ASSOCIATES, INC.

REV	DATE	DESCRIPTION	

APPLICANT\OWNER:

TMC HOLDINGS & DEVELOPMENT 2, LLC 24 WILLIAM WAY BELLINGHAM, MA 02019

PROJECT:

PROJECT NO.

25 FORGE PARKWAY FRANKLIN, MA

2712-02A DATE:

11-**-23

SCALE: 1" = 40' DWG. NAME: C-2712-02A

DESIGNED BY: SM/JRG CHECKED BY: BDJ

PREPARED BY:



civil engineering • land surveying
environmental consulting • landscape architecture
w w w . a l l e n m a j o r . c o m
100 COMMERCE WAY, SUITE 5
WOBURN MA 01801

TEL: (781) 935-6889 FAX: (781) 935-2896

WOBURN, MA ◆ LAKEVILLE, MA ◆ MANCHESTER, N

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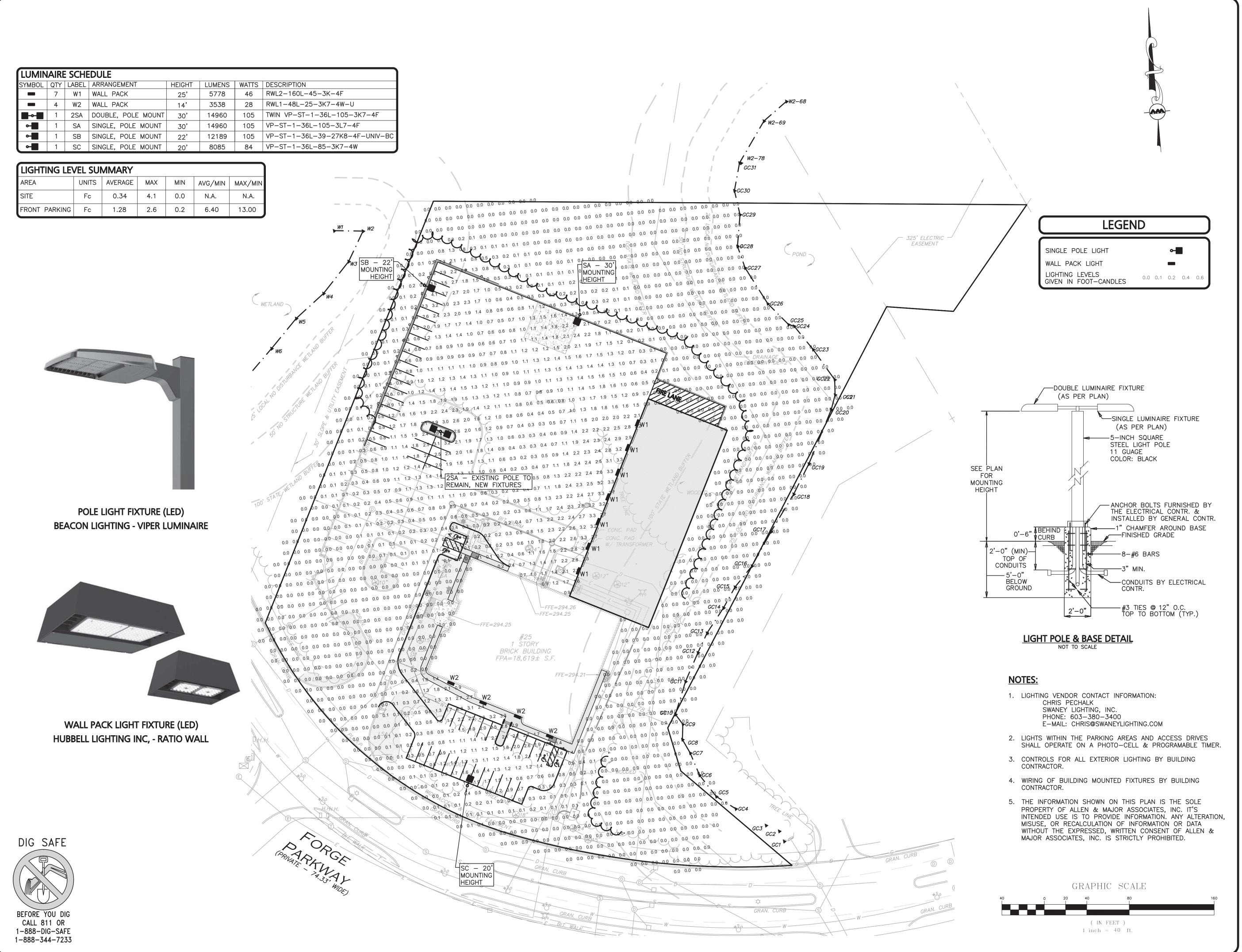
DRAWING TITLE:

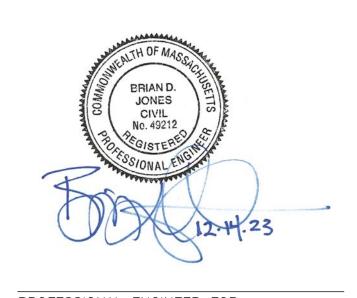
UTILITIES PLAN

C-104

SHEET No.







PROFESSIONAL ENGINEER FOR ALLEN & MAJOR ASSOCIATES, INC.

7	12-14-23	ISSUED FOR SITE PLAN AMENDME
6	10-24-23	REVISED PER CONDITIONS OF APPROV
5	05-18-23	REVISION 5 PER REVIEW COMMEN
4	05-11-23	REVISION 4 PER REVIEW COMMEN
3	05-01-23	REVISION 3 PER REVIEW COMMEN
2	04-14-23	REVISION 2 PER DPW COMMENTS
1	04-04-23	REVISION 1 PER PEER REVIEW
REV	DATE	DESCRIPTION

APPLICANT\OWNER:

TMC HOLDINGS & DEVELOPMENT 2, LLC 24 WILLIAM WAY BELLINGHAM, MA 02019

PROJECT:

PROJECT NO.

25 FORGE PARKWAY FRANKLIN, MA

SCALE: 1" = 40' DWG. NAME: C-2712-02A

DESIGNED BY: SM/JRG CHECKED BY: BD.

PREPARED BY:

2712-02A DATE:

02-21-23



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mental consulting ◆ landscape architecture w w w v . a l l e n m a j o r . c o m 100 COMMERCE WAY, SUITE 5 WOBURN MA 01801 TEL: (781) 935-6889

WOBURN, MA ◆ LAKEVILLE, MA ◆ MANCHESTER, N

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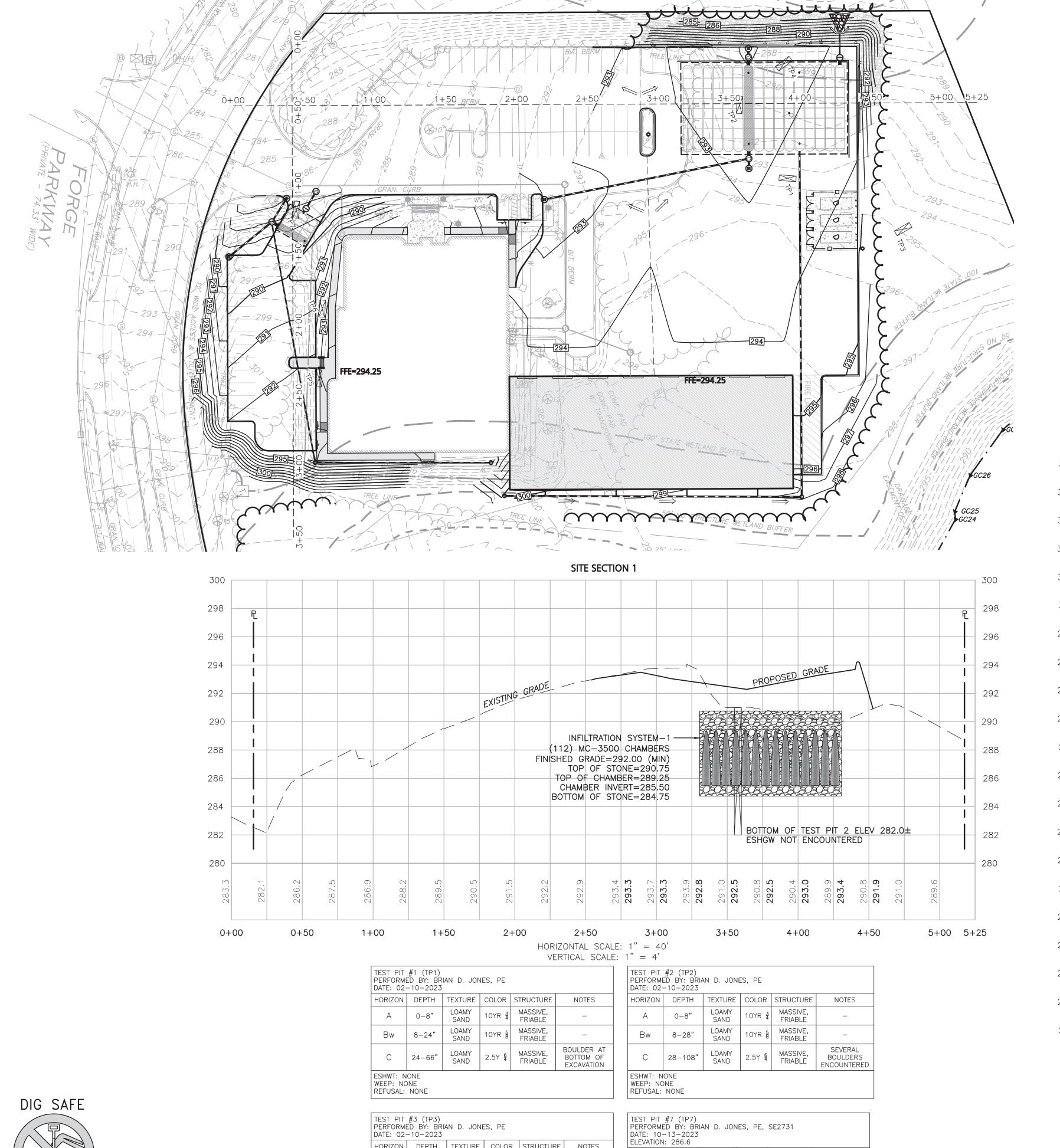
LIGHTING PLAN

C-105

SHEET No.

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HORIZON DEPTH TEXTURE COLOR STRUCTURE NOTES

10YR 🛊

2.5Y 🔓

10YR €

LOAMY SAND

LOAMY SAND

SANDY LOAM

HTM

C2

ESHWT: NONE

REFUSAL: NONE

0-36"

60-100"

HTM - HUMAN TRANSPORTED MATERIAL

C1 36-60"

MASSIVE, FRIABLE

FRIABLE

MASSIVE,

HORIZON | DEPTH | TEXTURE | COLOR | STRUCTURE |

7.5YR 3 MASSIVE, FRIABLE

LOAMY SAND 2.5Y 6 MASSIVE, FRIABLE

TOPSOIL

5% COBBLES

LOAMY SAND

ESHWT: NONE TO 90" (ELEV. 279.1)

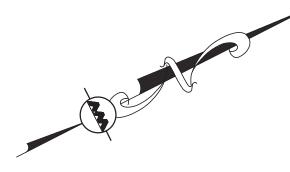
HTM: HUMAN TRANSPORTED MATERIAL

HTM 0-18"

C 18-90"

WEEP: NONE

REFUSAL: NONE



 \Longrightarrow

NOTES:

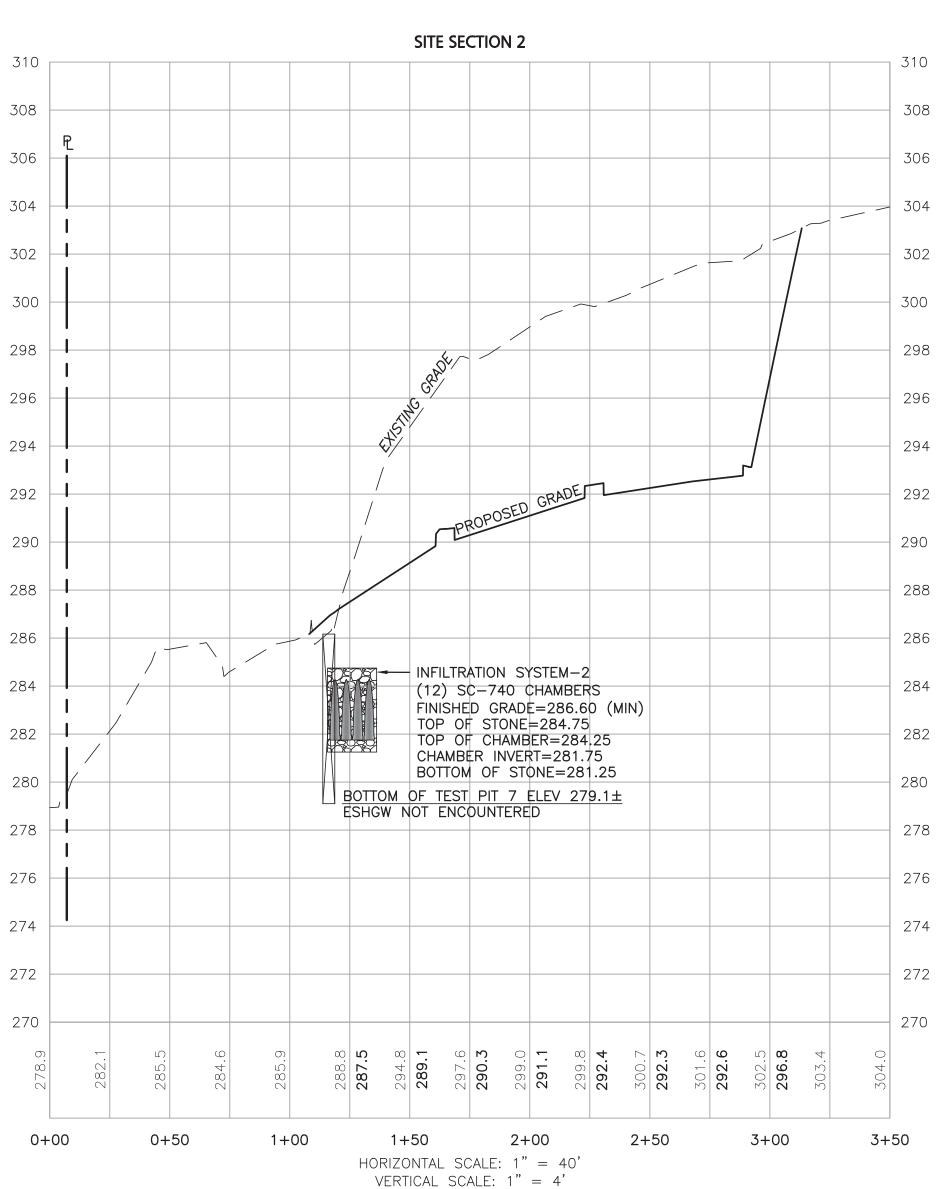
- 1. EXISTING CONDITIONS WERE COMPILED FROM AN ON THE GROUND SURVEY PERFORMED BY ALLEN & MAJOR ASSOCIATES, INC. AS WELL AS AVAILABLE RECORD PLANS OBTAINED FROM THE TOWN OF FRANKLIN, MA AND OTHER SOURCES.
- 2. VERTICAL DATUM IS NAVD88. EXISTING GRADE CONTOUR INTERVALS SHOWN AT 1 FOOT. PROPOSED GRADE CONTOUR INTERVALS SHOWN AT 1 FOOT.
- 3. ALL CUT OR FILL SLOPES SHALL BE 3:1 OR FLATTER UNLESS OTHERWISE NOTED.
- 4. IF ANY EXISTING STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXISTING CONDITIONS OR BETTER.
- THE INFORMATION SHOWN ON THIS PLAN IS THE SOLE PROPERTY OF ALLEN & MAJOR ASSOCIATES, INC. ANY ALTERATION, MISUSE, OR RECALCULATION OF INFORMATION OR DATA WITHOUT THE EXPRESSED, WRITTEN CONSENT OF ALLEN & MAJOR ASSOCIATES, INC. IS STRICTLY PROHIBITED.

LEGEND DRAIN MANHOLE CATCH BASIN CATCH BASIN - DOUBLE GRATE AREA DRAIN (AD) OUTLET CONTROL HEADWALL DRAIN LINE RIPRAP OUTFALL 300 5' CONTOUR 1' CONTOUR SPOT GRADE $\times 298.50$ INFILTRATION SYSTEM

INFILTRATION CHAMBER

ISOLATOR ROW

FLOW DIRECTION





PROFESSIONAL ENGINEER FOR ALLEN & MAJOR ASSOCIATES, INC.

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REV	DATE	DESCRIPTION

APPLICANT\OWNER:

PROJECT NO.

TMC HOLDINGS & DEVELOPMENT 2, LLC 24 WILLIAM WAY BELLINGHAM, MA 02019

PROJECT:

25 FORGE PARKWAY FRANKLIN, MA

1" = 40' DWG. NAME: C-2712-02A SCALE: SM/JRG | CHECKED BY: **DESIGNED BY:**

2712-02A DATE:

02-21-23



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C-201

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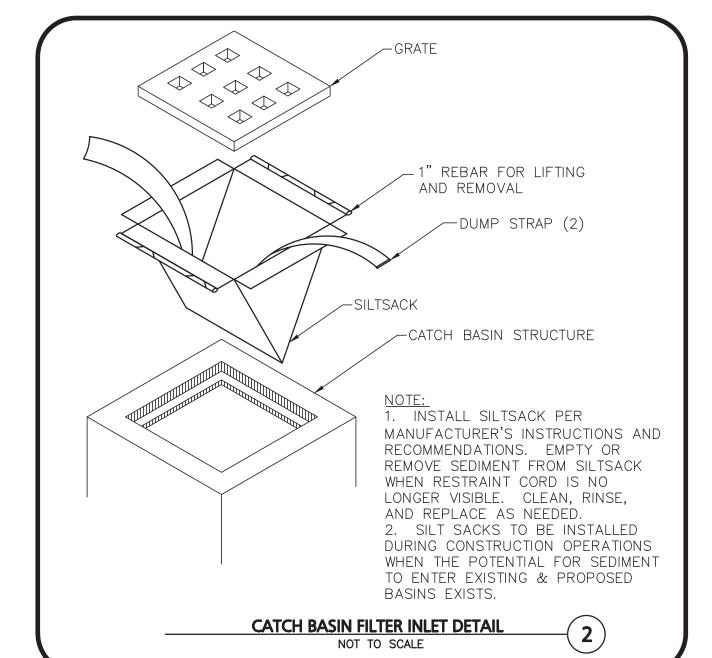
(IN FEET) 1 inch = 40 ft.

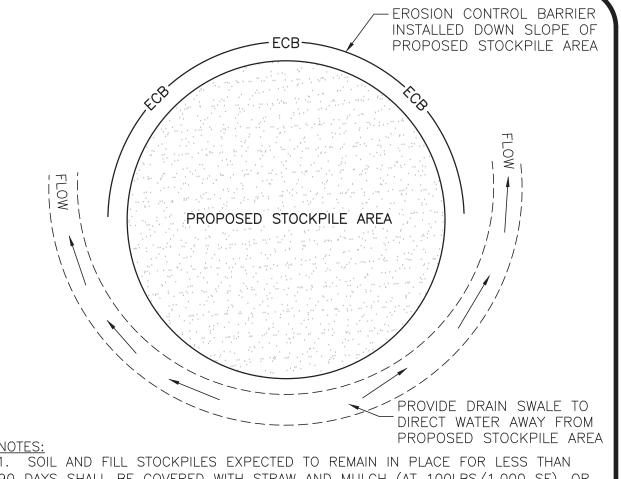
GRAPHIC SCALE

SITE PLAN & **CROSS-SECTION**

- 1. ALL MATERIALS TO MEET MANUFACTURERS SPECIFICATIONS.
- 2. INSTALL WOODEN STAKES IN A CRISS-CROSS PATTERN EVERY 8' ON CENTER.
- 2. OVERLAP TUBULAR BARRIER SEGMENTS A MINIMUM OF 12".
- 3. THE CONTRACTOR SHALL MAINTAIN THE TUBULAR BARRIERS IN A FUNCTIONAL CONDITION AT ALL TIMES. THE CONTROLS SHALL BE ROUTINELY INSPECTED BY THE CONTRACTOR.
- 4. WHERE THE TUBULAR BARRIERS REQUIRE REPAIR OR SEDIMENT REMOVAL, IT WILL BE COMPLETED BY THE CONTRACTOR AT NO ADDITIONAL COST.
- 5. AT A MINIMUM, THE CONTRACTOR SHALL REMOVE SEDIMENTS COLLECTED AT THE BASE WHEN THEY REACH 1/3 THE EXPOSED HEIGHT OF THE BARRIER.

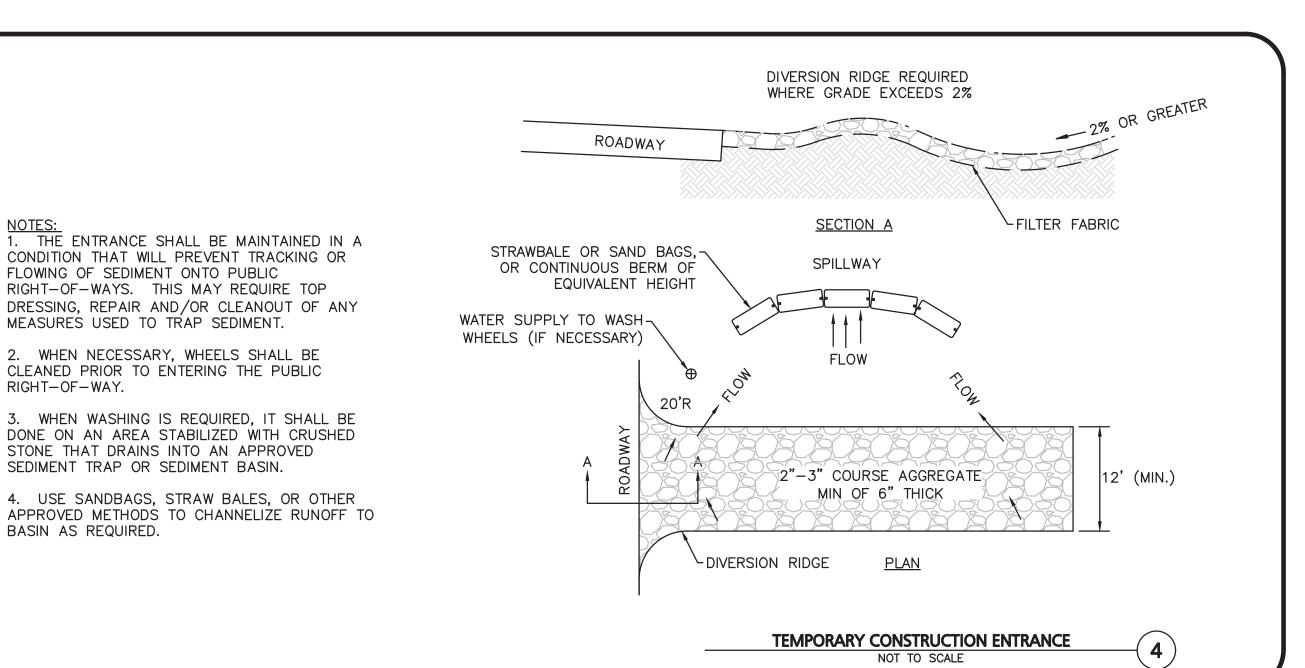


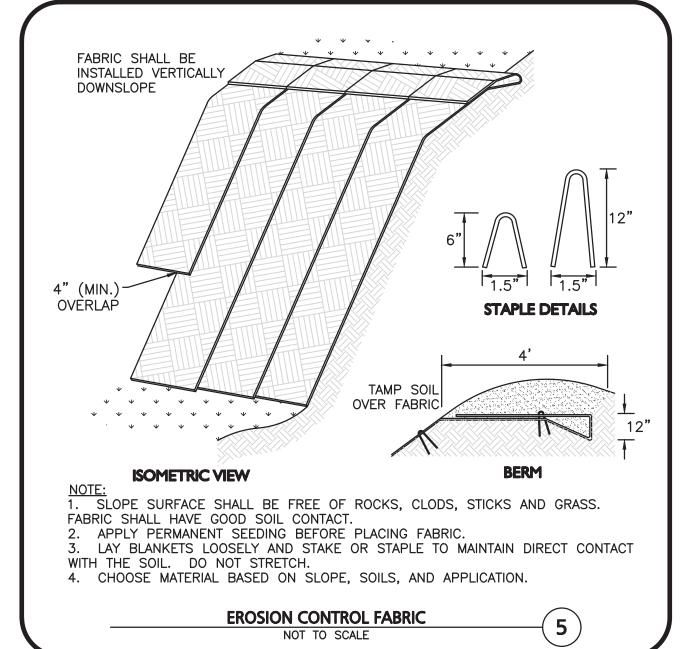


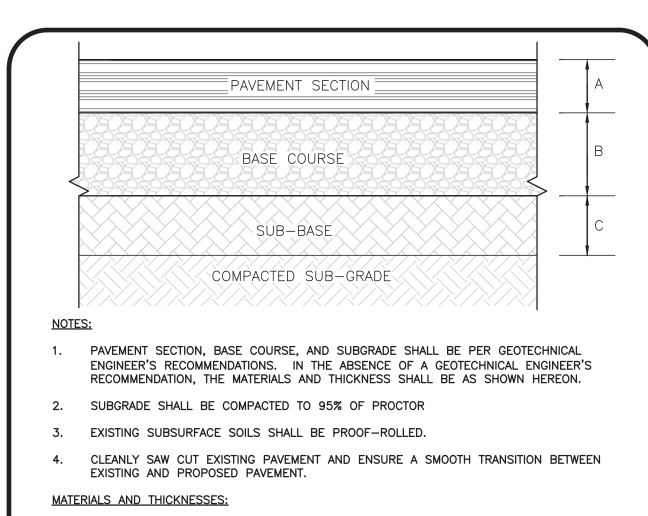


1. SOIL AND FILL STOCKPILES EXPECTED TO REMAIN IN PLACE FOR LESS THAN 90 DAYS SHALL BE COVERED WITH STRAW AND MULCH (AT 100LBS/1,000 SF), OR WITH AN ANCHORED TARP WITHIN 7 DAYS OR PRIOR TO ANY RAINFALL. 2. SOIL AND FILL STOCKPILES EXPECTED TO REMAIN IN PLACE FOR 90 DAYS OR MORE SHALL BE SEEDED WITH WINTER RYE (FOR FALL SEEDING AT 1LB/1.000 SF) OR OATS (FOR SUMMER SEEDING AT 2LB/1,000 SF) AND THEN COVERED WITH STRAW MULCH (AT 100LB/1,000 SF) OR AN ANCHORED TARP WITHIN 7 DAYS OR PRIOR TO ANY RAINFALL.

> STOCKPILE PROTECTION DETAIL NOT TO SCALE







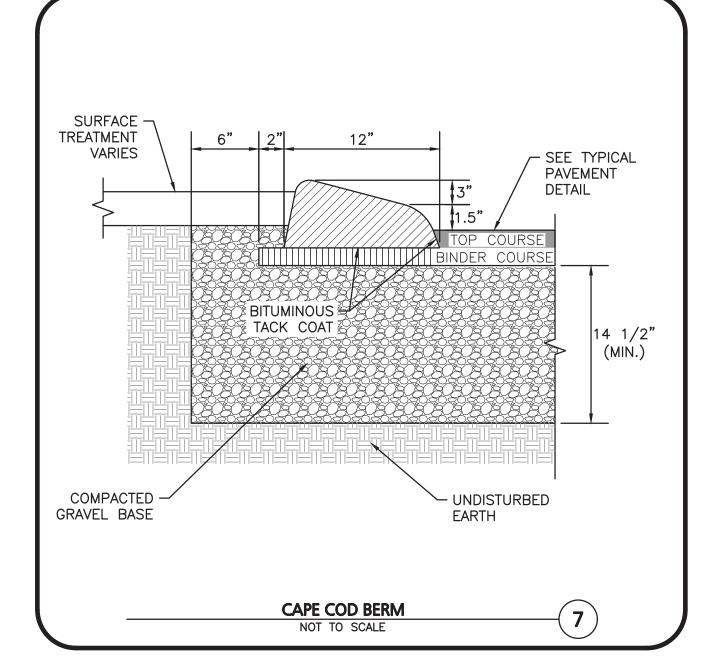
A = 1.5" ASPHALT CONCRETE - SURFACE COURSE (M3.11.0, TABLE A, TOP COURSE) 2.5" ASPHALT CONCRETE - BINDER COURSE (M3.11.0, TABLE A, BINDER COURSE)

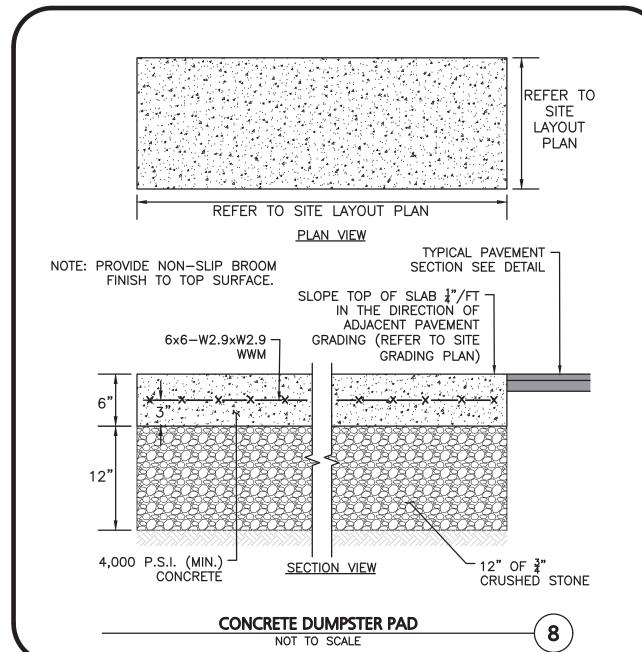
B = 6" PROCESSED GRAVEL BASE (MHD M2.01.7)

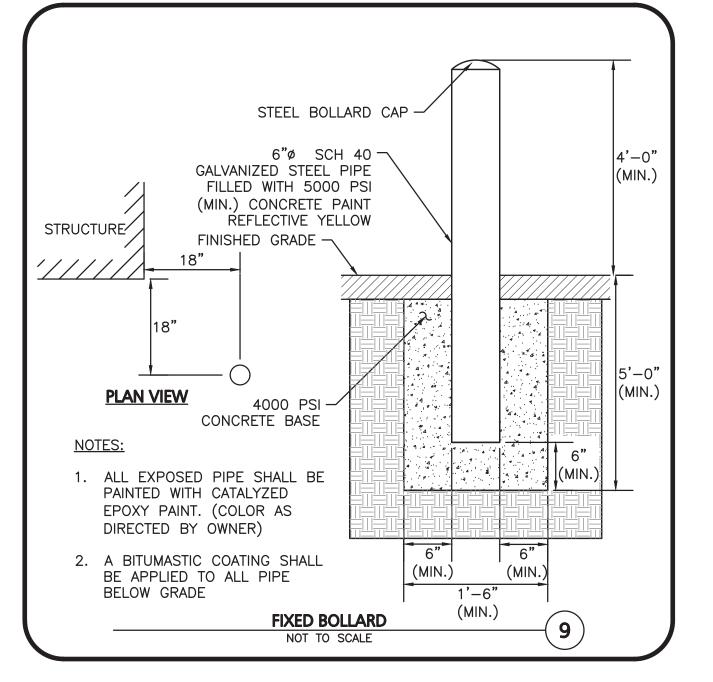
C = 12" BANK RUN GRAVEL MHD M1.03.0 TYPE B)

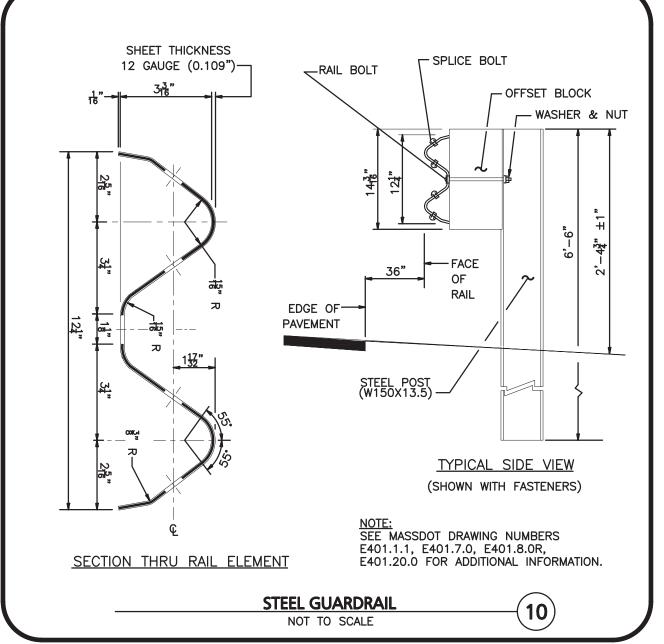
ASPHALT PAVEMENT SECTION NOT TO SCALE













PROFESSIONAL ENGINEER FOR ALLEN & MAJOR ASSOCIATES, INC.

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25 FORGE PARKWAY FRANKLIN, MA

AS SHOWN DWG. NAME: C-2712-02A **DESIGNED BY:** SM/JRG | CHECKED BY:

2712-02A DATE:

02-21-23

C-501



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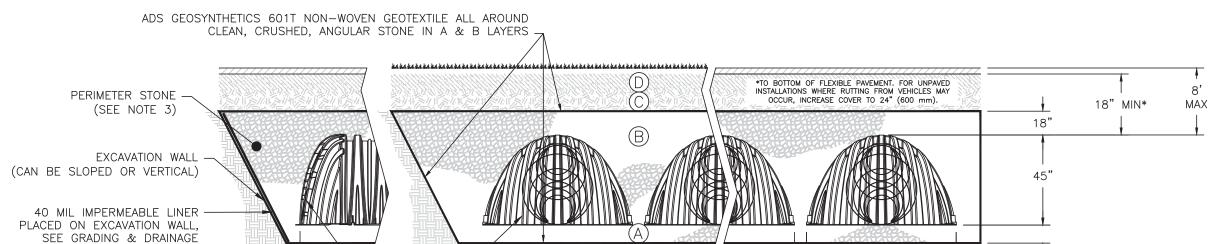
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DETAILS

	MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS.
С	INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 24" (600 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145 ¹ A-1, A-2-4, A-3 OR AASHTO M43 ¹ 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 24" (600 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 12" (300 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS.
В	EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43¹ 3, 4	
А	FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43 ¹ 3, 4	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. ^{2,3}

PLEASE NOTE: . THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4

- STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE". STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) (MAX) LIFTS USING TWO FULL
- COVERAGES WITH A VIBRATORY COMPACTOR. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING
- OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
- . 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.



L DEPTH OF STONE TO BE 9" MIN

INSPECTION PORTS MAY BE CONNECTED THROUGH ANY CHAMBER CORRUGATION

12" MIN WIDTH

- CONCRETE COLLAR NOT

REQUIRED FOR UNPAVED

PORT BODY (PART#

RATED BOX W/SOLID

LOCKING COVER

' INSERTA TEE

TO BE CENTERED ON CORRUGATION VALLEY

4" SDR 35

8" NYLOPLAST INSPECTION

2708AG4IPKIT) OR TRAFFIC

4" PVC INSPECTION PORT NOT TO SCALE

CONCRETE COLLAR -

CONCRETE SLAB

6" MIN THICKNESS

STORMTECH CHAMBER -

PAVEMENT

1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 45x76 DESIGNATION SS.

SUBGRADE SOILS -

- 2. MC-3500 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER
- 3. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
- 4. REQUIREMENTS FOR HANDLING AND INSTALLATION: • TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
- TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3. • TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 500 LBS/FT/%. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C),

MC-3500 - CROSS SECTION DETAIL NOT TO SCALE

MC-3500 STORMTECH CHAMBER SPECIFICATIONS

CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

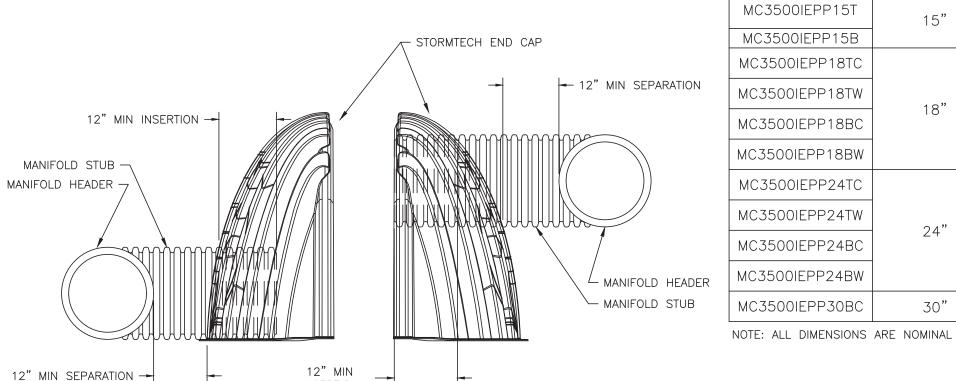
1. CHAMBERS SHALL BE STORMTECH MC-3500.

PLAN FOR LOCATION.

- 2. CHAMBERS SHALL BE ARCH-SHAPED AND SHALL BE MANUFACTURED FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE COPOLYMERS.
- 3. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 45x76 DESIGNATION SS.
- 4. CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORTS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
- 5. THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
- 6. CHAMBERS SHALL BE DESIGNED, TESTED AND ALLOWABLE LOAD CONFIGURATIONS DETERMINED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". LOAD CONFIGURATIONS SHALL INCLUDE: 1) INSTANTANEOUS (<1 MIN) AASHTO DESIGN TRUCK LIVE LOAD ON MINIMUM COVER 2) MAXIMUM PERMANENT (75-YR) COVER LOAD AND 3) ALLOWABLE COVER WITH PARKED (1-WEEK) AASHTO DESIGN TRUCK.
- 7. REQUIREMENTS FOR HANDLING AND INSTALLATION:
- TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS. • TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3.
- TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT SHALL BE GREATER THAN OR EQUAL TO 450 LBS/FT/%. THE ASC IS DEFINED IN SECTION 6.2.8 OF ASTM F2418. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.
- 8. ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. UPON REQUEST BY THE SITE DESIGN ENGINEER OR OWNER, THE CHAMBER MANUFACTURER SHALL SUBMIT A STRUCTURAL EVALUATION FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE AS FOLLOWS:
- THE STRUCTURAL EVALUATION SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER. • THE STRUCTURAL EVALUATION SHALL DEMONSTRATE THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.95 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIRED BY ASTM F2787 AND BY SECTIONS 3 AND 12.12 OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR
- THE TEST DERIVED CREEP MODULUS AS SPECIFIED IN ASTM F2418 SHALL BE USED FOR PERMANENT DEAD LOAD DESIGN EXCEPT THAT IT SHALL BE THE 75-YEAR MODULUS USED FOR DESIGN.
- 9. CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.



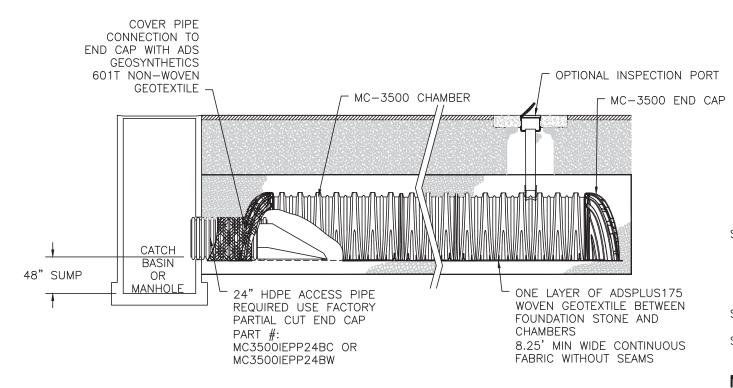
STORMTECH MC-3500 CHAMBER SYSTEM NOT TO SCALE



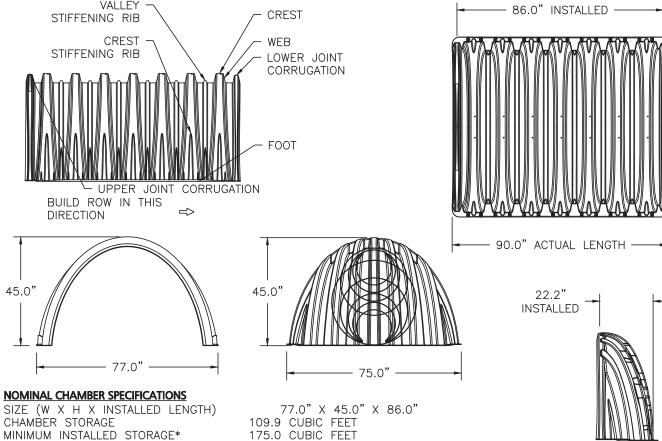
NOTE: MANIFOLD STUB MUST BE LAID HORIZONTAL FOR A PROPER FIT IN END CAP OPENING.

INSERTION

END CAP INSERTION DETAIL NOT TO SCALE



MC-3500 - ISOLATOR ROW PLUS DETAIL NOT TO SCALE



25.7" ---

MINIMUM INSTALLED STORAGE* NOMINAL END CAP SPECIFICATIONS SIZE (W X H X INSTALLED LENGTH) FND CAP STORAGE

75.0" X 45.0" X 22.2" 14.9 CUBIC FEET MINIMUM INSTALLED STORAGE* 45.1 CUBIC FEET WEIGHT *ASSUMES 12" STONE ABOVE, 9" STONE FOUNDATION, 6" STONE BETWEEN

END CAPS WITH A PREFABRICATED WELDED STUB END WITH "W"

PARTIAL CUT HOLES AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B" PARTIAL CUT HOLES AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"

CHAMBERS, 6" STONE PERIMETER IN FRONT OF END CAPS AND 40% STONE

134 lbs.

END CAPS WITH A WE	ELDED CROWN PLATE	END WITH "C"		00000000
PART#	STUB	В	С	
MC3500IEPP06T	6"	33.21"		
MC3500IEPP06B			0.66"	CUSTOM PARTIAL CUT INVERTS
MC3500IEPP08T	8"	31.16"		ARE AVAILABLE UPON REQUEST. INVENTORIED MANIFOLDS INCLUDE 12-24"
MC3500IEPP08B			0.81"	SIZE ON SIZE AND 15-48"
MC3500IEPP10T	10"	29.04"		ECCENTRIC MANIFOLDS. CUSTOM INVERT LOCATIONS ON THE MC-3500 END CAP CUT
MC3500IEPP10B			0.93"	IN THE FIELD ARE NOT RECOMMENDED FOR PIPE
MC3500IEPP12T	12"	26.36"		SIZES GREATER THAN 10". THE INVERT LOCATION IN
MC3500IEPP12B			1.35"	COLUMN 'B' ARE THE HIGHEST POSSIBLE FOR THE PIPE SIZE.
MC3500IEPP15T	15"	23.39"		
MC3500IEPP15B			1.50"	
MC3500IEPP18TC		20.03"		
MC3500IEPP18TW	18"	20.00		
MC3500IEPP18BC	10		1.77"	
MC3500IEPP18BW			1.//	
MC3500IEPP24TC		14.48"		
MC3500IEPP24TW	0.4"	14.40		
MC3500IEPP24BC	24"		2.06"	
MC3500IEPP24BW			2.00	

TECHNICAL SPECIFICATIONS

INSPECTION & MAINTENANCE

STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT

LEVELS (OPTIONAL)

A. INSPECTION PORTS (IF PRESENT)

NOT TO SCALE

A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED

2.75"

- A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG A.4. LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT
- A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO
- B. ALL ISOLATOR PLUS ROWS B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
- i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO

STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45" (1.1 m) OR MORE

- B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- C. VACUUM STRUCTURE SUMP AS REQUIRED
- STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.
- STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

- 1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
- 2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS



PROFESSIONAL ENGINEER FOR ALLEN & MAJOR ASSOCIATES, INC.

7	12-14-23	ISSUED FOR SITE PLAN AMENDMEN
6	10-24-23	REVISED PER CONDITIONS OF APPROVA
5	05-18-23	REVISION 5 PER REVIEW COMMENTS
4	05-11-23	REVISION 4 PER REVIEW COMMENTS
3	05-01-23	REVISION 3 PER REVIEW COMMENTS
2	04-14-23	REVISION 2 PER DPW COMMENTS
1	04-04-23	REVISION 1 PER PEER REVIEW
REV	DATE	DESCRIPTION

APPLICANT\OWNER:

TMC HOLDINGS & DEVELOPMENT 2, LLC 24 WILLIAM WAY BELLINGHAM, MA 02019

PROJECT:

25 FORGE PARKWAY FRANKLIN, MA

PROJECT NO.	2712-02A	DATE:	02-21-23

AS SHOWN DWG. NAME: C-2712-02A

DESIGNED BY: SM/JRG | CHECKED BY:



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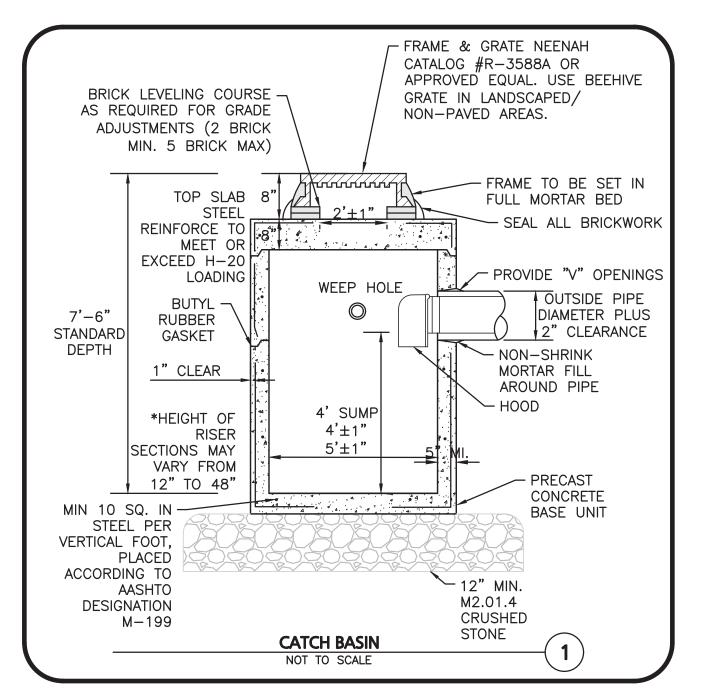
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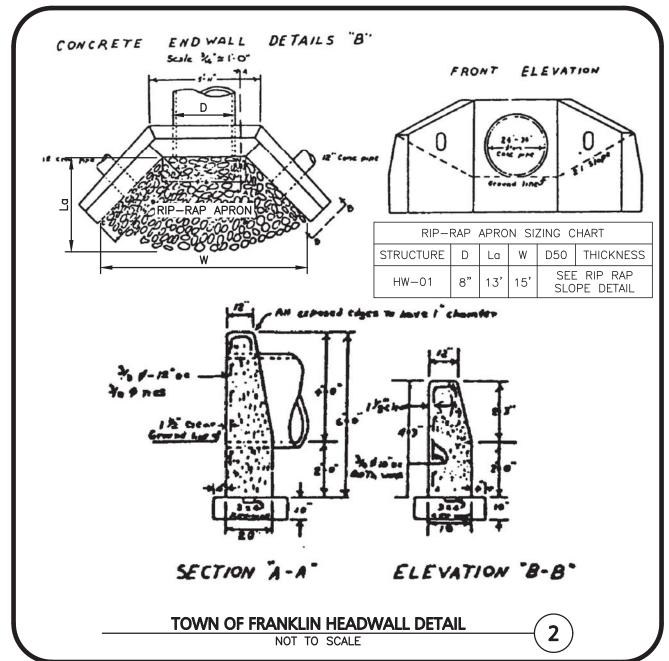
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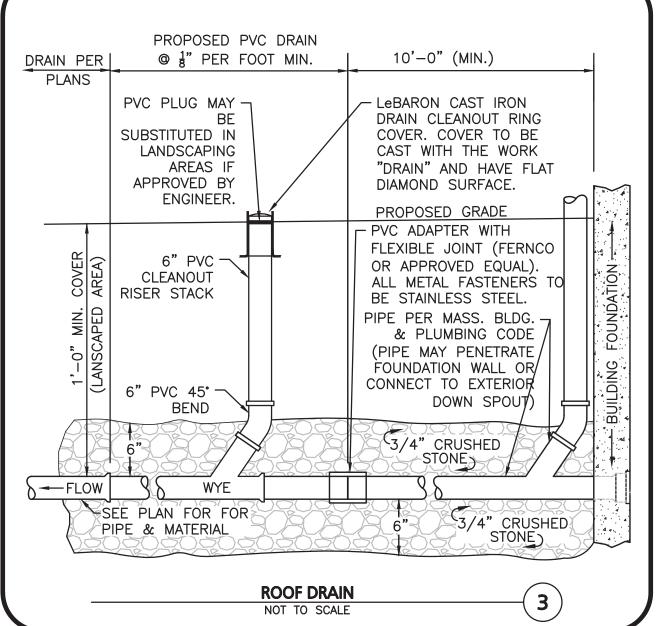
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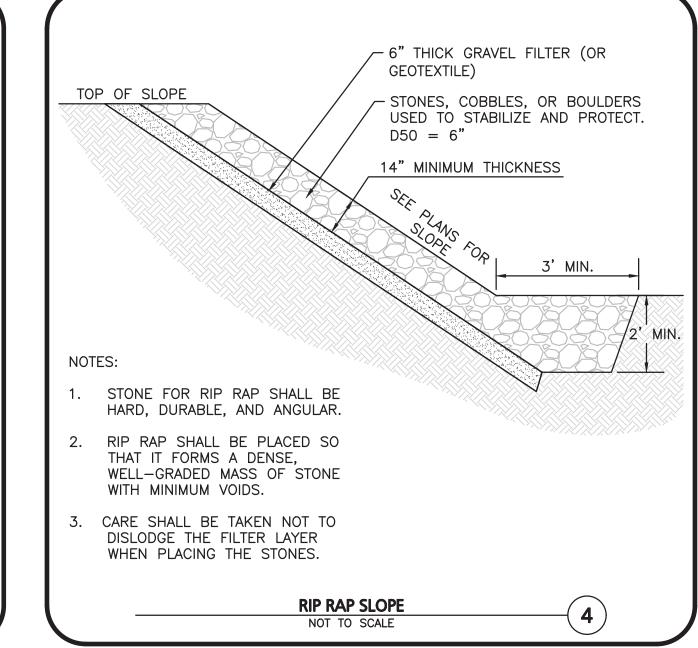
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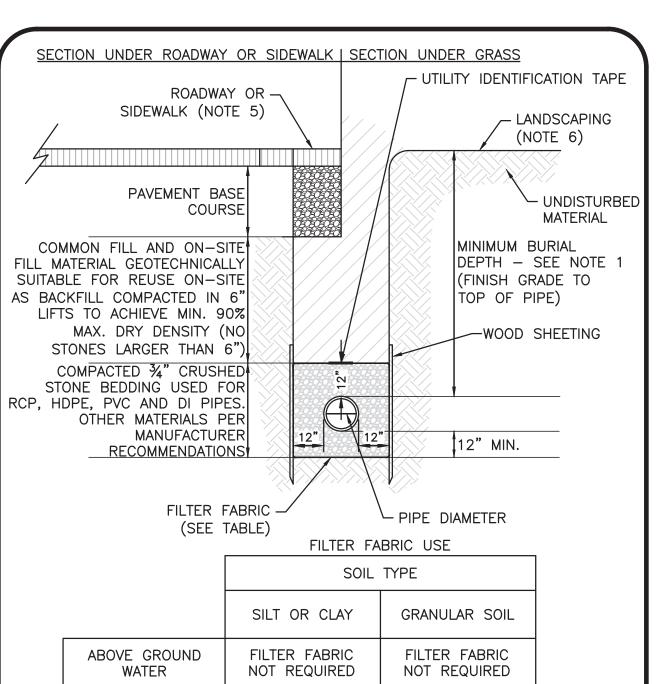
SHEET No. DETAILS

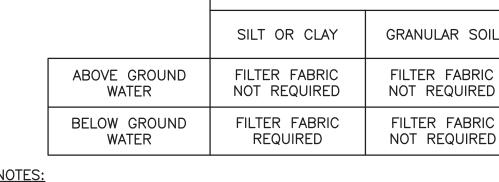






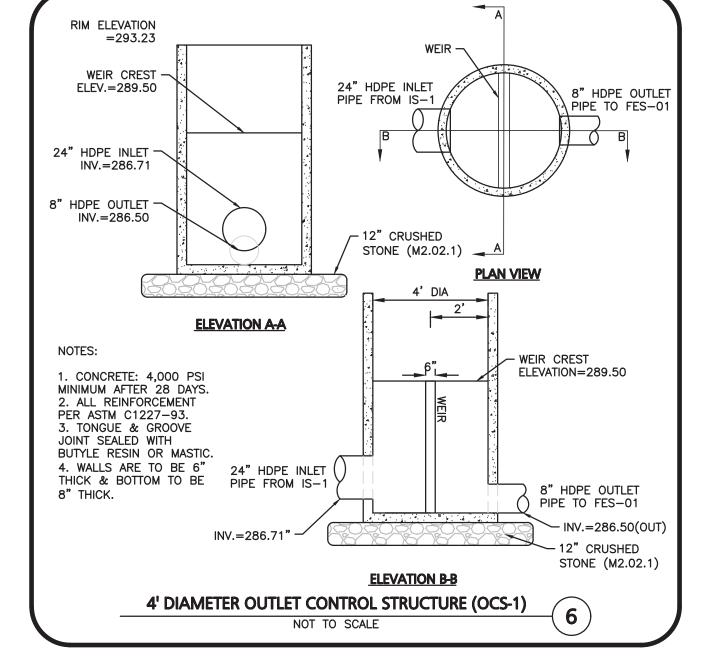


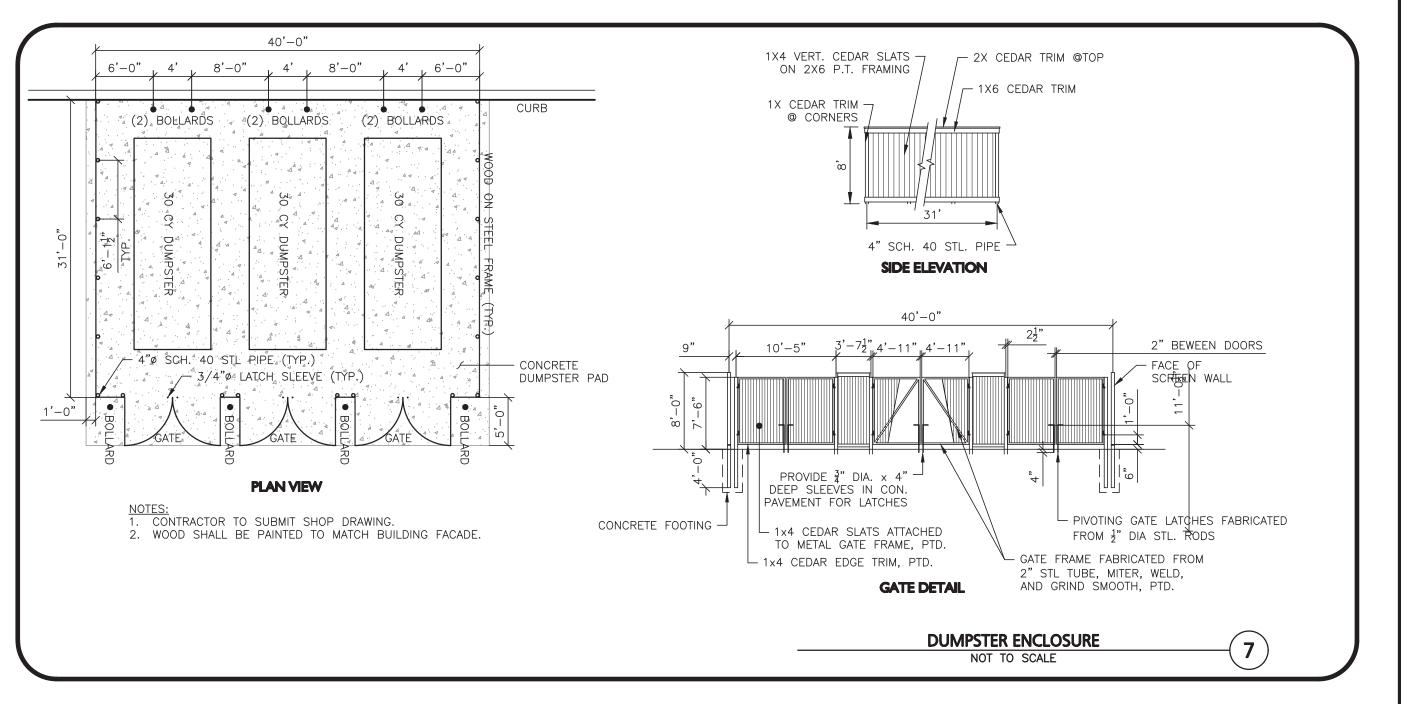


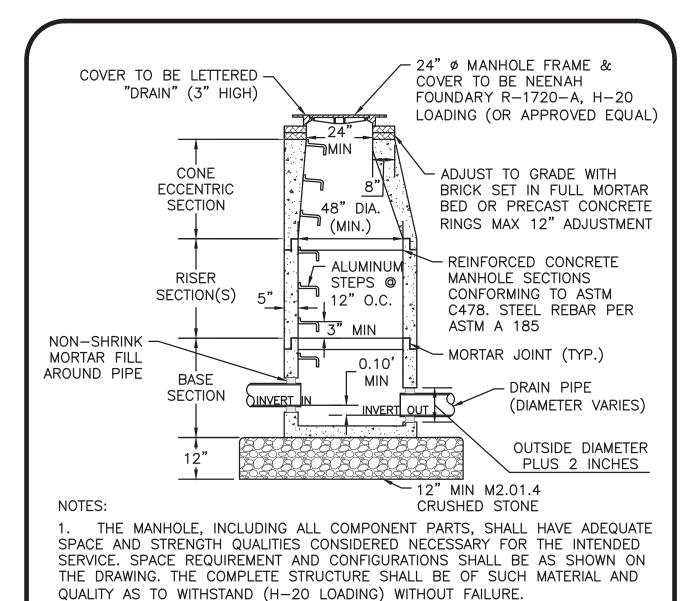


- MINIMUM BURIAL DEPTH (FINISH GRADE TO TOP OF PIPE)
- GRAVITY PIPE (SEWER & DRAIN) SEE PLAN OR PROFILE, PROVIDE INSULATION WHERE COVER IS LESS THAN 4' OVER SEWER
- PRESSURE PIPE UNDER PAVING 4'
- PRESSURE PIPE BENEATH UNPAVED 3'
- WATER PIPE 5' WHERE BACKFILL IS DESIGNATED AS COMPACTED, THIS MEANS 90 TO 95% STANDARD PROCTOR. AASHTO T-99. ALL FILL PLACED BELOW PIPES AND STRUCTURES MUST MEET THIS REQUIREMENT
- TRENCHES WITHIN PUBLIC RIGHT OF WAY MAY REQUIRE FLOWABLE FILL. VERIFY WITH MUNICIPAL ENGINEER.
- WHERE WASTE FILLS ARE ENCOUNTERED AT SUBGRADE LEVEL FOR NEW UTILITIES, THE FILL SHOULD BE OVER-EXCAVATED, THE SUBGRADE SHOULD BE RE-COMPACTED, AND BACKFILL CONSISTING OF PIPE BEDDING MATERIAL CRUSHED STONE OR OTHER SUITABLE GRANULAR FILL SHOULD BE PLACED TO A SUFFICIENT DEPTH TO CREATE A FIRM AND STABLE SUBGRADE (TYPICALLY 12 TO 18 INCHES OVER-EXCAVATION).
- REFER TO PAVING, CURBS, WALKS AND DRIVEWAY DETAILS. REFER TO LANDSCAPING DETAILS.
- SHEETING, WHEN REQUIRED, TO BE CUT OFF AT LEAST 5' BELOW STREET AND A MINIMUM OF 1' ABOVE TOP OF PIPE. WOOD SHEETING DRIVEN BELOW MID-DIAMETER OF THE PIPE SHALL BE LEFT IN PLACE. STEEL SHEETING DRIVEN BELOW MID-DIAMETER MAY BE WITHDRAWN IF APPROVED IN WRITING BY THE ENGINEER. FOR PVC PIPE ALL SHEETING DRIVEN BELOW MID-DIAMETER SHALL BE LEFT IN PLACE.
- WHEN APPROVED BY THE ENGINEER FOR PIPES OTHER THAN PVC, SELECTED GRAVEL FILL MATERIAL MAY BE USED FROM MID-DIAMETER OF PIPE TO 12" ABOVE TOP OF PIPE. NO STONES LARGER THAN 2" IN ANY DIMENSION WILL BE PERMITTED IN THIS AREA - MASSDOT MATERIAL STANDARD M1.03.0 TYPE
- PROVIDE AT LEAST ONE IMPERVIOUS DAM IN GRAVEL BEDDING BETWEEN
- EACH MANHOLE WHERE DIRECTED, OR EVERY 300 FT, WHICHEVER IS LESS. BEDDING MATERIAL FOR PVC PIPE SHALL MEET THE REQUIREMENTS OF ASTM D2321 CLASS I OR CLASS II EMBEDMENT MATERIALS.

UTILITY TRENCH DETAIL

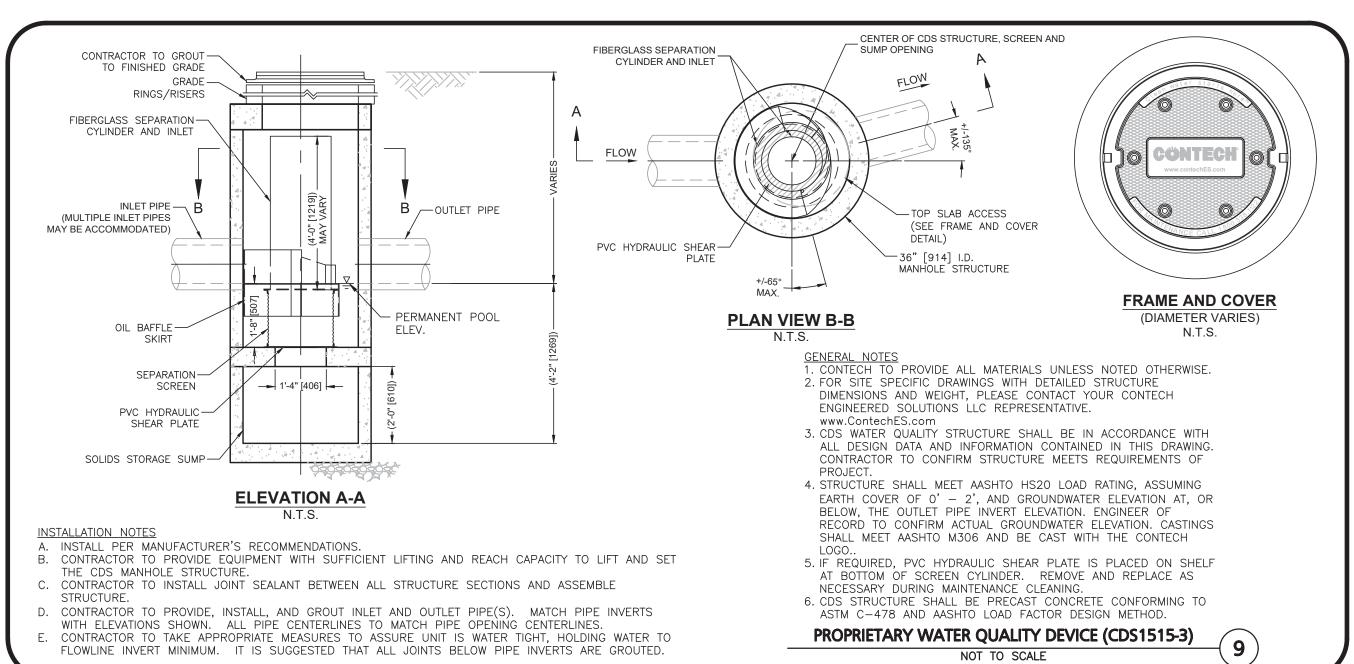


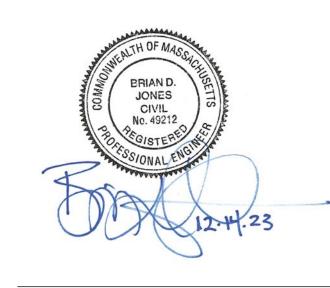




DRAIN MANHOLE

VERTICAL FOOT OF MANHOLE.





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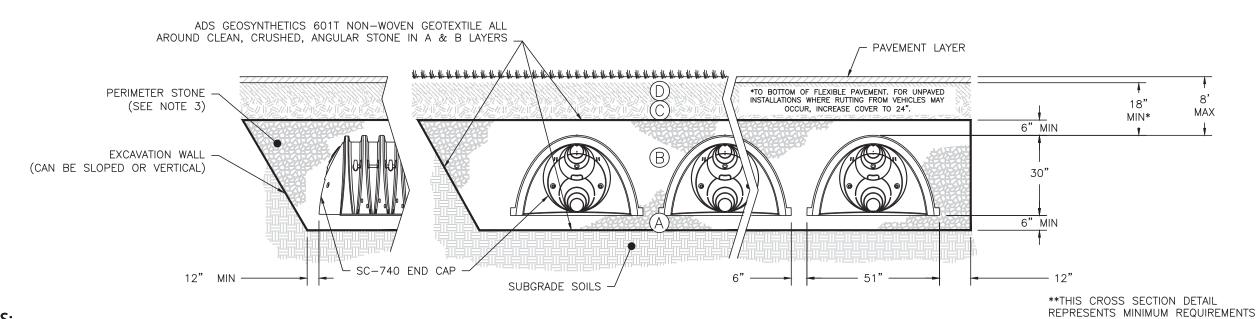
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DETAILS

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SHEET No.

- 1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
- STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS,
- 4. 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.

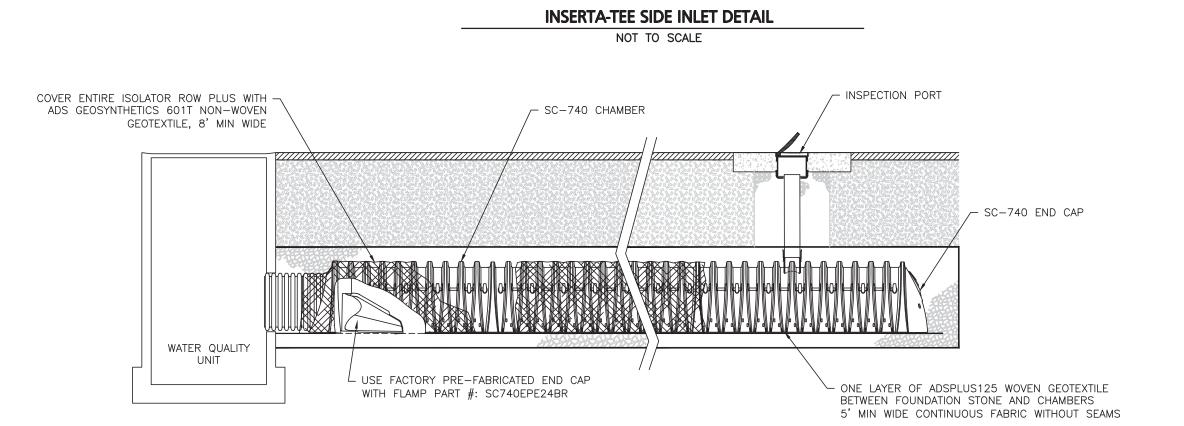


- 1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". 2. SC-740 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL
- STORMWATER COLLECTION CHAMBERS".
- 3. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
- 4. REQUIREMENTS FOR HANDLING AND INSTALLATION:
- TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS. • TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 2".
- TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 550 LBS/FT/%. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

SC-740 - CROSS SECTION DETAIL

SC-740 STORMTECH CHAMBER SPECIFICATIONS

- 3. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- 4. CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORTS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
- 5. THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
- 6. CHAMBERS SHALL BE DESIGNED, TESTED AND ALLOWABLE LOAD CONFIGURATIONS DETERMINED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". LOAD CONFIGURATIONS SHALL INCLUDE: 1)
- 7. REQUIREMENTS FOR HANDLING AND INSTALLATION:
- TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE
- TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 2. • TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS
- CONSTANT SHALL BE GREATER THAN OR EQUAL TO 550 LBS/FT/%. THE ASC IS DEFINED IN SECTION 6.2.8 OF ASTM F2418. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.
- OR EQUAL TO 1.95 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIRED BY ASTM
- THERMOPLASTIC PIPE. THE TEST DERIVED CREEP MODULUS AS SPECIFIED IN ASTM F2418 SHALL BE USED FOR PERMANENT
- 9. CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.



SECTION A-A

CHAMBER

SC-740

SC-740 - ISOLATOR ROW PLUS DETAIL

NOT TO SCALE

NOT TO SCALE

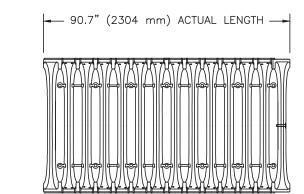
- 1. CHAMBERS SHALL BE STORMTECH SC-740.
- 2. CHAMBERS SHALL BE ARCH-SHAPED AND SHALL BE MANUFACTURED FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE COPOLYMERS.
- INSTANTANEOUS (<1 MIN) AASHTO DESIGN TRUCK LIVE LOAD ON MINIMUM COVER 2) MAXIMUM PERMANENT (75-YR) COVER LOAD AND 3) ALLOWABLE COVER WITH PARKED (1-WEEK) AASHTO DESIGN TRUCK.
- - INTEGRAL, INTERLOCKING STACKING LUGS.
- 8. ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. UPON REQUEST BY THE SITE DESIGN ENGINEER OR OWNER, THE CHAMBER MANUFACTURER SHALL SUBMIT A STRUCTURAL EVALUATION FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE AS FOLLOWS:
 - THE STRUCTURAL EVALUATION SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER. THE STRUCTURAL EVALUATION SHALL DEMONSTRATE THAT THE SAFETY FACTORS ARE GREATER THAN F2787 AND BY SECTIONS 3 AND 12.12 OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR
- DEAD LOAD DESIGN EXCEPT THAT IT SHALL BE THE 75-YEAR MODULUS USED FOR DESIGN.

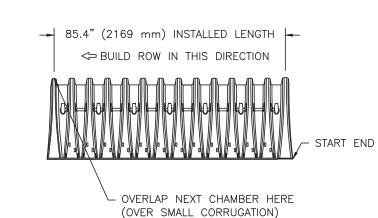


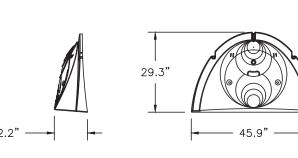
Systems, Inc.

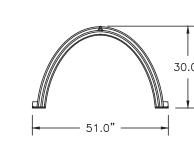
STORMTECH SC-740 CHAMBER SYSTEM NOT TO SCALE











NOMINAL CHAMBER SPECIFICATIONS SIZE (W X H X INSTALLED LENGTH) CHAMBER STORAGE MINIMUM INSTALLED STORAGE* WEIGHT

- 12" (300 mm) MIN WIDTH

INSPECTION PORTS MAY BE CONNECTED THROUGH ANY CHAMBER CORRUGATION CREST.

4" PVC INSPECTION PORT

NOT TO SCALE

DO NOT INSTALL

CHAMBER JOINTS

INSFRTA—TFF AT

A--

Α-

INSTALLED CENTERED OVER

CORRUGATION

SIDE VIEW

MAX DIAMETER OF | HEIGHT FROM BASE |

INSERTA TEE | OF CHAMBER (X)

INSERTA TEE TO BE

CONCRETE COLLAR -

CONCRETE SLAB 6" (150 mm) MIN THICKNESS

STORMTECH CHAMBER -

FOR INSTALLATION. PLEASE SEE THE LAYOUT SHEET(S) FOR PROJECT SPECIFIC

CONVEYANCE PIPE

VARY (PVC, HDPE,

ARE POSSIBLE.

MATERIAL MAY

ETC.)

INSERTA TEE

CONNECTION

PLACE ADSPLUS WOVEN GEOTEXTILE

(CENTERED ON INSERTA-TEE INLET)

EXTEND 6" (150 mm) PAST CHAMBER

OVER BEDDING STONE FOR SCOUR

CONNECTIONS. GEOTEXTILE MUST

PROTECTION AT SIDE INLET -

NOTES:
- PART NUMBERS WILL VARY BASED ON INLET PIPE

MATERIALS. CONTACT STORMTECH FOR MORE

CONTACT ADS ENGINEERING SERVICES IF INSERTA

TEE INLET MUST BE RAISED AS NOT ALL INVERTS

PAVEMENT

CONCRETE COLLAR NOT

REQUIRED FOR UNPAVED

PORT BODY (PART#

SDR 35 PIPE

8" NYLOPLAST INSPECTION

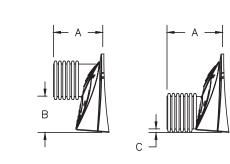
2708AG4IPKIT) OR TRAFFIC RATED BOX W/SOLID LOCKING

4" (100 mm) INSERTA TEE TO BE CENTERED ON CORRUGATION CREST

APPLICATIONS

51.0" X 30.0" X 85.4" 45.9 CUBIC FEET 74.9 CUBIC FEET 75.0 lbs.

*ASSUMES 6" STONE ABOVE, BELOW, AND BETWEEN CHAMBERS



PRE-FAB STUB AT BOTTOM OF END CAP WITH FLAMP END WITH "BR" PRE-FAB STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B" PRE-FAB STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"
PRE-CORED FND CAPS FND WITH "PC"

RE-CORED END CAPS END WITP PART#	STUB	Α	В	С
	3106	A	В	<u> </u>
SC740EPE06T /		10.9"	18.5"	
SC740EPE06TPC	6"			
SC740EPE06B /				0.5"
SC740EPE06BPC				
SC740EPE08T			16.5"	
/SC740EPE08TPC	8"	12.2"	10.0	
SC740EPE08B /		12.2		0.6"
SC740EPE08BPC				0.0
SC740EPE10T /			14.5"	
SC740EPE10TPC	10"	13.4"	14.5	
SC740EPE10B /				0.7"
SC740EPE10BPC				0.7
SC740EPE12T /		14.7"	12.5"	
SC740EPE12TPC	12"		12.5	
SC740EPE12B /	12			1.2"
SC740EPE12BPC				1.2
SC740EPE15T /		18.4"	9.0"	
SC740EPE15TPC	15"		9.0	
SC740EPE15B /	13			1.3"
SC740EPE15BPC				1.5
SC740EPE18T /			5.0"	
SC740EPE18TPC	18"	19.7"	5.0	
SC740EPE18B /	10	19.7		1.6"
SC740EPE18BPC				
SC740EPE24B*	24"	18.5"		0.1"
SC740EPE24BR*	24"	18.5"		0.1"

ALL STUBS, EXCEPT FOR THE SC740EPE24B/SC740EPE24BR ARE PLACED AT BOTTOM OF END CAP SUCH THAT THE OUTSIDE DIAMETER OF THE STUB IS FLUSH WITH THE BOTTOM OF THE END CAP. FOR ADDITIONAL INFORMATION CONTACT STORMTECH AT 1-888-892-2694.

* FOR THE SC740EPE24B/SC740EPE24BR THE 24" STUB LIES BELOW THE BOTTOM OF THE END CAP APPROXIMATELY 1.75" (44 mm). BACKFILL MATERIAL SHOULD BE REMOVED FROM BELOW THE N-12 STUB SO THAT THE FITTING SITS LEVEL.

NOTE: ALL DIMENSIONS ARE NOMINAL

SC-740 - TECHNICAL SPECIFICATIONS

NOT TO SCALE

INSPECTION & MAINTENANCE

- STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
 - A. INSPECTION PORTS (IF PRESENT) A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
 - A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND
 - RECORD ON MAINTENANCE LOG A.4. LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF
 - SEDIMENT LEVELS (OPTIONAL) A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
 - B. ALL ISOLATOR PLUS ROWS B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING
 - MANHOLE B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45" (1.1 m)
 - OR MORE IS PREFERRED B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN C. VACUUM STRUCTURE SUMP AS REQUIRED
- STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND
- STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

- 1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER
- 2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.



PROFESSIONAL ENGINEER FOR ALLEN & MAJOR ASSOCIATES, INC.

REV DATE DESCRIPTION APPLICANT\OWNER:

TMC HOLDINGS & DEVELOPMENT 2, LLC 24 WILLIAM WAY BELLINGHAM, MA 02019

PROJECT:

25 FORGE PARKWAY FRANKLIN, MA

PROJECT NO. 2712-02A DATE: 11-**-23

AS SHOWN DWG. NAME: C-2712-02A

DESIGNED BY: SM/JRG | CHECKED BY:



civil engineering ◆ land surveying environmental consulting + landscape architecture

www.allenmajor.com 100 COMMERCE WAY, SUITE 5 WOBURN MA 01801

FAX: (781) 935-2896

WOBURN, MA ♦ LAKEVILLE, MA ♦ MANCHESTER, N this drawing has been prepared in digital format

TEL: (781) 935-6889

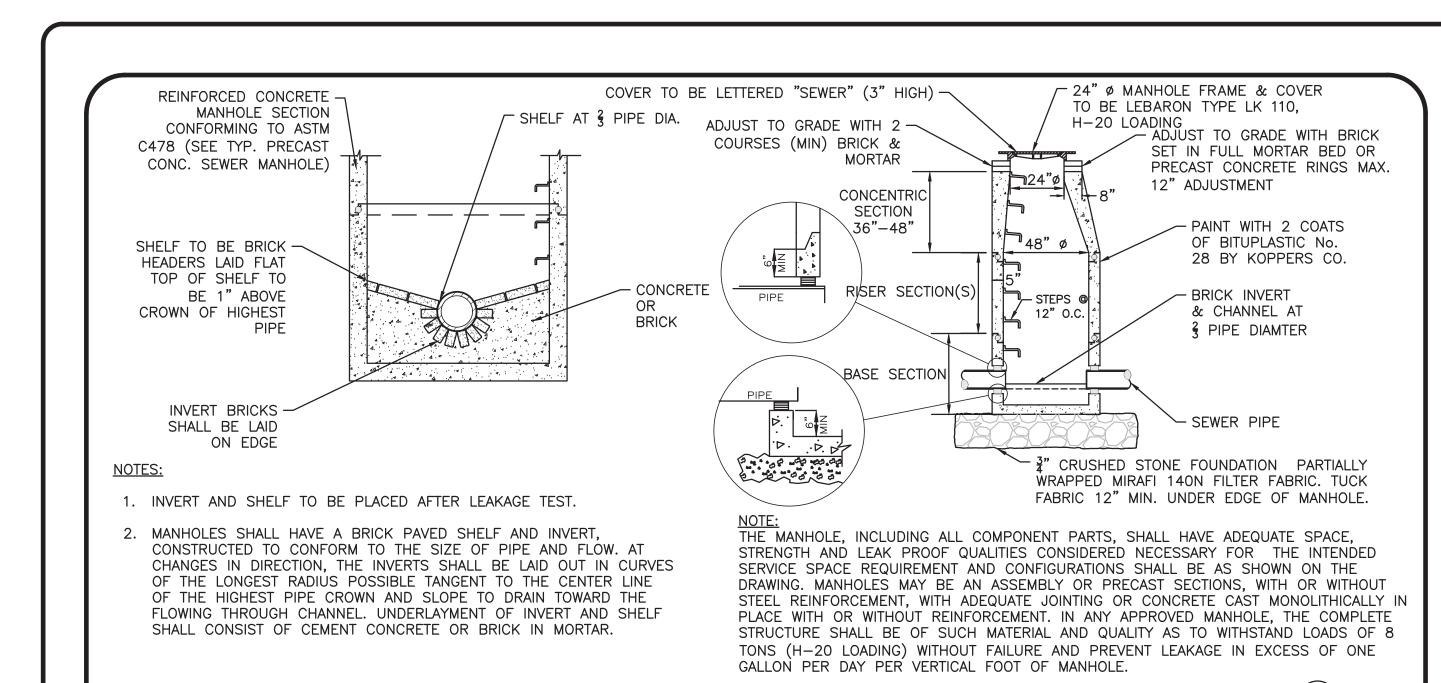
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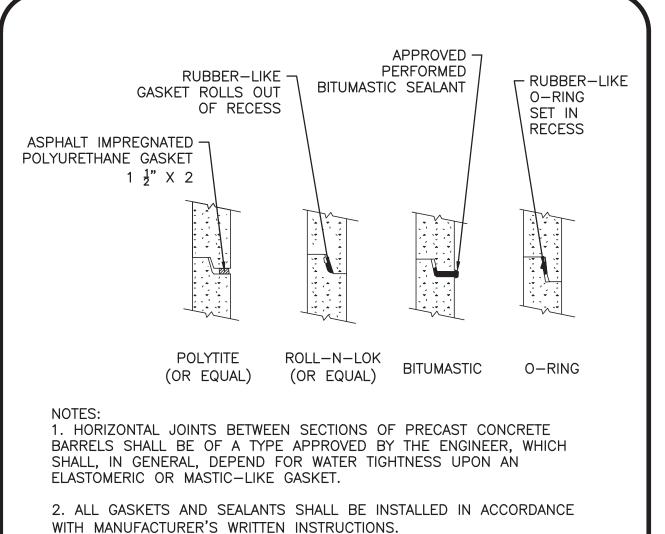
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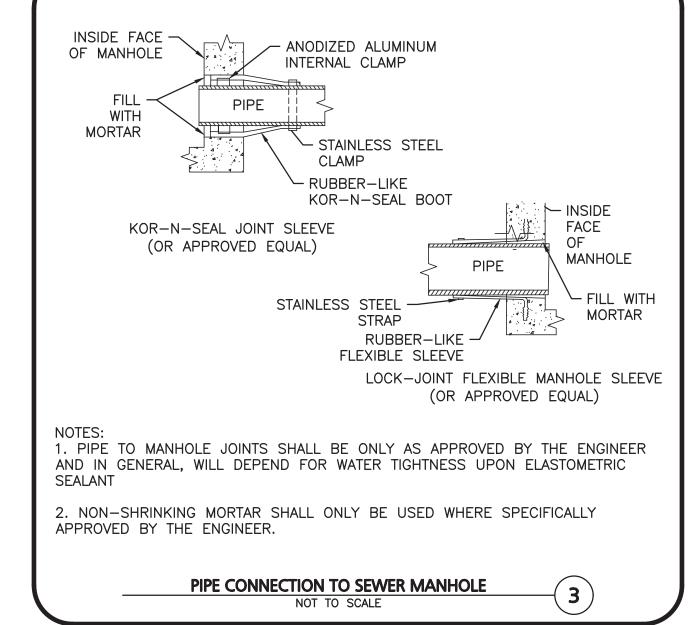


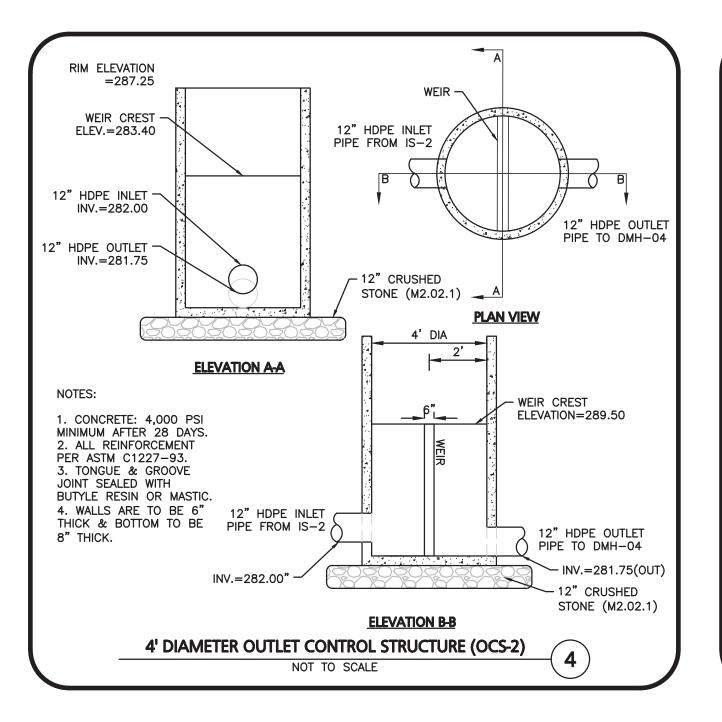


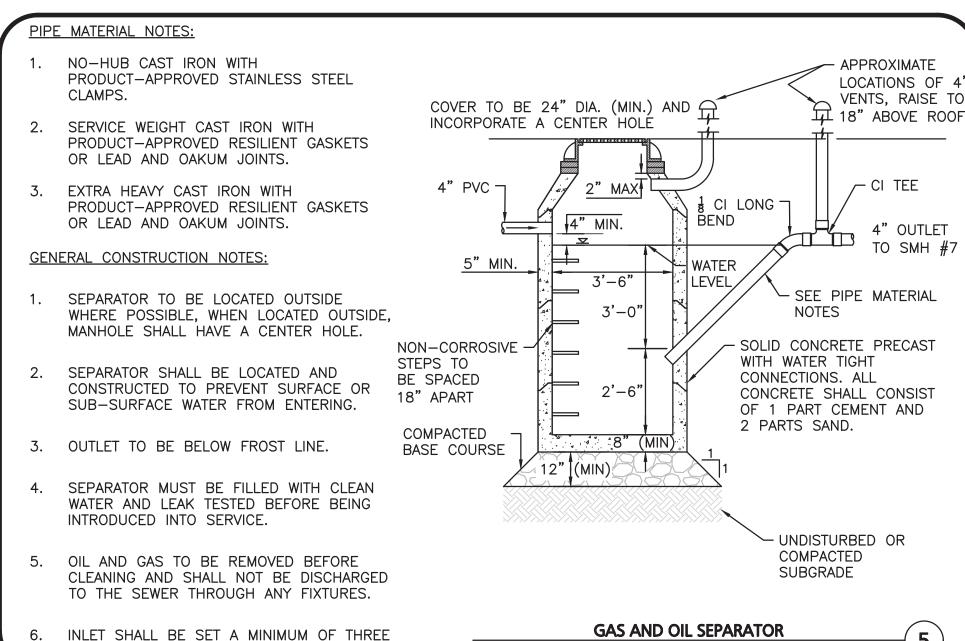
3. FOR BITUMASTIC TYPE JOINTS THE AMOUNT OF SEALANT SHALL BE

SEWER MANHOLE JOINTING METHODS

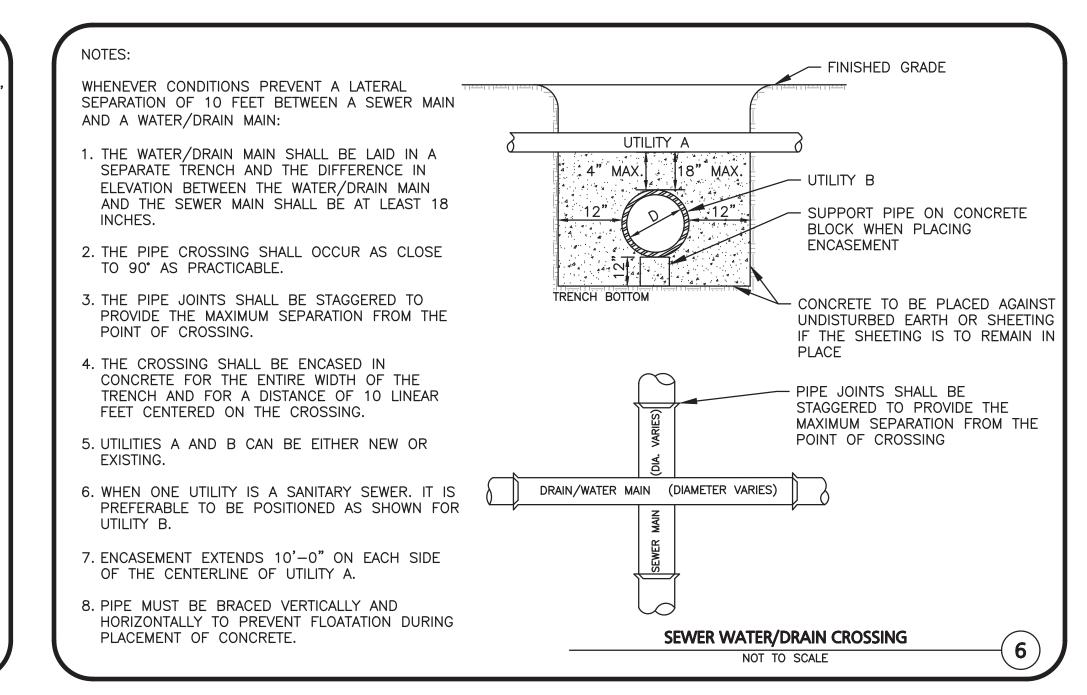
SUFFICIENT TO FILL AT LEAST 75% OF THE JOINT CAVITY.

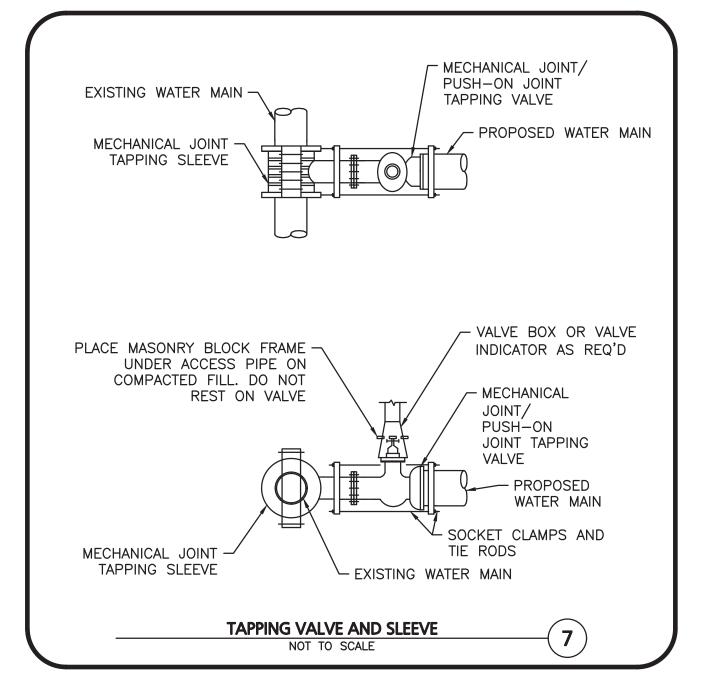


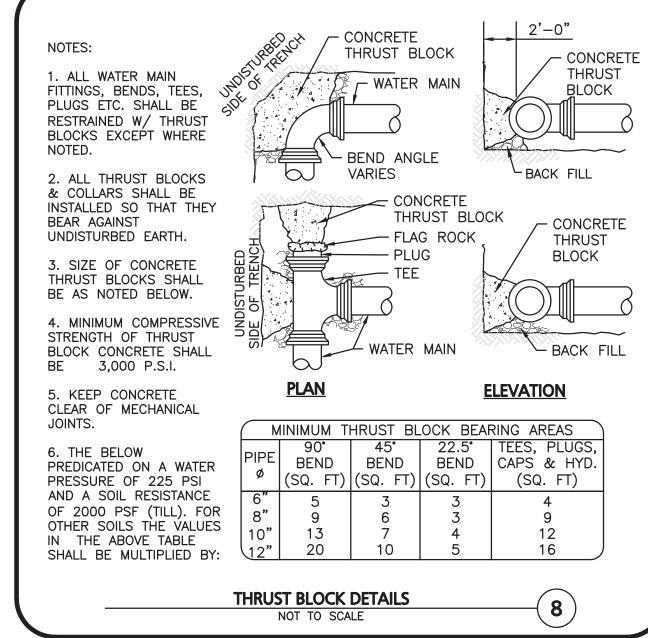




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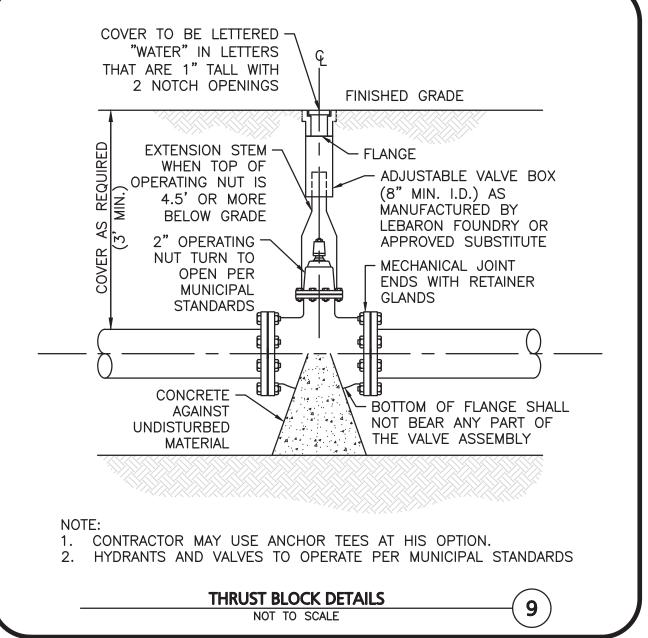


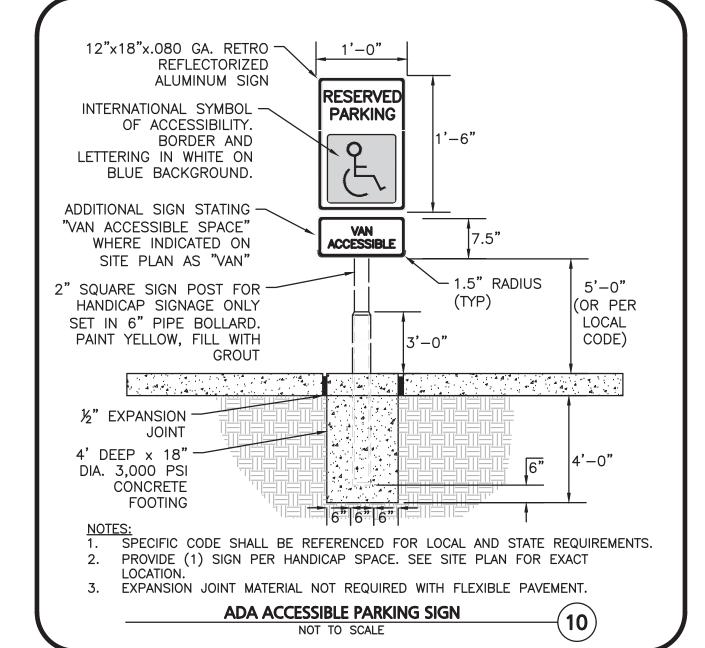


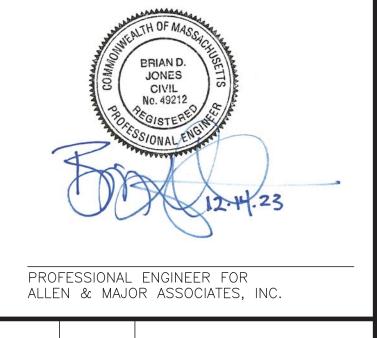


FEET BELOW GRADE

PRECAST CONCRETE SEWER MANHOLE







REV DATE DESCRIPTION

APPLICANT\OWNER: TMC HOLDINGS & DEVELOPMENT 2, LLC 24 WILLIAM WAY

BELLINGHAM, MA 02019

PROJECT:

25 FORGE PARKWAY FRANKLIN, MA

11-**-2

SHEET No.

C-505

2712-02A DATE: PROJECT NO.

AS SHOWN DWG. NAME: C-2712-02A DESIGNED BY: SM/JRG | CHECKED BY:

ALLEN & MAJOR

ASSOCIATES, INC. civil engineering ♦ land surveying nvironmental consulting • landscape architecture

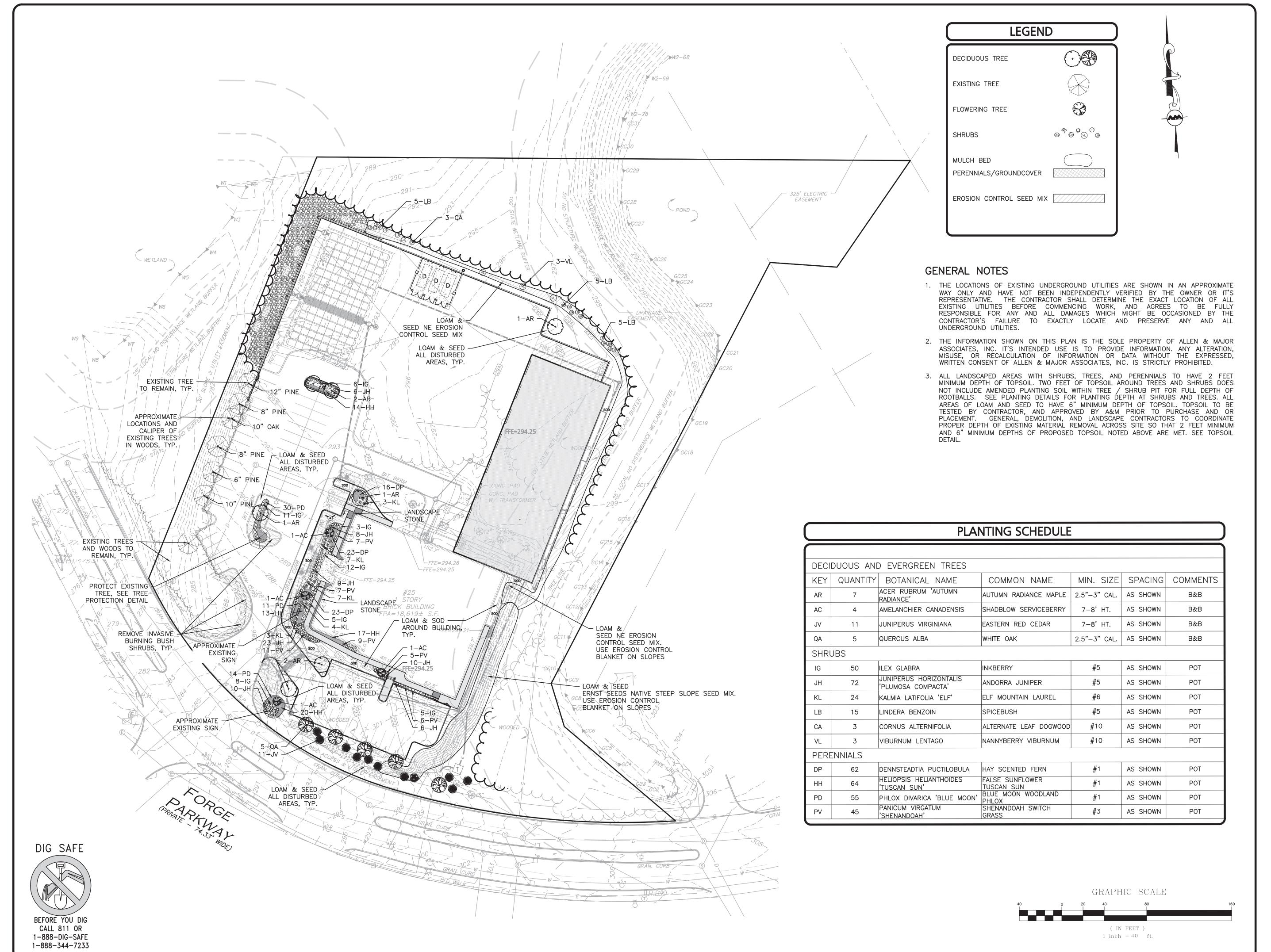
www.allenmajor.com 100 COMMERCE WAY, SUITE 5 WOBURN MA 01801 TEL: (781) 935-6889 FAX: (781) 935-2896

WOBURN, MA ♦ LAKEVILLE, MA ♦ MANCHESTER, N

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DRAWING TITLE:

DETAILS





PROFESSIONAL LANDSCAPE ARCHITECT FOR ALLEN & MAJOR ASSOCIATES, INC.

7	12-14-23	ISSUED FOR SITE PLAN AMENDMEN
6	10-24-23	REVISED PER CONDITIONS OF APPROVA
5	05-18-23	REVISION 5 PER REVIEW COMMENT
4	05-11-23	REVISION 4 PER REVIEW COMMENT
3	05-01-23	REVISION 3 PER REVIEW COMMENT
2	04-14-23	REVISION 2 PER DPW COMMENTS
1	04-04-23	REVISION 1 PER PEER REVIEW
REV	DATE	DESCRIPTION

APPLICANT\OWNER:

PROJECT NO.

TMC HOLDINGS & DEVELOPMENT 2, LLC 24 WILLIAM WAY BELLINGHAM, MA 02019

PROJECT:

25 FORGE PARKWAY FRANKLIN, MA

2712-02A DATE:

02-21-23

SCALE: 1" = 40' DWG. NAME: L-2712-02A

DESIGNED BY: BCD CHECKED BY: BDJ

PREPARED BY:



civil engineering • land surveying
environmental consulting • landscape architecture
www.allenmajor.com
100 COMMERCE WAY, SUITE 5
WOBURN MA 01801

TEL: (781) 935-6889

FAX: (781) 935-2896

WOBURN, MA ◆ LAKEVILLE, MA ◆ MANCHESTER, N

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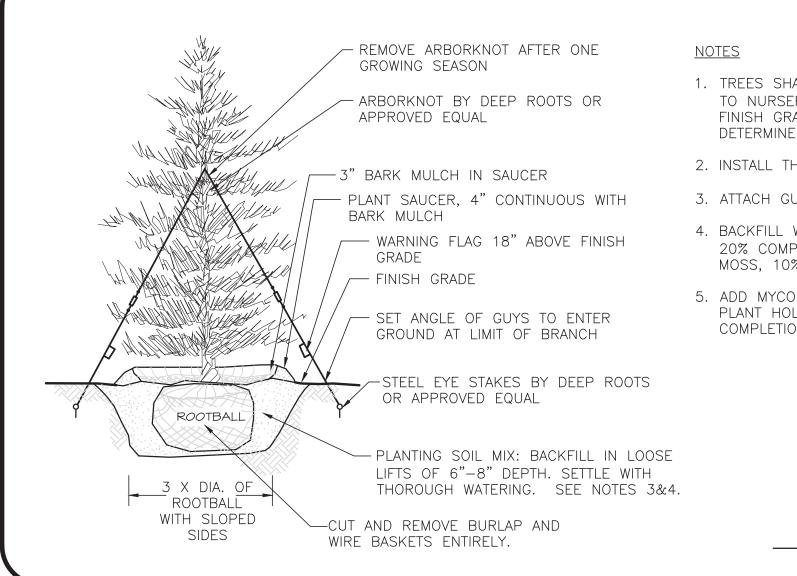
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LANDSCAPE PLAN

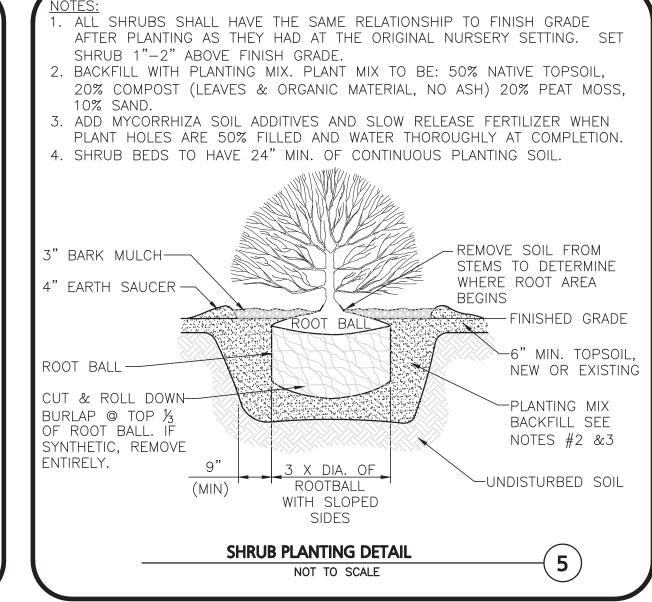
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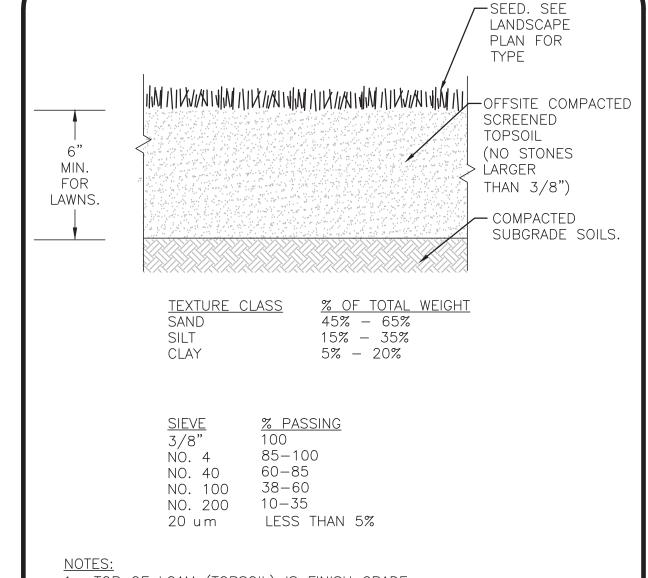
DSCAPE PLAN L-101



- 1. TREES SHALL BEAR SAME RELATIONSHIP TO FINISH GRADE AS IT BORE TO NURSERY OR FIELD GRADE. ROOT FLARE SHALL BE 2" ABOVE FINISH GRADE. REMOVE SOIL FROM TRUNK FLARE OF TREE TO DETERMINE ACTUAL TOP OF ROOTBALL AREA.
- 2. INSTALL THREE GUYS PER TREE; EQUALLY SPACED AROUND BALL.
- 3. ATTACH GUYS AT 2/3 HEIGHT OF TREE.
- 4. BACKFILL WITH PLANTING MIX. PLANT MIX TO BE: 50% NATIVE TOPSOIL, 20% COMPOST (LEAVES & ORGANIC MATERIAL, NO ASH) 20% PEAT MOSS, 10% SAND.
- 5. ADD MYCORRHIZA SOIL ADDITIVES AND SLOW RELEASE FERTILIZER WHEN PLANT HOLES ARE 50% FILLED AND WATER THOROUGHLY AT

EVERGREEN TREE DETAIL NOT TO SCALE

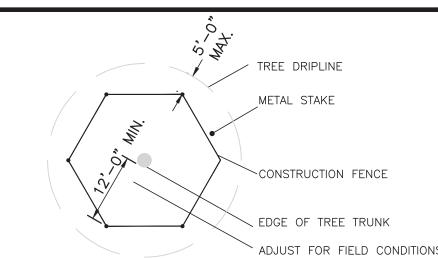




1. TOP OF LOAM (TOPSOIL) IS FINISH GRADE.

- 2. ALL TOPSOIL (BOTH ONSITE AND OFFSITE SOURCES) SHALL BE COMPOSED OF A NATURAL, FERTILE, FRIABLE SOIL TYPICAL OF CULTIVATED TOPSOILS OF THE LOCALITY. OFFSITE SOIL SHALL BE SUITABLE FOR THE GERMINATION OF SEEDS AND SUPPORT OF VEGETATIVE GROWTH, WITH ADDITIVES, IF REQUIRED, TO ACHIEVE PARTICLE DISTRIBUTION AND ORGANIC CONTENT BELOW. TOPSOIL SHALL BE TAKEN FROM A WELL-DRAINED, ARIABLE SITE, FREE OF SUBSOIL, LARGE STONES, EARTH CLODS, STICKS, STUMPS, CLAY LUMPS, ROOTS, OTHER OBJECTIONABLE, EXTRANEOUS MATTER OR DEBRIS NOR CONTAIN TOXIC SUBSTANCES.
- 3. THE CONTRACTOR SHALL PROVIDE THE OWNER / LANDSCAPE ARCHITECT WITH TOPSOIL TEST RESULTS (RECOMMEND UMASS AMHERST SOIL TESTING LAB) FOR APPROVAL PRIOR TO OBTAINING AND PLACING THE SOIL. IF ANY TOPSOIL IS PURCHASED OR PLACED PRIOR TO APPROVAL BY OWNER / LANDSCAPE ARCHITECT, IT IS AT CONTRACTORS RISK, AND IT CAN BE REMOVED AT NO ADDITIONAL COST TO THE OWNER. IF THE PLANTING SOIL (BOTH ONSITE AND OFFSITE SOURCES) DOES NOT FALL WITHIN THE REQUIRED SIEVE ANALYSIS, TEXTURAL CLASS, ORGANIC CONTENT, OR PH RANGE, IT SHALL BE ADJUSTED TO MEET THE SPECIFICATIONS THROUGH THE ADDITION OF SAND, COMPOST, LIMESTONE, OR ALUMINUM SULFATE TO BRING IT WITHIN THE SPECIFIED LIMITS AT NO ADDITIONAL COST TO THE OWNER.
- 4. TOPSOIL SHALL HAVE A PH VALUE BETWEEN 5.5 AND 6.5. TOPSOIL SHALL CONTAIN BETWEEN 4% AND 8% ORGANIC MATTER OF TOTAL DRY WEIGHT AND SHALL CONFORM TO THE FOLLOWING GRADATION AND TEXTURE CLASS ABOVE.

TOPSOIL FOR LAWN, TREES, SHRUBS, & PERENNIALS NOT TO SCALE



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PROJECT:

25 FORGE PARKWAY FRANKLIN, MA

2712-02A DATE:

AS SHOWN DWG. NAME: L-2712-02A

02-21-23

DESIGNED BY: BCD | CHECKED BY:

ALLEN & MAJOR ASSOCIATES, INC. civil engineering • land surveying

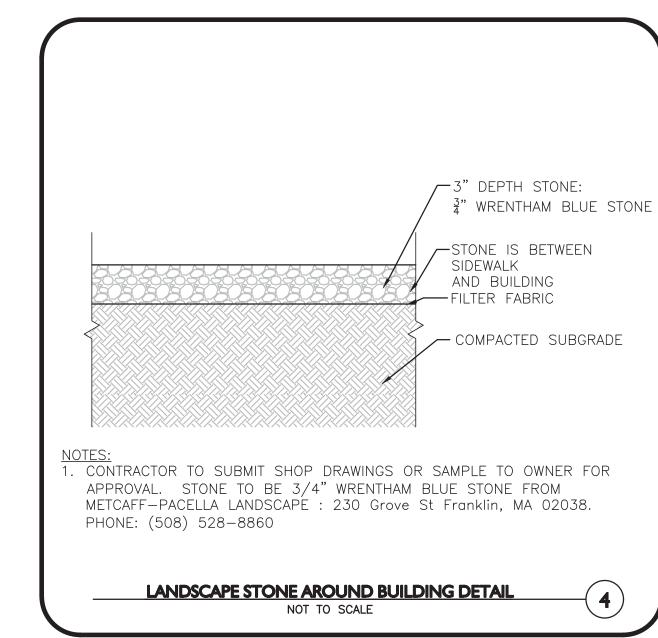
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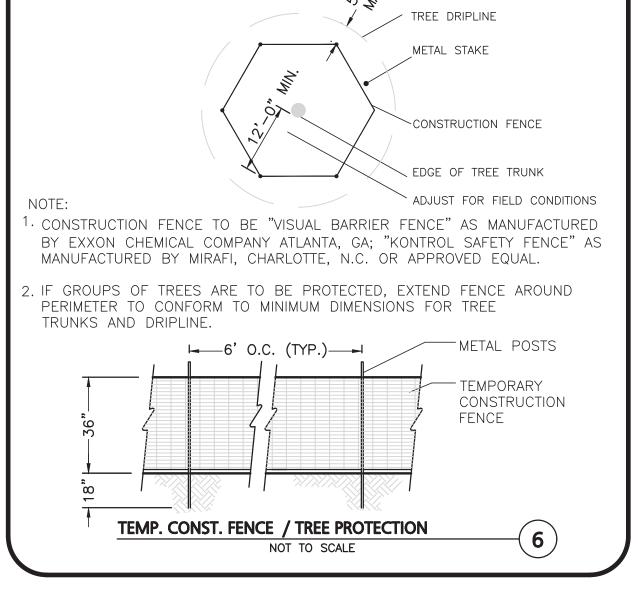
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SHEET No. LANDSCAPE NOTES & DETAILS L-501





- 2. SOD IS TO BE A BLEND OF FOUR TO FIVE CURRENT AND IMPROVED HYBRID BLUEGRASS AND FESCUE MIXES APPROPRIATE FOR BOTH SEMI-SHADED AND AREAS OF SUN. HYBRIDS MAY INCLUDE: BLACKSTONE KENTUCKY BLUEGRASS, AWARD KENTUCKY BLUEGRASS, CHALLENGER KENTUCKY BLUEGRASS, BLACKBURG II KENTUCKY BLUEGRASS OR COMPARABLE AND EQUAL BLUEGRASS HYBRIDS.
- 3. SOD SHALL BE HIGH QUALITY, NURSERY GROWN ON CULTIVATED MINERAL AGRICULTURAL SOILS. SOD SHALL BE MOIST AND MACHINE CUT AT A UNIFORM SOIL THICKNESS OF AT LEAST 5/8" AT TIME OF CUTTING. MEASUREMENT FOR THICKNESS SHALL INCLUDE TOP GROWTH AND THATCH. SOD SHALL BE FREE OF DISEASES, WEEDS, BARE SPOTS, OR INSECTS.
- 4. SODDING TO BE COMPLETED "IN SEASON" BETWEEN APRIL 1 TO JUNE 15 OR AUGUST 15 TO OCTOBER 1, EXCEPT FOR RE—SODDING OF BARE SPOTS. IF UNABLE TO SOD WITHIN THESE TIMEFRAMES, CONTRACTOR TO INSTALL EROSION CONTROL MATS ON ALL SLOPES 3:1 AND OVER, HYDROSEED ALL EXPOSED AREAS, ADD SOIL STABILIZER "FLEXTERRA HP—FGM" AS MANUFACTURED BY "PROFILE" TO HYDROSEED (AT RATE OF 3,000 LBS PER ACRE). CONTRACTOR TO COMPLETE ALL ABOVE "OUT OF SEASON" REQUIREMENTS AND THEN ALSO BE RESPONSIBLE FOR RE—GRADING AND RE—SODDING ALL DISTURBED, ERODED, OR BARE SPOTS WITHIN NEXT CLOSEST PLANTING SEASON IN FALL OR SPRING.
- 5. COMMERCIAL FERTILIZER SHALL BE APPLIED AT THE RATE OF 25 POUNDS PER 1000 SQ. FT. OR AS RECOMMENDED BY THE TESTING AGENCY. LIME TO BE SPREAD AT THE RATE OF 100 POUNDS PER 1000 SQ. FT OR AS RECOMMENDED BY THE TESTING AGENCY. COMMERCIAL FERTILIZER SHALL BE A COMPLETE FERTILIZER CONTAINING AT LEAST 50% OF THE NITROGEN OF WHICH IS DERIVED FROM NATURAL ORGANIZE SOURCES OF UREAFORM. IT SHALL CONTAIN THE FOLLOWING PERCENTAGES BY WEIGHT: NITROGEN (N) 10%, PHOSPHORUS (P) 6%, POTASH (K) 4%. LIME SHALL BE AN APPROVED AGRICULTURAL LIMESTONE CONTAINING NOT LESS THAN 85% OF TOTAL CARBONATES. LIMESTONE SHALL BE GROUND TO SUCH FINENESS THAT 50% WILL PASS A 100 MESH SIEVE AND 90% WILL PASS THROUGH A 20 MESH SIEVE.
- 6. CONTRACTOR RESPONSIBLE FOR WATERING, MOWING, AND RE—SODDING OF LAWN BARE SPOTS UNTIL A UNIFORM, HEALTHY STAND OF GRASS IS ESTABLISHED AND ACCEPTED.
- 7. IF PROPOSED IRRIGATION SYSTEM IS NOT OPERATIONAL, LANDSCAPE CONTRACTOR RESPONSIBLE TO WATER WITH TEMPORARY IRRIGATION OR WATER TRUCKS UNTIL IRRIGATION SYSTEM IS OPERATIONAL

SEED MIX:

NEW ENGLAND WETLAND PLANTS
820 WEST STREET, AMHERST, MA 01002
PHONE: 413-548-8000 FAX 413-549-4000
EMAIL: INFO@NEWP.COM WEB ADDRESS: WWW.NEWP.COM

NEW ENGLAND EROSION CONTROL/RESTORATION MIX FOR DRY SITES

BOTANICAL NAME	COMMON NAME	WETLAND INDICA
ELYMUS CANADENSIS	CANADA WILD RYE	FACU+
FESTUCA RUBRA	RED FESCUE	FACU
LOLIUM MULTIFLORUM	ANNUAL RYEGRASS	
LOLIUM PERENNE	PERRENIAL RYEGRASS	
PANICUM VIRGATUM	SWITCH GRASS	FAC
SORGHASTRUM NUTANS	INDIAN GRASS	UPL
SCHIZACHYRIUM SCOPARIUM	LITTLE BLUESTEM	FACU
AGROSTIS PERENNANS	UPLAND BENTGRASS	FACU

THE NEW ENGLAND EROSION CONTROL/RESTORATION MIX FOR DRY SITES PROVIDES AN APPROPRIATE SELECTION OF NATIVE AND NATURALIZED GRASSES TO ENSURE THAT DRY AND RECENTLY DISTURBED SITES WILL BE QUICKLY REVEGETATED AND THE SOIL SURFACE STABILIZED. IT IS AN APPROPRIATE SEED MIX FOR ROAD CUTS, PIPELINES, STEEPER SLOPES, AND AREAS REQUIRING QUICK COVER DURING THE ECOLOGICAL RESTORATION PROCESS. THE MIX MAY BE APPLIED BY HYDRO—SEEDING, BY MECHANICAL SPREADER, OR ON SMALL SITES IT CAN BE SPREAD BY HAND. LIGHTLY RAKE, OR ROLL TO ENSURE PROPER SOIL—SEED CONTACT. BEST RESULTS ARE OBTAINED WITH A SPRING OR LATE SUMMER SEEDING. LATE SPRING THROUGH MID—SUMMER SEEDING WILL BENEFIT FROM A LIGHT MULCHING OF WEED—FREE STRAW TO CONSERVE MOISTURE. IF CONDITIONS ARE DRIER THAN USUAL, WATERING WILL BE REQUIRED. FERTILIZATION IS NOT REQUIRED UNLESS THE SOILS ARE PARTICULARLY INFERTILE. PREPARATION OF A CLEAN WEED FREE SEED BED IS NECESSARY FOR OPTIMAL RESULTS.

APPLY: 35 LBS/ACRE :1250 SQ FT/LB

EROSION CONTROL BLANKET FOR SLOPES SEE LANDSCAPE NOTES

LOAM AND SEED NOTES:

CONTRACTOR SHALL SEED ALL DISTURBED AREAS NOT NOTED TO RECEIVE OTHER MATERIALS, AND AT AREAS SHOWN ON THE PLAN PER SPECIFICATIONS BELOW

SCIENTIFIC NAME	COMMON NAME	PROPORTION BY WEIGHT	PERCENT <u>PURITY</u>	PERCENT GERMINATION
FESTUCA RUBRA "RUBRA"	CREEPING RED FESCUE	37%	95%	90%
LESCO DOUBLE EAGLE SEED BLEND	PERENNIAL RYEGRASS 3 VARIETIES	55%	100%	90%
FESTUCA RUBRA COMMUTATA WILMA	WILMA CHEWINGS	8%	95%	80%

SEED TO BE SPREAD AT MINIMUM RATE OF 5 LBS. PER 1000 SQ. FT.

- 2. SEEDING TO BE COMPLETED "IN SEASON" BETWEEN APRIL 1 TO JUNE 15 OR AUGUST 15 TO OCTOBER 1, EXCEPT FOR RESEEDING OF BARE SPOTS. IF UNABLE TO SEED WITHIN THESE TIMEFRAMES, CONTRACTOR TO INSTALL EROSION CONTROL MATS ON ALL SLOPES 3:1 AND OVER, HYDROSEED ALL EXPOSED AREAS, ADD SOIL STABILIZER "FLEXTERRA HP-FGM" AS MANUFACTURED BY "PROFILE" TO HYDROSEED (AT RATE OF 3,000 LBS PER ACRE). CONTRACTOR TO COMPLETE ALL ABOVE "OUT OF SEASON" REQUIREMENTS AND THEN ALSO BE RESPONSIBLE FOR RE-GRADING AND RE-SEEDING ALL DISTURBED, ERODED, OR BARE SPOTS WITHIN NEXT CLOSEST PLANTING SEASON IN FALL OR SPRING.
- 3. COMMERCIAL FERTILIZER SHALL BE APPLIED AT THE RATE OF 25 POUNDS PER 1000 SQ. FT. OR AS RECOMMENDED BY THE TESTING AGENCY. LIME TO BE SPREAD AT THE RATE OF 100 POUNDS PER 1000 SQ. FT OR AS RECOMMENDED BY THE TESTING AGENCY. COMMERCIAL FERTILIZER SHALL BE A COMPLETE FERTILIZER CONTAINING AT LEAST 50% OF THE NITROGEN OF WHICH IS DERIVED FROM NATURAL ORGANIZE SOURCES OF UREAFORM. IT SHALL CONTAIN THE FOLLOWING PERCENTAGES BY WEIGHT: NITROGEN (N) 10%, PHOSPHORUS (P) 6%, POTASH (K) 4%. LIME SHALL BE AN APPROVED AGRICULTURAL LIMESTONE CONTAINING NOT LESS THAN 85% OF TOTAL CARBONATES. LIMESTONE SHALL BE GROUND TO SUCH FINENESS THAT 50% WILL PASS A 100 MESH SIEVE AND 90% WILL PASS THROUGH A 20 MESH SIEVE.
- 4. LAWN AREAS TO BE SEEDED BY SOWING EVENLY WITH AN APPROVED MECHANICAL SEEDER AT THE RATE OF TEN POUNDS PER 1000 SQUARE FEET.
- CONTRACTOR RESPONSIBLE FOR WATERING, MOWING, AND RESEEDING OF LAWN BARE SPOTS UNTIL A UNIFORM, HEALTHY STAND OF GRASS IS ESTABLISHED AND ACCEPTED.

ERNST SEEDS

8884 Mercer Pike
Meadville, PA 16335
(800) 873-3321 Fax (814) 336-5191
www.ernstseed.com

Date: December 04, 2023

Native Steep Slope Mix w/Grain Rye - ERNMX-181-2

	Botanical Name	Common Name	Price/Lb
40.00 %	Secale cereale, Variety Not Stated	Rye, Variety Not Stated	0.51
20.80 %	Sorghastrum nutans, PA Ecotype	Indiangrass, PA Ecotype	14.58
11.20 %	Andropogon gerardii, 'Niagara'	Big Bluestem, 'Niagara'	9.27
8.80 %	Elymus virginicus, Madison-NY Ecotype	Virginia Wildrye, Madison-NY Ecotype	10.45
8.00 %	Elymus canadensis	Canada Wildrye	9.57
3.10 %	Panicum virgatum, 'Shawnee'	Switchgrass, 'Shawnee'	11.96
2.40 %	Panicum clandestinum, Tioga	Deertongue, Tioga	22.08
1.20 %	Echinacea purpurea	Purple Coneflower	43.20
1.10 %	Chamaecrista fasciculata, PA Ecotype	Partridge Pea, PA Ecotype	12.00
0.90 %	Heliopsis helianthoides, PA Ecotype	Oxeye Sunflower, PA Ecotype	33.60
0.80 %	Coreopsis lanceolata	Lanceleaf Coreopsis	28.80
0.80 %	Rudbeckia hirta	Blackeyed Susan	31.20
0.30 %	Monarda fistulosa, Fort Indiantown Gap-PA Ecotype	Wild Bergamot, Fort Indiantown Gap-PA Ecotype	96.00
0.20 %	Asclepias syriaca, PA Ecotype	Common Milkweed, PA Ecotype	96.00
0.20 %	Solidago rugosa, PA Ecotype	Wrinkleleaf Goldenrod, PA Ecotype	264.00
0.10 %	Aster lateriflorus	Calico Aster	336.00
0.10 %	Aster pilosus, PA Ecotype	Heath Aster, PA Ecotype	264.00
100.00 %		Mix Price/Lb Bulk:	\$9.90

Seeding Rate: 75 lb per acre

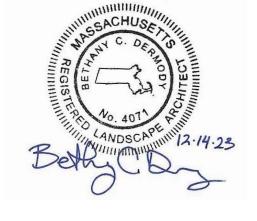
Erosion Control & Revegetation; Grasses & Grass-like Species - Herbaceous Perennial; Herbaceous Flowering Species - Herbaceous Perennial

Use this formula with grain rye as a cover crop (from August 1st-February 15th). Mix formulations are subject to change wthout notice depending on the availability of existing and new products. While the formula may change, the guiding philosophy and function of the mix will not.

Price quotes guaranteed for 30 days.
All prices are FOB Meadville, PA.
Please check our web site at www.ernstseed.com
for current pricing when placing orders.

LANDSCAPE NOTES

- ALL WORK SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY OF FRANKLIN, MA.
- 1. PLANTING PLAN IS DIAGRAMMATIC IN NATURE, FINAL PLACEMENT OF PLANTS TO BE APPROVED BY THE LANDSCAPE ARCHITECT IN THE FIFI D.
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL UTILITY COMPANIES, ANY PERMITTING AGENCIES, AND "DIG-SAFE" (1-888-344-7233) AT LEAST 72 HOURS IN ADVANCE OF ANY WORK THAT WILL REQUIRE EXCAVATION. CONTRACTOR SHALL NOTIFY THE OWNERS REPRESENTATIVE OF NAY CONFLICTS IN WRITING.
- 3. NO PLANT MATERIAL SHALL BE INSTALLED UNTIL ALL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA, ANY TREES NOTED AS "SEAL OR SELECTED SPECIMEN" SHALL BE TAGGED AND SEALED BY THE LANDSCAPE ARCHITECT.
- 4. ALL TREES SHALL BE BALLED AND BURLAPPED (B&B) UNLESS OTHERWISE NOTED OR APPROVED BY THE OWNER'S REPRESENTATIVE AND LANDSCAPE ARCHITECT.
- 5. CONTRACTOR SHALL VERIFY QUANTITIES SHOWN ON PLANT LIST. QUANTITIES SHOWN ON PLANS SHALL GOVERN OVER PLANT LIST.
- 6. ANY PROPOSED PLANT SUBSTITUTIONS MUST BE APPROVED IN WRITING BY OWNER'S REPRESENTATIVE AND LANDSCAPE ARCHITECT.
- 7. ALL PLANT MATERIALS INSTALLED SHALL MEET THE GUIDELINES ESTABLISHED BY THE STANDARDS FOR NURSERY STOCK PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
- 8. ALL PLANT MATERIALS SHALL BE GUARANTEED FOR ONE YEAR FOLLOWING DATE OF ACCEPTANCE.
- 9. ALL DISTURBED AREAS NOT OTHERWISE NOTED SHALL RECEIVE 6" OF SUITABLE LOAM & SEED LAWNS WITH 3:1 OR GREATER SLOPES SHALL BE PROTECTED WITH AN EROSION CONTROL BLANKET.
- 10. ANY FALL TRANSPLANTING HAZARD PLANTS SHALL BE DUG IN THE SPRING AND STORED FOR FALL PLANTING.
- 12. TREES SHALL HAVE A MINIMUM CALIPER AS INDICATED ON THE PLANTING SCHEDULE TAKEN ONE FOOT ABOVE THE ROOT CROWN.
- 13. ALL PLANT BEDS AND TREE SAUCERS TO RECEIVE 3" OF PINE BARK MULCH. GROUND COVER AREAS SHALL RECEIVE 1" OF PINE BARK MULCH
- 14. ALL DECIDUOUS TREES ADJACENT TO WALKWAYS AND ROADWAYS SHALL HAVE A BRANCHING PATTERN TO ALLOW FOR A MINIMUM OF 7' OF CLEARANCE BETWEEN THE GROUND AND THE LOWEST BRANCH.
- 15. ALL TREE STAKES SHALL BE STAINED DARK BROWN.
- 16. CONTRACTOR RESPONSIBLE FOR WATERING, AND RESEEDING OF BARE SPOTS UNTIL A UNIFORM STAND OF VEGETATION IS ESTABLISHED AND ACCEPTED.
- 17. ALL PARKING ISLANDS PLANTED WITH SHRUBS SHALL HAVE 24" OF TOP SOIL. FINISH GRADE SHALL BE EQUAL TO THE TOP OF CURB.
- 3. SOIL SAMPLES, TESTS, AND SHOP DRAWINGS SHALL BE PROVIDED TO THE LANDSCAPE ARCHITECT OR THE OWNER FOR APPROVAL PRIOR TO CONSTRUCTION.
- 19. ALL PROPOSED LANDSCAPE AREAS INCLUDING MOWED LAWNS, TREES, SHRUB BEDS, AND PERENNIALS SHALL BE PROVIDED WITH WATER EFFICIENT UNDERGROUND IRRIGATION. DESIGN AND INSTALLATION OF IRRIGATION SYSTEM TO BE PERFORMED BY AN APPROVED IRRIGATION DESIGN BUILD CONTRACTOR OR BY AN APPROVED EQUAL, TO BE DETERMINED BY THE OWNERS REPRESENTATIVE AND LANDSCAPE ARCHITECT. IRRIGATION SYSTEM IS TO BE DESIGNED FOR EFFICIENT WATER USAGE INCLUDING: USE OF DRIP IRRIGATION FOR SHRUBS AND PERENNIALS, IRRIGATION SYSTEM WITH HEAD—TO—HEAD COVERAGE, A CENTRAL SHUT—OFF VALVE, SEPARATE ZONES FOR EACH TYPE OF BEDDING AREA BASED ON WATERING NEEDS, AND A RAIN SENSOR TO SHUT OFF IRRIGATION DURING RAIN EVENTS.



PROFESSIONAL LANDSCAPE ARCHITECT FOR ALLEN & MAJOR ASSOCIATES, INC.

7	12-14-23	ISSUED FOR SITE PLAN AMENDM
6	10-24-23	REVISED PER CONDITIONS OF APPRO
5	05-18-23	REVISION 5 PER REVIEW COMME
4	05-11-23	REVISION 4 PER REVIEW COMME
3	05-01-23	REVISION 3 PER REVIEW COMME
2	04-14-23	REVISION 2 PER DPW COMMENT
1	04-04-23	REVISION 1 PER PEER REVIEW
REV	DATE	DESCRIPTION

APPLICANT\OWNER:

DESIGNED BY:

TMC HOLDINGS & DEVELOPMENT 2, LLC 24 WILLIAM WAY BELLINGHAM, MA 02019

PROJECT:

25 FORGE PARKWAY FRANKLIN, MA

PROJECT NO. 2712-02A DATE: 02-21-23

SCALE: AS SHOWN DWG. NAME: L-2712-02A

BCD | CHECKED BY:

ALLEN & MAJOR

ASSOCIATES, INC.

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environmental consulting • landscape architecture

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ING TITLE:

LANDSCAPE NOTES & DETAILS L-502