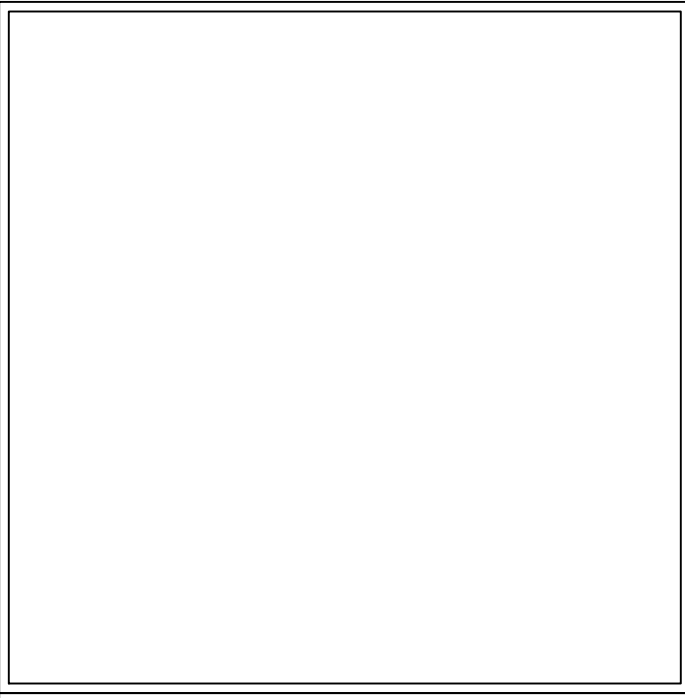


SITE DEVELOPMENT PLANS  
FOR  
B&M 35 HANOVER, LLC

29 WINTER STREET, PEMBROKE, MASSACHUSETTS



FOR REGISTRY USE ONLY

SHEET INDEX

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Existing Conditions Plan	

LOCUS MAP



SOURCE: MASSGIS

PREPARED BY:



PROPERTY INFORMATION

OWNER	APPLICANT
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ASSESSOR'S INFORMATION  
Map G14, Lot 54

PROJECT TEAM

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SUBMISSION INFO

ISSUED FOR: LOCAL APPROVALS  
DATE ISSUED: JANUARY 18, 2023

WAIVER REQUESTS

4.22 A TRAFFIC IMPACT STUDY SHALL BE PREPARED

5.1.2 A THREE (3) FOOT WIDE LANDSCAPING STRIP SHALL BE PROVIDED ALONG THE FOUNDATION WALLS TO SOFTEN THE APPEARANCE FOR ALL RESIDENTIAL BUILDING(S)

5.6.2 CURBING SHALL NOT BE BITUMINOUS CONCRETE.

5.9.9 A MINIMUM OF 50% OF THE BUILDING'S STREET SIDE FACADE SHALL CONTAIN WINDOWS. THE WINDOWS SHALL BE DIVIDED BY MUNTINS AND FRAMED WITH A CASING TRIM; AWNINGS SHOULD BE DESIGNED AS AN INTEGRAL PART OF THE BUILDING FACADE; METAL AWNINGS ARE NOT ALLOWED.

6.0 DEVELOPMENT IMPACT STATEMENT



PRELIMINARY

REVISIONS	
NO.	DESCRIPTION
1	FEED REVIEW COMMENTS



PROJECT TITLE	PREPARED BY:	DATE	SCALE	PROJECT #
SITE DEVELOPMENT PLANS	AKPT	01/18/23	AS SHOWN	1622000082
SHEET TITLE	DATE	SCALE	PROJECT #	SITE ADDRESS
COVER SHEET	01/18/23	AS SHOWN	1622000082	29 WINTER STREET, PEMBROKE, MA

C-1

SHEET NO.



GENERAL NOTES

NOTE: CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH THE NOTES AND SPECIFICATIONS CONTAINED HEREIN. CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT ALL SUBCONTRACTORS FULLY AND COMPLETELY CONFORM TO AND COMPLY WITH THESE REQUIREMENTS.

- CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE, COUNTY, LOCAL AND OSHA CODES, MANDATED REGULATIONS AND REQUIREMENTS. THE MOST STRINGENT REGULATION SHALL GOVERN.
- CONTRACTOR SHALL KEEP AN ACCURATE SET OF 'AS-BUILT' PLANS
- ALL ACCESSIBLE PARKING SPACES SHALL BE CONSTRUCTED TO MEET, AT A MINIMUM, THE MORE STRINGENT OF THE REQUIREMENTS OF THE 'AMERICANS WITH DISABILITIES ACT' (ADA) CODE OR THE REQUIREMENTS OF THE JURISDICTION WHERE THE PROJECT SHALL BE CONSTRUCTED.
- PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED THE COMMENTS TO ALL PLANS AND OTHER DOCUMENTS REVIEWED AND APPROVED BY THE PERMITTING AUTHORITIES AND CONFIRMED THAT ALL NECESSARY OR REQUIRED PERMITS HAVE BEEN OBTAINED. CONTRACTOR SHALL HAVE COPIES OF ALL PERMITS AND APPROVALS ON SITE AT ALL TIMES.
- THE OWNER/CONTRACTOR SHALL BE FAMILIAR WITH AND RESPONSIBLE FOR THE PROCUREMENT OF ANY AND ALL CERTIFICATIONS REQUIRED FOR THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS, SPECIFICATIONS AND CONDITIONS OF APPROVAL, AND ALL APPLICABLE REQUIREMENTS, RULES, REGULATIONS, STATUTORY REQUIREMENTS, CODES, LAWS AND STANDARDS OF ALL GOVERNMENTAL ENTITIES WITH JURISDICTION OVER THIS PROJECT.
- THE GEOTECHNICAL REPORT AND RECOMMENDATIONS INCLUDED IN SAID REPORT ARE A PART OF THE CONSTRUCTION DOCUMENTS AND, IN CASE OF CONFLICT OR DISCREPANCY, THE MORE STRINGENT REQUIREMENTS CONTAINED IN THE PLANS AND THE GEOTECHNICAL REPORT SHALL TAKE PRECEDENCE UNLESS SPECIFICALLY NOTED OTHERWISE ON THE PLANS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER, IN WRITING, OF ANY SUCH CONFLICT, DISCREPANCY OR AMBIGUITY BETWEEN THE GEOTECHNICAL REPORTS AND PLANS AND SPECIFICATIONS PRIOR TO PROCEEDING WITH ANY FURTHER WORK.
- THESE PLANS ARE BASED ON INFORMATION PROVIDED TO THE ENGINEER BY THE OWNER AND OTHERS PRIOR TO THE TIME OF PLAN PREPARATION. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND NOTIFY THE ENGINEER, IN WRITING, IF ACTUAL SITE CONDITIONS DIFFER FROM THOSE SHOWN ON THE PLAN, OR IF THE PROPOSED WORK CONFLICTS WITH ANY OTHER SITE FEATURES.
- ALL DIMENSIONS SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR SHALL NOTIFY ENGINEER, IN WRITING, IF ANY CONFLICTS, DISCREPANCIES, OR AMBIGUITIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION. NO EXTRA COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR WORK WHICH HAS TO BE REDONE OR REPAIRED DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS PRIOR TO CONTRACTOR GIVING ENGINEER WRITTEN NOTIFICATION OF SAME AND ENGINEER, THEREAFTER, PROVIDING CONTRACTOR WITH WRITTEN AUTHORIZATION TO PROCEED WITH SUCH ADDITIONAL WORK.
- CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF ENTRY/EXIT POINTS, ELEVATIONS, PRECISE BUILDING DIMENSIONS, AND EXACT BUILDING UTILITY LOCATIONS.
- PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE THE BUILDING LAYOUT BY CAREFUL REVIEW OF THE ENTIRE SITE PLAN AND THE LATEST ARCHITECTURAL PLANS (INCLUDING, BUT NOT LIMITED TO, STRUCTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND FIRE SUPPRESSION PLAN, WHERE APPLICABLE). CONTRACTOR SHALL IMMEDIATELY NOTIFY OWNER, ARCHITECT AND SITE ENGINEER, IN WRITING, OF ANY CONFLICTS, DISCREPANCIES OR AMBIGUITIES WHICH EXIST.
- DEBRIS SHALL NOT BE BURIED ON THE SUBJECT SITE AND ALL UNSUITABLE EXCAVATED MATERIAL AND DEBRIS (SOLID WASTE) SHALL BE DISPOSED OF IN ACCORDANCE WITH THE REQUIREMENTS OF ANY AND ALL GOVERNMENTAL AUTHORITIES WHICH HAVE JURISDICTION OVER THIS PROJECT OR OVER CONTRACTOR.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR IDENTIFYING WHEN SHORING IS REQUIRED AND FOR INSTALLING ALL SHORING REQUIRED DURING EXCAVATION (TO BE PERFORMED IN ACCORDANCE WITH CURRENT OSHA STANDARDS) AND ANY ADDITIONAL PRECAUTIONS TO BE TAKEN TO ASSURE THE STABILITY OF ADJACENT, NEARBY AND CONTIGUOUS STRUCTURES AND PROPERTIES.
- THE CONTRACTOR SHALL EXERCISE EXTREME CARE WHEN PERFORMING ANY WORK ACTIVITIES ADJACENT TO PAVEMENT, STRUCTURES, ETC. WHICH ARE TO REMAIN EITHER FOR AN INITIAL PHASE OF THE PROJECT OR AS PART OF THE FINAL CONDITION. CONTRACTOR SHALL BE RESPONSIBLE FOR TAKING ALL APPROPRIATE MEASURES REQUIRED TO ENSURE THE STRUCTURAL STABILITY OF SIDEWALKS AND PAVEMENT, UTILITIES, BUILDINGS, AND INFRASTRUCTURE WHICH ARE TO REMAIN, AND TO PROVIDE A SAFE WORK AREA FOR THIRD PARTIES, PEDESTRIANS AND ANYONE INVOLVED WITH THE PROJECT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY DAMAGE DONE TO ANY NEW OR EXISTING CONSTRUCTION OR PROPERTY DURING THE COURSE OF CONSTRUCTION, INCLUDING BUT NOT LIMITED TO DAMAGE, UTILITIES, PAVEMENT, STRIPING, CURB, ETC. AND SHALL BEAR ALL COSTS ASSOCIATED WITH SAME TO INCLUDE, BUT NOT BE LIMITED TO, REDESIGN, RE-SURVEY, RE-PERMITTING AND CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR AND SHALL REPLACE ALL SIGNAL, INTERCONNECTION CABLE, WIRING CONDUITS, AND ANY UNDERGROUND ACCESSORY EQUIPMENT DAMAGED DURING CONSTRUCTION AND SHALL BEAR ALL COSTS ASSOCIATED WITH SAME. THE REPAIR OF ANY SUCH NEW OR EXISTING CONSTRUCTION OR PROPERTY SHALL RESTORE SUCH CONSTRUCTION OR PROPERTY TO A CONDITION EQUIVALENT TO OR BETTER THAN THE CONDITIONS PRIOR TO COMMENCEMENT OF THE CONSTRUCTION, AND IN CONFORMANCE WITH APPLICABLE CODES, LAWS, RULES, REGULATIONS, STATUTORY REQUIREMENTS AND STATUTES. CONTRACTOR SHALL BEAR ALL COSTS ASSOCIATED WITH SAME. CONTRACTOR IS RESPONSIBLE TO DOCUMENT ALL EXISTING DAMAGE AND TO NOTIFY THE OWNER AND THE CONSTRUCTION MANAGER PRIOR TO THE START OF CONSTRUCTION.
- ALL CONCRETE SHALL BE AIR ENTRAINED AND HAVE THE MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS UNLESS OTHERWISE NOTED ON THE PLANS, DETAILS AND/OR GEOTECHNICAL REPORT.
- THE ENGINEER SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION METHODS, MEANS, TECHNIQUES OR PROCEDURES, GENERALLY OR FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES OR PROCEDURES FOR COMPLETION OF THE WORK DEPICTED BOTH ON THESE PLANS, AND FOR ANY CONFLICTS/SCOPE REVISIONS WHICH RESULT FROM SAME. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE METHODS/MEANS FOR COMPLETION OF THE WORK PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
- THE ENGINEER OF RECORD SHALL NOT BE RESPONSIBLE FOR JOB SITE SAFETY. THE ENGINEER OF RECORD HAS NOT BEEN RETAINED TO PERFORM OR BE RESPONSIBLE FOR JOB SITE SAFETY, SAME BEING WHOLLY OUTSIDE OF ENGINEER'S SERVICES AS RELATED TO THE PROJECT. THE ENGINEER OF RECORD SHALL NOT BE RESPONSIBLE TO IDENTIFY OR REPORT ANY JOB SITE SAFETY ISSUES, AT ANY TIME.
- THE ENGINEER WILL REVIEW THE CONTRACTOR SUBMITTALS, SUCH AS SHOP DRAWINGS, PRODUCT DATA, SAMPLES, AND OTHER DATA, WHICH THE CONTRACTOR SHALL BE REQUIRED TO SUBMIT. THIS REVIEW IS FOR THE LIMITED PURPOSE OF CHECKING FOR CONFORMANCE WITH THE DESIGN INTENT AND THE INFORMATION SHOWN IN THE CONSTRUCTION CONTRACT DOCUMENTS. CONSTRUCTION MEANS AND METHODS AND/OR TECHNIQUES OR PROCEDURES, COORDINATION OF THE WORK WITH OTHER TRADES, AND CONSTRUCTION SAFETY PRECAUTIONS SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND THE ENGINEER HAS NO RESPONSIBILITY OR LIABILITY FOR SAME HEREUNDER. THE ENGINEER'S SHOP DRAWING REVIEW WILL BE CONDUCTED WITH REASONABLE PROMPTNESS WHILE ALLOWING SUFFICIENT TIME TO PERMIT ADEQUATE REVIEW. REVIEW OF A SPECIFIC ITEM SHALL NOT INDICATE THAT THE ENGINEER HAS REVIEWED THE ENTIRE ASSEMBLY OF WHICH THE ITEM IS A COMPONENT. THE ENGINEER WILL NOT BE RESPONSIBLE FOR ANY DEVIATIONS FROM THE CONSTRUCTION DOCUMENTS NOT PROMPTLY AND IMMEDIATELY BROUGHT TO HIS ATTENTION. IN WRITING, BY THE CONTRACTOR, THE ENGINEER WILL NOT BE REQUIRED TO REVIEW PARTIAL SUBMISSIONS OR THOSE FOR WHICH SUBMISSIONS OF CORRELATED ITEMS HAVE NOT BEEN RECEIVED.
- IF THE CONTRACTOR DEVIATES FROM THE PLANS AND SPECIFICATIONS, INCLUDING THE NOTES CONTAINED HEREIN, WITHOUT FIRST OBTAINING THE PRIOR WRITTEN AUTHORIZATION OF THE ENGINEER FOR SUCH DEVIATIONS, THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE PAYMENT OF ALL COSTS INCURRED IN CORRECTING ANY WORK DONE WHICH DEVIATES FROM THE PLANS, ALL FINES AND/OR PENALTIES ASSESSED WITH RESPECT THERETO AND, FURTHER, SHALL DEFEND, INDEMNIFY AND HOLD HARMLESS THE ENGINEER, TO THE FULLEST EXTENT PERMITTED UNDER THE LAW, FOR AND FROM ALL FEES, ATTORNEYS' FEES, DAMAGES, COSTS, JUDGMENTS, PENALTIES AND THE LIKE RELATED TO SAME.
- CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE AND PROTECTION OF TRAFFIC PLAN FOR ALL WORK THAT AFFECTS PUBLIC TRAVEL EITHER IN THE R.O.W. OR ON SITE. THE COST FOR THIS ITEM SHALL BE INCLUDED IN THE CONTRACTORS PRICE.
- ALL SIGNING AND PAVEMENT STRIPING SHALL CONFORM TO MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES OR LOCALLY APPROVED SUPPLEMENT.
- ENGINEER IS NOT RESPONSIBLE FOR ANY INJURY OR DAMAGES RESULTING FROM CONTRACTOR'S FAILURE TO BUILD OR CONSTRUCT IN STRICT ACCORDANCE WITH THE APPROVED PLANS. IF CONTRACTOR AND/OR OWNER FAIL TO BUILD OR CONSTRUCT IN STRICT ACCORDANCE WITH APPROVED PLANS, THEY AGREE TO JOINTLY AND SEVERALLY INDEMNIFY AND HOLD ENGINEER HARMLESS FOR ALL INJURIES AND DAMAGES THAT ENGINEER SUFFERS AND COSTS THAT ENGINEER INCURS.
- OWNER SHALL MAINTAIN AND PRESERVE ALL PHYSICAL SITE FEATURES AND DESIGN FEATURES DEPICTED ON THE PLANS AND RELATED DOCUMENTS. IN STRICT ACCORDANCE WITH THE APPROVED PLANS) AND DESIGN AND, FURTHER, ENGINEER SHALL NOT BE RESPONSIBLE FOR ANY FAILURE TO SO MAINTAIN OR PRESERVE SITE. IF OWNER FAILS TO MAINTAIN AND/OR PRESERVE ALL PHYSICAL SITE FEATURES AND/OR DESIGN FEATURES DEPICTED ON THE PLANS AND RELATED DOCUMENTS, OWNER AGREES TO INDEMNIFY AND HOLD ENGINEER HARMLESS FOR ALL INJURIES AND DAMAGES THAT ENGINEER SUFFERS AND COSTS THAT ENGINEER INCURS AS A RESULT OF SAID FAILURE.
- ALL DIMENSIONS SHALL BE TO FACE OF CURB, EDGE OF PAVEMENT, OR EDGE OF BUILDING, UNLESS NOTED OTHERWISE.
- ALL CONSTRUCTION AND MATERIALS SHALL COMPLY WITH AND CONFORM TO APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, LAWS, ORDINANCES, RULES AND CODES, AND ALL APPLICABLE OSHA REQUIREMENTS.
- CONTRACTOR AND OWNER SHALL INSTALL ALL ELEMENTS AND COMPONENTS IN STRICT COMPLIANCE WITH AND ACCORDANCE WITH MANUFACTURERS STANDARDS AND RECOMMENDED INSTALLATION CRITERIA AND SPECIFICATIONS. IF CONTRACTOR AND/OR OWNER FAIL TO DO SO, THEY AGREE TO JOINTLY AND SEVERALLY INDEMNIFY AND HOLD ENGINEER HARMLESS FOR ALL INJURIES AND DAMAGES THAT ENGINEER SUFFERS AND COSTS THAT ENGINEER INCURS AS A RESULT OF SAID FAILURE.
- CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN ON-SITE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IN COMPLIANCE WITH EPA REQUIREMENTS FOR SITES WHERE ONE (1) ACRE OR MORE (UNLESS THE LOCAL JURISDICTION REQUIRES FEWER) IS DISTURBED BY CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT ALL ACTIVITIES, INCLUDING THOSE OF SUBCONTRACTORS, ARE IN COMPLIANCE WITH THE SWPPP, INCLUDING BUT NOT LIMITED TO LOGGING ACTIVITIES (MINIMUM ONCE PER WEEK AND AFTER RAINFALL EVENTS) AND CORRECTIVE MEASURES, AS APPROPRIATE.
- AS CONTAINED IN THESE DRAWINGS AND ASSOCIATED APPLICATION DOCUMENTS PREPARED BY THE SIGNATORY PROFESSIONAL ENGINEER, THE USE OF THE WORDS CERTIFY OR CERTIFICATION CONSTITUTES AN EXPRESSION OF 'PROFESSIONAL OPINION' REGARDING THE INFORMATION WHICH IS THE SUBJECT OF THE UNDERSIGNED PROFESSIONAL'S KNOWLEDGE OR BELIEF AND IN ACCORDANCE WITH COMMON ACCEPTED PROCEDURE CONSISTENT WITH THE APPLICABLE STANDARDS OF PRACTICE, AND DOES NOT CONSTITUTE A WARRANTY OR GUARANTEE, EITHER EXPRESSED OR IMPLIED.

GENERAL DEMOLITION NOTES

- CONTRACTOR SHALL PERFORM ALL WORK IN ACCORDANCE WITH THE REQUIREMENTS OF THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970, AS AMENDED AND ANY MODIFICATIONS, AMENDMENTS OR REVISIONS TO SAME.
- THE ENGINEER HAS NO CONTRACTUAL, LEGAL, OR OTHER RESPONSIBILITY FOR JOB SITE SAFETY OR JOB SITE SUPERVISION, OR ANYTHING RELATED TO SAME.
- THE DEMOLITION PLAN IS INTENDED TO PROVIDE GENERAL INFORMATION, ONLY, REGARDING ITEMS TO BE DEMOLISHED AND/OR REMOVED. THE CONTRACTOR SHALL ALSO REVIEW THE OTHER SITE PLAN DRAWINGS AND INCLUDE IN DEMOLITION ACTIVITIES ALL INCIDENTAL WORK NECESSARY FOR THE CONSTRUCTION OF THE NEW SITE IMPROVEMENTS.
- CONTRACTOR SHALL RAISE ANY QUESTIONS CONCERNING THE ACCURACY OR INTENT OF THESE PLANS OR SPECIFICATIONS, CONCERNS REGARDING THE APPLICABLE SAFETY STANDARDS, OR THE SAFETY OF THE CONTRACTOR OR THIRD PARTIES IN PERFORMING THE WORK ON THIS PROJECT, WITH THE ENGINEER, IN WRITING, AND RESPONDED TO BY THE ENGINEER, IN WRITING, PRIOR TO THE INITIATION OF ANY SITE ACTIVITY AND ANY DEMOLITION ACTIVITY. ALL DEMOLITION ACTIVITIES SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THESE PLANS AND SPECIFICATIONS AND ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, RULES, REQUIREMENTS, STATUTES, ORDINANCES AND CODES.
- PRIOR TO STARTING ANY DEMOLITION, CONTRACTOR SHALL BE RESPONSIBLE FORTO:
  - OBTAINING ALL REQUIRED PERMITS AND MAINTAINING THE SAME ON SITE FOR REVIEW BY THE ENGINEER AND OTHER PUBLIC AGENCIES WITH JURISDICTION THROUGHOUT THE DURATION OF THE PROJECT, SITE WORK, AND DEMOLITION WORK.
  - NOTIFYING, AT A MINIMUM, THE MUNICIPAL ENGINEER, DESIGN ENGINEER, AND LOCAL SOIL CONSERVATION DISTRICT, 72 HOURS PRIOR TO THE START OF WORK.
  - INSTALLING THE REQUIRED SOIL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO SITE DISTURBANCE.
  - IN ACCORDANCE WITH STATE LAW, THE CONTRACTOR SHALL CALL THE STATE ONE-CALL DAMAGE PROTECTION SYSTEM FOR UTILITY MARKOUT, IN ADVANCE OF ANY EXCAVATION.
- LOCATING AND PROTECTING ALL UTILITIES AND SERVICES, INCLUDING BUT NOT LIMITED TO GAS, WATER, ELECTRIC, SANITARY AND STORMWATER, TELEPHONE, CABLE, FIBER OPTIC CABLE, ETC. WITHIN AND ADJACENT TO THE LIMITS OF PROJECT ACTIVITIES. THE CONTRACTOR SHALL USE AND COMPLY WITH THE REQUIREMENTS OF THE APPLICABLE UTILITY NOTIFICATION SYSTEM TO LOCATE ALL THE UNDERGROUND UTILITIES.
- PROTECTING AND MAINTAINING IN OPERATION, ALL ACTIVE UTILITIES AND SYSTEMS THAT ARE NOT BEING REMOVED DURING ALL DEMOLITION ACTIVITIES.
- ARRANGING FOR AND COORDINATING WITH THE APPLICABLE UTILITY SERVICE PROVIDERS) FOR THE TEMPORARY OR PERMANENT TERMINATION OF SERVICE REQUIRED BY THE PROJECT PLANS AND SPECIFICATIONS. THE CONTRACTOR SHALL PROVIDE THE UTILITY ENGINEER AND OWNER WRITTEN NOTIFICATION THAT THE EXISTING UTILITIES AND SERVICES HAVE BEEN TERMINATED AND ABANDONED IN ACCORDANCE WITH JURISDICTIONAL AND UTILITY COMPANY REQUIREMENTS.
- IN THE EVENT THE CONTRACTOR DISCOVERS ANY HAZARDOUS MATERIAL, THE REMOVAL OF WHICH IS NOT ADDRESSED IN THE PROJECT PLANS AND SPECIFICATIONS, THE CONTRACTOR SHALL IMMEDIATELY CEASE ALL WORK AND IMMEDIATELY NOTIFY THE OWNER AND ENGINEER OF THE DISCOVERY OF SUCH MATERIALS.
- THE FIRM OR ENGINEER OF RECORD IS NOT RESPONSIBLE FOR JOB SITE SAFETY OR SUPERVISION. CONTRACTOR SHALL PROCEED WITH THE DEMOLITION IN A SYSTEMATIC AND SAFE MANNER, FOLLOWING ALL THE OSHA REQUIREMENTS, TO ENSURE PUBLIC AND CONTRACTOR SAFETY.
- THE CONTRACTOR SHALL PROVIDE ALL 'MEANS AND METHODS' NECESSARY TO PREVENT MOVEMENT, SETTLEMENT, OR COLLAPSE OF EXISTING STRUCTURES, AND ANY OTHER IMPROVEMENTS THAT ARE REMAINING ON OR OFF SITE. THE CONTRACTOR IS RESPONSIBLE FOR ALL REPAIRS OF DAMAGE TO ALL ITEMS THAT ARE TO REMAIN. CONTRACTOR SHALL USE NEW MATERIAL FOR ALL REPAIRS. CONTRACTORS REPAIR SHALL INCLUDE THE RESTORATION OF ANY ITEMS REPAIRED TO THE PRE-DEMOLITION CONDITION, OR BETTER. CONTRACTOR SHALL PERFORM ALL REPAIRS AT THE CONTRACTORS SOLE EXPENSE.
- THE CONTRACTOR SHALL NOT PERFORM ANY EARTH MOVEMENT ACTIVITIES, DEMOLITION OR REMOVAL OF FOUNDATION WALLS, FOOTINGS, OR OTHER MATERIALS WITHIN THE LIMITS OF DISTURBANCE UNLESS SAME IS IN STRICT ACCORDANCE AND CONFORMANCE WITH THE PROJECT PLANS AND SPECIFICATIONS, AND/OR UNDER THE WRITTEN DIRECTION OF THE OWNERS STRUCTURAL OR GEOTECHNICAL ENGINEER.
- CONTRACTOR SHALL BACKFILL ALL EXCAVATION RESULTING FROM, OR INCIDENTAL TO, DEMOLITION ACTIVITIES. BACKFILL SHALL BE ACCOMPLISHED WITH APPROVED BACKFILL MATERIALS, AND SHALL BE SUFFICIENTLY COMPACTED TO SUPPORT NEW IMPROVEMENTS AND PERFORMED IN COMPLIANCE WITH THE RECOMMENDATIONS AND GUIDANCE IN THE GEOTECHNICAL REPORT. BACKFILLING SHALL OCCUR IMMEDIATELY AFTER DEMOLITION ACTIVITIES, AND SHALL BE DONE SO AS TO PREVENT WATER ENTERING THE EXCAVATION. FINISHED SURFACES SHALL BE GRADED TO PROMOTE POSITIVE DRAINAGE.
- EXPLOSIVES SHALL NOT BE USED WITHOUT PRIOR WRITTEN CONSENT OF BOTH THE OWNER AND ALL APPLICABLE GOVERNMENTAL AUTHORITIES. ALL THE REQUIRED PERMITS AND EXPLOSIVE CONTROL MEASURES THAT ARE REQUIRED BY THE FEDERAL, STATE, AND LOCAL GOVERNMENTS SHALL BE IN PLACE PRIOR TO CONTRACTOR STARTING AN EXPLOSIVE PROGRAM AND/OR ANY DEMOLITION. THE CONTRACTOR IS ALSO RESPONSIBLE FOR ALL INSPECTION AND SEISMIC VIBRATION TESTING THAT IS REQUIRED TO MONITOR THE EFFECTS ON ALL LOCAL STRUCTURES.
- CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL, AND GENERALLY ACCEPTED SAFE PRACTICES IN CONFORMANCE WITH THE CURRENT FHWA 'MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES' (MUTCD), AND THE FEDERAL, STATE, AND LOCAL REGULATIONS WHEN DEMOLITION RELATED ACTIVITIES IMPACT ROADWAYS AND/OR ROADWAY RIGHT-OF-WAY.
- CONTRACTOR SHALL CONDUCT DEMOLITION ACTIVITIES IN SUCH A MANNER TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, SIDEWALKS, WALKWAYS, AND OTHER ADJACENT FACILITIES. STREET CLOSURE PERMITS SHALL BE RECEIVED FROM THE APPROPRIATE GOVERNMENTAL AUTHORITY PRIOR TO THE COMMENCEMENT OF ANY ROAD OPENING OR DEMOLITION ACTIVITIES IN OR ADJACENT TO THE RIGHT-OF-WAY.
- DEMOLITION ACTIVITIES AND EQUIPMENT SHALL NOT USE AREAS OUTSIDE THE DEFINED PROJECT LIMIT LINE, WITHOUT WRITTEN PERMISSION OF THE OWNER AND ALL GOVERNMENTAL AGENCIES WITH JURISDICTION.
- THE CONTRACTOR SHALL USE DUST CONTROL MEASURES TO LIMIT AIRBORNE DUST AND DIRT RISING AND SCATTERING IN THE AIR IN ACCORDANCE WITH FEDERAL, STATE, AND/OR LOCAL STANDARDS. AFTER THE DEMOLITION IS COMPLETE, CONTRACTOR SHALL CLEAN ALL ADJACENT STRUCTURES AND IMPROVEMENTS TO REMOVE ALL DUST AND DEBRIS CAUSED BY THE DEMOLITION OPERATIONS. THE CONTRACTOR IS RESPONSIBLE FOR RETURNING ALL ADJACENT AREAS TO THEIR 'PRE-DEMOLITION' CONDITION.
- CONTRACTOR IS RESPONSIBLE TO SAFEGUARD THE SITE AS NECESSARY TO PERFORM THE DEMOLITION IN SUCH A MANNER AS TO PREVENT THE ENTRY OF UNAUTHORIZED PERSONS AT ANY TIME.
- CONTRACTOR IS RESPONSIBLE FOR JOB SITE SAFETY, WHICH SHALL INCLUDE, BUT NOT BE LIMITED TO, THE INSTALLATION AND MAINTENANCE OF BARRIERS, FENCING AND OTHER APPROPRIATE SAFETY ITEMS NECESSARY TO PROTECT THE PUBLIC FROM AREAS OF CONSTRUCTION AND CONSTRUCTION ACTIVITY.
- THIS DEMOLITION PLAN IS INTENDED TO IDENTIFY THOSE EXISTING ITEMS/CONDITIONS WHICH ARE TO BE REMOVED. IT IS NOT INTENDED TO PROVIDE DIRECTION AS TO THE MEANS, METHODS, SEQUENCING, TECHNIQUES AND PROCEDURES TO BE USED TO ACCOMPLISH THAT WORK. ALL MEANS, METHODS, SEQUENCING, TECHNIQUES AND PROCEDURES TO BE USED SHALL BE IN STRICT ACCORDANCE WITH ALL STATE, FEDERAL, LOCAL, AND JURISDICTIONAL REQUIREMENTS. THE CONTRACTOR SHALL COMPLY WITH ALL OSHA AND OTHER SAFETY PRECAUTIONS NECESSARY TO PROVIDE A SAFE WORK SITE.
- DEBRIS SHALL NOT BE BURIED ON THE SUBJECT SITE. ALL DEMOLITION WASTES AND DEBRIS (SOLID WASTE) SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL MUNICIPAL, COUNTY, STATE, AND FEDERAL LAWS AND APPLICABLE CODES. THE CONTRACTOR SHALL MAINTAIN RECORDS TO DEMONSTRATE PROPER DISPOSAL ACTIVITIES, TO BE PROMPTLY PROVIDED TO THE OWNER UPON REQUEST.
- CONTRACTOR SHALL MAINTAIN A RECORD SET OF PLANS UPON WHICH IS INDICATED THE LOCATION OF EXISTING UTILITIES THAT ARE CAPPED, ABANDONED IN PLACE, OR RELOCATED DUE TO DEMOLITION ACTIVITIES. THIS RECORD DOCUMENT SHALL BE PREPARED IN A NEAT AND WORKMAN-LIKE MANNER, AND TURNED OVER TO THE OWNER/DEVELOPER UPON COMPLETION OF THE WORK.

GRADING & UTILITY PLAN NOTES

- LOCATIONS OF ALL EXISTING AND PROPOSED SERVICES ARE APPROXIMATE AND SHALL BE INDEPENDENTLY CONFIRMED WITH LOCAL UTILITY COMPANIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION OR EXCAVATION. SANITARY SEWER AND ALL OTHER UTILITY SERVICE CONNECTION POINTS SHALL BE INDEPENDENTLY CONFIRMED BY THE CONTRACTOR IN THE FIELD PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. ALL DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER. CONSTRUCTION SHALL COMMENCE REGARDING THE LOWEST ELEVATION. THE CONTRACTOR SHALL LOCATE ALL THE UNDERGROUND UTILITIES, INCLUDING BUT NOT LIMITED TO, GAS, WATER, ELECTRIC, SANITARY SEWER AND STORMWATER, TELEPHONE, CABLE, FIBER OPTIC CABLE, ETC. WITHIN THE LIMITS OF DISTURBANCE OR WORK SPACE, WHICHEVER IS GREATER. THE CONTRACTOR SHALL USE, REFER TO, AND COMPLY WITH THE REQUIREMENTS OF THE APPLICABLE UTILITY NOTIFICATION SYSTEM TO LOCATE ALL THE UNDERGROUND UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ALL DAMAGE TO ANY EXISTING UTILITIES DURING CONSTRUCTION, AT A NO COST TO THE OWNER. CONTRACTOR SHALL BEAR ALL COSTS ASSOCIATED WITH DAMAGE TO ANY EXISTING UTILITIES DURING CONSTRUCTION.
- CONTRACTOR SHALL VERTICALLY AND HORIZONTALLY LOCATE ALL UTILITIES AND SERVICES INCLUDING, BUT NOT LIMITED TO, GAS, WATER, ELECTRIC, SANITARY SEWER AND STORMWATER, TELEPHONE, CABLE, FIBER OPTIC CABLE, ETC. WITHIN THE LIMITS OF DISTURBANCE OR WORK SPACE, WHICHEVER IS GREATER. THE CONTRACTOR SHALL USE, REFER TO, AND COMPLY WITH THE REQUIREMENTS OF THE APPLICABLE UTILITY NOTIFICATION SYSTEM TO LOCATE ALL THE UNDERGROUND UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ALL DAMAGE TO ANY EXISTING UTILITIES DURING CONSTRUCTION, AT A NO COST TO THE OWNER. CONTRACTOR SHALL BEAR ALL COSTS ASSOCIATED WITH DAMAGE TO ANY EXISTING UTILITIES DURING CONSTRUCTION.
- IT IS THE CONTRACTORS RESPONSIBILITY TO REVIEW ALL CONSTRUCTION CONTRACT DOCUMENTS INCLUDING, BUT NOT LIMITED TO, ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THE PROJECT WORK SCOPE PRIOR TO THE INITIATION AND COMMENCEMENT OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT AND/OR DISCREPANCY BETWEEN THE DOCUMENTS RELATIVE TO THE SPECIFICATIONS OR THE RELATIVE OR APPLICABLE CODES, REGULATIONS, LAWS, RULES, STATUTES AND/OR ORDINANCES, IT IS THE CONTRACTORS SOLE RESPONSIBILITY TO NOTIFY THE PROJECT ENGINEER OF RECORD, IN WRITING, OF SAID CONFLICT AND/OR DISCREPANCY, PRIOR TO THE START OF CONSTRUCTION. CONTRACTORS FAILURE TO NOTIFY THE PROJECT ENGINEER SHALL CONSTITUTE CONTRACTORS FULL AND COMPLETE ACCEPTANCE OF ALL RESPONSIBILITY TO COMPLETE THE SCOPE OF WORK AS DEFINED BY THE DRAWINGS AND IN FULL COMPLIANCE WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS, LAWS, STATUTES, ORDINANCES AND CODES AND, FURTHER, CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH SAME.
- THE CONTRACTOR SHALL LOCATE AND CLEARLY AND UNAMBIGUOUSLY DEFINE VERTICALLY AND HORIZONTALLY ALL ACTIVE AND INACTIVE UTILITY AND/OR SERVICE SYSTEMS THAT ARE TO BE REMOVED. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROTECT AND MAINTAIN ALL ACTIVE AND INACTIVE SYSTEMS THAT ARE NOT BEING REMOVED/DELETED DURING SITE ACTIVITY.
- THE CONTRACTOR SHALL FAMILIARIZE ITSELF WITH THE APPLICABLE UTILITY SERVICE PROVIDER REQUIREMENTS AND SHALL BE RESPONSIBLE FOR ALL COORDINATION REGARDING UTILITY DEMOLITION AS IDENTIFIED OR REQUIRED FOR THE PROJECT. THE CONTRACTOR SHALL PROVIDE THE OWNER WITH WRITTEN NOTIFICATION THAT THE EXISTING UTILITIES AND SERVICES HAVE BEEN TERMINATED AND ABANDONED IN ACCORDANCE WITH THE JURISDICTION AND UTILITY COMPANY REQUIREMENTS AND ALL OTHER APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES.
- THE CONTRACTOR SHALL INSTALL ALL STORM SEWER AND SANITARY SEWER COMPONENTS WHICH FUNCTION BY GRAVITY PRIOR TO THE INSTALLATION OF ALL OTHER UTILITIES.
- CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF SITE PLAN DOCUMENTS AND ARCHITECTURAL DESIGN FOR EXACT BUILDING UTILITY CONNECTION LOCATIONS, GREASE TRAP REQUIREMENTS/DETAILS, DRAIN ACCESS, AND EXTERIOR GRADING. THE ARCHITECT WILL DETERMINE THE UTILITY SERVICE SIZES. THE CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES/SERVICES WITH THE INDIVIDUAL COMPANIES, TO AVOID CONFLICTS AND TO ENSURE THAT PROPER DEPTHS ARE ACHIEVED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT INSTALLATION OF ALL IMPROVEMENTS COMES WITH JURISDICTION AND/OR CONTROL OF THE SITE, AND ALL OTHER APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES AND, FURTHER, SHALL BE RESPONSIBLE FOR COORDINATING THE UTILITY RE-CONNECTIONS PRIOR TO CONNECTING TO THE EXISTING UTILITY/SERVICE, WHERE A CONFLICT(S) EXISTS BETWEEN THESE SITE PLANS AND THE ARCHITECTURAL PLANS, OR WHERE ARCHITECTURAL PLAN UTILITY CONNECTION POINTS DIFFER. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER, IN WRITING, AND PRIOR TO CONSTRUCTION, RESOLVE SAME.
- WATER LINE MATERIALS, BURIAL DEPTH, AND COVER REQUIREMENTS SHALL BE SPECIFIED BY THE LOCAL UTILITY COMPANY. CONTRACTORS PRICE FOR WATER LINE SHALL INCLUDE ALL FEES, COSTS AND APPURTENANCES REQUIRED BY THE UTILITY TO PROVIDE FULL AND COMPLETE WORKING SERVICE. CONTRACTOR SHALL CONTACT THE APPLICABLE MUNICIPALITY TO CONFIRM THE PROPER WATER METER AND VAULT, PRIOR TO COMMENCING CONSTRUCTION.
- ALL NEW UTILITIES/SERVICES, INCLUDING ELECTRIC, TELEPHONE, CABLE TV, ETC. ARE TO BE INSTALLED UNDERGROUND. ALL NEW UTILITIES/SERVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE UTILITY/SERVICE PROVIDER INSTALLATION SPECIFICATIONS AND STANDARDS.
- SITE GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT REFERENCED IN THIS PLAN SET. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND REPLACING UNSUITABLE MATERIALS WITH SUITABLE MATERIALS AS SPECIFIED IN THE GEOTECHNICAL REPORT. ALL EXCAVATED OR FILLED AREAS SHALL BE COMPACTED AS OUTLINED IN THE GEOTECHNICAL REPORT. MOISTURE CONTENT AT TIME OF PLACEMENT SHALL BE SUBMITTED IN A COMPACTION REPORT PREPARED BY A QUALIFIED GEOTECHNICAL ENGINEER, REGISTERED WITH THE STATE WHERE THE WORK IS PERFORMED, VERIFYING THAT ALL FILLED AREAS AND SUBGRADE AREAS WITHIN THE BUILDING PAD AREA AND AREAS TO BE PAVED HAVE BEEN COMPACTED IN ACCORDANCE WITH THESE PLANS, SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT AND ALL APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES. SUBBASE MATERIAL, CURB, OR ASPHALT SHALL BE FREE OF ORGANICS AND OTHER UNSUITABLE MATERIALS. SHOULD SUBBASE BE DEEMED UNSUITABLE BY OWNER/ENGINEER OR SUBCONTRACTOR, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATELY APPROVED FILL MATERIAL COMPACTED AS DIRECTED BY THE GEOTECHNICAL REPORT. EARTHWORK ACTIVITIES INCLUDING, BUT NOT LIMITED TO, EXCAVATION, BACKFILL, AND COMPACTING SHALL COMPLY WITH THE RECOMMENDATIONS IN THE GEOTECHNICAL REPORT AND ALL APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES. EARTHWORK ACTIVITIES SHALL COMPLY WITH THE STANDARD STATE DOT SPECIFICATIONS FOR ROADWAY CONSTRUCTION (LATEST EDITION) AND ANY AMENDMENTS OR REVISIONS THERETO.
- ALL FILL, COMPACTION, AND BACKFILL MATERIALS REQUIRED FOR UTILITY INSTALLATION SHALL BE PER THE RECOMMENDATIONS PROVIDED IN THE GEOTECHNICAL REPORT AND SHALL BE COMPACTED TO THE SPECIFICATIONS AND REQUIREMENTS OF THE LOCAL UTILITY COMPANY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FOR THE WORK. FURTHER, CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR EARTHWORK BALANCE.
- THE CONTRACTOR SHALL COMPLY, TO THE FULLEST EXTENT, WITH THE LATEST OSHA STANDARDS AND REGULATIONS, AND/OR ANY OTHER AGENCY WITH JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES. THE CONTRACTOR SHALL RESPONSIBLE FOR DETERMINING THE 'MEANS AND METHODS' REQUIRED TO MEET THE INTENT AND PERFORMANCE CRITERIA OF OSHA, AS WELL AS ANY OTHER ENTITY THAT HAS JURISDICTION FOR EXCAVATION AND/OR TRENCHING PROCEDURES AND CONSULTANT SHALL HAVE NO RESPONSIBILITY FOR OR AS RELATED FOR OR AS RELATED TO EXCAVATION AND TRENCHING PROCEDURES.
- PAVEMENT SHALL BE SAW CUT IN STRAIGHT LINES, AND EXCEPT FOR EDGE OF BUILT JOINTS, SHALL EXTEND TO THE FULL DEPTH OF THE EXISTING PAVEMENT. ALL DEBRIS FROM REMOVAL OPERATIONS SHALL BE REMOVED FROM THE SITE AT THE TIME OF EXCAVATION, STOCKPILING OF DEBRIS SHALL NOT BE PERMITTED.
- THE TOPS OF EXISTING MANHOLES, INLET STRUCTURES, AND SANITARY CLEANOUT TOPS SHALL BE ADJUSTED, AS NECESSARY, TO MATCH PROPOSED GRADES IN ACCORDANCE WITH ALL APPLICABLE STANDARDS, REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES.
- DURING THE INSTALLATION OF ALL UTILITIES, THE CONTRACTOR SHALL MAINTAIN A CONTEMPORANEOUS AND THOROUGH RECORD OF CONSTRUCTION TO IDENTIFY THE AS-INSTALLED LOCATIONS OF ALL UNDERGROUND INFRASTRUCTURE. THE CONTRACTOR SHALL CAREFULLY NOTE ANY INSTALLATIONS THAT DEVIATE FROM THE INFORMATION CONTAINED IN THE UTILITY PLAN. THIS RECORD SHALL BE KEPT ON A CLEAN COPY OF THE DRAINAGE OR UTILITY PLAN, WHICH CONTRACTOR SHALL PROMPTLY PROVIDE TO THE OWNER AT THE COMPLETION OF WORK.
- WHEN THE SITE IMPROVEMENT PLANS INVOLVE MULTIPLE BUILDINGS, SOME OF WHICH MAY BE BUILT AT A LATER DATE, THE CONTRACTOR SHALL EXTEND ALL LINES, INCLUDING BUT NOT LIMITED TO STORMWATER, SANITARY SEWER, UTILITIES, AND IRRIGATION LINE, TO A POINT AT LEAST FIVE (5) FEET BEYOND THE PAVED AREAS FOR WHICH THE CONTRACTOR SHALL BE RESPONSIBLE. CONTRACTOR SHALL CAP ENDS AS APPROPRIATE, MARK LOCATIONS WITH A 'X', AND SHALL NOTE THE LOCATION OF ALL OF THE ABOVE ON A CLEAN COPY OF THE DRAINAGE OR UTILITY PLAN, WHICH CONTRACTOR SHALL PROMPTLY PROVIDE TO THE OWNER UPON COMPLETION OF THE WORK.
- THE CONTRACTOR SHALL FULLY RESPONSIBLE FOR VERIFICATION OF EXISTING TOPOGRAPHIC INFORMATION AND UTILITY INVERT ELEVATIONS PRIOR TO COMMENCING ANY CONSTRUCTION. CONTRACTOR SHALL CONFIRM AND ENSURE 0.75% MINIMUM SLOPE AGAINST ALL ISLANDS, GUTTERS, AND CURBS; 1.0% ON ALL CONCRETE SURFACES, AND 1.5% MINIMUM ON ASPHALT (EXCEPT WHERE ADA REQUIREMENTS OR EXISTING TOPOGRAPHY LIMIT GRADES), TO PREVENT PONDING. CONTRACTOR SHALL IDENTIFY, IN WRITING TO THE ENGINEER, ANY DISCREPANCIES THAT MAY OR COULD AFFECT THE PUBLIC SAFETY, HEALTH OR GENERAL WELFARE, OR PROJECT COST. IF CONTRACTOR AGREES WITH CONSTRUCTION WITHOUT PROVIDING PROPER NOTIFICATION, SHALL BE AT THE CONTRACTORS OWN RISK, AND FURTHER, CONTRACTOR SHALL INDEMNIFY, DEFEND AND HOLD HARMLESS THE DESIGN ENGINEER FOR ANY DAMAGES, COSTS, INJURIES, ATTORNEYS' FEES AND THE LIKE WHICH RESULT FROM SAME.
- PROPOSED TOP OF CURB ELEVATIONS ARE GENERALLY 6" ABOVE EXISTING LOCAL ASPHALT GRADE UNLESS OTHERWISE NOTED. FIELD ADJUST TO CREATE A MINIMUM OF .075% GUTTER GRADE ALONG CURB FACE. IT SHALL BE THE CONTRACTORS OBLIGATION TO ENSURE THAT DESIGN ENGINEER APPROVES FINAL CURBING CUT SHEETS PRIOR TO INSTALLATION OF SAME.
- IN THE EVENT OF DISCREPANCIES AND/OR CONFLICTS BETWEEN PLANS OR RELATIVE TO OTHER PLANS, THE SITE PLAN SHALL TAKE PRECEDENCE AND CONTROL. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE DESIGN ENGINEER, IN WRITING, OF ANY DISCREPANCIES AND/OR CONFLICTS.
- CONTRACTOR SHALL BE REQUIRED TO SECURE ALL NECESSARY AND/OR REQUIRED PERMITS AND APPROVALS FOR ALL OFF SITE MATERIAL SOURCES AND DISPOSAL FACILITIES. CONTRACTOR SHALL SUPPLY A COPY OF APPROVALS TO ENGINEER AND OWNER PRIOR TO INITIATING ANY WORK.
- WHERE RETAINING WALLS (WHETHER OR NOT THEY MEET THE JURISDICTIONAL DEFINITION) ARE IDENTIFIED ON PLANS, ELEVATIONS IDENTIFIED ARE FOR THE EXPOSED PORTION OF THE WALL. WALL FOOTINGS/FOUNDATION ELEVATIONS ARE NOT IDENTIFIED HEREIN AND ARE TO BE SET/DETERMINED BY THE CONTRACTOR BASED ON FINAL STRUCTURAL DESIGN SHOP DRAWINGS PREPARED BY THE APPROPRIATE PROFESSIONAL LICENSED IN THE STATE WHERE THE CONSTRUCTION OCCURS.
- STORM DRAINAGE PIPE UNLESS INDICATED OTHERWISE, ALL STORM SEWER PIPE SHALL BE REINFORCED CONCRETE PIPE (RCP) CLASS III WITH SILT TIGHT JOINTS. WHEN HIGH-DENSITY POLYETHYLENE PIPE (HDPE) IS CALLED FOR ON THE PLANS, IT SHALL CONFORM TO AASHTO M24 AND TYPE S (SMOOTH INTERIOR WITH ANGULAR CORRUPTIONS) WITH GASKET FOR SILT TIGHT JOINT. PVC PIPE FOR ROOF DRAIN CONNECTION SHALL BE SDR 26 OR SCHEDULE 40 UNLESS INDICATED OTHERWISE.
- ALL PIPING MATERIAL SHALL BE AS INDICATED ON THE SEPTIC SYSTEM PLAN AND DETAIL SHEET.
- STORM AND SANITARY SEWER PIPE LENGTHS INDICATED ARE NOMINAL AND MEASURED CENTER OF INLET AND/OR MANHOLES STRUCTURE TO CENTER OF STRUCTURE.
- STORMWATER ROOF DRAIN LOCATIONS ARE BASED ON PRELIMINARY ARCHITECTURAL PLANS. CONTRACTOR SHALL BE RESPONSIBLE TO AND FOR VERIFYING LOCATIONS OF SAME BASED ON FINAL ARCHITECTURAL PLANS.
- SEWERS CROSSING STREAMS AND/OR LOCATION WITHIN 10 FEET OF THE STREAM EMBANKMENT, OR WHERE SITE CONDITIONS SO INDICATE, SHALL BE CONSTRUCTED OF STEEL, REINFORCED CONCRETE, DUCTILE IRON OR OTHER SUITABLE MATERIAL. SEWERS CONVEYING SANITARY FLOW COMBINED SANITARY AND STORMWATER FLOW OR INDUSTRIAL FLOW SHALL BE SEPARATED FROM WATER MAINS BY A DISTANCE OF AT LEAST 10 FEET HORIZONTALLY. IF SUCH LATERAL SEPARATION IS NOT POSSIBLE, THE PIPES SHALL BE IN SEPARATE TRENCHES WITH THE SEWER AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN OR SUCH OTHER APPROVED SEPARATION AS APPROVED BY THE LOCAL UTILITY AGENCY WITH JURISDICTION. IF APPROPRIATE SEPARATION CANNOT BE PROVIDED, THE WATER MAIN IS NOT POSSIBLE, THE SEWER SHALL BE ENCASED IN CONCRETE, OR CONSTRUCTED OF DUCTILE IRON PIPE USING MECHANICAL, OR SLIP-ON JOINTS FOR A DISTANCE OF AT LEAST 10 FEET ON EITHER SIDE OF THE CROSSING. IN ADDITION, ONE FULL LENGTH OF SEWER PIPE SHALL BE LOCATED SO BOTH JOINTS WILL BE AS FAR FROM THE WATER LINE AS POSSIBLE, WHERE A WATER MAIN CROSSES UNDER A SEWER, ADEQUATE STRUCTURAL SUPPORT FOR THE SEWER SHALL BE PROVIDED.
- WATER MAIN PIPING SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS AND SPECIFICATIONS OF THE LOCAL WATER COMPANY. IN THE ABSENCE OF SUCH REQUIREMENTS, WATER MAIN PIPING SHALL BE CEMENT-UNITED DUCTILE IRON (CUI) MINIMUM CLASS 52 THICKNESS. ALL PIPE AND APPURTENANCES SHALL COMPLY WITH THE APPLICABLE AWWA STANDARDS IN EFFECT AT THE TIME OF APPLICATION.
- CONTRACTOR SHALL ENSURE THAT ALL UTILITY TRENCHES LOCATED IN EXISTING PAVED ROADWAYS AND PARKING LOTS INCLUDING WATER AND ELECTRICAL CONDUITS, SHALL BE REPAIRED IN ACCORDANCE WITH REFERENCED MUNICIPAL, COUNTY AND/OR DOT DETAILS AS APPLICABLE. CONTRACTOR SHALL COORDINATE INSPECTION AND APPROVAL OF COMPLETED WORK WITH THE AGENCY WITH JURISDICTION OVER SAME.
- CONSULTANT IS NEITHER LIABLE NOR RESPONSIBLE FOR ANY SUBSURFACE CONDITIONS AND FURTHER, SHALL HAVE NO LIABILITY FOR ANY HAZARDOUS MATERIALS, HAZARDOUS SUBSTANCES, OR POLLUTANTS ON, ABOUT OR UNDER THE PROPERTY.

ADA INSTRUCTIONS TO CONTRACTOR:

- CONTRACTORS SHALL EXERCISE APPROPRIATE CARE AND PRECISION IN CONSTRUCTION OF ADA (ACCESSIBLE) ACCESSIBLE COMPONENTS AND ACCESS ROUTES FOR THE SITE. THESE COMPONENTS, AS CONSTRUCTED, SHALL COMPLY WITH ALL APPLICABLE STATE AND LOCAL ACCESSIBILITY LAWS AND REGULATIONS AND THE CURRENT ADA AND/OR STATE ARCHITECTURAL ACCESS BOARD STANDARDS AND REGULATIONS. ACCESS AND ANY MODIFICATIONS, REVISIONS AND/OR IMPROVEMENTS TO THE ACCESSIBLE ROUTES SHALL BE PROVIDED. THE ROUTE FROM PARKING SPACE, PUBLIC TRANSPORTATION, PEDESTRIAN ACCESS, INTER-BUILDING ACCESS, TO POINTS OF ACCESSIBLE BUILDING ENTRANCE/EXIT, SHALL COMPLY WITH THESE ADA AND/OR ARCHITECTURAL ACCESS BOARD CODE REQUIREMENTS. THESE INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING:
- PARKING SPACES AND PARKING AISLES - SLOPE SHALL NOT EXCEED 1:50 (1/4" PER FOOT OR NOMINALLY 2.0%) IN ANY DIRECTION.
  - CURB RAMPS - SLOPE SHALL NOT EXCEED 1:12 (8.3%) FOR A MAXIMUM OF SIX (6) FEET.
  - LANDINGS - SHALL BE PROVIDED AT EACH END OF RAMPS, SHALL PROVIDE POSITIVE DRAINAGE, AND SHALL NOT EXCEED 1:50 (1/4" PER FOOT OR NOMINALLY 2.0%) IN ANY DIRECTION.
  - PATH OF TRAVEL ALONG ACCESSIBLE ROUTE - SHALL PROVIDE A 36-INCH OR GREATER UNOBSTRUCTED WIDTH OF TRAVEL (CAR OVERHANGS AND/OR HANDRAILS CANNOT REDUCE THIS MINIMUM WIDTH). THE SLOPE SHALL BE NO GREATER THAN 1:20 (5.0%) IN THE DIRECTION OF TRAVEL, AND SHALL NOT EXCEED 1:50 (1/4" PER FOOT OR NOMINALLY 2.0%) IN CROSS SLOPE. WHERE PATH OF TRAVEL WILL BE GREATER THAN 1:20 (5.0%), ADA RAMP SHALL BE ADHERED TO. A MAXIMUM SLOPE OF 1:12 (8.3%) FOR A MAXIMUM RISE OF 2.5 FEET SHALL BE PROVIDED. THE RAMP SHALL HAVE ADA HAND RAILS AND LEVEL LANDINGS ON EACH END THAT ARE CROSS SLOPED NO MORE THAN 1:50 IN ANY DIRECTION (1/4" PER FOOT OR NOMINALLY 2.0%) FOR POSITIVE DRAINAGE.
  - DOORWAYS - SHALL HAVE A LEVEL LANDING AREA ON THE EXTERIOR SIDE OF THE DOOR THAT IS SLOPED AWAY FROM THE DOOR NO MORE THAN 1:50 (1/4" PER FOOT OR NOMINALLY 2.0%) FOR POSITIVE DRAINAGE. THIS LANDING AREA SHALL BE NO LESS THAN 60 INCHES (5 FEET) LONG, EXCEPT WHERE OTHERWISE PERMITTED BY ADA STANDARDS FOR ALTERNATIVE DOORWAY OPENING CONDITIONS. (SEE ICC/ANSI A117.1-2003 AND OTHER REFERENCED INCORPORATED BY CODE.)
  - WHEN THE PROPOSED CONSTRUCTION INVOLVES RECONSTRUCTION, MODIFICATION, REVISION OR EXTENSION OF OR TO ADA COMPONENTS FROM EXISTING DOORWAYS OR SURFACES, CONTRACTOR SHALL VERIFY EXISTING ELEVATIONS SHOWN ON THE PLAN. NOTE THAT TABLE 402.2 OF THE DEPARTMENT OF JUSTICE'S ADA STANDARDS FOR ACCESSIBLE DESIGN ALLOWS FOR STEEPEN RAMP SLOPES, IN RARE CIRCUMSTANCES. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE DESIGN ENGINEER OF ANY DISCREPANCIES AND/OR FIELD CONDITIONS THAT DIFFER IN ANY WAY OR ANY RESPECT FROM WHAT IS SHOWN ON THE PLANS, IN WRITING, BEFORE COMMENCEMENT OF WORK. CONSTRUCTED IMPROVEMENTS SHALL FALL WITHIN THE MAXIMUM AND MINIMUM LIMITATIONS IMPOSED BY THE BARRIER FREE REGULATIONS AND THE ADA REQUIREMENTS.
  - THE CONTRACTOR SHALL VERIFY THE SLOPES OF CONTRACTORS FORMS PRIOR TO POURING CONCRETE. IF ANY NON-CONFORMANCE IS OBSERVED OR EXISTS, CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER PRIOR TO POURING CONCRETE. CONTRACTOR IS RESPONSIBLE FOR ALL COSTS TO REMOVE, REPAIR AND REPLACE NON-COMFORMING CONCRETE.

IT IS STRONGLY RECOMMENDED THAT THE CONTRACTOR REVIEW THE INTENDED CONSTRUCTION WITH THE LOCAL BUILDING CODE PRIOR TO COMMENCEMENT OF CONSTRUCTION.

LEGEND

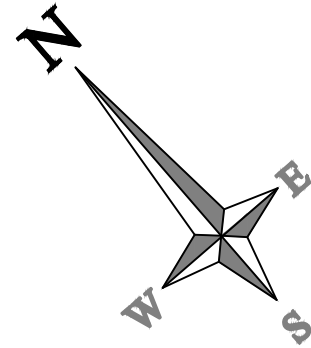
- GENERAL**
- PROPERTY LINE
  - EASEMENT
  - INTERNAL LOT LINE
  - WETLAND LINE
  - BORDERING LAND SUBJECT TO FLOODING
  - 200' RIVERFRONT AREA
  - 100' RIVERFRONT AREA
  - 100' WETLAND BUFFER ZONE
  - LIMIT OF DISTURBANCE
  - BORING LOCATION
  - MONITORING WELL
  - TEST PIT LOCATION
  - WETLAND FLAG
- SITE**
- BUILDING SETBACK
  - SAWCUT LINE
  - CONC. CURB/ASPHALT CURB
  - MONOLITHIC CONC. CURB
  - SLOPED GRANITE CURB
  - VERTICAL GRANITE CURB
  - TRANSITION CURB
  - CAPE COD BERM
  - EDGE OF PAVEMENT
  - BUILDING ENTRANCE
  - STANDARD STALL COUNT
  - TOTAL PARKING COUNT
  - ACCESSIBLE PARKING
  - VAN ACCESSIBLE PARKING
  - STOP BAR
  - PAVEMENT MARKING ARROW
  - TRAFFIC SIGN
  - BOLLARD
  - PEDESTRIAN LIGHT POLE
  - PARKING LOT LIGHT POLE
  - UTILITY POLE
  - OVERHEAD WIRE
- EROSION CONTROL**
- EROSION CONTROL BARRIER
  - STABILIZED CONSTRUCTION EXIT
  - INLET PROTECTION
- GRADING**
- SPOT SHOT
  - TOP OF CURB/ BOTTOM OF CURB
  - PROP. CONTOUR
  - SLOPE
  - RIDGE LINE
- UTILITIES**
- GAS LINE
  - TELEPHONE CONDUIT
  - ELEC. CONDUIT
  - WATER LINE
  - DRAINAGE LINE
  - SEWER LINE
  - TAPPING TEE
  - BEND W/ THRUST BLOCK
  - GATE VALVE
  - HYDRANT
  - SQUARE CATCH BASIN
  - ROUND CATCH BASIN
  - CURB INLET
  - DRAIN MANHOLE
  - SEWER MANHOLE
  - TRENCH DRAIN

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ABBREVIATIONS

BC	BOTTOM CURB	PROP.	PROPOSED
TC	TOP CURB	TBR/R	TO BE REMOVED AND REPLACED
BOC	BACK OF CURB	TBR	TO BE REMOVED
BW	BOTTOM OF WALL GRADE	TPF	TREE PROTECTION FENCE
TW	TOP OF WALL	BLDG.	BUILDING
EXIST.	EXISTING	SF	SQUARE FEET
BM.	BENCHMARK	SMH	SEWER MANHOLE
EOP	EDGE OF PAVEMENT	DMH	DRAIN MANHOLE
CL	CENTERLINE	STM.	STORM
FF	FINISHED FLOOR	SAN.	SANITARY
V.I.F.	VERIFY IN FIELD	CONC.	CONCRETE
GC	GENERAL CONTRACTOR	ARCH.	ARCHITECTURAL
HP	HIGH POINT	DEP.	DEPRESSED
LP	LOW POINT	R	RADIUS
TYP.	TYPICAL	MIN.	MINIMUM
INT.	INTERSECTION	MAX.	MAXIMUM
PC.	POINT OF CURVATURE	No. / #	NUMBER
PT.	POINT OF TANGENCY	W.	WIDE
PI.	POINT OF INTERSECTION	DEC.	DECORATIVE
PVI.	POINT OF VERTICAL INTERSECTION	ELEV.	ELEVATION
STA.	STATION	UNG.	UNDERGROUND
GRT	GRATE	R.O.W.	RIGHT OF WAY
INV.	INVERT	LF	LINEAR FOOT
DIP	DUCTILE IRON PIPE	LOD	LIMIT OF DISTURBANCE
PVC	POLYVINYL CHLORIDE PIPE	LOW	LIMIT OF WORK
HDPE	HIGH DENSITY POLYETHYLENE PIPE	L.S.A.	LANDSCAPED AREA
RCP	REINFORCED CONCRETE PIPE	±	PLUS OR MINUS
S	SLOPE	°	DEGREE
ME	MEET EXISTING	Ø / DIA.	DIAMETER
M&P	MAINTAIN & PROTECT		





FOR REGISTRY USE ONLY

BENCHMARK  
HYDRANT SPINDLE  
ELEVATION = 105.33  
(NAVD 88 DATUM)

EXISTING CATCH BASIN  
(M&P)

EXISTING PAVEMENT  
(TBR)

EXISTING BITUMINOUS  
WALK (TBR)

EXISTING LIGHT POLE  
(M&P)

EXISTING  
TREE (M&P)

EXISTING PAVEMENT  
(TBR)

EXISTING BITUMINOUS  
WALK (TBR)

EXISTING BITUMINOUS  
WALK (TBR)

EXISTING  
TREE (M&P)

PASSAGE & UTILITY EASEMENT

EXISTING SIGN (M&P)

EXISTING TREE  
(M&P)

EXISTING DRAIN LINE  
(M&P)

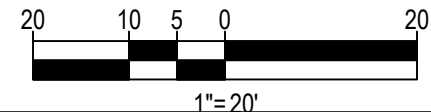
APPROXIMATE  
LIMIT OF  
CLEARING

EXISTING  
WOODED AREA  
(CLEAR & GRUB)

WETLANDS DELINEATED BY SOUTH  
RIVER ENVIRONMENTAL 10/21/22

REFER TO GENERAL NOTES & LEGEND  
SHEET FOR DEMOLITION NOTES

THIS PLAN TO BE UTILIZED FOR  
DEMOLITION/ REMOVAL  
PURPOSES ONLY



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COMMONWEALTH OF MASSACHUSETTS

ALFONSO KOKA  
CIVIL  
No. 55993  
REGISTERED PROFESSIONAL ENGINEER

PRELIMINARY

REVISIONS		NO.	DESCRIPTION	DATE	INT.	AK
1	FEED REVIEW COMMENTS	1		03/20/2023		

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PROJECT TITLE: SITE DEVELOPMENT PLANS

PREPARED FOR: AKPT

REVIEWED BY: KS

DATE: 01/10/23

SCALE: AS SHOWN

PROJECT #: 1622000082

SHEET TITLE: DEMOLITION PLAN

SITE ADDRESS: 29 WINTER STREET, PEMBROKE, MA

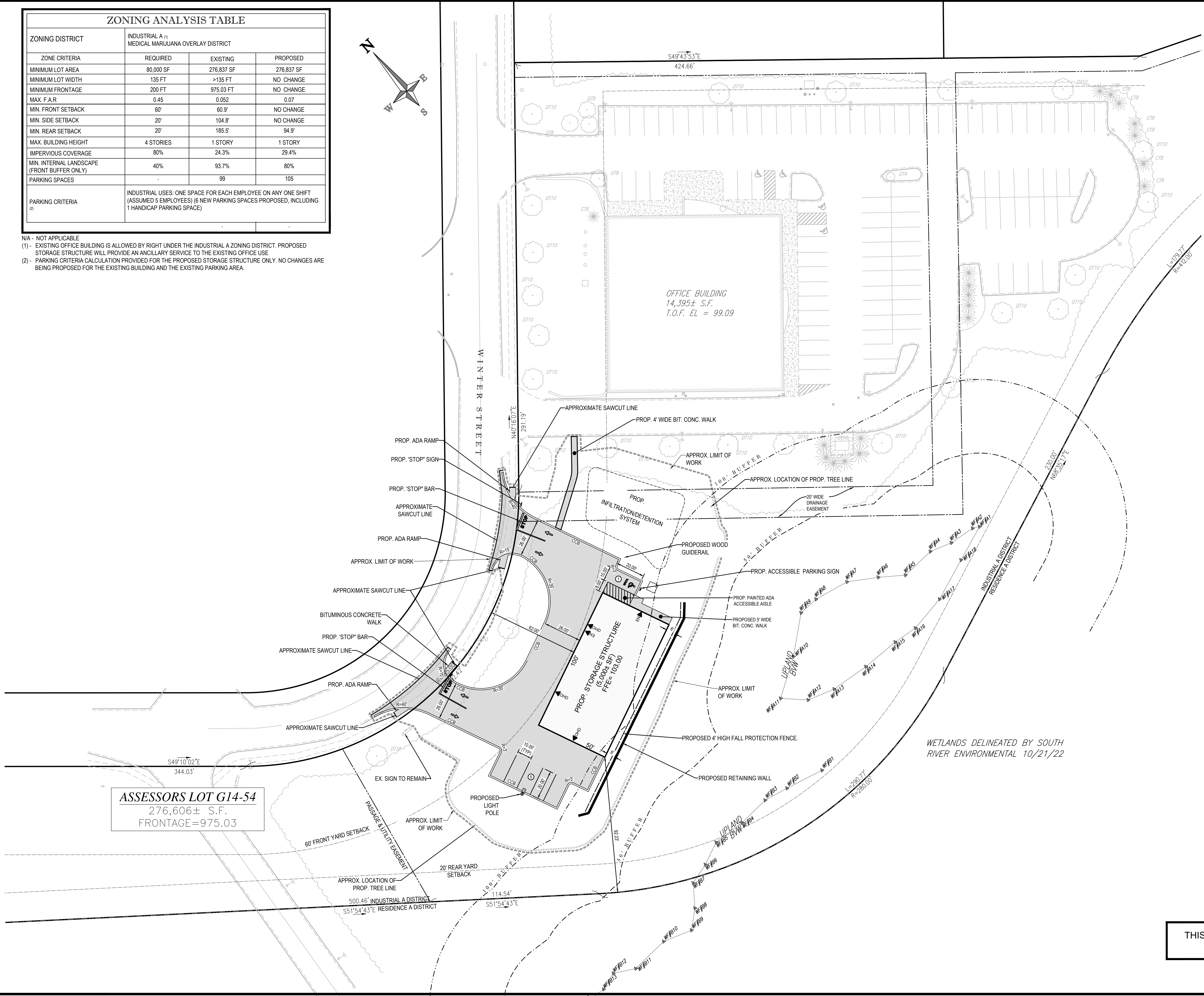
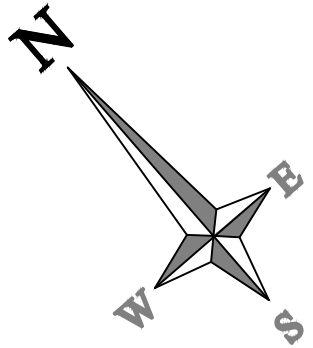
C-3

SHEET NO.



ZONING ANALYSIS TABLE			
ZONING DISTRICT	INDUSTRIAL A (1) MEDICAL MARIJUANA OVERLAY DISTRICT		
ZONE CRITERIA	REQUIRED	EXISTING	PROPOSED
MINIMUM LOT AREA	80,000 SF	276,837 SF	276,837 SF
MINIMUM LOT WIDTH	135 FT	>135 FT	NO CHANGE
MINIMUM FRONTAGE	200 FT	975.03 FT	NO CHANGE
MAX. F.A.R.	0.45	0.052	0.07
MIN. FRONT SETBACK	60'	60.9'	NO CHANGE
MIN. SIDE SETBACK	20'	104.8'	NO CHANGE
MIN. REAR SETBACK	20'	185.5'	94.9'
MAX. BUILDING HEIGHT	4 STORIES	1 STORY	1 STORY
IMPERVIOUS COVERAGE	80%	24.3%	29.4%
MIN. INTERNAL LANDSCAPE (FRONT BUFFER ONLY)	40%	93.7%	80%
PARKING SPACES	-	99	105
PARKING CRITERIA (2)	INDUSTRIAL USES: ONE SPACE FOR EACH EMPLOYEE ON ANY ONE SHIFT (ASSUMED 5 EMPLOYEES) (6 NEW PARKING SPACES PROPOSED, INCLUDING 1 HANDICAP PARKING SPACE)		

N/A - NOT APPLICABLE  
(1) - EXISTING OFFICE BUILDING IS ALLOWED BY RIGHT UNDER THE INDUSTRIAL A ZONING DISTRICT. PROPOSED STORAGE STRUCTURE WILL PROVIDE AN ANCILLARY SERVICE TO THE EXISTING OFFICE USE  
(2) - PARKING CRITERIA CALCULATION PROVIDED FOR THE PROPOSED STORAGE STRUCTURE ONLY. NO CHANGES ARE BEING PROPOSED FOR THE EXISTING BUILDING AND THE EXISTING PARKING AREA.

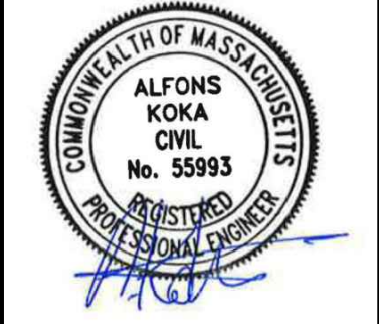


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ASSESSORS PARCEL G13-  
#189 OAK STREET  
N/F UHS OF WESTWOOD PEMBROKE  
DEED BOOK 19824 PAGE 3

EBI Consulting

21 B Street | Burlington, MA 01803  
Tel: 781.273.2500 | Fax: 781.273.3311  
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1	FEED REVIEW COMMENTS	03/20/2023	AK

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ELECTRICAL DESIGN & CONTRACTING

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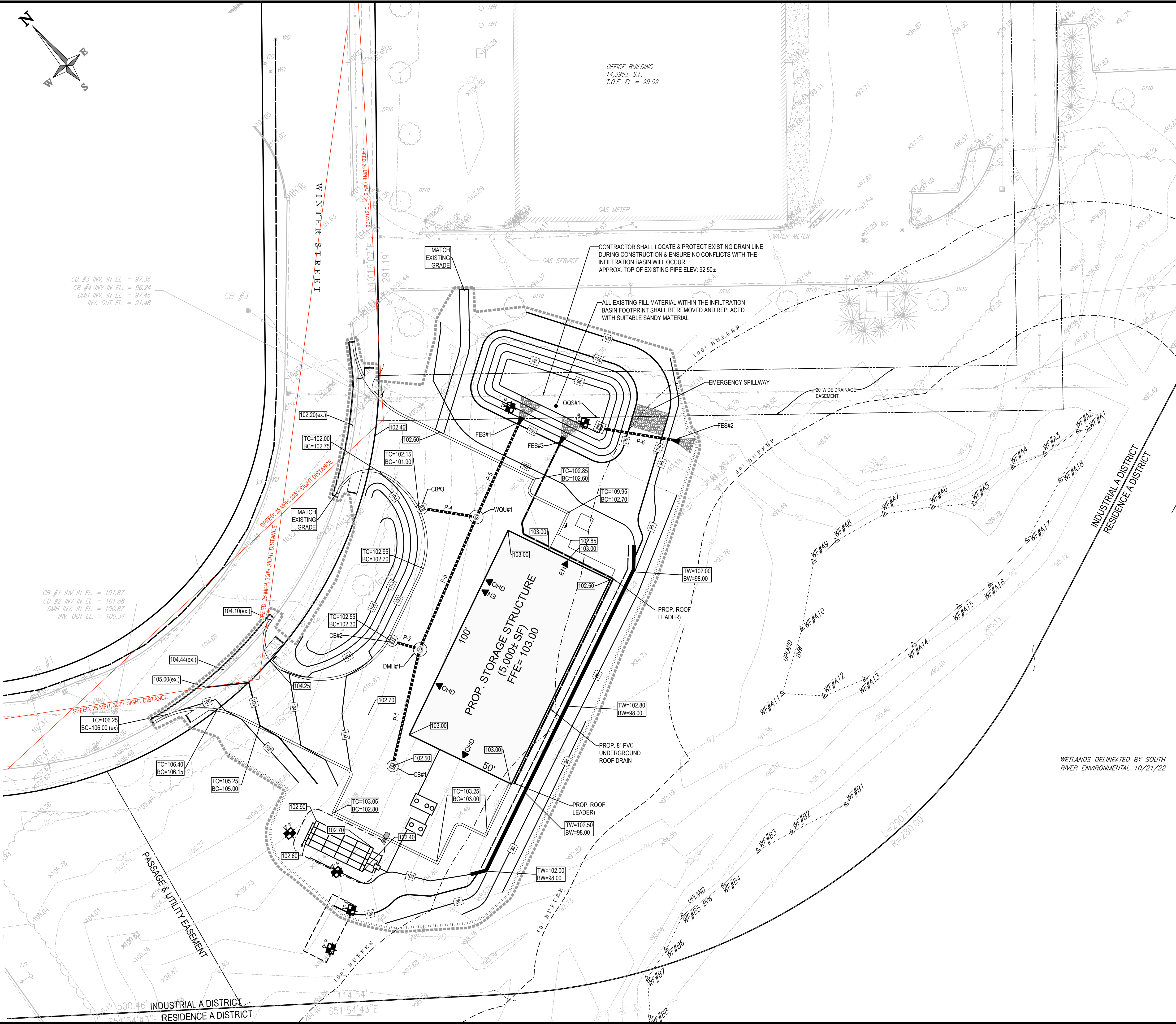
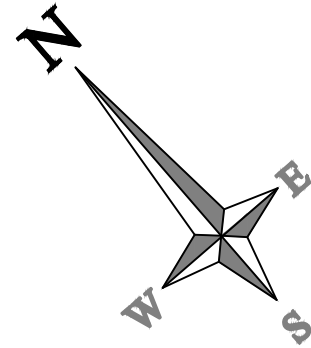
PROJECT TITLE: SITE DEVELOPMENT PLANS

SHEET TITLE: SITE PLAN

C-4

29 WINTER STREET, PEMBROKE, MA





CB #3 INV. IN EL. = 97.36  
CB #4 INV. IN EL. = 96.24  
DMH INV. IN EL. = 97.46  
INV. OUT EL. = 91.48

CB #1 INV. IN EL. = 101.87  
CB #2 INV. IN EL. = 101.88  
DMH INV. IN EL. = 100.87  
INV. OUT EL. = 100.34

OFFICE BUILDING  
14,395± S.F.  
T.O.F. EL. = 99.09

CONTRACTOR SHALL LOCATE & PROTECT EXISTING DRAIN LINE  
DURING CONSTRUCTION & ENSURE NO CONFLICTS WITH THE  
INFILTRATION BASIN WILL OCCUR.  
APPROX. TOP OF EXISTING PIPE ELEV: 92.50±

ALL EXISTING FILL MATERIAL WITHIN THE INFILTRATION  
BASIN FOOTPRINT SHALL BE REMOVED AND REPLACED  
WITH SUITABLE SANDY MATERIAL

WETLANDS DELINEATED BY SOUTH  
RIVER ENVIRONMENTAL 10/21/22

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#### TEST PIT #5

DATE: 12/20/2022  
PERFORMED BY: PETER THERRIEN (SE 14401)

0"	ELEV.=98.0
36"	FILL ELEV.=95.0
80"	C SANDY LOAM 2.5 Y 54 ELEV.=91.3
80"	NO MOTTILING OBSERVED

#### TEST PIT #6

DATE: 12/20/2022  
PERFORMED BY: PETER THERRIEN (SE 14401)

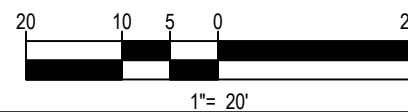
0"	ELEV.=96.2
24"	FILL ELEV.=94.2
80"	STANDING WATER ELEV.=89.5
86"	C SANDY LOAM 2.5 Y 54 ELEV.=89.0
86"	NO MOTTILING OBSERVED

#### SCHEDULE OF DRAIN INVERTS

STRUCTURE	RIM	PIPE SEGMENT	INVERT	LENGTH	SLOPE
CB#1	102.50	P-1	12" INV. OUT = 99.50	48'	0.5%
DMH#1	102.70	P-1	12" INV. IN = 99.25	48'	0.5%
		P-2	12" INV. IN = 99.25	8'	0.6%
		P-3	12" INV. OUT = 99.15	59'	0.6%
CB#2	102.30	P-2	12" INV. OUT = 99.30	8'	0.6%
WQU#1	102.60	P-3	12" INV. IN = 98.80	59'	0.6%
		P-4	12" INV. IN = 98.80	20'	0.5%
		P-5	12" INV. OUT = 98.80	37'	1.1%
CB#3	101.90	P-4	12" INV. OUT = 98.90	20'	0.5%
FES#1		P-5	12" INV. IN = 98.00	38'	1.1%
OC#W1	100.00		6" ORIFICE = 98.00		
FES#2		P-6	12" INV. OUT = 96.00	30'	6.7%
		P-6	12" INV. = 94.00	30'	6.7%

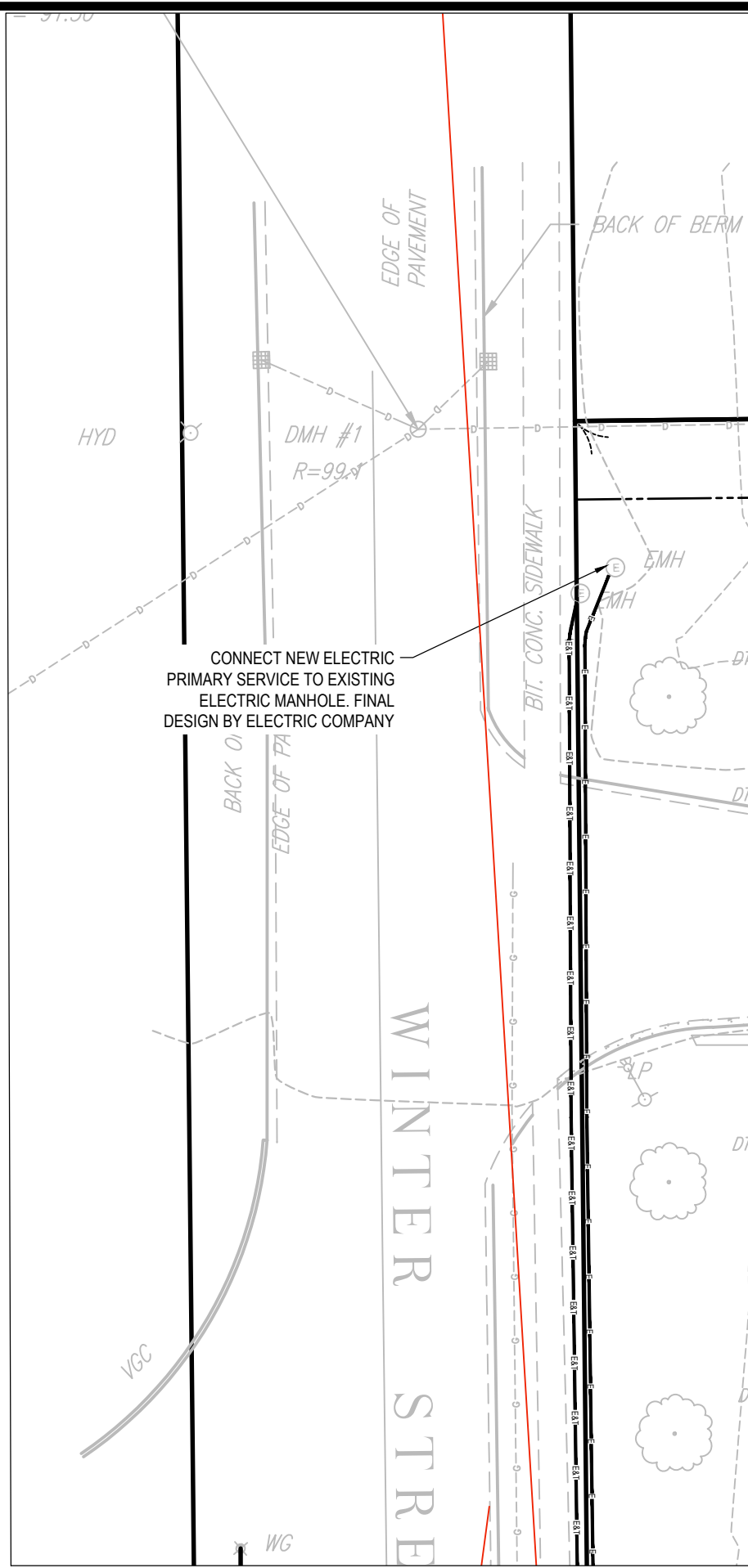
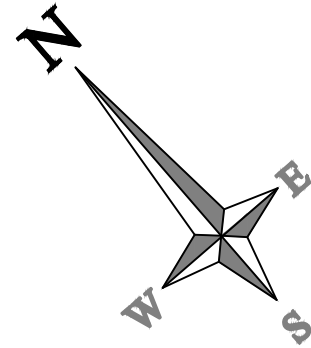
THIS PLAN TO BE UTILIZED FOR SITE  
GRADING PURPOSES ONLY

REFER TO GENERAL NOTES &  
LEGEND SHEET  
FOR GRADING & UTILITY NOTES



NO.	DATE	DESCRIPTION	INT.	AK
1	03/20/2023	FEED REVIEW COMMENTS		





INSET  
SCALE: 1"=20'

SEE INSET FOR ELECTRICAL CONNECTION

PROPOSED UNDERGROUND  
TELECOM CONDUIT  
(FINAL CONDUIT DESIGN BY  
TELECOM COMPANY)

PROPOSED UNDERGROUND PRIMARY ELECTRIC  
CONDUIT  
(FINAL CONDUIT DESIGN BY ELECTRIC COMPANY)

CONNECT NEW GAS SERVICE TO EXISTING GAS MAIN  
(CONTRACTOR TO FIELD VERIFY LOCATION OF EXISTING GAS  
MAIN PRIOR TO THE START OF CONSTRUCTION ACTIVITIES)

CONNECT NEW GAS SERVICE TO EXISTING GAS MAIN  
(CONTRACTOR TO FIELD VERIFY LOCATION OF EXISTING GAS  
MAIN PRIOR TO THE START OF CONSTRUCTION ACTIVITIES)

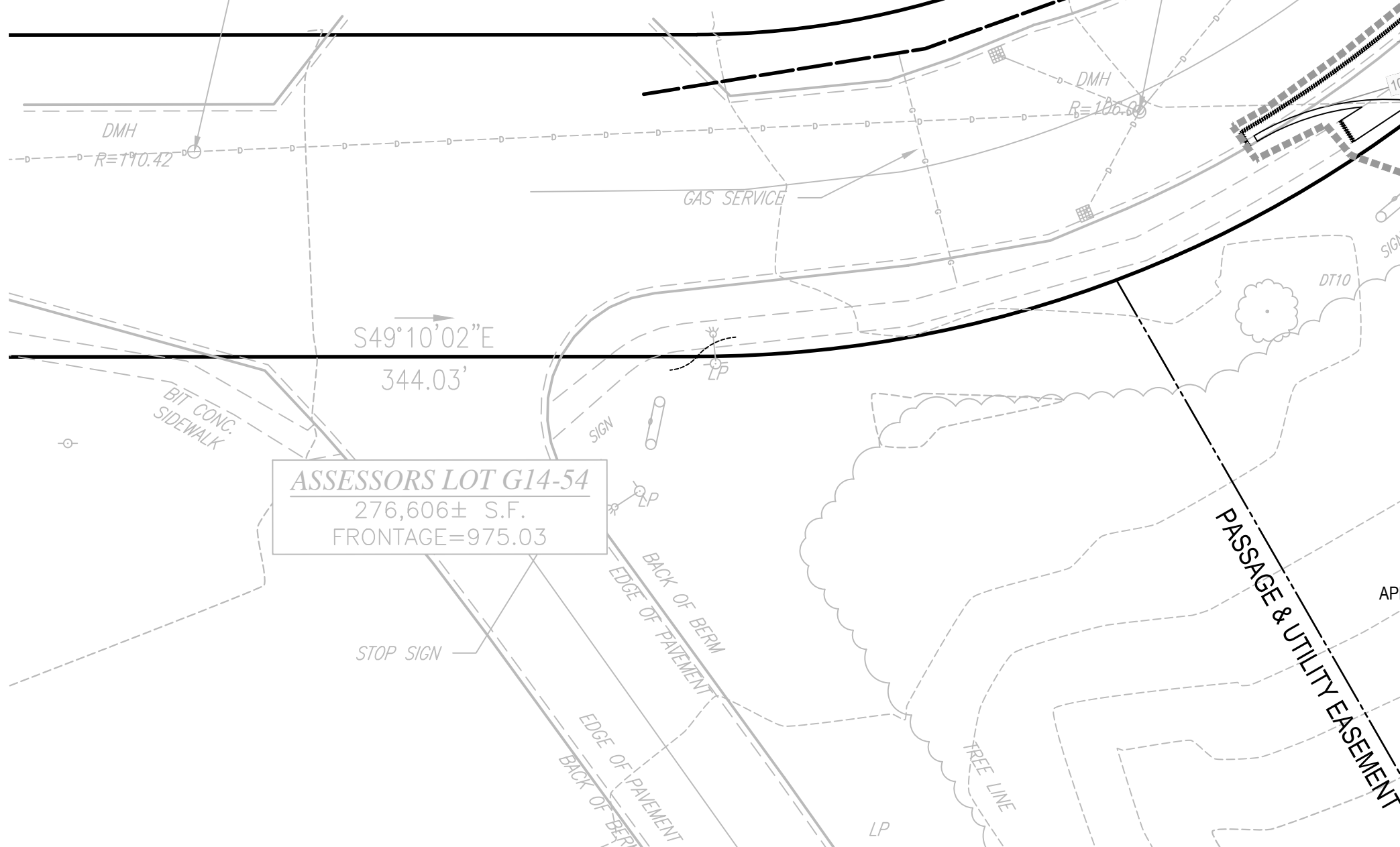
HYDRANT SPINDLE  
ELEVATION = 105.33  
(NAVD 88 DATUM)

CONNECT NEW 1" WATER LINE TO EXISTING  
WATER MAIN. INSTALL CORP. STOP  
(CONTRACTOR TO FIELD VERIFY LOCATION OF  
EXISTING WATER MAIN PRIOR TO THE START OF  
CONSTRUCTION ACTIVITIES)

APPROXIMATE LOCATION OF EXISTING 8" WATER  
MAIN. CONTRACTOR TO FIELD VERIFY WATER MAIN  
LOCATION, MATERIAL AND SIZE PRIOR TO THE  
START OF CONSTRUCTION ACTIVITIES.

CB #1 INV IN EL. = 101.87  
CB #2 INV IN EL. = 101.88  
DMH INV. IN EL. = 100.87  
INV. OUT EL. = 100.34

INV IN EL. = 101.96  
INV. OUT EL. = 101.92



ASSESSORS LOT G14-54  
276,606± S.F.  
FRONTAGE=975.03

OFFICE BUILDING  
14,395± S.F.  
T.O.F. EL. = 99.09

FOR REGISTRY USE ONLY



PRELIMINARY

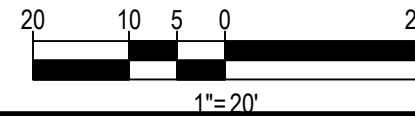
NO.	DESCRIPTION	DATE	INT.
1	FEED REVIEW COMMENTS	03/20/2023	AK



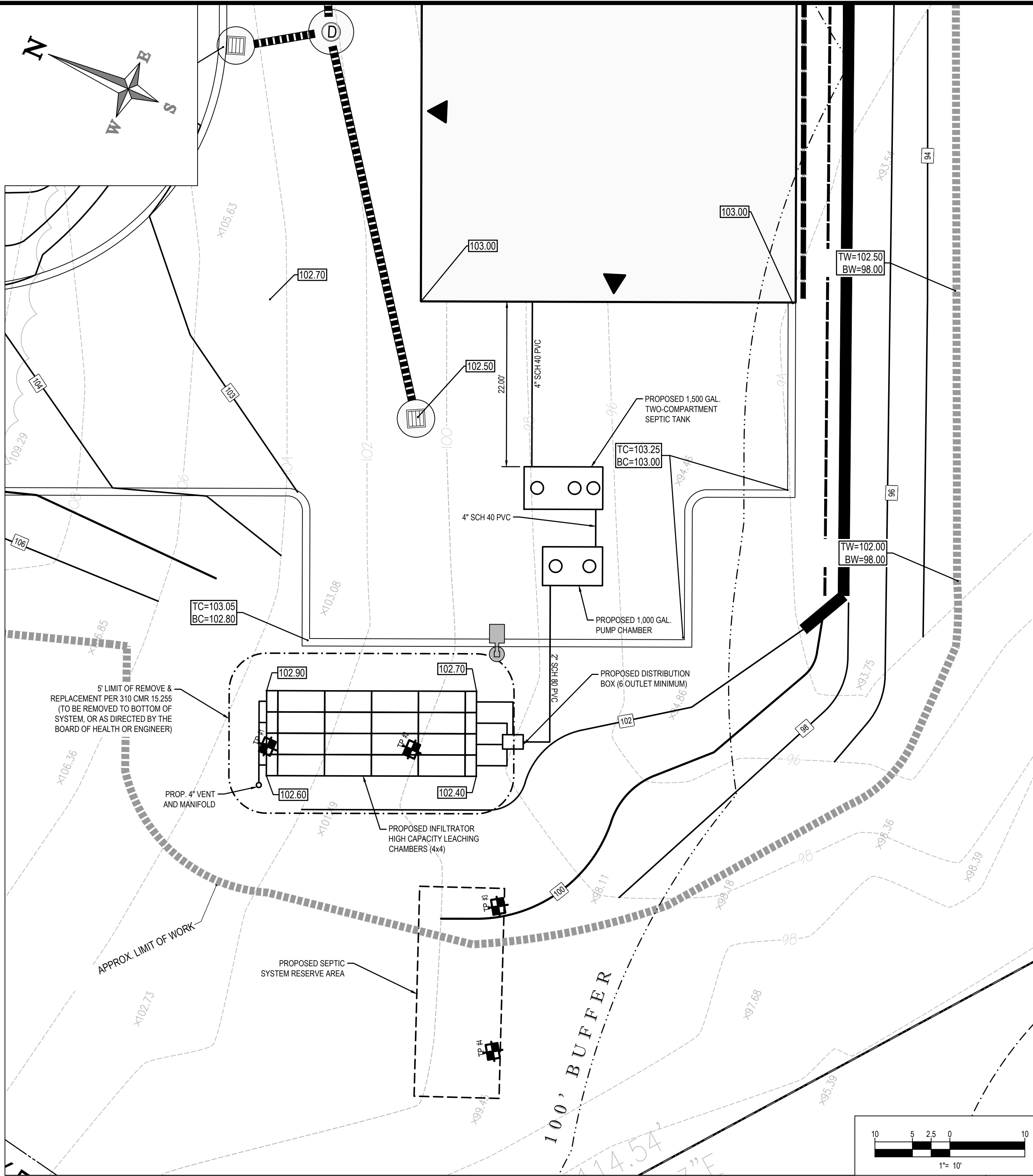
PROJECT TITLE: <b>SITE DEVELOPMENT PLANS</b>	DRAWN BY: AKPT	REVIEWED BY: KS	DATE: 01/10/23	SCALE: AS SHOWN	PROJECT #: 162200082
SHEET TITLE: <b>UTILITY PLAN</b>	SITE ADDRESS: 29 WINTER STREET, PEMROKE, MA				

THIS PLAN TO BE UTILIZED FOR UTILITIES  
PURPOSES ONLY

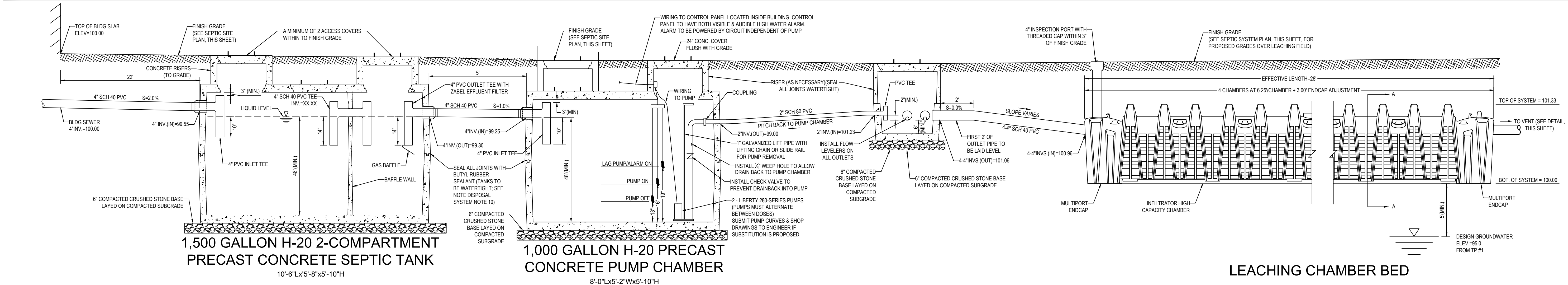
REFER TO GENERAL NOTES &  
LEGEND SHEET  
FOR GRADING & UTILITY NOTES







SEPTIC SYSTEM PLAN



SECTION THROUGH SEWAGE DISPOSAL SYSTEM

## DESIGN CALCULATIONS

### DESIGN DATA:

- TYPE OF ESTABLISHMENT: WAREHOUSE
- DESIGN FLOW REQUIREMENTS: 15 GPD/PERSON
- DESIGN FLOW: 15 GPD/PERSON x 5 EMPLOYEES = 75 GPD -> 200 GPD
- SOIL TYPE CLASS: DESIGN PERCOLATION RATE: SANDY LOAM, CLASS II, 20 MPI
- LONG TERM ACCEPTANCE RATE: 0.53 GPD/SF
- EFFECTIVE LEACHING AREA: 473 SF
- EFFECTIVE LEACHING AREA PER MASS DEP APPROVAL LETTER FOR INFILTRATOR HIGH CAPACITY LEACHING CHAMBERS

### SEPTIC TANK CAPACITY:

- REQUIRED FIRST COMPARTMENT VOLUME: 200 GPD x 2 DAYS = 400 GALLONS -> 1,000 GAL. FIRST COMPARTMENT
- REQUIRED SECOND COMPARTMENT VOLUME: 200 GPD x 1 DAY = 200 GALLONS -> 500 GAL. SECOND COMPARTMENT
- PROPOSED SEPTIC TANK: 2-COMPARTMENT, 1,500 GALLON PRECAST CONCRETE SEPTIC TANK
- 1,000 GALLON FIRST COMPARTMENT; 500 GALLON SECOND COMPARTMENT

### LEACHING AREA SIZING REQUIREMENTS:

- REQUIRED LEACHING AREA = 200 GPD / 0.53 GPD/SF = 377.4 SF
- REQUIRED SYSTEM LENGTH = 377.4 SF / 4.73 SF/L = 79.8 LF
- NUMBER OF CHAMBERS: 79.8 LF / 6.25 LF/CHAMBER = 12.8 CHAMBERS -> 15 CHAMBERS (5x3)

### PUMP SIZING REQUIREMENTS:

- DESIRED DOSE RATE: 200 GPD / 4 DOSES/DAY = 50 GAL/DOSE
- PUMP CHAMBER INCREMENTAL VOLUME: 1,000 GAL / 48" (BELOW INVERT) = 20.83 GAL/IN
- DRAIN BACK VOLUME: 24" OF 2" SCH 80 PIPE = 4.8 GAL
- RESIDUAL VOLUME: 13" (PUMP OFF) x 20.83 GAL/IN = 271 GAL
- PUMP CYCLE: [50 GAL (DOSE) + 4 GAL (DRAINBACK)] / 20.83 GAL/IN = 2.8" -> 3" PUMP CYCLE (62 GAL)
- PUMP ON VOLUME: (13" + 3") x 20.83 GAL/IN = 333 GAL
- ALARM VOLUME: 15" x 20.83 GAL/IN = 312 GAL
- RESERVE VOLUME: 1,000 GAL (FULL) - 386 GAL (ALARM) = 614 GAL + 200 GAL
- VERTICAL HEAD: [10' (220GPD INVERT) - 56.33 (SUCTION) ELEV.] + 4.8'
- FRICITION HEAD @ 60 GPM [20' + 40' (EQUIVALENT LENGTH OF FITTINGS)] x 0.0094 = 3.34'
- TOTAL HEAD = 4.8' + 1.7' + 3.0' = 9.5'
- PUMP MODEL: 2 - LIBERTY 280-SERIES PUMPS (PUMPS MUST ALTERNATE BETWEEN DOSES) (CONTRACTOR TO SUBMIT PUMP CURVES TO ENGINEER IF ALTERNATIVE IS PROPOSED)
- DOSE TIME: 62 GAL/DOSE / 99 GAL/MIN = 1.1 MIN. PER DOSE

### BUOYANCY CALCULATIONS:

- SEPTIC TANK BUOYANCY (ASSUME TANK IS EMPTY AND FULLY INUNDATED):
  - DISPLACEMENT VOLUME: 10.50' x 6.75' x 8.3' = 547.1 CF
  - DISPLACEMENT WEIGHT: 547.1 CF x 62.4 LB/CF = 21,659 LBS
  - WEIGHT OF 1,500 GAL H-20 SEPTIC TANK FROM SHEA CONCRETE: 14,395 LBS
  - WEIGHT OF SOIL OVER TANK: [10.50' x 6.75' x 7' (SOIL DEPTH)] x [100 LB/CF] = 10,121 LBS
  - BALLAST WEIGHT REQUIRED: 21,659 LBS - 14,395 LBS - 10,121 LBS = -2,857 LBS -> NO BALLAST REQUIRED
- PUMP CHAMBER BUOYANCY (ASSUME TANK IS EMPTY AND FULLY INUNDATED):
  - DISPLACEMENT VOLUME: 8.00' x 7.75' x 8.1' = 511.1 CF
  - DISPLACEMENT WEIGHT: 511.1 CF x 62.4 LB/CF = 15,945 LBS
  - WEIGHT OF 1,000 GAL H-20 PUMP CHAMBER FROM SHEA CONCRETE: 9,785 LBS
  - WEIGHT OF SOIL OVER TANK: [8.00' x 7.75' x 7' (SOIL DEPTH)] x [100 LB/CF] = 8,272 LBS
  - BALLAST WEIGHT REQUIRED: 15,945 LBS - 9,785 LBS - 8,272 LBS = -2,112 LBS -> NO BALLAST REQUIRED
- DISTRIBUTION BOX BUOYANCY (ASSUME TANK IS EMPTY AND FULLY INUNDATED):
  - DISPLACEMENT VOLUME: 2.75' x 8.21' x 7.7' = 9.0 CF
  - DISPLACEMENT WEIGHT: 9.0 CF x 62.4 LB/CF = 562 LBS
  - WEIGHT OF 6" OUTLET DISTRIBUTION BAFFLE BOX FROM SHEA CONCRETE: 734 LBS
  - WEIGHT OF SOIL OVER BOX: [2.75' x 8.21' x 3' (SOIL DEPTH)] x [100 LB/CF] = 686 LBS
  - BALLAST WEIGHT REQUIRED: 562 LBS - 734 LBS - 686 LBS = -858 LBS -> NO BALLAST REQUIRED

### TEST PIT #1

DATE: 12/20/2022  
PERFORMED BY: PETER THERRIEN  
WITNESSED BY: LISA CULLITY  
PERCOLATION RATE: 17 MPI

0"	ELEV.=103.2
FILL	
64"	ELEV.=97.9
PERC. SPLIT	
65"	ELEV.=97.8
STANDING WATER	
98"	ELEV.=96.0
C	
124"	LOAMY FINE SAND 2.5 Y 6/3 ELEV.=92.3

### TEST PIT #2

DATE: 12/20/2022  
PERFORMED BY: PETER THERRIEN  
WITNESSED BY: LISA CULLITY

0"	ELEV.=100.3
FILL	
50"	ELEV.=96.1
STANDING WATER	
72"	ELEV.=94.3
C	
126"	LOAMY FINE SAND 2.5 Y 6/3 ELEV.=98.8

### TEST PIT #3

DATE: 12/20/2022  
PERFORMED BY: PETER THERRIEN  
WITNESSED BY: LISA CULLITY  
PERCOLATION RATE: 7 LBS

0"	ELEV.=99.0
A	
3"	SANDY LOAM 10 YR 3/3 ELEV.=98.8
PERC. SPLIT	
28"	ELEV.=96.7
STANDING WATER	
72"	ELEV.=93.0
C	
120"	LOAMY MEDIUM SAND 2.5 Y 6/3 ELEV.=98.0

### TEST PIT #4

DATE: 12/20/2022  
PERFORMED BY: PETER THERRIEN  
WITNESSED BY: LISA CULLITY

0"	ELEV.=99.0
A	
4"	SANDY LOAM 10 YR 3/3 ELEV.=98.7
PERC. SPLIT	
70"	ELEV.=93.2
STANDING WATER	
132"	LOAMY MEDIUM SAND 2.5 Y 6/3 ELEV.=98.0

TEST PIT DATA

## DISPOSAL SYSTEM NOTES

NOTE: CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH THE NOTES AND SPECIFICATIONS CONTAINED HEREIN. CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT ALL SUBCONTRACTORS FULLY AND COMPLETELY CONFORM TO AND COMPLY WITH THESE REQUIREMENTS.

- ALL ELEVATIONS ARE REFERENCED TO THE BENCHMARKS AND DATUM NOTED ON THIS PLAN.
- ALL CONSTRUCTION METHODS, MATERIALS AND DISPOSAL SYSTEM COMPONENTS MUST BE IN CONFORMANCE WITH TITLE 5 OF THE MASSACHUSETTS STATE SANITARY CODE AND ANY REGULATIONS ESTABLISHED BY THE LOCAL BOARD OF HEALTH.
- PERCOLATION TESTS AND TEST PIT LOGS ARE ONLY INDICATIVE OF THE CONDITIONS OBSERVED AT THEIR LOCATION. THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER AND LOCAL BOARD OF HEALTH IF SOIL CONDITIONS WITHIN THE LEACHING AREA VARY FROM THOSE NOTED ON THIS PLAN.
- PRIOR TO PLACEMENT OF ANY FILL, SAND, OR LEACHING COMPONENTS, THE BASE OF THE EXCAVATION MUST BE INSPECTED AND APPROVED BY THE LOCAL BOARD OF HEALTH AND THE DESIGN ENGINEER.
- EXCAVATE ANY UNSUITABLE MATERIAL, BELOW THE BASE OF, AND FIVE FEET AROUND THE LEACHING AREA TO THE TOP OF THE MOST RESTRICTIVE LAYER (APPROXIMATELY ELEVATION) 1' OR AS DIRECTED BY THE LOCAL BOARD OF HEALTH AND/OR THE DESIGN ENGINEER.
- ALL FILL MATERIAL SHALL BE CLEAN GRANULAR MATERIAL AND SHALL BE FREE FROM IRONS, CLAY, AND FINES. FILL MATERIAL SHALL COMPLY WITH THE REQUIREMENTS OF TITLE 5 AND BE APPROVED BY THE LOCAL BOARD OF HEALTH AND DESIGN ENGINEER.
- ALL FINISH GRADES SHALL COMPLY WITH THOSE SHOWN ON THE PLAN, AND IN NO CASE MAY BE LESS THAN 12" ABOVE THE TOP OF THE LEACHING SYSTEM.
- BACKFILL OF THE LEACHING FIELD AND ALL SYSTEM COMPONENTS SHALL NOT OCCUR UNTIL THE SYSTEM HAS BEEN INSPECTED BY A REPRESENTATIVE OF THE LOCAL BOARD OF HEALTH AND THE DESIGN ENGINEER.
- ALL PIPING OUTSIDE OF THE DISPOSAL AREA SHALL BE WATER TIGHT.
- PRIOR TO BACKFILL, ALL SYSTEM TANKS SHALL BE TESTED FOR LEAKAGE USING THE 24 HOUR STATIC WATER LEVEL TEST (FILLED TANKS MUST RETAIN AT LEAST 99% OF THE DESIGN TANK VOLUME OVER A 24 HOUR PERIOD).
- NO GARBAGE GRINDERS/DISPOSALS SHALL BE ALLOWED TO DISCHARGE INTO THIS SYSTEM.
- DESIGN ENGINEER ASSUMES NO LIABILITY FOR DAMAGES AS A RESULT OF FAULTY CONSTRUCTION OR ANY DEVIATION FROM ALIGNMENT AND GRADE AS SPECIFIED HEREIN WITHOUT PRIOR NOTIFICATION AND APPROVAL OF THE DESIGN ENGINEER.
- SYSTEM INSTALLER TO FIELD VERIFY LOCATION AND ELEVATIONS OF ALL EXISTING PIPES AND CONNECTIONS PRIOR TO PLACEMENT OF NEW SYSTEM COMPONENTS. REPORT ANY DISCREPANCIES TO THE DESIGN ENGINEER.
- THE CONTRACTOR SHALL CONTACT DISSAFE AT 811 AND OBTAIN A TICKET AT LEAST 3 BUSINESS DAYS PRIOR TO EXCAVATION.
- THE PROPOSED LEACHING SYSTEM CONSISTS OF A XX'X'X'X' LEACHING BED UTILIZING INFILTRATOR QUICK 4 PLUS STANDARD LEACHING CHAMBERS. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS ON ANY ALTERNATIVE PRIOR TO CONSTRUCTION.
- CONSTRUCTION AND OPERATION OF TREATMENT SYSTEM SHALL MEET MASSACHUSETTS DEP GENERAL USE CERTIFICATION FOR INFILTRATOR WATER TECHNOLOGIES, LLC (DEP TRANSMITTAL NUMBER X29183, DATED 02/19/2015 AND LAST MODIFIED 06/12/2015).
- CONTRACTOR TO PLACE MAGNETIC TRACE TAPE OVER ALL SEPTIC SYSTEMS COMPONENTS INCLUDING BUILDING SEWER, SEPTIC TANK, PUMP CHAMBER, DISTRIBUTION BOX, LEACHING FIELD, AND ALL SYSTEM PIPING.

FOR REGISTRY USE ONLY

THIS PLAN TO BE UTILIZED FOR SEPTIC SYSTEM PURPOSES ONLY

DISPOSAL AREA VENT DETAIL

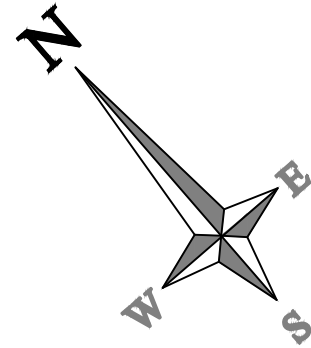
MULTIPORT CAP

SECTION A-A: TYPICAL BED

LEACHING CHAMBER BED

NO.	DESCRIPTION	DATE	INT.	AK
1	PEER REVIEW COMMENTS	03/20/2023		





WINTER STREET

OFFICE BUILDING  
14,395± S.F.  
T.O.F. EL. = 99.09

FOR REGISTRY USE ONLY

CB #3 INV. IN EL. = 97.36  
CB #4 INV. IN EL. = 96.24  
DMH INV. IN EL. = 97.46  
INV. OUT EL. = 91.48

BENCHMARK  
HYDRANT SPINDLE  
ELEVATION = 105.33  
(NAVD 88 DATUM)

PROP. INLET PROTECTION DEVICE TO BE  
INSTALLED ON EXISTING CATCH BASINS AT  
THE START OF CONSTRUCTION ACTIVITIES.  
INLET PROTECTION DEVICES TO REMAIN IN  
PLACE FOR THE REMAINDER OF  
CONSTRUCTION ACTIVITIES (TYP.)

CB #1 INV. IN EL. = 101.87  
CB #2 INV. IN EL. = 101.88  
DMH INV. IN EL. = 100.87  
INV. OUT EL. = 100.34

EXISTING TREE TO  
BE PROTECTED  
DURING  
CONSTRUCTION

PROP.  
ANTI-TRACKING  
CONSTRUCTION  
ENTRY/EXIT

PROP. INLET PROTECTION DEVICE TO  
BE INSTALLED ON PROPOSED CATCH  
BASINS AFTER INSTALLATION. INLET  
PROTECTION DEVICES TO REMAIN IN  
PLACE FOR THE REMAINDER OF  
CONSTRUCTION ACTIVITIES (TYP.)

TEMPORARY SOIL STOCKPILE AREA  
SURROUNDED BY STRAW WATTLES AND  
SILT FENCE

PROP. STRAW WATTLE EROSION  
CONTROL BARRIER WITH SILT FENCE.  
CONTRACTOR TO INSPECT EROSION  
CONTROL BARRIER PERIODICALLY AND  
REPLACE AS REQUIRED (TYP.)

PROPOSED INFILTRATION BASIN  
SHALL NOT BE UTILIZED AS A  
TEMPORARY SEDIMENT BASIN  
DURING CONSTRUCTION  
ACTIVITIES AND SHALL BE  
PROTECTED FROM HEAVY  
CONSTRUCTION TRAFFIC

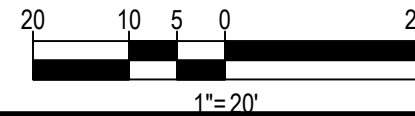
PROP. STRAW WATTLE EROSION  
CONTROL BARRIER WITH SILT FENCE.  
CONTRACTOR TO INSPECT EROSION  
CONTROL BARRIER PERIODICALLY AND  
REPLACE AS REQUIRED (TYP.)

PROP. STRAW WATTLE EROSION  
CONTROL BARRIER WITH SILT FENCE.  
CONTRACTOR TO INSPECT EROSION  
CONTROL BARRIER PERIODICALLY AND  
REPLACE AS REQUIRED (TYP.)

WETLANDS DELINEATED BY SOUTH  
RIVER ENVIRONMENTAL 10/21/22

THIS PLAN TO BE UTILIZED FOR SITE SOIL  
AND EROSION CONTROL PURPOSES ONLY

REFER TO EROSION NOTES & DETAIL  
SHEET FOR EROSION NOTES AND DETAILS



**EBI Consulting**  
21 B Street | Burlington, MA 01803  
Tel: 781.273.2500 | Fax: 781.273.3311  
www.ebiconsulting.com



PRELIMINARY

REVISIONS		NO.	DESCRIPTION	DATE	INT.	AK
1	1	FEER REVIEW COMMENTS	03/20/2023			

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PROJECT TITLE: <b>SITE DEVELOPMENT PLANS</b>	PREPARED BY: AK/PT	REVIEWED BY: KS	DATE: 07/19/23	SCALE: AS SHOWN	PROJECT #: 1622000082
SHEET TITLE: <b>EROSION CONTROL PLAN</b>					
SITE ADDRESS: 29 WINTER STREET, PEMBROKE, MA					

**C-8**

SHEET NO.



EROSION & SEDIMENT CONTROL NOTES

- ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE DONE AS SET FORTH IN THE MOST CURRENT STATE SEDIMENT AND EROSION CONTROL MANUAL.
- THOSE AREAS UNDERGOING ACTUAL CONSTRUCTION WILL BE LEFT IN AN UNTREATED OR UNVEGETATED CONDITION FOR A MINIMUM TIME. AREAS SHALL BE PERMANENTLY STABILIZED WITHIN 15 DAYS OF FINAL GRADING AND TEMPORARILY STABILIZED WITHIN 30 DAYS OF INITIAL DISTURBANCE OF THE SOIL. IF THE DISTURBANCE IS WITHIN 100 FEET OF A STREAM OR POND, THE AREA SHALL BE STABILIZED WITHIN 7 DAYS OR PRIOR TO ANY STORM EVENT (THIS WOULD INCLUDE WETLANDS).
- SEDIMENT BARRIERS (SILT FENCE, STRAW BARRIERS, ETC.) SHOULD BE INSTALLED PRIOR TO ANY SOIL DISTURBANCE OF THE CONTRIBUTING DRAINAGE AREA ABOVE THEM. MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL AREAS WITH SLOPES GREATER THAN 15% AFTER OCTOBER 1ST THE SAME APPLIES FOR ALL SLOPES GREATER THAN 8%.
- INSTALL SILTATION BARRIER AT TOE OF SLOPE TO FILTER SILT FROM RUNOFF. SEE SILTATION BARRIER DETAILS FOR PROPER INSTALLATION. SILTATION BARRIER WILL REMAIN IN PLACE PER NOTE #5.
- ALL EROSION CONTROL STRUCTURES WILL BE INSPECTED, REPLACED AND/OR REPAIRED EVERY 7 DAYS AND IMMEDIATELY FOLLOWING ANY SIGNIFICANT RAINFALL OR SNOW MELT OR WHEN NO LONGER SERVICEABLE DUE TO SEDIMENT ACCUMULATION OR DECOMPOSITION. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY SHALL BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE HALF THE HEIGHT OF THE BARRIER. SEDIMENT CONTROL DEVICES SHALL REMAIN IN PLACE AND BE MAINTAINED BY THE CONTRACTOR UNTIL AREAS UPSLOPE ARE STABILIZED BY TURF.
- NO SLOPES, EITHER PERMANENT OR TEMPORARY, SHALL BE STEEPER THAN TWO TO ONE (2:1).
- IF FINAL SEEDING OF THE DISTURBED AREAS IS NOT COMPLETED 45 DAYS PRIOR TO THE FIRST KILLING FROST, USE TEMPORARY MULCH (DORMANT SEEDING MAY BE ATTEMPTED AS WELL) TO PROTECT THE SITE AND DELAY SEEDING UNTIL THE NEXT RECOMMENDED SEEDING PERIOD.
- TEMPORARY SEEDING OF DISTURBED AREAS THAT HAVE NOT BEEN FINAL GRADED SHALL BE COMPLETED 45 DAYS PRIOR TO THE FIRST KILLING FROST TO PROTECT FROM SPRING RUNOFF PROBLEMS.
- DURING THE CONSTRUCTION PHASE, INTERCEPTED SEDIMENT WILL BE RETURNED TO THE SITE AND REGRADED ONTO OPEN AREAS.
- REVEGETATION MEASURES WILL COMMENCE UPON COMPLETION OF CONSTRUCTION EXCEPT AS NOTED ABOVE. ALL DISTURBED AREAS NOT OTHERWISE STABILIZED WILL BE GRADED, SMOOTHED, AND PREPARED FOR FINAL SEEDING AS FOLLOWS:
  - SIX INCHES OF LOAM WILL BE SPREAD OVER DISTURBED AREAS AND SMOOTHED TO A UNIFORM SURFACE.
  - APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL, FERTILIZER MAY BE APPLIED AT THE RATE OF 800 LB PER ACRE OR 16.4 LB PER 1,000 SF USING 10-20-20 OR EQUIVALENT. APPLY GROUND LIMESTONE (EQUIVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDE) AT A RATE OF 3 TONS PER ACRE (138 LB PER 1,000 SF).
  - FOLLOWING SEED BED PREPARATION, DITCHES AND BACK SLOPES WILL BE SEEDDED TO A MIXTURE OF 47% CREEPING RED FESCUE, 5% REDTOP, AND 48% TALL FESCUE. THE LAWN AREAS WILL BE SEEDDED TO A PREMIUM TURF MIXTURE OF 44% KENTUCKY BLUEGRASS, 44% CREEPING RED FESCUE, AND 12% PERENNIAL RYEGRASS. SEEDING RATE IS 1.03 LBS PER 1,000 SF LAWN QUALITY SOD MAY BE SUBSTITUTED FOR SEED.
  - STRAW MULCH AT THE RATE OF 70-90 LBS PER 1,000 SF. A HYDRO-APPLICATION OF WOOD OR PAPER FIBER SHALL BE APPLIED FOLLOWING SEEDING. A SUITABLE BINDER SUCH AS CURASOL OR RMB PLUS WILL BE USED ON STRAW MULCH FOR WIND CONTROL.
- ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED ONCE THE SITE IS STABILIZED.
- WETLANDS WILL BE PROTECTED WITHIN BALES AND/OR SILT FENCE INSTALLED AT THE EDGE OF THE WETLAND OR THE BOUNDARY OF WETLAND DISTURBANCE.
- ALL AREAS WITHIN 100 FEET OF A FLAGGED WETLAND OR STREAM SHALL HAVE AN EXPOSURE WINDOW OF NOT MORE THAN 7 DAYS.
- ALL AREAS WITHIN 100 FEET OF A FLAGGED WETLAND OR STREAM SHALL FOLLOW APPROPRIATE EROSION CONTROL MEASURES PRIOR TO EACH STORM IF NOT BEING ACTIVELY WORKED.

MULCH

LOCATION PROTECT AREA	MULCH STRAW	RATE (1000 SF) 100 POUNDS
WINDY AREA	SHREDDED OR CHOPPED CORNSTALKS STRAW (ANCHORED)	185-275 POUNDS 100 POUNDS
MODERATE TO HIGH VELOCITY AREAS OR STEEP SLOPES GREATER THAN 3:1	JUTE MESH OR EXCELSIOR MAT	AS REQUIRED
GREATER THAN 3:1	(REFER TO GEOTECHNICAL REPORT FOR FINAL DESIGN REQUIREMENT)	

\* A HYDRO-APPLICATION OF WOOD, OR PAPER FIBER MAY BE APPLIED FOLLOWING SEEDING. A SUITABLE BINDER SUCH AS CURASOL OR RMB PLUS SHALL BE USED ON STRAW MULCH FOR WIND CONTROL.

MULCH ANCHORING  
ANCHOR MULCH WITH PEG AND TWINE (1 SQ. YD/BLOCK); MULCH NETTING (AS PER MANUFACTURER); WOOD CELLULOSE FIBER (750 LBS/ACRE); CHEMICAL TACK (AS PER MANUFACTURER'S SPECIFICATIONS); USE OF A SERATED STRAIGHT DISK. WETTING FOR SMALL AREAS AND ROAD DITCHES MAY BE PERMITTED.

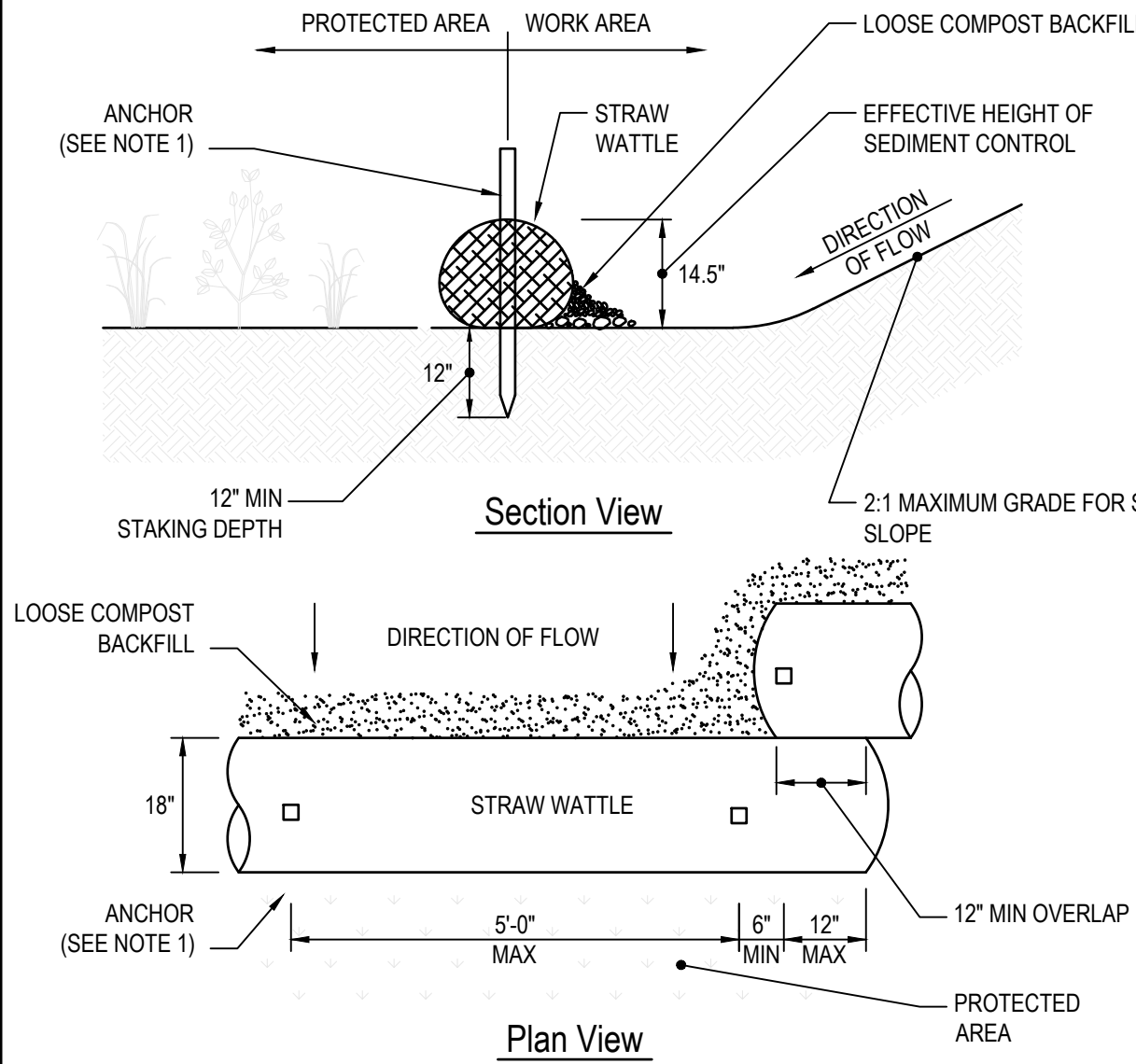
EROSION CONTROL NOTES DURING WINTER CONSTRUCTION

- WINTER CONSTRUCTION PERIOD: NOVEMBER 1 THROUGH APRIL 15.
- WINTER EXCAVATION AND EARTHWORK SHALL BE DONE SUCH THAT NO MORE THAN 1 ACRE OF THE SITE IS WITHOUT STABILIZATION AT ANY ONE TIME.
- EXPOSED AREA SHOULD BE LIMITED TO THAT WHICH CAN BE MULCHED IN ONE DAY PRIOR TO ANY SNOW EVENT.
- CONTINUATION OF EARTHWORK OPERATION ON ADDITIONAL AREAS SHALL NOT BEGIN UNTIL THE EXPOSED SOIL SURFACE ON THE AREA BEING WORKED HAS BEEN STABILIZED SUCH THAT NO LARGER AREA OF THE SITE IS WITHOUT EROSION CONTROL PROTECTION AS LISTED IN ITEM 2 ABOVE.
- AN AREA SHALL BE CONSIDERED TO HAVE BEEN STABILIZED WHEN EXPOSED SURFACES HAVE BEEN EITHER MULCHED WITH STRAW OR straw AT A RATE OF 100 LB. PER 1,000 SQUARE FEET (WITH OR WITHOUT SEEDING) OR DORMANT SEEDDED, MULCHED AND ADEQUATELY ANCHORED BY AN APPROVED ANCHORING TECHNIQUE.
- BETWEEN THE DATES OF OCTOBER 15 AND APRIL 15, LOAM OR SEED WILL NOT BE REQUIRED. DURING PERIODS OF ABOVE FREEZING TEMPERATURES THE SLOPES SHALL BE FINE GRADED AND EITHER PROTECTED WITH MULCH OR TEMPORARILY SEEDDED AND MULCHED UNTIL SUCH TIME AS THE FINAL TREATMENT CAN BE APPLIED. IF THE DATE IS AFTER NOVEMBER 1ST AND IF THE EXPOSED AREA HAS BEEN LOAMED, FINAL GRADED AND IS SMOOTH, THEN THE AREA MAY BE DORMANT SEEDDED AT A RATE OF 200 - 300% HIGHER THAN SPECIFIED FOR PERMANENT SEED AND THEN MULCHED. IF CONSTRUCTION CONTINUES DURING FREEZING WEATHER, ALL EXPOSED AREAS SHALL BE CONTINUOUSLY GRADED BEFORE FREEZING AND THE SURFACE TEMPORARILY PROTECTED FROM EROSION BY THE APPLICATION OF MULCH. SLOPES SHALL NOT BE LEFT UNEXPOSED OVER THE WINTER OR ANY OTHER EXTENDED TIME OF WORK SUSPENSION UNLESS TREATED IN THE ABOVE MANNER. UNTIL SUCH TIME AS WEATHER CONDITIONS ALLOW DITCHES TO BE FINISHED WITH THE PERMANENT SURFACE TREATMENT, EROSION SHALL BE CONTROLLED BY THE INSTALLATION OF BALES OF straw OR STONE CHECK DAMS IN ACCORDANCE WITH THE STANDARD DETAILS.
- MULCHING REQUIREMENTS:
  - BETWEEN THE DATES OF NOVEMBER 1ST AND APRIL 15TH ALL MULCH SHALL BE ANCHORED BY EITHER PEG LINE, MULCH NETTING OR WOOD CELLULOSE FIBER.
  - MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL DRAINAGE WAYS WITH A SLOPE GREATER THAN 3% FOR SLOPE EXPOSED TO DIRECT WINDS AND FOR ALL OTHER SLOPES GREATER THAN 8%.
  - MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL AREAS WITH SLOPES GREATER THAN 15% AFTER OCTOBER 1ST THE SAME APPLIES FOR ALL SLOPES GREATER THAN 8%.
- AFTER NOVEMBER 1ST THE CONTRACTOR SHALL APPLY DORMANT SEEDING OR MULCH AND ANCHORING ON ALL BARE EARTH AT THE END OF EACH WORKING DAY.
- DURING THE WINTER CONSTRUCTION PERIOD ALL SNOW SHALL BE REMOVED FROM AREAS OF SEEDING AND MULCHING PRIOR TO PLACEMENT.
- STOCKPILING OF MATERIALS (DIRT, WOOD, CONSTRUCTION MATERIALS, ETC.) SHALL REMAIN COVERED AT ALL TIMES TO MINIMIZE ANY DUST PROBLEMS THAT MAY OCCUR WITH ADJACENT PROPERTIES AND TO PROVIDE MAXIMUM PROTECTION AGAINST EROSION RUNOFF.
- EXISTING CATCH BASIN STRUCTURES SHALL BE PROTECTED UNTIL SUCH TIME AS THEY ARE REMOVED.

CONSTRUCTION SEQUENCE

THE FOLLOWING CONSTRUCTION SEQUENCE IS RECOMMENDED:

- INSTALLATION OF STABILIZED CONSTRUCTION ENTRANCE/EXIT (AS SHOWN)
- INSTALLATION OF EROSION CONTROL BARRIER (STRAW BALES AND SILT FENCE) (AS SHOWN)
- INSTALLATION OF INLET PROTECTION IN STREET (AS SHOWN)
- DEMOLITION OF EXISTING SITE PAVEMENT AND AMENITIES (SEE DEMOLITION PLAN)
- CLEARING AND GRUBBING (SEE DEMOLITION PLAN)
- EARTHWORK AND EXCAVATION/FILLING AS NECESSARY
- CONSTRUCTION OF UTILITIES (EXCLUDING SANITARY)
- STABILIZE PERMANENT LAWN AREAS AND SLOPES WITH TEMPORARY SEEDING
- INSTALLATION OF INLET PROTECTION OF ON-SITE UTILITIES (AS SHOWN)
- CONSTRUCTION OF BUILDINGS
- CONSTRUCTION OF SEPTIC SYSTEM
- CONSTRUCTION OF ALL CURBING AND LANDSCAPE ISLANDS AS INDICATED ON THE PLANS
- SPREAD TOPSOIL ON SLOPED AREAS AND SEED AND MULCH
- FINAL GRADING OF ALL SLOPED AREAS
- PLACE 6" TOPSOIL ON SLOPES AFTER FINAL GRADING COMPLETED. FERTILIZE, SEED, AND MULCH SEED MIXTURE TO BE INSTALLED AS REQUIRED.
- PAVE PARKING LOT AND BERM
- LANDSCAPING PER LANDSCAPING PLAN
- REMOVE EROSION CONTROLS AS DISTURBED AREAS BECOME STABILIZED TO 70% STABILIZATION OR GREATER.

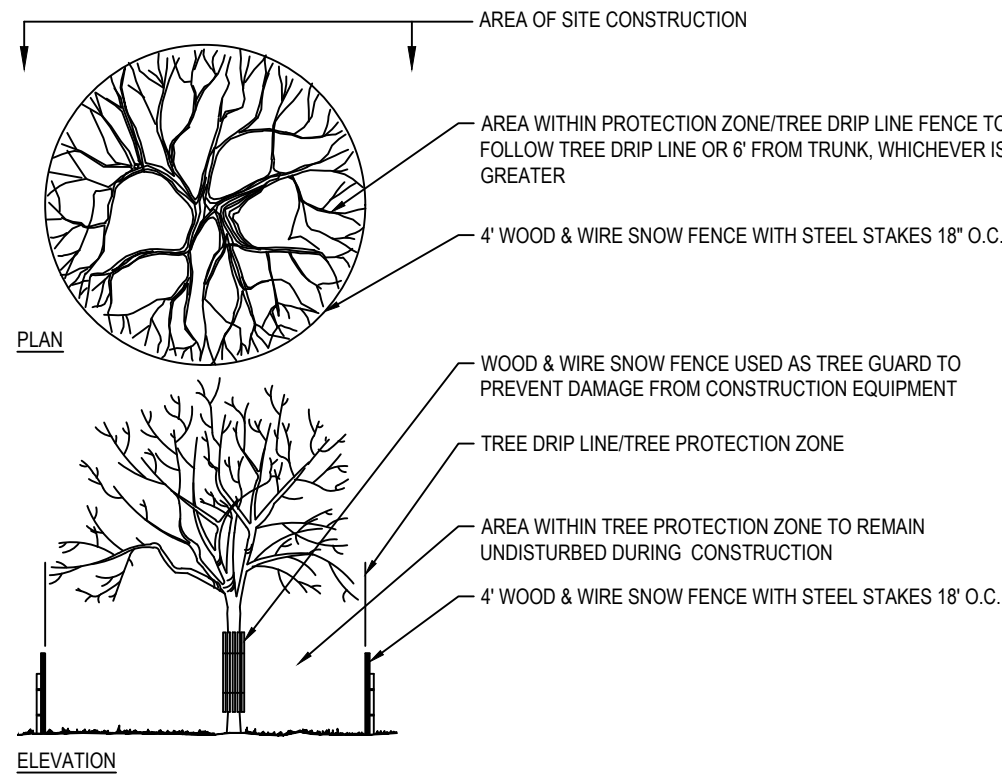


CONSTRUCTION NOTES

- ANCHOR TO BE A 2" X 2" X 36" HARD WOOD STAKE, OR APPROVED EQUAL.
- COMPOST FOR SILT SOCK FILL MATERIAL TO BE PROVIDED BY THE MANUFACTURER IN CONJUNCTION WITH THE ENGINEER TO PROVIDE THE REQUIRED REMOVAL OF SEDIMENT OR OTHER POLLUTANTS FROM RUNOFF.
- COMPOST MATERIAL SHALL BE DISPERSED ON SITE, AS DETERMINED BY THE LOCAL CONSERVATION AGENT OR THE DESIGN ENGINEER.
- SILT SOCK SHALL BE INSPECTED AT LEAST ONCE EVERY SEVEN DAYS OR PER LOCAL AND STATE REQUIREMENTS. REPAIR OR REPLACEMENT SHALL BE PERFORMED PROMPTLY, AS NEEDED.
- METHOD OF INSTALLATION SHALL BE AS PER MANUFACTURER'S RECOMMENDATIONS.

STRAW BALE DETAIL

N.T.S.



TREE PROTECTION DURING CONSTRUCTION

N.T.S.

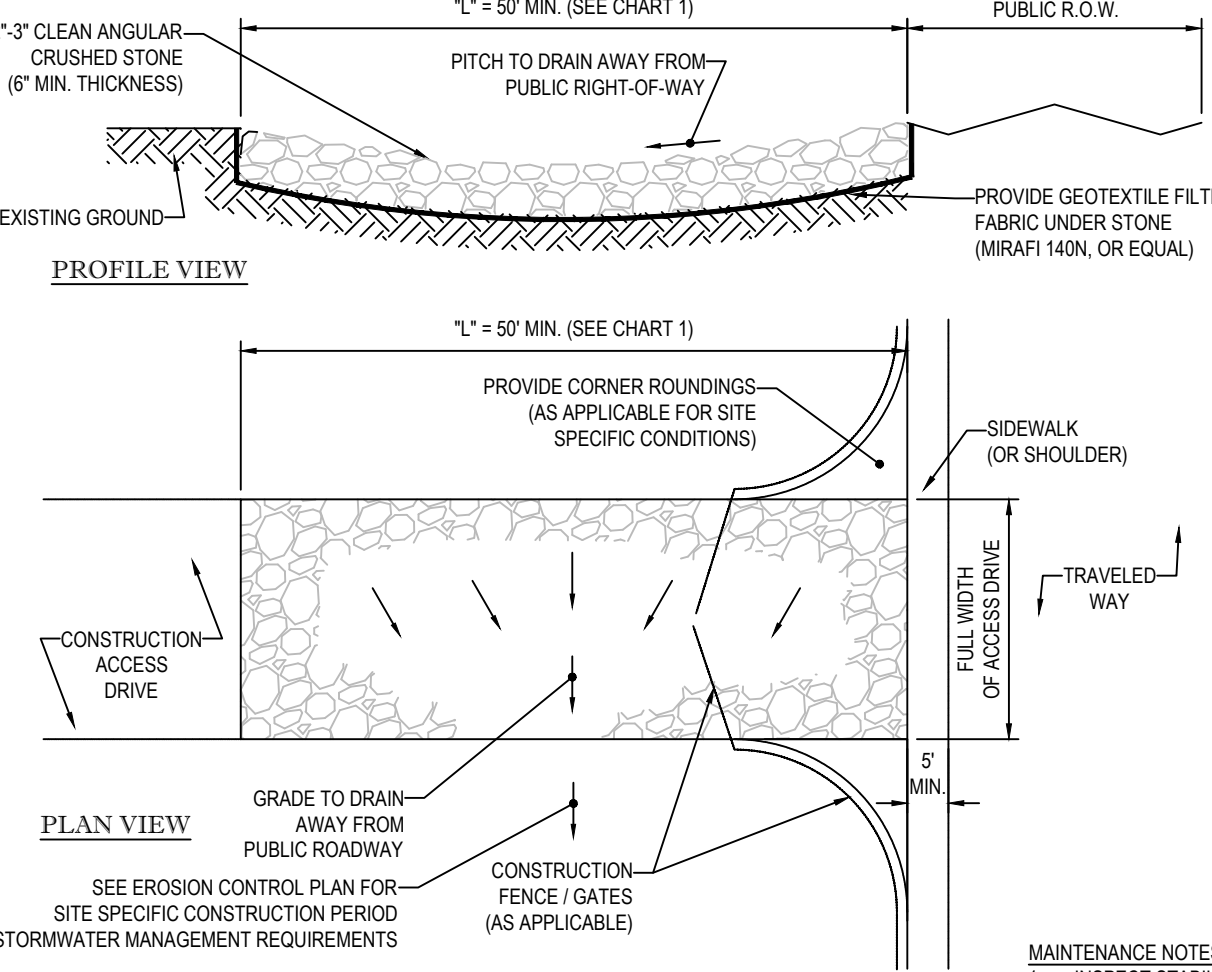


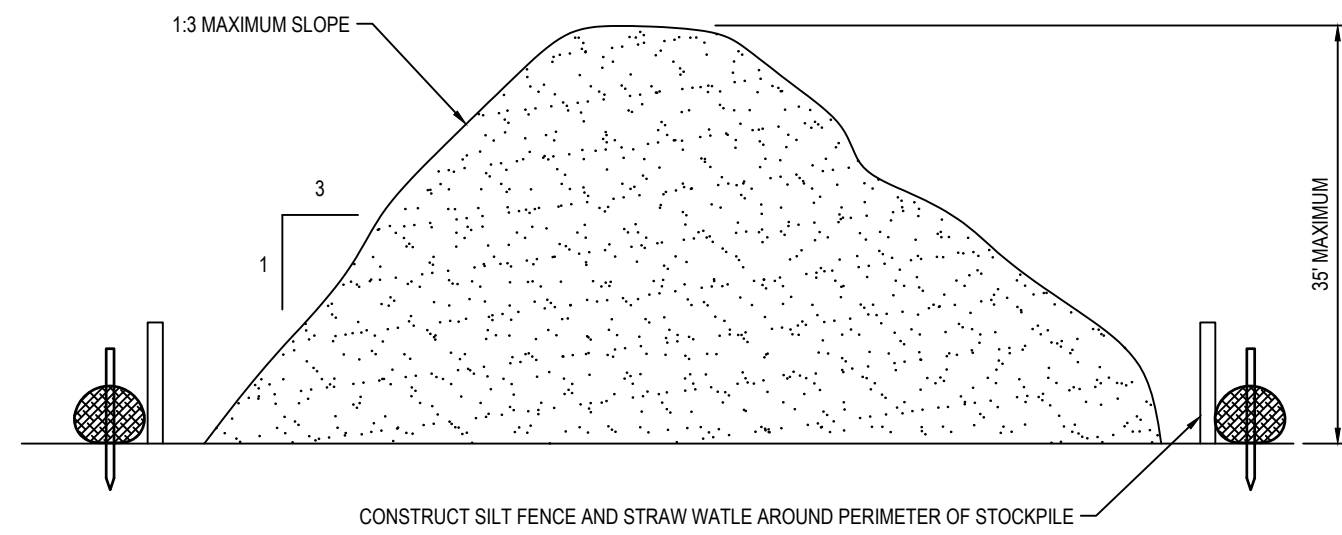
CHART 1

PERCENT SLOPE OF ROADWAY	LENGTH OF STONE REQUIRED	
	COARSE GRAINED SOILS	FINE GRAINED SOILS
0 TO 2%	50 FT	100 FT
2% TO 5%	100 FT	200 FT
>5%	ENTIRE ENTRANCE STABILIZED WITH FABRIC BASE COURSE (1)	

(1) AS PRESCRIBED BY LOCAL ORDINANCE OR OTHER GOVERNING AUTHORITY.

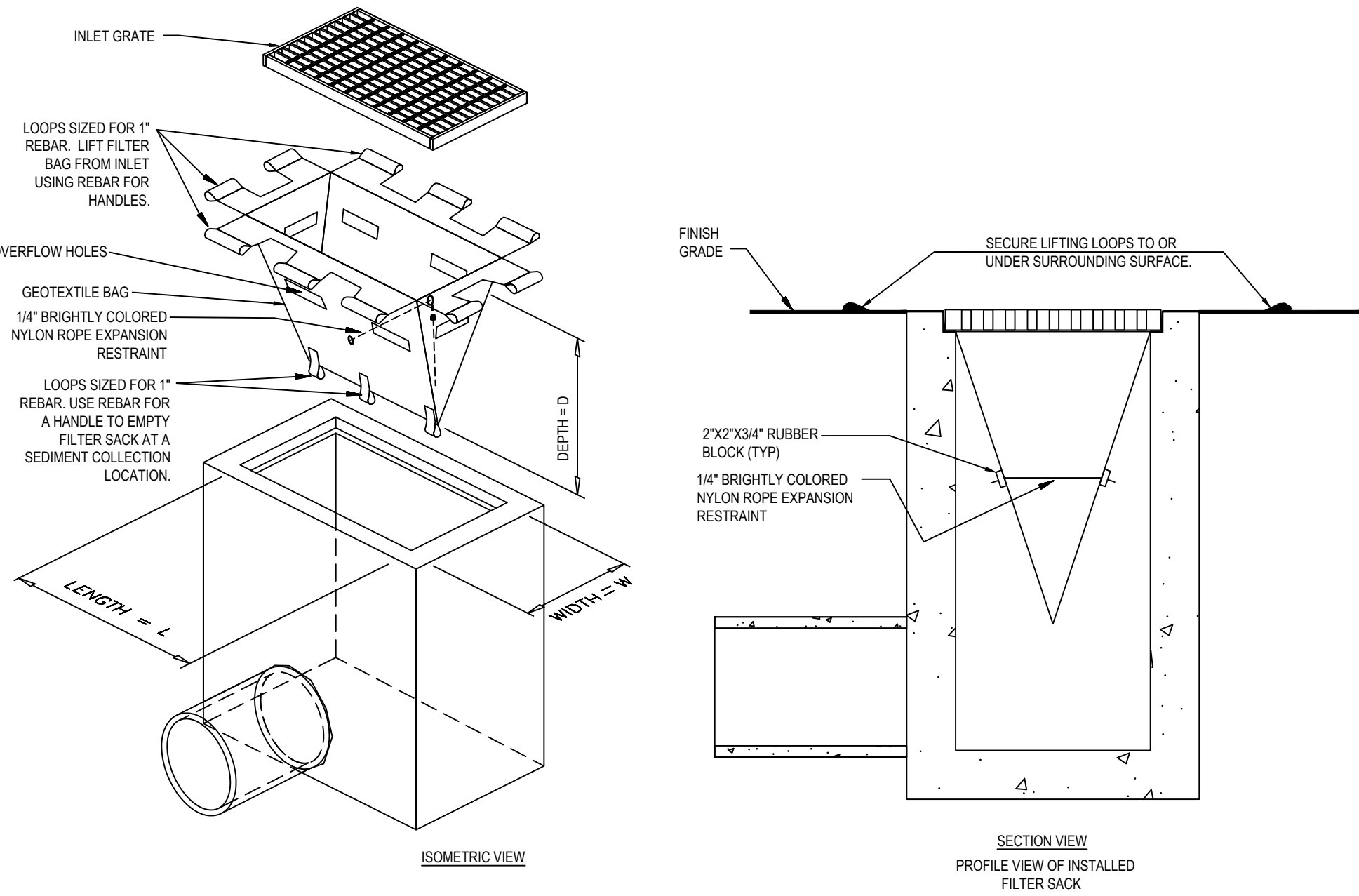
STABILIZED CONSTRUCTION EXIT

N.T.S.



TEMPORARY STOCKPILE DETAIL

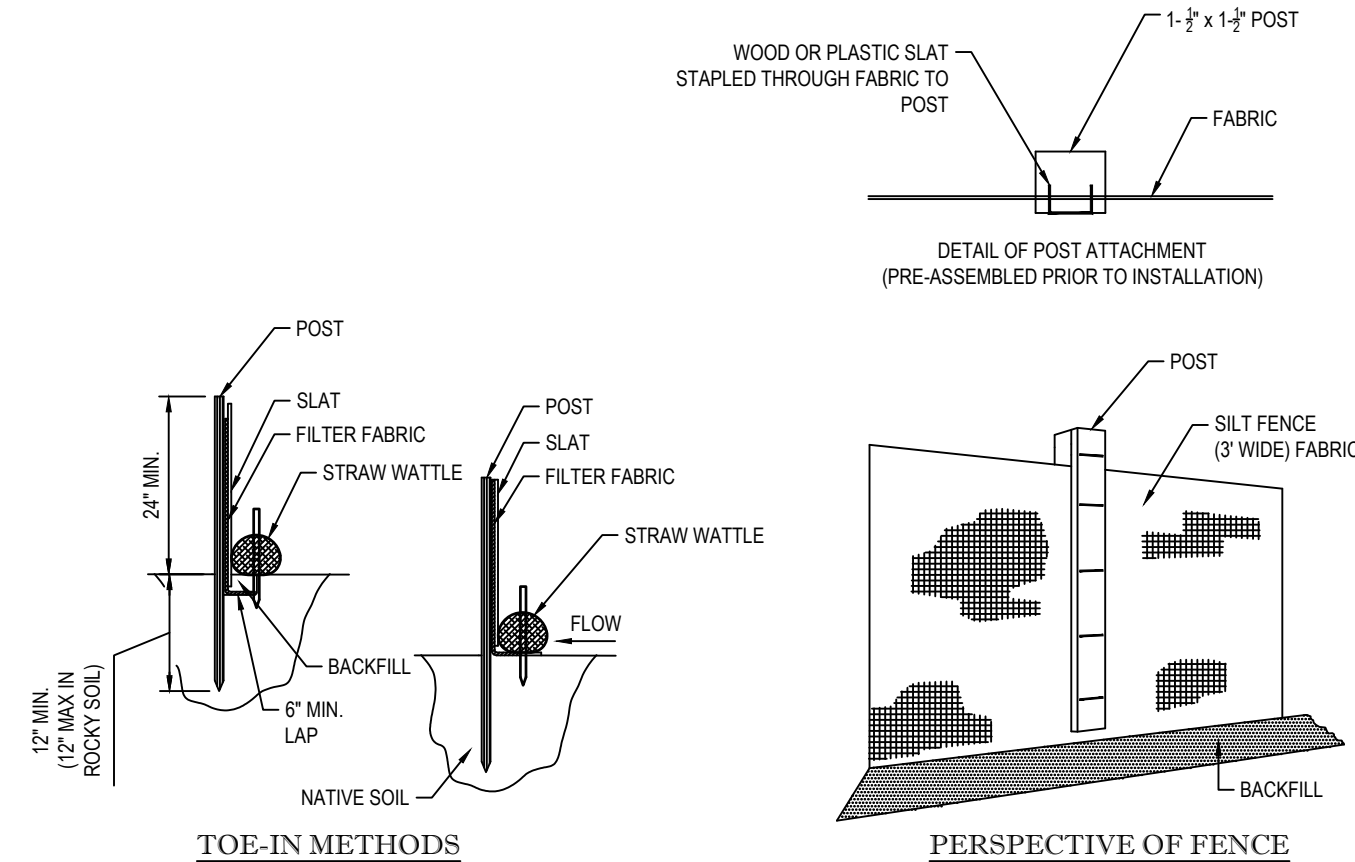
N.T.S.



FILTER SACKS (GRATED INLETS)

N.T.S.

- INSTALLATION:
- EXCAVATE A 6" X 6" TRENCH ALONG THE LINE OF EROSION CONTROL OF THE SITE.
  - UNROLL SILTATION FENCE AND POSITION THE POSTS AGAINST THE BACK (DOWNSTREAM) WALL OF THE TRENCH (NET SIDE AWAY FROM FLOW DIRECTION).
  - DRIVE THE POST INTO THE GROUND UNTIL THE NETTING IS LAYING ACROSS THE TRENCH BOTTOM.
  - LAY THE TOE-IN FLAP OF THE FABRIC ONTO THE UNDISTURBED BOTTOM OF THE TRENCH. BACKFILL THE TRENCH AND TAMP THE SOIL. TOE-IN CAN ALSO BE ACCOMPLISHED BY LAYING FABRIC FLAP ON UNDISTURBED GROUND AND PILING & TAMPING FILL AT THE BASE.



TYP. SILTATION FENCE DETAIL

N.T.S.

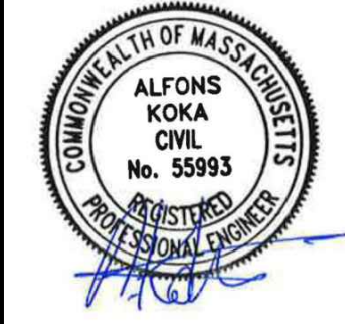
LOW TO MODERATE FLOW GEOTEXTILE FABRIC SPECIFICATION TABLE		
PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4632	300 LBS
GRAB TENSILE ELONGATION	ASTM D-4632	20 %
PUNCTURE	ASTM D-4633	120 LBS
MILLEN BURST	ASTM D-3786	800 PSI
TRAPEZOID TEAR	ASTM D-4533	120 LBS
UV RESISTANCE	ASTM D-4355	80 %
APPARENT OPENING SIZE	ASTM D-4751	40 US SIEVE
FLOW RATE	ASTM D-4491	40 GAL/MIN/SQ FT
PERMITTIVITY	ASTM D-4491	0.55 SEC - 1
MODERATE TO HIGH FLOW GEOTEXTILE FABRIC SPECIFICATION TABLE		
PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4632	265 LBS
GRAB TENSILE ELONGATION	ASTM D-4632	20 %
PUNCTURE	ASTM D-4633	135 LBS
MILLEN BURST	ASTM D-3786	420 PSI
TRAPEZOID TEAR	ASTM D-4533	45 LBS
UV RESISTANCE	ASTM D-4355	90 %
APPARENT OPENING SIZE	ASTM D-4751	20 US SIEVE
FLOW RATE	ASTM D-4491	200 GAL/MIN/SQ FT
PERMITTIVITY	ASTM D-4491	1.5 SEC - 1

- REMOVE TRAPPED SEDIMENT WHEN BRIGHTLY COLORED EXPANSION RESTRAINT CAN NO LONGER BE SEEN.
- GEOTEXTILE SHALL BE A WOVEN POLYPROPYLENE FABRIC THAT MEETS OR EXCEEDS REQUIREMENTS IN THE SPECIFICATIONS TABLE.
- PLACE AN OIL ABSORBENT PAD OR PILLOW OVER INLET GRATE WHEN OIL SPILLS ARE A CONCERN.
- INSPECT PER REGULATORY REQUIREMENTS.
- THE WIDTH, "W", OF THE FILTER SACK SHALL MATCH THE INSIDE WIDTH OF THE GRATED INLET BOX.
- THE DEPTH, "D", OF THE FILTER SACK SHALL BE BETWEEN 18 INCHES AND 36 INCHES.
- THE LENGTH, "L", OF THE FILTER SACK SHALL MATCH THE INSIDE LENGTH OF THE GRATED INLET BOX.

DO NOT USE IN PAVED AREAS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS.

TO BE USED IN EXISTING RIGHT OF WAY

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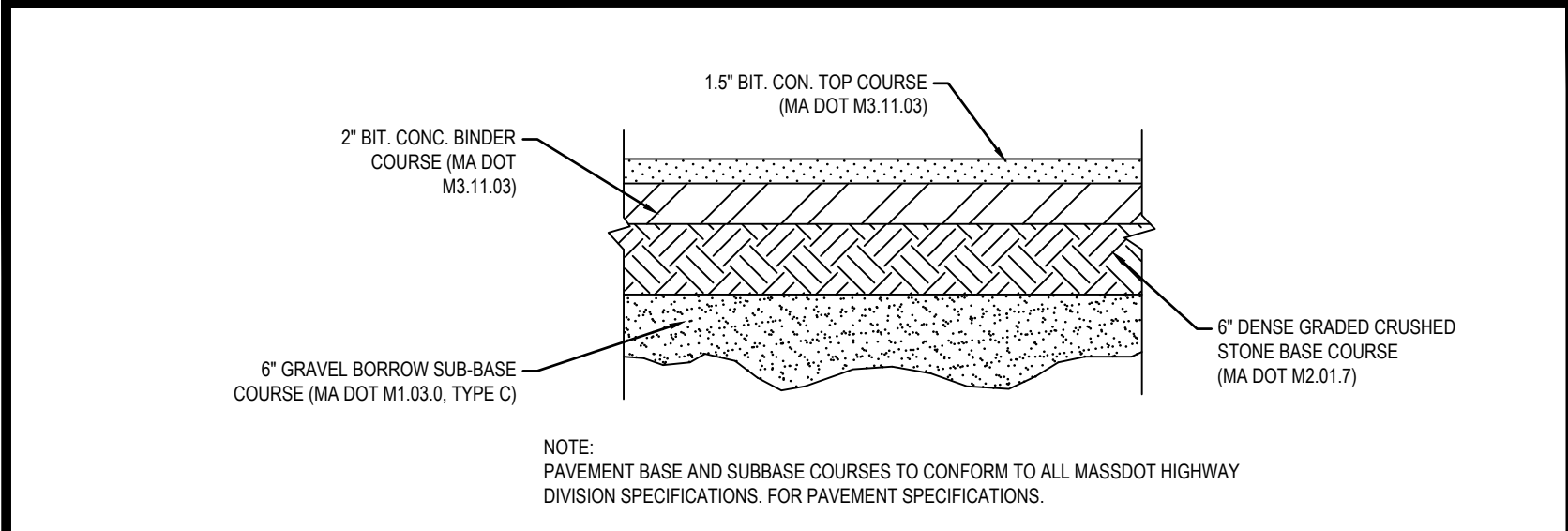
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1	FEED REVIEW COMMENTS	03/20/2023		

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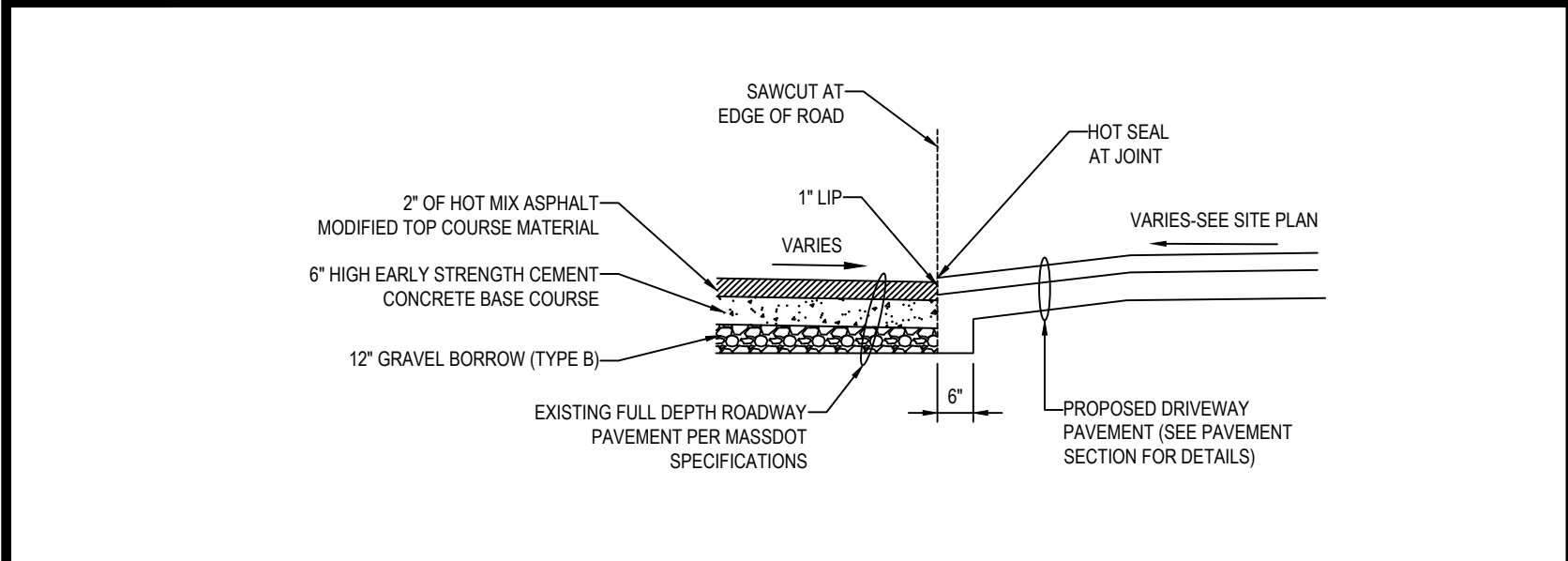
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PROJECT TITLE: SITE DEVELOPMENT PLANS  
SHEET TITLE: EROSION NOTES & DETAILS SHEET  
DRAWN BY: AKPT  
CHECKED BY: KS  
DATE: 07/10/23  
SCALE: AS SHOWN  
PROJECT #: 1622000082  
SITE ADDRESS: 29 WINTER STREET, PEMBROKE, MA

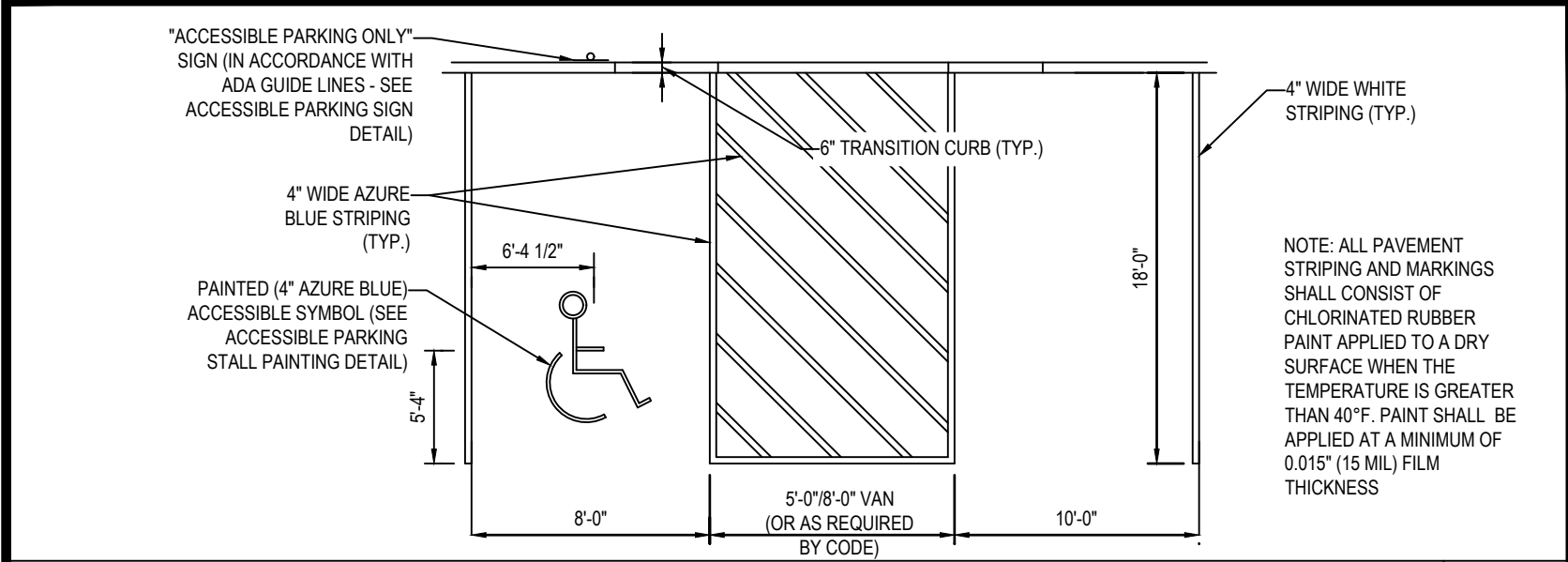




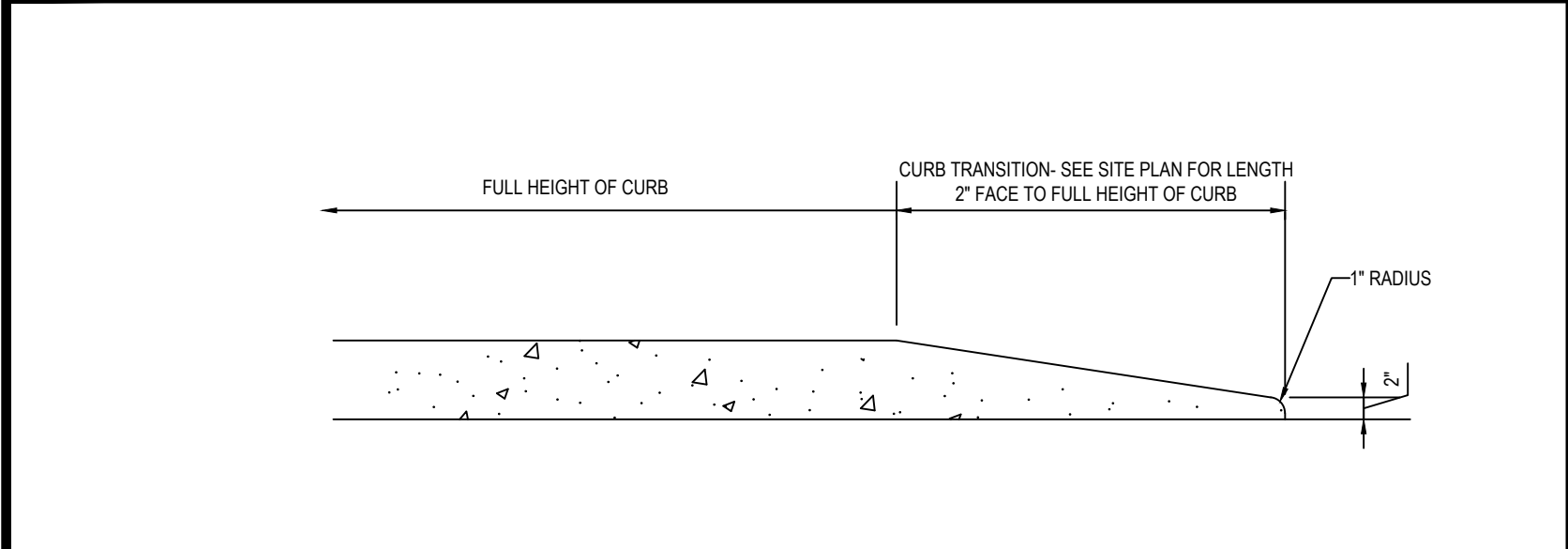
TYPICAL PAVEMENT SECTION



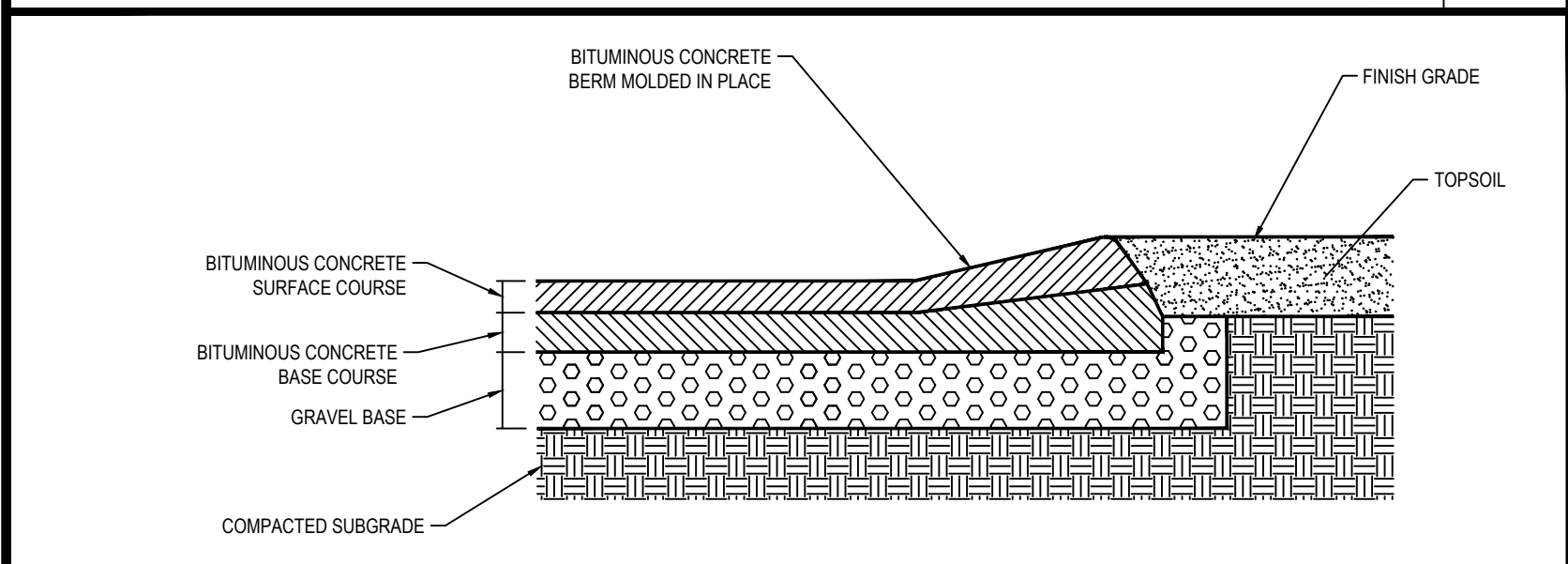
DRIVEWAY CONSTRUCTION DETAIL



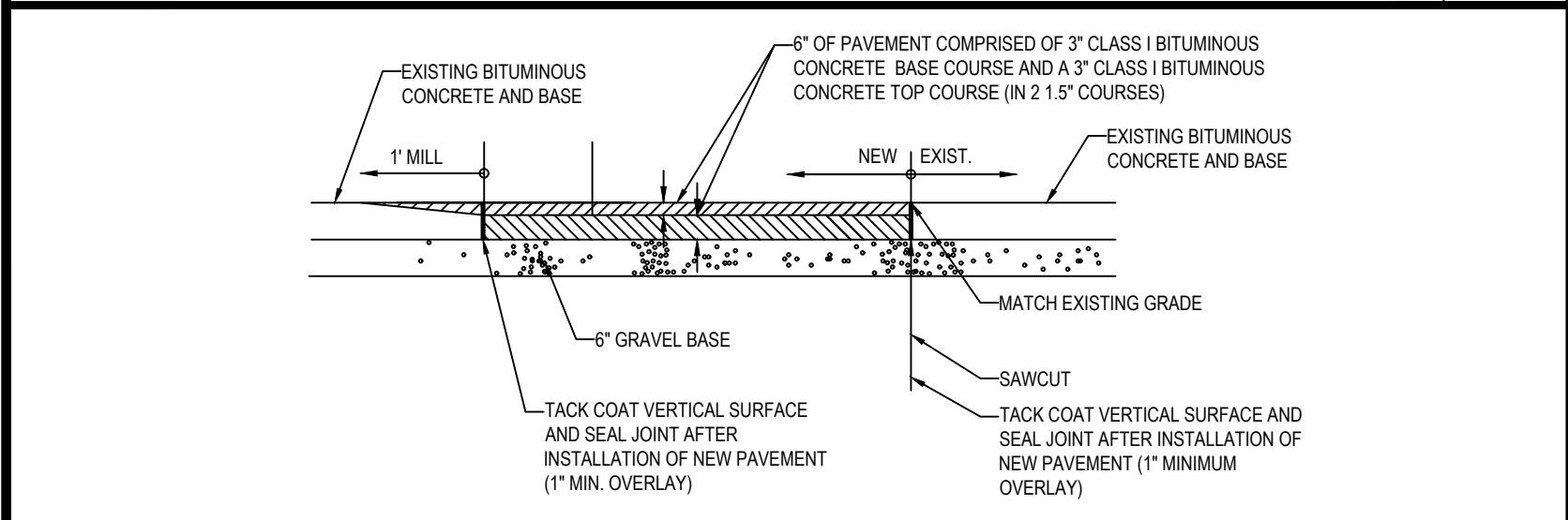
ACCESSIBLE STALL MARKINGS & PARKING LOT STRIPING DETAIL



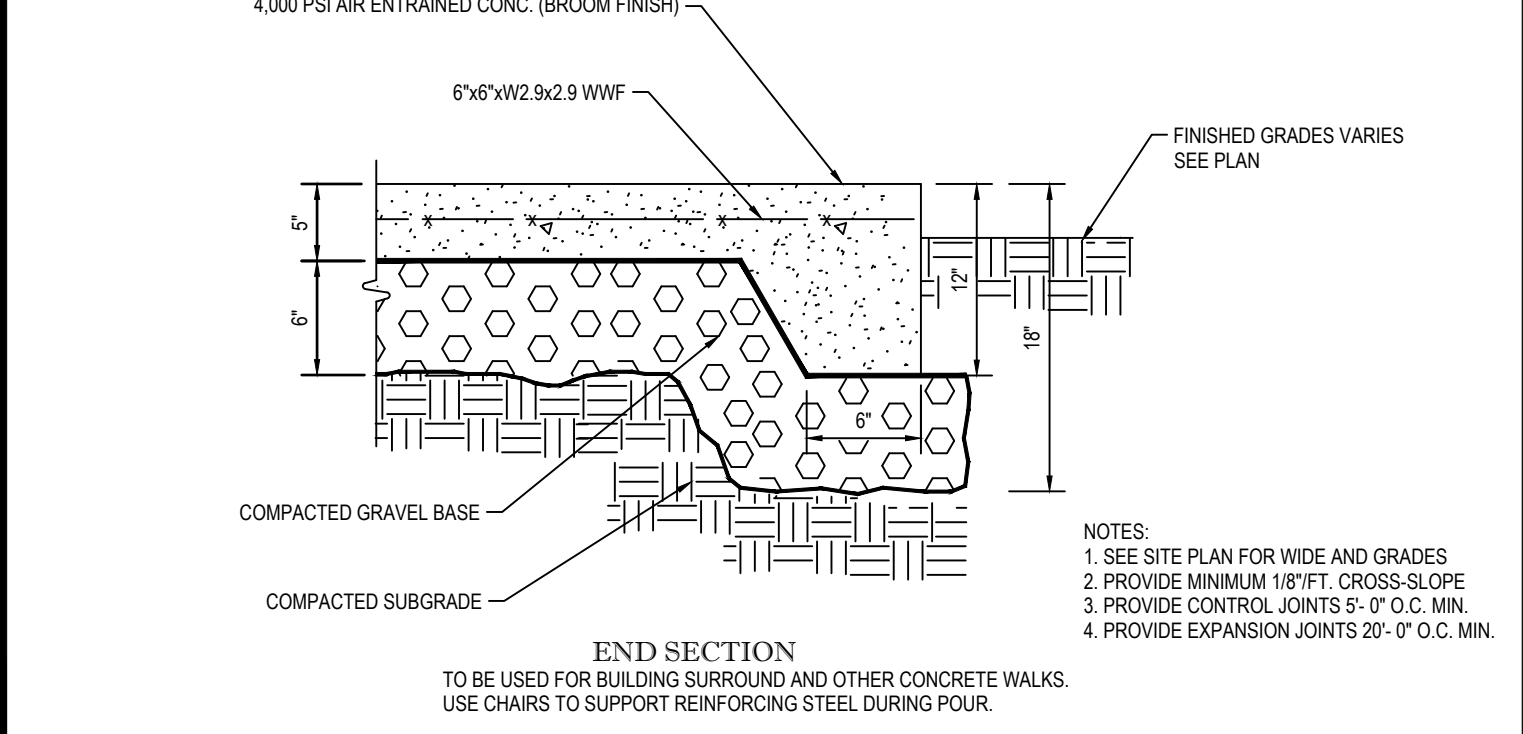
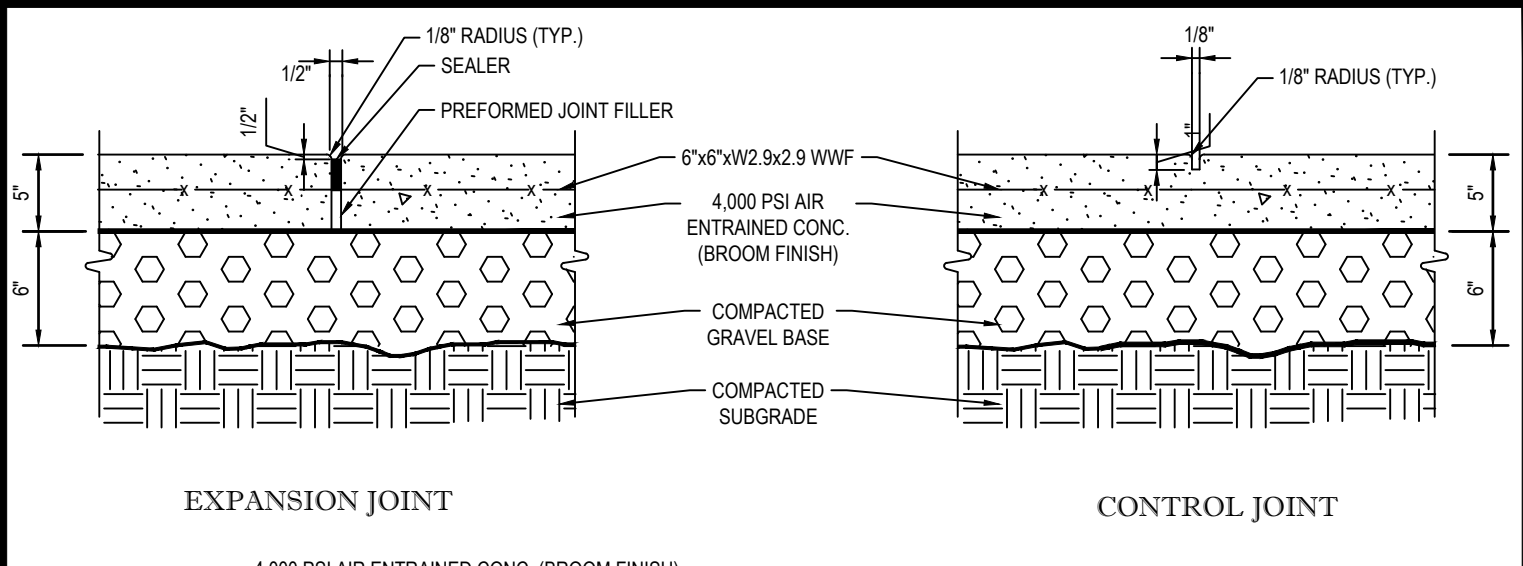
TRANSITION CURB DETAIL



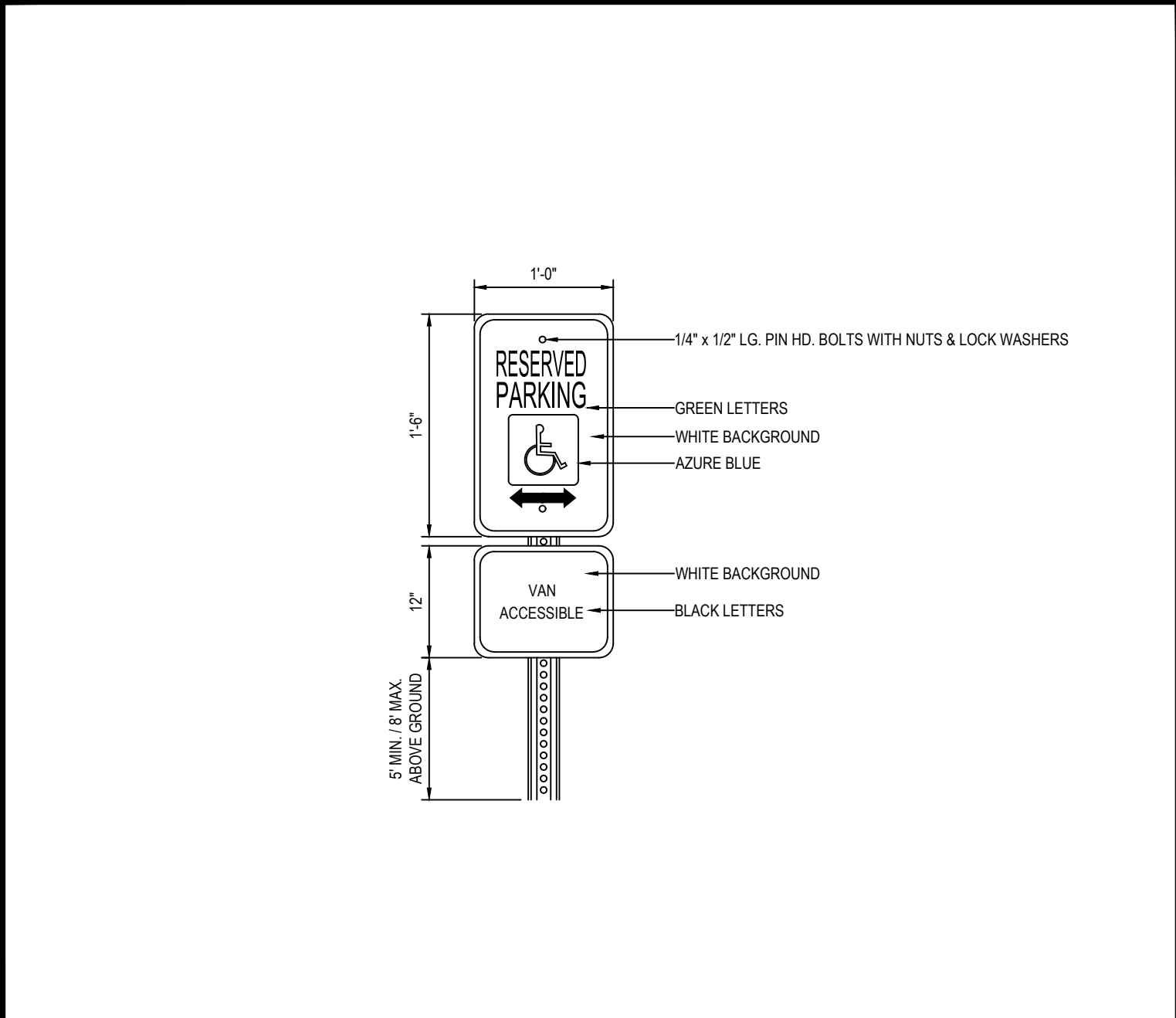
CAPE COD BERM



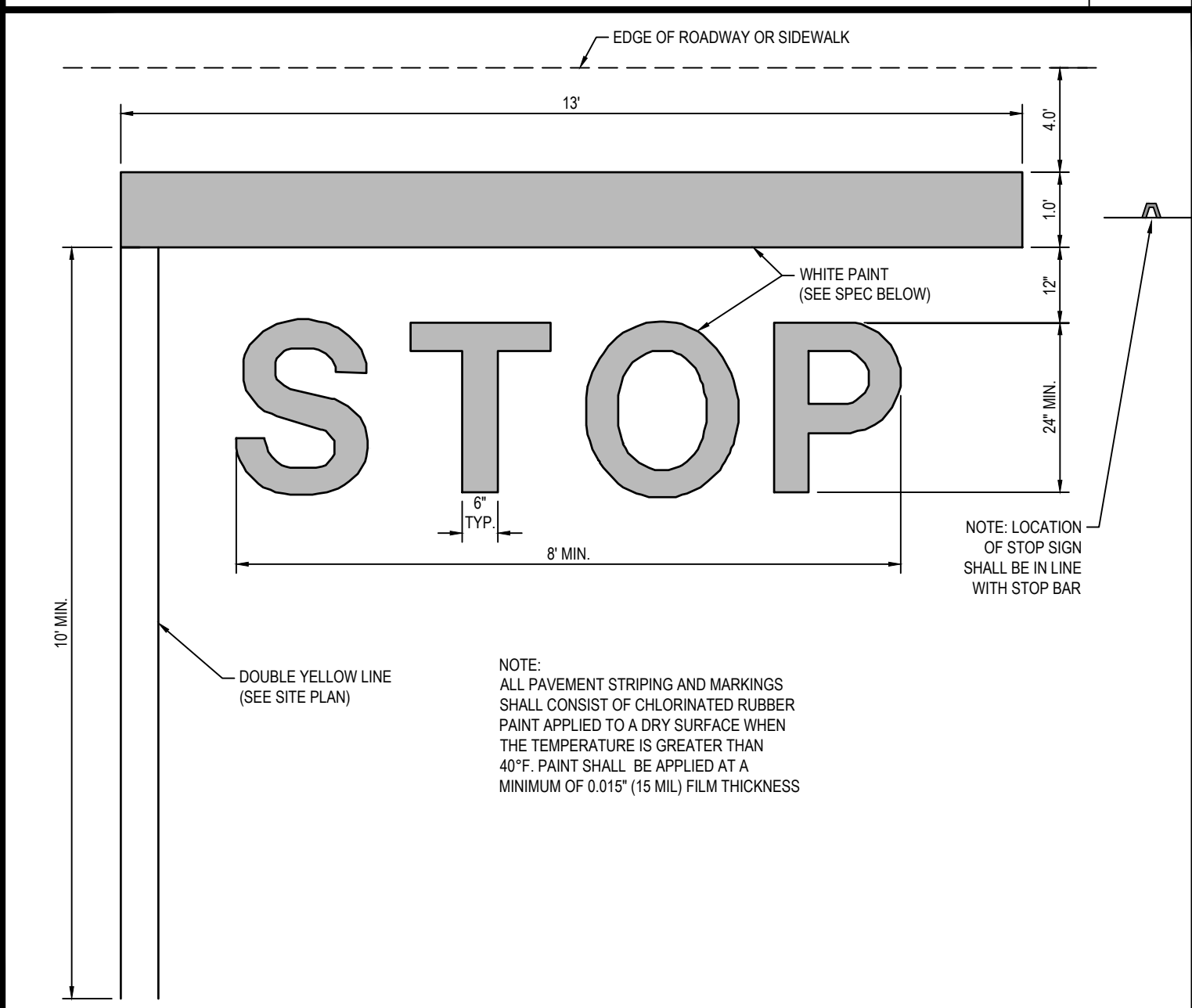
ROADWAY PATCHING DETAIL



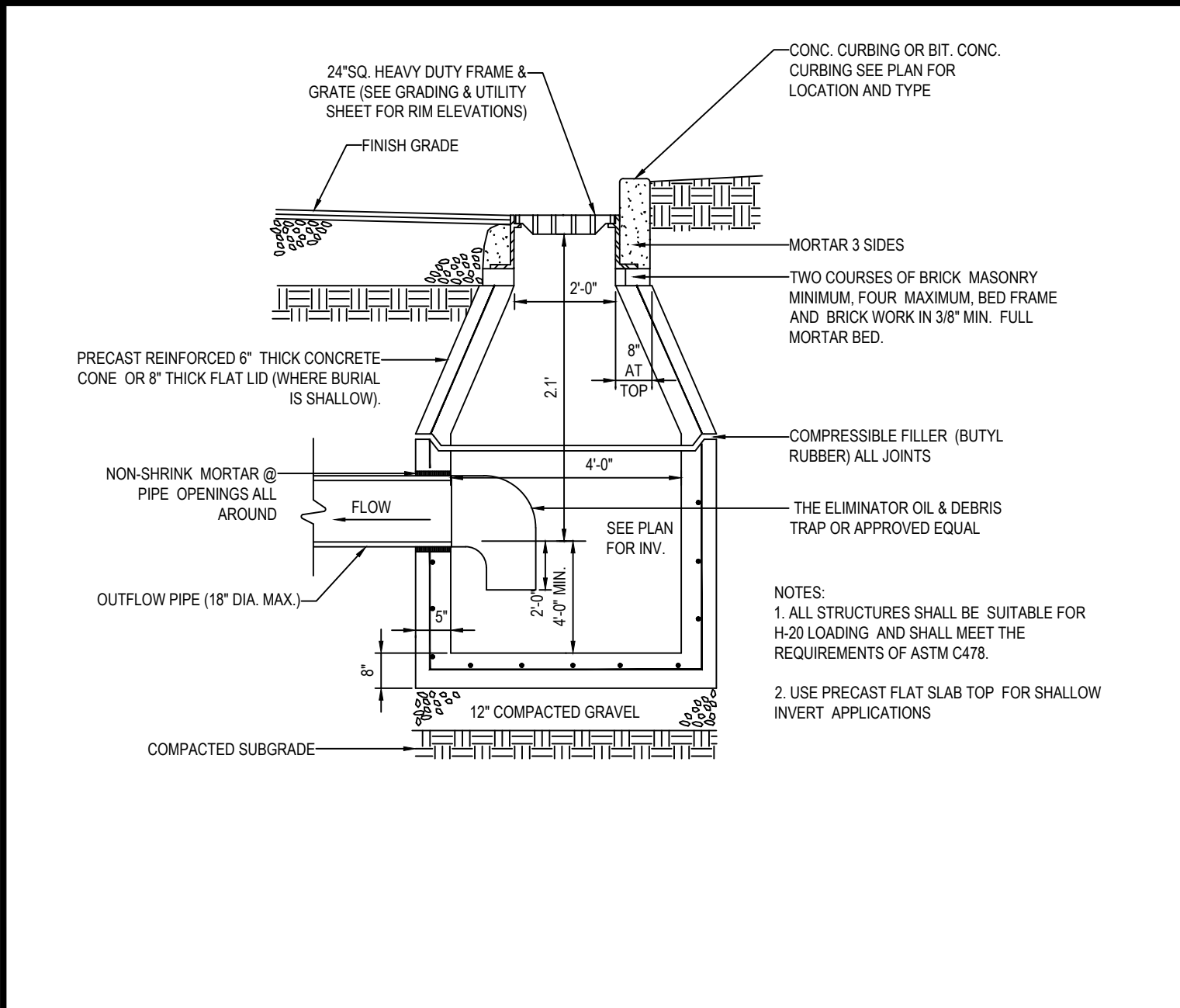
MONOLITHIC CONC. SIDEWALK DETAILS



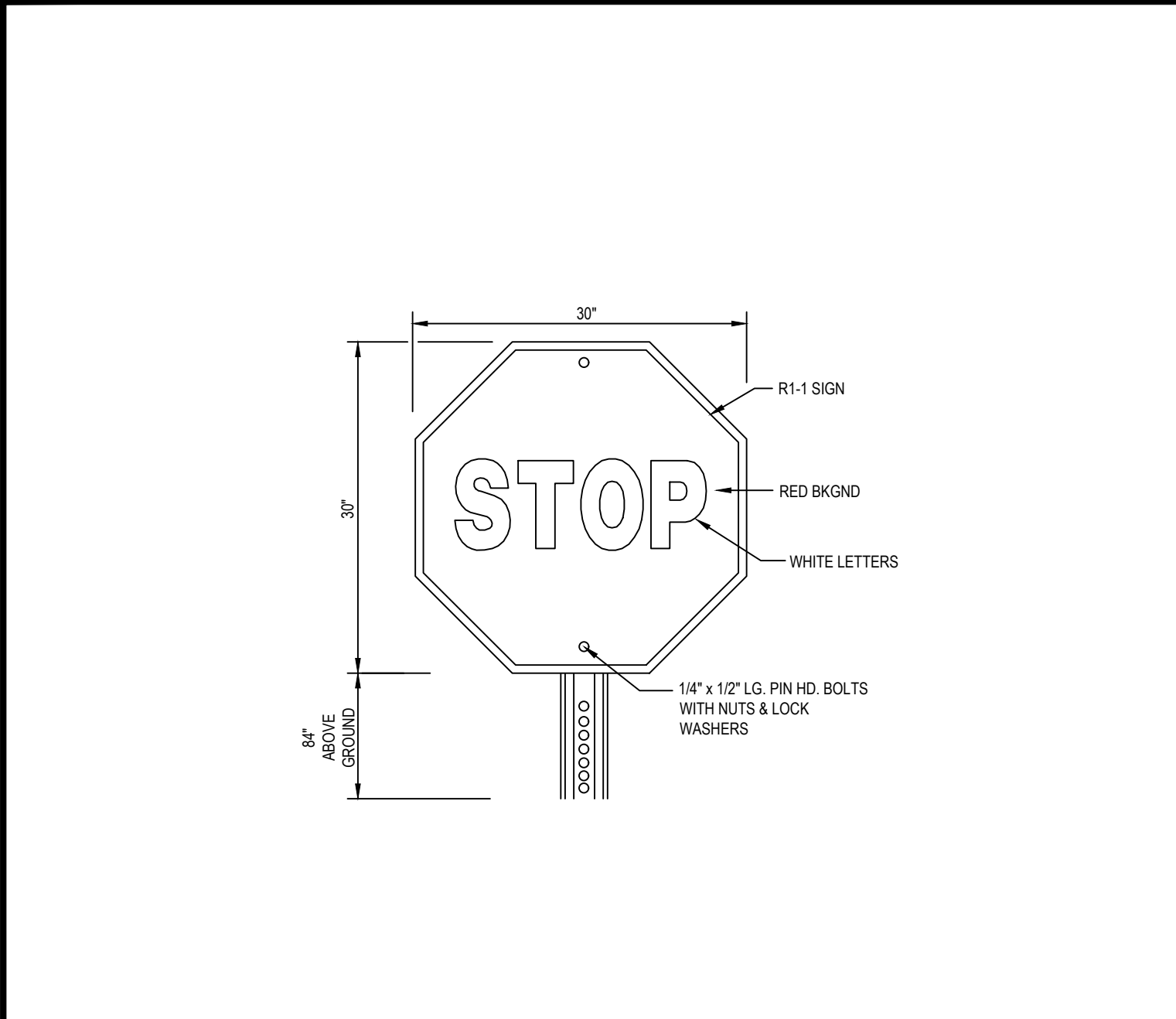
ACCESSIBLE PARKING SIGN DETAIL



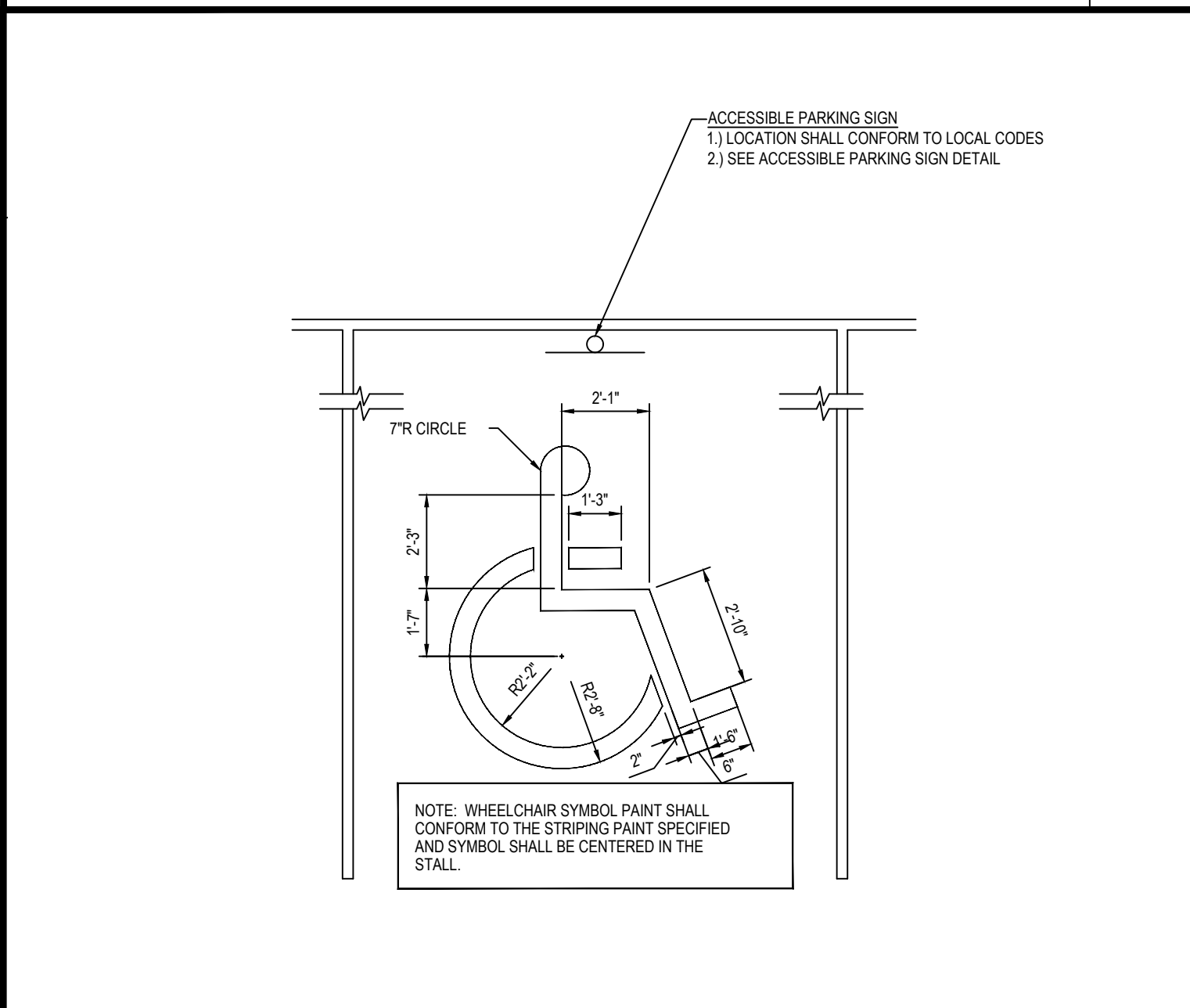
'STOP' BAR DETAIL



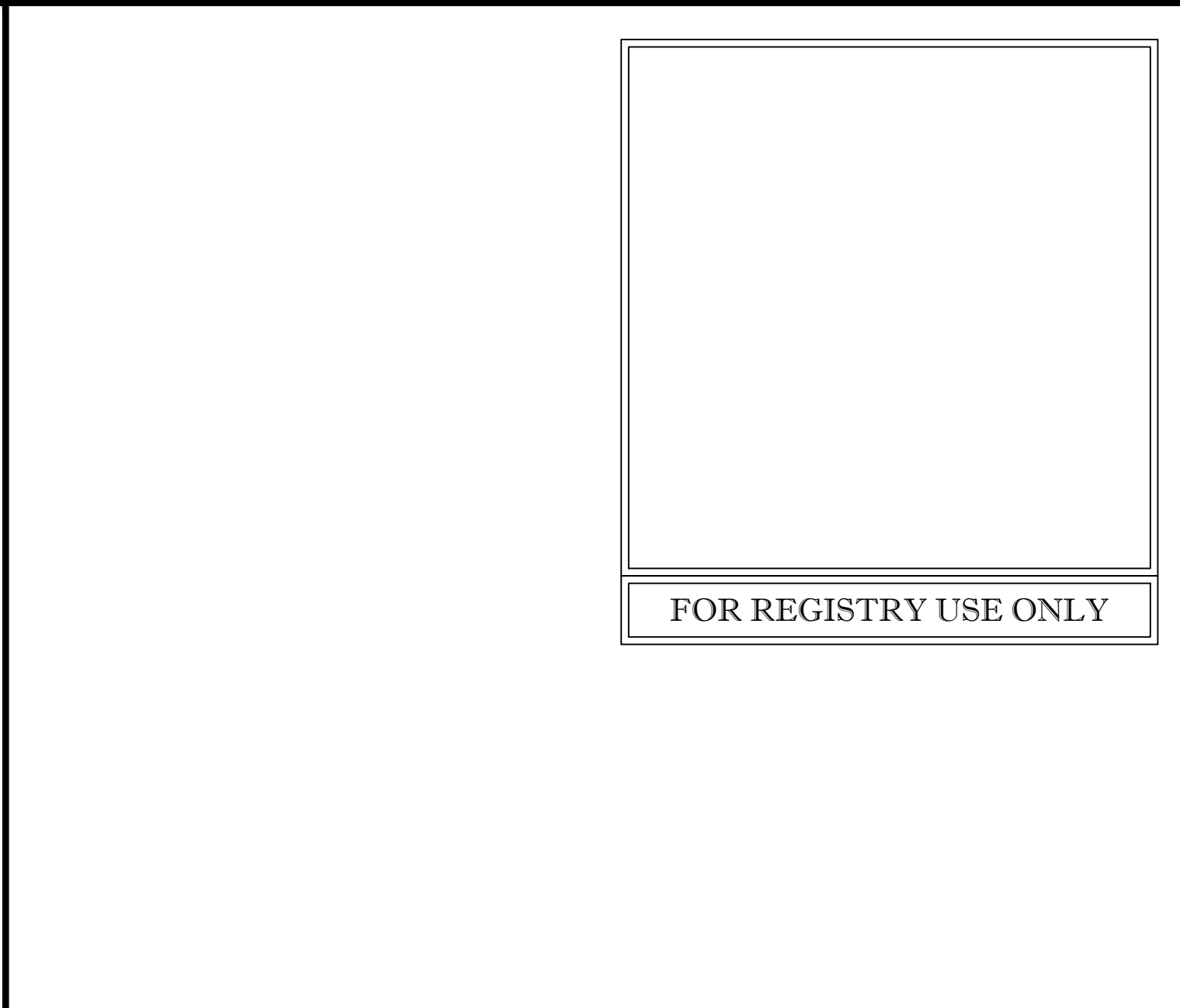
PRECAST CONCRETE DEEP SUMP CATCH BASIN DETAIL



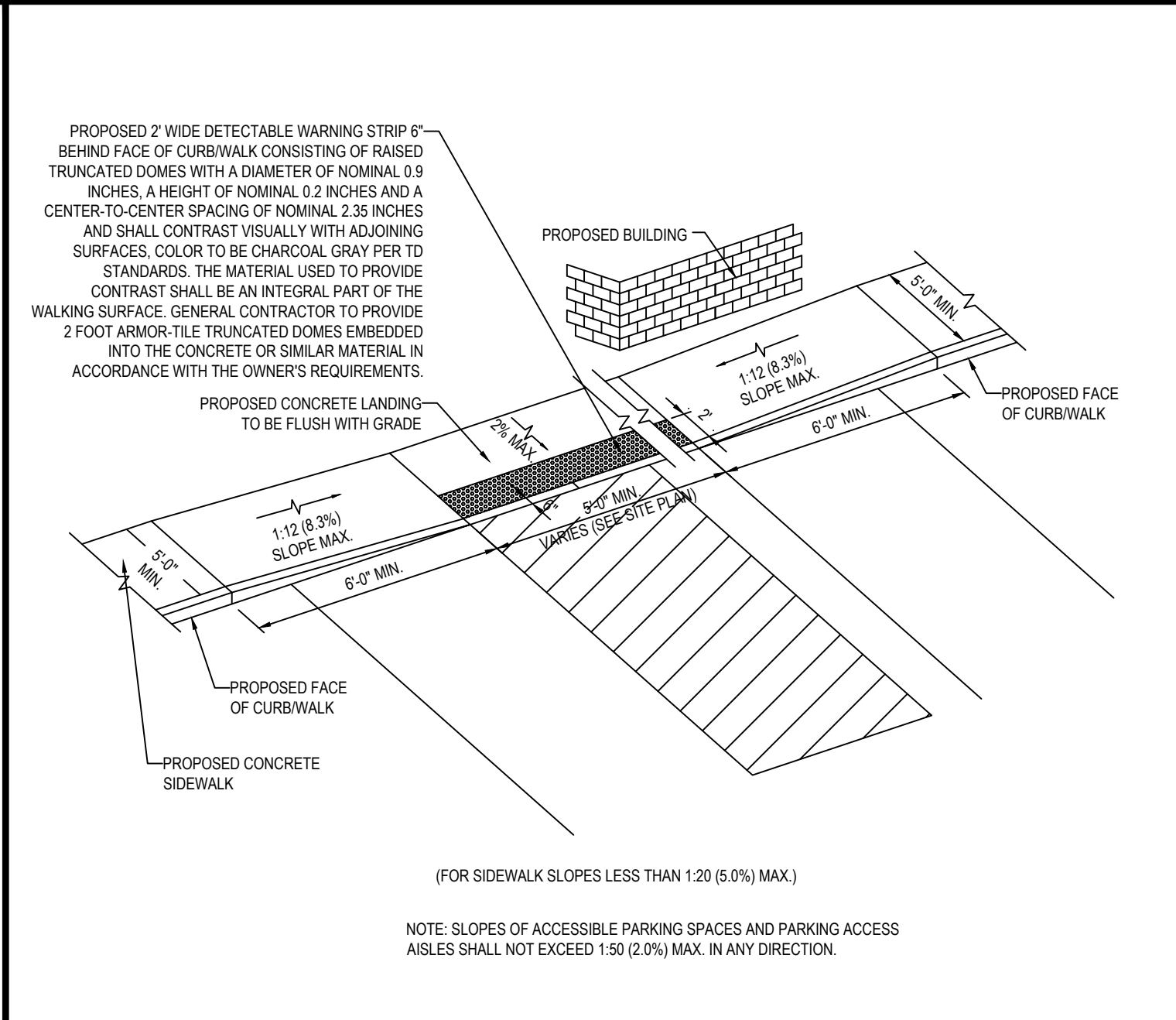
'STOP' SIGN



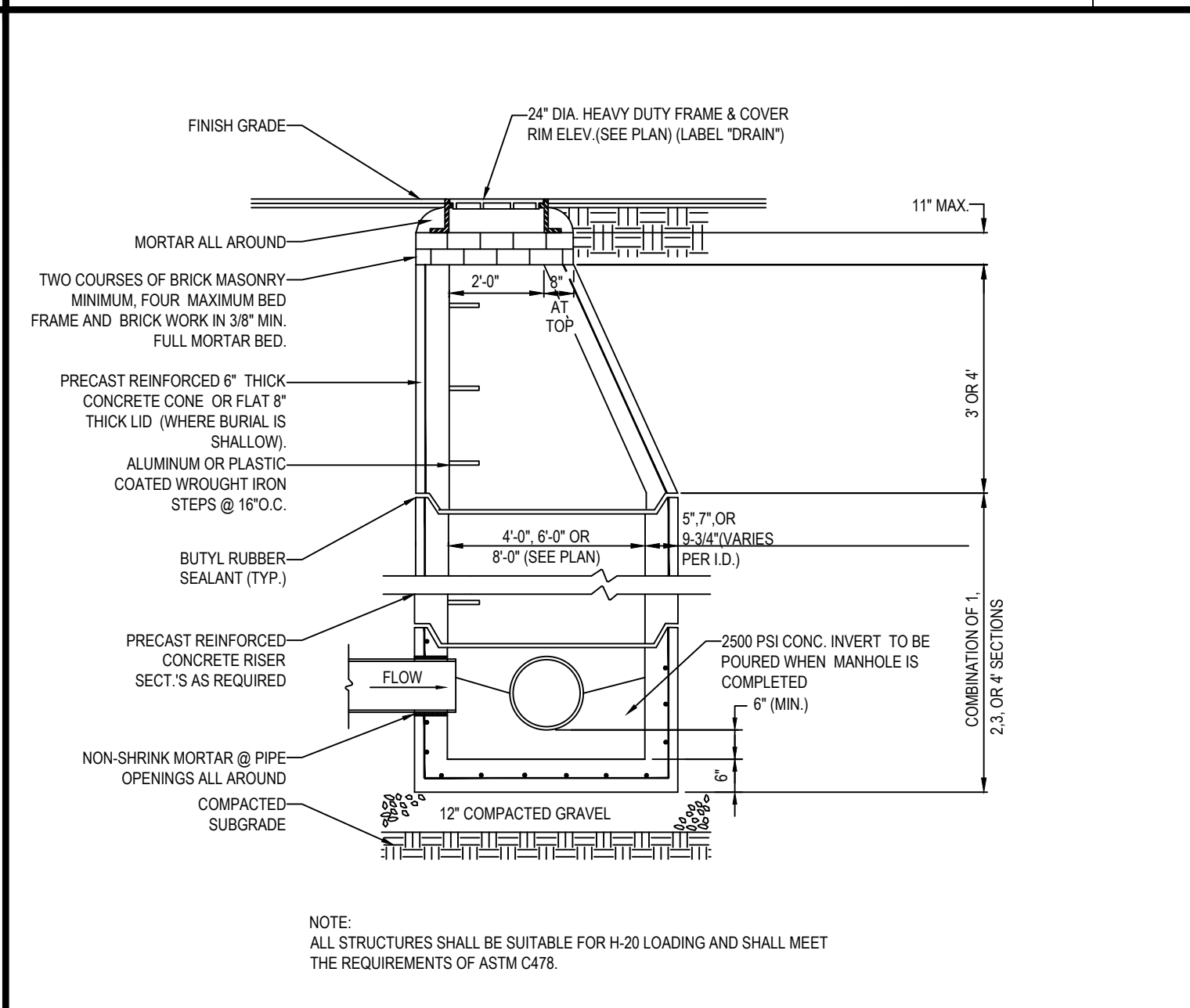
ACCESSIBLE PARKING STALL PAINTING DETAIL



FOR REGISTRY USE ONLY



SLOPED WALK DETAIL



TYP. PRECAST CONCRETE MANHOLE STORM DRAIN

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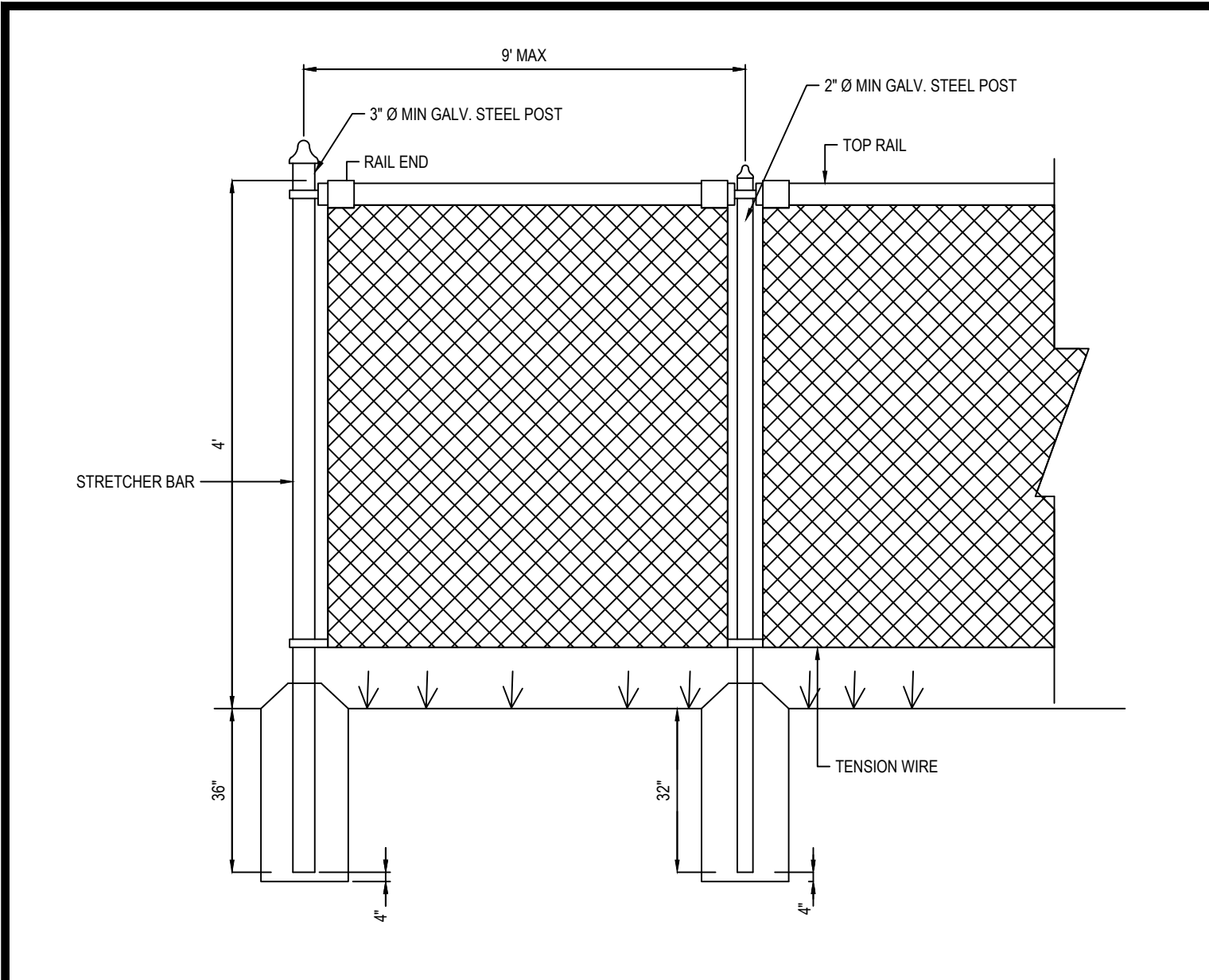
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PROJECT TITLE: SITE DEVELOPMENT PLANS  
SHEET TITLE: DETAIL SHEET

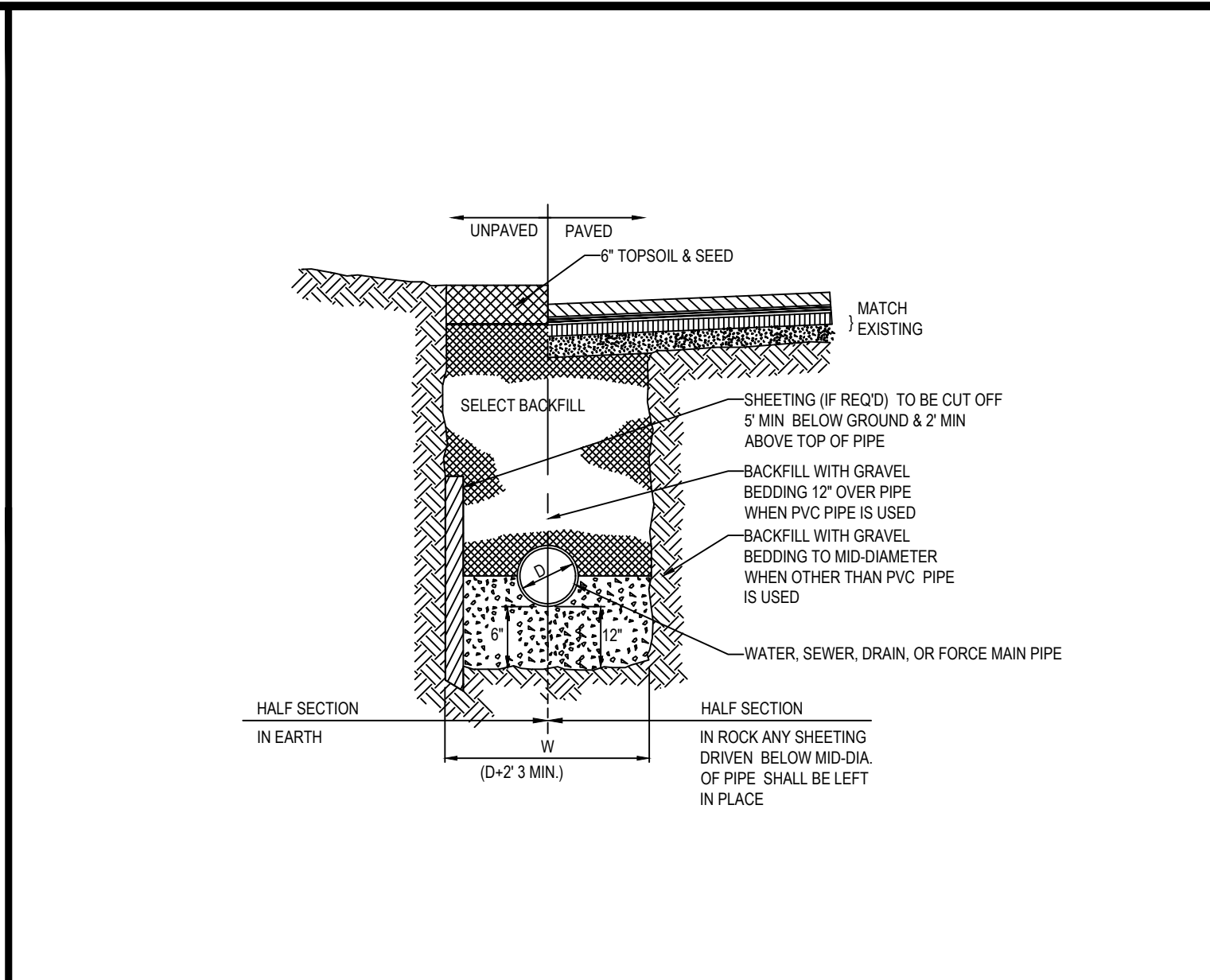
PREPARED BY: AK/PT  
REVIEWED BY: KS  
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SCALE: AS SHOWN  
PROJECT #: 162200082  
SHEET ADDRESS: 29 WINTER STREET, PEMBROKE, MA





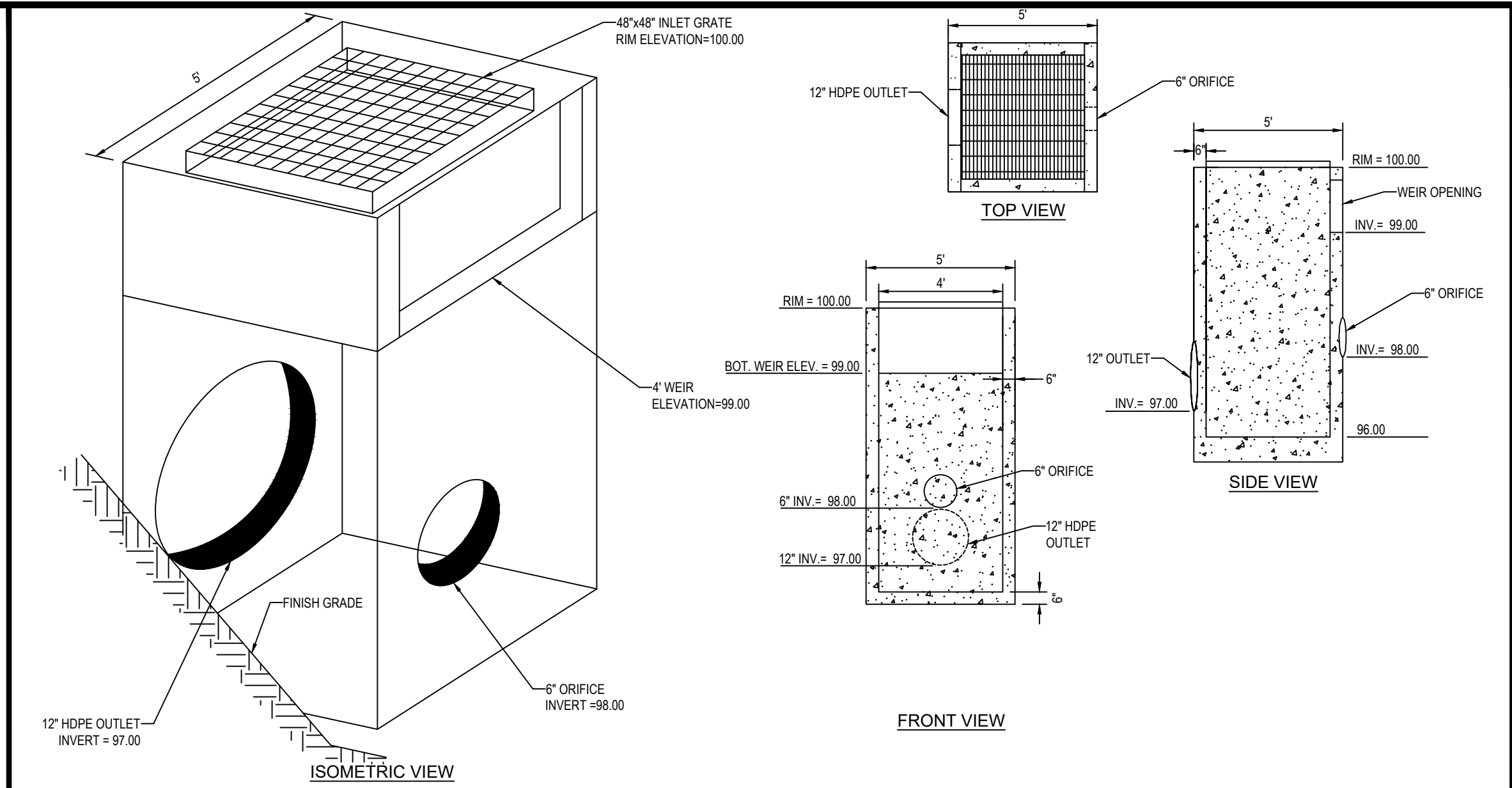
4' CHAIN LINK FENCE

N.T.S.



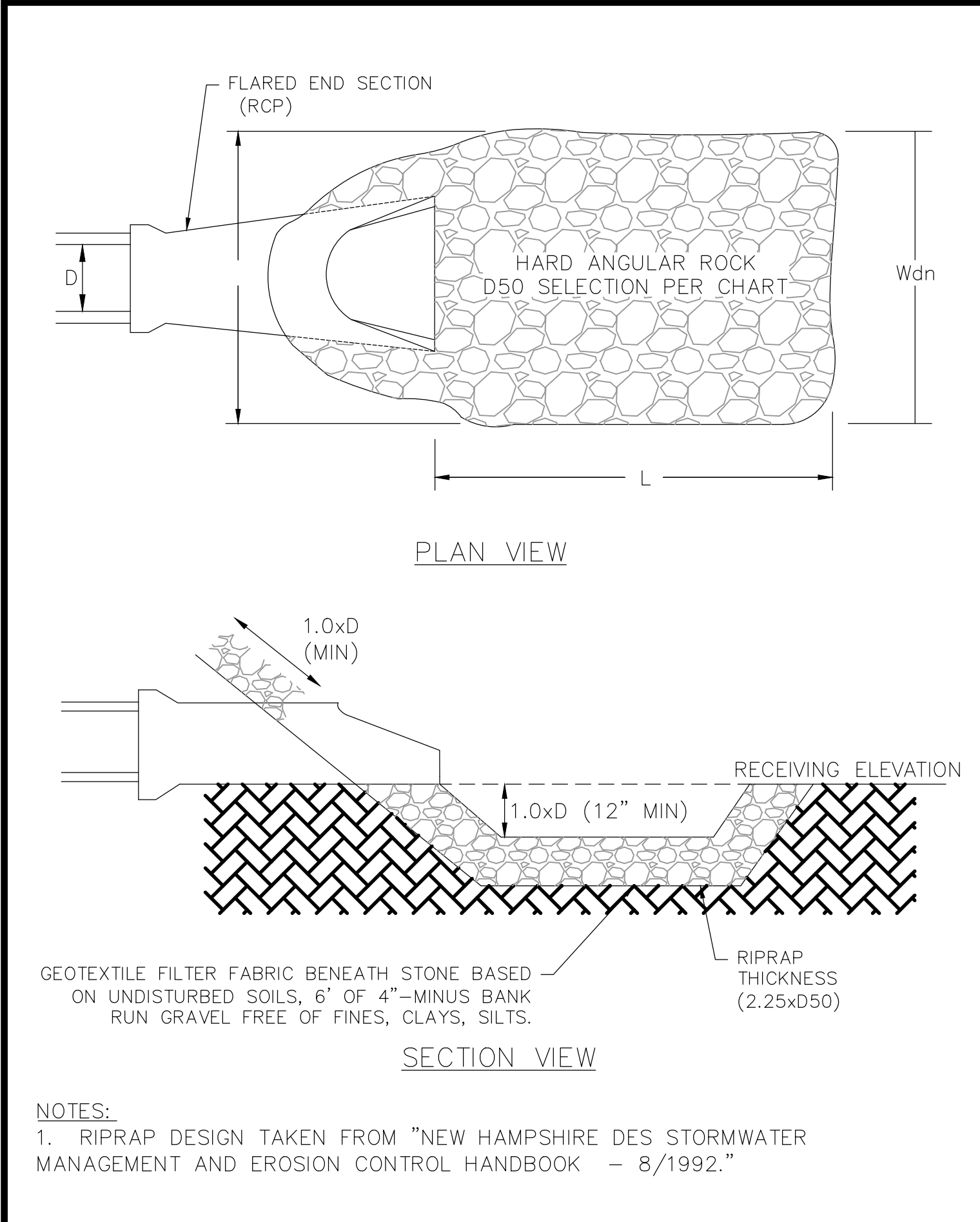
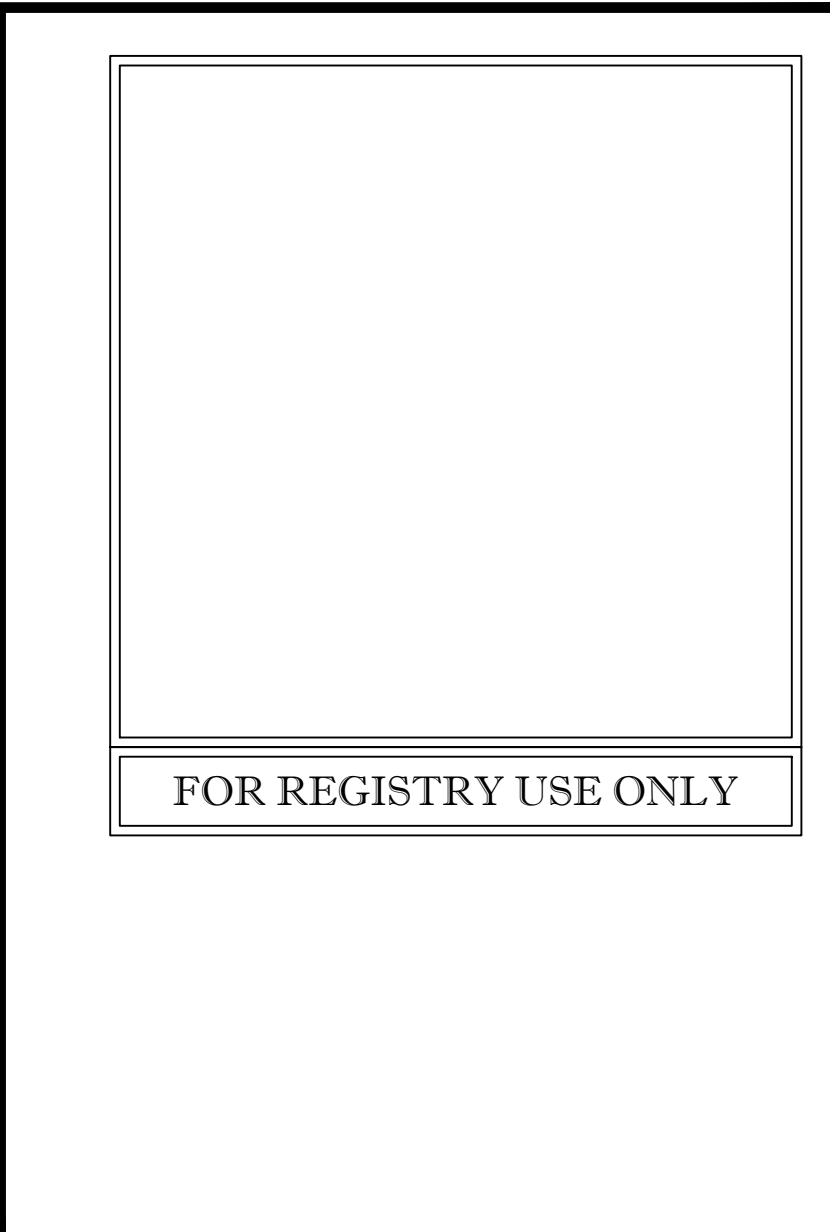
TYPICAL UTILITY TRENCH

N.T.S.



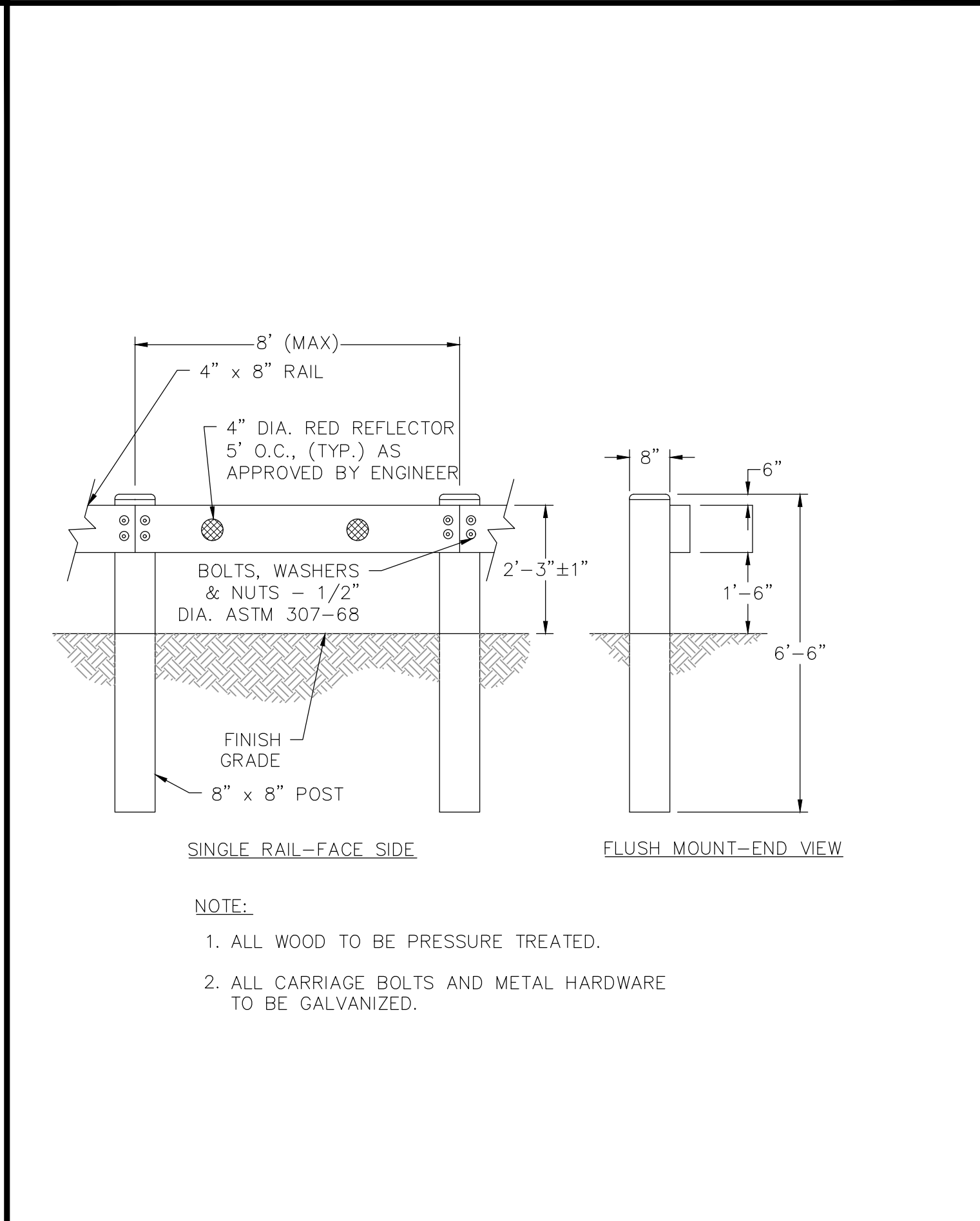
OUTLET CONTROL STRUCTURE

N.T.S.



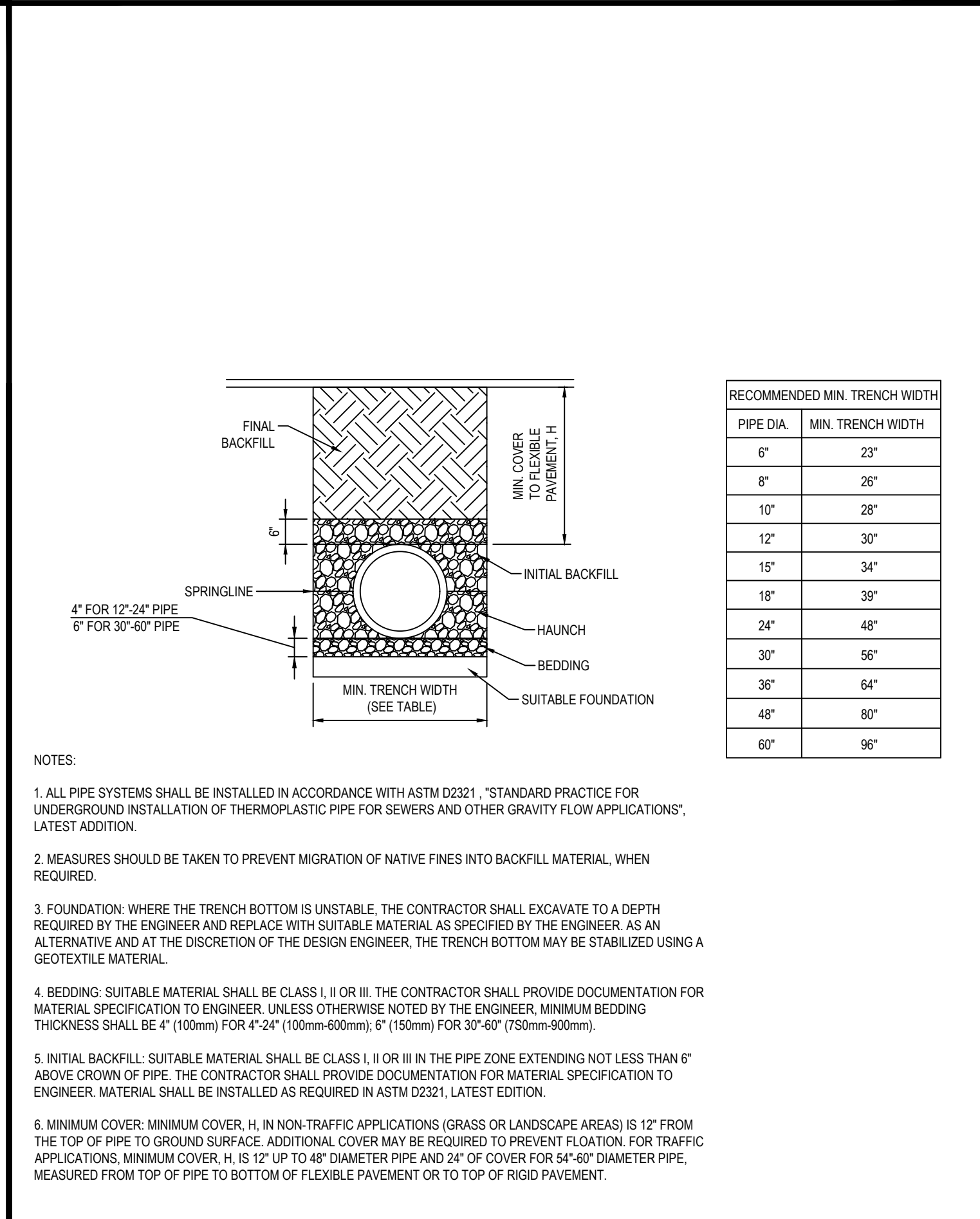
FLARED END SECTION WITH RIP RAP

N.T.S.



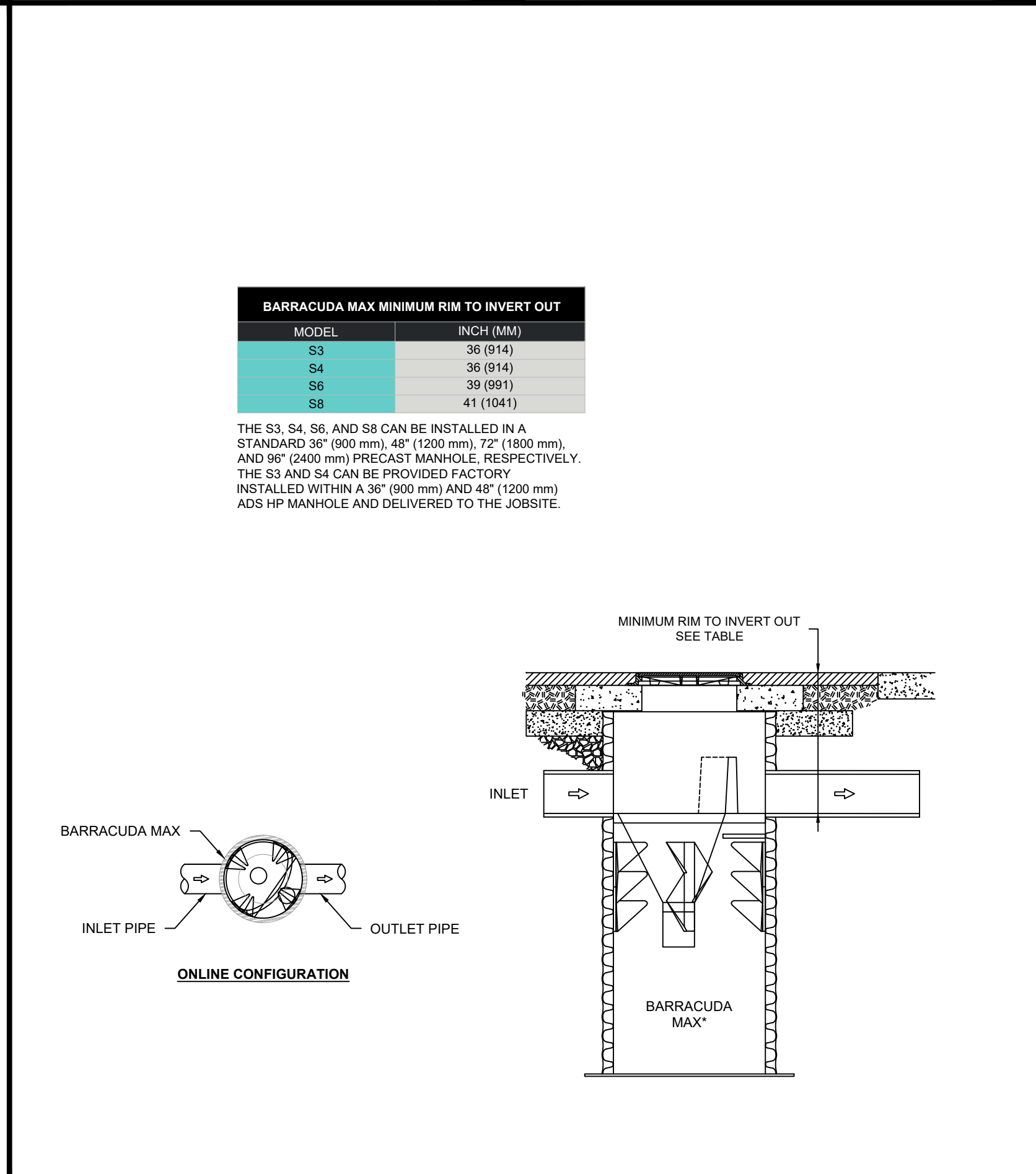
WOOD GUARDRAIL

N.T.S.



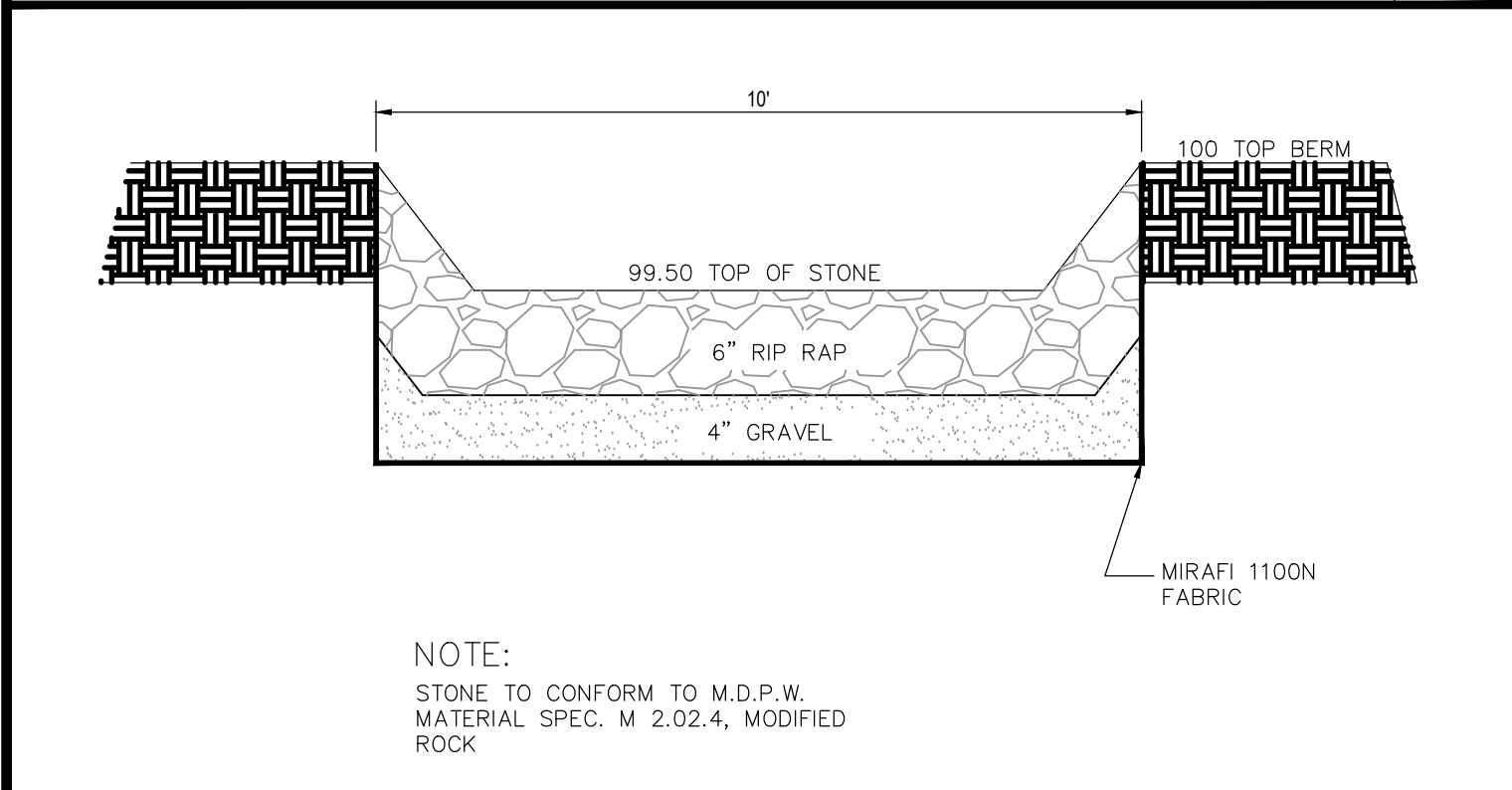
HDPE STORM DRAINAGE TRENCH

N.T.S.



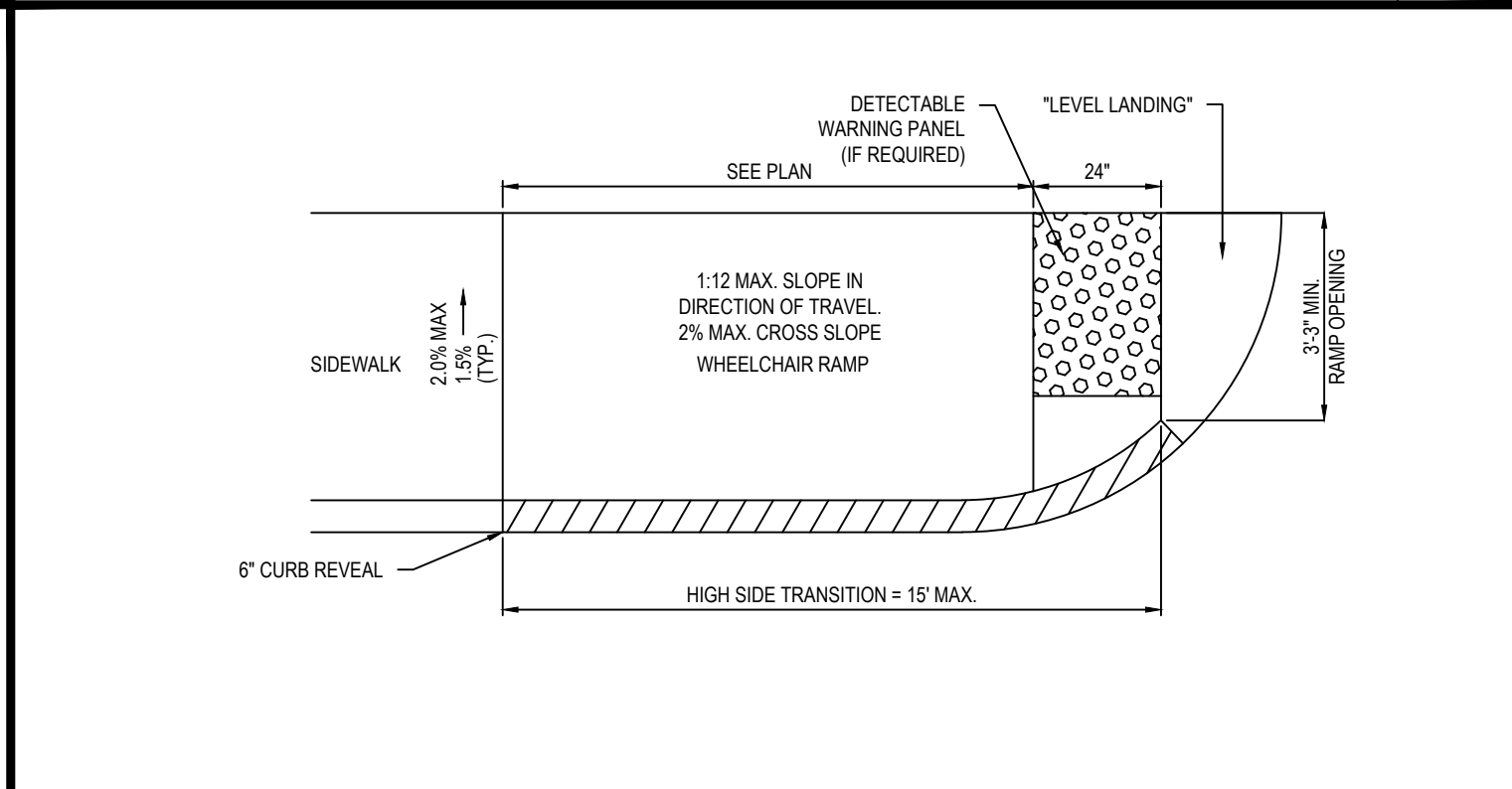
ADS BARRACUDA S4

N.T.S.



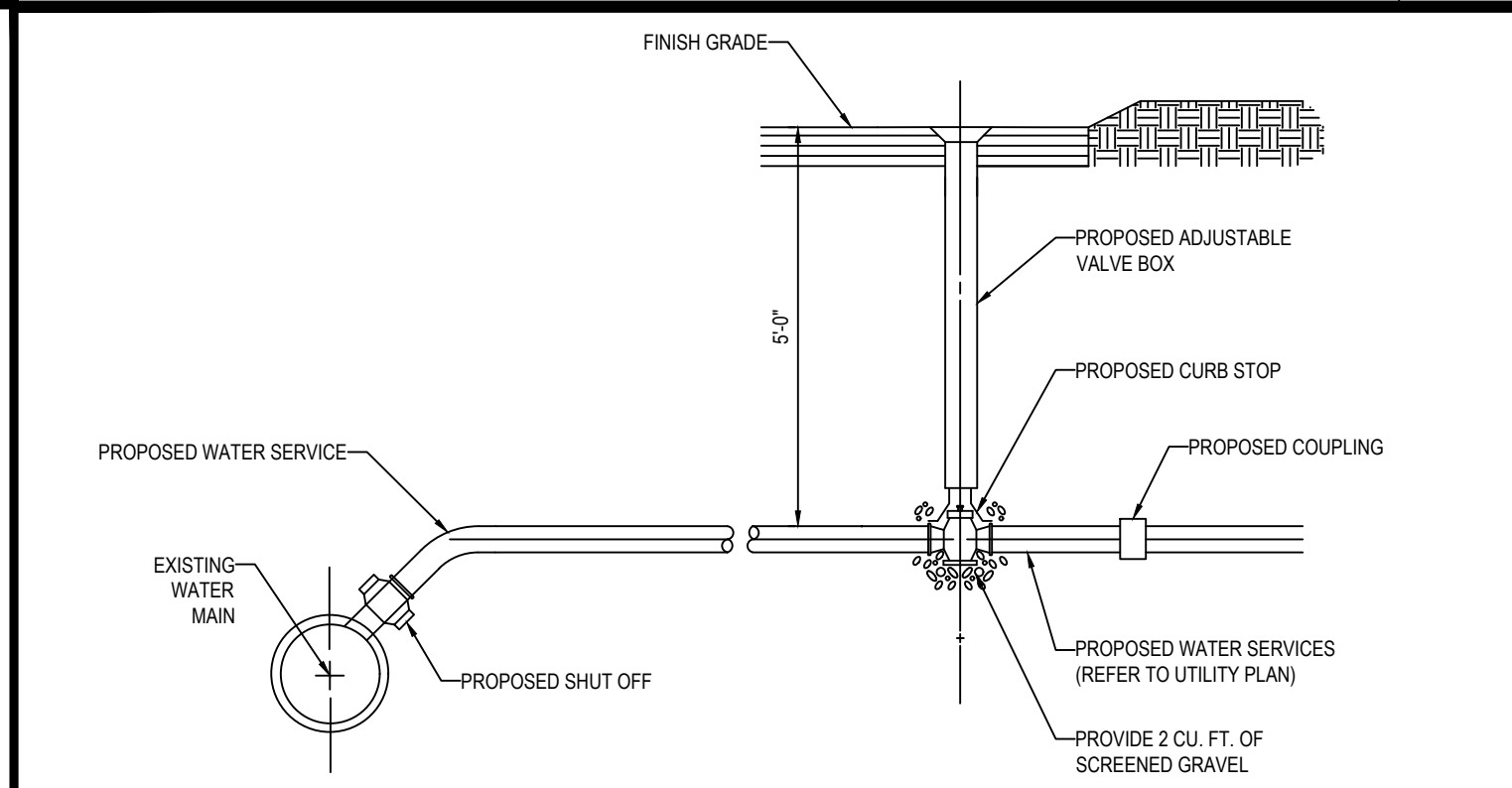
EMERGENCY SPILLWAY

N.T.S.



WHEELCHAIR RAMP

N.T.S.



WATER SERVICE CONNECTION DETAIL

N.T.S.



WATER SERVICE CONNECTION DETAIL

N.T.S.

EBI Consulting

21 B Street | Burlington, MA 01803  
Tel: 781.273.2500 | Fax: 781.273.3311  
www.ebiconsulting.com

COMMONWEALTH OF MASSACHUSETTS

ALFONS KOKA  
CIVIL  
No. 55993

REGISTERED PROFESSIONAL ENGINEER

PREPARED BY:

1

DATE

03/20/2023

DESCRIPTION

PEER REVIEW COMMENTS

AK

PRELIMINARY

NO.

1

DATE

03/20/2023

DESCRIPTION

PEER REVIEW COMMENTS

AK

811

Know what's below.  
Call before you dig.

PREPARED FOR:

A. MURPHY INC.

ELECTRICAL DESIGN & CONTRACTING

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PROJECT TITLE:

SITE DEVELOPMENT PLANS

SHEET TITLE:

DETAIL SHEET

PROJECT #:

1622000082

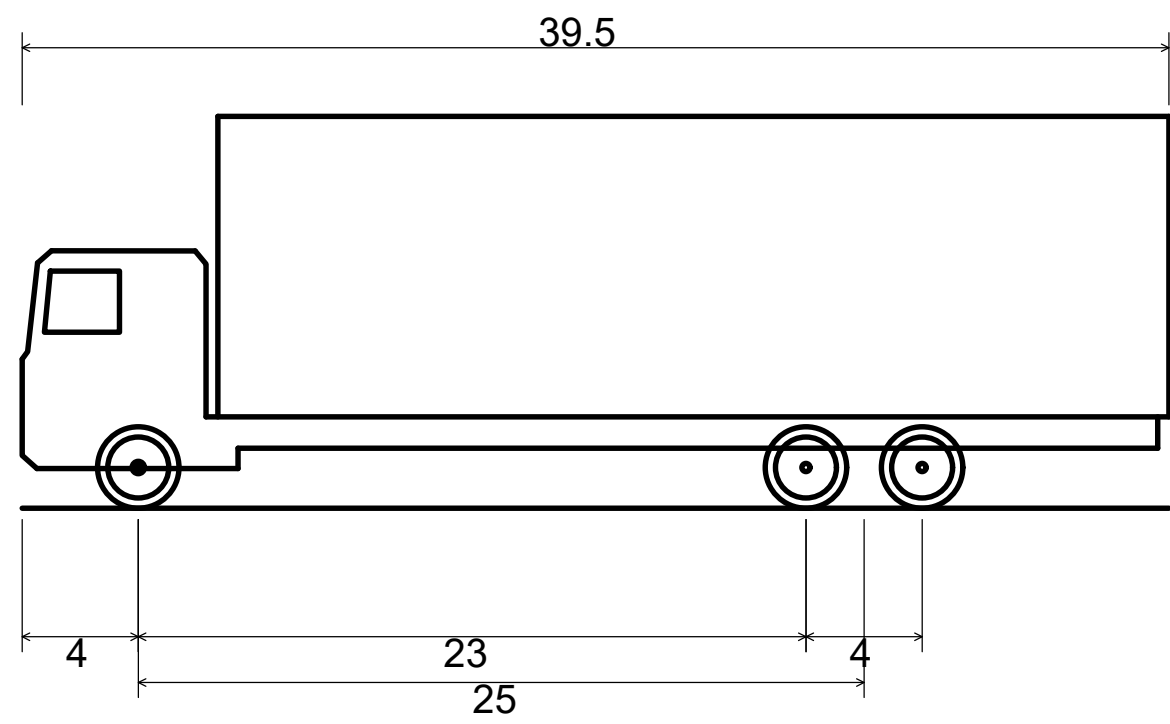
SITE ADDRESS:

29 WINTER STREET, PEMBROKE, MA

C-11

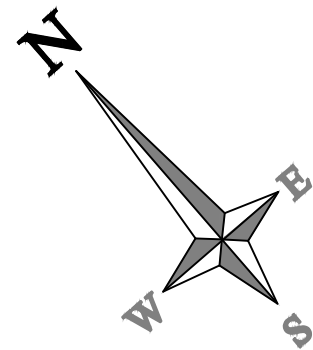
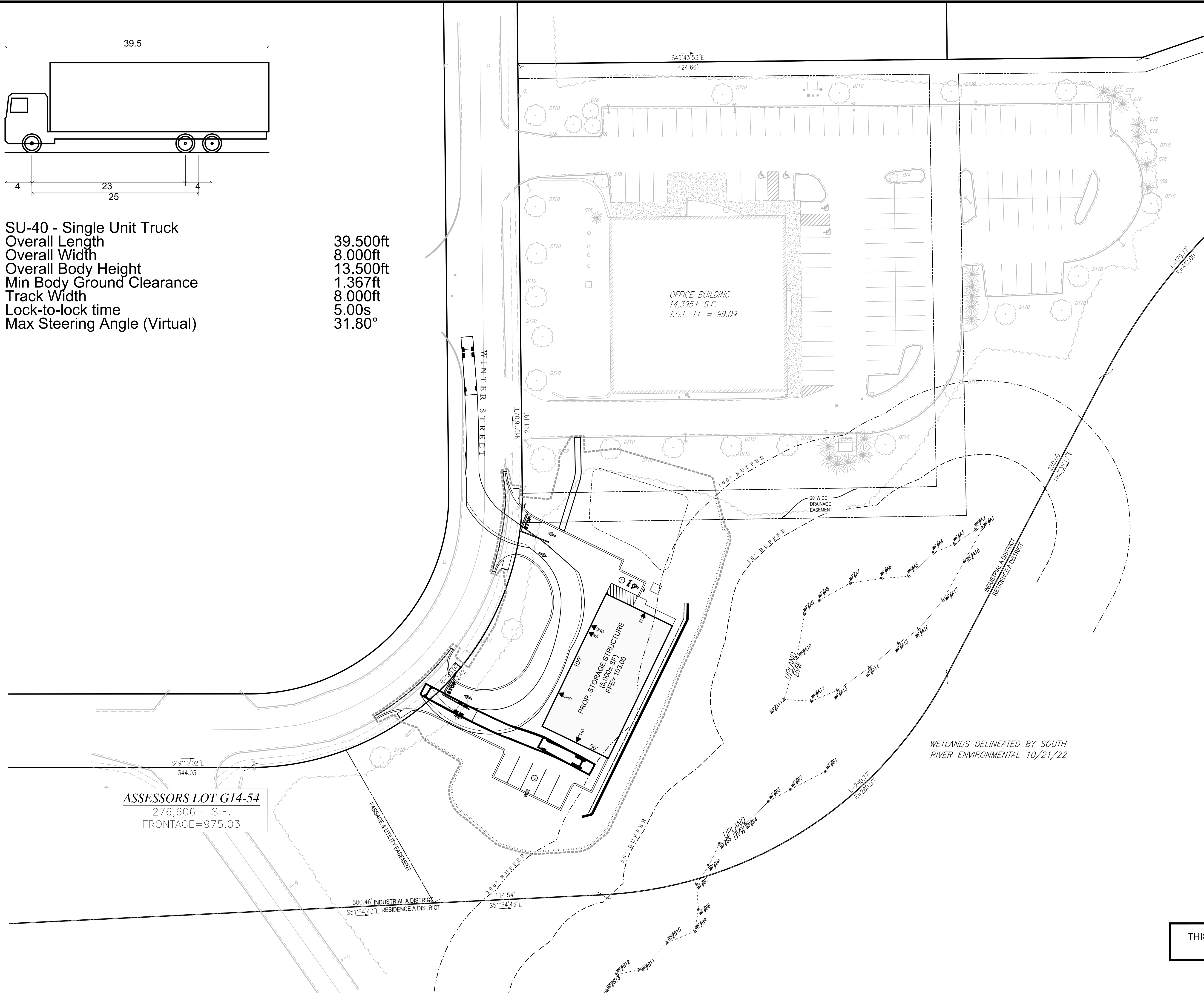
SHEET NO.



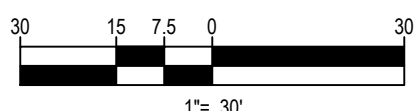


SU-40 - Single Unit Truck  
Overall Length  
Overall Width  
Overall Body Height  
Min Body Ground Clearance  
Track Width  
Lock-to-lock time  
Max Steering Angle (Virtual)

39.500ft  
8.000ft  
13.500ft  
1.367ft  
8.000ft  
5.00s  
31.80°



ASSESSORS PARCEL G13-  
#189 OAK STREET  
N/F UHS OF WESTWOOD PEMBRO  
DEED BOOK 19824 PAGE 3



THIS PLAN TO BE UTILIZED FOR SITE  
LAYOUT PURPOSES ONLY



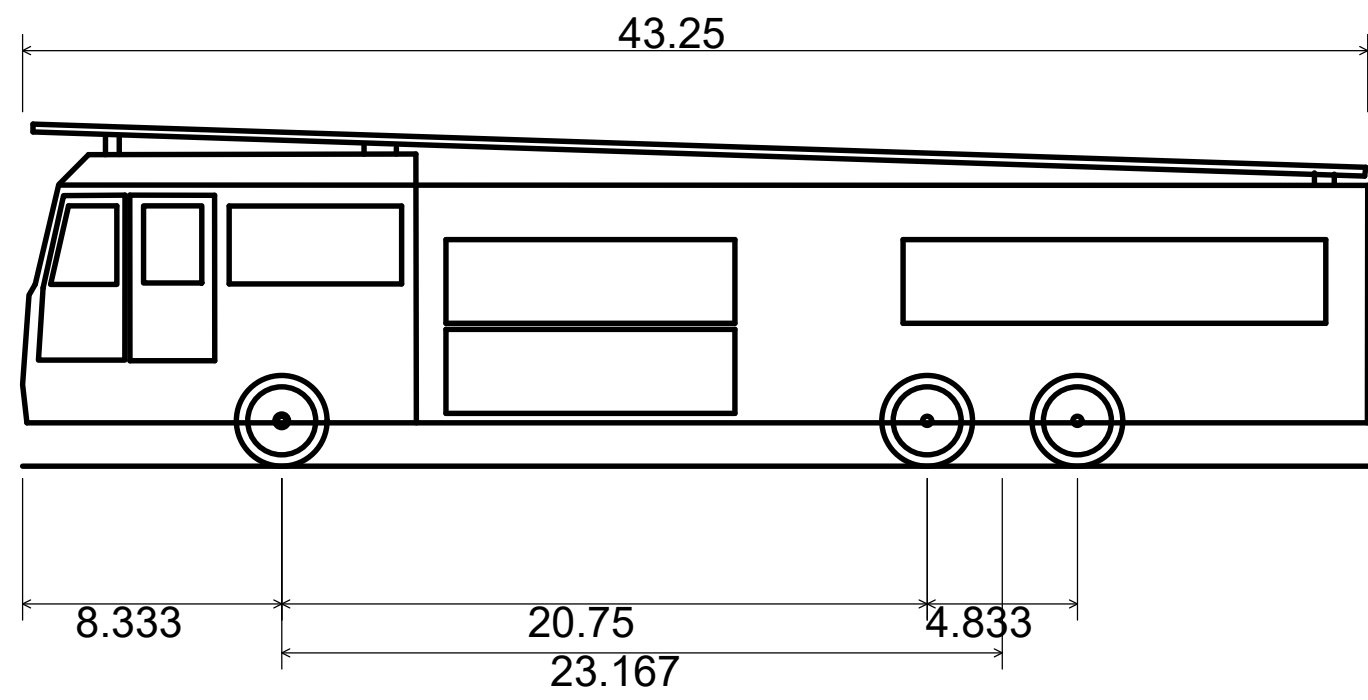
PRELIMINARY

REVISIONS		
NO.	DESCRIPTION	DATE
1	FEED REVIEW COMMENTS	03/20/2023



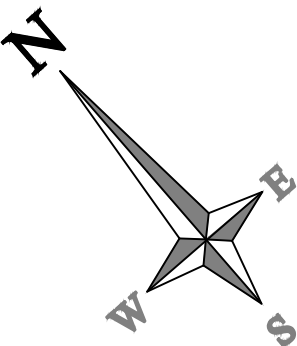
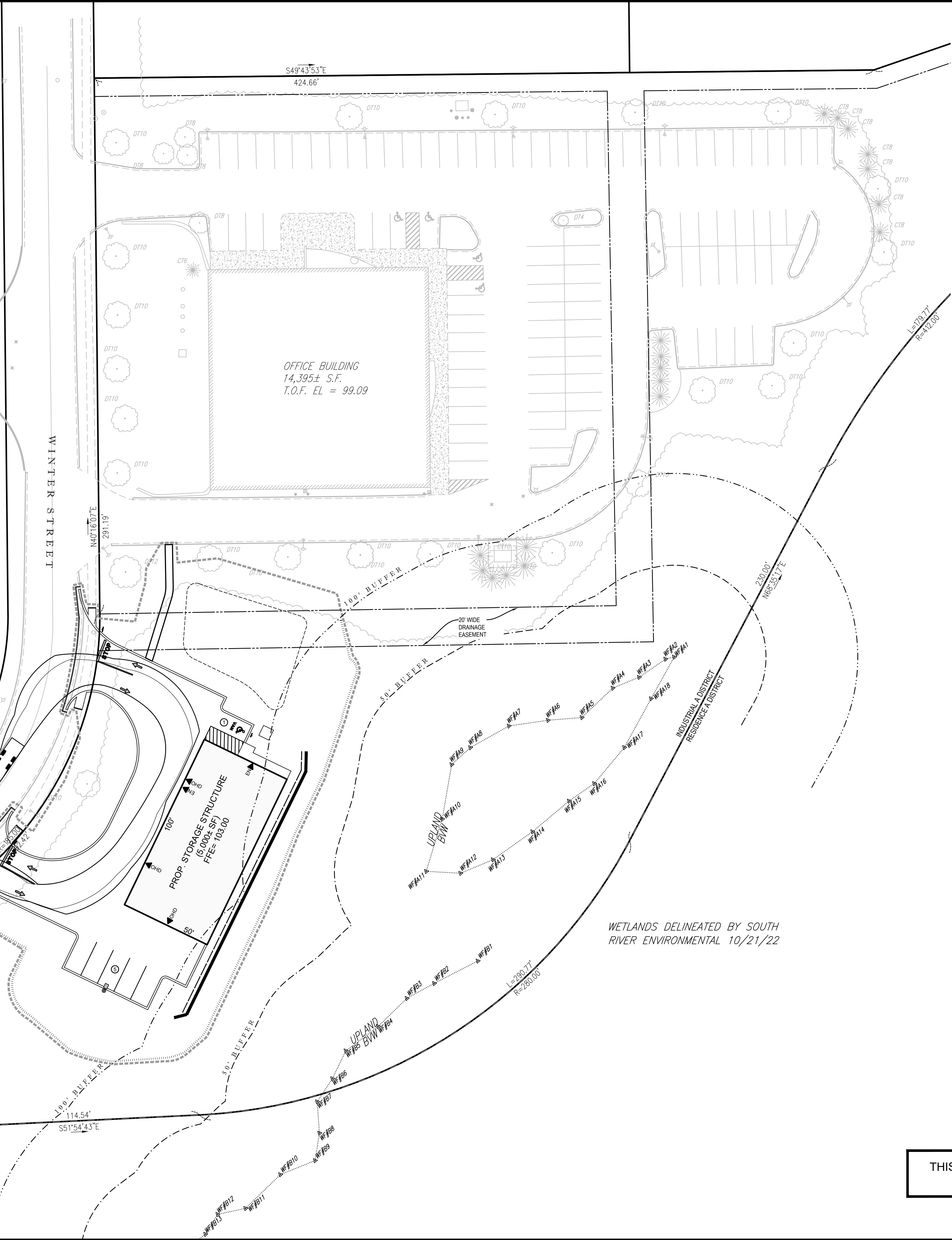
PROJECT TITLE: SITE DEVELOPMENT PLANS	DRAWN BY: AKPT	PREPARED FOR:
SHEET TITLE: DELIVERY VEHICLE TURNING STUDY	REVIEWED BY: KS	
SITE ADDRESS: 29 WINTER STREET, PEMBROKE, MA	DATE: 01/10/23	
	SCALE: AS SHOWN	
	PROJECT #: 1622000092	





E-ONE Heavy Walk-In Rescue  
Overall Length  
Overall Width  
Overall Body Height  
Min Body Ground Clearance  
Track Width  
Lock-to-lock time  
Max Wheel Angle

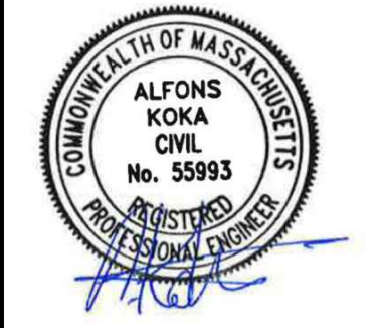
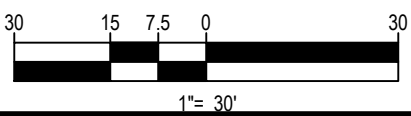
43.250ft  
8.333ft  
11.000ft  
1.393ft  
8.333ft  
6.00s  
45.00°



ASSESSORS PARCEL G13-  
#189 OAK STREET  
N/F UHS OF WESTWOOD PEMBRO  
DEED BOOK 19824 PAGE 3

ASSESSORS LOT G14-54  
276,606± S.F.  
FRONTAGE=975.03

THIS PLAN TO BE UTILIZED FOR SITE  
LAYOUT PURPOSES ONLY

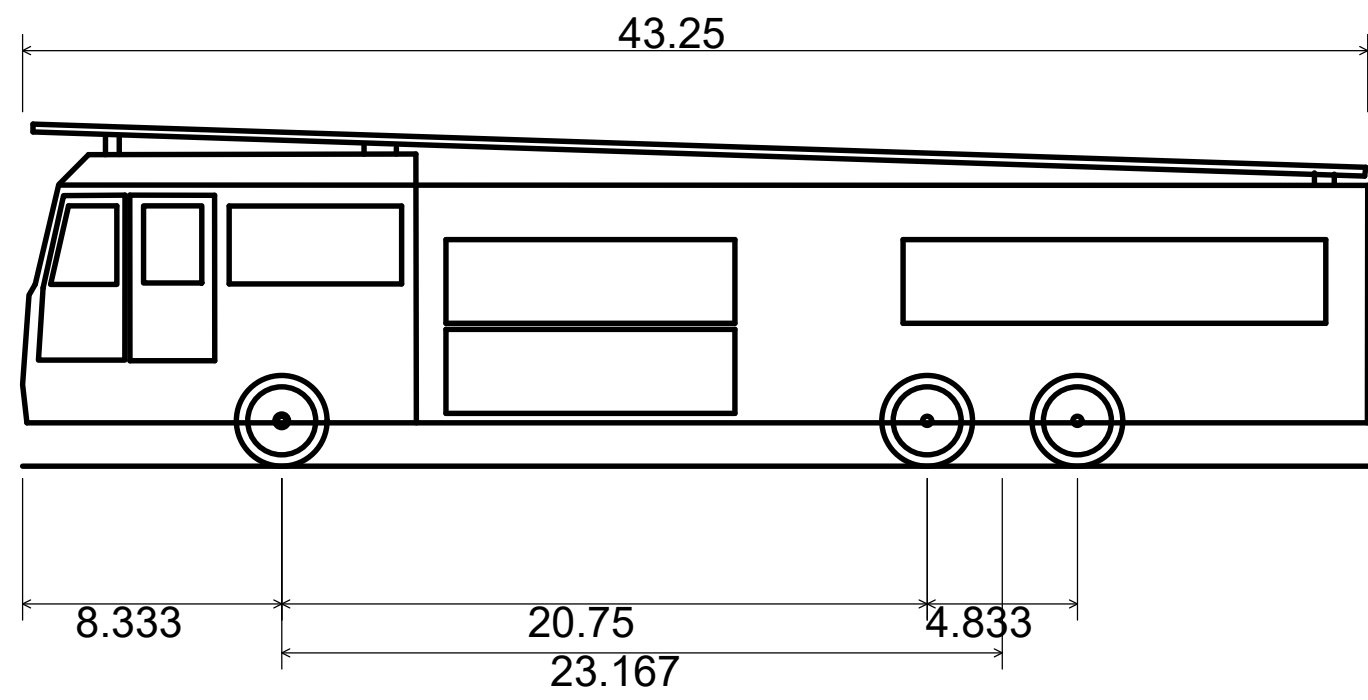


PRELIMINARY

REVISIONS		
NO.	DESCRIPTION	DATE
1	FEED REVIEW COMMENTS	03/20/2023

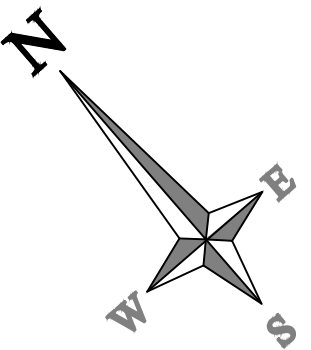
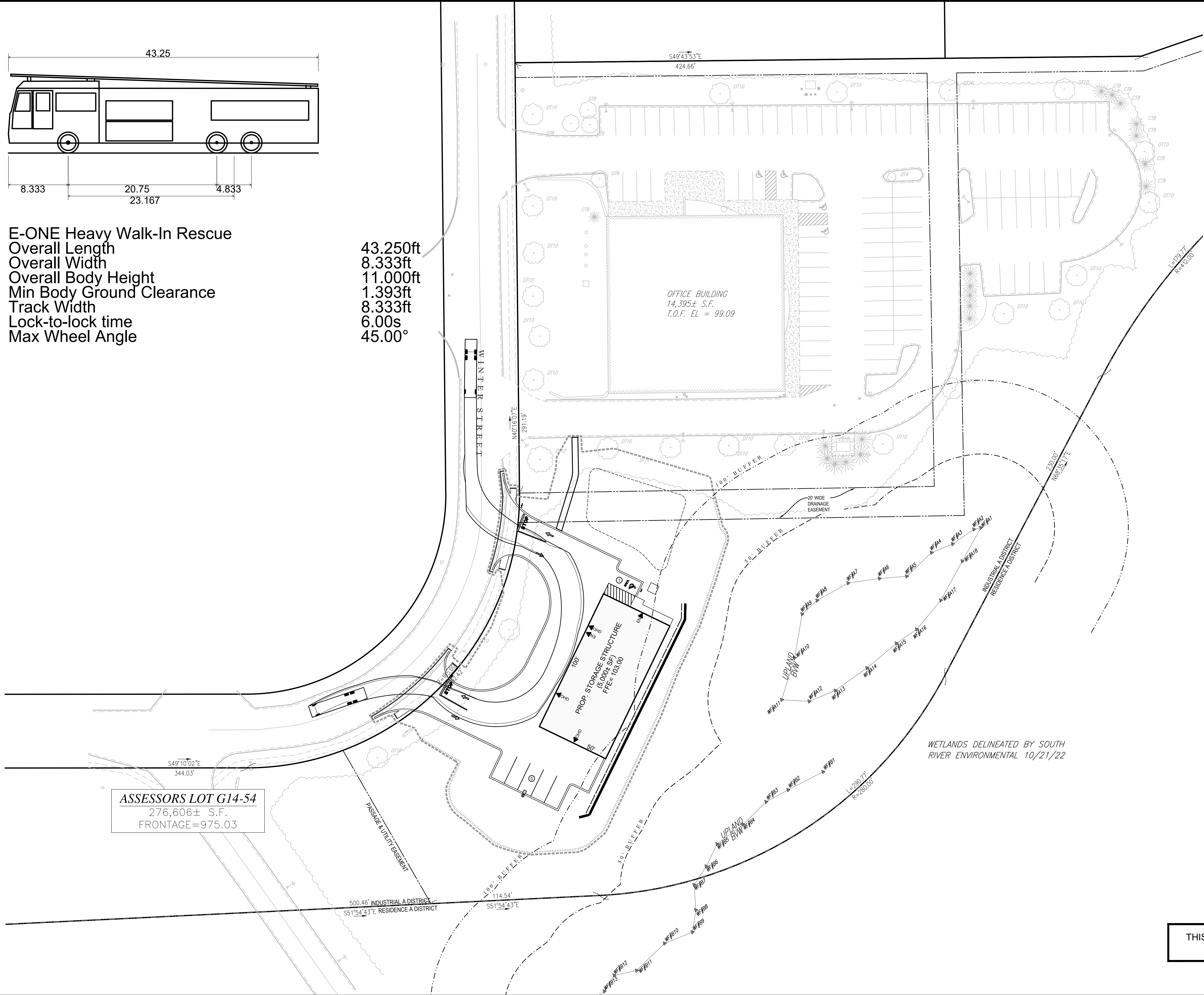




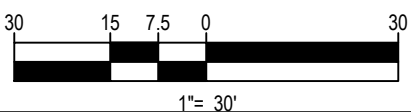


E-ONE Heavy Walk-In Rescue  
Overall Length  
Overall Width  
Overall Body Height  
Min Body Ground Clearance  
Track Width  
Lock-to-lock time  
Max Wheel Angle

43.250ft  
8.333ft  
11.000ft  
1.393ft  
8.333ft  
6.00s  
45.00°



ASSESSORS PARCEL G13-  
#189 OAK STREET  
N/F UHS OF WESTWOOD PEMBRO  
DEED BOOK 19824 PAGE 3



THIS PLAN TO BE UTILIZED FOR SITE  
LAYOUT PURPOSES ONLY



PRELIMINARY

NO.	DESCRIPTION	DATE	INT.	AK
1	FEED REVIEW COMMENTS	03/20/2023		



PROJECT TITLE	PROJECT NO.
SITE DEVELOPMENT PLANS	1622000082
SHEET TITLE	SCALE
FIRE APPARATUS TURNING STUDY	AS SHOWN
SITE ADDRESS	PROJECT #
29 WINTER STREET, PEMBROKE, MA	1622000082



PLANTING PLAN NOTES

1. THE EXISTING CONDITIONS BACKGROUND HAS AN ELECTRONIC CAD FILE AS SUPPLIED BY EBI CONSULTING ON 01/04/2023.
2. ALL OF THE PROPOSED PLANT MATERIAL SHALL BE INSTALLED AS SHOWN ON THE CONTRACT DOCUMENTS AND SPECIFICATIONS.
3. IT IS THE LANDSCAPE CONTRACTOR RESPONSIBILITY TO COORDINATE ALL ELEMENTS WITH THE GENERAL CONTRACTOR AND IF NECESSARY OTHER SUB CONTRACTORS AS REQUIRED TO SUCCESSFULLY PLANT ALL OF THE PROPOSED MATERIAL.
4. IT IS THE LANDSCAPE CONTRACTOR RESPONSIBILITY TO LOCATE ALL UNDERGROUND UTILITIES PRIOR TO STARTING WORK. ANY CONFLICTS THAT ARISE DURING THIS TIME SHALL BE BROUGHT TO THE DESIGN TEAMS ATTENTION IMMEDIATELY.
5. THE PLANT MATERIAL INSTALLATION SHALL HAPPEN BEFORE THE ROUGH GRADING HAS BEEN APPROVED BY THE LANDSCAPE ARCHITECT OR OWNERS REPRESENTATIVE.
6. ALL PLANT MATERIAL SHALL CONFORM TO THE GUIDELINES ESTABLISHED BY THE CURRENT AMERICAN STANDARD FOR NURSERY STOCK, PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMAN. ALL TREES AND SHRUBS OF THE SAME SPECIES AND SIZE SHALL HAVE MATCHING HEIGHT AND FORM UNLESS OTHERWISE NOTED ON THE PLANS AND BE APPROVED BY LANDSCAPE ARCHITECT OR OWNERS REPRESENTATIVE.
7. THE LANDSCAPE CONTRACTOR SHALL SUPPLY ALL PLANT MATERIAL IN QUANTITIES SUFFICIENT TO COMPLETE THE PLANTINGS SHOWN IN THE CONTRACT DOCUMENTS. DISCREPANCIES IN QUANTITIES SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT IMMEDIATELY SO I AM ABLE TO RESOLVE THE ISSUE IN A TIMELY MANNER.
8. ALL PROPOSED TREES, SHRUBS AND ORNAMENTAL GRASSES SHALL BE STAKED PRIOR TO EXCAVATING OF THE PLANTING AREAS. ADDITIONALLY, THE CONTRACTOR SHALL PAINT ON THE GROUND THE EXTENDS OF THE PROPOSED PLANT BEDS AND ALSO SHOW THE AREAS OF THE GROUND COVER AND PERENNIALS. THE FINAL LAYOUT TO BE APPROVED BY LANDSCAPE ARCHITECT OR OWNERS REPRESENTATIVE.
9. THE CONTRACTOR SHALL FURNISH PLANT MATERIAL FREE OF PESTS OR PLANT DISEASES. PRESELECTED OR TAGGED ANY MATERIAL SHALL BE INSPECTED BY THE LANDSCAPE ARCHITECT AND CERTIFIED PEST AND DISEASE FREE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO WARRANTY ALL PLANT MATERIAL FOR (1) ONE FULL YEAR FROM THE TIME OF FINAL ACCEPTANCE OF THE PLANTING.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACEMENT OF ANY EXISTING MATERIALS THAT WERE DAMAGED DURING PLANTING OPERATIONS.
11. ALL TREES, PLANT BEDS AND GROUND COVER SHALL BE COVERED WITH 3" OF ORGANIC BARK MUGH AS NOTED IN THE SPECIFICATIONS.

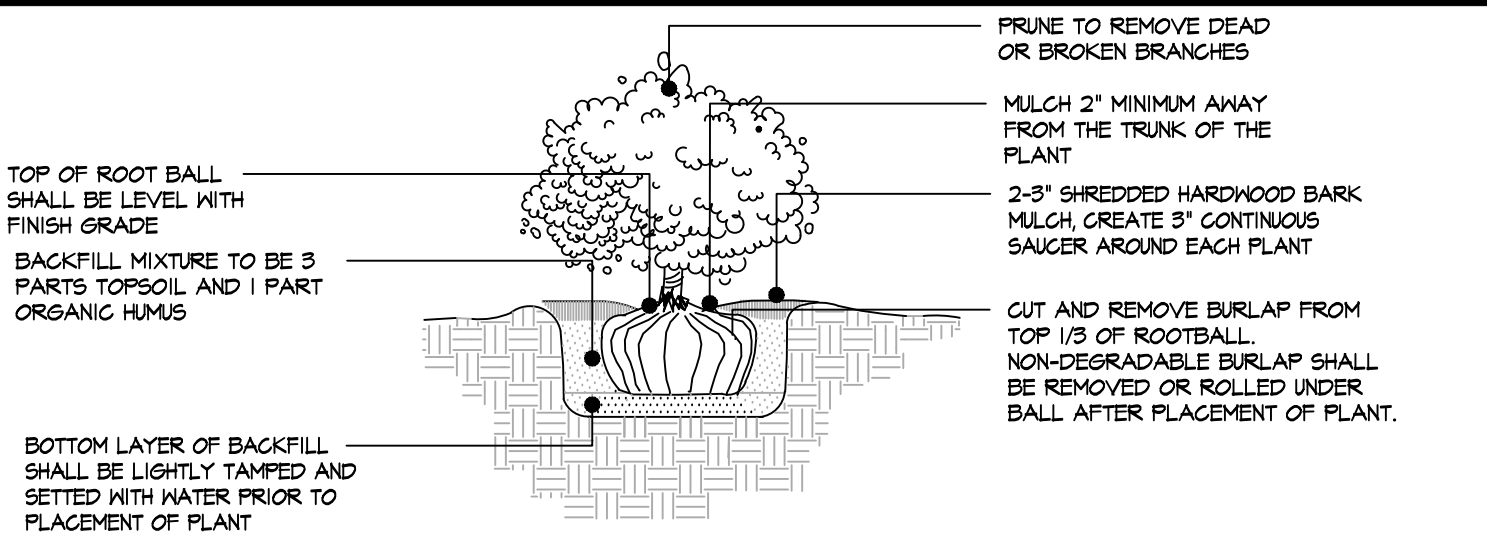
KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	NOTES
DECIDUOUS AND EVERGREEN SHRUBS					
CA	7	CLETHRA ALNIFOLIA 'HUMMINGBIRD'	HUMMINGBIRD SUMMERSHEET	3 GALLON	
HPSS	20	HYDRANGEA PANICULATA 'STRAWBERRY SHAKE'	STRAWBERRY SHAKE HYDRANGEA	3 GALLON	
IGS	21	ILEX GLABRA 'SHAMROCK'	SHAMROCK INKBERRY	3 GALLON	
IVRS	7	ILEX VERTICILLATA 'RED SPRITE'	RED SPRITE WINTERBERRY	3 GALLON	(1) MALE
ORNAMENTAL GRASSES, PERENNIALS AND GROUND COVER					
EPKXH	12	ECHINACEA PURPUREA KIM'S KNEE HIGH	KIM'S KNEE HIGH PURPLE CONEFLOWER	2 GALLON	
NFWL	15	NEPETA X FAASSENII 'WALKER'S LOW'	KIM'S KNEE HIGH PURPLE CONEFLOWER	2 GALLON	
PAH	47	PENNISETUM ALOPECUROIDES 'HAEMEL'	DWARF FOUNTAIN GRASS	2 GALLON	

LANDSCAPE ARCHITECT:

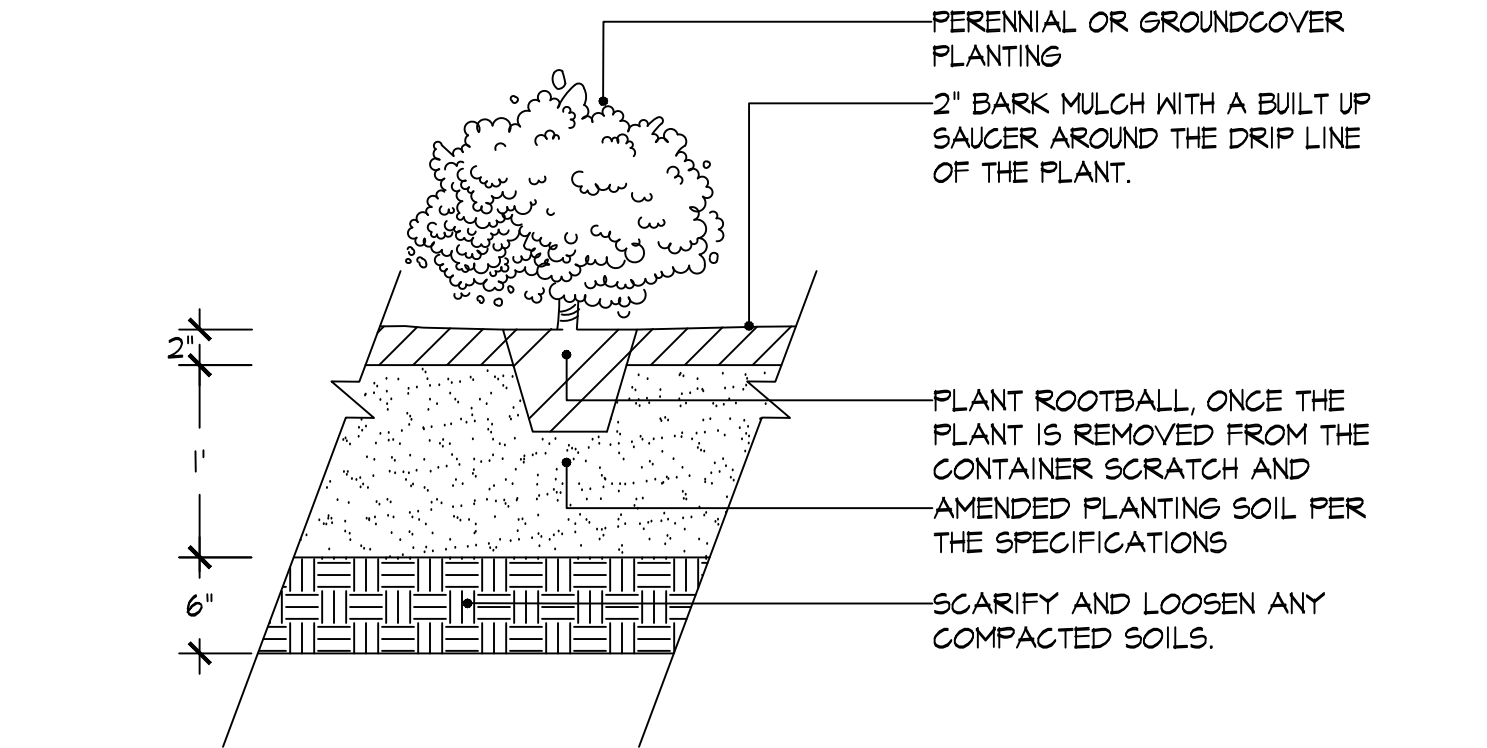


Jay Miller  
**LANDSCAPE  
ARCHITECTURE**

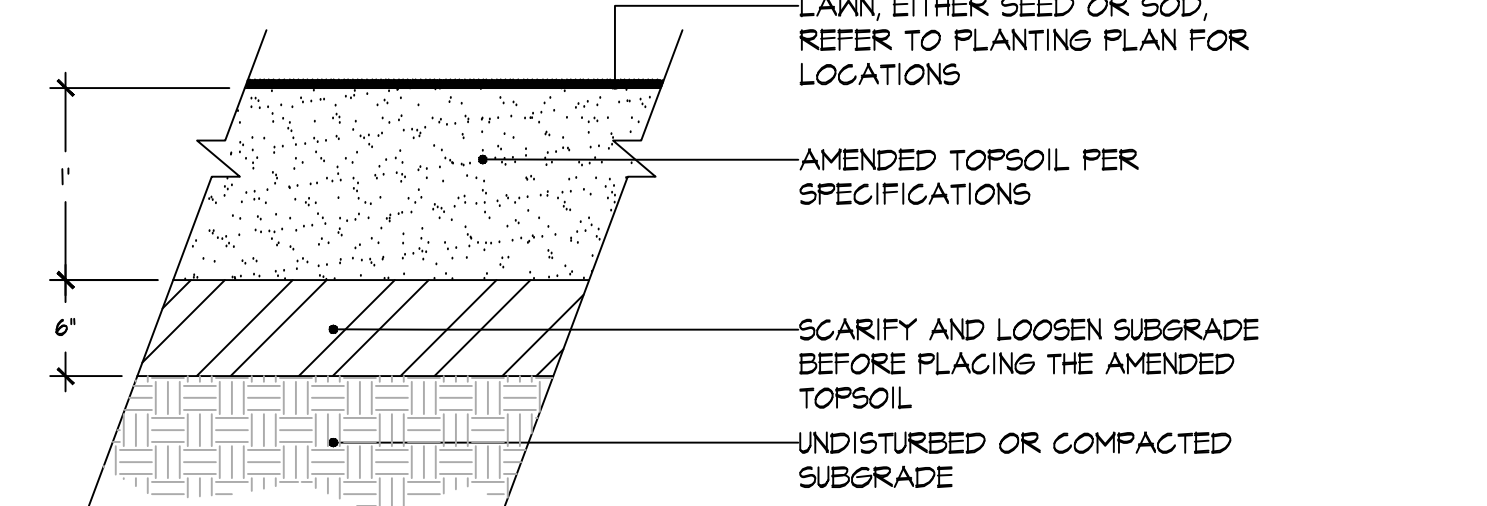
2045 VT. RT. 18  
WATERFORD VT 05819  
P: 802.555.8586  
E: JAY@J.MILLERLANDSCAPE.COM



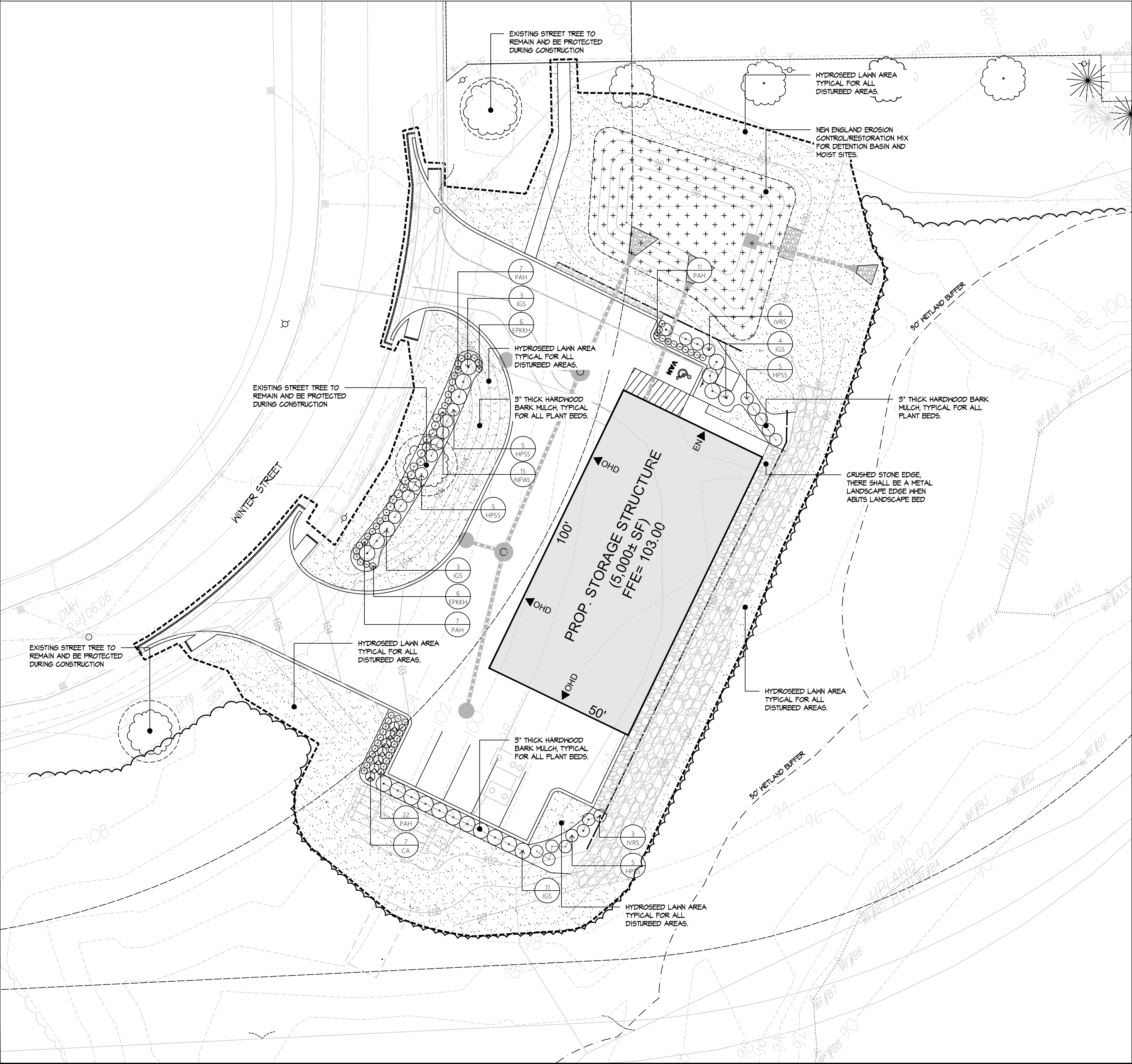
SHRUB PLANTING SCALE = N.T.S.



ORNAMENTAL GRASSES AND PERENNIALS PLANTING SCALE = N.T.S.



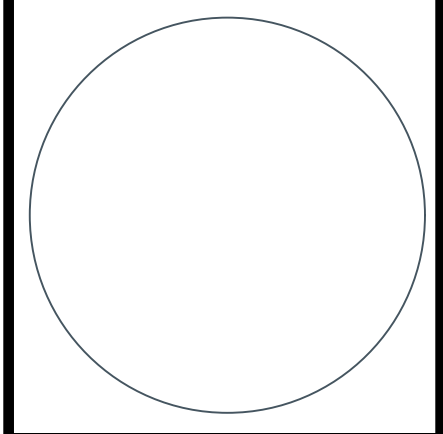
LOAM AND SEED SCALE = N.T.S.





21 B Street | Burlington, MA 01803  
Tel: 781.273.2500 | Fax: 781.273.3311  
www.ebiconsulting.com

PREPARED BY:




PRELIMINARY

REVISIONS		NO.	DESCRIPTION	DATE	INIT.



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ELECTRICAL DESIGN & CONTRACTING

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PROJECT TITLE  
SITE DEVELOPMENT  
PLANS

REVIEWED BY  
KS

DATE  
1/19/2023

SCALE  
AS SHOWN

PROJECT #  
1622000082

PROJECT TITLE  
LANDSCAPE PLAN

DATE  
1/19/2023

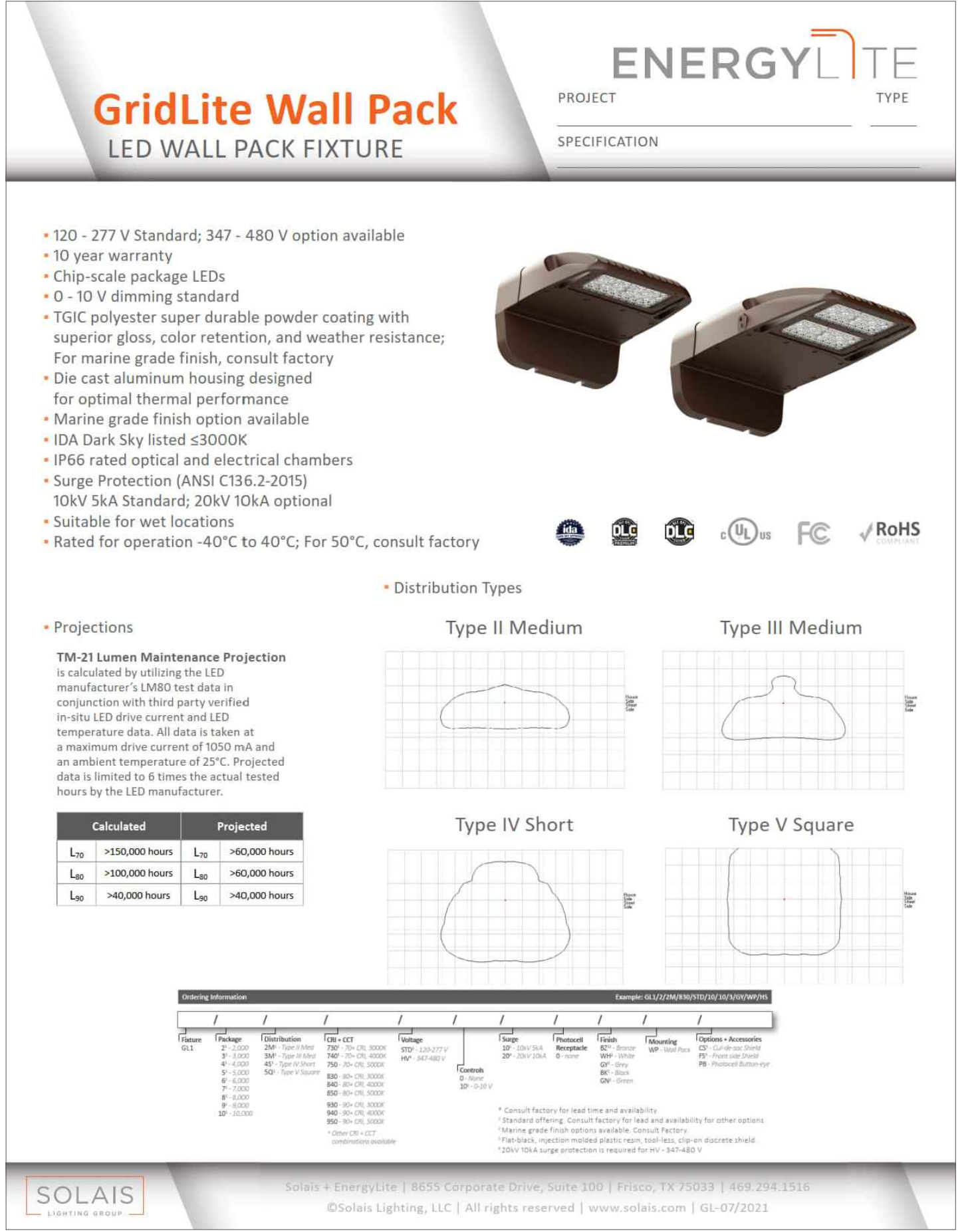
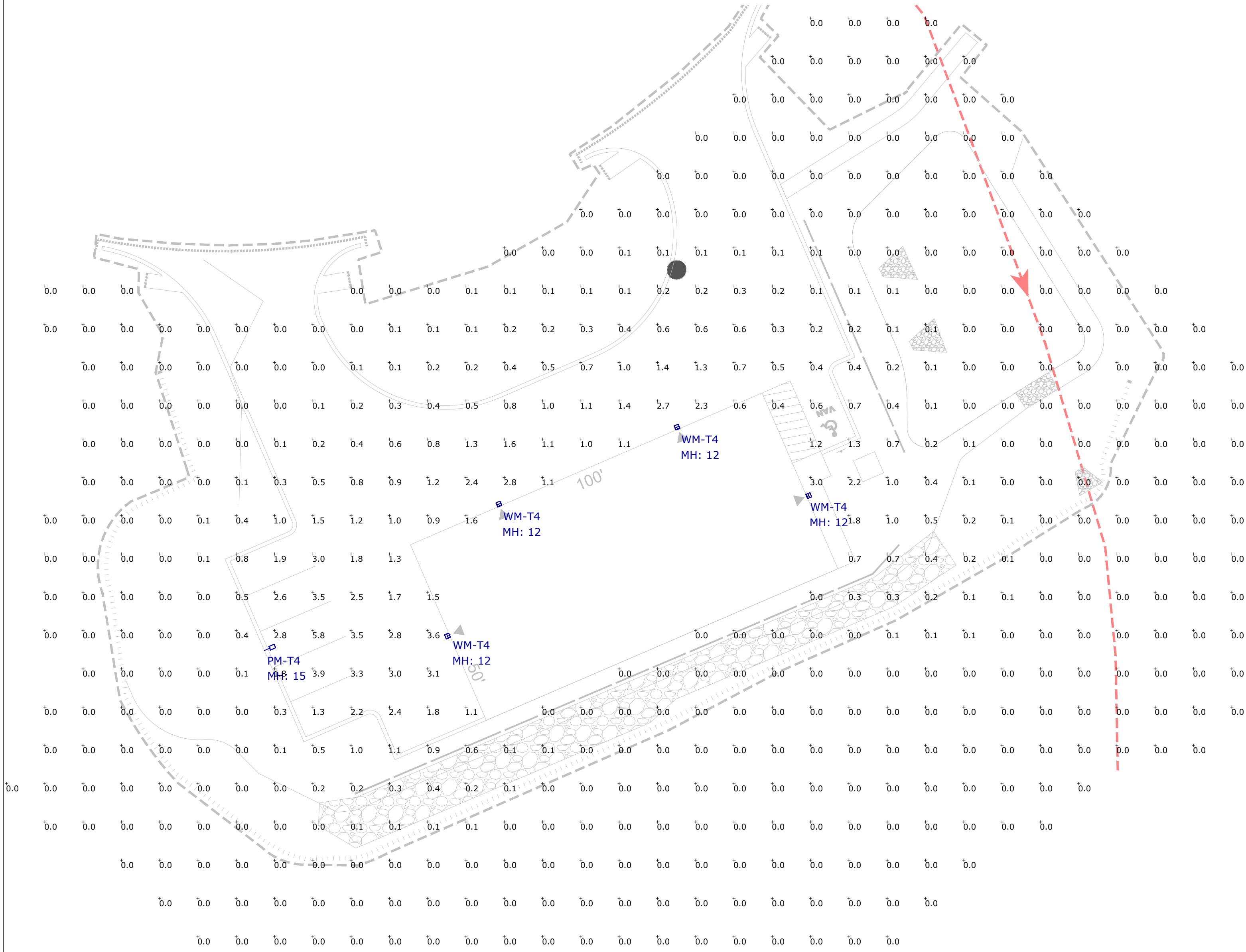
SCALE  
AS SHOWN

PROJECT #  
1622000082

L100

SHEET NO.

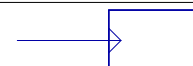





1 Site Lighting Plan & Photometrics  
SCALE: 1"=20'-0"

2 Fixture Specification - Solais Gridlite GL3

3 Fixture Specification - Solais Gridlite Wall Pack

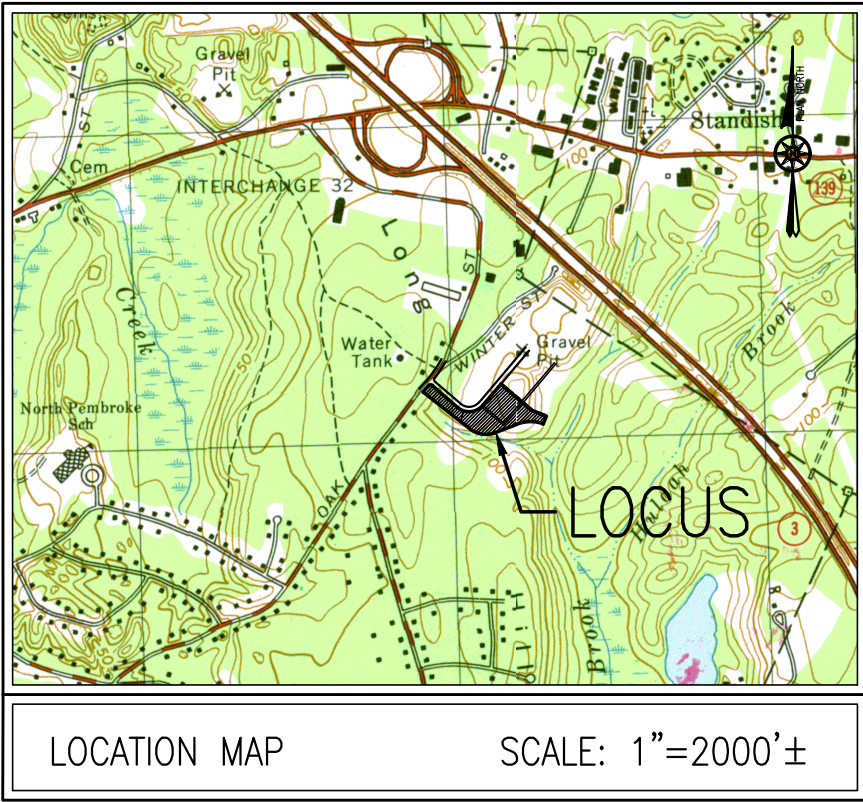
Luminaire Schedule					LLF	Fixture Wattage	Fixture Lumens
Symbol	Label	Qty	Part Number				
	PM-T4	1	Solais # GL3-12L-4WS-740-STD-10-1PS-00-SBZ-ES-SS		0.900	82.28	6736
	WM-T4	4	Solais # GL1-3-4S-740-STD-0-10-0-BZ-WP		0.900	26	2912

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Site Points	Illuminance	Fc	0.24	5.8	0.0	N.A.	N.A.

- NOTES:
- A LIGHT LOSS FACTOR OF 0.900 HAS BEEN APPLIED TO FIXTURES UNLESS OTHERWISE NOTED. REFER TO LUMINAIRE SCHEDULE FOR LIGHT LOSS FACTOR AND LUMEN INFORMATION.
  - SEE "MH" ON LIGHTING FIXTURE TAG LOCATED ON PLAN FOR MOUNTING HEIGHT INFORMATION.
  - CALCULATION POINTS ARE TAKEN AT GRADE.
  - CALCULATION RESULTS ARE BASED ON IES STANDARDS UNLESS OTHERWISE REQUESTED.

DATE:	REVISIONS	DESCRIPTION	DATE
January 16, 2023	1		
PROJECT NUMBER:	2		
DRAWN BY: AD	3		
CHECKED BY: TJ	4		
APPROVED BY: HD	5		
SCALE: AS NOTED	6		
	7		



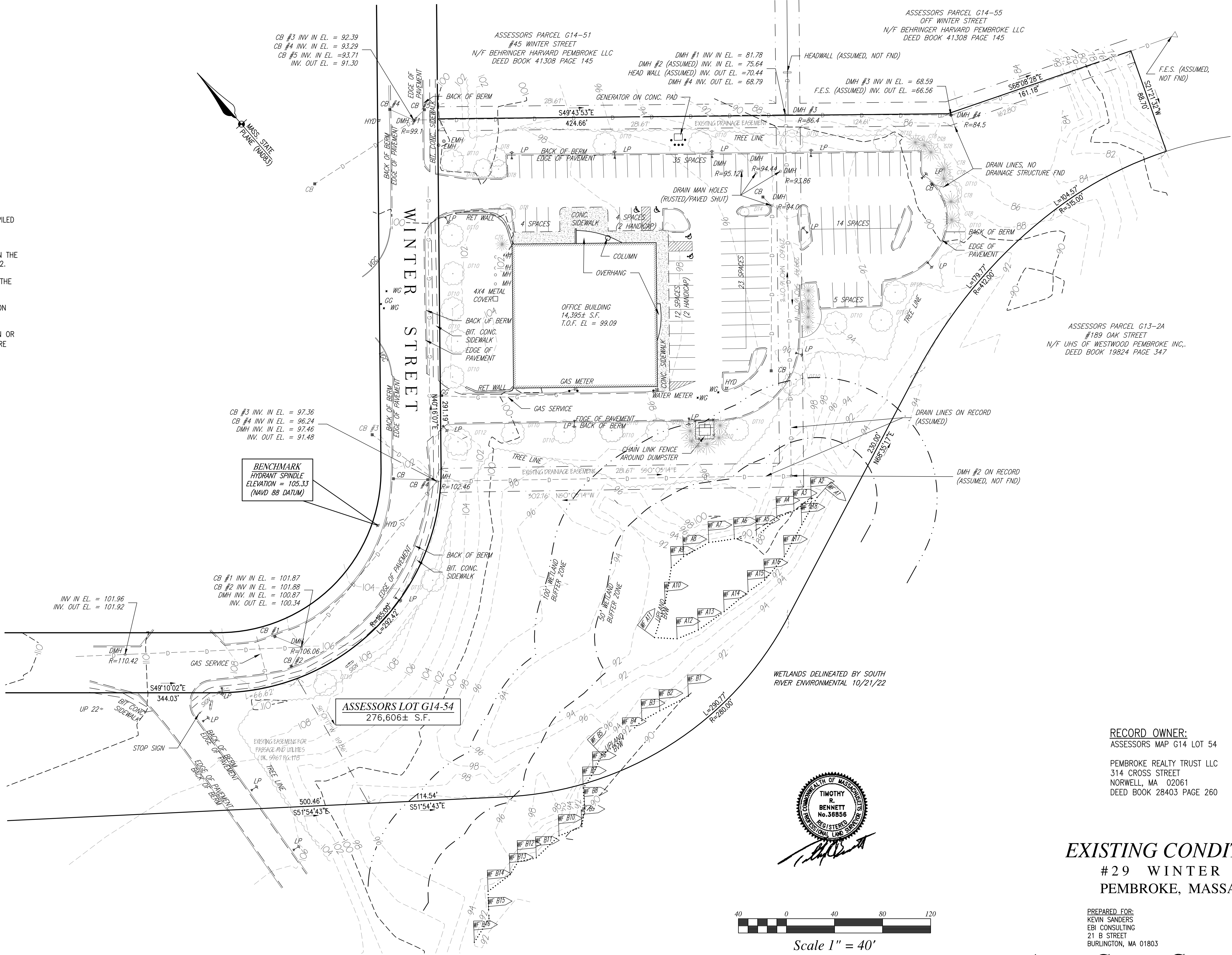


NOTES:

1. PROPERTY LINE, STREET LINE AND OWNER INFORMATION WAS COMPILED FROM RECORDS ON FILE AT THE PLYMOUTH COUNTY REGISTRY OF DEEDS.
2. TOPOGRAPHY INFORMATION SHOWN ON THIS PLAN IS BASED AN ON THE GROUND SURVEY BY GRADY CONSULTING LLC IN OCTOBER OF 2022.
3. SUBJECT SITE IS IN THE INDUSTRIAL A DISTRICT AS DEPICTED ON THE TOWN OF PEMBROKE ZONING MAP.
4. EXISTING UTILITIES, WHERE SHOWN, HAVE BEEN COMPILED BASED ON OBSERVED ABOVE GROUND EVIDENCE ONLY AND ARE TO BE CONSIDERED APPROXIMATE. GRADY CONSULTING, L.L.C. DOES NOT GUARANTEE THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN OR THAT ALL EXISTING UTILITIES AND/OR SUBSURFACE STRUCTURES ARE SHOWN.

FLOOD NOTE:

BY GRAPHIC PLOTTING ONLY, THIS PROPERTY IS LOCATED IN ZONE X AREA OF MINIMAL FOOD HAZARD AS DEPICTED ON FLOOD INSURANCE RATE MAP, COMMUNITY PANEL No. 25023C 0207K, WHICH BEARS AN EFFECTIVE DATE OF JULY 6, 2021.



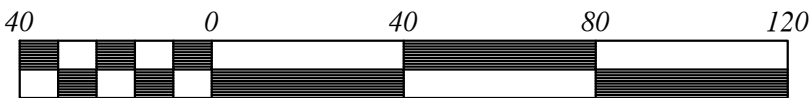
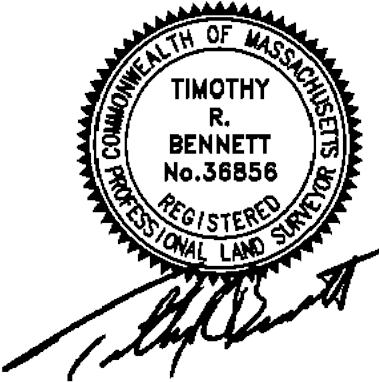
RECORD OWNER:  
ASSESSORS MAP G14 LOT 54  
  
PEMBROKE REALTY TRUST LLC  
314 CROSS STREET  
NORWELL, MA 02061  
DEED BOOK 28403 PAGE 260

EXISTING CONDITIONS PLAN  
#29 WINTER STREET  
PEMBROKE, MASSACHUSETTS

PREPARED FOR:  
KEVIN SANDERS  
EBI CONSULTING  
21 B STREET  
BURLINGTON, MA 01803

NOVEMBER 1, 2022  
SCALE: 1"=40'  
JOB No. 22-519

**GRADY CONSULTING, L.L.C.**  
Civil Engineers, Land Surveyors & Landscape Architects  
71 Evergreen Street, Suite 1, Kingston, MA 02364  
Phone (781) 585-2300



Scale 1" = 40'

REVISIONS	
MARCH 20, 2023	ADD EXIST. DRAINAGE EASEMENT