PROPOSED SITE PLAN DOCUMENTS

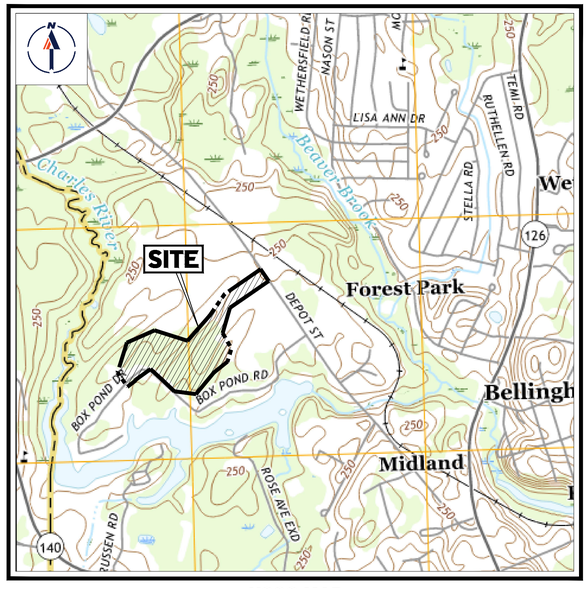
FOR

2020 ACQUISITIONS

PROPOSED

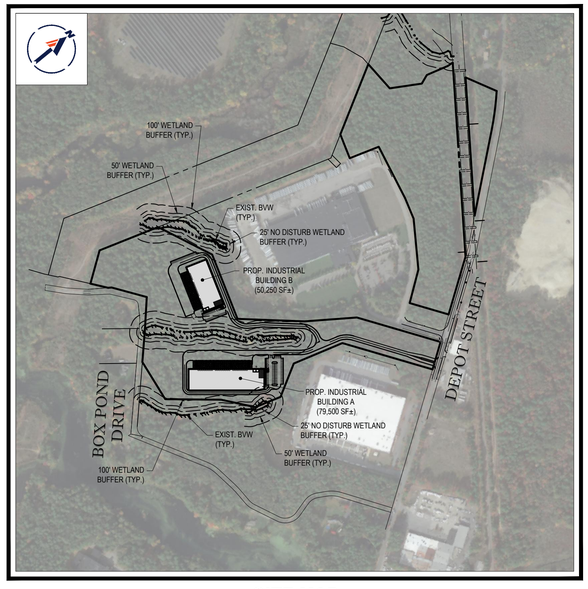
SOUTH SIDE DEVELOPMENT

LOCATION OF SITE:
148 DEPOT STREET, TOWN OF BELLINGHAM
NORFOLK COUNTY, MASSACHUSETTS
MAP #38, BLOCK #1, LOT #23



USGS MAP

SCALE: 1" = 1,000'
SOURCE: USGS FRANKLIN QUADRANGLE



SITE MAP

SCALE: 1" = 500'

DRAWING SHEET INDEX

SHEET TITLE	SHEET NUMBER
COVER SHEET	C-101
GENERAL NOTES SHEET	C-102
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SITE LAYOUT PLAN (A-D)	C-302 - C305
GRADING AND DRAINAGE PLAN (A-D)	C-401 - C404
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EROSION AND SEDIMENT CONTROL PLAN (A-D)	C-601 - C604
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LANDSCAPE PLAN (A-D)	C-701 - C704
LANDSCAPE NOTES AND DETAILS	C-705
LIGHTING PLAN (A-D)	C-706 - C-709
DETAIL SHEET	C-901 - C-905
ALTA/NSPS LAND TITLE SURVEY (BY OTHERS)	11 SHEETS

PREPARED BY

BOHLER

BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

THE IDEAS AND DESIGNS INCORPORATED ON THESE PLANS ARE THE PROPERTY AND COPYRIGHT OF BOHLER AND SHALL NOT BE USED IN ANY FORM OR MANNER WHATSOEVER NOR ASSIGNED TO ANY THIRD PERSON WITHOUT THE PRIOR WRITTEN CONSENT OF BOHLER. VISUAL CONTACT WITH THESE PLANS SHALL CONSTITUTE PRIMA FACIE EVIDENCE OF ACCEPTANCE OF THESE RESTRICTIONS. ANY UNAUTHORIZED REUSE OF THESE PLANS WITHOUT THE EXPRESS WRITTEN CONSENT OF BOHLER FOR ANY PROJECT OTHER THAN THE SPECIFIC PROJECT FOR WHICH THEY HAVE BEEN PREPARED IS PROHIBITED. ANY UNAUTHORIZED REUSE SHALL BE UNDERTAKEN AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO BOHLER. ALL AUTHORIZED REUSE SHALL BE UNDERTAKEN AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO BOHLER. ALL AUTHORIZED REUSE SHALL BE UNDERTAKEN AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO BOHLER.

REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY

811 Know what's below. Call before you dig.
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THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.:	W211060
DRAWN BY:	CSE
CHECKED BY:	NEM
DATE:	09/01/2021
CAD I.D.:	W211060-CVL-0

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

2020 ACQUISITIONS

PROPOSED SOUTH SIDE DEVELOPMENT

MAP #38, BLOCK #1, LOT #23
148 DEPOT STREET SOUTH
TOWN OF BELLINGHAM
NORFOLK COUNTY, MASSACHUSETTS

BOHLER
352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900
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COMMONWEALTH OF MASSACHUSETTS
JOHN K. KUCZARSKI
CIVIL
No. 41530
REGISTERED PROFESSIONAL ENGINEER
NEW HAMPSHIRE LICENSE No. 15426
CONNECTICUT LICENSE No. 26127
RHODE ISLAND LICENSE No. 24016
MAINE LICENSE No. 22553

SHEET TITLE:

COVER SHEET

SHEET NUMBER:

C-101

ORG. DATE - 09/01/2021

P:\2021\W211060\DRAWINGS\PLAN SET\SHEETS\W211060-CVL-0-----LAYOUT C-101-COVR

GENERAL NOTES

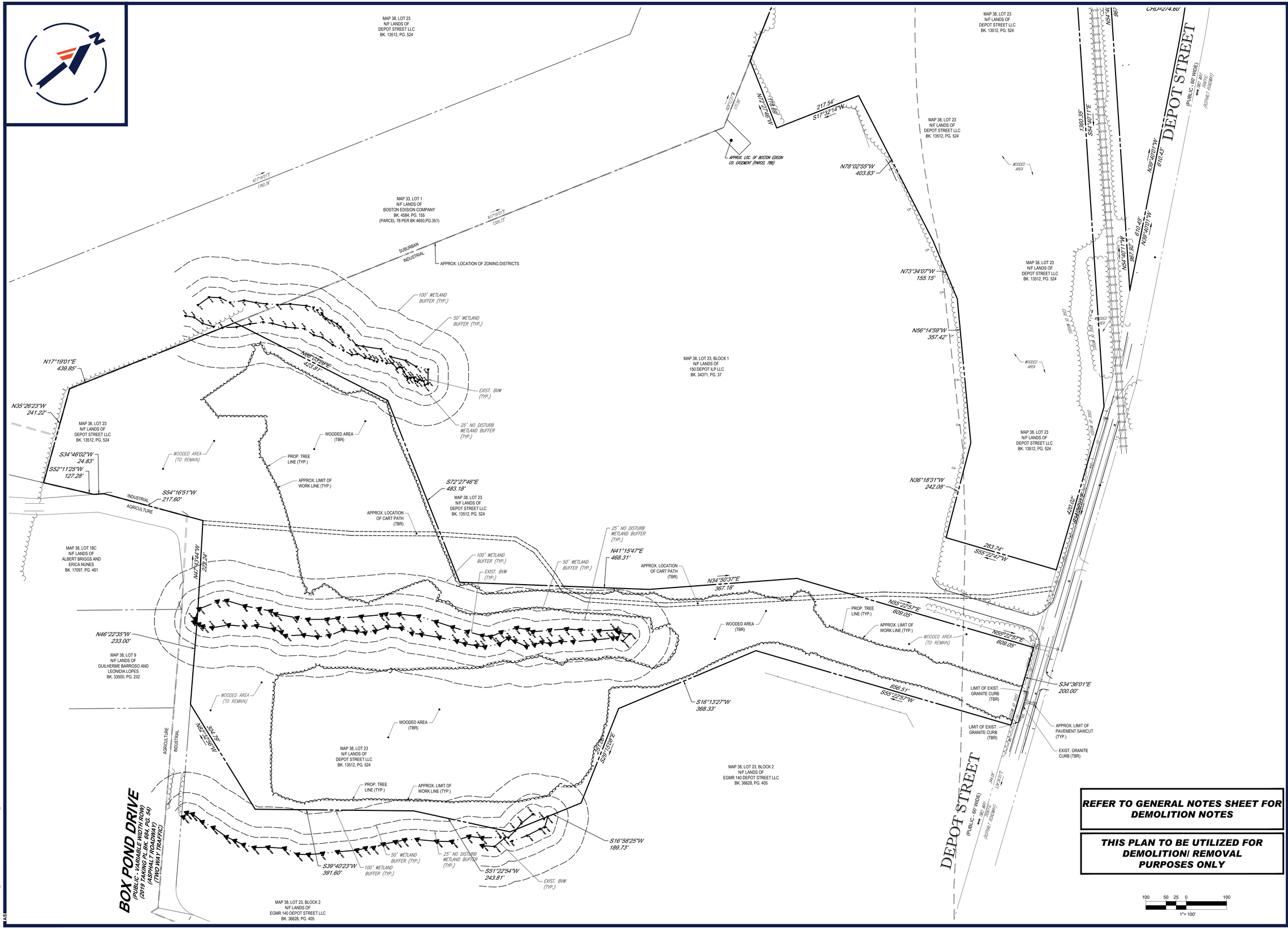
CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH THE NOTES AND SPECIFICATIONS CONTAINED HEREIN. CONTRACTOR IS RESPONSIBLE TO ENSURE THAT ALL SUBCONTRACTORS FULLY AND COMPLETELY CONFORM TO AND COMPLY WITH THESE REQUIREMENTS.

1. THE FOLLOWING DOCUMENTS ARE INCORPORATED BY REFERENCE AS PART OF THIS SITE PLAN:
   - "ALTA / NSPS LAND TITLE SURVEY" PREPARED BY CONTROL POINT ASSOCIATES, INC., DATED 06/07/21, REVISED THRU. 08/20/21.
   - "BUILDING OVERALL FLOOR PLAN" PREPARED BY M+H ARCHITECTS, DATED 08/03/21.
   - "PROPOSED BORING LOCATION PLAN" PREPARED BY WHITESTONE ASSOCIATES, INC., DATED 05/19/21.
   - TRAFFIC REPORT - "TRANSPORTATION IMPACT ASSESSMENT", PREPARED BY VANASSE AND ASSOCIATES, INC.

   PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR MUST VERIFY THAT HE/SHE HAS THE LATEST EDITION OF THE DOCUMENTS REFERENCED ABOVE. THIS IS CONTRACTOR'S RESPONSIBILITY.
2. ALL ACCESSIBLE (A/K/A ADA) PARKING SPACES MUST BE CONSTRUCTED TO MEET, AT A MINIMUM, THE MORE STRINGENT OF THE REQUIREMENTS OF THE "AMERICANS WITH DISABILITIES ACT" (ADA) CODE (42 U.S.C. § 12101 et seq. AND 42 U.S.C. § 4151 et seq.) OR THE REQUIREMENTS OF THE JURISDICTION WHERE THE PROJECT IS TO BE CONSTRUCTED, AND ANY AND ALL AMENDMENTS TO BOTH WHICH ARE IN EFFECT WHEN THESE PLANS ARE COMPLETED.
3. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR IS 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 MUST HAVE COPIES OF ALL PERMITS AND APPROVALS ON SITE AT ALL TIMES.
4. THE OWNER/CONTRACTOR MUST BE FAMILIAR WITH AND RESPONSIBLE FOR THE PROCUREMENT OF ANY AND ALL CERTIFICATIONS REQUIRED FOR THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
5. ALL WORK MUST 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.
6. THE GEOTECHNICAL REPORT AND RECOMMENDATIONS SET FORTH HEREIN ARE A PART OF THE REQUIRED CONSTRUCTION DOCUMENTS AND, IN CASE OF CONFLICT, DISCREPANCY OR AMBIGUITY, THE MORE STRINGENT REQUIREMENTS AND/OR RECOMMENDATIONS CONTAINED IN THE PLANS AND THE GEOTECHNICAL REPORT AND RECOMMENDATIONS SHALL TAKE PRECEDENCE UNLESS SPECIFICALLY NOTED OTHERWISE ON THE PLANS. THE CONTRACTOR MUST 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.
7. THESE PLANS ARE BASED ON INFORMATION PROVIDED TO BOHLER ENGINEERING BY THE OWNER AND OTHERS PRIOR TO THE TIME OF PLAN PREPARATION. CONTRACTOR MUST FIELD VERIFY EXISTING CONDITIONS AND NOTIFY BOHLER ENGINEERING, IN WRITING, IMMEDIATELY IF ACTUAL SITE CONDITIONS DIFFER FROM THOSE SHOWN ON THE PLAN, OR IF THE PROPOSED WORK CONFLICTS WITH ANY OTHER SITE FEATURES.
8. ALL DIMENSIONS SHOWN ON THE PLANS MUST BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR MUST NOTIFY ENGINEER, IN WRITING, IF ANY CONFLICTS, DISCREPANCIES, OR AMBIGUITIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION. NO EXTRA COMPENSATION WILL 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.
9. CONTRACTOR MUST REFER TO THE ARCHITECTURAL/BUILDING PLANS "OF RECORD" FOR EXACT LOCATIONS AND DIMENSIONS OF ENTRY/EXIT POINTS, ELEVATIONS, PRECISE BUILDING DIMENSIONS, AND EXACT BUILDING UTILITY LOCATIONS.
10. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR MUST 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 MUST IMMEDIATELY NOTIFY OWNER, ARCHITECT AND SITE ENGINEER, IN WRITING, OF ANY CONFLICTS, DISCREPANCIES OR AMBIGUITIES WHICH EXIST.
11. DEBRIS MUST NOT BE BURIED ON THE SUBJECT SITE AND ALL UNSUITABLE EXCAVATED MATERIAL AND DEBRIS (SOLID WASTE) MUST BE DISPOSED OF IN ACCORDANCE WITH THE REQUIREMENTS OF ANY AND ALL GOVERNMENTAL AUTHORITIES WHICH HAVE JURISDICTION OVER THIS PROJECT OR OVER CONTRACTOR.
12. THE CONTRACTOR IS 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.
13. THE CONTRACTOR IS TO 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 IS 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.
14. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE DONE TO ANY NEW OR EXISTING CONSTRUCTION OR PROPERTY DURING THE COURSE OF CONSTRUCTION, INCLUDING BUT NOT LIMITED TO, DRAINAGE, UTILITIES, PAVEMENT, STRIPING, CURB, ETC. AND SHALL RESTORE ALL DISTURBED AREAS WITH SAME. TO INCLUDE, BUT NOT BE LIMITED TO, REDESIGN, RE-SURVEY, RE-PERMITTING AND CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR AND MUST REPLACE ALL SIGNAL INTERCONNECTION CABLE, WIRING CONDUITS, AND ANY UNDERGROUND ACCESSORY EQUIPMENT DAMAGED DURING CONSTRUCTION AND MUST BEAR ALL COSTS ASSOCIATED WITH SAME. THE REPAIR OF ANY SUCH NEW OR EXISTING CONSTRUCTION OR PROPERTY MUST 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 STANDARDS. CONTRACTOR MUST 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.
15. ALL CONCRETE MUST 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.
16. THE ENGINEER IS NOT 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 IS RESPONSIBLE FOR DETERMINING THE METHODS/MEANS FOR COMPLETION OF THE WORK PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
17. THE ENGINEER OF RECORD IS NOT 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 IS NOT RESPONSIBLE TO IDENTIFY OR REPORT ANY JOB SITE SAFETY ISSUES, AT ANY TIME.
18. ALL CONTRACTORS MUST CARRY THE SPECIFIED STATUTORY WORKER'S COMPENSATION INSURANCE, EMPLOYER'S LIABILITY INSURANCE AND LIMITS OF COMMERCIAL GENERAL LIABILITY INSURANCE (CGL). ALL CONTRACTORS MUST HAVE THEIR CGL POLICIES ENDORSED TO NAME BOHLER ENGINEERING, AND ITS PAST, PRESENT AND FUTURE OWNERS, OFFICERS, DIRECTORS, PARTNERS, SHAREHOLDERS, MEMBERS, PRINCIPALS, COMMISSIONERS, AGENTS, SERVANTS, EMPLOYEES, AFFILIATES, SUBSIDIARIES, AND RELATED ENTITIES, AND ITS SUBCONTRACTORS AND SUBCONSULTANTS AS ADDITIONAL NAMED INSURED AND TO PROVIDE CONTRACTUAL LIABILITY COVERAGE SUFFICIENT TO INSURE THIS HOLD HARMLESS AND INDEMNITY OBLIGATIONS ASSUMED BY THE CONTRACTORS. ALL CONTRACTORS MUST FURNISH BOHLER ENGINEERING WITH CERTIFICATIONS OF INSURANCE AS EVIDENCE OF THE REQUIRED INSURANCE PRIOR TO COMMENCING WORK AND UPON RENEWAL OF EACH POLICY DURING THE ENTIRE PERIOD OF CONSTRUCTION AND FOR ONE YEAR AFTER THE COMPLETION OF CONSTRUCTION. IN ADDITION, ALL CONTRACTORS WILL, TO THE FULLEST EXTENT PERMITTED UNDER THE LAW, INDEMNIFY, DEFEND AND HOLD HARMLESS BOHLER ENGINEERING AND ITS PAST, PRESENT AND FUTURE OWNERS, OFFICERS, DIRECTORS, PARTNERS, SHAREHOLDERS, MEMBERS, PRINCIPALS, COMMISSIONERS, AGENTS, SERVANTS, EMPLOYEES, AFFILIATES, SUBSIDIARIES, AND RELATED ENTITIES, AND ITS SUBCONTRACTORS AND SUBCONSULTANTS FROM AND AGAINST ANY DAMAGES, INJURIES, CLAIMS, ACTIONS, PENALTIES, EXPENSES, PUNITIVE DAMAGES, TORT DAMAGES, STATUTORY CLAIMS, STATUTORY CAUSES OF ACTION, LOSSES, CAUSES OF ACTION, LIABILITIES OR COSTS, INCLUDING, BUT NOT LIMITED TO, REASONABLE ATTORNEYS' FEES AND DEFENSE COSTS, ARISING OUT OF OR IN ANY WAY CONNECTED WITH OR TO THE PROJECT, INCLUDING ALL CLAIMS BY EMPLOYEES OF THE CONTRACTORS, ALL CLAIMS BY THIRD PARTIES AND ALL CLAIMS RELATED TO THE PROJECT. CONTRACTOR MUST NOTIFY ENGINEER, IN WRITING, AT LEAST THIRTY (30) DAYS PRIOR TO ANY TERMINATION, SUSPENSION OR CHANGE OF ITS INSURANCE HEREUNDER.
19. BOHLER ENGINEERING WILL REVIEW OR TAKE OTHER APPROPRIATE ACTION ON THE CONTRACTOR SUBMITTALS, SUCH AS SHOP DRAWINGS, PRODUCT DATA, SAMPLES, AND OTHER DATA, WHICH THE CONTRACTOR IS REQUIRED TO SUBMIT, BUT ONLY FOR THE LIMITED PURPOSE OF CHECKING FOR CONFORMANCE WITH THE DESIGN INTENT AND THE INFORMATION SHOWN IN THE CONSTRUCTION CONTRACT DOCUMENTS. CONSTRUCTION MEANS AND/OR METHODS AND/OR TECHNIQUES OR PROCEDURES, COORDINATION OF THE WORK WITH OTHER TRADES, AND CONSTRUCTION SAFETY PRECAUTIONS ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND BOHLER HAS NO RESPONSIBILITY OR LIABILITY FOR SAME HEREUNDER. BOHLER ENGINEERING'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 BOHLER ENGINEERING HAS REVIEWED THE ENTIRE ASSEMBLY OF WHICH THE ITEM IS A COMPONENT. BOHLER ENGINEERING WILL NOT BE RESPONSIBLE FOR ANY DEVIATIONS FROM THE CONSTRUCTION DOCUMENTS NOT PROMPTLY AND IMMEDIATELY BROUGHT TO ITS ATTENTION, IN WRITING, BY THE CONTRACTOR. BOHLER ENGINEERING WILL NOT BE REQUIRED TO REVIEW PARTIAL SUBMISSIONS OR THOSE FOR WHICH SUBMISSIONS OF CORRELATED ITEMS HAVE NOT BEEN RECEIVED.
20. NEITHER THE PROFESSIONAL ACTIVITIES OF BOHLER ENGINEERING, NOR THE PRESENCE OF BOHLER ENGINEERING AND/OR ITS PAST, PRESENT AND FUTURE OWNERS, OFFICERS, DIRECTORS, PARTNERS, SHAREHOLDERS, MEMBERS, PRINCIPALS, COMMISSIONERS, AGENTS, SERVANTS, EMPLOYEES, AFFILIATES, SUBSIDIARIES, AND RELATED ENTITIES, AND ITS SUBCONTRACTORS AND SUBCONSULTANTS AT A CONSTRUCTION/PROJECT SITE, SHALL RELIEVE THE GENERAL CONTRACTOR OF ITS OBLIGATIONS, DUTIES AND RESPONSIBILITIES INCLUDING, BUT NOT LIMITED TO, CONSTRUCTION MEANS, METHODS, SEQUENCE, TECHNIQUES OR PROCEDURES NECESSARY FOR PERFORMING, OVERSEEING, SUPERINTENDING AND COORDINATING THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND COMPLIANCE WITH ANY HEALTH OR SAFETY PRECAUTIONS REQUIRED BY ANY REGULATORY AGENCIES WITH JURISDICTION OVER THE PROJECT AND/OR PROPERTY. BOHLER ENGINEERING AND ITS PERSONNEL HAVE NO AUTHORITY TO EXERCISE ANY CONTROL OVER ANY CONSTRUCTION CONTRACTOR OR ITS EMPLOYEES IN CONNECTION WITH THEIR WORK OR ANY HEALTH OR SAFETY PROGRAMS OR PROCEDURES. THE GENERAL CONTRACTOR IS SOLELY RESPONSIBLE FOR JOB SITE SAFETY. BOHLER ENGINEERING SHALL BE INDEMNIFIED BY THE GENERAL CONTRACTOR AND MUST BE NAMED AN ADDITIONAL INSURED UNDER THE GENERAL CONTRACTOR'S POLICIES OF GENERAL LIABILITY INSURANCE AS DESCRIBED ABOVE IN NOTE 19 FOR JOB SITE SAFETY.
21. 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 IS 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 ALL COMPENSATORY OR PUNITIVE DAMAGES RESULTING THEREFROM AND, FURTHER, SHALL DEFEND, INDEMNIFY AND HOLD HARMLESS THE ENGINEER, TO THE FULLEST EXTENT PERMITTED UNDER THE LAW, IN ACCORDANCE WITH PARAGRAPH 19 HEREIN, FOR AND FROM ALL FEES, ATTORNEYS' FEES, DAMAGES, COSTS, JUDGMENTS, PENALTIES AND THE LIKE RELATED TO SAME.
22. CONTRACTOR IS 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 MUST BE INCLUDED IN THE CONTRACTOR'S PRICE.
23. ALL SIGNING AND PAVEMENT STRIPING MUST CONFORM TO MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES OR LOCALLY APPROVED SUPPLEMENT.
24. 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.
25. OWNER MUST MAINTAIN AND PRESERVE ALL PHYSICAL SITE FEATURES AND DESIGN FEATURES DEPICTED ON THE PLANS AND RELATED DOCUMENTS, IN STRICT ACCORDANCE WITH THE APPROVED PLAN(S) AND DESIGN AND, FURTHER ENGINEER IS NOT RESPONSIBLE FOR ANY FAILURE TO SO MAINTAIN OR PRESERVE SITE AND/OR DESIGN FEATURES. 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.
26. ALL DIMENSIONS MUST BE TO FACE OF CURB, EDGE OF PAVEMENT, OR EDGE OF BUILDING, UNLESS NOTED OTHERWISE.
27. ALL CONSTRUCTION AND MATERIALS MUST COMPLY WITH AND CONFORM TO APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, LAWS, ORDINANCES, RULES AND CODES, AND ALL APPLICABLE OSHA REQUIREMENTS.
28. CONTRACTOR AND OWNER MUST INSTALL ALL ELEMENTS AND COMPONENTS IN STRICT COMPLIANCE WITH AND ACCORDANCE WITH MANUFACTURER'S 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.
29. CONTRACTOR IS 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 IS 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.
30. 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 GRADING & UTILITY PLAN NOTES

1. LOCATIONS OF ALL EXISTING AND PROPOSED SERVICES ARE APPROXIMATE AND MUST BE INDEPENDENTLY CONFIRMED WITH LOCAL UTILITY COMPANIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION OR EXCAVATION. SANITARY SEWER AND ALL OTHER UTILITY SERVICE CONNECTION POINTS MUST BE INDEPENDENTLY CONFIRMED BY THE CONTRACTOR IN THE FIELD PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. ALL DISCREPANCIES MUST IMMEDIATELY BE REPORTED, IN WRITING, TO THE ENGINEER. CONSTRUCTION MUST COMMENCE BEGINNING AT THE LOWEST INVERT (POINT OF CONNECTION) AND PROGRESS UP GRADIENT. PROPOSED INTERFACE POINTS (CROSSINGS) WITH EXISTING UNDERGROUND UTILITIES SHALL BE FIELD VERIFIED BY TEST PIT PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. CONTRACTOR MUST VERTICALLY AND HORIZONTALLY LOCATE ALL UTILITIES AND SERVICES INCLUDING, BUT NOT LIMITED TO, GAS, WATER, ELECTRIC, SANITARY AND STORM SEWER, TELEPHONE, CABLE, FIBER OPTIC CABLE, ETC, WITHIN THE LIMITS OF DISTURBANCE OR WORK SPACE, WHICHEVER IS GREATER. THE CONTRACTOR MUST USE, REFER TO, AND COMPLY WITH THE REQUIREMENTS OF THE APPLICABLE UTILITY NOTIFICATION SYSTEM TO LOCATE ALL THE UNDERGROUND UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ALL DAMAGE TO ANY EXISTING UTILITIES DURING CONSTRUCTION, AT NO COST TO THE OWNER. CONTRACTOR SHALL BEAR ALL COSTS ASSOCIATED WITH DAMAGE TO ANY EXISTING UTILITIES DURING CONSTRUCTION.
3. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW ALL CONSTRUCTION CONTRACT DOCUMENTS INCLUDING, BUT NOT LIMITED TO, ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THIS 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 CONTRACTOR'S SOLE RESPONSIBILITY TO NOTIFY THE PROJECT ENGINEER OF RECORD, IN WRITING, PRIOR TO THE INITIATION OF ANY CONFLICT AND/OR DISCREPANCY PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR'S FAILURE TO NOTIFY THE PROJECT ENGINEER SHALL CONSTITUTE CONTRACTOR'S 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.
4. THE CONTRACTOR MUST 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 IS RESPONSIBLE TO PROTECT AND MAINTAIN ALL ACTIVE AND INACTIVE SYSTEMS THAT ARE NOT BEING REMOVED/RELOCATED DURING SITE ACTIVITY.
5. THE CONTRACTOR MUST FAMILIARIZE ITSELF WITH THE APPLICABLE UTILITY SERVICE PROVIDER REQUIREMENTS AND IS RESPONSIBLE FOR ALL COORDINATION REGARDING UTILITY DEMOLITION AS IDENTIFIED OR REQUIRED FOR THE PROJECT. THE CONTRACTOR MUST 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.
6. THE CONTRACTOR MUST INSTALL ALL STORM SEWER AND SANITARY SEWER COMPONENTS WHICH FUNCTION BY GRAVITY PRIOR TO THE INSTALLATION OF ALL OTHER UTILITIES.
7. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF SITE PLAN DOCUMENTS AND ARCHITECTURAL DESIGN FOR EXACT BUILDING UTILITY CONNECTION LOCATIONS, GREASE TRAP REQUIREMENTS/DETAILS, DOOR ACCESS, AND EXTERIOR GRADING. THE ARCHITECT WILL DETERMINE THE UTILITY SERVICE SIZES. THE CONTRACTOR MUST COORDINATE INSTALLATION OF UTILITIES/SERVICES WITH THE INDIVIDUAL COMPANIES, TO AVOID CONFLICTS AND TO ENSURE THAT PROPER DEPTHS ARE ACHIEVED. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT INSTALLATION OF ALL IMPROVEMENTS COMPLIES WITH ALL UTILITY REQUIREMENTS WITH JURISDICTION AND/OR CONTROL OF THE SITE, AND ALL OTHER APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES AND, FURTHER, IS RESPONSIBLE FOR COORDINATING THE UTILITY TIE-IN/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 MUST IMMEDIATELY NOTIFY THE ENGINEER, IN WRITING, AND PRIOR TO CONSTRUCTION, RESOLVE SAME.
8. WATER SERVICE MATERIALS, BURIAL DEPTH, AND COVER REQUIREMENTS MUST BE SPECIFIED BY THE LOCAL UTILITY COMPANY. CONTRACTOR'S PRICE FOR WATER SERVICE MUST INCLUDE ALL FEES, COSTS AND APPURTENANCES REQUIRED BY THE UTILITY TO PROVIDE FULL AND COMPLETE WORKING SERVICE. CONTRACTOR MUST CONTACT THE APPLICABLE MUNICIPALITY TO CONFIRM THE PROPER WATER METER AND VAULT, PRIOR TO COMMENCING CONSTRUCTION.
9. ALL NEW UTILITIES/SERVICES, INCLUDING ELECTRIC, TELEPHONE, CABLE TV, ETC. ARE TO BE INSTALLED UNDERGROUND. ALL NEW UTILITIES/SERVICES MUST BE INSTALLED IN ACCORDANCE WITH THE UTILITY/SERVICE PROVIDER INSTALLATION SPECIFICATIONS AND STANDARDS.
10. SITE GRADING MUST 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 IS RESPONSIBLE FOR REMOVING AND REPLACING UNSUITABLE MATERIALS WITH SUITABLE MATERIALS AS SPECIFIED IN THE GEOTECHNICAL REPORT. ALL EXCAVATED OR FILLED AREAS MUST BE COMPACTED AS PER THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT. AT TIME OF PLACEMENT MUST 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 WITHIN 5 FEET OF BUILDING PAD 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 FOR SIDEWALKS, CURB, OR ASPHALT MUST BE FREE OF ORGANICS AND OTHER UNSUITABLE MATERIALS. SHOULD SUBBASE BE DEEMED UNSUITABLE BY OWNER/DEVELOPER, OR OWNER/DEVELOPER'S REPRESENTATIVE, SUBBASE IS TO BE REMOVED AND FILLED WITH APPROVED FILL MATERIAL COMPACTED AS PER GEOTECHNICAL REPORT. EARTHWORK ACTIVITIES INCLUDING, BUT NOT LIMITED TO, EXCAVATION, BACKFILL, AND COMPACTING MUST COMPLY WITH THE RECOMMENDATIONS IN THE GEOTECHNICAL REPORT AND ALL APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES. EARTHWORK ACTIVITIES MUST COMPLY WITH THE STANDARD STATE DOT SPECIFICATIONS FOR ROADWAY CONSTRUCTION (LATEST EDITION) AND ANY AMENDMENTS OR REVISIONS THERETO.
11. ALL FILL, COMPACTION, AND BACKFILL MATERIALS REQUIRED FOR UTILITY INSTALLATION MUST BE AS PER THE RECOMMENDATIONS PROVIDED IN THE GEOTECHNICAL REPORT AND MUST BE COORDINATED WITH THE APPLICABLE UTILITY COMPANY SPECIFICATIONS. WHEN THE PROJECT DOES NOT HAVE GEOTECHNICAL RECOMMENDATIONS, FILL AND COMPACTION MUST, AT A MINIMUM, COMPLY WITH THE STATE DOT REQUIREMENTS AND SPECIFICATIONS AND CONSULTANT SHALL HAVE NO LIABILITY OR RESPONSIBILITY FOR OR AS RELATED TO FILL, COMPACTION AND BACKFILL. FURTHER, CONTRACTOR IS FULLY RESPONSIBLE FOR EARTHWORK BALANCE.
12. THE CONTRACTOR MUST 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 IS RESPONSIBLE FOR DETERMINING THE "MEANS AND METHODS" REQUIRED TO MEET THE INTENT AND PERFORMANCE CRITERIA OF OSHA, AS WELL AS ANY OTHER SAFETY THAT HAS JURISDICTION OVER THE SITE AND/OR TRENCHING PROCEDURES AND CONSULTANT SHALL HAVE NO RESPONSIBILITY FOR OR AS RELATED FOR OR AS RELATED TO EXCAVATION AND TRENCHING PROCEDURES.
13. PAVEMENT MUST BE SAW CUT IN STRAIGHT LINES, AND EXCEPT FOR EDGE OF BUTT JOINTS, MUST EXTEND TO THE FULL DEPTH OF THE EXISTING PAVEMENT. ALL DEBRIS FROM REMOVAL OPERATIONS MUST BE REMOVED FROM THE SITE AT THE TIME OF EXCAVATION. STOCKPILING OF DEBRIS WILL NOT BE PERMITTED.
14. THE TOPS OF EXISTING MANHOLES, INLET STRUCTURES, AND SANITARY CLEANOUT TOPS MUST BE ADJUSTED, AS NECESSARY, TO MATCH PROPOSED GRADES IN ACCORDANCE WITH ALL APP



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DRAWN BY:	CSE
CHECKED BY:	NEM
DATE:	09/01/2021
CAD I.D.:	W211060-CVL-0

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

2020 ACQUISITIONS

PROPOSED
SOUTH SIDE DEVELOPMENT

MAP #38, BLOCK #1, LOT #23
148 DEPOT STREET SOUTH
TOWN OF BELLINGHAM
NORFOLK COUNTY,
MASSACHUSETTS

BOHLER

352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900

www.BohlerEngineering.com

JOHN KUCIA — COMMONWEALTH OF MASSACHUSETTS — CIVIL — No. 41530 — REGISTERED PROFESSIONAL ENGINEER

MASSACHUSETTS LICENSE No. 41530
NEW HAMPSHIRE LICENSE No. 19747
CONNECTICUT LICENSE No. 29107
RHODE ISLAND LICENSE No. 14416
MAINE LICENSE No. 22555

SHEET TITLE:

DEMOLITION PLAN

SHEET NUMBER:

C-201

ORG. DATE - 09/01/2021

C:\PROGRAMDATA_BOHLER\C3S2020NETTEMP\ACPUBLISH_168000\W211060-CVL-0_---\LAYOUT C-201-DEMO

ASB

SITE INFORMATION

1. APPLICANT:
   2020 ACQUISITIONS
   777 NEW DURHAM ROAD, SUITE D
   EDISON, NJ 08817
2. OWNER:
   DEPOT STREET, LLC
   P.O. BOX 94
   BELLINGHAM, MA 02019
3. PARCEL:
   MAP #38, BLOCK #1, LOT #23
   152 DEPOT STREET
   BELLINGHAM, MA 02019

ZONING ANALYSIS TABLE

N/A - NOT APPLICABLE
N/S - NOT SPECIFIED
(V) - VARIANCE REQUESTED
(W) - WAIVER REQUESTED
(E) - EXIST. NON-CONFORMANCE

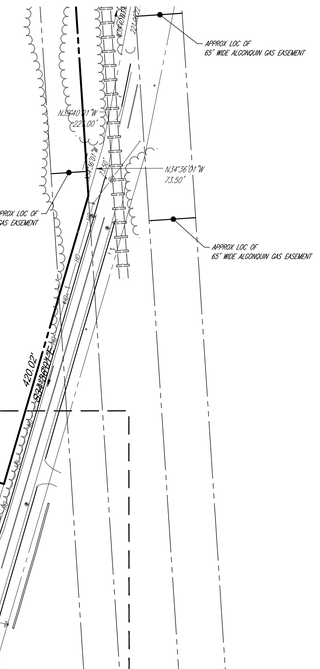
ZONING DISTRICT	INDUSTRIAL DISTRICT (1)		
OVERLAY DISTRICT	WATER RESOURCE PROTECTION DISTRICT		
REQUIRED PERMIT	SPECIAL PERMIT MAJOR BUSINESS COMPLEX AND DEVELOPMENT PLAN REVIEW (4)		
ZONE CRITERIA	**REQUIRED**	**EXISTING**	**PROPOSED**
MIN. LOT AREA	60,000 SF	1,198,485 SF	NO CHANGE
MIN. EGRESS SEPARATION	250 FT	N/A	211 FT (V)
MAX. BLDG COVERAGE	N/S	0.0%	10.1%
MIN. FRONT SETBACK	20 FT / 100 FT (2)	N/A	365.7 FT / 203.0 FT
MIN. SIDE SETBACK	10 FT	N/A	174.0 FT
MIN. REAR SETBACK	20 FT	N/A	47.5 FT
MIN. SETBACK BOX POND DR.	200 FT	N/A	203.0 FT
MAX. BUILDING HEIGHT	45 FT	N/A	<45 FT
MAX. IMPER. COVERAGE	N/S	0.0%	41.8%
PARKING SPACES (BLDG. A/B)	159 / 101 (1)	N/A	74 / 31 (3)
ACCESS. PARKING SPACES	5	N/A	6
PARKING STALL CRITERIA STANDARD: 9 FT x 18 FT COMPACT: 8 FT x 16 FT	USE/CATEGORY: WAREHOUSE REQUIRED PARKING: 2 SPACES / 1,000 SF GFA CALCULATION: BUILDING A: 79,500 SF * $\frac{2}{1,000}$ = 159 SPACES BUILDING B: 50,250 SF * $\frac{2}{1,000}$ = 100.5 OR 101 SPACES		
ACCESSIBLE PARKING CRITERIA STANDARD: 8 FT x 18 FT STALL (MIN.) 5 FT x 18 FT AISLE (MIN.) VAN: 8 FT x 18 FT STALL (MIN.) 8 FT x 18 FT AISLE (MIN.)	101-150 SPACES = 5 MIN. ACCESSIBLE SPACES 1 ACCESSIBLE VAN SPACE PER 6 STANDARD ACCESSIBLE SPACES (MIN.)		

(1) PARKING MAY BE FURTHER REDUCED UPON APPLICATION FOR AND GRANT OF A SPECIAL PERMIT FROM THE PLANNING BOARD, IF THE PLANNING BOARD DETERMINES THAT A SMALLER NUMBER WOULD BE ADEQUATE FOR ALL PARKING NEEDS OR LAND USE OR PARKING STUDIES FROM SIMILAR ESTABLISHMENTS SHOW PARKING REQUIREMENTS ARE LESS THAN WHAT IS REQUIRED IN THIS BYLAW; OR OTHER REASONS THAT ARE ADEQUATELY SUPPORTED.

(2) FRONT SETBACK INCREASED TO 100 FT WHERE ABUTTING AGRICULTURAL OR SUBURBAN ZONING DISTRICTS.

(3) 20 ADDITIONAL RESERVE PARKING SPACES TO BE CONSTRUCTED IF REQUIRED WHICH WOULD BRING TOTAL PROPOSED PARKING TO 51 SPACES.

(4) ZBA AND NOTICE OF INTENT ARE ALSO REQUIRED.



GENERAL CONTRACTOR TO PROVIDE A SITE SPECIFIC WALL DESIGN AND CALCULATIONS THROUGH THE GENERAL CONTRACTOR'S SELECTED WALL MANUFACTURER'S LICENSED PROFESSIONAL STRUCTURAL ENGINEER.

MAINTENANCE OF A CLEAR SIGHT LINE IS THE RESPONSIBILITY OF THE PROPERTY OWNER

THIS PLAN TO BE UTILIZED FOR SITE LAYOUT PURPOSES ONLY. REFER TO GENERAL NOTES SHEET FOR ADDITIONAL NOTES

100 50 25 0 100
1"= 100'

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PROJECT No.:	W211060
DRAWN BY:	CSE
CHECKED BY:	NEM
DATE:	09/01/2021
CAD I.D.:	W211060-CVL-0

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

2020 ACQUISITIONS

PROPOSED
SOUTH SIDE DEVELOPMENT

MAP #38, BLOCK #1, LOT #23
148 DEPOT STREET SOUTH
TOWN OF BELLINGHAM
NORFOLK COUNTY,
MASSACHUSETTS

BOHLER
352 TURNPIKE ROAD
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PROFESSIONAL ENGINEER SEAL
MASSACHUSETTS License No. 41530
NEW HAMPSHIRE License No. 19577
CONNECTICUT License No. 28127
RHODE ISLAND License No. 14516
MAINE License No. 22553

SHEET TITLE:

OVERALL SITE PLAN

SHEET NUMBER:

C-301

ORG. DATE - 09/01/2021

C:\PROGRAMDATA_BOHLERC3D2020NET\TEMP\ACPUBLISH_16668\W211060-CVL-0-----LAYOUT C-301 OVERALL SITE

PROP. SURFACE STORMWATER MANAGEMENT AREA

APPROX. LOCATION OF PROP. SEPTIC SYSTEM

PROP. RESERVED PARKING

PROP. UNDERGROUND STORM WATER MANAGEMENT SYSTEM

203.0'

BOX POND DRIVE
(PUBLIC - VARIABLE WIDTH ROW)
(2019 TAKING PL.BK. 684, PG. 54)
(ASPHALT ROADWAY)
(TWO WAY TRAFFIC)

S54°16'51"W
217.60'

N67°43'41"W
222.21'

MAP 38, LOT 18C
N/F LANDS OF
ALBERT BRIGGS AND
ERICA NUNES
BK. 17097, PG. 461

N68°03'56"E
423.81'

S72°27'46"E
483.18'

PROP. INDUSTRIAL BUILDING B
(50,250 SF±)
(REFER TO ARCH. PLANS)

FF= 247.99

PROP. OFFICE SPACE
(2,390 SF±) (REFER TO ARCH. PLANS)

31 SPACES

PROP. GRAVEL FIRE ROAD (IF REQUIRED)

MAP 38, LOT 23
N/F LANDS OF
DEPOT STREET LLC
BK. 13512, PG. 524

MATCHLINE

20' REAR SETBACK

20' PARKING SETBACK

100' FRONT SETBACK FROM RESIDENTIAL ZONE (AGRICULTURE)

APPROX. LOC OF 200' NO-BUILD BUFFER ZONE

WOODED AREA

50' WETLAND BUFFER (TYP.)

25' NO DISTURB WETLAND BUFFER (TYP.)

100' WETLAND BUFFER (TYP.)

EXIST. BVW (TYP.)

PROP. STANDARD DUTY PAVEMENT (TYP.)

PROP. CONC. CURB (TYP.)

PROP. METAL GUIDE RAIL (TYP.)

PROP. AREA LIGHT (TYP.)

PROP. L.S.A. (TYP.)

PROP. HEAVY DUTY PAVEMENT

PROP. RAMP AND RETAINING WALLS (DESIGNED BY OTHERS)

PROP. LOADING DOCK (TYP.)

PROP. CONC. STAIRS AND LANDING (TYP.)

PROP. 6" HEAVY DUTY CONCRETE PARKING

PROP. STOOP (TYP.)

PROP. OFFICE SPACE (2,390 SF±) (REFER TO ARCH. PLANS)

APPROX. LIMIT OF PROP. TREE LINE (TYP.)

APPROX. LIMIT OF WORK

PROP. ACCESSIBLE SIGN IN BOLLARD (TYP. OF 3)

LIMIT OF FLUSH WALKWAY. END VERTICAL CURB

6' LONG TRANSITION CURB (TYP.)

PROP. TRANSFORMER ON CONC. PAD

LIMIT OF FLUSH WALKWAY. END VERTICAL CURB 6' LONG TRANSITION CURB (TYP.)

END VERTICAL CURB

PROP. STONE WALL (TYP.)

PROP. HEADWALL WITH RIP RAP

PROP. METAL GUIDE RAIL (TYP.)

PROP.HEAVY DUTY PAVEMENT (TYP.)

PROP. HEADWALL WITH RIP RAP

THIS PLAN TO BE UTILIZED FOR SITE LAYOUT PURPOSES ONLY. REFER TO GENERAL NOTES SHEET FOR ADDITIONAL NOTES

30 15 7.5 0 30
1"= 30'

P:\211\W211060\DRAWINGS\PLAN SETS\REVIEW\211060-CVL-0----LAYOUT C-302-SITE A

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PROJECT No.:	W211060
DRAWN BY:	CSE
CHECKED BY:	NEM
DATE:	09/01/2021
CAD I.D.:	W211060-CVL-0

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

2020 ACQUISITIONS

PROPOSED
SOUTH SIDE DEVELOPMENT

MAP #38, BLOCK #1, LOT #23
148 DEPOT STREET SOUTH
TOWN OF BELLINGHAM
NORFOLK COUNTY,
MASSACHUSETTS

BOHLER
352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
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MAINE LICENSE No. 12553

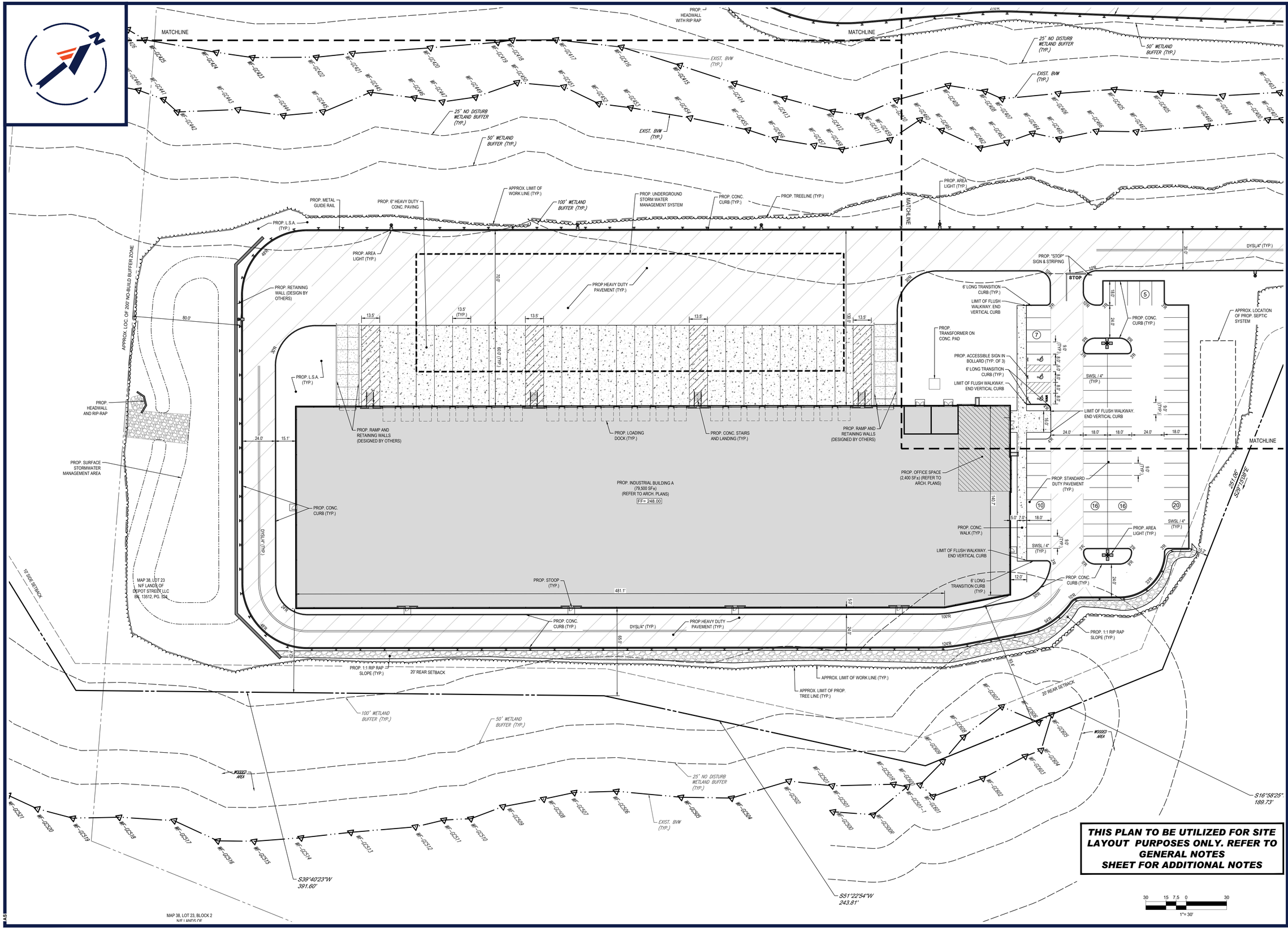
SHEET TITLE:

SITE LAYOUT PLAN A

SHEET NUMBER:

C-302

ORG. DATE - 09/01/2021



P:\21\W211060\DRAWINGS\PLAN SETS\REVIT\W211060-CVL-0----LAYOUT C-303-SITE B

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MASSACHUSETTS, NEW HAMPSHIRE, MAINE, CONNECTICUT, NEW YORK, RHODE ISLAND LICENSE No. 24116
MSRA LICENSE No. 22553

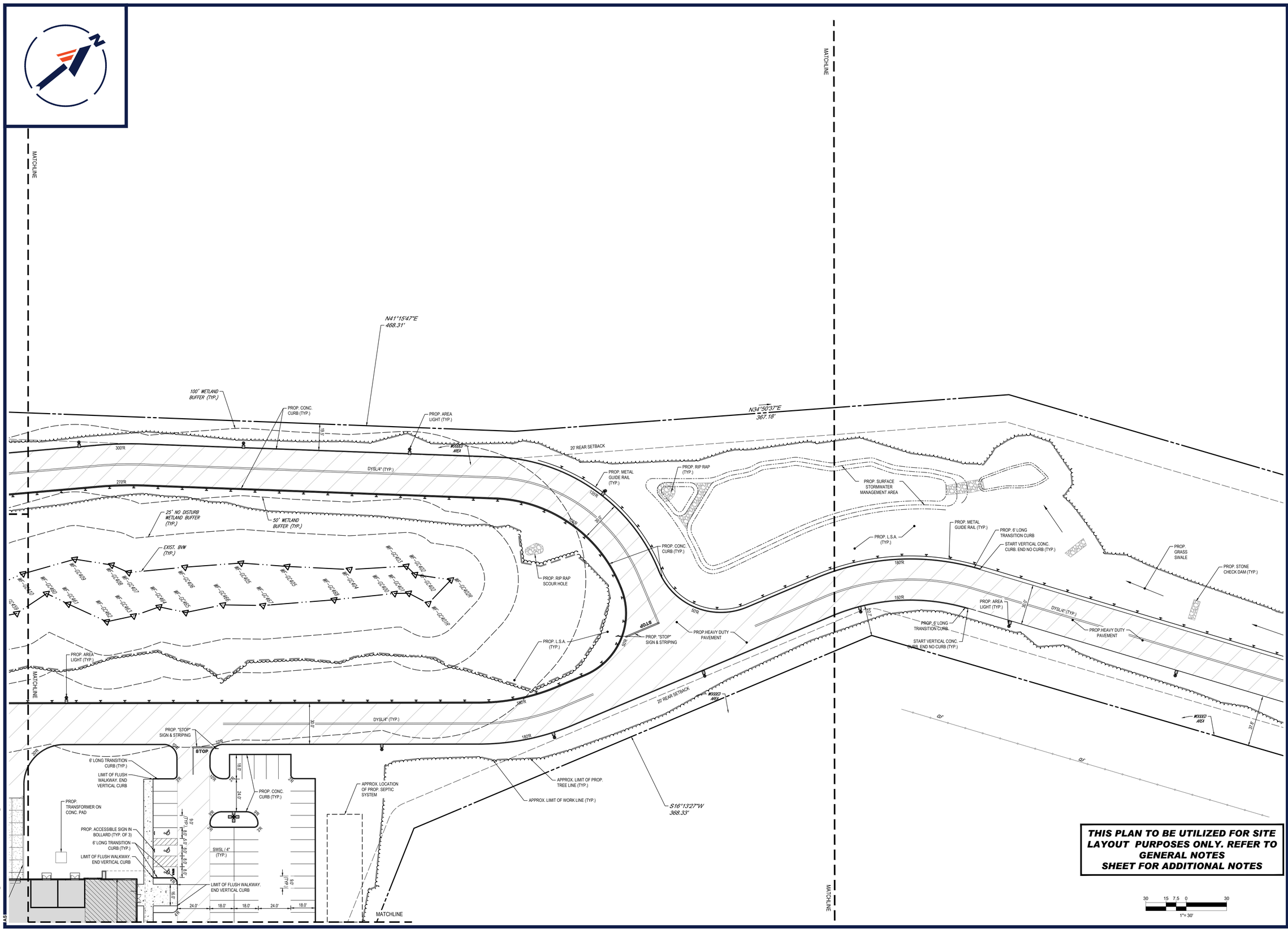
SHEET TITLE:

SITE LAYOUT PLAN B

SHEET NUMBER:

C-303

ORG. DATE - 09/01/2021



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ASB

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PROJECT:

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TOWN OF BELLINGHAM
NORFOLK COUNTY,
MASSACHUSETTS

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PROFESSIONAL ENGINEER LICENSE IN: NEW HAMPSHIRE No. 15426; CONNECTICUT No. 26127; RHODE ISLAND No. 14016; MAINE License No. 22553

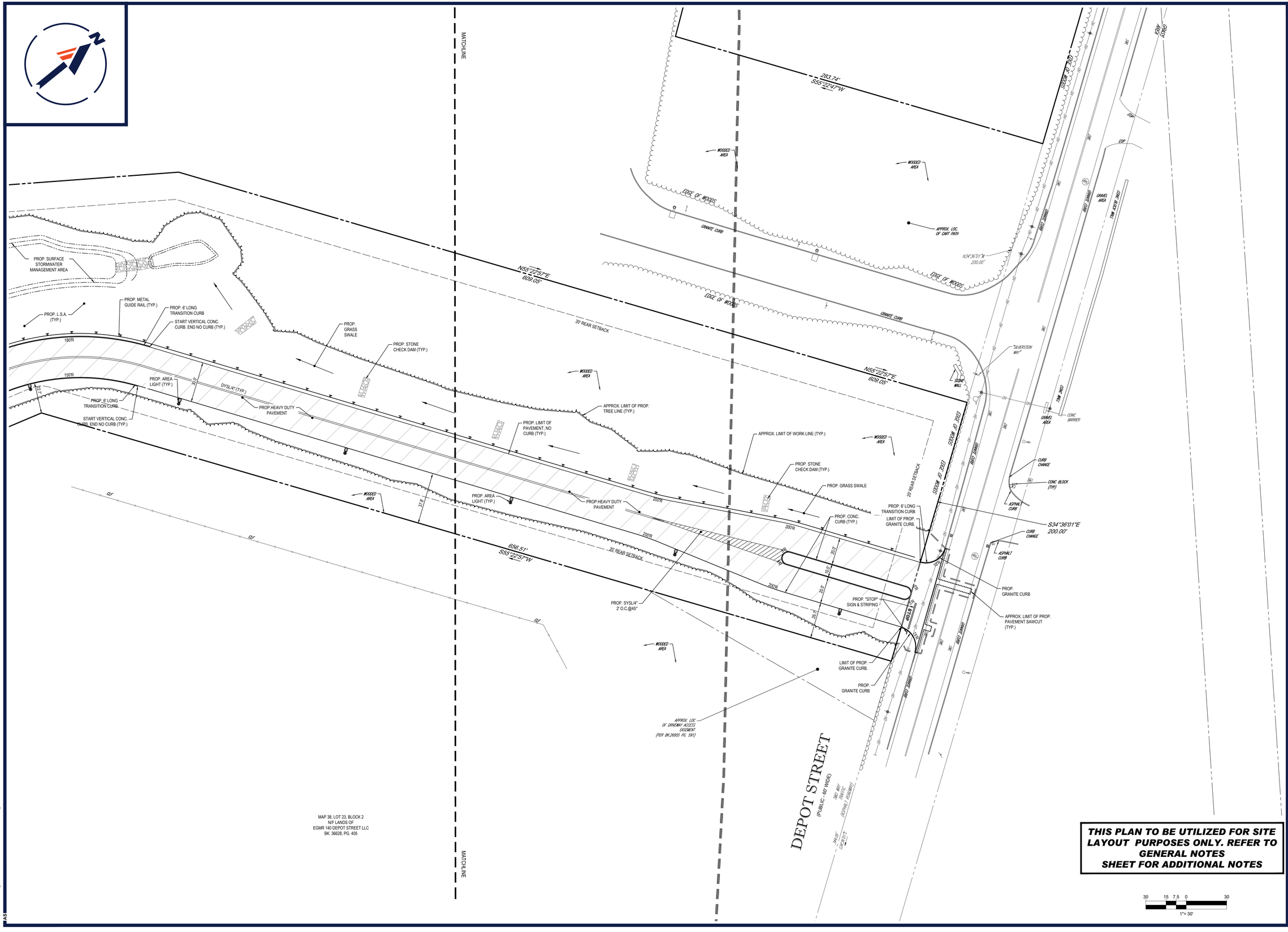
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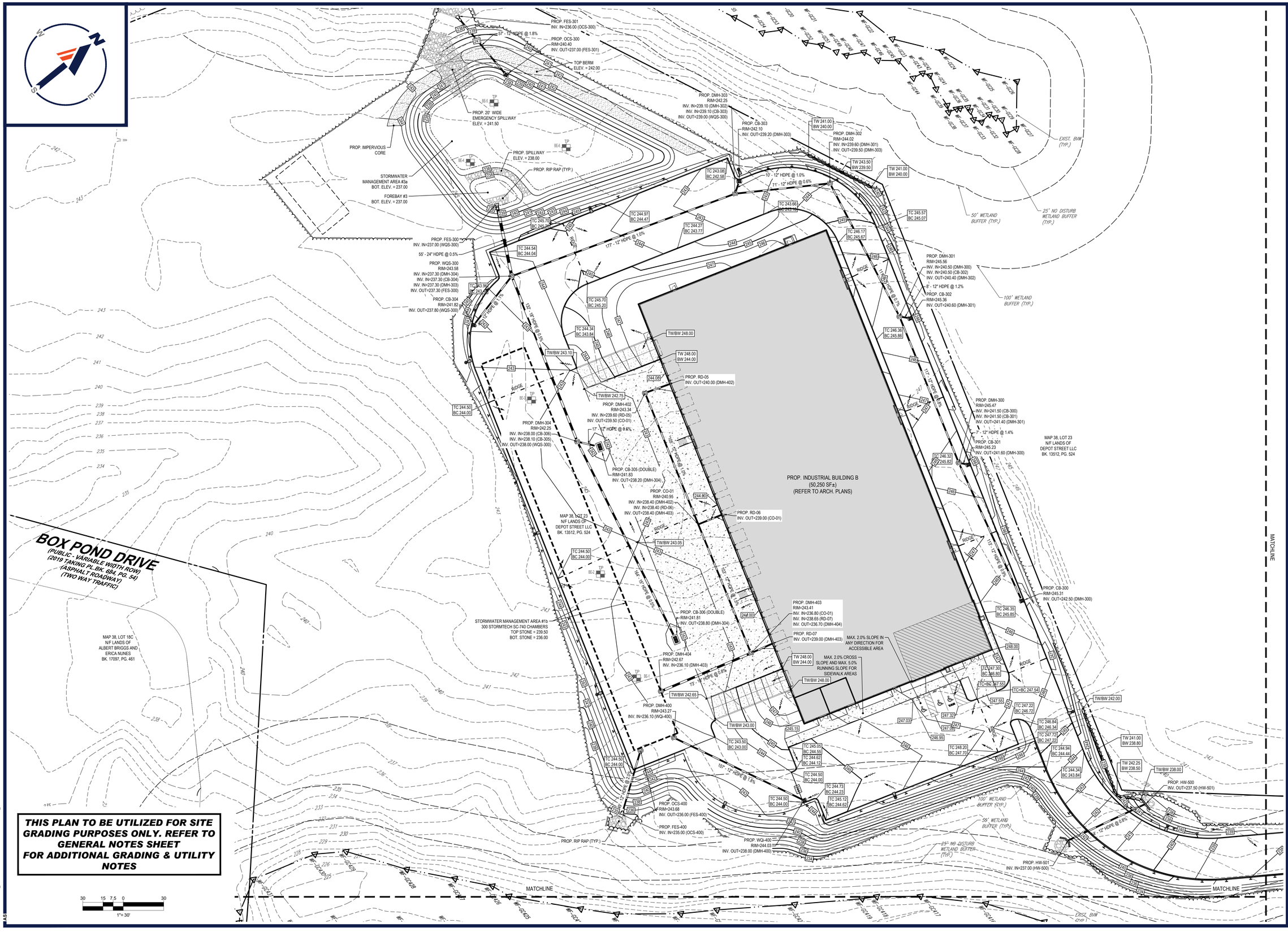
SITE LAYOUT PLAN C

SHEET NUMBER:

C-304

ORG. DATE - 09/01/2021


MATCHLINE
N55°22'51"E
609.05'
20' REAR SETBACK
PROP. SURFACE STORMWATER MANAGEMENT AREA
PROP. L.S.A. (TYP.)
PROP. METAL GUIDE RAIL (TYP.)
PROP. 6' LONG TRANSITION CURB
START VERTICAL CONC. CURB. END NO CURB (TYP.)
PROP. GRASS SWALE
PROP. STONE CHECK DAM (TYP.)
150'R
PROP. AREA LIGHT (TYP.)
DYSLA* (TYP.)
PROP.HEAVY DUTY PAVEMENT
APPROX. LIMIT OF PROP. TREE LINE (TYP.)
PROP. LIMIT OF PAVEMENT, NO CURB (TYP.)
APPROX. LIMIT OF WORK LINE (TYP.)
200'R
PROP. CONC. CURB (TYP.)
PROP. 6' LONG TRANSITION CURB
LIMIT OF PROP. GRANITE CURB.
656.51'
S55°22'51"W
PROP. SYSL/4" 2' O.C.@45°
PROP. "STOP" SIGN & STRIPING
PROP. GRANITE CURB
APPROX. LIMIT OF PROP. PAVEMENT SAWCUT (TYP.)
APPROX. LOC. OF DRIVEWAY ACCESS EASEMENT (PER BK.26955 PG. 591)
WOODED AREA
EDGE OF WOODS
GRANITE CURB
263.74'
S55°22'41"W
APPROX. LOC. OF CART PATH
N34°36'01"W
200.00'
S34°36'01"E
200.00'
SIDEWALK
SIGN
SILVERSTEIN WAY
CONC. BARRIER
GRAVEL AREA
CURB CHANGE
CONC. BLOCK (TYP)
ASPHALT CURB
TOP
TOW
GRAVEL AREA
SIGN
SIGN WALL
GAS
GAS
GAS



C:\PROJDATA\MDATA_BOHLER\C3D2020\NETEMP\ACPUBLISH_16532\W211060\GRAD\S-----\LAYOUT\ C-401-GRAD A

AS

BOHLER

SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

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REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY

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PROJECT No.:	W211060
DRAWN BY:	CSE
CHECKED BY:	NEM
DATE:	09/01/2021
CAD I.D.:	W211060-GRAD-0

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

2020 ACQUISITIONS

PROPOSED
SOUTH SIDE DEVELOPMENT

MAP #38, BLOCK #1, LOT #23
148 DEPOT STREET SOUTH
TOWN OF BELLINGHAM
NORFOLK COUNTY,
MASSACHUSETTS

BOHLER
352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900
www.BohlerEngineering.com

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CONNECTICUT LICENSE No. 26127
RHODE ISLAND LICENSE No. 9616
MAINE LICENSE No. 12553

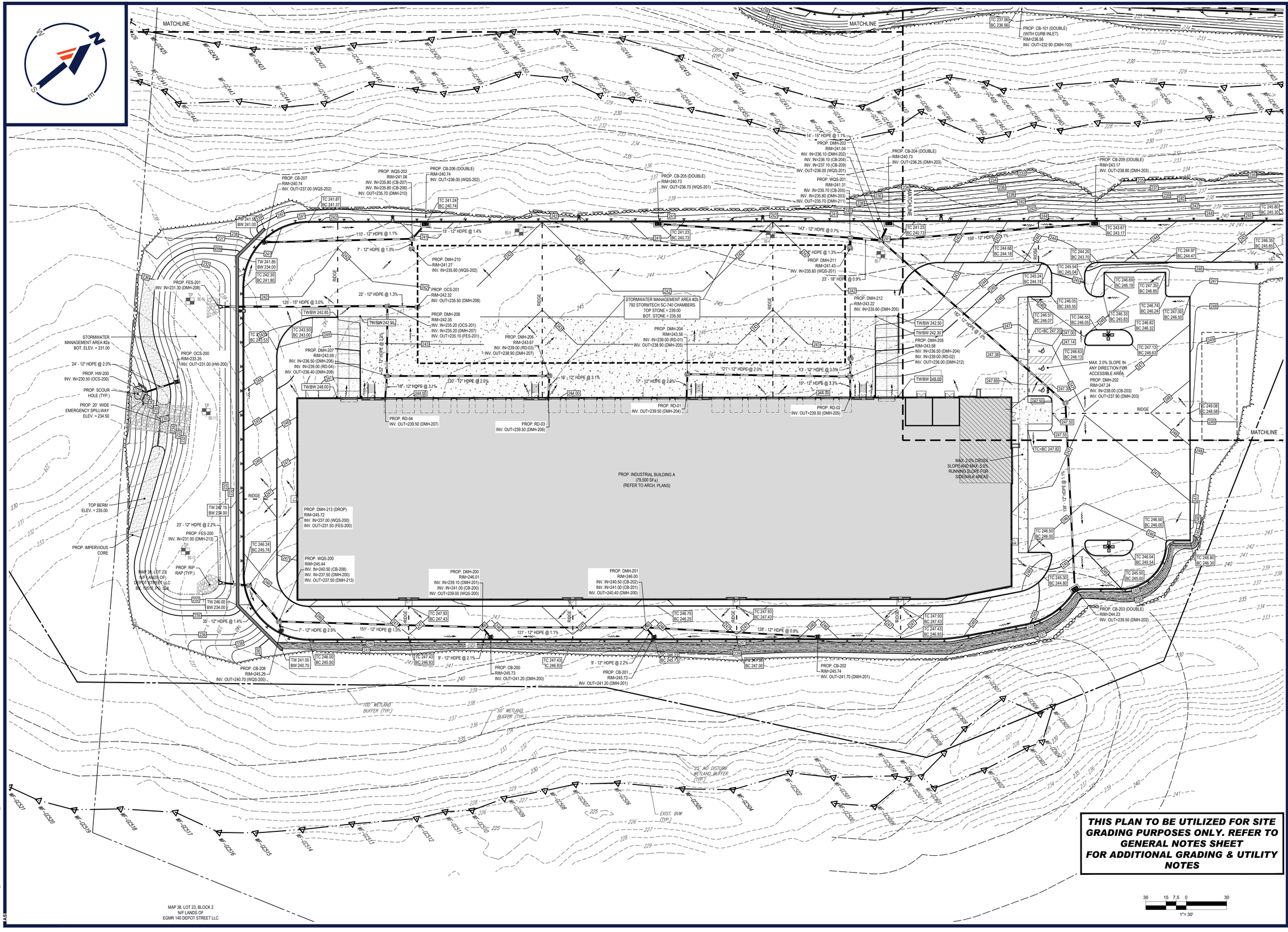
SHEET TITLE:

GRADING AND DRAINAGE PLAN A

SHEET NUMBER:

C-401

ORG. DATE - 09/01/2021


MATCHLINE
MATCHLINE
MATCHLINE
MATCHLINE
PROP. INDUSTRIAL BUILDING A
(79,500 SF±)
(REFER TO ARCH. PLANS)
STORMWATER MANAGEMENT AREA #2a
792 STORMTECH SC-740 CHAMBERS
TOP STONE = 239.00
BOT. STONE = 235.50
STORMWATER MANAGEMENT AREA #2b
792 STORMTECH SC-740 CHAMBERS
TOP STONE = 239.00
BOT. STONE = 235.50
PROP. CB-101 (DOUBLE)
(WITH CURB INLET)
RIM=236.56
INV. OUT=232.90 (DMH-100)
PROP. CB-207
RIM=240.74
INV. OUT=237.00 (WQS-202)
PROP. WQS-202
RIM=241.06
INV. IN=235.80 (CB-207)
INV. IN=235.80 (CB-206)
INV. OUT=235.70 (DMH-210)
PROP. CB-206 (DOUBLE)
RIM=240.74
INV. OUT=236.00 (WQS-202)
PROP. CB-205 (DOUBLE)
RIM=240.73
INV. OUT=236.70 (WQS-201)
PROP. DMH-203
RIM=241.04
INV. IN=236.10 (DMH-202)
INV. IN=236.10 (CB-204)
INV. IN=237.10 (CB-209)
INV. OUT=236.00 (WQS-201)
PROP. CB-204 (DOUBLE)
RIM=240.73
INV. OUT=236.25 (DMH-203)
PROP. WQS-201
RIM=241.31
INV. IN=235.70 (CB-205)
INV. IN=235.80 (DMH-203)
INV. OUT=235.70 (DMH-211)
PROP. CB-209 (DOUBLE)
RIM=243.17
INV. OUT=238.80 (DMH-203)
PROP. DMH-210
RIM=241.27
INV. IN=235.60 (WQS-202)
PROP. OCS-201
RIM=242.32
INV. OUT=235.50 (DMH-208)
PROP. DMH-211
RIM=241.43
INV. IN=235.60 (WQS-201)
PROP. DMH-212
RIM=243.22
INV. IN=235.60 (DMH-205)
PROP. DMH-208
RIM=242.35
INV. IN=235.20 (OCS-201)
INV. IN=235.20 (DMH-207)
INV. OUT=235.10 (FES-201)
PROP. DMH-204
RIM=243.56
INV. IN=239.00 (RD-01)
INV. OUT=238.90 (DMH-205)
PROP. DMH-205
RIM=243.58
INV. IN=236.50 (DMH-204)
INV. IN=239.00 (RD-02)
INV. OUT=236.00 (DMH-212)
PROP. DMH-206
RIM=243.67
INV. IN=239.00 (RD-03)
INV. OUT=238.90 (DMH-207)
PROP. DMH-207
RIM=243.59
INV. IN=236.50 (DMH-206)
INV. IN=239.00 (RD-04)
INV. OUT=236.40 (DMH-208)
PROP. DMH-202
RIM=247.24
INV. IN=238.00 (CB-203)
INV. OUT=237.90 (DMH-203)
PROP. RD-04
INV. OUT=239.50 (DMH-207)
PROP. RD-03
INV. OUT=239.50 (DMH-206)
PROP. RD-01
INV. OUT=239.50 (DMH-204)
PROP. RD-02
INV. OUT=239.50 (DMH-205)
PROP. FES-201
INV. IN=231.30 (DMH-208)
PROP. OCS-200
RIM=233.35
INV. OUT=231.00 (HW-200)
PROP. HW-200
INV. IN=230.50 (OCS-200)
PROP. SCOUR HOLE (TYP.)
PROP. 20' WIDE EMERGENCY SPILLWAY ELEV. = 234.50
TOP BERM ELEV. = 235.00
PROP. IMPERVIOUS CORE
PROP. RIP RAP (TYP.)
PROP. FES-200
INV. IN=231.00 (DMH-213)
PROP. DMH-213 (DROP)
RIM=245.72
INV. IN=237.00 (WQS-200)
INV. OUT=231.50 (FES-200)
PROP. WQS-200
RIM=245.44
INV. IN=240.50 (CB-208)
INV. IN=237.50 (DMH-200)
INV. OUT=237.50 (DMH-213)
PROP. DMH-200
RIM=246.01
INV. IN=239.10 (DMH-201)
INV. IN=241.00 (CB-200)
INV. OUT=239.00 (WQS-200)
PROP. DMH-201
RIM=246.00
INV. IN=240.50 (CB-202)
INV. IN=241.00 (CB-201)
INV. OUT=240.40 (DMH-200)
PROP. CB-208
RIM=245.29
INV. OUT=240.70 (WQS-200)
PROP. CB-200
RIM=245.73
INV. OUT=241.20 (DMH-200)
PROP. CB-201
RIM=245.73
INV. OUT=241.20 (DMH-201)
PROP. CB-202
RIM=245.74
INV. OUT=241.70 (DMH-201)
PROP. CB-203 (DOUBLE)
RIM=244.23
INV. OUT=239.50 (DMH-202)
MAP 38, LOT 23
N/F LANDS OF)
DEPOT STREET LLC
BK. 19312, PG. 354
MAP 38, LOT 23, BLOCK 2
N/F LANDS OF
EGMR 140 DEPOT STREET LLC
100' WETLAND BUFFER (TYP.)
50' WETLAND BUFFER (TYP.)
25' NO DISTURB WETLAND BUFFER (TYP.)
EXIST. BVW (TYP.)
MAX. 2.0% SLOPE IN ANY DIRECTION FOR ACCESSIBLE AREA
MAX. 2.0% CROSS SLOPE AND MAX. 5.0% RUNNING SLOPE FOR SIDEWALK AREAS
RIDGE
TP
BS-N
BS-11
BS-12
BS-13
BS-14
BS-15
BS-16
BS-17
BS-18
BS-19
BS-20
BS-21
BS-22
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BS-42
BS-43
BS-44
BS-45
BS-46
BS-47
BS-48
BS-49
BS-50

MATCHLINE

MATCHLINE

MATCHLINE

MATCHLINE

PROP. DMH-100
RIM=239.44
INV. IN=231.35 (CB-101)
INV. IN=233.80 (CB-100)
INV. OUT=231.35 (WQS-100)

33' - 18" HDPE @ 0.6%

PROP. WQS-100
RIM=240.02
INV. IN=231.15 (DMH-100)
INV. IN=234.00 (CB-102)
INV. OUT=231.15 (FES-100)

PROP. FES-100
INV. IN=231.00 (WQS-100)

PROP. RIP RAP (TYP.)

FOREBAY #1a
BOT. ELEV. = 231.00

STORMWATER MANAGEMENT AREA #1a
BOT. ELEV. = 231.00

TOP BERM
ELEV. = 232.00

PROP. OCS-100
RIM=234.50
INV. OUT=231.00 (FES-101)

PROP. DRAIN CROSSING
(OCS-100) 12" TOP ELEV. = 231.9±
(CB-102) 12" BOT. ELEV. = 234.5±

FOREBAY #1b
BOT. ELEV. = 233.00

TOP BERM
ELEV. = 233.50

PROP. STONE CHECK DAM (TYP.)

TC 241.50
BC 241.00

TC 240.90
BC 240.40

TC 237.60
BC 237.10

TC 237.06
BC 236.56

PROP. CB-101 (DOUBLE)
(WITH CURB INLET)
RIM=236.56
INV. OUT=232.90 (DMH-100)

30' HDPE @ 0.5%

24" 12" HDPE @ 1.7%

27' - 18" HDPE @ 1.7%

PROP. CB-100 (DOUBLE)
RIM=238.84
INV. OUT=234.20 (DMH-100)

102' - 12" HDPE @ 1.0%

PROP. FES-101
INV. IN=230.00 (OCS-100)

PROP. RIP RAP
SCOUR HOLE

TC 241.00
BC 240.50

TC 240.40
BC 239.90

72' - 12" HDPE @ 1.6%

TC 241.95
BC 241.45

TC 242.78
BC 242.28

TC 243.38
BC 242.88

TC=BC 244.14

TC=BC 244.74

PROP. CB-102
RIM=239.80
INV. OUT=235.30 (WQS-100)

TC 241.10
BC 240.60

TC 242.36
BC 241.86

TC 242.96
BC 242.46

PROP. CB-204 (DOUBLE)
RIM=240.73
INV. OUT=236.25 (DMH-203)

PROP. CB-209 (DOUBLE)
RIM=243.17
INV. OUT=238.80 (DMH-203)

TC 241.23
BC 240.73

159' - 12" HDPE @ 1%

TC 243.67
BC 243.17

TC 245.80
BC 245.30

TC 246.35
BC 245.85

RIDGE

TC 244.68
BC 244.18

TC 244.20
BC 243.70

TC 244.97
BC 244.47

TC 245.24
BC 244.74

TC 245.54
BC 245.04

TC 246.69
BC 246.19

TC 247.35
BC 246.85

TC 246.05
BC 245.55

TC 246.74
BC 246.24

TC 247.00
BC 246.50

TC 246.57
BC 246.07

TC 246.55
BC 246.05

TC 246.33
BC 245.83

TC 246.82
BC 246.32

TC=BC 247.20

247.00

247.14

TC 247.13
BC 246.63

TC 246.63
BC 246.13

MAX. 2.0% SLOPE IN ANY DIRECTION FOR ACCESSIBLE AREA

PROP. DMH-202
RIM=247.24
INV. IN=238.00 (CB-203)
INV. OUT=237.90 (DMH-203)

RIDGE

TC 249.08
BC 248.58

MATCHLINE

JMH-205)

TW/BW 246.90

TW/BW 242.30

PROP. DMH-205
RIM=243.58
INV. IN=236.50 (DMH-204)
INV. IN=239.00 (RD-02)
INV. OUT=236.00 (DMH-212)

18" HDPE @ 1.0%

TW/BW 248.00

247.38

247.60

247.35

247.50

247.65

WF-02401 WF-02402 WF-02403 WF-02404 WF-02405 WF-02406 WF-02407 WF-02408 WF-02409 WF-02410 WF-02411 WF-02412 WF-02413 WF-02414 WF-02415 WF-02416 WF-02417 WF-02418 WF-02419 WF-02420

af

af

af

THIS PLAN TO BE UTILIZED FOR SITE GRADING PURPOSES ONLY. REFER TO GENERAL NOTES SHEET FOR ADDITIONAL GRADING & UTILITY NOTES

30 15 7.5 0 30

1"= 30'

C:\PROJDATA\DATA_BOHLER\C3D2020\NET\TEMP\ACPUBLISH_16532\W211060-GRAD-C---LAYOUT C-403-GRAD C

AS

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SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

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REVISIONS

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PROJECT No.:	W211060
DRAWN BY:	CSE
CHECKED BY:	NEM
DATE:	09/01/2021
CAD I.D.:	W211060-GRAD-0

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

2020 ACQUISITIONS

PROPOSED
SOUTH SIDE DEVELOPMENT

MAP #38, BLOCK #1, LOT #23
148 DEPOT STREET SOUTH
TOWN OF BELLINGHAM
NORFOLK COUNTY,
MASSACHUSETTS

BOHLER

352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900

www.BohlerEngineering.com

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No. 41530
PROFESSIONAL ENGINEER
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NEW HAMPSHIRE LICENSE No. 15476
CONNECTICUT LICENSE No. 26177
RHODE ISLAND LICENSE No. 9616
MAINE LICENSE No. 12553

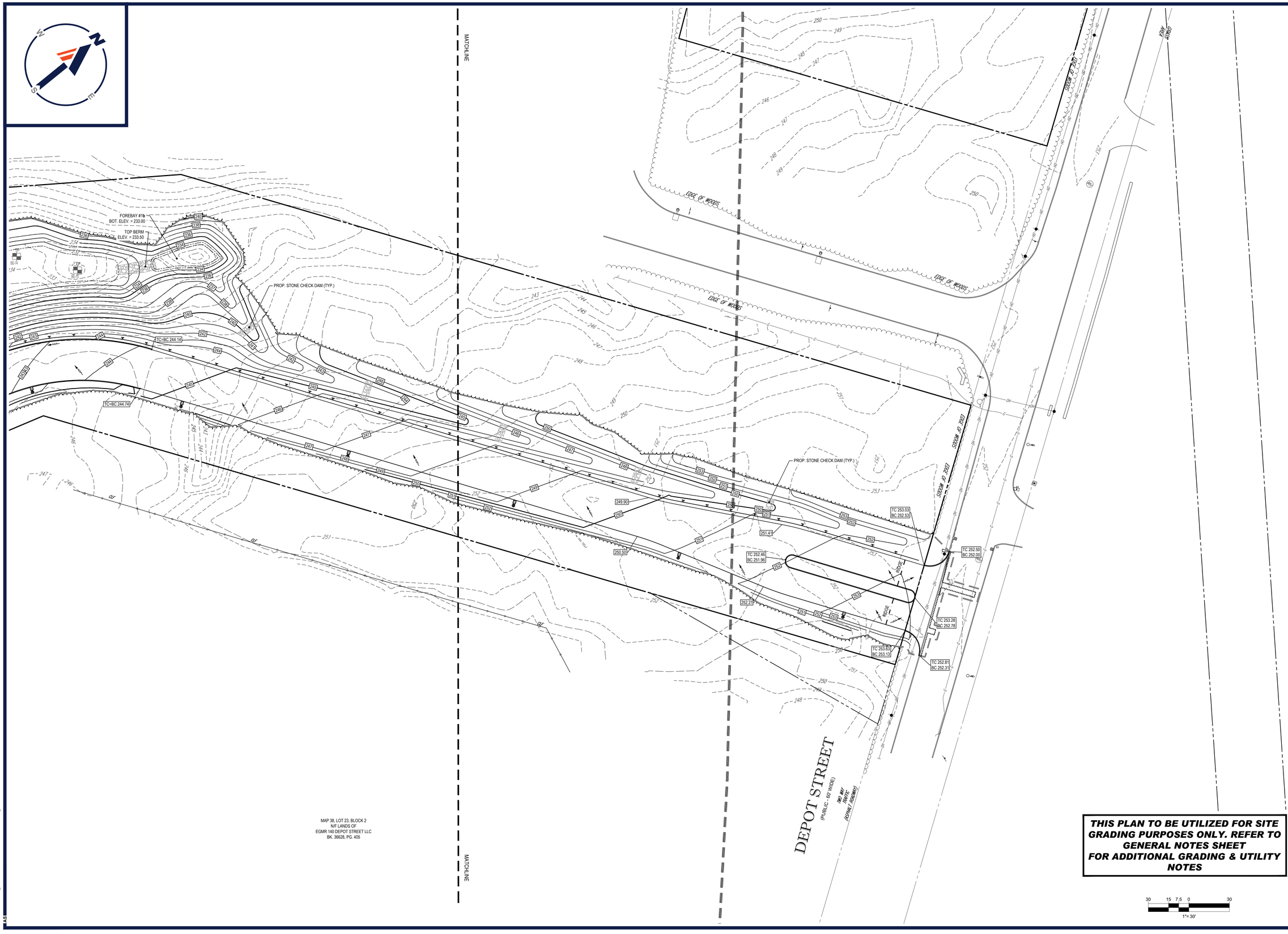
SHEET TITLE:

GRADING AND DRAINAGE PLAN C

SHEET NUMBER:

C-403

ORG. DATE - 09/01/2021



THIS PLAN TO BE UTILIZED FOR SITE GRADING PURPOSES ONLY. REFER TO GENERAL NOTES SHEET FOR ADDITIONAL GRADING & UTILITY NOTES

30 15 7.5 0 30

1"= 30'

C:\PROJDATA\MDATA_BOHLER\C3D2020\NET\TEMP\ACPUBLISH_16532\W211060-GRAD-D-----LAYOUT C-404-GRAD D

AS

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SUSTAINABLE DESIGN
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TRANSPORTATION SERVICES

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PROJECT No.:	W211060
DRAWN BY:	CSE
CHECKED BY:	NEM
DATE:	09/01/2021
CAD I.D.:	W211060-GRAD-0

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

2020 ACQUISITIONS

PROPOSED
SOUTH SIDE DEVELOPMENT

MAP #38, BLOCK #1, LOT #23
148 DEPOT STREET SOUTH
TOWN OF BELLINGHAM
NORFOLK COUNTY,
MASSACHUSETTS

BOHLER

352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
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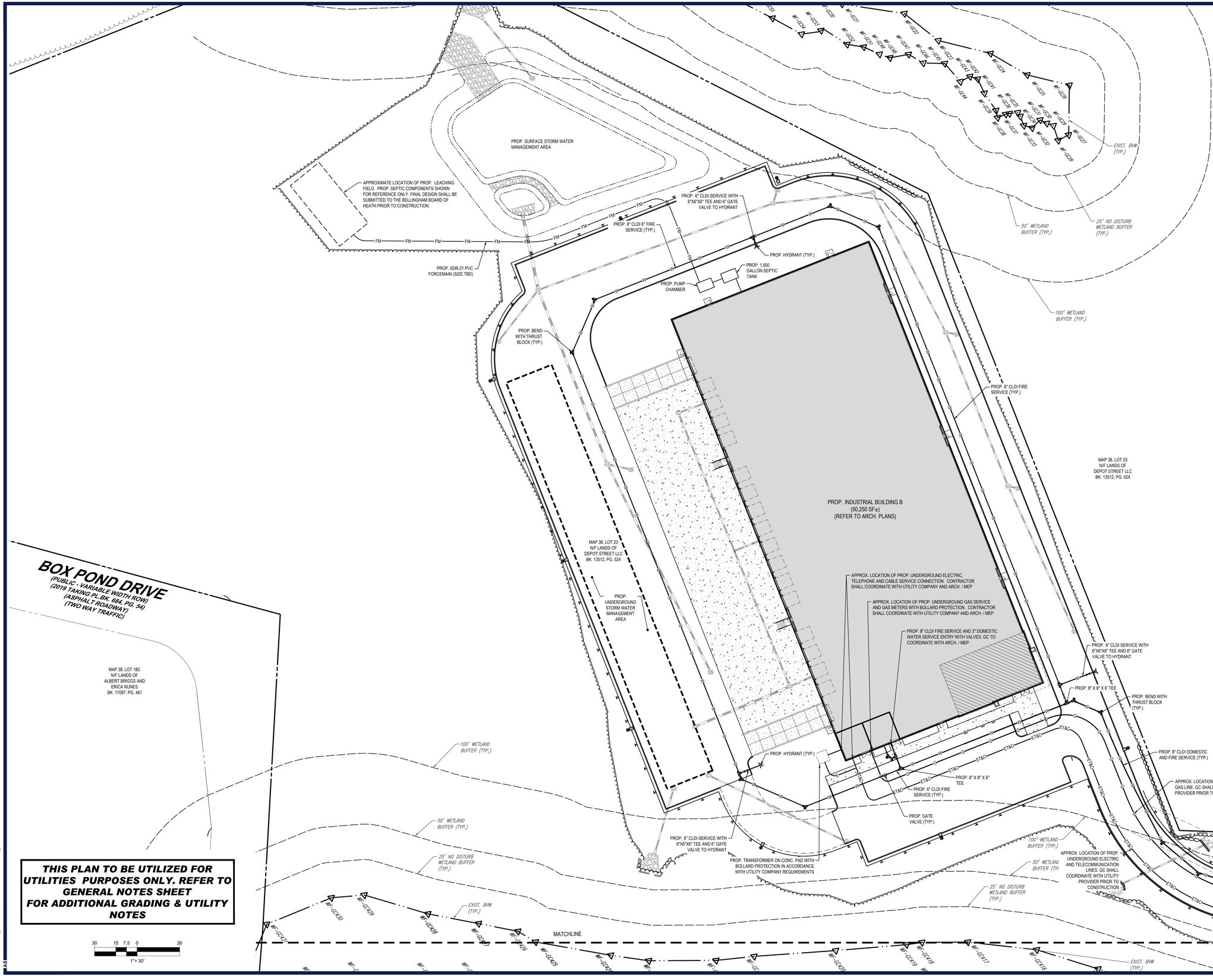
SHEET TITLE:

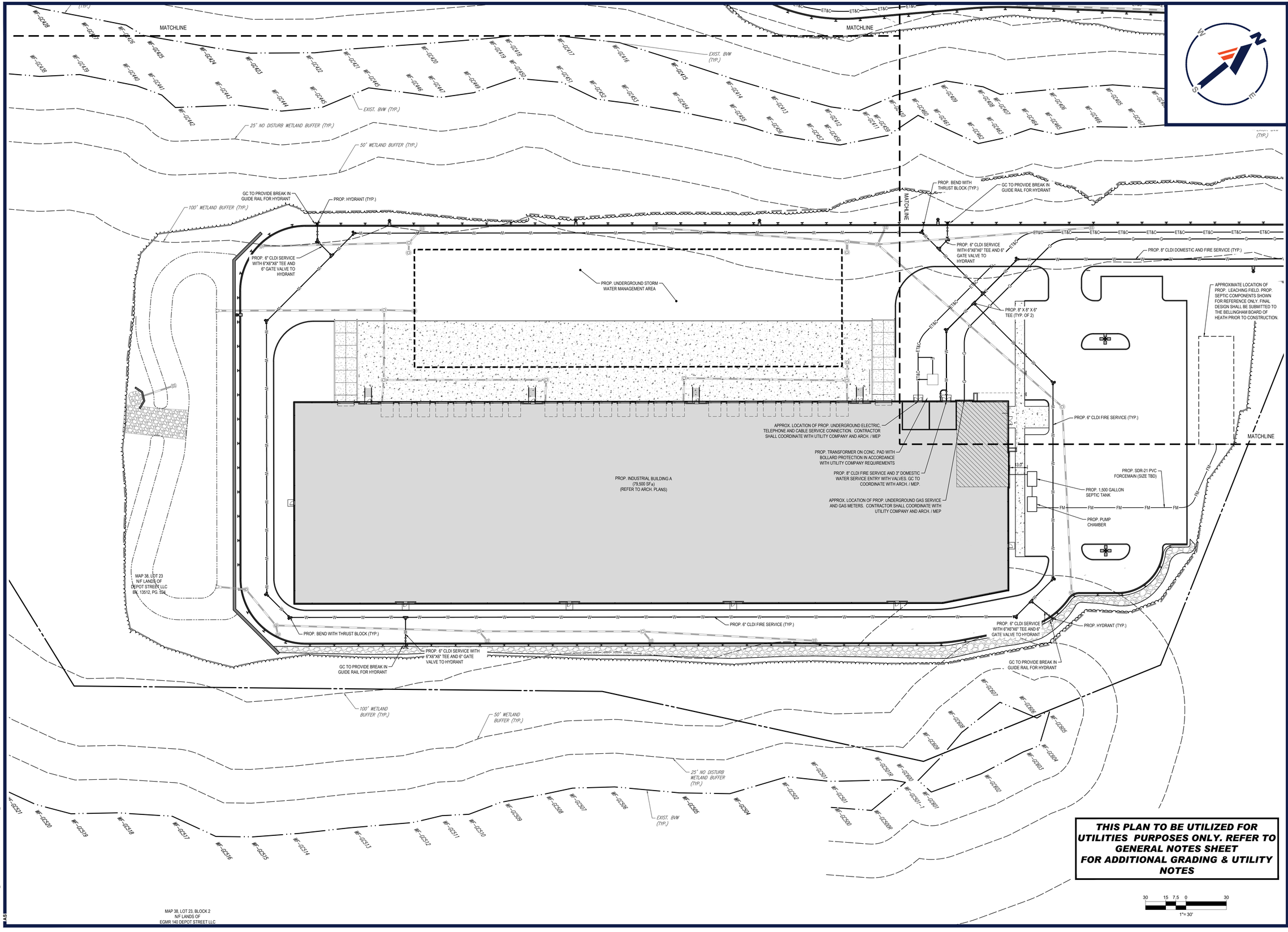
GRADING AND DRAINAGE PLAN D

SHEET NUMBER:

C-404

ORG. DATE - 09/01/2021


BOX POND DRIVE
(PUBLIC - VARIABLE WIDTH ROW)
(2019 TAKING PL.BK. 684, PG. 54)
(ASPHALT ROADWAY)
(TWO WAY TRAFFIC)
MAP 38, LOT 18C
N/F LANDS OF
ALBERT BRIGGS AND
ERICA NUNES
BK. 17097, PG. 461
THIS PLAN TO BE UTILIZED FOR UTILITIES PURPOSES ONLY. REFER TO GENERAL NOTES SHEET FOR ADDITIONAL GRADING & UTILITY NOTES
30 15 7.5 0 30
1"= 30'
PROP. SURFACE STORM WATER MANAGEMENT AREA
APPROXIMATE LOCATION OF PROP. LEACHING FIELD. PROP. SEPTIC COMPONENTS SHOWN FOR REFERENCE ONLY. FINAL DESIGN SHALL BE SUBMITTED TO THE BELLINGHAM BOARD OF HEATH PRIOR TO CONSTRUCTION.
PROP. SDR-21 PVC FORCEMAIN (SIZE TBD)
PROP. 6" CLDI SERVICE WITH 6"X6"X6" TEE AND 6" GATE VALVE TO HYDRANT
PROP. 6" CLDI 6" FIRE SERVICE (TYP.)
PROP. HYDRANT (TYP.)
PROP. 1,500 GALLON SEPTIC TANK
PROP. PUMP CHAMBER
PROP. BEND WITH THRUST BLOCK (TYP.)
PROP. INDUSTRIAL BUILDING B
(50,250 SF±)
(REFER TO ARCH. PLANS)
MAP 38, LOT 23
N/F LANDS OF
DEPOT STREET LLC
BK. 13512, PG. 524
PROP. UNDERGROUND STORM WATER MANAGEMENT AREA
APPROX. LOCATION OF PROP. UNDERGROUND ELECTRIC, TELEPHONE AND CABLE SERVICE CONNECTION. CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANY AND ARCH. / MEP
APPROX. LOCATION OF PROP. UNDERGROUND GAS SERVICE AND GAS METERS WITH BOLLARD PROTECTION. CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANY AND ARCH. / MEP
PROP. 8" CLDI FIRE SERVICE AND 3" DOMESTIC WATER SERVICE ENTRY WITH VALVES. GC TO COORDINATE WITH ARCH. / MEP.
PROP. 6" CLDI FIRE SERVICE (TYP.)
PROP. 6" CLDI SERVICE WITH 6"X6"X6" TEE AND 6" GATE VALVE TO HYDRANT
PROP. 8" X 8" X 6" TEE
PROP. BEND WITH THRUST BLOCK (TYP.)
PROP. 8" CLDI DOMESTIC AND FIRE SERVICE (TYP.)
PROP. HYDRANT (TYP.)
PROP. 8" X 8" X 6" TEE
PROP. 6" CLDI FIRE SERVICE (TYP.)
PROP. GATE VALVE (TYP.)
APPROX. LOCATION OF PROP. UNDERGROUND GAS LINE. GC SHALL COORDINATE WITH UTILITY PROVIDER PRIOR TO CONSTRUCTION
PROP. 6" CLDI SERVICE WITH 6"X6"X6" TEE AND 6" GATE VALVE TO HYDRANT
PROP. TRANSFORMER ON CONC. PAD WITH BOLLARD PROTECTION IN ACCORDANCE WITH UTILITY COMPANY REQUIREMENTS
PROP. 6" CLDI FIRE SERVICE (TYP.)
APPROX. LOCATION OF PROP. UNDERGROUND ELECTRIC AND TELECOMMUNICATION LINES. GC SHALL COORDINATE WITH UTILITY PROVIDER PRIOR TO CONSTRUCTION
MAP 38, LOT 23
N/F LANDS OF
DEPOT STREET LLC
BK. 13512, PG. 524
EXIST. BVW (TYP.)
50' WETLAND BUFFER (TYP.)
25' NO DISTURB WETLAND BUFFER (TYP.)
100' WETLAND BUFFER (TYP.)
MATCHLINE
MATCHLINE
WF-0001
WF-0002
WF-0003
WF-0004
WF-0005
WF-0006
WF-0007
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WF-0038
WF-0039
WF-0040



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SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
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LANDSCAPE ARCHITECTURE
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REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY

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PROJECT No.:	W211060
DRAWN BY:	CSE
CHECKED BY:	NEM
DATE:	09/01/2021
CAD I.D.:	W211060-UTIL-0

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

2020 ACQUISITIONS

PROPOSED
SOUTH SIDE DEVELOPMENT

MAP #38, BLOCK #1, LOT #23
148 DEPOT STREET SOUTH
TOWN OF BELLINGHAM
NORFOLK COUNTY,
MASSACHUSETTS

BOHLER
352 TURNPIKE ROAD
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MASSACHUSETTS LICENSE No. 41539
NEW HAMPSHIRE LICENSE No. 15476
CONNECTICUT LICENSE No. 26177
RHODE ISLAND LICENSE No. 9616
MAINE LICENSE No. 12553

SHEET TITLE:

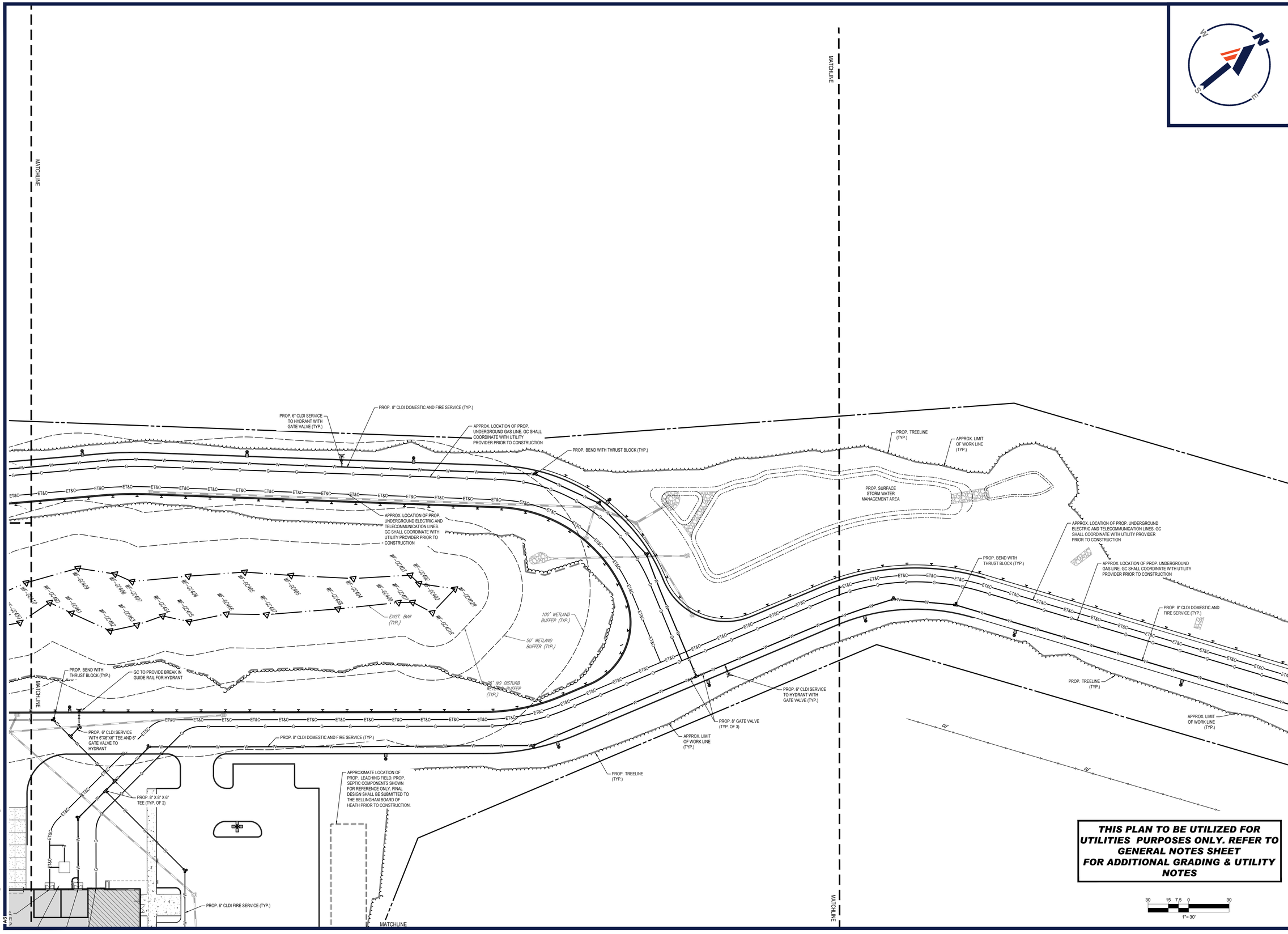
UTILITY PLAN B

SHEET NUMBER:

C-502

ORG. DATE - 09/01/2021

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BAS
ISO B

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PROJECT No.:	W211060
DRAWN BY:	CSE
CHECKED BY:	NEM
DATE:	09/01/2021
CAD I.D.:	W211060-UTIL-0

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

2020 ACQUISITIONS

PROPOSED SOUTH SIDE DEVELOPMENT

MAP #38, BLOCK #1, LOT #23
148 DEPOT STREET SOUTH
TOWN OF BELLINGHAM
NORFOLK COUNTY,
MASSACHUSETTS

BOHLER

352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900

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CONNECTICUT LICENSE No. 26177
RHODE ISLAND LICENSE No. 9616
MAINE LICENSE No. 12553

SHEET TITLE:

UTILITY PLAN C

SHEET NUMBER:

C-503

ORG. DATE - 09/01/2021

PROP. TREELINE (TYP.)

APPROX. LIMIT OF WORK LINE (TYP.)

PROP. SURFACE STORM WATER MANAGEMENT AREA

APPROX. LOCATION OF PROP. UNDERGROUND ELECTRIC AND TELECOMMUNICATION LINES. GC SHALL COORDINATE WITH UTILITY PROVIDER PRIOR TO CONSTRUCTION

PROP. BEND WITH THRUST BLOCK (TYP.)

APPROX. LOCATION OF PROP. UNDERGROUND GAS LINE. GC SHALL COORDINATE WITH UTILITY PROVIDER PRIOR TO CONSTRUCTION

PROP. 8" CLDI DOMESTIC AND FIRE SERVICE (TYP.)

PROP. TREELINE (TYP.)

APPROX. LIMIT OF WORK LINE (TYP.)

PROP. 6" CLDI SERVICE TO HYDRANT WITH GATE VALVE (TYP.)

PROP. TREELINE (TYP.)

APPROX. LOCATION OF WATER RESOURCE DISTRICT BOUNDARY PER TOWN GIS AND MAP

EXIST. HYDRANT

PROP. CONNECTION TO EXIST. TELECOM. AND ELECTRICAL SERVICES (TYP). GC SHALL COORDINATE WITH TELECOM. COMPANY PRIOR TO CONSTRUCTION

PROP. CONNECTION TO EXIST. GAS MAIN AT THE INTERSECTION OF DEPOT STREET AND SILVERSTEIN WAY (±270' FROM ENTRANCE). GC SHALL COORDINATE WITH GAS COMPANY PRIOR TO CONSTRUCTION.

APPROX. LOCATION OF EXIST. 12" WATER MAIN FOR CONNECTION OF PROP. 8" CLDI DOMESTIC AND FIRE PROTECTION WATER SERVICE. GC TO VERITY LOCATION OF EXISTING LINE PRIOR TO CONSTRUCTION AND NOTIFY DESIGN ENGINEER OF ANY CONFLICTS. CONNECTION TO EXISTING WATER MAIN TO BE IN ACCORDANCE WITH THE TOWN OF BELLINGHAM SPECIFICATIONS.

EDGE OF WOODS

EDGE OF WOODS

EDGE OF WOODS

MATCHLINE

MATCHLINE

MAP 38, LOT 23, BLOCK 2
N/F LANDS OF
EGMR 140 DEPOT STREET LLC
BK. 36628, PG. 405

APPROX. LOC OF DRIVEWAY ACCESS EASEMENT (PER BK.26955 PG. 291)

DEPOT STREET
(PUBLIC - 60' WIDE)
TWO WAY TRAFFIC (ASPHALT PAVEMENT)

SILVERSTEIN WAY

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30 15 7.5 0 30
1"= 30'

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PROJECT No.:	W211060
DRAWN BY:	CSE
CHECKED BY:	NEM
DATE:	09/01/2021
CAD I.D.:	W211060-UTIL-0

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

2020 ACQUISITIONS

PROPOSED SOUTH SIDE DEVELOPMENT

MAP #38, BLOCK #1, LOT #23
148 DEPOT STREET SOUTH
TOWN OF BELLINGHAM
NORFOLK COUNTY, MASSACHUSETTS

BOHLER
352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
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MASSACHUSETTS LICENSE No. 41530
NEW HAMPSHIRE LICENSE No. 15476
CONNECTICUT LICENSE No. 26172
RHODE ISLAND LICENSE No. 9616
MAINE LICENSE No. 12553

SHEET TITLE:

UTILITY PLAN D

SHEET NUMBER:

C-504

ORG. DATE - 09/01/2021

CONTRACTOR TO FIELD LOCATE TEMPORARY SETTLING BASIN. TEMPORARY BASIN SHALL BE KEPT A MINIMUM OF 12" ABOVE PROPOSED BOTTOM ELEVATION OF STORMWATER MANAGEMENT AREA. TEMPORARY BASIN SHALL BE CLEARED OF ANY SEDIMENT AND BOTTOM SHALL BE SCARIFIED PRIOR TO INSTALLATION OF STORMWATER MANAGEMENT AREA. CONTRACTOR SHALL MINIMIZE CONSTRUCTION ACTIVITIES AND SHALL NOT STORE ANY EQUIPMENT OR MATERIALS WITHIN STORMWATER MANAGEMENT AREAS TO AVOID COMPACTION OF SOILS.

EROSION CONTROL BARRIER TO BE INSTALLED ALONG LIMIT OF WORK

PROP. SURFACE STORMWATER MANAGEMENT AREA

PROP. INLET PROTECTION AT ALL CATCH BASINS (TYP.)

EXIST. BVW (TYP.)

50' WETLAND BUFFER (TYP.)

25' NO DISTURB WETLAND BUFFER (TYP.)

100' WETLAND BUFFER (TYP.)

PROP. EROSION CONTROL BARRIER (TYP.)

APPROX. LIMIT OF WORK LINE (TYP.)

APPROX. LOCATION OF STOCKPILE AREA (TYP.) LOCATION AND SIZE MAY VARY DEPENDING UPON PHASE OF CONSTRUCTION

APPROX. LOCATION OF EROSION CONTROL BARRIERS FOR STOCKPILE (TYP.)

PROP. INDUSTRIAL BUILDING B
(50,250 SF±)
(REFER TO ARCH. PLANS)

MAP 38, LOT 23
N/F LANDS OF
DEPOT STREET LLC
BK. 13512, PG. 524

PROP. UNDERGROUND STORM WATER MANAGEMENT AREA

PROP. EROSION CONTROL BARRIER CONSISTING OF COMPOST SOCK AND SILT FENCE (TYP.)

BOX POND DRIVE
(PUBLIC - VARIABLE WIDTH ROW)
(2019 TAKING PL.BK. 6814, PG. 54)
(ASPHALT ROADWAY)
(TWO WAY TRAFFIC)

MAP 38, LOT 18C
N/F LANDS OF
ALBERT BRIGGS AND
ERICA NUNES
BK. 17097, PG. 461

MATCHLINE

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

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

30 15 7.5 0 30
1"= 30'

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PROJECT No.:	W211060
DRAWN BY:	CSE
CHECKED BY:	NEM
DATE:	09/01/2021
CAD I.D.:	W211060-EROS-0

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

2020 ACQUISITIONS

PROPOSED SOUTH SIDE DEVELOPMENT

MAP #38, BLOCK #1, LOT #23
148 DEPOT STREET SOUTH
TOWN OF BELLINGHAM
NORFOLK COUNTY,
MASSACHUSETTS

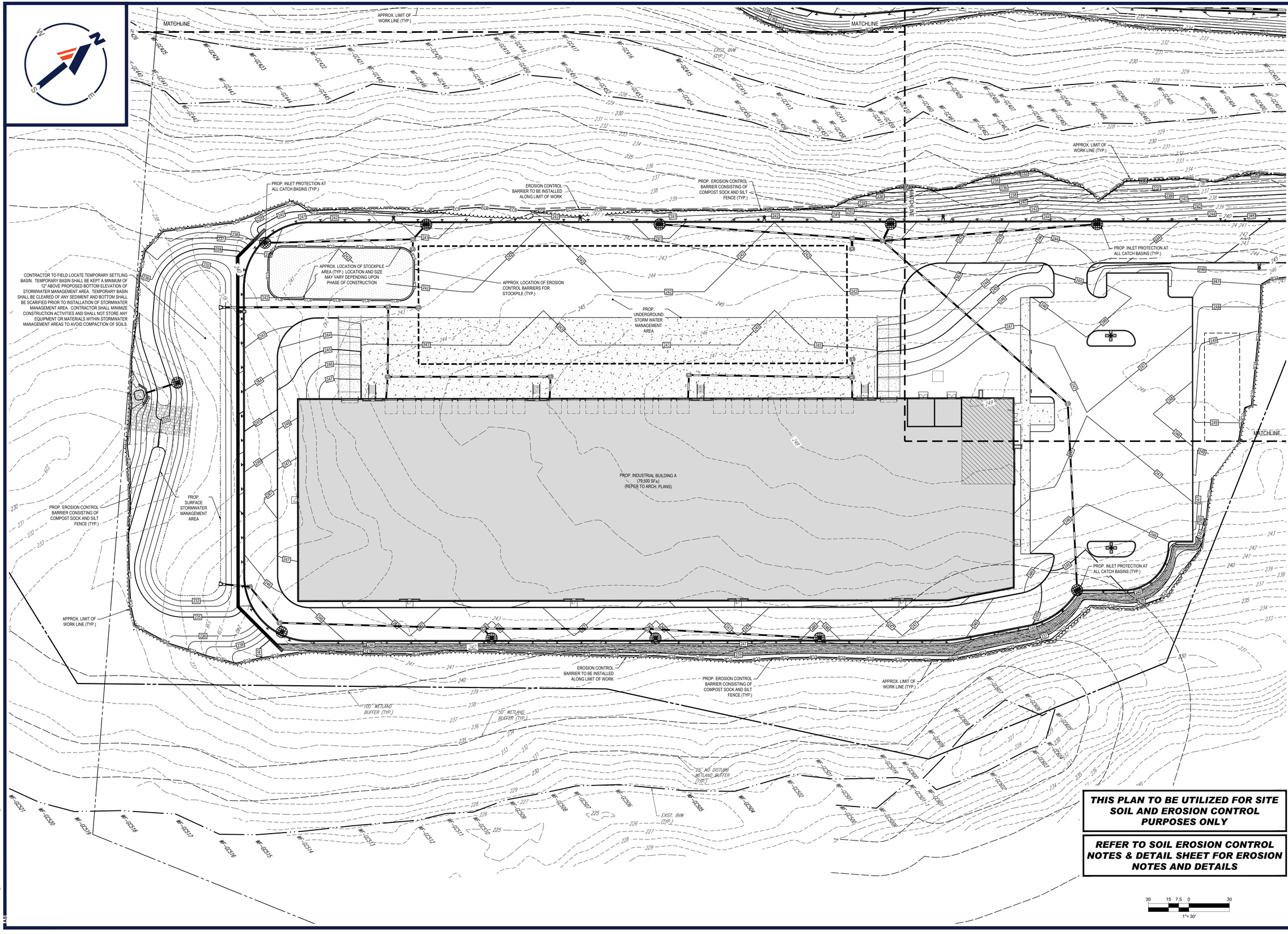
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SOUTHBOROUGH, MA 01772
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PROFESSIONAL ENGINEER
MASSACHUSETTS LICENSE No. 41538
NEW HAMPSHIRE LICENSE No. 15476
CONNECTICUT LICENSE No. 26177
RHODE ISLAND LICENSE No. 26616
MAINE LICENSE No. 12553

SHEET TITLE:
SOIL EROSION & SEDIMENT CONTROL PLAN A

SHEET NUMBER:
C-601

ORG. DATE - 09/01/2021



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

30 15 7.5 0 30

1"= 30'

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PROJECT No.:	W211060
DRAWN BY:	CSE
CHECKED BY:	NEM
DATE:	09/01/2021
CAD I.D.:	W211060-EROS-0

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

2020 ACQUISITIONS

PROPOSED
SOUTH SIDE DEVELOPMENT

MAP #38, BLOCK #1, LOT #23
148 DEPOT STREET SOUTH
TOWN OF BELLINGHAM
NORFOLK COUNTY,
MASSACHUSETTS

BOHLER

352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
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NEW HAMPSHIRE LICENSE No. 15476
CONNECTICUT LICENSE No. 26177
RHODE ISLAND LICENSE No. 9616
MAINE LICENSE No. 12553

SHEET TITLE:

SOIL EROSION & SEDIMENT CONTROL PLAN B

SHEET NUMBER:

C-602

ORG. DATE - 09/01/2021

MATCHLINE

MATCHLINE

CONTRACTOR TO FIELD LOCATE TEMPORARY SETTLING BASIN. TEMPORARY BASIN SHALL BE KEPT A MINIMUM OF 12" ABOVE PROPOSED BOTTOM ELEVATION OF STORMWATER MANAGEMENT AREA. TEMPORARY BASIN SHALL BE CLEARED OF ANY SEDIMENT AND BOTTOM SHALL BE SCARIFIED PRIOR TO INSTALLATION OF STORMWATER MANAGEMENT AREA. CONTRACTOR SHALL MINIMIZE CONSTRUCTION ACTIVITIES AND SHALL NOT STORE ANY EQUIPMENT OR MATERIALS WITHIN STORMWATER MANAGEMENT AREAS TO AVOID COMPACTION OF SOILS.

PROP. EROSION CONTROL BARRIER CONSISTING OF COMPOST SOCK AND SILT FENCE (TYP.)

EROSION CONTROL BARRIER TO BE INSTALLED ALONG LIMIT OF WORK

PROP. INLET PROTECTION AT ALL CATCH BASINS (TYP.)

APPROX. LIMIT OF WORK LINE (TYP.)

PROP. SURFACE STORMWATER MANAGEMENT AREA

PROP. EROSION CONTROL BARRIER CONSISTING OF COMPOST SOCK AND SILT FENCE (TYP.)

EROSION CONTROL BARRIER TO BE INSTALLED ALONG LIMIT OF WORK

PROP. INLET PROTECTION AT ALL CATCH BASINS (TYP.)

PROP. EROSION CONTROL BARRIER CONSISTING OF COMPOST SOCK AND SILT FENCE (TYP.)

APPROX. LIMIT OF WORK LINE (TYP.)

EROSION CONTROL BARRIER TO BE INSTALLED ALONG LIMIT OF WORK

APPROX. LIMIT OF WORK LINE (TYP.)

PROP. EROSION CONTROL BARRIER CONSISTING OF COMPOST SOCK AND SILT FENCE (TYP.)

MATCHLINE

MATCHLINE

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

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

30 15 7.5 0 30

1"= 30'

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PROJECT No.: W211060
DRAWN BY: CSE
CHECKED BY: NEM
DATE: 09/01/2021
CAD I.D.: W211060-EROS-0

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

2020 ACQUISITIONS

PROPOSED
SOUTH SIDE DEVELOPMENT

MAP #38, BLOCK #1, LOT #23
148 DEPOT STREET SOUTH
TOWN OF BELLINGHAM
NORFOLK COUNTY,
MASSACHUSETTS

BOHLER

352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
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NEW HAMPSHIRE LICENSE No. 15476
CONNECTICUT LICENSE No. 26177
RHODE ISLAND LICENSE No. 9616
MAINE LICENSE No. 12553

SHEET TITLE:

SOIL EROSION & SEDIMENT CONTROL PLAN C

SHEET NUMBER:

C-603

ORG. DATE - 09/01/2021

PROP. EROSION CONTROL BARRIER CONSISTING OF COMPOST SOCK AND SILT FENCE (TYP.)

APPROX. LIMIT OF WORK LINE (TYP.)

EROSION CONTROL BARRIER TO BE INSTALLED ALONG LIMIT OF WORK

MATCHLINE

EDGE OF WOODS

EDGE OF WOODS

EDGE OF WOODS

PROP. EROSION CONTROL BARRIER CONSISTING OF COMPOST SOCK AND SILT FENCE (TYP.)

EROSION CONTROL BARRIER TO BE INSTALLED ALONG LIMIT OF WORK

APPROX. LIMIT OF WORK LINE (TYP.)

APPROX. LIMIT OF WORK LINE (TYP.)

PROP. EROSION CONTROL BARRIER CONSISTING OF COMPOST SOCK AND SILT FENCE (TYP.)

EROSION CONTROL BARRIER TO BE INSTALLED ALONG LIMIT OF WORK

MATCHLINE

MAP 38, LOT 23, BLOCK 2
N/F LANDS OF
EGMR 140 DEPOT STREET LLC
BK. 36628, PG. 405

DEPOT STREET
(PUBLIC - 60' WIDE)

STONE OF 2320

STONE OF 2320

FENCE

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

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

30 15 7.5 0 30
1"= 30'

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PROJECT No.:	W211060
DRAWN BY:	CSE
CHECKED BY:	NEM
DATE:	09/01/2021
CAD I.D.:	W211060-EROS-0

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

2020 ACQUISITIONS

PROPOSED
SOUTH SIDE DEVELOPMENT

MAP #38, BLOCK #1, LOT #23
148 DEPOT STREET SOUTH
TOWN OF BELLINGHAM
NORFOLK COUNTY,
MASSACHUSETTS

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352 TURNPIKE ROAD
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NEW HAMPSHIRE LICENSE No. 15476
CONNECTICUT LICENSE No. 26172
RHODE ISLAND LICENSE No. 9616
MAINE LICENSE No. 12553

SHEET TITLE:

SOIL EROSION & SEDIMENT CONTROL PLAN D

SHEET NUMBER:

C-604

ORG. DATE - 09/01/2021

EROSION AND SEDIMENT CONTROL NOTES

1. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE DONE AS SET FORTH IN THE MOST CURRENT STATE SEDIMENT AND EROSION CONTROL MANUAL.
2. 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).
3. 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%.
4. 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.
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 MUST 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.
6. NO SLOPES, EITHER PERMANENT OR TEMPORARY, SHALL BE STEEPER THAN TWO TO ONE (2:1).
7. 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.
8. 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.
9. DURING THE CONSTRUCTION PHASE, INTERCEPTED SEDIMENT WILL BE RETURNED TO THE SITE AND REGRADED ONTO OPEN AREAS.
10. 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:

10.1. SIX INCHES OF LOAM WILL BE SPREAD OVER DISTURBED AREAS AND SMOOTHED TO A UNIFORM SURFACE.

10.2. 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 18.4 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 PER1,000 SF).

10.3. FOLLOWING SEED BED PREPARATION, DITCHES AND BACK SLOPES WILL BE SEEDED TO A MIXTURE OF 47% CREEPING RED FESCUE, 5% REDTOP, AND 48% TALL FESCUE. THE LAWN AREAS WILL BE SEEDED TO A PREMIUM TURF MIXTURE OF 44% KENTUCKY BLUE-GRASS, 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.

10.4. 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.

11. ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED ONCE THE SITE IS STABILIZED.
12. WETLANDS WILL BE PROTECTED W/ STRAW, COMPOST, AND/OR SILT FENCE BARRIERS INSTALLED AT THE EDGE OF THE WETLAND OR THE BOUNDARY OF WETLAND DISTURBANCE.
13. ALL AREAS WITHIN 100 FEET OF A FLAGGED WETLAND OR STREAM SHALL HAVE AN EXPOSURE WINDOW OF NOT MORE THAN 7 DAYS.
14. 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	MULCH	RATE (1000 SF)
PROTECT AREA	STRAW	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 SERRATED STRAIGHT DISK. WETTING FOR SMALL AREAS AND ROAD DITCHES MAY BE PERMITTED.

EROSION CONTROL NOTES DURING WINTER CONSTRUCTION

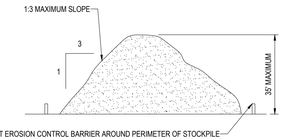
1. WINTER CONSTRUCTION PERIOD: NOVEMBER 1 THROUGH APRIL 15.
2. WINTER EXCAVATION AND EARTHWORK SHALL BE DONE SUCH THAT NO MORE THAN 1 ACRE OF THE SITE IS WITHOUT STABILIZATION AT ANY ONE TIME.
3. EXPOSED AREA SHOULD BE LIMITED TO THAT WHICH CAN BE MULCHED IN ONE DAY PRIOR TO ANY SNOW EVENT.
4. CONTINUATION 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.
5. 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 SEEDED, MULCHED AND ADEQUATELY ANCHORED BY AN APPROVED ANCHORING TECHNIQUE.
6. BETWEEN THE DATES OF OCTOBER 15 AND APRIL 1ST, 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 SEEDED 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 SEEDED 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.
7. MULCHING REQUIREMENTS:

7.1. BETWEEN THE DATES OF NOVEMBER 1ST AND APRIL 15TH ALL MULCH SHALL BE ANCHORED BY EITHER PEG LINE, MULCH NETTING OR WOOD CELLULOSE FIBER.

7.2. 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%.

7.3. 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%.

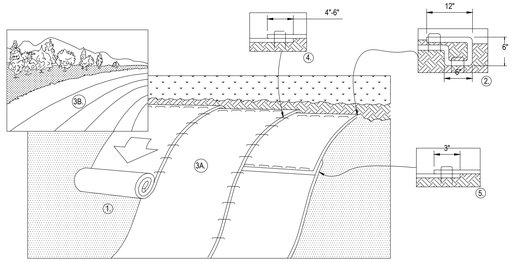
8. AFTER NOVEMBER 1ST THE CONTRACTOR SHALL APPLY DORMANT SEEDING OR MULCH AND ANCHORING ON ALL BARE EARTH AT THE END OF EACH WORKING DAY.
9. DURING THE WINTER CONSTRUCTION PERIOD ALL SNOW SHALL BE REMOVED FROM AREAS OF SEEDING AND MULCHING PRIOR TO PLACEMENT.
10. STOCKPILING OF MATERIALS (DIRT, WOOD, CONSTRUCTION MATERIALS, ETC.) MUST REMAIN COVERED AT ALL TIMES TO MINIMIZE ANY DUST PROBLEMS THAT MAY OCCUR WITH ADJACENT PROPERTIES AND TO PROVIDE MAXIMUM PROTECTION AGAINST EROSION RUNOFF.
11. EXISTING CATCH BASIN STRUCTURES SHALL BE PROTECTED UNTIL SUCH TIME AS THEY ARE REMOVED.



NOTE:
1. ADD THE FOLLOWING TO THE STOCK PILE DETAIL: PROVIDE SAFETY FENCING AROUND STOCKPILES OVER 10' IN HEIGHT OR OTHERWISE RESTRICT SITE ACCESS.

TEMPORARY STOCKPILE

N.T.S.

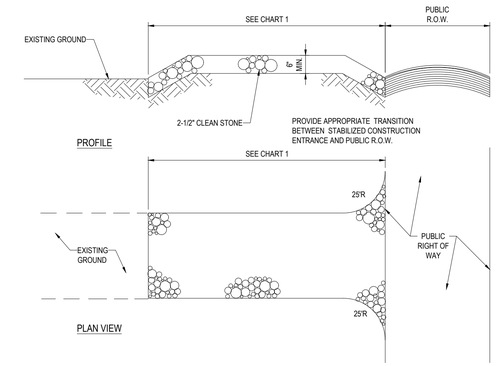


1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE BLANKET.
3. ROLL THE BLANKETS (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS PER MANUFACTURES RECOMMENDATION.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 4"-6" OVERLAP DEPENDING ON BLANKET TYPE. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE SEAM STITCH ON THE PREVIOUSLY INSTALLED BLANKET.
5. CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3"OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12"APART ACROSS ENTIRE BLANKET WIDTH.
6. PLACE STAPLES/STAKES PER MANUFACTURE RECOMMENDATION FOR THE APPROPRIATE SLOPE BEING APPLIED.

NOTES:
1. IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.
2. FOLLOW EROSION CONTROL TECHNOLOGY COUNCIL SPECIFICATION FOR PRODUCT SELECTION
3. AT A MINIMUM, THE EROSION CONTROL MATTING SHALL BE INSTALLED ON SLOPES GREATER THAN 3:1 WITHIN THE 100-FOOT BUFFER ZONE.

EROSION CONTROL MATTING

N.T.S.



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	200FT
>5%	ENTIRE ENTRANCE STABILIZED WITH FABC BASE COURSE (1)	

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

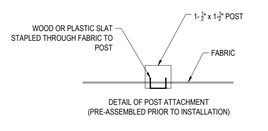
CHART 1

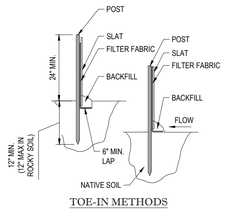
STABILIZED CONSTRUCTION ENTRANCE

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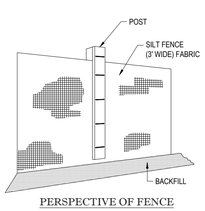
EROSION CONTROL BARRIER SHALL CONSIST OF BOTH COMPOST SOCK AND SILT FENCE UNLESS OTHERWISE NOTED

COMPOST SOCK





TOE-IN METHODS



PERSPECTIVE OF FENCE

SILT FENCE

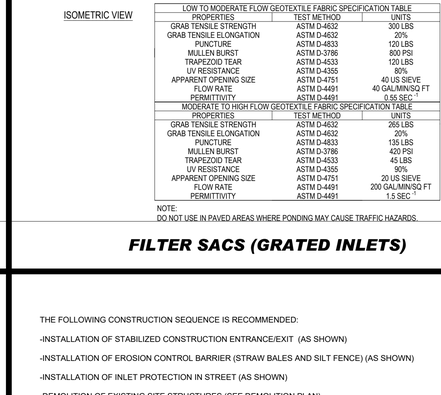
INSTALLATION:
1. EXCAVATE A 6"x 6" TRENCH ALONG THE LINE OF EROSION CONTROL OF THE SITE.
2. UNROLL SILTATION FENCE AND POSITION THE POSTS AGAINST THE BACK (DOWNSTREAM) WALL OF THE TRENCH (NET SIDE AWAY FROM FLOW DIRECTION).
3. DRIVE THE POST INTO THE GROUND UNTIL THE NETTING IS LAYING ACROSS THE TRENCH BOTTOM.
4. 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 & TAMP- ING FILL AT THE BASE.
5. COMBINATION OF COMPOST SOCK AND SILT FENCE SHALL BE USED AS NOTED ON THE PLAN.
6. WIRE BACK SILT FENCE TO BE USED IN AREAS WITHIN 50 FOOT WETLAND BUTTER, SEE DETAIL (THIS SHEET).

EROSION CONTROL BARRIER (ECB) DETAIL

N.T.S.

TREE PROTECTION DURING SITE CONSTRUCTION

N.T.S.



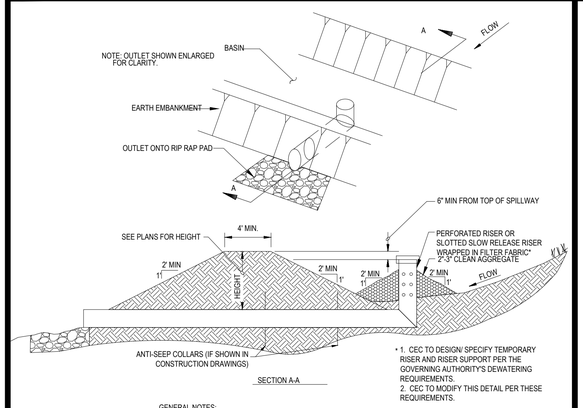
LOW TO MODERATE FLOW GEOTEXTILE FABRIC SPECIFICATION TABLE		
PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4632	300 LBS
GRAB TENSILE ELONGATION	ASTM D-4632	20%
PUNCTURE	ASTM D-4833	120 LBS
MULLEN BURST	ASTM D-3786	800 PSI
TRAPEZOID TEAR	ASTM D-4533	120 LBS
UV RESISTANCE	ASTM D-4355	80%
APPARENT 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-4833	135 LBS
MULLEN 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 $^{-1}$

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

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

FILTER SACS (GRATED INLETS)

N.T.S.



* 1. CEC TO DESIGN/ SPECIFY TEMPORARY RISER AND RISER SUPPORT PER THE GOVERNING AUTHORITY'S DEWATERING REQUIREMENTS.
2. CEC TO MODIFY THIS DETAIL PER THESE REQUIREMENTS.

GENERAL NOTES:
1. PIPE MATERIAL - CORRUGATED METAL PIPE, PVC, HDPE OR OTHER PLASTIC MATERIAL.
2. ALL PIPE CONNECTION SHALL BE WATERTIGHT.
3. FILL MATERIAL AROUND PIPE SHALL BE COMPACTED IN 4 INCHES LIFTS. A MINIMUM OF 2 FEET OF COMPACTED BACKFILL SHALL BE PLACED OVER THE PIPE BEFORE CROSSING IT WITH CONSTRUCTION TRAFFIC.
4. PONDING OF SEDIMENT LADEN RUNOFF IN SEDIMENT BASIN ACCOMPLISHED BY EMBANKMENT OR EXCAVATION DEPENDING ON TERRAIN.
5. SIDE SLOPES SHALL BE 2:1 OR FLATTER.

SEDIMENT BASIN WITH PIPE OUTLET

N.T.S.

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 STRUCTURES (SEE DEMOLITION PLAN)

-DEMOLITION OF EXISTING SITE PAVEMENT AND AMENITIES (SEE DEMOLITION PLAN)

-CLEARING AND GRUBBING

-INSTALLATION OF TEMPORARY SWALES AND SEDIMENT BASINS

-EARTHWORK AND EXCAVATION/FILLING AS NECESSARY

-CONSTRUCTION OF UTILITIES

-STABILIZE PERMANENT LAWN AREAS AND SLOPES WITH TEMPORARY SEEDING

-INSTALLATION OF INLET PROTECTION OF ON-SITE UTILITIES (AS SHOWN)

-CONSTRUCTION OF BUILDINGS

-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.

-REMOVAL OF THE TEMPORARY SEDIMENT BASINS

-PAVE PARKING LOT

-LANDSCAPING PER LANDSCAPING PLAN

-REMOVE EROSION CONTROLS AS DISTURBED AREAS BECOME STABILIZED TO 70% STABILIZATION OR GREATER.

CONSTRUCTION SEQUENCE

N.T.S.

BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
LIGHT GAGE STEEL DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

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PROJECT No.:	W211060
DRAWN BY:	CSE
CHECKED BY:	NEM
DATE:	09/01/2021
CAD I.D.:	W211060-EROS-0

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

2020 ACQUISITIONS

PROPOSED
SOUTH SIDE DEVELOPMENT

MAP #38, BLOCK #1, LOT #23
148 DEPOT STREET SOUTH
TOWN OF BELLINGHAM
NORFOLK COUNTY,
MASSACHUSETTS

BOHLER
352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900
www.BohlerEngineering.com

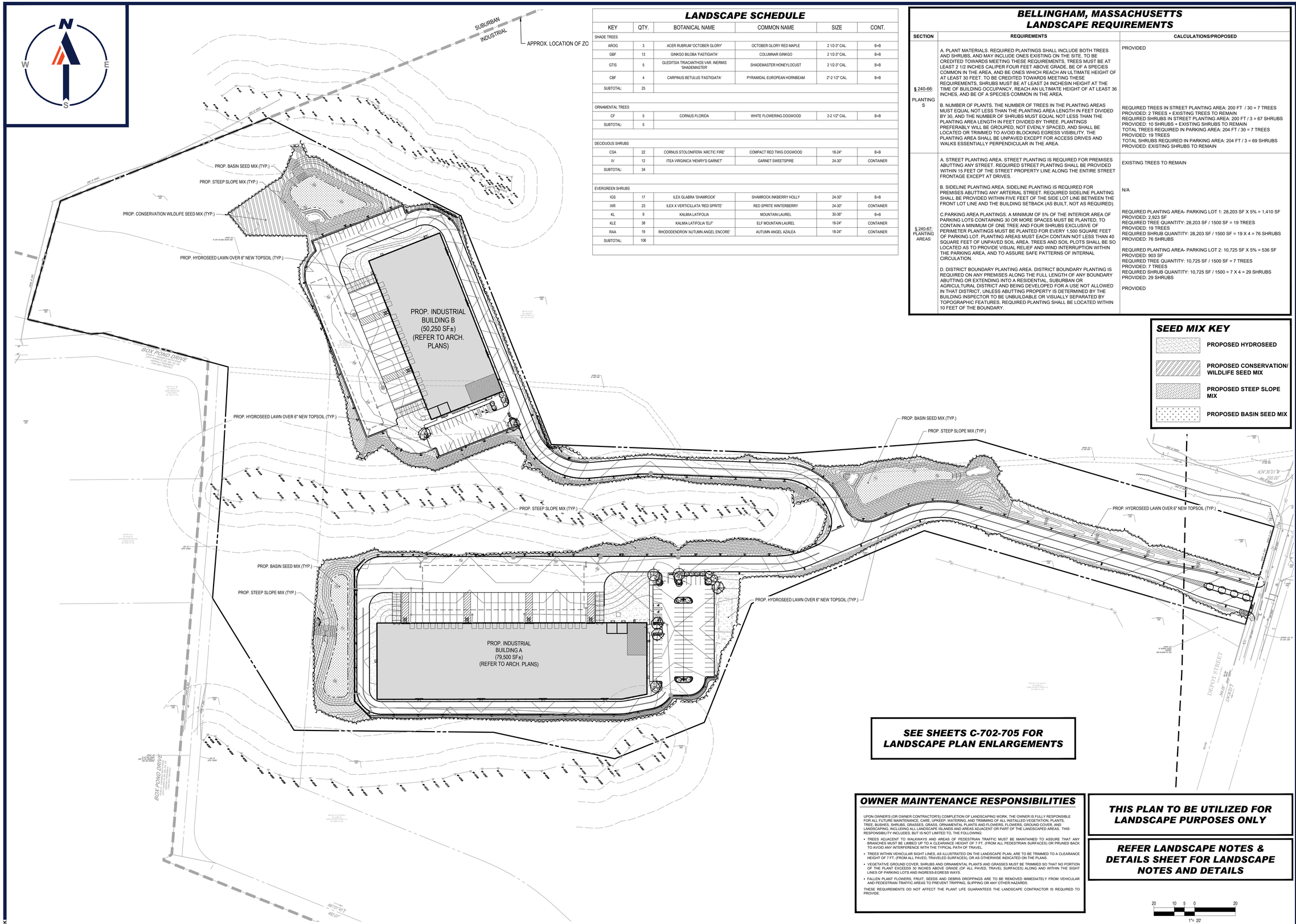
COMMONWEALTH OF MASSACHUSETTS
JOHN A. KUCICH
CIVIL
No. 41538
PROFESSIONAL ENGINEER
REGISTERED PROFESSIONAL ENGINEER
MASSACHUSETTS LICENSE No. 41538
NEW HAMPSHIRE LICENSE No. 15476
CONNECTICUT LICENSE No. 26177
RHODE ISLAND LICENSE No. 9616
MAINE LICENSE No. 12553

SHEET TITLE:
EROSION AND SEDIMENT CONTROL NOTES AND DETAILS

SHEET NUMBER:
C-605

ORG. DATE - 09/01/2021

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ASS



LANDSCAPE SCHEDULE

KEY	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	CONT.
SHADE TREES					
AROG	3	ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY RED MAPLE	2 1/2-3" CAL.	B+B
GBF	13	GINKGO BILOBA 'FASTIGIATA'	COLUMINAR GINKGO	2 1/2-3" CAL.	B+B
GTIS	5	GLEDITSIA TRIACANTHOS VAR. INERMIS 'SHADEMASTER'	SHADEMASTER HONEYLOCUST	2 1/2-3" CAL.	B+B
CBF	4	CARPINUS BETULUS 'FASTIGIATA'	PYRAMIDAL EUROPEAN HORNBEAM	2"-2 1/2" CAL.	B+B
SUBTOTAL:	25				
ORNAMENTAL TREES					
CF	5	CORNUS FLORIDA	WHITE FLOWERING DOGWOOD	2-2 1/2" CAL.	B+B
SUBTOTAL:	5				
DECIDUOUS SHRUBS					
CSA	22	CORNUS STOLONIFERA 'ARCTIC FIRE'	COMPACT RED TWIG DOGWOOD	18-24"	B+B
IV	12	ITEA VIRGINICA 'HENRY'S GARNET'	GARNET SWEETSPIRE	24-30"	CONTAINER
SUBTOTAL:	34				
EVERGREEN SHRUBS					
IGS	17	ILEX GLABRA 'SHAMROCK'	SHAMROCK INKBERRY HOLLY	24-30"	B+B
IXR	23	ILEX X VERTICILLATA 'RED SPRITE'	RED SPRITE WINTERBERRY	24-30"	CONTAINER
KL	9	KALMIA LATIFOLIA	MOUNTAIN LAUREL	30-36"	B+B
KLE	38	KALMIA LATIFOLIA 'ELF'	ELF MOUNTAIN LAUREL	18-24"	CONTAINER
RAA	19	RHODODENDRON 'AUTUMN ANGEL ENCORE'	AUTUMN ANGEL AZALEA	18-24"	CONTAINER
SUBTOTAL:	106				

BELLINGHAM, MASSACHUSETTS LANDSCAPE REQUIREMENTS

SECTION	REQUIREMENTS	CALCULATIONS/PROPOSED
§ 240-66: PLANTINGS	A. PLANT MATERIALS. REQUIRED PLANTINGS SHALL INCLUDE BOTH TREES AND SHRUBS, AND MAY INCLUDE ONES EXISTING ON THE SITE. TO BE CREDITED TOWARDS MEETING THESE REQUIREMENTS, TREES MUST BE AT LEAST 2 1/2 INCHES CALIPER FOUR FEET ABOVE GRADE, BE OF A SPECIES COMMON IN THE AREA, AND BE ONES WHICH REACH AN ULTIMATE HEIGHT OF AT LEAST 30 FEET. TO BE CREDITED TOWARDS MEETING THESE REQUIREMENTS, SHRUBS MUST BE AT LEAST 24 INCHESIN HEIGHT AT THE TIME OF BUILDING OCCUPANCY, REACH AN ULTIMATE HEIGHT OF AT LEAST 36 INCHES, AND BE OF A SPECIES COMMON IN THE AREA.	PROVIDED
	B. NUMBER OF PLANTS. THE NUMBER OF TREES IN THE PLANTING AREAS MUST EQUAL NOT LESS THAN THE PLANTING AREA LENGTH IN FEET DIVIDED BY 30, AND THE NUMBER OF SHRUBS MUST EQUAL NOT LESS THAN THE PLANTING AREA LENGTH IN FEET DIVIDED BY THREE. PLANTINGS PREFERABLY WILL BE GROUPED, NOT EVENLY SPACED, AND SHALL BE LOCATED OR TRIMMED TO AVOID BLOCKING EGRESS VISIBILITY. THE PLANTING AREA SHALL BE UNPAVED EXCEPT FOR ACCESS DRIVES AND WALKS ESSENTIALLY PERPENDICULAR IN THE AREA.	REQUIRED TREES IN STREET PLANTING AREA: 200 FT / 30 = 7 TREES PROVIDED: 2 TREES + EXISTING TREES TO REMAIN REQUIRED SHRUBS IN STREET PLANTING AREA: 200 FT / 3 = 67 SHRUBS PROVIDED: 10 SHRUBS + EXISTING SHRUBS TO REMAIN TOTAL TREES REQUIRED IN PARKING AREA: 204 FT / 30 = 7 TREES PROVIDED: 19 TREES TOTAL SHRUBS REQUIRED IN PARKING AREA: 204 FT / 3 = 69 SHRUBS PROVIDED: EXISTING SHRUBS TO REMAIN
§ 240-67: PLANTING AREAS	A. STREET PLANTING AREA. STREET PLANTING IS REQUIRED FOR PREMISES ABUTTING ANY STREET. REQUIRED STREET PLANTING SHALL BE PROVIDED WITHIN 15 FEET OF THE STREET PROPERTY LINE ALONG THE ENTIRE STREET FRONTAGE EXCEPT AT DRIVES.	EXISTING TREES TO REMAIN
	B. SIDELINE PLANTING AREA. SIDELINE PLANTING IS REQUIRED FOR PREMISES ABUTTING ANY ARTERIAL STREET. REQUIRED SIDELINE PLANTING SHALL BE PROVIDED WITHIN FIVE FEET OF THE SIDE LOT LINE BETWEEN THE FRONT LOT LINE AND THE BUILDING SETBACK (AS BUILT, NOT AS REQUIRED).	N/A
	C.PARKING AREA PLANTINGS. A MINIMUM OF 5% OF THE INTERIOR AREA OF PARKING LOTS CONTAINING 30 OR MORE SPACES MUST BE PLANTED, TO CONTAIN A MINIMUM OF ONE TREE AND FOUR SHRUBS EXCLUSIVE OF PERIMETER PLANTINGS MUST BE PLANTED FOR EVERY 1,500 SQUARE FEET OF PARKING LOT. PLANTING AREAS MUST EACH CONTAIN NOT LESS THAN 40 SQUARE FEET OF UNPAVED SOIL AREA. TREES AND SOIL PLOTS SHALL BE SO LOCATED AS TO PROVIDE VISUAL RELIEF AND WIND INTERRUPTION WITHIN THE PARKING AREA, AND TO ASSURE SAFE PATTERNS OF INTERNAL CIRCULATION.	REQUIRED PLANTING AREA- PARKING LOT 1: 28,203 SF X 5% = 1,410 SF PROVIDED: 2,923 SF REQUIRED TREE QUANTITY: 28,203 SF / 1500 SF = 19 TREES PROVIDED: 19 TREES REQUIRED SHRUB QUANTITY: 28,203 SF / 1500 SF = 19 X 4 = 76 SHRUBS PROVIDED: 76 SHRUBS REQUIRED PLANTING AREA- PARKING LOT 2: 10,725 SF X 5% = 536 SF PROVIDED: 903 SF REQUIRED TREE QUANTITY: 10,725 SF / 1500 SF = 7 TREES PROVIDED: 7 TREES REQUIRED SHRUB QUANTITY: 10,725 SF / 1500 = 7 X 4 = 29 SHRUBS PROVIDED: 29 SHRUBS
	D. DISTRICT BOUNDARY PLANTING AREA. DISTRICT BOUNDARY PLANTING IS REQUIRED ON ANY PREMISES ALONG THE FULL LENGTH OF ANY BOUNDARY ABUTTING OR EXTENDING INTO A RESIDENTIAL, SUBURBAN OR AGRICULTURAL DISTRICT AND BEING DEVELOPED FOR A USE NOT ALLOWED IN THAT DISTRICT, UNLESS ABUTTING PROPERTY IS DETERMINED BY THE BUILDING INSPECTOR TO BE UNBUILDABLE OR VISUALLY SEPARATED BY TOPOGRAPHIC FEATURES. REQUIRED PLANTING SHALL BE LOCATED WITHIN 10 FEET OF THE BOUNDARY.	PROVIDED

SEED MIX KEY

- PROPOSED HYDROSEED
- PROPOSED CONSERVATION/ WILDLIFE SEED MIX
- PROPOSED STEEP SLOPE MIX
- PROPOSED BASIN SEED MIX

SEE SHEETS C-702-705 FOR LANDSCAPE PLAN ENLARGEMENTS

OWNER MAINTENANCE RESPONSIBILITIES

UPON OWNER'S (OR OWNER CONTRACTOR'S) COMPLETION OF LANDSCAPING WORK, THE OWNER IS FULLY RESPONSIBLE FOR ALL FUTURE MAINTENANCE, CARE, UPKEEP, WATERING, AND TRIMMING OF ALL INSTALLED VEGETATION, PLANTS, TREE, BUSHES, SHRUBS, GRASSES, GRASS, ORNAMENTAL PLANTS AND FLOWERS, FLOWERS, GROUND COVER, AND LANDSCAPING, INCLUDING ALL LANDSCAPE ISLANDS AND AREAS ADJACENT OR PART OF THE LANDSCAPED AREAS. THIS RESPONSIBILITY INCLUDES, BUT IS NOT LIMITED TO, THE FOLLOWING:

- TREES ADJACENT TO WALKWAYS AND AREAS OF PEDESTRIAN TRAFFIC MUST BE MAINTAINED TO ASSURE THAT ANY BRANCHES MUST BE LIMBED UP TO A CLEARANCE HEIGHT OF 7 FT. (FROM ALL PEDESTRIAN SURFACES) OR PRUNED BACK TO AVOID ANY INTERFERENCE WITH THE TYPICAL PATH OF TRAVEL.
- TREES WITHIN VEHICULAR SIGHT LINES, AS ILLUSTRATED ON THE LANDSCAPE PLAN, ARE TO BE TRIMMED TO A CLEARANCE HEIGHT OF 7 FT. (FROM ALL PAVED, TRAVELED SURFACES), OR AS OTHERWISE INDICATED ON THE PLANS.
- VEGETATIVE GROUND COVER, SHRUBS AND ORNAMENTAL PLANTS AND GRASSES MUST BE TRIMMED SO THAT NO PORTION OF THE PLANT EXCEEDS 30 INCHES ABOVE GRADE (OF ALL PAVED, TRAVEL SURFACES) ALONG AND WITHIN THE SIGHT LINES OF PARKING LOTS AND INGRESS-EGRESS WAYS.
- FALLEN PLANT FLOWERS, FRUIT, SEEDS AND DEBRIS DROPPINGS ARE TO BE REMOVED IMMEDIATELY FROM VEHICULAR AND PEDESTRIAN TRAFFIC AREAS TO PREVENT TRIPPING, SLIPPING OR ANY OTHER HAZARDS.

THESE REQUIREMENTS DO NOT AFFECT THE PLANT LIFE GUARANTEES THE LANDSCAPE CONTRACTOR IS REQUIRED TO PROVIDE.

THIS PLAN TO BE UTILIZED FOR LANDSCAPE PURPOSES ONLY

REFER LANDSCAPE NOTES & DETAILS SHEET FOR LANDSCAPE NOTES AND DETAILS

20 10 5 0 20
1"= 20'

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PROJECT No.:	W211060
DRAWN BY:	CSE
CHECKED BY:	NEM
DATE:	09/01/2021
CAD I.D.:	W211060-LND-0-

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

2020 ACQUISITIONS

PROPOSED
SOUTH SIDE DEVELOPMENT

MAP #38, BLOCK #1, LOT #23
148 DEPOT STREET SOUTH
TOWN OF BELLINGHAM
NORFOLK COUNTY,
MASSACHUSETTS

BOHLER
352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900
www.BohlerEngineering.com

COMMONWEALTH OF MASSACHUSETTS
REGISTERED LANDSCAPE ARCHITECT
NO. 1214
LANDSCAPE ARCHITECTURE

SHEET TITLE:

LANDSCAPE PLAN

SHEET NUMBER:

C-701

ORG. DATE - 09/01/2021

P:\21\W211060\DRAWINGS\PLAN SETS\REVIS\W211060-LND-0-----LAYOUT: C-701-LAND
BK

PROP. BASIN SEED MIX (TYP.)

PROP. STEEP SLOPE MIX (TYP.)

PROP. CONSERVATION WILDLIFE SEED MIX (TYP.)

PROP. HYDROSEED LAWN OVER 6" NEW TOPSOIL (TYP.)

WOODED AREA

APPROX. LOC OF 200' NO-BUILD BUFFER ZONE

N68°17'26"E 424.01'

PROP. INDUSTRIAL BUILDING B
(50,250 SF±)
(REFER TO ARCH. PLANS)

RIDGE

TP
BC-1

TP
BC-2

MAP 38, LOT 23
N/F LANDS OF
DEPOT STREET LLC
BK. 13512, PG. 524

S72°27'46"E
483.78'

S54°16'51"W
217.60'

BOX POND DRIVE
(PUBLIC - VARIABLE WIDTH ROW)
(2019 TAKING PL BK. 684, PG. 54)
(ASPHALT ROADWAY)
(TWO WAY TRAFFIC)

MAP 38, LOT 18C
N/F LANDS OF
ALBERT BRIGGS AND
ERICA NUNES
BK. 17097, PG. 461

N47°23'54"W
325.20'

3 CSA
5 CSA
5 RAA
5 GBF
3 RAA
5 IXR
5 KLE
3 KLE
1 GTIS

APPROX. LOC OF CART PATH

MATCHLINE

REFER TO SHEET C-701 FOR PLANT MATERIALS SCHEDULE

20 10 5 0 20
1"= 20'

SEED MIX KEY

- PROPOSED HYDROSEED
- PROPOSED CONSERVATION/ WILDLIFE SEED MIX
- PROPOSED STEEP SLOPE MIX
- PROPOSED BASIN SEED MIX

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DATE:	09/01/2021
CAD I.D.:	W211060-LND-0-

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

2020 ACQUISITIONS

**PROPOSED
SOUTH SIDE DEVELOPMENT**

**MAP #38, BLOCK #1, LOT #23
148 DEPOT STREET SOUTH
TOWN OF BELLINGHAM
NORFOLK COUNTY,
MASSACHUSETTS**

BOHLER

352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900

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COMMONWEALTH OF MASSACHUSETTS
MARK WILLIAM MARTIN
REGISTERED LANDSCAPE ARCHITECT
NO. 1211
REGISTERED LANDSCAPE ARCHITECT

SHEET TITLE:

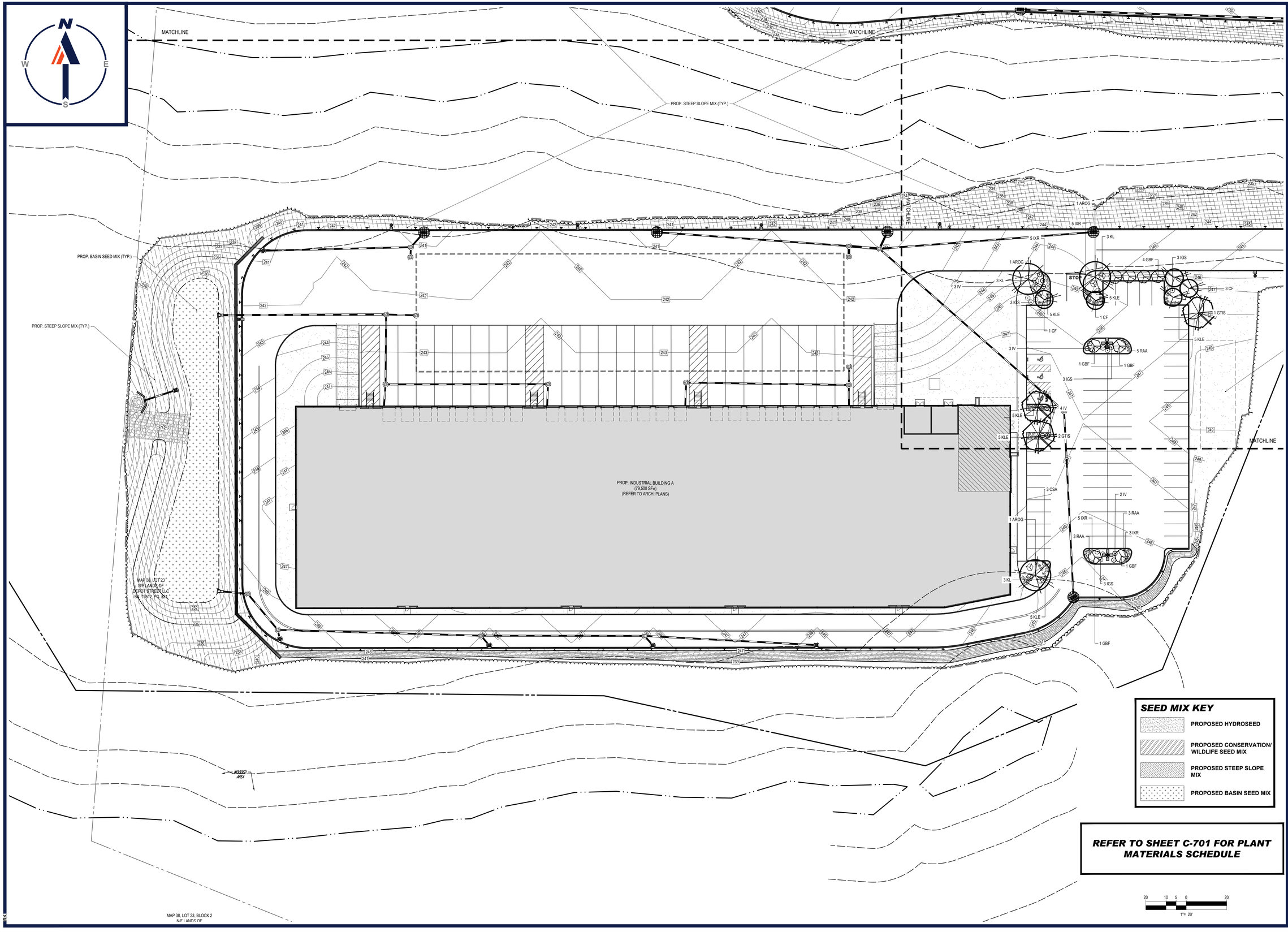
LANDSCAPE PLAN A

SHEET NUMBER:

C-702

ORG. DATE - 09/01/2021

P:\21\W211060\DRAWINGS\PLAN SETS\REVIW\211060-LND-2-----LAYOUT: C-702-LAND A



SEED MIX KEY

- PROPOSED HYDROSEED
- PROPOSED CONSERVATION/ WILDLIFE SEED MIX
- PROPOSED STEEP SLOPE MIX
- PROPOSED BASIN SEED MIX

REFER TO SHEET C-701 FOR PLANT MATERIALS SCHEDULE

20 10 5 0 20
1"= 20'

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PROJECT:

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2020 ACQUISITIONS

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TOWN OF BELLINGHAM
NORFOLK COUNTY,
MASSACHUSETTS

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352 TURNPIKE ROAD
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COMMONWEALTH OF MASSACHUSETTS
NATHANIEL E. MILLER
REGISTERED LANDSCAPE ARCHITECT
NO. 1217
REGISTERED LANDSCAPE ARCHITECT

SHEET TITLE:

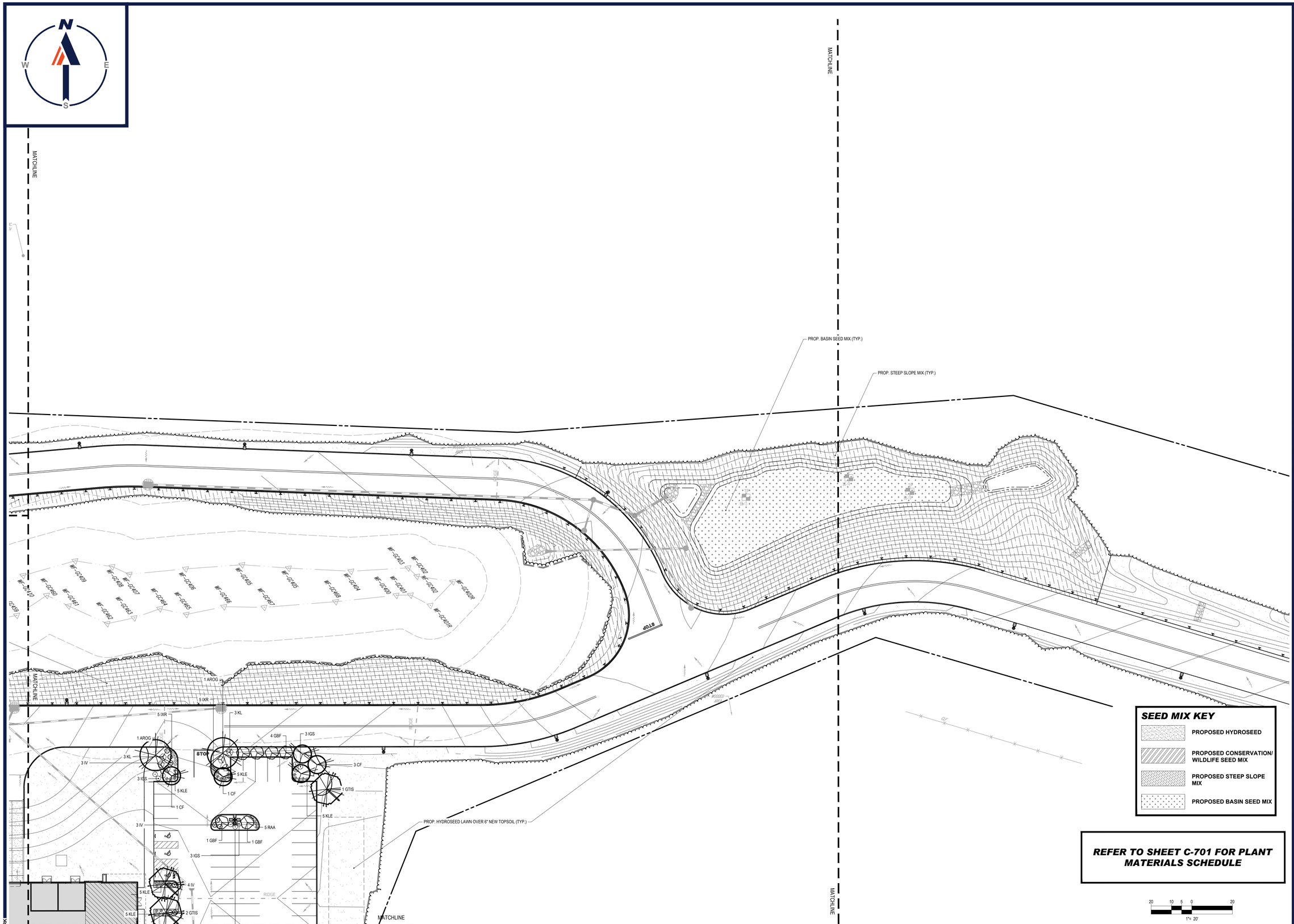
LANDSCAPE PLAN B

SHEET NUMBER:

C-703

ORG. DATE - 09/01/2021

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PROJECT No.: W211060
DRAWN BY: CSE
CHECKED BY: NEM
DATE: 09/01/2021
CAD I.D.: W211060-LND-0-

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

2020 ACQUISITIONS

PROPOSED
SOUTH SIDE DEVELOPMENT

MAP #38, BLOCK #1, LOT #23
148 DEPOT STREET SOUTH
TOWN OF BELLINGHAM
NORFOLK COUNTY,
MASSACHUSETTS

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COMMONWEALTH OF MASSACHUSETTS — REGISTERED LANDSCAPE ARCHITECT — NO. 1241 — LANDSCAPE ARCHITECTURE

SHEET TITLE:

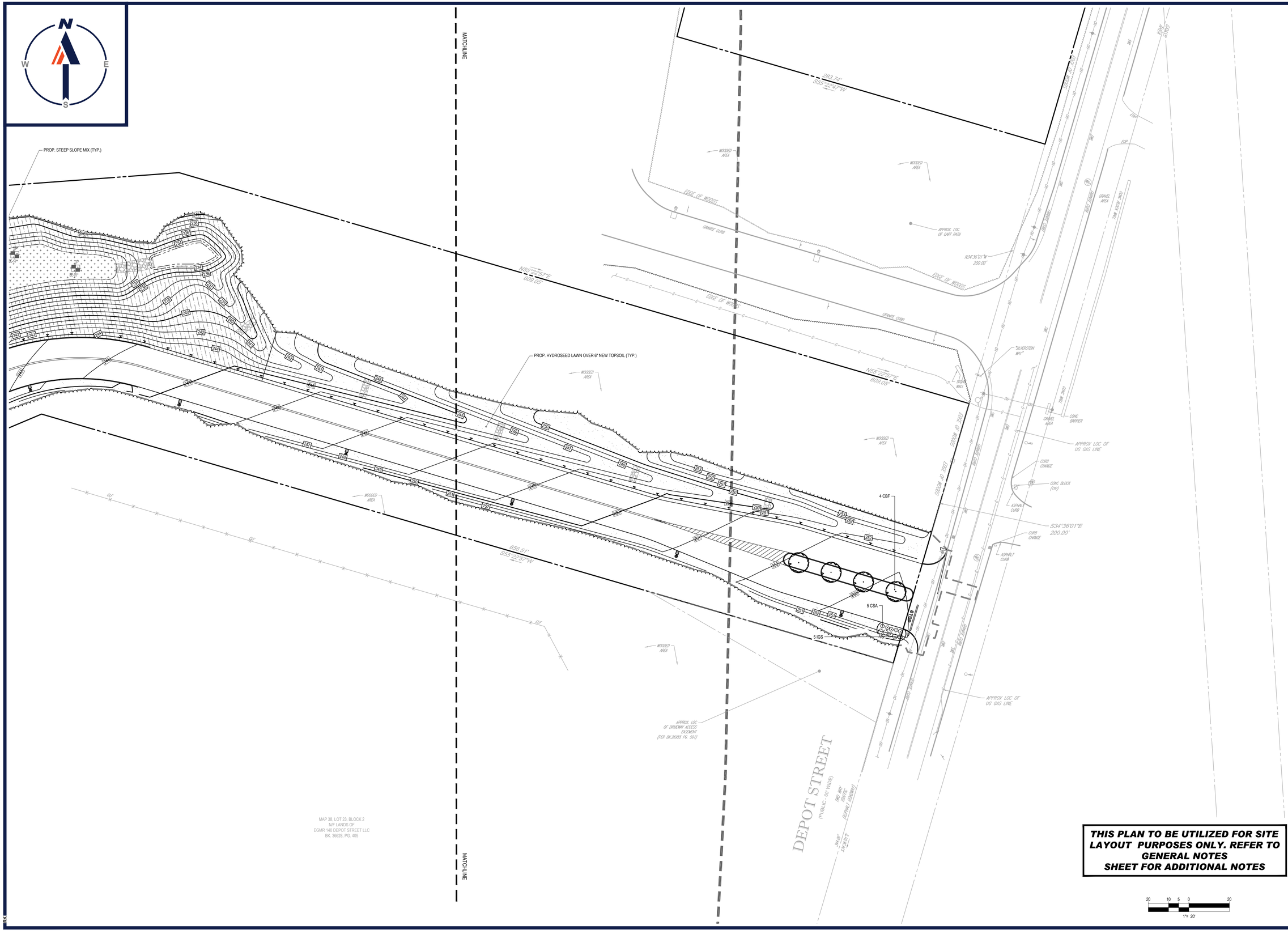
LANDSCAPE PLAN C

SHEET NUMBER:

C-704

ORG. DATE - 09/01/2021

P:\21\W211060\DRAWINGS\PLAN SETS\REVIT\W211060-LND-0-----LAYOUT: C-704-LAND C


N
W
E
S
MATCH LINE
PROP. STEEP SLOPE MIX (TYP.)
PROP. HYDROSEED LAWN OVER 6" NEW TOPSOIL (TYP.)
N55°23'11"E
269.05'
S55°22'41"W
283.74'
N34°36'01"W
200.00'
S34°36'01"E
200.00'
S03°22'57"W
858.51'
N85°22'57"E
608.05'
EDGE OF WOODS
GRANITE CURB
WOODED AREA
APPROX. LOC. OF CART PATH
APPROX LOC OF UG GAS LINE
APPROX LOC OF DRIVEWAY ACCESS EASEMENT (PER BK.26855 PG. 591)
CONC. BLOCK (TYP)
ASPHALT CURB
CURB CHANGE
CONE BARRIER
GRAVEL AREA
RIBBON BARRIER
SIDEWALK
"SILVERSTEIN WAY"
DEPOT STREET
(PUBLIC - 66' WIDE)
RW MVT PAVEMENT (CONC / ASPHALT)
4 CBF
5 CSA
5 IGS
RIM 249.18
INV 240.68
RIM 249.00
INV 240.50
RIM 249.00
INV 240.50
RIM 249.00
INV 240.50

LANDSCAPE SPECIFICATIONS

1. SCOPE OF WORK:

1.1. THE LANDSCAPE CONTRACTOR SHALL BE REQUIRED TO PERFORM ALL CLEARING, FINISHED GRADING, SOIL PREPARATION, PERMANENT SEEDING OR SODDING, PLANTING AND MULCHING INCLUDING ALL LABOR, MATERIALS, TOOLS AND EQUIPMENT NECESSARY FOR THE COMPLETION OF THIS PROJECT, UNLESS OTHERWISE CONTRACTED BY THE GENERAL CONTRACTOR.

2. MATERIALS

2.1. GENERAL - ALL HARDSCAPE MATERIALS SHALL MEET OR EXCEED SPECIFICATIONS AS OUTLINED IN THE STATE DEPARTMENT OF TRANSPORTATION'S SPECIFICATIONS.

2.2. TOPSOIL - NATURAL, FRIABLE, LOAMY SILT SOIL HAVING AN ORGANIC CONTENT NOT LESS THAN 5%, A PH RANGE BETWEEN 4.5-7.0. IT SHALL BE FREE OF DEBRIS, ROCKS LARGER THAN ONE INCH (1"), WOOD, ROOTS, VEGETABLE MATTER AND CLAY CLODS.

2.3. LAWN - ALL DISTURBED AREAS ARE TO BE TREATED WITH A MINIMUM 6" THICK LAYER OF TOPSOIL, OR AS DIRECTED BY THE LOCAL ORDINANCE OR CLIENT, AND SEEDED OR SODDED IN ACCORDANCE WITH THE PERMANENT STABILIZATION METHODS INDICATED ON THE LANDSCAPE PLAN

2.3.1. LAWN SEED MIXTURE SHALL BE FRESH, CLEAN NEW CROP SEED.

2.3.2. SOD SHALL BE STRONGLY ROOTED, WEED AND DISEASE/PEST FREE WITH A UNIFORM THICKNESS. SOD INSTALLED ON SLOPES GREATER THAN 4:1 SHALL BE PEGGED TO HOLD SOD IN PLACE.

2.4. MULCH - ALL PLANTING BEDS SHALL BE MULCHED WITH A 3" THICK LAYER OF DOUBLE SHREDDED HARDWOOD BARK MULCH, UNLESS OTHERWISE STATED ON THE LANDSCAPE PLAN AND/OR LANDSCAPE PLAN NOTES /DETAILS.

2.5. FERTILIZER

2.5.1. FERTILIZER SHALL BE DELIVERED TO THE SITE MIXED AS SPECIFIED IN THE ORIGINAL UNOPENED STANDARD BAGS SHOWING WEIGHT, ANALYSIS AND NAME OF MANUFACTURER. FERTILIZER SHALL BE STORED IN A WEATHERPROOF PLACE SO THAT IT CAN BE KEPT DRY PRIOR TO USE.

2.5.2. FOR THE PURPOSE OF BIDDING, ASSUME THAT FERTILIZER SHALL BE 10% NITROGEN, 6% PHOSPHORUS AND 4% POTASSIUM BY WEIGHT. A FERTILIZER SHOULD NOT BE SELECTED WITHOUT A SOIL TEST PERFORMED BY A CERTIFIED SOIL LABORATORY.

2.6. PLANT MATERIAL

2.6.1. ALL PLANTS SHALL IN ALL CASES CONFORM TO THE REQUIREMENTS OF THE "AMERICAN STANDARD FOR NURSERY STOCK" (ANSI Z60.1). LATEST EDITION, AS PUBLISHED BY THE AMERICAN NURSERY & LANDSCAPE ASSOCIATION (FORMERLY THE AMERICAN ASSOCIATION OF NURSERYMEN).

2.6.2. IN ALL CASES, BOTANICAL NAMES SHALL TAKE PRECEDENCE OVER COMMON NAMES FOR ANY AND ALL PLANT MATERIAL.

2.6.3. PLANTS SHALL BE LEGIBLY TAGGED WITH THE PROPER NAME AND SIZE. TAGS ARE TO REMAIN ON AT LEAST ONE PLANT OF EACH SPECIES FOR VERIFICATION PURPOSES DURING THE FINAL INSPECTION.

2.6.4. TREES WITH ABRASION OF THE BARK, SUN SCALDS, DISFIGURATION OR FRESH CUTS OF LIMBS OVER 1½", WHICH HAVE NOT BEEN COMPLETELY CALLUSED, SHALL BE REJECTED. PLANTS SHALL NOT BE BOUND WITH WIRE OR ROPE AT ANY TIME SO AS TO DAMAGE THE BARK OR BREAK BRANCHES.

2.6.5. ALL PLANTS SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY AND SHALL HAVE A NORMAL HABIT OF GROWTH: WELL DEVELOPED BRANCHES, DENSELY FOLIATED, VIGOROUS ROOT SYSTEMS AND BE FREE OF DISEASE, INSECTS, PESTS, EGGS OR LARVAE.

2.6.6. CALIPER MEASUREMENTS OF NURSERY GROWN TREES SHALL BE TAKEN AT A POINT ON THE TRUNK SIX INCHES (6") ABOVE THE NATURAL GRADE FOR TREES UP TO AND INCLUDING A FOUR INCH (4") CALIPER SIZE. IF THE CALIPER AT SIX INCHES (6") ABOVE THE GROUND EXCEEDS FOUR INCHES (4") IN CALIPER, THE CALIPER SHOULD BE MEASURED AT A POINT 12" ABOVE THE NATURAL GRADE.

2.6.7. SHRUBS SHALL BE MEASURED TO THE AVERAGE HEIGHT OR SPREAD OF THE SHRUB, AND NOT TO THE LONGEST BRANCH.

2.6.8. TREES AND SHRUBS SHALL BE HANDLED WITH CARE BY THE ROOT BALL.

3. GENERAL WORK PROCEDURES

3.1. CONTRACTOR TO UTILIZE WORKMANLIKE INDUSTRY STANDARDS IN PERFORMING ALL LANDSCAPE CONSTRUCTION. THE SITE IS TO BE LEFT IN A CLEAN STATE AT THE END OF EACH WORKDAY. ALL DEBRIS, MATERIALS AND TOOLS SHALL BE PROPERLY STORED, STOCKPILED OR DISPOSED OF.

3.2. WASTE MATERIALS AND DEBRIS SHALL BE COMPLETELY DISPOSED OF AT THE CONTRACTOR'S EXPENSE. DEBRIS SHALL NOT BE BURIED, INCLUDING ORGANIC MATERIALS, BUT SHALL BE REMOVED COMPLETELY FROM THE SITE.

4. SITE PREPARATIONS

4.1. BEFORE AND DURING PRELIMINARY GRADING AND FINISHED GRADING, ALL WEEDS AND GRASSES SHALL BE DUG OUT BY THE ROOTS AND DISPOSED OF IN ACCORDANCE WITH GENERAL WORK PROCEDURES OUTLINED HEREIN.

4.2. ALL EXISTING TREES TO REMAIN SHALL BE PRUNED TO REMOVE ANY DAMAGED BRANCHES. THE ENTIRE LIMB OF ANY DAMAGED BRANCH SHALL BE CUT OFF AT THE BRANCH COLLAR. CONTRACTOR SHALL ENSURE THAT CUTS ARE SMOOTH AND STRAIGHT. ANY EXPOSED ROOTS SHALL BE CUT BACK WITH CLEAN, SHARP TOOLS & TOPSOIL SHALL BE PLACED AROUND THE REMAINDER OF THE ROOTS. EXISTING TREES SHALL BE MONITORED ON A REGULAR BASIS FOR ADDITIONAL ROOT OR BRANCH DAMAGE AS A RESULT OF CONSTRUCTION. ROOTS SHALL NOT BE LEFT EXPOSED FOR MORE THAN ONE (1) DAY. CONTRACTOR SHALL WATER EXISTING TREES AS NEEDED TO PREVENT SHOCK OR DECLINE.

4.3. CONTRACTOR SHALL ARRANGE TO HAVE A UTILITY STAKE-OUT TO LOCATE ALL UNDERGROUND UTILITIES PRIOR TO INSTALLATION OF ANY LANDSCAPE MATERIAL. UTILITY COMPANIES SHALL BE CONTACTED THREE (3) DAYS PRIOR TO THE BEGINNING OF WORK.

5. TREE PROTECTION

5.1. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING TREES TO REMAIN. A TREE PROTECTION ZONE SHALL BE ESTABLISHED AT THE DRIP LINE OR AT THE LIMIT OF CONSTRUCTION DISTURBANCE, WHICHEVER IS GREATER. LOCAL STANDARDS THAT MAY REQUIRE A MORE STRICT TREE PROTECTION ZONE SHALL BE HONORED.

5.2. A FORTY-EIGHT INCH (48") HIGH WOODEN SNOW FENCE OR ORANGE COLORED HIGH-DENSITY 'VISI-FENCE', OR APPROVED EQUAL, MOUNTED ON STEEL POSTS SHALL BE PLACED ALONG THE BOUNDARY OF THE TREE PROTECTION ZONE. POSTS SHALL BE LOCATED AT A MAXIMUM OF EIGHT FEET (8') ON CENTER OR AS INDICATED WITHIN THE TREE PROTECTION DETAIL.

5.3. WHEN THE TREE PROTECTION FENCING HAS BEEN INSTALLED, IT SHALL BE INSPECTED BY THE APPROVING AGENCY PRIOR TO DEMOLITION, GRADING, TREE CLEARING OR ANY OTHER CONSTRUCTION. THE FENCING ALONG THE TREE PROTECTION ZONE SHALL BE REGULARLY INSPECTED BY THE LANDSCAPE CONTRACTOR AND MAINTAINED UNTIL ALL CONSTRUCTION ACTIVITY HAS BEEN COMPLETED.

5.4. AT NO TIME SHALL MACHINERY, DEBRIS, FALLEN TREES OR OTHER MATERIALS BE PLACED, STOCKPILED OR LEFT STANDING IN THE TREE PROTECTION ZONE.

6. SOIL MODIFICATIONS

6.1. CONTRACTOR SHALL ATTAIN A SOIL TEST FOR ALL AREAS OF THE SITE PRIOR TO CONDUCTING ANY PLANTING. SOIL TESTS SHALL BE PERFORMED BY A CERTIFIED SOIL LABORATORY.

6.2. LANDSCAPE CONTRACTOR SHALL REPORT ANY SOIL OR DRAINAGE CONDITIONS CONSIDERED DETRIMENTAL TO THE GROWTH OF PLANT MATERIAL. SOIL MODIFICATIONS, AS SPECIFIED HEREIN, MAY NEED TO BE CONDUCTED BY THE LANDSCAPE CONTRACTOR DEPENDING ON SITE CONDITIONS.

6.3. THE FOLLOWING AMENDMENTS AND QUANTITIES ARE APPROXIMATE AND ARE FOR BIDDING PURPOSES ONLY. COMPOSITION OF AMENDMENTS SHOULD BE REVISED DEPENDING ON THE OUTCOME OF A TOPSOIL ANALYSIS PERFORMED BY A CERTIFIED SOIL LABORATORY.

6.3.1. TO INCREASE A SANDY SOIL'S ABILITY TO RETAIN WATER AND NUTRIENTS, THOROUGHLY TILL ORGANIC MATTER INTO THE TOP 6-12". USE COMPOSTED BARK, COMPOSTED LEAF MULCH OR PEAT MOSS. ALL PRODUCTS SHOULD BE COMPOSTED TO A DARK COLOR AND BE FREE OF PIECES WITH IDENTIFIABLE LEAF OR WOOD STRUCTURE. AVOID MATERIAL WITH A PH HIGHER THAN 7.5.

6.3.2. TO INCREASE DRAINAGE, MODIFY HEAVY CLAY OR SILT (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) AND/OR AGRICULTURAL GYPSUM. COARSE SAND MAY BE USED IF ENOUGH IS ADDED TO BRING THE SAND CONTENT TO MORE THAN 60% OF THE TOTAL MIX. SUBSURFACE DRAINAGE LINES MAY NEED TO BE ADDED TO INCREASE DRAINAGE.

6.3.3. MODIFY EXTREMELY SANDY SOILS (MORE THAN 85%) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX.

7. FINISHED GRADING

7.1. UNLESS OTHERWISE CONTRACTED, THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF TOPSOIL AND THE ESTABLISHMENT OF FINE-GRADING WITHIN THE DISTURBANCE AREA OF THE SITE.

7.2. LANDSCAPE CONTRACTOR SHALL VERIFY THAT SUBGRADE FOR INSTALLATION OF TOPSOIL HAS BEEN ESTABLISHED. THE SUBGRADE OF THE SITE MUST MEET THE FINISHED GRADE LESS THE REQUIRED TOPSOIL THICKNESS (1"±).

7.3. ALL LAWN AND PLANTING AREAS SHALL BE GRADED TO A SMOOTH, EVEN AND UNIFORM PLANE WITH NO ABRUPT CHANGE OF SURFACE AS DEPICTED WITHIN THIS SET OF CONSTRUCTION PLANS, UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER OR LANDSCAPE ARCHITECT.

7.4. ALL PLANTING AREAS SHALL BE GRADED AND MAINTAINED TO ALLOW FREE FLOW OF SURFACE WATER IN AND AROUND THE PLANTING BEDS. STANDING WATER SHALL NOT BE PERMITTED IN PLANTING BEDS.

8. TOPSOILING

8.1. CONTRACTOR SHALL PROVIDE A 6" THICK MINIMUM LAYER OF TOPSOIL, OR AS DIRECTED BY THE LOCAL ORDINANCE OR CLIENT, IN ALL PLANTING AREAS. TOPSOIL SHOULD BE SPREAD OVER A PREPARED SURFACE IN A UNIFORM LAYER TO ACHIEVE THE DESIRED COMPACTED THICKNESS.

8.2. ON-SITE TOPSOIL MAY BE USED TO SUPPLEMENT THE TOTAL AMOUNT REQUIRED. TOPSOIL FROM THE SITE MAY BE REJECTED IF IT HAS NOT BEEN PROPERLY REMOVED, STORED AND PROTECTED PRIOR TO CONSTRUCTION.

8.3. CONTRACTOR SHALL FURNISH TO THE APPROVING AGENCY AN ANALYSIS OF BOTH IMPORTED AND ON-SITE TOPSOIL TO BE UTILIZED IN ALL PLANTING AREAS. THE PH AND NUTRIENT LEVELS MAY NEED TO BE ADJUSTED THROUGH SOIL MODIFICATIONS AS NEEDED TO ACHIEVE THE REQUIRED LEVELS AS SPECIFIED IN THE MATERIALS SECTION ABOVE.

8.4. ALL LAWN AREAS ARE TO BE CULTIVATED TO A DEPTH OF SIX INCHES (6"). ALL DEBRIS EXPOSED FROM EXCAVATION AND CULTIVATION SHALL BE DISPOSED OF IN ACCORDANCE WITH GENERAL WORK PROCEDURES SECTION ABOVE. THE FOLLOWING SHALL BE TILLED INTO THE TOP FOUR INCHES (4") IN TWO DIRECTIONS (QUANTITIES BASED ON A 1,000 SQUARE FOOT AREA - FOR BID PURPOSES ONLY [SEE SPECIFICATION 6.A.]):

8.4.1. 20 POUNDS 'GRO-POWER' OR APPROVED SOIL CONDITIONER/FERTILIZER

8.4.2. 20 POUNDS NITRO-FORM (COURSE) 38-0-0 BLUE CHIP OR APPROVED NITROGEN FERTILIZER

8.5. THE SPREADING OF TOPSOIL SHALL NOT BE CONDUCTED UNDER MUDDY OR FROZEN CONDITIONS.

9. PLANTING

9.1. INSOFAR THAT IT IS FEASIBLE, PLANT MATERIAL SHALL BE PLANTED ON THE DAY OF DELIVERY. IN THE EVENT THAT THIS IS NOT POSSIBLE, LANDSCAPE CONTRACTOR SHALL PROTECT UNINSTALLED PLANT MATERIAL. PLANTS SHALL NOT REMAIN UNPLANTED FOR LONGER THAN A THREE DAY PERIOD AFTER DELIVERY. PLANTS THAT WILL NOT BE PLANTED FOR A PERIOD OF TIME GREATER THAN THREE DAYS SHALL BE HEALED IN WITH TOPSOIL OR MULCH TO HELP PRESERVE ROOT MOISTURE.

9.2. PLANTING OPERATIONS SHALL BE PERFORMED DURING PERIODS WITHIN THE PLANTING SEASON WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE AND IN ACCORDANCE WITH ACCEPTED LOCAL PRACTICE. PLANTS SHALL NOT BE INSTALLED IN TOPSOIL THAT IS IN A MUDDY OR FROZEN CONDITION.

9.3. ANY INJURED ROOTS OR BRANCHES SHALL BE PRUNED TO MAKE CLEAN-CUT ENDS PRIOR TO PLANTING UTILIZING CLEAN, SHARP TOOLS. ONLY INJURED OR DISEASED BRANCHING SHALL BE REMOVED.

9.4. ALL PLANTING CONTAINERS, BASKETS AND NON-BIODEGRADABLE MATERIALS SHALL BE REMOVED FROM ROOT BALLS DURING PLANTING. NATURAL FIBER BURLAP MUST BE CUT FROM AROUND THE TRUNK OF THE TREE AND FOLDED DOWN AGAINST THE ROOT BALL PRIOR TO BACKFILLING.

9.5. POSITION TREES AND SHRUBS AT THEIR INTENDED LOCATIONS AS PER THE PLANS AND SECURE THE APPROVAL OF THE LANDSCAPE ARCHITECT PRIOR TO EXCAVATING PITS, MAKING NECESSARY ADJUSTMENTS AS DIRECTED.

9.6. PRIOR TO THE ISSUANCE OF ANY CERTIFICATE OF OCCUPANCY, THE PROPOSED LANDSCAPE, AS SHOWN ON THE APPROVED LANDSCAPE PLAN, MUST BE INSTALLED, INSPECTED AND APPROVED BY THE APPROVING AGENCY. THE APPROVING AGENCY SHALL TAKE INTO ACCOUNT SEASONAL CONSIDERATIONS IN THIS REGARD AS FOLLOWS. THE PLANTING OF TREES, SHRUBS, VINES OR GROUND COVER SHALL OCCUR ONLY DURING THE FOLLOWING PLANTING SEASONS:

9.6.1. PLANTS: MARCH 15 TO DECEMBER 15

9.6.2. LAWN: MARCH 15 TO JUNE 15 OR SEPT. 1 TO DECEMBER 1

9.6.3. PLANTINGS REQUIRED FOR A CERTIFICATE OF OCCUPANCY SHALL BE PROVIDED DURING THE NEXT APPROPRIATE SEASON AT THE MUNICIPALITY'S DISCRETION. CONTRACTOR SHOULD CONTACT APPROVING AGENCY FOR POTENTIAL SUBSTITUTIONS.

9.7. FURTHERMORE, THE FOLLOWING TREE VARIETIES ARE UNUSUALLY SUSCEPTIBLE TO WINTER DAMAGE. WITH TRANSPLANT SHOCK AND THE SEASONAL LACK OF NITROGEN AVAILABILITY, THE RISK OF PLANT DEATH IS GREATLY INCREASED. IT IS NOT RECOMMENDED THAT THESE SPECIES BE PLANTED DURING THE FALL PLANTING SEASON:

ACER RUBRUM	PLATANUS X ACERIFOLIA
BETULA VARIETIES	POPULUS VARIETIES
CARPINUS VARIETIES	PRUNUS VARIETIES
CRATAEGUS VARIETIES	PYRUS VARIETIES
KOELREUTERIA	QUERCUS VARIETIES
LIQUIDAMBAR STYRACIFLUA	TILIA TOMENTOSA
LIRIODENDRON TULIPIFERA	ZELKOVA VARIETIES

9.8. PLANTING PITS SHALL BE DUG WITH LEVEL BOTTOMS, WITH THE WIDTH TWICE THE DIAMETER OF ROOT BALL. THE ROOT BALL SHALL REST ON UNDISTURBED GRADE. EACH PLANT PIT SHALL BE BACKFILLED IN LAYERS WITH THE FOLLOWING PREPARED SOIL MIXED THOROUGHLY:

9.8.1. 1 PART PEAT MOSS

9.8.2. 1 PART COMPOSTED COW MANURE BY VOLUME

9.8.3. 3 PARTS TOPSOIL BY VOLUME

9.8.4. 21 GRAMS "AGRIFORM" PLANTING TABLETS (OR APPROVED EQUAL) AS FOLLOWS:

9.8.4.1. 2 TABLETS PER 1 GALLON PLANT

9.8.4.2. 3 TABLETS PER 5 GALLON PLANT

9.8.4.3. 4 TABLETS PER 15 GALLON PLANT

9.8.4.4. LARGER PLANTS: 2 TABLETS PER ½" CALIPER OF TRUNK

9.9. FILL PREPARED SOIL AROUND BALL OF PLANT HALF-WAY AND INSERT PLANT TABLETS. COMPLETE BACKFILL AND WATER THOROUGHLY.

9.10. ALL PLANTS SHALL BE PLANTED SO THAT THE TOP OF THE ROOT BALL, THE POINT AT WHICH THE ROOT FLARE BEGINS, IS SET AT GROUND LEVEL AND IN THE CENTER OF THE PIT. NO SOIL IS TO BE PLACED DIRECTLY ON TOP OF THE ROOT BALL.

9.11. ALL PROPOSED TREES DIRECTLY ADJACENT TO WALKWAYS OR DRIVEWAYS SHALL BE PRUNED AND MAINTAINED TO A MINIMUM BRANCHING HEIGHT OF 7' FROM GRADE.

9.12. GROUND COVER AREAS SHALL RECEIVE A ¼" LAYER OF HUMUS RAKED INTO THE TOP 1" OF PREPARED SOIL PRIOR TO PLANTING. ALL GROUND COVER AREAS SHALL BE WEEDED AND TREATED WITH A PRE-EMERGENT CHEMICAL AS PER MANUFACTURER'S RECOMMENDATION.

9.13. NO PLANT, EXCEPT GROUND COVERS, GRASSES OR VINES, SHALL BE PLANTED LESS THAN TWO FEET (2') FROM EXISTING STRUCTURES AND SIDEWALKS.

9.14. ALL PLANTING AREAS AND PLANTING PITS SHALL BE MULCHED AS SPECIFIED HEREIN TO FILL THE ENTIRE BED AREA OR SAUCER. NO MULCH IS TO TOUCH THE TRUNK OF THE TREE OR SHRUB.

9.15. ALL PLANTING AREAS SHALL BE WATERED IMMEDIATELY UPON INSTALLATION IN ACCORDANCE WITH THE WATERING SPECIFICATIONS AS LISTED HEREIN.

10. TRANSPLANTING (WHEN REQUIRED)

10.1. ALL TRANSPLANTS SHALL BE DUG WITH INTACT ROOT BALLS CAPABLE OF SUSTAINING THE PLANT.

10.2. IF PLANTS ARE TO BE STOCKPILED BEFORE REPLANTING, THEY SHALL BE HEALED IN WITH MULCH OR SOIL, ADEQUATELY WATERED AND PROTECTED FROM EXTREME HEAT, SUN AND WIND.

10.3. PLANTS SHALL NOT BE DUG FOR TRANSPLANTING BETWEEN APRIL 10 AND JUNE 30.

10.4. UPON REPLANTING, BACKFILL SOIL SHALL BE AMENDED WITH FERTILIZER AND ROOT GROWTH HORMONE.

10.5. TRANSPLANTS SHALL BE GUARANTEED FOR THE LENGTH OF THE GUARANTEE PERIOD SPECIFIED HEREIN.

10.6. F TRANSPLANTS DIE, SHRUBS AND TREES LESS THAN SIX INCHES (6") DBH SHALL BE REPLACED IN KIND. TREES GREATER THAN SIX INCHES (6") DBH MAY BE REQUIRED TO BE REPLACED IN ACCORDANCE WITH THE MUNICIPALITY'S TREE REPLACEMENT GUIDELINES.

11. WATERING

11.1. NEW PLANTINGS OR LAWN AREAS SHALL BE ADEQUATELY IRRIGATED BEGINNING IMMEDIATELY AFTER PLANTING. WATER SHALL BE APPLIED TO EACH TREE AND SHRUB IN SUCH MANNER AS NOT TO DISTURB BACKFILL AND TO THE EXTENT THAT ALL MATERIALS IN THE PLANTING HOLE ARE THOROUGHLY SATURATED. WATERING SHALL CONTINUE AT LEAST UNTIL PLANTS ARE ESTABLISHED.

11.2. SITE OWNER SHALL PROVIDE WATER IF AVAILABLE ON SITE AT TIME OF PLANTING. IF WATER IS NOT AVAILABLE ON SITE, CONTRACTOR SHALL SUPPLY ALL NECESSARY WATER. THE USE OF WATERING BAGS IS RECOMMENDED FOR ALL NEWLY PLANTED TREES.

11.3. IF AN IRRIGATION SYSTEM HAS BEEN INSTALLED ON THE SITE, IT SHALL BE USED TO WATER PROPOSED PLANT MATERIAL, BUT ANY FAILURE OF THE SYSTEM DOES NOT ELIMINATE THE CONTRACTOR'S RESPONSIBILITY OF MAINTAINING THE DESIRED MOISTURE LEVEL FOR VIGOROUS, HEALTHY GROWTH.

12. GUARANTEE

12.1. THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL PLANTS FOR A PERIOD OF 1 YEAR FROM APPROVAL OF LANDSCAPE INSTALLATION BY THE APPROVING AGENCY. CONTRACTOR SHALL SUPPLY THE OWNER WITH A MAINTENANCE BOND FOR TEN PERCENT (10%) OF THE VALUE OF THE LANDSCAPE INSTALLATION WHICH WILL BE RELEASED AT THE CONCLUSION OF THE GUARANTEE PERIOD AND WHEN A FINAL INSPECTION HAS BEEN COMPLETED AND APPROVED BY THE OWNER OR AUTHORIZED REPRESENTATIVE.

12.2. ANY DEAD OR DYING PLANT MATERIAL SHALL BE REPLACED FOR THE LENGTH OF THE GUARANTEE PERIOD. REPLACEMENT OF PLANT MATERIAL SHALL BE CONDUCTED AT THE FIRST SUCCEEDING PLANTING SEASON. ANY DEBRIS SHALL BE DISPOSED OF OFF-SITE, WITHOUT EXCEPTION.

12.3. TREES AND SHRUBS SHALL BE MAINTAINED BY THE CONTRACTOR DURING CONSTRUCTION AND THROUGHOUT THE 90 DAY MAINTENANCE PERIOD AS SPECIFIED HEREIN. CULTIVATION, WEEDING, WATERING AND THE PREVENTATIVE TREATMENTS SHALL BE PERFORMED AS NECESSARY TO KEEP PLANT MATERIAL IN GOOD CONDITION AND FREE OF INSECTS AND DISEASE.

12.4. LAWNS SHALL BE MAINTAINED THROUGH WATERING, FERTILIZING, WEEDING, MOWING, TRIMMING AND OTHER OPERATIONS SUCH AS ROLLING, REGARDING AND REPLANTING AS REQUIRED TO ESTABLISH A SMOOTH, ACCEPTABLE LAWN, FREE OF ERODED OR BARE AREAS.

13. CLEANUP

13.1. UPON THE COMPLETION OF ALL LANDSCAPE INSTALLATION AND BEFORE THE FINAL ACCEPTANCE, THE CONTRACTOR SHALL REMOVE ALL UNUSED MATERIALS, EQUIPMENT AND DEBRIS FROM THE SITE. ALL PAVED AREAS ARE TO BE CLEANED.

13.2. THE SITE SHALL BE CLEANED AND LEFT IN A NEAT AND ACCEPTABLE CONDITION AS APPROVED BY THE OWNER OR AUTHORIZED REPRESENTATIVE.

14. MAINTENANCE (ALTERNATIVE BID):

14.1. A 90 DAY MAINTENANCE PERIOD SHALL COMMENCE AT THE END OF ALL LANDSCAPE INSTALLATION OPERATIONS. THE 90 DAY MAINTENANCE PERIOD ENSURES TO THE OWNER/OPERATOR THAT THE NEWLY INSTALLED LANDSCAPING HAS BEEN MAINTAINED AS SPECIFIED ON THE APPROVED LANDSCAPE PLAN. ONCE THE INITIAL 90 DAY MAINTENANCE PERIOD HAS EXPIRED, THE OWNER/OPERATOR MAY REQUEST THAT BIDDERS SUBMIT AN ALTERNATE MAINTENANCE BID FOR A MONTHLY MAINTENANCE CONTRACT. THE ALTERNATE MAINTENANCE CONTRACT WILL ENCOMPASS ANY WORK THAT IS CONSIDERED APPROPRIATE TO ENSURE THAT PLANT AND LAWN AREAS ARE HEALTHY AND MANICURED TO THE APPROVAL OF THE OWNER/OPERATOR.

NEW ENGLAND CONSERVATION/ WILDLIFE SEED MIX SPECIFICATIONS

"NEW ENGLAND CONSERVATION/ WILDLIFE SEED MIX" AS PREPARED BY:

NEW ENGLAND WETLAND PLANTS, INC
820 WEST STREET, AMHERST, MA 01002
PHONE: 413-548-8000
EMAIL: INFO@NEWP.COM
WEBSITE: WWW.NEWP.COM

APPLICATION RATE: 25LBS/ACRE | 1750 SQ FT/LB
MINIMUM ORDER: 2 LBS

SPECIES: VIRGINIA WILD RYE (ELYMUS VIRGINICUS), LITTLE BLUESTEM (SCHIZACHYRIUM SCOPARIUM), BIG BLUESTEM (ANDROPOGON GERARDII), RED FESCUE (FESTUCA RUBRA), SWITCH GRASS (PANICUM VIRGATUM), PARTRIDGE PEA (CHAMAECRISTA FASCICULATA), PANICLEDLEAF TICK TREFOIL (DESMODIUM PANICULATUM), INDIAN GRASS (SORGHASTRUM NUTANS), BLUE VERVAIN (VERBENA HASTATA), BUTTERFLY MILKWEED (ASCLEPIAS TUBEROSA), BLACK EYED SUSAN (RUDBECKIA HIRTA), COMMON SNEEZEWEED (HELENIUM AUTUNALE), HEATH ASTER (ASTERPLOSUS/SYMPHYOTRICHUM PILOSUM), EARLY GOLDENROD (SOLIDAGO JUNCEA), UPLAND BENTGRASS (AGROSTIS PERENNANS).

SLOPE SEED MIX SPECIFICATIONS

"QUICK EROSION CONTROL COVER MIX" AS PREPARED BY:

ERNST CONSERVATION SEEDS, INC.
8884 MERCER PIKE, MEADVILLE, PA 16335
PHONE: 800-873-3321 / 814-336-2404
EMAIL: SALES@ERNSTSEED.COM
WEBSITE: WWW.ERNSTSEED.COM

APPLICATION RATE: 50 LBS. / ACRE

MIX COMPOSITION:
50.0% Lolium multiflorum (Annual Ryegrass)
50.0% Lolium perenne, 'Blackcat II' (Perennial Ryegrass)

BASIN SEED MIX SPECIFICATIONS

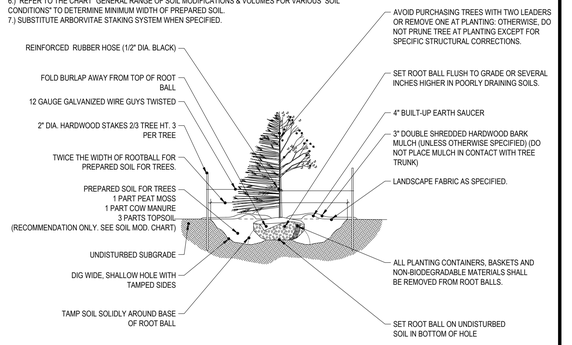
"NATIVE DETENTION AREA MIX" AS PREPARED BY:

ERNST CONSERVATION SEEDS, INC.
8884 MERCER PIKE, MEADVILLE, PA 16335
PHONE: 800-873-3321 / 814-336-2404
EMAIL: SALES@ERNSTSEED.COM
WEBSITE: WWW.ERNSTSEED.COM

APPLICATION RATE: 1/2 LB. / 1000 SQ. FT. (20 LBS. / ACRE)

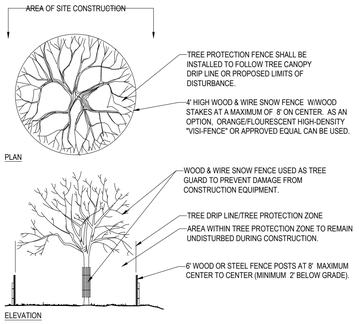
MIX COMPOSITION:
25.0% PANICUM VIRGATUM, 'SHELTER' (SWITCHGRASS, 'SHELTER')
24.0% PANICUM CLANDESTINUM, 'TIOGA' (DEERTONGUE, 'TIOGA')
22.0% CAREX VULPINOIDEA, PA ECOTYPE (FOX SEDGE, PA ECOTYPE)
21.0% ELYMUS VIRGINICUS, PA ECOTYPE (VIRGINIA WILDRYE, PA ECOTYPE)
6.0% AGROSTIS PERENNANS, ALBANY PINE BUSH-NY ECOTYPE (AUTUMN BENTGRASS, ALBANY PINE BUSH-NY ECOTYPE)
1.0% JUNCUS EFFUSUS (SOFT RUSH)
1.0% PANICUM RIGIDULUM, PA ECOTYPE (REDTOP PANICGRASS, PA ECOTYPE)

NOTES:
1.) NO SOIL OR MULCH SHALL BE PLACED AGAINST ROOT COLLAR OF PLANT.
2.) REMOVE ALL NON-BIODEGRADABLE MATERIAL AND ROPE FROM TRUNK & TOP OF ROOT BALL. FOLD BURLAP BACK 1/3 FROM ROOT BALL.
3.) PLANTING DEPTH SHALL BE THE SAME AS GROWN IN NURSERY.
4.) THOROUGHLY SOAK THE TREE ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH
AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS.
5.) THE BOTTOM OF PLANTING PIT EXCAVATIONS SHOULD BE ROUGH TO AVOID MATTING OF SOIL LAYERS AS
NEW SOIL IS ADDED. IT IS PREFERABLE TO TILL THE FIRST LIFT (2 TO 3 IN.) OF PLANTING SOIL INTO THE SUBSOIL.
6.) REFER TO THE CHART "GENERAL RANGE OF SOIL MODIFICATIONS & VOLUMES FOR VARIOUS SOIL CONDITIONS" TO DETERMINE MINIMUM WIDTH OF PREPARED SOIL.
7.) SUBSTITUTE ARBORVITAE STAKING SYSTEM WHEN SPECIFIED.



TREE PLANTING DETAIL

N.T.S.



TREE PROTECTION DURING SITE CONSTRUCTION

N.T.S.

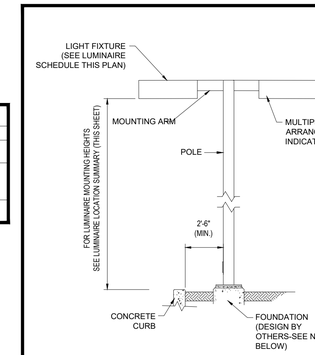
PLANT SHALL BE PLANTED SO THAT THE POINT AT WHICH THE ROOT FLARE BEGINS IS SET LEVEL WITH GRADE. CUT AND REMOVE BURLAP FROM TOP ONE-THIRD OF ROOT BALL AS SHOWN.
PLANTING MIX
1 PART PEAT MOSS
1 PART COW MANURE
3 PARTS TOPSOIL
(SEE SOIL MODIFICATION CHART)
BEFORE PLANTING, ADD 3" TO 4" OF WELL-COMPOSTED LEAVES AND RECYCLED YARD WASTE TO BED AND TILL INTO TOP 6" OF PREPARED SOIL.
SOIL SURFACE ROUGHENED TO BIND WITH NEW SOIL.
FOR CONTAINER-GROWN SHRUBS, PLANT SHALL BE TRANSPLANTED AT THE SAME GRADE AS

NUMERIC SUMMARY

LABEL	CALCTYPE	UNITS	AVG	MAX	MIN	AVG/MIN	MAX/MIN
AREA SUMMARY	ILLUMINANCE	FC	2.19	10.3	0.3	7.30	34.33

LUMINAIRE SCHEDULE

SYMBOL	QTY	ARRANGEMENT	LUMENS	LLF	DESCRIPTION
A	27	SINGLE	41848	0.90	LSI LIGHTING MIRADA LARGE FORWARD THROW LED AREA LIGHT MOUNTED @ 30'; MRL-LED-40L-SIL-FT-40-70CRI-IL
B	2	QUAD	41848	0.90	LSI LIGHTING MIRADA LARGE FORWARD THROW LED AREA LIGHT MOUNTED @ 30'; MRL-LED-40L-SIL-FT-40-70CRI-IL
C	35	BUILDING	4073	0.90	LSI LIGHTING MIRADA FORWARD THROW LED WALL SCONCE MOUNTED @ 15'; XWM-FT-LED-04L-40



AREA LIGHT DETAIL — N.T.S.

NOTE: THIS DETAIL IS FOR BID AND BUDGETARY PURPOSES ONLY. CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING A FOUNDATION DESIGN PREPARED BY A QUALIFIED STRUCTURAL ENGINEER CONSIDERING LIGHTING MANUFACTURER REQUIREMENTS, LOCAL WIND LOADS AND SITE SPECIFIC SOIL PARAMETERS.

- SOME SITE CONDITIONS AND/OR LOCATIONS MAY REQUIRE VIBRATION DAMPENING MEASURES AS DETERMINED BY A STRUCTURAL ENGINEER.
- THE STRUCTURAL ENGINEER SHALL BE NOTIFIED OF THE INTENT TO MOUNT ANYTHING TO THE POLE, ASIDE FROM THE LIGHT FIXTURES, INCLUDING BUT NOT LIMITED TO CAMERAS, BANNERS, FLAGS, SIGNAGE, ETC. AS IT WILL IMPACT THE POLE AND FOUNDATION DESIGN.

LIGHTING NOTES

1. THIS LIGHTING PLAN DEPICTS PROPOSED SUSTAINED ILLUMINATION LEVELS CALCULATED USING DATA PROVIDED BY THE NOTED MANUFACTURER(S). ACTUAL SUSTAINED SITE ILLUMINATION LEVELS AND PERFORMANCE OF LUMINAIRES MAY VARY DUE TO VARIATIONS IN WEATHER, ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, THE SERVICE LIFE OF EQUIPMENT AND LUMINAIRES AND OTHER RELATED VARIABLE FIELD CONDITIONS.
2. THE LIGHT LOSS FACTORS USED IN THESE LIGHTING CALCULATIONS ARE 0.90 FOR ALL LED LUMINAIRES, 0.80 FOR ALL HIGH PRESSURE SODIUM LUMINAIRES OR 0.72 FOR ALL METAL HALIDE LUMINAIRES UNLESS OTHERWISE SPECIFIED. THESE FACTORS ARE INDICATIVE OF TYPICAL LIGHTING INDUSTRY MODELING STANDARDS.
3. THE LIGHTING VALUES AND CALCULATION POINTS DEPICTED ON THIS PLAN ARE ALL ANALYZED ON A HORIZONTAL GEOMETRIC PLANE AT ELEVATION ZERO (GROUND LEVEL) UNLESS OTHERWISE NOTED. THE VALUES DEPICTED ON THIS PLAN ARE IN FOOTCANDLES.
4. THE LUMINAIRES, LAMPS AND LENSES MUST BE REGULARLY INSPECTED/MAINTAINED TO ENSURE THAT THEY FUNCTION PROPERLY. THIS WORK SHOULD INCLUDE, BUT NOT BE LIMITED TO, FREQUENT VISUAL INSPECTIONS, CLEANING OF LENSES, AND RELAMPING (IF NECESSARY) AT LEAST ONCE EVERY SIX (6) MONTHS. FAILURE TO FOLLOW THE ABOVE STEPS COULD CAUSE THE LUMINAIRES, LAMPS AND LENSES TO FAIL PROPERLY TO FUNCTION.
5. WHERE APPLICABLE, THE EXISTING CONDITION LIGHT LEVELS ILLUSTRATED ARE REPRESENTATIVE OF AN APPROXIMATION UTILIZING LABORATORY DATA FOR SIMILAR FIXTURES, UNLESS ACTUAL FIELD MEASUREMENTS ARE TAKEN WITH A LIGHT METER AND ARE, CONSEQUENTLY, APPROXIMATIONS ONLY. DUE TO FACTORS SUCH AS FIXTURE MAINTENANCE, EQUIPMENT TOLERANCES, WEATHER CONDITIONS, ETC, ACTUAL LIGHT LEVELS MAY DIFFER. EXISTING LIGHT LEVELS DEPICTED ON THIS PLAN SHOULD BE CONSIDERED APPROXIMATE.
6. THIS LIGHTING PLAN IS INTENDED TO SHOW THE LOCATIONS AND TYPE OF LUMINAIRES, ONLY. POWER SYSTEM, CONDUITS, WIRING, VOLTAGES AND OTHER ELECTRICAL COMPONENTS ARE THE RESPONSIBILITY OF THE ARCHITECT, MEP AND/OR LIGHTING CONTRACTOR, AS INDICATED IN THE CONSTRUCTION CONTRACT DOCUMENTS. THESE ITEMS MUST BE INSTALLED AS REQUIRED BY STATE AND LOCAL REGULATIONS. LIGHT POLE BASES ARE THE RESPONSIBILITY OF THE STRUCTURAL ENGINEER, AS INDICATED IN THE CONSTRUCTION CONTRACT DOCUMENTS. CONTRACTOR IS RESPONSIBLE FOR INSTALLING LIGHTING FIXTURES AND APPURTENANCES IN ACCORDANCE WITH ALL APPLICABLE BUILDING AND ELECTRICAL CODES AND ALL OTHER APPLICABLE RULES, REGULATIONS, LAWS AND STATUTES.
7. CONTRACTOR MUST BRING TO DESIGNER'S ATTENTION, PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, ANY LIGHT LOCATIONS THAT CONFLICT WITH DRAINAGE, UTILITIES, OR OTHER STRUCTURES.
8. IT IS THE LIGHTING CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH THE PROJECT ARCHITECT OR OWNER REGARDING THE POWER SOURCE(S) FROM WITHIN THE BUILDING, AND TIMING DEVICES NECESSARY TO MEET THE DESIGN INTENT.
9. THE LIGHTING CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CONTRACTOR REQUIREMENTS INDICATED IN THE SITE PLAN, INCLUDING BUT NOT LIMITED TO, GENERAL NOTES, GRADING AND UTILITY NOTES, SITE SAFETY, AND ALL GOVERNMENTAL RULES, LAWS, ORDINANCES, REGULATIONS AND THE LIKE.
10. THE CONTRACTOR MUST VERIFY THAT INSTALLATION OF LIGHTING FIXTURES COMPLIES WITH THE REQUIREMENTS FOR SEPARATION FROM OVERHEAD ELECTRICAL WIRES PER STATE REGULATIONS.
11. UPON OWNER'S ACCEPTANCE OF THE COMPLETED PROJECT, THE OWNER SHALL BE RESPONSIBLE FOR ALL MAINTENANCE, SERVICING, REPAIR AND INSPECTION OF THE LIGHTING SYSTEM AND ALL OF ITS COMPONENTS AND RELATED SYSTEMS, TO ENSURE ADEQUATE LIGHTING LEVELS ARE PRESENT AND FUNCTIONING AT ALL TIMES.

THIS PLAN TO BE UTILIZED FOR LIGHTING PURPOSES ONLY

30 15 7.5 0 30
1"= 30'

PROP. INDUSTRIAL BUILDING B
(50,250 SF±)
(REFER TO ARCH. PLANS)

50' WETLAND BUFFER (TYP.)
100' WETLAND BUFFER (TYP.)
25' NO DISTURB WETLAND BUFFER (TYP.)
STOR
WF-0027
WF-0028
WF-0029
WF-0030
WF-0031
WF-0032
WF-0033
WF-0034
WF-0035
WF-0036
WF-0037
WF-0038
WF-0039
WF-0040

C:\PROGRAMDATA\TA_BOHLERCSD2020INTERIM\ACPUBLISH_168690\W211060-CVL-0---LAYOUT: C-706-LIGHT A

BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
ENVIRONMENTAL SERVICES
PERMITTING SERVICES
TRANSPORTATION SERVICES

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REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY

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PERMIT SET

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PROJECT No.:	W211060
DRAWN BY:	CSE
CHECKED BY:	NEM
DATE:	09/01/2021
CAD I.D.:	W211060-CVL-0

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

2020 ACQUISITIONS

PROPOSED
SOUTH SIDE DEVELOPMENT

MAP #38, BLOCK #1, LOT #23
148 DEPOT STREET SOUTH
TOWN OF BELLINGHAM
NORFOLK COUNTY,
MASSACHUSETTS

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COMMONWEALTH OF MASSACHUSETTS
JOSHUA KUCSMA
CIVIL
No. 41530
REGISTERED PROFESSIONAL ENGINEER
MAINE LICENSE No. 14303
CONNECTICUT LICENSE No. 29127
RHODE ISLAND LICENSE No. 14748
MSHA LICENSE No. 22553

SHEET TITLE:

LIGHTING PLAN A

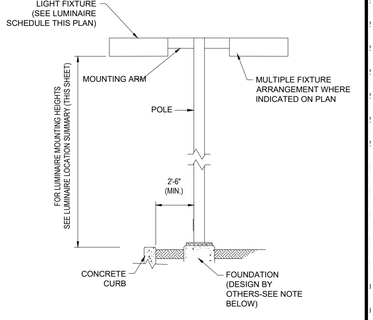
SHEET NUMBER:

C-706

ORG. DATE - 09/01/2021

LIGHTING NOTES

1. THIS LIGHTING PLAN DEPICTS PROPOSED SUSTAINED ILLUMINATION LEVELS CALCULATED USING DATA PROVIDED BY THE NOTED MANUFACTURER(S). ACTUAL SUSTAINED SITE ILLUMINATION LEVELS AND PERFORMANCE OF LUMINAIRES MAY VARY DUE TO VARIATIONS IN WEATHER, ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, THE SERVICE LIFE OF EQUIPMENT AND LUMINAIRES AND OTHER RELATED VARIABLE FIELD CONDITIONS.
2. THE LIGHT LOSS FACTORS USED IN THESE LIGHTING CALCULATIONS ARE 0.90 FOR ALL LED LUMINAIRES, 0.80 FOR ALL HIGH PRESSURE SODIUM LUMINAIRES OR 0.72 FOR ALL METAL HALIDE LUMINAIRES UNLESS OTHERWISE SPECIFIED. THESE FACTORS ARE INDICATIVE OF TYPICAL LIGHTING INDUSTRY MODELING STANDARDS.
3. THE LIGHTING VALUES AND CALCULATION POINTS DEPICTED ON THIS PLAN ARE ALL ANALYZED ON A HORIZONTAL GEOMETRIC PLANE AT ELEVATION ZERO (GROUND LEVEL) UNLESS OTHERWISE NOTED. THE VALUES DEPICTED ON THIS PLAN ARE IN FOOTCANDLES.
4. THE LUMINAIRES, LAMPS AND LENSES MUST BE REGULARLY INSPECTED/MAINTAINED TO ENSURE THAT THEY FUNCTION PROPERLY. THIS WORK SHOULD INCLUDE, BUT NOT BE LIMITED TO, FREQUENT VISUAL INSPECTIONS, CLEANING OF LENSES, AND RELAMPING (IF NECESSARY) AT LEAST ONCE EVERY SIX (6) MONTHS. FAILURE TO FOLLOW THE ABOVE STEPS COULD CAUSE THE LUMINAIRES, LAMPS AND LENSES TO FAIL PROPERLY TO FUNCTION.
5. WHERE APPLICABLE, THE EXISTING CONDITION LIGHT LEVELS ILLUSTRATED ARE REPRESENTATIVE OF AN APPROXIMATION UTILIZING LABORATORY DATA FOR SIMILAR FIXTURES, UNLESS ACTUAL FIELD MEASUREMENTS ARE TAKEN WITH A LIGHT METER AND ARE, CONSEQUENTLY, APPROXIMATIONS ONLY. DUE TO FACTORS SUCH AS FIXTURE MAINTENANCE, EQUIPMENT TOLERANCES, WEATHER CONDITIONS, ETC, ACTUAL LIGHT LEVELS MAY DIFFER. EXISTING LIGHT LEVELS DEPICTED ON THIS PLAN SHOULD BE CONSIDERED APPROXIMATE.
6. THIS LIGHTING PLAN IS INTENDED TO SHOW THE LOCATIONS AND TYPE OF LUMINAIRES, ONLY. POWER SYSTEM, CONDUITS, WIRING, VOLTAGES AND OTHER ELECTRICAL COMPONENTS ARE THE RESPONSIBILITY OF THE ARCHITECT, MEP AND/OR LIGHTING CONTRACTOR, AS INDICATED IN THE CONSTRUCTION CONTRACT DOCUMENTS. THESE ITEMS MUST BE INSTALLED AS REQUIRED BY STATE AND LOCAL REGULATIONS. LIGHT POLE BASES ARE THE RESPONSIBILITY OF THE STRUCTURAL ENGINEER, AS INDICATED IN THE CONSTRUCTION CONTRACT DOCUMENTS. CONTRACTOR IS RESPONSIBLE FOR INSTALLING LIGHTING FIXTURES AND APPURTENANCES IN ACCORDANCE WITH ALL APPLICABLE BUILDING AND ELECTRICAL CODES AND ALL OTHER APPLICABLE RULES, REGULATIONS, LAWS AND STATUTES.
7. CONTRACTOR MUST BRING TO DESIGNER'S ATTENTION, PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, ANY LIGHT LOCATIONS THAT CONFLICT WITH DRAINAGE, UTILITIES, OR OTHER STRUCTURES.
8. IT IS THE LIGHTING CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH THE PROJECT ARCHITECT OR OWNER REGARDING THE POWER SOURCE(S) FROM WITHIN THE BUILDING, AND TIMING DEVICES NECESSARY TO MEET THE DESIGN INTENT.
9. THE LIGHTING CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CONTRACTOR REQUIREMENTS INDICATED IN THE SITE PLAN, INCLUDING BUT NOT LIMITED TO, GENERAL NOTES, GRADING AND UTILITY NOTES, SITE SAFETY, AND ALL GOVERNMENTAL RULES, LAWS, ORDINANCES, REGULATIONS AND THE LIKE.
10. THE CONTRACTOR MUST VERIFY THAT INSTALLATION OF LIGHTING FIXTURES COMPLIES WITH THE REQUIREMENTS FOR SEPARATION FROM OVERHEAD ELECTRICAL WIRES PER STATE REGULATIONS.
11. UPON OWNER'S ACCEPTANCE OF THE COMPLETED PROJECT, THE OWNER SHALL BE RESPONSIBLE FOR ALL MAINTENANCE, SERVICING, REPAIR AND INSPECTION OF THE LIGHTING SYSTEM AND ALL OF ITS COMPONENTS AND RELATED SYSTEMS, TO ENSURE ADEQUATE LIGHTING LEVELS ARE PRESENT AND FUNCTIONING AT ALL TIMES.



AREA LIGHT DETAIL — N.T.S.

NOTE: THIS DETAIL IS FOR BID AND BUDGETARY PURPOSES ONLY. CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING A FOUNDATION DESIGN PREPARED BY A QUALIFIED STRUCTURAL ENGINEER CONSIDERING LIGHTING MANUFACTURER REQUIREMENTS, LOCAL WIND LOADS AND SITE SPECIFIC SOIL PARAMETERS.

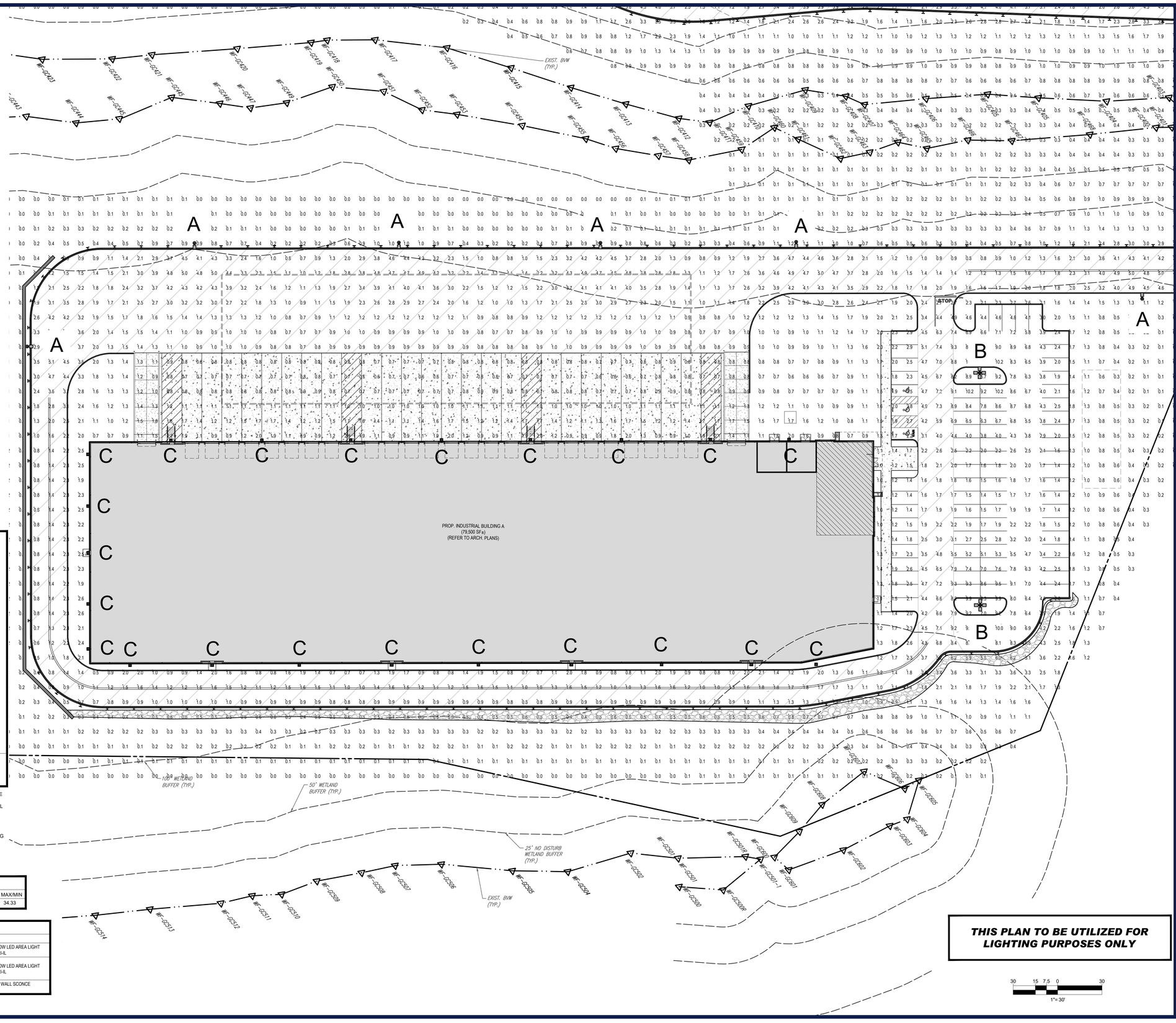
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- THE STRUCTURAL ENGINEER SHALL BE NOTIFIED OF THE INTENT TO MOUNT ANYTHING TO THE POLE, ASIDE FROM THE LIGHT FIXTURES, INCLUDING BUT NOT LIMITED TO CAMERAS, BANNERS, FLAGS, SIGNAGE, ETC. AS IT WILL IMPACT THE POLE AND FOUNDATION DESIGN.

NUMERIC SUMMARY

LABEL	CALCTYPE	UNITS	AVG	MAX	MIN	AVG/MIN	MAX/MIN
AREA SUMMARY	ILLUMINANCE	FC	2.19	10.3	0.3	7.30	34.33

LUMINAIRE SCHEDULE

SYMBOL	QTY	ARRANGEMENT	LUMENS	LLF	DESCRIPTION
A	27	SINGLE	41848	0.90	LSI LIGHTING MIRADA LARGE FORWARD THROW LED AREA LIGHT MOUNTED @ 30', MRL-LED-40L-SIL-FT-40-70CRI-IL
B	2	QUAD	41848	0.90	LSI LIGHTING MIRADA LARGE FORWARD THROW LED AREA LIGHT MOUNTED @ 30', MRL-LED-40L-SIL-FT-40-70CRI-IL
C	35	BUILDING	4073	0.90	LSI LIGHTING MIRADA FORWARD THROW LED WALL SCONCE MOUNTED @ 15', XWM-FT-LED-04L-40



THIS PLAN TO BE UTILIZED FOR LIGHTING PURPOSES ONLY

30 15 7.5 0 30
1"= 30'

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REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY

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PROJECT No.:	W211060
DRAWN BY:	CSE
CHECKED BY:	NEM
DATE:	09/01/2021
CAD I.D.:	W211060-CVL-0

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

2020 ACQUISITIONS

PROPOSED
SOUTH SIDE DEVELOPMENT

MAP #38, BLOCK #1, LOT #23
148 DEPOT STREET SOUTH
TOWN OF BELLINGHAM
NORFOLK COUNTY,
MASSACHUSETTS

BOHLER
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MASSACHUSETTS LICENSE No. 41530
NEW HAMPSHIRE LICENSE No. 15476
CONNECTICUT LICENSE No. 29179
RHODE ISLAND LICENSE No. 20016
MAINE LICENSE No. 22550

SHEET TITLE:

LIGHTING PLAN B

SHEET NUMBER:

C-707

ORG. DATE - 09/01/2021

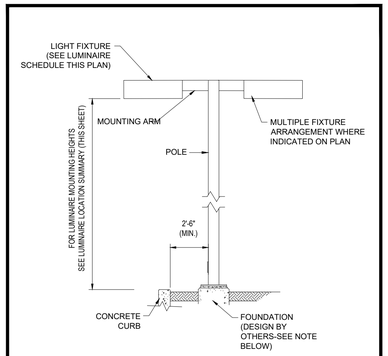
C:\PROGRAMDATA_BOHLER\C3D2020NETTEMP\ACPUBLISH_16809\W211060-CVL-0---LAYOUT C-707-LIGHT B

NUMERIC SUMMARY

LABEL	CALCTYPE	UNITS	AVG	MAX	MIN	AVG/MIN	MAX/MIN
AREA SUMMARY	ILLUMINANCE	FC	2.19	10.3	0.3	7.30	34.33

LUMINAIRE SCHEDULE

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AREA LIGHT DETAIL

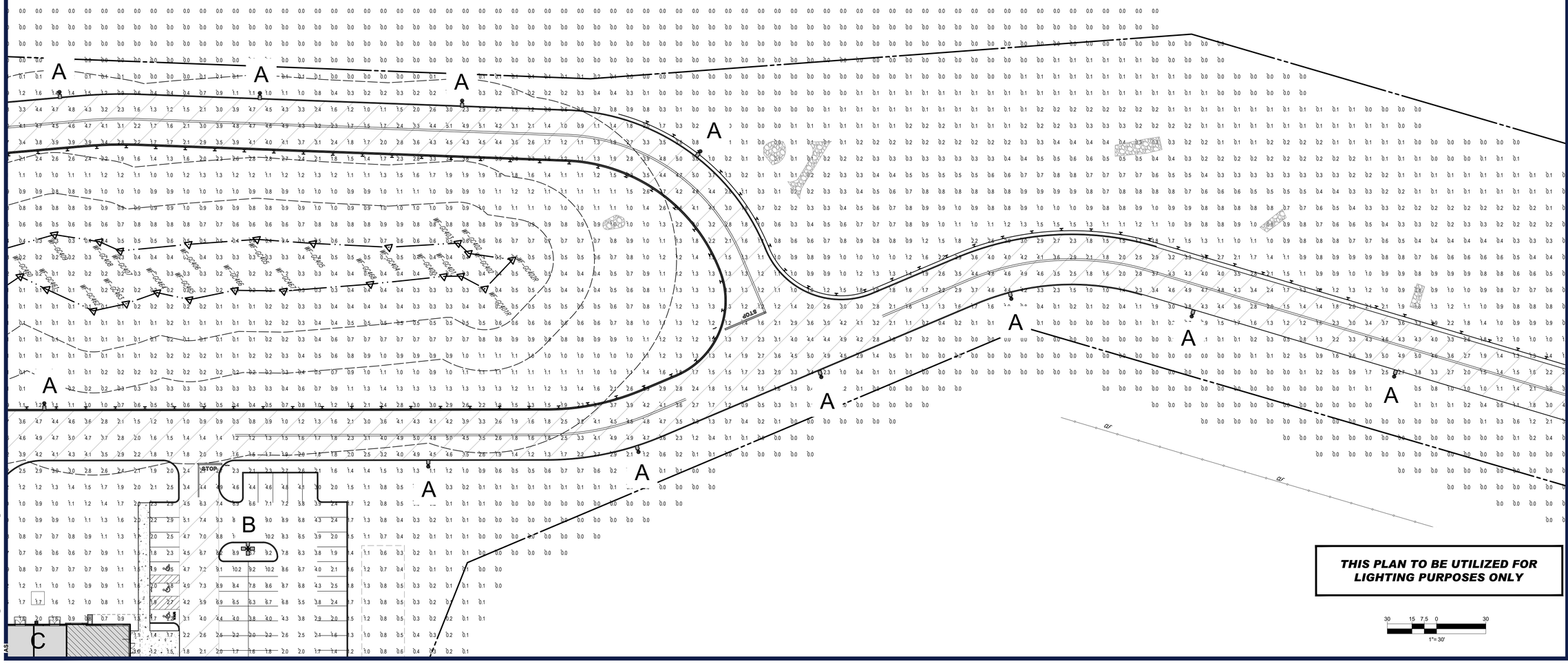
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THIS PLAN TO BE UTILIZED FOR LIGHTING PURPOSES ONLY

30 15 7.5 0 30
1"= 30'

C:\PROGRAMDATA_BOHLERC32\2020\NET\TEMP\ACPUBLISH_16809\W211060-CVL-8---LAYOUT C-709-LIGHT C

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PROJECT No.:	W211060
DRAWN BY:	CSE
CHECKED BY:	NEM
DATE:	09/01/2021
CAD I.D.:	W211060-CVL-0

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

2020 ACQUISITIONS

PROPOSED
SOUTH SIDE DEVELOPMENT

MAP #38, BLOCK #1, LOT #23
148 DEPOT STREET SOUTH
TOWN OF BELLINGHAM
NORFOLK COUNTY,
MASSACHUSETTS

BOHLER
352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
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COMMONWEALTH OF MASSACHUSETTS
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REGISTERED PROFESSIONAL ENGINEER
MASSACHUSETTS LICENSE No. 41530
NEW HAMPSHIRE LICENSE No. 15426
CONNECTICUT LICENSE No. 29127
RHODE ISLAND LICENSE No. 9616
MAINE LICENSE No. 2455

SHEET TITLE:

LIGHTING PLAN C

SHEET NUMBER:

C-708

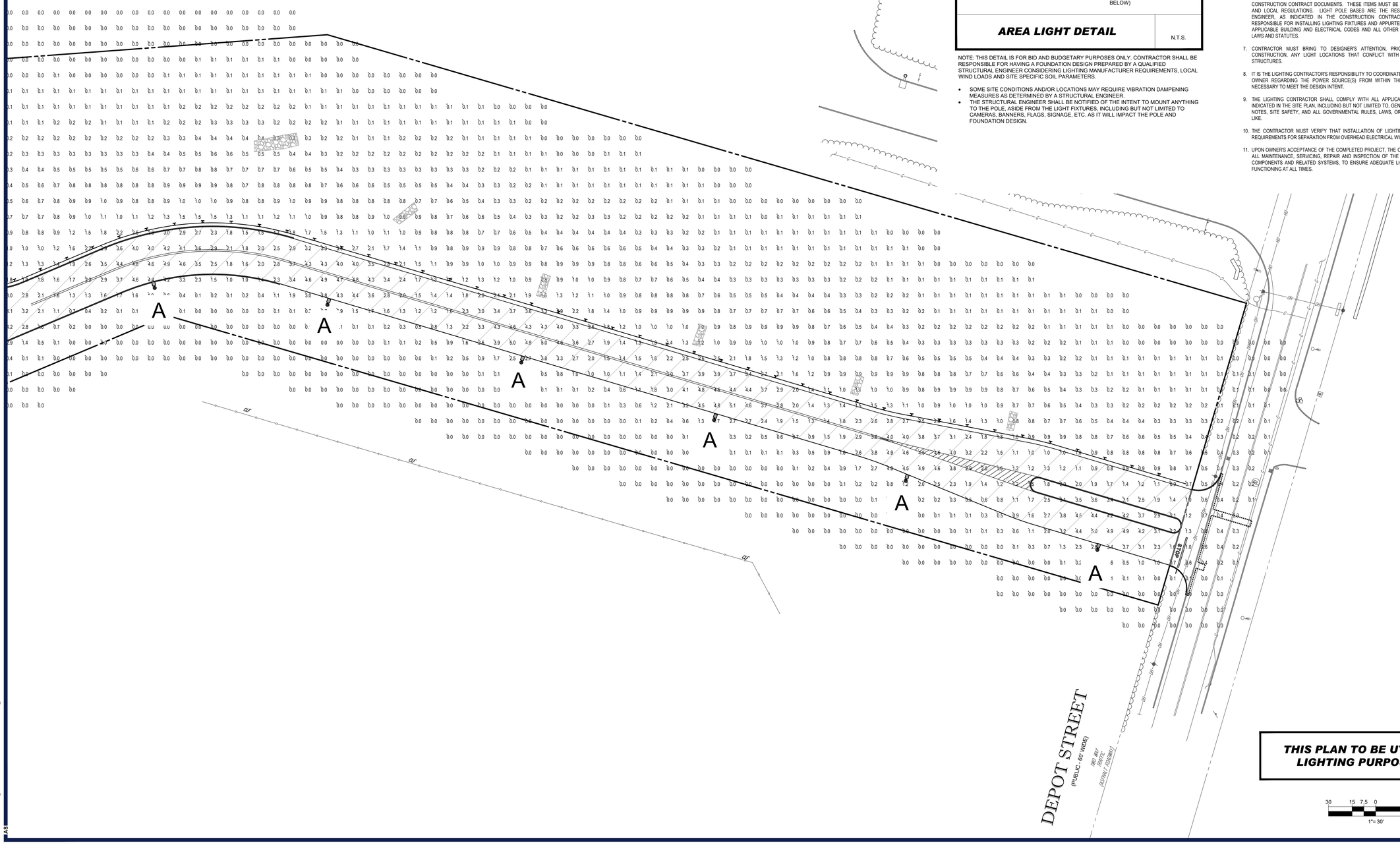
ORG. DATE - 09/01/2021

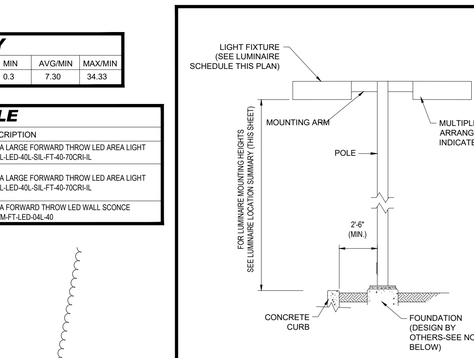
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THIS PLAN TO BE UTILIZED FOR LIGHTING PURPOSES ONLY

BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
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SUSTAINABLE SERVICES
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PROJECT No.:	W211060
DRAWN BY:	CSE
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DATE:	09/01/2021
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PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

2020 ACQUISITIONS

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COMMONWEALTH OF MASSACHUSETTS
JOHN A. KUCEWICZ
CIVIL
No. 41530
REGISTERED PROFESSIONAL ENGINEER
PROFESSIONAL ENGINEER
MASSACHUSETTS LICENSE No. 41530
NEW HAMPSHIRE LICENSE No. 15426
CONNECTICUT LICENSE No. 28127
RHODE ISLAND LICENSE No. 14216
MAINE LICENSE No. 22553

SHEET TITLE:

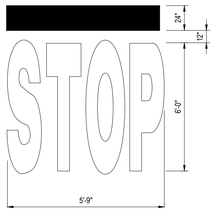
LIGHTING PLAN D

SHEET NUMBER:

C-709

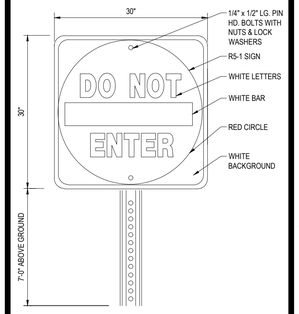
ORG. DATE - 09/01/2021

C:\PROGRAMDATA_BOHLER\CI2\2020NETEMP\ACPUBLISH_16800\W211060-CVL-0---LAYOUT: C-709-LIGHT D



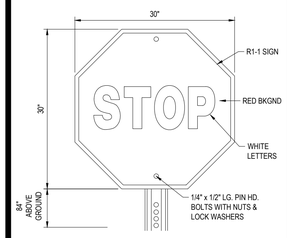
"STOP" BAR DETAIL

N.T.S.



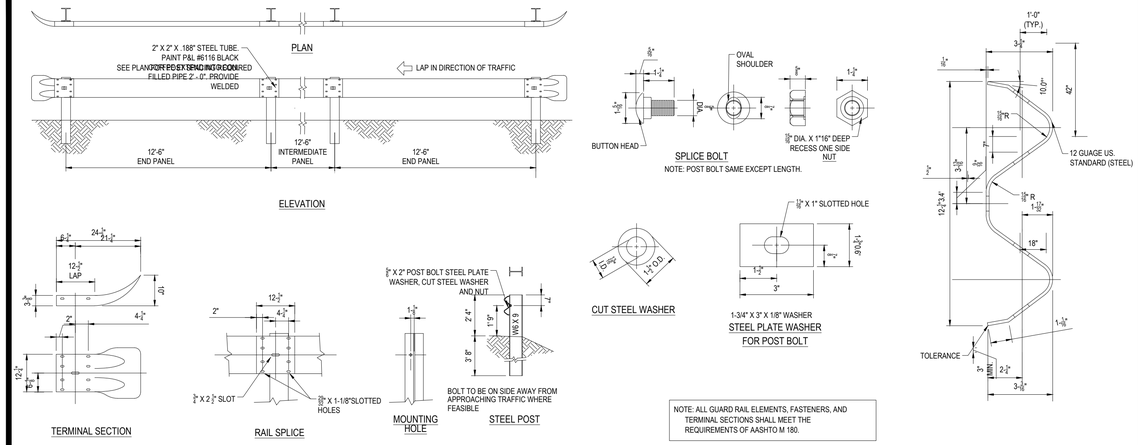
"DO NOT ENTER" SIGN

N.T.S.



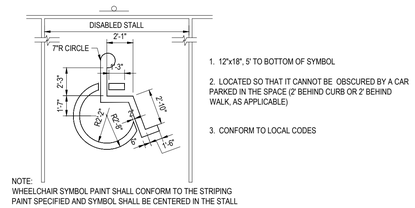
STOP SIGN

N.T.S.



METAL GUIDERAIL

N.T.S.

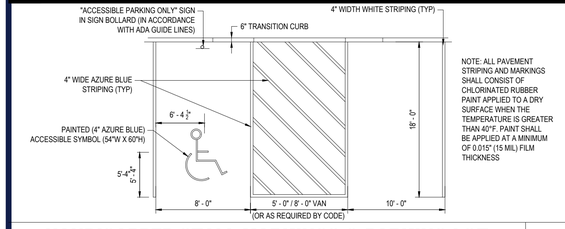


1. 12"x18", S' TO BOTTOM OF SYMBOL
2. LOCATED SO THAT IT CANNOT BE OBSCURED BY A CAR PARKED IN THE SPACE (2' BEHIND CURB OR 2' BEHIND WALK, AS APPLICABLE)
3. CONFORM TO LOCAL CODES

NOTE:
WHEELCHAIR SYMBOL PAINT SHALL CONFORM TO THE STRIPING PAINT SPECIFIED AND SYMBOL SHALL BE CENTERED IN THE STALL

ACCESSIBLE PARKING SPACE PAINTING DETAIL

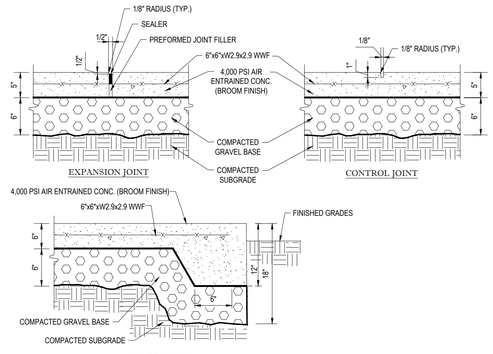
N.T.S.



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

HANDICAPPED STALL MARKINGS & PARKING LOT STRIPING DETAIL

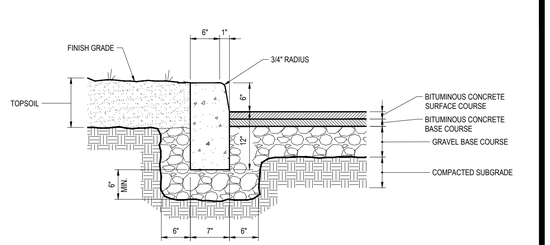
N.T.S.



NOTES: TO BE USED FOR BUILDING SURROUND AND OTHER CONCRETE WALKS. USE CHAIRS TO SUPPORT REINFORCING STEEL DURING POUR. VARIES SEE PLAN
1. SEE SITE PLAN FOR WIDTH AND GRADES
2. PROVIDE MINIMUM 1/8"/FT. CROSS-SLOPE
3. PROVIDE CONTROL JOINTS 5'-0" O.C. MIN.
4. PROVIDE EXPANSION JOINTS 20'-0" O.C. MIN.

TYPICAL MONOLITHIC CONCRETE SIDEWALK

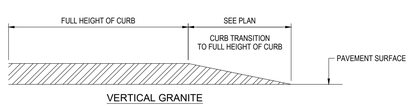
N.T.S.



NOTE:
1. CURB SHALL CONSIST OF 4,000 PSI AIR ENTRAINED CONCRETE, EXPOSED EDGES TO HAVE RUBBED FINISH AND SURFACE SHALL BE TREATED WITH A CONCRETE PENETRANT/SEALER.
2. THE ENDS OF CURB SECTIONS SHALL BE CHAMFERED 1/4 INCH.
3. THE CORNERS OF CURB SECTIONS SHALL MATCH THE ADJACENT CURB IN SIZE, COLOR AND FINISH.
4. CURBS, CURB CORNERS OR EDGING SHALL BE FITTED TOGETHER AS CLOSELY AS POSSIBLE.
5. EXPANSION JOINTS SHALL BE INSTALLED AT A MAXIMUM OF TWENTY FEET (20') ON CENTER USING PREFORMED EXPANSION JOINT FILLER HAVING A THICKNESS OF 1/2 INCH.

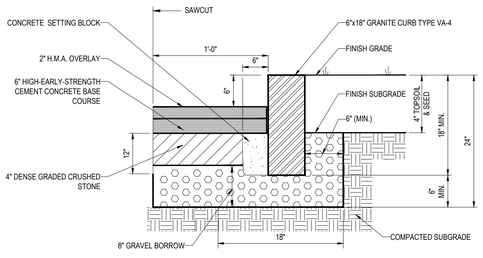
PRECAST CONCRETE CURB

N.T.S.



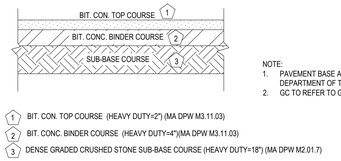
TRANSITION CURB

N.T.S.



VERTICAL GRANITE CURB DETAIL

N.T.S.

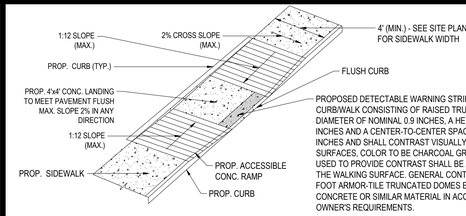


NOTE:
1. PAVEMENT BASE AND SUBBASE COURSES TO CONFORM TO STATE DEPARTMENT OF TRANSPORTATION
2. GC TO REFER TO GEOTECHNICAL REPORT FOR PAVEMENT SPECIFICATIONS.

1. BIT. CON. TOP COURSE (HEAVY DUTY=2") (MA DPW M3.11.03)
2. BIT. CONC. BINDER COURSE (HEAVY DUTY=4")(MA DPW M3.11.03)
3. DENSE GRADED CRUSHED STONE SUB-BASE COURSE (HEAVY DUTY=18") (MA DPW M2.01.7)

HEAVY DUTY PAVEMENT SECTION

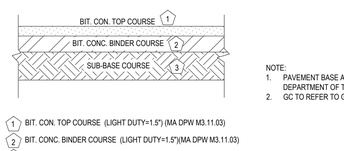
N.T.S.



PROPOSED DETECTABLE WARNING STRIP 6" BEHIND FACE OF CURB/WALK CONSISTING OF RAISED TRUNCATED DOMES WITH A DIAMETER OF NOMINAL 0.9 INCHES, A HEIGHT OF NOMINAL 0.2 INCHES AND A CENTER-TO-CENTER SPACING OF NOMINAL 2.35 INCHES AND SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES. COLOR TO BE CHARCOAL GRAY. THE MATERIAL USED TO PROVIDE CONTRAST SHALL BE AN INTEGRAL PART OF THE WALKING SURFACE. GENERAL CONTRACTOR TO PROVIDE 2 FOOT ARMOR-TILE TRUNCATED DOMES EMBEDDED INTO THE CONCRETE OR SIMILAR MATERIAL IN ACCORDANCE WITH THE OWNER'S REQUIREMENTS.

ACCESSIBLE RAMP

N.T.S.

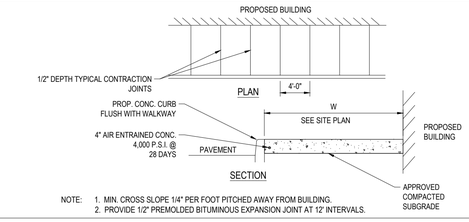


NOTE:
1. PAVEMENT BASE AND SUBBASE COURSES TO CONFORM TO STATE DEPARTMENT OF TRANSPORTATION
2. GC TO REFER TO GEOTECHNICAL REPORT FOR PAVEMENT SPECIFICATIONS.

1. BIT. CON. TOP COURSE (LIGHT DUTY=1.5") (MA DPW M3.11.03)
2. BIT. CONC. BINDER COURSE (LIGHT DUTY=1.5")(MA DPW M3.11.03)
3. DENSE GRADED CRUSHED STONE SUB-BASE COURSE (LIGHT DUTY=12") (MA DPW M2.01.7)

STANDARD DUTY PAVEMENT SECTION

N.T.S.



NOTE: 1. MIN. CROSS SLOPE 1/4" PER FOOT PITCHED AWAY FROM BUILDING.
2. PROVIDE 1/2" PREMOLDED BITUMINOUS EXPANSION JOINT AT 12' INTERVALS.

SIDEWALK

N.T.S.

BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
LAND PLANNING SERVICES
PERMITTING SERVICES
TRANSPORTATION SERVICES

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REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY

811 Know what's below. Call before you dig.
ALWAYS CALL 811
It's fast. It's free. It's the law.

PERMIT SET

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.:	W211060
DRAWN BY:	CSE
CHECKED BY:	NEM
DATE:	09/01/2021
CAD I.D.:	W211060-CVL-0-DTL

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

2020 ACQUISITIONS

PROPOSED
SOUTH SIDE DEVELOPMENT

MAP #38, BLOCK #1, LOT #23
148 DEPOT STREET SOUTH
TOWN OF BELLINGHAM
NORFOLK COUNTY,
MASSACHUSETTS

BOHLER
352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900
www.BohlerEngineering.com

COMMONWEALTH OF MASSACHUSETTS
JOHN A. KUCICH
No. 41530
CIVIL
PROFESSIONAL ENGINEER
MASSACHUSETTS REGISTRATION No. 41530
NEW HAMPSHIRE LICENSE No. 15476
CONNECTICUT LICENSE No. 26177
RHODE ISLAND LICENSE No. 26616
MAINE LICENSE No. 12553

SHEET TITLE:

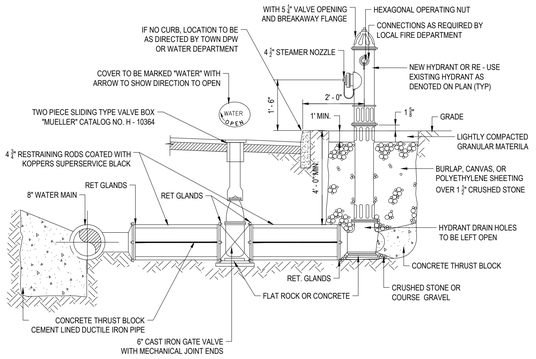
DETAIL SHEET

SHEET NUMBER:

C-901

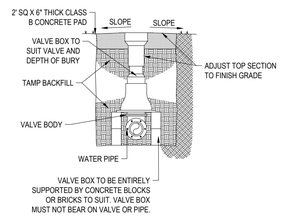
ORG. DATE - 09/01/2021

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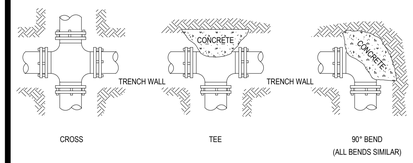
HYDRANT & VALVE INSTALLATION

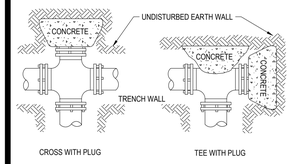
N.T.S.



GATE VALVE

N.T.S.





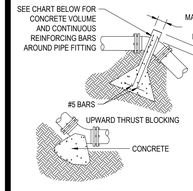
HORIZONTAL THRUST BLOCKING
(BLOCKING HEIGHT GREATER THAN PIPE O.D.) (BLOCKING WIDTH BETWEEN 1 & 2 TIMES HEIGHT)
REQUIRED SQ. FT. OF UNDISTURBED EARTH WALL FOR REACTION BACKING
TYPE OF FITTINGS

PIPE SIZE	TEE & PLUG	BENDS			
		90°	45°	22 ½°	11 ¼°
3"	1.0	1.0	1.0	1.0	1.0
4"	1.0	1.0	1.0	1.0	1.0
6"	1.5	2.0	1.0	1.0	1.0
8"	2.5	3.5	1.8	1.0	1.0
10"	4.0	5.5	2.8	1.5	1.0
12"	6.0	8.0	4.0	2.0	1.5

NOTE:
1. DO NOT COVER BELLS OR FLANGES WITH CONCRETE
2. WRAP ALL FITTINGS WITH VISQUEEN.
3. BACK ALL TEES ACCORDING TO SIZE OF BRANCH.
4. BACKING FUTURE LINE EXTENSIONS SHALL BE SUCH THAT LATER REMOVAL IS POSSIBLE.
5. ALL BENDS WHERE FITTINGS ARE USED, BOTH HORIZONTAL OR VERTICAL SHALL BE BACKED.
6. REACTION BACKING TABLE IS BASED ON 100 P.S.I AND SOIL BEARING PRESSURE OF 2000 lb./sq.ft. ADDITIONAL BACKING MAY BE REQUIRED IN SOME AREAS AS DIRECTED BY ENGINEERS.
7. ALL CONCRETE SHALL BE 2500 P.S.I.
8. 18" AND LARGER REQUIRES SPECIFIC ANTI-THRUST DESIGN.

HORIZONTAL THRUST BLOCKING

N.T.S.

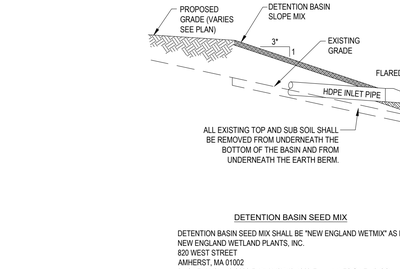


UPWARD THRUST BLOCKING											
(REQUIRED REINFORCING BARS & CUBIC YARDS OF P.C. CONCRETE											
	90° BEND		45° BEND			22 ½° BEND			11 ¼°BEND		
PIPE SIZE	CONC. C.Y.	REINF QTY.	REINF SIZE	CONC. C.Y.	REINF QTY.	REINF SIZE	CONC. C.Y.	REINF QTY.	REINF SIZE	CONC. C.Y.	REINF QTY.	REINF SIZE
6"	1.5	3	5	1.5	3	5	1.25	2	5	1.25	2	5
8"	2	3	5	2	3	5	1.5	2	5	1.5	2	5
10"	2.5	3	5	2.5	3	5	2	3	5	2	3	5
12"	3	3	5	3	3	5	2.5	3	5	2.5	3	5

NOTES:
1. DO NOT COVER BELLS OR FLANGES WITH CONCRETE
2. WRAP ALL FITTINGS WITH VISQUEEN.
3. BACK ALL TEES ACCORDING TO SIZE OF BRANCH.
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7. ALL CONCRETE SHALL BE 2500 P.S.I.
8. 18" AND LARGER REQUIRES SPECIFIC ANTI-THRUST DESIGN.

VERTICAL THRUST BLOCKING

N.T.S.



TYPICAL UTILITY TRENCH

N.T.S.

RECOMMENDED MIN. TRENCH WIDTH	
PIPE DIA.	MIN. TRANCH WIDTH
6"	23"
8"	26"
10"	28"
12"	30"
15"	34"
18"	39"
24"	48"
30"	56"
36"	64"
48"	80"
60"	96"

NOTES:

1. ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST ADDITION.

2. MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.

3. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.

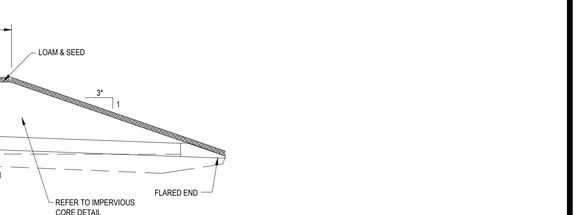
4. BEDDING: SUITABLE MATERIAL SHALL BE CLASS I, II OR III. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 4"-24" (100mm-600mm); 6" (150mm) FOR 30"-60" (750mm-900mm).

5. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I, II OR III IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.

6. MINIMUM COVER: MINIMUM COVER, H, IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM THE TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER, H, IS 12" UP TO 48" DIAMETER PIPE AND 24" OF COVER FOR 54"-60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.

HDPE STORM DRAINAGE TRENCH

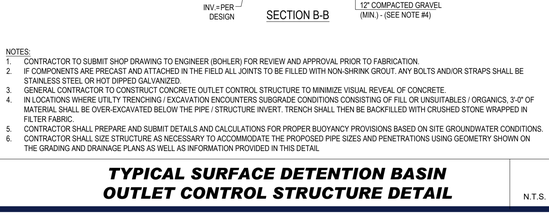
N.T.S.



NOTES:
1. CLEANOUTS TO BE INSTALLED WHERE INDICATED ON THE PLANS.
2. CLEANOUT PIPE TO BE SAME SIZE AND MATERIAL AS SEWER/DRAIN LINE UP TO 8".
3. BACKFILL TO TOP OF 45° WITH 3/4" CRUSHED STONE.

SEWER / DRAIN CLEANOUT

N.T.S.



BASIN #	OCS #	RIM	GRATE SIZE (IN.)	ORIFICE SIZE (IN.)	ORIFICE INV.	OUTLET PIPE SIZE (IN.) *	OUTLET INV.	BOTTOM BASIN ELEV.
1A	100	234.50	24x24	N/A	N/A	12	231.00	231.00
2A	200	233.35	24x24	N/A	N/A	12	231.00	231.00
3A	300	240.40	24x24	N/A	N/A	12	237.00	237.00

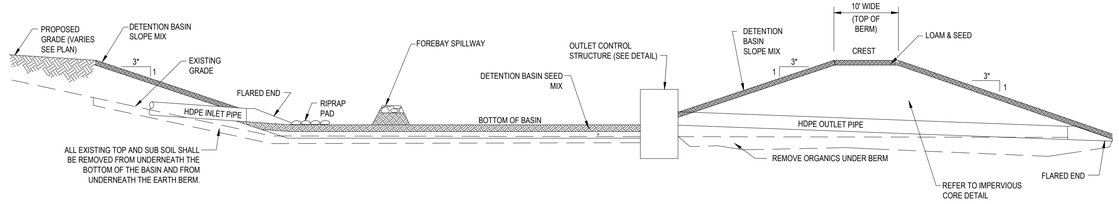
SECTION A-A

SECTION B-B

NOTES:
1. CONTRACTOR TO SUBMIT SHOP DRAWING TO ENGINEER (BOHLER) FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
2. IF COMPONENTS ARE PRECAST AND ATTACHED IN THE FIELD ALL JOINTS TO BE FILLED WITH NON-SHRINK GROUT. ANY BOLTS AND/OR STRAPS SHALL BE STAINLESS STEEL OR HOT DIPPED GALVANIZED.
3. GENERAL CONTRACTOR TO CONSTRUCT CONCRETE OUTLET CONTROL STRUCTURE TO MINIMIZE VISUAL REVEAL OF CONCRETE.
4. IN LOCATIONS WHERE UTILTY TRENCHING / EXCAVATION ENCOUNTERS SUBGRADE CONDITIONS CONSISTING OF FILL OR UNSUITABLES / ORGANICS, 3'-0" OF MATERIAL SHALL BE OVER-EXCAVATED BELOW THE PIPE / STRUCTURE INVERT. TRENCH SHALL THEN BE BACKFILLED WITH CRUSHED STONE WRAPPED IN FILTER FABRIC.
5. CONTRACTOR SHALL PREPARE AND SUBMIT DETAILS AND CALCULATIONS FOR PROPER BUOYANCY PROVISIONS BASED ON SITE GROUNDWATER CONDITIONS.
6. CONTRACTOR SHALL SIZE STRUCTURE AS NECESSARY TO ACCOMMODATE THE PROPOSED PIPE SIZES AND PENETRATIONS USING GEOMETRY SHOWN ON THE GRADING AND DRAINAGE PLANS AS WELL AS INFORMATION PROVIDED IN THIS DETAIL

TYPICAL SURFACE DETENTION BASIN OUTLET CONTROL STRUCTURE DETAIL

N.T.S.



DETENTION BASIN SEED MIX

DETENTION BASIN SEED MIX SHALL BE "NEW ENGLAND WETMIX" AS PREPARED BY:
NEW ENGLAND WETLAND PLANTS, INC.
820 WEST STREET
AMHERST, MA 01002
PHONE: (413) 548-8000 FAX: (413)549-4000 EMAIL: INFO@NEWP.COM

APPLICATION RATE: 18 LBS/ACRE (1 LB/2500 SF)
SOIL PREPARATION, SEEDING AND MAINTENANCE PER MANUFACTURER'S RECOMMENDATIONS.

SPECIES: Fox Sedge, (Carex vulpinoidea), Lurid Sedge, (Carex lurida), Blunt Broom Sedge, (Carex scoparia), Sensitive Fern, (Onoclea sensibilis), Blue Vervain, (Verbena hastata), Hop Sedge, (Carex lupulina), Green Bulrush, (Scirpus atrovirens), Nodding Bur Marigold, (Bidens cer-nua), Bristly Sedge, (Carex comosa), Fringed Sedge, (Carex crinita), American Mannagrass, (Glyceria grandis), Wool Grass, (Scirpus cyperinus), Soft Rush, (Juncus effusus), Spotted Joe Pye Weed, (Eupatorium maculatum), Boneset, (Eupatorium perfoliatum), Mud Plantain, (Alisma subcordatum), New England Aster, (Aster novae-angliae), Rattlesnake Grass, (Glyceria canadensis), Purplestem aster (Aster puniceus), Soft Stem Bulrush, (Scirpus validus), Blueflag (Iris versicolor), Swamp Milkweed, (Asclepias incarnata), Monkey Flower, (Mimulus ringens). The functionality of each mix will remain unchanged, although mix composition may vary during the year.

DETENTION BASIN SLOPE MIX

SLOPE MIX SHALL BE "NEW ENGLAND CONSERVATION/WILDLIFE MIX" AS PREPARED BY:
NEW ENGLAND WETLAND PLANTS, INC.
820 WEST STREET
AMHERST, MA 01002
PHONE: (413) 548-8000 FAX: (413)549-4000 EMAIL: INFO@NEWP.COM

APPLICATION RATE: 25 LBS/ACRE (1 LB/1750 SF)
SOIL PREPARATION, SEEDING AND MAINTENANCE PER MANUFACTURER'S RECOMMENDATIONS.

SPECIES: Virginia Wild Rye, (Elymus virginicus), Little Bluestem, (Schizachyrium scoparium), Big Bluestem, (Andropogon gerardi), Creeping Red Fescue, (Festuca rubra), Switch Grass, (Panicum virgatum), Partridge Pea, (Chamaecrista fasciculata), Deer Tongue, (Panicum clandestinum), Indian Grass, (Sorghastrum nutans), Ox Eye Sunflower, (Heliopsis helianthoides), Common Milkweed, (Asclepias syriaca), Spotted Joe Pye Weed, (Eupatorium maculatum), Grass Leaved Goldenrod, (Euthamia graminifolia), Blue Vervain, (Verbena hastata), New England Aster, (Aster novae-angliae), Early Goldenrod, (Solidago juncea).

BASIN #	BOTTOM OF POND ELEV.	BOTTOM OF FOREBAY ELEV.	FOREBAY SPILLWAY ELEV.
1A	231.00	1B=233.00 1C=231.00	1B=233.50 1C=232.00
2A	231.00	N/A	N/A
3A	237.00	237.00	238.00

TYPICAL DETENTION POND BASIN

N.T.S.

C:\PROGRAMDATA_BOHLER\C3D2020\NETEMP\ACPUBLISH_16532\W211060-CVL-0-DTL_-_LAYOUT C-902.DWG
ASHLEY

BOHLER

SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
ENVIRONMENTAL SERVICES
PERMITTING SERVICES
TRANSPORTATION SERVICES

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REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY

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PERMIT SET

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.:	W211060
DRAWN BY:	CSE
CHECKED BY:	NEM
DATE:	09/01/2021
CAD I.D.:	W211060-CVL-0-DTL

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

2020 ACQUISITIONS

PROPOSED
SOUTH SIDE DEVELOPMENT

MAP #38, BLOCK #1, LOT #23
148 DEPOT STREET SOUTH
TOWN OF BELLINGHAM
NORFOLK COUNTY,
MASSACHUSETTS

BOHLER
352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900
www.BohlerEngineering.com

JOSHUA KUCIEJ CIVIL No. 41530 PROFESSIONAL ENGINEER
MASSACHUSETTS LICENSE No. 41530
NEW HAMPSHIRE LICENSE No. 15476
CONNECTICUT LICENSE No. 26177
RHODE ISLAND LICENSE No. 9616
MAINE LICENSE No. 12553

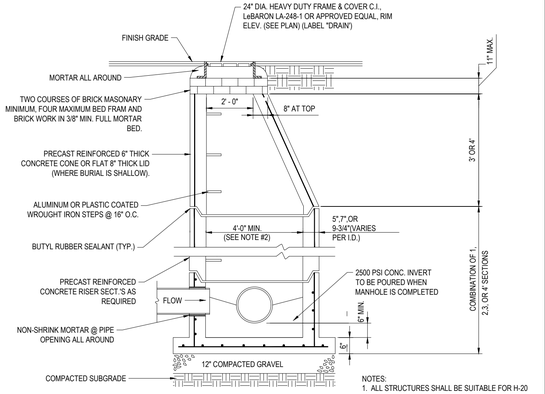
SHEET TITLE:

DETAIL SHEET

SHEET NUMBER:

C-902

ORG. DATE - 09/01/2021

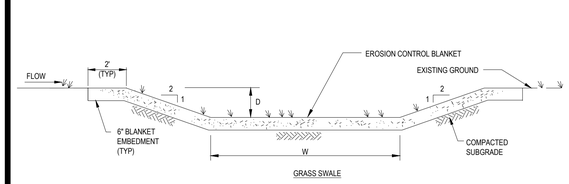


NOTES:
1. ALL STRUCTURES SHALL BE SUITABLE FOR H-20 LOADING AND SHALL MEET THE REQUIREMENTS OF ASTM C478.

2. GC SHALL SIZE STRUCTURE TO ACCOMMODATE PIPE SIZES AND PENETRATION AS SHOWN ON THE GRADING AND DRAINAGE PLAN

PRECAST CONCRETE STORM DRAIN MANHOLE

N.T.S.



GRASS SWALE

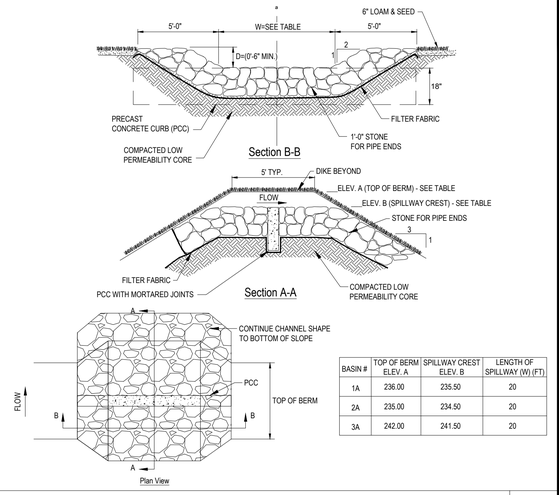
NOTE:

1. GEOTECHNICAL FABRIC TO BE INSTALLED FOR SLOPE STABILIZATION WHERE SLOPES EXCEED 4%.

2. SEED MIX FOR GRASSED SWALES SHALL CONSIST OF THE FOLLOWING:
   70% RED FESCUE
   15% PERENNIAL RYE GRASS
   15% BIRDS FOOT TREFOIL

GRASSED SWALE

N.T.S.



BASIN #	TOP OF BERM ELEV. A	SPILLWAY CREST ELEV. B	LENGTH OF SPILLWAY (W) (FT)
1A	236.00	235.50	20
2A	235.00	234.50	20
3A	242.00	241.50	20

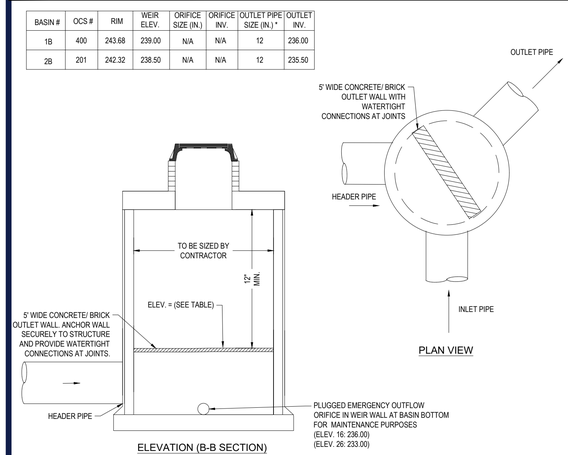
DETENTION BASIN EMERGENCY SPILLWAY

N.T.S.

NOT USED

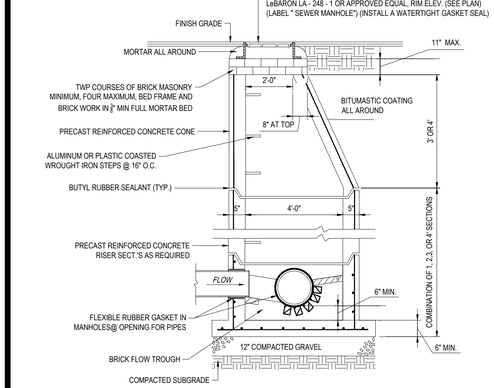
N.T.S.

BASIN #	OCS #	RIM	WEIR ELEV.	ORIFICE SIZE (IN.)	ORIFICE INV.	OUTLET PIPE SIZE (IN.) *	OUTLET INV.
1B	400	243.68	239.00	N/A	N/A	12	236.00
2B	201	242.32	238.50	N/A	N/A	12	235.50



SUBSURFACE SYSTEM OUTLET CONTROL STRUCTURE DETAIL

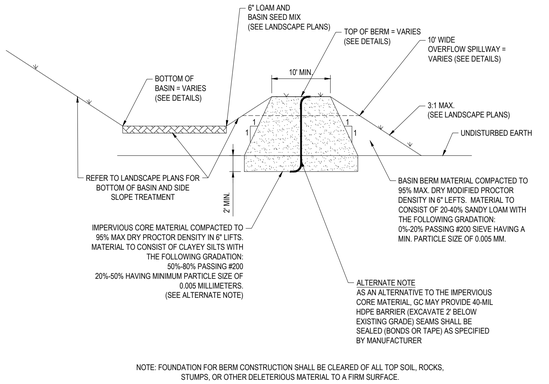
N.T.S.



NOTE: ALL STRUCTURES SHALL BE SUITABLE FOR H-20 LOADING AND SHALL MEET THE REQUIREMENTS OF ASTM C478.

TYP. PRECAST CONCRETE SANITARY MANHOLE

N.T.S.



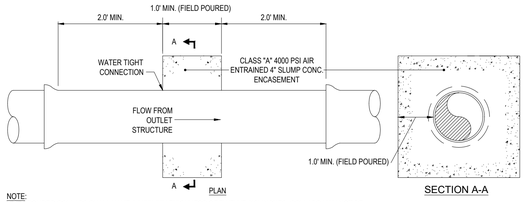
NOTE: FOUNDATION FOR BERM CONSTRUCTION SHALL BE CLEARED OF ALL TOP SOIL, ROCKS, STUMPS, OR OTHER DELETERIOUS MATERIAL TO A FIRM SURFACE.

BASIN IMPERVIOUS CORE DETAIL

N.T.S.

NOT USED

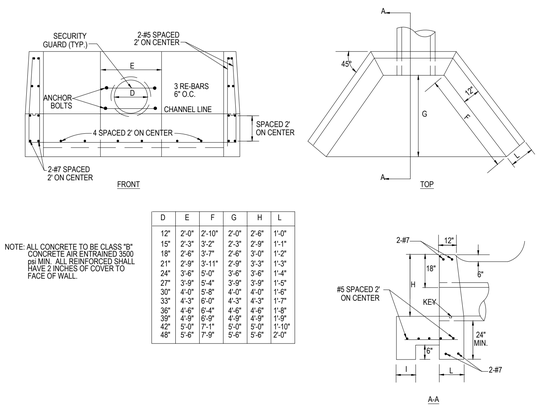
N.T.S.



NOTE:
FIELD POURED COLLARS SHALL HAVE A MINIMUM THICKNESS OF TWELVE (12) INCHES. COLLARS MAY NOT BE INSTALLED WITHIN TWO (2) FEET OF PIPE JOINTS. PRECAST COLLARS NOT ALLOWED ON CORRUGATED PIPE.

ANTI-SEEP COLLAR DETAIL

N.T.S.



NOTE: ALL CONCRETE TO BE CLASS "B" CONCRETE AIR ENTRAINED 3500 psi MIN. ALL REINFORCED SHALL HAVE 2 INCHES OF COVER TO FACE OF WALL.

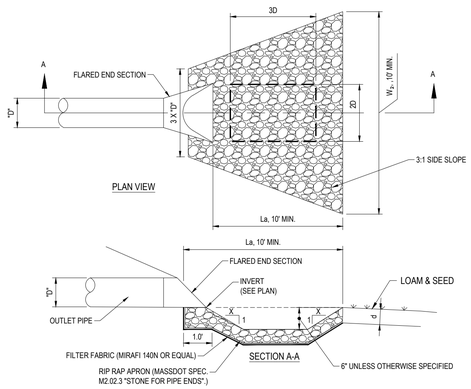
D	E	F	G	H	L
12"	2'-0"	2'-10"	2'-0"	2'-6"	1'-0"
15"	2'-3"	3'-2"	2'-3"	2'-9"	1'-1"
18"	2'-6"	3'-7"	2'-6"	3'-0"	1'-2"
21"	2'-9"	3'-11"	2'-9"	3'-3"	1'-3"
24"	3'-0"	5'-0"	3'-6"	3'-6"	1'-4"
27"	3'-9"	5'-4"	3'-9"	3'-9"	1'-5"
30"	4'-0"	5'-8"	4'-0"	4'-0"	1'-6"
33"	4'-3"	6'-0"	4'-3"	4'-3"	1'-7"
36"	4'-6"	6'-4"	4'-6"	4'-6"	1'-8"
39"	4'-9"	6'-9"	4'-9"	4'-9"	1'-9"
42"	5'-0"	7'-1"	5'-0"	5'-0"	1'-10"
48"	5'-6"	7'-9"	5'-6"	5'-6"	2'-0"

HEADWALL DETAIL

N.T.S.

RIP-RAP APRON CHART

LOCATION	D (in.)	X	La (ft.)	W_a (ft.)	d (in.)
HW-501	12	3	10	10	6
FES-101	12	3	10	10	6
HW-200	12	3	10	10	6
FES-400	12	3	10	10	6
FES-301	12	3	10	10	6



FLARED END SECTION WITH RIP RAP APRON / SCOUR HOLE DETAIL

N.T.S.

C:\PROGRAMDATA_BOHLERC\2020SNETBIP\ACPUBLISH_16532\W211060-CVL-0-DTL_----1\LAYOUT C-903-DETL.DWG

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REV	DATE	COMMENT	DRAWN BY / CHECKED BY

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PROJECT No.: W211060
DRAWN BY: CSE
CHECKED BY: NEM
DATE: 09/01/2021
CAD I.D.: W211060-CVL-0-DTL

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

2020 ACQUISITIONS

PROPOSED
SOUTH SIDE DEVELOPMENT

MAP #38, BLOCK #1, LOT #23
148 DEPOT STREET SOUTH
TOWN OF BELLINGHAM
NORFOLK COUNTY,
MASSACHUSETTS

BOHLER
352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900
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NEW HAMPSHIRE LICENSE No. 15476
CONNECTICUT LICENSE No. 26177
RHODE ISLAND LICENSE No. 26616
MAINE LICENSE No. 12553

SHEET TITLE:

DETAIL SHEET

SHEET NUMBER:

C-903

ORG. DATE - 09/01/2021

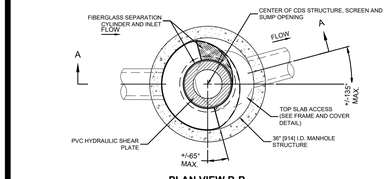
NTS

CONTECH CDS1515-3-C INLINE CDS STANDARD DETAIL

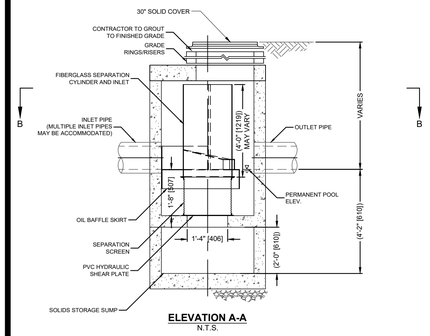
NTS

CDS1515-3-C DESIGN NOTES

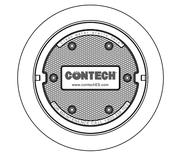
CD1515-3-C RATED TREATMENT CAPACITY IS 1.0 CFS, OR PER LOCAL REGULATIONS
THE STANDARD CDS-1515-3-C IS SHOWN



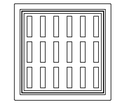
PLAN VIEW B-B
N.T.S.



ELEVATION A-A
N.T.S.



FRAME AND COVER
(DIAMETER VARIES)
N.T.S.



FRAME AND GRATE
(24" SQUARE)
N.T.S.

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID			-
WATER QUALITY FLOW RATE (CFS OR L/s)			-
PEAK FLOW RATE (CFS OR L/s)			-
RETURN PERIOD OF PEAK FLOW (YRS)			-
SCREEN APERTURE (2400 OR 4700)			-
PIPE DATA:	I.E.	MATERIAL	DIAMETER
-	-	-	-
-	-	-	-
RIM ELEVATION			-
ANTI-FLOTATION BALLAST		WIDTH	HEIGHT
		N/A	N/A
NOTES/SPECIAL REQUIREMENTS:			

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STURCUTRE DIMENSIONS AND WEIGHT. PLEASE CONTAC TYOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
3. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
4. STRUCTURE SHALL MEET AASHTO HS20 AND CASTINGS SHALL MEET HS20 (AASHTO M 306) LOAD RATING, ASSUMING EARTH COVER OF 0'-0" AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO
5. IF REQUIRED, PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.
6. CDS STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.
7. ANTI FLOTATION IS NOT REQUIRED PER MANUFACTURER. CONTRACTOR TO CONFIRM WITH MANUFACTURER PRIOR TO ORDERING OF MATERIALS.

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE
C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET AND OUTLET PIPE(S). MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

NTS

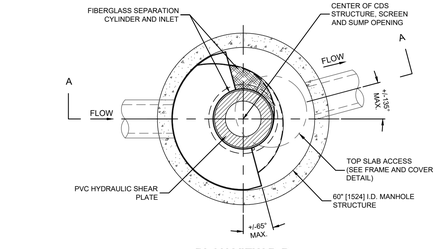
CONTECH 2020 STANDARD WATER QUALITY UNIT DETAIL

NTS

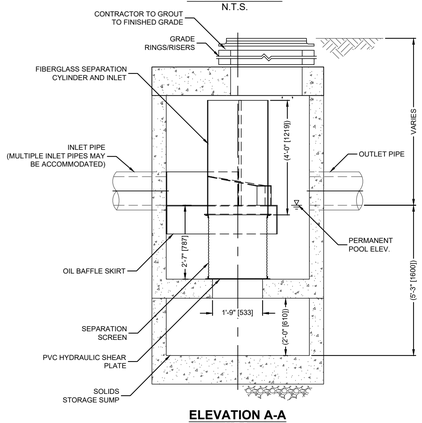
CDS2020-5-C DESIGN NOTES

THE STANDARD CDS2020-5-C CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.

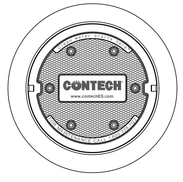
CONFIGURATION DESCRIPTION
GRATED INLET ONLY (NO INLET PIPE)
GRATED INLET WITH INLET PIPE OR PIPES
CURB INLET ONLY (NO INLET PIPE)
CURB INLET WITH INLET PIPE OR PIPES
SEPARATE OIL BAFFLE (SINGLE INLET PIPE REQUIRED FOR THIS CONFIGURATION)
SEDIMENT WEIR FOR NJDEP / NJCAT CONFORMING UNITS



PLAN VIEW B-B
N.T.S.



ELEVATION A-A
N.T.S.



SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID			
WATER QUALITY FLOW RATE (CFS OR L/s)			*
PEAK FLOW RATE (CFS OR L/s)			*
RETURN PERIOD OF PEAK FLOW (YRS)			*
SCREEN APERTURE (2400 OR 4700)			*
PIPE DATA:	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	*	*	*
INLET PIPE 2	*	*	*
OUTLET PIPE	*	*	*
RIM ELEVATION			*
ANTI-FLOTATION BALLAST		WIDTH	HEIGHT
		*	*
NOTES/SPECIAL REQUIREMENTS:			

* PER ENGINEER OF RECORD

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
3. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE www.contechES.com
4. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
5. STRUCTURE SHALL MEET AASHTO HS20 AND CASTINGS SHALL MEET HS20 (AASHTO M 306) LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION.
6. PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
C. CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

NTS

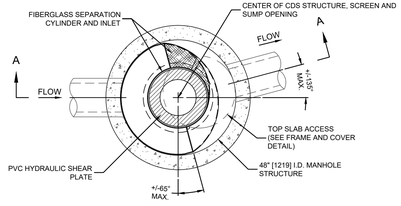
CONTECH 2015-4 STANDARD WATER QUALITY UNIT DETAIL

NTS

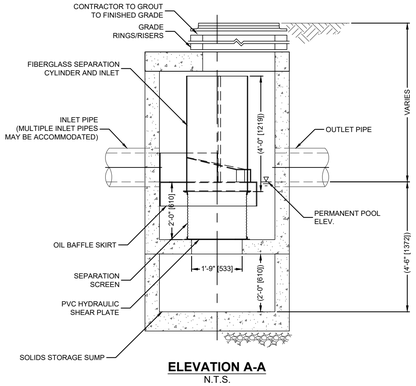
CDS2015-4-C DESIGN NOTES

THE STANDARD CDS2015-4-C CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.

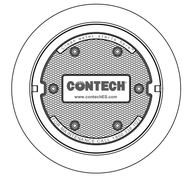
CONFIGURATION DESCRIPTION
GRATED INLET ONLY (NO INLET PIPE)
GRATED INLET WITH INLET PIPE OR PIPES
CURB INLET ONLY (NO INLET PIPE)
CURB INLET WITH INLET PIPE OR PIPES
SEPARATE OIL BAFFLE (SINGLE INLET PIPE REQUIRED FOR THIS CONFIGURATION)
SEDIMENT WEIR FOR NJDEP / NJCAT CONFORMING UNITS



PLAN VIEW B-B
N.T.S.



ELEVATION A-A
N.T.S.



SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID			
WATER QUALITY FLOW RATE (CFS OR L/s)			*
PEAK FLOW RATE (CFS OR L/s)			*
RETURN PERIOD OF PEAK FLOW (YRS)			*
SCREEN APERTURE (2400 OR 4700)			*
PIPE DATA:	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	*	*	*
INLET PIPE 2	*	*	*
OUTLET PIPE	*	*	*
RIM ELEVATION			*
ANTI-FLOTATION BALLAST		WIDTH	HEIGHT
		*	*
NOTES/SPECIAL REQUIREMENTS:			

* PER ENGINEER OF RECORD

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
3. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.contechES.com
4. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
5. STRUCTURE SHALL MEET AASHTO HS20 AND CASTINGS SHALL MEET HS20 (AASHTO M 306) LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION.
6. PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
C. CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

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SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES
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PROJECT No.:	W211060
DRAWN BY:	CSE
CHECKED BY:	NEM
DATE:	09/01/2021
CAD I.D.:	W211060-CVL-0-DTL

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

2020 ACQUISITIONS

PROPOSED
SOUTH SIDE DEVELOPMENT

MAP #38, BLOCK #1, LOT #23
148 DEPOT STREET SOUTH
TOWN OF BELLINGHAM
NORFOLK COUNTY,
MASSACHUSETTS

BOHLER
352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900
www.BohlerEngineering.com

JOHN A. KUCICH — COMMONWEALTH OF MASSACHUSETTS — No. 41539 — PROFESSIONAL ENGINEER
MASSACHUSETTS LICENSE No. 41539
NEW HAMPSHIRE LICENSE No. 15476
CONNECTICUT LICENSE No. 26177
RHODE ISLAND LICENSE No. 9616
MAINE LICENSE No. 12553

SHEET TITLE:

DETAIL SHEET

SHEET NUMBER:

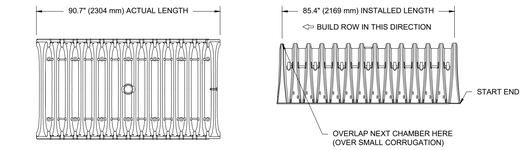
C-904

ORG. DATE - 09/01/2021

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SC-740 TECHNICAL SPECIFICATION

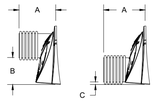
NTS



NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	51.0" X 30.0" X 85.4"	(1295 mm X 762 mm X 2169 mm)
CHAMBER STORAGE	45.9 CUBIC FEET	(1.30 m³)
MINIMUM INSTALLED STORAGE*	74.9 CUBIC FEET	(2.12 m³)
WEIGHT	75.0 lbs.	(33.6 kg)

*ASSUMES 6" (152 mm) STONE ABOVE, BELOW, AND BETWEEN CHAMBERS



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

PART #	STUB	A	B	C
SC740EPE06T / SC740EPE06TPC	6" (150 mm)	10.9" (277 mm)	18.5" (470 mm)	---
SC740EPE06B / SC740EPE06BPC			---	0.5" (13 mm)
SC740EPE08T /SC740EPE08TPC	8" (200 mm)	12.2" (310 mm)	16.5" (419 mm)	---
SC740EPE08B / SC740EPE08BPC			---	0.6" (15 mm)
SC740EPE10T / SC740EPE10TPC	10" (250 mm)	13.4" (340 mm)	14.5" (368 mm)	---
SC740EPE10B / SC740EPE10BPC			---	0.7" (18 mm)
SC740EPE12T / SC740EPE12TPC	12" (300 mm)	14.7" (373 mm)	12.5" (318 mm)	---
SC740EPE12B / SC740EPE12BPC			---	1.2" (30 mm)
SC740EPE15T / SC740EPE15TPC	15" (375 mm)	18.4" (467 mm)	9.0" (229 mm)	---
SC740EPE15B / SC740EPE15BPC			---	1.3" (33 mm)
SC740EPE18T / SC740EPE18TPC	18" (450 mm)	19.7" (500 mm)	5.0" (127 mm)	---
SC740EPE18B / SC740EPE18BPC			---	1.6" (41 mm)
SC740EPE24B*	24" (600 mm)	18.5" (470 mm)	---	0.1" (3 mm)
SC740EPE24B*	24" (600 mm)	18.5" (470 mm)	---	0.1" (3 mm)

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

* FOR THE SC740EPE24B THE 24" (600 mm) STUB LIES BELOW THE BOTTOM OF THE END CAP APPROXIMATELY 1.75" (44 mm). BACKFILL MATERIAL SHOULD BE REMOVED FROM BELOW THE N-12 STUB SO THAT THE FITTING SITS LEVEL.

NOTE: ALL DIMENSIONS ARE NOMINAL

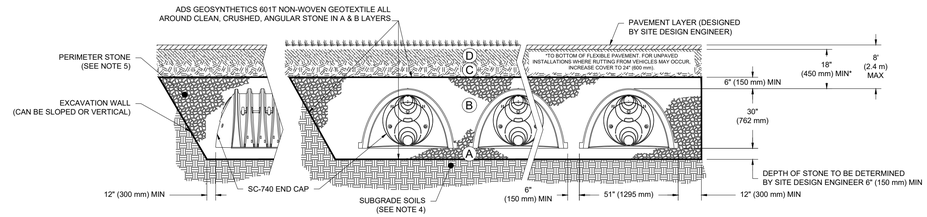
STORMTECH SC-740 TECHNICAL SPECIFICATION

N.T.S.

ACCEPTABLE FILL MATERIALS: STORMTECH SC-740 CHAMBER SYSTEMS

	MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	**FINAL FILL:** FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145[1] A-1, A-2-4, A-3 OR AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE.[2,3]

PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (150 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.



NOTES:

1. SC-740 CHAMBERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F2418 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS", OR ASTM F2922 "STANDARD SPECIFICATION FOR POLYETHYLENE (PE) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
2. SC-740 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. "ACCEPTABLE FILL MATERIALS" TABLE ABOVE PROVIDES MATERIAL LOCATIONS, DESCRIPTIONS, GRADATIONS, AND COMPACTION REQUIREMENTS FOR FOUNDATION, EMBEDMENT, AND FILL MATERIALS.
4. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
5. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
6. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.

STORMTECH SC-740 STANDARD CROSS SECTION

N.T.S.

INSPECTION & MAINTENANCE

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

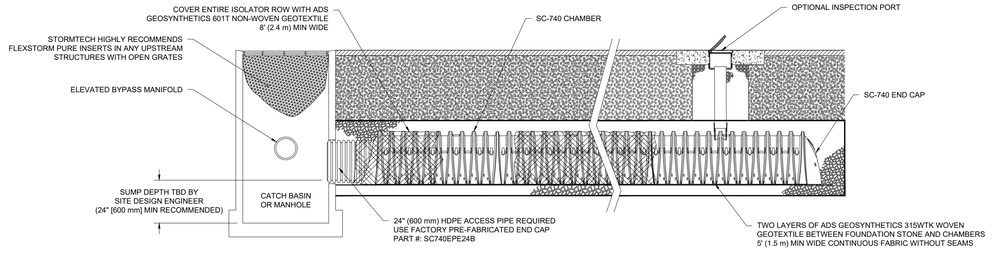
STEP 2) CLEAN OUT ISOLATOR ROW USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45° (1.1 m) OR MORE IS PREFERRED
- B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- C. VACUUM STRUCTURE SUMP AS REQUIRED

STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.

STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

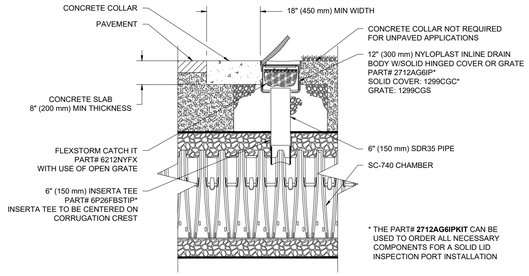
NOTES

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



STORMTECH SC-740 ISOLATOR ROW DETAIL

N.T.S.



* THE PART# **2712AG6IPKIT** CAN BE USED TO ORDER ALL NECESSARY COMPONENTS FOR A SOLID LID INSPECTION PORT INSTALLATION

STORMTECH SC--740 6" INSPECTION PORT DETAIL

N.T.S.

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PROJECT No.:	W211060
DRAWN BY:	CSE
CHECKED BY:	NEM
DATE:	09/01/2021
CAD I.D.:	W211060-CVL-0-DTL

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

2020 ACQUISITIONS

PROPOSED
SOUTH SIDE DEVELOPMENT

MAP #38, BLOCK #1, LOT #23
148 DEPOT STREET SOUTH
TOWN OF BELLINGHAM
NORFOLK COUNTY,
MASSACHUSETTS

BOHLER
352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
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COMMONWEALTH OF MASSACHUSETTS
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NEW HAMPSHIRE LICENSE No. 15476
CONNECTICUT LICENSE No. 26177
RHODE ISLAND LICENSE No. 26616
MAINE LICENSE No. 12553

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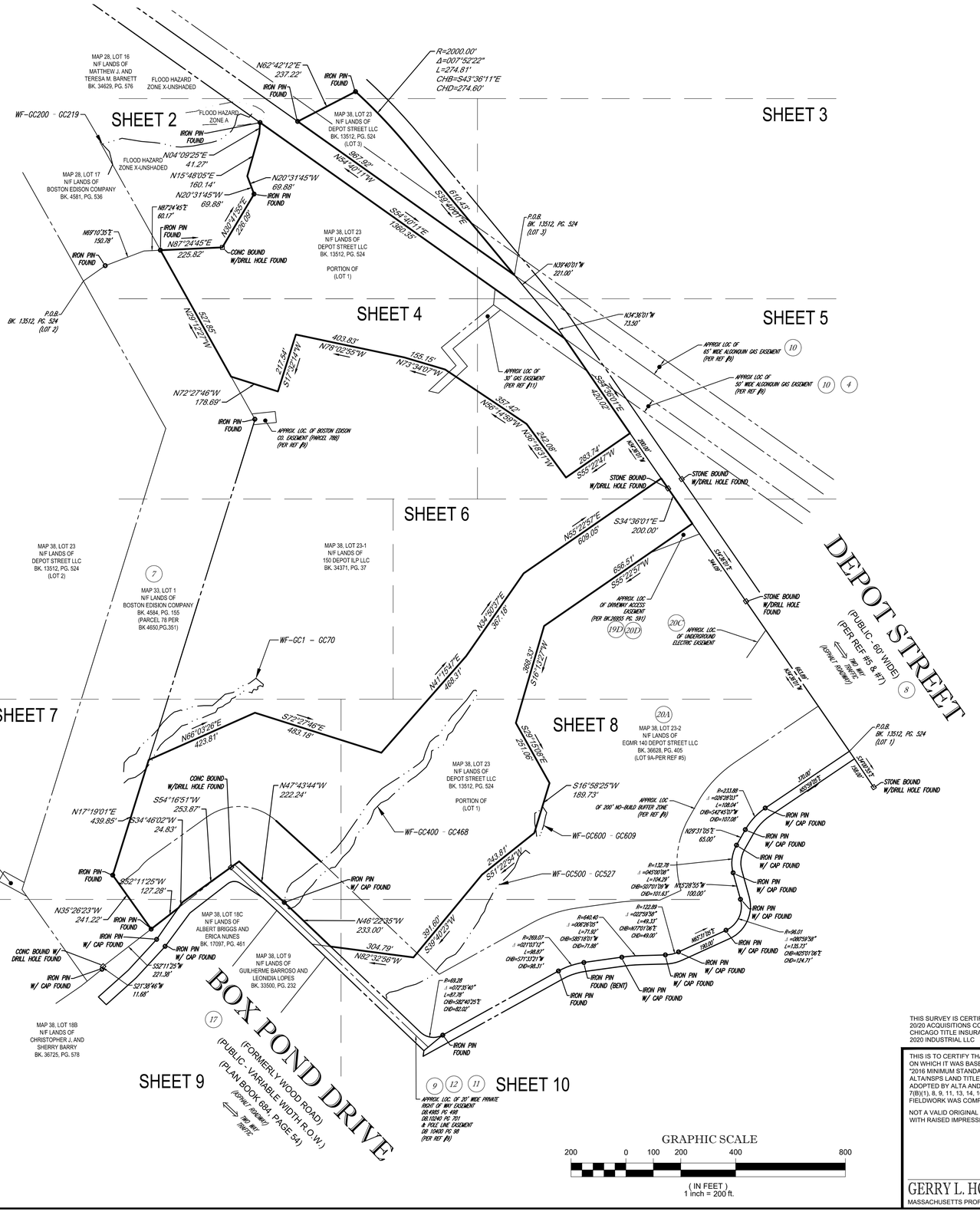
DETAIL SHEET

SHEET NUMBER:

C-905

ORG. DATE - 09/01/2021

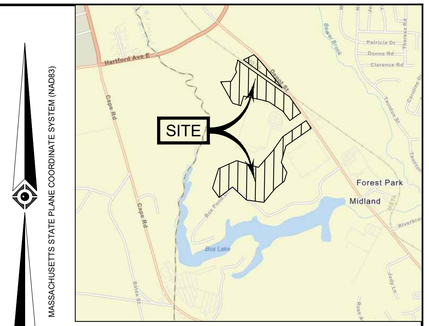
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GRAPHIC SCALE

200 0 100 200 400 800

(IN FEET)
1 inch = 200 ft.



LOCUS MAP
©2013 ESRI WORLD STREET MAPS
NOT TO SCALE

NOTES:

1. PROPERTY KNOWN AS LOT 23 AS SHOWN ON THE TOWN OF BELLINGHAM, NORFOLK COUNTY, COMMONWEALTH OF MASSACHUSETTS; MAP NO. 38.
2. AREA = 2,099,891 SQUARE FEET OR 48.207 ACRES
3. LOCATION OF UNDERGROUND UTILITIES ARE APPROXIMATE. LOCATIONS AND SIZES ARE BASED ON UTILITY MARK-OUTS, ABOVE GROUND STRUCTURES THAT WERE VISIBLE & ACCESSIBLE IN THE FIELD, AND THE MAPS AS LISTED IN THE REFERENCES AVAILABLE AT THE TIME OF THE SURVEY. AVAILABLE AS-BUILT PLANS AND UTILITY MARKOUT DOES NOT ENSURE MAPPING OF ALL UNDERGROUND UTILITIES AND STRUCTURES. BEFORE ANY EXCAVATION IS TO BEGIN, ALL UNDERGROUND UTILITIES SHOULD BE VERIFIED AS TO THEIR LOCATION, SIZE AND TYPE BY THE PROPER UTILITY COMPANIES. CONTROL POINT ASSOCIATES, INC. DOES NOT GUARANTEE THE UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA EITHER IN SERVICE OR ABANDONED.
4. THIS PLAN IS BASED ON INFORMATION PROVIDED BY A SURVEY PREPARED IN THE FIELD BY CONTROL POINT ASSOCIATES, INC. AND OTHER REFERENCE MATERIAL AS LISTED HEREON.
5. THIS SURVEY WAS PREPARED WITH REFERENCE TO A TITLE REPORT PREPARED BY CHICAGO TITLE INSURANCE COMPANY, HAVING A COMMITMENT NO. RAMA-43007, WITH AN EFFECTIVE DATE OF APRIL 5, 2021, WHERE THE FOLLOWING SURVEY RELATED EXCEPTIONS APPEAR IN SCHEDULE B - SECTION 2:

   GENERAL EXCEPTIONS 1 THRU - ARE NOT SURVEY RELATED AND HAVE NOT BEEN COMMENTED ON AS A PART OF THIS SURVEY.
6. BY GRAPHIC PLOTTING ONLY PROPERTY IS LOCATED IN FLOOD HAZARD ZONE X UNSHADED (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) PER REF. #2
7. ELEVATIONS REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), BASED ON GPS OBSERVATIONS UTILIZING THE KEYSTONE VRS NETWORK (KEYNETGPS) TAKEN AT THE TIME OF THE FIELD SURVEY.

   TEMPORARY BENCH MARKS SET:
   TBM-A: MAG NAIL SET IN ASPHALT PAVEMENT ON NORTHEASTERLY SIDE OF DEPOT STREET. ELEVATION = 253.20'

   TBM-B: MAG NAIL SET IN ASPHALT PAVEMENT ON NORTHEASTERLY SIDE OF DEPOT STREET. ELEVATION = 255.47'

   PRIOR TO CONSTRUCTION IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THAT THE BENCHMARKS ILLUSTRATED ON THIS SKETCH HAVE NOT BEEN DISTURBED AND THEIR ELEVATIONS HAVE BEEN CONFIRMED. ANY CONFLICTS MUST BE REPORTED PRIOR TO CONSTRUCTION.
8. THE OFFSETS SHOWN ARE NOT TO BE USED FOR THE CONSTRUCTION OF ANY STRUCTURE, FENCE, PERMANENT ADDITION, ETC.
9. NO PARKING SPACES WERE OBSERVED ON PROPERTY.
10. NO BUILDINGS OR STRUCTURES OBSERVED IN TOPOGRAPHIC AREA AT THE TIME OF SURVEY.
11. THE CURRENT ZONING CLASSIFICATION, ITEM 6(A), WAS NOT PROVIDED BY THE INSURER AS REQUIRED BY THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS.
12. CHANGES IN STREET RIGHT OF WAY LINES EITHER COMPLETED OR PROPOSED REVEALED IN THE TITLE REPORT AND REFERENCED MAPS HAVE BEEN SHOWN.
13. THERE IS NO OBSERVABLE EVIDENCE OF EARTH MOVING WORK, BUILDING CONSTRUCTION OR BUILDING ADDITIONS WITHIN RECENT MONTHS.

REFERENCES:

1. THE TAX ASSESSOR'S MAP OF BELLINGHAM, NORFOLK COUNTY, MAP 38.
2. MAPS ENTITLED "NATIONAL FLOOD INSURANCE PROGRAM, FIRM, FLOOD INSURANCE RATE MAP, NORFOLK COUNTY, MASSACHUSETTS (ALL JURISDICTIONS), PANELS 301 AND 303 OF 430," COMMUNITY-PANEL NUMBER 250232 0301 AND 0303 E, EFFECTIVE DATE: JULY 17, 2012.
3. MAP ENTITLED "BOX POND ROAD LAYOUT PLAN", PREPARED BY NORFOLK COUNTY ENGINEERING DEPARTMENT, DATED APRIL 12, 2019 AND RECORDED IN THE NORFOLK COUNTY REGISTRY OF DEEDS AS PLAN BOOK 684, PAGE 54.
4. MAP ENTITLED "PLAN AND PROFILE SHOWING RELOCATION OF DEPOT STREET, BELLINGHAM", PREPARED BY CHARLES C. CAIN, COUNTY ENGINEER, DATED JULY 20, 1917 AND RECORDED IN THE NORFOLK COUNTY REGISTRY OF DEEDS AS PLAN BOOK 229, PAGE 625.
5. MAP ENTITLED "PLAN OF LAND IN BELLINGHAM, MA", PREPARED BY GUERRIERE & HALNON, INC., DATED JUNE 5, 2008 AND RECORDED IN THE NORFOLK COUNTY REGISTRY OF DEEDS AS PLAN BOOK 587, PAGE 29.
6. MAP ENTITLED "PLAN OF LAND CLAIMED BY VARNEY BROTHERS SAND & GRAVEL CO., INC", GUERRIERE & HALNON, INC., DATED JULY 16, 1998 AND RECORDED IN THE NORFOLK COUNTY REGISTRY OF DEEDS AS PLAN BOOK 458, PAGE 524.
7. MAP ENTITLED "PLAN OF LAND IN THE TOWN OF BELLINGHAM, NORFOLK COUNTY, MASSACHUSETTS," PREPARED BY GUERRIERE & HALNON, INC., DATED JUNE 4, 2004. RECORDED WITH THE NORFOLK COUNTY REGISTRY OF DEEDS AS PLAN 59 OF 2004.
8. UNDERGROUND GAS FACILITY MAPPING PROVIDED BY EVERSOURCE GAS.
9. MAP ENTITLED "PLAN OF LAND IN THE TOWN OF BELLINGHAM, NORFOLK COUNTY, MASSACHUSETTS," PREPARED BY GUERRIERE & HALNON, INC., DATED JUNE 4, 2004. RECORDED WITH THE NORFOLK COUNTY REGISTRY OF DEEDS AS PLAN BOOK 526, PAGE 59.
10. MAP ENTITLED "DEFINITIVE PLAN OF LAND DEPOT INDUSTRIAL PARK IN THE TOWN OF BELLINGHAM, NORFOLK COUNTY, MASSACHUSETTS," PLAN PREPARED BY GUERRIERE & HALNON, INC, DATED FEBRUARY 22,1999, RECORDED IN THE NORFOLK COUNTY REGISTRY OF DEEDS IN PLAN BOOK 471, PAGE 869.

No.	DESCRIPTION OF REVISION	FIELD CREW	DRAWN:	APPROVED:	DATE
3	UPDATED PER ADDITIONAL WETLAND FLAGS & GAS MARKERS	J.D.O.	R.J.K.	G.L.H.	8-20-2021
2	REVISED TREE LINE & ADDED GAS EASEMENT	-	ELOC	G.L.H.	7-29-2021
1	GAS MARKERS ADDED	-	R.J.K.	G.L.H.	7-15-2021

THIS SURVEY IS CERTIFIED TO:
20/20 ACQUISITIONS CORP
CHICAGO TITLE INSURANCE COMPANY
2020 INDUSTRIAL LLC

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COMMONWEALTH OF MASSACHUSETTS
GERRY L. HOLDRIGHT
NO. 49211
REGISTERED
PROFESSIONAL LAND SURVEYOR

8-20-2021
DATE

GERRY L. HOLDRIGHT, PLS
MASSACHUSETTS PROFESSIONAL LAND SURVEYOR #49211

FIELD DATE	5-2-2021 5-17-2021
FIELD BOOK NO.	21-4 MA 21-3 MA
FIELD BOOK PG.	21 47-57, 77
FIELD CREW	J.S.A. J.D.O.
DRAWN:	B.A.L.

ALTA/NSPS LAND TITLE SURVEY
20/20 ACQUISITIONS CORP
0 DEPOT STREET
LOT 23, BLOCK 1, MAP 38
TOWN BELLINGHAM, NORFOLK COUNTY
COMMONWEALTH OF MASSACHUSETTS

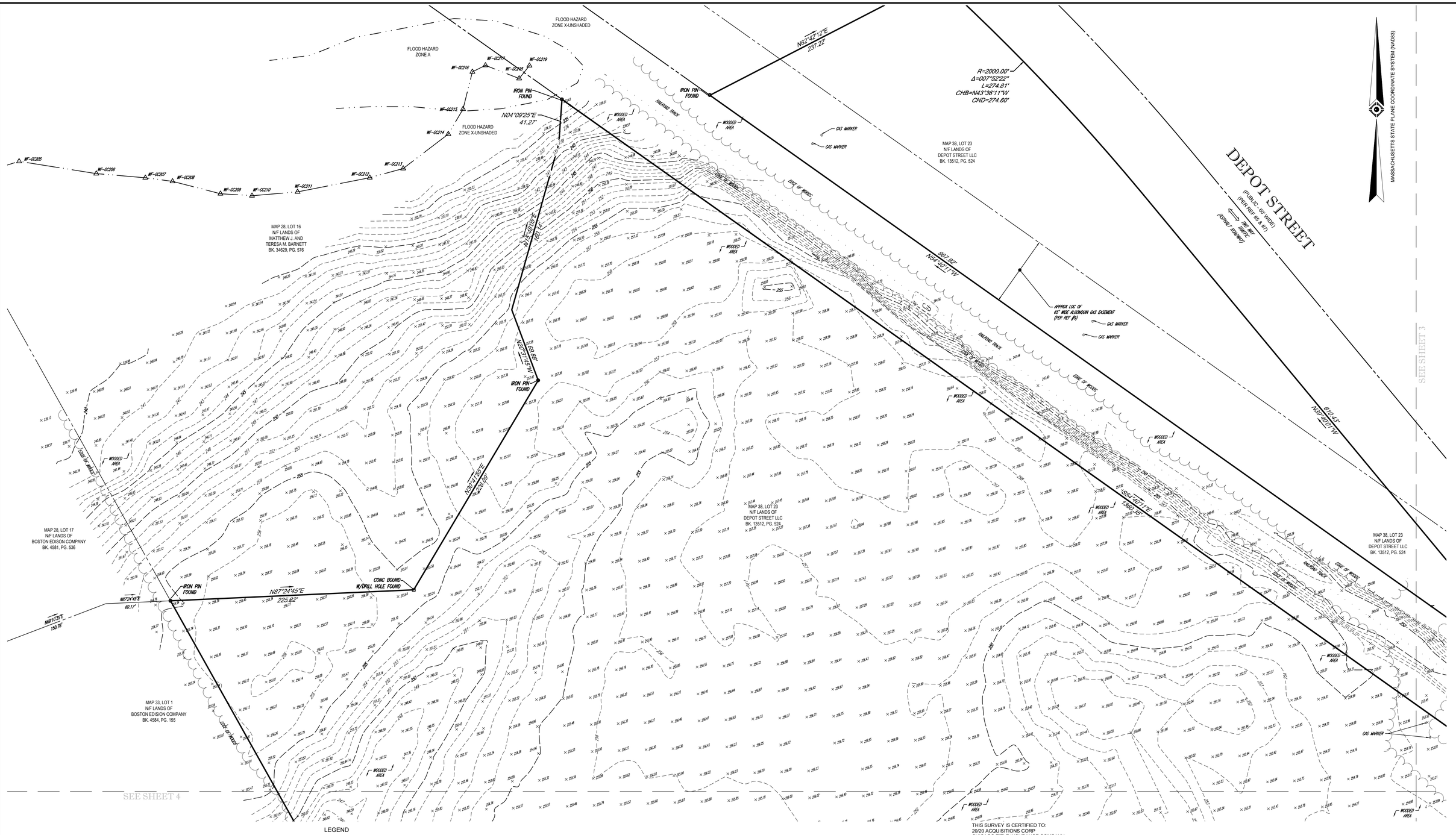
CONTROL POINT ASSOCIATES, INC.
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CHALFONT, PA 215-712-0800
HAUPPAUGE, NY 631-580-2645
MANHATTAN, NY 646-780-0411
MT LAUREL, NJ 609-857-2099
WARREN, NJ 908-668-0099
352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
508.948.3000 - 508.948.3003 FAX

REVIEWED:	APPROVED:	DATE	SCALE	FILE NO.	DWG. NO.
G.L.H.	G.L.H.	6-7-2021	1"=200'	03-210031	1 OF 11

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LEGEND

124	EXISTING CONTOUR	UP	UTILITY POLE
125		UPLP	UTILITY POLE/LIGHT POLE
× 123.45	EXISTING SPOT ELEVATION	GW	GUY WIRE
× TC 123.45	EXISTING TOP OF CURB ELEVATION		STREET LIGHT
× G 122.95	EXISTING GUTTER ELEVATION	MW	MONITORING WELL
	HYDRANT		AREA LIGHT
WV	WATER VALVE		SIGN
VALVE	UNKNOWN VALVE		METAL GUIDE RAIL
GV	GAS VALVE	P	POST
OH	OVERHEAD WIRES	CLF	CHAIN LINK FENCE
G	APPROX. LOC. UNDERGROUND GAS LINE	EOC	EDGE OF CONCRETE
EOP	EDGE OF PAVEMENT		
LSA	LANDSCAPED AREA		

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

No.	DESCRIPTION OF REVISION	FIELD CREW	DRAWN:	APPROVED:	DATE
3	UPDATED PER ADDITIONAL WETLAND FLAGS & GAS MARKERS	J.D.O.	R.J.K.	G.L.H.	8-20-2021
2	REVISED TREE LINE & ADDED GAS EASEMENT	-	ELOC	G.L.H.	7-29-2021
1	GAS MARKERS ADDED	-	R.J.K.	G.L.H.	7-15-2021

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CHICAGO TITLE INSURANCE COMPANY
20/20 INDUSTRIAL LLC

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COMMONWEALTH OF MASSACHUSETTS GERRY L. HOLDRIGHT NO. 49211 REGISTERED PROFESSIONAL LAND SURVEYOR

8-20-2021
DATE

GERRY L. HOLDRIGHT, PLS
MASSACHUSETTS PROFESSIONAL LAND SURVEYOR #49211

FIELD DATE	5-2-2021 5-17-2021
FIELD BOOK NO.	21-4 MA 21-3 MA
FIELD BOOK PG.	21 47-57, 77
FIELD CREW	J.S.A. J.D.O.
DRAWN:	B.A.L.
REVIEWED:	G.L.H.

ALTA/NSPS LAND TITLE SURVEY

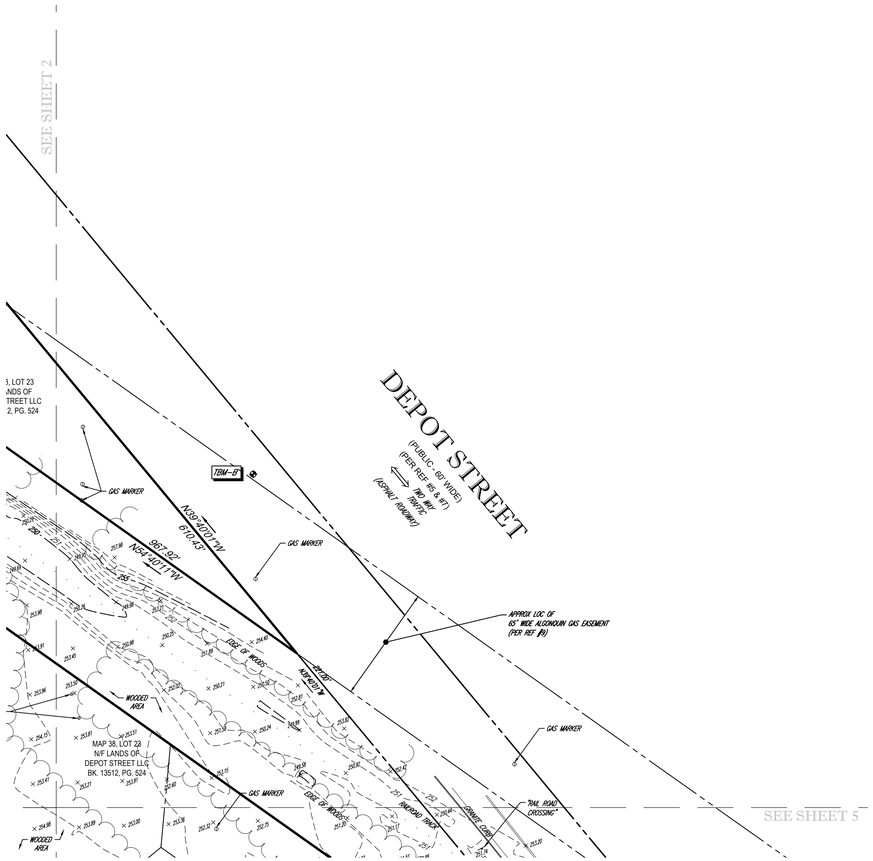
20/20 ACQUISITIONS CORP

0 DEPOT STREET
LOT 23, BLOCK 1, MAP 38
TOWN BELLINGHAM, NORFOLK COUNTY
COMMONWEALTH OF MASSACHUSETTS

CONTROL POINT ASSOCIATES, INC.
352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
508.948.3000 - 508.948.3003 FAX

ALBANY, NY 518-217-5010
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MANHATTAN, NY 646-780-0411
MT LAUREL, NJ 609-857-2099
WARREN, NJ 908-668-0099

APPROVED:	DATE	SCALE	FILE NO.	DWG. NO.
G.L.H.	6-7-2021	1" = 40'	03-210031	2 OF 11



LEGEND

124	EXISTING CONTOUR	UP	UTILITY POLE
125	EXISTING SPOT ELEVATION	UPLP	UTILITY POLE/LIGHT POLE
× 123.45	EXISTING TOP OF CURB ELEVATION	GW	GUY WIRE
× TC 123.45	EXISTING GUTTER ELEVATION		STREET LIGHT
× G 122.95	HYDRANT	MW	MONITORING WELL
WV	WATER VALVE		AREA LIGHT
VALVE	UNKNOWN VALVE		SIGN
GV	GAS VALVE		METAL GUIDE RAIL
OH	OVERHEAD WIRES	P○	POST
G	APPROX. LOC. UNDERGROUND GAS LINE	CLF	CHAIN LINK FENCE
EOP	EDGE OF PAVEMENT	EOC	EDGE OF CONCRETE
LSA	LANDSCAPED AREA		

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

MASSACHUSETTS STATE PLANE COORDINATE SYSTEM (NAD83)

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COMMONWEALTH OF MASSACHUSETTS
GERRY L. HOLDRIGHT
NO. 49211
REGISTERED PROFESSIONAL LAND SURVEYOR

8-20-2021
DATE

GERRY L. HOLDRIGHT, PLS
MASSACHUSETTS PROFESSIONAL LAND SURVEYOR #49211

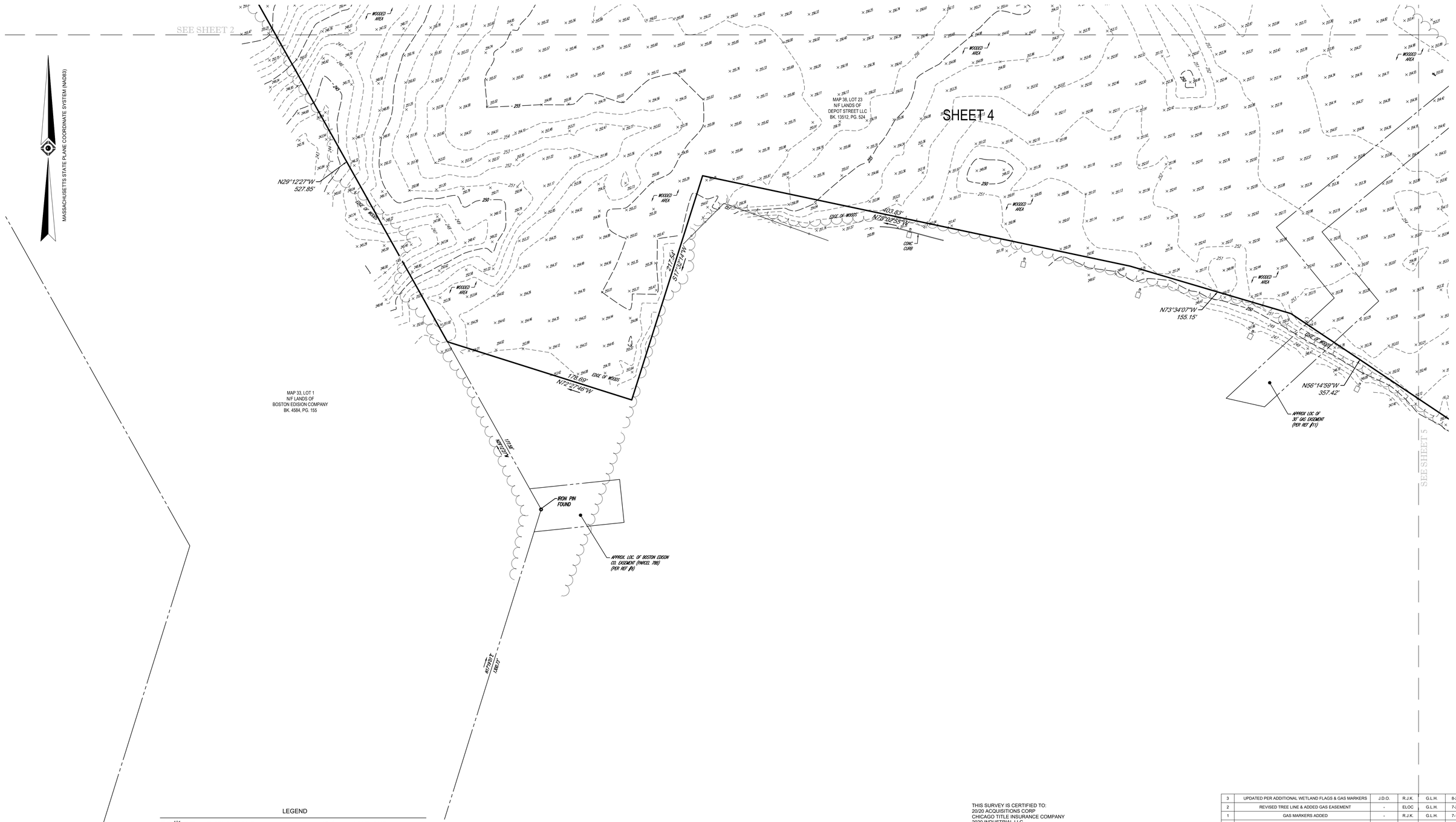
No.	DESCRIPTION OF REVISION	FIELD CREW	DRAWN:	APPROVED:	DATE
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1	GAS MARKERS ADDED	-	R.J.K.	G.L.H.	7-15-2021

FIELD DATE 5-2-2021 5-17-2021
FIELD BOOK NO. 21-4 MA 21-3 MA
FIELD BOOK PG. 21 47-57, 77
FIELD CREW J.S.A. J.D.O.
DRAWN: B.A.L.

ALTA/NSPS LAND TITLE SURVEY
20/20 AQUISITIONS CORP
0 DEPOT STREET
LOT 23, BLOCK 1, MAP 38
TOWN BELLINGHAM, NORFOLK COUNTY
COMMONWEALTH OF MASSACHUSETTS

CONTROL POINT ASSOCIATES, INC.
352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
508.948.3000 - 508.948.3003 FAX
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WARREN, NJ 908-668-0099

REVIEWED:	APPROVED:	DATE	SCALE	FILE NO.	DWG. NO.
G.L.H.	G.L.H.	6-7-2021	1" = 40'	03-210031	3 OF 11



LEGEND

— 124 —	EXISTING CONTOUR	UP	UTILITY POLE
— 125 —		UPLP	UTILITY POLE/LIGHT POLE
× 123.45	EXISTING SPOT ELEVATION	GW	GUY WIRE
× TC 123.45	EXISTING TOP OF CURB ELEVATION		STREET LIGHT
× G 122.95	EXISTING GUTTER ELEVATION	MW	MONITORING WELL
	HYDRANT		AREA LIGHT
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VALVE	UNKNOWN VALVE		METAL GUIDE RAIL
GV	GAS VALVE		POST
— OH —	OVERHEAD WIRES	CLF	CHAIN LINK FENCE
— G —	APPROX. LOC. UNDERGROUND GAS LINE	EOC	EDGE OF CONCRETE
EOP	EDGE OF PAVEMENT		
LSA	LANDSCAPED AREA		

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

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COMMONWEALTH OF MASSACHUSETTS
GERRY L. HOLDRIGHT
NO. 49211
REGISTERED PROFESSIONAL LAND SURVEYOR

8-20-2021
DATE

GERRY L. HOLDRIGHT, PLS
MASSACHUSETTS PROFESSIONAL LAND SURVEYOR #49211

No.	DESCRIPTION OF REVISION	FIELD CREW	DRAWN	APPROVED	DATE
3	UPDATED PER ADDITIONAL WETLAND FLAGS & GAS MARKERS	J.D.O.	R.J.K.	G.L.H.	8-20-2021
2	REVISED TREE LINE & ADDED GAS EASEMENT	-	ELOC	G.L.H.	7-29-2021
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FIELD DATE
5-2-2021
5-17-2021

FIELD BOOK NO.
21-4 MA
21-3 MA

FIELD BOOK PG.
21
47-57, 77

FIELD CREW
J.S.A.
J.D.O.

DRAWN:
B.A.L.

REVIEWED:
G.L.H.

ALTA/NSPS LAND TITLE SURVEY
20/20 AQUISITIONS CORP
0 DEPOT STREET
LOT 23, BLOCK 1, MAP 38
TOWN BELLINGHAM, NORFOLK COUNTY
COMMONWEALTH OF MASSACHUSETTS

CONTROL POINT ASSOCIATES, INC.
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APPROVED:	DATE	SCALE	FILE NO.	DWG. NO.
G.L.H.	6-7-2021	1" = 40'	03-210031	4 OF 11

SEE SHEET 3

SEE SHEET 4

SEE SHEET 6

LEGEND

124 / 125	EXISTING CONTOUR	UP	UTILITY POLE
× 123.45	EXISTING SPOT ELEVATION	UPLP	UTILITY POLE/LIGHT POLE
× TC 123.45	EXISTING TOP OF CURB ELEVATION	GW	GUY WIRE
× G 122.95	EXISTING GUTTER ELEVATION		STREET LIGHT
	HYDRANT	MW	MONITORING WELL
WV	WATER VALVE		AREA LIGHT
VALVE	UNKNOWN VALVE		SIGN
GV	GAS VALVE		METAL GUIDE RAIL
OH	OVERHEAD WIRES	P o	POST
G	APPROX. LOC. UNDERGROUND GAS LINE	CLF	CHAIN LINK FENCE
EOP	EDGE OF PAVEMENT	EOC	EDGE OF CONCRETE
LSA	LANDSCAPED AREA		

MASSACHUSETTS STATE PLANE COORDINATE SYSTEM (NAD83)

GAS MARKER
EDGE OF WOODS
TOAL ROAD CROSSING
GRANITE CURB
EOP
CBW
WOODED AREA
N53°40'01"W 221.00'
APPROX LOC OF 10' WIDE ALGONQUIN GAS EASEMENT (PER REF #3)
LSA
TBM #1
"DCP NEXT RIGHT"
APPROX LOC OF 50' WIDE ALGONQUIN GAS EASEMENT (PER REF #3)
MAP 38, LOT 23
N/F LANDS OF
DEPOT STREET LLC×
BK. 13512, PG. 524
S34°36'01"E 422.02'
CONC BLOCK WALL
CONC BARRIER
APPROX. LOC. OF CANT PATH (PER REF #3)
APPROX. LOC. OF U.G. GAS LINE (PER REF #3) (NYV-SEE NOTE #3)
"DUKERSTEIN MKT"
CURB CHANGE
CONC. BLOCK (TYP)
STONE BOUND W/DRILL HOLE FOUND
ASPHALT CURB
STONE WALL
N36°18'31"W 242.08'
S55°22'47"W 283.74'
N34°36'01"W 200.00'
N55°22'57"E 609.05'
S34°36'01"E 200.00'
MAP 38, LOT 23
N/F LANDS OF
DEPOT STREET LLC
BK. 13512, PG. 524

GRAPHIC SCALE
40 0 20 40 80 160
(IN FEET)
1 inch = 40 ft.

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COMMONWEALTH OF MASSACHUSETTS · GERRY L. HOLDRIGHT · NO. 49211 · REGISTERED PROFESSIONAL LAND SURVEYOR

8-20-2021
DATE

GERRY L. HOLDRIGHT, PLS
MASSACHUSETTS PROFESSIONAL LAND SURVEYOR #49211

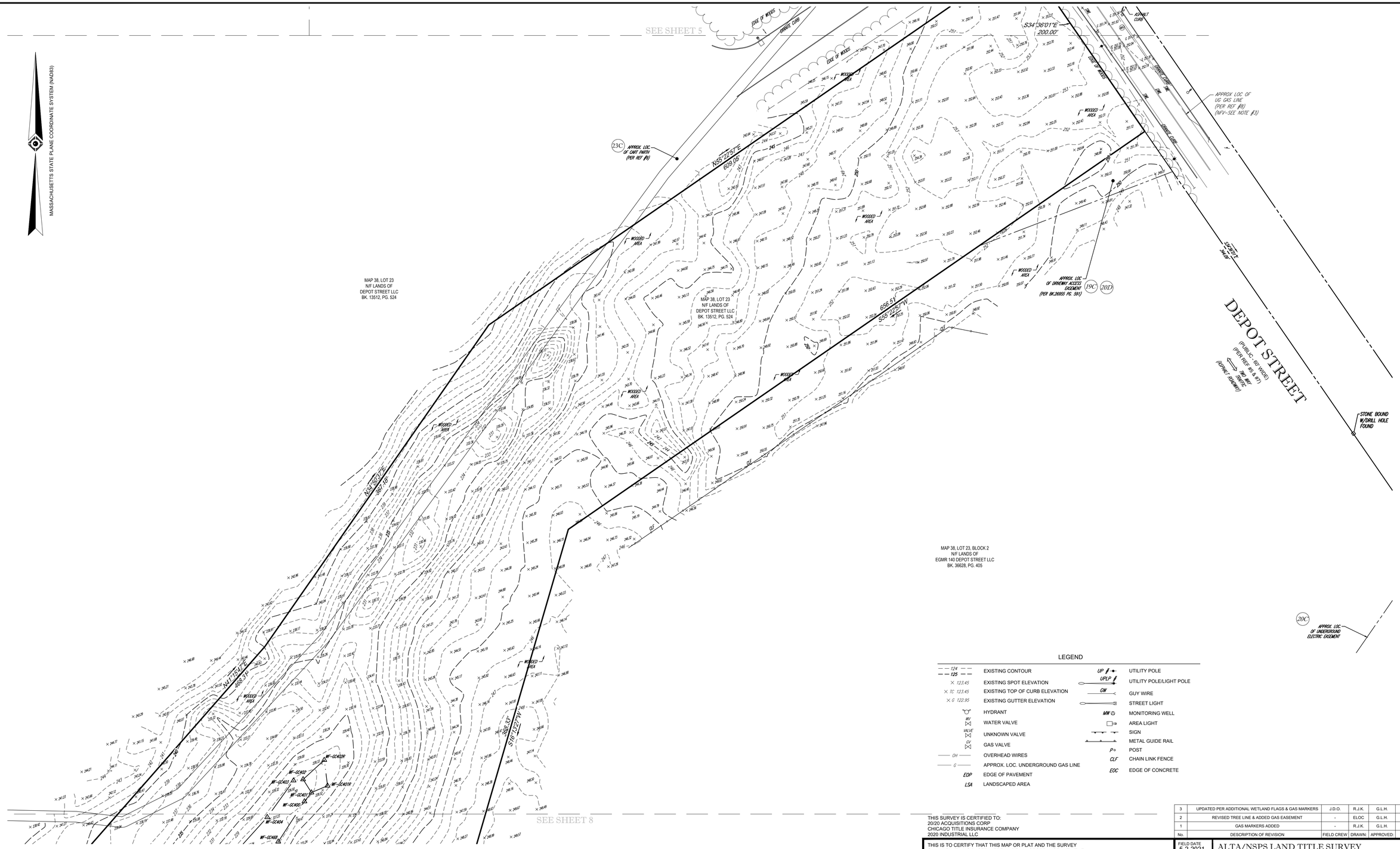
No.	DESCRIPTION OF REVISION	FIELD CREW	DRAWN:	APPROVED:	DATE
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FIELD DATE: 5-2-2021, 5-17-2021
FIELD BOOK NO.: 21-4 MA, 21-3 MA
FIELD BOOK PG.: 21, 47-57, 77
FIELD CREW: J.S.A., J.D.O.
DRAWN: B.A.L.
REVIEWED: G.L.H.

ALTA/NSPS LAND TITLE SURVEY
20/20 AQUISITIONS CORP
0 DEPOT STREET
LOT 23, BLOCK 1, MAP 38
TOWN BELLINGHAM, NORFOLK COUNTY
COMMONWEALTH OF MASSACHUSETTS

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MT LAUREL, NJ 609-857-2099
WARREN, NJ 908-668-0099

APPROVED: G.L.H. | DATE: 6-7-2021 | SCALE: 1" = 40' | FILE NO.: 03-210031 | DWG. NO.: 5 OF 11



LEGEND

124 / 125	EXISTING CONTOUR	UP	UTILITY POLE
× 123.45	EXISTING SPOT ELEVATION	UPLP	UTILITY POLE/LIGHT POLE
× TC 123.45	EXISTING TOP OF CURB ELEVATION	GW	GUY WIRE
× G 122.95	EXISTING GUTTER ELEVATION		STREET LIGHT
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LSA	LANDSCAPED AREA		

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
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COMMONWEALTH OF MASSACHUSETTS GERRY L. HOLDRIGHT NO. 49211 REGISTERED PROFESSIONAL LAND SURVEYOR

8-20-2021
DATE

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FIELD BOOK NO.: 21-4 MA, 21-3 MA
FIELD BOOK PG.: 21, 47-57, 77
FIELD CREW: J.S.A., J.D.O.
DRAWN: B.A.L.
REVIEWED: G.L.H.

ALTA/NSPS LAND TITLE SURVEY
20/20 AQUISITIONS CORP
0 DEPOT STREET
LOT 23, BLOCK 1, MAP 38
TOWN BELLINGHAM, NORFOLK COUNTY
COMMONWEALTH OF MASSACHUSETTS

CONTROL POINT ASSOCIATES, INC.
ALBANY, NY 518-217-5010
CHALFONT, PA 215-712-9800
HAUPPAUGE, NY 631-580-2645
MANHATTAN, NY 646-780-0411
MT LAUREL, NJ 609-857-2099
WARREN, NJ 908-668-0099
352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
508.948.3000 - 508.948.3003 FAX

APPROVED: G.L.H. | DATE: 6-7-2021 | SCALE: 1" = 40' | FILE NO.: 03-210031 | DWG. NO.: 6 OF 11

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MASSACHUSETTS STATE PLANE COORDINATE SYSTEM (NAD83)

LEGEND

124 / 125	EXISTING CONTOUR	UP	UTILITY POLE
123.45	EXISTING SPOT ELEVATION	UPLP	UTILITY POLE/LIGHT POLE
TC 123.45	EXISTING TOP OF CURB ELEVATION	GW	GUY WIRE
G 122.95	EXISTING GUTTER ELEVATION		STREET LIGHT
	HYDRANT	MW	MONITORING WELL
WV	WATER VALVE		AREA LIGHT
VALVE	UNKNOWN VALVE		SIGN
GV	GAS VALVE		METAL GUIDE RAIL
OH	OVERHEAD WIRES	P o	POST
G	APPROX. LOC. UNDERGROUND GAS LINE	CLF	CHAIN LINK FENCE
EOP	EDGE OF PAVEMENT	EOC	EDGE OF CONCRETE
LSA	LANDSCAPED AREA		

MAP 38, LOT 23
N/F LANDS OF
DEPOT STREET LLC
BK. 13512, PG. 524

MAP 33, LOT 1
N/F LANDS OF
BOSTON EDISION COMPANY
BK. 4584, PG. 155

MAP 38, LOT 23
N/F LANDS OF
DEPOT STREET LLC
BK. 13512, PG. 524

MAP 38, LOT 23
N/F LANDS OF
DEPOT STREET LLC
BK. 13512, PG. 524

SEE SHEET 8

SEE SHEET 9

N66°03'26"E 423.61'

S72°27'46"E 483.13'

N41°27'01"E 439.85'

N30°29'23"W 241.22'

S54°16'51"W 217.60'

S54°14'27"W 113.77'

N47°32'34"W 222.24'

N67°39'20"W 80.01'

R=40.00'
I=60°04'51"
L=41.40'
CHB=S87°37'04"W
CHD=40.32'

WOODED AREA

TOP OF BANK

APPROX LOC OF 200' NO-BUILD BUFFER ZONE (PER REF #9)

APPROX LOC OF CNT PNTR (PER REF #9)

CONC BOUND W/DRILL HOLE FOUND

IRON PIN FOUND

IRON PIN W/ CAP FOUND

LINES OF 2019 TAKING

MAP 38, LOT 18C
N/F LANDS OF
ALBERT BRIGGS AND
ERICA NUNES
BK. 17097, PG. 461

THIS SURVEY IS CERTIFIED TO:
20/20 ACQUISITIONS CORP
CHICAGO TITLE INSURANCE COMPANY
2020 INDUSTRIAL LLC

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COMMONWEALTH OF MASSACHUSETTS
GERRY L. HOLDRIGHT
NO. 49211
REGISTERED PROFESSIONAL LAND SURVEYOR

8-20-2021
DATE

GERRY L. HOLDRIGHT, PLS
MASSACHUSETTS PROFESSIONAL LAND SURVEYOR #49211

No.	DESCRIPTION OF REVISION	FIELD CREW	DRAWN	APPROVED	DATE
3	UPDATED PER ADDITIONAL WETLAND FLAGS & GAS MARKERS	J.D.O.	R.J.K.	G.L.H.	8-20-2021
2	REVISED TREE LINE & ADDED GAS EASEMENT	-	ELOC	G.L.H.	7-29-2021
1	GAS MARKERS ADDED	-	R.J.K.	G.L.H.	7-15-2021

GRAPHIC SCALE
40 0 20 40 80 160
(IN FEET)
1 inch = 40 ft.

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FIELD DATE: 5-2-2021, 5-17-2021
FIELD BOOK NO.: 21-4 MA, 21-3 MA
FIELD BOOK PG.: 21, 47-57, 77
FIELD CREW: J.S.A., J.D.O.
DRAWN: B.A.L.
REVIEWED: G.L.H.

ALTA/NSPS LAND TITLE SURVEY
20/20 AQUISITIONS CORP
0 DEPOT STREET
LOT 23, BLOCK 1, MAP 38
TOWN BELLINGHAM, NORFOLK COUNTY
COMMONWEALTH OF MASSACHUSETTS

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APPROVED:	DATE	SCALE	FILE NO.	DWG. NO.
G.L.H.	6-7-2021	1" = 40'	03-210031	7 OF 11



LEGEND

124 / 125	EXISTING CONTOUR	UP	UTILITY POLE
× 123.45	EXISTING SPOT ELEVATION	UPLP	UTILITY POLE/LIGHT POLE
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× G 122.95	EXISTING GUTTER ELEVATION		STREET LIGHT
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NO. 49211
REGISTERED PROFESSIONAL LAND SURVEYOR

GERRY L. HOLDRIGHT, PLS
MASSACHUSETTS PROFESSIONAL LAND SURVEYOR #49211

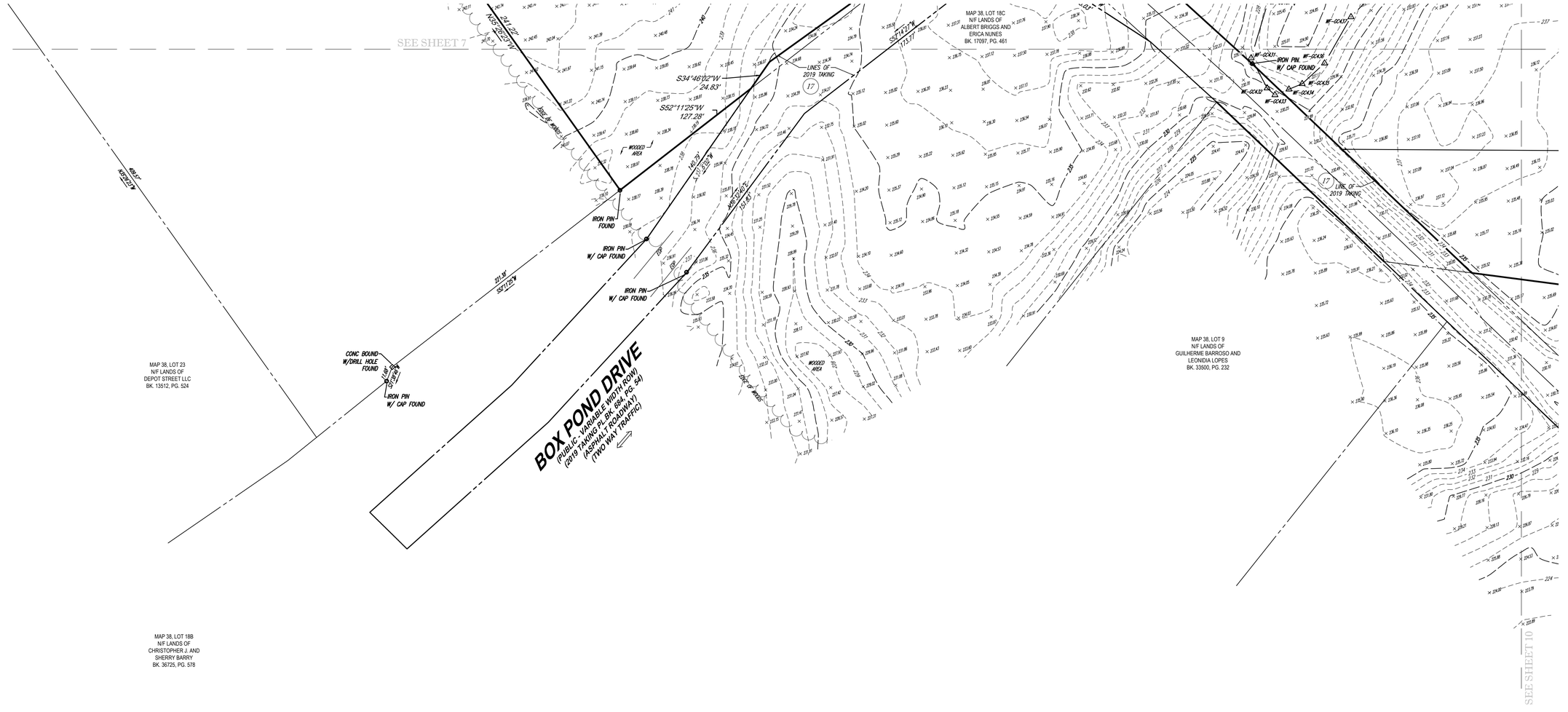
8-20-2021
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LOT 23, BLOCK 1, MAP 38
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G.L.H.	6-7-2021	1" = 40'	03-210031	8 OF 11



LEGEND

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REGISTERED PROFESSIONAL LAND SURVEYOR

8-20-2021
DATE

GERRY L. HOLDRIGHT, PLS
MASSACHUSETTS PROFESSIONAL LAND SURVEYOR #49211

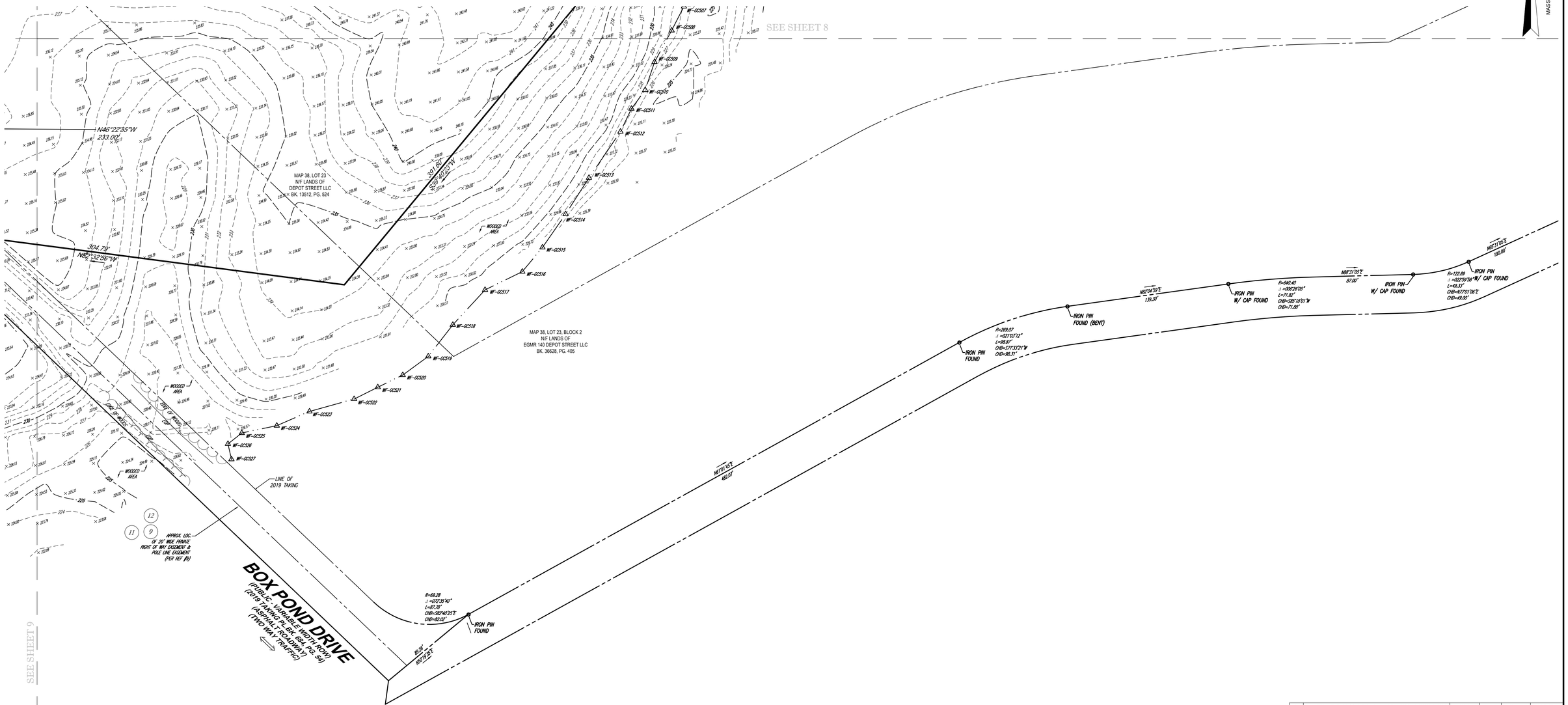
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REGISTERED PROFESSIONAL LAND SURVEYOR

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G.L.H.	G.L.H.	6-7-2021	1" = 40'	03-210031	10 OF 11

EXHIBIT "A"

THE LAND IS DESCRIBED AS FOLLOWS:

THE LAND ON AND OFF DEPOT STREET, BELLINGHAM, NORFOLK COUNTY, MASSACHUSETTS, DESCRIBED AS FOLLOWS:

LOT 2 SHOWN ON A "PLAN OF LAND CLAIMED BY VARNEY BROTHERS SAND & GRAVEL CO., INC. IN THE TOWN OF BELLINGHAM, NORFOLK COUNTY, MASSACHUSETTS" DATED JUNE 30, 1998 BY GUERRIERE & HALNON, INC., RECORDED WITH NORFOLK DEEDS IN PLAN BOOK 458, PLAN 523.

LOT 3 SHOWN ON A "PLAN OF LAND CLAIMED BY VARNEY BROTHERS SAND & GRAVEL CO., INC. IN THE TOWN OF BELLINGHAM, NORFOLK COUNTY, MASSACHUSETTS" DATED JULY 16, 1998 BY GUERRIERE & HALNON, INC., RECORDED WITH SAID DEEDS, PLAN BOOK 458, PLAN 524.

LOT 7 SHOWN ON A "PLAN OF LAND IN THE TOWN OF BELLINGHAM, NORFOLK COUNTY, MASSACHUSETTS" DATED JUNE 4, 2004 BY GUERRIERE & HALNON, INC., RECORDED WITH SAID DEEDS, PLAN BOOK 526, PLAN 59.

LOT 9B SHOWN ON A "PLAN OF LAND IN BELLINGHAM, MA OWNER: DEPOT STREET, LLC" DATED JUNE 5, 2008 BY GUERRIERE & HALNON, INC., RECORDED WITH SAID DEEDS, PLAN BOOK 587, PLAN 29.

TOGETHER WITH RESERVED AND APPURTENANT RIGHTS LISTED IN ITEM 18 OF THE TITLE REPORT.

THIS SURVEY WAS PREPARED WITH REFERENCE TO A TITLE REPORT PREPARED BY CHICAGO TITLE INSURANCE COMPANY, HAVING A COMMITMENT NO. RAMA-43007, WITH AN EFFECTIVE DATE OF APRIL 5, 2021, WHERE THE FOLLOWING SURVEY RELATED EXCEPTIONS APPEAR IN SCHEDULE B - SECTION 2:

GENERAL EXCEPTIONS 1,22, 26 ARE NOT SURVEY RELATED AND HAVE NOT BEEN COMMENTED ON AS A PART OF THIS SURVEY.

2 RIGHT OF WAY AGREEMENT FROM L. FRANCIS THAYER TO NORTHEASTERN GAS TRANSMISSION COMPANY DATED SEPTEMBER 12, 1953, RECORDED WITH SAID DEEDS, BOOK 3214, PAGE 372, AS AFFECTED BY RATIFICATION AGREEMENT BY VARNEY BROS. SAND & GRAVEL, INC. DATED OCTOBER 6, 1953, RECORDED WITH SAID DEEDS, BOOK 3236, PAGE 540, AND AMENDING RIGHT OF WAY AGREEMENT BY VINCENT R. AND ISABELLE C. THAYER DATED JUNE 26, 1981, RECORDED WITH SAID DEEDS, BOOK 5916, PAGE 382. **THE EASEMENTS LOCATION IS PREDICATED ON THE PHYSICAL LOCATION OF THE PIPELINE. DOCUMENTS PROVIDED AND LACK OF UTILITY RECORDS MAKES MAKE THIS EXCEPTION NOT PLOTTABLE. WE HAVE NOT OBSERVED ANY GAS LINES ON LOCUS OTHER THAN SERVICE LINES.**

THE RATIFICATION ALSO REFERENCES AN EASEMENT IN WORCESTER COUNTY AT BOOK 3537, PAGE 423 THAT WAS NOT COPIED FOR THIS REPORT AS IT CURRENTLY APPEARS ALL OF LOCUS IS IN BELLINGHAM, NORFOLK COUNTY.

IT IS UNKNOWN THE REASON THE THAYER FAMILY AMENDED THE RIGHT OF WAY IN 1981 IF VARNEY WAS THEN THE PROPERTY OWNER. IT IS NOTED EARL AND RUEL THAYER CONVEYED A PARCEL TO VARNEY BY DEED DATED MAY 27, 1958, RECORDED WITH SAID DEEDS, BOOK 3642, PAGE 451 (SEE PARAGRAPH 21) ALTHOUGH UNKNOWN OF RECORD IF THAT CONNECTS TO THE RIGHT OF WAY DOCUMENTS.

3 TAKING, D.P.U. 13245, BY THE COMMONWEALTH OF MASSACHUSETTS DEPARTMENT OF PUBLIC UTILITIES, RECORDED WITH SAID DEEDS, BOOK 3916, PAGE 220, AS AFFECTED BY DEED FROM VARNEY BROS. SAND & GRAVEL, INC. TO NEW ENGLAND POWER COMPANY DATED SEPTEMBER 18, 1964, RECORDED WITH SAID DEEDS, BOOK 4203, PAGE 570. **PLAN L-7180,L7181,L-7182,L-7183 SHOW VARIOUS TAKING AREAS, UNABLE TO PLACE ON SURVEY, DUE TO NOT HAVING ENOUGH INFORMATION ON SAID PLANS .**

PLEASE REFER TO A SURVEYOR FOR PLACEMENT. IT IS NOTED THE TAKING IS NOT INDEXED TO VARNEY ALTHOUGH VARNEY LAND WAS TAKEN. IT APPEARS THE COUNTY MIS-INDEXED THE DOCUMENT ONLY TO THE NAMES OF THE UTILITY COMPANIES. THE TAKING WAS LOCATED WHILE TRYING TO FIND THE EASEMENT REFERENCED IN ITEM 17.

4 GRANT OF EASEMENT FROM VARNEY BROS. SAND & GRAVEL, INC. TO ALGONQUIN GAS TRANSMISSION COMPANY DATED JULY 22, 1966, RECORDED WITH SAID DEEDS, BOOK 4371, PAGE 514. - **50' GAS EASEMENT SHOWN**

5 GRANT OF EASEMENT FROM VARNEY BROS. SAND & GRAVEL, INC. TO ALGONQUIN GAS TRANSMISSION COMPANY DATED SEPTEMBER 23, 1966, RECORDED WITH SAID DEEDS, BOOK 4385, PAGE 127. **EASEMENT NOT PLOTTABLE FROM DOCUMENTS SUPPLIED. ALGONQUIN GAS TRANSMISSION COMPANY PIPELINE RIGHT OF WAY OBSERVED OFF SITE SOUTH EASTERLY OF THE LOCUS.**

6 GRANT OF EASEMENT FROM CLARENCE E. VARNEY ET AL TO ALGONQUIN GAS TRANSMISSION COMPANY DATED MARCH 18, 1967, RECORDED WITH SAID DEEDS, BOOK 4418, PAGE 448. **EASEMENT NOT PLOTTABLE FROM DOCUMENTS SUPPLIED. ALGONQUIN GAS TRANSMISSION COMPANY PIPELINE RIGHT OF WAY OBSERVED OFF SITE SOUTH EASTERLY OF THE LOCUS.**

7 DEED FROM VARNEY BROS. SAND & GRAVEL, INC. TO BOSTON EDISON COMPANY DATED APRIL 7, 1969, RECORDED WITH SAID DEEDS, BOOK 4584, PAGE 155 AND ORDER OF TAKING BY BOSTON EDISON COMPANY DATED FEBRUARY 23, 1970, RECORDED WITH SAID DEEDS, BOOK 4650, PAGE 351. - **ORDER OF TAKING BY EMINENT DOMAIN FOR ELECTRIC TRANSMISSION, PARCEL 78 PER BK.4650,PG.351 SHOWN**

PRIOR TO THE DEED AND TAKING, VARNEY GRANTED BOSTON EDISON COMPANY AN OPTION DATED FEBRUARY 7, 1969, RECORDED WITH SAID DEEDS, BOOK 4575, PAGE 301 THAT IS AFFECTED BY AN AFFIDAVIT DATED FEBRUARY 23, 1998, RECORDED WITH SAID DEEDS, BOOK 12287, PAGE 285.

8 ORDER OF TAKING BY THE INHABITANTS OF THE TOWN OF BELLINGHAM OF THE WAY KNOWN AS DEPOT STREET DATED JULY 20, 1971, RECORDED WITH SAID DEEDS, BOOK 4758, PAGE 588. - **CURRENT RIGHT OF WAY LINES OF DEPOT STREET SHOWN**

9 RIGHT OF WAY GRANTED FROM VARNEY BROTHERS SAND AND GRAVEL, INC. TO RAYMOND DUPUIS AND ALICE DUPUIS, ET AL DATED AUGUST 30, 1973, RECORDED WITH SAID DEEDS, BOOK 4985, PAGE 498. **- 20 FT. WIDE PRIVE RIGHT-OF WAY EASEMENT SHOWN**
SEE ALSO ITEM 18B.

10 GRANT OF EASEMENT FROM VARNEY BROS. SAND & GRAVEL, INC. TO ALGONQUIN GAS TRANSMISSION COMPANY DATED JUNE 17, 1992, RECORDED WITH SAID DEEDS, BOOK 9385, PAGE 597. **- GAS EASEMENT SHOWN**

11 EASEMENT FROM VARNEY BROTHERS SAND AND GRAVEL, INC. TO ROBERT NASUTI AND RITA NASUTI, TRUSTEES OF NASUTI FAMILY TRUST DATED NOVEMBER 24, 1993, RECORDED WITH SAID DEEDS, BOOK 10240, PAGE 701. **20' RIGHT OF WAY EASEMENT SHOWN**

12 GRANT OF EASEMENT FROM VARNEY BROTHERS SAND AND GRAVEL, INC. TO NEW ENGLAND TELEPHONE AND TELEGRAPH COMPANY AND MASSACHUSETTS ELECTRIC COMPANY DATED FEBRUARY 18, 1994, RECORDED WITH SAID DEEDS, BOOK 10400, PAGE 98. **- POLE LINE EASEMENT SHOWN**

13 THE CURRENT DEED AT BOOK 13512, PAGE 524 REFERENCES AND RESERVES RIGHTS SET FORTH IN A MEMORANDUM AND NOTICE OF OPTION AGREEMENT DATED MARCH 24, 1997 TO INFRASTRUCTURE DEVELOPMENT CORPORATION, AND SUCH A DOCUMENT DATED MARCH 24, 1997 IS RECORDED THEREWITH AT BOOK 13512, PAGE 532 ALTHOUGH IT RUNS TO IDC BELLINGHAM LLC. - **NOT PLOTTABLE**

THE OPTION STATES IT IS ONLY THROUGH NOVEMBER 14, 2001, PLUS 30 DAYS. BOTH IDC BELLINGHAM LLC AND INFRASTRUCTURE DEVELOPMENT CORPORATION WERE RESEARCHED COMMENCING MARCH 24, 1997 TO DATE AND THERE ARE NO OTHER RECORDED DOCUMENTS, SUGGESTING THE OPTION WAS NOT EXERCISED.

14 COVENANT BY DEPOT STREET, LLC DATED JUNE 25, 2001, RECORDED WITH SAID DEEDS, BOOK 15241, PAGE 579.

THE COVENANT REFERENCES THE SUBDIVISION PLAN DATED FEBRUARY 22, 1999, WHICH CORRESPONDS TO PLAN BOOK 471, PLAN 869 THAT SUBDIVIDED LOT 1 ON PLAN BOOK 458, PLAN 523 INTO LOTS 4, 5 AND 6 ON PLAN BOOK 471, PLAN 869. THERE ARE NO CONVEYANCES OR OTHER RECORDED DOCUMENTS WITH REFERENCE TO LOTS 4, 5 AND 6 ON PLAN BOOK 471, PLAN 869, WHICH WAS RE-SUBDIVIDED INTO LOTS 7 AND 8 ON PLAN BOOK 526, PLAN 59 AND LOTS 9A AND 9B ON PLAN BOOK 587, PLAN 29. THE COVENANT STATES THAT LOTS MAY BE RELEASED BY A CERTIFICATE OF RELEASE EXECUTED BY A MAJORITY OF THE TOWN'S PLANNING BOARD. THERE ARE NO RELEASES OF RECORD. THERE ALSO IS NOT A REPLACEMENT COVENANT THAT REFERENCES THE RE-SUBDIVISION PLANS. THE COVENANT REMAINS AN OUTSTANDING DOCUMENT NOTWITHSTANDING THE FEBRUARY 22, 1999 PLAN IN PLAN BOOK 471, PLAN 869 WAS SUPERSEDED. - **NOT PLOTTABLE**

15 AGREEMENTS MADE WITHIN THE QUITCLAIM DEED TO DUNKIN' DONUTS NORTHEAST DISTRIBUTION CENTER, INC. DATED AUGUST 17, 2004, RECORDED WITH SAID DEEDS, BOOK 21442, PAGE 482. **- NOT PLOTTABLE**

RECORD TITLE ALSO INCLUDES THE FOLLOWING LAND USE DOCUMENTS RECORDED PRIOR TO THE DEED AT BOOK 21442, PAGE 482:

A. SPECIAL PERMIT DECISION DATED APRIL 29, 2004, RECORDED WITH SAID DEEDS, BOOK 21442, PAGE 467. **- NOT PLOTTABLE**

B. DEVELOPMENT PLAN APPROVAL DATED APRIL 29, 2004, RECORDED WITH SAID DEEDS, BOOK 21442, PAGE 474. **- NOT PLOTTABLE**

BOTH DOCUMENTS ARE IN THE NAME OF DEPOT STREET LLC AND ARE RECORDED SIMULTANEOUSLY BUT PRIOR TO THE DEED TO DUNKIN' DONUTS NORTHEAST. BOTH DOCUMENTS REFERENCE THEY AFFECT APPROXIMATELY 3.5 ACRES OF A LARGER 114 + ACRE PARCEL. IT IS NOTED DUNKIN' DONUTS NORTHEAST PURCHASED LOT 8 ON PLAN BOOK 526, PLAN 59 WHICH IS 35 ACRES.

16 DECLARATION OF RESTRICTIVE COVENANTS BY DEPOT STREET LLC UNDATED, NOTARIZED AUGUST 19, 2004, RECORDED WITH SAID DEEDS, BOOK 21442, PAGE 485, AS AFFECTED BY AFFIDAVIT UNDER G.L. C. 183, § 5B DATED SEPTEMBER 9, 2004, RECORDED WITH SAID DEEDS, BOOK 21526, PAGE 221. THE COVENANTS ARE TO REMAIN IN EFFECT UNTIL DECEMBER 31, 2033 AND MAY BE EXTENDED. THE COVENANTS AFFECT LOTS 7, 8 AND 9 ON PLAN BOOK 526, PLAN 59 WHICH TOGETHER ARE 114.963 ACRES+ (LOT 9 RE-SUBDIVIDED INTO LOTS 9A AND 9B ON PLAN BOOK 587, PLAN 29). VARNEY REMAINS THE OWNER OF LOT 7 (18.201+ ACRES) AND LOT 9A (33.819+ ACRES) FOR A TOTAL OF 52.02+ ACRES WHICH IS LESS THAN 50% THEREBY MAKING THE OWNERS OF LOTS 8 AND 9B TOGETHER THE ENFORCING ENTITIES OF THE COVENANTS. THE COVENANTS DO NOT REQUIRE CERTIFICATES OF APPROVAL, ALTHOUGH APPROVAL DOCUMENTS MAY BE REQUESTED FROM THE ENFORCING ENTITIES. THE COVENANTS ALSO PROVIDE THAT UPON (A) COMPLETED CONSTRUCTION; (B) ISSUANCE OF A CERTIFICATE OF OCCUPANCY; AND (C) PASSING OF 180 DAYS SHALL BE CONCLUSIVE EVIDENCE OF APPROVAL UNLESS NOTICE OF AN ENFORCEMENT ACTION IS RECORDED. **- NOT PLOTTABLE**

17 ORDER OF TAKING BY TOWN OF BELLINGHAM OF BOX POND DRIVE DATED AUGUST 15, 2019, RECORDED WITH SAID DEEDS, BOOK 37088, PAGE 105. - **BOX POND TAKING SHOWN**

18 PLAN BOOK 526, PLAN 59 SHOWS AND LABELS MANY EASEMENTS AND OTHER FEATURES. THERE IS A SMALL RECTANGLE IN LOT 2 AS IT ABUTS A TURN OF THE BOSTON EDISON TAKING AND MARKED AS "BOSTON EDISON CO. EASEMENT (PARCEL 73A)". SEE ITEM 6. NEITHER THE TAKING AT BOOK 4650, PAGE 351 NOR DEED AT BOOK 4585, PAGE 155 HAVE A PARCEL 73A. ALTHOUGH IT IS NOTED THAT THE TAKING AT BOOK 4650, PAGE 351 HAS A PARCEL 73. IT IS RECOMMENDED THE ISSUE IS REFERRED TO A SURVEYOR.**- APPROXIMATE LOCAITON OF (PARCEL 78A)SHOWN**

19 THE TITLE RESEARCH RETURN THE FOLLOWING RESERVED OR APPURTENANT RIGHTS: A. RIGHTS RESERVED IN THE DEED FROM VARNEY BROS. SAND & GRAVEL, INC. TO BOSTON EDISON COMPANY DATED APRIL 7, 1969, RECORDED WITH SAID DEEDS, BOOK 4584, PAGE 155.

A. RESERVATION OF RIGHTS IN THE RIGHT OF WAY GRANTED FROM VARNEY BROTHERS SAND AND GRAVEL, INC. TO RAYMOND DUPUIS AND ALICE DUPUIS, ET AL DATED AUGUST 30, 1973, RECORDED WITH SAID DEEDS, BOOK 4953, PAGE 498. **- NOT LOCUS**

B. RESERVATION OF RIGHTS IN A RIGHT OF WAY RESERVED IN AN EASEMENT FROM VARNEY BROTHERS SAND AND GRAVEL, INC. TO ROBERT NASUTI AND RITA NASUTI, TRUSTEES OF NASUTI FAMILY TRUST DATED NOVEMBER 24, 1993, RECORDED WITH SAID DEEDS, BOOK 10240, PAGE 701 - **BOOK AND PAGE IS A PROBATE DOCUMENT. NOT SURVEY RELATED**

C. DRIVEWAY ACCESS EASEMENT AGREEMENT FROM ND BELLINGHAM II LLC TO DEPOT STREET LLC DATED AS OF JULY 31, 2009, RECORDED WITH SAID DEEDS, BOOK 26955, PAGE 591. - **DRIVEWAY ACCESS EASEMENT SHOWN**

20 THE EASEMENT AT BOOK 26955, PAGE 591 (ITEM 18D) IS A GRANT RATHER THAN A RESERVATION. VARNEY CONVEYED LOT 9A ON PLAN BOOK 587, PLAN 29 TO ND BELLINGHAM II LLC BY DEED DATED OCTOBER 6, 2008, RECORDED WITH SAID DEEDS, BOOK 26084, PAGE 385. ND BELLINGHAM'S TITLE BETWEEN THE OCTOBER 6, 2008 DEED AND THE JULY 31, 2009 EASEMENT WAS RESEARCHED, AND THE APPURTENANT EASEMENT IS SUBJECT TO THE FOLLOWING:

A. MEMORANDUM OF LEASE AGREEMENT TO BEST BUY STORES, L.P. DATED AS OF DECEMBER 1, 2008, RECORDED WITH SAID DEEDS, BOOK 26191, PAGE 369. **- LEASE AREA SHOWN, ALSO KNOWN AS LOT 9A (PER REF #5)**

B. ORDER OF RESOURCE AREA DELINEATION BY BELLINGHAM CONSERVATION COMMISSION, DEP FILE NO. 105-637, RECORDED WITH SAID DEEDS, BOOK 26255, PAGE 97. **- NOT PLOTTABLE**

C. GRANT OF EASEMENT FROM ND BELLINGHAM II LLC TO MASSACHUSETTS ELECTRIC COMPANY DATED JANUARY 22, 2009, RECORDED WITH SAID DEEDS, BOOK 26334, PAGE 322. **- UNDERGROUND ELECTRIC EASEMENT SHOWN**

D. ALL COVENANTS, RESTRICTIONS, CONDITIONS AND AGREEMENTS SET FORTH IN THE DRIVEWAY ACCESS EASEMENT AGREEMENT AT BOOK 26955, PAGE 591. **- DRIVEWAY ACCESS EASEMENT SHOWN**

21 SEE ITEMS 3, 4 AND 5, WHICH ARE EASEMENTS TO ALGONQUIN GAS TRANSMISSION COMPANY. IT'S EASEMENT RIGHTS ARE SUBJECT TO AN ORDER OF CONDITIONS BY BELLINGHAM CONSERVATION COMMISSION, DEP FILE NO. N105-149, RECORDED WITH SAID DEEDS, BOOK 9068, PAGE 8, WHICH DOES NOT HAVE A CERTIFICATE OF COMPLIANCE. THERE WAS ANOTHER EASEMENT TO ALGONQUIN GAS TRANSMISSION COMPANY LISTED IN ITEM 9 THAT WAS RECORDED AFTER THE ORDER OF CONDITIONS. ORDERS OF CONDITIONS ARE SPECIFICALLY EXCLUDED BY THE JACKET OF A TITLE INSURANCE POLICY AS LAND USE MATTERS, HOWEVER MASSACHUSETTS UNDERWRITERS WILL ANSWER QUESTIONS ABOUT THEM. IT IS ANTICIPATED AN UNDERWRITER WOULD ADVISE THE ORDER OF CONDITIONS ONLY AFFECTS ALGONQUIN'S EASEMENT AND NOT ALSO THE FEE SIMPLE OWNERSHIP, ALTHOUGH NO UNDERWRITING WAS DONE FOR THIS REPORT. **-ORDER OF CONDITIONS NOT PLOTTABLE**

23 INADDITION TO THE REFERENCED DEEDS TITLE ALSO INCLUDES THE FOLLOWING DEEDS TO VARNEY:

A. DEED FROM THE NEW YORK, NEW HAVEN AND HARTFORD RAILROAD COMPANY TO CLARENCE E. VARNEY AND DONALD A. VARNEY DATED MARCH 8, 1949, RECORDED WITH SAID DEEDS, BOOK 2826, PAGE 172. **- NOT PLOTTABLE,RAILROAD PLAN NOT PROVIDED.**

B. DEED FROM THE NEW YORK, NEW HAVEN AND HARTFORD RAILROAD COMPANY TO VARNEY BROS. SAND & GRAVEL, INC. DATED FEBRUARY 2, 1953, RECORDED WITH SAID DEEDS, BOOK 3157, PAGE 385. BOTH DEEDS CONVEY BY REFERENCE TO RAILROAD STATION NUMBERS BUT WITHOUT REFERENCE TO RECORDED PLANS. PLEASE REFER TO A SURVEYOR FOR PLACEMENT. THE REGISTRY OF DEEDS DOES NOT MAINTAIN PLAN INDEXES BASED ON RAILROAD STATION NUMBERS. **UNABLE TO PLOT, RAILROAD PLAN NOT PROVIDED**

TO THE EXTENT ANY OF THE CURRENT LOCUS IS FORMER RAILROAD LAND, IT IS SUBJECT TO THE PROVISIONS OF M.G.L. C. 40, 54A AND REQUIRES APPROVAL FROM THE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION FOR CONSTRUCTION OVER A FORMER RAILROAD RIGHT OF WAY OR LAND APPURTENANT THERETO. NOT ALL FORMERLY OWNED RAILROAD LAND IS A FORMER RAILROAD RIGHT OF WAY OR LAND APPURTENANT THERETO, AND THE DEPARTMENT OF TRANSPORTATION WILL ADVISE WHETHER IT DEEMS IT HAS JURISDICTION OVER ANY FORMER RAILROAD LAND. THE STATUTE DOES NOT REQUIRE RECORDING THE DEPARTMENT OF TRANSPORTATION RESPONSE OR APPROVAL, ALTHOUGH RECORDING IS THE BETTER PRACTICE TO DOCUMENT THE PUBLIC RECORD AND INFORM FUTURE CONVEYANCERS.

C. ALL RIGHT TITLE AND INTEREST FROM LIONEL S. CADORET TO VARNEY BROTHERS SAND & GRAVEL, INC. DATED DECEMBER 4, 1972, RECORDED WITH SAID DEEDS, BOOK 4985, PAGE 500. **VAGUE DESCRIPTION APPROXIMATE LOCAITON OF CART PATH SHOWN PER REFERENCE #9**

THE RELEASE IS OF A CART ROAD FROM PROPERTY OF NASUTI TO DEPOT STREET. THE RELEASE DOES NOT PROVIDE THE GRANTOR'S ORIGIN OF TITLE. IT IS NOTED THE RELEASE IS 48 ½ YEARS OLD AND THAT MASSACHUSETTS HAS A 50 YEAR TITLE RESEARCH STANDARD. PLEASE CONTACT UNDERWRITING FOR APPROVAL TO ACCEPT THE RELEASE WITHOUT EXAMINING TITLE BEHIND IT AS UNDERWRITING CONSULTATION WAS NOT PERFORMED FOR THIS REPORT. IT IS ALSO NOTED A REPLACEMENT RIGHT OF WAY WAS GRANTED BACK TO MOST OF THE SAME PEOPLE AT BOOK 4953, PAGE 498, ABOVE LISTED IN ITEM 8. THE GRANTOR NAMES IN THE RELEASE AT PAGE 500 AND THE GRANTEE NAMES IN THE GRANT AT PAGE 498 ARE SUBSTANTIALLY SIMILAR BUT NOT IDENTICAL AS EACH HAS A FEW NAMES THAT ARE NOT IN THE OTHER DOCUMENT.

PLEASE REFER THESE DEEDS TO A SURVEYOR TO CERTIFY THAT ALL OF THE CURRENT LOCUS COMES OUT OF THESE DEEDS AS LAND PLACEMENT AND FULL REVIEW OF THE PROPERTY DESCRIPTIONS WERE NOT DONE FOR THIS REPORT.

24 IT IS ASSUMED FOR RESEARCH THAT TITLE DOCUMENTS IN FACT DERIVE FROM THE ABOVE DEEDS. THE GRANTOR INDEX RESEARCH FOR VARNEY BROS./BROTHERS COMMENCED WITH THE DECEMBER 31, 1951 DEED AT BOOK 3056, PAGE 112 BEING THE EARLIEST DEED. ADDITIONALLY, CLARENCE AND DONALD VARNEY WERE RESEARCHED IN THE GRANTOR INDEX COMMENCING WITH THE MARCH 8, 1949 DEED AT BOOK 2826, PAGE 172 THROUGH THEIR ESTATES EXECUTING DEEDS ON JUNE 1, 1989 AT BOOK 8349, PAGES 538 AND 539. THE VARNEYS PROBATE CASES HAVE NOT YET BEEN REVIEWED FOR THIS REPORT AND AN APPOINTMENT HAS BEEN MADE AT THE PROBATE COURT TO REVIEW THE CASES. SUPPLEMENTAL REPORT SHALL ISSUE WHETHER TITLE IS CLEAR OR WHETHER THERE ARE ANY TITLE ISSUES IN THE PROBATE CASES. **- NOT PLOTTABLE**

25 MINERALS OF WHATSOEVER KIND, SUBSURFACE AND SURFACE SUBSTANCES, INCLUDING BUT NOT LIMITED TO COAL, LIGNITE, OIL, GAS, URANIUM, CLAY, ROCK, SAND AND GRAVEL IN, ON, UNDER AND THAT MAY BE PRODUCED FROM THE LAND, TOGETHER WITH ALL RIGHTS, PRIVILEGES AND IMMUNITIES RELATING THERETO, WHETHER OR NOT APPEARING IN THE PUBLIC RECORDS OR LISTED IN SCHEDULE B. THE COMPANY MAKES NO REPRESENTATION AS TO THE PRESENT OWNERSHIP OF ANY SUCH INTERESTS. THERE MAY BE LEASES, GRANTS, EXCEPTIONS OR RESERVATION OF INTEREST THAT ARE NOT LISTED. **- NOT PLOTTABLE**

MASSACHUSETTS STATE PLANE COORDINATE SYSTEM (NAD83)

GRAPHIC SCALE
40 0 20 40 80 160
(IN FEET)
1 inch = 40 ft.

THIS SURVEY IS CERTIFIED TO:
20/20 ACQUISITIONS CORP
CHICAGO TITLE INSURANCE COMPANY
2020 INDUSTRIAL LLC

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT WAS BASED WERE MADE IN ACCORDANCE WITH THE "2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS", JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 2, 3, 4, 5, 7(A 7(B)(1), 8, 9, 11, 13, 14, 16 & 17 OF TABLE A THEREOF. THE FIELDWORK WAS COMPLETED ON MAY 17, 2021.

NOT A VALID ORIGINAL DOCUMENT UNLESS EMBOSSED WITH RAISED IMPRESSION OR STAMPED WITH A BLUE INK SEAL

COMMONWEALTH OF MASSACHUSETTS GERRY L. HOLDRIGHT NO. 49211 REGISTERED PROFESSIONAL LAND SURVEYOR

8-20-2021
DATE

GERRY L. HOLDRIGHT, PLS
MASSACHUSETTS PROFESSIONAL LAND SURVEYOR #49211

No.	DESCRIPTION OF REVISION	FIELD CREW	DRAWN	APPROVED:	DATE
3	UPDATED PER ADDITIONAL WETLAND FLAGS & GAS MARKERS	J.D.O.	R.J.K.	G.L.H.	8-20-2021
2	REVISED TREE LINE & ADDED GAS EASEMENT	-	ELOC	G.L.H.	7-29-2021
1	GAS MARKERS ADDED	-	R.J.K.	G.L.H.	7-15-2021

FIELD DATE: 5-2-2021, 5-17-2021
FIELD BOOK NO.: 21-4 MA, 21-3 MA
FIELD BOOK PG.: 21, 47-57, 77
FIELD CREW: J.S.A., J.D.O.
DRAWN: B.A.L.
REVIEWED: G.L.H.

ALTA/NSPS LAND TITLE SURVEY
20/20 AQUISITIONS CORP
0 DEPOT STREET
LOT 23, BLOCK 1, MAP 38
TOWN BELLINGHAM, NORFOLK COUNTY
COMMONWEALTH OF MASSACHUSETTS

CONTROL POINT ASSOCIATES, INC.
ALBANY, NY 518-217-5010
CHALFONT, PA 215-712-9800
HAUPPAUGE, NY 631-580-2645
MANHATTAN, NY 646-780-0411
MT LAUREL, NJ 609-857-2099
WARREN, NJ 908-668-0099
352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
508.948.3000 - 508.948.3003 FAX

APPROVED:	DATE	SCALE	FILE NO.	DWG. NO.
G.L.H.	6-7-2021	1" = 40'	03-210031	11 OF 11

THE COMMONWEALTH OF MASSACHUSETTS REQUIRES NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE COMMONWEALTH. 1-888-344-7233 STOP. CALL BEFORE YOU DIG.

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