# PROPOSED SITE PLAN DOCUMENTS

\_\_\_\_\_ FOR \_\_\_\_\_

MAPLE STREET SOLAR, LLC

**PROPOSED** 

**SOLAR FARM** 

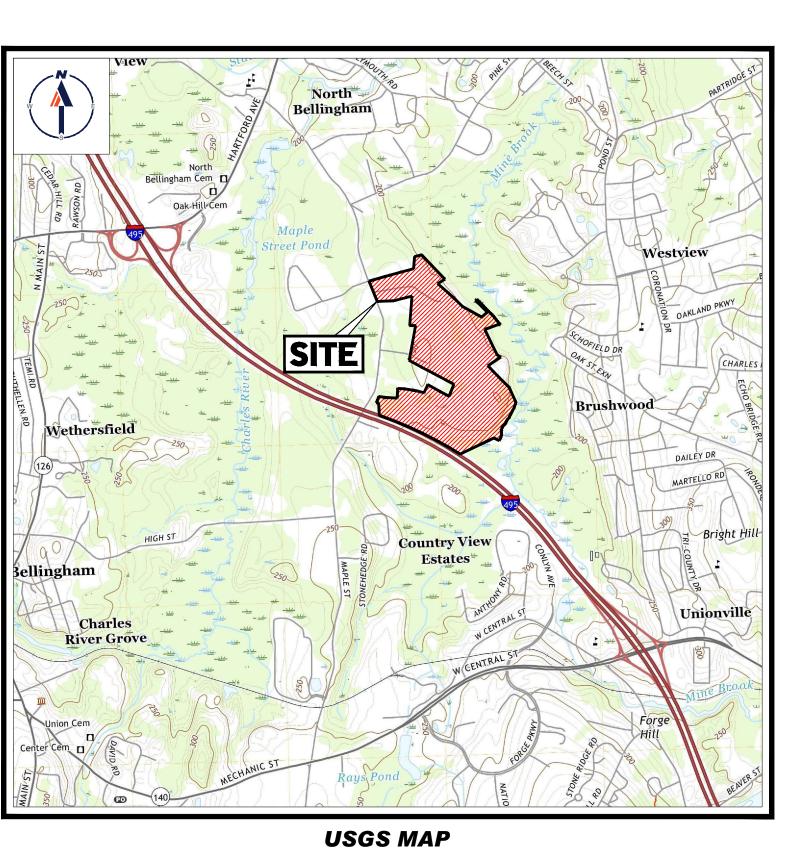
**LOCATION OF SITE:** 

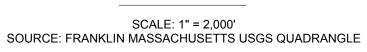
160 MAPLE STREET, TOWN OF BELLINGHAM & FRANKLIN

NORFOLK COUNTY, MASSACHUSETTS

LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION

OF D 239-010, & 32-0009 (BELLINGHAM)







SITE MAP

SCALE: 1" = 600' SOURCE: GOOGLE AERIAL

BOHLER//

PREPARED BY

### REFERENCES

EXISTING CONDITIONS SURVEY: FELDMAN GEOSPATIAL 152 HAMPDEN STREET, BOSTON, MA 01608 DATE: 05/09/2022

ANR SURVEY:
FELDMAN GEOSPATIAL
152 HAMPDEN STREET, BOSTON, MA 01608
DATE: 08/05/2022

\* THE ABOVE REFERENCED DOCUMENTS ARE INCORPORATED BY REFERENCE AS PART OF THESE PLANS, HOWEVER, BOHLER ENGINEERING DOES NOT CERTIFY THE ACCURACY OF THE WORK REFERENCED OR DERIVED FROM THESE DOCUMENTS, BY OTHERS.

DRAWING SHEET INDEX

OVERALL EROSION & SEDIMENT CONTROL PLAN | C-601

**EROSION & SEDIMENT CONTROL PLAN (A - F)** 

**EROSION & SEDIMENT CONTROL NOTES &** 

FIRE TRUCK CIRCULATION PLAN

SHEET TITLE

**COVER SHEET** 

**GENERAL NOTES SHEET** 

**DEMOLITION PLAN (A-F)** 

SITE LAYOUT PLAN (A - F)

**OVERALL GRADING PLAN** 

**GRADING PLAN (A - F)** 

**DETAIL SHEETS** 

**OVERALL DEMOLITION PLAN** 

**OVERALL SITE LAYOUT PLAN** 

# SITE CIVIL AND CONSULAND SUR PROGRAM MA LANDSCAPE AR SUSTAINABL PERMITTING TRANSPORTATI

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ISSUED FOR MUNICIPAL &
AGENCY REVIEW & APPROVAL

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

 DOCUMENT UNLESS INDICATED OTHERWISE.

 PROJECT No.:
 W20125

 DRAWN BY:
 CMC / OC

 CHECKED BY:
 G

 DATE:
 07/20/202

 CAD I.D.:
 W201257-SPPD-1

PROJECT:

NUMBER

C-202 - C-207

C-302 - C-307

C-402 - C-407

C-602 - C-607

C-608 - C-609

C-901 - C-906

8 SHEETS

# PROPOSED SITE PLAN DOCUMENTS

MAPLE STREET

SOLAR LLC

SOLAR FARM

LOTS INCLUDED (PARCEL #):255-001,
254-001, 239-010 A, 239-010 B, 239-010
C, PORTION OF D 239-010, & 32-0009
160 MAPLE STREET.

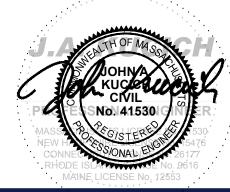
TOWN OF BELLINGHAM & FRANKLIN, NORFOLK COUNTY, MASSACHUSETT

**BOHLER** 

352 TURNPIKE ROAD SOUTHBOROUGH, MA 01772

Phone: (508) 480-9900

www.BohlerEngineering.com



SHEET TITLE:

COVER SHEET

SHEET NUMBER:

C-101

### GENERAL NOTES THESE PLANS ARE SOLELY BASED ON INFORMATION THE OWNER AND OTHERS PROVIDED TO BOHLER ENGINEERING. (HEREIN "BOHLER") PRIOR TO THE DATE ON 1 WHICH THE ENGINEER OF RECORD AND BOHLER PREPARED THESE PLANS. THE CONTRACTOR MUST FIELD VERIFY ALL EXISTING CONDITIONS AND IMMEDIATELY NOTIFY BOHLER, IN WRITING, IF ANY ACTUAL SITE CONDITIONS DIFFER FROM THOSE SHOWN ON THESE PLANS, OR IF THE PROPOSED WORK CONFLICTS WITH

THE CONTRACTOR MUST STRICTLY COMPLY WITH THESE NOTES AND ALL SPECIFICATIONS/REPORTS CONTAINED HEREIN. THE CONTRACTOR MUST ENSURE THAT ALL SUBCONTRACTORS FULLY AND COMPLETELY CONFORM TO AND COMPLY WITH THESE REQUIREMENTS, THESE NOTES, AND THE REQUIREMENTS ARTICULATED IN THE NOTES CONTAINED IN ALL THE OTHER DRAWINGS THAT COMPRISE THE PLAN SET OF DRAWINGS. ADDITIONAL NOTES AND SPECIFIC PLAN NOTES MAY BE FOUND ON THE INDIVIDUAL PLANS. THESE GENERAL NOTES APPLY TO THIS ENTIRE DOCUMENT PACKAGE. 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 THE PROJECT WORK SCOPE, PRIOR TO THE INITIATION AND COMMENCEMENT OF CONSTRUCTION.

PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR MUST CONFIRM WITH THE ENGINEER OF RECORD AND BOHLER THAT THE LATEST EDITION OF THE DOCUMENTS AND/OR REPORTS REFERENCED WITHIN THE PLAN REFERENCES ARE BEING USED FOR CONSTRUCTION. THIS IS THE CONTRACTOR'S SOLE AND COMPLETE RESPONSIBILITY.

PERMITS HAVE BEEN OBTAINED. THE CONTRACTOR MUST HAVE COPIES OF ALL PERMITS AND APPROVALS ON SITE AT ALL TIMES.

DIMENSIONS OF ENTRY/EXIT POINTS, ELEVATIONS, PRECISE BUILDING DIMENSIONS, AND EXACT BUILDING UTILITY LOCATION:

PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR MUST ENSURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO 4.2. CONSTRUCTION OR FABRICATION IS TO BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED THE CONDITIONS OF APPROVAL TO ALL PLANS AND OTHER DOCUMENTS REVIEWED AND APPROVED BY THE PERMITTING AUTHORITIES AND HAS ALSO CONFIRMED THAT ALL NECESSARY AND REQUIRED

THE CONTRACTOR MUST ENSURE THAT ALL WORK IS PERFORMED IN ACCORDANCE WITH THESE PLANS. SPECIFICATIONS/REPORTS 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, AND ALL PROVISIONS IN AND CONDITIONS OF THE CONSTRUCTION CONTRACT WITH THE OWNER/DEVELOPER INCLUDING ALL EXHIBITS, ATTACHMENTS AND ADDENDA TO SAME

PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR MUST COORDINATE THE BUILDING LAYOUT BY CAREFULLY REVIEWING THE MOST CURRENT ARCHITECTURAL, CIVIL AND STRUCTURAL CONSTRUCTION DOCUMENTS (INCLUDING, BUT NOT LIMITED TO, MECHANICAL, ELECTRICAL, PLUMBING AND FIRE SUPPRESSION PLANS. WHERE APPLICABLE). THE CONTRACTOR MUST IMMEDIATELY NOTIFY OWNER, ARCHITECT AND ENGINEER OF RECORD AND BOHLER, IN WRITING. OF ANY CONFLICTS. DISCREPANCIES OR AMBIGUITIES WHICH EXIST BETWEEN THESE PLANS AND ANY OTHER PLANS THAT COMPRISE THE CONSTRUCTION DOCUMENTS.

CONTRACTOR MUST REFER TO AND ENSURE COMPLIANCE WITH THE APPROVED ARCHITECTURAL/BUILDING PLANS OF RECORD FOR EXACT LOCATIONS AND

THE CONTRACTOR MUST FIFLD VERIEY ALL DIMENSIONS AND MEASUREMENTS SHOWN ON THESE PLANS. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION THE CONTRACTOR MUST IMMEDIATELY NOTIFY ENGINEER OF RECORD AND BOHLER, 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 RE-DONE OR REPAIRED DUE TO DIMENSIONS, MEASUREMENTS OR GRADES SHOWN INCORRECTLY ON THESE PLANS PRIOR TO BOTH (A) THE CONTRACTOR GIVING ENGINEEF OF RECORD AND BOHLER WRITTEN NOTIFICATION OF SAME AND (B) ENGINEER OF RECORD AND BOHLER, THEREAFTER, PROVIDING THE CONTRACTOR WITH WRITTEN AUTHORIZATION TO PROCEED WITH SUCH ADDITIONAL WORK.

THE CONTRACTOR MUST VERIFY ALL DIMENSIONS AND MEASUREMENTS INCLUDED ON DESIGN DOCUMENTS HEREIN AND MUST NOT SCALE OFF THE DRAWINGS DUE TO POTENTIAL PRINTING INACCURACIES. ALL DIMENSIONS AND MEASUREMENTS ARE TO BE CHECKED AND CONFIRMED BY THE GENERAL CONTRACTOR PRIOR TO PREPARATION OF SHOP DRAWINGS, FABRICATION/ORDERING OF PARTS AND MATERIALS AND COMMENCEMENT OF SITE WORK. SITE PLAN DRAWINGS ARE NOT INTENDED AS SURVEY DOCUMENTS. DIMENSIONS SUPERSEDE GRAPHICAL REPRESENTATIONS. THE CONTRACTOR MUST MAKE CONTRACTOR'S OWN MEASUREMENTS FOR LAYOUT OF IMPROVEMENTS.

THE OWNER AND CONTRACTOR MUST BE FAMILIAR WITH AND RESPONSIBLE FOR THE PROCUREMENT OF ANY AND ALL CERTIFICATIONS REQUIRED FOR THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.

WHEN INCLUDED AS ONE OF THE REFERENCED DOCUMENTS, THE GEOTECHNICAL REPORT, SPECIFICATIONS AND RECOMMENDATIONS SET FORTH THEREIN 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: (A) THE PLANS: AND (B) THE GEOTECHNICAL REPORT AND RECOMMENDATIONS MUST TAKE PRECEDENCE UNLESS SPECIFICALLY NOTED OTHERWISE ON THE PLANS. THE CONTRACTOR MUST NOTIFY THE ENGINEER OF RECORD AND BOHLER, IN WRITING, OF ANY SUCH CONFLICT, DISCREPANCY OR AMBIGUITY BETWEEN THE GEOTECHNICAL REPORT AND PLANS AND SPECIFICATIONS, PRIOR TO PROCEEDING WITH ANY FURTHER WORK. IF A GEOTECHNICAL REPORT WAS NOT CREATED, THEN THE CONTRACTOR MUST FOLLOW AND COMPLY WITH ALL OF THE REQUIREMENTS OF ANY AND ALL MUNICIPAL, COUNTY, STATE, AND FEDERAL LAWS AND APPLICABLE SPECIFICATIONS WHICH HAVE JURISDICTION OVER THIS PROJECT

ENGINEER OF RECORD AND BOHLER ARE NEITHER LIABLE NOR RESPONSIBLE FOR ANY SUBSURFACE CONDITIONS AND FURTHER. HAS NO LIABILITY FOR ANY HAZARDOUS MATERIALS, HAZARDOUS SUBSTANCES, OR POLLUTANTS ON, ABOUT OR UNDER THE PROPERTY

THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING WHEN AND WHERE 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. ALL OF THIS WORK IS TO BE PERFORMED AT CONTRACTOR'S SOLE COST

REMAIN EITHER FOR AN INITIAL PHASE OF THE PROJECT OR AS PART OF THE FINAL CONDITION. THE 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. DEBRIS MUST NOT BE BURIED ON THE SUBJECT SITE, ALL DEMOLITION AND CONSTRUCTION WASTES, UNSUITABLE EXCAVATED MATERIAL, EXCESS SOIL AND

THE CONTRACTOR MUST EXERCISE EXTREME CAUTION WHEN PERFORMING ANY WORK ACTIVITIES ADJACENT TO PAVEMENT, STRUCTURES, ETC. WHICH ARE TO

DERRIS (SOLID WASTE) MUST BE DISPOSED OF IN ACCORDANCE WITH THE REQUIREMENTS OF ANY AND ALL MUNICIPAL, COUNTY, STATE, AND FEDERAL LAWS AND APPLICABLE CODES WHICH HAVE JURISDICTION OVER THIS PROJECT OR OVER THE CONTRACTOR.

3. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO MAINTAIN RECORDS TO DEMONSTRATE PROPER AND FULLY COMPLIANT DISPOSAL ACTIVITIES, TO BE PROMPTLY PROVIDED TO THE OWNER UPON REQUEST.

THE CONTRACTOR MUST REPAIR, AT CONTRACTOR'S SOLE COST, ALL 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 MUST BEAR ALL COSTS ASSOCIATED 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 ISTRUCTION, AND IN CONFORMANCE WITH APPLICABLE CODES, LAWS, RULES, REGULATIONS, STATUTORY REQUIREMENTS AND STATUTES. TH CONTRACTOR MUST BEAR ALL COSTS ASSOCIATED WITH SAME. THE CONTRACTOR MUST, PROMPTLY, DOCUMENT ALL EXISTING DAMAGE AND NOTIFY, IN WRITING, THE OWNER AND THE CONSTRUCTION MANAGER PRIOR TO THE START OF CONSTRUCTION.

THE ENGINEER OF RECORD AND BOHLER ARE NOT RESPONSIBLE FOR AND HAVE NO CONTRACTUAL, LEGAL OR OTHER RESPONSIBILITIES FOR JOB SITE SAFETY JOB SITE SUPERVISION OR ANYTHING RELATED TO SAME THE ENGINEER OF RECORD AND BOHLER HAVE NOT BEEN RETAINED TO PERFORM OR TO BE RESPONSIBLE FOR JOB SITE SAFETY, SAME BEING WHOLLY OUTSIDE OF ENGINEER OF RECORD'S AND BOHLER SERVICES AS RELATED TO THE PROJECT. THE ENGINEER OF RECORD AND BOHLER ARE NOT RESPONSIBLE TO IDENTIFY OR REPORT ANY JOB SITE SAFETY ISSUES OR ANY JOB SITE CONDITIONS, AT ANY TIMI THE CONTRACTOR MUST IMMEDIATELY IDENTIFY IN WRITING, TO THE ENGINEER OF RECORD AND BOHLER. ANY DISCREPANCIES THAT MAY OR COULD AFFECT

THE PUBLIC SAFETY, HEALTH OR GENERAL WELFARE, OR PROJECT COST. IF THE CONTRACTOR PROCEEDS WITH CONSTRUCTION WITHOUT PROVIDING PROPER WRITTEN NOTIFICATION AS DESCRIBED ABOVE, IT WILL BE AT THE CONTRACTOR'S OWN RISK AND, FURTHER, THE CONTRACTOR MUST INDEMNIFY, DEFEND AND HOLD HARMLESS THE ENGINEER OF RECORD AND BOHLER FOR ANY AND ALL DAMAGES, COSTS, INJURIES, ATTORNEY'S FEES AND THE LIKE WHICH RESULT FROM OR ARE IN ANY WAY RELATED TO SAME INCLUDING, BUT NOT LIMITED TO, ANY THIRD PARTY AND FIRST PARTY CLAIMS. THE ENGINEER OF RECORD AND BOHLER ARE NOT RESPONSIBLE FOR ANY INJURY OR DAMAGES RESULTING FROM THE CONTRACTOR'S FAILURE TO BUILD OR

OWNER FAIL TO BUILD OR CONSTRUCT IN STRICT ACCORDANCE WITH APPROVED PLANS, RULES, STATUTES, CODES AND THE LIKE, THE CONTRACTOR AND/OR OWNER AGREE TO AND MUST JOINTLY, INDEPENDENTLY, SEPARATELY, AND SEVERALLY INDEMNIFY AND HOLD THE ENGINEER OF RECORD AND BOHLER HARMLESS FOR AND FROM ALL INJURIES, CLAIMS AND DAMAGES THAT ENGINEER AND BOHLER SUFFER AND ANY AND ALL COSTS THAT ENGINEER AND BOHLER INCUR AS RELATED TO SAME

ALL CONTRACTORS MUST CARRY AT LEAST THE MINIMUM AMOUNT OF THE SPECIFIED AND COMMERCIALLY REASONABLE STATUTORY WORKER'S COMPENSATION

INSURANCE, EMPLOYER'S LIABILITY INSURANCE AND COMMERCIAL GENERAL LIABILITY INSURANCE (CGL) INCLUDING ALSO ALL UMBRELLA COVERAGES, ALL CONTRACTORS MUST HAVE THEIR CGL POLICIES ENDORSED TO NAME BOHLER, 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 INSUREDS AND TO PROVIDE CONTRACTUAL LIABILITY COVERAGE SUFFICIENT TO INSURE (DEFEND, IF APPLICABLE) AND HOLD HARMLESS AND INDEMNITY OBLIGATIONS ASSUMED AND AGREED TO BY THE CONTRACTOR HEREIN. ALL CONTRACTORS MUST FURNISH BOHLER WITH CERTIFICATIONS OF INSURANCE OR CERTIFICATES OF INSURANCE AS EVIDENCE OF THE REQUIRED INSURANCE COVERAGES PRIOR TO COMMENCING ANY WORK AND UPON RENEWAL OF EACH POLICY DURING THE ENTIRE PERIOD OF CONSTRUCTION AND FOR TWO YEARS AFTER THE COMPLETION OF CONSTRUCTION AND AFTER ALL PERMITS ARE ISSUED, WHICHEVER DATE IS LATER, IN ADDITION, ALL CONTRACTORS AGREE THAT THEY WILL, TO THE FULLEST EXTENT PERMITTED UNDER THE LAW, INDEMNIFY, DEFEND AND HOLD HARMLESS BOHLER 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 OSTS, INCLUDING, BUT NOT LIMITED TO, REASONABLE ATTORNEYS' FEES AND DEFENSE COSTS, ARISING OUT OF OR IN ANY WAY CONNECTED WITH OR TO THI PROJECT, INCLUDING ALL CLAIMS BY EMPLOYEES OF THE CONTRACTOR(S), ALL CLAIMS BY THIRD PARTIES AND ALL CLAIMS RELATED TO THE PROJECT, THE CONTRACTOR MUST NOTIFY ENGINEER. IN WRITING. AT LEAST THIRTY (30) DAYS PRIOR TO ANY TERMINATION. SUSPENSION OR CHANGE OF ITS INSURANCE

THE ENGINEER OF RECORD AND BOHLER ARE 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 IN SCOPE AND REVISIONS THAT RESULT FROM SAME. THE CONTRACTOR IS FULLY AND SOLELY RESPONSIBLE FOR DETERMINING THE MEANS AND METHODS FOR COMPLETION OF THE WORK, PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.

. NEITHER THE PROFESSIONAL ACTIVITIES OF BOHLER, NOR THE PRESENCE OF BOHLER AND/OR ITS PAST, PRESENT AND FUTURE OWNERS, OFFICERS. DIRECTORS, PARTNERS, SHAREHOLDERS, MEMBERS, PRINCIPALS, COMMISSIONERS, AGENTS, SERVANTS, EMPLOYEES, AFFILIATES, SUBSIDIARIES, AND RELATED 25. WHERE THE LIMIT OF WORK COINCIDES WITH PROPERTY LINE, TREE LINE, PROPOSED SAWCUT OR COMBINATION THEREOF IT IS SHOWN ADJACENT TO THESE ENTITIES, AND ITS SUBCONTRACTORS AND SUBCONSULTANTS AT A CONSTRUCTION/PROJECT SITE (HEREIN "BOHLER PARTIES"), RELIEVES OR WILL RELIEVE THE CONTRACTOR OF AND FROM 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 ALL HEALTH AND SAFETY PRECAUTIONS REQUIRED BY ANY REGULATORY AGENCIES WITH JURISDICTION OVER THE PROJECT AND/OR PROPERTY, BOHLER PARTIES HAVE NO AUTHORITY TO EXERCISE ANY CONTROL OVER (OR ANY RESPONSIBILITY FOR) ANY CONSTRUCTION, THE CONTRACTOR OR ITS EMPLOYEES RELATING TO THEIR WORK AND ANY AND ALL HEALTH AND SAFETY PROGRAMS OR PROCEDURES. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR JOB SITE SAFETY. THE CONTRACTOR MUST INDEMNIFY, DEFEND, PROTECT AND HOLD HARMLESS BOHLER PARTIES FOR AND FROM ANY LIABILITY TO BOHLER PARTIES RESULTING FROM THE CONTRACTOR'S WORK, SERVICES AND/OR VIOLATIONS OF THIS NOTE, THESE NOTES OR ANY NOTES IN THE PLAN SET AND, FURTHER, THE CONTRACTOR MUST

WHEN IT IS CLEARLY AND SPECIFICALLY WITHIN BOHLER'S SCOPE OF SERVICES CONTRACT WITH THE OWNER/DEVELOPER, BOHLER 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 EVALUATING CONFORMANCE WITH THE DESIGN INTENT AND THE INFORMATION SHOWN IN THE CONSTRUCTION CONTRACT DOCUMENTS. CONSTRUCTION MEANS AND METHODS AND/OR TECHNIQUES OR PROCEDURES. COORDINATION OF THE WORK WITH OTHER TRADES. AND CONSTRUCTION SAFETY PRECAUTIONS ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND BOHLER HAS NO RESPONSIBILITY OR LIABILITY FOR SAME. BOHLER WILL PERFORM ITS SHOP DRAWING REVIEW WITH REASONABLE PROMPTNESS, AS CONDITIONS PERMIT. ANY DOCUMENT, DOCUMENTING BOHLER'S REVIEW OF A SPECIFIC ITEM OR LIMITED SCOPE, MUST NOT INDICATE THAT BOHLER HAS REVIEWED THE ENTIRE ASSEMBLY OF WHICH THE ITEM IS A COMPONENT, BOHLER IS NOT RESPONSIBLE FOR ANY DEVIATIONS FROM THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR MUST, IN WRITING, PROMPTLY AND IMMEDIATELY BRING ANY DEVIATIONS FROM THE CONSTRUCTION DOCUMENTS TO BOHLER'S ATTENTION. 30HLER IS NOT REQUIRED TO REVIEW PARTIAL SUBMISSIONS OR THOSE FOR WHICH SUBMISSIONS OF CORRELATED ITEMS HAVE NOT BEEN RECEIVED.

NAME BOHLER AS AN ADDITIONAL INSURED UNDER THE GENERAL CONTRACTOR'S POLICIES OF GENERAL LIABILITY INSURANCE AS DESCRIBED ABOVE.

IF THE CONTRACTOR DEVIATES FROM THESE PLANS AND/OR SPECIFICATIONS, INCLUDING THE NOTES CONTAINED HEREIN, WITHOUT FIRST OBTAINING THE PRIOR WRITTEN AUTHORIZATION OF THE ENGINEER OF RECORD AND BOHLER FOR ALL DEVIATIONS WITHIN ENGINEER'S SCOPE, THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE PAYMENT OF ALL COSTS INCURRED IN CORRECTING ANY WORK PERFORMED WHICH DEVIATES FROM THE PLANS. ALL FINES AND/OR PENALTIES ASSESSED WITH RESPECT THERETO AND ALL COMPENSATORY OR PUNITIVE DAMAGES RESULTING THEREFROM AND, FURTHER, MUST DEFEND. INDEMNIFY, PROTECT, AND HOLD HARMLESS THE ENGINEER OF RECORD AND BOHLER PARTIES TO THE FULLEST EXTENT PERMITTED UNDER THE LAW, FOR AND FROM ALL FEES, ATTORNEYS' FEES, DAMAGES, COSTS, JUDGMENTS, CLAIMS, INJURIES, PENALTIES AND THE LIKE RELATED TO SAI

AND LOCAL REQUIREMENTS, FOR ALL WORK THAT AFFECTS PUBLIC TRAVEL EITHER IN THE RIGHT OF WAY OR ON SITE. THE COST FOR THIS ITEM MUST BE INCLUDED IN THE CONTRACTOR'S PRICE AND IS THE CONTRACTOR'S SOLE RESPONSIBILITY.

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, THE ENGINEER OF RECORD AND BOHLER ARE 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 THE ENGINEER OF RECORD AND BOHLER PARTIES, ARMLESS FOR ALL INJURIES, DAMAGES AND COSTS THAT ENGINEER OF RECORD AND BOHLER INCUR AS A RESULT OF SAID FAILURE OR FAILURE TO PRESERVE

THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ENSURING THAT ALL CONSTRUCTION ACTIVITIES AND MATERIALS COMPLY WITH AND CONFORM TO APPLICABLE

FEDERAL, STATE AND LOCAL RULES AND REGULATIONS, LAWS, ORDINANCES, AND CODES, AND ALL APPLICABLE REQUIREMENTS OF THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970, (29 U.S.C. 651 ET SEQ.) AS AMENDED, AND ANY MODIFICATIONS, AMENDMENTS OR REVISIONS TO SAME

THE CONTRACTOR MUST STRICTLY COMPLY WITH THE LATEST AND CURRENT OSHA STANDARDS AND REGULATIONS, AND/OR ANY OTHER AGENCY WITH SDICTION OVER EXCAVATION AND TRENCHING PROCEDURES. ENGINEER OF RECORD AND BOHLER HAS NO RESPONSIBILITY FOR OR AS RELATED TO EXCAVATION AND TRENCHING PROCEDURES AND WORK.

THE CONTRACTOR AND THE OWNER MUST INSTALL ALL ELEMENTS AND COMPONENTS IN STRICT COMPLIANCE WITH AND IN ACCORDANCE WITH MANUFACTURER'S STANDARDS AND RECOMMENDED INSTALLATION CRITERIA AND SPECIFICATIONS. IF THE CONTRACTOR AND/OR OWNER FAIL TO DO SO, THEY AGREE TO JOINTLY, INDEPENDENTLY, SEPARATELY, COLLECTIVELY, AND SEVERALLY INDEMNIFY, DEFEND, PROTECT AND HOLD ENGINEER OF RECORD AND BOHLER PARTIES HARMLESS FOR ALL INJURIES AND DAMAGES THAT ENGINEER SUFFERS AND COSTS THAT ENGINEER INCURS AS A RESULT OF SAID FAILURE.

THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN AN ON-SITE STORMWATER POLITION PREVENTION PLAN (SWPPP) IN COMPLIANCE WITH THE ENVIRONMENTAL PROTECTION AGENCY (EPA) REQUIREMENTS OR LOCAL GOVERNING AGENCY FOR SITES WHERE ONE (1) ACRE OR MORE IS DISTURBED BY CONSTRUCTION ACTIVITIES (UNLESS THE LÓCAL JURISDICTION REQUIRES A DIFFERENT THRESHOLD). THE CONTRACTÒR MUST ENSURE THAT ALL ACTIVITIES, INCLUDING THOSE OF ALL 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 AND FURTHER, THE CONTRACTOR IS SOLELY AND COMPLETELY RESPONSIBLE FOR FAILING

AS CONTAINED IN THESE DRAWINGS AND ASSOCIATED DOCUMENTS PREPARED BY THE ENGINEER OF RECORD AND BOHLER. THE USE OF THE WORDS 'CERTIFY' OR 'CERTIFICATION' CONSTITUTE(S) AN EXPRESSION ONLY OF PROFESSIONAL OPINION REGARDING THE INFORMATION WHICH IS THE SUBJECT OF THE ENGINEER OF RECORD'S AND BOHLER KNOWLEDGE OR BELIEF AND IN ACCORDANCE WITH COMMON AND ACCEPTED PROCEDURE CONSISTENT WITH THE APPLICABLE STANDARDS OF PRACTICE, AND DOES NOT CONSTITUTE A WARRANTY OR GUARANTEE OF ANY NATURE OR TYPE, EITHER EXPRESSED OR IMPLIED, UNDER ANY CIRCUMSTANCES.

### **GENERAL DEMOLITION NOTES**

THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES 1 ARE REFERENCED HEREIN, AND THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES, IN THEIR ENTIRETY, THE CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS' SPECIFIC NOTES.

SIDEWALKS, WALKWAYS, AND ALL OTHER ADJACENT FACILITIES. THE CONTRACTOR MUST OBTAIN ALL APPLICABLE PERMITS FROM THE APPROPRIATE ERNMENTAL AUTHORITY(IES) PRIOR TO THE COMMENCEMENT OF ANY ROAD OPENING OR DEMOLITION ACTIVITIES IN OR ADJACENT TO THE RIGHT-OF-WA 3. WHEN DEMOLITION-RELATED ACTIVITIES IMPACT ROADWAYS AND/OR ROADWAY RIGHT-OF-WAY, THE CONTRACTOR MUST PROVIDE TRAFFIC CONTROL AND GENERALLY ACCEPTED SAFE PRACTICES IN CONFORMANCE WITH THE CURRENT FEDERAL HIGHWAY ADMINISTRATION "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD), AND THE FEDERAL, STATE, AND LOCAL REGULATIONS.

THE DEMOLITION (AND/OR REMOVALS) PLAN IS INTENDED TO PROVIDE GENERAL INFORMATION AND TO IDENTIFY ONLY CONDITIONS REGARDING ITEMS TO BE DEMOLISHED, REMOVED, AND/OR TO REMAIN 4.1. THE CONTRACTOR MUST ALSO REVIEW ALL CONSTRUCTION DOCUMENTS AND INCLUDE WITHIN THE DEMOLITION ACTIVITIES ALL INCIDENTAL WORK NECESSARY FOR THE CONSTRUCTION OF THE NEW SITE IMPROVEMENTS. THIS PLAN IS NOT INTENDED TO AND DOES NOT PROVIDE DIRECTION REGARDING THE MEANS, METHODS, SEQUENCING, TECHNIQUES AND PROCEDURES TO BE EMPLOYED TO ACCOMPLISH THE WORK. ALL MEANS, METHODS, SEQUENCING, TECHNIQUES AND PROCEDURES TO BE USED MUST BE IN STRICT

OSHA AND OTHER SAFETY PRECAUTIONS NECESSARY TO PROVIDE A SAFE WORK SITE FOR THE CONTRACTOR AND THE PUBLIC THE CONTRACTOR MUST PROVIDE ALL "METHODS AND MEANS" NECESSARY TO PREVENT MOVEMENT, SETTLEMENT, OR COLLAPSE OF EXISTING STRUCTURES AND ANY OTHER IMPROVEMENTS THAT ARE REMAINING ON OR OFF SITE. THE CONTRACTOR, AT THE CONTRACTOR'S SOLE COST, MUST REPAIR ALL DAMAGE TO ALL ITEMS AND FEATURES THAT ARE TO REMAIN. CONTRACTOR MUST USE NEW MATERIAL FOR ALL REPAIRS. CONTRACTOR'S REPAIRS MUST INCLUDE THE RESTORATION OF ALL ITEMS AND FEATURES REPAIRED TO THEIR PRE-DEMOLITION CONDITION. OR BETTER. CONTRACTOR MUST PERFORM ALL REPAIRS AT THE

ACCORDANCE AND CONFORMANCE WITH ALL STATE, FEDERAL, LOCAL, AND JURISDICTIONAL REQUIREMENTS, THE CONTRACTOR MUST COMPLY WITH ALL

CONTRACTOR'S SOLE EXPENSE. ENGINEER OF RECORD AND BOHLER ARE NOT RESPONSIBLE FOR JOB SITE SAFETY OR SUPERVISION. THE CONTRACTOR MUST PROCEED WITH THE DEMOLITION IN A SYSTEMATIC AND SAFE MANNER, COMPLYING WITH ALL OSHA REQUIREMENTS, TO ENSURE PUBLIC AND CONTRACTOR SAFETY AND SAFETY TO ALL PROPERTY

ON THE SITE OR ADJACENT OR NEAR TO THE SAME. . THE CONTRACTOR IS RESPONSIBLE FOR JOB SITE SAFETY. WHICH MUST INCLUDE. BUT IS NOT LIMITED TO. THE INSTALLATION AND MAINTENANCE OF BARRIERS FENCING, OTHER APPROPRIATE AND/OR NECESSARY SAFETY FEATURES AND ITEMS NECESSARY TO PROTECT THE PUBLIC FROM AREAS OF CONSTRUCTION AND ISTRUCTION ACTIVITIES. THE CONTRACTOR MUST SAFEGUARD THE SITE AS NECESSARY TO PERFORM THE DEMOLITION IN SUCH A MANNER AS TO PREVENT

THE ENTRY OF ALL UNAUTHORIZED PERSONS AT ANY TIME, TO OR NEAR THE DEMOLITION AREA. PRIOR TO THE COMMENCEMENT OF ANY SITE ACTIVITY AND ANY DEMOLITION ACTIVITY. THE CONTRACTOR MUST, IN WRITING, RAISE ANY QUESTION CONCERNING THE ACCURACY OR INTENT OF THESE PLANS AND/OR SPECIFICATIONS, ALL CONCERNS OR QUESTIONS REGARDING THE APPLICABLE SAFETY STANDARDS, AND/OR THE SAFETY OF THE CONTRACTOR AND/OR THIRD PARTIES IN PERFORMING THE WORK ON THIS PROJECT, ANY SUCH CONCERNS MUST BE CONVEYED TO THE ENGINEER OF RECORD AND BOHLER, IN WRITING AND MUST ADDRESS ALL ISSUES AND ITEMS RESPONDED TO, BY THE ENGINEER OF RECORD AND BY BOHLER, IN WRITING. ALL DEMOLITION ACTIVITIES MUST BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THESE PLANS AND

THE CONTRACTOR MUST BECOME FAMILIAR WITH THE APPLICABLE UTILITY SERVICE PROVIDER REQUIREMENTS AND IS RESPONSIBLE FOR ALL COORDINATION REGARDING UTILITY DEMOLITION AND/OR DISCONNECTION 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, REMOVED AND/OR ABANDONED IN ACCORDANCE WITH THE JRISDICTION AND UTILITY COMPANY REQUIREMENTS AND ALL OTHER APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES.

SPECIFICATIONS AND ALL APPLICABLE FEDERAL. STATE AND LOCAL REGULATIONS. RULES. REQUIREMENTS. STATUTES. ORDINANCES AND CODES.

10. PRIOR TO COMMENCING ANY DEMOLITION, THE CONTRACTOR MUST: 10.1. OBTAIN ALL REQUIRED PERMITS AND MAINTAIN THE SAME ON SITE FOR REVIEW BY THE ENGINEER AND ALL PUBLIC AGENCIES WITH JURISDICTION HROUGHOUT THE DURATION OF THE PROJECT, SITE WORK, AND DEMOLITION WORK.

10.2. NOTIFY, AT A MINIMUM, THE MUNICIPAL ENGINEER, DESIGN ENGINEER, AND LOCAL SOIL CONSERVATION JURISDICTION, AT LEAST 72 BUSINESS HOURS PRIOR TO THE COMMENCEMENT OF WORK INSTALL THE REQUIRED SOIL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO SITE DISTURBANCE, AND MAINTAIN SAID CONTROLS UNTIL SITE IS 10.4. IN ACCORDANCE WITH STATE LAW, THE CONTRACTOR MUST CALL THE STATE ONE-CALL DAMAGE PROTECTION SYSTEM FOR UTILITY MARK OUT, IN ADVANCE OF ANY EXCAVATION. 10.5. LOCATE AND PROTECT ALL UTILITIES AND SERVICES, INCLUDING BUT NOT LIMITED TO GAS, WATER, ELECTRIC, SANITARY AND STORM SEWER, TELEPHONE,

CARLE FIRER OPTIC CARLE FTC. WITHIN AND ADJACENT TO THE LIMITS OF PROJECT ACTIVITIES. THE CONTRACTOR MUST USE AND COMPLY WITH THE

REQUIREMENTS OF THE APPLICABLE UTILITY NOTIFICATION SYSTEM TO LOCATE ALL UNDERGROUND UTILITIES. PROTECT AND MAINTAIN IN OPERATION, ALL ACTIVE UTILITIES AND SYSTEMS THAT ARE NOT BEING REMOVED DURING ANY DEMOLITION ACTIVITIES ARRANGE FOR AND COORDINATE WITH THE APPLICABLE UTILITY SERVICE PROVIDER(S) FOR THE TEMPORARY OR PERMANENT TERMINATION OF SERVICE REQUIRED BY THE PROJECT PLANS AND SPECIFICATIONS REGARDING THE METHODS AND MEANS TO CONSTRUCT SAME. THESE ARE NOT THE ENGINEER OF RECORD'S RESPONSIBILITY. IN THE EVENT OF ABANDONMENT, THE CONTRACTOR MUST PROVIDE THE UTILITY ENGINEER AND OWNER WITH IMMEDIATE WRITTEN NOTIFICATION THAT THE EXISTING UTILITIES AND SERVICES HAVE BEEN TERMINATED AND ABANDONED IN ACCORDANCE WITH JURISDICTIONAL AND

NECESSARY OR AS REQUIRED TO MINIMIZE THE IMPACT ON, OF, AND TO THE AFFECTED PARTIES. WORK REQUIRED TO BE PERFORMED "OFF-PEAK" IS TO BE PERFORMED AT NO ADDITIONAL COST TO THE OWNER. 10.9. IN THE EVENT THE CONTRACTOR DISCOVERS ANY HAZARDOUS MATERIAL. THE REMOVAL OF WHICH IS NOT ADDRESSED IN THE PROJECT PLANS AND SPECIFICATIONS OR THE CONTRACT WITH THE OWNER/DEVELOPER, THE CONTRACTOR MUST IMMEDIATELY CEASE ALL WORK IN THE AREA OF DISCOVERY,

10.8. ARRANGE FOR AND COORDINATE WITH THE APPLICABLE UTILITY SERVICE PROVIDER(S) REGARDING WORKING "OFF-PEAK" HOURS OR ON WEEKENDS AS

AND IMMEDIATELY NOTIFY, IN WRITING AND VERBALLY, THE OWNER AND ENGINEER OF RECORD AND BOHLER, THE DISCOVERY OF SUCH MATERIALS TO PURSUE PROPER AND COMPLIANT REMOVAL OF SAME. THE CONTRACTOR MUST NOT PERFORM ANY EARTH MOVEMENT ACTIVITIES, DEMOLITION OR REMOVAL OF FOUNDATION WALLS, FOOTINGS, OR OTHER MATERIALS WITHIN THE LIMITS OF DISTURBANCE, UNLESS SAME IS IN STRICT ACCORDANCE AND CONFORMANCE WITH THE PROJECT PLANS AND SPECIFICATIONS, OR

2. DEMOLITION ACTIVITIES AND EQUIPMENT MUST NOT USE OR INCLUDE AREAS OUTSIDE THE DEFINED PROJECT LIMIT LINE, WITHOUT SPECIFIC WRITTEN MISSION AND AUTHORITY OF AND FROM THE OWNER AND ALL GOVERNMENTAL AGENCIES WITH JURISDICTION

PURSUANT TO THE WRITTEN DIRECTION OF THE OWNER'S STRUCTURAL OR GEOTECHNICAL ENGINEER.

THE CONTRACTOR MUST BACKFILL ALL EXCAVATION RESULTING FROM. OR INCIDENTAL TO, DEMOLITION ACTIVITIES, BACKFILL MUST BE ACCOMPLISHED WITH APPROVED BACKFILL MATERIALS AND MUST BE SUFFICIENTLY COMPACTED TO SUPPORT ALL NEW IMPROVEMENTS AND MUST BE PERFORMED IN COMPLIANCE WITH THE RECOMMENDATIONS AND GUIDANCE ARTICULATED IN THE GEOTECHNICAL REPORT. BACKFILLING MUST OCCUR IMMEDIATELY AFTER DEMOLITION ACTIVITIES AND MUST BE PERFORMED SO AS TO PREVENT WATER ENTERING THE EXCAVATION. FINISHED SURFACES MUST BE GRADED TO PROMOTE POSITIV DRAINAGE. THE CONTRACTOR IS RESPONSIBLE FOR COMPACTION TESTING AND MUST SUBMIT SUCH REPORTS AND RESULTS TO THE ENGINEER OF RECORD AN

14 EXPLOSIVES MUST NOT BE USED WITHOUT PRIOR WRITTEN CONSENT FROM BOTH THE OWNER AND ALL APPLICABLE NECESSARY AND REQUIRED OVERNMENTAL AUTHORITIES. PRIOR TO COMMENCING ANY EXPLOSIVE PROGRAM AND/OR ANY DEMOLITION ACTIVITIES, THE CONTRACTOR MUST ENSURE AND OVERSEE THE INSTALLATION OF ALL OF THE REQUIRED PERMIT AND EXPLOSIVE CONTROL MEASURES THAT THE FEDERAL. STATE, AND LOCAL GOVERNMENTS REQUIRE. THE CONTRACTOR IS ALSO RESPONSIBLE TO CONDUCT AND PERFORM ALL INSPECTION AND SEISMIC VIBRATION TESTING THAT IS REQUIRED TO MONITOR THE EFFECTS ON ALL LOCAL STRUCTURES AND THE LIKE.

5. IN ACCORDANCE WITH FEDERAL, STATE, AND/OR LOCAL STANDARDS, THE CONTRACTOR MUST USE DUST CONTROL MEASURES TO LIMIT AIRBORNE DUST AND DIRT RISING AND SCATTERING IN THE AIR. AFTER THE DEMOLITION IS COMPLETE, THE CONTRACTOR MUST CLEAN ALL ADJACENT STRUCTURES AND IMPROVEMENTS TO REMOVE ALL DUST AND DEBRIS WHICH THE DEMOLITION OPERATIONS CAUSE. THE CONTRACTOR IS RESPONSIBLE FOR RETURNING ALL ADJACENT AREAS TO THEIR "PRE-DEMOLITION" CONDITION AT CONTRACTOR'S SOLE COST

6. PAVEMENT MUST BE SAW CUT IN STRAIGHT LINES, ALL DEBRIS FROM REMOVAL OPERATIONS MUST BE REMOVED FROM THE SITE AT THE TIME OF EXCAVATION. STOCKPILING OF DEBRIS OUTSIDE OF APPROVED AREAS WILL NOT BE PERMITTED, INCLUDING BUT NOT LIMITED TO, THE PUBLIC RIGHT-OF-WAY. THE CONTRACTOR MUST MAINTAIN A RECORD SET OF PLANS WHICH INDICATES THE LOCATION OF EXISTING UTILITIES THAT ARE CAPPED, ABANDONED IN PLACE

HE OWNER/DEVELOPER UPON COMPLETION OF THE WORK, ALL OF WHICH IS AT THE CONTRACTOR'S SOLE COST. 8. THE CONTRACTOR MUST EMPTY, CLEAN AND REMOVE FROM THE SITE ALL UNDERGROUND STORAGE TANKS, IF ENCOUNTERED, IN ACCORDANCE WITH FEDERAL STATE COUNTY AND LOCAL REQUIREMENTS. PRIOR TO CONTINUING CONSTRUCTION IN THE AREA AROUND THE TANK WHICH EMPTYING. CLEANING AND REMOVAL

19. THE CONTRACTOR MUST LOCATE AND CLEARLY 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 SYSTEMS THAT ARE NOT BEING REMOVED/RELOCATED DURING SITE

20. CONTRACTOR SHALL FIELD LOCATE EXISTING UTILITIES PRIOR TO CONSTRUCTION AND IF REQUIRED, DIG EXPLORATORY TEST PITS TO CONFIRM EXACT LOCATION

AND DEPTH OF UTILITIES. CONTRACTOR SHALL NOTIFY DESIGN ENGINEER WITH ANY CONFLICTS AS NEEDED TO COORDINATE FINAL LOCATION OF ALL PROPOSED 21. CONTRACTOR SHALL INSPECT ALL EXISTING UTILITY STRUCTURES THAT ARE TO REMAIN FOR THE PROJECTS RE-USE TO VERIFY SUITABILITY FOR SAME. IF

STRUCTURES CAN NOT BE REUSED THEN THE CONTRACTOR SHALL PROVIDE A NEW STRUCTURE. THE CONTRACTOR SHALL COORDINATE SUCH WORK WITH THE 22. CONTRACTOR TO REMOVE ANY BUILDING FOUNDATION REMAINS OR ASSOCIATED IMPROVEMENTS, DELETERIOUS MATERIALS, AND/OR DEBRIS THAT IMPEDE THE

23. THE CONTRACTOR SHALL REVIEW THE PLANS VERSUS THE LOCATION OF EXISTING STRUCTURES, UTILITIES AND APPURTENANCES IN THE FIELD TO CONFIRM ACCURACY OF SAME AND VERIFY ITEMS TO BE REMOVED. THE CONTRACTOR SHALL CARRY COSTS FOR REMOVAL OF ANY EXISTING STRUCTURES.

APPURTENANCES, AND UNDERGROUND UTILITIES, INCLUDING BUT NOT LIMITED TO, DRAIN, WATER, SEWER, STEAM, IRRIGATION, GAS, TELECOM AND ELECTRIC 24. THE CONTRACTOR SHALL MAINTAIN, ADJUST OR ABANDON EXISTING MONITORING WELLS IN ACCORDANCE WITH THE DIRECTION OF THE ENVIRONMENTAL

CONSULTANT (TYP.) FEATURES FOR GRAPHICAL CLARITY

26. EXISTING TREES TO REMAIN ARE TO BE PROTECTED DURING CONSTRUCTION UNLESS CLEARLY INDICATED OTHERWISE. REASONABLE CARE AND CAUTION SHALL BE TAKEN DURING CONSTRUCTION TO PREVENT DAMAGE AND SELECTIVE PRUNING MAY BE REQUIRED TO ENSURE THAT TREES DO NOT CONFLICT WITH THE

7. CONTRACTOR SHALL REPAIR/REPLACE ANY TRAFFIC LOOP DETECTORS THAT ARE DAMAGED DURING CONSTRUCTION WITHIN EXISTING OR PROPOSED RIGHTS OF WAYS. ANY SUCH WORK SHALL BE PERFORMED BY A LICENSED / DOT APPROVED SIGNAL CONTRACTOR. ANY DAMAGED LOOPS OR OTHER SIGNAL EQUIPMENT SHALL BE REPAIRED IMMEDIATELY AFTER THE WORK IS COMPLETE. THE SIGNAL CONTRACTOR SHALL BE AVAILABLE TO MAKE ANY TEMPORARY SIGNAL CHANGES

28. THE CONTRACTOR MUST FIELD VERIFY THE LOCATIONS WHERE PROPOSED UTILITIES CROSS EXISTING UNDERGROUND UTILITIES BY USING A TEST PIT TO DETERMINE THE EXACT SIZE, DEPTH AND LOCATION, PRIOR TO COMMENCEMENT OF CONSTRUCTION

29. CONTRACTOR SHALL LOCATE ANY EXISTING UTILITY SERVICES THAT ARE TO BE TERMINATED AT THE EXISTING MAIN AND/OR PROPERTY LINE. THESE SERVICES ARE TO BE TERMINATED IN ACCORDANCE WITH MUNICIPAL / STATE TRANSPORTATION DEPARTMENT REQUIREMENTS

### GENERAL SITE NOTES

UTILITY COMPANY REQUIREMENTS

THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN, AND THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES, IN THEIR ENTIRETY. THE CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS' SPECIFIC NOTES PRIOR TO THE COMMENCEMENT OF GENERAL CONSTRUCTION, THE CONTRACTOR MUST INSTALL SOIL EROSION CONTROL AND ANY STORMWATER POLLUTION

APPLICABLE AND/OR APPROPRIATE AGENCIES' GUIDELINES TO PREVENT SEDIMENT AND/OR LOOSE DEBRIS FROM WASHING ONTO ADJACENT PROPERTIES OR THE THE CONTRACTOR IS RESPONSIBLE FOR A MAINTAINING AND PROTECTING THE TRAFFIC CONTROL PLAN AND ELEMENTS IN ACCORDANCE WITH FEDERAL, STATE, 3. ALL DIRECTIONAL/TRAFFIC SIGNING AND PAVEMENT STRIPING MUST CONFORM TO THE LATEST STANDARDS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL

PREVENTION PLAN (SWPPP) MEASURES NECESSARY, AS INDICATED ON THE APPROVED SOIL EROSION AND SEDIMENT CONTROL PLAN AND IN ACCORDANCE WITH

DEVICES (MUTCD) AND ANY APPLICABLE STATE OR LOCALLY APPROVED SUPPLEMENTS, GUIDELINES, RULES, REGULATIONS, STANDARDS AND THE LIKE. THE LOCATIONS OF PROPOSED UTILITY POLES AND TRAFFIC SIGNS SHOWN ON THE PLANS ARE SCHEMATIC AND PRELIMINARY. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR FIELD-VERIFYING THEIR LOCATION. THE CONTRACTOR MUST COORDINATE THE RELOCATION OF TRAFFIC SIGNS WITH THE ENTITY WITH JURISDICTION OVER THE PROJECT

OUT OF LOCATIONS OF INLETS, LIGHT POLES, ETC. MUST BE PERFORMED IN STRICT ACCORDANCE WITH THE DETAILS, UNLESS NOTED CLEARLY OTHERWISE. WHEN APPLICABLE, OWNER/ OPERATOR MUST FILE THE NOI FOR NPDES PERMITS AT APPROPRIATE AND/OR REQUIRED TIMEFRAMES BASED UPON THE DESIRED. START OF CONSTRUCTION, LAND DISTURBING ACTIVITIES MUST NOT COMMENCE UNTIL APPROVAL TO DO SO HAS BEEN RECEIVED FROM GOVERNING AUTHORITIES (INCLUDING STORMWATER POLLUTION PREVENTION PLAN). THE CONTRACTOR MUST STRICTLY ADHERE TO THE APPROVED SWPPP PLAN DURING

ALL DIMENSIONS SHOWN ARE TO BOTTOM FACE OF CURB. EDGE OF PAVEMENT, OR EDGE OF BUILDING, EXCEPT WHEN DIMENSION IS TO A PROPERTY LINE, STAKE

. ALL CONCRETE MUST BE AIR ENTRAINED AND INCLUDE THE MINIMUM COMPRESSIVE STRENGTH OF JURISDICTIONAL STANDARD PSI AT 28 DAYS (OR 4,000 PSI) UNLESS OTHERWISE NOTED ON THE PLANS, DETAILS AND/OR GEOTECHNICAL REPORT THE CONTRACTOR MUST FILE SITE SIGNAGE APPLICATION OR PERMIT UNDER SEPARATE APPLICATION UNLESS DONE SO AS PART OF JURISDICTIONAL PERMITTING

THE CONTRACTOR MUST REPAIR OR REPLACE. AT THE CONTRACTOR'S SOLE COST AND EXPENSE, ALL SIDEWALKS, CURBS, PAVEMENT MARKINGS, AND PAVEMENT AMAGED BY CONSTRUCTION ACTIVITIES WHETHER SPECIFIED ON THIS PLAN OR NOT.

WHERE RETAINING WALLS ARE IDENTIFIED ON THE PLANS, TOP AND BOTTOM OF WALL WIDTHS DO NOT REPRESENT THE ACTUAL WIDTH OF THE PROPOSED WALL, 21.5. CONTRACTOR SHALL VERIFY THE CONNECTION OF EXTERIOR PIPING TO ANY FIXTURES (SUCH AS AN EXTERIOR GREASE INTERCEPTOR) OR OTHER DRAINAGE RATHER THEY ARE AN ASSUMPTION BASED ON WALL TYPE AND WALL HEIGHT, WALL FOOTINGS AND JOR FOUNDATIONS ARE NOT IDENTIFIED HEREIN AND ARE TO BE SET/DETERMINED BY THE CONTRACTOR OR WALL DESIGNER, AND MUST BE SET BASED UPON FINAL STRUCTURAL DESIGN SHOP DRAWINGS PREPARED BY THE APPROPRIATE PROFESSIONAL LICENSED IN THE STATE WHERE THE CONSTRUCTION OCCURS. THE CONTRACTOR MUST ENSURE THAT AN APPROPRIATELY LICENSED PROFESSIONAL DESIGNS ALL WALLS SHOWN HEREON AND PRIOR TO CONSTRUCTION, REFER TO GRADING NOTES REGARDING RETAINING WALL

10. WORK WITHIN THE RIGHT-OF-WAY MUST BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE REQUIREMENTS AND STANDARDS OF THE DEPARTMENT OF

PUBLIC WORKS, ENGINEERING DEPARTMENT, HIGHWAY DIVISION, AND/OR STATE DOT HIGHWAY DEPARTMENT

12. CONTRACTOR IS CAUTIONED OF EXISTING UTILITY SERVICES TO REMAIN IN PROXIMITY TO PROPOSED BOLLARDS AND SIGNS. CONTRACTOR SHALL PROVIDE FIELD 23. GAS METERS MUST BE PROTECTED AS REQUIRED BY THE JURISDICTIONAL GAS PROVIDER. MODIFICATION LOCATIONS OF BOLLARDS AND BOLLARDS WITH SIGNAGE AS NEEDED TO AVOID CONFLICTS WITH EXISTING UTILITY SERVICES TO REMAIN

### **GENERAL GRADING NOTES**

THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN, AND THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES, IN THEIR ENTIRETY, THE CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS' SPECIFIC NOTES. SITE GRADING MUST BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT AS REFERENCED IN THIS PLAN SET. IF NO GEOTECHNICAL REPORT HAS BEEN REFERENCED, THE CONTRACTOR MUST HAVE A GEOTECHNICAL ENGINEER

ARCH THE CONTRACTOR MUST CONDUCT DEMOLITION/REMOVALS ACTIVITIES IN SUCH A MANNER AS TO ENSURE MINIMUM INTERFERENCE WITH ROADS. STREETS

THE REQUIREMENTS OF ALL MUNICIPAL, COUNTY, STATE, AND FEDERAL LAWS, WHICH HAVE JURISDICTION OVER THIS PROJECT.

THE CONTRACTOR IS REQUIRED TO SECURE ALL NECESSARY AND/OR REQUIRED PERMITS AND APPROVALS FOR ALL OFF-SITE MATERIAL SOURCES AND DISPOSAL FACILITIES. THE CONTRACTOR MUST SUPPLY A COPY OF APPROVALS TO THE ENGINEER OF RECORD AND THE OWNER PRIOR TO THE CONTRACTOR COMMENCING THE CONTRACTOR IS FULLY RESPONSIBLE FOR VERIFYING EXISTING TOPOGRAPHIC INFORMATION AND UTILITY INVERT ELEVATIONS PRIOR TO COMMENCING ANY ONSTRUCTION. SHOULD DISCREPANCIES BETWEEN THE PLANS AND INFORMATION OBTAINED THROUGH FIELD VERIFICATIONS BE IDENTIFIED OR EXIST, THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER OF RECORD. IN WRITING.

PROVIDE WRITTEN SPECIFICATIONS AND RECOMMENDATIONS PRIOR TO THE CONTRACTOR COMMENCING THE GRADING WORK. THE CONTRACTOR MUST FOLLOW BC

THE CONTRACTOR IS RESPONSIBLE FOR REMOVING AND REPLACING ALL UNSUITABLE MATERIALS WITH SUITABLE MATERIALS AS SPECIFIED IN THE GEOTECHNICAL REPORT. THE CONTRACTOR MUST COMPACT ALL EXCAVATED OR FILLED AREAS IN STRICT ACCORDANCE WITH THE GEOTECHNICAL REPORT'S GUIDANCE, MOISTURE CONTENT 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. THIS REPORT MUST VERIFY THAT ALL FILLED AREAS AND SUBGRADE AREAS WITHIN THE BUILDING PAD AREA AND AREAS TO BE PAVED HAVE BEEN COMPACTED IN ACCORDANCE WITH THESE PLANS, SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT AND ALL APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES, AND CODES WHICH ARE IN FEFECT AND WHICH ARE APPLICABLE TO THE PROJECT. SUBBASE MATERIAL FOR SIDEWALKS, CURB, OR ASPHALT MUST BE FREE OF ORGANICS AND OTHER UNSUITABLE TERIALS. SHOULD SUBBASE BE DEEMED UNSUITABLE BY OWNER/DEVELOPER, OR OWNER/DEVELOPER'S REPRESENTATIVE, SUBBASE MUST BE REMOVED AND FIFV FILLED WITH APPROVED FILL MATERIAL COMPACTED AS THE GEOTECHNICAL REPORT DIRECTS. FARTHWORK ACTIVITIES INCLUDING BUT NOT LIMITED TO EXCAVATION BACKELL 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.

IN THE EVENT OF A DISCREPANCY(IES) AND/OR A CONFLICT(S) BETWEEN PLANS, OR RELATIVE TO OTHER PLANS, THE GRADING PLAN TAKES PRECEDENCE AND ITROLS. THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER OF RECORD, IN WRITING, OF ANY DISCREPANCY(IES) AND/OR CONFLICT(S). THE CONTRACTOR IS RESPONSIBLE TO IMPORT FILL OR EXPORT EXCESS MATERIAL AS NECESSARY TO CONFORM TO THE PROPOSED GRADING, AND TO BACKFILL EXCAVATIONS FOR THE INSTALLATION OF UNDERGROUND IMPROVEMENTS.

PROPOSED TOP OF CURB ELEVATIONS ARE GENERALLY 6" ABOVE PAVEMENT GRADE UNLESS OTHERWISE NOTED.

THE CONTRACTOR MUST CONFIRM AND ENSURE THAT AS CONSTRUCTED IMPROVEMENTS CREATE THE FOLLOWING MINIMUM SLOPES (EXCEPT WHERE ADA REQUIREMENTS LIMIT THEM): 1.0% ON ALL CONCRETE SURFACES, 1.5% ON ASPHALT SURFACES, 1.5% IN LANDSCAPED AREAS AND 0.75% SLOPE AGAINST ALL ISLANDS, GUTTERS, AND CURBS TO PROVIDE POSITIVE DRAINAGE.

0 WHERE RETAINING WALLS ARE IDENTIFIED ON THE PLANS TOP AND BOTTOM OF WALL FLEVATIONS (TW & BW) REPRESENT THE PROPOSED FINISHED GRADE AT THE FACE OF THE TOP AND BOTTOM OF THE WALL AND DO NOT REPRESENT THE ELEVATION OF THE PROPOSED WALL (INCLUDING THE CAP UNIT OR FOOTING). WALL FOOTINGS/FOUNDATION ELEVATIONS ARE NOT IDENTIFIED HEREIN AND ARE TO BE SET/DETERMINED BY THE CONTRACTOR OR WALL DESIGNER, AND MUST BE SET BASED UPON FINAL STRUCTURAL DESIGN SHOP DRAWINGS PREPARED BY THE APPROPRIATE PROFESSIONAL LICENSED IN THE STATE WHERE THE CONSTRUCTION OCCURS. THE CONTRACTOR MUST ENSURE THAT THERE ARE NO UTILITIES ON THE PASSIVE SIDE OF THE RETAINING WALL. NO EXCAVATION MAY BE PERFORMED ON THE PASSIVE SIDE OF THE RETAINING WALL WITHOUT APPROPRIATELY AND SAFELY SUPPORTING THE WALL IN ACCORDANCE WITH THE TANDARD OF CARE AND ALL APPLICABLE RULES, REGULATIONS, CODES, ORDINANCES, LAWS AND STATUTES.

11. MSE OR GRAVITY BLOCK WALLS SHALL BE CONSTRUCTED SUCH THAT UPON COMPLETION OF CONSTRUCTION THERE IS NO UNFINISHED SURFACE OR LIFTING NGS VISIBLE (E.G. USE OF FINISHED TOP BLOCK OR CAP STONES

STORMWATER RUNOFE WITHIN PROPERTY MUST BE COLLECTED ON-SITE WITH NO OVERLAND RUNOFF ONTO THE RIGHT-OF-WAY OR ADJACENT PROPERTIES TO THE MAXIMUM EXTENT POSSIBLE OR IN THE MANNER SHOWN ON THE CONSTRUCTION DRAWINGS. STORMWATER RUNOFF ONTO ADJACENT PROPERTIES SHALL BE CONTROLLED AS TO NOT ADVERSLY IMPACT SAID PROPERTIES.

13. BEFORE COMMENCING GRADING WORK, CONTRACTOR SHALL SUBMIT SAMPLES OF ALL NATIVE AND IMPORTED MATERIALS WITH THEIR INTENDED FOR TRUCTURAL USES TO THE GEOTECHNICAL ENGINEER OF RECORD

14. REFER TO GENERAL NOTES SHEET FOR ADDITIONAL ADA GUIDELINES AND REQUIREMENTS.

15 FOR ALL RETAINING WALLS (CTLISE 3 ALL OTHER OFFICES LISE 4) FEET OR GREATER IN HEIGHT 15.1. THE OWNER OR THE OWNER'S CONTRACTOR IS TO PROVIDE A SITE-SPECIFIC RETAINING WALL DESIGN PREPARED BY THE APPROPRIATE PROFESSIONAL LICENSED (E.G. STRUCTURAL ENGINEER) IN THE STATE WHERE THE CONSTRUCTION OCCURS. SOIL TYPES, WATER TABLE ELEVATION, EXISTING & PROPOSED R.O.W. SURROUNDING IMPROVEMENTS/CONDITIONS (INCLUDING BUT NOT LIMITED TO SLOPES, DRIVE AISLES, ROADS, FENCING, GUIDERAILS, UTILITIES, DRAINAGE SAN FACILITIES, STRUCTURES, FOUNDATIONS), LIVE LOADS AND OTHER SITE AMENITIES THAT COULD HAVE AN INFLUENCE OR IMPACT ON THE RETAINING WALL(S). CONSTRUCTABILITY AND/OR LONGEVITY SHALL BE CONSIDERED AND INCORPORATED INTO THE RETAINING WALL DESIGN AS WELL AS THE GLOBAL STABILITY

PEER REVIEW AND GLOBAL STABILITY ANALYSIS OF THE RETAINING WALL DESIGN MUST BE COMPLETED BY THE OWNER'S GEOTECHNICAL ENGINEER TO CERTIFY THE DESIGN MEETS INDUSTRY STANDARDS FOR FACTOR OF SAFETY. SOIL TYPES, WATER TABLE ELEVATION AND DESIGN PROPERTIES AS NOTED ABOVE SHALL BE FIELD CONFIRMED AND APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO WALL CONSTRUCTION. 16. CONTRACTOR SHALL INSTALL CONCRETE CURB ALONG FACE OF BUILDING / WALL AS SHOWN TO PROVIDE CONSISTENT WIDTH ALONG LENGTH OF PROPOSED

ACCESSIBLE RAMP AND RAMP LANDING TO MEET ADA/AAB REQUIREMENTS 7. CONTRACTOR SHALL REVIEW RETAINING WALL LOCATIONS VERSUS APPLICABLE STATE AND LOCAL CODES AND PROVIDE FALL PROTECTION (E.G. FENCING OR RAILING) IN ACCORDANCE WITH SAID CODE.

18 CONTRACTOR SHALL COORDINATE WITH OWNER/OPERATOR TO REVIEW EXISTING DEPRESSIONS WITHIN EXISTING PAVEMENT AREAS TO REMAIN AND SHALL

CONFIRM THAT THE SCOPE OF WORK SHALL PROVIDE POSITIVE DRAINAGE BY FIXING ANY EXISTING AREAS OF PONDING. 19. BEFORE COMMENCING GRADING WORK, CONTRACTOR SHALL SUBMIT SAMPLES OF ALL NATIVE AND IMPORTED MATERIALS WITH THEIR INTENDED FOR

### **GENERAL DRAINAGE & UTILITY NOTES**

STRUCTURAL USES TO THE GEOTECHNICAL ENGINEER OF RECORD.

THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN, AND THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES. IN THEIR ENTIRETY, THE CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS' SPECIFIC NOTES.

LOCATIONS OF ALL EXISTING AND PROPOSED SERVICES ARE APPROXIMATE, AND THE CONTRACTOR MUST INDEPENDENTLY VERIEY AND CONFIRM THOSE LOCATIONS AND SERVICES WITH LOCAL UTILITY COMPANIES PRIOR TO COMMENCING ANY CONSTRUCTION OR EXCAVATION. THE CONTRACTOR MUST INDEPENDENTLY VERIFY AND CONFIRM ALL SANITARY CONNECTION POINTS AND ALL OTHER UTILITY SERVICE CONNECTION POINTS IN THE FIELD, PRIOR TO COMMENCING ANY CONSTRUCTION. THE CONTRACTOR MUST REPORT ALL DISCREPANCIES, ERRORS AND OMISSIONS IN WRITING. TO THE ENGINEER OF RECORD THE CONTRACTOR MUST VERTICALLY AND HORIZONTALLY LOCATE ALL UTILITIES AND SERVICES INCLUDING, BUT NOT LIMITED TO, GAS, WATER, ELECTRIC SANITARY AND STORM, 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 OF THE

EXISTING UTILITIES WHICH OCCURS DURING CONSTRUCTION. OR RELOCATED DUE TO DEMOLITION ACTIVITIES. THIS RECORD DOCUMENT MUST BE PREPARED IN A NEAT AND WORKMAN-LIKE MANNER AND TURNED OVER TO

4. THE CONTRACTOR MUST FIELD VERIFY THE PROPOSED INTERFACE POINTS (CROSSINGS) WITH EXISTING UNDERGROUND UTILITIES BY USING A TEST PIT TO CONFIRM EXACT DEPTH, PRIOR TO COMMENCEMENT OF CONSTRUCTION.

UNDERGROUND UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ALL DAMAGE TO ANY EXISTING UTILITIES WHICH OCCUR DURING CONSTRUCTION,

AT NO COST TO THE OWNER AND AT CONTRACTOR'S SOLE COST AND EXPENSE. THE CONTRACTOR MUST BEAR ALL COSTS ASSOCIATED WITH DAMAGE TO ANY

STORMWATER ROOF DRAIN LOCATIONS ARE BASED ON ARCHITECTURAL PLANS. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING LOCATIONS OF SAME BASED UPON FINAL ARCHITECTURAL PLANS.

THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING SITE PLAN DOCUMENTS AND ARCHITECTURAL PLANS FOR EXACT BUILDING UTILITY CONNECTION LOCATIONS; GREASE TRAP REQUIREMENTS; AND DETAILS, DOOR ACCESS, AND EXTERIOR GRADING. THE ARCHITECT WILL DETERMINE THE UTILITY SERVICE SIZES. THE CONTRACTOR MUST COORDINATE INSTALLATION OF LITH ITY 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 OF THE APPLICABLE JURISDICTION AND REGULATORY AGENCIES AND ALL OTHER APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES AND, FURTHER, IS RESPONSIBLE FOR COORDINATING THE UTILITY TIE-INS/CONNECTIONS PRIOR TO CONNECTING TO THE EXISTING UTILITY/SERVICE WHERE A CONFLICT(S) EXISTS BETWEEN THESE DOCUMENTS AND THE ARCHITECTURAL PLANS OR WHERE ARCHITECTURAL PLAN UTILITY NNECTION POINTS DIFFER, THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER OF RECORD, IN WRITING, AND PRIOR TO CONSTRUCTION, MUST

ALL FILL, COMPACTION, AND BACKFILL MATERIALS REQUIRED FOR UTILITY INSTALLATION MUST BE EXACTLY AS PER THE RECOMMENDATIONS PROVIDED IN THE OTECHNICAL REPORT AND THE CONTRACTOR MUST COORDINATE SAME WITH THE APPLICABLE UTILITY COMPANY SPECIFICATIONS. WHEN THE PROJECT DOES NOT HAVE GEOTECHNICAL RECOMMENDATIONS. FILL AND COMPACTION MUST COMPLY WITH APPLICABLE REQUIREMENTS AND SPECIFICATIONS. ENGINEER OF RECORD AND BOHLER ARE NOT RESPONSIBLE FOR DESIGN OF TRENCH BACKFILL OR FOR COMPACTION REQUIREMENTS

DURING THE INSTALLATION OF SANITARY STORM AND ALL LITHLITIES. THE CONTRACTOR MUST MAINTAIN A CONTEMPORANEOUS AND THOROUGH RECORD OF CONSTRUCTION TO IDENTIFY THE AS-INSTALLED LOCATIONS OF ALL UNDERGROUND INFRASTRUCTURE. THE CONTRACTOR MUST CAREFULLY NOTE ANY INSTALLATIONS THAT DEVIATE. IN ANY RESPECT, FROM THE INFORMATION CONTAINED IN THESE PLANS, THIS RECORD MUST BE KEPT ON A CLEAN COPY OF THE APPROPRIATE PLAN(S), WHICH THE CONTRACTOR MUST PROMPTLY PROVIDE TO THE OWNER IMMEDIATELY UPON THE COMPLETION OF WORK. THE CONTRACTOR MUST ENSURE THAT ALL UTILITY TRENCHES LOCATED IN EXISTING PAVED ROADWAYS INCLUDING SANITARY, WATER AND STORM SYSTEMS.

RE REPAIRED IN ACCORDANCE WITH REFERENCED MUNICIPAL, COUNTY AND OR STATE DOT DETAILS AS APPLICABLE. THE CONTRACTOR MUST COORDINATE INSPECTION AND APPROVAL OF COMPLETED WORK WITH THE AGENCY WITH JURISDICTION OVER SAME. 10. FINAL LOCATIONS OF PROPOSED UTILITY POLES, AND/ OR POLES TO BE RELOCATED ARE AT THE SOLE DISCRETION OF THE RESPECTIVE UTILITY COMPANY

REGARDLESS OF WHAT THIS PLAN DEPICTS. 1. WATER SERVICE MATERIALS, BURIAL DEPTH, AND COVER REQUIREMENTS MUST BE SPECIFIED BY THE LOCAL UTILITY COMPANY, THE CONTRACTOR MUST

CONTACT THE APPLICABLE MUNICIPALITY TO CONFIRM THE PROPER WATER METER AND VAULT, PRIOR TO COMMENCING CONSTRUCTION

2. THE TOPS OF EXISTING MANHOLES. INLET STRUCTURES, AND SANITARY CLEANOUT MUST BE ADJUSTED, AS NECESSARY, TO MATCH PROPOSED FINISHED GRADES MITH NO TRIPPING OR SAFETY HAZARD IN ACCORDANCE WITH ALL APPLICABLE STANDARDS, REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES.

13. THE CONTRACTOR'S PRICE FOR WATER AND SEWER SERVICE INSTALLATIONS MUST INCLUDE ALL FEES, COSTS, AND APPURTENANCES REQUIRED BY THE UTILITY PROVIDER (AND OTHER AGENCIES HAVING JURISDICTION OVER THE WORK) TO PROVIDE FULL AND COMPLETE WORKING SERVICE, INCLUDING (BUT NOT LIMITED TO) NECESSARY FEES, TESTING, DISINFECTING, INSPECTIONS, ROAD OPENING & BACKFILL REQUIREMENTS, TRAFFIC CONTROL AND SURETY BONDS AS DEFINED BY THE PROVIDER (AND OTHER AGENCIES HAVING JURISDICTION OVER THE WORK).

14. ALL WORK ASSOCIATED WITH UTILITY POLES, OVERHEAD WIRES AND ANY/ALL APPURTENANCES SHALL BE COORDINATED BY THE GC WITH THE LOCAL UTILITY COMPANIES PRIOR TO THE ORDERING OF ANY MATERIALS. THIS MAY INCLUDE BUT IS NOT LIMITED TO THE REMOVAL, INSTALLATION, RELOCATION OR PROTECTION OF ANY BRACING, GUY WIRES, OVERHEAD WIRES, ETC. AS MAY BE REQUIRED TO ACCOMMODATE THE PROJECT

15 SEWERS CONVEYING SANITARY FLOW OR INDUSTRIAL FLOW MUST BE SEPARATED FROM WATER MAINS BY A DISTANCE OF AT LEAST 10 FEFT HORIZONTALLY IF SUCH LATERAL SEPARATION IS NOT POSSIBLE, THE PIPES MUST, AT A MINIMUM, BE IN SEPARATE TRENCHES WITH THE AT LEAST 18 INCHES OF VERTICAL PARATION FROM THE BOTTOM OF THE WATER MAIN TO THE TOP OF THE SEWER LINE. WHERE APPROPRIATE SEPARATION FROM A WATER MAIN IS NO POSSIBLE, THE SEWER MUST BE ENCASED IN CONCRETE, OR CONSTRUCTED OF DUCTILE IRON PIPE USING MECHANICAL OR SLIP-ON JOINTS FOR A DISTANCE OF AT LEAST 10 FEET ON EITHER SIDE OF THE CROSSING. IN ADDITION. ONE FULL LENGTH OF SEWER PIPE SHOULD BE LOCATED SO BOTH JOINTS WILL BE AS FAR FROM THE WATER LINE AS POSSIBLE. WHERE A WATER MAIN CROSSES UNDER A SANITARY SEWER, ADEQUATE STRUCTURAL SUPPORT FOR THE SANITARY SEWER MUST BE PROVIDED. ALL CROSSINGS SHALL BE IN ACCORDANCE WITH JURISDICTIONAL PERMITTING/UTILITY AUTHORITIES REGULATIONS

16. WHEN THESE PLANS INVOLVE MULTIPLE BUILDINGS, SOME OF WHICH MAY BE BUILT AT A LATER DATE, THE CONTRACTOR MUST EXTEND ALL UTILITY SERVICES, INCLUDING BUT NOT LIMITED TO STORM, SANITARY, UTILITIES, AND IRRIGATION LINES, TO A POINT AT LEAST FIVE (5) FEET BEYOND THE PAVED AREAS FOR WHICH THE CONTRACTOR IS RESPONSIBLE. THE CONTRACTOR MUST CAP FNDS OF INSTALLED UTILITIES AS APPROPRIATE, MARK UTILITY FNDS WITH MAGENTIC TRACER. TAPE. MARK TERMINOUS LOCATIONS WITH A 2X4 STAKE. AND MUST NOTE THE LOCATION OF ALL UTILITY STUBS ON A CLEAN COPY OF THE PLAN. THIS RECORD DOCUMENT MUST BE PREPARED IN A NEAT AND WORKMAN-LIKE MANNER AND TURNED OVER TO THE OWNER/DEVELOPER UPON COMPLETION OF THE WORK, ALL

17. STORM AND SANITARY PIPE LENGTHS INDICATED ARE NOMINAL AND ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE UNLESS

18. UNLESS INDICATED OTHERWISE, ALL NEW UTILITIES/SERVICES, INCLUDING ELECTRIC, TELEPHONE, CABLE TV, ETC., MUST BE INSTALLED UNDERGROUND. ALL NEW FILITY SERVICES MUST BE INSTALLED IN ACCORDANCE WITH THE UTILITY SERVICE PROVIDER INSTALLATION SPECIFICATIONS AND STANDARDS ). SANITARY PIPE MUST BE POLYVINYL CHLORIDE (PVC) SDR 35 EXCEPT WHERE CLEARLY INDICATED OTHERWISE. SANITARY LATERAL(S) MUST BE PVC SDR 26 UNLESS CLEARLY INDICATED OTHERWISE.

20. UNLESS CLEARLY INDICATED OTHERWISE, ALL STORM PIPE MUST BE REINFORCED CONCRETE PIPE (RCP) CLASS III WITH SILT/SOIL TIGHT JOINTS, WHEN HIGH-DENSITY POLYETHYLENE PIPE (HDPE) IS CALLED FOR ON THE PLANS, IT MUST CONFORM TO AASHTO M252 FOR PIPES 4" TO 10" AND TO AASHTO M294 FOR PIPES 12" TO 60" AND TYPE S (SMOOTH INTERIOR WITH ANGULAR CORRUGATIONS) WITH GASKET FOR SILT/SOIL TIGHT JOINT. PIPE FOR ROOF DRAIN CONNECTION MUST BE HDPE SDR 26 OR PVC SCHEDULE 40 UNLESS INDICATED OTHERWISE. HDPE PIPE JOINT GASKETS MUST BE PROVIDED AND CONFORM TO ASTM F477 DRAIN PIPE INSTALLED WITH OVER TEN (10) FEET OVER COVER AND/OR IN HIGH GROUNDWATER CONDITIONS SHALL BE SANITITE HP POLYPROPOPYLENE PIPE (PP), OR APPROVED EQUIVALENT.

21. UNLESS CLEARLY INDICATED OTHERWISE ALL SANITARY PIPE MUST BE 21.1. FOR PIPES LESS THAN 12 FEET DEEP: POLYVINYL CHLORIDE (PVC) SDR 35 PER ASTM D3034. 21.2 FOR PIPES GREATER THAN 12 FEET DEEP: POLYVINYL CHI ORIDE (PVC) SDR 26 PER ASTM D3034

UNLESS LOCAL OR STATE BUILDING / PLUMBING CODE CLEARLY SPECIFIES DIFFERENTLY, SANITARY LATERALS MUST BE PVC SDR 26. 21.4. FOR ALL UTILITY PIPING (INCLUDING DRAIN) WITHIN 10 FT OF A BUILDING. PIPE MATERIAL SHALL COMPLY WITH APPLICABLE LOCAL OR STATE BLIII DING AND PLUMBING CODES. CONTRACTOR SHALL REFER TO PLUMBING ENGINEERING PLANS AND VERIFY PIPE MATERIAL WITH LOCAL OFFICIAL PRIOR TO ORDERING

22. WATER MAIN PIPING MUST BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS AND SPECIFICATIONS OF THE LOCAL WATER COMPANY. IN THE ARSENCE OF SUCH REQUIREMENTS, WATER MAIN PIPING MUST BE CEMENT-LINED DUCTILE IRON (DIP) MINIMUM CLASS 52 THICKNESS. ALL PIPE AND APPURTENANCES MUST COMPLY WITH THE APPLICABLE AWWA STANDARDS IN EFFECT AT THE TIME OF APPLICATION

SYSTEMS WITH LOCAL OFFICIALS FOR COMPLIANCE WITH APPLICABLE LOCAL OR STATE BUILDING AND PLUMBING CODES PRIOR TO ORDERING OF MATERIALS

### **ABBREVIATIONS**

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SETBACK OR BUFFER  PROPOSED  DILIDING  CONCRETE  DEGREE  DEGREE  DEGREE  DEGREE  DEGREE  DEGREE  DEGREE  DILAMBETER  DILAMBETE	BOTTOM OF CURB		-			
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UNDERGROUND         GAS         EXISTING         — G — G — G — G — G — G — G — G — G — G	RADIUS OR RADII REINFORCED CONCRETE PIPE RIGHT-OF-WAY SANITARY SEWER MANHOLE SLOPE SQUARE FOOT STATION STORM TO BE REMOVED TO BE REMOVED AND REPLACED TOP OF CURB TOP OF WALL	RIDGE  DRAIN PIPE  SEWER PIPE  SEWER FORCE MAIN  ELECTRIC  TELECOMMUNICATION S	EXISTING PROPOSED	S S S S S S S S S S S S S S S S S S S		90
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TYPICAL LINE TYPE LEGEND

REVISIONS

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		10/04/2023	POLE LAYOUT	GD
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W201257-SPPD-

PROJECT No.: DRAWN BY: CMC / OCF **CHECKED BY** CAD I.D.:

PROJECT:

### PROPOSED SITE PLAN DOCUMENTS

MAPLE STREET

**SOLAR LLC PROPOSED SOLAR FARM** 

LOTS INCLUDED (PARCEL #):255-001 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009 160 MAPLE STREET.

TOWN OF BELLINGHAM & FRANKLIN,

NORFOLK COUNTY, MASSACHUSETTS

352 TURNPIKE ROAD

**SOUTHBOROUGH, MA 01772** Phone: (508) 480-9900

www.BohlerEngineering.com



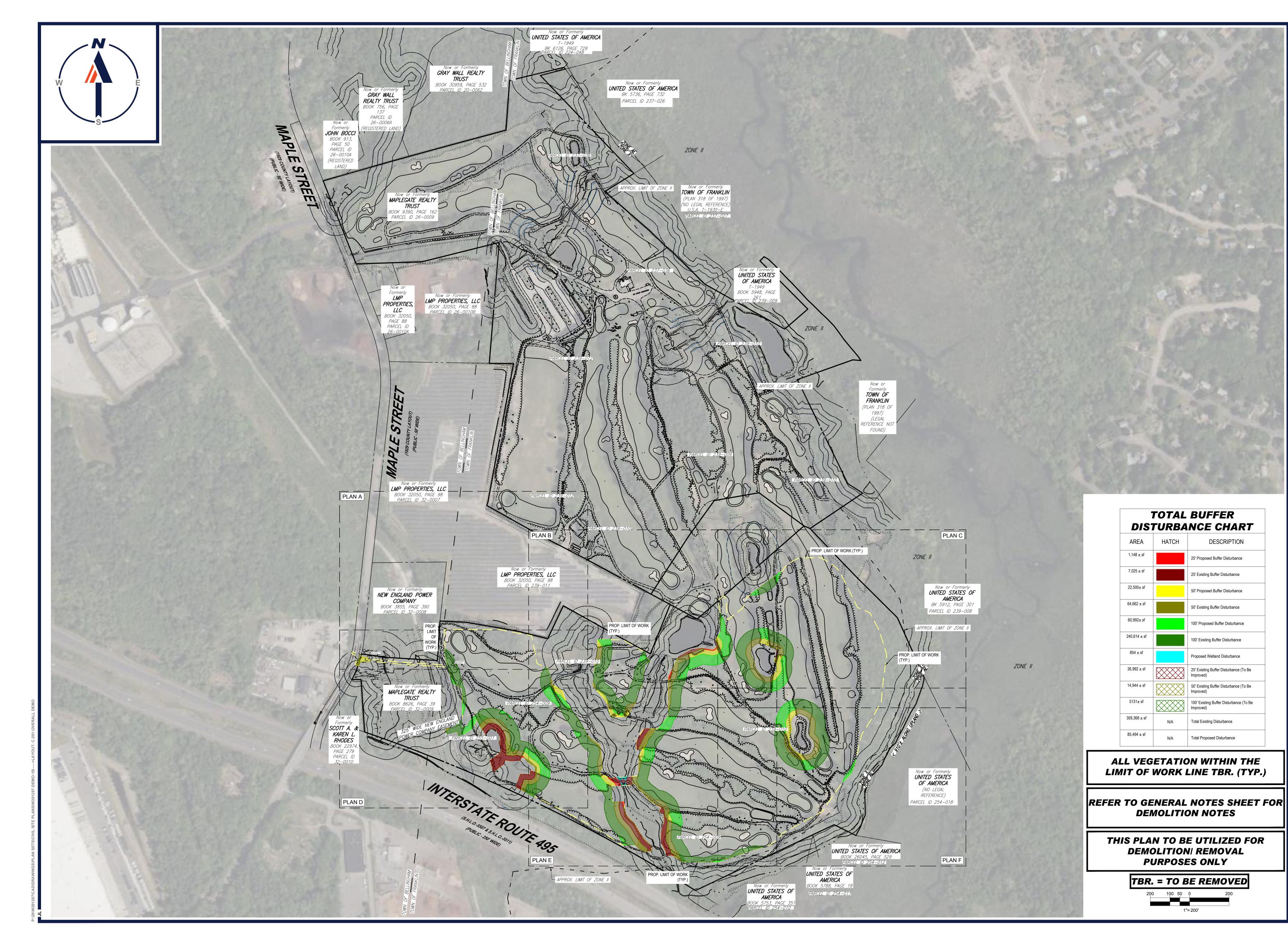
REFER TO SITE LAYOUT PLAN FOR **ZONING ANALYSIS TABLE AND LAND** USE | ZONING INFORMATION & NOTES |

REFER TO EROSION AND SEDIMENT **CONTROL NOTES & DETAILS SHEET** FOR TYPICAL EROSION NOTES AND **DETAILS** 

GENERAL

**REVISION 1 - 10/04/2023** 

**NOTES SHEET** 



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07/20/202 W201257-DEMO-1

DRAWN BY: DATE: CAD I.D.:

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DESCRIPTION

25' Proposed Buffer Disturbance

25' Existing Buffer Disturbance

50' Proposed Buffer Disturbance

50' Existing Buffer Disturbance

100' Proposed Buffer Disturbance

100' Existing Buffer Disturbance

Proposed Wetland Disturbance

100' Existing Buffer Disturbance (To Be Improved)

Total Existing Disturbance

Total Proposed Disturbance

### PROPOSED SITE **PLAN DOCUMENTS**

**MAPLE STREET SOLAR LLC** 

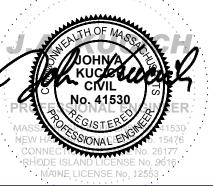
PROPOSED SOLAR FARM

LOTS INCLUDED (PARCEL #):255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009 160 MAPLE STREET, TOWN OF BELLINGHAM & FRANKLIN, NORFOLK COUNTY, MASSACHUSETTS

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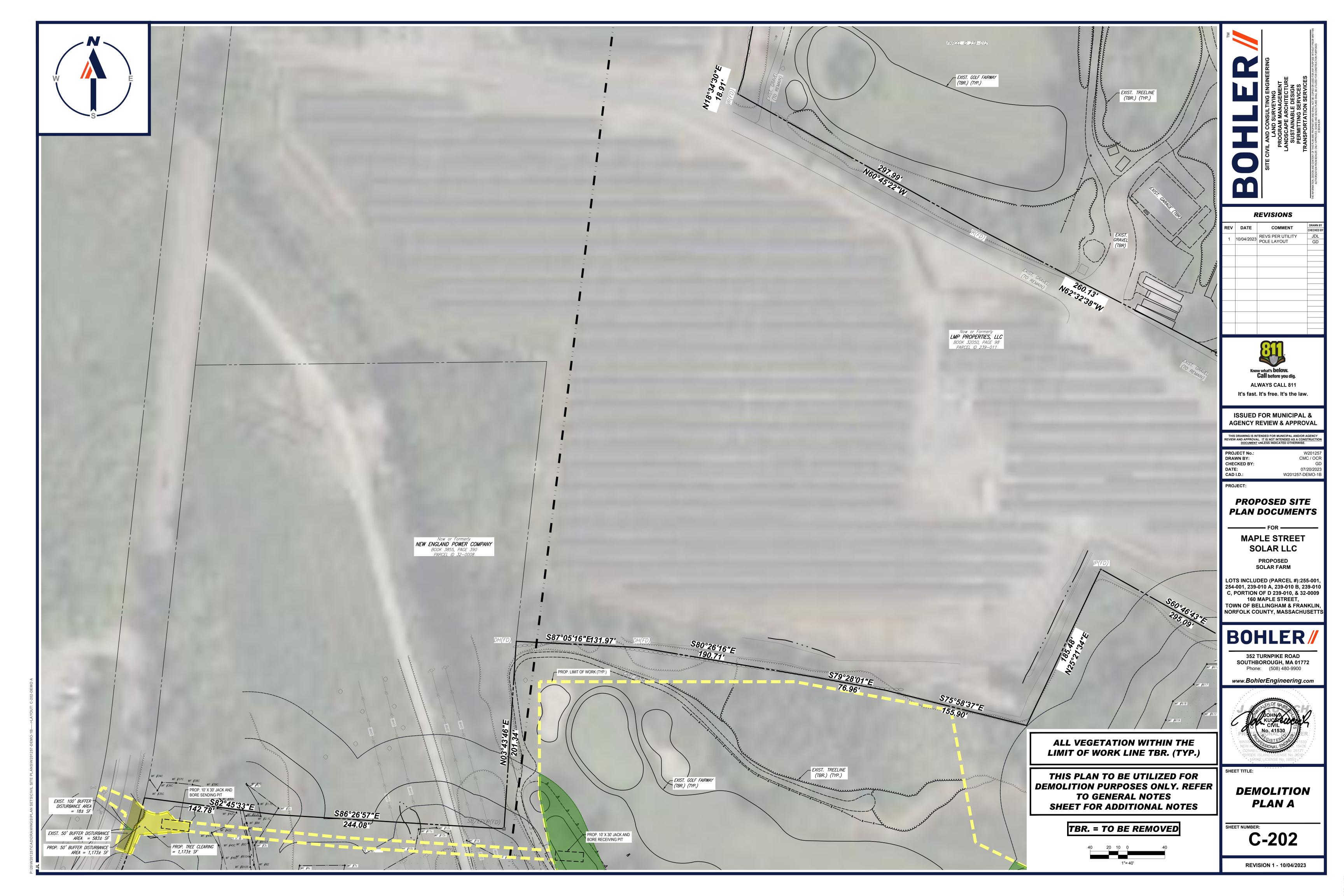
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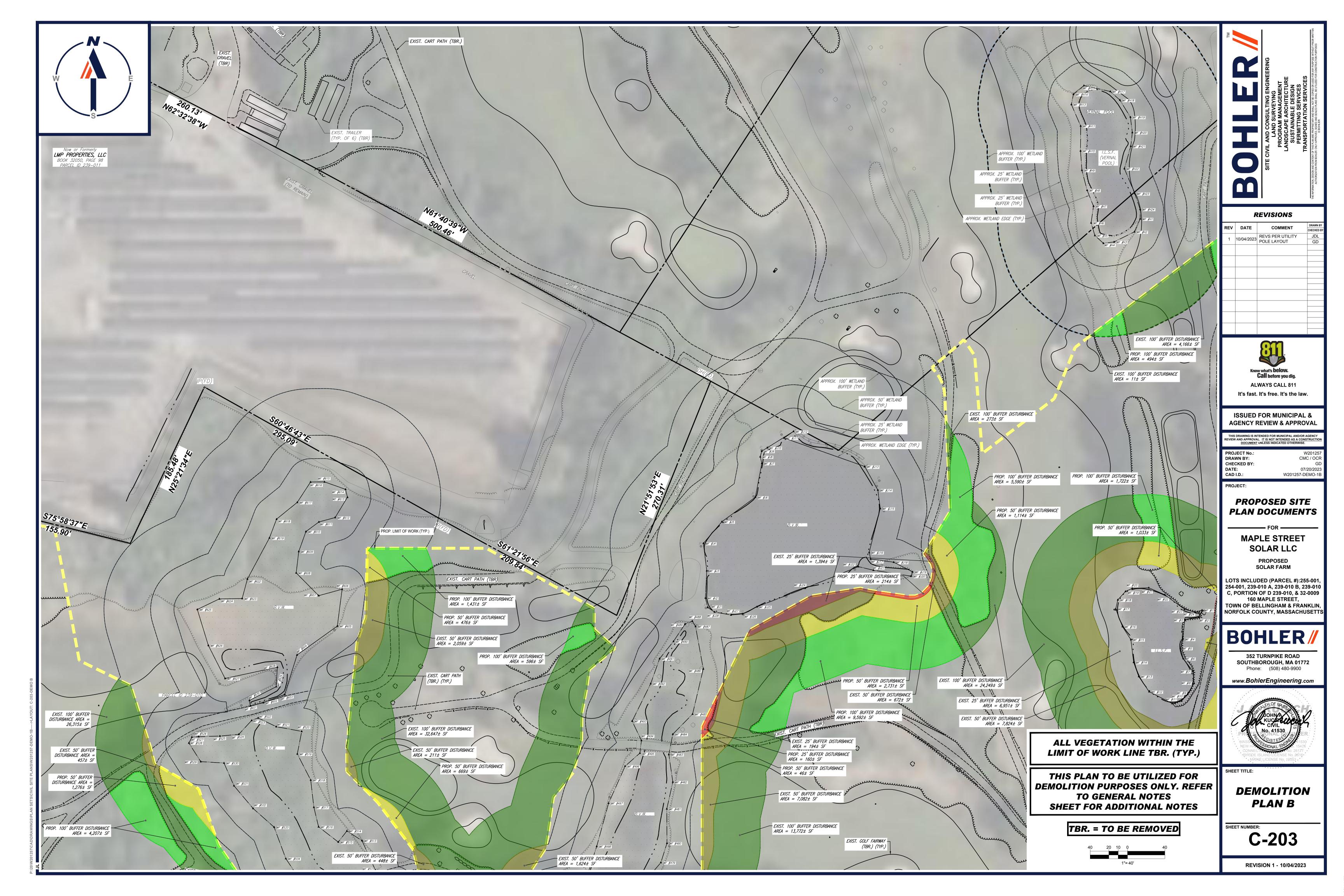


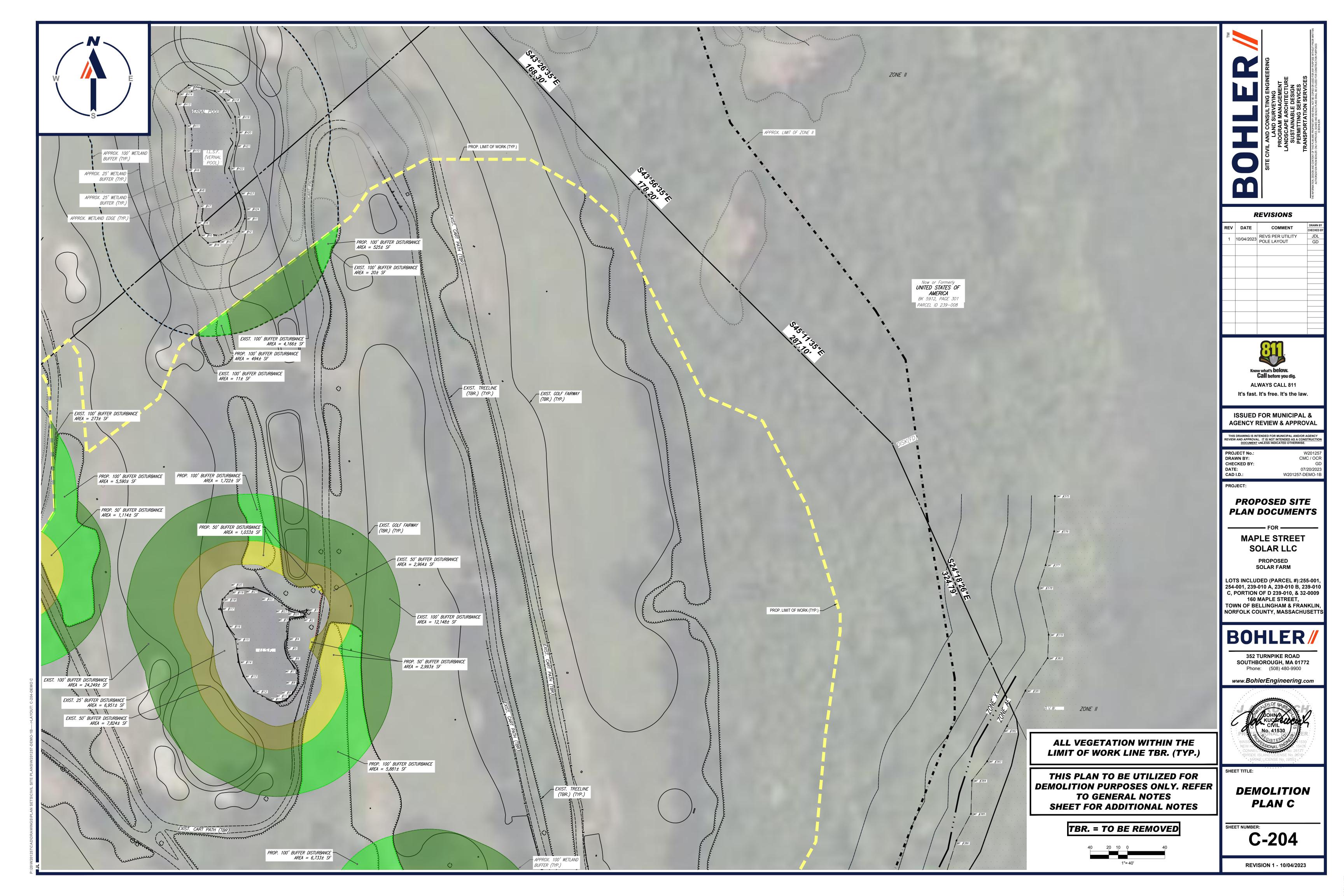
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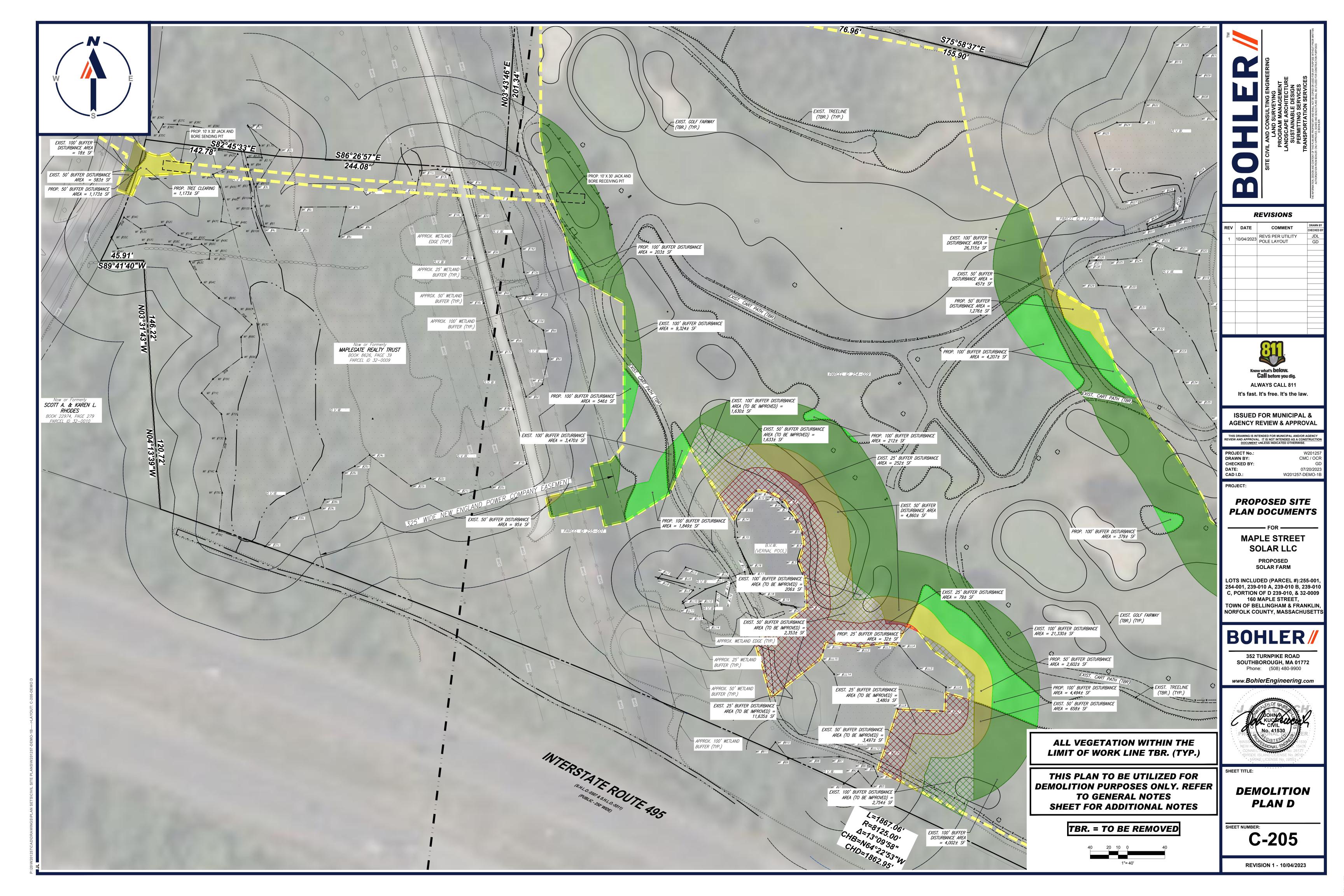
**OVERALL DEMOLITION** PLAN

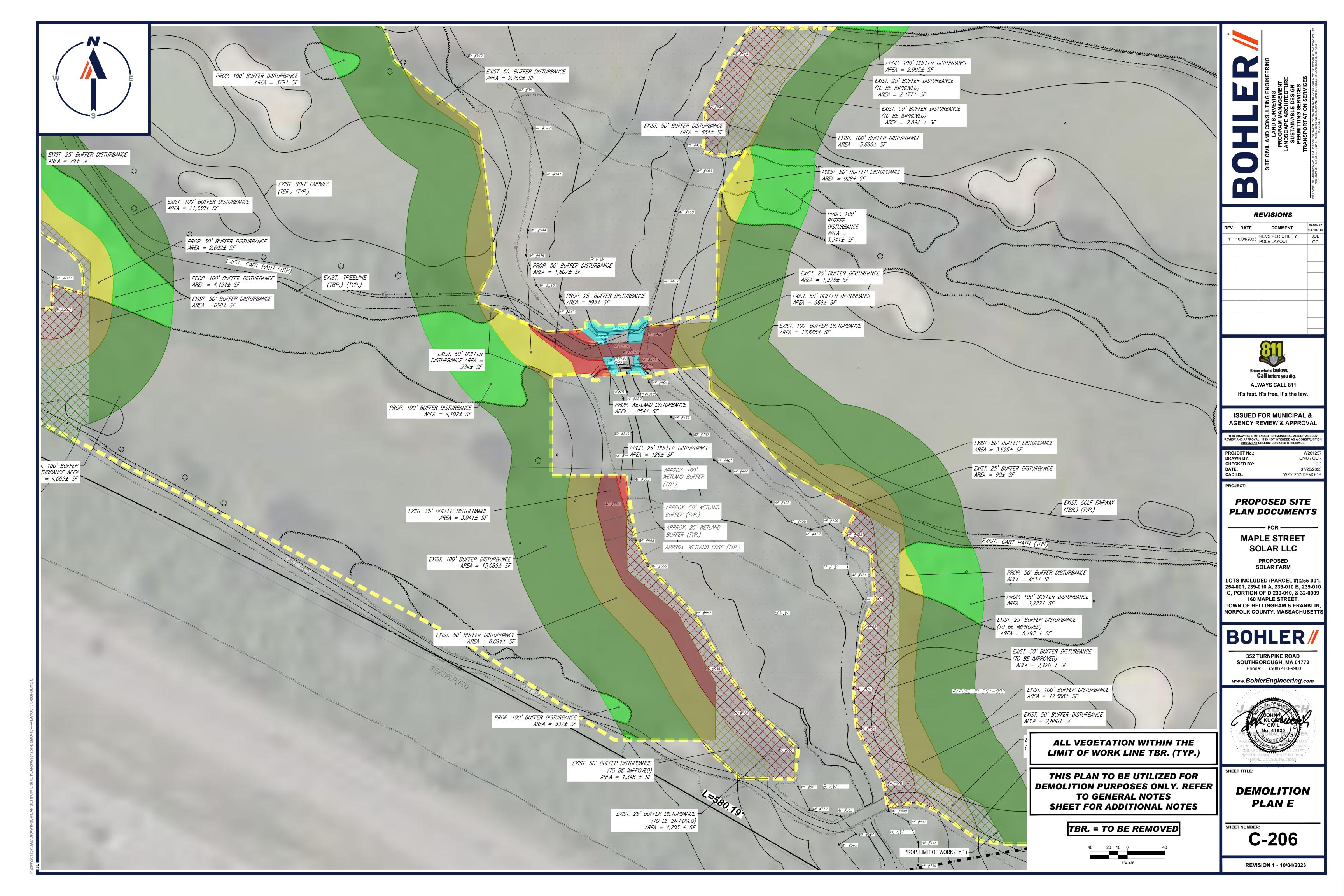
C-201

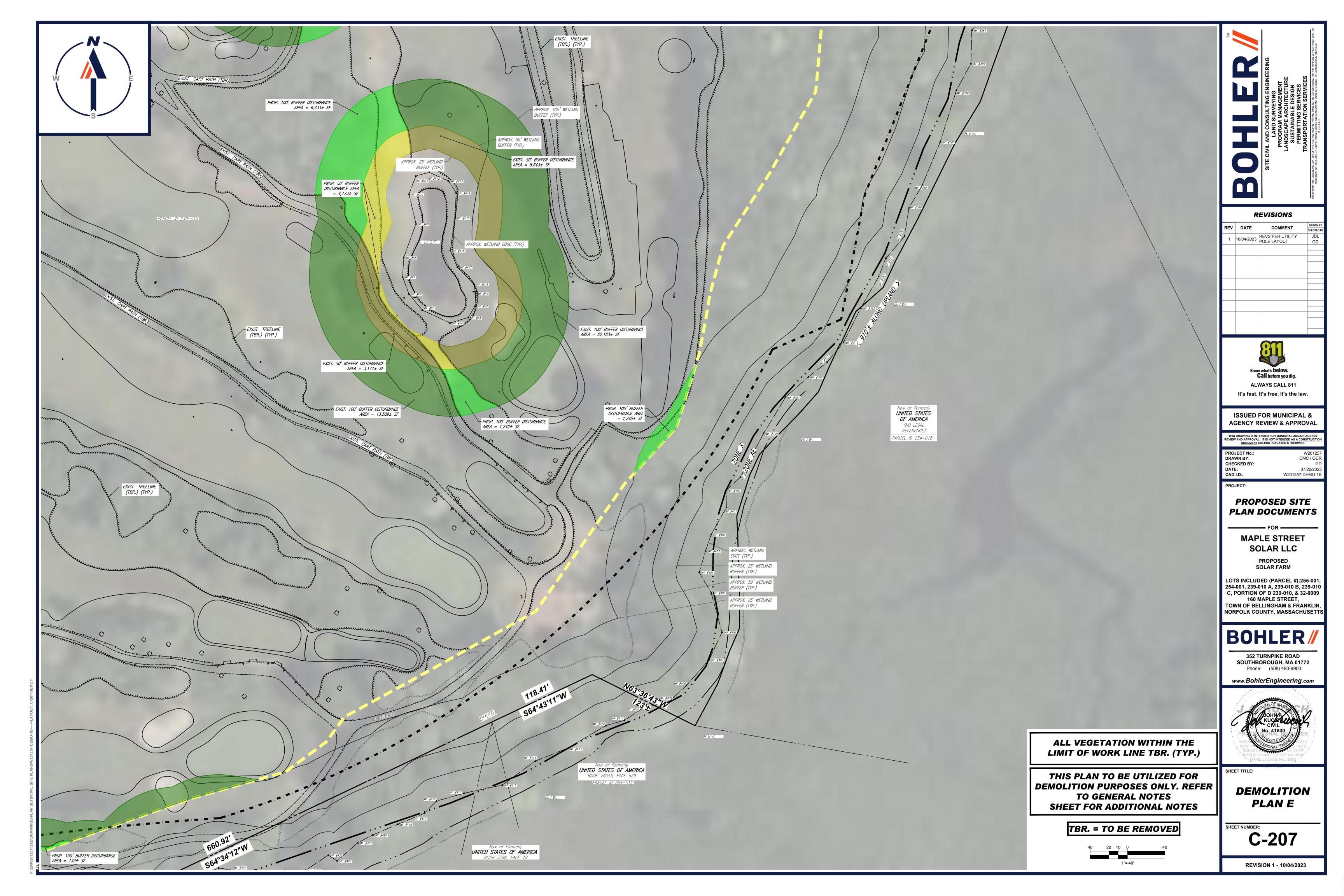


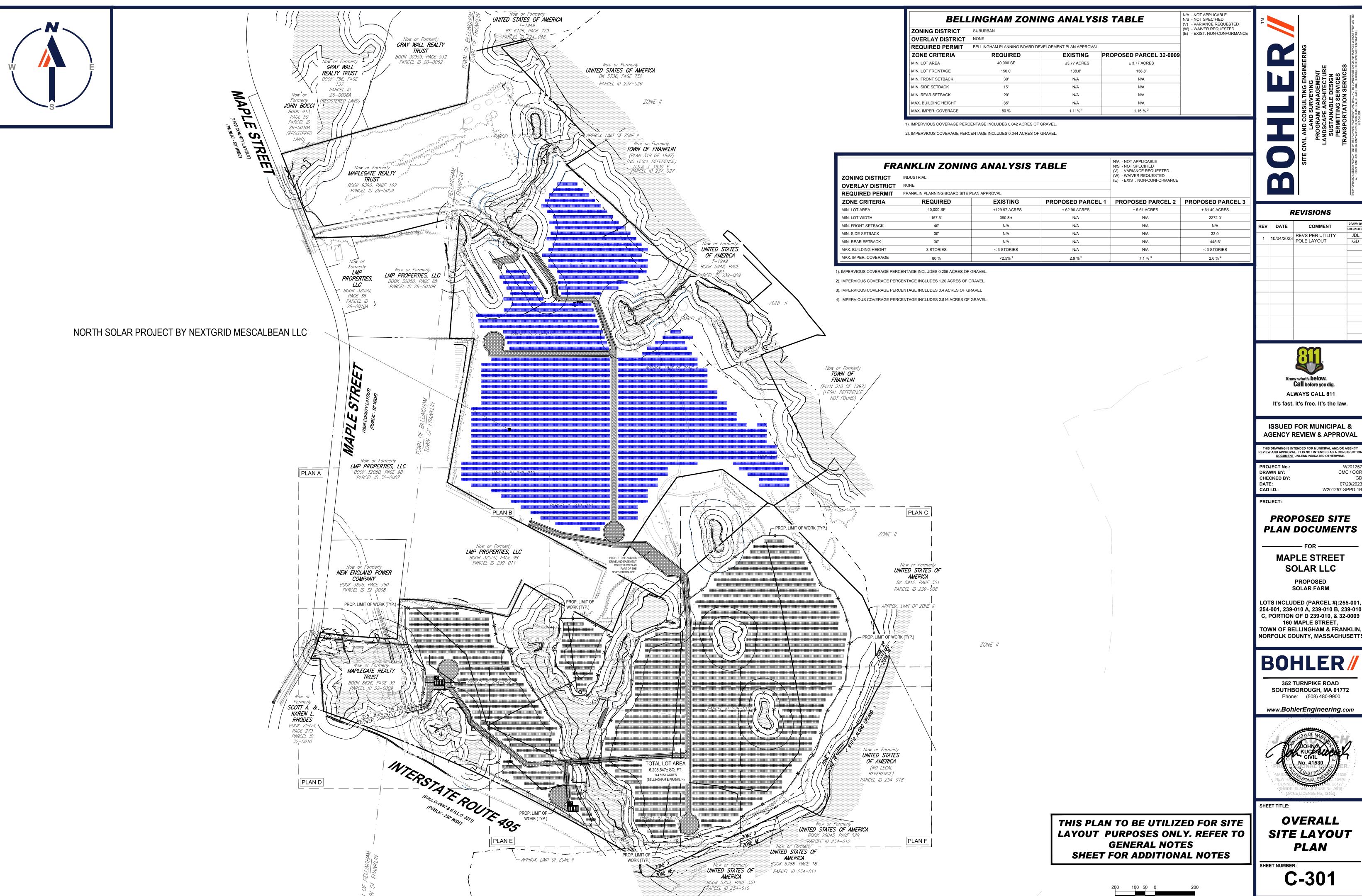












COMMENT 1 10/04/2023 REVS PER UTILITY POLE LAYOUT

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PROPOSED SITE **PLAN DOCUMENTS** 

MAPLE STREET **SOLAR LLC** 

> PROPOSED **SOLAR FARM**

LOTS INCLUDED (PARCEL #):255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009 160 MAPLE STREET,

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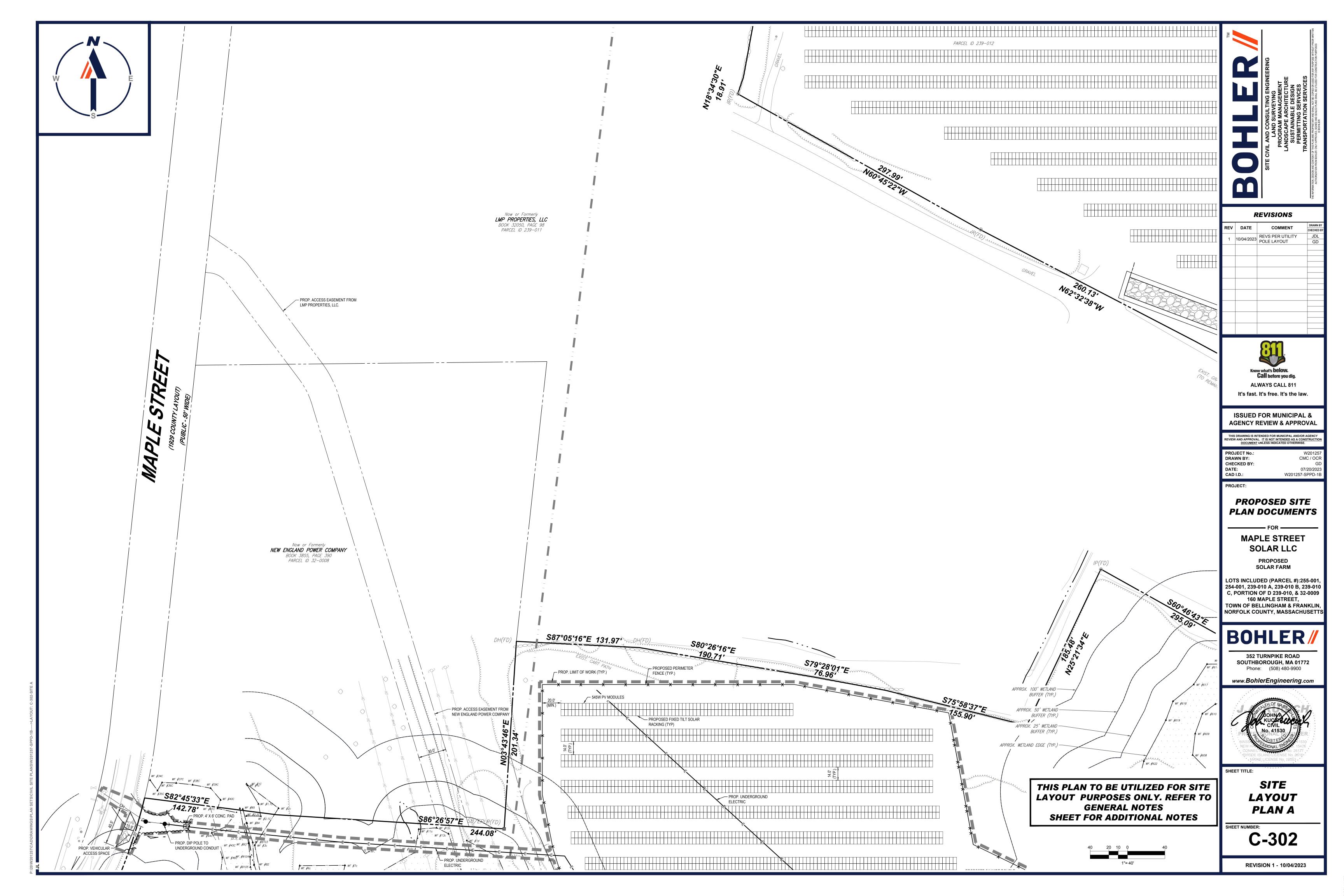
**352 TURNPIKE ROAD SOUTHBOROUGH, MA 01772** 

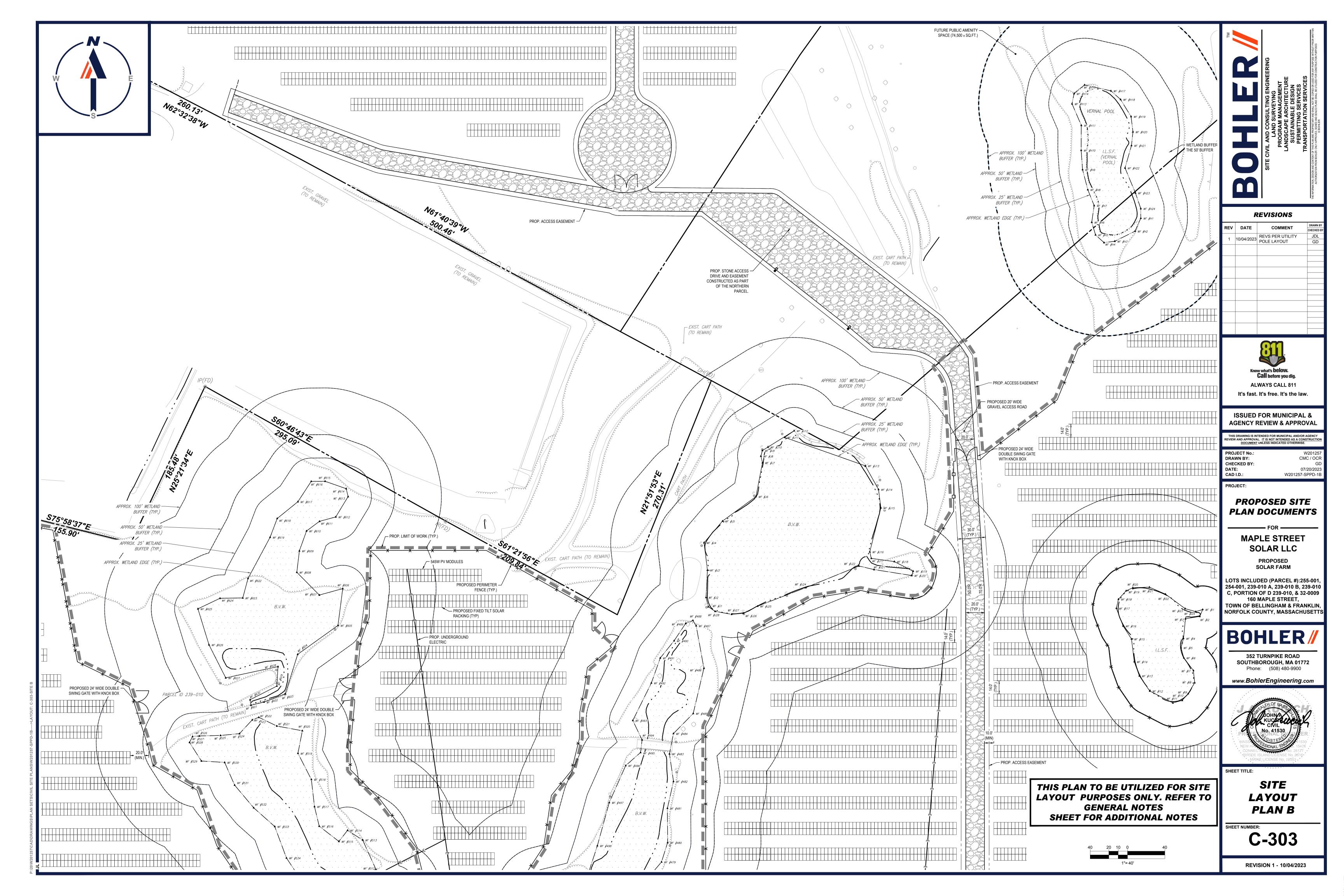
Phone: (508) 480-9900

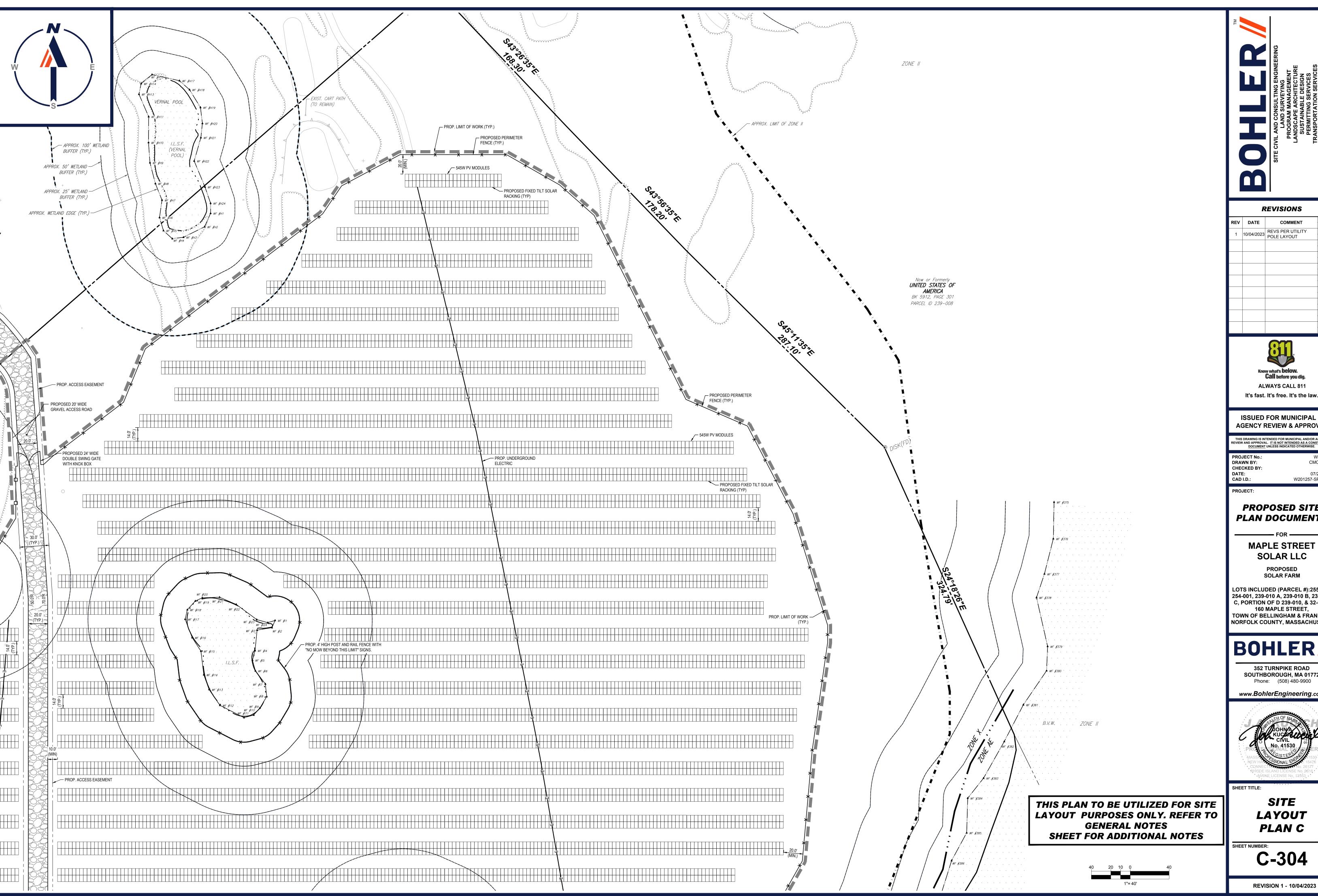


**OVERALL** SITE LAYOUT PLAN

C-301









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### PROPOSED SITE **PLAN DOCUMENTS**

### **MAPLE STREET SOLAR LLC**

PROPOSED **SOLAR FARM** 

LOTS INCLUDED (PARCEL #):255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009 160 MAPLE STREET, TOWN OF BELLINGHAM & FRANKLIN, NORFOLK COUNTY, MASSACHUSETTS

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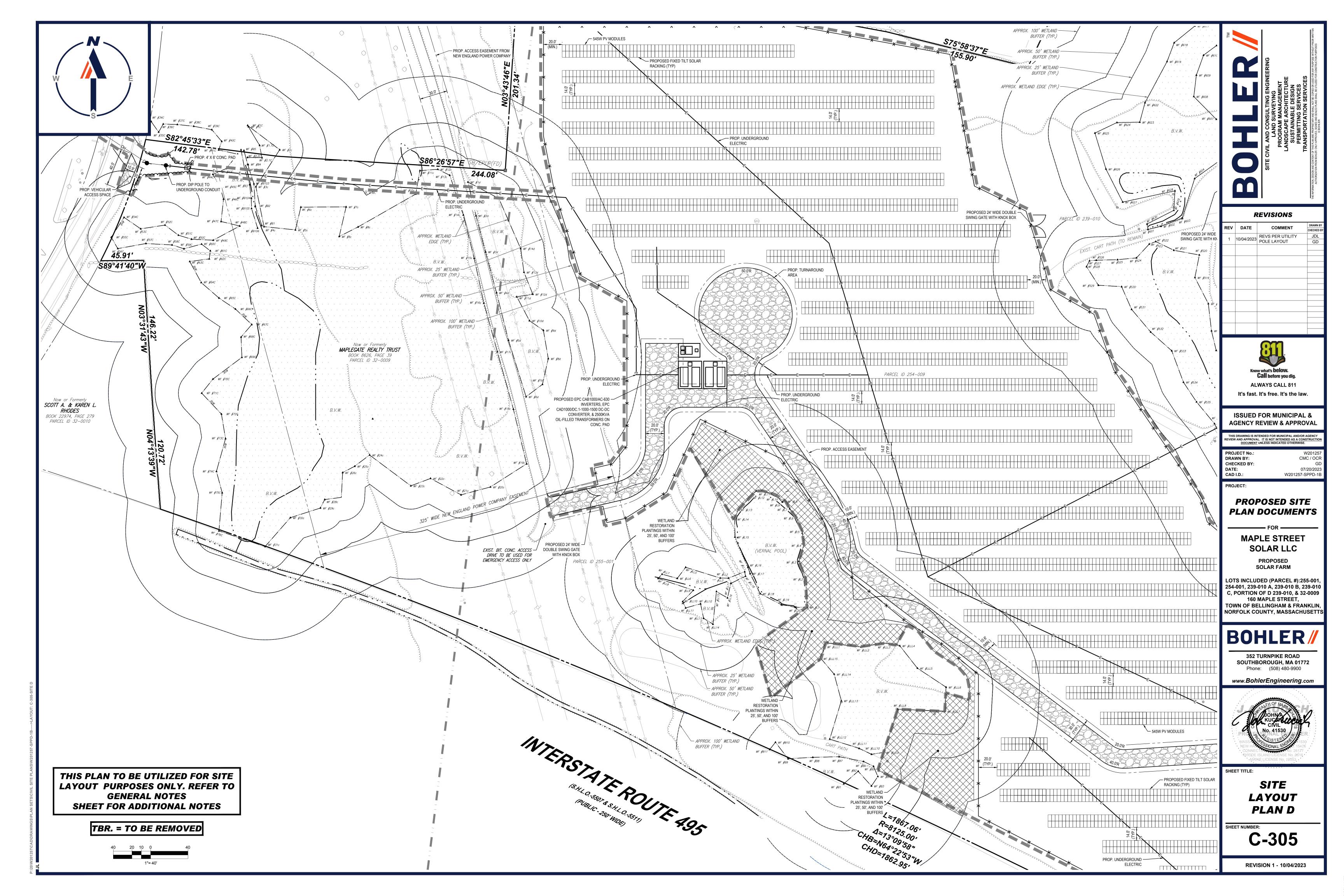
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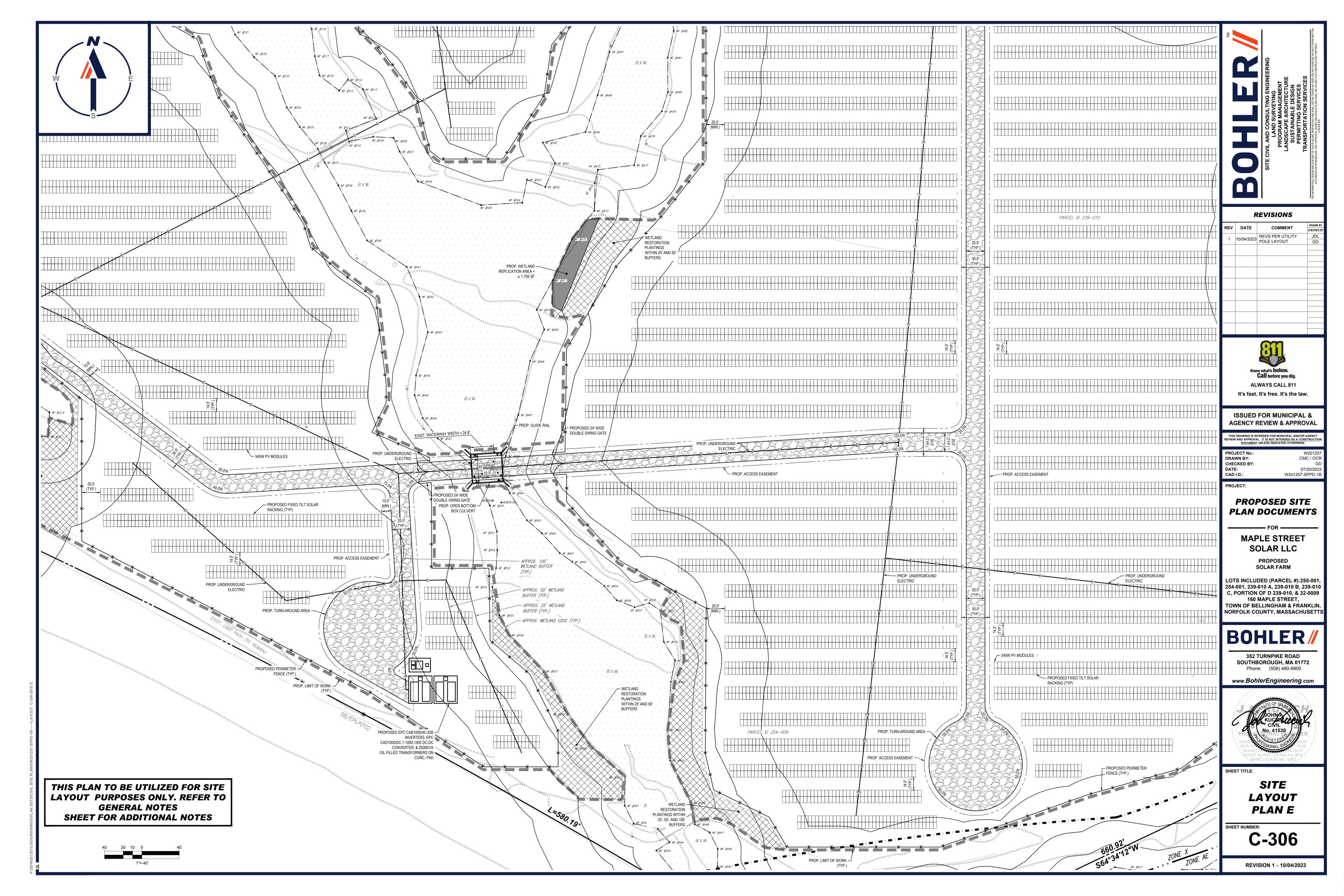


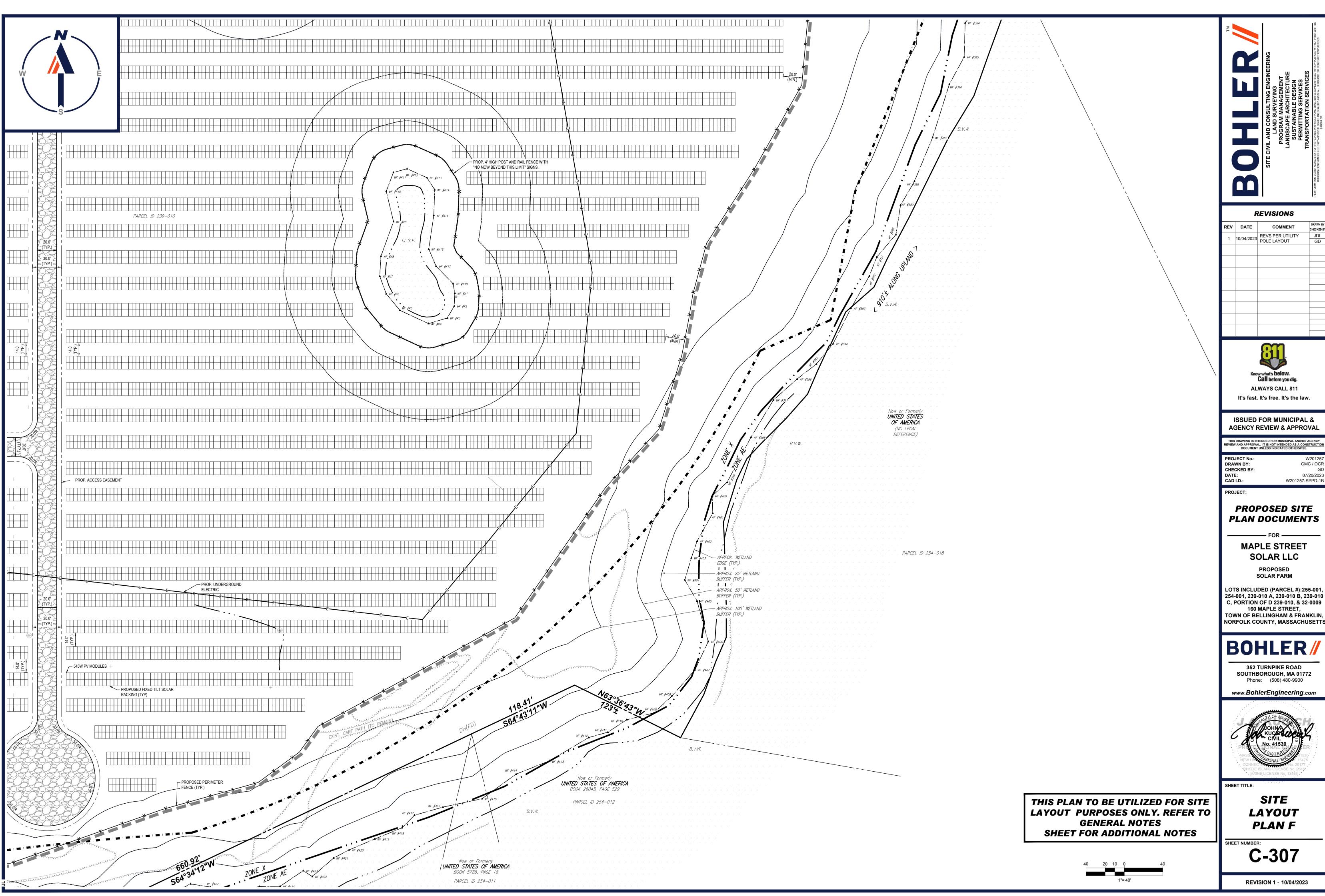
SHEET TITLE:

SITE LAYOUT PLAN C

C-304







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### PROPOSED SITE **PLAN DOCUMENTS**

**MAPLE STREET SOLAR LLC** 

> PROPOSED SOLAR FARM

LOTS INCLUDED (PARCEL #):255-001 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009 160 MAPLE STREET,

**BOHLER** 

**352 TURNPIKE ROAD SOUTHBOROUGH, MA 01772** 

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SITE **LAYOUT** PLAN F

C-307







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### PROPOSED SITE **PLAN DOCUMENTS**

### **MAPLE STREET SOLAR LLC**

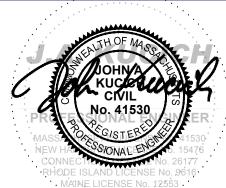
PROPOSED SOLAR FARM

LOTS INCLUDED (PARCEL #):255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009 160 MAPLE STREET, TOWN OF BELLINGHAM & FRANKLIN, NORFOLK COUNTY, MASSACHUSETTS

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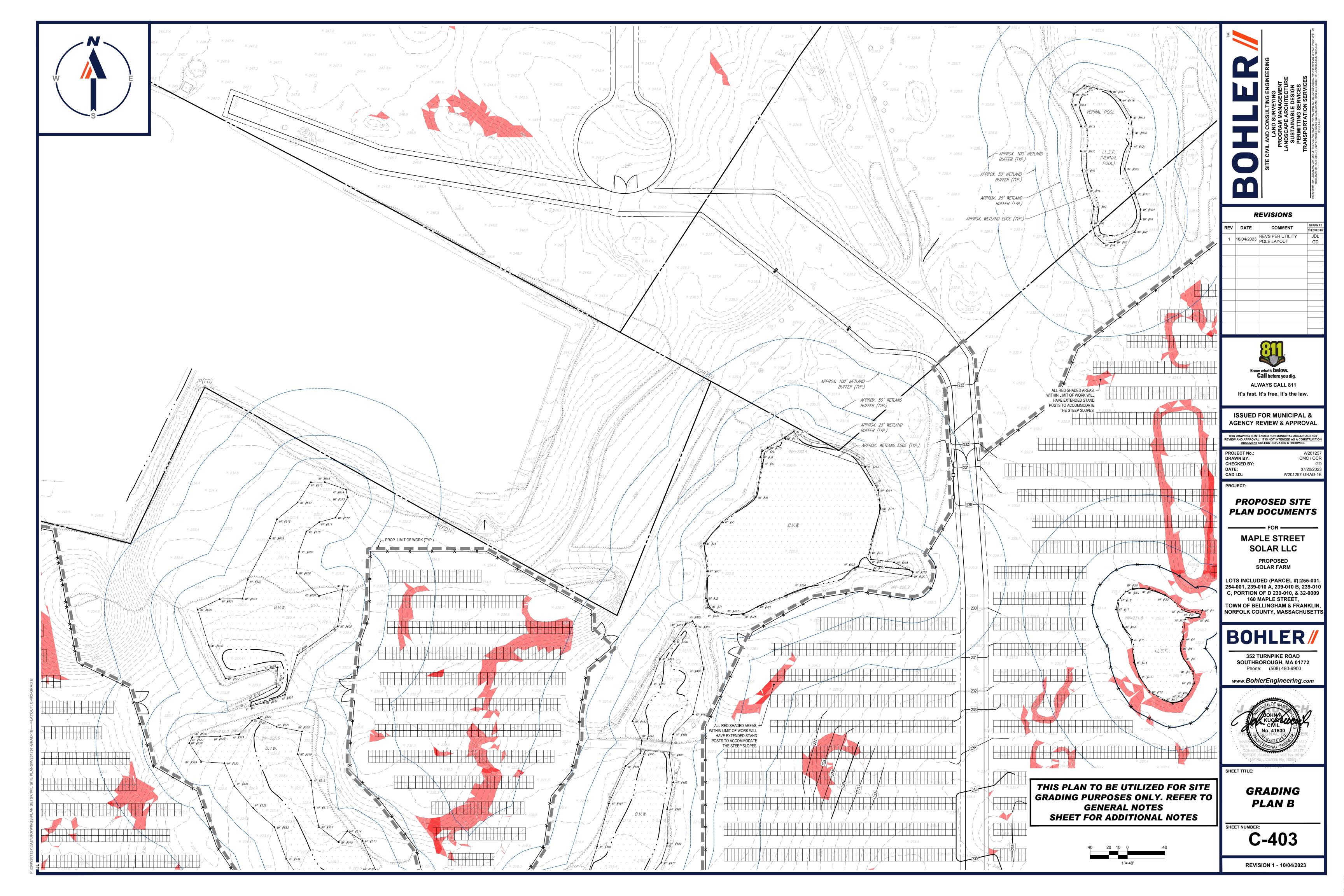
**OVERALL** GRADING PLAN

C-401

REVISION 1 - 10/04/2023

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









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	10/04/2023	POLE LAYOUT	GD		
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**AGENCY REVIEW & APPROVAL** 

DRAWN BY:

W201257-GRAD-1

PROJECT:

### PROPOSED SITE **PLAN DOCUMENTS**

### **MAPLE STREET SOLAR LLC**

PROPOSED SOLAR FARM

LOTS INCLUDED (PARCEL #):255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009 160 MAPLE STREET, TOWN OF BELLINGHAM & FRANKLIN, NORFOLK COUNTY, MASSACHUSETTS

# **BOHLER**/

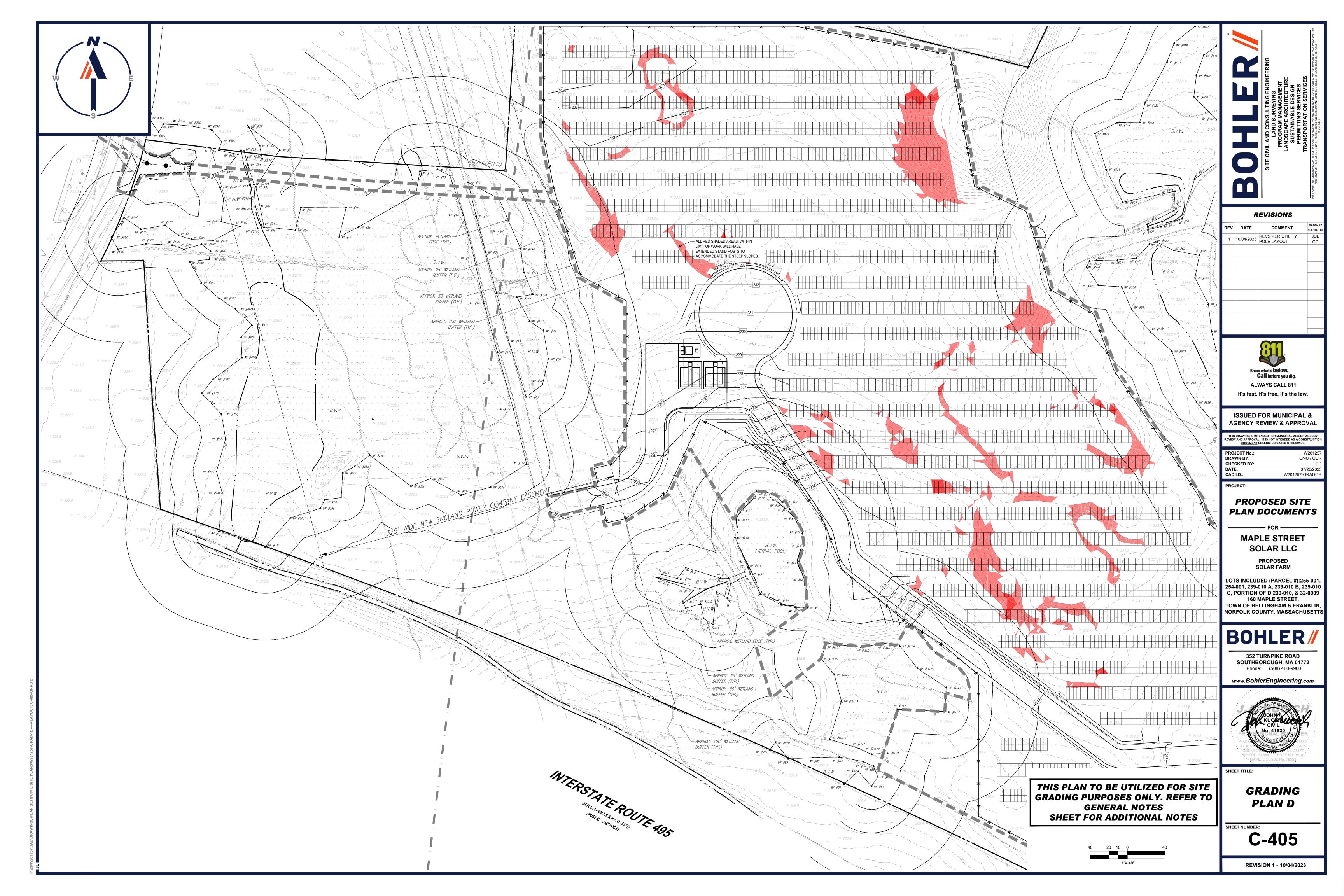
**352 TURNPIKE ROAD** SOUTHBOROUGH, MA 01772 Phone: (508) 480-9900

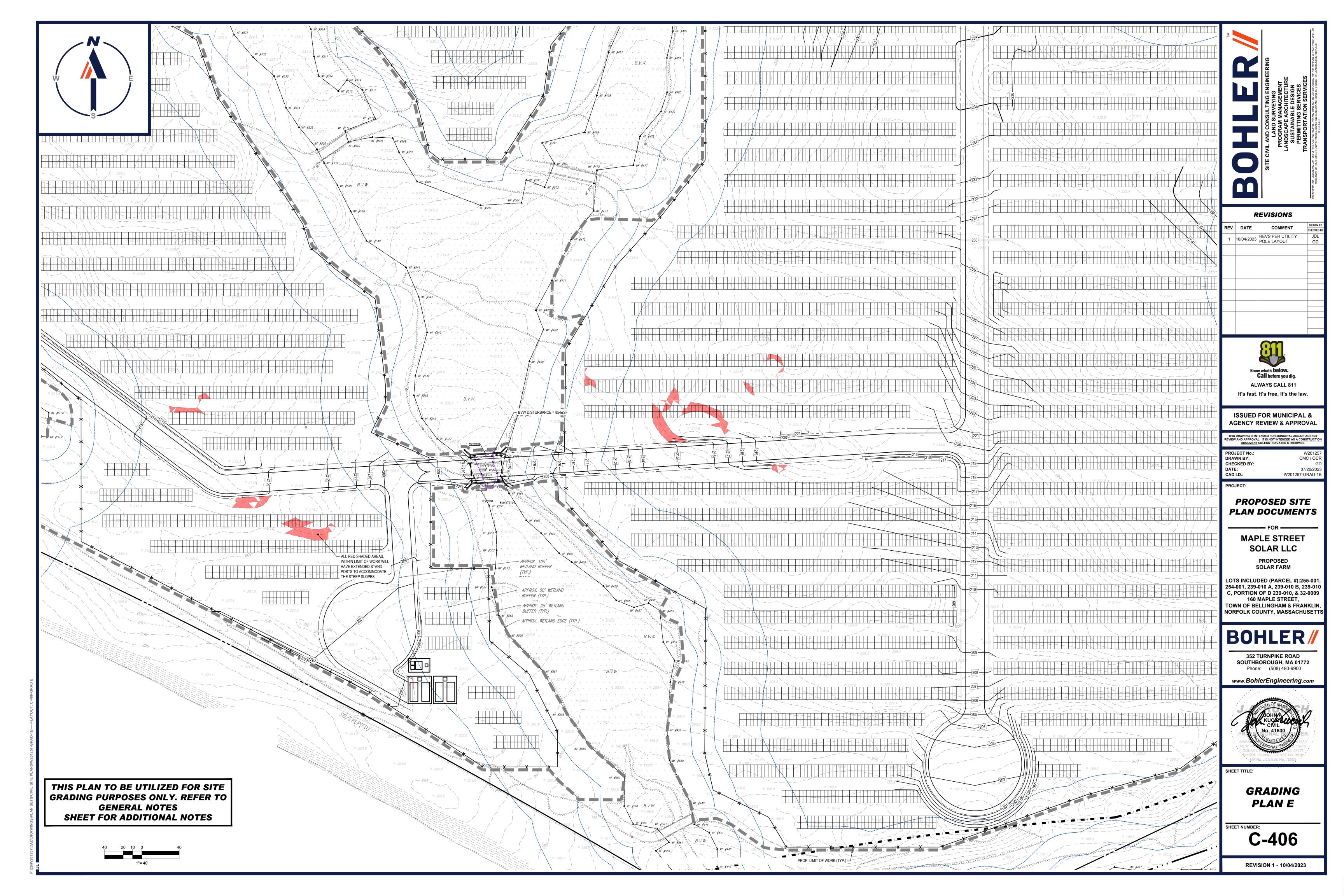
www.BohlerEngineering.com

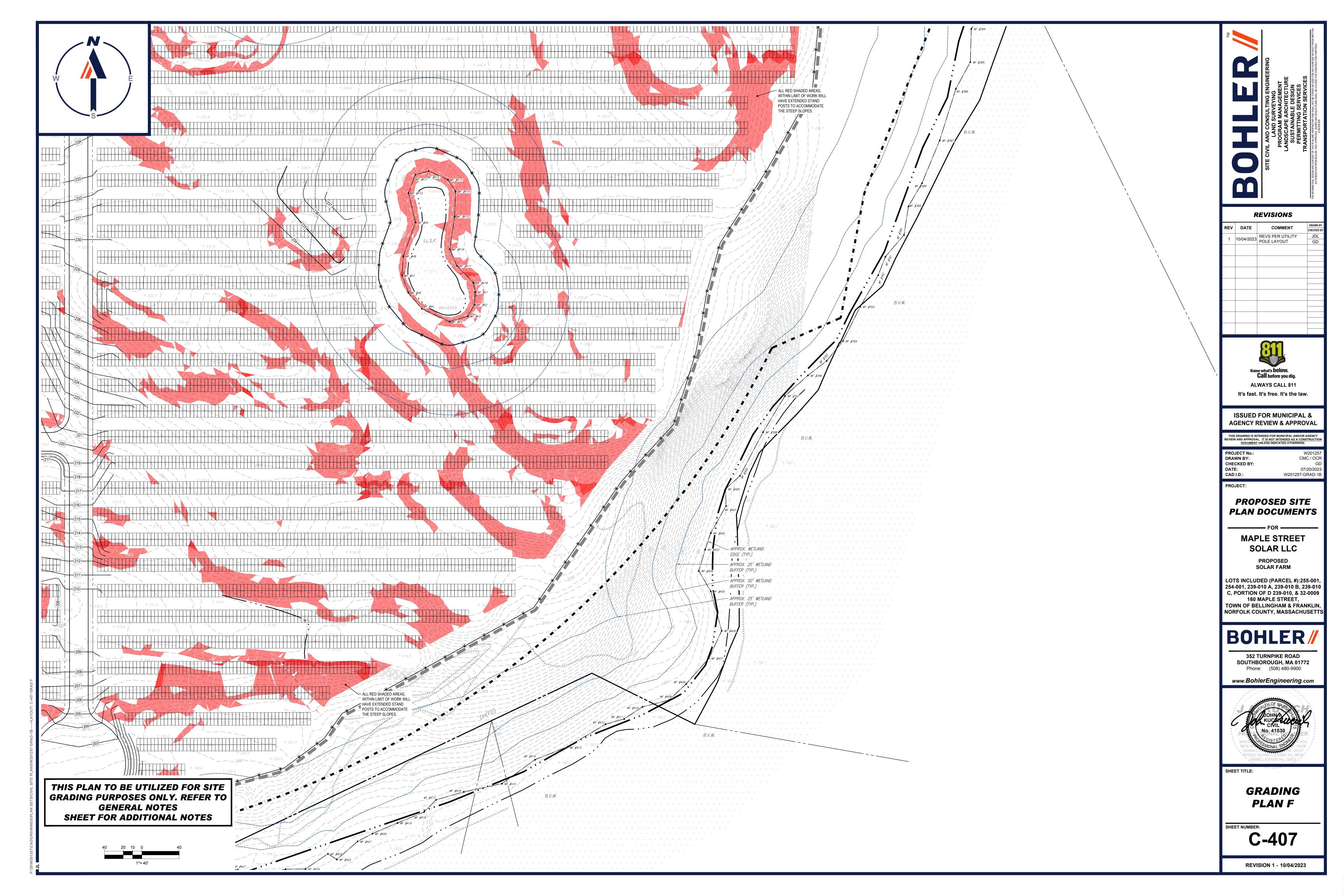


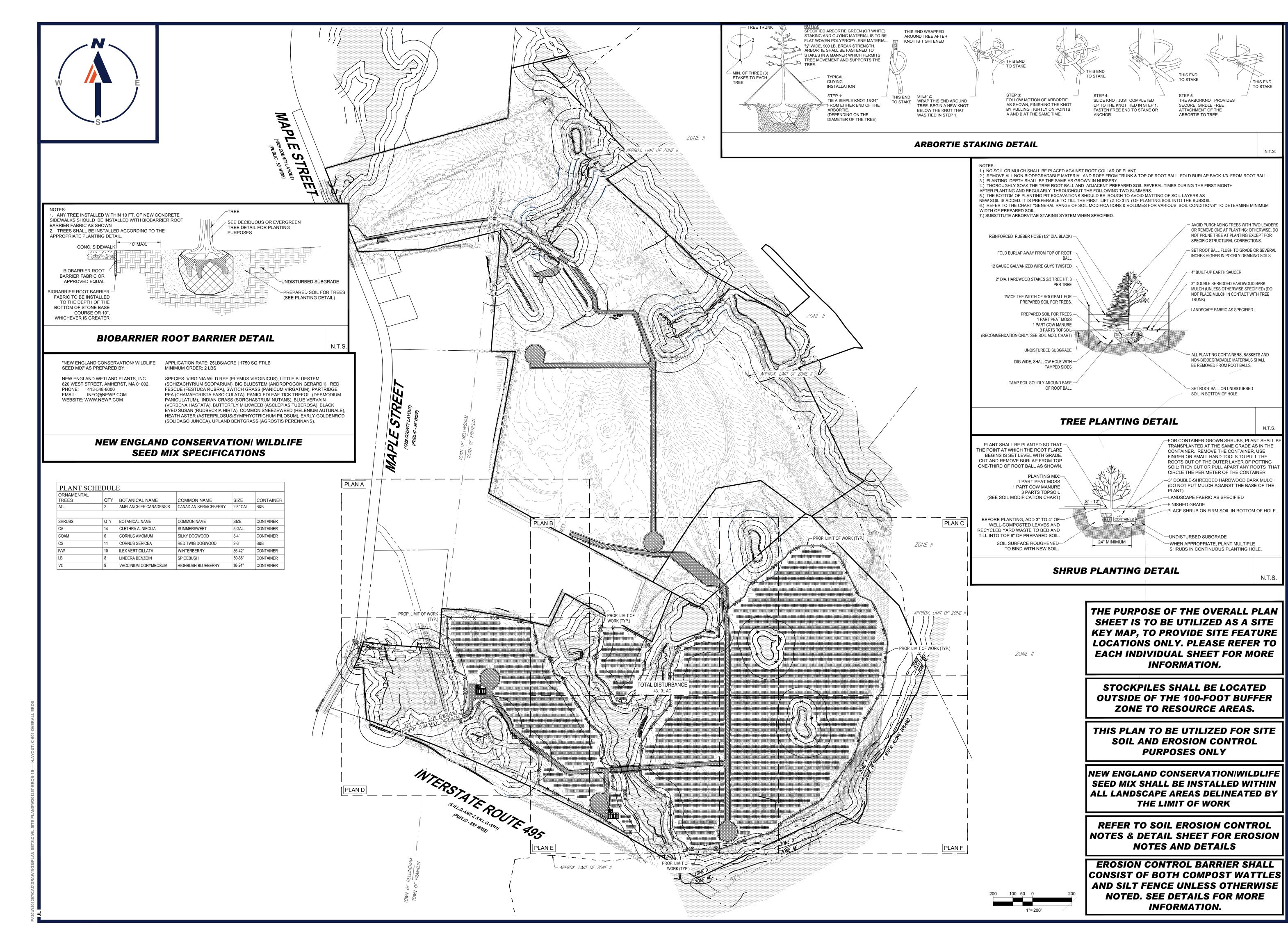
GRADING PLAN C

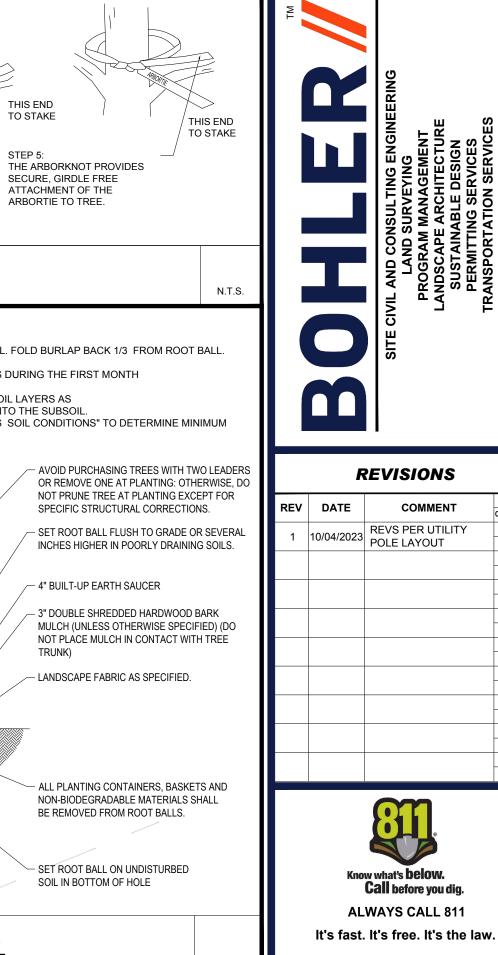
C-404











FOR CONTAINER-GROWN SHRUBS. PLANT SHALL BE

TRANSPLANTED AT THE SAME GRADE AS IN THE

CONTAINER. REMOVE THE CONTAINER, USE

FINGER OR SMALL HAND TOOLS TO PULL THE

ROOTS OUT OF THE OUTER LAYER OF POTTING

SOIL; THEN CUT OR PULL APART ANY ROOTS THA CIRCLE THE PERIMETER OF THE CONTAINER.

-3" DOUBLE-SHREDDED HARDWOOD BARK MULCH

(DO NOT PUT MULCH AGAINST THE BASE OF THE

-PLACE SHRUB ON FIRM SOIL IN BOTTOM OF HOLE

WHEN APPROPRIATE, PLANT MULTIPLE

SHRUBS IN CONTINUOUS PLANTING HOLE.

-LANDSCAPE FABRIC AS SPECIFIED

-FINISHED GRADE

INFORMATION.

STOCKPILES SHALL BE LOCATED

**OUTSIDE OF THE 100-FOOT BUFFER** 

**ZONE TO RESOURCE AREAS.** 

**SOIL AND EROSION CONTROL PURPOSES ONLY** 

THE LIMIT OF WORK

REFER TO SOIL EROSION CONTROL

**NOTES AND DETAILS** 

**EROSION CONTROL BARRIER SHALL** 

NOTED. SEE DETAILS FOR MORE

INFORMATION.

24" MINIMUM

SLIDE KNOT JUST COMPLETED

UP TO THE KNOT TIED IN STEP 1.

FASTEN FREE END TO STAKE OR

PROPOSED SITE **PLAN DOCUMENTS** 

W201257-EROS-1

**AGENCY REVIEW & APPROVAL** 

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DATE: CAD I.D.:

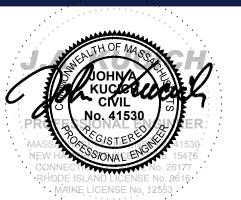
MAPLE STREET **SOLAR LLC** 

> PROPOSED **SOLAR FARM**

# **BOHLER**

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

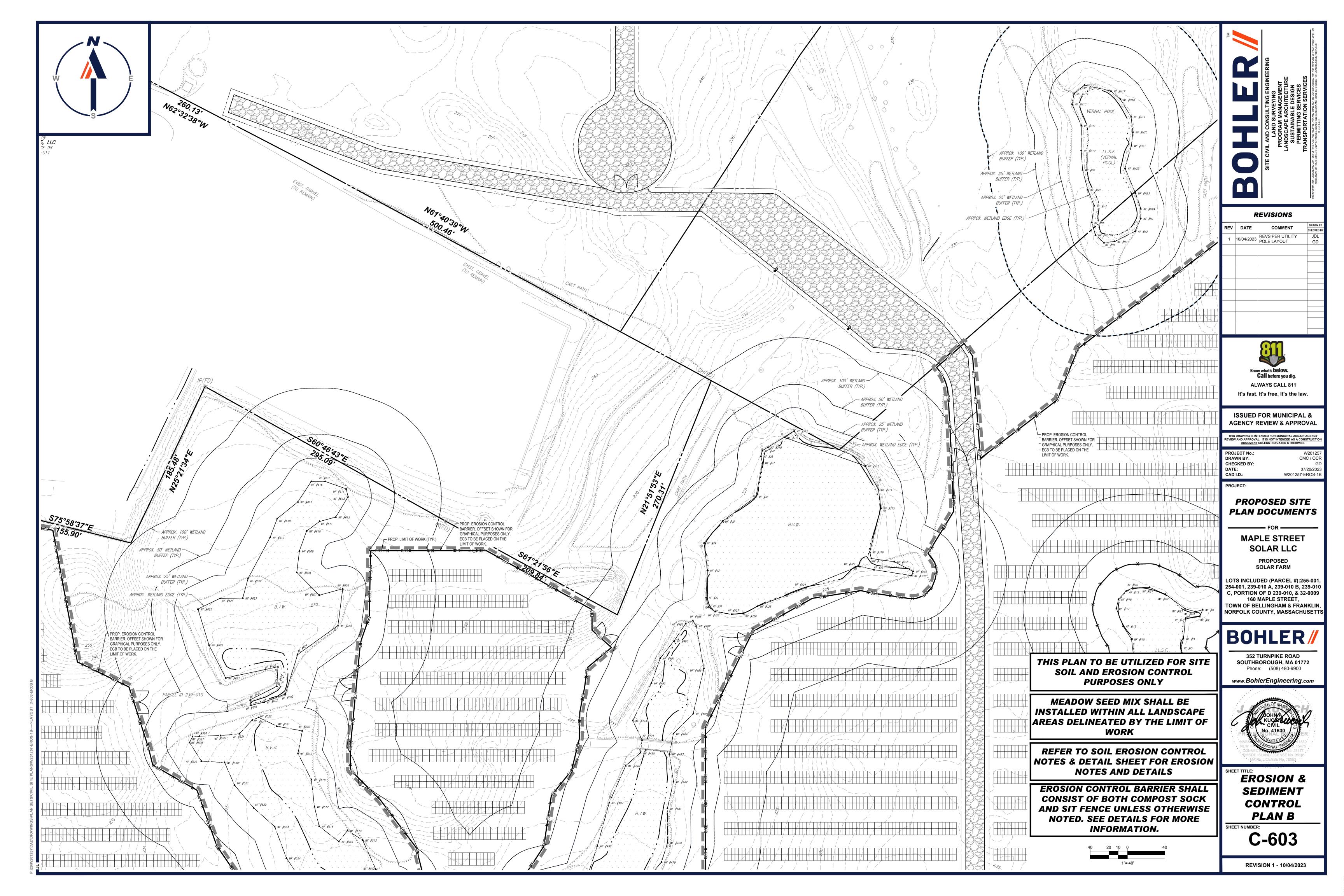
www. Bohler Engineering. com

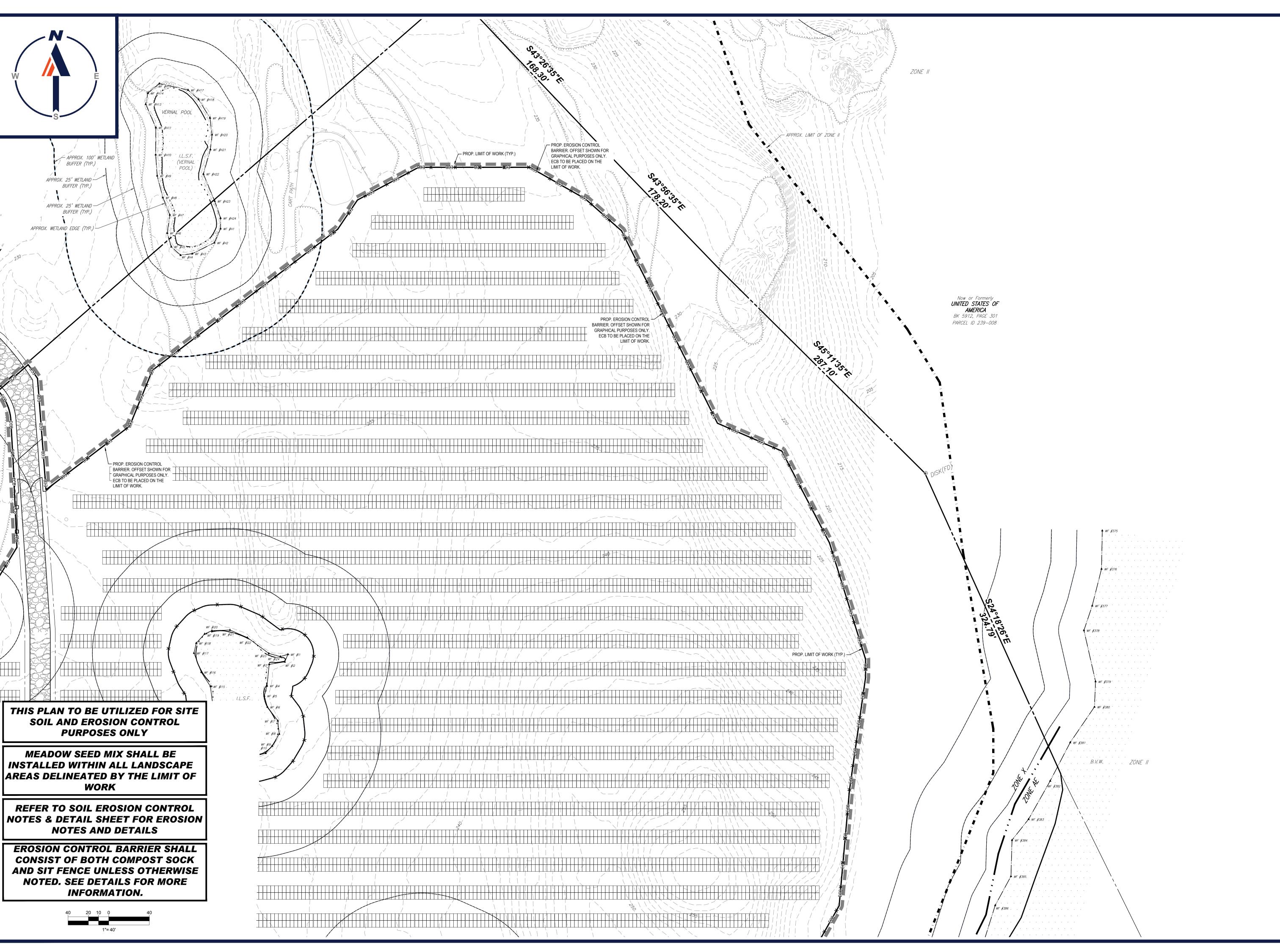


**OVERALL EROSION & SEDIMENT CONTROL PLAN** 

C-601







AD CONSULTING ENGINEERING

LAND SURVEYI
PROGRAM MANAGI
LANDSCAPE ARCHIT
SUSTAINABLE DE
PERMITTING SERV

### REVISIONS

REV	DATE	COMMENT	DRAWN E
1	10/04/2023	REVS PER UTILITY	JDL
		POLE LAYOUT	GD



ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

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

 PROJECT No.:
 W201257

 DRAWN BY:
 CMC / OCF

 CHECKED BY:
 GE

 DATE:
 07/20/2023

 CAD I.D.:
 W201257-EROS-1E

PROJECT:

# PROPOSED SITE PLAN DOCUMENTS

MAPLE STREET

SOLAR LLC
PROPOSED
SOLAR FARM

LOTS INCLUDED (PARCEL #):255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009 160 MAPLE STREET, TOWN OF BELLINGHAM & FRANKLIN, NORFOLK COUNTY, MASSACHUSETTS

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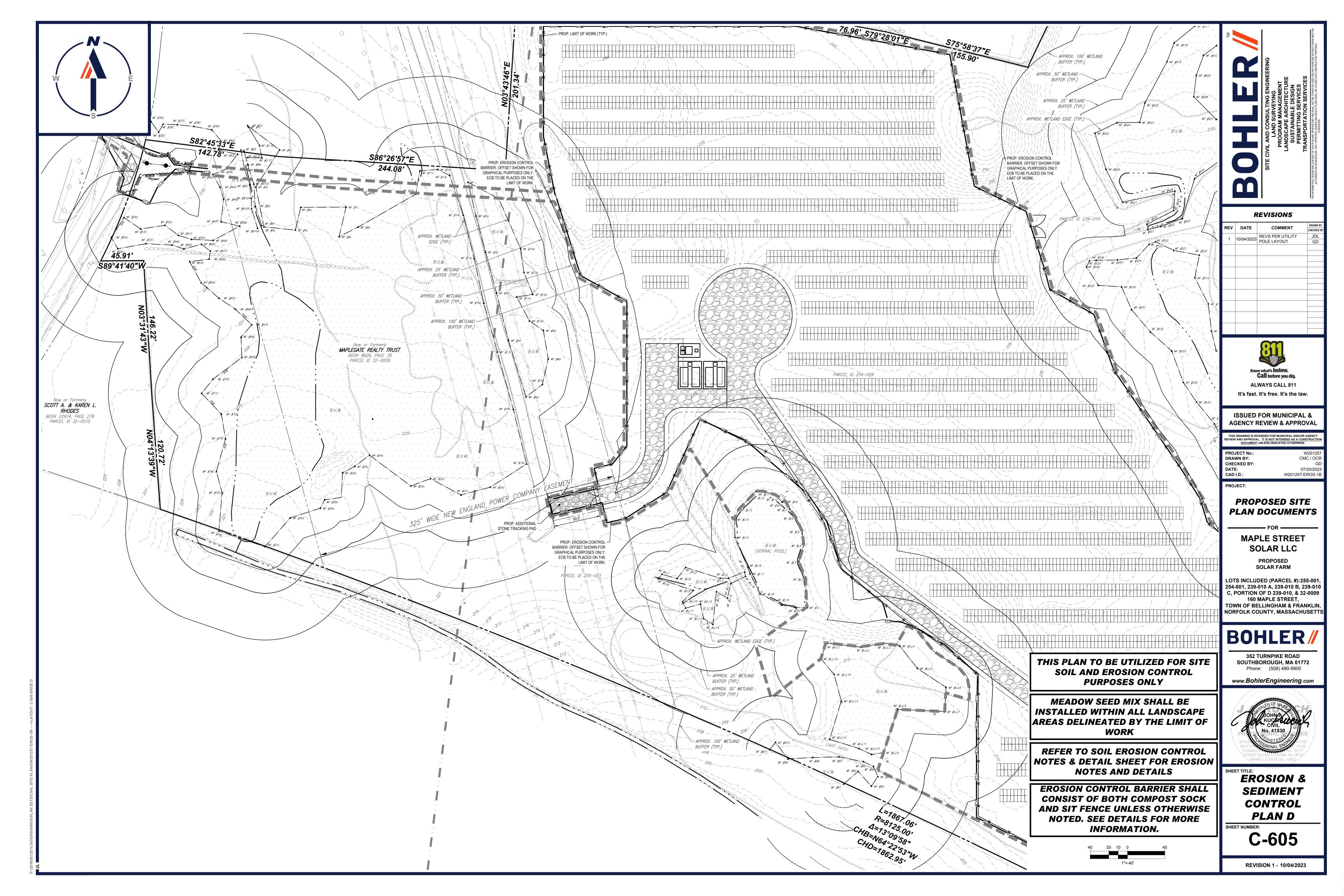
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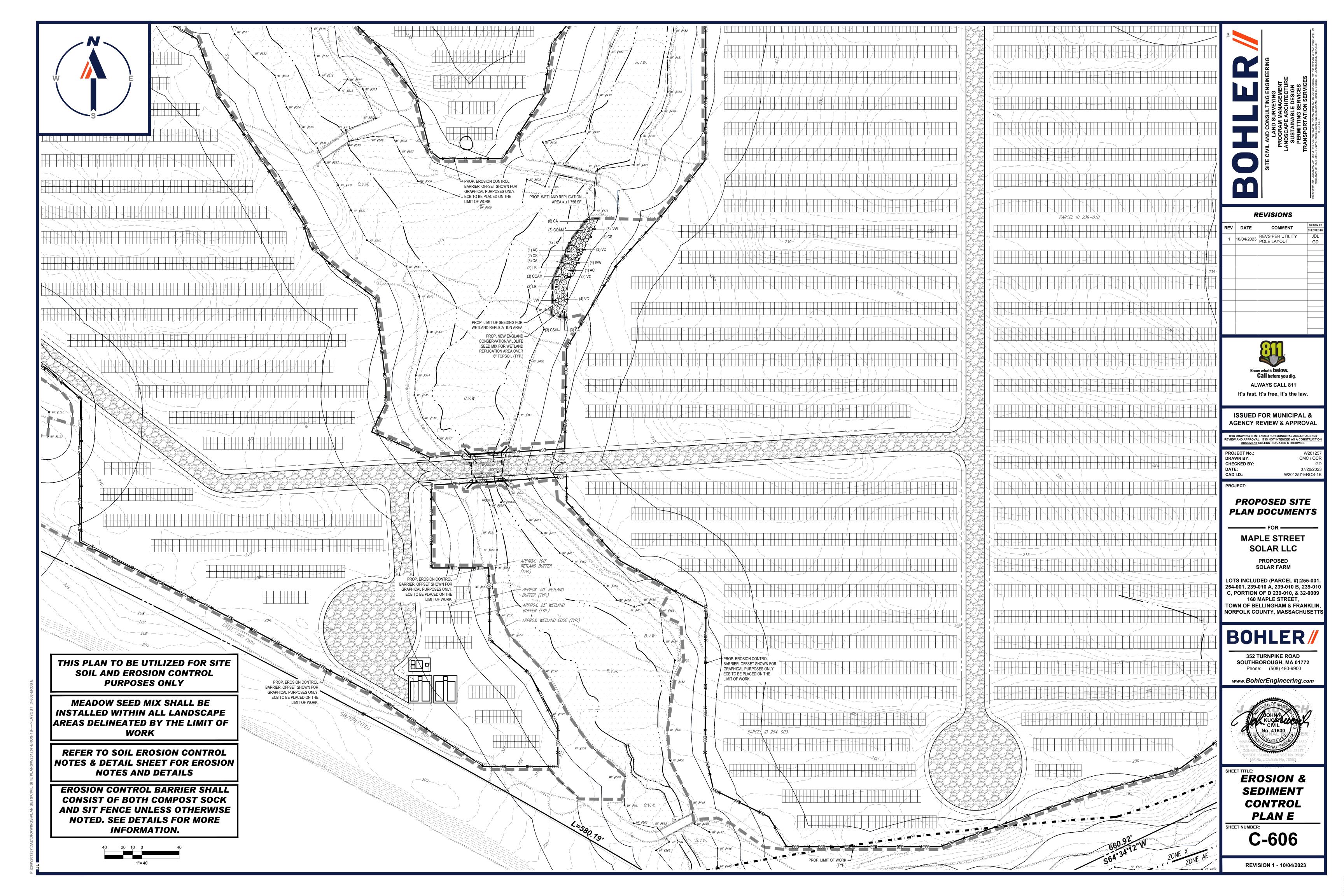
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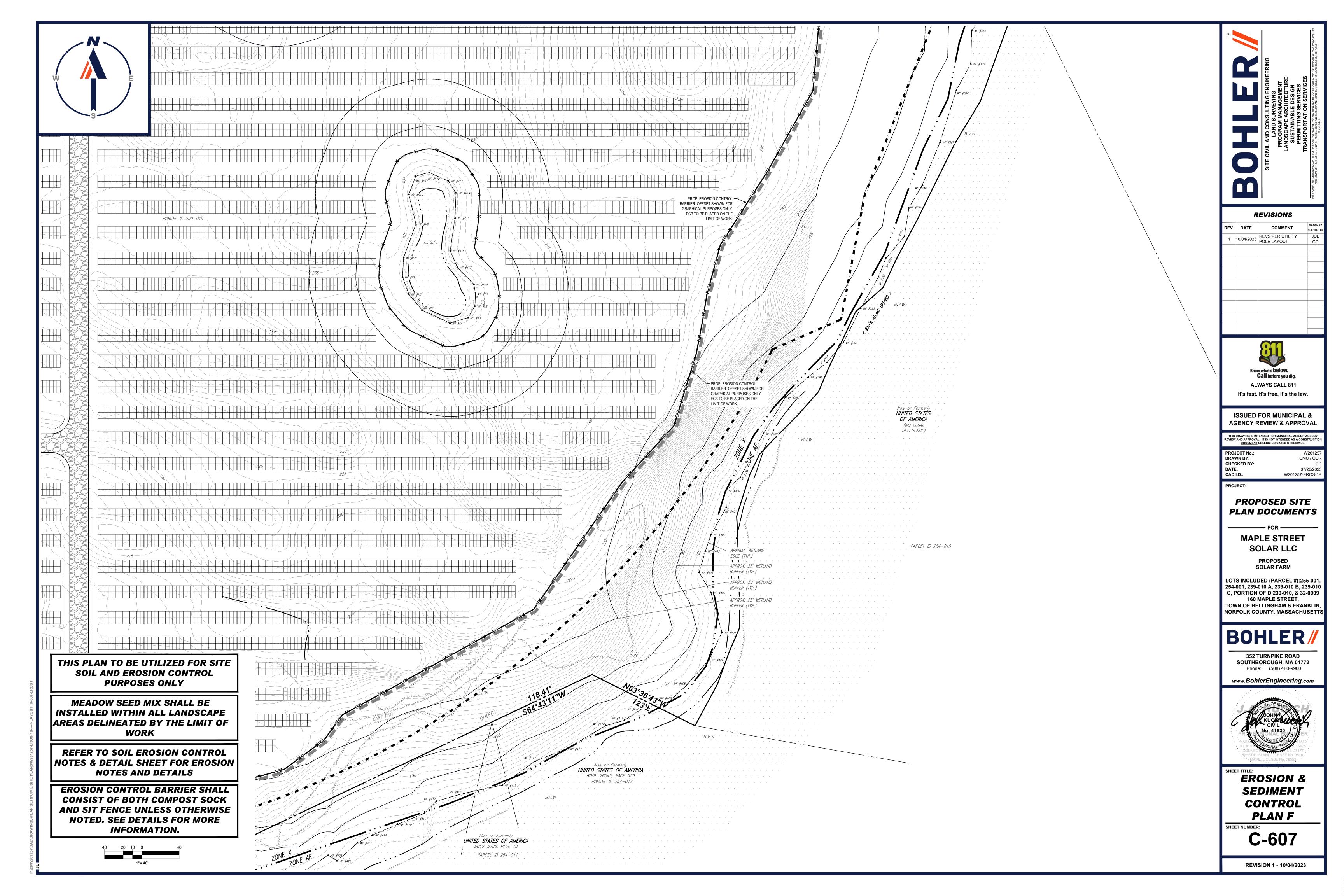


EROSION & SEDIMENT CONTROL PLAN C

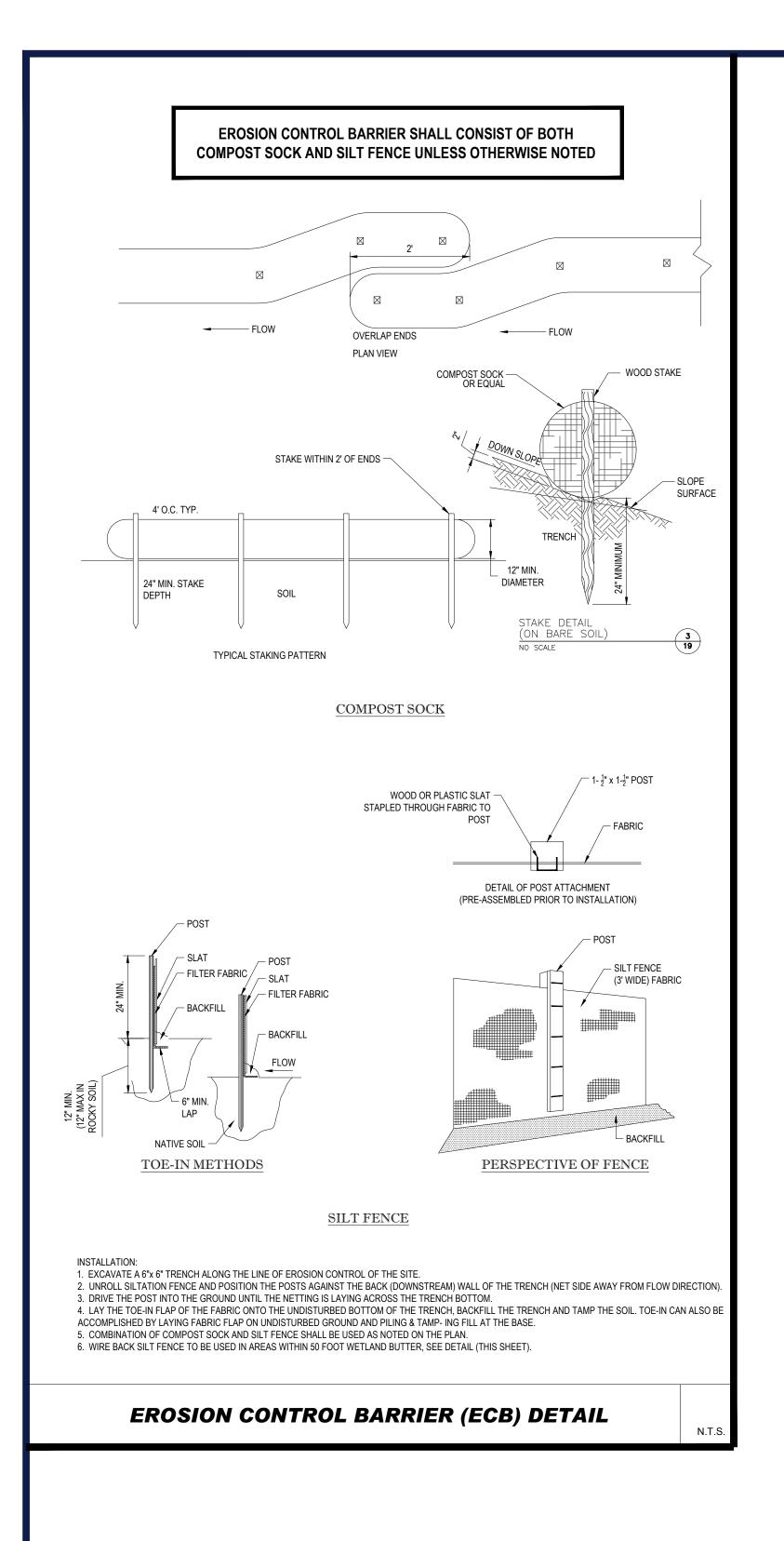
C-604







### **GENERAL EROSION AND SEDIMENT CONTROL NOTES EROSION AND SEDIMENT CONTROL NOTES** THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERA ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE DONE AS SET FORTH IN THE MOST CURRENT STATE SEDIMENT AND NOTES ARE REFERENCED HEREIN, AND THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES, IN THEIR ENTIRETY. THE **EROSION CONTROL MANUAL.** THE FOLLOWING CONSTRUCTION SEQUENCE IS RECOMMENDED: CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS' SPECIFIC NOTES THOSE AREAS UNDERGOING ACTUAL CONSTRUCTION WILL BE LEFT IN AN UNTREATED OR UNVEGETATED CONDITION FOR A 2 FROSION CONTROL MEASURES MUST CONFORM TO THE STATE LOCAL AND FEDERAL GUIDELINES FOR URBAN FROSION AND SEDIMENT CONTROL -INSTALLATION OF STABILIZED CONSTRUCTION ENTRANCE/EXIT (AS SHOWN) MINIMUM TIME. AREAS SHALL BE PERMANENTLY STABILIZED IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REQUIREMENTS. UNI ESS OTHERWISE NOTED OR UNI ESS ENGINEER CLEARLY AND SPECIFICALLY. IN WRITING, DIRECTS OTHERWISE, INSTALLATION OF EROSION AREA OF SITE CONSTRUCTION AT A MINIMUM, AREAS SHALL BE PERMANENTLY STABILIZED ACCORDING TO THE CURRENT EDITION OF THE STORMWATER CONTROL, CLEARING, AND SITE WORK MUST BE PERFORMED EXACTLY AS INDICATED IN THE EROSION CONTROL CONSTRUCTION NOTES. -INSTALLATION OF EROSION CONTROL BARRIER (STRAW BALES AND SILT FENCE) (AS SHOWN) POLLUTION PREVENTION PLAN (SWPPP), OR IN THE ABSENCE OF A SWPPP, THEY SHALL BE PERMANENTLY STABILIZED WITHIN 14 3. THE DISTURBED LAND AREA OF THIS SITE IS APPROXIMATELY 44.133 ACRES. DAYS OF FINAL GRADING AND TEMPORARILY STABILIZED WITHIN 30 DAYS OF INITIAL DISTURBANCE OF THE SOIL. IF THE -INSTALLATION OF INLET PROTECTION IN STREET (AS SHOWN) DISTURBANCE IS WITHIN 100 FEET OF A STREAM OR POND, THE AREA SHALL BE STABILIZED WITHIN 7 DAYS OR PRIOR TO ANY 4. THE FOLLOWING EROSION CONTROL MEASURES ARE PROPOSED FOR THIS SITE: STORM EVENT (THIS WOULD INCLUDE WETLANDS). -DEMOLITION OF EXISTING SITE STRUCTURES (SEE DEMOLITION PLAN) 4.1. STABILIZED CONSTRUCTION ENTRANCE/ EXIT - A TEMPORARY GRAVEL CONSTRUCTION ENTRANCE/EXIT IS TO BE INSTALLED AT THE DESIGNATED AREA WITHIN PROTECTION ZONE/TREE DRIP LINE LOCATION SHOWN ON THE PLAN. THIS AREA MUST BE GRADED SO THAT RUNOFF WATER WILL BE RETAINED ON-SITE. SEDIMENT BARRIERS (SILT FENCE, STRAW BARRIERS, ETC.) SHOULD BE INSTALLED PRIOR TO ANY SOIL DISTURBANCE OF THE FENCE TO FOLLOW TREE DROP LINE OR 6' FROM -DEMOLITION OF EXISTING SITE PAVEMENT AND AMENITIES (SEE DEMOLITION PLAN) 4.2. SEDIMENT FENCE - INSTALL SILT FENCE(S) AND/OR SILT SOCK AROUND ALL OF THE DOWNSLOPE PERIMETERS OF THE SITE, TEMPORARY FILL AND CONTRIBUTING DRAINAGE AREA ABOVE THEM. MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL AREAS WITH SLOPES TRUNK. WHICHEVER IS GREATER 4.3. INSTALL FILTER FABRIC DROP INLET PROTECTION AROUND EACH DRAINAGE INLET AS DRAINAGE STRUCTURES ARE INSTALL I FO TO REDUCE THE -CLEARING AND GRUBBING QUANTITY OF SEDIMENT, INSTALL TEMPORARY INLET PROTECTION ON INLETS DOWNSLOPE FROM DISTURBANCE, WHICH MAY BE BEYOND THE LIMIT INSTALL SILTATION BARRIER AT TOE OF SLOPE TO FILTER SILT FROM RUNOFF. SEE SILTATION BARRIER DETAILS FOR PROPER -INSTALLATION OF TEMPORARY SWALES AND SEDIMENT BASINS INSTALLATION, SILTATION BARRIER WILL REMAIN IN PLACE PER NOTE #5. 5. INSTALLATION OF EROSION CONTROL DEVICES MUST BE IN ACCORDANCE WITH ALL OF THE MANUFACTURER'S RECOMMENDATIONS. -4' WOOD & WIRE SNOW FENCE WITH STEEL STAKE 18" O.C. -EARTHWORK AND EXCAVATION/FILLING AS NECESSARY ALL EROSION CONTROL STRUCTURES WILL BE INSPECTED, REPLACED AND/OR REPAIRED EVERY 7 DAYS AND IMMEDIATELY 6 THE CONTRACTOR MUST INSPECT FROSION CONTROL MEASURES WEEKLY. THE CONTRACTOR MUST REMOVE ANY SILT DEPOSITS GREATER THAN 6" OF FOLLOWING ANY SIGNIFICANT RAINFALL OR SNOW MELT OR WHEN NO LONGER SERVICEABLE DUE TO SEDIMENT ACCUMULATION HALF THE OF THE EROSION CONTROL BARRIER'S HEIGHT COLLECTED ON THE FILTER FABRIC AND/OR SILT SOCK BARRIERS AND EXCAVATE AND REMOVE -CONSTRUCTION OF UTILITIES 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 -STABILIZE PERMANENT LAWN AREAS AND SLOPES WITH TEMPORARY SEEDING THE CONTRACTOR MUST APPLY TEMPORARY SEED AND MULCH TO ALL DISTURBED AREAS THAT WILL NOT BE BROUGHT TO FINISHED GRADE AND AND BE MAINTAINED BY THE CONTRACTOR UNTIL AREAS UPSLOPE ARE PERMANENTLY STABILIZED. FOR SEDIMENT CONTROL VEGETATED WITHIN 7 DAYS. WHEN AREAS ARE DISTURBED AFTER THE GROWING SEASON. THE CONTRACTOR MUST STABILIZE SAME WITH GEOTEXTIL DEVICES THAT ARE WITHIN AREAS SUBJECT TO CONSERVATION COMMISSION JURISDICTION, THE DEVICES SHALL REMAIN IN PLACE -INSTALLATION OF INLET PROTECTION OF ON-SITE UTILITIES (AS SHOWN) -WOOD & WIRE SNOW FENCE USED AS TREE GUARD TO FABRIC AND MAINTAIN SAME IN STRICT ACCORDANCE WITH BEST MANAGEMENT PRACTICES. AND BE REMOVED IN ACCORDANCE WITH THE ORDER OF CONDITIONS. PREVENT DAMAGE FROM CONSTRUCTION EQUIPMENT -CONSTRUCTION OF BUILDINGS THE CONTRACTOR MUST INSTALL ADDITIONAL EROSION CONTROL MEASURES IF ENGINEER SO REQUIRES, TO PREVENT ANY, INCLUDING THE INCIDENTAL NO SLOPES, EITHER PERMANENT OR TEMPORARY, SHALL BE STEEPER THAN TWO TO ONE (2:1) UNLESS OTHERWISE INDICATED ON THE PLANS. SLOPE PROTECTION FOR SLOPES GREATER THAN 2:1 SHALL BE DESIGNED BY A GEOTECHNICAL ENGINEER. -CONSTRUCTION OF ALL CURBING AND LANDSCAPE ISLANDS AS INDICATED ON THE PLANS TREE DRIP LINE/TREE PROTECTION ZONE THE CONTRACTOR MUST BE RESPONSIBLE FOR INSPECTING AND MAINTAINING ALL EROSION CONTROL MEASURES ON THE SITE UNTIL PERMANENT PAVING AND TURF/LANDSCAPING IS ESTABLISHED. THE COSTS OF INSTALLING AND MAINTAINING THE EROSION CONTROL MEASURES MUST BE INCLUDED IF FINAL SEEDING OF THE DISTURBED AREAS IS NOT COMPLETED 45 DAYS PRIOR TO THE FIRST KILLING FROST, USE TEMPORARY -SPREAD TOPSOIL ON SLOPED AREAS AND SEED AND MULCH IN THE BID PRICE FOR THE SITE WORK AND THE CONTRACTOR IS RESPONSIBLE FOR ALL SUCH COSTS. MULCH (DORMANT SEEDING MAY BE ATTEMPTED AS WELL) TO PROTECT THE SITE AND DELAY SEEDING UNTIL THE NEXT AREA WITHIN TREE PROTECTION ZONE TO -FINAL GRADING OF ALL SLOPED AREAS 10. THE CONTRACTOR MUST CONTINUE TO MAINTAIN ALL EROSION CONTROL MEASURES UNTIL THE COMPLETION OF CONSTRUCTION AND THE REMAIN UNDISTURBED DURING CONSTRUCTION ESTABLISHMENT OF VEGETATION. TEMPORARY SEEDING OF DISTURBED AREAS THAT HAVE NOT BEEN FINAL GRADED SHALL BE COMPLETED 45 DAYS PRIOR TO THE -PLACE 6" TOPSOIL ON SLOPES AFTER FINAL GRADING COMPLETED. FERTILIZE, SEED, AND MULCH SEED FIRST KILLING FROST TO PROTECT FROM SPRING RUNOFF PROBLEMS THE CONTRACTOR MUST REMOVE EROSION CONTROL MEASURES, SILT AND DEBRIS AFTER ESTABLISHING PERMANENT VEGETATION COVER OR OTHER MIXTURE TO BE INSTALLED AS REQUIRED. REVISIONS -4' WOOD & WIRE SNOW FENCE WITH STEEL STAKES 18' O.C. -REMOVAL OF THE TEMPORARY SEDIMENT BASINS DURING THE CONSTRUCTION PHASE, INTERCEPTED SEDIMENT SHALL BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH 12. THIS PLAN REPRESENTS THE MINIMUM LEVEL OF IMPLEMENTATION OF TEMPORARY EROSION AND SEDIMENTATION CONTROL FACILITIES. MEASURES AND LOCAL, STATE, AND FEDERAL STANDARDS. COMMENT STRUCTURES, ADDITIONAL FACILITIES, MEASURES AND STRUCTURES MUST BE INSTALLED WHERE NECESSARY TO COMPLY WITH ALL APPLICABLE CODES -PAVE PARKING LOT AND STANDARDS AND/OR TO PREVENT ANY. INCLUDING THE INCIDENTAL DISCHARGE OF SILT-LADEN RUNOFF FROM EXITING THE SITE. 10/04/2023 REVS PER UTILITY POLE LAYOUT REVEGETATION MEASURES WILL COMMENCE UPON COMPLETION OF CONSTRUCTION EXCEPT AS NOTED ABOVE. ALL DISTURBED -LANDSCAPING PER LANDSCAPING PLAN AREAS NOT OTHERWISE STABILIZED WILL BE GRADED, SMOOTHED, AND PREPARED FOR FINAL SEEDING AS FOLLOWS: 13. THE CONTRACTOR MUST PROTECT ALL EXISTING TREES AND SHRUBS. THE CONTRACTOR MUST REFER TO THE LANDSCAPE AND/OR DEMOLITION PLAN(S 10.1. SIX INCHES, OR DEPTH SPECIFIED ON THE LANDSCAPE PLAN, OF LOAM WILL BE SPREAD OVER DISTURBED AREAS AND FOR TREE PROTECTION, FENCE LOCATIONS AND DETAILS. **ELEVATION** -REMOVE EROSION CONTROLS AS DISTURBED AREAS BECOME STABILIZED TO 70% STABILIZATION OR SMOOTHED TO A UNIFORM SURFACE 14 THE CONTRACTOR MUST REFER TO GRADING PLANS FOR ADDITIONAL INFORMATION 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 15. THE CONTRACTOR MUST CLEAN EXISTING AND PROPOSED DRAINAGE STRUCTURES AND INTERCONNECTING PIPES ON OR OFF-SITE AS THE USING 10-20-20 OR EQUIVALENT. APPLY GROUND LIMESTONE (EQUIVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDE) AT A JURISDICTIONAL AGENCY REQUIRES, BOTH AT THE TIME OF SITE STABILIZATION AND AT END OF PROJECT 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 16. SOIL EROSION CONTROL MEASURES MUST BE ADJUSTED OR RELOCATED BY THE CONTRACTOR AS IDENTIFIED DURING SITE OBSERVATION IN ORDER TO FESCUE 5% REDTOP, AND 48% TALL FESCUE, THE LAWN AREAS WILL BE SEEDED TO A PREMIUM TURE MIXTURE OF 44% MAINTAIN THE COMPLETE EFFECTIVENESS OF ALL CONTROL MEASURES TREE PROTECTION DURING KENTUCKY BLUE-GRASS, 44% CREEPING RED FESCUE, AND 12% PERENNIAL RYEGRASS: SEEDING RATE IS 1.03 LBS PER 1,000 THE CONTRACTOR MUST IDENTIFY, ON THE PLAN, THE LOCATION OF WASTE CONTAINERS, FUEL STORAGE TANKS, CONCRETE WASHOUT AREAS AND ANY RECOMMENDED CONSTRUCTION SEQUENCE SF LAWN. QUALITY SOD MAY BE SUBSTITUTED FOR SEED WHERE SLOPES DO NOT EXCEED 2:1, SOD ON SLOPES STEEPER OTHER LOCATIONS WHERE HAZARDOUS MATERIALS ARE STORED. SITE CONSTRUCTION THAN 3.1 SHOULD BE PEGGED. N.T.S. 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 NON-TOXIC BINDER WILL BE USED ON STRAW MULCH FOR WIND CONTROL. ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED ONCE THE SITE IS 70% STABILIZED. FOR EROSION CONTROL MEASURES THAT ARE WITHIN AREAS SUBJECT TO CONSERVATION COMMISSION JURISDICTION, THE MEASURES SHALL REMAIN IN SEE CHART 1 R.O.W. PLACE AND BE REMOVED IN ACCORDANCE WITH THE ORDER OF CONDITIONS. EXISTING GROUND-WETLANDS WILL BE PROTECTED WITH BARRIERS CONSISTING OF STRAW BALES, COMPOST TUBES, SILT FENCE OR A COMBINATION 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: **Call** before you dig PROVIDE APPROPRIATE 2-1/2" CLEAN STONE-MULCH RATE (1000 SF TRANSITION BETWEEN STABILIZED PROTECTED AREA 100 POUNDS **ALWAYS CALL 811** CONSTRUCTION ENTRANCE AND **PROFILE** SEE CHART 1PUBLIC R.O.W. WINDY AREA SHREDDED OR CHOPPED CORNSTALKS 185-275 POUNDS It's fast. It's free. It's the law. STRAW (ANCHORED)\* PUMP DISCHARGE HOSE MODERATE TO HIGH JUTE MESH OR EXCELSIOR MAT AS REQUIRED VELOCITY AREAS OR **ISSUED FOR MUNICIPAL &** STEEP SLOPES GREATER AGENCY REVIEW & APPROVAL THAN 3:1 **GREATER THAN 3:1** (REFER TO GEOTECHNICAL REPORT FOR FINAL DESIGN REQUIREMENT) THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENC - PUBLIC VIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUC DOCUMENT UNLESS INDICATED OTHERWISE. RIGHT OF $^st$ A HYDRO-APPLICATION OF WOOD OR PAPER FIBER MAY BE APPLIED FOLLOWING SEEDING. A SUITABLE NON-TOXIC BINDER SHAL -EXISTING BE USED TO ADDITIONAL WIND CONTROL PROJECT No.: \* MULCH ANCHORING: ANCHOR MULCH WITH PEG AND TWINE (1 SQ. YD/BLOCK): MULCH NETTING (AS PER MANUFACTURER): WOOD DRAWN BY: CMC / OCF NOTES: 1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE -STABILIZE ENTIRE PILE W/ CELLULOSE FIBER (750 LBS/ACRE): CHEMICAL TACK (AS PER MANUFACTURER'S SPECIFICATIONS): USE OF A SERRATED STRAIGHT **CHECKED BY** MAXIMUM SLOPE OF STOCKPILE SHALL BE 3H:1V. Plywood will be used to CAD I.D.: W201257-EROS-1 UPON COMPLETION OF SOIL STOCKPILING, EACH PILE decrease the velocity of the 15 PROPOSED LOCATIONS OF SURFACE STORMWATER MANAGEMENT BASINS CAN BE UTILIZED AS A TEMPORARY SEDIMENT TRAF SHALL BE SURROUNDED WITH EITHER SILT FENCING OR STRAW BALES, THEN STABILIZED WITH VEGETATION OR 3H(MAX.) DURING CONSTRUCTION.SEDIMENT TRAPS SHALL BE SIZED AND CONSTRUCTED IN ACCORDANCE WITH ALL LOCAL, STATE, AND PLAN VIEW PROJECT: \_SILT FENCE 15.1. TEMPORARY SEDIMENT TRAPS SHALL BE SIZED PER THE CURRENT EDITION OF THE "MASSACHUSETTS EROSION AND SEDIMENT CONTROL GUIDELINES FOR URBAN AND SUBURBAN AREAS" AND PROVIDE A MINIMUM OF 1,800 CF PER ACRE OF PROPOSED SITE TRIBUTARY AREA WITH A MAXIMUM TRIBUTARY AREA OF 5 ACRES. MAINTAIN A 2:1 LENGTH TO WIDTH RATIO AND NOT EXCEL 5 FT IN HEIGHT. UPON SITE STABILIZATION, ACCUMULATED SEDIMENT SHALL BE REMOVED AND THE TEMPORARY SEDIMENT **PLAN DOCUMENTS** TRAP EXCAVATED TO 1 FOOT BELOW THE TRAP. THE AREA SHALL THEN BE SCARIFIED TO PREVENT COMPACTION AND PERCENT SLOPE OF ROADWAY LENGTH OF STONE REQUIRED PROMOTE INFILTRATION, AND GRADED AND STABILIZED IN ACCORDANCE WITH THE GRADING AND LANDSCAPE PLANS. 16. STOCKPILING OF MATERIALS (DIRT, WOOD, CONSTRUCTION MATERIALS, ETC.) MUST REMAIN COVERED AT ALL TIMES TO MINIMIZE 2% TO 5% ANY DUST PROBLEMS THAT MAY OCCUR WITH ADJACENT PROPERTIES AND TO PROVIDE MAXIMUM PROTECTION AGAINST EROSION **MAPLE STREET** ENTIRE ENTRANCE STABILIZED WITH FABC BASE COURSE ( >5% (1) AS PRESCRIBED BY LOCAL ORDINANCE OR OTHER GOVERNING AUTHORITY **SOLAR LLC** 17. EXISTING CATCH BASIN STRUCTURES SHALL BE PROTECTED UNTIL SUCH TIME AS THEY ARE REMOVED. CHART 1 -STRAW BALES THE CONTRACTOR MUST PERFORM DEWATERING (IF REQUIRED), IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS. IT IS THI **PROPOSED** CONTRACTOR'S RESPONSIBILITY TO OBTAIN AND PAY FOR THE COSTS ASSOCIATED WITH ANY AND ALL NECESSARY DISCHARGE **SOLAR FARM** PERMITS ASSOCIATED WITH SAME TEMPORARY STOCKPILE STABILIZED CONSTRUCTION ENTRANCE DEWATERING GEOTEXTILE FILTER BAG DETAIL THE CONTRACTOR MUST LOCATE CONSTRUCTION WASTE MATERIAL STORAGE AREAS TO MINIMIZE EXPOSURE TO STORMWATER. LOTS INCLUDED (PARCEL #):255-001 THE CONTRACTOR MUST IMMEDIATELY PLACE CONSTRUCTION WASTE IN ON-SITE STORAGE CONTAINERS UNTIL THAT 254-001, 239-010 A, 239-010 B, 239-010 CONSTRUCTION WASTE IS READY FOR OFE-SITE DISPOSAL. THE CONTRACTOR MUST MAINTAIN SPILL PREVENTION AND RESPONS C, PORTION OF D 239-010, & 32-0009 EQUIPMENT AND MAKE SAME CONTINUOUSLY AVAILABLE ON-SITE FOR USE BY THE CONTRACTOR'S EMPLOYEES WHO MUST BE PROPERLY TRAINED IN THE APPLICATION OF SPILL PREVENTION AND RESPONSE PROCEDURES. 160 MAPLE STREET. —SECURE LIFTING LOOPS TO OR UNDER SURFACE FINISHED GRADE— TOWN OF BELLINGHAM & FRANKLIN, LOOPS SIZED FOR 1"-20. EROSION CONTROL NOTES DURING WINTER CONSTRUCTION - STAPLES NORFOLK COUNTY, MASSACHUSETT REBAR, LIFT FILET BAG 2 PER BALE FROM INLET USING - PLYWOOD 48" X 24" WINTER CONSTRUCTION PERIOD: NOVEMBER 1 THROUGH APRIL 15. BINDING WIRE REBAR FOR HANDLES PAINTED WHITE 10 MIL PLASTIC → STRAW BALE WINTER EXCAVATION AND EARTHWORK SHALL BE DONE SUCH THAT THE AMOUNT OF AREA OPEN AT ONE TIME IS MINIMIZED TO THE 2"X2"X3/4" OVERFLOW HOLES-LINING MAXIMUM EXTENT PRACTICABLE AND IN CONFORMANCE WITH THE STORMWATER POLLUTION PREVENTION PLAN SUCH THAT RUBBER BLOCK BLACK LETTERS GEOTEXTILE BAG-ADEQUATE PROVISIONS ARE EMPLOYED TO CONTROL STORMWATER RUNOFF. CONCRETE - NATIVE MATERIAL REMOVE TRAPPED WASHOUT 4" BRIGHTLY COLORED-(OPTIONAL) SEDIMENT WHEN CONTINUATION OF EARTHWORK OPERATION ON ADDITIONAL AREAS SHALL NOT BEGIN UNTIL THE EXPOSED SOIL SURFACE ON THE 0.5" LAG SCREWS IYLON ROPE EXPANSION 1/4" BRIGHTI Y **BRIGHTLY COLORED** WOOD OR METAL AREA BEING WORKED HAS BEEN STABILIZED SUCH THAT NO LARGER AREA OF THE SITE IS WITHOUT EROSION CONTROL RESTRAINT OOPS SIZED FOR 1" REBAR COLORED NYLON ROPE 352 TURNPIKE ROAD **EXPANSION RESTRAIN** STAKES (2 PER BALE PROTECTION AS LISTED IN ITEM 2 ABOVE **EXPANSION RESTRAINT** ISE REBAR FOR HANDLE TO CAN NO LONGER BE SEE **SOUTHBOROUGH, MA 01772** - WOOD POST 3" X 3" X 8' EMPTY FILTER SACK AT A 4 **SECTION A-A** AN AREA SHALL BE CONSIDERED TO HAVE BEEN TEMPORARILY STABILIZED WHEN EXPOSED SURFACES HAVE BEEN EITHER Phone: (508) 480-9900 SEDIMENT COLLECTION GEOTEXTILE SHALL BE A MULCHED WITH STRAW OR STRAW AT A RATE OF 100 LB. PER 1,000 SQUARE FEET (WITH OR WITHOUT SEEDING) OR DORMANT WOVEN POLYPROPYLENE LOCATION SEEDED, MUI CHED AND ADEQUATELY ANCHORED BY AN APPROVED ANCHORING TECHNIQUE www.BohlerEngineering.com FABRIC THAT MEETS OR EXCEEDS REQUIREMENT FOR AREAS WHERE CONSTRUCTION ACTIVITIES HAVE CEASED FOR A PERIOD EXCEEDING 14 DAYS BETWEEN THE DATES OF IN THE SPECIFICATIONS NOVEMBER 1ST AND APRIL 1ST, LOAM OR SEED WILL NOT BE REQUIRED. THE SLOPES SHALL BE FINE GRADED AND EITHER PROTECTED WITH MULCH OR TEMPORARILY SEEDED. IF THE EXPOSED AREA HAS BEEN LOAMED, FINAL GRADED AND IS SMOOTH CONCRETE WASHOUT SIGN DETAIL (OR EQUIVALENT) THEN THE AREA MAY BE DORMANT SEEDED AT A RATE OF 200-300% HIGHER THAN SPECIFIED FOR PERMANENT SEED AND THEN PLACE AN OIL ADSORBE SECTION VIEW MULCHED AS APPLICABLE. SLOPES SHALL NOT BE LEFT UNSTABILIZED OVER THE WINTER OR IN AREAS WHERE WORK HAS CEASED PAD OR PILLOW OVER FOR MORE THAN 14 DAYS UNLESS TREATED IN THE ABOVE MANNER. UNTIL SUCH TIME AS WEATHER CONDITIONS ALLOW DITCHES PROFILE VIEW OF STAPLE DETAIL INLET GRATE WHEN OF TO BE FINISHED WITH THE PERMANENT SURFACE TREATMENT, EROSION SHALL BE CONTROLLED BY THE INSTALLATION OF **INSTALLED FILTER** SPILLS ARE A CONCERN SEDIMENT BARRIERS OR STONE CHECK DAMS IN ACCORDANCE WITH THE STANDARD DETAILS. TEMPORARY CONCRETE WASHOUT FACILITIES INSPECT PER LOW TO MODERATE FLOW GEOTEXTILE FABRIC SPECIFICATION TABLE SHOULD BE LOCATED A MINIMUM OF 50 FT. FROM REGULATORY 26.1. BETWEEN THE DATES OF NOVEMBER 1ST AND APRIL 15TH ALL MULCH SHALL BE ANCHORED BY EITHER PEG LINE, MULCH **ISOMETRIC** STAKE (TYP.) PROPERTIES STORM DRAIN INLETS. 1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. REQUIREMENTS NETTING OR WOOD CELLULOSE FIBER GRAB TENSILE STRENGTH ASTM D-4632 ONCE CONCRETE WASTES ARE WASHED INTO THE 26.2. MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL DRAINAGE WAYS WITH A SLOPE GREATER THAN 3% FOR SLOPE 2 BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" DEEP X 6" WIDE TRENCH GRAB TENSILE ELONGATION ASTM D-4632 DESIGNATED AREA AND ALLOWED TO HARDEN, THE THE WIDTH, "W", OF THE EXPOSED TO DIRECT WINDS AND FOR ALL OTHER SLOPES GREATER THAN 8%. WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH AS SHOWN IN 120 LBS PUNCTURE ASTM D-4833 CONCRETE SHOULD BE BROKEN UP, REMOVED, AND DETAIL 2. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH FILTER SACK SHALL 26.3. MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL AREAS WITH SLOPES GREATER THAN 15%. AFTER OCTOBER 1ST MULLEN BURST 800 PSI ASTM D-3786 BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" DISPOSED OF OFF-SITE, CONTRACTOR TO DISPOSE MATCH THE INSIDE WID TRAPEZOID TEAR THE SAME APPLIES FOR ALL SLOPES GREATER THAN 8%. ASTM D-4533 120 LBS PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF OF HARDENED CONCRETE ON A REGULAR BASIS. OF THE GRATED INLET **UV RESISTANCE** 80% ASTM D-4355 STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE BLANKET. 3. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED APPARENT OPENING SIZE ASTM D-4751 40 US SIEVE ALL DISTURBED AREAS SHALL BE STABILIZED IN ACCORDANCE WITH THE STORMWATER PREVENTION PLAN. - 10 MIL PLASTIC LINI **EROSION &** 3. ROLL THE BLANKETS (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE WITHIN 30 FT. OF THE TEMPORARY CONCRETE 40 GAL/MIN/SQ F FLOW RATE ASTM D-4491 AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES WASHOUT FACILITY. THE DEPTH, "D", OF THE DURING THE WINTER CONSTRUCTION PERIOD ALL SNOW SHALL BE REMOVED FROM AREAS OF SEEDING AND MULCHING PRIOR T IN APPROPRIATE LOCATIONS AS PER MANUFACTURES RECOMMENDATION. MODERATE TO HIGH FLOW 4. PLASTIC LINING MATERIAL SHOULD BE A MINIMUM OF FILTER SACK SHALL BE **SEDIMENT** 4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH MINIMUM 6" OVERLAP. TO ENSURE PROPER SEAM ALIGNMENT PROPERTIES 10 MIL POLYETHYLENE SHEETING AND SHOULD BE **BETWEEN 18 INCHES AND** 265 LBS GRAB TENSILE STRENGTH PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE SEAM STITCH ASTM D-4632 FREE OF HOLES, TEARS, OR OTHER DEFECTS THAT 36 INCHES. CONTROL NOTES ON THE PREVIOUSLY INSTALLED BLANKET. GRAB TENSILE ELONGATION ASTM D-4632 COMPROMISE THE IMPERMEABILITY OF THE - STRAW BALE (TYP.) PUNCTURE ASTM D-4833 135 LBS 5. CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE THE LENGTH "I" OF MATERIAL MULLEN BURS 420 PSI ASTM D-3786 . WASHOUT FACILITIES MUST BE CLEANED, OR NEW 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE FILTER SACK SHALL & DETAILS TRAPEZOID TEAR 45 LBS ASTM D-4533 FACILITIES MUST BE CONSTRUCTED AND READY FOR MATCH THE INSIDE **UV RESISTANC** ASTM D-4355 6. PLACE STAPLES/STAKES PER MANUFACTURER'S RECOMMENDATION FOR THE APPROPRIATE SLOPE BEING APPLIED. USE ONCE THE WASHOUT IS 75% FULL. LENGTH OF THE GRATED 20 US SIEVE APPARENT OPENING SIZE ASTM D-4751 STRAW BALE AND STAPLES MAY BE SUBSTITUTED INLET BOX. 200 GAL/MIN/SQ F FLOW RATE ASTM D-4491 WITH ALTERNATE SECURING MEASURES SUCH AS 1. IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO ASTM D-4491 PERMITTIVIT C-607 CONCRETE BLOCK. PROPERLY SECURE THE BLANKETS. 2. FOLLOW EROSION CONTROL TECHNOLOGY COUNCIL SPECIFICATION FOR PRODUCT SELECTION. DO NOT USE IN PAVED AREAS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS **EROSION CONTROL BLANKET 2:1 SLOPES** FILTER SACS (GRATED INLETS) CONCRETE WASTE MANAGEMENT AREA (SLOPE INSTALLATION) **REVISION 1 - 10/04/2023**





REV	DATE	COMMENT	DRAWN E
1	10/04/2023	REVS PER UTILITY POLE LAYOUT	JDL GD



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07/20/2023 W201257-EROS-1B

PROJECT No.: DRAWN BY: CMC / OCR CHECKED BY:

DATE: CAD I.D.: PROJECT:

# PROPOSED SITE

# **PLAN DOCUMENTS**

### **MAPLE STREET SOLAR LLC**

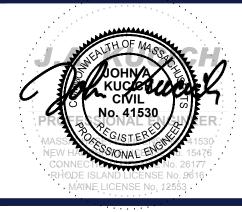
PROPOSED SOLAR FARM

LOTS INCLUDED (PARCEL #):255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009 160 MAPLE STREET, TOWN OF BELLINGHAM & FRANKLIN, NORFOLK COUNTY, MASSACHUSETTS

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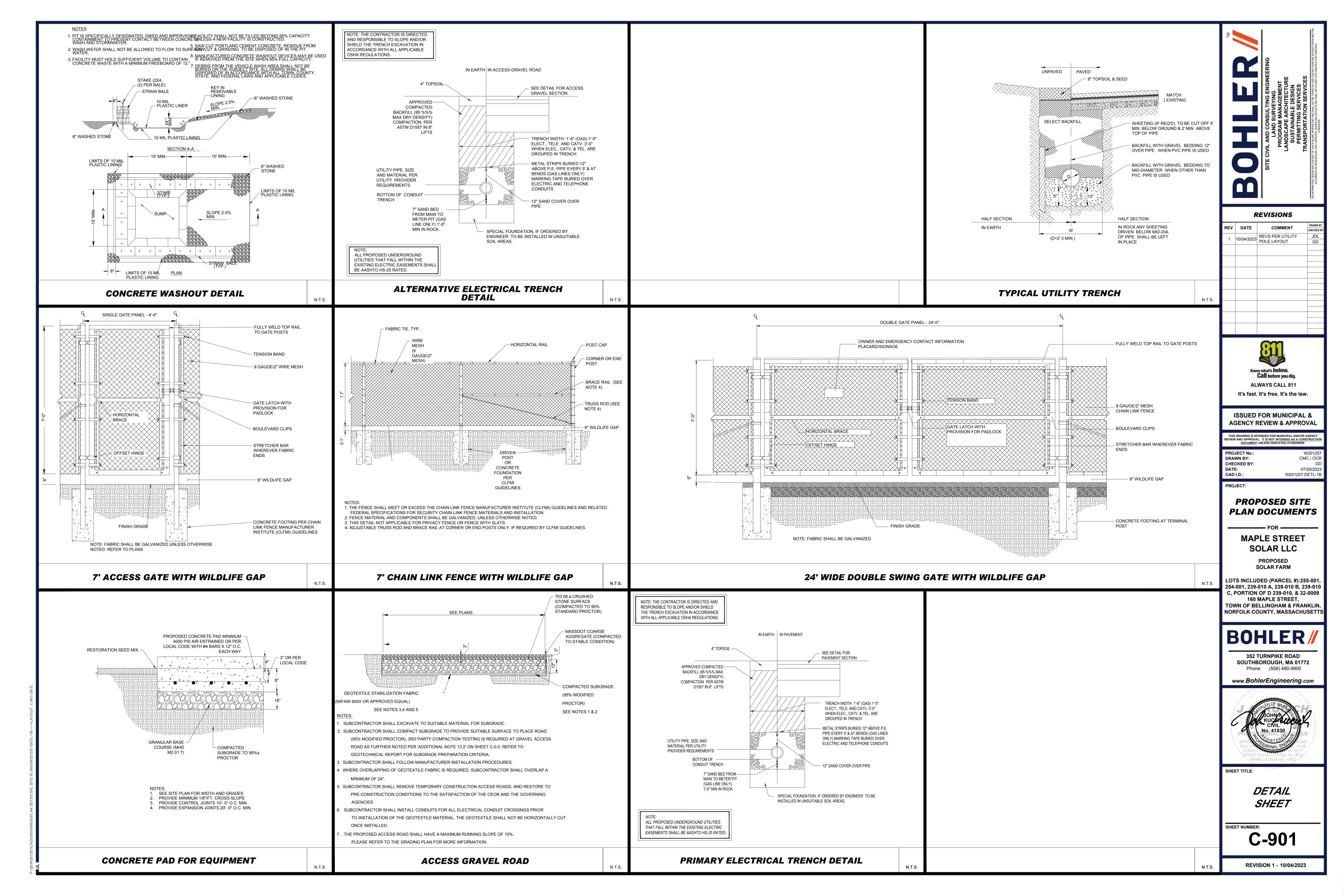
**352 TURNPIKE ROAD SOUTHBOROUGH, MA 01772** Phone: (508) 480-9900

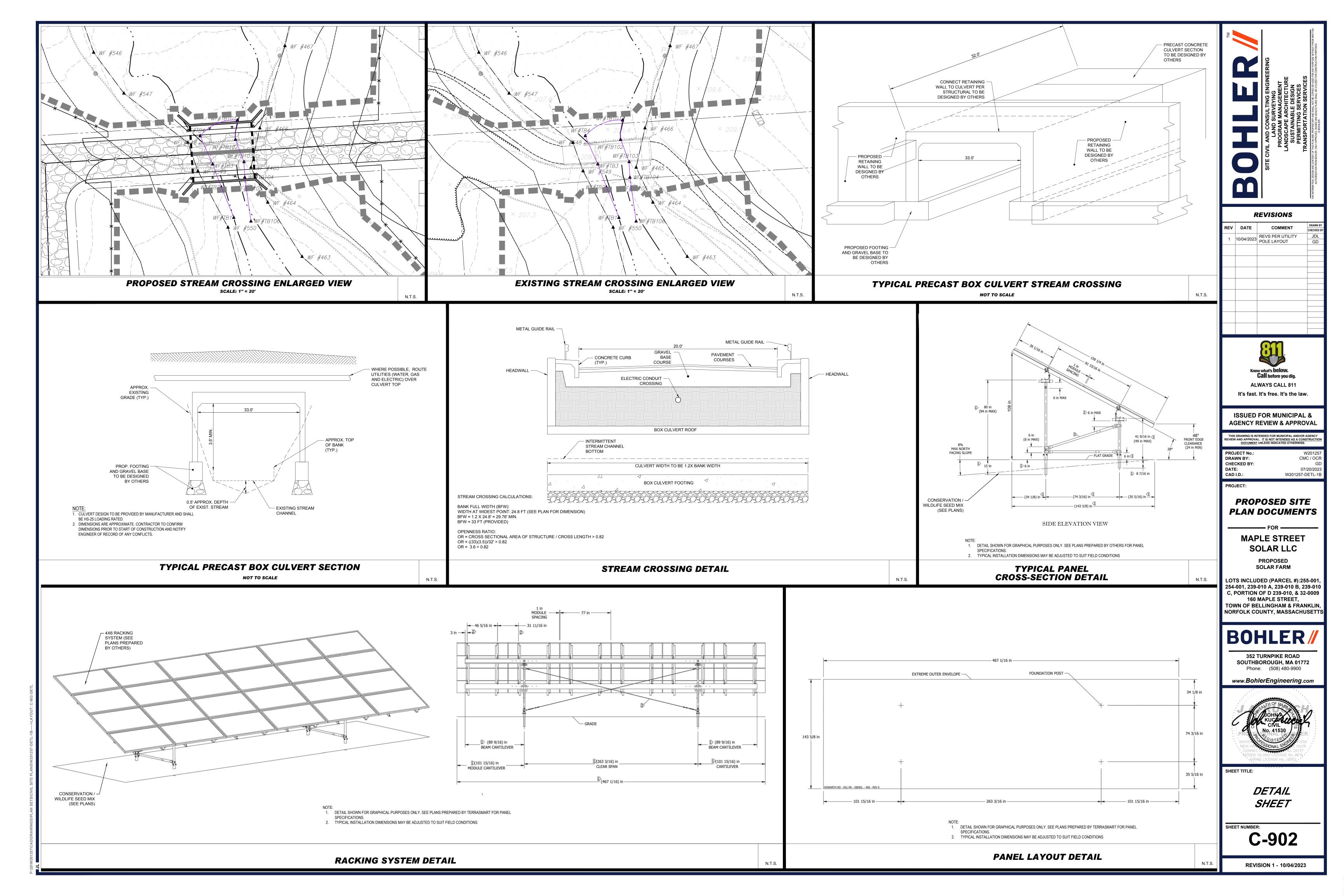
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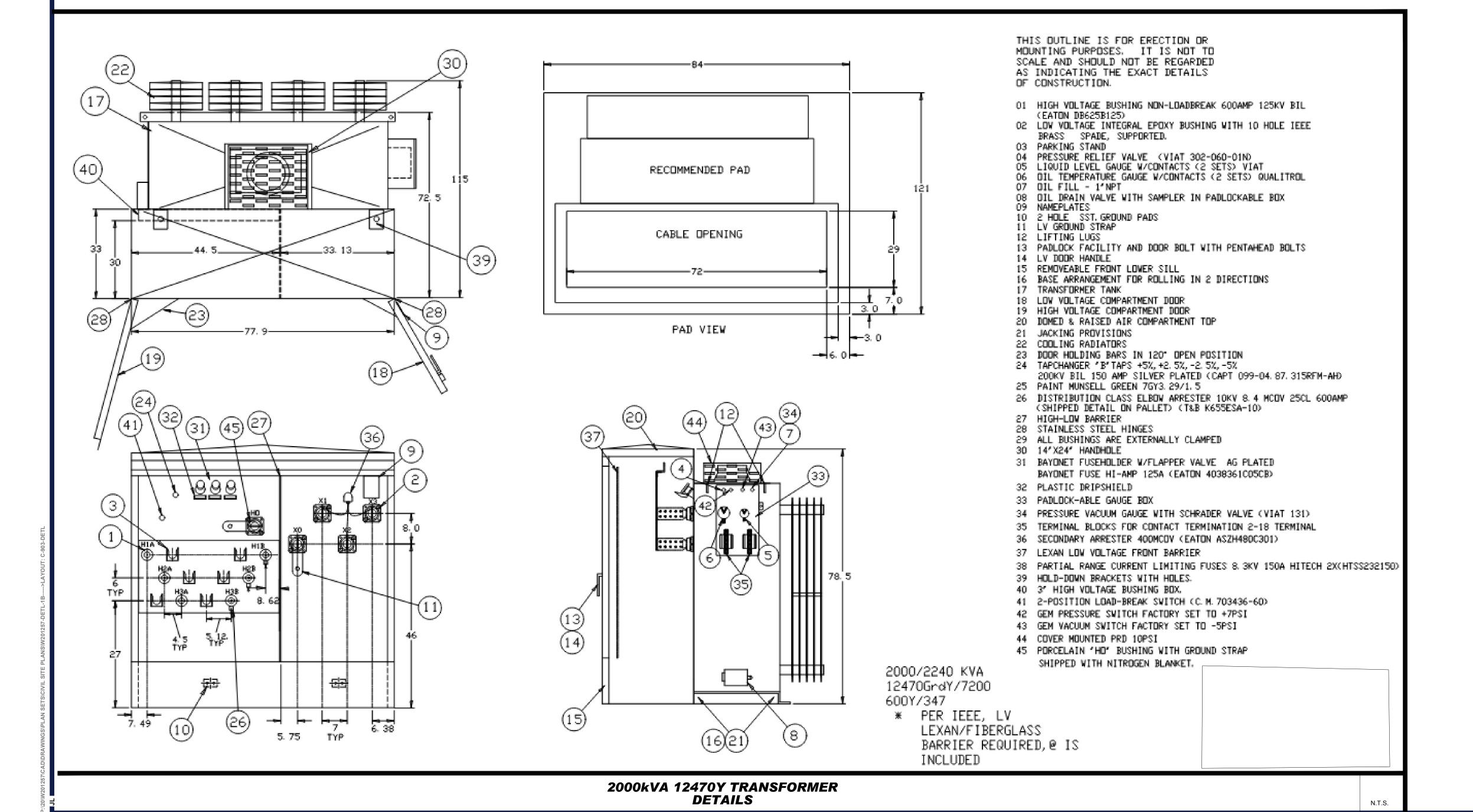


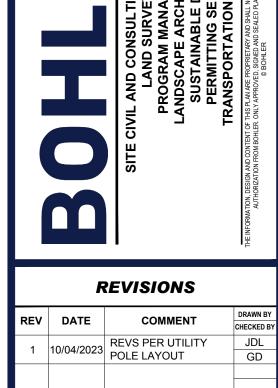
EROSION & SEDIMENT **CONTROL NOTES** & DETAILS

C-609











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PROJECT No.:

W201257
DRAWN BY:

CMC / OCR

 CHECKED BY:
 GI

 DATE:
 07/20/202

 CAD I.D.:
 W201257-DETL-1

PROJECT:

# PROPOSED SITE PLAN DOCUMENTS

\_\_\_\_ FOR \_\_\_\_

# MAPLE STREET SOLAR LLC

PROPOSED SOLAR FARM

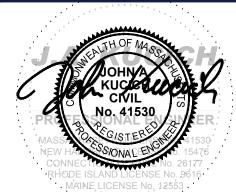
LOTS INCLUDED (PARCEL #):255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009

160 MAPLE STREET, TOWN OF BELLINGHAM & FRANKLIN, NORFOLK COUNTY, MASSACHUSETTS

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SHEET TITLE:

DETAIL SHEET

SHEET NUM

C-903

# Three-phase pad-mounted compartmental type transformer



### General

At Eaton, we are constantly striving to introduce new innovations to the transformer industry, bringing you the highest quality, most reliable transformers. Eaton's Cooper Power series Transformer Products are ISO 9001 compliant, emphasizing process improvement in all phases of design, manufacture, and testing. In order to drive this innovation, we have invested both time and money in the Thomas A. Edison Technical Center, our premier research facility in Franksville, Wisconsin. Such revolutionary products as distribution-class UltraSIL™ Polymer-Housed Evolution™ surge arresters and Envirotemp™ FR3™ fluid have been developed at our Franksville lab.

With transformer sizes ranging from 45 kVA to 12 MVA and high voltages ranging from 2400 V to 46 kV, Eaton has you covered. From fabrication of the tanks and cabinets to winding of the cores and coils, to production of arresters, switches, tap changers, expulsion fuses, current limit fuses, bushings (live and dead) and molded rubber goods, Eaton does it all. Eaton's Cooper Power series transformers are available with electrical grade mineral oil or Envirotemp™ FR3™ fluid, a less-flammable and bio-degradable fluid. Electrical codes recognize the advantages of using Envirotemp™ FR3™ fluid both indoors and outdoors for fire sensitive applications. The bio-based fluid meets Occupational Safety and Health Administration (OSHA) and Section 450.23 NEC



### Three-phase pad-mounted compartmental type transformer

Catalog Data CA202003EN

### Table 2. Three-Phase Ratings

Three-Phase 50 or 60 Hz

kVA Available<sup>1</sup> 45, 75, 112.5, 150, 225, 300, 500, 750, 1000, 1500, 2000, 2500, 3000, 3750, 5000, 7500, 10000

<sup>1</sup>Transformers are available in the standard ratings and configurations shown or can be customized to meet specific needs.

### Table 3. Impedance Voltage Low-voltage re

Rating (kVA)	≤ 600 V	2400 Δ through 4800 Δ	6900 Δ through 13800GY/7970 or 13800 Δ
45-75	2.70-5.75	2.70-5.75	2.70-5.75
112.5-300	3.10-5.75	3.10-5.75	3,10-5.75
500	4.35-5.75	4.35-5.75	4.35-5.75
750-2500	5.75	5.75	5.75
3750	5.75	5.75	6.00
5000	- 1100	6.00	6.50

### Note: The standard tolerance is ± 7.5%

### Table 4. Audible Sound Levels

	NEMA®TR-1 Average			
Self-Cooled, Two Winding kVA Rating	Decibels (dB)			
45-500	56			
501-700	57			
701-1000	58			
1001-1500	60			
1501-2000	61			
2001-2500	62			
2501-3000	63			
3001-4000	64			
4001-5000	65			
5001-6000	66			
6001-7500	67			
7501-10000	68			

### Table 5. Insulation Test Levels

KV Class	Induced Test 180 or 400 Hz 7200 Cycle	kV BIL Distribution	Applied Test 60 Hz (kV)
1.2	У.	30	10
2.5		45	15
5		60	19
8.7	Twice Rated Voltage	75	26
15	20	95	34
25		125	40
24 E		150	50

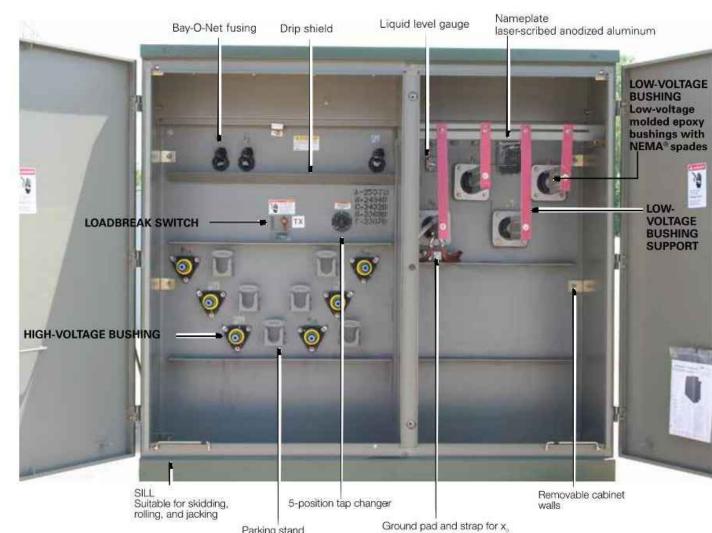
### Table 6. Temperature Rise Ratings 0-3300 Feet (0-1000 meters)

	Standard	Optional	
Unit Rating (Temperature Rise Winding)	65 C	55 °C, 55/65 °C, 75 °C	
Ambient Temperature Max	40 C	50 C	
Ambient Temperature 24 Hour Average	30 C	40 C	
Temperature Rise Hotspot	80 C	65 C	-

www.eaton.com/cooperpowerseries

### Catalog Data CA202003EN Effective April 2016

### Three-phase pad-mounted compartmental type transformer



Parking stand G
Figure 1. Three-phase pad-mounted compartmental type transformer.

### Table 1 Product Scone

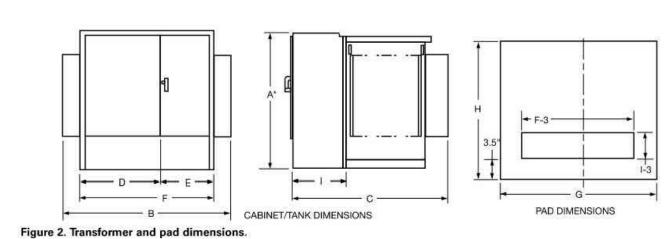
Туре	Three Phase, 50 or 60 Hz, 65 C Rise (55 C, 55/65 C), 65/75 °C, 75 °C
Fluid Type	Mineral oil or Envirotemp™ FR3™ fluid
Coil Configuration	2-winding or 4-winding or 3-winding (Low-High-Low), 3-winding (Low-Low-High)
Size	45 – 10,000 kVA
Primary Voltage	2,400 - 46,000 V
Secondary Voltage	208Y/120 V to 14,400 V
	Inverter/Rectifier Bridge
	K-Factor (up to K-19)
	Vacuum Fault Interrupter (VFI)
	UL <sup>®</sup> Listed & Labeled and Classified
Specialty Designs	Factory Mutual (FM) Approved®
	Solar/Wind Designs
	Differential Protection
	Seismic Applications (including OSHPD)
	Hardened Data Center

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### Catalog Data CA202003EN Effective April 2016

\* Add 9\* for Bay-O-Net fusing.

Three-phase pad-mounted compartmental type transformer



### Table 7. Fluid-filled—aluminum windings 55/65 °C Rise¹

65° Rise DEAD-FRONT-LOOP OR RADIAL FEED-BAY-O-NET FUSING OIL FILLED-ALUMINUM WINDINGS
OUTLINE DIMENSIONS (in.)

kVA Rating	Α*	В	С	D	E	F	G	н		Fluid	Weight (lbs.)
45	50	68	39	42	26	68	72	43	20	110	2,100
75	50	68	39	42	26	68	72	43	20	115	2,250
112.5	50	68	49	42	26	68	72	53	20	120	2,350
150	50	68	49 42 26 68 72						20	125	2,700
225	50	72	51	42	30	72	76	55	20	140	3,150
300	50	72	51	42	30	72	76	55	20	160	3,650
500	50	89	53	42	30	72	93	57	20	190	4,650
750	64	89	57	42	30	72	93	61	20	270	6,500
1000	64	89	59	42	30	72	93	63	20	350	8,200
1500	73	89	86	42	30	72	93	90	24	410	10,300
2000	73	72	87	42	30	72	76	91	24	490	12,500
2500	73	72	99	42	30	72	76	103	24	530	14,500
3000	73	84	99	46	37	84	88	103	24	620	16,700
3750	84	85	108	47	38	85	88	112	24	660	19,300
5000	84	96	108	48	48	96	100	112	24	930	25,000
7500	94	102	122	54	48	102	100	126	24	1,580	41,900

\* Add 9" for Bay-O-Net fusing.

### Table 8. Fluid-Filled – Copper Windings 55/65 °C Rise¹

65" Rise	DEAD-FRONT - LOOP OR RADIAL FEED - BAY-O-NET FUSING OIL FILLED - COPPER WINDINGS										
	OUTLINE DIMENSIONS (in.)							Gallons of	Approx. Total		
kVA Rating	A*	* B C D E F G H I						Fluid	Approx. Tota Weight (lbs.)		
45	50	64	64 39 34 30 64 69 43 20						110	2,100	
75	50	64							115	2,350	
112.5	50	64								115	2,500
150	50	64 49 34 30 64 69 53 20 12							120	2,700	
225	50								140	3,250	
300	50	64	51	34	30	64	75	55	20	160	3,800
500	50	81	53	34	30	64	85	57	20	200	4,800
750	64	89	57	42	30	72	93	61	20	255	6,500
1000	64	89	59	42	30	72	93	63	20	300	7,800
1500	73	89	86	42	30	72	93	90	24	410	10,300
2000	73	72	87	42	30	72	76	91	24	420	11,600
2500	73	72	99	42	30	72	76	103	24	500	14,000
3000	73	84	99	46	37	84	88	103	24	720	18,700
3750	84	85	108	47	38	85	88	112	24	800	20,500
5000	84	96	108	48	48	96	100	112	24	850	25,000
7500	94	102	122	54	48	102	100	126	24	1,620	46,900

Add 9" for Bay-O-Net fusing.

4 www.eaton.com/cooperpowerseries

1 10/04/2023 REVS PER UTILITY POLE LAYOUT

**REVISIONS** 



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W201257

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 W20125

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 CMC / OCI

 CHECKED BY:
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 DATE:
 07/20/202

 CAD I.D.:
 W201257-DETL-1

PROJECT:

# PROPOSED SITE PLAN DOCUMENTS

N DOOG

# MAPLE STREET SOLAR LLC

PROPOSED

SOLAR FARM

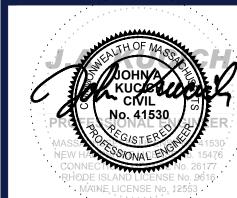
LOTS INCLUDED (PARCEL #):255-001,
254-001, 239-010 A, 239-010 B, 239-010
C, PORTION OF D 239-010, & 32-0009

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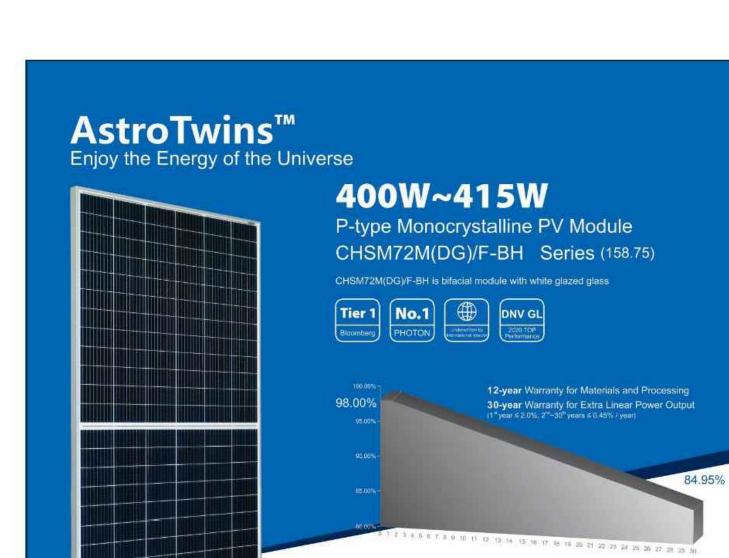


SHEET TITLE:

DETAIL SHEET

SHEET NUMBER:

C-904



OMPREHENSIVE CERTIFICATES

First solar company which passed the TUV

**CAB1000/AC** 

epcpower

Low shipping & installation cost

· Monetizable dynamic performance

· Individual AC connections or combined throat

Modular design with low component count

tailored to Utility systems of all sizes. The scalable power

conversion system also boasts high-performance controls

Able to mix inverters & DC-DC in a single lineup

Modular / flexible configuration

1 MW blocks, up to 1500 VDC

Extended warranty available

and system redundancy.

Configurable up to 4 MW

Return on Investment

Modular I MW blocks

98% max efficiency

Utility-grade energy storage inverter...

. . . .

epcpower

The CAB1000 scalable platform was specifically developed to With world-class power density and an easy to install design,

offer a straightforward and simple solution to developers of your energy storage system will be commissioned quickly

Utility-grade energy storage systems. In ~1 MW blocks, the and easily. The energy storage PCS has never been more

CAB1000 platform offers a single modular system which is flexible or straightforward.

Nord IEC/TS 62941 certification audit.

For Global Market

Up to 1500 VDC

Scalable to 4 MW

EY FEATURES 5W OUTPUT POSITIVE TOLERANCE uaranteed 0~+5W positive tolerance ensures power output reliability.

EXCELLENT WEATHER RESISTANCE Reduces the cell micro-crack and extended product warranty.

The backside makes use of the reflected and scattered light from the surroundings, the modules can yield up to 5%~30% power more, depending on the albedo.

REDUCE INTERNAL MISMATCH LOSS Reduces mismatch loss and improves output. APPLICABLE FOR MULTI DIFFERENT ENVIRONMENTS

he wide range of applications, such as BIPV, vertical installation, snow area, high humidity area and strong sandstorm area, etc. SNAIL TRAIL RESISTANCE



. . . . B

epopower

Standard freight = low transportation cost

Moveable with pallet jack or standard forklift.

ZVRT / LVRT / 4-quadrant high bandwidth control

Easily Transportable

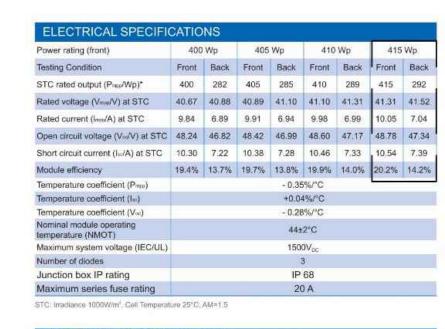
No crane required

Advanced Technology

Separable building blocks

Fully parameterizable grid support

educes the probability of snail trails with zero water vaper transmittance.



ECTRICAL SPECIFICATIONS (Integrated power

Current-V	oltage curves(410W)	
10		1
Columns		
- Sillitang	45-5	1111
Calls timps	100 5	1111

Current-Voltage & Power-Voltage curves(410W)

MECHANICAL SPECIFICATION	NS
Outer dimensions (L x W x H)	2038 x 1010 x 30 mm
Frame technology	Aluminum, silver anodized
Glass thickness	2.0 mm
Cable length (IEC/UL)	Portrait: 350 mm Landscape: 1200 mm
Cable diameter (IEC/UL)	4 mm² / 12 AWG
<sup>®</sup> Maximum mechanical test load	5400 Pa (front) / 2400 Pa (back)
Connector type (IEC/UL)	MC4 compatible

Chint Solar (Zhesiang) Co., Ltd. Reserves the right of final interpretation, please contact our company to use the latest version for contract.

http://energy.chint.com

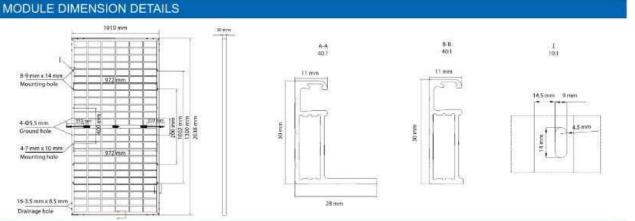
431 Wp 41.10 V 10.47 A 48.60 V

15% 472 Wp 41.00 V 11.50 A 48.70 V 12.03 A

20% 492 Wp 41.00 V 12.00 A 48.70 V 12.55 A 25% 513 Wp 41.00 V 12.50 A 48.70 V 13.08 A

451 Wp 41.10 V 10.97 A 48.60 V 11.51 A

ACKING SPECIFICATIONS leight (module only) 36 pcs / box Veight of packing unit 994 kg Number of modules per 792 pcs 40'HQ container



Astronergy 05-2020





### **1500V Disconnect Combiners**

ConnectPV Disconnect Combiner products are based on a core product architecture optimized for commercial and utility scale solar projects, simplifying design and specification. Options and accessories allow the designer to optimize the products for each project – reducing installation labor costs.

ConnectPV products incorporate "best-in-class" components combined with rugged mechanical designs to maximize reliability over the projected life of the project.

Compatible with grounded systems - negatively or positively grounded with fuses on the ungrounded string input conductors, or ungrounded systems with fuses on both string input conductors.

### Standard Product Features

- 250A, 320A, and 400A UL98B Certified Manual Disconnects
- Lock-Out/Tag-Out on Disconnect Handle
- 8-32 Fused Inputs, #14-#6 AWG Wire Range Touch Safe Fuse-holders
- 15A Fuse Typical, 30A Maximum user specified
- M10 or M12 Studs provided for single or double hole lugs Accommodates 90C Cu/Al Mechanical or Compression Lugs
- · Internal Safety Cover over all live components
- NEMA 3R, 4, and 4X Enclosures
- Padlock Latch for Door
- Unique Serial number per unit
- Labelling to meet NEC Requirements
- 5 Year Warranty

### **Product Options**

- Class 2 40kA Surge Protective Device Mechanical Lugs Installed or Compression Lugs Included
- Breather Vents for High Humidity Locations
- H4 or MC4 Bulkhead or Whip Connectors Installed
- Upsized Enclosures for Larger Output Wires
- Mounting Brackets Installed Extended Warranty

Contact Toll Free: (844)-246-6140

Local: (858) 246-6140



www.connectpv.com

sales@connectpv.com



CONNECTOV



San Diego, CA

CBX15 Rev. 3.0





### ConnectPV reduces electrical BOS project costs by simplifying:

### ► Configuration

Design Engineers easily configure our products to meet the project's requirements -Simplifying design and specification

Field Installers quickly install our products because they provide ample wiring room - Reducing Installation time and labor cast

AHJ Inspectors quickly review and approve our products because we have designed for 100% compliance with the NEC

O&M Personnel reduce field service time because our products use high quality components and are designed for a and UL Standards - Reducing project inspection and approval time 20 year life expectancy - Maximizing system revenue generation

Typical	Input Charac	teristics		Grounde	d Systems	Floating	g Systems
Input Circuits	Standard Disconnect Ampacity	Input Wire Size	Output Type	NEMA 4 Steel (inches)	NEMA 4X Fiberglass (inches)	NEMA 4 Steel (inches)	NEMA 4X Fiberglass (inches)
16	250		M10	24x24x8	24x24x8	24x30x8	24x30x8
20	250	#14-#4	Stud	24x24x8	24x24x8	24x30x8	24x30x8
24	320	AWG	10000000000	30x24x8	30x24x8	30x30x8	30x30x8*
28	400	Copper	M12 Stud	30x30x8	36x30x8	36x36x8	36x36x8*
32	400		Stud	30x30x8	36x30x8	36x36x8	36x36x8*

\* Painted Stainless Steel NEMA 4X Standard Disconnects sized at 1.25x Sum(Isc) per UL1741. Upsize Disconnect available at 1.56x Sum(lsc) for OCPD coordination

High Ampacity Input Versions available: e.g., 12 input, 400A with 30A fuses

Specifications Subject to Change

### Model Numbers are derived from the following template: CBXVVT-###D(S)-FFAA-EE

VV Voltage	Topology	### Disconnect Rating	String Count	AA Fuse Rating	EE Enclosure Type
15 = 1500V	G=Grounded F= Floating	250A, 320A,or 400A	08-32 2 string increments	02-30 15A Typical	N4 = Carbon Steel 4X = Fiberglass*

Additional Options and Accessories Available

Contact Toll Free: (844)-246-6140

Local: (858) 246-6140

**Bidirectional DC-DC** 

CAB1000/DC

Use Case 1:

### ABOUT CONNECTPV INC.

www.connectpv.com

sales@connectpv.com

Use Case 2:



Based in San Diego, CA, ConnectPV Inc. delivers expertise and experience. We bring over 10 years of Solar PV industry experience in electrical Balance of System products coupled with more than 25 years of high quality, ISO9001:2008 certified, manufacturing expertise. We actively work with our customers to

deliver innovative, high quality, and cost effective solutions.

Stainless Steel Available

San Diego, CA

CBX15 Rev. 3.0

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PROJECT No.: DRAWN BY: CMC / OCR **CHECKED BY:** CAD I.D.: W201257-DETL-1

**REVISIONS** 

1 10/04/2023 REVS PER UTILITY POLE LAYOUT

COMMENT

REV DATE

PROJECT:

### PROPOSED SITE **PLAN DOCUMENTS**

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### **MAPLE STREET** SOLAR LLC

PROPOSED

**SOLAR FARM** LOTS INCLUDED (PARCEL #):255-001, 254-001, 239-010 A, 239-010 B, 239-010

C, PORTION OF D 239-010, & 32-0009 160 MAPLE STREET, TOWN OF BELLINGHAM & FRANKLIN, NORFOLK COUNTY, MASSACHUSETTS

# **BOHLER**

352 TURNPIKE ROAD **SOUTHBOROUGH, MA 01772** 

Phone: (508) 480-9900 www.BohlerEngineering.com

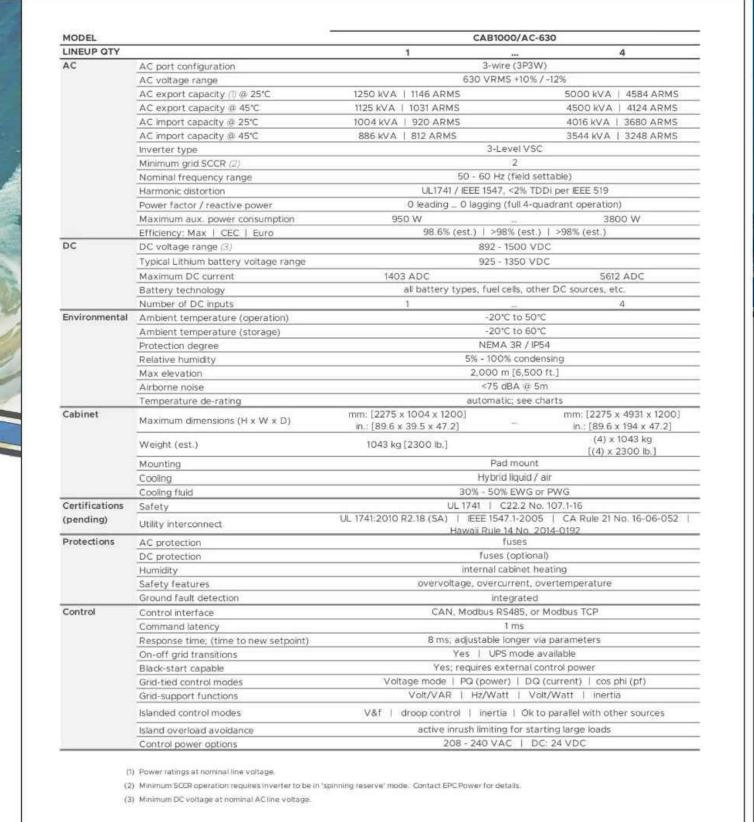


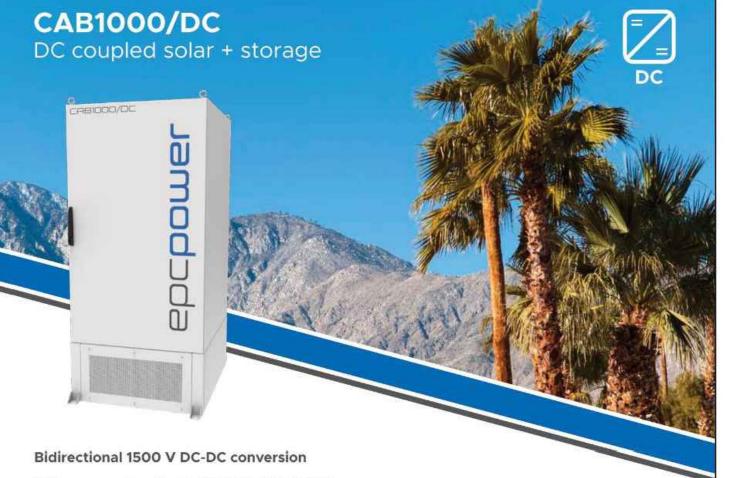
SHEET TITLE:

**DETAIL** SHEET

C-905

**REVISION 1 - 10/04/2023** 





With a power rating of up to 3000 kW, EPC's DC-DC outdoor cabinet is designed to seamlessly integrate energy storage into 1000 V or 1500 V PV systems.

Our DC-DC converters are compatible with a wide range of DC sources. Whether you have 1000 V class lithium battery banks, DC generators, ultra-capacitors, other battery chemistries (lead-acid, flow, etc.), or even fuel cells, our DC-DC converters have your needs covered. By connecting a wide range of DC voltage levels, EPC's DC-DC solutions

The CAB1000/DC is designed from the ground up with simplicity, reliability and scalability in mind.

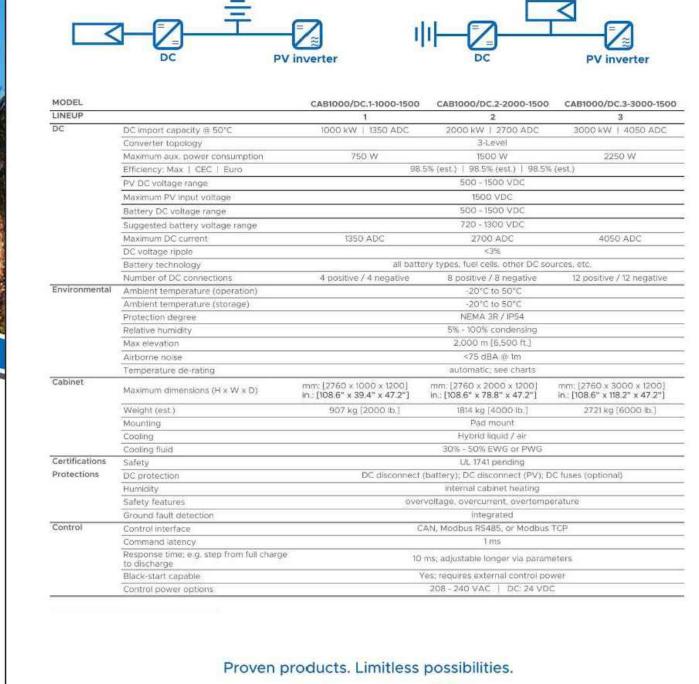
enable highly scalable power conversion in your application.

- 4-quadrant (bidirectional buck or boost)
- DC coupled solar Power flow in either direction regardless of voltages
- Wide DC range
- Optimized for energy storage

### & storage Refit or new instalations MPPT capable Bidirectional buck/boost

### 1500 V DC-DC Any DC source Wide DC voltage range NEMA 3R rated Peak efficiency >98% Connects directly between PV

# DC voltage ripple Protection degree Airborne noise emperature de-ratin Certifications Protections safety feature to discharge Black-start capable



epcpower ====

13125 Danielson St., Suite 112 | Poway, CA 92064 | 1.858.748.5590 | epcpower.com

Effective January 2016

**COOPER POWER** 

## M-Force<sup>™</sup> three-phase switch



### Description

Eaton's Cooper Power™ series M-Force™ switch is a distribution-class, gang-operated, factory unitized three-phase overhead loadbreak switch The M-Force switch is offered in distribution voltage classifications of 15.5 kV, 27 kV, and 38 kV. The M-Force switch may be used for line sectionalizing, paralleling, by-passing, or isolating. M-Force stands for "Magnetic Force". Eaton has the only reverse loop contacts found on distribution-class sidebreak switches; a contact usually reserved for higher priced transmission switches. The reverse loop contacts utilize high current magnetic forces for added reliability. The reverse loop design allows for high contact pressure to be maintained during fault conditions. This feature prevents pitting and distorting of the switch blade and contacts even under severe



current

Solid-Dielectric, Independent Pole Option Recloser

Providing electronic overcurrent protection for single or

ngineered to order. Built to last. • RUS accepted

Interrupting rating up to 16kA through 27kV

Overhead, substation and dead-front

Operator safety with mechanical block

nd triple redundancy on trip handle

Ease of installation with site-ready design

High accuracy Accusense voltage sensors

Works directly with SEL-651R, ABB RER620,

Beckwith M-7679, and GE R650 controls

Catalog O-vst18

mart Grid/Lazer\* solutions

liable performance

Naintenance-free recloser

Up to six internal voltage sensors

lmount designs

three phase operation on systems rated through 38kV,

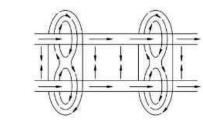
800A continuous current, 12.5kA or 16kA interrupting

### Catalog Data CA008004EN Effective January 2016

### **Basic concept**

Current-carrying conductors that are parallel to each other and have current flowing in the same direction, attract each other due to the magnetic forces acting on them (See Figure 1A). Current-carrying conductors that are parallel to each other and have current flowing in the opposite direction, repel due to the magnetic forces acting on them (See Figure 1B).

Current flows through the two parallel inner segments of the reverse loop contacts in the same direction, thus these two segments attract each other, initiating contact pressure. Current flow through the inner segment and the outer segment is in opposite directions, which causes a repelling force that amplifies the contact pressure.



### Figure 1A. Current flowing in same direction

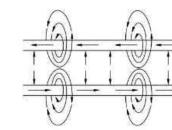
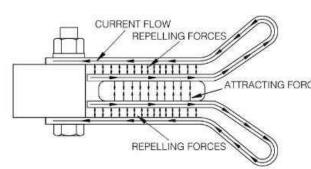
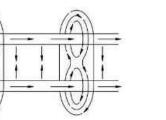


Figure 1B. Current flowing in opposite direction.



Reverse loop contacts



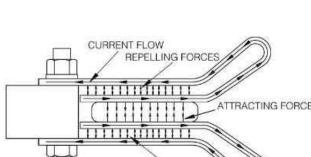


Figure 2. Magnetic forces acting on contacts.

### M-Force three-phase switch

### Design features

The reverse loop contacts utilize high current magnetic forces for added reliability. The reverse loop contacts were adapted from Eaton's Cooper Power series KPF Line Tension Switch and have been field-proven for over 80 years. The reverse loop design allows for high contact pressure to be maintained during fault conditions. This feature prevents pitting and distorting of the switch blade and contacts even under severe momentary overload. These contacts originally designed for high voltage transmission switches also maintain extremely cool temperatures even under the rated full load. The max temperature rise allowed per IEEE Std 1247™-2005 standard for the blade and contact area is 65 °C. The max temperature rise observed on the reverse loop contact area was 38 °C, less than half of the allowed temperature. These types of test results, along with the proven field performance, undoubtedly make the Reverse Loop Contacts found in the M-Force switch the premiere choice in the industry.

The M-Force switch comes standard with polymer (silicone rubber) insulators. These non-porcelain insulators offer exceptional dielectric and mechanical characteristics adding to the reliability of the M-Force switch, while lowering the weight. The M-Force switch can be provided in cycloaliphatic epoxy and porcelain housings. Insulators come standard with 2.25" bolt circles at 15 and 25 kV. Insulators

### require a 3.00" bolt circle at 35 kV. Extended bearing assembly

The stainless steel shaft on the rotating insulator bearing assembly has been extended to four inches. This extra length will prevent horizontal movement of the rotating insulator during operation which ensures proper blade/contact alignment which is essential for smooth operation. Another feature of the bearing assembly is the oilimpregnated bushings that provide maintenance-free operation for the life of the switch.

### Insulated Reliabreak™ arm

The Reliabreak™ Pick-up Arm on the M-Force switch is insulated on one side, which isolates the interrupter from the current path during a close operation. This feature allows for a wide range of adjustments between the Reliabreak arm and the blade catch finger. This increased tolerance removes the possibility of misalignment during operation which ensures proper load interruption.

### Positive locking dead-end brackets

The dead-end brackets on the M-Force switch are of a positive locking design. This design allows for dead-ending at an angle without any distortion of the brackets. This allows for a more flexible switch that can be used in a wider variety of installation

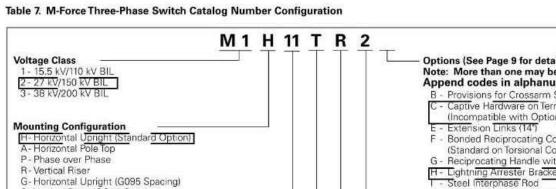
### New inter-phase clamps

The inter-phase control rod clamps on the M-Force switch are designed with a jam nut through the side of the casting which locks the clamps after factory alignment. This feature eliminates any possibility of accidental slippage of the control mechanism which ensures proper operation even under icy conditions.

### Optional ice shields The standard M-Force switch is capable of operating under a 3/8" ice

build up. With the optional ice shields the M-Force switch is capable of opening and closing with a 3/4" ice build up. The unique shields are designed to prevent ice from building up between the contact clips as well as removing the ice from the blade during the closing operation. Per IEEE Std C37.34™-1994, a chopping action is allowed during the close operation to break the ice. Due to the shearing action of the M-Force Ice Shields. the closing operation can be accomplished with one motion. No chopping is needed.

### Catalog Data CA008004EN Effective January 2016



M-Force three-phase switch

51 - 28' Pipe w/Cycloaliphatic Insulator Torsional Mechanism

A2- 28' 1.5" Pipe (Steel Universal Section)

B2- 28' 1.5" Pipe (Fiberglass Universal Section

C2- 28' 1.5" Pipe (Cycloaliphatic Insulator)

T - Steel with Single Point Lift (Standard Option)
S - Steel with Two Point Lift
G - Fiberglass with Single Point Lift - Fiberglass with Two Point Lift

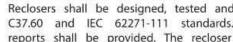
www.eaton.com/cooperpowerseries

### Options (See Page 9 for details) Note: More than one may be chosen. Append codes in alphanumeric order. B - Provisions for Crossarm Support Bracket C - Captive Hardware on Terminal Pads - Bonded Reciprocating Control Handle (Standard on Torsional Controls) P - Phase over Phase G - Reciprocating Handle with Interlocks H - Lightning Arrester Brackets I - Steel Interphase Rod R-Vertical Riser S - Vertical Riser (GO95 Spacing) - Provisions for Neutral Wire K - Provisions for Sensors U- Underhung (GO95 Spacing) R - Additional Nameplate on Handle S - Ice Shields (3/4" Ice Break on Open or Close Operation) T - Grounding Connector on Crossarm Control Rod and Mechanism Mounting Bracket U - Terminals, Copper, #2-500 MCM 28' Round Pipe 1.0" O.D. (Standard Option) 21 - 28' Round Fiberglass 41 - 28' 1" Pipe w/Fiberglass Top Section (Incompatible with Option C above) - Pole Mounting Band - Extra 7 of Control Red Insulator Bolt Pattern [2 - 2.25" Bolt circle for 15 and 27 kV switches 3 - 3.00" Bolt circle for 35 kV switches 03- Hookstick operated (no control rod) Consult factory for other bolt circle options.

SEL-651R

Advanced Recloser Control

recloser control



(select column):

Max System Voltage (kV)	15.5	27	38
Rated Voltage (kV)	15	25	35***
Interrupting Rating RMS (kA)	16*	16*	12.5
BIL (kV)	110	125	150
Continuous Current (A)	800/ 1000**	800/ 1000**	800
8 Hr. Overload, at 20° C	960	960	960
Making Current, RMS, asym, KA	25*	25*	20
Peak, asym (kA)	42*	42*	32
Short Circuit Current, kA sym, 3 seconds	16*	16*	12.5
60Hz Withstand, kV rms Dry, 1 minute	50	60	60
60Hz Withstand, kV rms Wet, 10 seconds	45	50	50
Operating Temperature	-60	0°C to +65	°C

Voltage Class	Catalog Number
15.5kV	VIP378ER-[12 or 16]*-1-ST
27kV	VIP388ER-[12 or 16]*-1-ST
38kV	VIP398ER-[12]*-1-ST

is 100lbs. (45kg)

NEMA 4-hole, 2-hole and clamp style aerial lugs. The following options shall be supplied: (Check as necessary)

NEMA 4-hole aerial lugs \_ Clamp style aerial lugs (#2 - 500 kcmil) Clamp style aerial lugs (250 -750 kcmil) \_\_\_ 4/0 brass eyebolt ground lug Polemount site-ready assembly

NEMA 2-hole aerial lugs

\_\_ Lightning arresters \_\_\_ Dead-front padmounted design with stainless steel

\_ External Accusense Voltage Sensors (0.5 class External 1.0 KVA oil potential transformer (3% accuracy) for 120 VAC supply power with hardware to mount on standard aluminum frame External 0.75 KVA solid-dielectric voltage transformer (0.3% accuracy) for 120 VAC supply power with hardware to mount on standard aluminum frame

High impact, UV stable wildlife protectors for source and load insulators \_\_ External CTs for current monitoring \_ Six internal voltage sensors

 Junction box with all twist lock connections 42 pin interface with additional 52b auxiliary contact (Form C type) and cable-disconnected alarm \_ 3-phase ganged manual trip handle

\* Additional Cost

Contact factory for additional options or customization.

# The industry's gold standard for

- Advanced recloser protection capabilities support coordinated high-speed fault isolation and restoration.
- Three- or single-phase tripping minimizes customer outages and improves reliability metrics. Arc Sense<sup>™</sup> technology improves public safety and minimizes
- fire dangers caused by downed conductors. · Fast islanding detection, precise synchronization, and
- IEEE 1547-2018 tripping let you safely interconnect distributed energy resources (DERs).
- Second-harmonic blocking secures overcurrent elements from transformer inrush.

Compatible With

Popular Reclosers

The SEL-651R Advanced

Recloser Control works

with a wide range of

reclosers for complete

plug-and-work capability.

and tested to exceed the

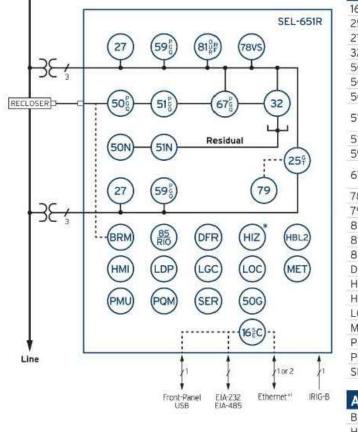
Certificates are available

at selinc.com/SEL-651R.

IEEE C37.60 standard.

SEL

All interfaces are designed



Viper-LT

**Directional Power** Best Choice Ground Neutral Overcurrent 50 (P,G,Q) ime Overcurrent (Phase, Ground, Negative 51 (P,G,Q) Neutral Time Overcurrent Overvoltage (Phase, Ground, Negative Sequence) rectional Overcurrent (Phase, Ground, Negative 78VS Vector Shift Autoreclosing Frequency (Over, Under, Rate) 81 (O,U,R) Fast Rate-of-Change of Frequency SEL MIRRORED BITS® Communications Event Reports SEL Arc Sense™ Technology (AST)\* Operator Interface SELogic Control Equations

Sequential Events Recorder ADDITIONAL FUNCTIONS Second-Harmonic Blocking Load Data Profiling Fault Locator

High-Accuracy Metering

Voltage Sag, Swell, and Interruption

VWVE 27

VWVE 38X

WVE 27

WVE 38X

OSM\_150

SDR Triple-Single

SDR Three-Phase

\*When equipped with interface module

\*Optional feature Copper or fiber-optic

Other Reclosers

Recloser (MVR)

and 38 kV)

and 38 kV)

NOVA NX-T

Joslyn TriMod 300R

Joslyn TriMod 600R

Elastimold Molded Vacuum

OVR-3 (15 and 27 kV only)

Gridshield 32-Pin (15, 27,

Gridshield 42-Pin (15, 27,

VR-3S (15 and 27 kV only)

NOVA Auxiliary Powered

NOVA Control Powered

NOVA Triple-Single



SHEET TITLE:

**DETAIL** SHEET

**REVISION 1 - 10/04/2023** 

# Typical Specifications

www.eaton.com/cooperpowerseries

DESIGN RATINGS AND STANDARDS Reclosers shall be designed, tested and built per IEEE C37.60 and IEC 62271-111 standards. Certified test reports shall be provided. The recloser shall be rated

(kV)	15.5	27	38
Rated Voltage (kV)	15	25	35***
Interrupting Rating RMS (kA)	16*	16*	12.5
BIL (kV)	110	125	150
Continuous Current (A)	800/ 1000**	800/ 1000**	800
8 Hr. Overload, at 20° C	960	960	960
Making Current, RMS, asym, KA	25*	25*	20
Peak, asym (kA)	42*	42*	32
Short Circuit Current, kA sym, 3 seconds	16*	16*	12.5
60Hz Withstand, kV rms Dry, 1 minute	50	60	60
60Hz Withstand, kV rms Wet, 10 seconds	45	50	50

\* 29.3kV system voltages are available

10K 10K 10K

16=16kA sym. fault interrupting

Mechanical Operations

Approximate weight (for single-phase module less frame)

G&W ELECTRIC PAGE 10

it gwelec.com/specs.html for electronic versions of typical specifications.

DRAWN BY: **Functional Overview** CHECKED BY: DATE: CAD I.D.: ANSI NUMBERS/ACRONYMS AND FUNCTIONS PROJECT: Access Security (Serial, Ethernet) PROPOSED SITE **PLAN DOCUMENTS** Overcurrent (Phase, Ground, Negative Sequence)

**MAPLE STREET SOLAR LLC** 

PROPOSED **SOLAR FARM** LOTS INCLUDED (PARCEL #):255-001,

**REVISIONS** 

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W201257-DETL-1

PROJECT No.:

1 10/04/2023 REVS PER UTILITY POLE LAYOUT

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254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009 160 MAPLE STREET, TOWN OF BELLINGHAM & FRANKLIN, NORFOLK COUNTY, MASSACHUSETTS

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C-906

