PROPOSED SITE PLAN DOCUMENTS

FOR

C.R. KLEWIN LLC

PROPOSED

RESIDENTIAL DEVELOPMENT

LOCATION OF SITE:
19, 29 & 39 MILITARY HIGHWAY, TOWN OF LEDYARD
NEW LONDON COUNTY, CONNECTICUT
MAP #91, BLOCK #1590, LOT #19
MAP #91, BLOCK #1590, LOT #29
MAP #91, BLOCK #1590, LOT #39

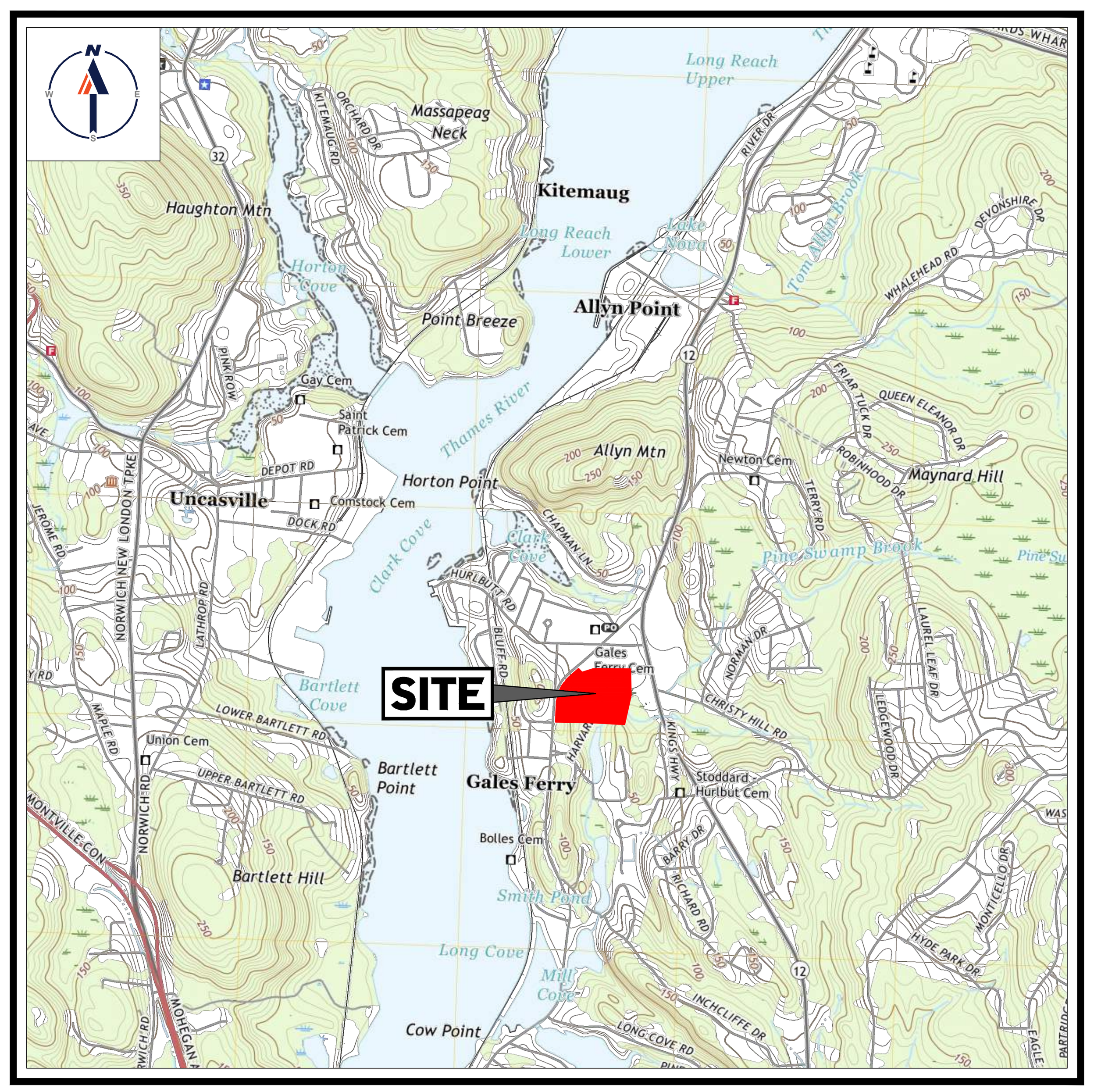
REFERENCES

BOUNDARY & TOPOGRAPHIC SURVEY:
DIETER & GARDNER
1641 ROUTE 12 GALES FERRY, CT 06335
DATE: 12/23/2021
REVISED: 09/19/2024

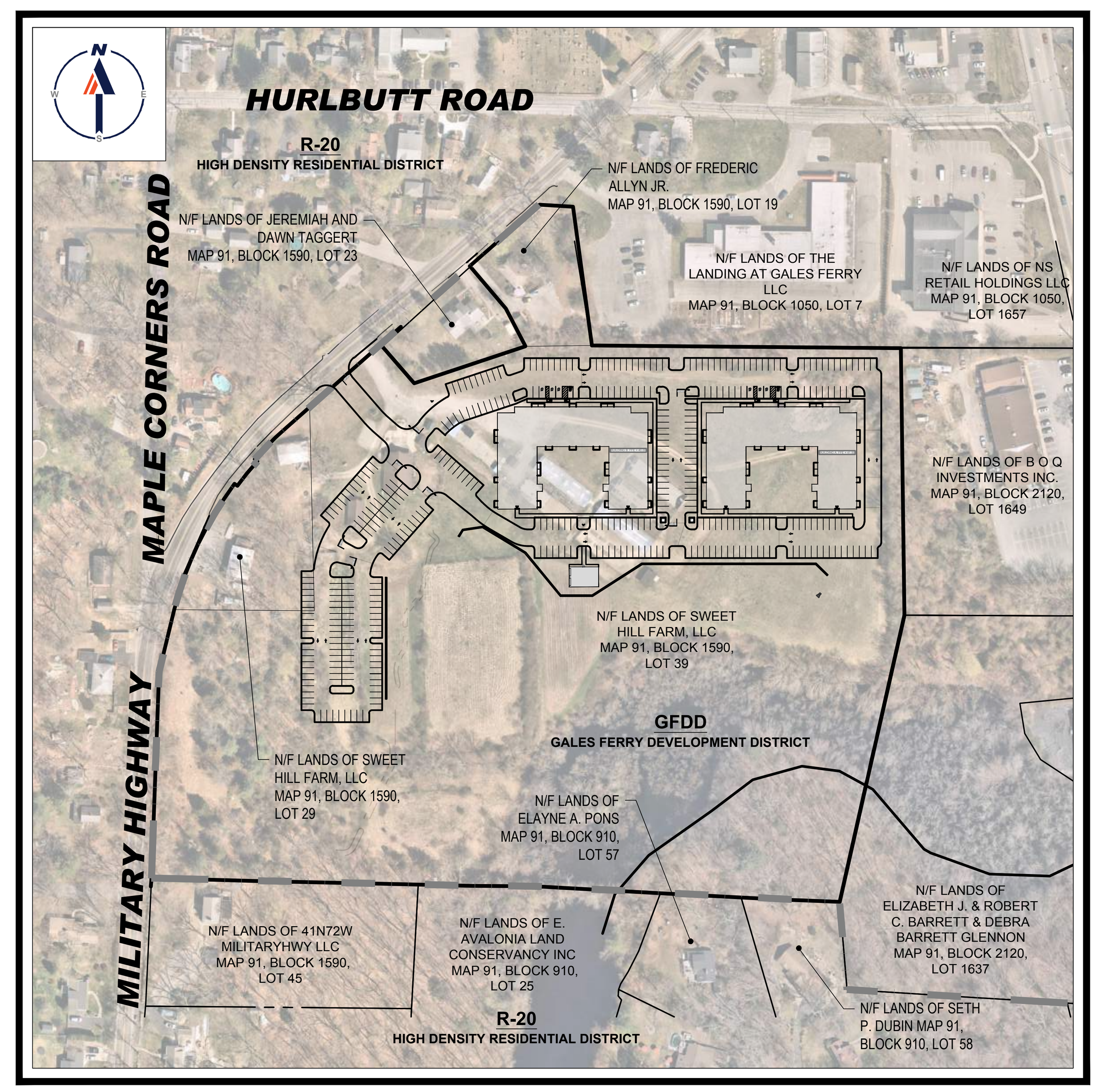
GEOTECHNICAL INVESTIGATION REPORT:
WHITESTONE ASSOCIATES, INC.
16 OLD FORGE ROAD, ROCKY HILL, CT 06067
DATE: 06/28/2023

ARCHITECTURAL PLAN:
AEPMI
241 MAIN STREET, ANSONIA, CT 06401
DATE: 12/06/2024

* 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.



USGS MAP
SCALE: 1" = 2,000'
SOURCE: USGS UNCASVILLE QUADRANGLE



SITE MAP
SCALE: 1" = 200'
SOURCE: 2023 BING AERIAL IMAGERY

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PREPARED BY

BOHLER

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

REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY
1	05/20/2025	RESPONSE TO TOWN COMMENTS	CR/KS / JGB

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

PROJECT No.:	CTA220061.00
DRAWN BY:	CR/TJN/KMB
CHECKED BY:	JGB
DATE:	02/19/2025
CAD I.D.:	CTA220061.00-SPPD-6A

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

C.R. KLEWIN LLC

PROPOSED
RESIDENTIAL DEVELOPMENT

19, 29 & 39 MILITARY HIGHWAY,
GALES FERRY,
LEDYARD,
NEW LONDON COUNTY,
CONNECTICUT

BOHLER
65 LaSALLE ROAD, SUITE 401
WEST HARTFORD, CT 06107
Phone: (860) 333-8900
www.BohlerEngineering.com

J.G. BORD
PROFESSIONAL ENGINEER

SHEET TITLE:

COVER SHEET

SHEET NUMBER:

C-101

REVISION 1 - 05/20/2025

GENERAL NOTES

(REV. 1/2023)

1. THESE PLANS ARE SOLELY BASED ON INFORMATION THE OWNER AND OTHERS PROVIDED TO BOHLER ENGINEERING MA, LLC (HEREIN "BOHLER") PRIOR TO THE DATE ON WHICH THE PROFESSIONAL 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 ANY OTHER SITE FEATURES.
2. 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.
3. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR MUST CONFIRM WITH THE PROFESSIONAL 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.
4. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR MUST ENSURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO 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 PERMITS HAVE BEEN OBTAINED. THE CONTRACTOR MUST HAVE COPIES OF ALL PERMITS AND APPROVALS ON SITE AT ALL TIMES.
5. 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.
6. 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 THE OWNER, ARCHITECT AND PROFESSIONAL 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.
7. CONTRACTOR MUST REFER TO AND ENSURE COMPLIANCE WITH THE APPROVED ARCHITECTURAL/BUILDING PLANS OF RECORD FOR EXACT LOCATIONS AND DIMENSIONS OF ENTRY/EXIT POINTS, ELEVATIONS, PRECISE BUILDING DIMENSIONS, AND EXACT BUILDING UTILITY LOCATIONS.
8. THE CONTRACTOR MUST FIELD VERIFY ALL DIMENSIONS AND MEASUREMENTS SHOWN ON THESE PLANS, PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE PROFESSIONAL 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 THE PROFESSIONAL OF RECORD AND BOHLER WRITTEN NOTIFICATION OF SAME AND (B) PROFESSIONAL OF RECORD AND BOHLER, THEREAFTER, PROVIDING THE CONTRACTOR WITH WRITTEN AUTHORIZATION TO PROCEED WITH SUCH ADDITIONAL WORK.
9. 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.
10. 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.
11. 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 PROFESSIONAL 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.
12. THE PROFESSIONAL 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.
13. 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 AND EXPENSE.
14. THE CONTRACTOR MUST EXERCISE EXTREME CAUTION WHEN PERFORMING ANY WORK ACTIVITIES ADJACENT TO PAVEMENT, STRUCTURES, ETC. WHICH ARE TO REMAIN EITHER FOR AN INITIAL PHASE OF THE PROJECT OR AS PART OF THE FINAL CONDITION. 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.
15. DEBRIS MUST NOT BE BURIED ON THE SUBJECT SITE. ALL DEMOLITION AND CONSTRUCTION WASTES, UNSUITABLE EXCAVATED MATERIAL, EXCESS SOIL AND DEBRIS (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.
16. 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.
17. 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 CONSTRUCTION, AND IN CONFORMANCE WITH APPLICABLE CODES, LAWS, RULES, REGULATIONS, STATUTORY REQUIREMENTS AND STATUTES. THE 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.
18. THE PROFESSIONAL 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 PROFESSIONAL OF RECORD AND BOHLER HAVE NOT BEEN RETAINED TO PERFORM OR TO BE RESPONSIBLE FOR JOB SITE SAFETY, SAME BEING WHOLLY OUTSIDE OF THE PROFESSIONAL OF RECORD'S AND BOHLER SERVICES AS RELATED TO THE PROJECT. THE PROFESSIONAL OF RECORD AND BOHLER ARE NOT RESPONSIBLE TO IDENTIFY OR REPORT ANY JOB SITE SAFETY ISSUES OR ANY JOB SITE CONDITIONS, AT ANY TIME.
19. THE CONTRACTOR MUST IMMEDIATELY IDENTIFY IN WRITING, TO THE PROFESSIONAL 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 PROFESSIONAL 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.
20. THE PROFESSIONAL OF RECORD AND BOHLER ARE NOT RESPONSIBLE FOR ANY INJURY OR DAMAGES RESULTING FROM THE CONTRACTOR'S FAILURE TO BUILD OR CONSTRUCT IN STRICT ACCORDANCE WITH THE APPROVED PLANS, AND CURRENT CODES, RULES, STATUTES AND THE LIKE. IF THE CONTRACTOR AND/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 PROFESSIONAL OF RECORD AND BOHLER HARMLESS FOR AND FROM ALL INJURIES, CLAIMS AND DAMAGES THAT THE PROFESSIONAL OF RECORD AND BOHLER SUFFER AND ANY AND ALL COSTS THAT THE PROFESSIONAL OF RECORD AND BOHLER INCUR AS RELATED TO SAME.
21. 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 COSTS, INCLUDING, BUT NOT LIMITED TO, REASONABLE ATTORNEYS' FEES AND DEFENSE COSTS, ARISING OUT OF OR IN ANY WAY CONNECTED WITH OR TO THE PROJECT, INCLUDING ALL CLAIMS BY EMPLOYEES OF THE CONTRACTOR(S), ALL CLAIMS BY THIRD PARTIES AND ALL CLAIMS RELATED TO THE PROJECT. THE CONTRACTOR MUST NOTIFY THE PROFESSIONAL OF RECORD, IN WRITING, AT LEAST THIRTY (30) DAYS PRIOR TO ANY TERMINATION, SUSPENSION OR CHANGE OF ITS INSURANCE HEREUNDER.
22. THE PROFESSIONAL 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.
23. 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 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 NAME BOHLER AS AN ADDITIONAL INSURED UNDER THE GENERAL CONTRACTOR'S POLICIES OF GENERAL LIABILITY INSURANCE AS DESCRIBED ABOVE.
24. 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. BOHLER IS NOT REQUIRED TO REVIEW PARTIAL SUBMISSIONS OR THOSE FOR WHICH SUBMISSIONS OF CORRELATED ITEMS HAVE NOT BEEN RECEIVED.
25. IF THE CONTRACTOR DEVIATES FROM THESE PLANS AND/OR SPECIFICATIONS, INCLUDING THE NOTES CONTAINED HEREIN, WITHOUT FIRST OBTAINING THE PRIOR WRITTEN AUTHORIZATION OF THE PROFESSIONAL OF RECORD AND BOHLER FOR ALL DEVIATIONS WITHIN THE PROFESSIONAL OF RECORD'S AND BOHLER 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 PROFESSIONAL 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 SAME.
26. THE CONTRACTOR IS RESPONSIBLE FOR A MAINTAINING AND PROTECTING THE TRAFFIC CONTROL PLAN AND ELEMENTS IN ACCORDANCE WITH FEDERAL, STATE, 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.
27. 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 PROFESSIONAL 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 PROFESSIONAL OF RECORD AND BOHLER PARTIES, HARMLESS FOR ALL INJURIES, DAMAGES AND COSTS THAT THE PROFESSIONAL OF RECORD AND BOHLER INCUR AS A RESULT OF SAID FAILURE OR FAILURE TO PRESERVE.
28. 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.
29. THE CONTRACTOR MUST STRICTLY COMPLY WITH THE LATEST AND CURRENT OSHA STANDARDS AND REGULATIONS, AND/OR ANY OTHER AGENCY WITH JURISDICTION OVER EXCAVATION AND TRENCHING PROCEDURES. THE PROFESSIONAL OF RECORD AND BOHLER HAS NO RESPONSIBILITY FOR OR AS RELATED TO EXCAVATION AND TRENCHING PROCEDURES AND WORK.
30. 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 THE PROFESSIONAL OF RECORD AND BOHLER PARTIES HARMLESS FOR ALL INJURIES AND DAMAGES THAT THE PROFESSIONAL OF RECORD SUFFERS AND COSTS THAT THE PROFESSIONAL OF RECORD INCURS AS A RESULT OF SAID FAILURE.
31. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN AN ON-SITE STORMWATER POLLUTION 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 LOCAL JURISDICTION REQUIRES A DIFFERENT THRESHOLD). THE CONTRACTOR 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 TO DO SO.
32. AS CONTAINED IN THESE DRAWINGS AND ASSOCIATED DOCUMENTS PREPARED BY THE PROFESSIONAL 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 PROFESSIONAL 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

(REV. 1/2023)

1. 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.
2. THE CONTRACTOR MUST CONDUCT DEMOLITION/REMOVALS ACTIVITIES IN SUCH A MANNER AS TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, SIDEWALKS, WALKWAYS, AND ALL OTHER ADJACENT FACILITIES. THE CONTRACTOR MUST OBTAIN ALL APPLICABLE PERMITS FROM THE APPROPRIATE GOVERNMENTAL AUTHORITY(IES) PRIOR TO THE COMMENCEMENT OF ANY ROAD OPENING OR DEMOLITION ACTIVITIES IN OR ADJACENT TO THE RIGHT-OF-WAY.
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.
4. 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.
   - 4.2. 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 ACCORDANCE AND CONFORMANCE WITH ALL STATE, FEDERAL, LOCAL, AND JURISDICTIONAL REQUIREMENTS. THE CONTRACTOR MUST COMPLY WITH ALL OSHA AND OTHER SAFETY PRECAUTIONS NECESSARY TO PROVIDE A SAFE WORK SITE FOR THE CONTRACTOR AND THE PUBLIC.
5. 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 CONTRACTOR'S SOLE EXPENSE.
6. THE PROFESSIONAL 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.
7. 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 CONSTRUCTION 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.
8. PRIOR TO THE COMMENCEMENT OF ANY SITE ACTIVITY AND ANY DEMOLITION ACTIVITY, THE CONTRACTOR MUST, IN WRITING, RAISE ANY QUESTIONS 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 PROFESSIONAL OF RECORD AND BOHLER, IN WRITING AND MUST ADDRESS ALL ISSUES AND ITEMS RESPONDED TO, BY THE PROFESSIONAL OF RECORD AND BY BOHLER, IN WRITING. ALL DEMOLITION ACTIVITIES MUST BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THESE PLANS AND SPECIFICATIONS AND ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, RULES, REQUIREMENTS, STATUTES, ORDINANCES AND CODES.
9. 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 JURISDICTION AND UTILITY COMPANY REQUIREMENTS AND ALL OTHER APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, 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 PROFESSIONAL OF RECORD AND ALL PUBLIC AGENCIES WITH JURISDICTION THROUGHOUT 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.
   - 10.3. INSTALL THE REQUIRED SOIL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO SITE DISTURBANCE, AND MAINTAIN SAID CONTROLS UNTIL SITE IS STABILIZED
   - 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, CABLE, FIBER OPTIC CABLE, ETC. 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.
   - 10.6. PROTECT AND MAINTAIN IN OPERATION, ALL ACTIVE UTILITIES AND SYSTEMS THAT ARE NOT BEING REMOVED DURING ANY DEMOLITION ACTIVITIES.
   - 10.7. 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 PROFESSIONAL OF RECORD'S OR BOHLER 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 UTILITY COMPANY REQUIREMENTS.
   - 10.8. ARRANGE FOR AND COORDINATE WITH THE APPLICABLE UTILITY SERVICE PROVIDER(S) REGARDING WORKING "OFF-PEAK" HOURS OR ON WEEKENDS AS 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, AND IMMEDIATELY NOTIFY, IN WRITING AND VERBALLY, THE OWNER, PROFESSIONAL OF RECORD AND BOHLER, THE DISCOVERY OF SUCH MATERIALS TO PURSUE PROPER AND COMPLIANT REMOVAL OF SAME.
11. 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 PURSUANT TO THE WRITTEN DIRECTION OF THE OWNER'S STRUCTURAL OR GEOTECHNICAL ENGINEER.
12. DEMOLITION ACTIVITIES AND EQUIPMENT MUST NOT USE OR INCLUDE AREAS OUTSIDE THE DEFINED PROJECT LIMIT LINE, WITHOUT SPECIFIC WRITTEN PERMISSION AND AUTHORITY OF AND FROM THE OWNER AND ALL GOVERNMENTAL AGENCIES WITH JURISDICTION.
13. 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 POSITIVE DRAINAGE. THE CONTRACTOR IS RESPONSIBLE FOR COMPACTION TESTING AND MUST SUBMIT SUCH REPORTS AND RESULTS TO THE PROFESSIONAL OF RECORD AND THE OWNER.
14. EXPLOSIVES MUST NOT BE USED WITHOUT PRIOR WRITTEN CONSENT FROM BOTH THE OWNER AND ALL APPLICABLE, NECESSARY AND REQUIRED GOVERNMENTAL 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.
15. 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.
16. 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.
17. THE CONTRACTOR MUST MAINTAIN A RECORD SET OF PLANS WHICH INDICATES THE LOCATION OF EXISTING UTILITIES THAT ARE CAPPED, ABANDONED IN PLACE, OR RELOCATED DUE TO DEMOLITION ACTIVITIES. 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 OF WHICH IS AT THE CONTRACTOR'S SOLE COST.
18. 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 ARE AT THE CONTRACTOR'S SOLE COST.
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 ACTIVITY.
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 IMPROVEMENTS.
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 APPLICABLE UTILITY PROVIDER.
22. CONTRACTOR TO REMOVE ANY BUILDING FOUNDATION REMAINS OR ASSOCIATED IMPROVEMENTS, DELETERIOUS MATERIALS, AND/OR DEBRIS THAT IMPEDE THE WORK SHOWN ON THESE PLANS.
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.)
25. WHERE THE LIMIT OF WORK COINCIDES WITH PROPERTY LINE, TREE LINE, PROPOSED SAWCUT OR COMBINATION THEREOF IT IS SHOWN ADJACENT TO THESE 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 DEVELOPMENT.
27. 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 IF REQUESTED BY DOT AND/OR THE MUNICIPALITY.
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

(REV. 1/2020)

1. 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.
2. PRIOR TO THE COMMENCEMENT OF GENERAL CONSTRUCTION, THE CONTRACTOR MUST INSTALL SOIL EROSION CONTROL AND ANY STORMWATER POLLUTION PREVENTION PLAN (SWPPP) MEASURES NECESSARY, AS INDICATED ON THE APPROVED SOIL EROSION AND SEDIMENT CONTROL PLAN AND IN ACCORDANCE WITH APPLICABLE AND/OR APPROPRIATE AGENCIES' GUIDELINES TO PREVENT SEDIMENT AND/OR LOOSE DEBRIS FROM WASHING ONTO ADJACENT PROPERTIES OR THE RIGHT OF WAY.
3. ALL DIRECTIONAL/TRAFFIC SIGNING AND PAVEMENT STRIPING MUST CONFORM TO THE LATEST STANDARDS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND ANY APPLICABLE STATE OR LOCALLY APPROVED SUPPLEMENTS, GUIDELINES, RULES, REGULATIONS, STANDARDS AND THE LIKE.
4. 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.
5. 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 OUT OF LOCATIONS OF INLETS, LIGHT POLES, ETC. MUST BE PERFORMED IN STRICT ACCORDANCE WITH THE DETAILS, UNLESS NOTED CLEARLY OTHERWISE.
6. 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 CONSTRUCTION OPERATIONS (IF PROVIDED).
7. 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.
8. THE CONTRACTOR MUST FILE SITE SIGNAGE APPLICATION OR PERMIT UNDER SEPARATE APPLICATION UNLESS DONE SO AS PART OF JURISDICTIONAL PERMITTING PROCEDURES.
9. THE CONTRACTOR MUST REPAIR OR REPLACE, AT THE CONTRACTOR'S SOLE COST AND EXPENSE, ALL SIDEWALKS, CURBS, PAVEMENT MARKINGS, AND PAVEMENT DAMAGED BY CONSTRUCTION ACTIVITIES WHETHER SPECIFIED ON THIS PLAN OR NOT.
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.
11. WHERE RETAINING WALLS ARE IDENTIFIED ON THE PLANS, TOP AND BOTTOM OF WALL WIDTHS DO NOT REPRESENT THE ACTUAL WIDTH OF THE PROPOSED WALL, RATHER THEY ARE AN ASSUMPTION BASED ON WALL TYPE AND WALL HEIGHT. WALL FOOTINGS AND /OR 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 DESIGN.
12. CONTRACTOR IS CAUTIONED OF EXISTING UTILITY SERVICES TO REMAIN IN PROXIMITY TO PROPOSED BOLLARDS AND SIGNS. CONTRACTOR SHALL PROVIDE FIELD MODIFICATION LOCATIONS OF BOLLARDS AND BOLLARDS WITH SIGNAGE AS NEEDED TO AVOID CONFLICTS WITH EXISTING UTILITY SERVICES TO REMAIN.

GENERAL GRADING NOTES

(REV. 1/2023)

1. 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.
2. 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 PROVIDE WRITTEN SPECIFICATIONS AND RECOMMENDATIONS PRIOR TO THE CONTRACTOR COMMENCING THE GRADING WORK. THE CONTRACTOR MUST FOLLOW THE REQUIREMENTS OF ALL MUNICIPAL, COUNTY, STATE, AND FEDERAL LAWS, WHICH HAVE JURISDICTION OVER THIS PROJECT.
3. 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 PROFESSIONAL OF RECORD, BOHLER AND THE OWNER PRIOR TO THE CONTRACTOR COMMENCING ANY WORK.
4. THE CONTRACTOR IS FULLY RESPONSIBLE FOR VERIFYING EXISTING TOPOGRAPHIC INFORMATION AND UTILITY INVERT ELEVATIONS PRIOR TO COMMENCING ANY CONSTRUCTION. SHOULD DISCREPANCIES BETWEEN THE PLANS AND INFORMATION OBTAINED THROUGH FIELD VERIFICATIONS BE IDENTIFIED OR EXIST, THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE PROFESSIONAL OF RECORD AND BOHLER, IN WRITING.
5. 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 EFFECT AND WHICH ARE APPLICABLE TO THE PROJECT. SUBBASE MATERIAL FOR SIDEWALKS, CURB, OR ASPHALT MUST BE FREE OF ORGANICS AND OTHER UNSUITABLE MATERIALS. SHOULD SUBBASE BE DEEMED UNSUITABLE BY OWNER/DEVELOPER, OR OWNER/DEVELOPER'S REPRESENTATIVE, SUBBASE MUST BE REMOVED AND FILLED WITH APPROVED FILL MATERIAL, COMPACTED AS THE GEOTECHNICAL REPORT DIRECTS. EARTHWORK ACTIVITIES INCLUDING, BUT NOT LIMITED TO, EXCAVATION, BACKFILL, AND COMPACTING MUST COMPLY WITH THE RECOMMENDATIONS IN THE GEOTECHNICAL REPORT AND ALL APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES. EARTHWORK ACTIVITIES MUST COMPLY WITH THE STANDARD STATE DOT SPECIFICATIONS FOR ROADWAY CONSTRUCTION (LATEST EDITION) AND ANY AMENDMENTS OR REVISIONS THERETO.
6. 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 CONTROLS. THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE PROFESSIONAL OF RECORD AND BOHLER, IN WRITING, OF ANY DISCREPANCY(IES) AND/OR CONFLICT(S).
7. 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.
8. PROPOSED TOP OF CURB ELEVATIONS ARE GENERALLY 6" ABOVE PAVEMENT GRADE UNLESS OTHERWISE NOTED.
9. 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.
10. WHERE RETAINING WALLS ARE IDENTIFIED ON THE PLANS, TOP AND BOTTOM OF WALL ELEVATIONS (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 STANDARD 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 RINGS VISIBLE (E.G. USE OF FINISHED TOP BLOCK OR CAP STONES)
12. STORMWATER RUNOFF 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 ADVERSELY IMPACT SAID PROPERTIES.
13. BEFORE COMMENCING GRADING WORK, CONTRACTOR SHALL SUBMIT SAMPLES OF ALL NATIVE AND IMPORTED MATERIALS WITH THEIR INTENDED FOR STRUCTURAL USES TO THE GEOTECHNICAL ENGINEER OF RECORD.
14. REFER TO GENERAL NOTES SHEET FOR ADDITIONAL ADA GUIDELINES AND REQUIREMENTS.
15. FOR ALL RETAINING WALLS 3, 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 SURROUNDING IMPROVEMENTS/CONDITIONS (INCLUDING BUT NOT LIMITED TO SLOPES, DRIVE AISLES, ROADS, FENCING, GUIDERAILS, UTILITIES, DRAINAGE 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 ANALYSIS.
   - 15.2. 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.
17. 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 STRUCTURAL USES TO THE GEOTECHNICAL ENGINEER OF RECORD.

GENERAL DRAINAGE & UTILITY NOTES

(REV. 1/2023)

1. 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.
2. LOCATIONS OF ALL EXISTING AND PROPOSED SERVICES ARE APPROXIMATE, AND THE CONTRACTOR MUST INDEPENDENTLY VERIFY 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 PROFESSIONAL OF RECORD AND BOHLER.
3. 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 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 EXISTING UTILITIES WHICH OCCURS DURING CONSTRUCTION.
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.
5. STORMWATER ROOF DRAIN LOCATIONS ARE BASED ON ARCHITECTURAL PLANS. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING LOCATIONS OF SAME BASED UPON FINAL ARCHITECTURAL PLANS.
6. 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 UTILITY 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 CONNECTION POINTS DIFFER, THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE PROFESSIONAL OF RECORD AND BOHLER, IN WRITING, AND PRIOR TO CONSTRUCTION, MUST RESOLVE SAME.
7. ALL FILL, COMPACTION, AND BACKFILL MATERIALS REQUIRED FOR UTILITY INSTALLATION MUST BE EXACTLY AS PER THE RECOMMENDATIONS PROVIDED IN THE GEOTECHNICAL 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. THE PROFESSIONAL OF RECORD AND BOHLER ARE NOT RESPONSIBLE FOR DESIGN OF TRENCH BACKFILL OR FOR COMPACTION REQUIREMENTS
8. DURING THE INSTALLATION OF SANITARY, STORM, AND ALL UTILITIES, 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.
9. THE CONTRACTOR MUST ENSURE THAT ALL UTILITY TRENCHES LOCATED IN EXISTING PAVED ROADWAYS INCLUDING SANITARY, WATER AND STORM SYSTEMS, ARE 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.
11. 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.
12. THE TOPS OF EXISTING MANHOLES, INLET STRUCTURES, AND SANITARY CLEANOUT MUST BE ADJUSTED, AS NECESSARY, TO MATCH PROPOSED FINISHED GRADES WITH 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 FEET 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 SEPARATION FROM THE BOTTOM OF THE WATER MAIN TO THE TOP OF THE SEWER LINE. WHERE APPROPRIATE SEPARATION FROM A WATER MAIN IS NOT 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 ENDS OF INSTALLED UTILITIES AS APPROPRIATE, MARK UTILITY ENDS WITH MAGNETIC TRACER TAPE, MARK TERMINUS 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 OF WHICH IS AT THE CONTRACTOR'S SOLE COST.
17. STORM AND SANITARY PIPE LENGTHS INDICATED ARE NOMINAL AND ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE UNLESS INDICATED ON THE PLANS OTHERWISE.
18. UNLESS INDICATED OTHERWISE, ALL NEW UTILITIES/SERVICES, INCLUDING ELECTRIC, TELEPHONE, CABLE TV, ETC., MUST BE INSTALLED UNDERGROUND. ALL NEW UTILITY SERVICES MUST BE INSTALLED IN ACCORDANCE WITH THE UTILITY SERVICE PROVIDER INSTALLATION SPECIFICATIONS AND STANDARDS.
19. 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 SDR 26 PVC OR 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 POLYPROPYLENE 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 CHLORIDE (PVC) SDR 26 PER ASTM D3034.
   - 21.3. 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 BUILDING AND PLUMBING CODES. CONTRACTOR SHALL REFER TO PLUMBING ENGINEERING PLANS AND VERIFY PIPE MATERIAL WITH LOCAL OFFICIAL PRIOR TO ORDERING OF MATERIALS.
   - 21.5. CONTRACTOR SHALL VERIFY THE CONNECTION OF EXTERIOR PIPING TO ANY FIXTURES (SUCH AS AN EXTERIOR GREASE INTERCEPTOR) OR OTHER DRAINAGE SYSTEMS WITH LOCAL OFFICIALS FOR COMPLIANCE WITH APPLICABLE LOCAL OR STATE BUILDING AND PLUMBING CODES PRIOR TO ORDERING OF MATERIALS.
22. WATER MAIN PIPING MUST BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS AND SPECIFICATIONS OF THE LOCAL WATER COMPANY. IN THE ABSENCE 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.
23. GAS METERS MUST BE PROTECTED AS REQUIRED BY THE JURISDICTIONAL GAS PROVIDER.

ADA INSTRUCTIONS TO CONTRACTOR

(REV. 1/2023)

1. ALL ACCESSIBLE (A.K.A. ADA) COMPONENTS AND ACCESSIBLE ROUTES MUST BE CONSTRUCTED TO MEET, AT A MINIMUM, THE MORE STRINGENT OF: (A) THE REQUIREMENTS OF THE "AMERICANS WITH DISABILITIES ACT" (ADA) CODE (42 U.S.C. § 12101 ET SEQ. AND 42 U.S.C. § 4151 ET SEQ.); AND (B) ANY APPLICABLE LOCAL AND STATE GUIDELINES, AND ANY AND ALL AMENDMENTS TO BOTH, WHICH ARE IN EFFECT WHEN THESE PLANS WERE COMPLETED.
2. THE CONTRACTOR MUST REVIEW ALL DOCUMENTS REFERENCED IN THESE NOTES FOR ACCURACY, COMPLIANCE AND CONSISTENCY WITH INDUSTRY GUIDELINES.
3. THE CONTRACTOR MUST EXERCISE APPROPRIATE CARE AND PRECISION IN CONSTRUCTION OF ACCESSIBLE (ADA) COMPONENTS AND ACCESSIBLE ROUTES FOR THE SITE. FINISHED SURFACES ALONG THE ACCESSIBLE ROUTE OF TRAVEL FROM PARKING SPACES, PUBLIC TRANSPORTATION, PEDESTRIAN ACCESS, AND INTER-BUILDING ACCESS, TO POINTS OF ACCESSIBLE BUILDING ENTRANCE/EXIT, MUST COMPLY WITH THE ACCESSIBLE GUIDELINES AND REQUIREMENTS WHICH INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING:
   - 3.1. ACCESSIBLE PARKING SPACES AND ACCESS AISLES SLOPES MUST NOT EXCEED 1:50 (2.0%) IN ANY DIRECTION.
   - 3.2. PATH OF TRAVEL ALONG ACCESSIBLE ROUTE MUST PROVIDE A 36-INCHES MINIMUM WIDTH (48-INCHES PREFERRED), OR AS SPECIFIED BY THE GOVERNING AGENCY. UNOBSTRUCTED WIDTH OF TRAVEL (CAR OVERHANGS AND/OR HANDRAILS) MUST NOT REDUCE THIS MINIMUM WIDTH. THE SLOPE MUST NOT EXCEED 1:20 (5.0%) IN THE DIRECTION OF TRAVEL AND MUST NOT EXCEED 1:50 (2.0%) IN CROSS SLOPE. WHERE ACCESSIBLE PATH OF TRAVEL IS GREATER THAN 1:20 (5.0%), AN ACCESSIBLE RAMP MUST BE PROVIDED. ALONG THE ACCESSIBLE PATH OF TRAVEL, OPENINGS MUST NOT EXCEED 1/2-INCH IN WIDTH. VERTICAL CHANGES OF UP TO 1/2-INCH ARE PERMITTED ONLY IF THEY INCLUDES A 1/4-INCH BEVEL AT A SLOPE NOT STEEPER THAN 1:2. NO VERTICAL CHANGES OVER 1/4-INCH ARE PERMITTED.
   - 3.3. ACCESSIBLE RAMPS MUST NOT EXCEED A SLOPE OF 1:12 (8.3%) AND A RISE OF 30-INCHES. LEVEL LANDINGS MUST BE PROVIDED AT EACH END OF ACCESSIBLE RAMPS. LANDING MUST PROVIDE POSITIVE DRAINAGE AWAY FROM STRUCTURES, AND MUST NOT EXCEED 1:50 (2.0%) SLOPE IN ANY DIRECTION. RAMPS THAT CHANGE DIRECTION BETWEEN RUNS AT LANDINGS MUST HAVE A CLEAR LANDING OF A MINIMUM OF 60-INCHES BY 60-INCHES. HAND RAILS ON BOTH SIDES OF THE RAMP MUST BE PROVIDED ON AN ACCESSIBLE RAMP WITH A RISE GREATER THAN 6-INCHES.
   - 3.4. ACCESSIBLE CURB RAMPS MUST NOT EXCEED A SLOPE OF 1:12 (8.3%). WHERE FLARED SIDES ARE PROVIDED, THEY MUST NOT EXCEED 1:10 (10%) SLOPE. LEVEL LANDING MUST BE PROVIDED AT RAMPS TOP AT A MINIMUM OF 36-INCHES LONG (48-INCHES PREFERRED). IN ALTERATIONS, WHEN THERE IS NO LANDING AT THE TOP, FLARE SIDES SLOPES MUST NOT EXCEED A SLOPE OF 1:12 (8.3%).
   - 3.5. DOORWAY LANDINGS AREAS MUST BE PROVIDED ON THE EXTERIOR SIDE OF ANY DOOR LEADING TO AN ACCESSIBLE PATH OF TRAVEL. THIS LANDING MUST BE SLOPED AWAY FROM THE DOOR NO MORE THAN 1:50 (2.0%) FOR POSITIVE DRAINAGE. THIS LANDING AREA MUST BE NO FEWER THAN 60-INCHES (5 FEET) LONG, EXCEPT WHERE OTHERWISE CLEARLY PERMITTED BY ACCESSIBLE STANDARDS FOR ALTERNATIVE DOORWAY OPENING CONDITIONS. (SEE ICC/ANSI A117.1-2009 AND OTHER REFERENCES INCORPORATED BY CODE).
   - 3.6. WHEN THE PROPOSED CONSTRUCTION INVOLVES RECONSTRUCTION, MODIFICATION, REVISION OR EXTENSION OF OR TO ACCESSIBLE COMPONENTS FROM EXISTING DOORWAYS OR SURFACES, THE CONTRACTOR MUST VERIFY ALL EXISTING ELEVATIONS SHOWN ON THE PLAN. NOTE THAT TABLE 405.2 OF THE DEPARTMENT OF JUSTICE'S ADA STANDARDS FOR ACCESSIBLE DESIGN ALLOWS FOR STEEPER RAMP SLOPES, IN RARE CIRCUMSTANCES. THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE PROFESSIONAL OF RECORD AND BOHLER, IN WRITING, OF ANY DISCREPANCIES AND/OR FIELD CONDITIONS THAT DIFFER IN ANY WAY OR IN ANY RESPECT FROM WHAT IS SHOWN ON THE PLANS BEFORE COMMENCING ANY WORK. CONSTRUCTED IMPROVEMENTS MUST FALL WITHIN THE MAXIMUM AND MINIMUM LIMITATIONS IMPOSED BY THE BARRIER FREE REGULATIONS AND THE ACCESSIBLE GUIDELINES.
   - 3.7. THE CONTRACTOR MUST VERIFY ALL OF THE SLOPES OF THE CONTRACTOR'S FORMS PRIOR TO POURING CONCRETE. IF ANY NON-CONFORMANCE EXISTS OR IS OBSERVED OR DISCOVERED, THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE PROFESSIONAL OF RECORD AND BOHLER, IN WRITING, PRIOR TO POURING CONCRETE. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL COSTS TO REMOVE, REPAIR AND/OR REPLACE NON-CONFORMING CONCRETE AND/OR PAVEMENT SURFACES.
4. IT IS STRONGLY RECOMMENDED THAT THE CONTRACTOR REVIEW THE INTENDED CONSTRUCTION TO ENSURE SAME IS CONSISTENT WITH THE LOCAL BUILDING CODE PRIOR TO COMMENCING CONSTRUCTION.

ABBREVIATIONS

KEY	DESCRIPTION
AG / ABVG	ABOVE GROUND
ARCH	ARCHITECT
BC	BACK OF CURB
BCC	BITUMINOUS CONCRETE CURB
BM	BENCHMARK
BOC	BOTTOM OF CURB
BW	BOTTOM OF WALL
BLDG	BUILDING
CC	CONCRETE CURB
CCB	CAPE COD BERM
CONC.	CONCRETE
DEC	DECORATIVE
°	DEGREE
DEP	DEPRESSED
Ø / DIA	DIAMETER
DMH	DRAIN MANHOLE
DIP	DUCTILE IRON PIPE
ECC	EXTRUDED CONCRETE CURB
EOP	EDGE OF PAVEMENT
ELEV	ELEVATION
EXIST.	EXISTING
FF	FINISH FLOOR
FFE	FINISH FLOOR ELEVATION
GC	GENERAL CONTRACTOR
GRT	GRATE
HDPE	HIGH DENSITY POLYETHYLENE PIPE
HP	HIGH POINT
INT	INTERSECTION
INV	INVERT
L.S.A.	LANDSCAPE AREA
LOD	LIMIT OF DISTURBANCE
LOW	LIMIT OF WORK
LF	LINEAR FOOT / FEET
LP	LOW POINT
MAX	MAXIMUM
MEP	MECHANICAL, ELECTRICAL, PLUMBING
ME	MEET OR MATCH EXISTING
MIN	MINIMUM
No. / #	NUMBER
±	PLUS OR MINUS
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
PT	POINT OF TANGENCY
PVI	POINT OF VERTICAL INTERSECTION
PVC	POLYVINYL CHLORIDE PIPE
PROP.	PROPOSED
R	RADIUS OR RADII
RCP	REINFORCED CONCRETE PIPE
R.O.W.	RIGHT-OF-WAY
SAN	SANITARY
SMH	SEWER MANHOLE
S	SLOPE
SF	SQUARE FOOT
SGC	SLOPED GRANITE CURB
STA	STATION
STM	STORM
TBR	TO BE REMOVED
TBR/R	TO BE REMOVED AND REPLACED
TC	TOP OF CURB
TW	TOP OF WALL
TPF	TREE PROTECTION FENCE
TRANS	TRANSITION
TYP.	TYPICAL
UG / UNDG	UNDERGROUND
V.I.F.	VERIFY IN FIELD
VGC	VERTICAL GRANITE CURB
W	WIDTH

TYPICAL LINE TYPE LEGEND

PROPERTY LINE	EXISTING	
	PROPOSED	
ADJACENT PROPERTY LINE	EXISTING	
	PROPOSED	
RIGHT-OF-WAY LINE	EXISTING	
	PROPOSED	
SETBACK OR BUFFER	EXISTING	
	PROPOSED	
EASEMENT LINE	EXISTING	
	PROPOSED	
WETLAND BOUNDARY	EXISTING	
	PROPOSED	
WETLAND BUFFER	EXISTING	
	PROPOSED	
WATER WAY BOUNDARY	EXISTING	
	PROPOSED	
WATERWAY BUFFER	EXISTING	RPA RPA RPA RPA
	PROPOSED	
WETLAND OR WATERWAY FLAG	EXISTING	
RIGHT-OF-WAY CENTER OR BASE LINE	EXISTING	
	PROPOSED	
APPROX. LIMIT OF WORK OR DISTURBANCE	EXISTING	
	PROPOSED	
APPROX. SAWCUT LINE	EXISTING	
	PROPOSED	
TREE LINE	EXISTING	
	PROPOSED	
SURFACE OR SUBSURFACE BASIN	EXISTING	
	PROPOSED	
OVERHEAD WIRES	EXISTING	OH OH OH OH
	PROPOSED	OH OH OH
CURBING	EXISTING	
	PROPOSED	CC/BCC MONOLITHIC VGC SGC TRANS/FLUSH CCB
FENCE OR RAILING	EXISTING	
	PROPOSED	CHAIN LINK STOCKADE RAILING
RETAINING WALL	EXISTING	
	PROPOSED	
CONTOURS	EXISTING	
	PROPOSED	49 50
SWALE	EXISTING	
	PROPOSED	
BERM	EXISTING	
	PROPOSED	
RIDGE	EXISTING	
	PROPOSED	
DRAIN PIPE	EXISTING	D-Qa
	PROPOSED	
SEWER PIPE	EXISTING	S S S-Qa
	PROPOSED	S SL
SEWER FORCE MAIN	EXISTING	FM FM FM-Qa
	PROPOSED	FM FM FM
ELECTRIC	EXISTING	E E E-Qa
	PROPOSED	E E E
TELECOMMUNICATIONS	EXISTING	T T T-Qa
	PROPOSED	T T T
CABLE TV	EXISTING	C C C-Qa
	PROPOSED	C C C
GAS	EXISTING	G G G-Qa
	PROPOSED	G G G
WATER	EXISTING	W W W-Qa
	PROPOSED	W W W

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

REFER TO LANDSCAPE NOTES & DETAILS SHEET FOR TYPICAL LANDSCAPE NOTES AND DETAILS

REFER TO LIGHTING PLAN FOR TYPICAL LIGHTING NOTES AND TABLES

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REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY
1	05/20/2025	RESPONSE TO TOWN COMMENTS	CR/KS / JGB

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PROJECT No.:	CTA220061.00
DRAWN BY:	CR/TJN/KMB
CHECKED BY:	JGB
DATE:	02/19/2025
CAD I.D.:	CTA220061.00-SPPD-6A

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

C.R. KLEWIN LLC

PROPOSED RESIDENTIAL DEVELOPMENT

19, 29 & 39 MILITARY HIGHWAY, GALES FERRY, LEDYARD, NEW LONDON COUNTY, CONNECTICUT

BOHLER

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JEFFREY G. BORD
No. 30314
LICENSED PROFESSIONAL ENGINEER
PROFESSIONAL ENGINEER
CONNECTICUT LICENSE No. 30314

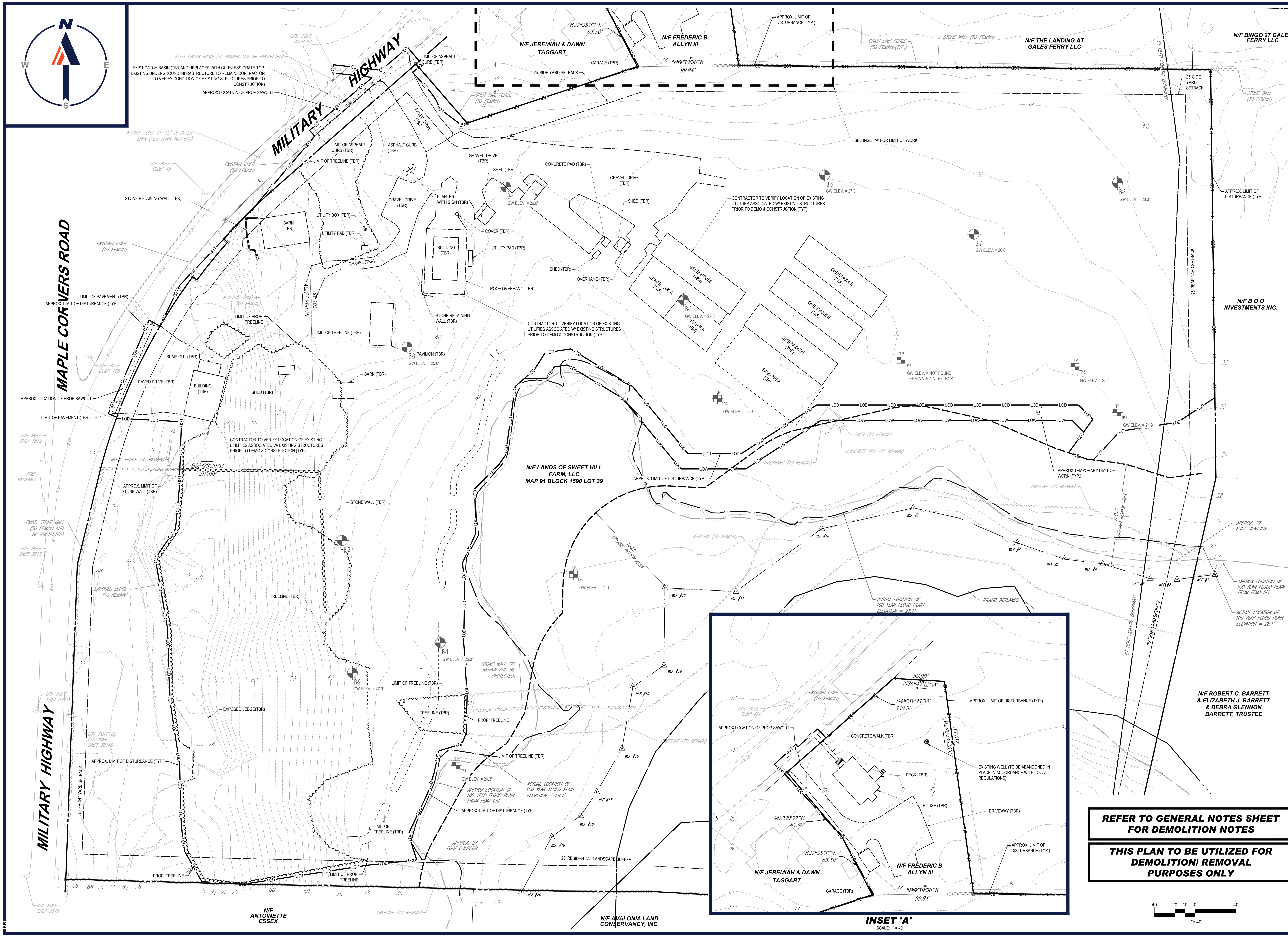
SHEET TITLE:

GENERAL NOTES SHEET

SHEET NUMBER:

C-102

REVISION 1 - 05/20/2025



REFER TO GENERAL NOTES SHEET FOR DEMOLITION NOTES

THIS PLAN TO BE UTILIZED FOR DEMOLITION/ REMOVAL PURPOSES ONLY

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SITE CIVIL AND CONSULTING ENGINEERING
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J.G. BORD
PROFESSIONAL ENGINEER
CONNECTICUT LICENSE No. 30414

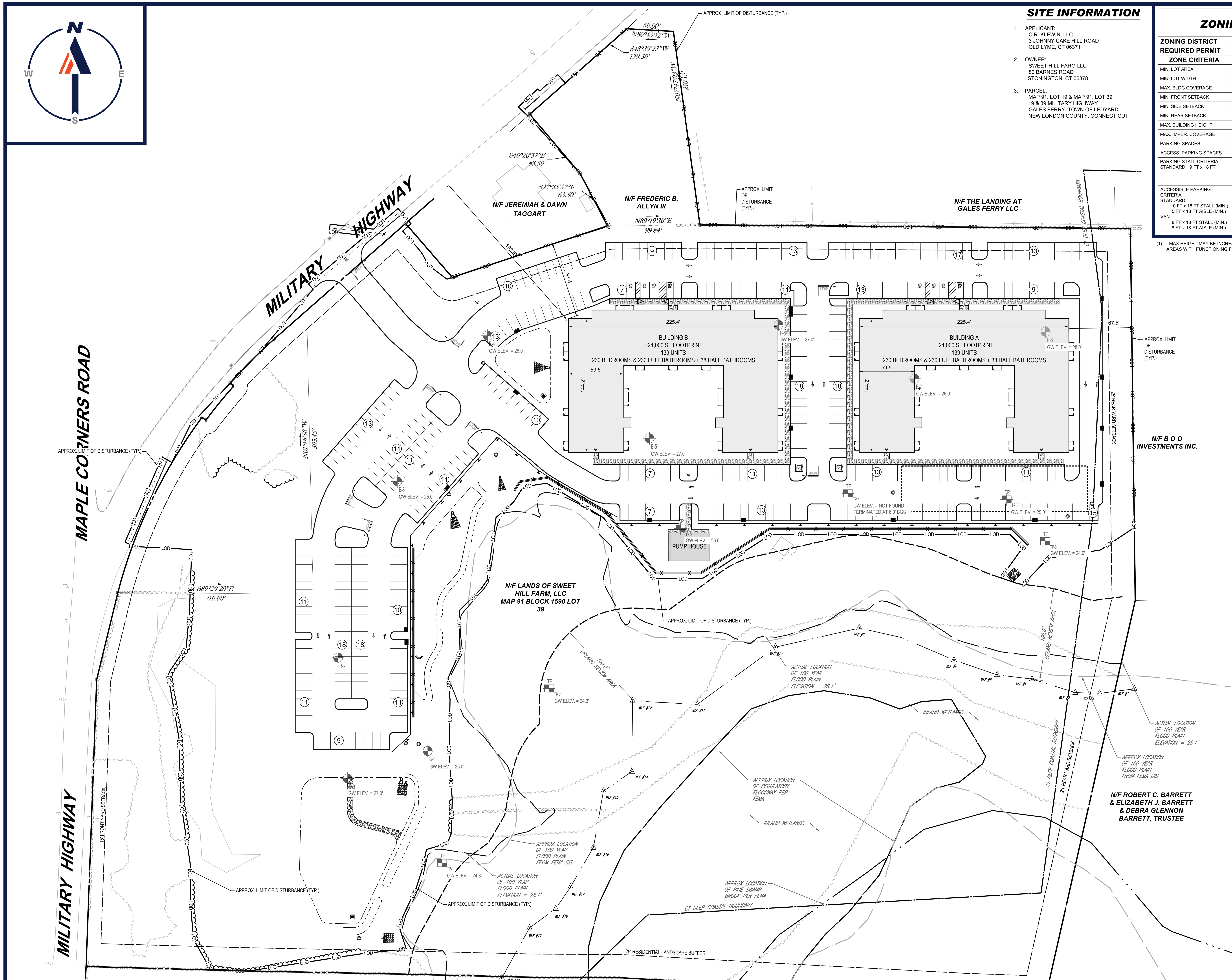
SHEET TITLE:

DEMOLITION PLAN

SHEET NUMBER:

C-201

REVISION 1 - 05/20/2025



SITE INFORMATION

1. APPLICANT:
   C.R. KLEWIN, LLC
   3 JOHNNY CAKE HILL ROAD
   OLD LYME, CT 06371

2. OWNER:
   SWEET HILL FARM LLC
   80 BARNES ROAD
   STONINGTON, CT 06378

3. PARCEL:
   MAP 91, LOT 19 & MAP 91, LOT 39
   19 & 39 MILITARY HIGHWAY
   GALES FERRY, TOWN OF LEDYARD
   NEW LONDON COUNTY, CONNECTICUT

ZONING ANALYSIS TABLE

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

ZONING DISTRICT	GFDD (GALES FERRY DEVELOPMENT DISTRICT)		
REQUIRED PERMIT	PERMIT FROM DEPT.		
ZONE CRITERIA	**REQUIRED**	**EXISTING**	**PROPOSED**
MIN. LOT AREA	10,000 SF	825,498 SF (18.9 AC)	NO CHANGE
MIN. LOT WIDTH	100 FT	867 FT	NO CHANGE
MAX. BLDG COVERAGE	N/A	-	6.0%
MIN. FRONT SETBACK	15 FT	-	192.5'
MIN. SIDE SETBACK	25 FT	-	81.4'
MIN. REAR SETBACK	25 FT	-	67.5'
MAX. BUILDING HEIGHT	50 FT (1)	-	65 FT
MAX. IMPER. COVERAGE	70%	-	23.6%
PARKING SPACES	-	-	387 SPACES
ACCESS. PARKING SPACES	8 SPACES	-	8 SPACES
PARKING STALL CRITERIA STANDARD: 9 FT x 18 FT	USE/CATEGORY: AS DETERMINED BY COMMISSION REQUIRED PARKING: TBD CALCULATION: TBD		
ACCESSIBLE PARKING CRITERIA STANDARD: 10 FT x 18 FT STALL (MIN.) 5 FT x 18 FT AISLE (MIN.) VAN: 8 FT x 18 FT STALL (MIN.) 8 FT x 18 FT AISLE (MIN.)	1-25 SPACES = 1 MIN. ACCESSIBLE SPACE 26-50 SPACES = 2 MIN. ACCESSIBLE SPACES 51-75 SPACES = 3 MIN. ACCESSIBLE SPACES 76-100 SPACES = 4 MIN. ACCESSIBLE SPACES 101-150 SPACES = 5 MIN. ACCESSIBLE SPACES 151-200 SPACES = 6 MIN. ACCESSIBLE SPACES 201-300 SPACES = 7 MIN. ACCESSIBLE SPACES 301-400 SPACES = 8 MIN. ACCESSIBLE SPACES	401-500 SPACES = 9 MIN. ACCESSIBLE SPACES 501-1,000 SPACES = MIN. 2% OF TOTAL 1001+ SPACES = MIN. 20 + 1 FOR EACH 100 SPACES OVER 1,000 1 ACCESSIBLE VAN SPACE PER 6 STANDARD ACCESSIBLE SPACES (MIN.)	

(1) - MAX HEIGHT MAY BE INCREASED TO 65 FT FOR MULTI-FAMILY OR MIXED USED BUILDINGS WITH FULL SPRINKLE SYSTEMS; LOCATED IN AREAS WITH FUNCTIONING FIRE HYDRANTS; AND WHERE ALL SIDES OF THE STRUCTURE ARE ACCESSIBLE BY A LADDER FIRE ENGINEER.

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

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

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

APPROVED BY THE LEDYARD PLANNING AND ZONING COMMISSION ON:

CHAIRMAN'S SIGNATURE | DATE OF APPROVAL | DATE OF EXPIRATION

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PERMITTING SERVICES
TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY
1	05/20/2025	RESPONSE TO TOWN COMMENTS	CR/KS / JGB

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PROJECT No.:	CTA220061.00
DRAWN BY:	CR/TJN/KMB
CHECKED BY:	JGB
DATE:	02/19/2025
CAD I.D.:	CTA220061.00-SPPD-6A

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

C.R. KLEWIN LLC

PROPOSED RESIDENTIAL DEVELOPMENT

19, 29 & 39 MILITARY HIGHWAY, GALES FERRY, LEDYARD, NEW LONDON COUNTY, CONNECTICUT

BOHLER
65 LaSALLE ROAD, SUITE 401
WEST HARTFORD, CT 06107
Phone: (860) 333-8900
www.BohlerEngineering.com

J.G. BORD
PROFESSIONAL ENGINEER
CONNECTICUT LICENSE No. 30414

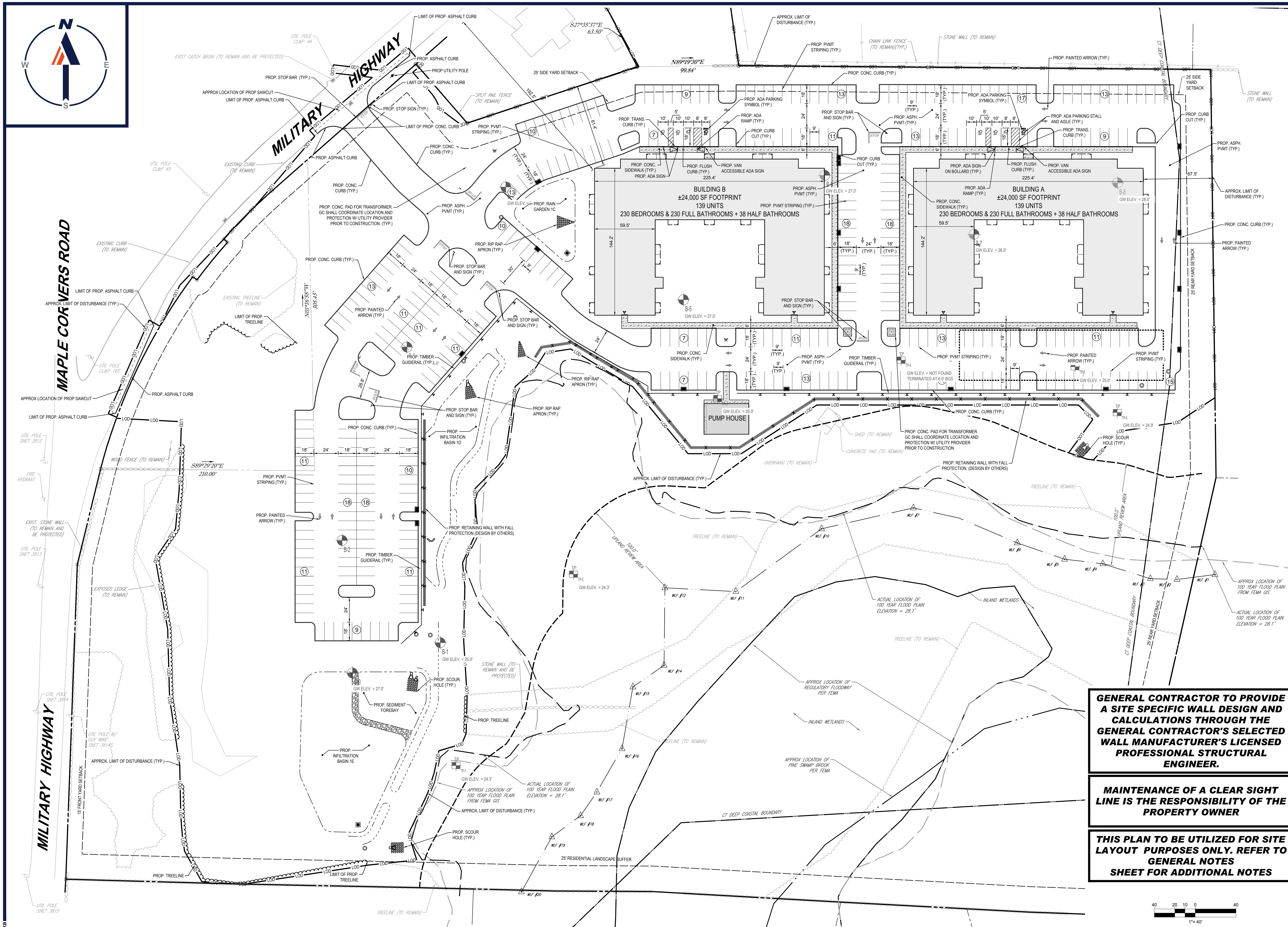
SHEET TITLE:

OVERALL SITE PLAN

SHEET NUMBER:

C-301

REVISION 1 - 05/20/2025



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

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

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PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

C.R. KLEWIN LLC

PROPOSED RESIDENTIAL DEVELOPMENT

19, 29 & 39 MILITARY HIGHWAY, GALES FERRY, LEDYARD, NEW LONDON COUNTY, CONNECTICUT

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J. G. BORD
PROFESSIONAL ENGINEER

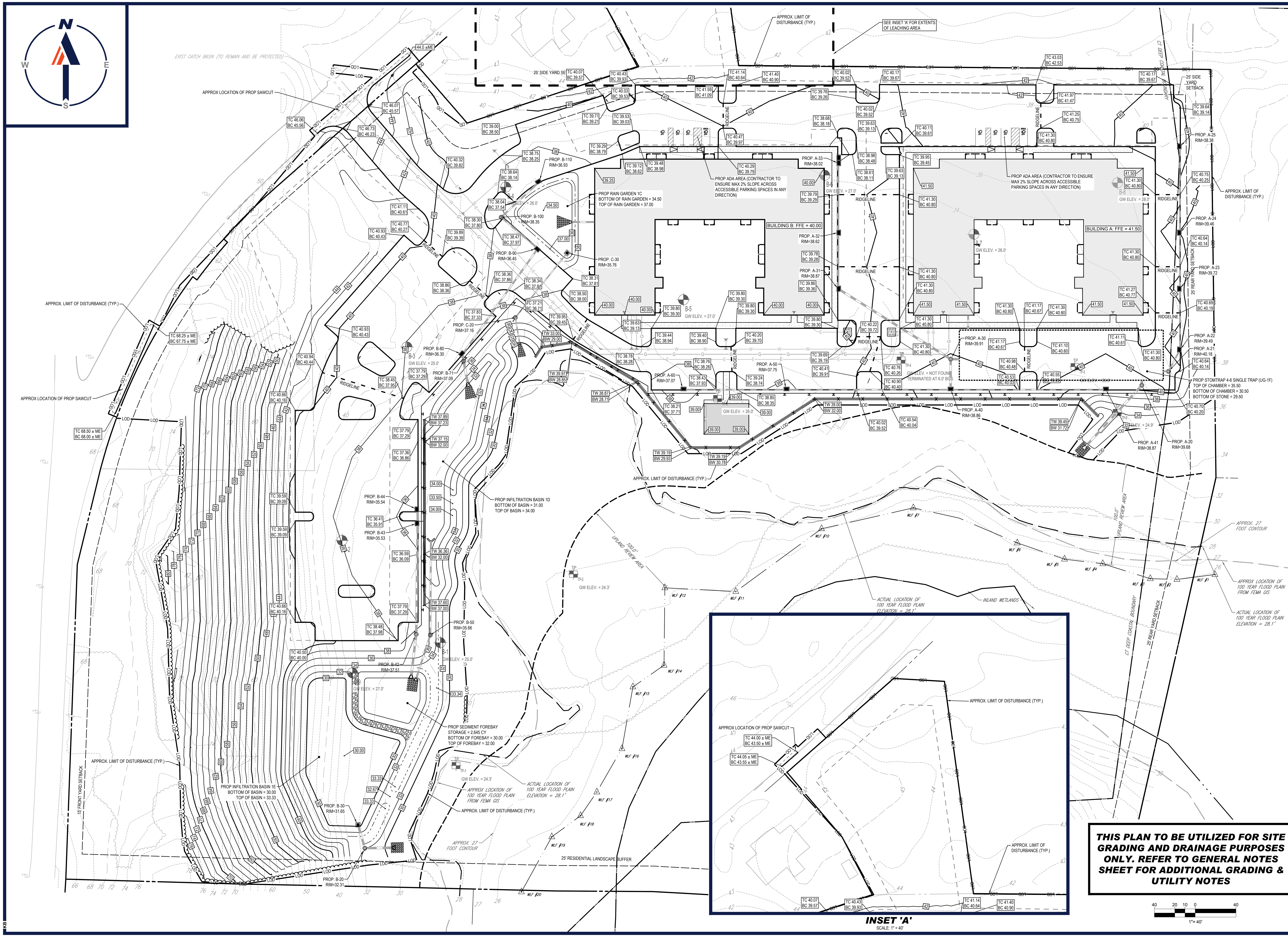
SHEET TITLE:

SITE LAYOUT PLAN

SHEET NUMBER:

C-302

REVISION 1 - 05/20/2025



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

INSET 'A'
SCALE: 1" = 40'

1" = 40'

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PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

C.R. KLEWIN LLC

PROPOSED RESIDENTIAL DEVELOPMENT

19, 29 & 39 MILITARY HIGHWAY, GALES FERRY, LEDYARD, NEW LONDON COUNTY, CONNECTICUT

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Phone: (860) 333-8900
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J.G. BORD
PROFESSIONAL ENGINEER
CONNECTICUT LICENSE No. 30414

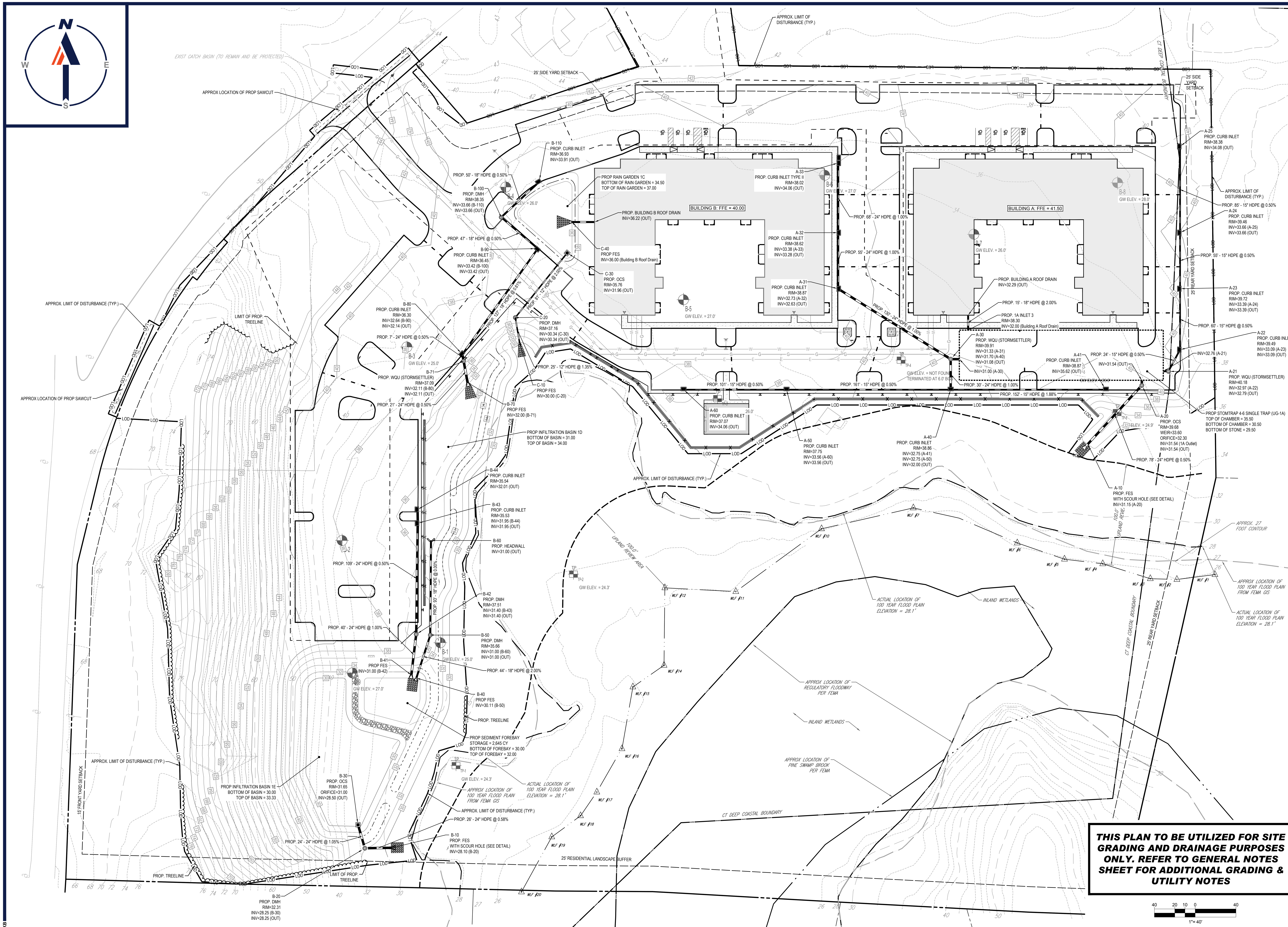
SHEET TITLE:

GRADING PLAN

SHEET NUMBER:

C-401

REVISION 1 - 05/20/2025



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

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PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

C.R. KLEWIN LLC

PROPOSED RESIDENTIAL DEVELOPMENT

19, 29 & 39 MILITARY HIGHWAY, GALES FERRY, LEDYARD, NEW LONDON COUNTY, CONNECTICUT

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J.G. BORD
PROFESSIONAL ENGINEER

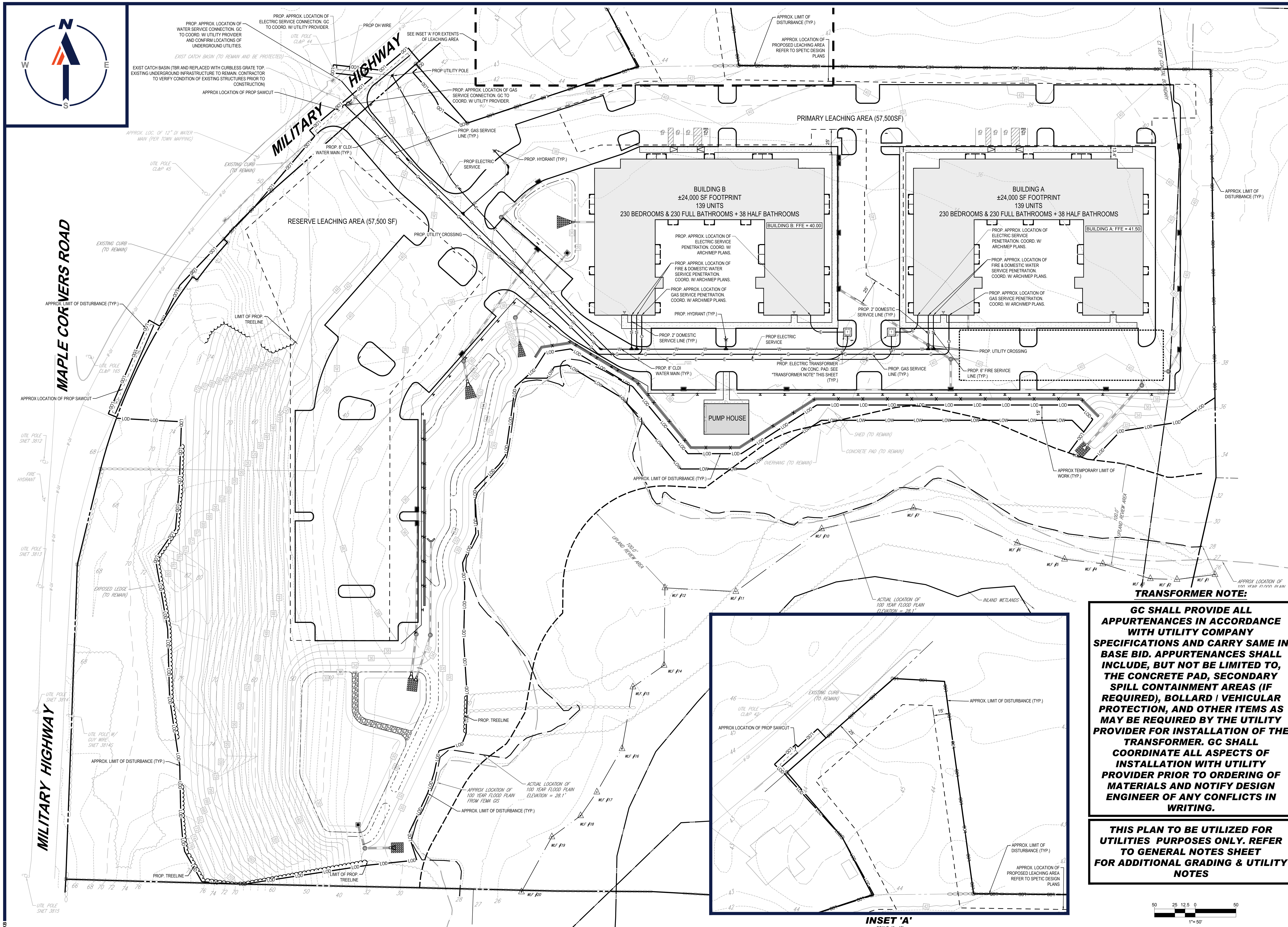
SHEET TITLE:

DRAINAGE PLAN

SHEET NUMBER:

C-402

REVISION 1 - 05/20/2025



INSET 'A'

SCALE: 1" = 40'

TRANSFORMER NOTE:

GC SHALL PROVIDE ALL APPURTENANCES IN ACCORDANCE WITH UTILITY COMPANY SPECIFICATIONS AND CARRY SAME IN BASE BID. APPURTENANCES SHALL INCLUDE, BUT NOT BE LIMITED TO, THE CONCRETE PAD, SECONDARY SPILL CONTAINMENT AREAS (IF REQUIRED), BOLLARD / VEHICULAR PROTECTION, AND OTHER ITEMS AS MAY BE REQUIRED BY THE UTILITY PROVIDER FOR INSTALLATION OF THE TRANSFORMER. GC SHALL COORDINATE ALL ASPECTS OF INSTALLATION WITH UTILITY PROVIDER PRIOR TO ORDERING OF MATERIALS AND NOTIFY DESIGN ENGINEER OF ANY CONFLICTS IN WRITING.

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

50 25 12.5 0 50

1"= 50'

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FOR

C.R. KLEWIN LLC

PROPOSED RESIDENTIAL DEVELOPMENT

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J.G. BORD

PROFESSIONAL ENGINEER

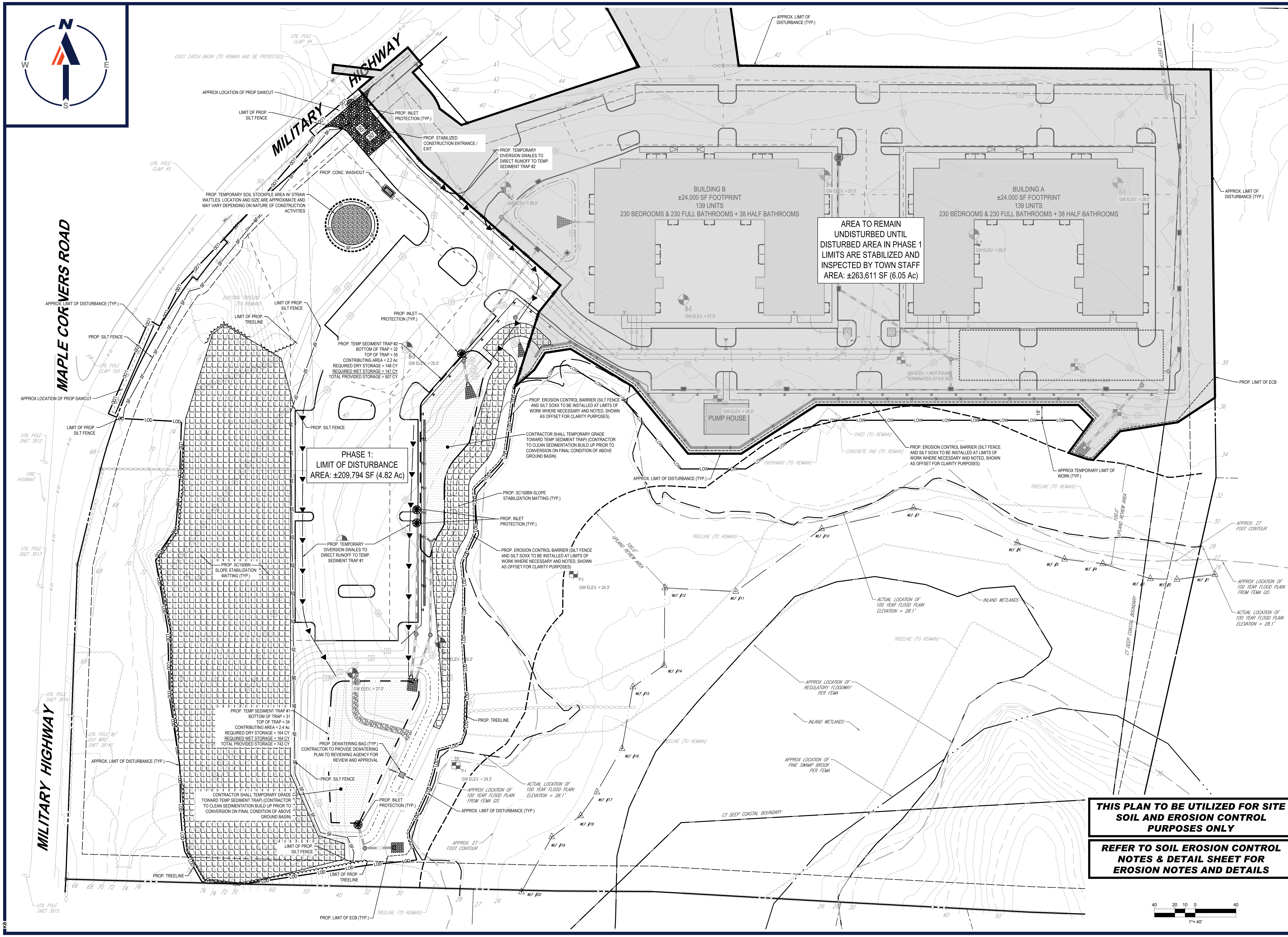
SHEET TITLE:

UTILITY PLAN

SHEET NUMBER:

C-501

REVISION 1 - 05/20/2025



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

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

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FOR

C.R. KLEWIN LLC

PROPOSED RESIDENTIAL DEVELOPMENT

19, 29 & 39 MILITARY HIGHWAY,
GALES FERRY,
LEDYARD,
NEW LONDON COUNTY,
CONNECTICUT

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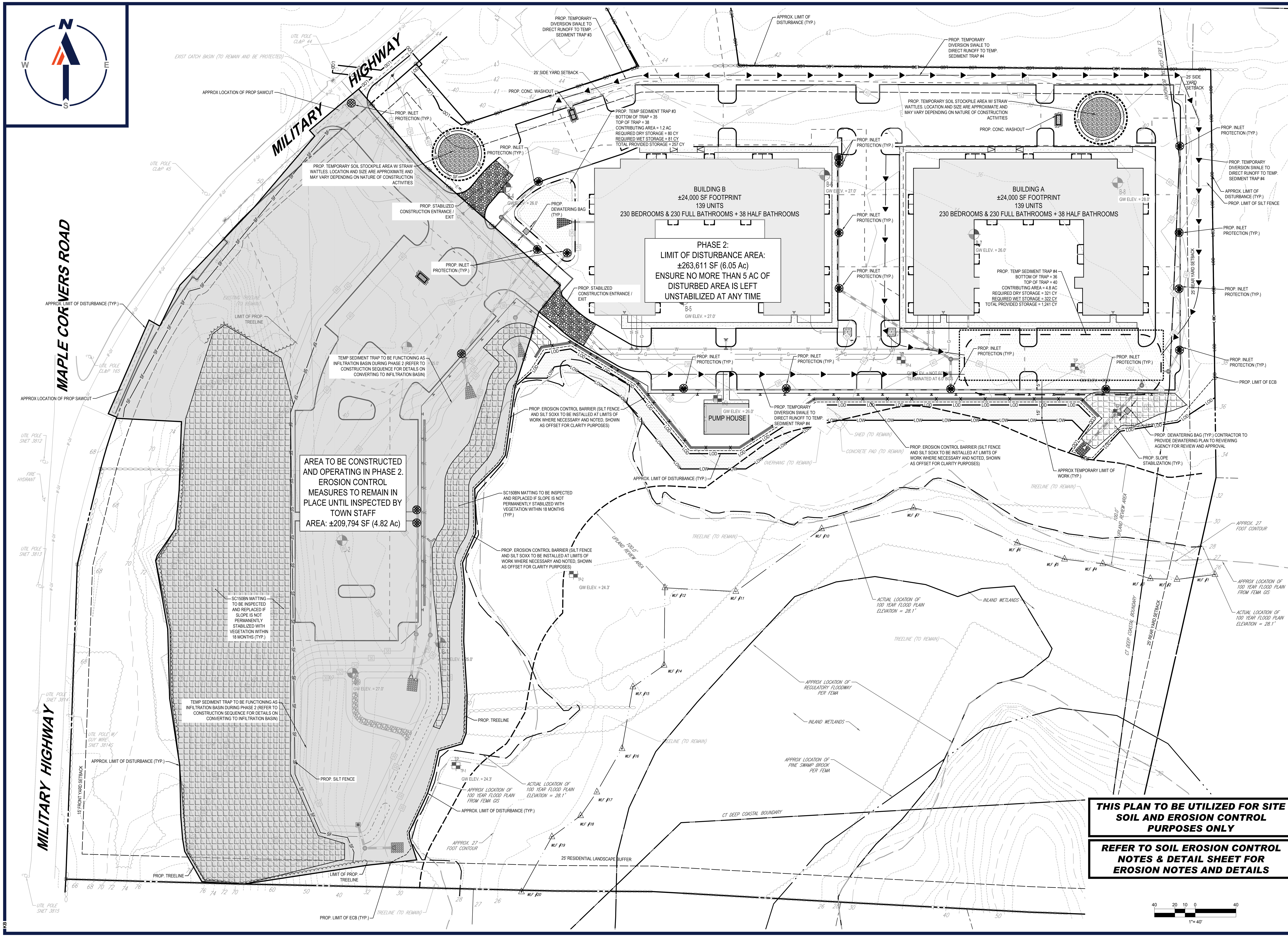
J.G. BORD
PROFESSIONAL ENGINEER

SHEET TITLE:
SOIL EROSION & SEDIMENT CONTROL PLAN PHASE 1

SHEET NUMBER:
C-601

REVISION 1 - 05/20/2025



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PROJECT:

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FOR

C.R. KLEWIN LLC

PROPOSED RESIDENTIAL DEVELOPMENT

19, 29 & 39 MILITARY HIGHWAY, GALES FERRY, LEDYARD, NEW LONDON COUNTY, CONNECTICUT

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J.G. BORD
PROFESSIONAL ENGINEER

SHEET TITLE:

SOIL EROSION & SEDIMENT CONTROL PLAN PHASE 2

SHEET NUMBER:

C-602

REVISION 1 - 05/20/2025

EROSION AND SEDIMENT CONTROL NOTES

1. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE DONE AS SET FORTH IN THE MOST CURRENT STATE SEDIMENT AND EROSION CONTROL MANUAL.
2. THOSE AREAS UNDERGOING ACTUAL CONSTRUCTION WILL BE LEFT IN AN UNTREATED OR UNVEGETATED CONDITION FOR A MINIMUM TIME. AREAS SHALL BE PERMANENTLY STABILIZED IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REQUIREMENTS.
3. SEDIMENT BARRIERS (SILT FENCE, STRAW BARRIERS, ETC.) SHOULD BE INSTALLED PRIOR TO ANY SOIL DISTURBANCE OF THE CONTRIBUTING DRAINAGE AREA ABOVE THEM. MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL AREAS WITH SLOPES GREATER THAN 8%.
4. INSTALL SILTATION BARRIER AT TOE OF SLOPE TO FILTER SILT FROM RUNOFF. SEE SILTATION BARRIER DETAILS FOR PROPER INSTALLATION. SILTATION BARRIER WILL REMAIN IN PLACE PER NOTE #5.
5. ALL EROSION CONTROL STRUCTURES WILL BE INSPECTED, REPLACED AND/OR REPAIRED EVERY 7 DAYS AND IMMEDIATELY FOLLOWING ANY SIGNIFICANT RAINFALL OR SNOW MELT OR WHEN NO LONGER SERVICEABLE DUE TO SEDIMENT ACCUMULATION OR DECOMPOSITION. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE HALF THE HEIGHT OF THE BARRIER. SEDIMENT CONTROL DEVICES SHALL REMAIN IN PLACE AND BE MAINTAINED BY THE CONTRACTOR UNTIL AREAS UPSLOPE ARE PERMANENTLY STABILIZED. FOR SEDIMENT CONTROL DEVICES THAT ARE WITHIN AREAS SUBJECT TO CONSERVATION COMMISSION JURISDICTION, THE DEVICES SHALL REMAIN IN PLACE AND BE REMOVED IN ACCORDANCE WITH THE ORDER OF CONDITIONS.
6. 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.
7. IF FINAL SEEDING OF THE DISTURBED AREAS IS NOT COMPLETED 45 DAYS PRIOR TO THE FIRST KILLING FROST, USE TEMPORARY MULCH (DORMANT SEEDING MAY BE ATTEMPTED AS WELL) TO PROTECT THE SITE AND DELAY SEEDING UNTIL THE NEXT RECOMMENDED SEEDING PERIOD.
8. TEMPORARY SEEDING OF DISTURBED AREAS THAT HAVE NOT BEEN FINAL GRADED SHALL BE COMPLETED 45 DAYS PRIOR TO THE FIRST KILLING FROST TO PROTECT FROM SPRING RUNOFF PROBLEMS.
9. DURING THE CONSTRUCTION PHASE, INTERCEPTED SEDIMENT SHALL BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL STANDARDS.
10. REVEGETATION MEASURES WILL COMMENCE UPON COMPLETION OF CONSTRUCTION EXCEPT AS NOTED ABOVE. ALL DISTURBED AREAS NOT OTHERWISE STABILIZED WILL BE GRADED, SMOOTHED, AND PREPARED FOR FINAL SEEDING AS FOLLOWS:
    - 10.1. SIX INCHES, OR DEPTH SPECIFIED ON THE LANDSCAPE PLAN, OF LOAM WILL BE SPREAD OVER DISTURBED AREAS AND SMOOTHED TO A UNIFORM SURFACE.
    - 10.2. APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL, FERTILIZER MAY BE APPLIED AT THE RATE OF 800 LB PER ACRE OR 18.4 LBS PER 1,000 SF USING 10-20-20 OR EQUIVALENT. APPLY GROUND LIMESTONE (EQUIVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDE) AT A RATE OF 3 TONS PER ACRE (138 LB PER1,000 SF).
    - 10.3. FOLLOWING SEED BED PREPARATION, DITCHES AND BACK SLOPES WILL BE SEEDED TO A MIXTURE OF 47% CREEPING RED FESCUE, 5% REDTOP, AND 48% TALL FESCUE. THE LAWN AREAS WILL BE SEEDED TO A PREMIUM TURF MIXTURE OF 44% KENTUCKY BLUE-GRASS, 44% CREEPING RED FESCUE, AND 12% PERENNIAL RYEGRASS: SEEDING RATE IS 1.03 LBS PER 1,000 SF LAWN. QUALITY SOD MAY BE SUBSTITUTED FOR SEED WHERE SLOPES DO NOT EXCEED 2:1, SOD ON SLOPES STEEPER THAN 3:1 SHOULD BE PEGGED.
    - 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.
11. ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED ONCE THE SITE IS 70% PERMANENTLY STABILIZED. FOR EROSION CONTROL MEASURES THAT ARE WITHIN AREAS SUBJECT TO CONSERVATION COMMISSION JURISDICTION, THE MEASURES SHALL REMAIN IN PLACE AND BE REMOVED IN ACCORDANCE WITH THE ORDER OF CONDITIONS. APPROVAL FROM TOWN STAFF REQUIRED PRIOR TO REMOVAL OF EROSION AND SEDIMENTATION CONTROL MEASURES.
12. WETLANDS WILL BE PROTECTED WITH BARRIERS CONSISTING OF STRAW BALES, BIODEGRADABLE COMPOST TUBES, SILT FENCE OR A COMBINATION THEREOF.
13. TEMPORARY SEDIMENT TRAPS SHALL BE SIZED PER THE CURRENT EDITION OF THE "CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL" AND PROVIDE A MINIMUM STORAGE AREA OF 134 CY PER ACRE OF DRAINAGE AREA WITH A MAXIMUM TRIBUTARY AREA OF 5 ACRES, MAINTAIN A 2:1 LENGTH TO WIDTH RATIO, AND NOT EXCEED AND EMBANKMENT HEIGHT OF 5 FT. HALF OF THE STORAGE VOLUME SHALL BE IN THE FORM OF WET STORAGE TO PROVIDE A STABLE SETTLING MEDIUM. UPON SITE STABILIZATION, ACCUMULATED SEDIMENT SHALL BE REMOVED AND THE TEMPORARY SEDIMENT TRAP EXCAVATED TO 1 FOOT BELOW THE TRAP. THE AREA SHALL THEN BE SCARIFIED TO PREVENT COMPACTION AND PROMOTE INFILTRATION AND GRADED AND STABILIZED IN ACCORDANCE WITH THE GRADING AND LANDSCAPE PLANS.
14. STOCKPILES THAT ARE NOT TO BE USED WITHIN 30 DAYS NEED TO BE SEEDED AND MULCHED IMMEDIATELY AFTER FORMATION OF THE STOCKPILE.
15. EXISTING CATCH BASIN STRUCTURES SHALL BE PROTECTED UNTIL SUCH TIME AS THEY ARE REMOVED.
16. THE CONTRACTOR MUST PERFORM DEWATERING (IF REQUIRED), IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN AND PAY FOR THE COSTS ASSOCIATED WITH ANY AND ALL NECESSARY DISCHARGE PERMITS ASSOCIATED WITH SAME.
17. THE CONTRACTOR MUST LOCATE CONSTRUCTION WASTE MATERIAL STORAGE AREAS TO MINIMIZE EXPOSURE TO STORMWATER. THE CONTRACTOR MUST IMMEDIATELY PLACE CONSTRUCTION WASTE IN ON-SITE STORAGE CONTAINERS UNTIL THAT CONSTRUCTION WASTE IS READY FOR OFF-SITE DISPOSAL. THE CONTRACTOR MUST MAINTAIN SPILL PREVENTION AND RESPONSE 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.
18. WINTER CONSTRUCTION PERIOD: NOVEMBER 1 THROUGH APRIL 15.
19. WINTER EXCAVATION AND EARTHWORK SHALL BE DONE SUCH THAT THE AMOUNT OF AREA OPEN AT ONE TIME IS MINIMIZED TO THE MAXIMUM EXTENT PRACTICABLE AND IN CONFORMANCE WITH THE STORMWATER POLLUTION PREVENTION PLAN SUCH THAT ADEQUATE PROVISIONS ARE EMPLOYED TO CONTROL STORMWATER RUNOFF.
20. CONTINUATION OF EARTHWORK OPERATION ON ADDITIONAL AREAS SHALL NOT BEGIN UNTIL THE EXPOSED SOIL SURFACE ON THE AREA BEING WORKED HAS BEEN STABILIZED SUCH THAT NO LARGER AREA OF THE SITE IS WITHOUT EROSION CONTROL PROTECTION AS LISTED IN ITEM 2 ABOVE.
21. AN AREA SHALL BE CONSIDERED TO HAVE BEEN TEMPORARILY STABILIZED WHEN EXPOSED SURFACES HAVE BEEN EITHER MULCHED WITH STRAW OR STRAW AT A RATE OF 100 LB. PER 1,000 SQUARE FEET (WITH OR WITHOUT SEEDING) OR DORMANT SEEDED, MULCHED AND ADEQUATELY ANCHORED BY AN APPROVED ANCHORING TECHNIQUE.
22. FOR AREAS WHERE CONSTRUCTION ACTIVITIES HAVE CEASED FOR A PERIOD EXCEEDING 14 DAYS BETWEEN THE DATES OF 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, THEN THE AREA MAY BE DORMANT SEEDED AT A RATE OF 200-300% HIGHER THAN SPECIFIED FOR PERMANENT SEED AND THEN MULCHED AS APPLICABLE. SLOPES SHALL NOT BE LEFT UNSTABILIZED OVER THE WINTER OR IN AREAS WHERE WORK HAS CEASED FOR MORE THAN 14 DAYS UNLESS TREATED IN THE ABOVE MANNER. UNTIL SUCH TIME AS WEATHER CONDITIONS ALLOW DITCHES TO BE FINISHED WITH THE PERMANENT SURFACE TREATMENT, EROSION SHALL BE CONTROLLED BY THE INSTALLATION OF SEDIMENT BARRIERS OR STONE CHECK DAMS IN ACCORDANCE WITH THE STANDARD DETAILS.
23. MULCHING REQUIREMENTS:
    - 23.1. BETWEEN THE DATES OF NOVEMBER 1ST AND APRIL 15TH ALL MULCH SHALL BE ANCHORED BY EITHER PEG LINE, MULCH NETTING OR WOOD CELLULOSE FIBER.
    - 23.2. MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL DRAINAGE WAYS WITH A SLOPE GREATER THAN 3% FOR SLOPE EXPOSED TO DIRECT WINDS AND FOR ALL OTHER SLOPES GREATER THAN 8%.
    - 23.3. MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL AREAS WITH SLOPES GREATER THAN 15%. AFTER OCTOBER 1ST THE SAME APPLIES FOR ALL SLOPES GREATER THAN 8%.
24. ALL DISTURBED AREAS SHALL BE STABILIZED IN ACCORDANCE WITH THE STORMWATER PREVENTION PLAN.
25. DURING THE WINTER CONSTRUCTION PERIOD ALL SNOW SHALL BE REMOVED FROM AREAS OF SEEDING AND MULCHING PRIOR TO PLACEMENT.

GENERAL EROSION AND SEDIMENT CONTROL NOTES

1. 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.
2. EROSION CONTROL MEASURES MUST CONFORM TO THE STATE, LOCAL, AND FEDERAL GUIDELINES FOR URBAN EROSION AND SEDIMENT CONTROL UNLESS OTHERWISE NOTED, OR UNLESS THE PROFESSIONAL OF RECORD CLEARLY AND SPECIFICALLY, IN WRITING, DIRECTS OTHERWISE. INSTALLATION OF EROSION CONTROL, CLEARING, AND SITE WORK MUST BE PERFORMED EXACTLY AS INDICATED IN THE EROSION CONTROL CONSTRUCTION NOTES.
3. THE DISTURBED LAND AREA OF THIS SITE IS APPROXIMATELY 10.87 ACRES.
4. THE FOLLOWING EROSION CONTROL MEASURES ARE PROPOSED FOR THIS SITE:

A. STABILIZED CONSTRUCTION ENTRANCE/ EXIT - A TEMPORARY GRAVEL CONSTRUCTION ENTRANCE/EXIT IS TO BE INSTALLED AT THE DESIGNATED LOCATION SHOWN ON THE PLAN. THIS AREA MUST BE GRADED SO THAT RUNOFF WATER WILL BE RETAINED ON-SITE.

B. SEDIMENT FENCE - INSTALL SILT FENCE(S) AND/OR SILT SOCK AROUND ALL OF THE DOWNSLOPE PERIMETERS OF THE SITE, TEMPORARY FILL AND SOIL STOCKPILES.

C. INSTALL FILTER FABRIC DROP INLET PROTECTION AROUND EACH DRAINAGE INLET AS DRAINAGE STRUCTURES ARE INSTALLED TO REDUCE THE QUANTITY OF SEDIMENT. INSTALL TEMPORARY INLET PROTECTION ON INLETS DOWNSLOPE FROM DISTURBANCE, WHICH MAY BE BEYOND THE LIMITS OF DISTURBED AREA.

5. INSTALLATION OF EROSION CONTROL DEVICES MUST BE IN ACCORDANCE WITH ALL OF THE MANUFACTURER'S RECOMMENDATIONS.
6. THE CONTRACTOR MUST INSPECT EROSION CONTROL MEASURES WEEKLY. THE CONTRACTOR MUST REMOVE ANY SILT DEPOSITS GREATER THAN 6 INCHES OR HALF THE EROSION CONTROL BARRIER'S HEIGHT COLLECTED ON THE FILTER FABRIC AND/OR SILT SOCK BARRIERS AND EXCAVATE AND REMOVE ANY SILT FROM DROP INLET PROTECTION.
7. THE CONTRACTOR MUST APPLY TEMPORARY SEED AND MULCH TO ALL DISTURBED AREAS THAT WILL NOT BE BROUGHT TO FINISHED GRADE AND VEGETATED WITHIN 7 DAYS. WHEN AREAS ARE DISTURBED AFTER THE GROWING SEASON, THE CONTRACTOR MUST STABILIZE SAME WITH GEOTEXTILE FABRIC AND MAINTAIN SAME IN STRICT ACCORDANCE WITH BEST MANAGEMENT PRACTICES.
8. THE CONTRACTOR MUST INSTALL ADDITIONAL EROSION CONTROL MEASURES IF THE PROFESSIONAL OF RECORD SO REQUIRES, TO PREVENT ANY, INCLUDING THE INCIDENTAL, DISCHARGE OF SILT-LADEN RUNOFF FROM EXITING THE SITE.
9. 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 IN THE BID PRICE FOR THE SITE WORK AND THE CONTRACTOR IS RESPONSIBLE FOR ALL SUCH COSTS.
10. THE CONTRACTOR MUST CONTINUE TO MAINTAIN ALL EROSION CONTROL MEASURES UNTIL THE COMPLETION OF CONSTRUCTION AND THE ESTABLISHMENT OF VEGETATION.
11. THE CONTRACTOR MUST REMOVE EROSION CONTROL MEASURES, SILT AND DEBRIS AFTER ESTABLISHING PERMANENT VEGETATION COVER OR OTHER INSTALLING A DIFFERENT, SPECIFIED METHOD OF STABILIZATION.
12. THIS PLAN REPRESENTS THE MINIMUM LEVEL OF IMPLEMENTATION OF TEMPORARY EROSION AND SEDIMENTATION CONTROL FACILITIES, MEASURES AND STRUCTURES. ADDITIONAL FACILITIES, MEASURES AND STRUCTURES MUST BE INSTALLED WHERE NECESSARY TO COMPLY WITH ALL APPLICABLE CODES AND STANDARDS AND/OR TO PREVENT ANY, INCLUDING THE INCIDENTAL DISCHARGE OF SILT-LADEN RUNOFF FROM EXITING THE SITE.
13. THE CONTRACTOR MUST PROTECT ALL EXISTING TREES AND SHRUBS. THE CONTRACTOR MUST REFER TO THE LANDSCAPE AND/OR DEMOLITION PLAN(S) FOR TREE PROTECTION, FENCE LOCATIONS AND DETAILS.
14. THE CONTRACTOR MUST REFER TO GRADING PLANS FOR ADDITIONAL INFORMATION.
15. THE CONTRACTOR MUST CLEAN EXISTING AND PROPOSED DRAINAGE STRUCTURES AND INTERCONNECTING PIPES ON OR OFF-SITE AS THE JURISDICTIONAL AGENCY REQUIRES, BOTH AT THE TIME OF SITE STABILIZATION AND AT END OF PROJECT.
16. SOIL EROSION CONTROL MEASURES MUST BE ADJUSTED OR RELOCATED BY THE CONTRACTOR AS IDENTIFIED DURING SITE OBSERVATION IN ORDER TO MAINTAIN THE COMPLETE EFFECTIVENESS OF ALL CONTROL MEASURES.
17. THE CONTRACTOR MUST IDENTIFY, ON THE PLAN, THE LOCATION OF WASTE CONTAINERS, FUEL STORAGE TANKS, CONCRETE WASHOUT AREAS AND ANY OTHER LOCATIONS WHERE HAZARDOUS MATERIALS ARE STORED.

OPERATION AND MAINTENANCE

1. MAINTENANCE REQUIREMENTS OF MEASURES DURING CONSTRUCTION OF PROJECT
    - 1.1. THE SPECIFIC EROSION AND SEDIMENTATION CONTROL MEASURES, WHICH INCLUDE A BARRIER OF TRENCHED SILTATION FENCE, STAKED HAY BALES, AND INLET PROTECTION WILL, THROUGHOUT ALL PHASES OF CONSTRUCTION, SHALL BE INSPECTED (IN ADDITION TO THE INTERVALS EXPLAINED ABOVE) AT THE END OF EACH WORKDAY IF PRECIPITATION IS FORECAST AND AFTER EACH RAINFALL. AT THE END OF EACH WORKWEEK, PRIOR TO WEEKENDS, ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSPECTED.
    - 1.2. THROUGHOUT THE CONSTRUCTION PROCESS, EXTRA STOCKS OF HAY BALES AND SILTATION FENCING WILL BE KEPT ON-SITE TO REPLACE THOSE THAT BECOME DAMAGED AND/OR DETERIORATED.
    - 1.3. AREAS, WHICH ARE MULCHED OR SEEDED FOR TEMPORARY VEGETATIVE COVER, WILL BE INSPECTED FOR PROPER COVER AT THE END OF EACH WORKDAY IF PRECIPITATION IS FORECAST AND ALSO PRIOR TO WEEKENDS. CONTRACTOR SHALL KEEP PAVING CLEAR AT ALL TIMES. ADDITIONAL SEEDING OR MULCH WILL BE PLACED AS NECESSARY.
    - 1.4. TEMPORARY EROSION AND SEDIMENT CONTROL SYSTEMS WILL NOT BE REMOVED UNTIL ALL STORMWATER DRAINAGE SYSTEM COMPONENTS ARE IN PLACE, CLEANED AND WORKING PROPERLY AND UNTIL PERMANENT VEGETATIVE COVER AND OTHER STABILIZATION MEASURES ARE ESTABLISHED.
2. MAINTENANCE REQUIREMENTS OF PERMANENT MEASURES AFTER PROJECT COMPLETION.
    - 2.1. POTENTIAL LONG-TERM EROSION AND SEDIMENTATION IMPACTS WILL BE CONTROLLED BY THE USE OF THE BMP'S ON-SITE. THE STORMWATER MANAGEMENT SYSTEM WAS DESIGNED TO CONTROL THE PEAK RATE OF RUNOFF AND THE OUTLETS OF THE STORMWATER COLLECTION SYSTEMS HAVE BEEN DESIGNED TO DISSIPATE AND DISPERSE THE RUNOFF AND PREVENT SCOURING OF THE RECEIVING AREA.
3. OPERATION AND MAINTENANCE PLAN:
    - 3.1. ALL STORMWATER COMPONENTS SHOULD BE CHECKED PERIODICALLY IN A MAINTENANCE LOG AND KEPT IN FULL WORKING ORDER. ULTIMATELY, THE REQUIRED FREQUENCY OF INSPECTION AND SERVICE WILL DEPEND ON RUNOFF QUANTITIES, POLLUTANT LOADING, AND CLOGGING DUE TO DEBRIS. AT A MINIMUM, WE RECOMMEND THAT ALL STORMWATER COMPONENTS BE INSPECTED AND SERVICED TWICE PER YEAR, ONCE BEFORE WINTER BEGINS AND ONCE DURING SPRING CLEANUP.
    - 3.2. SWEEPING WILL BE COMPLETED AT LEAST SEMIANNUALLY (ONCE IN THE SPRING AND ONCE IN THE FALL), OR MORE FREQUENTLY IF ACCUMULATED PARTICULATE MATTER IS OBSERVED.
    - 3.3. CATCH BASIN SUMPS WILL BE INSPECTED SEMIANNUALLY AND CLEANED WHEN SEDIMENT IS WITHIN 12 INCHES OF THE OUTLET INVERT OR HALF THE SUMP DEPTH.
    - 3.4. MANHOLES/JUNCTION BOXES SHALL BE INSPECTED AND REPAIRED ON AN ANNUAL BASIS.
    - 3.5. DRAINAGE PIPING UNLESS SYSTEM PERFORMANCE INDICATES DEGRADATION OF PIPING, COMPREHENSIVE VIDEO INSPECTION OF STORM DRAINAGE PIPING SHOULD OCCUR ONCE EVERY TEN YEARS.
    - 3.6. CONTROL STRUCTURES (ORIFICE, WEIR, ETC.) SHALL BE COMPLETELY CLEANED OF ACCUMULATED DEBRIS AND SEDIMENTS AT THE COMPLETION OF CONSTRUCTION. ANY REPAIRS SHALL BE PERFORMED. FOR THE FIRST YEAR, CONTROL STRUCTURES SHALL BE INSPECTED ON A QUARTERLY BASIS, THEN TWICE PER YEAR AFTER THE SECOND YEAR (ONCE IN THE SPRING AND ONCE IN THE FALL, AFTER FALL CLEANUP OF LEAVES HAS OCCURRED).
    - 3.7. GRASS SWALES WILL BE INSPECTED AT LEAST SEMIANNUALLY AND CLEANED OF SEDIMENT/DEBRIS AS NECESSARY.
    - 3.8. HYDRODYNAMIC SEPARATORS SHALL BE COMPLETELY CLEANED OF ACCUMULATED DEBRIS AND SEDIMENTS AT THE COMPLETION OF CONSTRUCTION. FOR THE FIRST YEAR, THE HYDRODYNAMIC SEPARATOR SHALL BE INSPECTED ON A QUARTERLY BASIS, THEN TWICE PER YEAR AFTER THE SECOND YEAR.
    - 3.9. DRAINAGE OUTFALLS/SPLASH PADS/SCOUR HOLES/LEVEL SPREADERS WILL BE INSPECTED ON A QUARTERLY BASIS FOR THE FIRST YEAR THEN TWICE PER YEAR AFTER THE SECOND YEAR. ANY EROSION SHALL BE REPAIRED, AND THE CAUSE OF EROSION SHALL BE IDENTIFIED AND CORRECTED.
    - 3.10. DEWATERING BAGS SHALL BE INSPECTED CONTINUOUSLY DURING USE. CARE SHOULD BE TAKEN TO PROPERLY MONITOR PERFORMANCE TO ENSURE THAT PUMP RATES OR CONCENTRATIONS OF SEDIMENT ARE NOT EXCESSIVE. ONCE THE SEDIMENT TANK OR SEDIMENT BAGS HAVE REACHED THEIR MAXIMUM CAPACITY TO RETAIN SEDIMENTS, THESE UNITS SHALL BE TAKEN OFFLINE AND ANY RETAINED SEDIMENTS SHALL BE DISPOSED OF PROPERLY.
    - 3.11. INFILTRATION BASINS REQUIRE PREVENTATIVE MAINTENANCE AFTER EVERY MAJOR STORM EVENT DURING THE FIRST THREE (3) MONTHS OF OPERATION AND AT LEAST TWICE PER YEAR THEREAFTER. INSPECT STRUCTURE AND PRETREATMENT BMP TO ENSURE PROPER OPERATION AFTER EVERY MAJOR STORM EVENT (GENERALLY EQUAL OR GREATER TO 3.0 INCHES IN 24 HOURS) FOR THE FIRST THREE MONTHS. MOW THE BUFFER AREA, SIDE SLOPES AND BASIN BOTTOM IF GRASSED FLOOR, RAKE IF STONE OR SAND BOTTOM, REMOVE TRASH AND DEBRIS, REMOVE GRASS CLIPPINGS AND ACCUMULATED ORGANIC MATTER. ANY SEDIMENT REMOVED SHALL BE DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE, FEDERAL, AND OTHER APPLICABLE REQUIREMENTS.
    - 3.12. INFILTRATION CHAMBERS REQUIRE PREVENTATIVE MAINTENANCE AFTER EVERY MAJOR STORM EVENT DURING THE FIRST THREE (3) MONTHS OF OPERATION AND AT LEAST TWICE PER YEAR THEREAFTER. INSPECT STRUCTURE AND PRETREATMENT BMP TO ENSURE PROPER OPERATION AFTER EVERY MAJOR STORM EVENT (GENERALLY EQUAL OR GREATER TO 3.0 INCHES IN 24 HOURS) FOR THE FIRST THREE MONTHS. THE OUTLET OF THE BASIN, IF ANY, SHALL BE INSPECTED FOR EROSION AND SEDIMENTATION, AND RIP-RAP SHALL BE PROMPTLY REPAIRED IN THE CASE OF EROSION. SEDIMENT COLLECTING IN THE BOTTOM OF THE BASIN SHALL BE INSPECTED TWICE ANNUALLY, AND REMOVAL SHALL COMMENCE ANY TIME THE SEDIMENT REACHES A DEPTH OF SIX INCHES ANYWHERE IN THE BASIN. ANY SEDIMENT REMOVED SHALL BE DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE, FEDERAL, AND OTHER APPLICABLE REQUIREMENTS.
    - 3.13. RAIN GARDEN SHALL BE INSPECTED AND CLEARED OF TRASHED MONTHLY; MOWED 2 TO 12 TIMES PER YEAR; MULCHED ANNUALLY; FERTILIZED ANNUALLY; DEAD VEGETATION REMOVED ANNUALLY; PRUNED ANNUALLY; REPLACE ENTIRE MEDIA AND ALL VEGETATION AS NEEDED. ANY SEDIMENT REMOVED SHALL BE DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE, FEDERAL, AND OTHER APPLICABLE REQUIREMENTS.

EROSION CONTROL NARRATIVE

1. PURPOSE
    - 1.1. THE PROPOSED WORK WILL CONSIST OF CONSTRUCTION NECESSARY TO BUILD A MULTI-FAMILY DEVELOPMENT WITH ALL ASSOCIATED PARKING, LANDSCAPING, UTILITIES, AND ACCESSORY STRUCTURES.
2. DISTURBANCE
    - 2.1. THE PROPOSED PROJECT WILL DISTURB APPROXIMATELY 10.87 ACRES OF LAND.
3. SITE SPECIFIC CONCERNS
    - 3.1. PREVENTION OF POLLUTION AND SEDIMENT ENTERING DOWNSTREAM WATERCOURSE(S) BY MEANS OF INFILTRATION BASINS AND STORMWATER QUALITY UNITS BEFORE ENTERING THE WETLANDS.
4. CONSTRUCTION PHASING SHALL BE COMPLETED IN TWO PHASES AS INDICATED IN THE RECOMMENDED CONSTRUCTION SEQUENCE
5. CONSTRUCTION SCHEDULE (SUBJECT TO CHANGE DEPENDING ON MARKETS, FINANCING, PERMIT APPROVALS AND WEATHER CONDITIONS)
    - 5.1. THE ANTICIPATED CONSTRUCTION START IS SPRING OF 2026, WITH COMPLETION ANTICIPATED 18 TO 24 MONTHS AFTER THE START DATE.
        - 5.1.1.
6. OTHER POSSIBLE LOCAL, STATE AND FEDERAL PERMITS REQUIRED PERMITS
    - 6.1. CTDEEP CONSTRUCTION STORMWATER GENERAL PERMIT
    - 6.2. TOWN OF LEDYARD PLANNING AND DEVELOPMENT APPROVALS
    - 6.3. CTDPH SUBSURFACE SEWAGE DISPOSAL SYSTEM APPROVALS
    - 6.4. OSTA MAJOR TRAFFIC GENERATOR CERTIFICATE
7. CONSERVATION PRACTICES
    - 7.1. CONSERVATION PRACTICES INCLUDE LIMITING THE SCOPE OF THE PROJECT TO MINIMIZE ACTIVITIES WHICH REQUIRES BARE SOILS TO BE EXPOSED. 10.87 ACRES OF LAND DISTURBANCE IS PROPOSED FOR THIS PROJECT.
8. SUPPORT DOCUMENTS
9. DRAINAGE REPORT, GEOTECH REPORT, SEPTIC DESIGN PLANS
10. PERSON RESPONSIBLE FOR MAINTENANCE DURING CONSTRUCTION OF PROJECT

TBD. CONTRACTOR OR PERSON TO BE SELECTED AND SHALL BE NAMED PRIOR TO PRECONSTRUCTION MEETING

THE FOLLOWING CONSTRUCTION SEQUENCE IS RECOMMENDED:

PHASE 1: ANTICIPATED DURATION - 4 to 6 MONTHS

1. PRECONSTRUCTION MEETING WITH ALL PARTIES
2. MARK CLEARING LIMIT LINE; TOWN OF LEDYARD STAFF TO INSPECT
3. INSTALLATION OF STABILIZED CONSTRUCTION ENTRANCE/EXIT (SEE SHEET C-601)
4. INSTALLATION OF PERIMETER EROSION CONTROL BARRIERS (STRAW BALES, SILT FENCE, COMPOST FILTER SOCK) WITHIN THE LIMIT OF DISTURBANCE AS INDICATED ON THE PLAN (SEE SHEET C-601)
5. INSTALLATION OF INLET PROTECTION IN STREET (SEE SHEET C-601)
6. DEMOLITION OF EXISTING SITE STRUCTURES (SEE DEMOLITION PLAN)
7. DEMOLITION OF EXISTING SITE PAVEMENT AND AMENITIES (SEE DEMOLITION PLAN)
8. CLEARING AND GRUBBING IN AREAS DESIGNATED AS BEING REMOVED AS NECESSARY TO INSTALL TEMPORARY SWALES AND SEDIMENT TRAPS (SEE SHEET C-601)
9. INSTALLATION OF TEMPORARY SWALES AND SEDIMENT BASINS (SEE SHEET C-601)
10. DEWATERING NEEDS ARE EXPECTED ON SITE. INSTALLATION OF DEWATERING BAGS PER PLAN (SEE SHEET C-601). THE USE OF THESE DEWATERING MEASURES IS DEPENDENT UPON SPECIFIC SITE CONDITIONS. IT SHOULD BE RECOGNIZED THAT ANY DEWATERING PLAN TYPICALLY NEEDS TO BE MODIFIED DUE TO UNFORESEEN SITE CONDITIONS OR ALTERNATE METHODS AVAILABLE TO THE CONTRACTOR.
11. INITIATE THE NECESSARY EARTHWORK TO REACH GRADES INDICATED ON THE PLANS. TEMPORARILY STABILIZE ANY AREAS WITH SEEDING OR MULCH AS DETAILED IN THESE PLANS WITHIN 7 DAYS AFTER THE SUSPENSION OF GRADING WORK IN DISTURBED AREAS WHERE THE SUSPENSION OF WORK IS EXPECTED TO BE MORE THAN 30 DAYS BUT LESS THAN 1 YEAR.
12. STABILIZE PERMANENT LAWN AREAS AND SLOPES WITH SC150 BN EROSION CONTROL BLANKET ON SLOPES OF 3:1 OR GREATER AND TEMPORARY SEEDING (SEE SHEET C-601)
13. INSTALLATION OF RETAINING WALL.
14. INSTALLATION OF UTILITIES BUT NOT LIMITED TO STORMWATER TO BE INSTALLED IN A DOWNSTREAM TO UPSTREAM MANNER. (SEE SHEET C-402).
15. INSTALLATION OF INLET PROTECTION ON-SITE UTILITIES (SEE SHEET C-601)
16. CONSTRUCTION OF ALL CURBING AND LANDSCAPE ISLANDS AS INDICATED ON THE PLANS
17. SPREAD TOPSOIL ON SLOPED AREAS AND SEED AND MULCH
18. FINAL GRADING OF ALL SLOPED AREAS
19. PLACE 6" TOPSOIL ON SLOPES AFTER FINAL GRADING COMPLETED. FERTILIZE, SEED, AND MULCH SEED MIXTURE TO BE INSTALLED AS REQUIRED.
20. REMOVAL OF THE TEMPORARY SEDIMENT TRAPS IN ACCORDANCE WITH THE 2024 CT EROSION AND SEDIMENT CONTROL GUIDELINES. THE TEMPORARY SEDIMENT TRAP MUST BE MODIFIED TO PREPARE IT FOR LONG-TERM USE INCLUDING, AT A MINIMUM, REMOVAL OF ANY ACCUMULATED SEDIMENTS, RESTORATION OF THE PRE-CONSTRUCTION INFILTRATION CAPACITY OF THE UNDERLYING SOILS, AND OTHER STRUCTURAL MODIFICATIONS IN ACCORDANCE WITH THE BMP-SPECIFIC DESIGN GUIDANCE IN THE CONNECTICUT STORMWATER QUALITY MANUAL, AS AMENDED.
21. PAVE PARKING LOT
22. LANDSCAPING PER LANDSCAPING PLAN
23. CLEAR SITE OF DEBRIS IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS.
24. REMOVE EROSION CONTROLS AS DISTURBED AREAS BECOME STABILIZED TO 70% STABILIZATION OR GREATER, AND ONCE THE SITE HAS BEEN INSPECTED BY THE TOWN OF LEDYARD STAFF.

PHASE 2: ANTICIPATED DURATION - 12 TO 18 MONTHS

1. RELOCATION OF STABILIZED CONSTRUCTION ENTRANCE (SEE SHEET C-602)
2. DEMOLITION OF EXISTING SITE STRUCTURES (SEE DEMOLITION PLAN)
3. DEMOLITION OF EXISTING SITE PAVEMENT AND AMENITIES (SEE DEMOLITION PLAN)
4. CLEARING AND GRUBBING IN AREAS DESIGNATED AS BEING REMOVED AS NECESSARY TO INSTALL TEMPORARY SWALES AND SEDIMENT TRAPS. CONTRACTOR TO ENSURE NO MORE THAN 5 ACRES OF DISTURBED AREA IS LEFT NOT STABILIZED AT ANY TIME (SEE SHEET C-602)
5. INSTALLATION OF TEMPORARY SWALES AND SEDIMENT BASINS (SEE SHEET C-602)
6. DEWATERING NEEDS ARE EXPECTED ON SITE. INSTALLATION OF DEWATERING BAGS PER PLAN (SEE SHEET C-601). THE USE OF THESE DEWATERING MEASURES IS DEPENDENT UPON SPECIFIC SITE CONDITIONS. IT SHOULD BE RECOGNIZED THAT ANY DEWATERING PLAN TYPICALLY NEEDS TO BE MODIFIED DUE TO UNFORESEEN SITE CONDITIONS OR ALTERNATE METHODS AVAILABLE TO THE CONTRACTOR.
7. INITIATE THE NECESSARY EARTHWORK TO REACH GRADES INDICATED ON THE PLANS. TEMPORARILY STABILIZE ANY AREAS WITH SEEDING OR MULCH AS DETAILED IN THESE PLANS WITHIN 7 DAYS AFTER THE SUSPENSION OF GRADING WORK IN DISTURBED AREAS WHERE THE SUSPENSION OF WORK IS EXPECTED TO BE MORE THAN 30 DAYS BUT LESS THAN 1 YEAR.
8. STABILIZE PERMANENT LAWN AREAS AND SLOPES WITH SC150 BN EROSION CONTROL BLANKET ON SLOPES OF 3:1 OR GREATER AND TEMPORARY SEEDING (SEE SHEET C-601)
9. INSTALLATION OF BUILDING FOUNDATION AND CONSTRUCTION OF BUILDING A AND BUILDING B. BUILDING CONSTRUCTION MAY COMMENCE UPON ACCEPTANCE OF BUILDING PAD BY THE OWNER. CONCRETE WASHOUT MUST BE INSTALLED PRIOR TO ANY CONCRETE BEING POURED ON SITE.
10. INSTALLATION OF RETAINING WALL.
11. INSTALLATION OF UTILITIES BUT NOT LIMITED TO STORMWATER, SANITARY, ELECTRIC, AND WATER. STORMWATER AND SANITARY TO BE INSTALLED IN A DOWNSTREAM TO UPSTREAM MANNER. (REFER TO DRAINAGE AND UTILITY PLANS AS WELL AS SEPTIC PLANS PREPARED BY OTHERS).
12. REMOVAL OF TEMPORARY SEDIMENT TRAP TO BE REPLACED WITH PERMANENT STORMTRAP INFILTRATION SYSTEM. THE TEMPORARY SEDIMENT TRAP MUST BE MODIFIED TO PREPARE IT FOR LONG-TERM USE INCLUDING, AT A MINIMUM, REMOVAL OF ANY ACCUMULATED SEDIMENTS, RESTORATION OF THE PRE-CONSTRUCTION INFILTRATION CAPACITY OF THE UNDERLYING SOILS, AND OTHER STRUCTURAL MODIFICATIONS IN ACCORDANCE WITH THE BMP-SPECIFIC GUIDANCE IN THE CONNECTICUT STORMWATER QUALITY MANUAL, AS AMENDED.
13. INSTALLATION OF INLET PROTECTION ON-SITE UTILITIES (SEE SHEET C-602)
14. CONSTRUCTION OF ALL CURBING AND LANDSCAPE ISLANDS AS INDICATED ON THE PLANS
15. SPREAD TOPSOIL ON SLOPED AREAS AND SEED AND MULCH
16. FINAL GRADING OF ALL SLOPED AREAS
17. PLACE 6" TOPSOIL ON SLOPES AFTER FINAL GRADING COMPLETED. FERTILIZE, SEED, AND MULCH SEED MIXTURE TO BE INSTALLED AS REQUIRED.
18. REMOVAL OF THE TEMPORARY SEDIMENT TRAP #3 IN ACCORDANCE WITH THE 2024 CT EROSION AND SEDIMENT CONTROL GUIDELINES.
19. PAVE PARKING LOT
20. LANDSCAPING PER LANDSCAPING PLAN
21. CLEAR SITE OF DEBRIS IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS.
22. REMOVE EROSION CONTROLS AS DISTURBED AREAS BECOME STABILIZED TO 70% STABILIZATION OR GREATER, AND ONCE THE SITE HAS BEEN INSPECTED BY THE TOWN OF LEDYARD STAFF.

RECOMMENDED CONSTRUCTION SEQUENCE

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LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY
1	05/20/2025	RESPONSE TO TOWN COMMENTS	CR/KS JGB

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PROJECT No.:	CTA220061.00
DRAWN BY:	CR/TJN/KMB
CHECKED BY:	JGB
DATE:	02/19/2025
CAD I.D.:	CTA220061.00-EROS-6A

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

C.R. KLEWIN LLC

PROPOSED RESIDENTIAL DEVELOPMENT

19, 29 & 39 MILITARY HIGHWAY, GALES FERRY, LEDYARD, NEW LONDON COUNTY, CONNECTICUT

BOHLER

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J.G. BORD

PROFESSIONAL ENGINEER

SHEET TITLE:

EROSION & SEDIMENT CONTROL NOTES & DETAILS

SHEET NUMBER:

C-603

REVISION 1 - 05/20/2025

P:\2022\CTA220061.00\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\CTA220061.00-EROS-6A----->LAYOUT: C-603 ENOTE

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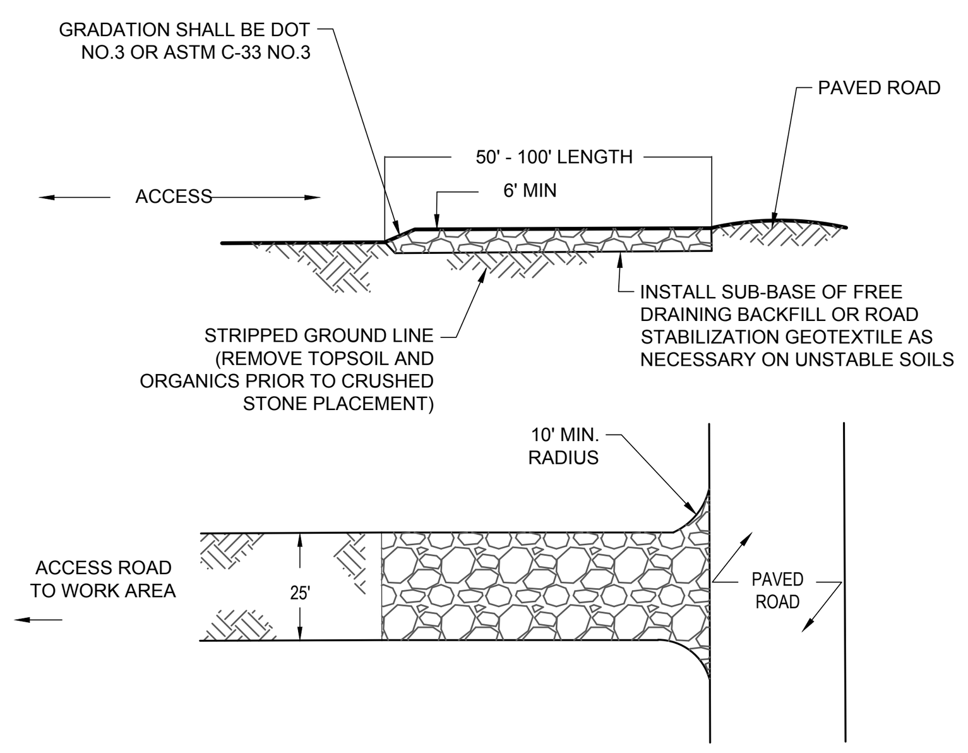
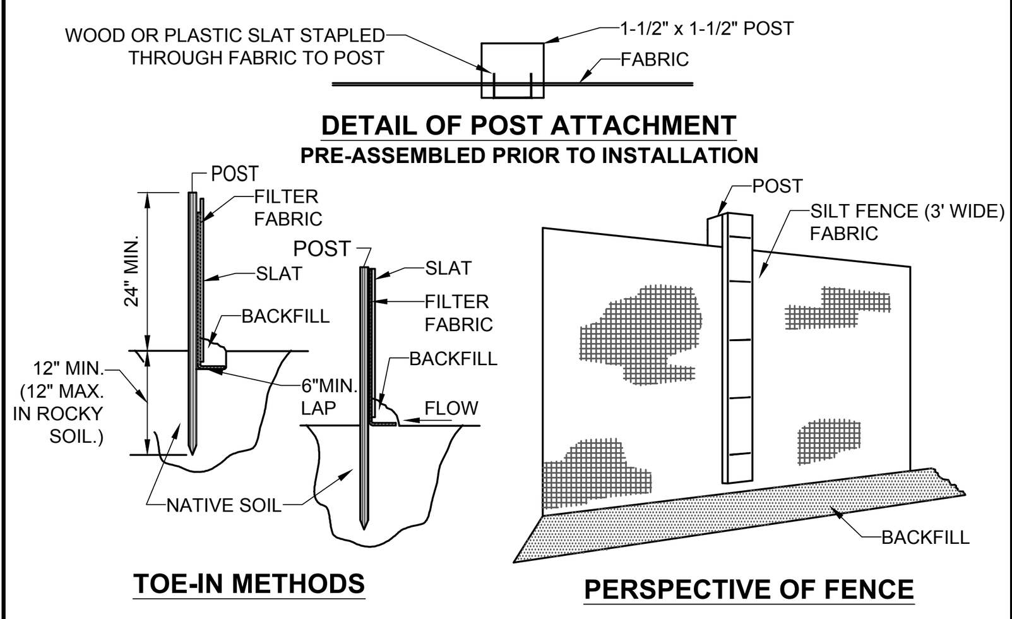


CONSTRUCTION ENTRANCE /ANTI TRACKING PAD

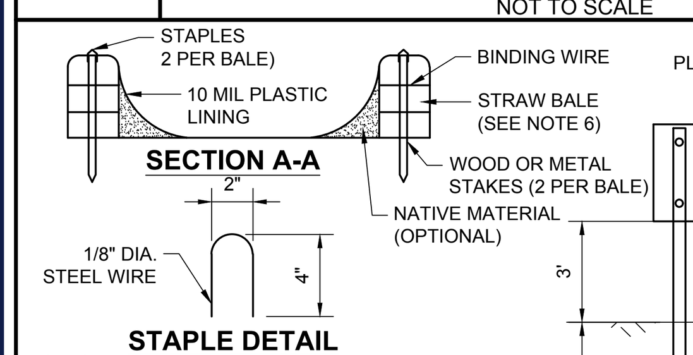
NOT TO SCALE



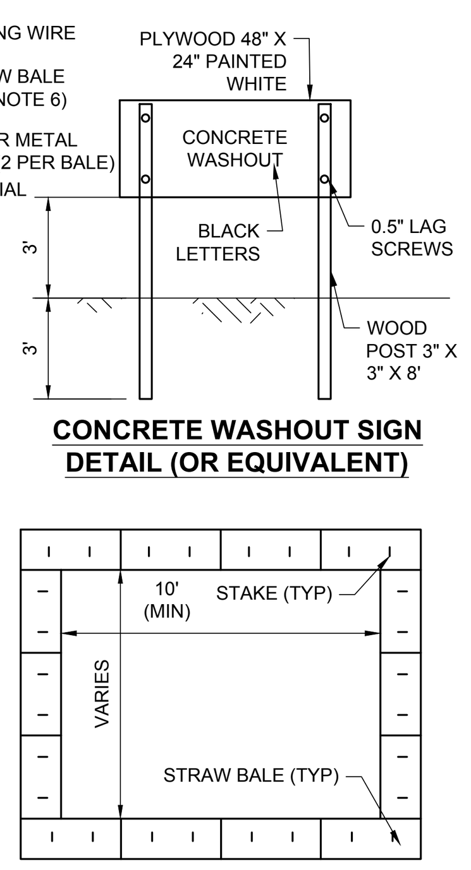
NOTES:
1. EXCAVATE A 6"x6" TRENCH ALONG THE LINE OF EROSION CONTROL OF THE SITE.
2. UNROLL SILTATION FENCE AND POSITION THE POSTS AGAINST THE BACK (DOWNSTREAM) WALL OF THE TRENCH (NET SIDE AWAY FROM FLOW DIRECTION).
3. DRIVE THE POST INTO THE GROUND UNTIL THE NETTING IS LAYING ACROSS THE TRENCH BOTTOM.
4. LAY THE TOE-IN FLAP OF THE FABRIC ONTO THE UNDISTURBED BOTTOM OF THE TRENCH, BACKFILL ALSO BE ACCOMPLISHED BY LAYING FABRIC FLAP ON UNDISTURBED GROUND AND PILING & TAMPING FILL AT THE BASE.

TYP. SILTATION FENCE

NOT TO SCALE

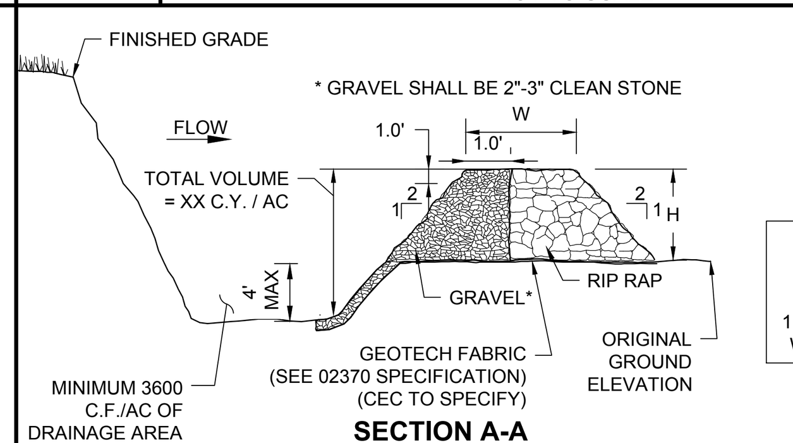


NOTES:
1. TEMPORARY CONCRETE WASHOUT FACILITIES SHOULD BE LOCATED A MINIMUM OF 50 FT. FROM STORM DRAIN INLETS.
2. ONCE CONCRETE WASTES ARE WASHED INTO THE DESIGNATED AREA AND ALLOWED TO HARDEN, THE CONCRETE SHOULD BE BROKEN UP, REMOVED, AND DISPOSED OF OFF-SITE. CONTRACTOR TO DISPOSE OF HARDENED CONCRETE ON A REGULAR BASIS.
3. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30 FT. OF THE TEMPORARY CONCRETE WASHOUT FACILITY.
4. PLASTIC LINING MATERIAL SHOULD BE A MINIMUM OF 10 MIL POLYETHYLENE SHEETING AND SHOULD BE FREE OF HOLES, TEARS, OR OTHER DEFECTS THAT COMPROMISE THE IMPERMEABILITY OF THE MATERIAL.
5. WASHOUT FACILITIES MUST BE CLEANED, OR NEW FACILITIES MUST BE CONSTRUCTED AND READY FOR USE ONCE THE WASHOUT IS 75% FULL.
6. STRAW BALE AND STAPLES MAY BE SUBSTITUTED WITH ALTERNATE SECURING MEASURES SUCH AS CONCRETE BLOCK.



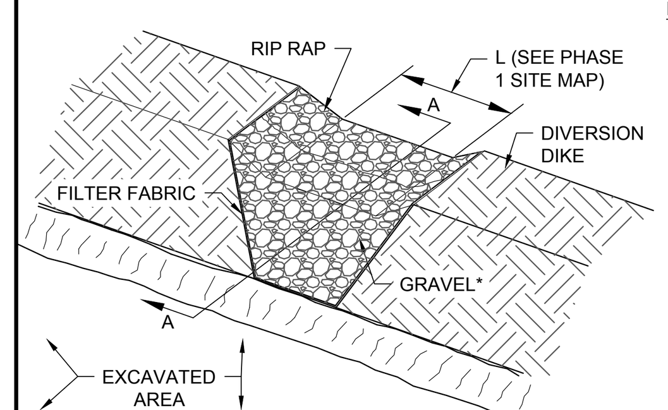
CONCRETE WASTE MANAGEMENT AREA

NOT TO SCALE (NE-O020201 - 09/2023)



MAX DRAINAGE AREA: 5 ACRES

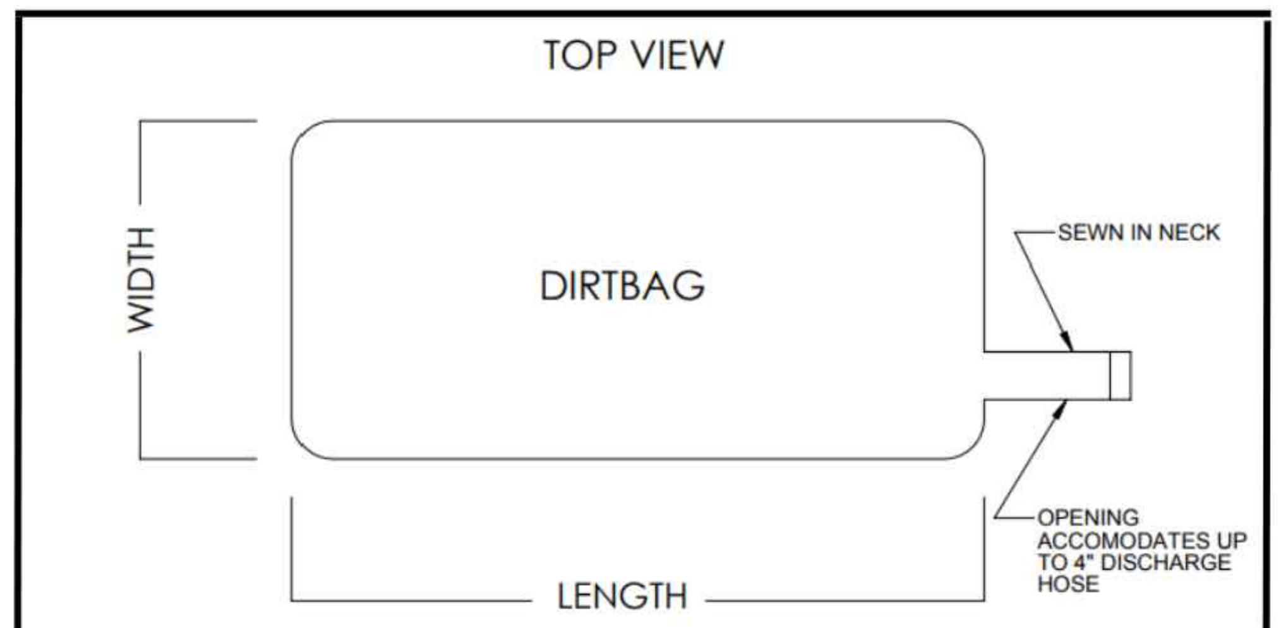
L (IN FEET) = 6' OR 1 x DRAINAGE AREA (AC) WHICHEVER IS LARGER



NOTE:
1. PROVIDE DIMENSIONS AND VOLUME FOR AND LABEL EACH SEDIMENT TRAP LOCATED ON THE PLANS. (SEE SITE MAPS)
2. CEC TO PROVIDE, IN THE 02370 SPECIFICATION, DRAINAGE AREAS AND VOLUME CALCULATIONS FOR ALL SEDIMENT TRAPS SHOWN ON THE SITE MAPS (AS STIPULATED IN THE GENERAL PERMIT, AGENCY REQUIREMENTS, OR STANDARD ENGINEERING PRACTICES) TO DEMONSTRATE ADEQUATE VOLUME TO RETAIN RUNOFF AND ALLOW SETTLEMENT OF SUSPENDED SOILS BEFORE DISCHARGING DOWNSTREAM.

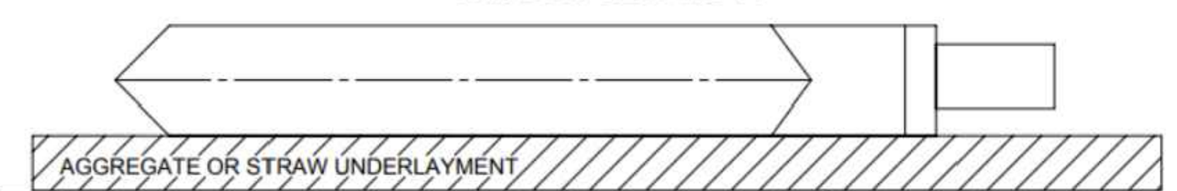
TEMPORARY SEDIMENT TRAP

NOT TO SCALE (NE-O049902 - 09/2023)



NOTES:
1) DIRTBAG TO BE PLACED ON AGGREGATE OR STRAW
2) SEAMS MUST BE HIGH STRENGTH DOUBLE STITCHED "J" SEAMS
3) SEAM MUST BE TESTED UNDER ASTM D-4884. ACF TEST RESULTS AVAILABLE UPON REQUEST

CROSS SECTION



ACF DB55 PROPERTIES

PROPERTY	TEST METHOD	MARV
TENSILE STRENGTH	ASTM D-4632	205 LBS
ELONGATION	ASTM D-4632	50%
TRAPEZOID TEAR	ASTM D-4533	80 LBS
CBR PUNCTURE	ASTM D-6241	500 LBS
AOS	ASTM D-4751	80 SIEVE
PERMITTIVITY	ASTM D-4491	1.4 SEC -1
FLOW RATE	ASTM D-4491	90 GPM/FT2
UV RESISTANCE	ASTM D-4355	70%

FERGUSON WATERWORKS

CORPORATE OFFICE
2831 CARDWELL RD
RICHMOND, VA 23234
INFOGEO@FERGUSON.COM
WWW.FERGUSONGSS.COM

ACF DB55 DIRTBAG
FOR ADDITIONAL INFORMATION PLEASE CONTACT FERGUSON SALES INFOGEO@FERGUSON.COM OR VISIT WWW.FERGUSONGSS.COM

3/21/24

DEWATERING BAG

OR APPROVED EQUAL

NOT TO SCALE

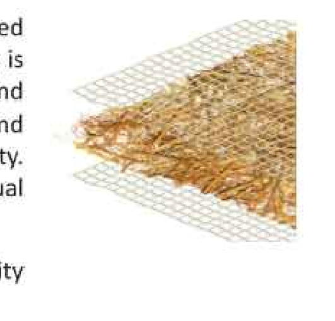
MATERIAL PROPERTY DATA SHEET

WESTERN GREEN

BioNet® SC150BN™
Extended Term • Double Net • Coconut/Straw Matrix • Biodegradable • Erosion Control Blanket

DESCRIPTION

SC150BN Extended Term Erosion Control Blanket consists of 30% coconut fibers and 70% weed free agricultural straw manufactured into a continuous matrix. The coconut/straw matrix is confined by a biodegradable, jute/scrim net on top and bottom, mechanically (stitch) bound on two-inch centers with a biodegradable, cotton thread. SC150BN is intended for slope and channel erosion control applications requiring up to twenty-four months of functional longevity. The material is fully degradable. The net, thread, and the fiber matrix is biodegradable. Actual field longevity is dependent on soil and climatic conditions.



Each roll of SC150 is made in the USA and manufactured under Western Green's Quality Assurance Program to ensure a continuous distribution of fibers and consistent thickness.

Material Content		
Matrix	Straw/Coconut	
Netting	Top & Bottom Net : Jute Scrim, Biodegradable, Leno Weave	Double Net
Thread	Biodegradable Cotton or Rayon	

Standard Roll Sizes				
Width	8 ft	(2.4 m)	16 ft	(4.9 m)
Length	112 ft	(34.1 m)	563 ft	(171.0 m)
Weight ± 10%	53 lb	(24.1 kg)	530 lb	(241.0 kg)
Area	100 sy	(83.6 m²)	1000 SY	(836.0 m²)

Material available in custom roll sizes

Approvals & Classification	
Classification	FHWA: Type 3.B / ECTC: Type 3.B
TTI Approvals	N/A
NTPEP Number	ECP-2020-01-019

Disclaimer: The information contained herein may represent product index data, performance ratings, bench scale testing or other material utility quantifications. Each representation may have unique utility and limitations. Every effort has been made to ensure accuracy, however, no warranty is claimed and no liability shall be assumed by Western Green or its affiliates regarding the completeness, accuracy or fitness of these values for any particular application or interpretation. While testing methods are provided for reference, values shown may be derived from interpolation or adjustment to be representative of intended use. For further information, please feel free to contact Western Green.

NORTH AMERICAN GREEN

Index Property	Test Method	Typical	
Thickness	ASTM D6525	0.30 in.	(8 mm)
Mass/Unit Area	ASTM D6566	8.5 oz/sy	(290 g/sm)
Tensile Strength – MD	ASTM D6818	210 lbs/ft	(3.1 kN/m)
Tensile Strength – TD	ASTM D6818	190 lbs/ft	(2.8 kN/m)
Elongation - MD	ASTM D6818	15%	
Elongation – TD	ASTM D6818	15%	
Density/Specific Gravity	D792	N/A	
Light Penetration	ASTM D6567	12%	
Biomass Improvement	ASTM D7322	500%	
Water Absorption	ASTM D1117	350%	

Design Parameters

Property	Unvegetated	Vegetated[3]
RUSLE C Factor[2]	0.03	N/A
Slope Maximum Gradient[1]	2H:1V	N/A
Permissible Shear Stress[2]	2.1 psf (100 Pa)	N/A
Permissible Velocity[2]	8.0 fps (2.4 m/s)	N/A

Manning's n Roughness (HEC-15)

τ_{lower}	τ_{mid}	τ_{upper}
0.045	0.036	0.031

1 Maximum Gradient a recomendation for typical inslations.
2 Hydraulic thresholds compliant with ASTM D6459/D6460 but generalized for typical applications.
3 Vegetated values dependent on established stand of vegetation

Rev. 4.2023
Scan for additional and updated product information, or click here.

Western Green • 4609 E. Boonville-New Harmony Rd.
Evansville, IN 47725 • (800) 772-2040

westerngreen.com

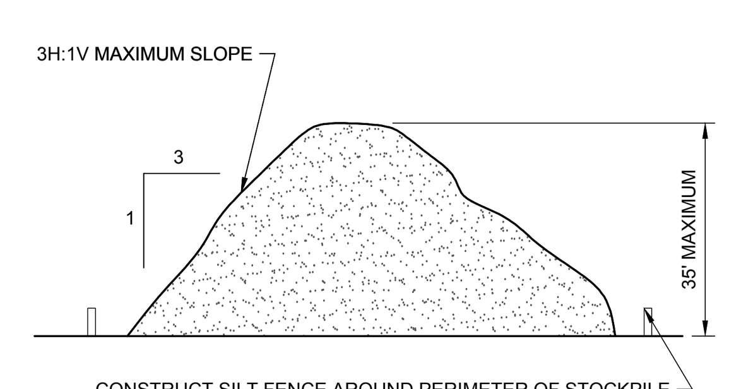
SC150BN NORTH AMERICAN GREEN

OR APPROVED EQUAL

NOT TO SCALE

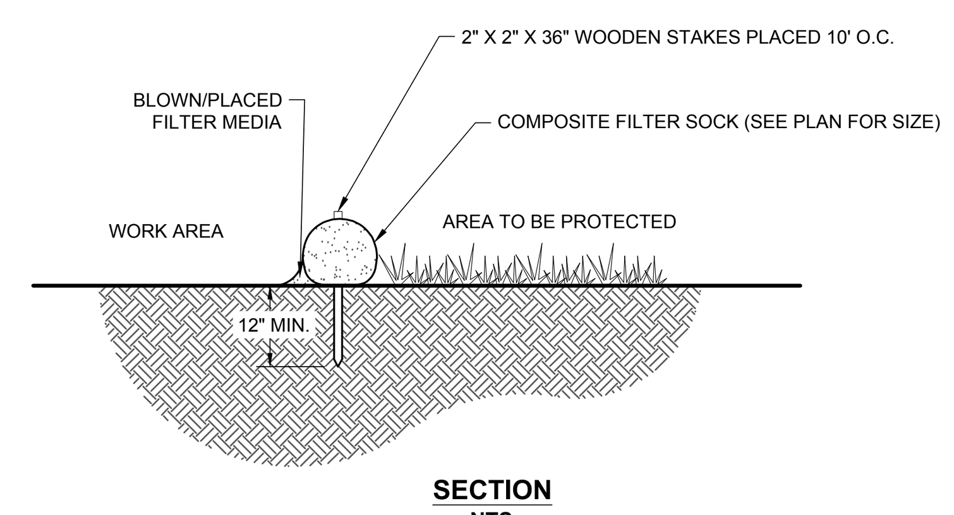
Watershed Area	Sed. Trap	Total Drainage Area	Dd	Dw	Ad	Aw	Vd	Vw	Total Required Storage	Total Provided Storage
		ac	ft	ft	ft²	ft²	cy	cy	cy	cy
E&S-1	TST #1	2.4	1.5	1.5	8,475	6,765	423	319	328	743
E&S-2	TST #2	2.2	1.5	1.5	6,700	4,700	317	222	295	539
E&S-3	TST #3	1.2	1.5	1.5	3,196	2,243	151	106	161	257
E&S-4	TST #4	4.8	2.0	2.0	11,031	8,327	717	524	643	1,241

TEMPORARY SEDIMENT TRAP CALCS



TEMPORARY STOCKPILE

NOT TO SCALE

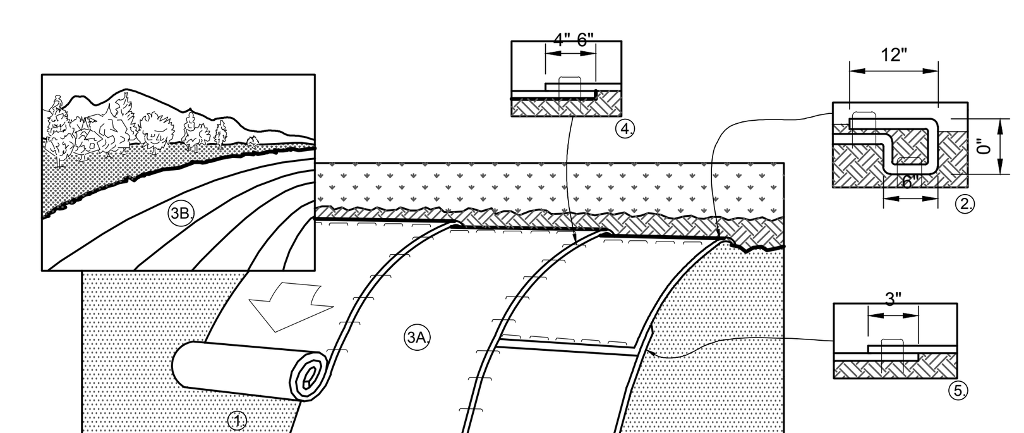


NOTES:
1. ALL MATERIAL TO MEET MANUFACTURER SPECIFICATIONS
2. COMPOST FILTER SOCK FILL TO MEET APPLICATION REQUIREMENTS.
3. COMPOST MATERIAL TO BE DISPERSED ON SITE AT COMPLETION OF CONSTRUCTION OR AS DIRECTED BY OWNER AFTER STABILIZATION IS ACHIEVED.

OR APPROVED EQUIVALENT

COMPOST FILTER SOCK (UNPAVED CONDITION)

NOT TO SCALE

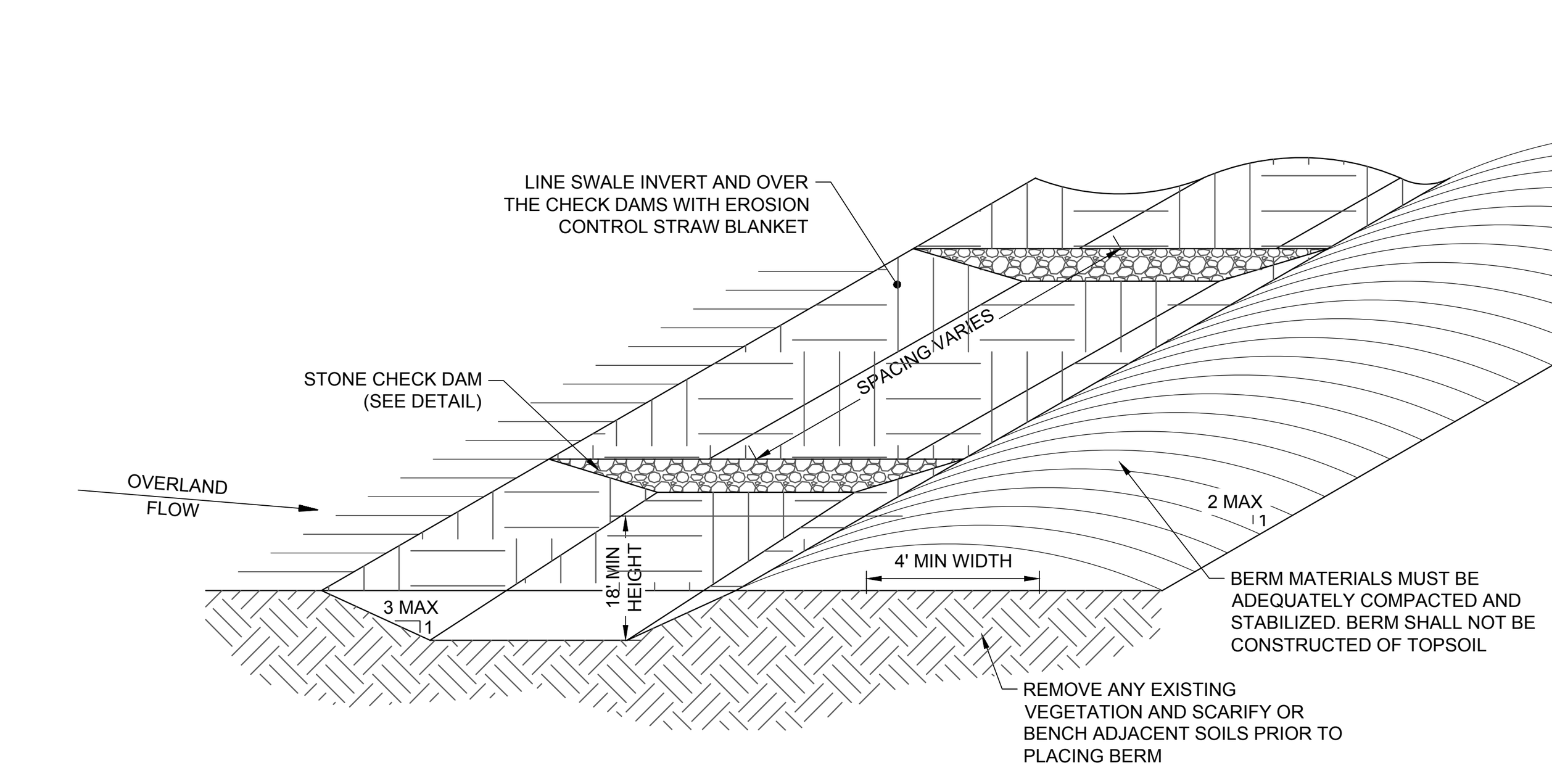


1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH AS SHOWN IN DETAIL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

NOTES:
1. IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.

EROSION CONTROL BLANKET

NOT TO SCALE



TEMPORARY DIVERSION SWALE

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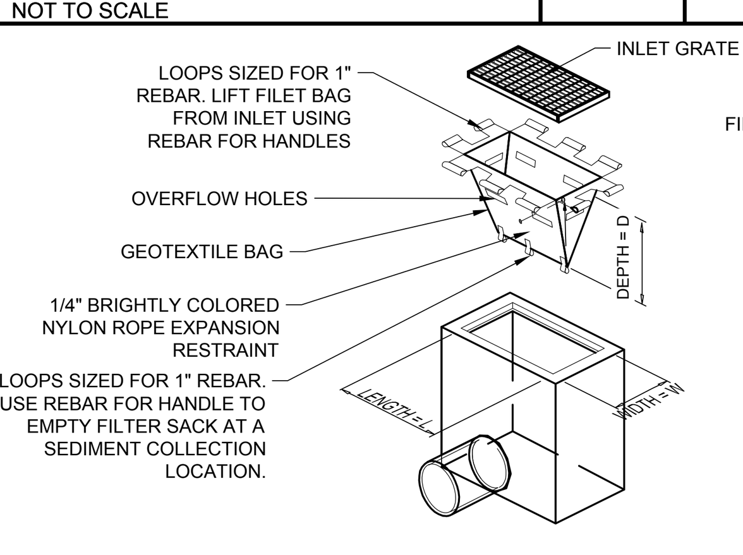
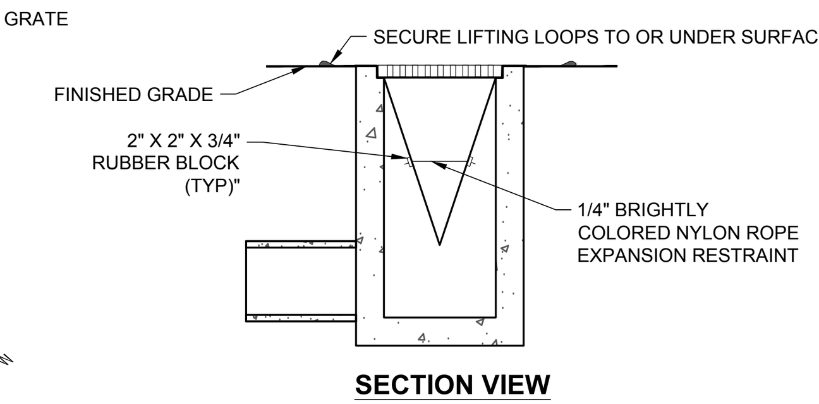




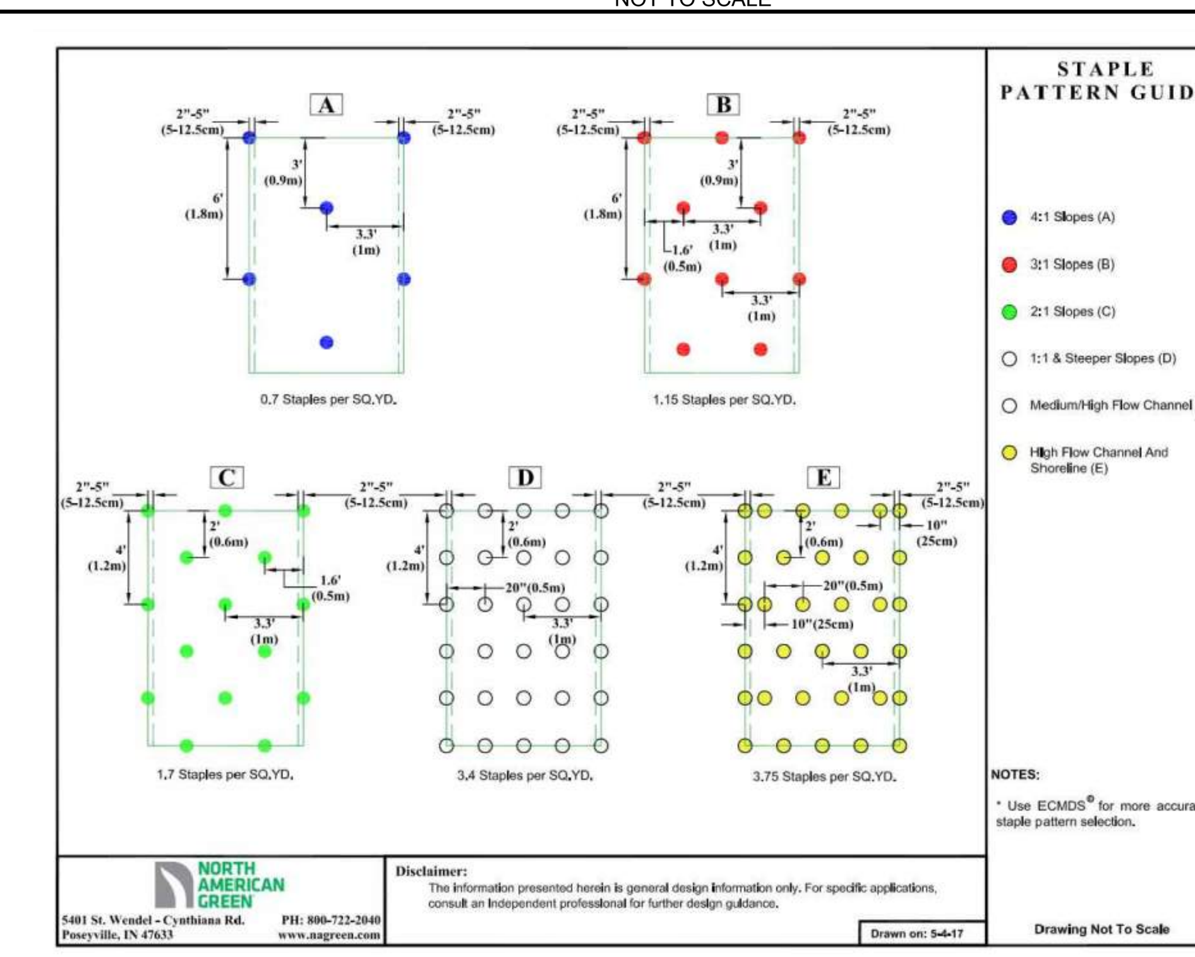
NOTES:
1. REMOVE TRAPPED SEDIMENT WHEN BRIGHTLY COLORED EXPANSION RESTRAINT CAN NO LONGER BE SEEN.
2. GEOTEXTILE SHALL BE A WOVEN POLYPROPYLENE FABRIC THAT MEETS OR EXCEEDS REQUIREMENTS IN THE SPECIFICATIONS TABLE.
3. PLACE AN OIL ADSORBENT PAD OR PILLOW OVER INLET GRATE WHEN OIL SPILLS ARE A CONCERN.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

LOW TO MODERATE FLOW GEOTEXTILE FABRIC SPECIFICATION TABLE		
PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4632	300 LBS
GRAB TENSILE ELONGATION	ASTM D-4632	20%
PUNCTURE	ASTM D-4833	120 LBS
MULLEN BURST	ASTM D-3786	800 PSI
TRAPEZOID TEAR	ASTM D-4533	120 LBS
UV RESISTANCE	ASTM D-4355	80%
APPARENT OPENING SIZE	ASTM D-4751	40 US SIEVE
FLOW RATE	ASTM D-4491	40 GAL/MIN/SQ FT
PERMITTIVITY	ASTM D-4491	0.55 SEC^{-1}
MODERATE TO HIGH FLOW GEOTEXTILE FABRIC SPECIFICATION TABLE		
PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4632	265 LBS
GRAB TENSILE ELONGATION	ASTM D-4632	20%
PUNCTURE	ASTM D-4833	135 LBS
MULLEN BURST	ASTM D-3786	420 PSI
TRAPEZOID TEAR	ASTM D-4533	45 LBS
UV RESISTANCE	ASTM D-4355	90%
APPARENT OPENING SIZE	ASTM D-4751	20 US SIEVE
FLOW RATE	ASTM D-4491	200 GAL/MIN/SQ FT
PERMITTIVITY	ASTM D-4491	1.5 SEC^{-1}

OR APPROVED EQUIVALENT

INLET PROTECTION

NOT TO SCALE



EROSION CONTROL BLANKET STAPLE PATTERN

NOT TO SCALE

BOHLER//

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

REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY
1	05/20/2025	RESPONSE TO TOWN COMMENTS	CR/KS / JGB

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It's fast. It's free. It's the law.

PERMIT SET

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

PROJECT No.:	CTA220061.00
DRAWN BY:	CR/TJN/KMB
CHECKED BY:	JGB
DATE:	02/19/2025
CAD I.D.:	CTA220061.00-EROS-6A

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

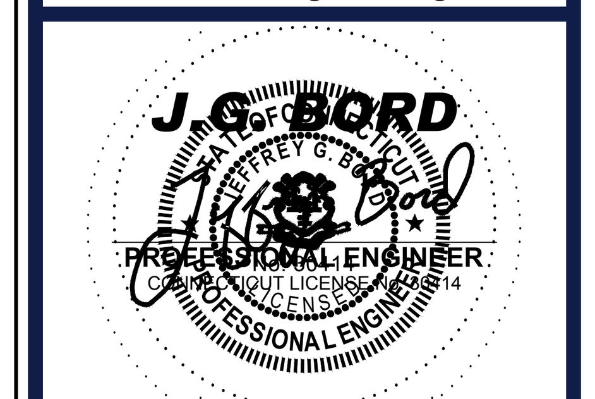
FOR

C.R. KLEWIN LLC

PROPOSED RESIDENTIAL DEVELOPMENT

19, 29 & 39 MILITARY HIGHWAY, GALES FERRY, LEDYARD, NEW LONDON COUNTY, CONNECTICUT

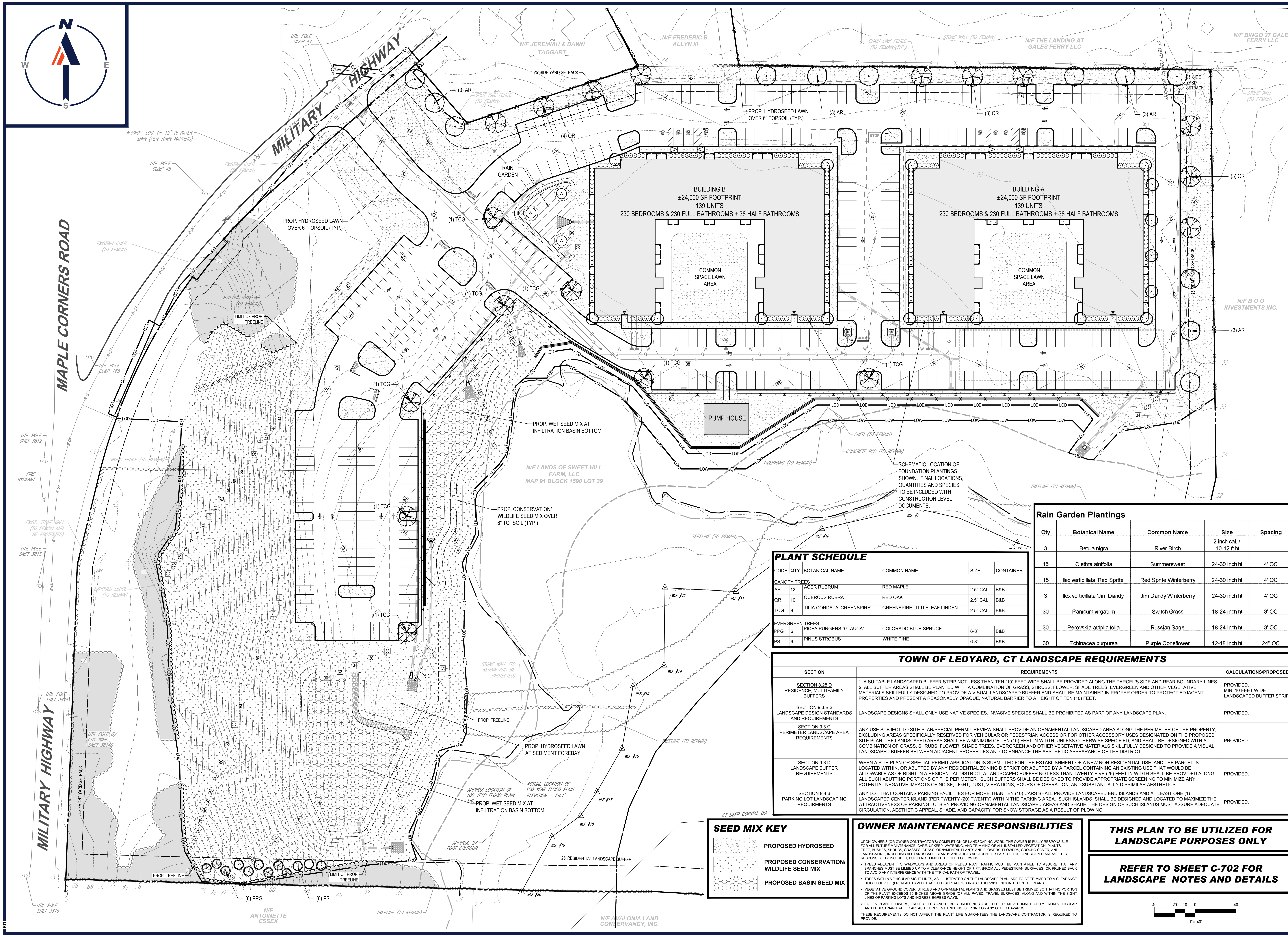
BOHLER//
65 LaSALLE ROAD, SUITE 401
WEST HARTFORD, CT 06107
Phone: (860) 333-8900
www.BohlerEngineering.com



SHEET TITLE:
EROSION & SEDIMENT CONTROL NOTES & DETAILS

SHEET NUMBER:
C-604

REVISION 1 - 05/20/2025



PLANT SCHEDULE

CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
CANOPY TREES					
AR	12	ACER RUBRUM	RED MAPLE	2.5" CAL.	B&B
QR	10	QUERCUS RUBRA	RED OAK	2.5" CAL.	B&B
TCG	8	TILIA CORDATA 'GREENSPIRE'	GREENSPIRE LITTLELEAF LINDEN	2.5" CAL.	B&B
EVERGREEN TREES					
PPG	6	PICEA PUNGENS `GLAUCA`	COLORADO BLUE SPRUCE	6-8`	B&B
PS	6	PINUS STROBUS	WHITE PINE	6-8`	B&B

Rain Garden Plantings

Qty	Botanical Name	Common Name	Size	Spacing
3	Betula nigra	River Birch	2 inch cal. / 10-12 ft ht	
15	Clethra alnifolia	Summersweet	24-30 inch ht	4' OC
15	Ilex verticillata 'Red Sprite'	Red Sprite Winterberry	24-30 inch ht	4' OC
3	Ilex verticillata 'Jim Dandy'	Jim Dandy Winterberry	24-30 inch ht	4' OC
30	Panicum virgatum	Switch Grass	18-24 inch ht	3' OC
30	Perovskia atrlplicifolia	Russian Sage	18-24 inch ht	3' OC
30	Echinacea purpurea	Purple Coneflower	12-18 inch ht	24" OC

TOWN OF LEDYARD, CT LANDSCAPE REQUIREMENTS

SECTION	REQUIREMENTS	CALCULATIONS/PROPOSED
SECTION 8.28.D RESIDENCE, MULTIFAMILY BUFFERS	1. A SUITABLE LANDSCAPED BUFFER STRIP NOT LESS THAN TEN (10) FEET WIDE SHALL BE PROVIDED ALONG THE PARCEL'S SIDE AND REAR BOUNDARY LINES. 2. ALL BUFFER AREAS SHALL BE PLANTED WITH A COMBINATION OF GRASS, SHRUBS, FLOWER, SHADE TREES, EVERGREEN AND OTHER VEGETATIVE MATERIALS SKILLFULLY DESIGNED TO PROVIDE A VISUAL LANDSCAPED BUFFER AND SHALL BE MAINTAINED IN PROPER ORDER TO PROTECT ADJACENT PROPERTIES AND PRESENT A REASONABLY OPAQUE, NATURAL BARRIER TO A HEIGHT OF TEN (10) FEET.	PROVIDED. MIN. 10 FEET WIDE LANDSCAPED BUFFER STRIP.
SECTION 9.3.B.2 LANDSCAPE DESIGN STANDARDS AND REQUIREMENTS	LANDSCAPE DESIGNS SHALL ONLY USE NATIVE SPECIES. INVASIVE SPECIES SHALL BE PROHIBITED AS PART OF ANY LANDSCAPE PLAN.	PROVIDED.
SECTION 9.3.C PERIMETER LANDSCAPE AREA REQUIREMENTS	ANY USE SUBJECT TO SITE PLAN/SPECIAL PERMIT REVIEW SHALL PROVIDE AN ORNAMENTAL LANDSCAPED AREA ALONG THE PERIMETER OF THE PROPERTY, EXCLUDING AREAS SPECIFICALLY RESERVED FOR VEHICULAR OR PEDESTRIAN ACCESS OR FOR OTHER ACCESSORY USES DESIGNATED ON THE PROPOSED SITE PLAN. THE LANDSCAPED AREAS SHALL BE A MINIMUM OF TEN (10) FEET IN WIDTH, UNLESS OTHERWISE SPECIFIED, AND SHALL BE DESIGNED WITH A COMBINATION OF GRASS, SHRUBS, FLOWER, SHADE TREES, EVERGREEN AND OTHER VEGETATIVE MATERIALS SKILLFULLY DESIGNED TO PROVIDE A VISUAL LANDSCAPED BUFFER BETWEEN ADJACENT PROPERTIES AND TO ENHANCE THE AESTHETIC APPEARANCE OF THE DISTRICT.	PROVIDED.
SECTION 9.3.D LANDSCAPE BUFFER REQUIREMENTS	WHEN A SITE PLAN OR SPECIAL PERMIT APPLICATION IS SUBMITTED FOR THE ESTABLISHMENT OF A NEW NON-RESIDENTIAL USE, AND THE PARCEL IS LOCATED WITHIN, OR ABUTTED BY ANY RESIDENTIAL ZONING DISTRICT OR ABUTTED BY A PARCEL CONTAINING AN EXISTING USE THAT WOULD BE ALLOWABLE AS OF RIGHT IN A RESIDENTIAL DISTRICT, A LANDSCAPED BUFFER NO LESS THAN TWENTY-FIVE (25) FEET IN WIDTH SHALL BE PROVIDED ALONG ALL SUCH ABUTTING PORTIONS OF THE PERIMETER. SUCH BUFFERS SHALL BE DESIGNED TO PROVIDE APPROPRIATE SCREENING TO MINIMIZE ANY POTENTIAL NEGATIVE IMPACTS OF NOISE, LIGHT, DUST, VIBRATIONS, HOURS OF OPERATION, AND SUBSTANTIALLY DISSIMILAR AESTHETICS.	PROVIDED.
SECTION 9.4.6 PARKING LOT LANDSCAPING REQUIRMENTS	ANY LOT THAT CONTAINS PARKING FACILITIES FOR MORE THAN TEN (10) CARS SHALL PROVIDE LANDSCAPED END ISLANDS AND AT LEAST ONE (1) LANDSCAPED CENTER ISLAND (PER TWENTY (20) TWENTY) WITHIN THE PARKING AREA. SUCH ISLANDS SHALL BE DESIGNED AND LOCATED TO MAXIMIZE THE ATTRACTIVENESS OF PARKING LOTS BY PROVIDING ORNAMENTAL LANDSCAPED AREAS AND SHADE. THE DESIGN OF SUCH ISLANDS MUST ASSURE ADEQUATE CIRCULATION, AESTHETIC APPEAL, SHADE, AND CAPACITY FOR SNOW STORAGE AS A RESULT OF PLOWING.	PROVIDED.

SEED MIX KEY

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

OWNER MAINTENANCE RESPONSIBILITIES

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

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

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

THIS PLAN TO BE UTILIZED FOR LANDSCAPE PURPOSES ONLY

REFER TO SHEET C-702 FOR LANDSCAPE NOTES AND DETAILS

40 20 10 0 40
1"= 40'

BOHLER//

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

REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY
1	05/20/2025	RESPONSE TO TOWN COMMENTS	CR/KS / JGB

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

PROJECT No.: CTA220061.00
DRAWN BY: CR/TJN/KMB
CHECKED BY: JGB
DATE: 02/19/2025
CAD I.D.: CTA220061.00-LSCP-6A

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

C.R. KLEWIN LLC

PROPOSED RESIDENTIAL DEVELOPMENT

19, 29 & 39 MILITARY HIGHWAY, GALES FERRY, LEDYARD, NEW LONDON COUNTY, CONNECTICUT

BOHLER//
65 LaSALLE ROAD, SUITE 401
WEST HARTFORD, CT 06107
Phone: (860) 333-8900
www.BohlerEngineering.com

SHEET TITLE:

LANDSCAPE PLAN

SHEET NUMBER:

C-701

REVISION 1 - 05/20/2025

LANDSCAPE SPECIFICATIONS

1. SCOPE OF WORK:
   - 1.1. THE LANDSCAPE CONTRACTOR SHALL BE REQUIRED TO PERFORM ALL CLEARING, FINISHED GRADING, SOIL PREPARATION, PERMANENT SEEDING OR SODDING, PLANTING AND MULCHING INCLUDING ALL LABOR, MATERIALS, TOOLS AND EQUIPMENT NECESSARY FOR THE COMPLETION OF THIS PROJECT, UNLESS OTHERWISE CONTRACTED BY THE GENERAL CONTRACTOR.
2. MATERIALS
   - 2.1. GENERAL - ALL HARDSCAPE MATERIALS SHALL MEET OR EXCEED SPECIFICATIONS AS OUTLINED IN THE STATE DEPARTMENT OF TRANSPORTATION'S SPECIFICATIONS.
   - 2.2. TOPSOIL - NATURAL, FRIABLE, LOAMY SILT SOIL HAVING AN ORGANIC CONTENT NOT LESS THAN 5%, A PH RANGE BETWEEN 4.5-7.0. IT SHALL BE FREE OF DEBRIS, ROCKS LARGER THAN ONE INCH (1"), WOOD, ROOTS, VEGETABLE MATTER AND CLAY CLODS.
   - 2.3. LAWN - ALL DISTURBED AREAS ARE TO BE TREATED WITH A MINIMUM 6" THICK LAYER OF TOPSOIL, OR AS DIRECTED BY THE LOCAL ORDINANCE OR CLIENT, AND SEEDED OR SODDED IN ACCORDANCE WITH THE PERMANENT STABILIZATION METHODS INDICATED ON THE LANDSCAPE PLAN
     - 2.3.1. LAWN SEED MIXTURE SHALL BE FRESH, CLEAN NEW CROP SEED.
     - 2.3.2. SOD SHALL BE STRONGLY ROOTED, WEED AND DISEASE/PEST FREE WITH A UNIFORM THICKNESS. SOD INSTALLED ON SLOPES GREATER THAN 4:1 SHALL BE PEGGED TO HOLD SOD IN PLACE.
   - 2.4. MULCH - ALL PLANTING BEDS SHALL BE MULCHED WITH A 3" THICK LAYER OF DOUBLE SHREDDED HARDWOOD BARK MULCH, UNLESS OTHERWISE STATED ON THE LANDSCAPE PLAN AND/OR LANDSCAPE PLAN NOTES /DETAILS.
   - 2.5. FERTILIZER
     - 2.5.1. FERTILIZER SHALL BE DELIVERED TO THE SITE MIXED AS SPECIFIED IN THE ORIGINAL UNOPENED STANDARD BAGS SHOWING WEIGHT, ANALYSIS AND NAME OF MANUFACTURER. FERTILIZER SHALL BE STORED IN A WEATHERPROOF PLACE SO THAT IT CAN BE KEPT DRY PRIOR TO USE.
     - 2.5.2. FOR THE PURPOSE OF BIDDING, ASSUME THAT FERTILIZER SHALL BE 10% NITROGEN, 6% PHOSPHORUS AND 4% POTASSIUM BY WEIGHT. A FERTILIZER SHOULD NOT BE SELECTED WITHOUT A SOIL TEST PERFORMED BY A CERTIFIED SOIL LABORATORY.
   - 2.6. PLANT MATERIAL
     - 2.6.1. ALL PLANTS SHALL IN ALL CASES CONFORM TO THE REQUIREMENTS OF THE "AMERICAN STANDARD FOR NURSERY STOCK" (ANSI Z60.1), LATEST EDITION, AS PUBLISHED BY THE AMERICAN NURSERY & LANDSCAPE ASSOCIATION (FORMERLY THE AMERICAN ASSOCIATION OF NURSERYMEN).
     - 2.6.2. IN ALL CASES, BOTANICAL NAMES SHALL TAKE PRECEDENCE OVER COMMON NAMES FOR ANY AND ALL PLANT MATERIAL.
     - 2.6.3. PLANTS SHALL BE LEGIBLY TAGGED WITH THE PROPER NAME AND SIZE. TAGS ARE TO REMAIN ON AT LEAST ONE PLANT OF EACH SPECIES FOR VERIFICATION PURPOSES DURING THE FINAL INSPECTION.
     - 2.6.4. TREES WITH ABRASION OF THE BARK, SUN SCALDS, DISFIGURATION OR FRESH CUTS OF LIMBS OVER 1¼", WHICH HAVE NOT BEEN COMPLETELY CALLUSED, SHALL BE REJECTED. PLANTS SHALL NOT BE BOUND WITH WIRE OR ROPE AT ANY TIME SO AS TO DAMAGE THE BARK OR BREAK BRANCHES.
     - 2.6.5. ALL PLANTS SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY AND SHALL HAVE A NORMAL HABIT OF GROWTH: WELL DEVELOPED BRANCHES, DENSELY FOLIATED, VIGOROUS ROOT SYSTEMS AND BE FREE OF DISEASE, INSECTS, PESTS, EGGS OR LARVAE.
     - 2.6.6. CALIPER MEASUREMENTS OF NURSERY GROWN TREES SHALL BE TAKEN AT A POINT ON THE TRUNK SIX INCHES (6") ABOVE THE NATURAL GRADE FOR TREES UP TO AND INCLUDING A FOUR INCH (4") CALIPER SIZE. IF THE CALIPER AT SIX INCHES (6") ABOVE THE GROUND EXCEEDS FOUR INCHES (4") IN CALIPER, THE CALIPER SHOULD BE MEASURED AT A POINT 12" ABOVE THE NATURAL GRADE.
     - 2.6.7. SHRUBS SHALL BE MEASURED TO THE AVERAGE HEIGHT OR SPREAD OF THE SHRUB, AND NOT TO THE LONGEST BRANCH.
     - 2.6.8. TREES AND SHRUBS SHALL BE HANDLED WITH CARE BY THE ROOT BALL.
3. GENERAL WORK PROCEDURES
   - 3.1. CONTRACTOR TO UTILIZE WORKMANLIKE INDUSTRY STANDARDS IN PERFORMING ALL LANDSCAPE CONSTRUCTION. THE SITE IS TO BE LEFT IN A CLEAN STATE AT THE END OF EACH WORKDAY. ALL DEBRIS, MATERIALS AND TOOLS SHALL BE PROPERLY STORED, STOCKPILED OR DISPOSED OF.
   - 3.2. WASTE MATERIALS AND DEBRIS SHALL BE COMPLETELY DISPOSED OF AT THE CONTRACTOR'S EXPENSE. DEBRIS SHALL NOT BE BURIED, INCLUDING ORGANIC MATERIALS, BUT SHALL BE REMOVED COMPLETELY FROM THE SITE.
4. SITE PREPARATIONS
   - 4.1. BEFORE AND DURING PRELIMINARY GRADING AND FINISHED GRADING, ALL WEEDS AND GRASSES SHALL BE DUG OUT BY THE ROOTS AND DISPOSED OF IN ACCORDANCE WITH GENERAL WORK PROCEDURES OUTLINED HEREIN.
   - 4.2. ALL EXISTING TREES TO REMAIN SHALL BE PRUNED TO REMOVE ANY DAMAGED BRANCHES. THE ENTIRE LIMB OF ANY DAMAGED BRANCH SHALL BE CUT OFF AT THE BRANCH COLLAR. CONTRACTOR SHALL ENSURE THAT CUTS ARE SMOOTH AND STRAIGHT. ANY EXPOSED ROOTS SHALL BE CUT BACK WITH CLEAN, SHARP TOOLS AND TOPSOIL SHALL BE PLACED AROUND THE REMAINDER OF THE ROOTS. EXISTING TREES SHALL BE MONITORED ON A REGULAR BASIS FOR ADDITIONAL ROOT OR BRANCH DAMAGE AS A RESULT OF CONSTRUCTION. ROOTS SHALL NOT BE LEFT EXPOSED FOR MORE THAN ONE (1) DAY. CONTRACTOR SHALL WATER EXISTING TREES AS NEEDED TO PREVENT SHOCK OR DECLINE.
   - 4.3. CONTRACTOR SHALL ARRANGE TO HAVE A UTILITY STAKE-OUT TO LOCATE ALL UNDERGROUND UTILITIES PRIOR TO INSTALLATION OF ANY LANDSCAPE MATERIAL. UTILITY COMPANIES SHALL BE CONTACTED THREE (3) DAYS PRIOR TO THE BEGINNING OF WORK.
5. TREE PROTECTION
   - 5.1. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING TREES TO REMAIN. A TREE PROTECTION ZONE SHALL BE ESTABLISHED AT THE DRIP LINE OR AT THE LIMIT OF CONSTRUCTION DISTURBANCE, WHICHEVER IS GREATER. LOCAL STANDARDS THAT MAY REQUIRE A MORE STRICT TREE PROTECTION ZONE SHALL BE HONORED.
   - 5.2. A FORTY-EIGHT INCH (48") HIGH WOODEN SNOW FENCE OR ORANGE COLORED HIGH-DENSITY 'VISI-FENCE', OR APPROVED EQUAL, MOUNTED ON STEEL POSTS SHALL BE PLACED ALONG THE BOUNDARY OF THE TREE PROTECTION ZONE. POSTS SHALL BE LOCATED AT A MAXIMUM OF EIGHT FEET (8') ON CENTER OR AS INDICATED WITHIN THE TREE PROTECTION DETAIL.
   - 5.3. WHEN THE TREE PROTECTION FENCING HAS BEEN INSTALLED, IT SHALL BE INSPECTED BY THE APPROVING AGENCY PRIOR TO DEMOLITION, GRADING, TREE CLEARING OR ANY OTHER CONSTRUCTION. THE FENCING ALONG THE TREE PROTECTION ZONE SHALL BE REGULARLY INSPECTED BY THE LANDSCAPE CONTRACTOR AND MAINTAINED UNTIL ALL CONSTRUCTION ACTIVITY HAS BEEN COMPLETED.
   - 5.4. AT NO TIME SHALL MACHINERY, DEBRIS, FALLEN TREES OR OTHER MATERIALS BE PLACED, STOCKPILED OR LEFT STANDING IN THE TREE PROTECTION ZONE.
6. SOIL MODIFICATIONS
   - 6.1. CONTRACTOR SHALL ATTAIN A SOIL TEST FOR ALL AREAS OF THE SITE PRIOR TO CONDUCTING ANY PLANTING. SOIL TESTS SHALL BE PERFORMED BY A CERTIFIED SOIL LABORATORY.
   - 6.2. LANDSCAPE CONTRACTOR SHALL REPORT ANY SOIL OR DRAINAGE CONDITIONS CONSIDERED DETRIMENTAL TO THE GROWTH OF PLANT MATERIAL. SOIL MODIFICATIONS, AS SPECIFIED HEREIN, MAY NEED TO BE CONDUCTED BY THE LANDSCAPE CONTRACTOR DEPENDING ON SITE CONDITIONS.
   - 6.3. THE FOLLOWING AMENDMENTS AND QUANTITIES ARE APPROXIMATE AND ARE FOR BIDDING PURPOSES ONLY. COMPOSITION OF AMENDMENTS SHOULD BE REVISED DEPENDING ON THE OUTCOME OF A TOPSOIL ANALYSIS PERFORMED BY A CERTIFIED SOIL LABORATORY.
     - 6.3.1. TO INCREASE A SANDY SOIL'S ABILITY TO RETAIN WATER AND NUTRIENTS, THOROUGHLY TILL ORGANIC MATTER INTO THE TOP 6-12". USE COMPOSTED BARK, COMPOSTED LEAF MULCH OR PEAT MOSS. ALL PRODUCTS SHOULD BE COMPOSTED TO A DARK COLOR AND BE FREE OF PIECES WITH IDENTIFIABLE LEAF OR WOOD STRUCTURE. AVOID MATERIAL WITH A PH HIGHER THAN 7.5.
     - 6.3.2. TO INCREASE DRAINAGE, MODIFY HEAVY CLAY OR SILT (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) AND/OR AGRICULTURAL GYPSUM. COARSE SAND MAY BE USED IF ENOUGH IS ADDED TO BRING THE SAND CONTENT TO MORE THAN 60% OF THE TOTAL MIX. SUBSURFACE DRAINAGE LINES MAY NEED TO BE ADDED TO INCREASE DRAINAGE.
     - 6.3.3. MODIFY EXTREMELY SANDY SOILS (MORE THAN 85%) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX.
7. FINISHED GRADING
   - 7.1. UNLESS OTHERWISE CONTRACTED, THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF TOPSOIL AND THE ESTABLISHMENT OF FINE-GRADING WITHIN THE DISTURBANCE AREA OF THE SITE.
   - 7.2. LANDSCAPE CONTRACTOR SHALL VERIFY THAT SUBGRADE FOR INSTALLATION OF TOPSOIL HAS BEEN ESTABLISHED. THE SUBGRADE OF THE SITE MUST MEET THE FINISHED GRADE LESS THE REQUIRED TOPSOIL THICKNESS (1"±).
   - 7.3. ALL LAWN AND PLANTING AREAS SHALL BE GRADED TO A SMOOTH, EVEN AND UNIFORM PLANE WITH NO ABRUPT CHANGE OF SURFACE AS DEPICTED WITHIN THIS SET OF CONSTRUCTION PLANS, UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER OR LANDSCAPE ARCHITECT.
   - 7.4. ALL PLANTING AREAS SHALL BE GRADED AND MAINTAINED TO ALLOW FREE FLOW OF SURFACE WATER IN AND AROUND THE PLANTING BEDS. STANDING WATER SHALL NOT BE PERMITTED IN PLANTING BEDS.
8. TOPSOILING
   - 8.1. CONTRACTOR SHALL PROVIDE A 6" THICK MINIMUM LAYER OF TOPSOIL, OR AS DIRECTED BY THE LOCAL ORDINANCE OR CLIENT, IN ALL PLANTING AREAS. TOPSOIL SHOULD BE SPREAD OVER A PREPARED SURFACE IN A UNIFORM LAYER TO ACHIEVE THE DESIRED COMPACTED THICKNESS.
   - 8.2. ON-SITE TOPSOIL MAY BE USED TO SUPPLEMENT THE TOTAL AMOUNT REQUIRED. TOPSOIL FROM THE SITE MAY BE REJECTED IF IT HAS NOT BEEN PROPERLY REMOVED, STORED AND PROTECTED PRIOR TO CONSTRUCTION.
   - 8.3. CONTRACTOR SHALL FURNISH TO THE APPROVING AGENCY AN ANALYSIS OF BOTH IMPORTED AND ON-SITE TOPSOIL TO BE UTILIZED IN ALL PLANTING AREAS. THE PH AND NUTRIENT LEVELS MAY NEED TO BE ADJUSTED THROUGH SOIL MODIFICATIONS AS NEEDED TO ACHIEVE THE REQUIRED LEVELS AS SPECIFIED IN THE MATERIALS SECTION ABOVE.
   - 8.4. ALL LAWN AREAS ARE TO BE CULTIVATED TO A DEPTH OF SIX INCHES (6"). ALL DEBRIS EXPOSED FROM EXCAVATION AND CULTIVATION SHALL BE DISPOSED OF IN ACCORDANCE WITH GENERAL WORK PROCEDURES SECTION ABOVE. THE FOLLOWING SHALL BE TILLED INTO THE TOP FOUR INCHES (4") IN TWO DIRECTIONS (QUANTITIES BASED ON A 1,000 SQUARE FOOT AREA - FOR BID PURPOSES ONLY [SEE SPECIFICATION 6.A.]):
     - 8.4.1. 20 POUNDS 'GRO-POWER' OR APPROVED SOIL CONDITIONER/FERTILIZER
     - 8.4.2. 20 POUNDS NITRO-FORM (COURSE) 38-0-0 BLUE CHIP OR APPROVED NITROGEN FERTILIZER
   - 8.5. THE SPREADING OF TOPSOIL SHALL NOT BE CONDUCTED UNDER MUDDY OR FROZEN CONDITIONS.
9. PLANTING
   - 9.1. INSOFAR THAT IT IS FEASIBLE, PLANT MATERIAL SHALL BE PLANTED ON THE DAY OF DELIVERY. IN THE EVENT THAT THIS IS NOT POSSIBLE, LANDSCAPE CONTRACTOR SHALL PROTECT UNINSTALLED PLANT MATERIAL. PLANTS SHALL NOT REMAIN UNPLANTED FOR LONGER THAN A THREE DAY PERIOD AFTER DELIVERY. PLANTS THAT WILL NOT BE PLANTED FOR A PERIOD OF TIME GREATER THAN THREE DAYS SHALL BE HEALED IN WITH TOPSOIL OR MULCH TO HELP PRESERVE ROOT MOISTURE.
   - 9.2. PLANTING OPERATIONS SHALL BE PERFORMED DURING PERIODS WITHIN THE PLANTING SEASON WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE AND IN ACCORDANCE WITH ACCEPTED LOCAL PRACTICE. PLANTS SHALL NOT BE INSTALLED IN TOPSOIL THAT IS IN A MUDDY OR FROZEN CONDITION.
   - 9.3. ANY INJURED ROOTS OR BRANCHES SHALL BE PRUNED TO MAKE CLEAN-CUT ENDS PRIOR TO PLANTING UTILIZING CLEAN, SHARP TOOLS. ONLY INJURED OR DISEASED BRANCHING SHALL BE REMOVED.
   - 9.4. ALL PLANTING CONTAINERS, BASKETS AND NON-BIODEGRADABLE MATERIALS SHALL BE REMOVED FROM ROOT BALLS DURING PLANTING. NATURAL FIBER BURLAP MUST BE CUT FROM AROUND THE TRUNK OF THE TREE AND FOLDED DOWN AGAINST THE ROOT BALL PRIOR TO BACKFILLING.
   - 9.5. POSITION TREES AND SHRUBS AT THEIR INTENDED LOCATIONS AS PER THE PLANS AND SECURE THE APPROVAL OF THE LANDSCAPE ARCHITECT PRIOR TO EXCAVATING PITS, MAKING NECESSARY ADJUSTMENTS AS DIRECTED.
   - 9.6. PRIOR TO THE ISSUANCE OF ANY CERTIFICATE OF OCCUPANCY, THE PROPOSED LANDSCAPE, AS SHOWN ON THE APPROVED LANDSCAPE PLAN, MUST BE INSTALLED, INSPECTED AND APPROVED BY THE APPROVING AGENCY. THE APPROVING AGENCY SHALL TAKE INTO ACCOUNT SEASONAL CONSIDERATIONS IN THIS REGARD AS FOLLOWS. THE PLANTING OF TREES, SHRUBS, VINES OR GROUND COVER SHALL OCCUR ONLY DURING THE FOLLOWING PLANTING SEASONS:
     - 9.6.1. PLANTS: MARCH 15 TO DECEMBER 15
     - 9.6.2. LAWN: MARCH 15 TO JUNE 15 OR SEPT. 1 TO DECEMBER 1
     - 9.6.3. PLANTINGS REQUIRED FOR A CERTIFICATE OF OCCUPANCY SHALL BE PROVIDED DURING THE NEXT APPROPRIATE SEASON AT THE MUNICIPALITY'S DISCRETION. CONTRACTOR SHOULD CONTACT APPROVING AGENCY FOR POTENTIAL SUBSTITUTIONS.
   - 9.7. FURTHERMORE, THE FOLLOWING TREE VARIETIES ARE UNUSUALLY SUSCEPTIBLE TO WINTER DAMAGE. WITH TRANSPLANT SHOCK AND THE SEASONAL LACK OF NITROGEN AVAILABILITY, THE RISK OF PLANT DEATH IS GREATLY INCREASED. IT IS NOT RECOMMENDED THAT THESE SPECIES BE PLANTED DURING THE FALL PLANTING SEASON:

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

   - 9.8. PLANTING PITS SHALL BE DUG WITH LEVEL BOTTOMS, WITH THE WIDTH TWICE THE DIAMETER OF ROOT BALL. THE ROOT BALL SHALL REST ON UNDISTURBED GRADE. EACH PLANT PIT SHALL BE BACKFILLED IN LAYERS WITH THE FOLLOWING PREPARED SOIL MIXED THOROUGHLY:
     - 9.8.1. 1 PART PEAT MOSS
     - 9.8.2. 1 PART COMPOSTED COW MANURE BY VOLUME
     - 9.8.3. 3 PARTS TOPSOIL BY VOLUME
     - 9.8.4. 21 GRAMS 'AGRIFORM' PLANTING TABLETS (OR APPROVED EQUAL) AS FOLLOWS:
       - 9.8.4.1. 2 TABLETS PER 1 GALLON PLANT
       - 9.8.4.2. 3 TABLETS PER 5 GALLON PLANT
       - 9.8.4.3. 4 TABLETS PER 15 GALLON PLANT
       - 9.8.4.4. LARGER PLANTS: 2 TABLETS PER ½" CALIPER OF TRUNK
   - 9.9. FILL PREPARED SOIL AROUND BALL OF PLANT HALF-WAY AND INSERT PLANT TABLETS. COMPLETE BACKFILL AND WATER THOROUGHLY.
   - 9.10. ALL PLANTS SHALL BE PLANTED SO THAT THE TOP OF THE ROOT BALL, THE POINT AT WHICH THE ROOT FLARE BEGINS, IS SET AT GROUND LEVEL AND IN THE CENTER OF THE PIT. NO SOIL IS TO BE PLACED DIRECTLY ON TOP OF THE ROOT BALL.
   - 9.11. ALL PROPOSED TREES DIRECTLY ADJACENT TO WALKWAYS OR DRIVEWAYS SHALL BE PRUNED AND MAINTAINED TO A MINIMUM BRANCHING HEIGHT OF 7' FROM GRADE.
   - 9.12. GROUND COVER AREAS SHALL RECEIVE A ¼" LAYER OF HUMUS RAKED INTO THE TOP 1" OF PREPARED SOIL PRIOR TO PLANTING. ALL GROUND COVER AREAS SHALL BE WEEDED AND TREATED WITH A PRE-EMERGENT CHEMICAL AS PER MANUFACTURER'S RECOMMENDATION.
   - 9.13. NO PLANT, EXCEPT GROUND COVERS, GRASSES OR VINES, SHALL BE PLANTED LESS THAN TWO FEET (2') FROM EXISTING STRUCTURES AND SIDEWALKS.
   - 9.14. ALL PLANTING AREAS AND PLANTING PITS SHALL BE MULCHED AS SPECIFIED HEREIN TO FILL THE ENTIRE BED AREA OR SAUCER. NO MULCH IS TO TOUCH THE TRUNK OF THE TREE OR SHRUB.
   - 9.15. ALL PLANTING AREAS SHALL BE WATERED IMMEDIATELY UPON INSTALLATION IN ACCORDANCE WITH THE WATERING SPECIFICATIONS AS LISTED HEREIN.
10. TRANSPLANTING (WHEN REQUIRED)
   - 10.1. ALL TRANSPLANTS SHALL BE DUG WITH INTACT ROOT BALLS CAPABLE OF SUSTAINING THE PLANT.
   - 10.2. IF PLANTS ARE TO BE STOCKPILED BEFORE REPLANTING, THEY SHALL BE HEALED IN WITH MULCH OR SOIL, ADEQUATELY WATERED AND PROTECTED FROM EXTREME HEAT, SUN AND WIND.
   - 10.3. PLANTS SHALL NOT BE DUG FOR TRANSPLANTING BETWEEN APRIL 10 AND JUNE 30.
   - 10.4. UPON REPLANTING, BACKFILL SOIL SHALL BE AMENDED WITH FERTILIZER AND ROOT GROWTH HORMONE.
   - 10.5. TRANSPLANTS SHALL BE GUARANTEED FOR THE LENGTH OF THE GUARANTEE PERIOD SPECIFIED HEREIN.
   - 10.6. F TRANSPLANTS DIE, SHRUBS AND TREES LESS THAN SIX INCHES (6") DBH SHALL BE REPLACED IN KIND. TREES GREATER THAN SIX INCHES (6") DBH MAY BE REQUIRED TO BE REPLACED IN ACCORDANCE WITH THE MUNICIPALITY'S TREE REPLACEMENT GUIDELINES.
11. WATERING
   - 11.1. NEW PLANTINGS OR LAWN AREAS SHALL BE ADEQUATELY IRRIGATED BEGINNING IMMEDIATELY AFTER PLANTING. WATER SHALL BE APPLIED TO EACH TREE AND SHRUB IN SUCH MANNER AS NOT TO DISTURB BACKFILL AND TO THE EXTENT THAT ALL MATERIALS IN THE PLANTING HOLE ARE THOROUGHLY SATURATED. WATERING SHALL CONTINUE AT LEAST UNTIL PLANTS ARE ESTABLISHED.
   - 11.2. SITE OWNER SHALL PROVIDE WATER IF AVAILABLE ON SITE AT TIME OF PLANTING. IF WATER IS NOT AVAILABLE ON SITE, CONTRACTOR SHALL SUPPLY ALL NECESSARY WATER. THE USE OF WATERING BAGS IS RECOMMENDED FOR ALL NEWLY PLANTED TREES.
   - 11.3. IF AN IRRIGATION SYSTEM HAS BEEN INSTALLED ON THE SITE, IT SHALL BE USED TO WATER PROPOSED PLANT MATERIAL, BUT ANY FAILURE OF THE SYSTEM DOES NOT ELIMINATE THE CONTRACTOR'S RESPONSIBILITY OF MAINTAINING THE DESIRED MOISTURE LEVEL FOR VIGOROUS, HEALTHY GROWTH.
12. GUARANTEE
   - 12.1. THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL PLANTS FOR A PERIOD OF 1 YEAR FROM APPROVAL OF LANDSCAPE INSTALLATION BY THE APPROVING AGENCY. CONTRACTOR SHALL SUPPLY THE OWNER WITH A MAINTENANCE BOND FOR TEN PERCENT (10%) OF THE VALUE OF THE LANDSCAPE INSTALLATION WHICH WILL BE RELEASED AT THE CONCLUSION OF THE GUARANTEE PERIOD AND WHEN A FINAL INSPECTION HAS BEEN COMPLETED AND APPROVED BY THE OWNER OR AUTHORIZED REPRESENTATIVE.
   - 12.2. ANY DEAD OR DYING PLANT MATERIAL SHALL BE REPLACED FOR THE LENGTH OF THE GUARANTEE PERIOD. REPLACEMENT OF PLANT MATERIAL SHALL BE CONDUCTED AT THE FIRST SUCCEEDING PLANTING SEASON. ANY DEBRIS SHALL BE DISPOSED OF OFF-SITE, WITHOUT EXCEPTION.
   - 12.3. TREES AND SHRUBS SHALL BE MAINTAINED BY THE CONTRACTOR DURING CONSTRUCTION AND THROUGHOUT THE 90 DAY MAINTENANCE PERIOD AS SPECIFIED HEREIN. CULTIVATION, WEEDING, WATERING AND THE PREVENTATIVE TREATMENTS SHALL BE PERFORMED AS NECESSARY TO KEEP PLANT MATERIAL IN GOOD CONDITION AND FREE OF INSECTS AND DISEASE.
   - 12.4. LAWNS SHALL BE MAINTAINED THROUGH WATERING, FERTILIZING, WEEDING, MOWING, TRIMMING AND OTHER OPERATIONS SUCH AS ROLLING, REGARDING AND REPLANTING AS REQUIRED TO ESTABLISH A SMOOTH, ACCEPTABLE LAWN, FREE OF ERODED OR BARE AREAS.
13. CLEANUP
   - 13.1. UPON THE COMPLETION OF ALL LANDSCAPE INSTALLATION AND BEFORE THE FINAL ACCEPTANCE, THE CONTRACTOR SHALL REMOVE ALL UNUSED MATERIALS, EQUIPMENT AND DEBRIS FROM THE SITE. ALL PAVED AREAS ARE TO BE CLEANED.
   - 13.2. THE SITE SHALL BE CLEANED AND LEFT IN A NEAT AND ACCEPTABLE CONDITION AS APPROVED BY THE OWNER OR AUTHORIZED REPRESENTATIVE.
14. MAINTENANCE (ALTERNATIVE BID):
   - 14.1. A 90 DAY MAINTENANCE PERIOD SHALL COMMENCE AT THE END OF ALL LANDSCAPE INSTALLATION OPERATIONS. THE 90 DAY MAINTENANCE PERIOD ENSURES TO THE OWNER/OPERATOR THAT THE NEWLY INSTALLED LANDSCAPING HAS BEEN MAINTAINED AS SPECIFIED ON THE APPROVED LANDSCAPE PLAN. ONCE THE INITIAL 90 DAY MAINTENANCE PERIOD HAS EXPIRED, THE OWNER/OPERATOR MAY REQUEST THAT BIDDERS SUBMIT AN ALTERNATE MAINTENANCE BID FOR A MONTHLY MAINTENANCE CONTRACT. THE ALTERNATE MAINTENANCE CONTRACT WILL ENCOMPASS ANY WORK THAT IS CONSIDERED APPROPRIATE TO ENSURE THAT PLANT AND LAWN AREAS ARE HEALTHY AND MANICURED TO THE APPROVAL OF THE OWNER/OPERATOR.

"NATIVE DETENTION AREA MIX" AS PREPARED BY:

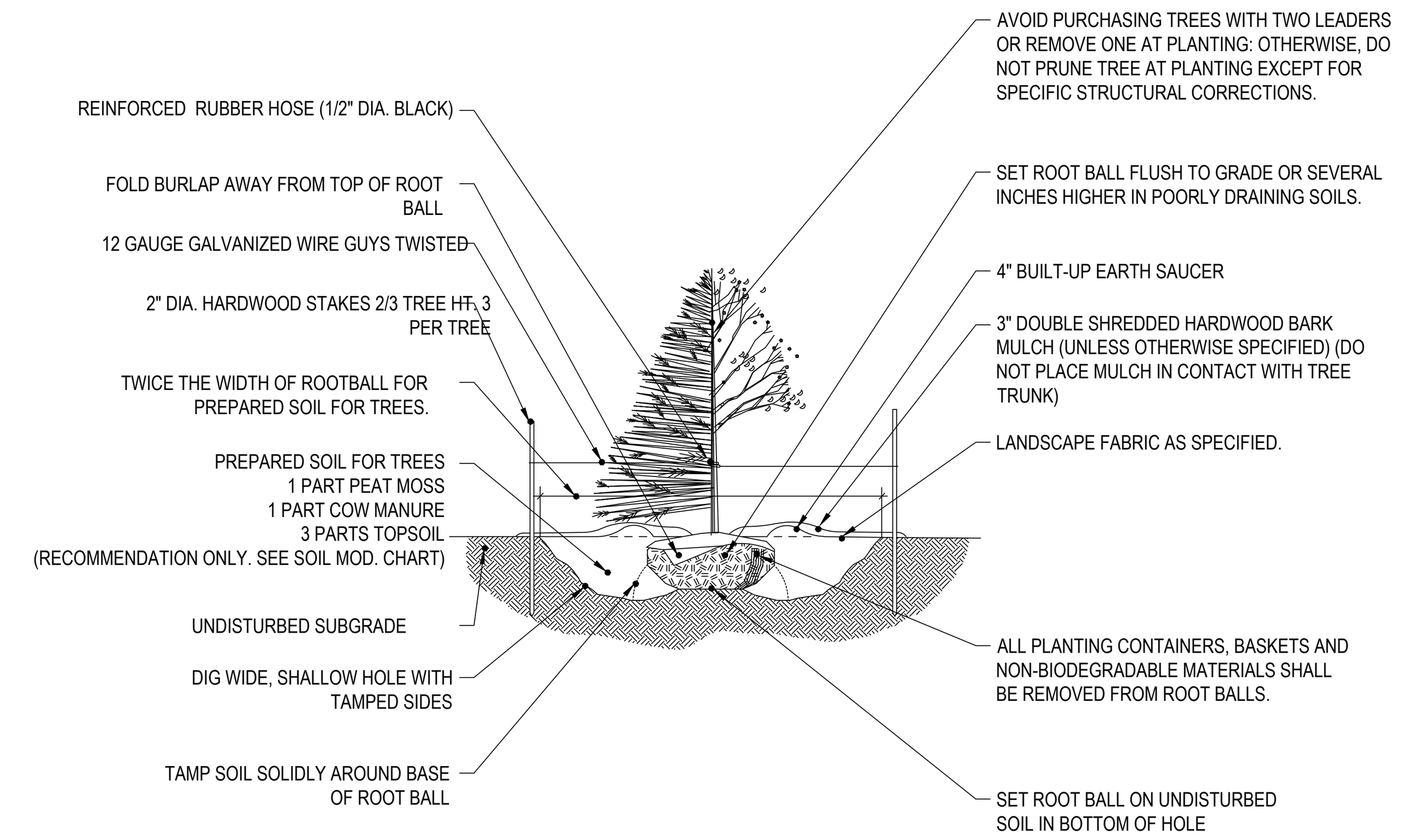
ERNST CONSERVATION SEEDS, INC.
8884 MERCER PIKE, MEADVILLE, PA 16335
PHONE: 800-873-3321 / 814-336-2404
EMAIL: SALES@ERNSTSEED.COM
WEBSITE: WWW.ERNSTSEED.COM

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

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

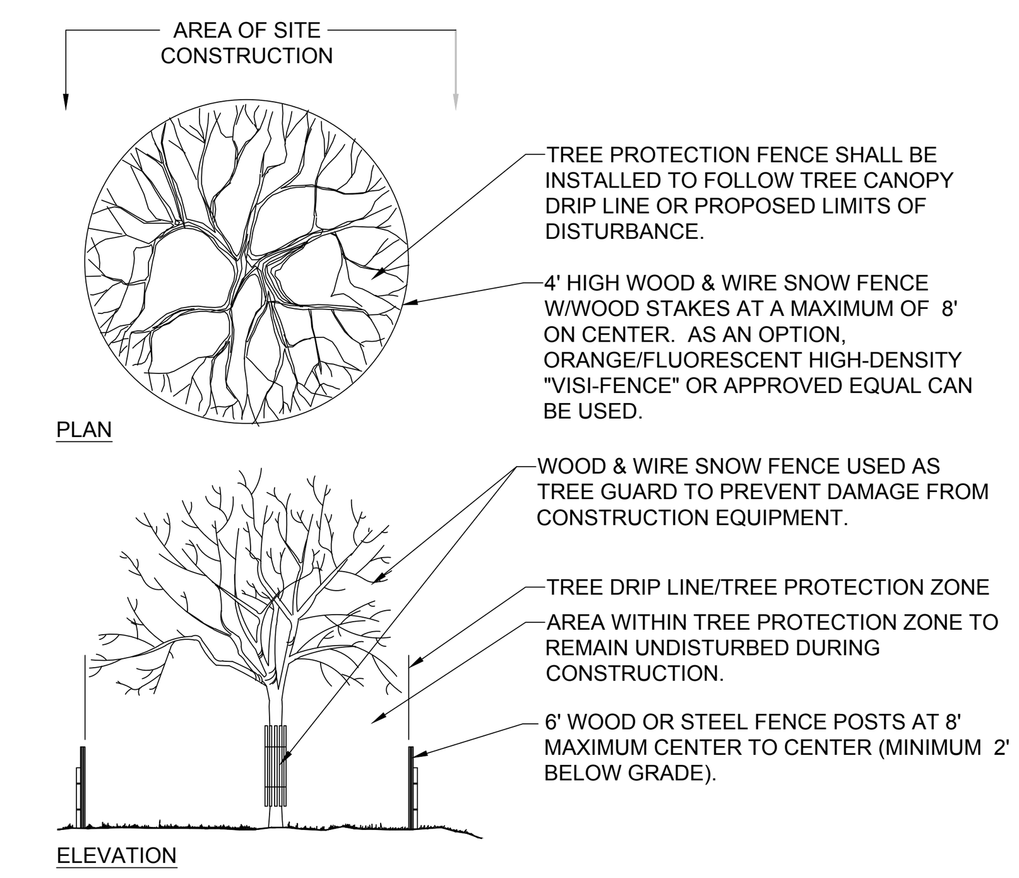
BASIN SEED MIX SPECIFICATIONS

NOTES:
1.) NO SOIL OR MULCH SHALL BE PLACED AGAINST ROOT COLLAR OF PLANT.
2.) REMOVE ALL NON-BIODEGRADABLE MATERIAL AND ROPE FROM TRUNK & TOP OF ROOT BALL. FOLD BURLAP BACK 1/3 FROM ROOT BALL.
3.) PLANTING DEPTH SHALL BE THE SAME AS GROWN IN NURSERY.
4.) THOROUGHLY SOAK THE TREE ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH
AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS.
5.) THE BOTTOM OF PLANTING PIT EXCAVATIONS SHOULD BE ROUGH TO AVOID MATTING OF SOIL LAYERS AS
NEW SOIL IS ADDED. IT IS PREFERABLE TO TILL THE FIRST LIFT (2 TO 3 IN.) OF PLANTING SOIL INTO THE SUBSOIL.



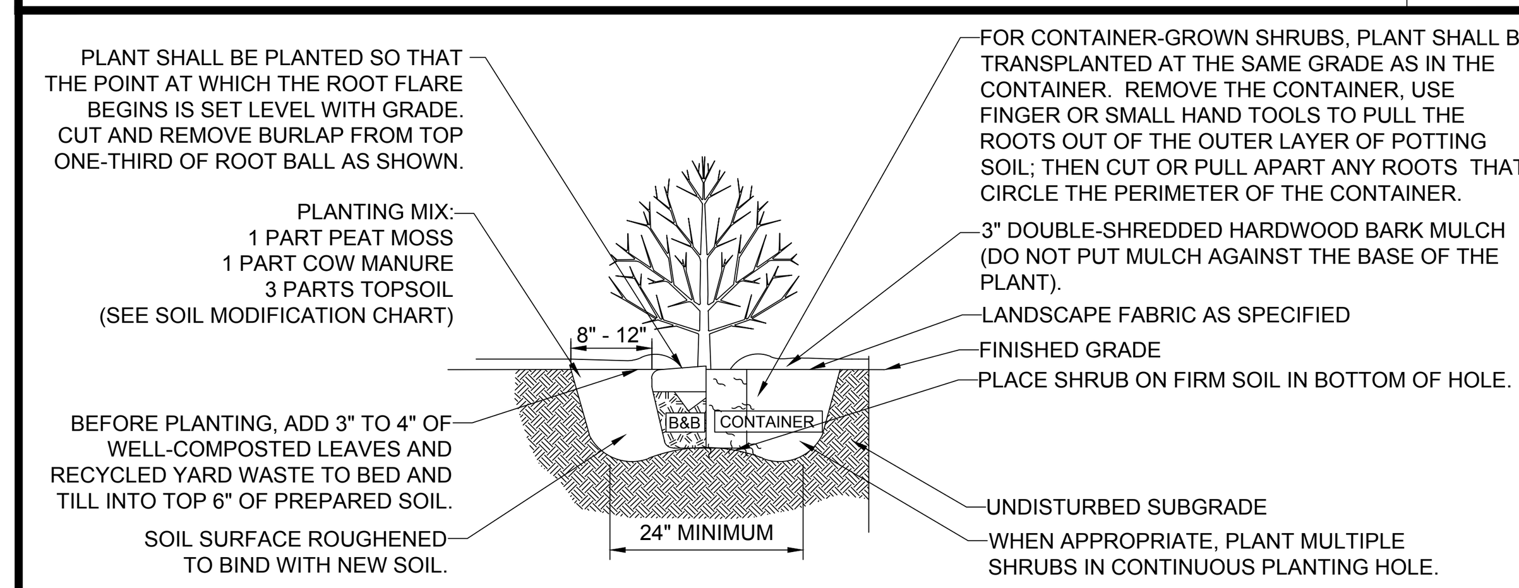
TREE PLANTING DETAIL

N.T.S.



TREE PROTECTION DURING SITE CONSTRUCTION

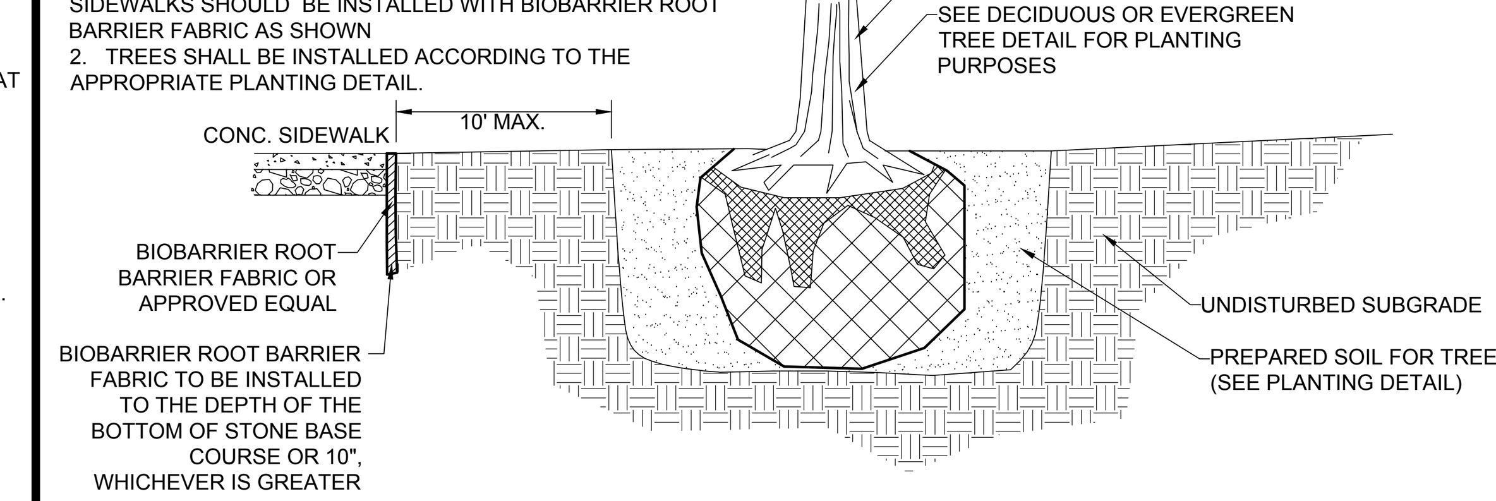
N.T.S.



SHRUB PLANTING DETAIL

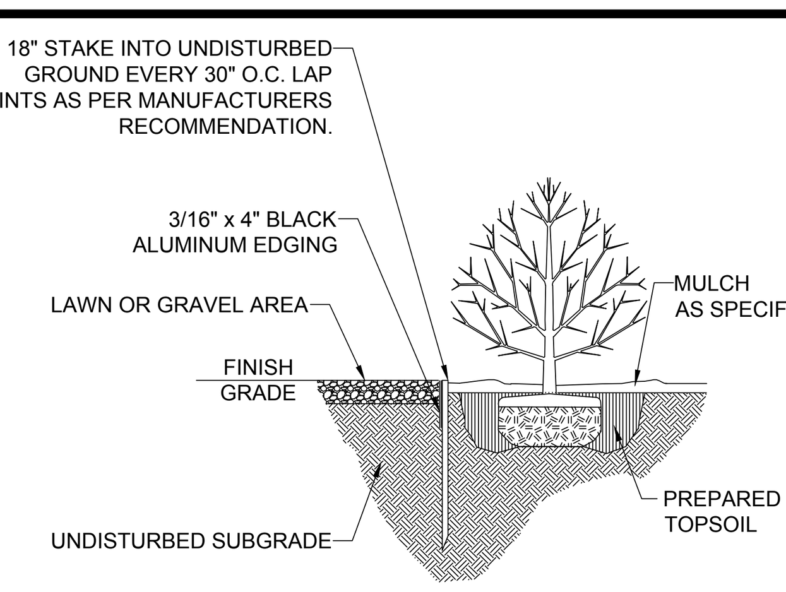
N.T.S.

NOTES:
1. ANY TREE INSTALLED WITHIN 10 FT. OF NEW CONCRETE SIDEWALKS SHOULD BE INSTALLED WITH BIOBARRIER ROOT BARRIER FABRIC AS SHOWN
2. TREES SHALL BE INSTALLED ACCORDING TO THE APPROPRIATE PLANTING DETAIL.



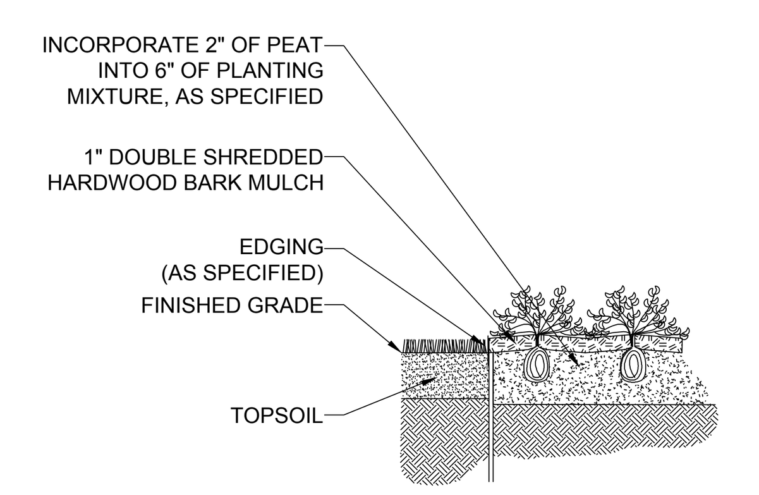
BIOBARRIER ROOT BARRIER DETAIL

N.T.S.



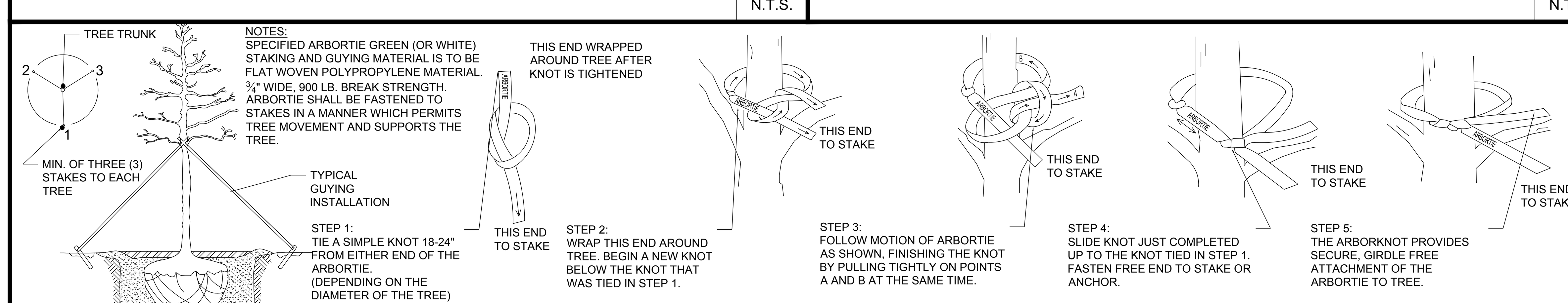
BLACK ALUMINUM EDGING

N.T.S.



GROUNDCOVER PLANTING

N.T.S.



ARBORTIE STAKING DETAIL

N.T.S.

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

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

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

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

NEW ENGLAND CONSERVATION/ WILDLIFE SEED MIX SPECIFICATIONS

1. PRIOR TO SEEDING, AREA IS TO BE TOPSOILED, FINE GRADED, AND RAKED OF ALL DEBRIS LARGER THAN 2" DIAMETER.
2. PRIOR TO SEEDING, CONSULT MANUFACTURER'S RECOMMENDATIONS AND INSTRUCTIONS.
3. SEEDING RATES:

• PERENNIAL RYEGRASS	1/2 LB/1000 SQ FT
• KENTUCKY BLUEGRASS	1 LB/1000 SQ FT
• RED FESCUE	1/2 LB/1000 SQ FT
• SPREADING FESCUE	1/2 LB/1000 SQ FT
• FERTILIZER (16.32.16)	2 LB/1000 SQ FT
• LIQUID LIME	1 GAL/800 GAL.
• TANK TACKIFIER	35 LB/800 GAL.
• TANK FIBER MULCH	30 LB/1000 SQ FT

4. GERMINATION RATES WILL VARY AS TO TIME OF YEAR FOR SOWING. CONTRACTOR TO IRRIGATE SEEDED AREA UNTIL AN ACCEPTABLE STAND OF COVER IS APPROVED BY OWNER.

HYDROSEED SPECIFICATIONS

P:\2022\CTA220061.00\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\CTA220061.00-LSCP-6A----->LAYOUT: C-702 LNOTE
KD

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

REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY
1	05/20/2025	RESPONSE TO TOWN COMMENTS	CR/KS / JGB

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

PERMIT SET

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

PROJECT No.:	CTA220061.00
DRAWN BY:	CR/TJN/KMB
CHECKED BY:	JGB
DATE:	02/19/2025
CAD I.D.:	CTA220061.00-LSCP-6A

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

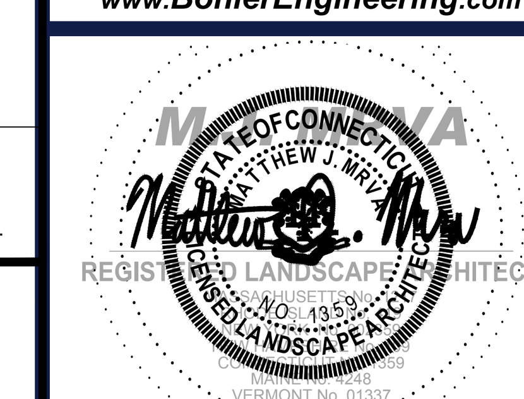
FOR

C.R. KLEWIN LLC

PROPOSED RESIDENTIAL DEVELOPMENT

19, 29 & 39 MILITARY HIGHWAY,
GALES FERRY,
LEDYARD,
NEW LONDON COUNTY,
CONNECTICUT

BOHLER //
65 LaSALLE ROAD, SUITE 401
WEST HARTFORD, CT 06107
Phone: (860) 333-8900
www.BohlerEngineering.com



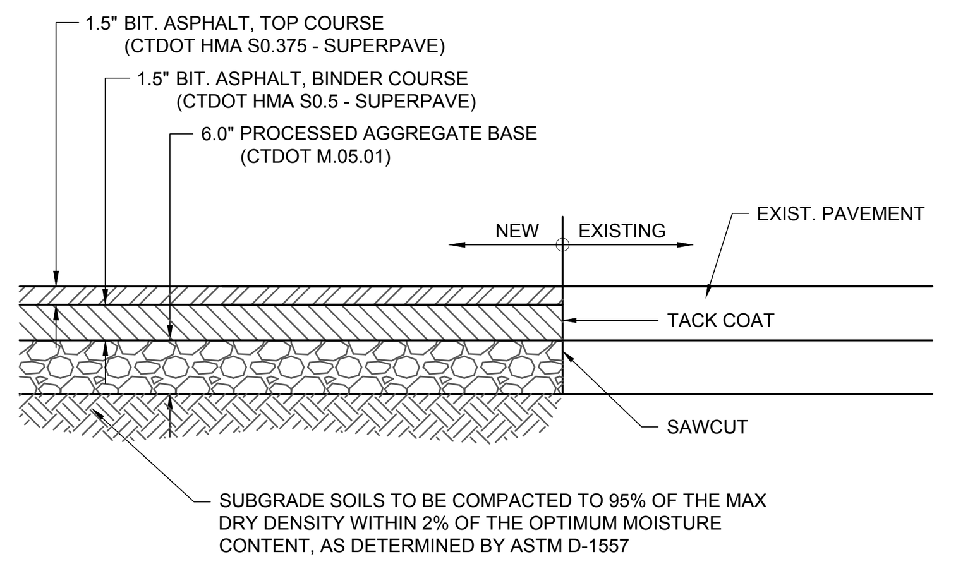
SHEET TITLE:

LANDSCAPE NOTES & DETAILS

SHEET NUMBER:

C-702

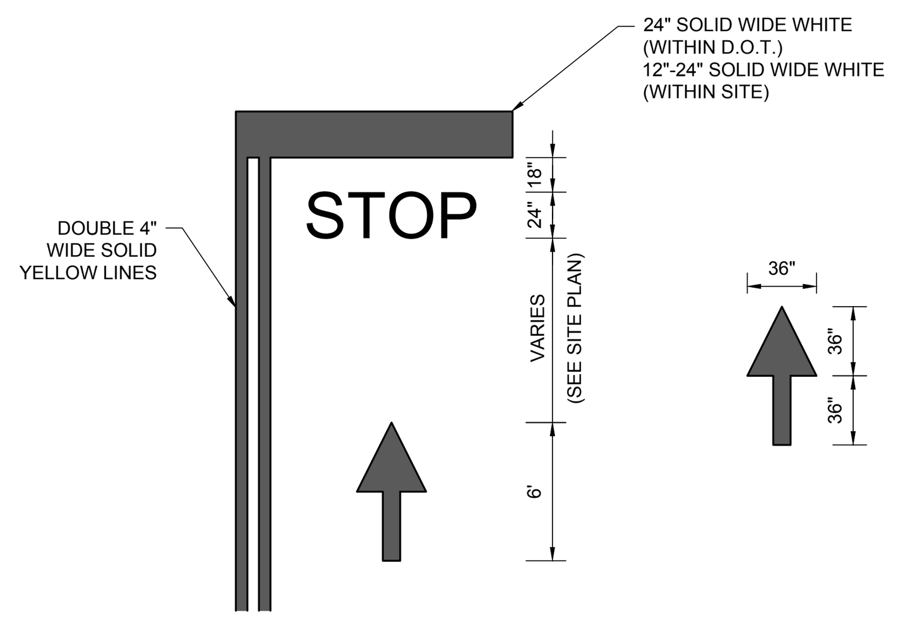
REVISION 1 - 05/20/2025



NOTES:
- REFER TO GEOTECHNICAL REPORT FOR PAVEMENT SPECIFICATIONS AND OTHER REQUIREMENTS, OTHERWISE PAVEMENT BASE AND SUBBASE COURSES SHALL CONFORM TO ALL CTDOT HIGHWAY DIVISION SPECIFICATIONS.

STANDARD PAVING DETAIL

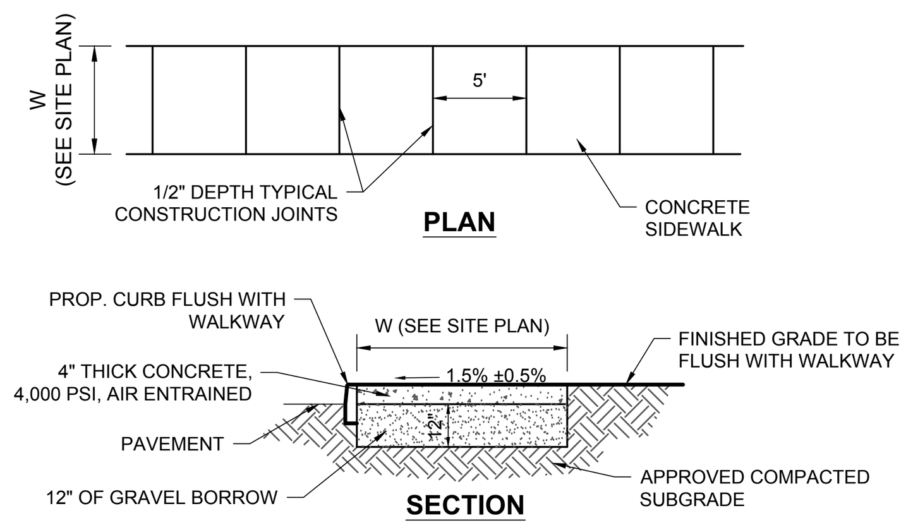
NOT TO SCALE



NOTES:
1. ARROWS AND WORDS CAN BE ARRANGED IN DIFFERENT COMBINATIONS TO ACHIEVE DESIRED RESULT.
2. STOP BAR, LETTERS, AND ARROW TO BE THERMOPLASTIC.
3. LINES TO BE EPOXY PAINT PER DOT STANDARD SPECIFICATIONS.

PAINTED MARKING DETAILS

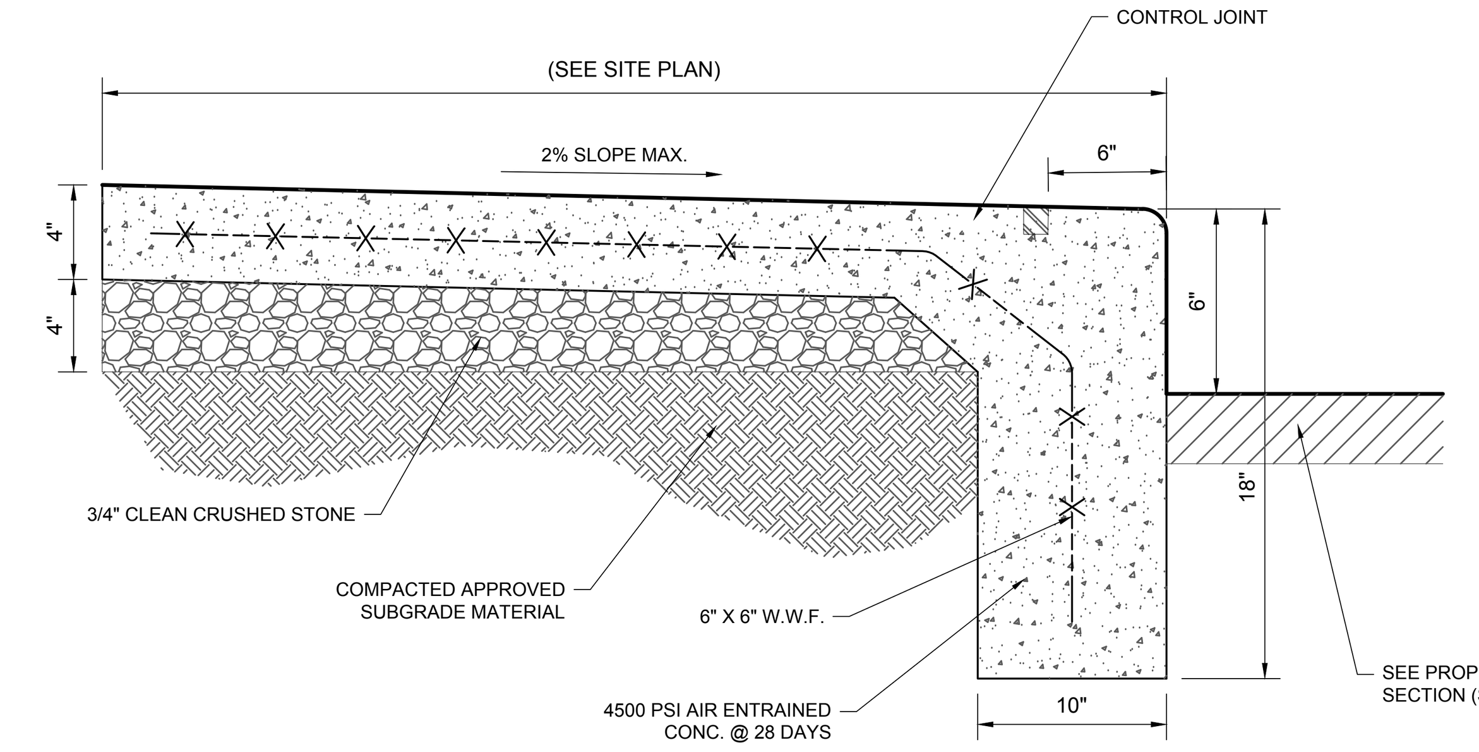
NOT TO SCALE



NOTE:
1. MAX. CROSS SLOPE ¼" PER FOOT MIN ⅛" PER FOOT PITCHED TOWARDS ROADWAY.
2. PROVIDE 1/2" PREMOLDED BITUMINOUS EXPANSION JOINT AT 20' INTERVALS, TO BE RECESSED 1/4" - 1/2" FROM SIDEWALK SURFACE.
3. REFER TO SITE PLAN FOR SIDEWALK WIDTH (W)
4. LONGITUDINAL SLOPE AND WIDTH TO COMPLY WITH ADA BARRIER FREE REQUIREMENTS.

CONCRETE SIDEWALK DETAIL

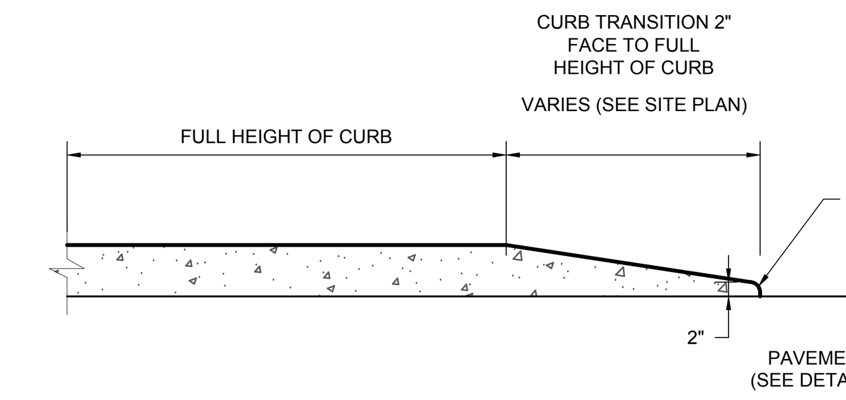
NOT TO SCALE (S-090)



NOTES:
1. ANY EXCAVATION BELOW DESIRED GRADE DUE TO OVER EXCAVATION OR WET SOIL CONDITIONS SHALL BE BACKFILLED WITH 3/4" CLEAN CRUSHED STONE. ALL SUBGRADES SHALL BE APPROVED BY THE ENGINEER PRIOR TO POURING.
2. TRANSVERSE JOINTS 1/2" WIDE SHALL BE INSTALLED IN THE CURB 20'-0" APART AND SHALL BE FILLED WITH PREFORMED, BITUMINOUS-IMPREGNATED FIBER JOINT FILLER, COMPLYING WITH THE REQUIREMENTS OF AASHTO M-213, RECESSED 1/4" FROM THE FRONT FACE AND TOP OF THE CURB.
3. CONTROL JOINTS (FORMED) SHALL BE INSTALLED MIDWAY BETWEEN EXPANSION JOINTS AT 5'-0" INTERVALS.
4. WIDTH OF JOINT FILLER STRIP EQUAL TO THE THICKNESS OF THE PAVEMENT LESS 1/2".
5. THESE SPECIFICATIONS ALSO MEET RSIS DESIGN STANDARDS.
6. THE 6" CURB REVEAL IS TYPICAL. CONTRACTOR TO REVIEW GRADING PLAN FOR AREAS WHERE REVEAL IS TO BE MODIFIED.

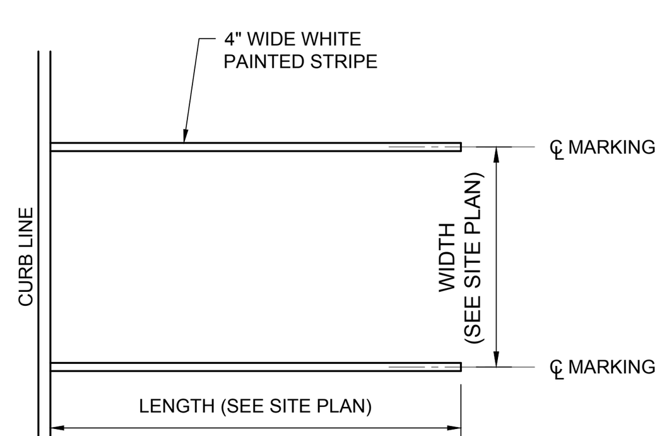
MONOLITHIC CURB & SIDEWALK DETAIL

NOT TO SCALE



TRANSITION CURB DETAIL

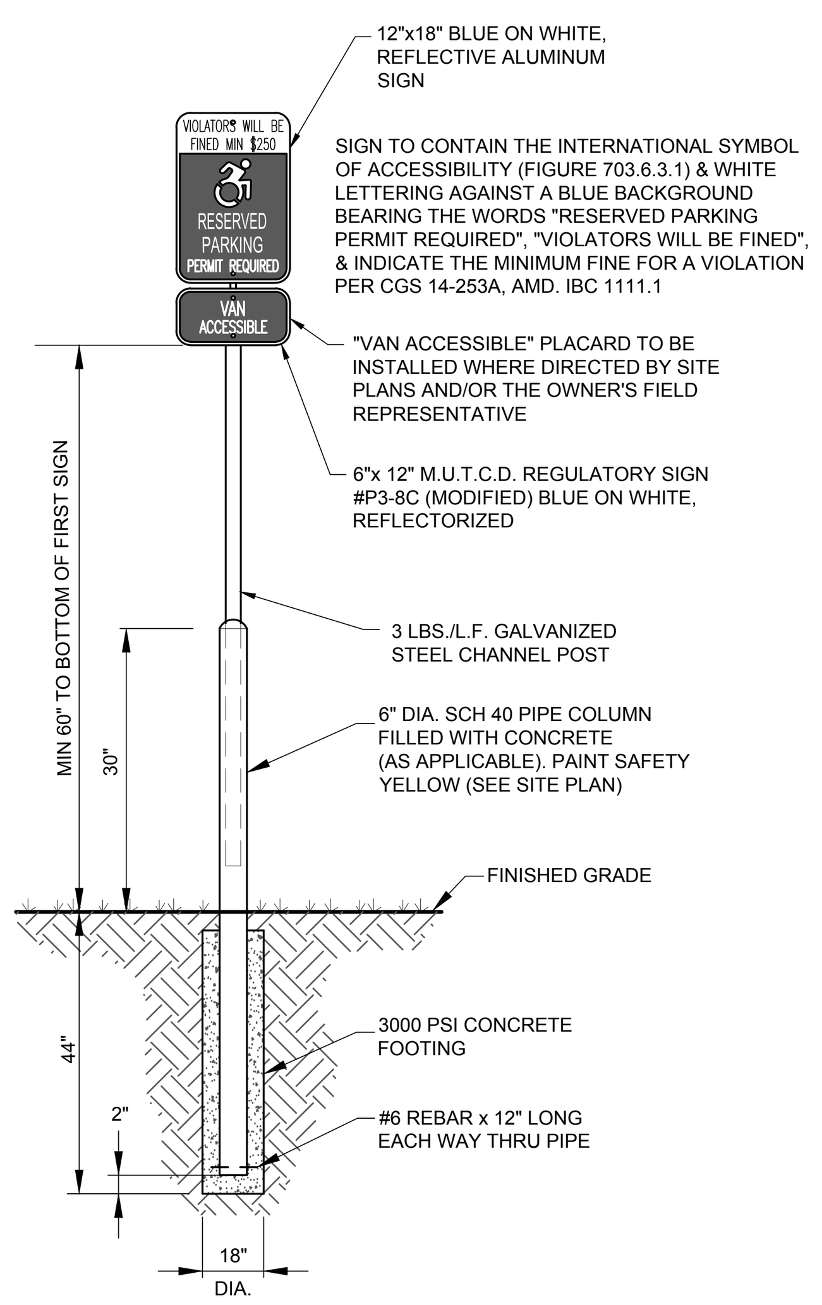
NOT TO SCALE

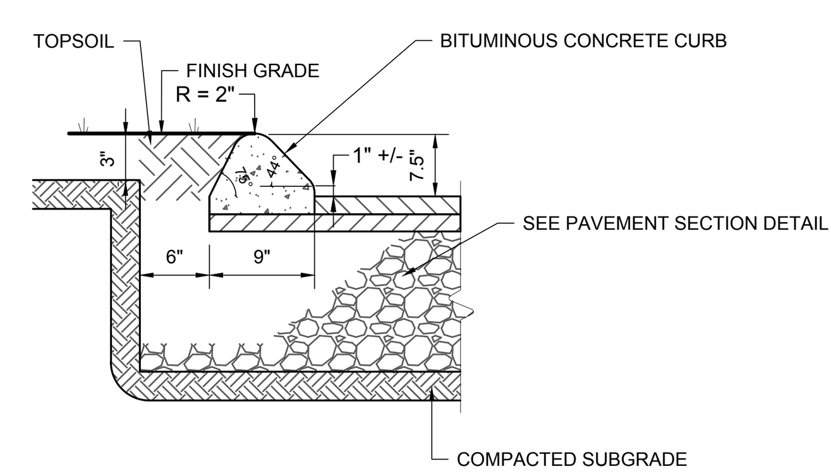


NOTE:
USE EPOXY TRAFFIC PAINT MEETING DOT SPECIFICATIONS.

STANDARD STRIPING DETAIL

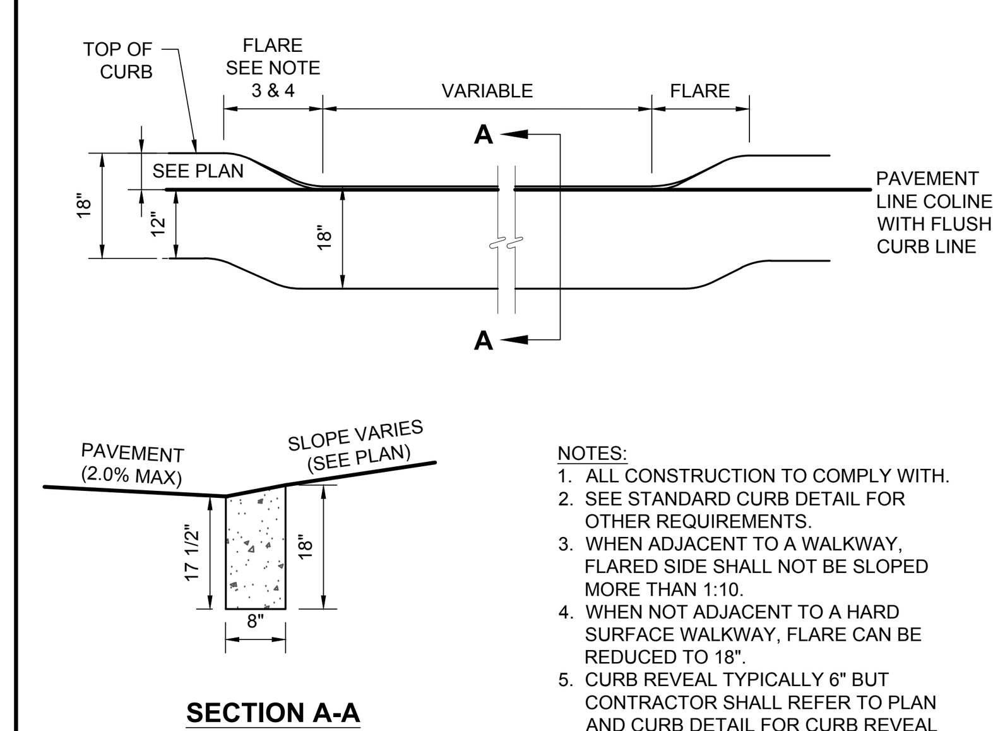
NOT TO SCALE





BITUMINOUS CONCRETE CURB

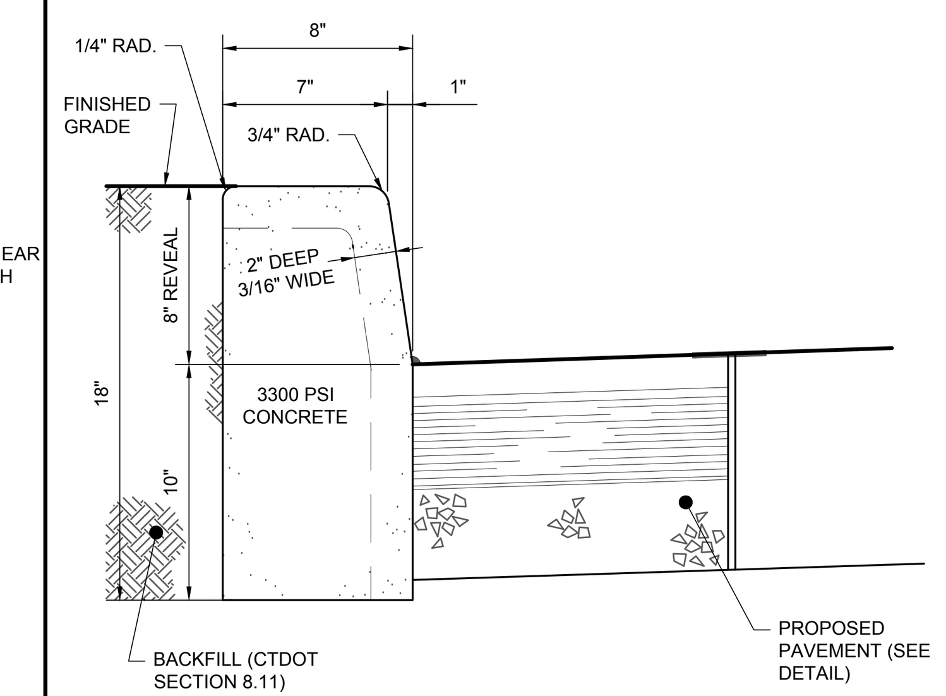
NOT TO SCALE



NOTES:
1. ALL CONSTRUCTION TO COMPLY WITH.
2. SEE STANDARD CURB DETAIL FOR OTHER REQUIREMENTS.
3. WHEN ADJACENT TO A WALKWAY, FLARED SIDE SHALL NOT BE SLOPED MORE THAN 1:10.
4. WHEN NOT ADJACENT TO A HARD SURFACE WALKWAY, FLARE CAN BE REDUCED TO 18".
5. CURB REVEAL TYPICALLY 6" BUT CONTRACTOR SHALL REFER TO PLAN AND CURB DETAIL FOR CURB REVEAL SPECIFIC TO SITE LOCATION.

ADA FLUSH CURB DETAIL

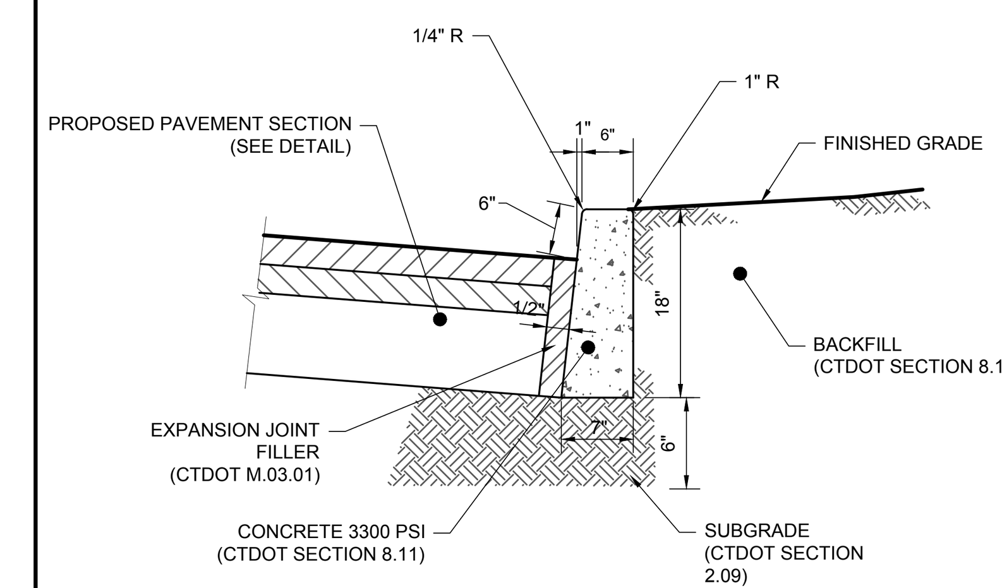
NOT TO SCALE



TRANSVERSE JOINTS 3/4" WIDE SHALL BE INSTALLED IN THE CURB 20' APART AND SHALL BE FILLED WITH CELLULAR COMPRESSION MATERIAL AS SPECIFIED RECESSED 1/4" IN FROM FRONT FACE AND TOP OF CURB.

CONCRETE CURB 8" REVEAL DETAIL

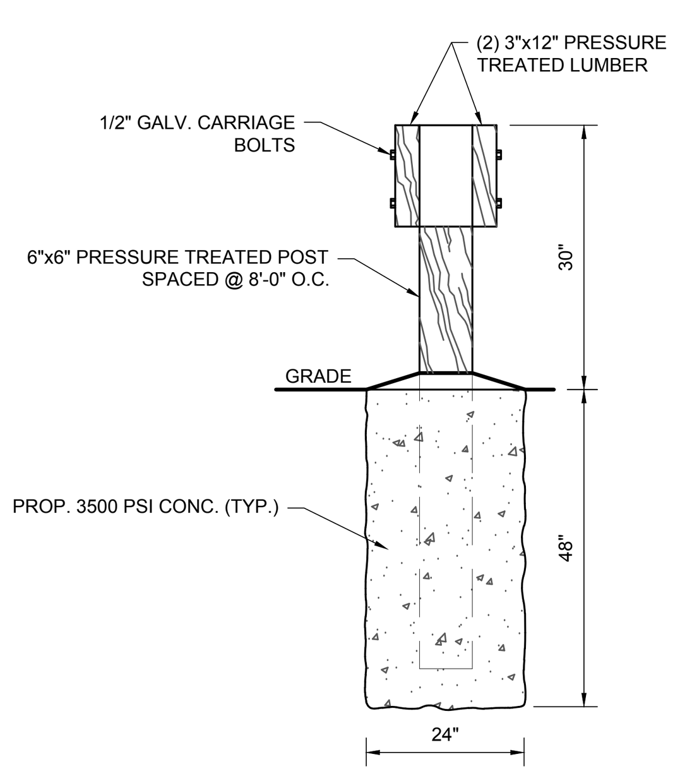
NOT TO SCALE



NOTES:
1. PREFORMED EXPANSION JOINT FILLER SHALL BE THE BITUMINOUS CELLULAR TYPE AND SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 213
2. CONCRETE CURBING SHALL BE CONSTRUCTED IN SECTIONS HAVING UNIFORM LENGTH OF APPROXIMATELY 10 FT, ARRANGED THAT A JOINT IN THE CURBING SHALL COME OPPOSITE A JOINT IN THE ADORING CONCRETE PAVEMENT SLAB

CONCRETE CURB 6" REVEAL DETAIL

NOT TO SCALE

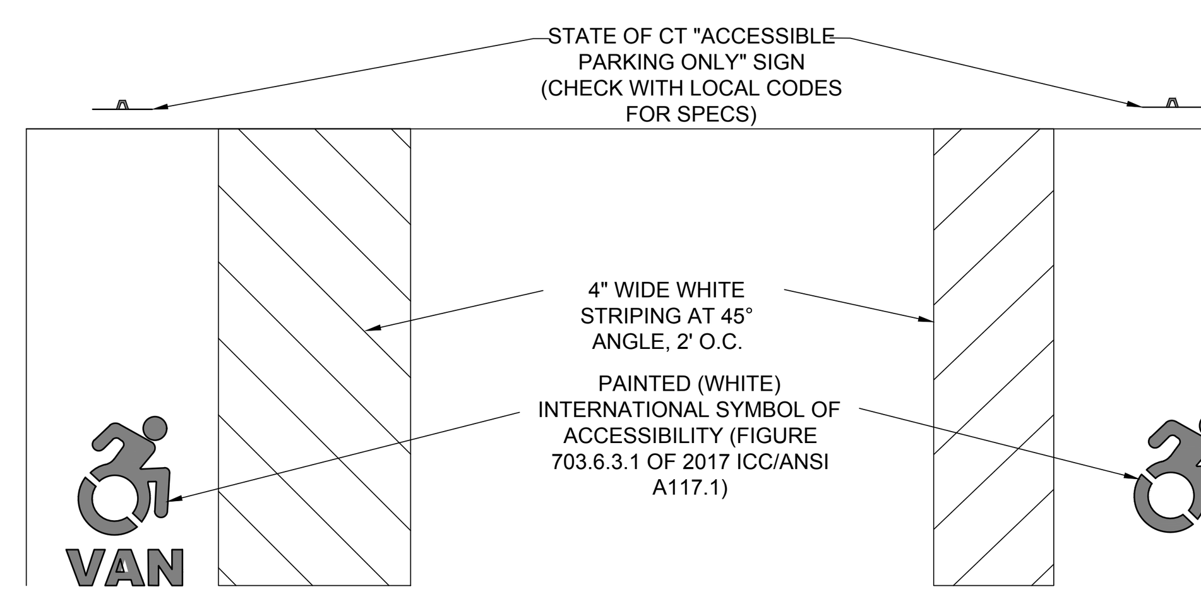


TIMBER BARRIER RAIL WITH CONCRETE FOOTING DETAIL

NOT TO SCALE (S060201.01-01/2013)

ADA PARKING SIGN ON BOLLARD DETAIL

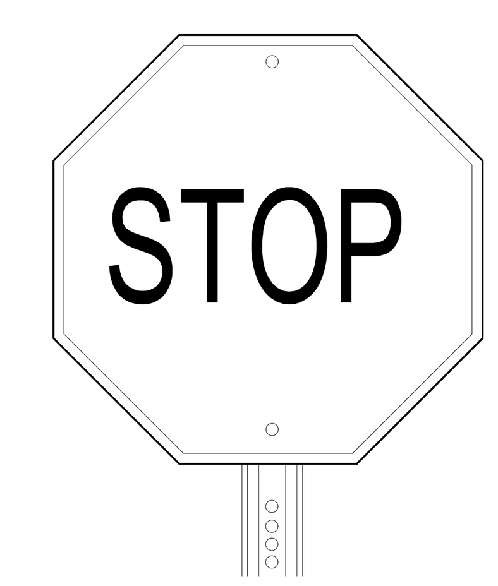
NOT TO SCALE



NOTES:
1. ALL MINIMUM DIMENSIONS ARE FROM CENTERLINE OF STRIPE TO CENTERLINE OF STRIPE OR INSIDE FACE OF CURB.
2. ACCESS AISLE SHALL ADJOIN AN ACCESSIBLE ROUTE AND BE AT THE SAME LEVEL AS THE PARKING SPACE THEY SERVE.
3. TWO PARKING SPACES SHALL BE PERMITTED TO SHARE A COMMON ACCESS AISLE.
4. ENSURE ACCESSIBLE VAN PARKING SPACE WILL PROVIDE ACCESS AISLE ON THE PASSENGER SIDE WHEN ANGLED PARKING IS USED.
5. PARKING SPACES AND PARKING AISLE SLOPE MUST NOT EXCEED 1:48 (¼" PER FOOT OR 2%) IN ANY DIRECTION.
6. CURB RAMP SLOPE MUST NOT EXCEED 1:12 (8.3% FOR A MAXIMUM OF 6 FEET.)
7. LANDINGS MUST BE PROVIDED AT EACH END OF THE RAMPS AND MUST PROVIDE POSITIVE DRAINAGE, AND MUST NOT EXCEED 1:48 (¼" PER FOOT OR 2%) CROSS SLOPE.
8. ON-SITE A MINIMUM ACCESSIBLE ACCESS ROUTE WIDTH OF 36 INCHES MUST BE PROVIDED AND MAINTAINED. A WHEEL STOP CAN BE PROVIDED WHERE NECESSARY TO PREVENT VEHICLE OVERHANG FROM REDUCING WIDTH OF THE PATH OF TRAVEL TO LESS THAN 36".

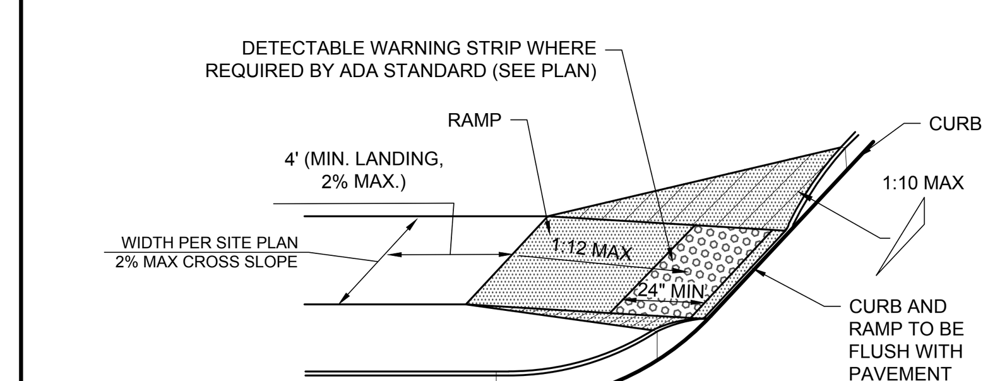
ADA PARKING STALL MARKING DETAIL

NOT TO SCALE



STOP SIGN

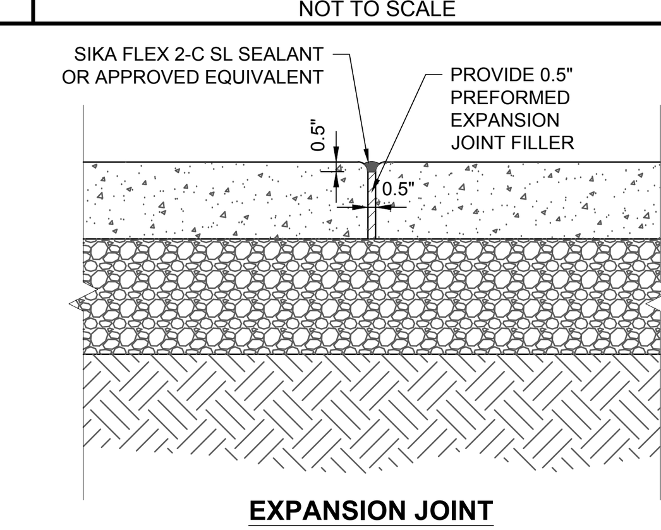
(NE-S060202 - 09/2023) NOT TO SCALE



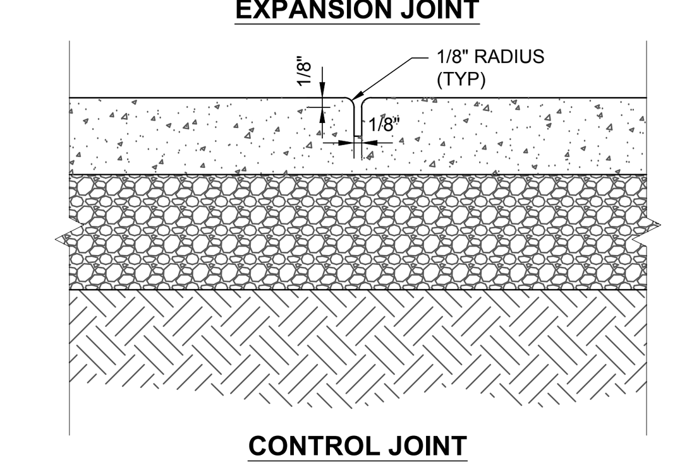
NOTES:
1. ADA RAMP TO BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST ADA STANDARDS.
2. CONTRACTOR TO CONSTRUCT DETECTABLE WARNINGS WHEN SIDEWALK IS WITHIN PUBLIC ROW AND WHERE SHOWN ON PLANS.
3. DETECTABLE WARNING SURFACES SHALL CONSIST OF RAISED TRUNCATED DOMES WITH A BOTTOM DIAMETER OF NOMINAL 0.9 INCH, A TOP DIAMETER OF 0.4 INCH, A HEIGHT OF NOMINAL 0.2 INCH, A CENTER TO CENTER SPACING OF NOMINAL 2.35 INCH, AND SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES, EITHER LIGHT ON DARK OR DARK ON LIGHT. (SEE DETAIL)
4. TOP OF CURB TO HAVE SAME SLOPE AS ADJACENT CURB RAMP.

ADA CURB RAMP DETAIL

NOT TO SCALE



EXPANSION JOINT



CONTROL JOINT

SIDEWALK CONSTRUCTION JOINTS

NOT TO SCALE

BOHLER

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

REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY
1	05/20/2025	RESPONSE TO TOWN COMMENTS	CR/KS / JGB

PERMIT SET

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PROJECT No.:	CTA220061.00
DRAWN BY:	CR/TJN/KMB
CHECKED BY:	JGB
DATE:	02/19/2025
CAD I.D.:	CTA220061.00-DETL-6A

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

C.R. KLEWIN LLC

PROPOSED RESIDENTIAL DEVELOPMENT

19, 29 & 39 MILITARY HIGHWAY, GALES FERRY, LEDYARD, NEW LONDON COUNTY, CONNECTICUT

BOHLER
65 LaSALLE ROAD, SUITE 401
WEST HARTFORD, CT 06107
Phone: (860) 333-8900
www.BohlerEngineering.com

J.G. BORD
PROFESSIONAL ENGINEER
CONNECTICUT LICENSE No. 30414

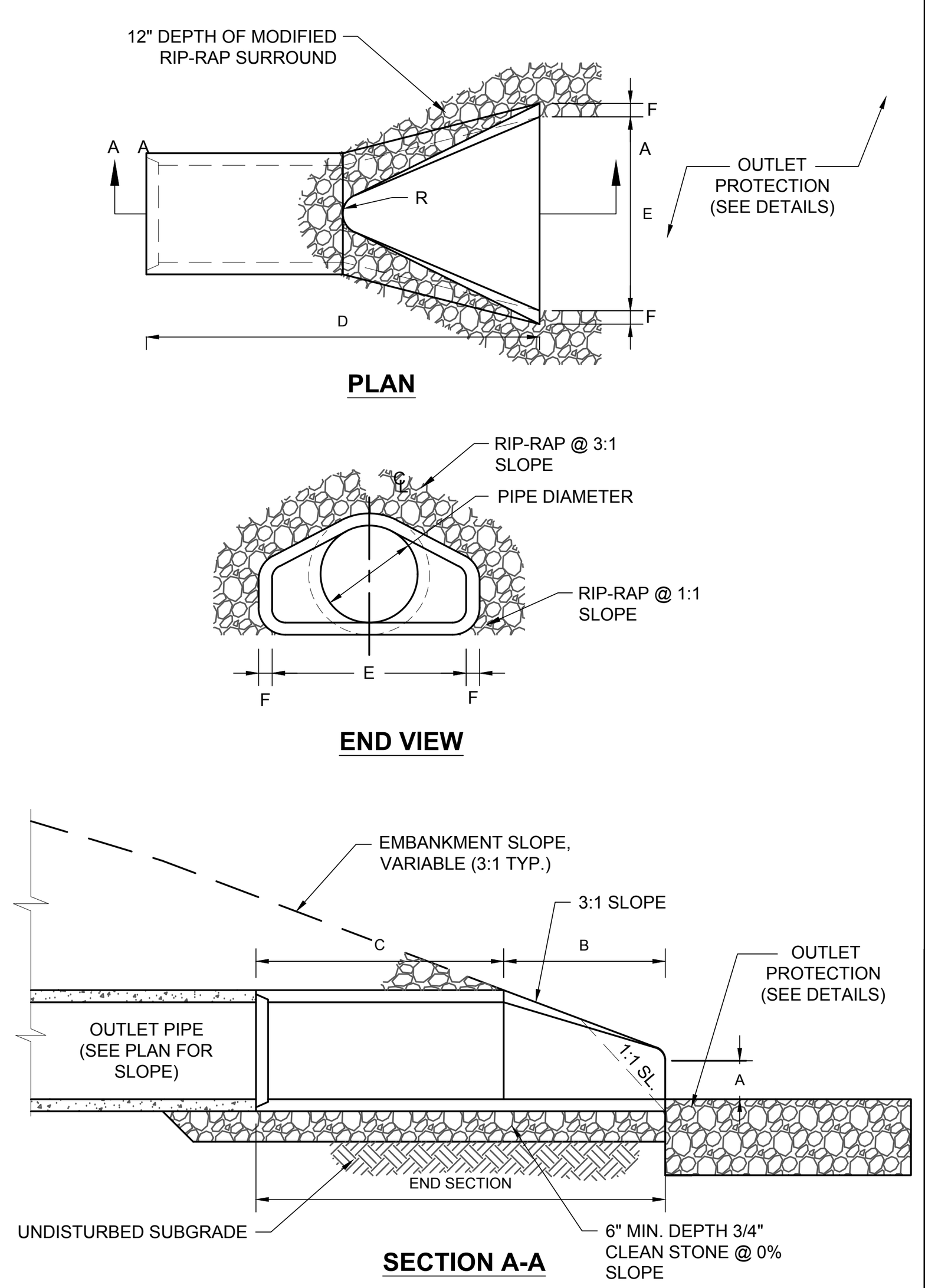
SHEET TITLE:

DETAIL SHEET

SHEET NUMBER:

C-901

REVISION 1 - 05/20/2025



NOTE:
FOR PROPOSED 15" DIA. PIPE OR SMALLER, USE DIMENSIONS SPECIFIED FOR 18" DIA. PIPE

TABLE A - DIMENSIONS FOR END SECTION FOR CONCRETE PIPE

DIA.	A	B	C	D	E	R
12"	4"	2'-0"	4'-0 7/8"	2'-0"	3"	9"
15"	6"	2'-3"	3'-10"	2'-6"	3"	11"
18"	9"	2'-3"	3'-10"	3'-0"	3"	12"
24"	9 1/2"	3'-7 1/2"	2'-6"	4'-0"	3"	14"
30"	12"	4'-6"	1'-7 3/4"	5'-0"	3 1/2"	15"
36"	15"	5'-3"	2'-10 3/4"	6'-0"	4"	20"
42"	21"	5'-3"	2'-11"	6'-6"	4 1/2"	22"
48"	24"	6'-0"	2'-2"	7'-0"	5"	22"

CONCRETE FLARED END SECTION

NOT TO SCALE

NOTE:

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

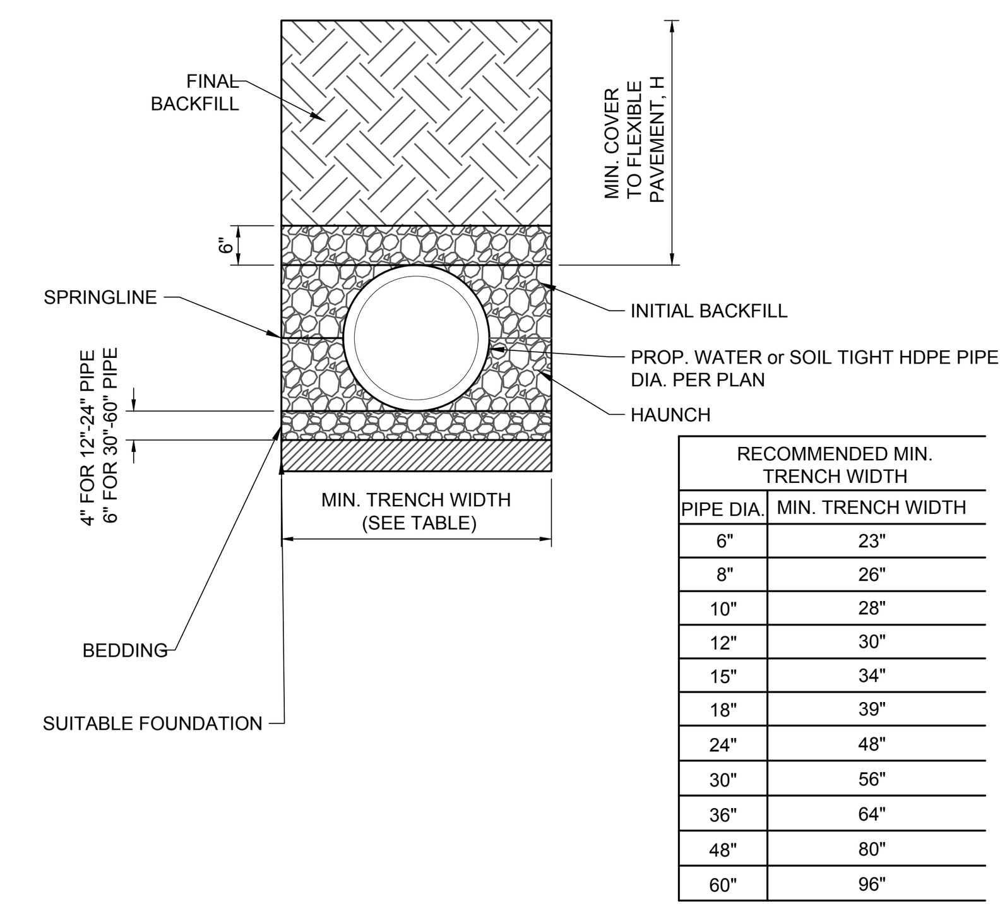
2. MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.

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

4. BEDDING: SUITABLE MATERIAL SHALL BE CLASS I, II OR III. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 4"-24" (100mm-600mm); 6" (150mm) FOR 30"-60" (7S0mm-900mm).

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

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

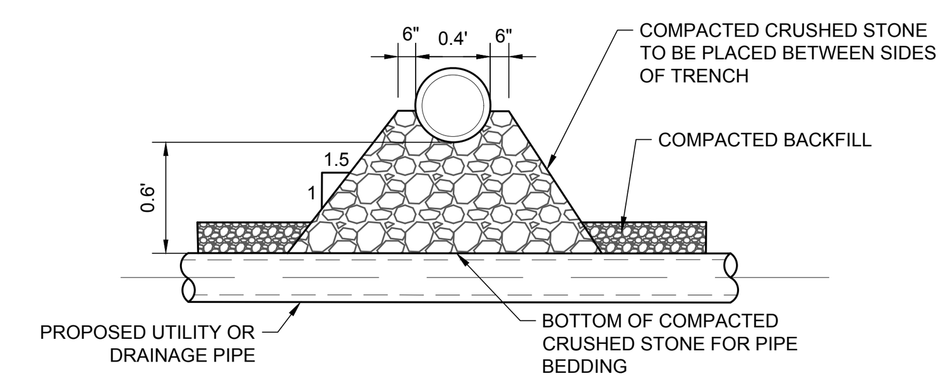


RECOMMENDED MIN. TRENCH WIDTH

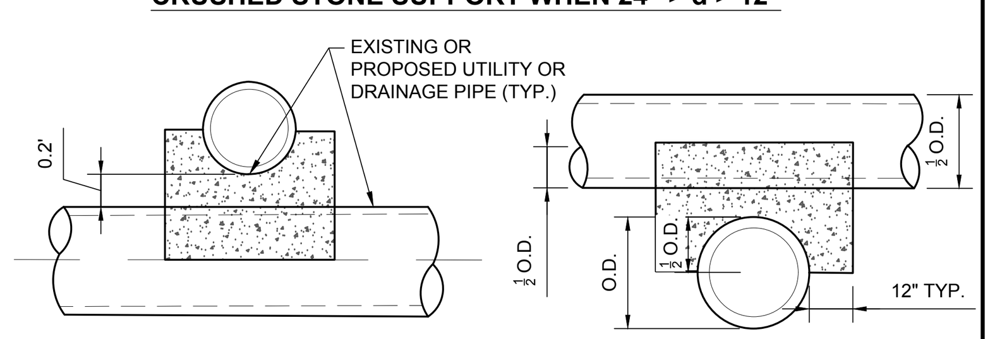
PIPE DIA.	MIN. TRENCH WIDTH
6"	23"
8"	26"
10"	28"
12"	30"
15"	34"
18"	39"
24"	48"
30"	56"
36"	64"
48"	80"
60"	96"

HDPE STORM DRAINAGE TRENCH

NOT TO SCALE



CRUSHED STONE SUPPORT WHEN 24" > d > 12"

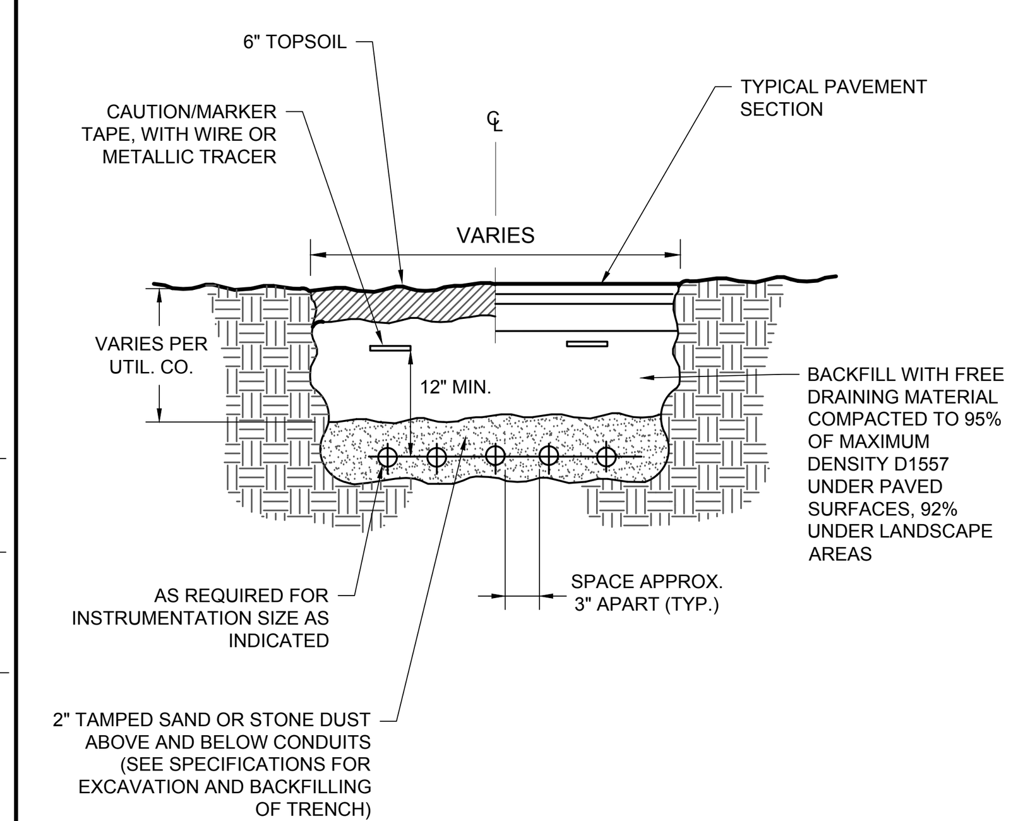


CONCRETE PIPE CRADLE d < 12"

NOTES:
1. d= DISTANCE BETWEEN UTILITY AND DRAINAGE PIPES.
2. SUPPORTS SHALL BE INSTALLED WHERE SPECIFIED ON THE PLANS AND WHERE d < 24".

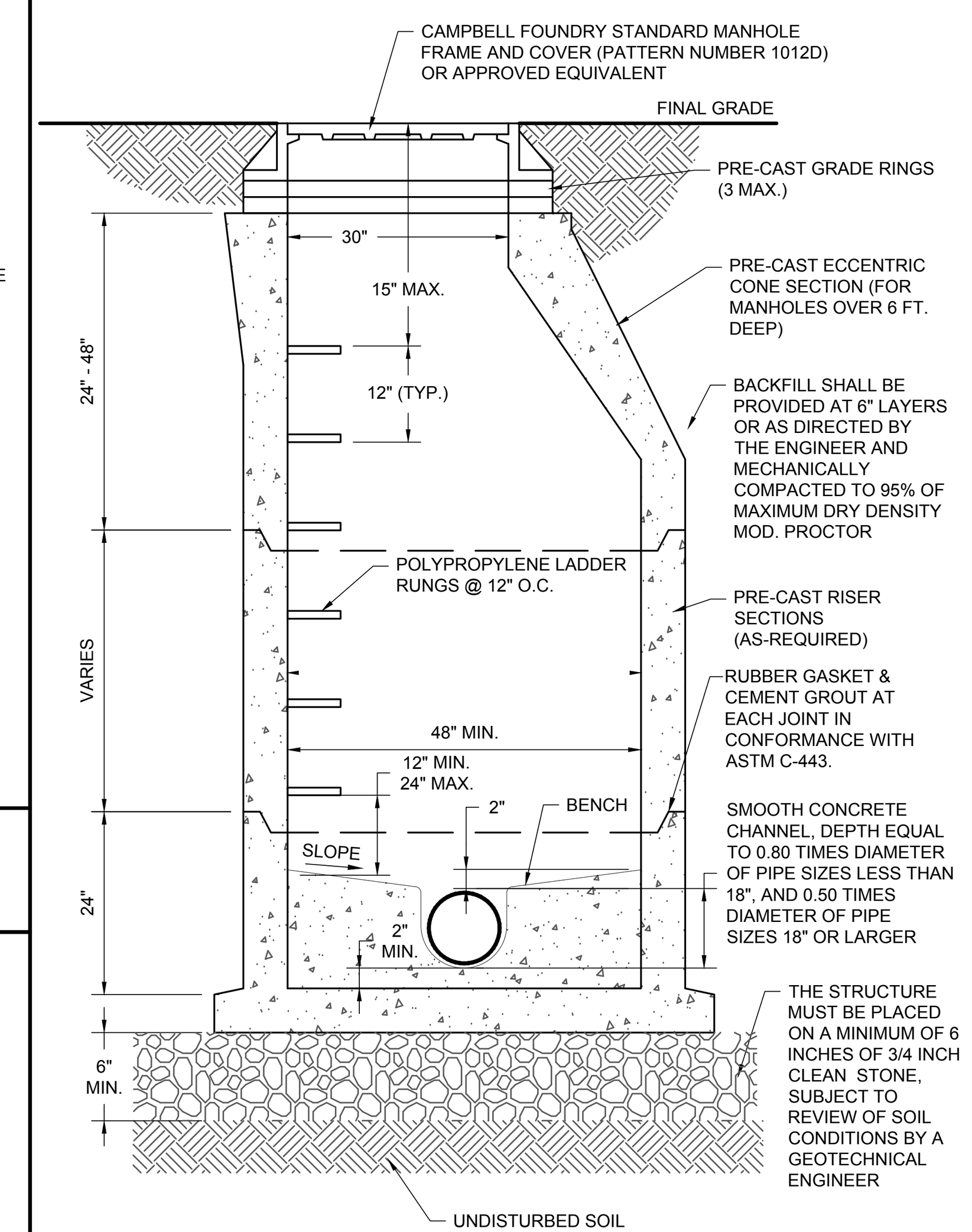
UTILITY SUPPORT AT CROSSING

NOT TO SCALE



UNDERGROUND UTILITY CONDUIT DETAIL

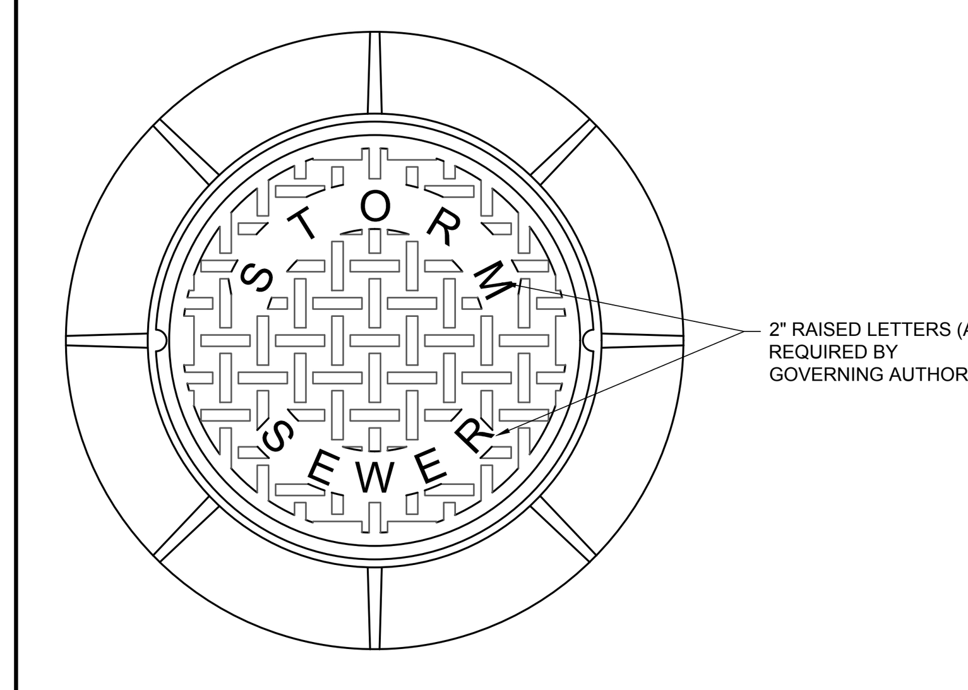
NOT TO SCALE (U039903-01/2013)



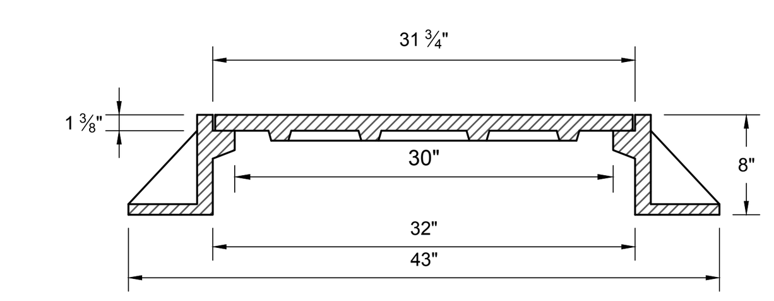
NOTES:
1. THE STORM MANHOLE CONCRETE STRUCTURE MUST BE PRECAST CONCRETE TO MEET A MINIMUM OF HS-25 LOADING. ALL UNITS SHALL BE CONSTRUCTED AND REINFORCED IN ACCORDANCE WITH THE APPROPRIATE ASTM, ACI, AND AASHTO STANDARDS. ALL PRECAST SECTIONS SHALL BE JOINED USING A GASKET AND CEMENT GROUT TO PRODUCE A LEAK-PROOF JOINT.
2. THE INLET FRAME AND GRATE/COVER SHALL BE CAMPBELL FOUNDRY PATTERN NO. 1012D, OR APPROVED EQUAL.
3. ALL PIPES SHALL EXTEND NO MORE THAN 1 INCH INTO THE STRUCTURE.
4. SUITABLE EXCAVATED SOIL MAY BE USED AS BACKFILL IN NON-STRUCTURALLY SUPPORTING AREAS OR AS DIRECTED BY THE MUNICIPAL ENGINEER. AREAS SUPPORTING ANY STRUCTURE SHALL BE BACKFILLED USING DENSE GRADED AGGREGATE OR AS DIRECTED BY THE ENGINEER.
5. THE INSIDE DIAMETER IS A MINIMUM DIMENSION. INSIDE DIAMETER TO BE ADJUSTED AS NECESSARY TO ACCOMMODATE STORM PIPE SIZES AND ALIGNMENT.

STORM MANHOLE DETAIL

NOT TO SCALE (G020407-04/2019)



PLAN

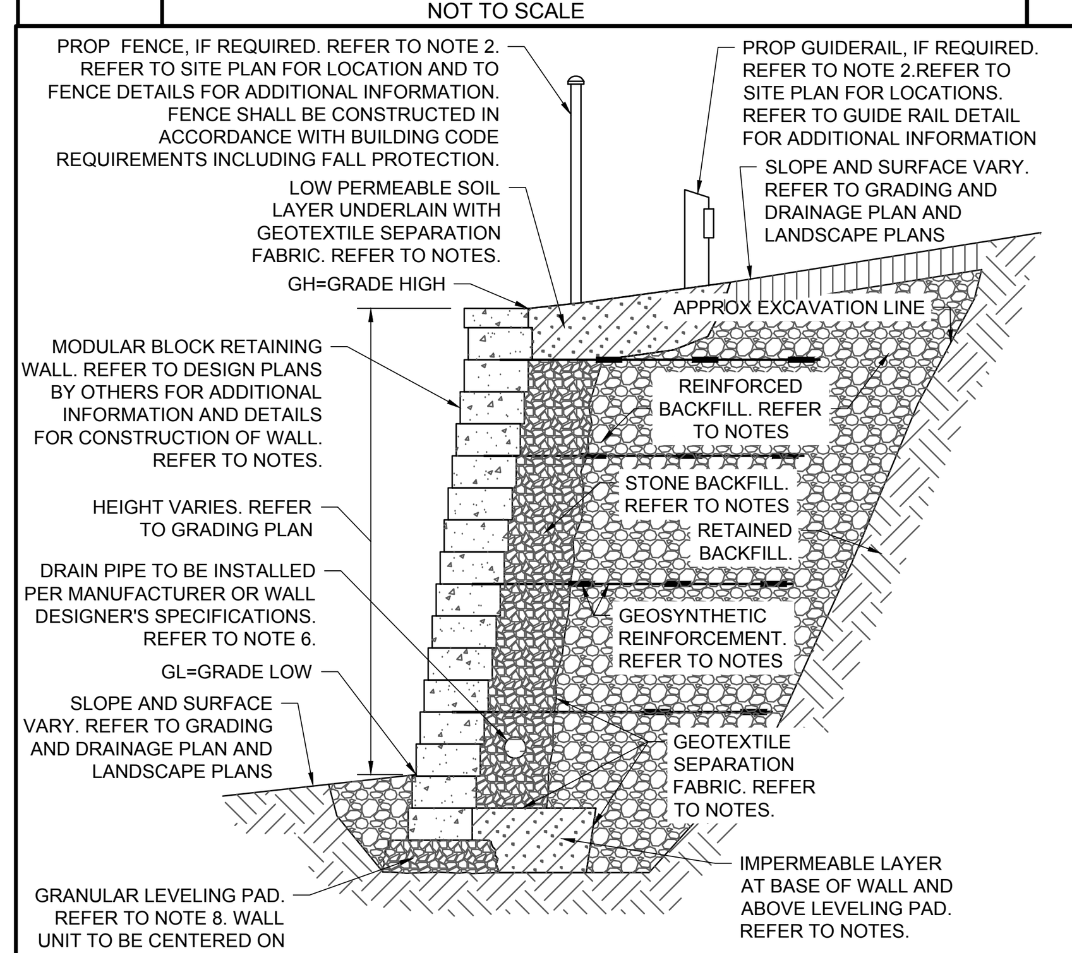


SECTION

NOTES:
1. STANDARD MANHOLE FRAMES & COVERS SHALL BE USED ON ALL MANHOLES NOT LOCATED WITHIN EASEMENTS UNLESS DIRECTED OTHERWISE BY THE ENGINEER OR SEWER AUTHORITY.
2. STANDARD MANHOLE FRAME & COVER SHALL BE CAMPBELL FOUNDRY PATTERN #1012B, OR APPROVED EQUAL, WITH NON-PENETRATING PICK HOLES.

STORM MANHOLE FRAME & COVER DETAIL

NOT TO SCALE (G020410-01/2013)

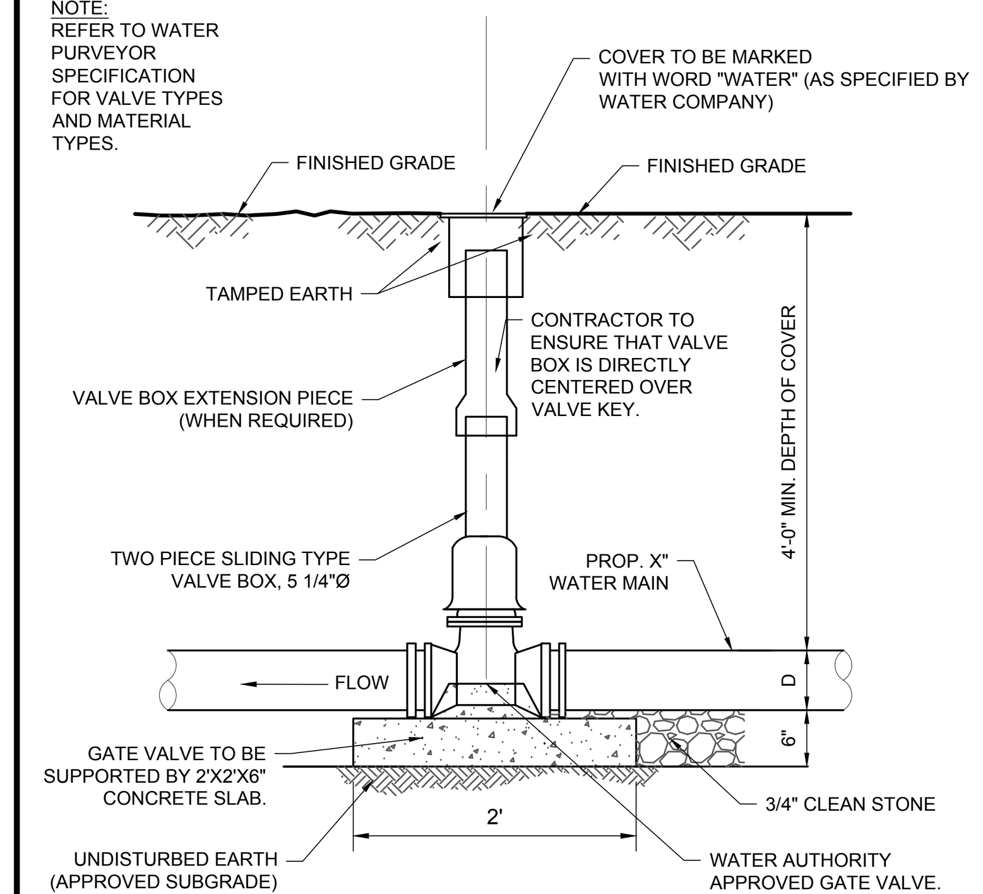


NOTES:
1. THIS TYPICAL DETAIL IS NOT FOR CONSTRUCTION AND IS PRELIMINARY AND CONCEPTUAL IN NATURE. THIS DETAIL IS PROVIDED FOR GRAPHICAL REFERENCE PURPOSES ONLY. DESIGN OF THE PROPOSED RETAINING WALL(S) SHALL BE PREPARED BY THE APPROPRIATE PROFESSIONAL (E.G. STRUCTURAL ENGINEER) LICENSED IN THE STATE WHERE THE CONSTRUCTION OCCURS. THE PROFESSIONAL SHALL BE FAMILIAR WITH THE ACTUAL SITE CONDITIONS AND MATERIALS AS WELL AS APPLICABLE, LOCAL, STATE AND FEDERAL REGULATIONS.
2. RETAINING WALL & ANY ASSOCIATED REINFORCEMENT SHALL BE DESIGNED ACCOUNTING FOR SOIL TYPES, WATER TABLE ELEVATION, EXISTING & PROPOSED SURROUNDING IMPROVEMENTS/CONDITIONS (INCLUDING BUT NOT LIMITED TO SLOPES, DRIVE AISLES, ROADS, FENCING (INCLUDING WIND LOAD), GUIDERAILS (INCLUDING COLLISION LOADING), UTILITIES, DRAINAGE 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 ANALYSIS.
3. RETAINING WALL DESIGNER SHALL ACCOUNT FOR MULTIPLE STORM STRUCTURES BEHIND WALL INCLUDING PARALLEL STORM PIPE THAT MAY INTERFERE WITH THE DESIGN OF THE WALL AND ANY ASSOCIATED REINFORCEMENT.
4. SEE GRADING AND DRAINAGE PLAN FOR PROPOSED ELEVATIONS AND SLOPES ASSOCIATED WITH SAME.
5. REFER TO GENERAL GRADING NOTES ON SHEET C-102 FOR ADDITIONAL NOTES REGARDING DESIGN AND CONSTRUCTION OF RETAINING WALLS.
6. DRAIN PIPE SHALL DISCHARGE TO CRUSHED STONE PAD AT GRADE (I.E. DAYLIGHT) OR CONNECT TO PROP DRAINAGE SYSTEM IF UNABLE TO DAYLIGHT. A RODENT SCREEN SHALL BE PROVIDED AT PIPE END WHERE PIPE DAYLIGHTS.
7. THIS DETAIL IS NOT APPLICABLE FOR WALLS UTILIZED TO RETAIN WATER.
8. MATERIALS UTILIZED IN CONSTRUCTION OF THE RETAINING WALL SHALL BE PROVIDED AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S AND WALL DESIGNER'S SPECIFICATIONS INCLUDING ANY REQUIRED COMPACTION AND TESTING.
9. WALL DESIGNER SHALL ACCOUNT FOR PROXIMITY OF DRAINAGE SYSTEMS AND ANY ASSOCIATED STORMWATER INFILTRATION INCLUDING PREPARATION OF GLOBAL STABILITY AND MOUNDING ANALYSES.

REINFORCED SEGMENTAL BLOCK RETAINING WALL

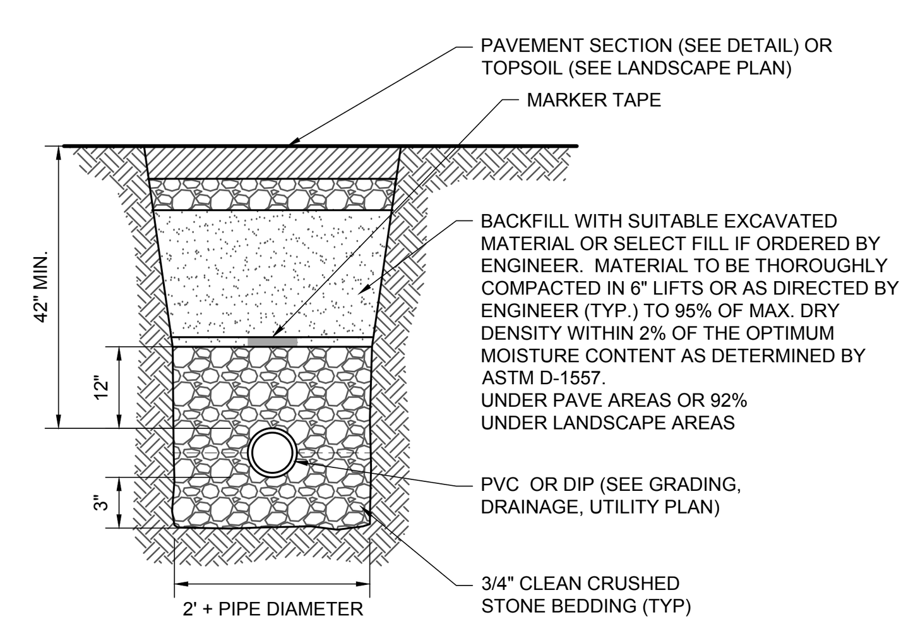
(NE-S110501 - 02/2024) NOT TO SCALE

NOTE:
REFER TO WATER PURVEYOR SPECIFICATION FOR VALVE TYPES AND MATERIAL TYPES.



GATE VALVE AND BOX DETAIL

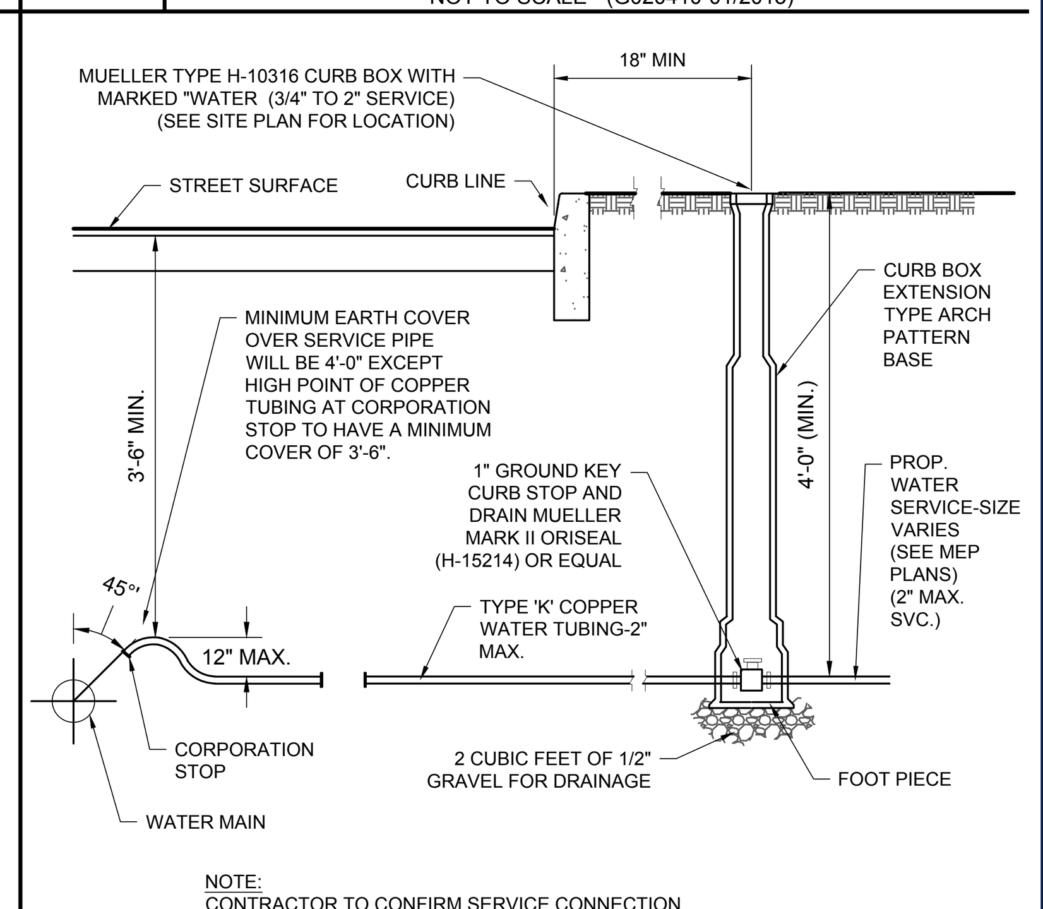
NOT TO SCALE (U049904-01/2013)



NOTES:
1. TOPSOIL OR PAVEMENT SECTION TO MATCH, AT MINIMUM, ADJOINING GRADE OR PAVEMENT.
2. THIS DETAIL IS INTENDED SOLELY FOR THE PURPOSE OF SHOWING BACK FILL MATERIALS AND MINIMUM THICKNESS OF LAYERS. DETAIL IS NOT INTENDED TO INDICATE MEANS AND METHODS OF CONSTRUCTION.
3. CONTRACTOR SHALL PROVIDE SHORING AND BRACING AS NECESSARY TO PROVIDE FOR SAFE INSTALLATION. CONTRACTOR SHALL COMPLY WITH ALL OSHA, STATE AND LOCAL REGULATIONS.
4. WHEN DIP IS USED, CRUSHED STONE NEED NOT EXTEND ABOVE PIPE.

WATER PIPE INSTALLATION DETAIL

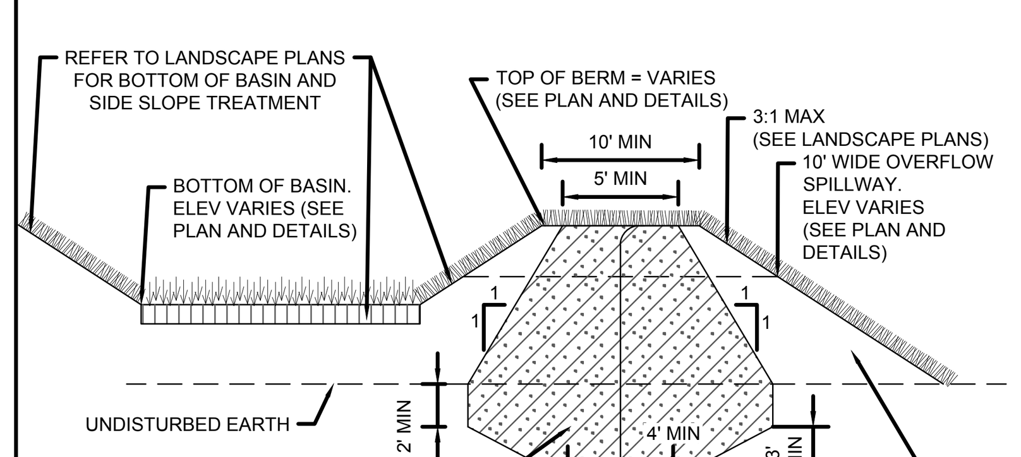
NOT TO SCALE (U049910 - 04/2019)



NOTE:
CONTRACTOR TO CONFIRM SERVICE CONNECTION REQUIREMENTS WITH WATER PURVEYOR PRIOR TO START OF CONSTRUCTION.

1" TO 2" WATER SERVICE CONNECTION DETAIL

NOT TO SCALE (U049902-01/2013)



IMPERVIOUS CORE MATERIAL COMPACTED TO 95% MAX DRY PROCTOR DENSITY IN 6" LIFTS. MATERIAL TO CONSIST OF CLAYEY SILTS WITH THE FOLLOWING GRADATION:
50%-80% PASSING #200
20%-50% HAVING MIN PARTICLE SIZE OF 0.005 MILLIMETERS.
(SEE ALTERNATE NOTE)

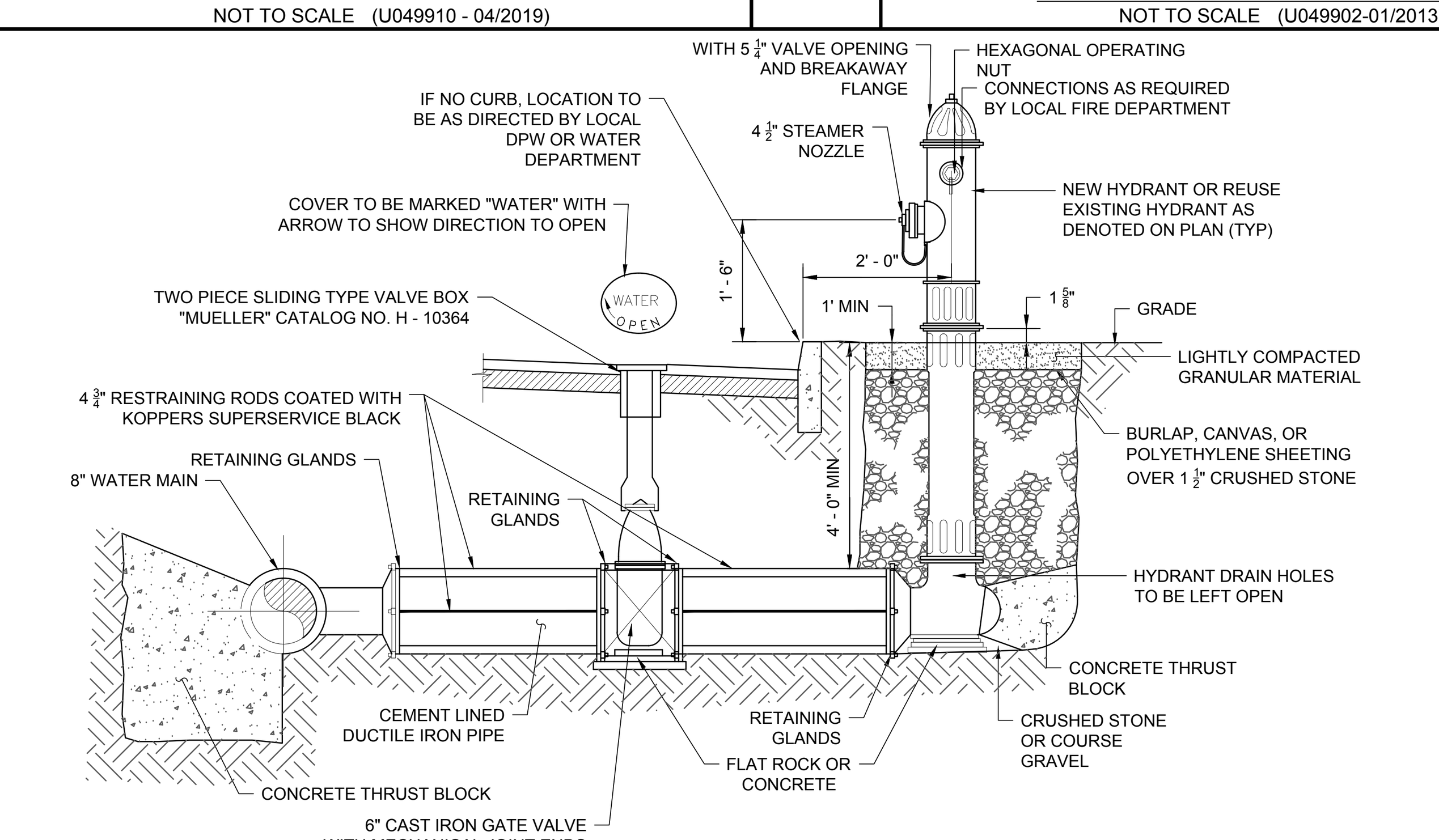
ALTERNATE NOTE
AS AN ALTERNATE TO THE IMPERVIOUS CORE MATERIAL, GC MAY PROVIDE 40-MIL HDPE BARRIER (EXCAVATE 2' BELOW EXISTING GRADE) SEAMS SHALL BE SEALED (BONDS OR TAPE) AS SPECIFIED BY MANUFACTURER. CONTRACTOR TO ENSURE THAT ALL PIPE PENETRATIONS THROUGH THE BARRIER ARE WATER TIGHT AND INCLUDE THE USE OF AN ANTI-SEEP COLLAR AS NECESSARY

BASIN BERM MATERIAL COMPACTED TO 95% MAX. DRY MODIFIED PROCTOR DENSITY IN 6" LEFTS. MATERIAL TO CONSIST OF 20-40% SANDY LOAM WITH THE FOLLOWING GRADATION:
0%-20% PASSING #200 SIEVE HAVING A MIN PARTICLE SIZE OF 0.005 MM.

NOTES:
1. FOUNDATION FOR BERM AND IMPERVIOUS CORE SHALL BE CLEARED OF ALL TOP SOIL, ROCKS, STUMPS, OR OTHER DELETERIOUS MATERIAL TO A FIRM SURFACE.

BASIN BERM AND IMPERVIOUS CORE

(NE-G019901 - 11/2024) NOT TO SCALE



HYDRANT AND VALVE INSTALLATION

NOT TO SCALE

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PERMITTING SERVICES
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REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY
1	05/20/2025	RESPONSE TO TOWN COMMENTS	CR/KS / JGB

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PROJECT No.: CTA220061.00
DRAWN BY: CR/TJN/KMB
CHECKED BY: JGB
DATE: 02/19/2025
CAD I.D.: CTA220061.00-DETL-6A

PROJECT:
PROPOSED SITE PLAN DOCUMENTS
FOR
C.R. KLEWIN LLC

PROPOSED RESIDENTIAL DEVELOPMENT
19, 29 & 39 MILITARY HIGHWAY, GALES FERRY, LEDYARD, NEW LONDON COUNTY, CONNECTICUT

BOHLER //
65 LaSALLE ROAD, SUITE 401
WEST HARTFORD, CT 06107
Phone: (860) 333-8900
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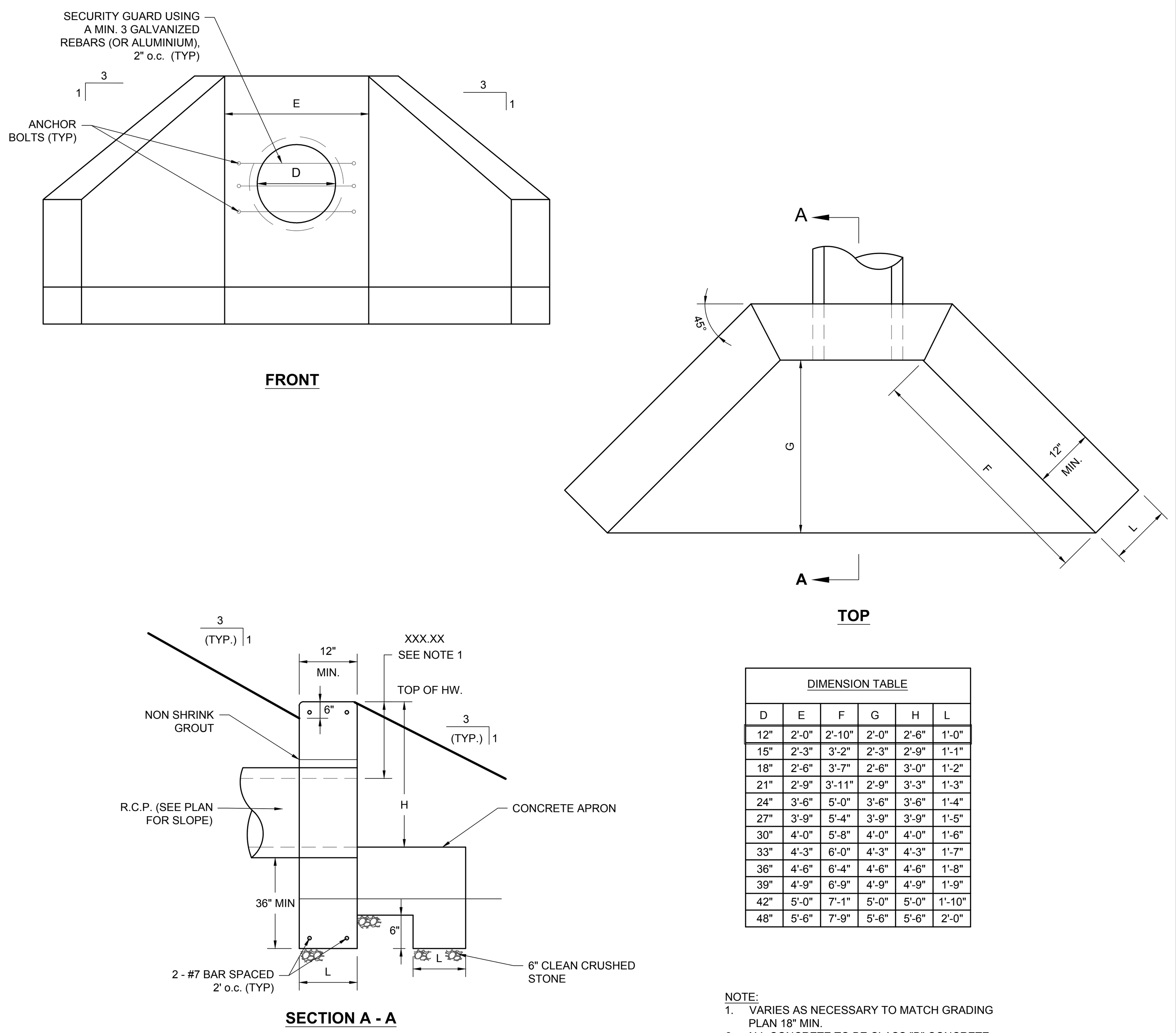
J. G. BORD
PROFESSIONAL ENGINEER

SHEET TITLE:
DETAIL SHEET

SHEET NUMBER:
C-902

REVISION 1 - 05/20/2025

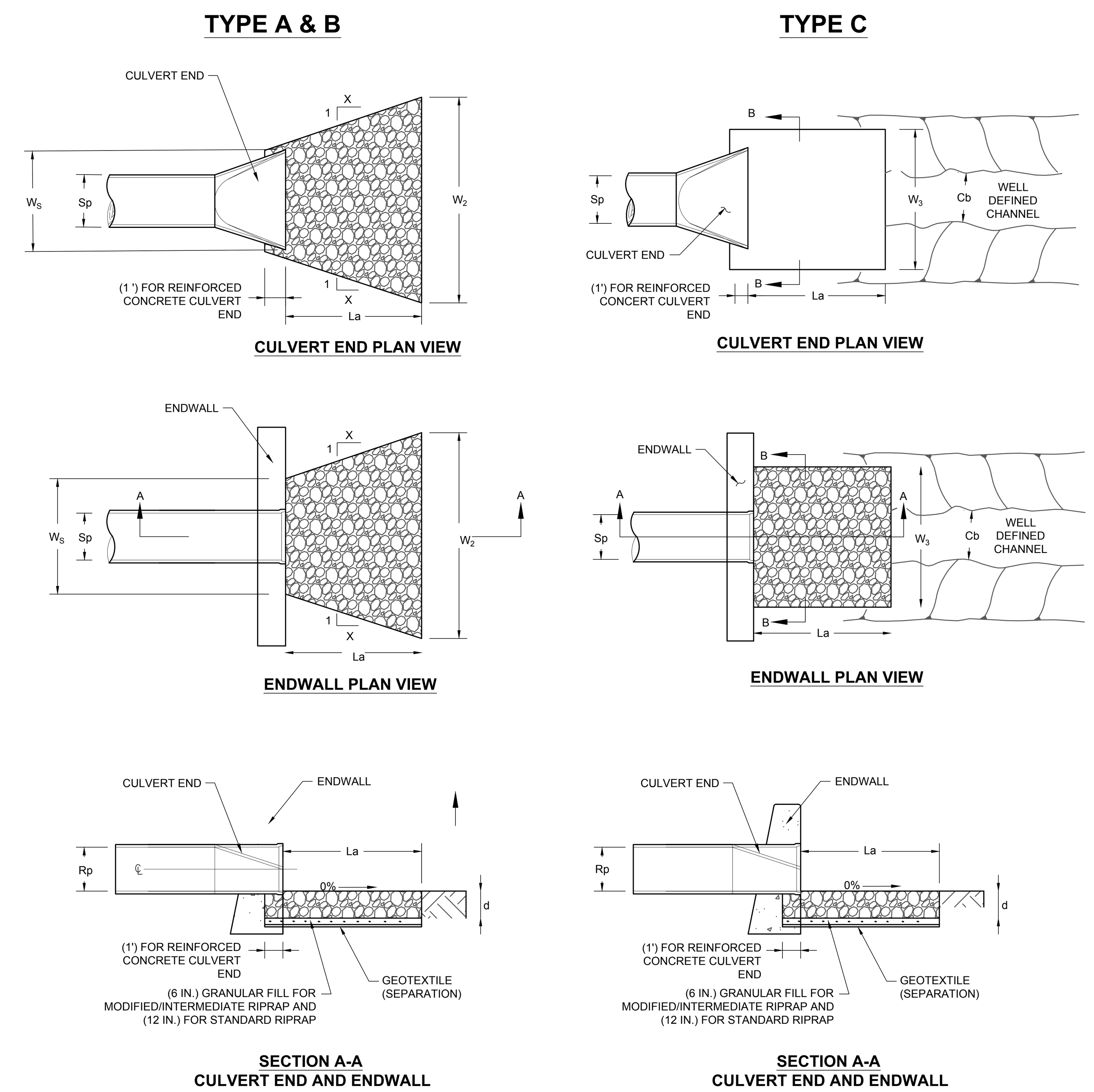


DIMENSION TABLE					
D	E	F	G	H	L
12"	2'-0"	2'-10"	2'-0"	2'-6"	1'-0"
15"	2'-3"	3'-2"	2'-3"	2'-9"	1'-1"
18"	2'-6"	3'-7"	2'-6"	3'-0"	1'-2"
21"	2'-9"	3'-11"	2'-9"	3'-3"	1'-3"
24"	3'-6"	5'-0"	3'-6"	3'-6"	1'-4"
27"	3'-9"	5'-4"	3'-9"	3'-9"	1'-5"
30"	4'-0"	5'-8"	4'-0"	4'-0"	1'-6"
33"	4'-3"	6'-0"	4'-3"	4'-3"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

NOTE:
1. VARIES AS NECESSARY TO MATCH GRADING PLAN 18" MIN.
2. ALL CONCRETE TO BE CLASS "B" CONCRETE, 4500 PSI MIN, AIR ENTRAINED. ALL REINFORCED CONCRETE PIPES SHALL HAVE 2 INCHES OF COVER TO FACE OF WALL, OR AS DIRECTED BY THE MUNICIPAL ENGINEER
3. REINFORCING TO HAVE MIN. 3" COVER.
4. CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR REVIEW AND APPROVAL BY ENGINEER PRIOR TO FABRICATION.

HEADWALL CAST IN PLACE DETAIL

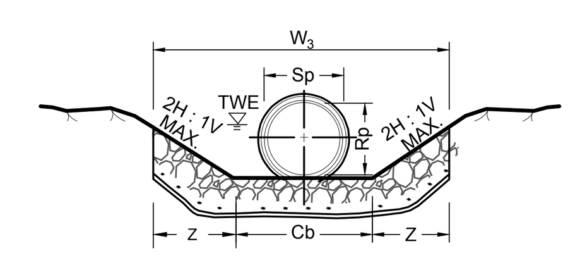
NOT TO SCALE (G020204-01/2013)



LEGEND

	X	W_1	W_2
TYPE A RIPRAP APRON	X	3Sp	3Sp + 0.7 La
TYPE B RIPRAP APRON	X	3Sp	3Sp + 0.7 La

Sp = MAX. INSIDE PIPE SPAN (NON-CIRCULAR SECTIONS) / INSIDE PIPE DIAMETER (CIRCULAR SECTIONS)
Rp = MAX. INSIDE PIPE RISE (NON-CIRCULAR SECTIONS) / INSIDE PIPE DIAMETER (CIRCULAR SECTIONS)
La = LENGTH OF RIPRAP APRON MEASURED FROM THE END CULVERT END SECTION OR FACE OF ENDWALL
d = (12 IN.) MODIFIED RIPRAP / (18 IN.) INTERMEDIATE RIPRAP / (36 IN.) STANDARD RIPRAP



SECTION B-B
CULVERT END AND ENDWALL

LEGEND

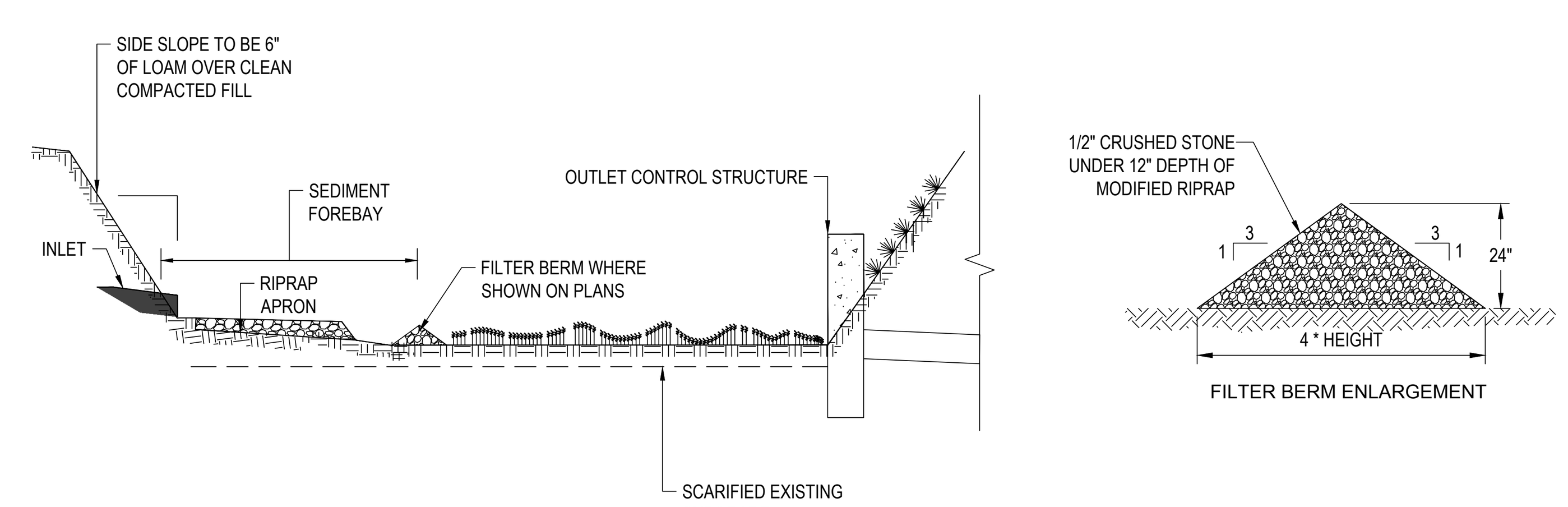
Z	CHANNEL SIDE SLOPE
2	2H : 1V
3	3H : 1V
4	4H : 1V
5	5H : 1V
6	6H : 1V

C_b = CHANNEL BOTTOM
TWE = TAILWATER ELEVATION
S_p = MAX. INSIDE PIPE SPAN (NON-CIRCULAR SECTIONS) / INSIDE PIPE DIAMETER (CIRCULAR SECTIONS)
R_p = MAX. INSIDE PIPE RISE (NON-CIRCULAR SECTIONS) / INSIDE PIPE DIAMETER (CIRCULAR SECTIONS)
L_a = LENGTH OF RIPRAP APRON MEASURED FROM THE END CULVERT END SECTION OR FACE OF ENDWALL
d = (12 IN.) MODIFIED RIPRAP / (18 IN.) INTERMEDIATE RIPRAP / (36 IN.) STANDARD RIPRAP
W = USE WHICHEVER IS GREATER:

Rip Rap Apron Sizing Calculations											
Location	Pipe Size (in.)	Pipe Size (ft.)	Q (cfs)	TW (ft.)	V (fps)	W1 (ft.)	La (ft.)	W2 (ft.)	W3 (ft.)	Apron Type	Rip Rap Type
B-70	24	2.0	16.54	2.00	6.28	6.00	12	11	NA	B	Modified
C-10	12	1.0	5.13	0.65	7.89	3.00	12	8	NA	B	Modified
C-40	18	1.5	4.41	0.65	5.98	4.50	12	13	NA	A	Modified

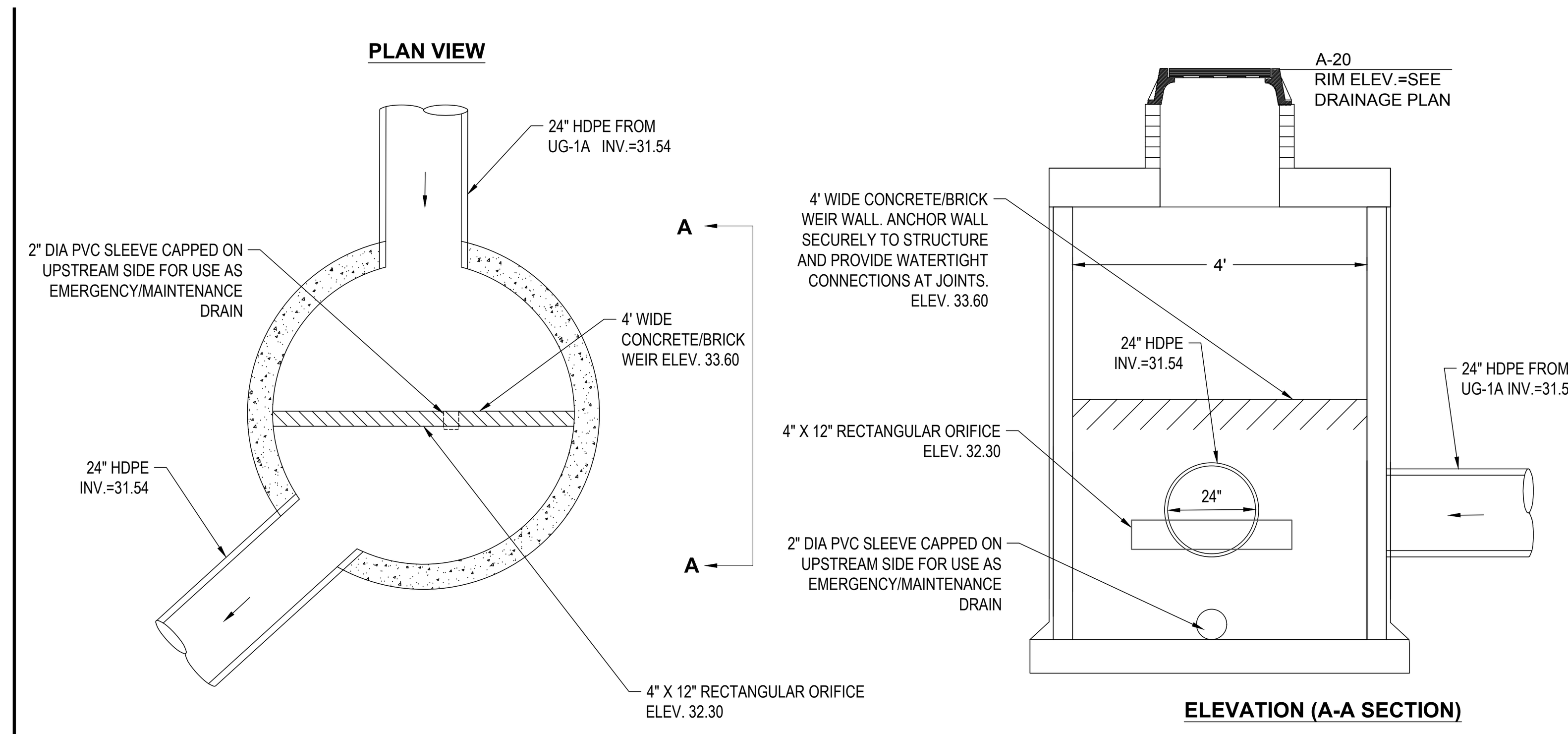
RIP RAP APRON

NOT TO SCALE



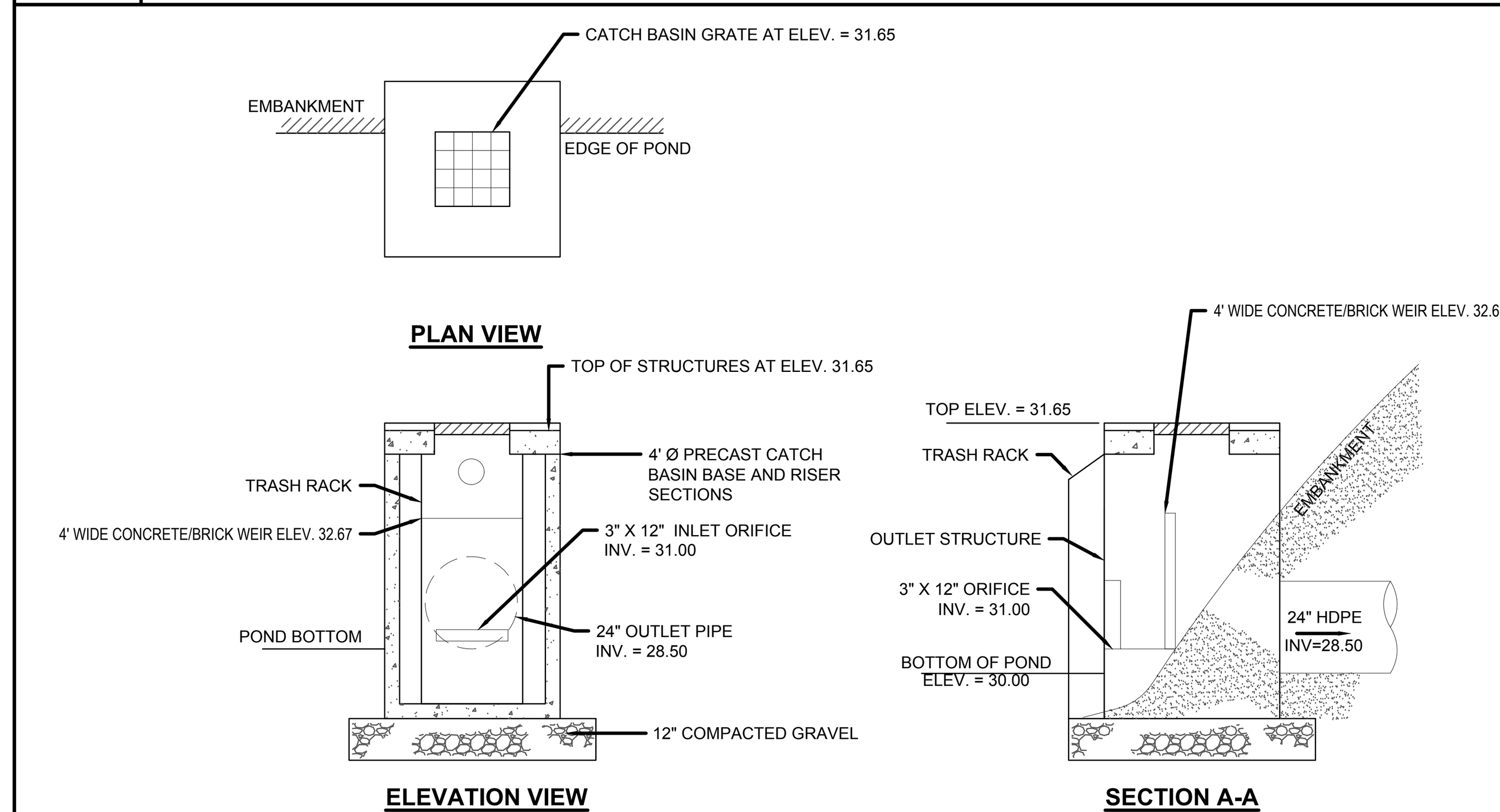
INFILTRATION BASIN

NOT TO SCALE



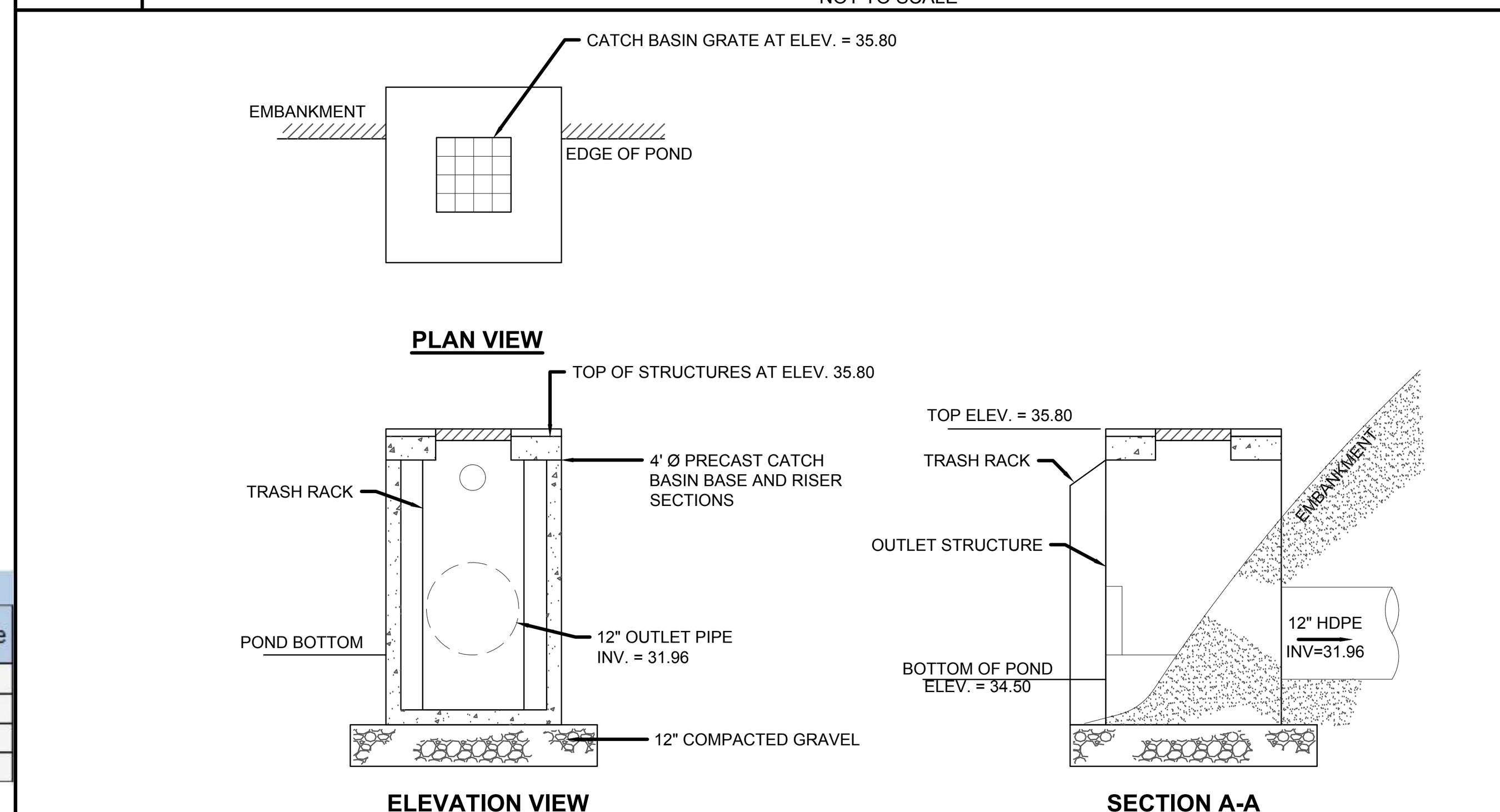
OUTLET CONTROL STRUCTURE (A-20)

NOT TO SCALE



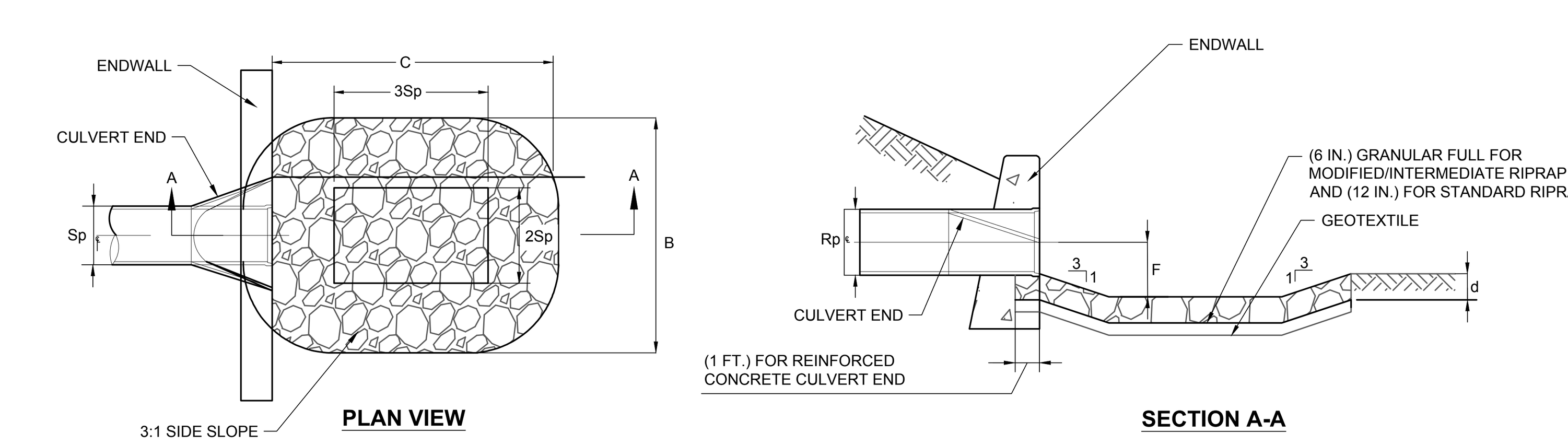
OUTLET CONTROL STRUCTURE WITH GRATE (B-30)

NOT TO SCALE



OUTLET CONTROL STRUCTURE WITH GRATE (C-30)

NOT TO SCALE



NOTE:
Sp = MAX. INSIDE PIPE SPAN (NON-CIRCULAR SECTIONS) / INSIDE PIPE DIAMETER (CIRCULAR SECTIONS)
Rp = MAX. INSIDE PIPE RISE (NON-CIRCULAR SECTIONS) / INSIDE PIPE DIAMETER (CIRCULAR SECTIONS)
d = (12 IN.) MODIFIED RIPRAP / (18 IN.) INTERMEDIATE RIPRAP / (36 IN.) STANDARD RIPRAP

TYPE 1: F = 0.5 Rp
TYPE 2: F = Rp; C = 3Sp + 6F; B = 2 Sp + 6F

Scour Hole Sizing Calculations										
Location	Pipe Size/ Span (in)	Pipe Size/ Span (ft)	Q (cfs)	TW (ft.)	Scour Hole Type	D_{50} (ft)	F (ft)	C (ft)	B (ft)	Rip Rap Type
A-10	24	2.0	10.41	1.12	Type 1	0.10	1.00	12	10	Modified
B-10	24	2.0	13.06	1.50	Type 1	0.10	1.00	12	10	Modified
B-40 / B-41	24	2.0	25.11	1.50	Type 1	0.24	1.00	12	10	Modified

OUTLET PROTECTION - SCOUR HOLE

NOT TO SCALE

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LAND SURVEYING
PROGRAM MANAGEMENT
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SUSTAINABLE DESIGN
PERMITTING SERVICES
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REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY
1	05/20/2025	RESPONSE TO TOWN COMMENTS	CR/KS / JGB

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DRAWN BY: CR/TJN/KMB
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PROJECT:
PROPOSED SITE PLAN DOCUMENTS
FOR
C.R. KLEWIN LLC
PROPOSED RESIDENTIAL DEVELOPMENT
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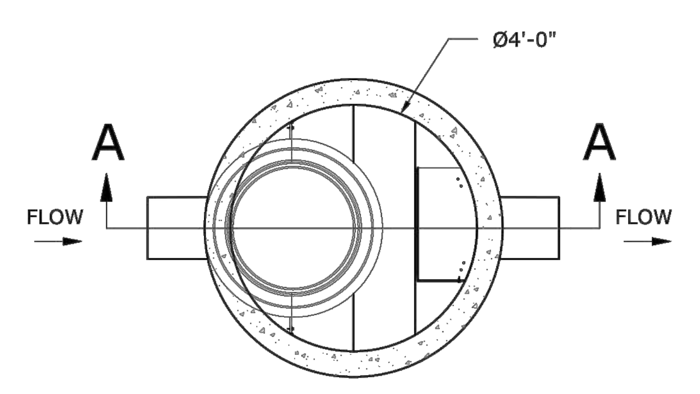
J.G. BORD
PROFESSIONAL ENGINEER

SHEET TITLE:
DETAIL SHEET

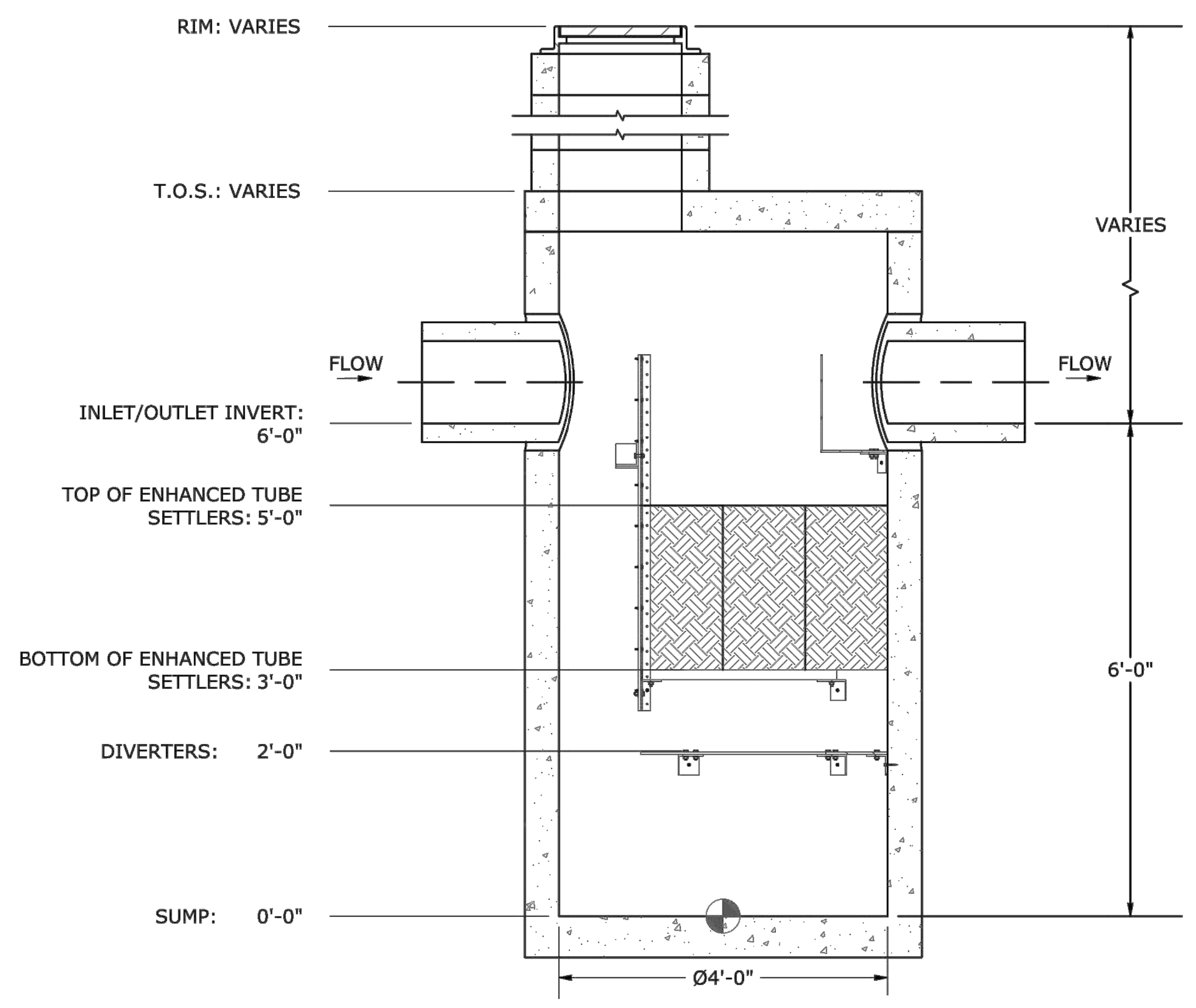
SHEET NUMBER:
C-903

REVISION 1 - 05/20/2025

SITE SPECIFIC DATA	
STRUCTURE ID	A-21



PLAN VIEW
N.T.S.



SECTION A-A
N.T.S.

DESIGN NOTES:

1. DESIGN LOADING:
   a. LOAD RATING = AASHTO HS-20
   b. MINUMUM COVER = 0.50', MAXIMUM COVER = 5.00'. CONTACT STORMTRAP FOR ADDITIONAL COVER OPTIONS.
   c. WATER TABLE AT OR BELOW OUTLET PIPE INVERT ELEVATION.
   d. NO LATERAL SURCHARGE FROM ADJACENT STRUCTURES SUCH AS VEGETATION, BUILDINGS, WALLS, OR FOUNDATIONS.
2. ENGINEER OF RECORD TO CONFIRM THE DESIGN LOADINGS MEET PROJECT REQUIREMENTS. CONTACT STORMTRAP FOR ALTERNATIVE DESIGN LOAD OPTIONS.

GENERAL NOTES:

1. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS, WEIGHTS, AND ACCESSORIES, PLEASE CONTACT YOUR STORMTRAP REPRESENTATIVE.
2. CONCRETE COMPONENTS SHALL BE MANUFACTURED IN ACCORDANCE WITH ASTM C478.
3. CONTRACTOR TO INSTALL THE STRUCTURE IN ACCORDANCE WITH ASTM C1821.
4. CONTRACTOR TO PROVIDE ALL LABOR AND EQUIPMENT REQUIRED TO OFFLOAD AND INSTALL UNIT.
5. CONTRACTOR TO PROVIDE AND INSTALL ALL PIPES, FRAMES, COVERS, HATCHES, AND RISERS UNLESS SPECIFIED OTHERWISE.
6. CONTRACTOR TO ADD JOINT SEALANT (PROVIDED BY STORMTRAP) BETWEEN ALL STRUCTURE SECTIONS.

DRAWINGS ARE FOR REFERENCE ONLY AND SHALL NOT BE USED FOR CONSTRUCTION PURPOSES.

StormSettler™
STORMSETTLER 4 STANDARD DETAIL

DRAWN BY:	DATE:	SCALE:		
TN	02/19/2025	NTS	V1	SHEET 1 OF 1

StormTrap®
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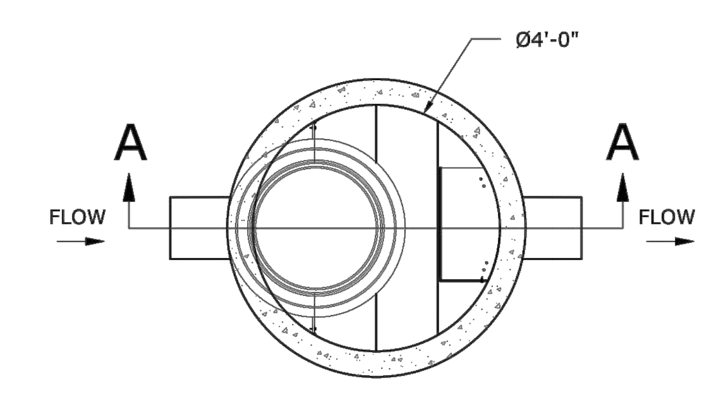
1287 WINDHAM PARKWAY
ROMEOVILLE, IL 60446
P:815-941-4549
F:331-318-5347

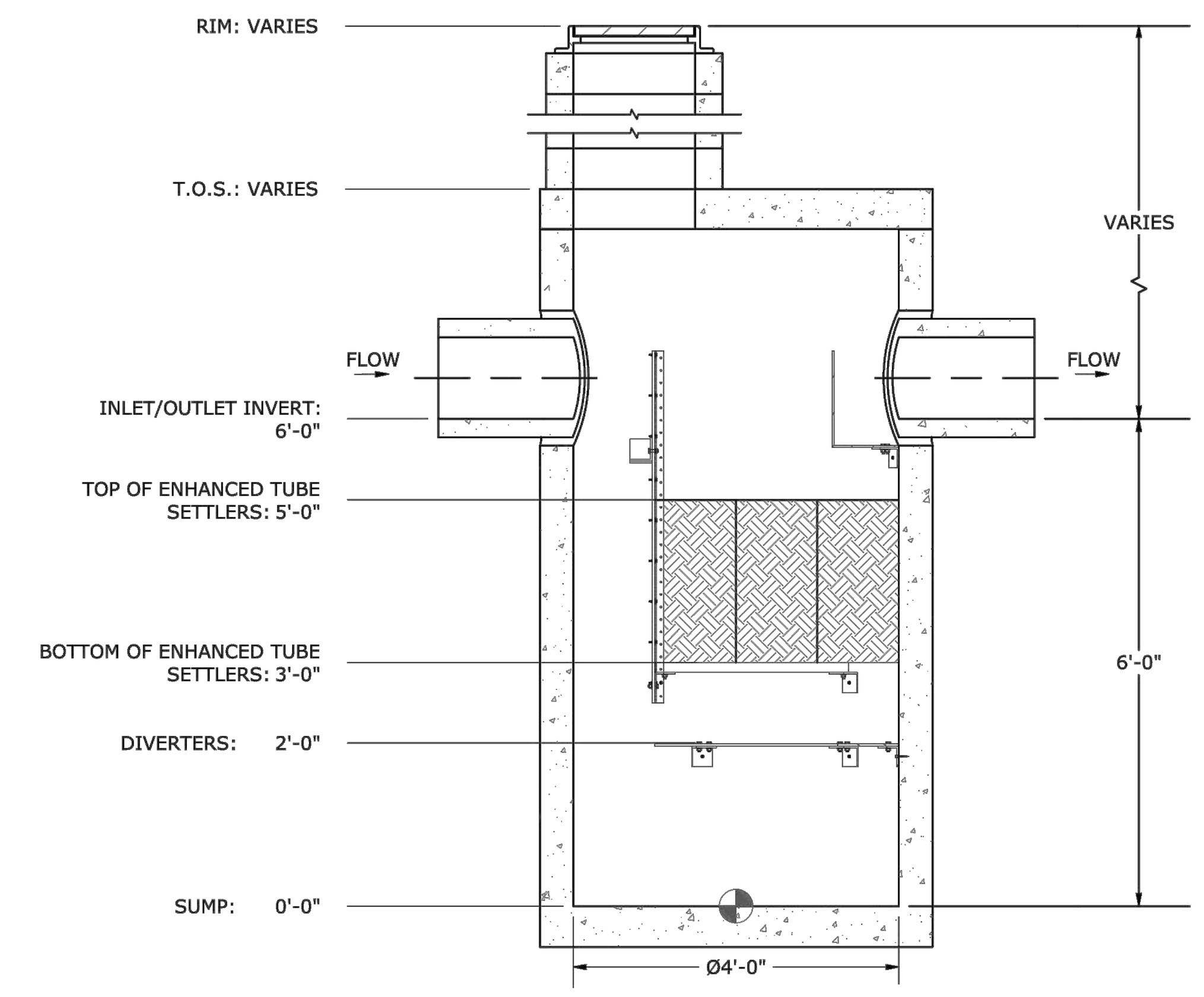
HYDRODYNAMIC SEPARATOR DETAIL (A-21)

NOT TO SCALE (S-081)

SITE SPECIFIC DATA	
STRUCTURE ID	A-30



PLAN VIEW
N.T.S.



SECTION A-A
N.T.S.

DESIGN NOTES:

1. DESIGN LOADING:
   a. LOAD RATING = AASHTO HS-20
   b. MINUMUM COVER = 0.50', MAXIMUM COVER = 5.00'. CONTACT STORMTRAP FOR ADDITIONAL COVER OPTIONS.
   c. WATER TABLE AT OR BELOW OUTLET PIPE INVERT ELEVATION.
   d. NO LATERAL SURCHARGE FROM ADJACENT STRUCTURES SUCH AS VEGETATION, BUILDINGS, WALLS, OR FOUNDATIONS.
2. ENGINEER OF RECORD TO CONFIRM THE DESIGN LOADINGS MEET PROJECT REQUIREMENTS. CONTACT STORMTRAP FOR ALTERNATIVE DESIGN LOAD OPTIONS.

GENERAL NOTES:

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5. CONTRACTOR TO PROVIDE AND INSTALL ALL PIPES, FRAMES, COVERS, HATCHES, AND RISERS UNLESS SPECIFIED OTHERWISE.
6. CONTRACTOR TO ADD JOINT SEALANT (PROVIDED BY STORMTRAP) BETWEEN ALL STRUCTURE SECTIONS.

DRAWINGS ARE FOR REFERENCE ONLY AND SHALL NOT BE USED FOR CONSTRUCTION PURPOSES.

StormSettler™
STORMSETTLER 4 STANDARD DETAIL

DRAWN BY:	DATE:	SCALE:		
TN	02/19/2025	NTS	V1	SHEET 1 OF 1

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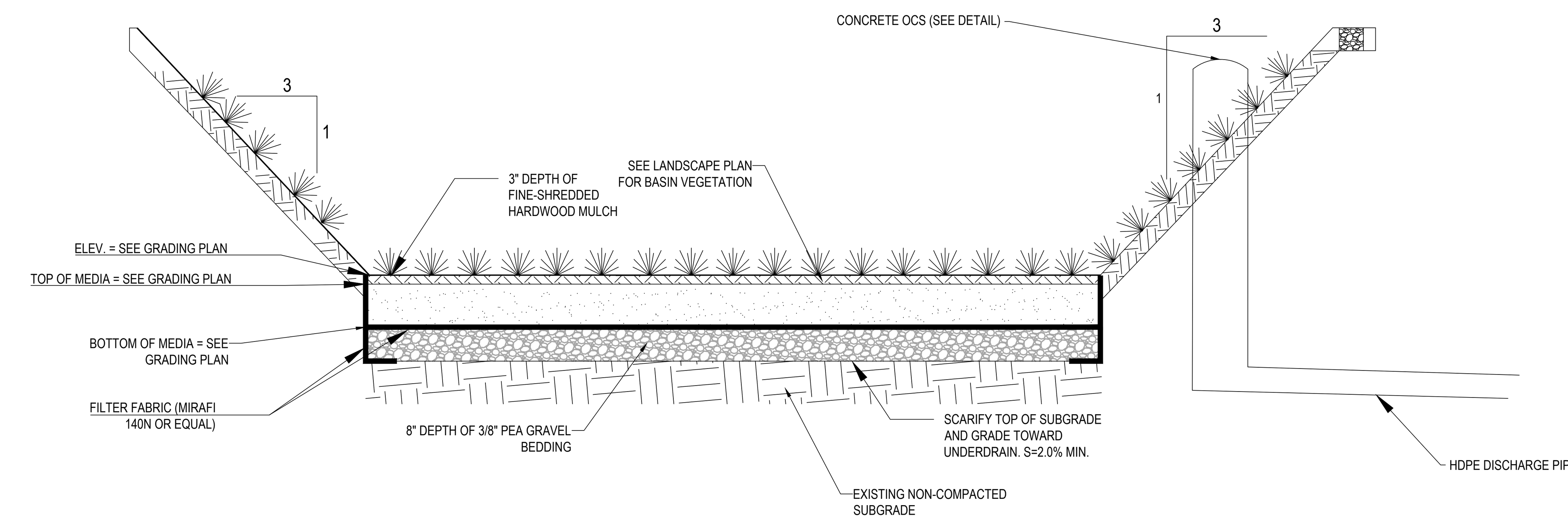
HYDRODYNAMIC SEPARATOR DETAIL (A-30)

NOT TO SCALE (S-081)



1. THE SOIL MIX FOR BIORETENTION AREAS SHOULD BE A MIXTURE OF SAND COMPOST AND SOIL.
   1.1. 40 % SAND,
   1.2. 20-30% TOPSOIL, AND
   1.3. 30-40% COMPOST.
2. THE SOIL MIX MUST BE UNIFORM, FREE OF STONES, STUMPS, ROOTS OR SIMILAR OBJECTS LARGER THAN 2 INCHES. CLAY CONTENT SHOULD NOT EXCEED 5%.
3. SOIL PH SHOULD GENERALLY BE BETWEEN 5.5-6.5, A RANGE THAT IS OPTIMAL FOR MICROBIAL ACTIVITY AND ADSORPTION OF NITROGEN, PHOSPHORUS, AND OTHER POLLUTANTS.
4. USE SOILS WITH 1.5% TO 3% ORGANIC CONTENT AND MAXIMUM 500-PPM SOLUBLE SALTS.
5. THE SAND COMPONENT SHOULD BE GRAVELLY SAND THAT MEETS ASTM D 422.

SIEVE SIZE	PERCENT PASSING
2-INCH	100
¾-INCH	70-100
¼-INCH	50-80
U.S NO. 40	15-40
U.S NO. 200	0-3

6. THE TOPSOIL COMPONENT SHALL BE SANDY LOAM OR LOAMY SAND.
7. THE COMPOST COMPONENT MUST BE PROCESSED FROM YARD WASTE IN ACCORDANCE WITH CTDEEP GUIDELINES. THE COMPOST SHALL NOT CONTAIN BIOSOLIDS.
8. ON-SITE SOIL MIXING OR PLACEMENT IS NOT ALLOWED IF SOIL IS SATURATED OR SUBJECT TO WATER WITHIN 48 HOURS. COVER AND STORE SOIL TO PREVENT WETTING OR SATURATION.
9. TEST SOIL FOR FERTILITY AND MICRO-NUTRIENTS AND, ONLY IF NECESSARY, AMEND MIXTURE TO CREATE OPTIMUM CONDITIONS FOR PLANT ESTABLISHMENT AND EARLY GROWTH.
10. GRADE THE AREA TO ALLOW A PONDING DEPTH OF 6 TO 8 INCHES; DEPENDING ON SITE CONDITIONS, MORE OR LESS PONDING MAY BE APPROPRIATE. SEE GRADING AND DRAINAGE PLAN.
11. COVER THE SOIL WITH 3 INCHES OF FINE-SHREDDED HARDWOOD MULCH.
12. REFER TO LANDSCAPING PLAN FOR PLANTING. INVASIVE AND EXOTIC SPECIES ARE PROHIBITED. THE PLANTING PLAN SHOULD ALSO MEET ANY APPLICABLE LOCAL LANDSCAPING REQUIREMENTS.
13. DURING CONSTRUCTION, AVOID EXCESSIVELY COMPACTING SOILS AROUND THE BIORETENTION AREAS AND ACCUMULATING SILT AROUND THE DRAIN FIELD. TO MINIMIZE SEDIMENT LOADING IN THE TREATMENT AREA, DIRECT RUNOFF TO THE BIORETENTION AREA ONLY FROM AREAS THAT ARE STABILIZED; ALWAYS DIVERT CONSTRUCTION RUNOFF ELSEWHERE.
14. TO AVOID COMPACTION OF THE PARENT MATERIAL, WORK FROM THE EDGE OF THE AREA PROPOSED AS THE LOCATION OF AN EXFILTRATIONG BIORETENTION CELL. NEVER DIRECT RUNOFF TO THE CELL UNTIL THE CELL AND THE CONTRIBUTING DRAINAGE AREAS ARE FULLY STABILIZED.
15. PLACE PLANTING SOILS IN 1-FOOT TO 2-FOOT LIFTS AND COMPACT THEM WITH MINIMAL PRESSURE UNTIL THE DESIRED ELEVATION IS REACHED. SOME ENGINEERS SUGGEST FLOODING THE CELL BETWEEN EACH LIFT PLACEMENT IN LIEU OF COMPACTION.

RAIN GARDEN

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PROJECT No.:	CTA220061.00
DRAWN BY:	CR/TJN/KMB
CHECKED BY:	JGB
DATE:	02/19/2025
CAD I.D.:	CTA220061.00-DETL-6A

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

C.R. KLEWIN LLC

PROPOSED RESIDENTIAL DEVELOPMENT

19, 29 & 39 MILITARY HIGHWAY, GALES FERRY, LEDYARD, NEW LONDON COUNTY, CONNECTICUT

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J.G. BORD
PROFESSIONAL ENGINEER

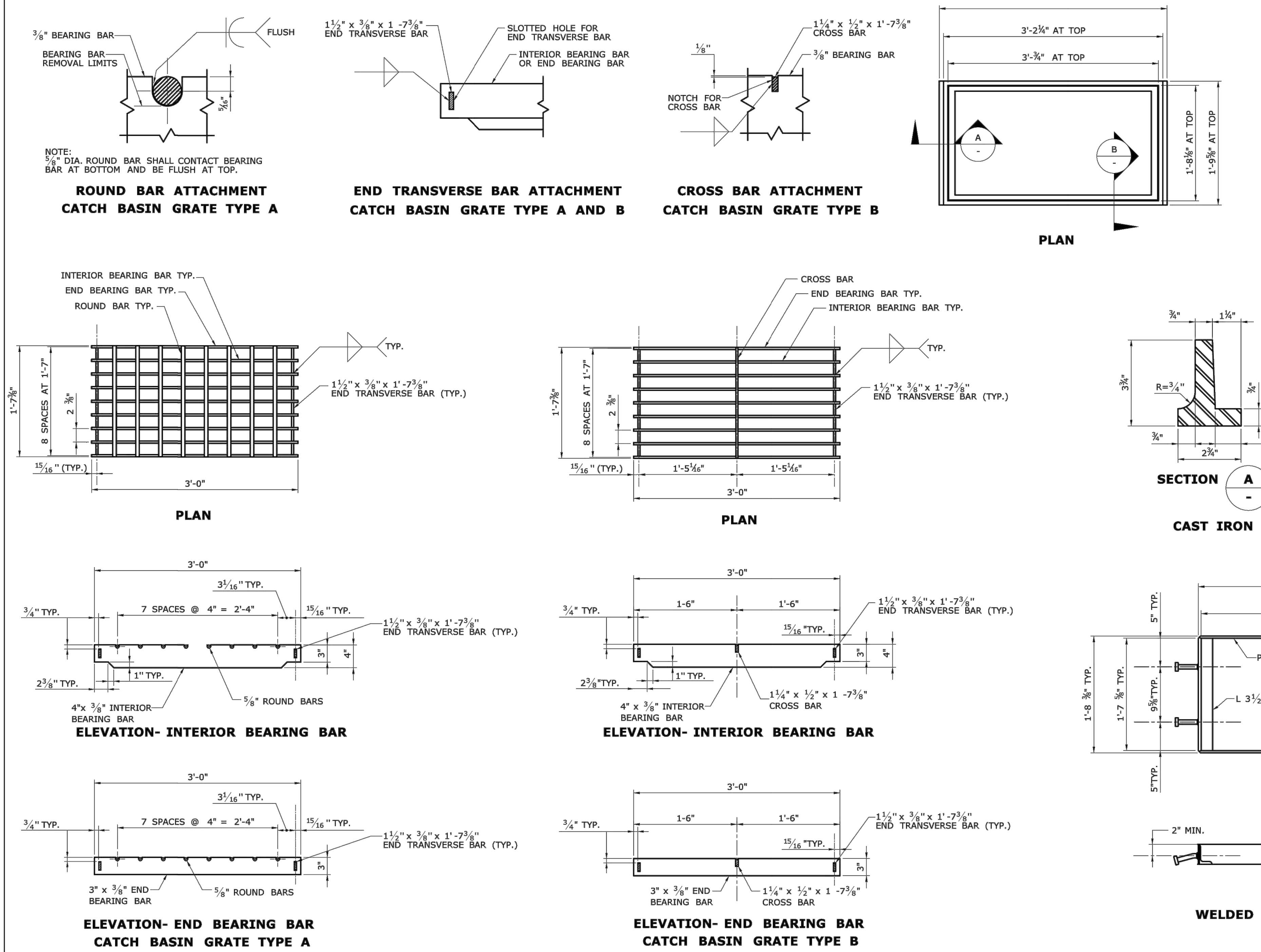
SHEET TITLE:

DETAIL SHEET

SHEET NUMBER:

C-904

REVISION 1 - 05/20/2025


ROUND BAR ATTACHMENT
CATCH BASIN GRATE TYPE A
END TRANSVERSE BAR ATTACHMENT
CATCH BASIN GRATE TYPE A AND B
CROSS BAR ATTACHMENT
CATCH BASIN GRATE TYPE B
PLAN
PLAN
PLAN
SECTION A
SECTION B
CAST IRON FRAME ALTERNATE
ELEVATION- INTERIOR BEARING BAR
ELEVATION- INTERIOR BEARING BAR
PLAN
ELEVATION- END BEARING BAR
CATCH BASIN GRATE TYPE A
ELEVATION- END BEARING BAR
CATCH BASIN GRATE TYPE B
WELDED STUD ANCHOR DETAILS
STEEL FRAME

GENERAL NOTES:

1. STEEL OR CAST IRON SHALL BE USED FOR FRAMES. STEEL SHALL BE USED FOR TYPE "A" AND "B" GRATES.
2. TYPE "A" GRATES SHALL BE USED ON ALL ROADWAYS WHERE BICYCLE TRAFFIC IS ALLOWED OR ON HEAVY DUTY LOCK DOWN TOPS AS DIRECTED BY THE ENGINEER.
3. TYPE "B" GRATES SHALL BE USED ON ALL LIMITED ACCESS HIGHWAYS, RAMPS AND WHERE BICYCLE TRAFFIC IS NOT ALLOWED OR AS DIRECTED BY THE ENGINEER.
4. DO NOT GALVANIZE CAST IRON FRAMES.
5. DIMENSIONAL TOLERANCES SHALL BE $\pm 1/16$ INCH.
6. ALL STEEL BARS SHALL BE WELDED AT ALL INTERSECTIONS.

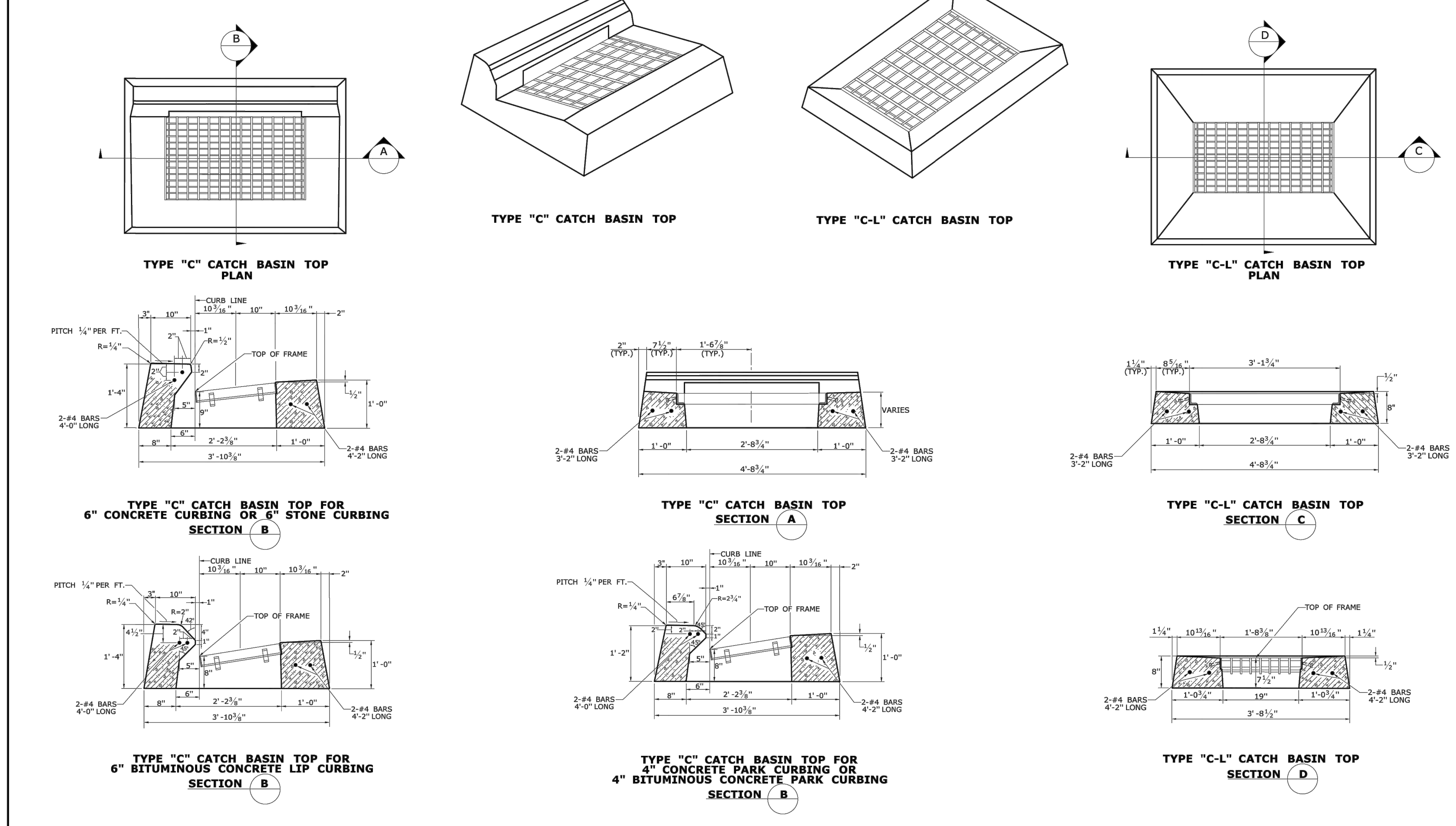
NOT TO SCALE | CTDOT STANDARD SHEET | CATCH BASIN FRAMES AND GRATES | HW-586_08

CTDOT CATCH BASIN FRAMES AND GRATES DETAIL

NOT TO SCALE (S-081)

GENERAL NOTES:

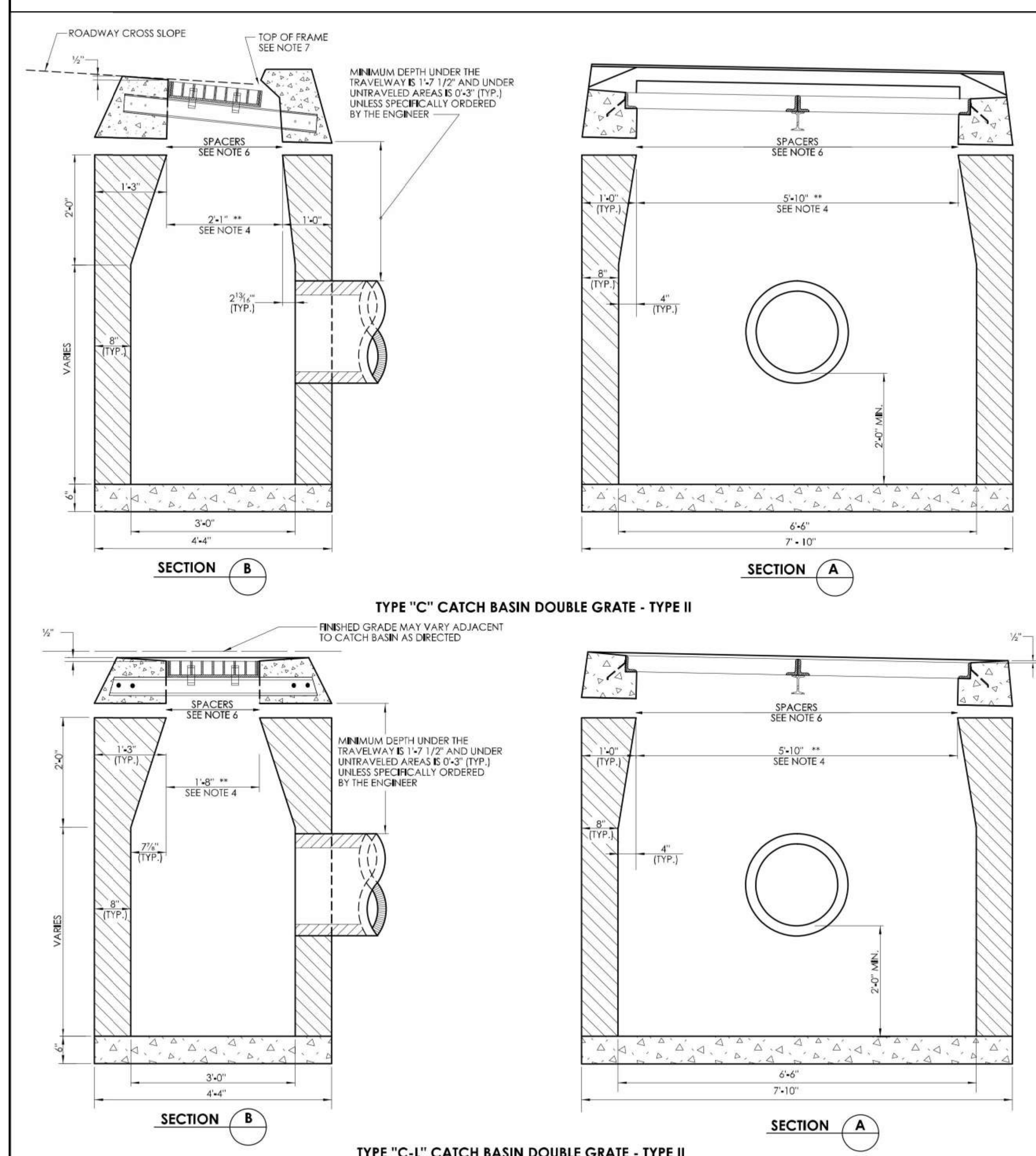
1. SEE SHEET HW-586_08, FOR CATCH BASIN FRAMES AND GRATES AND HW-586_09 FOR CATCH BASIN LOCK DOWN TOPS.
2. SEE SHEET HW-586_01, CATCH BASIN AND DROP INLET TYPES "C" AND "C-L" TO DETERMINE THE TOP OF FRAME DEPRESSION AT THE GUTTER.
3. ALL BARS SHALL HAVE A MINIMUM 2" COVER.


TYPE "C" CATCH BASIN TOP PLAN
TYPE "C" CATCH BASIN TOP
TYPE "C-L" CATCH BASIN TOP
TYPE "C-L" CATCH BASIN TOP PLAN
TYPE "C" CATCH BASIN TOP FOR
6" CONCRETE CURBING OR 6" STONE CURBING
SECTION B
TYPE "C" CATCH BASIN TOP
SECTION A
TYPE "C-L" CATCH BASIN TOP
SECTION C
TYPE "C" CATCH BASIN TOP FOR
6" BITUMINOUS CONCRETE LIP CURBING
SECTION B
TYPE "C" CATCH BASIN TOP FOR
4" CONCRETE PARK CURBING OR
4" BITUMINOUS CONCRETE PARK CURBING
SECTION B
TYPE "C-L" CATCH BASIN TOP
SECTION D

NOT TO SCALE | CTDOT STANDARD SHEET | CATCH BASIN TOPS TYPE "C" AND "C-L" | HW-586_07a

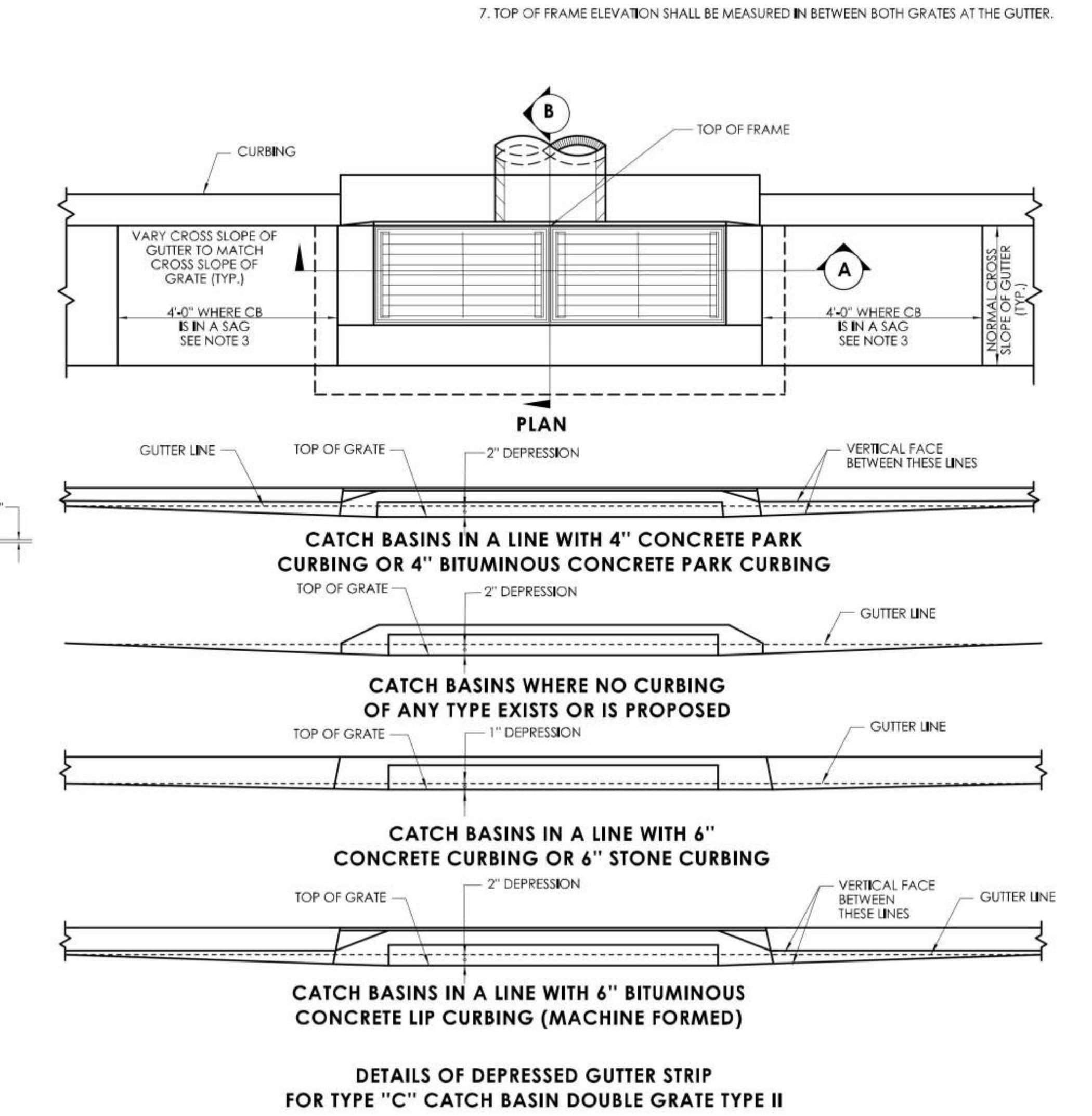
CTDOT CATCH BASIN TOPS TYPE 'C' AND 'C-L'

NOT TO SCALE (S-081)



GENERAL NOTES:

1. FOR CATCH BASIN TOPS, SEE SHEET NO. HW-586_07.
2. ALL THE FACES OF THE STRUCTURE IN CONTACT WITH CONCRETE PAVEMENT SHALL BE COVERED WITH A LAYER OF TAR PAPER OR APPROVED EQUAL.
3. USE 6'-0" ON UPGRADE SIDE (SEE PLAN VIEW) OF CONTINUOUS GRADE AND 1'-0" ON DOWNGRADE SIDE OF CONTINUOUS GRADE AS DIRECTED BY THE ENGINEER.
4. IF MASONRY UNITS ARE REQUIRED, THE BASIN SHALL BE CONSTRUCTED IN CONFORMANCE WITH DIMENSIONS SHOWN. CORBELLING SHALL BE PERMITTED TO A MAXIMUM OF 3". NO PROJECTION SHALL EXTEND INSIDE THE LIMITS NOTED BY **.
5. WALL THICKNESS OF ALL CATCH BASINS OVER 10' DEEP SHALL BE INCREASED TO 12" THICK. INSIDE DIMENSION SHALL REMAIN THE SAME. 12" THICKNESS SHALL START AFTER THE FIRST 10'.
6. FOR GRADE ADJUSTMENT OF THE CATCH BASIN TOP (TO MATCH THE ROADWAYS' PROFILE AND CROSS-SLOPE SHOWN ON THE PLANS) USE; SPACERS EITHER CONCRETE MASONRY UNIT OR PRECAST WITH THE REQUIRED REINFORCING (RECOMMENDED BY THE MANUFACTURER) COMBINED WITH MORTAR AS NEEDED TO PROVIDE THE PROPER GRADE ADJUSTMENTS.
7. TOP OF FRAME ELEVATION SHALL BE MEASURED IN BETWEEN BOTH GRATES AT THE GUTTER.


PLAN
CATCH BASINS IN A LINE WITH 4" CONCRETE PARK CURBING OR 4" BITUMINOUS CONCRETE PARK CURBING
CATCH BASINS WHERE NO CURBING OF ANY TYPE EXISTS OR IS PROPOSED
CATCH BASINS IN A LINE WITH 6" CONCRETE CURBING OR 6" STONE CURBING
CATCH BASINS IN A LINE WITH 6" BITUMINOUS CONCRETE LIP CURBING (MACHINE FORMED)
DETAILS OF DEPRESSED GUTTER STRIP
FOR TYPE "C" CATCH BASIN DOUBLE GRATE TYPE II

NOT TO SCALE | CTDOT STANDARD SHEET | CATCH BASIN (TYPES "C" AND "C-L") FOR DOUBLE GRATE TYPE II STRUCTURES | HW- 586_03

CTDOT CATCH BASIN TYPE 'C' AND 'C-L' TYPE II

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DRAWN BY:	CR/TJN/KMB
CHECKED BY:	JGB
DATE:	02/19/2025
CAD I.D.:	CTA220061.00-DETL-6A

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

C.R. KLEWIN LLC

PROPOSED RESIDENTIAL DEVELOPMENT

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J.G. BORD
PROFESSIONAL ENGINEER

SHEET TITLE:

DETAIL SHEET

SHEET NUMBER:

C-905

REVISION 1 - 05/20/2025

STRUCTURAL DESIGN LOADING CRITERIA

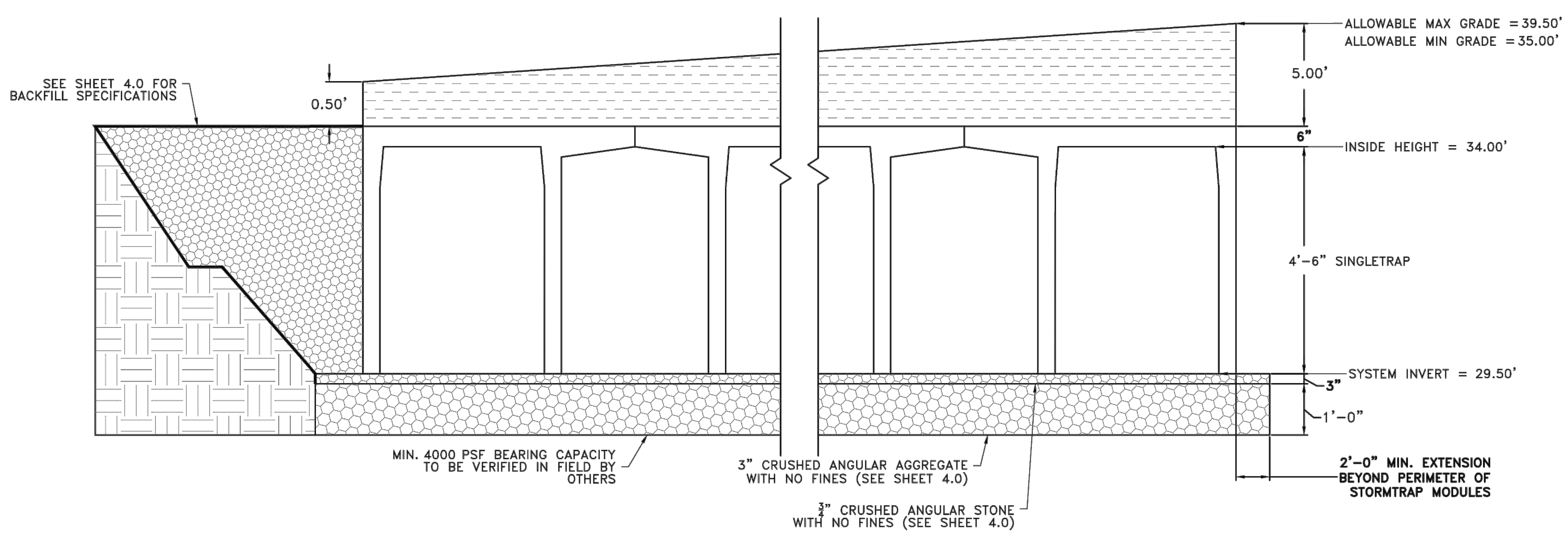
LIVE LOADING:	**AASHTO HS-20 HIGHWAY LOADING**
GROUND WATER TABLE:	BELOW INVERT OF SYSTEM
SOIL BEARING PRESSURE:	4000PSF
SOIL DENSITY:	120 PCF
EQUIVALENT UNSATURATED LATERAL ACTIVE EARTH PRESSURE:	35 PSF / FT.
EQUIVALENT SATURATED LATERAL ACTIVE EARTH PRESSURE:	80 PSF/FT. (IF WATER TABLE PRESENT)
APPLICABLE CODES:	ASTM C857 ACI-318
BACKFILL TYPE:	SEE SHEET 4.0 FOR BACKFILL OPTIONS

STORMTRAP SYSTEM INFORMATION

UNIT HEADROOM:	4'-6" SINGLETRAP	
TOTAL STORAGE PROV:	42687.63	CUBIC FEET
STORMTRAP SYSTEM STORAGE PROV:	37514.14	CUBIC FEET
STONE BASE STORAGE PROV:	5173.49	CUBIC FEET

SITE SPECIFIC DESIGN CRITERIA

1. STORMTRAP UNITS SHALL BE MANUFACTURED AND INSTALLED ACCORDING TO SHOP DRAWINGS APPROVED BY THE INSTALLING CONTRACTOR AND ENGINEER OF RECORD. THE SHOP DRAWINGS SHALL INDICATE SIZE AND LOCATION OF ROOF OPENINGS AND INLET/ OUTLET PIPE TYPES, SIZES, INVERT ELEVATIONS AND SIZE OF OPENINGS.
2. COVER RANGE: MIN. 0.50' MAX. 5.00' CONSULT STORMTRAP FOR ADDITIONAL COVER OPTIONS.
3. ALL DIMENSIONS AND SOIL CONDITIONS, INCLUDING BUT NOT LIMITED TO GROUNDWATER AND SOIL BEARING CAPACITY ARE REQUIRED TO BE VERIFIED IN THE FIELD BY OTHERS PRIOR TO STORMTRAP INSTALLATION.
4. FOR STRUCTURAL CALCULATIONS THE GROUND WATER TABLE IS ASSUMED TO BE BELOW INVERT OF SYSTEM IF WATER TABLE IS DIFFERENT THAN ASSUMED, CONTACT STORMTRAP.



4'-6" SINGLETRAP

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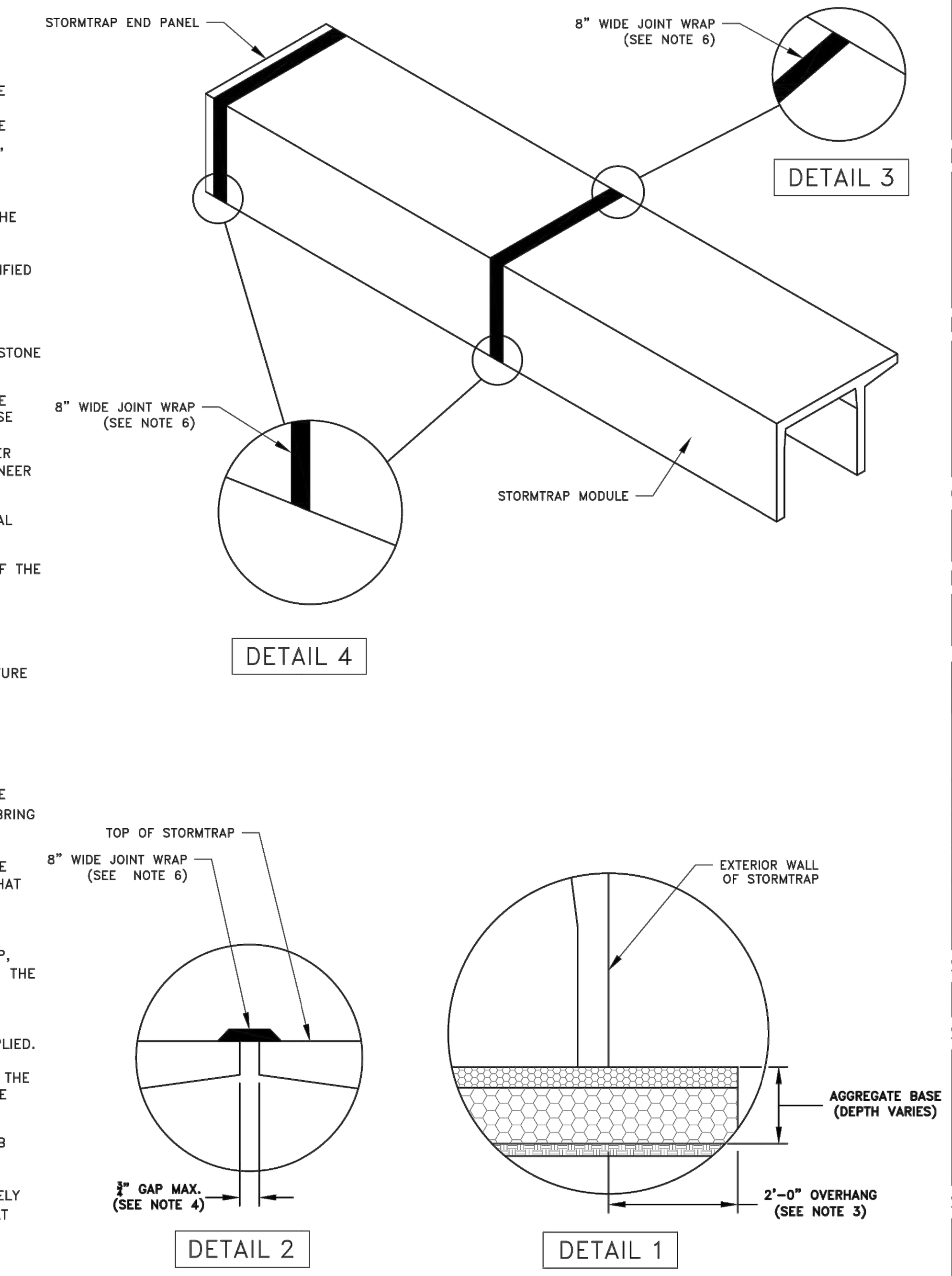
ENGINEER INFORMATION: Bohler Engineering – West Hartford, CT West Hartford, CT
PROJECT INFORMATION: CR Klewin UG-1A Ledyard, CT
CURRENT ISSUE DATE: 01/09/2025
ISSUED FOR: PRELIMINARY

REV.	DATE:	ISSUED FOR:	DWN BY:
△	01/09/2025	PRELIMINARY	KB

SCALE: NTS
SHEET TITLE: SINGLETRAP DESIGN CRITERIA
SHEET NUMBER: 1.1

STORMTRAP INSTALLATION SPECIFICATION

1. STORMTRAP SHALL BE INSTALLED IN ACCORDANCE WITH ASTM C891 (STANDARD PRACTICE FOR INSTALLATION OF UNDERGROUND PRECAST CONCRETE UTILITY STRUCTURES). THE FOLLOWING ADDITIONS AND/OR EXCEPTIONS ARE PROVIDED FOR EMPHASIS. THE MENTION OF THESE ITEMS DOES NOT PRECLUDE THE INSTALLING CONTRACTOR FROM FOLLOWING ASTM C891 IN ITS ENTIRETY AND IMPLEMENTING ALL APPROPRIATE MEASURES. THE INSTALLING CONTRACTOR OWNS AND IS RESPONSIBLE FOR THE STORMTRAP SYSTEM UPON REMOVAL OF THE MODULES FROM THE DELIVERY TRUCK THROUGH 'FINAL CONSTRUCTION'. FINAL CONSTRUCTION IS ACHIEVED WHEN ALL MODULES ARE SET, FULLY BACKFILLED, AND WHEN FINAL FINISHED GRADES ARE REACHED. THE CONTRACTOR IS RESPONSIBLE FOR ANY COUNTERMEASURES NECESSARY TO RESIST UPLIFT/BUOYANCY BEFORE 'FINAL CONSTRUCTION' IS ACHIEVED.
2. IT IS THE RESPONSIBILITY OF THE INSTALLING CONTRACTOR TO ENSURE THAT PROPER/ADEQUATE EQUIPMENT IS USED TO SET/INSTALL THE MODULES.
3. THE AGGREGATE FOUNDATION HAS BEEN DESIGNED BASED ON THE FOLLOWING ASSUMPTIONS. THESE ASSUMPTIONS WILL NEED TO BE VERIFIED BY A GEOTECHNICAL ENGINEER WHICH WILL NEED TO BE EMPLOYED BY THE OWNER.
   - 3.1. A QUALIFIED GEOTECHNICAL ENGINEER WILL BE EMPLOYED, BY OWNER, TO PROVIDE ASSISTANCE IN EVALUATING THE EXISTING SOIL CONDITIONS BELOW THE PROPOSED ENGINEERED STONE FOUNDATION. IF A STONE FOUNDATION DESIGN IS TO BE USED, THE BEARING PRESSURE OF THE SOILS BELOW THE STONE WILL NEED TO MEET OR EXCEED ALLOWABLE CAPACITY. IF THIS IS NOT POSSIBLE, THE STONE FOUNDATION MAY NOT BE AN OPTION FOR THIS LOCATION.
   - 3.2. A QUALIFIED GEOTECHNICAL ENGINEER WILL BE EMPLOYED, BY OWNER, TO EVALUATE A SOURCE OF STONE AGGREGATES THAT WILL BE PLACED ON PROPERLY COMPACTED SOILS (SEE SHEET 1.1 FOR SOIL BEARING CAPACITY REQUIREMENTS). THE AGGREGATE BASE COURSE FOR WHICH THE STORMTRAP SYSTEM WILL BEAR DIRECTLY ON SHALL CONSIST OF A 3" THICK BED OF ¾" DIAMETER ANGULAR STONE, WELL COMPACTED AND SEATED, WITH NO FINES. AND A 1'-0" THICK BED OF 3" ANGULAR AGGREGATE (SEE SHEET 4.0 FOR FURTHER DESCRIPTION/EXPLANATION). PLEASE NOTE THAT THESE ARE ONLY MINIMUM RECOMMENDATIONS AND A QUALIFIED GEOTECHNICAL ENGINEER SHALL BE USED TO DETERMINE THE EXACT REQUIREMENTS FOR THE LOCATIONS THAT THE STORMTRAP SYSTEM IS TO BE LOCATED.
   - 3.3. THE CONTRACTOR SHALL REMOVE ANY AND ALL EXPANDABLE OR COLLAPSIBLE SOILS AT THE DIRECTION OF A QUALIFIED GEOTECHNICAL ENGINEER.
   - 3.4. THE AGGREGATE FOUNDATION SHALL BE INSTALLED SUCH THAT THE AGGREGATE EXTENDS A MINIMUM OF 2'-0" PAST THE OUTSIDE OF THE SYSTEM (SEE DETAIL 1).
   - 3.5. THE ¾" AGGREGATE SHALL BE COMPACTED USING A VIBRATING ROLLER WITH ITS' FULL DYNAMIC FORCE APPLIED TO ACHIEVE A FLAT SURFACE.
   - 3.6. DISK, DRY AND COMPACT THE TOP 8" OF THE SUBGRADE SOILS TO 95% OF THE STANDARD DRY DENSITY AND 110% OPTIMUM MOISTURE CONTENT.
   - 3.7. AGGREGATE SHALL BE GRADED WITHIN +/- ¼" OF THE GRADE SHOWN ON THE PLANS.
   - 3.8. MINIMUM SOIL BEARING CAPACITY LISTED ON SHEET 1.1 SHALL BE VERIFIED IN FIELD BY OTHERS.
4. THE STORMTRAP MODULES SHALL BE PLACED SUCH THAT THE MAXIMUM SPACE BETWEEN ADJACENT MODULES DOES NOT EXCEED ¾" (SEE DETAIL 2). IF THE SPACE EXCEEDS ¾", THE MODULES SHALL BE RESET WITH APPROPRIATE ADJUSTMENT MADE TO LINE AND GRADE TO BRING THE SPACE INTO SPECIFICATION.
5. STORMTRAP MODULES ARE NOT WATERTIGHT. IF A WATERTIGHT SOLUTION IS REQUIRED, CONTACT STORMTRAP FOR RECOMMENDATIONS. THE WATERTIGHT APPLICATION IS TO BE PROVIDED AND IMPLEMENTED BY THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT THE SELECTED WATERTIGHT SOLUTION PERFORMS AS SPECIFIED BY THE MANUFACTURER.
6. ALL EXTERIOR ROOF AND EXTERIOR VERTICAL WALL JOINTS BETWEEN ADJACENT STORMTRAP MODULES SHALL BE SEALED WITH 8" WIDE PRE-FORMED, COLD-APPLIED, SELF-ADHERING ELASTOMERIC RESIN, BONDED TO A WOVEN , HIGHLY PUNCTURE RESISTANT POLYMER WRAP, CONFORMING TO ASTM C891 AND SHALL BE INTEGRATED WITH PRIMER SEALANT AS APPROVED BY STORMTRAP (SEE DETAILS 2, 3, & 4). THE JOINT WRAP DOES NOT PROVIDE A WATERTIGHT SEAL. THE SOLE PURPOSE OF THE JOINT WRAP IS TO PROVIDE A SILT AND SOIL TIGHT SYSTEM. THE ADHESIVE EXTERIOR JOINT WRAP SHALL BE INSTALLED ACCORDING TO THE FOLLOWING INSTALLATION INSTRUCTIONS:
   - 6.1. USE A BRUSH OR WET CLOTH TO THOROUGHLY CLEAN THE OUTSIDE SURFACE AT THE POINT WHERE THE JOINT WRAP IS TO BE APPLIED.
   - 6.2. A RELEASE PAPER PROTECTS THE ADHESIVE SIDE OF THE JOINT WRAP. PLACE THE ADHESIVE TAPE (ADHESIVE SIDE DOWN) AROUND THE STRUCTURE, REMOVING THE RELEASE PAPER AS YOU GO. PRESS THE JOINT WRAP FIRMLY AGAINST THE STORMTRAP MODULE SURFACE WHEN APPLYING.
7. IF THE CONTRACTOR NEEDS TO CANCEL ANY SHIPMENTS, THEY MUST DO SO 48 HOURS PRIOR TO THEIR SCHEDULED ARRIVAL AT THE JOB SITE. IF CANCELED AFTER THAT TIME, PLEASE CONTACT THE PROJECT MANAGER.
8. IF THE STORMTRAP MODULE(S) IS DAMAGED IN ANY WAY PRIOR, DURING, OR AFTER INSTALL, STORMTRAP, MUST BE CONTACTED IMMEDIATELY TO ASSESS THE DAMAGE AND TO DETERMINE WHETHER OR NOT THE MODULE(S) WILL NEED TO BE REPLACED. IF ANY MODULE ARRIVES AT THE JOBSITE DAMAGED DO NOT UNLOAD IT; CONTACT STORMTRAP, IMMEDIATELY. ANY DAMAGE NOT REPORTED BEFORE THE TRUCK IS UNLOADED WILL BE THE CONTRACTOR'S RESPONSIBILITY.
9. STORMTRAP MODULES CANNOT BE ALTERED IN ANY WAY AFTER MANUFACTURING WITHOUT WRITTEN CONSENT FROM STORMTRAP.



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ENGINEER INFORMATION: Bohler Engineering – West Hartford, CT West Hartford, CT
PROJECT INFORMATION: CR Klewin UG-1A Ledyard, CT
CURRENT ISSUE DATE: 01/09/2025
ISSUED FOR: PRELIMINARY

REV.	DATE:	ISSUED FOR:	DWN BY:
△	01/09/2025	PRELIMINARY	KB

SCALE: NTS
SHEET TITLE: SINGLETRAP INSTALLATION SPECIFICATION
SHEET NUMBER: 3.0

ZONE CHART

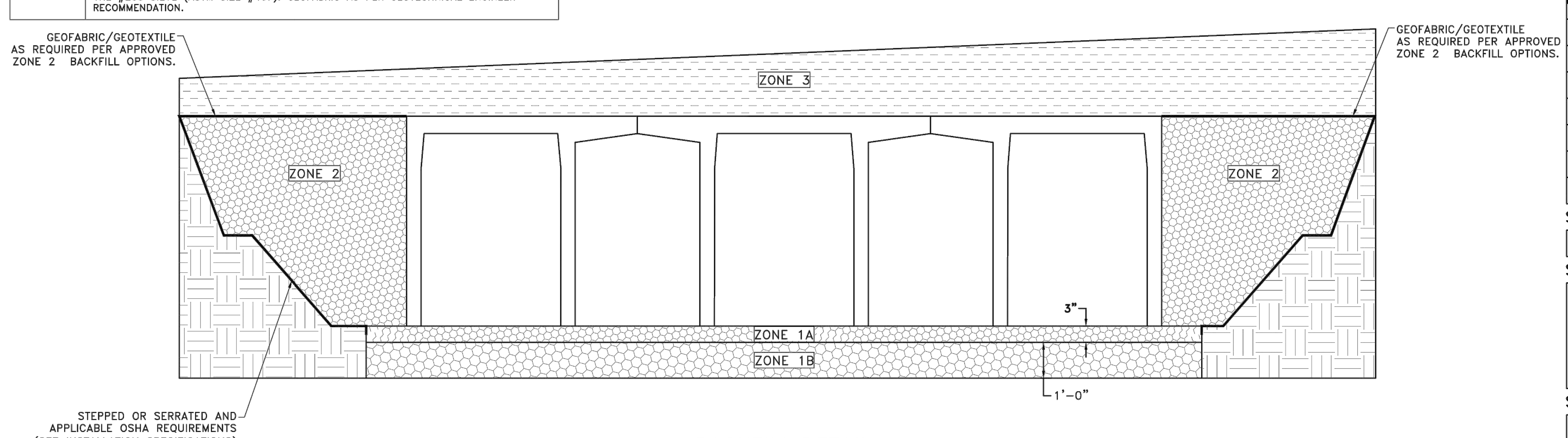
ZONES	ZONE DESCRIPTIONS	REMARKS
ZONE 1A	FOUNDATION AGGREGATE	#5 (¾") STONE ANGULAR AGGREGATE (SEE NOTE 4 FOR DESCRIPTION)
ZONE 1B	FOUNDATION AGGREGATE (INFILTRATION NOT ALLOWED)	3" RECYCLED CRUSHED CONCRETE (SEE NOTES 5 & 6 FOR DESCRIPTION)
	FOUNDATION AGGREGATE (INFILTRATION ALLOWED)	3" STONE AGGREGATE (SEE NOTE 5)
ZONE 2	BACKFILL	UNIFIED SOILS CLASSIFICATION (GW, GP, SW, SP) OR SEE BELOW FOR APPROVED BACKFILL OPTIONS
ZONE 3	FINAL COVER OVERTOP	MATERIALS NOT TO EXCEED 120 PCF

APPROVED ZONE 2 BACKFILL OPTIONS

OPTION	REMARKS
¾" STONE AGGREGATE	THE STONE AGGREGATE SHALL CONSIST OF CLEAN AND FREE DRAINING ANGULAR MATERIAL. THE SIZE OF THIS MATERIAL SHALL HAVE 100% PASSING THE 1" SIEVE WITH 0% TO 5% PASSING THE #8 SIEVE. THIS MATERIAL SHALL BE SEPARATED FROM NATIVE MATERIAL USING GEOFABRIC AROUND THE PERIMETER OF THE BACKFILL (ASTM SIZE #57) AS DETERMINED BY THE GEOTECHNICAL ENGINEER.
SAND	IMPORTED PURE SAND IS PERMITTED TO BE USED AS BACKFILL IF IT IS CLEAN AND FREE DRAINING. THE SAND USED FOR BACKFILLING SHALL HAVE LESS THAN 40% PASSING #40 SIEVE AND LESS THAN 5% PASSING #200 SIEVE. THIS MATERIAL SHALL BE SEPARATED FROM NATIVE MATERIAL USING GEOFABRIC AROUND THE PERIMETER OF THE SAND BACKFILL.
CRUSHED CONCRETE AGGREGATE	CLEAN, FREE DRAINING CRUSHED CONCRETE AGGREGATE MATERIAL CAN BE USED AS BACKFILL FOR STORMTRAP'S MODULES. THE SIZE OF THIS MATERIAL SHALL HAVE 100% PASSING THE 1" SIEVE WITH 0% TO 5% PASSING THE #8 SIEVE. THIS MATERIAL SHALL BE SEPARATED FROM NATIVE MATERIAL USING GEOFABRIC AROUND THE PERIMETER OF THE BACKFILL.
ROAD PACK	STONE AGGREGATE 100% PASSING THE 1-1/2" SIEVE WITH LESS THAN 12% PASSING THE #200 SIEVE (ASTM SIZE #467). GEOFABRIC AS PER GEOTECHNICAL ENGINEER RECOMMENDATION.

STORMTRAP ZONE INSTALLATION SPECIFICATION/PROCEDURE

1. THE FILL PLACED AROUND THE STORMTRAP MODULES MUST BE DEPOSITED ON BOTH SIDES AT THE SAME TIME AND TO APPROXIMATELY THE SAME ELEVATION. AT NO TIME SHALL THE FILL BEHIND ONE SIDE WALL BE MORE THAN 2'-0" HIGHER THAN THE FILL ON THE OPPOSITE SIDE. BACKFILL SHALL EITHER BE COMPACTED AND/OR VIBRATED TO ENSURE THAT BACKFILL AGGREGATE/STONE MATERIAL IS WELL SEATED AND PROPERLY INTER LOCKED. CARE SHALL BE TAKEN TO PREVENT ANY WEDGING ACTION AGAINST THE STRUCTURE, AND ALL SLOPES WITHIN THE AREA TO BE BACKFILLED MUST BE STEPPED OR SERRATED TO PREVENT WEDGING ACTION. CARE SHALL ALSO BE TAKEN AS NOT TO DISRUPT THE JOINT WRAP FROM THE JOINT DURING THE BACKFILL PROCESS. BACKFILL MUST BE FREE-DRAINING MATERIAL. SEE ZONE 2 BACKFILL CHART ON THIS PAGE FOR APPROVED BACKFILL OPTIONS. IF NATIVE EARTH IS SUSCEPTIBLE TO MIGRATION, CONFIRM WITH GEOTECHNICAL ENGINEER AND PROVIDE PROTECTION AS REQUIRED (PROVIDED BY OTHERS). ALL MODULES MUST BE SET AND ALL SIDES MUST BE FULLY BACKFILLED BEFORE TRAVEL OVERTOP THE SYSTEM IS PERMITTED. SEE NOTE 2 FOR EXCEPTIONS AND LIMITATIONS.
2. THE FILL PLACED OVERTOP THE SYSTEM SHALL BE PLACED IN MINIMUM 6" LIFTS. AT NO TIME SHALL MACHINERY OR VEHICLES GREATER THAN THE DESIGN LIVE LOAD LISTED ON SHEET 1.0 TRAVEL OVERTOP THE SYSTEM. IF TRAVEL OVER THE SYSTEM OCCURS BEFORE THE MINIMUM DESIGN COVER IS ACHIEVED, IT MAY BE NECESSARY TO REDUCE THE ULTIMATE LOAD/BURDEN OF THE OPERATING MACHINERY SO AS TO NOT EXCEED THE DESIGN CAPACITY OF THE SYSTEM. VEHICLES AND MACHINERY USED TO PLACE FILL MATERIAL ON TOP OF THE SYSTEM SHALL TRAVEL PARALLEL TO THE LONGITUDINAL AXIS OF THE STORMTRAP MODULES WHENEVER POSSIBLE.
3. THE VIBRATORY FUNCTION OF ANY ROLLER, COMPACTOR, VEHICLE, ETC. SHALL NOT BE USED OVERTOP THE SYSTEM WITHOUT PRIOR APPROVAL FROM STORMTRAP. IN SOME CASES, HAND COMPACTION MAY BE NECESSARY TO ENSURE THAT THE ALLOWABLE DESIGN LOADING IS NOT EXCEEDED.
4. FREE DRAINING ANGULAR AGGREGATE – 80% AGGREGATE RETAINED ON ½" SIEVE MAJORITY OF AGGREGATE SIZE BETWEEN ½" AND 1" ONLY 5% OF MATERIAL PASSING #⅜ SIEVE.
5. FREE DRAINING, NO FINES, 3" ANGULAR AGGREGATE – MAJORITY OF STONE SIZE IN BETWEEN 1½" AND 3" – VERY SIMILAR TO AASHTO (#1, #2, #3, & #24) STONE AGGREGATE GRADATION.
6. CRUSHED CONCRETE AGGREGATE IS KNOWN TO REACT WITH WATER AND CAN INCREASE THE PH VALUE OF THE GROUND WATER. PRIOR TO USING CRUSHED CONCRETE AGGREGATE IN ZONE 1B IT IS IMPERATIVE THAT THE USE OF SUCH MATERIAL SHALL BE VERIFIED BY THE EOR AND/OR THE PROJECT GEOTECHNICAL ENGINEER.



BACKFILL DETAIL

StormTrap® PATENTS LISTED AT: [HTTPS://STORMTRAP.COM/PATENT]
1287 WINDHAM PARKWAY ROMEOVILLE, IL 60446
P:815-941-4549 / F:331-318-5347

ENGINEER INFORMATION: Bohler Engineering – West Hartford, CT West Hartford, CT
PROJECT INFORMATION: CR Klewin UG-1A Ledyard, CT
CURRENT ISSUE DATE: 01/09/2025
ISSUED FOR: PRELIMINARY

REV.	DATE:	ISSUED FOR:	DWN BY:
△	01/09/2025	PRELIMINARY	KB

SCALE: NTS
SHEET TITLE: SINGLETRAP BACKFILL SPECIFICATION
SHEET NUMBER: 4.0

STORMTRAP SINGLE TRAP (UG-1A)

(S-081)

NOT TO SCALE

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

REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY
1	05/20/2025	RESPONSE TO TOWN COMMENTS	CR/KS JGB

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PROJECT No.:	CTA220061.00
DRAWN BY:	CR/TJN/KMB
CHECKED BY:	JGB
DATE:	02/19/2025
CAD I.D.:	CTA220061.00-DETL-6A

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

C.R. KLEWIN LLC

PROPOSED RESIDENTIAL DEVELOPMENT

19, 29 & 39 MILITARY HIGHWAY, GALES FERRY, LEDYARD, NEW LONDON COUNTY, CONNECTICUT

BOHLER
65 LaSALLE ROAD, SUITE 401
WEST HARTFORD, CT 06107
Phone: (860) 333-8900
www.BohlerEngineering.com

J.G. BORD
PROFESSIONAL ENGINEER
CONNECTICUT LICENSE No. 30414

SHEET TITLE:

DETAIL SHEET

SHEET NUMBER:

C-906

REVISION 1 - 05/20/2025

WHITESTONE BORING LOG 1

RECORD OF SUBSURFACE EXPLORATION — WHITESTONE

Boring No.: B-1 — Page 1 of 1

Project:	Proposed Residential Development	WAI Project No.:	GM2320566.000
Location:	27 - 29 Military Highway, Gales Ferry, New London County, Connecticut	Client:	C.R. Klewin LLC
Surface Elevation:	± 30.0 feet Above NAVD88	Date Started:	5/24/2023
Termination Depth:	22.0 feet bgs	Date Completed:	5/24/2023
Proposed Location:	Building 4	Logged By:	OR
Drill / Test Method:	HSA / SPT (Autohammer)	Contractor:	MS
		Equipment:	Mobile B-53

	Water Depth (feet bgs) | Elevation (ft NAVD88)	Cave-In Depth (feet bgs) | Elevation (ft NAVD88)
During:	5.0 | 25.0	
At Completion:	-- | --	-- | --
24 Hours:	-- | --	-- | --

Depth (feet)	No	Type	Blows Per 6"	Rec. (in.)	N	Strata	Description of Materials (Classification)	Remarks
0 - 2	S-1	X	2 - 3 - 3 - 3	14	6	TS	12" Topsoil	
						GLACIO-FLUVIAL DEPOSIT	Brown, Loose, Poorly Graded Sand with Silt (SP-SM)	
2 - 4	S-2	X	4 - 4 - 3 - 4	16	7		As Above (SP-SM)	
5 - 7	S-3	X	2 - 3 - 4 - 5	15	7		As Above (SP-SM)	
7 - 9	S-4	X	5 - 5 - 5 - 6	22	10		As Above, Loose to Medium Dense (SP-SM)	
10 - 12	S-5	X	2 - 3 - 4 - 4	18	7		As Above, Loose (SP-SM)	
15 -17	S-6	X	1 - 1 - 4 - 5	22	5		As Above (SP-SM)	
20 - 22	S-7	X	7 - 12 - 24 - 25	22	36	GLACIAL TILL	Gray-Brown, Dense, Silty Sand with Gravel (SM)	
							Boring Log B-1 Terminated at Depth of 22 feet below ground surface.	

NOTES: bgs = below ground surface, msl = mean sea level, NA = Not Applicable, NE = Not Encountered, NS = Not Surveyed, P = Perched

RECORD OF SUBSURFACE EXPLORATION
Klewin Residential Gales Ferry CT GM2320566 Boring Logs 5-23 and 24-23 6/27/2023

NOT TO SCALE (S-081)

WHITESTONE BORING LOG 2

RECORD OF SUBSURFACE EXPLORATION — WHITESTONE

Boring No.: B-2 — Page 1 of 1

Project:	Proposed Residential Development	WAI Project No.:	GM2320566.000
Location:	27 - 29 Military Highway, Gales Ferry, New London County, Connecticut	Client:	C.R. Klewin LLC
Surface Elevation:	± 35.0 feet Above NAVD88	Date Started:	5/24/2023
Termination Depth:	5.0 feet bgs	Date Completed:	5/24/2023
Proposed Location:	Building 4	Logged By:	OR
Drill / Test Method:	HSA / SPT (Autohammer)	Contractor:	MS
		Equipment:	Mobile B-53

	Water Depth (feet bgs) | Elevation (ft NAVD88)	Cave-In Depth (feet bgs) | Elevation (ft NAVD88)
During:	-- | --	
At Completion:	-- | --	-- | --
24 Hours:	-- | --	-- | --

Depth (feet)	No	Type	Blows Per 6"	Rec. (in.)	N	Strata	Description of Materials (Classification)	Remarks
0 - 2	S-1	X	3 - 2 - 1 - 2	12	3	TS	9" Topsoil	
						GLACIO-FLUVIAL DEPOSIT	Brown, Very Loose, Silty Sand (SM)	
							As Above, Loose (SM)	
2 - 4	S-2	X	4 - 10 - 21 - 62	16	31	GLACIAL TILL	Gray-Brown, Dense, Silty Sand with Gravel (SM)	Auger Grinding 4 to 5 fbgs
							Boring Log B-1 Terminated upon Auger Refusal at Depth of 5 fbgs.	

NOTES: bgs = below ground surface, msl = mean sea level, NA = Not Applicable, NE = Not Encountered, NS = Not Surveyed, P = Perched

RECORD OF SUBSURFACE EXPLORATION
Klewin Residential Gales Ferry CT GM2320566 Boring Logs 5-23 and 24-23 6/27/2023

NOT TO SCALE (S-081)

WHITESTONE BORING LOG 3

RECORD OF SUBSURFACE EXPLORATION — WHITESTONE

Boring No.: B-3 — Page 1 of 1

Project:	Proposed Residential Development	WAI Project No.:	GM2320566.000
Location:	27 - 29 Military Highway, Gales Ferry, New London County, Connecticut	Client:	C.R. Klewin LLC
Surface Elevation:	± 39.0 feet Above NAVD88	Date Started:	5/24/2023
Termination Depth:	22.0 feet bgs	Date Completed:	5/24/2023
Proposed Location:	Building 3	Logged By:	OR
Drill / Test Method:	HSA / SPT (Autohammer)	Contractor:	MS
		Equipment:	Mobile B-53

	Water Depth (feet bgs) | Elevation (ft NAVD88)	Cave-In Depth (feet bgs) | Elevation (ft NAVD88)
During:	14.0 | 25.0	
At Completion:	-- | --	-- | --
24 Hours:	-- | --	-- | --

Depth (feet)	No	Type	Blows Per 6"	Rec. (in.)	N	Strata	Description of Materials (Classification)	Remarks
0 - 2	S-1	X	9 - 16 - 13 - 23	10	29	TS	6" Topsoil	
						EXISTING FILL	Gray-Brown, Medium Dense, Well-Graded Sand with Silt and Gravel (FILL)	Cobbles
2 - 4	S-2	X	23 - 29 - 20 - 15	11	49		As Above, Dense (FILL)	
5 - 7	S-3	X	23 - 24 - 22 - 13	6	46		As Above, Brown (FILL)	Cobbles
7 - 9	S-4	X	14 - 12 - 13 - 11	4	25		Gray-Brown, Medium Dense, Poorly Graded Sand with Silt and Gravel (FILL)	
10 - 12	S-5	X	5 - 6 - 6 - 9	15	12	GLACIO-FLUVIAL DEPOSIT	As Above, Brown (SP-SM)	
15 -17	S-6	X	6 - 8 - 5 - 5	12	13		As Above (SP-SM)	
20 - 22	S-7	X	6 - 5 - 7 - 14	11	12		As Above (SP-SM)	
							Boring Log B-3 Terminated at Depth of 22 feet below ground surface.	

NOTES: bgs = below ground surface, msl = mean sea level, NA = Not Applicable, NE = Not Encountered, NS = Not Surveyed, P = Perched

RECORD OF SUBSURFACE EXPLORATION
Klewin Residential Gales Ferry CT GM2320566 Boring Logs 5-23 and 24-23 6/27/2023

NOT TO SCALE (S-081)

WHITESTONE BORING LOG 4

RECORD OF SUBSURFACE EXPLORATION — WHITESTONE

Boring No.: B-4 — Page 1 of 1

Project:	Proposed Residential Development	WAI Project No.:	GM2320566.000
Location:	27 - 29 Military Highway, Gales Ferry, New London County, Connecticut	Client:	C.R. Klewin LLC
Surface Elevation:	± 36.0 feet Above NAVD88	Date Started:	5/24/2023
Termination Depth:	22.0 feet bgs	Date Completed:	5/24/2023
Proposed Location:	Building 3	Logged By:	OR
Drill / Test Method:	HSA / SPT (Autohammer)	Contractor:	MS
		Equipment:	Mobile B-53

	Water Depth (feet bgs) | Elevation (ft NAVD88)	Cave-In Depth (feet bgs) | Elevation (ft NAVD88)
During:	10.0 | 26.0	
At Completion:	-- | --	-- | --
24 Hours:	-- | --	-- | --

Depth (feet)	No	Type	Blows Per 6"	Rec. (in.)	N	Strata	Description of Materials (Classification)	Remarks
0 - 2	S-1	X	7 - 7 - 7 - 11	5	14	TS	12" Topsoil	
						GLACIO-FLUVIAL DEPOSIT	Brown, Medium Dense, Poorly Graded Sand with Silt and Gravel (SP-SM)	
2 - 4	S-2	X	10 - 11 - 12 - 14	16	23		As Above (SP-SM)	
5 - 7	S-3	X	33 - 19 - 14 - 13	13	33		As Above, Dense (SP-SM)	Cobbles
7 - 9	S-4	X	8 - 12 - 12 - 12	22	24		As Above, Medium Dense (SP-SM)	Cobbles
10 - 12	S-5	X	10 - 9 - 9 - 9	17	18		Brown, Medium Dense, Poorly Graded Sand with Silt (SP-SM)	
15 -17	S-6	X	7 - 7 - 4 - 6	16	11		As Above (SP-SM)	
20 - 22	S-7	X	9 - 11 - 14 - 24	16	25		Brown, Medium Dense, Poorly Graded Sand with Silt and Gravel (SP-SM)	
							Boring Log B-4 Terminated at Depth of 22 feet below ground surface.	

NOTES: bgs = below ground surface, msl = mean sea level, NA = Not Applicable, NE = Not Encountered, NS = Not Surveyed, P = Perched

RECORD OF SUBSURFACE EXPLORATION
Klewin Residential Gales Ferry CT GM2320566 Boring Logs 5-23 and 24-23 6/27/2023

NOT TO SCALE (S-081)

WHITESTONE BORING LOG 5

RECORD OF SUBSURFACE EXPLORATION — WHITESTONE

Boring No.: B-5 — Page 1 of 1

Project:	Proposed Residential Development	WAI Project No.:	GM2320566.000
Location:	27 - 29 Military Highway, Gales Ferry, New London County, Connecticut	Client:	C.R. Klewin LLC
Surface Elevation:	± 33.0 feet Above NAVD88	Date Started:	5/23/2023
Termination Depth:	22.0 feet bgs	Date Completed:	5/23/2023
Proposed Location:	Building 2	Logged By:	OR
Drill / Test Method:	HSA / SPT (Autohammer)	Contractor:	MS
		Equipment:	Mobile B-53

	Water Depth (feet bgs) | Elevation (ft NAVD88)	Cave-In Depth (feet bgs) | Elevation (ft NAVD88)
During:	6.0 | 27.0	
At Completion:	-- | --	-- | --
24 Hours:	-- | --	-- | --

Depth (feet)	No	Type	Blows Per 6"	Rec. (in.)	N	Strata	Description of Materials (Classification)	Remarks
0 - 2	S-1	X	3 - 5 - 5 - 6	10	10	GLACIO-FLUVIAL DEPOSIT	Brown, Loose to Medium Dense, Poorly Graded Sand with Silt (SP-SM)	
2 - 4	S-2	X	7 - 10 - 10 - 9	12	20		Gray-Brown, Medium Dense, Silty Sand (SM)	
5 - 7	S-3	X	3 - 4 - 6 - 6	16	10		As Above, Loose to Medium Dense (SM)	
7 - 9	S-4	X	4 - 3 - 4 - 6	15	7		As Above, Loose (SM)	
10 - 12	S-5	X	2 - 4 - 5 - 6	18	9		As Above (SM)	
15 -17	S-6	X	2 - 2 - 2 - 3	20	4		As Above, Very Loose to Loose (SM)	
20 - 22	S-7	X	7 - 7 - 9 - 12	18	16		As Above, Medium Dense (SM)	
							Boring Log B-5 Terminated at Depth of 22 feet below ground surface.	

NOTES: bgs = below ground surface, msl = mean sea level, NA = Not Applicable, NE = Not Encountered, NS = Not Surveyed, P = Perched

RECORD OF SUBSURFACE EXPLORATION
Klewin Residential Gales Ferry CT GM2320566 Boring Logs 5-23 and 24-23 6/27/2023

NOT TO SCALE (S-081)

WHITESTONE BORING LOG 6

RECORD OF SUBSURFACE EXPLORATION — WHITESTONE

Boring No.: B-6 — Page 2 of 2

Project:	Proposed Residential Development	WAI Project No.:	GM2320566.000
Location:	27 - 29 Military Highway, Gales Ferry, New London County, Connecticut	Client:	C.R. Klewin LLC
Surface Elevation:	± 34.0 feet Above NAVD88	Date Started:	5/23/2023
Termination Depth:	32.0 feet bgs	Date Completed:	5/23/2023
Proposed Location:	Building 2	Logged By:	OR
Drill / Test Method:	HSA / SPT (Autohammer)	Contractor:	MS
		Equipment:	Mobile B-53

	Water Depth (feet bgs) | Elevation (ft NAVD88)	Cave-In Depth (feet bgs) | Elevation (ft NAVD88)
During:	7.0 | 27.0	
At Completion:	-- | --	-- | --
24 Hours:	-- | --	-- | --

Depth (feet)	No	Type	Blows Per 6"	Rec. (in.)	N	Strata	Description of Materials (Classification)	Remarks
25 - 27	S-8	X	3 - 5 - 8 - 10	18	13	GLACIO-FLUVIAL DEPOSIT	Gray-Brown, Medium Dense, Poorly Graded Sand with Silt (SP-SM)	
30 -32	S-9	X	9 - 9 - 13 - 15	20	22		As Above, Brown (SP-SM)	
							Boring Log B-6 Terminated at Depth of 32 feet below ground surface.	

NOTES: bgs = below ground surface, msl = mean sea level, NA = Not Applicable, NE = Not Encountered, NS = Not Surveyed, P = Perched

RECORD OF SUBSURFACE EXPLORATION
Klewin Residential Gales Ferry CT GM2320566 Boring Logs 5-23 and 24-23 6/27/2023

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REV	DATE	COMMENT	DRAWN BY / CHECKED BY
1	05/20/2025	RESPONSE TO TOWN COMMENTS	CR/KS / JGB

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PROJECT No.:	CTA220061.00
DRAWN BY:	CR/TJN/KMB
CHECKED BY:	JGB
DATE:	02/19/2025
CAD I.D.:	CTA220061.00-DETL-6A

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

— FOR —

C.R. KLEWIN LLC

PROPOSED RESIDENTIAL DEVELOPMENT

19, 29 & 39 MILITARY HIGHWAY, GALES FERRY, LEDYARD, NEW LONDON COUNTY, CONNECTICUT

BOHLER //
65 LaSALLE ROAD, SUITE 401
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Phone: (860) 333-8900
www.BohlerEngineering.com

J.G. BORD
PROFESSIONAL ENGINEER

SHEET TITLE:

DETAIL SHEET

SHEET NUMBER:

C-907

REVISION 1 - 05/20/2025

WHITESTONE — RECORD OF SUBSURFACE EXPLORATION

Boring No.: B-7 — Page 1 of 1

Project:	Proposed Residential Development	**WAI Project No.:**	GM2320566.000
Location:	27 - 29 Military Highway, Gales Ferry, New London County, Connecticut	**Client:**	C.R. Klewin LLC
Surface Elevation:	± 34.0 feet Above NAVD88	**Date Started:**	5/23/2023
Termination Depth:	22.0 feet bgs	**Date Completed:**	5/23/2023
Proposed Location:	Building 1	**Logged By:**	OR
Drill / Test Method:	HSA / SPT (Autohammer)	**Contractor:**	MS
		Equipment:	Mobile B-53

Water Depth (feet bgs) | Elevation (ft NAVD88)		Cave-In Depth (feet bgs) | Elevation (ft NAVD88)	
During:	8.0 | 26.0		
At Completion:	-- | --	At Completion:	-- | --
24 Hours:	-- | --	24 Hours:	-- | --

Depth (feet)	No	Type	Blows Per 6"	Rec. (in.)	N	Depth (feet)	Strata	Description of Materials (Classification)	Remarks
						0.0	TS	4" Topsoil	
0 - 2	S-1	X	3 - 7 - 7 - 5	15	14		GLACIO-FLUVIAL DEPOSIT	Brown, Medium Dense, Poorly Graded Sand (SP)	
2 - 4	S-2	X	3 - 5 - 8 - 7	16	13			As Above, Gray-Brown (SP)	
5 - 7	S-3	X	6 - 4 - 3 - 6	14	7	5.0		As Above, Loose, Brown (SP)	
7 - 9	S-4	X	4 - 4 - 5 - 4	14	9			As Above (SP)	
10 - 12	S-5	X	3 - 3 - 3 - 3	13	6	10.0		As Above (SP)	
15 -17	S-6	X	6 - 7 - 6 - 6	14	13	15.0		As Above, Medium Dense (SP)	
20 - 22	S-7	X	2 - 2 - 3 - 4	11	5	20.0		As Above, Loose (SP)	
						25.0		Boring Log B-7 Terminated at Depth of 22 feet below ground surface.	

NOTES: bgs = below ground surface, msl = mean sea level, NA = Not Applicable, NE = Not Encountered, NS = Not Surveyed, P = Perched

RECORD OF SUBSURFACE EXPLORATION
Klewin Residential Gales Ferry CT GM2320566 Boring Logs 5-23 and 24-23 6/27/2023

WHITESTONE BORING LOG 7

NOT TO SCALE (S-081)

WHITESTONE — RECORD OF SUBSURFACE EXPLORATION

Boring No.: B-8 — Page 1 of 1

Project:	Proposed Residential Development	**WAI Project No.:**	GM2320566.000
Location:	27 - 29 Military Highway, Gales Ferry, New London County, Connecticut	**Client:**	C.R. Klewin LLC
Surface Elevation:	± 38.0 feet Above NAVD88	**Date Started:**	5/23/2023
Termination Depth:	22.0 feet bgs	**Date Completed:**	5/23/2023
Proposed Location:	Building 1	**Logged By:**	OR
Drill / Test Method:	HSA / SPT (No Auto Hammer)	**Contractor:**	MS
		Equipment:	Mobile B-53

Water Depth (feet bgs) | Elevation (ft NAVD88)		Cave-In Depth (feet bgs) | Elevation (ft NAVD88)	
During:	10.0 | 28.0		
At Completion:	-- | --	At Completion:	-- | --
24 Hours:	-- | --	24 Hours:	-- | --

Depth (feet)	No	Type	Blows Per 6"	Rec. (in.)	N	Depth (feet)	Strata	Description of Materials (Classification)	Remarks
						0.0	TS	6" Topsoil	
0 - 2	S-1	X	3 - 3 - 5 - 7	14	8		GLACIO-FLUVIAL DEPOSIT	Brown, Loose, Poorly Graded Sand (SP)	
2 - 4	S-2	X	9 - 11 - 12 - 11	12	23			As Above, Medium Dense (SP)	
5 - 7	S-3	X	7 - 7 - 7 - 8	12	14	5.0		As Above (SP)	
7 - 9	S-4	X	10 - 8 - 8 - 8	18	16			As Above, Gray-Brown (SP)	
10 - 12	S-5	X	7 - 9 - 10 - 10	13	9	10.0		As Above, Loose (SP)	
15 -17	S-6	X	4 - 5 - 5 - 5	11	10	15.0		As Above, Loose to Medium Dense (SP)	
20 - 22	S-7	X	5 - 4 - 5 - 7	11	9	20.0		As Above, Loose (SP)	
						25.0		Boring Log B-8 Terminated at Depth of 22 feet below ground surface.	

NOTES: bgs = below ground surface, msl = mean sea level, NA = Not Applicable, NE = Not Encountered, NS = Not Surveyed, P = Perched

RECORD OF SUBSURFACE EXPLORATION
Klewin Residential Gales Ferry CT GM2320566 Boring Logs 5-23 and 24-23 6/27/2023

WHITESTONE BORING LOG 8

NOT TO SCALE (S-081)

WHITESTONE — RECORD OF SUBSURFACE EXPLORATION

Boring No.: B-9 — Page 1 of 1

Project:	Proposed Residential Development	**WAI Project No.:**	GM2320566.000
Location:	27 - 29 Military Highway, Gales Ferry, New London County, Connecticut	**Client:**	C.R. Klewin LLC
Surface Elevation:	± 34.0 feet Above NAVD88	**Date Started:**	5/24/2023
Termination Depth:	8.7 feet bgs	**Date Completed:**	5/24/2023
Proposed Location:	Building 4	**Logged By:**	OR
Drill / Test Method:	HSA / SPT (Autohammer)	**Contractor:**	MS
		Equipment:	Mobile B-53

Water Depth (feet bgs) | Elevation (ft NAVD88)		Cave-In Depth (feet bgs) | Elevation (ft NAVD88)	
During:	7.0 | 27.0		
At Completion:	-- | --	At Completion:	-- | --
24 Hours:	-- | --	24 Hours:	-- | --

Depth (feet)	No	Type	Blows Per 6"	Rec. (in.)	N	Depth (feet)	Strata	Description of Materials (Classification)	Remarks
						0.0	TS	4" Topsoil	
0 - 2	S-1	X	4 - 5 - 6 - 5	7	11	2.0	GLACIO-FLUVIAL DEPOSIT	Brown, Medium Dense, Poorly Graded Sand with Silt (SP-SM)	
2 - 4	S-2	X	7 - 10 - 23 - 26	13	33		GLACIAL TILL	Brown, Dense, Silty Sand with Gravel (SM)	Auger Grinding 4 to 5 fbgs
5 - 7	S-3	X	25 - 22 - 24 - 25	16	46	5.0		As Above (SM)	
7 - 8.7	S-4	X	41 - 31 - 35 - 40/2"	18	66			As Above, Very Dense (SM)	Cobbles
						10.0 / 15.0 / 20.0 / 25.0		Boring Log B-9 Terminated upon Auger Refusal at Depth of 8.7 fbgs	

NOTES: bgs = below ground surface, msl = mean sea level, NA = Not Applicable, NE = Not Encountered, NS = Not Surveyed, P = Perched

RECORD OF SUBSURFACE EXPLORATION
Klewin Residential Gales Ferry CT GM2320566 Boring Logs 5-23 and 24-23 6/23/2023

WHITESTONE BORING LOG 9

NOT TO SCALE (S-081)

WHITESTONE — RECORD OF SUBSURFACE EXPLORATION

Test Pit No.: TP-1 — Page 1 of 1

Project:	Proposed Residential Development	**WAI Project No.:**	GM2320566.000
Location:	27 - 29 Military Highway, Gales Ferry, New London County, Connecticut	**Client:**	C.R. Klewin LLC
Surface Elevation:	± 28.0 feet NAVD88	**Date Started:**	5/22/2023
Termination Depth:	7.0 feet bgs	**Date Completed:**	5/22/2023
Proposed Location:	SWM Area	**Logged By:**	RK
Excavating Method:	Compact Excavator	**Contractor:**	MM
Test Method:	Visual Observation	**Rig Type:**	Takeuchi TB290

Water Depth (feet bgs) | Elevation (ft NAVD88)		Cave-In Depth (feet bgs) | Elevation (ft NAVD88)	
During:	3.7 | 24.3		
At Completion:	-- | --	At Completion:	-- | --
24 Hours:	-- | --		

Depth (ft.)	Number	Type	Depth (feet)	Strata	Description of Materials (Classification)	Remarks
			0.0	TOPSOIL	5" Topsoil	
				SUBSOIL	4" Subsoil, Roots	
			5.0	GLACIO-FLUVIAL DEPOSIT	Brown, Poorly Graded Sand with Silt (SP-SM)	Infiltration Test @ 1.5 fbgs; ESHGW 2.3 fbgs
			10.0 / 15.0		Test Pit TP-1 Terminated at Depth of 7 Feet Below Ground Surface.	

NOTES: bgs = below ground surface, msl = mean sea level, NA = Not Applicable, NE = Not Encountered, NS = Not Surveyed, P = Perched

RECORD OF SUBSURFACE EXPLORATION
Klewin Residential Gales Ferry CT GM2320566 Test Pit Logs 5-22-23 6/22/2023

WHITESTONE TEST PIT 1

NOT TO SCALE (S-081)

WHITESTONE — RECORD OF SUBSURFACE EXPLORATION

Test Pit No.: TP-2 — Page 1 of 1

Project:	Proposed Residential Development	**WAI Project No.:**	GM2320566.000
Location:	27 - 29 Military Highway, Gales Ferry, New London County, Connecticut	**Client:**	C.R. Klewin LLC
Surface Elevation:	± 27.0 feet NAVD88	**Date Started:**	5/22/2023
Termination Depth:	5.5 feet bgs	**Date Completed:**	5/22/2023
Proposed Location:	SWM Area	**Logged By:**	RK
Excavating Method:	Compact Excavator	**Contractor:**	MM
Test Method:	Visual Observation	**Rig Type:**	Takeuchi TB290

Water Depth (feet bgs) | Elevation (ft NAVD88)		Cave-In Depth (feet bgs) | Elevation (ft NAVD88)	
During:	2.7 | 24.3		
At Completion:	-- | --	At Completion:	-- | --
24 Hours:	-- | --		

Depth (ft.)	Number	Type	Depth (feet)	Strata	Description of Materials (Classification)	Remarks
			0.0	TOPSOIL	6" Topsoil	
				SUBSOIL	14" Subsoil, Roots	Infiltration Test @ 1.5 fbgs
			5.0	GLACIO-FLUVIAL DEPOSIT	Brown, Poorly Graded Sand with Silt (SP-SM)	ESHGW 2.3 fbgs
			10.0 / 15.0		Test Pit TP-2 Terminated at Depth of 5.5 Feet Below Ground Surface.	

NOTES: bgs = below ground surface, msl = mean sea level, NA = Not Applicable, NE = Not Encountered, NS = Not Surveyed, P = Perched

RECORD OF SUBSURFACE EXPLORATION
Klewin Residential Gales Ferry CT GM2320566 Test Pit Logs 5-22-23 6/22/2023

WHITESTONE TEST PIT 2

NOT TO SCALE (S-081)

WHITESTONE — RECORD OF SUBSURFACE EXPLORATION

Test Pit No.: TP-3 — Page 1 of 1

Project:	Proposed Residential Development	**WAI Project No.:**	GM2320566.000
Location:	27 - 29 Military Highway, Gales Ferry, New London County, Connecticut	**Client:**	C.R. Klewin LLC
Surface Elevation:	± 32.0 feet NAVD88	**Date Started:**	5/22/2023
Termination Depth:	7.5 feet bgs	**Date Completed:**	5/22/2023
Proposed Location:	SWM Area	**Logged By:**	RK
Excavating Method:	Compact Excavator	**Contractor:**	MM
Test Method:	Visual Observation	**Rig Type:**	Takeuchi TB290

Water Depth (feet bgs) | Elevation (ft NAVD88)		Cave-In Depth (feet bgs) | Elevation (ft NAVD88)	
During:	6.0 | 26.0		
At Completion:	-- | --	At Completion:	-- | --
24 Hours:	-- | --		

Depth (ft.)	Number	Type	Depth (feet)	Strata	Description of Materials (Classification)	Remarks
			0.0	TOPSOIL	9" Topsoil	
			5.0	GLACIO-FLUVIAL DEPOSIT	Brown to Gray, Poorly Graded Sand with Silt (SP-SM)	Infiltration Test @ 3 fbgs; ESHGW 5.5 fbgs
					Gray, Silty Sand (SM)	
			10.0 / 15.0		Test Pit TP-3 Terminated at Depth of 7.5 Feet Below Ground Surface.	

NOTES: bgs = below ground surface, msl = mean sea level, NA = Not Applicable, NE = Not Encountered, NS = Not Surveyed, P = Perched

RECORD OF SUBSURFACE EXPLORATION
Klewin Residential Gales Ferry CT GM2320566 Test Pit Logs 5-22-23 6/22/2023

WHITESTONE TEST PIT 3

NOT TO SCALE (S-081)

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REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY
1	05/20/2025	RESPONSE TO TOWN COMMENTS	CR/KS / JGB

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PROJECT No.:	CTA220061.00
DRAWN BY:	CR/TJN/KMB
CHECKED BY:	JGB
DATE:	02/19/2025
CAD I.D.:	CTA220061.00-DETL-6A

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

C.R. KLEWIN LLC

PROPOSED RESIDENTIAL DEVELOPMENT

19, 29 & 39 MILITARY HIGHWAY, GALES FERRY, LEDYARD, NEW LONDON COUNTY, CONNECTICUT

BOHLER
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PROFESSIONAL ENGINEER
CONNECTICUT LICENSE No. 30414

SHEET TITLE:

DETAIL SHEET

SHEET NUMBER:

C-908

REVISION 1 - 05/20/2025

WHITESTONE

RECORD OF SUBSURFACE EXPLORATION

Test Pit No.: TP-4
Page 1 of 1

Project: Proposed Residential Development		**WAI Project No.:**	GM2320566.000
Location: 27 - 29 Military Highway, Gales Ferry, New London County, Connecticut		**Client:**	C.R. Klewin LLC

Surface Elevation: ± 32.0 feet NAVD88	**Date Started:** 5/22/2023	**Water Depth (feet bgs) | Elevation (ft NAVD88)**
Termination Depth: 6.0 feet bgs	**Date Completed:** 5/22/2023	**Cave-In Depth (feet bgs) | Elevation (ft NAVD88)**
Proposed Location: SWM Area	**Logged By:** RK	**During:** -- | --
Excavating Method: Compact Excavator	**Contractor:** MM	**At Completion:** -- | -- ; **Cave-In At Completion:** -- | --
Test Method: Visual Observation	**Rig Type:** Takeuchi TB290	**24 Hours:** -- | --

SAMPLE INFORMATION Depth (ft.)	Number	Type	DEPTH (feet)	STRATA	DESCRIPTION OF MATERIALS (Classification)	REMARKS
			0.0			
				TOPSOIL	5" Topsoil	No indications of ESHGW
				SUBSOIL	12" Subsoil, Roots	
			5.0	GLACIO-FLUVIAL DEPOSIT	Brown, Poorly Graded Sand (SP)	5" Silty Sand layer @ 3.4 fbgs Percolation Test @ 4 fbgs
			10.0 / 15.0		Test Pit TP-4 Terminated at Depth of 6 Feet Below Ground Surface.	

NOTES: bgs = below ground surface, msl = mean sea level , NA = Not Applicable, NE = Not Encountered, NS = Not Surveyed, P = Perched

RECORD OF SUBSURFACE EXPLORATION
Klewin Residential Gales Ferry CT GM2320566 Test Pit Logs 5-22-23 6/22/2023

WHITESTONE TEST PIT 4

NOT TO SCALE (S-081)

WHITESTONE

RECORD OF SUBSURFACE EXPLORATION

Test Pit No.: TP-5
Page 1 of 1

Project: Proposed Residential Development		**WAI Project No.:**	GM2320566.000
Location: 27 - 29 Military Highway, Gales Ferry, New London County, Connecticut		**Client:**	C.R. Klewin LLC

Surface Elevation: ± 32.0 feet NAVD88	**Date Started:** 5/22/2023	**Water Depth (feet bgs) | Elevation (ft NAVD88)**
Termination Depth: 7.5 feet bgs	**Date Completed:** 5/22/2023	**Cave-In Depth (feet bgs) | Elevation (ft NAVD88)**
Proposed Location: SWM Area	**Logged By:** RK	**During:** 7.0 | 25.0
Excavating Method: Compact Excavator	**Contractor:** MM	**At Completion:** -- | -- ; **Cave-In At Completion:** -- | --
Test Method: Visual Observation	**Rig Type:** Takeuchi TB290	**24 Hours:** -- | --

SAMPLE INFORMATION Depth (ft.)	Number	Type	DEPTH (feet)	STRATA	DESCRIPTION OF MATERIALS (Classification)	REMARKS
			0.0			
				TOPSOIL	4" Topsoil	
				SUBSOIL	12" Subsoil, Roots	
			5.0	GLACIO-FLUVIAL DEPOSIT	Brown, Poorly Graded Sand with Silt (SP-SM)	Percolation Test @ 3.5 fbgs ESHGW 5.8 fbgs
			10.0 / 15.0		Test Pit TP-5 Terminated at Depth of 7.5 Feet Below Ground Surface.	

NOTES: bgs = below ground surface, msl = mean sea level , NA = Not Applicable, NE = Not Encountered, NS = Not Surveyed, P = Perched

RECORD OF SUBSURFACE EXPLORATION
Klewin Residential Gales Ferry CT GM2320566 Test Pit Logs 5-22-23 6/22/2023

WHITESTONE TEST PIT 5

NOT TO SCALE (S-081)

WHITESTONE

RECORD OF SUBSURFACE EXPLORATION

Test Pit No.: TP-6
Page 1 of 1

Project: Proposed Residential Development		**WAI Project No.:**	GM2320566.000
Location: 27 - 29 Military Highway, Gales Ferry, New London County, Connecticut		**Client:**	C.R. Klewin LLC

Surface Elevation: ± 32.0 feet NAVD88	**Date Started:** 5/22/2023	**Water Depth (feet bgs) | Elevation (ft NAVD88)**
Termination Depth: 8.0 feet bgs	**Date Completed:** 5/22/2023	**Cave-In Depth (feet bgs) | Elevation (ft NAVD88)**
Proposed Location: SWM Area	**Logged By:** RK	**During:** 7.1 | 24.9
Excavating Method: Compact Excavator	**Contractor:** MM	**At Completion:** -- | -- ; **Cave-In At Completion:** -- | --
Test Method: Visual Observation	**Rig Type:** Takeuchi TB290	**24 Hours:** -- | --

SAMPLE INFORMATION Depth (ft.)	Number	Type	DEPTH (feet)	STRATA	DESCRIPTION OF MATERIALS (Classification)	REMARKS
			0.0			
				TOPSOIL	4" Topsoil	No indications of ESHGW
				SUBSOIL	11" Subsoil, Roots	
				GLACIO-FLUVIAL DEPOSIT	Brown to Gray, Silty Sand (SM)	
					Brown, Poorly Graded Sand with Silt and Gravel (SP-SM)	Infiltration Test @ 3 fbgs
			5.0		Brown, Poorly Graded Sand (SP)	
			10.0 / 15.0		Test Pit TP-6 Terminated at Depth of 8 Feet Below Ground Surface.	

NOTES: bgs = below ground surface, msl = mean sea level , NA = Not Applicable, NE = Not Encountered, NS = Not Surveyed, P = Perched

RECORD OF SUBSURFACE EXPLORATION
Klewin Residential Gales Ferry CT GM2320566 Test Pit Logs 5-22-23 6/22/2023

WHITESTONE TEST PIT 6

NOT TO SCALE (S-081)

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REV	DATE	COMMENT	DRAWN BY / CHECKED BY
1	05/20/2025	RESPONSE TO TOWN COMMENTS	CR/KS JGB

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PROJECT No.:	CTA220061.00
DRAWN BY:	CR/TJN/KMB
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PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

C.R. KLEWIN LLC

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SHEET TITLE:

DETAIL SHEET

SHEET NUMBER:

C-909

REVISION 1 - 05/20/2025

P:\2022\CTA220061.00\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\CTA220061.00-DETL-6A---->LAYOUT: C-909

KB

JOB# 21-086.DWG FBK#326

THE STONE WALLS AND/OR FENCES SHOWN AS BOUNDARIES MAY HAVE IRREGULARITIES OF COURSE BETWEEN PRINCIPAL POINTS OF COURSE INDICATED

NOTE: BOUNDARY LINES OF ADJOINING PROPERTIES ARE SHOWN FOR GENERAL INFORMATIONAL PURPOSES ONLY AND ARE NOT TO BE CONSTRUED AS BEING ACCURATELY LOCATED OR DEPICTED.

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(860) 464-7455
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MILITARY HIGHWAY
MAPLE CORNERS ROAD
MILITARY HIGHWAY

N/F FREDERIC B. ALLYN III
N/F JEREMIAH & DAWN TAGGART
N/F THE LANDING AT GALES FERRY LLC
N/F BINGO 27 GALES FERRY LLC
N/F B O Q INVESTMENTS INC.
N/F ANTOINETTE ESSEX
N/F AVALONIA LAND CONSERVANCY, INC.
N/F ELAYNE A. PONS
N/F SETH P. DUBIN
N/F ROBERT C. BARRETT & ELIZABETH J. BARRETT & DEBRA GLENNON BARRETT, TRUSTEE

N 89°19'30" E 99.84'
S 89°31'51" E 127.01'
S 89°31'15" E 327.95'
S 88°06'31" E 8.08'
S 40°54'25" E 76.74'
N 71°36'41" E 175.45'
N 48°39'25" E 188.23'
S 00°44'14" E 400.32'
S 12°44'00" W 440.19'
N 13°40'21" E 96.51'
N 02°05'42" E 308.90'
N 88°23'43" W 166.83'
N 88°49'50" W 171.26'
N 88°37'00" W 142.04'
N 89°39'38" W 95.70'
N 86°47'22" W 198.22'
N 86°58'03" W 177.54'
N 87°54'43" W 86.71'

Δ=07°00'01" R=548.70' L=67.52' T=33.56'
Δ=05°00'20" R=543.70' L=47.50' T=23.77'
Δ=21°56'48" R=548.70' L=210.17' T=106.39'
N 48°28'03" W 5.00'
S 53°04'58" E 5.00'

BENCHMARK: NAIL IN SNET 3813 EL.= 69.74

PROPERTY CORNER
DH FND
8.08'
1.30'
MERESTONE FOUND
DETAIL NOT TO SCALE

LEGEND

- STONE WALL
- PROPERTY LINE
- STREET LINE
- EXISTING CONTOUR
- CHD FND — CONNECTICUT HIGHWAY DEPARTMENT MONUMENT FOUND
- CONNECTICUT HIGHWAY DEPARTMENT NOT RECOVERED
- DH SET — DRILL HOLE SET
- DH FND — DRILL HOLE FOUND
- CATCH BASIN
- UTILITY POLE
- LIGHT POLE
- HYDRANT

MAP REFERENCES:

1. CONNECTICUT STATE HIGHWAY DEPARTMENT RIGHT OF WAY MAP TOWN OF LEDYARD GROTON-NORWICH ROAD FROM THE GROTON TOWN LINE NORTHERLY ABOUT 11,000 FEET ROUTE No.12. SCALE 1"=40' DATE 12-11-34 NUMBER 71-03 SHEET 4 OF 4.
2. CONNECTICUT STATE HIGHWAY DEPARTMENT RIGHT OF WAY MAP TOWN OF LEDYARD GROTON-NORWICH ROAD FROM THE GROTON TOWN LINE NORTHERLY ABOUT 11,000 FEET ROUTE No.12. SCALE 1"=40' DATE 12-29-39 NUMBER 71-03-A SHEET 3 OF 4.
3. PLOT PLAN AND MISCELLANEOUS GALES FERRY SCHOOL FOR TOWN OF LEDYARD CONN. DEC. 20, 1954 SCALE AS NOTED.
4. PLAN SHOWING LAND AND BUILDINGS PROPERTY OF LYN M. LAWSON SMITH ROUTE 12 LEDYARD, CONNECTICUT SCALE 1"=20' JANUARY 1976.
5. PLAT OF LAND FOR CLARENCE M. CRANDALL, JR MILITARY HIGHWAY, GALES FERRY, LEDYARD, CT SCALE 1"=50'. OCT 1977 ROBERT C. BOCHER, L.S..
6. SURVEY PLAN PREPARED FOR PETER BARGMANN 39 MILITARY HIGHWAY NIANTIC CONNECTICUT 16 JAN 2006 SCALE 1"=50'.
7. PLAN SHOWING PROPERTY OF THE TOWN OF LEDYARD 7 HURLBUTT ROAD, MILITARY HIGHWAY AND CONNECTICUT ROUTE 12 LEDYARD, CONNECTICUT SCALE: 1"=40' NOVEMBER 2006.
8. PLAN SHOWING PROPERTY OF THE TOWN OF LEDYARD HURLBUTT ROAD MILITARY HIGHWAY AND CONNECTICUT ROUTE 12 LEDYARD, CONNECTICUT SCALE: 1"=40' AUGUST 2007.

I HAVE REVIEWED THE INLAND WETLAND BOUNDARY I DELINEATED AND I AM OF THE OPINION THAT THE WETLAND BOUNDARY IS SHOWN CORRECTLY ON THIS MAP.

SOIL SCIENTIST

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

TOTAL AREA= 18.95 ACRES

PLAN SHOWING PROPERTY OF SWEET HILL FARM LLC 29 & 39 MILITARY HIGHWAY LEDYARD, CONNECTICUT

SCALE: 1"=40'

DECEMBER 2021

THIS SURVEY AND MAP HAS BEEN PREPARED IN ACCORDANCE WITH SECTIONS 20-300b-1 THRU 20-300b-20 OF THE REGULATIONS OF CONNECTICUT STATE AGENCIES " MINIMUM STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ENDORSED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. IT IS A BOUNDARY SURVEY BASED ON A RESURVEY CONFORMING TO HORIZONTAL ACCURACY CLASS A-2 AND TOPOGRAPHIC ACCURACY T-2.
TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON.

TITLE: LAND SURVEYOR CT No. 14208

DATE: DECEMBER 23, 2021