

PREPARED BY

**BOHLER**//

# **NOTICE OF INTENT APPLICATION**

# **TOLL BROTHERS, INC.**

— FOR ——— PROPOSED **RESIDENTIAL DEVELOPMENT** 

LOCATION OF SITE: **528 BOYLSTON STREET, CITY OF NEWTON** MIDDLESEX COUNTY, MA

# REFERENCES

- BOUNDARY & TOPOGRAPHIC SURVEY: RJ O'CONNELL & ASSOCIATES, INC. 80 MONTVALE AVENUE, SUITE 201 STONEHAM, MA 02180 DATE: 10/25/2021
- ARCHITECTURAL PLAN: THE ARCHITECTURAL TEAM **50 COMMANDANTS WAY** CHELSEA, MA 02150 DATE: 8/21/2023

\* 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.

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		R	EVISIONS		
	PEV	DATE	COMMENT	DRAWN	
		DATE	REVISED BUILDING	CHECKEL	
	1	8/21/2023	DESIGN	TAF	
	2	12/21/2023	RESPONSE TO COMMENTS		
	3	02/12/2024	RESPONSE TO	ACL	
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	4	04/01/2024	COMMENTS	TAH	
	5	07/18/2024	RESPONSE TO COMMENTS		
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**C-101** 

**REVISION 6 - 11/08/2024** 

SHEET NUMBER:

DAWING	CLIEET	INDEY
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SHEET TITLE	SHEET NUMBER
COVER SHEET	C-101
GENERAL NOTES SHEET	C-102
SITE LAYOUT PLAN	C-301
GRADING PLAN	C-401
DRAINAGE PLAN	C-402
UTILITY PLAN	C-501
SOIL EROSION & SEDIMENT CONTROL PLAN	C-601
SOIL EROSION & SEDIMENT CONTROL NOTES & DETAILS	C-602
DETAIL SHEET	C-701
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LANDSCAPE LAYOUT PLAN	L-100
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LANDSCAPE DETAILS	L-601
LANDSCAPE DETAILS	L-602
ALTA SURVEY (BY OTHERS)	1 SHEET

# **GENERAL NOTES**

PROMPTLY PROVIDED TO THE OWNER UPON REQUEST.

1.	THESE PLANS ARE SOLELY BASED ON INFORMATION THE OWNER AND OTHERS PROVIDED TO BOHLER ENGINEERING, (HEREIN "BOHLER") PRIOR TO THE DATE ON 1. WHICH THE ENGINEER OF RECORD AND BOHLER PREPARED THESE PLANS. THE CONTRACTOR MUST FIELD VERIEVALL EXISTING CONDITIONS AND IMMEDIATELY.	THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCU
	NOTIFY BOHLER, IN WRITING, IF ANY ACTUAL SITE CONDITIONS DIFFER FROM THOSE SHOWN ON THESE PLANS, OR IF THE PROPOSED WORK CONFLICTS WITH	BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GE
	ANY OTHER STIE FEATURES.	THE CONTRACTOR MUST CONDUCT DEMOLITION/REMOVALS ACTIVITIES I

- THE CONTRACTOR MUST STRICTLY COMPLY WITH THESE NOTES AND ALL SPECIFICATIONS/REPORTS CONTAINED HEREIN. THE CONTRACTOR MUST ENSURE THAT ALL SUBCONTRACTORS FULLY AND COMPLETELY CONFORM TO AND COMPLY WITH THESE REQUIREMENTS, THESE NOTES, AND THE REQUIREMENTS ARTICULATED IN THE NOTES CONTAINED IN ALL THE OTHER DRAWINGS THAT COMPRISE THE PLAN SET OF DRAWINGS. ADDITIONAL NOTES AND SPECIFIC PLAN NOTES MAY BE FOUND ON THE INDIVIDUAL PLANS. THESE GENERAL NOTES APPLY TO THIS ENTIRE DOCUMENT PACKAGE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW ALL CONSTRUCTION CONTRACT DOCUMENTS INCLUDING, BUT NOT LIMITED TO, ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THE PROJECT WORK SCOPE, PRIOR TO THE INITIATION AND COMMENCEMENT OF CONSTRUCTION.
- PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR MUST CONFIRM WITH THE ENGINEER OF RECORD AND BOHLER THAT THE LATEST DITION 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.
- PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR MUST ENSURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. 4.2. 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.
- THE CONTRACTOR MUST ENSURE THAT ALL WORK IS PERFORMED IN ACCORDANCE WITH THESE PLANS, SPECIFICATIONS/REPORTS AND CONDITIONS OF APPROVAL, AND ALL APPLICABLE REQUIREMENTS, RULES, REGULATIONS, STATUTORY REQUIREMENTS, CODES, LAWS AND STANDARDS OF ALL GOVERNMENTAL ENTITIES WITH JURISDICTION OVER THIS PROJECT, AND ALL PROVISIONS IN AND CONDITIONS OF THE CONSTRUCTION CONTRACT WITH THE OWNER/DEVELOPER INCLUDING ALL EXHIBITS. ATTACHMENTS AND ADDENDA TO SAME PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR MUST COORDINATE THE BUILDING LAYOUT BY CAREFULLY REVIEWING THE MOST
- CURRENT ARCHITECTURAL, CIVIL AND STRUCTURAL CONSTRUCTION DOCUMENTS (INCLUDING, BUT NOT LIMITED TO, MECHANICAL, ELECTRICAL, PLUMBING AND 6. ENGINEER OF RECORD AND BOHLER ARE NOT RESPONSIBLE FOR JOB SITE FIRE SUPPRESSION PLANS, WHERE APPLICABLE). THE CONTRACTOR MUST IMMEDIATELY NOTIFY OWNER, ARCHITECT AND ENGINEER OF RECORD AND BOHLER, IN WRITING. OF ANY CONFLICTS. DISCREPANCIES OR AMBIGUITIES WHICH EXIST BETWEEN THESE PLANS AND ANY OTHER PLANS THAT COMPRISE THE CONSTRUCTION DOCUMENTS.
- CONTRACTOR MUST REFER TO AND ENSURE COMPLIANCE WITH THE APPROVED ARCHITECTURAL/BUILDING PLANS OF RECORD FOR EXACT LOCATIONS AND DIMENSIONS OF ENTRY/EXIT POINTS, ELEVATIONS, PRECISE BUILDING DIMENSIONS, AND EXACT BUILDING UTILITY LOCATIONS THE CONTRACTOR MUST FIELD VERIEVAL DIMENSIONS AND MEASUREMENTS SHOWN ON THESE PLANS, PRIOR TO THE COMMENCEMENT OF CONSTRUCTION
- THE CONTRACTOR MUST IMMEDIATELY NOTIFY ENGINEER OF RECORD AND BOHLER. IN WRITING, IF ANY CONFLICTS, DISCREPANCIES, OR AMBIGUITIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION. NO EXTRA COMPENSATION WILL BE PAID TO THE CONTRACTOR FOR WORK WHICH HAS TO BE RE-DONE OR REPAIRED DUE TO DIMENSIONS, MEASUREMENTS OR GRADES SHOWN INCORRECTLY ON THESE PLANS PRIOR TO BOTH (A) THE CONTRACTOR GIVING ENGINEER OF RECORD AND BOHLER WRITTEN NOTIFICATION OF SAME AND (B) ENGINEER OF RECORD AND BOHLER, THEREAFTER, PROVIDING THE CONTRACTOR WITH WRITTEN AUTHORIZATION TO PROCEED WITH SUCH ADDITIONAL WORK.
- THE CONTRACTOR MUST VERIEVAL DIMENSIONS AND MEASUREMENTS INCLUDED ON DESIGN DOCUMENTS HEREIN AND MUST NOT SCALE OFF THE DRAWINGS DUE TO POTENTIAL PRINTING INACCURACIES. ALL DIMENSIONS AND MEASUREMENTS ARE TO BE CHECKED AND CONFIRMED BY THE GENERAL CONTRACTOR PRIOR TO PREPARATION OF SHOP DRAWINGS, FABRICATION/ORDERING OF PARTS AND MATERIALS AND COMMENCEMENT OF SITE WORK. SITE PLAN DRAWINGS ARE NOT INTENDED AS SURVEY DOCUMENTS. DIMENSIONS SUPERSEDE GRAPHICAL REPRESENTATIONS. THE CONTRACTOR MUST MAKE CONTRACTOR'S OWN MEASUREMENTS FOR LAYOUT OF IMPROVEMENTS.
- THE OWNER AND CONTRACTOR MUST BE FAMILIAR WITH AND RESPONSIBLE FOR THE PROCUREMENT OF ANY AND ALL CERTIFICATIONS REQUIRED FOR THE 10. PRIOR TO COMMENCING ANY DEMOLITION, THE CONTRACTOR MUST: ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
- WHEN INCLUDED AS ONE OF THE REFERENCED DOCUMENTS, THE GEOTECHNICAL REPORT, SPECIFICATIONS AND RECOMMENDATIONS SET FORTH THEREIN ARE 10.2. NOTIFY, AT A MINIMUM, THE MUNICIPAL ENGINEER, DESIGN ENGINEER 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 10.3. SPECIFICALLY NOTED OTHERWISE ON THE PLANS. THE CONTRACTOR MUST NOTIFY THE ENGINEER OF RECORD AND BOHLER, IN WRITING, OF ANY SUCH CONFLICT, DISCREPANCY OR AMBIGUITY BETWEEN THE GEOTECHNICAL REPORT AND PLANS AND SPECIFICATIONS, PRIOR TO PROCEEDING WITH ANY FURTHER 10.4. IN ACCORDANCE WITH STATE LAW, THE CONTRACTOR MUST CALL THE WORK IF A GEOTECHNICAL REPORT WAS NOT CREATED. THEN THE CONTRACTOR MUST FOLLOW AND COMPLY WITH ALL OF THE REQUIREMENTS OF ANY AND ALL MUNICIPAL, COUNTY, STATE, AND FEDERAL LAWS AND APPLICABLE SPECIFICATIONS WHICH HAVE JURISDICTION OVER THIS PROJECT.
- ENGINEER OF RECORD AND BOHLER ARE NEITHER LIABLE NOR RESPONSIBLE FOR ANY SUBSURFACE CONDITIONS AND FURTHER, HAS NO LIABILITY FOR ANY HAZARDOUS MATERIALS. HAZARDOUS SUBSTANCES. OR POLLUTANTS ON, ABOUT OR UNDER THE PROPERTY. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING WHEN AND WHERE SHORING IS REQUIRED AND FOR INSTALLING ALL SHORING REQUIRED DURING EXCAVATION (TO BE PERFORMED IN ACCORDANCE WITH CURRENT OSHA STANDARDS) AND ANY ADDITIONAL PRECAUTIONS TO BE TAKEN TO ASSURE THE
- STABILITY OF ADJACENT, NEARBY AND CONTIGUOUS STRUCTURES AND PROPERTIES. ALL OF THIS WORK IS TO BE PERFORMED AT CONTRACTOR'S SOLE COST AND EXPENSE 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. 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. 3. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO MAINTAIN RECORDS TO DEMONSTRATE PROPER AND FULLY COMPLIANT DISPOSAL ACTIVITIES, TO BE
- 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 STRUCTION, 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.
- THE ENGINEER OF RECORD AND BOHLER ARE NOT RESPONSIBLE FOR AND HAVE NO CONTRACTUAL LEGAL OR OTHER RESPONSIBILITIES FOR JOB SITE SAFETY JOB SITE SUPERVISION OR ANYTHING RELATED TO SAME. THE ENGINEER OF RECORD AND BOHLER HAVE NOT BEEN RETAINED TO PERFORM OR TO BE RESPONSIBLE FOR JOB SITE SAFETY, SAME BEING WHOLLY OUTSIDE OF ENGINEER OF RECORD'S AND BOHLER SERVICES AS RELATED TO THE PROJECT. THE ENGINEER OF RECORD AND BOHLER ARE NOT RESPONSIBLE TO IDENTIFY OR REPORT ANY JOB SITE SAFETY ISSUES OR ANY JOB SITE CONDITIONS, AT ANY
- THE CONTRACTOR MUST IMMEDIATELY IDENTIFY IN WRITING TO THE ENGINEER OF RECORD AND BOHLER. ANY DISCREPANCIES THAT MAY OR COULD AFFECT THE PUBLIC SAFETY, HEALTH OR GENERAL WELFARE, OR PROJECT COST. IF THE CONTRACTOR PROCEEDS WITH CONSTRUCTION WITHOUT PROVIDING PROPER WRITTEN NOTIFICATION AS DESCRIBED ABOVE IT WILL BE AT THE CONTRACTOR'S OWN RISK AND FURTHER. THE CONTRACTOR MUST INDEMNIFY, DEFEND AND HOLD HARMLESS THE ENGINEER OF RECORD AND BOHLER FOR ANY AND ALL DAMAGES, COSTS, INJURIES, ATTORNEY'S FEES AND THE LIKE WHICH RESULT FROM OR ARE IN ANY WAY RELATED TO SAME INCLUDING, BUT NOT LIMITED TO, ANY THIRD PARTY AND FIRST PARTY CLAIMS.
- ORD AND BOHLER ARE NOT RESPONSIBLE FOR ANY INJURY OR DAMAGES RESULTING FROM THE CONTRACTOR'S FAILURE TO BUILD OR 17. THE CONTRACTOR MUST MAINTAIN A RECORD SET OF PLANS WHICH INDIC STRUCT 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 ENGINEER OF RECORD AND BOHLER HARMLESS FOR AND FROM ALL INJURIES, CLAIMS AND DAMAGES THAT ENGINEER AND BOHLER SUFFER AND ANY AND ALL COSTS THAT ENGINEER AND BOHLER 18. THE CONTRACTOR MUST EMPTY, CLEAN AND REMOVE FROM THE SITE ALL INCUR AS RELATED TO SAM
- 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. 20. CONTRACTOR SHALL FIELD LOCATE EXISTING UTILITIES PRIOR TO CONSTR ALL CONTRACTORS MUST FURNISH BOHLER WITH CERTIFICATIONS OF INSURANCE OR CERTIFICATES OF INSURANCE AS EVIDENCE OF THE REQUIRED NSURANCE 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 ENGINEER, IN WRITING, AT LEAST THIRTY (30) DAYS PRIOR TO ANY TERMINATION, SUSPENSION OR CHANGE OF ITS INSURANCE HEREUNDER.
- THE ENGINEER OF RECORD AND BOHLER ARE NOT RESPONSIBLE FOR CONSTRUCTION METHODS, MEANS, TECHNIQUES OR PROCEDURES, GENERALLY OR FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES OR PROCEDURES FOR COMPLETION OF THE WORK DEPICTED BOTH ON THESE PLANS, AND FOR ANY CONFLICTS IN SCOPE AND REVISIONS THAT RESULT FROM SAME. THE CONTRACTOR IS FULLY AND SOLELY RESPONSIBLE FOR DETERMINING THE MEANS AND METHODS FOR COMPLETION OF THE WORK. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
- NEITHER THE PROFESSIONAL ACTIVITIES OF BOHLER NOR THE PRESENCE OF BOHLER AND/OR ITS PAST, PRESENT AND FUTURE OWNERS, OFFICERS DIRECTORS, PARTNERS, SHAREHOLDERS, MEMBERS, PRINCIPALS, COMMISSIONERS, AGENTS, SERVANTS, EMPLOYEES, AFFILIATES, SUBSIDIARIES, AND RELATED FEATURES FOR GRAPHICAL CLARITY. 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 ANI 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.
- 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. AN 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 ONTRACTOR 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.
- F THE CONTRACTOR DEVIATES FROM THESE PLANS AND/OR SPECIFICATIONS, INCLUDING THE NOTES CONTAINED HEREIN, WITHOUT FIRST OBTAINING TH PRIOR WRITTEN AUTHORIZATION OF THE ENGINEER OF RECORD AND BOHLER FOR ALL DEVIATIONS WITHIN ENGINEER'S SCOPE, THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE PAYMENT OF ALL COSTS INCURRED IN CORRECTING ANY WORK PERFORMED WHICH DEVIATES FROM THE PLANS. ALL FINES AND/OR PENALTIES ASSESSED WITH RESPECT THERETO AND ALL COMPENSATORY OR PUNITIVE DAMAGES RESULTING THEREFROM AND, FURTHER, MUST DEFEND, DEMNIFY, PROTECT, AND HOLD HARMLESS THE ENGINEER OF RECORD AND BOHLER PARTIES TO THE FULLEST EXTENT PERMITTED UNDER THE LAW, FOR AND FROM ALL FEES, ATTORNEYS' FEES, DAMAGES, COSTS, JUDGMENTS, CLAIMS, INJURIES, PENALTIES AND THE LIKE RELATED TO SAME
- 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. OWNER MUST MAINTAIN AND PRESERVE ALL PHYSICAL SITE FEATURES AND DESIGN FEATURES DEPICTED ON THE PLANS AND RELATED DOCUMENTS IN STRICT
- ACCORDANCE WITH THE APPROVED PLAN(S) AND DESIGN: AND, FURTHER. THE ENGINEER OF RECORD AND BOHLER ARE NOT RESPONSIBLE FOR ANY FAILURE TO SO MAINTAIN OR PRESERVE SITE AND/OR DESIGN FEATURES. IF OWNER FAILS TO MAINTAIN AND/OR PRESERVE ALL PHYSICAL SITE FEATURES AND/OR DESIGN FEATURES DEPICTED ON THE PLANS AND RELATED DOCUMENTS, OWNER AGREES TO INDEMNIFY AND HOLD THE ENGINEER OF RECORD AND BOHLER PARTIES, HARMLESS FOR ALL INJURIES, DAMAGES AND COSTS THAT ENGINEER OF RECORD AND BOHLER INCUR AS A RESULT OF SAID FAILURE OR FAILURE TO PRESERVE
- THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ENSURING THAT ALL CONSTRUCTION ACTIVITIES AND MATERIALS COMPLY WITH AND CONFORM TO APPLICABLE FEDERAL, STATE AND LOCAL RULES AND REGULATIONS, LAWS, ORDINANCES, AND CODES, AND ALL APPLICABLE REQUIREMENTS OF THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970, (29 U.S.C. 651 ET SEQ.) AS AMENDED, AND ANY MODIFICATIONS, AMENDMENTS OR REVISIONS TO SAME THE CONTRACTOR MUST STRICTLY COMPLY WITH THE LATEST AND CURRENT OSHA STANDARDS AND REGULATIONS AND/OR ANY OTHER AGENCY WITH
- JURISDICTION OVER EXCAVATION AND TRENCHING PROCEDURES. ENGINEER OF RECORD AND BOHLER HAS NO RESPONSIBILITY FOR OR AS RELATED TO EXCAVATION AND TRENCHING PROCEDURES AND WORK. THE CONTRACTOR AND THE OWNER MUST INSTALL ALL ELEMENTS AND COMPONENTS IN STRICT COMPLIANCE WITH AND IN ACCORDANCE WITH MANUFACTURER'S STANDARDS AND RECOMMENDED INSTALLATION CRITERIA AND SPECIFICATIONS. IF THE CONTRACTOR AND/OR OWNER FAIL TO DO SO, THEY
- AGREE TO JOINTLY, INDEPENDENTLY, SEPARATELY, COLLECTIVELY, AND SEVERALLY INDEMNIFY, DEFEND, PROTECT AND HOLD ENGINEER OF RECORD AND BOHLER PARTIES HARMLESS FOR ALL INJURIES AND DAMAGES THAT ENGINEER SUFFERS AND COSTS THAT ENGINEER INCURS AS A RESULT OF SAID FAILURE. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN AN ON-SITE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IN COMPLIANCE WITH THE ENVIRONMENTAL 10. WORK WITHIN THE RIGHT-OF-WAY MUST BE PERFORMED IN ACCORDANC 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 11 RAINFALL EVENTS) AND CORRECTIVE MEASURES, AS APPROPRIATE AND FURTHER, THE CONTRACTOR IS SOLELY AND COMPLETELY RESPONSIBLE FOR FAILING TO DO SO
- AS CONTAINED IN THESE DRAWINGS AND ASSOCIATED DOCUMENTS PREPARED BY THE ENGINEER OF RECORD AND BOHLER, THE USE OF THE WORDS 'CERTIFY' OR 'CERTIFICATION' CONSTITUTE(S) AN EXPRESSION ONLY OF PROFESSIONAL OPINION REGARDING THE INFORMATION WHICH IS THE SUBJECT OF THE ENGINEER OF RECORD'S AND BOHLER KNOWLEDGE OR BELIEF AND IN ACCORDANCE WITH COMMON AND ACCEPTED PROCEDURE CONSISTENT WITH THE APPLICABLE STANDARDS OF PRACTICE, AND DOES NOT CONSTITUTE A WARRANTY OR GUARANTEE OF ANY NATURE OR TYPE, EITHER EXPRESSED OR IMPLIED,

# **GENERAL DEMOLITION NOTES**

- RE REFERENCED HEREIN, AND THE CONTRACTOR MUST REFER TO THEM FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GE THE CONTRACTOR MUST CONDUCT DEMOLITION/REMOVALS ACTIVITIES IN SIDEWALKS, WALKWAYS, AND ALL OTHER ADJACENT FACILITIES, THE CON OVERNMENTAL AUTHORITY(IES) PRIOR TO THE COMMENCEMENT OF AN WHEN DEMOLITION-RELATED ACTIVITIES IMPACT ROADWAYS AND/OR ROAD GENERALLY ACCEPTED SAFE PRACTICES IN CONFORMANCE WITH THE CU DEVICES" (MUTCD), AND THE FEDERAL, STATE, AND LOCAL REGULATIONS. THE DEMOLITION (AND/OR REMOVALS) PLAN IS INTENDED TO PROVIDE GEI DEMOLISHED, REMOVED, AND/OR TO REMAIN. THE CONTRACTOR MUST ALSO REVIEW ALL CONSTRUCTION DOCUME NECESSARY FOR THE CONSTRUCTION OF THE NEW SITE IMPROVEME THIS PLAN IS NOT INTENDED TO AND DOES NOT PROVIDE DIRECTION BE EMPLOYED TO ACCOMPLISH THE WORK ALL MEANS METHODS SE ACCORDANCE AND CONFORMANCE WITH ALL STATE, FEDERAL, LOCA OSHA AND OTHER SAFETY PRECAUTIONS NECESSARY TO PROVIDE A 5 THE CONTRACTOR MUST PROVIDE ALL "METHODS AND MEANS" NECESSAL AND ANY OTHER IMPROVEMENTS THAT ARE REMAINING ON OR OFF SITE. ALL ITEMS AND FEATURES THAT ARE TO REMAIN. CONTRACTOR MUST US RESTORATION OF ALL ITEMS AND FEATURES REPAIRED TO THEIR PRE-DE CONTRACTOR'S SOLE EXPENSE. A SYSTEMATIC AND SAFE MANNER, COMPLYING WITH ALL OSHA REQUIRE ON THE SITE OR ADJACENT OR NEAR TO THE SAME. 7. THE CONTRACTOR IS RESPONSIBLE FOR JOB SITE SAFETY. WHICH MUST FENCING, OTHER APPROPRIATE AND/OR NECESSARY SAFETY FEATURES ONSTRUCTION ACTIVITIES. THE CONTRACTOR MUST SAFEGUARD THE SI THE ENTRY OF ALL UNAUTHORIZED PERSONS AT ANY TIME, TO OR NEAR 1 PRIOR TO THE COMMENCEMENT OF ANY SITE ACTIVITY AND ANY DEMOLI CONCERNING THE ACCURACY OR INTENT OF THESE PLANS AND/OR SPEC STANDARDS, AND/OR THE SAFETY OF THE CONTRACTOR AND/OR THIRD P CONVEYED TO THE ENGINEER OF RECORD AND BOHLER , IN WRITING AND AND BY BOHLER, IN WRITING. ALL DEMOLITION ACTIVITIES MUST BE PERF SPECIFICATIONS AND ALL APPLICABLE FEDERAL, STATE AND LOCAL REGU THE CONTRACTOR MUST BECOME FAMILIAR WITH THE APPLICABLE UTILITY REGARDING UTILITY DEMOLITION AND/OR DISCONNECTION AS IDENTIFIED WRITTEN NOTIFICATION THAT THE EXISTING UTILITIES AND SERVICES HA URISDICTION AND UTILITY COMPANY REQUIREMENTS AND ALL OTHER API 10.1. OBTAIN ALL REQUIRED PERMITS AND MAINTAIN THE SAME ON SITE FC ROUGHOUT THE DURATION OF THE PROJECT, SITE WORK, AND DEI TO THE COMMENCEMENT OF WORK. INSTALL THE REQUIRED SOIL EROSION AND SEDIMENT CONTROL MEAS
- STABILIZED OF ANY EXCAVATION. 10.5. LOCATE AND PROTECT ALL UTILITIES AND SERVICES, INCLUDING BUT CABLE FIBER OPTIC CABLE FTC WITHIN AND ADJACENT TO THE LIMI REQUIREMENTS OF THE APPLICABLE UTILITY NOTIFICATION SYSTEM
- PROTECT AND MAINTAIN IN OPERATION, ALL ACTIVE UTILITIES AND SY ARRANGE FOR AND COORDINATE WITH THE APPLICABLE UTILITY SER REQUIRED BY THE PROJECT PLANS AND SPECIFICATIONS REGARDING RECORD'S RESPONSIBILITY. IN THE EVENT OF ABANDONMENT, THE CO WRITTEN NOTIFICATION THAT THE EXISTING UTILITIES AND SERVICES UTILITY COMPANY REQUIREMENTS
- 10.8. ARRANGE FOR AND COORDINATE WITH THE APPLICABLE UTILITY SERV NECESSARY OR AS REQUIRED TO MINIMIZE THE IMPACT ON, OF, AND PERFORMED AT NO ADDITIONAL COST TO THE OWNER. 10.9. IN THE EVENT THE CONTRACTOR DISCOVERS ANY HAZARDOUS MATE
- SPECIFICATIONS OR THE CONTRACT WITH THE OWNER/DEVELOPER, AND IMMEDIATELY NOTIFY, IN WRITING AND VERBALLY, THE OWNER A PURSUE PROPER AND COMPLIANT REMOVAL OF SAME. THE CONTRACTOR MUST NOT PERFORM ANY EARTH MOVEMENT ACTIVITI VITHIN THE LIMITS OF DISTURBANCE, UNLESS SAME IS IN STRICT ACCORE
- PURSUANT TO THE WRITTEN DIRECTION OF THE OWNER'S STRUCTURAL ( 2. DEMOLITION ACTIVITIES AND EQUIPMENT MUST NOT USE OR INCLUDE ARE ERMISSION AND AUTHORITY OF AND FROM THE OWNER AND ALL GOVERM
- THE CONTRACTOR MUST BACKFILL ALL EXCAVATION RESULTING FROM, OF APPROVED BACKFILL MATERIALS AND MUST BE SUFFICIENTLY COMPACTE WITH THE RECOMMENDATIONS AND GUIDANCE ARTICULATED IN THE GEO ACTIVITIES AND MUST BE PERFORMED SO AS TO PREVENT WATER ENTER DRAINAGE. THE CONTRACTOR IS RESPONSIBLE FOR COMPACTION TESTIN THE OWNER
- 14. EXPLOSIVES MUST NOT BE USED WITHOUT PRIOR WRITTEN CONSENT FRO OVERNMENTAL AUTHORITIES, PRIOR TO COMMENCING ANY EXPLOSIVE OVERSEE THE INSTALLATION OF ALL OF THE REQUIRED PERMIT AND EXPL REQUIRE. THE CONTRACTOR IS ALSO RESPONSIBLE TO CONDUCT AND PE MONITOR THE EFFECTS ON ALL LOCAL STRUCTURES AND THE LIKE. 15. IN ACCORDANCE WITH FEDERAL, STATE, AND/OR LOCAL STANDARDS, THE
- DIRT RISING AND SCATTERING IN THE AIR. AFTER THE DEMOLITION IS CO IMPROVEMENTS TO REMOVE ALL DUST AND DEBRIS WHICH THE DEMOLIT ADJACENT AREAS TO THEIR "PRE-DEMOLITION" CONDITION AT CONTRACT 16 PAVEMENT MUST BE SAW CUT IN STRAIGHT LINES ALL DEBRIS FROM REM
- STOCKPILING OF DEBRIS OUTSIDE OF APPROVED AREAS WILL NOT BE PEI
- OR RELOCATED DUE TO DEMOLITION ACTIVITIES. THIS RECORD DOCUMEN THE OWNER/DEVELOPER UPON COMPLETION OF THE WORK ALL OF WHIC STATE. COUNTY AND LOCAL REQUIREMENTS, PRIOR TO CONTINUING CONS ARE AT THE CONTRACTOR'S SOLE COST
- 19 THE CONTRACTOR MUST LOCATE AND CLEARLY DEFINE VERTICALLY AND TO BE REMOVED. THE CONTRACTOR IS RESPONSIBLE TO PROTECT AND M
- AND DEPTH OF UTILITIES. CONTRACTOR SHALL NOTIFY DESIGN ENGINEER IMPROVEMENTS.
- CONTRACTOR SHALL INSPECT ALL EXISTING UTILITY STRUCTURES THAT AF STRUCTURES CAN NOT BE REUSED THEN THE CONTRACTOR SHALL PROVID APPLICABLE UTILITY PROVIDER.
- 22. CONTRACTOR TO REMOVE ANY BUILDING FOUNDATION REMAINS OR ASSO WORK SHOWN ON THESE PLANS. 23. THE CONTRACTOR SHALL REVIEW THE PLANS VERSUS THE LOCATION OF
- ACCURACY OF SAME AND VERIEV ITEMS TO BE REMOVED. THE CONTRACT APPURTENANCES, AND UNDERGROUND UTILITIES, INCLUDING BUT NOT LIM THE CONTRACTOR SHALL MAINTAIN, ADJUST OR ABANDON EXISTING MONI
- CONSULTANT (TYP.) 25. WHERE THE LIMIT OF WORK COINCIDES WITH PROPERTY LINE, TREE LINE,
- 26. EXISTING TREES TO REMAIN ARE TO BE PROTECTED DURING CONSTRUCT BE TAKEN DURING CONSTRUCTION TO PREVENT DAMAGE AND SELECTIVE I DEVELOPMENT.
- CONTRACTOR SHALL REPAIR/REPLACE ANY TRAFFIC LOOP DETECTORS TH WAYS, ANY SUCH WORK SHALL BE PERFORMED BY A LICENSED / DOT APP SHALL BE REPAIRED IMMEDIATELY AFTER THE WORK IS COMPLETE. THE SI F REQUESTED BY DOT AND/OR THE MUNICIPALITY
- 28. THE CONTRACTOR MUST FIELD VERIFY THE LOCATIONS WHERE PROPOSE DETERMINE THE EXACT SIZE, DEPTH AND LOCATION, PRIOR TO COMMENCE 29. CONTRACTOR SHALL LOCATE ANY EXISTING UTILITY SERVICES THAT ARE

## ARE TO BE TERMINATED IN ACCORDANCE WITH MUNICIPAL / STATE TRANS GENERAL SITE NOTES

- 1. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOC NOTES ARE REFERENCED HEREIN, AND THE CONTRACTOR MUST REFER CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY PRIOR TO THE COMMENCEMENT OF GENERAL CONSTRUCTION, THE CONT PREVENTION PLAN (SWPPP) MEASURES NECESSARY, AS INDICATED ON WITH APPLICABLE AND/OR APPROPRIATE AGENCIES' GUIDELINES TO PRE PROPERTIES OR THE RIGHT OF WAY ALL DIRECTIONAL/TRAFFIC SIGNING AND PAVEMENT STRIPING MUST CON DEVICES (MUTCD) AND ANY APPLICABLE STATE OR LOCALLY APPROVED THE LOCATIONS OF PROPOSED UTILITY POLES AND TRAFFIC SIGNS SHOW RESPONSIBLE FOR FIELD-VERIFYING THEIR LOCATION. THE CONTRACTOR
- JURISDICTION OVER THE PROJECT. ALL DIMENSIONS SHOWN ARE TO BOTTOM FACE OF CURB, EDGE OF PAVE STAKE OUT OF LOCATIONS OF INLETS, LIGHT POLES, ETC. MUST BE PERF
- WHEN APPLICABLE, OWNER/ OPERATOR MUST FILE THE NOI FOR NPDES DESIRED START OF CONSTRUCTION. LAND DISTURBING ACTIVITIES MUST GOVERNING AUTHORITIES (INCLUDING STORMWATER POLLUTION PREVE PLAN DURING CONSTRUCTION OPERATIONS (IF PROVIDED).
- 7. ALL CONCRETE MUST BE AIR ENTRAINED AND INCLUDE THE MINIMUM COI UNLESS OTHERWISE NOTED ON THE PLANS, DETAILS AND/OR GEOTECHN
- 8. THE CONTRACTOR MUST FILE SITE SIGNAGE APPLICATION OR PERMIT UN PERMITTING PROCEDURES. 9. THE CONTRACTOR MUST REPAIR OR REPLACE, AT THE CONTRACTOR'S S
- PAVEMENT DAMAGED BY CONSTRUCTION ACTIVITIES WHETHER SPECIFIE
- PUBLIC WORKS, ENGINEERING DEPARTMENT, HIGHWAY DIVISION, AND/OF
- WHERE RETAINING WALLS ARE IDENTIFIED ON THE PLANS. TOP AND BOT WALL, RATHER THEY ARE AN ASSUMPTION BASED ON WALL TYPE AND WA AND ARE TO BE SET/DETERMINED BY THE CONTRACTOR OR WALL DESIG PREPARED BY THE APPROPRIATE PROFESSIONAL LICENSED IN THE STAT APPROPRIATELY LICENSED PROFESSIONAL DESIGNS ALL WALLS SHOWN RETAINING WALL DESIGN

NDER ANY CIRCUMSTANCES

ENERAL DEMOLITION NOTES	GENERAL GRADING NOTES	ADA INSTRUCTIONS TO CON	ITRACTOR:
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 REFER TO THEM AND FULLY COMPLY WITH THESE NOTES, IN THEIR ENTIRETY. THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES, IN THEIR ENTIRETY. THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES, IN THEIR ENTIRETY. THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES, IN THEIR ENTIRETY. THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES, IN THEIR ENTIRETY. THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES, IN THEIR ENTIRETY. THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES, IN THEIR ENTIRETY. THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE 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 REFER TO THEM AND FULLY COMPLY WITH THESE NOTES, IN THEIR ENTIRETY. THE	<ol> <li>ALL ACCESSIBLE (A.K.A. ADA) COMPONENTS AND ACCESSIBLE ROU REQUIREMENTS OF THE "AMERICANS WITH DISABILITIES ACT" (ADA STATE GUIDELINES, AND ANY AND ALL AMENDMENTS TO BOTH, WH</li> </ol>	TES MUST BE CONSTRUCTED TO MEET, AT A MINIMUM, THE MORE STRINGENT OF: (A) THE ) CODE (42 U.S.C. § 12101 ET SEQ. AND 42 U.S.C. § 4151 ET SEQ.); AND (B) ANY APPLICABLE LOCAL A IICH ARE IN EFFECT WHEN THESE PLANS WERE COMPLETED.
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	<ol> <li>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</li> </ol>	<ol> <li>THE CONTRACTOR MUST REVIEW ALL DOCUMENTS REFERENCED I</li> <li>THE CONTRACTOR MUST EXERCISE APPROPRIATE CARE AND PREC FINISHED SURFACES ALONG THE ACCESSIBLE ROUTE OF TRAVEL F</li> </ol>	I THESE NOTES FOR ACCURACY, COMPLIANCE AND CONSISTENCY WITH INDUSTRY GUIDELINES. JISION IN CONSTRUCTION OF ACCESSIBLE (ADA) COMPONENTS AND ACCESSIBLE ROUTES FOR THI ROM PARKING SPACES, PUBLIC TRANSPORTATION, PEDESTRIAN ACCESS, AND INTER-BUILDING ACCESS, AND ACCESS, ACCESS, ACCESS, ACCESS, ACCESS, ACCESS, ACCESS, A
GOVERNMENTAL AUTHORITY (IES) PRIOR TO THE COMMENCEMENT OF ANY ROAD OPENING OR DEMOLITION ACTIVITIES IN OR ADJACENT TO THE RIGHT-OF-WAY. WHEN DEMOLITION-RELATED ACTIVITIES IMPACT ROADWAYS AND/OR ROADWAY RIGHT-OF-WAY. THE CONTRACTOR MUST PROVIDE TRAFFIC CONTROL AND	GEOTECHNICAL ENGINEER PROVIDE WRITTEN SPECIFICATIONS AND RECOMMENDATIONS PRIOR TO THE CONTRACTOR COMMENCING THE GRADING WORK. TH CONTRACTOR MUST FOLLOW THE REQUIREMENTS OF ALL MUNICIPAL, COUNTY, STATE, AND FEDERAL LAWS, WHICH HAVE JURISDICTION OVER THIS PROJECT.	TO POINTS OF ACCESSIBLE BUILDING ENTRANCE/EXIT, MUST COMF THE FOLLOWING: 3.1. ACCESSIBLE PARKING SPACES AND ACCESS AISLES SLOPES M	LY WITH THE ACCESSIBLE GUIDELINES AND REQUIREMENTS WHICH INCLUDE, BUT ARE NOT LIMITE //UST NOT EXCEED 1:50 (2.0%) IN ANY DIRECTION.
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.	<ol> <li>THE CONTRACTOR IS REQUIRED TO SECURE ALL NECESSARY AND/OR REQUIRED PERMITS AND APPROVALS FOR ALL OFF-SITE MATERIAL SOURCES AND DISPOSAL FACILITIES. THE CONTRACTOR MUST SUPPLY A COPY OF APPROVALS TO THE ENGINEER OF RECORD AND THE OWNER PRIOR TO THE CONTRACTOR COMMENCING ANY WORK.</li> </ol>	3.2. PATH OF TRAVEL ALONG ACCESSIBLE ROUTE MUST PROVIDE A UNOBSTRUCTED WIDTH OF TRAVEL (CAR OVERHANGS AND/OR DIRECTION OF TRAVEL AND MUST NOT EXCEED 1:50 (2.0%) IN C	. 36-INCHES MINIMUM WIDTH (48-INCHES PREFERRED), OR AS SPECIFIED BY THE GOVERNING AGEN . HANDRAILS) MUST NOT REDUCE THIS MINIMUM WIDTH. THE SLOPE MUST NOT EXCEED 1:20 (5.0%) .ROSS SLOPE. WHERE ACCESSIBLE PATH OF TRAVEL IS GREATER THAN 1:20 (5.0%), AN ACCESSIBL!
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. 1. THE CONTRACTOR MUST ALSO REVIEW ALL CONSTRUCTION DOCUMENTS AND INCLUDE WITHIN THE DEMOLITION ACTIVITIES ALL INCIDENTAL 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 ENGINEER OF RECORD, IN WRITING.	RAMP MUST BE PROVIDED. ALONG THE ACCESSIBLE PATH OF PERMITTED ONLY IF THEY INCLUDES A 1/4-INCH BEVEL AT A SL 3.3. ACCESSIBLE RAMPS MUST NOT EXCEED A SLOPE OF 1:12 (8.3%	RAVEL, OPENINGS MUST NOT EXCEED 1/2-INCH IN WIDTH. VERTICAL CHANGES OF UP TO 1/2-INCH OPE NOT STEEPER THAN 1:2. NO VERTICAL CHANGES OVER 1/4-INCH ARE PERMITTED. $\phi$ ) AND A RISE OF 30-INCHES. LEVEL LANDINGS MUST BE PROVIDED AT EACH END OF ACCESSIBLE F
NECESSARY FOR THE CONSTRUCTION OF THE NEW SITE IMPROVEMENTS. 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	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	LANDING MUST PROVIDE POSITIVE DRAINAGE AWAY FROM STF DIRECTION BETWEEN RUNS AT LANDINGS MUST HAVE A CLEAR BE PROVIDED ON AN ACCESSIBLE RAMP WITH A RISE GREATER	LUCTURES, AND MUST NOT EXCEED 1:50 (2.0%) SLOPE IN ANY DIRECTION. RAMPS THAT CHANGE LANDING OF A MINIMUM OF 60-INCHES BY 60-INCHES. HAND RAILS ON BOTH SIDES OF THE RAMP N R THAN 6-INCHES.
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.	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	3.4. ACCESSIBLE CURB RAMPS MUST NOT EXCEED A SLOPE OF 1:1 LANDING MUST BE PROVIDED AT RAMPS TOP AT A MINIMUM OF FLARE SIDES SLOPES MUST NOT EXCEED A SLOPE OF 1:12 (8.3	2 (8.3%). WHERE FLARED SIDES ARE PROVIDED, THEY MUST NOT EXCEED 1:10 (10%) SLOPE. LEVEL 36-INCHES LONG (48-INCHES PREFERRED). IN ALTERATIONS, WHEN THERE IS NO LANDING AT THE %).
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	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,	3.5. DOORWAY LANDINGS AREAS MUST BE PROVIDED ON THE EXTE SLOPED AWAY FROM THE DOOR NO MORE THAN 1:50 (2.0%) FO WHERE OTHERWISE CLEARLY PERMITTED BY ACCESSIBLE STA	.RIOR SIDE OF ANY DOOR LEADING TO AN ACCESSIBLE PATH OF TRAVEL. THIS LANDING MUST BE R POSITIVE DRAINAGE. THIS LANDING AREA MUST BE NO FEWER THAN 60-INCHES (5 FEET) LONG, E INDARDS FOR ALTERNATIVE DOORWAY OPENING CONDITIONS. (SEE ICC/ANSI A117.1-2009 AND OTH
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.	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 STAT	3.6. WHEN THE PROPOSED CONSTRUCTION INVOLVES RECONSTRU DOORWAYS OR SURFACES, THE CONTRACTOR MUST VERIFY A UNITICE'S ADA STANDARDS FOR ACCESSIBLE DESIGN ALLOWS	JCTION, MODIFICATION, REVISION OR EXTENSION OF OR TO ACCESSIBLE COMPONENTS FROM EXIS JLL EXISTING ELEVATIONS SHOWN ON THE PLAN. NOTE THAT TABLE 405.2 OF THE DEPARTMENT OF
ENGINEER OF RECORD AND BOHLER ARE NOT RESPONSIBLE FOR JOB SITE SAFETY OR SUPERVISION. THE CONTRACTOR MUST PROCEED WITH THE DEMOLITION IF 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.	<ul> <li>ODT SPECIFICATIONS FOR ROADWAY CONSTRUCTION (LATEST EDITION) AND ANY AMENDMENTS OR REVISIONS THERETO.</li> <li>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 CONTRACTOR MUST INVESTIGATION IN MUST INCLUDE TO DISCREPANCY (IES) AND/OR CONFLICT(S)</li> </ul>	THE ENGINEER OF RECORD, IN WRITING, OF ANY DISCREPANC THE PLANS BEFORE COMMENCING ANY WORK. CONSTRUCTED BARRIER FREE REGULATIONS AND THE ACCESSIBLE GUIDELIN	ES AND/OR FIELD CONDITIONS THAT DIFFER IN ANY WAY OR IN ANY RESPECT FROM WHAT IS SHOUT IMPROVEMENTS MUST FALL WITHIN THE MAXIMUM AND MINIMUM LIMITATIONS IMPOSED BY THE FS
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	<ol> <li>THE CONTRACTOR IS RESPONSIBLE TO IMPORT FILL OR EXPORT EXCESS MATERIAL AS NECESSARY TO CONFORM TO THE PROPOSED GRADING, AND TO BACKELL EXCAVATIONS FOR THE INSTALLATION OF UNDERGROUND IMPROVEMENTS.</li> </ol>	3.7. THE CONTRACTOR MUST VERIFY ALL OF THE SLOPES OF THE ( OBSERVED OR DISCOVERED, THE CONTRACTOR MUST IMMEDI CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL COSTS TO RE	20NTRACTOR'S FORMS PRIOR TO POURING CONCRETE. IF ANY NON-CONFORMANCE EXISTS OR IS ATELY NOTIFY THE ENGINEER OF RECORD, IN WRITING, PRIOR TO POURING CONCRETE. THE 200VE, REPAIR AND/OR REPLACE NON-CONFORMING CONCRETE AND/OR PAVEMENT SURFACES.
THE ENTRY OF ALL UNAUTHORIZED PERSONS AT ANY TIME, TO OR NEAR THE DEMOLITION AREA.	8. PROPOSED TOP OF CURB ELEVATIONS ARE GENERALLY 6" ABOVE PAVEMENT GRADE UNLESS OTHERWISE NOTED.	<ol> <li>IT IS STRONGLY RECOMMENDED THAT THE CONTRACTOR REVIEW PRIOR TO COMMENCING CONSTRUCTION.</li> <li>IN ADDITION TO THE ABOVE, THE CONTRACTOR MUST ALSO ENSUR</li> </ol>	THE INTENDED CONSTRUCTION TO ENSURE SAME IS CONSISTENT WITH THE LOCAL BUILDING COD
CONCERNING THE ACCURACY OR INTENT OF THESE PLANS AND/OR SPECIFICATIONS, ALL CONCERNS OR QUESTIONS REGARDING THE APPLICABLE SAFETY STANDARDS, AND/OR THE SAFETY OF THE CONTRACTOR AND/OR THIRD PARTIES IN PERFORMING THE WORK ON THIS PROJECT. ANY SUCH CONCERNS MUST BE CONVEYED TO THE ENGINEER OF RECORD AND BOHLER, IN WRITING AND MUST ADDRESS ALL ISSUES AND ITEMS RESPONDED TO, BY THE ENGINEER OF RECORD	<ol> <li>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.</li> </ol>	ACCORDANCE WITH THE MASSACHUSETTS ARCHITECTURAL ACCE RECORD, IN WRITING, OF ANY DISCREPANCIES BETWEEN THE "AME ACCESSIBLE IMPROVEMENTS BEING CONSTRUCTED PRIOR TO COM	3S BOARD REGULATIONS 521 CMR. THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER RICANS WITH DISABILITIES ACT" (ADA) CODE AND STATE BUILDING CODE AS IT RELATES TO ANY MENCING THE WORK.
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.	10. WHERE RETAINING WALLS ARE IDENTIFIED ON THE PLANS, TOP AND BOTTOM OF WALL ELEVATIONS (TW & BW) REPRESENT THE PROPOSED FINISHED GRADE A 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	АТ ).	REFERENCES
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	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	BOUNDARY & TOPOGRAPHI	C SURVEY: TRAFFIC & SAFETY IMPROVEMENTS
JURISDICTION AND UTILITY COMPANY REQUIREMENTS AND ALL OTHER APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES. PRIOR TO COMMENCING ANY DEMOLITION, THE CONTRACTOR MUST:	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.	80 MONTVALE AVENUE, SUI STONEHAM, MA 02180	FE 201 CONSULTANTS, INC. 28 LORD ROAD, SUITE 280
<ol> <li>OBTAIN ALL REQUIRED PERMITS AND MAINTAIN THE SAME ON SITE FOR REVIEW BY THE ENGINEER AND ALL PUBLIC AGENCIES WITH JURISDICTION THROUGHOUT THE DURATION OF THE PROJECT, SITE WORK, AND DEMOLITION WORK.</li> <li>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.</li> </ol>	<ol> <li>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)</li> <li>STORNWATER RUNDER WITHIN PROPERTY MUST BE COLLECTED ON SITE WITHIN O OVERLAND RUNDER ONTO THE RICHT OF WAY OR AD INCENT PROPERTY.</li> </ol>	DATE: 10/25/2021	MARLBOROUGH, MA 01752 DATE: 12/12/2023
<ul> <li>INSTALL THE REQUIRED SOIL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO SITE DISTURBANCE, AND MAINTAIN SAID CONTROLS UNTIL SITE IS STABILIZED</li> <li>IN ACCORDANCE WITH STATE LAW. THE CONTRACTOR MUST CALL THE STATE ONE-CALL DAMAGE PROTECTION SYSTEM FOR LITH ITY MARK OUT. IN ADVANCE</li> </ul>	TO THE MAXIMUM EXTENT POSSIBLE OR IN THE MANNER SHOWN ON THE CONSTRUCTION DRAWINGS. STORMWATER RUNOFF ONTO ADJACENT PROPERTIES SHALL BE CONTROLLED AS TO NOT ADVERSLY IMPACT SAID PROPERTIES.	THE ARCHITECTURAL TEAM 50 COMMANTS WAY	LANDSCAPE PLANS 45 FRANKLIN ST, 5TH FLOOR BOSTON, MA 02110
OF ANY EXCAVATION. 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	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.	DATE: 12/15/2023	DATE: 12/20/2023
REQUIREMENTS OF THE APPLICABLE UTILITY NOTIFICATION SYSTEM TO LOCATE ALL UNDERGROUND UTILITIES. 6. PROTECT AND MAINTAIN IN OPERATION, ALL ACTIVE UTILITIES AND SYSTEMS THAT ARE NOT BEING REMOVED DURING ANY DEMOLITION ACTIVITIES. 7. ARRANGE FOR AND COORDINATE WITH THE APPLICABLE UTILITY SERVICE PROVIDER(S) FOR THE TEMPORARY OR PERMANENT TERMINATION OF SERVICE	<ol> <li>REFER TO GENERAL NOTES SHEET FOR ADDITIONAL ADA GUIDELINES AND REQUIREMENTS.</li> <li>FOR ALL RETAINING WALLS 4 FEET OR GREATER IN HEIGHT:</li> </ol>	* THE ABOVE REFERENCED DOCU HOWEVER, BOHLER ENGINEERING	MENTS ARE INCORPORATED BY REFERENCE AS PART OF THESE PLANS, 3 DOES NOT CERTIFY THE ACCURACY OF THE WORK REFERENCED OR DERIVED THERS
REQUIRED BY THE PROJECT PLANS AND SPECIFICATIONS REGARDING THE METHODS AND MEANS TO CONSTRUCT SAME. THESE ARE NOT THE ENGINEER OF RECORD'S RESPONSIBILITY. IN THE EVENT OF ABANDONMENT, THE CONTRACTOR MUST PROVIDE THE UTILITY ENGINEER AND OWNER WITH IMMEDIATE WRITTEN NOTIFICATION THAT THE EXISTING UTILITIES AND SERVICES HAVE BEEN TERMINATED AND ABANDONED IN ACCORDANCE WITH JURISDICTIONAL AND	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, UTILITIE DO SURROUNDING IMPROVEMENTS/CONDITIONS (INCLUDING BUT NOT LIMITED TO SLOPES, DRIVE AISLES, ROADS, FENCING, GUIDERAILS, UTILITIE	S,	
UTILITY COMPANY REQUIREMENTS. 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 DEFEORMED AT NO ADDITIONUL COST TO THE OWNER.	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.	ABBREVIATIONS	
<ul> <li>PERFORMED AT NO ADDITIONAL COST TO THE OWNER.</li> <li>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 WITHOUT NO VERDAULY. THE OWNER AND ENCINEER OF RECORD AND ROUT FOR THE DISCOVERY OF SUCH MATERIAL S TO</li> </ul>	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 NOTEI ABOVE SHALL BE FIELD CONFIRMED AND APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO WALL CONSTRUCTION.	KEY         DESCRIPTION           ARCH         ARCHITECT	ADJACENT PROPERTY EXISTING
AND IMMEDIATELY NOTIFY, IN WRITING AND VERBALLY, THE OWNER AND ENGINEER OF RECORD AND BOHLER, THE DISCOVERY OF SUCH MATERIALS TO PURSUE PROPER AND COMPLIANT REMOVAL OF SAME. THE CONTRACTOR MUST NOT PERFORM ANY EARTH MOVEMENT ACTIVITIES, DEMOLITION OR REMOVAL OF FOUNDATION WALLS, FOOTINGS, OR OTHER MATERIALS WITHIN THE LIMITS OF DISTUBBANCE. UNLESS SAME IS IN STRICT ACCORDANCE AND CONECOMANCE WITH THE DROJECT DIANS AND SECURICATIONS. OR	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.	BCBACK OF CURBBMBENCHMARK	LINE PROPOSED RIGHT-OF-WAY LINE EXISTING
PURSUANT TO THE WRITTEN DIRECTION OF THE OWNER'S STRUCTURAL OR GEOTECHNICAL ENGINEER.	17. CONTRACTOR SHALL REVIEW RETAINING WALL LOCATIONS VERSUS APPLICABLE STATE AND LOCAL CODES AND PROVIDE FALL PROTECTION (E.G. FENCING OF RAILING) IN ACCORDANCE WITH SAID CODE.	BOC BOTTOM OF CURB BW BOTTOM OF WALL BLDG BUILDING	SETBACK OR BUFFER     EXISTING     — — — — — — — — — — — — — — — — — — —
PERMISSION AND AUTHORITY OF AND FROM THE OWNER AND ALL GOVERNMENTAL AGENCIES WITH JURISDICTION. THE CONTRACTOR MUST BACKFILL ALL EXCAVATION RESULTING FROM, OR INCIDENTAL TO, DEMOLITION ACTIVITIES. BACKFILL MUST BE ACCOMPLISHED WITH	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.	CONC. CONCRETE DEC DECORATIVE	EASEMENT LINE EXISTING
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	<ol> <li>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.</li> </ol>	° DEGREE DEP DEPRESSED	WETLAND BOUNDARY EXISTING PROPOSED EXISTING EXIS
DRAINAGE. THE CONTRACTOR IS RESPONSIBLE FOR COMPACTION TESTING AND MUST SUBMIT SUCH REPORTS AND RESULTS TO THE ENGINEER OF RECORD AND THE OWNER.	1. THE GENERAL DRAINAGE & UTILITY NOTES 1. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL	DMH DRAIN MANHOLE DIP DUCTILE IRON PIPE	WETLAND BUFFER PROPOSED WATER WAY BOUNDARY EXISTING
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 VIRATION TESTING THAT IS REQUIRED TO	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.	EOP EDGE OF PAVEMENT ELEV ELEVATION	WATERWAY BUFFER EXISTING
MONITOR THE EFFECTS ON ALL LOCAL STRUCTURES AND THE LIKE. IN ACCORDANCE WITH FEDERAL, STATE, AND/OR LOCAL STANDARDS, THE CONTRACTOR MUST USE DUST CONTROL MEASURES TO LIMIT AIRBORNE DUST AND	<ol> <li>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 AND ALL DISCREPANCIES. ERRORS AND CONSTRUCTION FOR THE FIELD, PRIOR TO COMMENCING ANY CONSTRUCTION. THE CONTRACTOR MUST REPORT AND ALL DISCREPANCIES. ERRORS AND AND SUBJECT IN WRITING. TO THE FIELD, PRIOR TO COMMENCING ANY CONSTRUCTION. THE CONTRACTOR MUST REPORT AND ALL DISCREPANCIES. ERRORS AND AND SUBJECT IN THE FIELD, PRIOR TO COMMENCING ANY CONSTRUCTION. THE FIELD, PRIOR TO CONTRACTOR MUST REPORT.</li> </ol>	FF FINISH FLOOR FF FINISH FLOOR FFE FINISH FLOOR ELEVATION	WETLAND OR WATERWAY EXISTING A -7 O A-8 FLAG PROPOSED
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.	3 THE CONTRACTOR MUST VERTICALLY AND HORIZONTALLY LOCATE ALL UTILITIES AND SERVICES INCLUDING BUT NOT LIMITED TO. GAS. WATER, ELECTRIC	GC GENERAL CONTRACTOR GRT GRATE	RIGHT-OF-WAY CENTER     EXISTING
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.	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	HDPE HIGH DENSITY POLYETHYLENE PIPE HP HIGH POINT INT INTERSECTION	OR DISTURBANCE PROPOSED ADDRESS ADDRES
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.	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.	INV INVERT L.S.A. LANDSCAPE AREA	TREE LINE EXISTING
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	<ol> <li>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.</li> </ol>	LOD LIMIT OF DISTURBANCE LOW LIMIT OF WORK	SURFACE OR     EXISTING       SUBSURFACE BASIN     PROPOSED
ARE AT THE CONTRACTOR'S SOLE COST. THE CONTRACTOR MUST LOCATE AND CLEARLY DEFINE VERTICALLY AND HORIZONTALLY ALL ACTIVE AND INACTIVE UTILITY AND/OR SERVICE SYSTEMS THAT ARE	<ol> <li>STORMWATER ROOF DRAIN LOCATIONS ARE BASED ON ARCHITECTURAL PLANS. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING LOCATIONS OF SAME BASED UPON FINAL ARCHITECTURAL PLANS.</li> <li>THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING SITE PLAN DOCUMENTS AND ARCHITECTURAL PLANS FOR EVACT RULEDING UTILITY CONNECTION.</li> </ol>	LP LOW POINT MAX MAXIMUM	OVERHEAD WIRES         EXISTING         OH
TO BE REMOVED. THE CONTRACTOR IS RESPONSIBLE TO PROTECT AND MAINTAIN ALL ACTIVE SYSTEMS THAT ARE NOT BEING REMOVED/RELOCATED DURING SITE ACTIVITY.	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	MEP MECHANICAL, ELECTRICAL, PLUMBING ME MEET OR MATCH EXISTING	CURBING EXISTING PROPOSED CONC/BIT MONOLITHIC SLOPED / VERT GRAN TRANSITION (
CONTRACTOR SHALL FIELD LOCATE EXISTING UTILITIES PRIOR TO CONSTRUCTION AND IF REQUIRED, DIG EXPLORATORY TEST PTS 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.	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	MIN MINIMUM No. / # NUMBER	FENCE OR RAILING PROPOSED
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 LITUITY PROVIDER	UTILITY CONNECTION POINTS DIFFER, THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER OF RECORD, IN WRITING, AND PRIOR TO CONSTRUCTION, MUST RESOLVE SAME.	±     PLUS OR MINUS       PC     POINT OF CURVATURE	RETAINING WALL PROPOSED X
CONTRACTOR TO REMOVE ANY BUILDING FOUNDATION REMAINS OR ASSOCIATED IMPROVEMENTS, DELETERIOUS MATERIALS, AND/OR DEBRIS THAT IMPEDE THE WORK SHOWN ON THESE PLANS.	<ol> <li>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 DESCRIPTION OF DOES NOT HAVE GEOTECHNICAL RECOMMENDATIONS, FILL AND COMPACTION MUST COMPLY WITH APPLICABLE REQUIREMENTS AND DESCRIPTION OF DOES NOT HAVE GEOTECHNICAL RECOMMENDATIONS, FILL AND COMPACTION MUST COMPLY WITH APPLICABLE REQUIREMENTS AND DESCRIPTION OF DOES NOT HAVE GEOTECHNICAL RECOMMENDATIONS, FILL AND COMPACTION MUST COMPLY WITH APPLICABLE REQUIREMENTS AND DESCRIPTION OF DOES NOT HAVE GEOTECHNICAL RECOMMENDATIONS, FILL AND COMPACTION MUST COMPLY WITH APPLICABLE REQUIREMENTS AND DESCRIPTION OF DOES NOT HAVE GEOTECHNICAL RECOMMENDATIONS, FILL AND COMPACTION DE DESCRIPTION DE</li></ol>	PT POINT OF INTERSECTION PT POINT OF TANGENCY PVI POINT OF VERTICAL INTERSECTION	CONTOURS PROPOSED4950
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,	<ol> <li>BURING THE INSTALLATION OF SANITARY, STORM, AND ALL UTILITIES, THE CONTRACTOR MUST MAINTAIN A CONTEMPORANEOUS AND THOROUGH RECORD</li> <li>DURING THE INSTALLATION OF SANITARY, STORM, AND ALL UTILITIES, THE CONTRACTOR MUST MAINTAIN A CONTEMPORANEOUS AND THOROUGH RECORD</li> <li>DURING THE INSTALLATION OF SANITARY, STORM, AND ALL UTILITIES, THE CONTRACTOR MUST MAINTAIN A CONTEMPORANEOUS AND THOROUGH RECORD</li> <li>DURING THE INSTALLATION OF SANITARY, STORM, AND ALL UTILITIES, THE CONTRACTOR MUST MAINTAIN A CONTEMPORANEOUS AND THOROUGH RECORD</li> <li>DURING THE INSTALLATION OF SANITARY, STORM, AND ALL UTILITIES, THE CONTRACTOR MUST MAINTAIN A CONTEMPORANEOUS AND THOROUGH RECORD</li> <li>DURING THE INSTALLATION OF SANITARY, STORM, AND ALL UTILITIES, THE CONTRACTOR MUST MAINTAIN A CONTEMPORANEOUS AND THOROUGH RECORD</li> <li>DURING THE INSTALLATION OF SANITARY, STORM, AND ALL UTILITIES, THE CONTRACTOR MUST MAINTAIN A CONTEMPORANEOUS AND THOROUGH RECORD</li> </ol>	PVCPOLYVINYL CHLORIDE PIPEPROP.PROPOSED	BERM PROPOSED D D D D D D D D D D D D D D D D D D
APPURTENANCES, AND UNDERGROUND UTILITIES, INCLUDING BUT NOT LIMITED TO, DRAIN, WATER, SEWER, STEAM, IRRIGATION, GAS, TELECOM AND ELECTRIC. THE CONTRACTOR SHALL MAINTAIN, ADJUST OR ABANDON EXISTING MONITORING WELLS IN ACCORDANCE WITH THE DIRECTION OF THE ENVIRONMENTAL	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.	R     RADIUS OR RADII       RCP     REINFORCED CONCRETE PIPE       DOW     RIGHT OF WAY	RIDGE EXISTING PROPOSED PROPOSED PROPOSED
CONSULTANT (TYP.) WHERE THE LIMIT OF WORK COINCIDES WITH PROPERTY LINE, TREE LINE, PROPOSED SAWCUT OR COMBINATION THEREOF IT IS SHOWN ADJACENT TO THESE	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.	SAN SANITARY SMH SEWER MANHOLE	DRAIN PIPE EXISTING = = = = = - D-Qg-
EXISTING TREES TO REMAIN ARE TO BE PROTECTED DURING CONSTRUCTION UNLESS CLEARLY INDICATED OTHERWISE. REASONABLE CARE AND CAUTION SHALL	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.	S SLOPE SF SQUARE FOOT	SEWER PIPE     EXISTING     -5
DEVELOPMENT.	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.	STA STATION STM STORM TBR TO BE REMOVED	SEWER FORCE MAIN         PROPOSED         FM         FM           PROPOSED         —         FM         FM         FM           EXISTING         —         E         —         E         -
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.	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,	TBR/RTO BE REMOVED AND REPLACEDTCTOP OF CURB	PROPOSED     E     E       TELECOMMUNICATIONS     EXISTING     -7     -7
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.	ORDINANCES AND CODES.  13. THE CONTRACTOR'S PRICE FOR WATER AND SEWER SERVICE INSTALLATIONS MUST INCLUDE ALL FEES, COSTS, AND APPURTENANCES REQUIRED BY THE	TWTOP OF WALLTPFTREE PROTECTION FENCE	PROPOSED         Image: Temposed for the second
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.	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).	UNG UNDERGROUND	GAS EXISTING
ENERAL SITE NOTES	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.	W WIDTH	WATER         EXISTING
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.	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		
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	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	FOR ENTIRE PLAN SET	FOR ENTIRE PLAN SET
WITH APPLICABLE AND/OR APPROPRIATE AGENCIES' GUIDELINES TO PREVENT SEDIMENT AND/OR LOOSE DEBRIS FROM WASHING ONTO ADJACENT PROPERTIES OR THE RIGHT OF WAY.	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.	EXISTING NOTE TYPICAL NOTE TEXT PROPOS	ED NOTE     EXISTING NOTE     TYPICAL NOTE TEXT     PROPOSED NOTE       Gas valve     Gas valve
DEVICES (MUTCD) AND ANY APPLICABLE STATE OR LOCALLY APPROVED SUPPLEMENTS, GUIDELINES, RULES, REGULATIONS, STANDARDS AND THE LIKE. THE LOCATIONS OF PROPOSED UTILITY POLES AND TRAFFIC SIGNS SHOWN ON THE PLANS ARE SCHEMATIC AND PRELIMINARY. THE CONTRACTOR IS SOLELY	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 MAGENTIC TRACER TAPE. MARK TERMINOUS LOCATIONS WITH A 2X4 STAKE, AND MUST NOTE THE LOCATION OF ALL UTILITY STUBS ON A CLEAN COPY	POLE LIGHT	GAS METER G
RESPONSIBLE FOR FIELD-VERIFYING THEIR LOCATION. THE CONTRACTOR MUST COORDINATE THE RELOCATION OF TRAFFIC SIGNS WITH THE ENTITY WITH JURISDICTION OVER THE PROJECT.	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.	Image: Second secon	Image: state
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.	<ol> <li>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.</li> <li>UNLESS INDICATED OT USE WISE ALL NERVISE ALL NERVISE TO CENTER OF STRUCTURE TO CENTER OF STRUCTURE UNLESS</li> </ol>		SECTION       Image: Section<
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 POLILITION PREVENTION PLAN). THE CONTRACTOR MUST STRICTLY ADDRED TO THE APPROVICE SWORD	<ol> <li>ONLESS INDIGATED OTHERWISE, ALL NEW OTHETHES/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.</li> <li>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.</li> </ol>	TYPICAL SIGN       PARKING	(Ш)         GRATE INLET         (П)           )         ЮЪ         CURB INLET         (П)
PLAN DURING CONSTRUCTION OPERATIONS (IF PROVIDED). ALL CONCRETE MUST BE AIR ENTRAINED AND INCLUDE THE MINIMUM COMPRESSIVE STRENGTH OF JURISDICTIONAL STANDARD PSI AT 28 DAYS (OR 4 000 PSI)	<ol> <li>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</li> </ol>	Image: Count is         Count is         Count is           7C 516.4         OR 516.4         SPOT ELEVATIONS         FF 517.00 BC 5	Image:
UNLESS OTHERWISE NOTED ON THE PLANS, DETAILS AND/OR GEOTECHNICAL REPORT. THE CONTRACTOR MUST FILE SITE SIGNAGE APPLICATION OR PERMIT UNDER SEPARATE APPLICATION UNLESS DONE SO AS PART OF JURISDICTIONAL	FOR PIPES 12" TO 60" AND TYPE S (SMOOTH INTERIOR WITH ANGULAR CORRUGATIONS) WITH GASKET FOR SILT/SOIL TIGHT JOINT. PIPE FOR ROOF DRAIN CONNECTION MUST BE HDPE SDR 26 OR PVC SCHEDULE 40 UNLESS INDICATED OTHERWISE. HDPE PIPE JOINT GASKETS MUST BE PROVIDED AND CONFORM TO ASTM F477. DRAIN PIPE INSTALLED WITH OVER TEN (10) FEET OVER COVER AND/OR IN HIGH GROUNDWATER CONDITIONS SHALL BE SANITITE HP	HYDRANT HYDRANT SANITARY	MONITORING       Well
PERMITTING PROCEDURES. THE CONTRACTOR MUST REPAIR OR REPLACE, AT THE CONTRACTOR'S SOLE COST AND EXPENSE, ALL SIDEWALKS, CURBS, PAVEMENT MARKINGS, AND	POLYPROPOPYLENE PIPE (PP), OR APPROVED EQUIVALENT. 21. UNLESS CLEARLY INDICATED OTHERWISE ALL SANITARY PIPE MUST BE:	WM WATER METER	IESTPIL     T#       M     BENCHMARK
PAVEMENT DAMAGED BY CONSTRUCTION ACTIVITIES WHETHER SPECIFIED ON THIS PLAN OR NOT.	<ul> <li>21.1. FOR PIPES LESS THAN 12 FEET DEEP: POLYVINYL CHLORIDE (PVC) SDR 35 PER ASTM D3034.</li> <li>21.2. FOR PIPES GREATER THAN 12 FEET DEEP: POLYVINYL CHLORIDE (PVC) SDR 26 PER ASTM D3034.</li> <li>21.3. UNLESS LOCAL OR STATE BUILDING / PLUMBING CODE CLEARLY SPECIFIES DIFFERENTLY, SANITARY LATERALS MUST BE PVC SDR 26.</li> <li>21.4. EOR ALL UTULTY PUPPING (MUCH UDING PDAIN) WILL AS TO CALA PLUE DAILS FUNCTION CONTRACT AND AND A PLUE PUPPING (MUCH UDING POLY).</li> </ul>		BORING
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 CONTINUES AND FOR EXTINCT OF THE NET TO THE PROPOSED.	<ul> <li>21.5. FOR ALL OTHER FIRING (INVOLUDING 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.</li> <li>21.5. CONTRACTOR SHALL VERIFY THE CONNECTION OF EXTERIOR PIPING TO ANY FIXTURES (SUCH AS AN EXTERIOR CREASE INTERCEPTOR) OF OTHER AND AND AND AND AND AND AND AND AND AND</li></ul>	REFER TO S	ITE LAYOUT PLAN FOR
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 PECARDING	DRAINAGE SYSTEMS WITH LOCAL OFFICIALS FOR COMPLIANCE WITH APPLICABLE LOCAL OR STATE BUILDING AND PLUMBING CODES PRIOR TO ORDERING OF MATERIALS.	ZONING ANA	LYSIS TABLE AND LAND
RETAINING WALL DESIGN.	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	USE / ZONING	INFORMATION & NOTES
FIELD MODIFICATION LOCATIONS OF BOLLARDS AND BOLLARDS WITH SIGNAGE AS NEEDED TO AVOID CONFLICTS WITH EXISTING UTILITY SERVICES TO REMAIN	23. GAS METERS MUST BE PROTECTED AS REQUIRED BY THE JURISDICTIONAL GAS PROVIDER		



DEV	DATE	COMMENT	DRAWN BY
REV	DATE	COMMENT	CHECKED BY
4	0/01/0000	REVISED BUILDING	ACL
I	0/21/2023	DESIGN	TAH
2	10/01/0000	RESPONSE TO	ACL
Z	12/21/2023	COMMENTS	TAH
2	02/12/2024	RESPONSE TO	ACL
3	02/12/2024	COMMENTS	TAH
4	04/01/2024	RESPONSE TO	ACL
4	04/01/2024	COMMENTS	TAH
E	07/10/2024	RESPONSE TO	ACL
5	07/10/2024	COMMENTS	TAH
e	11/00/2024	RESPONSE TO	ACL
0	11/00/2024	COMMENTS	TAH



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PROJECT No .: MAB220089.0 DRAWN BY: CHECKED BY: DATE CAD I.D.: MAB220089.00-SPPD-5

PROJECT:

# NOTICE OF INTENT APPLICATION

TOLL **BROTHERS.** INC

PROPOSED RESIDENTIAL DEVELOPMENT

528 BOYLSTON STREET

CITY OF NEWTON MIDDLESEX COUNTY, MA

# BOHLER

45 FRANKLIN STREET. 5th FLOOR BOSTON, MA 02110 Phone: (617) 849-8040







SHEET NUMBE C-102

**REVISION 6 - 11/08/2024** 



			СВ С	<i>D-Qσ</i>	D-QaD-da
OLDE FIELD ROAD	FENCE SU CULN FENCE SU CONCRETE CONC. BU	CITY OF NEWTON DRAIN EASEMENT	R=134.09	BC=135.00	TC/BC=134.55       137.50±         136.65       0         134.65       0         134.65       0         BIT       COVE         PLES       PROD         TC=136.05         BC=134.58         BIT       COVE         TC=136.05         BC=136.15         TC=136.15
			BF1-107 BF1-107 BF1-	127.5 130-129 130-1	PROP. ENERGY DISSIPATION BOWL (TYP.) A-7 5 123 CITY FLOOD FEI ELEV NOO' INNER RIPARIAN ZONE PARCEL II LAND COURT PLA
<b>TYPIC</b> PROPERTY LINE ADJACENT PROPERTY LINE WETLAND BOUNDARY WETLAND BUFFER WATER WAY BOUNDARY WATERWAY BUFFER	CAL LINEEXISTINGPROPOSEDEXISTINGPROPOSEDEXISTINGPROPOSEDEXISTINGPROPOSEDEXISTINGPROPOSEDEXISTINGPROPOSEDEXISTINGPROPOSEDEXISTINGPROPOSEDEXISTINGPROPOSEDEXISTINGPROPOSEDEXISTINGPROPOSED	CITY OF TYPE LEGEND	EASEMENT	BF1-110	22505A 22505A 3 3 4 22505A 57 4 22505A 57 4 22505A 57 6 4 22505A 57 6 4 22505A 57 6 4 22505A 57 6 4 57 6 4 57 6 4 57 6 4 57 6 57 6 5
WETLAND OR WATERWAY FLAG RIGHT-OF-WAY CENTER OR BASE LINE APPROX. LIMIT OF WORK OR DISTURBANCE APPROX. SAWCUT LINE TREE LINE SURFACE OR SUBSURFACE BASIN OVERHEAD WIRES CONTOURS SWALE BERM RIDGE DRAIN PIPE	EXISTING PROPOSED EXISTING EXI	$A -7 \circ A -8$			BF1-112 BF1-112 BF1-113 BF1-113 BF1-114 BF1-114
THIS PLAN GRADING P GENI FOR ADDITI	TO BE U URPOSES ERAL NO ONAL GR NOT	TILIZED FOR SITE 5 ONLY. REFER TO TES SHEET RADING & UTILITY ES			

![](_page_3_Figure_2.jpeg)

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![](_page_5_Figure_0.jpeg)

![](_page_6_Figure_0.jpeg)

3. 4. 5. 6. 7. 8. 9. 10.	AT A MINIMUM, AREAS SHALL BE PERMANENTLY STABILIZED WITHIN 30 DAYS OF INTEL STRAMANENTLY STABILIZED WITHIN 14 DAYS OF FINAL GRADING AND TEMPORARILY STABILIZED WITHIN 30 DAYS OF INITIAL DISTURBANCE OF THE SOLL IF THE DISTURBANCE IS WITHIN 100 FEET OF A STREAM OR POND, THE AREA SHALL BE STABILIZED WITHIN 7 DAYS OR PRIOR TO ANY STORM EVENT (THIS WOULD INCLUDE WETLANDS). SEDIMENT BARRIERS (SILT FENCE, STRAW BARRIERS, ETC.) SHOULD BE INSTALLED PRIOR TO ANY SOLD DISTURBANCE OF THE CONTRIBUTING DRAINAGE AREA ABOVE THEM. MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL AREAS WITH SLOPES GREATER THAN 8%. INSTALL SILTATION BARRIER AT TOE OF SLOPE TO FILTER SILT FROM RUNOFF. SEE SILTATION BARRIER DETAILS FOR PROPER INSTALLATION. SILTATION BARRIER AT TOE OF SLOPE TO FILTER SILT FROM RUNOFF. SEE SILTATION BARRIER DETAILS FOR PROPER INSTALLATION. SILTATION BARRIER WILL REMAIN IN PLACE PER NOTE #5. ALL EROSION CONTROL STRUCTURES WILL BE INSPECTED, REPLACED AND/OR REPAIRED EVERY 7 DAYS AND IMMEDIATELY FOLLOWING ANY SIGNIFICANT RAINFALL OR SNOW MELT OR WHEN NO LONGER SERVICEABLE DUE TO SEDIMENT ACCUMULATION OR DECOMPOSITION. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN 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 PLAC AND BE REMOVED IN ACCORDANCE WITH THE ORDER OF CONDITIONS. NO SLOPES. EITHER PERMANENT OR TEMPORARY, SHALL BE STEPER THAN TWO TO ONE (2:1) UNLESS OTHERWISE INDICATED O THE PLANS. SLOPE PROTECTION FOR SLOPES GREATER THAN 2:1 SHALL BE DESIGNED BY A GEOTECHNICAL ENGINEER. IF FINAL SEEDING OF THE DISTURBED AREAS IS NOT COMPLETED 45 DAYS PRIOR TO THE FIRST KILLING FRONT. USE TEMPORARY MULCH (DOMANT SEEDING OF DISTURBED AREAS THAT HAVE NO THE ENT AND TO THE FIRST KILLING FRONT. USE TEMPORARY MULCH (DOMANT SEEDING OF DISTURBED AREAS STAT HAVE NOT DED ENT SHALL BE COMPLETED 45 DAYS PRIOR TO THE FIRST KILLING FROST T	<ul> <li>CONTROL, CLEARING, AND SITE WORK MUST BE PERFORMED EXAMINED INTERMINED INTERMOLICINATELY 4.09</li> <li>THE FOLLOWING EROSION CONTROL MEASURES ARE PROPOSED F</li> <li>STABILIZED CONSTRUCTION ENTRANCE/ EXIT - A TEMPORARY LOCATION SHOWN ON THE PLAN. THIS AREA MUST BE GRADED</li> <li>SEDIMENT FENCE - INSTALL SILT FENCE(S) AND/OR SILT SOCK SOIL STOCKPILES.</li> <li>INSTALL FILTER FABRIC DROP INLET PROTECTION AROUND EA QUANTITY OF SEDIMENT. INSTALL TEMPORARY INLET PROTEC OF DISTURBED AREA.</li> <li>INSTALLATION OF EROSION CONTROL DEVICES MUST BE IN ACCOF</li> <li>THE CONTRACTOR MUST INSPECT EROSION CONTROL MEASURES HALF THE OF THE EROSION CONTROL DARRIER'S HEIGHT COLLECT ANY SILT FROM DROP INLET PROTECTION.</li> <li>THE CONTRACTOR MUST APPLY TEMPORARY SEED AND MULCH TO VEGETATED WITHIN 7 DAYS. WHEN AREAS ARE DISTURBED AFTER FABRIC AND MAINTAIN SAME IN STRICT ACCORDANCE WITH BEST N</li> <li>THE CONTRACTOR MUST INSTALL ADDITIONAL EROSION CONTROL DISCHARGE OF SILT-LADEN RUNOFF FROM EXITING THE SITE.</li> <li>THE CONTRACTOR MUST BE RESPONSIBLE FOR INSPECTING AND IN PAVING AND TURF/LANDSCAPING IS ESTABLISHED. THE COSTS OF IN THE BID PRICE FOR THE SITE WORK AND THE CONTRACTOR IS F</li> <li>THE CONTRACTOR MUST CONTINUE TO MAINTAIN ALL EROSION COESTS OF IN THE BID PRICE FOR THE SITE WORK AND THE CONTRACTOR IS F</li> <li>THE CONTRACTOR MUST REMOVE EROSION CONTROL MEASURES INSTALLING A DIFFERENT, SPECIFIED METHOD OF STABLIZATION.</li> <li>THE CONTRACTOR MUST REMOVE EROSION CONTROL MEASURES INSTALLING A DIFFERENT, SPECIFIED METHOD OF STABLIZATION.</li> <li>THE CONTRACTOR MUST PROTECT ALL EXISTING TREES AND STRUCTUF AND STANDARDS AND/OR TO PREVENT ANY, INCLUDING THE INCID</li> <li>THE CONTRACTOR MUST REFER TO GRADING PLANS FOR ADDITIONAL FOR TREE PROTECTION, FENCE LOCATIONS AND DETALS.</li> <li>THE CONTRACTOR MUST REFER TO GRADING PLANS FOR ADDITIONAL SOIL EROSION CONTROL MEASURES MUST BE ADJUSTED OR RELC MAINTAIN THE COMPLETE EFFECTIVENESS OF ALL CONTROL M</li></ul>
11.	<ul> <li>SE LAWIN, QUALITY SOD WAT DE SUBSTITUTED FOR SEED WHERE SLOPES DO NOT EXCEED 2:1, SOD ON SLOPES STEEPER THAN 3:1 SHOULD BE PEGGED.</li> <li>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 APPLI FOLLOWING SEEDING. A SUITABLE NON-TOXIC BINDER WILL BE USED ON STRAW MULCH FOR WIND CONTROL.</li> <li>ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED ONCE THE SITE IS 70% STABILIZED. FOR EROSION CONTROL MEASURES THAT ARE WITHIN AREAS SUBJECT TO CONSERVATION COMMISSION JURISDICTION, THE MEASURES SHALL REMAIN IN PLACE AND BE REMOVED IN ACCORDANCE WITH THE ORDER OF CONDITIONS.</li> </ul>	OTHER LOCATIONS WHERE HAZARDOUS MATERIALS ARE STORED
12. 13. 14.	WETLANDS WILL BE PROTECTED WITH BARRIERS CONSISTING OF STRAW BALES, COMPOST TUBES, SILT FENCE OR A COMBINATION THEREOF.         ALL AREAS WITHIN 100 FEET OF A FLAGGED WETLAND OR STREAM SHALL HAVE AN EXPOSURE WINDOW OF NOT MORE THAN 7 DA         ALL AREAS WITHIN 100 FEET OF A FLAGGED WETLAND OR STREAM SHALL FOLLOW APPROPRIATE EROSION CONTROL MEASURES PRIOR TO EACH STORM IF NOT BEING ACTIVELY WORKED:         LOCATION PROTECTED AREA       MULCH STRAW         WINDY AREA       SHREDDED OR CHOPPED CORNSTALKS STRAW (ANCHORED)*       185-275 POUNDS 100 POUNDS         MODERATE TO HIGH VELOCITY AREAS OR STEEP SLOPES GREATER       JUTE MESH OR EXCELSIOR MAT       AS REQUIRED	ON 1:3 MAXIMUM SLOPE 3 1 1 CONSTRUCT SILT FENCE AROUND PERIM
	THAN 3:1 GREATER THAN 3:1 (REFER TO GEOTECHNICAL REPORT FOR FINAL DESIGN REQUIREMENT) * A HYDRO-APPLICATION OF WOOD OR PAPER FIBER MAY BE APPLIED FOLLOWING SEEDING. A SUITABLE NON-TOXIC BINDER SHAL BE USED TO ADDITIONAL WIND CONTROL. * MULCH ANCHORING: ANCHOR MULCH WITH PEG AND TWINE (1 SQ. YD/BLOCK): MULCH NETTING (AS PER MANUFACTURER): WOOD	TEMPORARY
15.	<ul> <li>CELLULOSE FIBER (750 LBS/ACRE); CHEMICAL TACK (AS PER MANUFACTURER'S SPECIFICATIONS); USE OF A SERRATED STRAIGHT DISK. WETTING FOR SMALL AREAS AND ROAD DITCHES MAY BE PERMITTED.</li> <li>PROPOSED LOCATIONS OF SURFACE STORMWATER MANAGEMENT BASINS CAN BE UTILIZED AS A TEMPORARY SEDIMENT TRAP DURING CONSTRUCTION.SEDIMENT TRAPS SHALL BE SIZED AND CONSTRUCTED IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REQUIREMENTS.</li> <li>15.1. TEMPORARY SEDIMENT TRAPS SHALL BE SIZED PER THE CURRENT EDITION OF THE "MASSACHUSETTS EROSION AND SEDIMENT CONTROL GUIDELINES FOR URBAN AND SUBURBAN AREAS" AND PROVIDE A MINIMUM OF 1,800 CF PER ACRE OF TRIBUTARY AREA WITH A MAXIMUM TRIBUTARY AREA OF 5 ACRES, MAINTAIN A 2:1 LENGTH TO WIDTH RATIO, AND NOT EXCE 5 FT IN HEIGHT. 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.</li> <li>STOCKPILING OF MATERIALS (DIRT, WOOD, CONSTRUCTION MATERIALS, ETC.) MUST REMAIN COVERED AT ALL TIMES TO MINIMIZE ANY DUST PROBLEMS THAT MAY OCCUR WITH ADJACENT PROPERTIES AND TO PROVIDE MAXIMUM PROTECTION AGAINST EROSIOR RUNOFF.</li> </ul>	<ul> <li>NOTES:</li> <li>1. EXCAVATE A 6"x6" TRENCH ALONG THE LINE OF EROSION CONTROL OF THE SITE.</li> <li>2. UNROLL SILTATION FENCE AND POSITION THE POSTS AGAINST THE BACK (DOWNSTREAM) WALL OF THE TRENCH (NET SIDE AWAY FROM FLOW DIRECTION).</li> <li>3. DRIVE THE POST INTO THE GROUND UNTIL THE NETTING IS LAYING ACROSS THE TRENCH BOTTOM.</li> <li>4. LAY THE TOE-IN FLAP OF THE FABRIC ONTO THE UNDISTURBED BOTTOM OF THE TRENCH, BACKFILL ALSO BE ACCOMPLISHED BY I AYING FABRIC FLAP</li> </ul>
17. 18. 19.	<ul> <li>EXISTING CATCH BASIN STRUCTURES SHALL BE PROTECTED UNTIL SUCH TIME AS THEY ARE REMOVED.</li> <li>THE CONTRACTOR MUST PERFORM DEWATERING (IF REQUIRED), IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS. IT IS TO CONTRACTOR'S RESPONSIBILITY TO OBTAIN AND PAY FOR THE COSTS ASSOCIATED WITH ANY AND ALL NECESSARY DISCHARGE PERMITS ASSOCIATED WITH SAME.</li> <li>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 ADDITION OF THE CONTRACTOR MUST PROVIDED PROVIDED.</li> </ul>	HE ON UNDISTURBED GROUND AND PILING & TAMPING FILL AT THE BASE. SE
20. 21. 22. 23.	<ul> <li>PROPERLY TRAINED IN THE APPLICATION OF SPILL PREVENTION AND RESPONSE PROCEDURES.</li> <li>EROSION CONTROL NOTES DURING WINTER CONSTRUCTION</li> <li>WINTER CONSTRUCTION PERIOD: NOVEMBER 1 THROUGH APRIL 15.</li> <li>WINTER EXCAVATION AND EARTHWORK SHALL BE DONE SUCH THAT THE AMOUNT OF AREA OPEN AT ONE TIME IS MINIMIZED TO T MAXIMUM EXTENT PRACTICABLE AND IN CONFORMANCE WITH THE STORMWATER POLLUTION PREVENTION PLAN SUCH THAT ADEQUATE PROVISIONS ARE EMPLOYED TO CONTROL STORMWATER RUNOFF.</li> <li>CONTINUATION OF EARTHWORK OPERATION ON ADDITIONAL AREAS SHALL NOT BEGIN UNTIL THE EXPOSED SOIL SURFACE ON THAT 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.</li> </ul>	THE IE STAPLES 2 PER BALE) BINDING WIRE BINDING WIRE STRAW BALE (SEE NOTE 6) WOOD OR METAL STAKES (2 PER BALE)
24. 25.	<ul> <li>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.</li> <li>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 CEASE</li> </ul>	ED 1/8" DIA. STEEL WIRE
26.	<ul> <li>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.</li> <li>MULCHING REQUIREMENTS:</li> <li>26.1. BETWEEN THE DATES OF NOVEMBER 1ST AND APRIL 15TH ALL MULCH SHALL BE ANCHORED BY EITHER PEG LINE, MULCH NETTING OR WOOD CELLULOSE FIBER.</li> <li>26.2. 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%.</li> <li>26.3. 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%.</li> </ul>	<ul> <li>S <u>STAPLE DETAIL</u></li> <li><u>NOTES:</u> <ol> <li>TEMPORARY CONCRETE WASHOUT FACILITIES SHOULD BE LOCATED A MINIMUM OF 50 FT. FROM STORM DRAIN INLETS.</li> <li>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.</li> </ol> </li> </ul>
27. 28.	<ul> <li>ALL DISTURBED AREAS SHALL BE STABILIZED IN ACCORDANCE WITH THE STORMWATER PREVENTION PLAN.</li> <li>DURING THE WINTER CONSTRUCTION PERIOD ALL SNOW SHALL BE REMOVED FROM AREAS OF SEEDING AND MULCHING PRIOR TO PLACEMENT.</li> </ul> SEE LA PLANS FOR ADDITIONAL EROSION CONTROL DETAILS ALONG PAUL BROOK	<ol> <li>THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30 FT. OF THE TEMPORARY CONCRETE WASHOUT FACILITY.</li> <li>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.</li> <li>WASHOUT FACILITIES MUST BE CLEANED, OR NEW FACILITIES MUST BE CONSTRUCTED AND READY FOR USE ONCE THE WASHOUT IS 75% FULL.</li> <li>STRAW BALE AND STAPLES MAY BE SUBSTITUTED WITH ALTERNATE SECURING MEASURES SUCH AS CONCRETE BLOCK.</li> </ol>
1		

E	ROSION 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.

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.

1:3 M	

TEMPORAR	<b>}</b>

![](_page_7_Figure_11.jpeg)

PROFILE

\_\_\_\_\_

-EXISTING-

GROUND

PERCENT SLOPE OF ROADWAY

0 TO 2%

PLAN VIEW

![](_page_7_Figure_12.jpeg)

![](_page_7_Figure_13.jpeg)

CONCRETE WASHOUT SIGN DETAIL (OR EQUIVALENT)

![](_page_7_Figure_15.jpeg)

![](_page_7_Figure_16.jpeg)

CONSTRUCTION ENTRANCE AND

25'F

LENGTH OF STONE REQUIRED

100 FT

COARSE GRAINED SOILS FINE GRAINED SOILS

50 FT

0 O C C C

- PUBLIC

RIGHT OF

WAY

SEE CHART 1PUBLIC R.O.W.

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

2. FOLLOW EROSION CONTROL TECHNOLOGY COUNCIL SPECIFICATION FOR PRODUCT SELECTION.

**CONCRETE WASTE MANAGEMENT AREA** 

N.T.5

NTS

N.T.S

![](_page_7_Figure_23.jpeg)

![](_page_8_Figure_0.jpeg)

![](_page_9_Figure_0.jpeg)

![](_page_10_Figure_0.jpeg)

![](_page_10_Picture_3.jpeg)

**REVISION 6 - 11/08/2024** 

![](_page_11_Figure_0.jpeg)

PAVEMENT SUB-BASE (IF APPLICABLE)

PAVEMENT OR FINISHED GRADE

MINIMUM 95% COMPACTED FILL

 CULTIC NO. 410 NON-WOVEN GEOMETRIES AROUND STONE. TOP AND SIDES MANDATORY BOTTOM PER ENGINEER'S DESIGN PREFERENCE

- 6.0 INCH [152mm] MIN. DEPTH OF 1-2 INCH [25-50mm] WASHED, CRUSHED STONE ABOVE CHAMBERS

CULTEC HVLV FC-48 FEED CONNECTOR WHERE SPECIFIED

6.0 INCH [152mm] MIN. DEPTH OF 1-2 INCH [25-50mm] WASHED, CRUSHED STONE BENEATH CHAMBERS

CULTEC RECHARGER 360HD HEAVY-DUTY CHAMBER

CULTEC RECHARGER 360HD HEAVY-DUTY END CAP

- 12.0 INCH [305mm] MIN. WIDTH OF 1-2 INCH [25-50mm] WASHED, CRUSHED STONE BORDER SURROUNDING ALL CHAMBERS

CULTEC RECHARGER 360HD HEAVY DUTY PLAN VIEW

![](_page_11_Picture_11.jpeg)

**CULTEC RECHARGER 360HD SECTION VIEW 2** 

PIPE	A	В
6" [150 mm]	26.00" [660 mm]	0.75" [20 mm]
8" [200 mm]	24.00" [600 mm]	1.00" [25 mm]
10" [250 mm]	21.00" [525 mm]	1.25" [32 mm]
12" [300 mm]	18.00" [450 mm]	1.75" [45 mm]
15" [375 mm]	15.00" [375 mm]	2.00" [50 mm]
18" [450 mm]	12.00" [300 mm]	2.25" [58 mm]
24" [600 mm]	6.00" [150 mm]	2.50" [64 mm]
THE TYPICAL INVERT TABLE ABOVE IS F	BASED ON THE INSIDE DIAMETER OF STA	

BLE ABOVE IS BASED ON THE INSIDE DIAMETER OF STANDARD CORRUGATED PLASTIC F HEAVY DUTY END CAP HAS PRE-MARKED TRIM LINES FOR PIPE DIAMETERS 12" (300mm), 15" (375mm), 18" (450mm) AND 24" (600mm). PIPES OF ANY SIZE AND MATERIAL UP TO 24" (600mm) MAY BE PLACED AT CUSTOM LOCATIONS AND CUSTOM INVERTS. 30" (750 mm) SMOOTH-WALL SDR-35 PVC PIPE MAY BE USED AT THE BOTTOM OF THE END CAP. THE CROWN OF THE PIPE MUST REMAIN A MINIMUM OF 3" (75mm) FROM THE EDGE OF THE HEAVY DUTY END CAP.

![](_page_11_Figure_15.jpeg)

![](_page_11_Figure_16.jpeg)

![](_page_11_Figure_17.jpeg)

CULTEC RECHARGER 360HD CHAMBER STORAGE = 10.0 CF/FT [.928m<sup>3</sup>/m] CHAMBER STORAGE VOLUME = 36.66 CF [1.038m<sup>3</sup>] INSTALLED LENGTH ADJUSTMENT = 0.50' [0.15m] SIDE PORTAL ACCEPTS CULTEC HVLV FC-48 FEED CONNECTOR

![](_page_11_Picture_20.jpeg)

PORT DETAIL

![](_page_11_Picture_23.jpeg)

CULTEC RECHARGER 360HD SECTION VIEW 1

CULTEC RECHARGER 360HD TYPICAL PIPE INVERTS

CULTEC RECHARGER 360HD END CAP STORAGE = 5.17 CF/FT [0.48 m<sup>3</sup>/m] END CAP STORAGE VOLUME = 6.46 CF [0.183 m3] INSTALLED LENGTH ADJUSTMENT = 0.25' [0.08 m]

CULTEC RECHARGER 360HD HEAVY DUTY THREE VIEW

## **CULTEC RECHARGER® 360HD PRODUCT SPECIFICATIONS**

CULTEC RECHARGER® 360HD CHAMBERS ARE DESIGNED FOR UNDERGROUND STORMWATER MANAGEMENT. THE CHAMBERS MAY BE USED FOR RETENTION, RECHARGING, DETENTION OR CONTROLLING THE FLOW OF ON-SITE STORMWATER RUNOFF

CHAMBER PARAMETERS 1. THE CHAMBERS SHALL BE MANUFACTURED IN THE U.S.A. OR CANADA BY CULTEC, INC. OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)

- 2. THE CHAMBERS SHALL BE DESIGNED AND TESTED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". THE LOAD CONFIGURATION SHALL INCLUDE: A. INSTANTANEOUS AASHTO DESIGN TRUCK LIVE LOAD AT MINIMUM COVER B. MAXIMUM PERMANENT (50-YEAR) COVER LOAD C. 1-WEEK PARKED AASHTO DESIGN TRUCK LOAD
- 3. THE CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F3430-20 "STANDARD SPECIFICATION FOR CELLULAR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- 4. THE INSTALLED CHAMBER SYSTEM SHALL PROVIDE RESISTANCE TO THE LOADS AND LOAD FACTORS AS DEFINED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12, WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS. THE STRUCTURAL DESIGN OF THE CHAMBERS SHALL INCLUDE THE FOLLOWING: A. THE CREEP MODULUS SHALL BE 50-YEAR AS SPECIFIED IN ASTM F3430 B. THE MINIMUM SAFETY FACTOR FOR LIVE LOADS SHALL BE 1.75 C. THE MINIMUM SAFETY FACTOR FOR DEAD LOADS SHALL BE 1.95
- 5. THE CHAMBER SHALL BE STRUCTURAL FOAM INJECTION MOLDED OF BLUE VIRGIN HIGH MOLECULAR WEIGHT IMPACT-MODIFIED POLYPROPYLENE.
- 6. THE CHAMBER SHALL BE ARCHED IN SHAPE.
- 7. THE CHAMBER SHALL BE OPEN-BOTTOMED.
- 8. THE CHAMBER SHALL BE JOINED USING AN INTERLOCKING OVERLAPPING RIB METHOD. CONNECTIONS MUST BE FULLY SHOULDERED OVERLAPPING RIBS, HAVING NO SEPARATE COUPLINGS.
- 9. THE NOMINAL CHAMBER DIMENSIONS OF THE CULTEC RECHARGER® 360HD SHALL BE 36 INCHES (915 mm) TALL, 60 INCHES (1525 mm) WIDE AND 50 INCHES (1275 mm) LONG. THE INSTALLED LENGTH OF A JOINED RECHARGER® 360HD SHALL BE 3.67 FEET (1.12 m).
- 10. MULTIPLE CHAMBERS MAY BE CONNECTED TO FORM DIFFERENT LENGTH ROWS. EACH ROW SHALL BEGIN AND END WITH A SEPARATELY FORMED CULTEC RECHARGER® 360HD END CAP. MAXIMUM INLET OPENING ON THE END CAP IS 24 INCH (600 mm) HDPE OR 30 INCH (750mm) PVC.
- 11. THE CHAMBER SHALL HAVE TWO SIDE PORTALS TO ACCEPT CULTEC HVLV™ FC-48 FEED CONNECTORS TO CREATE AN INTERNAL MANIFOLD. MAXIMUM ALLOWABLE PIPE SIZE IN THE SIDE PORTAL IS 10 INCH (250mm) HDPE OR 12 INCH (300mm) PVC.
- 12. THE NOMINAL CHAMBER DIMENSIONS OF THE CULTEC HVLV™ FC-48 FEED CONNECTOR SHALL BE 12 INCHES (305 mm) TALL, 16 INCHES (406 mm) WIDE AND 49 INCHES (1245 mm) LONG.
- 13. THE NOMINAL STORAGE VOLUME OF THE RECHARGER® 360HD CHAMBER SHALL BE 10.0 FT<sup>3</sup> / FT (.928 m³ / m) - WITHOUT STONE. THE NOMINAL STORAGE VOLUME OF A JOINED RECHARGER® 360HD SHALL BE 36.66 FT<sup>3</sup> / UNIT (1.038 m<sup>3</sup> / UNIT) - WITHOUT STONE.
- 14. THE NOMINAL STORAGE VOLUME OF THE HVLV™ FC-48 FEED CONNECTOR SHALL BE 0.913 FT³ / FT (0.085 m<sup>3</sup> / m) - WITHOUT STONE.
- 15. THE RECHARGER® 360HD CHAMBER SHALL HAVE 7 CORRUGATIONS.
- 16. THE CHAMBER SHALL BE MANUFACTURED IN A FACILITY EMPLOYING CULTEC'S QUALITY CONTROL AND ASSURANCE PROCEDURES.
- 17. MAXIMUM ALLOWABLE COVER OVER THE TOP OF THE CHAMBER SHALL BE 12.0 FEET (3.66 m).
- END CAP PARAMETERS 1. THE CULTEC RECHARGER® 360HD END CAP (REFERRED TO AS 'END CAP') SHALL BE MANUFACTURED IN THE U.S.A. OR CANADA BY CULTEC, INC. OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
- 2. THE END CAP SHALL BE STRUCTURAL FOAM INJECTION MOLDED OF BLUE VIRGIN HIGH MOLECULAR WEIGHT IMPACT-MODIFIED POLYPROPYLENE.
- 3. THE END CAP SHALL BE ARCHED IN SHAPE.
- 4. THE END CAP SHALL BE OPEN-BOTTOMED.
- 5. THE END CAP SHALL BE JOINED AT THE BEGINNING AND END OF EACH ROW OF CHAMBERS USING AN INTERLOCKING OVERLAPPING RIB METHOD. CONNECTIONS MUST BE FULLY SHOULDERED OVERLAPPING RIBS, HAVING NO SEPARATE COUPLINGS.
- 6. THE END CAP SHALL HAVE 5 CORRUGATIONS.
- 7. THE NOMINAL DIMENSIONS OF THE END CAP SHALL BE 36.5 INCHES (927 mm) TALL, 60 INCHES (1525 mm) WIDE AND 18 INCHES (458 mm) LONG. WHEN JOINED WITH A RECHARGER 360HD CHAMBER, THE INSTALLED LENGTH OF THE END CAP SHALL BE 15 INCHES (381 mm).
- 8. THE NOMINAL STORAGE VOLUME OF THE END CAP SHALL BE 5.17 FT<sup>3</sup> / FT (0.48 m<sup>3</sup> / m) WITHOUT STONE. THE NOMINAL STORAGE VOLUME OF AN INTERLOCKED END CAP SHALL BE 6.46 FT3 / UNIT (0.183 m<sup>3</sup> / UNIT) - WITHOUT STONE.
- 9. MAXIMUM INLET OPENING ON THE END CAP IS 24 INCH (600 mm) HDPE OR 30 INCH (750mm) PVC.
- 10. THE CHAMBER SHALL BE MANUFACTURED IN A FACILITY EMPLOYING CULTEC'S QUALITY CONTROL AND ASSURANCE PROCEDURES
- 11. THE END CAP SHALL PROVIDE RESISTANCE TO THE LOADS AND LOAD FACTORS AS DEFINED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12.

TIONS	
REATE AN INTERNAL MANIFOLD FOR S.	
TEC, INC. OF BROOKFIELD, CT.	
ED OF BLACK HIGH MOLECULAR	
	D CON STAIN/ STAIN/ PORTI BOHLER
ED CONNECTOR SHALL BE 12	
CHES (1245 mm) LONG.	
CONNECTOR SHALL BE 0.913 F177	
EPARATE END WALLS. THE UNIT RGER STORMWATER CHAMBER ERNAL MANIFOLD.	
ID AASHTO HS-25 DEFINED LOADS ED INSTALLATION INSTRUCTIONS.	REVISIONS
SO 9001:2008 CERTIFIED FACILITY.	
	REV         DATE         CONMULAT         CHECKED BY           1         8/21/2023         REVISED BUILDING         ACL
VITH CULTEC CONTACTOR® AND	I     0/21/2023     DESIGN     TAH       2     12/21/2023     RESPONSE TO     ACL
	2     12/2 (1/2024)     COMMENTS     TAH       3     02/12/2024     RESPONSE TO     ACL
OF BROOKFIELD, CT. (203-775-4416	4 04/01/2024 RESPONSE TO ACL
	5     07/18/2024     COMMENTS     TAH
5 OZ/SY (142 G/M).	6 11/08/2024 COMMENTS TAH ACL
LUE OF 120 LBS (533 N) PER ASTM	COMMENTS TAH
K VALUE OF 50% PER ASTM D4632	
OF 225 PSI (1551 KPA) PER ASTM	
/ALUE OF 65 LBS (289 N) PER ASTM	
OF 340 LBS (1513 N) PER ASTM	<b><u><u><u></u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u></u></b>
E OF 50 LBS (222 N) PER ASTM	
SIEVE (0.212 MM) PER ASTM D4751	Know what's below.
	Gall before you dig.
	It's fast. It's free. It's the law.
UE OF 135 GAL/MIN/SF (5500	
OURS VALUE OF 70% PER ASTM	
	PERIVITI JET
	THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION
E CULTEC CHAMBERS AND FEED	
AS A BARRIER TO PREVENT LE ALLOWING FOR MAINTENANCE.	DRAWN BY: ACL
	DATE: 03/01/2023 CAD I.D.: MAB220089.00-SPPD-5A
, INC. OF BROOKFIELD, CT.	PROJECT:
E. TH OF 550 Y 550 LBS (2.448 Y	
111 OF 330 X 330 LB3 (2,446 X	NOTICE OF
REAK RESISTANCE OF 20 X 20%	APPLICATION
ISILE RESISTANCE OF 5,070 X	FOR
OD. ISILE RESISTANCE @ 2% STRAIN	TOLL
D.	BROTHERS,
ISILE RESISTANCE @ 5% STRAIN TM D4595 TESTING METHOD.	INC
ISILE RESISTANCE @ 10%	PROPOSED RESIDENTIAL
	DEVELOPMENT
ESISTANCE OF 1,/00 LBS (7,560	528 BOYLSTON STREET
AR RESISTANCE OF 180 X 180 LBS ).	MIDDLESEX COUNTY, MA
IING SIZE OF 40 US STD. SIEVE	
TING OF 0.15 SEC-1 PER ASTM	
TING OF 11.5 GPM/FT2 (470	
DF 80% @ 500 HRS. PER ASTM	
	BOSTON, MA 02110
SOURCE: CULTEC	Phone: (617) 849-8040
	www.BohlerEngineering.com
	TIMOTHY A. HAYES NO, 51929 PRO SSIONAL ENGINE
	SHEET TITLE: DETAIL SHEET

CULTEC HVLV FC-48 FEED CONNECTOR PRODUCT SPECIFICATIONS	
GENERAI	

CULTEC RECHARGER MODEL 360HD STORMWATER CHAMBERS.

- FEED CONNECTOR PARAMETERS 1. THE FEED CONNECTOR SHALL BE MANUFACTURED BY CULT (203-775-4416 OR 1-800-428-5832)
- 2. THE FEED CONNECTOR SHALL BE VACUUM THERMOFORMED WEIGHT HIGH DENSITY POLYETHYLENE (HMWHDPE).
- 3. THE FEED CONNECTOR SHALL BE ARCHED IN SHAPE.
- 4. THE FEED CONNECTOR SHALL BE OPEN-BOTTOMED.
- 5. THE NOMINAL DIMENSIONS OF THE CULTEC HVLV FC-48 FEE INCHES (305 mm) TALL, 16 INCHES (406 mm) WIDE AND 49 INC
- 6. THE NOMINAL STORAGE VOLUME OF THE HVLV FC-48 FEED FT (0.085 m<sup>3</sup> / m) - WITHOUT STONE.
- 7. THE HVLV FC-48 FEED CONNECTOR SHALL HAVE 4 CORRUG
- 8. THE HVLV FC-48 FEED CONNECTOR MUST BE FORMED AS A \ END WALLS AND HAVING NO SEPARATE END PLATES OR SEP SHALL FIT INTO THE SIDE PORTALS OF THE CULTEC RECHA AND ACT AS CROSS FEED CONNECTIONS CREATING AN INTE

### 9. THE FEED CONNECTOR SHALL BE DESIGNED TO WITHSTAND WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED

10. THE FEED CONNECTOR SHALL BE MANUFACTURED IN AN IS

## CULTEC NO. 410<sup>™</sup> NON-WOVEN GEOTEXTILE

CULTEC NO. 410<sup>™</sup> NON-WOVEN GEOTEXTILE MAY BE USED W RECHARGER® STORMWATER INSTALLATIONS TO PROVIDE A E INTRUSION INTO THE STONE.

## GEOTEXTILE PARAMETERS

## 1. THE GEOTEXTILE SHALL BE PROVIDED BY CULTEC, INC. OR 1-800-428-5832)

- 2. THE GEOTEXTILE SHALL BE BLACK IN APPEARANCE. 3. THE GEOTEXTILE SHALL HAVE A TYPICAL WEIGHT OF 4.5
- 4. THE GEOTEXTILE SHALL HAVE A TENSILE STRENGTH VALU D4632 TESTING METHOD.
- 5. THE GEOTEXTILE SHALL HAVE AN ELONGATION @ BREAK TESTING METHOD.
- 6. THE GEOTEXTILE SHALL HAVE A MULLEN BURST VALUE ( D3786 TESTING METHOD.
- 7. THE GEOTEXTILE SHALL HAVE A PUNCTURE STRENGTH V
- D4833 TESTING METHOD. 8. THE GEOTEXTILE SHALL HAVE A CBR PUNCTURE VALUE (
- D6241 TESTING METHOD. 9. THE GEOTEXTILE SHALL HAVE A TRAPEZOID TEAR VALUE
- D4533 TESTING METHOD. 10. THE GEOTEXTILE SHALL HAVE A AOS VALUE OF 70 U.S. S
- TESTING METHOD. 11. THE GEOTEXTILE SHALL HAVE A PERMITTIVITY VALUE OF
- TESTING METHOD. 12. THE GEOTEXTILE SHALL HAVE A WATER FLOW RATE VALU
- L/MIN/SM) PER ASTM D4491 TESTING METHOD. 13. THE GEOTEXTILE SHALL HAVE A UV STABILITY @ 500 HO D4355 TESTING METHOD.

## CULTEC NO. 4800™ WOVEN GEOTEXTILE

CULTEC NO. 4800 WOVEN GEOTEXTILE IS DESIGNED AS SCOURING CAUSED BY WATER MOVEMENT WITHIN THE CONNECTORS UTILIZING THE CULTEC MANIFOLD FEATU COMPONENT OF THE CULTEC SEPARATOR ROW TO ACT SOIL/CONTAMINANT INTRUSION INTO THE STONE WHIL

## **GEOTEXTILE PARAMETERS**

- 1. THE GEOTEXTILE SHALL BE PROVIDED BY CULTEC,
- (203-775-4416 OR 1-800-428-5832) 2. THE GEOTEXTILE SHALL BE BLACK IN APPEARANCE
- 3. THE GEOTEXTILE SHALL HAVE A TENSILE STRENGT 2,448 N) PER ASTM D4632 TESTING METHOD.
- 4. THE GEOTEXTILE SHALL HAVE A ELONGATION @ B PER ASTM D4632 TESTING METHOD.
- 5. THE GEOTEXTILE SHALL HAVE A WIDE WIDTH TENS 5,070 LBS/FT
- (74 X 74 KN/M) PER ASTM D4595 TESTING METHO 6. THE GEOTEXTILE SHALL HAVE A WIDE WIDTH TENS OF 960 X 1,096 LBS/FT
- (14 X 16 KN/M) PER ASTM D4595 TESTING METHOD 7. THE GEOTEXTILE SHALL HAVE A WIDE WIDTH TENS
- OF 2,740 X 2, 740 LBS/FT (40 X 40 KN/M) PER AST
- 8. THE GEOTEXTILE SHALL HAVE A WIDE WIDTH TENS STRAIN OF 4,800 X 4,800 LBS/FT (70 X 70 KN/M) F METHOD.
- 9. THE GEOTEXTILE SHALL HAVE A CBR PUNCTURE RE N) PER ASTM D6241 TESTING METHOD. 10. THE GEOTEXTILE SHALL HAVE A TRAPEZOIDAL TEA
- (801 X 801 N) PER ASTM D4533 TESTING METHOD. 11. THE GEOTEXTILE SHALL HAVE AN APPARENT OPENI
- (0.425 MM) PER ASTM D4751 TESTING METHOD. 12. THE GEOTEXTILE SHALL HAVE A PERMITTIVITY RAT D4491 TESTING METHOD.
- 13. THE GEOTEXTILE SHALL HAVE A WATER FLOW RAT
- LPM/M2) PER ASTM D4491 TESTING METHOD. 14. THE GEOTEXTILE SHALL HAVE A UV RESISTANCE O

D4355 TESTING METHOD.

**REVISION 6 - 11/08/2024** 

**C-704** 

### **CULTEC RECHARGER 902HD® SPECIFICATIONS** ENERAL

ULTEC RECHARGER® 902HD CHAMBERS ARE DESIGNED FOR UNDERGROUND STORMWATER CULTEC HVLV FC-48 FEED CONNECTORS ARE DESIGNED TO CREATE AN INTERNAL MANIFOLD FOR ANAGEMENT. THE CHAMBERS MAY BE USED FOR RETENTION, RECHARGING, DETENTION OR CULTEC RECHARGER MODEL 902HD STORMWATER CHAMBERS. CONTROLLING THE FLOW OF ON-SITE STORMWATER RUNOFF.

HAMBER PARAMETERS

- 1. THE CHAMBERS SHALL BE MANUFACTURED IN THE U.S.A. OR CANADA BY CULTEC, INC. OF 2. THE FEED CONNECTOR SHALL BE VACUUM THERMOFORMED OF BLACK HIGH MOLECULAR BROOKFIELD, CT (CULTEC.COM, 203-775-4416).
- 2.THE CHAMBERS SHALL BE DESIGNED AND TESTED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL 3. THE FEED CONNECTOR SHALL BE ARCHED IN SHAPE. STORMWATER COLLECTION CHAMBERS". THE LOAD CONFIGURATION SHALL INCLUDE: A. INSTANTANEOUS AASHTO DESIGN TRUCK LIVE LOAD AT MINIMUM COVER
- B. MAXIMUM PERMANENT (50-YEAR) COVER LOAD C. 1-WEEK PARKED AASHTO DESIGN TRUCK LOAD
- THE CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F3430-20 "STANDARD SPECIFICATION FOR CELLULAR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- THE INSTALLED CHAMBER SYSTEM SHALL PROVIDE RESISTANCE TO THE LOADS AND LOAD. FACTORS AS DEFINED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12, WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS. THE STRUCTURAL DESIGN OF THE CHAMBERS SHALL INCLUDE THE FOLLOWING
- A. THE CREEP MODULUS SHALL BE 50-YEAR AS SPECIFIED IN ASTM F3430
- B. THE MINIMUM SAFETY FACTOR FOR LIVE LOADS SHALL BE 1.75
- C. THE MINIMUM SAFETY FACTOR FOR DEAD LOADS SHALL BE 1.95
- . THE CHAMBER SHALL BE STRUCTURAL FOAM INJECTION MOLDED OF BLUE VIRGIN HIGH MOLECULAR WEIGHT IMPACT-MODIFIED POLYPROPYLENE.
- 5.THE CHAMBER SHALL BE ARCHED IN SHAPE. 7.THE CHAMBER SHALL BE OPEN-BOTTOMED
- 3.THE CHAMBER SHALL BE JOINED USING AN INTERLOCKING OVERLAPPING RIB METHOD. CONNECTIONS MUST BE FULLY SHOULDERED OVERLAPPING RIBS, HAVING NO SEPARATE COUPLINGS.
- THE NOMINAL CHAMBER DIMENSIONS OF THE CULTEC RECHARGER® 902HD SHALL BE 48 INCHES (1219 MM) TALL, 78 INCHES (1981 MM) WIDE AND 4.25 FEET (1.30 M) LONG. THE INSTALLED LENGTH OF A JOINED RECHARGER 902HD SHALL BE 3.67 FEET (1.12 M).
- 0. MULTIPLE CHAMBERS MAY BE CONNECTED TO FORM DIFFERENT LENGTH ROWS. EACH ROW SHALL BEGIN AND END WITH A SEPARATELY FORMED CULTEC RECHARGER® 902HD END CAP. MAXIMUM INLET OPENING ON THE END CAP IS 30 INCHES (750 MM) HDPE OR 36 INCHES (900 MM) PVC.
- 1. THE CHAMBER SHALL HAVE TWO SIDE PORTALS TO ACCEPT CULTEC HVLV™ FC-48 FEED THE SIDE PORTAL IS 10 INCHES (250 MM) HDPE AND 12 INCHES (300 MM) PVC.
- SHALL BE 12 INCHES (305 MM) TALL, 16 INCHES (406 MM) WIDE AND 49 INCHES (1245 MM) LONG
- 3. THE NOMINAL STORAGE VOLUME OF THE RECHARGER 902HD CHAMBER SHALL BE 17.31 FT3 / FT (1.61 M3 / M) - WITHOUT STONE. THE NOMINAL STORAGE VOLUME OF A JOINED 9. THE GEOTEXTILE SHALL HAVE A TRAPEZOID TEAR VALUE OF 50 LBS (222 N) PER ASTM RECHARGER 902HD SHALL BE 63.47 FT3 / UNIT (1.80 M3 / UNIT) - WITHOUT STONE.
- .4. THE NOMINAL STORAGE VOLUME OF THE HVLV™ FC-48 FEED CONNECTOR SHALL BE 0.913 FT3 / FT (0.085 M3 / M) - WITHOUT STONE.
- 15. THE RECHARGER 902HD CHAMBER SHALL HAVE 5 CORRUGATIONS.
- 16. THE CHAMBER SHALL BE CAPABLE OF ACCEPTING A 6 INCH (150 MM) INSPECTION PORT OPENING AT THE TOP CENTER OF EACH CHAMBER, CENTERED ON THE CORRUGATION CREST.
- CONTROL AND ASSURANCE PROCEDURES. 8. MAXIMUM ALLOWABLE COVER OVER THE TOP OF THE CHAMBER SHALL BE 8.3 FEET (2.53

END CAP PARAMETERS

- . THE CULTEC RECHARGER® 902HD END CAP (REFERRED TO AS 'END CAP') SHALL BE MANUFACTURED IN THE U.S.A. BY CULTEC, INC. OF BROOKFIELD, CT (CULTEC.COM, 203-775-4416)
- 2.THE END CAP SHALL BE TWIN-SHEET THERMOFORMED OF VIRGIN HIGH MOLECULAR WEIGHT POLYETHYLENE.
- THE END CAP SHALL BE JOINED AT THE BEGINNING AND END OF EACH ROW OF CHAMBERS 1. THE GEOTEXTILE SHALL BE PROVIDED BY CULTEC, INC. OF BROOKFIELD, CT. JSING AN INTERLOCKING OVERLAPPING RIB METHOD. CONNECTIONS MUST BE FULLY SHOULDERED OVERLAPPING RIBS, HAVING NO SEPARATE COUPLINGS.
- 4.THE NOMINAL DIMENSIONS OF THE END CAP SHALL BE 48.5 INCHES (1231 MM) TALL, 78 3. THE GEOTEXTILE SHALL HAVE A TENSILE STRENGTH OF 550 X 550 LBS (2,448 X INCHES (1982 MM) WIDE AND 9.7 INCHES (246 MM) LONG. WHEN JOINED WITH A RECHARGER 902HD CHAMBER, THE INSTALLED LENGTH OF THE END CAP SHALL BE 6.2 INCHES (157 MM)
- WITHOUT STONE. THE NOMINAL STORAGE VOLUME OF AN INTERLOCKED END CAP SHALL BE 2.76 FT3 / UNIT (0.08 M3 / UNIT) - WITHOUT STONE.
- 5.MAXIMUM INLET OPENING ON THE END CAP IS 30 INCHES (750 MM) HDPE OR 36 INCHES (900 MM) PVC

**GENERAL NOTES** 

7.THE END CAP SHALL PROVIDE RESISTANCE TO THE LOADS AND LOAD FACTORS AS DEFINED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12.

## **CULTEC HVLV FC-48 FEED CONNECTOR PRODUCT SPECIFICATIONS**

- EED CONNECTOR PARAMETERS 1. THE FEED CONNECTOR SHALL BE MANUFACTURED BY CULTEC, INC. OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
- WEIGHT HIGH DENSITY POLYETHYLENE (HMWHDPE).

GENERAL

- 4. THE FEED CONNECTOR SHALL BE OPEN-BOTTOMED.
- 5. THE NOMINAL DIMENSIONS OF THE CULTEC HVLV FC-48 FEED CONNECTOR SHALL BE 12 INCHES (305 mm) TALL, 16 INCHES (406 mm) WIDE AND 49 INCHES (1245 mm) LONG.
- 6. THE NOMINAL STORAGE VOLUME OF THE HVLV FC-48 FEED CONNECTOR SHALL BE 0.913 FT3 / FT  $(0.085 \text{ m}^3 / \text{m})$  - WITHOUT STONE.
- 7. THE HVLV FC-48 FEED CONNECTOR SHALL HAVE 4 CORRUGATIONS.
- 8. THE HVLV FC-48 FEED CONNECTOR MUST BE FORMED AS A WHOLE UNIT HAVING TWO OPEN END WALLS AND HAVING NO SEPARATE END PLATES OR SEPARATE END WALLS. THE UNIT SHALL FIT INTO THE SIDE PORTALS OF THE CULTEC RECHARGER STORMWATER CHAMBER AND ACT AS CROSS FEED CONNECTIONS CREATING AN INTERNAL MANIFOLD.
- 9. THE FEED CONNECTOR SHALL BE DESIGNED TO WITHSTAND AASHTO HS-25 DEFINED LOADS WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS. 10. THE FEED CONNECTOR SHALL BE MANUFACTURED IN AN ISO 9001:2008 CERTIFIED FACILITY
- CULTEC NO. 410<sup>™</sup> NON-WOVEN GEOTEXTILE
- CULTEC NO. 410<sup>™</sup> NON-WOVEN GEOTEXTILE MAY BE USED WITH CULTEC CONTACTOR® AND RECHARGER® STORMWATER INSTALLATIONS TO PROVIDE A BARRIER THAT PREVENTS SOIL INTRUSION INTO THE STONE.

## GEOTEXTILE PARAMETERS

- 1. THE GEOTEXTILE SHALL BE PROVIDED BY CULTEC, INC. OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
- 2. THE GEOTEXTILE SHALL BE BLACK IN APPEARANCE.
- 3. THE GEOTEXTILE SHALL HAVE A TYPICAL WEIGHT OF 4.5 OZ/SY (142 G/M).
- 4. THE GEOTEXTILE SHALL HAVE A TENSILE STRENGTH VALUE OF 120 LBS (533 N) PER ASTM D4632 TESTING METHOD. 5. THE GEOTEXTILE SHALL HAVE AN ELONGATION @ BREAK VALUE OF 50% PER ASTM D4632 TESTING METHOD.
- CONNECTORS TO CREATE AN INTERNAL MANIFOLD. MAXIMUM ALLOWABLE PIPE SIZE IN 6. THE GEOTEXTILE SHALL HAVE A MULLEN BURST VALUE OF 225 PSI (1551 KPA) PER ASTM D3786 TESTING METHOD.
- 2. THE NOMINAL CHAMBER DIMENSIONS OF THE CULTEC HVLV™ FC-48 FEED CONNECTOR 7. THE GEOTEXTILE SHALL HAVE A PUNCTURE STRENGTH VALUE OF 65 LBS (289 N) PER ASTM D4833 TESTING METHOD.
  - 8. THE GEOTEXTILE SHALL HAVE A CBR PUNCTURE VALUE OF 340 LBS (1513 N) PER ASTM D6241 TESTING METHOD.
  - D4533 TESTING METHOD
  - 10. THE GEOTEXTILE SHALL HAVE A AOS VALUE OF 70 U.S. SIEVE (0.212 MM) PER ASTM D4751 TESTING METHOD. 11. THE GEOTEXTILE SHALL HAVE A PERMITTIVITY VALUE OF 1.7 SEC-1 PER ASTM D4491
  - TESTING METHOD. 12. THE GEOTEXTILE SHALL HAVE A WATER FLOW RATE VALUE OF 135 GAL/MIN/SF (5500 L/MIN/SM) PER ASTM D4491 TESTING METHOD.
- .7. THE CHAMBER SHALL BE MANUFACTURED IN A FACILITY EMPLOYING CULTEC'S QUALITY 13. THE GEOTEXTILE SHALL HAVE A UV STABILITY @ 500 HOURS VALUE OF 70% PER ASTM D4355 TESTING METHOD.

## CULTEC NO. 4800<sup>™</sup> WOVEN GEOTEXTILE

CULTEC NO. 4800 WOVEN GEOTEXTILE IS DESIGNED AS A UNDERLAYMENT TO PREVENT SCOURING CAUSED BY WATER MOVEMENT WITHIN THE CULTEC CHAMBERS AND FEED CONNECTORS UTILIZING THE CULTEC MANIFOLD FEATURE. IT MAY ALSO BE USED AS A COMPONENT OF THE CULTEC SEPARATOR ROW TO ACT AS A BARRIER TO PREVENT SOIL/CONTAMINANT INTRUSION INTO THE STONE WHILE ALLOWING FOR MAINTENANCE

## **GEOTEXTILE PARAMETERS**

- (203-775-4416 OR 1-800-428-5832)
- 2. THE GEOTEXTILE SHALL BE BLACK IN APPEARANCE. 2,448 N) PER ASTM D4632 TESTING METHOD.
- 4. THE GEOTEXTILE SHALL HAVE A ELONGATION @ BREAK RESISTANCE OF 20 X 20% PER ASTM D4632 TESTING METHOD.
- 5. THE NOMINAL STORAGE VOLUME OF THE END CAP SHALL BE 5.34 FT3 / FT (0.50 M3 / M) 5. THE GEOTEXTILE SHALL HAVE A WIDE WIDTH TENSILE RESISTANCE OF 5,070 X 5,070 LBS/FT
  - (74 X 74 KN/M) PER ASTM D4595 TESTING METHOD. 6. THE GEOTEXTILE SHALL HAVE A WIDE WIDTH TENSILE RESISTANCE @ 2% STRAIN OF 960 X 1,096 LBS/FT
  - (14 X 16 KN/M) PER ASTM D4595 TESTING METHOD. 7. THE GEOTEXTILE SHALL HAVE A WIDE WIDTH TENSILE RESISTANCE @ 5% STRAIN OF 2,740 X 2, 740 LBS/FT (40 X 40 KN/M) PER ASTM D4595 TESTING METHOD.
  - 8. THE GEOTEXTILE SHALL HAVE A WIDE WIDTH TENSILE RESISTANCE @ 10% STRAIN OF 4,800 X 4,800 LBS/FT (70 X 70 KN/M) PER ASTM D4595 TESTING METHOD.
  - 9. THE GEOTEXTILE SHALL HAVE A CBR PUNCTURE RESISTANCE OF 1,700 LBS (7,560 N) PER ASTM D6241 TESTING METHOD. 10. THE GEOTEXTILE SHALL HAVE A TRAPEZOIDAL TEAR RESISTANCE OF 180 X 180
  - LBS (801 X 801 N) PER ASTM D4533 TESTING METHOD. 11. THE GEOTEXTILE SHALL HAVE AN APPARENT OPENING SIZE OF 40 US STD. SIEVE
  - (0.425 MM) PER ASTM D4751 TESTING METHOD. 12. THE GEOTEXTILE SHALL HAVE A PERMITTIVITY RATING OF 0.15 SEC-1 PER ASTM D4491 TESTING METHOD.
  - 13. THE GEOTEXTILE SHALL HAVE A WATER FLOW RATING OF 11.5 GPM/FT2 (470 LPM/M2) PER ASTM D4491 TESTING METHOD.
  - 14. THE GEOTEXTILE SHALL HAVE A UV RESISTANCE OF 80% @ 500 HRS. PER ASTM D4355 TESTING METHOD.

PIPE 6" [150 mm] N/A N/A 8" [200 mm] N/A N/A 10" [250 mm] N/A N/A 12" [300 mm] 29.50" [749 mm] 2.25" [57 mm] 2.25" [57 mm] 15" [375 mm] 26.50" [673 mm] 18" [450 mm] 23.50" [597 mm] 2.50" [64 mm] 24" [600 mm] 16.50" [420 mm] 3.00" [76 mm]

![](_page_12_Figure_73.jpeg)

### \*THE TYPICAL INVERT TABLE ABOVE IS BASED ON THE INSIDE DIAMETER OF STANDARD CORRUGATED PLASTIC PIPE. THE HEAVY DUTY END CAP HAS PRE-MARKED TRIM LINES FOR PIPE DIAMETERS 12" (300mm), 15" (375mm), 18" (450mm) AND 24" (600mm). PIPES OF ANY SIZE AND MATERIAL UP TO 24" MAY BE PLACED AT CUSTOM LOCATIONS AND CUSTOM INVERTS. THE CROWN OF THE PIPE MUST REMAIN A MINIMUM OF 4" (100mm) FROM THE EDGE OF THE HEAVY DUTY END CAP.

<u>(902HD</u>

# **CULTEC RECHARGER 902HD TYPICAL PIPE INVERTS**

406 mm

![](_page_12_Figure_80.jpeg)