SITE DEVELOPMENT PLAN

FOR ADESA BOSTON

194 LOWLAND STREET HOLLISTON, MA 01746

| | Sheet List Table |
|--------------|---|
| Sheet Number | Sheet Title |
| 1 OF 17 | COVER SHEET |
| 2 OF 17 | ALTA SURVEY |
| 3 OF 17 | ALTA SURVEY |
| 4 OF 17 | OVERALL EXISTING CONDITIONS AND DEMOLITION PLAN |
| 5 OF 17 | EXISTING CONDITIONS AND DEMOLITION PLAN |
| 6 OF 17 | OVERALL SITE PLAN |
| 7 OF 17 | PARCEL SUBDIVISION PLAN |
| 8 OF 17 | SITE PLAN |
| 9 OF 17 | GRADING AND DRAINAGE PLAN |
| 10 OF 17 | EROSION AND SEDIMENT CONTROL NOTES AND DETAILS |
| 11 OF 17 | EROSION AND SEDIMENT CONTROL NOTES AND DETAILS |
| 12 OF 17 | SITE DETAILS |
| 13 OF 17 | SITE DETAILS |
| 14 OF 17 | SITE DETAILS |
| 15 OF 17 | LANDSCAPE PLAN |
| 16 OF 17 | LANDSCAPE DETAILS & SPECIFICATIONS |
| 17 OF 17 | LIGHTING PLAN |

| USE: OVEF | RFLOW PARKING WITH SECURI | TY BOOTH |
|---------------|---------------------------|--------------|
| | REQUIRED | PROVIDED |
| | | |
| MIN. AREA | 20,000 SF | 1,876,373 SF |
| MIN. FRONTAGE | 100 FT | 895 FT |
| MIN. DEPTH | 150 FT | > 150 FT |
| | | |
| MIN. SETBACKS | | |
| FRONT | 30 FT | 66 FT |
| SIDE | 20 FT | 415 FT |
| REAR | 30 FT | 1,120 FT |
| | | |
| MAX. STORIES | 3 | 1 |
| MAX. HEIGHT | 40 FT | 15' |
| | | |
| BUILDING AREA | N/A | 256 SF |
| | | |
| MAX. COVERAGE | 40% | 0.0001% |
| F.A.R. | 0.5 | 0.0 |

ZONING DATA: INDUSTRIAL

ASSESSOR'S REFERENCE: MAP 12, BLOCK 4, PARCEL 33.1

MAP 9, BLOCK 2, PARCEL 57.1

DEED REFERENCE:

MIDDLESEX SOUTH DISTRICT REGISTRY OF DEEDS BOOK 11451, 11294, 10554 PAGE 206, 344, 74

CONSTRUCTION SEQUENCE

1. INSTALL SILT FENCE

- 2. CLEAR AND GRUB
- 3. REMOVE EXISTING STRUCTURES
- 3. INSTALL REMAINING EROSION CONTROLS
- 4. STRIP TOPSOIL AND STOCKPILE 5. PREPARE SITE TO SUBGRADE
- 6. INSTALL DRAINAGE SYSTEM
- 7. GRADE SITE 8. INSTALL BINDER PAVEMENT
- 9. INSTALL CURBS
- 10. INSTALL TOP COURSE
- 11. LOAM AND SEED 12. CLEAN UP

USGS MAP (HOLLISTON QUADRANGLE) SCALE: 1"=2,000'

APPLICANT | OWNER | ENGINEER OF RECORD

2. OWNER:

1. APPLICANT:

CONTACT: TERRI BENDES

AUTO DEALERS EXCHANGE OF CONCORD, LLC d/b/a ADESA BOSTON 13085 HAMILTON CROSSING BOULEVARD CARMEL, IN 46032

DCAB, LLC

157 LOWLAND STREET HOLLISTON, MA 01746 CONTACT: MICHAEL BRUABER

3. ENGINEER OF RECORD:

KIMLEY-HORN AND ASSOCIATES, INC. 1700 WILLOW LAWN DRIVE, SUITE 200 RICHMOND, VA 23230 CONTACT: BRIAN BREWER, P.E.

| I ATTEST THAT THE PLAN BOARD VOTED TO APPROVE THIS SITE PLAN ON | ТО |
|---|------|
| | DATE |
| | |
| | |

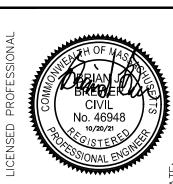
PROJECT DESCRIPTION NARRATIVE

THIS PROJECT INCLUDES THE DEMOLITION OF MOST EXISTING FEATURES ON SITE AND CONSTRUCTION OF AN ASPHALT-PAVED PARKING LOT AND SECURITY BOOTH FOR TEMPORARY STORAGE OF VEHICLES. THE EXISTING PROPERTY IS APPROXIMATELY **43.1** ACRES AND CONSISTS OF EXISTING WETLANDS, A LARGE POND, AND OVERGROWN VEGETATION. SMALL BUILDING STRUCTURES ARE ALSO LOCATED ON SITE AND WILL BE DEMOLISHED. ADDITIONAL IMPROVEMENTS WILL ALSO INCLUDE UPDATED LANDSCAPING AND IMPROVED STORMWATER MANAGEMENT FACILITIES. EXISTING OVERHEAD ELECTRIC AND UNDERGROUND GAS LINES ARE LOCATED ON THE PROPERTY.

IT'S THE LAW, 72 HOURS BEFORE YOU DIG

"DIG SAFE SYSTEM, INC." 1-888-344-7233 WWW.DIGSAFE.COM

Kimley



SHE OVE

SHEET NUMBER 1 OF 17

Notes Corresponding to Schedule B

- <u>∕9.\</u> Water rights, claims or Title to water, whether or not shown by the Public Records. (affects site — plotted)
- 10. Mortgage and Security Agreement from DCAB, LLC to The Milford Bank and Trust Company in the original principal amount of \$375,000.00 dated June 7, 2007, recorded in Book 69404, Page 69. (affects site — not plottable)
- 11. Assignment of Leases and Rents from DCAB, LLC to The Milford Bank and Trust Company dated June 7, 2007, recorded in Book 69404, Page 85. (affects site not plottable)
- 12. Decision granting a Variance by the Town of Holliston Board of Appeals dated May 11, 1968, recorded in Book 11512, Page 508. (affects site — not plottable)
- 13. Decision granting a Variance by the Town of Holliston Board of Appeals dated August 12, 1968, recorded in Book 11587, Page 567. (affects site — not plottable)
- $\Delta \Delta$ Easement and Right of way set forth in Deed from Holliston Sand Company, Inc. to Earl C. Mann, Bernard Quitt, and Brendan J. Perry, as Trustees of Lowland Realty Trust dated December 18, 1969, recorded in Book 11782, Page 269. (affects site - plotted)
- $\Delta \overline{5}$ Easement and Right of way set forth in Deed from Holliston Sand Company, Inc. to Earl C. Mann, Bernard Quitt, and Brendan J. Perry, as Trustees of the Lowland Realty Trust dated February 20, 1970, recorded in Book 11813, Page 117. (affects site - plotted)
- 16. Decision granting a Variance by the Town of Holliston Board of Appeals dated July 27, 1971, recorded in Book 12046, Page 341. (affects site — not plottable)
- 12 Easement from Holliston Sand Company, Inc. to New England Telephone and Telegraph Company dated October 24, 1985, recorded in Book 18256, Page 122. (affects site - plotted)
- 18. Order of Conditions issued by the Town of Holliston (DEP File No. 185-451) recorded in Book 30054, Page 120. (affects site — not plottable)

19 Easement to Boston Edison Co. recorded in Book 6479, Page 219. (affects site — plotted)

Legend of Symbols & Abbreviations

| □ STK □ SB □ WP □ BBQ ◎ IP FND □ CB ⑤ SMH ● EMH ● GG ● GM ● TJB ● CATV ● ICV | SURVEY STAKE STONE BOUND WOOD POST BARBEQUE STAND IRON PIPE FOUND CATCH BASIN SEWER MANHOLE ELECTRIC HANDHOLE GAS GATE GAS METER LIGHT POLE CABLE TELEVISION PEDESTAL IRRIGATION CONTROL VALVE |
|--|--|
| | HYDRANT |
| 6 | REGULAR PARKING SPACES |
| | TRANSFORMER |
| C | CABLE JUNCTION BOX |
| — WSF — PVC — OHW—— — S —— — D —— — W —— — G —— — GS—— — SS—— — WS—— — UE— — | SEWER PIPELINE DRAIN PIPELINE WATER PIPELINE GAS CONDUIT GAS SERVICE CONDUIT SEWER SERVICE PIPELINE WATER SERVICE PIPELINE UNDERGROUND ELECTRIC CONDUIT UNDERGROUND TELEPHONE CONDUIT |
| BIT. CONC. CC | BITUMINOUS CONCRETE CEMENT CONCRETE |
| BCW CCW N/F W.F. W.F.D. RTG BFA LA | BITUMINOUS CONCRETE WALK CEMENT CONCRETE WALK NOW OR FORMERLY WOOD FRAME WOOD FRAME DWELLING ROOF TO GROUND BUILDING FOOTPRINT AREA LANDING ABOVE AIR CONDITIONER |
| MB WCR | MAIL BOX WHEELCHAIR RAMP |
| CCC | CEMENT CONCRETE CURB |
| D 0 W | DIQUIT OF WAY |

RIGHT OF WAY

R.O.W.

Record Legal Description

SCHEDULE A

The Land is described as follows: Real property in the City of Holliston, County of Middlesex, Commonwealth of Massachusetts, described as follows:

Three certain adjoining parcels of land, together with the buildings and improvements thereon, situated in the Town of Holliston, County of Middlesex, Commonwealth of Massachusetts, separately bounded and described as follows:

Parcel I

Beginning at the intersection of the northeasterly line of Lowland Street with the northwesterly line of the brook, sometimes called Bogastow Brook; thence northwesterly by said Lowland Street about one thousand one hundred twenty—five (1,125) feet to an iron pipe in the intersection of said northwesterly line of Lowland Street and the southeasterly line of an old town road known as Rogers Street; thence northeasterly starting in line with said southeasterly line of Rogers Street but continuing said course in a straight line by land now or formerly of Roy B. and Anne T. Hulbert, where said Rogers Street curves to the north about six hundred thirty—five (635) feet to an iron pipe; thence southeasterly by land now or formerly of said Hubert by a straight line roughly parallel with said Lowland Street, through an iron pipe driven in the northwesterly bank of said brook, about one thousand thirty (1,030) feet to said brook; thence southwesterly by said brook to the point of beginning.

Parcel II

Southwesterly: by land now or formerly of Finn Bros. four hundred sixty (460) feet, more or

Northeasterly: by land now or formerly of Benjamin Hildredth one thousand three hundred sixty—three and 4/100 (1,363.4) feet, more or less;

Northwesterly: by land now or formerly of Roy B. and Anne T. Hulbert two hundred thirty and 9/100 (230.0) feet, more or less;

Southwesterly: by Parcel No. I hereinabove described one thousand one hundred sixty and 5/10 (1,160.5) feet, more or less;

As shown on plan entitled "Plan of Land - Holliston, Mass. by Wm. R. Poole, dated April 1964" and recorded with Middlesex South District Registry of Deeds in Plan Book 10554, Page 74.

Parcel III

A certain parcel of land in Holliston, northwesterly of Lowland Street containing 15 acres, more or less, as shown on a plan of land entitled "Plan of Land - Holliston, Mass. Scale 1 inch equals 80 feet, Survey by Wm. R. Poole, August, 1967", which plan is recorded with Middlesex South District Registry of Deeds in Plan Book 11451, Page 206, and more particularly bounded and described as follows according to said plan:

Southwesterly: by Parcel No. II hereinabove described one thousand two hundred forty—one and 6/10 (1,241.6) feet;

Northerly: by land now or formerly of Benjamin A. Hildreth two hundred forty—one and 1/20

Northerly again: by land now or formerly of Edward Serocki two hundred fifty—six (256) feet; Northeasterly: by land now or formerly of Gardner Morse eighty—eight and 7/10 (88.7) feet; and

Northerly again: by land now or formerly of Gardner Morse one thousand two hundred forty seven (1,247) feet; and

Northerly and Southerly: by Bogastow Brook one thousand (1,000) feet.

This same land is also depicted in a survey made by Stephen Stapinski for CreSurveys on November 2, 2019, last revised February 10, 2020, designated 19-4750-Site #001, more particularly described as follows:

A parcel of land located on the north side of Lowland Street, beginning at the southwest corner, at land of Robert Mann, at a point on the east side of Lowland Street, running:

| , | • | • | • |
|-----------------------|------|-----------|---|
| North 36' - 43' - 58" | West | 810.70' | along Lowland Street to a point of curvature, thence |
| R = 416.50' | L = | = 159.21' | along a curve to the left along Lowland Street to a point at land of Abramo, thence |
| North 53° - 01' - 26" | East | 889.02' | along land of Abramo, land of Ftbrmg LLC, land of Jeffery Avenue LLC, land of Claymore Enterprises, LLC to a point at land of 29 Everett LLC, thence |
| South 42° - 19' - 58" | East | 120.55' | along land of 29 Everett LLC to a point, thence |
| South 67° - 17' - 19" | East | 217.79' | along land of 29 Everett LLC to a point, thence |
| North 70° - 44' - 49" | East | 258.81' | along land of Serocki to other land of Serocki, thence |
| South 05° - 14' - 17" | East | 88.19' | along land of Serocki to a point, thence |
| South 69° - 26' - 21" | East | 1,306.33 | along land of Serocki to a point at land of |

and Southwesterly 2,640'± along the centerline of Bogastow Brook

along land of NSTAR Electric, land of Oteri

land of Marrisson, land of Fitch,

land of Shearer,

land of Daeider

land of Fitch, land of Fosberg,

Mann, thence

land of Lacroix, land of Hafford to a point at land of Robert

South 50° - 01' - 12" West 50.54'

along land of Robert Mann to a point on the east side of Lowland Street, said point being the point of beginning

NSTAR Electric Company, said point being in the centerline of Bogastow Brook,

Said parcel contains $1,876,373\pm$ square feet or $43.0756\pm$ acres land area.

The property described above is the same property described in First American Title Insurance Company Title Commitment no. NCS-987018-BOS1 dated February 7, 2020.

Zoning

| ZONE DISTRICT: I (INDUSTRIAL) | | | | | |
|-------------------------------|------------------------|----------------|--|--|--|
| STATUS | DATE: JANUARY 17, 2020 | | | | |
| ITEM | REQUIRED | OBSERVED | | | |
| PERMITTED USE | VACANT LAND | VACCANT LAND | | | |
| MIN. LOT AREA | 20,000 S.F. | 1,777,900 S.F. | | | |
| MIN. FRONTAGE | 100' | 1,284.21 | | | |
| MAX. BLDG. COVERAGE | 40% | 0.3% | | | |
| MIN SETBACKS FRONT | 30' | 39' | | | |
| MIN. SETBACKS SIDE | 20' | 174'/703' | | | |
| MIN. SETBACKS REAR | 30' | 1,083' | | | |
| MAX. BUILDING HEIGHT | 3 STORIES/40' | 2 STORIES/17' | | | |
| PARKING REGULAR | PER APPROVÉD USE | 0 | | | |
| PARKING HANDICAP | PER APPROVED USE | 0 | | | |
| PARKING TOTAL | 21 SPACES | 0 | | | |

ZONING SOURCE IS ANALYSIS REPORT DATED FEBRUARY 7, 2020 BY CREZONING, LTD, 24 N. HIGH ST., AKRON. OH 44308, PROJECT NO. 19-4750-001

Utility Notes

NO UNDERGROUND UTILITIES WERE MARKED ON THE SUBJECT PROPERTY.

Flood Note

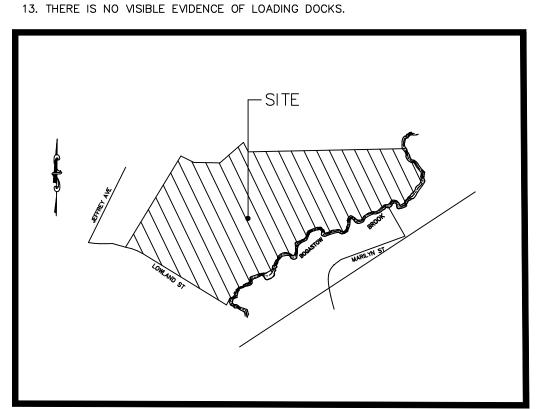
By graphic plotting only, this property is in Zone X of the Flood Insurance Rate Map,Community Panel No. 25017C0633E , which bears an effective date of 6/4/2010 and is not in a Special Flood Hazard Area.

Encroachment Statement

- (A) GUY WIRE ENCROACHES ONTO SUBJECT PROPERTY 6'
- (B) UTILITY POLE ENCROACHES ONTO SUBJECT PROPERTY 1'
- (C) UTILITY POLE ENCROACHES ONTO SUBJECT PROPERTY 3'

Miscellaneous Notes

- 1. THE BEARING BASE IS FROM PLAN ENTITLED N36*-43'-58"W ALONG LOWLAND STREET AS SHOWN ON PLAN RECORDED MIDDLESEX SOUTH DISTRICT REGISTRY OF DEEDS PLAN 453 OF 2017 DATED APRIL 5, 2017 HAMPSHIRE COUNTY REGISTRY OF DEEDS.
- 2. NO OBSERVABLE EVIDENCE OF BUILDING CONSTRUCTION OR BUILDING ADDITIONS WITHIN RECENT MONTHS, OBSERVED, BUT SITE IS AN OPEN EXCAVATED SOIL PIT.
- 3. NO OBSERVABLE EVIDENCE OF CHANGES IN STREET RIGHT OF WAY LINES COMPLETED, AND AVAILABLE FROM THE CONTROLLING JURISDICTION AND NO OBSERVABLE EVIDENCE OF RECENT STREET OR SIDEWALK CONSTRUCTION OR REPAIRS.
- 4. PROPERTY HAS DIRECT ACCESS TO LOWLAND STREET, DEDICATED A PUBLIC WAY.
- 5. ALL STATEMENTS WITHIN THE CERTIFICATION, AND OTHER REFERENCES LOCATED ELSEWHERE HEREON, RELATED TO: UTILITIES, IMPROVEMENTS, STRUCTURES, BUILDINGS, PARTY WALLS, PARKING, EASEMENTS, SERVITUDES, AND ENCROACHMENTS; ARE BASED SOLELY ON ABOVE GROUND, VISIBLE EVIDENCE, UNLESS ANOTHER SOURCE OF INFORMATION
- IS SPECIFICALLY REFERENCED HEREON. 6. THERE IS NO VISIBLE EVIDENCE OF CEMETERIES ON THE SUBJECT PROPERTY AT THE TIME OF SURVEY.
- 7. THERE WERE VISIBLE EVIDENCE OF WETLAND FIELD MARKERS ON THE SUBJECT PROPERTY AT THE TIME OF SURVEY AND NO WETLAND REPORT WAS PROVIDED TO THE SURVEYOR BY THE CLIENT.
- 8. TAX PARCEL ID #012.0004.0033.1 AND #009.0002.0057.1
- 9. THERE IS NO OBSERVABLE EVIDENCE OF ANY SHARED PARTY WALLS ON
- 10. THE RECORD DESCRIPTION OF THE PROPERTY FORMS A MATHEMATICALLY
- CLOSED FIGURE AND ITS CONTIGUOUS WITHOUT ANY GAPS OR GORES.
- 11. AT THE TIME OF SURVEY THE PROPERTY ADDRESS FOR THE SUBJECT PROPERTY WAS POSTED.
- 12. THERE IS NO VISIBLE EVIDENCE OF STRIPED PARKING SPACES.



Vicinity Map

ALTA/NSIPS Land Title Survey

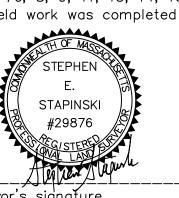
Adesa-Holliston

Project #19-4750-Site #001 194 Lowland Street Holliston. MA 01746

County of Middlesex

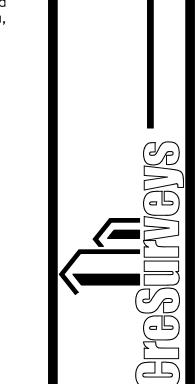
To: McDermott Will & Emery LLP; Auto Dealers Exchange of Concord, LLC d/b/a ADESA Boston, a Massachusetts limited liability company; Near North Title Group; First American Title Insurance Company and CREsurveys, Ltd.

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2016 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS, and includes Items 1, 2, 3, 4, 6a, 6b. 7a. 7b(1), 7c, 8, 9, 11, 13, 14, 16, 17, 18, 19, and 20 of Table A thereof. The field work was completed on November 2, 2019.



Surveyor's signature Stephen Stapinski 66 Park Street Andover, MA 01810 (978)475 - 3555

Surveyor License #: 29876 Date of last revision: March 12, 2020 Sheet 1 of 2



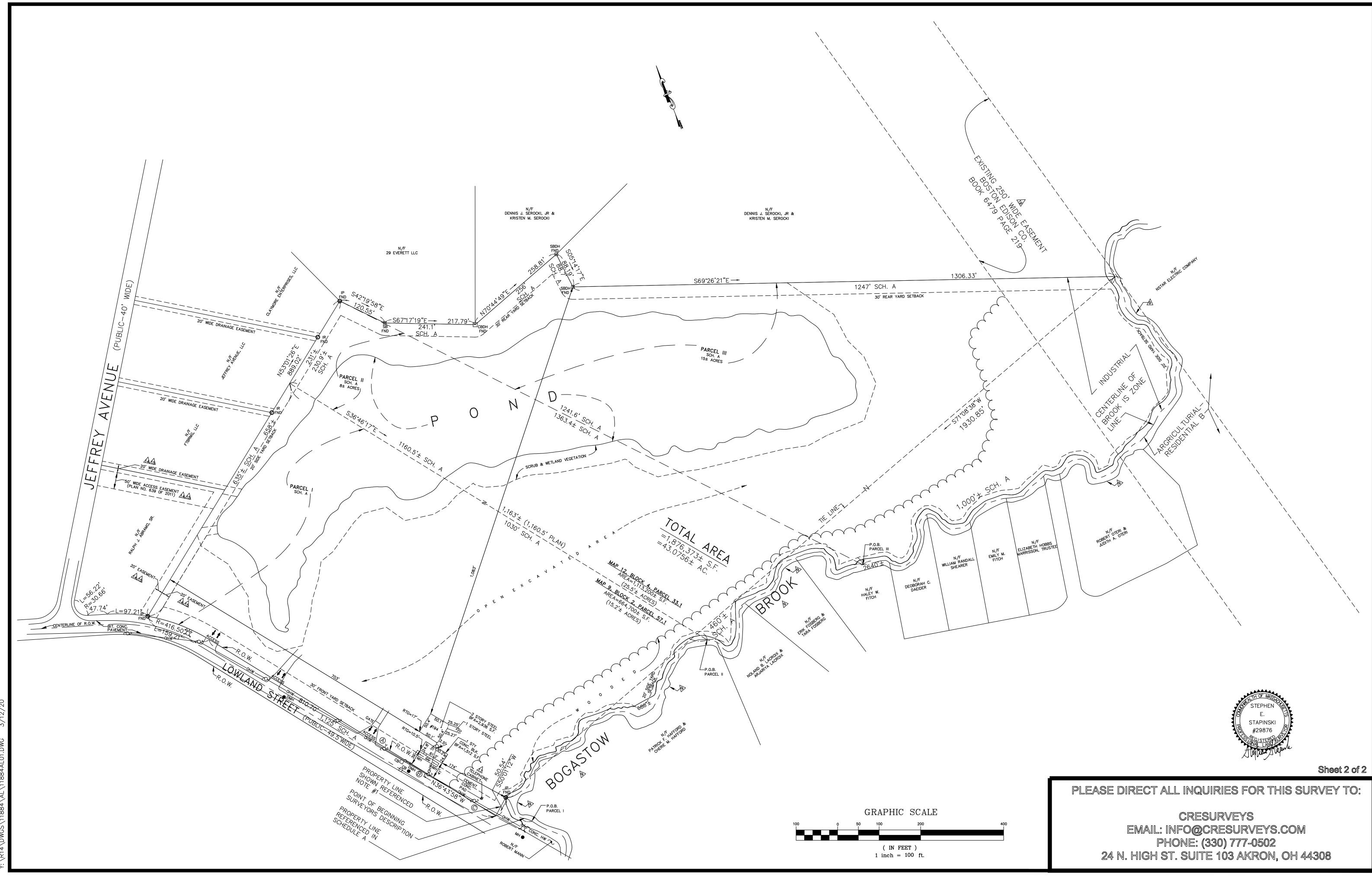
PLEASE DIRECT ALL INQUIRIES FOR THIS SURVEY TO:

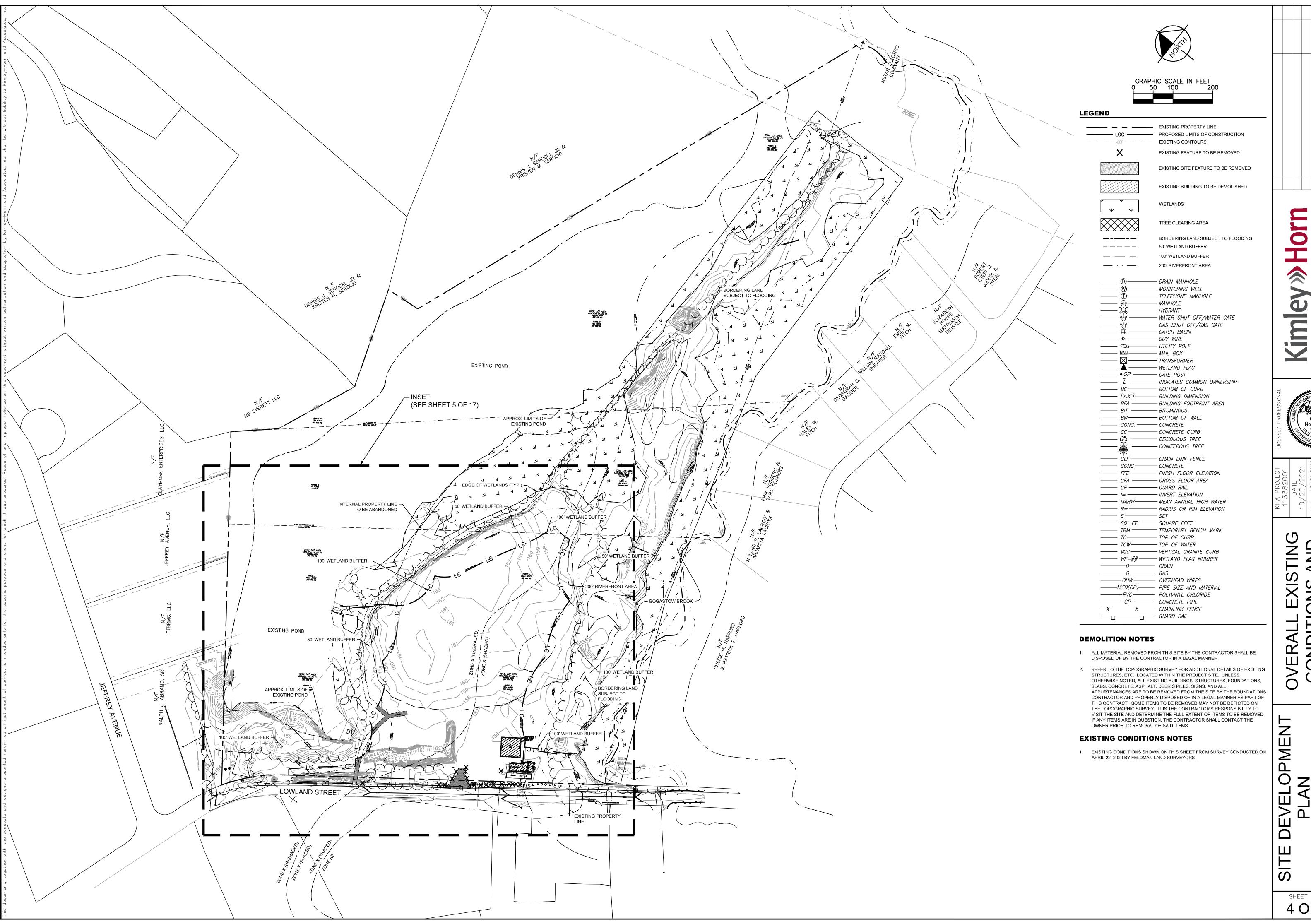
3/12/20

Date

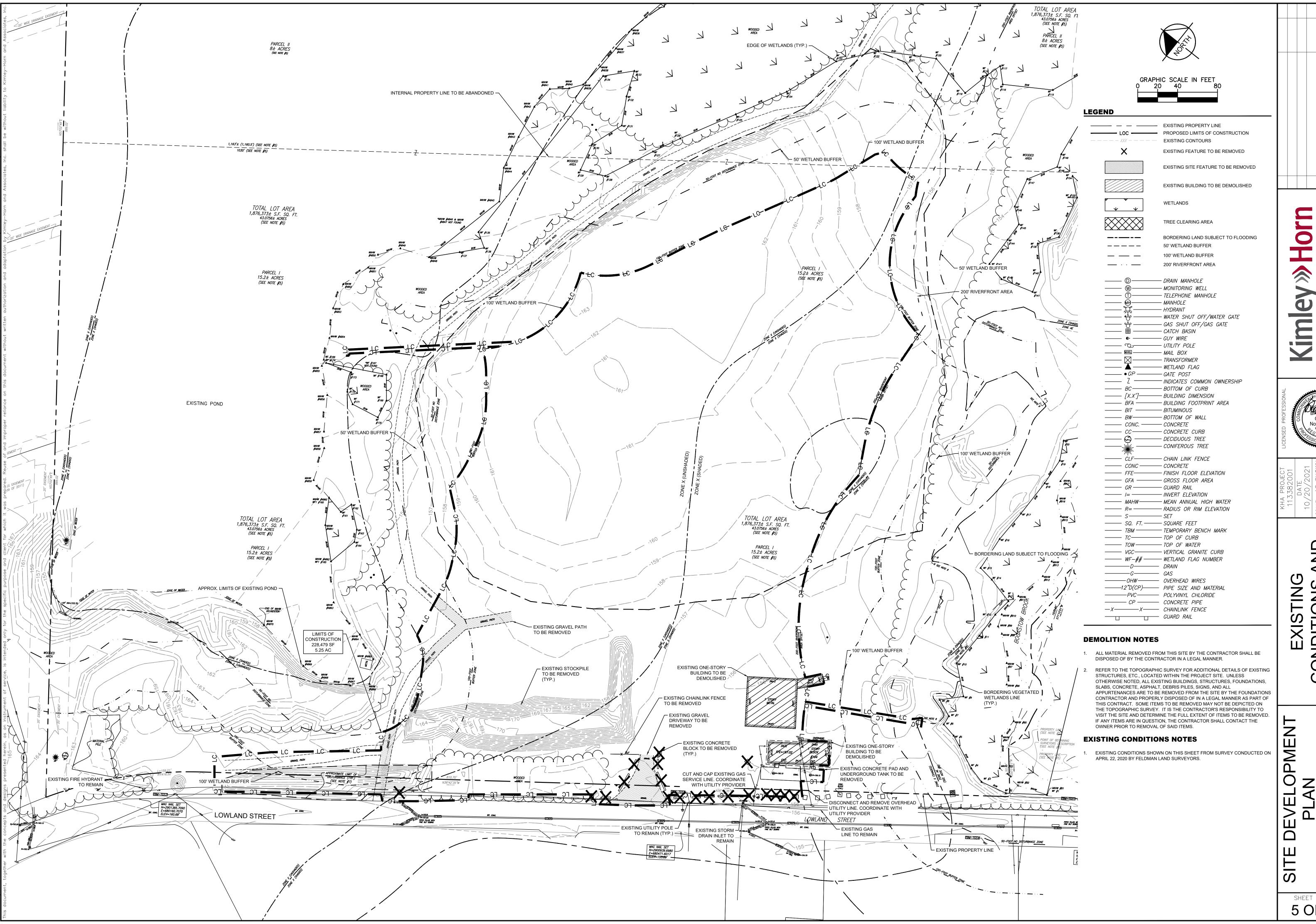
CRESURVEYS EMAIL: INFO@CRESURVEYS.COM PHONE: (330) 777-0502 24 N. HIGH ST. SUITE 103 AKRON, OH 44308

GRAPHIC SCALE (IN FEET) 1 inch = 40 ft.



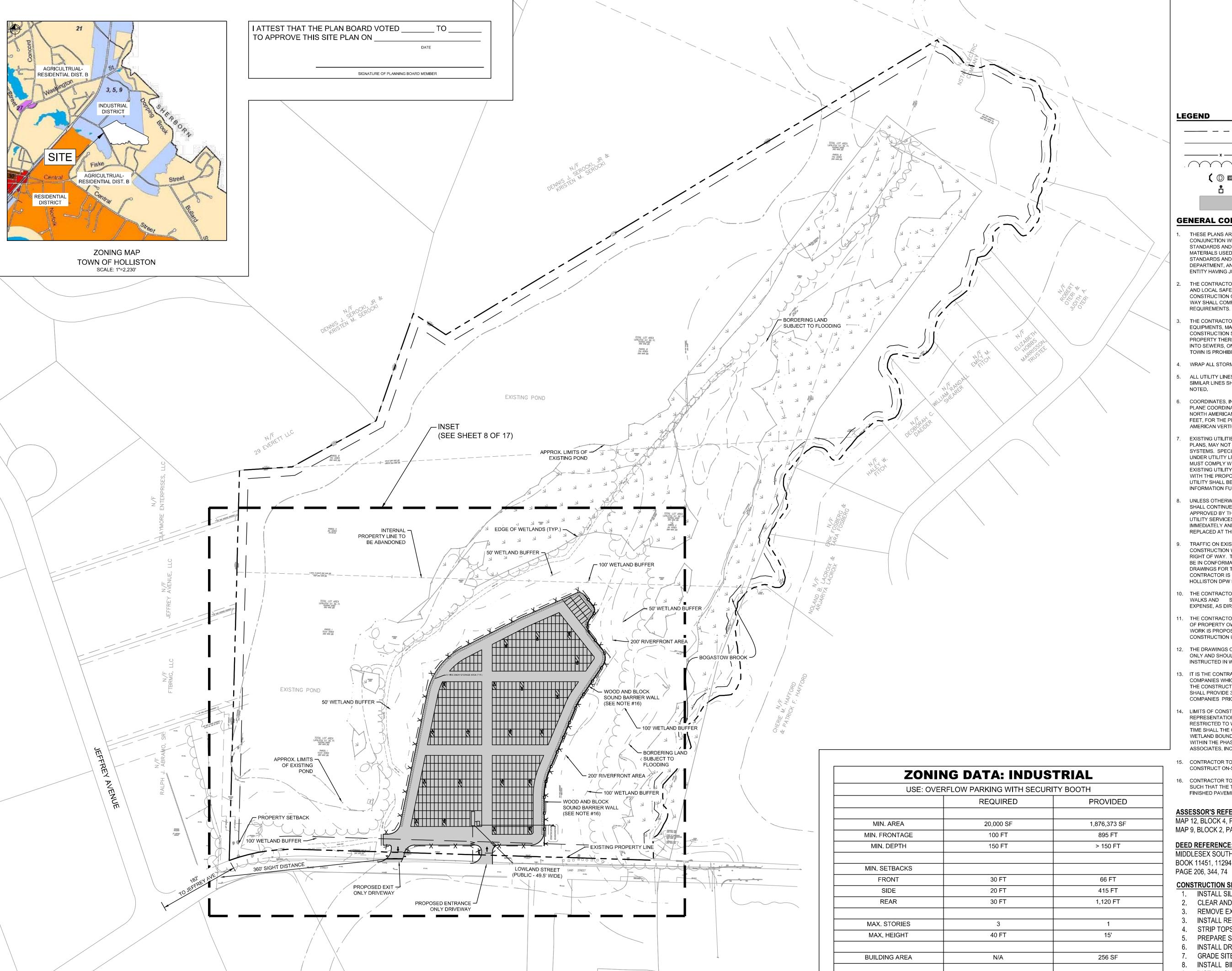


SHEET NUMBER 4 OF 17



0

SHEET NUMBER 5 OF 17





——— — EXISTING PROPERTY LINE PROPOSED CURB PROPOSED FENCE LINE

PROPOSED TREE LINE PROPOSED STORMWATER STRUCTURES

PROPOSED LIGHT FIXTURE

PROPOSED STANDARD DUTY ASPHALT

GENERAL CONSTRUCTION NOTES

- THESE PLANS ARE VALID FOR CONSTRUCTION ONLY WHEN USED IN CONJUNCTION WITH THE MASS HIGHWAY DESIGN GUIDELINES AND STANDARDS AND SPECIFICATIONS, CURRENT EDITION, ALL PRODUCTS AND MATERIALS USED IN THE RIGHT OF WAY MUST ADHERE TO CURRENT STANDARDS AND SPECIFICATIONS OF THE MASSACHUSETTS HIGHWAY DEPARTMENT, AND TOWN OF HOLLISTON DPW, AS SPECIFIED BY THE ABOVE ENTITY HAVING JURISDICTION.
- THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL SAFETY CODES, LEGAL REQUIREMENTS, ETC., IN THE CONSTRUCTION OF ALL IMPROVEMENTS. WORK WITHIN PUBLIC RIGHT OF WAY SHALL COMPLY WITH APPLICABLE MUNICIPAL AND STATE REQUIREMENTS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF ALL EQUIPMENTS, MATERIAL, AND GENERAL CONSTRUCTION DEBRIS FROM THE CONSTRUCTION SITE AND ANY ADJACENT STREET, LOT, PUBLIC WAY, OR PROPERTY THEREIN OR ADJACENT THERETO. DUMPING OF SUCH DEBRIS INTO SEWERS, ONTO ADJACENT PROPERTY OR ONTO OTHER LAND IN THE TOWN IS PROHIBITED.
- WRAP ALL STORM DRAIN JOINTS WITH FILTER FABRIC.
- ALL UTILITY LINES SUCH AS ELECTRIC, TELEPHONE, CATV, GAS OR OTHER SIMILAR LINES SHALL BE INSTALLED UNDERGROUND UNLESS OTHERWISE
- COORDINATES, IN U.S. SURVEY FEET, ARE IN THE MASSACHUSETTS STATE PLANE COORDINATE SYSTEM (MCS), MAINLAND ZONE, REFERENCED TO THE NORTH AMERICAN DATUM OF 1983 (NAD 83). ELEVATIONS, IN U.S. SURVEY FEET, FOR THE PROJECT NETWORK, ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
- EXISTING UTILITIES AND DRAINAGE STRUCTURES/PIPES, AS SHOWN ON THE PLANS, MAY NOT ACCURATELY REFLECT THE EXACT LOCATION OF ALL SYSTEMS. SPECIAL CARE SHOULD BE TAKEN WHEN EXCAVATING AROUND OR UNDER UTILITY LINES WHERE SHOWN ON PLANS, AND THE CONTRACTOR MUST COMPLY WITH MASSACHUSETTS "DIG SAFE" REQUIREMENTS. WHERE AN EXISTING UTILITY OR DRAINAGE STRUCTURE/PIPE IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION, AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED BY THE CONTRACTOR AND THE INFORMATION FURNISHED TO THE ENGINEER PRIOR TO COMMENCING WORK.
- UNLESS OTHERWISE NOTED, EXISTING UTILITIES CURRENTLY IN SERVICE SHALL CONTINUE TO BE IN SERVICE THROUGHOUT CONSTRUCTION UNLESS APPROVED BY THE ENGINEER. IF THE CONTRACTOR DAMAGES ANY EXISTING UTILITY SERVICES, THE RESPECTIVE UTILITY OWNERS MUST BE NOTIFIED REPLACED AT THE CONTRACTOR'S EXPENSE.
- TRAFFIC ON EXISTING ROADWAYS MUST BE MAINTAINED DURING CONSTRUCTION WHEN ANY WORK IS BEING PERFORMED WITHIN THE EXISTING RIGHT OF WAY. THE MAINTENANCE OF TRAFFIC PLAN FOR THIS WORK MUST BE IN CONFORMANCE WITH THE MASS HIGHWAY STANDARD DETAILS AND DRAWINGS FOR THE DEVELOPMENT OF TRAFFIC MANAGEMENT PLANS. CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THE TOWN OF HOLLISTON DPW FOR ANY WORK IN RIGHT OF WAY.
- 10. THE CONTRACTOR SHALL TAKE ADEQUATE PRECAUTIONS TO PROTECT ALL WALKS AND STREETS, AND SHALL REPAIR AND REPLACE AT HIS/HER OWN EXPENSE, AS DIRECTED BY OWNER'S REPRESENTATIVE.
- 1. THE CONTRACTOR SHALL CONFIRM, PRIOR TO CONSTRUCTION, THE STATUS OF PROPERTY OWNERSHIP AND RIGHTS FOR ALL PROPERTIES UPON WHICH WORK IS PROPOSED. THE CONTRACTOR SHALL NOT PROCEED WITH ANY CONSTRUCTION UNTIL GIVEN AUTHORIZATION TO PROCEED BY THE OWNER.
- THE DRAWINGS CONTAINED HEREIN ARE PROVIDED AS A DESIGN DOCUMENT ONLY AND SHOULD NOT BE USED FOR CONSTRUCTION UNLESS SO INSTRUCTED IN WRITING BY KIMLEY-HORN AND ASSOCIATES.
- 13. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE VARIOUS UTILITY COMPANIES WHICH MAY HAVE BURIED OR AERIAL UTILITIES WITHIN OR NEAR THE CONSTRUCTION AREA BEFORE COMMENCING WORK. THE CONTRACTOR SHALL PROVIDE 3 BUSINESS DAYS MINIMUM NOTICE TO ALL UTILITY COMPANIES PRIOR TO BEGINNING CONSTRUCTION.
- 14. LIMITS OF CONSTRUCTION SHOWN ON THE PLANS ARE A GRAPHICAL REPRESENTATION ONLY. ACTUAL CONSTRUCTION LIMITS SHALL BE RESTRICTED TO WITHIN THE APPLICABLE PROPERTY BOUNDARIES. AT NO TIME SHALL THE CONTRACTOR VIOLATE DEDICATED MASSACHUSETTS WETLAND BOUNDARIES AS SHOWN ON THE PLANS. WETLANDS BOUNDARIES WITHIN THE PHASE 1A CONSTRUCTION LIMITS WERE DELINEATED BY EPSILON ASSOCIATES, INC. IN DECEMBER, 2019.
- 15. CONTRACTOR TO COORDINATE WITH PROJECT OWNER TO DESIGNATE AND CONSTRUCT ON-SITE HEAVY DUTY PAVEMENT AREAS.
- CONTRACTOR TO ENSURE THE WOOD AND BLOCK BARRIER IS INSTALLED SUCH THAT THE TOP OF BARRIER IS A MINIMUM OF 6' ABOVE NEAREST FINISHED PAVEMENT ELEVATION.

ASSESSOR'S REFERENCE: MAP 12, BLOCK 4, PARCEL 33.1

MAP 9, BLOCK 2, PARCEL 57.1

DEED REFERENCE:

MIDDLESEX SOUTH DISTRICT REGISTRY OF DEEDS BOOK 11451, 11294, 10554

CONSTRUCTION SEQUENCE

- INSTALL SILT FENCE
- CLEAR AND GRUB
- REMOVE EXISTING STRUCTURES INSTALL REMAINING EROSION CONTROLS
- STRIP TOPSOIL AND STOCKPILE
- PREPARE SITE TO SUBGRADE INSTALL DRAINAGE SYSTEM
- GRADE SITE
- INSTALL BINDER PAVEMENT
- 9. INSTALL CURBS
- 10. INSTALL TOP COURSE
- 11. LOAM AND SEED 12. CLEAN UP

0.0001%

0.0

MAX. COVERAGE

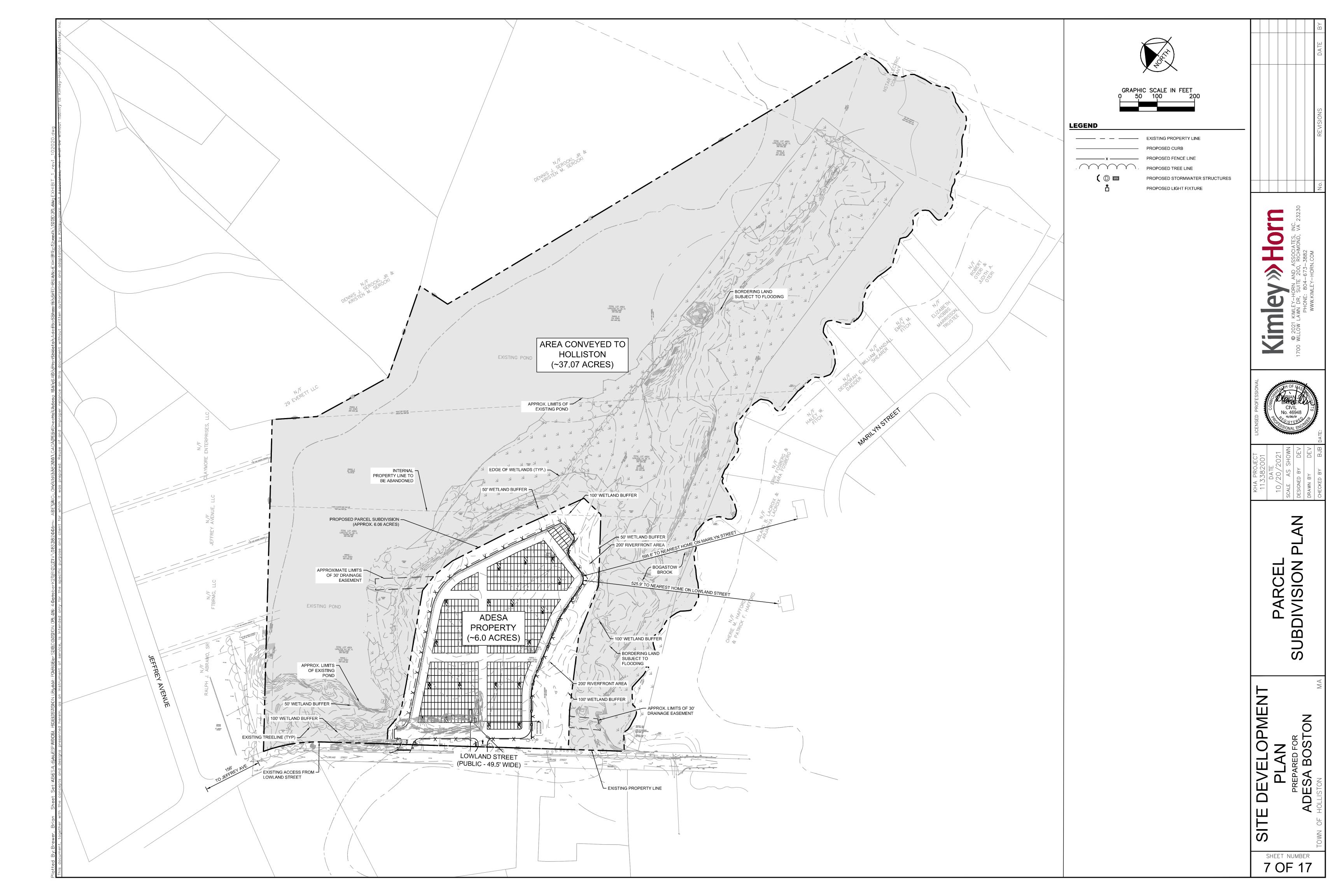
F.A.R.

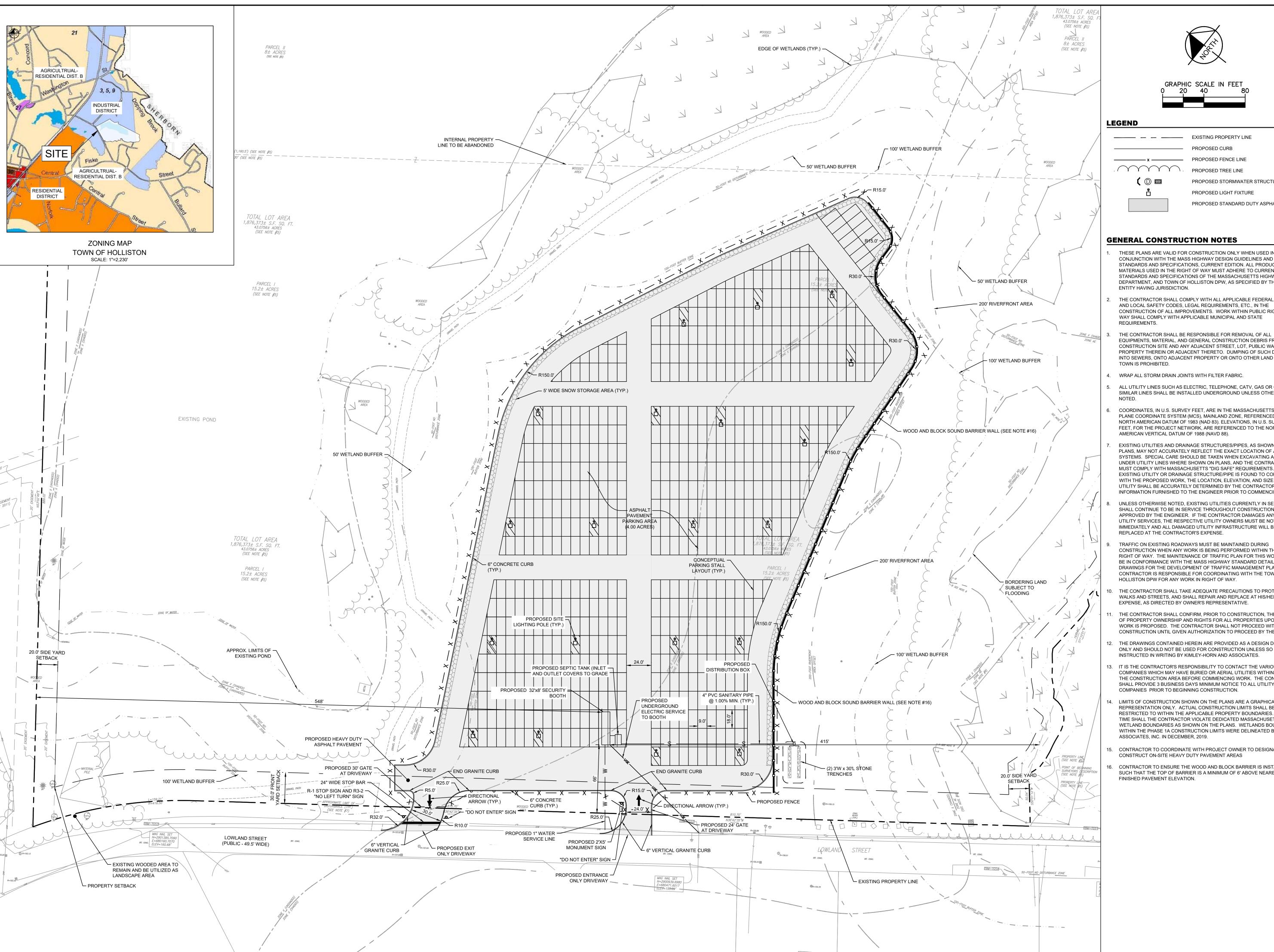
40%

0.5

S

SHEET NUMBER 6 OF 17







——— — EXISTING PROPERTY LINE PROPOSED CURB — PROPOSED FENCE LINE

PROPOSED TREE LINE PROPOSED STORMWATER STRUCTURES

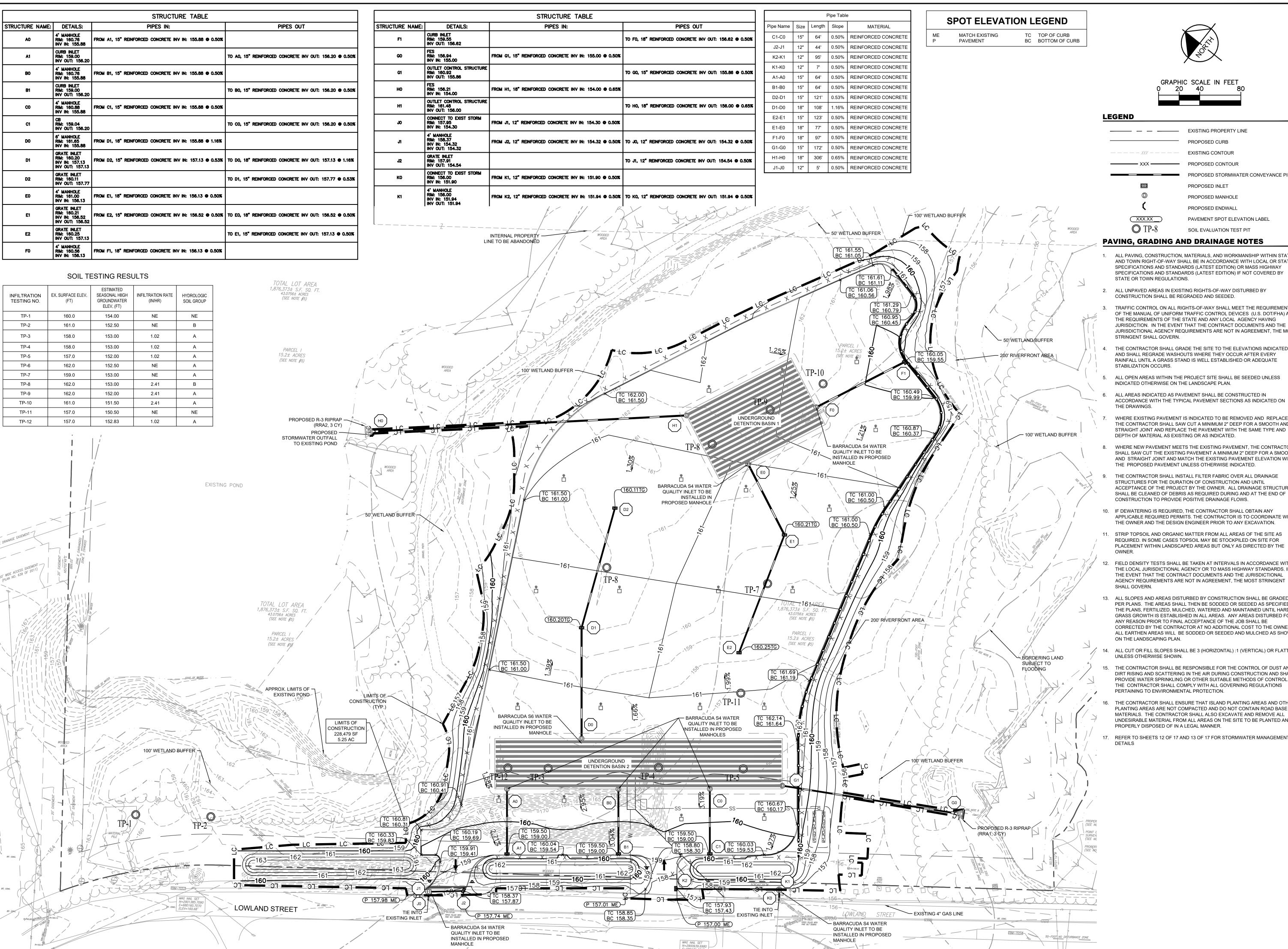
PROPOSED STANDARD DUTY ASPHALT

PROPOSED LIGHT FIXTURE

GENERAL CONSTRUCTION NOTES

- THESE PLANS ARE VALID FOR CONSTRUCTION ONLY WHEN USED IN CONJUNCTION WITH THE MASS HIGHWAY DESIGN GUIDELINES AND STANDARDS AND SPECIFICATIONS, CURRENT EDITION. ALL PRODUCTS AND MATERIALS USED IN THE RIGHT OF WAY MUST ADHERE TO CURRENT STANDARDS AND SPECIFICATIONS OF THE MASSACHUSETTS HIGHWAY DEPARTMENT, AND TOWN OF HOLLISTON DPW, AS SPECIFIED BY THE ABOVE
- THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL SAFETY CODES, LEGAL REQUIREMENTS, ETC., IN THE CONSTRUCTION OF ALL IMPROVEMENTS. WORK WITHIN PUBLIC RIGHT OF WAY SHALL COMPLY WITH APPLICABLE MUNICIPAL AND STATE
- EQUIPMENTS, MATERIAL, AND GENERAL CONSTRUCTION DEBRIS FROM THE CONSTRUCTION SITE AND ANY ADJACENT STREET, LOT, PUBLIC WAY, OR PROPERTY THEREIN OR ADJACENT THERETO. DUMPING OF SUCH DEBRIS INTO SEWERS, ONTO ADJACENT PROPERTY OR ONTO OTHER LAND IN THE
- 4. WRAP ALL STORM DRAIN JOINTS WITH FILTER FABRIC.
- ALL UTILITY LINES SUCH AS ELECTRIC, TELEPHONE, CATV, GAS OR OTHER SIMILAR LINES SHALL BE INSTALLED UNDERGROUND UNLESS OTHERWISE
- 6. COORDINATES, IN U.S. SURVEY FEET, ARE IN THE MASSACHUSETTS STATE PLANE COORDINATE SYSTEM (MCS), MAINLAND ZONE, REFERENCED TO THE NORTH AMERICAN DATUM OF 1983 (NAD 83). ELEVATIONS, IN U.S. SURVEY FEET, FOR THE PROJECT NETWORK, ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
- EXISTING UTILITIES AND DRAINAGE STRUCTURES/PIPES, AS SHOWN ON THE PLANS, MAY NOT ACCURATELY REFLECT THE EXACT LOCATION OF ALL SYSTEMS. SPECIAL CARE SHOULD BE TAKEN WHEN EXCAVATING AROUND OR UNDER UTILITY LINES WHERE SHOWN ON PLANS, AND THE CONTRACTOR MUST COMPLY WITH MASSACHUSETTS "DIG SAFE" REQUIREMENTS. WHERE AN EXISTING UTILITY OR DRAINAGE STRUCTURE/PIPE IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION, AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED BY THE CONTRACTOR AND THE INFORMATION FURNISHED TO THE ENGINEER PRIOR TO COMMENCING WORK.
- UNLESS OTHERWISE NOTED, EXISTING UTILITIES CURRENTLY IN SERVICE SHALL CONTINUE TO BE IN SERVICE THROUGHOUT CONSTRUCTION UNLESS APPROVED BY THE ENGINEER. IF THE CONTRACTOR DAMAGES ANY EXISTING UTILITY SERVICES, THE RESPECTIVE UTILITY OWNERS MUST BE NOTIFIED IMMEDIATELY AND ALL DAMAGED UTILITY INFRASTRUCTURE WILL BE
- TRAFFIC ON EXISTING ROADWAYS MUST BE MAINTAINED DURING CONSTRUCTION WHEN ANY WORK IS BEING PERFORMED WITHIN THE EXISTING RIGHT OF WAY. THE MAINTENANCE OF TRAFFIC PLAN FOR THIS WORK MUST BE IN CONFORMANCE WITH THE MASS HIGHWAY STANDARD DETAILS AND DRAWINGS FOR THE DEVELOPMENT OF TRAFFIC MANAGEMENT PLANS. CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THE TOWN OF
- 10. THE CONTRACTOR SHALL TAKE ADEQUATE PRECAUTIONS TO PROTECT ALL WALKS AND STREETS, AND SHALL REPAIR AND REPLACE AT HIS/HER OWN EXPENSE, AS DIRECTED BY OWNER'S REPRESENTATIVE.
- THE CONTRACTOR SHALL CONFIRM, PRIOR TO CONSTRUCTION, THE STATUS OF PROPERTY OWNERSHIP AND RIGHTS FOR ALL PROPERTIES UPON WHICH WORK IS PROPOSED. THE CONTRACTOR SHALL NOT PROCEED WITH ANY CONSTRUCTION UNTIL GIVEN AUTHORIZATION TO PROCEED BY THE OWNER.
- THE DRAWINGS CONTAINED HEREIN ARE PROVIDED AS A DESIGN DOCUMENT ONLY AND SHOULD NOT BE USED FOR CONSTRUCTION UNLESS SO
- 13. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE VARIOUS UTILITY COMPANIES WHICH MAY HAVE BURIED OR AERIAL UTILITIES WITHIN OR NEAR THE CONSTRUCTION AREA BEFORE COMMENCING WORK. THE CONTRACTOR SHALL PROVIDE 3 BUSINESS DAYS MINIMUM NOTICE TO ALL UTILITY
- 14. LIMITS OF CONSTRUCTION SHOWN ON THE PLANS ARE A GRAPHICAL REPRESENTATION ONLY. ACTUAL CONSTRUCTION LIMITS SHALL BE RESTRICTED TO WITHIN THE APPLICABLE PROPERTY BOUNDARIES. AT NO TIME SHALL THE CONTRACTOR VIOLATE DEDICATED MASSACHUSETTS WETLAND BOUNDARIES AS SHOWN ON THE PLANS. WETLANDS BOUNDARIES WITHIN THE PHASE 1A CONSTRUCTION LIMITS WERE DELINEATED BY EPSILON
- 15. CONTRACTOR TO COORDINATE WITH PROJECT OWNER TO DESIGNATE AND CONSTRUCT ON-SITE HEAVY DUTY PAVEMENT AREAS
- 16. CONTRACTOR TO ENSURE THE WOOD AND BLOCK BARRIER IS INSTALLED SUCH THAT THE TOP OF BARRIER IS A MINIMUM OF 6' ABOVE NEAREST

SHEET NUMBER 8 OF 17



— — — EXISTING PROPERTY LINE PROPOSED CURB ---- EXISTING CONTOUR — XXX — PROPOSED CONTOUR PROPOSED STORMWATER CONVEYANCE PIPE PROPOSED INLET PROPOSED MANHOLE PROPOSED ENDWALL PAVEMENT SPOT ELEVATION LABEL

SOIL EVALUATION TEST PIT

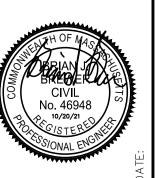
PAVING, GRADING AND DRAINAGE NOTES

- ALL PAVING, CONSTRUCTION, MATERIALS, AND WORKMANSHIP WITHIN STATE AND TOWN RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH LOCAL OR STATE SPECIFICATIONS AND STANDARDS (LATEST EDITION) OR MASS HIGHWAY SPECIFICATIONS AND STANDARDS (LATEST EDITION) IF NOT COVERED BY
- ALL UNPAVED AREAS IN EXISTING RIGHTS-OF-WAY DISTURBED BY CONSTRUCTION SHALL BE REGRADED AND SEEDED.
- TRAFFIC CONTROL ON ALL RIGHTS-OF-WAY SHALL MEET THE REQUIREMENTS OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (U.S. DOT/FHA) AND THE REQUIREMENTS OF THE STATE AND ANY LOCAL AGENCY HAVING JURISDICTION. IN THE EVENT THAT THE CONTRACT DOCUMENTS AND THE JURISDICTIONAL AGENCY REQUIREMENTS ARE NOT IN AGREEMENT, THE MOST
- THE CONTRACTOR SHALL GRADE THE SITE TO THE ELEVATIONS INDICATED AND SHALL REGRADE WASHOUTS WHERE THEY OCCUR AFTER EVERY RAINFALL UNTIL A GRASS STAND IS WELL ESTABLISHED OR ADEQUATE
- ALL OPEN AREAS WITHIN THE PROJECT SITE SHALL BE SEEDED UNLESS INDICATED OTHERWISE ON THE LANDSCAPE PLAN.
- ALL AREAS INDICATED AS PAVEMENT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE TYPICAL PAVEMENT SECTIONS AS INDICATED ON
- WHERE EXISTING PAVEMENT IS INDICATED TO BE REMOVED AND REPLACED, THE CONTRACTOR SHALL SAW CUT A MINIMUM 2" DEEP FOR A SMOOTH AND
- WHERE NEW PAVEMENT MEETS THE EXISTING PAVEMENT, THE CONTRACTOR SHALL SAW CUT THE EXISTING PAVEMENT A MINIMUM 2" DEEP FOR A SMOOTH AND STRAIGHT JOINT AND MATCH THE EXISTING PAVEMENT ELEVATION WITH
- THE CONTRACTOR SHALL INSTALL FILTER FABRIC OVER ALL DRAINAGE STRUCTURES FOR THE DURATION OF CONSTRUCTION AND UNTIL ACCEPTANCE OF THE PROJECT BY THE OWNER. ALL DRAINAGE STRUCTURES SHALL BE CLEANED OF DEBRIS AS REQUIRED DURING AND AT THE END OF
- 10. IF DEWATERING IS REQUIRED, THE CONTRACTOR SHALL OBTAIN ANY APPLICABLE REQUIRED PERMITS. THE CONTRACTOR IS TO COORDINATE WITH THE OWNER AND THE DESIGN ENGINEER PRIOR TO ANY EXCAVATION.

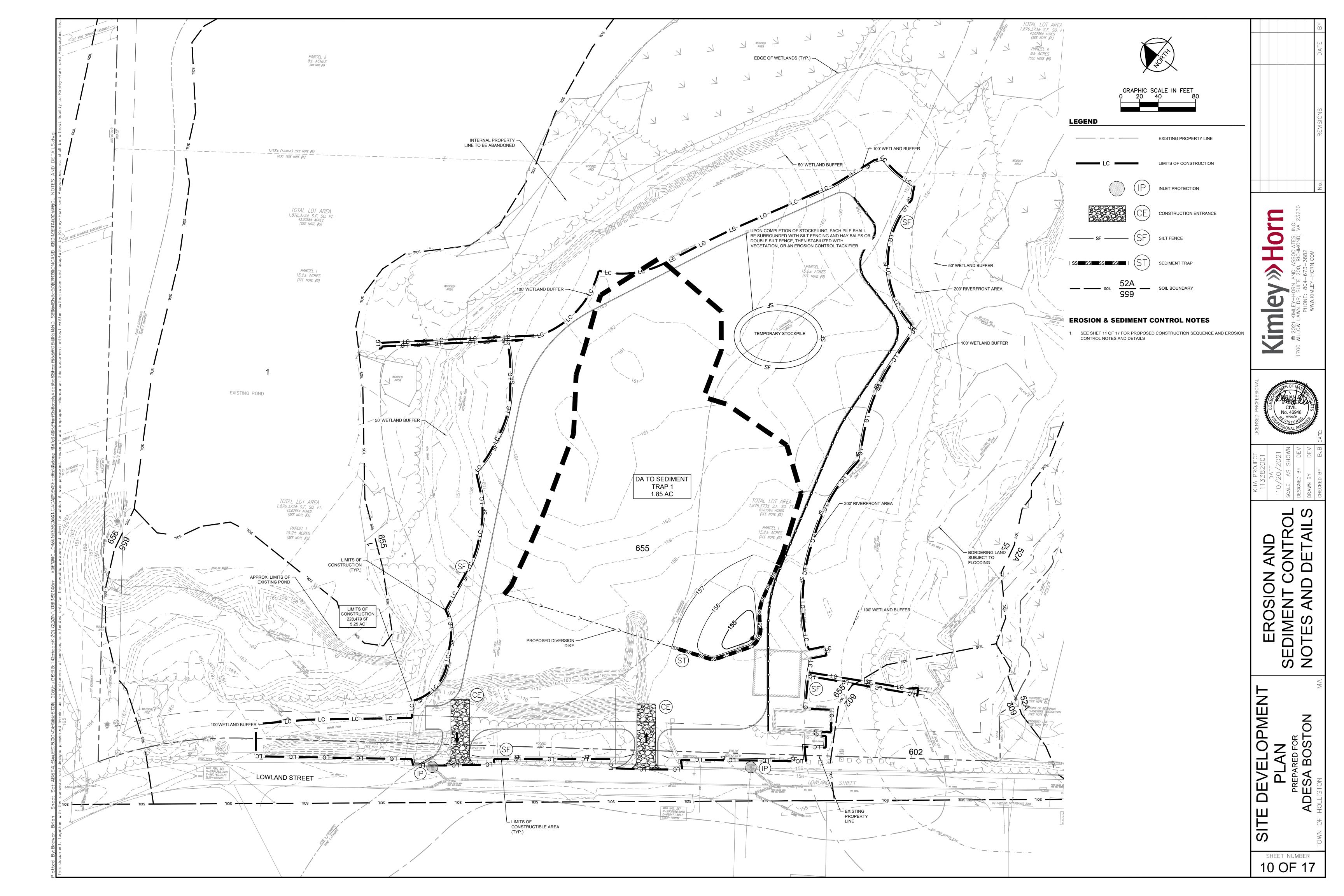
11. STRIP TOPSOIL AND ORGANIC MATTER FROM ALL AREAS OF THE SITE AS REQUIRED. IN SOME CASES TOPSOIL MAY BE STOCKPILED ON SITE FOR PLACEMENT WITHIN LANDSCAPED AREAS BUT ONLY AS DIRECTED BY THE

- FIELD DENSITY TESTS SHALL BE TAKEN AT INTERVALS IN ACCORDANCE WITH THE LOCAL JURISDICTIONAL AGENCY OR TO MASS HIGHWAY STANDARDS. IN THE EVENT THAT THE CONTRACT DOCUMENTS AND THE JURISDICTIONAL AGENCY REQUIREMENTS ARE NOT IN AGREEMENT, THE MOST STRINGENT
- ALL SLOPES AND AREAS DISTURBED BY CONSTRUCTION SHALL BE GRADED AS PER PLANS. THE AREAS SHALL THEN BE SODDED OR SEEDED AS SPECIFIED IN THE PLANS, FERTILIZED, MULCHED, WATERED AND MAINTAINED UNTIL HARDY GRASS GROWTH IS ESTABLISHED IN ALL AREAS. ANY AREAS DISTURBED FOR ANY REASON PRIOR TO FINAL ACCEPTANCE OF THE JOB SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. ALL EARTHEN AREAS WILL BE SODDED OR SEEDED AND MULCHED AS SHOWN
- ALL CUT OR FILL SLOPES SHALL BE 3 (HORIZONTAL) :1 (VERTICAL) OR FLATTER
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF DUST AND DIRT RISING AND SCATTERING IN THE AIR DURING CONSTRUCTION AND SHALL PROVIDE WATER SPRINKLING OR OTHER SUITABLE METHODS OF CONTROL. THE CONTRACTOR SHALL COMPLY WITH ALL GOVERNING REGULATIONS PERTAINING TO ENVIRONMENTAL PROTECTION.
- THE CONTRACTOR SHALL ENSURE THAT ISLAND PLANTING AREAS AND OTHER PLANTING AREAS ARE NOT COMPACTED AND DO NOT CONTAIN ROAD BASE MATERIALS. THE CONTRACTOR SHALL ALSO EXCAVATE AND REMOVE ALL UNDESIRABLE MATERIAL FROM ALL AREAS ON THE SITE TO BE PLANTED AND PROPERLY DISPOSED OF IN A LEGAL MANNER.
- REFER TO SHEETS 12 OF 17 AND 13 OF 17 FOR STORMWATER MANAGEMENT

0



SHEET NUMBER 9 OF 17



- THE CONTRACTOR SHALL APPLY PERMANENT OR TEMPORARY SOIL STABILIZATION TO ALL DENUDED OR DISTURBED AREAS WITHIN 7 DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. SOIL STABILIZATION MUST ALSO BE APPLIED TO DENUDED OR DISTURBED AREAS WHICH MAY NOT BE AT FINAL GRADE BUT WHICH WILL REMAIN UNDISTURBED FOR LONGER THAN 30 DAYS. SOIL STABILIZATION MEASURES INCLUDE VEGETATIVE ESTABLISHMENT, MULCHING, AND THE EARLY APPLICATION OF GRAVEL BASE MATERIAL ON AREAS TO BE PAVED.
- 2. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN LAND DISTURBANCE. THE EROSION CONTROLS WITHIN 100 FEET OF ANY WETLAND RESOURCE SHALL BE INSPECTED AND APPROVED IN WRITING BY THE HOLLISTON CONSERVATION AGENT BEFORE ANY OTHER SITE WORK IS
- 5. THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES PERIODICALLY AND AFTER EACH RUNOFF PRODUCING RAINFALL EVENT. ANY NECESSARY REPAIRS TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES AND CLEANUP OF SEDIMENTATION ARE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE
- 5. THE CONTRACTOR SHALL LIMIT SITE ACCESS BY CONSTRUCTION VEHICLES TO ENTRANCES PROTECTED BY AN EXISTING PAVEMENT OR STONE STABILIZED CONSTRUCTION ENTRANCE OR AN APPROVED COMPARABLE CONTROL MEASURE. SEDIMENT SHALL BE REMOVED FROM PAVED AREAS ON A DAILY BASIS.
- 6. STOCKPILES OF SOIL AND OTHER ERODIBLE MATERIALS SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. THE CONTRACTOR IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION FOR STOCKPILES ON SITE AS WELL AS FOR MATERIALS TRANSPORTED FROM THE PROJECT SITE. STOCKPILES SHALL BE LOCATED AWAY FROM WETLAND RESOURCE BUFFER AREAS.
- . THE CONTRACTOR SHALL MONITOR AND TAKE PRECAUTIONS TO CONTROL DUST, INCLUDING (BUT NOT LIMITED TO) USE OF WATER, MULCH, OR CHEMICAL DUST ADHESIVES AND CONTROL OF CONSTRUCTION SITE TRAFFIC.
- 8. EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT ADJACENT PROPERTIES, WETLANDS, WATERWAYS OR THE STORM DRAINAGE SYSTEM.
- 9. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION AND MAINTENANCE OF ANY ADDITIONAL CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED NECESSARY BY THE PLAN APPROVING AUTHORITY.
- IO. TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES ARE NOT TO BE REMOVED UNTIL ALL DISTURBED AREAS ARE STABILIZED. AFTER STABILIZATION IS COMPLETE, ALL MEASURES SHALL BE REMOVED WITHIN 30 DAYS. TRAPPED SEDIMENT SHALL BE SPREAD AND SEEDED.
- 11. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN ALL PROPOSED EROSION AND SEDIMENT CONTROL PRACTICES DURING CONSTRUCTION SUCH THAT THE CONDITION OF SAID CONTROL CONTINUES THE INTENDED FORM AND FUNCTION AS OUTLINED IN THESE PLANS. THE FOLLOWING CONSTRUCTION SEQUENCE IS PROPOSED:

INITIAL EROSION & SEDIMENT CONTROL

INSTALL ALL PERIMETER COMBINATION AND SILT FENCE TO CLEARING/DISTURBANCE LIMITS SPECIFIED ON PLANS. 2. INSTALL ALL REQUIRED INLET PROTECTION AS SPECIFIED ON THE PLANS.

OVERALL CONSTRUCTION

- BEGIN CLEARING AND DEMOLITION ACTIVITIES AND ROUGH GRADING OF SITE.
- INSTALL STORM DRAINAGE SYSTEM AND UNDERGROUND UTILITIES. INSTALL INLET PROTECTION ON ALL NEW INLET STRUCTURES AS THEY ARE CONSTRUCTED.
- CLEAR AND GRUB SITE TO CLEARING LIMIT LINES OR PROPOSED TREE LINES AS SPECIFIED ON PLANS. INSTALL CURB.
- FINE GRADE SUBGRADE AND PLACE BASE STONE. GRADE FROM BACK OF CURB TO RIGHT-OF-WAY OR TO PROPOSED SPOT ELEVATIONS/CONTOURS, WHERE INDICATED.
- PAVE AND STRIPE . DRESS AND OVERSEED ALL DISTURBED AREAS. 10. STABILIZE THE SITE.

FINAL EROSION & SEDIMENT CONTROL

1. REMOVE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES WITHIN 30 DAYS OF SITE STABILIZATION.

DURING CONSTRUCTION, THE RESPONSIBLE LAND DISTURBER SHALL PERIODICALLY (EVERY SEVEN CALENDAR DAYS DURING CONSTRUCTION AND WITHIN 24 HOURS FOLLOWING A RAINFALL OF 0.5 INCHES OR GREATER) INSPECT THE SITE FOR EVIDENCE OF OFF-SITE SEDIMENT TRACKING. ALL DISTURBED AREAS SHALL BE EVALUATED TO DETERMINE IF THE MEASURES ARE FUNCTIONING PROPERLY. ANY DEFICIENCIES SHALL BE CORRECTED IMMEDIATELY. THE CONTRACTOR WILL BE RESPONSIBLE FOR SUBMITTING A WEEKLY EROSION CONTROL INSPECTION REPORT TO THE TOWN OF HOLLISTON FOLLOWING THEIR REVIEW OF THE SITE. MANAGEMENT STRATEGIES AND SEQUENCE OF EROSION CONTROL MEASURES

UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE MINIMUM STANDARDS AND SPECIFICATIONS OUTLINED IN THESE PLANS AND ACCORDING TO THE MASSACHUSETTS DOT DRAINAGE MANUAL.

- THE FOLLOWING SEQUENCE OF EVENTS AND EROSION CONTROL MEASURES SHALL BE INCORPORATED INTO THE CONSTRUCTION SCHEDULE FOR THIS PROJECT AND SHALL APPLY TO ALL CONSTRUCTION ACTIVITIES WITHIN PROJECT LIMITS:
- 1. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN LAND DISTURBANCE.
- A. WHERE CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED PUBLIC ROADS, PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT ONTO THE PAVED SURFACE. WHERE SEDIMENT IS TRANSPORTED ONTO A PAVED PUBLIC ROAD SURFACE, THE ROAD SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER. THIS PROVISION SHALL APPLY TO INDIVIDUAL SUBDIVISION LOTS AS WELL AS LARGER LAND DISTURBING

B. CONSTRUCTION TRAFFIC SHALL BE LIMITED TO ACCESS ROADS. ALL TRAFFIC IS PROHIBITED FROM CROSSING DRAINAGE SWALES AND STREAMS EXCEPT WHERE

- SEDIMENT BARRIERS, CONSTRUCTION ENTRANCES, AND EROSION CONTROL STONE ARE TO BE PLACED PRIOR TO CLEARING AND GRUBBING AND PRIOR TO THE FIRST PHASE OF CONSTRUCTION.
- ALL PERMANENT STORM WATER MANAGEMENT FACILITIES INCLUDING EROSION CONTROL MEASURES ARE TO BE BE INSTALLED AND MADE OPERATIONAL AT THE START OF CLEARING OPERATIONS INCLUDING APPROVED SEDIMENT BASINS.
- 5. THE CONTRACTOR SHALL COMPLETE DRAINAGE FACILITIES WITHIN THIRTY (30) DAYS FOLLOWING COMPLETION OF ROUGH GRADING AT ANY POINT WITHIN THE PROJECT.
- 6. CONSTRUCTION WILL BE SEQUENCED SO THAT GRADING OPERATIONS CAN BEGIN AND END AS QUICKLY AS POSSIBLE.
- AREAS WHICH ARE NOT TO BE DISTURBED WILL BE CLEARLY MARKED BY FENCING, FLAGS, SIGNS, ETC.
- 8. A. PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN (7) DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE, TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN (7) DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT (UNDISTURBED) FOR LONGER THAN THIRTY (30) DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE

B. DURING CONSTRUCTION OF THE PROJECT, SOIL STOCKPILES SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. THE CONTRACTOR IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE.

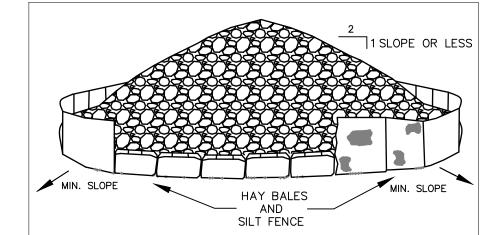
C. A PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED ON DENUDED AREAS NOT OTHERWISE PERMANENTLY STABILIZED. PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED THAT IN THE OPINION OF THE LOCAL PROGRAM ADMINISTRATOR OR HIS DESIGNATED AGENT, IS UNIFORM AND MATURE ENOUGH TO SURVIVE AND WILL INHIBIT EROSION. VEGETATIVE COVER SHALL BE ESTABLISHED ACCORDING TO THE SEEDING SCHEDULE. (HYDROSEEDING MAY BE USED IN PLACE OF MULCHING ON AREAS OTHER THAN DITCH BANKS.) STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIVERSIONS, AND DITCH OR WATERCOURSE BEDS AND BANKS IMMEDIATELY AFTER INSTALLATION.

- A. ALL STORM SEWER INLETS THAT ARE TO BE USED FOR DRAINAGE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT SEDIMENT-LADEN WATER CANNOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT. B. BEFORE NEWLY CONSTRUCTED CONVEYANCE CHANNELS ARE MADE OPERATIONAL, ADEQUATE OUTLET PROTECTION AND ANY REQUIRED TEMPORARY OR PERMANENT CHANNEL LINING SHALL BE INSTALLED IN BOTH THE CONVEYANCE CHANNEL AND RECEIVING CHANNEL.
- 10. A. CUT AND FILL SLOPES SHALL BE DESIGNED AND CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION. SLOPES THAT ARE FOUND TO BE ERODING EXCESSIVELY WITHIN ONE (1) YEAR OF PERMANENT STABILIZATION SHALL BE PROVIDED WITH ADDITIONAL SLOPE STABILIZATION MEASURES UNTIL THE PROBLEM IS CORRECTED. B. CONCENTRATED RUNOFF SHALL NOT FLOW DOWN CUT OR FILL SLOPES UNLESS CONTAINED WITHIN AN ADEQUATE TEMPORARY OR PERMANENT CHANNEL, FLUME, OR SLOPE DRAIN STRUCTURE.
- THE CONTRACTOR SHALL LIMIT SITE ACCESS BY CONSTRUCTION VEHICLES TO ENTRANCES PROTECTED BY A STONE CONSTRUCTION ENTRANCE OR AN APPROVED COMPARABLE CONTROL MEASURE. SEDIMENT SHALL BE REMOVED FROM PAVED AREAS ON A DAILY BASIS.
- 12. THE PLAN APPROVING AUTHORITY MUST BE NOTIFIED ONE (1) WEEK PRIOR TO THE PRECONSTRUCTION CONFERENCE, ONE (1) WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITY, AND ONE (1) WEEK PRIOR TO THE FINAL INSPECTION.
- ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN THIRTY (30) DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED, UNLESS OTHERWISE AUTHORIZED BY THE LOCAL PROGRAM ADMINISTRATOR. TRAPPED SEDIMENT AND THE DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION.
- EFFLUENT FROM DE-WATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, SEDIMENTATION TANK OR STRAW BALE/SILT FENC PIT. OR BOTH. AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT ADJACENT PROPERTIES, WETLANDS, WATERWAYS OR THE STORM DRAINAGE SYSTEM. CONTRACTOR IS RESPONSIBLE FOR SIZING TANK OR PITS BASED ON PROPOSED FLOWS FROM DEWATERING OPERATIONS. THIS INCLUDES THE USE OF MULTIPLE FACILITIES, IF NECESSARY. GRAVITY BAG FILTERS MAY BE USED IN LIEU OF SEDIMENTATION TANKS OR STRAW BALE/SILT FENCE PITS FOR MINOR DEWATERING OPERATIONS. THESE METHODS MUST BE APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION AND USE.
- THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION AND MAINTENANCE OF ANY ADDITIONAL CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED NECESSARY BY THE PLAN APPROVING AUTHORITY.
- 16. THE CONTRACTOR SHALL USE JUTE MESH OR APPROVED EQUIVALENT BETWEEN THE BACK OF CURB AND EDGE OF DISTURBED AREAS ON ALL SIDE SLOPES 4:1 OR
- 17. FAILURE OF THE CONTRACTOR TO PROVIDE THE ABOVE MENTIONED E & S MEASURES IS A BREECH OF CONTRACT.

MANAGEMENT STRATEGIES AND SEQUENCE OF EROSION CONTROL MEASURES

IN GENERAL, ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CHECKED AFTER EACH RAINFALL, OR WEEKLY, WHICHEVER IS MOST FREQUENT, AND SHOULD BE CLEANED AND REPAIRED ACCORDING TO THE FOLLOWING SCHEDULE.

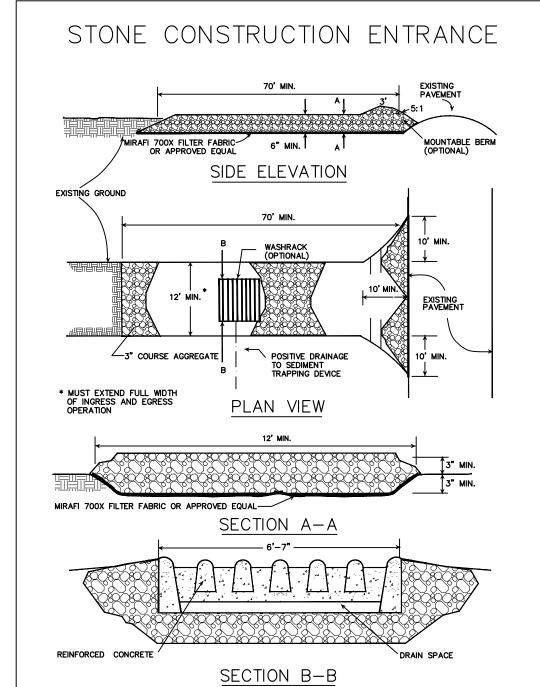
- EROSION AND SEDIMENT CONTROL MEASURES WILL BE CHECKED REGULARLY FOR UNDERMINING OR DETERIORATION AND BUILD-UP OR CLOGGING WITH SEDIMENT. CORRECTIVE ACTION WILL BE TAKEN IMMEDIATELY.
- EROSION AND SEDIMENT CONTROL MEASURES WHICH HAVE FAILED AND ARE BEYOND REPAIR SHALL BE REMOVED AND REPLACED BY CONTRACTOR.
- 3. ALL SEEDED AREAS WILL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED AND RE-SEEDED AS NECESSARY.
- ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE DISPOSED OF WITHIN THIRTY (30) DAYS AFTER FINAL INSPECTION AND APPROVAL BY TOWN OF HOLLISTON CONSERVATION COMMISSION
- STOCK PILES OF SOIL AND OTHER ERODIBLE MATERIALS SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. THE CONTRACTOR IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION FOR STOCKPILES ON SITE AS WELL AS FOR MATERIALS TRANSPORTED FROM THE PROJECT SITE.

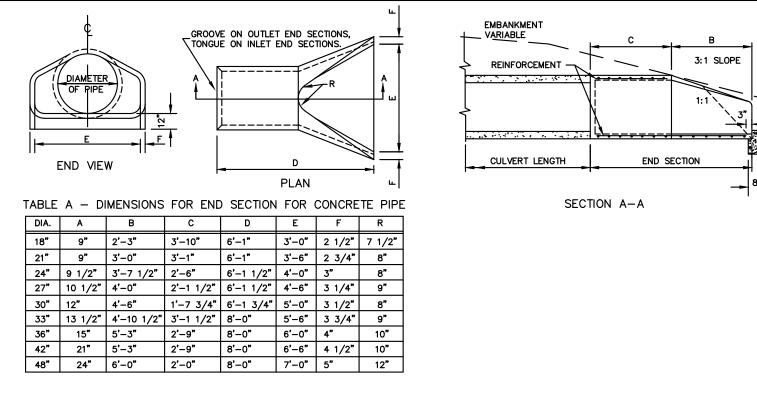


INSTALLATION NOTES:

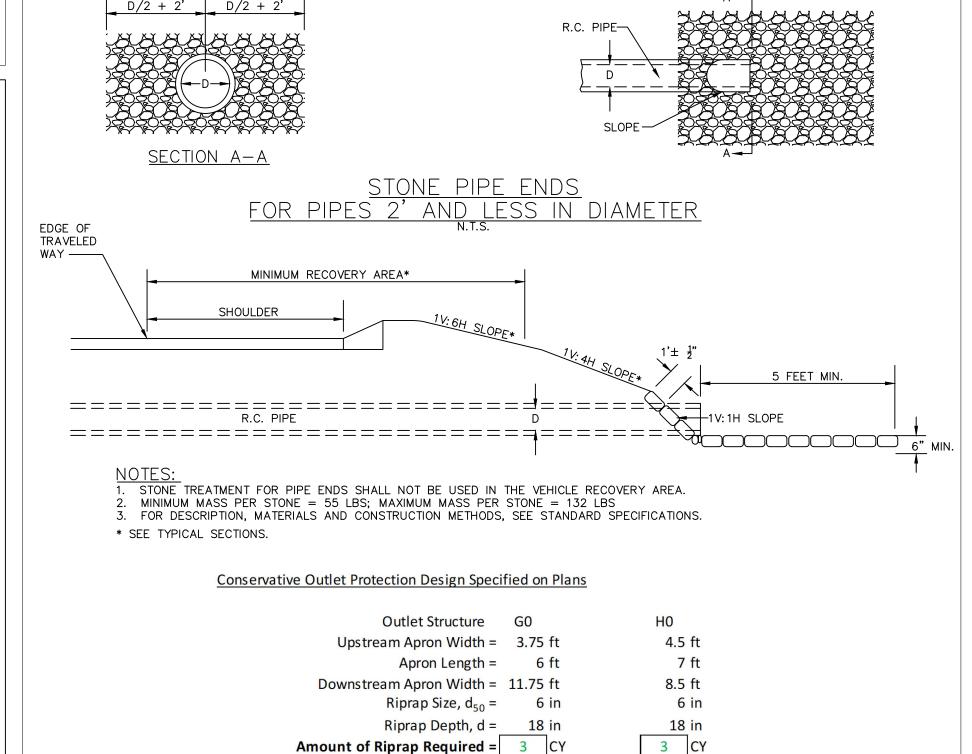
- AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
- 2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 2 : 1.
- 3. UPON COMPLETION OF STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH SILT FENCING AND HAY BALES OR DOUBLE SILT FENCE, THEN STABILIZED WITH VEGETATION, OR AN EROSION CONTROL TACKIFIER.
- 4. SEE SPECIFICATIONS FOR INSTALLATION OF SILT FENCE AND

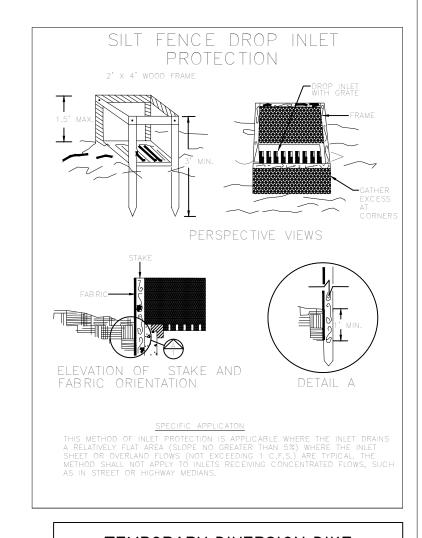
MATERIAL(S) STOCKPILE

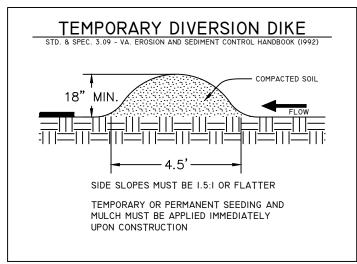


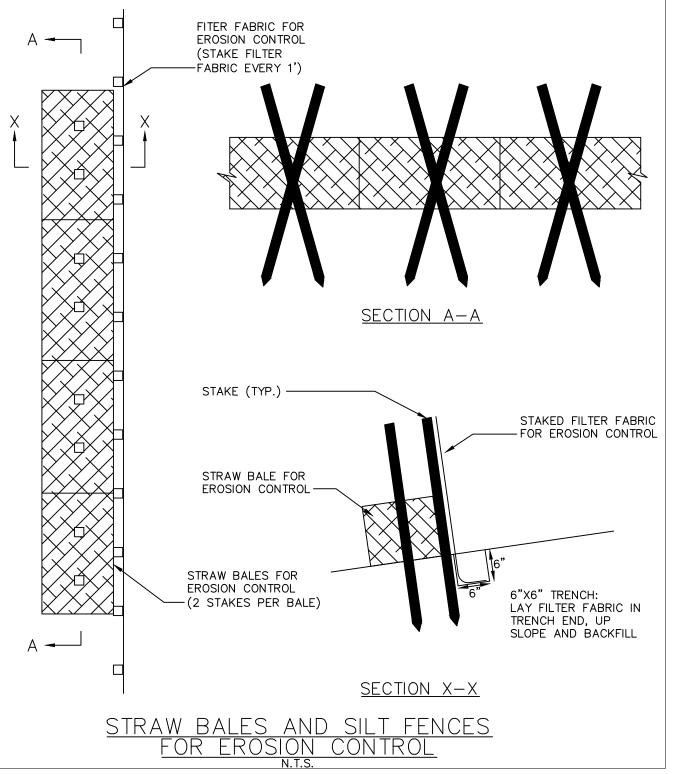


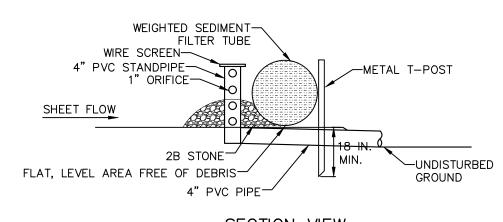
FLARED END SECTION DETAIL



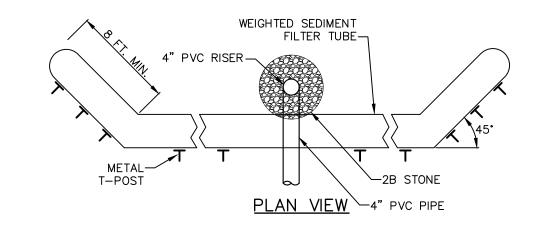








SECTION VIEW



STANDPIPE RISER SHALL BE DRILLED WITH 2-1" HOLES PER VERTICAL FOOT

SEDIMENT TRAP OUTLET/RISER STRUCTURE

SHEET NUMBER 11 OF 17

Z





ADESA DET 1 HOLLISTON, MA

SC-740 STORMTECH CHAMBER SPECIFICATIONS

- CHAMBERS SHALL BE STORMTECH SC-740.
- CHAMBERS SHALL BE ARCH-SHAPED AND SHALL BE MANUFACTURED FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE COPOLYMERS.
- CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418-16a, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- 4. CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORTS THAT WOULD
- IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION. THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRPD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
- 6. CHAMBERS SHALL BE DESIGNED, TESTED AND ALLOWABLE LOAD CONFIGURATIONS DETERMINED IN ACCORDANCE WITH ASTM F2787,
 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
 LOAD CONFIGURATIONS SHALL INCLUDE: 1) INSTANTANEOUS (<1 MIN) AASHTO DESIGN TRUCK LIVE LOAD ON MINIMUM COVER 2)
 MAXIMUM PERMANENT (75-YR) COVER LOAD AND 3) ALLOWABLE COVER WITH PARKED (1-WEEK) AASHTO DESIGN TRUCK.
- REQUIREMENTS FOR HANDLING AND INSTALLATION:

 TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING
- TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS.
- TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 550 LBS/IN/IN. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.
- ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. UPON REQUEST BY THE SITE DESIGN ENGINEER OR OWNER, THE CHAMBER MANUFACTURER SHALL SUBMIT A STRUCTURAL EVALUATION FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE AS FOLLOWS:
- ELIVERING CHAMBERS TO THE PROJECT SITE AS FOLLOWS:
 THE STRUCTURAL EVALUATION SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER.
 THE STRUCTURAL EVALUATION SHALL DEMONSTRATE THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.95 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIRED BY ASTM F2787 AND BY SECTIONS 3 AND 12.12 OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR THERMOPLASTIC PIPE.
- THE TEST DERIVED CREEP MODULUS AS SPECIFIED IN ASTM F218 SHALL BE USED FOR PERMANENT DEAD LOAD DESIGN EXCEPT THAT IT SHALL BE THE 75-YEAR MODULUS USED FOR DESIGN. 9. CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.

IMPORTANT - NOTES FOR THE BIDDING AND INSTALLATION OF THE SC-740 SYSTEM

- 1. STORMTECH SC-740 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A
- STORMTECH SC-740 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
- CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR AN EXCAVATOR SITUATED OVER THE CHAMBERS. STORMTECH RECOMMENDS 3 BACKFILL METHODS:
 STONESHOOTER LOCATED OFF THE CHAMBER BED.
 BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.
 BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.

4. THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS.

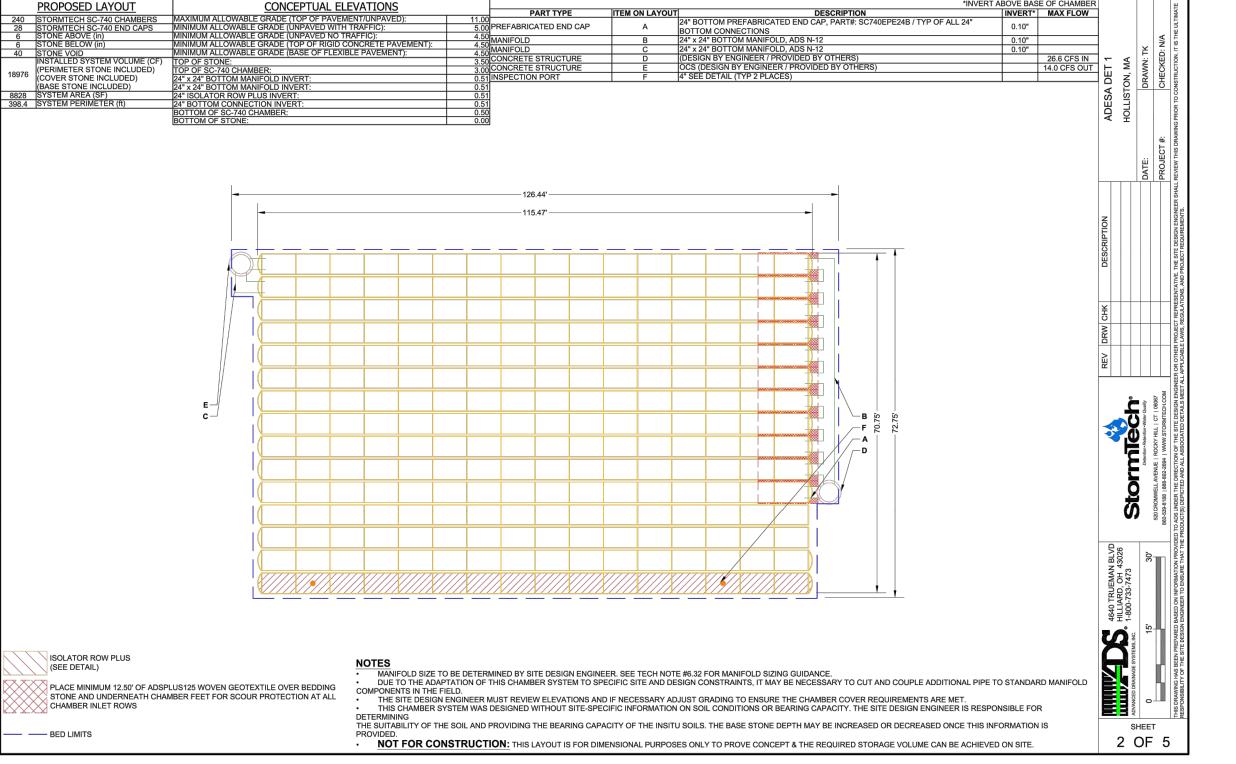
- 5. JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
- MAINTAIN MINIMUM 6" (150 mm) SPACING BETWEEN THE CHAMBER ROWS.
- 7. EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE 3/4-2" (20-50 mm). 8. THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE SITE DESIGN
- 9. ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE
- STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF. NOTES FOR CONSTRUCTION EQUIPMENT
- 1. STORMTECH SC-740 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE". 2. THE USE OF CONSTRUCTION EQUIPMENT OVER SC-740 CHAMBERS IS LIMITED:
- NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.
 NO RUBBER TIRED LOADERS, DUMP TRUCKS, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
 WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".

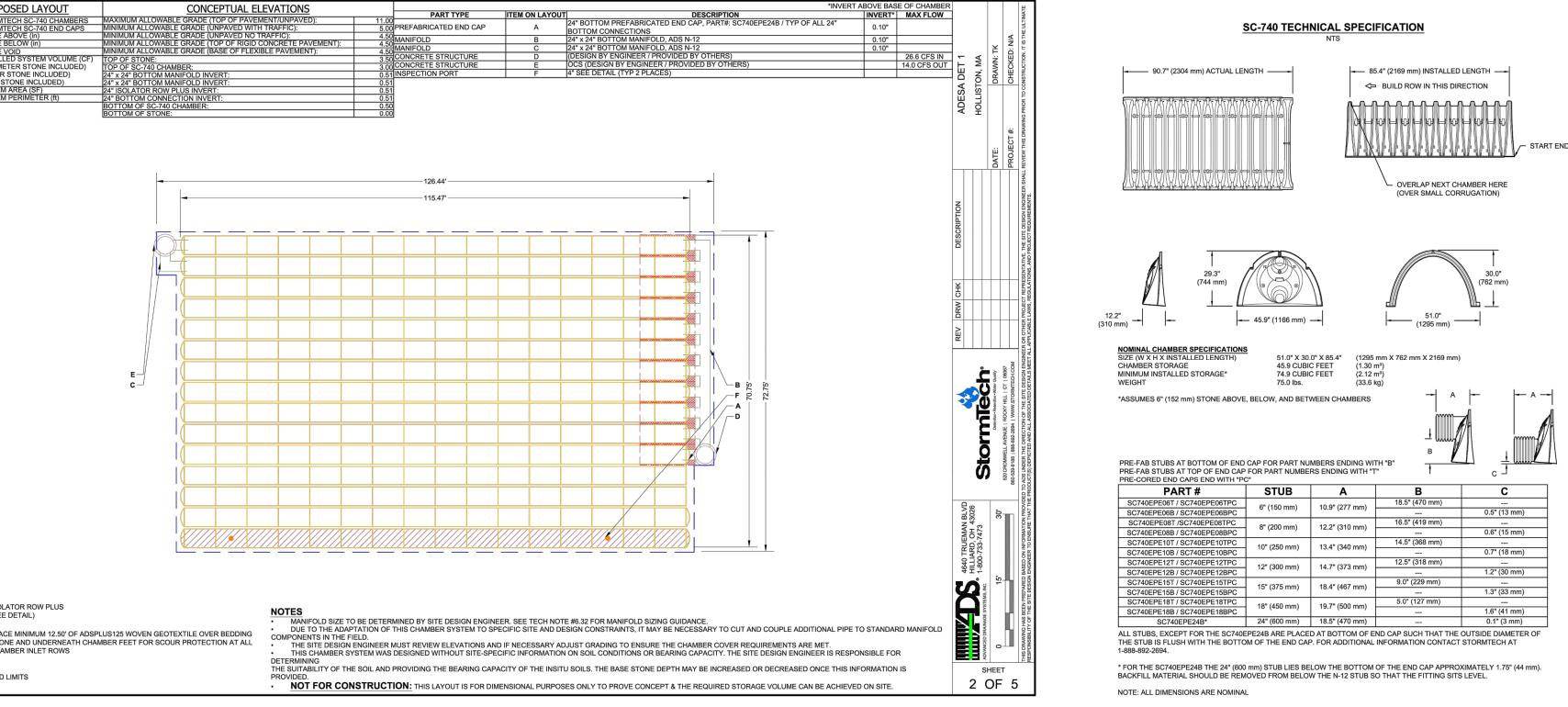
3 OF 5

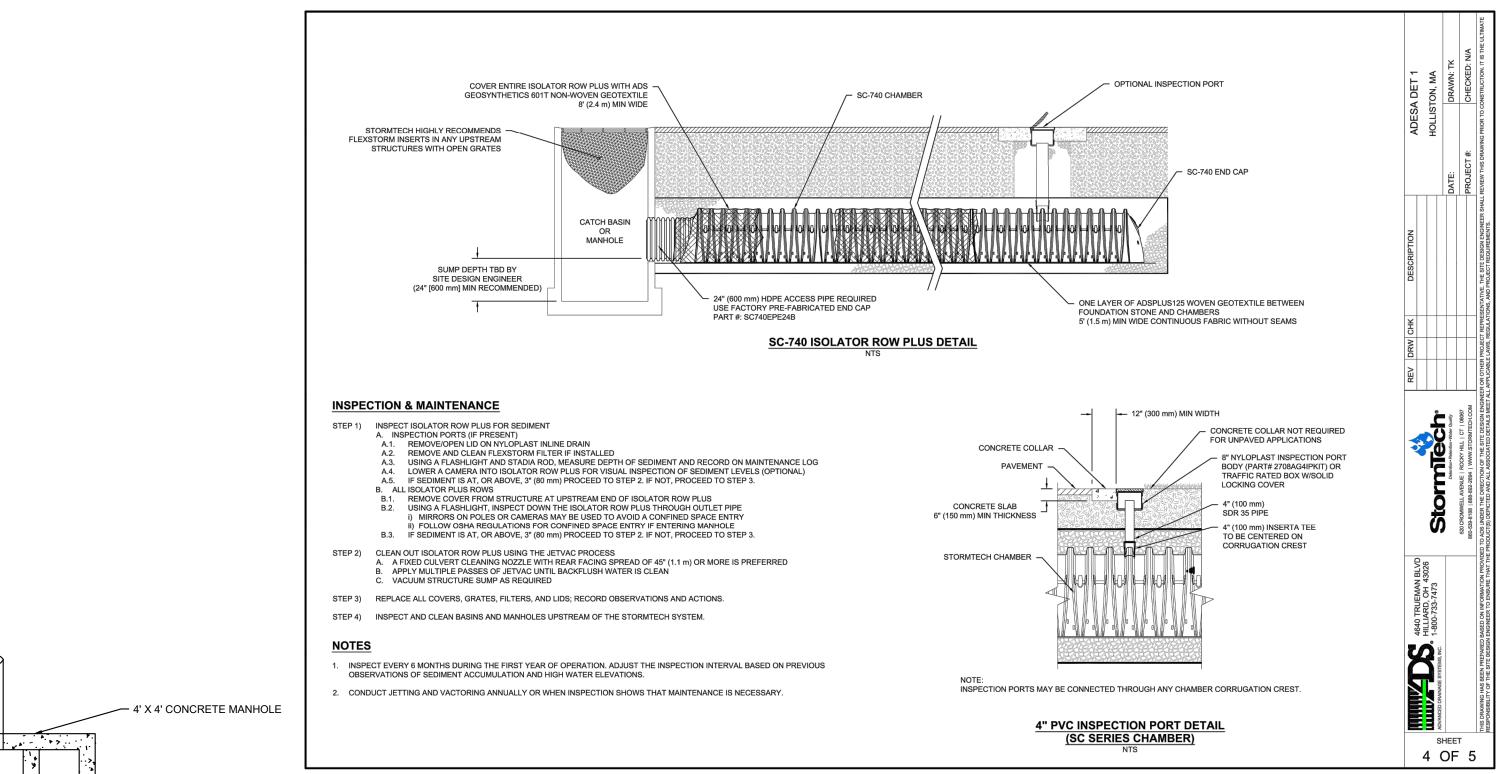
3. FULL 36" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING. USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO THE CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH

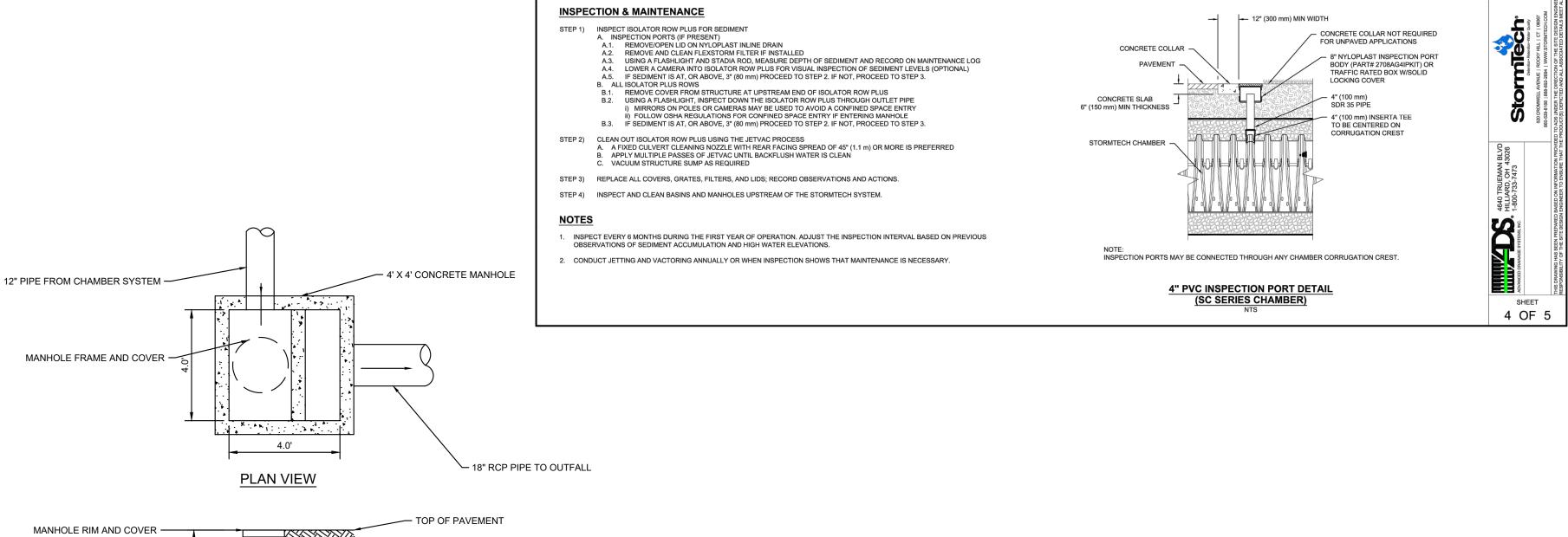
CONTACT STORMTECH AT 1-888-892-2694 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.

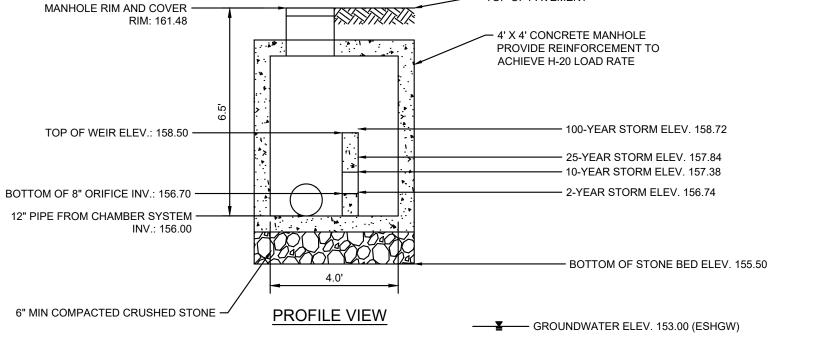
| | ACCEPTA | BLE FILL MATERIALS: STORMTECH SC | -740 CHAMBER SYSTEMS | | | | 4 HE ULTIMA |
|--|---|--|---|--|-------------|---|---|
| MATERIAL LOCATION | | DESCRIPTION | AASHTO MATERIAL CLASSIFICATIONS | COMPACTION / DENSITY REQUIREMENT | - | A X: | CHECKED: N/A |
| D FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER. | | ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS. | N/A | PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS. | ADESA DET 1 | HOLLISTON, MA | CHEC |
| C INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER. | | GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER. | AASHTO M145¹ A-1, A-2-4, A-3 OR AASHTO M43¹ 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10 | BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN). | AD | HOI DATE: | PROJECT #: |
| В | EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE. | CLEAN, CRUSHED, ANGULAR STONE | AASHTO M43 ¹ 3, 357, 4, 467, 5, 56, 57 | NO COMPACTION REQUIRED. | | | IEER SHALL |
| Α | FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER. | CLEAN, CRUSHED, ANGULAR STONE | AASHTO M43 ¹ 3, 357, 4, 467, 5, 56, 57 | PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. ^{2,3} | DESCRIPTION | | SIGN ENGIN |
| | ADS GEOSYNTHETICS 601T AROUND CLEAN, CRUSHED, ANG | ********* | PAVEMENT LAYER (DESIGNED BY SITE DESIGN ENGINEER) | 8' | REV DRW CH | Ajs | H.COM H.COM SIN ENGINEER OR OTHER PROJECT F |
| | PERIMETER STONE (SEE NOTE 5) EXCAVATION WALL (CAN BE SLOPED OR VERTICAL) | B SC-740 END CAP SUBGRADE SOILS (150 mm) MIN | TIONS WHERE RUTING FROM VEHICLES MAY OCCUR. 10 " (150 mm) 6" (150 mm) 30" (760 mm) | 18" (2.4 m) (450 mm) MIN* MAX (ELEV. 158.50) | | StormTech Defendor-Retendor-Water Coat | 520 GROMWELL AVENUE ROCKY HILL C: un 800-529-8188 888-892-2694 WWW. STORNITECH AIDED TO ADS UNDER THE DIRECTION OF THE SITE DESIG |
| | | (SEE NOTE 4) | | (ELEV. 153.00) ESTIMATED SEASONAL HIGH GROUNDWATER TABLE | UEMAN BLVD | 3-7473 | NFORMATION PROV |
| 101 | TES: AMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418-16a, "STANDARD SP-740 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STAN E SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESINSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS. | DARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGAT | ED WALL STORMWATER COLLECTION CHAMBERS". | | 4640 TRUEMA | ae systems, inc. | IS BEEN PREPARED BASED ON IN |











OUTLET CONTROL STRUCTURE H1

1" = 3'

S

0

SHEET NUMBER 12 OF 17





ADESA DET 2 HOLLISTON 2, MA

SC-740 STORMTECH CHAMBER SPECIFICATIONS

- CHAMBERS SHALL BE STORMTECH SC-740.
- 2. CHAMBERS SHALL BE ARCH-SHAPED AND SHALL BE MANUFACTURED FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE
- CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418-16a, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- 4. CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORTS THAT WOULD
- IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION. 5. THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1)

 LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION
- FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
- 6. CHAMBERS SHALL BE DESIGNED, TESTED AND ALLOWABLE LOAD CONFIGURATIONS DETERMINED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". LOAD CONFIGURATIONS SHALL INCLUDE: 1) INSTANTANEOUS (<1 MIN) AASHTO DESIGN TRUCK LIVE LOAD ON MINIMUM COVER 2) MAXIMUM PERMANENT (75-YR) COVER LOAD AND 3) ALLOWABLE COVER WITH PARKED (1-WEEK) AASHTO DESIGN TRUCK.
- TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING
- TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS. TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 550 LBS/IN/IN. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.
- ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. UPON REQUEST BY THE SITE DESIGN ENGINEER OR OWNER, THE CHAMBER MANUFACTURER SHALL SUBMIT A STRUCTURAL EVALUATION FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE AS FOLLOWS:
- THE STRUCTURAL EVALUATION SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER.
- THE STRUCTURAL EVALUATION SHALL DEMONSTRATE THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.95 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIRED BY ASTM F2787 AND BY SECTIONS 3 AND 12.12 OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR THERMOPLASTIC PIPE. THE TEST DERIVED CREEP MODULUS AS SPECIFIED IN ASTM F2418 SHALL BE USED FOR PERMANENT DEAD LOAD DESIGN EXCEPT THAT IT SHALL BE THE 75-YEAR MODULUS USED FOR DESIGN.
- 9. CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.

IMPORTANT - NOTES FOR THE BIDDING AND INSTALLATION OF THE SC-740 SYSTEM

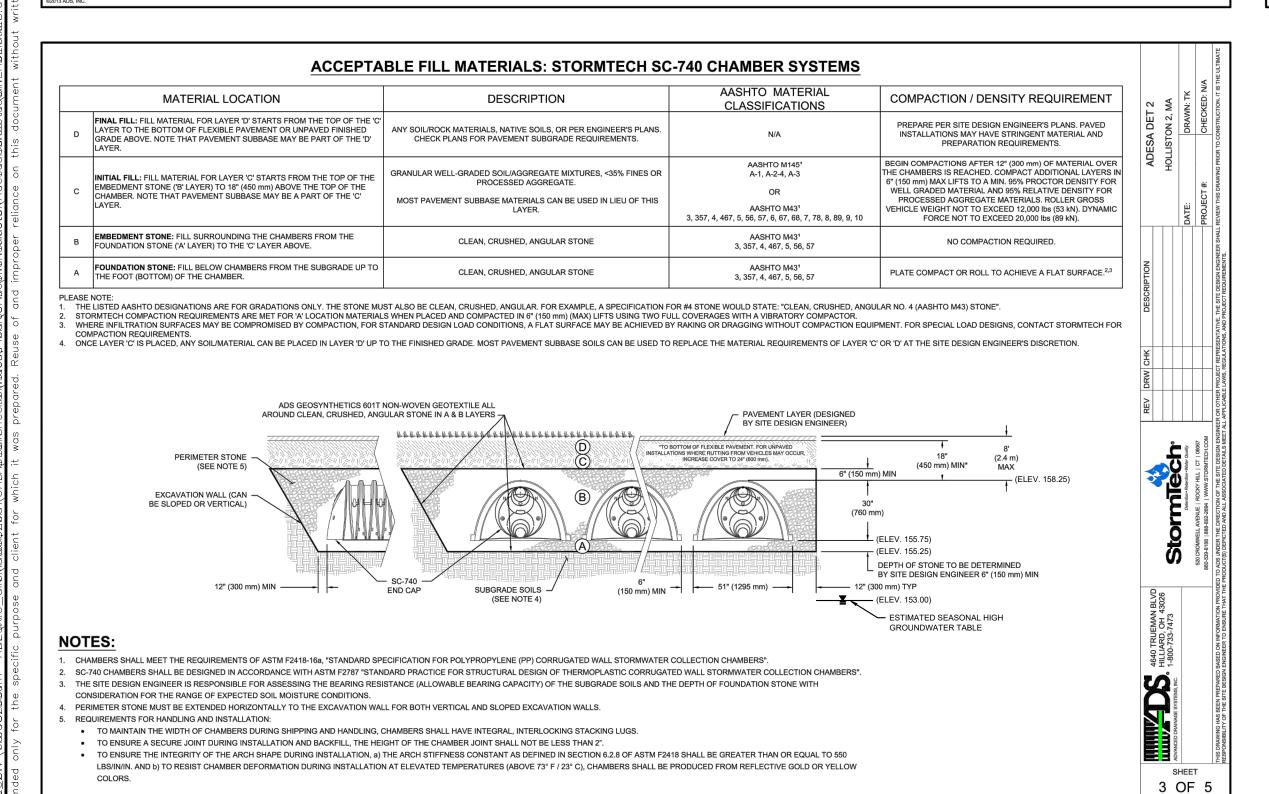
- 1. STORMTECH SC-740 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A
- 2. STORMTECH SC-740 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
- STONESHOOTER LOCATED OFF THE CHAMBER BED.
- BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.
 BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.

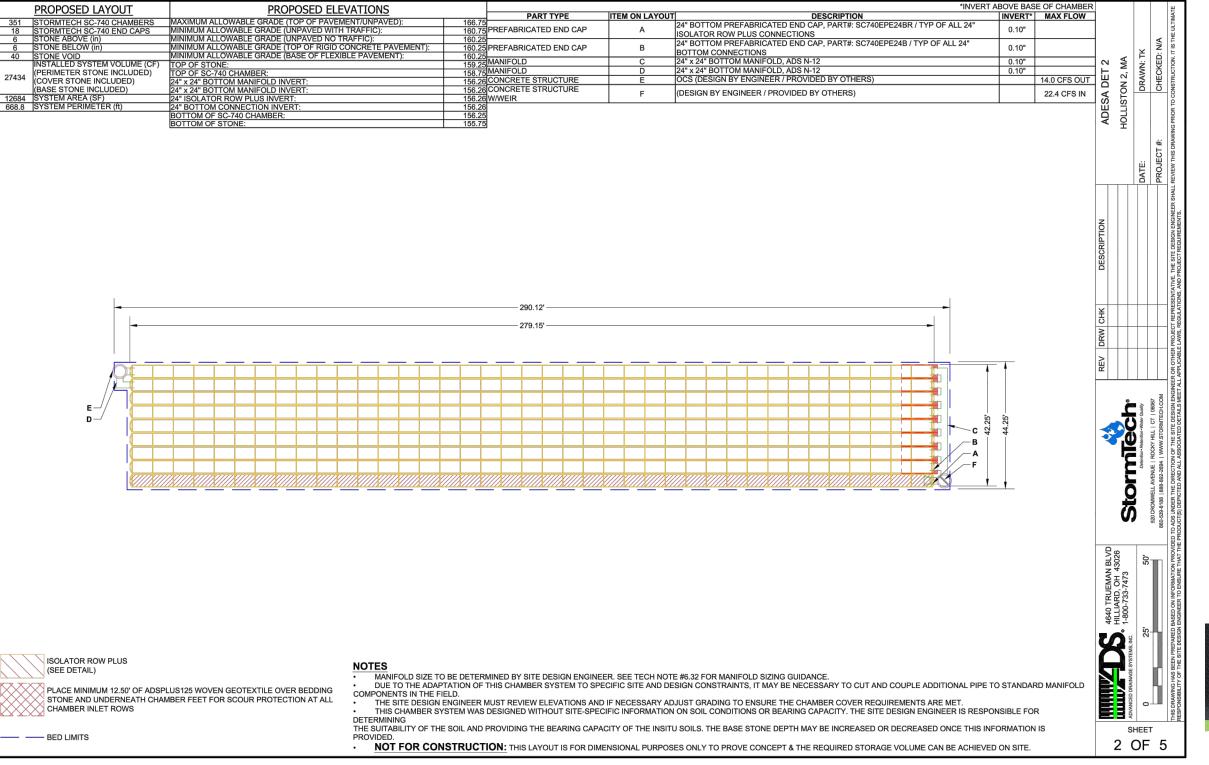
3. CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR AN EXCAVATOR SITUATED OVER THE CHAMBERS.

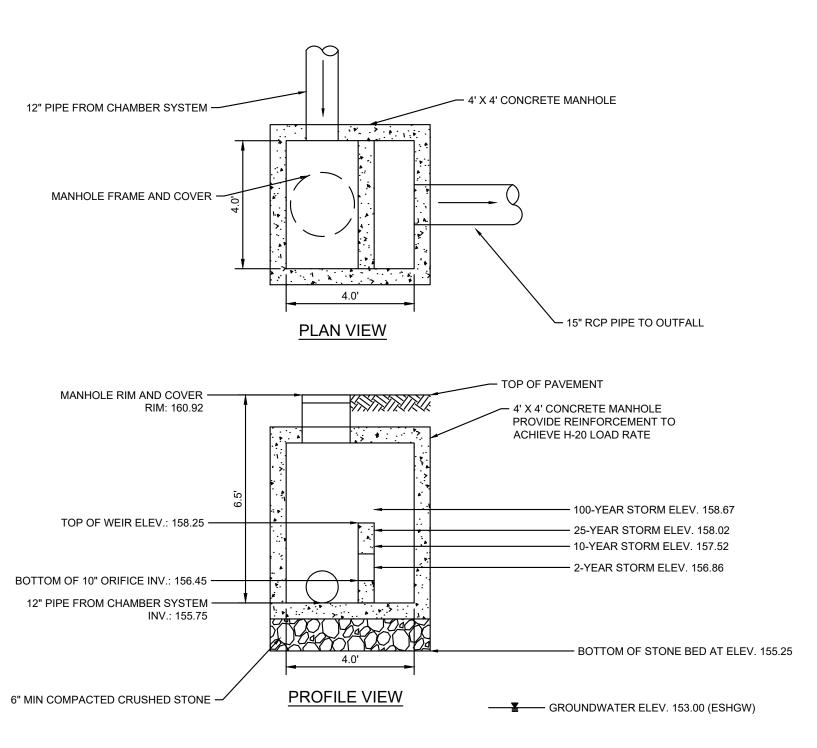
- THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS. JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
- MAINTAIN MINIMUM 6" (150 mm) SPACING BETWEEN THE CHAMBER ROWS.
- 7. EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE 3/4-2" (20-50 mm).
- 8. THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE SITE DESIGN
- ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF. NOTES FOR CONSTRUCTION EQUIPMENT
- STORMTECH SC-740 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE". 2. THE USE OF CONSTRUCTION EQUIPMENT OVER SC-740 CHAMBERS IS LIMITED:
- NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS. NO RUBBER TIRED LOADERS, DUMP TRUCKS, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
 WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
- 3. FULL 36" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.

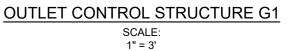
USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO THE CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH

CONTACT STORMTECH AT 1-888-892-2694 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.











BARRACUDA SPECIFICATION

- $\bullet \ \ \text{Concrete Structures: Designed for H-20 traffic loading and applicable soil loads or as otherwise}$ determined by a Licensed Professional Engineer. The materials and structural design of the devices shall
- The 36" and 48" HP Manhole Structures: Made from an impact modified copolymer polypropylene meeting the material requirements of ASTM F2764. The eccentric cone reducer shall be manufactured from polyethylene material meeting ASTM D3350 cell class 213320C. Gaskets shall be made of material meeting the requirements of ASTM F477.
- Separator internals shall be substantially constructed of stainless steel, polyethylene or other thermoplastic material approved by the manufacturer.

- $\bullet \ \ \text{The stormwater treatment unit shall be an inline unit capable of conveying 100\% of the design peak flow.}$ If peak flow rates exceed maximum hydraulic rate, the unit shall be installed offline
- •The Barracuda unit shall be designed to remove at least 80% of the suspended solids on an annual aggregate removal basis. Said removal shall be based on full-scale third party testing using OK-110 nedia gradation or equivalent and 300 mg/L influent concentration. Said full scale testing shall have included sediment capture based on actual total mass collected by the stormwater treatment unit.
- The Barracuda unit shall be designed to remove at least 50% of TSS using a media mix with d_{50} =75 micron and 200 mg/L influent concentration.

The Barracuda unit shall be designed to remove at least 50% of TSS per current NJDEP/NJCAT HDS $\,$

• The stormwater treatment unit internals shall consist of (1) separator cone assembly, and (1) sump assembly which includes (4) legs with "teeth".



Installation of the stormwater treatment unit(s) shall be performed per manufacturer's installation instructions Such instructions can be obtained by calling Advanced Drainage Systems at (800) 821-6710 or by logging on

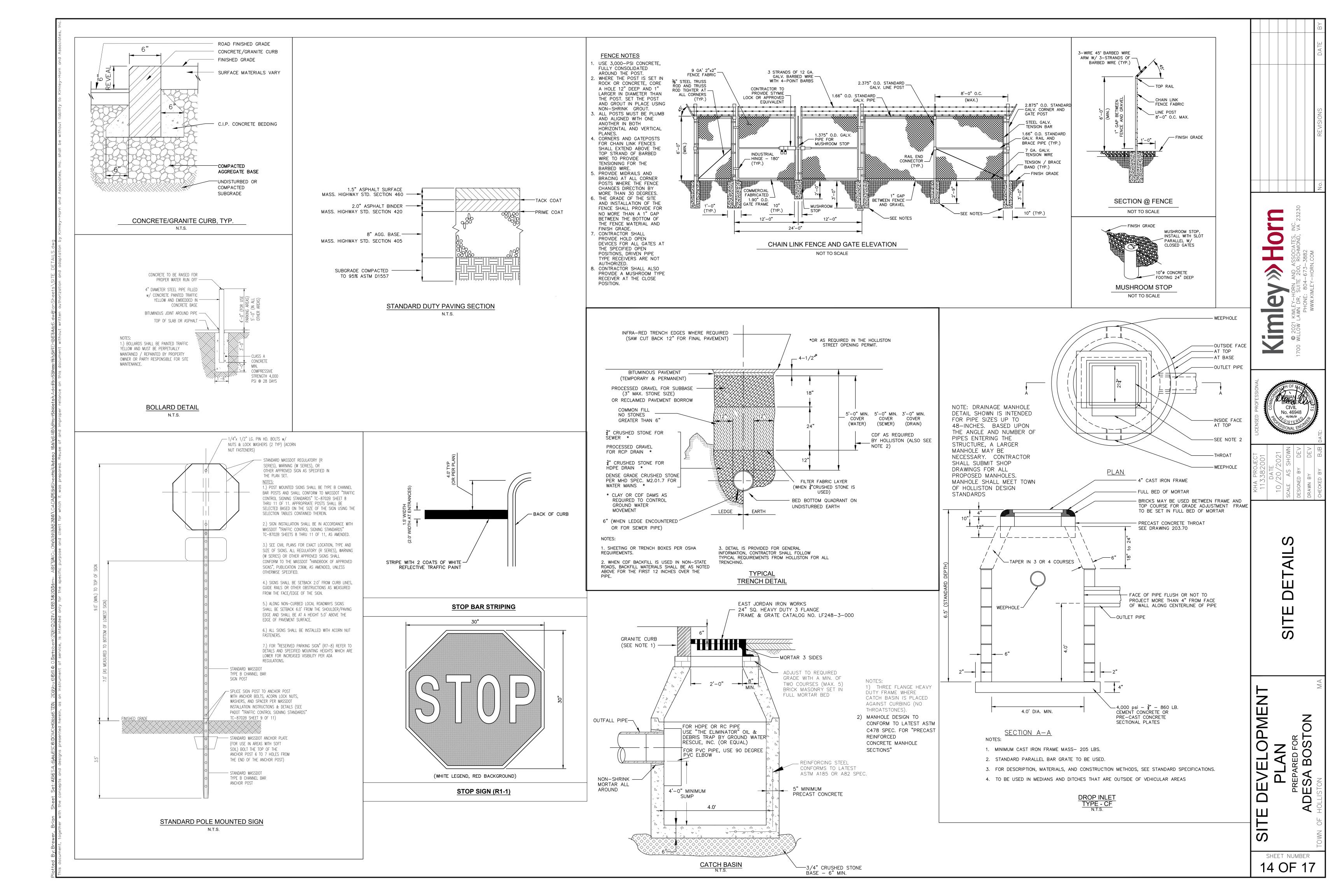
Advanced Drainage Systems, Inc. 4640 Trueman Blvd., Hilliard, OH 43026 1-800-821-6710 www.ads-pipe.com THE MOST ADVANCED NAME IN WATER MANAGEMENT SOLUTIONS

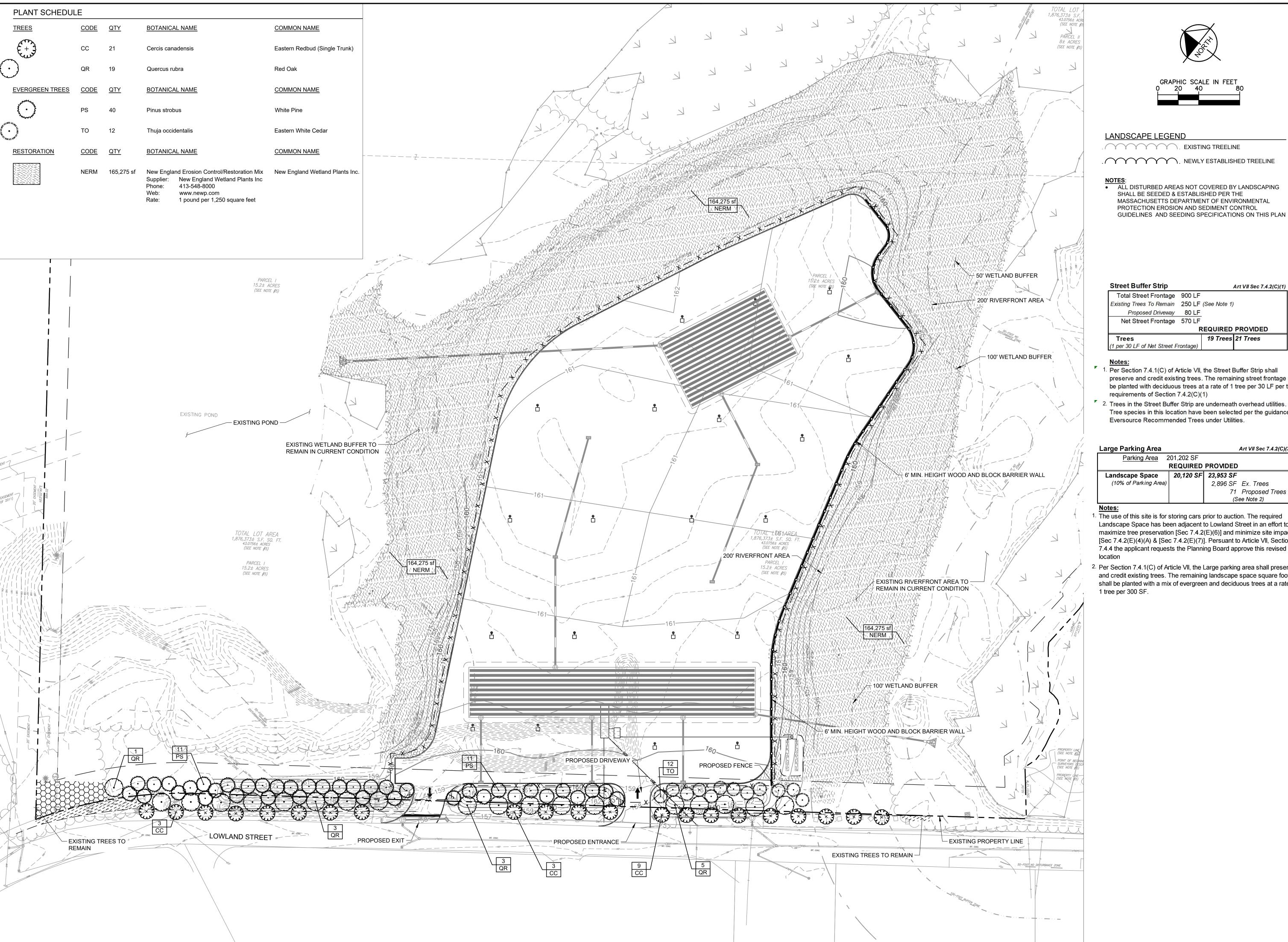
BARRACUDA WATER QUALITY FILTER



SIT

SHEET NUMBER 13 OF 17





MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION EROSION AND SEDIMENT CONTROL

Art VII Sec 7.4.2(C)(1)

REQUIRED PROVIDED

1. Per Section 7.4.1(C) of Article VII, the Street Buffer Strip shall preserve and credit existing trees. The remaining street frontage shall be planted with deciduous trees at a rate of 1 tree per 30 LF per the

Tree species in this location have been selected per the guidance of

Art VII Sec 7.4.2(C)(3)

2,896 SF Ex. Trees 71 Proposed Trees

1. The use of this site is for storing cars prior to auction. The required Landscape Space has been adjacent to Lowland Street in an effort to maximize tree preservation [Sec 7.4.2(E)(6)] and minimize site impacts [Sec 7.4.2(E)(4)(A) & [Sec 7.4.2(E)(7)]. Persuant to Article VII, Section 7.4.4 the applicant requests the Planning Board approve this revised

2. Per Section 7.4.1(C) of Article VII, the Large parking area shall preserve and credit existing trees. The remaining landscape space square footage shall be planted with a mix of evergreen and deciduous trees at a rate of

0

D

ANDSC,

SHEET NUMBER 15 OF 17

the Landscape Architect prior to, during and after installation. 2. Contractor shall identify all materials at growing location prior to purchase and submit digital photographs, and source list to the Landscape Architect for approval at a minimum of six (6) calendar weeks prior to

3. Planting beds and individual tree plantings shall be mulched continuously as specified.

installation. Plants not approved shall be resourced and resubmitted.

4. Prior to construction the contractor shall be responsible for locating underground utilities and execute work in a manner that avoids damage to utilities during the course of work. Contractor shall be responsible or remedy of any damage to utilities, structures, site appurtenances that occur as a result of landscape related

5. Contractor is responsible for verifying quantities shown on documents. Field adjustments shall be approved by Landscape Architect prior to installation. Quantities indicated on drawings are for reference-it is the Contractor's responsibility to ensure full coverage of plants at the indicated spacing.

6. Contractor is responsible for maintenance of all plantings including, but not limited to watering, mowing, edging, spraying, mulching, fertilizing, of plantings and turf areas for one (1) calendar year from date of certificate of occupancy. Contractor is responsible for warranty of all plant material for a period of one (1) calendar year from date of certificate of occupancy. Warranty replacement planting shall meet or exceed the original specification identified on drawings. Replacement planting shall extend the same warranty as originally installed materials. Plantings and grass areas shall be flourishing and fully thriving at end of

7. Plants identified for replacement by Owner, Landscape Architect shall be replaced immediately by the Contractor unless otherwise agreed upon. Plantings (trees, shrubs, groundcover) subject to replacement by warranty shall exhibit characteristics of 30% dead-per individual plant, non-contributing or disease compromised. Grass areas suitable for acceptance shall demonstrate 85% sustained/consistent and continuous, densely established coverage.

Contractor shall perform a site review at end of warranty period and provide the Owner with written documentation of the site, including plant health, warranty replacement items, and conditions that may be influencing plant health. Contractor shall remove from plants and site, all staking and guying material at end

of warranty period. 8. Contractor shall comply with all local, state and federal requirements, codes and regulations related to the work undertaken.

within 100 miles of the project site. 10. Contractor is responsible for coordination among trades operating on site. Coordination and if necessary resulting modifications to schedules are responsibility of the Contractor.

9. All material including planting operation appurtenances shall be of domestic origin manufacture and sourced

PERFORMANCE SPECIFICATION

I. PLANTS

A.General

1. Live healthy plants free of dead branches and parts

2. Free of disease, insect, injury and damage

3. Unbroken, intact, dense and solid rootballs and containers, without cracks, flat sides or previously repaired

4. Free of girdling roots or rootbound/circling container conditions

5. Plants of consistent in growth habit and healthy character 6. Free of compromising growth conditions such as weak crotch connections, crossed branches, snags and

7. Point of origin growing location within 100 miles of project site

8. Graded, standards, caliper, sizes and stock consistent with ANSI Z60.1, American Standard for Nursery

9. Species identified consistent with *Hortus Third: Concise Dictionary of Plants Cultivated in the United States* and Canada, most current edition and Manual of Woody Plants: Their Identification, Ornamental <u>Characteristics, Culture, Propagation and Uses</u>, most current edition

10. All disturbed areas shall be grass seed unless otherwise identified on landscape plans

B. Trees:

1. Deciduous Single Trunk

a. Full, straight and upright with consistent symmetrical natural branching pattern throughout b. Branching Height-seven (7) feet to lowest branch in two years unless otherwise required by local jurisdiction

2. Deciduous Multi-Trunk

a. Full and upright with straight consistent symmetrical natural branching pattern throughout

b. Canes evenly spaced and of similar growth habit c. Free of suckers and extraneous branching

3. Evergreen Single-Trunk

a. Full and upright with continuous symmetrical dense natural habit

b. Clear branching height twelve (12) inches above top of rootball

c. Free of suckers and extraneous branching d. Do not shear or otherwise prune to shape plantings

C.Evergreen and Deciduous Shrubs 1. Full, dense and naturally symmetrical.

2. Consistent with container and/or balled and burlapped size

3. Free of suckers and extraneous branching 4. Do not shear or otherwise prune or shape plantings

D. Evergreen and Deciduous Groundcover 1. Full and dense in pots or flats

E. Perennials and Seasonal Color

1. Full and dense in pots or flats

F. Turf Grass 1. Subgrade

a. Soil Mix-10% Compost, 90% topsoil by volume

b. Preparation-loosen subgrade to a minimum depth of four (4) inches. Remove all non-natural materials

including litter, stones, sticks and all items greater than 3/4 inch in any dimension c. Preparation-spread soil mix at a depth of four (4) inches continuously to meet grade elevations shown

2. Grass Sod

a. Install not longer than twenty-four (24) hours from harvest

on drawings. Allow for thickness of sod when applicable

b. Grass bed not less than two (2) inches in continuous thickness

c. 100% continuous live sod coverage after first growing season and at end of warranty period.

d. Of uniform non-varying density and continuous texture quality capable of growth and development

immediately upon installation. Weed and noxious plant free e. Stagger installation rows and place aligned parallel to contours

f. Fill joints solidly with planting bed preparation soil g. Provide anchor pins at twenty-four (24) inches on center for slopes greater than 4:1

3. Grass Seed

a. Mix approved by the Landscape Architect

b. Provide first and new of year seed crops in mix free of weed seeds and deleterious matter

c. Provide seed mix not greater than 15% annual or perennial rye

d. Coverage 85% continuous coverage live stand after first growing season and at end of warranty e. Replacement or overseeding mixes consistent with original application/installation

f. Provide erosion blankets or other slope retention methods as noted on drawings

4. Erosion Control and Restoration Seed

a. Preparation: The contractor is to limit subgrade preparation to areas that will be planted in the immediate future. The subgrade is to be loosened to a minimum depth of 4 inches, and the seeded areas are to be graded to a smooth, even surface with loose, uniformly fine texture. The areas to be seeded are to then be rolled and raked to remove ridges and fill depressions to meet finish grades. Fine grading will be limited to areas that can be planted in the immediate future. Prepared areas are to be moistened before seeding when soil is dry. Prior to planting, the surface is to be watered thoroughly and allowed to dry before planting with care not to create muddy soil. Prepared areas are to be restored if eroded or otherwise disturbed after fine grading and before planting.

b. Installation: Seed is to be sown with a spreader or a seeding machine. Seed is not to be broadcast or dropped when wind velocity exceeds 5 mph (8 km/h). Seed is to be evenly distributed by sowing in two directions at right angles to each other. Wet seed or seed that is moldy or otherwise damaged in transit or stage is not to be used.

c. After being sown, the seed is to be raked into the top 1/8 inch of the topsoil, lightly rolled and watered with fine spray.

d. Seeded areas on slopes greater than 15% are to be protected with erosion control matting. All seeded areas are to be protected by spreading straw mulch or equivalent uniformly to form a continuous blanket over seed areas. Straw mulch is to be spread by hand, blower, or other suitable equipment, and anchored by crimping into the topsoil by suitable equipment or netting.

II. Materials and Appurtenances

A.Testing

1. Materials testing information/certificates/dated labels shall be current to the project and performed/certified not greater than 120 calendar previous days from current date of submittal for review

1. Neutral Ph balance 5.5 -7.5. Friable and containing 2.0-5.0% organic matter by dry weight. Continuously free of non-soil items such as stones, debris, sticks, trash, and deleterious matter greater than \(^3\)/4 inch in any direction. Clay content shall not exceed 25%. Gravel content shall not exceed 10%. Silt shall not exceed

1. Existing topsoil on-site may be repurposed with prior Owner approval. Contractor shall provide soil testing

and additive program that demonstrates consistent performance and characteristics and composition as identified herein. Owner shall approve soil testing and soil amendment/additive methods and procedures

D. Shredded Hardwood Mulch

1. 100% organic shredded first year hardwood free of deleterious matter, rock, gravel and weed seed. Neutral Ph balance 5.5-7.5

E. Composted Pine Bark Fines

1. 100% organic ground pine bark with no particle dimension greater than 3/4-inch and no greater than 10%

F. Compost Ph

1. Balanced 5.0-8.5 mature, stable and weed free produced by natural aerobic decomposition. Free of visible contaminants and toxic substances. Not greater than 5% sand, silt, clay or rock by dry weight. Consistent with US-EPA CFR Title 40 Part 503 Standards for Class A biosolids

1. Prior to delivery on-site, the following items are required for approval by Owner: Feedstock percentage in final compost product; statement that the products meets federal, state and local health safety requirements 2. Provide copy of lab analysis less than 120 calendar days old verifying that the product meets described

physical requirements; chemical contaminants; Ph; physical contaminants; biological contaminants

(including a statement that fecal coliform and salmonella testing and results comply with requirements of the

H.Planting Mix

1. 85% topsoil and 15% Compost

1. Granular 10% nitrogen, 6% Phosphorous, 4% Potassium granular form with 50% Nitrogen in organic form. Product and Material Safety Data as approved by Owner

1. Product and Material Safety Data as approved by Owner

US Composting Council Seal of Testing approval programs

1. Potable only unless otherwise approved by Owner

1. 2 x 2 x 48 inch square of sound hardwood, painted flat black on all sides

1. Villa Non-Abrasive Rubber Tree Ties or approved equal

N. Filter Fabric

1. Mirafi 140-N or approved equal

III. Execution A.Site Conditions

1. Inspect site and notify Owner in writing of acceptance with indication that project conditions are acceptable

are suitable to proceed with work. Notify Owner of any existing damage and/or other conflicting conditions. 2. Do not proceed with work until unsatisfactory conditions have been satisfactorily remedied. Notify Owner of acceptance prior to commencement of work.

3. Notify Owner in writing of any conditions that may preclude successful completion of work including items such as coordination with other trades, incomplete work, drainage, soil temperature and/or composition, access to storage/work areas, damage to conditions, etc.

4. Notify Owner in writing immediately of any items that may influence work schedule, timing of tasks, materials

delivery and/or installation and warranty responsibilities. 5. Coordinate and cooperate with other trades working in and adjacent to work areas. Examine drawings of other trades which show development of the entire project and become familiar with the scope of required

B.Planting Seasons

work by others.

Recommended seasons are a general guide based on historical climatic data and typical performance of plantings, and which vary dependent on project-specific environmental conditions. Due to construction schedules, recommended planting seasons may/may not coincide with request(s) for certificate of occupancy for projects. Coordination of planting installation and seasons shall be reviewed with Owner on an individual project basis.

Deciduous and Evergreen Trees

a. Do not install/plant the following trees between September 15 and March 15 a.a. Oaks (Quercus Sp., Such as Q. rubra, Q. alba, Q. phellos, Q. coccinnea)

a.b. Dogwood (Cornus Sp.)

2. Deciduous and Evergreen Shrubs

a.c. Sweetgum (Liquidambar Sp.)

a.d. All Conifers and Evergreens except White Pine (Pinus strobus Sp.)

a. Install/plant between March 15 and June 15 and/or September 15 and November 30

a. Install/plant between March 15 and June 15 and/or September 15 and November 30

4. Spring Flowering Bulbs a. Install/plant between September 15 and December 15

5. Seasonal Annuals a. Install/plant in season per approved schedule

degrees Fahrenheit, or forecast for a twelve (12) hour period after completion of work

a. Install/plant between March 15 and May 15 and/or September 15 and November 30 b. Do not install/plant seed or sod turf grass areas when ambient air temperature is below forty (40)

a. Do not install plantings or turf grass between June 15 and September 15, without approval by Owner

C.Positioning & Location of Plantings

1. Position plants to show the most-prominent and well-formed face to most-public view 2. Field locate plants and location/spacing/dimension of planting beds on project site prior to beginning

3. Verify location of individual plants and plant beds prior to beginning installation. Do not proceed without Owner approval

1. Pursue work continuously without delay or interruption until completion unless notified otherwise by Owner 2. Provide project submittals ahead of commencement of work. Landscape Architect requires a minimum of ten (10) working days from date of receipt for review of submittals and response to Owner and Contractor. Plan accordingly for procurement of materials

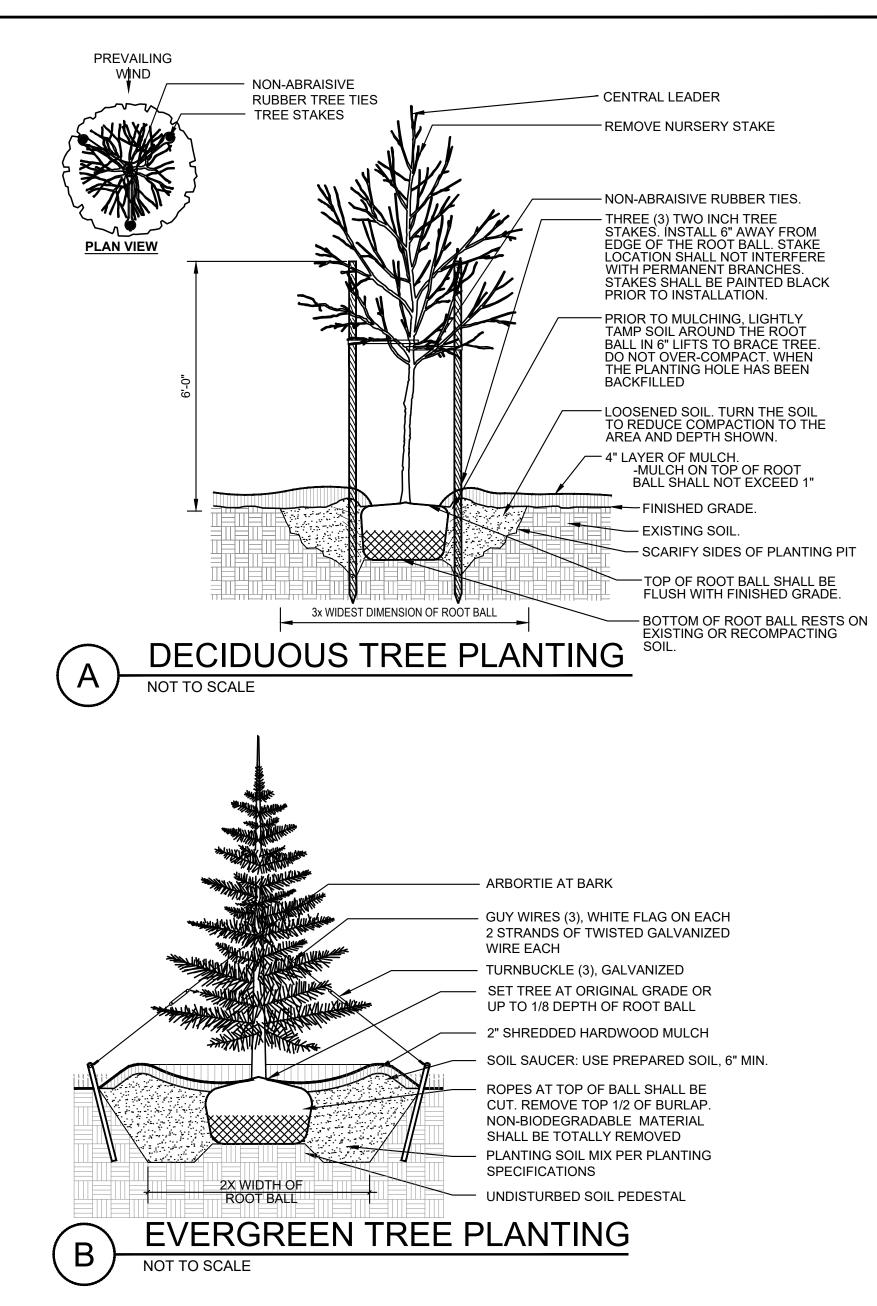
3. Continuously update implementation schedule and notify Owner of progress. Delays related to material availability are not cause for non-completion of scheduled delivery of work 4. Report delays due to weather or site conditions immediately upon finding. Provide recommendation for

remedy of schedule delays. Do not work, place or modify frozen soil 5. Report delays due to extraordinary natural or other conditions beyond control of Contractor

E. Clean Up

1. Remove trash, debris and work materials from site prior to request for substantial completion. Thoroughly clean surfaces impacted by work including building, parking areas, roadways, sidewalks, signs, lights, site

2. Repair any damage to existing conditions that occurred during execution of work. 3. All clean-up and demobilization procedures shall be performed to satisfaction of the Owner and Landscape

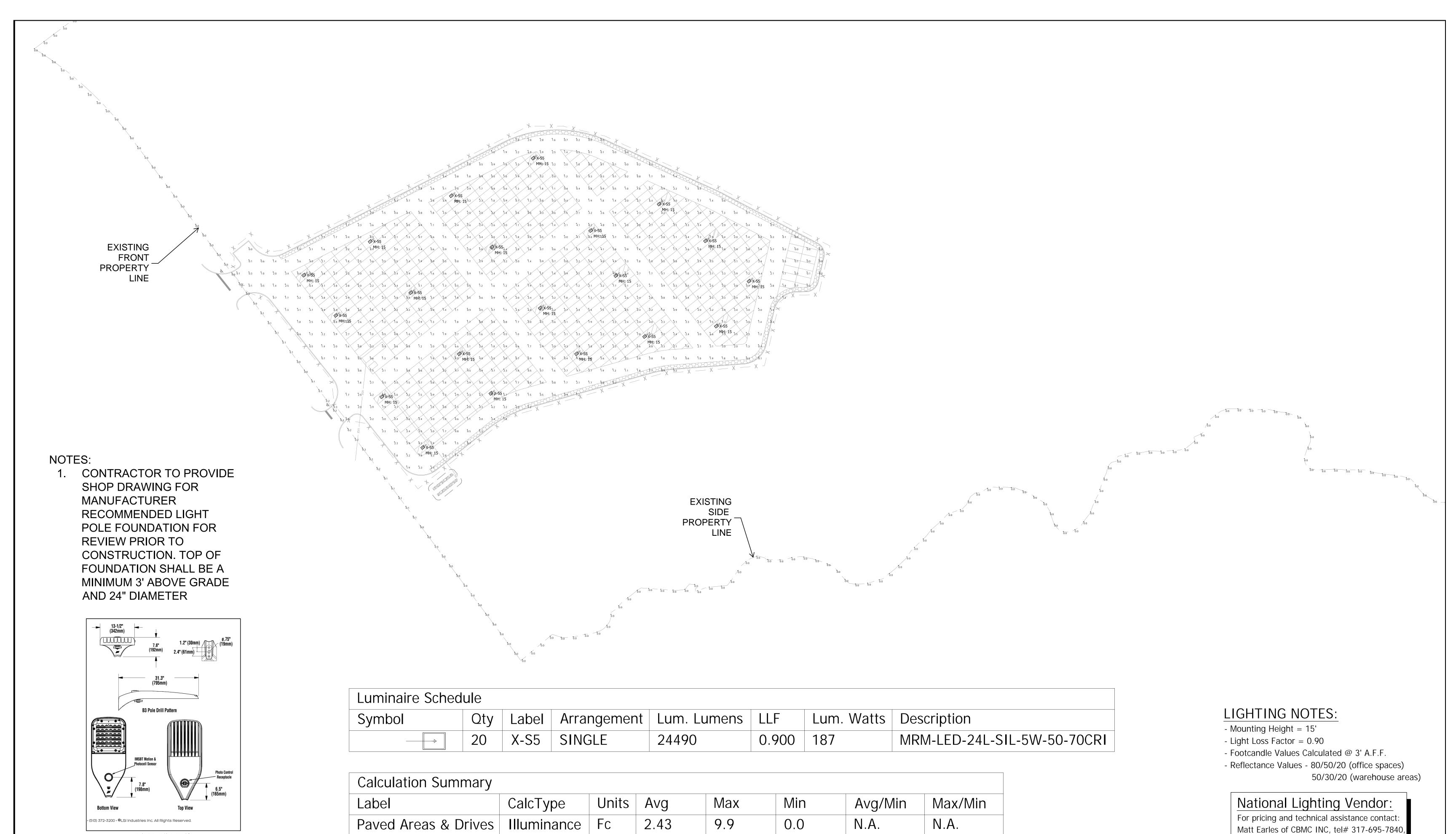


NO O SPE

 \mathbf{Q}

OPMEN

SHEET NUMBER 16 OF 17



All electrical work shall comply with National, State, and Local codes including and not limited to the National Electric Code, NFPA 101 Life Safety Code, ASHREA and /or IECC Energy Codes.

LIGHT FIXTURE

N.T.S.

The information contained in this document is proprietary to CBMC Lighting Solutions. This document is prepared for a specific site and incorporates calculations based on data available from the client at this time. By accepting and using this document, the recipient agrees to protect its contents from further dissemination, (other than that within the organization necessary to evaluate such specification) without the written permission of CBMC Lighting Solutions. the contents of this document are not to be reproduced or copied in whole or in part without the written permission of CBMC Lighting Solutions. copyright © 2018 CBMC Lighting Solutions all rights reserved.

5855 KOPETSKY DR. SUITE G. | INDIANAPOLIS, IN 46217

Property Line

317-780-8350| WWW.CBMCINC.COM

SEE MORE

0.01

Illuminance | Fc

This lighting pattern represents illumination levels calculated from laboratory data taken under controlled conditions in accordance with IESNA approved methods. Actual performance of any manufacturer's luminaire may vary due to variation in electrical voltage, tolerance in lamps and LED lumen package, location adjustments, and other variable field conditions.

0.0

Contractor to check and verify all dimensions on site before commencing any work shown.

N.A.

N.A.

ADESA - Holliston, MA

SITE LAYOUT 1" = 50' Drawing No: Date: 10/1/20 Project No: CB16692-SITE-2 Drawn By:

mearles@cbmcinc.com

17 OF 17