

CONSTRUCTION

ALDEN A. MILLS FIRE STATION

140 LYNNWAY

REVERE, MASSACHUSETTS

Prepared for:

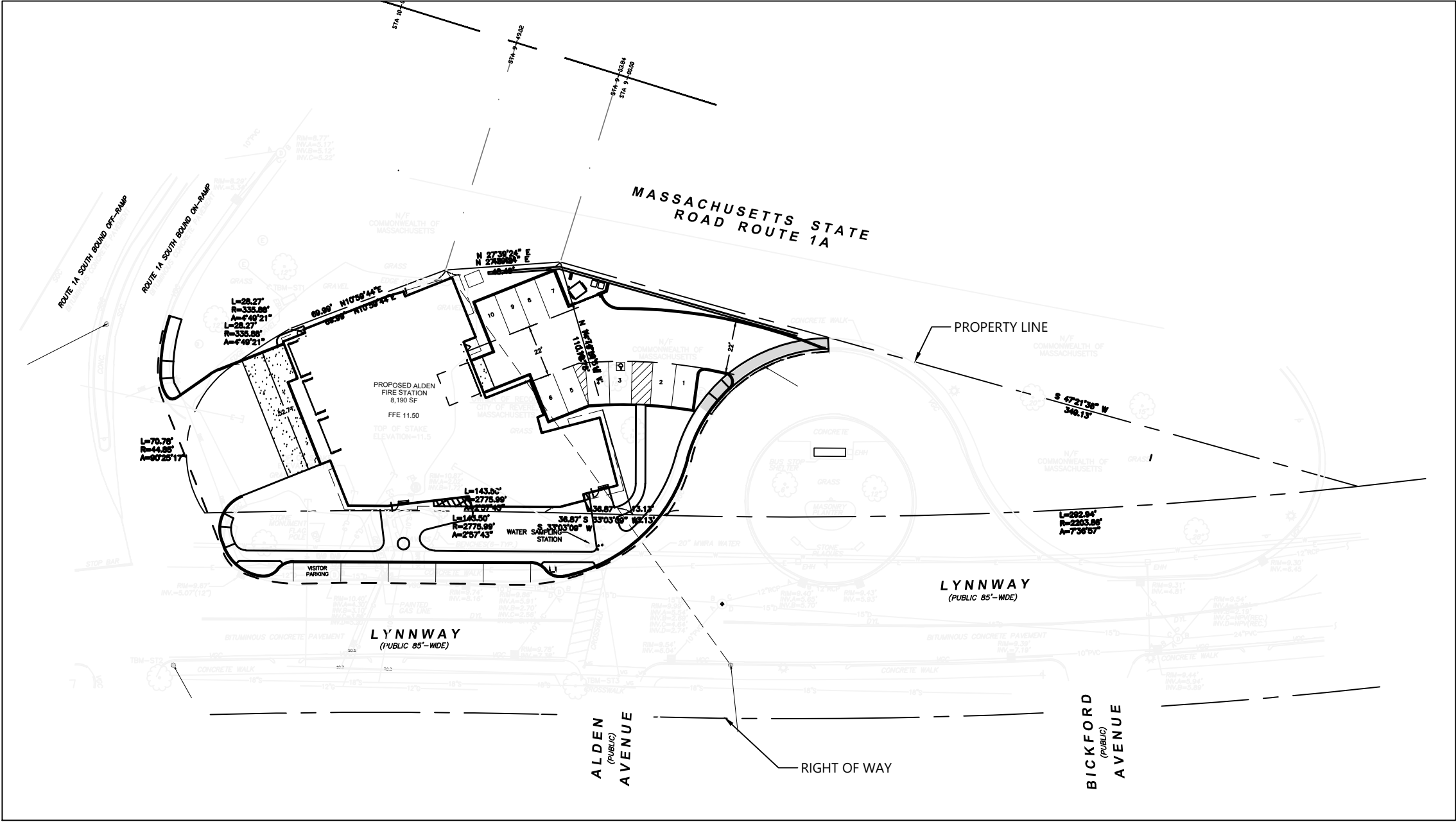
WINTER STREET ARCHITECTS

27 CONGRESS STREET SUITE 201

SALEM, MA 01970

PLAN INDEX

- C-01 TITLE SHEET
- EX-01 EXISTING CONDITIONS PLAN
- C-02 SITE PREPARATION PLAN
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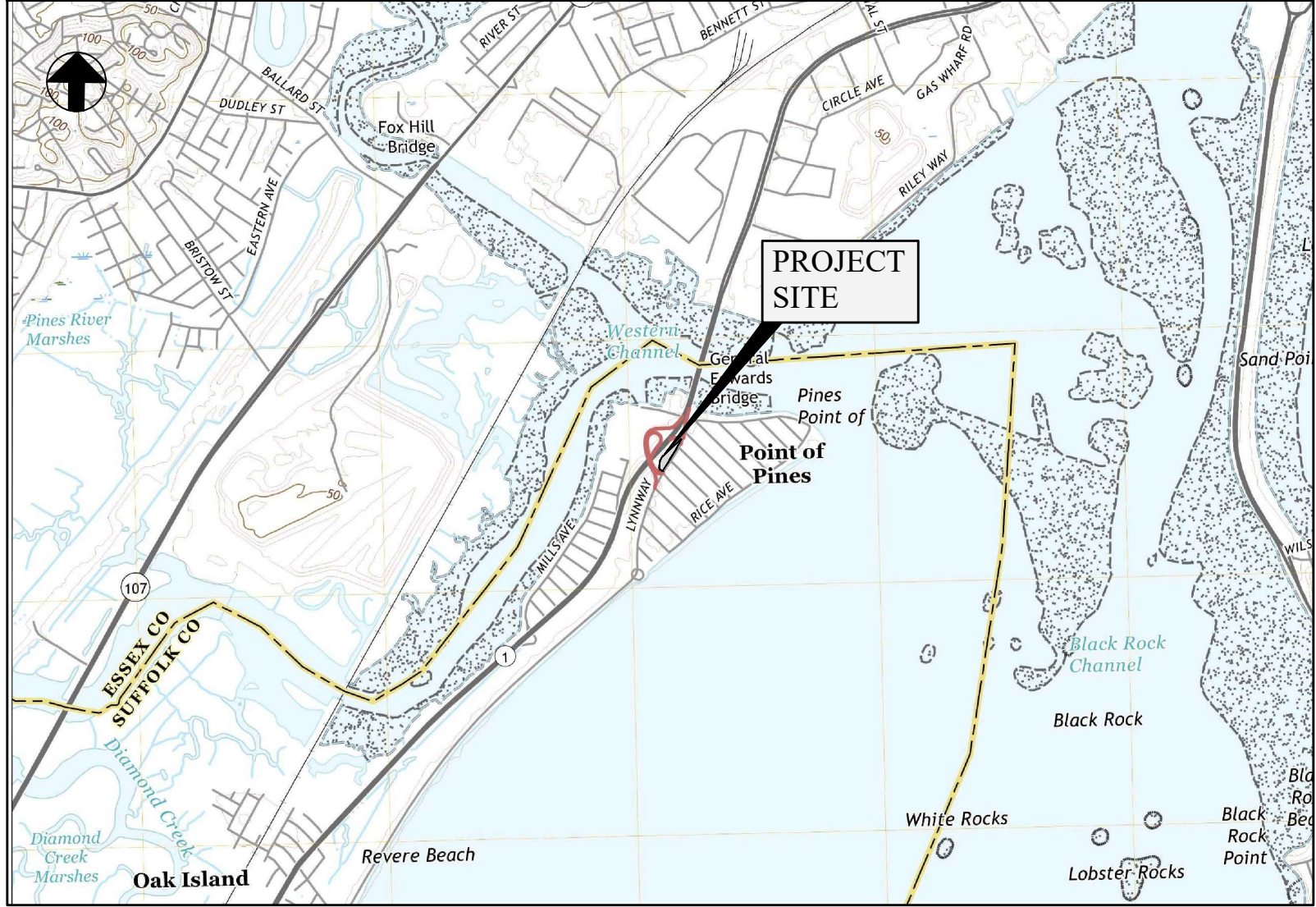


PROJECT SITE

SCALE: 1"=50'

Issue Date:
APRIL 13, 2021

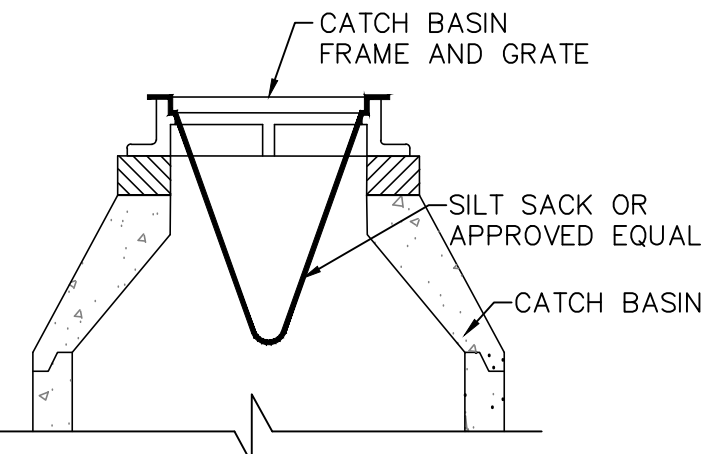
Prepared by:



SITE LOCUS MAP

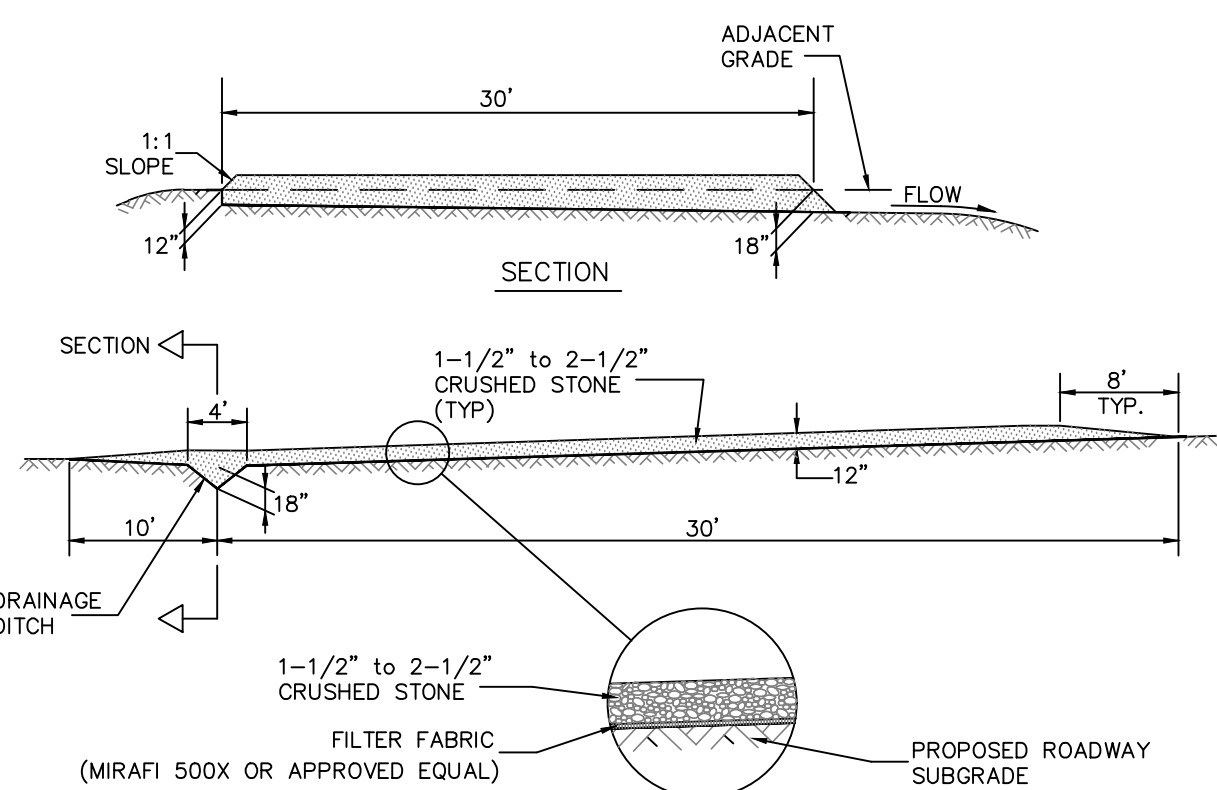
SCALE: 1" = 2000'

DRAFT C-01

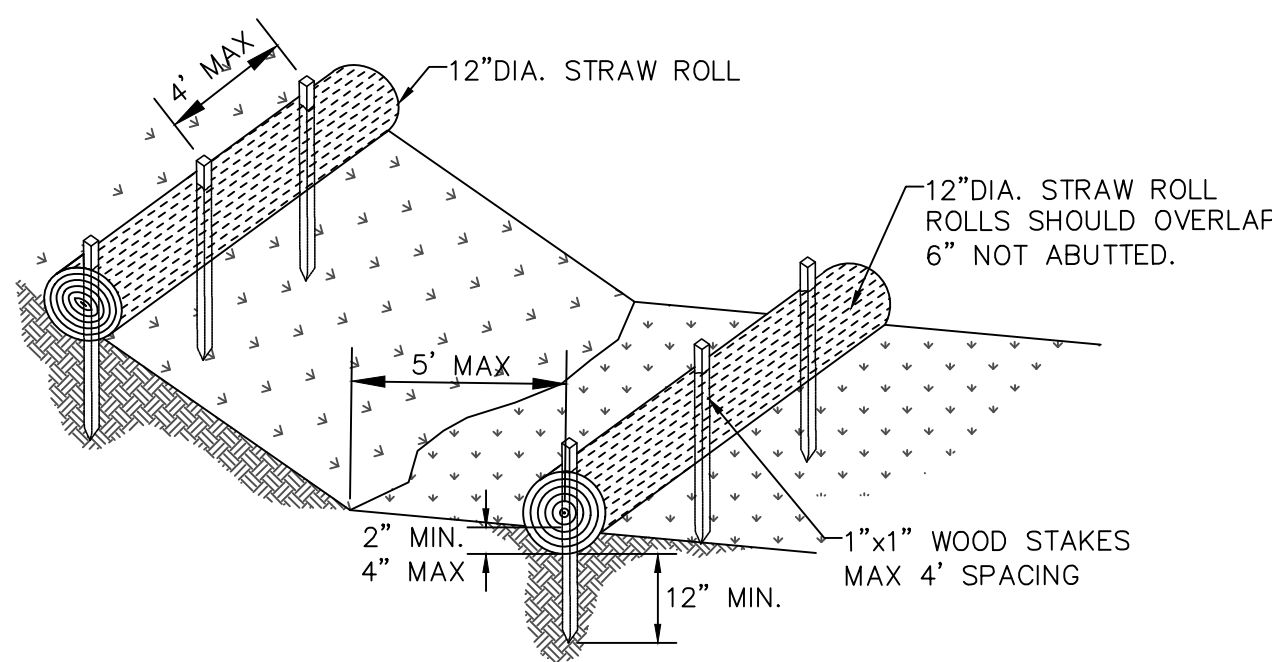


NOTES:
1. TO BE INSTALLED IN ALL CATCH BASINS THAT COULD RECEIVE RUNOFF FROM DISTURBED AREAS UNTIL COMPLETION OF CONSTRUCTION.

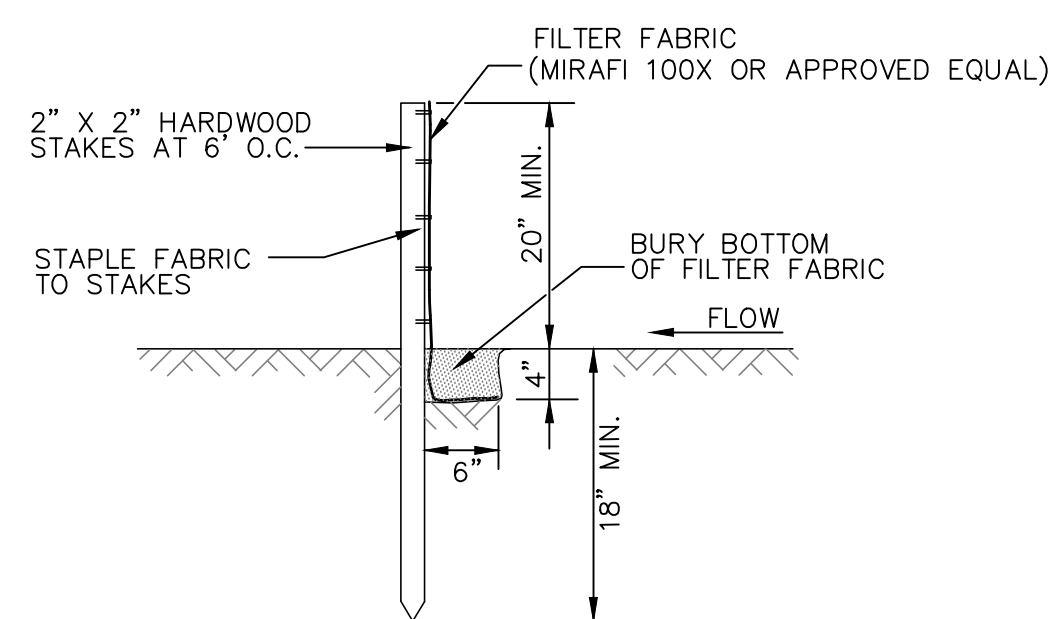
SILT SACK DETAIL
NOT TO SCALE



TEMPORARY CONSTRUCTION ENTRANCE DETAIL
NOT TO SCALE



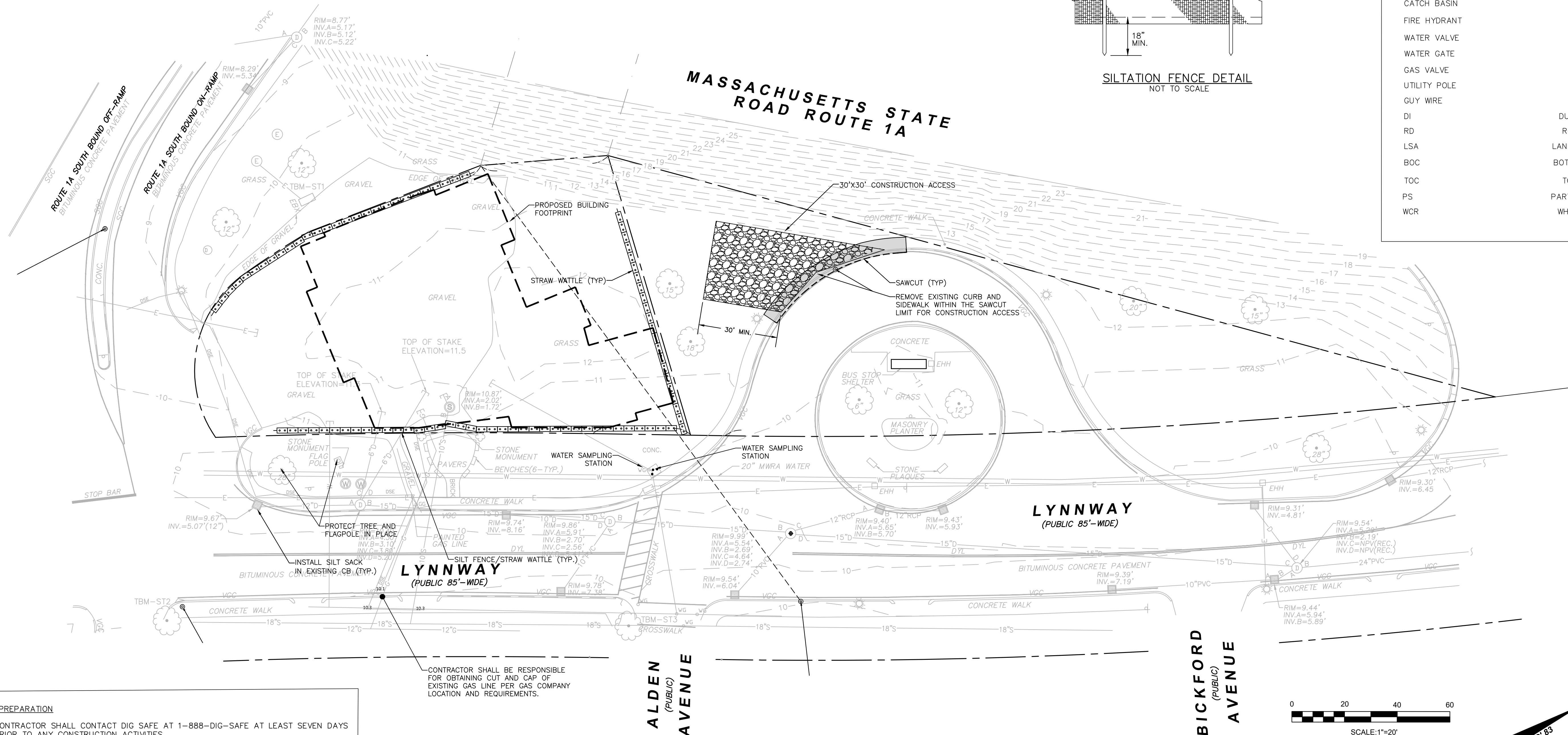
STRAW WATTLE DETAIL
NOT TO SCALE



SILTATION FENCE DETAIL
NOT TO SCALE

LEGEND

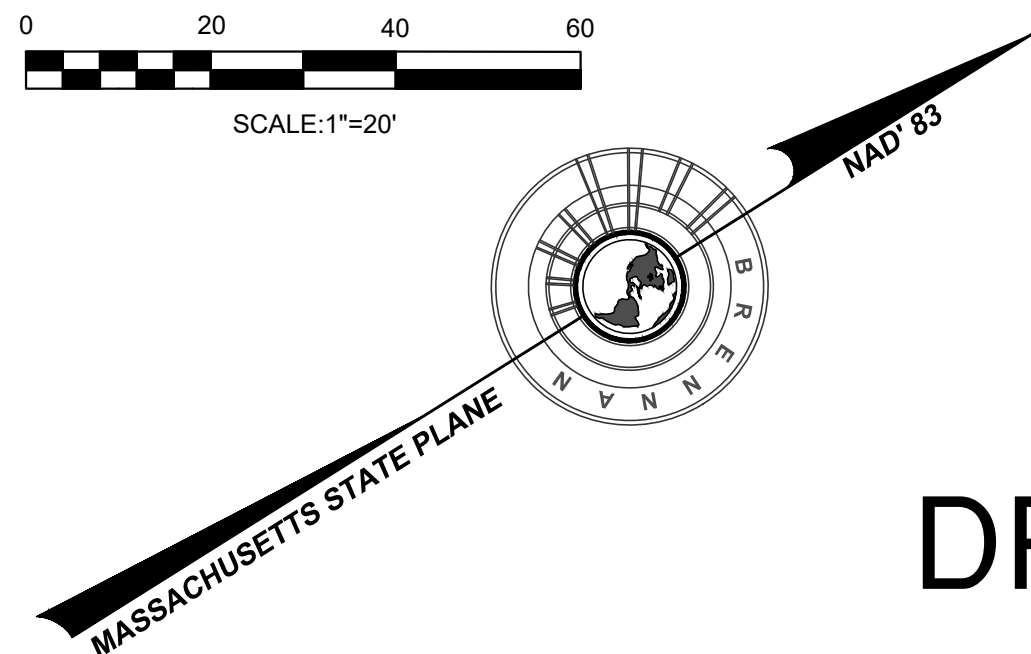
2' CONTOUR	298
10' CONTOUR	300
PROPERTY LINE	
BUILDING SETBACK LINE	
EDGE OF PAVEMENT	
EDGE OF GRAVEL	
STONE WALL	
FENCE	
TREELINE	
STORM DRAIN LINE	
WATER LINE	
UNDERGROUND TELEPHONE	UGT
GAS LINE	
OVERHEAD WIRES	
DRAIN MANHOLE	
CATCH BASIN	
FIRE HYDRANT	
WATER VALVE	
WATER GATE	
GAS VALVE	
UTILITY POLE	
GUY WIRE	
DI	DUCTILE IRON
RD	ROOF DRAIN
LSA	LANDSCAPED AREA
BOC	BOTTOM OF CURB
TOC	TOP OF CURB
PS	PARTICLE SEPARATOR
WCR	WHEELCHAIR RAMP



SITE PREPARATION

- CONTRACTOR SHALL CONTACT DIG SAFE AT 1-888-DIG-SAFE AT LEAST SEVEN DAYS PRIOR TO ANY CONSTRUCTION ACTIVITIES.
- INSTALL EROSION AND SILTATION DEVICES AS INDICATED ON THE DRAWINGS.
- LEGALLY DISPOSE OF ALL DEMOLISHED MATERIALS OFF SITE. STOCKPILED TOPSOIL SHALL BE SCREENED FOR RE-USE AND EXCESS MATERIAL REMOVED FROM SITE.
- TOPSOIL REMOVAL AND SUBGRADE EXPOSURE SHALL BE PERFORMED IN STAGES TO CONTROL EROSION AND SEDIMENT TRANSFER FROM SITE.
- CONTRACTOR SHALL INSPECT EROSION CONTROL MEASURES DAILY AND PRIOR TO ANY PREDICTED STORM EVENT AND REPAIR AS NECESSARY.
- ALL WORK SHALL CONFORM TO THE APPLICABLE REGULATIONS AND STANDARDS OF THE CITY OF REVERE AND SHALL BE BUILT IN A WORKMANLIKE MANNER IN ACCORDANCE WITH THE PLANS AND THE CITY OF REVERE STANDARD DETAILS AND SPECIFICATIONS.
- GRANITE CURB REMOVED AND STACKED SHALL BE OFFERED TO THE DEPARTMENT OF CONSERVATION AND RECREATION FOR SALVAGE.

CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING CUT AND CAP OF EXISTING GAS LINE PER GAS COMPANY LOCATION AND REQUIREMENTS.



SITE PREPARATION PLAN

LOCATED IN
140 LYNNWAY
REVERE, MA

PREPARED FOR
WINTER STREET ARCHITECTS

DATE: 6-8-2021

SCALE: 1" = 20'

Brennan Consulting
ENGINEERING · TRANSPORTATION · SURVEYING

24 RAY AVENUE, BURLINGTON, MA
PHONE: (781) 273-3434 FAX: (781) 273-3430

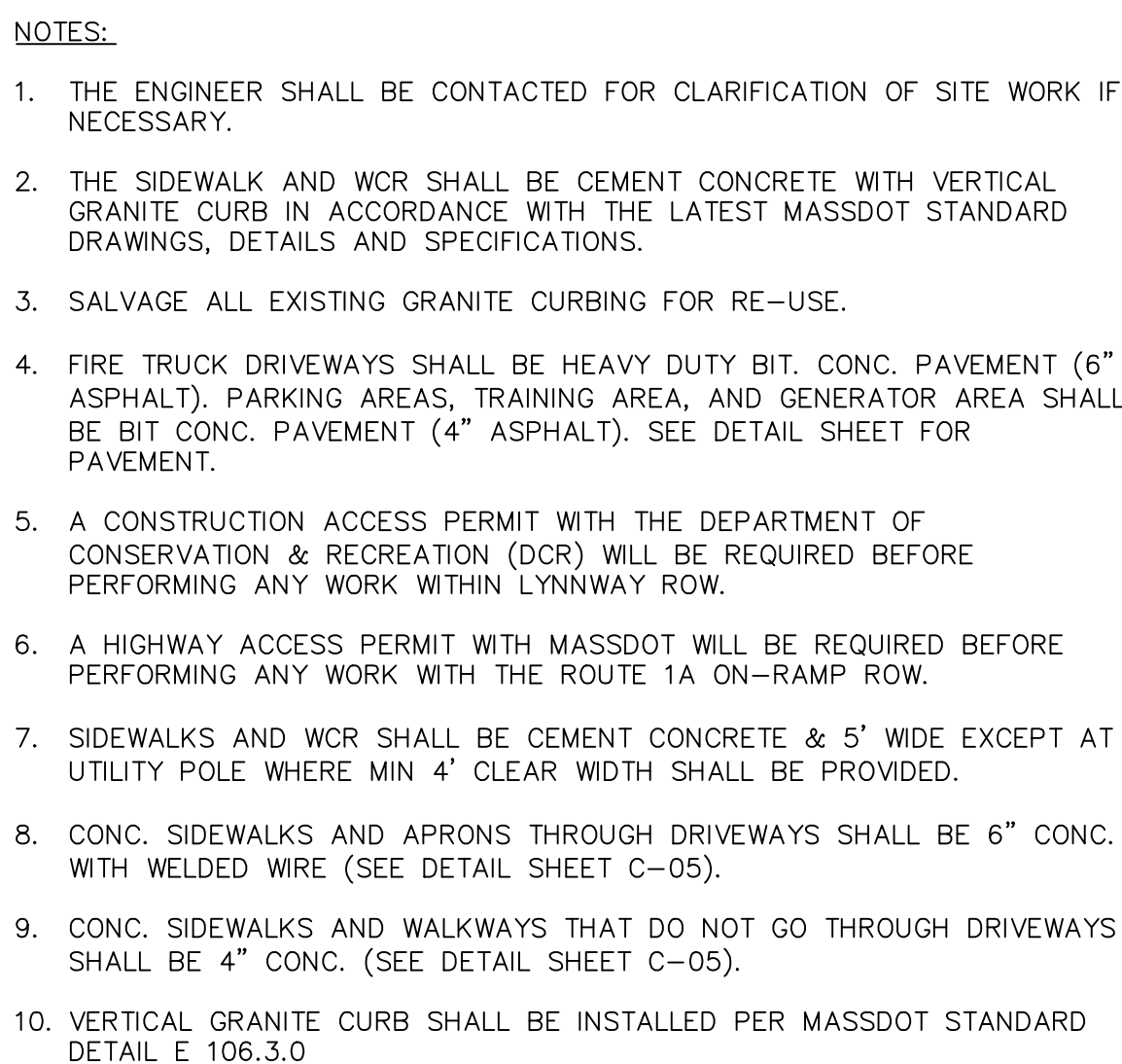
REVISIONS

NO.	DATE	DESCRIPTION	BY

CHECKED BY: CE
DRAWN BY: CG

PROJECT 19954B

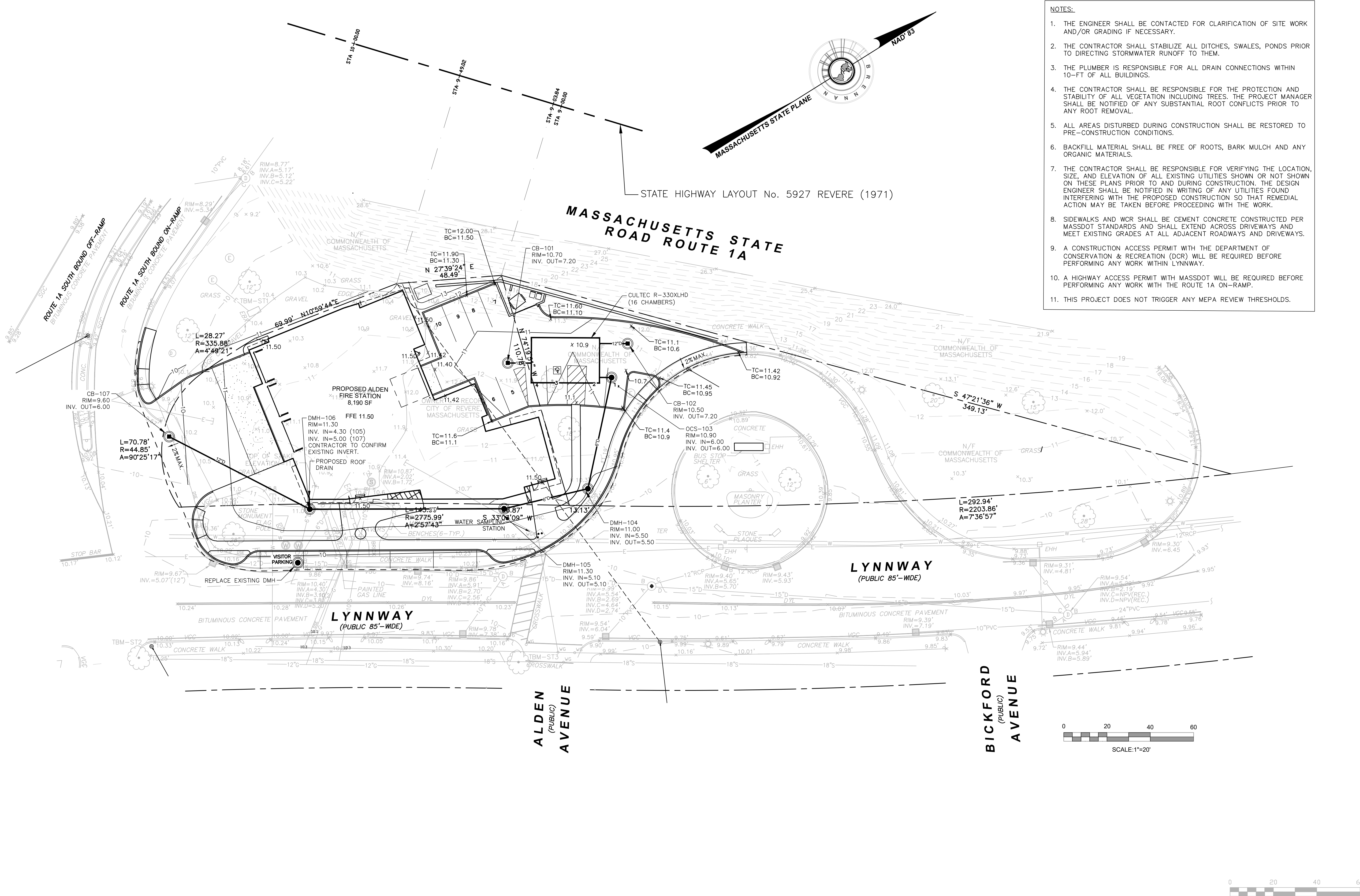
C-02



DRAFT

24 KAT AVENUE, BURLINGTON, MA
PHONE: (781) 273-3434 FAX: (781) 273-3430

C-03



- NOTES:**
1. THE ENGINEER SHALL BE CONTACTED FOR CLARIFICATION OF SITE WORK AND/OR GRADING IF NECESSARY.
 2. THE CONTRACTOR SHALL STABILIZE ALL DITCHES, SWALES, PONDS PRIOR TO DIRECTING STORMWATER RUNOFF TO THEM.
 3. THE PLUMBER IS RESPONSIBLE FOR ALL DRAIN CONNECTIONS WITHIN 10-FT OF ALL BUILDINGS.
 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND STABILITY OF ALL VEGETATION INCLUDING TREES. THE PROJECT MANAGER SHALL BE NOTIFIED OF ANY SUBSTANTIAL ROOT CONFLICTS PRIOR TO ANY ROOT REMOVAL.
 5. ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO PRE-CONSTRUCTION CONDITIONS.
 6. BACKFILL MATERIAL SHALL BE FREE OF ROOTS, BARK MULCH AND ANY ORGANIC MATERIALS.
 7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, SIZE, AND ELEVATION OF ALL EXISTING UTILITIES SHOWN OR NOT SHOWN ON THESE PLANS PRIOR TO AND DURING CONSTRUCTION. THE DESIGN ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION SO THAT REMEDIAL ACTION MAY BE TAKEN BEFORE PROCEEDING WITH THE WORK.
 8. SIDEWALKS AND WCR SHALL BE CEMENT CONCRETE CONSTRUCTED PER MASSDOT STANDARDS AND SHALL EXTEND ACROSS DRIVEWAYS AND MEET EXISTING GRADES AT ALL ADJACENT ROADWAYS AND DRIVEWAYS.
 9. A CONSTRUCTION ACCESS PERMIT WITH THE DEPARTMENT OF CONSERVATION & RECREATION (DCR) WILL BE REQUIRED BEFORE PERFORMING ANY WORK WITHIN LYNNWAY.
 10. A HIGHWAY ACCESS PERMIT WITH MASSDOT WILL BE REQUIRED BEFORE PERFORMING ANY WORK WITH THE ROUTE 1A ON-RAMP.
 11. THIS PROJECT DOES NOT TRIGGER ANY MEPA REVIEW THRESHOLDS.

**GRADING AND DRAINAGE PLAN
LOCATED IN
140 LYNNWAY
REVERE, MA**

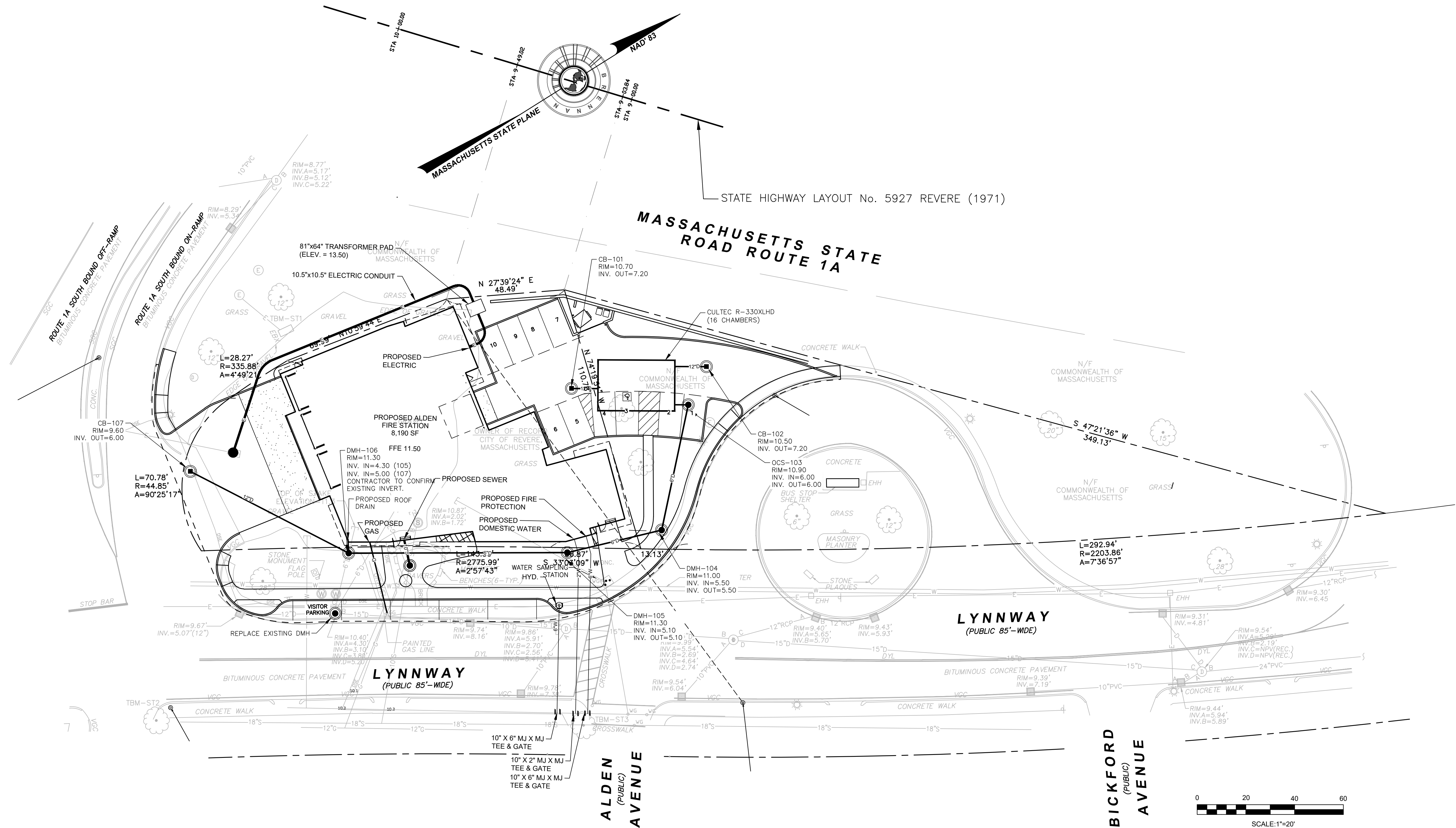
PREPARED FOR
WINTER STREET ARCHITECTS

Brennan Consulting
ENGINEERING · TRANSPORTATION · SURVEYING
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DRAWN BY: CG					
PROJECT 19954B					
C-04					

DRAFT

DATE: 4-13-2021
SCALE: 1" = 20'



UTILITY PLAN
LOCATED IN
140 LYNNWAY
REVERE, MA

PREPARED FOR
WINTER STREET ARCHITECTS

DATE: 4-13-2021

SCALE: 1" = 20'

Brennan Consulting
ENGINEERING · TRANSPORTATION · SURVEYING
24 RAY AVENUE, BURLINGTON, MA
PHONE: (781) 273-3434 FAX: (781) 273-3430

REVISIONS		NO.	DATE	DESCRIPTION	BY

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PROJECT 19954B

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C-05

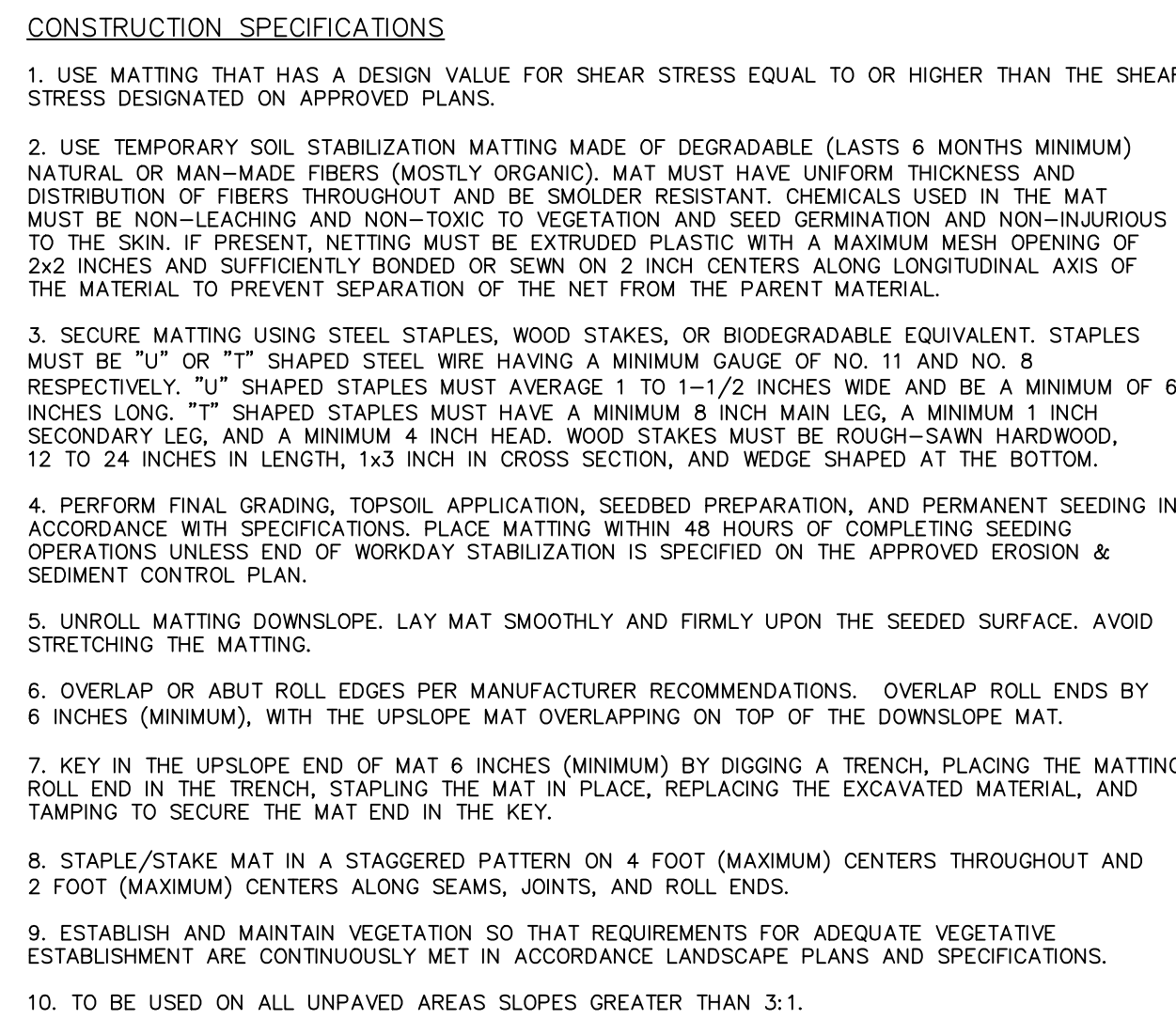


Diagram illustrating the cross-section of a sidewalk and apron through a driveway, showing various layers and materials:

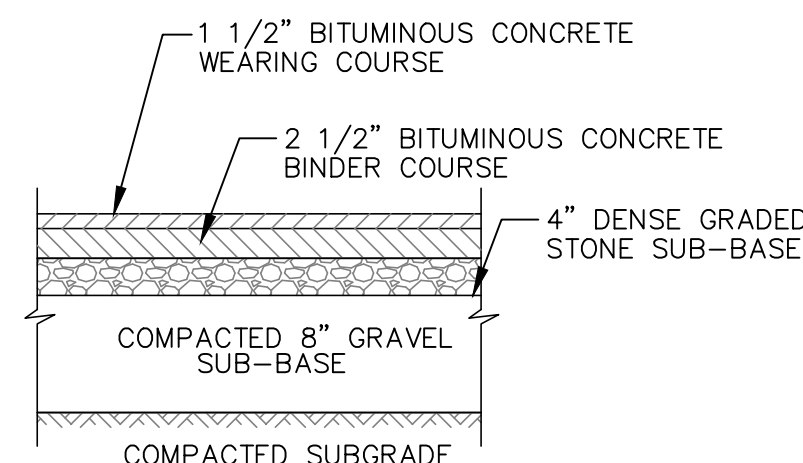
- TOP LAYER:** TYP. 6" CONC. (Concrete)
- APRON THROUGH DRIVEWAY:** The main horizontal section of the sidewalk.
- NEW OR RESET GRANITE EDGESTONE:** The vertical edge of the sidewalk.
- WELDED WIRE MESH 6X6X10/10:** Reinforcement mesh embedded in the concrete.
- 6" (TYP.):** Thickness of the concrete layer.
- ROADWAY:** The area adjacent to the sidewalk.
- 1.5% (2% MAX.):** Slope or grade of the sidewalk surface.
- 6" CEMENT CONC. SIDEWALK CORNER SLAB:** The corner reinforcement slab.
- 6" CEMENT CONC. SIDEWALK:** The main sidewalk slab.
- 6" COMPACTED GRAVEL BASE:** The base layer under the sidewalk.
- 6" (TYP.):** Thickness of the gravel base.
- 6" (TYP.):** Thickness of the gravel base.
- 6" (TYP.):** Thickness of the gravel base.
- TYP. CRUSHED STONE BEDDING FOR GRANITE EDGESTONE:** The bedding for the edgestone.

The diagram illustrates a plan view of a roadway cross-section. Key features include:

- WALKWAY:** Located on the left, with a width of $W(5')$ and a boundary line labeled Wc .
- ROADWAY DOWNGRADE:** Indicated by a downward arrow on the left side.
- TRANSITION ZONES:**
 - HSL HIGH SIDE TRANSITION:** A zone with a 7.5% slope.
 - 5'-0" MIN:** A minimum length dimension for the transition zone.
 - 6'-6" LOW SIDE TRANSITION:** A transition zone with a 7.5% slope.
- DETECTABLE WARNING PANEL:** A rectangular area with a circular pattern, labeled "DETECTABLE WARNING PANEL (SEE E 107.6.5)". It is situated on a 1.5% slope.
- LEVEL LANDING:** A rectangular area with a circular pattern, labeled "LEVEL LANDING" WITH DETECTABLE WARNING PANEL (SEE MASSDOT STANDARD DRAWING NO. E 107.6.5) 1.5% SLOPE FOR DRAINAGE". It is situated on a 1.5% slope.
- PLAIN CEMENT CONCRETE:** The material used for the ramp and transition zones.
- GRANITE CURB:** Located on the right side, with a $6"$ CURB REVEAL (TYP.) dimension.
- EDGES:** The left edge is labeled Wc and the right edge is labeled **EDGE OF ROADWAY**.
- LIMITS OF CEMENT CONCRETE RAMP:** Indicated by a double-headed arrow at the bottom.

LEGEND:
HSL = HIGH SIDE TRANSITION LENGTH
(SEE E 107.9.0)
W = SIDEWALK WIDTH
Wc = CURB WIDTH
CC = CEMENT CONCRETE
* = TOLERANCE FOR CONSTRUCTION $\pm 0.5\%$
USABLE SIDEWALK WIDTH PER AAB = $W - W_c$
USABLE SIDEWALK WIDTH PER AAB IS NOT TO
BE LESS THAN 4'0"
SEE MASSDOT STANDARD DRAWING NO. E
107.6.5 FOR DETAILS OF DETECTABLE WARNING
PANEL

NOTES:
ROADWAY, GUTTER, AND FIRST 6'
OF SIDEWALK TO BE ADJUSTED
FOR FIELD CONDITIONS



VERTICAL GRANITE CURB TYPE VA-4

CEMENT CONCRETE FOOTER

HMA SURFACE COURSE

HMA BINDER COURSE

6"

6"

6"

12"

18"

FINAL GRADE

6"

6"

PROCESSED GRAVEL BASE

COMPACTED SUBGRADE

NOTES:

1. THIS PROCEDURE IS APPLICABLE ONLY IF CURB IS TO BE SET AFTER BASE COURSE IS IN PLACE PRIOR TO BINDER AND TOP PLACEMENT.
2. CUT NEAT LINE 6" FROM CURB LINE AND REMOVE BASE AND GRAVEL. REPLACE WITH CONCRETE CEMENT.
3. ANY DESIGNATED CEMENT CONCRETE THAT IS ACCEPTABLE UNDER SECTION M4 OF THE STANDARD SPECIFICATIONS MAY BE USED. ALL TEST REQUIREMENTS ARE WAIVED HOT MIX ASPHALT SHALL NOT BE USED AS A SUBSTITUTE.

A cross-sectional diagram of a catch basin. At the top, a horizontal structure is labeled "CATCH BASIN FRAME AND GRATE". Below this, a large, inverted, cone-shaped object is labeled "SILT SACK OR APPROVED EQUIVALENT". The sides of the basin are labeled "CATCH BASIN". The diagram shows the internal structure and how the silt sack is positioned to catch debris.

NOTES:

1. TO BE INSTALLED IN ALL CATCH BASINS THAT COULD RECEIVE RUNOFF FROM DISTURBED AREAS UNTIL COMPLETION OF CONSTRUCTION.

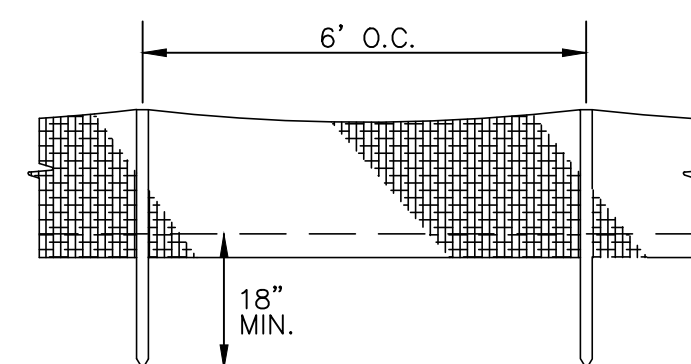
Diagram illustrating the dimensions and materials of the wire mesh enclosure:

- Overall width: 10'-0"
- Overall height: 6'-0"
- Material: 11-1/2 GAUGE GALVANIZED FENCE FABRIC WITH 1-1/4" MESH
- Material: ALUMINUM TIE WIRES

Diagram illustrating the cross-section of a pavement structure, showing the following layers and components:

- 2 1/2" TOP COURSE
- 3 1/2" BINDER COURSE
- 8" PROCESSED GRAVEL BASE
- BIT, TACK COAT
- 4" DENSE GRADED STONE SUB-BASE
- COMPACTED SUBGRADE (SUITABLE SOIL MATERIAL)
- SAW CUT EXIST. PAVEMENT
- 6" MILL EXIST. PAVEMENT
- 1-1/2"
- RADE

Diagram illustrating the installation detail for a filter fabric (MIRAFI 100X or approved equal) using 2" x 2" hardwood stakes at 6" O.C. The diagram shows the filter fabric being buried at the bottom, with a 20" minimum vertical distance from the top of the filter fabric to the top of the stake. The filter fabric is secured to the stake with staples. The flow direction is indicated by an arrow pointing right, labeled "FLOW". The filter fabric is buried 4" deep, and the stake is 6" wide. The total depth of the filter fabric is 18" minimum.



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[illegible]

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DRAWN BY: CG

PROJECT 19954B

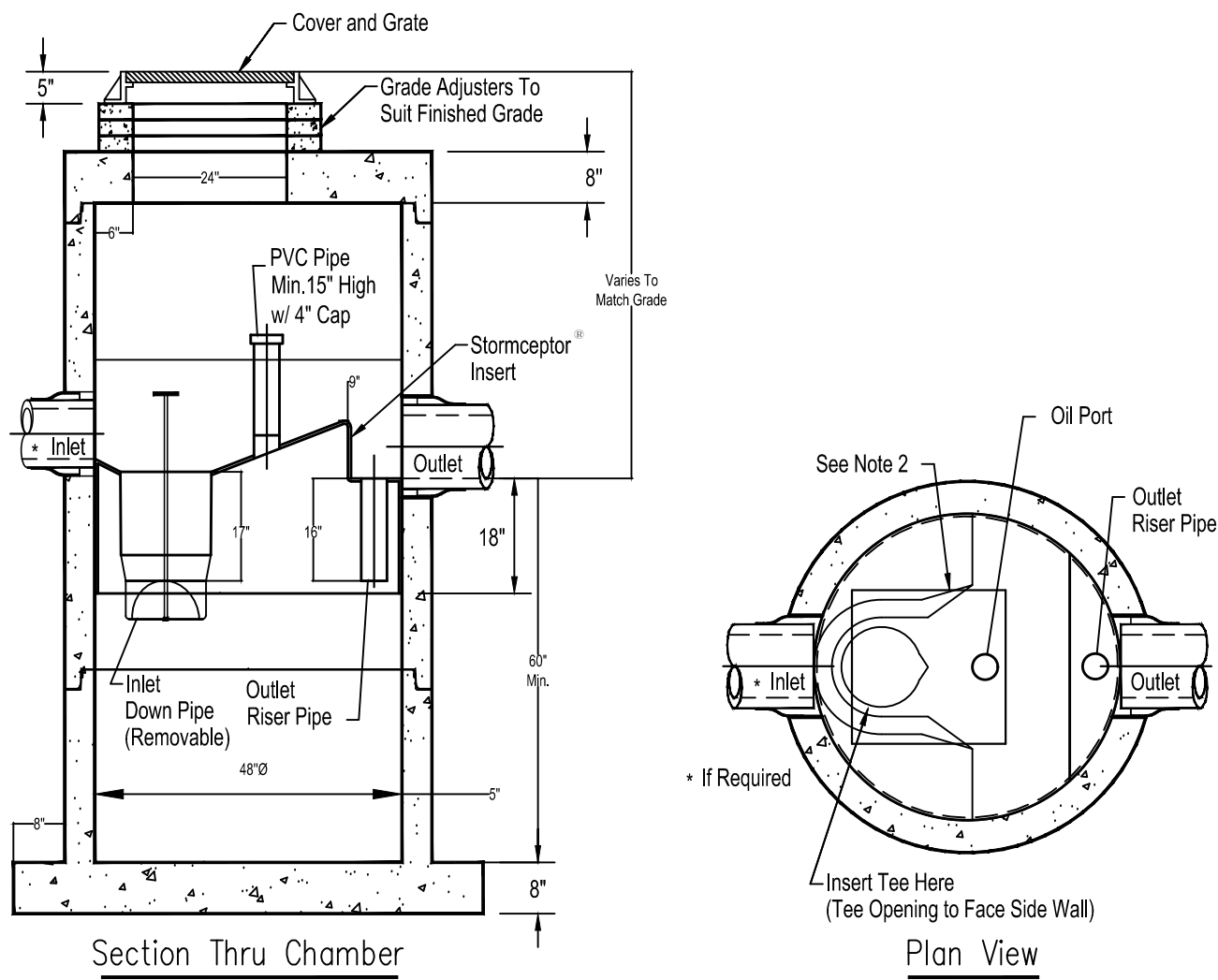
C-06

CONSTRUCTION DETAILS
LOCATED IN
140 LYNNWAY
REVERE, MA

PREPARED FOR
WINTER STREET ARCHITECTS

SCALE: 1" = 20'

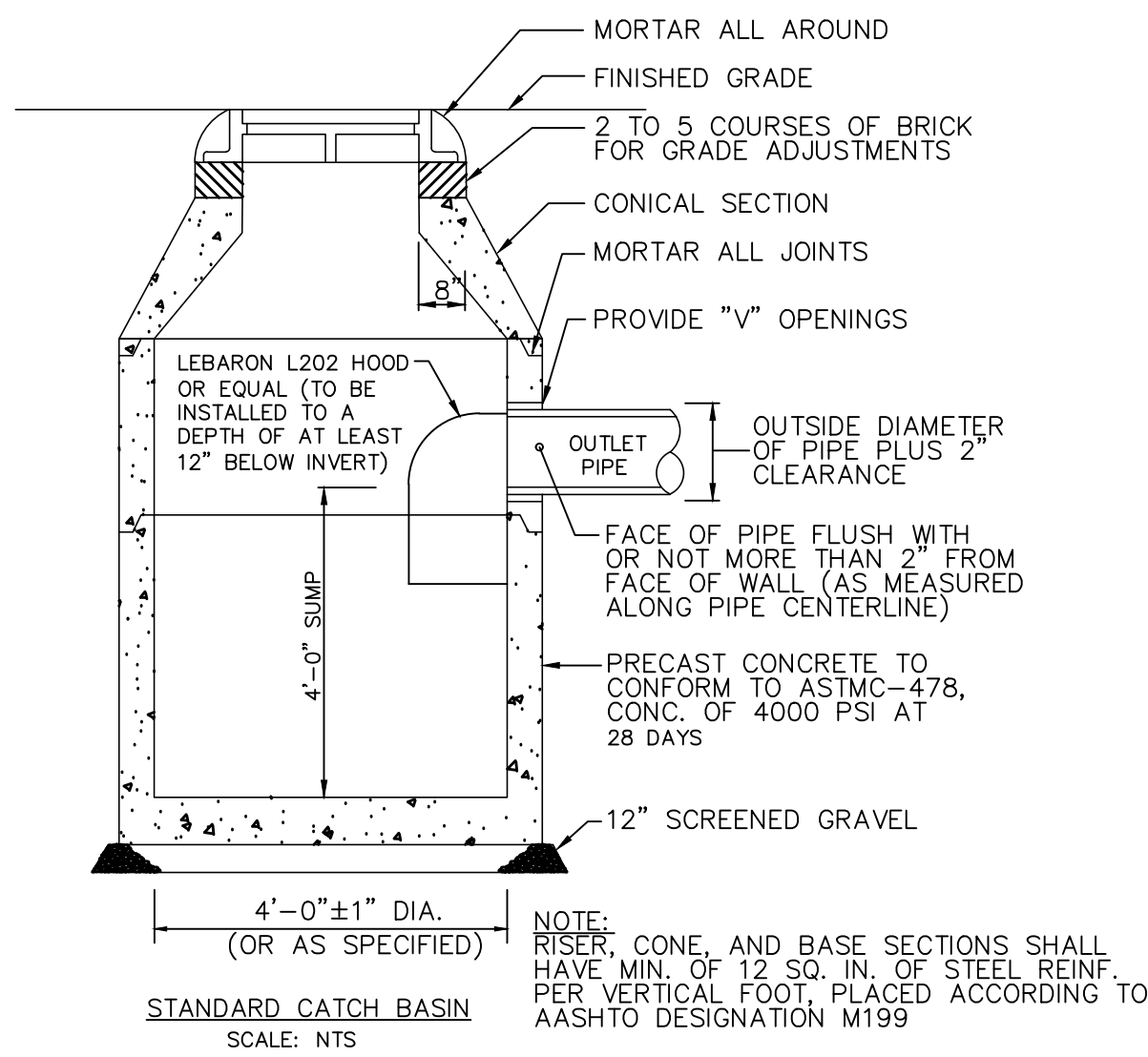
DATE: 4-13-2021



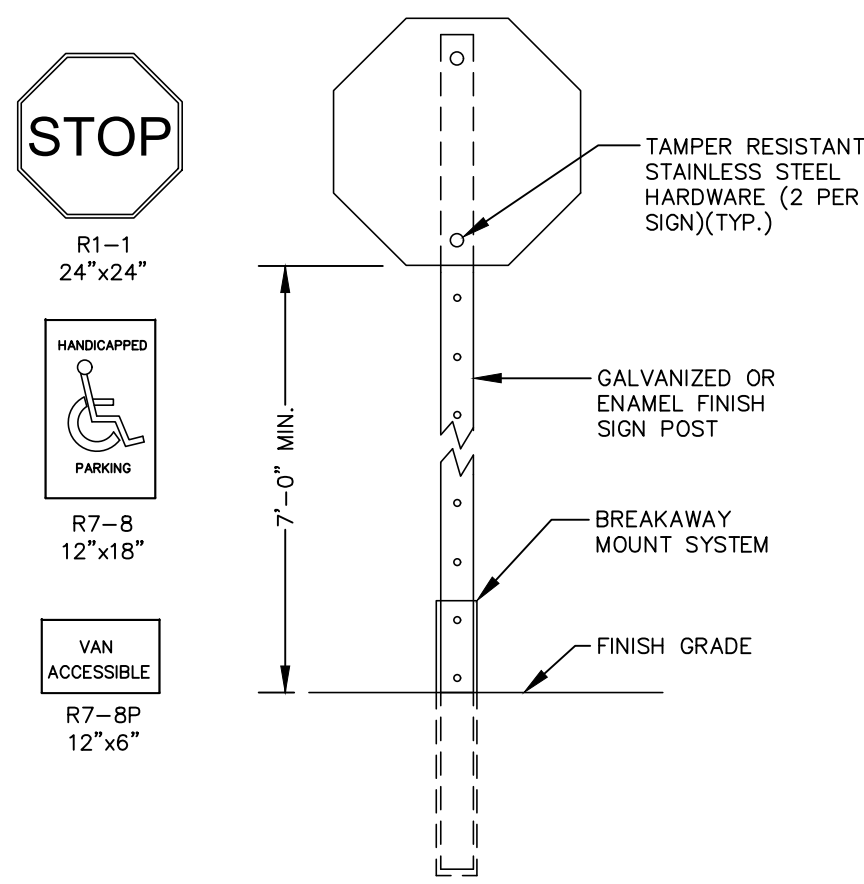
- Notes:
1. The Use Of Flexible Connection is Recommended at The Inlet and Outlet Where Applicable.
 2. The Cover Should be Positioned Over The Inlet Drop Pipe and The Oil Port.
 3. The Stormceptor System is protected by one or more of the following U.S. Patents: #5753115, #5849181, #6068765, #6371690, #7582216, #7666303.
 4. Contact a Concrete Pipe Division representative for further details not listed on this drawing.

PARTICLE SEPARATOR
STC 450i PRECAST CONCRETE STORMCEPTER OR EQUAL
(450 U.S. GALLON CAPACITY)
 NOT TO SCALE

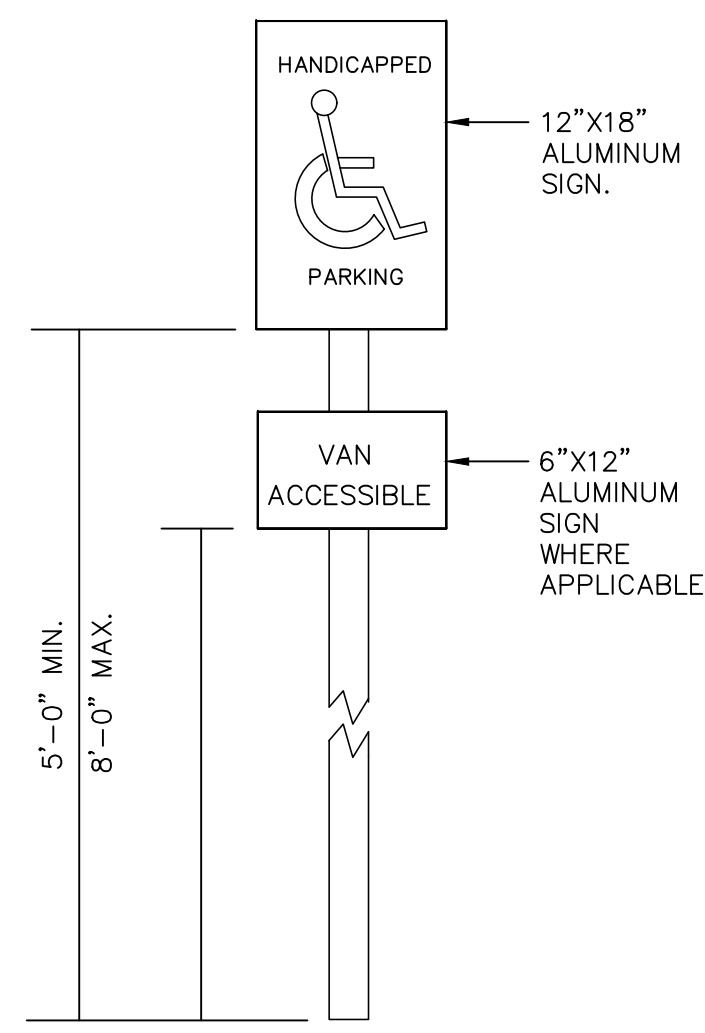
DIAMETER	WALL THICKNESS	FLOOR THICKNESS
4 FT.	5 IN.	6 IN.
5 FT.	6 IN.	7 IN.
6 FT.	7 IN.	8 IN.



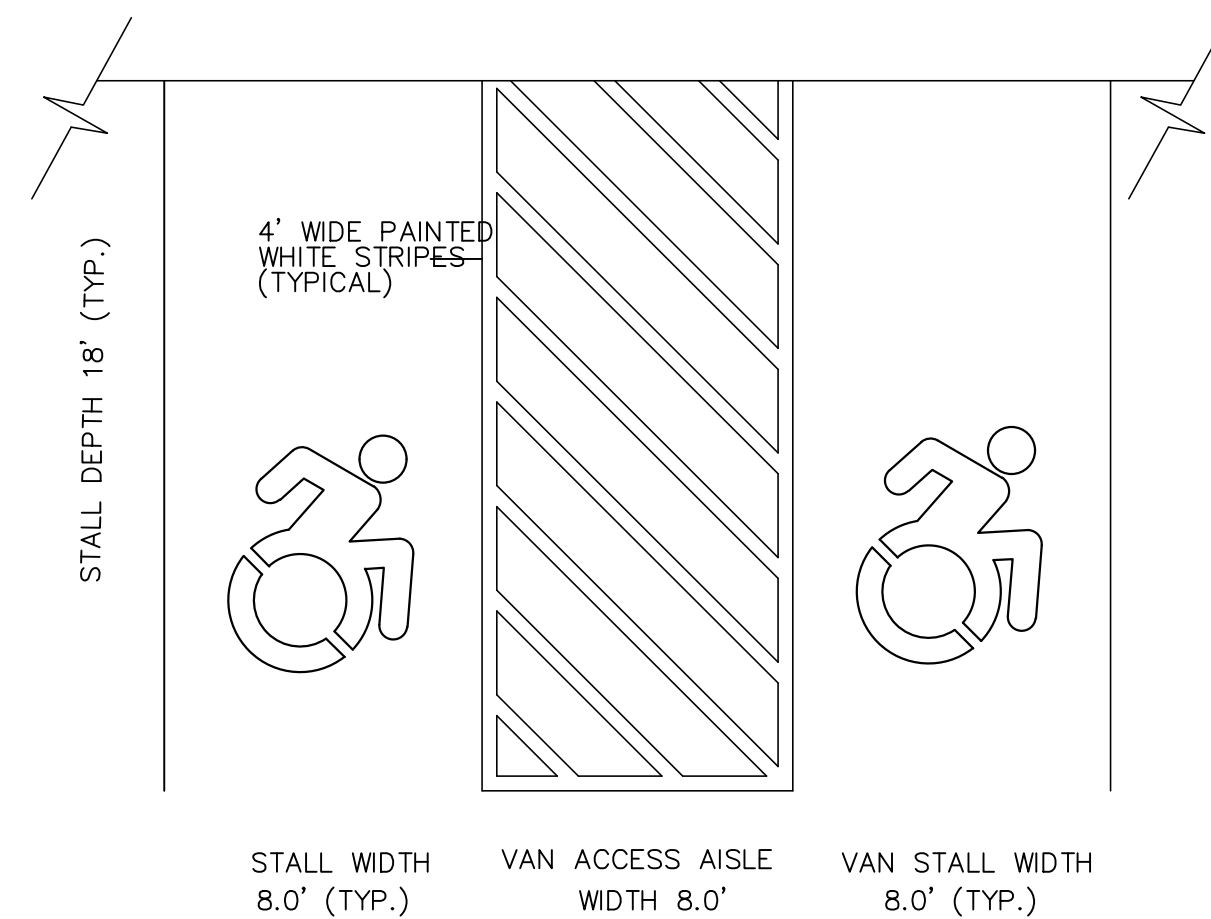
STANDARD CATCH BASIN DETAIL
 NOT TO SCALE



TYPICAL SIGN AND SIGN POST DETAIL
 NOT TO SCALE

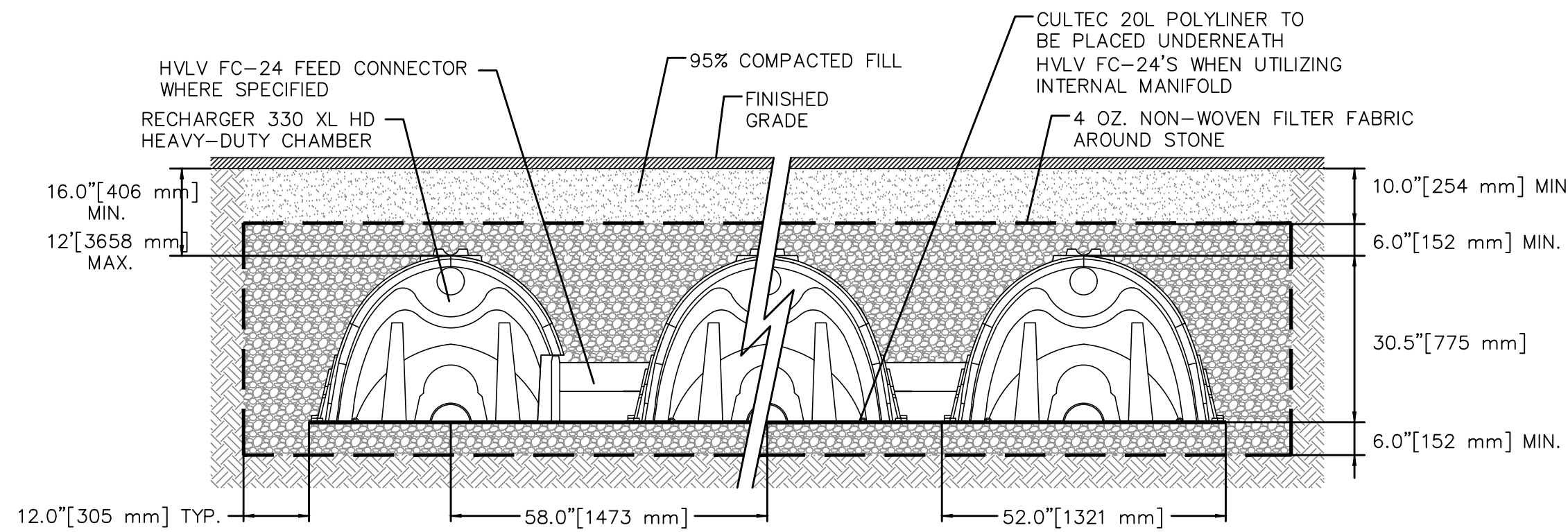


HANDICAP SIGN POST DETAIL
 NOT TO SCALE



*SEE SP1.1 FOR HANDICAP SIGN POST DETAIL

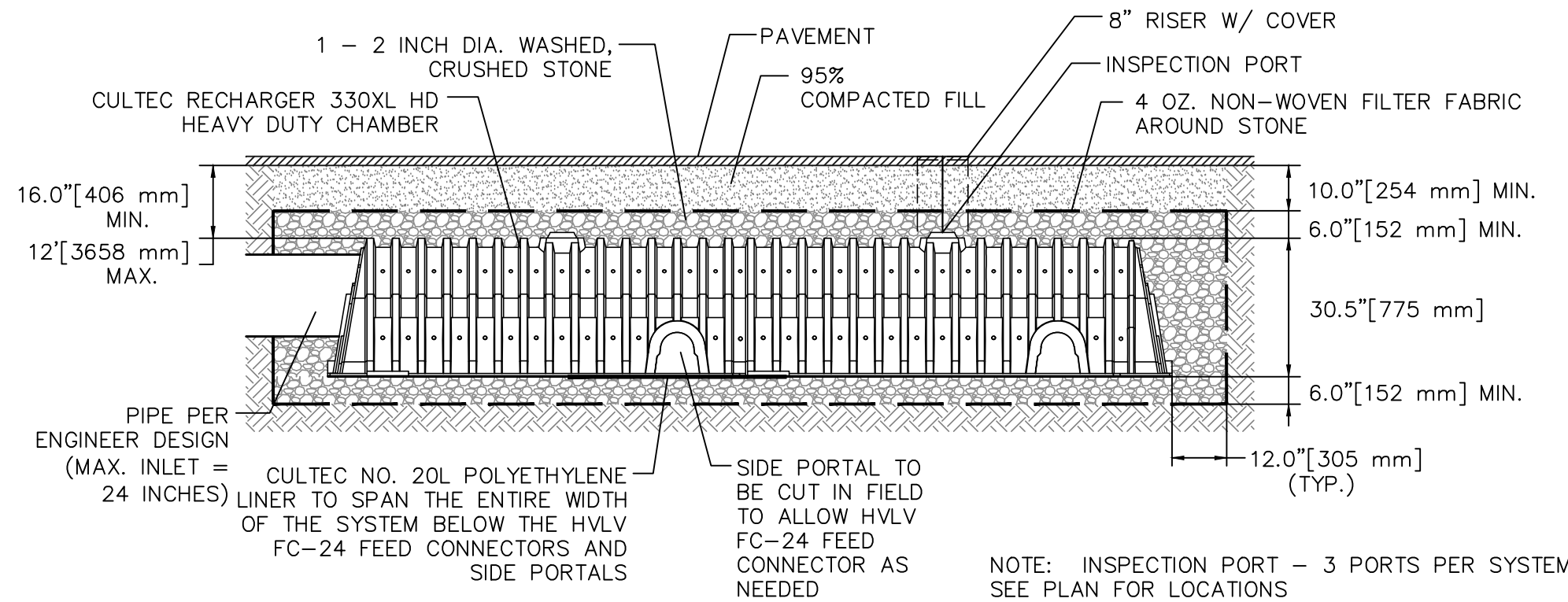
TYPICAL HANDICAP PARKING STRIPING DETAIL
 NOT TO SCALE



GENERAL NOTES
 RECHARGER 330XL HD BY CULTEC, INC. OF BROOKFIELD, CT.
 STORAGE PROVIDED = 11.32 CF/FT PER DESIGN UNIT.
 REFER TO CULTEC, INC.'S CURRENT RECOMMENDED INSTALLATION GUIDELINES.
 USE RECHARGER 330XL HD HEAVY DUTY FOR TRAFFIC AND/OR HS-25 APPLICATIONS.

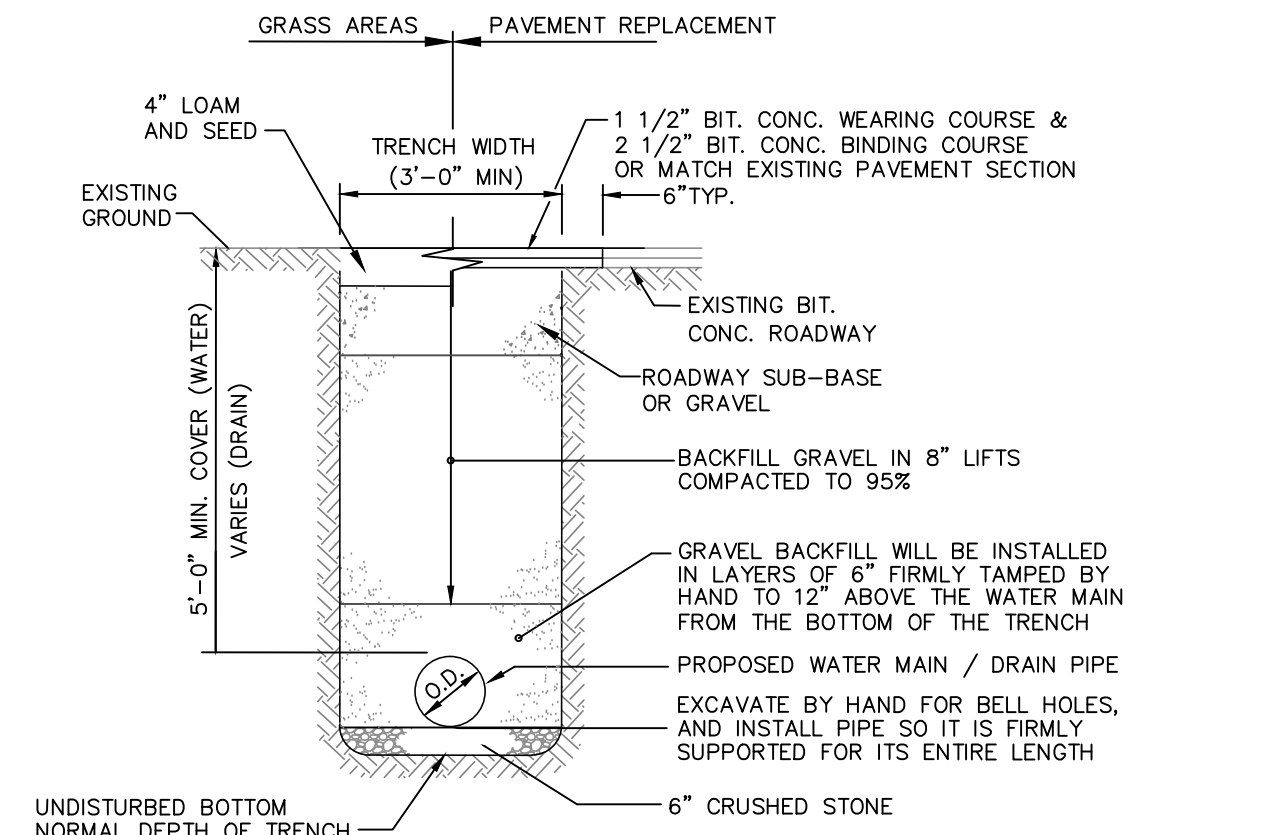
ALL RECHARGER 330XL HD HEAVY DUTY UNITS ARE MARKED WITH A COLOR STRIPE FORMED INTO THE PART ALONG THE LENGTH OF THE CHAMBER. ALL RECHARGER 330XL HD CHAMBERS MUST BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.

INFILTRATION/DETENTION SYSTEM — RECHARGER 330XLHD
 TYPICAL CROSS SECTION
 NOT TO SCALE



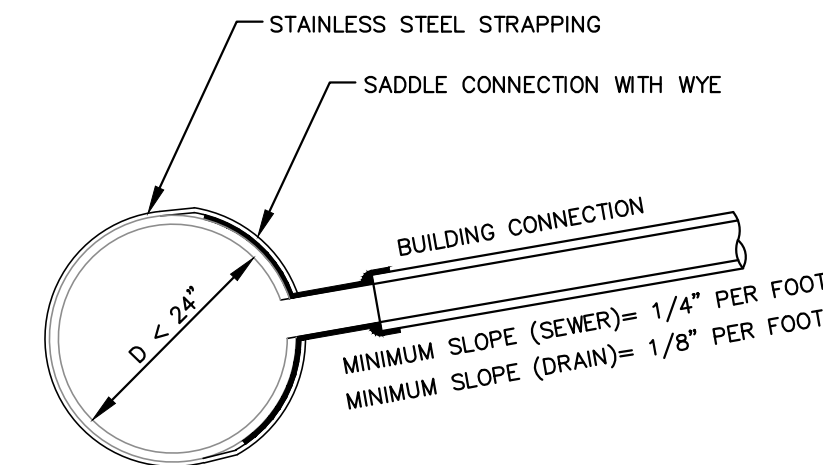
NOTE: INSPECTION PORT — 3 PORTS PER SYSTEM SEE PLAN FOR LOCATIONS

INTERNAL MANIFOLD DETAIL — RECHARGER 330XLHD
 TYPICAL CROSS SECTION
 NOT TO SCALE



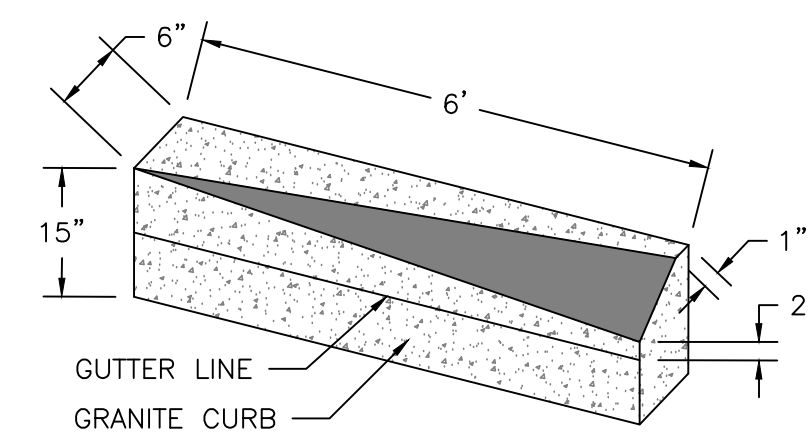
NOTE: ALL PIPE TRENCHES WITH LESS THAN TWO FEET OF COVER OVER THE PIPE SHALL BE LINED WITH FILTER FABRIC AND BACKFILLED WITH CRUSHED STONE. FILTER FABRIC SHALL COVER THE TOP OF THE CRUSHED STONE AND OVERLAP A MINIMUM OF ONE FOOT.

TYPICAL PIPE TRENCH DETAIL
 NOT TO SCALE

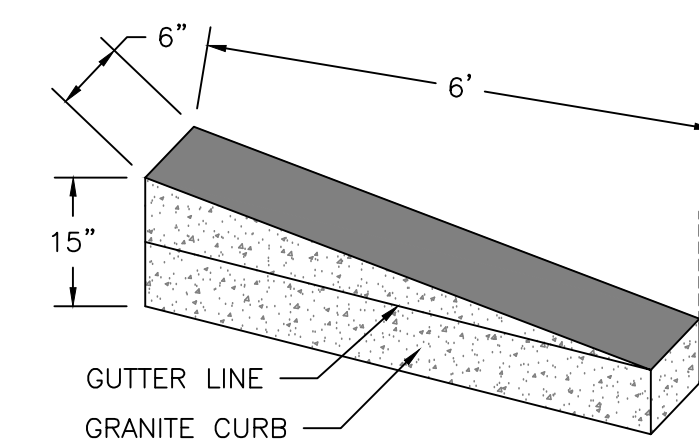


- NOTES:
1. FULL PVC OR IRON SADDLE MAY BE USED TO CONNECT TO EXISTING PVC, CLAY, CONCRETE OR IRON PIPE.
 2. SADDLES MUST HAVE RUBBER GASKETS AND SHALL BE TIGHTENED WITH STRAPS. SADDLES WILL NOT BE CEMENTED ONTO THE PIPE.
 3. FULL WYE CONNECTION FITTINGS MAY BE USED.
 4. PIPE SHALL BE CUT TO CONFORM TO THE OPENING IN THE SADDLE.
 5. CONNECTIONS DIRECTLY INTO THE EXISTING PIPE WITHOUT A SADDLE OR A FULL WYE FITTING ARE NOT ALLOWED.

TYPICAL SADDLE CONNECTION TO EXISTING SEWER OR DRAIN
 NOT TO SCALE



6' VERTICAL GRANITE CURB TO SLOPED GRANITE CURB TRANSITION CURB
 NOT TO SCALE



6' VERTICAL GRANITE CURB TO FLUSH GRANITE CURB TRANSITION CURB
 NOT TO SCALE

CONSTRUCTION DETAILS
LOCATED IN
140 LYNNWAY
REVERE, MA

PREPARED FOR
WINTER STREET ARCHITECTS

DATE: 4-13-2021

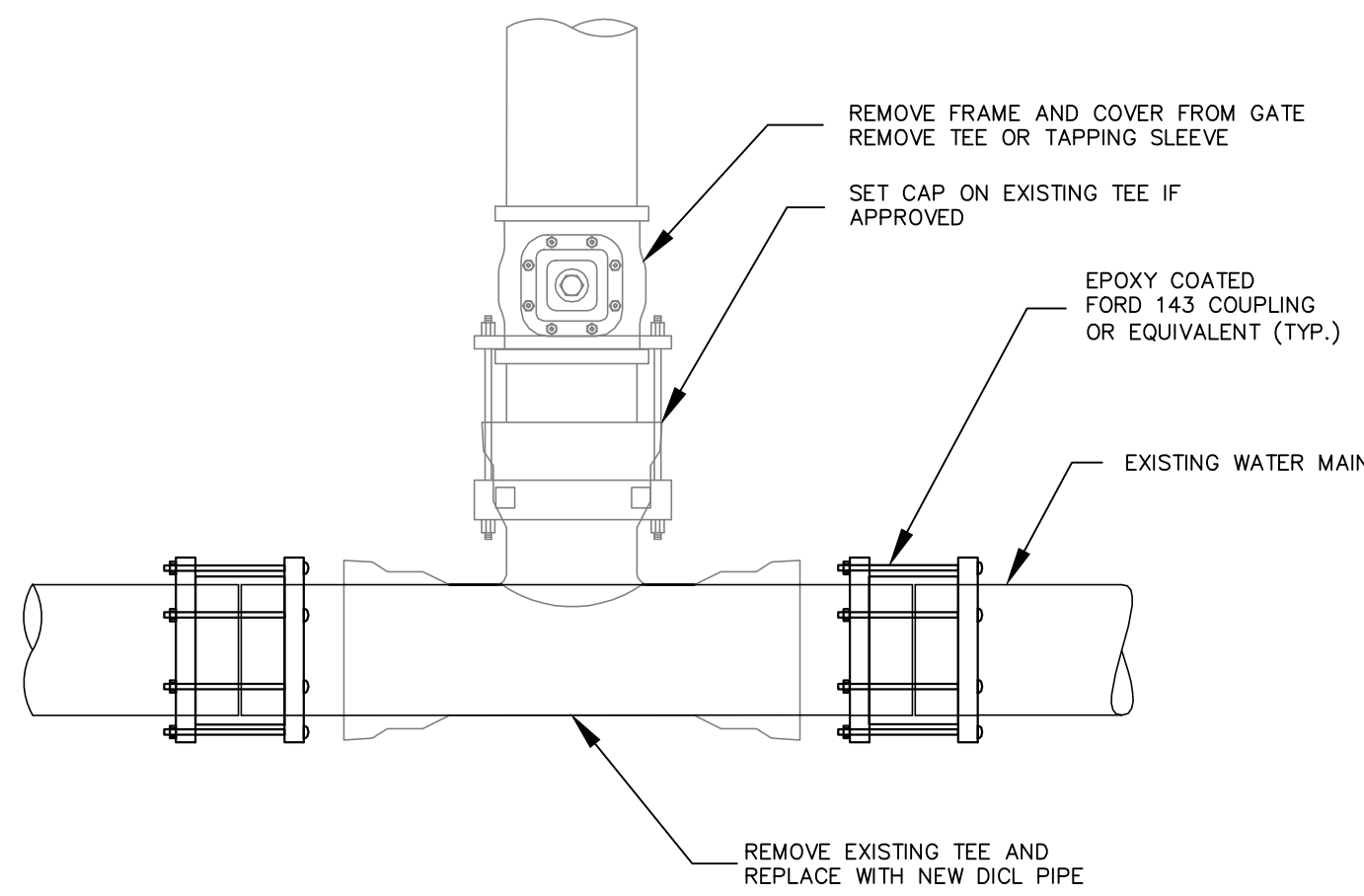
SCALE: 1" = 20'

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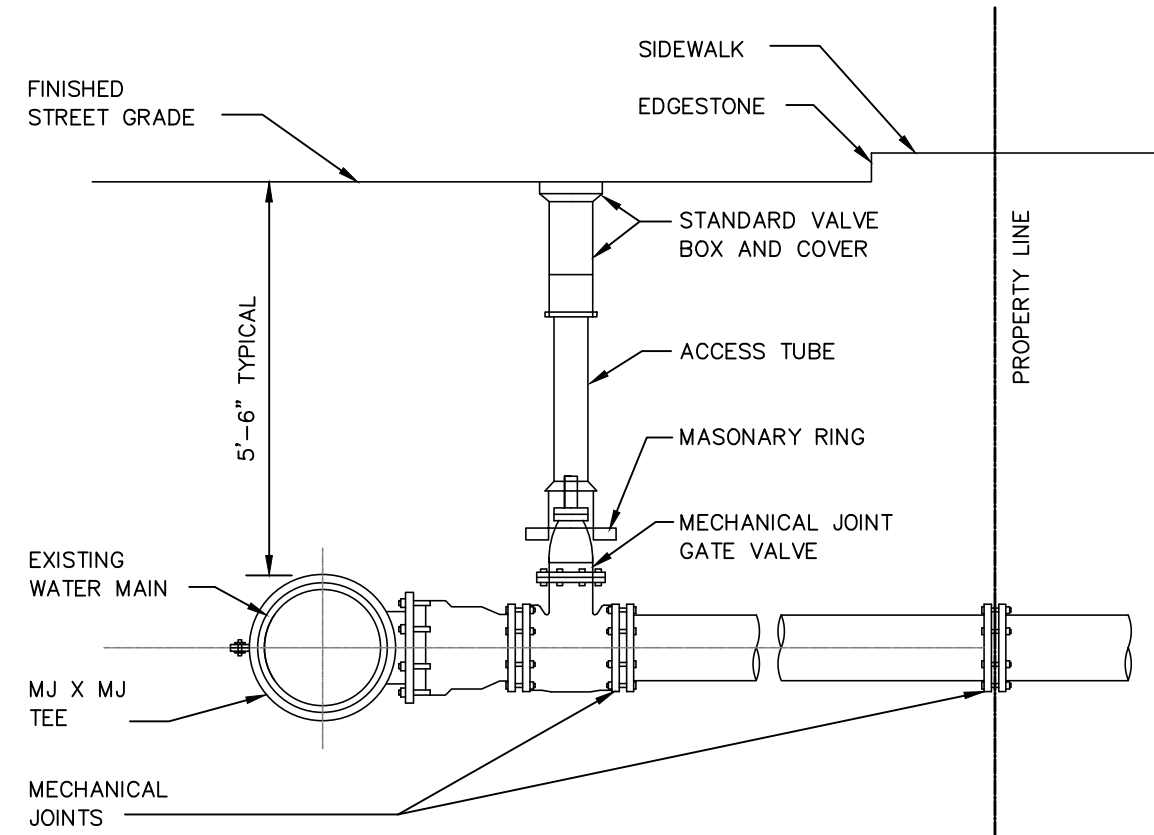
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 DRAWN BY: CG
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DRAFT **C-07**



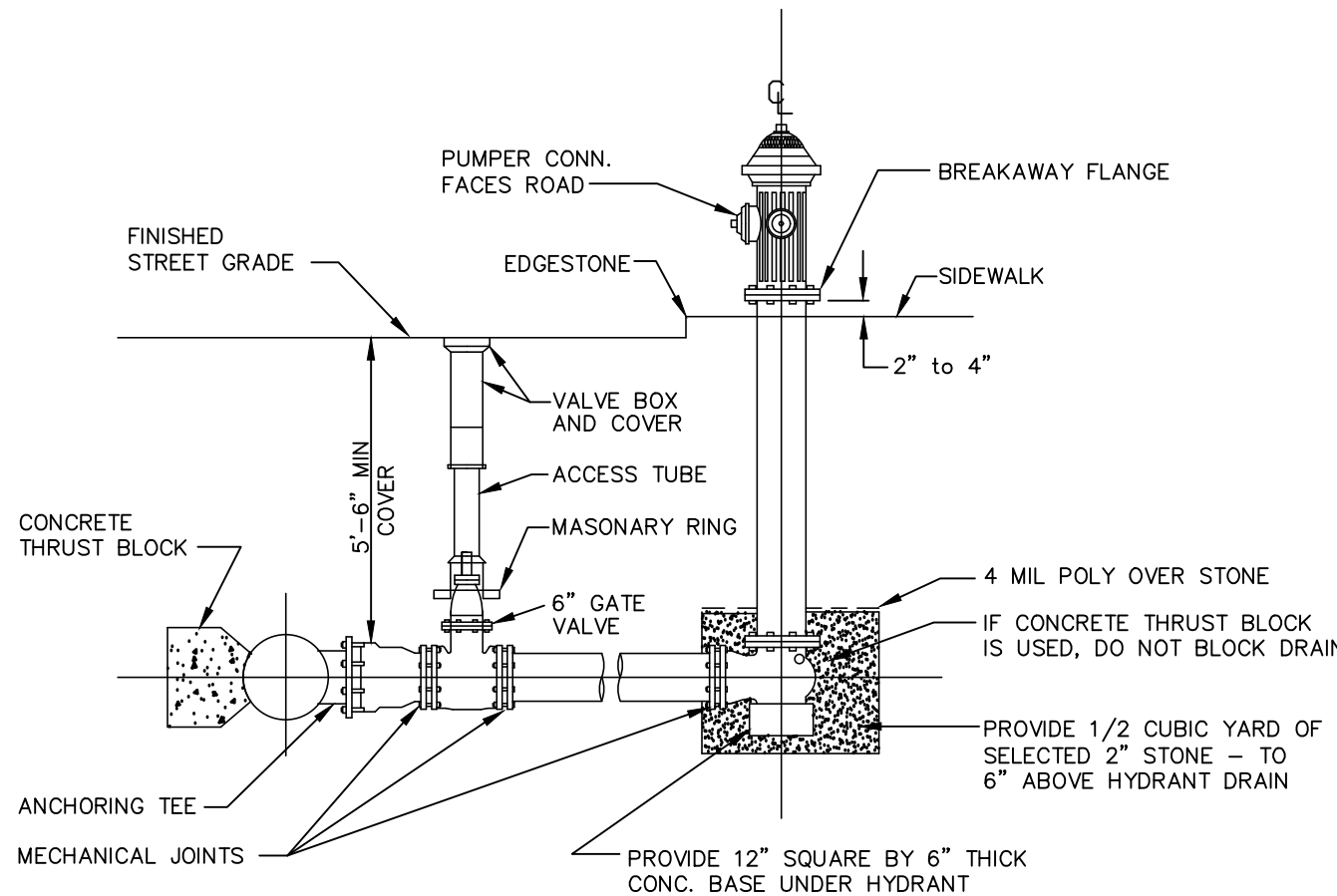
- NOTES:
1. ALL WORK MUST BE PERFORMED BY A BWSC LICENSED AND BONDED CONTRACTOR.
 2. THIS PROCEDURE WILL INVOLVE A MAIN LINE SHUT DOWN THAT THE CONTRACTOR WILL COORDINATE WITH THE BWSC'S OPERATIONS DIVISION.
 3. WRITTEN NOTIFICATION OF ALL AFFECTED CUSTOMERS MUST BE PERFORMED BY THE CONTRACTOR.
 4. ALL WORK MUST BE PERMITTED BY BWSC AND ALL OTHER APPROPRIATE AGENCIES.
 5. ALL WORK MUST BE INSPECTED BY BWSC INSPECTOR OR DESIGNEE.

DETAIL OF CUT AND CAP
OF WATER CONNECTION 4" AND OVER
NOT TO SCALE

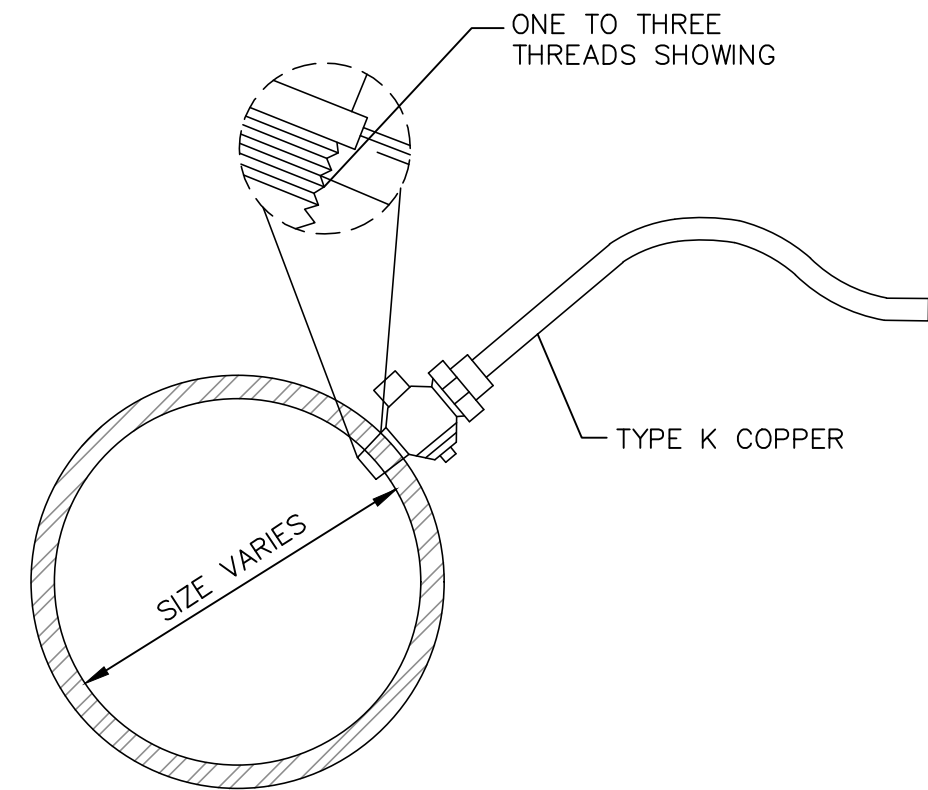


TYPICAL WATER PIPE CONNECTION WITH
MJ X MJ TEE & GATE VALVE DETAIL
NOT TO SCALE

- NOTES:
- CONCRETE THRUST BLOCK TO BE USED ONLY WHERE IT WILL BEAR ON UNDISTURBED EARTH.
 - USE RESTRAINED JOINT FITTINGS OR TIE RODS WHERE CONCRETE THRUST BLOCK IS UNACCEPTABLE.
 - SIZE OF BLOCK OR MEGALUG TO BE DESIGNED FOR SPECIFIC CONDITIONS.

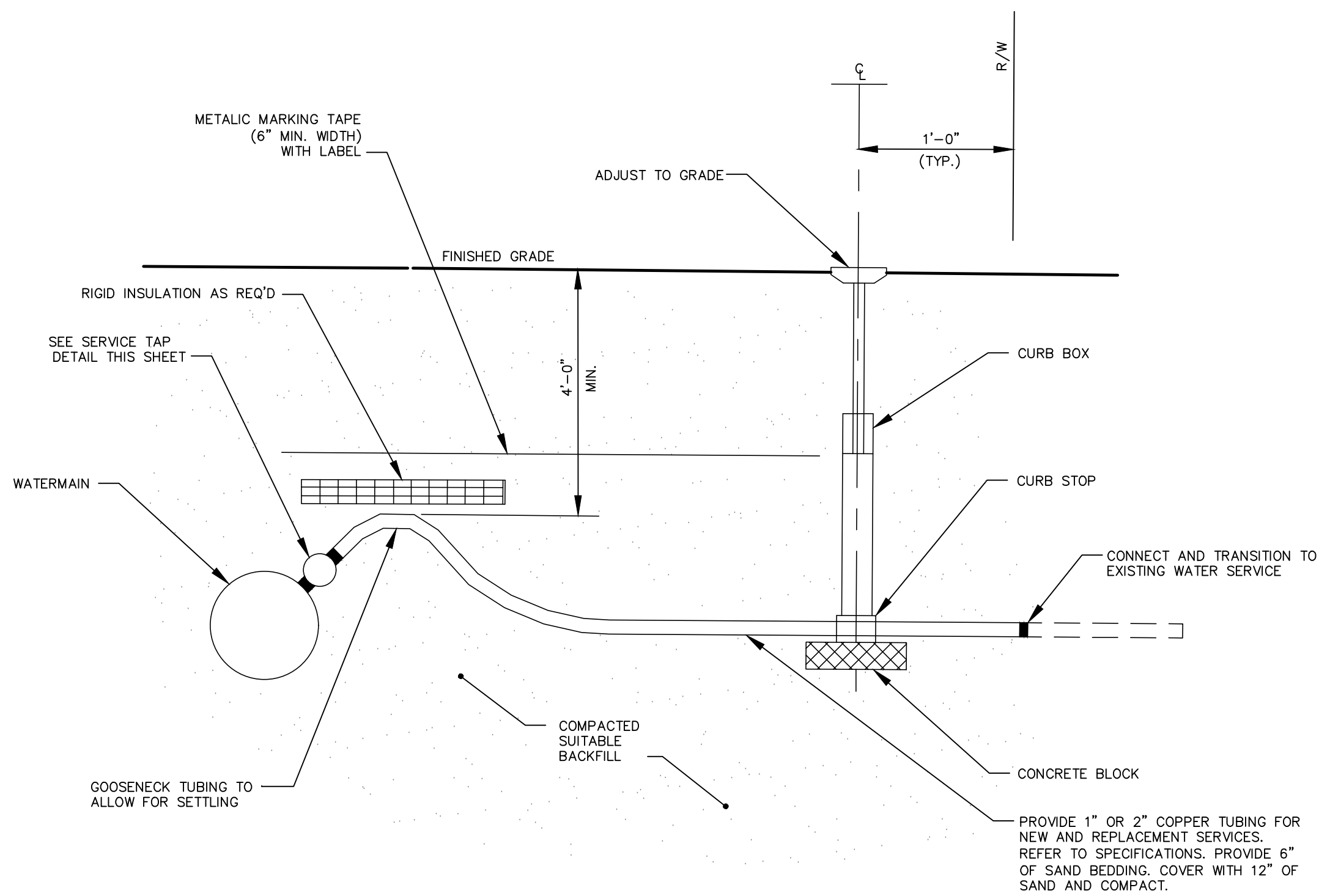


TYPICAL HYDRANT & VALVE DETAIL
NOT TO SCALE

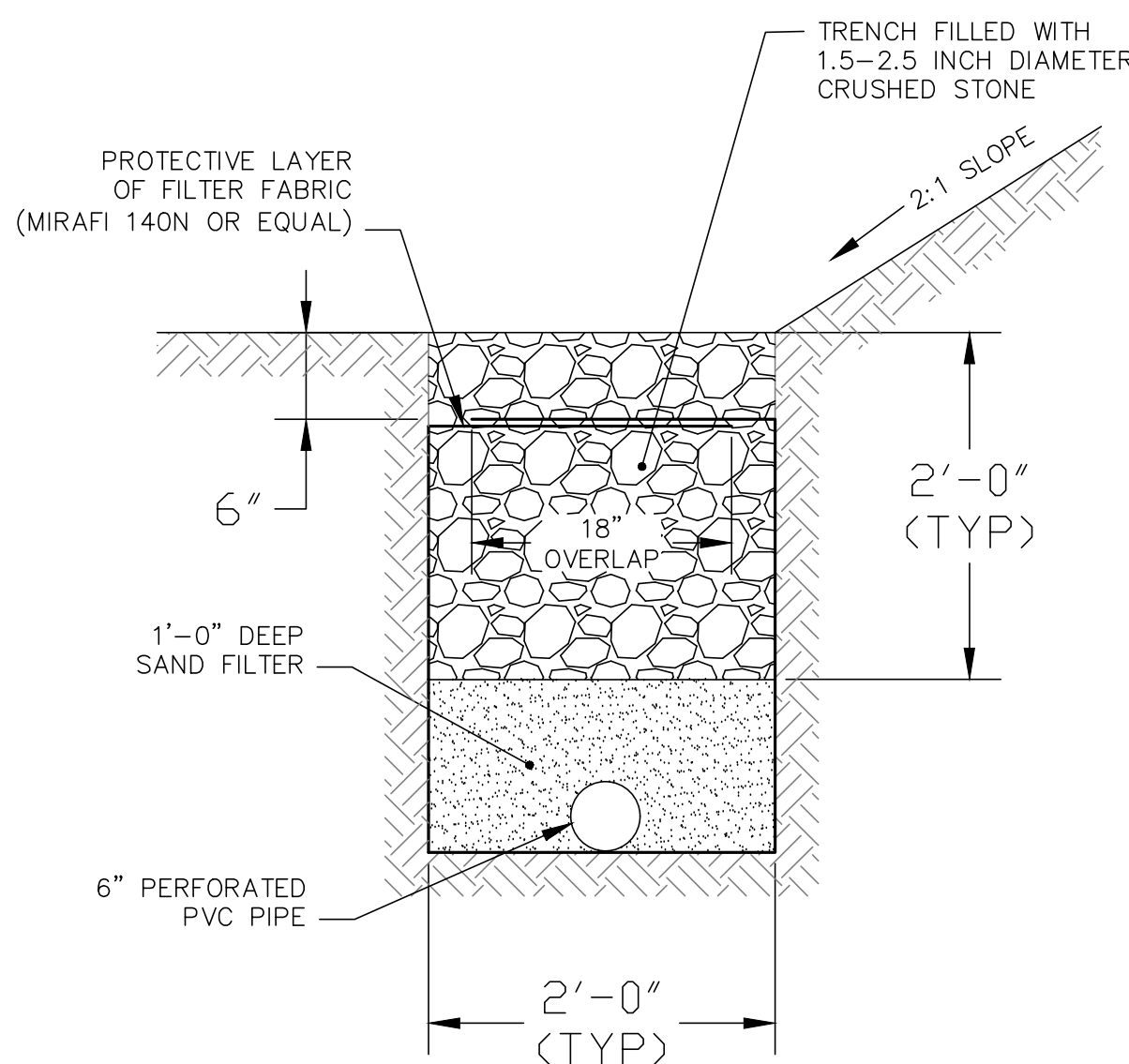


- NOTES:
1. SERVICE CONNECTIONS WILL BE INSTALLED SO THAT THE OUTLET IS AT AN ANGLE OF NOT MORE THAN 45° ABOVE THE HORIZONTAL. ALWAYS PUT A BEND OR "GOOSENECK" IN THE SERVICE LINE PRIOR TO CONNECTING TO PROVIDE FLEXIBILITY AND "GIVE" TO COUNTER THE EFFECTS OF A LOAD DUE TO SETTLEMENT OR EXPANSION AND/OR CONTRACTION

SERVICE TAP
(1" AND 2" C.C. THREAD)
NOT TO SCALE



TYPICAL WATER SERVICE
NOT TO SCALE



INFILTRATION TRENCH DETAIL
SCALE: 1"= 1'-0"

CONSTRUCTION DETAILS

LOCATED IN
140 LYNNWAY

REVERE, MA

PREPARED FOR
WINTER STREET ARCHITECTS

DATE: X-X-2020

SCALE: 1" = 20'

Brennan Consulting
ENGINEERING · TRANSPORTATION · SURVEYING
24 RAY AVENUE, BURLINGTON, MA
PHONE: (781) 273-3434 FAX: (781) 273-3430

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NO.	DATE	DESCRIPTION	BY	

CHECKED BY: CE

DRAWN BY: CG

PROJECT 19954B

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C-08