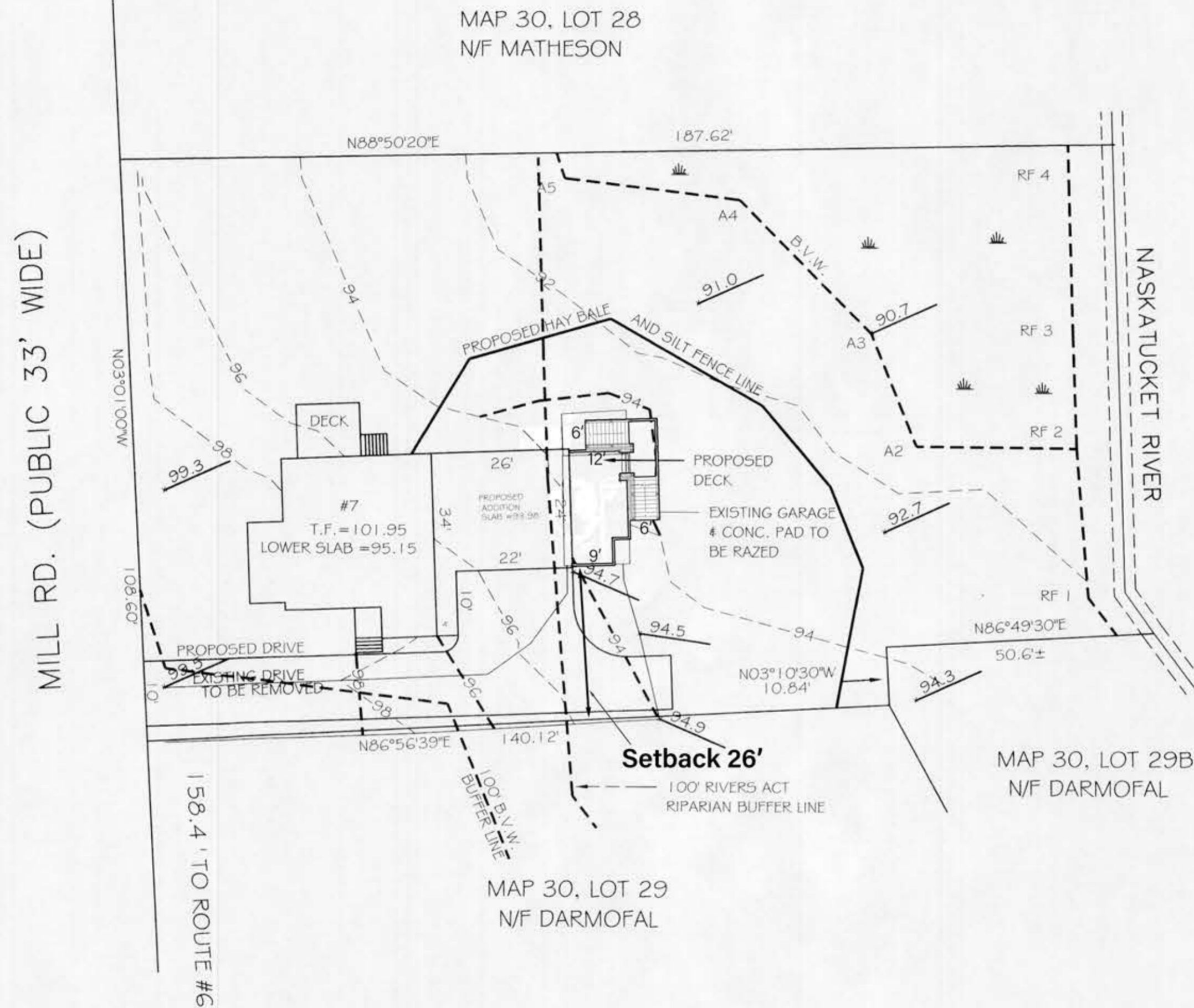




LOCUS MAP (N.T.S.)



MAP 30, LOT 30  
N/F MARINER YOUTH SOCCER

MAP 30, LOT 29B  
N/F DARMOFAL

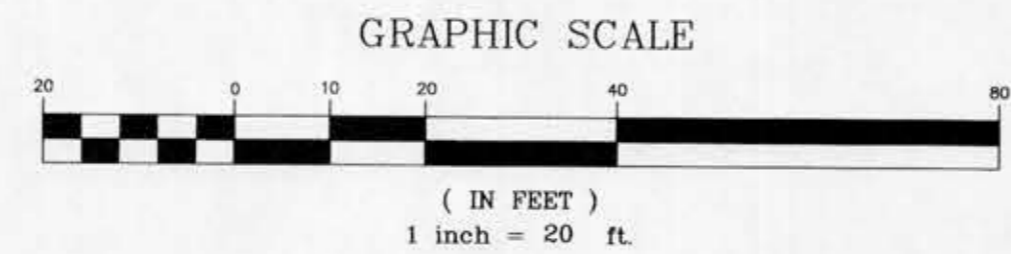
MAP 30, LOT 29  
N/F DARMOFAL



WETLANDS DELINEATION BY: SITE SOLUTIONS, INC.

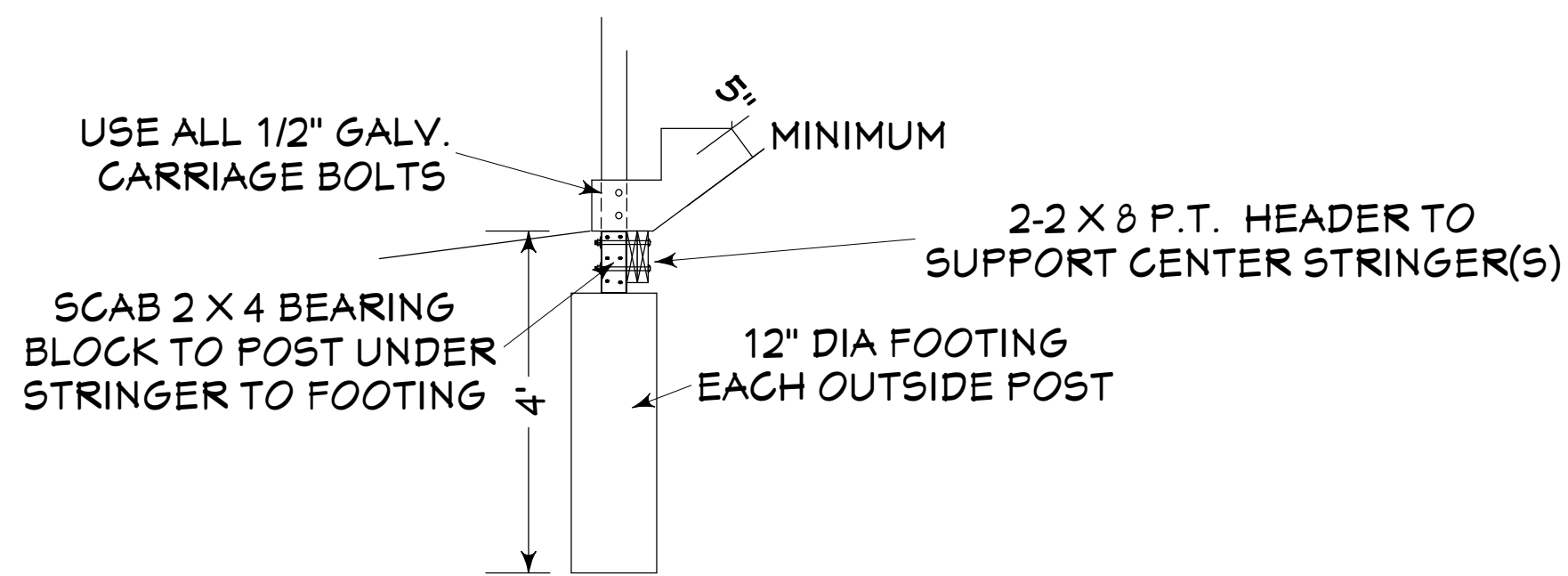
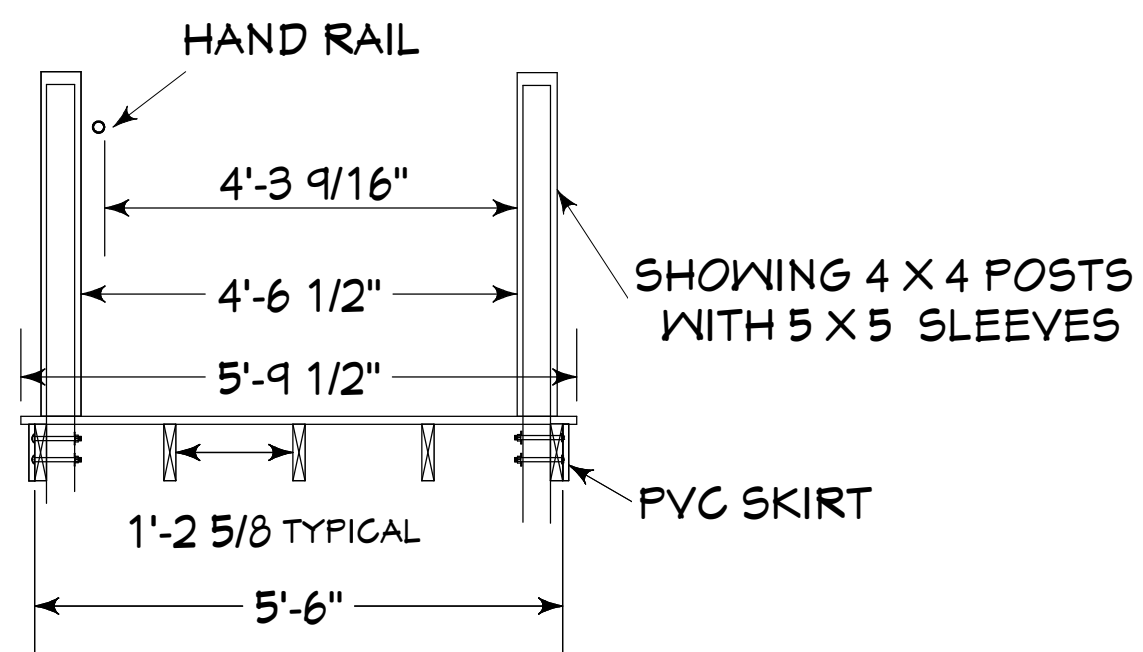
Updated 04/01/2021 by Holger Dippel  
with proposed deck layout and setback

<b>SEGUIN ASSOC.</b>		
33 BENNETT RD., ROCHESTER, MA. 02770, 508-763-2660		
PLAN OF LAND IN FAIRHAVEN, MA. FOR: HOLGER DIPPEL ASSESSORS MAP 30, LOTS 51 AND 29A		
TITLE: DIPPEL	DRAWN BY: D.R.S.	
SHT# 1 OF 1	SCALE: 1" = 20'	DATE: 3/29/06

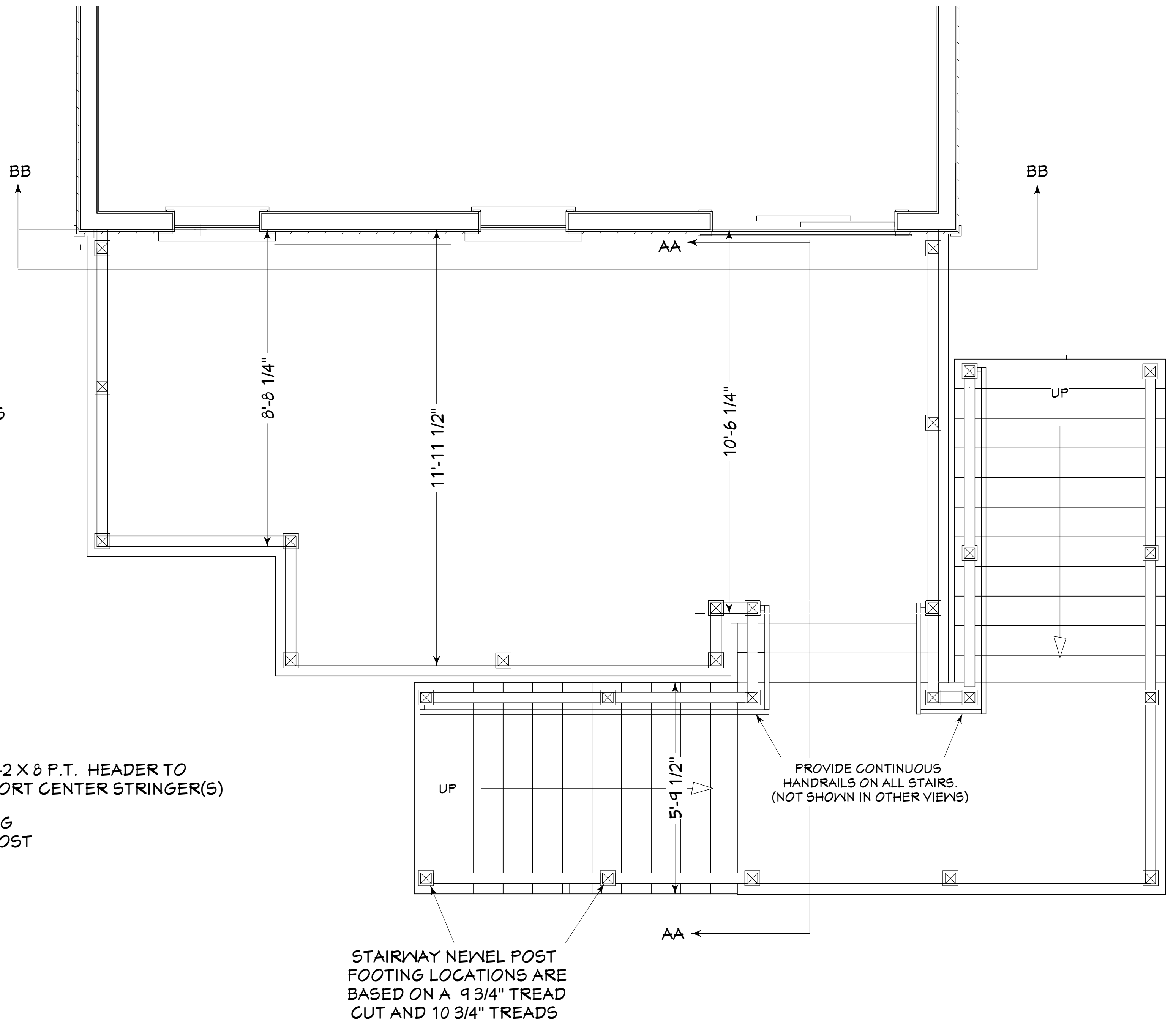


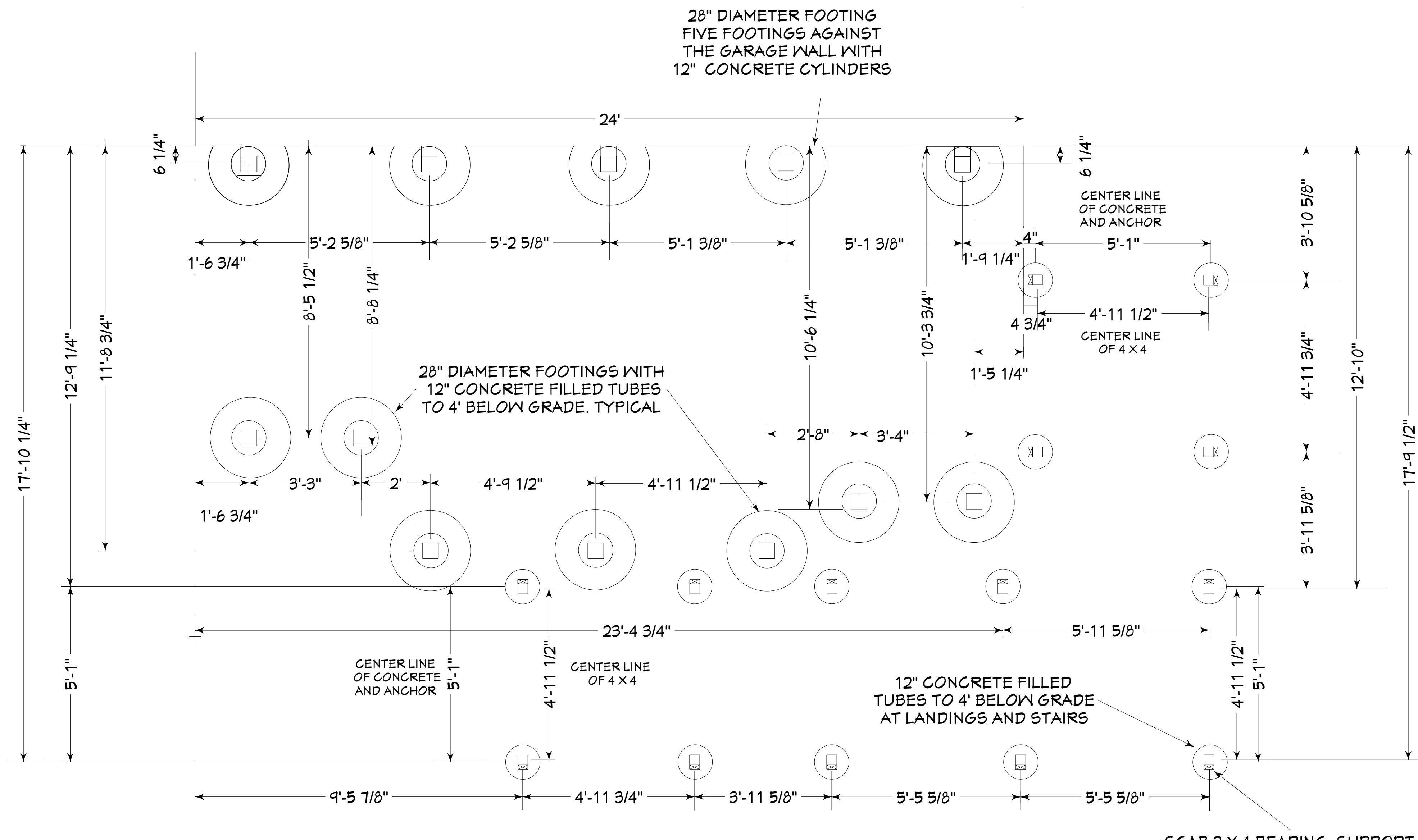


REAR ELEVATION  
SCALE 1/2" = 1'



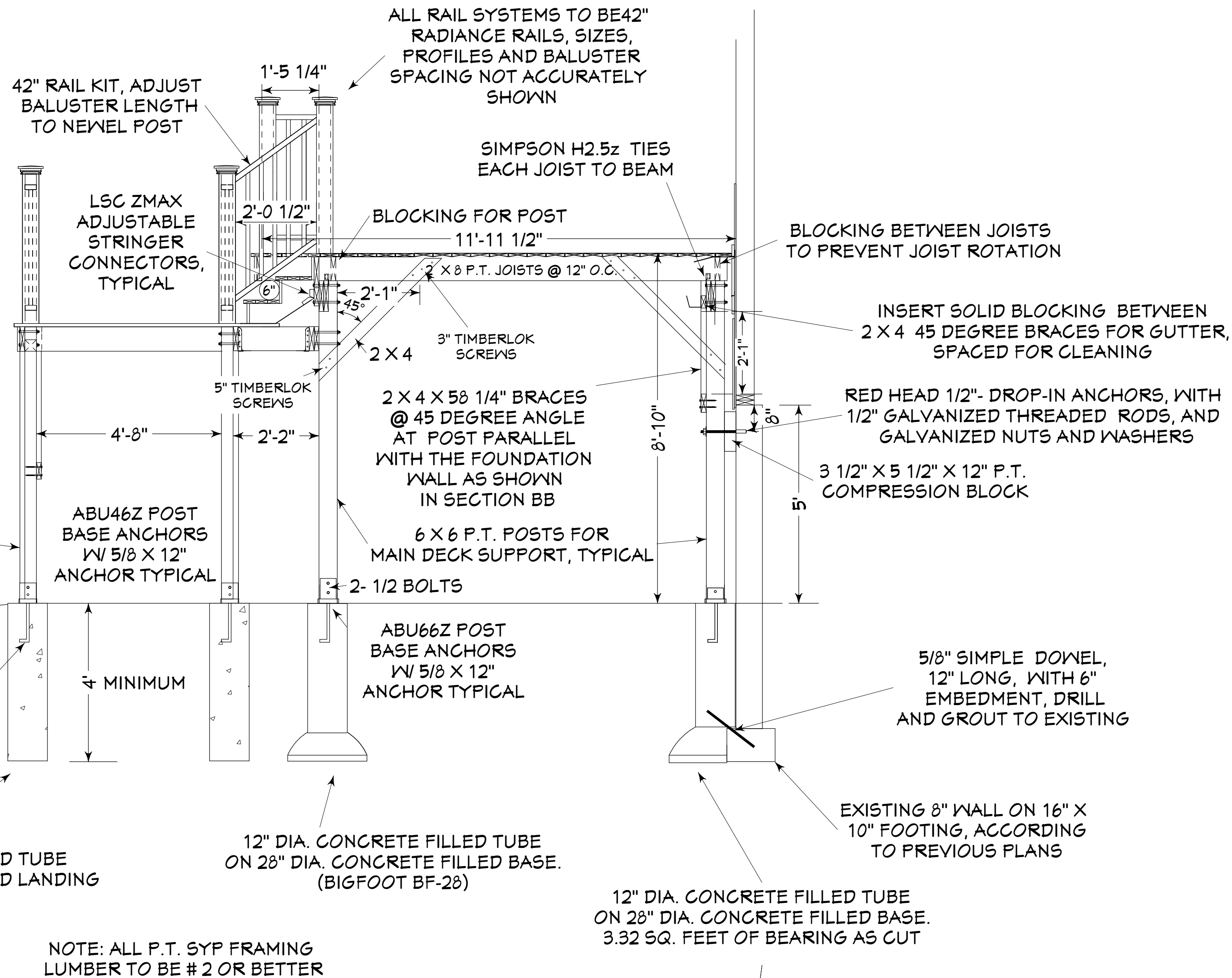
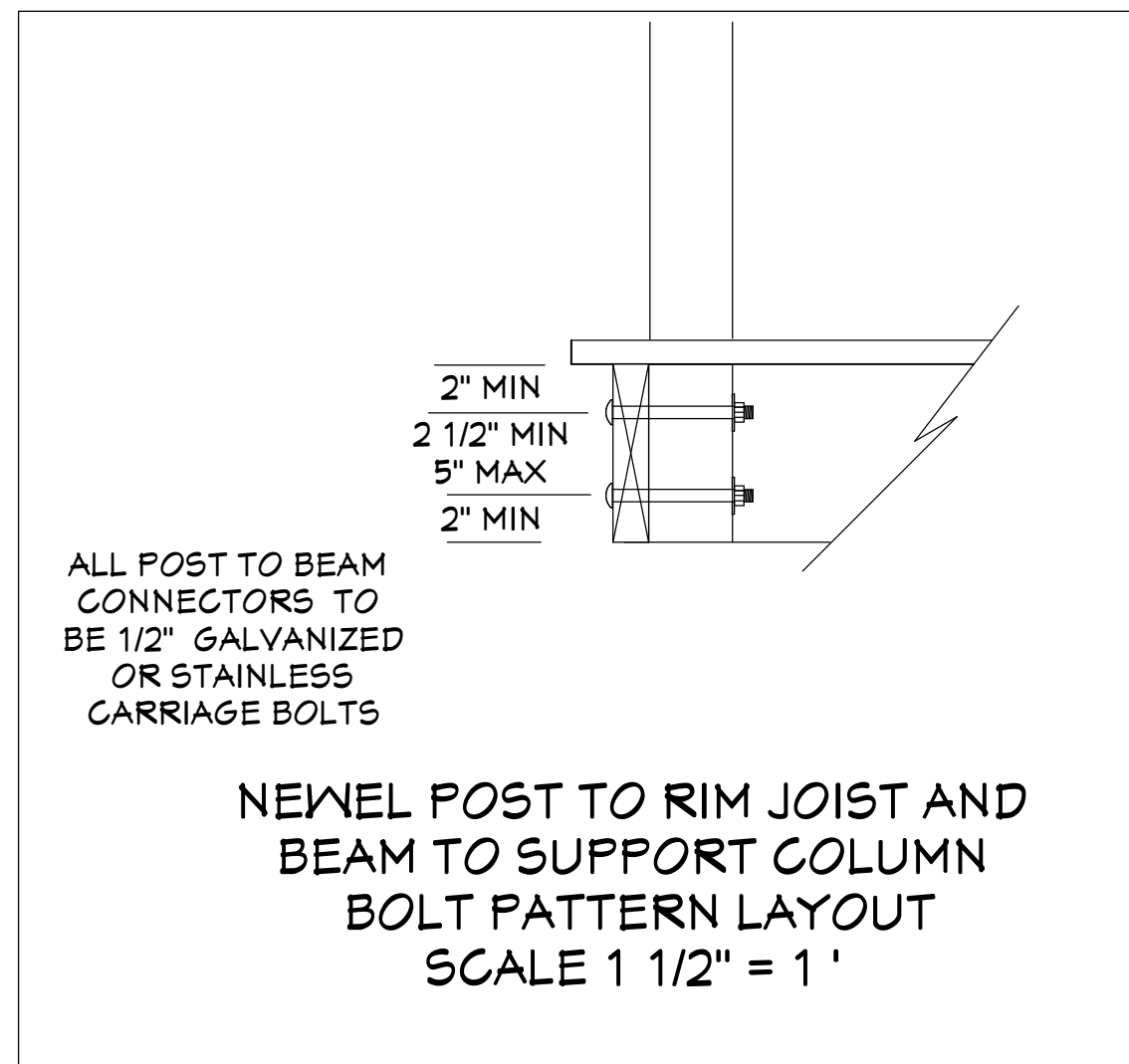
STRINGER FOOTING  
DETAIL 1/2" = 1'



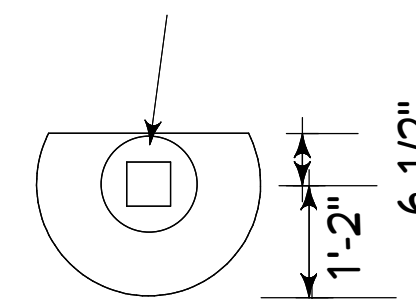


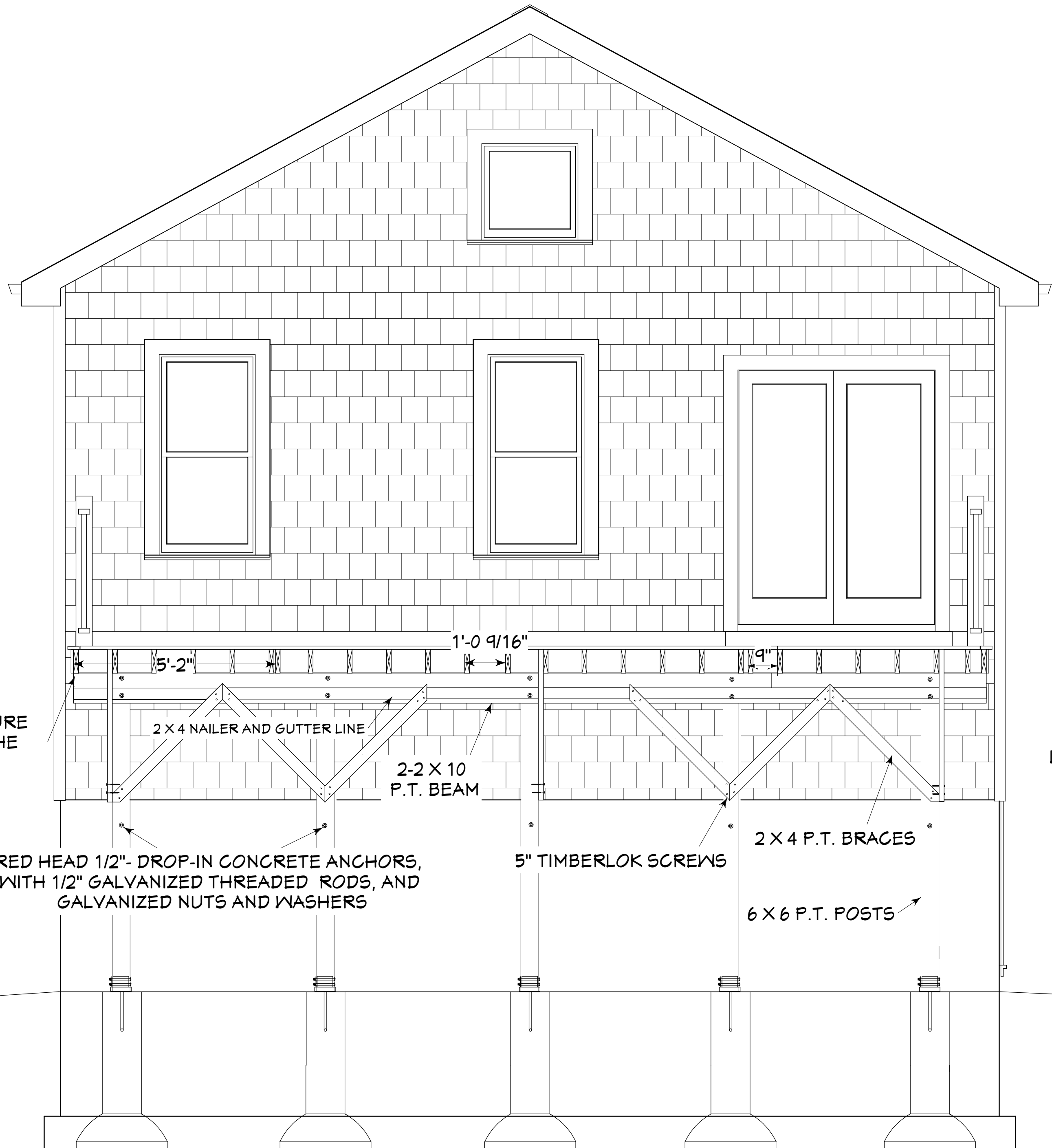
**FOOTING LAYOUT**  
SCALE: 1/2" = 1'





SECTION: AA  
SCALE: 1/2" = 1'



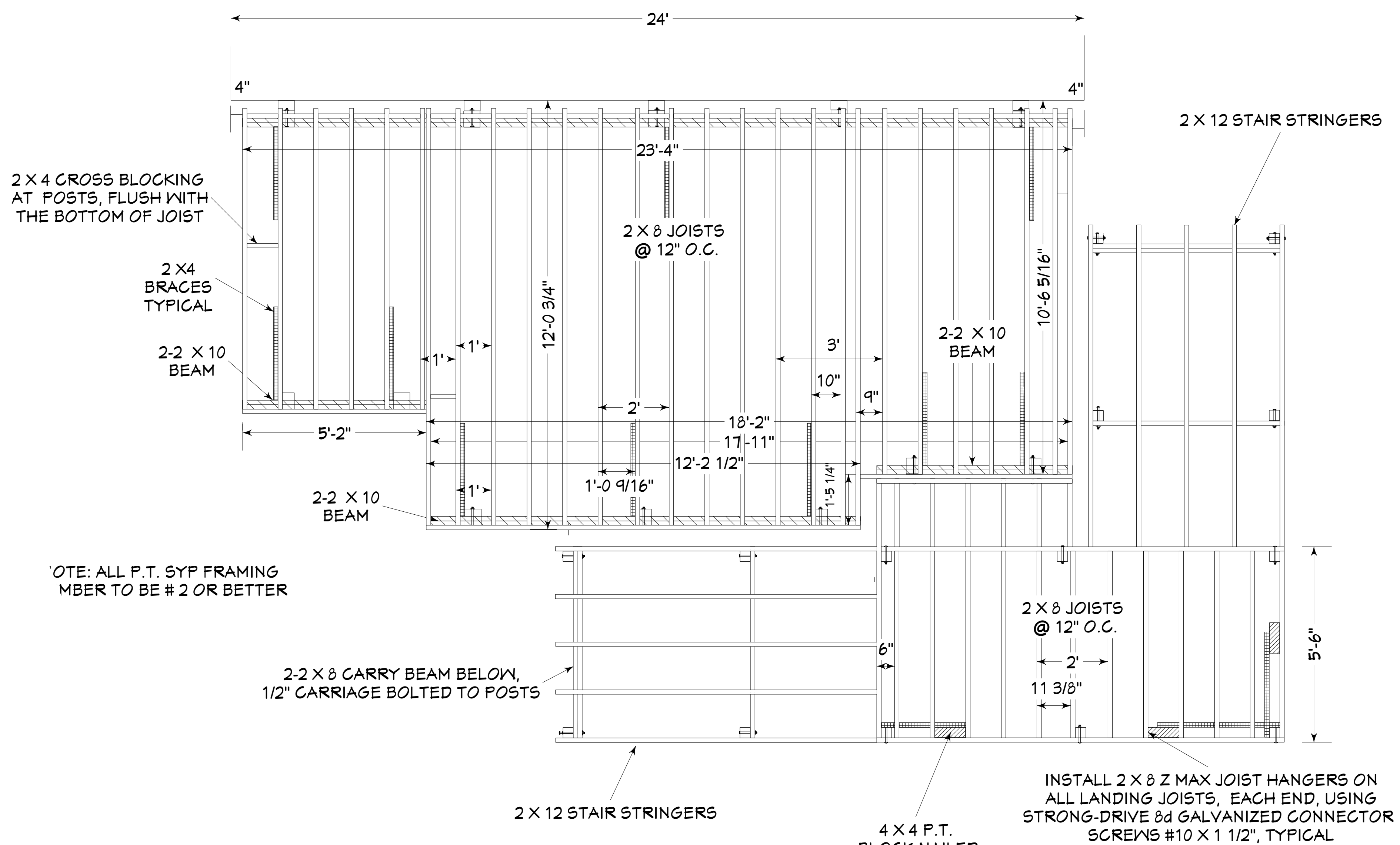


START JOIST LAYOUT HERE. INSURE THAT JOIST ARE SET SO THAT THE THREE BRACES TIE TO JOIST

NOTE: ALL P.T. SYP FRAMING LUMBER TO BE # 2 OR BETTER

RED HEAD 1/2"- DROP-IN CONCRETE ANCHORS, WITH 1/2" GALVANIZED THREADED RODS, AND GALVANIZED NUTS AND WASHERS

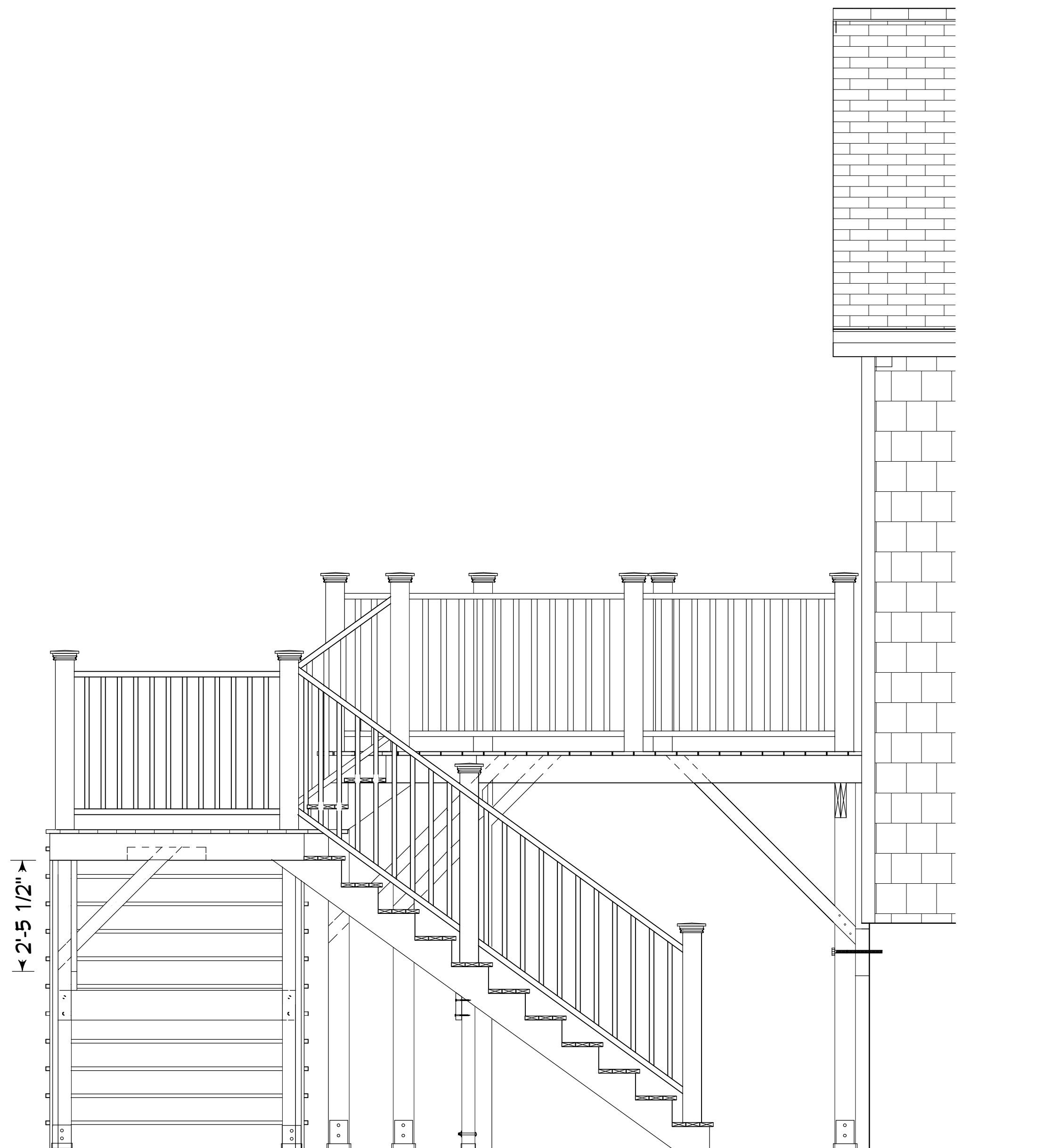
SECTION:BB  
SCALE:1/2" = 1'



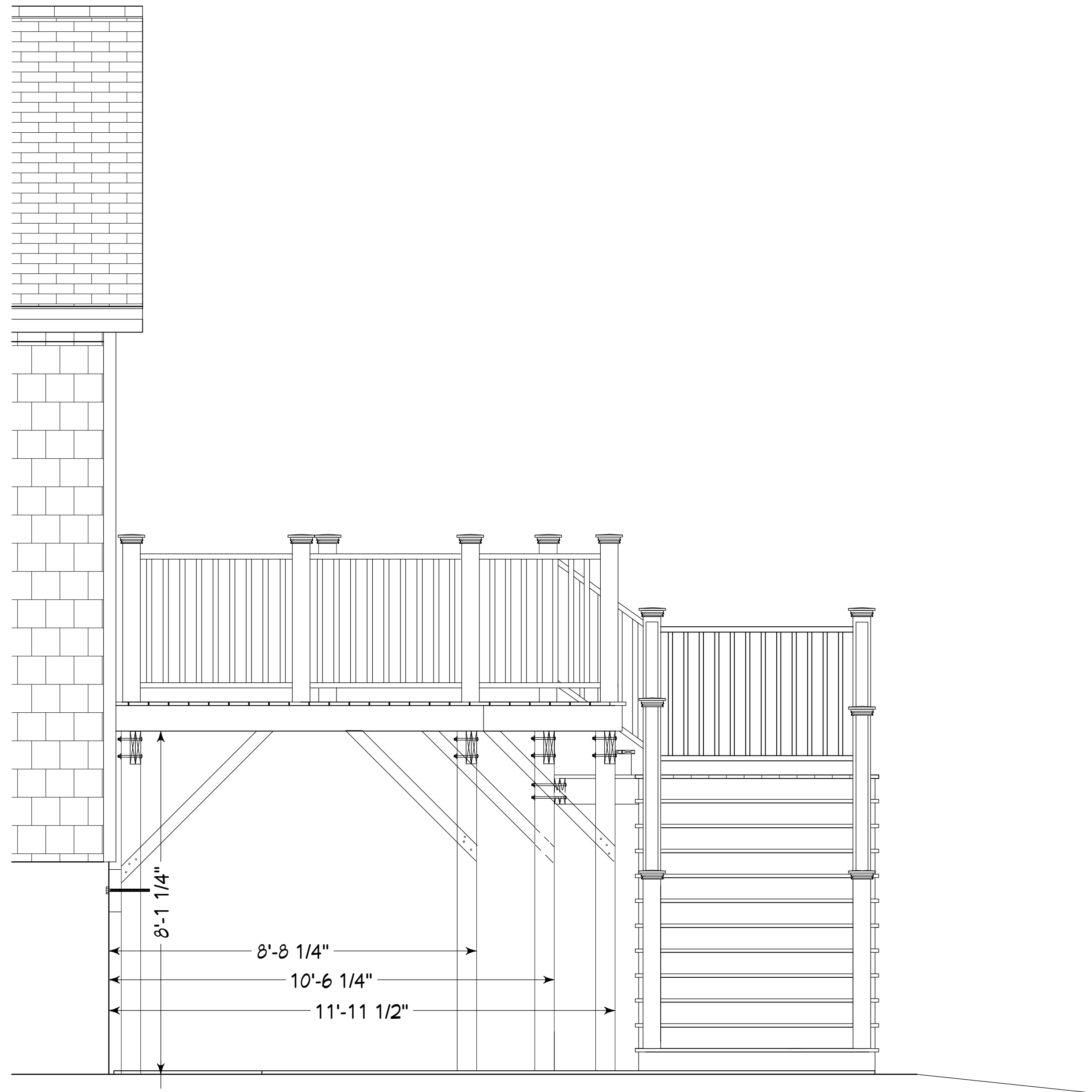
NOTE: ALL P.T. SYP FRAMING MEMBER TO BE # 2 OR BETTER

INSTALL 2 X 8 Z MAX JOIST HANGERS ON ALL LANDING JOISTS, EACH END, USING STRONG-DRIVE 8d GALVANIZED CONNECTOR SCREWS #10 X 1 1/2", TYPICAL

**FRAMING LAYOUT**  
SCALE: 1/2" = 1'



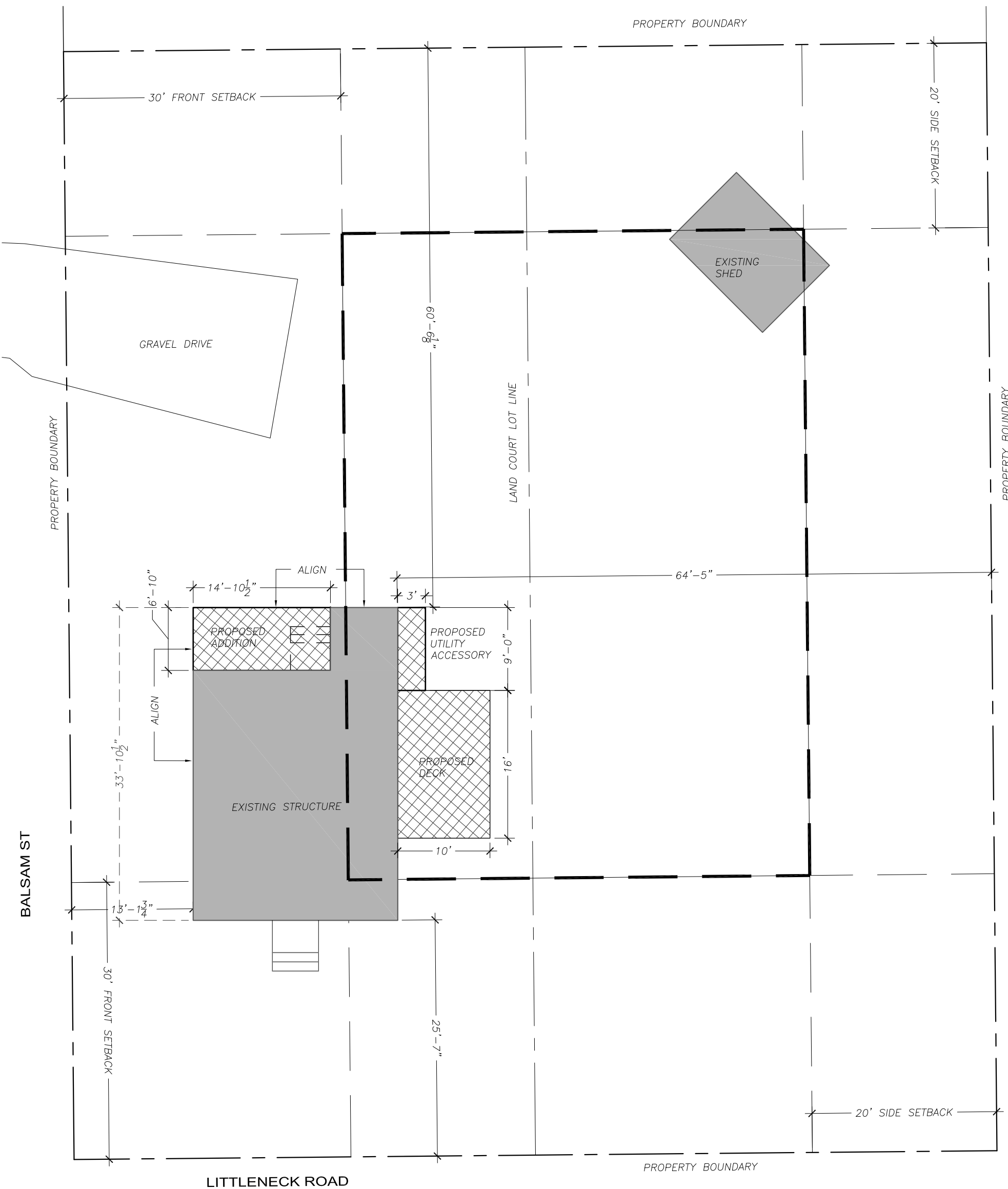
LEFT SIDE  
SCALE 1/2" = 1'



RIGHT SIDE ELEVATION  
SCALE 1/2" = 1'

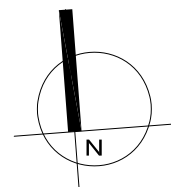






ZONING CHART - EXISTING AND PROPOSED

	ALLOWABLE	EXISTING	PROPOSED	DELTA
LOT SIZE (APPROXIMATE)		12,000 SQFT		
BUILDING AREA				
RESIDENCE		650	778	+128
DECKS		21	199	+178
SHED		146	146	0
TOTAL BUILDING AREA		817	1,123	+306
ASPHALT AREA (APPROXIMATE)		0	0	0
TOTAL LOT COVERAGE		817	1,123	+306
TOTAL BUILDING COVERAGE	15% max	6.8%	9.3%	
TOTAL LOT COVERAGE	25% max	6.8%	9.3%	



issue	description	date
ISSUE	FOR REVIEW	01.31.21

SITE PLAN

10 LITTLE NECK RD, FAIRHAVEN, MA

scale | 3/32" = 1'-0"  
drawn | p.r.k.  
job i.d. | 20-011

S101

GENERAL

- 1) Structural work shall conform to the requirements of "The Commonwealth of Massachusetts State 9th Edition Residential Building Code."
- 2) Examine Architectural, Mechanical drawings for verification of locations and dimensions and other project requirements not shown on structural drawings.
- 3) Verify and coordinate dimensions related to this project.
- 4) The contractor shall provide shoring and bracing as necessary to support existing structure during construction until permanent supports are erected.

FOUNDATIONS

- 1) Exterior construction shall be carried down below finished exterior grade to a minimum depth of 4'-0", unless noted otherwise.
- 2) Foundations for this project consist of spread footings, and piers. Allowable bearing pressure is assumed to be 1.5 tons per square foot.
- 3) Foundation units shall be centered under supported structural members, unless noted otherwise on the drawings.
- 4) Carry out continuous control of surface and subsurface water during construction such that foundation work is done in the dry and on undisturbed subgrade material, as applicable.
- 5) Excavate as required to install footings and foundation walls as detailed. Bottom 3 inches of excavations for footings shall be finished by hand shovel.
- 6) No foundation concrete shall be placed in water or on frozen subgrade material.

CONCRETE

- 1) Concrete work shall conform to "Building Code Requirements for Reinforced Concrete (ACI 318 latest edition)", and "Specification for Structural Concrete for Buildings (ACI 301 latest edition)".
- 2) Concrete shall be controlled concrete, proportioned, mixed and placed in the presence of a representative of an approved testing agency.
- 3) Unless noted otherwise all structural concrete shall be normal weight (145 pcf), concrete having the following minimum 28 day compressive strength of:
  - a) Spread footings, and mats.....3000 psi.
- 4) All concrete exposed to weather, including foundation walls, shall be air-entrained concrete, air-entrainment shall be 6% ± 1%.
- 5) Concrete shall be placed without horizontal construction joints except where shown or noted.

REINFORCEMENT

- 1) Reinforcement work of detailing, fabrication and erection shall conform to "Building Code Requirements for Reinforced Concrete (ACI 318 ", "ACI Detailing Manual", "CRSI Manual of Standard Practice", latest editions.
- 2) Steel reinforcement, unless noted otherwise, shall conform to the following:
  - a) Bars.....ASTM A615 grade 60  
(yield stress 60,000 psi)



Dankers Structural Consulting LLC

16 Kenney Road Medfield, MA 02052 p) (508) 359-4075 f) (508) 242-9644

S000

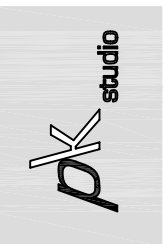
NO SCALE  
I.D.  
21002

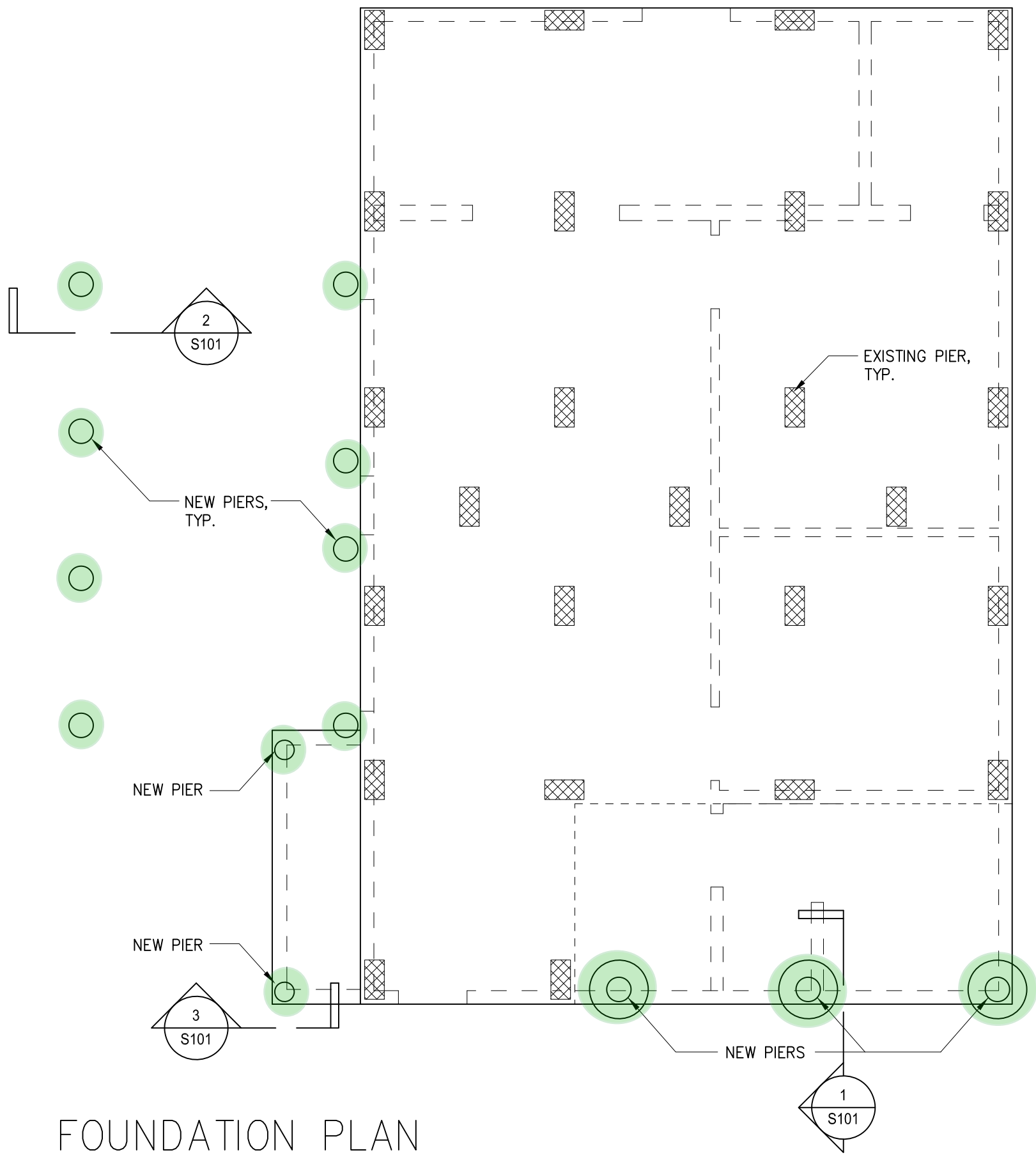
scale  
drawn  
DSC #

NOTES

issue	description	date
ISSUE	FOR CONSTRUCTION	03.29.21

10 LITTLE NECK RD, FAIRHAVEN, MA





# FOUNDATION PLAN



*Imants Dankers*



Dankers Structural Consulting LLC

DSC

16 Kenney Road p) (508) 359-4075  
 Medfield, MA 02052 f) (508) 242-9644



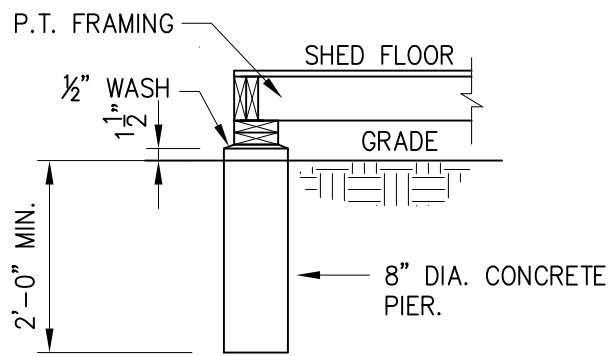
issue	description	date
ISSUE	FOR CONSTRUCTION	03.29.21

FOUNDATION PLAN

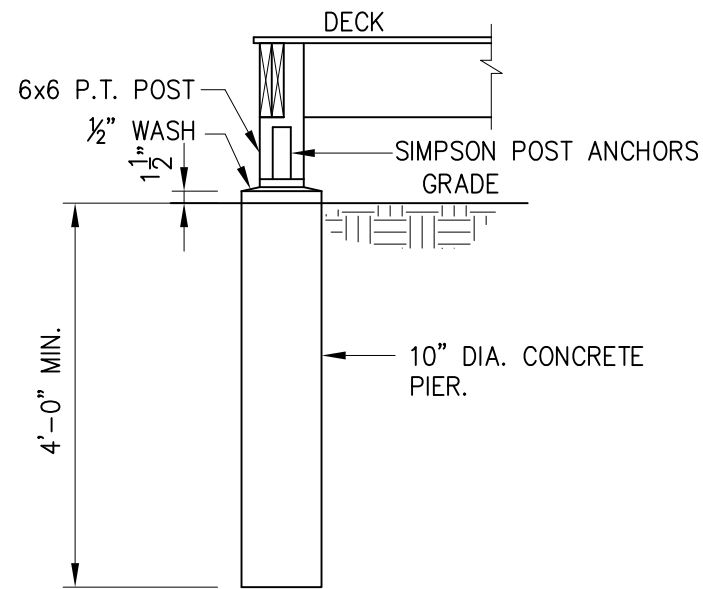
10 LITTLE NECK RD, FAIRHAVEN, MA

scale 1/4" = 1'-0"  
 drawn I.D.  
 DSC # 21002

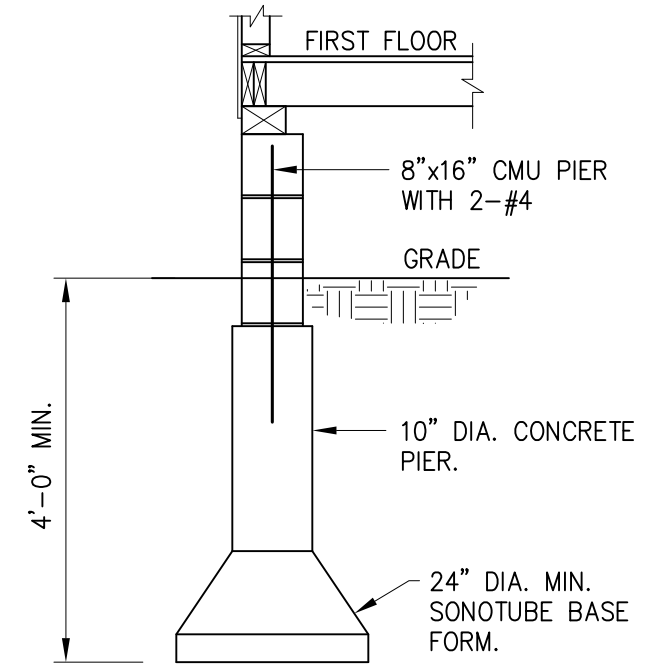
**S100**



3 SHED PIER SECTION  
S100 SCALE: 1/2"=1'-0"



2 DECK PIER SECTION  
S100 SCALE: 1/2"=1'-0"



1 NEW PIER SECTION  
S100 SCALE: 1/2"=1'-0"



Dankers Structural Consulting LLC

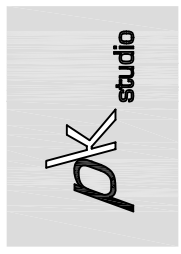
16 Kenney Road p) (508) 359-4075  
Medfield, MA 02052 f) (508) 242-9644

issue	description	date
ISSUE	FOR CONSTRUCTION	03.29.21

FOUNDATION SECTIONS  
10 LITTLE NECK RD, FAIRHAVEN, MA

scale 1/2" = 1'-0"  
drawn I.D.  
DSC # 21002

S101





# REQUEST FOR DETERMINATION OF APPLICABILITY ISSUED FOR PERMITTING FAIRHAVEN HIGH SCHOOL ATHLETIC FIELD IMPROVEMENTS

12 HUTTLESTONE AVE  
FAIRHAVEN, MA 02719

TRAVERSE LANDSCAPE ARCHITECTS PROJECT NO. A1037



## CONTACT INFORMATION

ORGANIZATION	NAME	PHONE
OWNER FAIRHAVEN SCHOOL DISTRICT 12 HUTTLESTONE AVE FAIRHAVEN, MA 02719	NICOLE POTTER	(508) 979 400 EXT 140
	ANDY KULAK	
LANDSCAPE ARCHITECT TRAVERSE LANDSCAPE ARCHITECTS	JUSTIN ROBERTSHAW	(319) 440 8989
	ARTHUR EDDY	(401) 585 0017

## SHEET INDEX

SHEET	DESCRIPTION
C101	CIVIL NOTES AND LEGEND
C201	DEMOLITION, EROSION AND SEDIMENT CONTROL PLAN
C301	GENERAL PLAN
C401	GRADING PLAN
C501	DRAINAGE AND UTILITY PLAN
C601	CIVIL DETAILS 1
C602	CIVIL DETAILS 2
L0.01	LEGEND SCHEDULES AND GENERAL NOTES
L1.01	EXISTING CONDITIONS
L1.11	OVERALL SITE PLAN
L1.21	LANDSCAPE ATHLETICS MATERIALS PLAN
L1.31	LANDSCAPE ATHLETIC LAYOUT PLAN
L3.11	LANDSCAPE ATHLETIC DETAILS
L3.12	LANDSCAPE ATHLETIC DETAILS
L3.13	LANDSCAPE ATHLETIC DETAILS
L3.14	LANDSCAPE ATHLETIC DETAILS
L3.15	LANDSCAPE ATHLETIC DETAILS
L3.21	ATHLETIC SUPPORT BUILDING DETAILS
L3.22	ATHLETIC SUPPORT BUILDING DETAILS

## SCOPE OF WORK

**BASE BID - FIELD IMPROVEMENTS**  
STRIPING OF TOP SOIL WITH THE STADIUMS EXISTING BRICK WALLS, REMOVAL OF EXISTING SPORTS LIGHTING, REMOVAL AND REPLACEMENT OF FENCE FABRIC, SELECTIVE DEMOLITION OF EXISTING FENCE NORTH AND SOUTH OF FIELD REPLACED BY NEW ORNAMENTAL FENCE AND BALL SAFETY NETTING, NEW ACCESSIBLE PATHWAYS NORTH AND EAST OF THE FIELD, NEW DRAINAGE AND SYNTHETIC TURF PROFILE.

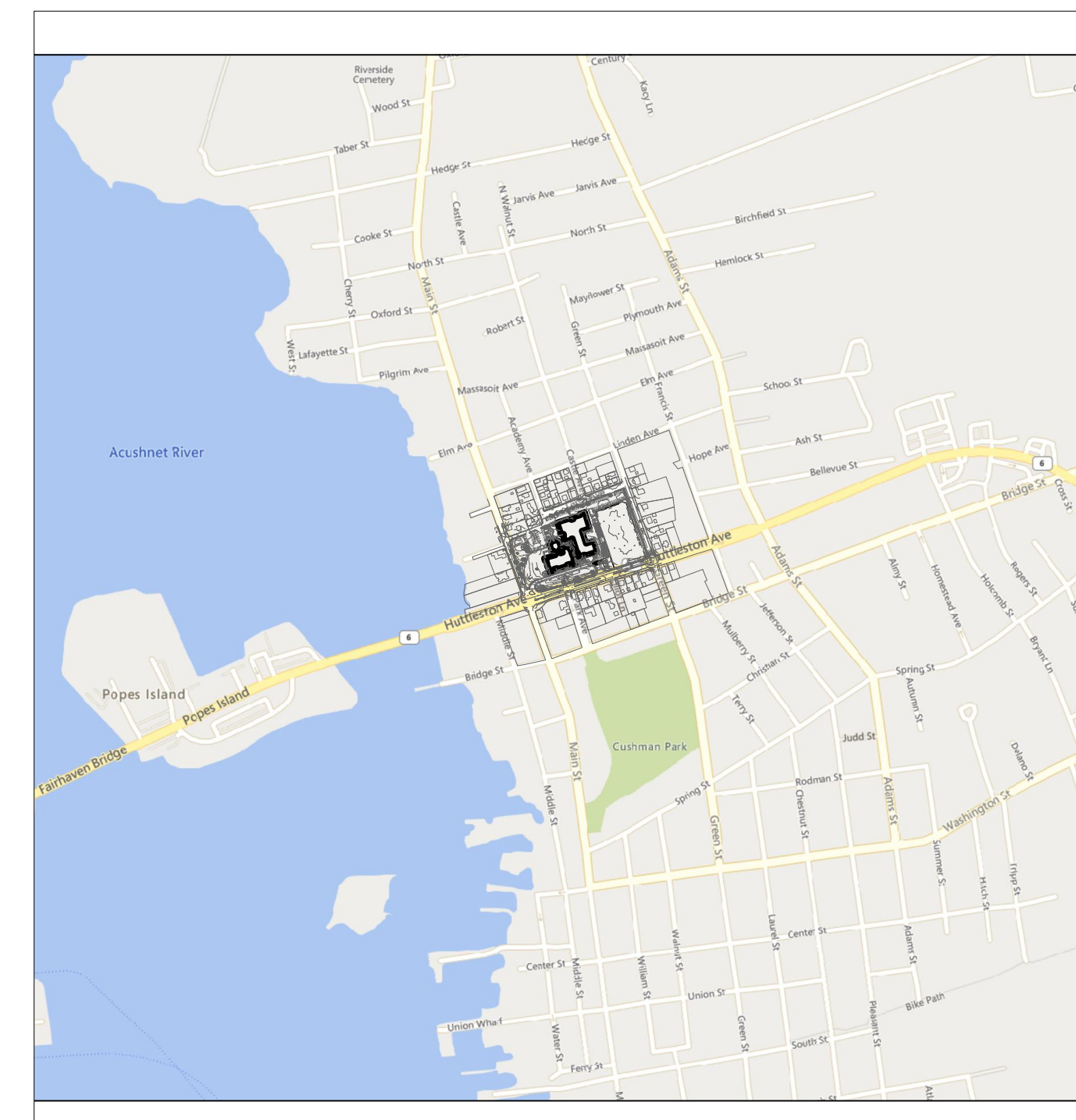
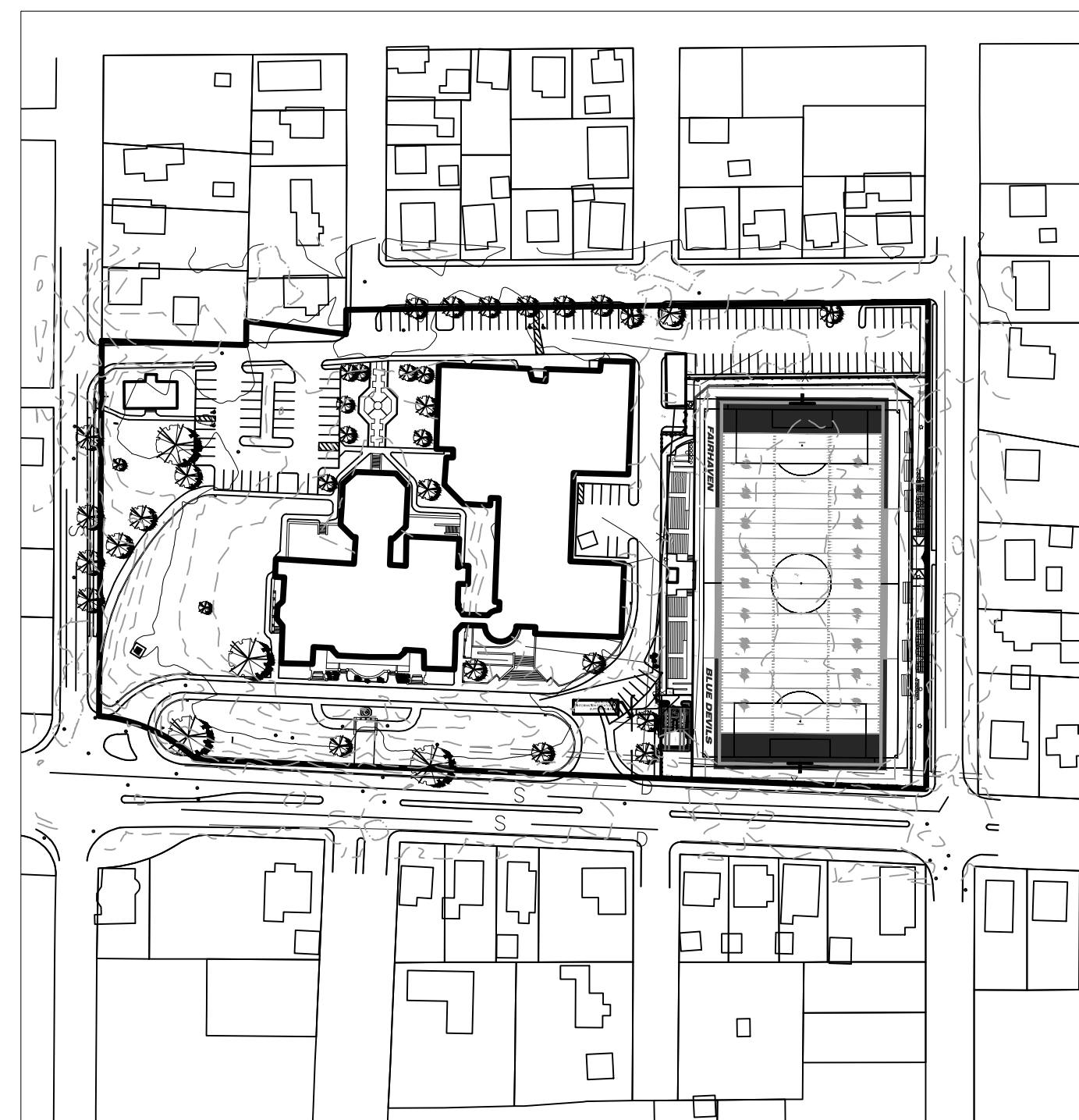
**ALTERNATE #1 SPORTS LIGHTING**  
FURNISH AND INSTALL NEW LED SPORTS LIGHTING AND ASSOCIATED ELECTRICAL DISTRIBUTION

**ALTERNATE #2 RESTROOM SUPPORT BUILDING WITH STORAGE**  
ALL DEMOLITION AND PROPOSED SITE WORK WITH THE ALT. #2 LOCATION ALONG WITH THE FURNISHING, LABOR AND INSTALLATION OF NEW RESTROOM SUPPORT BUILDING.

## PREPARED BY



## PROJECT MAPS





**REFERENCE**

- PROJECT LOCATION: FAIRHAVEN HIGH SCHOOL 12 HUTTLESTON AVENUE, FAIRHAVEN, MA. 02719 ASSESSOR'S MAP 12, LOT 236.
- EXISTING CONDITIONS MAPPING TAKEN FROM PLAN ENTITLED "EXISTING CONDITIONS PLAN" PREPARED BY INSITE ENGINEERING SERVICES, LLC, DATED FEBRUARY 16, 2021.

**GENERAL NOTES**

- THE COMMONWEALTH OF MASSACHUSETTS STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGE CONSTRUCTION, 2020 EDITION OR LATEST REVISION, AND THE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION CONSTRUCTION STANDARD DETAILS ARE MADE A PART HEREOF AS FULLY AND COMPLETELY AS IF ATTACHED HERETO. ALL WORK SHALL MEET OR EXCEED THE MASSACHUSETTS STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION, WITH LATEST REVISIONS. THE LATEST REVISION OF THE STANDARD SPECIFICATIONS MAY BE OBTAINED AT THE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION.
- THE CONTRACTOR SHALL MAKE ALL NECESSARY CONSTRUCTION NOTIFICATIONS AND APPLY FOR AND OBTAIN ALL NECESSARY CONSTRUCTION PERMITS, PAY ALL FEES AND POST ALL BONDS ASSOCIATED WITH THE SAME, AND COORDINATE WITH THE ENGINEER AND OWNER'S REPRESENTATIVE AS REQUIRED.
- THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR JOB SITE SAFETY. THE CONTRACTOR SHALL PROVIDE TEMPORARY FENCING AND/OR BARRIERS AROUND ALL OPEN EXCAVATED AREAS IN ACCORDANCE WITH OSHA FEDERAL, STATE, AND LOCAL REQUIREMENTS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THAT THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS DO NOT CONFLICT WITH ANY KNOWN EXISTING OR OTHER PROPOSED IMPROVEMENTS. IF ANY CONFLICTS ARE DISCOVERED, THE CONTRACTOR SHALL NOTIFY THE OWNER AND THE ENGINEER PRIOR TO INSTALLATION OF ANY PORTION OF THE SITE WORK WHICH WOULD BE AFFECTED. NO FIELD ADJUSTMENTS IN THE LOCATION OF SITE ELEMENTS SHALL BE MADE WITHOUT THE ENGINEERS APPROVAL.
- IF ANY DEVIATION OR ALTERATION OF THE WORK PROPOSED ON THESE DRAWINGS IS REQUIRED, THE CONTRACTOR SHALL IMMEDIATELY CONTACT AND COORDINATE ANY DEVIATIONS WITH THE ENGINEER AND OWNER.
- ANY AREA OUTSIDE OF THE LIMIT OF WORK THAT IS DISTURBED SHALL BE RESTORED TO ITS ORIGINAL CONDITION AT NO ADDITIONAL COST TO THE OWNER.
- ALL SITE WORK SHALL MEET OR EXCEED THE SITE WORK SPECIFICATIONS PREPARED FOR THIS PROJECT.
- ALL UTILITIES (LOCATION AND ELEVATION) DEPICTED SHALL BE CONSIDERED APPROXIMATE ONLY. BEFORE COMMENCING SITE WORK IN ANY AREA, CONTACT "DIG SAFE" AT 1-888-DIG-SAFE (1-888-344-7233) TO ACCURATELY LOCATE UNDERGROUND UTILITIES. ALL DAMAGE TO EXISTING UTILITIES OR STRUCTURES, AND THE COST TO REPAIR THE DAMAGES TO INITIAL CONDITIONS, AS SHOWN ON THE PLANS SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
- NO EXCAVATION SHALL BE DONE UNTIL COMPANIES ARE PROPERLY NOTIFIED IN ADVANCE. NOTE THAT NOT ALL EXISTING UNDERGROUND UTILITIES ARE SHOWN. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT ALL RESPECTIVE UTILITY COMPANIES TO VERIFY AND LOCATE EXISTING UTILITIES.

**LAYOUT NOTES**

- ALL LINES ARE PERPENDICULAR OR PARALLEL TO THE LINES FROM WHICH THEY ARE MEASURED UNLESS OTHERWISE INDICATED.
- ACCESSIBLE RAMPS SHALL BE PER THE AMERICAN WITH DISABILITIES ACT (ADA) ACCESSIBILITY GUIDELINES AND CODE OF MASSACHUSETTS REGULATIONS (CMR) TITLE 521 OF THE ARCHITECTURAL ACCESS BOARD REGULATIONS.
- PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL PERFORM BENCHMARK FIELD LEVEL VERIFICATION AND COORDINATE LAYOUT CHECK. THE CONTRACTOR SHALL CONTACT PARE CORPORATION IF ANY DISCREPANCIES ARE FOUND.
- DIMENSIONS OF PARKING SPACES AND DRIVEWAYS ARE FROM FACE OF CURB TO FACE OF CURB. DIMENSIONS FROM BUILDING ARE FROM FACE OF BUILDING TO FACE OF CURB.
- ALIGN WALKWAYS ON DOORWAYS THEY SERVE TO PROVIDE MINIMUM REQUIRED MANEUVERING CLEARANCE IN ACCORDANCE WITH THE AMERICAN WITH DISABILITIES ACT (ADA) ACCESSIBILITY GUIDELINES AND CODE OF MASSACHUSETTS REGULATIONS (CMR) TITLE 521 OF THE ARCHITECTURAL ACCESS BOARD REGULATIONS.

**DEMOLITION NOTES**

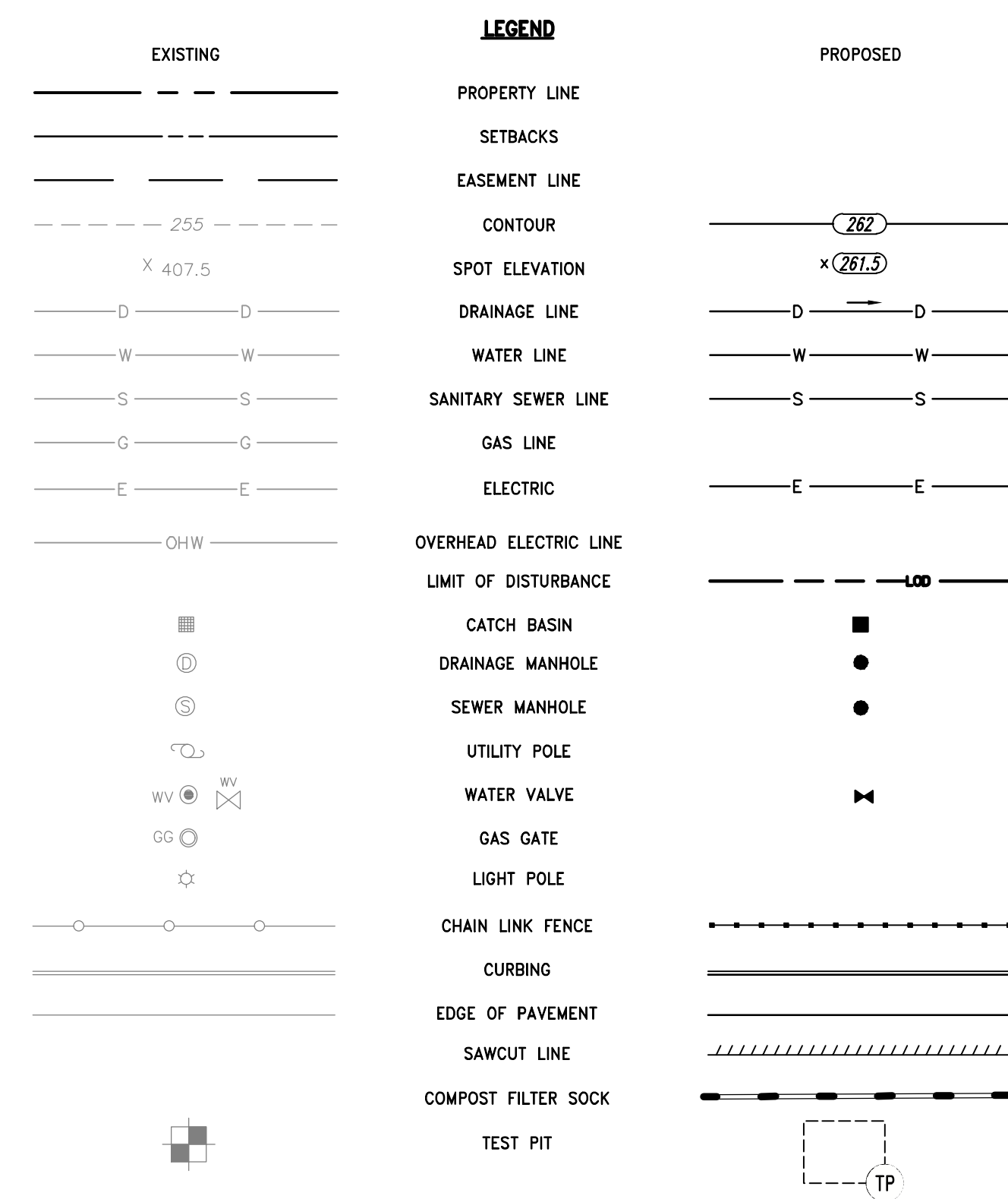
- THE CONTRACTOR SHALL COORDINATE ALL DEMOLITION OF STRUCTURES, PAVEMENT AND CONCRETE MATERIALS, AND UTILITIES WITH APPROPRIATE PROPOSED SITE GENERAL, GRADING, UTILITY, AND LANDSCAPING DRAWINGS.
- ALL NOTED UTILITIES TO BE REMOVED AND DISPOSED OF, RELOCATED OR CAPPED REPRESENT ALL KNOWN SITE CONDITIONS TO BE DEMOLISHED. THE CONTRACTOR SHALL COORDINATE ALL UNFORESEEN CONDITIONS WITH THE PROJECT ENGINEER, OWNER AND/OR RESPECTIVE UTILITY COMPANIES PRIOR TO PROCEEDING WITH WORK.
- WATER, SEWER, DRAINAGE, GAS, AND OTHER SITE UTILITIES SERVICING THE EXISTING FACILITIES ARE TO REMAIN ACTIVE THROUGHOUT CONSTRUCTION.
- THERE SHALL BE NO INTERRUPTION OF UTILITY SERVICES DURING THE CONSTRUCTION OPERATION WITHOUT APPROVAL OF THE OWNER.

**GRADING AND UTILITY NOTES**

- UNDERGROUND UTILITIES DEPICTED WERE COMPILED FROM AVAILABLE RECORD PLANS AND SHALL BE CONSIDERED APPROXIMATE ONLY. BEFORE COMMENCING SITE WORK IN ANY AREA, CONTACT "DIG SAFE" AT 1-888-DIG-SAFE (1-888-344-7233) TO ACCURATELY LOCATE UNDERGROUND UTILITIES. ANY DAMAGE TO EXISTING UTILITIES OR STRUCTURES DEPICTED OR NOT DEPICTED ON THE PLANS SHALL BE THE CONTRACTOR'S RESPONSIBILITY. COSTS TO REPAIR SUCH DAMAGES SHALL BE THE CONTRACTOR'S RESPONSIBILITY. NO EXCAVATION SHALL BE DONE UNTIL UTILITY COMPANIES ARE PROPERLY NOTIFIED.
- ALL WORK PERFORMED AND ALL MATERIALS FURNISHED SHALL CONFORM WITH THE LINES AND GRADES ON THE PLANS AND SITE WORK SPECIFICATIONS.
- AT ALL LOCATIONS WHERE EXISTING CURBING OR PAVEMENT ABUT NEW CONSTRUCTION, THE EDGE OF THE EXISTING CURB OR PAVEMENT SHALL BE SAW CUT TO A CLEAN, SMOOTH EDGE. BLEND NEW PAVEMENT AND CURBS SMOOTHLY INTO EXISTING BY MATCHING LINES, GRADES AND JOINTS.
- ALL UTILITY COVERS, GRATES, ETC. SHALL BE ADJUSTED TO BE FLUSH WITH THE SURROUNDING SURFACE OR PAVEMENT FINISH GRADE. RIM ELEVATIONS OF STRUCTURES AND MANHOLES ARE APPROXIMATE. FINAL ELEVATIONS ARE TO BE SET FLUSH AND CONSISTENT WITH THE GRADING PLANS.
- THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE ALTERATION OF PRIVATE UTILITIES BY THE UTILITY COMPANIES, AS REQUIRED.
- WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR AND THE INFORMATION SHALL BE PROVIDED ON A SKETCH TO SCALE OF THE EXISTING UTILITY WITH TIES TO KNOWN POINTS, PHOTOS AND FURNISHED TO THE ENGINEER FOR RESOLUTION.
- THE CONTRACTOR SHALL PROTECT ALL UNDERGROUND DRAINAGE, SEWER AND UTILITY FACILITIES FROM EXCESSIVE VEHICULAR LOADS DURING CONSTRUCTION. ANY DAMAGE TO THESE FACILITIES RESULTING FROM CONSTRUCTION LOADS SHALL BE RESTORED TO ORIGINAL CONDITION.
- GAS, ELECTRIC, AND COMMUNICATIONS ROUTING ARE SUBJECT TO REVIEW AND APPROVAL BY APPROPRIATE UTILITY COMPANIES.
- ALL GRAVITY SANITARY PIPING SHALL BE SDR-35 PVC. ALL SEWER CONSTRUCTION SHALL CONFORM TO THE TOWN OF FAIRHAVEN SEWER/WASTEWATER DEPARTMENT.
- ALL WATER LINE BENDS AND TEES SHALL BE REINFORCED WITH THRUST BLOCKS. ALL WATER DISTRIBUTION PIPING AND FITTINGS MUST ADHERE TO THE TOWN OF FAIRHAVEN WATER DIVISION SPECIFICATIONS AND SHALL BE INSPECTED BEFORE, DURING, AND AFTER CONSTRUCTION PRIOR TO TAPPING THE SERVICE MAIN.
- EXCAVATION REQUIRED WITHIN THE PROXIMITY OF EXISTING UTILITY LINES SHALL BE DONE BY HAND. CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING UTILITY LINES OR STRUCTURES INCURRED DURING CONSTRUCTION OPERATIONS AT NO COST TO THE OWNER.
- PITCH EVENLY BETWEEN SPOT GRADES. ALL PAVED AREAS MUST PITCH TO DRAIN AT A MIN. OF 1/8" PER FOOT UNLESS SPECIFIED.
- THE PROPOSED WALKWAYS SHALL HAVE A MAXIMUM CROSS SLOPE OF 2% AND A MAXIMUM RUNNING SLOPE OF 5% AS SHOWN ON CONSTRUCTION DETAILS AND GRADING PLAN.

**EROSION AND SEDIMENTATION CONTROL NOTES - MASSACHUSETTS**

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING ALL TEMPORARY SOIL EROSION AND SEDIMENT CONTROLS IN ACCORDANCE WITH THE ENVIRONMENTAL PROTECTION AGENCY'S (EPA) NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) CONSTRUCTION GENERAL PERMIT (CGP) AND THE CONTRACT DOCUMENTS.
- THE CONTRACTOR SHALL PREPARE AND SUBMIT A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL PREPARE AND SUBMIT AN ELECTRONIC NOTICE OF INTENT (eNOI) WITH THE EPA IN ACCORDANCE WITH THE NPDES PERMIT REQUIREMENTS PRIOR TO CONSTRUCTION.
- SOIL EROSION AND SEDIMENTATION CONTROLS SHALL BE PROVIDED IN ACCORDANCE WITH THE "MASSACHUSETTS EROSION AND SEDIMENT CONTROL GUIDELINES FOR URBAN AND SUBURBAN AREAS" AND THE NOTES AND DETAILS SHOWN IN THIS PLAN SET.
- THE EROSION AND SEDIMENTATION CONTROLS SHOWN ON THE PLANS ARE INTENDED TO REPRESENT THE MINIMUM CONTROLS NECESSARY TO MEET ANTICIPATED SITE CONDITIONS. ADDITIONAL MEASURES SHALL BE IMPLEMENTED AS CONDITIONS WARRANT OR AS DIRECTED BY THE OWNER OR OWNER'S REPRESENTATIVE.
- REQUIRED PERIMETER CONTROL SHALL BE PROPERLY ESTABLISHED, CLEARLY VISIBLE AND IN OPERATION PRIOR TO INITIATING ANY LAND CLEARING ACTIVITY AND/OR OTHER CONSTRUCTION RELATED WORK. SUCH FACILITIES SHALL REPRESENT THE LIMIT OF WORK. WORKERS SHALL BE INFORMED THAT NO CONSTRUCTION ACTIVITY IS TO OCCUR BEYOND THE LIMIT OF WORK AT ANY TIME THROUGHOUT THE CONSTRUCTION PERIOD.
- AS FEASIBLE, CONSTRUCTION SHALL BE PHASED TO LIMIT THE AREA OF EXPOSED SOIL AND THE DURATION OF EXPOSURE. ALL DISTURBED AREAS SHALL BE TEMPORARILY AND/OR PERMANENTLY STABILIZED WITHIN 14 DAYS FOLLOWING COMPLETION OF GRADING ACTIVITIES.
- THE CONTRACTOR SHALL INSPECT AND MAINTAIN ALL EROSION AND SEDIMENTATION CONTROL MEASURES IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSPECTED AND MAINTAINED ON A WEEKLY BASIS AND AFTER EACH STORM EVENT OF 0.25 INCH OR GREATER DURING CONSTRUCTION TO ENSURE THAT THE EROSION CONTROL BARRIERS ARE INTACT.
- CLEAN AND MAINTAIN SEDIMENTATION CONTROL BARRIERS WHEN SEDIMENT ACCUMULATES TO ONE HALF THE HEIGHT OF THE BARRIER. MATERIAL COLLECTED FROM THE SEDIMENTATION BARRIER SHALL BE REMOVED AS NECESSARY AND DISPOSED IN AN UPLAND AREA.
- THE CONTRACTOR SHALL MAINTAIN A SUFFICIENT RESERVE OF VARIOUS EROSION CONTROL MATERIALS ONSITE AT ALL TIMES FOR EMERGENCY PURPOSES OR ROUTINE MAINTENANCE.
- THE CONTRACTOR SHALL SCHEDULE HIS WORK TO ALLOW THE FINISHED SUB GRADE ELEVATIONS TO DRAIN PROPERLY WITHOUT PUDDLING. SPECIFICALLY, ALLOW WATER TO ESCAPE WHERE PROPOSED CURB MAY RETAIN RUNOFF PRIOR TO PAVING. PROVIDE TEMPORARY POSITIVE DRAINAGE, AS REQUIRED, TO STABILIZED DISCHARGE POINTS.
- CRUSHED STONE CONSTRUCTION ENTRANCES SHALL BE ESTABLISHED AT ALL POINTS OF INGRESS AND EGRESS.
- DUST SHALL BE CONTROLLED BY SPRINKLING OR OTHER APPROVED METHODS AS NECESSARY, OR AS DIRECTED BY THE OWNER OR OWNER'S REPRESENTATIVE.
- CATCH BASINS AND STORM DRAINS SHALL BE PROTECTED WITH HAY BALES OR SEDIMENT BAGS IN PAVED AREAS UNTIL CONTRIBUTING AREA IS PERMANENTLY STABILIZED.
- DEWATERING WASTEWATER PUMPED FROM EXCAVATIONS SHALL BE CONVEYED BY HOSE TO AN UPLAND AREA AND DISCHARGED INTO A DEWATERING BASIN, HAY BALE CORALS, OR SEDIMENTATION BAGS.
- CONSTRUCTION SITE WASTE MATERIALS SHALL BE PROPERLY CONTAINED ONSITE AND DISPOSED OFF SITE AT A LOCATION IN ACCORDANCE WITH THE LOCAL AND STATE REGULATIONS.
- RIPRAP OR OTHER ENERGY DISSIPATORS SHALL BE USED WHERE NECESSARY TO CONTROL EROSION.
- ANY EQUIPMENT THAT IS NOT READILY MOBILE (TRACK MACHINERY) SHALL BE PARKED WITHIN THE PROJECT LIMIT OF DISTURBANCE. LARGE AND/OR BULKY MATERIALS SHALL BE STORED SUCH THAT THEY DO NOT INTERFERE WITH THE ONGOING CONSTRUCTION ACTIVITIES OR EROSION CONTROL MEASURES.
- THE CONTRACTOR SHALL NOT REMOVE ANY COMPOST FILTER SOCKS OR OTHER EROSION CONTROLS UNTIL THE CONTRIBUTING AREA IS PERMANENTLY STABILIZED.
- ALL DRAINAGE STRUCTURES SHALL BE CLEARED OF ACCUMULATED SEDIMENT PRIOR TO ACCEPTANCE OF THE FINAL PROJECT. THE CONTRACTOR SHALL SCHEDULE HIS WORK TO ALLOW THE FINISHED SUB GRADE ELEVATIONS TO DRAIN PROPERLY WITHOUT PONDING. SPECIFICALLY, ALLOW WATER TO ESCAPE WHERE PROPOSED CURB MAY RETAIN RUNOFF PRIOR TO APPLICATION OF SURFACE PAVING. PROVIDE TEMPORARY POSITIVE DRAINAGE, AS REQUIRED, TO STABILIZED DISCHARGE POINTS.
- INSTALLATION OF THE EROSION CONTROL BARRIERS AS ILLUSTRATED IS INTENDED TO REPRESENT THE MINIMUM SEDIMENTATION CONTROL FACILITIES NECESSARY TO MEET ANTICIPATED SITE CONDITIONS. ADDITIONAL EROSION CONTROL MEASURES SHALL BE IMPLEMENTED AS CONDITIONS WARRANT OR AS DIRECTED BY THE OWNER OR OWNER'S REPRESENTATIVE.
- ALL DISTURBED AREAS SHALL BE STABILIZED WITHIN 14 DAYS UPON COMPLETION OF WORK IN THAT AREA.



**CONSTRUCTION NOTES**

- (ATG) = ADJUST TO GRADE
- (CCW) = CEMENT CONCRETE WALK
- (CE) = CONSTRUCTION ENTRANCE
- (CFS) = COMPOST FILTER SOCK (SEE DETAIL)
- (CM) = SAWCUT AND MATCH
- (CTE) = CONNECT TO EXISTING
- (DCW) = REMOVE AND DISPOSE CONCRETE WALK
- (DD) = REMOVE AND DISPOSE DRAINAGE
- (DF) = REMOVE AND DISPOSE FENCE
- (DFG) = REMOVE AND DISPOSE FRAME & GRATE
- (DFP) = REMOVE AND DISPOSE FLEXIBLE PAVMENT
- (DLP) = REMOVE AND DISPOSE LIGHT POLE
- (DTP) = DRIPLINE TREE PROTECTION
- (ETR) = EXISTING TO REMAIN. PROTECT DURING CONSTRUCTION.
- (GV) = GATE VALVE
- (HMA) = HOT MIXED ASPHALT PAVEMENT (SEE DETAIL)
- (RTED) = REFER TO ELECTRICAL DRAWINGS
- (RTLDD) = REFER TO LANDSCAPE DRAWINGS
- (R&D) = REMOVE AND DISPOSE
- (R&S) = REMOVE AND STOCKPILE
- (TIP) = TEMPORARY INLET PROTECTION



STAMP

CONSULTANT



SHEET TITLE

CIVIL NOTES & LEGEND

PROJECT NAME

FAIRHAVEN HIGH SCHOOL  
 ATHLETIC FIELD-SYNTHETIC TURF

PROJECT ADDRESS

12 HUTTLESTONE AVE  
 FAIRHAVEN , MA 02719

SUBMITTAL	DATE
SCHEMATIC DESIGN	2021/01/29
DESIGN DEVELOPMENT	2021/03/05
ISSUED FOR PERMITTING	2021/03/22

NO.	REVISIONS	DATE

DRAWN BY: AWB	CHECKED BY: JRR
DATE ISSUED: 03/22/2021	SCALE: N.T.S.
PROJ. NO. A1037	
SHEET NO. C101	

NOT FOR CONSTRUCTION

FAIRHAVEN HS ATHLETIC FIELD SYNTHETIC TURF

DESIGN DEVELOPMENT - 03/05/2021



**DEMOLITION NOTES:**

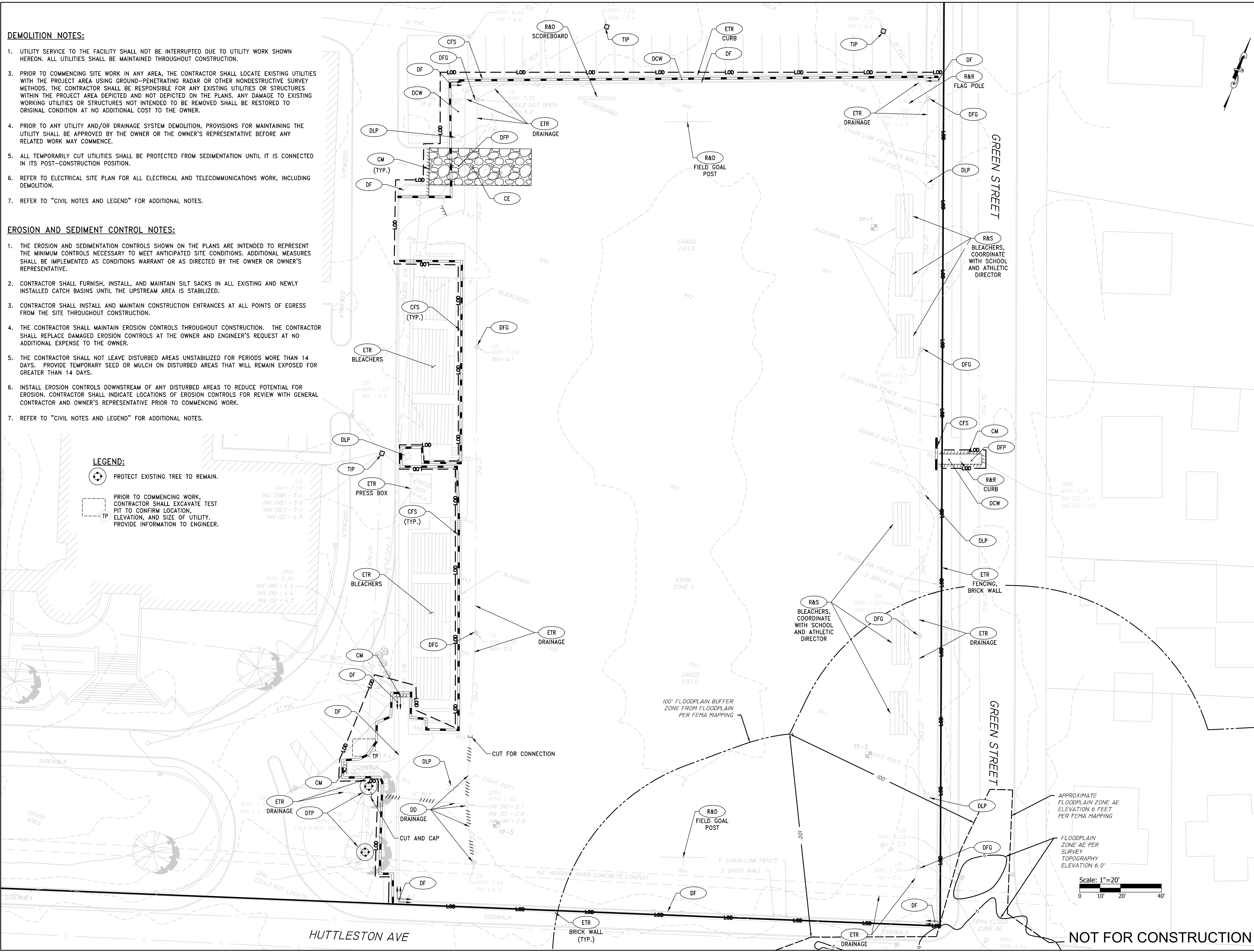
- UTILITY SERVICE TO THE FACILITY SHALL NOT BE INTERRUPTED DUE TO UTILITY WORK SHOWN HEREON. ALL UTILITIES SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.
- PRIOR TO COMMENCING SITE WORK IN ANY AREA, THE CONTRACTOR SHALL LOCATE EXISTING UTILITIES WITH THE PROJECT AREA USING GROUND-PENETRATING RADAR OR OTHER NONDESTRUCTIVE SURVEY METHODS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY EXISTING UTILITIES OR STRUCTURES WITHIN THE PROJECT AREA DEPICTED AND NOT DEPICTED ON THE PLANS. ANY DAMAGE TO EXISTING WORKING UTILITIES OR STRUCTURES NOT INTENDED TO BE REMOVED SHALL BE RESTORED TO ORIGINAL CONDITION AT NO ADDITIONAL COST TO THE OWNER.
- PRIOR TO ANY UTILITY AND/OR DRAINAGE SYSTEM DEMOLITION, PROVISIONS FOR MAINTAINING THE UTILITY SHALL BE APPROVED BY THE OWNER OR THE OWNER'S REPRESENTATIVE BEFORE ANY RELATED WORK MAY COMMENCE.
- ALL TEMPORARILY CUT UTILITIES SHALL BE PROTECTED FROM SEDIMENTATION UNTIL IT IS CONNECTED IN ITS POST-CONSTRUCTION POSITION.
- REFER TO ELECTRICAL SITE PLAN FOR ALL ELECTRICAL AND TELECOMMUNICATIONS WORK, INCLUDING DEMOLITION.
- REFER TO "CIVIL NOTES AND LEGEND" FOR ADDITIONAL NOTES.

**EROSION AND SEDIMENT CONTROL NOTES:**

- THE EROSION AND SEDIMENTATION CONTROLS SHOWN ON THE PLANS ARE INTENDED TO REPRESENT THE MINIMUM CONTROLS NECESSARY TO MEET ANTICIPATED SITE CONDITIONS. ADDITIONAL MEASURES SHALL BE IMPLEMENTED AS CONDITIONS WARRANT OR AS DIRECTED BY THE OWNER OR OWNER'S REPRESENTATIVE.
- CONTRACTOR SHALL FURNISH, INSTALL, AND MAINTAIN SILT SACKS IN ALL EXISTING AND NEWLY INSTALLED CATCH BASINS UNTIL THE UPSTREAM AREA IS STABILIZED.
- CONTRACTOR SHALL INSTALL AND MAINTAIN CONSTRUCTION ENTRANCES AT ALL POINTS OF EGRESS FROM THE SITE THROUGHOUT CONSTRUCTION.
- THE CONTRACTOR SHALL MAINTAIN EROSION CONTROLS THROUGHOUT CONSTRUCTION. THE CONTRACTOR SHALL REPLACE DAMAGED EROSION CONTROLS AT THE OWNER AND ENGINEER'S REQUEST AT NO ADDITIONAL EXPENSE TO THE OWNER.
- THE CONTRACTOR SHALL NOT LEAVE DISTURBED AREAS UNSTABILIZED FOR PERIODS MORE THAN 14 DAYS. PROVIDE TEMPORARY SEED OR MULCH ON DISTURBED AREAS THAT WILL REMAIN EXPOSED FOR GREATER THAN 14 DAYS.
- INSTALL EROSION CONTROLS DOWNSTREAM OF ANY DISTURBED AREAS TO REDUCE POTENTIAL FOR EROSION. CONTRACTOR SHALL INDICATE LOCATIONS OF EROSION CONTROLS FOR REVIEW WITH GENERAL CONTRACTOR AND OWNER'S REPRESENTATIVE PRIOR TO COMMENCING WORK.
- REFER TO "CIVIL NOTES AND LEGEND" FOR ADDITIONAL NOTES.

**LEGEND:**

- PROTECT EXISTING TREE TO REMAIN.
- PRIOR TO COMMENCING WORK, CONTRACTOR SHALL EXCAVATE TEST PIT TO CONFIRM LOCATION, ELEVATION, AND SIZE OF UTILITY. PROVIDE INFORMATION TO ENGINEER.



150 Chestnut Street, 4th Floor Providence, RI 02903  
68 Harrison Avenue, 6th Floor Boston, MA 02111

---

STAMP

---

CONSULTANT

**PARE**  
PARE CORPORATION  
ENGINEERS - SCIENTISTS - PLANNERS  
10 LINCOLN ROAD, SUITE 210  
FOXBORO, MA 02035  
508-543-1755

---

SHEET TITLE

**DEMOLITION, EROSION & SEDIMENT CONTROL PLAN**

---

PROJECT NAME

**FAIRHAVEN HIGH SCHOOL  
ATHLETIC FIELD-SYNTHETIC TURF**

---

PROJECT ADDRESS

12 HUTTLESTON AVE  
FAIRHAVEN, MA 02719

---

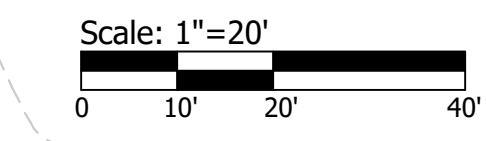
SUBMITTAL	DATE
SCHEMATIC DESIGN	2021/01/29
DESIGN DEVELOPMENT	2021/03/05
ISSUED FOR PERMITTING	2021/03/22

---

NO.	REVISIONS	DATE

---

DRAWN BY: AWB	CHECKED BY: JRR
DATE ISSUED: 03/22/2021	SCALE: 1"=20'
PROJ. NO. A1037	
SHEET NO. C201	

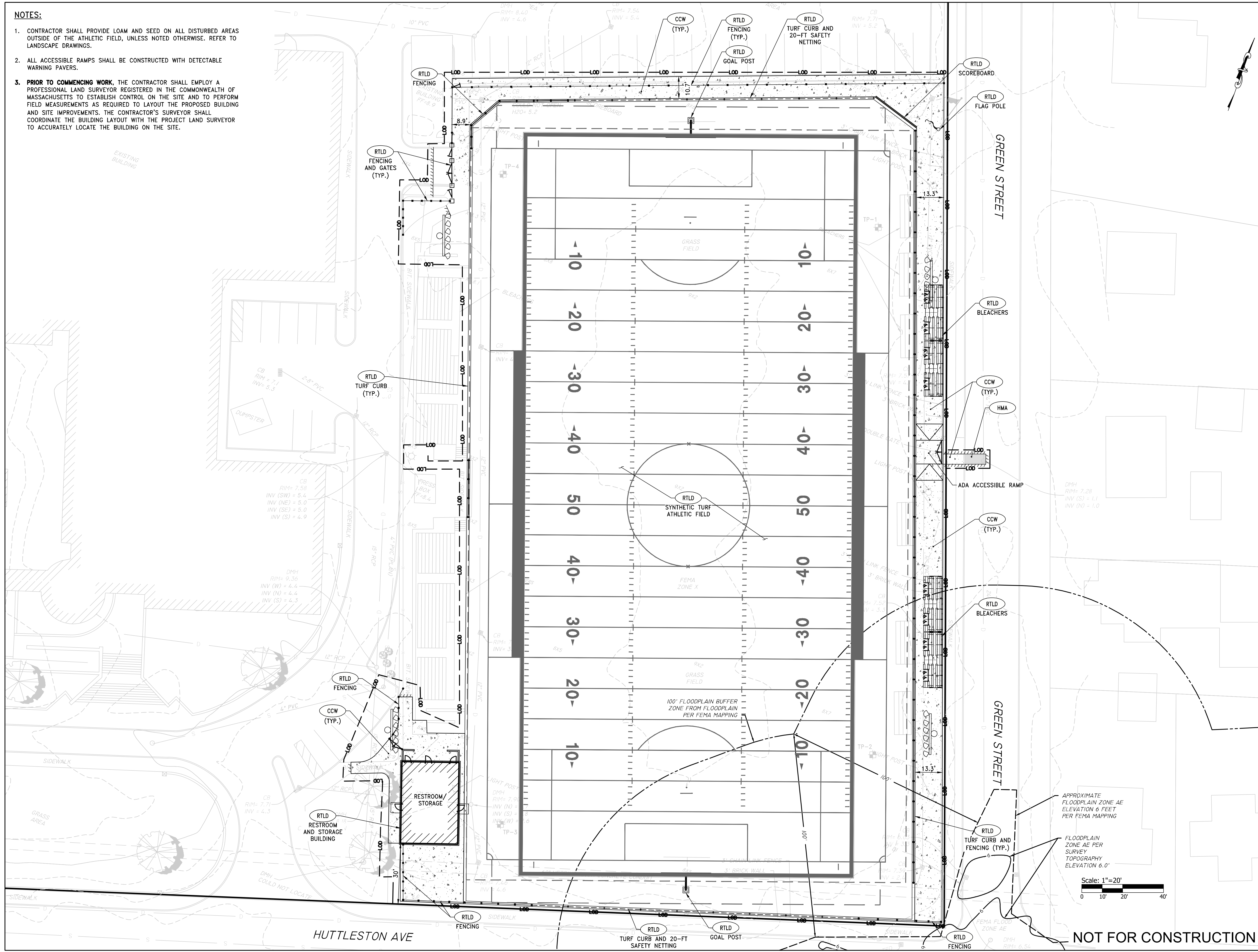


**NOT FOR CONSTRUCTION**



**NOTES:**

1. CONTRACTOR SHALL PROVIDE LOAM AND SEED ON ALL DISTURBED AREAS OUTSIDE OF THE ATHLETIC FIELD, UNLESS NOTED OTHERWISE. REFER TO LANDSCAPE DRAWINGS.
2. ALL ACCESSIBLE RAMPS SHALL BE CONSTRUCTED WITH DETECTABLE WARNING PAVERS.
3. PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL EMPLOY A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE COMMONWEALTH OF MASSACHUSETTS TO ESTABLISH CONTROL ON THE SITE AND TO PERFORM FIELD MEASUREMENTS AS REQUIRED TO LAYOUT THE PROPOSED BUILDING AND SITE IMPROVEMENTS. THE CONTRACTOR'S SURVEYOR SHALL COORDINATE THE BUILDING LAYOUT WITH THE PROJECT LAND SURVEYOR TO ACCURATELY LOCATE THE BUILDING ON THE SITE.



**TRAVERSE**  
landscape architects  
150 Chestnut Street, 4th Floor Providence, RI 02903  
68 Harrison Avenue, 6th Floor Boston, MA 02111

---

STAMP

---

CONSULTANT

**PARE**  
PARE CORPORATION  
ENGINEERS - SCIENTISTS - PLANNERS  
10 LINCOLN ROAD, SUITE 210  
FOXBORO, MA 02035  
508-543-1755

---

SHEET TITLE

**GENERAL PLAN**

---

PROJECT NAME

**FAIRHAVEN HIGH SCHOOL  
ATHLETIC FIELD-SYNTHETIC TURF**

---

PROJECT ADDRESS

12 HUTTLESTONE AVE  
FAIRHAVEN, MA 02719

---

SUBMITTAL	DATE
SCHEMATIC DESIGN	2021/01/29
DESIGN DEVELOPMENT	2021/03/05
ISSUED FOR PERMITTING	2021/03/22

---

NO.	REVISIONS	DATE

---

DRAWN BY: AWB	CHECKED BY: JRR
DATE ISSUED: 03/22/2021	SCALE: 1"=20'
PROJ. NO. A1037	
SHEET NO. C301	

**NOT FOR CONSTRUCTION**

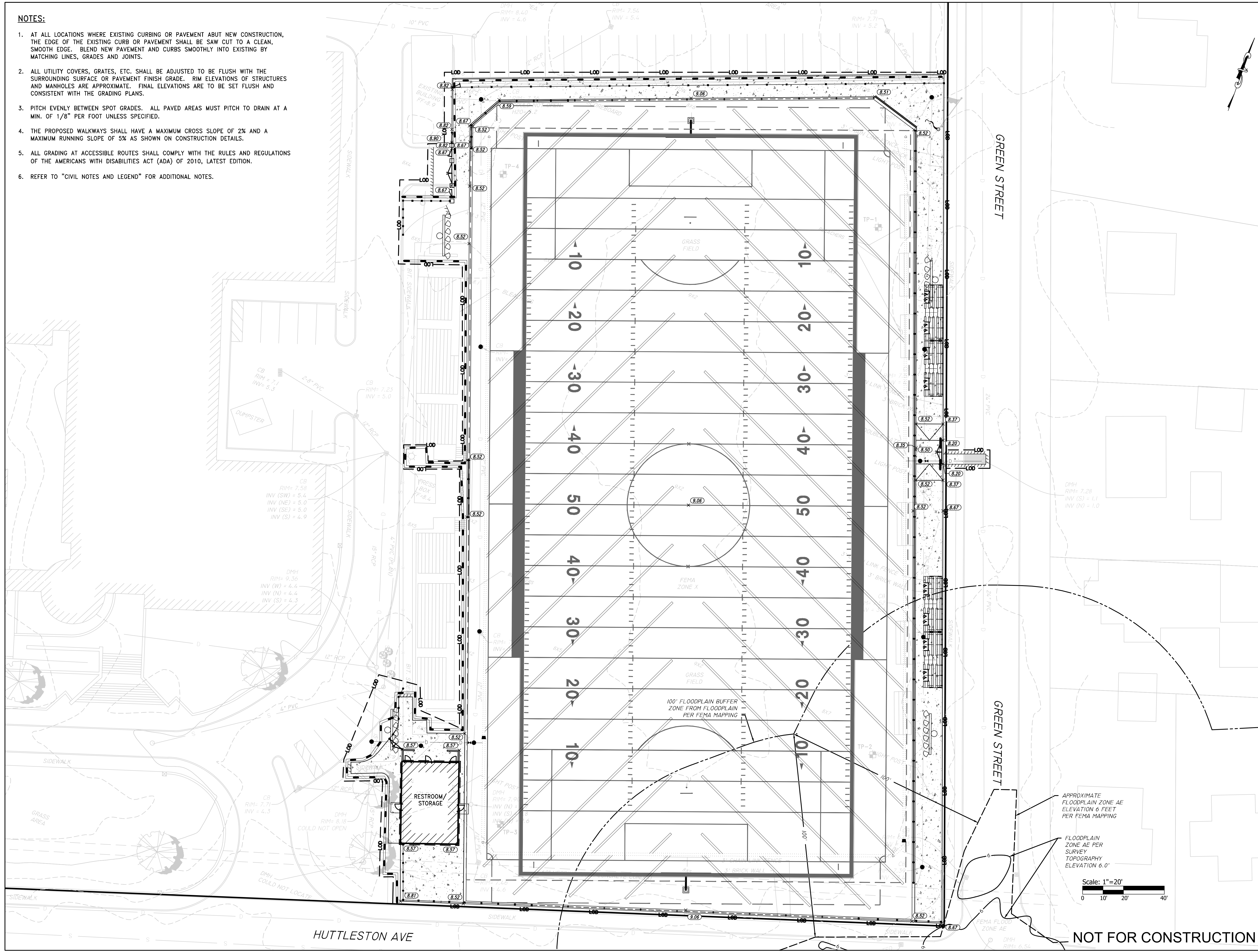
FAIRHAVEN HS ATHLETIC FIELD - SYNTHETIC TURF

DESIGN DEVELOPMENT - 03/05/2021



**NOTES:**

1. AT ALL LOCATIONS WHERE EXISTING CURBING OR PAVEMENT ABUT NEW CONSTRUCTION, THE EDGE OF THE EXISTING CURB OR PAVEMENT SHALL BE SAW CUT TO A CLEAN, SMOOTH EDGE. BLEND NEW PAVEMENT AND CURBS SMOOTHLY INTO EXISTING BY MATCHING LINES, GRADES AND JOINTS.
2. ALL UTILITY COVERS, GRATES, ETC. SHALL BE ADJUSTED TO BE FLUSH WITH THE SURROUNDING SURFACE OR PAVEMENT FINISH GRADE. RIM ELEVATIONS OF STRUCTURES AND MANHOLES ARE APPROXIMATE. FINAL ELEVATIONS ARE TO BE SET FLUSH AND CONSISTENT WITH THE GRADING PLANS.
3. PITCH EVENLY BETWEEN SPOT GRADES. ALL PAVED AREAS MUST PITCH TO DRAIN AT A MIN. OF 1/8" PER FOOT UNLESS SPECIFIED.
4. THE PROPOSED WALKWAYS SHALL HAVE A MAXIMUM CROSS SLOPE OF 2% AND A MAXIMUM RUNNING SLOPE OF 5% AS SHOWN ON CONSTRUCTION DETAILS.
5. ALL GRADING AT ACCESSIBLE ROUTES SHALL COMPLY WITH THE RULES AND REGULATIONS OF THE AMERICANS WITH DISABILITIES ACT (ADA) OF 2010, LATEST EDITION.
6. REFER TO "CIVIL NOTES AND LEGEND" FOR ADDITIONAL NOTES.



**TRAVERSE**  
landscape architects  
150 Chestnut Street, 4th Floor Providence, RI 02903  
68 Harrison Avenue, 6th Floor Boston, MA 02111

STAMP

CONSULTANT

**PARE**  
PARE CORPORATION  
ENGINEERS - SCIENTISTS - PLANNERS  
10 LINCOLN ROAD, SUITE 210  
FOXBORO, MA 02035  
508-543-1755

SHEET TITLE

**GRADING PLAN**

PROJECT NAME

**FAIRHAVEN HIGH SCHOOL  
ATHLETIC FIELD-SYNTHETIC TURF**

PROJECT ADDRESS

12 HUTTLESTON AVE  
FAIRHAVEN, MA 02719

SUBMITTAL	DATE
SCHEMATIC DESIGN	2021/01/29
DESIGN DEVELOPMENT	2021/03/05
ISSUED FOR PERMITTING	2021/03/22

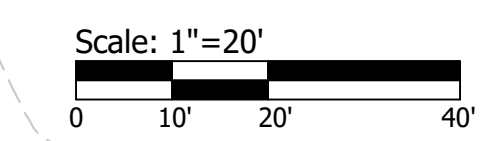
NO.	REVISIONS	DATE

DRAWN BY: **AWB**      CHECKED BY: **JRR**

DATE ISSUED: **03/22/2021**      SCALE: **1"=20'**

PROJ. NO. **A1037**

SHEET NO. **C401**



**NOT FOR CONSTRUCTION**

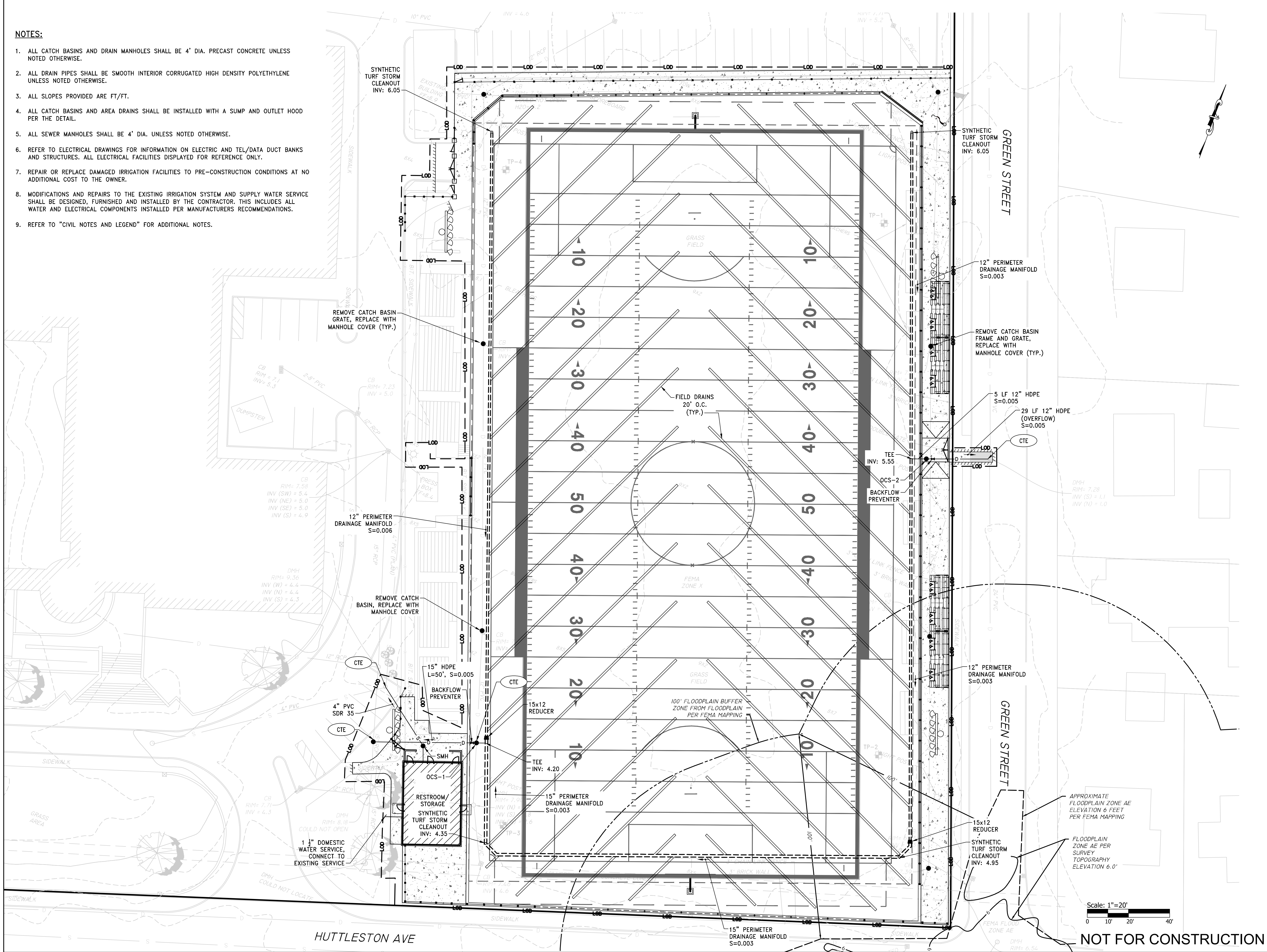
FAIRHAVEN HS ATHLETIC FIELD - SYNTHETIC TURF

DESIGN DEVELOPMENT - 03/05/2021



**NOTES:**

1. ALL CATCH BASINS AND DRAIN MANHOLES SHALL BE 4' DIA. PRECAST CONCRETE UNLESS NOTED OTHERWISE.
2. ALL DRAIN PIPES SHALL BE SMOOTH INTERIOR CORRUGATED HIGH DENSITY POLYETHYLENE UNLESS NOTED OTHERWISE.
3. ALL SLOPES PROVIDED ARE FT/FT.
4. ALL CATCH BASINS AND AREA DRAINS SHALL BE INSTALLED WITH A SUMP AND OUTLET HOOD PER THE DETAIL.
5. ALL SEWER MANHOLES SHALL BE 4' DIA. UNLESS NOTED OTHERWISE.
6. REFER TO ELECTRICAL DRAWINGS FOR INFORMATION ON ELECTRIC AND TEL/DATA DUCT BANKS AND STRUCTURES. ALL ELECTRICAL FACILITIES DISPLAYED FOR REFERENCE ONLY.
7. REPAIR OR REPLACE DAMAGED IRRIGATION FACILITIES TO PRE-CONSTRUCTION CONDITIONS AT NO ADDITIONAL COST TO THE OWNER.
8. MODIFICATIONS AND REPAIRS TO THE EXISTING IRRIGATION SYSTEM AND SUPPLY WATER SERVICE SHALL BE DESIGNED, FURNISHED AND INSTALLED BY THE CONTRACTOR. THIS INCLUDES ALL WATER AND ELECTRICAL COMPONENTS INSTALLED PER MANUFACTURERS RECOMMENDATIONS.
9. REFER TO "CIVIL NOTES AND LEGEND" FOR ADDITIONAL NOTES.



STAMP

CONSULTANT



**PARE**  
PARE CORPORATION  
ENGINEERS - SCIENTISTS - PLANNERS  
10 LINCOLN ROAD, SUITE 210  
FOXBORO, MA 02035  
508-543-1755

SHEET TITLE  
**DRAINAGE & UTILITY PLAN**

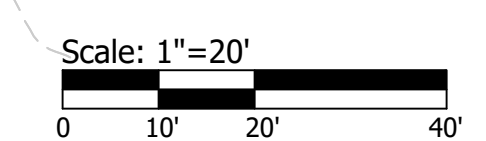
PROJECT NAME  
**FAIRHAVEN HIGH SCHOOL  
ATHLETIC FIELD-SYNTHETIC TURF**

PROJECT ADDRESS  
12 HUTTLESTONE AVE  
FAIRHAVEN, MA 02719

SUBMITTAL	DATE
SCHEMATIC DESIGN	2021/01/29
DESIGN DEVELOPMENT	2021/03/05
ISSUED FOR PERMITTING	2021/03/22

NO.	REVISIONS	DATE

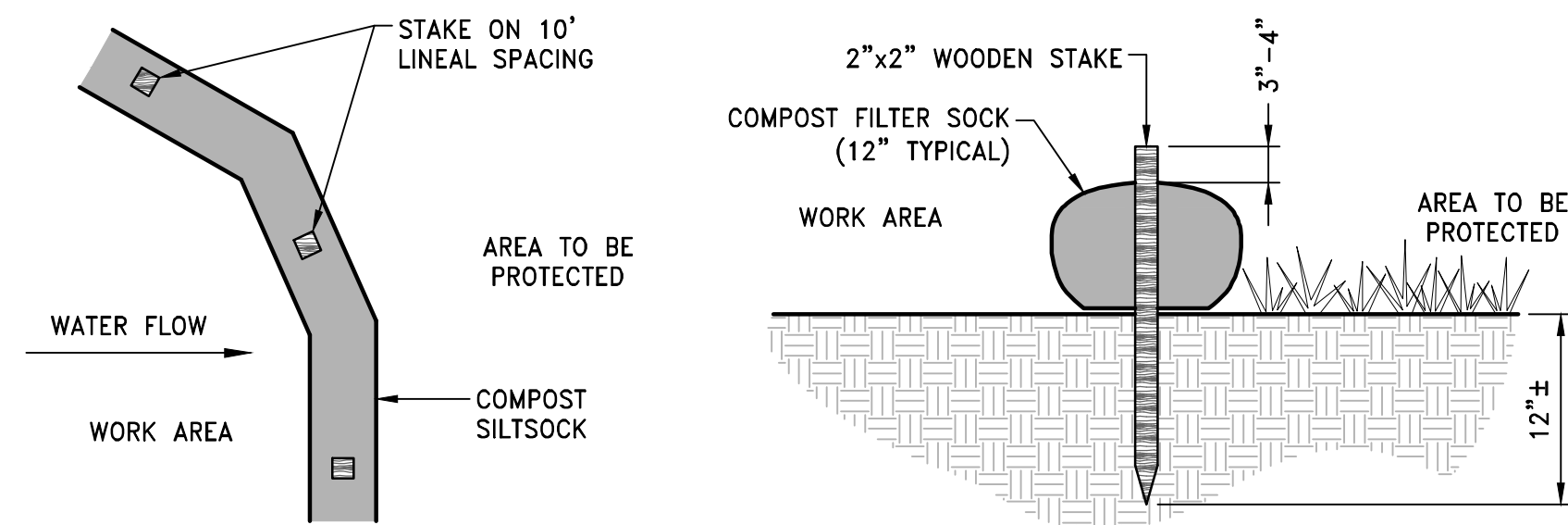
DRAWN BY: **AWB**      CHECKED BY: **JRR**  
DATE ISSUED: **03/22/2021**      SCALE: **1"=20'**  
PROJ. NO. **A1037**  
SHEET NO. **C501**



**NOT FOR CONSTRUCTION**

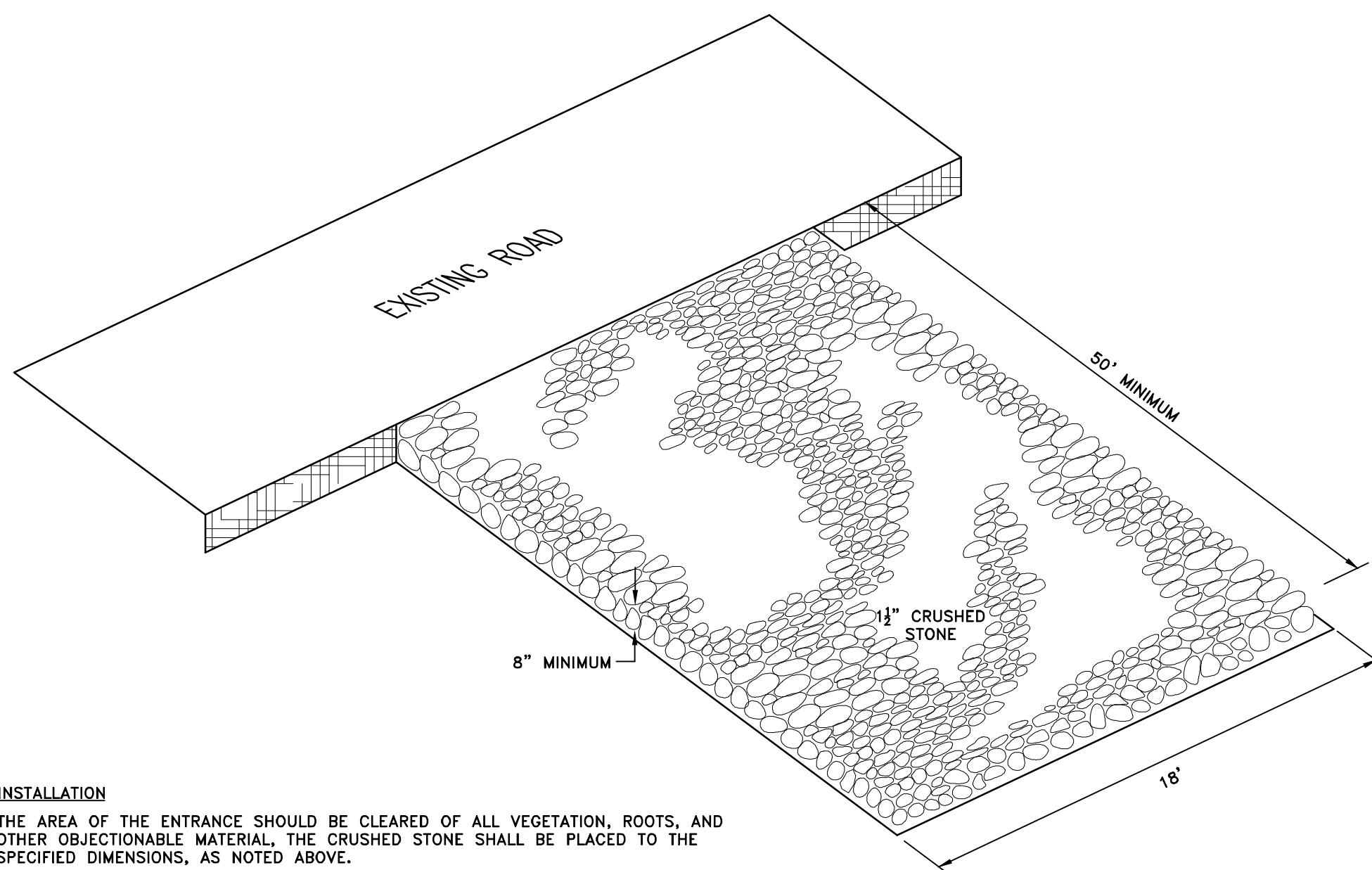
FAIRHAVEN HS ATHLETIC FIELD-SYNTHETIC TURF  
DESIGN DEVELOPMENT - 03/05/2021





- NOTES:**
1. COMPOST/ SOIL/ ROCK/ SEED FILL TO MEET APPLICATION REQUIREMENTS.
  2. COMPOST MATERIAL TO BE REMOVED OR DISPERSED ON SITE AS DETERMINED BY ENGINEER.
  3. IF SOCK NETTING MUST BE JOINED, FIT BEGINNING OF NEW SOCK OVER END OF OLD SOCK, OVERLAPPING BY 2 FEET AND STACK OVERLAP. IF SOCK NETTING IS NOT JOINED, OVERLAP OLD SOCK WITH NEW ONE BY MINIMUM OF 2 FEET.

**CFS COMPOST FILTER SOCK DETAIL**  
NOT TO SCALE

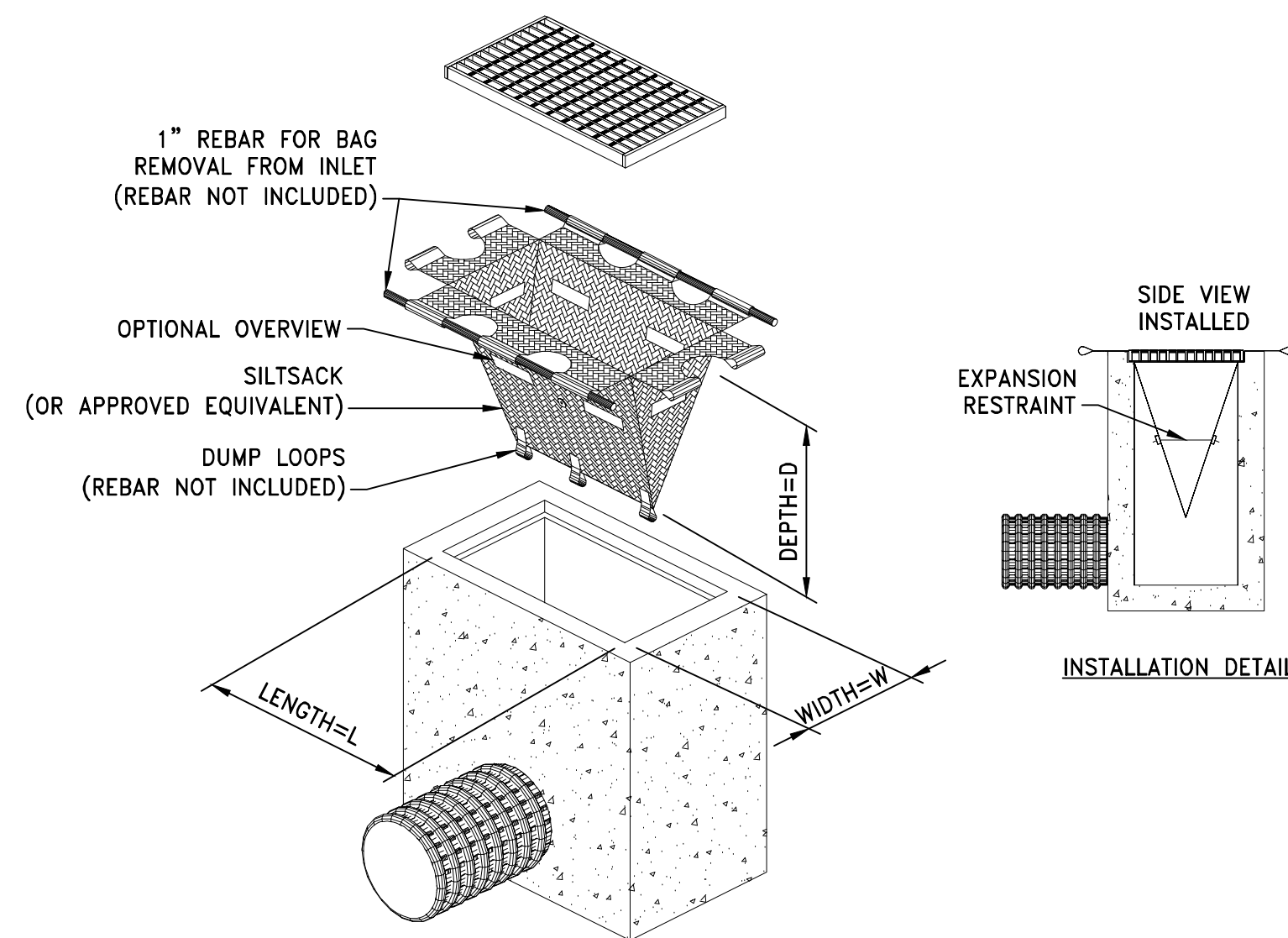


**INSTALLATION**  
THE AREA OF THE ENTRANCE SHOULD BE CLEARED OF ALL VEGETATION, ROOTS, AND OTHER OBJECTIONABLE MATERIAL. THE CRUSHED STONE SHALL BE PLACED TO THE SPECIFIED DIMENSIONS, AS NOTED ABOVE.

**MAINTENANCE**  
THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENTS ONTO PUBLIC RIGHT-OF-WAYS. THIS WILL REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE, OR ADDITIONAL LENGTH, AS CONDITIONS DEMAND, AND REPAIR, AND / OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAYS MUST BE REMOVED IMMEDIATELY.

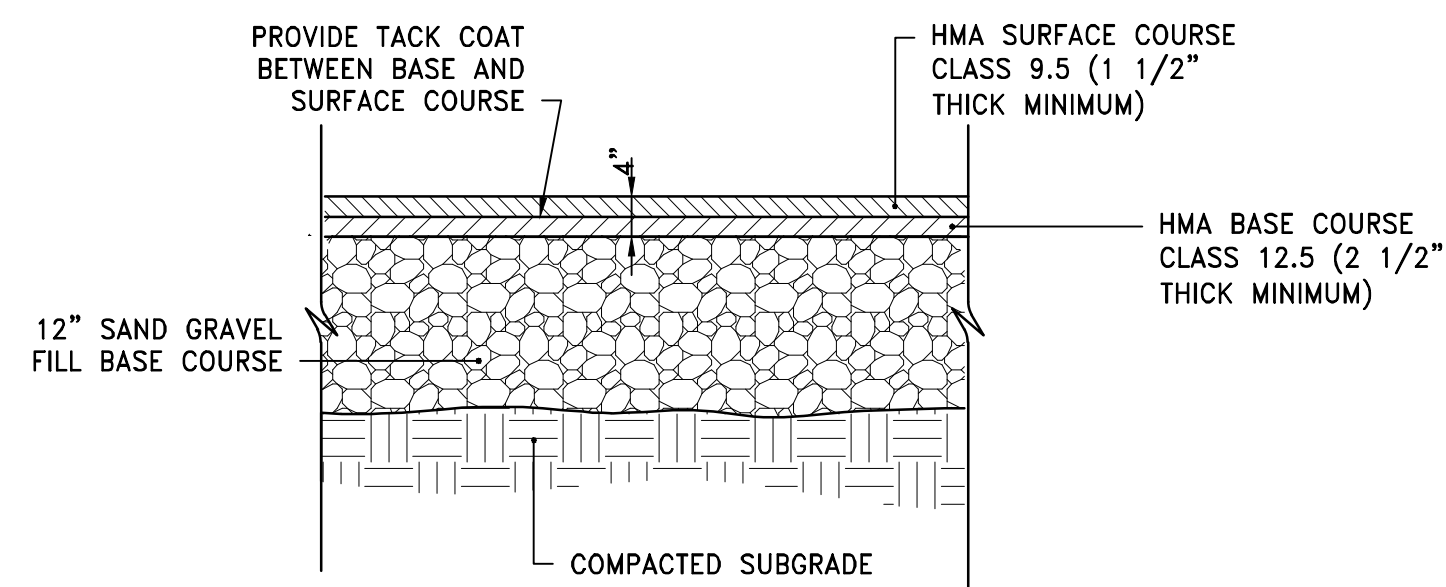
**LOCATION**  
SEE PROJECT PLANS FOR LOCATION OF CONSTRUCTION ENTRANCE.

**CONSTRUCTION ENTRANCE PROTECTION STONE STABILIZATION PAD**  
NOT TO SCALE



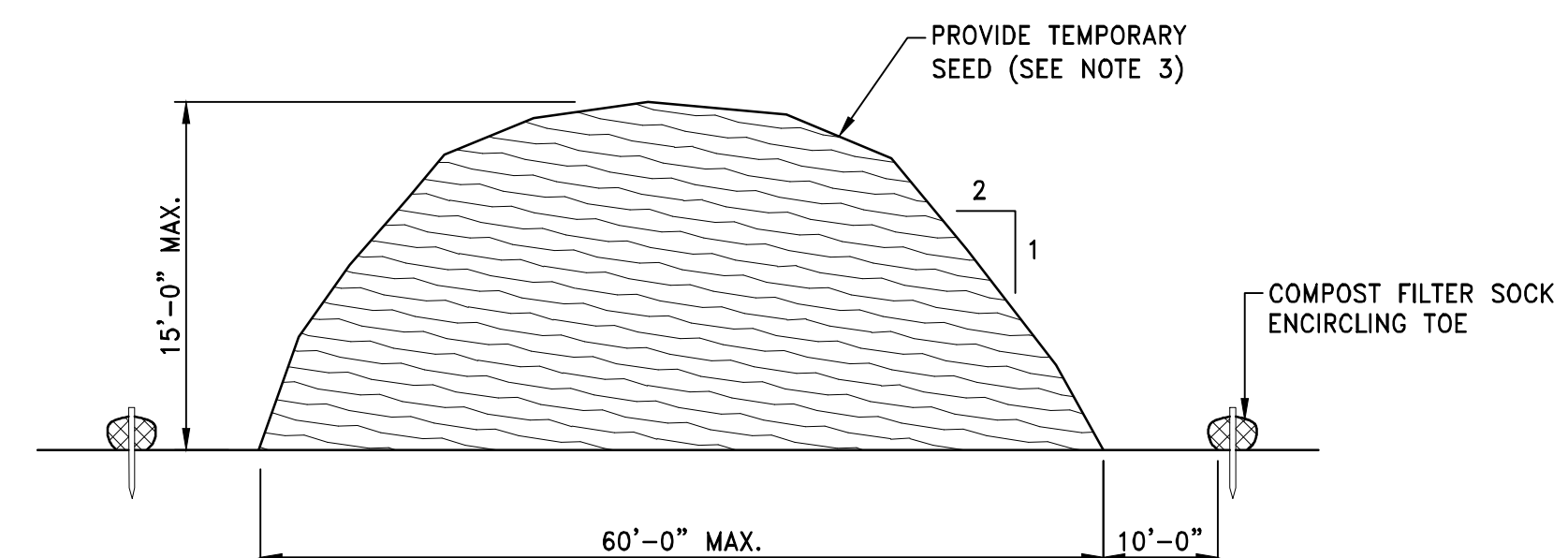
- NOTES:**
1. INLET PROTECTION SHALL BE CLEANED OF SILT AND DEBRIS ON A REGULAR BASIS AS REQUIRED BY PROJECT SPECIFIC SESC.
  2. INSPECTIONS SHALL BE DONE AFTER EACH RAIN EVENT AND AT A MINIMUM EVERY TWO WEEKS AND AS REQUIRED BY PROJECT SPECIFIC SESC.

**TIP TEMPORARY INLET PROTECTION**  
NOT TO SCALE



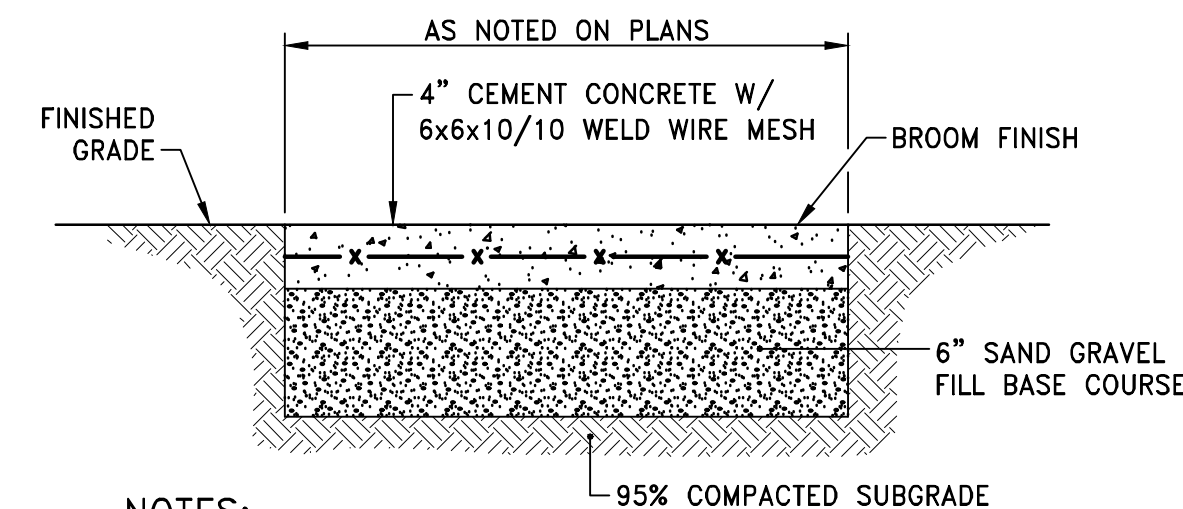
- NOTE:**
1. SUBMIT JOB MIX FORMULAS TO ENGINEER FOR APPROVAL PRIOR TO PLACEMENT.

**HMA HOT MIX ASPHALT PAVEMENT**  
NOT TO SCALE



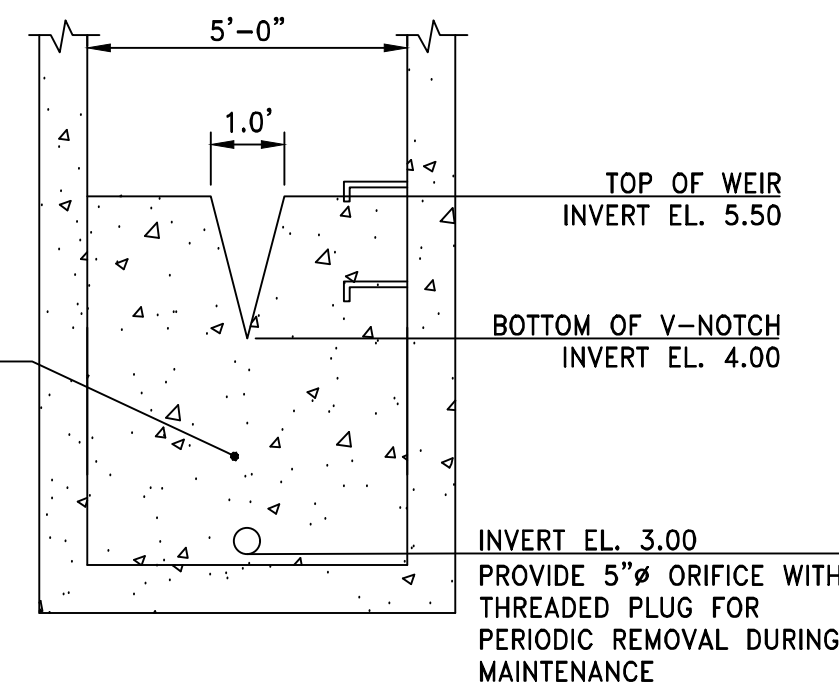
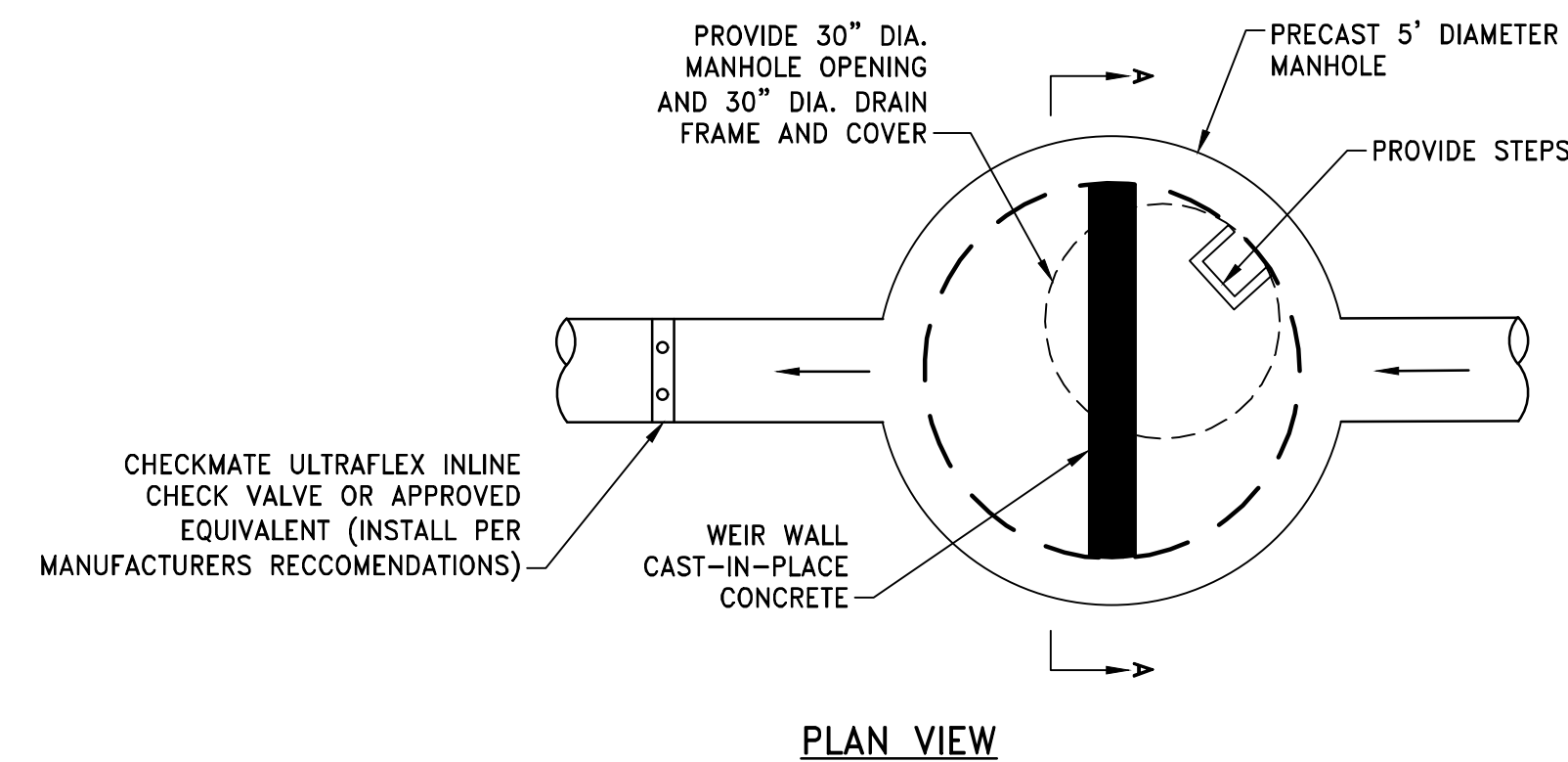
- NOTES:**
1. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL PREPARE A PLAN SHOWING THE PROPOSED LOCATION OF ALL STOCKPILE AREAS.
  2. STOCKPILE AREA SHALL NOT EXCEED SPECIFIED DIMENSIONS WITHOUT APPROVAL FROM ENGINEER.
  3. STOCKPILED ERODIBLE MATERIAL THAT WILL NOT BE USED FOR GREATER THAN 14 DAYS SHALL BE STABILIZED WITH TEMPORARY SEED IMMEDIATELY FOLLOWING PLACEMENT.

**ERODIBLE MATERIAL STOCKPILE**  
NOT TO SCALE

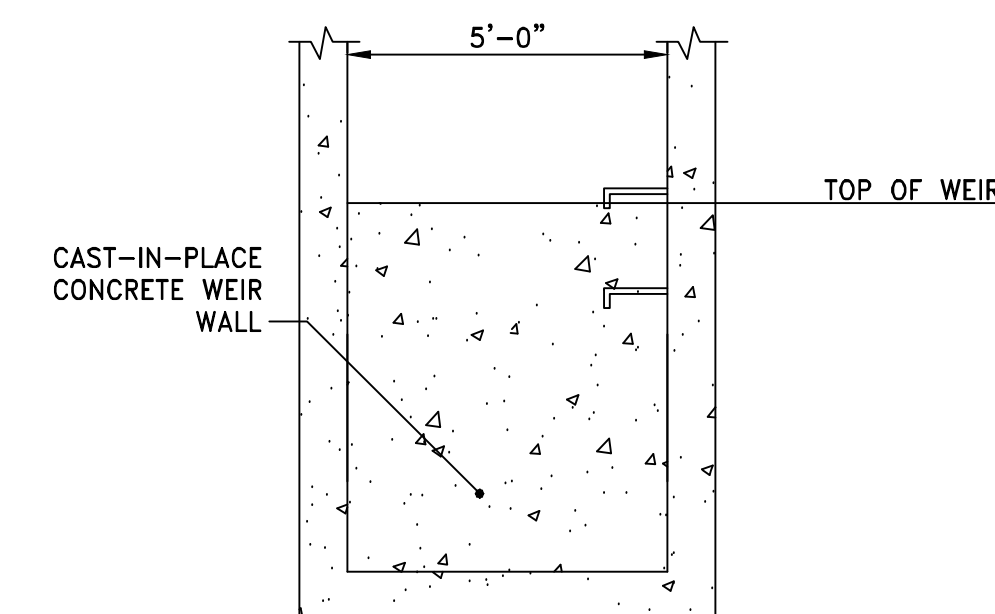


- NOTES:**
1. CONCRETE SIDEWALK SHALL BE CONSTRUCTED IN ACCORDANCE WITH MASSDOT STANDARD SPECIFICATIONS.
  2. WIRE MESH SHALL BE IN ACCORDANCE WITH MASSDOT STANDARD SPECIFICATIONS.

**TYPICAL CEMENT CONCRETE SIDEWALK**  
NOT TO SCALE



**OUTLET CONTROL STRUCTURE (OCS-1) DETAIL**  
NOT TO SCALE



**OUTLET CONTROL STRUCTURE (OCS-2) DETAIL**  
NOT TO SCALE

**TRAVERSE**  
landscape architects  
150 Chestnut Street, 4th Floor Providence, RI 02903  
68 Harrison Avenue, 6th Floor Boston, MA 02111

STAMP

CONSULTANT

**PARE**  
PARE CORPORATION  
ENGINEERS - SCIENTISTS - PLANNERS  
10 LINCOLN ROAD, SUITE 210  
FOXBORO, MA 02035  
508-543-1755

SHEET TITLE

CIVIL DETAILS 1

PROJECT NAME

FAIRHAVEN HIGH SCHOOL  
ATHLETIC FIELD-SYNTHETIC TURF

PROJECT ADDRESS

12 HUTTLESTONE AVE  
FAIRHAVEN, MA 02719

SUBMITTAL	DATE
SCHEMATIC DESIGN	2021/01/29
DESIGN DEVELOPMENT	2021/03/05
ISSUED FOR PERMITTING	2021/03/22

NO.	REVISIONS	DATE
△		
△		
△		
△		
△		
△		

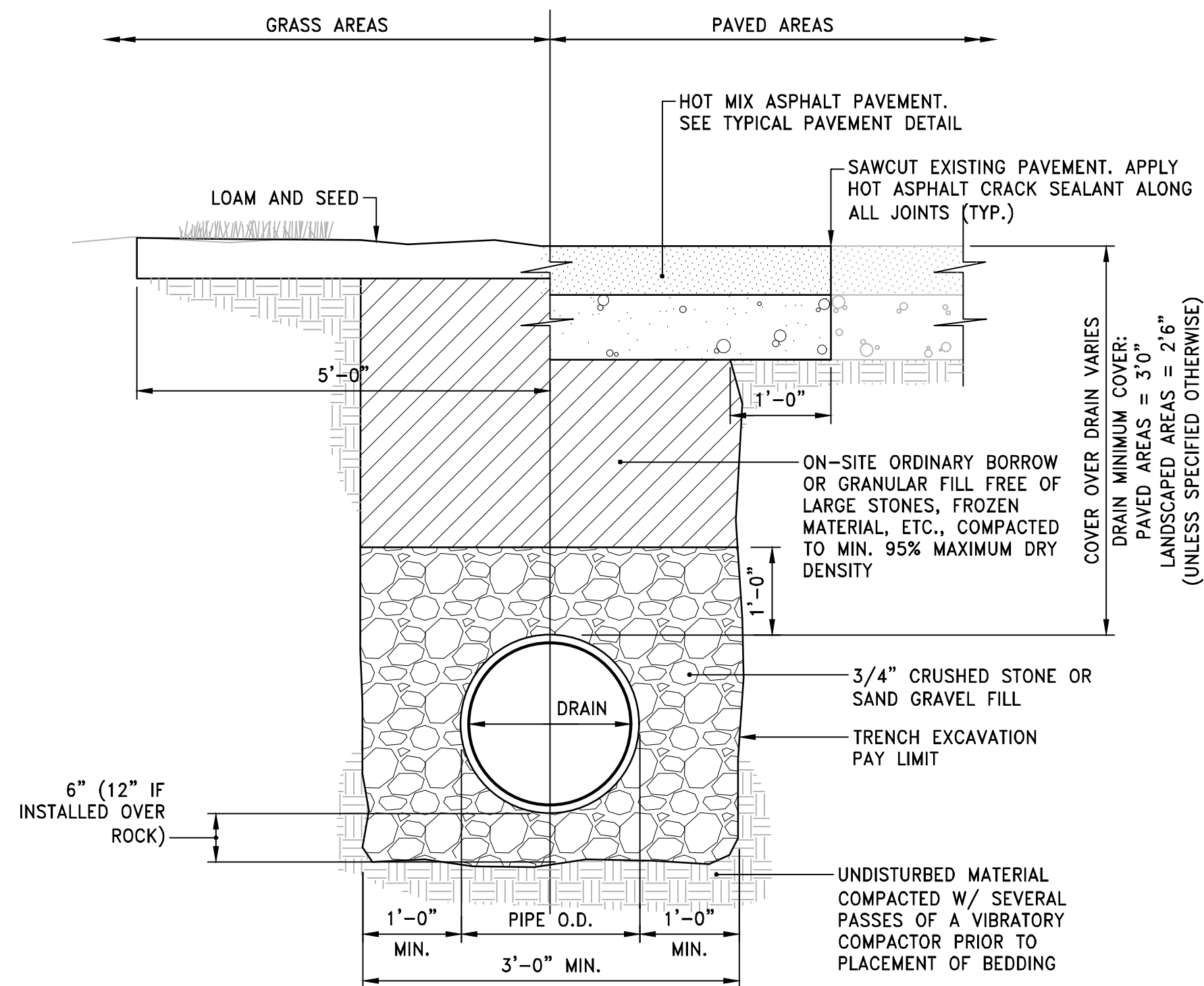
DRAWN BY: AWB	CHECKED BY: JRR
DATE ISSUED: 03/22/2021	SCALE: N.T.S.
PROJ. NO. A1037	
SHEET NO. C601	

NOT FOR CONSTRUCTION

FAIRHAVEN HS ATHLETIC FIELD - SYNTHETIC TURF

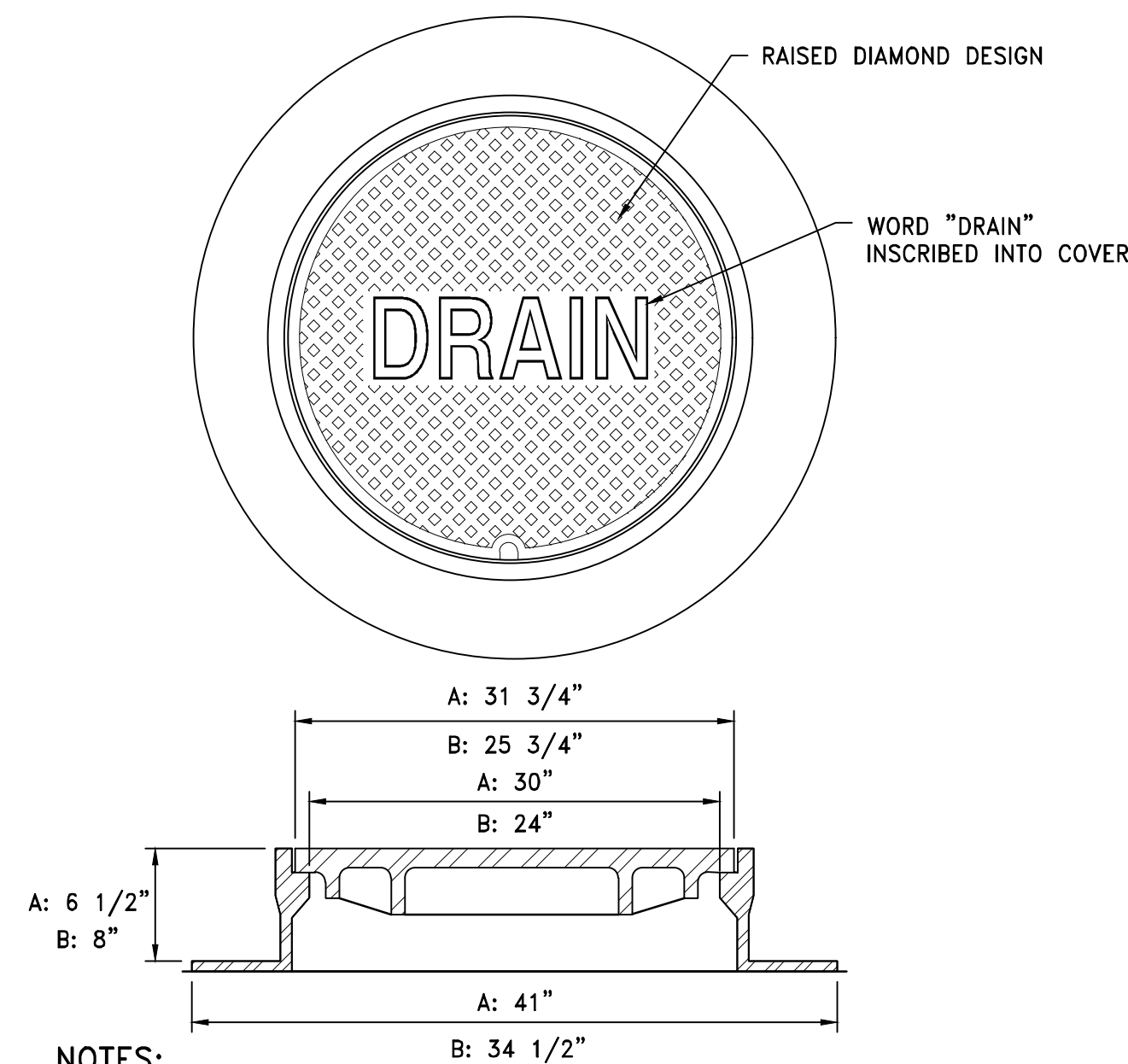
DESIGN DEVELOPMENT - 03/05/2021





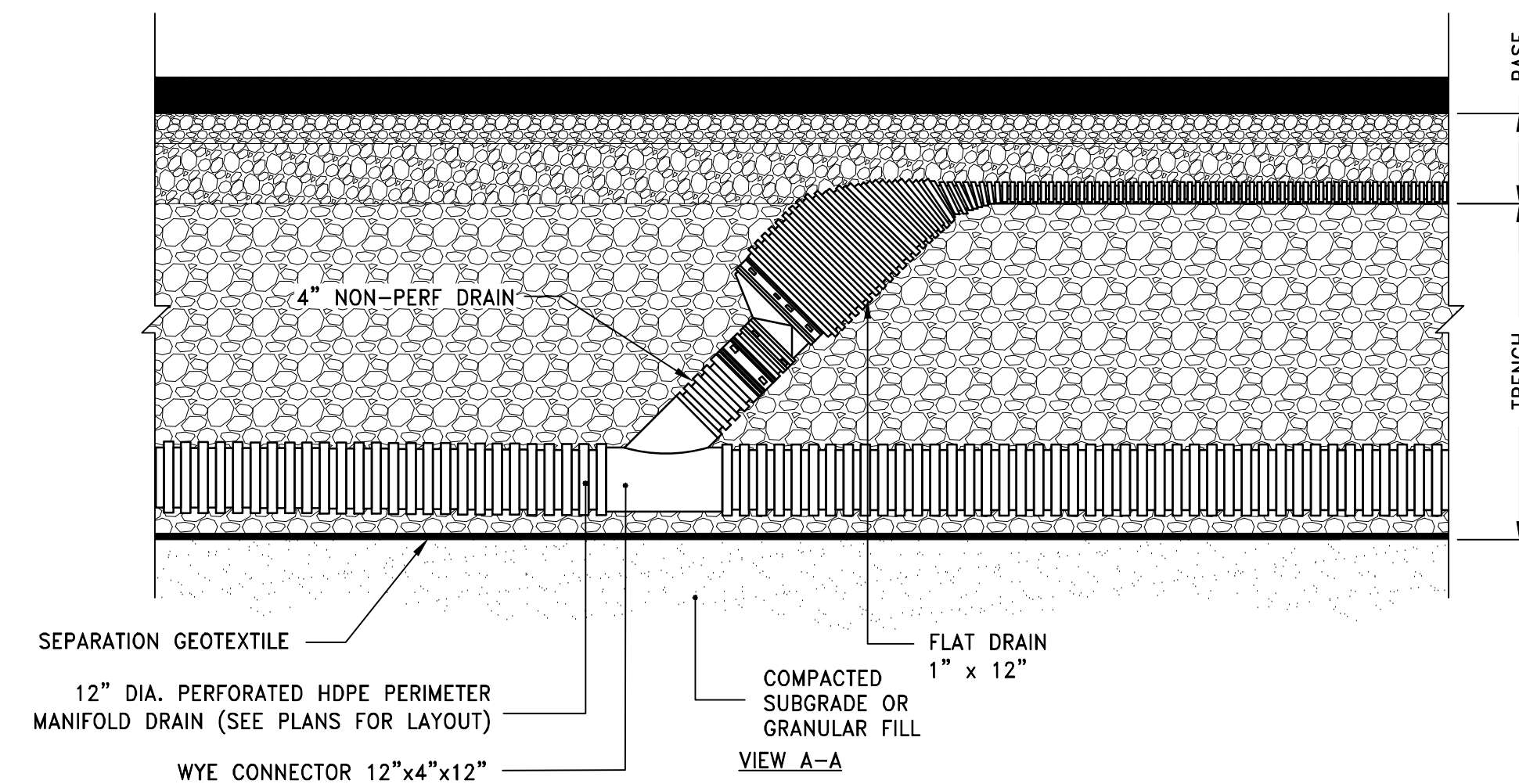
- NOTES:**
- WHERE THE DISTANCE BETWEEN THE SAWCUT AND EDGE OF PAVEMENT IS 3' OR LESS, THE CONTRACTOR SHALL REPLACE THE PAVEMENT FROM THE TRENCH EDGE TO THE EXISTING EDGE OF PAVEMENT.
  - 3/4" DIA. CRUSHED STONE SHALL BE USED AS BEDDING WHERE TRENCH IS BELOW THE GROUND WATER TABLE.

**DRAIN TRENCH DETAIL**  
NOT TO SCALE

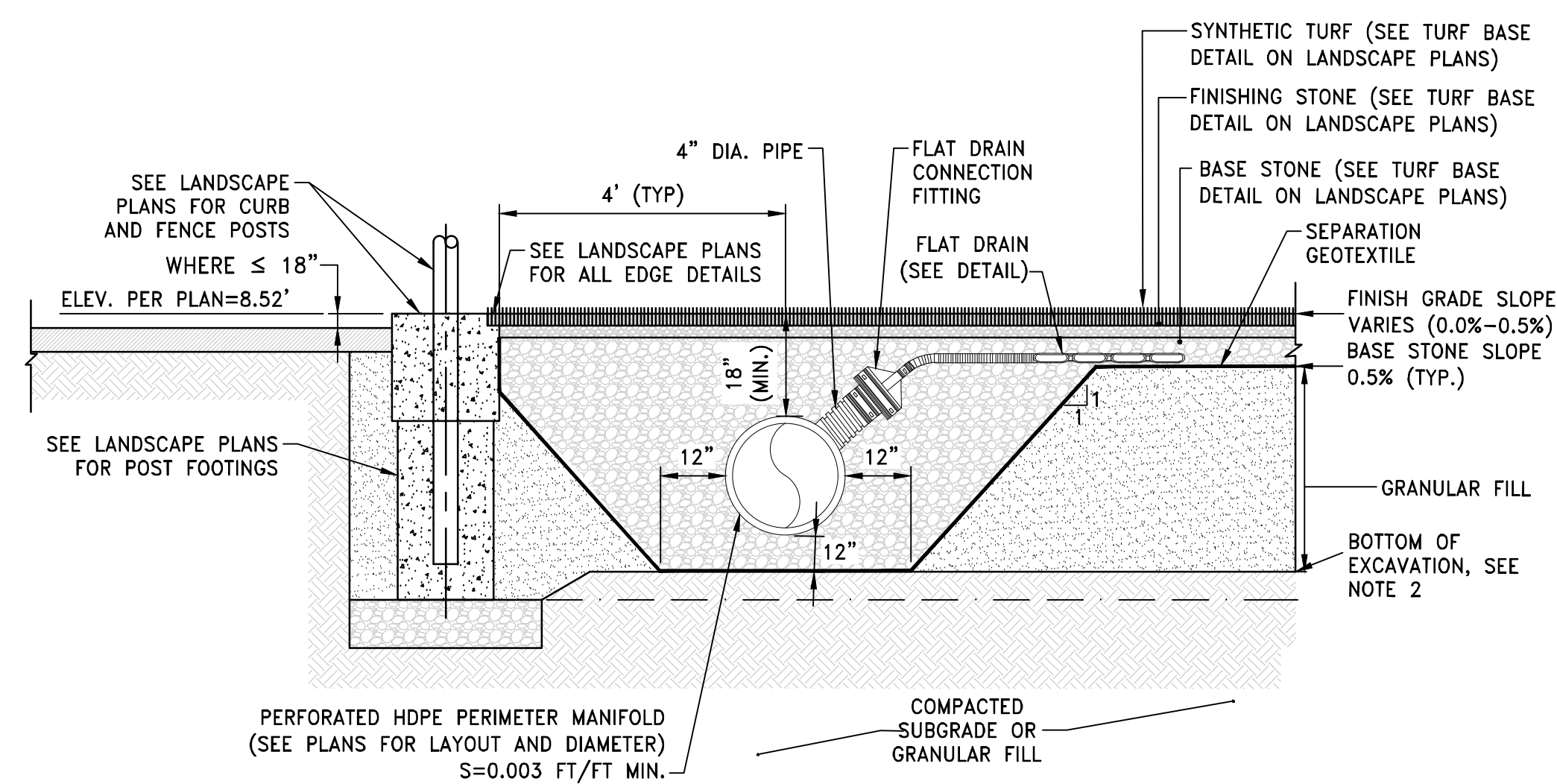


- NOTES:**
- ALL FRAMES AND COVERS SHALL MEET H-20 LOADING CRITERIA.
  - PROVIDE:
    - A: 30" DIA. DRAIN MANHOLE FRAME AND COVER SHALL BE NEENAH FOUNDRY, INC. MODEL #R-1557 OR APPROVED EQUIVALENT.
    - B: 24" DIA. DRAIN MANHOLE FRAME AND COVER SHALL BE NEENAH FOUNDRY, INC. MODEL #R-1556 OR APPROVED EQUIVALENT.
  - ALL DRAIN MANHOLES SHALL HAVE 24" DIA. DRAIN MANHOLE COVER UNLESS NOTED OTHERWISE.

**DRAIN MANHOLE FRAME & COVER**  
NOT TO SCALE

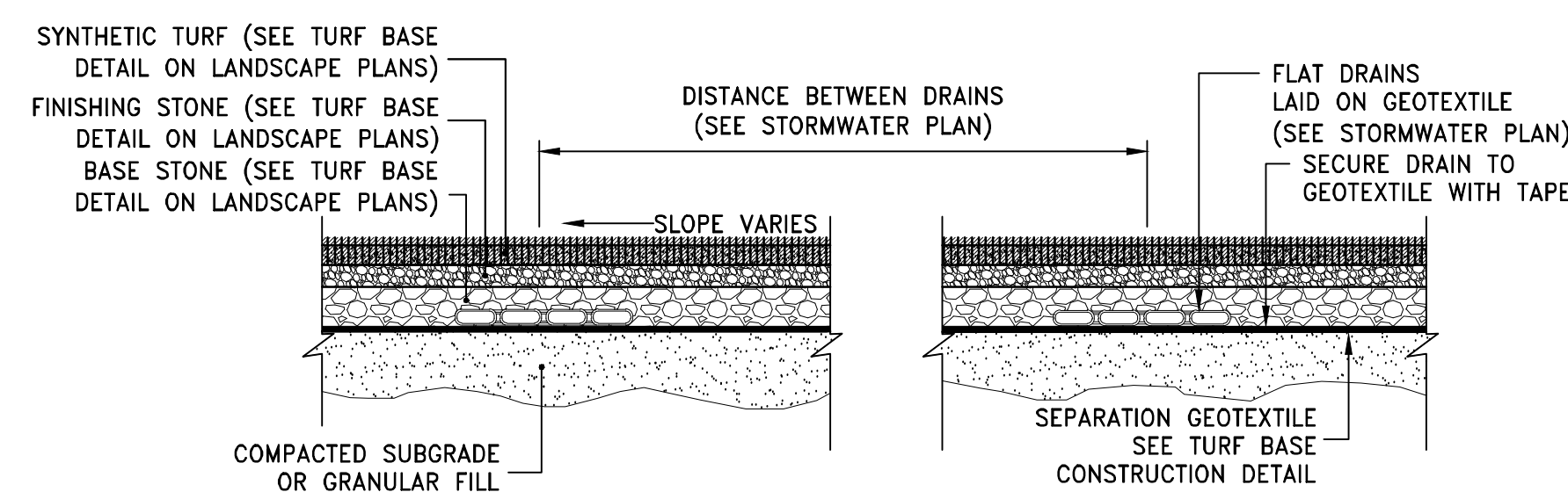


**CONNECTION BETWEEN FLAT DRAIN & PERIMETER OR COLLECTOR DRAIN**  
NOT TO SCALE

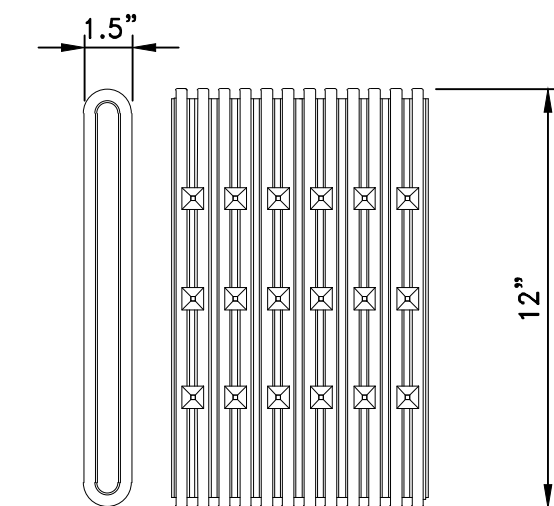


- NOTES:**
- SUBGRADE SHALL BE EVALUATED BY A PROFESSIONAL ENGINEER TO DETERMINE SUITABILITY OF THE SUBGRADE. IF THE SOIL IS DETERMINED TO BE UNSUITABLE IT SHALL BE OVEREXCAVATED TO THE BOTTOM OF SILT LAYER.
  - WITHIN ALL SYNTHETIC TURF AREAS THE CONTRACTOR SHALL EXCAVATE TO REMOVE ALL 'A'-LAYER SOILS AND EXISTING FILL MATERIALS AS REPRESENTED IN THE TEST PIT AND BORING LOGS.

**TYPICAL PERIMETER MANIFOLD SECTION**  
NOT TO SCALE



**FLAT DRAINS UNDER SYNTHETIC TURF FIELD**  
NOT TO SCALE



SLOT LENGTH (AVG), IN.= 1.125  
 SLOT WIDTH (AVG), IN.= 0.125  
 WATER INLET AREA (APPROX), IN.<sup>2</sup>/FT = 20

- NOTES:**
- DRAIN SHALL HAVE ANNULAR INTERIOR AND EXTERIOR CORRUGATIONS AND SHALL MEET ASTM D7001.
  - OUTSIDE DIMENSIONS SHALL BE 1.5" THICK BY 12" WIDE. SHALL HAVE INTERNAL BRACING ADJOINING EACH LONG WALL TO PREVENT CRUSHING UNDER TYPICAL LOADING. SHALL BE MADE WITH GEOTEXTILE WRAP.
  - ALL PIPE AND FITTINGS SHALL BE MADE OF POLYETHYLENE WITH A MINIMUM CELL CLASSIFICATION OF 424420C AS DEFINED AND DESCRIBED IN ASTM D3350.

**FLAT DRAIN DETAIL**  
NOT TO SCALE

STAMP

CONSULTANT



SHEET TITLE

CIVIL DETAILS 2

PROJECT NAME

FAIRHAVEN HIGH SCHOOL  
ATHLETIC FIELD-SYNTHETIC TURF

PROJECT ADDRESS

12 HUTTLESTONE AVE  
FAIRHAVEN, MA 02719

SUBMITTAL	DATE
SCHEMATIC DESIGN	2021/01/29
DESIGN DEVELOPMENT	2021/03/05
ISSUED FOR PERMITTING	2021/03/22

NO.	REVISIONS	DATE

DRAWN BY: AWB	CHECKED BY: JRR
DATE ISSUED: 03/22/2021	SCALE: N.T.S.
PROJ. NO. A1037	
SHEET NO. C602	

NOT FOR CONSTRUCTION



**GENERAL INFORMATION**

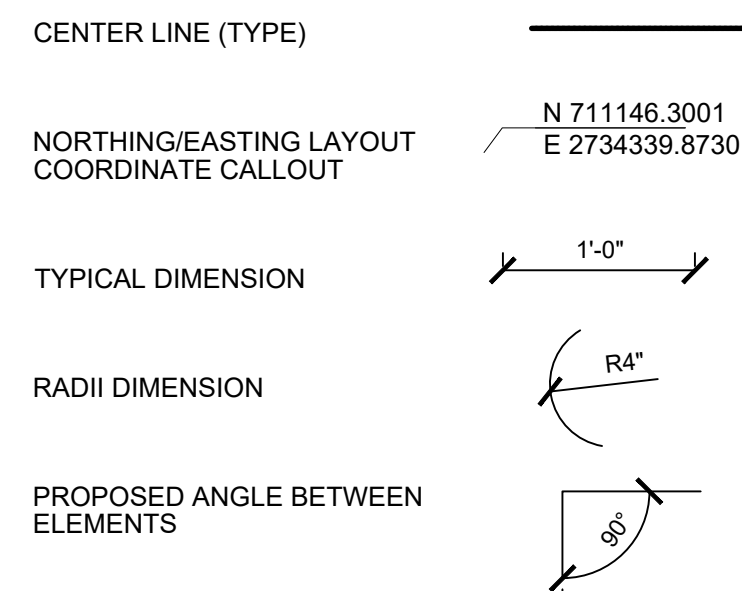
- SITE SAFETY AND PEDESTRIAN SAFETY IS OF EXTREME IMPORTANCE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EXECUTING THE WORK IN A SAFE MANNER AND WILL BE EXPECTED TO WORK OFF HOURS AS REQUIRED TO ACCOMMODATE CAMPUS ACTIVITIES WHILE MAINTAINING THE PROJECT SCHEDULE.
- CONTRACTOR TO COORDINATE WITH PUBLIC SAFETY AND PARKING THROUGH THE CONSTRUCTION MANAGER.
- THE CONTRACTOR IS SOLELY RESPONSIBLE FOR COMPLIANCE WITH ALL OSHA REGULATIONS, COMPLIANCE IS MANDATORY.
- SITE FENCING SHALL BE ERECTED BY THE CONTRACTOR AND APPROVED BY THE OWNER PRIOR TO THE COMMENCEMENT OF WORK.
- VEHICULAR TRAFFIC OR PARKING OF CONSTRUCTION VEHICLES UNDER THE DRIP LINES (IN OR OUT OF THE CONSTRUCTION LIMITS) OF TREES IS STRICTLY PROHIBITED AND VEHICLES MAY BE TOWED.
- UNFORESEEN CONDITIONS ARE INHERENT TO UNDERGROUND WORK AND ARE TO BE EXPECTED WITH THIS PROJECT. THE CONTRACTOR WILL RESPOND TO UNFORESEEN CONDITIONS AND PROVIDE THE NEEDED MANPOWER AND EQUIPMENT NECESSARY TO COMPLETE THE PROJECT BY THE CONTRACT COMPLETION DATE.
- STAKING SHALL BE PROVIDED AND PAID FOR BY THE CONTRACTOR. STAKING TO BE PERFORMED BY LICENSED LAND SURVEYOR.
- SITE CLEAN-UP SHALL BE PERFORMED ON A DAILY BASIS. SIDEWALKS, PARKING LOTS, ROADWAYS, ETC. SHALL BE KEPT CLEAN AT ALL TIMES.
- ANY WORK REQUIRED TO COMPLETE THE SCOPE OF THIS PROJECT BUT NOT SET FORTH AS A SPECIFIC BID ITEM, SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT. NO ADDITIONAL COMPENSATION SHALL BE ALLOWED FOR THE COMPLETION OF THIS WORK.
- REPAIR OR REPLACE EXISTING FACILITIES (CURBS, PAVEMENT, UTILITIES, ETC.) TO REMAIN, AT NO ADDITIONAL EXPENSE TO THE OWNER.
- IT IS INTENDED THAT ALL COSTS OF MATERIALS, EQUIPMENT, TOOLS, LABOR AND INCIDENTALS BE PAID FOR UNDER THE ITEMS LISTED ON THE BIDDER'S PROPOSAL. BEFORE SUBMITTING A BID ON THIS PROJECT, THE CONTRACTOR SHALL EXAMINE ALL DRAWINGS, SPECIFICATIONS, SPECIAL PROVISIONS AND

- THE JOB SITE. IF ANY DISCREPANCIES OR DELETIONS OCCUR IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL REPORT SAME TO THE OWNERS REPRESENTATIVE IN WRITING AND OBTAIN WRITTEN CLARIFICATION AND/OR INSTRUCTIONS ON HOW TO PROCEED.
- WORK WHICH DOES NOT CONFORM TO THE REQUIREMENTS OF THE CONTRACT WILL BE CONSIDERED UNACCEPTABLE. UNACCEPTABLE WORK, WHETHER THE RESULT OF POOR WORKMANSHIP, USE OF DEFECTIVE MATERIALS, DAMAGE THROUGH CARELESSNESS OR ANY OTHER CAUSE, FOUND TO EXIST PRIOR TO THE FINAL ACCEPTANCE OF THE WORK, SHALL BE REMOVED AND REPLACED IN AN ACCEPTABLE MANNER, AS REQUIRED BY THE OWNERS REPRESENTATIVE OR LANDSCAPE ARCHITECT AT THE CONTRACTOR'S EXPENSE. WORK DONE CONTRARY TO THE INSTRUCTIONS ,WORK DONE BEYOND THE LINES SHOWN ON THE PLANS OR ANY EXTRA WORK DONE WITHOUT AUTHORITY WILL NOT BE PAID FOR.
  - CONTRACTOR SHALL REVIEW ALL DRAWINGS AND SPECIFICATIONS TO DETERMINE THE TOTAL SCOPE OF WORK AND ALL REQUIRED COORDINATION PRIOR TO SUBMITTING THEIR BID PROPOSAL, AND PRIOR TO COMMENCING WORK.
  - THE LOCATIONS OF ALL KNOWN UNDERGROUND UTILITIES ARE NOTED ON THE DRAWINGS. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AND STRUCTURES, AS SHOWN ON THESE PLANS, IS BASED ON RECORDS OF VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR, PRIOR TO THE START OF CONSTRUCTION, SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES IN THE FIELD.THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANY, ANY GOVERNING PERMITTING AUTHORITY, AND "DIG SAFE" AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION WORK TO REQUEST THE EXACT FIELD LOCATION OF UTILITIES. THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED, IN WRITING, OF ANY UTILITIES INTERFERING WITH THE PROPOSED CONSTRUCTION AND APPROPRIATE REMEDIAL ACTIONS TAKEN BEFORE PROCEEDING WITH THE WORK. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLAN.

**LAYOUT NOTES:**

- ALL LINES ARE PERPENDICULAR OR PARALLEL TO THE LINES FROM WHICH THEY ARE MEASURED UNLESS OTHERWISE INDICATED.
- DIMENSIONS OF PARKING SPACES AND DRIVEWAYS ARE FROM FACE OF CURB TO FACE OF CURB UNLESS OTHERWISE NOTED.
- ACCESSIBLE RAMPS SHALL BE PER THE AMERICANS WITH DISABILITIES ACT (ADA) ACCESSIBILITY AND MASSACHUSETTS ARCHITECTURAL ACCESS BOARD (MAAB) GUIDELINES AND INCLUDE DETECTABLE WARNING PLATES. SEE CIVIL ENGINEERING PLANS FOR ALL TIP DOWN GRADING AND LOCATIONS
- AUTOCAD PLANS OR ADDITIONAL COORDINATES WILL BE PROVIDED AFTER THE AWARD OF THE BID.

**LAYOUT LEGEND:**



**EXISTING CONDITIONS NOTES**

- UTILITY INFORMATION SHOWN IS BASED ON UTILITY LOCATES BY THE OPERATING AUTHORITY OF EACH UTILITY, SURFACE FEATURES, AND RECORD DRAWINGS. NO SUBSURFACE INVESTIGATION HAS BEEN MADE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT LOCATION OF UNDERGROUND UTILITIES. CALL DIG SAFE 811 FOR UTILITY LOCATES PRIOR TO CONSTRUCTION.
- ALL NEW CONSTRUCTION THAT IS IN CLOSE PROXIMITY TO EXISTING OR NEW UTILITIES SHALL BE PLANNED AND EXECUTED CAREFULLY SO THAT UTILITIES ARE NOT DAMAGED. CONTRACTOR SHALL PHYSICALLY VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO COMMENCING WORK.

**STAKING CONTROL POINTS**

CP	NORTHING	EASTING	ELEVATION
----	----------	---------	-----------

**STAKING/LAYOUT NOTES**

- ALL STAKING CONTROL POINTS SHALL BE PROTECTED THROUGHOUT THE PROJECT.
- STAKING AND LAYOUT FOR THIS PROJECT IS THE RESPONSIBILITY OF THE CONTRACTOR.
- COORDINATES WILL BE PROVIDED FOR THE WORK SHOWN ON THE LANDSCAPE LAYOUT SHEETS. ELECTRONIC AUTOCAD FILES WILL BE PROVIDED AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE STAKING AND LAYOUT BASED ON ELECTRONIC DRAWING DATA.
- UNLESS OTHERWISE APPROVED, IT IS EXPECTED THAT UTILITY ELEVATIONS ARE CAREFULLY OBTAINED FROM THE PLANS, AND THAT UTILITIES WILL BE INSTALLED AS CLOSE TO PRECISE PROFILE ELEVATIONS AS CONSTRUCTION METHODS WILL REASONABLY ALLOW.

**ABBREVIATIONS**

ACC ASPHALT	MJ MECHANICAL JOINT
ABAN ABANDONED	OE OVERHEAD ELECTRIC
	PCC PORTLAND CEMENT CONCRETE
	PL PROPERTY LINE
	PVC POLYVINYL CHLORIDE PIPE
	RCP REINFORCED CONCRETE PIPE
	REQD/REQ'D REQUIRED
DIA DIAMETER	RGS RIGID STEEL
DIP DUCTILE IRON PIPE	RJ RESTRAINED JOINT
DW DOMESTIC WATER	DIP DUCTILE IRON PIPE
FO FIBER OPTIC	ROW RIGHT-OF-WAY
FW FIRE WATER	SAN SANITARY SEWER
HPS HIGH PRESSURE STEAM	SMH SANITARY MANHOLE
IE INVERT ELEVATION	STM STEAM
	STRM STORM SEWER
	TELU TELECOMMUNICATIONS
LF LINEAR FEET	TEMP TEMPORARY
	UE UNDERGROUND ELECTRIC
MH MANHOLE	WAT/W WATER MAIN

**SPOT GRADES ABBREVIATIONS**

FFE FINISHED FLOOR ELEVATION
TC TOP OF CURB
TOW TOP OF WALK
TW TOP OF WALL
BW BOTTOM OF WALL
TS TOP OF STEP
BS BOTTOM OF STEP
EOR END OF RADIUS
HP HIGH POINT
LP LOW POINT
PT POINT OF TANGENCY

FINISHED FLOOR ELEVATION

FFE 568.00

NUMBER OF RISERS + HEIGHT

17R@6"

LEGEND	
SITE	
SYMBOL	DESCRIPTION
	BOLLARD POLE
	HANDICAPPED PARKING
	SLOPE ARROW
	FLOW ARROW
	SINGLE POLE SIGN
	DOUBLE POLE SIGN

**LEGEND UTILITIES**

EXISTING	DESCRIPTION	PROPOSED
	CABLE LINE - OVERHEAD	
	CABLE LINE - UNDERGROUND	
	ELECTRIC LINE - OVERHEAD	
	ELECTRICAL LINE - UNDERGROUND	
	GAS MAIN	
	SANITARY SEWER	
	STEAM	
	STORM SEWER	
	OVERHEAD TELEPHONE	
	FIBER OPTICS	
	UNDERGROUND TELEPHONE	
	WATER MAIN	

**LEGEND FENCE AND CURB**

DESCRIPTION	PROPOSED
CHAIN LINK FENCE 4'	
ORNAMENTAL FENCE	
BALL SAFETY NETTING 12'	
BALL SAFETY NETTING 20'	
ORNAMENTAL FENCE AND NET COMBINATION	
TREE PROTECTION	
14" CURB EXPOSED WITH PT NAILER	
14" FIELD CURB	



STAMP

CONSULTANT

SHEET TITLE

LEGEND SCHEDULE AND GENERAL NOTES

PROJECT NAME

FAIRHAVEN HIGH SCHOOL  
ATHLETIC FIELD-SYNTHETIC TURF

PROJECT ADDRESS

12 HUTTLESTONE AVE  
FAIRHAVEN , MA 02719

SUBMITTAL	DATE
SCHEMATIC DESIGN	2021/01/29
DESIGN DEVELOPMENT	2021/03/05
PERMITTING	2021/03/22

NO.	REVISIONS	DATE

DRAWN BY: JR CHECKED BY: AE

DATE ISSUED: 03/05/2021 SCALE:

PROJ. NO. A1037

SHEET NO. L0.01

LEGEND SCHEDULES AND GENERAL NOTES

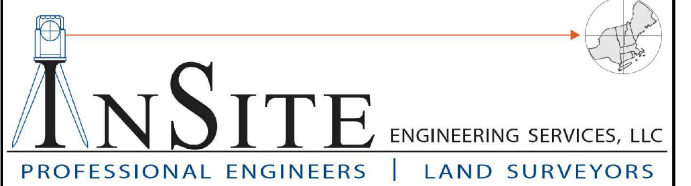
FAIRHAVEN HS ATHLETIC FIELD - SYNTHETIC TURF

DESIGN DEVELOPMENT - 03/05/2021





STAMP



CONSULTANT

SHEET TITLE  
**EXISTING CONDITIONS**

PROJECT NAME  
**FAIRHAVEN HIGH SCHOOL  
ATHLETIC FIELD-SYNTHETIC TURF**

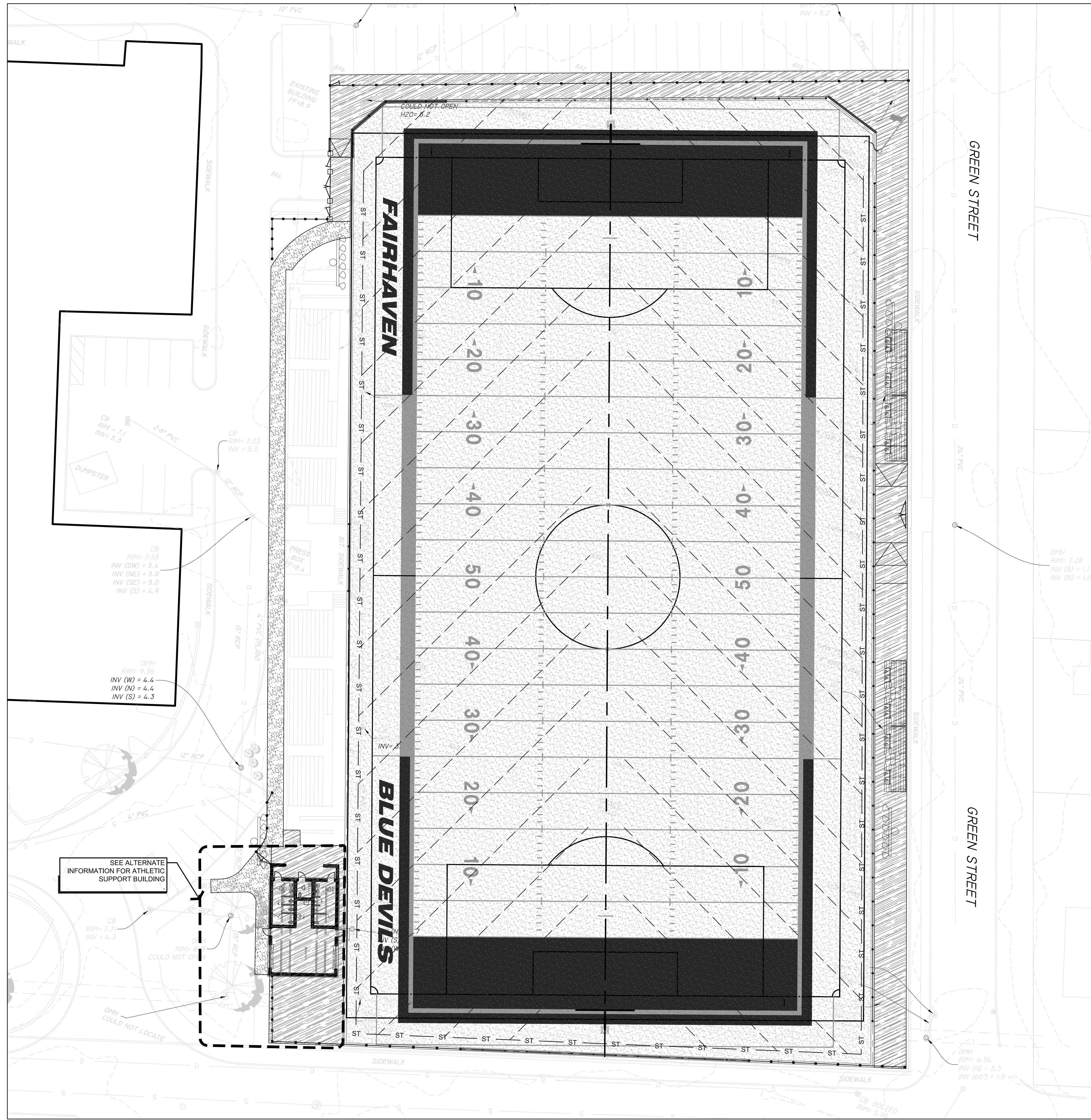
PROJECT ADDRESS  
12 HUTTLESTONE AVE  
FAIRHAVEN, MA 02719

SUBMITTAL	DATE
SCHEMATIC DESIGN	2021/01/29
DESIGN DEVELOPMENT	2021/03/05
PERMITTING	2021/03/22

NO.	REVISIONS	DATE

DRAWN BY: <b>JR</b>	CHECKED BY: <b>AE</b>
DATE ISSUED: <b>03/22/2021</b>	SCALE: <b>1"=20'</b>
PROJ. NO. <b>A1037</b>	
SHEET NO. <b>L1.01</b>	





STAMP

CONSULTANT

SHEET TITLE  
**OVERALL SITE PLAN**

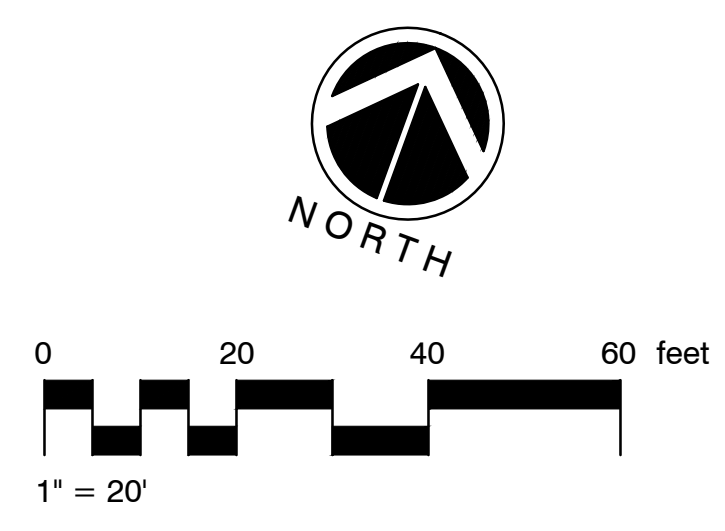
PROJECT NAME  
**FAIRHAVEN HIGH SCHOOL  
ATHLETIC FIELD-SYNTHETIC TURF**

PROJECT ADDRESS  
12 HUTTLESTONE AVE  
FAIRHAVEN, MA 02719

SUBMITTAL	DATE
SCHEMATIC DESIGN	2021/01/29
DESIGN DEVELOPMENT	2021/03/05
ISSUED FOR PERMITTING	2021.03.22

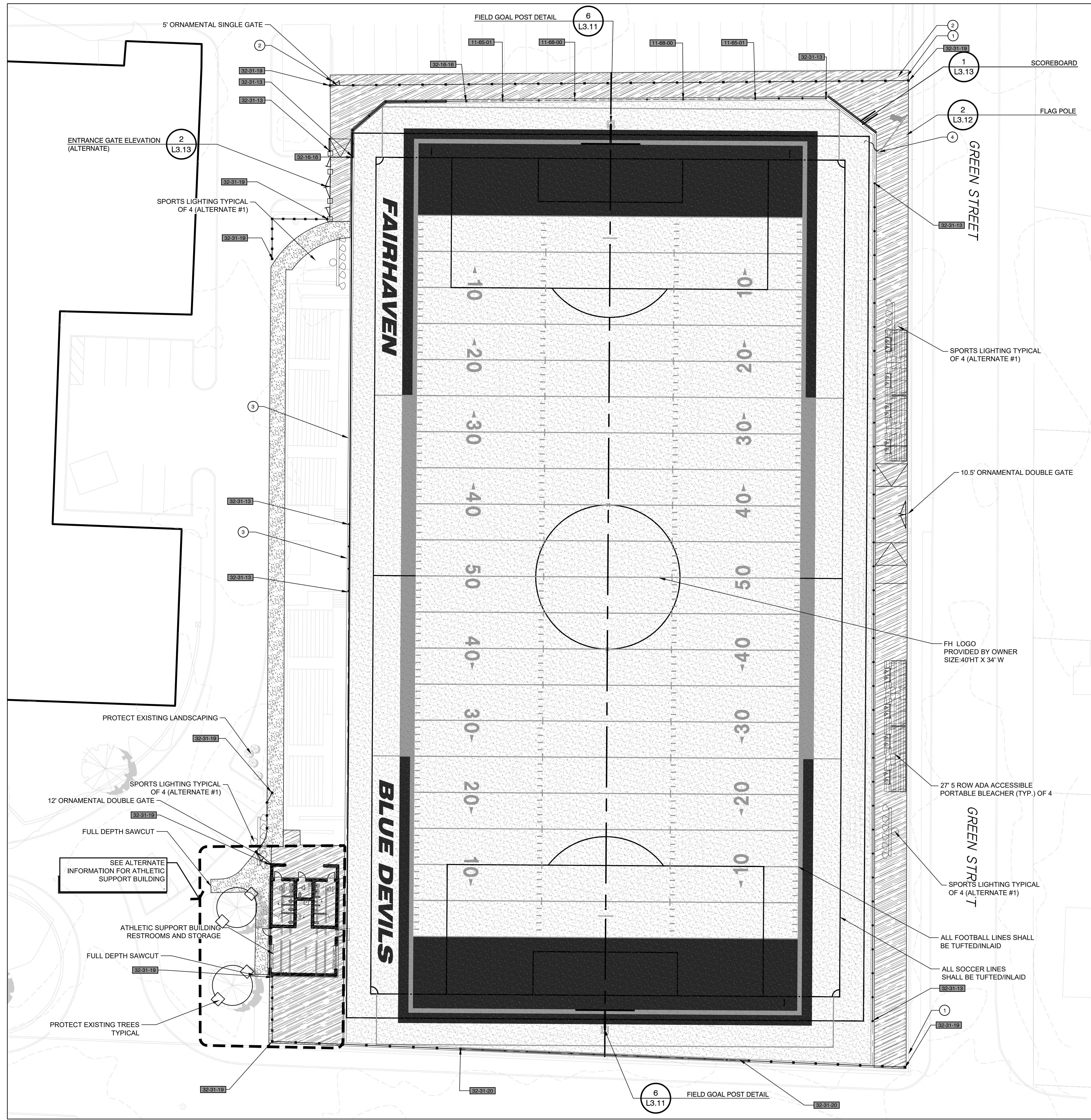
NO.	REVISIONS	DATE

DRAWN BY: <b>JR</b>	CHECKED BY: <b>AE</b>
DATE ISSUED: <b>03/22/2021</b>	SCALE: <b>1"=20'</b>
PROJ. NO. <b>A1037</b>	
SHEET NO. <b>L1.11</b>	



FAIRHAVEN HS ATHLETIC FIELD - SYNTHETIC TURF  
PERMITTING - 03/22/2021





**REFERENCE NOTES SCHEDULE**

SYMBOL	DESCRIPTION	QTY	DETAIL	Alternate #
①	REMOVE FENCE FABRIC (PRIOR TO PAVING) PRESERVE FENCE POSTS AND REPLACE FABRIC (AFTER PAVING)			
②	REMOVE AND DISPOSE OF EXISTING FENCING INCLUDING POSTS.			
③	PLACE 1/2" EXPANSION JNT WITH FOAM BACKER AND SEALAT AT EXISTING CLEAN PAVEMENT EDGE (SAW CUT IF NECESSARY)			
④	REMOVE EXISTING FLAG POLE. PRESERVE AND RELOCATE POLE WITH NEW FOUNDATION PER DETAIL OR MANUFACTURERS DIRECTION			
<b>Play Field Equipment and Structures</b>				
---	11-65-01	12' Ball Safety Netting in Field Curb	60 lf	3/L3.11
---	11-68-00	20' Ball Safety Netting in Field Curb	60 lf	3/L3.11
<b>ASPHALT PAVING</b>				
▨	32-12-17	HMA sidewalks	2,354 sf	1/L3.12 #1
<b>CONCRETE PAVING</b>				
▨	32-13-13	Broom Finished Sidewalk	11,214 sf	/
<b>CURBS AND GUTTERS</b>				
---	32-16-15	Field Curb with shelf	1,151 lf	3/L3.11
---	32-16-16	Field Curb with PT Nailer Board	63 lf	9/L3.11
<b>ATHLETIC AND RECREATIONAL SURFACING</b>				
▨	32-18-13	Synthetic Turf	85,681 sf	1/L3.11
<b>FENCES AND GATES</b>				
---	32-31-13	4' Black Vinyl Chainlink	474 lf	6/L3.12
---	32-31-19	Ornamental Fence	485 lf	3/L3.12
---	32-31-20	Combination 20' Ball Safety Netting and Ornamental Fence	120 lf	
<b>STORM DRAINAGE UTILITIES</b>				
---	33-41-00	Storm Collector Drain	937 lf	SEE CIVIL PLANS
---	33-41-17	Flat Panel Drain	3,780 lf	SEE CIVIL PLANS

**TRAVERSE**  
landscape architects  
150 Chestnut Street, 4th Floor Providence, RI 02903  
68 Harrison Avenue, 6th Floor Boston, MA 02111

STAMP

CONSULTANT

SHEET TITLE

**LANDSCAPE ATHLETICS MATERIALS PLAN**

PROJECT NAME

**FAIRHAVEN HIGH SCHOOL  
ATHLETIC FIELD-SYNTHETIC TURF**

PROJECT ADDRESS

12 HUTTLESTONE AVE  
FAIRHAVEN, MA 02719

SUBMITTAL	DATE
SCHEMATIC DESIGN	2021/01/29
DESIGN DEVELOPMENT	2021/03/05
ISSUED FOR PERMITTING	2021/03/22

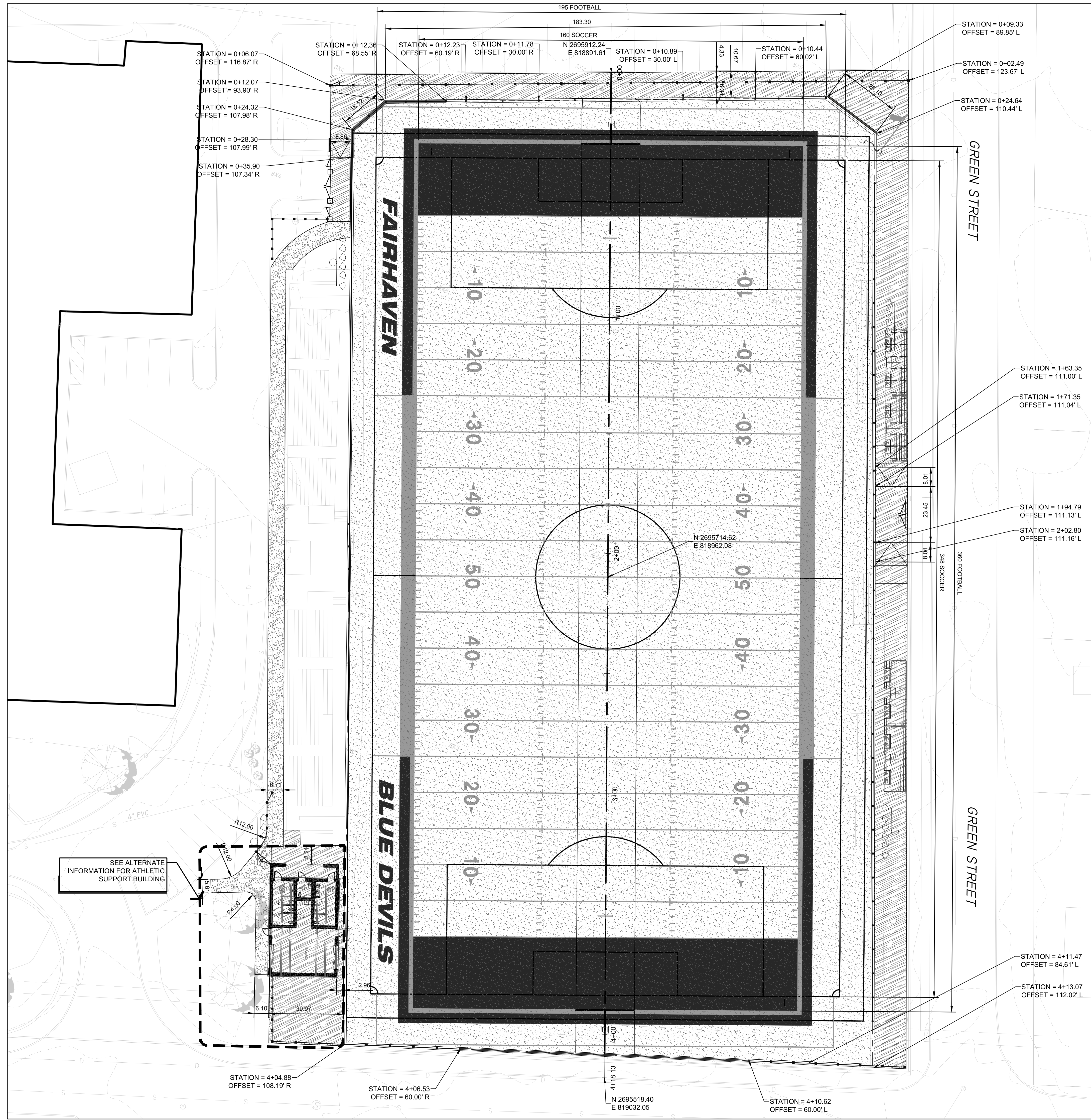
NO.	REVISIONS	DATE

DRAWN BY: <b>JR</b>	CHECKED BY: <b>AE</b>
DATE ISSUED: <b>03/22/2021</b>	SCALE: <b>1"=20'</b>
PROJ. NO. <b>A1037</b>	
SHEET NO. <b>L1.21</b>	

LANDSCAPE ATHLETICS MATERIALS PLAN

FAIRHAVEN HS ATHLETIC FIELD - SYNTHETIC TURF





STAMP

CONSULTANT

SHEET TITLE  
**LANDSCAPE ATHLETICS LAYOUT PLAN**

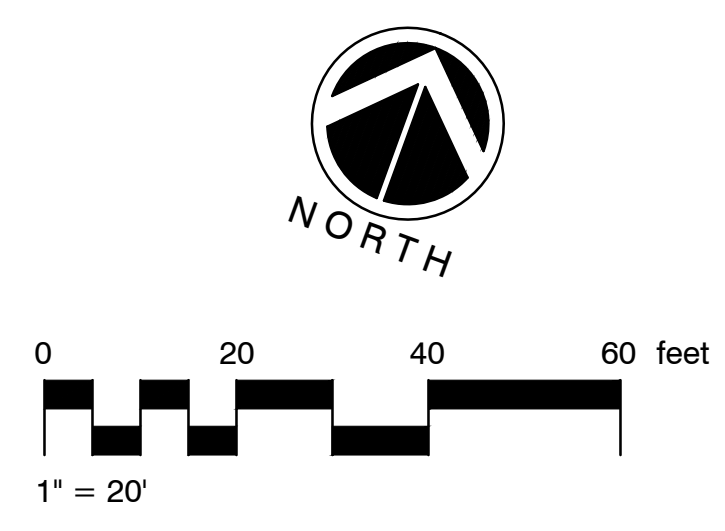
PROJECT NAME  
**FAIRHAVEN HIGH SCHOOL  
ATHLETIC FIELD-SYNTHETIC TURF**

PROJECT ADDRESS  
12 HUTTLESTONE AVE  
FAIRHAVEN, MA 02719

SUBMITTAL	DATE
SCHEMATIC DESIGN	2021/01/29
DESIGN DEVELOPMENT	2021/03/05
ISSUED FOR PERMITTING	2021/03/22

NO.	REVISIONS	DATE

DRAWN BY: **JR**      CHECKED BY: **AE**  
 DATE ISSUED: **03/22/2021**      SCALE: **1"=20'**  
 PROJ. NO. **A1037**  
 SHEET NO. **L1.31**



FAIRHAVEN HS ATHLETIC FIELD - SYNTHETIC TURF

PERMITTING - 03/22/2021



STAMP

CONSULTANT

SHEET TITLE  
**LANDSCAPE ATHLETIC DETAILS**

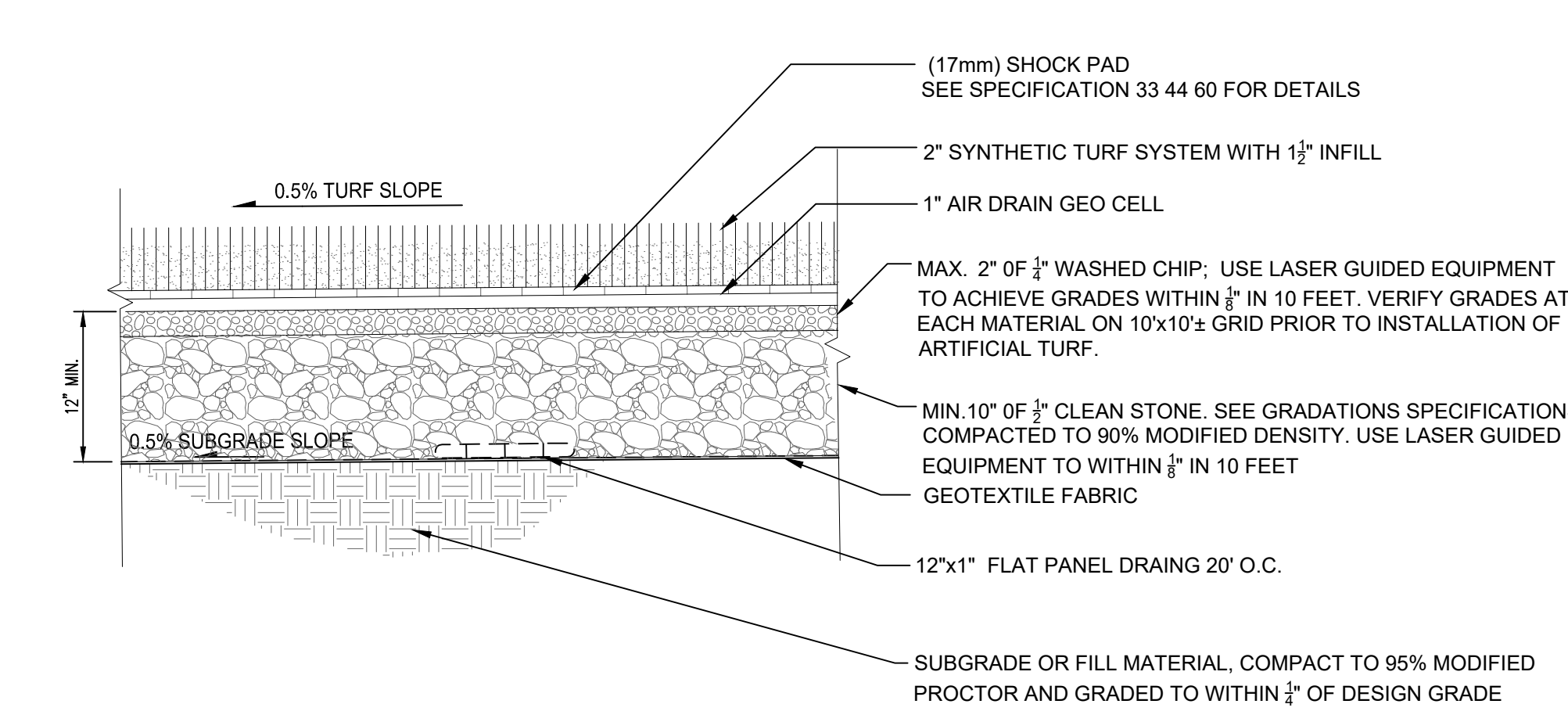
PROJECT NAME  
**FAIRHAVEN HIGH SCHOOL  
ATHLETIC FIELD-SYNTHETIC TURF**

PROJECT ADDRESS  
12 HUTTLESTONE AVE  
FAIRHAVEN, MA 02719

SUBMITTAL	DATE
SCHEMATIC DESIGN	2021/01/29
DESIGN DEVELOPMENT	2021/03/05
ISSUED FOR PERMITTING	2021/03/22

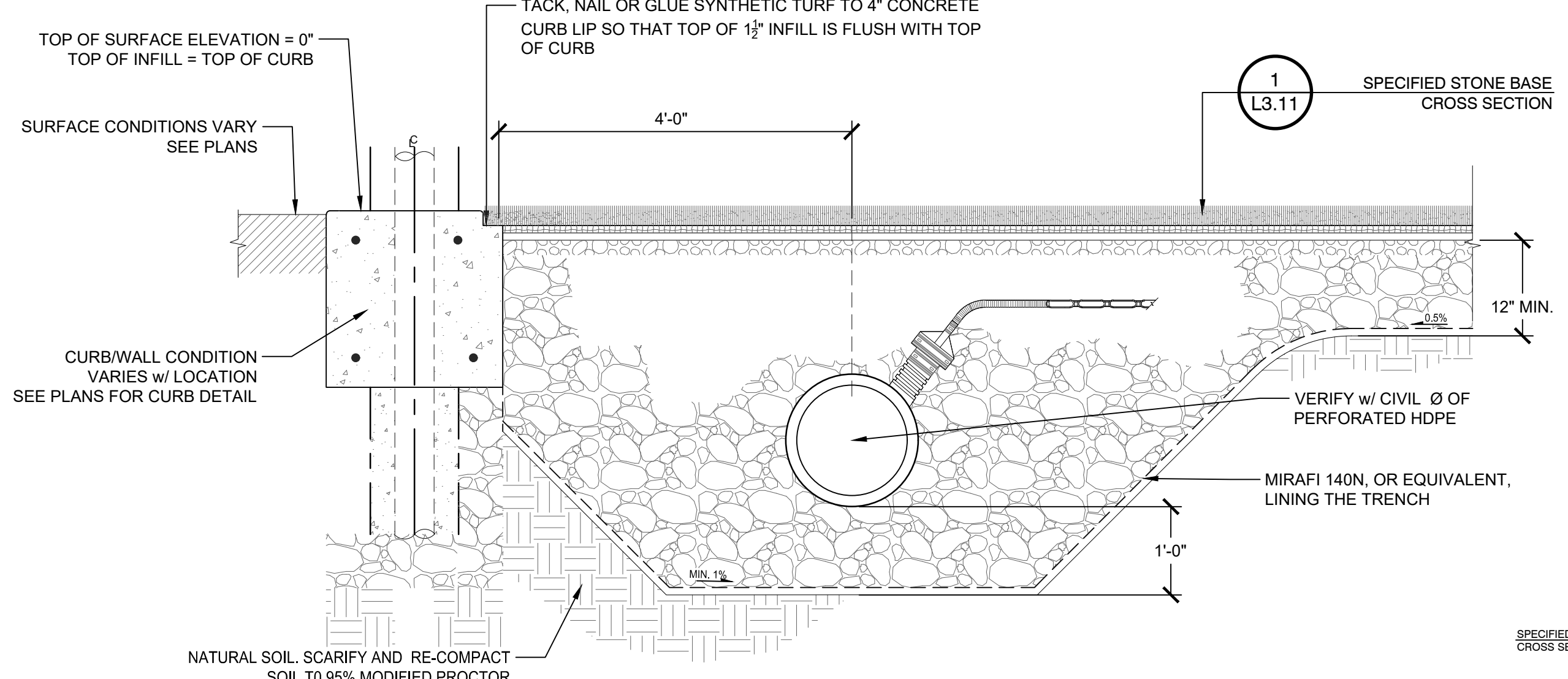
NO.	REVISIONS	DATE
△		
△		
△		
△		
△		

DRAWN BY: <b>JR</b>	CHECKED BY: <b>AE</b>
DATE ISSUED: 03/22/2021	SCALE: 1"=20'
PROJ. NO. A1037	
SHEET NO. <b>L3.11</b>	

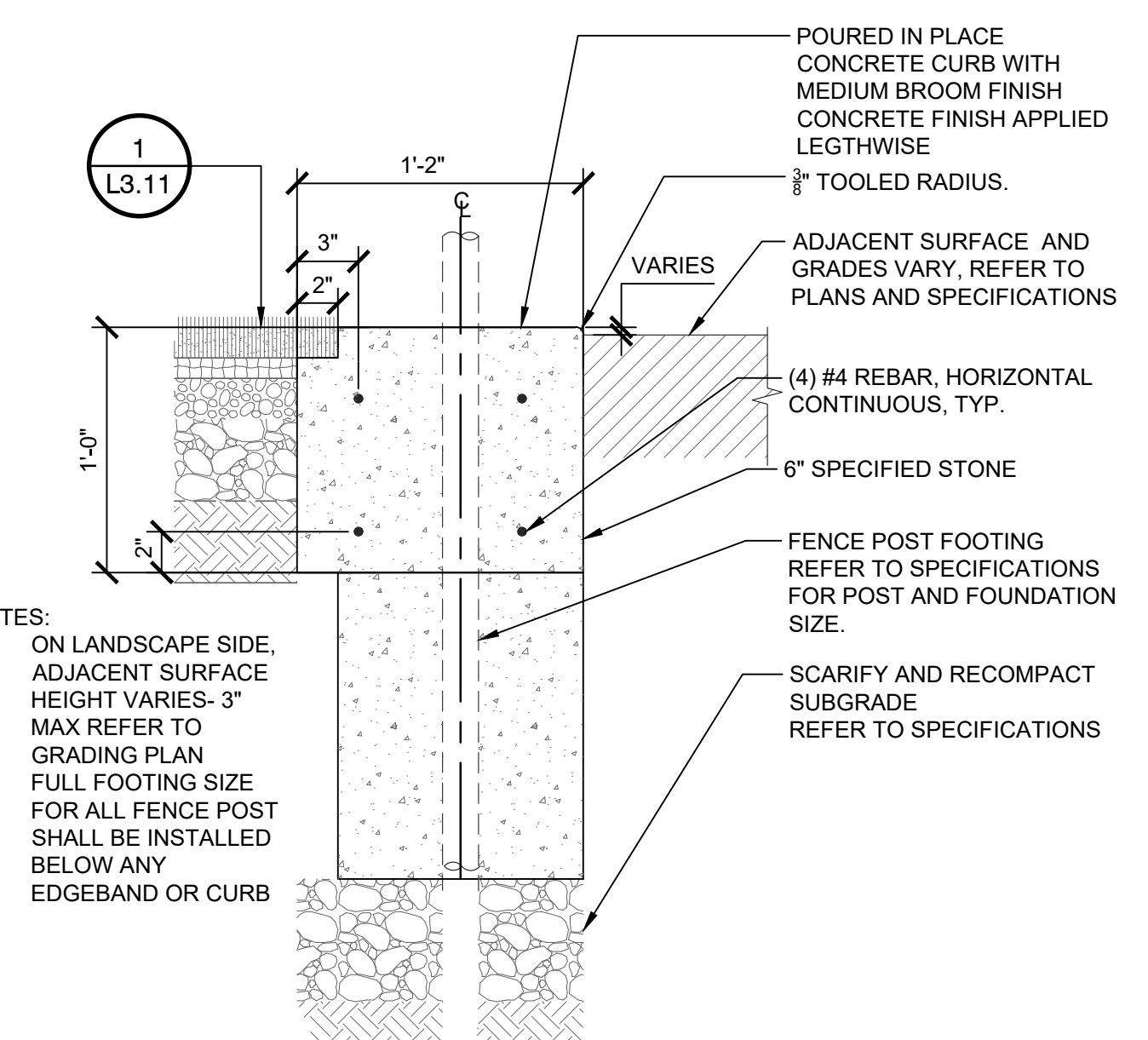


NOTE:  
1. ALL STONES UNDER SYNTHETIC SHALL BE WASHED CLEAN AND FREE OF SEDIMENTS.  
2. CONTRACTOR SHALL PROVIDE STONE SAMPLES FOR LANDSCAPE ARCHITECTS REVIEW AND APPROVAL PRIOR TO STONE BASE INSTALLATION.

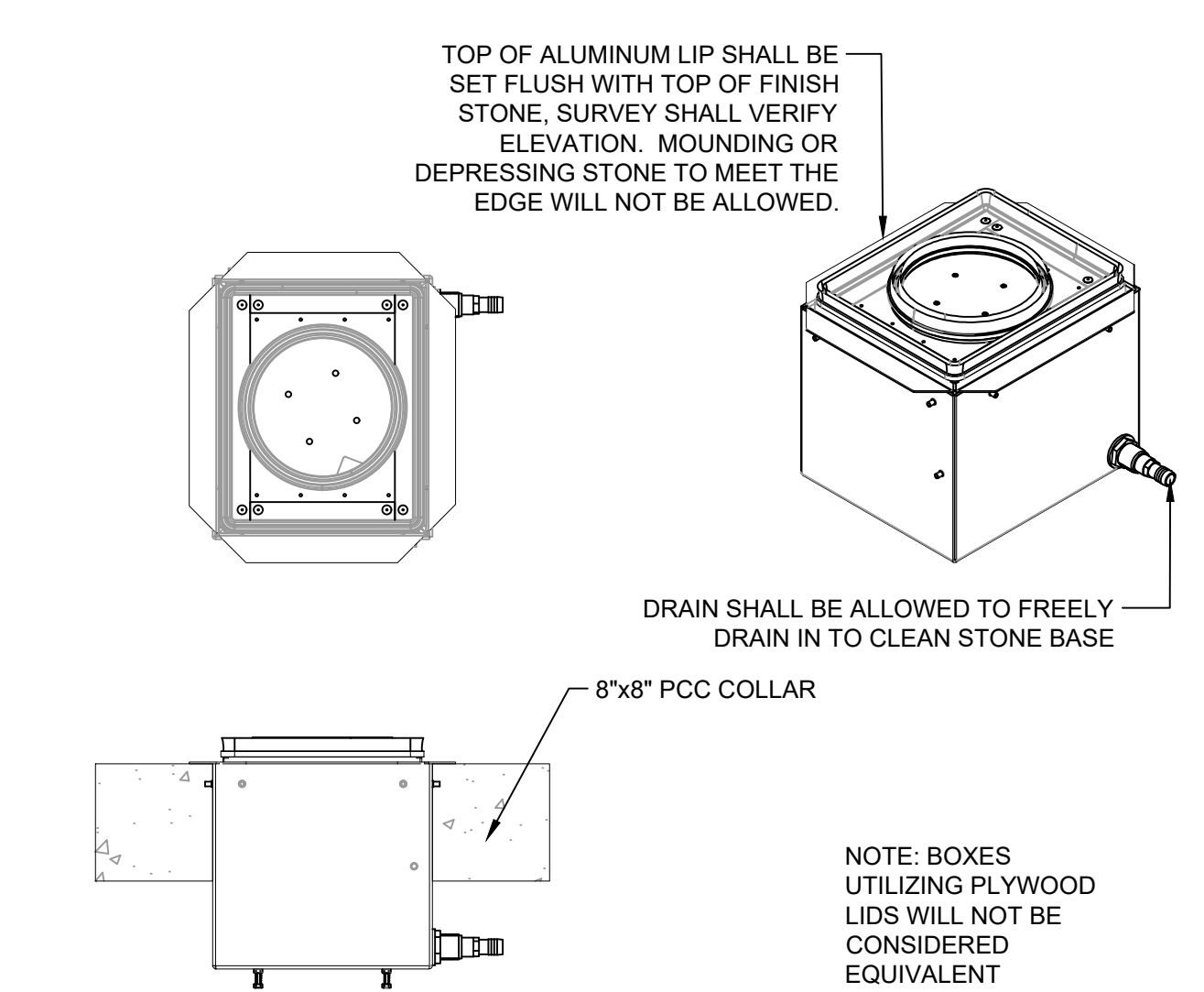
**1 SPECIFIED STONE BASE CROSS SECTION**  
1" = 1'-0"  
P-AT1-AFA-20



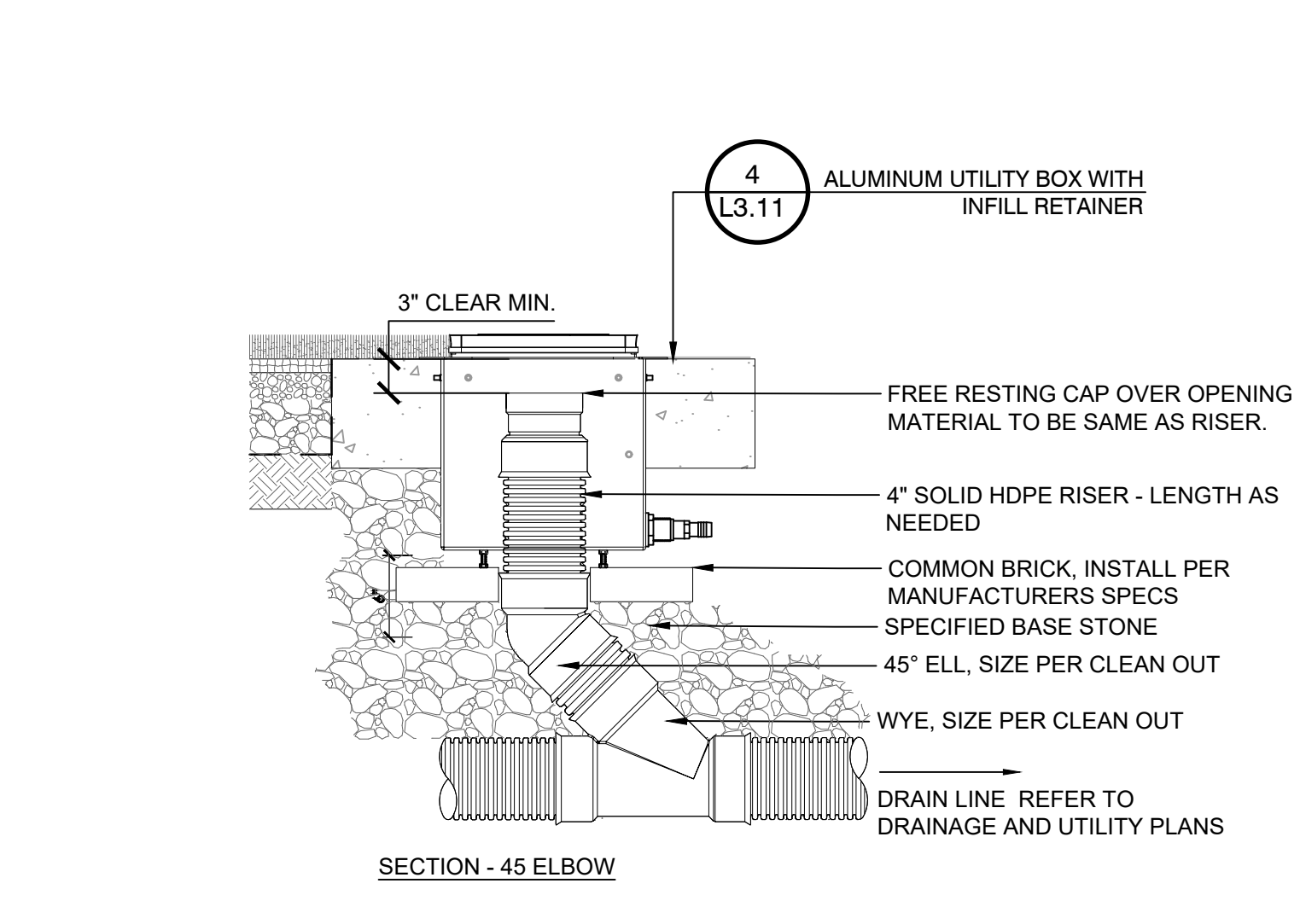
**2 CONCRETE CURB AND PERIMETER DRAINAGE DETAIL**  
3/4" = 1'-0"  
P-AT1-AFA-14



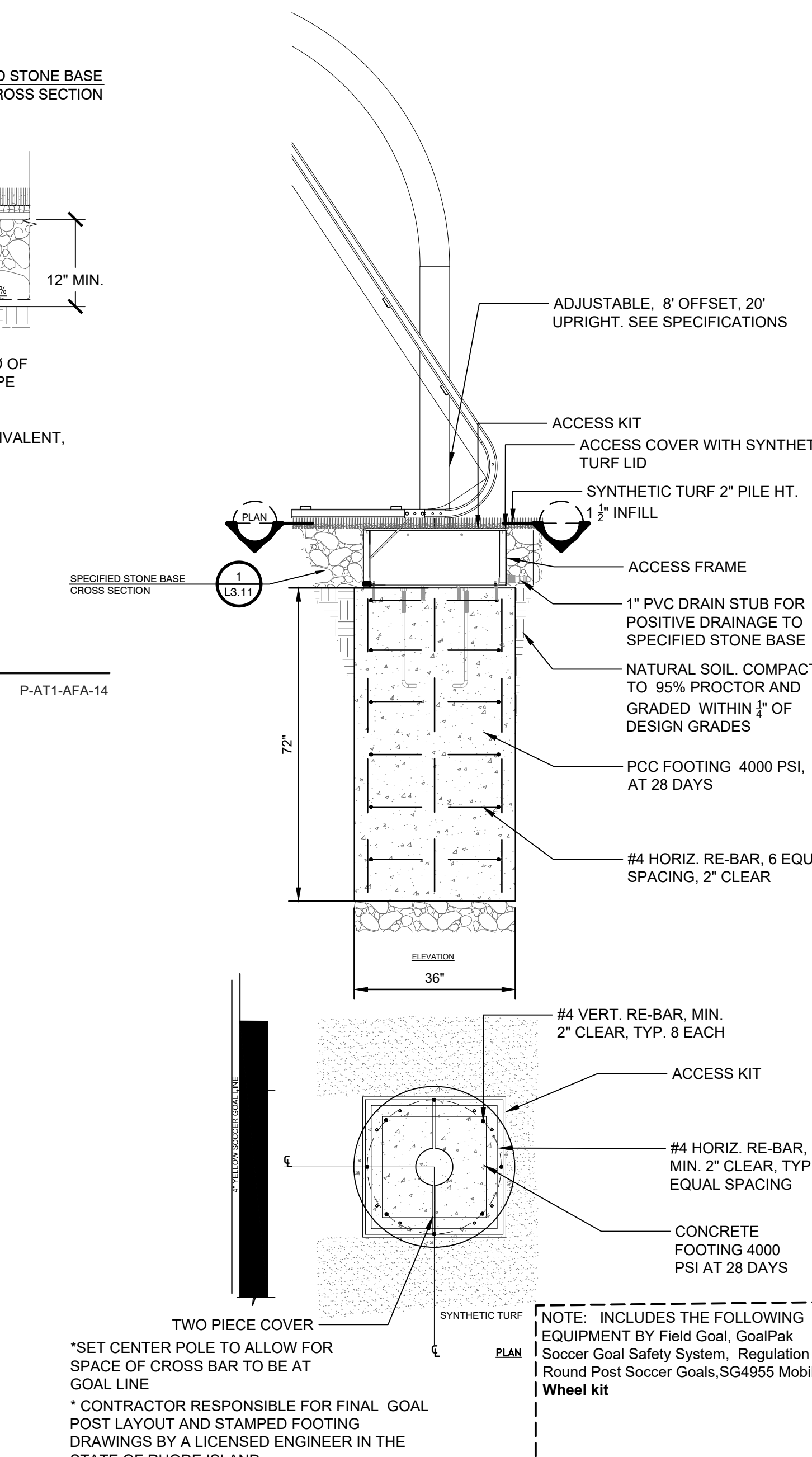
**3 14" TURF CURB WITH FENCE OR NET**  
1 1/2" = 1'-0"



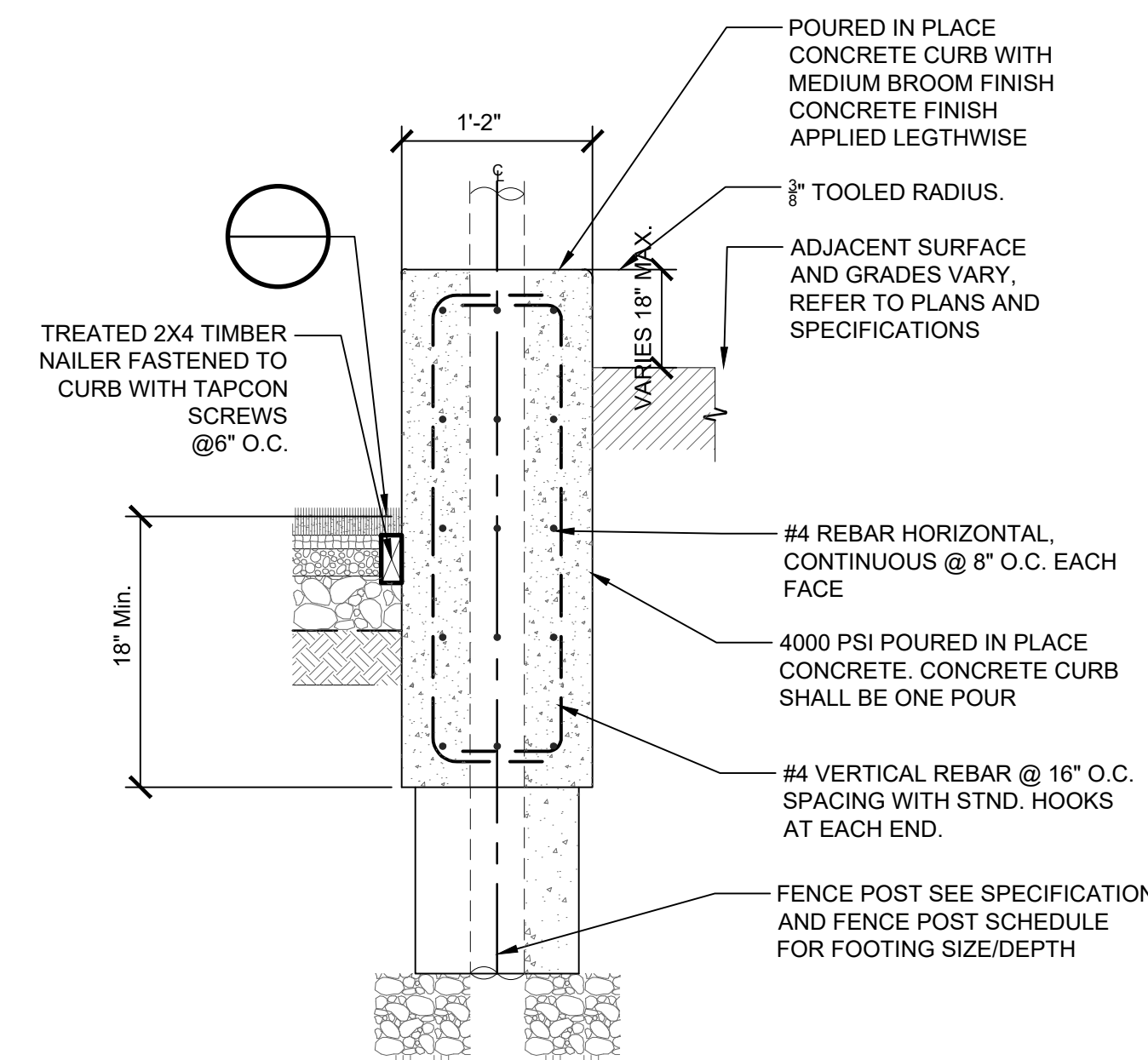
**4 ALUMINUM UTILITY BOX WITH INFILL RETAINER**  
1" = 1'-0"



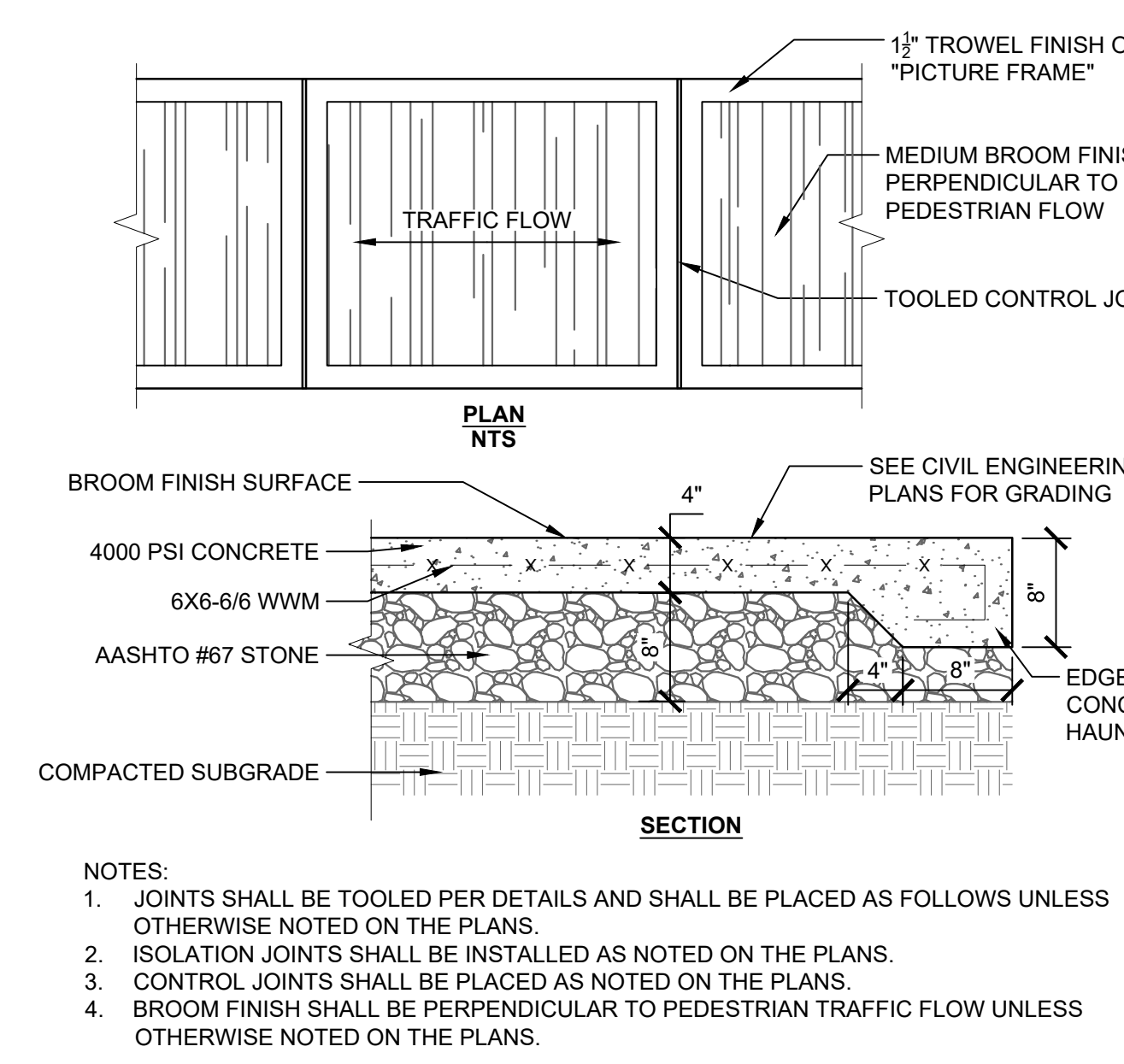
**5 SYNTHETIC TURF STORM CLEANOUT**  
1" = 1'-0"



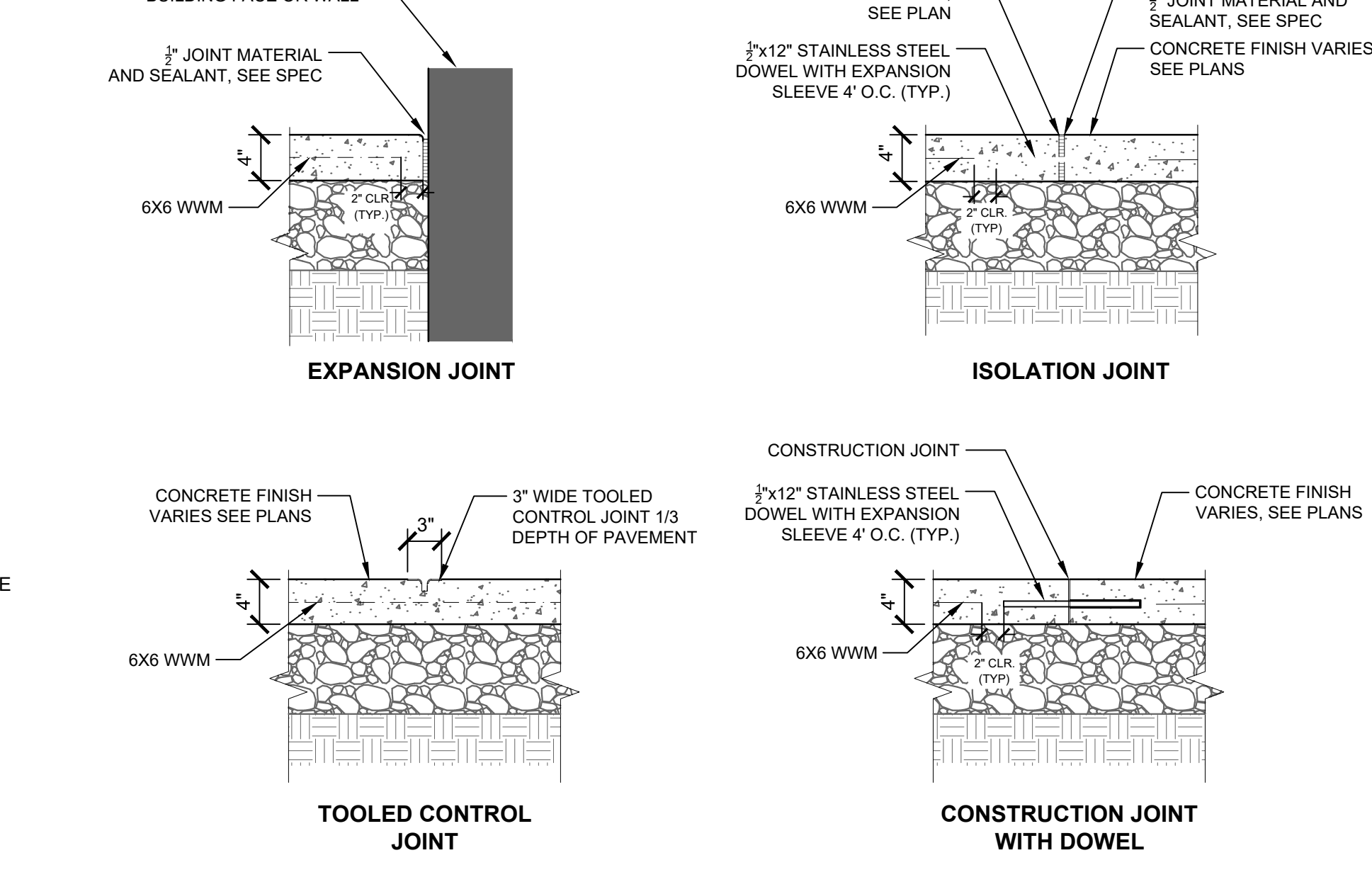
**6 FIELD GOAL POST DETAIL**  
1/2" = 1'-0"  
P-AT1-AFA-34



**9 14" TURF CURB EXPOSED WITH NAILER BOARD**  
1" = 1'-0"  
P-AT1-AFA-12

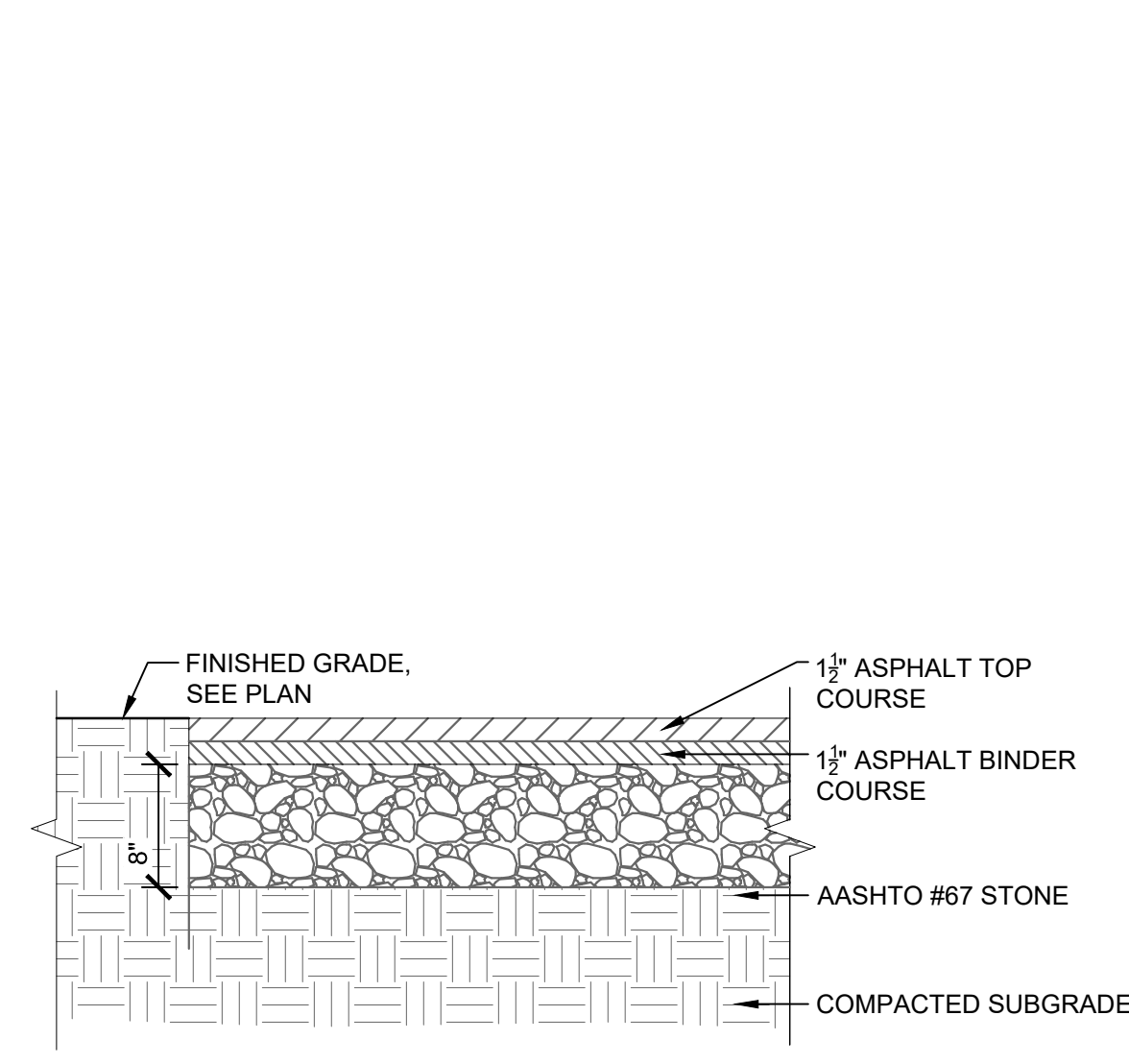


**7 CONCRETE PAVING**  
1" = 1'-0"



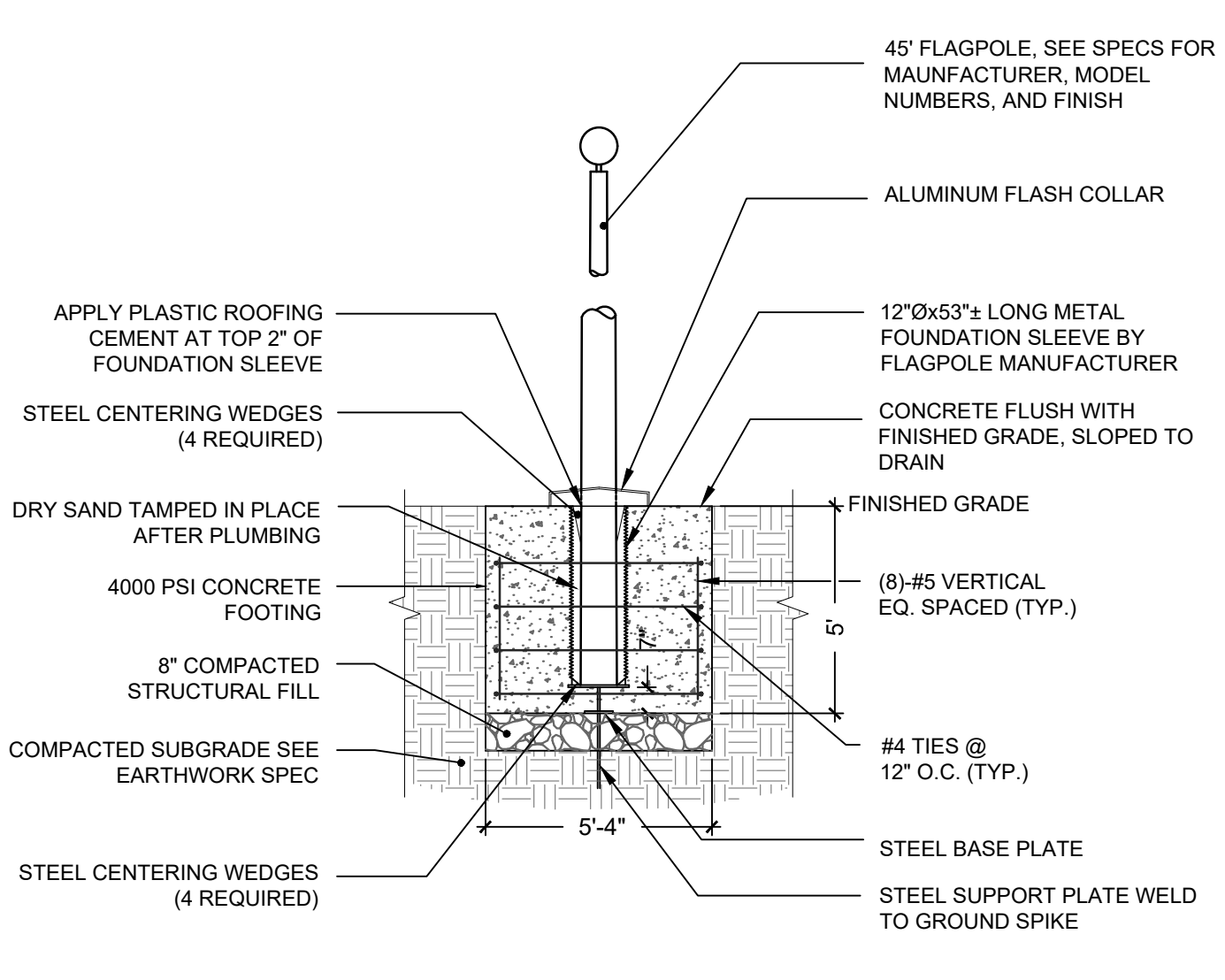
**8 CONCRETE PAVEMENT JOINTS-TOOLED**  
1" = 1'-0"  
P-AT1-AFA-000901-06





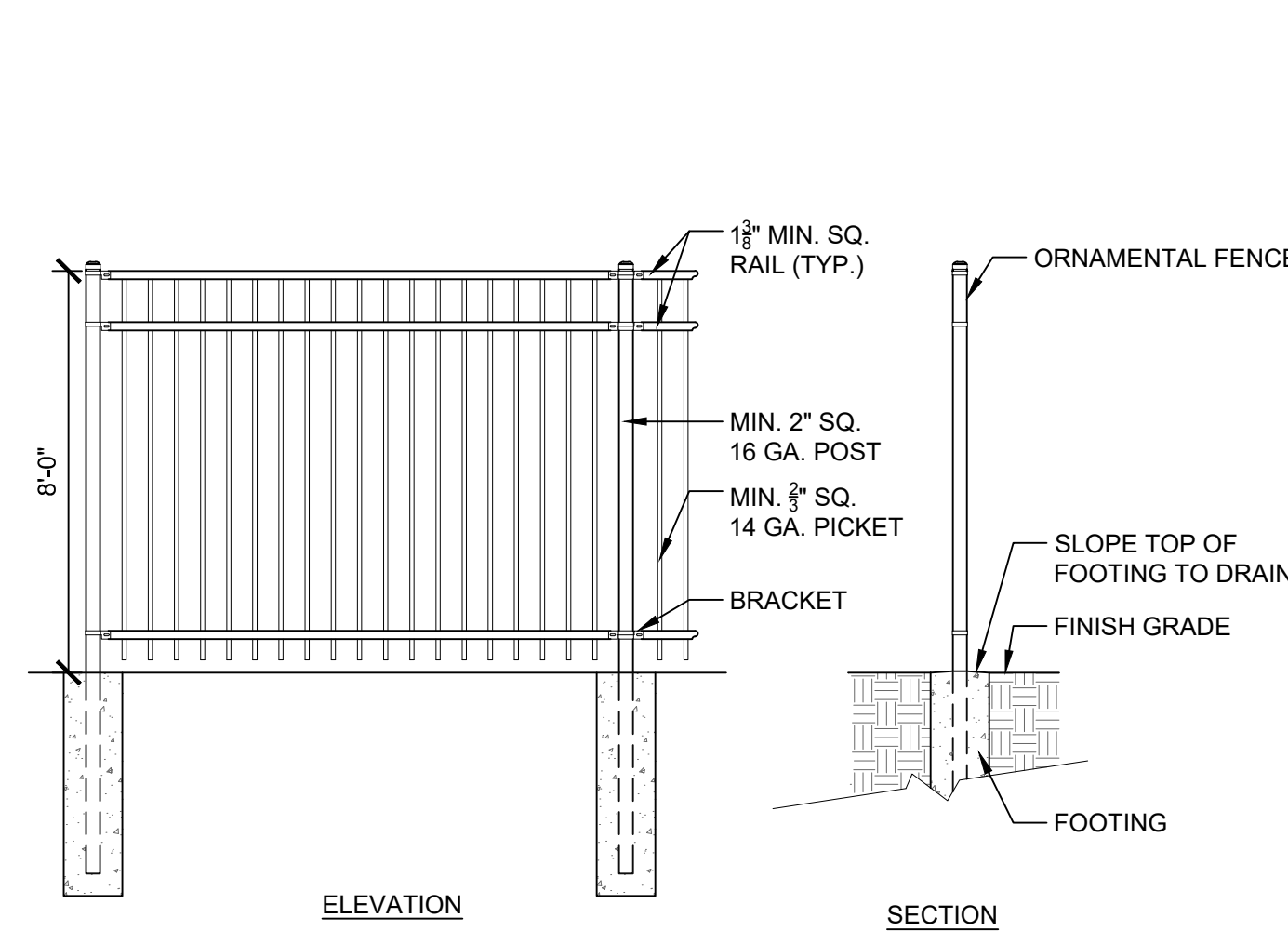
NOTE: SEE SPECIFICATIONS FOR TOLERANCES AND TECHNICAL INFORMATION.

**1 ASPHALT PAVING**  
1" = 1'-0"



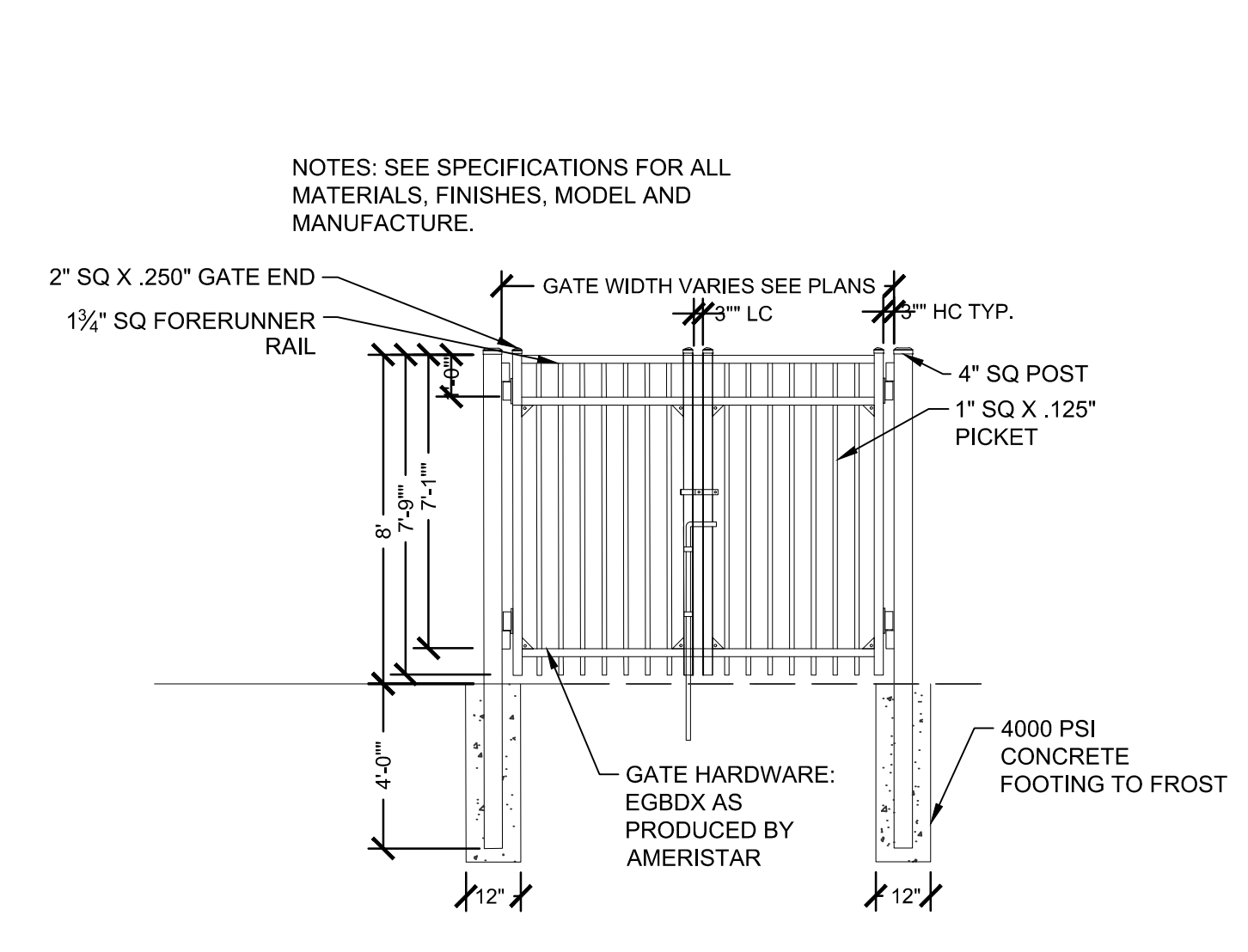
NOTE: A 8x12 OFFICIAL UNITED STATES FLAG SHALL BE FLOWN ON A 45° FLAGPOLE.

**2 FLAG POLE**  
1/4" = 1'-0" P-AT1-AFA-324013-05



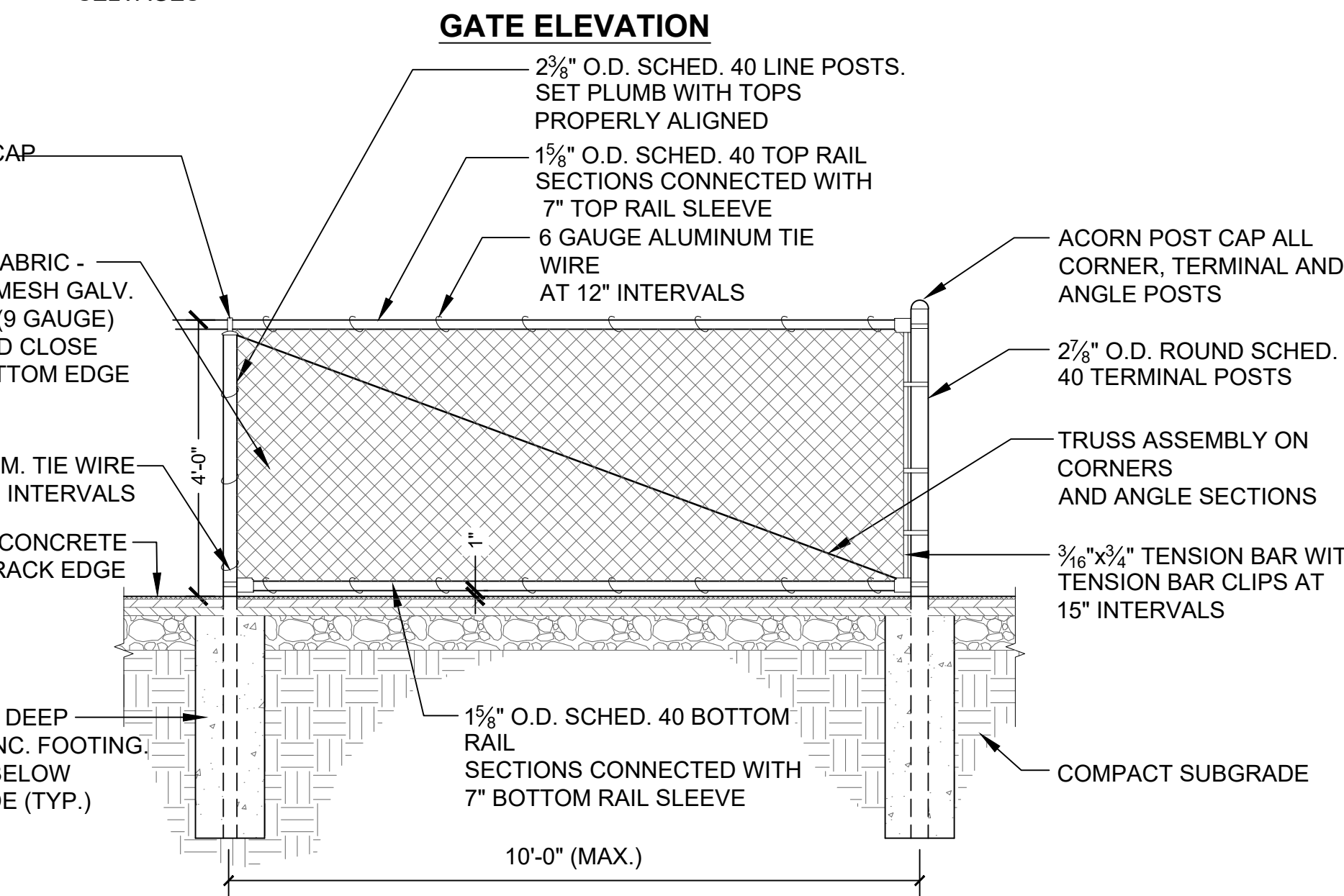
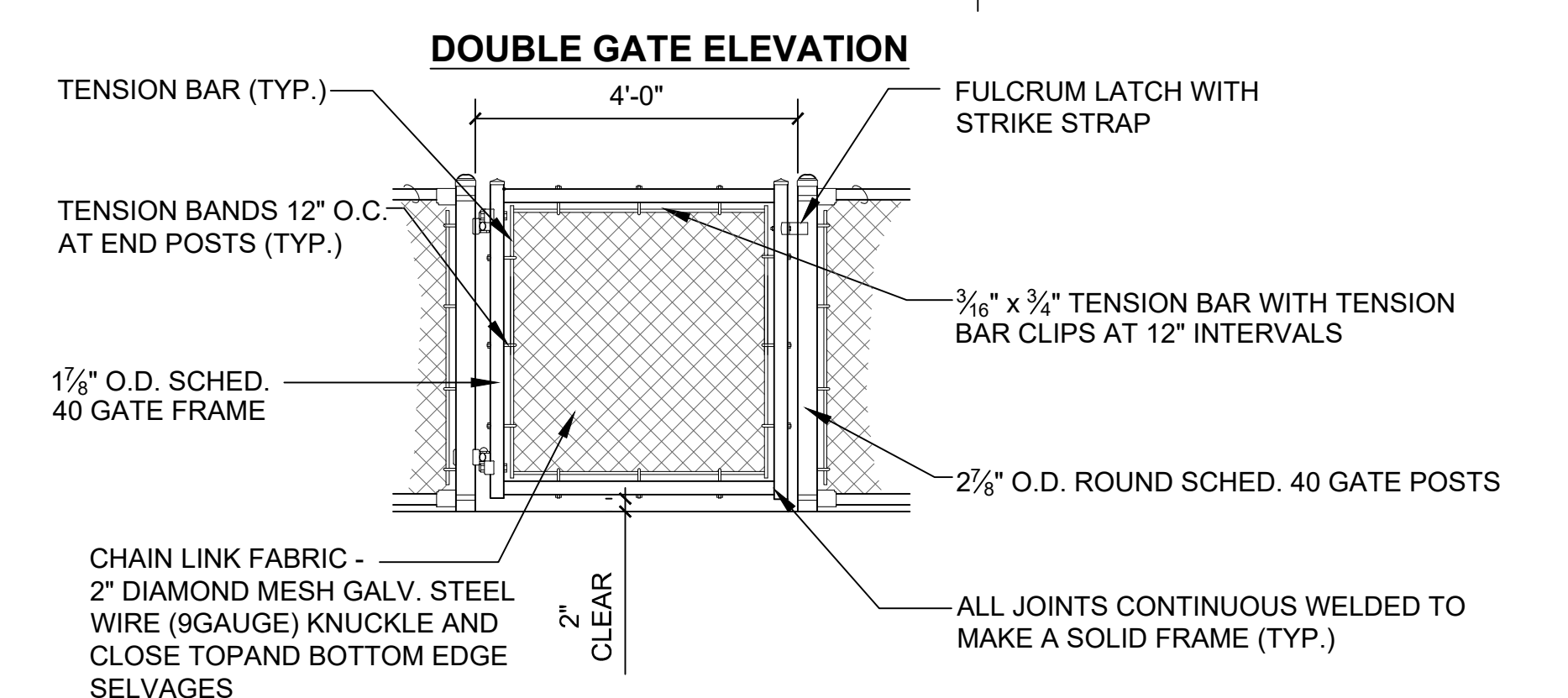
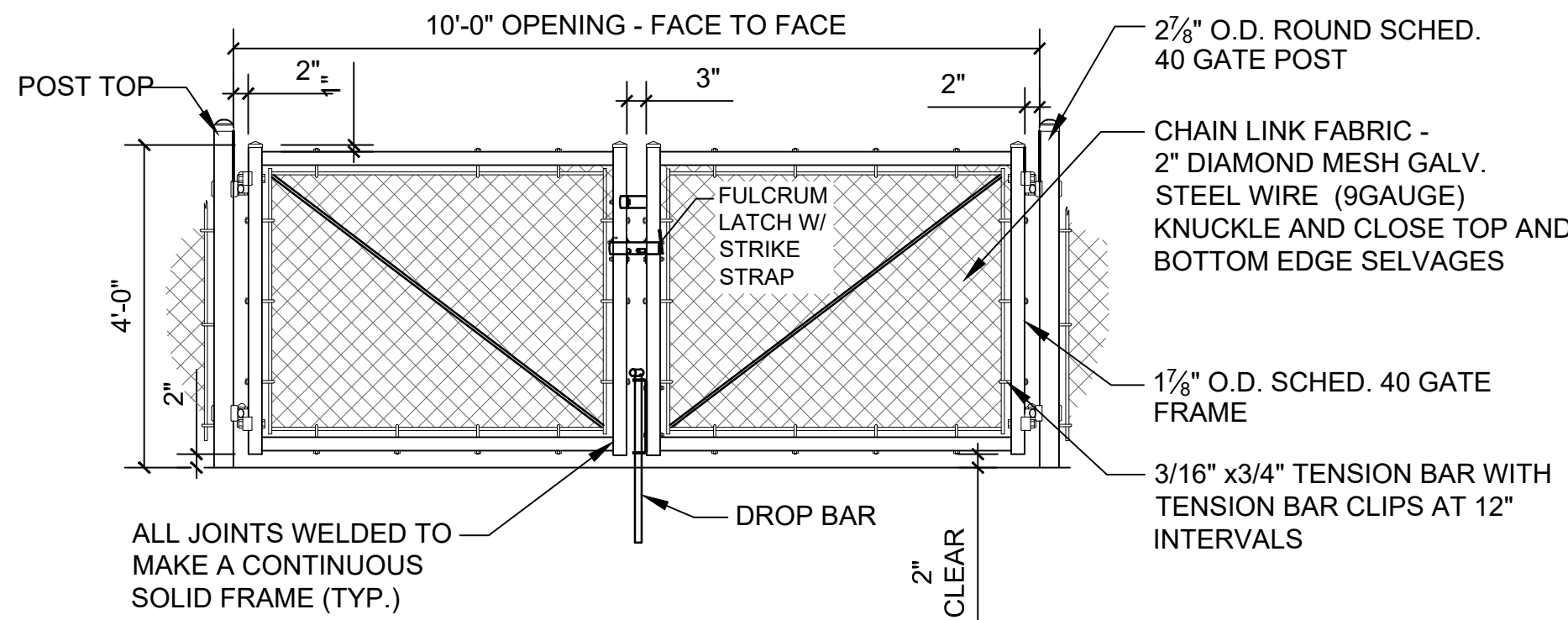
NOTES:  
1. ORNAMENTAL FENCE SHALL BE INSTALLED AT LOCATIONS SHOWN ON THE PLANS.  
2. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.  
3. SEE SPECIFICATIONS FOR MANUFACTURER, MODEL, & FINISH

**3 8' ORNAMENTAL FENCE**  
3/8" = 1'-0" P-AT1-AFA-06

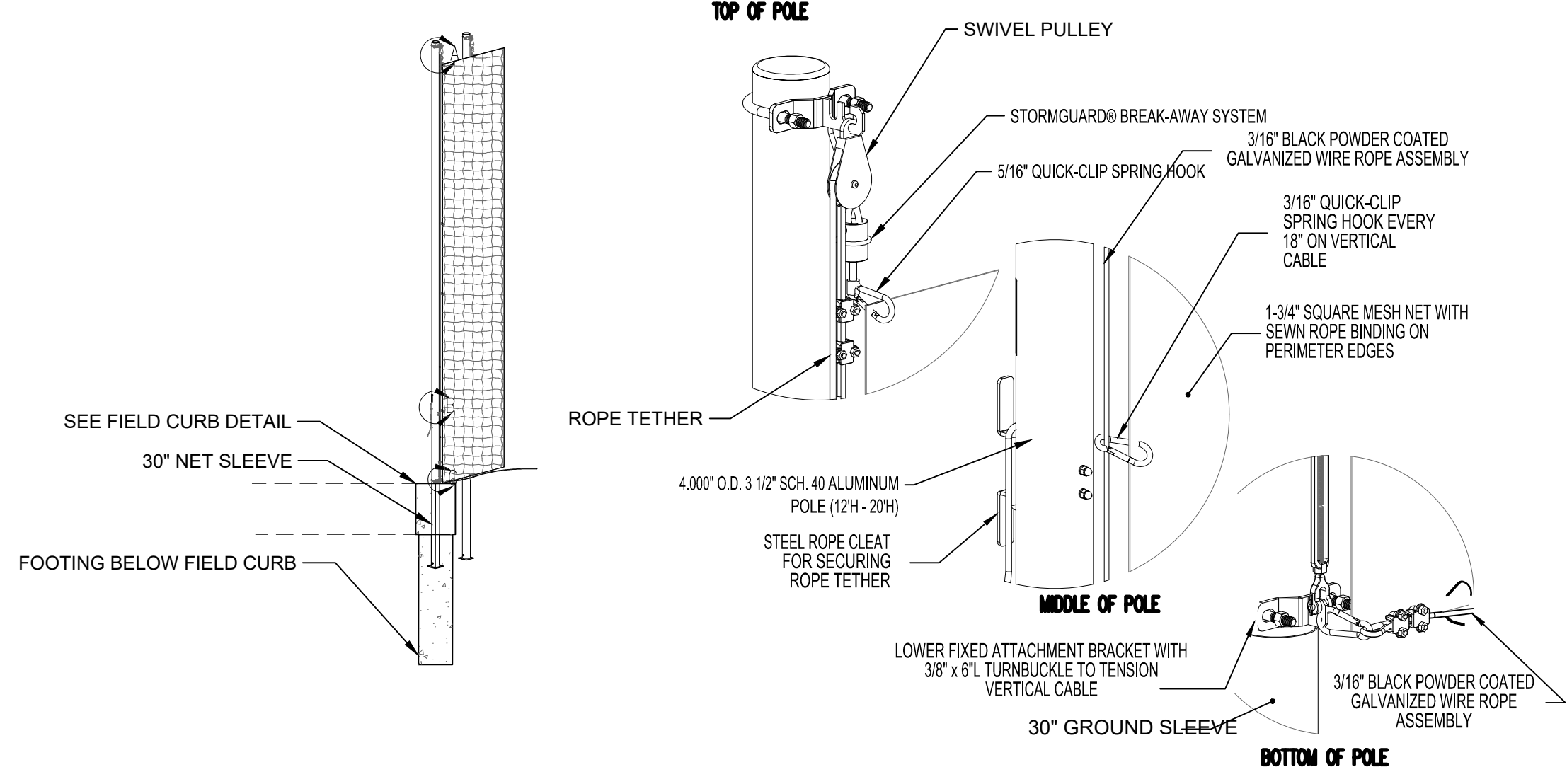


NOTES: SEE SPECIFICATIONS FOR ALL MATERIALS, FINISHES, MODEL AND MANUFACTURE.

**4 ORNAMENTAL DOUBLE SWING GATE (10' OR 12')**  
1/4" = 1'-0" P-AT1-AFA-09



**6 4" BLACK VINYL CHAIN LINK FENCE**  
1/2" = 1'-0" P-AT1-AFA-02

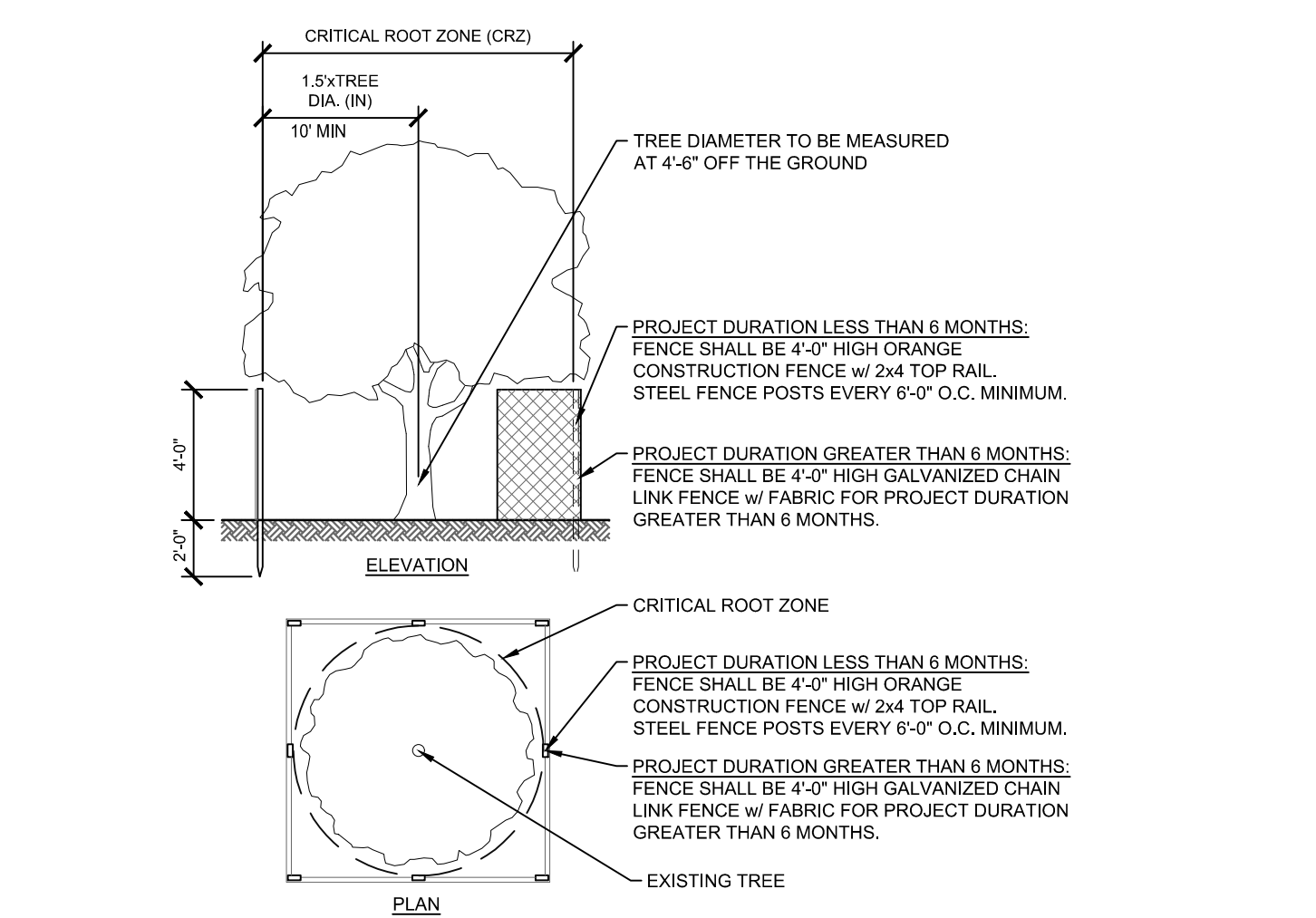


**5 BREAKAWAY BALL SAFETY NETTING SYSTEM**  
1/4" = 1'-0"

FENCE POST AND FOOTING SCHEDULE				
DESCRIPTION	HEIGHT	LINE POST	CORNER/END POST	FOOTING DIMENSION
BLACK VINYL CHAIN LINK FENCE	6' AND UNDER	2" OD	2 1/2" OD	12" X 48"
BLACK VINYL CHAIN LINK FENCE	7'-8'	2 1/2" OD	3" OD	12" X 48"
BALLSTOP BARRIER AND SAFETY NETTING	UNDER 20'	4" OD		PROVIDE STAMPED SHOP DRAWINGS
BALLSTOP BARRIER AND SAFETY NETTING	25'-40'	6" OD		PROVIDE STAMPED SHOP DRAWINGS

GATE POST SCHEDULE			
DESCRIPTION	HEIGHT	GATE WIDTH	PIPE SIZE
BLACK VINYL CHAIN LINK FENCE	6' AND UNDER	4' AND UNDER	2 1/2" OD
BLACK VINYL CHAIN LINK FENCE	6' AND UNDER	4'-10'	3" OD
BLACK VINYL CHAIN LINK FENCE	6' AND UNDER	4'-18'	4" OD
BLACK VINYL CHAIN LINK FENCE	6'-12'	6' AND UNDER	3" OD
BLACK VINYL CHAIN LINK FENCE	6'-12'	6'-12'	4" OD
BLACK VINYL CHAIN LINK FENCE	6'-12'	12'-18'	6 5/8" OD

**7 FENCING SCHEDULES**  
3" = 1'-0"



NOTE:  
1. TYPICAL ALL TREES INSIDE WORK AREA  
2. FENCE LOCATION TO BE APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION ACTIVITIES.  
3. THE SOIL WITHIN THE CRZ SHALL NOT BE DISTURBED IN ANY MANNER DURING CONSTRUCTION. NO EQUIPMENT, MATERIALS, SUPPLIES, AND/OR SALVAGE SHALL BE STORED OR PLACED WITHIN THE CRZ. NO VEHICULAR OR EQUIPMENT TRAFFIC SHALL BE PERMITTED WITHIN THE CRZ. NO FILLING OR CURING OF EXISTING SOILS SHALL BE PERMITTED WITHIN THE CRZ. THE OWNER'S REPRESENTATIVE AND/OR LANDSCAPE SERVICES MUST APPROVE ANY DEVIATION FROM THE STANDARD.

**8 TREE PROTECTION**  
3/16" = 1'-0"

STAMP

CONSULTANT

SHEET TITLE  
**LANDSCAPE ATHLETIC DETAILS**

PROJECT NAME  
**FAIRHAVEN HIGH SCHOOL  
ATHLETIC FIELD-SYNTHETIC TURF**

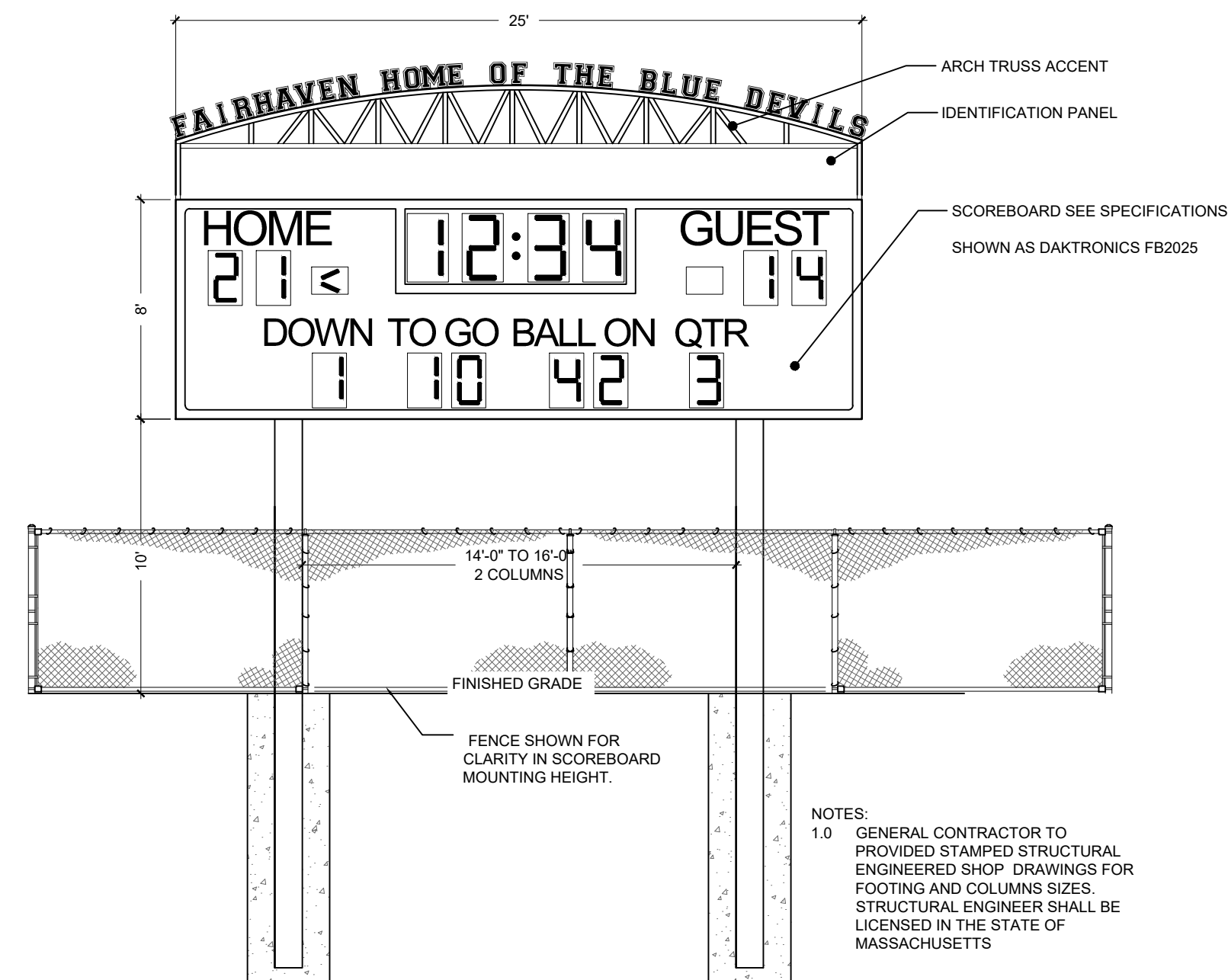
PROJECT ADDRESS  
12 HUTTLESTONE AVE  
FAIRHAVEN, MA 02719

SUBMITTAL	DATE
SCHEMATIC DESIGN	2021/01/29
DESIGN DEVELOPMENT	2021/03/05
ISSUED FOR PERMITTING	2021/03/22

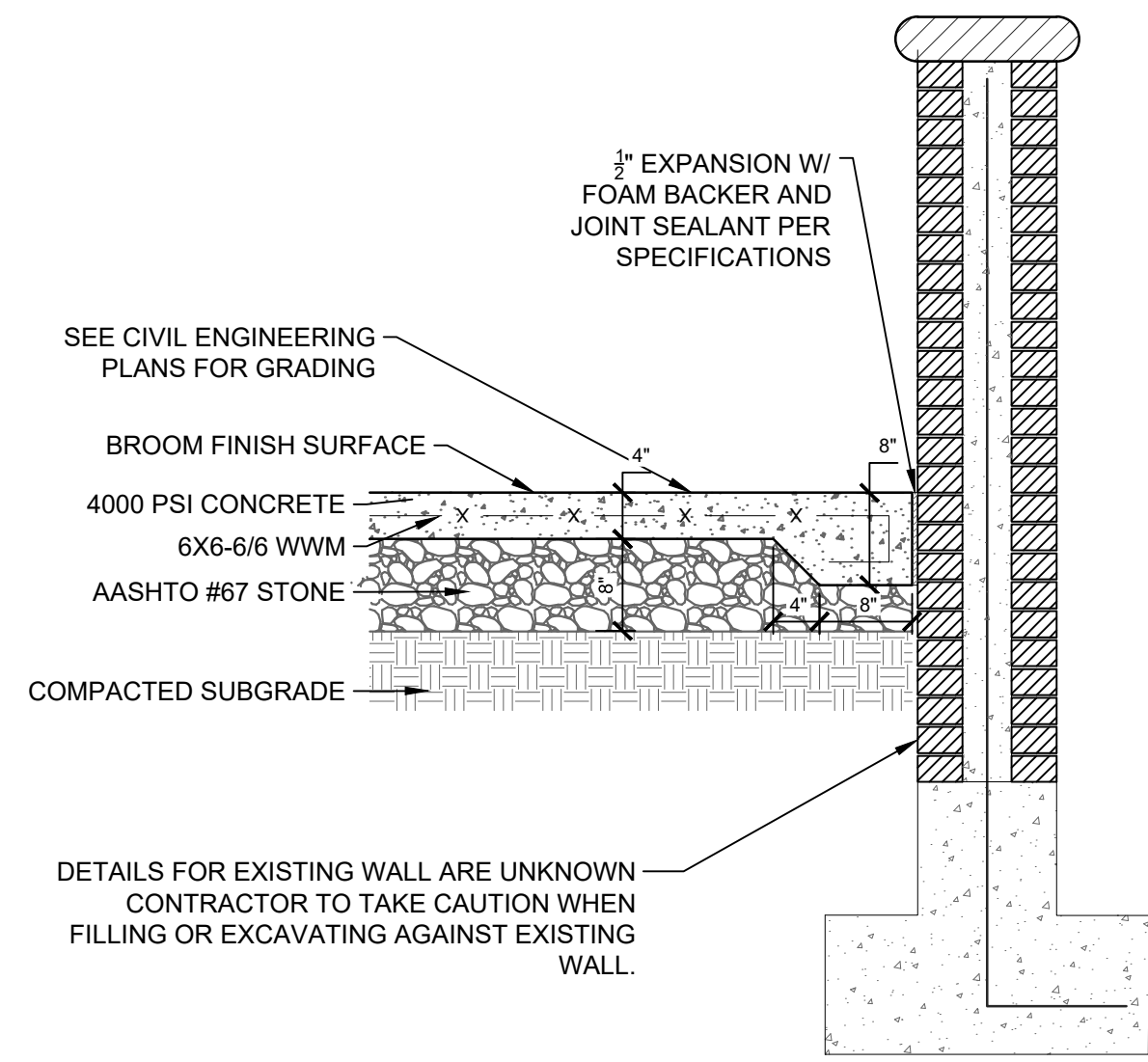
NO.	REVISIONS	DATE

DRAWN BY: **JR** CHECKED BY: **AE**  
DATE ISSUED: **03/22/2021** SCALE:  
PROJ. NO. **A1037**  
SHEET NO. **L3.12**  
LANDSCAPE ATHLETIC DETAILS

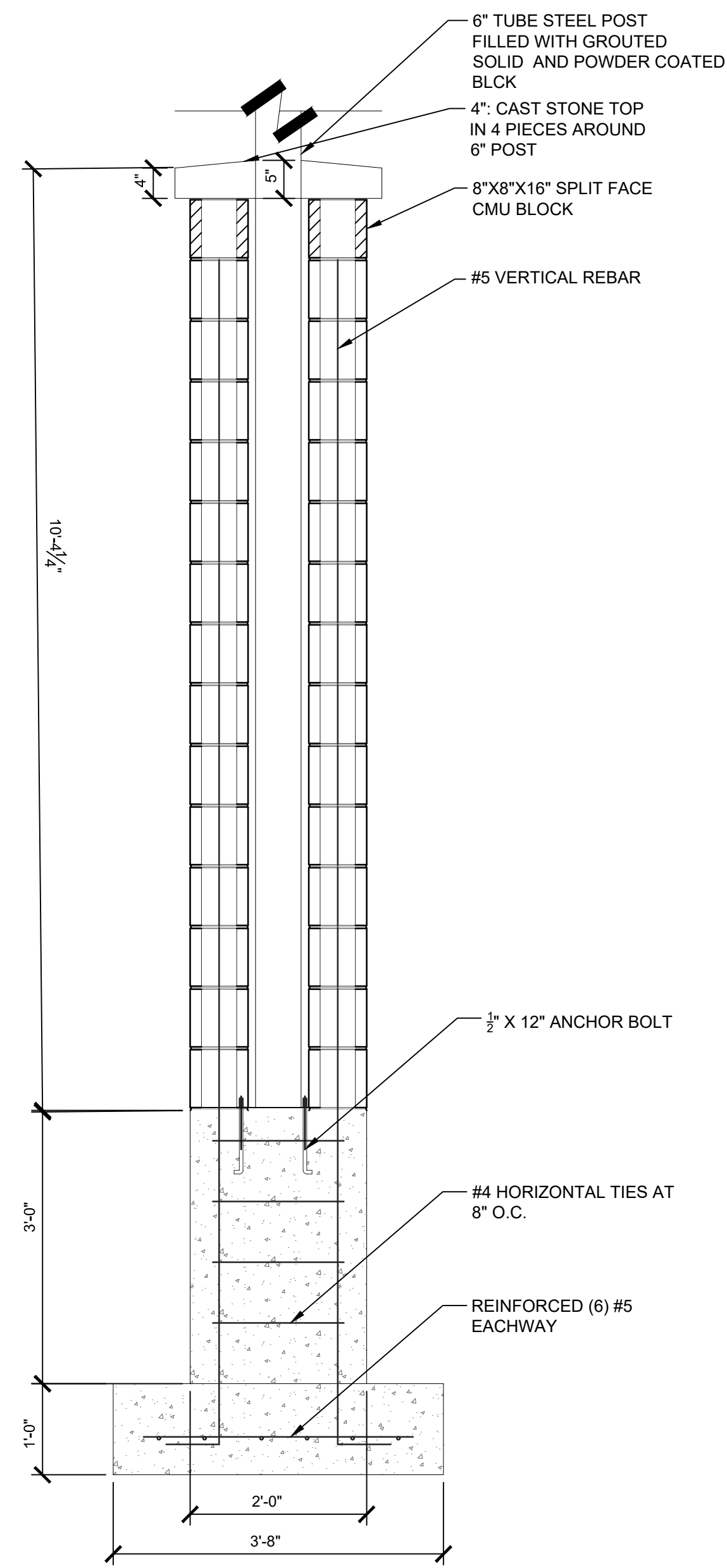




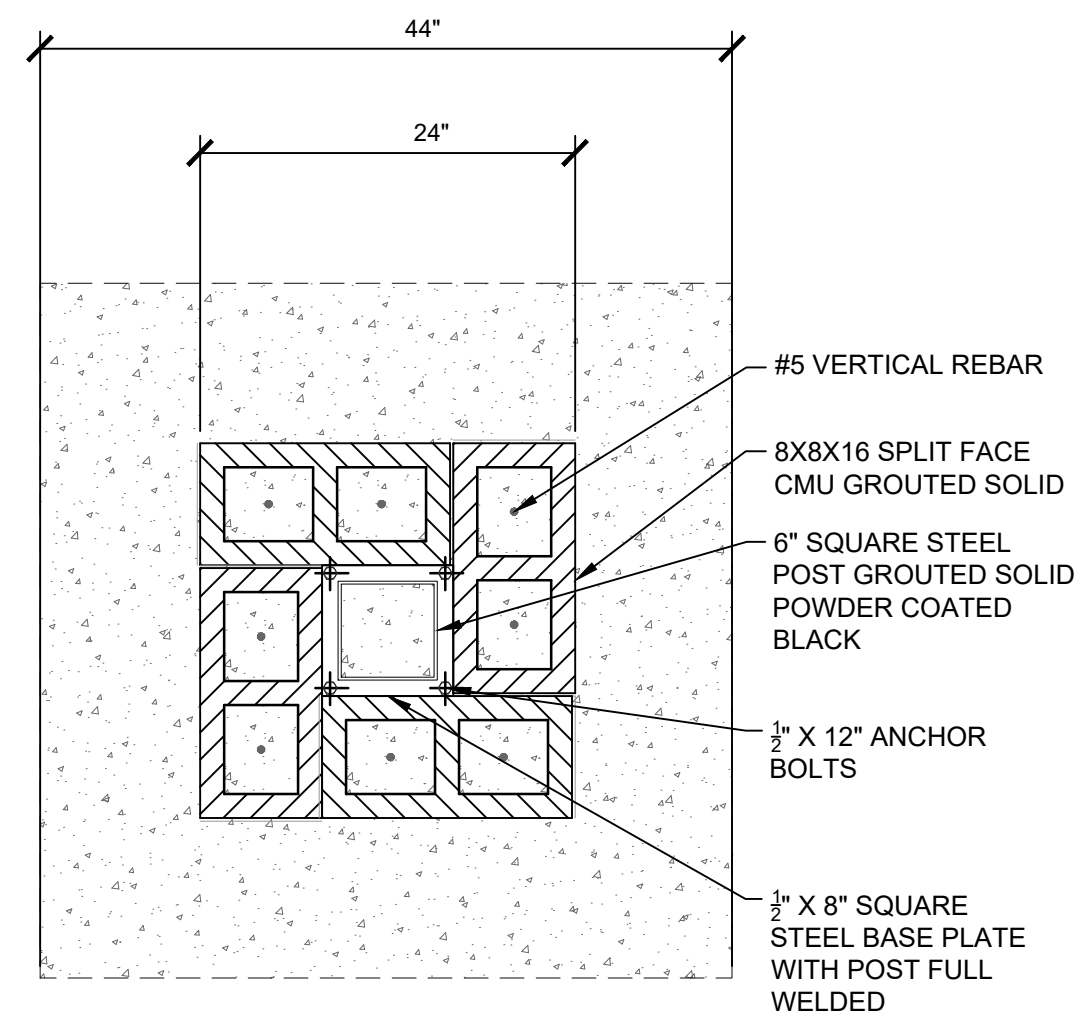
1 SCOREBOARD  
3/16" = 1'-0"



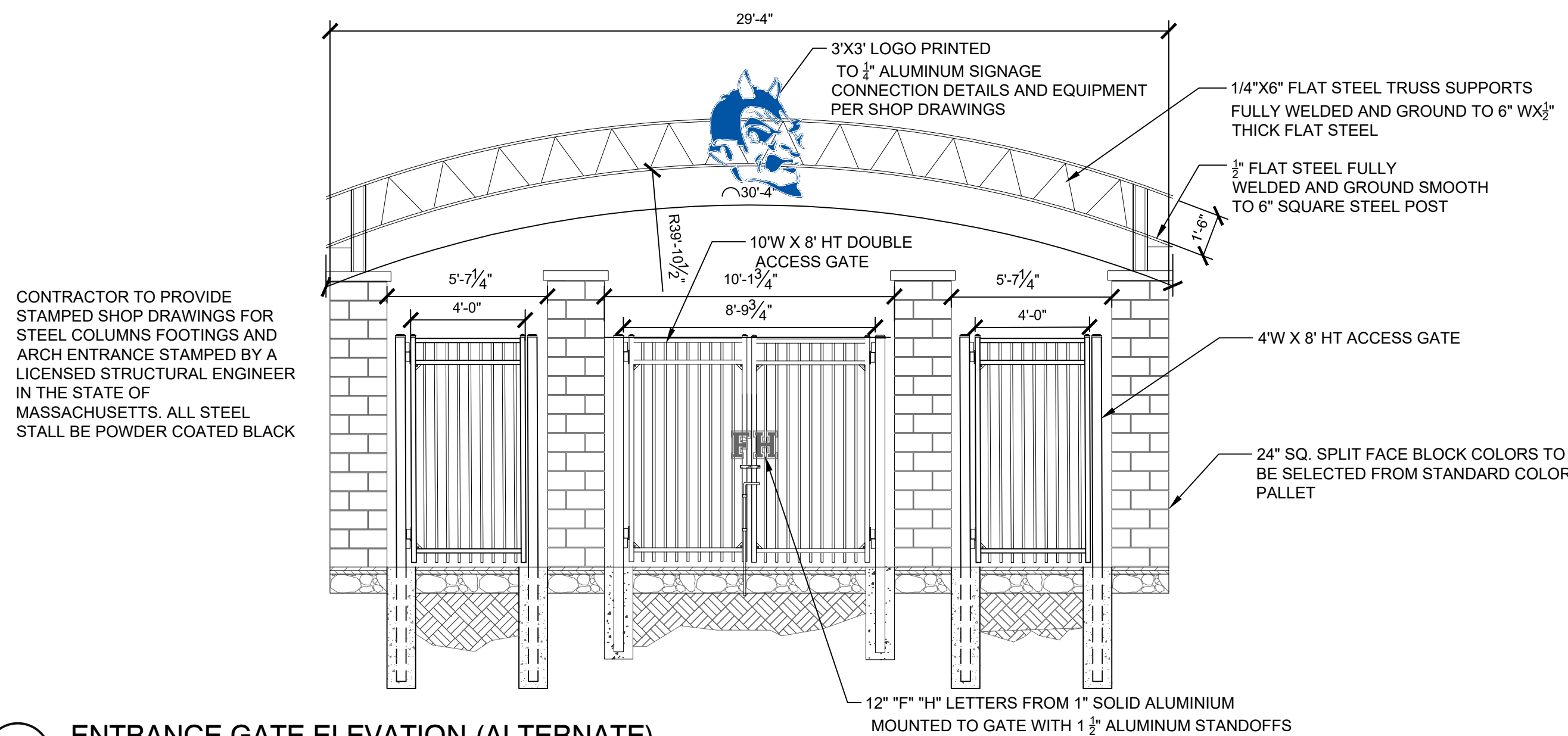
2 CONCRETE WALK AT EXISTING BRICK WALL  
3/4" = 1'-0"



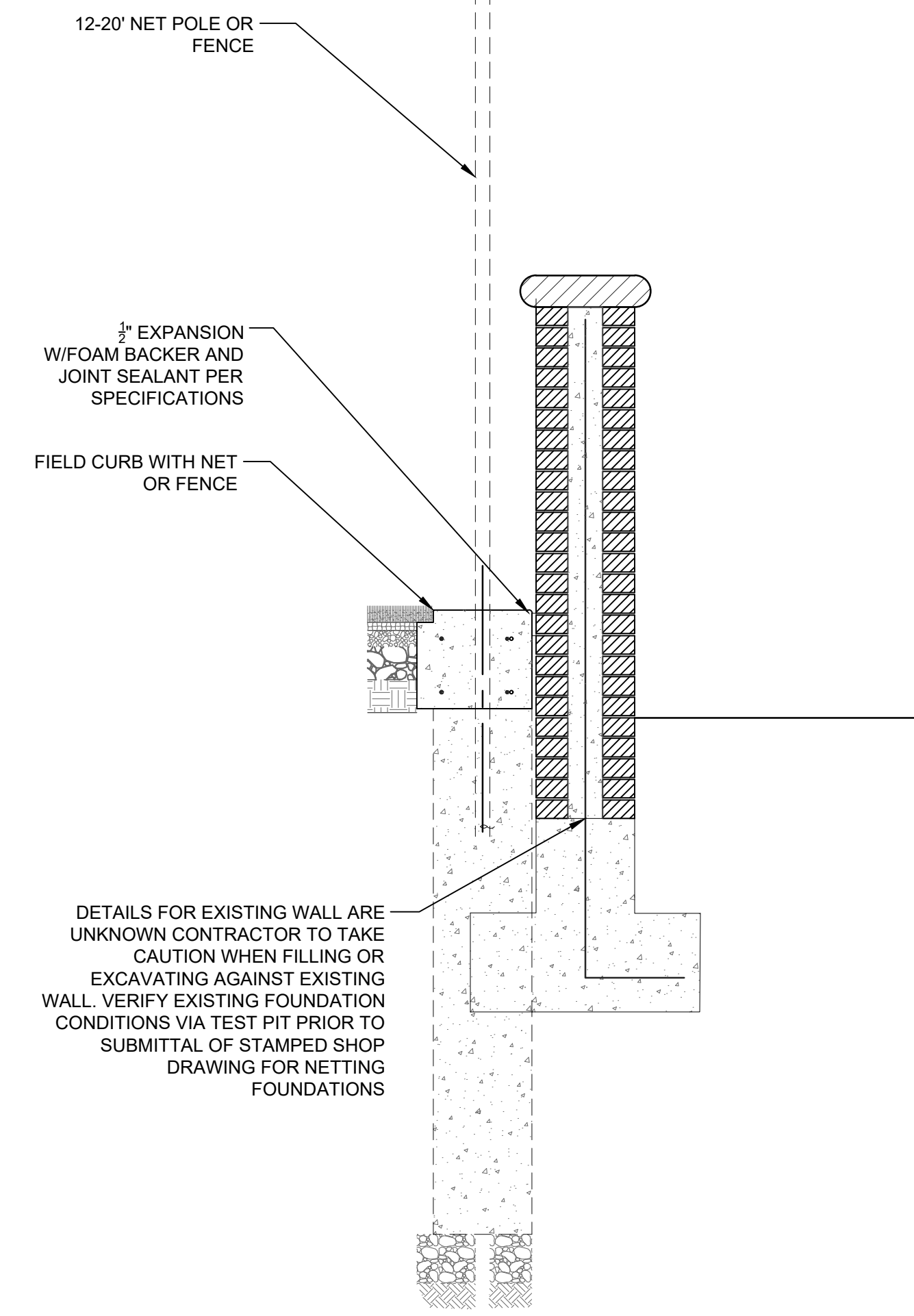
4 ENTRANCE PILASTER DETAIL  
3/4" = 1'-0"



5 BLOCK PILASTER PLAN DETAIL  
1" = 1'-0"



6 ENTRANCE GATE ELEVATION (ALTERNATE)  
1/4" = 1'-0"



3 FIELD CURB WITH NETTING AT EXISTING WALL  
3/4" = 1'-0"

STAMP

CONSULTANT

SHEET TITLE  
LANDSCAPE ATHLETIC DETAILS

PROJECT NAME  
FAIRHAVEN HIGH SCHOOL  
ATHLETIC FIELD-SYNTHETIC TURF

PROJECT ADDRESS  
12 HUTTLESTONE AVE  
FAIRHAVEN, MA 02719

SUBMITTAL	DATE
SCHEMATIC DESIGN	2021/01/29
DESIGN DEVELOPMENT	2021/03/05
ISSUED FOR PERMITTING	2021/03/22

NO.	REVISIONS	DATE
△		
△		
△		
△		
△		

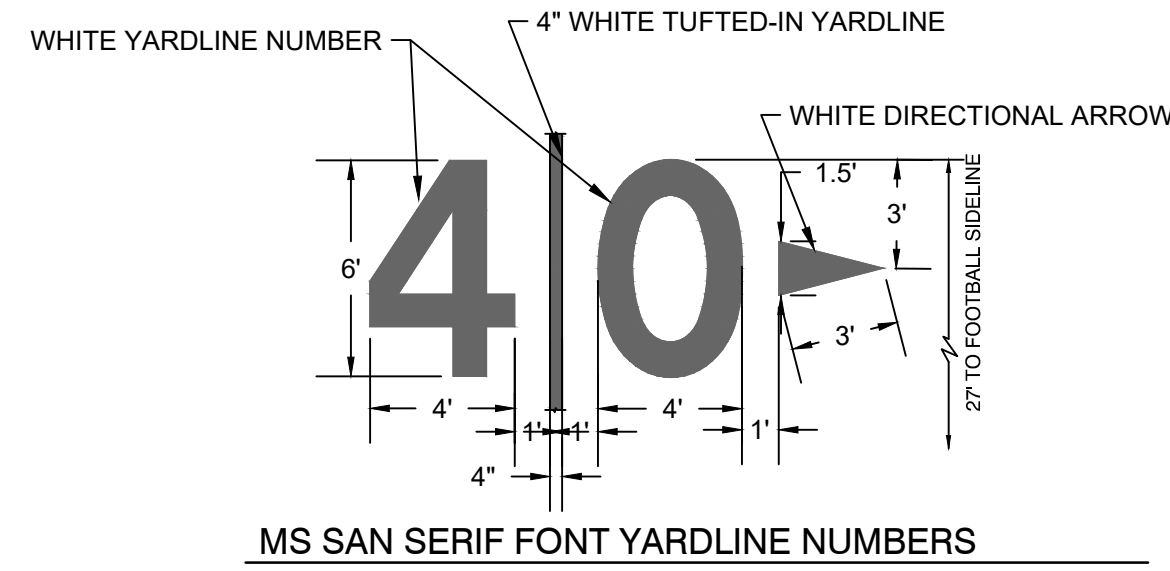
DRAWN BY: JR  
CHECKED BY: AE

DATE ISSUED: 03/22/2021  
SCALE:

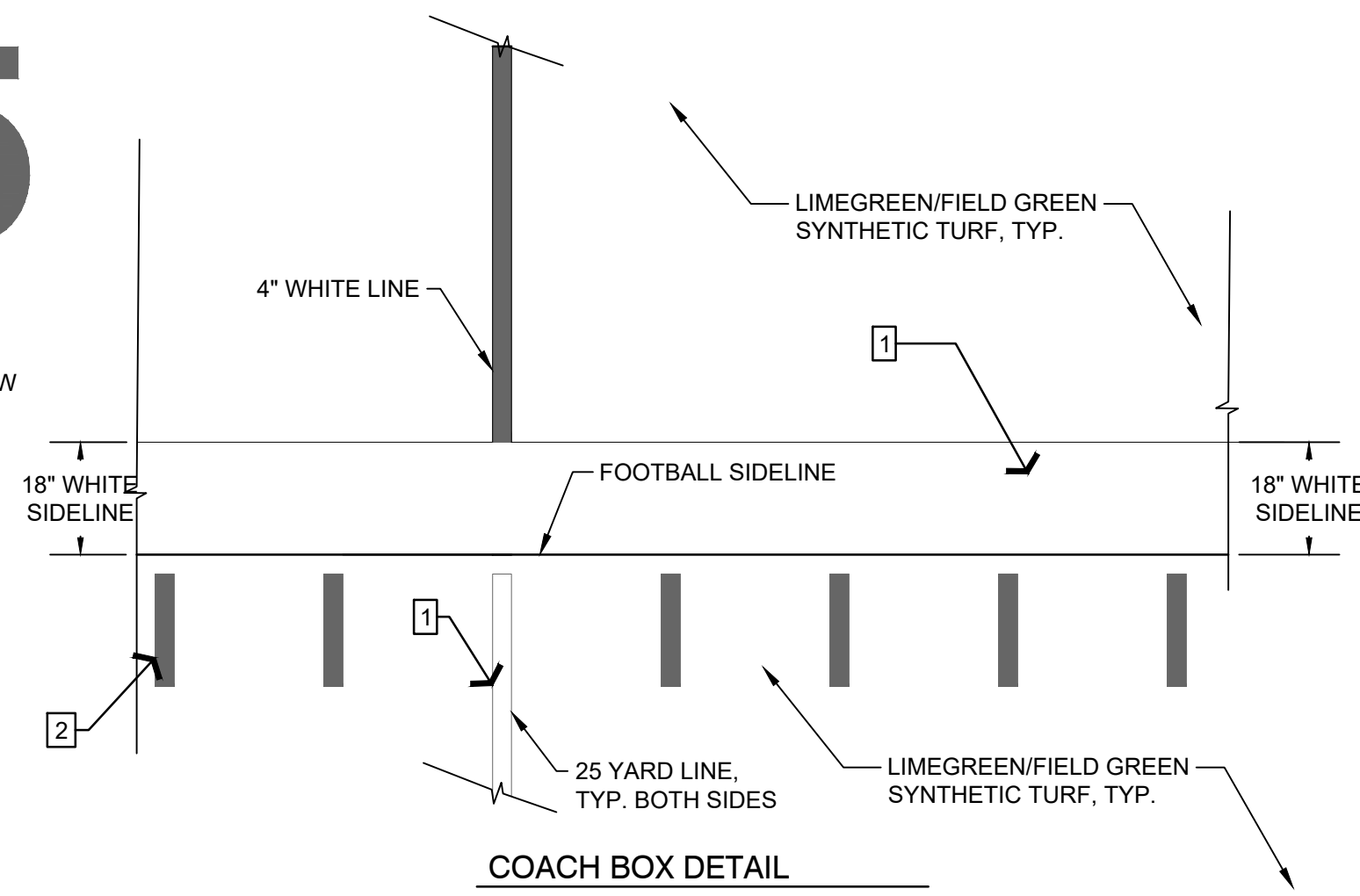
PROJ. NO. A1037

SHEET NO. L3.13

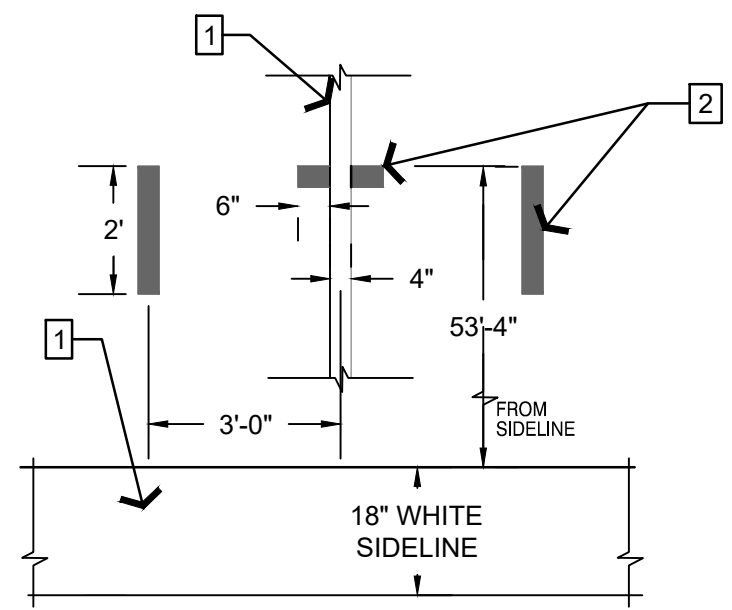
# 012345



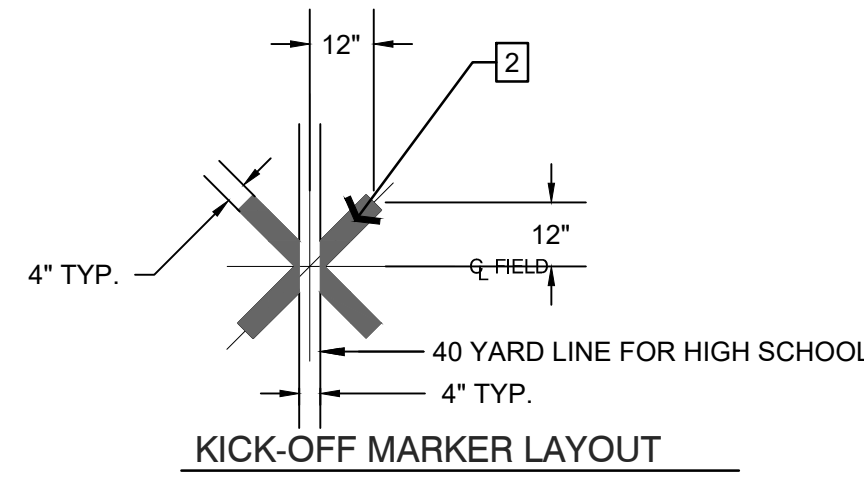
MS SAN SERIF FONT YARDLINE NUMBERS



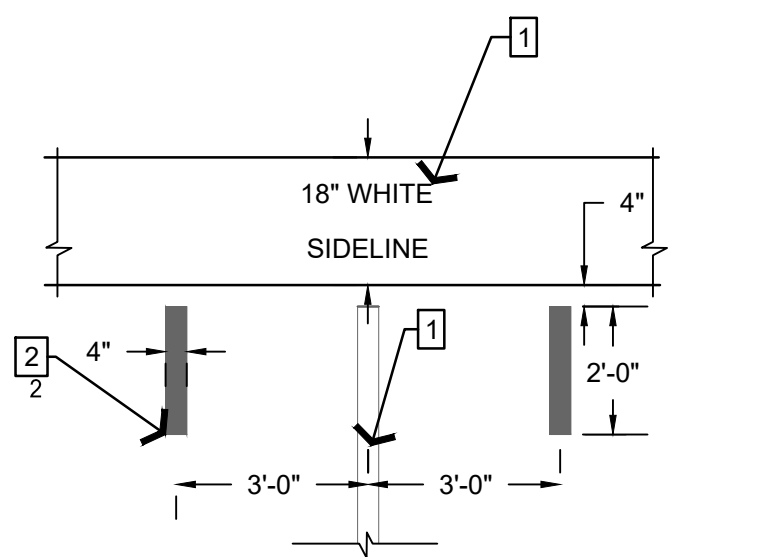
COACH BOX DETAIL



INBOUNDS LINES LAYOUT



KICK-OFF MARKER LAYOUT



SIDE LINE / CHAIN MARKER LAYOUT

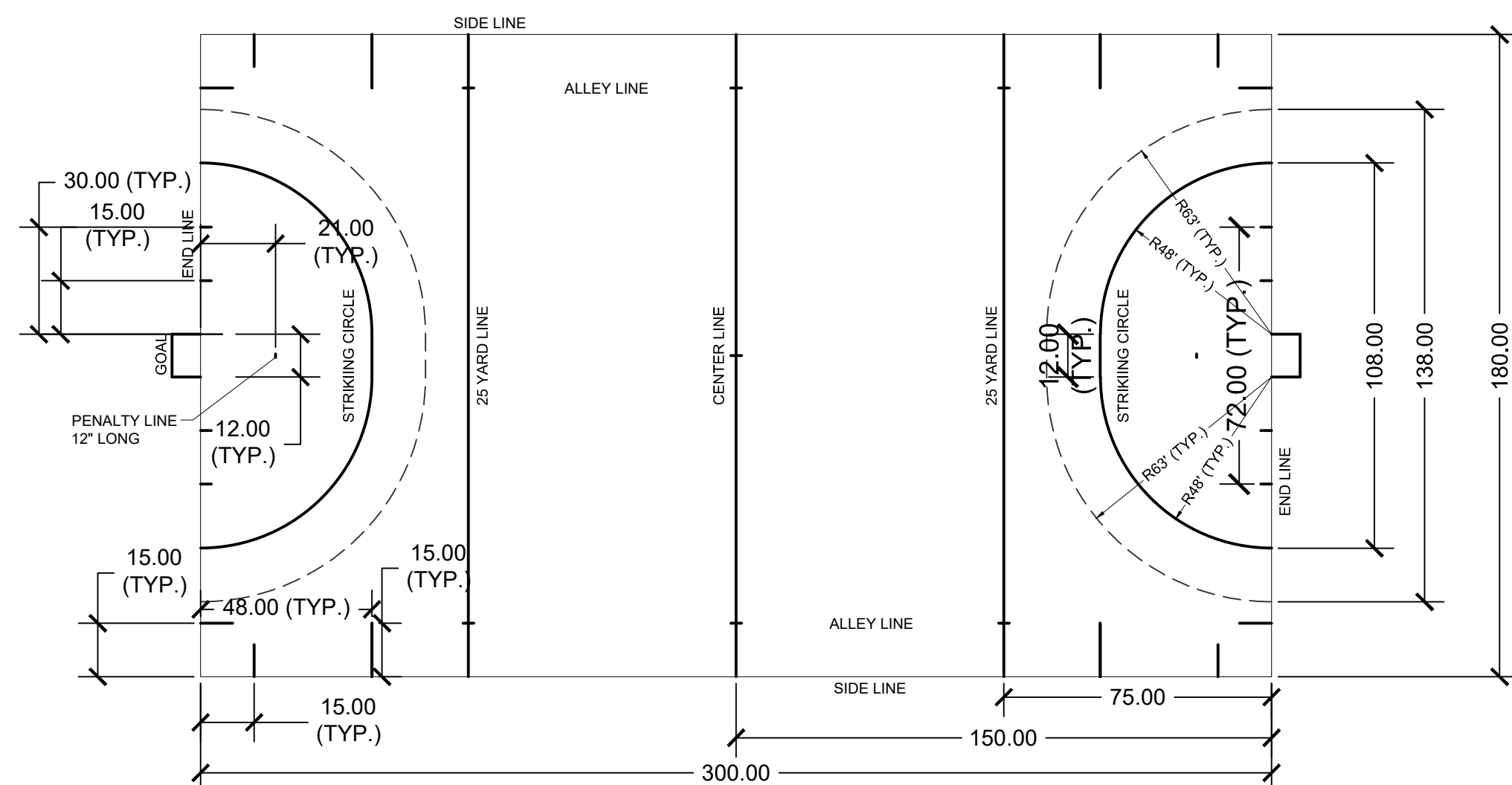
FOOTBALL AND SOCCER LAYOUT NOTES:

- SIDELINES, YARDLINES, PERIMETER BORDER ARE TUFTED-IN WHITE LINES (FOOTBALL), TUFTED-IN GREEN END ZONE AREA, YELLOW LINES (SOCCER) SIDE LINES, MIDFIELD LINE AND GOAL BOX SHALL BE TUFTED AS PER DETAILS. 9" DIAMETER YELLOW INLAID SPOT AT SOCCER MIDFIELD, TWO PENALTY KICK SPOTS AND FOUR CORNER KICK RADII SHALL BE INLAID. SEE LAYOUT CONTRACTOR TO SUBMIT COLOR SAMPLES.
- YARDLINE NUMBERS, DIRECTIONAL ARROWS INBOUNDS LINES, SHORT YARD MARKERS, KICK-OFF AND EXTRA POINT MARKERS, OUTLINE AT PLAYER TEAM BOXES, ARE WHITE INLAID TURF. (FOOTBALL)
- FOLLOW SYNTHETIC TURF MANUFACTURER'S RECOMMENDATION FOR PAINTING OF MENS AND WOMENS LACROSSE AND FIELD HOCKEY.

## 1 TYPICAL SYNTHETIC TURF MARKING DETAILS

3/4" = 1'-0"

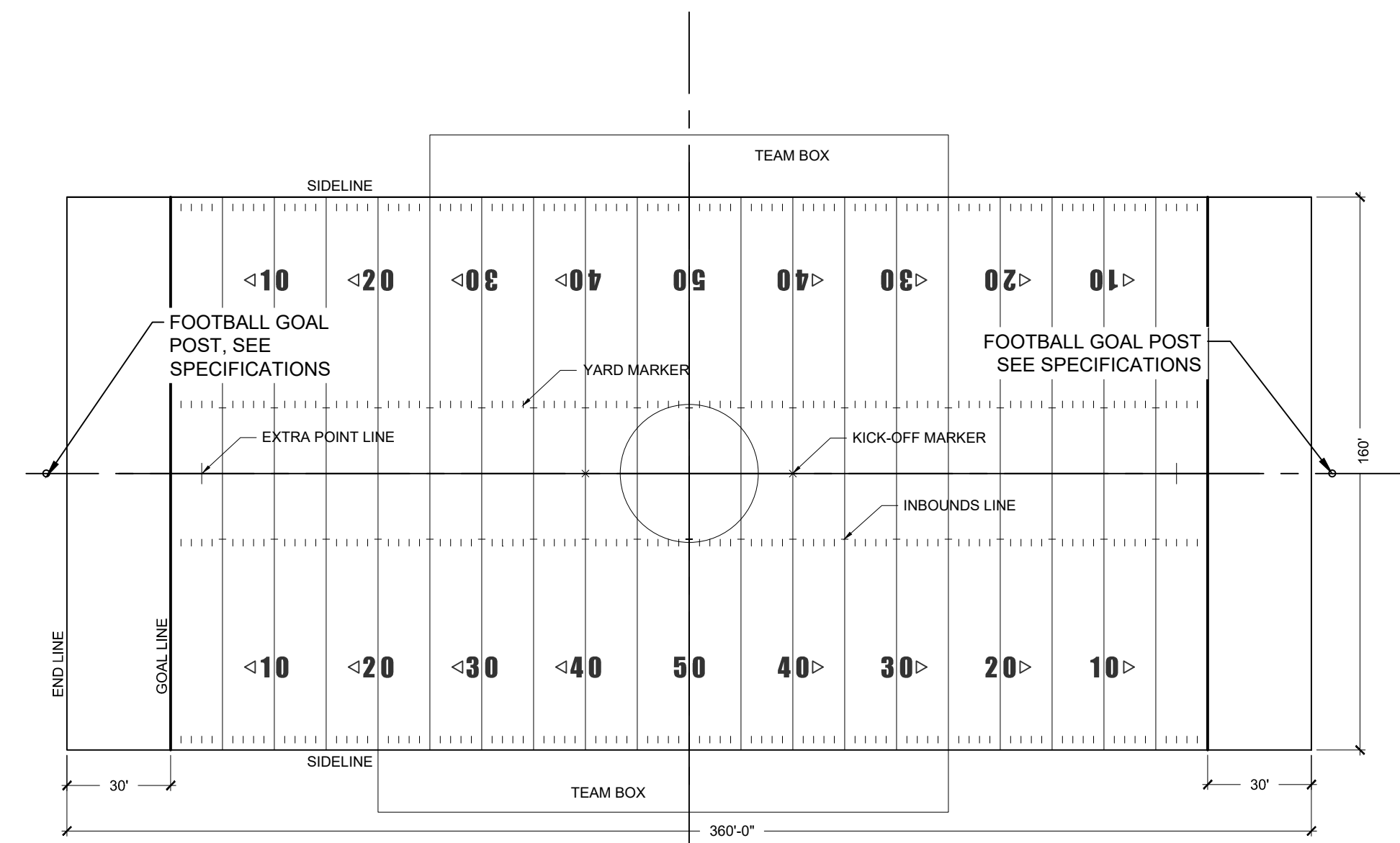
P-AT1-AFA-66



## 5 FIELD HOCKEY LAYOUT

1" = 40"

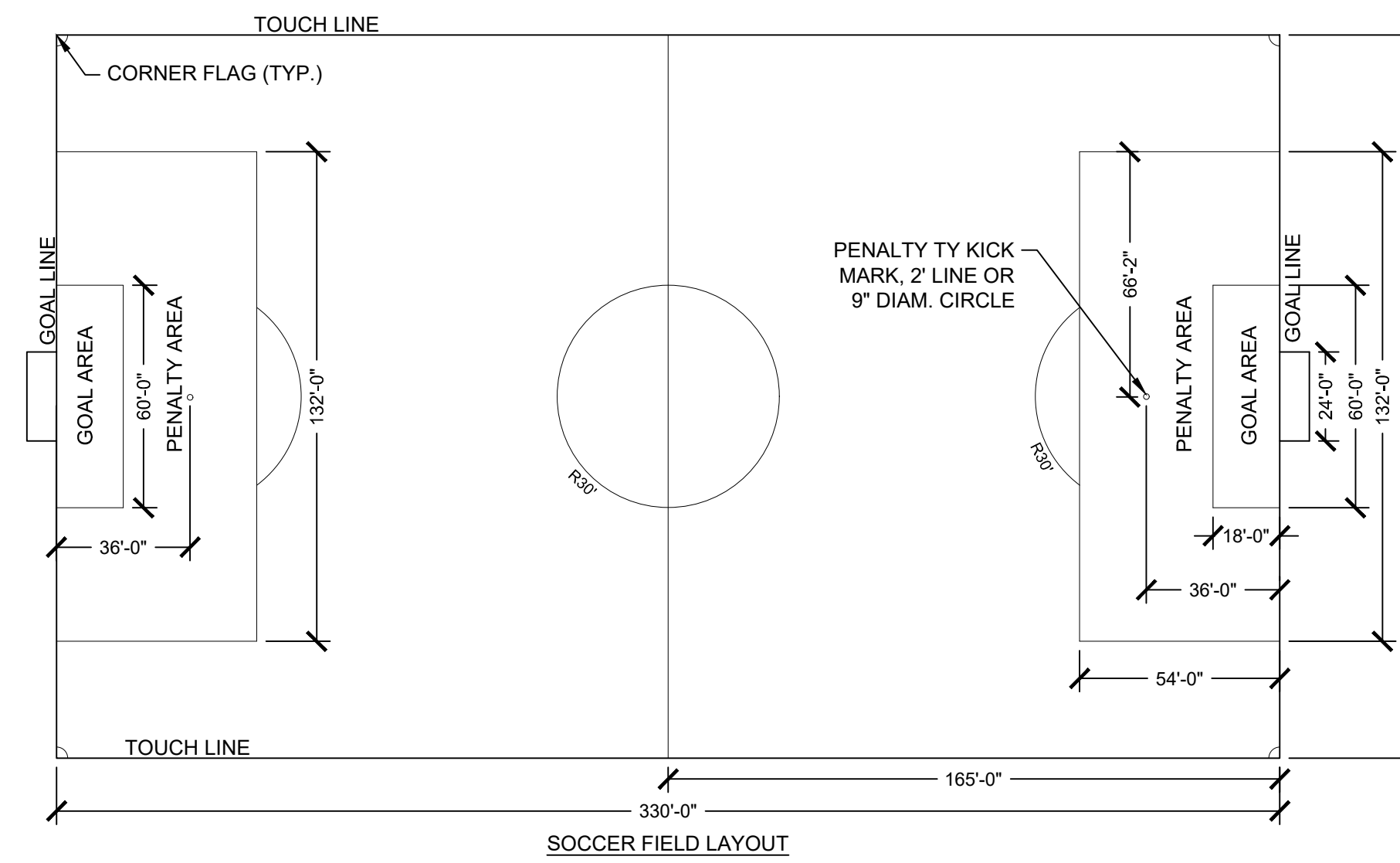
P-AT1-AFA-00



## 2 HIGH SCHOOL FOOTBALL FIELD LAYOUT

1" = 40"

P-AT1-AFA-94

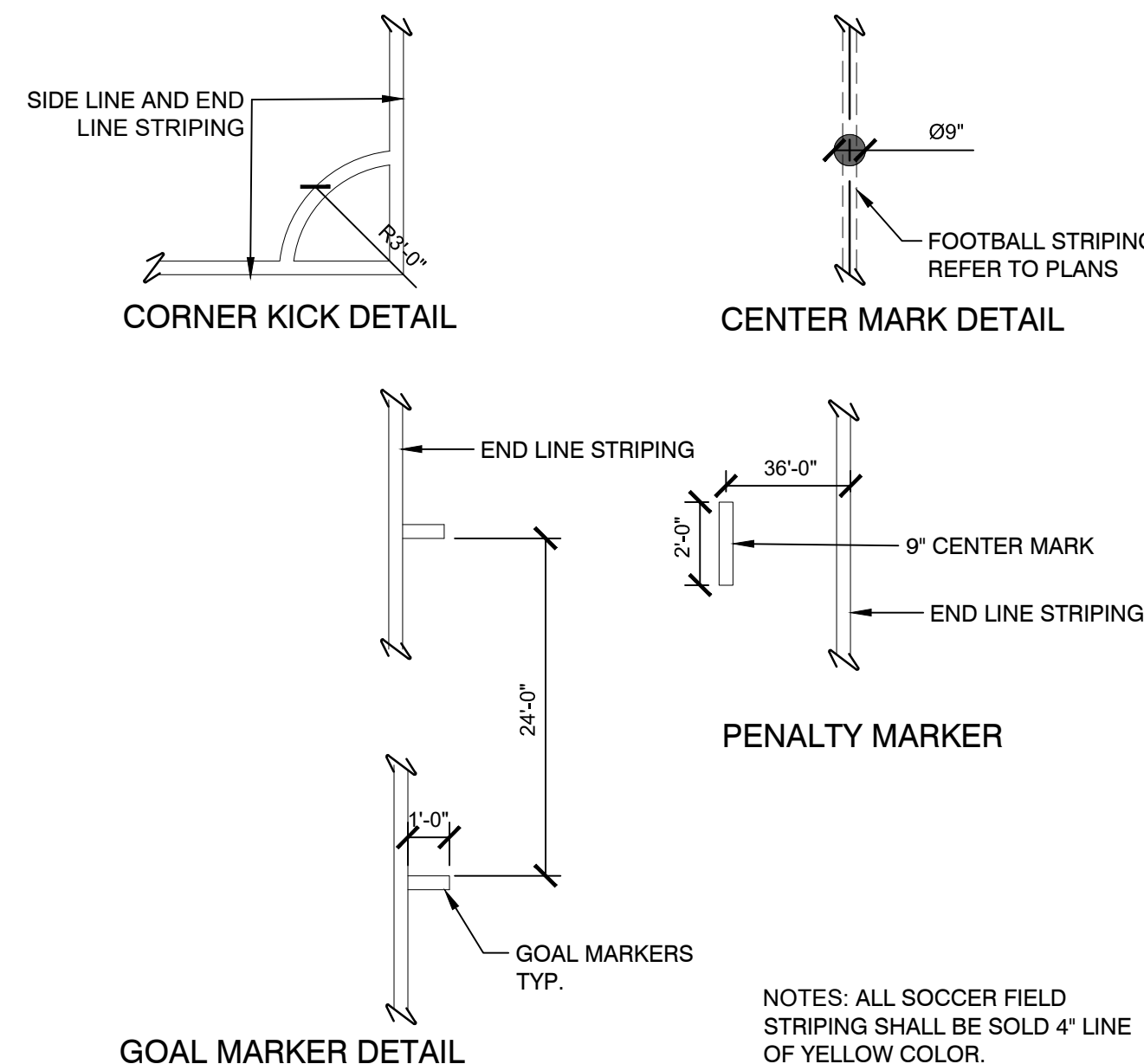


NOTES:

- REFER TO SYNTHETIC TURF SPECIFICATION FOR FIELD LINE INFORMATION

## 3 SOCCER FIELD LAYOUT

1" = 40"



## 4 GOAL MARKER DETAIL SOCCER MARKINGS

1/4" = 1'-0"

NOTES: ALL SOCCER FIELD STRIPING SHALL BE SOLD 4" LINE OF YELLOW COLOR.

STAMP

CONSULTANT

SHEET TITLE

LANDSCAPE ATHLETIC  
DETAILS

PROJECT NAME

FAIRHAVEN HIGH  
SCHOOL  
ATHLETIC  
FIELD-SYNTHETIC TURF

PROJECT ADDRESS

12 HUTTLESTONE AVE  
FAIRHAVEN, MA 02719

SUBMITTAL	DATE
SCHEMATIC DESIGN	2021/01/29
DESIGN DEVELOPMENT	2021/03/05

NO.	REVISIONS	DATE

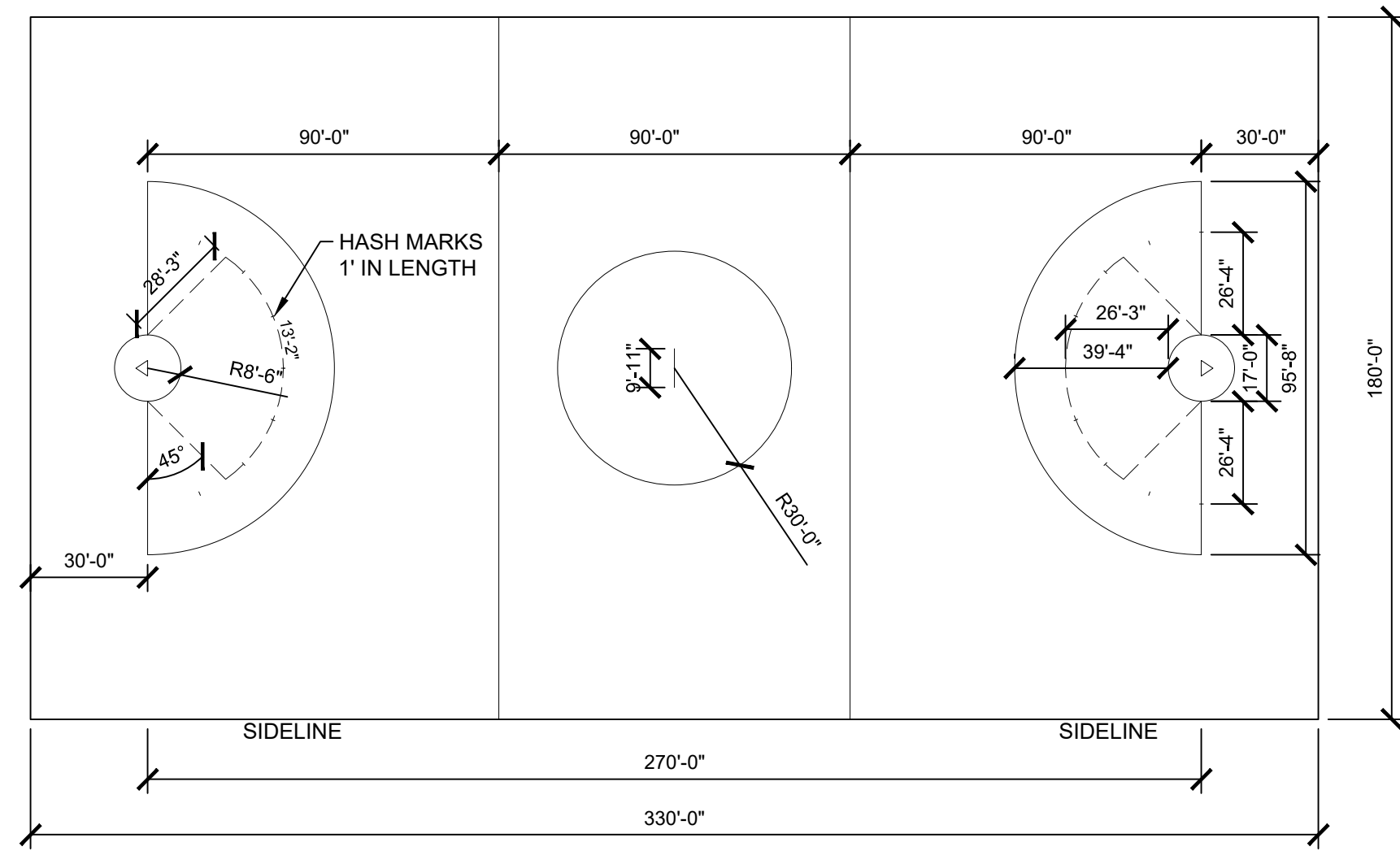
DRAWN BY: JR  
CHECKED BY: AE

DATE ISSUED: 03/22/2021  
SCALE:

PROJ. NO. A1037

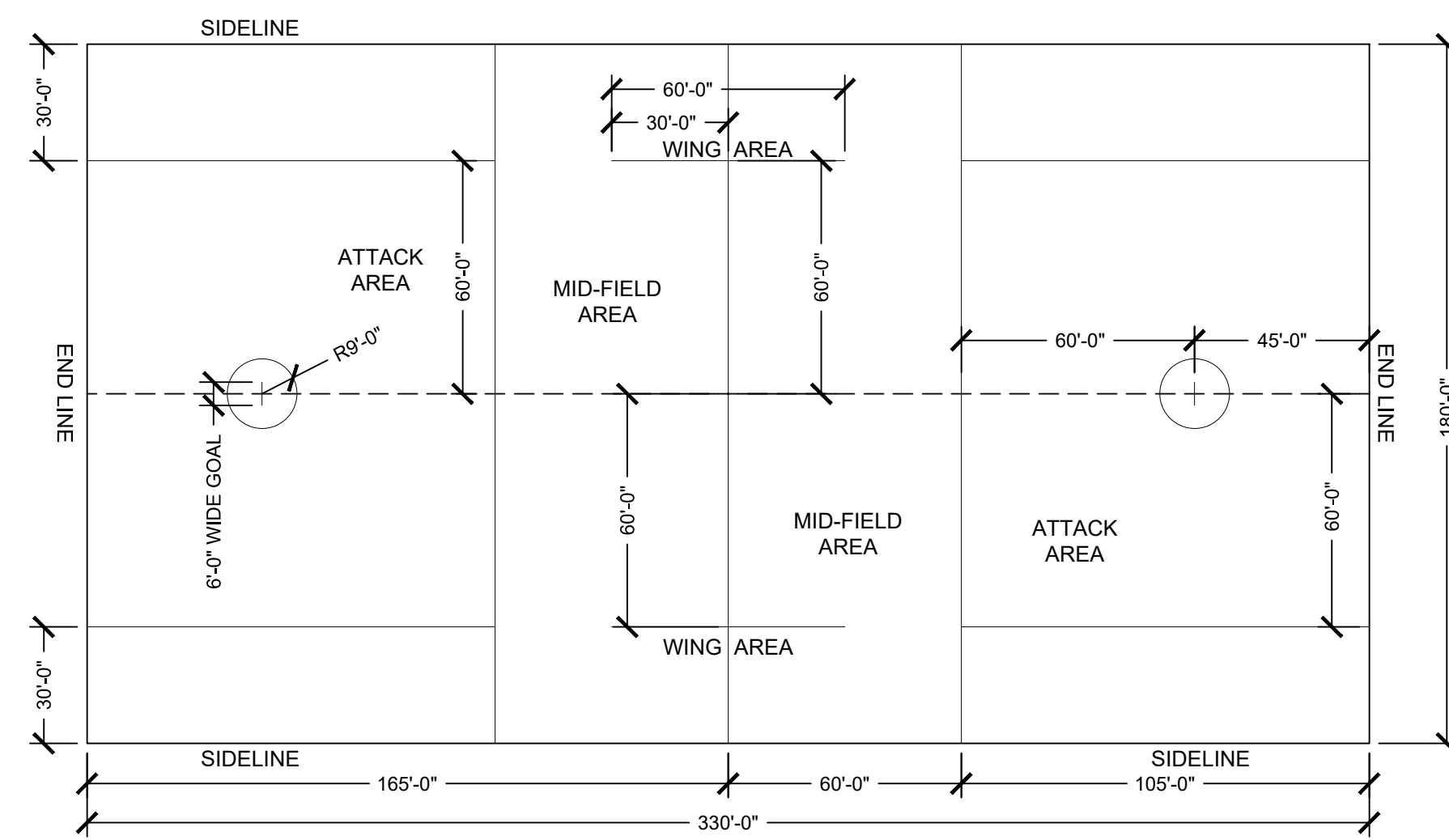
SHEET NO. L3.14





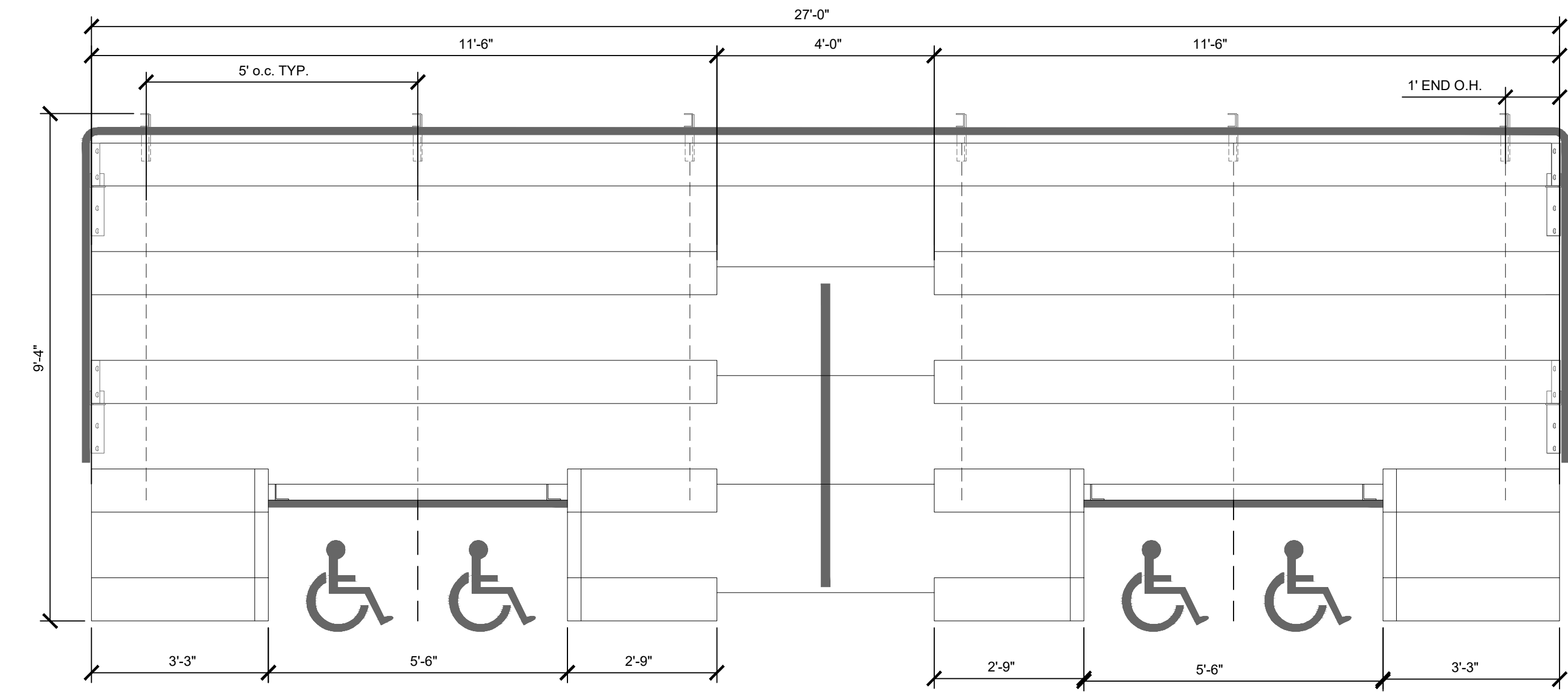
WOMEN'S LACROSSE FIELD LAYOUT

1 WOMEN'S LACROSSE FIELD LAYOUT  
1" = 40'



MENS LACROSSE FIELD LAYOUT

2 MENS LACROSSE FIELD LAYOUT  
1" = 40'



3 27' PORTABLE ADA BLEACHERS (62 PERSON SEAT COUNT)  
1/2" = 1'-0"

STAMP

CONSULTANT

SHEET TITLE

LANDSCAPE ATHLETIC  
DETAILS

PROJECT NAME

FAIRHAVEN HIGH  
SCHOOL  
ATHLETIC  
FIELD-SYNTHETIC TURF

PROJECT ADDRESS

12 HUTTLESTONE AVE  
FAIRHAVEN, MA 02719

SUBMITTAL	DATE
SCHEMATIC DESIGN	2021/01/29
DESIGN DEVELOPMENT	2021/03/05
ISSUED FOR PERMITTING	2021/03/22

NO.	REVISIONS	DATE
△		
△		
△		
△		
△		

DRAWN BY: <b>JR</b>	CHECKED BY: <b>AE</b>
DATE ISSUED: 03/22/2021	SCALE:
PROJ. NO. A1037	
SHEET NO. <b>L3.15</b>	

STAMP

CONSULTANT

SHEET TITLE  
**ATHLETIC SUPPORT BUILDING DETAILS**

PROJECT NAME  
**FAIRHAVEN HIGH SCHOOL  
ATHLETIC FIELD-SYNTHETIC TURF**

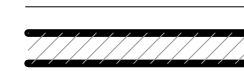
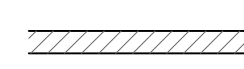

PROJECT ADDRESS  
12 HUTTLESTONE AVE  
FAIRHAVEN, MA 02719

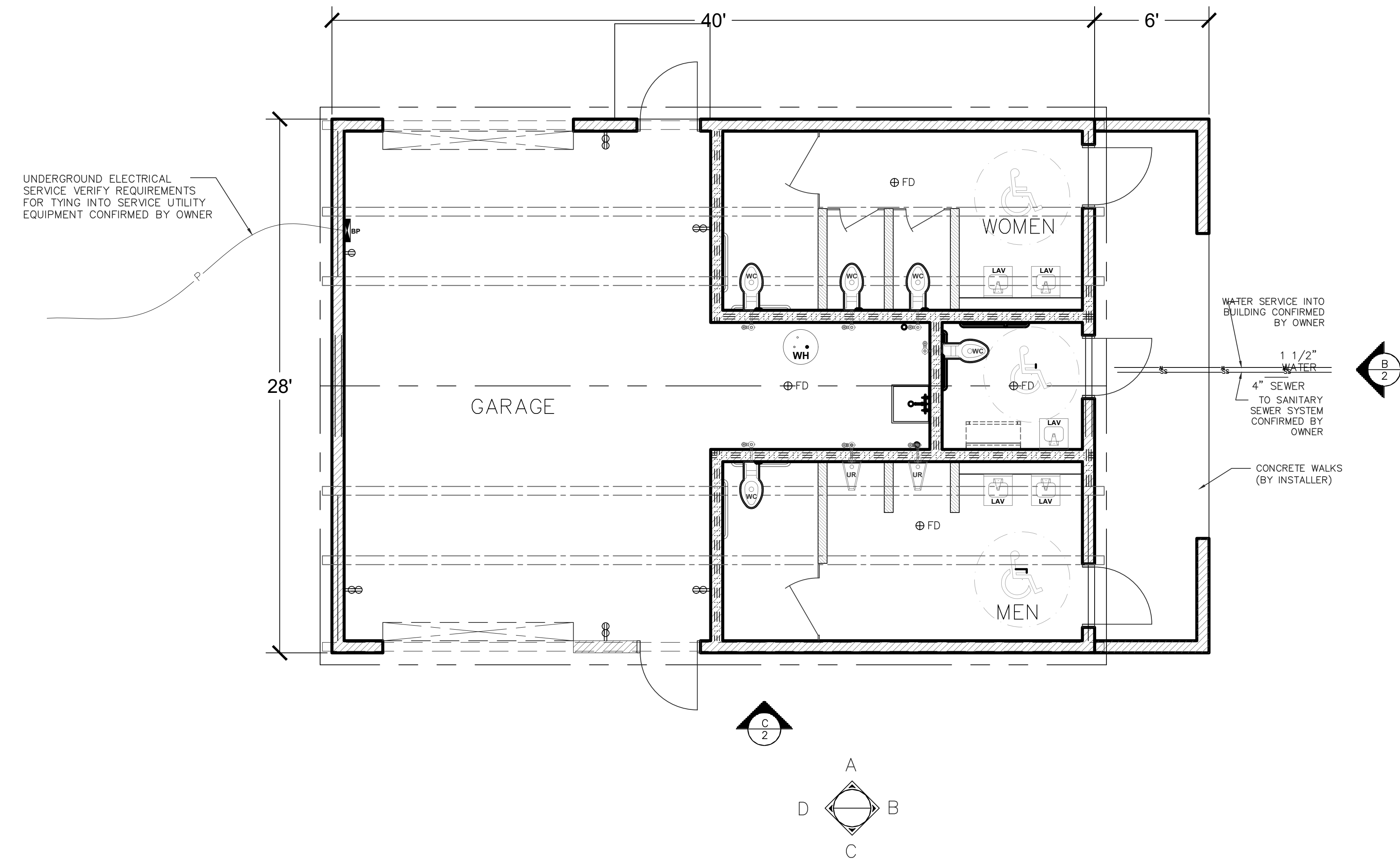
SUBMITTAL	DATE
SCHEMATIC DESIGN	2021/01/29
DESIGN DEVELOPMENT	2021/03/05

NO.	REVISIONS	DATE

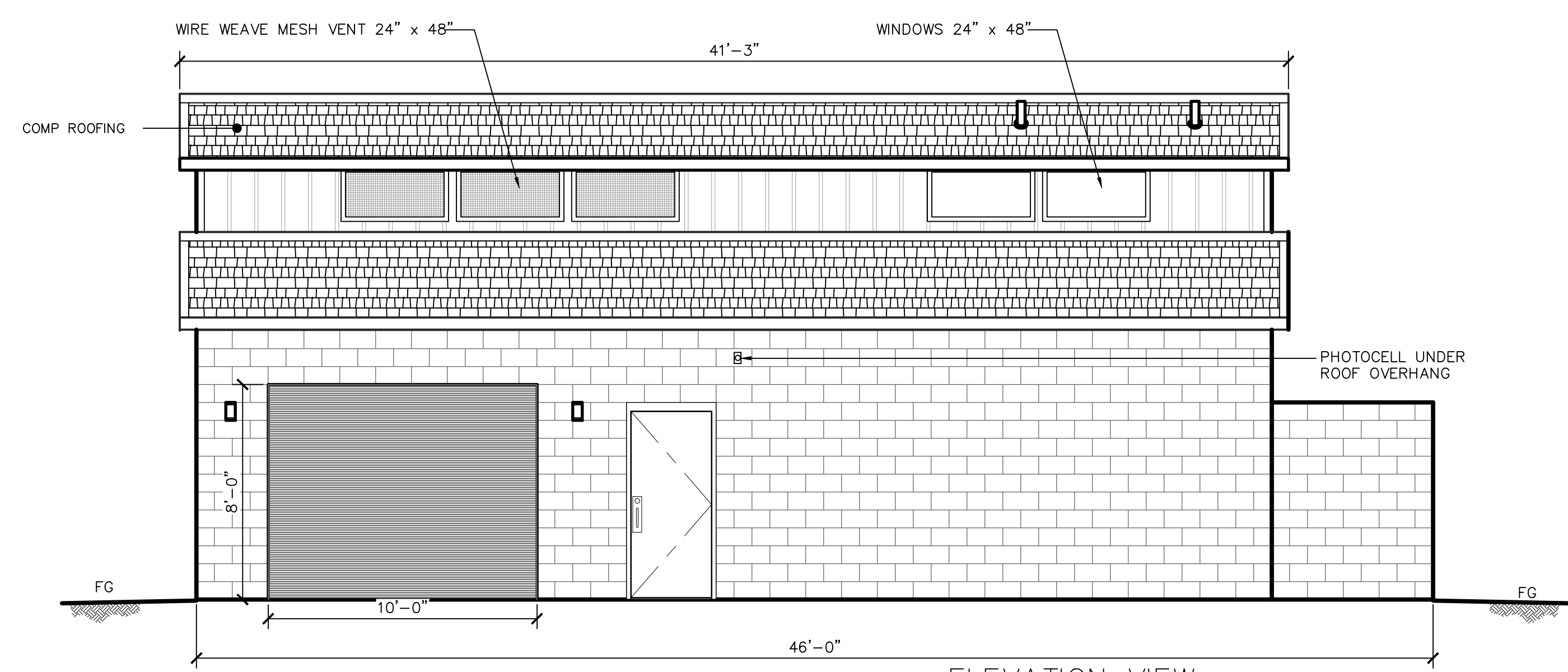
DRAWN BY: <b>JR</b>	CHECKED BY: <b>AE</b>
DATE ISSUED: <b>03/22/2021</b>	SCALE:
PROJ. NO. <b>A1037</b>	
SHEET NO. <b>L3.21</b>	

WALL TYPE SCHEDULE

-  8" REINFORCED CONCRETE MASONRY BLOCK WALL WITH MORTAR JOINTS, GROUTED SOLID ALL CELLS RUNNING BOND PATTERN.
-  6" REINFORCED CONCRETE MASONRY BLOCK WALL WITH MORTAR JOINTS, GROUTED SOLID ALL CELLS RUNNING BOND PATTERN.
-  8" WOOD FRAMED WALL

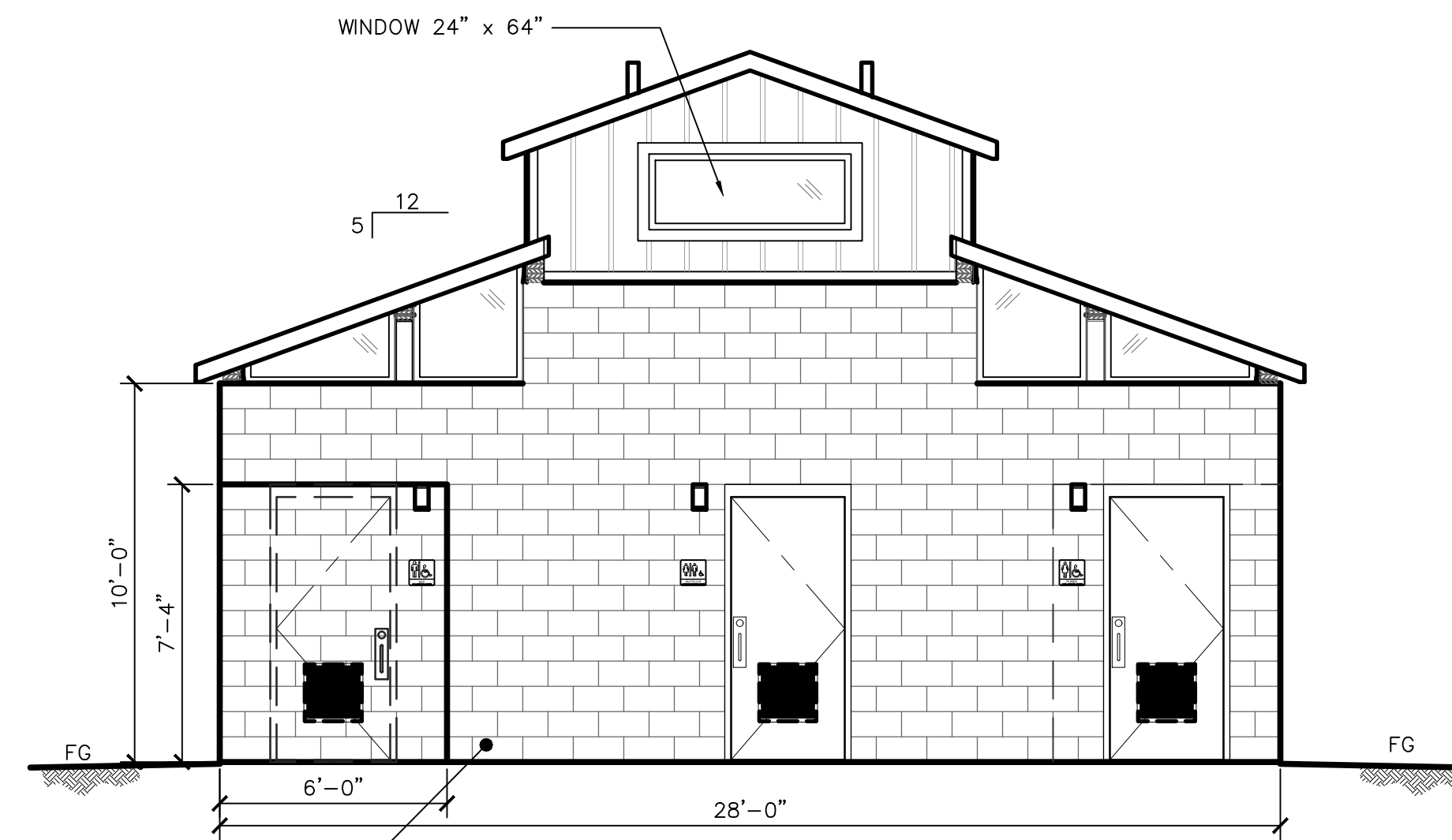


**1** FLOOR PLAN- ROMTEC RESTROOM AND ATHLETIC SUPPORT BUILDING  
1/4" = 1'-0"



**C** ELEVATION VIEW  
SCALE: 1/4" = 1'-0"

**2** C-ELEVATION VIEW ROMTEC RESTROOMS AND ATHLETIC SUPPORT BUILDING  
1/4" = 1'-0"



8" X 16" CMU CONCRETE  
BLOCK WALL FULLY  
REINFORCED RUNNING BOND  
PATTERN.  
GROUND FACE, ODD COURSES  
SPLIT FACE, EVEN COURSES

**B** ELEVATION VIEW  
SCALE: 1/4" = 1'-0"

**1** B-ELEVATION VIEW ROMTEC RESTROOMS AND ATHLETIC SUPPORT BUILDING  
1/4" = 1'-0"

**TRAVERSE**  
landscape architects  
150 Chestnut Street, 4th Floor Providence, RI 02903  
68 Harrison Avenue, 6th Floor Boston, MA 02111

STAMP

CONSULTANT

SHEET TITLE

ATHLETIC SUPPORT  
BUILDING DETAILS

PROJECT NAME

FAIRHAVEN HIGH  
SCHOOL  
ATHLETIC  
FIELD-SYNTHETIC TURF

PROJECT ADDRESS

12 HUTTLESTONE AVE  
FAIRHAVEN , MA 02719

SUBMITTAL	DATE
SCHEMATIC DESIGN	2021/01/29
DESIGN DEVELOPMENT	2021/03/05

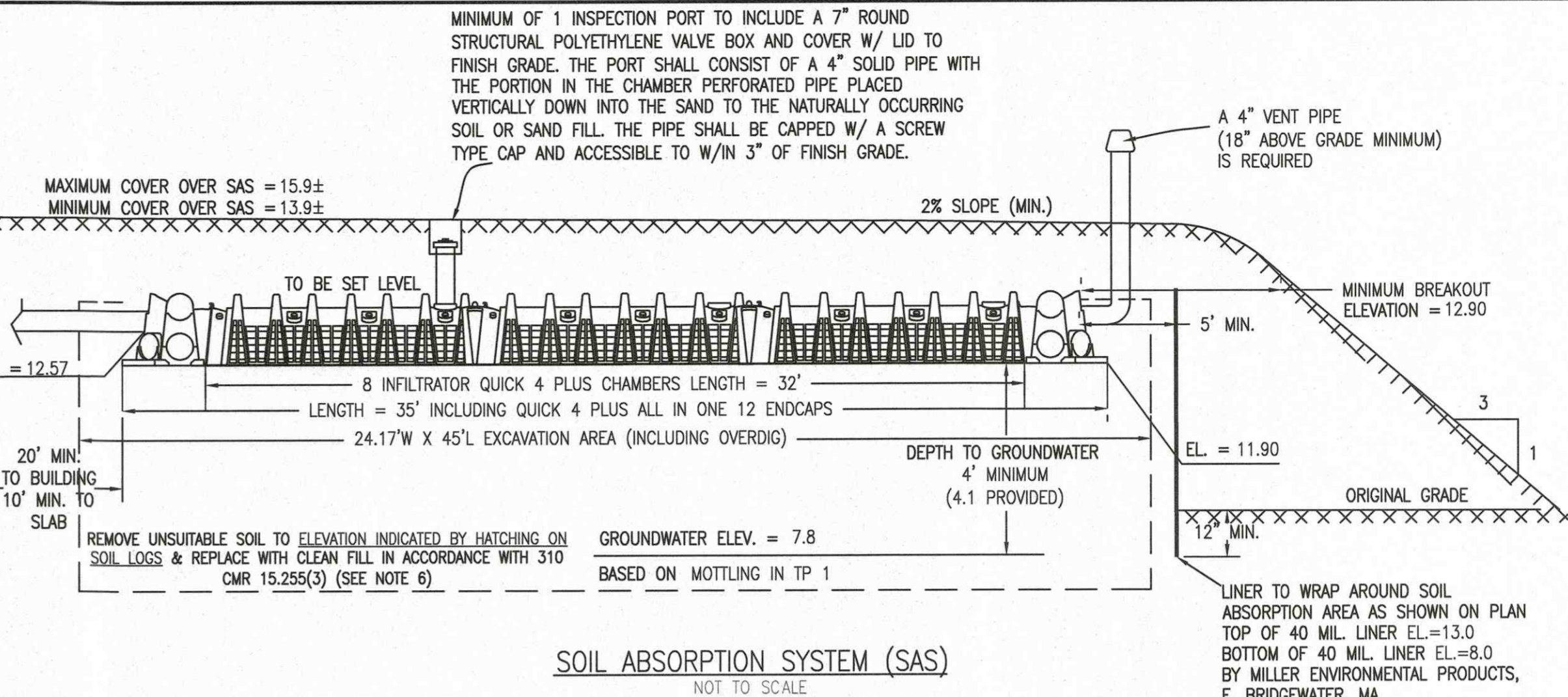
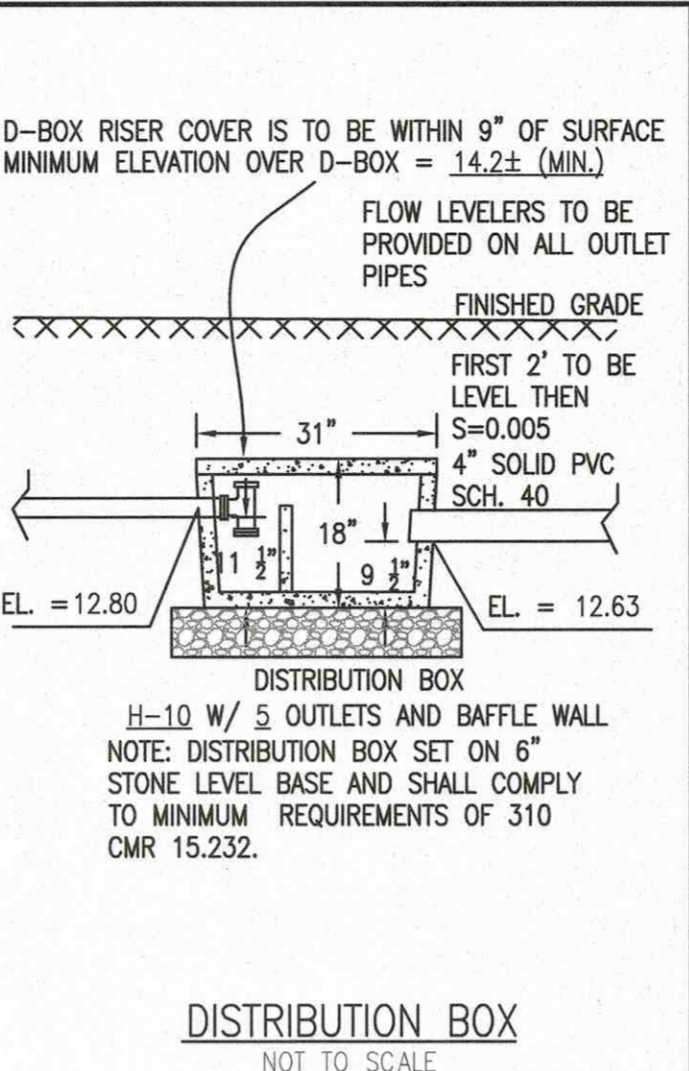
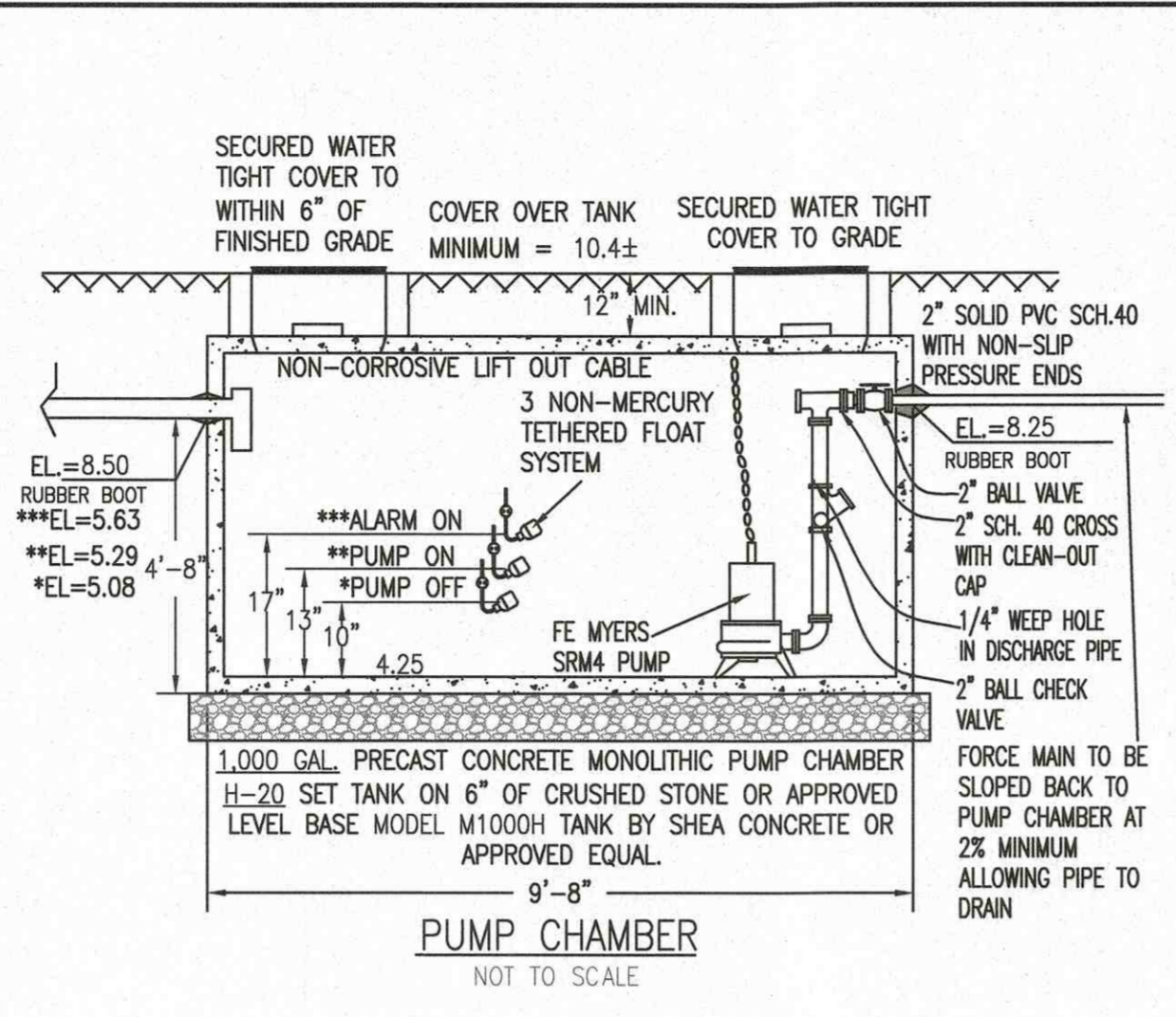
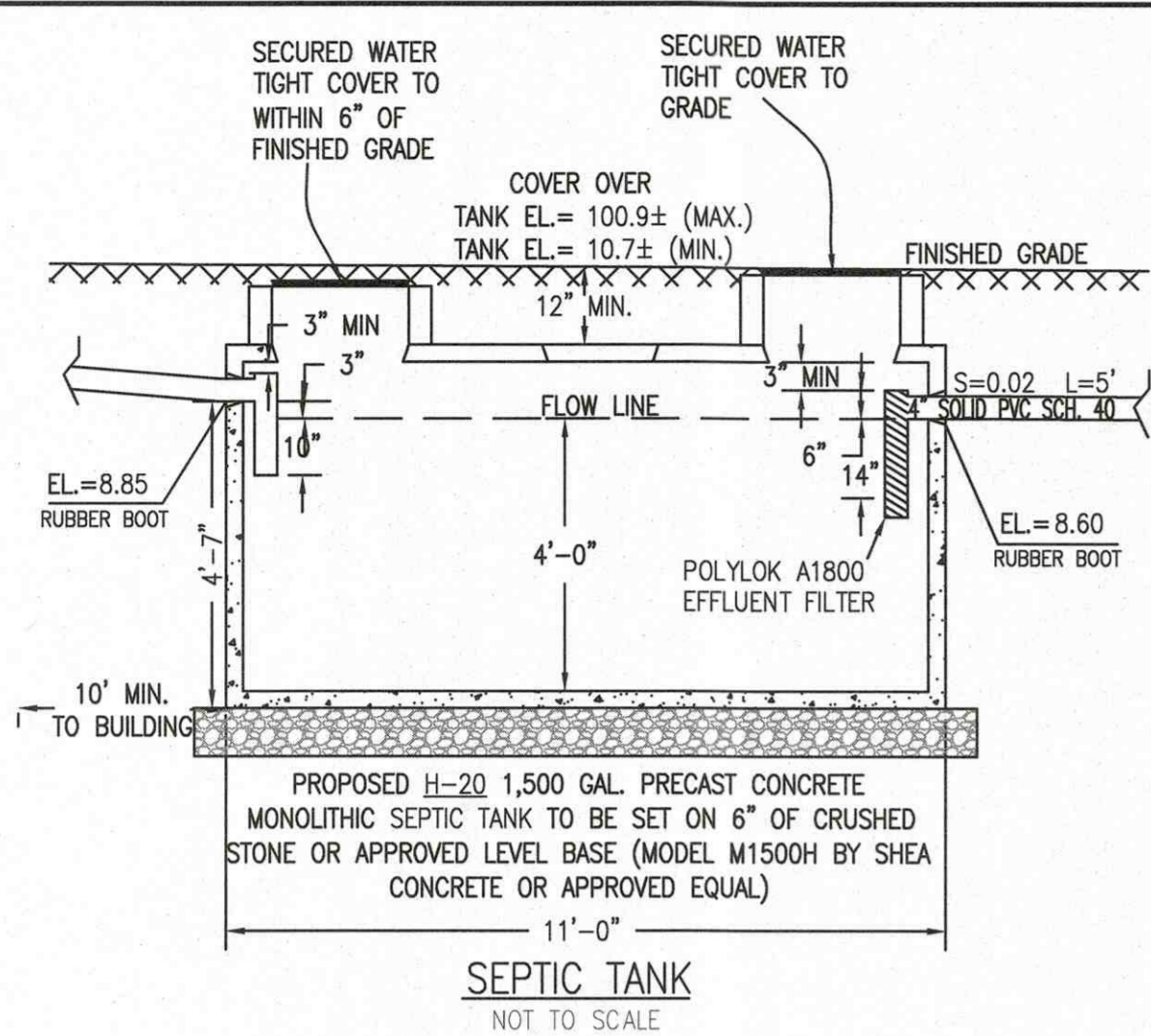
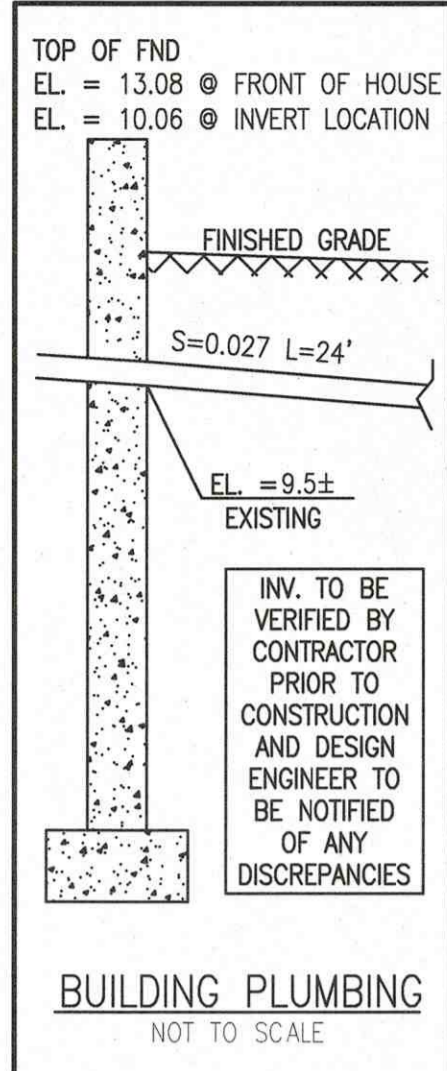
NO.	REVISIONS	DATE
△		
△		
△		
△		
△		
△		

DRAWN BY: <b>JR</b>	CHECKED BY: <b>AE</b>
DATE ISSUED: 03/22/2021	SCALE:
PROJ. NO. A1037	
SHEET NO. <b>L3.22</b>	

ATHLETIC SUPPORT BUILDING DETAILS

FAIRHAVEN HS ATHLETIC FIELD-SYNTHETIC TURF PERMITTING - 03/22/2021



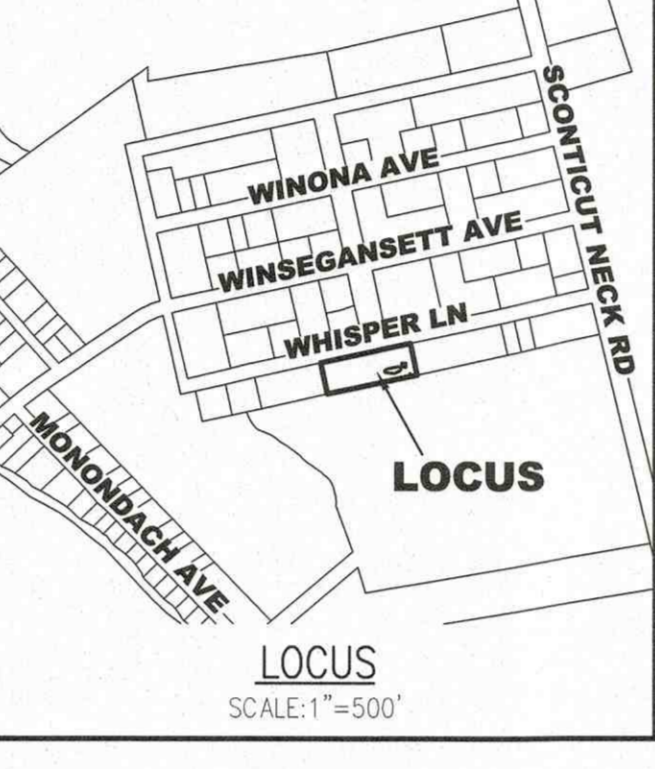
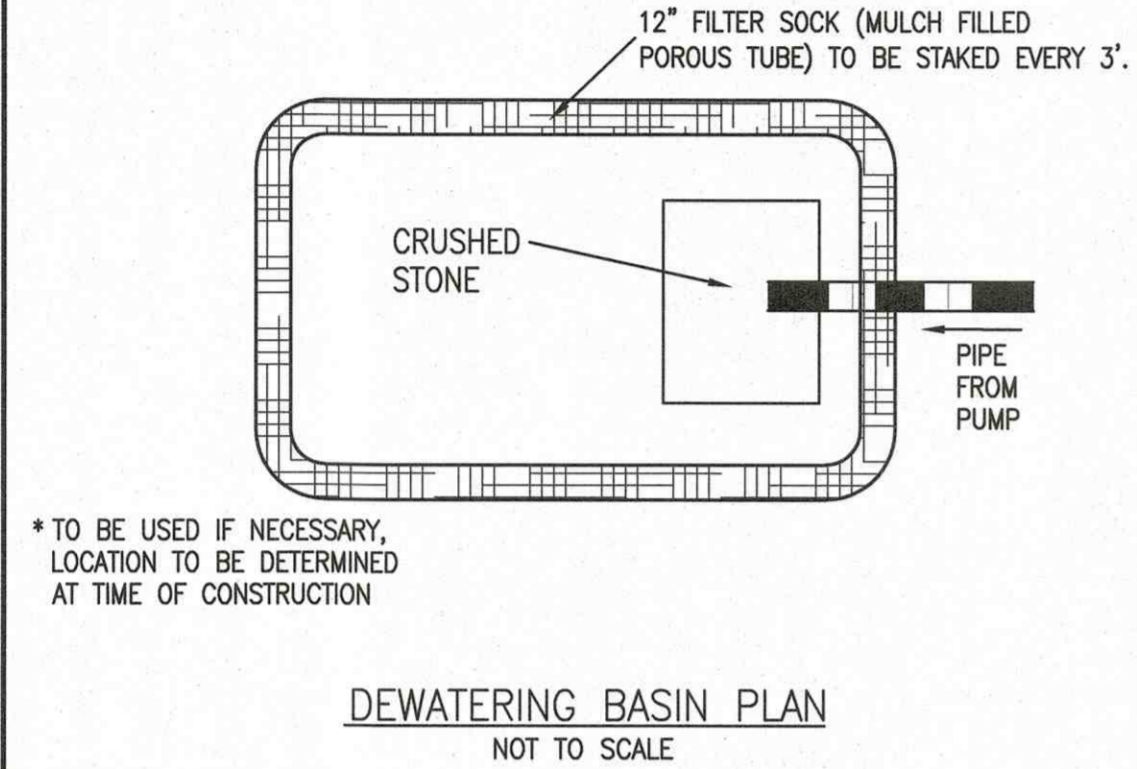


**SOIL LOG:**  
DATE: 3-16-21  
PERFORMED BY: NYLES ZAGER, ZCE, LLC.  
WITNESSED BY: DAVID FLAHERTY, FAIRHAVEN BOH

DEPTH (INCHES)	TP-1	ELEV. (FEET)
0	A SANDY LOAM 10YR 3/2	11.5
10	B LOAMY SAND 10YR 5/6	10.7
24	C SANDY LOAM 2.5Y 5/3	9.5
120		1.5

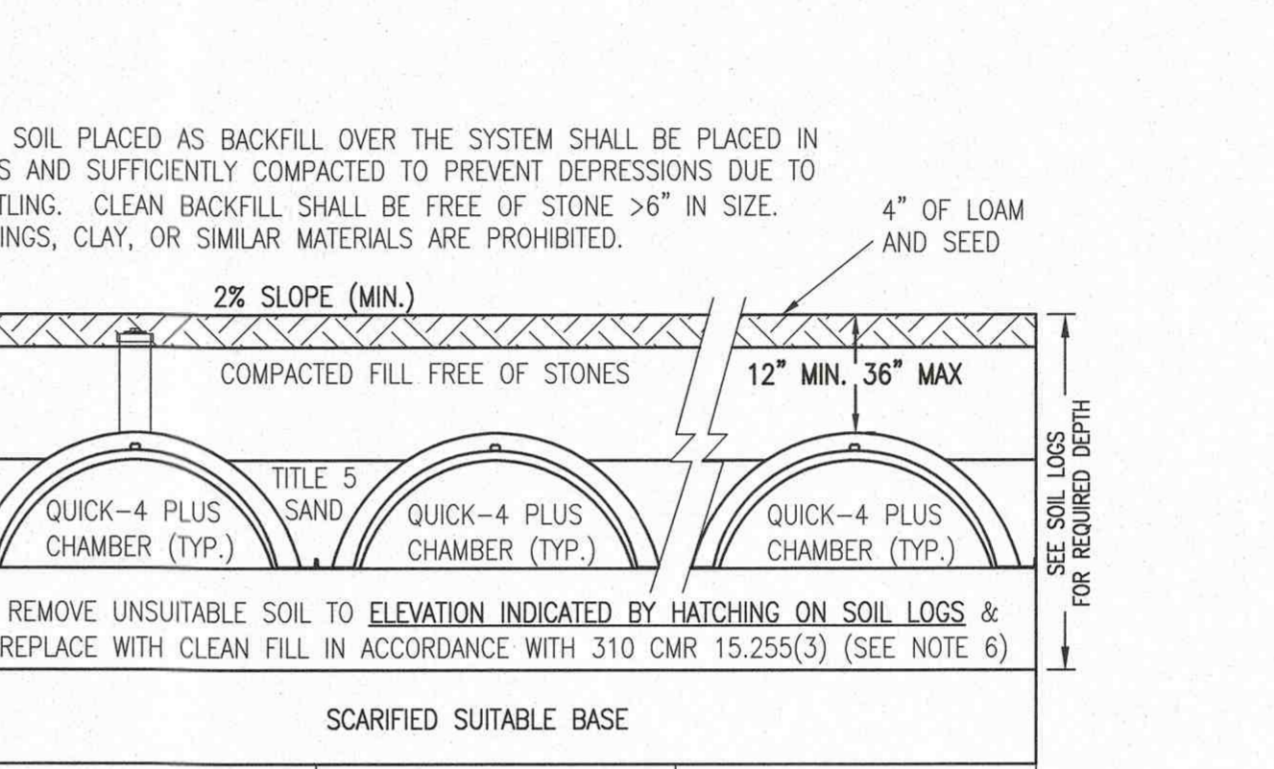
MOTTLING @ 44"  
WEEPING @ NONE  
STANDING @ NONE  
ESHW EL = 7.8  
PERC DEPTH: 32'-50"  
PERC RATE: 15 MPI

NOTE: THE A & B LAYERS ARE TO BE REMOVED TO ELEVATION INDICATED BY HATCHING ON SOIL LOGS BELOW THE SAS AND REPLACED WITH CLEAN FILL IN ACCORDANCE WITH 310 CMR 15.255(3). UNSUITABLE SOIL TO BE REMOVED TO A DISTANCE OF 5'-0" BEYOND THE LIMITS OF THE SOIL ABSORPTION SYSTEM.



**LEGEND**

69	EXISTING CONTOURS
x98.5	EXISTING SPOT ELEVATION
TP-1	EXISTING TESTPIT
69	PROPOSED CONTOURS
100x2	PROPOSED SPOT ELEVATION
OHW	EXISTING TREETLINE
GV	EXISTING OVERHEAD WIRES
W	EXISTING GAS VALVE
	EXISTING LIGHT POLE
	EXISTING UTILITY POLE
	EXISTING WATER LINE



**DESIGN CALCULATIONS:**

ESTIMATED DAILY FLOW:  
EXISTING 3-BEDROOM DWELLING  
3 BEDROOMS X 110 GPD/BEDROOM = 330 GPD  
SEPTIC TANK REQUIREMENT:  
330 GPD X 2.0 = 660 GALLONS  
USE 1,500 GALLON SEPTIC TANK

SOIL ABSORPTION SYSTEM REQUIREMENT:  
PERCOLATION RATE = 15 MIN/INCH (CLASS II SOIL)  
ALLOWED LEACHING RATE = 0.56 GPD/SF  
LEACHING AREA REQ'D = (330 GPD) / (0.56 GPD/SF) = 590 SF  
TRY INFILTRATOR QUICK-4 PLUS CHAMBERS IN BED CONFIGURATION (590 S.F.) / (4.72 S.F. / FT.) = 125 FT OF CHAMBERS REQUIRED

SOIL ABSORPTION SYSTEM PROVIDED:  
USE 40 INFILTRATOR QUICK-4 PLUS CHAMBERS  
USE 5 ROWS OF 8 INFILTRATOR QUICK-4 PLUS CHAMBERS = 40 CHAMBERS (40 CHAMBERS) X (4.00 FT./CHAMBER) = 160 FT.  
LEACHING AREA PROVIDED: (4.72 S.F./FT.) X (160 FT.) = 755 S.F. > 590 S.F.  
DAILY FLOW CAPACITY: 755 SF X 0.56 GPD/SF = 422 GPD > 330 GPD REQ'D

**NOTES:**

- THE CONTRACTOR SHALL NOTIFY THE LOCAL BOARD OF HEALTH AND ZENITH CONSULTING ENGINEERS, LLC, AT LEAST 48 HOURS PRIOR TO REQUIRED INSPECTIONS. THE REQUIRED INSPECTIONS ARE AS FOLLOWS:  
A. AFTER LEACH FIELD EXCAVATION PRIOR TO PLACEMENT OF SAND  
B. AFTER PLACEMENT OF TANKS AND LEACHING CHAMBERS  
C. PRIOR TO BACKFILL. THE CONTRACTOR IS TO PROVIDE A CURRENT SIEVE ANALYSIS SHOWING THE REMOVE AND REPLACE SAND MEETS 310 CMR 15.255(3) SPECIFICATIONS AND THE PRESBY ENVIRO-SEPTIC SAND MEETS PRESBY SPECIFICATIONS.  
D. WHEN PUMP IS FULLY OPERATIONAL (TEST ALL ALARM AND PUMP FUNCTIONALITY).  
E. DURING BACKFILLING OF LEACHING AREA.  
F. FINAL INSPECTION AFTER LOAM AND SEED HAVE BEEN PLACED.
- BENCHMARK: NAIL IN TREE, EL = 12.43 & SPIKE IN LAWN, EL=11.42 (NAV08 DATUM).  
\*\*NOTE: CONTRACTOR TO VERIFY BENCHMARKS PRIOR TO CONSTRUCTION AND NOTIFY DESIGN ENGINEER OF ANY DISCREPANCIES.
- PER 310 CMR 15.245(2) HEAVY EQUIPMENT SHALL NOT BE ALLOWED TO OPERATE OVER THE LIMITS OF THE SEWAGE DISPOSAL FIELD DURING THE COURSE OF CONSTRUCTION OF THE SYSTEM.
- NO FIELD MODIFICATIONS TO THE SEWAGE SYSTEM SHALL BE MADE WITHOUT PRIOR WRITTEN APPROVAL OF THE ENGINEER AND THE LOCAL BOARD OF HEALTH.
- UNLESS OTHERWISE NOTED ALL CONSTRUCTION AND SYSTEM COMPONENTS SHALL CONFORM WITH CURRENT TITLE V OF THE STATE ENVIRONMENTAL CODE AND ANY APPLICABLE LOCAL RULES.
- IN AREAS SHOWN ON THE PLAN, ALL TOPSOIL, SUBSOIL AND OTHER IMPERVIOUS MATERIALS SHALL BE REMOVED AND REPLACED WITH A CLEAN GRANULAR SAND, FREE FROM ORGANIC MATTER AND OTHER DELETERIOUS SUBSTANCES, GRADED AS FOLLOWS:  
A. NO MATERIAL LARGER THAN 2 INCHES.  
B. UP TO 45% BY WEIGHT MAY BE RETAINED ON A #4 SIEVE.  
C. OF THE FRACTION PASSING THE #4 SIEVE, THE FOLLOWING CRITERIA APPLY:  

SIEVE SIZE	EFFECTIVE PARTICLE SIZE	% THAT MUST PASS SIEVE
#4	4.75 mm	100%
#10	2.0 mm	100%
#100	0.15 mm	0% - 20%
#200	0.075 mm	0% - 5%

  
D. A SIEVE ANALYSIS OF THE MATERIAL SHALL BE PERFORMED TO DETERMINE THAT IT MEETS THE GRADATION REQUIREMENTS NOTED ABOVE. THE INSTALLER SHALL PROVIDE A COPY OF THE SIEVE ANALYSIS RESULTS TO THE DESIGN ENGINEER.
- THE SEPTIC TANK, PUMP CHAMBER AND D-BOX SHALL BE MANUFACTURED BY SHEA CONCRETE OR APPROVED EQUAL AND SHALL WITHSTAND H-10 & H-20 LOADING CRITERIA AS NOTED ON SEPTIC SYSTEM PROFILE.
- RUBBER BOOTS/SLEEVES ARE TO BE USED AT ALL POINTS WHERE PIPES ENTER OR LEAVE ALL CONCRETE STRUCTURES IN ORDER TO PROVIDE A WATER TIGHT SEAL.
- THE FIRST TWO FEET OF EACH LINE EXTENDING THE DISTRIBUTION BOX SHALL BE LEVEL.
- THIS SYSTEM IS NOT DESIGNED TO ACCOMMODATE A GARBAGE GRINDER.
- OTHER THAN THOSE SHOWN, THERE ARE NO KNOWN WELLS WITHIN 100' OF THE PROPOSED SOIL ABSORPTION SYSTEM.
- IN ACCORDANCE WITH 310 CMR 15.221, ALL SYSTEM COMPONENT SHALL BE MARKED WITH MAGNETIC MARKING TAPE.
- THE CONTRACTOR SHALL RESTORE (LOAM & SEED) ALL AREAS DISTURBED DURING CONSTRUCTION.
- INSTALLER SHALL BE TRAINED AND CERTIFIED BY INFILTRATOR WATER TECHNOLOGIES, LLC. FOR INFORMATION ON THE INFILTRATOR QUICK-4 CHAMBER SEE CERTIFICATION FOR GENERAL USE TRANSMITTAL NUMBER X259 MODIFIED DATE 12, 2015. ALSO SEE STANDARD CONDITIONS FOR ALTERNATIVE SOIL ABSORPTION SYSTEMS WITH GENERAL USE CERTIFICATION AND/OR APPROVED FOR REMEDIAL USE REVISED: MARCH 5, 2018.
- LOCATION OF UTILITIES ARE CONSIDERED APPROXIMATE ONLY. THE CONTRACTOR SHALL VERIFY THE ACTUAL LOCATION AND INVERTS OF UTILITIES IN THE FIELD PRIOR TO THE START OF CONSTRUCTION.
- THE CONTRACTOR IS RESPONSIBLE UNDER MASSACHUSETTS STATE LAW TO NOTIFY DIGSAFE (1.888.DIGSAFE) TO LOCATE UTILITIES IN THE PROJECT AREA A MINIMUM OF 72 HOURS PRIOR TO THE START OF EXCAVATION.
- THE PROPERTY IS SERVED BY A PRIVATE WATER SUPPLY WELL.
- A MINIMUM OF 12" IS TO BE MAINTAINED BETWEEN THE INVERTS ON THE SEPTIC TANK AND HIGH GROUNDWATER. THE ELEVATION FOR HIGH GROUNDWATER WAS DETERMINED BY TEST PITS. SEE LOCAL UPGRADE REQUEST, IF APPLICABLE.
- WATER PURIFICATION SYSTEMS BACKWASH SHALL BE PROHIBITED FROM DISCHARGING INTO THE SEPTIC TANK AND SHALL DISCHARGE TO A DRYWELL OR TO THE GROUND IN ACCORDANCE WITH 310 CMR 15.004 (8). THE BACKWASH IS NOT TO BE DISCHARGED INTO OR IN THE DIRECTION OF THE SEPTIC SYSTEM.
- THE SEPTIC SYSTEM OWNER SHALL HAVE THE SEPTIC TANK AND OUTLET FILTER INSPECTED ANNUALLY AND CLEANED AND PUMPED AS NECESSARY.

**SITE INFORMATION:**

- THE SITE IS SHOWN ON THE TOWN OF FAIRHAVEN ASSESSORS MAP AS MAP 42A LOT 196.
- PROPERTY LINE INFORMATION WAS TAKEN FROM:  
2.1. FOR TITLE REFERENCE TO THE SUBJECT PROPERTY REFER TO BOOK 4100, PAGE 54 IN THE BRISTOL COUNTY REGISTRY OF DEEDS.  
THIS PLAN IS NOT THE RESULT OF A DEFINITIVE BOUNDARY LINE SURVEY. PROPERTY LINES ARE TO BE CONSIDERED APPROXIMATE.
- TOPOGRAPHIC INFORMATION TAKEN FROM FIELD SURVEY PERFORMED BY ZENITH CONSULTING ENGINEERS, LLC IN MARCH 2021.
- THE SUBJECT PROPERTY IS LOCATED IN ZONE VE (EL-19'), AS SCALED FROM THE FLOOD INSURANCE RATE MAP (FIRM) OF BRISTOL COUNTY, MAP NUMBER 250230501F, EFFECTIVE DATE JULY 7, 2009.
- THE SUBJECT PROPERTY IS NOT LOCATED IN A ZONE II OR WPA (WELL HEAD PROTECTION AREA).
- THE SYSTEM IS NOT LOCATED WITHIN A ZONE A OF A SURFACE WATER SUPPLY PROTECTION AREA.
- THE PROPERTY IS NOT LOCATED IN A PRIORITY HABITAT OR ESTIMATED HABITAT AS SHOWN ON THE MASSACHUSETTS NATURAL HERITAGE ATLAS 14TH EDITION EFFECTIVE DATE AUGUST 1, 2017.
- NO KNOWN WETLANDS ARE LOCATED WITHIN 100' OF THE PROPOSED SAS AND NO KNOWN RIVERS, BROOKS OR STREAMS ARE LOCATED WITHIN 200' OF THE PROPOSED SAS.

**PUMP CHAMBER NOTES:**

- AN AUDIBLE AND VISUAL ALARM SHALL BE PROVIDED. PUMP TO BE ON SEPARATE CIRCUIT FROM ALARM.
- PUMP AND APPURTENANCES TO BE INSTALLED AND LOCATED ACCORDING TO MANUFACTURERS INSTRUCTIONS AND LOCAL BUILDING AND WIRING CODES.
- PUMP SHALL CONSIST OF MYERS MODEL SRM4 SUBMERSIBLE PUMP (OR APPROVED EQUAL). PUMP SHALL BE RATED AT 4/10 HP AND SHALL HAVE A 2" DISCHARGE. THE PUMP SHALL OPERATE FROM A 115 VOLT, 11.5 AMP, SINGLE PHASE, 60 HERTZ POWER SUPPLY.
- PUMP CONTROL PANEL SHALL CONSIST OF MYERS CE SIMPLEX ELECTRICAL CONTROL PANEL (OR APPROVED EQUAL).

**ZCE**  
ZENITH CONSULTING ENGINEERS, LLC  
3 MAIN STREET LAKEVILLE, MA 02347  
PHONE: (508) 947-4208

P.E. STAMP

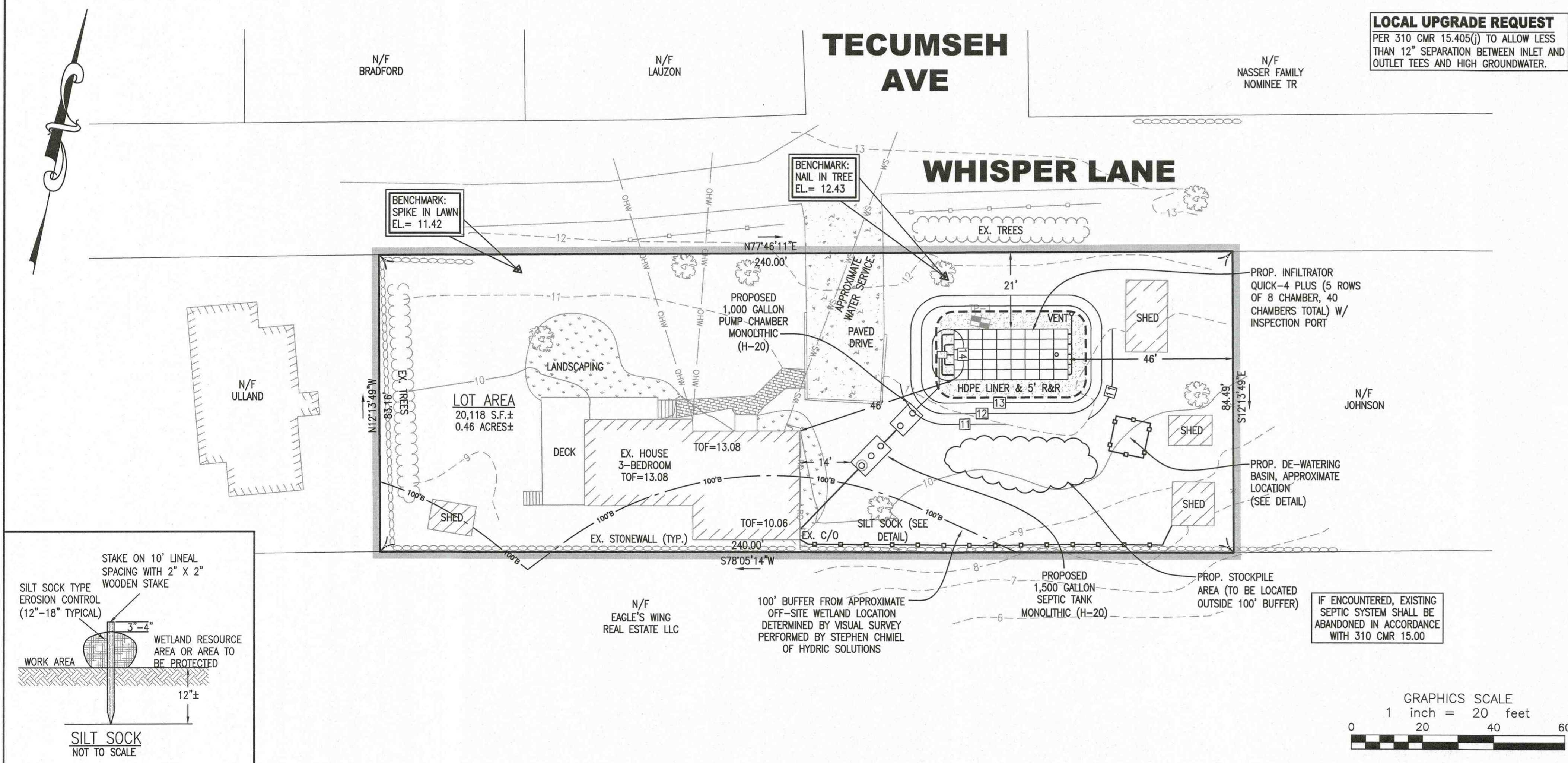
DATE	REVISION	DESCRIPTION
3-24-21		

PROJECT NUMBER: 0719-01-01  
DRAWING SCALE: 1"=20'  
SHEET ID: SEPTIC DESIGN

**SUBSURFACE SEWAGE DISPOSAL SYSTEM UPGRADE**

PROJECT SITE: 33 WHISPER LANE, FAIRHAVEN, MASSACHUSETTS  
CLIENT INFO: SCOTT & PATRICIA NICKERSON, 33 WHISPER LANE, FAIRHAVEN, MA 02719

DESIGNED BY: [Signature]  
CHECKED BY: [Signature]  
APPROVED BY: [Signature]



**LOCAL UPGRADE REQUEST**  
PER 310 CMR 15.405(3) TO ALLOW LESS THAN 12" SEPARATION BETWEEN INLET AND OUTLET TEES AND HIGH GROUNDWATER.

**BUOYANCY CALCULATIONS 1,500 GALLON MONOLITHIC SEPTIC TANK H-20**

DOWNWARD FORCE:  
TANK BY SHEA CONCRETE MODEL TK-M1500H  
WEIGHT OF EMPTY 1,500 GAL. TANK=15,617 LBS. (WITHOUT CONCRETE COVERS)  
SOIL WEIGHT ABOVE TANK:  
VOLUME OVER TANK=72 CF (72 CF X 110 LB/CF=7,920 LBS)  
DOWNWARD FORCE=15,617+7,920=23,537 LBS.  
BUOYANT FORCE: (ASSUMES TANK FULLY SUBMERGED IN WATER)  
VOLUME OF DISPLACED WATER = 374 CF  
BUOYANT FORCE=374 CF X 62.4 LB/CF=23,357 LB  
23,537 LB > 23,357 LB  
(DOWNWARD FORCE > BUOYANT FORCE)

**BUOYANCY CALCULATIONS PUMP CHAMBER**

DOWNWARD FORCE:  
TANK BY SHEA CONCRETE MODEL M1000H  
WEIGHT OF EMPTY 1,000 GAL. TANK=14,820 LBS. (WITHOUT COVERS)  
SOIL WEIGHT ABOVE TANK:  
VOLUME OVER TANK=31.5 CF (31.5 CF X 110 LB/CF=3,465 LBS)  
DOWNWARD FORCE=14,820+3,465 = 18,285 LBS.  
BUOYANT FORCE: (ASSUMES TANK FULLY SUBMERGED IN WATER)  
VOLUME OF DISPLACED WATER = 286 CF  
BUOYANT FORCE=286 CF X 62.4 LB/CF = 17,846 LB  
18,285 LB > 17,846 LB (DOWNWARD FORCE > BUOYANT FORCE)

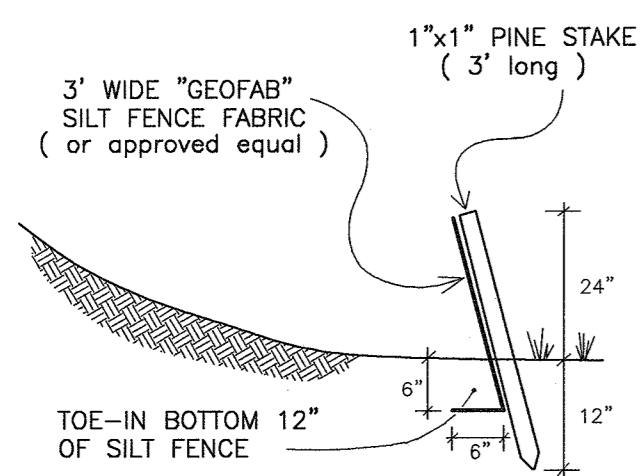
**PUMP CURVE:**  
MYERS SRM4 PUMP

CAPACITY GALLONS PER MINUTE	HEAD (FEET)	FLOW (GPM)
3	95	
10	60	
15	28	
19	0	

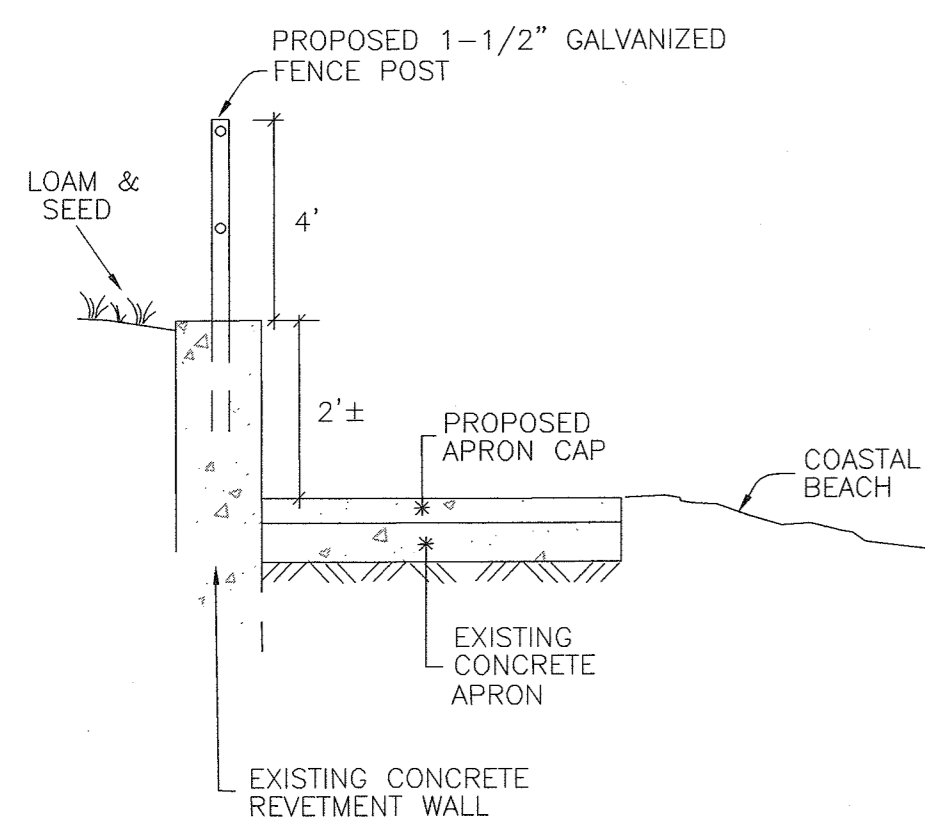
**DOSE CALCULATION:**  
DESIGN DOSE = 330 GPD / 6 DOSE/DAY = 55.00 GALLONS  
DRAIN BACK VOLUME = 2.77 GALLONS/DOSE  
TOTAL DOSE = 55.00 + 2.77 = 57.77 GALLONS

**PUMP DESIGN:**  
REQUIRED HEAD = FRICTION LOSS ± ALTITUDE CHANGE ± STATIC PRESSURE CHANGE  
ALTITUDE CHANGE = 12.80 - 5.08 = 7.72'  
FRICTION LOSS = 5.42'  
STATIC PRESSURE CHANGE = 0  
REQUIRED PUMP HEAD = 7.72' + 5.42' = 13.14'  
24-HR EMERGENCY STORAGE VOLUME = 722.26 GALLONS

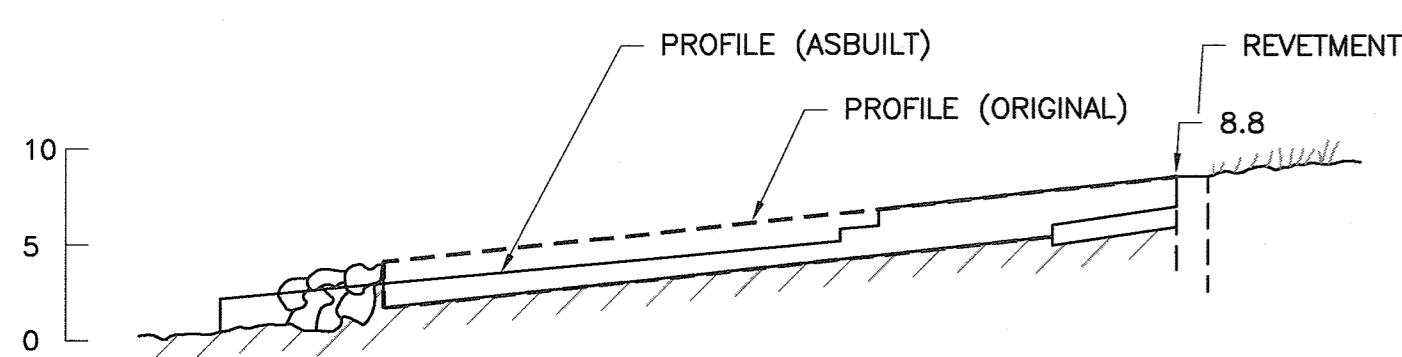




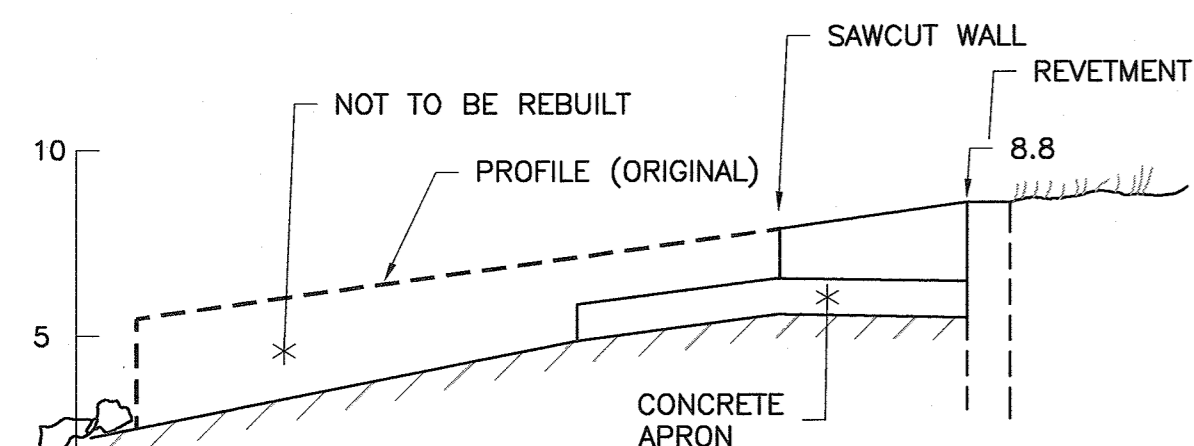
**SILT / EROSION CONTROL FENCING**  
NOT TO SCALE



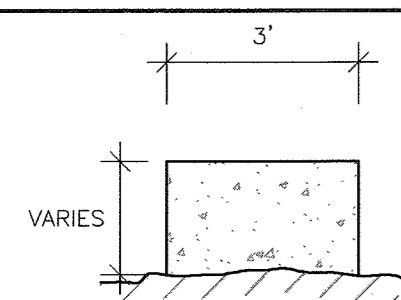
**SECTION A-A**  
(NOT TO SCALE)



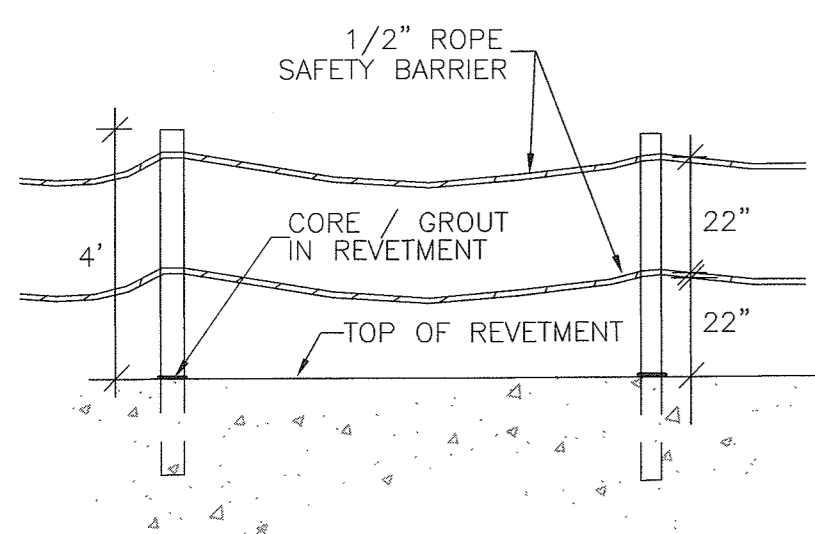
**NORTH GROIN SECTION B-B**  
1"=10'



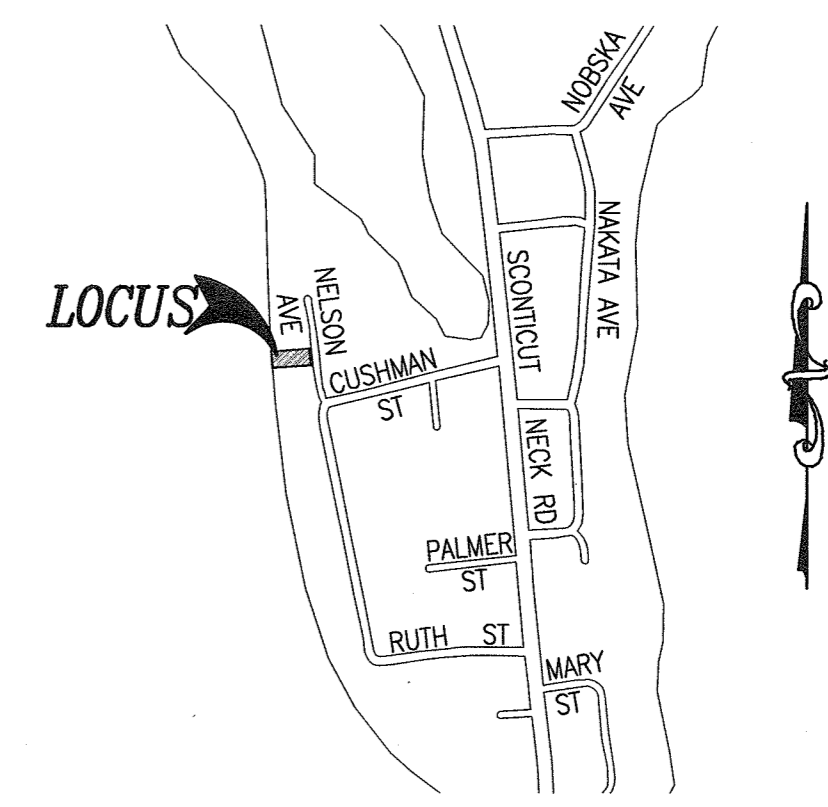
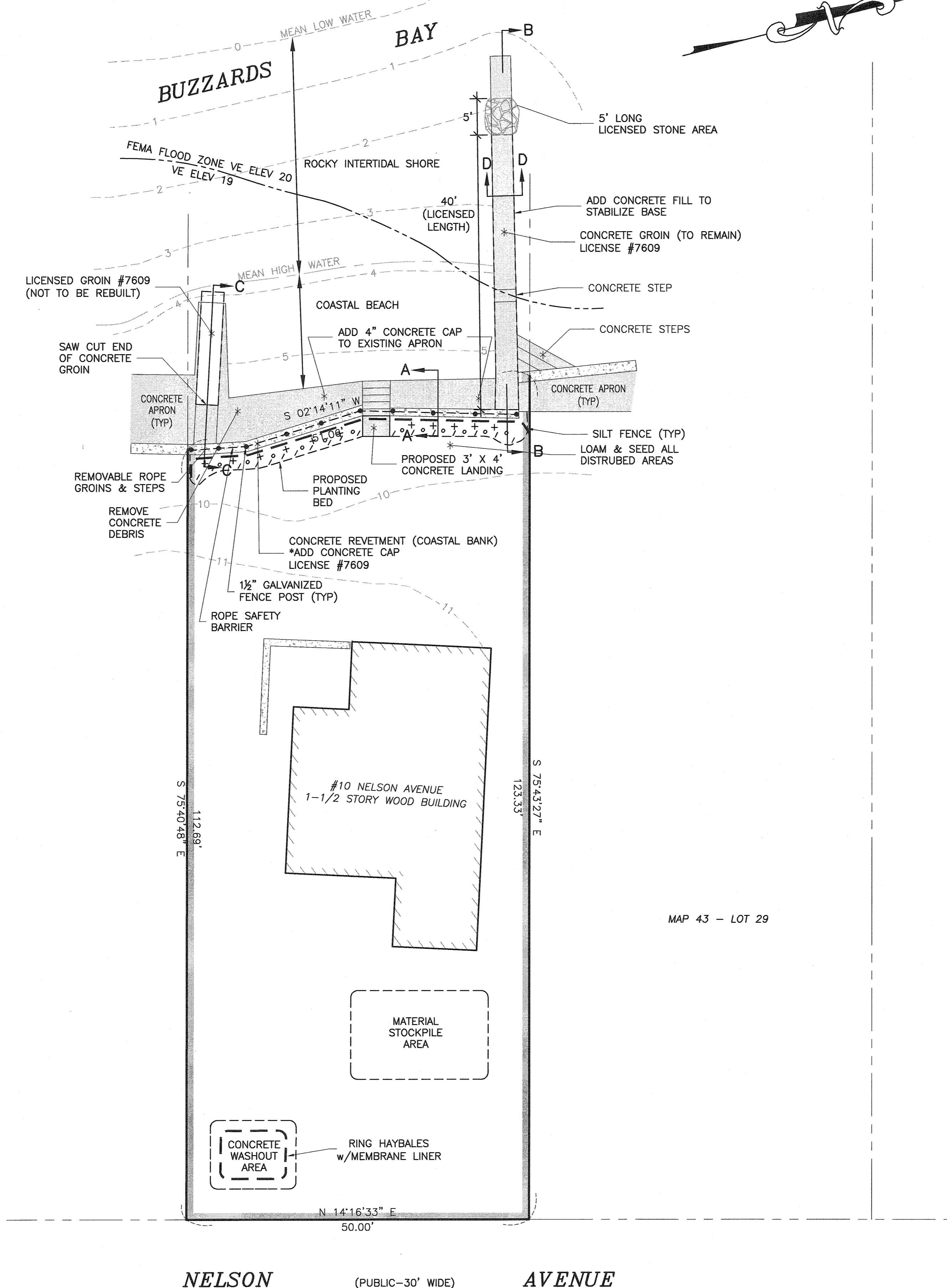
**SOUTH GROIN SECTION C-C**  
1"=5'



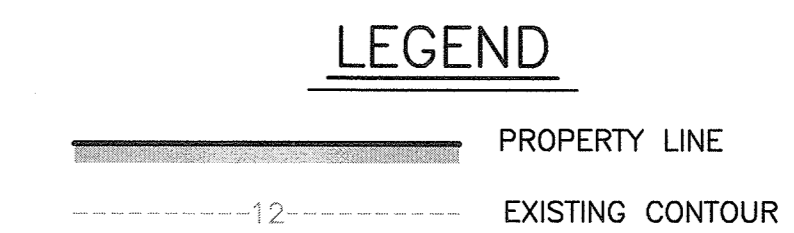
**NORTH GROIN SECTION D-D**  
1"=3'



**ROPE SAFETY BARRIER**  
(NOT TO SCALE)



**LOCUS MAP**  
SCALE: 1"=600'±

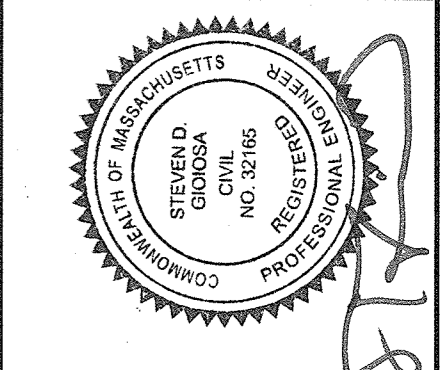


**CONSTRUCTION NOTES**

1. ALL WORK DEPICTED ON THIS PLAN IS SUBJECT TO ALL ORDER OF CONDITIONS ISSUED BY THE FAIRHAVEN CONSERVATION COMMISSION. THE CONTRACTOR SHALL HAVE A COPY OF THE ORDER AND APPROVED PLAN ON SITE AT ALL TIME DURING THE CONSTRUCTION PROVIDED.
2. A PRE-CONSTRUCTION MEETING WILL BE SCHEDULED BY THE CONTRACTOR WITH THE CONSERVATION AGENT TO REVIEW THE REQUIREMENTS OUTLINED IN THE ORDER OF CONDITIONS.
3. THE SILT FENCE FOR EROSION CONTROL SHALL BE SET PRIOR TO THE START OF CONSTRUCTION AND MAINTAINED THROUGHOUT THE CONSTRUCTION PROCESS UNTIL ALL DISTURBED AREAS ARE STABILIZED.
4. STOCKPILING OF MATERIALS SHALL BE LIMITED TO THE DESIGNATED UPLAND AREA.
5. IF REQUIRED, A LINED CONCRETE WASHOUT PIT SHALL BE SET IN THE STOCKPILE AREA WITH SILT FENCING SET ALONG THE DOWNGRADIENT PERIMETER OF THE PIT.
6. ALL DISTURBED AREAS SHALL BE IMMEDIATELY STABILIZED WITH LOAM AND SEEDING UPON COMPLETION OF CONSTRUCTION.
7. THE USE OF HEAVY EQUIPMENT ON THE BEACH OR ROCKY INTERTIDAL SHORE IS PROHIBITED.

**PLANT LIST**

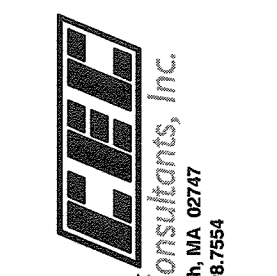
SYMBOL	QUANTITY	NAME
+	11	'EURYBIA SPECTABILIS' Eastern Showy Aster
o	12	'HEMEROCALLIS SPP.' Daylily Stelladora
/	18	'COREOPSIS ROSEA' Pink Tickseed



App'd. By	Chkd. By	Revision Description	Date	No.
			APR. 16, 2021	2
			APR. 05, 2021	1

scale: 1"=10'  
date: FEBRUARY 11, 2021  
drawn: EPL  
checked: SDG  
approved: SDG  
sheet number: 1 of 1  
drawing number: CSRP-1

project: ASSESSORS MAP 43 - LOT 30  
10 NELSON AVENUE  
FAIRHAVEN, MASSACHUSETTS  
client: THE DELANO IRREVOCABLE TRUST  
drawing title: COASTAL STRUCTURE REPAIR PLAN



**SITEC**  
Part of Civil & Environmental Consultants, Inc.  
444  
Ph: 508.888.1105 Fax: 508.888.7804  
www.sitec.com

**OWNER/APPLICANT:**  
THE DELANO IRREVOCABLE TRUST  
10 NELSON AVENUE  
FAIRHAVEN, MA 02719