

Table with 3 columns: Rev, Date, Description



GENERAL NOTES

- 1. EXISTING CONDITIONS INFORMATION GENERATED FROM AN ON THE GROUND SURVEY PERFORMED BY WSP USA, INC. IN OCTOBER OF 2019... 2. BEARINGS ARE BASED UPON THE MASSACHUSETTS STATE PLANE COORDINATE SYSTEM - MAINLAND ZONE (MAD93) AND SHOWN IN REFERENCE TO THE DEVENS, MA CONTROL NETWORK...

EROSION AND SEDIMENT CONTROL NOTES

- 1. ALL SEDIMENT AND EROSION CONTROL DEVICES SHALL BE PUT INTO PLACE BY G.C. PRIOR TO BEGINNING ANY CONSTRUCTION OR DEMOLITION... 2. THE G.C. SHALL BE RESPONSIBLE FOR THE CONTINUAL MAINTENANCE OF ALL CONTROL DEVICES THROUGHOUT THE DURATION OF THE PROJECT...

DEMOLITION & SITE PREPARATION NOTES

- 1. THE CONTRACTOR SHALL INCLUDE IN THE BID THE COST OF REMOVING ANY EXISTING SITE FEATURES AND APPURTENANCES NECESSARY TO ACCOMPLISH THE CONSTRUCTION OF THE PROPOSED SITE IMPROVEMENTS... 2. THE OWNER RESERVES THE RIGHT TO REVIEW ALL MATERIALS DESIGNATED FOR REMOVAL AND TO RETAIN OWNERSHIP OF SUCH MATERIALS...

LAYOUT & MATERIALS NOTES

- 1. COORDINATE ALL LAYOUT ACTIVITIES WITH THE SCOPE OF WORK CALLED FOR BY DEMOLITION, GRADING AND UTILITIES OPERATIONS ENCOMPASSED BY THIS CONTRACT... 2. ALL WORK SHALL BE PERFORMED BY CONTRACTOR UNLESS SPECIFICALLY INDICATED THAT THE WORK WILL BE PERFORMED "BY OTHERS"...

GRADING, UTILITIES & DRAINAGE NOTES

- 1. THE CONTRACTOR SHALL OBTAIN PERMISSION FROM THE MASSACHUSETTS DEVELOPMENT FINANCE AGENCY UTILITIES DEPARTMENT PRIOR TO PERFORMING ANY EXCAVATION WITHIN MACPHERSON ROAD... 2. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND GRADES ON THE GROUND AND REPORT ANY DISCREPANCIES IMMEDIATELY TO THE OWNER...

ABBREVIATIONS

GENERAL

Table with 2 columns: Abbreviation and Description for General items like ADJ, BIT, CONC, N.T.S., B.M., ABAN, MB, GRAN, CURB, EXIST, (OR EX), FON, F.L., (OR F), P, P.VMT, R.C, M.H.B, REM, REMOD, RET, R.O.W, R&R, R&R, R&S, R&D, SB, NIC, H.C, WCR, FF, HMA, G.C, E.C, P.C, SWEL, BWLL, SYEL, SBWH, CLF, TEMP, TYP, EQ, H.C, EOP, PROT, CTE, RL, L.O.W, VIF, APPROX, TBM, ALT, BWV

UTILITIES

Table with 2 columns: Abbreviation and Description for Utilities items like GICI, CBICI, CB, C.I.T, CTE, F&S, F&C, CI, CIP, CMP, DI, GI, ACCM PIPE, HYD, INV. ELEV., UP, SMH, WG, DS, HDPE, PVC, RCP, DMH, LB, LG, CI, OCS, OGT, VC, OHW, UPLP, SWTU, HH, GW, CO, LC, GV

ALIGNMENT/GRADING

Table with 2 columns: Abbreviation and Description for Alignment/Grading items like BW, BC, PI, PC, PRO, PCC, PVI, PVC, PVT, ELEV, CC, H.P, L.P, R, STA, S.S.D, TC, TW

EXISTING

Table with 2 columns: Symbol and Description for Existing items like HH, EMH, TMH, SMH, DMH, GG, WG, LP, D, S, E, C, G, W, OHW, GUARD RAIL, LABEL / DATE, NAME, 12 N00° 00' 00" E, +57.59 PC, CLF, WOOD FENCE, M.#.#, TP1, TP2, MON WELL (TYP), UP 8, FLAG POLE, CBF, BVW-A1

PROPOSED

Table with 2 columns: Symbol and Description for Proposed items like CURB (OR BERM)-TYPE NOTED, EDGE OF ROAD, HANDHOLE (NUMBER AS NOTED), ELECTRIC MANHOLE, TELEPHONE MANHOLE, SEWER MANHOLE, DRAINAGE MANHOLE, GAS GATE, WATER GATE VALVE, HYDRANT, WELL, LIGHTPOLE, DRAIN PIPE, SEWER MAIN, SEWER MAIN BY P.C., ELECTRIC DUCT, TELEPHONE/COMMUNICATIONS/FIRE ALARM, GARAGE WASTE LINE, GARAGE WASTE LINE BY P.C., VENTS BY P.C., GAS MAIN, WATER MAIN, OVERHEAD WIRES, GUARD RAIL (SIZE AND TYPE NOTED), HIGHWAY / PROPERTY BOUND (TYPE NOTED), CITY OR CITY OR COUNTY LAYOUT LINE, CITY,CITY OR COUNTY BOUNDARY, BASE OR SURVEY LINE, CENTERLINE OF CONSTRUCTION, PROPERTY LINE, WHEELCHAIR RAMP (WCR), TREE (SIZE AND TYPE NOTED), FENCE (SIZE AND TYPE NOTED), EASEMENT LINE/ FUTURE CITY PROPERTY LINE, MASSHIGHWAY STANDARD SPECIFICATION REFERENCE NUMBER, TEST PIT/BORINGS, MONITORING WELL, GUY POLE, FLAG POLE, SIGN, TREE LINE, BOLLARD, BIKE RACK, SAWCUT, EROSION CONTROL (SPECIFIED ON PLANS), OBSERVATION WELL, LIMIT OF WORK, TEMPORARY FENCE, CONCRETE BOUND FOUND, TEMPORARY BENCHMARK (TBM), DI WATER REDUCER, WETLAND FLAG

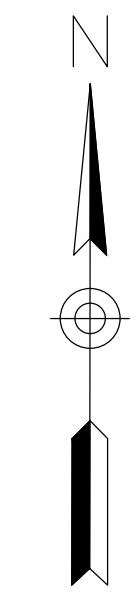
GENERAL SYMBOLS

DEC CHAIRPERSON DATE: SIGNATURE:

NOTES:

- 1) THE TURTLE GATE SHALL BE COMPOSED OF A PLYWOOD SURFACE AND 2"x4" STAND, OR SIMILAR STURDY ASSEMBLAGE, THAT WILL PREVENT TURTLES FROM ENTERING THE WORK AREA WHEN PLACED FLUSH WITH THE GROUND SURFACE AND THE ADJACENT TEMPORARY TURTLE BARRIERS. THE TURTLE GATE MAY BE OPENED DURING THE WORK DAY AND MUST BE CLOSED AT THE WORK DAY'S END BETWEEN APRIL 1ST AND OCTOBER 31ST.
- 2) PRIOR TO ANY LAND DISTURBANCE ACTIVITIES COMMENCING ON THE SITE, THE APPLICANT/CONTRACTOR SHALL BE RESPONSIBLE FOR PHYSICALLY MARKING THE LIMITS OF CONSTRUCTION ON THE SITE WITH TAPE, SIGNS, OR ORANGE CONSTRUCTION FENCE, SO THAT WORKERS UNDERSTAND THE AREAS TO BE PROTECTED. THE PHYSICAL MARKERS SHALL BE INSPECTED DAILY AND REPAIRED AS NECESSARY THROUGHOUT THE DURATION OF THE PROJECT.
- 3) PERIMETER SEDIMENT CONTROL SYSTEM SHALL BE INSTALLED PRIOR TO SOIL DISTURBANCE AND MAINTAINED TO CONTAIN SOILS ON-SITE. AREAS OUTSIDE OF THE PERIMETER SEDIMENT CONTROL SYSTEM MUST NOT BE DISTURBED UNLESS THE APPLICANT HAS OBTAINED PRIOR APPROVAL FROM THE DEC.
- 4) MEASURES SHALL BE TAKEN TO CONTROL EROSION WITHIN THE PROJECT AREA. SEDIMENT IN RUNOFF WATER SHALL BE TRAPPED AND RETAINED WITHIN THE PROJECT AREA AND STREET SWEEPING OF ADJACENT STREETS AND ROADS SHALL BE INCLUDED WHERE NECESSARY.
- 5) ALL RESOURCE AREAS SHALL BE PROTECTED FROM SEDIMENT.
- 6) MONITORING AND MAINTENANCE OF EROSION AND SEDIMENT CONTROL MEASURES THROUGHOUT THE COURSE OF CONSTRUCTION SHALL BE REQUIRED. SEDIMENT SHALL BE REMOVED ONCE THE VOLUME REACHES 1/4 TO 1/2 THE HEIGHT OF THE EROSION CONTROL.
- 7) DIVERT RUNOFF FROM OFFSITE AND UNDISTURBED AREAS AWAY FROM CONSTRUCTION TO MINIMIZE SOIL EROSION AND SEDIMENTATION ON AND OFF-SITE. TEMPORARILY STABILIZE ALL HIGHLY ERODIBLE SOILS AND SLOPES IMMEDIATELY.
- 8) LAND DISTURBANCE ACTIVITIES EXCEEDING TWO ACRES IN SIZE SHALL NOT BE DISTURBED WITHOUT A SEQUENCING PLAN THAT REQUIRES STORMWATER CONTROLS TO BE INSTALLED AND EXPOSED SOILS STABILIZED, AS DISTURBANCE BEYOND THE TWO ACRES CONTINUES. A CONSTRUCTION PHASING PLAN, INCLUDING EROSION AND SEDIMENT CONTROL PLAN FOR EACH PHASE, SHALL BE SUBMITTED TO THE DEC PRIOR TO ANY CONSTRUCTION ON THE SITE. MASS CLEARINGS AND GRADING OF THE ENTIRE SITE SHALL BE AVOIDED. SOIL STOCKPILES MUST BE STABILIZED OR COVERED AT THE END OF EACH WORKDAY. STOCKPILE SIDE SLOPES SHALL NOT BE GREATER THAN 2:1. ALL STOCKPILES SHALL BE SURROUNDED BY SEDIMENT CONTROLS.
- 10) DISTURBED AREAS REMAINING IDLE FOR MORE THAN 14 DAYS SHALL BE TEMPORARILY OR PERMANENTLY STABILIZED.
- 11) PERMANENT SEEDING SHALL BE UNDERTAKEN IN THE SPRING FROM MARCH THROUGH MAY, AND IN LATE SUMMER AND EARLY FALL FROM AUGUST TO OCTOBER 15. DURING THE PEAK SUMMER MONTHS AND IN THE FALL AFTER OCTOBER 15, WHEN SEEDING IS FOUND TO BE IMPRACTICAL, AN APPROPRIATE TEMPORARY MULCH AND/OR NON-ASPHALTIC SOIL TACKIFIER WITH WINTER RYE SHALL BE APPLIED. PERMANENT SEEDING MAY BE UNDERTAKEN DURING THE SUMMER IF PLANS PROVIDE FOR ADEQUATE MULCHING AND WATERING.
- 12) ANTI-TRACKING PAD(S) SHALL BE CONSTRUCTED AT ALL ENTRANCE/EXIST POINTS OF THE SITE TO REDUCE THE AMOUNT OF SOIL CARRIED ONTO ROADWAYS AND OFF THE SITE. DUST SHALL ALSO BE CONTROLLED AT THE SITE.
- 13) ALL SLOPES STEEPER THAN 3:1 (H:V, 33.3%), AS WELL AS PERIMETER DIKES, SEDIMENT BASINS OR TRAPS, AND EMBANKMENTS MUST, UPON COMPLETION, BE IMMEDIATELY STABILIZED WITH SOD, SEED AND ANCHORED STRAW MULCH, OR OTHER APPROVED STABILIZATION MEASURES.
- 14) TEMPORARY SEDIMENT TRAPPING DEVICES MUST NOT BE REMOVED UNTIL PERMANENT STABILIZATION IS ESTABLISHED IN ALL CONSTRUCTION AREAS ASSOCIATED WITH THE PROJECT. SIMILARLY, STABILIZATION MUST BE ESTABLISHED PRIOR TO CONVERTING TEMPORARY SEDIMENT TRAPS/BASINS INTO PERMANENT (POST-CONSTRUCTION) STORMWATER MANAGEMENT FACILITIES. ALL FACILITIES USED FOR TEMPORARY MEASURES SHALL BE CLEANED AND RE-STABILIZED PRIOR TO BEING PUT INTO FINAL OPERATION.
- 15) ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED AFTER FINAL SITE STABILIZATION. DISTURBED SOIL AREAS RESULTING FROM THE REMOVAL OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED WITHIN 30 DAYS OF REMOVAL.

TREE TYPE	SCIENTIFIC NAME	COMMON NAME
PR	PINUS RESINOSA	RED PINE
QR	QUERCUS RUBRA	RED OAK
PS	PINUS STROBUS	WHITE PINE
UA	ULMUS AMERICANA	AMERICAN ELM
AR	ACER RUBRUM	RED MAPLE
PT	POPULUS TREMULOIDES	QUAKING ASPEN
BP	BETULA POPULIFOLIA	GRAY BIRCH



Project:
MASSACHUSETTS DEVELOPMENT FINANCE AGENCY

MassDevelopment

MACPHERSON WELL
 PFAS TREATMENT PROJECT

44 MACPHERSON RD,
 DEVENS, MA 01434

Weston & Sampson

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 Reading, MA 01867
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Consultants:

Seal:

Revisions:

Rev	Date	Description

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Date: OCTOBER 7, 2020

Drawn By: AKG

Reviewed By: JIP

Approved By: JIP

W&S Project No: 2190356

Drawing Title:

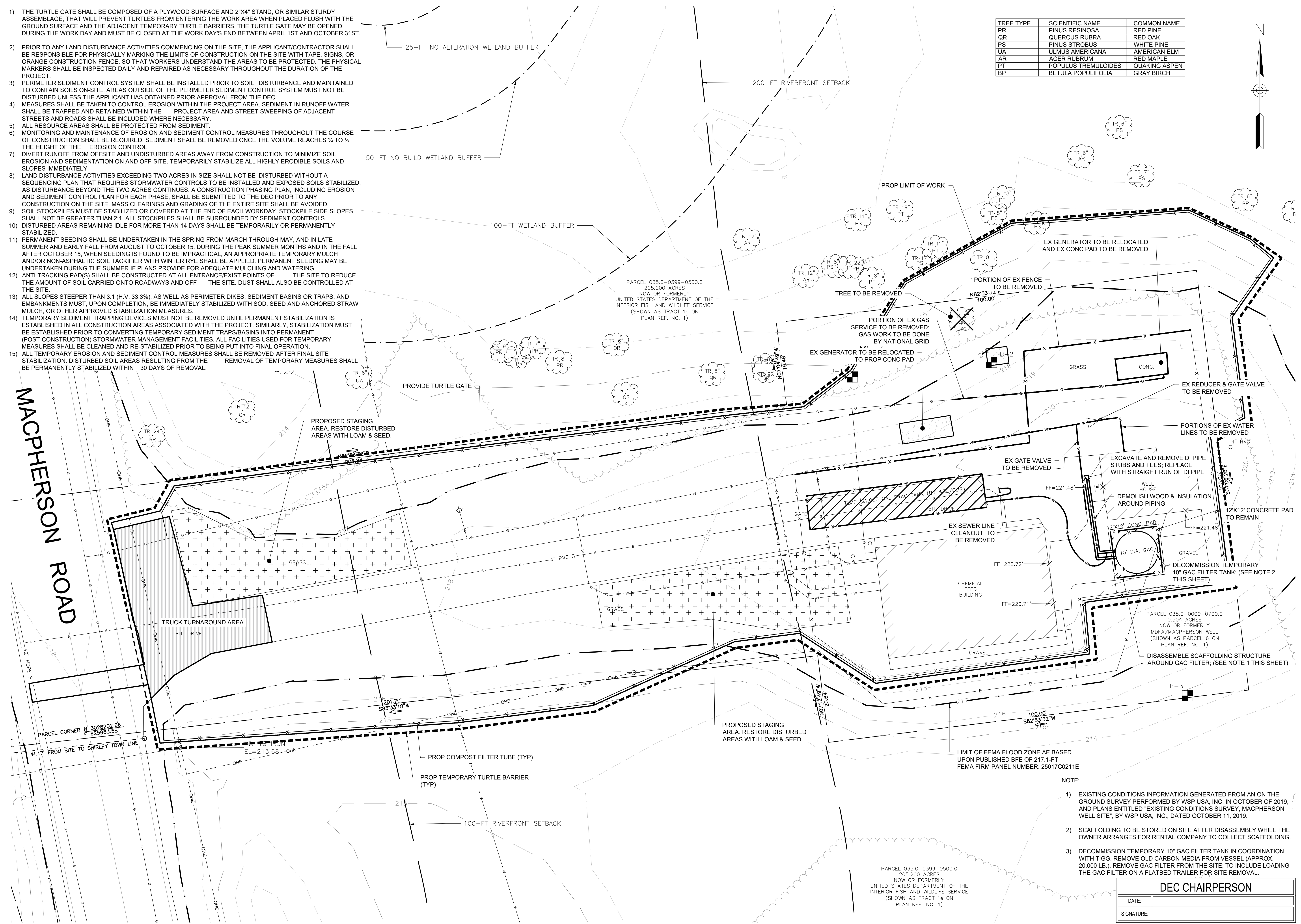
SITE PREP & DEMOLITION PLAN

Sheet Number:

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MACPHERSON ROAD



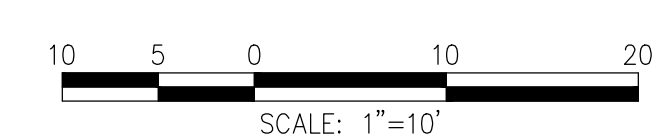
NOTE:

- 1) EXISTING CONDITIONS INFORMATION GENERATED FROM AN ON THE GROUND SURVEY PERFORMED BY WSP USA, INC. IN OCTOBER OF 2019, AND PLANS ENTITLED "EXISTING CONDITIONS SURVEY, MACPHERSON WELL SITE", BY WSP USA, INC., DATED OCTOBER 11, 2019.
- 2) SCAFFOLDING TO BE STORED ON SITE AFTER DISASSEMBLY WHILE THE OWNER ARRANGES FOR RENTAL COMPANY TO COLLECT SCAFFOLDING.
- 3) DECOMMISSION TEMPORARY 10" GAC FILTER TANK IN COORDINATION WITH TIGG. REMOVE OLD CARBON MEDIA FROM VESSEL (APPROX. 20,000 LB.). REMOVE GAC FILTER FROM THE SITE; TO INCLUDE LOADING THE GAC FILTER ON A FLATBED TRAILER FOR SITE REMOVAL.

DEC CHAIRPERSON

DATE: _____

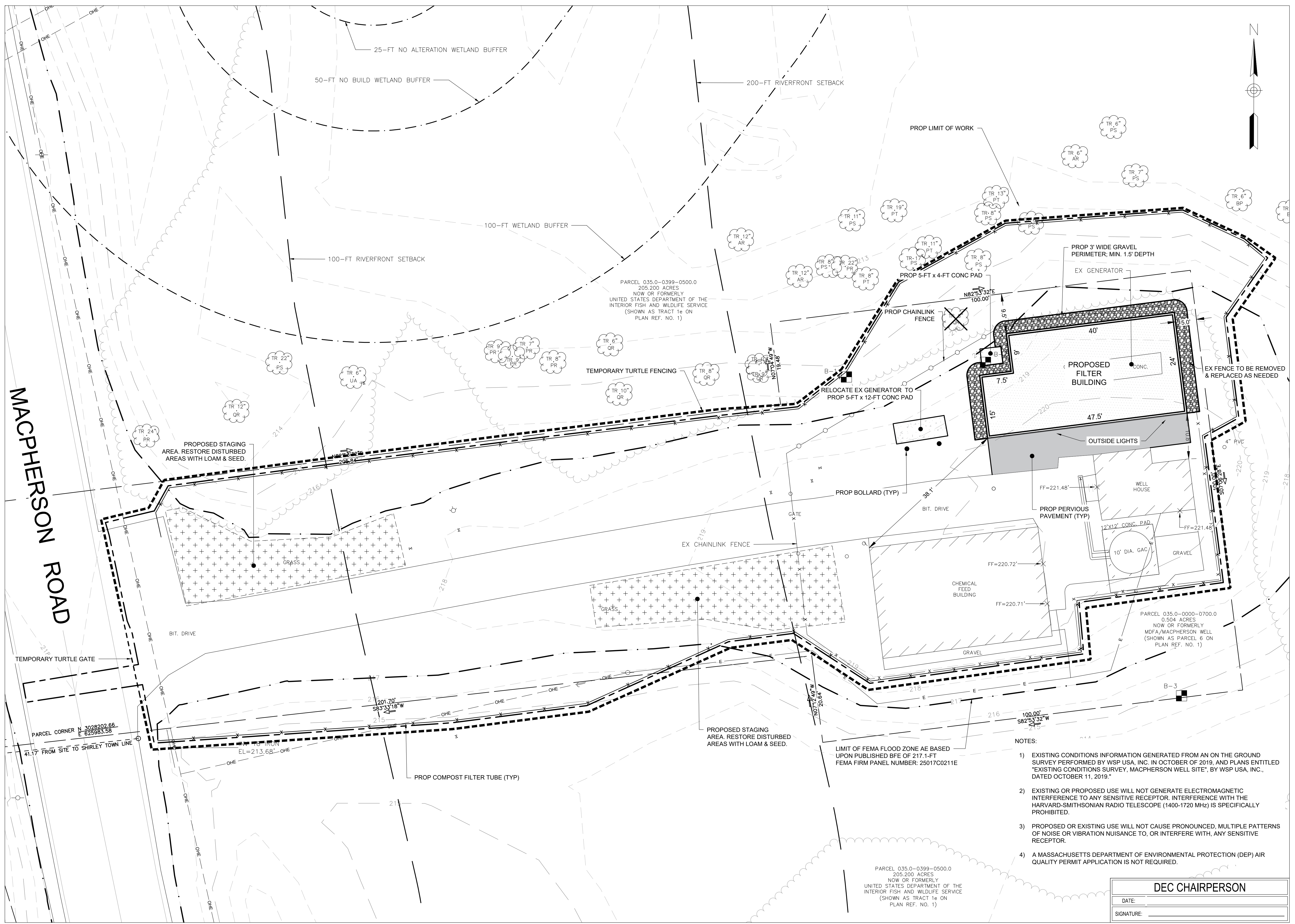
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PARCEL 035.0-0399-0500.0
 205.200 ACRES
 NOW OR FORMERLY
 UNITED STATES DEPARTMENT OF THE
 INTERIOR FISH AND WILDLIFE SERVICE
 (SHOWN AS TRACT 1e ON
 PLAN REF. NO. 1)

PARCEL 035.0-0000-0700.0
 0.504 ACRES
 NOW OR FORMERLY
 MFA/MACPHERSON WELL
 (SHOWN AS PARCEL 6 ON
 PLAN REF. NO. 1)





MACPHERSON ROAD

Project:
MASSACHUSETTS DEVELOPMENT FINANCE AGENCY

MassDevelopment

MACPHERSON WELL PFAS TREATMENT PROJECT

44 MACPHERSON RD, DEVENS, MA 01434

Weston & Sampson

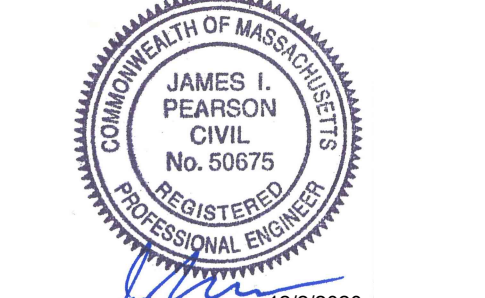
Weston & Sampson
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Seal:

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 Drawn By: AKG
 Reviewed By: JIP
 Approved By: JIP
 W&S Project No: 2190356

Drawing Title:
LAYOUT & MATERIALS PLAN

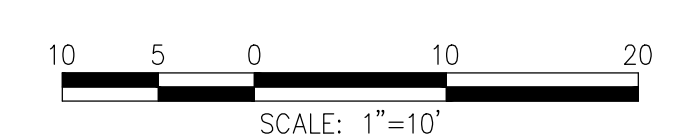
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C101

- NOTES:
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 - 2) EXISTING OR PROPOSED USE WILL NOT GENERATE ELECTROMAGNETIC INTERFERENCE TO ANY SENSITIVE RECEPTOR. INTERFERENCE WITH THE HARVARD-SMITHSONIAN RADIO TELESCOPE (1400-1720 MHz) IS SPECIFICALLY PROHIBITED.
 - 3) PROPOSED OR EXISTING USE WILL NOT CAUSE PRONOUNCED, MULTIPLE PATTERNS OF NOISE OR VIBRATION NUISANCE TO, OR INTERFERE WITH, ANY SENSITIVE RECEPTOR.
 - 4) A MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP) AIR QUALITY PERMIT APPLICATION IS NOT REQUIRED.

DEC CHAIRPERSON

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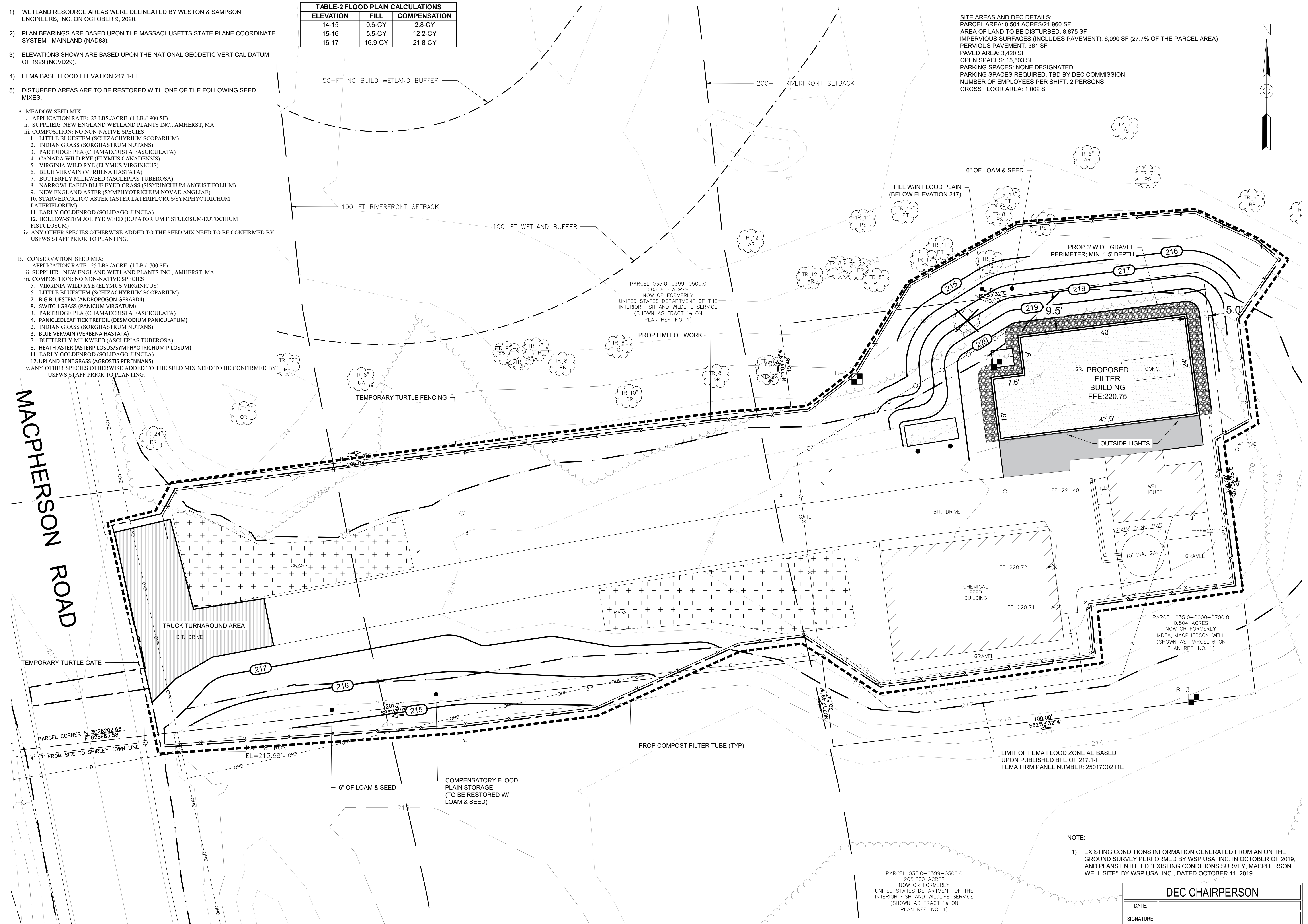
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 NOW OR FORMERLY
 MFA/MACPHERSON WELL
 (SHOWN AS PARCEL 6 ON
 PLAN REF. NO. 1)

NOTES:

- WETLAND RESOURCE AREAS WERE DELINEATED BY WESTON & SAMPSON ENGINEERS, INC. ON OCTOBER 9, 2020.
- PLAN BEARINGS ARE BASED UPON THE MASSACHUSETTS STATE PLANE COORDINATE SYSTEM - MAINLAND (NAD83).
- ELEVATIONS SHOWN ARE BASED UPON THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD29).
- FEMA BASE FLOOD ELEVATION 217.1-FT.
- DISTURBED AREAS ARE TO BE RESTORED WITH ONE OF THE FOLLOWING SEED MIXES:
 - MEADOW SEED MIX
 - APPLICATION RATE: 23 LBS./ACRE (1 LB./1900 SF)
 - SUPPLIER: NEW ENGLAND WETLAND PLANTS INC., AMHERST, MA
 - COMPOSITION: NO NON-NATIVE SPECIES
 - LITTLE BLUESTEM (SCHIZACHYRIUM SCOPARIUM)
 - INDIAN GRASS (SORGHASTRUM NUTANS)
 - PARTRIDGE PEA (CHAMAECRISTA FASCICULATA)
 - CANADA WILD RYE (ELYMUS CANADENSIS)
 - VIRGINIA WILD RYE (ELYMUS VIRGINICUS)
 - BLUE VERVAIN (VERBENA HASTATA)
 - BUTTERFLY MILKWEED (ASCLEPIAS TUBEROSA)
 - NARROWLEAFED BLUE EYED GRASS (SISYRINCHIUM ANGUSTIFOLIUM)
 - NEW ENGLAND ASTER (SYMPHYOTRICHUM NOVAE-ANGLIAE)
 - STARVED/CALICO ASTER (ASTER LATERIFLORUS/SYMPHYOTRICHUM LATERIFLORUM)
 - EARLY GOLDENROD (SOLIDAGO JUNCNEA)
 - HOLLOW-STEM JOE PYE WEED (EUPATORIUM FISTULOSUM/EUTOCHIUM FISTULOSUM)
 - ANY OTHER SPECIES OTHERWISE ADDED TO THE SEED MIX NEED TO BE CONFIRMED BY USFWS STAFF PRIOR TO PLANTING.
 - CONSERVATION SEED MIX:
 - APPLICATION RATE: 25 LBS./ACRE (1 LB./1700 SF)
 - SUPPLIER: NEW ENGLAND WETLAND PLANTS INC., AMHERST, MA
 - COMPOSITION: NO NON-NATIVE SPECIES
 - VIRGINIA WILD RYE (ELYMUS VIRGINICUS)
 - LITTLE BLUESTEM (SCHIZACHYRIUM SCOPARIUM)
 - BIG BLUESTEM (ANDROPOGON GERARDII)
 - SWITCH GRASS (PANICUM VIRGATUM)
 - PARTRIDGE PEA (CHAMAECRISTA FASCICULATA)
 - PANICLEDLEAF TICK TREFOIL (DESMODIUM PANICULATUM)
 - INDIAN GRASS (SORGHASTRUM NUTANS)
 - BLUE VERVAIN (VERBENA HASTATA)
 - BUTTERFLY MILKWEED (ASCLEPIAS TUBEROSA)
 - HEATH ASTER (ASTER PILOSUS/SYMPHYOTRICHUM PILOSUM)
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TABLE-2 FLOOD PLAIN CALCULATIONS		
ELEVATION	FILL	COMPENSATION
14-15	0.6-CY	2.8-CY
15-16	5.5-CY	12.2-CY
16-17	16.9-CY	21.8-CY

SITE AREAS AND DEC DETAILS:
 PARCEL AREA: 0.504 ACRES/21,960 SF
 AREA OF LAND TO BE DISTURBED: 8,875 SF
 IMPERVIOUS SURFACES (INCLUDES PAVEMENT): 6,090 SF (27.7% OF THE PARCEL AREA)
 PERVIOUS PAVEMENT: 361 SF
 PAVED AREA: 3,420 SF
 OPEN SPACES: 15,503 SF
 PARKING SPACES: NONE DESIGNATED
 PARKING SPACES REQUIRED: TBD BY DEC COMMISSION
 NUMBER OF EMPLOYEES PER SHIFT: 2 PERSONS
 GROSS FLOOR AREA: 1,002 SF



Project:
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 DEVELOPMENT FINANCE
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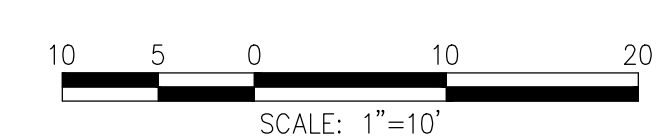
Drawing Title:
**GRADING &
 DRAINAGE PLAN**

Sheet Number:
C102

NOTE:
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NOTES:

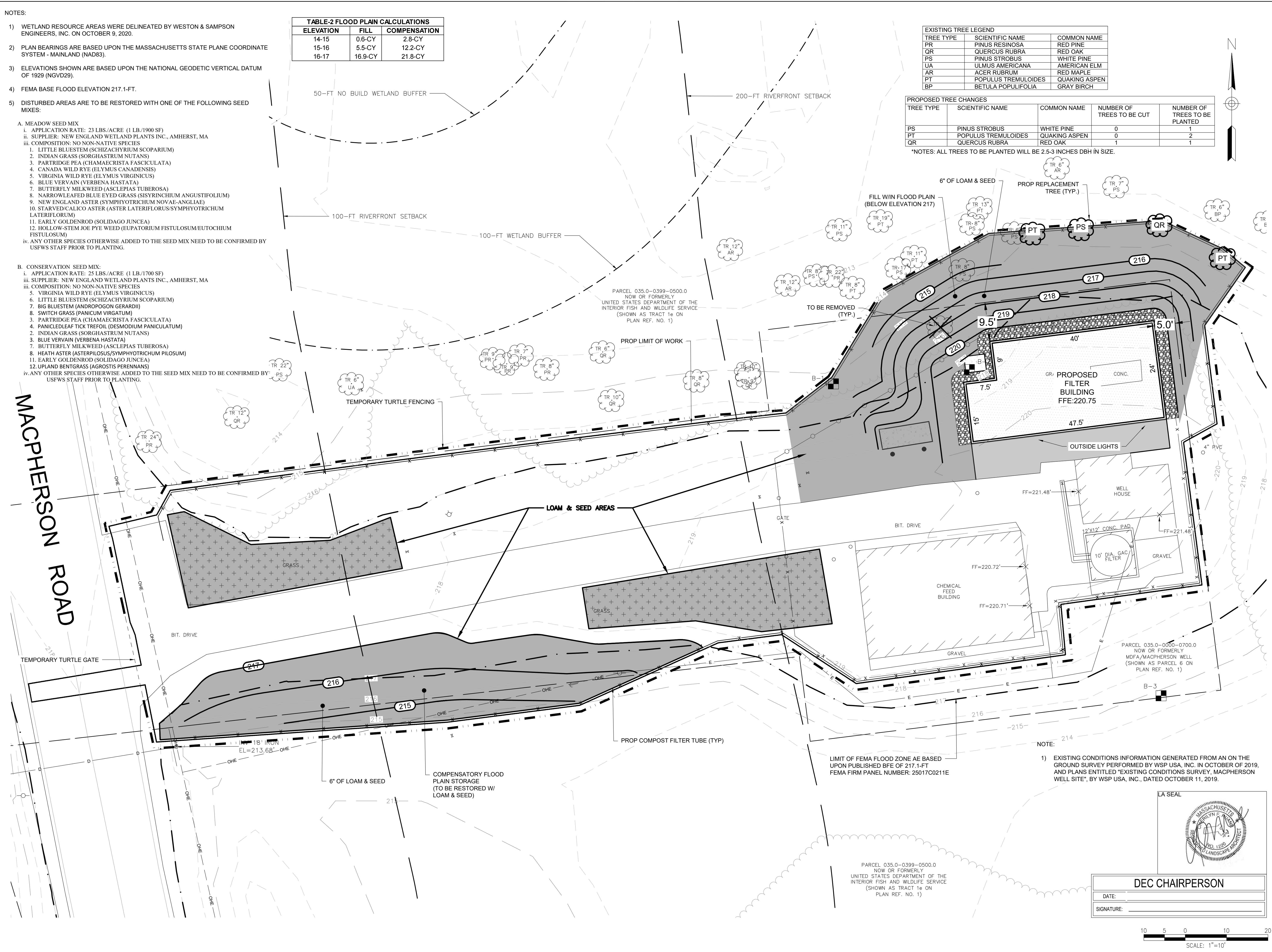
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- 4) FEMA BASE FLOOD ELEVATION 217.1-FT.
- 5) DISTURBED AREAS ARE TO BE RESTORED WITH ONE OF THE FOLLOWING SEED MIXES:
 - A. MEADOW SEED MIX
 - i. APPLICATION RATE: 23 LBS./ACRE (1 LB./1900 SF)
 - ii. SUPPLIER: NEW ENGLAND WETLAND PLANTS INC., AMHERST, MA
 - iii. COMPOSITION: NO NON-NATIVE SPECIES
 1. LITTLE BLUESTEM (SCHIZACHYRIUM SCOPARIUM)
 2. INDIAN GRASS (SORGHASTRUM NUTANS)
 3. PARTRIDGE PEA (CHAMAECRISTA FASCICULATA)
 4. CANADA WILD RYE (ELYMUS CANADENSIS)
 5. VIRGINIA WILD RYE (ELYMUS VIRGINICUS)
 6. BLUE VERVAIN (VERBENA HASTATA)
 7. BUTTERFLY MILKWEED (ASCLEPIAS TUBEROSA)
 8. NARROWLEAFED BLUE EYED GRASS (SISYRINCHIUM ANGUSTIFOLIUM)
 9. NEW ENGLAND ASTER (SYMPHYOTRICHUM NOVAE-ANGLIAE)
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 - iv. ANY OTHER SPECIES OTHERWISE ADDED TO THE SEED MIX NEED TO BE CONFIRMED BY USFWS STAFF PRIOR TO PLANTING.
 - B. CONSERVATION SEED MIX:
 - i. APPLICATION RATE: 25 LBS./ACRE (1 LB./1700 SF)
 - ii. SUPPLIER: NEW ENGLAND WETLAND PLANTS INC., AMHERST, MA
 - iii. COMPOSITION: NO NON-NATIVE SPECIES
 1. VIRGINIA WILD RYE (ELYMUS VIRGINICUS)
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16-17	16.9-CY	21.8-CY

EXISTING TREE LEGEND		
TREE TYPE	SCIENTIFIC NAME	COMMON NAME
PR	PINUS RESINOSA	RED PINE
QR	QUERCUS RUBRA	RED OAK
PS	PINUS STROBILUS	WHITE PINE
UA	ULMUS AMERICANA	AMERICAN ELM
AR	ACER RUBRUM	RED MAPLE
PT	POPULUS TREMULOIDES	QUAKING ASPEN
BP	BETULA POPULIFOLIA	GRAY BIRCH

PROPOSED TREE CHANGES				
TREE TYPE	SCIENTIFIC NAME	COMMON NAME	NUMBER OF TREES TO BE CUT	NUMBER OF TREES TO BE PLANTED
PS	PINUS STROBILUS	WHITE PINE	0	1
PT	POPULUS TREMULOIDES	QUAKING ASPEN	0	2
QR	QUERCUS RUBRA	RED OAK	1	1

*NOTES: ALL TREES TO BE PLANTED WILL BE 2.5-3 INCHES DBH IN SIZE.



Project:
MASSACHUSETTS
DEVELOPMENT FINANCE
AGENCY



MACPHERSON WELL
PFAS TREATMENT PROJECT

44 MACPHERSON RD,
DEVENS, MA 01434



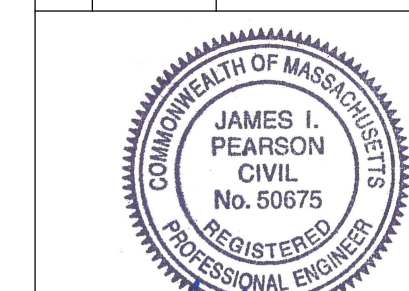
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Issued For: PERMITTING - NOT
FOR CONSTRUCTION

Date: OCTOBER 7, 2020

Drawn By: AKG

Reviewed By: JIP

Approved By: JIP

W&S Project No: 2190356

Drawing Title:

RESTORATION
PLAN

Sheet Number:

C104

Consultants:

Seal:

Revisions:

Rev	Date	Description



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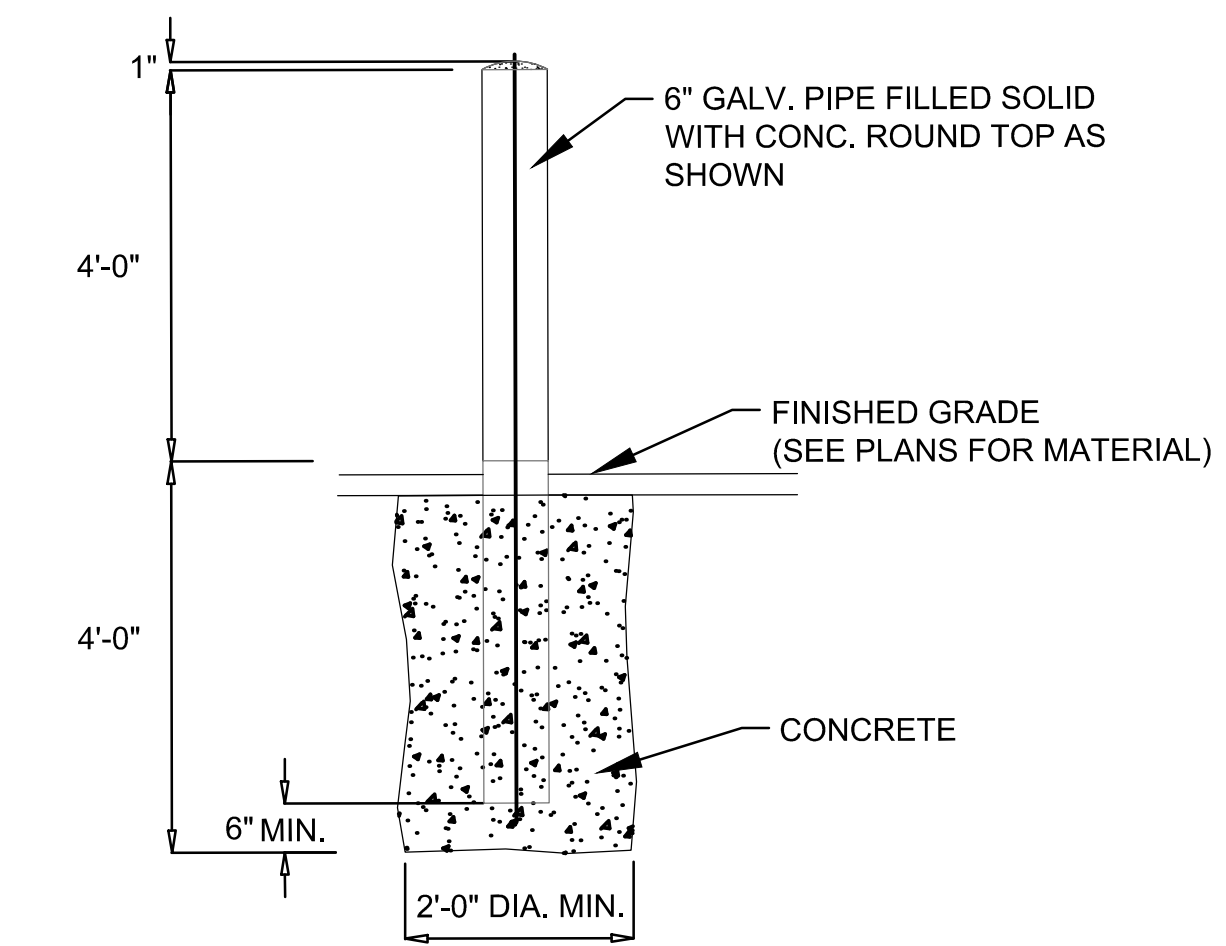
W&S Project No: 2190356

Drawing Title:

CONSTRUCTION
DETAILS

Sheet Number:

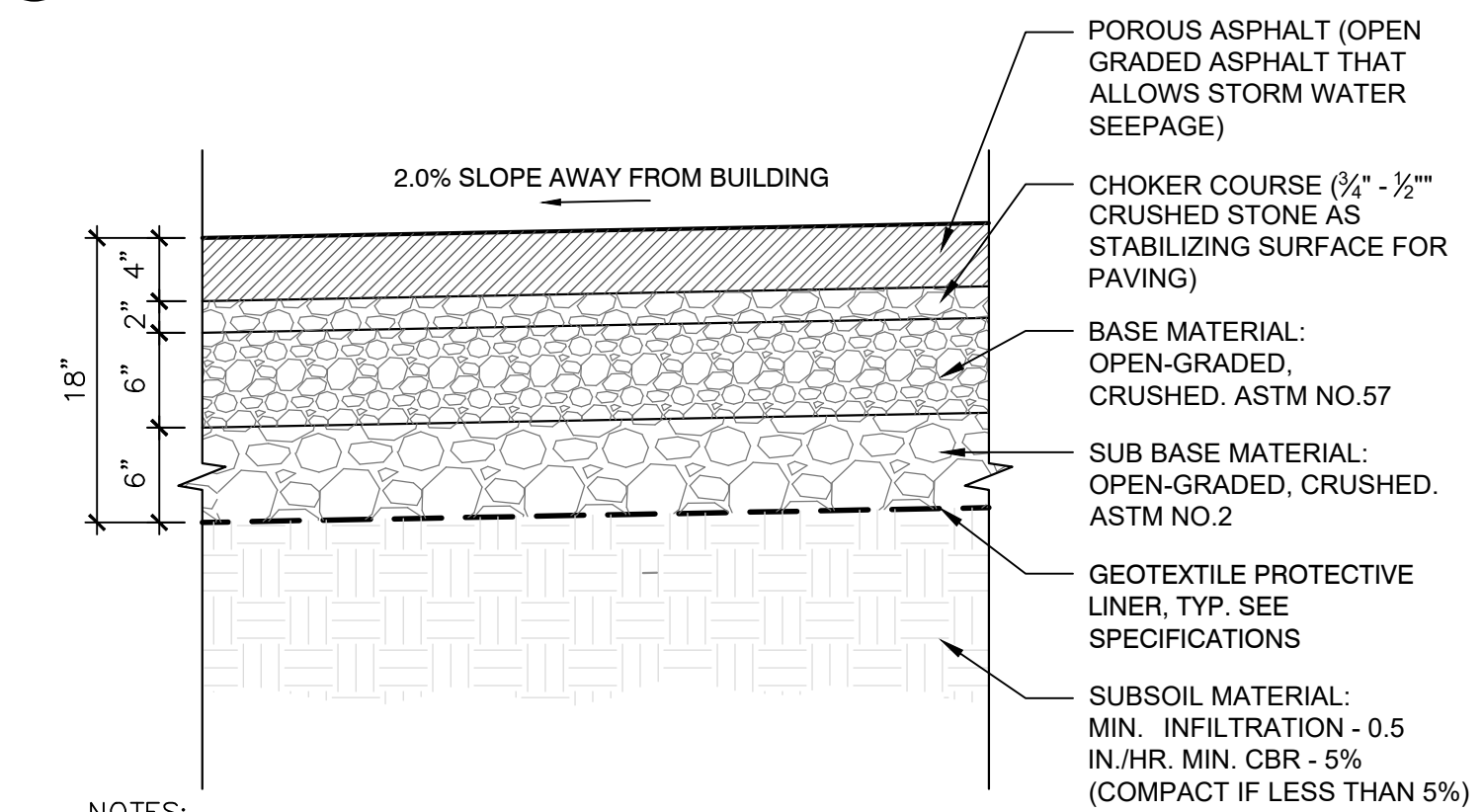
C501



NOTES:

1. BOLLARD FOUNDATION CONCRETE TO BE 3000 PSI MIN.
2. 6\"/>

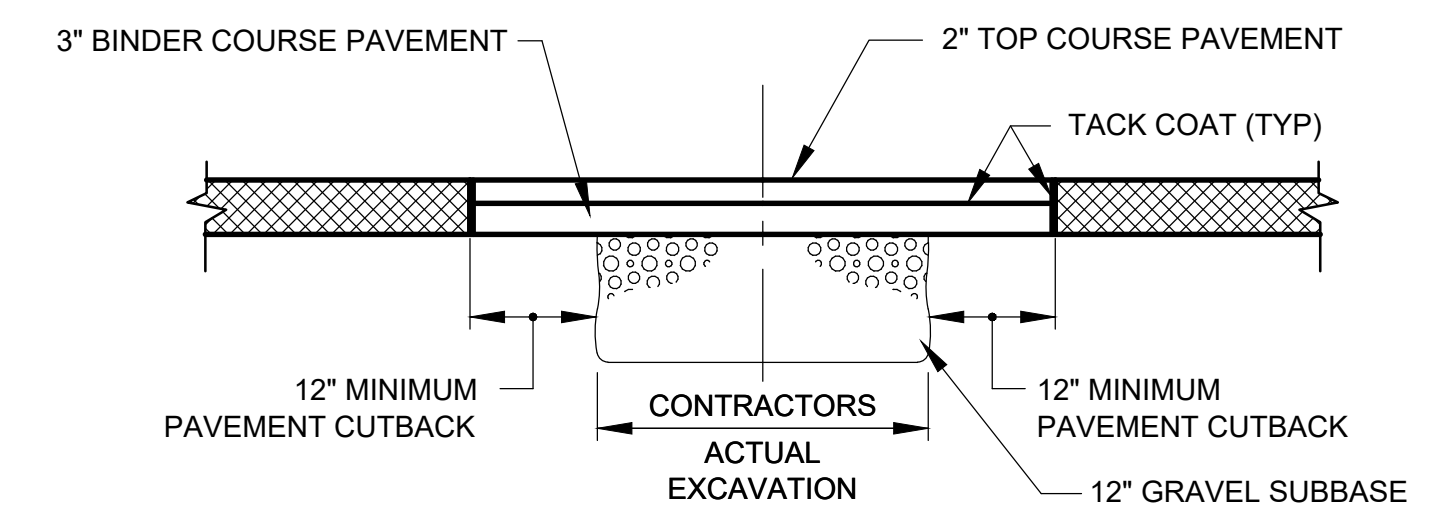
4 BOLLARD
SCALE: N.T.S.



NOTES:

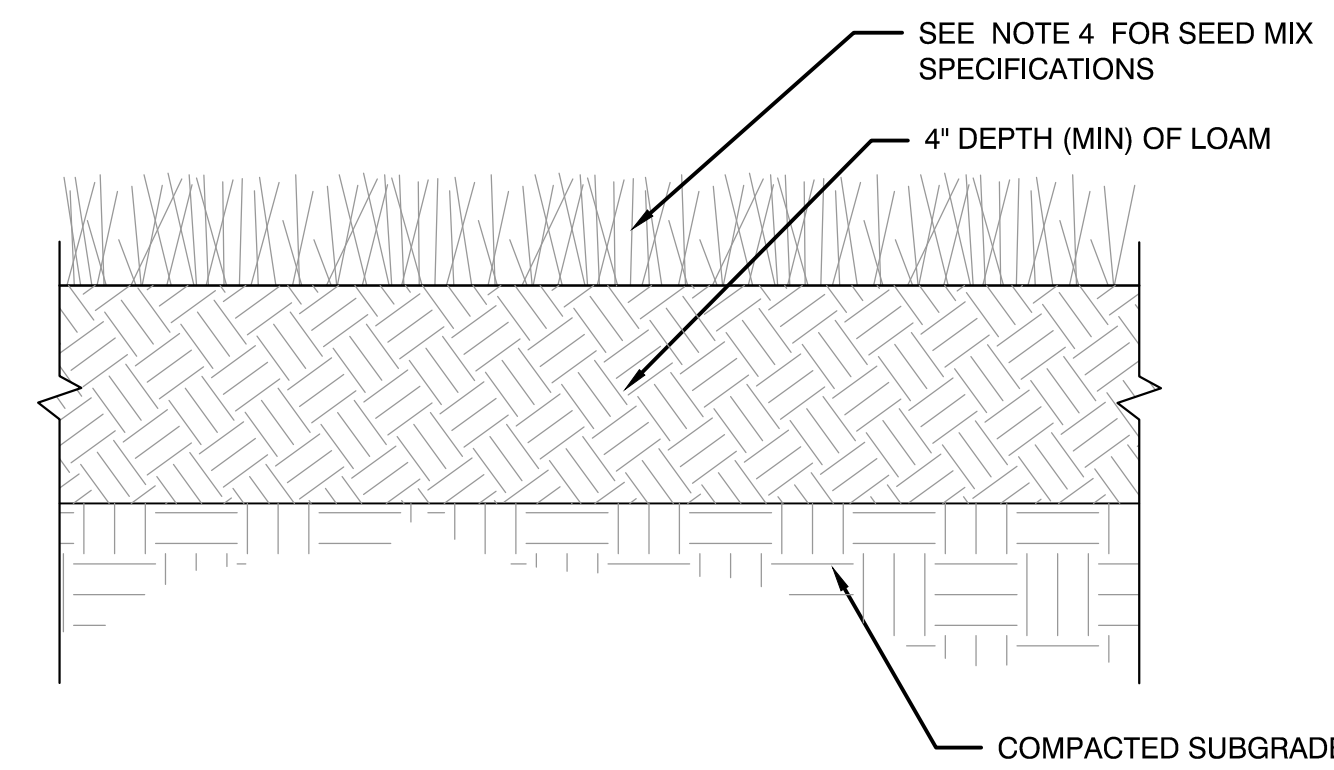
1. ALL AGGREGATE MATERIAL SHALL BE CRUSHED, ANGULAR STONE AND FREE OF FINES.
2. SURFACE SLOPE SHALL BE A MINIMUM OF 1% AND A MAXIMUM OF 5%.
3. THE MINIMUM AGGREGATE THICKNESS ARE AFTER COMPACTION.

5 TYPE 2: PERVIOUS PAVEMENT CROSS-SECTION
SCALE: N.T.S.

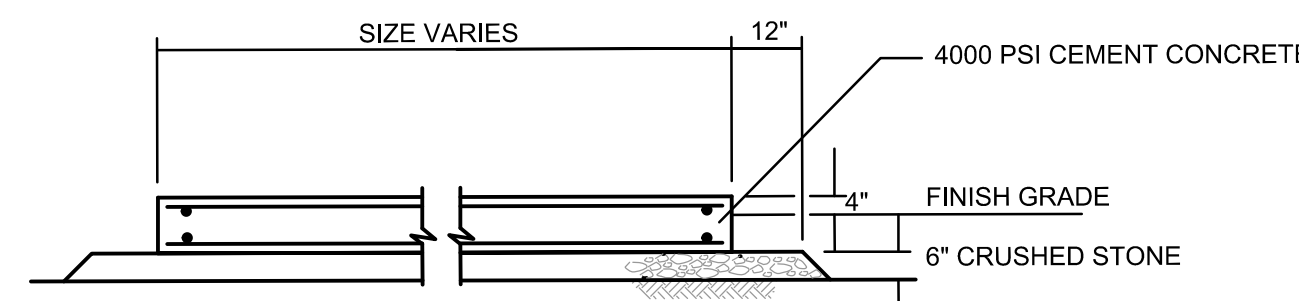


NOTE:
THIS DETAIL SHALL BE USED FOR PERMANENT TRENCH PAVING OVER NEW WATER, SEWER, AND UTILITY TRENCHES OUTSIDE THE LIMITS OF THE PERVIOUS PAVEMENT SHOWN ON THE PLANS.

7 TYPE 1: PERMANENT TRENCH PAVEMENT
SCALE: N.T.S.



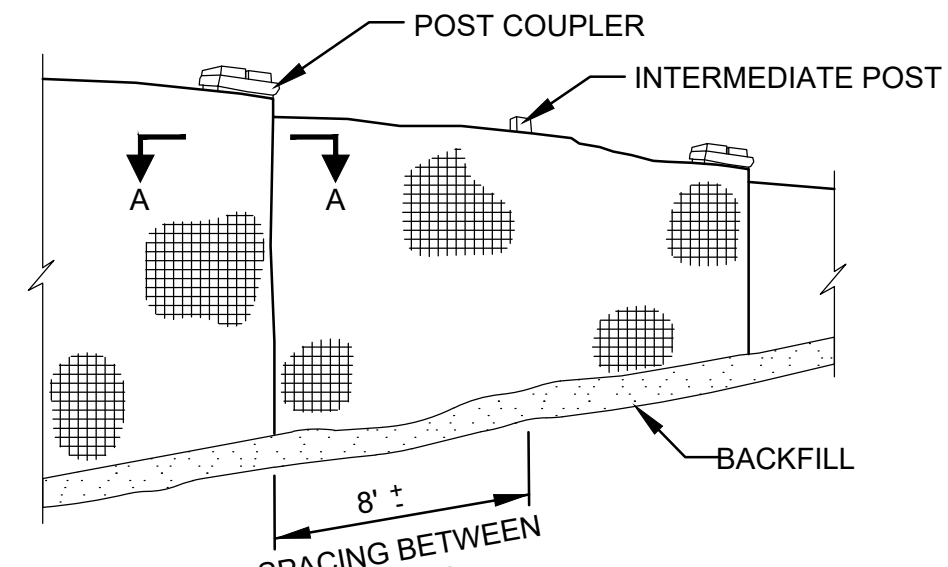
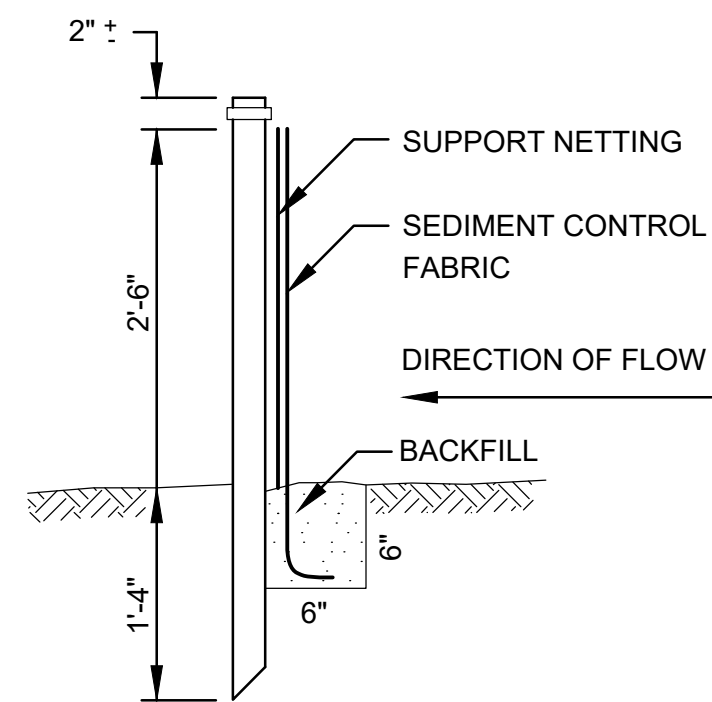
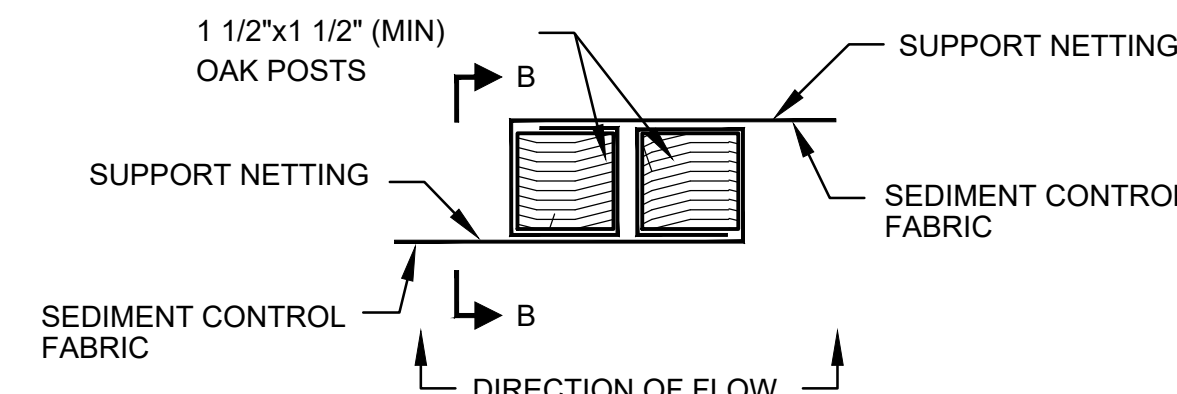
2 LOAM & SEED
SCALE: N.T.S.



NOTES:

1. GENERAL CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION OF ALL CONCRETE PADS.
2. SEE LAYOUT AND GRADING PLANS FOR FINISH GRADE
3. COORDINATE WITH ALL CONTRACTORS AND ADJUST PAD LOCATIONS IN FIELD
4. SLABS 8\"/>

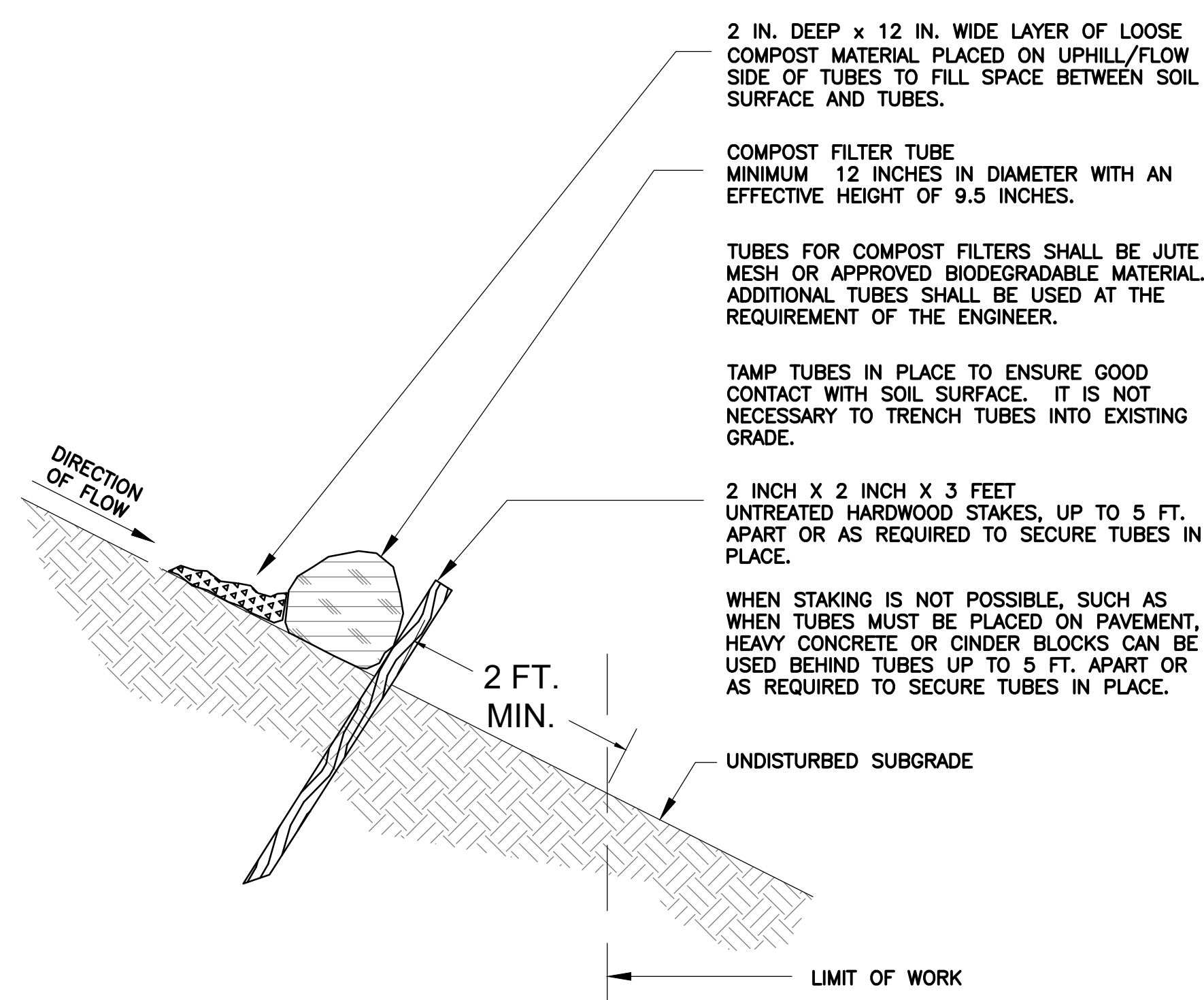
3 CONCRETE PAD
SCALE: N.T.S.



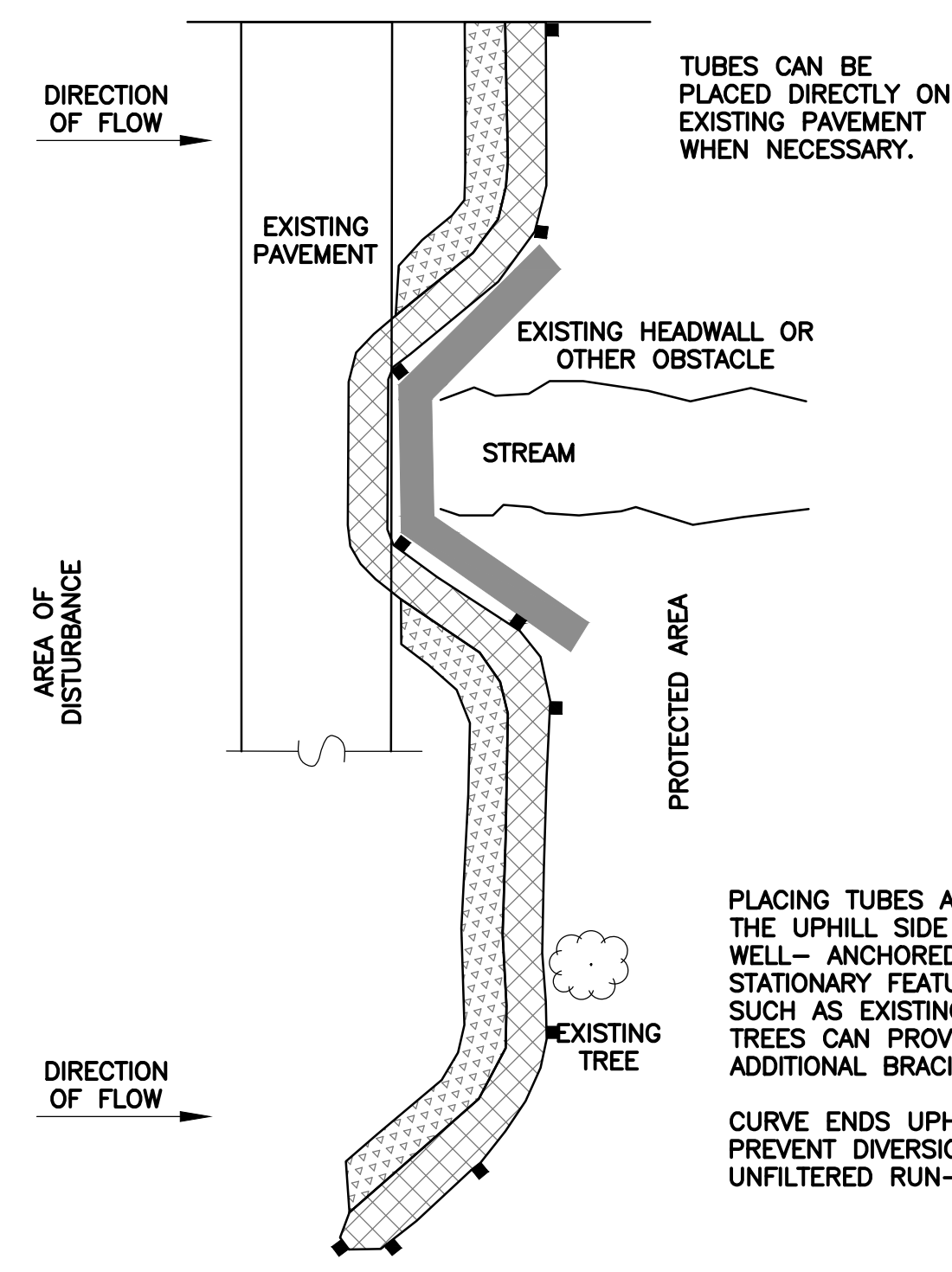
SECTION B-B

ELEVATION

1 TURTLE BARRIER
SCALE: N.T.S.



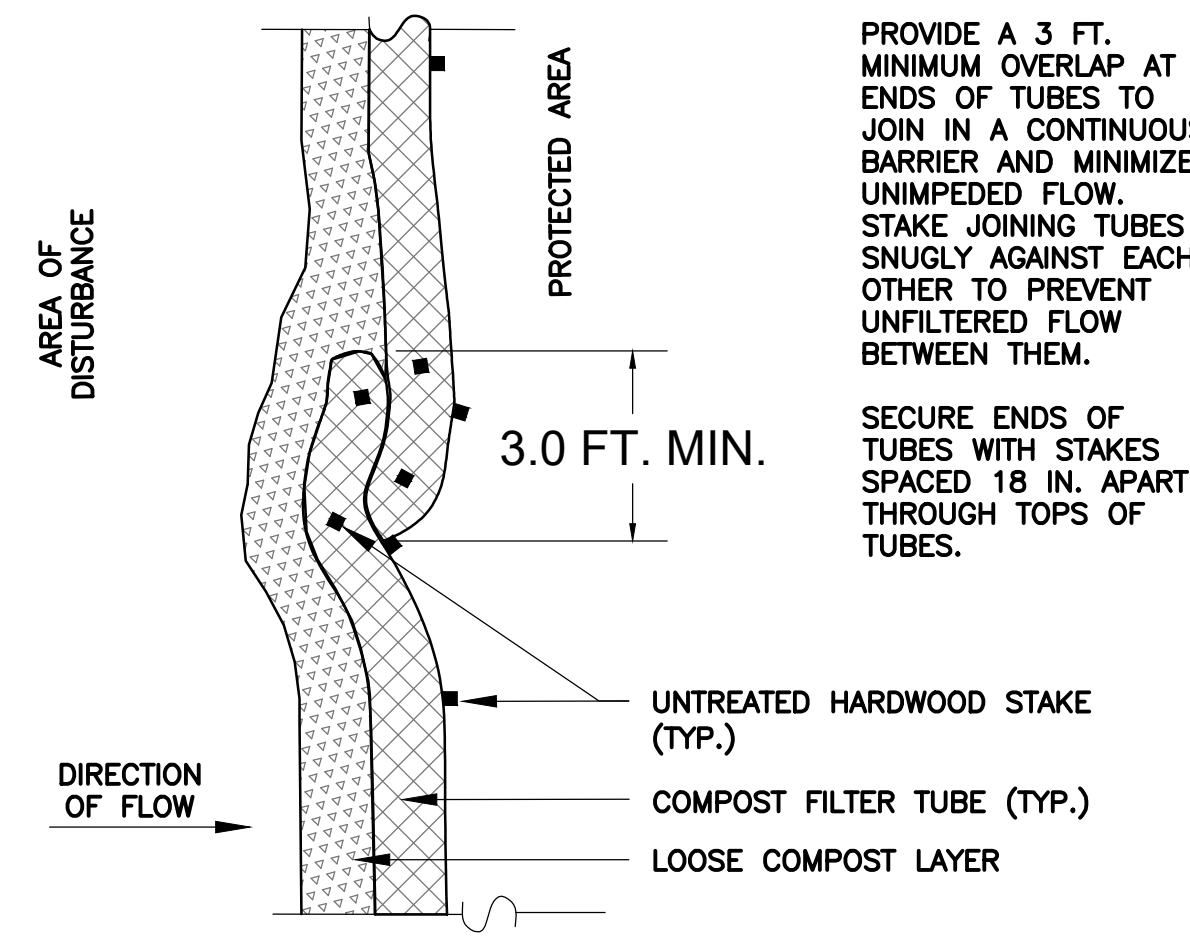
6 COMPOST FILTER TUBE
SCALE: N.T.S.



PLAN VIEW

GENERAL NOTES:

1. PROVIDE A MINIMUM TUBE DIAMETER OF 12 INCHES FOR SLOPES UP TO 50 FEET IN LENGTH WITH A SLOPE RATIO OF 3H:1V OR STEEPER. LONGER SLOPES OF 3H:1V MAY REQUIRE LARGER TUBE DIAMETER OR ADDITIONAL COURSING OF FILTER TUBES TO CREATE A FILTER BERM. REFER TO MANUFACTURER'S RECOMMENDATIONS FOR SITUATIONS WITH LONGER OR STEEPER SLOPES.
2. INSTALL TUBES ALONG CONTOURS AND PERPENDICULAR TO SHEET OR CONCENTRATED FLOW.
3. DO NOT INSTALL IN PERENNIAL, EPHEMERAL OR INTERMITTENT STREAMS.
4. CONFIGURE TUBES AROUND EXISTING SITE FEATURES TO MINIMIZE SITE DISTURBANCE AND MAXIMIZE CAPTURE AREA OF STORMWATER RUN-OFF.

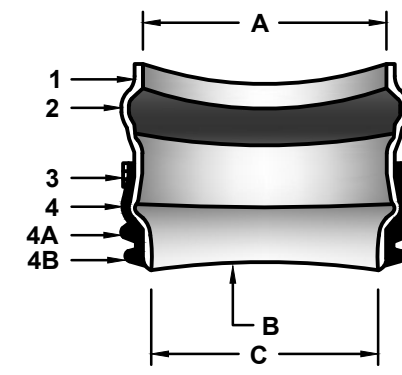


PLAN VIEW - JOIN DETAIL

DEC CHAIRPERSON
DATE: _____
SIGNATURE: _____

SDR 35 GASKETED BELL GRAVITY APPLICATIONS

- A. EQUIVALENT O.BELL END ACCEPTS PIPE WITH SDR 35, ASTM D3034 OR EQUIVALENT O.D. SPECIFICATION IN 8", 10", 12", 15", 18", 21", 24", 27", AND 30" SIZES. (FOR 4" AND 6" SIZES REFER TO FATBOY SPECIFICATIONS).
- B. CURVATURE VARIES WITH MAINLINE DIAMETERS.
- C. SPIGOT END PVC SDR 35, ASTM D3034 DIAMETERS: 8", 10", 12", 15", 18", 21", 24", 27" AND 30"



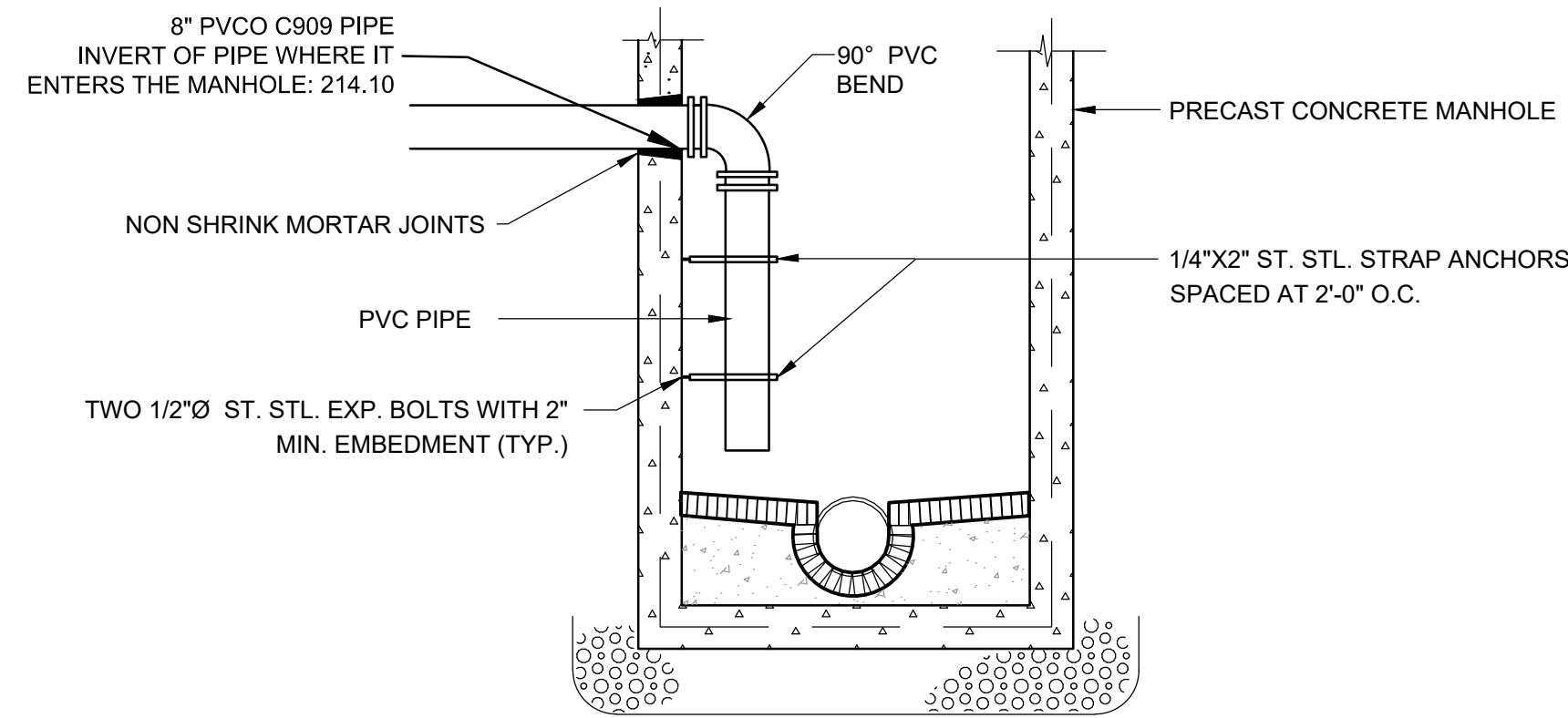
PART	PART NAME	MATERIALS
1	HUB ADAPTOR	PVC SDR 35 ASTM D3034
2	RUBBER GASKET	ASTM F477
3	SECURING CLAMP*	BAND SS #301
4	RUBBER SLEEVE (AVAILABLE IN NITRILE AND EPDM BY SPECIAL ORDER)	SCREW SS #305
4A	UPPER SEGMENT**	HOUSING SS #301
4B	LOWER SEGMENT***	ASTM F477

* OPTIONAL: #316 STAINLESS STEEL BAND, SCREW AND HOUSING
 ** DISTANCE BETWEEN 4A AND 4B WILL VARY BY PRODUCT TYPE
 *** WILL NOT APPEAR ON RUBBER SLEEVES FOR CONCRETE OR CLAY PIPE

INSERTA TEE SIZE	HOLE DIAMETER
18" (450 mm)	19 3/8" (503mm)

1 INSERTA-TEE SEWER CONNECTION

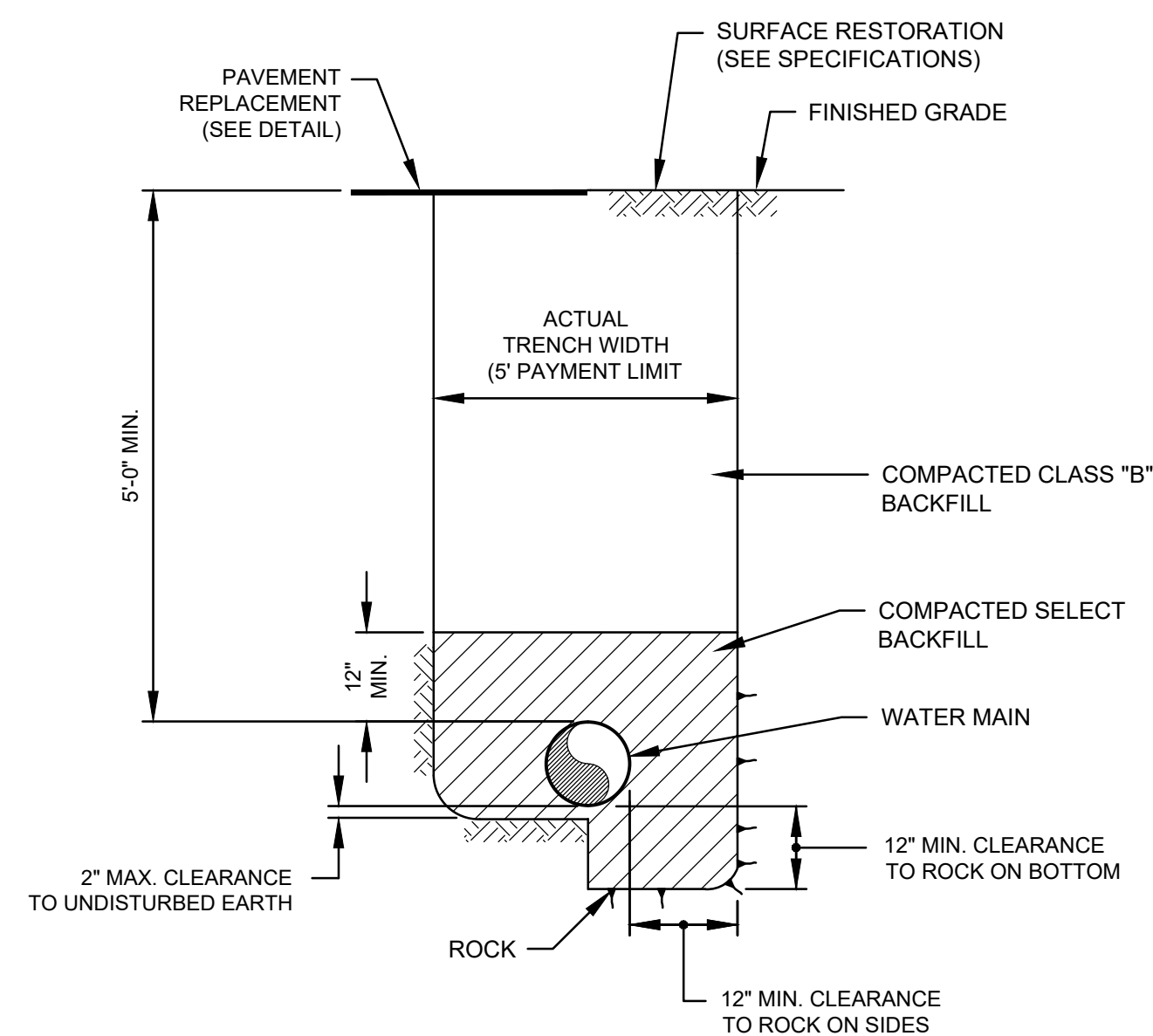
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NOTE
 1. DIMENSIONS & CONSTRUCTION OF MANHOLE TO BE SIMILAR TO TYPICAL SEWER MANHOLE EXCEPT AS SHOWN.

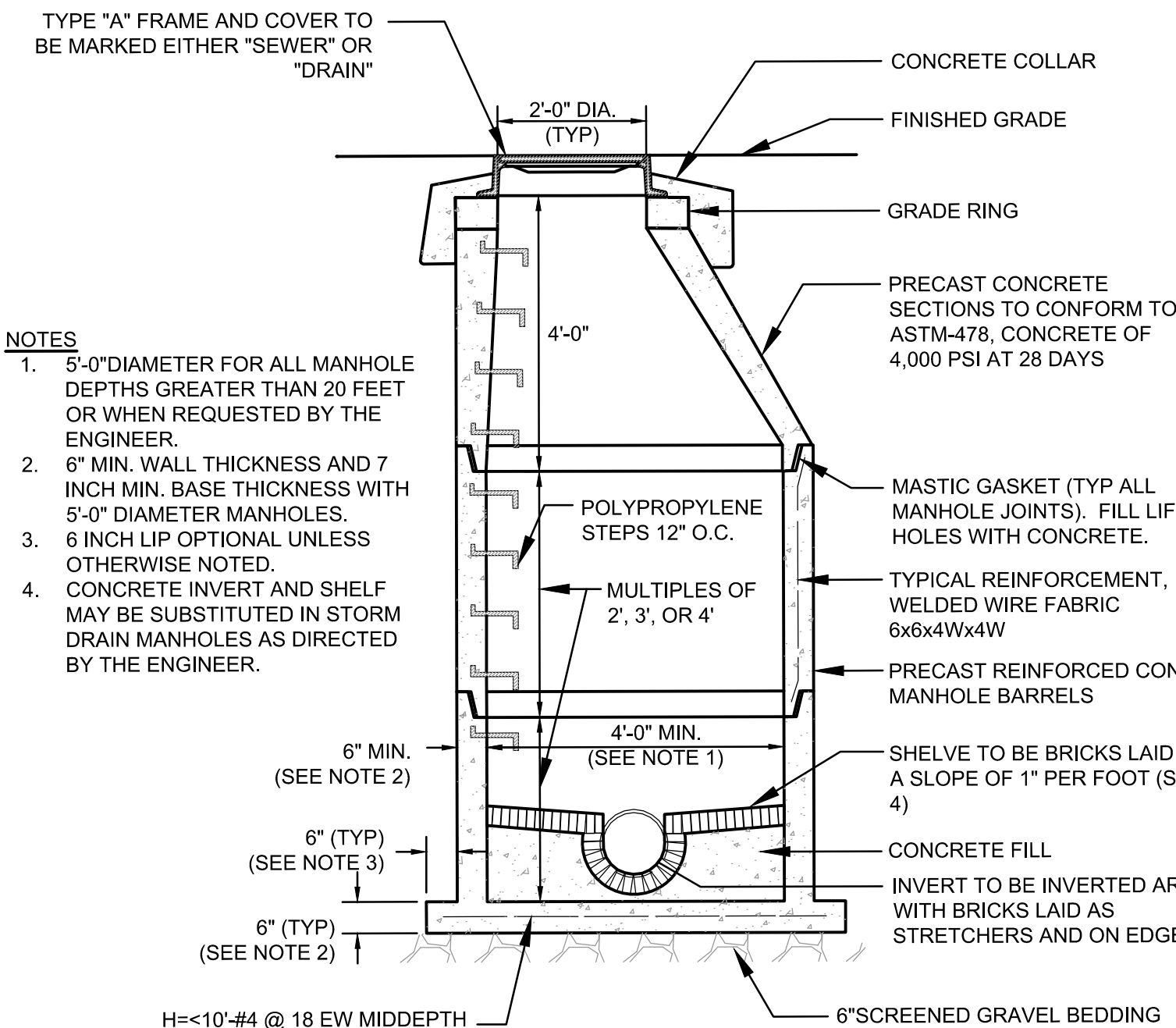
3 INTERIOR 90° DOWNWARD BEND

SCALE: N.T.S.



5 WATER/SEWER MAIN TRENCH DETAIL

SCALE: N.T.S.



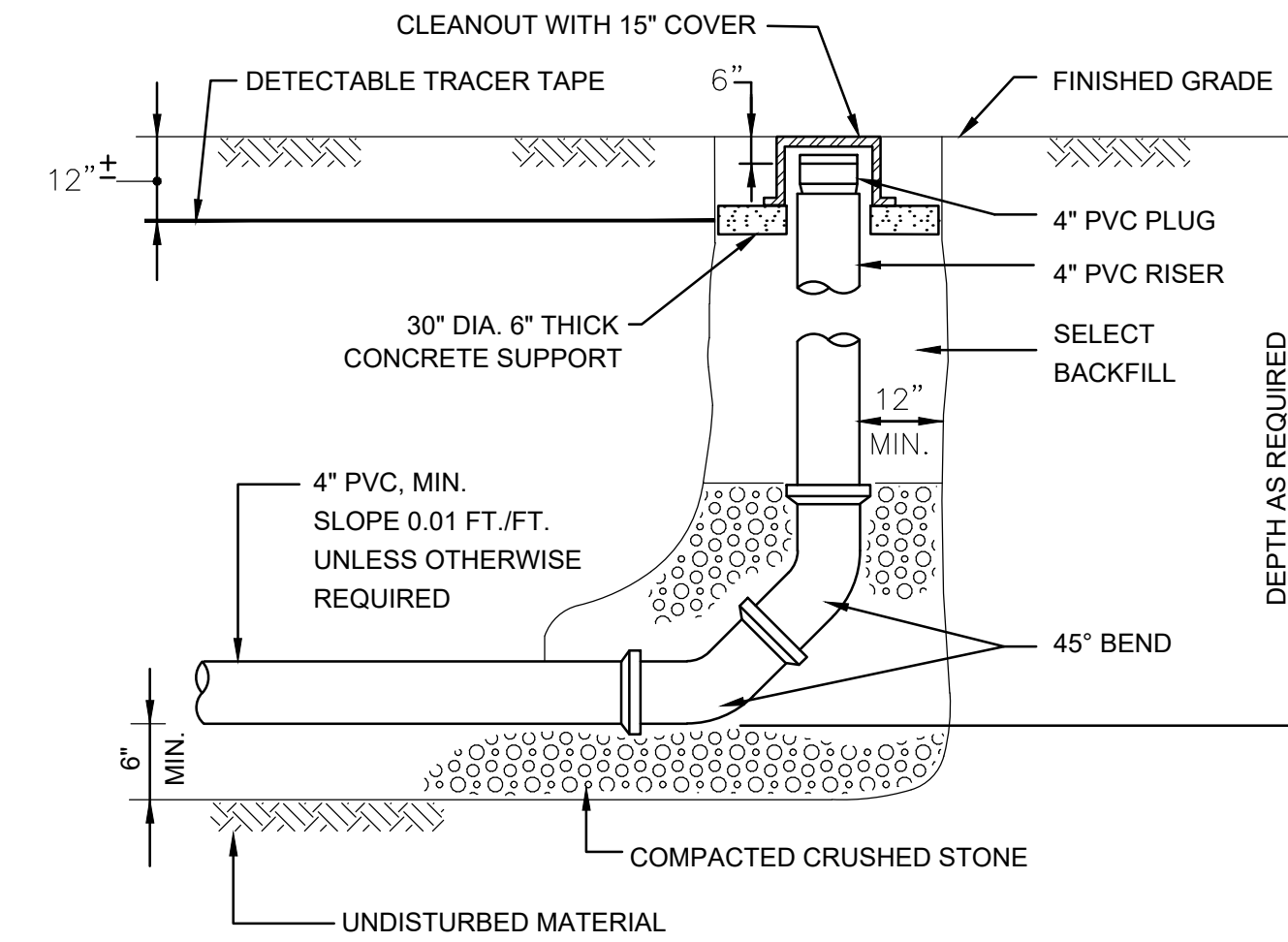
NOTES

- 1. 5'-0" DIAMETER FOR ALL MANHOLE DEPTHS GREATER THAN 20 FEET OR WHEN REQUESTED BY THE ENGINEER.
- 2. 6" MIN. WALL THICKNESS AND 7 INCH MIN. BASE THICKNESS WITH 5'-0" DIAMETER MANHOLES.
- 3. 6 INCH LIP OPTIONAL UNLESS OTHERWISE NOTED.
- 4. CONCRETE INVERT AND SHELF MAY BE SUBSTITUTED IN STORM DRAIN MANHOLES AS DIRECTED BY THE ENGINEER.

H=<10'-#4 @ 18 EW MIDDEPTH
 H=10' TO 20'-#4 @ 12 EW MIDDEPTH
 H=20' TO 30'-#5 @ 12 EW MIDDEPTH
 IN ADDITION TO WELDED WIRE FABRIC

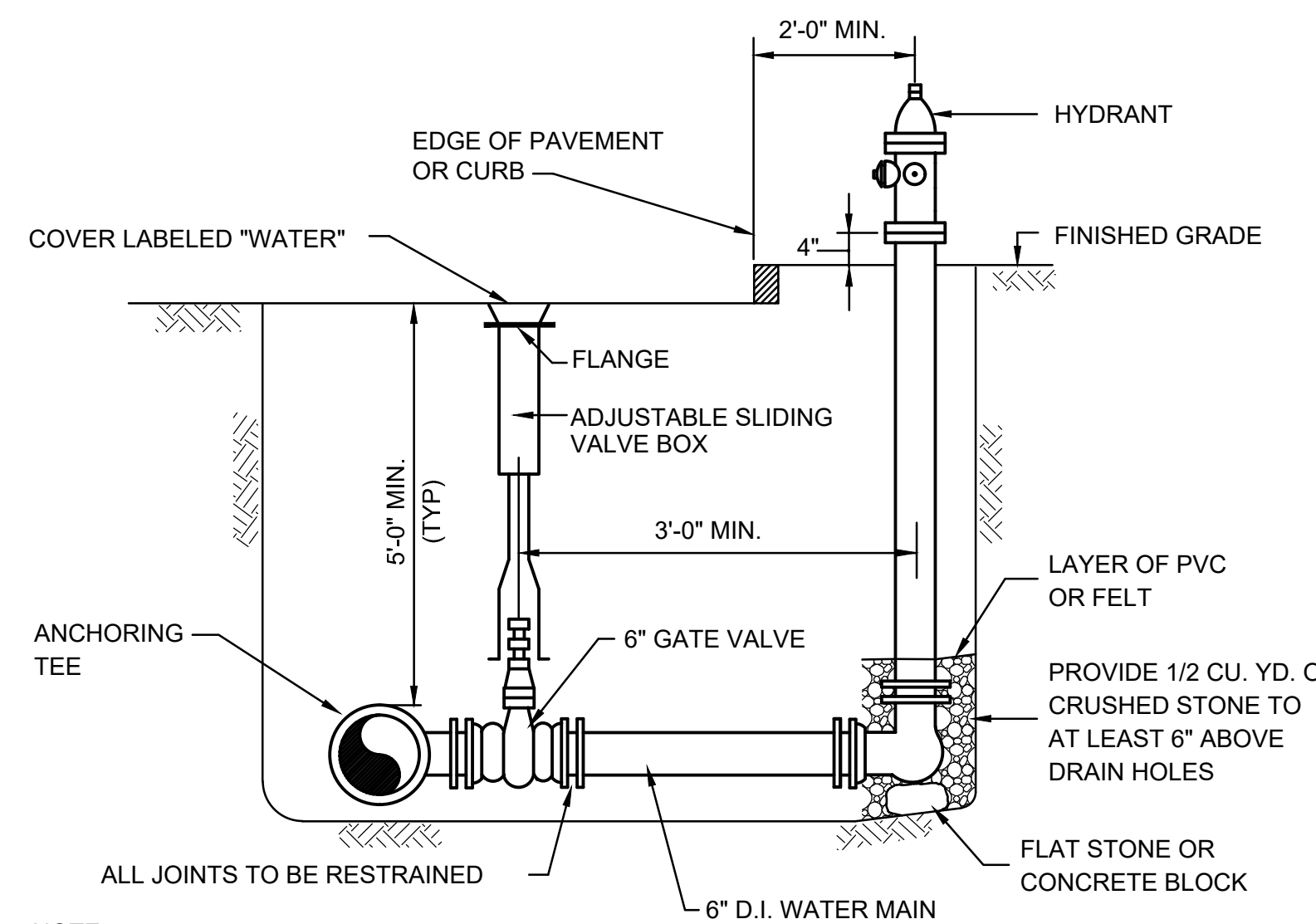
2 SEWER MANHOLE

SCALE: N.T.S.



4 TYPICAL CLEAN OUT

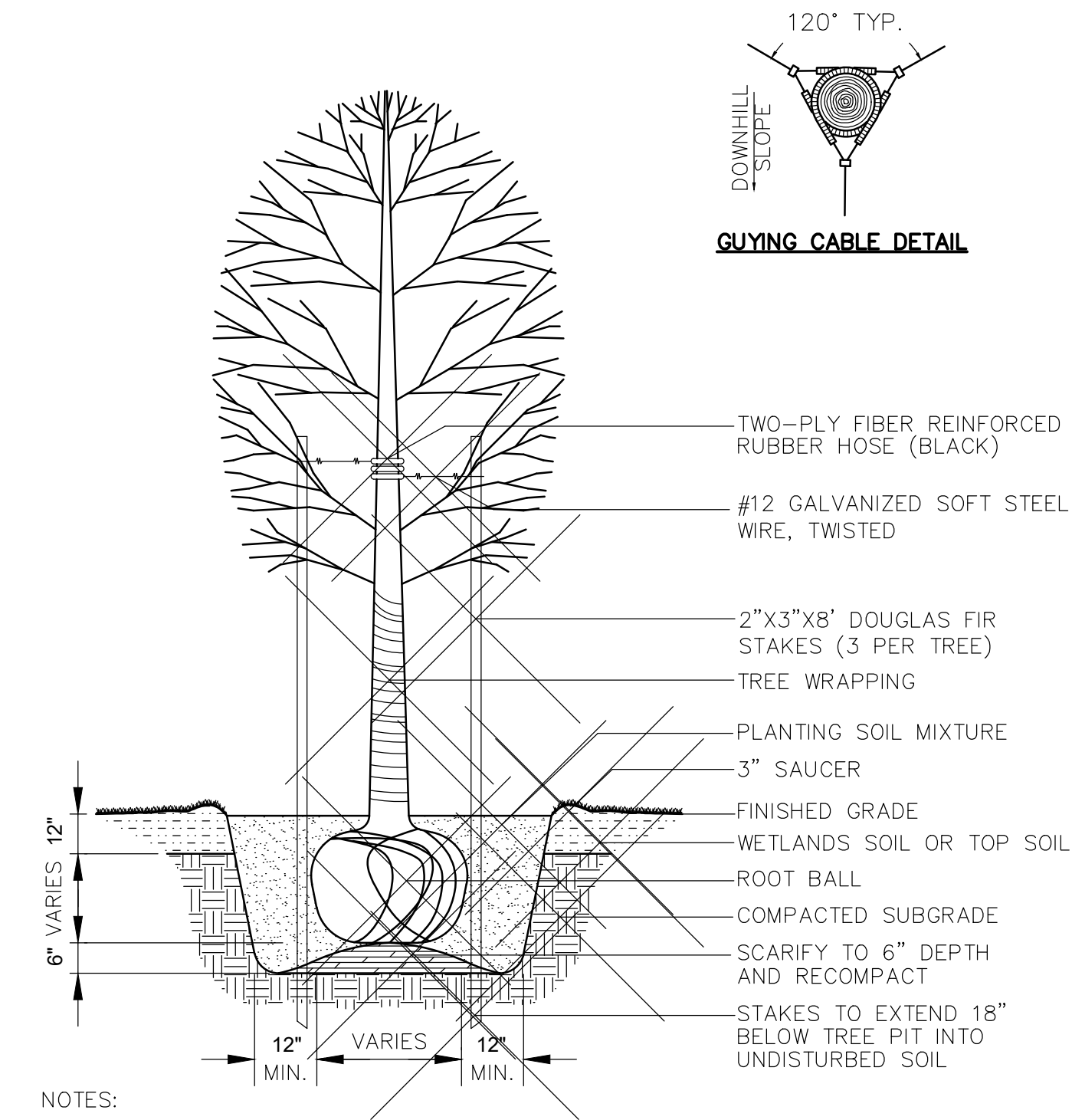
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NOTE:
 USE TWO 6" BENDS OR OFFSET ON LATERAL TO ACHIEVE REQUIRED HYDRANT ELEVATION IF NECESSARY

6 HYDRANT AND VALVE DETAIL

SCALE: N.T.S.



NOTES:

- 1. REMOVE BURLAP FROM TOP 1/3 OF BALL.
- 2. FOR MULTI-STEMMED TREE STAKE THREE LARGEST STEMS, AND CONNECT HOSE GUARDS WITH SINGLE WIRE STAY.

7 TREE PLANTING DETAIL

SCALE: N.T.S.



8 TEMPORARY GAC FILTER SETUP

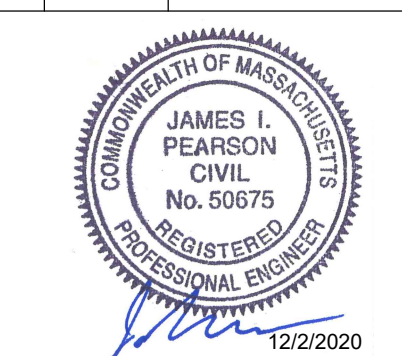
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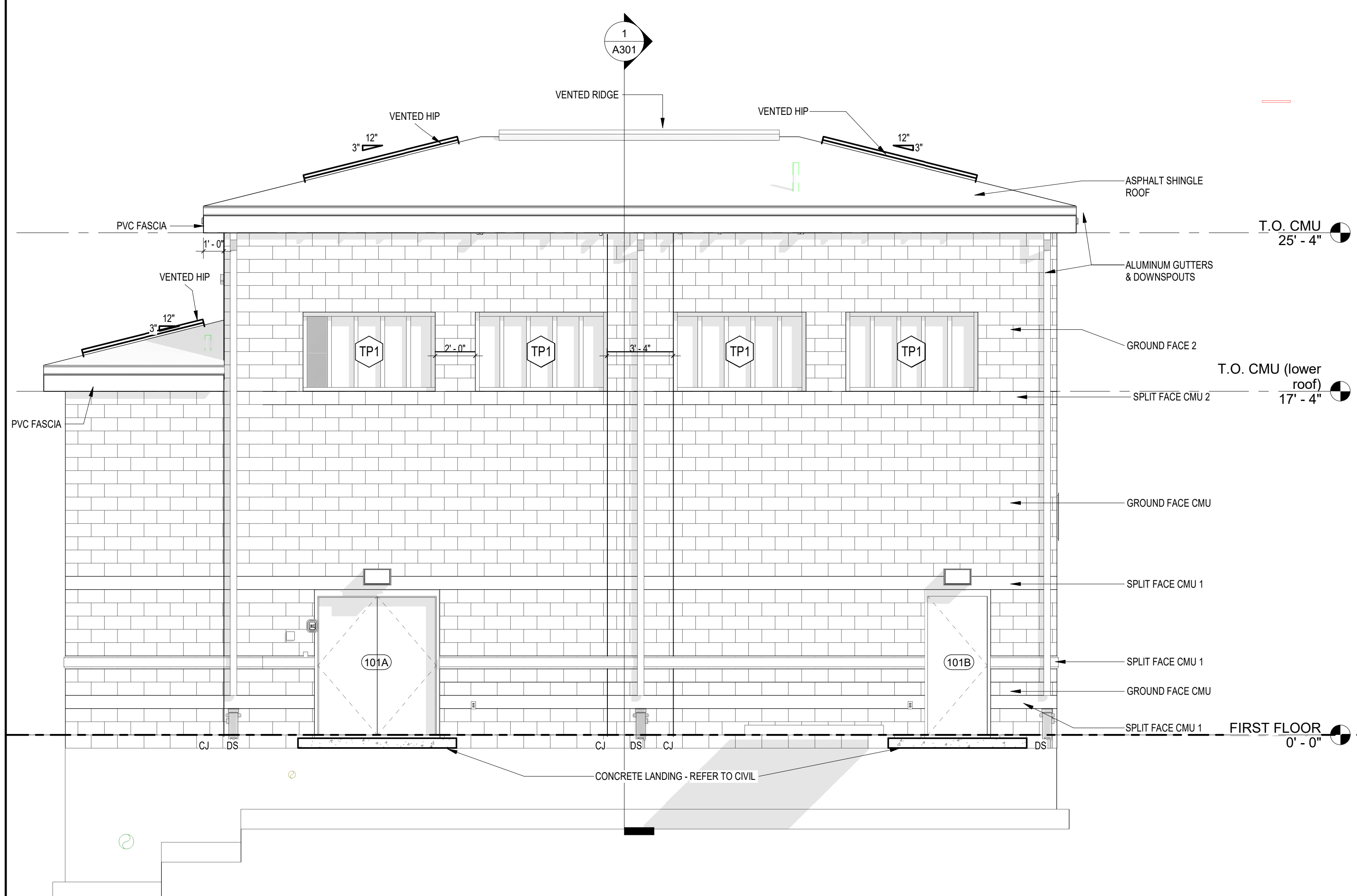
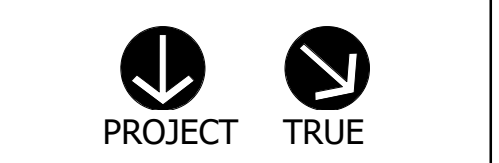
CONSTRUCTION DETAILS

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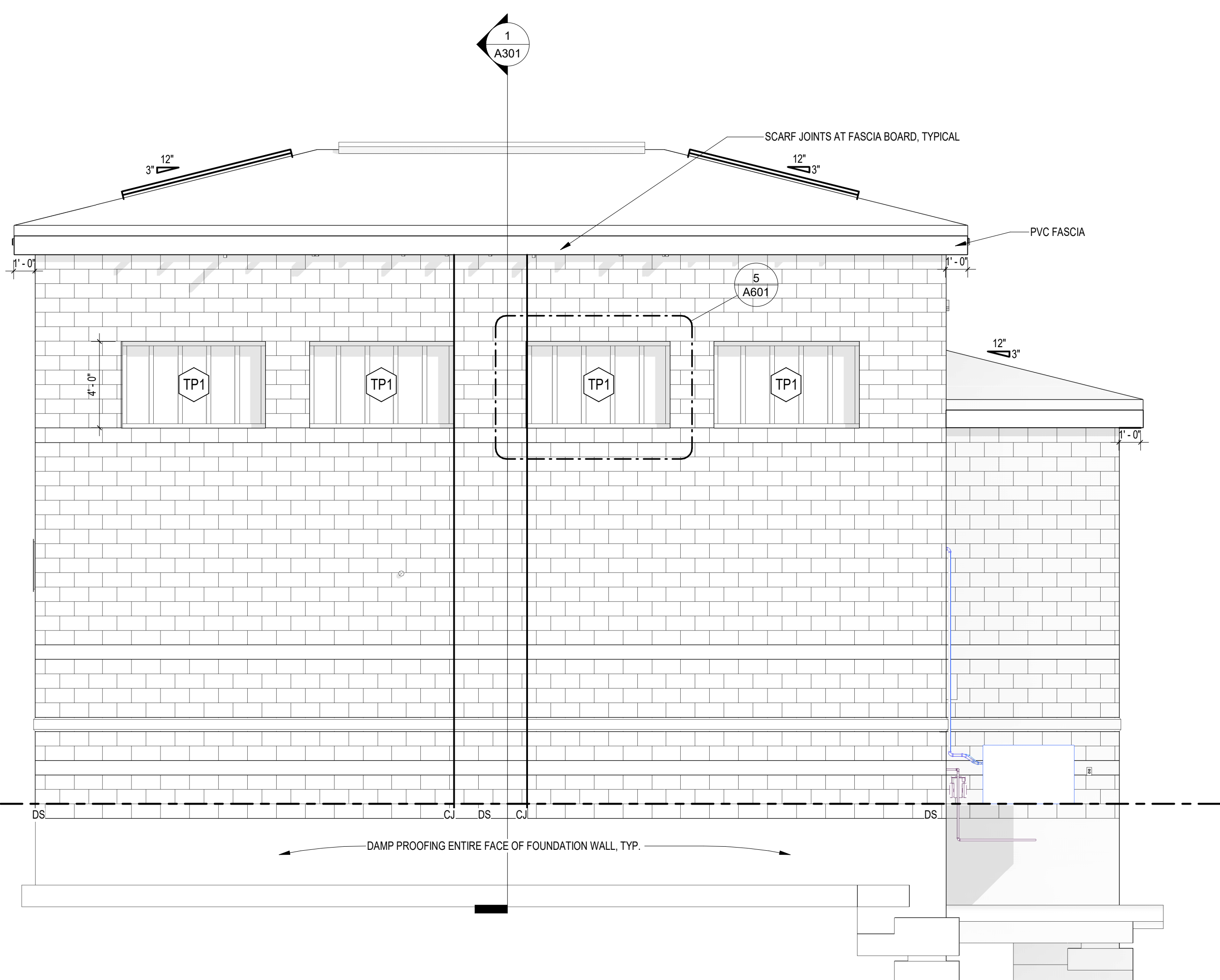
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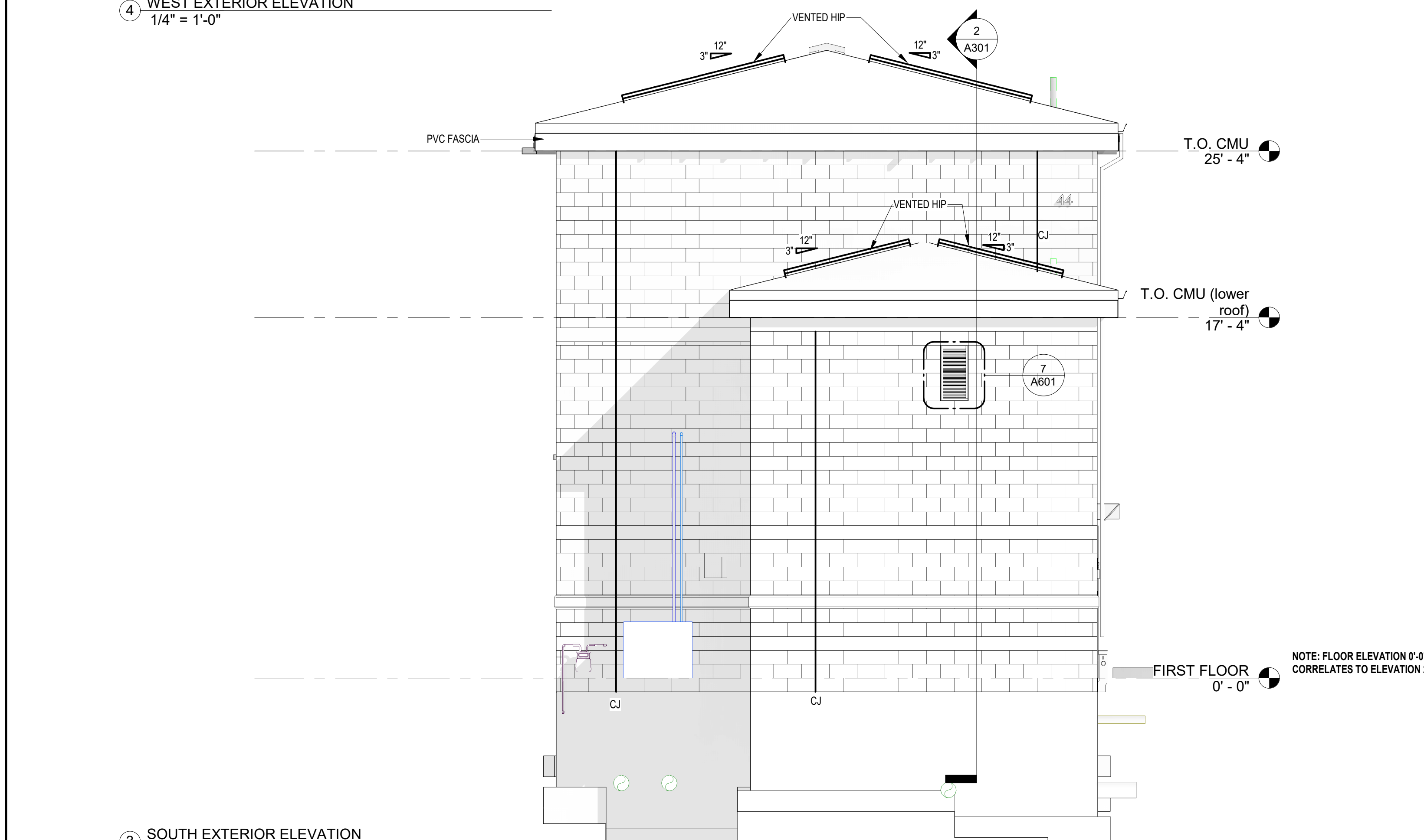
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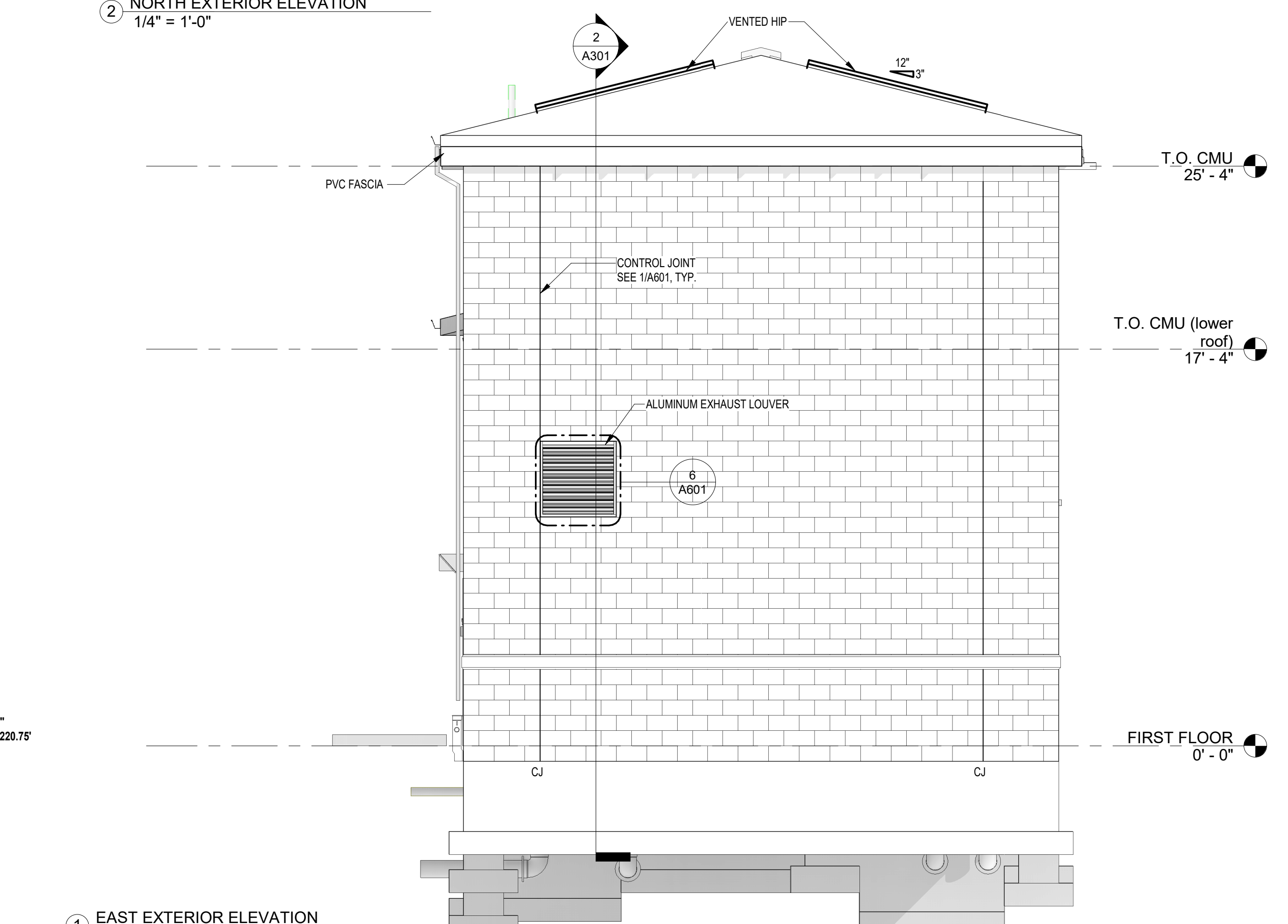
④ WEST EXTERIOR ELEVATION
 1/4" = 1'-0"



② NORTH EXTERIOR ELEVATION
 1/4" = 1'-0"



③ SOUTH EXTERIOR ELEVATION
 1/4" = 1'-0"



① EAST EXTERIOR ELEVATION
 1/4" = 1'-0"