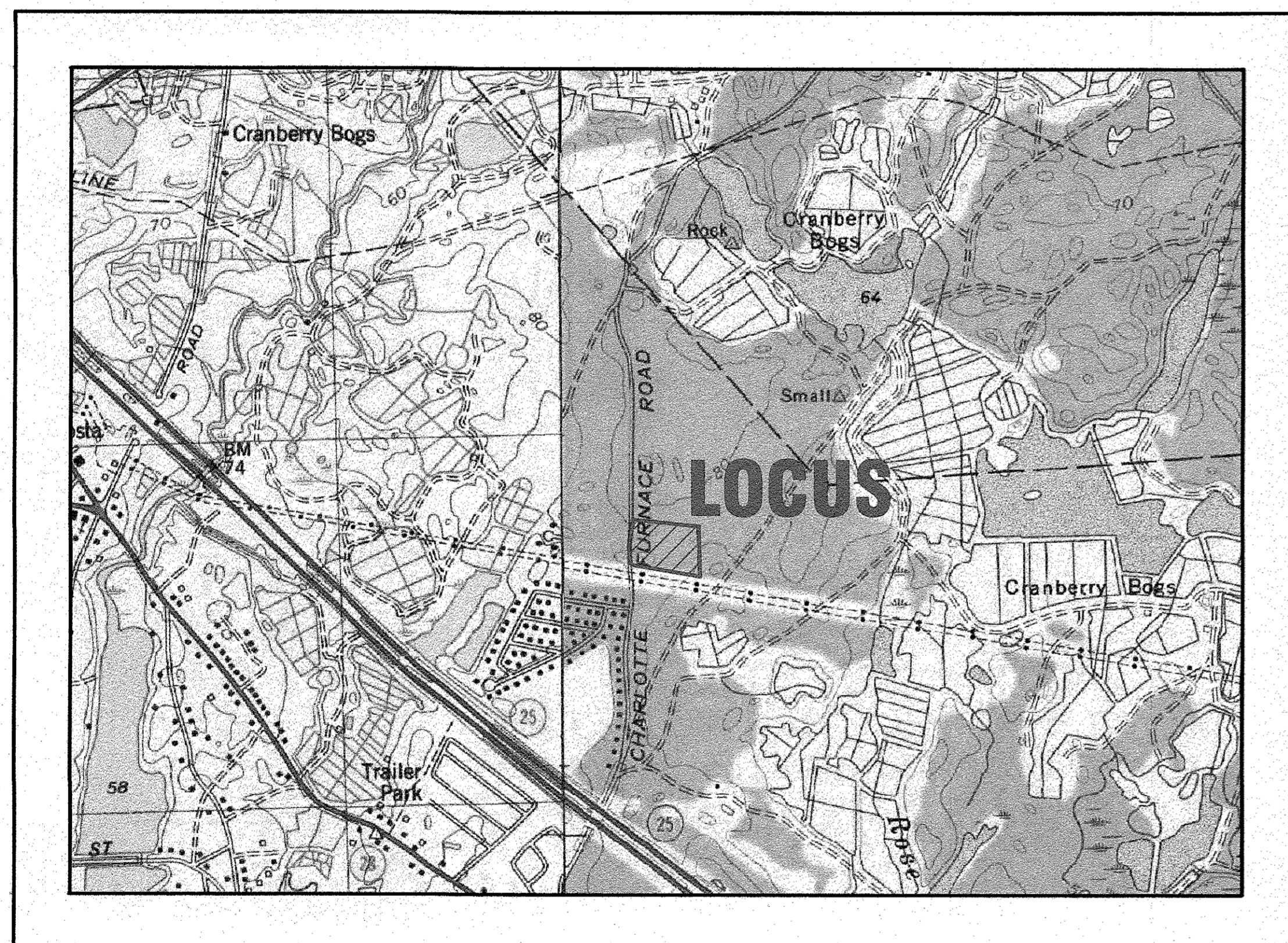


MASTER MILLWORK, INC.

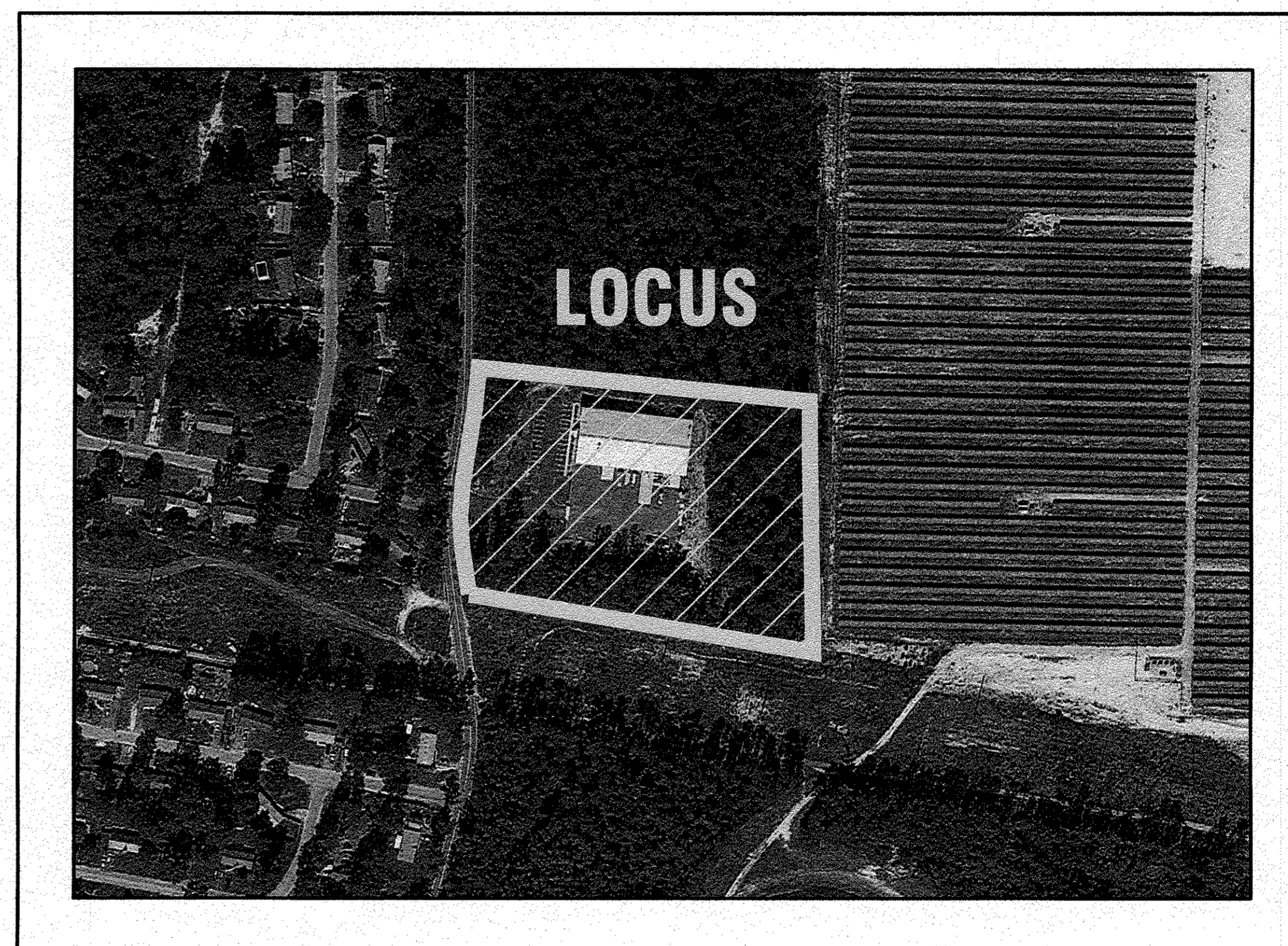
SITE DEVELOPMENT PLAN 55 CHARLOTTE FURNACE ROAD WAREHAM, MASSACHUSETTS

OWNER: MASTER MILLWORK, INC.
41 MEETING HOUSE LANE, SUITE 11
SAGAMORE BEACH, MA 02562

APPLICANT: MASTER MILLWORK, INC.
41 MEETING HOUSE LANE, SUITE 11
SAGAMORE BEACH, MA 02562



— U.S.G.S. LOCUS PLAN —
SCALE: 1"=1000'



— AERIAL OVERVIEW —
SCALE: 1"=200'

SITE DATA

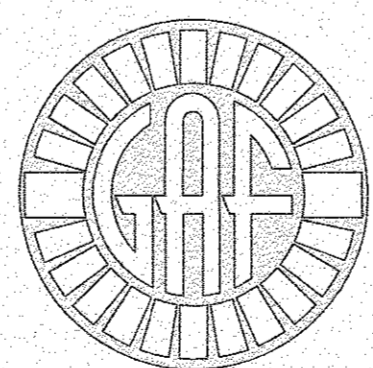
ZONING DISTRICT: B00D
ASSESSOR'S MAP: 105
ASSESSOR'S LOTS: MA2
REQUIRED LOT AREA: 87,120 S.F.
MIN. FRONTAGE: 100'
MIN. FRONT SETBACK: 25'
MIN. SIDE & REAR SETBACK: 10'
MAX. PRINCIPAL BUILDING HEIGHT: 40'
MAX. BUILDING COVERAGE: 25%
MAX. FLOOR AREA RATIO: 75%
MAX. IMPERVIOUS COVERAGE: 65%
WATER SUPPLY: TOWN WATER
SANITARY SEWER: ON SITE SEPTIC
LANDSCAPE BUFFER: 10'

ZONING DATA:

ZONING TABLE	ALLOWED	EXISTING	PROVIDED
LOT AREA:	87,120 S.F.	261,408 S.F.	(SAME AS EXISTING)
FRONT SETBACK:	25'	178.8'	(SAME AS EXISTING)
SIDE SETBACK:	10'	40.3'	(SAME AS EXISTING)
REAR SETBACK:	10'	217.0'	64.3'
MAX. BUILDING COVERAGE:	25%	7.7%	24.1%
MAX. LOT COVERAGE:	65%	23.9%	56.5%

FLOOD ZONE DATA:

THE ENTIRE LOCUS IS LOCATED IN FLOOD ZONE X, AS INDICATED ON FEMA FIRM MAP# 25023C0486J DATED: JULY 17, 2012.



G.A.F. ENGINEERING, INC.
PROFESSIONAL ENGINEERS & LAND SURVEYORS
266 MAIN STREET, WAREHAM, MA 02571
TEL: (508) 295-6600 FAX: (508) 295-6634
E-MAIL: gaf@gaf-eng.com

JULY 8, 2020

PLAN INDEX:

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	GENERAL NOTES & LEGEND
3	EXISTING CONDITIONS & DEMOLITION
4	LAYOUT & UTILITIES
5	GRADING & DRAINAGE
6	LANDSCAPING PLAN
7	DETAIL SHEET 1
8	DETAIL SHEET 2
9	DETAIL SHEET 3
10	DETAIL SHEET 4
ARCH.-1	PLAN VIEW
ARCH.-2	ELEVATIONS
RAB-1	LIGHTING PLAN

PARKING DATA:

REQUIRED (OFFICE): 1 SPACE PER 250 S.F. G.F.A.
10,000 S.F./250 S.F.=40 SPACES
REQUIRED (WAREHOUSE): 1 SPACE PER 1.5 EMPLOYEES ON
LARGEST SHIFT PLUS ONE PER VEHICLE STORED ON PREMISES.
PROPOSED NUMBER OF EMPLOYEES=50
NUMBER OF PARKING SPACES REQUIRED=34

TOTAL REQUIRED: 74 SPACES
PROVIDED: 83 SPACES (EXISTING & PROPOSED)

DATE	REV.	DATE	BY	DESCRIPTION
JULY 8, 2020	1	8/10/20	JMP	NO CHANGES THIS SHEET
	2	8/20/20	JMP	REV. ZONING DATA TABLE/PLAN INDEX

DATE: JULY 8, 2020	DRAWN BY: JMP	CHECKED BY: WFM	JOB NO.: 19-9342	SCALE: AS NOTED
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APPROVED BY:	
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G.A.F. ENGINEERING, INC. PROFESSIONAL ENGINEERS & LAND SURVEYORS 266 MAIN STREET - WAREHAM, MA 02571 TEL: (508) 295-6600 FAX: (508) 295-6634 E-MAIL: gaf@gaf-eng.com	PREPARED FOR: MASTER MILLWORK, INC. 55 CHARLOTTE FURNACE ROAD WAREHAM, MA 41 MEETING HOUSE LANE, SUITE 11 SAGAMORE BEACH, MA
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SITE DEVELOPMENT PLAN COVER SHEET	JOB NO.: 19-9342
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PERMIT SET (NOT FOR CONSTRUCTION)	DWG. 1 OF 10
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GENERAL NOTES:

- 1. ALL UNDERGROUND UTILITIES SHOWN OR NOT SHOWN WERE COMPILED ACCORDING TO AVAILABLE RECORD PLANS AND IN PART FROM FIELD SURVEY AND ARE APPROXIMATE ONLY. ACTUAL LOCATIONS MUST BE DETERMINED IN THE FIELD. BEFORE EXCAVATING, BLASTING, INSTALLING, BACKFILLING, GRADING, PAVEMENT RESTORATION OR REPAIRING, ALL UTILITY COMPANIES, PUBLIC AND PRIVATE, MUST BE CONTACTED INCLUDING THOSE IN CONTROL OF UTILITIES NOT SHOWN ON THIS PLAN. SEE MGL CHAPTER 370, ACTS OF 1963. CONTRACTORS MUST CALL DIG-SAFE AT (1-888-DIG-SAFE OR 811) G.A.F. ENGINEERING, INC. ASSUMES NO RESPONSIBILITY FOR DAMAGES INCURRED AS A RESULT OF UTILITIES OMITTED OR INACCURATELY SHOWN.
- 2. EXISTING CONDITIONS INFORMATION IS BASED ON AN ON THE GROUND FIELD SURVEY BY GAF ENGINEERING ON VARIOUS DATES AND MOST RECENTLY IN JULY OF 2019.
- 3. THE CONTRACTOR SHALL COORDINATE AND OBTAIN ALL REQUIRED PERMITS, GIVE ALL NOTICES, COMPLY WITH ALL LAWS AND REGULATIONS, AND PAY ALL FEES ASSOCIATED WITH THE INSTALLATION OF THIS WORK.
- 4. THE CONTRACTOR SHALL FIELD VERIFY, PRIOR TO CONSTRUCTION ALL EXISTING UNDERGROUND UTILITY LOCATIONS AND POINTS OF INTERCONNECTION.
- 5. THE CONTRACTOR SHALL PROVIDE ALL MATERIALS, LABOR, SUPERVISION, TOOLS, EQUIPMENT, FUEL, POWER, SANITARY FACILITIES AND INCIDENTALS NECESSARY FOR THE FURNISHING, PERFORMANCE, TESTING, START-UP AND COMPLETION OF THIS WORK.
- 6. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND OWNER OF ANY CONFLICTS DISCOVERED IN THE FIELD.
- 7. ANY CHANGES TO THESE SITE PLANS THAT ARE MADE IN THE FIELD DURING CONSTRUCTION SHALL BE RECORDED BY THE CONTRACTOR ON RECORD DOCUMENTS AND REPORTED TO THE OWNER AND ENGINEER.
- 8. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AN EXCAVATION AND TRENCH PERMIT PURSUANT TO 520 CMR 14.00 AS APPLICABLE PRIOR TO THE START OF CONSTRUCTION.

CONSTRUCTION NOTES:

- 1. IN GENERAL, THE PLANS ARE DIAGRAMMATIC AND ARE NOT INTENDED TO SHOW EVERY FITTING, CHANGE IN DIRECTION OR DETAIL OF CONSTRUCTION.
- 2. THE LOCATION OF UTILITIES WERE OBTAINED FROM VARIOUS SOURCES OF INFORMATION. THE EXACT LOCATION AND COMPLETENESS IS NOT GUARANTEED. THE CONTRACTOR MUST NOTIFY DIG SAFE PRIOR TO THE START OF CONSTRUCTION (1-888-DIG-SAFE OR 811). G.A.F. ENGINEERING, INC. ASSUMES NO RESPONSIBILITY FOR DAMAGES INCURRED AS A RESULT OF UTILITIES OMITTED OR INACCURATELY SHOWN.
- 3. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS FOR THE SAFETY OF PERSONNEL AND PROTECTION OF PROPERTY AT THE SITE OR ADJACENT THERETO INCLUDING TREES, SHRUBS, LAWNS, PAVEMENTS, ROADWAYS, STRUCTURES AND UNDERGROUND UTILITIES NOT DESIGNED FOR REMOVAL, RELOCATION, OR REPLACEMENT.
- 4. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES OF CONSTRUCTION REQUIRED FOR THE INSTALLATION OF THIS WORK.
- 5. ALL MATERIALS SHALL BE NEW AND FREE FROM DEFECTS AND OF GOOD QUALITY.
- 6. THE CONTRACTOR SHALL KEEP THE PREMISES FREE FROM THE ACCUMULATION OF WASTE MATERIAL AND OTHER DEBRIS RESULTING FROM THIS WORK.
- 7. ALL PAVEMENT MARKINGS DISTURBED BY CONSTRUCTION SHALL BE RESTORED AS PART OF THIS WORK.
- 8. THE CONTRACTOR SHALL INSTITUTE ALL SAFETY MEASURES NECESSARY TO PROTECT THE PUBLIC SAFETY. THIS SHALL INCLUDE, BUT NOT LIMITED TO, BARRICADES, SIGNS, LIGHTING, FENCES, POLICE DETAILS, AND ANY OTHER MEANS AS DIRECTED. NO TRENCHES ARE TO REMAIN OPEN OVERNIGHT.
- 9. ELEVATIONS ARE IN FEET AND TENTHS AND ARE BASED ON THE DATUM OF NAVD-88.
- 10. SIDE SLOPE GRADING SHALL BE AS NOTED ON THE SITE PLANS.
- 11. ALL SIDE SLOPES SHALL BE DRESSED WITH 4 INCHES OF TOPSOIL, WHERE SIDE SLOPES EXCEED 3:1, PROVIDE AN EROSION CONTROL BLANKET OVER THE PLANTED SEED BED. SEE PLAN FOR LOCATIONS.
- 12. PERMANENT SEEDING (BEFORE SEPTEMBER 15) LIME TO PH OF 6.5 ACCORDING TO SOIL TEST OR APPLY AT THE RATE OF 100 TO 150 LBS. PER 1,000 SQUARE FEET. APPLY 10-20-20 FERTILIZER AT 1,000 LBS. PER ACRE. INCORPORATE LIME AND FERTILIZER IN TOP 4 INCHES OF SOIL. SEED 100 LBS. PER ACRE OF THE FOLLOWING SEED MIX.

PURE PERCENT	SEED
30-35%	CREEPING RED FESCUE
30-35%	PERENNIAL RYEGRASS
20-25%	KENTUCKY BLUEGRASS
10-15%	ANNUAL RYEGRASS

HYDRO SEEDING IS AN ALTERNATIVE FOR THIS APPLICATION. A MIXTURE OF SEED WATER AND MULCH IS SPRAYED ON THE SEED BED COMBINING THREE (3) SEPARATE ACTIONS INTO ONE (1) OPERATION
- 13. ALL SEWER AND PLUMBING WORK SHALL CONFORM WITH 248 CMR 10.00 UNIFORM STATE PLUMBING CODE AND THE TOWN OF WAREHAM SEWER DEPARTMENTS SPECIFICATIONS.
- 14. ALL METHODS AND MATERIALS SHALL CONFORM WITH MassDOT STANDARDS AND SPECIFICATIONS, AND THE REQUIREMENTS OF THE TOWN OF WAREHAM MUNICIPAL MAINTENANCE DEPARTMENT.
- 15. ALL UTILITY INSTALLATIONS SHALL BE IN CONFORMANCE WITH ALL APPLICABLE TOWN, STATE AND FEDERAL REQUIREMENTS & REGULATIONS.
- 16. DEWATERING IF REQUIRED SHALL BE DIRECTED TO A 5' MIN. DIAMETER RING OF HAYBALES OR A DIRTBAG. CONTRACTOR SHALL PROVIDE AND MAINTAIN DEWATERING EQUIPMENT FOR THE CONTROL, COLLECTION AND DISPOSAL OF GROUND AND SURFACE WATER WHERE NECESSARY TO COMPLETE THE WORK.

EROSION CONTROL NOTES:

- 1. THE SITE CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING AND MAINTAINING SUITABLE EROSION AND SEDIMENTATION CONTROL DEVICES ON SITE DURING CONSTRUCTION AS REQUIRED TO PREVENT SILT FROM LEAVING THE SITE. SILT WILL NOT BE ALLOWED BEYOND CONSTRUCTION LIMITS. ADDITIONAL PROTECTION: ON-SITE PROTECTION MUST BE PROVIDED THAT WILL NOT PERMIT SILT TO LEAVE THE PROJECT CONFINES DUE TO UNFORESEEN CONDITIONS OR ACCIDENTS.
- 2. EROSION CONTROL MEASURES SHALL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLANS DOES NOT PROVIDE SUFFICIENT EROSION AND SEDIMENT CONTROL, ADDITIONAL CONTROL MEASURES SHALL BE IMPLEMENTED. CONTRACTOR IS RESPONSIBLE FOR REPAIRING OR REPLACING EROSION CONTROL DEVICES WHICH BECOME INEFFECTIVE.
- 3. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FOR ALL GRADING AND OTHER LAND DISTURBING ACTIVITIES PRIOR TO CONSTRUCTION.
- 4. THE CONTRACTOR IS RESPONSIBLE FOR THE CLEANUP AND REMOVAL OF ANY BUILDUP OF SEDIMENT WHICH ESCAPES FROM THE SITE.
- 5. CONTRACTOR IS RESPONSIBLE FOR CLEANING SILT AND DEBRIS OUT OF ALL STORM DRAINAGE STRUCTURES UPON THE COMPLETION OF CONSTRUCTION.
- 6. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL TEMPORARY EROSION CONTROL MEASURES AFTER CONSTRUCTION IS COMPLETE AND ALL DISTURBED AREAS HAVE BEEN STABILIZED.
- 7. THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH ANY FINES LEVIED AGAINST THE SITE FOR VIOLATIONS OF EROSION CONTROL REGULATIONS.
- 8. CONTRACTOR SHALL PROVIDE TEMPORARY GROUND COVER FOR ALL AREAS WITH EXPOSED SOIL WHICH WILL NOT BE DISTURBED BY GRADING OPERATIONS FOR A PERIOD OF THIRTY DAYS OR MORE.
- 9. IF WORK ON THIS PROJECT IS SUSPENDED FOR ANY REASON, THE CONTRACTOR SHALL MAINTAIN THE SOIL EROSION AND SEDIMENTATION CONTROL FACILITIES IN GOOD CONDITION DURING THE SUSPENSION OF WORK.
- 10. SPRINKLE OR APPLY DUST SUPPRESSERS TO MINIMIZE DUST AT THE CONSTRUCTION SITE. MAINTAIN DUST CONTROL MEASURES UNTIL ALL DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED.
- 11. THE CONTRACTOR WILL ALSO NEED TO COMPLY TO ANY ORDER OF CONDITIONS THAT MAY BE ISSUED BY THE TOWN OF WAREHAM CONSERVATION COMMISSION.

DRAINAGE OPERATION AND MAINTENANCE SCHEDULE:

- THE OPERATION AND MAINTENANCE (O&M) SCHEDULE DURING THE CONSTRUCTION PERIOD IS THE RESPONSIBILITY OF THE CONTRACTOR. THE OUTLINE BELOW SHALL BE FOLLOWED TO ENSURE THE PROPER CONSTRUCTION AND FUNCTION OF THE DRAINAGE FACILITIES.
- 1. IN CONJUNCTION WITH THE SITE CONSTRUCTION, ALL DRAINAGE STRUCTURES SHALL BE INSTALLED AND THE AFFECTED AREAS STABILIZED (LOAM AND SEED, HYDROSEED, PLANTED, RIP-RAP, ETC.). PERMANENT STABILIZATION OF THESE AREAS SHALL BE STARTED AS SOON AS POSSIBLE.
 - 2. EROSION CONTROL SHALL BE PLACED ALONG THE LIMITS OF WORK WHERE SHOWN ON THE PLAN.
 - 3. ALL EXISTING CATCH BASINS SHALL HAVE A TEMPORARY SILT SACK INSTALLED IN THEM PRIOR TO CONSTRUCTION. ALL PROPOSED CATCH BASINS AND WATER QUALITY CATCH BASINS SHALL HAVE TEMPORARY SILT SACK INSTALLED IN THEM AS SOON AS THE STRUCTURE IS SET. CONTRACTOR SHALL REMOVE AND DISPOSE OF THEM AT THE COMPLETION OF CONSTRUCTION. ALL EXISTING AND PROPOSED CATCH BASINS AND WATER QUALITY CATCH BASINS SHALL BE INSPECTED WEEKLY DURING CONSTRUCTION. IF THERE IS ANY SEDIMENT BUILDUP, THE AFFECTED STRUCTURES SHALL BE CLEANED IMMEDIATELY, AND ALL MATERIAL REMOVED SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL REQUIREMENTS.
 - 4. THE INFILTRATION BASIN SHALL BE INSPECTED WEEKLY DURING CONSTRUCTION. IF THERE IS ANY SEDIMENT BUILDUP, THE AFFECTED STRUCTURES SHALL BE CLEANED IMMEDIATELY, AND ALL MATERIAL REMOVED SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL REQUIREMENTS.
 - 5. STONE FILLED TRENCHES SHALL BE COVERED WITH AN ADDITIONAL TEMPORARY LAYER OF FILTER FABRIC UNTIL THE ABOVE GRADIENT SLOPE IS STABILIZED. IF THERE IS ANY EVIDENCE OF SEDIMENT ENTERING THE TRENCHES, THE AFFECTED AREA OF THE TRENCH SHALL BE FULLY RECONSTRUCTED INCLUDING THE FILTER FABRIC.
 - 6. THE LEACHING GALLEYS AND OIL/GRIT SEPARATOR SHALL BE INSPECTED WEEKLY DURING CONSTRUCTION. IF THERE IS ANY SEDIMENT BUILDUP, THE AFFECTED STRUCTURES SHALL BE CLEANED IMMEDIATELY, AND ALL MATERIAL REMOVED SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL REQUIREMENTS.
 - 7. ALL AREAS SHALL BE INSPECTED WEEKLY, AND AFTER LARGE STORMS. IF THERE IS EVIDENCE OF EROSION, THE ERODED AREA SHALL BE RE-STABILIZED, AND MEASURES SHALL BE TAKEN TO PREVENT REOCCURRENCE. THIS SCHEDULE MUST BE ADHERED TO BY THE CONTRACTOR UNTIL THE PROJECT IS ACCEPTED BY THE OWNER.

POST-CONSTRUCTION OPERATION AND MAINTENANCE PLAN:

UPON THE COMPLETION OF CONSTRUCTION, MAINTENANCE SHALL BE CONDUCTED BY THE OWNER OR OWNER'S AGENT ON THE SITE. THE FOLLOWING SHALL BE CARRIED OUT BY THE RESPONSIBLE PARTY AND SHALL BE ADHERED TO ENSURE THE PROPER OPERATION OF THE DRAINAGE FACILITIES.

- 1. PARKING LOT SWEEPING IS AN EFFECTIVE NONSTRUCTURAL SOURCE CONTROL THAT WILL REMOVE SEDIMENT FROM PAVED SURFACES. PARKING LOT SWEEPING SHOULD BE DONE BY THE USE OF A HIGH EFFICIENCY VACUUM SWEEPER OR REGENERATIVE AIR SWEEPER. PARKING LOT SWEEPING SHALL BE DONE TWICE PER YEAR. ONCE REMOVED FROM PAVED SURFACES, THE SWEEPINGS MUST BE HANDLED AND DISPOSED OF PROPERLY IN ONE OF THE WAYS APPROVED BY MASSDEP (SEE POLICY # BAW-18-001: REUSE & DISPOSAL OF STREET SWEEPINGS).
- 2. NYOLOPLAST DRAIN MANHOLES SHALL INSPECTED MONTHLY, AND SHALL BE CLEANED AT LEAST FOUR TIMES PER YEAR AND AT THE END OF THE FOLIAGE AND SNOW-REMOVAL SEASONS. ALL DEBRIS, SEDIMENTS AND HYDROCARBONS SHOULD BE HANDLED PROPERLY AND DISPOSED IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL GUIDELINES AND REGULATIONS. IF THERE IS EVIDENCE THAT THEY HAVE BEEN CONTAMINATED BY A SPILL OR OTHER MEANS, THE CLEANINGS MUST BE EVALUATED IN ACCORDANCE WITH THE MASSDEP HAZARDOUS WASTE REGULATIONS, 310 CMR 30.000 AND HANDLED AS HAZARDOUS WASTE.
- 3. PROPRIETARY CATCH BASINS (WATER QUALITY CATCH BASINS) ARE UNDERGROUND RETENTION SYSTEMS DESIGNED TO REMOVE TRASH, DEBRIS AND COARSE SEDIMENT FROM STORMWATER RUNOFF AND SERVE AS TEMPORARY SPILL CONTAINMENT DEVICES FOR FLOATABLES SUCH AS OILS AND GREASE. INSPECT THE UNITS MONTHLY AND CLEAN AT LEAST TWO TIMES PER YEAR AND AT THE END OF THE FOLIAGE AND SNOW-REMOVAL SEASONS. SEDIMENTS MUST ALSO BE REMOVED WHENEVER THE DEPTH OF DEPOSITS IS GREATER THAN OR EQUAL TO ONE HALF THE DEPTH FROM THE BOTTOM OF THE INVERT. SEDIMENT SHALL BE REMOVED THROUGH THE USE OF A VACUUM TRUCK. SEDIMENT MUST BE HANDLED AND DISPOSED OF PROPERLY IN ONE OF THE WAYS ALREADY APPROVED BY MASSDEP (SEE MASSDEP POLICY ON MANAGEMENT OF CATCH BASIN CLEANINGS). IF THERE IS EVIDENCE THAT THEY HAVE BEEN CONTAMINATED BY A SPILL OR OTHER MEANS, THE CLEANINGS MUST BE EVALUATED IN ACCORDANCE WITH THE MASSDEP HAZARDOUS WASTE REGULATIONS, 310 CMR 30.00 AND HANDLED AS HAZARDOUS WASTE.
- 4. INFILTRATION BASIN AREAS SHALL BE INSPECTED AT LEAST FOUR TIMES PER YEAR TO ENSURE THE BASINS ARE OPERATING AS INTENDED. ALSO INSPECT THE BASINS DURING AND AFTER MAJOR STORM EVENTS TO DETERMINE IF THE BASINS ARE MEETING THE EXPECTED DETENTION TIMES. POTENTIAL PROBLEMS THAT SHOULD BE CHECKED INCLUDE: SUBSIDENCE, EROSION, CRACKING OR TREE GROWTH ON THE EMBANKMENT, SEDIMENT ACCUMULATION AROUND THE STONE FILLED TRENCH, DAMAGE TO THE EMERGENCY SPILLWAY, SEDIMENT ACCUMULATION AROUND THE OUTLET AND EROSION WITHIN THE BASIN AND BANKS. MAKE ANY NECESSARY REPAIRS IMMEDIATELY. MOW THE UPPER-STAGE, SIDE SLOPES AND EMBANKMENTS AT LEAST TWICE PER YEAR. REMOVE SEDIMENT AS NECESSARY, BUT AT LEAST ONCE EVERY FIVE YEARS. SEDIMENT SHALL BE DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.
- 5. STONE FILLED TRENCHES SHALL BE INSPECTED DURING AND 24 HOURS AFTER ALL MAJOR STORM EVENTS TO LOOK FOR PONDED WATER. IF THERE IS EVIDENCE OF PONDED WATER AT THE SURFACE OF THE TRENCH, IT IS LIKELY THAT THE TRENCH IS CLOGGED. REMOVE AND REPLACE THE FIRST LAYER OF STONE AGGREGATE AND FILTER FABRIC. IF WATER IS PONDED INSIDE THE TRENCH THEN THE TRENCH HAS FAILED. IN THIS CASE REMOVE ALL ACCUMULATED SEDIMENT, STONE AND FILTER FABRIC, THE BOTTOM OF THE TRENCH MUST BE SCARIFIED AND TILLED TO INDUCE INFILTRATION AND REPLACE WITH NEW STONE AND FILTER FABRIC. INSPECT STONE TRENCHES EVERY 6 MONTHS AND ROUTINELY REMOVE DEBRIS, TRASH, LEAVES, AND ANY SEDIMENT FROM THE SURFACE OF THE TRENCH, ADD STONE IF NECESSARY.
- 6. DEEP SUMP CATCH BASINS ARE UNDERGROUND RETENTION SYSTEMS DESIGNED TO REMOVE TRASH, DEBRIS AND COARSE SEDIMENT FROM STORMWATER RUNOFF AND SERVE AS TEMPORARY SPILL CONTAINMENT DEVICES FOR FLOATABLES SUCH AS OILS AND GREASE. INSPECT CATCH BASINS MONTHLY AND CLEAN AT LEAST TWO TIMES PER YEAR AND AT THE END OF THE FOLIAGE AND SNOW-REMOVAL SEASONS. SEDIMENTS MUST ALSO BE REMOVED WHENEVER THE DEPTH OF DEPOSITS IS GREATER THAN OR EQUAL TO ONE HALF THE DEPTH FROM THE BOTTOM OF THE INVERT. SEDIMENT SHALL BE REMOVED THROUGH THE USE OF A VACUUM TRUCK. SEDIMENT MUST BE HANDLED AND DISPOSED OF PROPERLY IN ONE OF THE WAYS ALREADY APPROVED BY MASSDEP (SEE MASSDEP POLICY ON MANAGEMENT OF CATCH BASIN CLEANINGS). IF THERE IS EVIDENCE THAT THEY HAVE BEEN CONTAMINATED BY A SPILL OR OTHER MEANS, THE CLEANINGS MUST BE EVALUATED IN ACCORDANCE WITH THE MASSDEP HAZARDOUS WASTE REGULATIONS, 310 CMR 30.00 AND HANDLED AS HAZARDOUS WASTE.
- 7. OIL/GRIT SEPARATORS ARE UNDERGROUND STORAGE TANKS WITH THREE CHAMBERS DESIGNED TO REMOVE HEAVY PARTICULATES, FLOATING DEBRIS AND HYDROCARBONS FROM STORMWATER. INSPECT OIL/GRIT SEPARATORS MONTHLY AND CLEAN THEM OUT AT LEAST TWICE PER YEAR. POLLUTED WATER OR SEDIMENT REMOVED FROM AN OIL/GRIT SEPARATOR SHOULD BE DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE & FEDERAL LAWS AND REGULATIONS.
- 8. LEACHING GALLEYS SHALL BE INSPECTED AFTER EVERY MAJOR STORM EVENT IN THE FIRST FEW MONTHS AFTER CONSTRUCTION TO ENSURE PROPER STABILIZATION AND FUNCTION. THEREAFTER, THE LEACHING GALLEYS SHALL BE INSPECTED AT LEAST ONCE PER YEAR. WATER DEPTH IN THE LEACHING GALLEYS SHOULD BE OBSERVED AND MEASURED AT 0, 24, AND 48-HOUR INTERVALS AFTER A MAJOR STORM EVENT AT LEAST ONCE PER YEAR. EXFILTRATION RATES ARE CALCULATED BY DIVIDING THE DROP IN THE WATER LEVEL (INCHES) BY THE ELAPSED TIME (HOURS). A COMPARISON OF EXFILTRATION RATE MEASUREMENTS TAKEN OVER THE YEARS PROVIDE A USEFUL TOOL TRACKING ANY CLOGGING PROBLEMS WITH THE UNDERGROUND INFILTRATION SYSTEM.

DRAINAGE INSTALLATION NOTES:

- 1. ALL DRAINAGE PIPES, UNLESS OTHERWISE NOTED, ARE TO BE ADS N-12 PIPE WITH SOIL TIGHT JOINTS AND FITTINGS. REFER TO PLAN FOR LOCATION, SIZES AND SLOPES.
- 2. ALL ROOF DRAIN PIPES, UNLESS OTHERWISE NOTED, ARE TO BE 6" ADS N-12 PIPE WITH SOIL TIGHT JOINTS AND FITTINGS. MINIMUM SLOPE TO BE 1.00%. REFER TO PLAN FOR LOCATION.
- 3. MIN. COVER ON PIPES SHALL NOT BE LESS THAN 1.5 FEET.
- 4. ALL WORK AND MATERIAL SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE TOWN OF WAREHAM MUNICIPAL MAINTENANCE DEPARTMENT.

**PERMIT SET
(NOT FOR CONSTRUCTION)**

DEMOLITION NOTES:

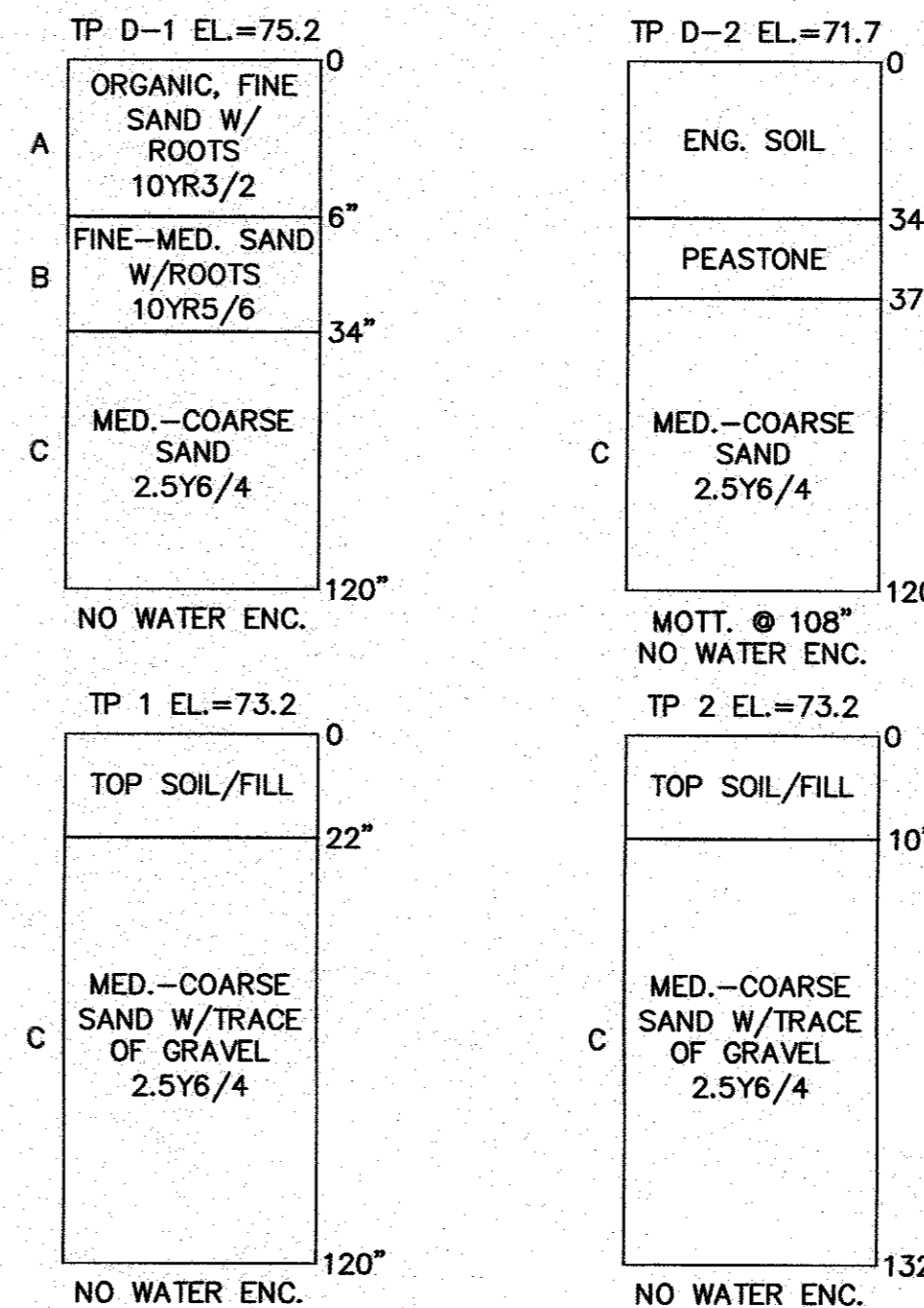
- 1. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO MAKE HIS/HER OWN DETERMINATION OF SUBSURFACE CONDITIONS, INCLUDING THE LOCATION OF ROCK AND THE ACTUAL LOCATION OF UTILITIES OR OTHER FEATURES WHICH MAY AFFECT HIS/HER WORK. ANY UNSUITABLE MATERIAL ENCOUNTERED DURING CONSTRUCTION WILL BE REPORTED TO THE ENGINEER OF RECORD FOR RESOLUTION AND CONSTRUCTION METHOD.
- 2. THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, TOOLS, EQUIPMENT AND APPARATUS NECESSARY AND SHALL DO ALL WORK REQUIRED TO COMPLETE THE DEMOLITION, REMOVAL, AND ALTERATIONS OF EXISTING FACILITIES, INCLUDING PIPING SYSTEMS AND APPURTENANCES, DRAINAGE, PAVEMENT, LANDSCAPE AND SITE FEATURES ENCOUNTERED DURING THE INSTALLATION AS INDICATED ON THE DRAWINGS, AS HEREIN SPECIFIED, AND/OR AS DIRECTED BY THE DESIGN ENGINEER.
- 3. ALL EQUIPMENT, PIPING, AND OTHER MATERIALS THAT ARE NOT TO BE RELOCATED OR TO BE RETURNED TO THE OWNER SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF BY HIM, AWAY FROM THE SITE OF THE WORK AND AT HIS OWN EXPENSE.
- 4. ALL DEMOLITION OR REMOVAL OF EXISTING STRUCTURES, PAVEMENT, UTILITIES, EQUIPMENT, AND APPURTENANCES, LANDSCAPE AND SITE FEATURES SHALL BE ACCOMPLISHED WITHOUT DAMAGING THE INTEGRITY OF EXISTING STRUCTURES, EQUIPMENT, PAVEMENT, APPURTENANCES, AND TREES TO REMAIN.
- 5. SUCH ITEMS THAT ARE DAMAGED SHALL BE EITHER REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE TO A CONDITION AT LEAST EQUAL TO THAT WHICH EXISTED PRIOR TO THE START OF HIS WORK TO THE SATISFACTION OF THE DESIGN ENGINEER AND/OR THE OWNER.
- 6. PROVIDE TWO (2) COPIES OF PROPOSED METHODS AND OPERATIONS OF DEMOLITION TO THE OWNER AND ENGINEER FOR REVIEW PRIOR TO THE START OF WORK. INCLUDE IN THE SCHEDULE THE COORDINATION FOR SHUTOFF, CAPPING AND CONTINUATION OF UTILITY SERVICES AS REQUIRED.
- 7. PROVIDE A DETAILED SEQUENCE OF WORK TO THE DESIGN ENGINEER AND THE OWNER FOR DEMOLITION AND REMOVAL WORK TO ENSURE THE UNINTERRUPTED PROGRESS OF THE OWNER'S OPERATIONS.
- 8. ENSURE THE SAFE PASSAGE OF PERSONS AROUND THE AREA OF DEMOLITION. CONDUCT OPERATIONS TO PREVENT INJURY TO ADJACENT BUILDINGS, STRUCTURES, OTHER FACILITIES AND PERSONS.
- 9. PROVIDE INTERIOR AND EXTERIOR SHORING, BRACING, OR SUPPORT TO PREVENT MOVEMENT, SETTLEMENT OR COLLAPSE OF STRUCTURES TO BE DEMOLISHED AND ADJACENT FACILITIES TO REMAIN.
- 10. THE CONTRACTOR SHALL PROMPTLY REPAIR DAMAGES CAUSED BY DEMOLITION OPERATIONS TO ADJACENT FACILITIES AT NO COST TO THE OWNER.
- 11. THE EXISTING BUILDING FOOTPRINT SHALL BE BACKFILLED WITH STRUCTURAL FILL AND COMPACTED TO AT LEAST 95% OF MAXIMUM DENSITY. THE SLAB SHOULD BE CONSTRUCTED ON A MINIMUM 8 INCH THICK LAYER OF COMPACTED 3/4" CRUSHED STONE. COORDINATE WITH ALL ARCHITECTURAL AND STRUCTURAL DRAWINGS.

WATER INSTALLATION NOTES:

- 1. ALL WATER MAINS, SERVICES, GATE VALVES/GATE BOX, CURB STOPS, HYDRANTS, FITTINGS, ETC. & METHOD OF INSTALLATION SHALL CONFORM TO THE TOWN OF WAREHAM FIRE DISTRICT RULES & REGULATIONS.
- 2. WATER MAIN SHALL BE TESTED & DISINFECTED IN ACCORDANCE WITH THE TOWN OF WAREHAM FIRE DISTRICT REQUIREMENTS.
- 3. CONTRACTOR TO COORDINATE WITH THE TOWN OF WAREHAM FIRE DISTRICT FOR THE INSPECTIONS OF THE WATER MAIN INSTALLATION.
- 4. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS TO COMPLETE THE INSTALLATION OF THE WATER SERVICE.
- 5. THE CONTRACTOR SHALL OBTAIN A COPY OF THE REGULATIONS FROM THE TOWN OF WAREHAM FIRE DISTRICT BEFORE PROCEEDING WITH THE INSTALLATION OF THE WATER SERVICE.
- 6. WATER MAIN/SERVICE SHALL BE INSTALLED A MINIMUM OF 1' BELOW ALL PROPOSED DRAINAGE LINES.

TEST PIT DATA

DATE OF TESTING: AUGUST 22, 2019
PERFORMED BY: BRIAN GRADY, G.A.F. ENGINEERING INC.
REFER TO EXISTING CONDITIONS & DEMOLITION PLAN FOR TEST PIT LOCATIONS



ABBREVIATIONS
AC ASBESTIC CONCRETE
ADS ADVANCED DRAINAGE SYSTEM
APPROX. APPROXIMATE
BC BOTTOM OF CURB
BIT. CONC. BITUMINOUS CONCRETE
BLDRS BOULDERS
BW BOTTOM OF WALL
BVW BORDERING VEGETATED WETLANDS
CB CATCH BASIN
CB/DH CONCRETE BOUND/DRILL HOLE
CCB CAFE COB BERM
CEM. CEMENT
C.I. CAST IRON
CONC. CONCRETE
C.L.D.I. CEMENT LINED DUCTILE IRON
CMP CORRUGATED METAL PIPE
CPP CORRUGATED PLASTIC PIPE
DIA DIAMETER
DMH DRAIN MANHOLE
D.I. DUCTILE IRON
D.CS DRAINAGE CONTROL STRUCTURE
E ELECTRIC
ELEV.,EL. ELEVATION
EOP EDGE OF PAVEMENT
EX. EXISTING
F.D.C. FIRE DEPARTMENT CONNECTION
F.E.S. FLARED END SECTION
F.F.E. FINISHED FLOOR ELEVATION
FOUND. FOUND
FP FIRE PROTECTION
GAS GAS
GG,GV GAS GATE, GAS VALVE
H.C. HANDICAP PARKING
H.D.P.E. HIGH DENSITY POLYETHYLENE
HYD. HYDRANT
INVT. INVERT
MAX. MAXIMUM
MED. MEDIUM
MIN. MINIMUM
N.T.S. NOT TO SCALE
N/F. NOW OR FORMERLY
OHW OVERHEAD WIRE
PCC PRECAST CONCRETE CURBING
PVC POLYVINYL CHLORIDE PIPE
PROP. PROPOSED
RCP REINFORCED CONCRETE PIPING
R RADIUS
R&D REMOVE AND DISPOSE
SB/DH STONE BOUND/DRILL HOLE
S SEWER
SGC SLOPED GRANITE CURBING
SMH SEWER MANHOLE
STA STATION
TC TOP OF CURB
T/W TOP OF WALL
TYP. TYPICAL
T/O/F TOP OF FOUNDATION
UP UTILITY POLE
UE UNDERGROUND ELECTRIC
VGC VERTICAL GRANITE CURB
WATER WATER
WG,WV WATER GATE, WATER VALVE
WQS WATER QUALITY STRUCTURE

EXISTING	DESC.	PROPOSED
55	CONTOURS	55
53x5	SPOT GRADES	52x5, 52x5
	WETLANDS	
D	F.E.M.A. FLOOD ZONE	D
D	DRAIN LINE	D
RD	PERFORATED DRAIN LINE	RD
RD	ROOF DRAIN LINE	RD
CB	CATCH BASIN (CB)	CB
DMH	DRAIN MANHOLE (DMH)	DMH
EMH	ELECTRIC MANHOLE (EMH)	EMH
UE	UNDERGROUND UTILITIES	UE
OHW	OVERHEAD WIRES	OHW
	UTILITY POLE	
	GUY POLE	
	WATER GATE VALVE	
	WATER SHUTOFF/CURB STOP	
	HYDRANT	
	POST INDICATOR VALVE	
	WATER LINE	
FP	FIRE PROTECTION LINE	FP
S	SEWER MANHOLE (SMH)	S
S	SEWER LINE	S
	TREELINE	
	LIGHT POST	
G	GAS LINE	G
	GAS GATE/VALVE	
	GAS SHUTOFF	
	GAS METER	
	SIGN	
	FENCE	
	BOUND	
	TEST PIT/PERC TEST	
	SILT FENCE	
	GUARD RAIL	
	FLARED END SECTION	
	STONE WALL	

APPROVED BY: [Signature]

DATE: JULY 8, 2020

DRAWN BY: JMP

CHECKED BY: WFM

JOB NO.: 19-9342

SCALE: N.T.S.

NO CHANGES THIS SHEET

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NO CHANGES THIS SHEET

DATE BY APPD

REV. DATE BY APPD

DATE: JULY 8, 2020

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NO CHANGES THIS SHEET

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DATE BY APPD

REV. DATE BY APPD

G.A.F. ENGINEERING & LAND SURVEYORS
PROFESSIONAL ENGINEERS & LAND SURVEYORS
286 MAIN STREET - WAREHAM, MA 02571
TEL: (508) 295-6600 FAX: (508) 295-8634
E-MAIL: gaf@gaf-eng.com

PREPARED FOR: MASTER MILLWORK, INC.
55 CHARLOTTE FURNACE ROAD WAREHAM, MA
41 MEETING HOUSE LANE, SUITE 11 SAGAMORE BEACH, MA

NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED, OR TRANSMITTED IN ANY MEANS, ELECTRONIC AND/OR MECHANICAL, INCLUDING PHOTOCOPIING, WWW, SERVER, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEMS WITHOUT THE WRITTEN PERMISSION OF G.A.F. ENGINEERING, INC. WITH THE EXCEPTION OF ANY REGULATORY REQUIREMENTS WHICH MAY APPLY TO THIS DOCUMENT. ANY REPRODUCTION OF THIS DOCUMENT WITHOUT THE WRITTEN PERMISSION OF G.A.F. ENGINEERING, INC. SHALL BE STRICTLY PROHIBITED.

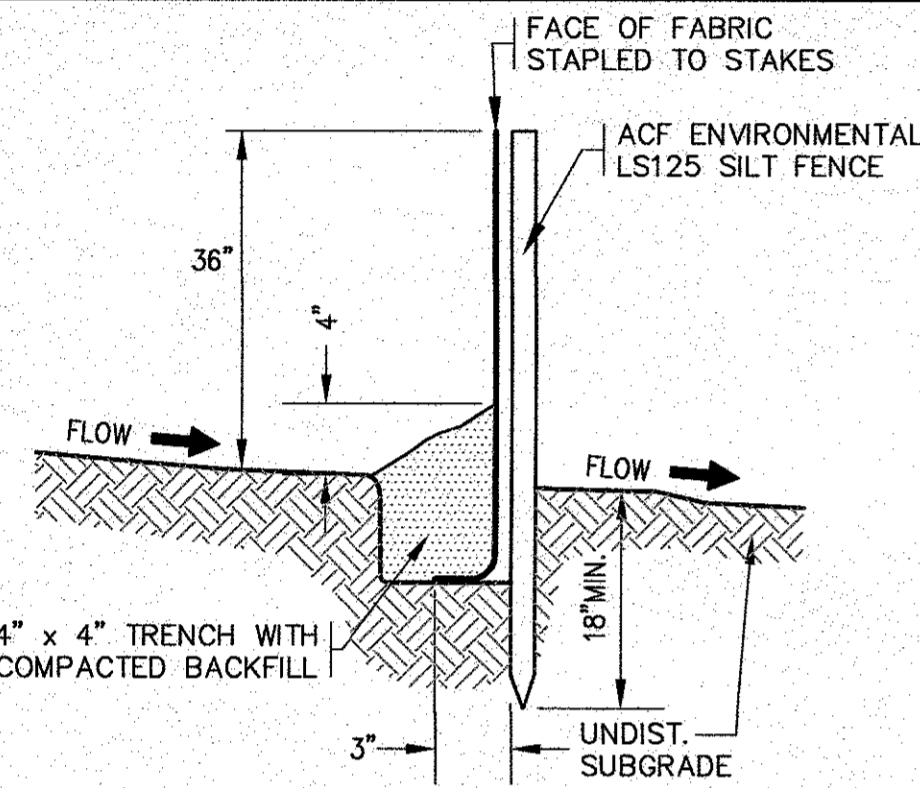
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DWG. 2 OF 10

N:\paf\Drawings\2019\286MS19-9342 MASTER MILLWORK\5401.dwg(542 SITE PLAN, ALI-3,REV-2.dwg)

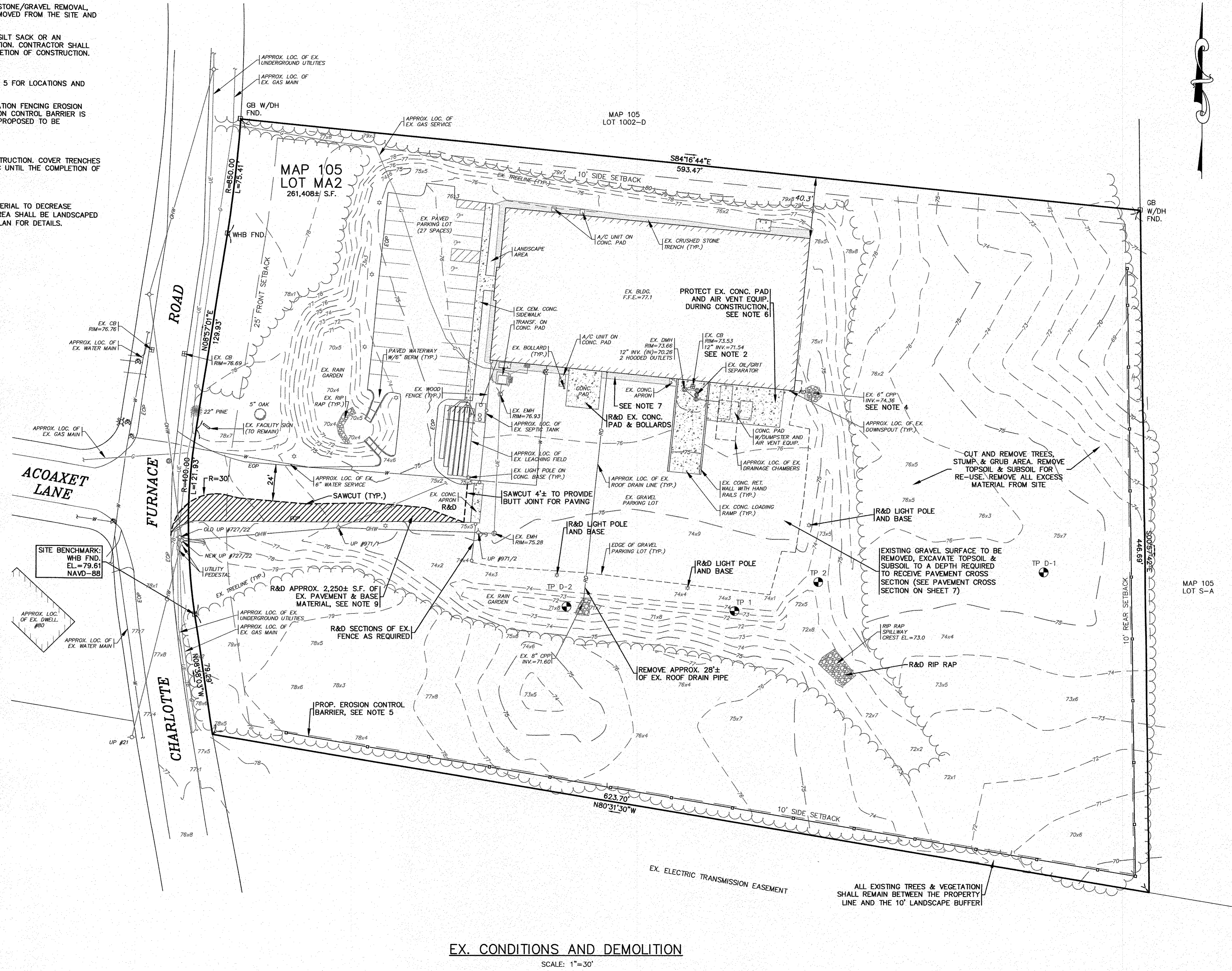
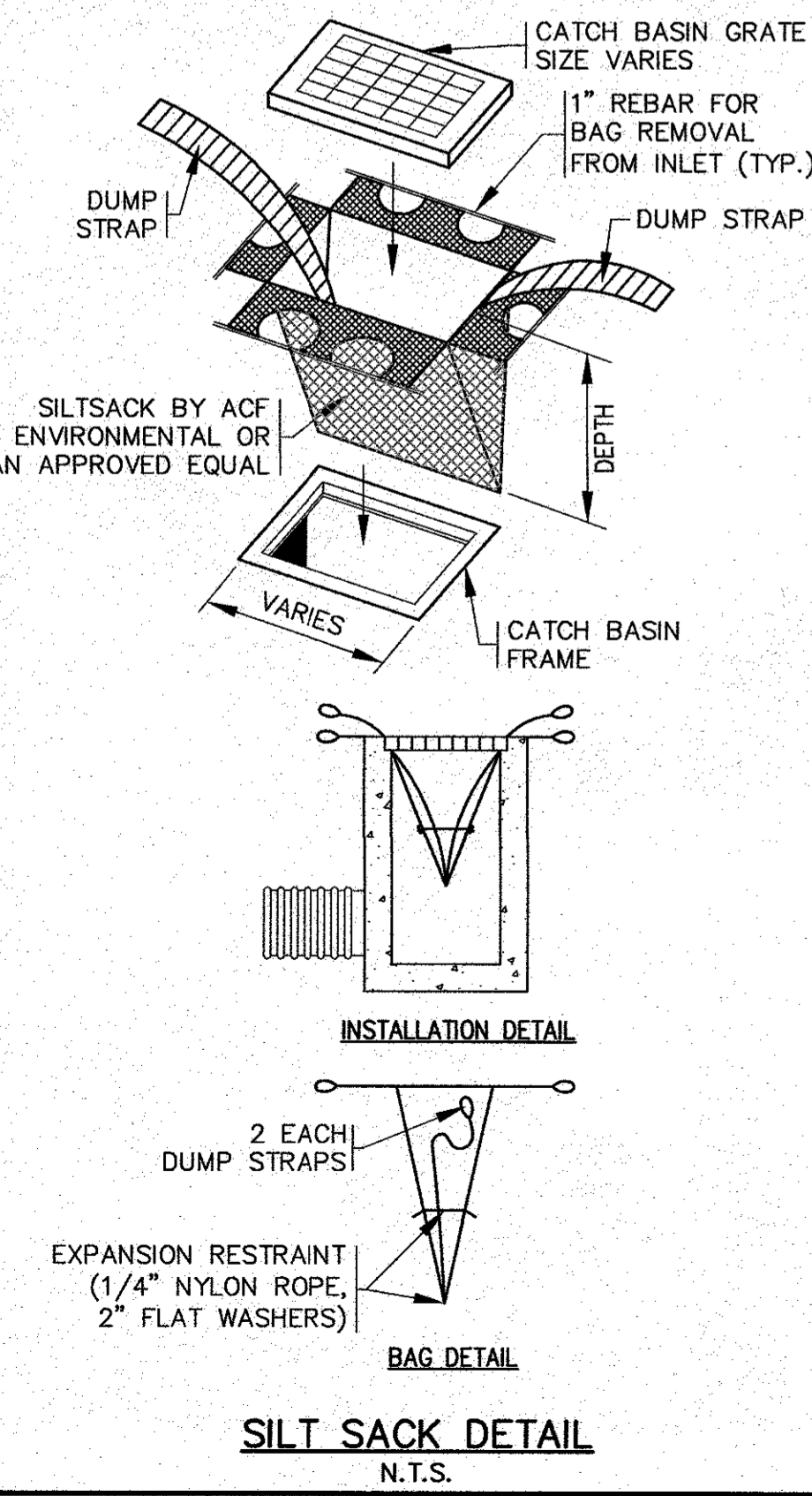
NOTES:

- ALL DEBRIS FROM DEMOLITION INCLUDING PIPE REMOVAL, STONE/GRAVEL REMOVAL, TREE CLEARING, STUMPING, GRUBBING, ETC. SHALL BE REMOVED FROM THE SITE AND NOT STOCKPILED.
- ALL EXISTING CATCH BASINS SHALL HAVE A TEMPORARY SILT SACK OR AN APPROVED EQUAL INSTALLED WITHIN PRIOR TO CONSTRUCTION. CONTRACTOR SHALL REMOVE AND DISPOSE OF THE SILT SACKS AT THE COMPLETION OF CONSTRUCTION.
- PROTECT ALL EXISTING UTILITIES DURING CONSTRUCTION.
- EXISTING ROOF DRAIN PIPE TO BE RELOCATED. SEE SHEET 5 FOR LOCATIONS AND ELEVATIONS.
- CONTRACTOR SHALL PROVIDE AND MAINTAIN STAKED SILTATION FENCING EROSION CONTROL BARRIER. SEE PLAN FOR LOCATIONS. THE EROSION CONTROL BARRIER IS SHOWN OFFSET FOR CLARITY. NO WORK SHALL BE OR IS PROPOSED TO BE PERFORMED BEYOND THE 10' LANDSCAPE BUFFER.
- EXISTING DUMPSTER LOCATION TO REMAIN THE SAME.
- PROTECT EXISTING CRUSHED STONE TRENCH DURING CONSTRUCTION. COVER TRENCHES WITH AN ADDITIONAL TEMPORARY LAYER OF FILTER FABRIC UNTIL THE COMPLETION OF CONSTRUCTION.
- THE EXISTING FACILITY SIGN SHALL REMAIN.
- REMOVE AND DISPOSE EXISTING PAVEMENT AND BASE MATERIAL TO DECREASE EXISTING DRIVEWAY ENTRANCE TO 24' WIDE AS SHOWN. AREA SHALL BE LANDSCAPED OR PROVIDE 4" LOAM & SEED, REFER TO LANDSCAPING PLAN FOR DETAILS.



- NOTES:**
- SILTATION FENCE SHALL BE ACF ENVIRONMENTAL LS125 SILT FENCE OR AN APPROVED EQUAL.
 - SILTATION FENCING SHALL BE INSTALLED DOWNSLOPE OF ALL PROPOSED AND EXISTING DISTURBED AREAS, OR AS SHOWN ON THE PLANS.
 - EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL VEGETATIVE OR STABILIZED COVER HAS BEEN FIRMLY ESTABLISHED.
 - EROSION CONTROL MEASURES SHALL FOLLOW THE PERFORMANCE STANDARDS OF THE USDA SOIL CONSERVATION SERVICE, AND ANY APPLICABLE STATE/LOCAL CONSERVATION AUTHORITY.

EROSION CONTROL BARRIER
N.T.S.



EX. CONDITIONS AND DEMOLITION

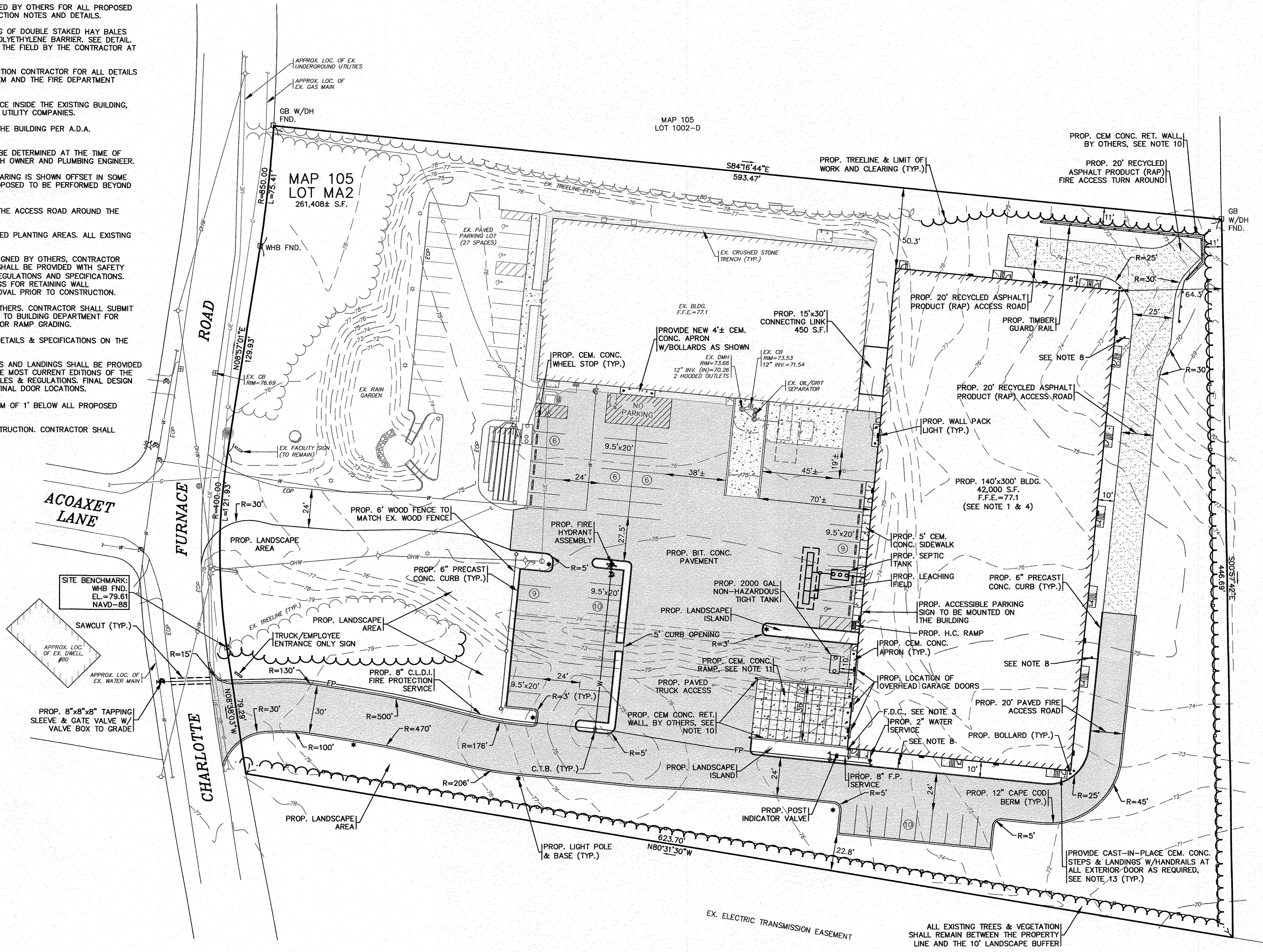
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JOB NO.: 19-9342	JOB NO.: 19-9342	JOB NO.: 19-9342	JOB NO.: 19-9342	JOB NO.: 19-9342	JOB NO.: 19-9342
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G.A.F. ENGINEERING, INC. PROFESSIONAL ENGINEERS & LAND SURVEYORS 266 MAIN STREET - WAREHAM, MA 02571 TEL: (508) 295-6600 FAX: (508) 295-6634 E-MAIL: gaf@gaf-eng.com		MASTER MILLWORK, INC. 41 MEETING HOUSE LANE, SUITE 11, SACAMORE BEACH, MA		PER 2ND PEER REVIEW COMMENTS PER 2ND PEER REVIEW COMMENTS	
SITE DEVELOPMENT PLAN EX. CONDITIONS AND DEMOLITION 55 CHARLOTTE FURNACE ROAD WAREHAM, MA		PREPARED FOR: MASTER MILLWORK, INC.		JOB NO.: 19-9342 DWG. 3 OF 10	
PERMIT SET (NOT FOR CONSTRUCTION)		DATE: BY: APP'D		REV. DATE: BY: APP'D	

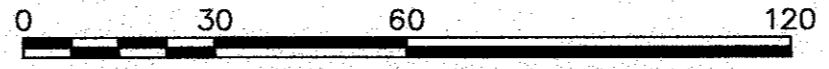
16:104F DRAWINGS (2019 DRAWINGS) (19-2542) (MASTER MILLWORK) (SAC) (16) (SAC) SITE PLAN (A1)-1, REV. 2-20

NOTES:

- REFER TO A SET OF ARCHITECTURAL PLANS PREPARED BY OTHERS FOR ALL PROPOSED BUILDING & CONNECTING LINK DIMENSIONS, CONSTRUCTION NOTES AND DETAILS.
- CEMENT CONCRETE WASHOUT AREA SHALL BE A RING OF DOUBLE STAKED HAY BALES WITH SILTATION FENCE AND LINED WITH A 40 MIL. POLYETHYLENE BARRIER. SEE DETAIL. FINAL WASHOUT LOCATION SHALL BE DETERMINED IN THE FIELD BY THE CONTRACTOR AT TIME OF CONSTRUCTION.
- CONTRACTOR TO COORDINATE WITH THE FIRE PROTECTION CONTRACTOR FOR ALL DETAILS ON THE PROPOSED BUILDING FIRE PROTECTION SYSTEM AND THE FIRE DEPARTMENT CONNECTION (F.D.C.).
- CONNECT TO THE EXISTING GAS AND ELECTRIC SERVICE INSIDE THE EXISTING BUILDING. CONTRACTOR SHALL COORDINATE WITH APPROPRIATE UTILITY COMPANIES.
- ACCESSIBLE PARKING SIGN SHALL BE MOUNTED ON THE BUILDING PER A.D.A. REGULATIONS & SPECIFICATIONS.
- FINAL TIGHT TANK SIZE AND SPECIFICATIONS SHALL BE DETERMINED AT THE TIME OF CONSTRUCTION. CONTRACTOR SHALL COORDINATE WITH OWNER AND PLUMBING ENGINEER.
- THE PROPOSED TREELINE & LIMIT OF WORK AND CLEARING IS SHOWN OFFSET IN SOME AREAS FOR CLARITY. NO WORK SHALL BE OR IS PROPOSED TO BE PERFORMED BEYOND THE 10' LANDSCAPE BUFFER.
- PROVIDE "NO PARKING FIRE LANE" SIGNAGE ALONG THE ACCESS ROAD AROUND THE BUILDING AS SHOWN.
- REFER TO THE LANDSCAPING PLAN FOR ALL PROPOSED PLANTING AREAS. ALL EXISTING LANDSCAPING SHALL REMAIN.
- PROPOSED CEMENT CONCRETE RETAINING WALLS DESIGNED BY OTHERS, CONTRACTOR SHALL COORDINATE WITH OWNER. RETAINING WALLS SHALL BE PROVIDED WITH SAFETY GUARDRAILS/HANDRAILS PER 780 CMR AND OSHA REGULATIONS AND SPECIFICATIONS. CONTRACTOR SHALL SUBMIT STAMPED SHOP DRAWINGS FOR RETAINING WALL CONSTRUCTION TO BUILDING DEPARTMENT FOR APPROVAL PRIOR TO CONSTRUCTION.
- PROPOSED CEMENT CONCRETE RAMP DESIGNED BY OTHERS. CONTRACTOR SHALL SUBMIT STAMPED SHOP DRAWINGS FOR RAMP CONSTRUCTION TO BUILDING DEPARTMENT FOR APPROVAL PRIOR TO CONSTRUCTION. SEE SHEET 5 FOR RAMP GRADING.
- REFER TO PLANS BY RAB LIGHTING FOR COMPLETE DETAILS & SPECIFICATIONS ON THE PROPOSED BUILDING AND SITE LIGHTING.
- PROPOSED CAST-IN-PLACE CEMENT CONCRETE STEPS AND LANDINGS SHALL BE PROVIDED WITH HANDRAILS. HANDRAILS SHALL CONFORM TO THE MOST CURRENT EDITIONS OF THE MASSACHUSETTS STATE BUILDING CODE AND ADA RULES & REGULATIONS. FINAL DESIGN BY OTHERS. REFER TO ARCHITECTURAL PLANS FOR FINAL DOOR LOCATIONS.
- WATER MAIN/SERVICE SHALL BE INSTALLED A MINIMUM OF 1' BELOW ALL PROPOSED DRAINAGE LINES.
- CONFIRM EXISTING WATER MAIN SIZE PRIOR TO CONSTRUCTION. CONTRACTOR SHALL COORDINATE WITH WAREHAM WATER DEPARTMENT.
- LOAM AND SEED ALL DISTURBED AREAS.



LAYOUT AND UTILITIES
SCALE: 1"=30'

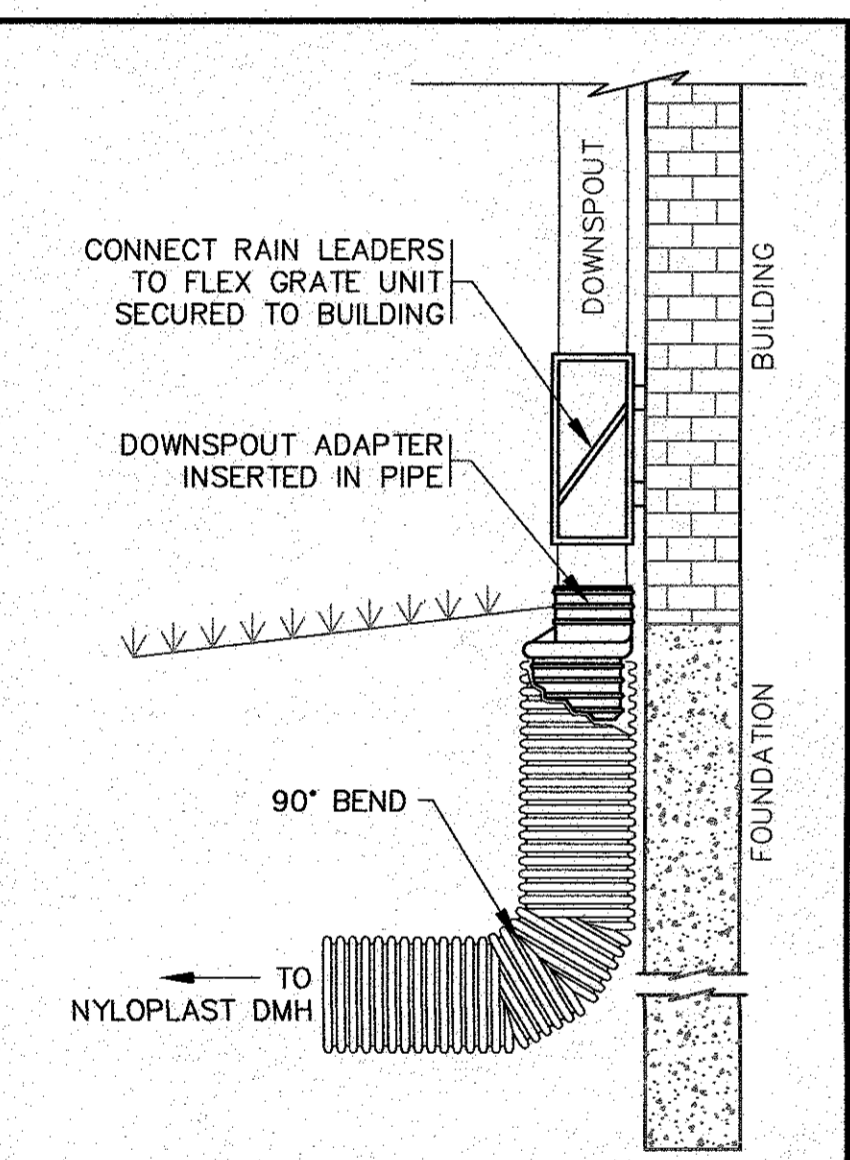


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DATE: JULY 8, 2020		DRAWN BY: JMP		CHECKED BY: WFM		JOB NO.: 19-9342		SCALE: 1" = 30'	
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SITE DEVELOPMENT PLAN LAYOUT AND UTILITIES WAREHAM, MA 55 CHARLOTTE FURNACE ROAD		SITE DEVELOPMENT PLAN LAYOUT AND UTILITIES WAREHAM, MA 55 CHARLOTTE FURNACE ROAD		SITE DEVELOPMENT PLAN LAYOUT AND UTILITIES WAREHAM, MA 55 CHARLOTTE FURNACE ROAD		SITE DEVELOPMENT PLAN LAYOUT AND UTILITIES WAREHAM, MA 55 CHARLOTTE FURNACE ROAD		SITE DEVELOPMENT PLAN LAYOUT AND UTILITIES WAREHAM, MA 55 CHARLOTTE FURNACE ROAD	
PREPARED FOR: MASTER MILLWORK, INC. 41 MEETING HOUSE LANE, SUITE 11, SAGAMORE BEACH, MA		PREPARED FOR: MASTER MILLWORK, INC. 41 MEETING HOUSE LANE, SUITE 11, SAGAMORE BEACH, MA		PREPARED FOR: MASTER MILLWORK, INC. 41 MEETING HOUSE LANE, SUITE 11, SAGAMORE BEACH, MA		PREPARED FOR: MASTER MILLWORK, INC. 41 MEETING HOUSE LANE, SUITE 11, SAGAMORE BEACH, MA		PREPARED FOR: MASTER MILLWORK, INC. 41 MEETING HOUSE LANE, SUITE 11, SAGAMORE BEACH, MA	
JOB NO.: 19-9342		JOB NO.: 19-9342		JOB NO.: 19-9342		JOB NO.: 19-9342		JOB NO.: 19-9342	
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DWG. 4 OF 10		DWG. 4 OF 10		DWG. 4 OF 10		DWG. 4 OF 10		DWG. 4 OF 10	

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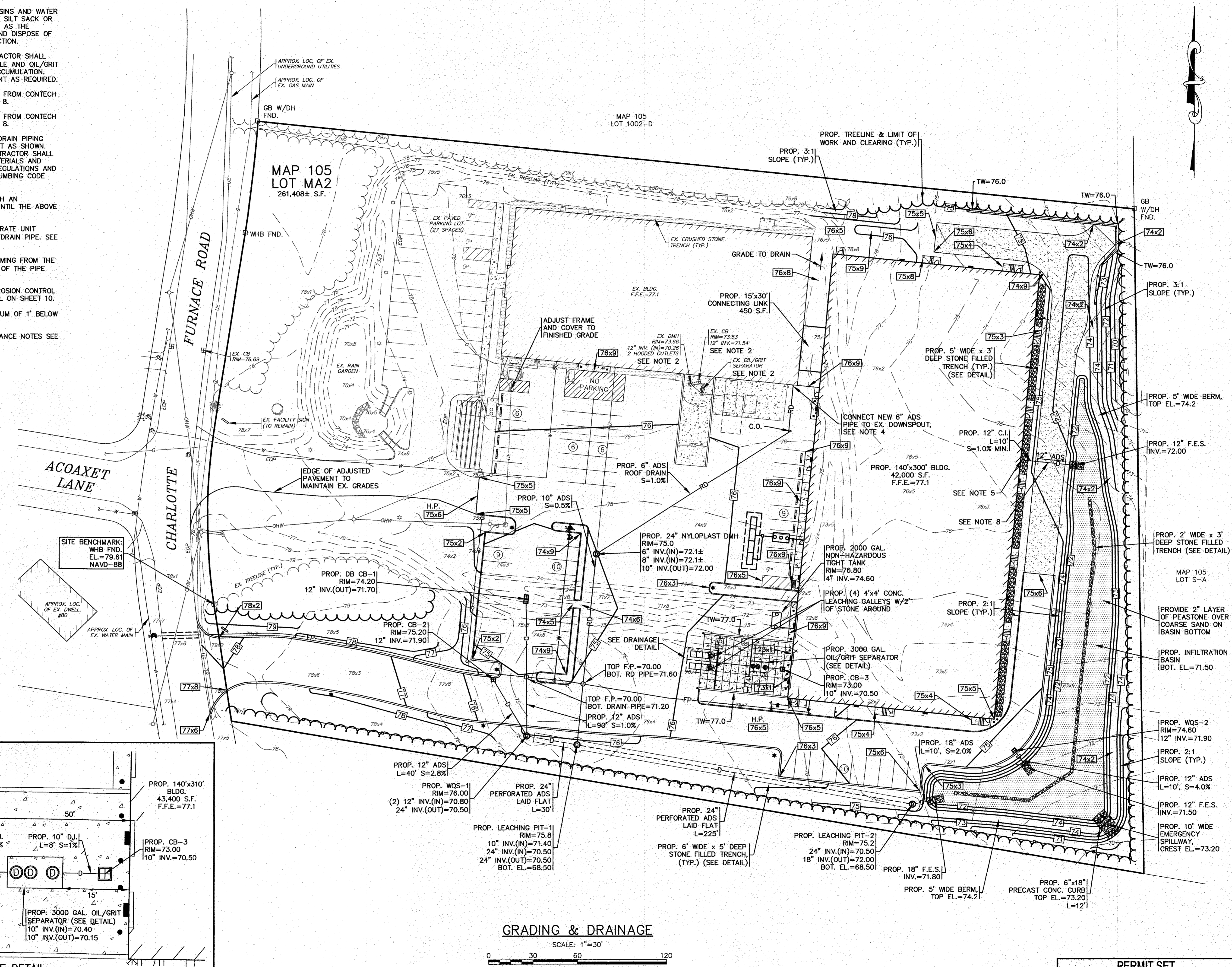
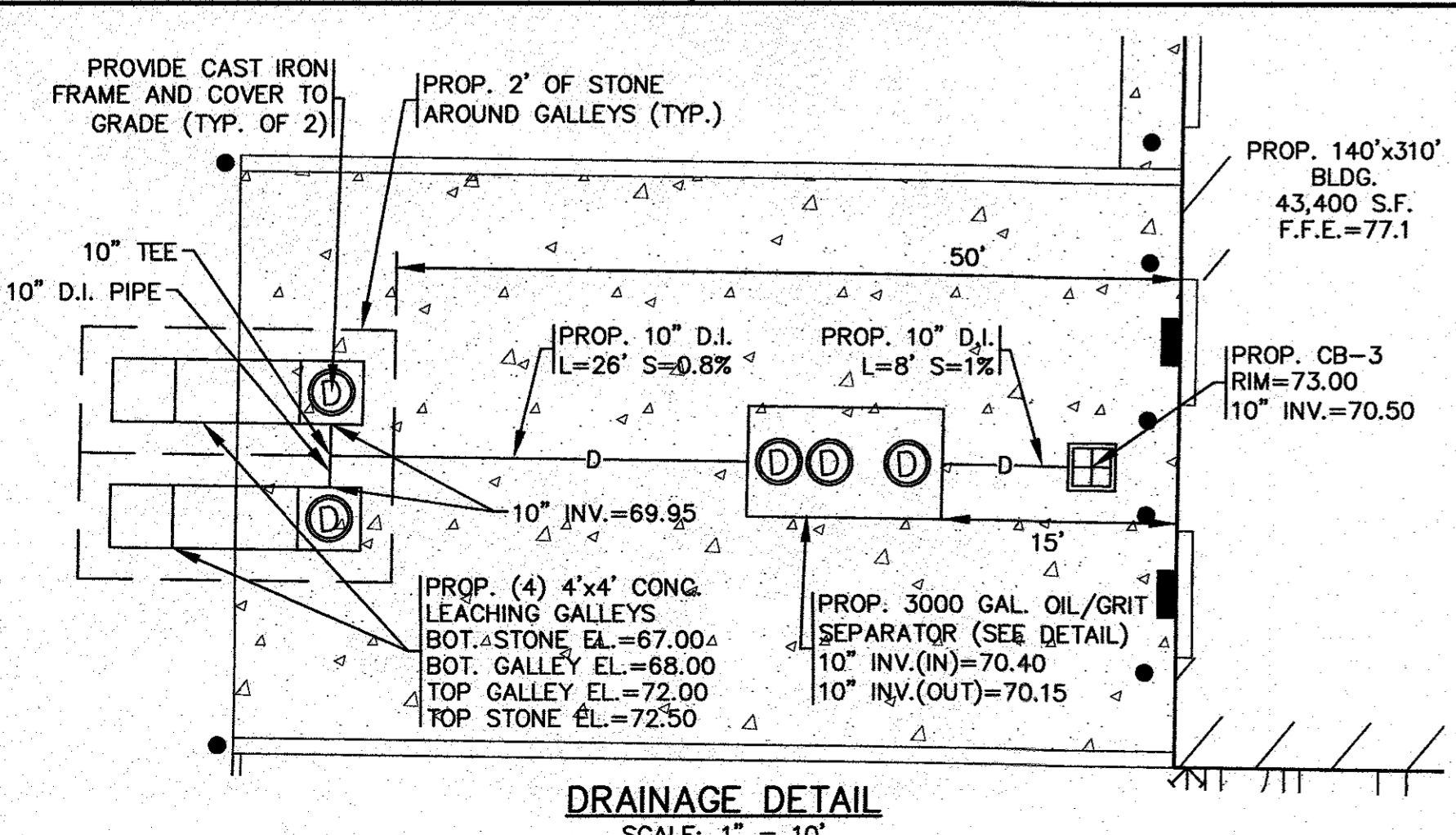
- ALL EXISTING CATCH BASINS, PROPOSED CATCH BASINS AND WATER QUALITY CATCH BASINS SHALL HAVE A TEMPORARY SILT SACK OR AN APPROVED EQUAL INSTALLED IN THEM AS SOON AS THE STRUCTURE IS SET. CONTRACTOR SHALL REMOVE AND DISPOSE OF THE SILT SACKS AT THE COMPLETION OF CONSTRUCTION.
- AT THE COMPLETION OF CONSTRUCTION THE CONTRACTOR SHALL INSPECT THE EXISTING CATCH BASIN, DRAIN MANHOLE AND OIL/GRIT SEPARATOR FOR EVIDENCE SEDIMENT OR DEBRIS ACCUMULATION. REMOVE AND DISPOSE OF ANY DEBRIS AND SEDIMENT AS REQUIRED.
- PROPOSED WQS-1 SHALL BE A CDS2015-4-C UNIT FROM CONTECH ENGINEERED SOLUTIONS LLC. SEE DETAIL ON SHEET 8.
- PROPOSED WQS-2 SHALL BE A CDS1515-3-C UNIT FROM CONTECH ENGINEERED SOLUTIONS LLC. SEE DETAIL ON SHEET 8.
- INSTALL FRONT ROOF GUTTERS TO INTERIOR ROOF DRAIN PIPING AND INSTALL UNDER THE SLAB OF BUILDING TO EXIT AS SHOWN. REFER TO ARCHITECTURAL PLANS BY OTHERS. CONTRACTOR SHALL COORDINATE WITH PLUMBING CONTRACTOR. ALL MATERIALS AND INSTALLATION METHODS SHALL CONFORM TO THE REGULATIONS AND SPECIFICATIONS OF THE MASSACHUSETTS STATE PLUMBING CODE (248 CMR 10.00).
- COVER ALL PROPOSED STONE FILLED TRENCHES WITH AN ADDITIONAL TEMPORARY LAYER OF FILTER FABRIC UNTIL THE ABOVE GRADIENT SLOPE IS STABILIZED.
- MODIFY EXISTING DOWNSPOUT TO HAVE THE FLEX GRATE UNIT INSTALLED AND CONNECT NEW 6" ADS N-12 ROOF DRAIN PIPE. SEE DOWNSPOUT DETAIL.
- USE 12" C.I. PIPE FOR THE FIRST 10' OF PIPING COMING FROM THE BUILDING, THEN USE 12" ADS N-12 FOR THE REST OF THE PIPE LENGTH.
- 2:1 SIDE SLOPES SHALL BE STABILIZED WITH AN EROSION CONTROL BLANKET OVER THE PLANTED SEED BED. SEE DETAIL ON SHEET 10.
- WATER MAIN/SERVICE SHALL BE INSTALLED A MINIMUM OF 1' BELOW ALL PROPOSED DRAINAGE LINES.
- FOR COMPLETE DRAINAGE OPERATION AND MAINTENANCE NOTES SEE SHEET 2.



NOTES:

- REFER TO SITE PLAN FOR LOCATIONS, PIPE SIZES, INVERTS, ETC.

DOWNSPOUT DETAIL
N.T.S.

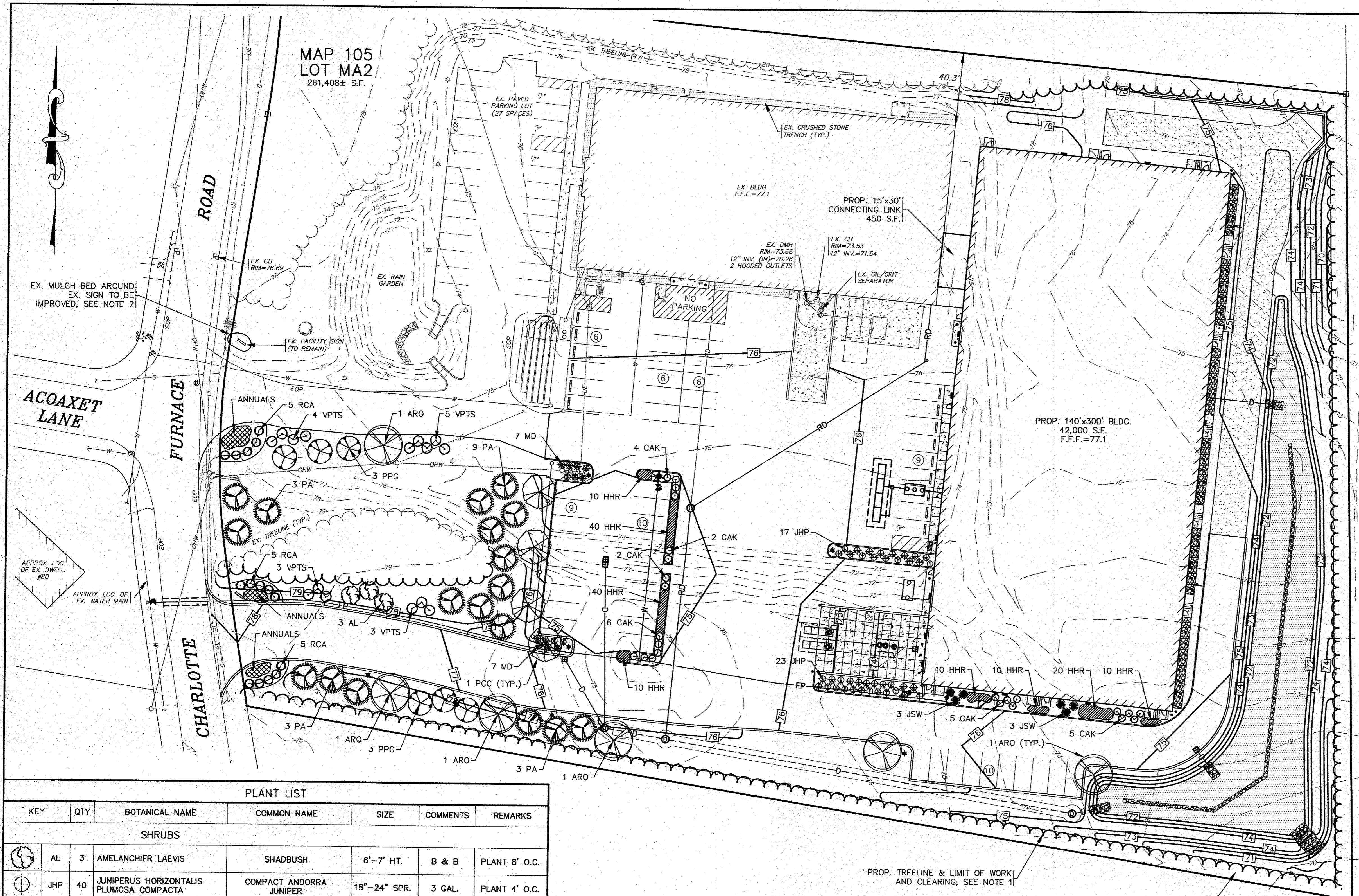


GRADING & DRAINAGE

SCALE: 1" = 30'



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APPROVED BY:				
<p>G.A.F. ENGINEERING, INC. PROFESSIONAL ENGINEERS & LAND SURVEYORS 266 MAIN STREET - WAREHAM, MA 02571 TEL: (508) 295-6600 FAX: (508) 295-6634 E-MAIL: gae@gaef-inc.com</p>				
<p>PREPARED FOR: MASTER MILLWORK, INC. 41 MEETING HOUSE LANE, SUITE 11 SAGAMORE BEACH, MA</p>				
<p>SITE DEVELOPMENT PLAN GRADING & DRAINAGE 55 CHARLOTTE FURNACE ROAD WAREHAM, MA</p>				
JOB NO.: 19-9342				PER 2ND PEER REVIEW COMMENTS
DWG. 5 OF 10				PER 1ST PEER REVIEW COMMENTS
PERMIT SET (NOT FOR CONSTRUCTION)				DATE
				BY
				REV.
				DESCRIPTION



NOTE:
 LANDSCAPE ARCHITECTURE BY: E.A. FULLER ASSOCIATES—LANDSCAPE ARCHITECTS
 170 PLYMOUTH STREET, P.O. BOX 48
 NORTH CARVER, MA 02355

- PLANTING STANDARDS:**
- THE LANDSCAPE CONTRACTOR SHALL FURNISH AND INSTALL AND/OR DIG, BALL, BURLAP, AND TRANSPORT ALL PLANT MATERIALS LISTED ON THE PLANT SCHEDULE. BARE-ROOT IS TYPICALLY NOT PERMITTED FOR ANY TREE.
 - PLANT MATERIALS SHALL CONFORM TO THE REQUIREMENTS DESCRIBED IN THE LATEST EDITION OF AMERICAN STANDARD FOR NURSERY STOCK, PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN. PLANTS SHALL BE NURSERY GROWN.
 - PLANTS SHALL CONFORM TO THE MEASUREMENTS SPECIFIED IN THE PLANT SCHEDULE.
 - CALIPER MEASUREMENTS SHALL BE TAKEN SIX (6) INCHES ABOVE GRADE FOR TREES UNDER FOUR (4) INCHES IN DIAMETER AND TWELVE (12) INCHES ABOVE GRADE FOR TREES FOUR (4) INCHES IN DIAMETER AND LARGER.
 - MINIMUM BRANCHING HEIGHT FOR ALL SHADE TREES SHALL BE SIX (6) FEET.
 - MINIMUM SIZE FOR SHADE TREES SHALL BE TWO AND ONE HALF (2.5) INCHES IN DIAMETER AND TWELVE (12) FEET IN HEIGHT.
 - MINIMUM SIZE FOR EVERGREEN TREES SHALL BE BETWEEN SIX (6) AND EIGHT (8) FEET IN HEIGHT
 - MINIMUM SIZE FOR SHRUBS SHALL BE THREE (3) FEET IN HEIGHT
 - A PROFESSIONAL HORTICULTURIST/NURSERYMAN SHALL BE CONSULTED TO DETERMINE THE PROPER TIME TO MOVE AND INSTALL PLANT MATERIAL SO THAT DISTRESS TO THE PLANT IS MINIMIZED. PLANTING OF DECIDUOUS MATERIAL MAY BE CONTINUED DURING WINTER MONTHS PROVIDED THERE IS NO FROST IN THE GROUND AND FROST-FREE TOPSOIL PLANTING MIXTURES ARE USED.
 - A LANDSCAPE CONTRACTOR SHALL EXCAVATE ALL PLANT PITS, VINE PITS, HEDGE TRENCHES, AND SHRUB BEDS AS FOLLOWS:
 - ALL PITS SHALL BE GENERALLY CIRCULAR IN OUTLINE, WITH VERTICAL SIDES. THE TREE PIT SHALL BE DEEP ENOUGH TO ALLOW ONE-EIGHTH (1/8) OF THE BALL TO BE ABOVE THE EXISTING GRADE. PLANTS SHALL REST ON UNDISTURBED EXISTING SOIL OR WELL COMPACTED BACKFILL ON EVERY SIDE, THE TREE PITS MUST BE A MINIMUM OF 2 TIMES THE ROOT BALL DIAMETER.
 - IF AREAS ARE DESIGNATED AS SHRUB BEDS OR HEDGE TRENCHES, THEY SHALL BE CULTIVATED TO AT LEAST EIGHTEEN (18) INCHES IN DEPTH. AREAS DESIGNATED FOR GROUND COVERS AND VINES SHALL BE CULTIVATED TO AT LEAST TWELVE (12) INCHES IN DEPTH.
 - EACH TREE, SHRUB, OR VINE SHALL BE PRUNED IN AN APPROPRIATE MANNER IN ACCORDANCE WITH ACCEPTED STANDARD PRACTICE.
 - ALL TRENCHES AND SHRUB BEDS SHALL BE EDGED AND CULTIVATED TO THE LINES SHOWN ON THE DRAWING. THE AREAS AROUND ISOLATED PLANTS SHALL BE EDGED AND CULTIVATED TO THE FULL DIAMETER OF THE PIT. SOIL THAT HAS BEEN REMOVED AND STACKED SHALL BE USED TO TRIM THE EDGES OF ALL EXCAVATED AREAS TO THE NEAT LINES OF THE PLANT PIT SAUCERS, THE EDGE OF SHRUB AREAS, HEDGE TRENCHES AND VINE POCKETS.
 - AFTER CULTIVATION, ALL PLANT MATERIALS SHALL BE MULCHED WITH A LAYER BETWEEN TWO (2) AND THREE (3) INCHES DEEP OF HEMLOCK / SPRUCE MULCH OVER THE ENTIRE AREA OF THE BED OR SAUCER.
 - A TWO (2) YEAR GUARANTEE SHALL BE PROVIDED ON ALL NEW PLANT MATERIAL IF ANY TREE OR SHRUB DIES WITHIN THIS PERIOD OF TIME, IT SHALL BE REPLACED.
 - ALL AREAS THAT ARE NOT LANDSCAPED SHALL BE LOAMED AND SEEDING.

- NOTES:**
- THE PROPOSED TREELINE & LIMIT OF WORK AND CLEARING IS SHOWN OFFSET IN SOME AREAS FOR CLARITY. NO WORK SHALL BE OR IS PROPOSED TO BE PERFORMED BEYOND THE 10' LANDSCAPE BUFFER.
 - REMOVE ANY GRASS OVERGROWTH, REPLACE ANY VEGETATION AS NEEDED, ADD ANNUALS AND MULCH AREA. CONTRACTOR SHALL COORDINATE WITH OWNER.

PLANT LIST						
KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	COMMENTS	REMARKS
SHRUBS						
AL	3	AMELANCHIER LAEVIS	SHADBUSH	6'-7' HT.	B & B	PLANT 8' O.C.
JHP	40	JUNIPERUS HORIZONTALIS PLUMOSA COMPACTA	COMPACT ANDORRA JUNIPER	18"-24" SPR.	3 GAL.	PLANT 4' O.C.
JSW	6	JUNIPERUS SABINA 'WICHITA BLUE'	WICHITA BLUE JUNIPER	6'-7' HT.	B & B	PLANT 5' O.C.
MD	14	MICROBIOTA DECUSSATA	SIBERIAN CARPET CYPRESS	18"-24" SPR.	3 GAL.	PLANT 3' O.C.
RCA	15	RHODODENDRON CATAWBIENSE 'ALBA'	WHITE CATAWBA RHODODENDRON	30"-36" HT.	B & B	PLANT 5' O.C.
VPTS	15	VIBURNUM PLICATUM TOMENTOSUM 'SHASTA'	SHASTA DOUBLEFILE VIBURNUM	36" HT.	5 GAL. OR B & B	PLANT 5' O.C.
SHADE & ORNAMENTAL TREES						
ARO	6	ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY RED MAPLE	3" CAL.	B & B	PLANT 35' O.C.
PA	18	PICEA ABIES	NORWAY SPRUCE	7'-8' HT.	B & B	PLANT 15' O.C.
PPG	6	PICEA PUNGENS 'GLAUCA'	COLORADO BLUE SPRUCE	7'-8' HT.	B & B	PLANT 15' O.C.
PCC	4	PYRUS CALLERYANA 'CHANTICLEER'	CLEVELAND SELECT CALLERY PEAR	3" CAL.	B & B	PLANT AS SHOWN
ORNAMENTAL GRASSES & PERENNIALS						
CAK	24	CALAMAGROSTIS ACUTIFLORA 'KARL FOERSTER'	FEATHER REED GRASS	1 GAL.	36" HT.	18" O.C.
HHR	150	HEMEROCALIS 'HAPPY RETURNS'	HAPPY RETURNS DAYLILY	1 GAL.	18" HT.	18" O.C.

LANDSCAPING PLAN
 SCALE: 1"=30'
 0 30 60 120

DATE: JULY 8, 2020
DRAWN BY: JMP
CHECKED BY: WFM
JOB NO.: 19-9342
SCALE: 1" = 30'

APPROVED BY: [Signature]

G.A.F. ENGINEERING, INC.
 PROFESSIONAL ENGINEERS & LAND SURVEYORS
 266 MAIN STREET - WAREHAM, MA 02571
 TEL: (508) 295-6600 FAX: (508) 295-6634
 E-MAIL: gaf@gaf-eng.com

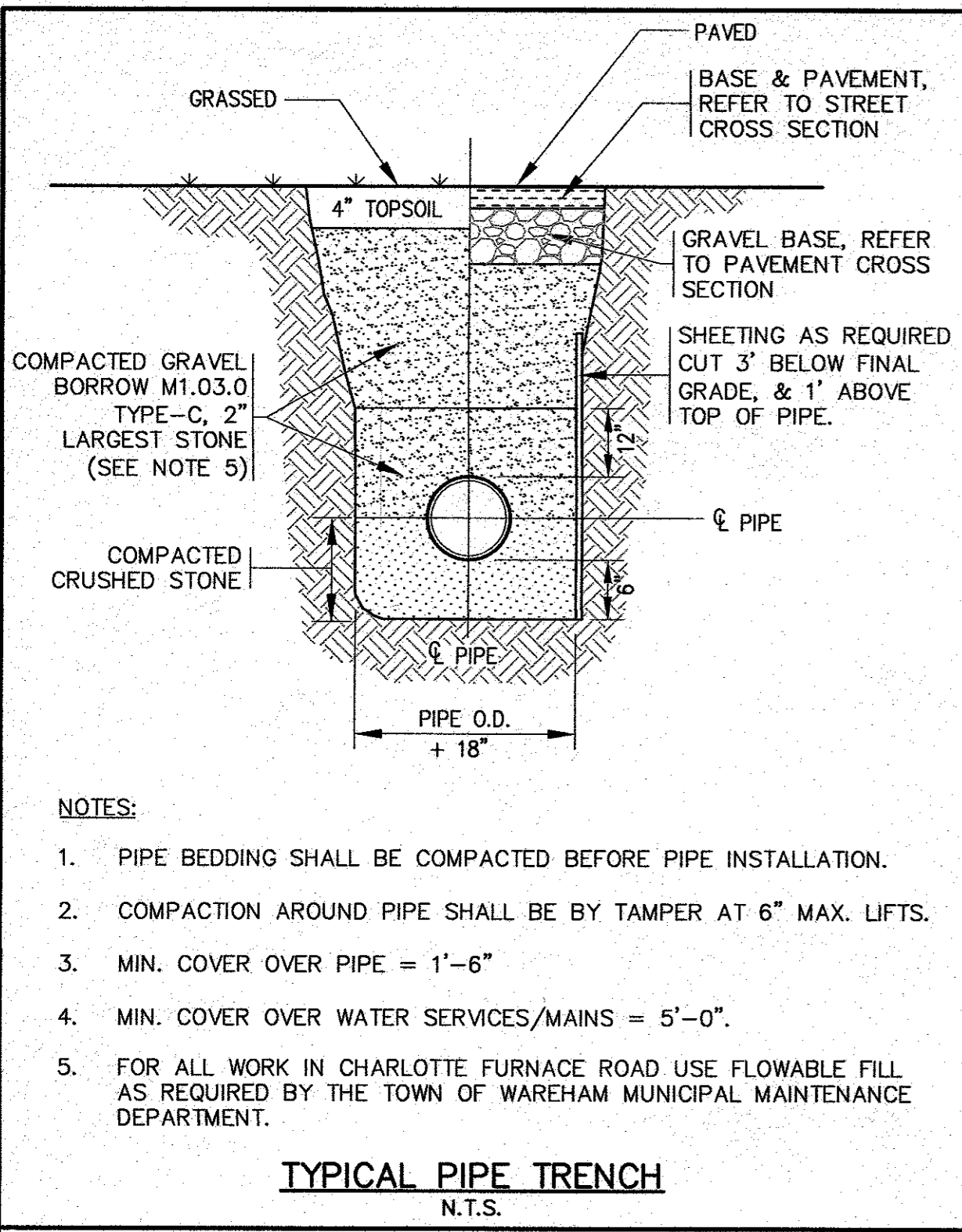
REGISTERED PROFESSIONAL ENGINEER
 [Seal]

SITE DEVELOPMENT PLAN
LANDSCAPING PLAN
 WAREHAM, MA
 PREPARED FOR:
MASTER MILL WORK, INC.
 41 MEETING HOUSE LANE, SUITE 11, SAGAMORE BEACH, MA

JOB NO.: 19-9342
DWG.: 6 OF 10

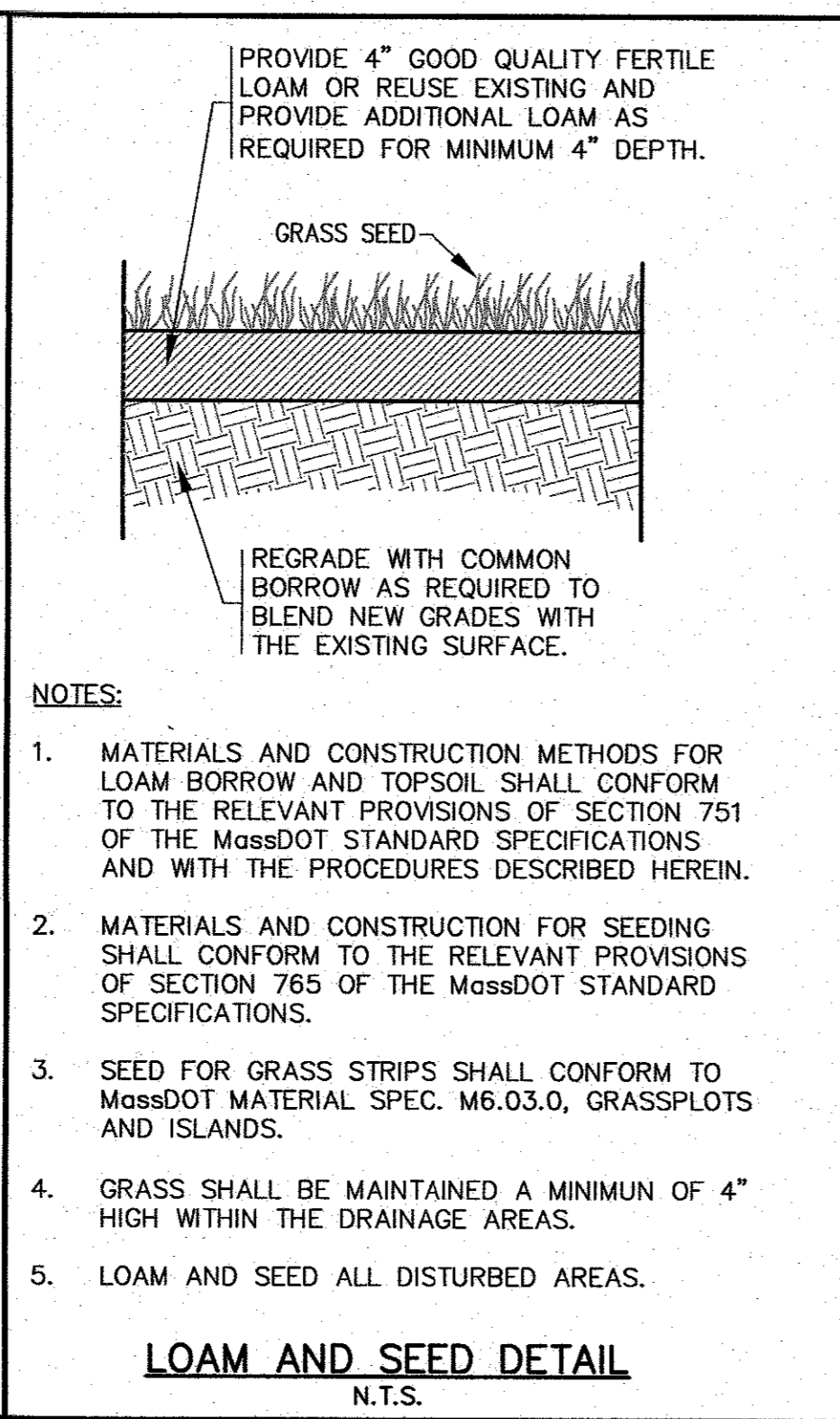
REV.	DATE	BY	APP'D	DESCRIPTION
2	8/20/20	JMP	WFM	PER 2ND PEER REVIEW COMMENTS
1	8/10/20	JMP	WFM	PER PEER REVIEW COMMENTS

14-CAD-DRAWINGS-2019-DRAWINGS-19-532 (MASTER MILLWORK) (S&P) (S&P) SITE PLAN ALI-1-JULY-2020



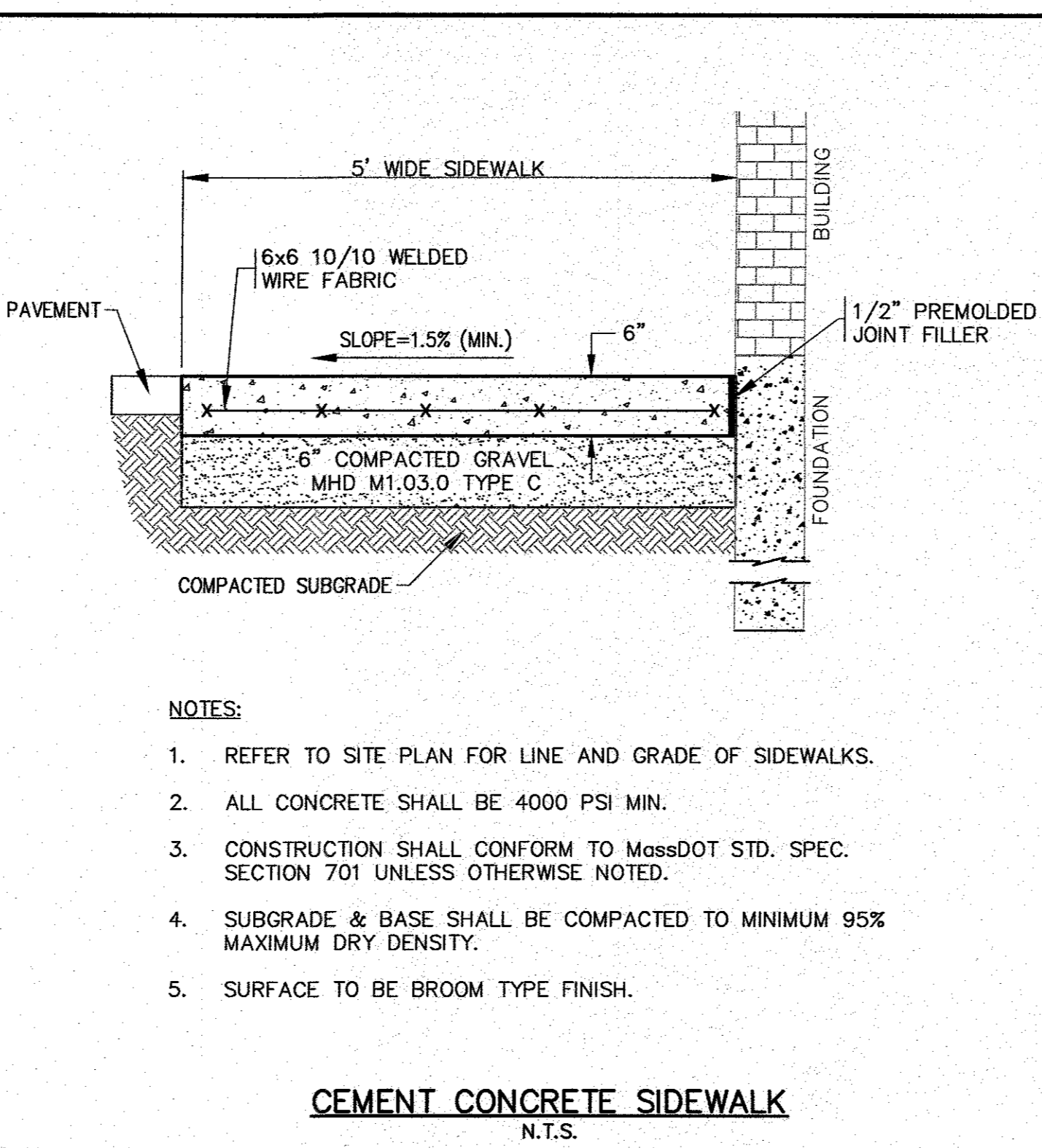
TYPICAL PIPE TRENCH
N.T.S.

- NOTES:
- PIPE BEDDING SHALL BE COMPACTED BEFORE PIPE INSTALLATION.
 - COMPACTION AROUND PIPE SHALL BE BY TAMPER AT 6" MAX. LIFTS.
 - MIN. COVER OVER PIPE = 1'-6"
 - MIN. COVER OVER WATER SERVICES/MAINS = 5'-0"
 - FOR ALL WORK IN CHARLOTTE FURNACE ROAD USE FLOWABLE FILL AS REQUIRED BY THE TOWN OF WAREHAM MUNICIPAL MAINTENANCE DEPARTMENT.



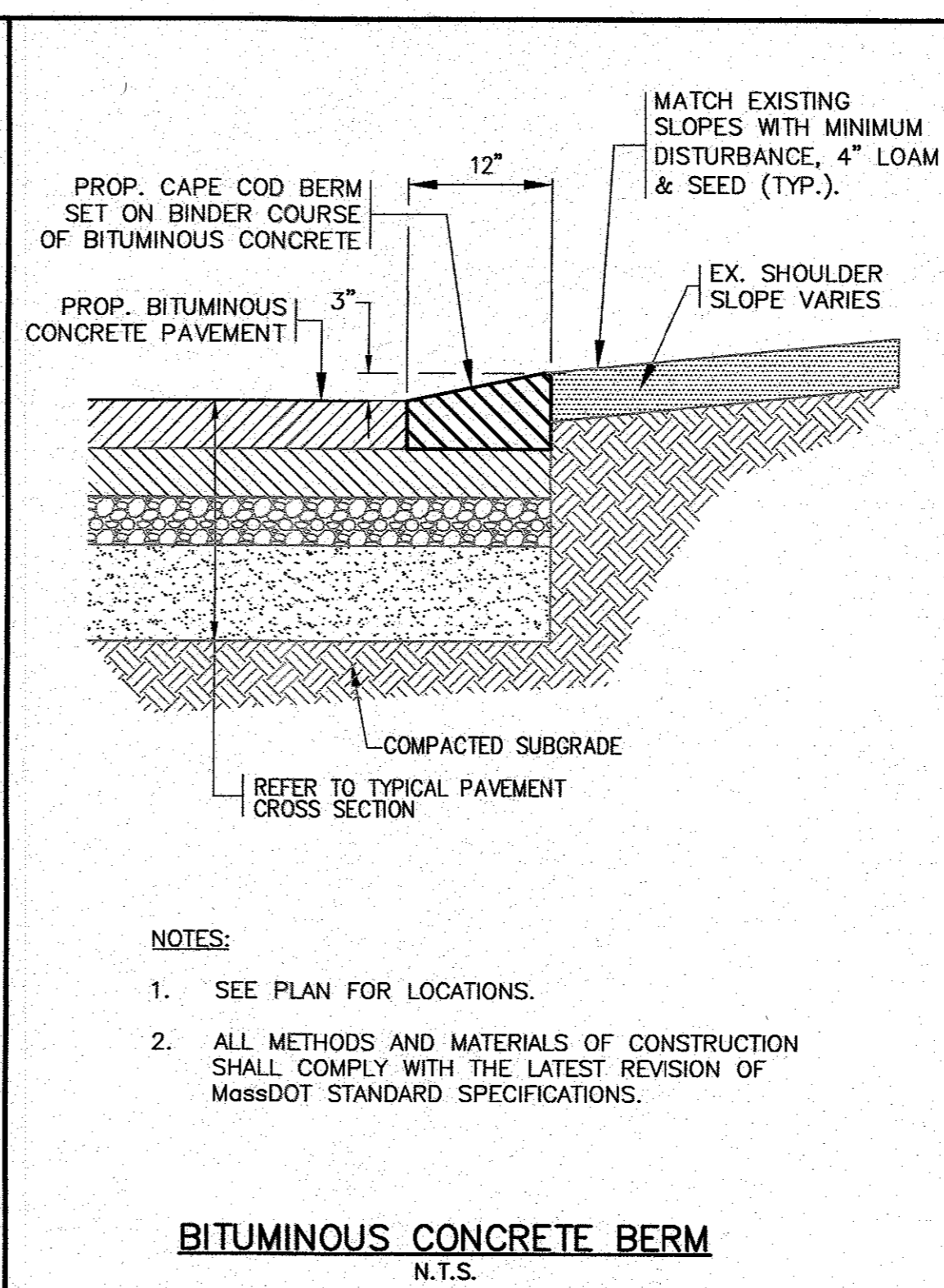
LOAM AND SEED DETAIL
N.T.S.

- NOTES:
- MATERIALS AND CONSTRUCTION METHODS FOR LOAM BORROW AND TOPSOIL SHALL CONFORM TO THE RELEVANT PROVISIONS OF SECTION 751 OF THE MASSDOT STANDARD SPECIFICATIONS AND WITH THE PROCEDURES DESCRIBED HEREIN.
 - MATERIALS AND CONSTRUCTION FOR SEEDING SHALL CONFORM TO THE RELEVANT PROVISIONS OF SECTION 765 OF THE MASSDOT STANDARD SPECIFICATIONS.
 - SEED FOR GRASS STRIPS SHALL CONFORM TO MASSDOT MATERIAL SPEC. M6.03.0, GRASSPLOTS AND ISLANDS.
 - GRASS SHALL BE MAINTAINED A MINIMUM OF 4" HIGH WITHIN THE DRAINAGE AREAS.
 - LOAM AND SEED ALL DISTURBED AREAS.



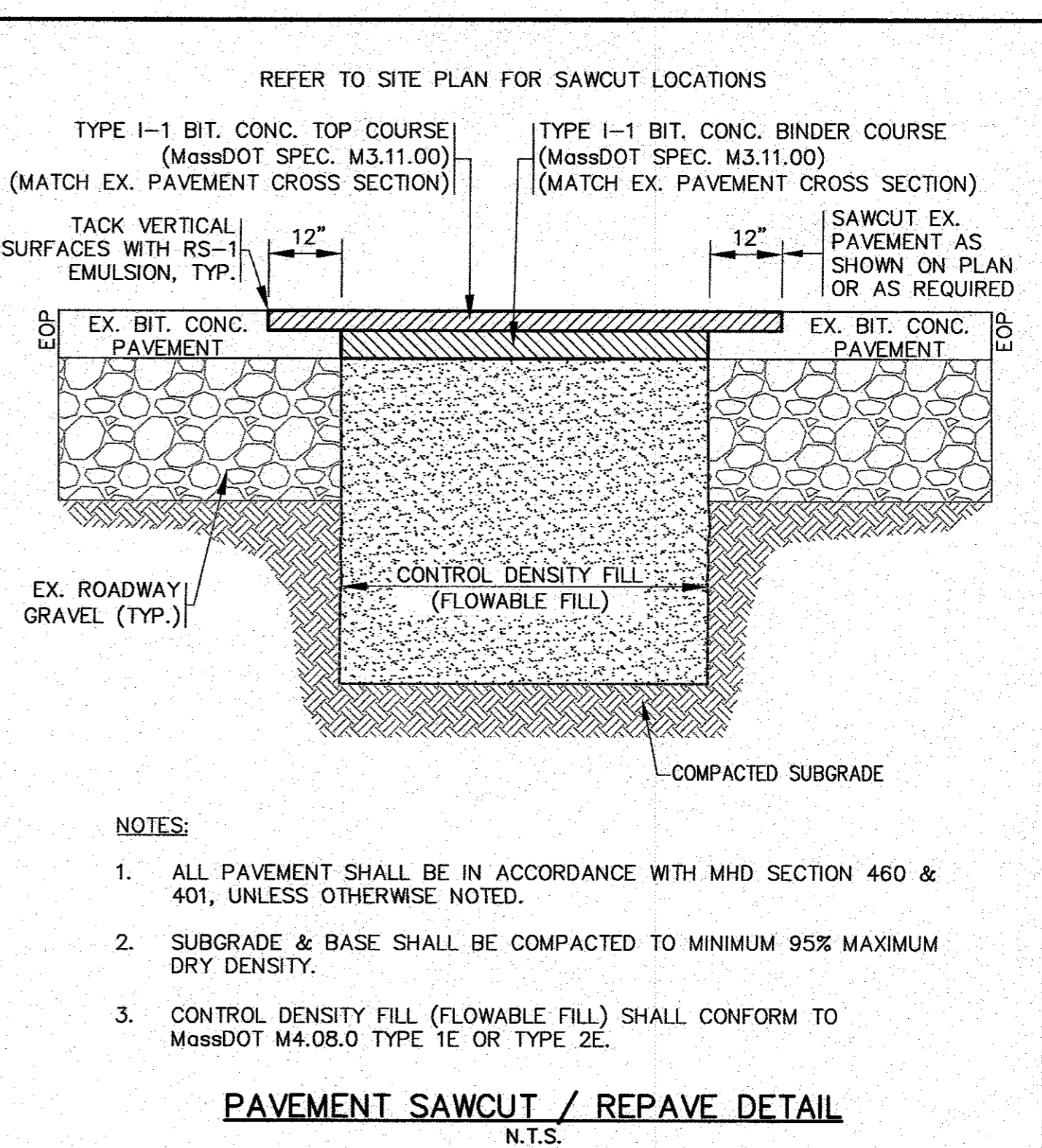
CEMENT CONCRETE SIDEWALK
N.T.S.

- NOTES:
- REFER TO SITE PLAN FOR LINE AND GRADE OF SIDEWALKS.
 - ALL CONCRETE SHALL BE 4000 PSI MIN.
 - CONSTRUCTION SHALL CONFORM TO MASSDOT STD. SPEC. SECTION 701 UNLESS OTHERWISE NOTED.
 - SUBGRADE & BASE SHALL BE COMPACTED TO MINIMUM 95% MAXIMUM DRY DENSITY.
 - SURFACE TO BE BROOM TYPE FINISH.



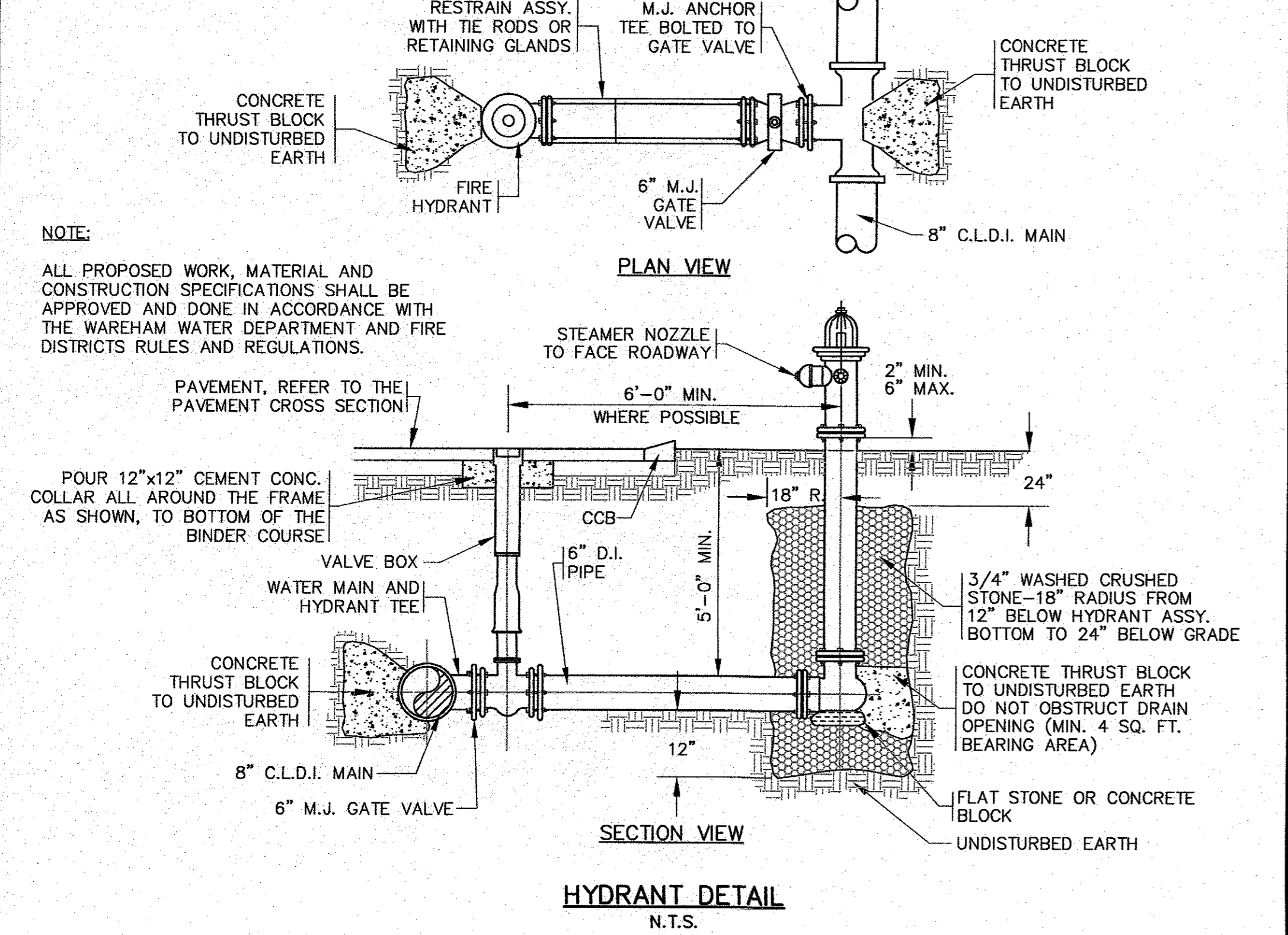
BITUMINOUS CONCRETE BERM
N.T.S.

- NOTES:
- SEE PLAN FOR LOCATIONS.
 - ALL METHODS AND MATERIALS OF CONSTRUCTION SHALL COMPLY WITH THE LATEST REVISION OF MASSDOT STANDARD SPECIFICATIONS.



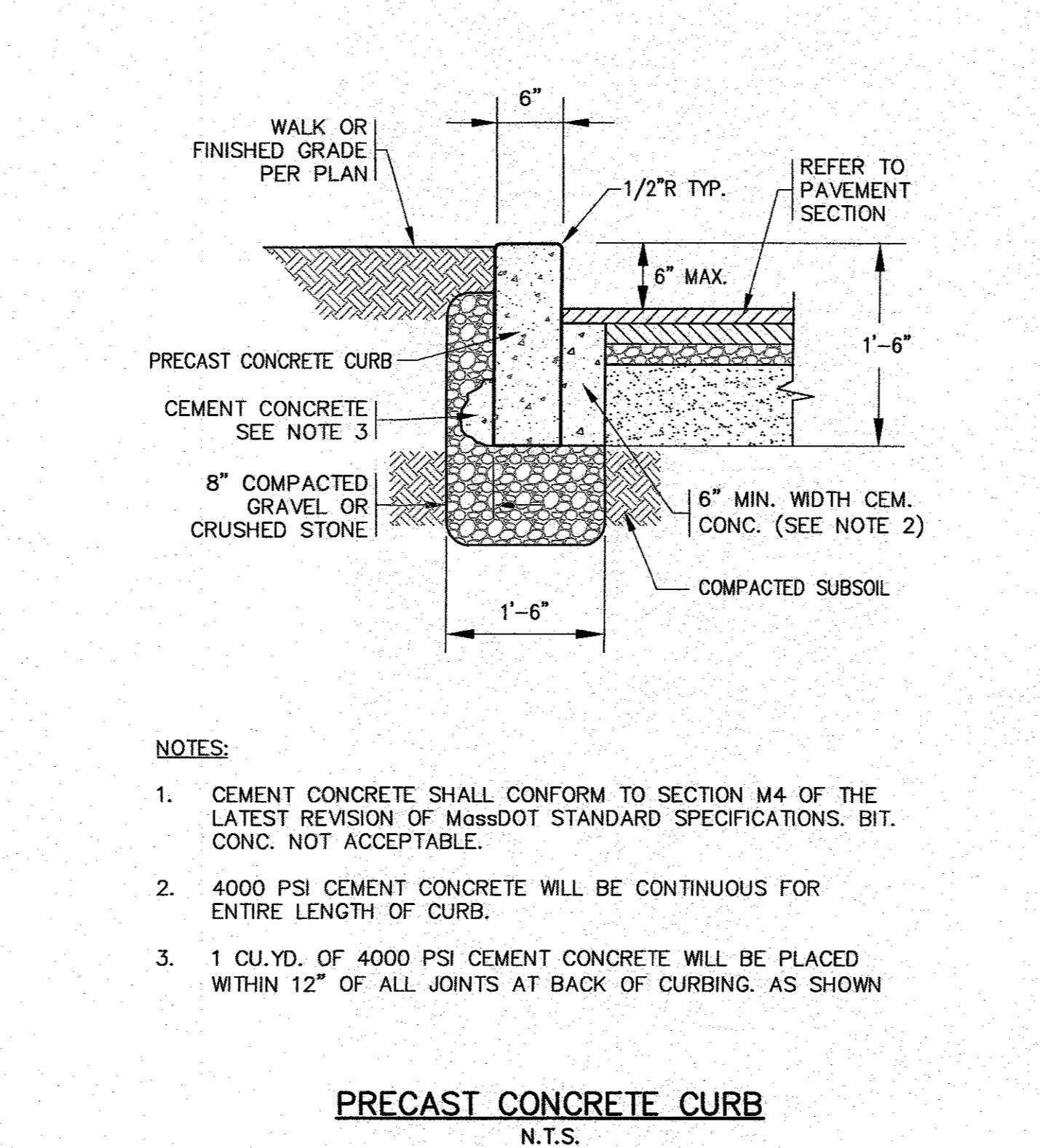
PAVEMENT SAWCUT / REPAVE DETAIL
N.T.S.

- NOTES:
- ALL PAVEMENT SHALL BE IN ACCORDANCE WITH MHD SECTION 460 & 401, UNLESS OTHERWISE NOTED.
 - SUBGRADE & BASE SHALL BE COMPACTED TO MINIMUM 95% MAXIMUM DRY DENSITY.
 - CONTROL DENSITY FILL (FLOWABLE FILL) SHALL CONFORM TO MASSDOT M4.08.0 TYPE 1E OR TYPE 2E.



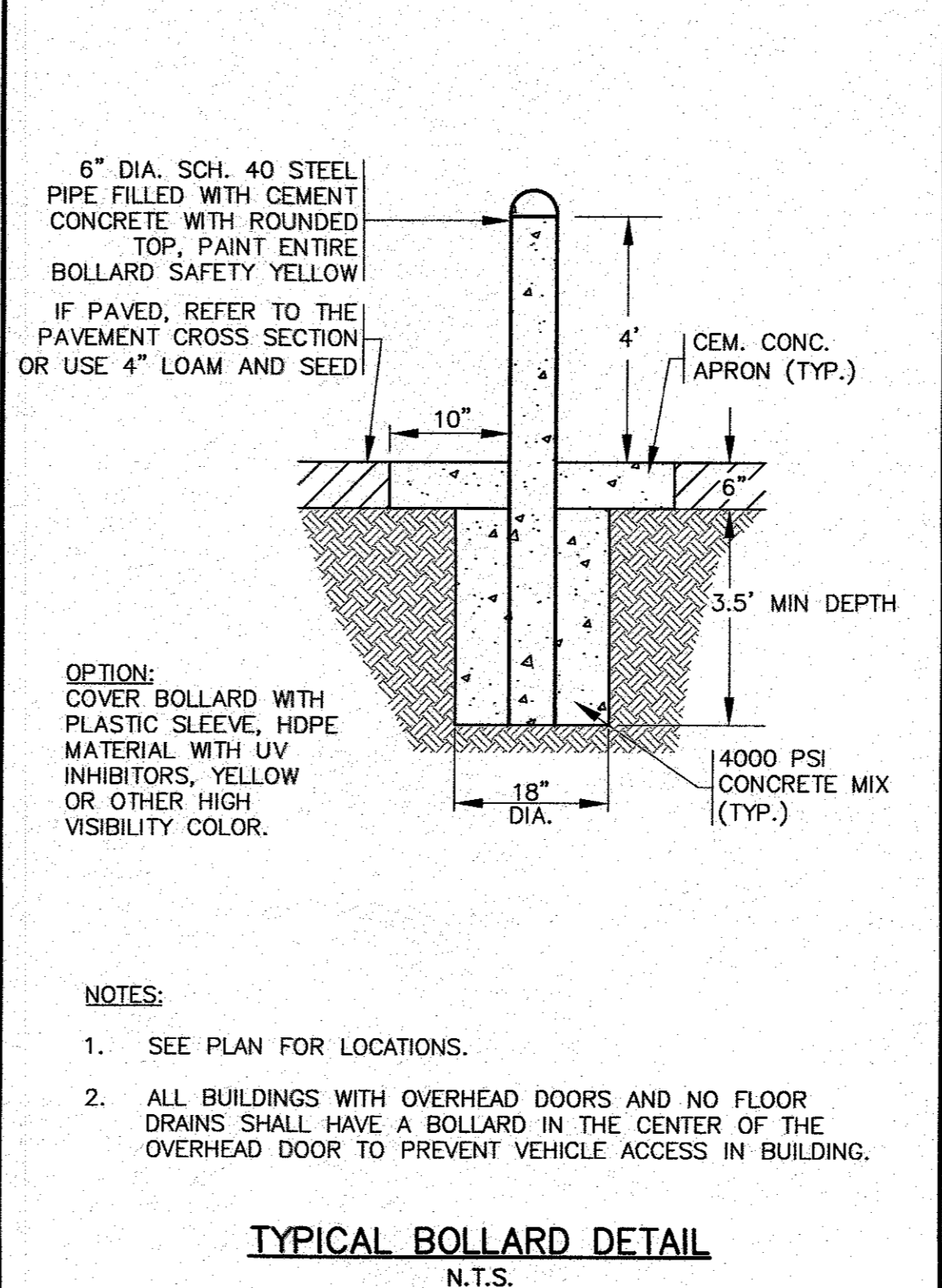
HYDRANT DETAIL
N.T.S.

- NOTE:
- ALL PROPOSED WORK, MATERIAL AND CONSTRUCTION SPECIFICATIONS SHALL BE APPROVED AND DONE IN ACCORDANCE WITH THE WAREHAM WATER DEPARTMENT AND FIRE DISTRICTS RULES AND REGULATIONS.



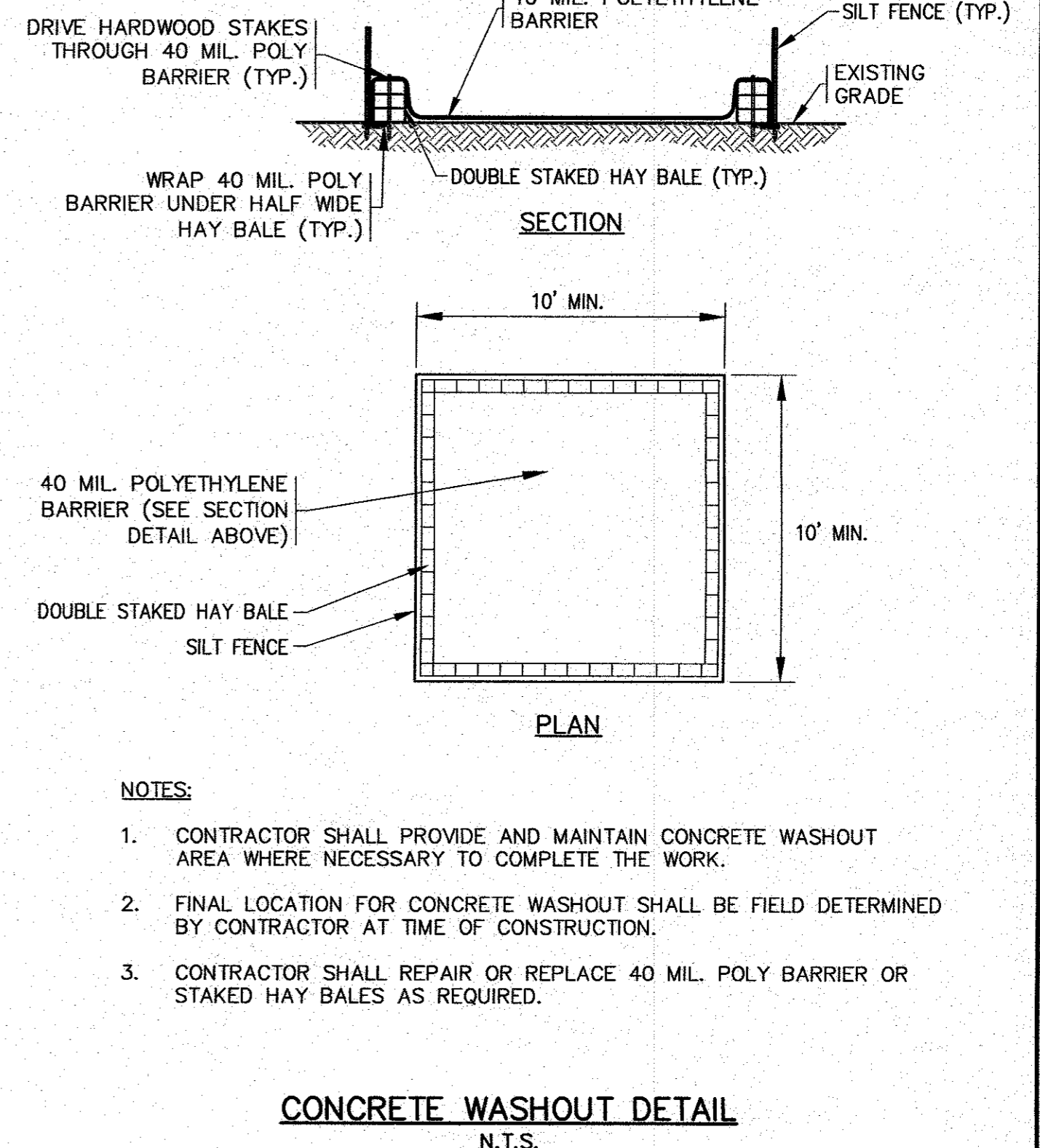
PRECAST CONCRETE CURB
N.T.S.

- NOTES:
- CEMENT CONCRETE SHALL CONFORM TO SECTION M4 OF THE LATEST REVISION OF MASSDOT STANDARD SPECIFICATIONS. BIT. CONC. NOT ACCEPTABLE.
 - 4000 PSI CEMENT CONCRETE WILL BE CONTINUOUS FOR ENTIRE LENGTH OF CURB.
 - 1 CU.YD. OF 4000 PSI CEMENT CONCRETE WILL BE PLACED WITHIN 12" OF ALL JOINTS AT BACK OF CURBING. AS SHOWN



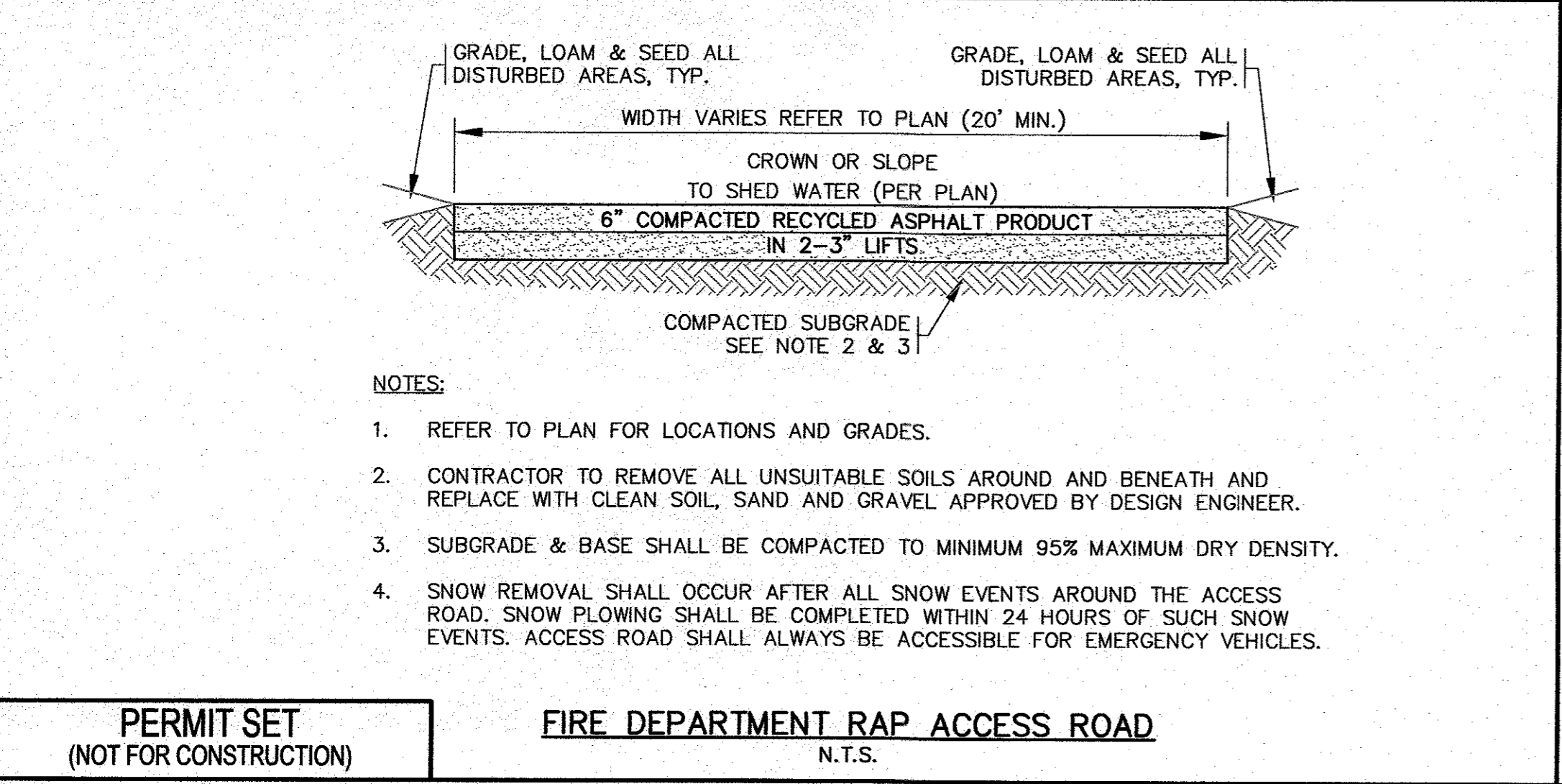
TYPICAL BOLLARD DETAIL
N.T.S.

- OPTION:
- COVER BOLLARD WITH PLASTIC SLEEVE, HDPE MATERIAL WITH UV INHIBITORS, YELLOW OR OTHER HIGH VISIBILITY COLOR.
- NOTES:
- SEE PLAN FOR LOCATIONS.
 - ALL BUILDINGS WITH OVERHEAD DOORS AND NO FLOOR DRAINS SHALL HAVE A BOLLARD IN THE CENTER OF THE OVERHEAD DOOR TO PREVENT VEHICLE ACCESS IN BUILDING.



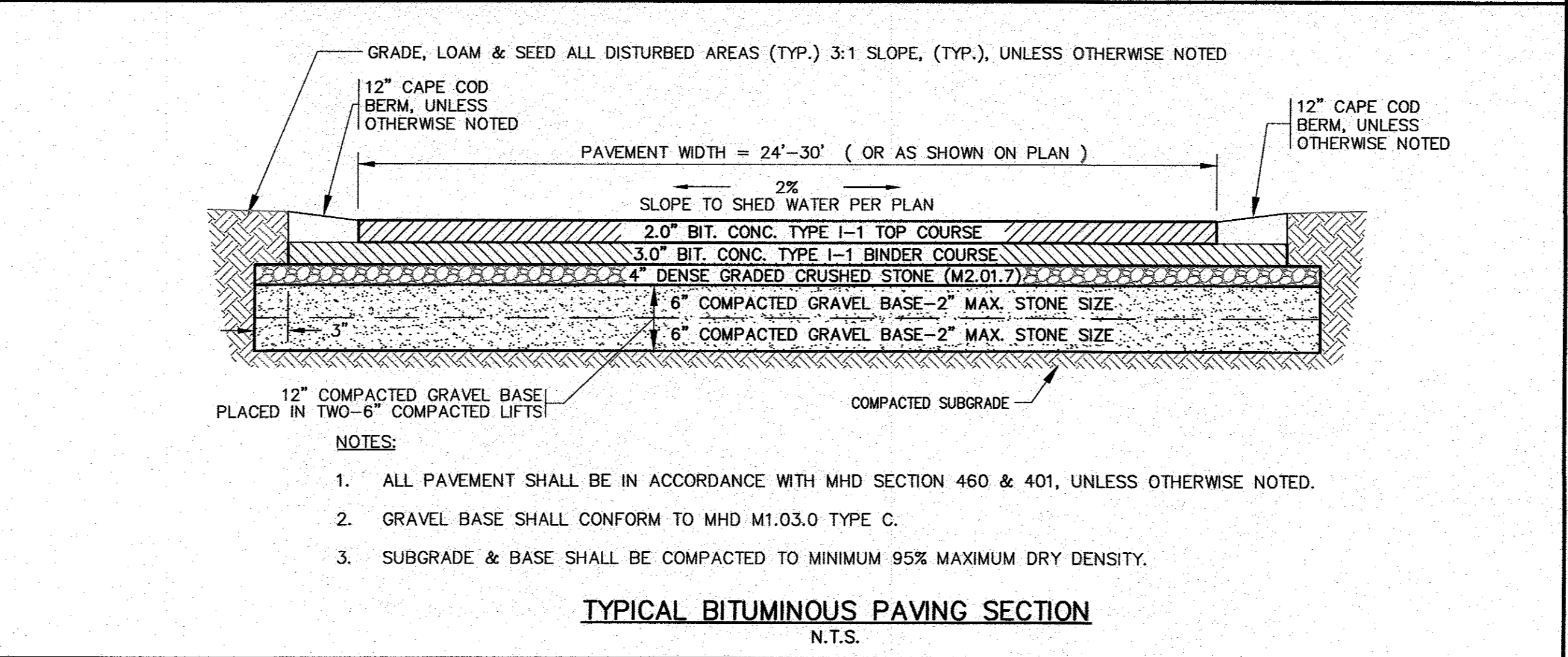
CONCRETE WASHOUT DETAIL
N.T.S.

- NOTES:
- CONTRACTOR SHALL PROVIDE AND MAINTAIN CONCRETE WASHOUT AREA WHERE NECESSARY TO COMPLETE THE WORK.
 - FINAL LOCATION FOR CONCRETE WASHOUT SHALL BE FIELD DETERMINED BY CONTRACTOR AT TIME OF CONSTRUCTION.
 - CONTRACTOR SHALL REPAIR OR REPLACE 40 MIL. POLY BARRIER OR STAKED HAY BALES AS REQUIRED.



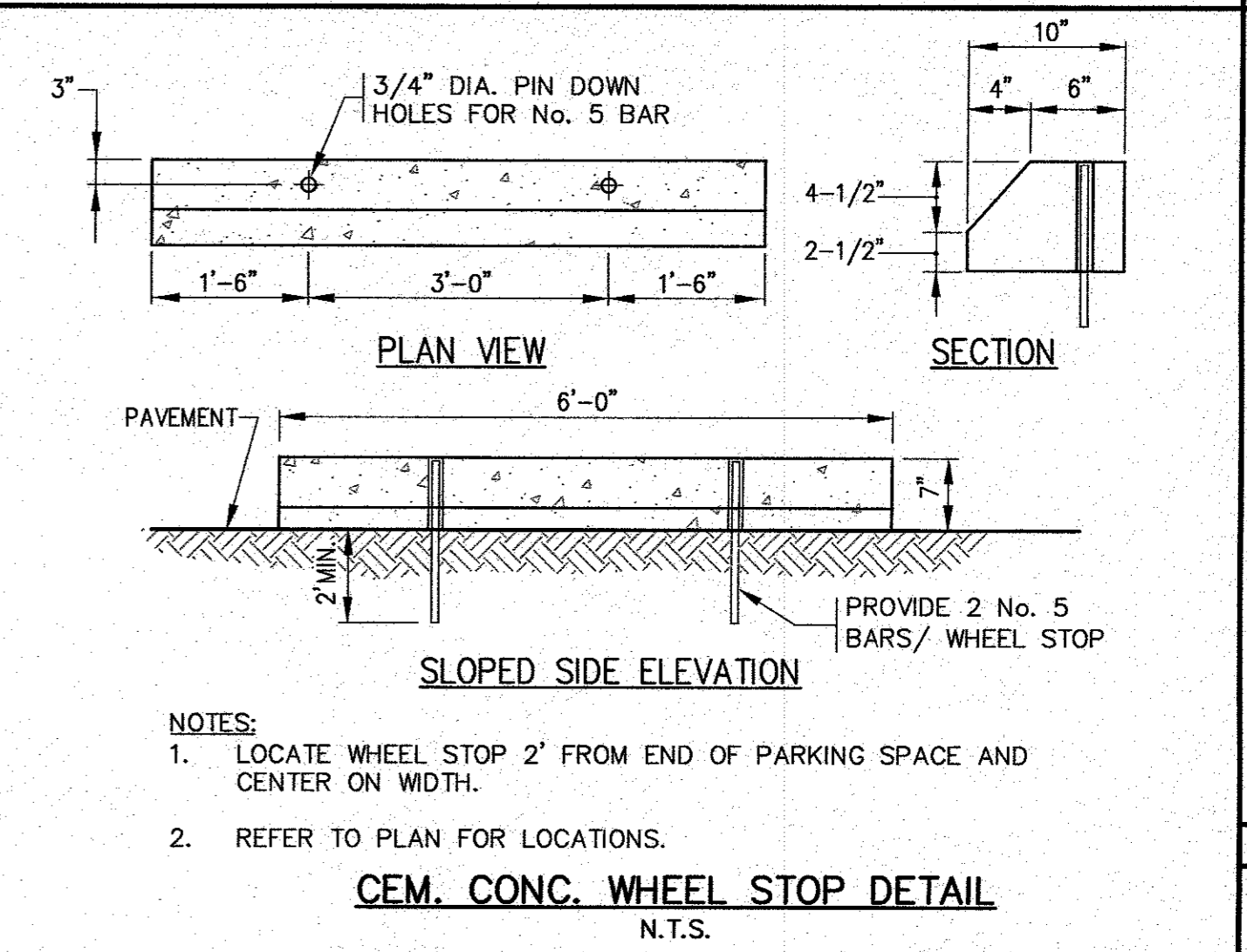
FIRE DEPARTMENT RAP ACCESS ROAD
N.T.S.

- NOTES:
- REFER TO PLAN FOR LOCATIONS AND GRADES.
 - CONTRACTOR TO REMOVE ALL UNSUITABLE SOILS AROUND AND BENEATH AND REPLACE WITH CLEAN SOIL, SAND AND GRAVEL APPROVED BY DESIGN ENGINEER.
 - SUBGRADE & BASE SHALL BE COMPACTED TO MINIMUM 95% MAXIMUM DRY DENSITY.
 - SNOW REMOVAL SHALL OCCUR AFTER ALL SNOW EVENTS AROUND THE ACCESS ROAD. SNOW FLOWING SHALL BE COMPLETED WITHIN 24 HOURS OF SUCH SNOW EVENTS. ACCESS ROAD SHALL ALWAYS BE ACCESSIBLE FOR EMERGENCY VEHICLES.



TYPICAL BITUMINOUS PAVING SECTION
N.T.S.

- NOTES:
- ALL PAVEMENT SHALL BE IN ACCORDANCE WITH MHD SECTION 460 & 401, UNLESS OTHERWISE NOTED.
 - GRAVEL BASE SHALL CONFORM TO MHD M1.03.0 TYPE C.
 - SUBGRADE & BASE SHALL BE COMPACTED TO MINIMUM 95% MAXIMUM DRY DENSITY.



CEM. CONC. WHEEL STOP DETAIL
N.T.S.

- NOTES:
- LOCATE WHEEL STOP 2' FROM END OF PARKING SPACE AND CENTER ON WIDTH.
 - REFER TO PLAN FOR LOCATIONS.

DATE: JULY 8, 2020.	DRAWN BY: JMP	CHECKED BY: WFM	JOB NO.: 19-9342	SCALE: N.T.S.	REV. DATE BY APP'D	DESCRIPTION
					1	NO CHANGES THIS SHEET
					2	PER PEER REVIEW COMMENTS

APPROVED BY: *[Signature]*

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PROFESSIONAL ENGINEERS & LAND SURVEYORS
266 MAIN STREET - WAREHAM, MA 02571
TEL: (508) 295-6600 FAX: (508) 295-6634
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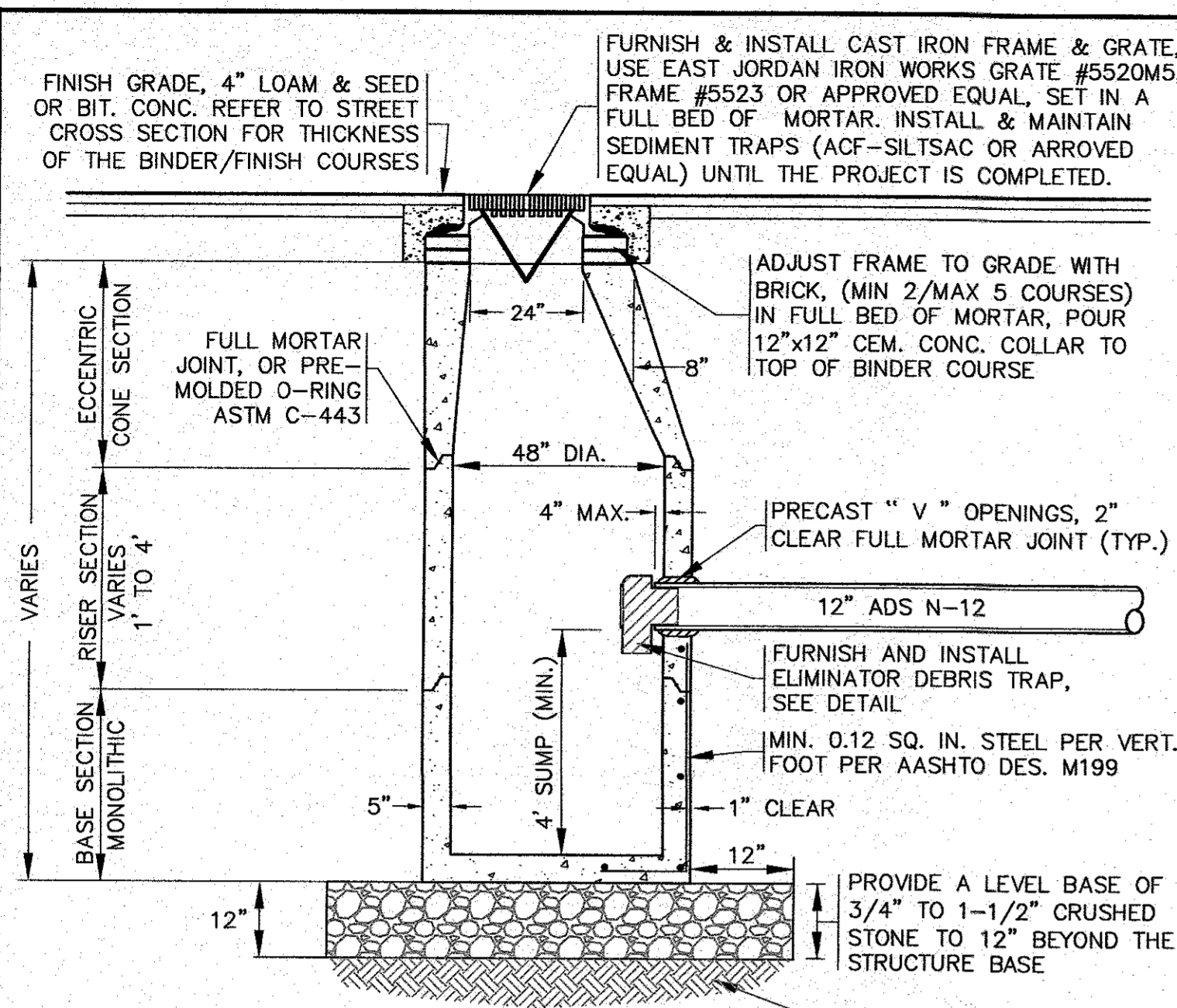
MASTER MILLWORK, INC.
41 MEETING HOUSE LANE, SUITE 11 SAGAMORE BEACH, MA

SITE DEVELOPMENT PLAN
DETAIL SHEET 1

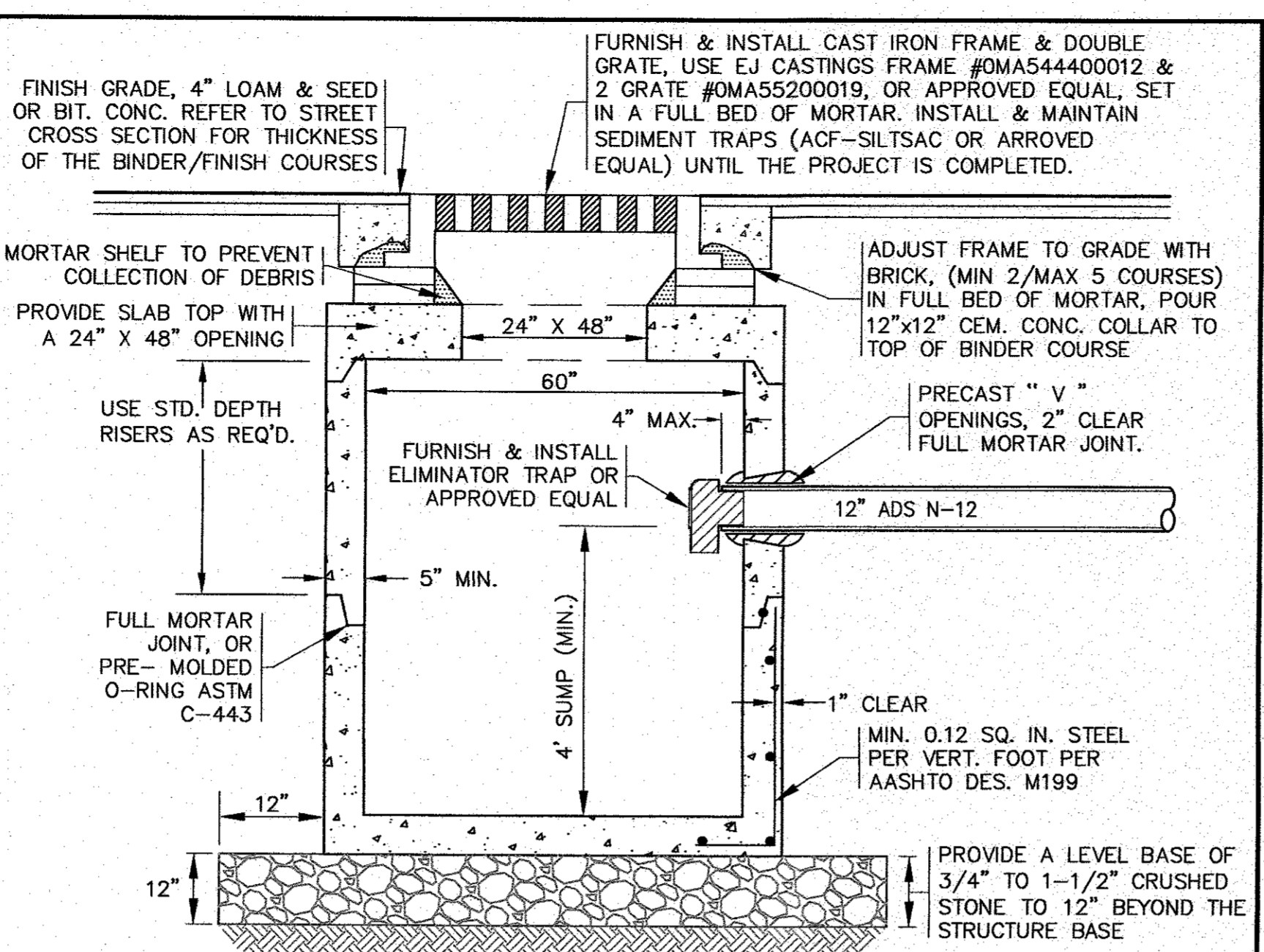
PREPARED FOR:
55 CHARLOTTE FURNACE ROAD WAREHAM, MA

JOB NO.: 19-9342
DWG. 7 OF 10

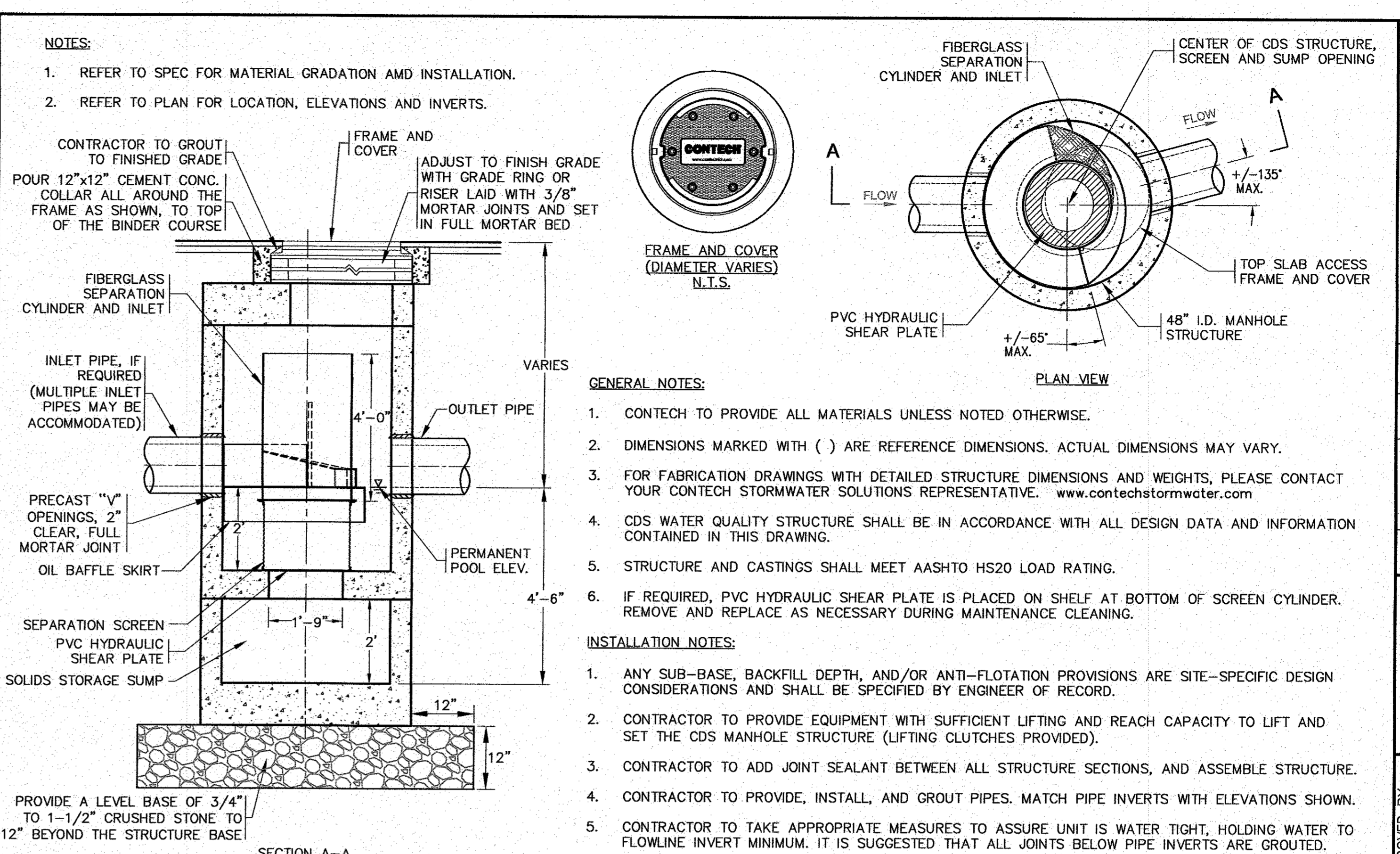
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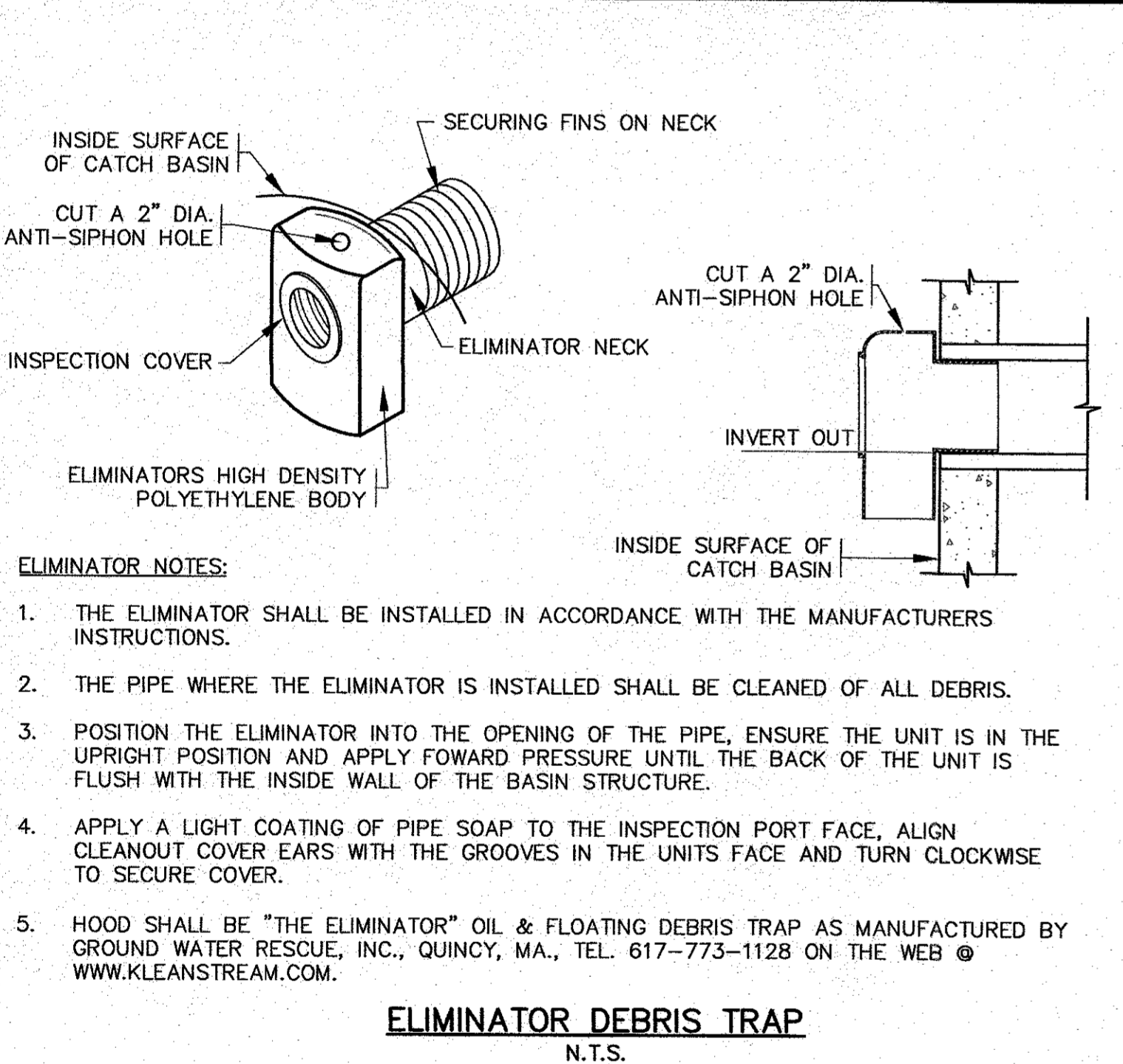
- NOTES:**
- STRUCTURES SHALL BE PRECAST CONCRETE IN ACCORDANCE WITH ASTM C-478, WITH H-20 LOADING, SECTION HEIGHTS VARY. CONCRETE STRENGTH 4000 PSI @ 28 DAYS.
 - FOR SHALLOW INSTALLATION AND WHEN APPROVED BY THE ENGINEER, A FLAT TOP H-20 SLAB WITH A 24" OPENING CAST ECCENTRICALLY MAY BE USED. CONTRACTOR TO SUBMIT SHOP DRAWINGS.
 - ALL STRUCTURE JOINTS AND PENETRATIONS SHALL BE WATER TIGHT.
 - REFER TO PLANS FOR PIPE SIZES, INVERTS, RIMS AND LOCATIONS.



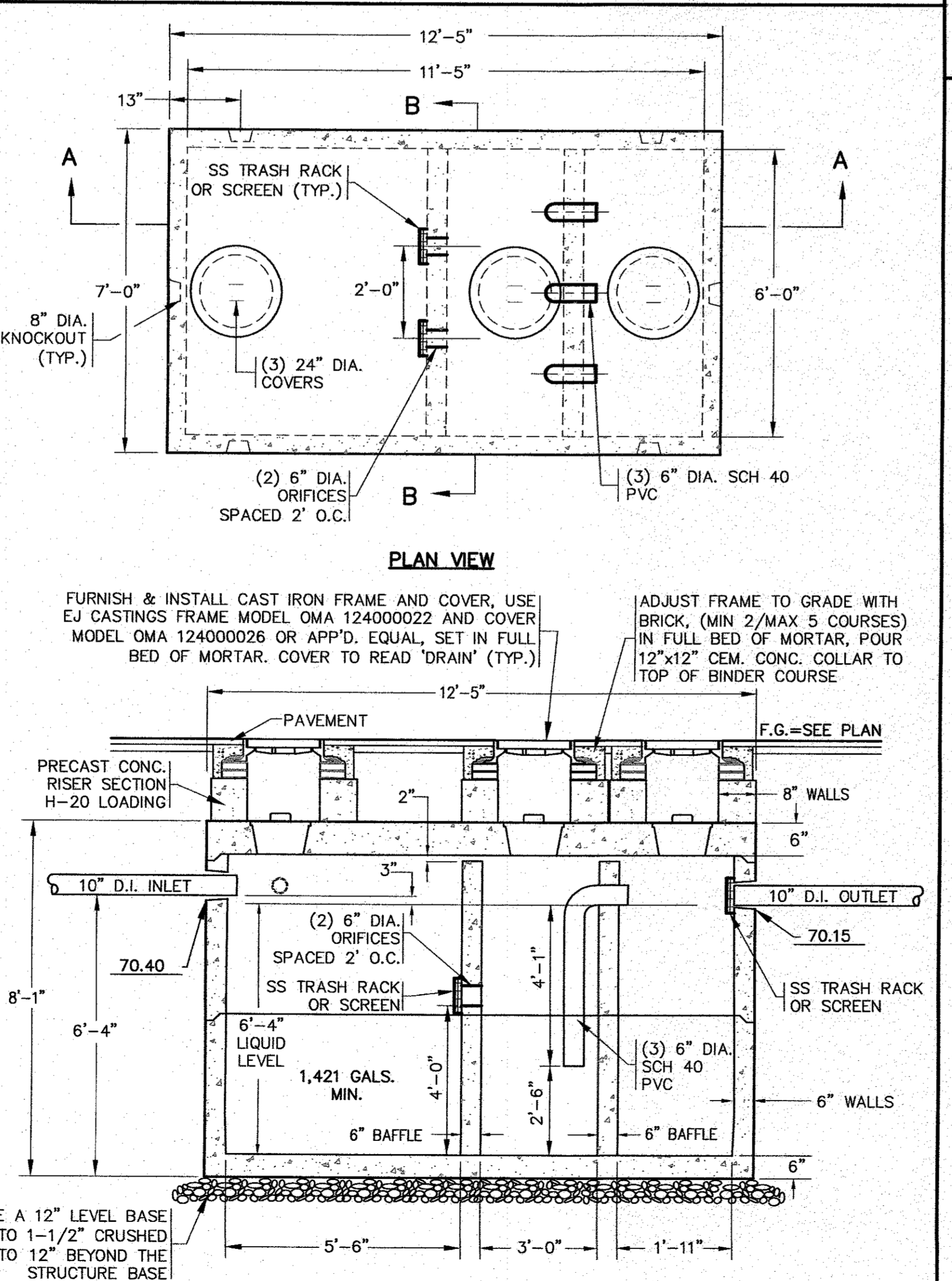
- NOTES:**
- STRUCTURES SHALL BE PRECAST CONCRETE IN ACCORDANCE WITH ASTM C-478, WITH H-20 LOADING, SECTION HEIGHTS VARY. CONCRETE STRENGTH 4000 PSI @ 28 DAYS.
 - USE A FLAT TOP H-20 SLAB WITH A 24" X 48" (NOMINAL) OPENING CAST CONCENTRICALLY.
 - ALL STRUCTURE JOINTS AND PENETRATIONS SHALL BE WATER TIGHT.
 - REFER TO PLANS FOR PIPE SIZES, INVERTS, RIMS AND LOCATIONS.



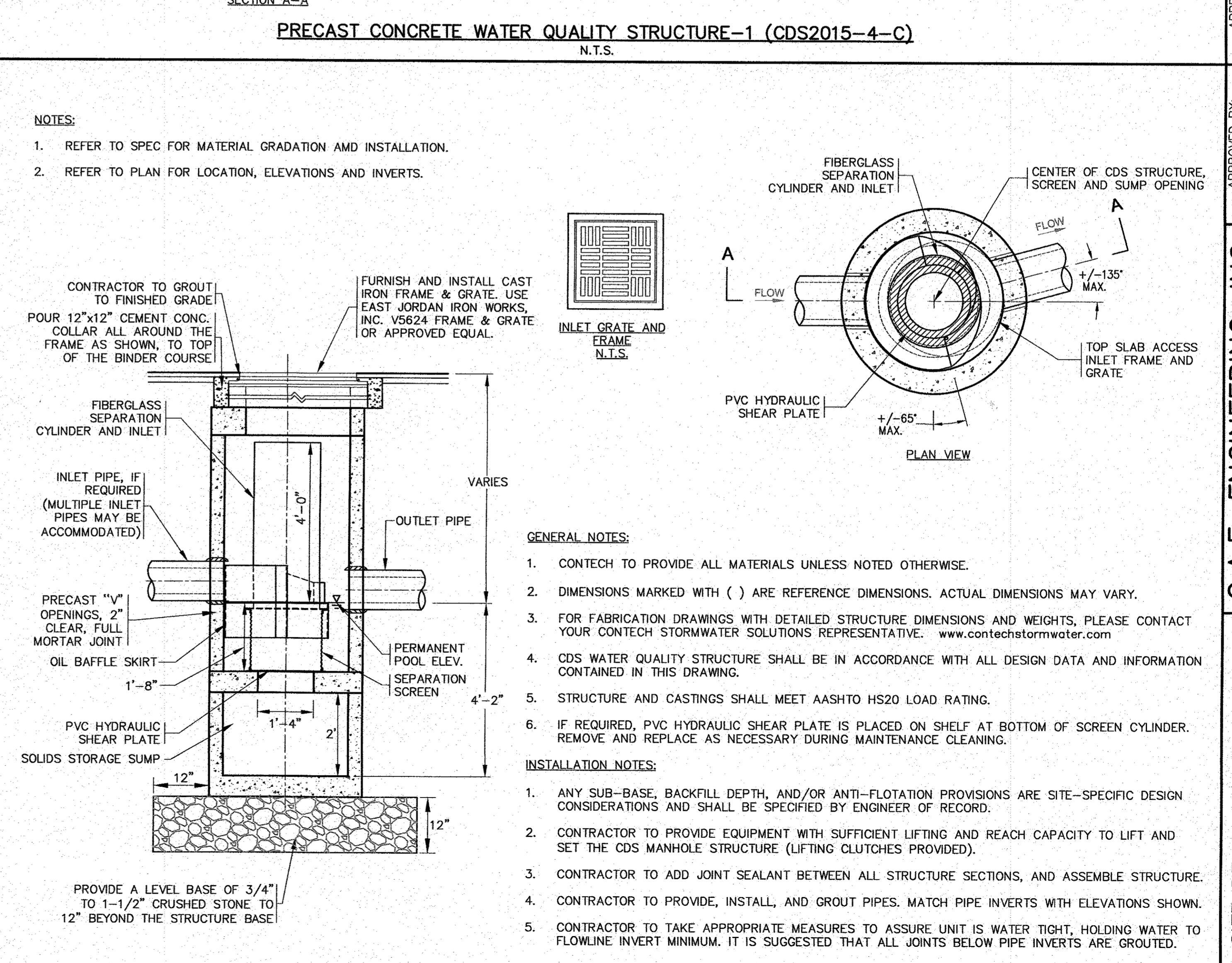
PRECAST CONCRETE WATER QUALITY STRUCTURE-1 (CDS2015-4-C)
N.T.S.



- ELIMINATOR NOTES:**
- THE ELIMINATOR SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS.
 - THE PIPE WHERE THE ELIMINATOR IS INSTALLED SHALL BE CLEANED OF ALL DEBRIS.
 - POSITION THE ELIMINATOR INTO THE OPENING OF THE PIPE, ENSURE THE UNIT IS IN THE UPRIGHT POSITION AND APPLY FORWARD PRESSURE UNTIL THE BACK OF THE UNIT IS FLUSH WITH THE INSIDE WALL OF THE BASIN STRUCTURE.
 - APPLY A LIGHT COATING OF PIPE SOAP TO THE INSPECTION PORT FACE, ALIGN CLEANOUT COVER EARS WITH THE GROOVES IN THE UNITS FACE AND TURN CLOCKWISE TO SECURE COVER.
 - HOOD SHALL BE "THE ELIMINATOR" OIL & FLOATING DEBRIS TRAP AS MANUFACTURED BY GROUND WATER RESCUE, INC., QUINCY, MA., TEL. 617-773-1128 ON THE WEB @ WWW.KLEANSTREAM.COM.



3000 GAL. OIL/GRIT SEPARATOR DETAIL
N.T.S.

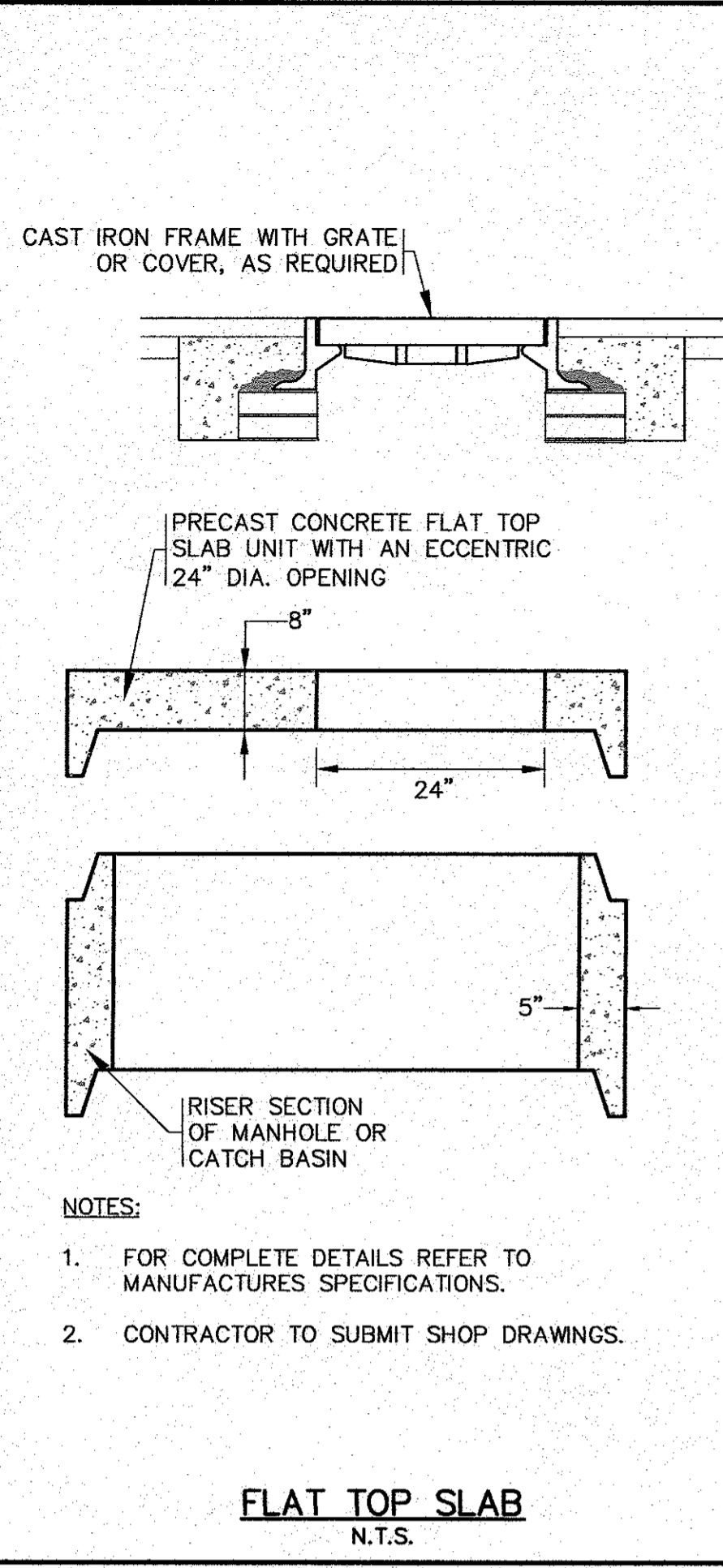


PRECAST CONCRETE WATER QUALITY STRUCTURE-2 (CDS1515-3-C)
N.T.S.

DATE	BY	DESCRIPTION
JULY 8, 2020	JMP	DRAWN BY
	WFM	CHECKED BY
8/20/20	JMP	JOB NO. 19-9342
8/10/20	JMP	SCALE: N.T.S.
	WFM	NO CHANGES THIS SHEET
	WFM	PER PEER REVIEW COMMENTS
	WFM	DATE
	WFM	BY
	WFM	APP'D

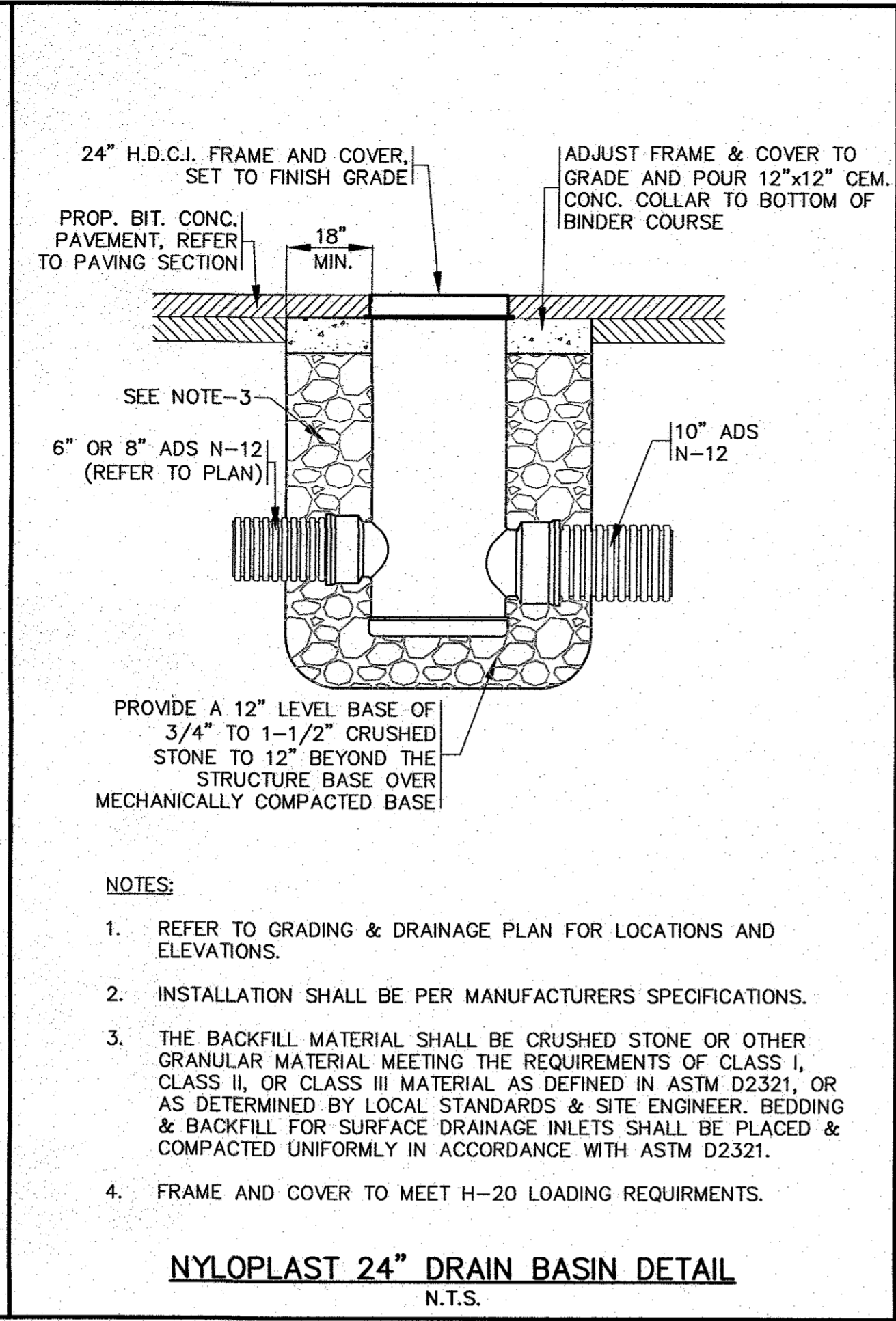
DATE: JULY 8, 2020	DRAWN BY: JMP	CHECKED BY: WFM	JOB NO.: 19-9342	SCALE: N.T.S.
APPROVED BY: <i>[Signature]</i>				
G.A.F. ENGINEERING, INC. PROFESSIONAL ENGINEERS & LAND SURVEYORS 266 MAIN STREET - WAREHAM, MA 02571 TEL: (508) 295-6600 FAX: (508) 295-6634 E-MAIL: gaf@gef-eng.com				
PREPARED FOR: MASTER MILLWORK, INC. 41 MEETING HOUSE LANE, SUITE 11 SAGAMORE BEACH, MA				
SITE DEVELOPMENT PLAN DETAIL SHEET 2				
JOB NO.: 19-9342 DWG. 8 OF 10				

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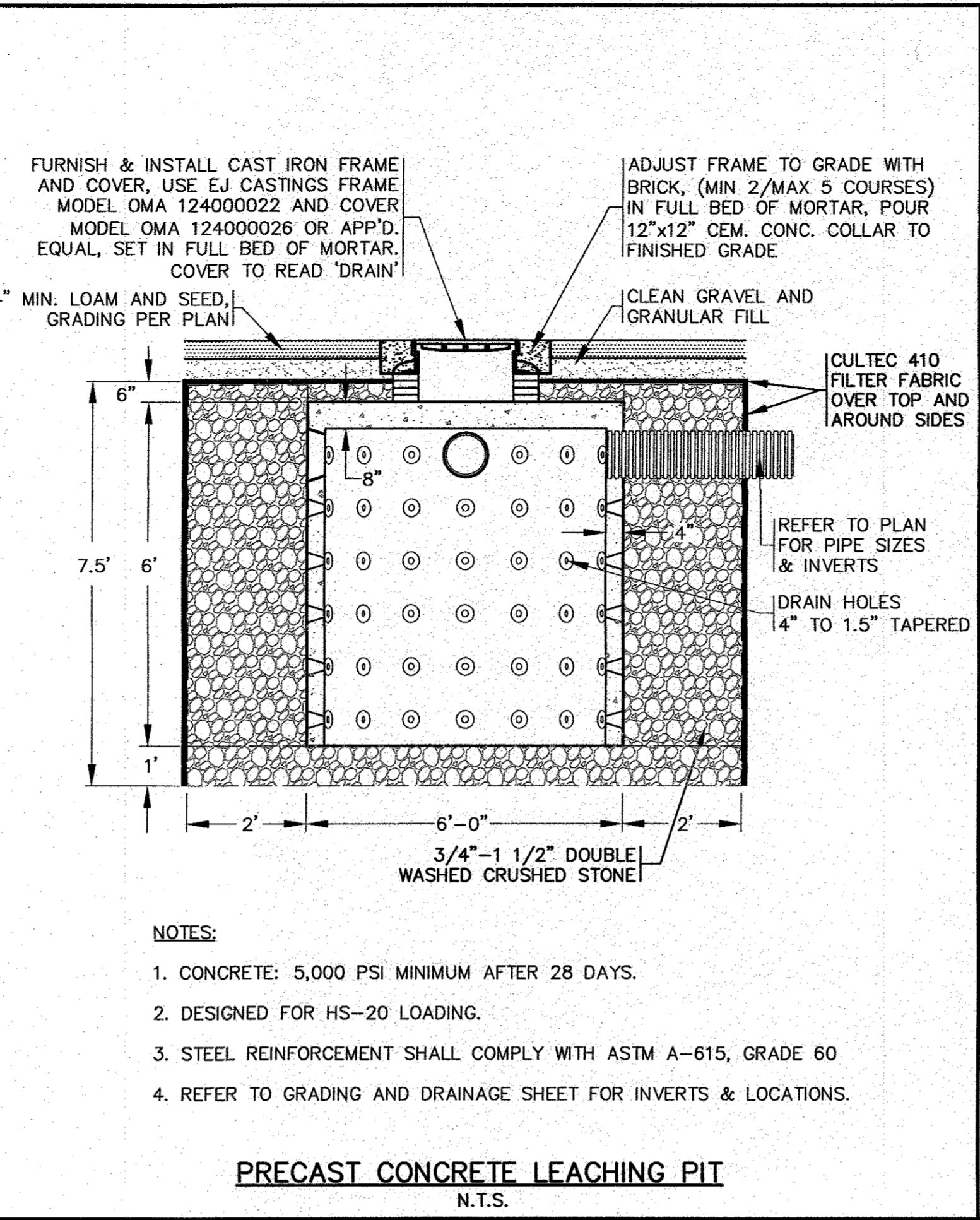
FLAT TOP SLAB
N.T.S.

- NOTES:
- FOR COMPLETE DETAILS REFER TO MANUFACTURERS SPECIFICATIONS.
 - CONTRACTOR TO SUBMIT SHOP DRAWINGS.



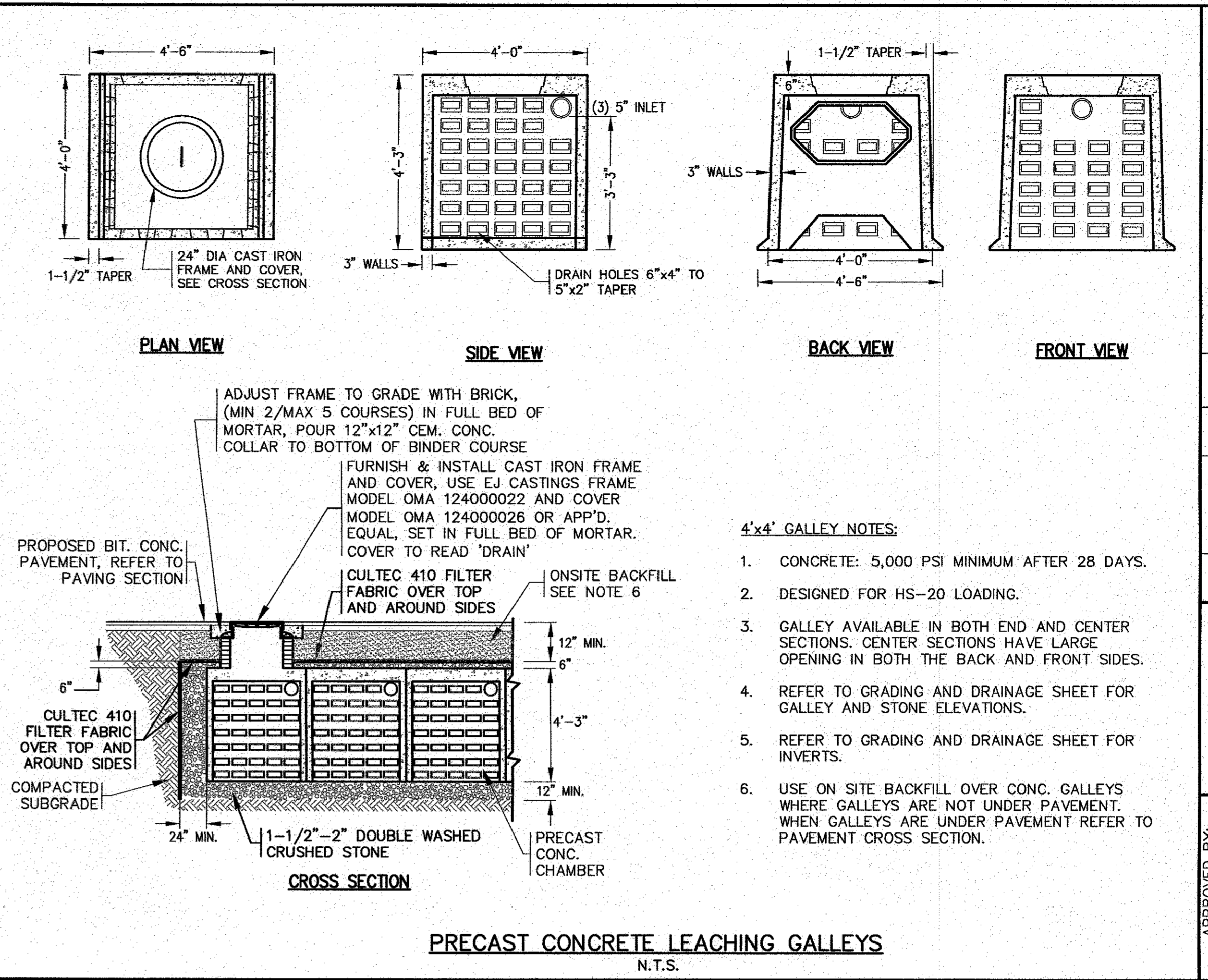
NYLOPLAST 24" DRAIN BASIN DETAIL
N.T.S.

- NOTES:
- REFER TO GRADING & DRAINAGE PLAN FOR LOCATIONS AND ELEVATIONS.
 - INSTALLATION SHALL BE PER MANUFACTURERS SPECIFICATIONS.
 - THE BACKFILL MATERIAL SHALL BE CRUSHED STONE OR OTHER GRANULAR MATERIAL MEETING THE REQUIREMENTS OF CLASS I, CLASS II, OR CLASS III MATERIAL AS DEFINED IN ASTM D2321, OR AS DETERMINED BY LOCAL STANDARDS & SITE ENGINEER. BEDDING & BACKFILL FOR SURFACE DRAINAGE INLETS SHALL BE PLACED & COMPACTED UNIFORMLY IN ACCORDANCE WITH ASTM D2321.
 - FRAME AND COVER TO MEET H-20 LOADING REQUIREMENTS.



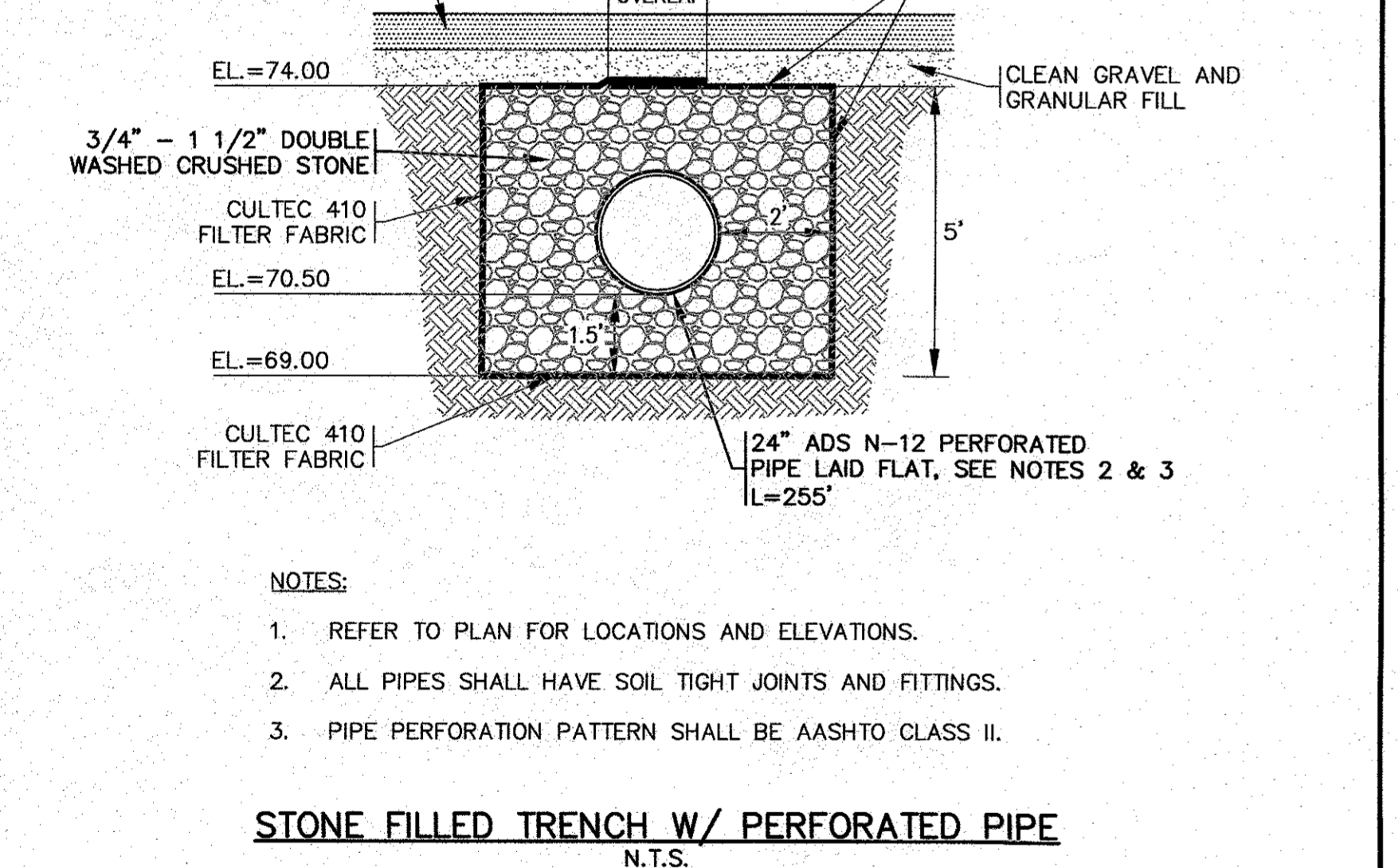
PRECAST CONCRETE LEACHING PIT
N.T.S.

- NOTES:
- CONCRETE: 5,000 PSI MINIMUM AFTER 28 DAYS.
 - DESIGNED FOR HS-20 LOADING.
 - STEEL REINFORCEMENT SHALL COMPLY WITH ASTM A-615, GRADE 60
 - REFER TO GRADING AND DRAINAGE SHEET FOR INVERTS & LOCATIONS.



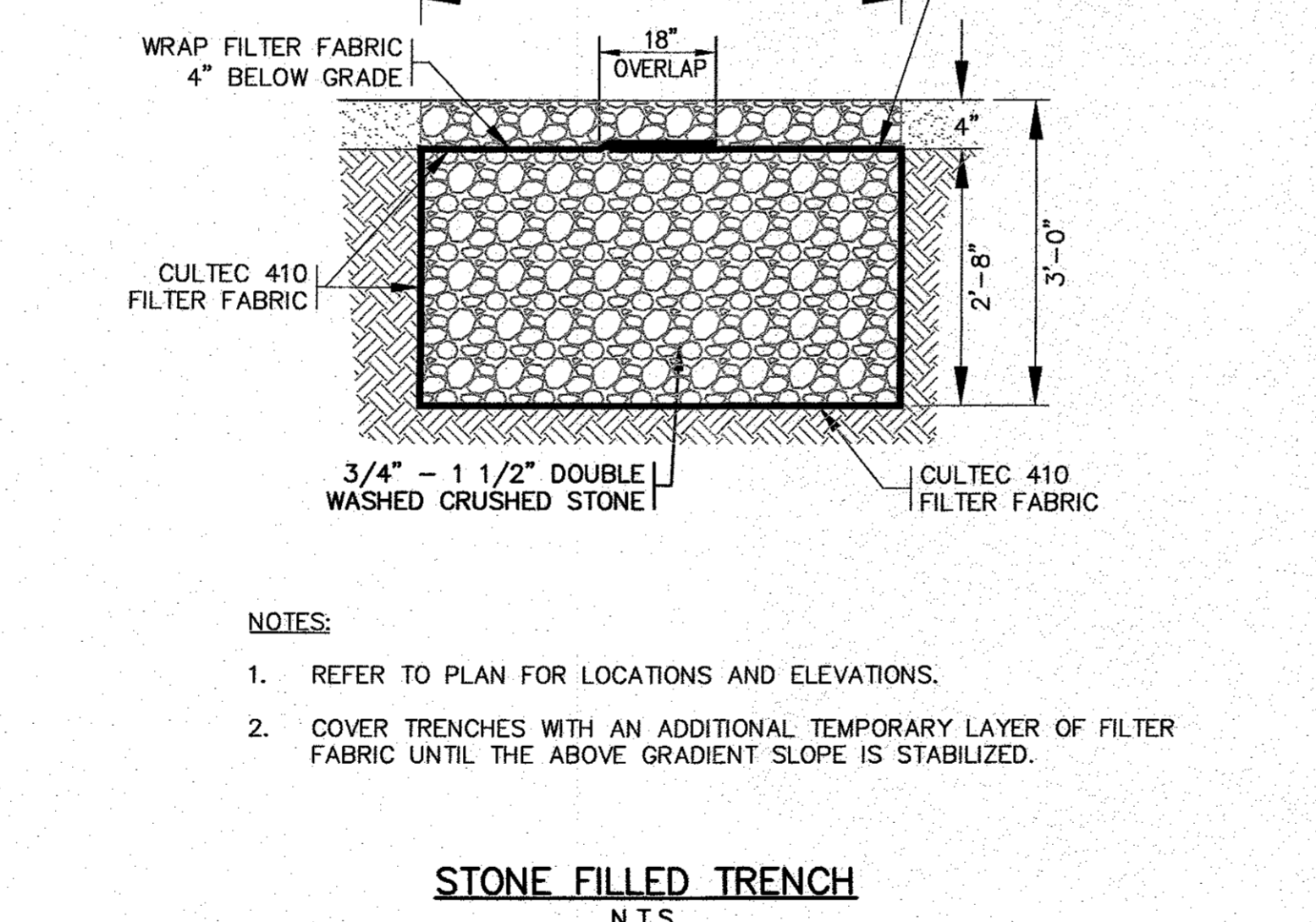
PRECAST CONCRETE LEACHING GALLEYS
N.T.S.

- 4'x4' GALLEY NOTES:
- CONCRETE: 5,000 PSI MINIMUM AFTER 28 DAYS.
 - DESIGNED FOR HS-20 LOADING.
 - GALLEY AVAILABLE IN BOTH END AND CENTER SECTIONS. CENTER SECTIONS HAVE LARGE OPENING IN BOTH THE BACK AND FRONT SIDES.
 - REFER TO GRADING AND DRAINAGE SHEET FOR GALLEY AND STONE ELEVATIONS.
 - REFER TO GRADING AND DRAINAGE SHEET FOR INVERTS.
 - USE ON SITE BACKFILL OVER CONC. GALLEYS WHERE GALLEYS ARE NOT UNDER PAVEMENT. WHEN GALLEYS ARE UNDER PAVEMENT REFER TO PAVEMENT CROSS SECTION.



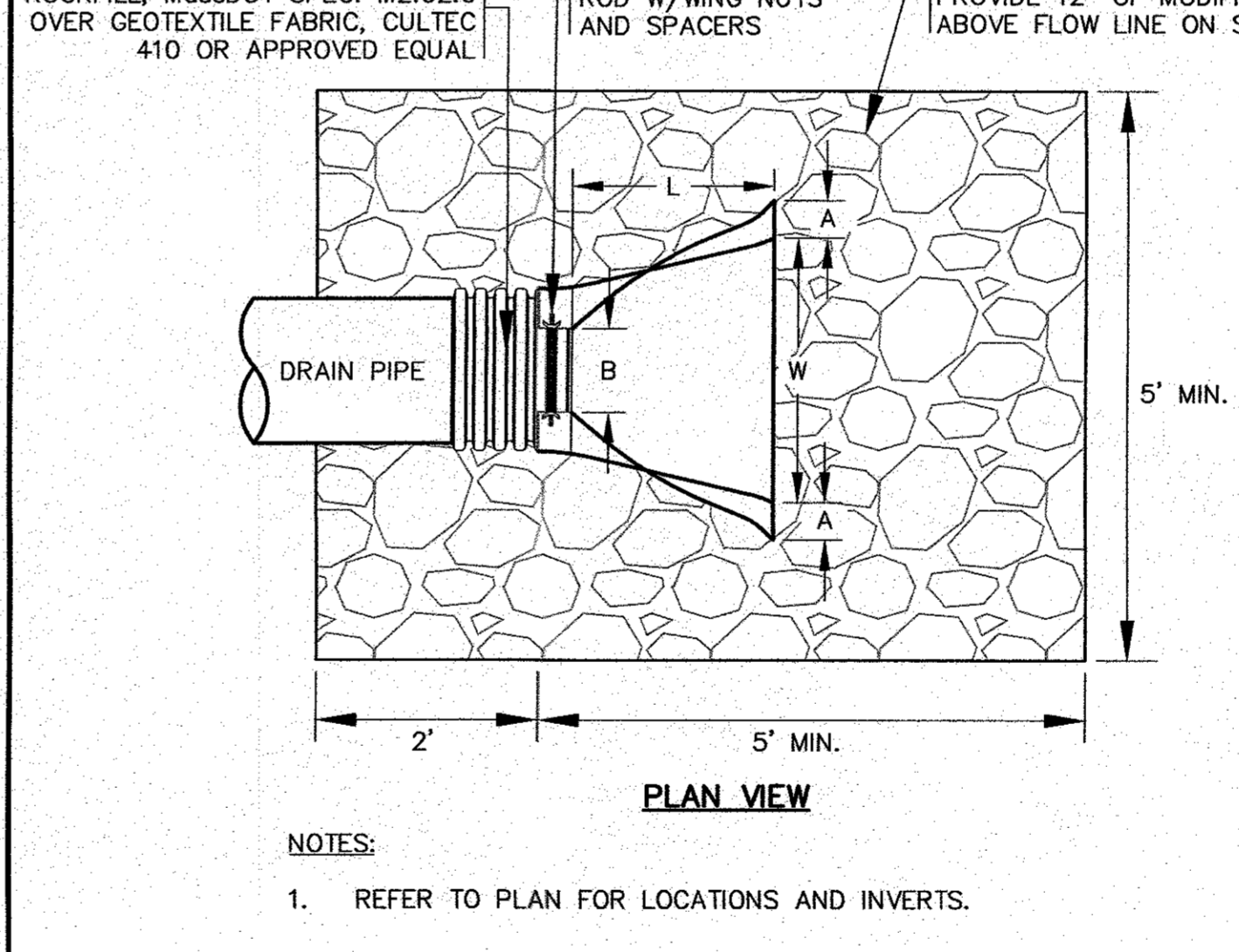
STONE FILLED TRENCH W/ PERFORATED PIPE
N.T.S.

- NOTES:
- REFER TO PLAN FOR LOCATIONS AND ELEVATIONS.
 - ALL PIPES SHALL HAVE SOIL TIGHT JOINTS AND FITTINGS.
 - PIPE PERFORATION PATTERN SHALL BE AASHTO CLASS II.



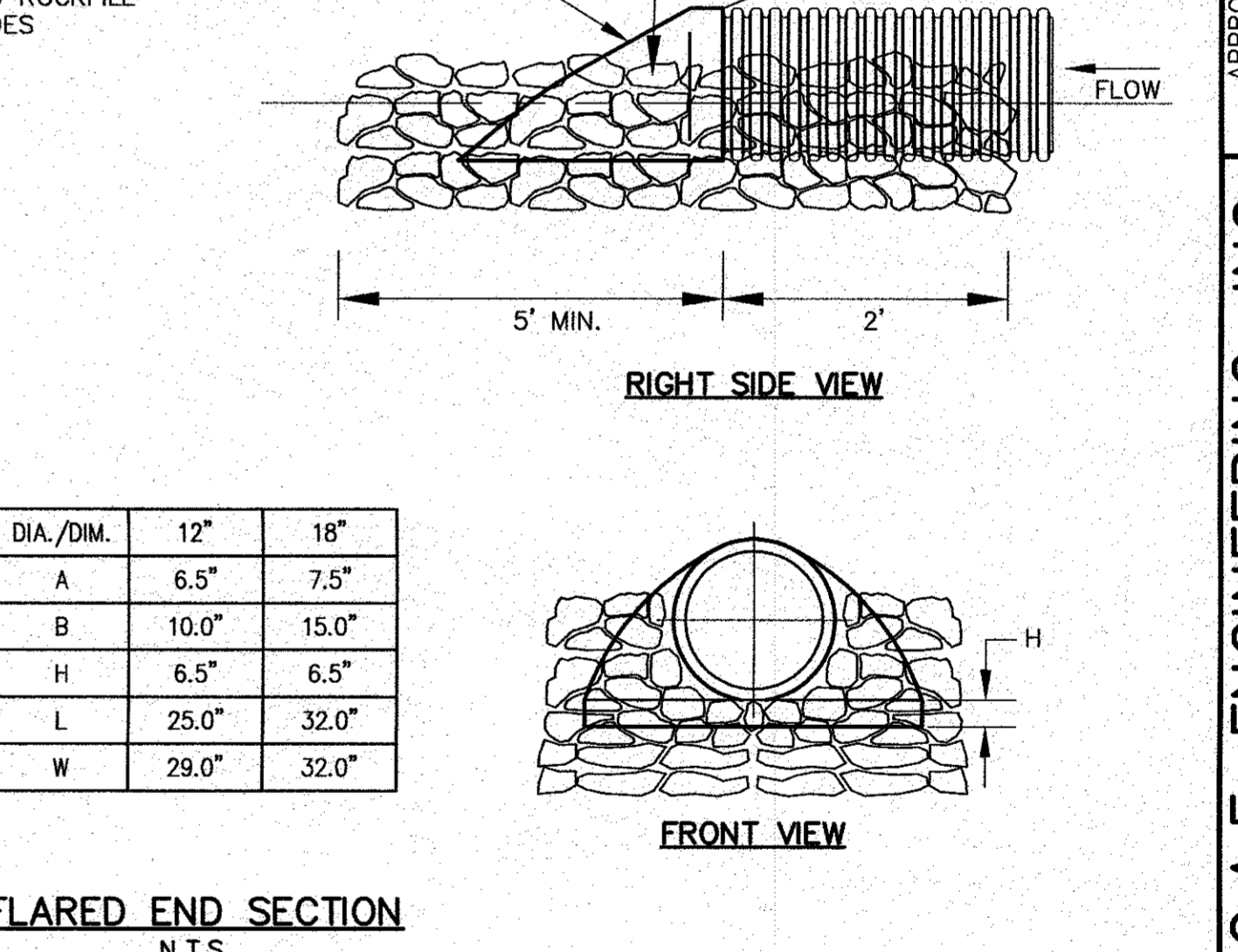
STONE FILLED TRENCH
N.T.S.

- NOTES:
- REFER TO PLAN FOR LOCATIONS AND ELEVATIONS.
 - COVER TRENCHES WITH AN ADDITIONAL TEMPORARY LAYER OF FILTER FABRIC UNTIL THE ABOVE GRADIENT SLOPE IS STABILIZED.



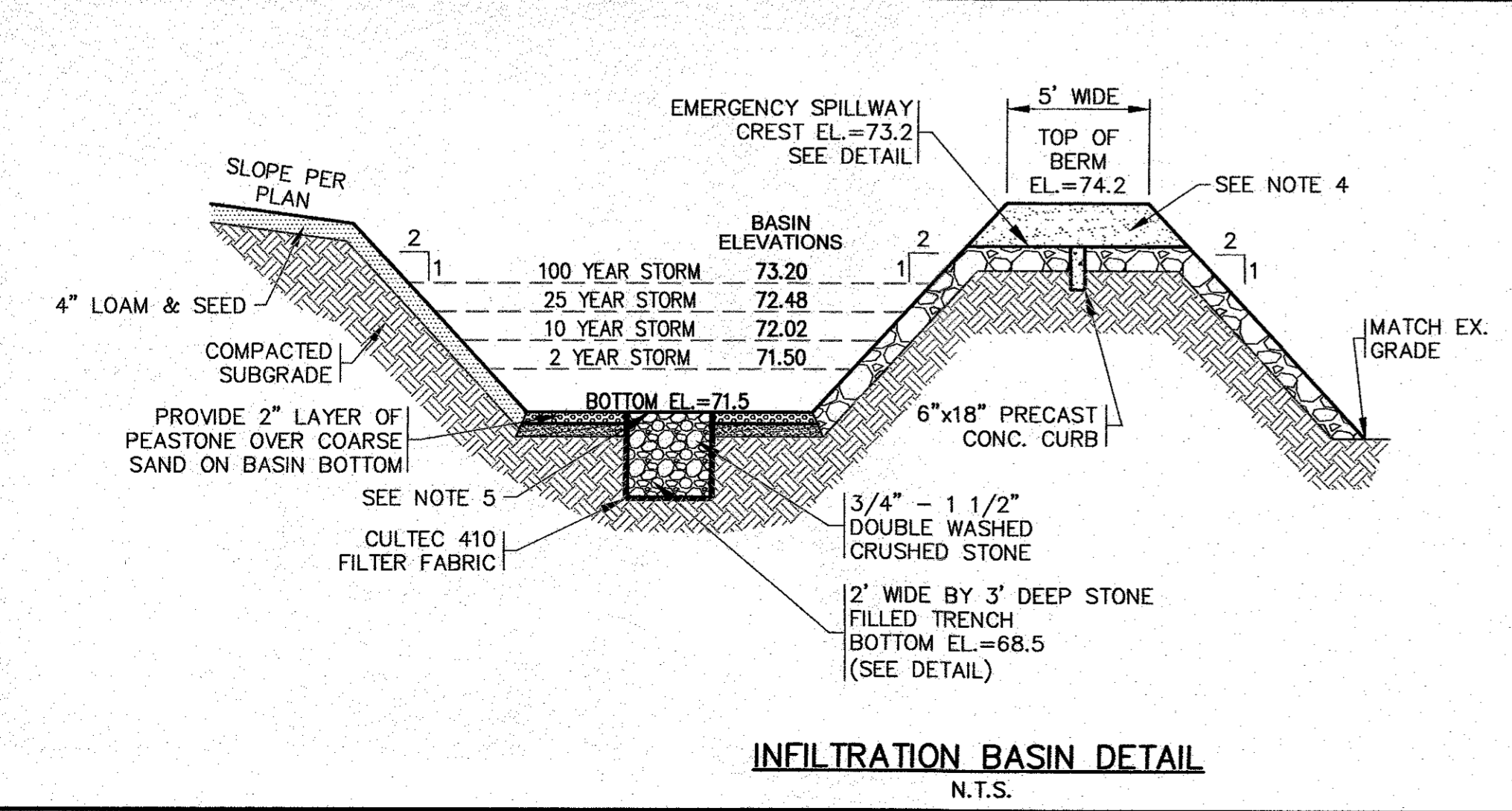
FLARED END SECTION
N.T.S.

- NOTES:
- REFER TO PLAN FOR LOCATIONS AND INVERTS.

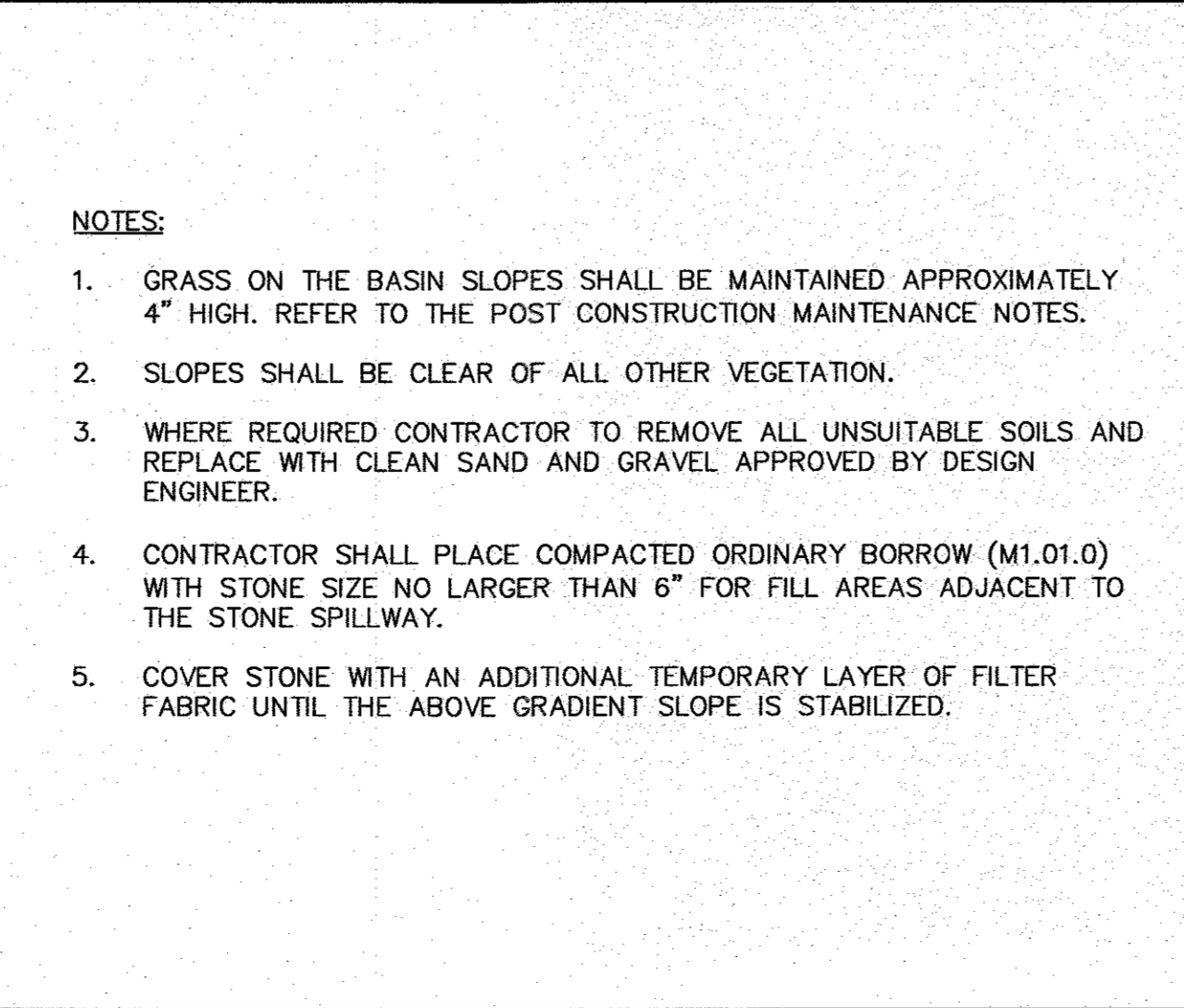


RIGHT SIDE VIEW
FRONT VIEW

DIA./DIM.	12"	18"
A	6.5"	7.5"
B	10.0"	15.0"
H	6.5"	6.5"
L	25.0"	32.0"
W	29.0"	32.0"

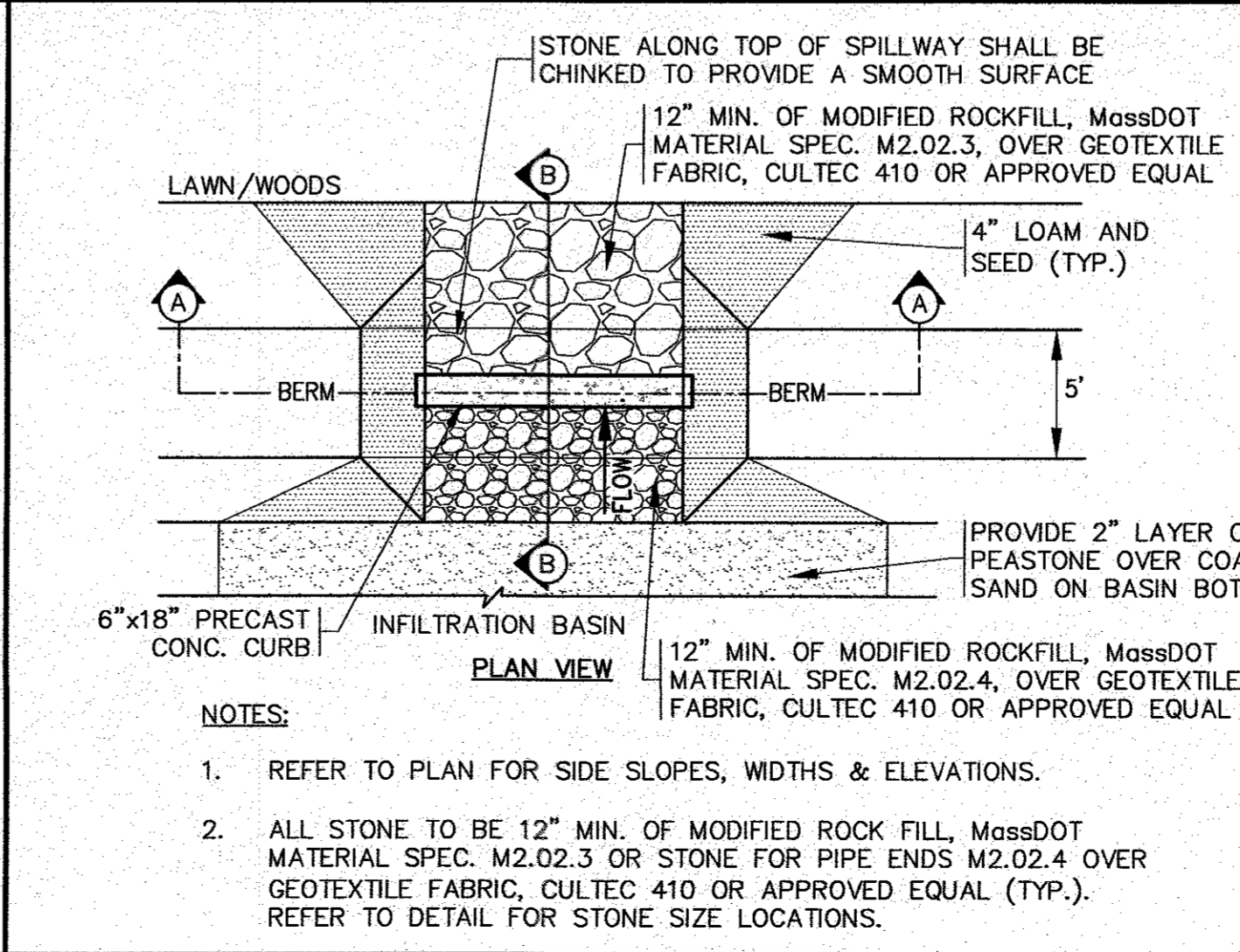


INFILTRATION BASIN DETAIL
N.T.S.



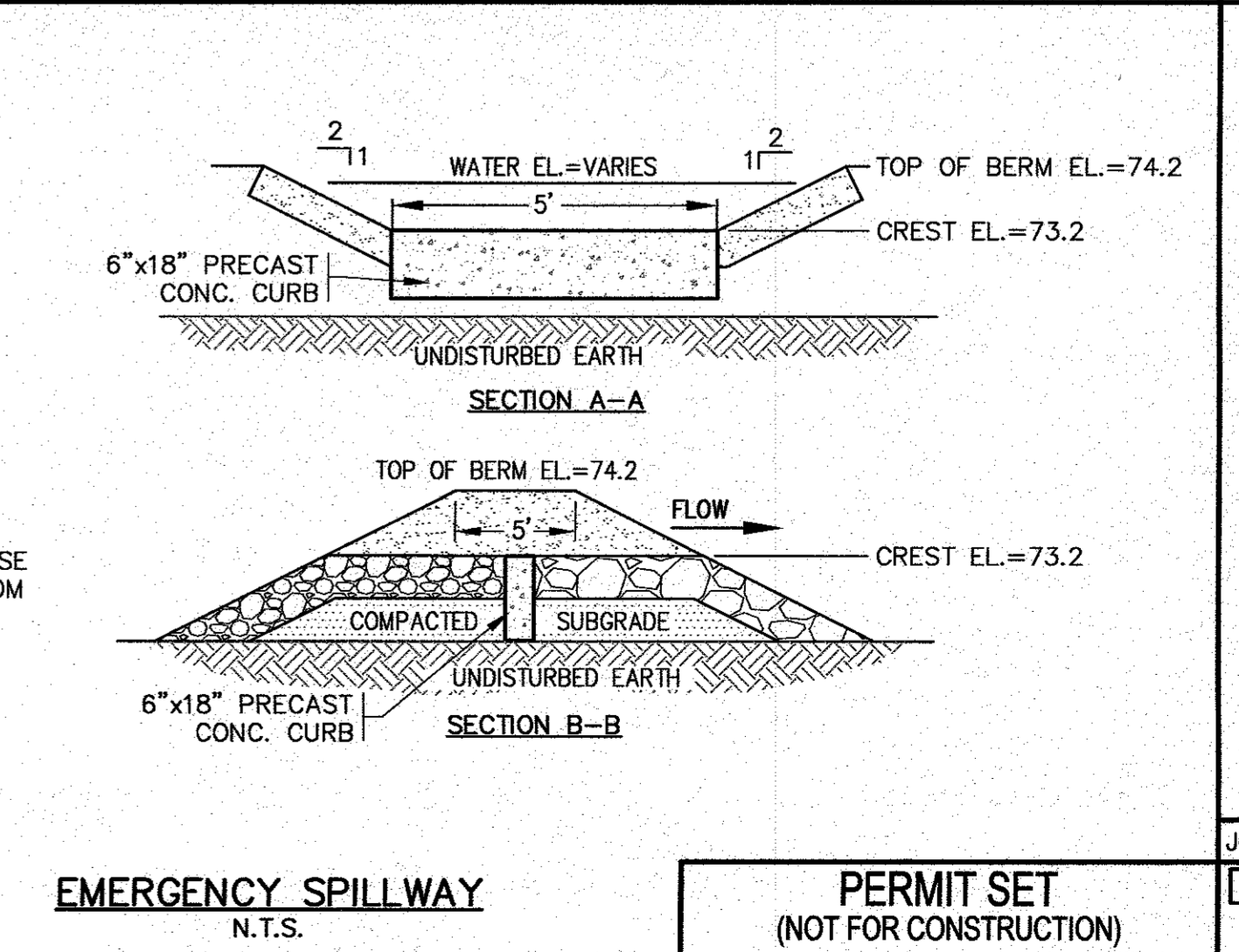
EMERGENCY SPILLWAY
N.T.S.

- NOTES:
- GRASS ON THE BASIN SLOPES SHALL BE MAINTAINED APPROXIMATELY 4" HIGH. REFER TO THE POST CONSTRUCTION MAINTENANCE NOTES.
 - SLOPES SHALL BE CLEAR OF ALL OTHER VEGETATION.
 - WHERE REQUIRED CONTRACTOR TO REMOVE ALL UNSUITABLE SOILS AND REPLACE WITH CLEAN SAND AND GRAVEL APPROVED BY DESIGN ENGINEER.
 - CONTRACTOR SHALL PLACE COMPACTED ORDINARY BORROW (M1.01.0) WITH STONE SIZE NO LARGER THAN 6" FOR FILL AREAS ADJACENT TO THE STONE SPILLWAY.
 - COVER STONE WITH AN ADDITIONAL TEMPORARY LAYER OF FILTER FABRIC UNTIL THE ABOVE GRADIENT SLOPE IS STABILIZED.



PERMIT SET
N.T.S.

- NOTES:
- REFER TO PLAN FOR SIDE SLOPES, WIDTHS & ELEVATIONS.
 - ALL STONE TO BE 12" MIN. OF MODIFIED ROCK FILL, MassDOT MATERIAL SPEC. M2.02.3 OR STONE FOR PIPE ENDS M2.02.4 OVER GEOTEXTILE FABRIC, CULTEC 410 OR APPROVED EQUAL (TYP.). REFER TO DETAIL FOR STONE SIZE LOCATIONS.



SITE DEVELOPMENT PLAN
N.T.S.

APPROVED BY: [Signature]

DATE: JULY 8, 2020
DRAWN BY: JMP
CHECKED BY: WFM
JOB NO.: 19-9342
SCALE: N.T.S.

REV. INFILTRATION BASIN DETAIL
PER PEER REVIEW COMMENTS

DATE BY APP'D
8/20/20 JMP WFM
8/10/20 JMP WFM
N.T.S. REV.

APPROVED BY: [Signature]

G.A.F. ENGINEERING, INC.
PROFESSIONAL ENGINEERS & LAND SURVEYORS
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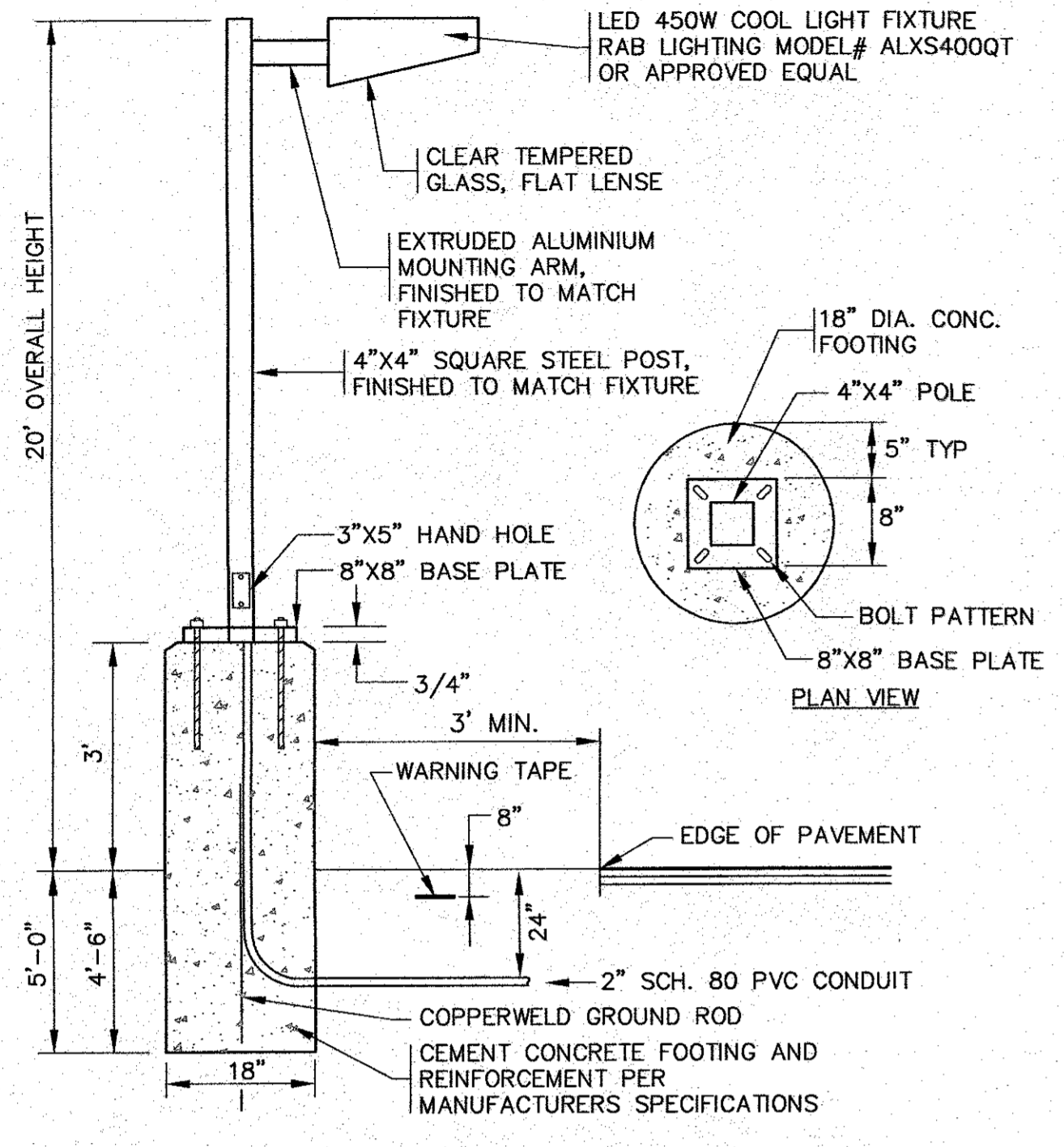
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SITE DEVELOPMENT PLAN
DETAIL SHEET 3

PREPARED FOR:
MASTER MILLWORK, INC.
41 MEETING HOUSE LANE, SUITE 11, SAGAMORE BEACH, MA 02562

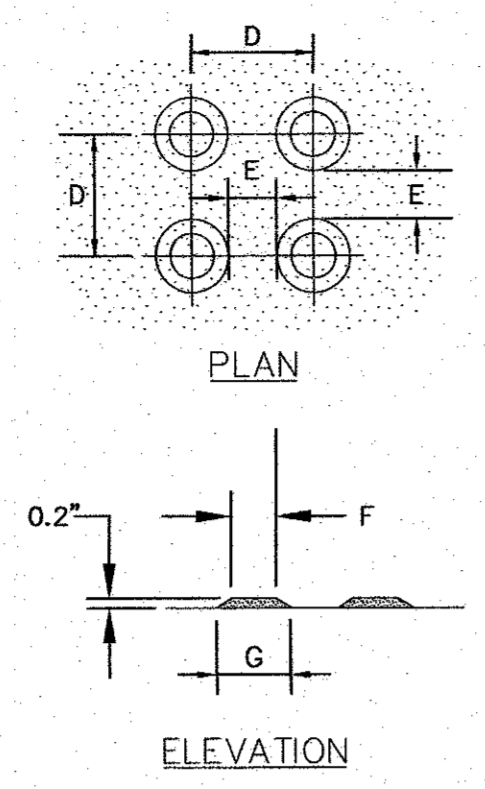
55 CHARLOTTE FURNACE ROAD WAREHAM, MA

JOB NO.: 19-9342
DWG. 9 OF 10



- NOTES:**
- CIRCUIT CONDUCTORS TO BE PULLED AND TERMINATED BY ELECTRIC CONTRACTOR TO COORDINATE.
 - CONTRACTOR TO COORDINATE WITH OWNER ON FINAL LIGHT FIXTURE SPECIFICATIONS.
 - ALL MOUNTING HARDWARE AND INSTALLATION SHALL BE PER MANUFACTURER SPECIFICATIONS.

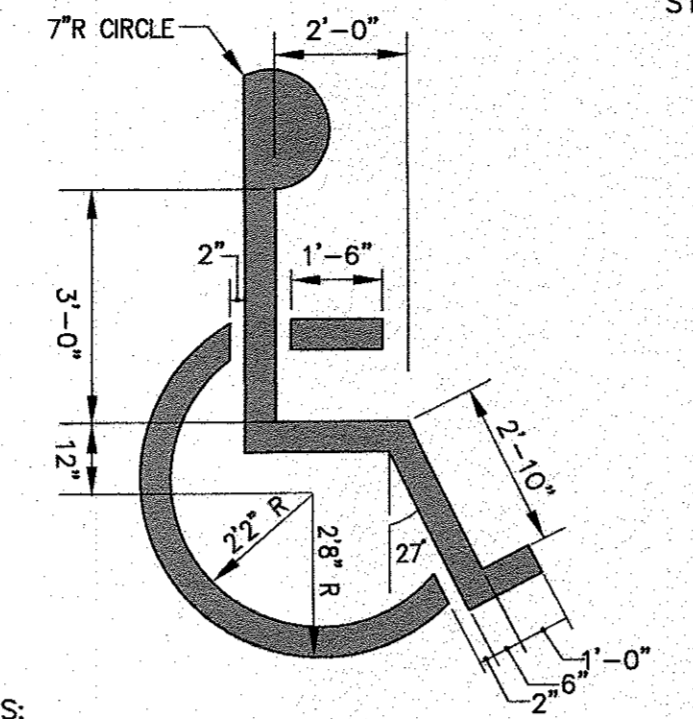
STANDARD LIGHT POLE W/BASE
N.T.S.



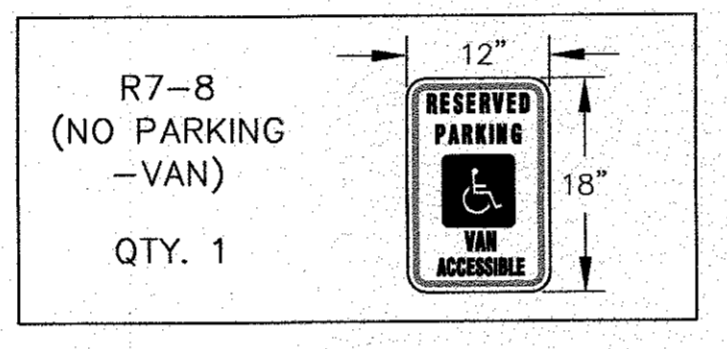
	D	E	F	G
MIN.	1.60"	.65"	.45"	.90"
MAX.	2.40"	1.50"	.80"	1.40"

- NOTES:**
- REFER TO PLAN FOR LOCATIONS.
 - ALL WORK SHALL COMPLY TO ADA SPECIFICATIONS AND MASSDOT CONSTRUCTION STANDARD DETAILS.

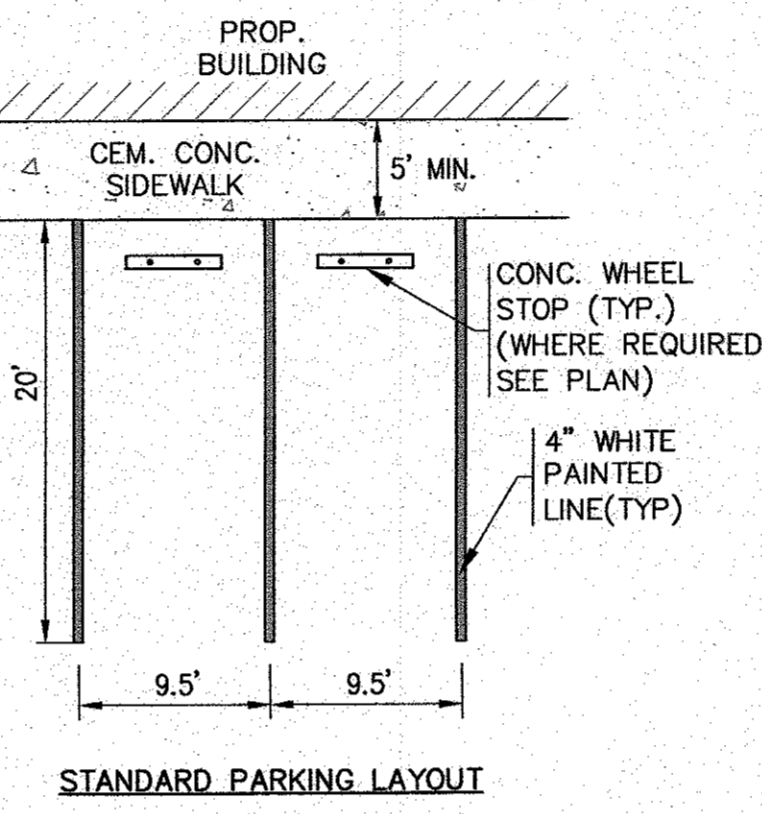
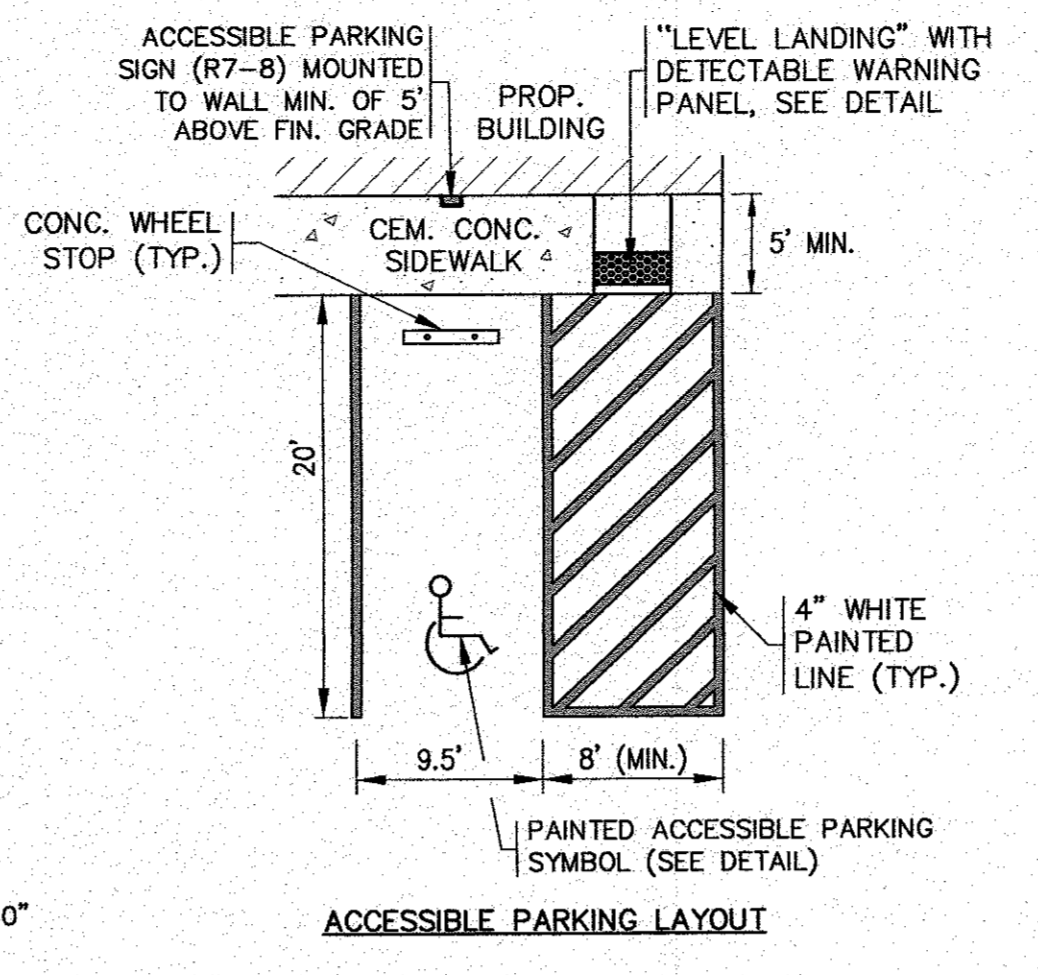
TRUNCATED DOME DETECTABLE WARNING PANEL
N.T.S.



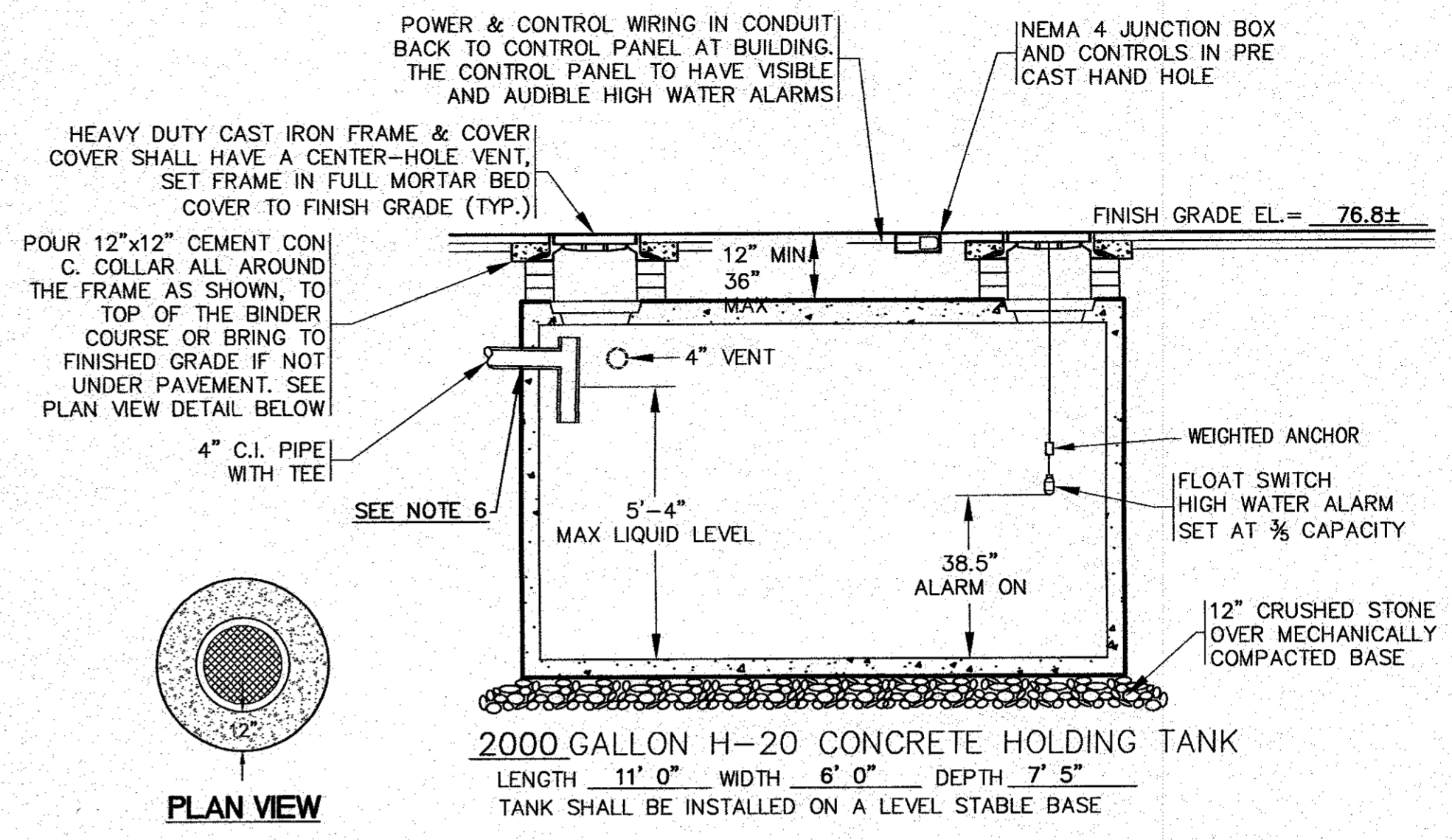
- NOTES:**
- ACCESSIBLE SYMBOL PAINT SHALL CONFORM TO STRIPING PAINT AS SPECIFIED. (SYMBOL SHALL BE CENTERED IN STALL).
 - SIGNAGE TO CONFORM WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES OF STREETS AND HIGHWAYS OR APPROVED EQUAL.
 - PARKING AREA PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS.



ACCESSIBLE PARKING PAINT SYMBOL AND SIGN
N.T.S.

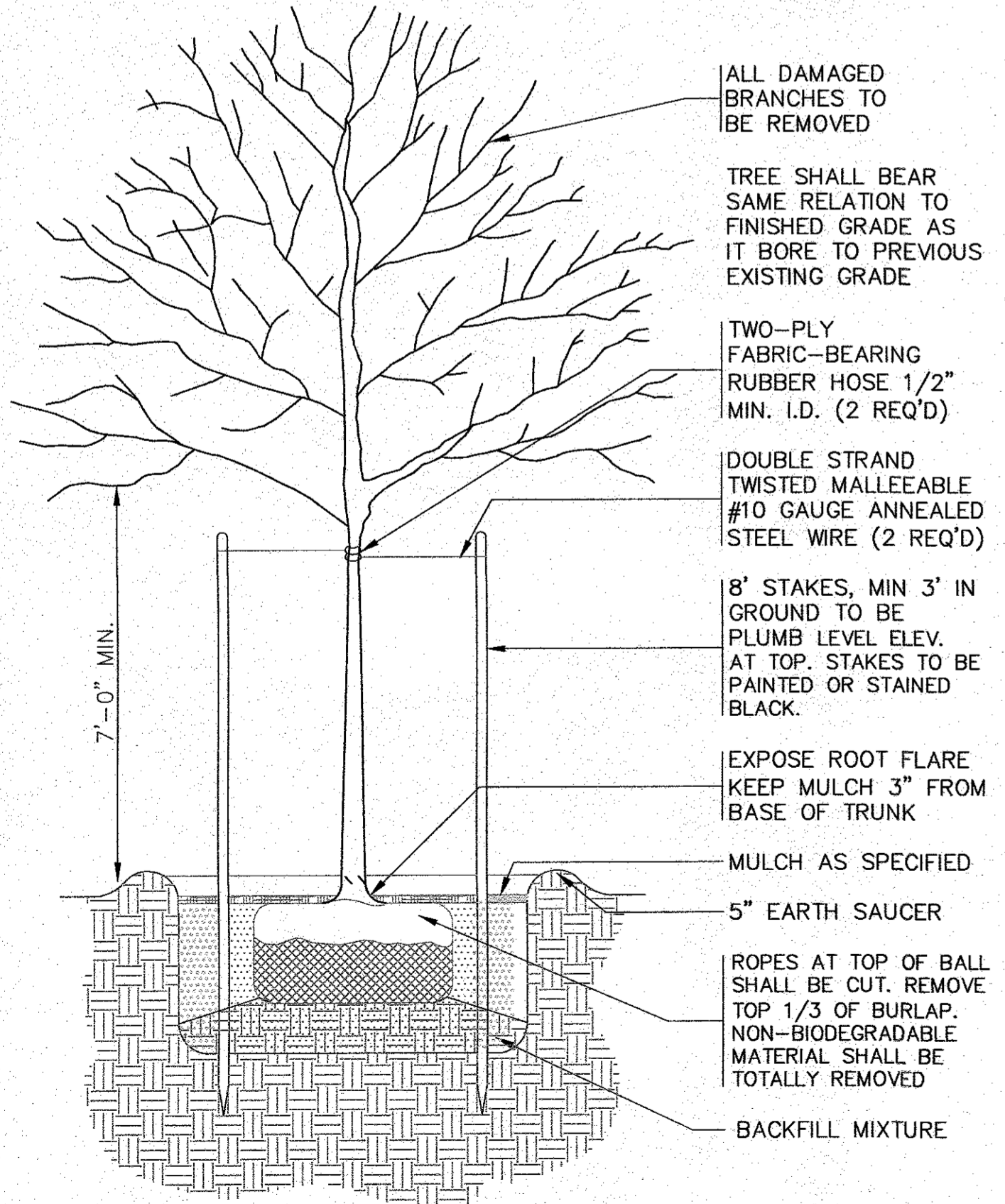


ACCESSIBLE PARKING AND STANDARD PARKING LAYOUTS
N.T.S.



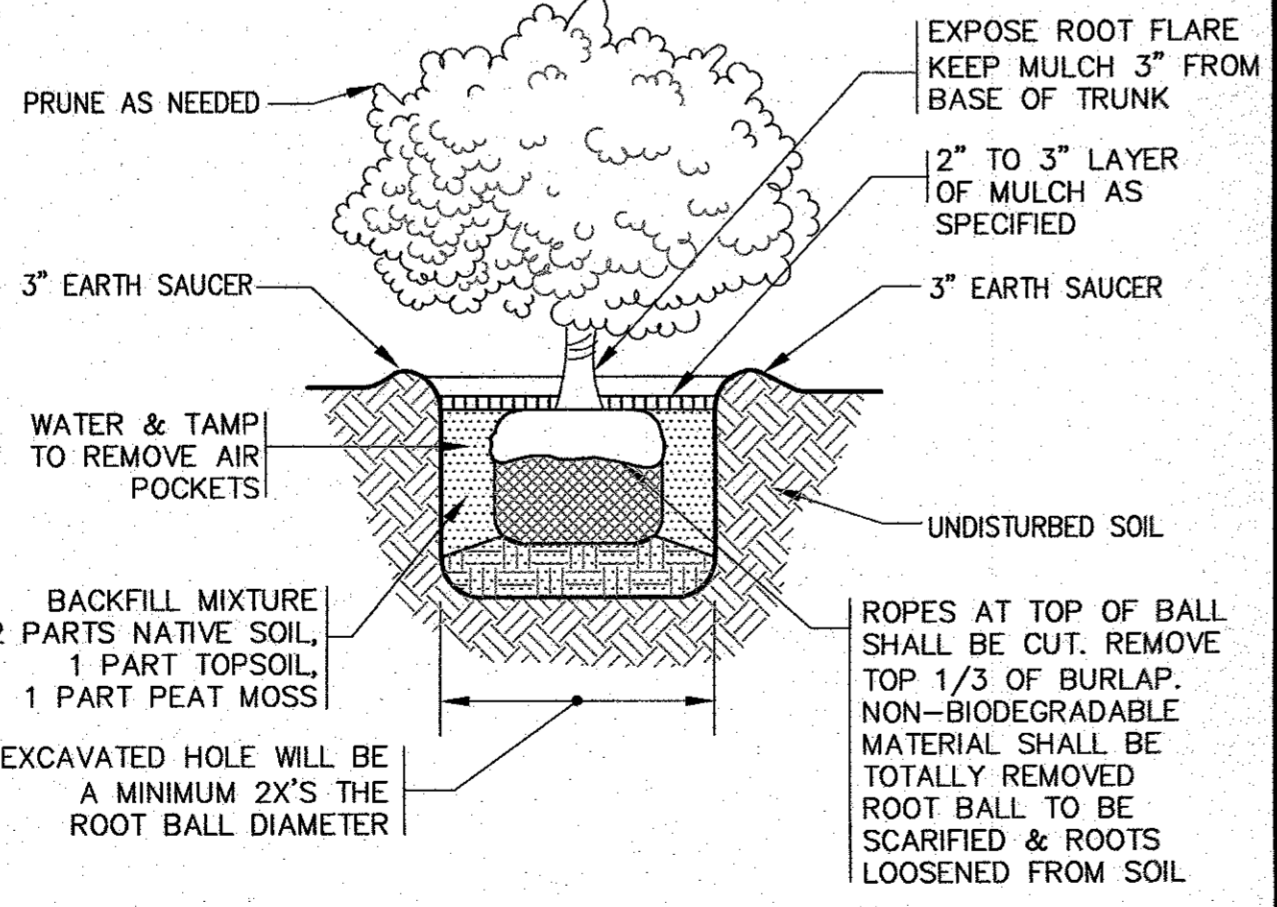
- NOTES:**
- TIGHT TANK CONSTRUCTION AND INSTALLATION SHALL CONFORM TO 310 CMR 15.260 AS APPLICABLE FOR CONNECTION TO FLOOR DRAINS. TIGHT TANK SHALL BE WATERPROOF AND WATERTIGHT.
 - CONCRETE MINIMUM STRENGTH: 5000 PSI @ 28 DAYS STEEL REINFORCEMENT: ASTM-A-615-68, GRADE 60 DESIGN LOADING: STANDARD UNITS AASHTO-H20.
 - 310 CMR 15.228: (1) SEPTIC TANK SHALL BE INSTALLED LEVEL AND TRUE TO GRADE ON A LEVEL STABLE BASE THAT HAS BEEN MECHANICALLY COMPACTED AND ON TO WHICH 12" OF CRUSHED STONE HAS BEEN PLACED.
 - ALL MOUNTING BRACKETS AND ATTACHING HARDWARE SHALL BE GALVANIZED OR NONCORROSIVE CONSTRUCTION.
 - THE PROPOSED 2000 GALLON TIGHT TANK SHALL BE EQUIPPED WITH BOTH AUDIBLE & VISUAL ALARMS, TO WARN WHEN THE TANK IS 3/5 FULL. THE ALARM PANEL SHALL BE MOUNTED IN A READILY VISIBLE LOCATION ON THE BUILDING.
 - CONTRACTOR SHALL VERIFY THE BUILDING SEWER INVERT PRIOR TO INSTALLATION OF THE TIGHT TANK. TANK INVERT SHALL BE DETERMINED IN THE FIELD AT TIME OF CONSTRUCTION.
 - TIGHT TANK SHALL BE POSTED "NON-HAZARDOUS INDUSTRIAL WASTEWATER".
 - FINAL HOLDING TANK SIZE AND SPECIFICATIONS SHALL BE DETERMINED AT THE TIME OF CONSTRUCTION. CONTRACTOR SHALL COORDINATE WITH OWNER.

2000 GALLON H-20 NON-HAZARDOUS TIGHT TANK
N.T.S.



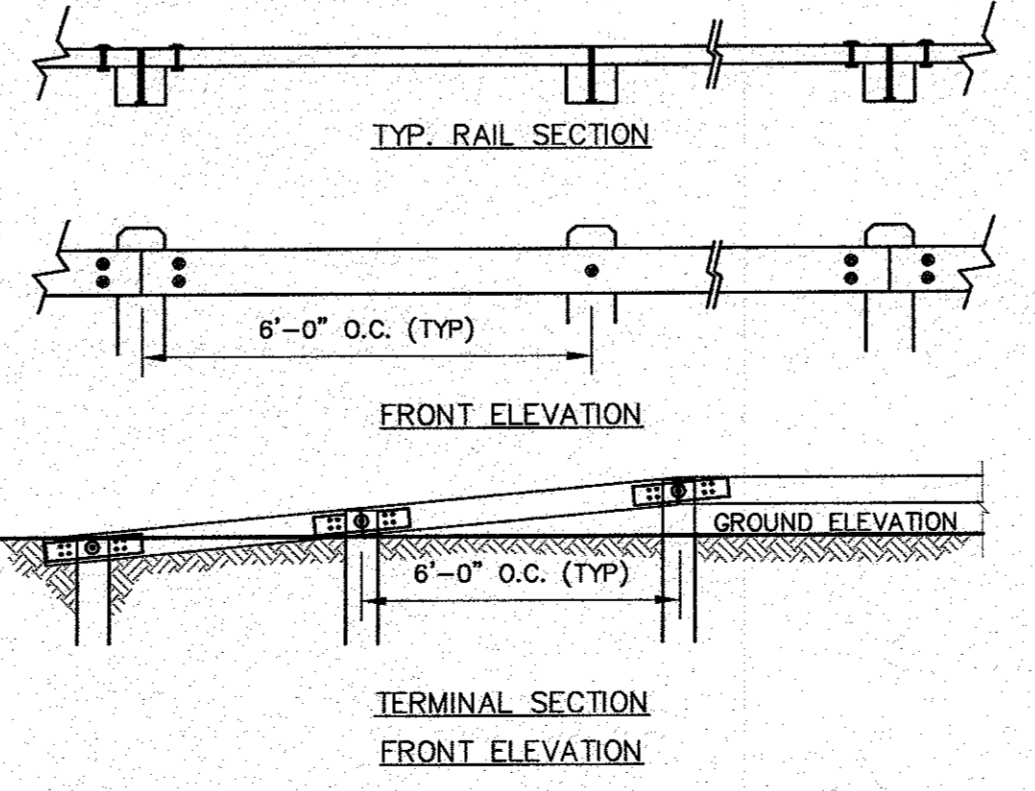
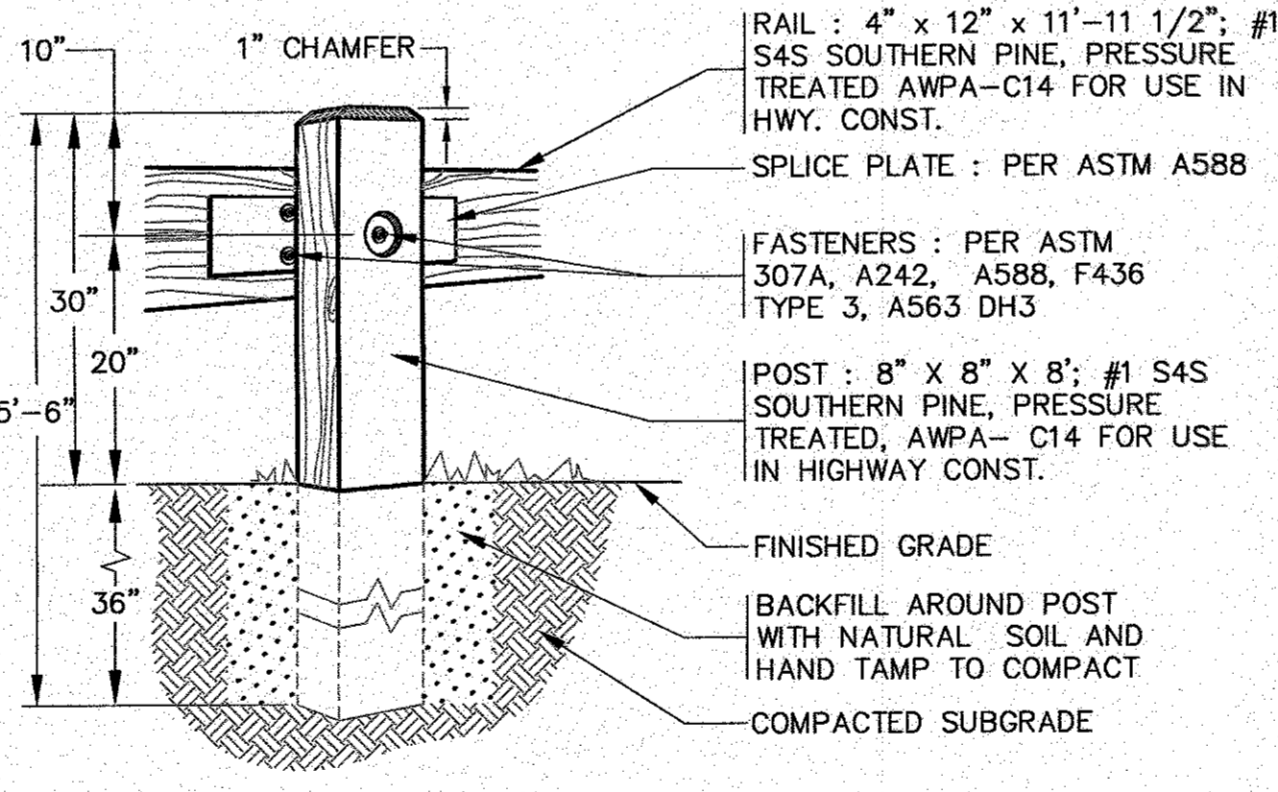
- NOTES:**
- REFER TO LANDSCAPING PLAN FOR PLANTING LOCATIONS.

SHADE TREE PLANTING DETAIL
N.T.S.



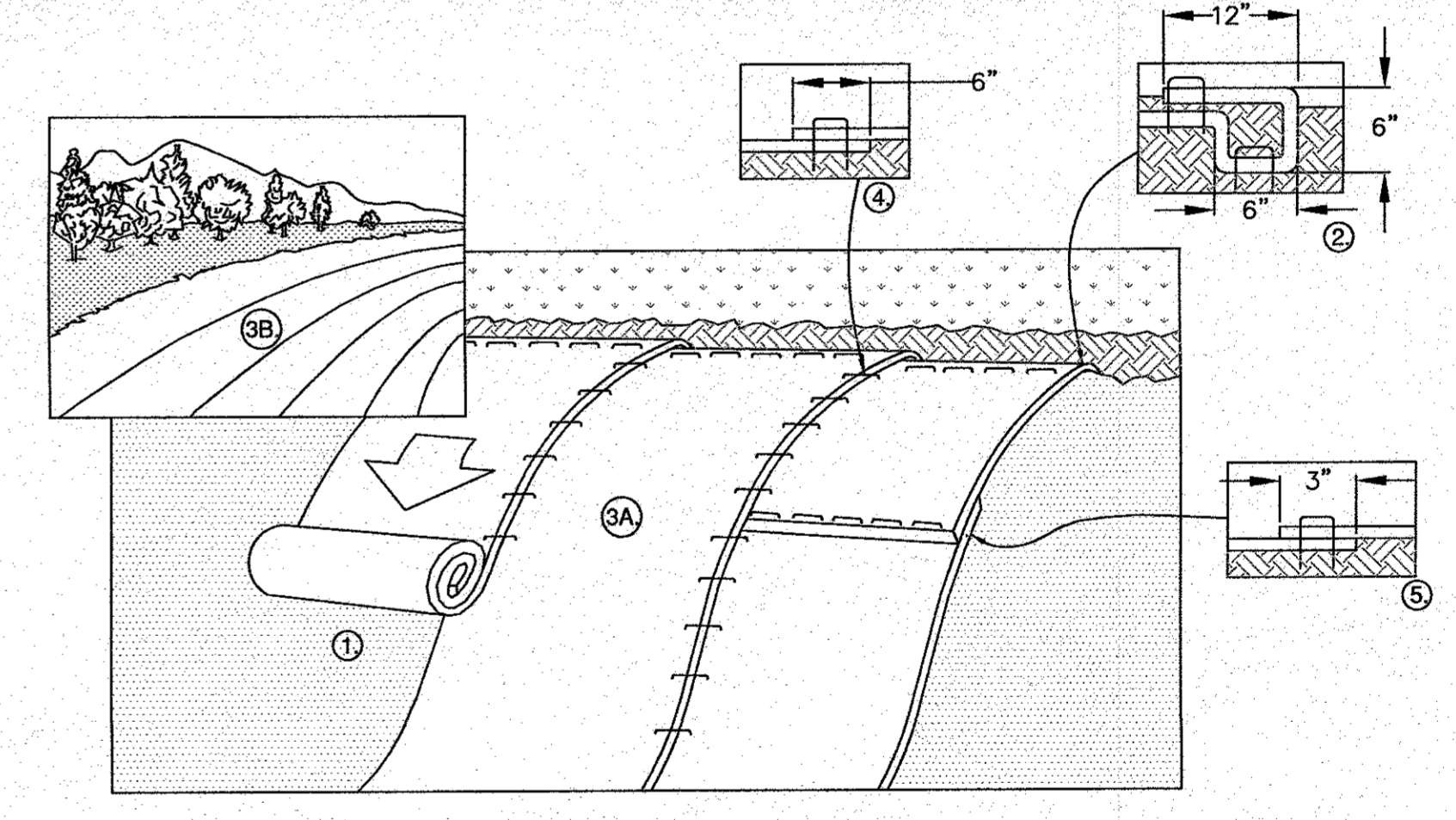
- NOTES:**
- REFER TO LANDSCAPING PLAN FOR PLANTING LOCATIONS.

SHRUB PLANTING
N.T.S.



- NOTES:**
- CONTRACTOR TO COORDINATE WITH OWNER FOR FINAL TIMBER GUARD RAIL SPECIFICATIONS AND DETAILS.
 - REFER TO PLAN FOR LOCATIONS.

TYPICAL TIMBER GUARD RAIL DETAIL
N.T.S.



- NOTES:**
- PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP'S), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-0-SEED DO NOT SEED PREPARED AREA. CELL-0-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
 - BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP'S IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF RECP'S EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP'S WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF RECP'S BACK OVER SEED AND COMPACTED SOIL. SECURE RECP'S OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE RECP'S.
 - ROLL THE RECP'S (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. RECP'S WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP'S MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
 - THE EDGES OF PARALLEL RECP'S MUST BE STAPLED WITH APPROXIMATELY 6" OVERLAP.
 - CONSECUTIVE RECP'S SPICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE RECP'S WIDTH. NOTE: *IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE RECP'S.
 - REFER TO NORTH AMERICAN GREEN FOR INSTALLATION METHODS AND STAPLE CONFIGURATION FOR PRODUCT #C125BN.

EROSION CONTROL BLANKET SLOPE DETAIL
N.T.S.

PERMIT SET
(NOT FOR CONSTRUCTION)

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MASTER MILLWORK, INC.
41 MEETING HOUSE LANE, SUITE 11 SAGAMORE BEACH, MA

DATE: JULY 8, 2020
DRAWN BY: JWP
CHECKED BY: WFM
JOB NO.: 19-9342
SCALE: N.T.S.

APPROVED BY: [Signature]

NO CHANGES THIS SHEET

REV.	DATE	BY	APP'D	DESCRIPTION
2	8/20/20	JWP	WFM	
1	8/10/20	JWP	WFM	ADDED TIMBER GUARD RAIL DETAIL

PREPARED FOR: MASTER MILLWORK, INC.

JOB NO.: 19-9342

DWG. 10 OF 10