

LANDSCAPE NOTES:

NO TREES OR SHRUBS SHALL BE PLANTED ON EXISTING OR PROPOSED UTILITY LINES

THE OWNER IS RESPONSIBLE FOR MAINTAINING THE SITE LANDSCAPING AS SHOWN ON THE APPROVED SITE PLAN THROUGHOUT THE DURATION OF USE.

THE LANDSCAPE CONTRACTOR SHALL CAREFULLY CORRELATE CONSTRUCTION ACTIVITIES WITH THAT OF THE EARTHWORK CONTRACTOR AND OTHER SITE DEVELOPMENT.

THE CONTRACTOR SHALL VERIFY DRAWING DIMENSIONS WITH ACTUAL FIELD CONDITIONS AND INSPECT RELATED WORK AND ADJACENT SURFACES. THE CONTRACTOR SHALL VERIFY THE ACCURACY OF ALL FINISH GRADES WITHIN THE WORK AREA. THE CONTRACTOR SHALL REPORT TO THE LANDSCAPE ARCHITECT AND OWNER ALL CONDITIONS WHICH PREVENT PROPER EXECUTION OF THIS WORK.

THE EXACT LOCATION OF ALL EXISTING UTILITIES, STRUCTURES AND UNDERGROUND UTILITIES, WHICH MAY NOT BE INDICATED ON THE DRAWINGS, SHALL BE DETERMINED BY THE CONTRACTOR. THE CONTRACTOR SHALL PROTECT EXISTING STRUCTURES AND UTILITY SERVICES AND IS RESPONSIBLE FOR THEIR REPLACEMENT IF DAMAGED.

THE CONTRACTOR SHALL KEEP THE PREMISES FREE FROM RUBBISH AND ALL DEBRIS AT ALL TIMES AND SHALL ARRANGE MATERIAL STORAGE SO AS NOT TO INTERFERE WITH THE OPERATION OF THE PROJECT. ALL UNUSED MATERIALS, RUBBISH AND DEBRIS SHALL BE REMOVED FROM THE SITE. ALL LANDSCAPED AREAS MULCHED UNLESS OTHERWISE NOTED.

WARRANTY:
ALL PLANT MATERIAL (LAWNS, TREES, SHRUBS, ETC.) AND PLANTING SUPPLIES (EDGING, BARK, MULCH, ETC.) SHALL BE WARRANTED FOR A PERIOD OF NOT LESS THAN ONE YEAR FROM THE DATE OF COMPLETION OF THE LANDSCAPING INSTALLATION. ALL REPLACEMENT STOCK SHALL BE SUBJECT TO THE SAME WARRANTY REQUIREMENTS AS THE ORIGINAL STOCK. ANY DAMAGE DUE TO REPLACEMENT OPERATIONS SHALL BE REPAIRED BY THE LANDSCAPE CONTRACTOR. AT THE END OF THE WARRANTY PERIOD, INSPECTIONS SHALL BE MADE JOINTLY BY LANDSCAPE ARCHITECT, OWNER, TENANT AND LANDSCAPE CONTRACTOR. ALL PLANT AND LAWN AREAS NOT IN A HEALTHY GROWING CONDITION SHALL BE REMOVED AND REPLACED WITH PLANTS AND TURF COVER OF A LIKE KIND AND SIZE BEFORE THE CLOSE OF THE NEXT PLANTING SEASON.

SPECIES AND VARIETY AS SPECIFIED ON THE DRAWINGS AND DELIVERED TO THE SITE SHALL BE CERTIFIED TRUE TO THEIR GENUS, SPECIES AND VARIETY AND AS DEFINED WITHIN THE CURRENT EDITION OF INTERNATIONAL CODE OF NOMENCLATURE FOR CULTIVATED PLANTS, ISSUED BY THE INTERNATIONAL UNION OF BIOLOGICAL SCIENCES. SUBSTITUTIONS ARE NOT PERMITTED WITHOUT TENANT'S LANDSCAPE ARCHITECT'S WRITTEN APPROVAL.

PLANTING STOCK SHALL BE WELL-BRANCHED AND WELL-FORMED, SOUND, VIGOROUS, HEALTHY, FREE FROM DISEASE, SUN-SCALD, WINDBURN, ABRASION, AND HARMFUL INSECTS AND INSECT EGGS; AND SHALL HAVE HEALTHY, NORMAL, UNBROKEN ROOT SYSTEMS. DECIDUOUS TREES AND SHRUBS SHALL BE SYMMETRICALLY DEVELOPED, OF UNIFORM HABIT OF GROWTH, WITH STRAIGHT TRUNKS AND STEMS, AND FREE FROM OBJECTIONABLE DISFIGUREMENTS. EVERGREEN TREES AND SHRUBS SHALL HAVE WELL-DEVELOPED, SYMMETRICAL TOPS WITH TYPICAL SPREAD OF BRANCHES FOR EACH PARTICULAR SPECIES OR VARIETY. ONLY VINES AND GROUND COVER PLANTS WELL ESTABLISHED SHALL BE USED. PLANTS BUDDING INTO LEAF OR HAVING SOFT GROWTH SHALL BE SPRAYED WITH AN ANTI-DESICCANT AT THE NURSERY BEFORE DIGGING.

ALL STOCK SHALL BE BALLED AND BURLAPPED OR CONTAINER GROWN STOCK. BARE ROOT STOCK OF ANY KIND IS UNACCEPTABLE.

SEED:

EXPOSED SLOPES AND ALL GRADED AREAS SHALL BE SEEDED WITH THE FOLLOWING GRASS SEED MIX IMMEDIATELY UPON COMPLETION OF ITS CONSTRUCTION, OR IF PLANNED TO BE LEFT UNDISTURBED FOR MORE THAN 14 DAYS. GRASS SEED MIX TO BE APPLIED AT A RATE OF 50 POUNDS PER ACRE IN THE FOLLOWING PROPORTIONS:

KENTUCKY BLUEGRASS	40%
CREeping RED FESCUE	40%
RYE GRASS	20%

GRASS SEED MIX MAY BE APPLIED BY EITHER MECHANICAL OR HYDROSEEDING METHODS. HYDROSEEDING SHALL BE PERFORMED IN ACCORDANCE WITH THE CURRENT EDITION OF THE NYSDOT STANDARD SPECIFICATIONS, CONSTRUCTION AND MATERIALS, SECTION 610-3.02, METHOD No. 1.

SEEDED AREAS SHALL BE MULCHED WITH STRAW AT A RATE OF 2 TONS PER ACRE, OR 90 LBS. PER 1,000 SQUARE FEET, SUCH THAT IT FORMS A CONTINUOUS BLANKET.

SEED SHALL BE A BLEND OF CERTIFIED LAWN GRASS AND/OR GROUND COVER PLANT SEEDS COMMON TO THE SITE LOCATION. PROVIDE FRESH, CLEAN, NEW-CROP SEED COMPLYING WITH ESTABLISHED TOLERANCES FOR GERMINATION AND PURITY IN

ACCORDANCE WITH THE U.S. DEPARTMENT OF AGRICULTURE RULES AND REGULATIONS UNDER THE LATEST EDITION OF THE FEDERAL SEED ACT, SEED SHALL BE MIXED BY THE DEALER AND SHALL BE DELIVERED TO THE SITE IN SEALED CONTAINERS WHICH SHALL BEAR THE DEALER'S GUARANTEED ANALYSIS.

MULCHES FOR PLANTINGS:
SHREDDED BARK MULCH, MEDIUM SIZE, FROM HARDWOOD TREES. NO PIECES OVER TWO INCHES (2") IN GREATEST DIMENSION. FREE FROM SAWDUST, STONES, DEBRIS, AND DELETERIOUS MATERIALS.

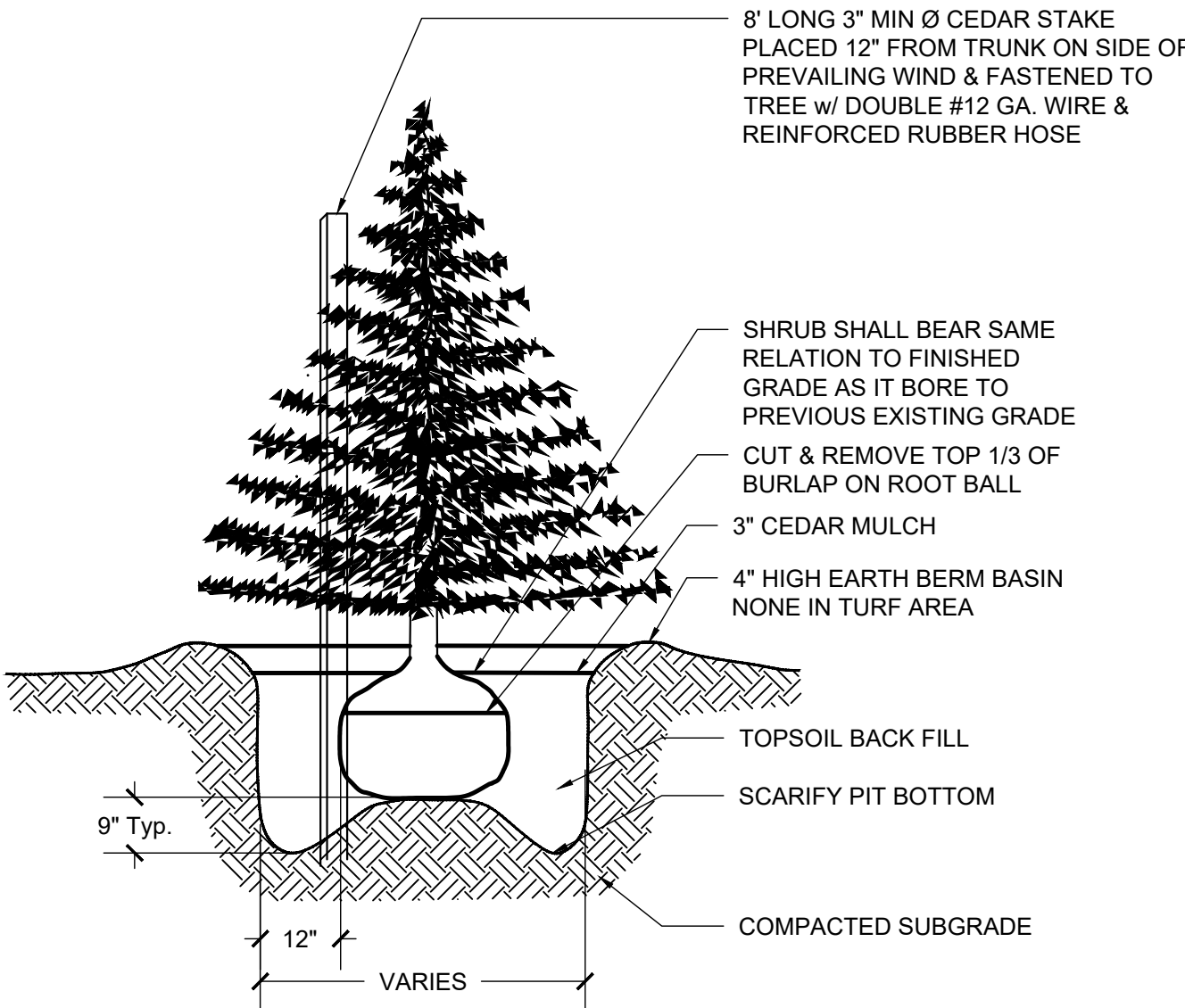
ALL VEGETATION SHOWN ON THIS PLAN SHALL BE MAINTAINED IN A HEALTHY AND VIGOROUS GROWING CONDITION THROUGHOUT THE DURATION OF THE PROPOSED USE. ALL VEGETATION NOT SO MAINTAINED SHALL BE REPLACED WITH NEW VEGETATION AT THE BEGINNING OF THE NEXT GROWING SEASON. ALL AREAS OF SITE NOT OCCUPIED BY BUILDINGS OR PAVEMENT AND NOT SPECIFIED AS BEING PLANTED WITH TREES, SHRUBS OR GROUND COVER SHALL BE SEEDED.

NO TREES OR SHRUBS SHALL BE PLANTED ON EXISTING OR PROPOSED UTILITY LINES.

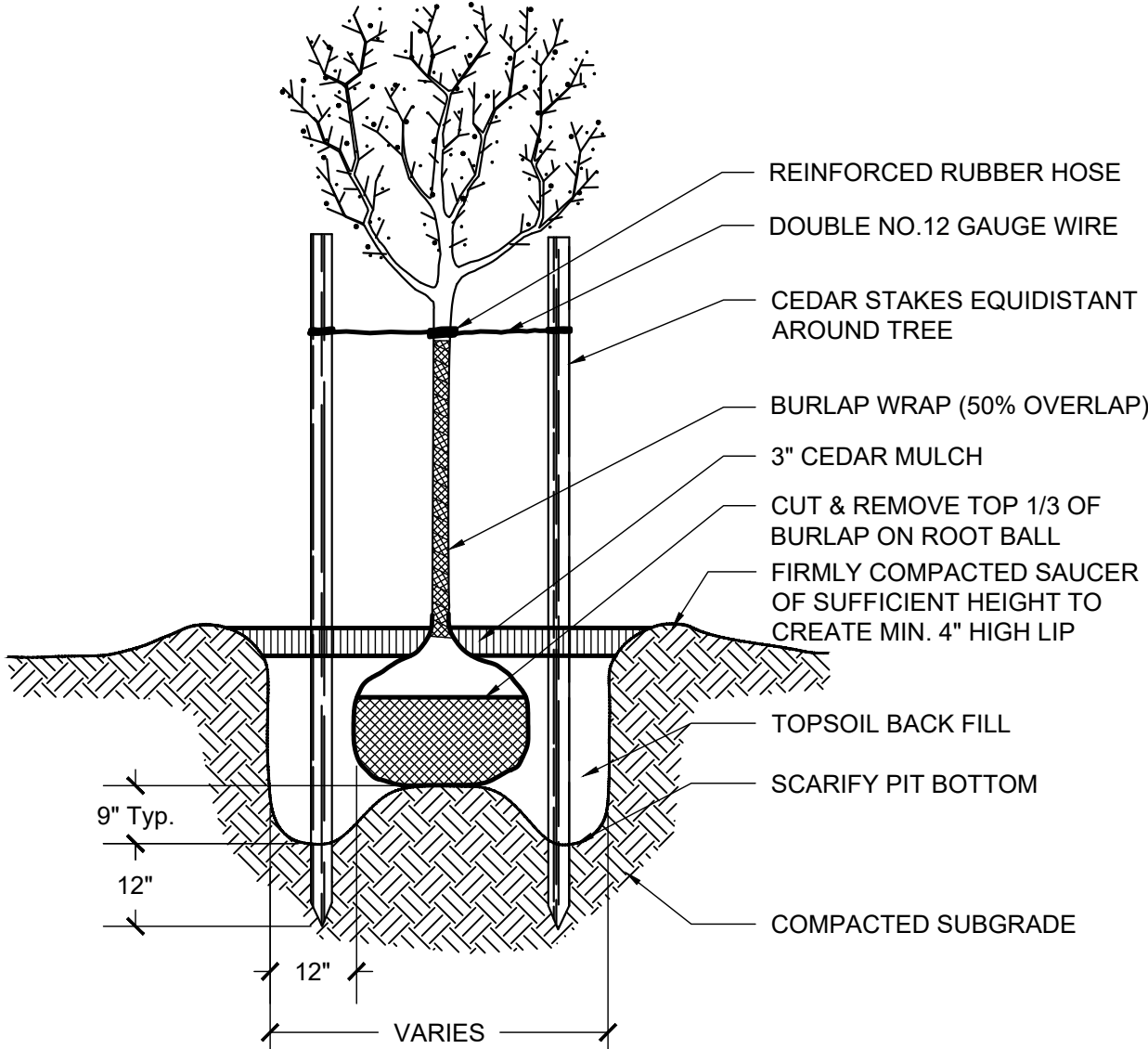
LONGTERM PLANTING MAINTENANCE NOTES
THE OWNER/OPERATOR SHALL BE RESPONSIBLE FOR THE LONG-TERM MONITORING AND MAINTENANCE OF THE PLANTINGS WITHIN THE THE SITE IN PERPETUITY AND TO THE SATISFACTION OF THE VILLAGE.

THE COVERAGE OF THE SEEDED AREAS SHALL BE UNIFORM WITH NO BARE AREAS LARGER THAN ONE-HALF SQUARE FEET.

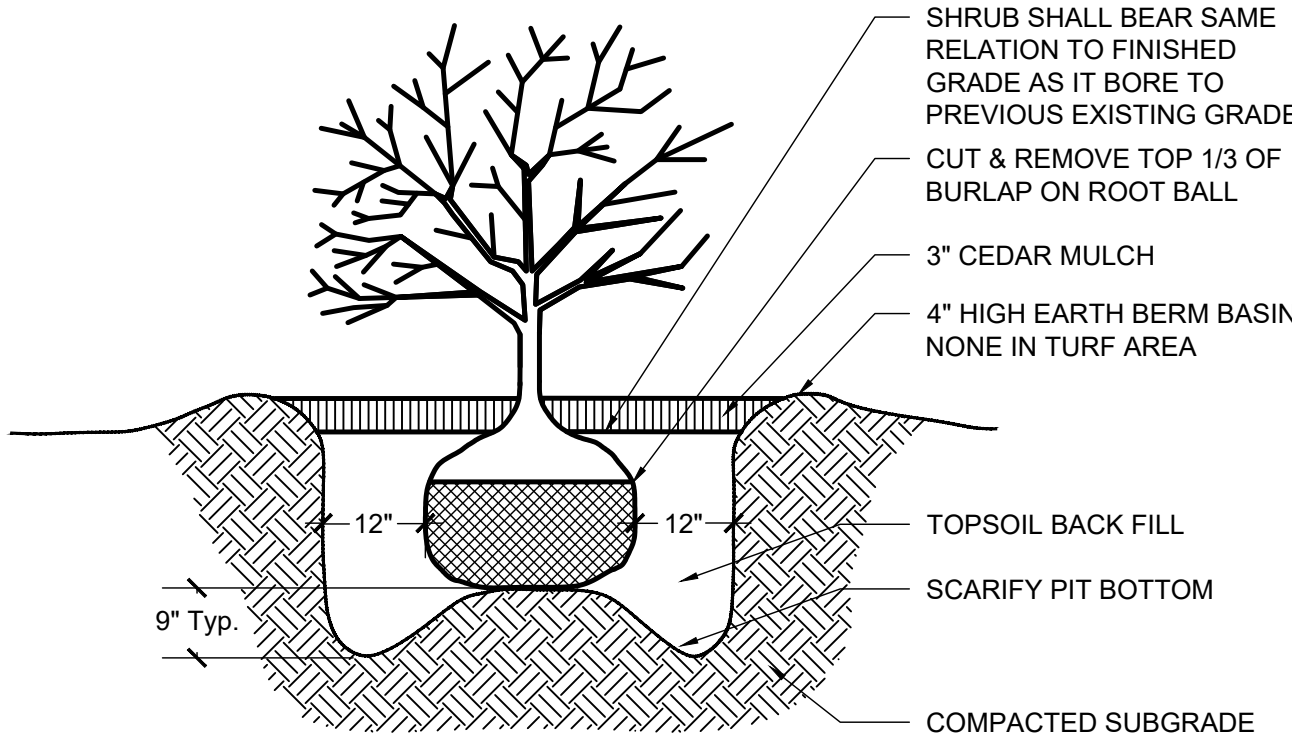
THE ACCEPTABLE DENSITY OF COVERAGE SHALL BE A MINIMUM OF EIGHTY-FIVE PERCENT (85%) OF LANDSCAPE QUANTITY PLANTS SHOWN ON THE APPROVED PLANTING PLAN. IF LESS THAN EIGHTY-FIVE (85%) OF A PARTICULAR PLANT SPECIES SURVIVES, REPLACEMENT WITH SAME AND/OR ALTERNATIVE PLANT SPECIES ACCEPTABLE TO THE TOWN PLANNING BOARD SHALL OCCUR, SERVING THE INTENDED FUNCTION OF THE ORIGINALLY PROPOSED PLANTINGS.



2 EVERGREEN TREE PLANTING DETAIL
NOT TO SCALE



3 DECIDUOUS TREE PLANTING DETAIL
NOT TO SCALE



NOTES:
1. IF CONTAINERS ARE USED CAREFULLY REMOVE TOP 1/3 OF CONTAINER (IF CONTAINER IS NON-ORGANIC, REMOVE COMPLETELY). CUT VARIOUS SLITS IN ORGANIC CONTAINER TO FACILITATE ROOT PENETRATION (OR REMOVE CONTAINER BOTTOM).
2. DO NOT ALLOW ANY PORTION OF CONTAINER TO REMAIN EXPOSED.
3. WATER THOROUGHLY SUBSEQUENT TO INSTALLATION.

4 SHRUB PLANTING DETAIL
NOT TO SCALE

IT IS A VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSONS TO ALTER THESE PLANS, SPECIFICATIONS, OR REPORTS IN ANY WAY, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR.

	Mark A. Day, PE
AUGUST 18, 2022 PLANNING BOARD SUBMISSION	
MAY 25, 2022 PLANNING BOARD SUBMISSION	
MARCH 30, 2022 APPLICANT REVIEW	
FEBRUARY 1, 2022 INTERNAL REVIEW-UTILITY LAYOUT REVISED	
NOVEMBER 15, 2021	
Project No. 2020.332	License No. 069646

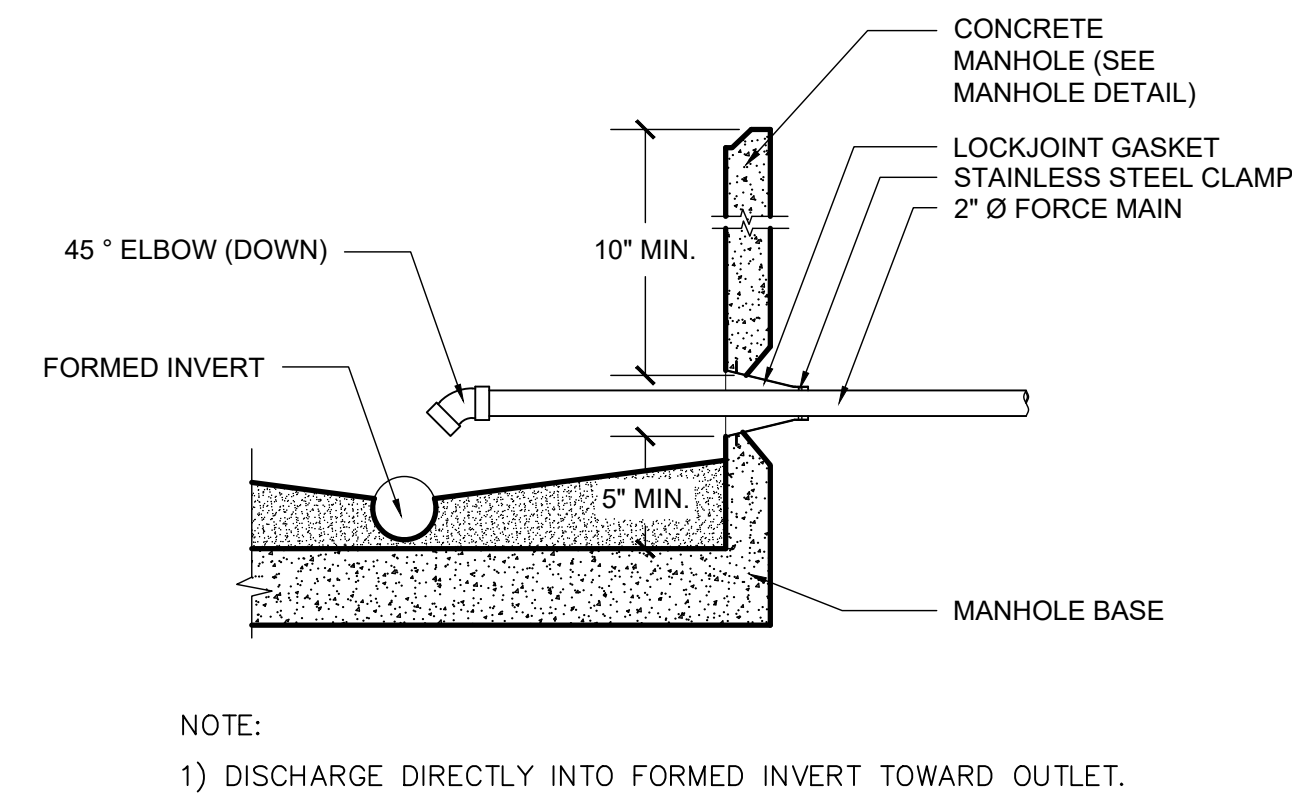
DAY | STOKOSA
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PROJECT
SUMMIT WOODS
Town of East Fishkill Dutchess County, New York

DRAWING NO.
LIGHTING & LANDSCAPING DETAILS

SCALE AS NOTED	DRAWN BY ALB	DRAWING NO. C580
DATE 04-15-2021	CHECKED BY MAD	





1. PRECAST CHAMBER WITH FLAT SLAB, TO MEET AASHTO HS20-44 LOADING REQUIREMENT.
2. ALL JOINTS TO BE CAULKED.
3. BACKFILL AROUND STRUCTURE TO BE NYSDOT ITEM# 304.12, COMPACTED IN 8" MAX. LIFTS. BACKFILL IN OFF-ROAD AREAS CAN BE APPROVED EXCAVATED MATERIAL OR R.O.B. GRAVEL WITH NO STONES LARGER THAN 6" DIAMETER, COMPACTED IN 10" MAX. LIFTS. BACKFILL IS TO BE COMPACTED USING JUMPING JACK COMPACTOR, ACHIEVING 95% COMPACTION.
4. STEPS TO BE COPOLYMER POLYPROPYLENE PLASTIC WITH $\frac{3}{8}$ " GRADE 60 STEEL REINFORCEMENT.
5. EXTENDED MANHOLE BASE IS REQUIRED FOR MANHOLES FMH-2001 AND FMH-2002.

SANITARY SEWER FORCE MAIN CLEAN OUT MANHOLE
NOT TO SCALE

FORCE MAIN/MANHOLE CONNECTION
NOT TO SCALE

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3 Van Wyck Lane Suite 2 Wappingers Falls, New York 12590 (845) 223-3202			
PROJECT			
<h1>SUMMIT WOODS</h1>			
Town of East Fishkill		Dutchess County, New York	
DRAWING			
<h2>SANITARY SYSTEM DETAILS</h2>			
SCALE	DRAWN BY	ENGINEER / IN.	
AS NOTED	ALB	<div style="font-size: 48pt; font-weight: bold;">C571</div>	
DATE	CHECKED BY		
04-15-2021	MAD		

TOWN OF EAST FISHKILL CODE, CHAPTER 152. SEWERS

ARTICLE I. STANDARDS FOR SEWER CONSTRUCTION

§ 152-1. SCOPE.

A. THESE SPECIFICATIONS SHALL BE USED FOR THE CONSTRUCTION OF SEWERS WITHIN THE TOWN OF EAST FISHKILL. THESE INCLUDE THE PUBLIC SEWERS WITHIN THE STREETS AND ON RIGHTS-OF-WAY AND BUILDING SEWERS, INCLUDING THE NECESSARY STRUCTURES SUCH AS MANHOLES, PUMP STATIONS AND APPURTENANCES. THESE SPECIFICATIONS SHALL BE CONSIDERED TO BE MINIMUM ACCEPTABLE STANDARDS FOR CONSTRUCTION.

B. UPON APPROVAL OF THE ENGINEER, THE OWNER MAY USE AS ALTERNATIVES SPECIFICATIONS APPLICABLE STANDARDS OF THE DUTCHESS COUNTY HEALTH DEPARTMENT, THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION AND OTHER AGENCIES OF JURISDICTION, IF SAID STANDARDS MEET OR EXCEED THE SPECIFICATIONS HEREIN, BUT THE OWNER IN NO CASE SHALL BE ALLOWED TO USE STANDARDS WHICH ARE LESS STRINGENT THAN THOSE LISTED HEREIN.

§ 152-2. DEFINITIONS.

AS USED IN THIS ARTICLE, THE FOLLOWING TERMS SHALL HAVE THE MEANINGS INDICATED:
ASTM – THE NUMBERED SPECIFICATIONS OF THE AMERICAN SOCIETY FOR TESTING AND MATERIALS, AS REVISED AT THE TIME THE DESIGN IS APPROVED.
ENGINEER – THE ENGINEER FOR THE TOWN OF EAST FISHKILL OR HIS AUTHORIZED DEPUTY, AGENT OR REPRESENTATIVE.
OWNER – THE LEGAL OWNER OF THE REAL ESTATE TO BE IMPROVED OR SUCH PERSON DESIGNATED AS HIS AGENT, IN WRITING, TO THE ENGINEER.
OWNER'S ENGINEER – THE ENGINEER OF RECORD WITH REFERENCE TO THE SANITARY SEWER SYSTEM.

§ 152-3. PERMITS.

THE OWNER SHALL OBTAIN SUCH PERMITS AS ARE NECESSARY FOR THE OPENING OF STREETS, BUILDING PERMITS AND SUCH OTHERS AS ARE REQUIRED BY LOCAL LAW. THESE SHALL BE OBTAINED PRIOR TO THE START OF CONSTRUCTION AND AT NO COST TO THE TOWN OF EAST FISHKILL. THE OWNER SHALL BE RESPONSIBLE FOR PAYMENT OF ALL FEES REQUIRED BY SUCH LOCAL LAWS.

§ 152-4. NOTICE OF CONSTRUCTION.

THE ENGINEER SHALL BE NOTIFIED AT LEAST SEVEN WORKING DAYS IN ADVANCE OF THE START OF CONSTRUCTION.

§ 152-5. JUDGE OF QUALITY AND SUITABILITY.

A. ALL MATERIALS TO BE USED FOR THE PERMANENT CONSTRUCTION, AS SHOWN ON THE APPROVED DRAWINGS AND IN THE SPECIFICATIONS, SHALL BE FIRST CLASS IN EVERY RESPECT AND SUBJECT TO THE APPROVAL OF THE ENGINEER WHO SHALL BE THE SOLE JUDGE OF THEIR QUALITY AND SUITABILITY.

B. NO SHIMMENT OR ORDER MAY BE MADE OR INSTALLATION MAY BEGIN UNTIL FIVE COPIES OF EACH SHOP DRAWING AND/OR LITERATURE IS SUBMITTED TO THE ENGINEER FOR REVIEW.

C. IF ANY MATERIAL BROUGHT TO THE SITE FOR USE IN THE WORK IS CONDEMNED BY THE ENGINEER AFTER ARRIVAL AT THE SITE, AS UNSUITABLE OR NOT IN CONFORMITY WITH THE SPECIFICATIONS, THE OWNER SHALL IMMEDIATELY REMOVE SUCH MATERIALS FROM THE CONSTRUCTION SITE.

§ 152-6. APPROVED DRAWINGS.

APPROVED DRAWINGS SHALL CONSIST OF A SET OF PLANS AND PROFILES PREPARED BY THE OWNER'S ENGINEER AND SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL AS TO CONFORMITY TO THE BASIC MUNICIPAL SEWER PLAN AND THE SPECIFICATIONS. THE ENGINEER'S APPROVAL SHALL BE AFFIXED TO THE DRAWINGS, AND A COPY OF SUCH APPROVED DRAWINGS SHALL BE ON THE CONSTRUCTION SITE AT ALL TIMES. NO DEVIATION SHALL BE MADE FROM THE LINE AND GRADE, OR BY SUBSTITUTIONS OF MATERIALS, FROM THAT SHOWN ON THE APPROVED DRAWINGS, EXCEPT BY WRITTEN AUTHORIZATION OF THE ENGINEER.

§ 152-7. DRAWINGS OF RECORD.

THE OWNER'S ENGINEER SHALL PROVIDE THE ENGINEER WITH A REVISED SET OF PERMANENT REPRODUCIBLE DRAWINGS SHOWING THE AS-BUILT LOCATION, SIZES AND ELEVATIONS OF SEWERS, MANHOLES, BUILDING SEWERS, BUILDING SEWER TERMINATIONS AND EASEMENTS, TOGETHER WITH SUCH LEGAL DESCRIPTIONS AS ARE REQUIRED FOR PROPER RECORDING OF SUCH EASEMENTS.

§ 152-8. EXCAVATION AND EARTHWORK.

A. CLEARING AND GRUBBING AREAS TO BE EXCAVATED OR FILLED AREAS TO BE USED FOR THE STORAGE OF EXCAVATED MATERIAL AND AREAS ON WHICH PAVEMENTS OR OTHER STRUCTURES WILL BE CONSTRUCTED SHALL BE CLEARED OF ALL TREES, BRUSH, HEDGES, SHRUBS, RUBBISH AND OTHER OBJECTIONABLE MATTER. SUCH MATERIAL SHALL BE DISPOSED OF AS APPROVED BY THE ENGINEER.

B. STRIPPING AFTER CLEARING AND GRUBBING, ALL TOPSOIL AND OTHER ORGANIC MATERIAL SHALL BE STRIPPED WITHIN THE LIMITS TO BE GRADED, EXCAVATED OR FILLED. A MINIMUM OF SIX INCHES OF MATERIAL SHALL BE REMOVED FROM ALL UNPAVED AREAS. ALL MATERIAL REMOVED SHALL BE DEPOSITED BEYOND THE LIMITS OF THE WORK. THE MATERIAL WHICH IS OF ACCEPTABLE QUALITY FOR USE IN THE WORK AS TOPSOIL SHALL BE KEPT SEPARATE FROM OTHER EXCAVATED MATERIAL AND PROTECTED AND MAINTAINED UNTIL NEEDED. ALL OTHER STRIPPED MATERIAL SHALL BE CONSIDERED AS SURPLUS AND SHALL BE DISPOSED OF AS DIRECTED BY THE ENGINEER.

C. EXCAVATION, EXCAVATION SHALL MEAN THE REMOVAL FROM A PLACE OF ALL MATERIALS, INCLUDING SOIL, STRUCTURES ABOVE AND BELOW THE GROUND, ROCK, TOPSOIL, BOGGY WASTE, RUBBISH, ASHES, CINDERS OR ORGANIC MATERIALS SUCH AS PEAT OR HUMUS.

D. LIMIT OF EXCAVATIONS. EXCAVATION SHALL BE CARRIED TO THE DIMENSIONS AND DEPTHS INDICATED OR AS NECESSARY TO PROVIDE A FIRM BASE. EXCAVATIONS CARRIED BELOW THE DEPTH NECESSARY SHALL BE REFILLED TO THE PROPER GRADE WITH THOROUGHLY COMPACTED FOUNDATION MATERIAL.

E. PROTECTION OF EXISTING STRUCTURES. EXCAVATIONS MADE ADJACENT TO OR IN THE PROXIMITY OF EXISTING STRUCTURES SHALL BE MADE WITH SPECIAL CARE AND IN SUCH MANNER AS NOT TO DAMAGE THE STRUCTURES OR TO DISTURB THE SUPPORTING BACKFILL AND FOUNDATION OF SUCH STRUCTURES.

F. SHEETING AND BRACING.

(1) WHERE EXCAVATIONS ARE MADE WITH VERTICAL SIDES WHICH REQUIRE SUPPORTING, THE SHEETING AND BRACING SHALL BE OF SUFFICIENT STRENGTH TO SUSTAIN THE SIDES OF THE EXCAVATIONS AND TO PREVENT MOVEMENT WHICH COULD IN ANY WAY INJURE THE WORK OR DIMINISH THE WORKING SPACE. TIMBER FOR SHEETING AND BRACING SHALL BE ROUGH, SQUARE-SAWNED OF ANY GRADE HAVING THE REQUESTED STRENGTH FOR THE PURPOSE INTENDED AND SHALL NOT SPLIT IN DRIVING OR FABRICATION. STEEL SHEET PILING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A-308. PILING SHALL BE OF AN INTERLOCKING PATTERN AND SHALL BE OF ADEQUATE WEIGHT AND SECTION TO WITHSTAND THE LOADS IMPOSED. THE OWNER SHALL FURNISH DRAWINGS SHOWING SHEETING AND BRACING METHODS. FOR EXCAVATIONS OVER 12 FEET IN DEPTH, THE OWNER SHALL CERTIFY TO THE ENGINEER THAT THE SHEETING AND BRACING DESIGN HAS BEEN CHECKED AND APPROVED AS ADEQUATE AND IN ACCORDANCE WITH EXISTING LAWS AND REGULATIONS BY A LICENSED PROFESSIONAL ENGINEER, AND THAT SHEETING AND BRACING HAS BEEN CONSTRUCTED IN ACCORDANCE WITH THE DESIGN WHICH WAS CHECKED AND APPROVED BY THE OWNER'S ENGINEER UPON REQUEST BY THE ENGINEER. THE OWNER SHALL FURNISH COMPUTATIONS AND SUBSTANTIATING DATA FOR REVIEW. CERTIFICATION FOR DESIGN SHALL BE SUBMITTED PRIOR TO PLACING ANY SHEETING AND BRACING, AND CERTIFICATION FOR CONSTRUCTION SHALL BE SUBMITTED IMMEDIATELY AFTER SHEETING AND BRACING HAS BEEN CONSTRUCTED.

(2) WHERE THE OWNER DOES NOT PROPOSE TO SHEET AND BRACE EXCAVATIONS, HE SHALL SUBMIT A DRAWING INDICATING THE SIDE SLOPES HE PROPOSES TO MAINTAIN, AND HAVE THOSE SLOPES CERTIFIED BY THE OWNER'S ENGINEER AS BEING SAFE AND IN ACCORDANCE WITH EXISTING LAWS AND REGULATIONS. UPON REQUEST BY THE ENGINEER, THE OWNER SHALL FURNISH DESIGN COMPUTATIONS AND SUBSTANTIATING DATA FOR REVIEW. IF THE OWNER ELECTS TO CONSTRUCT TRENCHES USING SOLDIER BEAMS AND HORIZONTAL LAGGING, ALL SUCH SHEETING AND SOLDIER BEAMS MORE THAN TWO FEET BELOW THE FINISHED SURFACE SHALL BE LEFT IN PLACE.

G. EXPLOSIVES AND BLASTING. ALL STATE, MUNICIPAL AND OTHER REGULATIONS REGARDING THE COMPOSITION, TRANSPORTATION, STORAGE AND USE OF EXPLOSIVES SHALL BE STRICTLY COMPLIED WITH. THE QUANTITY OF EXPLOSIVES KEPT ON HAND SHALL NOT EXCEED THE AMOUNT THAT IS NECESSARY TO AVOID DELAY IN THE WORK. THE COMPOSITION OF EXPLOSIVES SHALL BE SUCH AS TO CAUSE THE LEAST AMOUNT OF INJURIOUS FUMES. BLASTING SHALL BE DONE WITH LIGHT CHARGES SUFFICIENT TO LOOSEN THE ROCK WITHOUT DAMAGING THE ADJOINING OR NEARBY PROPERTY, OR CRACKING OR DAMAGING ROCK UPON OR AGAINST WHICH MASONRY IS TO BE BUILT. HOWEVER, IN THE OPINION OF THE ENGINEER, BLASTING IS LIABLE TO INJURE THE ROCK UPON OR AGAINST WHICH MASONRY IS TO BE BUILT, BLASTING SHALL BE DISCONTINUED AND THE LOOSENSING OF THE ROCK CONTINUED BY WEDGING AND BARRING OR OTHER APPROVED METHODS. ROCK NEAR STRUCTURES LIABLE TO BE DAMAGED BY BLASTING SHALL BE LOOSENED BY APPROVED MEANS. LOOSENED BLASTERS SHALL BE EMPLOYED.

H. RESPONSIBILITY OF OWNER IN BLASTING. THE OWNER WILL BE HELD RESPONSIBLE FOR ALL CLAIMS FOR DAMAGE CAUSED BY BLASTING. HE SHALL SATISFACTORILY COVER ALL SHOTS AND OPEN-OUT EXCAVATIONS AND SHALL TAKE EXTRA PRECAUTIONS WHEN REQUIRED BY THE ENGINEER, AND SHALL AT ALL TIMES EXERCISE CAUTION TO PREVENT ACCIDENTS.

I. Dewatering. THE OWNER SHALL PROVIDE, OPERATE AND MAINTAIN SATISFACTORY FACILITIES AND EQUIPMENT, INCLUDING WELL POINTS, IF NECESSARY, WITH WHICH TO COLLECT ALL WATER ENTERING EXCAVATIONS OR OTHER PARTS OF THE WORK TO SUITABLE PLACES FOR DISPOSAL. ALL EXCAVATIONS SHALL BE KEPT FREE OF WATER UNTIL THE WORK OR STRUCTURE TO BE BUILT THEREIN IS COMPLETED. APPROVED SETTLING BASINS AND SUMPS SHALL BE PROVIDED FOR CATCHING AND TEMPORARILY HOLDING WATER CONTAINING MUD, CLAY, SAND OR OTHER MATERIAL IN SUSPENSION, PUMPED FROM EXCAVATIONS. SUCH BASINS SHALL BE LARGE ENOUGH TO ALLOW STORAGE TIME FOR THE SETTLEMENT OF SUCH SUSPENDED MATTER. THE SETTLED MATERIAL SHALL BE CLEANED OUT FREQUENTLY AND DISPOSED OF IN CONFORMITY WITH ALL GOVERNING AGENCY REGULATIONS. LOWERING OF GROUNDWATER TO THE INJURY OR DETRIMENT OF OTHER STRUCTURES SHALL BE PART OF THE OWNER'S RISK AND RESPONSIBILITY. THE OWNER SHALL REPAIR OR REPLACE TO THE SATISFACTION OF THE OWNER ANY STRUCTURE DAMAGED AS A RESULT OF LOWERING OF GROUNDWATER.

J. STORAGE DISPOSAL. EXCAVATED MATERIAL WHICH IS SUITABLE AND APPROVED FOR BACKFILL AND FILL SHALL BE PLACED IN STORAGE PILES UNLESS/OR UNTIL IT CAN BE PLACED IN THE WORK. IT SHALL NOT BE PLACED CLOSE TO THE SIDES OF EXCAVATIONS WHERE THE WEIGHT OF THE MATERIAL COULD CREATE A SURCHARGE ON SUCH SIDES WHETHER SHEETED OR NOT.

K. BORROW WHERE ADDITIONAL MATERIAL TO THAT AVAILABLE FROM THE WORK IS REQUIRED FOR BACKFILL AND FILL OR OTHER PURPOSES, IT SHALL BE OBTAINED BY THE OWNER FROM OUTSIDE SOURCES. BORROW MATERIAL SHALL BE SUBJECT TO APPROVAL BY THE ENGINEER.

L. BACKFILL AND FILL. ALL BACKFILL AND FILL, UNLESS OTHERWISE SPECIFIED, SHALL CONSIST OF SUITABLE AND SELECTED APPROVED EARTH, GENERALLY FROM STORAGE OF APPROVED EXCAVATED SOIL, FREE FROM REJECTED ORGANIC MATTER, BOGGY, PEATY, HUMUS OR OTHER UNSUITABLE MATERIAL, SUCH AS SILT, RUBBISH, WASTE, ASHES OR CINDERS, IF SUFFICIENT SUITABLE MATERIAL FOR BACKFILL AND FILL IS NOT AVAILABLE FROM THE EXCAVATED MATERIAL AS DETERMINED BY THE ENGINEER. THE OWNER SHALL PROCURE ELSEWHERE A SUFFICIENT QUANTITY OF SUITABLE MATERIAL AND SHALL FURNISH AND PLACE SUCH MATERIAL. FROZEN EARTH SHALL NOT BE USED FOR BACKFILL AND FILL. ALL ROCKS AND STONES MORE THAN SIX INCHES IN THE LARGEST DIMENSION SHALL BE REMOVED FROM ACCEPTED EARTH FOR BACKFILL AND FILL.

M. PLACING AND COMPACTING BACKFILL AND FILL.

(1) BACKFILL AND FILL SHALL BE MADE TO THE SLOPES, GRADES AND ELEVATIONS REQUIRED.

(2) BACKFILL SHALL NOT BE PLACED UNTIL THE STRUCTURE HAS BEEN INSPECTED IN PLACE AND APPROVED BY THE ENGINEER. BACKFILLING SHALL BE CARRIED OUT AS SOON AS POSSIBLE AFTER SUCH APPROVAL. THE EXTENT OF PIPE TRENCH KEPT OPEN SHALL BE KEPT TO A MINIMUM. BACKFILL AND FILL SHALL BE PLACED IN LAYERS NOT MORE THAN 12 INCHES THICK, EXCEPT AS SPECIFIED OTHERWISE BY THE ENGINEER. EACH LAYER SHALL BE COMPACTED THOROUGHLY, EVENLY AND IN SUCH MANNER TO PROVIDE PRACTICALLY UNDEVIATING SURFACES. THE MOISTURE CONTENT OF THE MATERIALS SHALL BE SUCH THAT PROPER COMPACTION SHALL BE OBTAINED.

(3) TRENCHES SHALL BE BACKFILLED TO A DEPTH NOT LESS THAN 12 INCHES ABOVE THE TOP OF THE PIPE OR OTHER STRUCTURE THEREIN FOR THE FULL WIDTH OF THE TRENCH. SUCH BACKFILL SHALL BE UNIFORMLY PLACED ON EACH SIDE OF THE PIPE IN SIX-INCH LAYERS WHERE IT IS REQUIRED AND FIRMLY COMPACTED BY APPROVED MECHANICAL TAMPING EQUIPMENT. CARE SHALL BE TAKEN NOT TO DAMAGE THE PIPE OR STRUCTURE.

(4) AFTER A COMPACTED COVERAGE OF 12 INCHES HAS BEEN MADE, THE REMAINDER OF THE TRENCH SHALL BE COMPACTLY FILLED IN AN APPROVED MANNER TO A DENSITY OF AT LEAST EQUAL TO THAT OF THE ADJACENT UNDISTURBED SOIL, SO AS TO AVOID FUTURE UNEQUAL SETTLEMENT. PLODDING FOR COMPACTION WILL NOT BE PERMITTED EXCEPT WITH COARSE TO MEDIUM GRANULAR MATERIALS. BULLDOZING OF BACKFILL MATERIAL INTO TRENCHES WILL BE PROHIBITED UNLESS IT IS DONE IN UNIFORMLY SPREAD LAYERS NOT OVER 12 INCHES THICK OR SIX INCHES THICK UNDER PAVEMENTS, AND EACH LAYER IMMEDIATELY MACHINE TAMPED. WHERE SHEETING IS WITHDRAWN, ALL CAVITIES LEFT THEREBY SHALL BE FILLED WITH SUITABLE GRANULAR EARTH, HOSED OR TAMPED IN PLACE SO AS TO FILL ALL VOIDS THOROUGHLY. BACKFILL AND FILL SHALL BE CARRIED TO A SUBGRADE WHICH PERMITS TOPSOIL OR PAVING OF THE REQUIRED DEPTH TO BE PLACED TO BRING IT TO THE FINISHED GRADE, AS FAR AS PRACTICABLE, THE UNDERLYING BACKFILL AND FILL SHALL BE GIVEN TIME TO SETTLE THROUGH SEVERAL HEAVY RAINS OR BY ARTIFICIAL WETTING BEFORE THE TOPSOIL AND PAVING IS PLACED.

(5) ALL MATERIAL SHALL BE COMPACTED TO 95% STANDARD PROCTOR DENSITY (PER ASTM D698 METHOD), IF ANY COMPACTION IS QUESTIONED BY THE ENGINEER, THE OWNER SHALL SUPPLY TEST RESULTS TO VERIFY THE COMPACTION.

N. FOUNDATION MATERIAL. FOUNDATION MATERIAL SHALL CONSIST OF HARD AND CLEAN GRAVEL OR CRUSHED STONE. IT SHALL BE FREE FROM ANY CONSIDERABLE AMOUNT OF FLAT, LAMINATED OR ELONGATED PARTICLES AND SHALL BE FREE FROM SHELLS, CLAY, LIMESTONE, SHALE OR OTHER DELETERIOUS MATTER. GRAVEL OR CRUSHED STONE SHALL BE GRADED FROM 1/4 INCH TO NO. 4 SIEVE SIZE. FOUNDATION MATERIAL SHALL BE PLACED AND FIRMLY COMPACTED BY MECHANICAL COMPACTING EQUIPMENT. CARE SHALL BE TAKEN TO PLACE AND COMPACT MATERIAL UNDER PIPE HAUNCHES.

TOWN OF EAST FISHKILL CODE

A. MATERIALS.

(1) SEGMENTAL CONCRETE BLOCKS SHALL CONFORM TO THE REQUIREMENTS OF ASTM: C139.

(2) PRECAST CONCRETE PIPE MANHOLE RISERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM: C478, EXCEPT THAT JOINTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM: C443 WITH RUBBER RINGS CONFORMING TO ASTM: D1869.

(3) MORTAR SHALL CONSIST OF TWO PARTS PORTLAND CEMENT AND FIVE PARTS SAND THOROUGHLY MIXED IN THE REQUIRED PROPORTIONS BEFORE ADDING WATER.

(4) GROUT SHALL CONSIST OF TYPE 1 AND TYPE 2 PORTLAND CEMENT AND FINE SAND AND SHALL CONTAIN A COMPOUND THAT WILL ELIMINATE SHRINKAGE OF THE GROUT. THE NONSHRINK GROUT COMPOUND SHALL BE EQUAL TO SIKKA KEMO-C AND SHALL BE USED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

B. CONSTRUCTION. MANHOLES SHALL BE CONSTRUCTED OF PRECAST CONCRETE MANHOLE RISERS IN ACCORDANCE WITH THE DETAILS FURNISHED BY THE ENGINEER. THE WATERWAYS OF ALL MANHOLES SHALL BE FORMED OF THE SAME SIZE AND SHAPES AS THE PIPES THEY CONNECT TO. CHANGES IN DIAMETER SHALL BE MADE GRADUALLY AND EVENLY. SPECIAL CARE SHALL BE TAKEN TO FORM CHANNELS THAT WILL PROVIDE THE BEST HYDRAULIC CONDITIONS FOR SMOOTH FLOW. STEEL TROWEL FINISH SHALL BE PROVIDED. SLOPES SHALL BE PROVIDED ON THE BENCHES ADJACENT TO THE WATERWAYS AS SHOWN. MASONRY FOR ADJUSTMENT OF HEIGHT OF MANHOLE CHIMNEYS SHALL BE Laid IN A FULL BED OF MORTAR WITH MORTAR SPREAD ON THE SIDES AND ENDS OF EACH UNIT FILLED SLOWLY AS THE WORK IS CARRIED OUT. THE INSIDE OF THE BLOCK AND THE EXTERIOR SURFACE OF BRICK OR BLOCK SHALL BE RUBBED WITH A BURLAP SACK TO CLEAN IT OF SPILLED MORTAR. THE EXTERIOR SURFACE OF BRICK OR BLOCK SHALL BE PLASTERED WITH A ONE-HALF-INCH LAYER OF MORTAR. WATERTIGHT JOINTS SHALL BE SECURED BETWEEN THE MASONRY AND THE PRECAST CONCRETE ON WHICH IT RESTS.

C. APPURTENANCES. MANHOLES, FRAMES AND COVERS SHALL BE OF THE BEST QUALITY, CLOSE-GRAINED, GRAY IRON CASTINGS CONFORMING TO THE REQUIREMENTS OF ASTM: A48 CLASS 30, STANDARD MANHOLE FRAMES AND COVERS SHALL BE EQUAL TO CAMPBELL FOUNDRY COMPANY PATTERN NO. 1203. FRAMES AND COVERS FOR SHALLOW MANHOLES SHALL BE EQUAL TO CAMPBELL FOUNDRY COMPANY PATTERN NO. 4430. COVERS SHALL BEAR THE WORDS "EAST FISHKILL" AND "SEWER." LETTERS SHALL BE TWO-INCH FLAT GOTHIC. THE CASTINGS SHALL BE FREE FROM FAULTS, SPONGINESS, CRACKS, BLOWHOLES AND OTHER DEFECTS AFFECTING THEIR STRENGTH, AND SHALL BE PROPERLY CLEANED AND COATED WITH A WATERPROOF ASPHALT APPLIED BY IMMERSION WHILE CASTINGS ARE HOT. FRAMES AND COVERS SHALL BE MACHINED TO ENSURE A NONWATERING TIT. MANHOLE FRAMES SHALL BE SET TO GRADE ON A FULL BED OF GROUT.

§ 152-10. PIPE.

A. PIPE AND FITTING MATERIALS. MATERIALS FOR PIPE AND FITTINGS SHALL BE IN ACCORDANCE WITH THE FOLLOWING SCHEDULE:

PIPE MATERIAL	STANDARD	CLASS	NOTES
CONCRETE	ASTM: C-14	EXTRA STRENGTH	
REINFORCED CONCRETE	ASTM: C-76	AS SPECIFIED	(1)
SDR 35 PVC	ASTM: D3034	AS SPECIFIED	
DUCTILE IRON	ANSI: A21.51		
	ASA: A21.6		
	ASA: A21.8	AS SPECIFIED	(2)
	ASA: A21.10		

NOTES:

(1) ONLY CIRCULAR REINFORCEMENT WILL BE PERMITTED. SPECIAL DESIGNED PIPE NOTED AS CLASS VI SHALL HAVE THE FOLLOWING MINIMUM THREE-EDGE-BEARING TEST LOADS.
(1) D-LOAD TO PRODUCE A 0.01 INCH CRACK: 3000 LBS./LIN. FT.
(2) D-LOAD TO PRODUCE ULTIMATE FAILURE: 4500 LBS./LIN. FT.

(2) ALL DUCTILE IRON FITTINGS AND JOINT TYPES SHALL BE PROPOSED FOR SPECIFIC USES AND APPROVED BY THE ENGINEER. ALL FITTINGS AND JOINTS SHALL BE COMPATIBLE WITH THE PIPE BEING UTILIZED.

B. PIPE JOINTS. ALL PIPE JOINTS SHALL BE OF A FLEXIBLE TYPE AND SHALL BE IN ACCORDANCE WITH THE FOLLOWING SCHEDULE:

PIPE MATERIAL	STANDARD	NOTES
CONCRETE	ASTM: C43	(1)
REINFORCED CONCRETE	ASTM: C443	(1)
SDR 35 PVC	ASTM: D3034	
	ASTM: F417	
	ASTM: D3212	
	ANSI: A21.10	

DUCTILE IRON

NOTES:

(1) PIPE JOINTS SHALL BE DESIGNED TO MEET THE SHEER LOADING REQUIREMENTS OF ASTM: C425.

(2) RUBBER RINGS SHALL CONFORM TO ASTM: D1869 AND SHALL BE OF THE OIL-RESISTANT TYPE.

(3) UNITED STATES PIPE AND FOUNDRY COMPANY, TYTON JOINT MAY ALSO BE USED.

(4) WHERE TRENCH JOINTS ARE REQUIRED THEY SHALL BE DESIGNED TO RESIST THE TENSILE LOADS, INCLUDING WATER HAMMER. ANCHORAGES AND PIPE SHALL BE PROPORTIONED ACCORDINGLY.

C. CHOICE OF PIPE.

(1) THE CHOICE OF PIPE SHALL BE OPTIONAL WITH THE OWNER. THE PIPE TYPE SELECTED SHALL BE SUITABLE FOR USE IN PARTICULAR INSTALLATIONS AND LOADINGS. ALL PIPE TYPES SHALL CONFORM TO APPROVED DUTCHESS COUNTY DEPARTMENT OF HEALTH AND NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION STANDARDS. THE TOWN OF EAST FISHKILL, ON THE ADVICE OF THE DULY APPOINTED ENGINEER, RESERVES THE RIGHT TO SPECIFY SPECIFIC PIPE TYPES FOR CERTAIN INSTALLATIONS.

(2) UNLESS OTHERWISE NOTED, NO CHANGE IN THE CLASS OR MATERIAL OF SEWER PIPE SHALL BE MADE BETWEEN ADJACENT MANHOLES, AND THE GREATEST DEPTH OF TRENCH BETWEEN THE TWO ADJACENT MANHOLES SHALL GOVERN THE CLASS OF PIPE USED FOR THAT PARTICULAR SECTION OF SEWER.

(3) THE DRAWINGS SUBMITTED TO THE ENGINEER BY THE OWNER SHALL CONTAIN A DETAILED LIST OF THE TYPE OF PIPE TO BE USED FOR THE VARIOUS SECTIONS OF THE WORK WITH THE LIMITS DESIGNATED BY STREET AND STATION.

D. SHOP TESTS. THE OWNER SHALL CONDUCT OR CAUSE TO HAVE CONDUCTED TESTS FOR STRENGTH ON SELECTED LENGTHS OF PIPE PRIOR TO AND WHILE FURNISHING THE PIPE. THE OWNER SHALL NOTIFY THE ENGINEER AT LEAST SEVEN WORKING DAYS PRIOR TO THE DATE OF TESTING SO THAT THE TEST MAY BE WITNESSED. STRENGTH TEST SHALL BE IN ACCORDANCE WITH APPROPRIATE TEST MEASURES OF ASTM AND ANSI STANDARDS FOR THE PIPE BEING UTILIZED.

E. DEFLECTION TESTS. THE OWNER SHALL CONDUCT OR CAUSE TO HAVE CONDUCTED TESTS FOR DEFLECTION ON SELECTED LENGTHS OF PIPE PRIOR TO AND WHILE FURNISHING THE PIPE. THE OWNER SHALL NOTIFY THE ENGINEER AT LEAST SEVEN WORKING DAYS PRIOR TO THE DATE OF TESTING SO THAT THE TEST MAY BE WITNESSED. STRENGTH TEST SHALL BE IN ACCORDANCE WITH APPROPRIATE TEST MEASURES OF ASTM AND ANSI STANDARDS FOR THE PIPE BEING UTILIZED.

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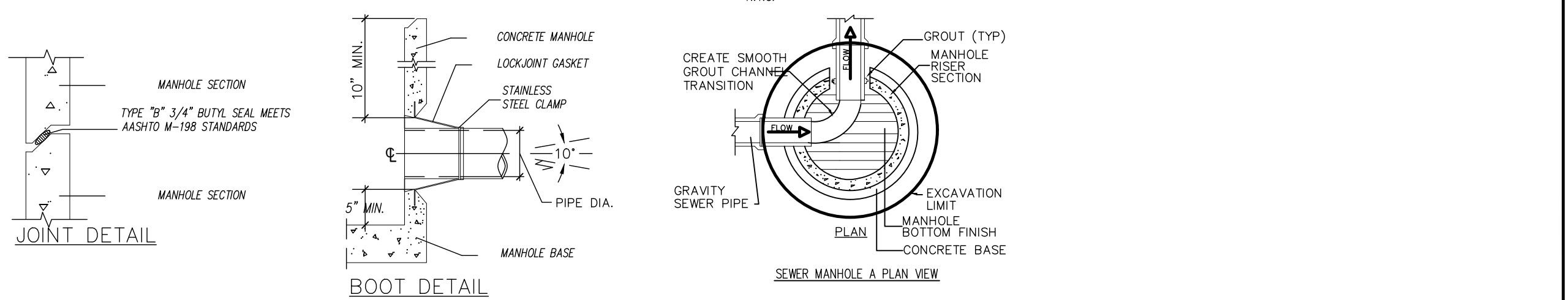
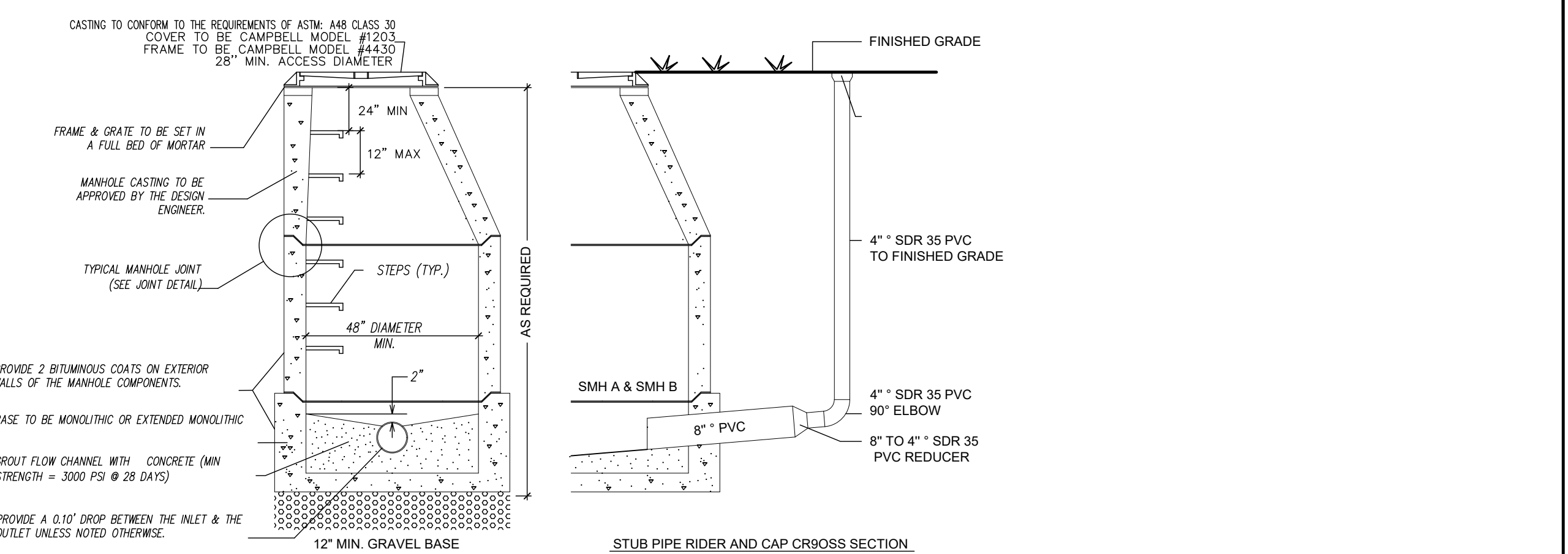
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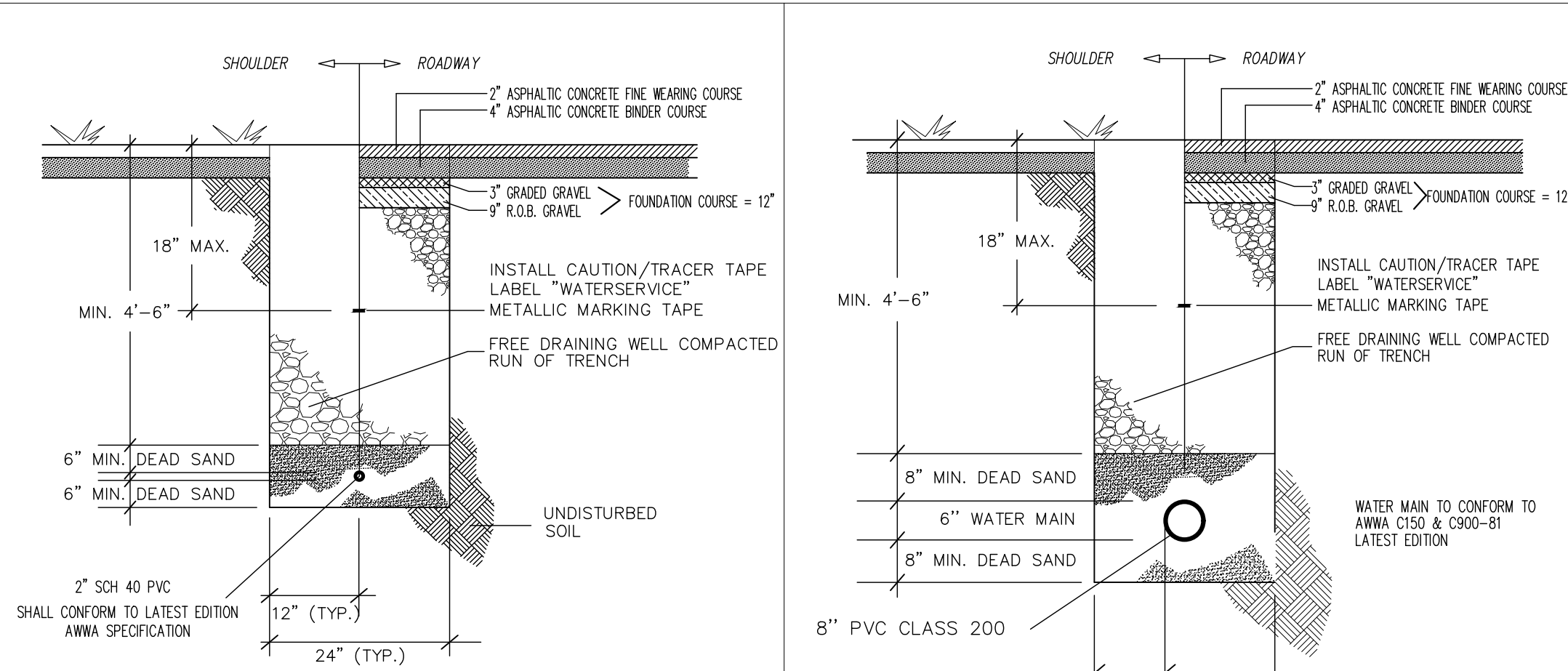
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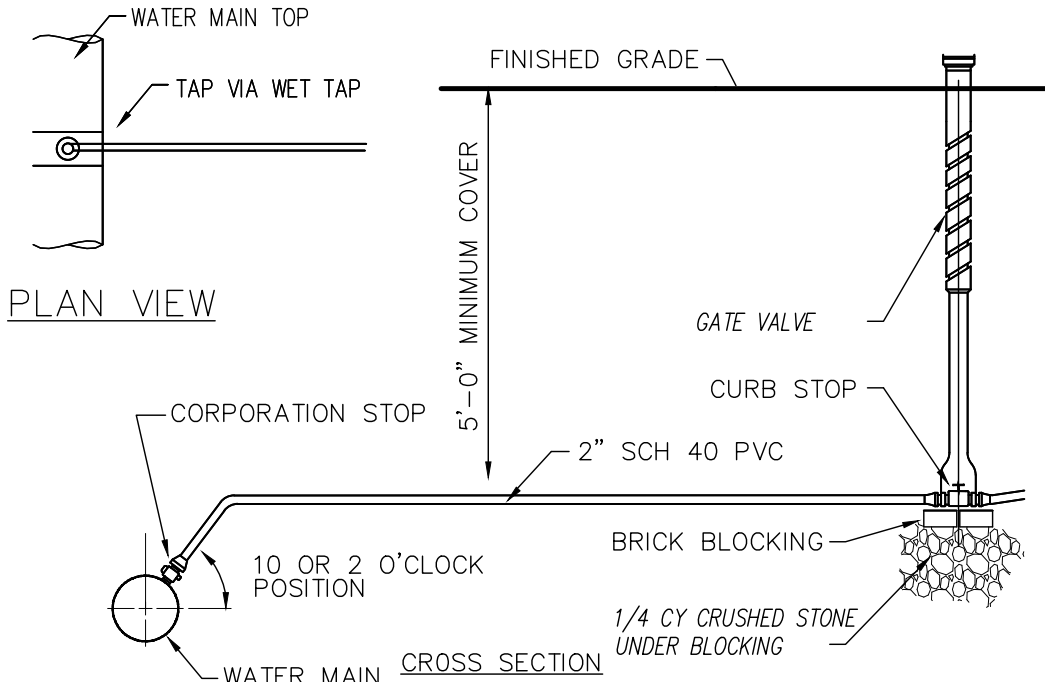
CONSTRUCTION NOTES:

NOTES:

- 1) THE RUN OF TRENCH BACKFILL SHALL BE FREE FROM COBBLES, FROZEN SOIL OR ANY ORGANIC MATERIAL.
- 2) THE RUN OF TRENCH MATERIAL SHALL BE INSTALLED IN 8" (MAXIMUM) LIFTS AND MECHANICALLY COMPACTED.
- 3) TRENCH EXCAVATION SHALL CONFORM TO AWWA STANDARDS AS WELL AS OSHA REQUIREMENTS.
- 4) IF UNSUITABLE MATERIAL IS FOUND AT THE TRENCH BOTTOM, AN APPROVED MEANS OF SUPPORTING THE PIPE SHALL BE IMPLEMENTED SUBJECT TO APPROVAL BY THE CERTIFYING DESIGN & TOWN ENGINEERS.
- 5) REFER TO SECTION 186 WATER FOR ADDITIONAL INFORMATION.

WATER SERVICE TRENCH

NOT TO SCALE



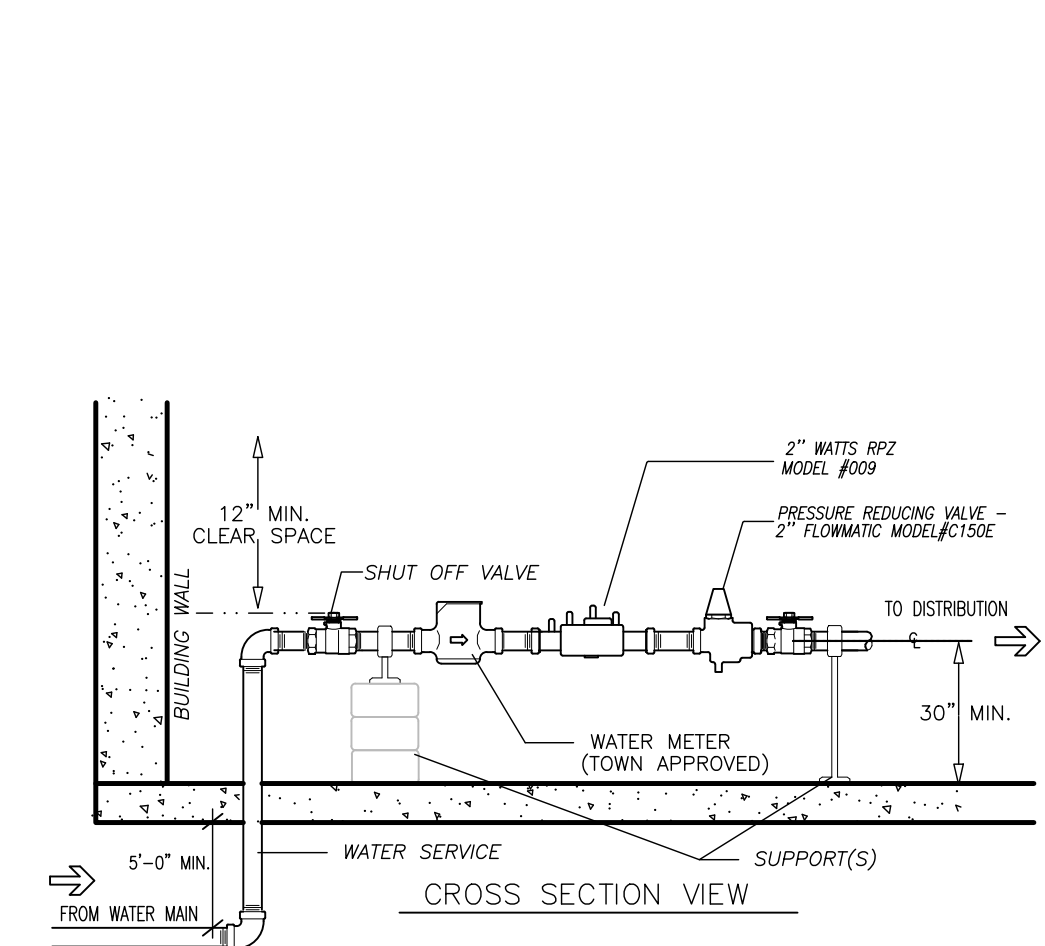
PRESSURE REDUCING VALVE - 2" FLOWMATIC MODEL#C150E - AS REQUIRED

CONSTRUCTION NOTES:

- 1) INSTALLATION OF MULLER WET TAP (12 O'CLOCK POSITION).
- 2) SERVICE TAPS SHALL CONFORM TO AWWA C500, SECTION 7 LATEST EDITION.
- 3) BACKFILLING SHALL CONFORM TO AWWA C500, SECTION 3.5 LATEST EDITION.
- 4) REFER TO PLAN FOR SERVICE SIZE DIA. AND LOCATIONS.
- 5) VALVES AND FITTINGS SHALL CONFORM TO AWWA C500 LATEST EDITION.
- 6) SERVICE LINES TO BE DISINFECTED IN ACCORDANCE AS PER AWWA 651 LATEST EDITION.
- 7) SERVICE LINES SHALL BE VISIBLY TESTED FOR LEAKS PRIOR TO BACKFILLING ENTIRE PIPE. ALL FITTINGS SHALL BE CHECKED.
- 8) A WATER METER (REMOTE STYLE) CONFORMING TO A.A.W.A. STANDARDS AND WATER DISTRICT REQUIREMENTS SHALL BE INSTALLED.
- 9) ALL PRESSURE TESTING TO BE WITNESSED BY REPRESENTATIVES OF THE WATER DISTRICT.
- 10) REFER TO SECTION 186 WATER FOR ADDITIONAL INFORMATION.
- 11) WATER TAPS SHOULD BE LESS THAN 45 DEGREES AND MORE THAN 0 DEGREES IN THE TOP QUADRANT OF THE MAIN.

WATER SERVICE CONNECTION DETAIL

NOT TO SCALE

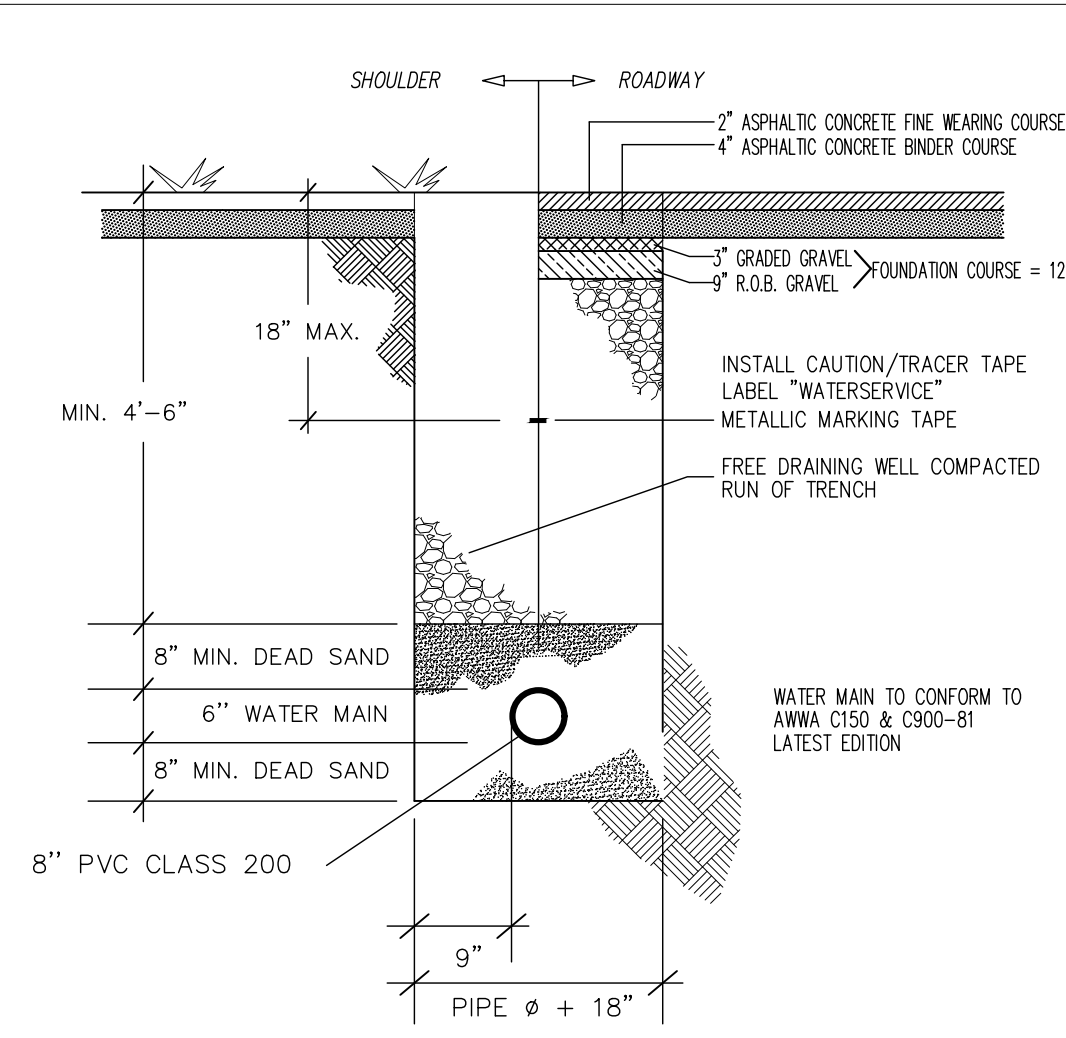


CONSTRUCTION NOTES:

1. ALL ASSEMBLIES SHALL BE INSTALLED WITH A CENTERLINE HEIGHT FROM 30 INCHES TO 60 INCHES ABOVE THE FLOOR. ANY INSTALLATION AT A GREATER HEIGHT SHALL BE PROVIDED WITH A FIXED PLATFORM, A PORTABLE SCAFFOLD OR A LIFT MEETING OSHA STANDARDS.
2. A MINIMUM OF 12 INCHES OF CLEAR SPACE SHALL BE MAINTAINED ABOVE THE ASSEMBLY TO ALLOW FOR SERVICING CHECK VALVES AND FOR OPERATION OF SHUT-OFF VALVES.
3. A MINIMUM OF 30 INCHES OF CLEAR SPACE SHALL BE MAINTAINED BETWEEN THE FRONT SIDE OF THE DEVICE AND THE NEAREST WALL OR OBSTRUCTION.

WATER SERVICE DETAIL

NOT TO SCALE

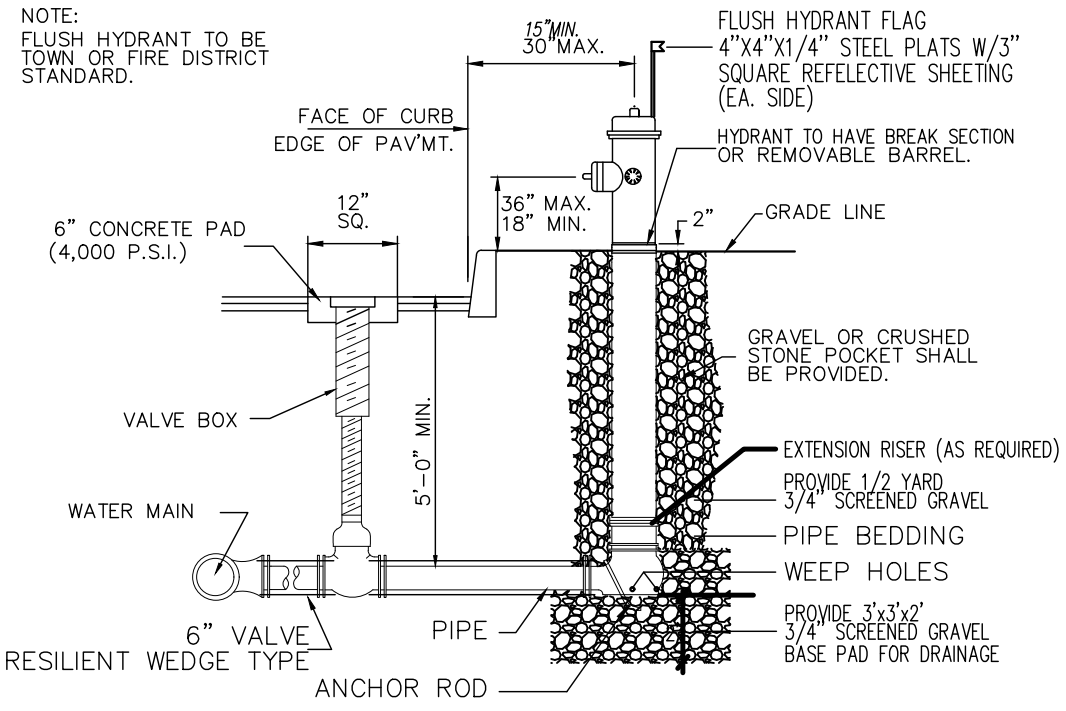


CONSTRUCTION NOTES:

1. THE RUN OF TRENCH BACKFILL SHALL BE FREE FROM COBBLES, FROZEN SOIL OR ANY ORGANIC MATERIAL.
2. THE RUN OF TRENCH MATERIAL SHALL BE INSTALLED IN 8" (MAXIMUM) LIFTS AND MECHANICALLY COMPACTED.
3. TRENCH EXCAVATION SHALL CONFORM TO AWWA STANDARDS AS WELL AS OSHA REQUIREMENTS.
4. IF UNSUITABLE MATERIAL IS FOUND AT TRENCH BOTTOM, AN APPROVED MEANS OF SUPPORTING THE PIPE SHALL BE IMPLEMENTED SUBJECT TO APPROVAL BY THE ENGINEER.
5. SLIP ON JOINTS WILL BE USED FOR ALL NON-RESTRAINED JOINTS AND MEGALUG MECHANICAL JOINTS WILL BE USED FOR ALL RESTRAINED JOINTS.
- 6) REFER TO SECTION 186 WATER FOR ADDITIONAL INFORMATION.

WATER MAIN TRENCH DETAIL

NOT TO SCALE



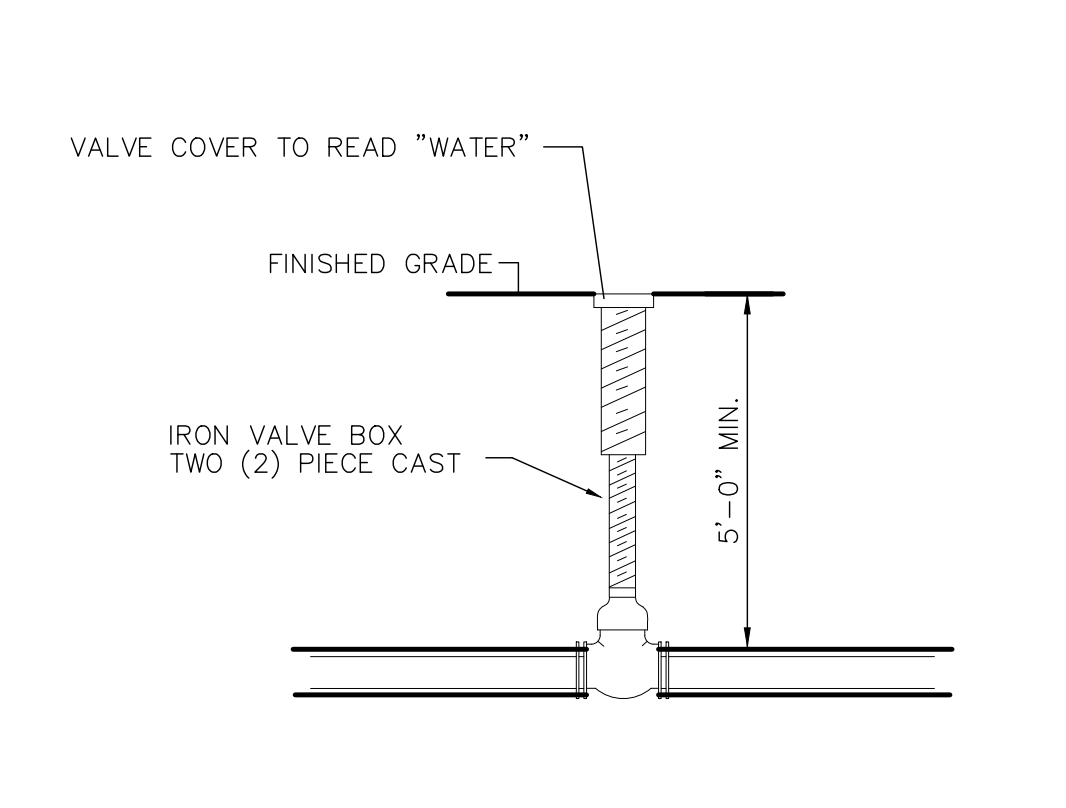
NOTES:

1. "MEGALUG" JOINT RESTRAINTS SHALL BE PROVIDED.
2. HYDRANT DRAINS SHALL NOT BE CONNECTED TO OR WITHIN 10'(FEET) OF SANITARY SEWERS OR STORM DRAINS.
3. IF GROUND WATER IS FOUND WITHIN 7'(FEET) OF THE SURFACE, HYDRANT DRAINS ARE PLUGGED. WHEN DRAINS ARE PLUGGED THE BARRELS MUST BE PUMPED DRY AFTER USE DURING FREEZING WEATHER. HYDRANTS SHALL BE IDENTIFIED WITH MARKING AS APPROVED BY THE TOWN OF EAST FISHKILL.
4. RODDING SHALL CONSIST OF TWO 3/4" THREADED RODS CAREFULLY COATED WITH BITUMINOUS PAINT.
5. ALL THREADS TO BE THE NATIONAL STANDARD HOSE COUPLING THREAD DIMENSIONS.
6. HYDRANTS TO BE PAINTED WITH STANDARD COLORS AS PER NFPA 291 AND/OR TOWN SPECIFICATION.
7. HYDRANT SHALL CONFORM TO AWWA C502 LATEST EDITION SPECIFICATIONS.
8. REFER TO SECTION 186 WATER FOR ADDITIONAL INFORMATION.

FLUSH HYDRANTS TO BE PAINTED BLUE

FLUSH HYDRANT DETAIL

NOT TO SCALE



NOTES:

- 1) NON-RESING STEM GATE VALVE, OPERATING DIRECTION SHALL BE COUNTERCLOCKWISE TO OPEN.
- 2) MINIMUM DISTANCE TO JOINTS, FITTINGS OR OTHER CORPORATION STOPS SHALL BE 3 FEET.
- 3) IF VALVE IS TO BE RODDED, PROVIDE VALVE WITH RODDING FLANGES OR FLYWHEELS. TWO 3/4" GALVANIZED STEEL RODS WITH WELDABLE IRON NUTS AT 180 DEGREE SPACING SHALL BE USED FOR RODDING VALVES.
- 4) VALVES AND FITTINGS SHALL CONFORM TO AWWA C500 LATEST EDITION SPECIFICATIONS.
- 5) ALL VALVES SHALL OPEN COUNTERCLOCKWISE AND BE PROVIDED WITH STANDARD WRENCH NUT.
- 6) EACH VALVE SHALL BE PROVIDED WITH A TWO PIECE SLIDE TYPE VALVE BOX.
- 7) GATE VALVE SHALL BE IRON BODY, BRONZE MOUNTED, INSIDE SCREW, DOUBLE DISC, PARALLEL SEAT.
- 8) REFER TO SECTION 186 WATER FOR ADDITIONAL INFORMATION.

TYPICAL GATE VALVE DETAIL

NOT TO SCALE

TOWN OF EAST FISHKILL CODE, CHAPTER 186. WATER
ARTICLE I. STANDARDS FOR INSTALLATION OF WATER MAINS, VALVES AND HYDRANTS
§ 186-9. WATER MAIN MATERIALS.

A. DUCTILE IRON PIPE.

(1) TYPE AND CLASS OF PIPE. ALL DUCTILE PIPE SHALL MEET THE REQUIREMENTS OF THE SPECIFICATIONS TABULATED BELOW AND SHALL BE IN ACCORD WITH THE PRESSURE AND THICKNESS CLASSIFICATIONS TABULATED:

MATERIAL SPECIFICATIONS

ANSI A21.51-86 AWWA C151-86
ANSI A21.4-85 AWWA C104-85

(2) JOINTS.

(a) MECHANICAL JOINTS SHALL MEET THE REQUIREMENTS OF ANSI SPECIFICATION A21.11-86 (AWWA C111-86) AND SHALL HAVE THE SAME PRESSURE RATINGS AS THE PIPE OF WHICH IT IS A PART. ASSEMBLY OF MECHANICAL JOINT FITTINGS SHALL BE COMPLETED WITH A TORQUE WRENCH. TORQUE TO BE APPLIED TO EACH BOLT SHALL BE BETWEEN 60 POUNDS AND 90 POUNDS. AFTER ALL PIPE AND FITTING JOINTS HAVE BEEN COMPLETED, THERE SHALL BE INSERTED IN EACH JOINT TWO BRONZE WEDGES AS FURNISHED BY THE PIPE MANUFACTURER. THEY SHALL BE FIRMLY DRIVEN BETWEEN THE OUTSIDE SURFACE OF THE PIPE AND THE INSIDE SURFACE OF THE SOCKET. THE WEDGES SHALL BE PLACED 180° APART ON THE HORIZONTAL AXIS.

(b) EXCEPT AS NECESSARY TO CONNECT INTO EXISTING PIPE, RUBBER-RING-TYPE GASKETS SHALL BE USED WITH BELL AND SPIGOT PIPE, MECHANICAL JOINTS OR PUSH-ON JOINTS, WHICH GASKETS SHALL BE EQUAL TO FASTITE AS MADE BY THE AMERICAN CAST IRON PIPE COMPANY; BELL-TITE AS MADE BY CLOW COMPANY; TYTON AS MADE BY THE U.S. CAST IRON PIPE COMPANY; A THIN COAT OF LUBRICANT SHALL BE APPLIED TO EACH SPIGOT END, AS REQUIRED BY ANSI SPECIFICATION A21.11-7.4-86.

(c) FITTINGS. ALL BELL AND SPIGOT CAST-IRON FITTINGS AND MECHANICAL JOINT DUCTILE-IRON PIPE FITTINGS SHALL MEET THE SPECIFICATION OF ANSI A21.10-87.

(4) COATING AND LINING. ALL DUCTILE-IRON PIPE AND FITTINGS SHALL BE COAL TAR PITCH COATED ON THE OUTSIDE AND CEMENT LINED ON THE INSIDE, IN CONFORMANCE WITH ANSI A21.4-85 SPECIFICATION (AWWA C104-85). COATING AND LINING SHALL BE ACCOMPLISHED AT THE POINT OF MANUFACTURE.

B. POLYVINYL CHLORIDE (PVC) PRESSURE PIPE, FOUR-INCH THROUGH TWELVE-INCH DIAMETER FOR WATER MAIN.

(1) MATERIAL AND CLASS. ALL PVC PRESSURE PIPE FOR WATER SYSTEMS AND APPURTENANCES THEREOF SHALL CONFORM TO THE CURRENT (LATEST REVISION) AWWA STANDARD SPECIFICATION C900-81 IN ALL RESPECTS, INCLUDING THE FOLLOWING:

(a) THE CLASS OF THE PIPE TO BE FURNISHED SHALL BE CLASS 200 FOR PIPE SIZES UP TO EIGHT-INCH DIAMETER PIPE AND CLASS 150 ABOVE EIGHT-INCH DIAMETER PIPE.

(b) CERTIFIED RECORDS OF TESTS MADE BY THE MANUFACTURER OR BY AN APPROVED COMMERCIAL LABORATORY, OR BY BOTH, AS REQUIRED BY THE ENGINEER, SHALL BE SUBMITTED TO THE ENGINEER WITH EACH SHIPMENT OF PIPE, DEMONSTRATING THAT THE PIPE DELIVERED COMPLIES WITH THE SPECIFICATIONS HEREIN.

(2) ALL COUPLINGS, FITTINGS, VALVES, GASKETS (ELASTOMERIC) AND OTHER SUCH RELATED APPURTENANCES SHALL BE IN CONFORMANCE WITH CURRENT AWWA STANDARDS GOVERNING SUCH APPURTENANCES FOR THE PIPE BEING PROVIDED.

C. MARKING.

(1) DUCTILE-IRON PIPE AND FITTINGS.

JOINTS SHALL BE RUBBER GASKETED PUSH-ON, MECHANICAL JOINT, OR MECHANICAL JOINT ANCHORING TYPE. FOR DUCTILE IRON WATER MAIN AND FITTINGS GASKETS SHALL BE MADE OF OIL RESISTANT BUNA-N (NITRILE) RUBBER. ALL JOINTS SHALL BE IN CONFORMANCE WITH REQUIREMENTS OF ANSI/AWWA C111/A21.11.

(a) EACH LENGTH OF PIPE AND EACH RANDOM AND SHORT LENGTH OF PIPE SHALL BE MARKED WITH THE MANUFACTURER'S NAME, TRADE NAME, NOMINAL SIZE, CLASS, HYDROSTATIC TEST PRESSURE, A "T" TO SIGNIFY IT WAS TESTED AND THE DATE OF MANUFACTURE.

(b) EACH COUPLING SHALL BE MARKED BY THE MANUFACTURER WITH THE MANUFACTURER'S IDENTIFICATION, THE SIZE, THE YEAR OF MANUFACTURE AND THE CLASS OF PIPE WITH WHICH IT CAN BE USED.

TOWN OF EAST FISHKILL CODE, § 186-10. WATER MAIN INSTALLATION.

A. EXCAVATION.

(1) TRENCH WIDTH.

(a) THE TRENCH WIDTH MAY VARY WITH AND DEPEND UPON THE DEPTH OF TRENCH AND THE NATURE OF THE EXCAVATED MATERIAL ENCOUNTERED BUT, IN ANY CASE, SHALL BE OF AMPLE WIDTH TO PERMIT THE PIPE TO BE LAID AND JOINTED PROPERLY AND THE BACKFILL TO BE PLACED AND COMPACTED PROPERLY.

(b) THE MINIMUM WIDTH OF UNSHEETED TRENCH SHALL BE AT LEAST 18 INCHES LARGER THAN THE OUTSIDE DIAMETER OF THE PIPE EXCEPT BY CONSENT OF THE ENGINEER; THE MAXIMUM CLEAR WIDTH OF TRENCH SHALL BE NOT MORE THAN TWO FEET GREATER THAN THE OUTSIDE PIPE DIAMETER. WHEN SHEETING AND BRACING IS USED, THE TRENCH WIDTH SHALL BE INCREASED ACCORDINGLY. ALL TRENCHING OPERATIONS SHALL BE PERFORMED IN COMPLIANCE WITH OSHA SAFETY.

STANDARDS.

(2) PIPE COVER. MINIMUM COVER OVER TOP OF WATER MAINS SHALL BE FIVE FEET MEASURED FROM ESTABLISHED GRADE OF STREET. COVER IN EXCESS OF FIVE FEET MAY BE APPROVED BY THE ENGINEER.

(3) BEDDING.

(a) THE TRENCH, UNLESS OTHERWISE SPECIFIED, SHALL BE EXCAVATED AT LEAST FOUR INCHES BELOW THE BOTTOM OF THE PIPE AND BOTTOM SHALL BE BROUGHT BACK TO GRADE BY THOROUGHLY COMPACTING SELECTED BACKFILL WHICH MEETS THE REQUIREMENTS OF SUBSECTION A(6). THIS BEDDING REQUIREMENT MAY BE WAIVED BY THE ENGINEER IF PIPE FOUNDATION SOIL CONDITION WARRANTS SAME. SAID WAIVER IS TO BE SOLELY DETERMINED BY THE ENGINEER.

(b) WHEN THE UNCOVERED TRENCH BOTTOM AT SUBGRADE IS SOFT AND, IN THE OPINION OF THE ENGINEER, CANNOT SUPPORT THE PIPE, A FURTHER DEPTH AND/OR WIDTH SHALL BE EXCAVATED AND REFILLED TO PIPE FOUNDATION GRADE WITH SLAG, STONE AND/OR OTHER APPROVED MATERIALS, OR OTHER APPROVED MEANS SHALL BE ADOPTED TO SECURE A FIRM FOUNDATION FOR THE PIPE.

(c) LEDGE ROCK, BOULDERS, LARGE STONES AND SHALE SHALL BE REMOVED TO PROVIDE A CLEARANCE OF AT LEAST SIX INCHES BELOW ALL PARTS OF THE PIPE, VALVES OR FITTINGS, AND A CLEAR WIDTH OF NINE INCHES ON EACH SIDE OF ALL PIPE SHALL BE PROVIDED.

(d) BELL HOLES OF AMPLE DIMENSIONS SHALL BE DUG AT EACH JOINT TO PERMIT THE JOINTING TO BE MADE PROPERLY. ADEQUATE CLEARANCE FOR PROPERLY JOINTING PIPE LAID IN ROCK SHALL BE PROVIDED AT BELL HOLES.

(4) SHEETING AND BRACING.

SHEETING AND BRACING SHALL BE USED AS REQUIRED OR ORDERED BY THE ENGINEER TO SUPPORT THE SIDES OF TRENCHES OR OTHER EXCAVATION. SUCH SHEETING AND BRACING SHALL BE REMOVED AS THE TRENCH OR EXCAVATION IS BACKFILLED, UNLESS THE ENGINEER SHALL ORDER THE SAME LEFT IN PLACE.

(5) BACKFILLING.

THE BACKFILLING SHALL BE FIRST DONE OVER THE MIDDLE PORTION OF EACH LENGTH OF PIPE, BRINGING THE COVER TO A DEPTH OF AT LEAST ONE FOOT OVER THE TOP OF THE PIPE AND LEAVING ALL JOINTS EXPOSED UNTIL AFTER THE PIPE HAS BEEN TESTED AND PASSED BY THE ENGINEER. THE REST OF THE BACKFILLING SHALL BE DONE IN THE SAME MANNER.

(6) SELECTED BACKFILL.

ALL BACKFILL UNDER, AROUND AND TO A DEPTH OF ONE FOOT OVER THE TOP OF ALL PIPES AND VALVES SHALL BE MADE WITH A SELECTED MATERIAL THOROUGHLY TAMPED. THE MATERIAL TO BE USED FOR SELECTED BACKFILL EMBEDMENT SHALL BE A NATURAL BANK SAND GRADED FROM FINE TO COARSE, NOT LUMPY OR FROZEN AND FREE FROM SLAG, ONDERS, ASHES, RUBBISH OR OTHER DELETERIOUS OR OBJECTIONABLE MATERIAL. IT SHALL NOT CONTAIN A TOTAL OF MORE THAN 5% BY WEIGHT OF LOAM AND CLAY, AND ALL MATERIAL MUST BE CAPABLE OF BEING PASSED THROUGH A THREE-FOURTHS-INCH SIEVE. NOT MORE THAN 5% SHALL REMAIN ON A NO. 4 SIEVE. SAMPLES OF THE MATERIAL TO BE USED SHALL BE SUBMITTED TO AND BE APPROVED BY THE ENGINEER OR HIS AUTHORIZED AGENT. LIMESTONE SCREENINGS, SAND, BANK-RUN GRAVEL AND APPROVED EXCAVATED MATERIAL MAY BE UTILIZED WITH THE APPROVAL OF THE ENGINEER.

(7) EARTH BACKFILL.

(a) ONLY AFTER THE BACKFILL PREVIOUSLY MENTIONED HAS BEEN SATISFACTORILY COMPACTED MAY WORK PROCEED IN PLACING THE REMAINING BACKFILL WHICH MUST BE CAREFULLY PLACED AND COMPACTED BY TAMPING, PLUDDING OR ROLLING. ALL PRECAUTIONS MUST BE TAKEN TO ELIMINATE FUTURE SETTLEMENT.

(b) WHERE PAVEMENTS, DRIVEWAYS, CURBING AND SIDEWALKS ARE TO BE PLACED OR ARE TO BE REPLACED, ALL BACKFILL PLACED OVER THE PIPE SHALL BE COMPACTED WITH THE USE OF APPROVED VIBRATORY OR FLAT-FACED MECHANICAL TAMPERS IN LAYERS NOT MORE THAN 12 INCHES THICK. LOOSE MEASUREMENTS, TO 95% STANDARD PROCTOR DENSITY (PER ASTM: D698 METHOD). IF ANY COMPACTION IS QUESTIONED BY THE ENGINEER, THE OWNER SHALL SUPPLY TEST RESULTS TO VERIFY THE COMPACTION.

(c) BACKFILLING SHALL NOT BE DONE IN FREEZING WEATHER, EXCEPT BY PERMISSION OF THE ENGINEER, AND IT SHALL NOT BE MADE WITH FROZEN MATERIALS NOR SHALL ANY FILL BE MADE WHERE THE MATERIAL ALREADY IN THE DITCH IS FROZEN.

(d) ALL BACKFILL ABOVE A PLANE ONE FOOT ABOVE THE TOP OF ALL PIPES MAY BE MADE WITH MATERIAL EXCAVATED FROM THE TRENCHES, PROVIDED THAT THE SAME IS SATISFACTORY TO THE ENGINEER. IF, IN THE OPINION OF THE ENGINEER, THE MATERIAL EXCAVATED IS UNSATISFACTORY, OTHER MATERIAL SUITABLE FOR BACKFILL SHALL BE USED. ALL BACKFILL SHALL BE FREE FROM SLAG, ONDERS, RUBBISH AND OTHER OBJECTIONABLE MATERIAL.

(8) PIPE LAYING.

(a) PIPE, COUPLINGS AND FITTINGS SHALL BE HANDLED AND INSTALLED IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE PIPE MANUFACTURER. PROPER AND SUITABLE TOOLS AND APPLIANCES FOR THE SAFE AND CONVENIENT HANDLING AND LAYING OF THE PIPES AND FITTINGS SHALL BE USED. UNDER NO CIRCUMSTANCES SHALL PIPE OR ACCESSORIES BE DROPPED OR DUMPED INTO THE TRENCH OR BUMPED WHILE HANDLING.

(b) GREAT CARE SHALL BE TAKEN TO PREVENT THE PIPE COATING FROM BEING DAMAGED, PARTICULARLY ON THE INSIDE OF THE PIPES AND FITTINGS, AND ANY SUCH DAMAGE SHALL BE REMEDIED AS DIRECTED. ALL PIPES AND FITTINGS SHALL BE CAREFULLY EXAMINED FOR DEFECTS JUST BEFORE LAYING, AND NO PIPE OR FITTING SHALL BE LAID WHICH IS KNOWN TO BE DEFECTIVE. PIPES SHALL BE LAID ONLY IN PROPERLY PREPARED TRENCHES AND ON COMPACTED SAND GRADE, TRUE TO LINE AND GRADE AND WITH NO UPS OR DIPS EXCEPT AS REQUIRED BY THE DESIGN.

(c) ALL PIPES AND FITTINGS SHALL BE THOROUGHLY CLEANED BEFORE THEY ARE LAID, SHALL BE KEPT CLEAN UNTIL THEY ARE USED IN THE COMPLETED WORK AND, WHEN LAID, SHALL CONFORM TO THE LINES AND GRADES OF THE DESIGN. OPEN ENDS OF PIPE SHALL BE KEPT PLUGGED WITH A BULKHEAD DURING CONSTRUCTION.

(d) PIPE LAID IN TRENCH SHALL BE LAID TO A FIRM AND EVEN BEARING IN MATERIAL FOR ITS FULL LENGTH.

(e) NO PIPE SHALL BE LAID IN WET TRENCH CONDITIONS WHICH PRECLUDE PROPER BEDDING AS SPECIFIED OR ON FROZEN TRENCH BOTTOM, OR WHEN IN THE OPINION OF THE ENGINEER THE TRENCH CONDITIONS OR WEATHER ARE UNSUITABLE FOR PROPER INSTALLATION.

(f) IT IS THE INTENTION OF THESE SPECIFICATIONS TO SECURE FIRST CLASS WORKMANSHIP IN THE PLACING OF PIPE AND ACCESSORIES.

(9) NONSTANDARD DEFLECTIONS. WHENEVER CHANGES IN LINE AND GRADES OF THE MAIN ARE NOT STANDARD FITTING DEFLECTIONS, COMBINATIONS OF STANDARD FITTINGS AND SMALL DEFLECTIONS, IN THE ADJOINING LENGTHS OF PIPE WILL BE PERMITTED, SUBJECT TO THE FOLLOWING LIMITATIONS:

(a) FOR DUCTILE IRON BELL AND SPIGOT PIPE, THE MAXIMUM DEFLECTION AT EACH JOINT SHALL BE 3".

(b) FOR DUCTILE IRON MECHANICAL JOINT PIPE, THE ABOVE DEFLECTION SHALL BE LIMITED TO 5".

(c) FOR PVC PIPE, THE ABOVE DEFLECTION SHALL NOT EXCEED THAT RECOMMENDED AS MAXIMUM BY THE PIPE MANUFACTURER.

(10) BUTTRESSES AND ANCHORAGES. BENDS, T'S AND PLUGGED ENDS SHALL BE BUTTRESSED OR ANCHORED WITH POURED CONCRETE AS DIRECTED BY THE ENGINEER.

(11) OPERATING VALVES. THE OPERATION OF ALL GATE VALVES ON EXISTING MAINS FOR MAKING CONNECTIONS OR TESTS, OR FOR ANY OTHER CAUSE, SHALL BE DONE BY THE TOWN WATER DISTRICT (IF SUCH DISTRICTS ARE CREATED), AND SUFFICIENT NOTICE SHALL BE GIVEN TO THE TOWN WATER DISTRICT BY THE CONTRACTOR SO THAT THE WORK MAY BE DONE WITH A MINIMUM OF INCONVENIENCE TO THE PUBLIC AND DELAY TO THE CONTRACTOR.

TOWN OF EAST FISHKILL CODE, § 186-11. TESTING AND STERILIZATION.

A. TESTING.

(1) AFTER THE PIPE IS LAID AND BEFORE BACKFILL IS PLACED AROUND JOINTS, SUCH LENGTH OF THE WATER MAIN AS THE ENGINEER MAY HAVE DETERMINED SHALL BE TESTED UNDER HYDROSTATIC PRESSURE. THE SECTION OF PIPE TO BE TESTED SHALL BE FILLED WITH WATER FOR A MINIMUM PERIOD OF 48 HOURS AND THEN SUBJECTED TO THE TEST. THE TEST PRESSURE SHALL BE 50% GREATER THAN THE OPERATING PRESSURE MEASURED AT THE LOWEST ELEVATION OF THE SYSTEM.

(2) THE DURATION OF THE TEST SHALL BE TWO HOURS UNLESS OTHERWISE DIRECTED BY THE ENGINEER. UNDER TEST, PIPELINES SHALL SHOW LEAKAGE NOT EXCEEDING THE FOLLOWING:

(A) DUCTILE IRON:
L = SQ.
148,000

(B) PVC:
L = ND.P
7400

WHERE "L" IS THE ALLOWABLE LEAKAGE IN GALLONS PER HOUR, "N" IS THE NUMBER OF JOINTS IN THE LENGTH OF PIPELINE BEING TESTED, "S" IS THE LENGTH OF PIPE IN FEET, "D" IS THE NOMINAL PIPE DIAMETER IN INCHES AND "P" IS THE AVERAGE TEST PRESSURE DURING THE LEAKAGE TEST IN POUNDS PER SQUARE INCH GAUGE.

(3) TESTS SHALL BE UNDER THE DIRECTION OF THE ENGINEER OR HIS DESIGNATE. THE CONTRACTOR SHALL FURNISH A PRESSURE GAUGE FOR MEASURING THE PRESSURE ON THE WATER MAIN AND SHALL ALSO FURNISH A SUITABLE PUMP, PIPES AND ALL APPLIANCES, LABOR, FUEL AND OTHER APPURTENANCES NECESSARY TO MAKE THESE TESTS. THE TEST PRESSURE SHALL BE MAINTAINED FOR A SUFFICIENT LENGTH OF TIME TO ALLOW FOR A THOROUGH EXAMINATION OF LEAKAGE WHERE NECESSARY. THE PIPELINE SHALL BE MADE WATERTIGHT UNDER THE TEST PRESSURE.

B. DISINFECTING MAINS.

(1) WATER MAINS SHALL BE DISINFECTED IN ACCORDANCE WITH AWWA C651-86 PRIOR TO BEING PLACED INTO SERVICE. FOR SHORT LENGTHS OF MAIN, THE CONTRACTOR MAY USE THE TABLET METHOD, IF CONDITIONS SO WARRANT AND IT IS APPROVED BY THE ENGINEER AND HEALTH DEPARTMENT. DISINFECTED WATER MUST LAY IN MAINS FOR A MINIMUM OF 24 HOURS BEFORE BEING THOROUGHLY FLUSHED FOR USAGE.

(2) THE CONTRACTOR SHALL FURNISH THE NECESSARY LABOR, EQUIPMENT AND MATERIAL REQUIRED FOR SUCH CHLORINATION. THE CONTRACTOR SHALL FURNISH THE NECESSARY LABOR FOR EXCAVATING AND BACKFILLING WHICH WILL BE REQUIRED FOR THE CHLORINATION WORK. CHLORINATION BY THE CONTRACTOR SHALL BE CONTINUED OR REPEATED UNTIL TESTS CONDUCTED BY THE TOWN ENGINEER SHALL INDICATE AN ACCEPTABLE RESIDUAL OF CHLORINE IS PRESENT IN THE WATER.

(3) FOLLOWING CHLORINATION, ALL TREATED WATER SHALL BE THOROUGHLY FLUSHED FROM THE NEWLY LAID PIPE AT ITS EXTREMITIES UNTIL THE REPLACEMENT WATER THROUGHOUT ITS LENGTH SHALL, UPON TEST, BOTH CHEMICALLY AND BACTERIOLOGICALLY, BE PROVEN EQUAL THE WATER QUALITY SERVED THE PUBLIC FROM THE EXISTING WATER SUPPLY SYSTEM.

TOWN OF EAST FISHKILL CODE, § 186-12. VALVES.

A. GATE VALVES.

(1) ALL GATE VALVES SHALL CONFORM TO THE AWWA SPECIFICATIONS FOR WATER VALVES, DESIGNATION C500-86, EXCEPT AS HEREIN MODIFIED. GATE VALVES THREE INCHES AND LARGER IN SIZE SHALL BE EQUAL TO DARLING AWWA GAGE VALVES AS MANUFACTURED BY THE DARLING VALVE AND MANUFACTURING COMPANY OF WILLIAMSPORT, PENNSYLVANIA, OR TO PENNSELAR VALVE COMPANY, TROY, NEW YORK.

(2) ALL GATE VALVES THREE INCHES AND LARGER IN SIZE SHALL BE OF THE IRON BODY BRONZE MOUNTED, DOUBLE DISC, PARALLEL SEAT TYPE, WITH NONRISING BRONZE STEM, SHALL OPEN BY TURNING TO THE LEFT AND SHALL BE OPERATED BY NUT OR HANDWHEEL AS REQUIRED.

(3) ALL VALVES (GATE) SHALL BE OF THE SAME SIZE AS THE WATER MAIN IN WHICH THEY ARE TO BE INSTALLED.

B. TAPPING SLEEVES AND VALVES.

(1) TAPPING SLEEVES AND VALVES SHALL BE USED FOR ALL CONNECTIONS, SIX INCHES AND LARGER IN SIZE, TO ANY EXISTING MAIN WHERE 10 OR MORE DOMESTIC SERVICES WOULD BE SHUT OFF IF A T OR OTHER CONNECTION WERE TO BE MADE.

(2) THE TAPPING SLEEVES SHALL BE PROPERLY SIZED TO FIT THE EXISTING MAINS TO WHICH CONNECTIONS ARE TO BE MADE.

(3) THE SLEEVES SHALL BE OF THE BOLTED TYPE, OF RUGGED CAST-IRON CONSTRUCTION OF AMPLE STRENGTH FOR THE SERVICE INTENDED, AND SHALL BE CAULKED WITH LEAD THE FULL LENGTH OF THE SLEEVE AFTER ATTACHMENT TO THE EXISTING MAIN. THE EXISTING PIPE SHALL BE THOROUGHLY CLEANED PRIOR TO INSTALLATION OF THE TAPPING SLEEVE.

(4) TAPPING VALVES SHALL BE NOT LESS THAN ONE SIZE SMALLER THAN THE DIAMETER OF THE EXISTING MAIN TO WHICH CONNECTION IS TO BE MADE UNLESS OTHERWISE PERMITTED BY THE ENGINEER.

(5) THE TAPPING VALVES SHALL MEET THE AWWA SPECIFICATIONS FOR GATE VALVES, EXCEPT THAT OVERSIZED SEAT RINGS SHALL BE PROVIDED TO PERMIT THE USE OF FULL-SIZED CUTTERS THROUGH THE VALVE. THE VALVE ENDS SHALL BE FLANGED, WITH FLANGES PLAIN FACED AND DRILLED TO ANSI ONE-HUNDRED-TWENTY-FIVE-POUND STANDARDS. THE VALVES SHALL BE NUT OPERATED AND SHALL OPEN BY TURNING TO THE LEFT. TAPPING VALVES SHALL BE INSTALLED AND OPEN VERTICALLY.

C. VALVE BOXES AND COVERS.

VALVE BOXES AND COVERS. VALVE BOXES AND COVERS SHALL BE INSTALLED OVER EACH VERTICALLY SET, BURIED VALVE AND ELSEWHERE AS DIRECTED. VALVE BOXES AND COVERS SHALL BE OF THE ADJUSTABLE TYPE AND SHALL BE EQUAL TO STANDARD VALVE BOX NO. F-2450, OF THE REQUIRED LENGTH, AS MANUFACTURED BY THE CLOW COMPANY. VALVE BOX COVERS SHALL BE OF THE STAY-PUT TYPE (CLAW F-2494) WITH THE WORD "WATER" CAST THEREON IN RAISED BLOCK CAPITAL LETTERS. BASE SIZE AND EXTENSION PIECE LENGTH SHALL BE AS REQUIRED FOR EACH INDIVIDUAL SIZE AND DEPTH OF BURY.

D. CORPORATION STOPS.

CORPORATION STOPS. A CORPORATION STOP SHALL BE INSTALLED AT EACH SERVICE CONNECTION. CORPORATION STOPS SHALL BE AS MANUFACTURED BY THE MUELLER COMPANY AND EQUAL TO GRINNELL FIGURE H-1003 WITH MUELLER INLET THREAD AND IP OUTLET THREAD ONE SIZE LARGER THAN BODY.

TOWN OF EAST FISHKILL CODE, § 186-13. HYDRANTS.

A. LOCATION AND NUMBER OF HYDRANTS SHALL BE APPROVED BY THE TOWN ENGINEER.

B. SIZE AND TYPE.

(1) ALL HYDRANTS SHALL BE SIX INCHES IN SIZE WITH A SIX-INCH MECHANICAL JOINT INLET CONNECTION, AND SHALL BE EQUAL TO THE MODEL H100 AS MANUFACTURED BY THE A.P. SMITH MANUFACTURING COMPANY, EAST ORANGE, NEW JERSEY.

(2) EACH HYDRANT SHALL HAVE THE NAME OF THE MAKER, THE YEAR WHEN MADE AND THE SIZE OF MAIN VALVE OPENING CAST UPON IT IN RAISED LETTERS.

(3) UNLESS OTHERWISE DIRECTED BY THE TOWN ENGINEER, EACH HYDRANT SHALL BE FITTED WITH ONE FOUR-AND-ONE-HALF-INCH NATIONAL STANDARD THREAD STEAMER NOZZLE AND TWO-AND-ONE-HALF-INCH NATIONAL STANDARD THREAD HOSE NOZZLES. THE SIZE AND THREAD OF ALL OUTLETS SHALL MEET THE STANDARDS OF THE LOCAL FIRE DEPARTMENT.

(4) THE BELL VALVE SHALL OPEN BY TURNING IN A COUNTERCLOCKWISE DIRECTION AND SHALL OPEN AGAINST THE PRESSURE. THIS VALVE SHALL BE FACED WITH RUBBER WHICH SEAL AGAINST AN ACCURATELY MACHINED BRONZE SEAT.

(5) THE TOP CAP OF THE HYDRANT SHALL BE PROVIDED WITH A WASTE OR Drip TO PREVENT THE CAP FROM FILLING WITH WATER.

(6) THE HYDRANTS SHALL BE PROVIDED WITH AUTOMATICALLY OPERATED DRAINAGE VALVES TO PERMIT DRAINAGE OF THE HYDRANT WHEN THE MAIN VALVE IS IN CLOSED POSITION.

(7) THE HEAD OF THE REVOLVING NUT OR OPERATING NUT AND NOZZLE CAP NUTS SHALL BE OF THE EXACT DIMENSIONS OF THOSE IN USE IN THE LOCAL WATER DISTRICT.

(8) THE NOZZLE CAPS SHALL BE SECURED TO HYDRANTS BY MEANS OF GALVANIZED OR CADMIUM PLATED STEEL CHAIN OF NOT LESS THAN ONE-EIGHTH-INCH DIAMETER LINKS.

(9) THE HYDRANT BOTTOM, CONNECTING PIPE, HEAD, PACKING DOME, DATE, NOZZLE CAP AND UMBRELLA OPERATING NUT SHALL BE MADE OF CAST IRON.

(10) ALL BOLTS AND NUTS SHALL BE OF THE BEST QUALITY OF MILDSTEEL IRON OR STEEL, RUSTPROOFED; THE HEADS, NUTS AND THREADS SHALL BE OF STANDARD SIZE. ALL JOINTS SHALL BE FACED TRUE AND SMOOTH SO AS TO MAKE A PERFECTLY WATERTIGHT JOINT.

(11) ALL CASTINGS, WHETHER OF IRON OR BRONZE, SHALL BE OF UNIFORM THICKNESS IN THEIR SEVERAL PARTS AND SHALL BE SOUND AND SMOOTH, WITHOUT COLD-SHUTS, SAND HOLES OR OTHER DEFECTS OF ANY DESCRIPTION. ALL MATERIALS SHALL CONFORM TO THOSE STANDARDS AS REQUIRED BY AWWA SPECIFICATION C502-85.

C. CLEANING AND PAINTING.

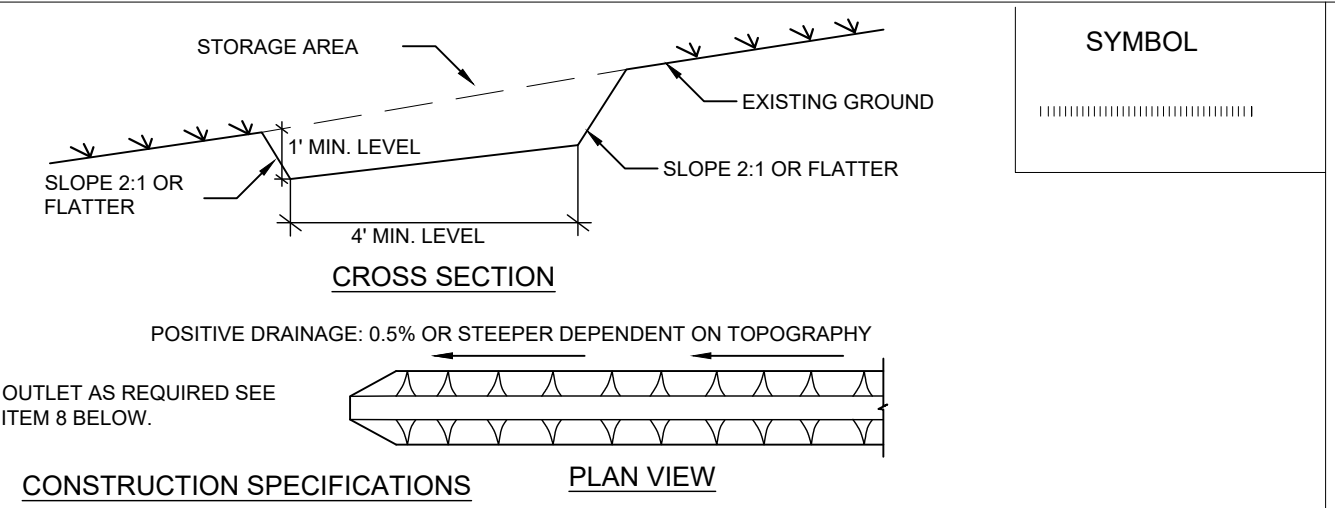
(1) ALL IRON PARTS OF THE HYDRANT, INSIDE AND OUTSIDE, SHALL BE THOROUGHLY CLEANED AND, THEREAFTER, ALL SURFACES INSIDE AND OUTSIDE, EXCEPT THE EXTERIOR PORTION ABOVE GROUND LINE, SHALL BE SHOP PAINTED WITH TWO COATS OF ASPHALT VARNISH CONFORMING TO THE REQUIREMENTS OF FEDERAL SPECIFICATION TT-V-51A OR ARMY-NAVY SPECIFICATION (MIL-P-450). THE FIRST COAT SHALL BE ALLOWED TO DRY THOROUGHLY BEFORE THE SECOND COAT IS APPLIED.

(2) THE OUTSIDE OF THE HYDRANT ABOVE THE FINISHED GROUND LINE SHALL BE THOROUGHLY CLEANED AND THEREAFTER PAINTED IN THE SHOP WITH TWO COATS OF PAINT OF A DURABLE AND WEATHERPROOF COMPOSITION CONFORMING TO FEDERAL SPECIFICATION TT-P-86A (TYPE IV). THE COLOR OR COLORS OF FINISH PAINT ABOVE THE GROUND LINE SHALL BE AS REQUIRED BY THE LOCAL FIRE DEPARTMENT.

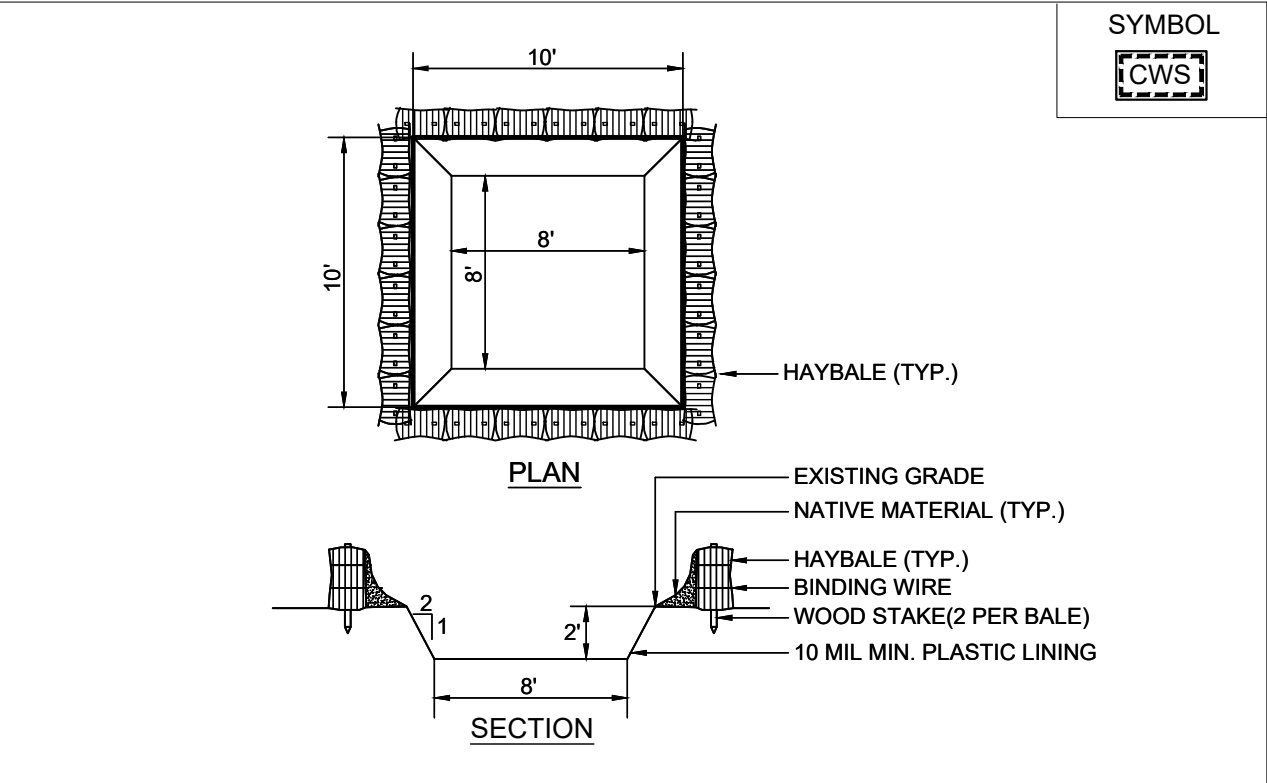
D. HYDROSTATIC TEST.

(1) AFTER COMPLETION OF FABRICATION, EACH HYDRANT SHALL BE TESTED AT THE SHOP BY HYDRAULIC PRESSURE, AS FOLLOWS: A PRESSURE OF 300 POUNDS PER SQUARE INCH SHALL BE APPLIED TO THE BODY OF THE HYDRANT BEFORE THE PROTECTION CASE IS PUT ON; AFTER THE HYDRANT IS ASSEMBLED COMPLETE, WITH A TEST ELBOW, A PRESSURE OF 300 POUNDS PER SQUARE INCH SHALL BE APPLIED BELOW THE COMPRESSION VALVE, AND 200 POUNDS PER SQUARE INCH ABOVE THE VALVE.

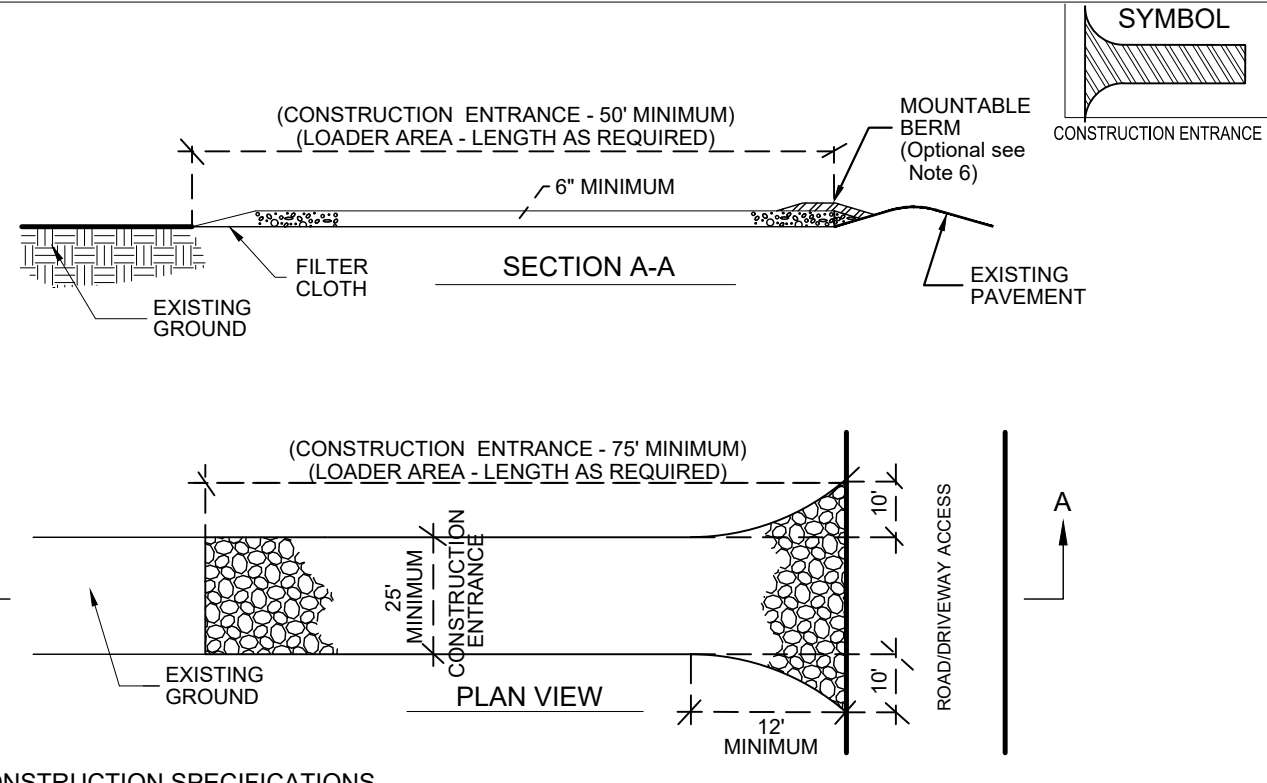
(2) ANY HYDRANT SHOWING A SEAKING OF THE METAL UNDER ANY OF THESE TESTS, OR LEAKING AT THE VALVE OR STUFFING BOXES, OR SHOWING ANY OTHER DEFECTS SHALL BE REJECTED.



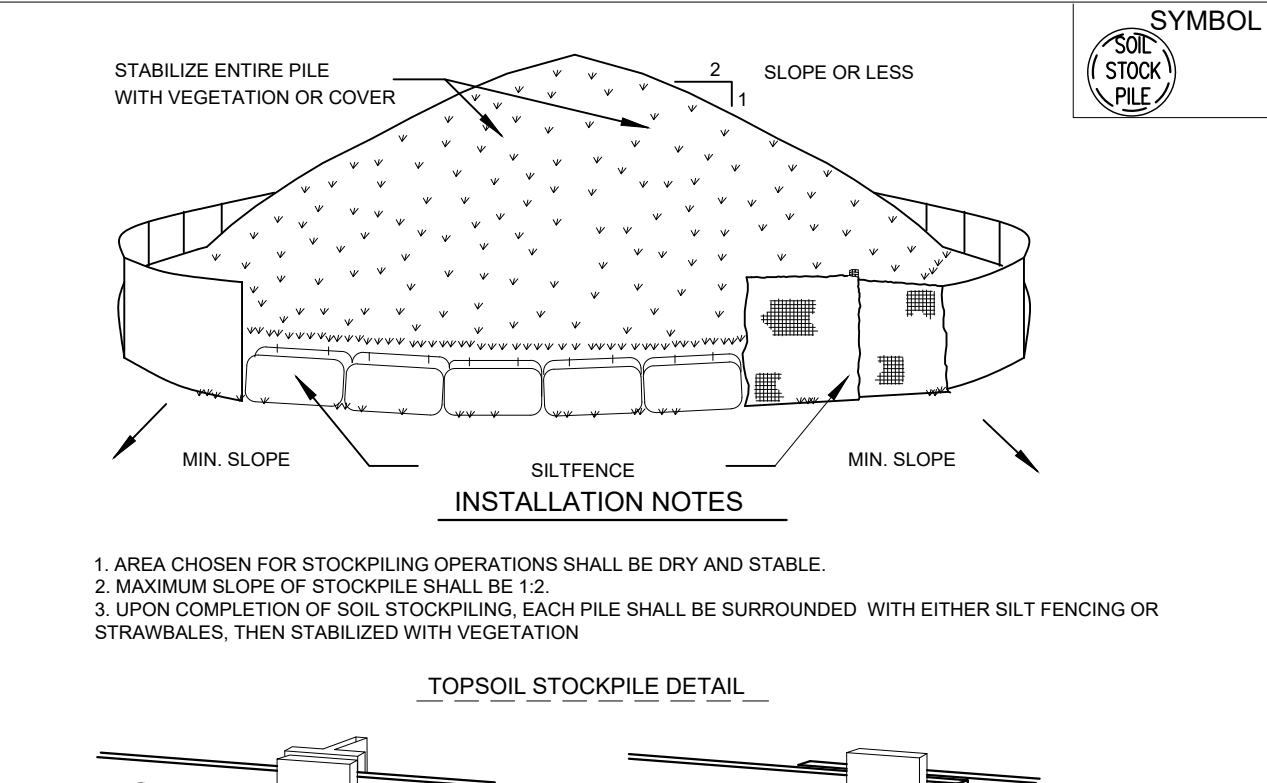
- CONSTRUCTION SPECIFICATIONS**
1. ALL TEMPORARY SWALES SHALL HAVE UNINTERRUPTED POSITIVE GRADE TO AN OUTLET.
2. DIVERTED RUNOFF FROM A DISTURBED AREA SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE.
3. DIVERTED RUNOFF FROM AN UNDISTURBED AREA SHALL OUTLET DIRECTLY INTO AN UNDISTURBED STABILIZED AREA AT NON-EROSIVE VELOCITY.
4. ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE SWALE.
5. THE SWALE SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE, AND CROSS SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED HEREIN AND BE FREE OF BANK PROJECTIONS OR OTHER IRREGULARITIES WHICH WILL IMPEDE NORMAL FLOW.
6. FILLS SHALL BE COMPACTED BY EARTH MOVING EQUIPMENT.
7. ALL EARTH REMOVED AND NOT NEEDED FOR CONSTRUCTION SHALL BE PLACED SO THAT IT WILL NOT INTERFERE WITH THE FUNCTIONING OF THE SWALE.
8. STABILIZATION SHALL BE AS PER THE FLOW CHANNEL STABILIZATION CHART BELOW.
- | TYPE OF TREATMENT | CHANNEL GRADE | A/G AC, OR LESS | B/S AC -10AC |
|-------------------|---------------|----------------------------------|---|
| 1 | 0.5-3.0% | SEED AND STRAW MULCH | SEED AND STRAW MULCH |
| 2 | 3.1-5.0% | SEED AND STRAW MULCH | SEED USING JUTE OR EXCELSIOR |
| 3 | 5.1-8.0% | SEED WITH JUTE OR EXCELSIOR, SOO | LINED WITH 4-8" RIP-RAP OR RECYCLED CONCRETE EQUIVALENT |
| 4 | 8.1-20 % | LINED WITH 4-8" RIP-RAP | ENGINEERED DESIGN |
9. PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.



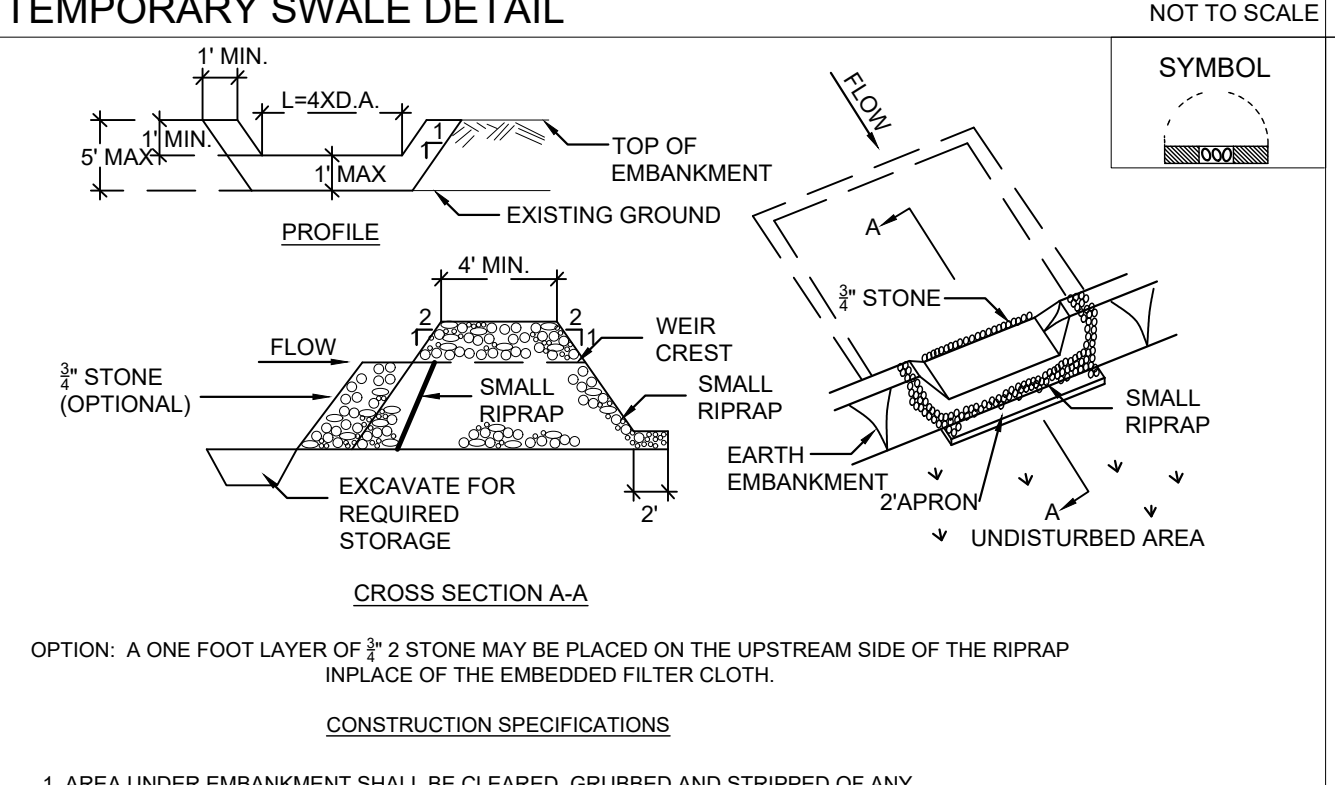
- CONSTRUCTION SPECIFICATIONS**
- 1) THE LINER SHALL BE PLASTIC SHEETING WITH A MINIMUM THICKNESS OF 10 MILS WITH NO HOLES OR TEARS, AND ANCHORED BEYOND THE TOP OF THE PIT WITH AN EARTHEN BERM, SAND BAGS, STONE, OR OTHER STRUCTURAL APPROPRIATE EXCEPT AT THE ACCESS POINT.
- 2) LOCATE THE FACILITY A MINIMUM OF 10 FEET FROM DRAINAGE SWALES, STORM DRAIN INLETS, WETLANDS, STREAMS AND OTHER SURFACE WATERS, PREVENT SURFACE WATER FROM ENTERING THE STRUCTURE EXCEPT FOR THE ACCESS ROAD, PROVIDE APPROPRIATE ACCESS WITH A GRAVEL ACCESS ROAD SLOPED DOWN TO THE STRUCTURE. SIGNS SHALL BE PLACED TO DIRECT DRIVERS TO THE FACILITY AFTER THEIR LOAD IS DISCHARGED.
- 3) ALL CONCRETE WASHOUT FACILITIES SHALL BE INSPECTED DAILY, DAMAGED OR LEAKING FACILITIES SHALL BE DEACTIVATED AND REPAIRED OR REPLACED IMMEDIATELY. EXCESS RAINWATER THAT HAS ACCUMULATED OVER HARDENED CONCRETE SHOULD BE PUMPED TO A STABILIZED AREA, SUCH AS A GRASS FILTER STRIP.
- 4) ACCUMULATED HARDENED MATERIAL SHALL BE REMOVED WHEN 10% OF THE STORAGE CAPACITY OF THE STRUCTURE IS FILLED. ANY EXCESS WASH WATER SHALL BE PUMPED INTO A CONTAINMENT TISSUE, AND PROPERLY DISPOSED OF OFF SITE.
- 5) DISPOSE OF THE HARDENED MATERIAL OFF-SITE IN A CONSTRUCTION DEMOLITION LANDFILL. ON-SITE DISPOSAL MAY BE ALLOWED IF THIS HAS BEEN APPROVED AND ACCEPTED AS PART OF THE PROJECTS SWPPP. IN THAT CASE, THE MATERIAL SHOULD BE RECYCLED AS SPECIFIED, OR BURIED AND COVERED WITH A MINIMUM OF 2 FEET OF CLEAN COMPACTED EARTH/LL. THIS IS PERMANENTLY STABILIZED TO PREVENT EROSION.
- 6) THE PLASTIC LINER SHALL BE TREATED WITH EACH CLEANING OF THE WASHOUT FACILITY.
- 7) INSPECT THE PROJECT SITE FREQUENTLY TO ENSURE THAT NO CONCRETE DISCHARGES ARE TAKING PLACE IN NON-DESIGNATED AREAS.



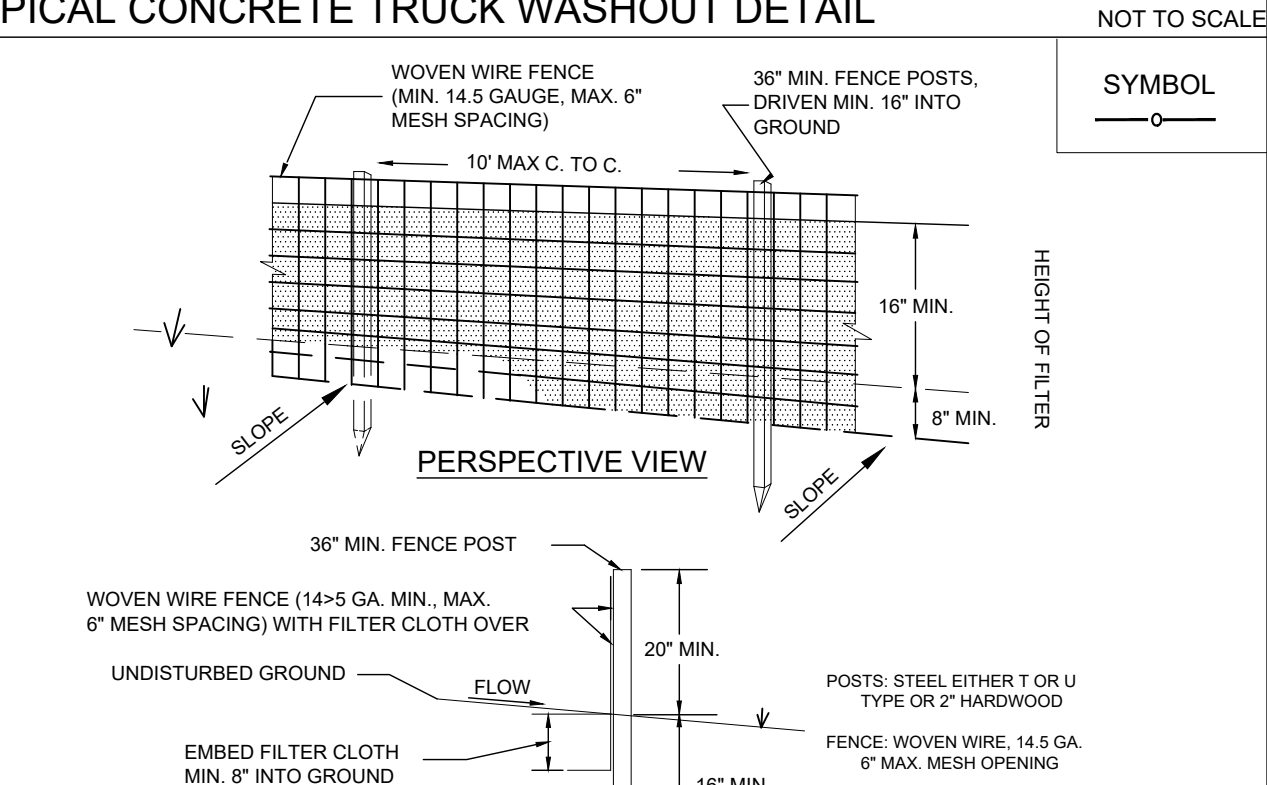
- CONSTRUCTION SPECIFICATIONS**
1. STONE SIZE - USE 2" min. STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - AS REQUIRED, BUT NOT LESS THAN 50 FEET.
3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
4. WIDTH - 12 FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. 25 FOOT MINIMUM IF SINGLE ENTRANCE TO SITE.
5. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OF FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURE USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DRIPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WASHING - WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINAGE INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.



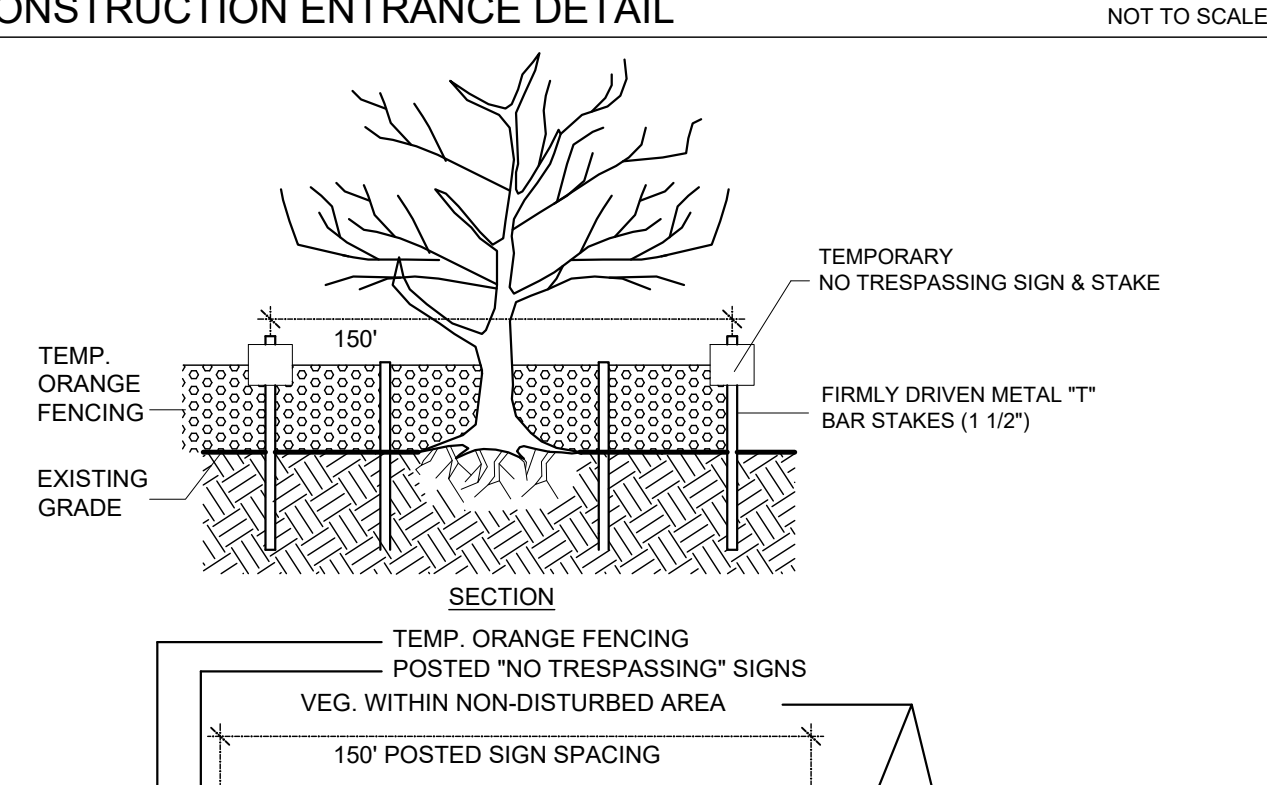
- INSTALLATION INSTRUCTIONS**
1. T-POST SHOULD BE PLACED A MAXIMUM OF 10 FEET APART
2. VERTICAL STRAND OF FENCE SHOULD BE SANDWICHED BETWEEN THE OVERLAPPED STRANDS
3. WIRE TIES OR PLASTIC CABLE TIES CAN THEN BE USED TO SECURE THE SLAT AND FENCE STRAND TO THE T-POST.
- SPlicing INSTRUCTIONS**
1. TO CONNECT FENCE SECTIONS, OVERLAP 2 STRAND SECTION FROM EACH END AND WEAVE A 1"x2" SLAT THROUGH THE OVERLAPPED STRANDS
2. FENCE SHOULD BE TENSIONED BY HAND ONLY DO NOT USE MECHANICAL TENSIONERS.
3. ORANGE CONSTRUCTION FENCE DETAIL



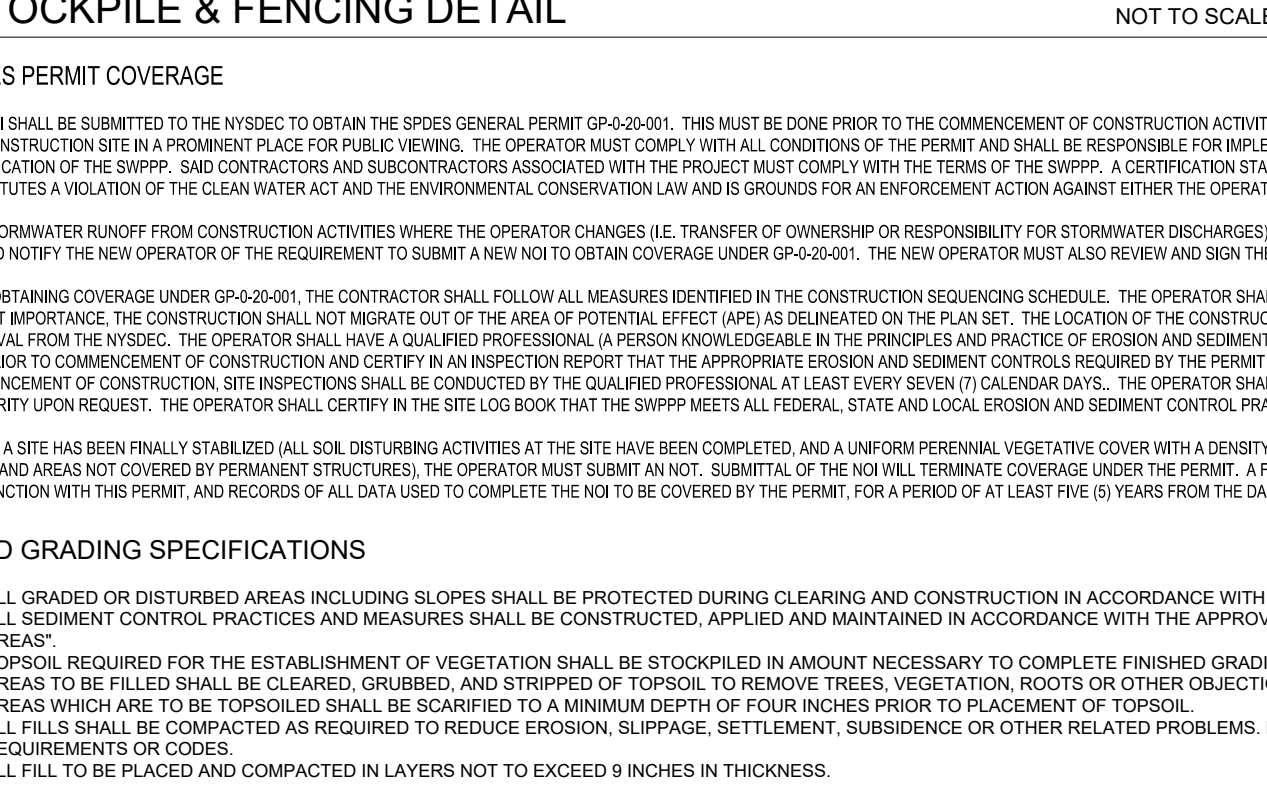
- CONSTRUCTION SPECIFICATIONS**
1. AREA UNDER EMBANKMENT SHALL BE CLEARED, GRUBBED AND STRIPPED OF ANY VEGETATION AND ROOT MAT. THE POOL AREA SHALL BE CLEARED.
2. THE FILL MATERIAL FOR THE EMBANKMENT SHALL BE FREE OF ROOTS AND OTHER WOODY VEGETATION AS WELL AS OVER-SIZED STONES, ROCKS, ORGANIC MATERIAL OR OTHER OBJECTIONABLE MATERIAL. THE EMBANKMENT SHALL BE COMPACTED BY TRAVELING WITH EQUIPMENT WHILE IT IS BEING CONSTRUCTED.
3. ALL CUT AND FILL SLOPES SHALL BE 2:1 OR FLATTER.
4. THE STONE USED IN THE OUTLET SHALL BE SMALL RIPRAP 4"-8" ALONG WITH A 1" THICKNESS OF 2" AGGREGATE PLACED ON THE UP-GRADE SIDE OF THE SMALL RIPRAP OR EMBEDDED FILTER CLOTH IN THE RIPRAP.
5. SEDIMENT SHALL BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH OF THE TRAP.
6. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
7. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION IS MINIMIZED.
8. THE STRUCTURE SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.
- MAXIMUM DRAINAGE AREA 5 ACRES



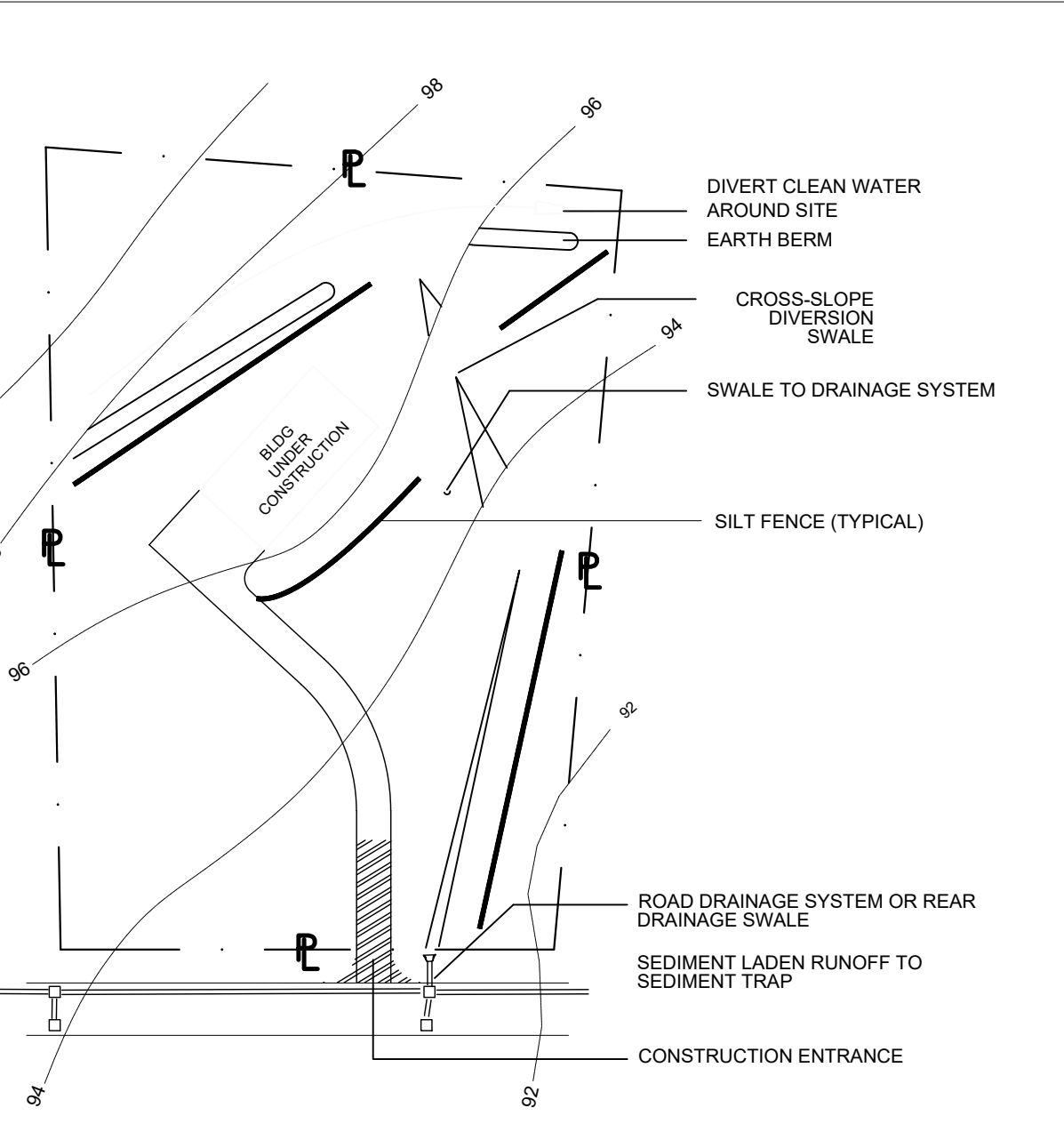
- CONSTRUCTION SPECIFICATIONS**
- 1) WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL EITHER T OR U TYPE OR HARDWOOD.
- 2) FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
- 3) WHEN TWO SECTIONS OF FILTER CLOTH ADJACENT EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
- 4) PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE, OR APPROVED EQUIVALENT.
- 5) MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN 'BULGES' DEVELOP IN THE SILT FENCE.
2. MAX. DRAINAGE AREA FOR OVERLAND FLOW TO A SILT FENCE SHALL NOT EXCEED 1 ACRE PER 100' OF FENCE, WITH MAXIMUM POOLING DEPTH OF 1.5' BEHIND THE FENCE.



- CONSTRUCTION NOTES:**
1. BARRIER LIMITS ACCESS INTO BUFFER AREAS AND EDGE OF DISTURBANCE AREA DURING CONSTRUCTION ACTIVITIES. BARRIER AND SIGNAGE SHALL BE POSTED AND INSPECTED PRIOR TO SITE DISTURBANCE.
2. BARRIER SHALL BE COMPRISED OF TEMPORARY ORANGE CONSTRUCTION FENCING.
3. POSTED "NO TRESPASSING" SIGNS TO BE INSPECTED BY TOWN ENGINEER OR BUILDING INSPECTOR PRIOR TO SITE DISTURBANCE.
4. PROPOSED SIGNS SHALL STATE "NO TRESPASSING", AND BE COMPRISED OF A WEATHER RESISTANT MATERIAL TO INSURE LONGEVITY.
5. DRIVE STAKES FIRMLY INTO GROUND AT LEAST 12" BELOW GRADE.



- ADDITIONAL SITE SPECIFIC CONSTRUCTION NOTES:**
1. ALL EROSION CONTROL MEASURES AS SHOWN ON THIS PLAN SHALL BE CLOSELY FOLLOWED. ADDITIONAL SILT FENCE SHALL BE INSTALLED DOWNSTREAM OF THE SEDIMENT TRAP AREAS.
2. ALL SEDIMENT TRAP SPILL SHALL BE STOCKPILED AND EROSION CONTROL MEASURES SHALL BE IMPLEMENTED TO PREVENT DETERIORATION OF THE STOCKPILES.
3. ONE MEASURING POLE OF NON-DETERIORATING MATERIAL SHALL BE PROVIDED WITHIN EACH SEDIMENT TRAP. THE POLES SHALL BE INSTALLED SUCH THAT OVERTURNING/MOVEMENT DOES NOT OCCUR. A SWATH OF PAINT SHALL BE PROVIDED ON THE POLE TO THE FOLLOWING ELEVATION FOR EACH SEDIMENT TRAP: ACCUMULATION OF SEDIMENT TO THE TOP OF THE SWATH (ELEVATION SPECIFIED) SHALL SERVE TO INDICATE THAT THE SEDIMENT SHALL BE REMOVED AND THE TRAP SHALL BE RESTORED TO ITS ORIGINAL DIMENSIONS.
4. PRIOR TO THE START OF SITE CONSTRUCTION, THE SITE CONTRACTOR SHALL MEET WITH THE TOWN ENGINEER AND STATE HIGHWAY DEPARTMENT TO DISCUSS THE POSTING OF CONSTRUCTION WARNING SIGNS TO ALERT DRIVERS OF THE ACTIVITY NEAR THE CONSTRUCTION SITE. A MAINTENANCE AND PROTECTION OF TRAFFIC PLAN SHALL BE DEVELOPED AT THE TIME OF A MYSOOT PERMIT SUBMISSION.
5. ITEMS LOCATED IN THE SWPPP REPORT ON FILE WITH THE TOWN OF EAST FISHKILL PLANNING OFFICE.
- BACKGROUND INFORMATION ABOUT THE SCOPE OF THE PROJECT, INCLUDING LOCATION, TYPE AND SIZE OF PROJECT.
- A DESCRIPTION OF PREPOST DEVELOPMENT CONDITIONS FOR PROJECT SITE DRAINAGE AREA.
- A DELINEATION OF PREPOST DEVELOPMENT DRAINAGE BOUNDARIES.
- HYDROLOGIC AND HYDRAULIC ANALYSIS OF ALL STRUCTURAL DETAILS FOR POST DEVELOPMENT PRACTICES.
- A COMPARISON OF PREPOST DEVELOPMENT RUNOFF VALUES.
- LONG TERM MAINTENANCE OF DRAINAGE FACILITIES.



SEDIMENT TRAP ST-IV & DEWATERING DETAIL

NOT TO SCALE

LONG TERM MAINTENANCE TABLE WITH RESPONSIBLE PARTIES:

IN ORDER FOR ANY PLAN TO OPERATE AS IT WAS ORIGINALLY INTENDED, IT MUST BE MAINTAINED PROPERLY. FOLLOWING THE COMPLETION OF CONSTRUCTION ACTIVITIES, THE PARCEL OWNER SHALL ASSUME RESPONSIBILITY FOR MAINTENANCE OF STRUCTURES AND SMP FACILITIES LOCATED WITHIN THE PARCEL BOUNDARIES. THE FOLLOWING MEASURES HAVE BEEN IMPLEMENTED IN THE OVERALL DESIGN.

SILT FENCING DETAIL

NOT TO SCALE

TEMPORARY LIMIT OF DISTURBANCE FENCING

TEMPORARY LIMIT OF DISTURBANCE FENCING

New York State Stormwater Management Design Manual
Chapter 5: Green Infrastructure Practices
Section 5.1 Planning for Green Infrastructure: Preservation of Natural Features and Conservation Design

Table 5.3 Soil Restoration Requirements

Type of Soil Disturbance	Soil Restoration Requirement	Comments/Examples
No soil disturbance	Restoration not permitted	Preservation of Natural Features
Minimal soil disturbance	Restoration not required	Clearing and grubbing
Areas where topsoil is stripped only - no change in grade	HSG A & B apply 6 inches of topsoil	Protect area from any ongoing construction activities.
Areas of cut or fill	HSG A & B Aerate and apply 6 inches of topsoil	Apply full Soil Restoration **
Heavy traffic areas on site (especially in a zone 5-25 feet around buildings but not within a 5 foot perimeter around foundation walls)	Apply full Soil Restoration (de-compaction and compost enhancement)	
Areas where Runoff Reduction and/or Infiltration practices are applied	Restoration not required, but may be applied to enhance the reduction specified for appropriate practices.	Keep construction equipment from crossing these areas. To protect newly installed practice from any ongoing construction activities construct a single phase operation fence area
Redevelopment projects	Soil Restoration is required on redevelopment projects in areas where existing impervious area will be converted to pervious area.	

*Aeration includes the use of machines such as tractor-drawn implements with coulters making a narrow slit in the soil, a roller with many spikes making indentations in the soil, or prongs which function like a mini-subsoiler.

** Per "Deep Ripping and De-compaction, DEC 2008".

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Mark A. Day, PE

AUGUST 18, 2022 PLANNING BOARD SUBMISSION
MAY 25, 2022 PLANNING BOARD SUBMISSION
MARCH 30, 2022 APPLICANT REVIEW
FEBRUARY 1, 2022 INTERNAL REVIEW/UTILITY LAYOUT REVIEW

Project No. 2020.332 License No. 089646

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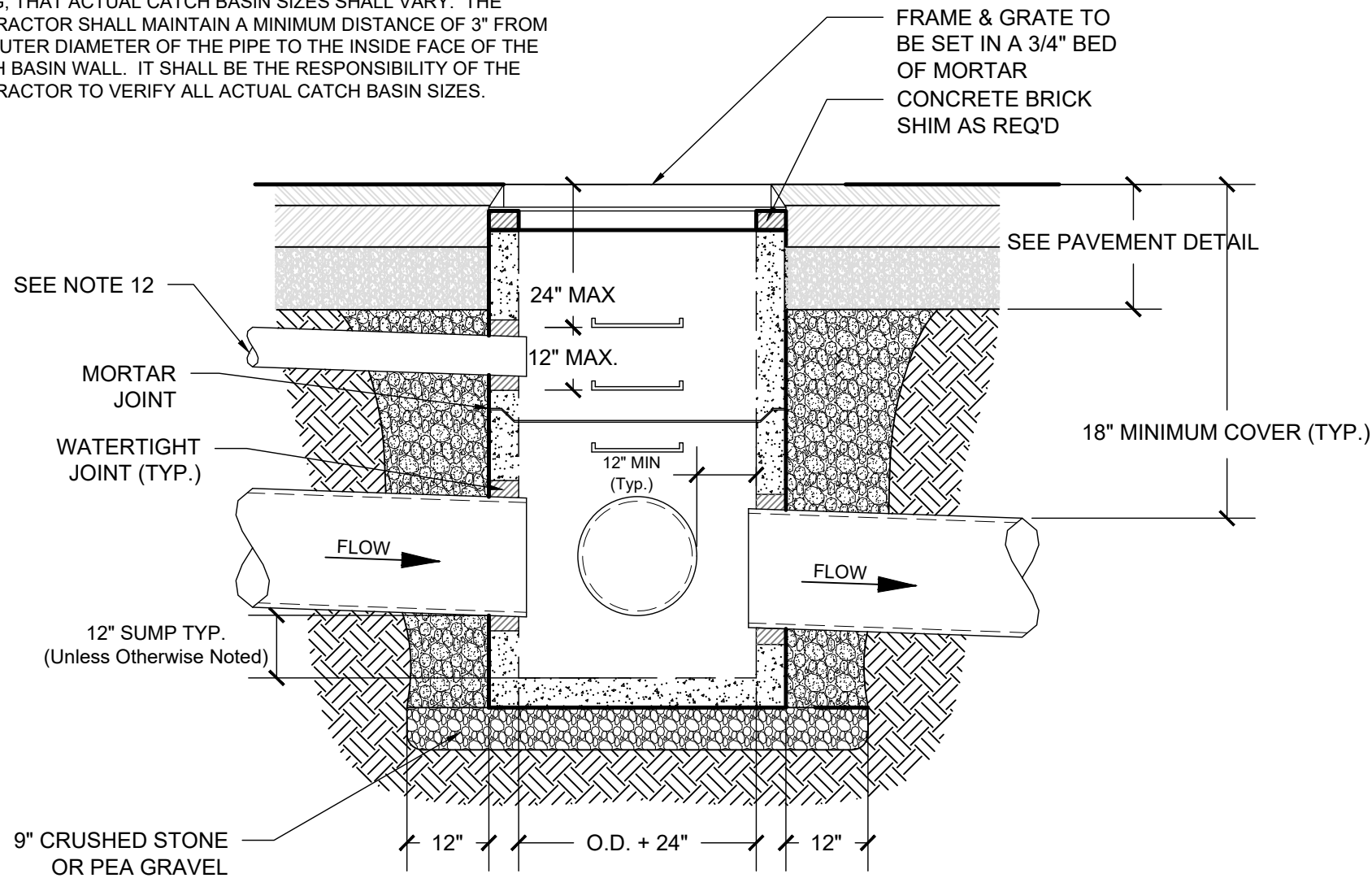
SUMMIT WOODS
Town of East Fishkill Dutchess County, New York

EROSION & SEDIMENT CONTROL DETAILS

SCALE AS NOTED DRAWN BY ALB CHECKED BY MAD DATE 04-15-2021

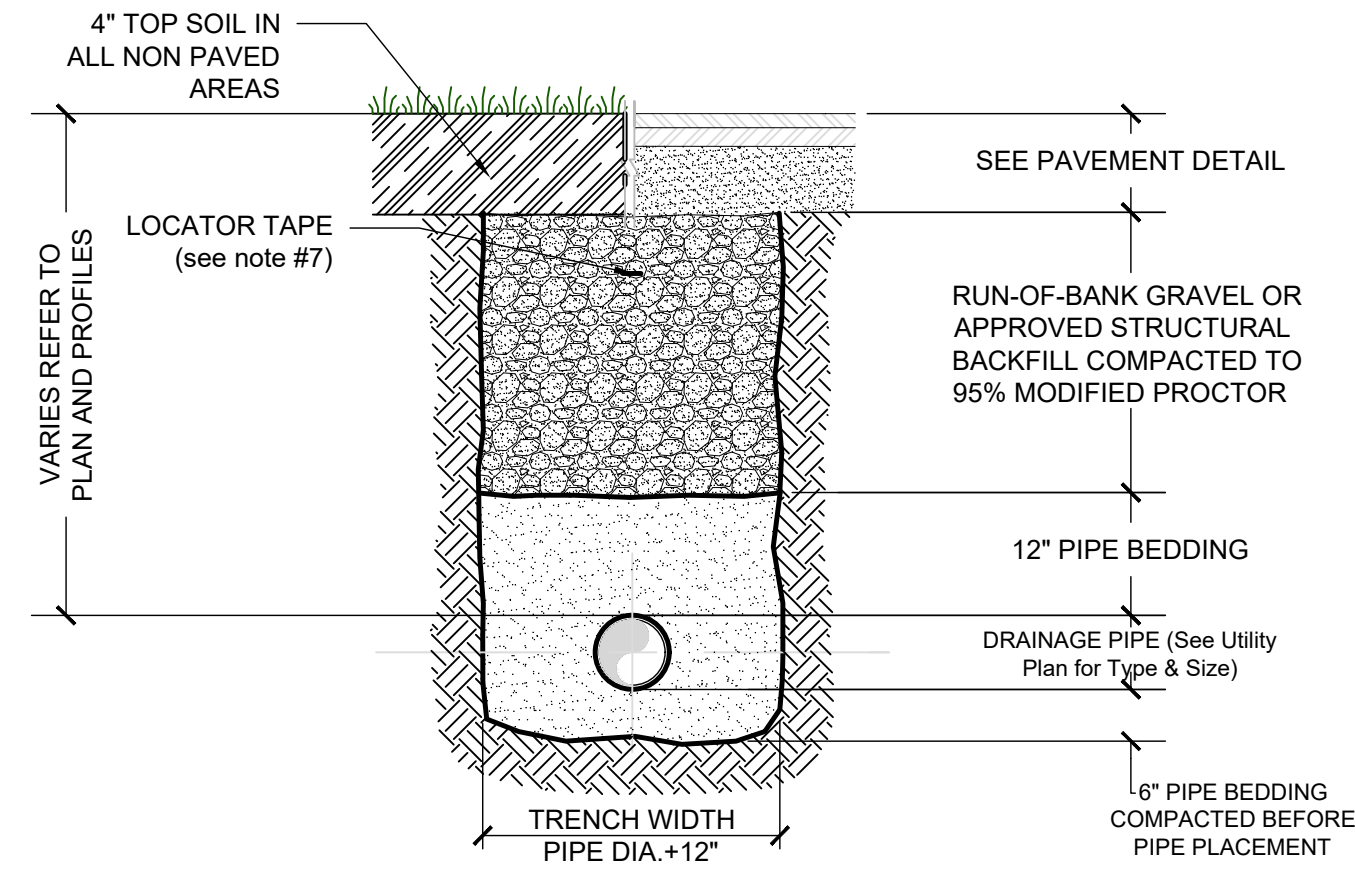
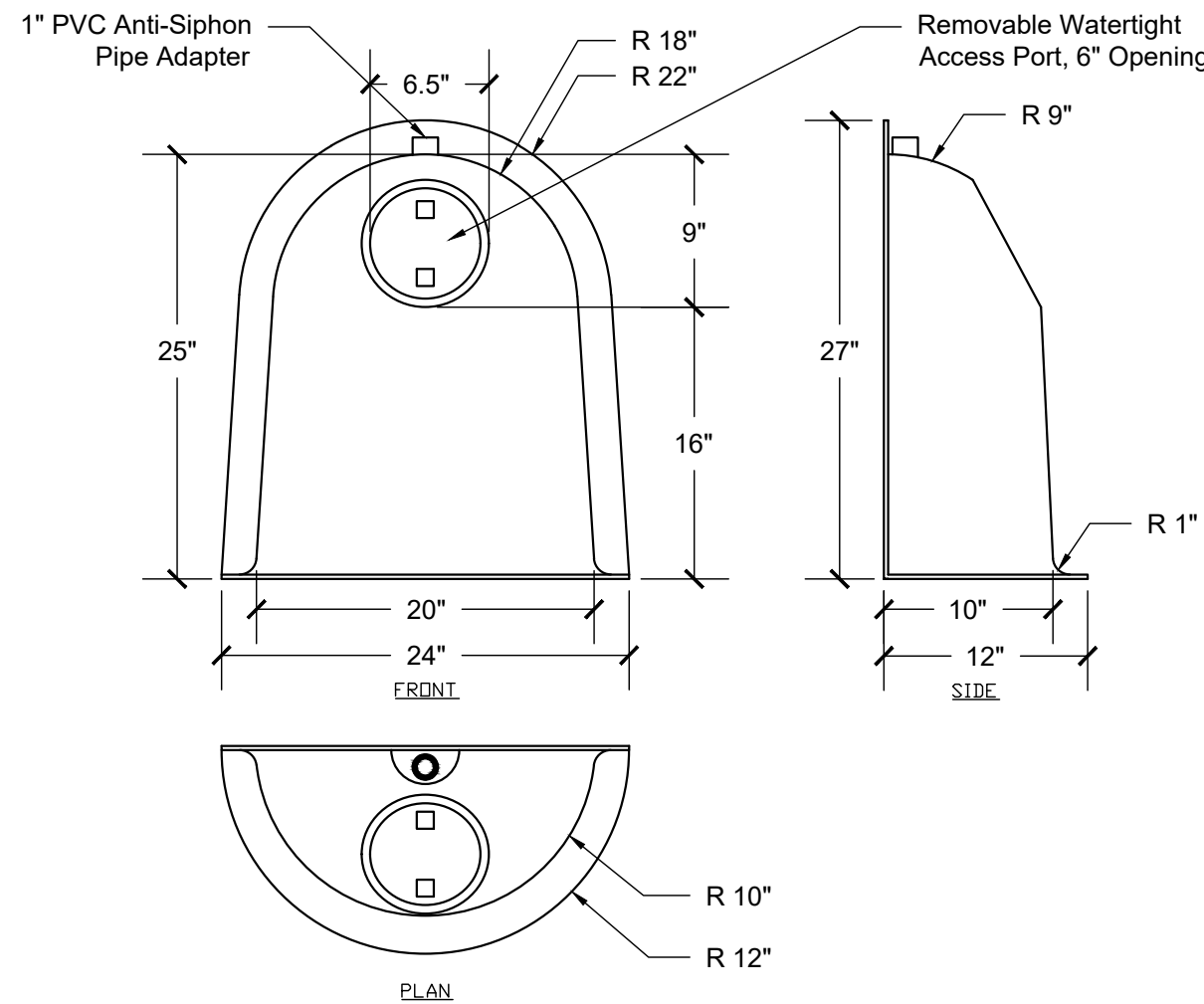
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NOTE: THE CONTRACTOR SHOULD BE AWARE THAT DUE TO THE VARYING SIZES & GEOMETRY OF THE PROPOSED STORM SEWER PIPING, THAT ACTUAL CATCH BASIN SIZES SHALL VARY. THE CONTRACTOR SHALL MAINTAIN A MINIMUM DISTANCE OF 3" FROM THE OUTER DIAMETER OF THE PIPE TO THE INSIDE FACE OF THE CATCH BASIN WALL. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL ACTUAL CATCH BASIN SIZES.



CONSTRUCTION NOTES:

1. THE TOP OF THE PIPES TO BE SET AT EQUAL ELEVATIONS WHEN INLET PIPE IS SMALLER THAN OUTLET PIPE.
2. POLYPROPYLENE STEEL REINFORCED PLASTIC STEPS AS SUPPLIED BY M.A. INDUSTRIES, OR EQUAL, TO BE SET EVERY 12" TO BOTTOM OF CATCH BASIN.
3. FRAME AND GRATE TO MEET OR EXCEED H-20 LOADING.
4. ALL PIPES SHALL BE INSTALLED FLUSH WITH THE INSIDE WALL OF THE CATCH BASIN AND GROUTED IN PLACE ON BOTH THE INSIDE AND OUTSIDE FACE OF THE BASIN.
5. BRICK FRAME AND GRATE TO GRADE MATCH BOTH CROWN OF ROAD AND SLOPE OF ROAD. A MAXIMUM OF TWO TIERS OF CONCRETE BRICKS OR ONE 6" SOLID CONCRETE BLOCK SHALL BE PERMITTED. RISERS SHALL BE PARGED BOTH INSIDE AND OUTSIDE.
6. BASE AND RISER SECTIONS SHALL BE INTEGRALLY CAST.
7. INSIDE DIMENSIONS SHALL REMAIN CONSTANT FROM TOP TO BOTTOM AND SHALL MATCH THE FRAME OPENING OF THE GRATE. THE BASINS SHALL CONFORM TO ASTM C-478 SPECIFICATIONS AND SHALL HAVE A MIN. 28-DAY COMPRESSIVE STRENGTH OF 4,000 PSI.
8. PROVIDE PROPER ANCHORING IN CASES OF HIGH GROUNDWATER TO PREVENT FLOATATION.
9. ALL BASINS WITH A TOTAL DEPTH OF GREATER THAN 8'-0" SHALL HAVE A MIN. WALL THICKNESS OF 8".
10. LADDER RUNGS TO BE PROVIDED FOR CATCH BASINS IN EXCESS OF 4'-0" TOTAL DEPTH (TOP TO BOTTOM OF SUMP).
11. ROOF LEADERS OR FOOTING DRAINS TO CONNECT TO STORM SEWER SYSTEM WHENEVER POSSIBLE.
12. SHOP DRAWINGS TO REFLECT KNOCKOUTS OR OPENING SIZES INDICATIVE OF OUTSIDE PIPE DIAMETER FOR VARIOUS PIPE SIZES AND LOCATIONS WHERE PIPE(S) DO NOT MEET BASIN AT RIGHT ANGLES.

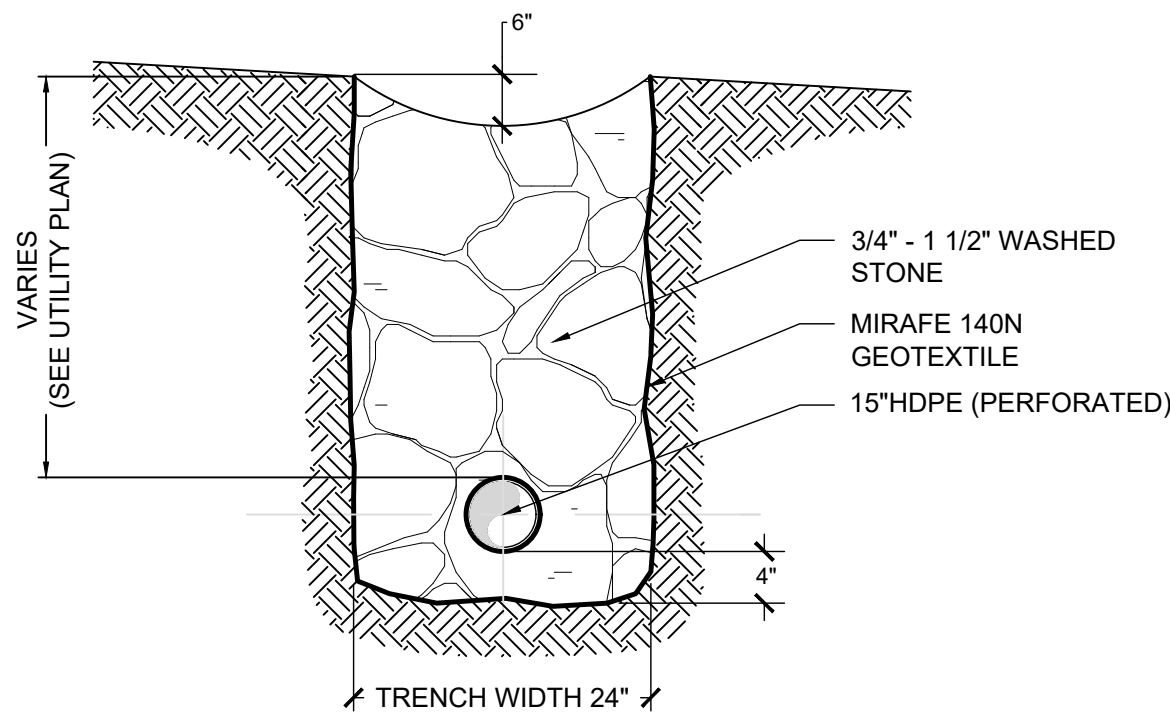
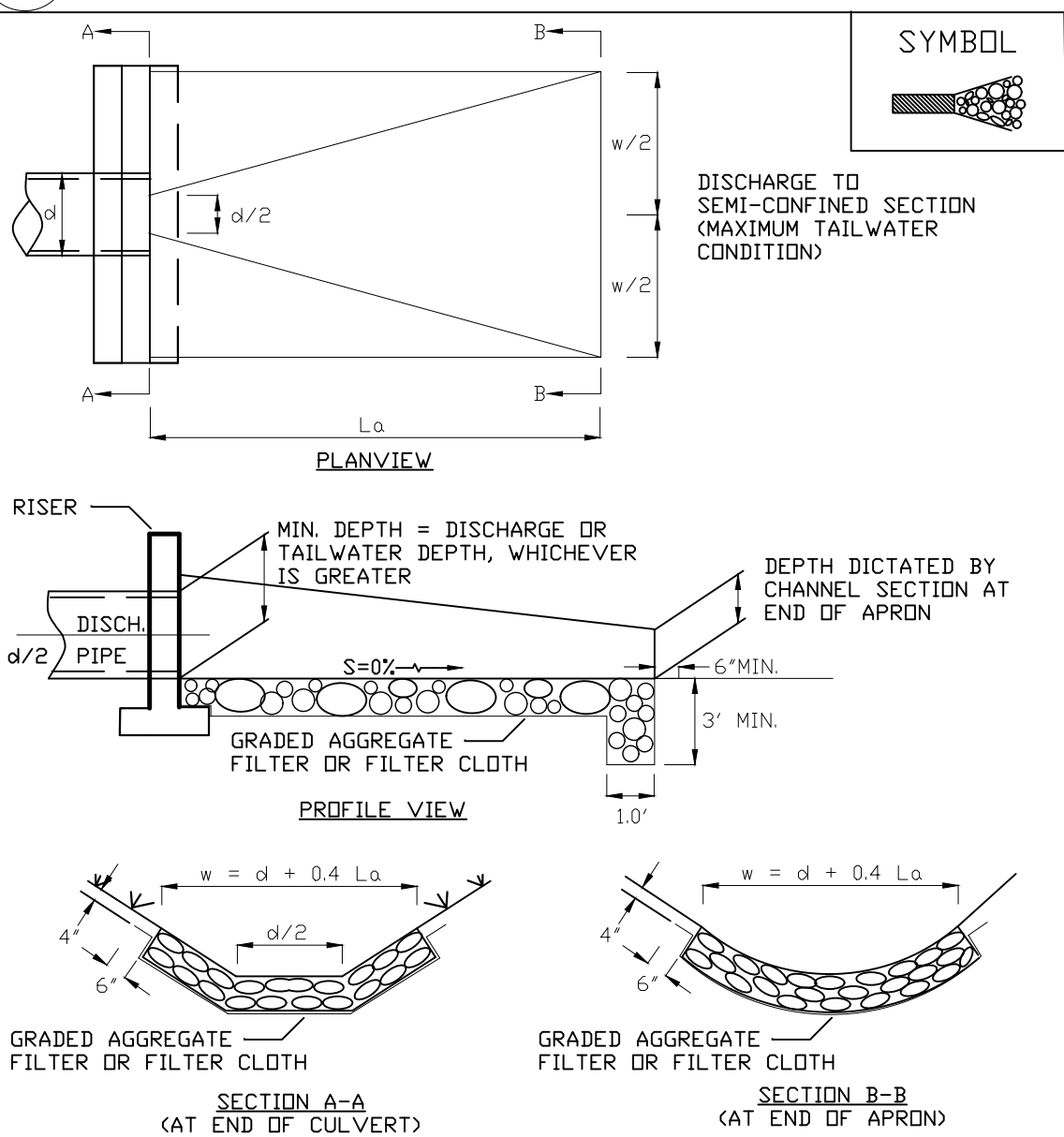


NOTES:

1. FILL OR BACKFILL MATERIAL SHALL BE DEPOSITED IN 12" LIFTS. EACH LIFT SHALL BE COMPACTED TO 95% STANDARD PROCTOR PRIOR TO THE PLACEMENT OF THE NEXT LIFT.
2. BACKFILLING AROUND PIPES SHALL BE DONE UNIFORMLY ON EACH SIDE OF THE PIPE. BACKFILL MATERIAL SHALL BE 2" MINUS GRADATION.
3. ALL SITE UTILITIES ARE TO BE INSTALLED BY A QUALIFIED CONTRACTOR & INSPECTED BY THE DESIGN ENGINEER PRIOR TO BACKFILLING.
4. THOROUGHLY CLEAN ALL PIPES PRIOR TO ACCEPTANCE TESTING.
5. IN THE EVENT THAT THE CONDUIT IS BEING INSTALLED IN WET CONDITIONS, THE CONTRACTOR SHALL LINE THE TRENCH WITH FILTER FABRIC & BED THE PIPE IN 3/4" CRUSHED STONE INSIDE THE FILTER FABRIC.
6. BACKFILL MATERIAL SHALL BE FREE FROM ORGANICS, BOULDERS, FROZEN SOILS OR OTHER DELETERIOUS MATERIAL.
7. THE CONTRACTOR SHALL PROVIDE A METAL WARNING TAPE 2" BELOW FINISHED GRADE. THE TAPE SHALL BE BLUE WITH "WARNING WATER LINE BELOW" WRITTEN IN BLACK LETTERING ALONG ITS ENTIRE LENGTH.

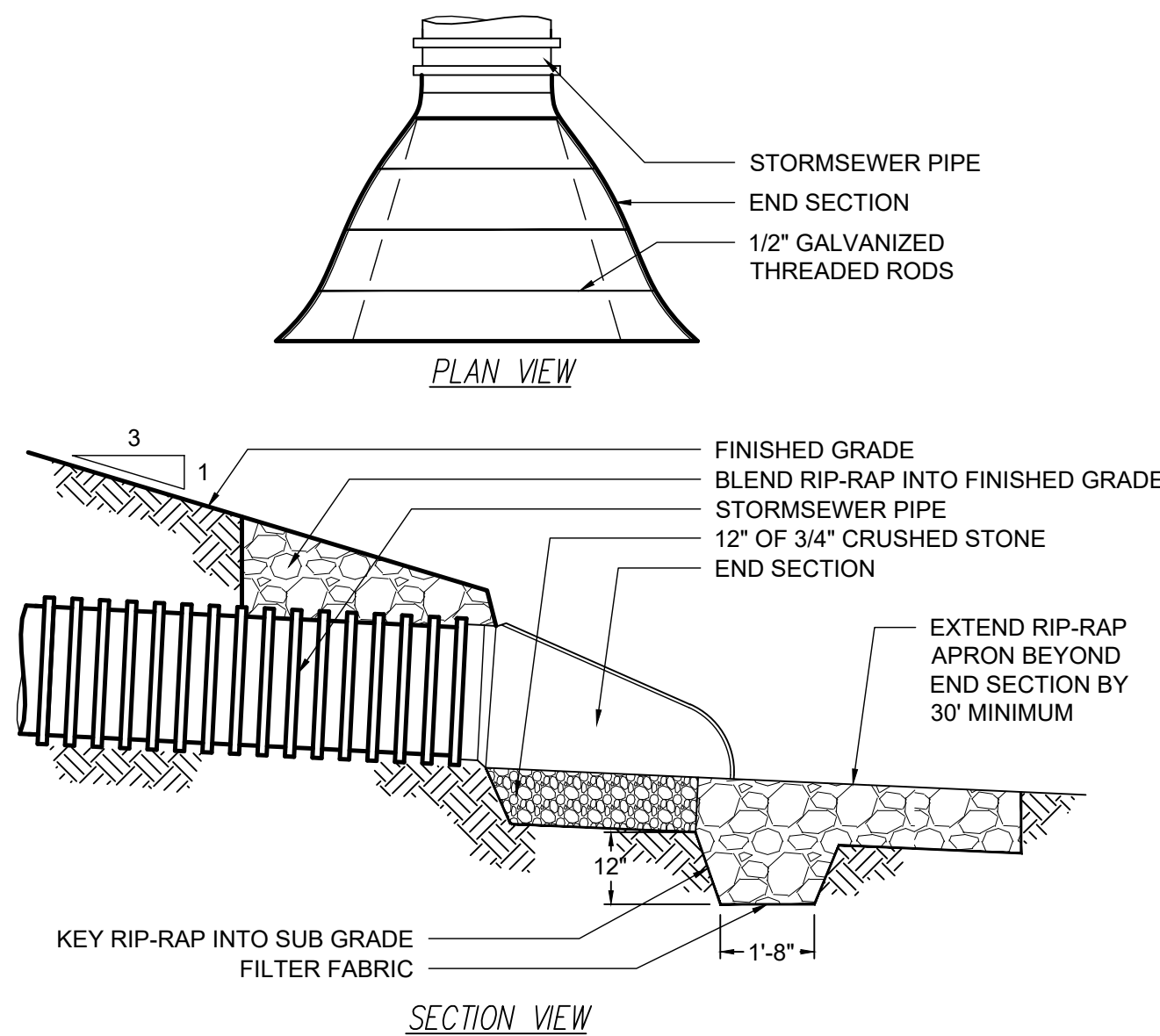
1 PRE CAST CONCRETE CATCH BASIN

NOT TO SCALE



2 STORM SEWER HOOD

NOT TO SCALE

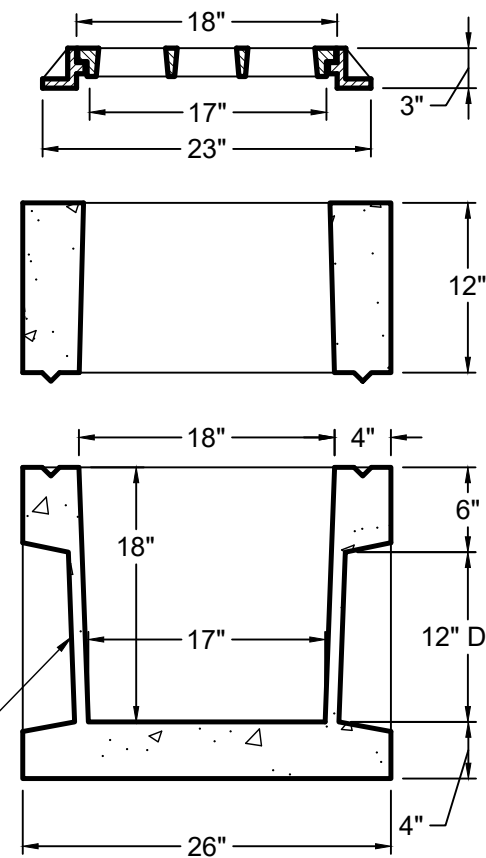


3 UTILITY TRENCH DETAIL

NOT TO SCALE

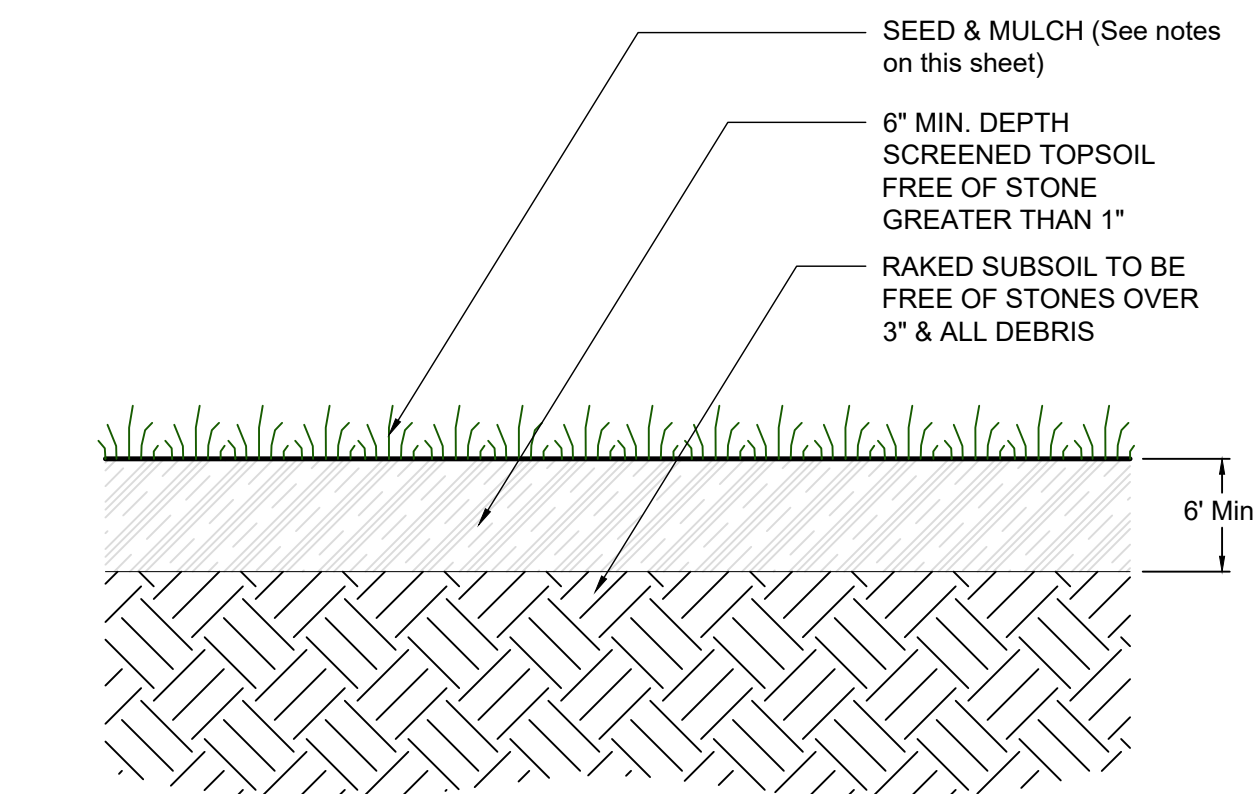
CONSTRUCTION NOTES:

1. THE TOP OF THE PIPES TO BE SET AT EQUAL ELEVATIONS WHEN INLET PIPE IS SMALLER THAN OUTLET PIPE.
2. ALL PIPES SHALL BE INSTALLED FLUSH WITH THE INSIDE WALL OF THE CATCH BASIN AND GROUTED IN PLACE ON BOTH THE INSIDE AND OUTSIDE FACE OF THE BASIN.
3. BASE AND RISER SECTIONS SHALL BE INTEGRALLY CAST.
4. THE BASINS SHALL CONFORM TO ASTM C-478 SPECIFICATIONS AND SHALL HAVE A MIN. 28-DAY COMPRESSIVE STRENGTH OF 4,000 PSI.
5. SHOP DRAWINGS TO REFLECT KNOCKOUTS OR OPENING SIZES INDICATIVE OF OUTSIDE PIPE DIAMETER FOR VARIOUS PIPE SIZES AND LOCATIONS WHERE PIPE(S) DO NOT MEET BASIN AT RIGHT ANGLES.
6. PROVIDE 6" SUBBASE OF 3/4" CRUSHED STONE.



4 RIPRAP OUTLET PROTECTION

NOT TO SCALE



5 CURTAIN DRAIN TRENCH DETAIL

NOT TO SCALE

6 END SECTION DETAIL

NOT TO SCALE

7 PRE CAST 18" x 18" YARD DRAIN

NOT TO SCALE

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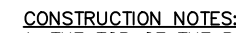
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NOVEMBER 15, 2021	
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SUMMIT WOODS
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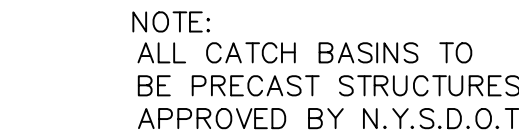
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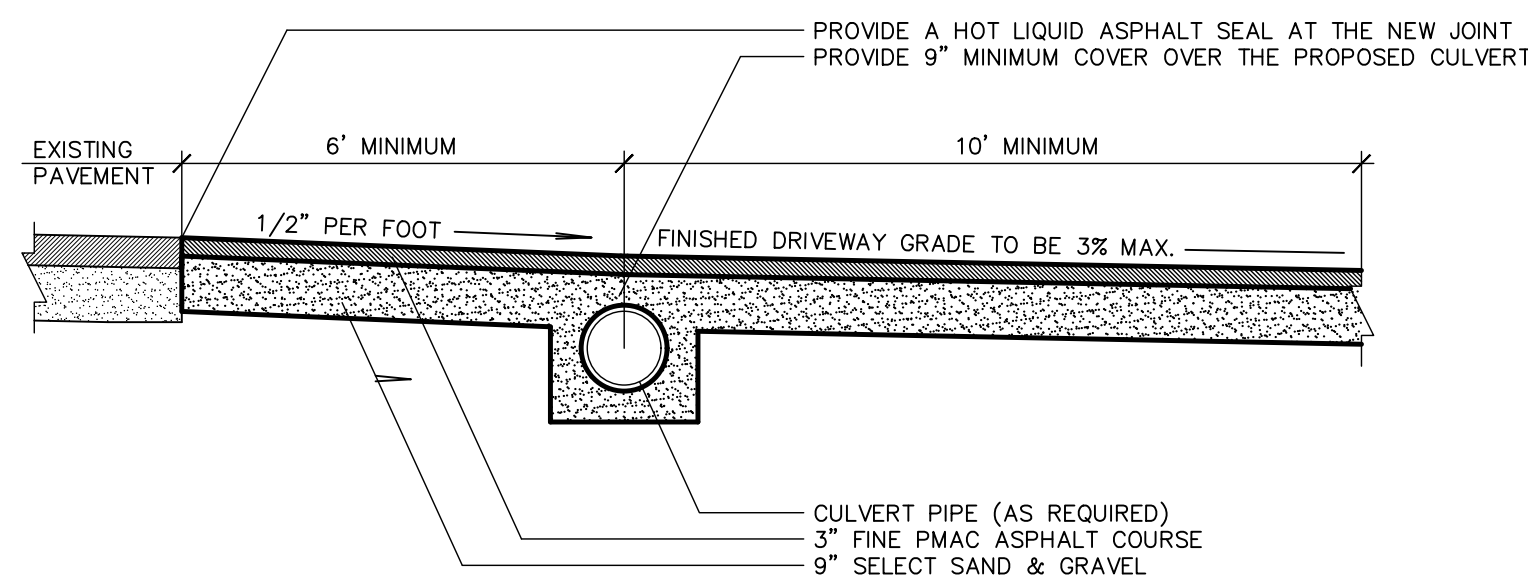
1. THE TOP OF THE PIPES TO BE SET AT EQUAL ELEVATIONS TO THE EXISTING FINISHED GRADE.
2. POLYPROPYLENE STEEL REINFORCED PLASTIC (PPR) TO BE SET EVERY 12" TO BOTTOM OF CATCH BASIN.
3. FRAME AND GRATE TO MEET OR EXCEED 1400 LBS. LOADS PER SQUARE FOOT. GRATE SHALL BE PROPER ANCHORED TO WALL OF THE CATCH BASIN AND GROUTED IN PLACE ON ALL SIDES.
4. BRICK FRAME AND GRATE TO GRADE MATCH BOTH CROWN AND SIDES TO EXISTING PAVEMENT.
5. TWO TIERS OF CONCRETE BRICKS OR ONE 6" SLOPE CONCRETE BRICK COURSE TO BE USED TO BUILD UP TO FINISHED GRADE BOTH INSIDE AND OUTSIDE.
6. FRAME SHALL BE SET WITH AN ANGLE OF 1/4" PER FOOT.
7. THE FRAME SHALL BE SET FLUSH WITH THE BINDER COURSE & AN EXTENSION SHALL BE USED FOR THE FINISHED PAVEMENT COURSE.
8. INSIDE DIMENSIONS SHALL REMAIN CONSTANT FROM TOP TO BOTTOM OF THE CATCH BASIN.
9. THE GRATE SHALL CONFORM TO ASTM C-478 SPECIFICATIONS AND SHALL HAVE A MIN. 28-DAY COMPRESSIVE STRENGTH OF 4,000 PSI.
10. THE GRATE SHALL BE PROPER ANCHORED IN CASES OF HIGH GROUNDWATER TO PREVENT FLOATION.
11. THE GRATE SHALL HAVE A MIN. DEPTH OF GREATER THAN 8" - SHALL HAVE A MIN. WALL THICKNESS OF 8".
12. THE GRATE SHALL BE SET WITH A MIN. 12" DEPTH OF BASES IN EXCESS OF 4'-0" TOTAL DEPTH (TOP TO BOTTOM OF SUMPS).
13. THE GRATE SHALL BE SET WITH A MIN. 12" DEPTH OF BASES IN EXCESS OF THE TOWN HIGHWAY SUPERELEVATION.
14. THE GRATE SHALL BE SET WITH A MIN. 12" DEPTH OF BASES IN EXCESS OF THE TOWN HIGHWAY SUPERELEVATION.
15. THE GRATE SHALL BE SET WITH A MIN. 12" DEPTH OF BASES IN EXCESS OF THE TOWN HIGHWAY SUPERELEVATION.
16. THE GRATE SHALL BE SET WITH A MIN. 12" DEPTH OF BASES IN EXCESS OF THE TOWN HIGHWAY SUPERELEVATION.
17. THE GRATE SHALL BE SET WITH A MIN. 12" DEPTH OF BASES IN EXCESS OF THE TOWN HIGHWAY SUPERELEVATION.
18. THE GRATE SHALL BE SET WITH A MIN. 12" DEPTH OF BASES IN EXCESS OF THE TOWN HIGHWAY SUPERELEVATION.
19. THE GRATE SHALL BE SET WITH A MIN. 12" DEPTH OF BASES IN EXCESS OF THE TOWN HIGHWAY SUPERELEVATION.
20. THE GRATE SHALL BE SET WITH A MIN. 12" DEPTH OF BASES IN EXCESS OF THE TOWN HIGHWAY SUPERELEVATION.

NOTES:
THE CONTRACTOR SHOULD BE AWARE THAT DUE TO THE VARYING SIZES & GEOMETRY OF THE PROPOSED STORM SEWER PIPING, THAT ACTUAL CATCH BASIN SIZES SHALL VARY. THE CONTRACTOR SHALL MAINTAIN A MINIMUM DISTANCE OF 3" FROM THE OUTER DIAMETER OF THE PIPE TO THE INSIDE FACE OF THE CATCH BASIN WALL. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL ACTUAL CATCH BASIN SIZES.

TYPICAL & OVERSIZE PRECAST CONCRETE CATCH BASIN
NOT TO SCALE



TYPICAL ROADWAY SECTION WITH MINUS GRADE DETAIL
NOT TO SCALE



- CONSTRUCTION NOTES:

1. CURB SHALL BE CONSTRUCTED OF CLASS A CONCRETE. CONCRETE SHALL NOT BE PLACED AT ATMOSPHERIC TEMPERATURES BELOW 40 DEGREES F. REQUIRED MIN. AIR ENTERTAINMENT SHALL BE 6%
2. CURB SHALL BE CAST IN SECTIONS APPROXIMATELY 20 FEET LONG. PROVISION SHALL BE MADE AT EACH JOINT FOR EXPANSION OF 1/4 INCH.
3. THERE SHALL BE AT LEAST 1 1/2 INCH COVER OVER REINFORCEMENT BARS.

TYPICAL CURB DETAILS
NOT TO SCALE



- CONSTRUCTION NOTES:

1. CURB SHALL BE CONSTRUCTED OF CLASS A CONCRETE. CONCRETE SHALL NOT BE PLACED AT ATMOSPHERIC TEMPERATURES BELOW 40 DEGREES F. REQUIRED MIN. AIR ENTERTAINMENT SHALL BE 6%
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3. THERE SHALL BE AT LEAST 1 1/2 INCH COVER OVER REINFORCEMENT BARS.

RURAL HIGHWAY

- Notes:

1. Short-term stationary is daytime work that occupies a location for more than 1 hour within a single daylight period.
2. The barrier vehicle shall be an unoccupied large dump truck, with the parking brake set and with the front wheels turned away from the employees in the work area.
3. There shall be no workers, equipment, or other vehicles in the buffer space or the roll ahead distance.
4. Any buffer distance provided in advance of the barrier vehicle set-up will add to the safety of the work area. The buffer space is from the end of the lane taper to the beginning of the work area.
5. State Law signs (NVR9-11 or NVR9-12) are optional if the anticipated work duration is less than 4 hours. If used, State Law sign to be placed 300-500 FT. in advance of initial warning sign.

Speed Limit (mph)	Buffer Space	Roll Ahead Distance
30	200' (5 Skip Lines)	40' (1 Skip Line)
35	250' (~6 Skip Lines)	40' (1 Skip Line)
40	305' (~8 Skip Lines)	40' (1 Skip Line)
45	360' (9 Skip Lines)	80' (2 Skip Lines)
50	425' (~11 Skip Lines)	80' (2 Skip Lines)
55	495' (~13 Skip Lines)	80' (2 Skip Lines)

- END ROAD WORK** G20-2
36x18 in. This sign shall be located at a distance of 500' (12 Sk) from the work area.

- | | | | |
|---|--------------------|---|--------------------|
|  | W20-1
36x36 in. |  | W21-5
36x36 in. |
|---|--------------------|---|--------------------|

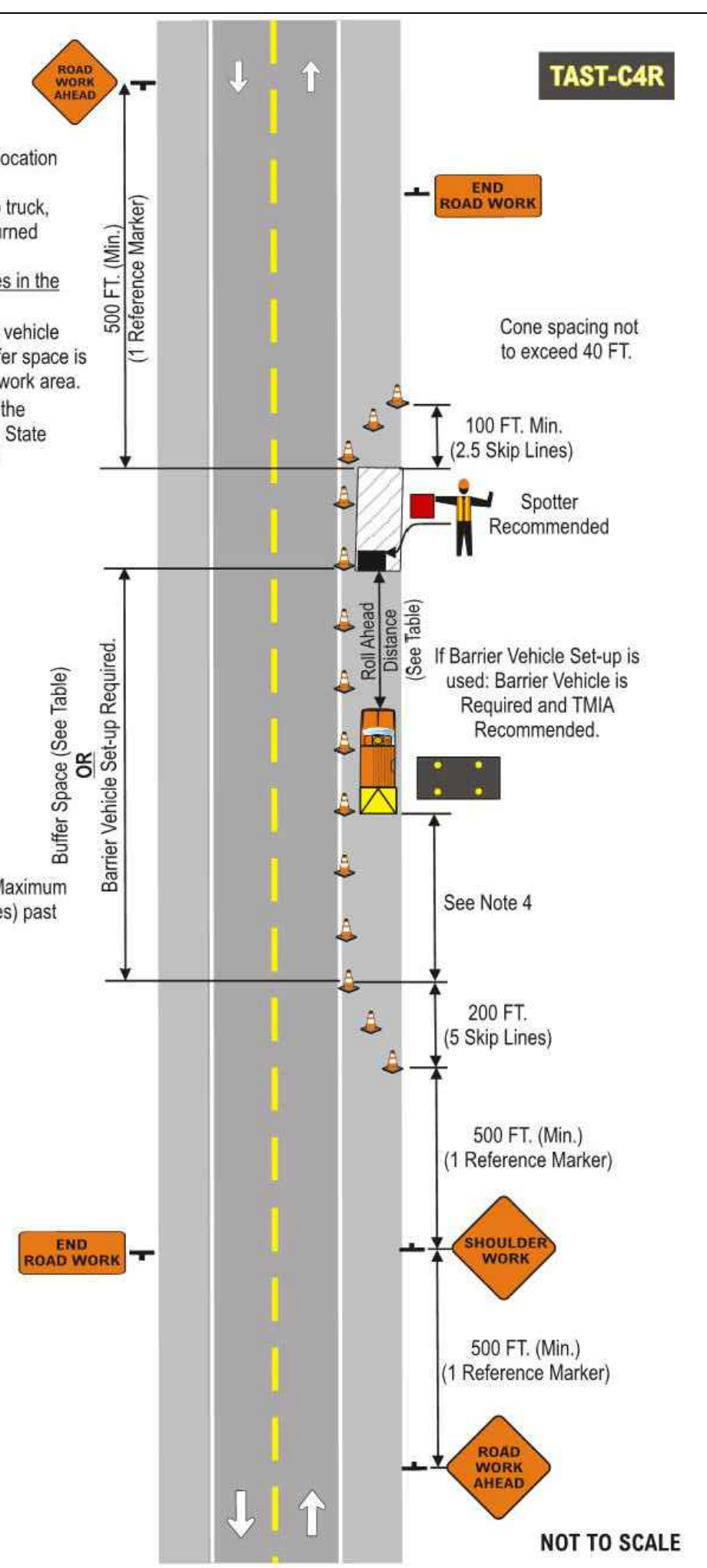
-  Work Area
 Arrow Panel
(Caution Mode)
 Barrier Vehicle with TMIA

NYSDOT
WORK ZONE TRAFFIC CONTROL

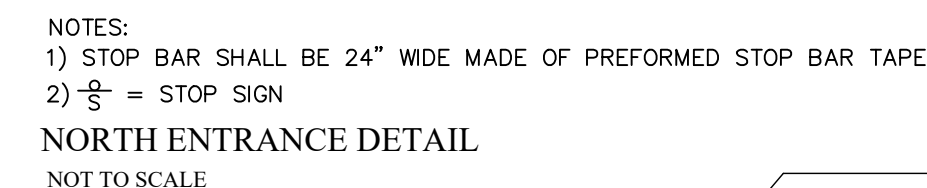
SHORT-TERM STATIONARY
OPERATION INVOLVING
SHOULDER CLOSURE
(PAVED SHOULDER 8 FT. OR WIDER)
ON
RURAL
TWO-LANE CONVENTIONAL HIGHWAY

FEBRUARY 2009 **TAST-C4R**

WORK ZONE TRAFFIC CONTROL




TYPICAL ASPHALT/CONCRETE CURB TRANSITION DETAIL
NOT TO SCALE



RAISED CONCRETE ISLAND DETAIL
NOT TO SCALE

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PROFESSIONAL ENGINEER OR LAND SURVEYOR.

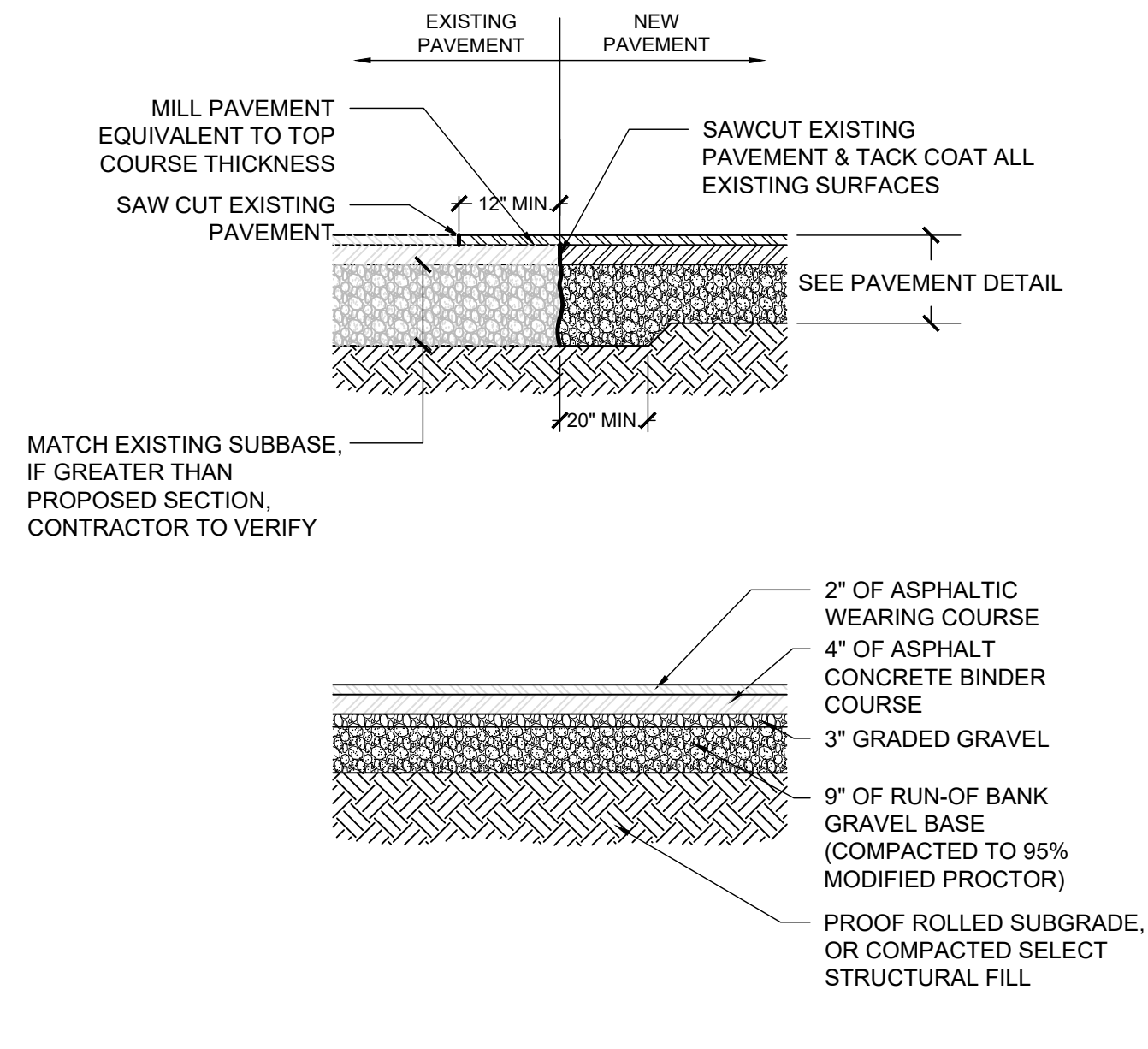
	Mark A. Day, PE	
		
AUGUST 18, 2022 PLANNING BOARD SUBMISSION		
MAY 25, 2022 PLANNING BOARD SUBMISSION		
MARCH 30, 2022 APPLICANT REVIEW		
FEBRUARY 1, 2022 INTERNAL REVIEW-UTILITY LAYOUT REVISED		
NOVEMBER 15, 2021		
Project No:	2020.332	License No. 069846

DAY|STOKOSA
ENGINEERING P.C.

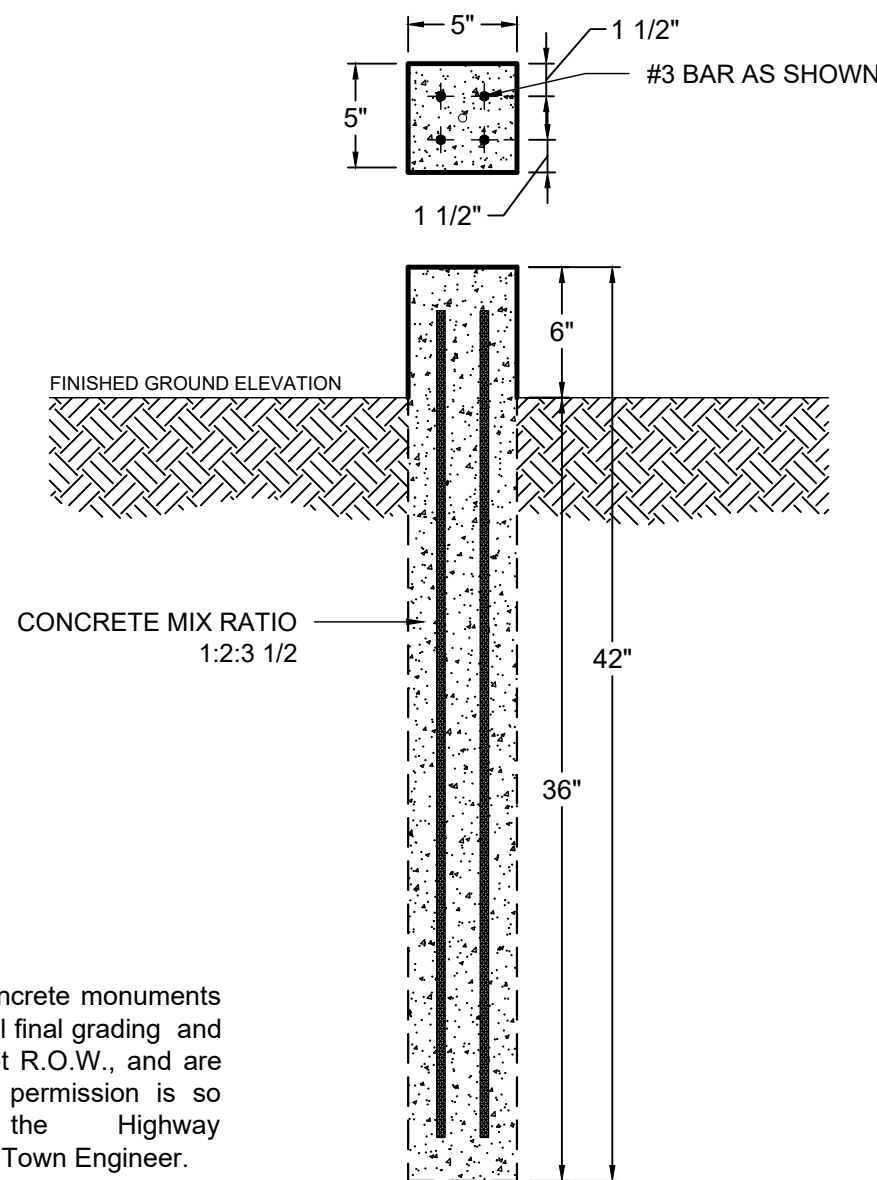
3 Van Wyck Lane
Suite 2
Wappingers Falls, New York 12590
(845) 223-3202

PROJECT		
<h1>SUMMIT WOODS</h1>		
Town of East Fishkill		Dutchess County, New York
DRAWING		
<h2>NYSDOT ENTRANCE DETAILS</h2>		
SCALE	DRAWN BY	DESIGNING FIRM
AS NOTED	ALB	<h1>C531</h1>
DATE	CHECKED BY	
04-01-2021	MAD	

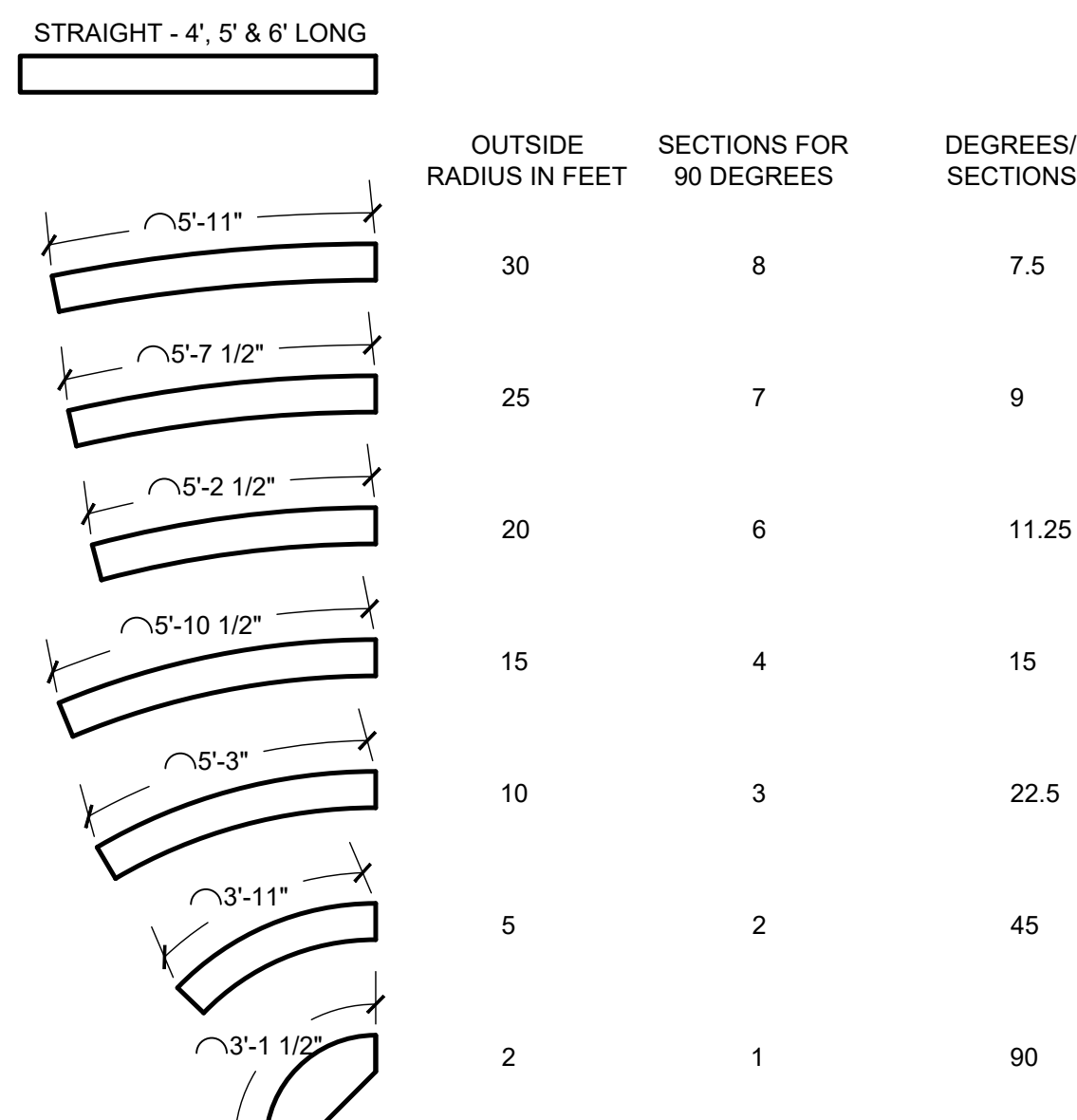
C531



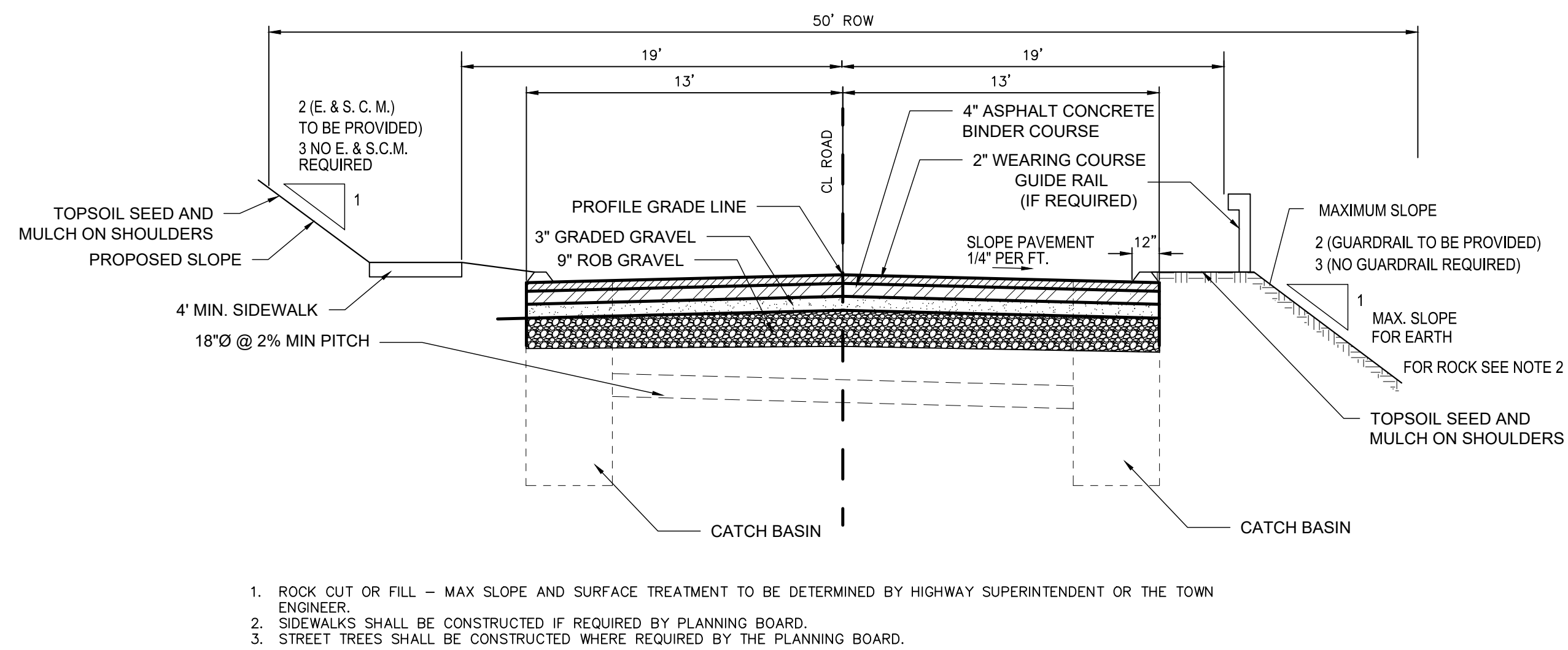
1 ONSITE ROAD PAVEMENT SECTION
NOT TO SCALE



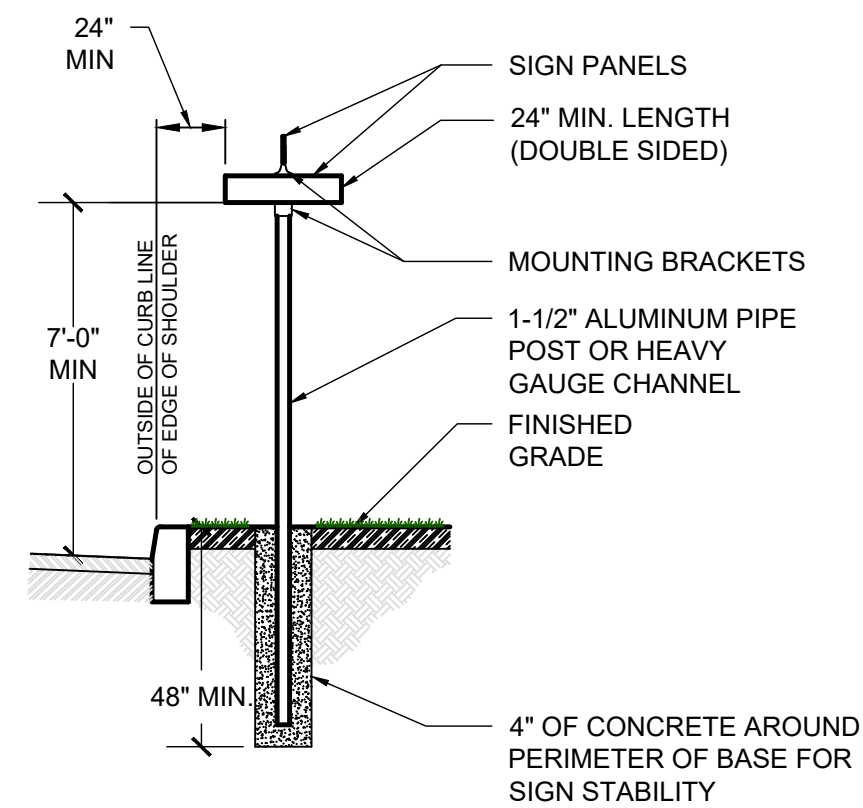
2 PERMANENT CONCRETE MONUMENT DETAIL
NOT TO SCALE



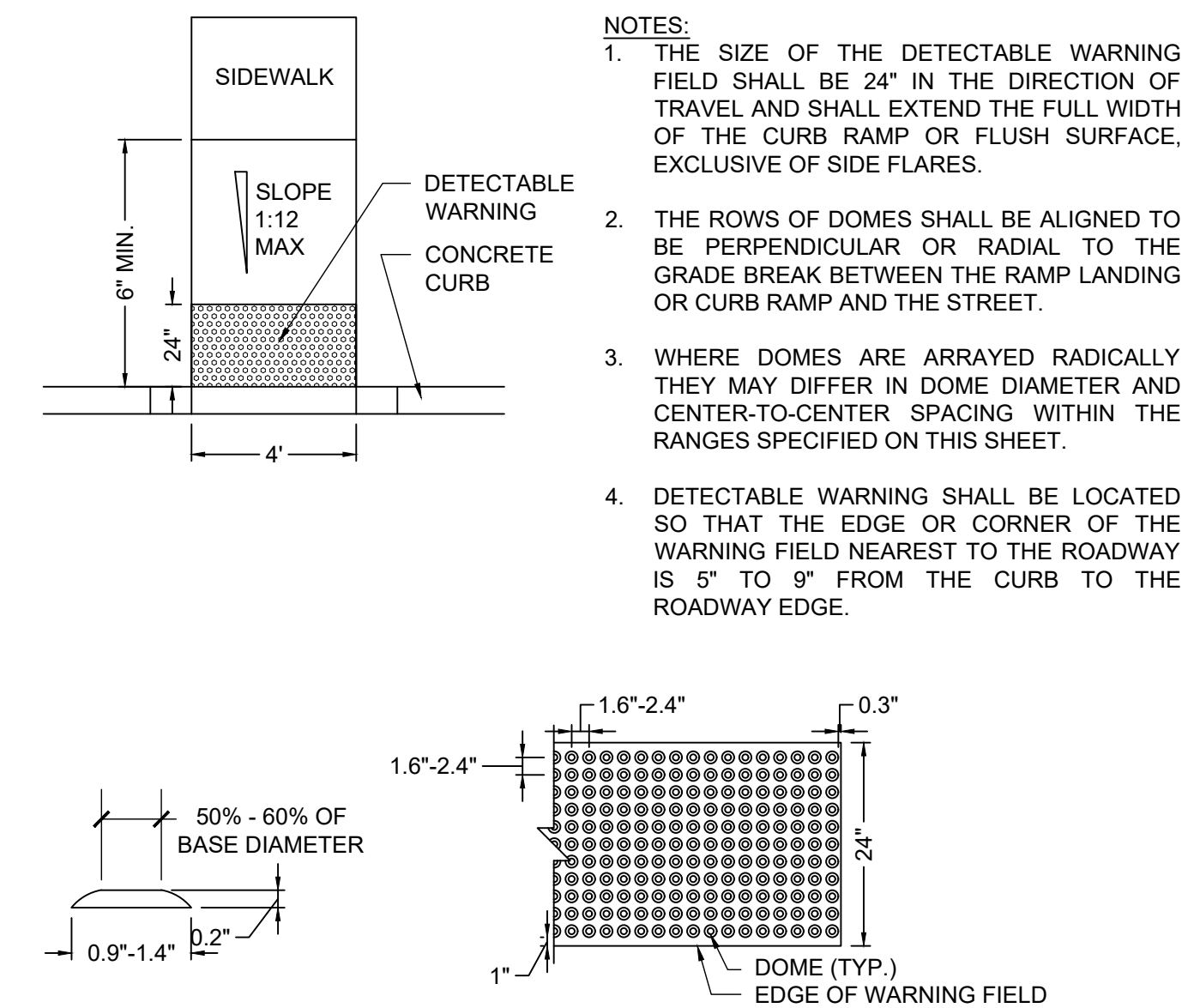
6 GRANITE CURB DETAIL
NOT TO SCALE



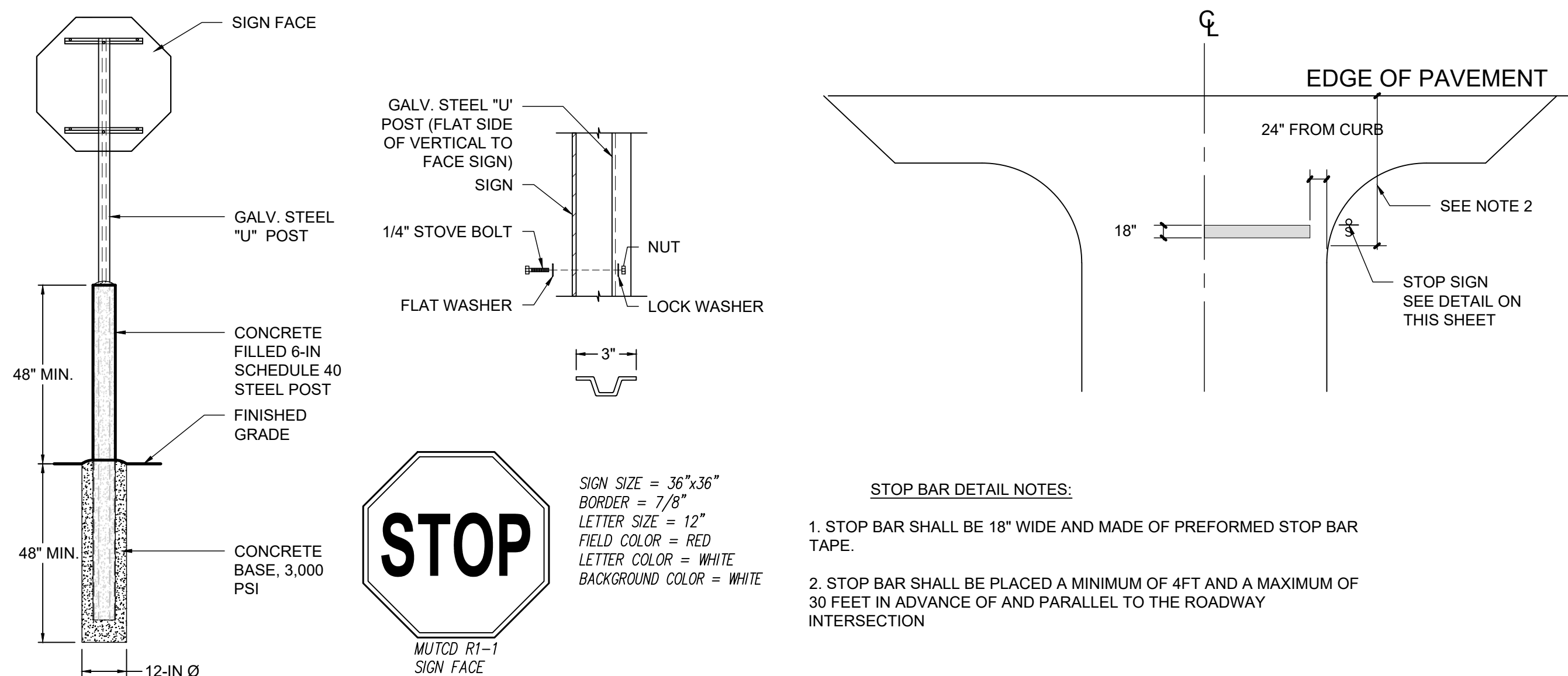
3 TOWN OF EAST FISHKILL LOCAL & MINOR LOCAL ROAD SPECIFICATIONS
NOT TO SCALE



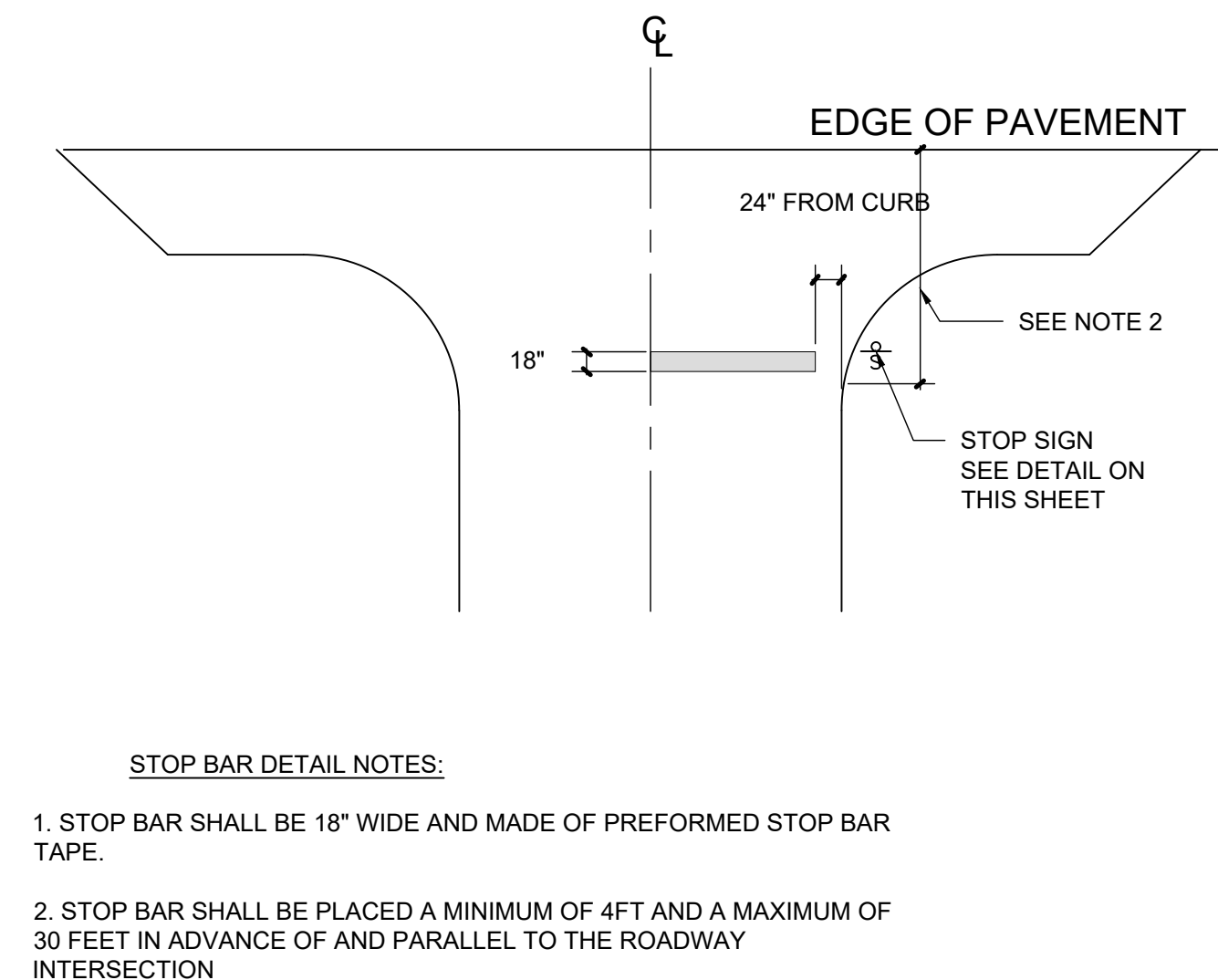
7 TYPICAL ROAD NAME SIGN DETAIL
NOT TO SCALE



ADA CURB RAMP DETAIL
NOT TO SCALE

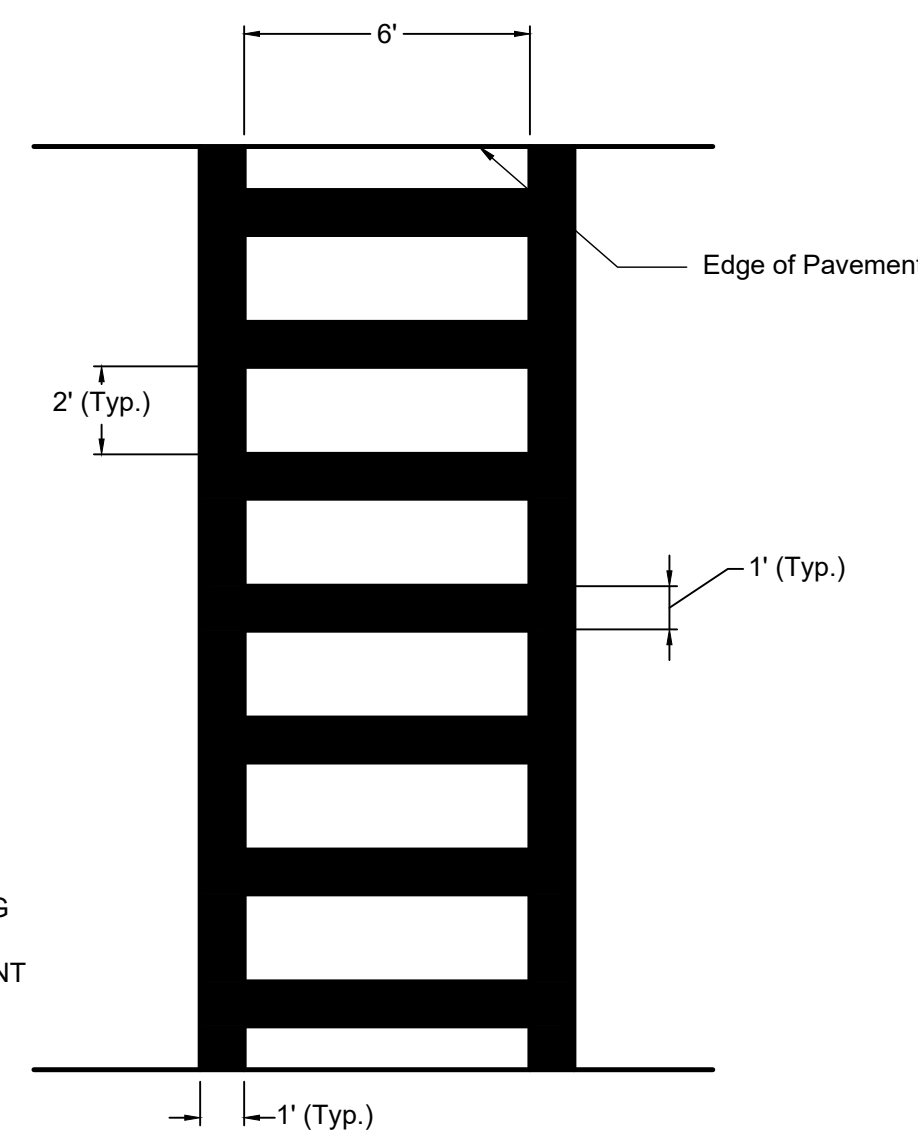


4 TYPICAL SIGN / BOLLARD DETAIL
NOT TO SCALE

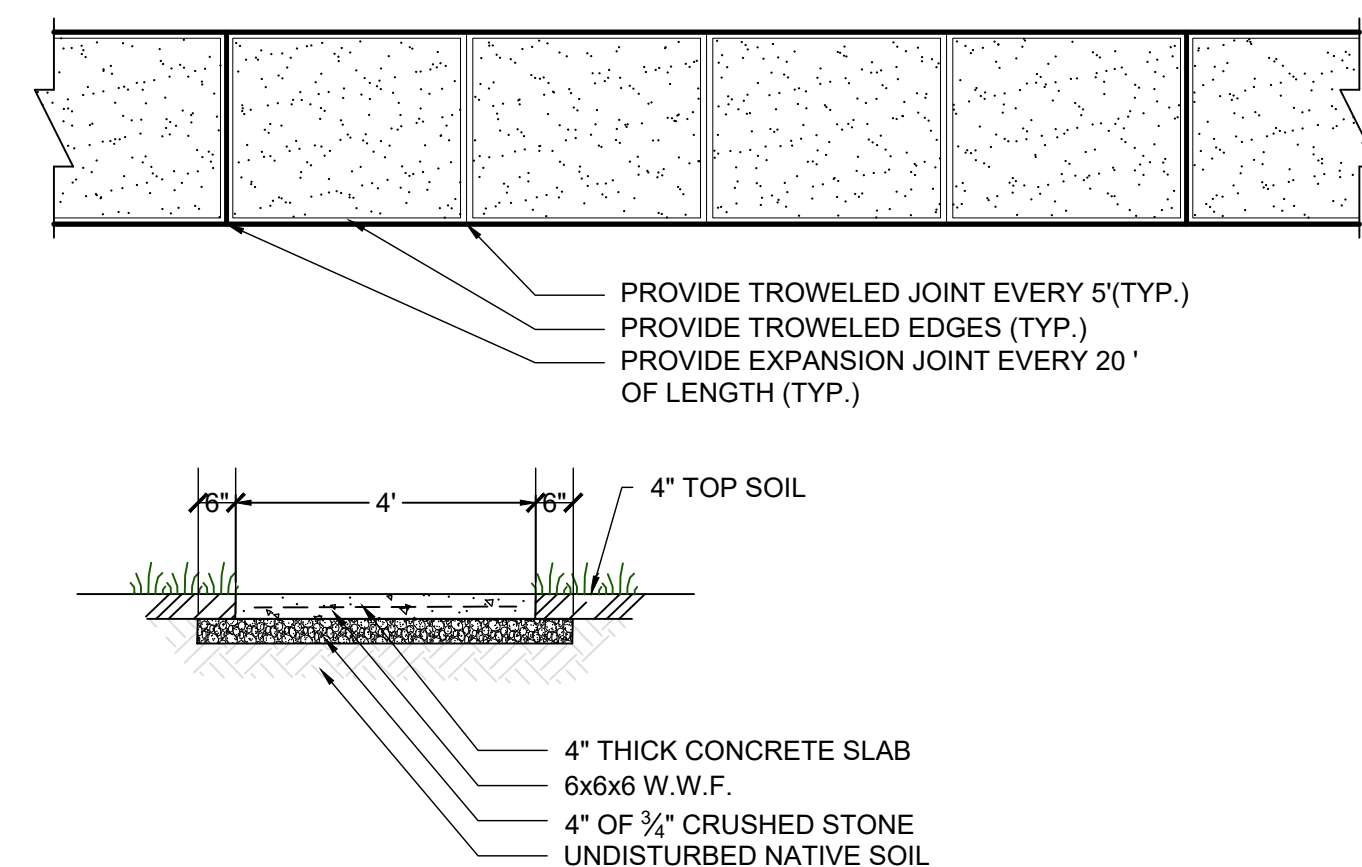


5 STOP BAR DETAIL
NOT TO SCALE

Note:
ALL CROSSWALK MARKING
SHALL BE WHITE EPOXY
REFLECTORIZED PAVEMENT
STRIPS - 15 MILS



CROSSWALK
NOT TO SCALE



NOTE:
1. ALL CONCRETE SHALL HAVE A 28 COMPRESSIVE STRENGTH OF 4,000 PSI
2. ALL EXPOSED SURFACES SHALL HAVE A BROOM TEXTURED FINISH
3. ALL SIDEWALK SHALL BE 6" THICK AT DRIVEWAY CROSSINGS
4. EXPANSION JOINTS SHALL BE LOCATED AS MAXIMUM OF 20'-0" ON CENTER, OR AS INDICATED ON PLANS.

CAST-IN-PLACE CONCRETE SIDEWALK
NOT TO SCALE

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PROJECT	SUMMIT WOODS
Town of East Fishkill	Dutchess County, New York
DRAWING	SITE DETAILS
SCALE	AS NOTED
DATE	04-15-2021
DRAWN BY	ALB
CHECKED BY	MAD
DRAWING NO.	C530