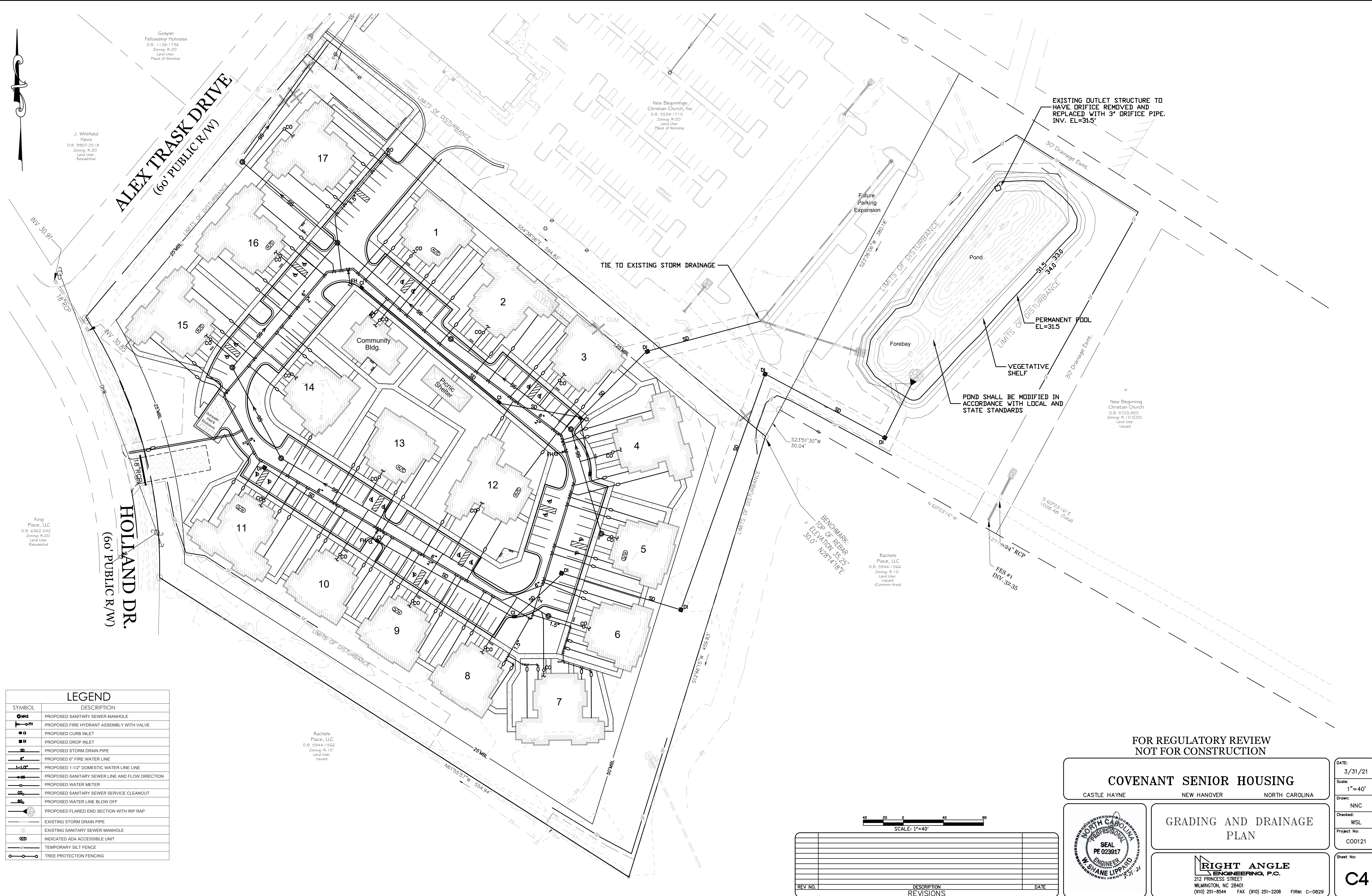




LEGEND	
SYMBOL	DESCRIPTION
	PROPOSED SANITARY SEWER MANHOLE
	PROPOSED FIRE HYDRANT ASSEMBLY WITH VALVE
	PROPOSED CURB INLET
	PROPOSED DROP INLET
	PROPOSED STORM DRAIN PIPE
	PROPOSED 6" FIRE WATER LINE
	PROPOSED 1-1/2" DOMESTIC WATER LINE
	PROPOSED SANITARY SEWER LINE AND LOW DIRECTION
	PROPOSED WATER METER
	PROPOSED SANITARY SEWER SERVICE CLEANOUT
	PROPOSED WATER LINE BLOW OFF
	PROPOSED FLARED END SECTION WITH RIP RAP
	EXISTING STORM DRAIN PIPE
	EXISTING SANITARY SEWER MANHOLE
	INDICATED ADA ACCESSIBLE UNIT
	TEMPORARY SALT FENCE
	TREE PROTECTION FENCING

FOR REGULATORY REVIEW
NOT FOR CONSTRUCTION

COVENANT SENIOR HOUSING

CASTLE HAYNE NEW HANOVER NORTH CAROLINA

GRADING AND DRAINAGE PLAN

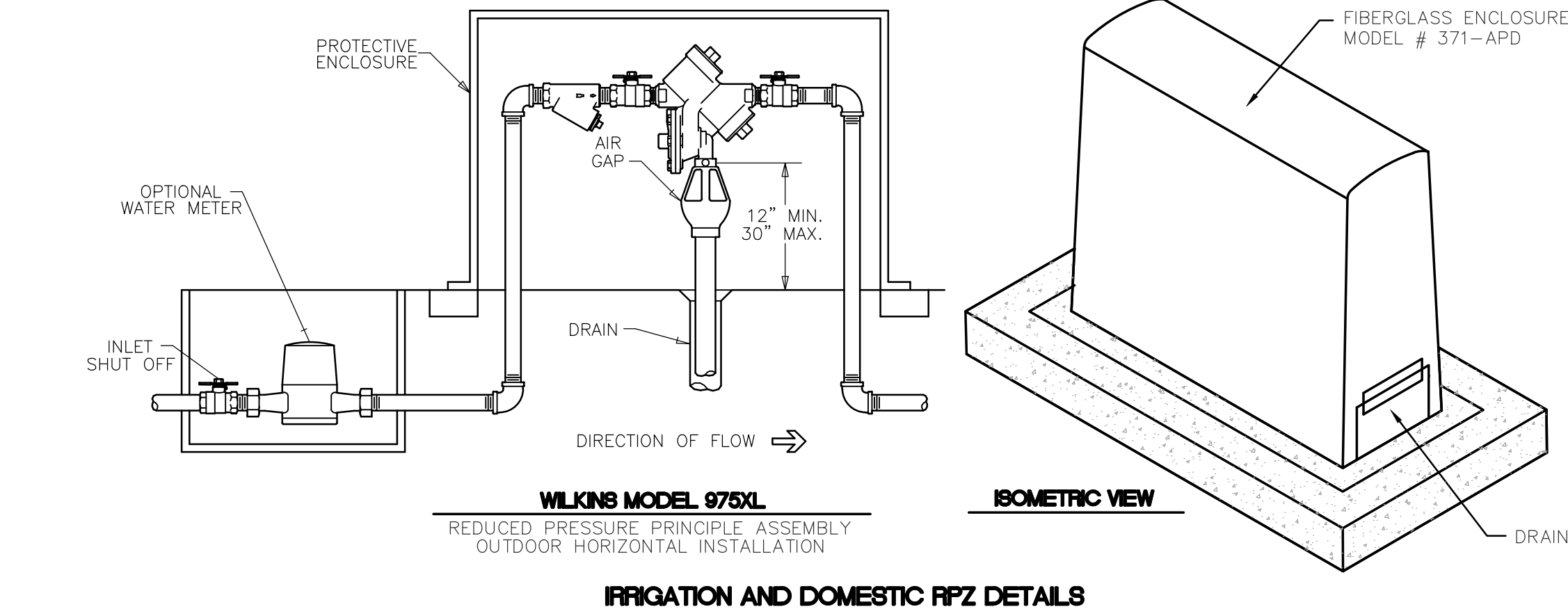
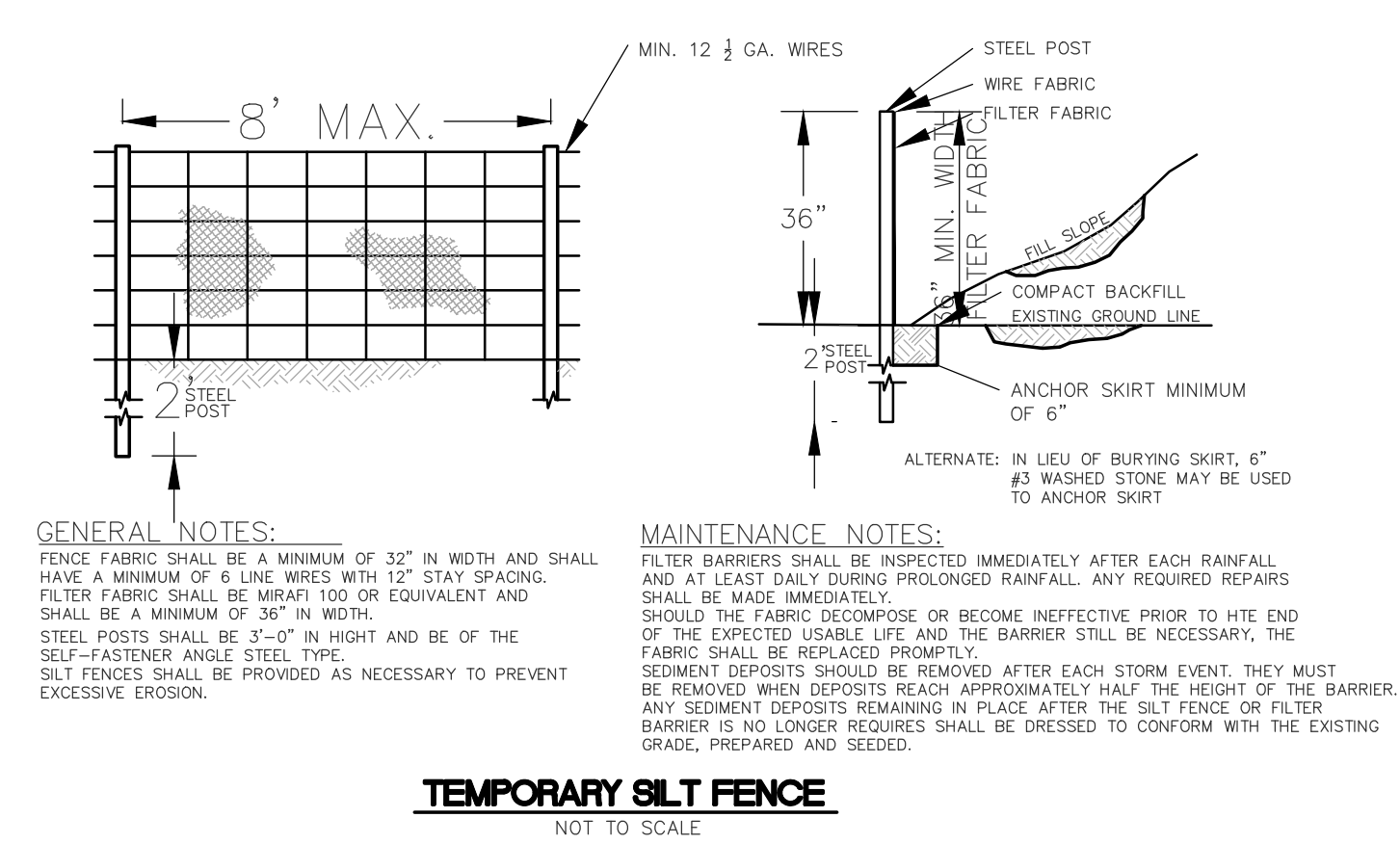
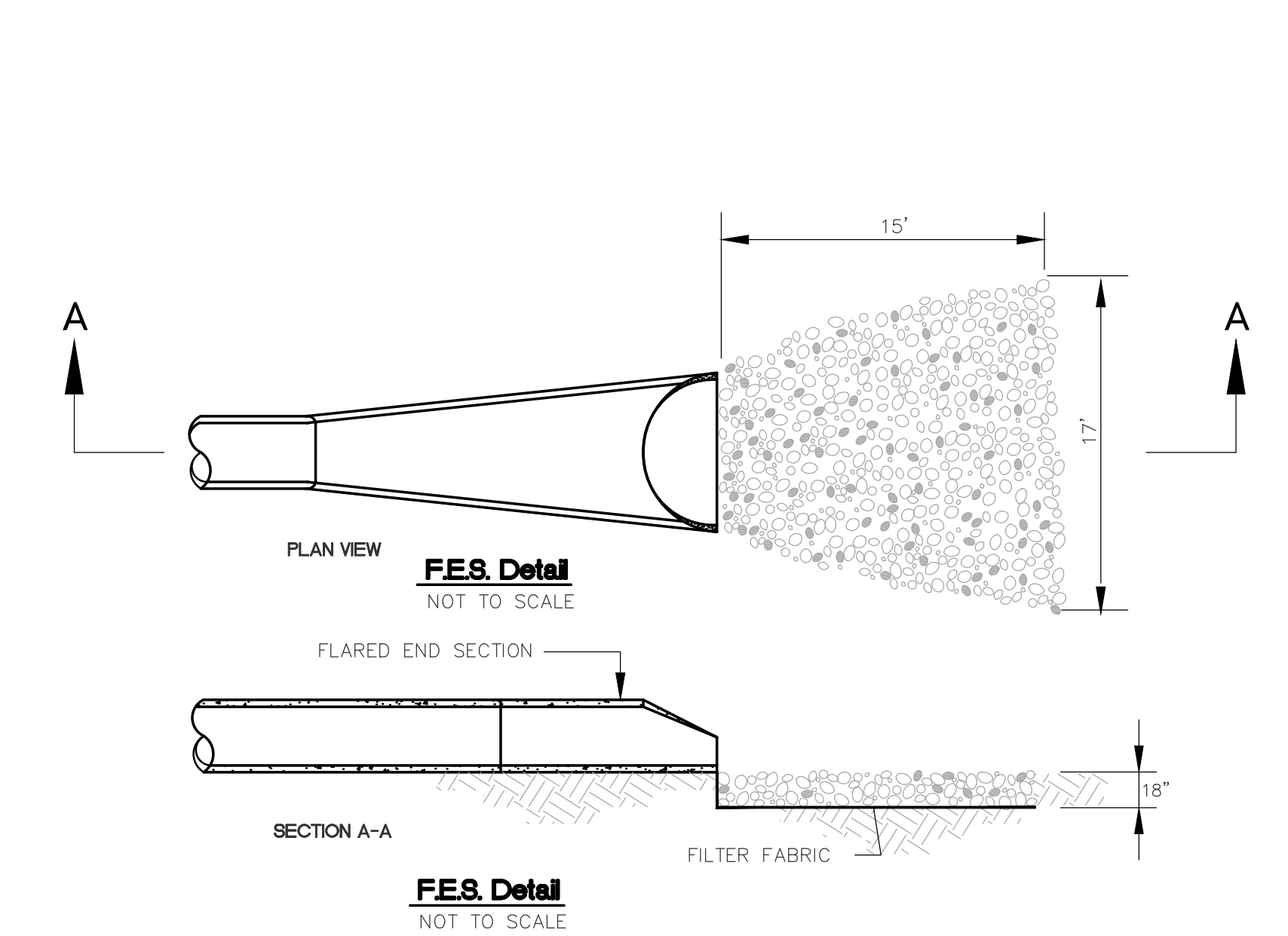
RIGHT ANGLE
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212 PRINCESS STREET
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(910) 251-8544 FAX (910) 251-2208

DATE:	3/31/21
Scale:	1"=40'
Drawn:	NNC
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Project No:	C00121

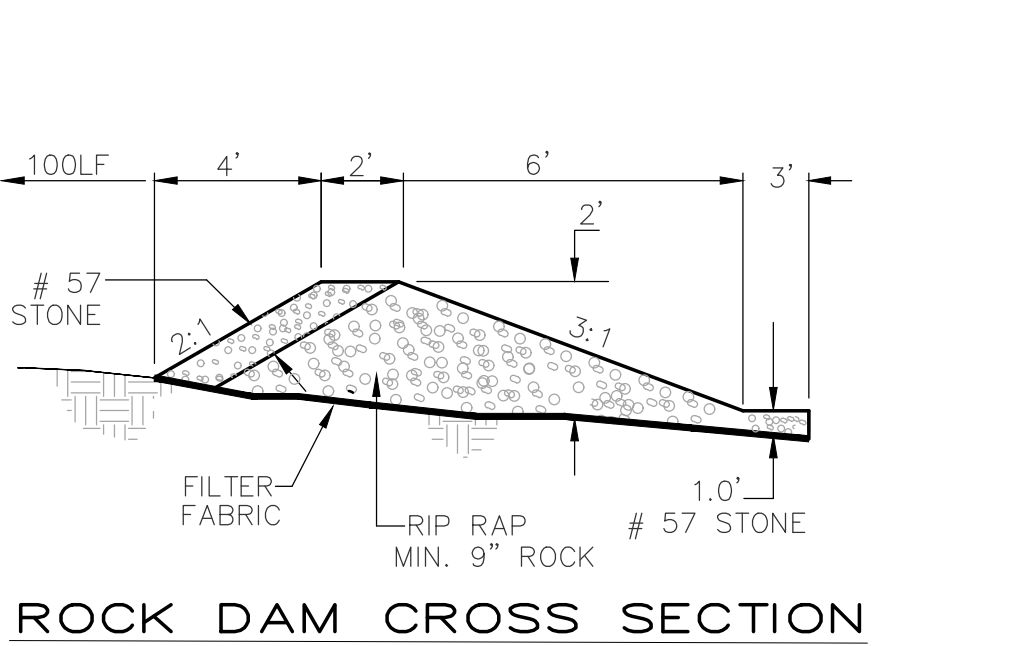
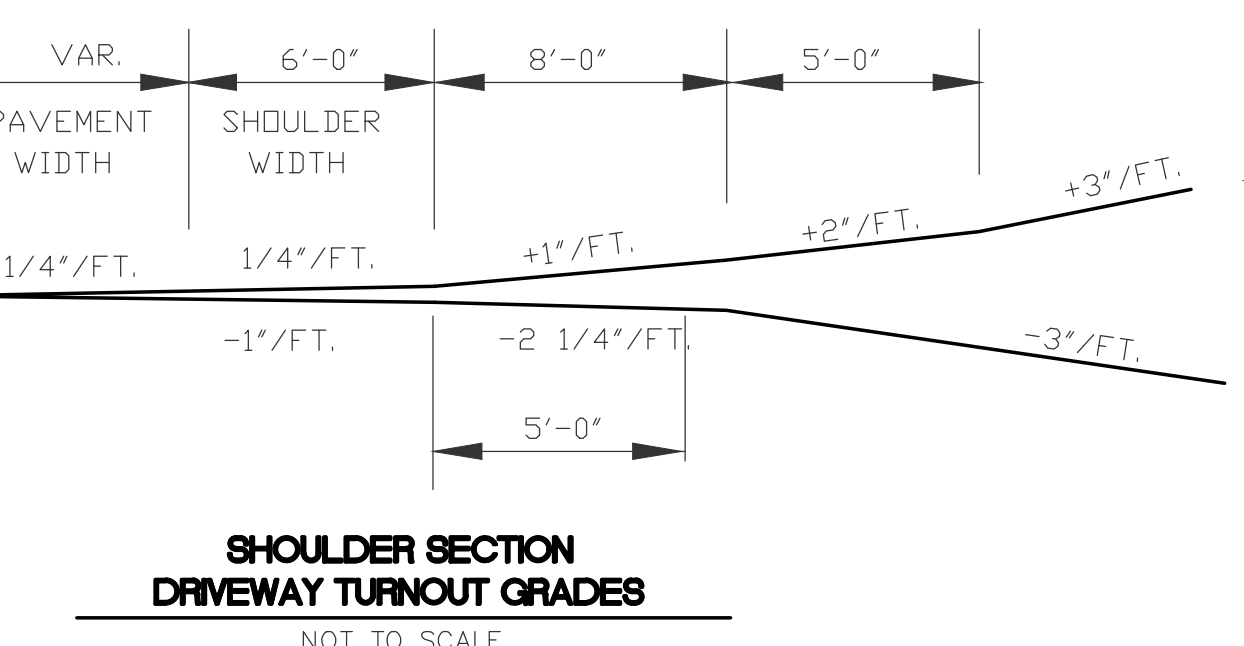
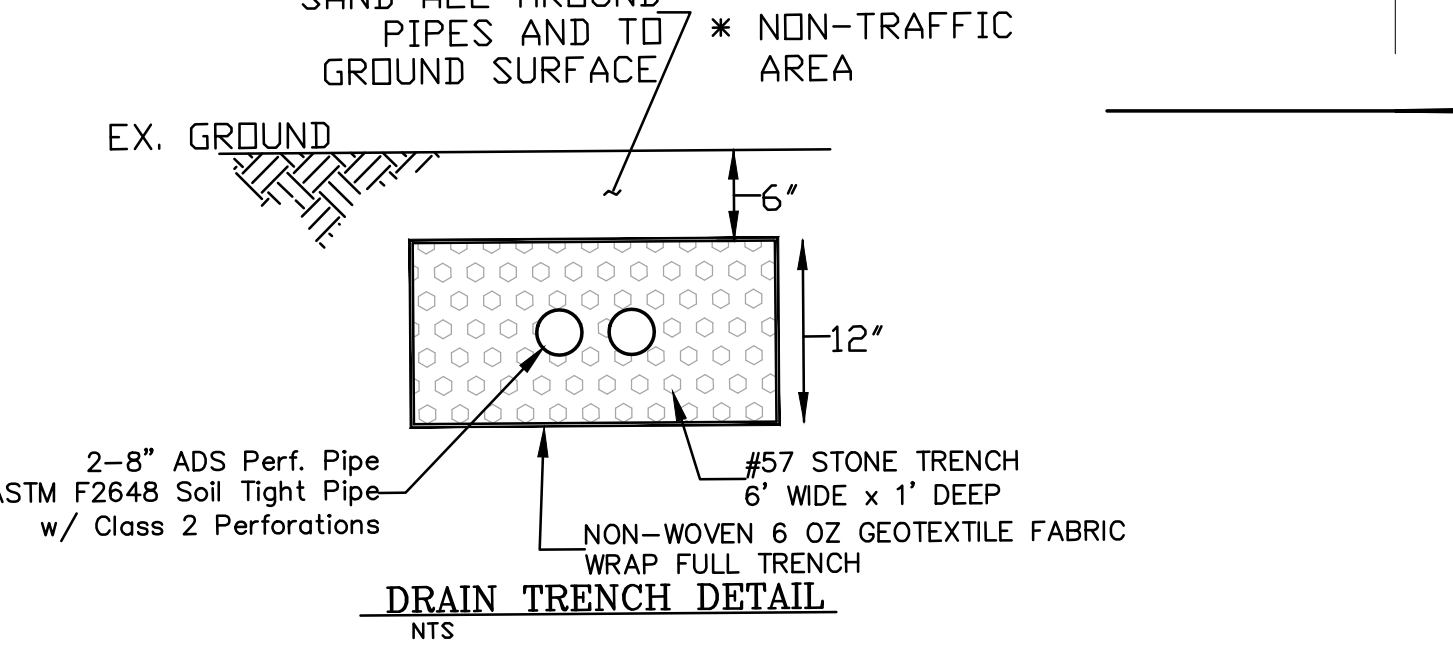
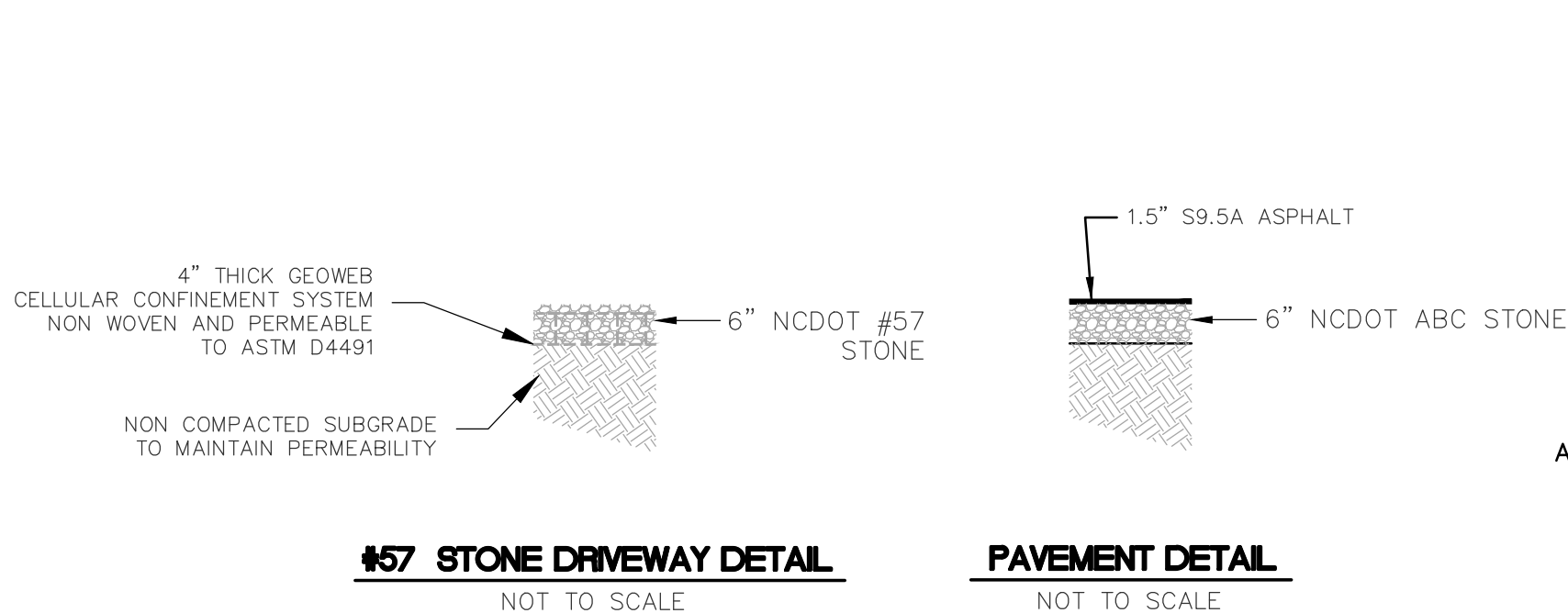
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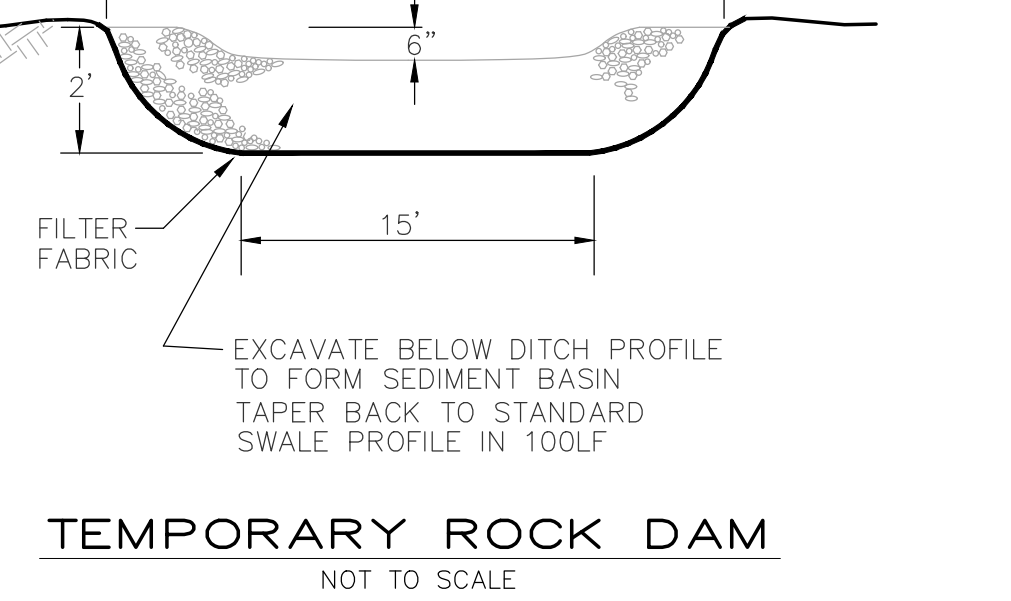
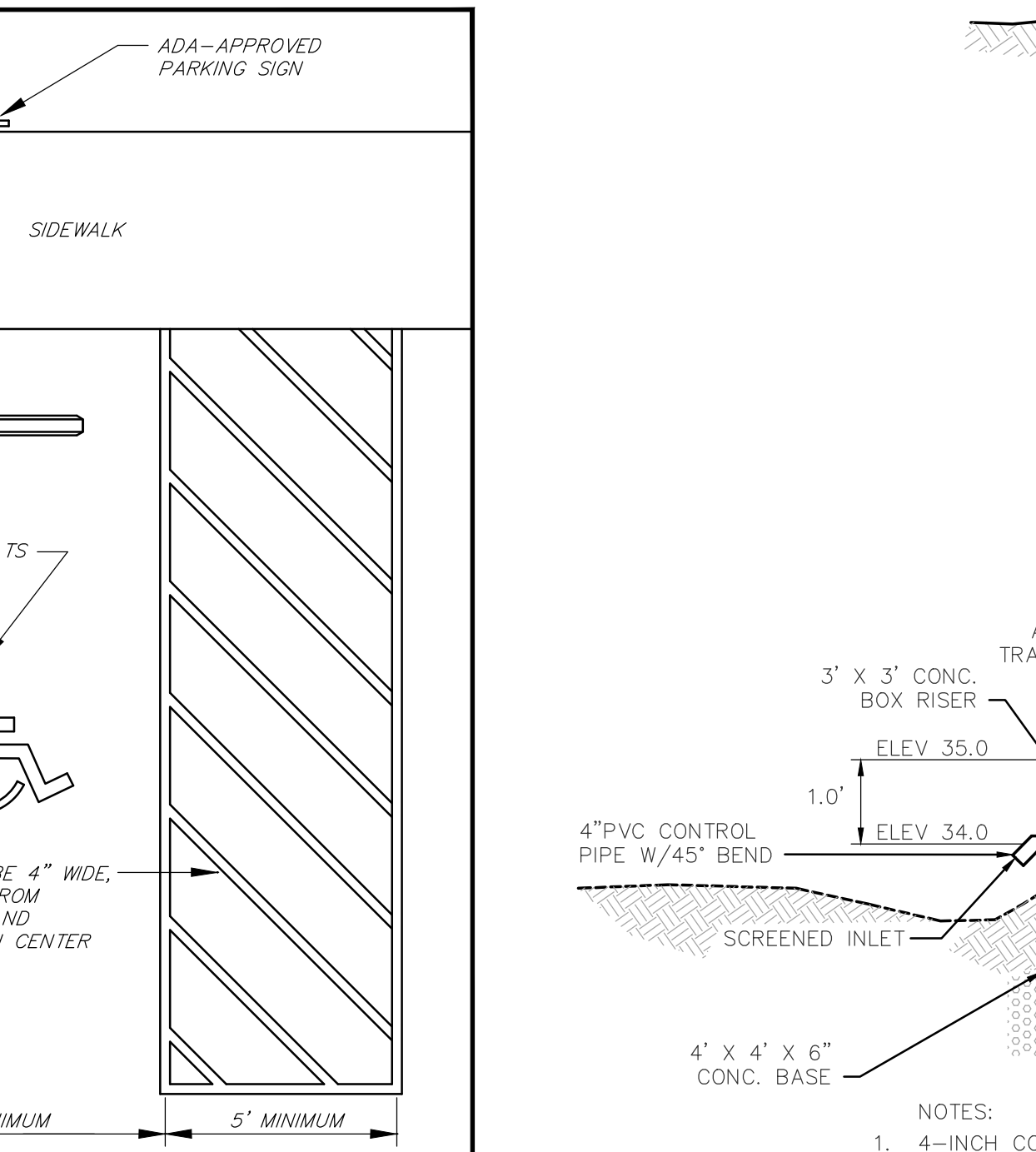
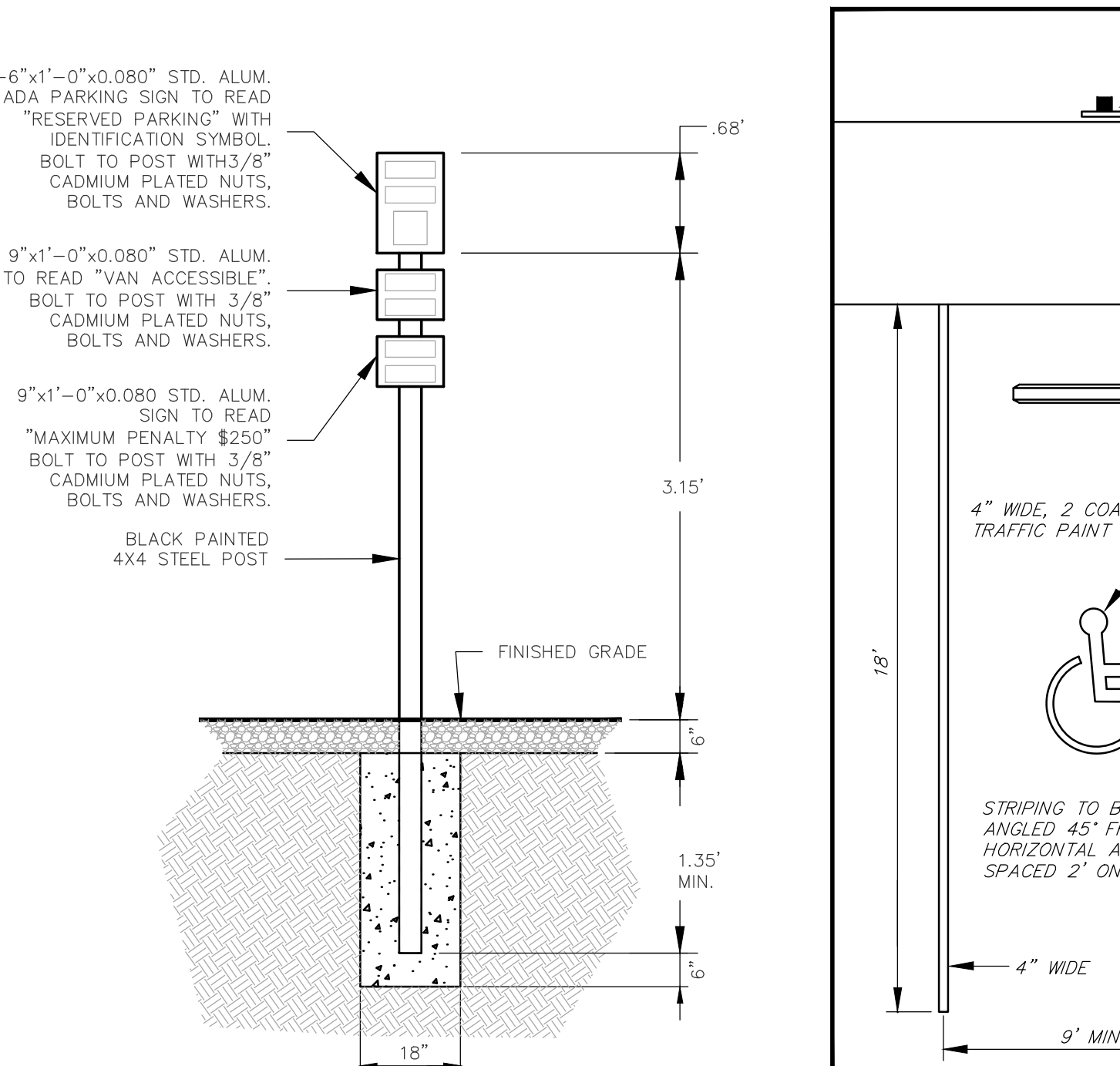
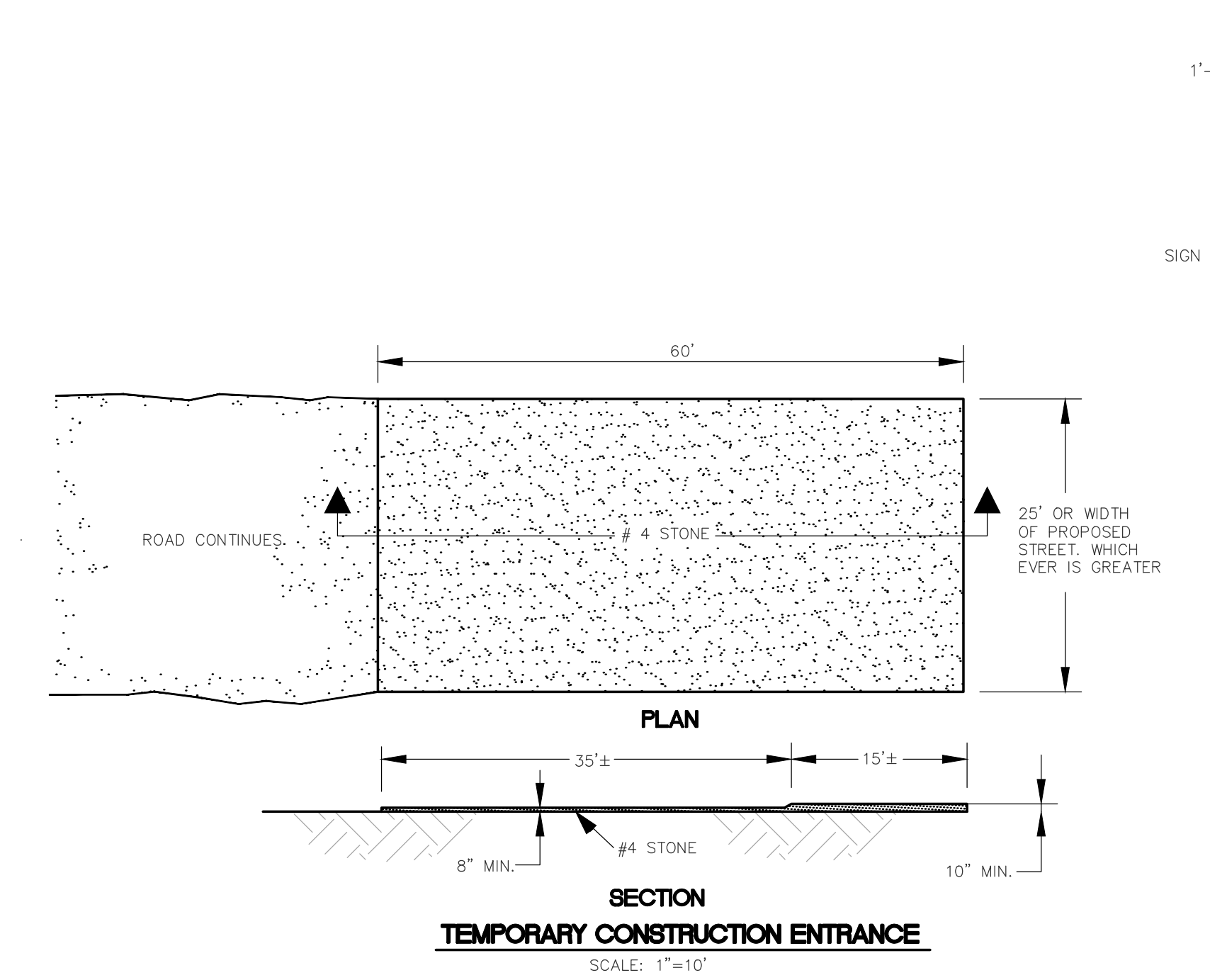
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- VEGETATION PLAN**
1. AFTER COMPLETE STABILIZATION OF THE ENTIRE COVERED AREA, TOP COVER SOILS WILL BE ROUGHENED BY MAKING 1"-2" DEEP GROOVES PERPENDICULAR TO THE SLOPE.
 2. SPREAD LIME (AGRICULTURAL LIMESTONE) EVENLY OVER THE AREA AT A RATE OF 1.5 TONS/ACRES; SPREAD 10-10-10 FERTILIZER AT THE RATE SPECIFIED AND INCORPORATE INTO THE TOP 6" OF SOIL.
 3. LOOSEN SURFACE PRIOR TO APPLYING SEED.
 4. BROADCAST SEED AT RECOMMENDED RATES.
 5. RAKE SEED INTO THE SOIL AND LIGHTLY PACK TO ESTABLISH GOOD CONTACT.
 6. MULCH WITH 4000 LB/ACRE GRAIN STRAW OR EQUIVALENT AND ANCHOR BY WEIGHTED FARM DISC SET NEARLY STRAIGHT (OR OTHER MULCH ANCHORING TOOL).
 7. MOW AS NEEDED AD REFERTILIZE IN LATE WINTER OR EARLY SPRING BY TOPDRESSING WITH 10-10-10 FERTILIZER.
 8. SOIL STABILIZATION SHALL BE ACHIEVED ON ANY AREA OF A SITE WHERE LAND DISTURBING ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED ACCORDING TO THE FOLLOWING SCHEDULE: 1) ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES AND ALL SLOPES STEEPER THAN 3:1 SHALL BE PROVIDED TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN 7 CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY. 2) ALL OTHER DISTURBED AREAS SHALL BE PROVIDED TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN 14 CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY.



- MAINTENANCE PLAN**
1. ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY RUNOFF-PRODUCING RAINFALL, BUT IN NO CASE, LESS THAN ONCE EVERY WEEK AND WITHIN 24 HOURS OF EVERY HALF-INCH RAINFALL.
 2. ALL POINTS OF EGRESS WILL HAVE CONSTRUCTION ENTRANCES THAT WILL BE PERIODICALLY TOP-DRESSED WITH AN ADDITIONAL 2 INCHES OF #4 STONE TO MAINTAIN PROPER DEPTH. THEY WILL BE MAINTAINED IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING THE SITE. IMMEDIATELY REMOVE OBJECTIONABLE MATERIAL SPILLED, WASHED OR TRACKED ONTO THE CONSTRUCTION ENTRANCE OR ROADWAYS.
 3. SEDIMENT WILL BE REMOVED FROM HARDWARE CLOTH AND GRAVEL INLET PROTECTION, BLACK AND GRAVEL INLET PROTECTION, ROCK DOUGHNUT INLET PROTECTION AND ROCK PIPE INLET PROTECTION WHEN THE DESIGNED STORAGE CAPACITY HAS BEEN HALF FILLED WITH SEDIMENT. ROCK WILL BE CLEANED OR REPLACED WHEN THE SEDIMENT POOL NO LONGER DRAINS AS DESIGNED. DEBRIS WILL BE REMOVED FROM AROUND BEAVER DAMS, DANDY SACKS AND SOCKS ONCE A WEEK AND AFTER EVERY RAIN EVENT.
 4. DIVERSION DITCHES WILL BE CLEANED OUT IMMEDIATELY TO REMOVE SEDIMENT OR OBSTRUCTIONS FROM THE FLOW AREA. THE DIVERSION RIDGES WILL ALSO BE REPAIRED. SWALES MUST BE TEMPORARILY STABILIZED WITHIN 21 CALENDAR DAYS OF CEASE OF ANY PHASE OF ACTIVITY ASSOCIATED WITH A SWALE.
 5. SEDIMENT WILL BE REMOVED FROM BEHIND THE SEDIMENT FENCE WHEN IT BECOMES HALF FILLED. THE SEDIMENT FENCE WILL BE REPAIRED AS NECESSARY TO MAINTAIN A BARRIER. STAKES MUST BE STEEL. STAKE SPACING WILL BE 8 FEET MAX. WHEN STANDARD STRENGTH FABRIC AND WIRE BACKING ARE USED. IF ROCK FILTERS ARE DESIGNED AT LOW POINTS IN THE SEDIMENT FENCE, THE ROCK WILL BE REPAIRED OR REPLACED IF IT BECOMES HALF FULL OF SEDIMENT, NO LONGER DRAINS AS DESIGNED OR IS DAMAGED.
 6. SEDIMENT WILL BE REMOVED FROM SEDIMENT TRAPS WHEN THE DESIGNED STORAGE CAPACITY HAS BEEN HALF FILLED WITH SEDIMENT. THE ROCK WILL BE CLEANED OR REPLACED WHEN THE SEDIMENT POOL NO LONGER DRAINS OR WHEN THE ROCK IS DISLODGED. BAFFLES WILL BE REPAIRED OR REPLACED IF THEY COLLAPSE, TEAR, DECOMPOSE OR BECOME INEFFECTIVE. THEY WILL BE REPLACED PROMPTLY. SEDIMENT WILL BE REMOVED WHEN DEPOSITS REACH HALF THE HEIGHT OF THE FIRST BAFFLE.
 7. SEDIMENT WILL BE REMOVED FROM A SEDIMENT BASIN WHEN THE DESIGN STORAGE CAPACITY HAS BEEN HALF FILLED WITH SEDIMENT. ROCK WILL BE CLEANED OR REPLACED WHEN THE SEDIMENT POOL NO LONGER DRAINS OR IF THE ROCK IS DISLODGED. BAFFLES WILL BE REPAIRED OR REPLACED IF THEY COLLAPSE, TEAR, DECOMPOSE OR BECOME INEFFECTIVE. THEY WILL BE REPLACED PROMPTLY. SEDIMENT WILL BE REMOVED WHEN DEPOSITS REACH HALF THE HEIGHT OF THE FIRST BAFFLE. FLOATING SKIMMERS WILL BE INSPECTED WEEKLY AND WILL BE KEPT CLEAN.
 8. ALL SEEDING AREAS WILL BE FERTILIZED, RESEED AS NECESSARY AND MULCHED ACCORDING TO SPECIFICATIONS IN THE VEGETATIVE PLAN TO MAINTAIN A VIGOROUS, DENSE, VEGETATIVE COVER. ALL SLOPES WILL BE STABILIZED WITHIN 21 CALENDAR DAYS. ALL OTHER AREAS WILL BE STABILIZED WITHIN 15 WORKING DAYS.
 9. FLOCCULENTS WILL BE USED TO ADDRESS TURBIDITY ISSUES. THE PUMPS, TANKS, HOSES AND INJECTION SYSTEMS WILL BE CHECKED FOR PROBLEMS OR TURBID DISCHARGES DAILY.



- GENERAL NOTES**
1. CONTRACTOR SHALL CONTACT THE N.C. ONE CALL CENTER TO LOCATE EXISTING UTILITIES AT THE SITE PRIOR TO ANY LAND DISTURBING ACTIVITY.
 2. CONTRACTOR SOLELY RESPONSIBLE FOR COORDINATION WITH EXISTING UTILITIES AND ANY DAMAGE THAT OCCURS.
 3. ALL TREES TO BE SAVED MUST BE PROPERLY PROTECTED THROUGHOUT CONSTRUCTION.
 4. WETLANDS DO NOT EXIST ON THE PROJECT SITE.
 5. TOPOGRAPHIC AND LOCATION INFORMATION SHOWN BASED ON SITE SURVEY BY SHERWIN CRIBB.

- PARKING NOTES**
1. WHEEL STOPS SHALL BE REQUIRED THREE FEET FROM THE END OF PARKING STALL WHEN USING EIGHTEEN FEET DEEP STALLS.
 2. ALL PARKING STALL MARKINGS AND LANE ARROWS SHALL BE WHITE.
 3. ALL OTHER PAVEMENT MARKINGS, SIGNS OR OTHER TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE LATEST EDITION AND/OR INTERPRETATION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
 4. NO OBSTRUCTIONS WILL BE ALLOWED ADJACENT TO A PARKING STALL WHICH WOULD PREVENT SAFE INGRESS AND EGRESS FROM A PARKED VEHICLE.

- CONSTRUCTION SCHEDULE**
1. OBTAIN PLAN APPROVAL AND OTHER APPLICABLE PERMITS.
 2. HOLD PRE-CONSTRUCTION MEETING AT LEAST ONE WEEK PRIOR TO BEGINNING CONSTRUCTION.
 3. INSTALL MAINTAIN TEMPORARY CONSTRUCTION ENTRANCE/EXIT.
 4. BEFORE CLEARING AND GRADING OF SITE, INSTALL SILT FENCING AT THE BASE OF SLOPES TO RESTRICT MOVEMENT OF SEDIMENT FROM THE SITE.
 5. BEGIN CLEARING AND GRADING OF THE SITE. INSTALL AND STABILIZE TEMPORARY SEDIMENT TRAP.
 6. INSTALL STORM PIPING, CATCH BASINS AND CURB INLETS.
 7. INSTALL INLET PROTECTION FOR CATCH BASINS AND CURB INLETS TO RESTRICT MOVEMENT OF SEDIMENT FROM THE SITE.
 8. ALL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE INSPECTED 8-WEEKLY AND AFTER EACH RAINFALL EVENT. ANY NECESSARY REPAIRS SHOULD BE MADE IMMEDIATELY.
 9. AFTER THE ENTIRE COVERED AREA IS STABILIZED, ALL TEMPORARY MEASURES SHALL BE REMOVED AND PERMANENT VEGETATIVE REPAIRS SHOULD BE COMPLETED.
 10. POND SHALL BE CLEARED OF ALL CONSTRUCTION PHASE DEBRIS AND SEDIMENT PRIOR TO FINAL CERTIFICATION OF CONSTRUCTION.

TEMPORARY SEEDING

GRASS TYPE	AMOUNT/1000 SF	TIME OF SEEDING	INITIAL	FERTILIZATION/1000 SF MAINTENANCE		
RYE GRAIN	1-2 LBS	NOV. THRU JAN.	25 LBS 10-10-10	N/A	N/A	N/A
BROWN TOP MILLET	1-2 LBS	JUNE THRU AUG.	25 LBS 10-10-10	N/A	N/A	N/A

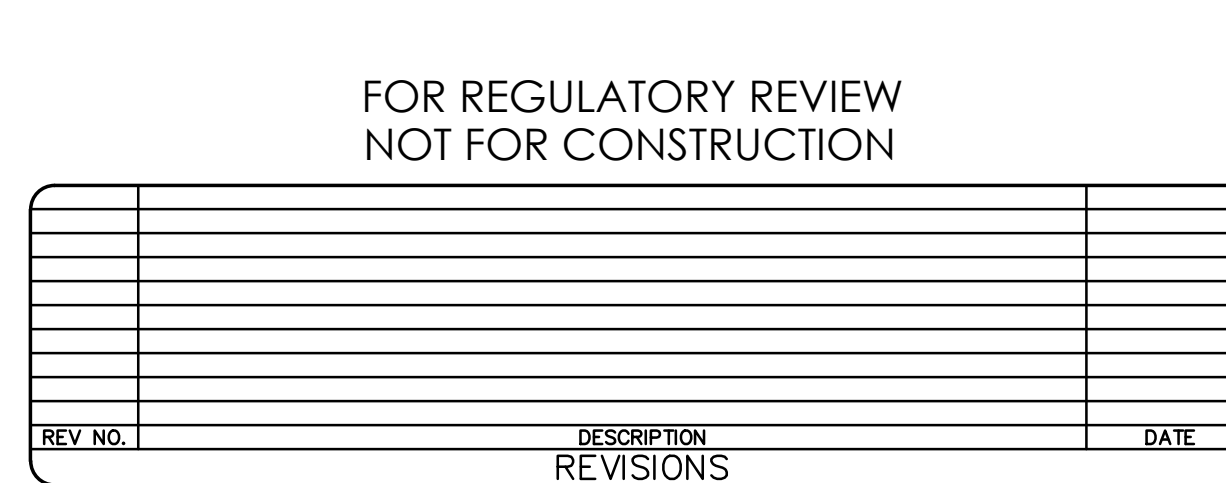
PERMANENT SEEDING

GRASS TYPE	AMOUNT/1000 SF	TIME OF SEEDING	INITIAL	FERTILIZATION/1000 SF MAINTENANCE		
BERMUDA, COMMON	1-2 LBS	APR. THRU JUNE	25 LBS 10-10-10	MARCH-APRIL 12 LBS 10-10-10	EACH 4-8 WKS 1-2 LBS N.	AUG- SEPT 12 LBS 10-10-10
FESCUE, TALL (KENTUCKY 31)	5-7 LBS	SEPT THRU OCT	25 LBS 10-10-10	FEB - MARCH 12 LBS 10-10-10	MAY & DEC 1/2 TO 1 LB. N.	SEPT - OCT 12 LBS 10-10-10
SERICEA (LESPEDÉZA SLOPES)	1-2 LBS	MARCH THRU APR.	25 LBS 10-10-10	FEB - MARCH	1/2 TO 1 LB. N.	N/A

NPDES STABILIZATION TIMEFRAMES

SITE AREA DESCRIPTION	STABILIZATION	TIMEFRAME EXCEPTIONS
Perimeter dikes, swales, ditches and slopes	7 days	None
High Quality Water (H2O) Zones	7 days	None
Slopes steeper than 3:1	7 days	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed
Slopes 3:1 or flatter	14 days	7 days for slopes greater than 50' in length
All other areas with slopes flatter than 4:1	14 days	None except for perimeters and H2O zones

DITCH OUTLET STRUCTURE DETAIL



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3/31/21

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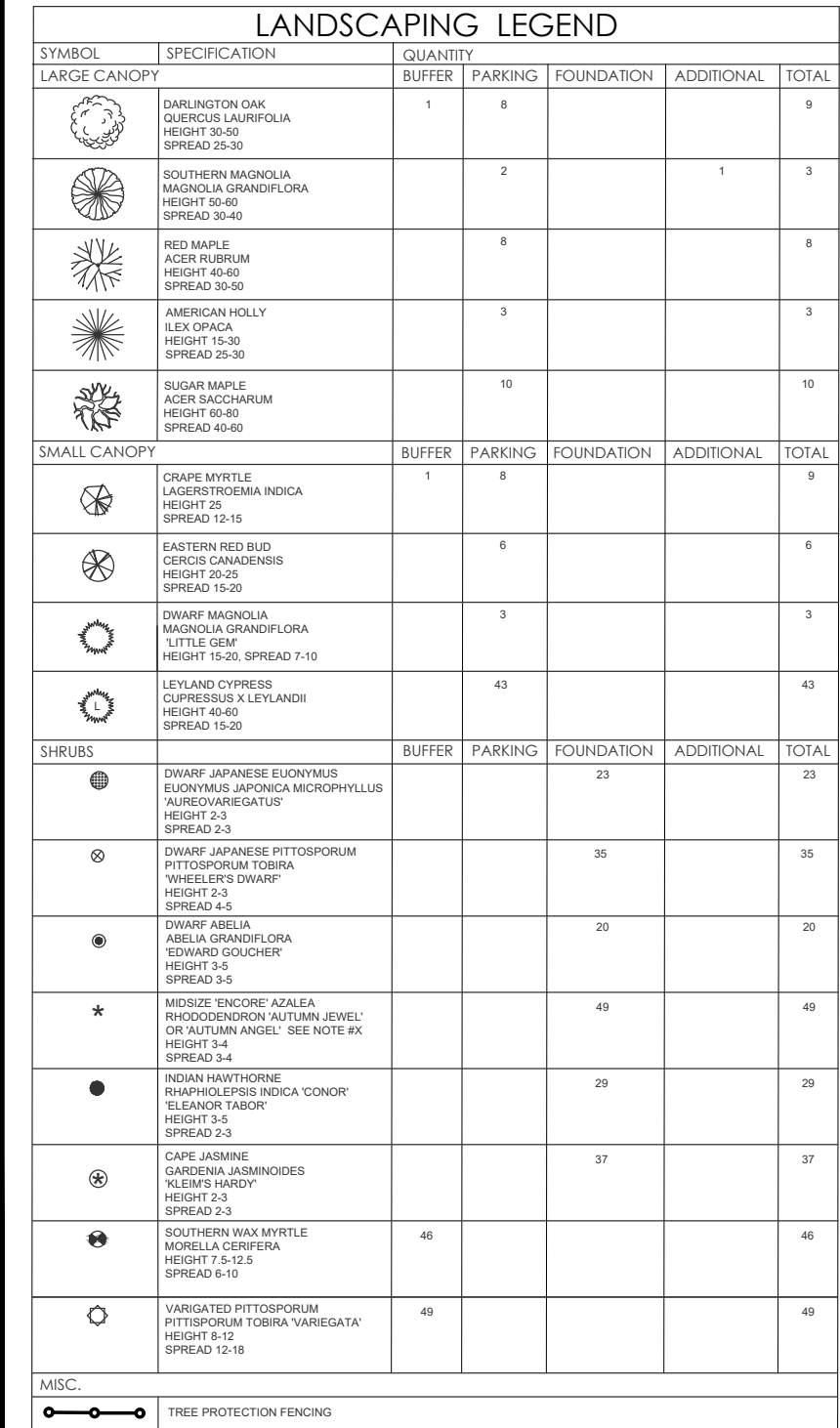
COVENANT SENIOR HOUSING

CASTLE HAYNE NEW HANOVER NORTH CAROLINA

DETAILS

RIGHT ANGLE ENGINEERING, P.C.

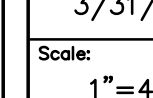
212 PRINCESS STREET WILMINGTON, NC 28401 (910) 251-8544 FAX (910) 251-2208 FIRM: C-0829



COVENANT SENIOR HOUSING		
CASTLE HAYNE	NEW HANOVER	NORTH CAROLINA

LANDSCAPING PLAN	DATE: 3/31/21 Scale: 1"=40' Drawn: NNC Checked: WSL Project No: C00121
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