

DEPARTMENT OF DEVELOPMENT SERVICES

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NO.	REVISIONS	DATE

WAYSIDE PARK BOAT LAUNCH & PARKING EXPANSION

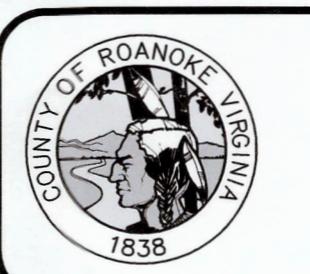
DATE: 3/11/2021

SCALE: 1" = 20'

DRAWING BY: BWE

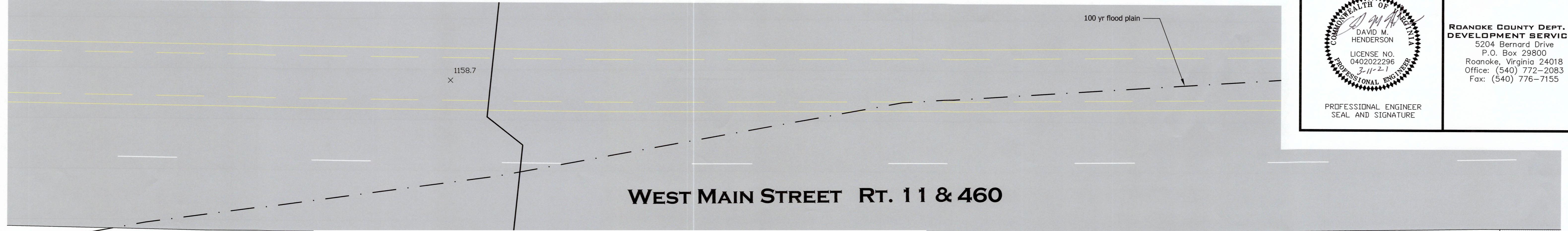
DESIGNED BY: DMH/BWE

APPROVED BY: DMH



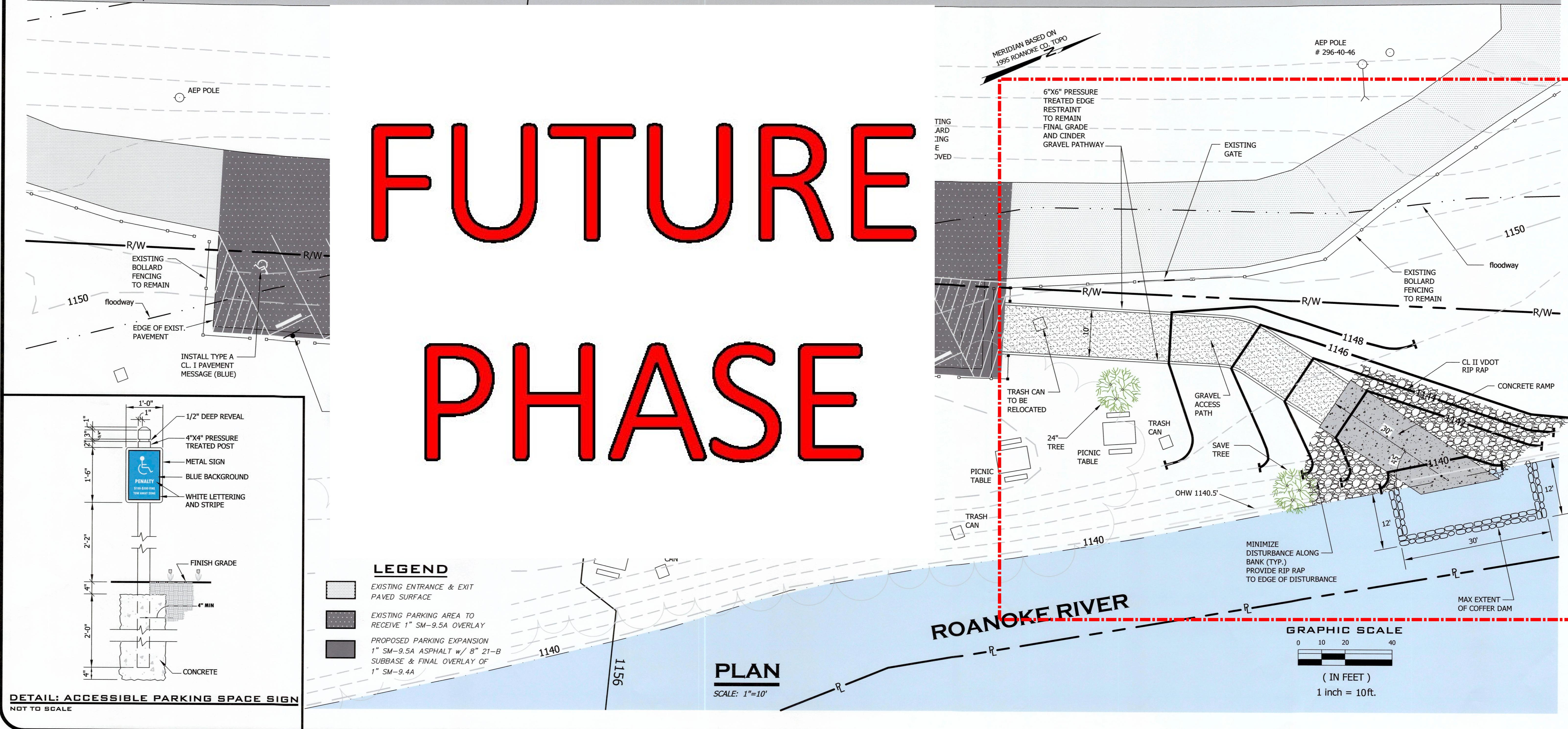
SITE PLAN

SHEET
2
OF
6



WEST MAIN STREET RT. 11 & 460

FUTURE PHASE

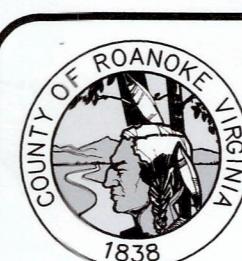


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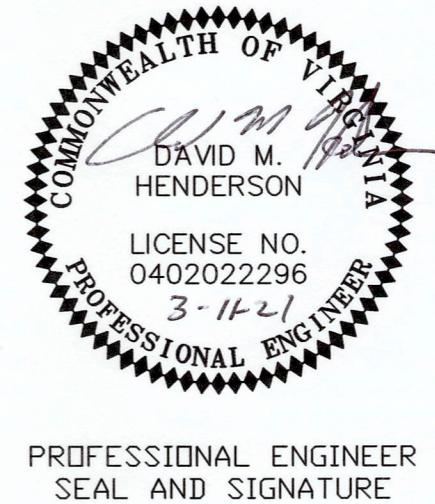
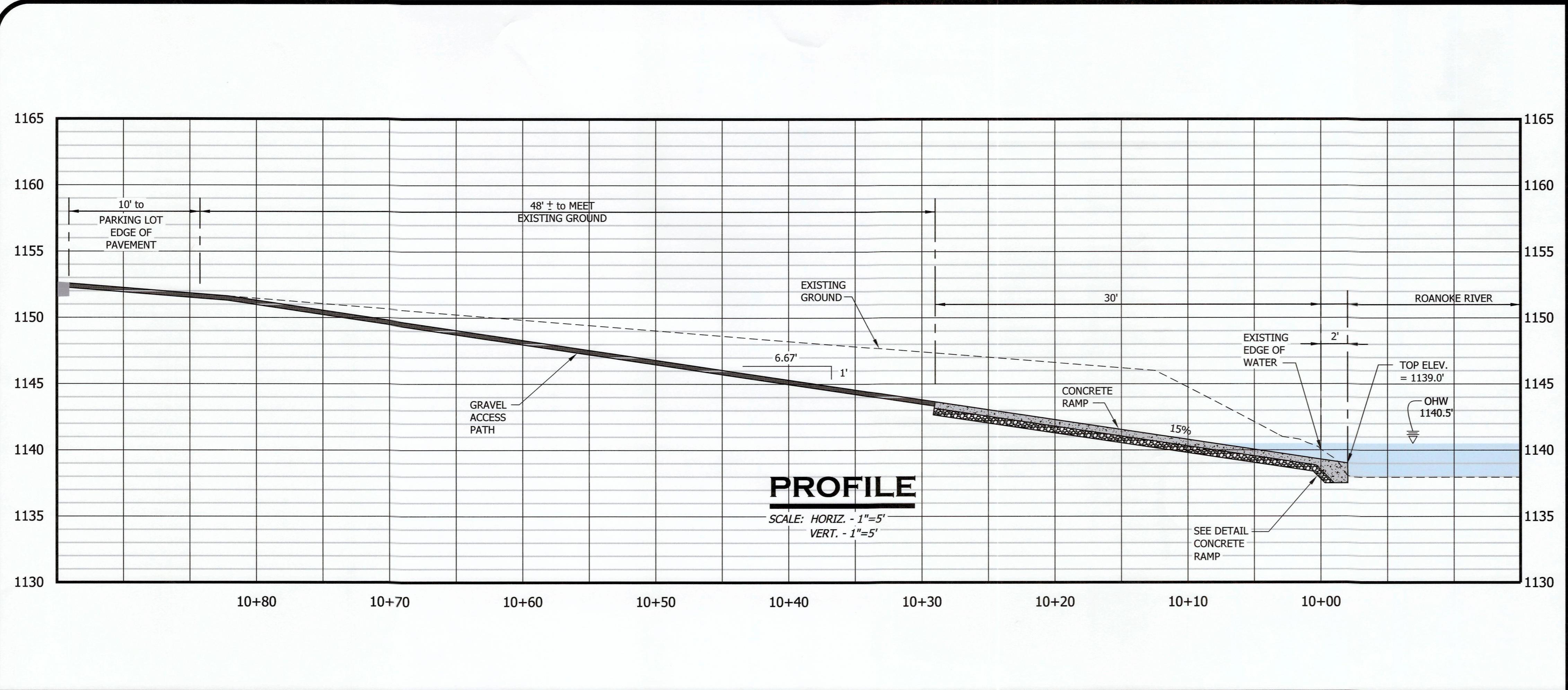
WAYSIDE PARK BOAT LAUNCH & PARKING EXPANSION

DATE: 3/11/2021
SCALE: 1" = 10'
DRAWING BY: BWE
DESIGNED BY: DMH/BWE
APPROVED BY: DMH



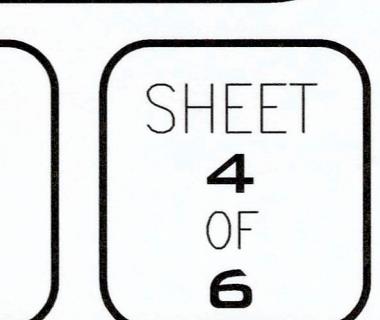
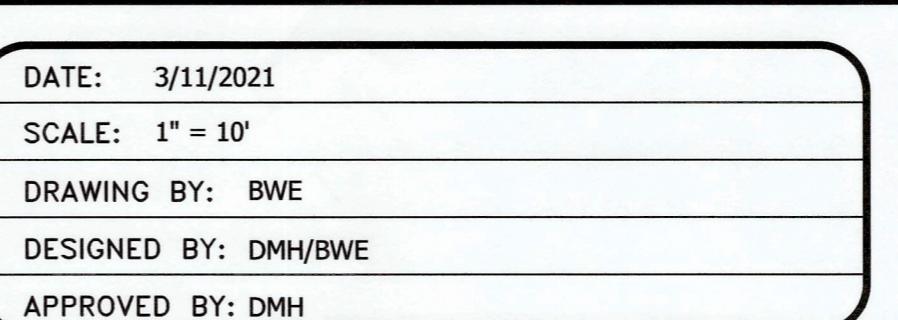
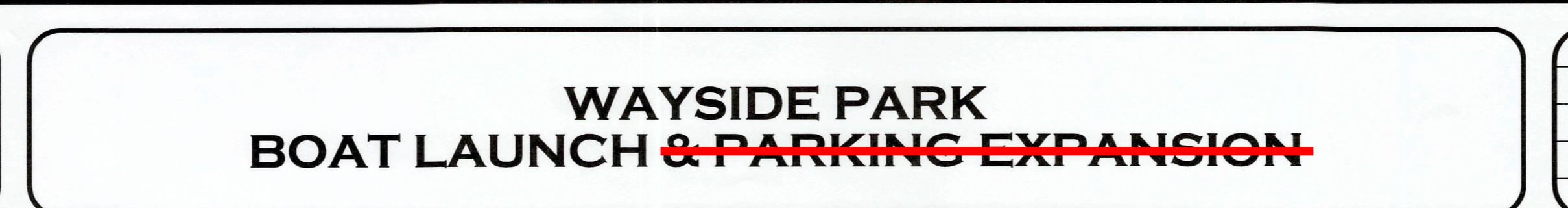
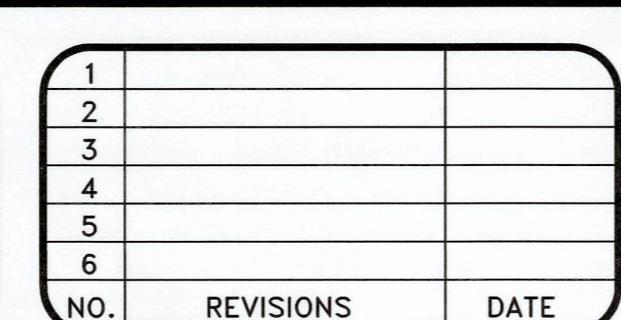
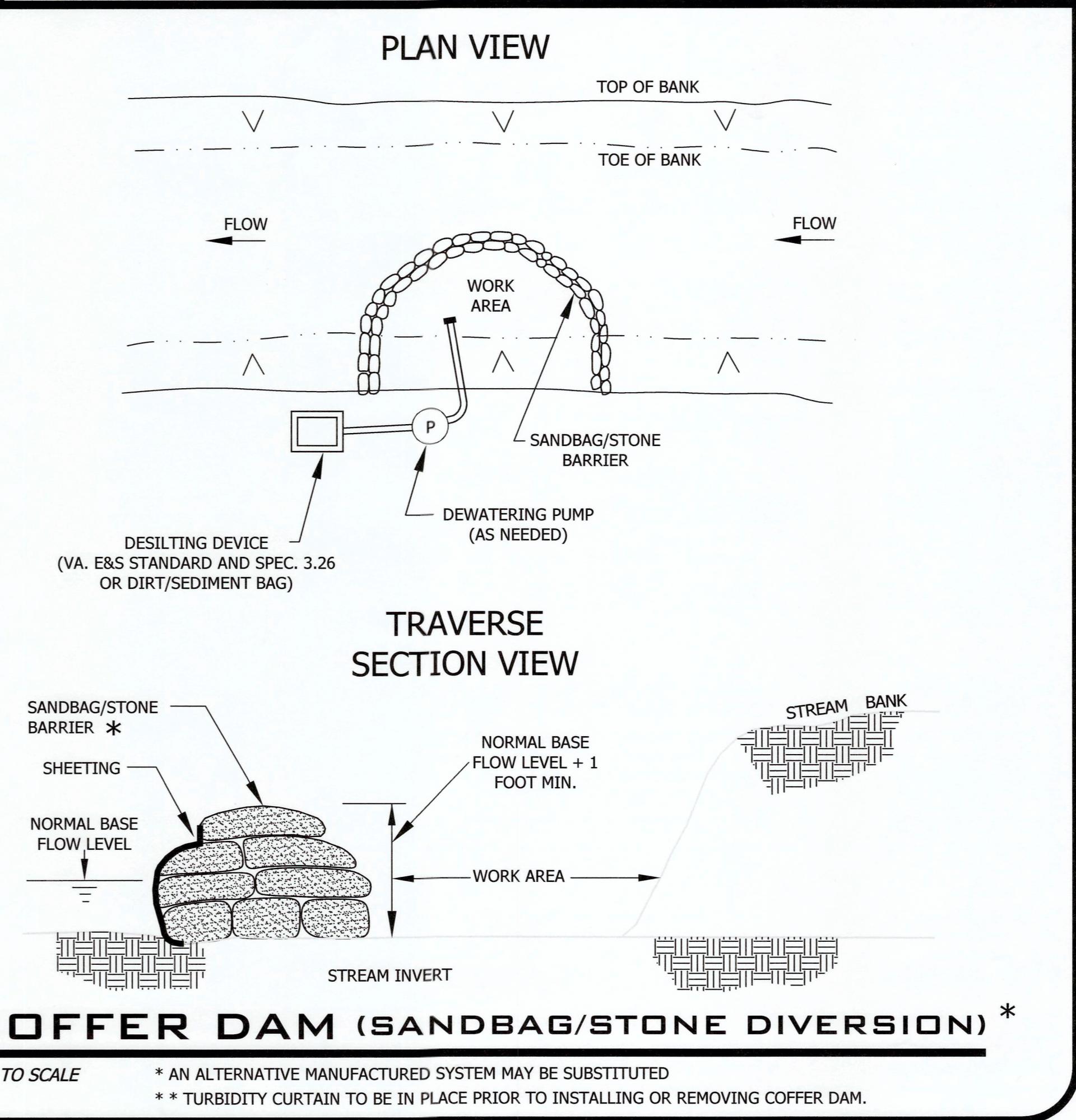
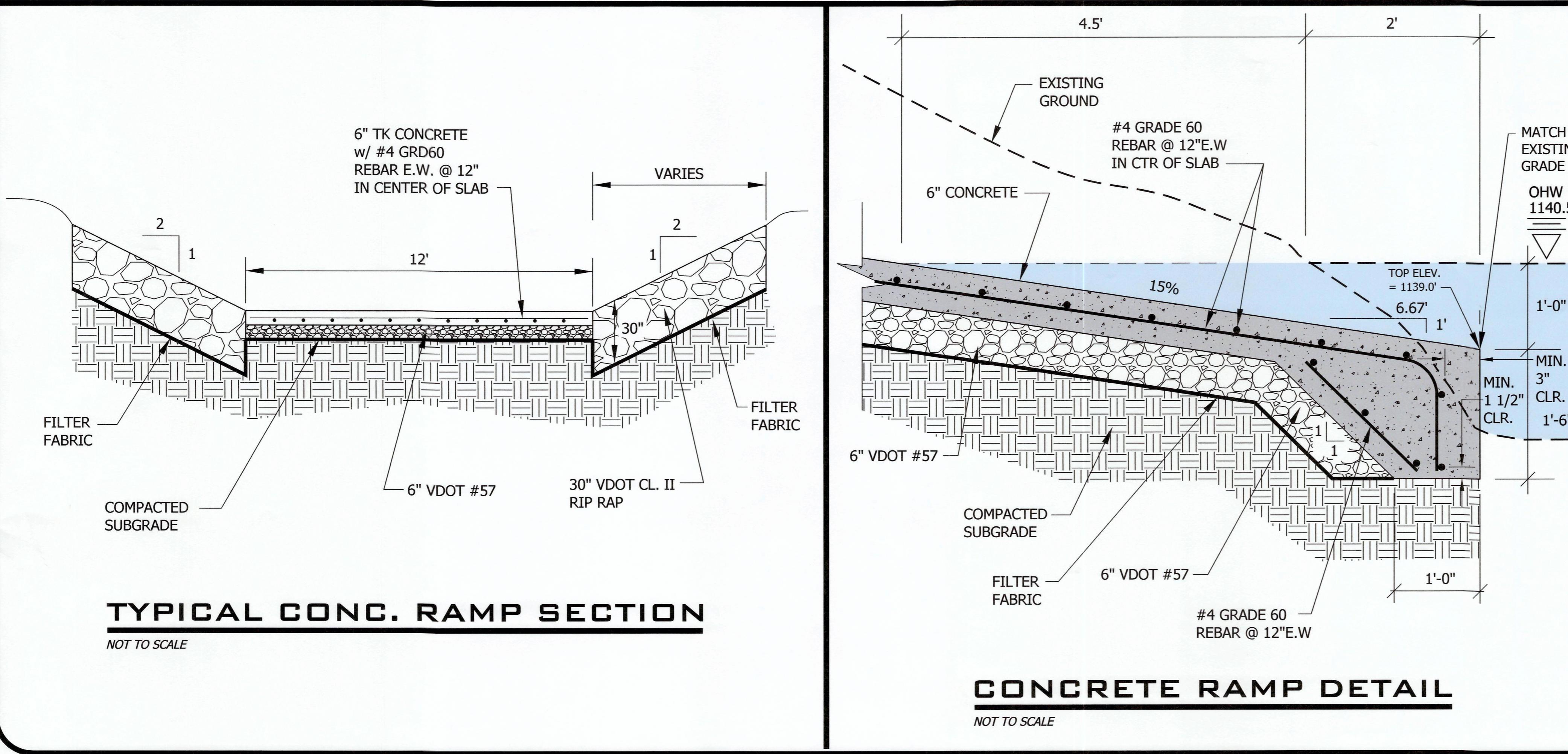
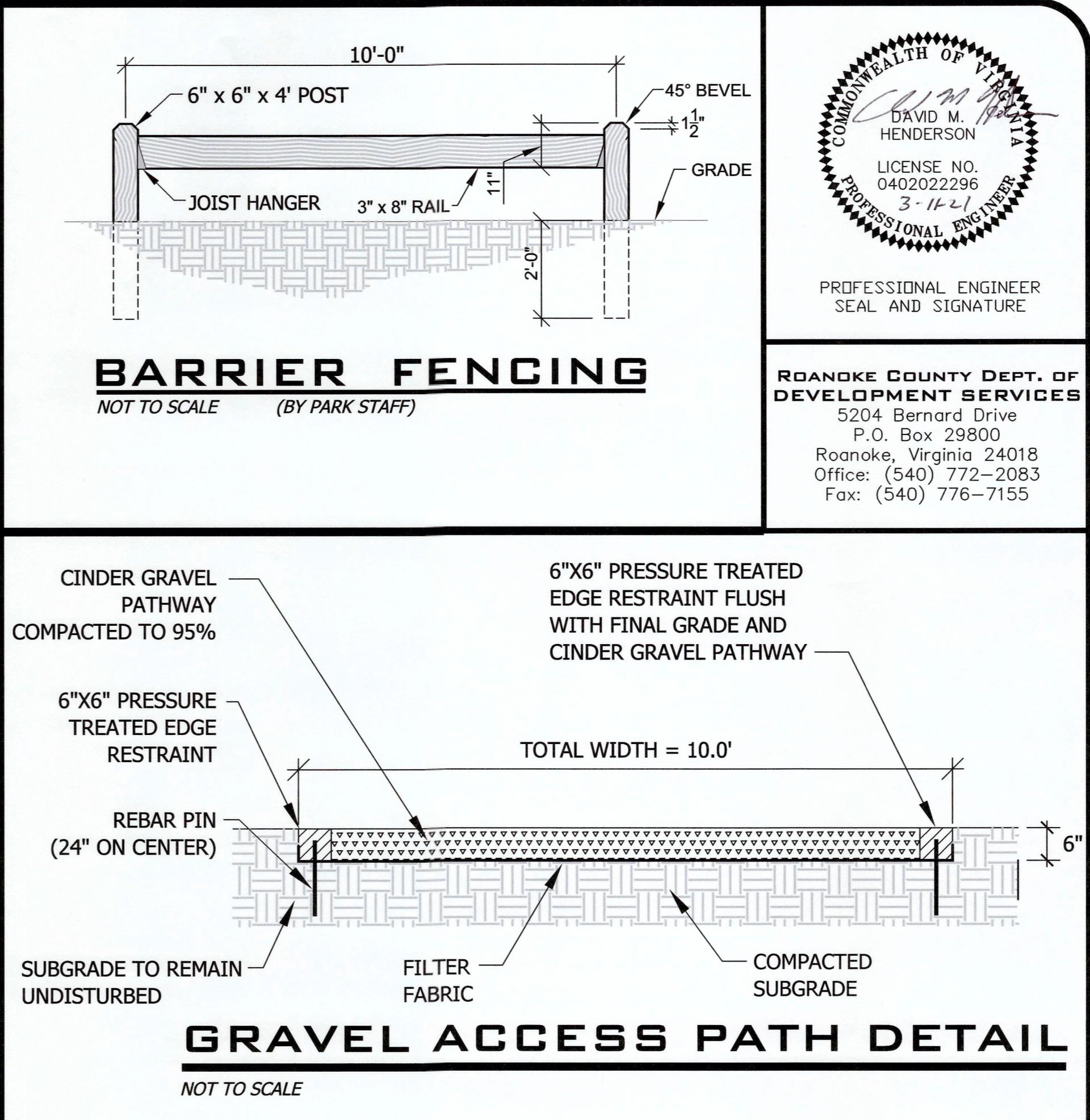
PARKING
LOT & BOAT
LAUNCH PLAN

SHEET
3
OF
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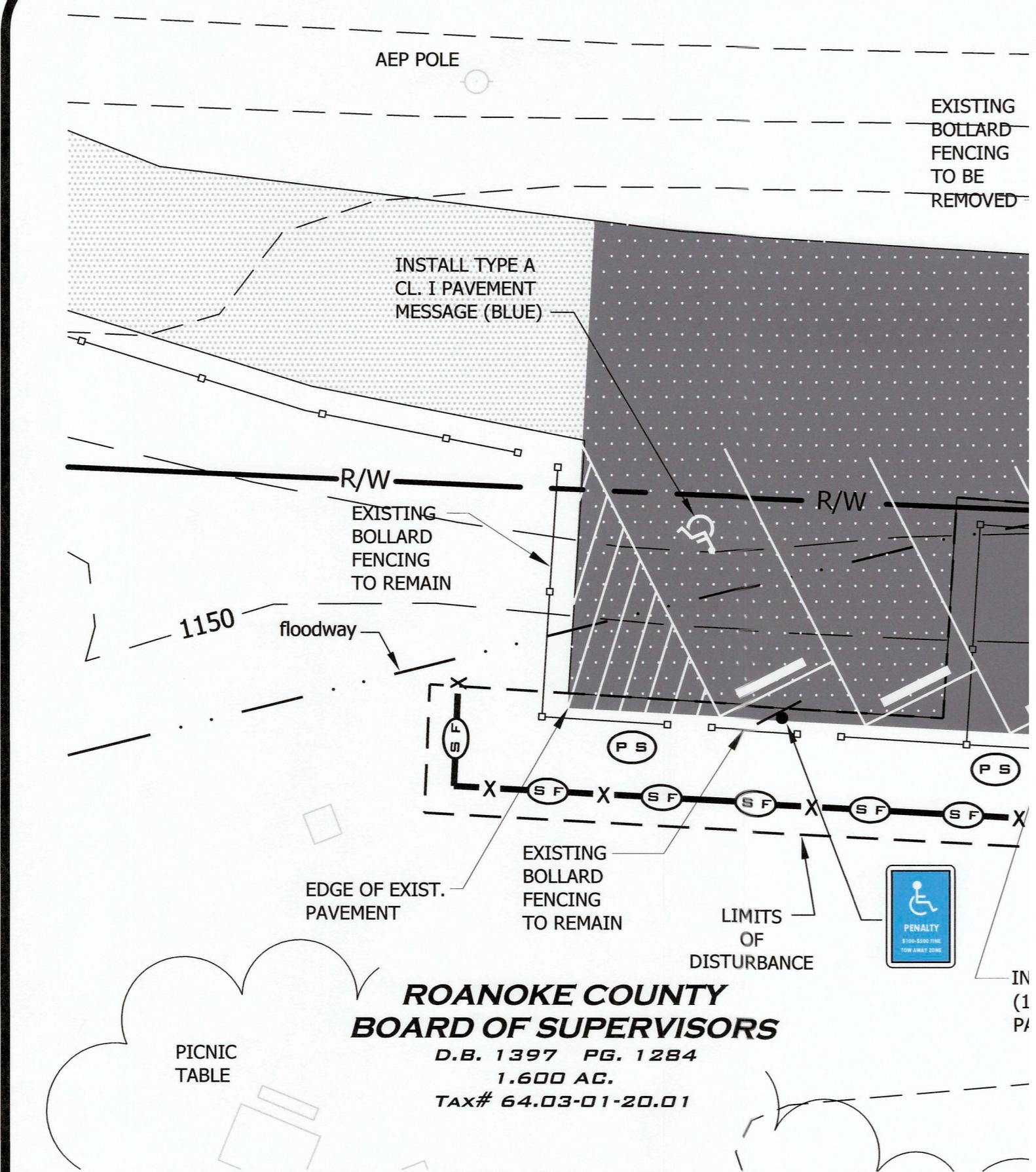


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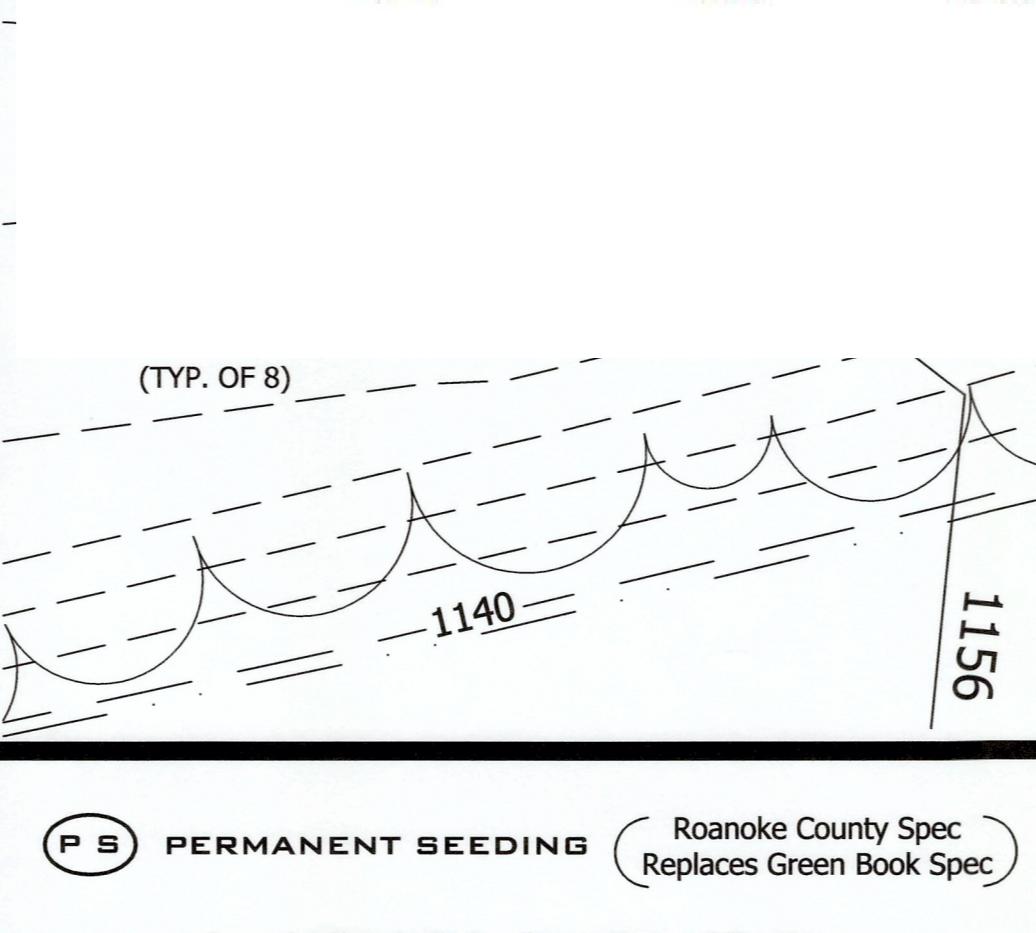
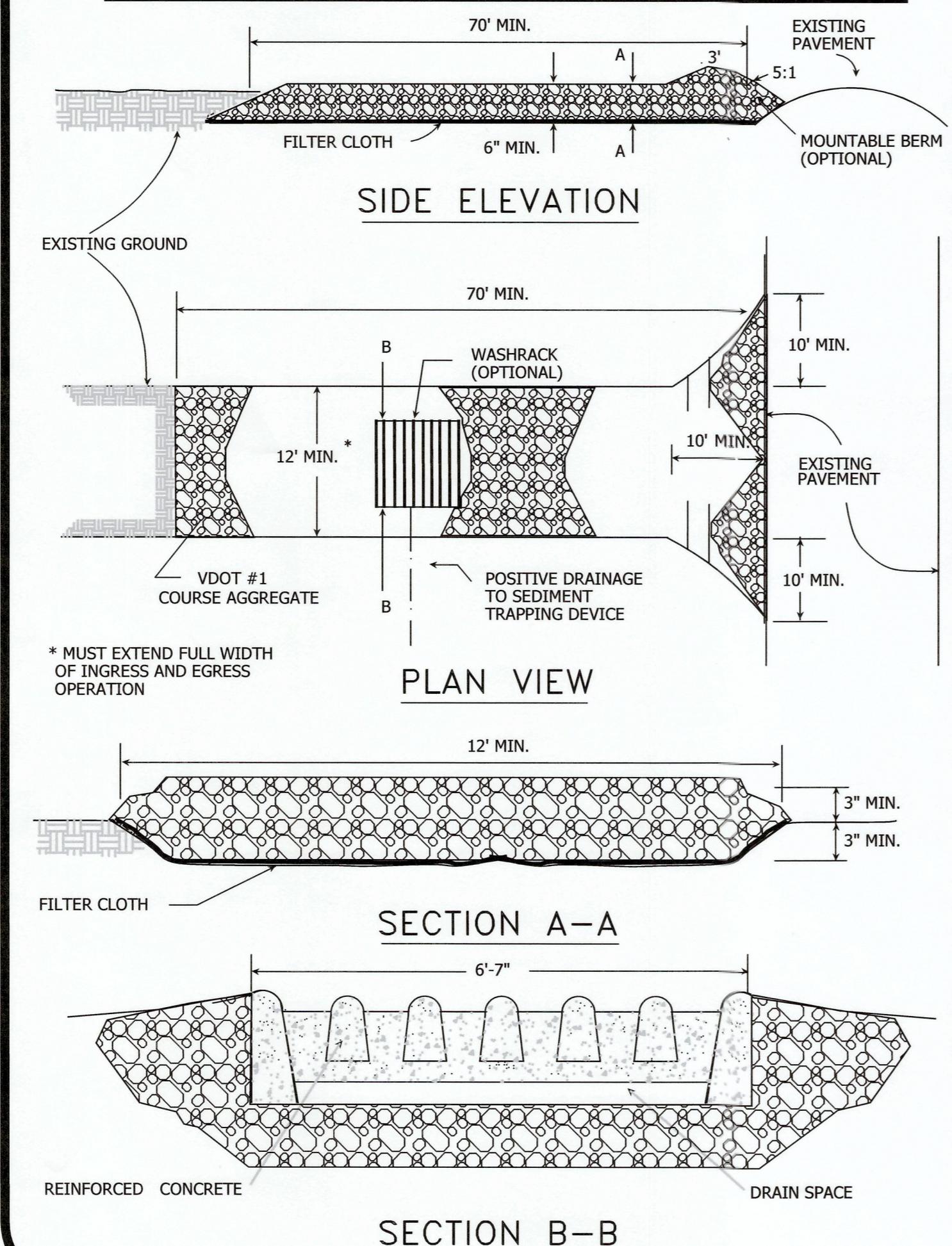
**ROANOKE COUNTY DEPT. OF
DEVELOPMENT SERVICES**



FUTURE PHASE



STONE CONSTRUCTION ENTRANCE



Roanoke County Parks, Recreation and Tourism Turfgrass seeding specification

SITEWORK

- Subgrade shall be formed ensuring positive drainage and be free of large boulders and other large construction debris.
- Topsoil will be installed and uniformly graded to a consistent six-inch depth over the entire planting area.
- Soil to be friable loam with adequate organic content.
- Soil to be free of rock, roots, clods, and foreign material, including construction debris and gravel.

SEEDING SPECIFICATIONS

- Seed blend shall consist of a three-way turf-type fescue.
- Seed shall be blue tag certified category one.
- Seed shall be clearly labeled.
- New seeding to be applied at a rate of eight pounds per 1000 square feet.
- Newly seeded areas to be fertilized using a formula with a 1-3-1 npk at a rate of 1/4 pound nitrogen per 1000 square feet.
- Soils to be tested to determine if additional amendments are needed.
- Prepared seedbed will have quality topsoil a minimum of six inches depth, free of rocks, roots, or debris.
- Seed shall be applied in two different directions.
- Seed shall be mechanically incorporated into the top 1/2 inch of the proposed surface.
- Seeded surface shall be mulched with blown straw at a rate of two bales per 1000 square feet then tacked using a hydro-mulcher and paper mulch product. adjacent hard surface will be cleaned from the seeding and mulching operations.

19E

SOIL SPECIFICATION:
FENWICK (VERY GRAVELLY SILT LOAM)
25 TO 40 PERCENT SLOPES
OCCASIONALLY FLOODED

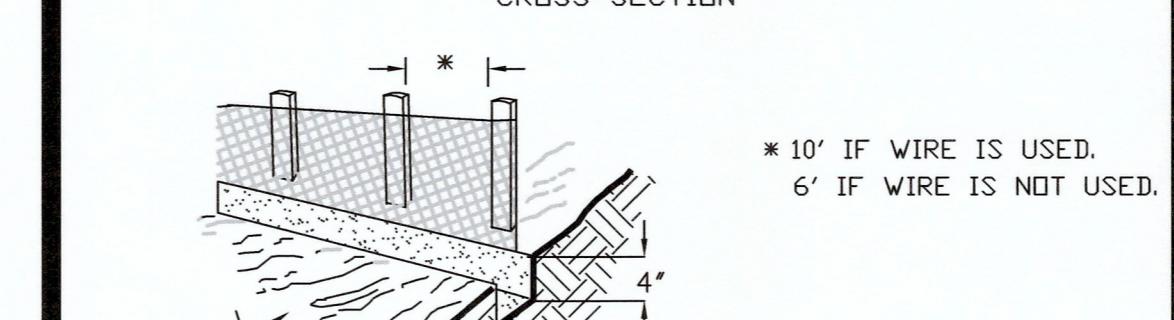
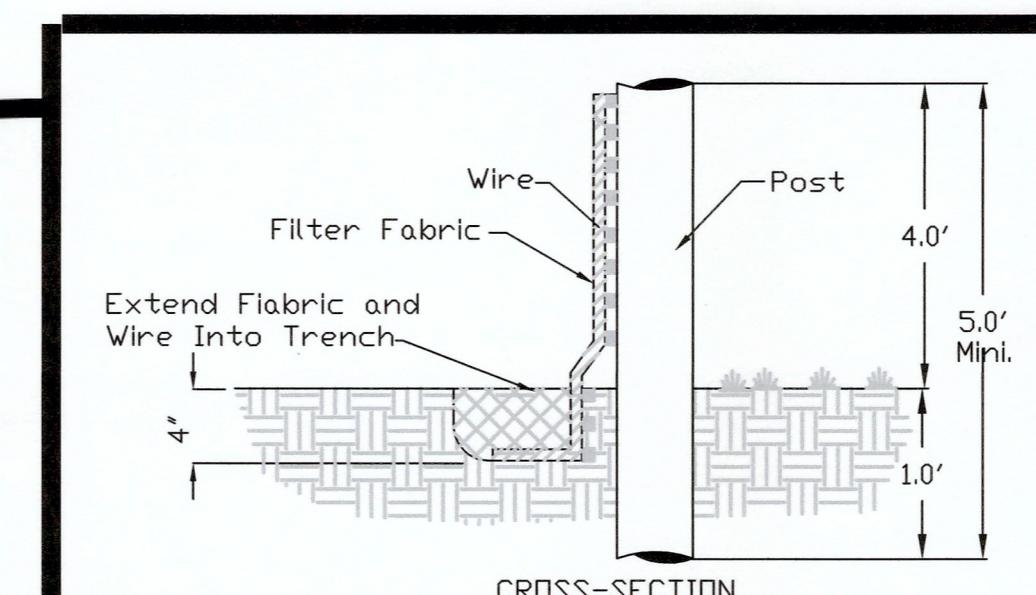
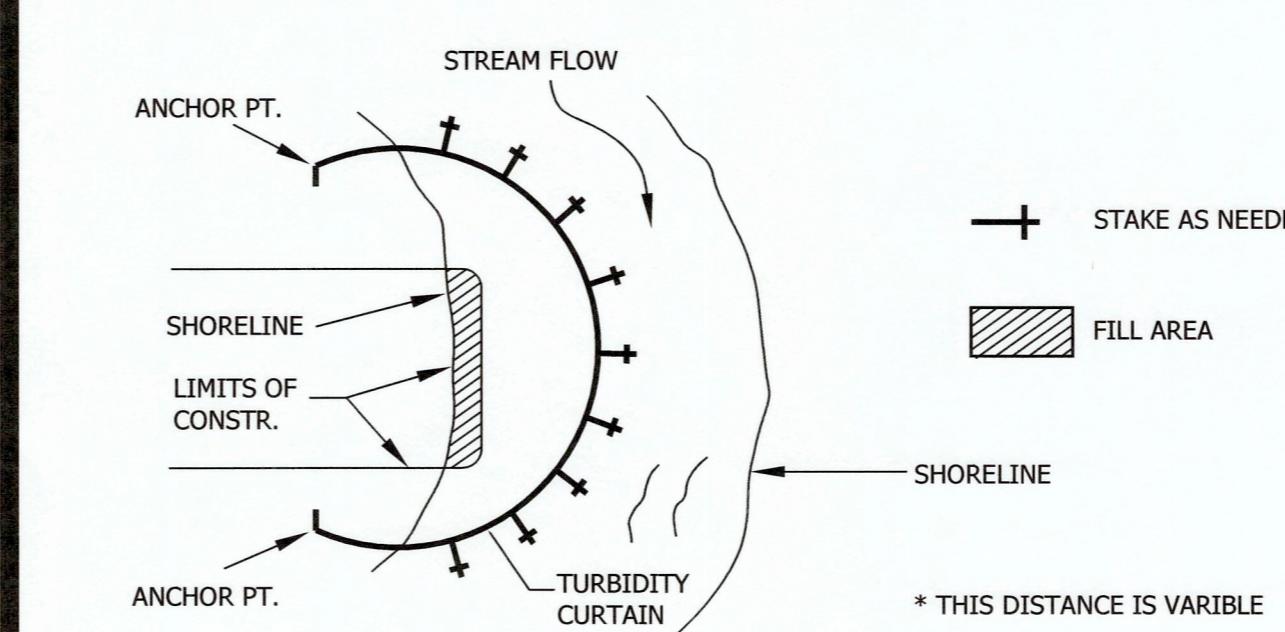
EROSION SEDIMENT CONTROL PLAN

SCALE: 1" = 20'

EROSION SEDIMENT CONTROL SYMBOLS	
(T C)	TURBIDITY CURTAIN
(C W)	CONCRETE WASHOUT
(B/M)	SOIL STABILIZATION MAT (EC-3 TYPE B)
(T S)	TEMPORARY SEEDING
(P S)	PERMANENT SEEDING
(S F)	SILT FENCE
(C E)	CONSTRUCTION ENTRANCE
(C P)	CULVERT INLET PROTECTION
(O P)	OUTLET PROTECTION
(I P)	INLET PROTECTION

TURBIDITY CURTAIN

TYPICAL LAYOUTS:
STREAMS, PONDS & LAKES (PROTECTED and NON-TIDAL)



SF CONSTRUCTION OF A SILT FENCE
NOT TO SCALE



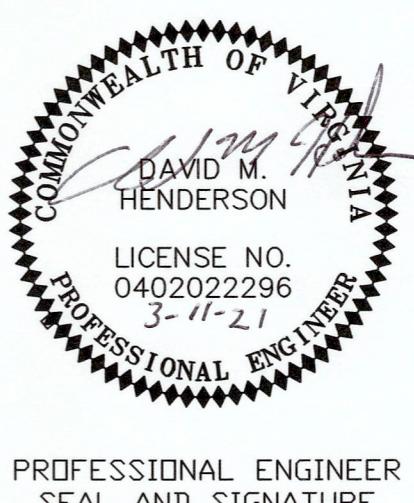
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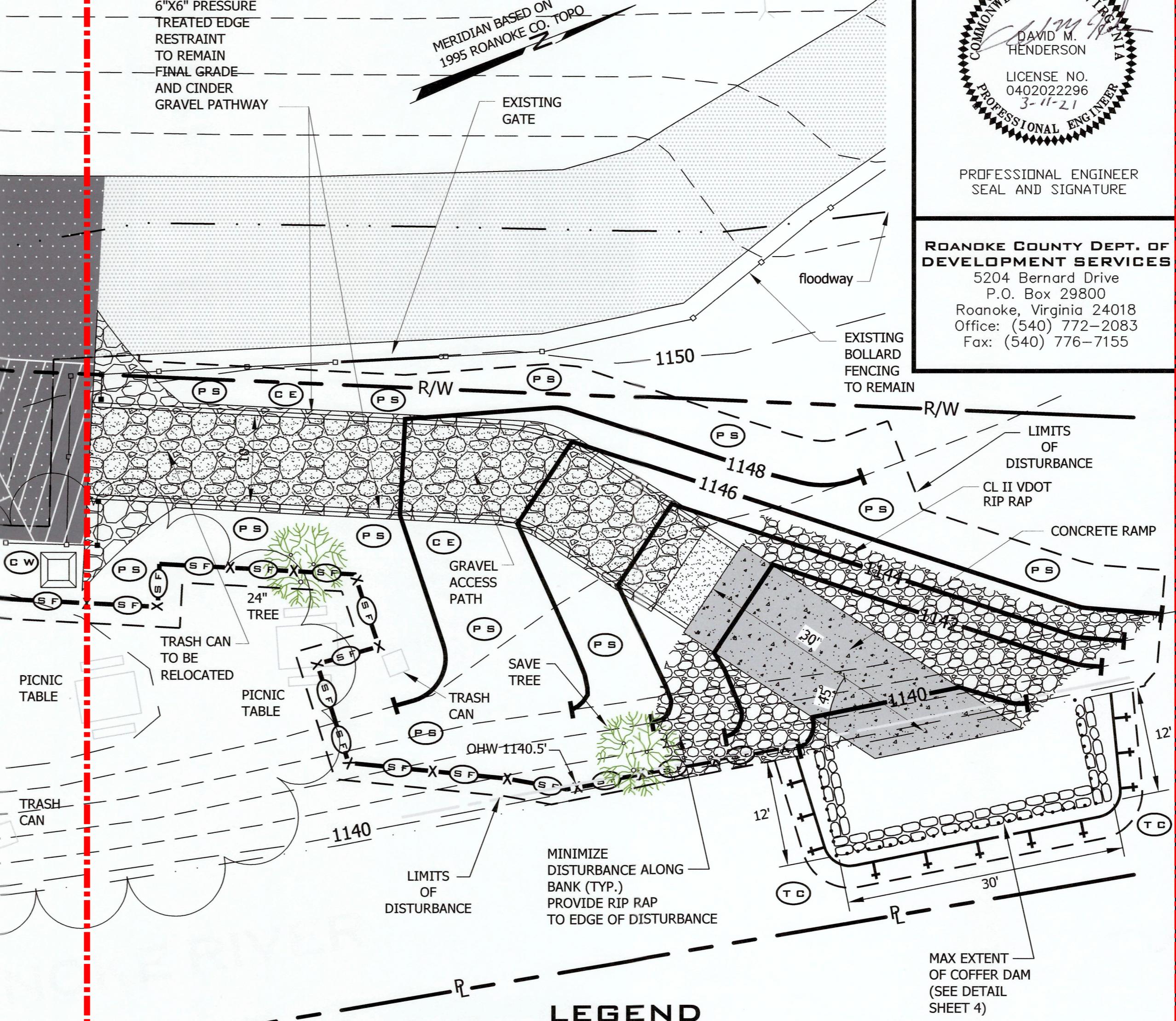
WAYSIDE PARK
BOAT LAUNCH & PARKING EXPANSION

AEP POLE

AEP POLE
296-40-46



ROANOE COUNTY DEPT. OF
DEVELOPMENT SERVICES
5204 Bernard Drive
P.O. Box 29800
Roanoke, Virginia 24018
Office: (540) 772-2083
Fax: (540) 776-7155



LEGEND

EXISTING ENTRANCE & EXIT PAVED SURFACE
EXISTING PARKING AREA TO RECEIVE 1" SM-9.5A OVERLAY
PROPOSED PARKING EXPANSION 1" SM-9.5A ASPHALT w/ 8" 21-B SUBBASE & FINAL OVERLAY OF 1" SM-9.4A

NOTE:
1. ALL PAVEMENT TO BE SLOPED TO DRAIN.

GRAPHIC SCALE
0 10 20 40
(IN FEET)
1 INCH = 10 FT.

DATE: 3/11/2021
SCALE: 1"=10'
DRAWING BY: BWE
DESIGNED BY: DMH/BWE
APPROVED BY: DMH

EROSION & SEDIMENT
CONTROL
PLAN

SHEET
5
OF
6

GENERAL EROSION AND SEDIMENT CONTROL NOTES

- ALL SOIL EROSION & SEDIMENT CONTROL MEASURES SHALL BE ACCOMPLISHED IN STRICT ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS CONTAINED IN THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST EDITION.
- THE APPROVING AUTHORITY MAY ADD TO, DELETE, RELOCATE, CHANGE, OR OTHERWISE MODIFY CERTAIN EROSION AND SEDIMENT CONTROL MEASURES WHERE FIELD CONDITIONS ARE ENCOUNTERED THAT WARRANT SUCH MODIFICATIONS.
- ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN ON THE PLAN SHALL BE PLACED IN ADVANCE OF THE WORK BEING PERFORMED, AS FAR AS PRACTICAL.
- IN NO CASE DURING CONSTRUCTION SHALL WATER RUNOFF BE DIVERTED OR ALLOWED TO FLOW TO LOCATIONS WHERE ADEQUATE PROTECTION HAS NOT BEEN PROVIDED.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LEAVE THE SITE ADEQUATELY PROTECTED AGAINST EROSION, SEDIMENTATION, OR ANY DAMAGE TO ANY ADJACENT PROPERTY AT THE END OF EACH DAY'S WORK.
- FOR THE EROSION CONTROL KEY SYMBOLS SHOWN ON THE PLANS, REFER TO THE VIRGINIA UNIFORM CODING SYSTEM FOR EROSION AND SEDIMENT CONTROL PRACTICES CONTAINED IN THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST EDITION. THESE SYMBOLS AND KEYS ARE TO BE UTILIZED ON ALL EROSION CONTROL PLANS SUBMITTED TO ROANOKE COUNTY.
- THE LOCATION OF ALL OFF-SITE FILL OR BORROW AREAS ASSOCIATED WITH THE CONSTRUCTION PROJECT WILL BE PROVIDED TO ROANOKE COUNTY DEPARTMENT OF DEVELOPMENT SERVICES. AN EROSION CONTROL PLAN OR MEASURES MAY BE REQUIRED FOR THIS AREA.
- THIS SHEET MAY NOT BE MODIFIED EXCEPT FOR TABLES.

TOTAL DISTURBED AREA = 0.1859 AC. = 8,100 SQ. FT.

BMP INFORMATION TABLE

BMP TYPE	BMP #1
NAME OF AUTHORIZED NUTRIENT BANK	—
REQUIRED PHOSPHORUS TO BE REMOVED (LB/YR)	LBS
AMOUNT OF PHOSPHORUS CREDIT PURCHASED (LB/YR)	LBS
TECHNICAL REQUIREMENT MET (PART 11B OR 11C)	—
TOTAL AREA TREATED (AC)	—
IMPERVIOUS AREA TREATED BY BMP (AC)	—
MANAGED TURF AREA TREATED BY BMP (AC)	—
OPEN SPACE/FORESTED AREA TREATED BY BMP (AC)	—
SURFACE AREA OF BMP (AC)	—
STORAGE VOLUME OF BMP (AC)	—
QUALITY, QUANTITY, OR BOTH?	—
TMOL ADDRESSED? (PHOSPHORUS, BACTERIA, SEDIMENT, ETC)	—
NAME OF RECEIVING WATER (PROJECT SITE)	—
HYDROLOGIC UNIT CODE FOR PROJECT SITE (ALPHANUMERIC CODE RU14, ECT)	—
MAXIMUM AVERAGE DEPTH (FT)	—
LATITUDE (DECIMAL DEGREES XX.XXXX)	—
LONGITUDE (DECIMAL DEGREES XX.XXXX)	—

STORMWATER SITE STATISTICS

	EXISTING	PROPOSED
TOTAL DISTURBED AREA (AC)	—	—
TOTAL SITE (AC)	—	—
IMPERVIOUS AREA (AC)	—	—
MANAGED TURF AREA (AC)	—	—
OPEN SPACE/FOREST (AC)	—	—
PUBLIC RIGHT OF WAY DISTURBANCE (SF)	—	—
KARST PRESENT (Y/N)	—	—

MODIFIED VIRGINIA CODING SYSTEM FOR EROSION & SEDIMENT CONTROL PRACTICES

REFER TO SHEET 5 FOR DETAILS OF IMPLEMENTED MEASURES

NO.	TITLE	KEY	SYMBOL	NO.	TITLE	KEY	SYMBOL
3.01	SAFETY FENCE	SAF		3.21	LEVEL SPREADER	LS	
3.02	TEMPORARY GRAVEL CONSTRUCTION ENTRANCE	CE		3.22	VEGETATIVE STREAMBANK STABILIZATION	VSS	
3.03	CONSTRUCTION ROAD STABILIZATION	CRS		3.23	STRUCTURAL STREAMBANK STABILIZATION	SSS	
3.04	STRAW BALE BARRIER	STB		3.24	TEMPORARY VEHICULAR STREAM CROSSING	VSC	
3.05	SILT FENCE	SF		3.25	UTILITY STREAM CROSSING	USC	
3.06	BRUSH BARRIER	BB		3.26	DEWATERING STRUCTURE	DS	
3.07	STORM DRAIN INLET PROTECTION	IP		3.27	TURBIDITY CURTAIN	TC	
3.08	CULVERT INLET PROTECTION	CIP		3.28	SUBSURFACE DRAIN	SD	
3.09	TEMPORARY DIVERSION DIKE	DD		3.29	SURFACE ROUGHENING	SR	
3.10	TEMPORARY FILL DIVERSION	FD		3.30	TOPSOILING	TO	
3.11	TEMPORARY RIGHT-OF-WAY DIVERSION	RWD		3.31	TEMPORARY SEEDING	TS	
3.12	DIVERSION	DV		3.32	PERMANENT SEEDING	PS	
3.13	TEMPORARY SEDIMENT TRAP	ST		3.33	SODDING	SO	
3.14	TEMPORARY SEDIMENT BASIN	SB		3.34	BERMUDA GRASS AND ZOYSIAURASS ESTABLISHMENT	BZM	
3.15	TEMPORARY SLOPE DRAIN	TSD		3.35	MULCHING	MU	
3.16	PAVED FLUME	PFL		3.36	SOIL STABILIZATION	BEZ	
3.17	STORMWATER CONVEYANCE CHANNEL	SCC		3.37	BLANKETS AND MATTING	BLZ	
3.18	OUTLET PROTECTION	OP		3.38	TREES, SHRUBS, VINES AND GROUND COVERS	VEG	
3.19	RIPRAP	RR		3.39	TREE PRESERVATION AND PROTECTION	TP	
3.20	ROCK CHECK DAMS	CD			DUST CONTROL	DC	

EROSION AND SEDIMENT CONTROL NARRATIVE

PROJECT DESCRIPTION: THE PURPOSE OF THIS PROJECT IS THE CONSTRUCTION OF A PUBLIC BOAT RAMP AND RECONSTRUCTION OF EXISTING PARKING LOT. THE PROJECT IS LOCATED ALONG RTE 11/460 AT THE EXISTING WAYSIDE PARK IN ROANOKE COUNTY, VIRGINIA. THE DISTURBED AREA FOR THIS PROJECT IS APPROXIMATELY 0.1859 AC.

EXISTING SITE CONDITIONS: THE LIMITS OF DISTURBANCE IS LOCATED WITHIN THE SUBJECT PROPERTY, IDENTIFIED AS ROANOKE COUNTY TAX PARCEL #64.03-01-20.01 AND IS A ROANOKE COUNTY PARK NAMED WAYSIDE PARK. THE SITE IS CURRENTLY A MIX OF PAVED PARKING AND GRASSED AREA. THE ENTIRE SITE DRAINS INTO THE ADJACENT ROANOKE RIVER. THERE ARE CURRENTLY NO KNOWN EROSION PROBLEMS RELATED TO THE PROJECT AREA.

ADJACENT PROPERTY: THE PROJECT AREA IS BOUNDED BY VDOT R/W TO THE NORTH, ROANOKE RIVER TO THE EAST, TAX # 64.03-01-20.00 TO THE SOUTH, RTE. 11/460 TO THE WEST.

OFFSITE AREAS: THE CONTRACTOR WILL BE REQUIRED TO PROVIDE, TO THE COUNTY OF ROANOKE:

A. THE LOCATION OF ANY OFFSITE BORROW AREAS.

B. THE LOCATION OF ANY OFFSITE AREAS WHERE EXCESS EXCAVATED MATERIAL WILL BE DISPOSED.

SOILS: THE "WEB SOIL SURVEY" AS PREPARED BY THE UNITED STATES DEPARTMENT OF AGRICULTURE IDENTIFIES THE SOILS ON SITE AS 19E FENWICK, 25 TO 40 PERCENT SLOPE, WHICH IS VERY GRAVELLY SILT LOAM SOIL GROUP B.

CRITICAL AREAS: CRITICAL AREAS FOR THIS PROJECT INCLUDE ALL AREAS NEAR THE ROANOKE RIVER. SPECIAL CARE SHALL BE TAKEN TO ENSURE THAT THESE AREAS HAVE ADEQUATE EROSION CONTROL AND THAT SEDIMENT TRANSPORT FROM THE PROPERTY IS MINIMIZED.

EROSION AND SEDIMENT CONTROL MEASURES: UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE CONSTRUCTED AND MAINTAINED ACCORDING TO THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE "VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK", LATEST EDITION (VESCH). THE MINIMUM STANDARDS OF THE VESCH SHALL BE ADHERED TO UNLESS DIRECTED BY THE LOCAL PROGRAM ADMINISTRATOR.

STRUCTURAL:

CONSTRUCTION ENTRANCE—Std. 3.02 a stone pad, located at points of vehicular ingress and egress to the construction site, to reduce the soil transported onto public roads and other paved areas.

SILT FENCE. 3.05 a temporary sediment barrier consisting of a synthetic filter fabric stretched across and attached to supporting posts and entranced to intercept and detain small amounts of sediment from disturbed areas.

COFFERDAM. 3.25 a temporary settling and filter device for water which is discharged from dewatering activities, used to filter sediment-laden water prior to the water being discharged offsite.

DEWATERING STRUCTURE. 3.26 a temporary settling and filter device for water which is discharged from dewatering activities, used to filter sediment-laden water prior to the water being discharged offsite.

TURBIDITY CURTAIN. 3.27 a temporary curtain to contain sediment during the installation and removal of the cofferdam.

VEGETATIVE:
TEMPORARY SEEDING. 3.31 establishment of temporary vegetative cover on disturbed areas by seeding with appropriate rapidly growing annual plants to reduce erosion by stabilizing disturbed areas that will not be brought to final grade for a period of more than 14 days.

PERMANENT SEEDING. 3.32 establishment of perennial vegetative cover on disturbed areas by planting seed to reduce erosion and decrease sediment yield from disturbed areas.

MULCHING. 3.35 application of plant residues or other suitable materials to the soil surface. Mulching will prevent erosion by protecting the soils surface from raindrop impact and reducing the velocity of overland flow. After seeding, mulching will foster the growth of vegetation by increasing available moisture and providing insulation against extreme heat and cold.

DUST CONTROL. 3.39 the application of measures to prevent surface and air movement of dust from exposed soil surfaces and reduce the presence of airborne substances which may present health hazards, traffic safety problems or harm animal or plant life.

MANAGEMENT STRATEGIES:

A.) CONSTRUCTION WILL BE SEQUENCED SO THAT GRADING OPERATIONS CAN BEGIN AND END AS QUICKLY AS POSSIBLE.

B.) SEDIMENT TRAPPING MEASURES WILL BE INSTALLED AS A FIRST STEP IN GRADING.

C.) THE LOCAL PROGRAM ADMINISTRATOR RESERVES THE RIGHT TO ADD, DELETE OR OTHERWISE CHANGE THE EROSION CONTROL MEASURES AS DEEMED NECESSARY DUE TO ACTUAL FIELD CONDITIONS BY WRITTEN NOTIFICATION TO THE CONTRACTOR.

D.) ALL FILL AND CUT SLOPES SHALL BE SEADED WITHIN SEVEN (7) DAYS OF ACHIEVING FINAL GRADE.

E.) ONLY AFTER INSPECTION AND APPROVAL FROM THE LOCAL PROGRAM ADMINISTRATOR, EROSION AND SEDIMENT CONTROL DEVICES MAY BE REMOVED FOLLOWING THE STABILIZATION OF THE CONTRIBUTING AREAS.

THE GENERAL CONTRACTOR SHALL INSPECT DISTURBED AREAS OF THE SITE THAT HAVE NOT BEEN FINALLY STABILIZED, AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION, STRUCTURAL CONTROL MEASURES, AND THE AREA OF CONSTRUCTION VEHICLE ACCESS AT LEAST EVERY FOURTEEN (14) CALENDAR DAYS, AND WITHIN 48 HOURS OF THE END OF A STORM EVENT PRODUCING 1/2" OR GREATER OF PRECIPITATION. WHERE AREAS HAVE BEEN FINALLY OR TEMPORARILY STABILIZED OR RUNOFF IS UNLIKELY DUE TO WINTER CONDITIONS (SITE IS COVERED WITH, ICE, OR FROZEN GROUND EXISTS), SUCH INSPECTIONS SHALL BE CONDUCTED AT LEAST ONCE EVERY MONTH.

A.) INSPECT DISTURBED AREAS AND AREAS OF MATERIALS STORAGE THAT ARE EXPOSED TO PRECIPITATION FOR EVIDENCE OF, OR THE POTENTIAL FOR, SEDIMENT ENTERING THE STORM DRAIN SYSTEM. INSPECT E&S CONTROLS IN ACCORDANCE WITH REQUIREMENTS STATED HEREIN, AND INSPECT POINTS OF STORM DRAIN DISCHARGE FOR EXCESSIVE SEDIMENTATION. CORRECT SITE CONTROLS AS IS REQUIRED TO REDUCE SEDIMENTATION OF STORM DRAINED, CULVERTS, AND RECEIVING CHANNELS.

B.) IF CONTROLS OR SEDIMENT PREVENTION AREAS ARE FOUND TO BE IN NEED OF REPAIR OR MODIFICATION, THE GENERAL CONTRACTOR SHALL PROVIDE ADDITIONAL MEASURES OR MODIFICATION TO EXISTING MEASURES AS REQUIRED. ANY ADDITIONAL MEASURES OR MODIFICATIONS TO EXISTING MEASURES SHALL BE RECORDED AS FIELD REVISIONS TO THESE PLANS. IN THE EVENT THAT ADDITIONAL CONTROLS ARE FOUND TO BE REQUIRED, THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING THESE CONTROLS BEFORE THE NEXT ANTICIPATED STORM EVENT IS PRACTICAL, THEY SHALL BE IMPLEMENTED AS SOON AS PRACTICAL.

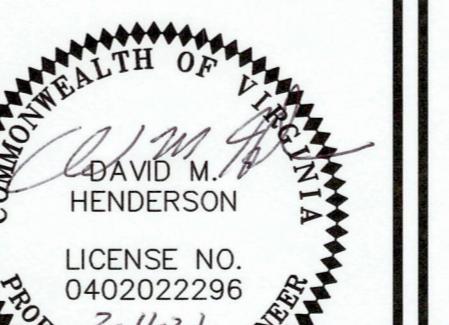
C.) A REPORT SUMMARIZING THE SCOPE OF INSPECTIONS, NAME OF INSPECTOR, INSPECTOR'S QUALIFICATIONS, DATES OF INSPECTIONS, MAJOR OBSERVATIONS PERTAINING TO THE IMPLEMENTATION OF THESE EROSION CONTROL PLANS, AND ACTIONS TAKEN SHALL BE MADE AND RETAINED AS A PART OF THESE PLANS, MAJOR OBSERVATIONS OF THESE REPORTS SHALL INCLUDE: THE LOCATIONS OF EXCESSIVE SEDIMENTATION FROM THE SITE; LOCATIONS OF CONTROLS IN NEED OF REPAIR; LOCATION OF FAILED OR INADEQUATE CONTROLS; AND LOCATIONS WHERE ADDITIONAL CONTROLS ARE NEEDED.

STORMWATER MANAGEMENT:

STORMWATER QUANTITY REQUIREMENTS WILL BE MET BY SHEETFLOWS TO FEMA FLOODPLAIN

STORMWATER QUALITY REQUIREMENTS WILL BE MET THROUGH NOT APPLICABLE

ROANOKE COUNTY DEPT. OF
DEVELOPMENT SERVICES
5204 Bernard Drive
P.O. Box 2980
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Fax: (540) 776-7155



MINIMUM STANDARDS

THE FOLLOWING STANDARDS ARE TO BE PROVIDED OR ADDRESSED ON EVERY DEVELOPMENT PROJECT EXCEEDING 10,000 S.F. IN AREA OF DISTURBANCE. THESE STANDARDS ARE CONSIDERED A MINIMUM AND MAY REQUIRE ADDITIONAL MEASURES AS DEEMED NECESSARY BY THE LOCAL PROGRAM AUTHORITY OR THE CONSULTING ENGINEER.

NO.	CRITERIA, TECHNIQUE OR METHOD	PRACTICES PROVIDED
1	PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 14 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR.	PS
2	DURING CONSTRUCTION OF THE PROJECT, SOIL STOCK PILES AND BORROW AREAS SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. THE APPLICANT IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS BORROW AREAS AND SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE	