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POCAHONTAS COMMUNITY IMPROVEMENT PROJECT

No. Submittal / Revision App'd. By Date BID SET RMW CTB 08/04/2

COVERSHEET

Designed By:	Drawn By:	Checked By:
RMW	ACW	SMS
Issue Date: 05/12/23	Project No: 68326	Scale:

G-001

SUSSEX COUNTY

POCAHONTAS COMMUNITY IMPROVEMENT PROJECT

PREPARED FOR:

SUSSEX COUNTY

ADDRESS: 20135 PRINCETON ROAD SUSSEX, VA 23884

HONE: (434) 246-1042

PREPARED BY:

1341 Research Center Drive, Suite 2100 Blacksburg, VA 24060-5548 540.552.5548 . www.chacompanies.com

GENERAL NOTES:

- . A PRECONSTRUCTION CONFERENCE WHICH SHALL INCLUDE A REPRESENTATIVE FROM THE OWNER, ENGINEER AND CONTRACTOR SHALL BE SCHEDULED AT LEAST 14 DAYS PRIOR TO ANY CONSTRUCTION.
- CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SITE SAFETY AND FOR COMPLIANCE WITH ALL FEDERAL, STATE, AND LOCAL HEALTH AND SAFETY CODES, LAWS, REGULATIONS, AND ORDINANCES INCLUDING, BUT NOT LIMITED TO, THE OCCUPATIONAL HEALTH AND SAFETY ASSOCIATION (OSHA).
- 3. ALL WORK SHALL BE DONE IN STRICT COMPLIANCE WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES, STANDARDS, ORDINANCES, RULES, AND REGULATIONS. ALL PROPOSED UTILITIES AND APPURTENANCES SHALL BE CONSTRUCTED IN COMPLIANCE WITH THE LOCAL MUNICIPALITIES' CODES AND REGULATIONS GOVERNING THE INSTALLATION OF SUCH UTILITIES.
- 4. PRIOR TO CONSTRUCTION IN THE RIGHT-OF-WAY, ALL APPLICABLE PERMITS FROM THE GOVERNING JURISDICTIONS AND/OR AGENCIES SHALL BE OBTAINED AND A COPY KEPT ON THE SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND INCURRING THE COST OF ALL REQUIRED PERMITS, INSPECTIONS, CERTIFICATES, ETC. AND SHALL COMPLY WITH ALL REQUIRED PERMITS.
- 5. RIGHT-OF-WAY AND PROPERTY LINES SHOWN ON THE DRAWINGS SHALL BE CONSIDERED APPROXIMATE. CONTRACTOR SHALL CONFIRM THE LOCATIONS OF THE PROPERTY MARKERS, PROPERTY LINES, AND RIGHT-OF-WAY PRIOR TO COMMENCING WORK.
- 6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL FIELD LAYOUTS. THE CONTRACTOR SHALL TAKE TIES TO ALL UTILITY CONNECTIONS AND PROVIDE MARKED-UP AS-BUILT PLANS FOR ALL UTILITIES SHOWING TIES TO CONNECTIONS, BENDS, VALVES, LENGTHS OF LINES, AND INVERTS.
- 7. AS-BUILT PLANS SHOWING ALL UNDERGROUND UTILITIES INSTALLED OR ENCOUNTERED SHALL BE REVIEWED BY THE OWNER AND REPRESENTATIVES. THE CONTRACTOR SHALL PROVIDE ANY CORRECTION OR ADMISSIONS TO THE SATISFACTION OF THE OWNER AND REPRESENTATIVES BEFORE UTILITIES WILL BE ACCEPTED.
- 8. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY CONDITIONS THAT VARY FROM THOSE SHOWN ON THE PLANS. THE CONTRACTOR'S WORK SHALL NOT VARY FROM THE PLANS WITHOUT THE EXPRESSED APPROVAL OF THE OWNER AND THE ENGINEER.
- 9. THE ENGINEER RESERVES THE RIGHT TO EXAMINE ANY WORK DONE ON THIS PROJECT AT ANY TIME TO DETERMINE THE CONFORMANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS, AS INTENDED AND INTERPRETED BY
- 10. THE TOPOGRAPHIC AND ELEVATION DATA SHOWN HEREON WAS SURVEYED BY NXL ENGINEERS, SURVEYORS & CONSTRUCTION MANAGERS IN 2019 AND HAS NOT BEEN INDEPENDENTLY VERIFIED BY CHA. THE TOPOGRAPHIC AND ELEVATION DATA SHOWN HEREON IS ASSUMED BY CHA TO COMPLY WITH THE PROFESSIONAL STANDARDS REQUIRED FOR LICENSED LAND SURVEYORS REGISTERED AND PRACTICING IN VIRGINIA. THE TOPOGRAPHIC AND ELEVATION DATA ARE NOT CERTIFIED AS CORRECT AND/OR ACCURATE BY THIS ENGINEER. TO THE EXTENT THAT THE TOPOGRAPHIC AND ELEVATION DATA ENCOMPASS AN AREA OUTSIDE OF THE LIMITS RELEVANT TO CHA'S WORK PRODUCT, CHA MAKES NO STATEMENT OF RELIANCE ON SUCH INFORMATION AND USERS RELY ON SAID DATA AT THEIR OWN RISK.
- 11. HORIZONTAL CONTROL IS REFERENCED TO VIRGINIA STATE PLANES, SOUTH ZONE, US FOOT, BASED ON THE NORTH AMERICAN DATUM OF 1983 (NAD 83). VERTICAL CONTROL IS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAD 88).
- 12. EXACT LOCATION OF SUBSURFACE STRUCTURES AND UTILITIES MAY VARY FROM WHAT IS SHOWN ON THE DRAWINGS OR MAY NOT BE SHOWN. THE CONTRACTOR SHALL FIELD LOCATE ALL EXISTING UTILITIES AND STRUCTURES PRIOR TO EXECUTING ANY WORK OR EXCAVATION. THE CONTRACTOR SHALL OBTAIN A MISS UTILITY TICKET AT 1-800-552-7001 (811) A MINIMUM OF 48 HOURS IN ADVANCE OF PLANNED WORK.
- 13. CONTRACTOR SHALL MAINTAIN TRAFFIC IN ACCORDANCE WITH THE VDOT VIRGINIA WORK AREA PROTECTION MANUAL AND THE VIRGINIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITIONS.
- 14. PROVIDE AND INSTALL ALL MATERIALS AND PERFORM ALL WORK IN ACCORDANCE WITH RECOGNIZED STANDARD PRACTICES.
- 15. CONTRACTOR SHALL TAKE CARE TO AVOID DAMAGE TO EXISTING PAVEMENT, TREES, VEGETATION, STRUCTURES, AND UTILITIES NOT INDICATED TO BE DEMOLISHED OR REMOVED. ANY DAMAGE TO EXISTING ITEMS NOT INDICATED TO BE DEMOLISHED OR REMOVED, WHETHER WITHIN OR OUTSIDE THE LIMITS OF DISTURBANCE, SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- 16. CONTRACTOR SHALL COORDINATE CONSTRUCTION ACCESS ROUTES WITH PROPERTY OWNERS PRIOR TO CONSTRUCTION ACTIVITIES.
- 17. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO IMMEDIATELY REMOVE, TRANSPORT OFFSITE AND LEGALLY DISPOSE OF ANY AND ALL EXCAVATED AND DELETERIOUS MATERIALS.
- 18. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND OBTAINING STAGING AREAS.
- 19. CONTRACTOR TO MAINTAIN ACCESS TO DRIVEWAYS AND MAILBOXES THROUGHOUT CONSTRUCTION.

DESCRIPTION	EXISTING	PROPOSED
5' OR 10' CONTOUR LINE		1050—
1' OR 2' CONTOUR LINE	/	
RIGHT-OF-WAY		
SILT FENCE		SF
STORM SEWER	24"RCP	ST
LIMITS OF DISTURBANCE		LOD
WATERLINE		w
GATE VALVE		\bowtie
CHECK VALVE		N
FORCE MAIN		FM
DITCH		
EDGE OF RIVER		
PROPERTY LINES		
PROPERTY CORNER	0	
IRON PIN/MONUMENT	•	
UTILITY POLE		
OVERHEAD ELECTRIC		
UNDERGROUND FIBER	— — FIBER — — —	
FENCE	xx	
GRAVEL ROAD		
ASPHALT PAVEMENT REPAIR		
ASPHALT PAVEMENT		
CONCRETE	CONCRETE	
RIPRAP		
DETAIL CALLOUT	X DETAIL IDENTIFICA	ATION NO. E DETAIL IS SHOWN
DETAIL IDENTIFICATION NO.	X VIEW TITLE ON NOT TO SCALE	SCALE 2

SHEET LIST TABLE					
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OWNER, SUSSEX COUNTY 20135 PRINCETON ROAD SUSSEX, VIRGINIA 23884 (434) 246-1042



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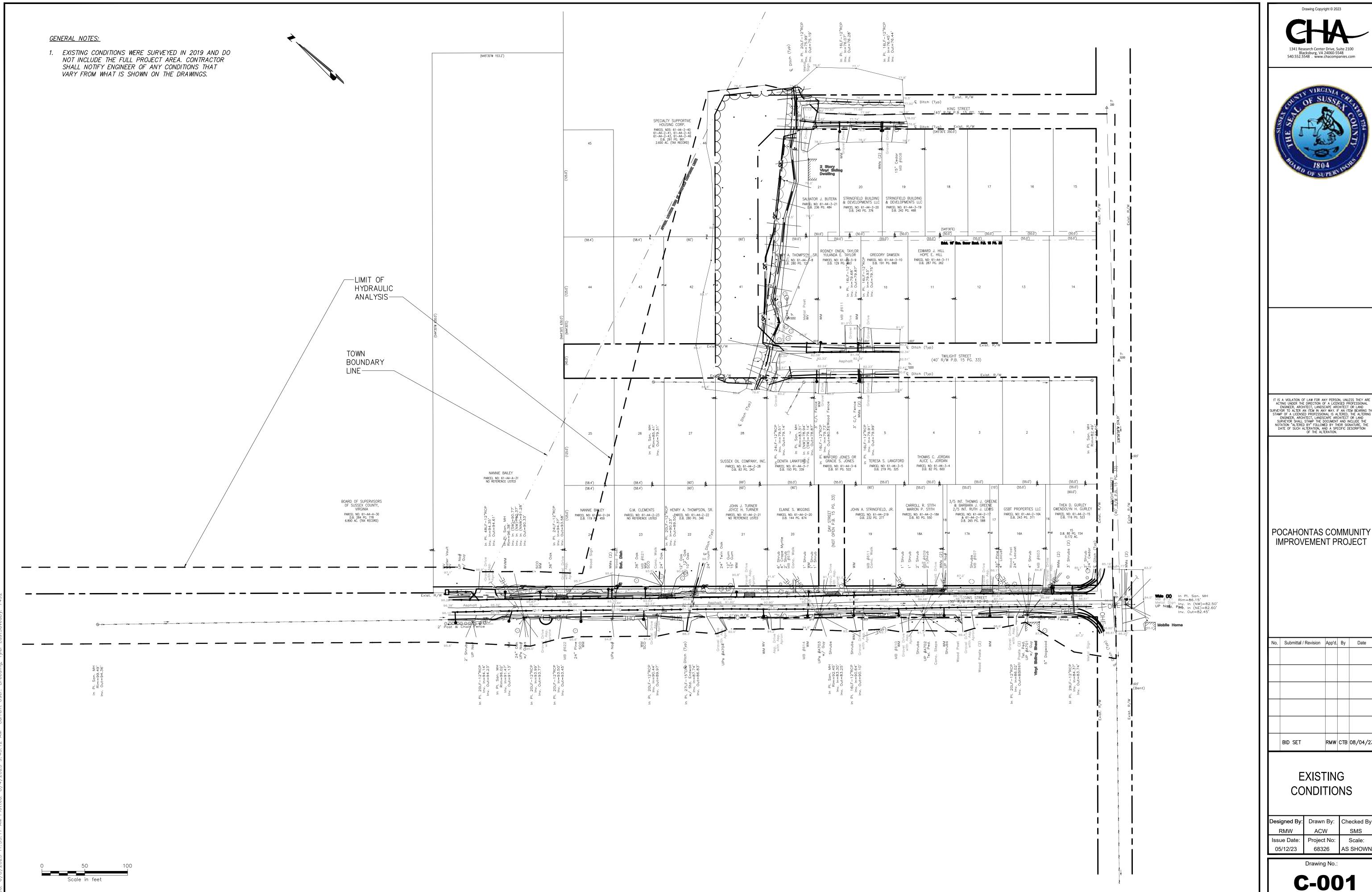
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SHEET LIST,
GENERAL NOTES,
LEGEND,
ABBREIVIATIONS

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	AMERICAN ASSOCIATION OF STATE	CFM	CUBIC FEET PER MINUTE	FT	FOOT OR FEET	MISC	MISCELLANEOUS	l R	RADIUS	SUE	SUBSURFACE UTILITY ENGINEERING
ASHTO	HIGHWAY AND TRANSPORTAION OFFICIALS	CI	CURB INLET	GAL	GALLON	MON	MONUMENT	RAD	RADIAL	SY	SQUARE YARD
ABS	PLASTIC PIPE	CIP	CAST IRON PIPE	GPM	GALLONS PER MINUTE	N	NORTH	RCCP	REINFORCED CONCRETE CULVERT PIPE	TAN	TANGENT
AC	ACRE	CL	CLASS OR CENTERLINE	GRD	GROUND OR GRADE	NAVAIDS	NAVIGATIONAL AIDS	RCP	REINFORCED CONCRETE PIPE	TC	TOP OF CURB
ACCM	ASPHALT COATED CORRUGATED METAL	СМР	CORRUGATED METAL PIPE	GV	GATE VALVE	NIC	NOT IN CONTRACT	RD	ROOF DRAIN	TCE	TEMPORARY CONSTRUCTION EASEMEN
AFF	ABOVE FINISHED FLOOR	СО	CLEANOUT	HB	HORIZONTAL BEND	NOTAM	NOTICE TO AIRMEN	REINF	REINFORCING	TEL	TELEPHONE
ALT	ALTERNATE	CONC	CONCRETE	HDPE	HIGH DENSITY POLYETHELENE PIPE	0/S	OFFSET	REQD	REQUIRED	TEMP	TEMPORARY
ASZ	AIRPORT SAFETY ZONE	CR	COUNTRY ROAD	HORIZ	HORIZONTAL	OFA	OBJECT FREE AREA	ROW	RIGHT-OF-WAY	TF	TOP OF FRAME
APPROX	APPROXIMATE	CSP	CORRUGATED STEEL PIPE	HP	HIGH POINT OR HORSE POWER	OFZ	OBSTACLE FREE ZONE	ROW W/A	RIGHT-OF-WAY WITH ACCESS	TRANS	TRANSFORMER OR TRANSVERSE
ASPH	ASPHALT	CTR	CENTER	HPS	HIGH PRESSURE SODIUM	OAR	OWNER'S AUTHORIZED REPRESENTATIVE	ROW WO/A	RIGHT-OF-WAY WITHOUT ACCESS	TSA	TAXIWAY SAFETY AREA
ATCT	AIR TRAFFIC CONTROL TOWER	CULV	CULVERT	HR	HAND RAIL OR HOUR	PL	PROPERTY LINE	RPM	REVOLUTIONS PER MINUTE	TV	TELEVISION
AWG	AMERICAN WIRE GAUGE	CV	CHECK VALVE	HT	HEIGHT	PC	POINT OF CURVATURE	RR	RAILROAD	TWY, T/W	TAXIWAY
BL	BASELINE	CY	CUBIC YARD	HW	HEADWALL	PERF	PERFORATED	RSA	RUNWAY SAFETY AREA	TYP	TYPICAL
BB	BOTTOM OF BANK OR BERM	D	DRAIN	HYD	HYDRANT	PERP	PERPENDICULAR	RT	RIGHT	UD, U/D	UNDERDRAIN
BC	BOTTOM OF CURB	DI	DROP INLET	IN	INCH(ES)	PP	POWER POLE, POWER PANEL	RW	RETAINING WALL	U(ND)G	UNDERGROUND
BFE	BASEMENT FLOOR ELEVATION	DIA	DIAMETER	IP(F)	IRON PIPE (FOUND)	PPM	PARTS PER MILLION	RWY, R/W	RUNWAY	UTIL	UTILITY
BLDG	BUILDING	DIP	DUCTILE IRON PIPE	JB	JUNCTION BOX	PRC	POINT OF REVERSE CURVATURE	S	SOUTH	VC	VERTICAL CURVE
ВМ	BENCHMARK	DWG	DRAWING	LAT	LATITUDE	PSE	PERMANENT SEWER EASEMENT	SCH	SCHEDULE	VCP	VITRIFIED CLAY PIPE
ВОТ	ВОТТОМ	E	EAST	LB	POUND	PSF	POUNDS PER SQUARE FOOT	SF	SQUARE FOOT OR SQUARE FEET	VERT	VERTICAL
BRL	BUILDING RESTRICTION LINE	EA	EACH	LF	LINEAR FOOT OR LINEAR FEET	PSI	POUNDS PER SQUARE INCH	SH	STATE HIGHWAY	VOL	VOLUME
BSMT	BASEMENT	EJ	EXPANSION JOINT	LONG	LONGITUDE	PT	POINT OR POINT OF TANGENCY	SHT	SHEET	W	WEST
BVC	BEGINNING OF VERTICAL CURVE	ELEC	ELECTRIC	ID	LAMP POST, LIGHT POLE, LIGHT PANEL	PUE	PERMANENT UTILITY EASEMENT	SMH	SANITARY MANHOLE	W/	WITH
BW	BOTTOM OF WALL	ELEV	ELEVATION		OR LOW POINT	PVC	POINT OF VERTICAL CURVATURE	SPECS	SPECIFICATIONS	WF	WOOD FRAME
C	CHORD	EOP	EDGE OF PAVEMENT	LT	LEFT	PVC	OR POLYVINYL CHLORIDE	SS	SANITARY SEWER	W/O	WITHOUT
CAP	CORRUGATED ALUMINIM PIPE	FD	FLOOR DRAIN	MFR	MANUFACTURER	PVI	POINT OF VERTICAL INTERSECTION	STA	STATION OR STATIONARY	WW	WING WALL
CB	CATCH BASIN	FDN	FOUNDATION	MH	MANHOLE	PVT	POINT OF VERTICAL TANGENCY	STMH	STORM MANHOLE	WWF	WELDED WIRE FABIC
CF	CUBIC FOOT OR CUBIC FEET	FFE	FINISHED FLOOR ELEVATION	MIN	MINIMUM	PWR	POWER	STY	STORY	"""	OR WOVEN WIRE FABRIC





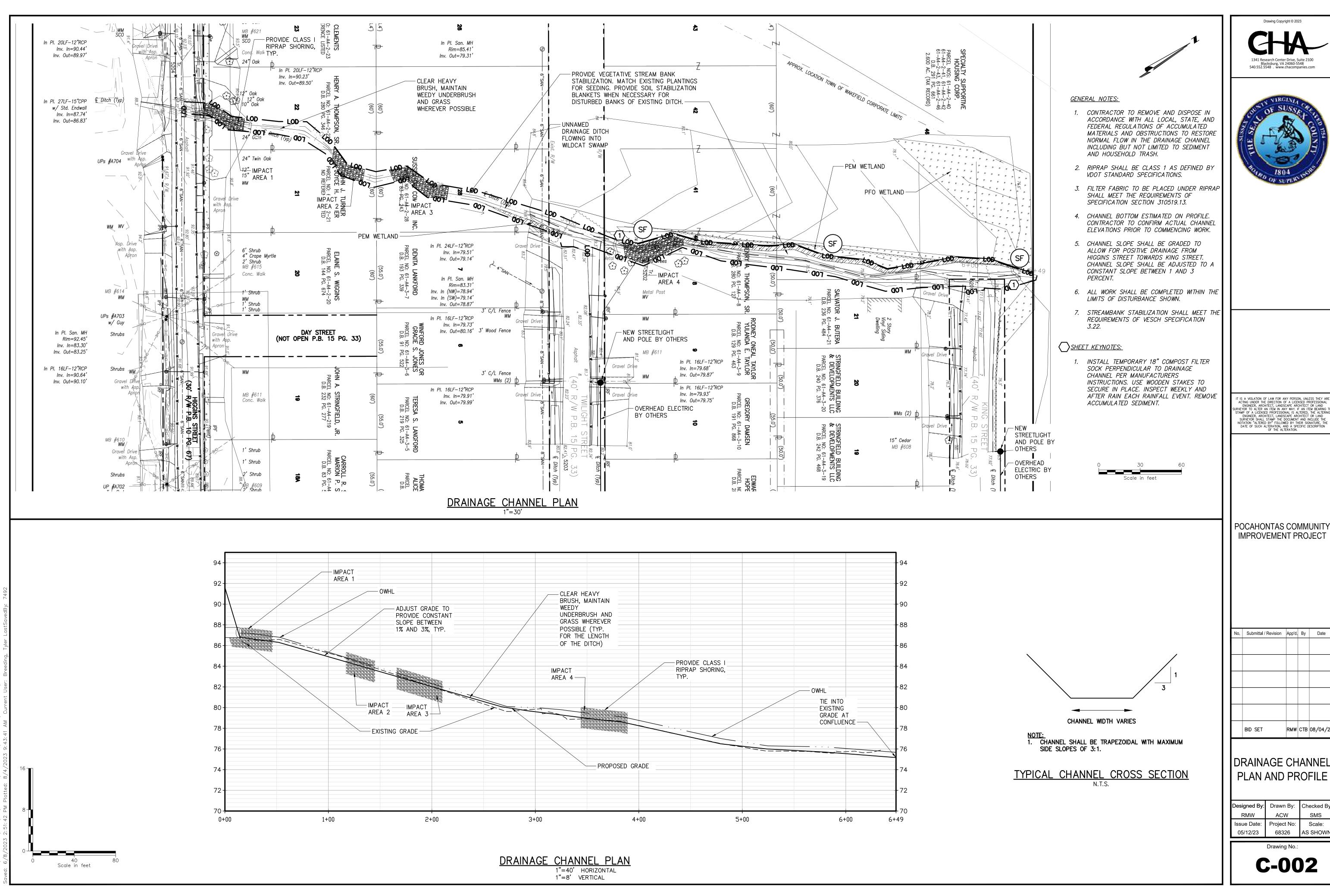
POCAHONTAS COMMUNITY IMPROVEMENT PROJECT

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EXISTING CONDITIONS

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Drawing No.:





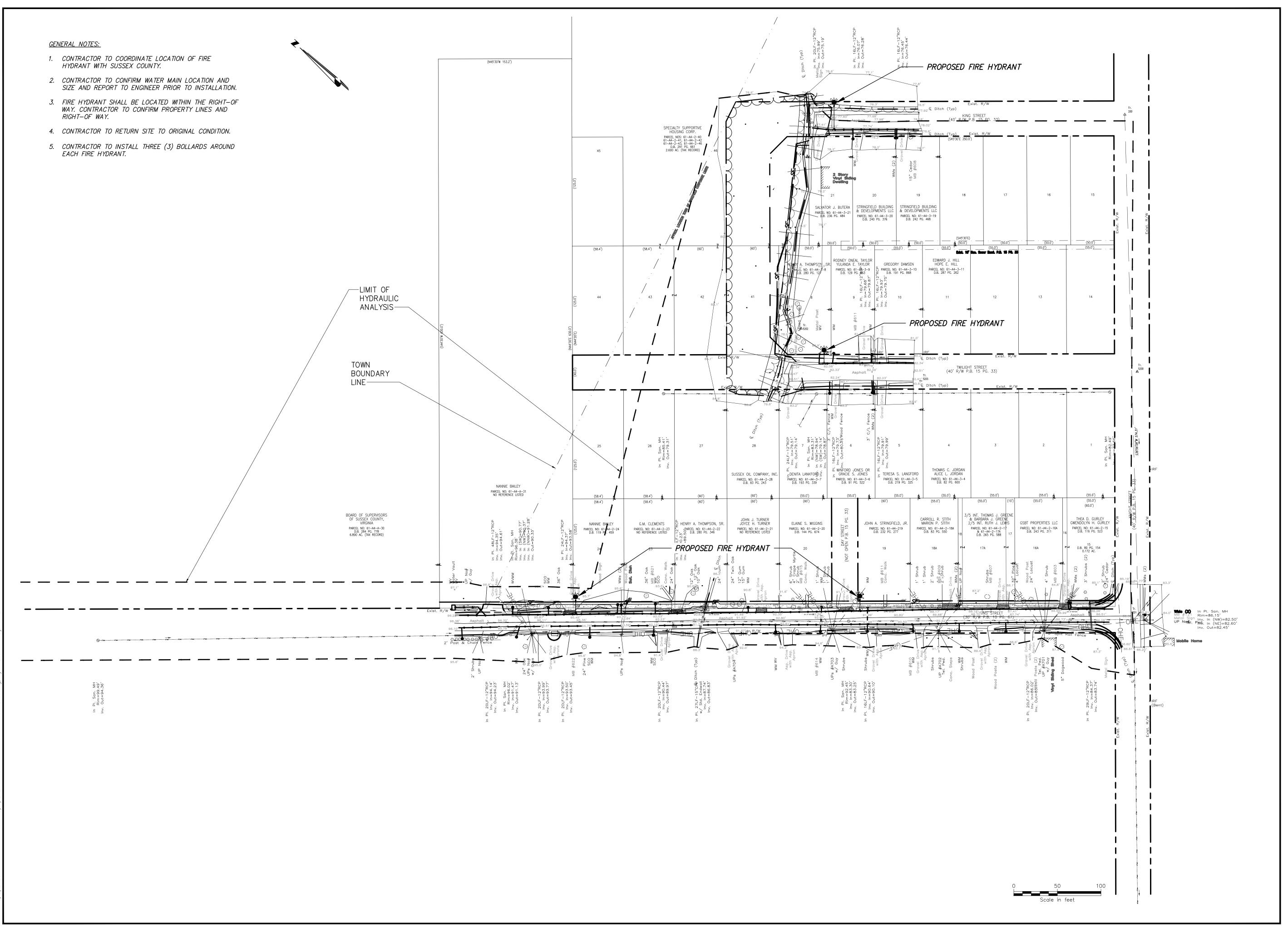
No. | Submittal / Revision | App'd. | By | Date RMW CTB 08/04/2

DRAINAGE CHANNEL PLAN AND PROFILE

Designed By:	Drawn By:	Checked By:
RMW	ACW	SMS
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C-002







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FIRE HYDRANT PLAN

Designed By:	Drawn By:	Checked By:
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05/12/23	68326	AS SHOWN

C-003

<u>EROSION AND SEDIMENT CONTROL NARRATIVE:</u>

PROJECT DESCRIPTION:

PROJECT CONSISTS OF CLEARING AND REGRADING THE EXISTING DRAINAGE CHANNEL, APPROXIMATELY 650 FT IN LENGTH, TO PROVIDE POSITIVE DRAINAGE. AREAS OF CHANNEL EROSION WILL BE ARMORED WITH RIP RAP. FOUR FIRE HYDRANTS WILL BE INSTALLED AS SHOWN ON SHEET C-003.

EXISTING SITE CONDITIONS:

THE EXISTING SITE IS AN UNNAMED DRAINAGE CHANNEL THAT FLOWS FROM HIGGINS STREET TO KING STREET INTO WILDCAT SWAMP. THE DRAINAGE CHANNEL CONSISTS OF OBSTRUCTIONS LIMITING FLOW SUCH AS BRUSH, TRASH, SEDIMENT AND LEAVES. THE CHANNEL IS ERODED IN SOME LOCATIONS. THE CHANNEL IS LOCATED WITHIN A RESIDENTIA NEIGHBORHOOD. THE FIRE HYDRANTS WILL BE LOCATED ALONG RESIDENTIAL STREETS.

ADJACENT PROPERTY:

ADJACENT PROPERTY INCLUDE A RESIDENTIAL PROPERTIES

OFF-SITE AREAS:

THERE ARE NO OFFSITE LAND DISTURBING AREAS ASSOCIATED WITH THIS PROJECT.

SOILS:

SOILS WITHIN THE PROJECT SITE ARE CLASSIFIED BY THE NRCS AS THE FOLLOWING:

- SLAGLE FINE SANDY LOAM, 2 TO 6 PERCENT SLOPES 25B
- DRAINAGE CLASS MODERATELY WELL DRAINED
- RUNOFF CLASS LOW DEPTH TO WATER TABLE - ABOUT 18 to 36 INCHES FLOOD FREQUENCY - NONE

CRITICAL EROSION AREAS:

ALL DISTURBED AREAS WITHIN THE DRAINAGE CHANNEL ARE CONSIDERED CRITICAL EROSION AREAS. THIS AREA IS CONSIDERED CRITICAL BECAUSE IT FLOWS INTO WILDCAT SWAMP. PRACTICES SHALL BE IMPLEMENTED TO CONTROL EROSION. STABILIZATION SHALL FOLLOW LAND DISTURBING ACTIVITIES.

EROSION AND SEDIMENT CONTROL MEASURES - GENERAL: ALL STRUCTURAL AND VEGETATIVE EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE "VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK" (VESCH), LATEST EDITION.

MINIMUM STANDARDS: ALL APPLICABLE MINIMUM STANDARDS SHOULD BE ADDRESSED:

A VESCP MUST BE CONSISTENT WITH THE FOLLOWING CRITERIA. TECHNIQUES AND METHODS

- 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.

 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.
- A PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED ON DENUDED AREAS NOT OTHERWISE PERMANENTLY STABILIZED. PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED THAT IS UNIFORM, MATURE ENOUGH TO SURVIVE AND WILL INHIBIT EROSION.
- SEDIMENT BASINS AND TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND-DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE TAKES PLACE.
- STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION. SEDIMENT TRAPS AND SEDIMENT BASINS SHALL BE DESIGNED AND CONSTRUCTED BASED UPON THE TOTAL DRAINAGE AREA TO BE SERVED BY THE TRAP OR BASIN.
- THE MINIMUM STORAGE CAPACITY OF A SEDIMENT TRAP SHALL BE 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA AND THE TRAP SHALL ONLY CONTROL DRAINAGE AREAS LESS THAN THREE ACRES. SURFACE RUNOFF FROM DISTURBED AREAS THAT IS COMPRISED OF FLOW FROM DRAINAGE AREAS GREATER THAN OR EQUAL TO THREE ACRES SHALL BE CONTROLLED BY A SEDIMENT BASIN. THE MINIMUM STORAGE CAPACITY OF A SEDIMENT BASIN SHALL BE 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA. THE OUTFALL SYSTEM SHALL, AT A MINIMUM, MAINTAIN THE STRUCTURAL INTEGRITY OF THE BASIN DURING A 25-YEAR STORM OF 24-HOUR DURATION. RUNOFF COEFFICIENTS USED IN RUNOFF CALCULATIONS SHALL CORRESPOND TO A BARE EARTH CONDITION OR THOSE CONDITIONS EXPECTED TO EXIST WHILE THE SEDIMENT BASIN IS UTILIZED.
- CUT AND FILL SLOPES SHALL BE DESIGNED AND CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION. SLOPES THAT ARE FOUND TO BE ERODING EXCESSIVELY WITHIN ONE YEAR OF PERMANENT STABILIZATION SHALL BE PROVIDED WITH ADDITIONAL SLOPE STABILIZING MEASURES UNTIL THE PROBLEM IS CORRECTED. CONCENTRATED RUNOFF SHALL NOT FLOW DOWN CUT OR FILL SLOPES UNLESS CONTAINED WITHIN AN ADEQUATE TEMPORARY OR PERMANENT CHANNEL, FLUME OR SLOPE
- WHENEVER WATER SEEPS FROM A SLOPE FACE, ADEQUATE DRAINAGE OR OTHER PROTECTION SHALL BE PROVIDED.
- ALL STORM SEWER INLETS THAT ARE MADE OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT SEDIMENT-LADEN WATER CANNOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT. BEFORE NEWLY CONSTRUCTED STORMWATER CONVEYANCE CHANNELS OR PIPES ARE MADE OPERATIONAL, ADEQUATE OUTLET PROTECTION AND ANY REQUIRED TEMPORARY OR PERMANENT CHANNEL LINING SHALL BE INSTALLED IN BOTH THE CONVEYANCE CHANNEL AND RECEIVING CHANNEL.
- WHEN WORK IN A LIVE WATERCOURSE IS PERFORMED, PRECAUTIONS SHALL BE TAKEN TO MINIMIZE ENCROACHMENT, CONTROL SEDIMENT TRANSPORT AND STABILIZE THE WORK AREA TO THE GREATEST EXTENT POSSIBLE DURING CONSTRUCTION. NONERODIBLE MATERIAL SHALL BE USED FOR THE CONSTRUCTION OF CAUSEWAYS AND COFFERDAMS. EARTHEN FILL MAY BE USED FOR THESE STRUCTURES IF ARMORED BY NONERODIBLE COVER MATERIALS.
- WHEN A LIVE WATERCOURSE MUST BE CROSSED BY CONSTRUCTION VEHICLES MORE THAN TWICE IN ANY SIX-MONTH PERIOD, A TEMPORARY VEHICULAR STREAM CROSSING CONSTRUCTED OF NONERODIBLE MATERIAL SHALL BE PROVIDED.
- 4. ALL APPLICABLE FEDERAL, STATE AND LOCAL REQUIREMENTS PERTAINING TO WORKING IN OR CROSSING LIVE WATERCOURSES SHALL BE MET 15. THE BED AND BANKS OF A WATERCOURSE SHALL BE STABILIZED IMMEDIATELY AFTER WORK IN THE WATERCOURSE IS COMPLETED.
- 6. UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA: NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME.
- EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES. EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY.
- MATERIAL USED FOR BACKFILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION AND PROMOTE STABILIZATION RESTABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THIS CHAPTER.
- WHERE CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED OR PUBLIC ROADS, PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY VEHICULAR TRACKING ONTO THE PAVED SURFACE. WHERE SEDIMENT IS TRANSPORTED ONTO A PAVED OR PUBLIC ROAD SURFACE, THE ROAD SURFACE SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER. THIS PROVISION SHALL APPLY TO INDIVIDUAL DEVELOPMENT LOTS AS WELL AS TO LARGER LAND—DISTURBING ACTIVITIES.
- ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED, UNLESS OTHERWISE AUTHORIZED BY THE VESCP AUTHORITY. TRAPPED SEDIMENT AND THE DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION.
- PROPERTIES AND WATERWAYS DOWNSTREAM FROM DEVELOPMENT SITES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION, EROSION AND DAMAGE DUE TO INCREASES IN VOLUME, VELOCITY AND PEAK FLOW RATE OF STORMWATER RUNOFF FOR THE STATED FREQUENCY STORM OF 24—HOUR DURATION IN ACCORDANCE WITH THE FOLLOWING STANDARDS AND CRITERIA. STREAM RESTORATION AND RELOCATION PROJECTS THAT INCORPORATE NATURAL CHANNEL DESIGN CONCEPTS ARE NOT MAN—MADE CHANNELS AND SHALL BE EXEMPT FROM ANY FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN—MADE CHANNELS:
- CONCENTRATED STORMWATER RUNOFF LEAVING A DEVELOPMENT SITE SHALL BE DISCHARGED DIRECTLY INTO AN ADEQUATE NATURAL OR MAN—MADE RECEIVING CHANNEL, PIPE OR STORM SEWER SYSTEM. FOR THOSE SITES WHERE RUNOFF IS DISCHARGED INTO A PIPE OR PIPE SYSTEM, DOWNSTREAM STABILITY ANALYSES AT THE OUTFALL OF THE PIPE OR PIPE SYSTEM SHALL BE PERFORMED. ADEQUACY OF ALL CHANNELS AND PIPES SHALL BE VERIFIED IN THE FOLLOWING MANNER:
 - (1) THE APPLICANT SHALL DEMONSTRATE THAT THE TOTAL DRAINAGE AREA TO THE POINT OF ANALYSIS WITHIN THE CHANNEL IS ONE HUNDRED TIMES GREATER THAN THE CONTRIBUTING DRAINAGE AREA OF THE PROJECT IN QUESTION; OR (2) (A) NATURAL CHANNELS SHALL BE ANALYZED BY THE USE OF A TWO—YEAR STORM TO VERIFY THAT STORMWATER WILL NOT OVERTOP CHANNEL BANKS NOR CAUSE EROSION OF CHANNEL BED OR BANKS.
 - (B) ALL PREVIOUSLY CONSTRUCTED MAN-MADE CHANNELS SHALL BE ANALYZED BY THE USE OF A TEN-YEAR STORM TO VERIFY THAT STORMWATER WILL NOT OVERTOP ITS BANKS AND BY THE USE OF A TWO-YEAR STORM TO DEMONSTRATE THAT STORMWATER WILL NOT CAUSE EROSION OF CHANNEL BED OR (C) PIPES AND STORM SEWER SYSTEMS SHALL BE ANALYZED BY THE USE OF A TEN-YEAR STORM TO VERIFY THAT STORMWATER WILL BE CONTAINED WITHIN THE PIPE OR SYSTEM.
- C. IF EXISTING NATURAL RECEIVING CHANNELS OR PREVIOUSLY CONSTRUCTED MAN-MADE CHANNELS OR PIPES ARE NOT ADEQUATE, THE APPLICANT SHALL (1) IMPROVE THE CHANNELS TO A CONDITION WHERE A TEN-YEAR STORM WILL NOT OVERTOP THE BANKS AND A TWO-YEAR STORM WILL NOT CAUSE EROSION TO THE CHANNEL, THE BED, OR THE BANKS; OR
- (2) IMPROVE THE PIPE OR PIPE SYSTEM TO A CONDITION WHERE THE TEN-YEAR STORM IS CONTAINED WITHIN THE APPURTENANCES; (3) DEVELOP A SITE DESIGN THAT WILL NOT CAUSE THE PRE-DEVELOPMENT PEAK RUNOFF RATE FROM A TWO-YEAR STORM TO INCREASE WHEN RUNOFF OUTFALLS INTO A NATURAL CHANNEL OR WILL NOT CAUSE THE PRE-DEVELOPMENT PEAK RUNOFF RATE FROM A TEN-YEAR STORM TO INCREASE WHEN RUNOFF OUTFALLS INTO A MAN-MADE CHANNEL; OR
- (4) PROVIDE A COMBINATION OF CHANNEL IMPROVEMENT, STORMWATER DETENTION OR OTHER MEASURES WHICH IS SATISFACTORY TO THE VESCP AUTHORITY TO PREVENT DOWNSTREAM EROSION. THE APPLICANT SHALL PROVIDE EVIDENCE OF PERMISSION TO MAKE THE IMPROVEMENTS.
- L HYDROLOGIC ANALYSES SHALL BE BASED ON THE EXISTING WATERSHED CHARACTERISTICS AND THE ULTIMATE DEVELOPMENT CONDITION OF THE SUBJECT IF THE APPLICANT CHOOSES AN OPTION THAT INCLUDES STORMWATER DETENTION, HE SHALL OBTAIN APPROVAL FROM THE VESCP OF A PLAN FOR MAINTENANCE OF THE DETENTION FACILITIES. THE PLAN SHALL SET FORTH THE MAINTENANCE REQUIREMENTS OF THE FACILITY AND THE PERSON RESPONSIBLE FOR PERFORMING THE
- MAINTENANCE. OUTFALL FROM A DETENTION FACILITY SHALL BE DISCHARGED TO A RECEIVING CHANNEL, AND ENERGY DISSIPATORS SHALL BE PLACED AT THE OUTFALL OF ALL DETENTION FACILITIES AS NECESSARY TO PROVIDE A STABILIZED TRANSITION FROM THE FACILITY TO THE RECEIVING CHANNEL.
- ALL ON-SITE CHANNELS MUST BE VERIFIED TO BE ADEQUATE. INCREASED VOLUMES OF SHEET FLOWS THAT MAY CAUSE EROSION OR SEDIMENTATION ON ADJACENT PROPERTY SHALL BE DIVERTED TO A STABLE OUTLET, ADEQUATE CHANNEL, PIPE OR PIPE SYSTEM, OR TO A DETENTION FACILITY.

 IN APPLYING THESE STORMWATER MANAGEMENT CRITERIA, INDIVIDUAL LOTS OR PARCELS IN A RESIDENTIAL, COMMERCIAL OR INDUSTRIAL DEVELOPMENT SHALL NOT BE CONSIDERED TO BE SEPARATE DEVELOPMENT PROJECTS. INSTEAD, THE DEVELOPMENT, AS A WHOLE, SHALL BE CONSIDERED TO BE A SINGLE DEVELOPMENT PROJECT. HYDROLOGIC PARAMETERS THAT REFLECT THE ULTIMATE DEVELOPMENT CONDITION SHALL BE USED IN ALL ENGINEERING CALCULATIONS.
- ALL MEASURES USED TO PROTECT PROPERTIES AND WATERWAYS SHALL BE EMPLOYED IN A MANNER WHICH MINIMIZES IMPACTS ON THE PHYSICAL, CHEMICAL AND BIOLOGICAL INTEGRITY OF RIVERS, STREAMS AND OTHER WATERS OF THE STATE.
- ANY PLAN APPROVED PRIOR TO JULY 1, 2014, THAT PROVIDES FOR STORMWATER MANAGEMENT THAT ADDRESSES ANY FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS SHALL SATISFY THE FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS IF THE PRACTICES ARE DESIGNED TO (I) DETAIN THE WATER QUALITY VOLUME AND TO RELEASE IT OVER 48 HOURS; (II) DETAIN AND RELEASE OVER A 24—HOUR PERIOD THE EXPECTED RAINFALL RESULTING FROM THE ONE YEAR, 24—HOUR STORM; AND (III) REDUCE THE ALLOWABLE PEAK FLOW RATE RESULTING FROM THE 1.5, 2, AND 10—YEAR, 24—HOUR STORMS TO A LEVEL THAT IS LESS THAN OR EQUAL TO THE PEAK FLOW RATE FROM THE SITE ASSUMING IT WAS IN A GOOD FORESTED CONDITION, ACHIEVED THROUGH MULTIPLICATION OF THE FORESTED PEAK FLOW RATE BY A REDUCTION FACTOR THAT IS EQUAL TO THE RUNOFF VOLUME FROM THE SITE WHEN IT WAS IN A GOOD FORESTED CONDITION DIVIDED BY THE RUNOFF VOLUME FROM THE SITE IN ITS PROPOSED CONDITION, AND SHALL BE EXEMPT FROM ANY FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN—MADE CHANNELS AS DEFINED IN ANY REGULATIONS PROMULGATED
- PURSUANT TO § 62.1-44.15:54 OR 62.1-44.15:65 OF THE ACT. FOR PLANS APPROVED ON AND AFTER JULY 1, 2014, THE FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS OF § 62.1-44.15:52 A OF THE ACT AND THIS SUBSECTION SHALL BE SATISFIED BY COMPLIANCE WITH WATER QUANTITY REQUIREMENTS IN THE STORMWATER MANAGEMENT ACT (§ 62.1-44.15:24 ET SEQ. OF THE

CODE OF VIRGINIA) AND ATTENDANT REGULATIONS, UNLESS SUCH LAND-DISTURBING ACTIVITIES ARE IN ACCORDANCE WITH 9VAC25-870-48 OF THE VIRGINIA

STORMWATER MANAGEMENT PROGRAM (VSMP) REGULATIONS. COMPLIANCE WITH THE WATER QUANTITY MINIMUM STANDARDS SET OUT IN 9VAC25-870-66 OF THE VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSMP) REGULATIONS SHALL BE DEEMED TO SATISFY THE REQUIREMENTS OF SUBDIVISION 19 OF THIS SUBSECTION.

STATUTORY AUTHORITY § 62.1-44.15:52 OF THE CODE OF VIRGINIA.

FORMER 4VAC50-30-40, DERIVED FROM VR625-02-00 § 4; EFF SEPTEMBER 13, 1990; AMENDED, VIRGINIA REGISTER VOLUME 11, ISSUE 11, EFF. MARCH 22, 1995; VOLUME 29, ISSUE 4, EFF. NOVEMBER 21, 2012; AMENDED AND RENUMBERED, VIRGINIA REGISTER VOLUME 30, ISSUE 2, EFF. OCTOBER 23, 2013.

EROSION AND SEDIMENT CONTROL NARRATIVE (CONT'D):

STRUCTURAL PRACTICES:

- 1. SILT FENCE STD. & SPEC. 3.05
- SILT FENCE SHALL BE USED TO INTERCEPT AND DETAIN SMALL AMOUNTS OF SEDIMENT FROM DISTURBED AREAS AND TO DECREASE THE VELOCITY OF SHEET FLOWS AND LOW-TO-MODERATE LEVEL CHANNEL FLOWS DURING CONSTRUCTION AND TO DECREASE THE VELOCITY OF SHEET FLOWS AND LOW-TO-MODERATE LEVEL CHANNEL FLOWS.
- SEQUENCE OF INSTALLATION: PRIOR TO ANY LAND DISTURBANCE.
- MAINTENANCE: SILT FENCE WILL BE IMMEDIATELY INSPECTED AFTER EACH RAINFALL EVENT AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS WILL BE MADE IMMEDIATELY. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. ADDITIONALLY THEY MUST BE REMOVED WHEN SEDIMENT REACHES ONE-HALF THE HEIGHT OF BARRIER.
- REMOVAL EVENT: FOLLOWING PERMANENT STABILIZATION OF ALL UPSTREAM AND DOWNSTREAM AREAS.

VEGETATIVE PRACTICES

GENERAL: A PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED ON DENUDED AREAS NOT OTHERWISE PERMANENTLY STABILIZED BY PAVEMENT PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED THAT IS UNIFORM AND MATURE ENOUGH TO SURVIVE AND INHIBIT EROSION. NEW VEGETATION SHALL BE MAINTAINED AT A MINIMUM OF ONE FULL YEAR AFTER PLANTING. NEW SEEDING SHALL BE SUPPLIED WITH ADEQUATE MOISTURE, ESPECIALLY LATE IN THE SEASON, AND IN ABNORMALLY HOT OR DRY WEATHER. STABILIZATION PRACTICES SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE APPROPRIATE VESCH STANDARD AND SPECIFICATION AND THE EROSION AND SEDIMENT CONTROL PLAN.

PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN (7) DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN (7) DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT (UNDISTURBED) FOR LONGER THAN 14 DAYS. PE14ANENT SEEDING SHALL BE USED ON ALL AREAS THAT ARE NOT AT FINAL GRADE AND THAT WILL BE LEFT DORMANT FOR A PERIOD OF MORE THAN 1 YEAR.

- 1. TEMPORARY SEEDING STD. & SPEC. 3.31
- TEMPORARY SEEDING SHALL BE APPLIED OVER DENUDED AREAS WITHIN 7 DAYS FOR AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE WITHIN 30 DAYS. TEMPORARY SEEDING. MIXES SHALL BE AS DESCRIBED ON THE DETAIL DRAWINGS AND IN ACCORDANCE TO THE VESCH.
- SEQUENCE OF INSTALLATION: WHEN CLEARED AREAS WILL NOT BE BROUGHT TO FINAL GRADE WITHIN 30 DAYS
- MAINTENANCE: AREAS WHICH FAIL TO ESTABLISH VEGETATIVE COVER ADEQUATE TO PREVENT RILL EROSION ARE TO BE RESEEDED
- 2. PERMANENT SEEDING STD. & SPEC. 3.32

REMOVAL EVENT: AS NEEDED FOR FINAL GRADING.

PERMANENT SEEDING SHALL ALSO BE USED ON ALL AREAS THAT ARE NOT AT FINAL GRADE AND THAT WILL BE LEFT DORMANT FOR A PERIOD OF MORE THAN 1 YEAR. IF CONFLICTS EXIST BETWEEN THE PROJECT SPECIFICATIONS AND THE VESCH STD. & SPEC. 3.32, THE MORE STRINGENT REQUIREMENT SHALL APPLY. PERMANENT SEEDING MIXES AND RATES ARE FOUND ON THIS SHEET.

SEQUENCE OF INSTALLATION: WITHIN 7 DAYS OF ACHIEVING FINAL GRADE OR AS NOTED ABOVE

SOIL TESTING REQUIREMENTS: REFER TO STD. & SPEC. 3.32

MAINTENANCE: REFER TO STD. & SPEC. 3.32; AREAS WHICH FAIL TO ESTABLISH VEGETATIVE COVER ADEQUATE TO PREVENT RILL EROSION ARE TO BE IMMEDIATELY RESEEDED, FOLLOWING IDENTIFICATION OF THE CAUSE OF POOR GERMINATION.

3. MULCHING - STD. & SPEC. 3.35

TO PREVENT EROSION BY PROTECTING THE SOIL SURFACE FROM RAINDROP IMPACT AND REDUCING THE VELOCITY OF OVERLAND FLOW. TO FOSTER GROWTH OF VEGETATION BY INCREASING AVAILABLE MOISTURE AND PROVIDING INSULATION AGAINST EXTREME HEAT OR COLD. PERMANENTLY STABILIZED WITH ORGANIC MULCH, MORE THAN LIKELY STRAW AT AN APPLICATION RATE OF 2 TONS WITHIN THE PROJECT AREA.

SEQUENCE OF INSTALLATION: AFTER DISTURBED AREAS HAVE BEEN PERMANENTLY SEEDED.

MAINTENANCE: MULCHING WILL BE PERIODICALLY INSPECTED AND REPLACED WHERE WINDBLOWN OR WASH OFF HAS OCCURRED. STRAW SHALL BE ANCHORED WITH DAMP METHODS AND ROUTINE WATERING SHOULD BE APPLIED TO ANCHOR AND PROVIDE SEED GERMINATION. INSPECTIONS SHOULD TAKE PLACE UP UNTIL GRASSES ARE FIRMLY ESTABLISHED.

REMOVAL EVENT: TO REMAIN IN PLACE AS A PERMANENT STABILIZATION METHOD.

PERMANENT STABILIZATION:

ALL NON-PAVED AREAS DISTURBED BY CONSTRUCTION SHALL BE STABILIZED WITH PERMANENT SEEDING IMMEDIATELY FOLLOWING FINISH GRADING. SEEDING SHALL BE IN ACCORDANCE WITH STD. & SPEC. 3.32, PERMANENT SEEDING. SEED TYPE SHALL BE AS SPECIFIED FOR "MINIMUM CARE LAWNS" AND "GENERAL SLOPES" IN THE HANDBOOK. MULCH (STRAW OR FIBER) SHALL BE USED ON ALL SEEDED SURFACES. IN ALL SEEDING OPERATIONS SEED, FERTILIZER AND LIME SHALL BE APPLIED PRIOR TO MULCHING.

MANAGEMENT STRATEGIES:

- CONSTRUCTION SHALL BE SEQUENCED SO THAT GRADING OPERATIONS CAN BEGIN AND END AS QUICKLY AS POSSIBLE 2. ISOLATE TRENCHING FOR UTILITIES AND DRAINAGE FROM DOWNSTREAM CONVEYANCES IN ORDER TO MINIMIZE PERIMETER CONTROLS.
- 3. ALL CUT AND FILL SLOPES SHALL BE SEEDED WITHIN SEVEN (7) DAYS OF ACHIEVING FINAL GRADE.
- 4. ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE MAINTAINED UNTIL THEY ARE NO LONGER REQUIRED TO COMPLY WITH THE CONTRACT DOCUMENTS OR STATE LAW. ONLY AFTER INSPECTION AND APPROVAL FROM THE VESCP AUTHORITY MAY ITEMS BE REMOVED FOLLOWING THE STABILIZATION OF CONTRIBUTING AREAS.

<u>INSPECTIONS:</u>

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 FORTY-EIGHT (48) HOURS OF THE END OF A STORM EVENT PRODUCING 1/4" OR GREATER OF PRECIPITATION. WHERE AREAS HAVE BEEN FINALLY OR TEMPORARILY STABILIZED OR RUNOFF IS UNLIKELY DUE TO WINTER CONDITIONS (SITE IS COVERED WITH SNOW, ICE, OR FROZEN GROUND EXISTS) SUCH INSPECTIONS SHALL BE CONDUCTED AT LEAST ONCE EVERY MONTH.

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 REQUIRED TO REDUCE SEDIMENTATION OF STORM DRAINS, CULVERTS, AND RECEIVING CHANNELS.

F CONTROLS OR SEDIMENT PREVENTION AREAS ARE FOUND TO BE IN NEED OF REPAIR OR MODIFICATION, THE GENERAL CONTRACTOR SHALL PROVIDE ADDITIONAL MEASURES OR MODIFICATIONS 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. IF IMPLEMENTATION BEFORE THE NEXT STORM EVENT IS IMPRACTICAL, THEY SHALL BE IMPLEMENTED AS SOON AS PRACTICAL.

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. MONITORING REPORTS TO BE SUBMITTED FROM THE RLD. MAJOR OBSERVATIONS OF THESE REPORTS SHALL INCLUDE: THE LOCATIONS OF EXCESSIVE SEDIMENTATION FROM THE SITE; LOCATIONS OF CONTROLS IN NEED OF REPAIR; LOCATIONS OF FAILED OR INADEQUATE CONTROLS; AND LOCATIONS WHERE ADDITIONAL CONTROLS ARE NEEDED.

STORMWATER MANAGEMENT:

THIS PROJECT IS CONSIDERED A MAINTENANCE PROJECT PER THE VIRGINIA STORMWATER MANAGEMENT ACT 62.1—44.15: 34 PART C, THEREFORE IT IS EXEMPT FROM STORMWATER QUANTITY AND QUALITY REGULATIONS.

GENERAL EROSION AND SEDIMENT CONTROL NOTES:

- UNLESS OTHERWISE INDICATED, CONSTRUCT AND MAINTAIN ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, AND VIRGINIA REGULATIONS VR 625-02-00 EROSION AND SEDIMENT CONTROL REGULATIONS.
- VESCP AUTHORITY INSPECTORS WILL MAKE A CONTINUING REVIEW AND EVALUATION OF THE METHODS AND EFFECTIVENESS OF THE E.S.C. PLAN. ES-2:
- PLACE ALL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO OR AS THE FIRST STEP IN CLEARING, GRADING, OR LAND DISTURBANCE. ES-3:
- MAINTAIN A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN ON THE SITE AT ALL TIMES.
- PRIOR TO COMMENCING LAND-DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING, BUT NOT OFFSITE BORROW OR WASTE AREA), SUBMIT A SUPPLEMENTARY EROSION CONTROL PLAN TO THE ARCHITÉCT/ENGINEER FOR
- PROVIDE ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE _OCAL AUTHORITY HAVING JURISDICTION.
- ALL DISTURBED AREAS SHALL DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND-DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT.
- DURING DEWATERING OPERATIONS, PUMP WATER INTO AN APPROVED FILTERING DEVICE IN ACCORDANCE WITH VA E&S STD. 3.26. INSPECT ALL EROSION CONTROL MEASURES DAILY AND AFTER EACH RUNOFF-PRODUCING RAINFALL EVENT. MAKE ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES IMMEDIATELY. ES-9:

CONSTRUCTION SEQUENCING

- INSTALL EROSION AND SEDIMENT CONTROL MEASURES (ESC) AS SHOWN ON THE DRAWINGS IN ACCORDANCE WITH THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH).
- 2. COMPLETE CHANNEL MAINTENANCE AND FIRE HYDRANT INSTALLATION.
- THROUGHOUT CONSTRUCTION, USE TEMPORARY SEEDING WITHIN 7 DAYS FOR DENUDED AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE WITHIN 30 DAYS.
- 4. ALL DISTURBED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY FOLLOWING COMPLETION OF CONSTRUCTION.
- 5. REMOVE EROSION AND SEDIMENT CONTROL MEASURES ONCE CONSTRUCTION IS COMPLETE AND THE SITE HAS BEEN STABILIZED AND APPROVED BY THE EROSION AND SEDIMENT INSPECTOR.

EROSION & SEDIMENT CONTROL PLAN INFORMATION

- 1. MAINTENANCE AND REPAIR TO BE MADE BY THE CONTRACTOR
- 2. CONTACT PROVIDED UPON CONTRACT NOTICE TO PROCEED.
- 3. DAILY AND PERIODIC INSPECTIONS SHALL BE DONE IN ACCORDANCE WITH MS-19 GUIDELINES AND EXAMPLE INSPECTION REPORT PROVIDED IN THE VESCH.

EROSION CONTROL LEGEND								
SYMBOL	DESCRIPTION DESCRIPTION	ST'D. & SPEC.						
res	LIMIT OF DISTURBANCE							
CE)	CONSTRUCTION ENTRANCE	3.02						
	SILT FENCE	3.05						
(ST	TEMPORARY SEEDING	3.31						
PS	PERMANENT SEEDING	3.32						
MU	MULCHING	3.35						

* STABILIZE ALL DISTURBED AND DENUDED AREAS





POCAHONTAS COMMUNITY IMPROVEMENT PROJECT

ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND RVEYOR TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING

STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTER ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

No.	Submittal / Revision	App'd.	Ву	Date
	BID SET	RMW	СТВ	08/04/23

NARRATIVE Designed By: Drawn By: Checked B RMWACW

EROSION AND

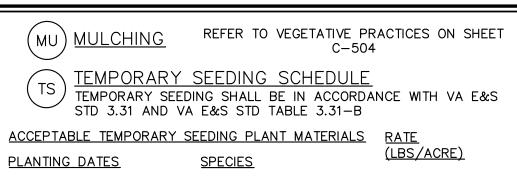
SEDIMENT CONTROL

05/12/23 68326 AS SHOW Drawing No.:

Project No:

Scale:

Issue Date:



50/50 MIX OF ANNUAL

RYEGRASS (LOLIUM SEPT 1-FEB 15 50-100 MULTI-FLORUM) & CEREAL (WINTER) RYE (SECALE CEREALE)

ANNUAL RYEGRASS FEB 16-APR 20 60-100 (LOLIUM MULTI-FLORUM)

GERMAN MILLET MAY 1-AUG 31 (SETARIA ITALICA)

SEEDINGS MADE IN FALL FOR WINTER COVER AND DURING HOT AND DRY SUMMER MONTHS SHALL BE MULCHED IMMEDIATELY UPON COMPLETION OF SEED APPLICATION WITH TACKIFIED STRAW, IN ACCORDANCE WITH VA E&S STD 3.35.

PERMANENT SEEDING SCHEDULE PERMANENT SEEDING SHALL BE IN ACCORDANCE WITH VA E&S

STD 3.32 AND VA E&S STD TABLE 3.32-C

KENTUCKY 31 FESCUE RED TOP GRASS SEASONAL NURSE CROP

2 LBS

TOTAL LBS PER ACRE

SEASONAL NURSE CROP

GENERAL SLOPE (3:1 OR LESS)

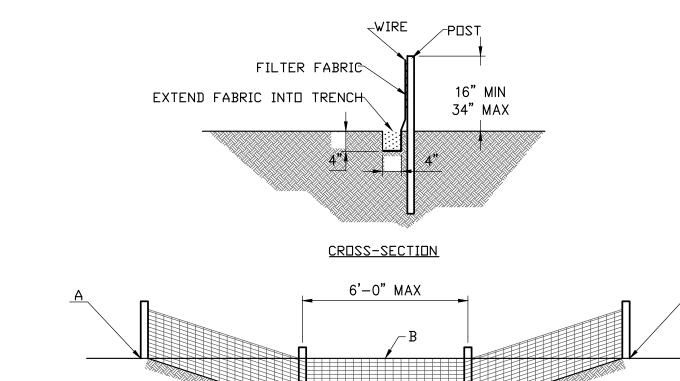
FEBRUARY 16 THROUGH APRIL MAY 1 THROUGH AUGUST 15 AUGUST 16 THROUGH OCTOBER NOVEMBER THROUGH FEBRUARY 15

ANNUAL RYE FOXTAIL MILLET ANNUAL RYE WINTER RYE

LIME AND FERTILIZER NEEDS SHALL BE DETERMINED BY SOIL TESTS.

SEEDINGS TO BE MULCHED AT THE RATE OF 2 TONS PER ACRE WITH TACKIFIED STRAW, IMMEDIATELY UPON COMPLETION OF SEED APPLICATION, IN ACCORDANCE WITH VA E&S STD 3.35.

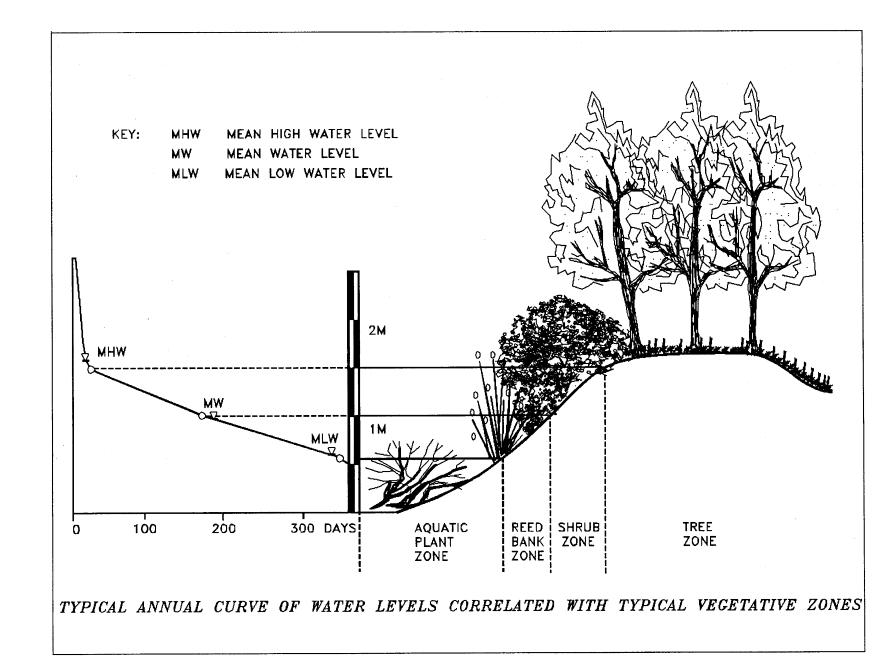
SEEDING SCHEDULES

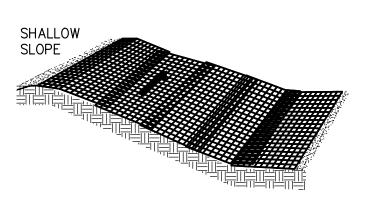


NDTES:

1. WHEN POINT B DROPS BELOW POINT A, USE EXTRA STRENGTH FILTER FABRIC WITH A MAXIMUM 3 FOOT SPACING OF POST.

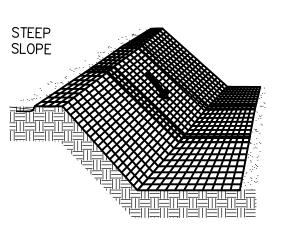
PLATE 3.05-2





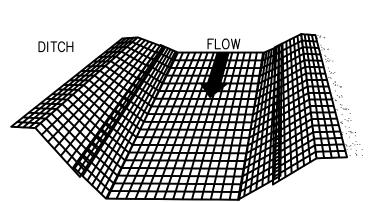
ON SHALLOW SLOPES, STRIPS OF NETTING PROTECTIVE COVERINGS MAY BE APPLIED ACROSS THE SLOPE.

WHERE THERE IS A BERM AT THE TOP OF THE SLOPE, BRING THE MATERIAL OVER THE BERM AND ANCHOR IT BEHIND THE BERM.



ON <u>STEEP</u> SLOPES, APPLY PROTECTIVE COVERING PARALLEL TO THE DIRECTION OF FLOW AND ANCHOR SECURELY.

BRING MATERIAL DOWN TO A LEVEL AREA BEFORE TERMINATING THE INSTALLATION. TURN THE END UNDER 4" AND STAPLE AT 12" INTERVALS.



IN DITCHES, APPLY PROTECTIVE COVERING PARALLEL TO THE DIRECTION OF FLOW. USE CHECK SLOTS AS REQUIRED. AVOID JOINING MATERIAL IN THE CENTER OF THE DITCH IF AT ALL POSSIBLE.

TYPICAL TREATMENT - 1 (SOIL STABILIZATION BLANKET) INSTALLATION CRITERIA



STABILIZATION BLANKETS AND MATTING

PLATE 3.36-1





ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND RVEYOR TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING UNIVERSITY TO ALLER AN THEM IN ANY MAT, IF AN ITEM BEARING
STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERI
ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND
SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE
NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THI
DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION
OF THE ALTERATION.

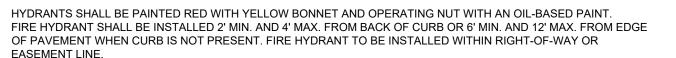
POCAHONTAS COMMUNITY IMPROVEMENT PROJECT

No.	Submittal / Revision	App'd.	Ву	Date
	BID SET	RMW	СТВ	08/04/2
	No.			

DETAILS

Designed By:	Drawn By:	Checked By:
RMW	ACW	SMS
Issue Date:	Project No:	Scale:
05/12/23	68326	AS SHOWN

Drawing No.: **C-005**



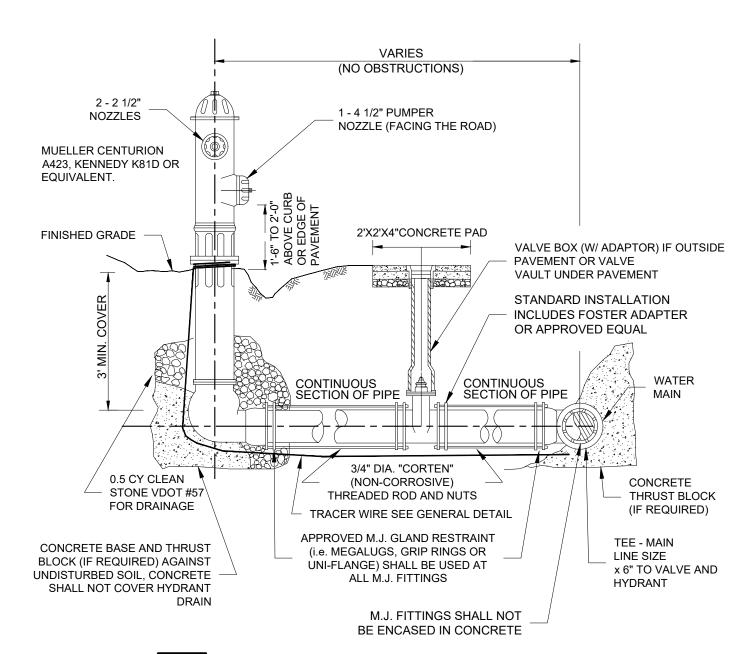
AREA AROUND HYDRANT AT A RADIUS OF 4' TO BE LEVEL AND UNOBSTRUCTED.

- WATERPROOF BAGS OR OUT OF SERVICE RINGS SHALL BE PLACED OVER ALL NEWLY INSTALLED FIRE HYDRANTS. HYDRANT ASSEMBLIES SHALL BE RODDED AND RESTRAINED WITH APPROVED M.J. GLAND RESTRAINTS. HIGH
- PRESSURE (OVER 150 PSI) ALSO REQUIRES CONCRETE THRUST BLOCKS AS SHOWN BELOW.

 6. IF DURING CONSTRUCTION THE SEASONAL WATER LEVEL IS NOTED TO BE ABOVE THE DRAIN OUTLETS OF THE PROPOSED HYDRANT. THE PARTICIPATING UTILITY WILL BE NOTIFIED IMMEDIATELY SO THAT THE HYDRANT CAN

BE RELOCATED TO A SUITABLE LOCATION, OMITTED, OR THE DRAIN HOLE PLUGGED.
TWO WRAPS OF TRACER WIRE SHALL BE WRAPPED AROUND BASE OF HYDRANT.

8. APPROVED MODELS - MUELLER CENTURION A423, KENNEDY K81D OR EQUIVALENT.
9. WHERE HYDRANT LATERAL(S) IS APPROVED BY THE PARTICIPATING UTILITY TO BE LONGER IN LENGTH, MAKING
THE CONTINUOUS SECTION OF PIPE ON EACH SIDE OF THE GATE VALVE UNFEASIBLE, <u>RESTRAINED</u> PIPE JOINTS
SHALL BE INSTALLED BETWEEN THE TEE AND GATE VALVE IN LIEU OF RODDING. HOWEVER, A RODDED
CONTINUOUS SECTION OF PIPE SHALL ALWAYS BE INSTALLED BETWEEN THE GATE VALVE AND HYDRANT.

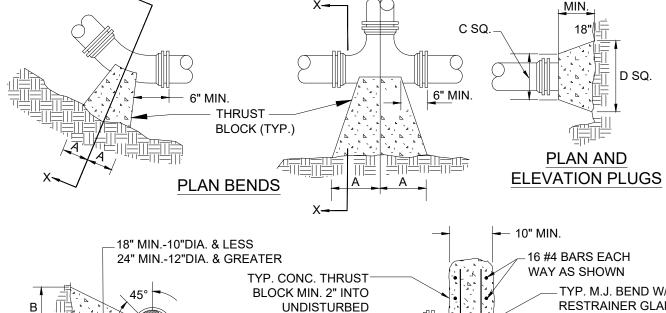


1 FIRE HYDRANT ASSEMBLY

-SOLVENT WELDED PVC CAP

INDICATED HERE.

-6" WIDE REFLECTIVE TAPE (SEE NOTE 1)



18" MIN.-10"DIA. & LESS
24" MIN.-12"DIA. & GREATER

TYP. CONC. THRUST
BLOCK MIN. 2" INTO
UNDISTURBED
MAT. ON 3 SIDES

SECTION X-X

UNDISTURBED
SOIL (TYP.)

SECTION OF VERTICAL BEND

NOTES

- FOR VERT. BEND DOWN IN EXCESS OF 11 1/4" BEND, ANCHORAGE SHALL BE DESIGNED BY ENGINEER.
- FOR VERT. BEND UPWARD, BLOCKING TO BE SIMILAR TO THAT FOR HORZ. BEND.
 GLANDS & BOLTS SHALL BE PROTECTED FROM CONC. WITH PLASTIC SHEETING WHEN POURING THRUST BLOCKS.
 ALL THRUST BLOCK & SUPPORT CONCRETE

SHALL BE 3000 PSI READY MIX CONCRETE.

THAN 30" SHALL HAVE THE RESTRAINED PIPE INSTALLED WITH A MINIMUM OF 4' OF COVER.

6. REFER TO "MINIMUM THRUST RESTRAINT OF PIPE JOINTS DESIGN LENGTHS" DETAIL FOR WHEN THRUST BLOCKS ARE REQUIRED TO BE

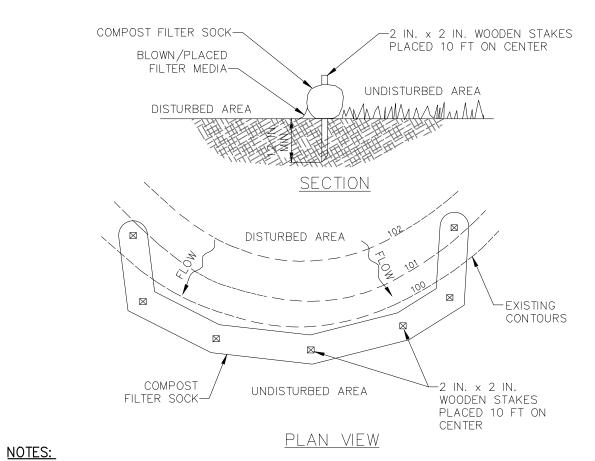
THRUST BLOCKS WITH "B" DIMENSION GREATER

USED.
7. WHEN THRUST BLOCK IS REQUIRED BUT NOT FEASIBLE TO CONSTRUCT, THRUST COLLAR SHALL BE USED. SEE "THRUST COLLAR" DETAIL

PRESSURE = 200psi BEARING = 2000psf FACTOR OF SAFETY = 1.5

PIPE 9	90° E	BEND	45° BEND		22 ½° BEND		11 ½° BEND		TEE		PLUG	
SIZE	Α	В	Α	В	Α	В	Α	В	Α	В	С	D
4"	8"	12"	8"	8"	6"	6"	6"	6"	11"	9"	10"	6"
6"	18"	12"	8"	10"	8"	8"	8"	8"	11"	10"	12"	18"
8"	18"	13"	10"	10"	8"	8"	8"	8"	11"	12"	12"	24"
10"	20"	16"	12"	14"	8"	12"	8"	12"	14"	16"	16"	30"
12"	20"	16"	12"	14"	8"	12"	8"	12"	14"	16"	16"	30"
16"	26"	20"	16"	18"	11"	13"	11"	13"	18"	20"	20"	36"
24"	82"	42"	62"	30"	44"	22"	22"	16"	82"	42"	82"	42"
30"	185"	42"	100"	42"	52"	42"	40"	30"	185"	42"	185"	42"

2 THRUST BLOCK REQUIREMENTS
SCALE: NOT TO SCALE



— 1/2" DIA X 1'-0" LONG GALVANIZED STEEL ROD THROUGH PIPE

DIA X 1 -0 LONG GALVANIZED STELL KOD TITKOOGIT

-3" DIA NOMINAL SIZE 4'-6" LONG, HOT-DIPPED GALVANIZED

STEEL PIPE PAINTED WITH ICI DEVOE, DEVFLEX PAINT, GLOSS,

WHITE, OR APPROVED EQUAL. PREPARE AND PRIME SURFACE

BOLLARD COVER IS ALSO ACCEPTABLE WITH UV RESISTANT

ACCORDING TO MANUFACTURER'S DIRECTION. PLASTIC

PLASTIC AND REFLECTIVE TAPE MEETING REQUIREMENTS

NOTES:

18.00 SQUARE

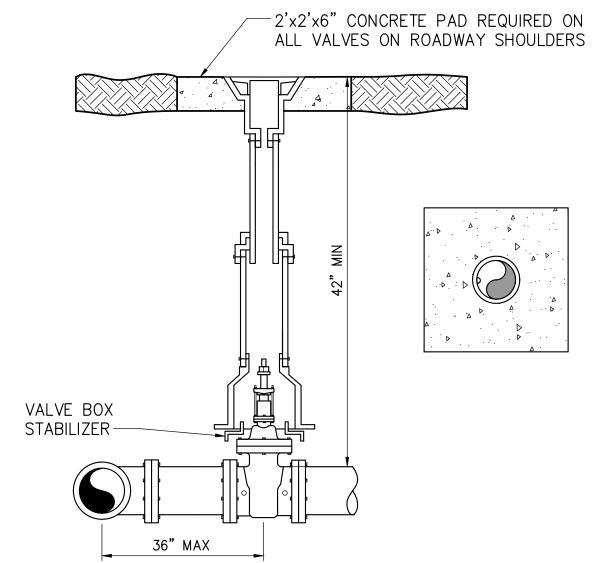
1. 6" WIDE 3M™ PRESSURE SENSITIVE, HIGH—INTENSITY GRADE REFLECTOR SHEETING, COLOR RED, PRODUCT #3872, OR APPROVED EQUAL, TO BE PLACED ON ALL BOLLARDS. OVERLAP THE ENDS OF SHEETING BY 1/4" MINIMUM.

4 BOLLARD

NOT TO SCALE

- 1. COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE BARRIER SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN BARRIER ALIGNMENT. MAXIMUM SLOPE LENGTH ABOVE ANY BARRIER SHALL NOT EXCEED THAT SPECIFIED FOR THE SIZE OF THE SOCK AND THE SLOPE OF ITS TRIBUTARY AREA.
- 2. TRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS.
- 3. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE BARRIER AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.
- 4. COMPOST FILTER SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.
- 5. BIODEGRADABLE COMPOST FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
- 6. UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

5 COMPOST FILTER SOCK
SCALE: NOT TO SCALE



NOTES:

- 1. SUPPORT VALVE BOX ON BRICKS SURROUNDING VALVE BONNET.
- VALVE LID TO BE EAST JORDAN IRON WORKS, INC. OR APPROVED EQUAL.
 VALVE TO OPEN COUNTER CLOCKWISE.
- 4. PROVIDE EXTENSION RODS FOR VALVE 8' OR MORE BELOW GROUND.
- . VALVE BOX SHALL BE CONSTRUCTED OF 8-IN CAST IRON.
- 6. VALVE BOX CAPS SHALL BE MARKED "WATER".

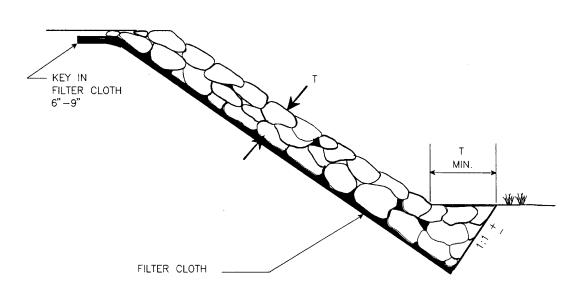
7. ASSEMBLY SHALL BE H-20 RATED.

3 VALVE SETTING STANDARD DETAIL

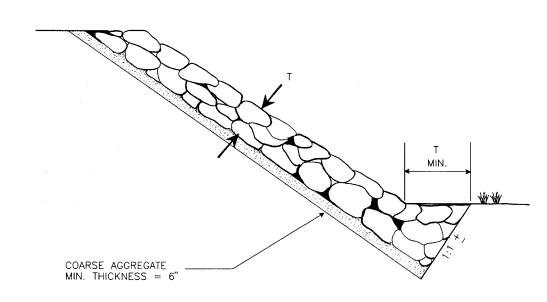
NOT TO SCALE

TOE REQUIREMENTS FOR BANK STABILIZATION

FILTER CLOTH UNDERLINER (PREFERRED)



GRANULAR FILTER



TOE REQUIREMENTS FOR BANK STABILIZATION

NOT TO SCALE

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IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND URVEYOR TO ALTER AN ITEM IS ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

POCAHONTAS COMMUNITY
IMPROVEMENT PROJECT

No. Submittal / Revision App'd. By Date

BID SET RMW CTB 08/04/23

DETAILS

Designed By:Drawn By:Checked By:RMWACWSMSIssue Date:Project No:Scale:05/12/2368326AS SHOWN

Drawing No.: **C-006**