

Site Plans


Issued for	Approval
Date Issued	December 1, 2023
Latest Issue	December 1, 2023

Busch Gardens  
2025

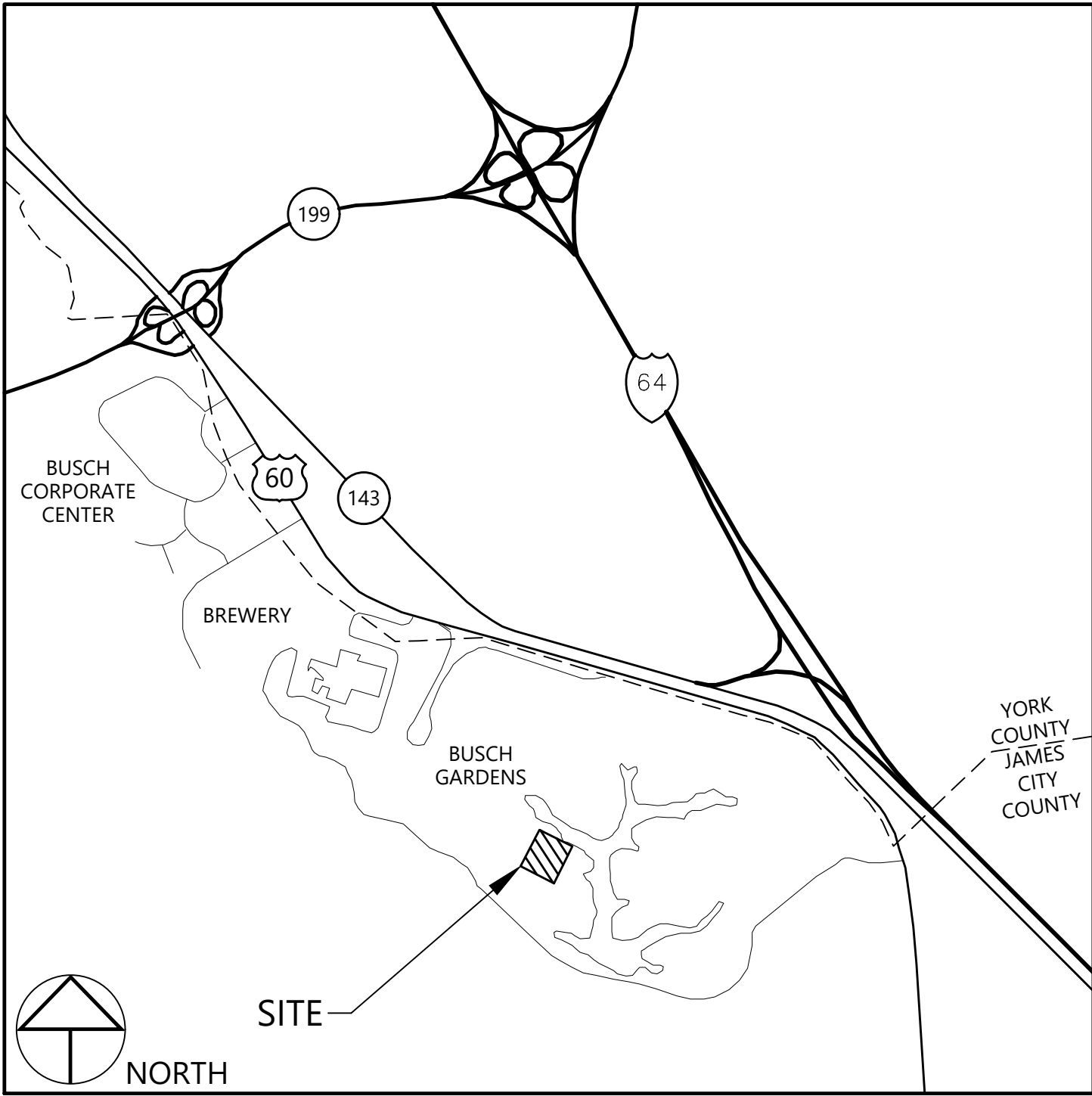
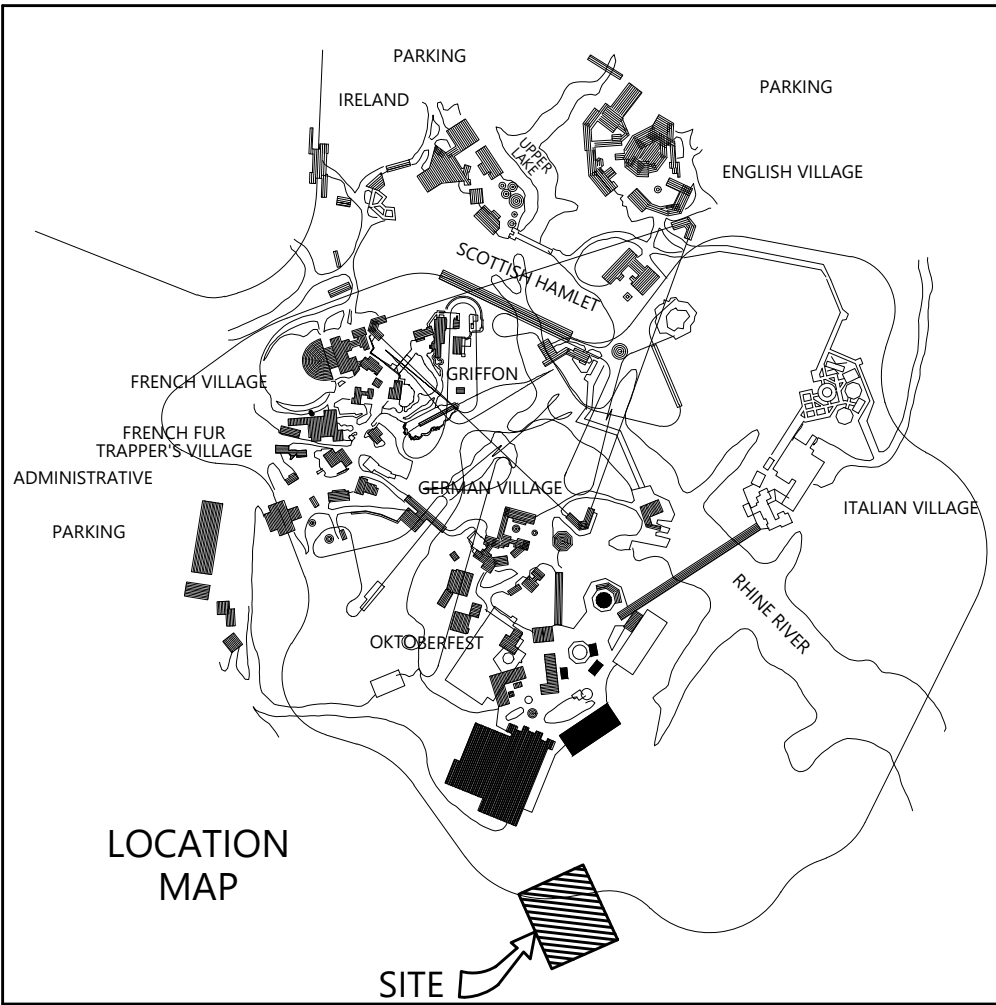
JCC Case No. SP-23-0102

7851 Pocahontas Trail  
Williamsburg, Virginia

Engineers  
Scientists  
Planners  
Designers



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Williamsburg, Virginia 23185  
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Site Location Map

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STATISTICAL DATA

PROJECT SITE ADDRESS	7851 POCAHONTAS TRAIL WILLIAMSBURG, VA. 23185
JAMES CITY COUNTY PARCEL ID. ZONING	5140100009 M-1
PROJECT SITE INCLUDED IN THE PSA OF JAMES CITY COUNTY	
TOTAL PROPERTY	382 ACRES
TOTAL DISTURBED AREA	179,552 sq.ft./4.12 ACRES
TOTAL PRE-DEVELOPMENT IMPERVIOUS AREA	27,958 sq.ft./0.64 ACRES (16% OF PROJECT AREA)
TOTAL POST DEVELOPMENT IMPERVIOUS AREA	37,710 sq.ft./0.87 ACRES (21% OF PROJECT AREA)
INCREASE IN SITE IMPERVIOUS AREA	9,752 sq.ft. (5% OF PROJECT AREA)
HEIGHT OF ATTRACTION NOT TO EXCEED	80' ABOVE FINISH GRADE
HYDROLOGIC UNIT CODE (HUC)	6TH ORDER NWBD HUC CODE = JL35

BUILDING INFORMATION

BUILDING CLASSIFICATION:	S-1
BUILDING CONSTRUCTION TYPE:	TYPE VB
BUILDING HEIGHT:	23'
BUILDING AREA (TOTAL NEW FOOTPRINT AREA):	1,106 sq.ft.

ANY SIGNS CONSTRUCTED IN CONJUNCTION WITH THIS PROJECT THAT ARE VISIBLE FROM ANY PUBLIC RIGHT OF WAY SHALL BE CONSTRUCTED IN ACCORDANCE WITH ARTICLE II, DIVISION 3 OF THE JAMES CITY COUNTY ZONING ORDINANCE.

ALL UTILITIES CONSTRUCTED IN ASSOCIATION WITH THIS PROJECT SHALL BE PLACED UNDERGROUND UNLESS OTHERWISE NOTED.

FLOOD INSURANCE RATE MAP  
COMMUNITY-PANEL NUMBER 51095C0207D  
DATED: DECEMBER 16, 2015  
PROJECT APPEARS TO BE IN ZONE X. AREAS DETERMINED TO BE OUTSIDE THE 500 YEAR FLOODPLAIN

WATER SUPPLY: WATER SUPPLIED BY NEWPORT NEWS WATER WORKS  
WATER SYSTEM: PRIVATE  
SANITARY SEWER DISCHARGE: THROUGH HAMPTON ROADS SANITATION DISTRICT  
SANITARY SEWER SYSTEM: PRIVATE  
STORM WATER QUALITY : RHINE RIVER BMP WILL PROVIDE STORM WATER QUALITY CONTROL STORM WATER MANAGEMENT: RHINE RIVER BMP WILL PROVIDE STORM WATER QUANTITY CONTROL WATERSHED: THIS SITE LIES WITHIN THE JAMES RIVER WATERSHED AND DRAINS TO GROVE CREEK.

THE PROJECT SITE IS COVERED BY CONSTRUCTION GENERAL PERMIT #VAR10D091, VSMP STORMWATER PERMIT ISSUED BY DEQ ON 08/13/2019.

THE STORMWATER MANAGEMENT FACILITY AND ASSOCIATED STORMWATER CONVEYANCE SYSTEM AS PROPOSED FOR THIS PROJECT WILL REQUIRE SUBMISSION, REVIEW AND APPROVAL OF RECORD DRAWINGS AND CONSTRUCTION CERTIFICATION PRIOR TO RELEASE OF THE POSTED SURETY.

NO OFFSITE WORK IS ANTICIPATED WITH THIS PROJECT.  
NO OFFSITE LAND DISTURBING AREAS ARE ANTICIPATED FOR THIS PROJECT.

ALL RETAINING WALLS 2 FEET OR TALLER MUST BE PERMITTED THROUGH THE JAMES CITY COUNTY CODES COMPLIANCE DIVISION.

NO GLARE FROM THE LIGHTS PROPOSED WITH THIS PROJECT WILL BE PROJECTED BEYOND THE BUSCH GARDENS PROPERTY.

CONTRACTOR IS HEREBY ADVISED THAT THESE PLANS MAY DEViate FROM THOSE PREVIOUSLY OFFERED FOR CONTRACT BIDDING AND SHALL BE RESPONSIBLE FOR MAKING THEMSELVES AWARE OF ANY ALTERATIONS, DEVIATIONS, OR MODIFICATIONS TO THE INFORMATION CONTAINED HEREIN.

RESPONSIBLE LAND DISTURBER PIOTR SWIETUCHOWSKI, PROFESSIONAL ENGINEER (LIC. NO. 044606), VANASSE HANGEN BRUSTLIN, INC. (VHB), WILLIAMSBURG, VIRGINIA WILL SERVE AS RESPONSIBLE LAND DISTURBER FOR THE DURATION OF THE REVIEW PROCESS ONLY. THE OWNER/CONTRACTOR WILL PROVIDE A QUALIFIED RLD UPON ISSUANCE OF A LAND DISTURBANCE PERMIT OR SITE PLAN APPROVAL, WHICH EVER COMES FIRST.

Property Owners

**Owner: SeaWorld Parks & Entertainment, LLC**

d/b/a Busch Gardens Williamsburg  
Represented By: Ms. Suzy Cheely  
One Busch Gardens Blvd.  
Williamsburg, Virginia 23185  
Telephone: (757) 253-3401

**Applicant: VHB**

Represented by: Anthony J. Loubier, PE, LSIT  
351 McLaws Circle, Suite 3  
Williamsburg, Virginia 23185  
Telephone: (757) 220-0500  
Fax: (757) 220-8544

**Assessor's Map: 5140100009**

**Zoning: M-1**

NOTES:

- THIS PLAN IS SUBJECT TO THE CONDITIONS ASSOCIATED WITH HEIGHT LIMITATION WAIVER **HW-19-0001** APPROVED BY THE BOARD OF SUPERVISORS **JUNE 11, 2019**.
- PLAN: THIS HEIGHT WAIVER SHALL BE VALID FOR A 295-FOOT WAIVER TO THE HEIGHT LIMITATION REQUIREMENTS SET FORTH IN THE JAMES CITY COUNTY CODE TO ALLOW FOR THE ERECTION THE ATTRACTION UP TO 355 FEET ABOVE FINISHED GRADE. FOR THE PURPOSES OF THIS HEIGHT LIMITATION WAIVER, "FINISHED GRADE" SHALL BE DEFINED AS 80 FEET ABOVE SEA LEVEL.
- LIGHTING: ALL LIGHTING LOCATION AND SPECIFICATIONS SHALL BE SHOWN ON FUTURE DEVELOPMENT PLANS. UNLESS OTHERWISE REQUIRED BY THE FEDERAL AVIATION AUTHORITY OR NECESSARY FOR SAFETY PURPOSES, INSTALLATION OF ANY LIGHTS ON THE ATTRACTION AT POINTS ABOVE 60 FEET IN HEIGHT OR INSTALLATION OF LIGHTS WHICH DIRECT LIGHT UPWARD TO ILLUMINATE ANY PART OF THE ATTRACTION OR SURROUNDING THEME PARK AREAS SHALL BE PROHIBITED, WITH THE SOLE EXCEPTION BEING THAT LANDSCAPE-SHIELDED "WALL-WASHER" TYPE FIXTURES MAY BE INSTALLED TO ILLUMINATE VERTICAL (SOLID) WALL SURFACES RELATED TO THE ATTRACTION
- COLOR SCHEME: THE COLOR OF THE ATTRACTION AT ANY POINT AT OR ABOVE 60 FEET ABOVE FINISHED GRADE SHALL BE MUTED AND DESIGNED TO MINIMIZE VISUAL IMPACTS FROM THE COMMUNITY CHARACTER CORRIDORS AND COMMUNITY CHARACTER AREAS AS DEFINED IN THE COMPREHENSIVE PLAN. A COLOR SCHEME PLAN AND COLOR SAMPLES SHALL BE SUBMITTED TO, AND APPROVED BY, THE DIRECTOR OF PLANNING FOR CONSISTENCY WITH THIS CONDITION PRIOR TO THE ISSUANCE OF A BUILDING PERMIT FOR THE ATTRACTION. COLORS SHALL BE RAL 6016, 7003, 7005, AND RAL D2 200 30 30 AS APPROVED BY JAMES CITY COUNTY PLANNING DIRECTOR
- COMMENCEMENT OF CONSTRUCTION: PERMITS FOR THE CONSTRUCTION OF FOUNDATIONS AND/OR FOOTING FOR THE ATTRACTION SHALL BE OBTAINED WITHIN 36 MONTHS FROM THE DATE OF APPROVAL OF THIS HEIGHT LIMITATION WAIVER OR THIS HEIGHT LIMITATION WAIVER SHALL BE VOID.
- SEVERANCE CLAUSE: THIS HEIGHT LIMITATIONS WAIVER IS NOT SEVERABLE. INVALIDATION OF ANY WORD, PHRASE, CLAUSE, SENTENCE, OR PARAGRAPH SHALL INVALIDATE THE REMAINDER.

NOTES:

- PRIVATELY OWNED UTILITIES (E.G. WATER AND SEWER LINES, PRIVATE FIRE SERVICE MAINS) SHOWN ON THIS PLAN ARE REGULATED BY THE VIRGINIA UNIFORM STATEWIDE BUILDING CODE (USBC), AND ENFORCED BY THE JAMES CITY COUNTY CODES COMPLIANCE DIVISION. THESE PRIVATELY OWNED UTILITIES MUST COMPLY WITH THE INTERNATIONAL PLUMBING CODE, THE NATIONAL FIRE PROTECTION ASSOCIATION STANDARD 24, THE VIRGINIA STATEWIDE FIRE PREVENTION CODE AND THE HAMPTON ROADS PLANNING DISTRICT COMMISSION (HRPD) REGIONAL CONSTRUCTION STANDARDS 4TH EDITION. CONTRACTORS WORKING FROM THIS SITE PLAN ARE CAUTIONED NOT TO INSTALL OR CONCEAL PRIVATELY OWNED SITE UTILITIES WITHOUT FIRST OBTAINING THE REQUIRED PERMITS AND INSPECTIONS.
- ALL DISTURBED SLOPES 5:1 AND STEEPER SHALL RECEIVE EROSION AND SEDIMENT CONTROL BLANKET MATTING. BLANKET MATTING TO BE COIR EROSION CONTROL MAT TYPE 900 MINIMUM OR APPROVED EQUAL.
- SUBGRADE STABILIZATION AND COMPACTION, PLACEMENT AND COMPACTION OF INFILL MATERIAL SHALL BE OBSERVED BY VIRGINIA REGISTERED GEOTECHNICAL ENGINEER.
- COPY OF THE COMPACTION TEST RESULTS SHALL BE PROVIDED TO THE OWNER AND THE DESIGN ENGINEER. CONTRACTOR TO CLEAN STORM SYSTEM AND PROVIDE A COPY OF THE POST-CONSTRUCTION VIDEO INSPECTION OF ALL NEWLY INSTALLED AND EXISTING STORM DRAIN SYSTEM DOWNSTREAM FROM THE CONNECTION POINT OF SITE DRAINAGE INFLOW ALL THE WAY THROUGH TO THE OUTFALL AND REPAIRED PIPES TO THE CLIENT AND THE ENGINEER. THE VIDEO INSPECTION REPORT SHALL BE CERTIFIED BY A VIRGINIA LICENSED PROFESSIONAL ENGINEER.

ALL WORK FOR STORMWATER CONVEYANCE AND STORMWATER MANAGEMENT FACILITIES IS TO BE OBSERVED BY A QUALIFIED LICENSED PROFESSIONAL AND THAT PRIOR TO THE RELEASE OF RELATED POSTED BONDS AND SURETY, RECORD DRAWINGS AND CONSTRUCTION CERTIFICATIONS MUST BE PROVIDED TO, AND APPROVED BY THE JAMES CITY COUNTY ENGINEERING AND RESOURCE PROTECTION DIVISION. RECORD DRAWINGS AND CONSTRUCTION CERTIFICATIONS SHALL BE CONSISTENT WITH THE STORMWATER MANAGEMENT / BMP FACILITIES RECORD DRAWING AND CONSTRUCTION CERTIFICATION FORMS.

Miss Utility of Virginia  
1829 BLUE HILL CIRCLE  
NE ROANOKE, VIRGINIA 24012



BEFORE YOU DIG ANYWHERE IN VIRGINIA! CALL 811 (IN VIRGINIA) 1-800-552-7001 (OUTSIDE VIRGINIA)

VA LAW REQUIRES 3 WORKING DAYS NOTICE BEFORE YOU EXCAVATE.

§ 2.2-3705.2 Exclusions to application of chapter; records relating to public safety.

The following records are excluded from the provisions of this chapter but may be disclosed by the custodian in his discretion, except where such disclosure is prohibited by law:

Those portions of engineering and construction drawings and plans that reveal critical structural components, security equipment and systems, ventilation systems, fire protection equipment, mandatory building emergency equipment or systems, elevators, electrical systems, telecommunications equipment and systems, and other utility equipment and systems submitted for the purpose of complying with the Uniform Statewide Building Code (§ 36-97 et seq.) or the Statewide Fire Prevention Code (§ 27-224 et seq.), the disclosure of which would jeopardize the safety or security of any public or private commercial office, multifamily residential or retail building or its occupants in the event of terrorism or other threat to public safety, to the extent that the owner or lessee of such property, equipment or system in writing (i) invokes the protections of this paragraph; (ii) identifies the drawings, plans, or other materials to be protected; and (iii) states the reasons why protection is necessary.





### Legend

Exist.	Prop.		Exist.	Prop.	
		PROPERTY LINE			CONCRETE
		PROJECT LIMIT LINE			HEAVY DUTY PAVEMENT
		RIGHT-OF-WAY/PROPERTY LINE			BUILDINGS
		EASEMENT			RIPRAP
		BUILDING SETBACK			CONSTRUCTION ENTRANCE
		BASELINE			
		CONSTRUCTION LAYOUT			TOP OF CURB ELEVATION
		ZONING LINE			BOTTOM OF CURB ELEVATION
		TOWN LINE			FLOW LINE ELEVATION
					EDGE OF PAVEMENT ELEVATION
		LIMIT OF DISTURBANCE			SPOT ELEVATION
		WETLAND LINE WITH FLAG			TOP & BOTTOM OF WALL ELEVATION
		FLOODPLAIN			BORING LOCATION
		BORDERING LAND SUBJECT TO FLOODING			TEST PIT LOCATION
		WETLAND BUFFER ZONE			MONITORING WELL
		RMA - RESOURCE MANAGEMENT AREA			
		RPA - RESOURCE PROTECTION AREA			UNDERDRAIN
					DRAINAGE LINE
					ROOF DRAIN
		GRAVEL ROAD			SEWER LINE
		EDGE OF PAVEMENT			OVERHEAD WIRE
		ASPHALT CONCRETE CURB AND MEDIAN			WATER LINE
		STANDARD 6" CURB			FIRE PROTECTION LINE
		STANDARD 4" CURB			DOMESTIC WATER LINE
		COMBINATION 6" CURB & GUTTER			GAS LINE
		COMBINATION 4" CURB & GUTTER			UNDERGROUND ELECTRIC
		REVERSE CURB & GUTTER			TELEPHONE LINE
		FIRE LANE STRIPING			FIRE ALARM
		LIMIT OF CURB TYPE			CABLE TV
		SAWCUT			
		BUILDING			DRAIN INLET (VDOT DI-1 OR DI-7)
		BUILDING ENTRANCE			DRAIN INLET (VDOT DI-3B)
		LOADING DOCK			DRAIN MANHOLE CONCENTRIC
		BOLLARD			DRAIN MANHOLE ECCENTRIC
		DUMPSTER PAD			TRENCH DRAIN
		SIGN			PLUG OR STUB
		DOUBLE SIGN			FLARED END SECTION
					HEADWALL
		STEEL GUARDRAIL			SEWER MANHOLE CONCENTRIC
		WOOD GUARDRAIL			SEWER MANHOLE ECCENTRIC
					SEWER CLEANOUT
		PATH			
		TREE LINE			CURB STOP & BOX
		WIRE FENCE			WATER VALVE & BOX
		FENCE			TAPPING SLEEVE, VALVE & BOX
		STOCKADE FENCE			SIAMESE CONNECTION
		CHAIN LINK FENCE			FIRE HYDRANT
		STONE WALL			WATER METER
		RETAINING WALL			POST INDICATOR VALVE
		STREAM / POND / WATER COURSE			WATER WELL
		DETENTION BASIN			
		HAY BALES			GAS GATE
		SILT FENCE			GAS METER
		MINOR CONTOUR			ELECTRIC MANHOLE
		MAJOR CONTOUR			ELECTRIC METER
		PARKING COUNT			LIGHT POLE
		COMPACT PARKING STALLS			TELEPHONE MANHOLE
		DOUBLE YELLOW LINE			TRANSFORMER PAD
		STOP LINE			UTILITY POLE
		CROSSWALK			GUY POLE
		ACCESSIBLE CURB RAMP			GUY WIRE & ANCHOR
		HANDICAP PARKING			HAND HOLE
		VAN-ACCESSIBLE HANDICAP PARKING			PULL BOX

## Abbreviations

General	
ABAN	ABANDON
ACR	ACCESSIBLE CURB RAMP
ADJ	ADJUST
APPROX	APPROXIMATE
BIT	BITUMINOUS
BS	BOTTOM OF SLOPE
BWLL	BROKEN WHITE LANE LINE
CONC	CONCRETE
DYCL	DOUBLE YELLOW CENTER LINE
EL	ELEVATION
ELEV	ELEVATION
EXIST	EXISTING
FDN	FOUNDATION
FFE	FIRST FLOOR ELEVATION
GRAN	GRANITE
GTD	GRADE TO DRAIN
LA	LANDSCAPE AREA
LOD	LIMIT OF DISTURBANCE
MAX	MAXIMUM
MIN	MINIMUM
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
PERF	PERFORATED
PROP	PROPOSED
REM	REMOVE
RET	RETAIN
R&D	REMOVE AND DISPOSE
R&R	REMOVE AND RESET
SWEL	SOLID WHITE EDGE LINE
SWLL	SOLID WHITE LANE LINE
TS	TOP OF SLOPE
TYP	TYPICAL
Utility	
CB	CATCH BASIN
CMP	CORRUGATED METAL PIPE
CO	CLEANOUT
DCB	DOUBLE CATCH BASIN
DMH	DRAIN MANHOLE
DI	DRAIN INLET
CIP	CAST IRON PIPE
COND	CONDUIT
DIP	DUCTILE IRON PIPE
ES	END SECTION
EW	END WALL
FES	FLARED END SECTION
F&G	FRAME AND GRATE
F&C	FRAME AND COVER
FM	FORCE MAIN
GI	GUTTER INLET
GT	GREASE TRAP
HDPE	HIGH DENSITY POLYETHYLENE PIPE
HH	HANDHOLE
HW	HEADWALL
HYD	HYDRANT
INV	INVERT ELEVATION
I=	INVERT ELEVATION
LP	LIGHT POLE
MES	METAL END SECTION
PWW	PAVED WATER WAY
PVC	POLYVINYLCHLORIDE PIPE
PIV	POST INDICATOR VALVE
RCP	REINFORCED CONCRETE PIPE
RIM=	RIM ELEVATION
R=	RIM ELEVATION
SMH	SEWER MANHOLE
TSV	TAPPING SLEEVE, VALVE AND BOX
UG	UNDERGROUND
UP	UTILITY POLE

### Notes:

## General

1. CONTRACTOR SHALL NOTIFY "MISS UTILITY OF VIRGINIA" (1-800-552-7001) AT LEAST 72 HOURS BEFORE EXCAVATING.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SECURITY AND JOB SAFETY. CONSTRUCTION ACTIVITIES SHALL BE IN ACCORDANCE WITH OSHA STANDARDS AND LOCAL REQUIREMENTS.
3. ACCESSIBLE ROUTES, PARKING SPACES, RAMPS, SIDEWALKS AND WALKWAYS SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE FEDERAL AMERICANS WITH DISABILITIES ACT AND WITH STATE AND LOCAL LAWS AND REGULATIONS (WHICHEVER ARE MORE STRINGENT).
4. AREAS DISTURBED DURING CONSTRUCTION AND NOT RESTORED WITH IMPERVIOUS SURFACES (BUILDINGS, PAVEMENTS, WALKS, ETC.) SHALL RECEIVE 4 INCHES LOAM AND SEED.
5. WITHIN THE LIMITS OF THE BUILDING FOOTPRINT, THE SITE CONTRACTOR SHALL PERFORM EARTHWORK OPERATIONS REQUIRED UP TO SUBGRADE ELEVATIONS.
6. WORK WITHIN THE LOCAL RIGHTS-OF-WAY SHALL CONFORM TO LOCAL MUNICIPAL STANDARDS. WORK WITHIN STATE RIGHTS-OF-WAY SHALL CONFORM TO THE LATEST EDITION OF THE STATE HIGHWAY DEPARTMENTS STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.
7. UPON AWARD OF CONTRACT, CONTRACTOR SHALL MAKE NECESSARY CONSTRUCTION NOTIFICATIONS AND APPLY FOR AND OBTAIN NECESSARY PERMITS, PAY FEES, AND POST BONDS ASSOCIATED WITH THE WORK INDICATED ON THE DRAWINGS, IN THE SPECIFICATIONS, AND IN THE CONTRACT DOCUMENTS. DO NOT CLOSE OR OBSTRUCT ROADWAYS, SIDEWALKS, AND FIRE HYDRANTS, WITHOUT APPROPRIATE PERMITS.
8. AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.
9. IN THE EVENT THAT SUSPECTED CONTAMINATED SOIL, GROUNDWATER, AND OTHER MEDIA ARE ENCOUNTERED DURING EXCAVATION AND CONSTRUCTION ACTIVITIES BASED ON VISUAL, OLFACTORY, OR OTHER EVIDENCE, THE CONTRACTOR SHALL STOP WORK IN THE VICINITY OF THE SUSPECTED MATERIAL TO AVOID FURTHER SPREADING OF THE MATERIAL, AND SHALL NOTIFY THE OWNER IMMEDIATELY SO THAT THE APPROPRIATE TESTING AND SUBSEQUENT ACTION CAN BE TAKEN.
10. CONTRACTOR SHALL PREVENT DUST, SEDIMENT, AND DEBRIS FROM EXITING THE SITE AND SHALL BE RESPONSIBLE FOR CLEANUP, REPAIRS AND CORRECTIVE ACTION IF SUCH OCCURS.
11. DAMAGE RESULTING FROM CONSTRUCTION LOADS SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO OWNER.
12. CONTRACTOR SHALL CONTROL STORMWATER RUNOFF DURING CONSTRUCTION TO PREVENT ADVERSE IMPACTS TO OFF-SITE AREAS, AND SHALL BE RESPONSIBLE TO REPAIR RESULTING DAMAGES, IF ANY, AT NO COST TO OWNER.
13. THE USMP PERMIT HAS ALREADY BEEN OBTAINED FOR THE ENTIRE PROPERTY. A PROJECT-SPECIFIC SWPPP WILL BE CREATED PRIOR TO THE START OF CONSTRUCTION.
14. NO OFF-SITE WORK IS ANTICIPATED WITH THIS PROJECT. NO OFF-SITE LAND DISTURBING AREAS ARE ANTICIPATED FOR THIS PROJECT.
15. ALL RETAINING WALLS 2 FEET OR TALLER MUST BE PERMITTED THROUGH THE JAMES CITY COUNTY CODES COMPLIANCE DIVISION.
16. CONTRACTOR IS HEREBY ADVISED THAT THESE PLANS MAY DEViate FROM THOSE PREVIOUSLY OFFERED FOR CONTRACT BIDDING AND SHALL BE RESPONSIBLE FOR MAKING HIMSELF AWARE OF ANY ALTERATIONS, DEVIATIONS, OR MODIFICATIONS TO THE INFORMATION CONTAINED HEREIN.

## Utilities

1. THE LOCATIONS, SIZES, AND TYPES OF EXISTING UTILITIES ARE SHOWN AS AN APPROXIMATE REPRESENTATION ONLY. THE OWNER OR ITS REPRESENTATIVE(S) HAVE NOT INDEPENDENTLY VERIFIED THIS INFORMATION AS SHOWN ON THE PLANS. THE UTILITY INFORMATION SHOWN DOES NOT GUARANTEE THE ACTUAL EXISTENCE, SERVICEABILITY, OR OTHER DATA CONCERNING THE UTILITIES. NOR DOES IT GUARANTEE THE POSSIBILITY THAT ADDITIONAL UTILITIES MAY BE PRESENT THAT ARE NOT SHOWN ON THE PLANS. PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY AND DETERMINE THE EXACT LOCATIONS, SIZES, AND ELEVATIONS OF THE POINTS OF CONNECTIONS TO EXISTING UTILITIES AND, SHALL CONFIRM THAT THERE ARE NO INTERFERENCES WITH EXISTING UTILITIES AND THE PROPOSED UTILITY ROUTES, INCLUDING ROUTES WITHIN THE PUBLIC RIGHTS OF WAY.
2. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, OR EXISTING CONDITIONS DIFFER FROM THOSE SHOWN SUCH THAT THE WORK CANNOT BE COMPLETED AS INTENDED, THE LOCATION, ELEVATION, AND SIZE OF THE UTILITY SHALL BE CURACULY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED IN WRITING TO THE OWNER'S REPRESENTATIVE FOR THE RESOLUTION OF THE CONFLICT AND CONTRACTOR'S FAILURE TO NOTIFY PRIOR TO PERFORMING ADDITIONAL WORK RELEASES OWNER FROM OBLIGATIONS FOR ADDITIONAL PAYMENTS WHICH OTHERWISE MAY BE WARRANTED TO RESOLVE THE CONFLICT.
3. SET CHAIN BASIN RIMS, AND INVERTS OF SEWERS, DRAINS, AND DITCHES IN ACCORDANCE WITH ELEVATIONS ON THE GRADING AND UTILITY PLANS.
4. RIM ELEVATIONS FOR DRAIN AND SEWER MAN-HOLES, WATER VALVE COVERS, GAS GATES, ELECTRIC AND TELEPHONE PULL BOXES, AND MANHOLES, AND OTHER SUCH ITEMS, ARE APPROXIMATE AND SHALL BE SET/RESET AS FOLLOWS:
  - A. PAVEMENTS AND CONCRETE SURFACES: FLUSH
  - B. ALL SURFACES ALONG ACCESSORY ROADS: FLUSH
  - C. LANDSCAPE, LOAM AND SEED, AND OTHER EARTH SURFACE AREAS: ONE INCH ABOVE SURROUNDING AREA AND TAPER EARTH TO THE RIM ELEVATION.
5. THE LOCATION, SIZE, DEPTH, AND SPECIFICATIONS FOR CONSTRUCTION OF PROPOSED PRIVATE UTILITY SERVICES SHALL BE INSTALLED ACCORDING TO THE REQUIREMENTS PROVIDED BY, AND APPROVED BY, THE RESPECTIVE UTILITY COMPANY (GAS, TELEPHONE, ELECTRIC, FIRE ALARM, ETC.). FINAL DESIGN LOADS AND LOCATIONS TO BE COORDINATED WITH OWNER AND ARCHITECT.
6. CONTRACTOR SHALL MAKE ARRANGEMENTS FOR AND SHALL BE RESPONSIBLE FOR PAYING FEES FOR POLE RELOCATION AND FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE, FIRE ALARM, AND ANY OTHER PRIVATE UTILITIES, WHETHER WORK IS PERFORMED BY CONTRACTOR OR BY THE UTILITIES COMPANY.
7. UTILITY PIPE MATERIALS SHALL AS FOLLOWS, UNLESS OTHERWISE NOTED ON THE PLAN:
  - A. ALL DOMESTIC WATER PIPES SHALL BE SCH 40 IF 3" OR LESS OR DUCTILE IRON IF OVER 3"
8. CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR AND SHALL FURNISH EXCAVATION, INSTALLATION, AND BACKFILL OF ELECTRICAL FURNISHED SITEWORK RELATED ITEMS SUCH AS PULL BOXES, CONDUITS, DUCT BANKS, LIGHT POLES, GASES, AND CONCRETE RATES. CONTRACTOR SHALL FURNISH CONCRETE ENCASEMENT OF DUCT BANKS IF REQUIRED BY THE UTILITY COMPANY AND AS INDICATED ON THE DRAWINGS.
9. PRIVATELY OWNED UTILITIES (E.G. WATER AND SEWER LINES, PRIVATE FIRE SERVICE MAINS) SHOWN ON THIS PLAN ARE RELATED TO THE UTILITY OF THE UNITED STATES FIRE BUILDING CODE (USBC), AND ENFORCED BY THE JAMES CITY COUNTY CODES COMPLIANCE DIVISION. THESE PRIVATELY OWNED UTILITIES MUST COMPLY WITH THE INTERNATIONAL PLUMBING CODE, THE NATIONAL FIRE PROTECTION ASSOCIATION STANDARD 24, THE VIRGINIA STATEWIDE FIRE PREVENTION CODE AND THE HAMPTON ROADS PLANNING DISTRICT COMMISSION (HRPDC) REGIONAL CONSTRUCTION STANDARDS 4TH EDITION. CONTRACTOR WORKING FROM THIS SITE PLAN ARE CAUTIONED NOT TO INSTALL OR CONCEAL, PRIOR TO THE TYPED SUE SITE UTILITIES WITHOUT FIRST OBTAINING THE REQUIRED PERMITS AND INSPECTIONS.
10. HRPDC DETAILS USED ON THIS PLAN.

EW\_01 PIPE BEDDING DETAIL  
EW\_01\_2 PIPE BEDDING DETAIL  
RC\_01 PAVEMENT PATCHING DETAIL  
SS\_11 CLEAN OUT FRAME AND COVER

## Layout and Materials

1. DIMENSIONS ARE FROM THE FACE OF CURB, FACE OF BUILDING, FACE OF WALL, AND CENTER LINE OF PAVEMENT MARKINGS, UNLESS OTHERWISE NOTED.
2. CURBING SHALL BE CG-2 WITHIN THE SITE UNLESS OTHERWISE INDICATED ON THE PLANS.
3. SEE ARCHITECTURAL DRAWINGS FOR EXACT BUILDING DIMENSIONS AND DETAILS CONTIGUOUS TO THE BUILDING, INCLUDING SIDEWALKS, RAMPS, BUILDING ENTRANCES, STAIRWAYS, UTILITY PENETRATIONS, CONCRETE DOOR PADS, COMPACTOR PAD, LOADING DOCKS, BOLLARDS, ETC.
4. PROPOSED BOUNDS AND ANY EXISTING PROPERTY LINE MONUMENTATION DISTURBED DURING CONSTRUCTION SHALL BE SET OR RESET BY A PROFESSIONAL LICENSED SURVEYOR.
5. PRIOR TO START OF CONSTRUCTION, CONTRACTOR SHALL VERIFY EXISTING PAVEMENT ELEVATIONS AT INTERFACE WITH PROPOSED PAVEMENTS, AND EXISTING GROUND ELEVATIONS ADJACENT TO DRAINAGE OUTLETS TO ASSURE PROPER TRANSITIONS BETWEEN EXISTING AND PROPOSED FACILITIES.
6. PLAZA CONCRETE (I.E. SIDEWALKS AND CURBS) SHALL BE EXPOSED AGGREGATE. ALL OTHER CONCRETE SHALL BE BROOM FINISHED UNLESS OTHERWISE NOTED ON THE PLANS.

## Demolition

1. CONTRACTOR SHALL REMOVE AND DISPOSE OF EXISTING MANMADE SURFACE FEATURES WITHIN THE LIMIT OF WORK INCLUDING BUILDINGS, STRUCTURES, PAVEMENTS, SLABS, CURBING, FENCES, UTILITY POLES, SIGNS, ETC. UNLESS INDICATED OTHERWISE ON THE DRAWINGS. REMOVE AND DISPOSE OF EXISTING UTILITIES, FOUNDATIONS AND UNSUITABLE MATERIAL BENEATH AND FOR A DISTANCE OF 10 FEET BEYOND THE PROPOSED BUILDING FOOTPRINT INCLUDING EXTERIOR COLUMNS.
2. EXISTING UTILITIES SHALL BE TERMINATED, UNLESS OTHERWISE NOTED, IN CONFORMANCE WITH LOCAL, STATE AND INDIVIDUAL UTILITY COMPANY STANDARD SPECIFICATIONS AND DETAILS. THE CONTRACTOR SHALL COORDINATE

UTILITY SERVICE DISCONNECTS WITH THE UTILITY REPRESENTATIVES.

- CONTRACTOR SHALL DISPOSE OF DEMOLITION DEBRIS IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, ORDINANCES AND STATUTES.
- THE DEMOLITION LIMITS DEPICTED IN THE PLANS IS INTENDED TO AID THE CONTRACTOR DURING THE BIDDING AND CONSTRUCTION PROCESS AND IS NOT INTENDED TO DEPICIT EACH AND EVERY ELEMENT OF DEMOLITION. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING THE DETAILED SCOPE OF DEMOLITION BEFORE SUBMITTING ITS BID/PROPosal TO PERFORM THE WORK AND SHALL MAKE NO CLAIMS AND SEEK NO ADDITIONAL COMPENSATION FOR ANY UNEXPECTED CONDITIONS, CONCEALED OR LATENT SITE CONDITIONS RELATED TO ANY CONDITIONS DISCOVERED DURING EXECUTION OF THE WORK.
- UNLESS OTHERWISE SPECIFICALLY PROVIDED ON THE PLANS OR IN THE SPECIFICATIONS, THE ENGINEER HAS NOT PREPARED DESIGNS FOR AND SHALL HAVE NO RESPONSIBILITY FOR THE PRESERVATION, DISCOVERY, REMOVAL, ABATEMENT OR DISPOSAL OF HAZARDOUS MATERIALS, TOXIC WASTES OR POLLUTANTS AT THE PROJECT SITE. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR ANY CLAIMS OF LOSS, DAMAGE, EXPENSE, DELAY, INJURY OR DEATH ARISING FROM THE PRESENCE OF HAZARDOUS MATERIAL AND CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE ENGINEER FROM ANY CLAIMS MADE IN CONNECTION THEREWITH. MOREOVER, THE ENGINEER SHALL NOT BE RESPONSIBLE FOR ANY ADMINISTRATIVE OBLIGATIONS REGARDING REGULATION AND CONTRACT AMENDMENTS INVOLVING THE ISSUES OF PRESERVATION, DISCOVERY, REMOVAL, ABATEMENT OR DISPOSAL OF ASBESTOS OR OTHER HAZARDOUS MATERIALS.

## Erosion Control

1. PRIOR TO STARTING ANY OTHER WORK ON THE SITE, THE CONTRACTOR SHALL NOTIFY APPROPRIATE AGENCIES AND SHALL INSTALL EROSION CONTROL MEASURES AS SHOWN ON THE PLANS AND AS IDENTIFIED IN FEDERAL, STATE, AND LOCAL APPROVAL DOCUMENTS PERTAINING TO THIS PROJECT.
2. CONTRACTOR SHALL INSPECT AND MAINTAIN EROSION CONTROL MEASURES ON A WEEKLY BASIS (MINIMUM) OR AS REQUIRED PER THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP). THE CONTRACTOR SHALL ADDRESS DEFICIENCIES AND MAINTENANCE ITEMS WITHIN TWENTY-FOUR HOURS OF INSPECTION. CONTRACTOR SHALL PROPER DISPOSE OF SEDIMENT SUCH THAT IT DOES NOT ENCUMBER OTHER DRAINAGE STRUCTURES AND PROTECTED AREAS.
3. CONTRACTOR SHALL BE FULLY RESPONSIBLE TO CONTROL CONSTRUCTION SUCH THAT SEDIMENTATION SHALL NOT AFFECT REGULATORY PROTECTED AREAS, WHETHER SUCH SEDIMENTATION IS CAUSED BY WATER, WIND, OR DIRECT DEPOSIT.
4. CONTRACTOR SHALL PERFORM CONSTRUCTION SEQUENCING SUCH THAT EARTH MATERIALS ARE EXPOSED FOR A MINIMUM OF TIME BEFORE THEY ARE COVERED, SEEDED, OR OTHERWISE STABILIZED TO PREVENT EROSION.
5. UPON COMPLETION OF CONSTRUCTION AND ESTABLISHMENT OF PERMANENT GROUND COVER, CONTRACTOR SHALL REMOVE AND DISPOSE OF EROSION CONTROL MEASURES AND CLEAN SEDIMENT AND DEBRIS FROM ENTIRE DRAINAGE AND SEWER SYSTEMS.
6. TWENTY-FOUR FOOT (24') WIDE ACCESS PATH SHOWN ON THE PHASE 2 EROSION & SEDIMENT CONTROL PLAN IS APPROXIMATE. THE CONTRACTOR IS TO PROVIDE GRADING AND ACCESS PATHS PER THE REQUEST OF THE CRANE OPERATOR.

### Existing Conditions Information

1. BASE PLAN: THE TOPOGRAPHY AND PHYSICAL FEATURES ARE BASED ON AN ON-THE-GROUND SURVEY PERFORMED BY VHB, INC. DURING OCTOBER 2013 AND MAY 2018.
2. DELINEATION OF THE WETLANDS AND PLACEMENT OF THE FLAGS WAS PERFORMED BY VHB, INC., DURING MAY 2018
3. FLAGS MARKING THE WETLANDS WERE LOCATED BY: VHB, INC., DURING FIELD SURVEY IN MAY 2018
4. SUBSURFACE UTILITIES SHOWN: BASED ON PAINT MARKINGS PERFORMED BY C3 DURING OCTOBER 2013 IN ACCORDANCE WITH ASCE 38-02, QUALITY LEVEL B.
5. TOPOGRAPHY: HORIZONTAL AND VERTICAL DATUM BASE ON A TRANSFORMATION USING JAMES CITY COUNTY AND YORK COUNTY MONUMENTS AND LOYOLA NETWORK. HORIZONTAL DATUM: VIRGINIA STATE PLANE SOUTH ZONE NAD 83. VERTICAL DATUM: NGVD 29 (NGVD 29 WAS USED TO MATCH THE JAMES CITY AND YORK COUNTY MONUMENTS.).
6. INFORMATION OUTSIDE THE LIMITS OF FIELD SURVEY DERIVED FROM PLANS OF RECORD.

## Document Use

1. THESE PLANS AND CORRESPONDING CADD DOCUMENTS ARE INSTRUMENTS OF PROFESSIONAL SERVICE, AND SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE OTHER THAN FOR WHICH IT WAS CREATED WITHOUT THE EXPRESS WRITTEN CONSENT OF THE DESIGNER. UNAUTHORIZED USE, REUSE, MODIFICATION OR ALTERATION, INCLUDING AUTOMATED GENERATION OF THIS DOCUMENT SHALL BE AT THE USER'S SOLE RISK WITHOUT LIABILITY OR LEGAL EXPOSURE TO VHB.
2. CONTRACTOR SHALL NOT RELY SOLELY ON ELECTRONIC VERSIONS OF PLANS, SPECIFICATIONS, AND DATA FILES THAT ARE OBTAINED FROM THE DESIGNERS, BUT SHALL VERIFY LOCATION OF PROJECT FEATURES IN ACCORDANCE WITH THE PAPER COPIES OF THE PLANS AND SPECIFICATIONS THAT ARE SUPPLIED AS PART OF THE CONTRACT DOCUMENTS.
3. SYMBOLS AND LEGENDS OF PROJECT FEATURES ARE GRAPHIC REPRESENTATIONS AND ARE NOT NECESSARILY SCALED TO THEIR ACTUAL DIMENSIONS OR LOCATIONS ON THE DRAWINGS. THE CONTRACTOR SHALL REFER TO THE DETAIL DRAWINGS, DIMENSION LINES, LITERATURE, SHOP DRAWINGS AND FIELD MEASUREMENTS OF SUPPLIED PRODUCTS FOR LAYOUT OF THE PROJECT FEATURES.

## Stormwater General Permit Notes

THE CONTRACTOR SHALL ENSURE COMPLIANCE WITH THE REQUIREMENTS OF VR 680-14-19 - VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSMP) GENERAL PERMIT FOR STORM WATER DISCHARGES FROM CONSTRUCTION SITES, INCLUDING BUT NOT LIMITED TO THE FOLLOWING ITEMS:

IMPLEMENTATION, DOCUMENTATION, AND INSPECTIONS NECESSARY FOR COMPLIANCE WITH STORM WATER GENERAL PERMIT

1. IMPLEMENTATION OF THE STORM WATER POLLUTION PREVENTION PLAN AS DEVELOPED FOR THE SITE AND IN ACCORDANCE WITH THE GENERAL PERMIT REQUIREMENTS WITH REGARD TO EROSION AND SEDIMENT CONTROL, POST-CONSTRUCTION STORM WATER MANAGEMENT, AND OTHER CONTROLS REGARDING SOLID MATERIALS, SEDIMENTS, RELEASE, AND THE DEMONSTRATED COMPLIANCE WITH APPLICABLE STATE AND/OR LOCAL WASTE DISPOSAL, SANITARY SEWER OR SEPTIC SYSTEM REGULATIONS.
2. RETENTION OF THE STORM WATER POLLUTION PREVENTION PLAN AT THE CONSTRUCTION SITE. THE PLAN AND OTHER RELATED DOCUMENTS SHALL BE MADE AVAILABLE UPON REQUEST TO AUTHORIZED LOCAL, STATE, OR FEDERAL REPRESENTATIVES.
3. AMENDMENT OF THE STORM WATER POLLUTION PREVENTION PLAN WHENEVER THERE IS A CHANGE IN DESIGN, CONSTRUCTION OPERATION, OR MAINTENANCE WHICH HAS A SIGNIFICANT EFFECT ON THE POTENTIAL FOR THE DISCHARGE OF POLLUTANTS TO THE SURFACE WATERS OF THE STATE, OR IF THE STORM WATER POLLUTION PREVENTION PLAN PROVES TO BE INEFFECTIVE IN ELIMINATING OR SIGNIFICANTLY MINIMIZING POLLUTANTS FROM THE CONSTRUCTION ACTIVITY.
4. DOCUMENTATION OF THE DATES WHEN MAJOR GRADING ACTIVITIES OCCUR, WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE, AND WHEN STABILIZATION MEASURES ARE IMPLEMENTED.
5. INSPECTIONS OF DISTURBED AREAS OF THE CONSTRUCTION SITE AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION THAT HAVE NOT BEEN FINALLY STABILIZED, STRUCTURAL CONTROL MEASURES, AND LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE SHALL BE CONDUCTED AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM EVENT THAT PRODUCES SURFACE RUNOFF AS REQUIRED BY THE GENERAL PERMIT REGULATIONS. REPORTS SUMMARIZING THE INSPECTIONS SHALL BE MADE IN ACCORDANCE TO THE REGULATIONS AND RETAINED AS PART OF THE STORM WATER POLLUTION PREVENTION PLAN.
6. ALL CONTRACTORS AND SUBCONTRACTORS SHALL SIGN A COPY OF THE CERTIFICATION STATEMENT AS DESCRIBED IN THE GENERAL PERMIT BEFORE CONDUCTING ANY PROFESSIONAL SERVICES AT THE SITE IDENTIFIED IN THE POLLUTION PREVENTION PLAN. ALL CERTIFICATIONS SHALL BE INCLUDED IN THE STORM WATER POLLUTION PREVENTION PLAN.
7. ALL DOCUMENTS, RECORDS, REPORTS, AND OTHER INFORMATION RELEVANT TO THE GENERAL PERMIT REGULATIONS SHALL BE GIVEN TO THE OWNER FOLLOWING FINAL STABILIZATION OF THE SITE.
8. WHERE THE SITE HAS BEEN FINALLY STABILIZED AND ALL STORM WATER DISCHARGES FROM CONSTRUCTION ACTIVITIES THAT ARE AUTHORIZED BY THE GENERAL PERMIT ARE ELIMINATED, A NOTICE OF TERMINATION SHALL BE PREPARED FOR THE OWNER TO SIGN AND SUBMIT TO THE VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY, WATER DIVISION.
9. THE STRUCTURAL STABILITY OF THE PERMITTED FACILITIES SHALL BE ENSURED.



351 McLaws Circle  
Suite 3  
Williamsburg, VA 23185  
757.220.0500

[illegible]

## Review

Dec. 3, 2023

**Not Approved For Construction**

## Legend and General Notes

COMMONWEALTH OF VIRGINIA  
ANTHONY J. LOUBIER  
Lic. No. 054250  
12/1/23  
PROFESSIONAL ENGINEER

Drawing Number

C0.01

Sheet 2 of 27

SP-23-0102  
Project Number  
35273.31





Standard County Stormwater Pollution Prevention Plan Notes  
(Revised: July 1, 2014)

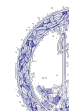
The following standard County notes shall become part of any approved stormwater pollution prevention plan (SWPPP) for plan of development projects in James City County, Virginia. Components of a SWPPP may include as applicable, a site erosion and sediment control (E&SC) plan, a site stormwater management (SWM) plan, and a site pollution prevention plan (PPP). The County's Division of Engineering and Resource Protection is designated by Chapter 8 of the County Code as the local Virginia Erosion and Sediment Control Program (VЕСSP) authority and Virginia Stormwater Management Program (VSMP) authority.

- All the provisions of Virginia Erosion and Sediment Control (E&SC) Law and Regulations, the Virginia Stormwater Management Act and Regulations (VSMP), the Virginia BMP Clearinghouse website, State Erosion and Sediment Control and Stormwater Management Handbooks, and any associated technical bulletins and guidance documents as published by the State Water Control Board, the Virginia Department of Environmental Quality (DEQ), and the local VЕСSP and VSMP authority shall apply to the project.
- Minimum Standards No. 1 through No. 19 of the Virginia Erosion and Sediment Control Regulations 91AC25-840 et seq. shall apply to the project.
- The owner, applicant, operator, or permittee shall be responsible to register for construction general permit (CGP) coverage, as applicable, in accordance with the General VPDES Permit for Discharge of Stormwater from Construction Activities (VAR10) Chapter 880, the Virginia Stormwater Management Program Regulations Chapter 870, and in accordance with current requirements of the Virginia Stormwater Management Program (VSMP), the State Water Control Board, the Virginia Department of Environmental Quality, Chapter 8 of the County Code and the local VЕСSP/VSMР authority.
- The owner, applicant, operator or permittee shall provide the name of an individual holding a valid Responsible Land Disturber (RLD) certificate of competence who will be responsible for the land disturbing activity prior to engaging in the land disturbing activity. This will be necessary prior to issuance of a local land disturbing and/or stormwater construction permit for the project. The RLD is required to attend the preconstruction conference for the project.
- The contractor is responsible to contact Miss Utility (Dial 811 in VA or 1-800-552-7901) prior to any utility or site work excavations.
- All erosion and sediment control measures shall be planned, designed, implemented, installed and maintained in accordance with the provisions of the latest edition of the Virginia Erosion and Sediment Control Handbook (VESCH). The Contractor shall maintain, inspect, and repair all erosion and sediment control measures as needed throughout the life of the project to ensure continued acceptable performance.
- A preconstruction conference (meeting) shall be held on site and include representatives from the local VЕСSP/VSMР authority, the owner/applicant/operator/permittee, the Responsible Land-Disturber (RLD), and the contractor, engineer, and other responsible agencies, as applicable, prior to authorization and issuance of a local land disturbing or stormwater construction permit. The owner, applicant, operator or permittee is required to coordinate scheduling of the preconstruction conference between all applicable parties. The contractor shall submit a Sequence of Construction and a revised Pollution Prevention Plan (P2 plan or PPP) if applicable, to the local VЕСSP/VSMР authority for review and approval prior to the preconstruction meeting.

Engineering and Resource Protection Division  
P: 757-225-6670  
Resource.Protection@jamestycounty.gov

101-E Mounts Bay Road, P.O. Box 8784  
P: 757-259-4032  
Revised: July 2014

Williamsburg, VA 23187-8784  
jamestycountyva.gov  
Revised: July 2014



VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

1111 E. Main Street, Suite 1400, Richmond, Virginia 23219  
P.O. Box 1105, Richmond, Virginia 23218  
(800) 592-5482  
www.deq.virginia.gov

Matthew S. Strickler  
Secretary of Natural Resources

David K. Taylor  
Director  
(804) 694-4000

August 13, 2019

Busch Entertainment Corp dba Busch Gardens Williamsburg  
One Busch Gardens Blvd  
Williamsburg, VA 23185

RE: Coverage under the 2019 VPDES Construction General Permit (VAR10) Reissuance  
General Permit Number VAR10D991  
SeaWorld Parks and Entertainment LLC dba Busch Gardens Williamsburg  
Commercial  
James City

Dear Permittee:

DEQ has reviewed your Registration Statement received complete on June 11, 2019 and determined that the proposed 300,00 acres land-disturbing activity is covered under the General VPDES Permit for Discharges of Stormwater from Construction Activities (VAR10). The effective date of your coverage is July 1, 2019 or the date of this letter, whichever is later. You may obtain a copy of the general permit from <http://www.deq.virginia.gov/Portals/0/DEQWaterPublications/CGP2019.pdf>.

The general permit contains the conditions of coverage and Stormwater Pollution Prevention Plan (SWPPP) requirements. Please print the general permit and read it carefully as you will be responsible for compliance with all permit conditions. Coverage under this construction general permit does not relieve the operator of complying with all other federal, state, or local laws and regulations.

The general permit requires that you update your SWPPP no later than sixty (60) days from the date of this letter to incorporate changes made by the Department for this permit reissuance.

Our records indicate that your site may discharge to waters identified as impaired or exceptional. Please see below for additional requirements:

- Does this proposed land-disturbing activity discharge to a surface water identified as impaired or for which a TMDL wasteload allocation has been established and approved prior to the term of the general permit for (i) sediment or a sediment-related parameter or (ii) nutrients? **Yes.** If YES, then the following general permit (Part I B 4 a) and SWPPP requirements (Part I B 5) must be implemented for the land-disturbing activity:
  - 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;
  - Nutrients (e.g., fertilizers) shall be applied in accordance with manufacturer's recommendations or an approved nutrient management plan and shall not be applied during rainfall events;
  - Inspections shall be conducted at a frequency of (i) at least once every four (4) business days or (ii) at least once every (5) business days and no later than 24 hours following a measurable storm event. In the event that a measurable storm event occurs when there are more than 24 hours between business days, the inspection shall be conducted on the next business day; and
  - Representative inspections used by utility line installation, pipeline construction, or other similar linear construction activities shall inspect all outfalls.

SEQUENCE OF CONSTRUCTION

PHASE I

- NOTIFY JAMES CITY COUNTY STORMWATER AND RESOURCE PROTECTION DIVISION (SRPD) AND VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY (DEQ) MINIMUM 48-HOURS IN ADVANCE OF COMMENCEMENT OF CONSTRUCTION OPERATIONS.
- CONDUCT PRE-CONSTRUCTION MEETING ON-SITE BETWEEN THE CONTRACTOR, THE OWNER, THE ENGINEER AND ASSIGNED JAMES CITY COUNTY SRPD INSPECTOR.
- INSTALL THE CONSTRUCTION ENTRANCE AND FLAG CLEARING LIMITS.
- INSTALL SEDIMENT TRAP.
- INSTALL INLET PROTECTION AND PERIMETER CONTROLS ACCORDING TO PHASE I OF THE EROSION AND SEDIMENT CONTROL PLAN.
- DEMOLITION ACTIVITIES MAY PROCEED ONLY UPON INSPECTION AND APPROVAL OF THE EROSION AND SEDIMENT CONTROL MEASURES BY THE JCC SRPD INSPECTOR.
- PROCEED WITH DEMOLITION ACCORDING TO DEMOLITION PLAN.
- EXCAVATE FOR FOUNDATIONS AND INSTALL SOIL STABILIZATION BLANKET MATTING, TEMPORARY SEEDING, AND OTHER SOIL STABILIZATION MEASURES ACCORDING TO PHASE 1 OF THE EROSION AND SEDIMENT CONTROL PLAN.

PHASE II

- INSTALL NEW PERIMETER CONTROLS ACCORDING TO PHASE 2 OF THE EROSION AND SEDIMENT CONTROL PLAN.
- INSTALL PROPOSED FOUNDATIONS.
- FOUNDATION INSTALLATION SHALL BE DONE IN PHASES WHEREVER POSSIBLE. TEMPORARY SEED PORTIONS OF SITE THAT WILL REMAIN UNDISTURBED FOR LONGER THAN 14 DAYS.
- ROUGH GRADE AND PREPARE SUBGRADE FOR INSTALLATION OF SITE IMPROVEMENTS.
- INSTALL PERMANENT GRAVEL ACCESS ROAD, SOIL STABILIZATION BLANKET MATTING, PERMANENT SEEDING, AND OTHER SOIL STABILIZATION MEASURES ACCORDING TO PHASE 2 OF THE EROSION AND SEDIMENT CONTROL PLAN.
- PUMP OUT SEDIMENT TRAP PRIOR TO INSTALLATION OF SOUTHERN CONCRETE OUTFALL CHANNEL.
- ONCE ALL STEEP SLOPE FOUNDATIONS ARE INSTALLED AND SLOPES ARE GRADED AND TREATED WITH BLANKET MATTING, FUTERRA AND/OR FLEXTEERRA, INSTALLATION OF THE CONCRETE CHANNELS TO THE RHINE RIVER CAN BE INSTALLED. CONTRACTOR SHALL INSTALL CHANNELS DURING DRY WEATHER EVENT TO PREVENT EROSION OF THE STEEP SLOPES PRIOR TO FINAL STABILIZATION.
- UPON RECEIVING WRITTEN APPROVAL FROM JCC SRP INSPECTOR, REMOVE TEMPORARY SEDIMENT TRAP.
- INSTALL REMAINING PAVEMENT ITEMS AND SITE IMPROVEMENTS.
- AFTER FINAL SITE STABILIZATION AND UPON RECEIVING AUTHORIZATION FROM THE ASSIGNED JCC SRPD INSPECTOR REMOVE REMAINING TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES.
- DURING ALL PHASES OF CONSTRUCTION, CONTRACTOR SHALL PERFORM DAILY INSPECTIONS OF ALL RECEIVING DRAINAGE OUTFALLS. EROSION AND SEDIMENT CONTROL DEVICES SHALL BE INSPECTED AND REPAIRED OR REPLACED AS NECESSARY AFTER EACH STORM EVENT.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ADDITIONAL SEDIMENT CONTROLS AND REMOVAL OF SEDIMENT CAUSED BY CONSTRUCTION.
- DETERMINATION OF THE SCHEDULE AS TO WHICH AREAS WILL BE CLEARED, DEMOLISHED, GRADED ETC. IS AT THE CONTRACTOR'S OPTION. REVISED SEQUENCING AND EROSION AND SEDIMENT CONTROL METHODS SHALL BE SUBMITTED TO JAMES CITY COUNTY SRPD FOR APPROVAL.
- TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE REMOVED ONLY WHEN STABILIZATION HAS BEEN ESTABLISHED. TRAPPED SEDIMENT AND THE DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION. 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 DIRECTED BY THE COUNTY.

Standard County SWPPP Notes

Page 2

- A pollution prevention plan (P2 plan or PPP), if required, shall be developed, implemented and updated as necessary and must detail the design, installation, implementation, and maintenance of effective pollution prevention measures to: minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water and other wash waters; minimize the exposure of all materials on the site (such as building materials and products, construction waste, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste, etc.) to precipitation and stormwater; minimize the discharge of pollutants from spills and leaks; implement chemical spill and leak prevention and response procedures; and include effective best management practices to prohibit the discharge of wastewater from: concrete washout areas, discharge of wastewater from washout and cleanup of stucco, paint, form release oils, curing compounds and other construction materials; discharge of fuels, oils, other pollutants used in vehicle and equipment operation and maintenance activities; and the discharge of soaps and solvents used for vehicle and equipment washing. This plan shall be available onsite for review at reasonable times by the local VЕСSP/VSMР authority when requested.
- The owner, applicant, operator, or permittee is responsible for all operator self-inspections as required in the pollution prevention plan (P2 plan or PPP) or as required as part of a developed Stormwater Pollution Prevention Plan (SWPPP). These inspections shall be made available, upon request, by the local VЕСSP/VSMР authority.
- All perimeter erosion and sediment control (E&SC) measures shall be constructed as a first step in any land-disturbing activity and shall be made functional before upslope land disturbance activity takes place.
- Additional safety fence or dust control measures, in accordance with the provisions of Minimum Standards & Specs. 3.01 and 3.39 of the Virginia Erosion and Sediment Control Handbook (VESCH), may be required to be implemented on the site in addition to that shown on the approved plan and specifications in order to ensure adequate protection of the health, safety and welfare of the public or if site conditions change, become apparent or alter significantly following the date of plan approval.
- Erosion and sediment control measures may require minor field adjustments at or following time of construction to ensure their intended purpose is accomplished, to ensure adequate protection of the health, safety, and welfare of the public, or if site conditions change, become apparent or alter significantly following the date of plan approval. Local VЕСSP/VSMР authority approval shall be required for any deviation of erosion and sediment control measures from the approved plan.
- Off-site waste or borrow areas shall be approved by the local VЕСSP/VSMР authority prior to the import of any borrow or export of any waste to or from the project site.
- Temporary soil stockpiles shall comply with the provisions of Section 24-46 of the County Code.
- Culvert and storm drain inlet protections, in accordance with the provisions of Minimum Standards & Specs. 3.07 and 3.08 of the Virginia Erosion and Sediment Control Handbook (VESCH), may be removed at the discretion of the assigned local VЕСSP/VSMР authority compliance inspector, should placement of the measure result in excessive road flooding, traffic or safety hazard, or result in the redirection of drainage water toward existing lots, homes, driveways, garages or other structures. Decisions shall be made by the VЕСSP/VSMР authority on a case-by-case basis based on field situations encountered.
- Drainage facilities shall be installed and functional within 30 days following completion of rough grading at any point within the project.
- No more than 300 feet of trench may be open at one time for underground utility lines, including storm water conveyances. All other provisions of Minimum Standard No. 16 of the Virginia Erosion and Sediment Control regulations apply.

August 13, 2019  
General Permit Number VAR10D991  
Page 2

- Does this proposed land-disturbing activity discharge to a surface water identified as impaired or for which a TMDL wasteload allocation has been established and approved prior to the term of the general permit for polychlorinated biphenyl (PCBT)? **Yes.** If YES, then the following general permit (Part I B 4 b) and SWPPP requirements (Part I B 6) must be implemented for the land-disturbing activity if the construction activity involves the demolition of structures (i) equal to or greater than 10,000 square feet and (ii) built or renovated on or before January 1, 1980:

- Implement an approved erosion and sediment control plan;
- Dispose of PCB-contaminated materials in compliance with applicable state, federal, and local requirements to minimize the exposure of PCB-containing building materials;
- Inspections shall be conducted at a frequency of (i) at least once every four (4) business days or (ii) at least once every (5) business days and no later than 24 hours following a measurable storm event. In the event that a measurable storm event occurs when there are more than 24 hours between business days, the inspection shall be conducted on the next business day; and
- Representative inspections used by utility line installation, pipeline construction, or other similar linear construction activities shall inspect all outfalls.

- Does this proposed land-disturbing activity discharge to an exceptional water as identified in Section 30 of the Water Quality Standards, 9VAC 25-260? **No.** If YES, then the following general permit (Part I B 5) and SWPPP requirements (Part I B 7) must be implemented for the land-disturbing activity:

- 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;
- Nutrients (e.g., fertilizers) shall be applied in accordance with manufacturer's recommendations or an approved nutrient management plan and shall not be applied during rainfall events;
- Inspections shall be conducted at a frequency of (i) at least once every four (4) business days or (ii) at least once every (5) business days and no later than 24 hours following a measurable storm event. In the event that a measurable storm event occurs when there are more than 24 hours between business days, the inspection shall be conducted on the next business day; and
- Representative inspections used by utility line installation, pipeline construction, or other similar linear construction activities shall inspect all outfalls.

The general permit requires that you submit a complete Notice of Termination packet no later than 30 days after meeting one or more of the termination conditions set forth in the general permit (Part I F). In accordance with the Virginia Stormwater Management Program State Permit Fee Regulation (9VAC 25-870-830), you may be required to pay an annual permit maintenance fee until coverage under this general permit has been terminated. If you are required to pay an annual permit maintenance fee, you will receive an invoice from the VSMP Authority.

The general permit will expire on June 30, 2024. The conditions of the general permit require that you submit a new registration statement at least 60 days prior to that date if you wish to continue coverage under the general permit, unless permission for a later date has been granted by the Board. Permission cannot be granted to submit the registration statement after the expiration date of the general permit.

If you have any questions about this permit, please contact the DEQ Office of Stormwater Management at [ConstructionGP@deq.virginia.gov](mailto:ConstructionGP@deq.virginia.gov).

Sincerely,

Jaime B. Robb, Manager  
Office of Stormwater Management

Standard County SWPPP Notes

Page 3

- Permanent or temporary stabilization of disturbed soil areas shall comply with Minimum Standard # 1 and # 3 of the Virginia Erosion and Sediment Control Regulations.
- The term seeding, final vegetative cover or stabilization on the approved plan shall mean the successful germination and establishment of a stable grass cover from a properly prepared seedbed, in accordance with Minimum Standard # 1 and # 3 of the Virginia Erosion and Sediment Control Regulations, Minimum Standards & Specs. 3.29 through 3.37 of the Virginia Erosion and Sediment Control Handbook (VESCH), and any technical bulletins issued by the State Water Control Board or Virginia DEQ, as applicable. Irrigation, if necessary, shall comply with all applicable seasonal outdoor water use restrictions of the James City Service Authority.
- If disturbed area stabilization is to be accomplished during the months of December, January or February, stabilization shall consist of Mulching in accordance with Minimum Standard & Spec. 3.35 of the Virginia Erosion and Sediment Control Handbook (VESCH). Seeding will then take place as soon as the season permits.
- Temporary erosion and sediment control measures shall not be removed until all disturbed areas are stabilized. Removal shall not occur without authorization by the local VЕСSP/VSMР authority. Disturbances associated with the removal of temporary erosion and sediment control measures shall be properly stabilized.
- No sediment trap or sediment basin shall be removed until a) at least 75 percent of the single-family lots within the drainage area to the trap or basin have been sold to a third party for the construction of homes (unrelated to the developer); and/or, b) 60 percent of the single-family lots within the drainage area to the trap or basin are completed and stabilized. A bulk sale of the lots to another builder does not satisfy this provision. Sediment traps and sediment basins shall not be removed without authorization of the local VЕСSP/VSMР authority.
- Design and construction of private-type storm drainage systems, outside VDOT right-of-way, shall be performed in accordance with the current version of the James City County, Engineering and Resource Protection Division, Stormwater Drainage Conveyance Systems (Non-BMP related), General Design and Construction Guidelines (ie. County Drainage Standards).
- Record Drawings (Ashbury) and Construction Certifications are required for all stormwater facilities including stormwater management (BMP) facilities and storm drainage conveyance systems. The certification process shall include an internal closed-circuit television camera (CCTV) post installation inspection performed by the owner in accordance with standards and specifications developed by the VSMP authority. Record drawings and construction certification must meet established program requirements of the County's Chapter 8 Erosion and Sediment Control and VSMP Ordinance and the local VЕСSP/VSMР authority.
- All stormwater facilities including BMPs, storm drainage pipes, stormwater conveyances, inlets, manholes, outfalls and roadside and other channels shall be inspected by the local VЕСSP/VSMР authority, the owner, and the applicant/operator/permittee designated geotechnical engineer for the project in accordance with established County stormwater facility inspection program requirements.

PROJECT NARRATIVE

PROJECT DESCRIPTION

THE PURPOSE OF THIS PROJECT IS TO CREATE VARIOUS SITE IMPROVEMENTS AT THE FORMER DRACHEN FIRE SITE IN THE GERMANY SECTION OF BUSCH GARDENS WILLIAMSBURG (BGW). THE SITE WORK WILL INVOLVE DEMOLITION AND CLEARING OF SELECT EXISTING FEATURES, DRAINAGE IMPROVEMENTS, SERVICE ROAD RELOCATION, AND UTILITY REMOVAL AND RELOCATION.

EXISTING SITE CONDITIONS

THIS PROJECT WILL DISTURB APPROXIMATELY 4.12 ACRES. THE EXISTING PARCEL IS ZONED M-1 (LIMITED BUSINESS/INDUSTRIAL DISTRICT) IN JAMES CITY COUNTY. THE ENTIRE BUSCH GARDENS PARCEL COVERS 382 ACRES. THE EXISTING SITE IS LARGELY COVERED BY OPEN GRASS AND DIRT FIELDS, GRAVEL AND ASPHALT ACCESS ROADS, AND ENCOMPASSES THE FORMER DRACHEN FIRE STATION AND MAINTENANCE BUILDING. THE PORTIONS OF THE SITE ALONG THE RHINE RIVER ARE HEAVILY WOODED STEEP SLOPES. THE REMAINDER OF THE SITE TO THE SOUTH AND SOUTHWEST ARE MAINLY OPEN FIELDS WITH ACCESS ROADS AND CLUSTERS OF TREES.

ADJACENT AREA

THE SITE IS BOUNDED BY THE RHINE RIVER TO THE EAST AND SOUTH, ACCESS ROADS TO THE WEST, AND THE VERBOLTEN ACCESS ROAD TO THE NORTH.

OFFSITE DISTURBED AREA

NO OFFSITE AREAS WILL BE DISTURBED AS PART OF THIS PROJECT.

CRITICAL EROSION AREAS

THE SLOPES BETWEEN THE EXISTING TRELLINE AND THE RHINE RIVER ARE SLOPED UPWARDS OF APPROXIMATELY 1:5.1. DISTURBED SLOPES WILL BE CUT BACK AT A MAXIMUM SLOPE OF 2:1 AND TREATED WITH BLANKET MATTING, FLEXTEERRA HP-FGM, OR FUTERRA TRMS.

THE SOUTHERN AND EASTERN DISCHARGE POINTS TO THE RHINE RIVER ARE NATURAL DRAINAGEWAYS THAT WILL CONVERTED INTO TWO CONCRETE CHANNELS. STILLING BASINS WILL BE INSTALLED AT THE BASE OF EACH CONCRETE CHANNEL.

THE RPA IS LOCATED ONSITE AND ADJACENT TO THE PROJECT AREA. IMPROVEMENTS WITHIN THE RPA ARE LIMITED TO STORMWATER OUTFALL CONSTRUCTION.

DEMOLITION

DEMOLITION INCLUDES BUT IS NOT LIMITED TO: SELECTIVE DEMOLITION OF DRACHEN FIRE SPREAD FOOTINGS AND DRILLED PIERS, DEMOLITION OF PATH PAVEMENT, ASPHALT SERVICE ROADS, WALLS, LANDSCAPE, FENCING, AND UTILITIES AND CLEARING.

UTILITIES

- REPLACE CURB INLET WITH 12" ROUND GRATE INLET IN PLAZA AREA
- EXISTING LOW VOLTAGE ELECTRIC LINES, WATER LINES, AND OTHER UTILITIES WITHIN WILL BE REMOVED OR RELOCATED TO THE EXTENT SHOWN ON THE DEMOLITION PLAN
- NEW STORM DRAINAGE MEASURES WILL INCLUDE: CONCRETE CHANNELS, STORM DRAIN PIPES AND ASSOCIATED STRUCTURES, AND A DRAINAGE PIPE THAT WILL BE REQUIRED TO PASS THROUGH AN OIL-WATER SEPARATOR PRIOR TO DISCHARGING TO THE RHINE RIVER BMP.

PROPOSED GRADING AND PAVING

- A SECTION OF THE EXISTING CONCRETE PLAZA WILL BE REMOVED AND REPLACED
- TWO NEW CONCRETE SIDEWALKS WILL CONNECT THE CONCRETE PLAZA TO THE FORMER DRACHEN FIRE STATION BUILDING
- NEW PERMANENT GRAVEL ACCESS ROAD
- NEW CONCRETE PADS FOR UTILITY EQUIPMENT
- NEW CURBING
- NEW GRAVEL ROAD
- NEW GRAVEL AND CONCRETE SIDEWALK WILL BE INSTALLED TO PROVIDE ACCESS TO BUILDINGS AND EVACUATION ROUTES
- TWO NEW CONCRETE CHANNELS WILL CONVEY STORMWATER DOWN THE STEEP SLOPES TO STABILIZED OUTFALLS ON THE BANKS OF THE RHINE RIVER. ONE NEW CONCRETE CHANNEL WILL CONVEY STORMWATER FROM NEW GRASS DITCHES TO AN EXISTING STORM INLET

EROSION AND SEDIMENT CONTROL MEASURES

- A MODIFIED SEDIMENT TRAP LOCATED ALONG THE BOTTOM OF THE SLOPES INTO THE RHINE RIVER WILL COLLECT RUNOFF FROM MOST DISTURBED UPLAND AREAS FOR BOTH PHASES OF E&S
- SILT FENCE, REINFORCED SUPER SILT FENCE, AND TREE PROTECTION WILL BE THE PRIMARY PERIMETER CONTROL MEASURES.
- STEEP SLOPES THAT WILL RESULT FROM PILE CAP EXCAVATION THAT WILL BE EXPOSED FOR LONGER THAN 7 DAYS WILL BE TREATED WITH TEMPORARY SEEDING AND BLANKET MATTING (E&S PHASE 1)
  - SAFETY FENCE (3.01): A PARK SPECIFIED WOOD BOARD ON BOARD FENCE WILL PROTECT GUESTS AND EMPLOYEES WITHIN THE PARK FROM ENTERING THE CONSTRUCTION SITE DURING PARK HOURS.
  - CONSTRUCTION ENTRANCE WITH CONCRETE WASHOUT (3.02): REDUCES THE AMOUNT OF MUD TRANSPORTED ONTO PUBLIC ROADS BY MOTOR VEHICLES OR RUNOFF.
  - SILT FENCE (3.03): SILT FENCE AND SILT FENCE WITH WIRE SUPPORT SHALL BE INSTALLED ALONG THE TOE OF ALL SLOPES AND ALL OTHER AREAS PRONE TO THE EXPORT OF SEDIMENT OFFSITE DUE TO CONSTRUCTION ACTIVITIES. SILT FENCE SHALL ALSO BE INSTALLED ON THE DOWNHILL SIDE OF THE UTILITY EXTENSIONS.
  - STORM DRAIN INLET PROTECTION (3.07): ALL EXISTING AND PROPOSED INLETS SHALL BE PROTECTED FROM SEDIMENT PRIOR TO PERMANENT STABILIZATION OF THE DISTURBED AREAS.
  - CULVERT INLET PROTECTION (3.08): PREVENTS SEDIMENT FROM ENTERING, ACCUMULATING IN, AND TRANSPORTING THROUGH CULVERTS.
  - TEMPORARY DIVERSION DIKE (3.09): TEMPORARY RIDGE OF COMPACTED SOIL TO DIVERT STORM RUNOFF FROM UPSLOPE DRAINAGE AREAS AND SLOPES TO A STABILIZED OUTFALL.
  - DIVERSION (3.12): A CHANNEL CONSTRUCTED ACROSS A SLOPE WITH A SUPPORTING EARTHEN RIDGE ON THE LOWER SIDE TO INTERCEPT AND DIVER STORMWATER RUNOFF TO STABILIZED OUTFALLS AT NON-EROSIVE VELOCITIES.
  - TEMPORARY SEDIMENT TRAP (3.13): DETAINS SEDIMENT-LADEN RUNOFF FROM DISTURBED AREAS IN WET AND DRY STORAGE LONG ENOUGH FOR THE MAJORITY OF THE SEDIMENT TO SETTLE OUT.
  - OUTLET PROTECTION (3.18): STRUCTURALLY LINED APRONS OR OTHER ACCEPTABLE ENERGY DISSIPATING DEVICES USED TO PREVENT SCOUR AT STORMWATER OUTFALLS, PROTECT THE OUTFALL STRUCTURE AND REDUCE THE VELOCITY AND ENERGY OF CONCENTRATED STORMWATER FLOWS.
  - ROCK CHECK DAMS (3.20): REDUCES VELOCITY OF CONCENTRATED STORMWATER FLOWS TO MINIMIZE EROSION.
  - SOIL STABILIZATION BLANKETS AND MATTING (3.36): AIDS IN CONTROLLING EROSION ON CRITICAL AREAS BY PROVIDING A MICROCLIMATE WHICH PROTECTS YOUNG VEGETATION AND PROMOTES ITS ESTABLISHMENT.
  - TREE PROTECTION (3.38): TREE PROTECTION PROVIDES A PHYSICAL BARRIER DEFINING THE LIMITS OF DISTURBANCE AND SHALL BE INSTALLED PRIOR TO CLEARING OPERATIONS.

STABILIZATION MEASURES

- CONCRETE-LINED DRAINAGE CONVEYANCE CHANNELS: COLLECT CONCENTRATED FLOW FROM SURFACE STORMWATER RUNOFF AND CONVEY FLOW TO STABILIZED OUTFALLS.
- BLANKET MATTING, FLEXTEERRA HP-FGM, OR FUTERRA TRMS WILL BE INSTALLED ON STEEP SLOPES DURING CONSTRUCTION
- TEMPORARY SEEDING (3.31): TEMPORARY SEEDING SHALL BE APPLIED TO ALL DISTURBED AREAS ON THE SITE THAT WILL BE EXPOSED FOR LONGER THAN 7 DAYS.
- PERMANENT SEEDING (3.32): PERMANENT SEEDING SHALL BE APPLIED TO ALL DISTURBED AREAS ON THE SITE ONCE THE FINAL GRADES HAVE BEEN ESTABLISHED.
- MULCHING (3.35): PREVENTS EROSION BY PROTECTING THE SOIL SURFACE FROM RAINDROP IMPACT AND REDUCING VELOCITY OF OVERLAND FLOW AND PROVIDES POTENTIAL VEGETATION INSULATION AGAINST HEAT AND COLD.

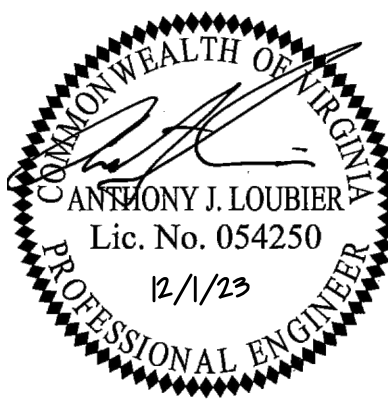
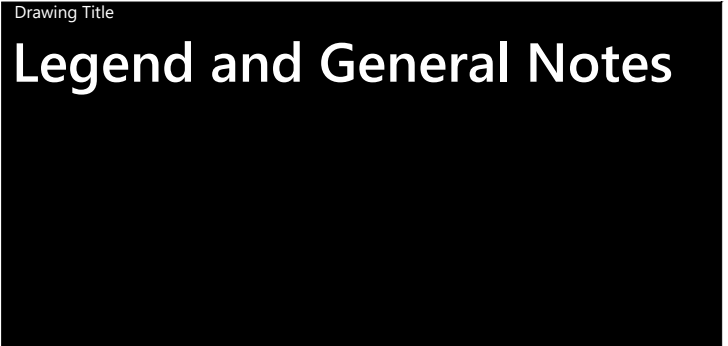
STORMWATER MANAGEMENT CONSIDERATIONS

ALL RUNOFF FROM THE SITE ULTIMATELY DRAINS TO THE RHINE RIVER. ALL DISCHARGES FROM THE SITE INTO THE RHINE RIVER WILL BE CONVEYED BY NEW CONCRETE CHANNELS OR THE EXISTING VERBOLTEN STORM DRAIN SYSTEM. THE NEW CHANNELS WILL DISCHARGE TO STILLING BASINS TO PREVENT EROSION OF THE LAKE SLOPES. PORTIONS OF THE SITE DISCHARGE TO THE EXISTING STORM SEWER SYSTEM FOR VERBOLTEN. DRAINAGE AREA MAPS AND VDOT DESIGN SPREADSHEETS HAVE BEEN INCLUDED WITH THIS SUBMITTAL TO PROVE THAT THE EXISTING STORM SYSTEM CAN ADEQUATELY CONVEY RUNOFF FROM THE ALTERED CONTRIBUTING DRAINAGE AREAS. THE RHINE RIVER BMP CURRENTLY PROVIDES WATER QUALITY AND QUANTITY CONTROL FOR THE ENTIRE BUSCH GARDENS PROPERTY. THE DEVELOPMENT OF A QUALITY ASSOCIATED WITH THIS PROJECT FALLS WITHIN AN AREA DESIGNATED AS IMPERVIOUS ON THE PREAPPROVED 2012 BUSCH GARDENS STORMWATER MASTERPLAN. THE INCREASE IN IMPERVIOUS AREA FOR THIS SITE IS MINIMAL. THE RHINE RIVER BMP CURRENTLY PROVIDES APPROXIMATELY 14 TIMES THE REQUIRED WATER QUALITY VOLUME. AN UPDATED COPY OF THE STORMWATER MASTERPLAN IS INCLUDED IN APPENDIX A OF THE STORMWATER MANAGEMENT ENGINEERING REPORT.



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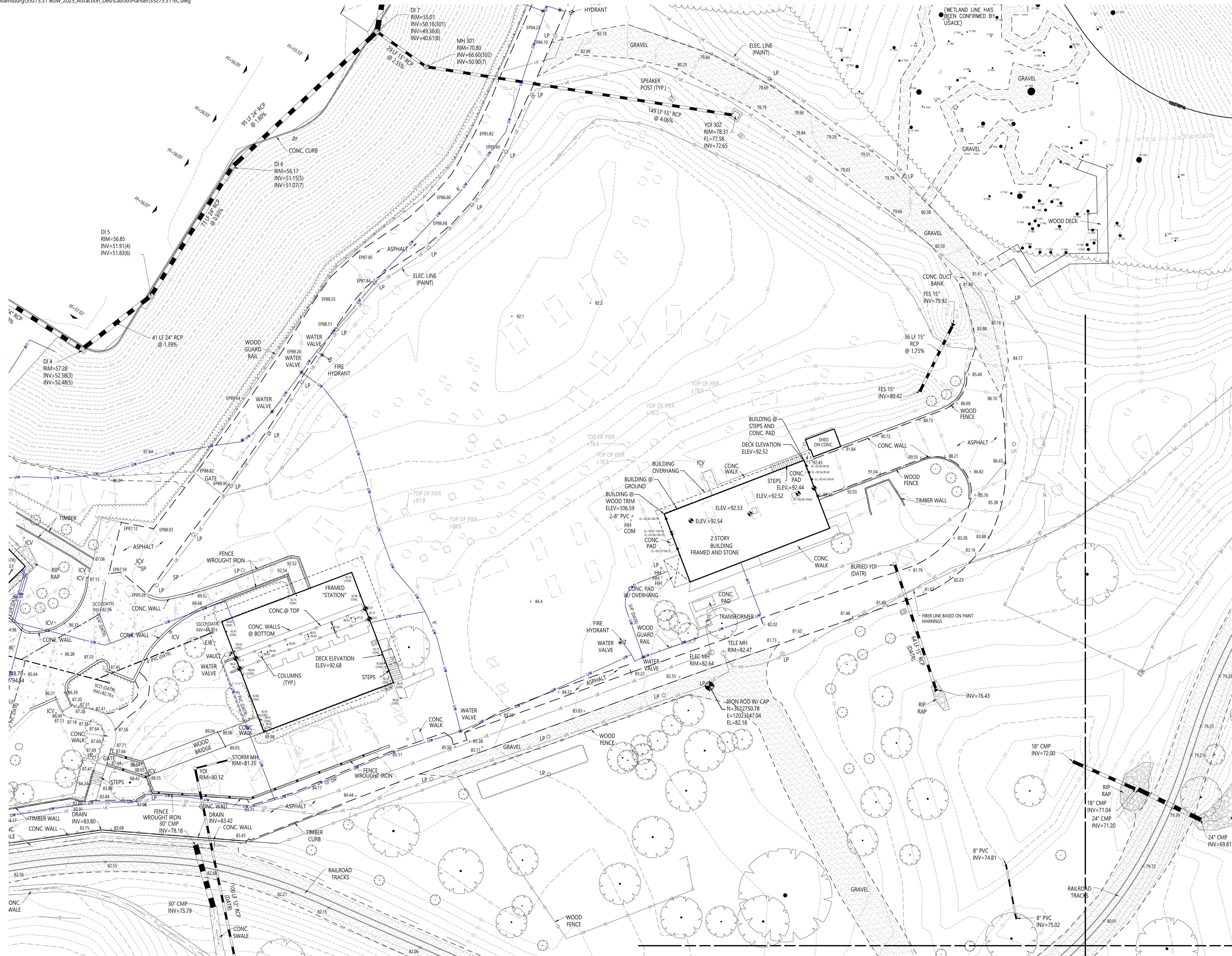


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Project Number  
35273.31





MATCHLINE SEE SHEET C2.03 INSET A



A horizontal number line is shown with tick marks at 0, 10, 20, and 40. The word "Feet" is written at the end of the line. Three segments are highlighted with black bars: a bar from 0 to 10, a bar from 10 to 20, and a bar from 20 to 40.

7851 Pocahontas Trail  
Williamsburg, VA

No.	Revision	Date	Appvd.

Designed by	Checked by
KAM	AJL

Review Dec. 3, 2023

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# Existing Conditions

COMMONWEALTH OF VIRGINIA  
ANTHONY J. LOUBIER  
Lic. No. 054250  
12/1/23  
PROFESSIONAL ENGINEER

Drawing Number

C2.01

Sheet \_\_\_\_\_ of \_\_\_\_\_

4 27

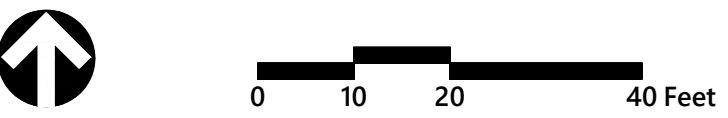
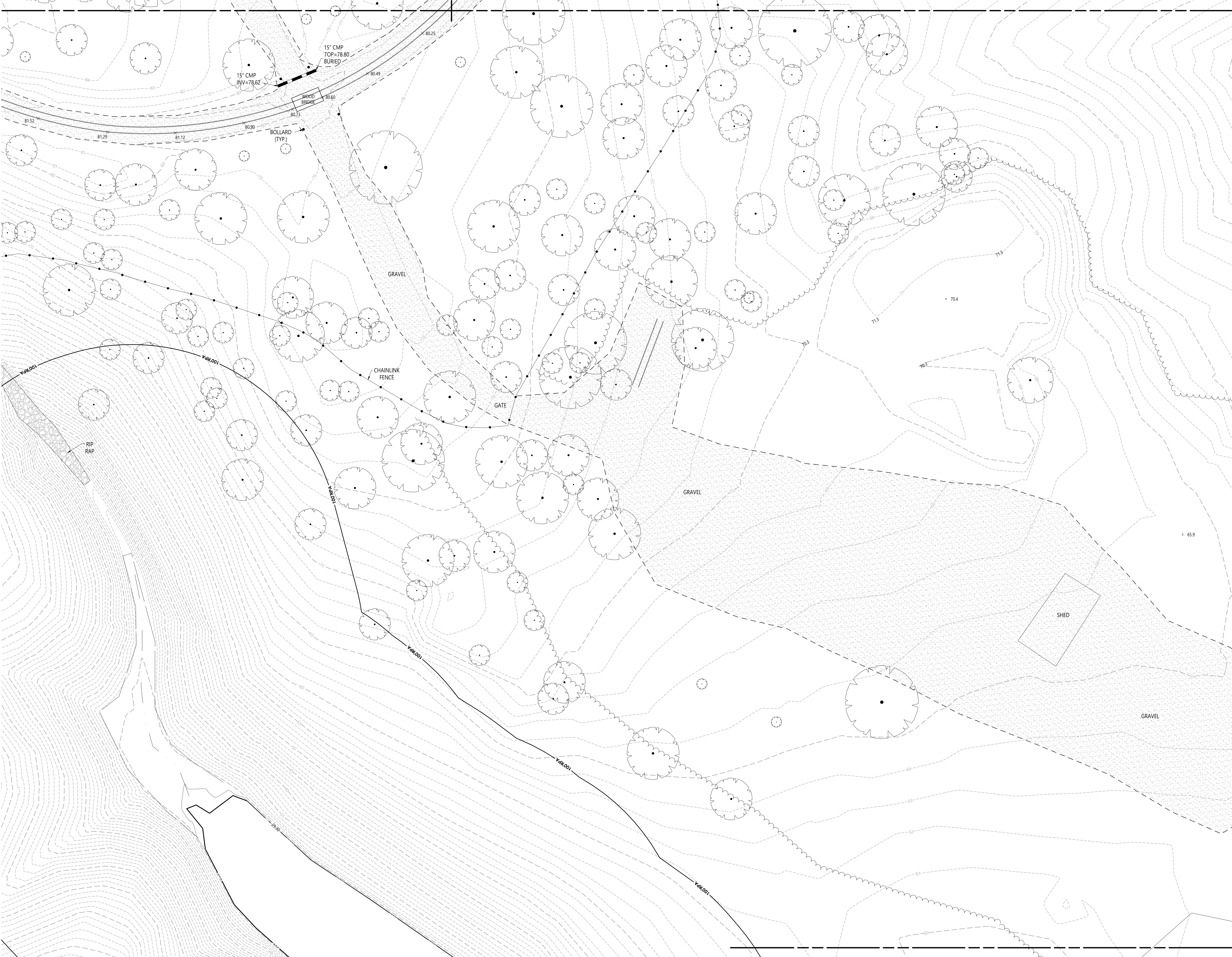
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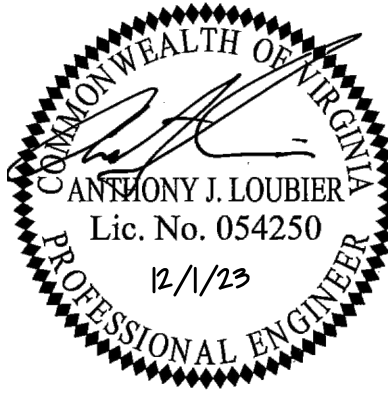
**Busch Gardens 2023**  
7851 Pocahontas Trail  
Williamsburg, VA

No.	Revision	Date	Appr'd.

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**Existing Conditions**



**C2.02**

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Project Number  
35273.31

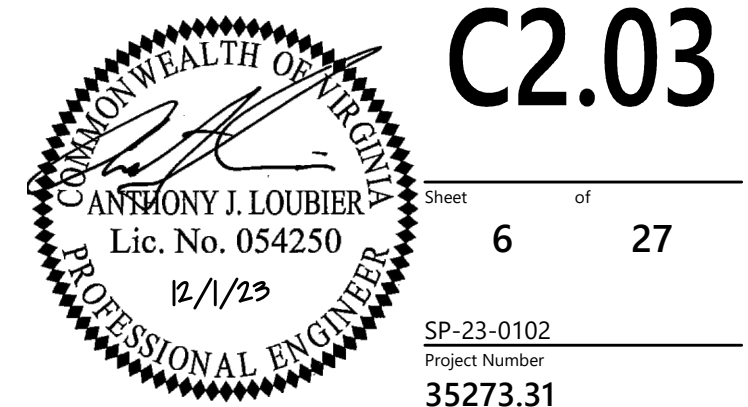




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## Existing Conditions





ALL ITEMS SHOWN IN BOLD ON PLANS ARE TO BE REMOVED

DEMOLITION NOTES:

- ALL DEMOLITION AND DISPOSAL OPERATIONS SHALL BE CONDUCTED IN COMPLIANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.
- INSTALL EROSION CONTROL MEASURES AS INDICATED ON THE EROSION AND SEDIMENT CONTROL PLANS.
- COORDINATE REMOVAL OF ALL TREES AND OTHER LANDSCAPE MATERIALS WITH CLIENT/OWNER. CLEARING TO INCLUDE STUMP REMOVAL.
- STUMPS AND TOPSOIL SHALL REMAIN IN PLACE ON STEEP SLOPES UNTIL SUCH TIME THAT GRADING OPERATIONS COMMENCE.
- CONTRACTOR TO LEAVE STUMPS WITHIN RPA IN PLACE FOR THE DURATION OF EROSION AND SEDIMENT CONTROL PLAN PHASE 1.
- DEMOLITION OR REMOVAL SHALL INCLUDE THE REMOVAL AND LAWFUL DISPOSAL OF ALL MATERIALS FROM THE SITE BY THE CONTRACTOR.
- THE CONTRACTOR SHALL RECORD THE CONDITION OF EXISTING FEATURES TO REMAIN ON SITE AND ON ADJACENT DEVELOPMENT BY MARKING RECORD TOPOGRAPHIC DOCUMENTS, AND BY PHOTOGRAPHS. THE CONDITION OF THE EXISTING FEATURES SHALL BE REVIEWED WITH THE OWNER'S REPRESENTATIVE PRIOR TO THE COMMENCEMENT OF DEMOLITION OPERATIONS.
- EXISTING FEATURES WHICH ARE TO REMAIN, AND ARE DAMAGED BY CONSTRUCTION OPERATIONS SHALL BE RESTORED TO ORIGINAL CONDITION BY THE CONTRACTOR, AT NO ADDITIONAL EXPENSE TO THE OWNER.
- THE CONTRACTOR SHALL PROVIDE FENCING, BARRICADES, ETC. TO MAINTAIN SECURED AREAS AROUND DEMOLITION OPERATIONS.
- NO BURNING OR BLASTING WILL BE PERMITTED.
- THE CONTRACTOR SHALL COORDINATE ALL UTILITY DISCONNECTIONS TO BUILDINGS, STRUCTURES, ETC. THAT ARE TO BE ABANDONED WITH THEIR RESPECTIVE UTILITY SERVICE PROVIDER. UTILITIES SHALL BE ABANDONED OR REMOVED IN COMPLIANCE WITH THE UTILITY OWNER'S REQUIREMENTS.
- THE GENERAL LIMITS OF DEMOLITION INCLUDE REMOVAL OF ALL EXISTING FEATURES (I.E. LANDSCAPING, TREES, PAVEMENTS, WALLS, FENCES, SIGNAGE, ETC.) WITHIN CONSTRUCTION LIMITS, UNLESS OTHERWISE INDICATED TO REMAIN. PROJECT LIMIT IS INDICATED FOR THE CONVENIENCE OF THE CONTRACTOR AND INDICATES THE LOCATION OF THE MAJORITY OF WORK INSIDE THIS PROJECT. ALL WORK OUTSIDE OF THE PROJECT LIMITS INDICATED ON THE DRAWING OR REQUIRED TO BE COMPLETED IN THE ORDER TO PROVIDE A COMPLETE AND FUNCTIONING PROJECT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR REGARDLESS OF ITS LOCATION. COORDINATE THIS WORK WITH THE OWNER AND ANY GOVERNMENTAL AGENCIES AS REQUIRED.
- ALL PIPES AND CONDUITS THAT ARE ABANDONED IN PLACE SHALL BE FILLED WITH FLOWABLE CONCRETE FILL AND SHALL HAVE OPEN ENDS CAPPED OR PLUGGED TO FORM A WATER TIGHT SEAL.
- REMOVE EXISTING FEATURES WITHIN THE PROJECT LIMITS TO A MINIMUM OF TWO (2) FEET BELOW PROPOSED FINISHED GRADE, EXCEPT FOR CONCRETE DEMOLITION AROUND EXISTING RIDE FOOTERS/SUPPORTS. STRUCTURES, ETC. SHALL BE DEMOLISHED TO PROVIDE DRAINAGE, I.E. BREAKUP FLOOR SLABS, ETC., AND THEN BACKFILL WITH SUITABLE SOIL MATERIALS TO NEW SUBGRADES. SEE STRUCTURAL DRAWINGS FOR DEMOLITION OF EXISTING DRACHEN FIRE FOUNDATIONS WITHIN FOOTPRINT OF PROPOSED FOUNDATIONS.
- ASPHALT, CONCRETE, CONCRETE CURB OR CURB AND GUTTER SHALL BE REMOVED RETAINING A STRAIGHT EDGE. SHOULD THE ASPHALT/CONCRETE EDGE BECOME JAGGED OR UNEVEN, THE CONTRACTOR WILL BE REQUIRED TO PROVIDE A STRAIGHT SAW CUT A MINIMUM OF 12" FROM THE JAGGED/UNEVEN PAVEMENT EDGE ALONG THE ENTIRE LIMITS OF ADJACENT PAVEMENT REMOVAL. REMOVE ASPHALT/CONCRETE WEARING COURSE, AND PROVIDE NEW WEARING COURSE.
- CONCRETE CURB, CURB AND GUTTER OR WALK SHALL BE REMOVED TO THE NEAREST EXPANSION JOINT, OR IT SHALL BE SAW CUT AND REMOVED TO THE NEAREST CONTRACTION JOINT. REPLACEMENT PAVEMENT ITEMS SHALL BE INSTALLED TO MATCH EXISTING CROSS SECTION, FINISH, COLOR AND GRADES AND SHALL PROVIDE SMOOTH TRANSITIONS TO PROPOSED GRADES.
- BACKFILL ALL DEPRESSIONS ENCOUNTERED OR CAUSED BY DEMOLITION PROCESS WITH SELECT SUITABLE SOIL MATERIALS TO MATCH NEW FINISHED GRADES UNLESS DEMOLITION OCCURS WHERE EXCAVATION WILL ULTIMATELY DISPLACE BACKFILL.
- AT COMPLETION OF DEMOLITION, GRADE SITE TO PROVIDE POSITIVE DRAINAGE.
- THE DEMOLITION PLAN IS INTENDED TO AID THE CONTRACTOR DURING THE BIDDING AND CONSTRUCTION PROCESS AND IS NOT INTENDED TO DEPICT EACH AND EVERY ELEMENT OF DEMOLITION. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING THE DETAILED SCOPE OF DEMOLITION BEFORE SUBMITTING ITS BID/PROPOSAL TO PERFORM THE WORK AND SHALL MAKE NO CLAIMS AND SEEK NO ADDITIONAL COMPENSATION FOR CHANGED CONDITIONS OR UNFORESEEN OR LATENT SITE CONDITIONS RELATED TO ANY CONDITIONS DISCOVERED DURING EXECUTION OF THE WORK.
- CONTRACTOR SHALL REMOVE AND DISPOSE OF EXISTING MANMADE SURFACE FEATURES WITHIN THE DESIGNATED AREAS INCLUDING PAVEMENTS, SLABS, CURBING, FENCES, LIGHT POLES, SIGNS, ETC. AS INDICATED ON THE DRAWINGS.
- EXISTING UTILITIES SHALL BE PROTECTED AND MAINTAINED UNLESS OTHERWISE NOTED.
- CONTRACTOR SHALL APPLY FOR AND OBTAIN ALL NECESSARY PERMITS FROM LOCAL AND STATE AUTHORITIES TO COMPLETE THE WORK.
- UNLESS OTHERWISE SPECIFICALLY PROVIDED ON THE PLANS OR IN THE SPECIFICATIONS, THE ENGINEER HAS NOT PREPARED DESIGNS FOR AND SHALL HAVE NO RESPONSIBILITY FOR THE PRESENCE, DISCOVERY, REMOVAL, ABATEMENT OR DISPOSAL OF HAZARDOUS MATERIALS, TOXIC WASTES OR POLLUTANTS AT THE PROJECT SITE. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR ANY CLAIMS OF LOSS, DAMAGE, EXPENSE, DELAY, INJURY OR DEATH ARISING FROM THE PRESENCE OF HAZARDOUS MATERIAL, AND CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE ENGINEER FROM ANY CLAIMS MADE IN CONNECTION THEREWITH. MOREOVER, THE ENGINEER SHALL HAVE NO ADMINISTRATIVE OBLIGATIONS OF ANY TYPE WITH REGARD TO ANY CONTRACTOR AMENDMENT INVOLVING THE ISSUES OF PRESENCE, DISCOVERY, REMOVAL, ABATEMENT OR DISPOSAL OF ASBESTOS OR OTHER HAZARDOUS MATERIALS.
- EXISTING FOUNDATION DIMENSIONS ARE BASED ON DESIGN DRAWINGS AND HAVE NOT BEEN FIELD VERIFIED. BASED ON THE DESIGN DRAWINGS, 12'X6' FOUNDATIONS ARE 15 INCHES THICK, 8'X4' FOUNDATIONS ARE 15 INCHES THICK, AND 14'X7' FOUNDATIONS ARE 18 INCHES THICK.

REMOVE TOP OF EXISTING DRILLED PIERS TO PROVIDE MIN. 3' CLEARANCE BETWEEN TOP OF EXIST. DRILLED PIERS AND BOTTOM OF NEW PILE CAP/GRADE BEAM/SHALLOW FTG. (TYP.)

REMOVE END OF EXIST. SPREAD FOOTINGS MIN. 3' PAST EDGE OF NEW PILE CAP. (OPTION: REMOVE ENTIRE FOUNDATION)

LIMITS OF DISTURBANCE (TYP.)

PERMANENTLY REMOVE EXISTING LIGHT POLE

PERMANENTLY REMOVE EXISTING LIGHT POLE

REMOVE EXISTING SPREAD FOOTINGS IF NOT ALREADY GREATER THAN 24" BELOW GRADE.

APPROXIMATE LOCATION OF EXISTING DRACHEN FIRE SPREAD FOOTINGS, NO PILE/PILE CAPS, TO BE REMOVED (TYP.)

APPROXIMATE LOCATION OF EXISTING DRACHEN FIRE SPREAD FOOTINGS (TYP.)

ALL EXISTING UTILITIES NOT BEING DEMOLISHED OR DISTURBED SHALL BE PROTECTED THROUGHOUT ALL PHASES OF CONSTRUCTION (TYP.)

ALL EXISTING UTILITIES NOT BEING DEMOLISHED OR DISTURBED SHALL BE PROTECTED THROUGHOUT ALL PHASES OF CONSTRUCTION (TYP.)

ALL EXISTING UTILITIES NOT BEING DEMOLISHED OR DISTURBED SHALL BE PROTECTED THROUGHOUT ALL PHASES OF CONSTRUCTION (TYP.)

EXISTING SITE LIGHTING SHALL BE RELOCATED AS NECESSARY



0 10 20 40 Feet

Busch Gardens 2023

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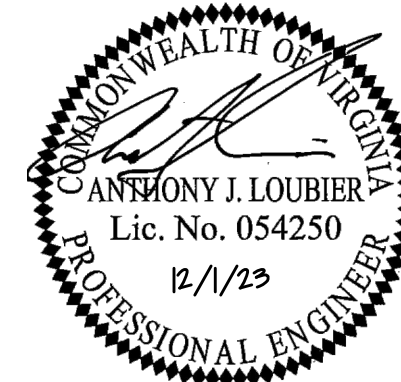
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Drawing Number



C3.01

Sheet 7 of 27

SP-23-0102  
Project Number  
35273.31

MATCHLINE SEE SHEET C3.02

MATCHLINE SEE SHEET C3.03 INSET A



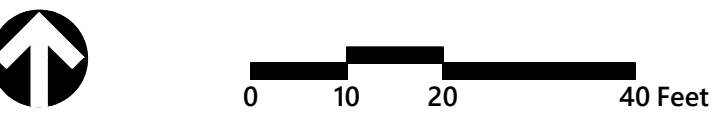
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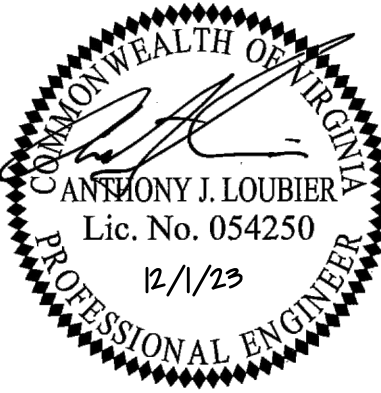
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7851 Pocahontas Trail  
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**C3.02**

Sheet 8 of 27

SP-23-0102  
Project Number  
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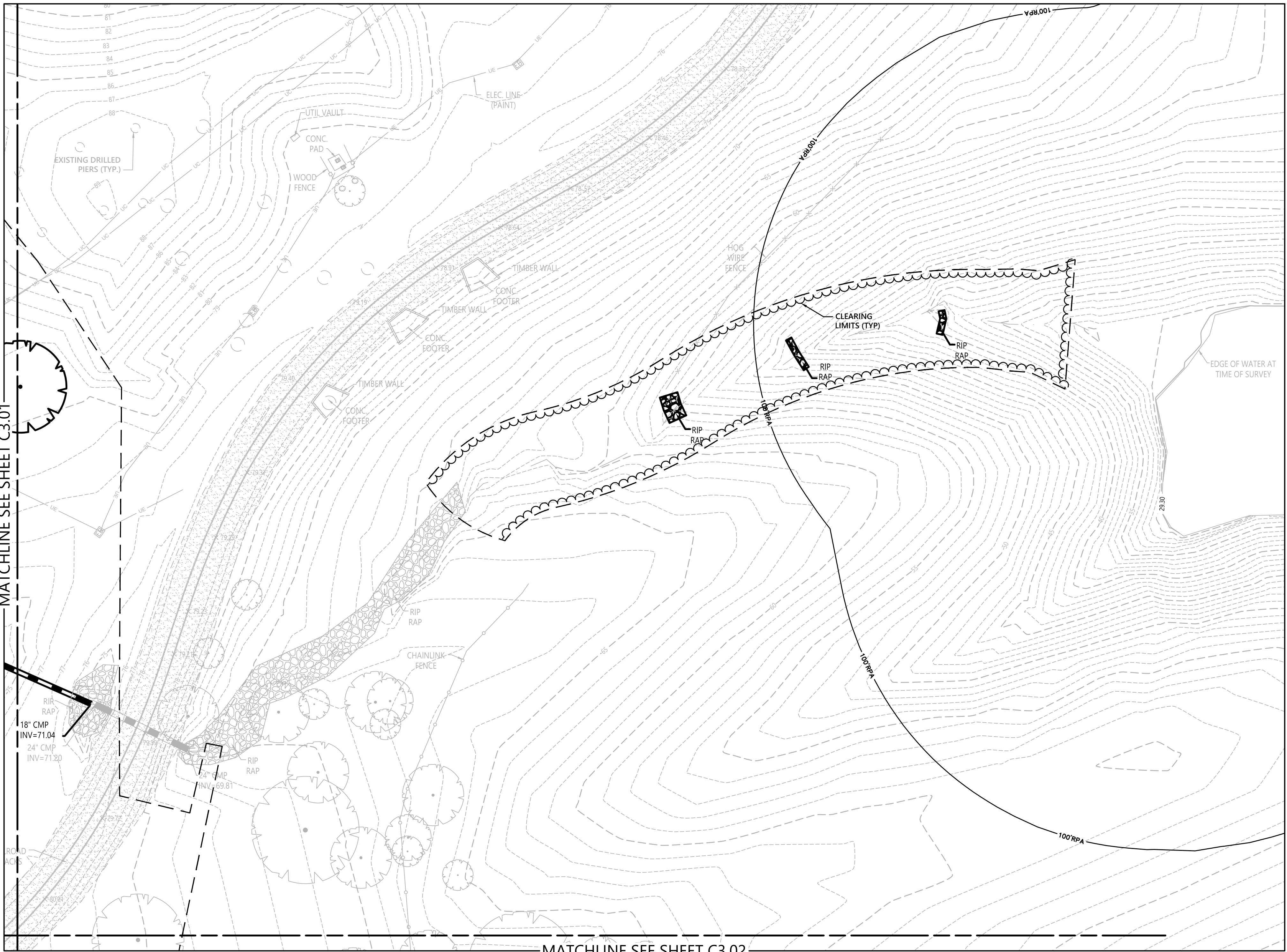
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ALL ITEMS SHOWN IN BOLD ON PLANS ARE TO BE REMOVED

INSET A

INSET B

MATCHLINE SEE SHEET C3.02



0 10 20 40 Feet

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7851 Pocahontas Trail  
Williamsburg, VA

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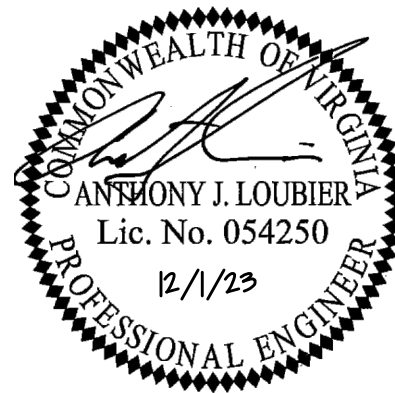
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**Demolition Plan**

Drawing Number



**C3.03**

Sheet 9 of 27

Project Number

35273.31





P-23-0102









### Legend

 CLEARING LIMITS  
 LIMIT OF DISTURBANCE

- 

7851 Pocahontas Trail  
Williamsburg, VA

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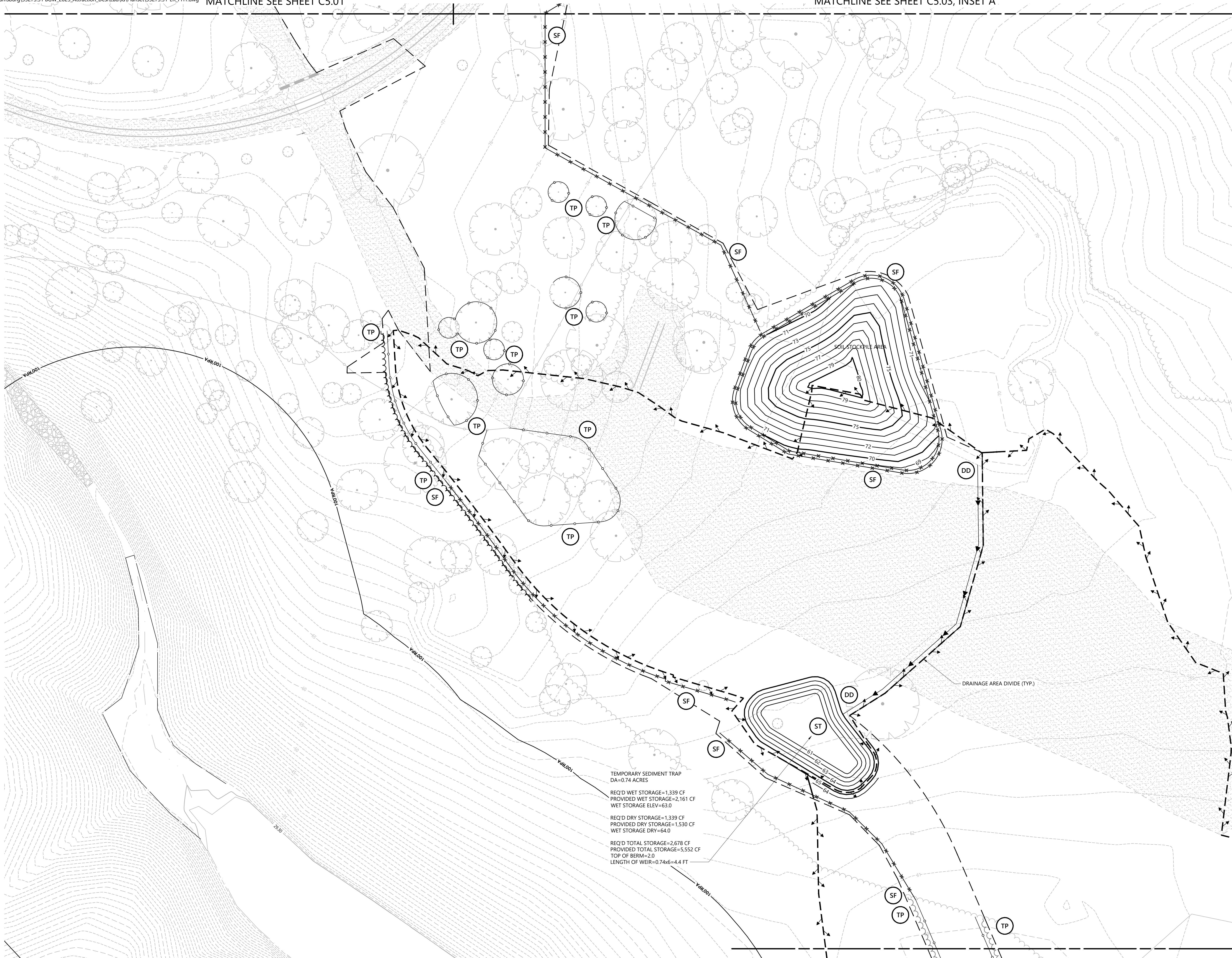
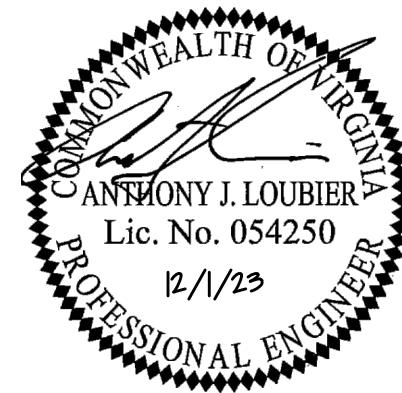
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# Erosion and Sediment Control Plan Phase 1

Sheet 12 of 27

SP-23-0102  
Project Number  
**35273.31**

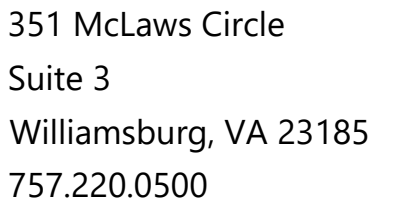


MATCHLINE SEE SHEET C5.03, INSET B








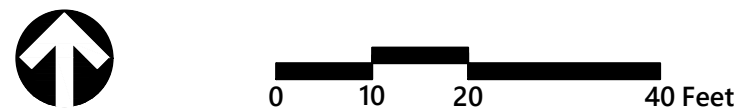


	CE	CONSTRUCTION ENTRANCE - VESCH STD. & SPEC. 3.02
	SF	SILT FENCE - VESCH STD. & SPEC. 3.05
	SSF	SUPER SILT FENCE - VESCH STD. & SPEC. 3.05
	IP	STORM DRAIN INLET PROTECTION - VESCH STD. & SPEC. 3.07
	CIP	CULVERT INLET PROTECTION - VESCH STD. & SPEC. 3.08
	DD	TEMPORARY DIVERSION DIKE - VESCH STD. & SPEC. 3.09
	TS	TEMPORARY SEDIMENT TRAP - VESCH STD. & SPEC. 3.13
	OP	OUTLET PROTECTION - VESCH STD. & SPEC. 3.18
	CD	ROCK CHECK DAMS - VESCH STD. & SPEC. 3.20
	TC	TURBIDITY CURTAIN - VESCH STD. & SPEC. 3.27
	TS	TEMPORARY SEEDING - VESCH STD. & SPEC. 3.31
	B/M	SOIL STABILIZATION BLANKETS AND/OR MATTING - VESCH STD. & SPEC. 3.36
	TP	TREE PROTECTION - VESCH STD. & SPEC. 3.38

CLEARING LIMITS  
LIMIT OF DISTURBANCE

NOTES:

1. ALL DISTURBED SLOPES 5:1 AND STEEPER SHALL RECEIVE EROSION AND SEDIMENT CONTROL BLANKET MATTING. BLANKET MATTING TO BE COIR EROSION CONTROL MATT TYPE 900 MINIMUM OR APPROVED EQUAL.
2. CONTRACTOR TO INSTALL FLEXTEKRA HP-FGM ON ALL DISTURBED GROUND WITHIN THE RPA.
3. SURFACE STABILIZATION, EROSION CONTROL, PLACEMENT AND COMPACTION OF INFILL MATERIAL SHALL BE OBSERVED BY VIRGINIA REGISTERED GEOTECHNICAL ENGINEER.
4. ALL DISTURBED SLOPES IN RPA GREATER THAN 20% SHALL BE TREATED WITH FUTERKA TRMS.
5. CONTRACTOR SHALL MONITOR THE EXISTING OFFICE BMP I.E. THE RHINE RIVER, FOR SIGNS OF SEDIMENTATION, SPECIFICALLY DURING OR AS A RESULT OF CONSTRUCTION ON THE SITE. THIS MAY INCLUDE ADDITIONAL E&SC MEASURES, CLEANING AND SEDIMENT REMOVAL WITHIN THE RPA. COMMENCEMENT OF CONSTRUCTION SHALL BE WITH THE OWNER, ENGINEER, AND THE COUNTY.
6. STUMPS AND TOPSOIL SHALL REMAIN IN PLACE ON STEEP SLOPES UNTIL SUCH TIME THAT GRADING OPERATIONS COMMENCE.
7. MAXIMUM CUT SLOPES FOR FOUNDATION EXCAVATION TO BE 1:1. MAXIMUM CUT SLOPES FOR BLANKET ACCESS ROAD TO BE 1.5:1.



7851 Pocahontas Trail  
Williamsburg, VA

[illegible]

Not Approved For Construction

# Erosion and Sediment Control Plan Phase 2

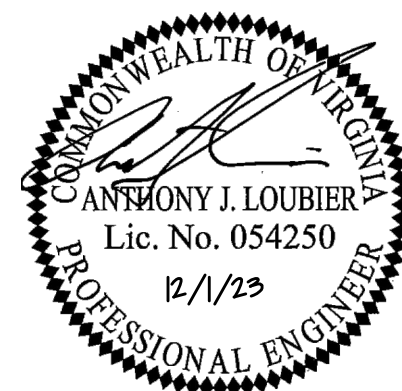
Drawing Number

## C5.04

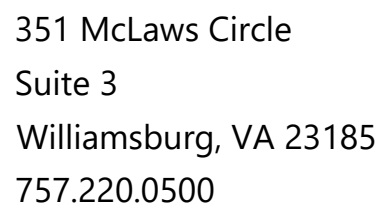
Sheet 14 of 27

SP-23-0102














35273.31







### Legend

	<b>CE</b>	CONSTRUCTION ENTRANCE - VESCH STD. & SPEC. 3.02
	<b>SF</b>	SILT FENCE - VESCH STD. & SPEC. 3.05.
	<b>SSF</b>	SUPER SILT FENCE - VESCH STD. & SPEC. 3.05
	<b>IP</b>	STORM DRAIN INLET PROTECTION - VESCH STD. & SPEC. 3.07
	<b>CIP</b>	CULVERT INLET PROTECTION - VESCH STD. & SPEC. 3.08
	<b>DD</b>	TEMPORARY DIVERSION DIKE - VESCH STD. & SPEC. 3.09
	<b>DT</b>	TEMPORARY SEDIMENT TRAP - VESCH STD. & SPEC. 3.13
	<b>OT</b>	OUTLET PROTECTION - VESCH STD. & SPEC. 3.18
	<b>CD</b>	ROCK CHECK DAMS - VESCH STD. & SPEC. 3.20
	<b>TC</b>	TURBIDITY CURTAIN - VESCH STD. & SPEC. 3.27
	<b>TS</b>	TEMPORARY SEEDING - VESCH STD. & SPEC. 3.31
	<b>B/M</b>	SOIL STABILIZATION BLANKETS AND/OR MATTING - VESCH STD. & SPEC. 3.36
	<b>TP</b>	TREE PROTECTION - VESCH STD. & SPEC. 3.38

 CLEAR LIMITS

- LIMIT OF DISTURBANCE
- NOTES:
1. ALL DISTURBED SLOPES 5:1 AND STEEPER SHALL RECEIVE EROSION AND SEDIMENT CONTROL-BLANKET MATTING. BLANKET MATTING TO BE COIR EROSION CONTROL MATT TYPE 900 MINIMUM OR APPROVED ALIKE.
  2. CONTRACTOR TO INSTALL FLEXTEGRA HP-FGM ON ALL DISTURBED GROUND WITHIN THE RPA.
  3. SURFACE STABILIZATION AND COMPACTION, PLACEMENT, AND COMPACTION OF INFILL MATERIAL SHALL BE OBSERVED BY VIRGINIA REGISTERED GEOTECHNICAL ENGINEER.
  4. ALL DISTURBED SLOPES IN RPA GREATER THAN 20% SHALL BE TREATED WITH FUTERA TRM.
  5. CONTRACTOR SHALL MONITOR THE EXISTING OFFSITE BMP, I.E. THE RHINE RIVER, FOR SIGNS OF SEDIMENTATION, SPECIFICALLY DURING OR AS A RESULT OF CONSTRUCTION ON THE SITE. THIS MAY INCLUDE ADDITIONAL E&SC MEASURES, CLEANING AND SEDIMENT REMOVAL WITHIN CONDUITY CURTAIN AND COORDINATION WITH THE OWNER, ENGINEER, AND THE COUNTY.
  6. STUMPS AND TOPSOIL SHALL REMAIN IN PLACE ON STEEP SLOPES UNTIL SUCH TIME THAT GRADING OPERATIONS COMMENCE.
  7. MAXIMUM CUT SLOPES FOR FOUNDATION EXCAVATION TO BE 1:1. MAXIMUM CUT SLOPES FOR TEMPORARY ACCESS ROAD TO BE 1.5:1.



## Busch Gardens 2023

7851 Pocahontas Trail  
Williamsburg, VA

No.	Revision	Date	Appv
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Designed by	Checked by
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	KAM	AJL
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## Review

Dec. 3, 2021

Not Approved For Construction

# Erosion and Sediment Control Plan Phase 2

Drawing Number

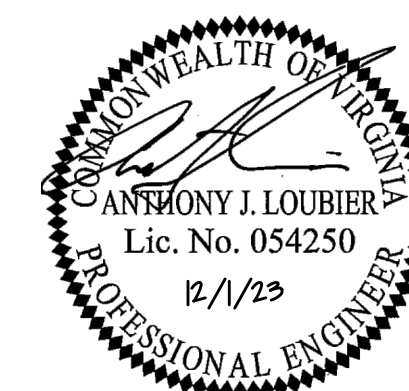
## C5.05

Sheet 15 of 27

SP-23-010

Project Number

35273.3







-MATCHLINE SEE SHEET C5.05



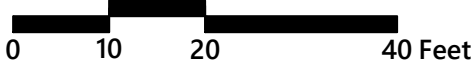
351 McLaws Circle  
Suite 3  
Williamsburg, VA 23185  
757.220.0500

## Legend

	CE	CONSTRUCTION ENTRANCE - VESCH STD. & SPEC. 3.02
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	SSF	SUPER SILT FENCE - VESCH STD. & SPEC. 3.05
	IF	STORM DRAIN INLET PROTECTION - VESCH STD. & SPEC. 3.07
	CIP	CULVERT INLET PROTECTION - VESCH STD. & SPEC. 3.08
	DD	TEMPORARY DIVERSION DIKE - VESCH STD. & SPEC. 3.09
	ST	TEMPORARY SEDIMENT TRAP - VESCH STD. & SPEC. 3.13
	OP	OUTLET PROTECTION - VESCH STD. & SPEC. 3.18
	CD	ROCK CHECK DAMS - VESCH STD. & SPEC. 3.20
	TC	TURBIDITY CURTAIN - VESCH STD. & SPEC. 3.27
	TS	TEMPORARY SEEDING - VESCH STD. & SPEC. 3.31
	B/M	SOIL STABILIZATION BLANKETS AND/OR MATTING - VESCH STD. & SPEC. 3.36
	TP	TREE PROTECTION - VESCH STD. & SPEC. 3.38

 CLEARING LIMITS

- NOTES:
1. ALL DISTURBED SLOPES 5:1 AND STEEPER SHALL RECEIVE EROSION AND SEDIMENT CONTROL BLANKET MATTINGS. BLANKET MATTING TO GO OVER EROSION CONTROL MATT. TYPE 900 MINIMUM OR APPROVED EQUIV.
2. CONTRACTOR TO INSTALL FLEXITERA HP-FGM ON ALL DISTURBED GROUND WITHIN THE RPA.
3. SUBSOIL STABILIZATION TO GO OVER COMPACTION, PLACEMENT AND COMPACTION OF INFILL MATERIAL SHALL BE OBSERVED BY VIRGINIA REGISTERED GEOTECHNICAL ENGINEER.
4. ALL DISTURBED SLOPES IN RPA GREATER THAN 20% SHALL BE TREATED WITH FUTERA TRM.
5. CONTRACTOR SHALL MONITOR THE EXISTING OFFSITE BMP, I.E. RHINE RIVER, FOR SIGNS OF SEDIMENTATION, SPREADS, OR DURING THE CONSTRUCTION OF THE REDUCTION ON THE SITE. THIS MAY INCLUDE ADDITIONAL E&SC MEASURES, CLEANING AND SEDIMENT REMOVAL WITH THE TURBIDITY CURTAIN AND COORDINATION WITH THE WETLAND ENGINEER.
6. STUMPS AND TOPOSOIL SHALL REMAIN IN PLACE ON STEEP SLOPES UNTIL SUCH TIME THAT GRADING OPERATIONS COMMENCE.
7. MAXIMUM CUT SLOPES FOR FOUNDATION EXCAVATION TO BE 1:1. MAXIMUM CUT SLOPES FOR TEMPORARY ACCESS ROAD TO BE 1.5:1.



# Busch Gardens 2023

7851 Pocahontas Trail  
Williamsburg, VA

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Designed by	KAM	Checked by	AJL
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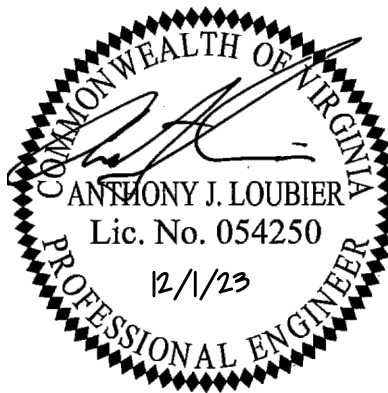
## Review

Dec. 3, 2023

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# Erosion and Sediment Control Plan Phase 2

Drawing Number



# C5.06

16 of 27

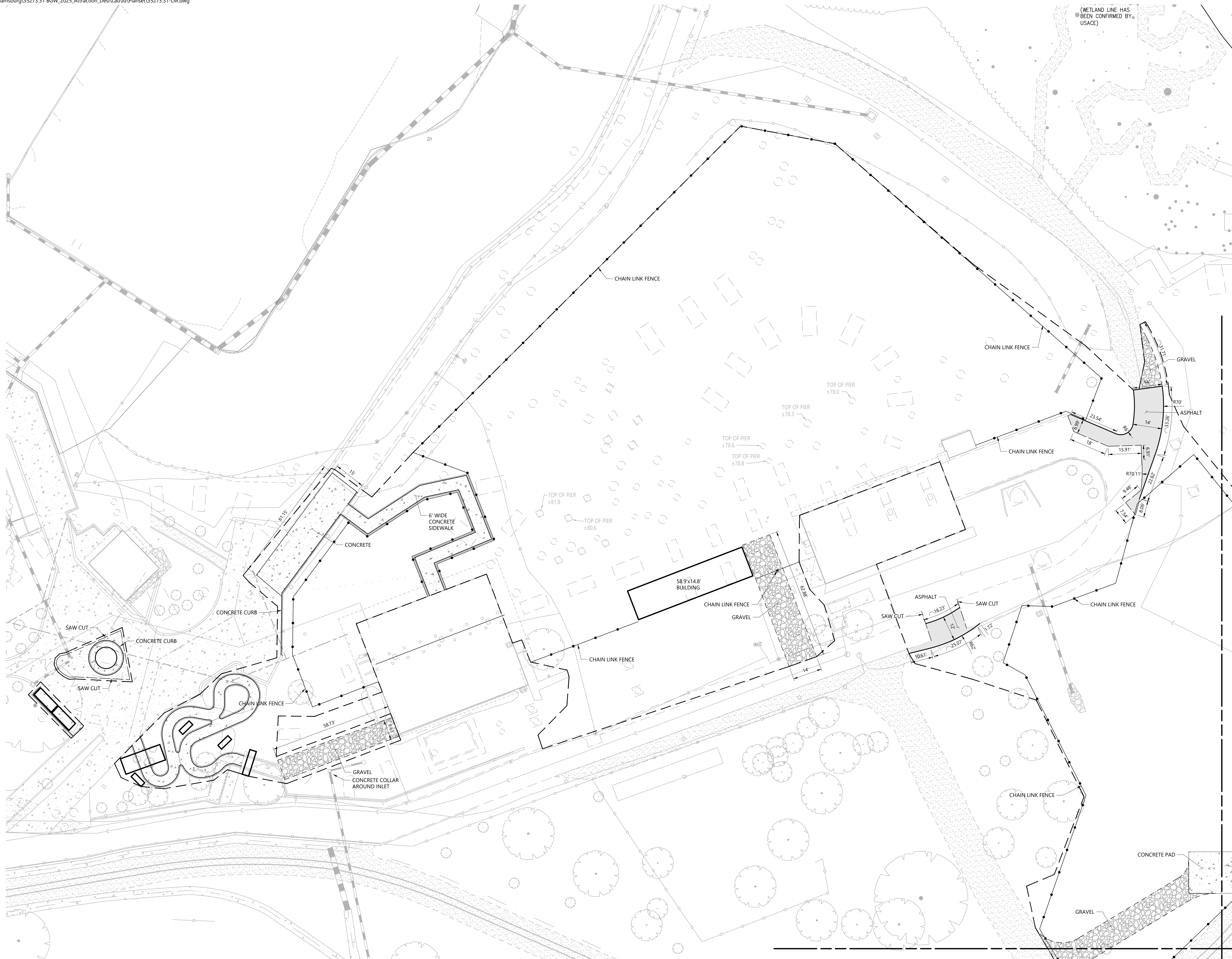
SP-23-0102

SP-23-0102

SP-23-0102

SP-23-0102





MATCHLINE SEE SHEET C6.03 INSET A

3" GRAVEL ON FILTER FABRIC SHALL  
BE PLACED UNDER ALL ELEVATED  
BUILDINGS, WALKWAYS, AND DECKS.



7851 Pocahontas Trail  
Williamsburg, VA

No.	Revision	Date	Appr'd.

Designed by <b>KAM</b>	Checked by <b>AJL</b>
Issued for	Date
<b>Review</b>	<b>Dec. 3, 2023</b>

Not Approved For Construction

# Layout and Materials Plan

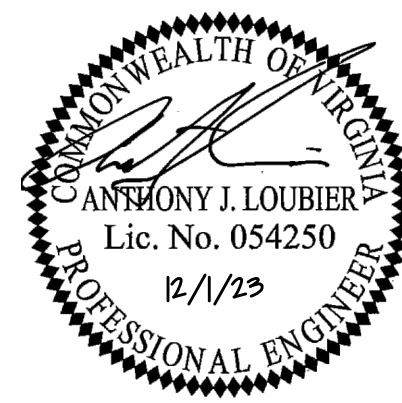
Drawing Number

# C6.01

Sheet 17 of 27

SP-23-0102

Project Number  
**35273.31**



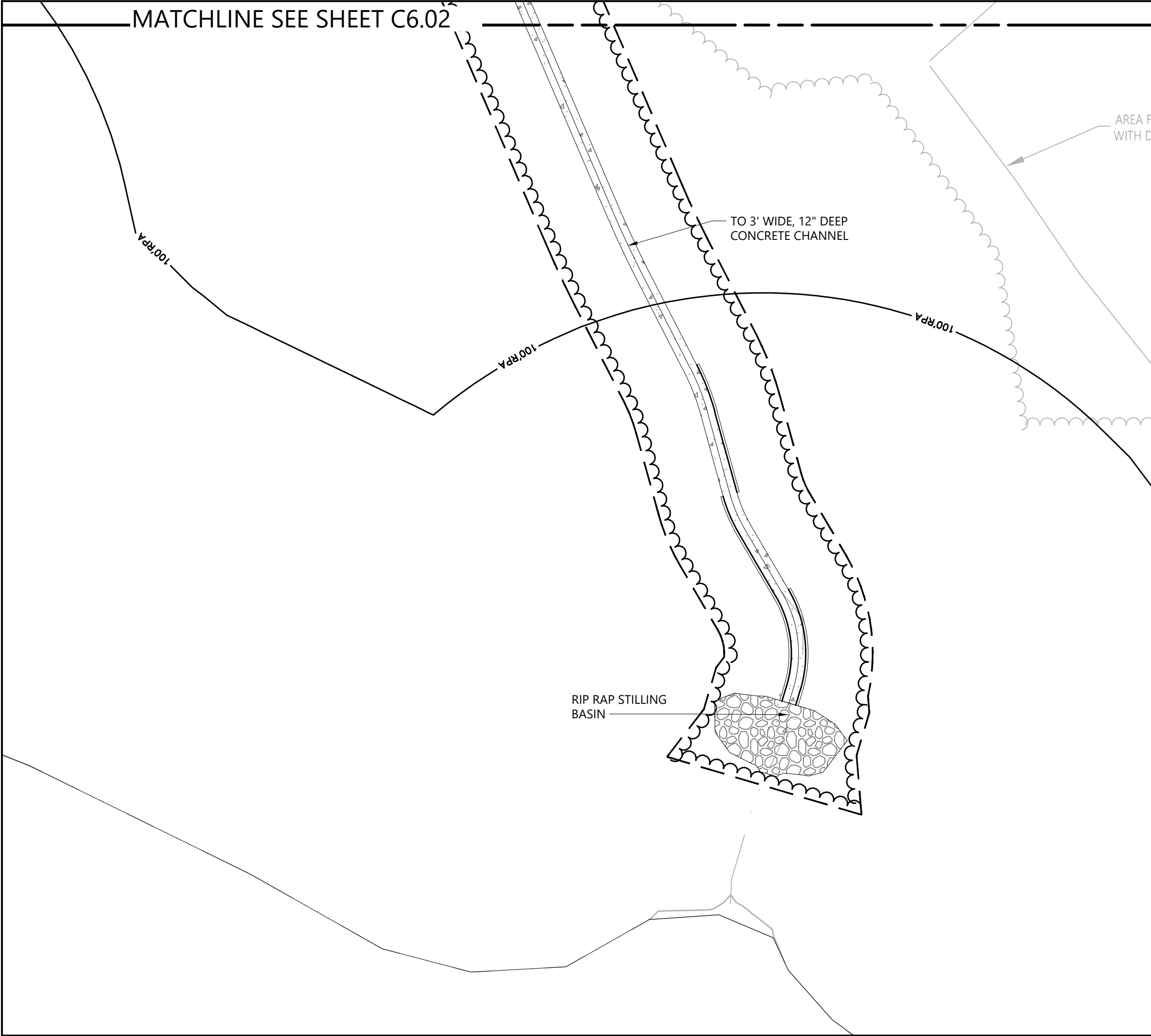
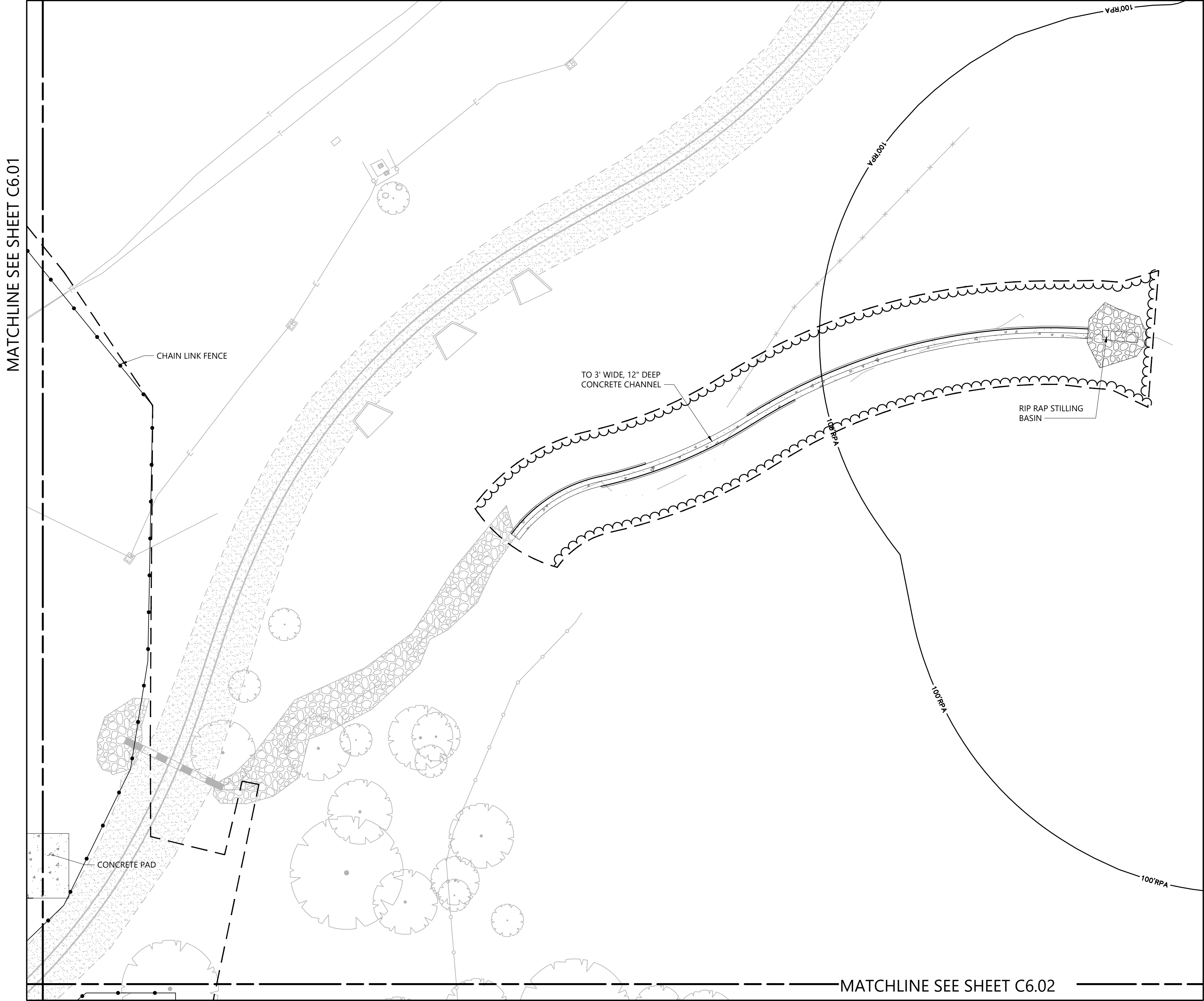








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7851 Pocahontas Trail  
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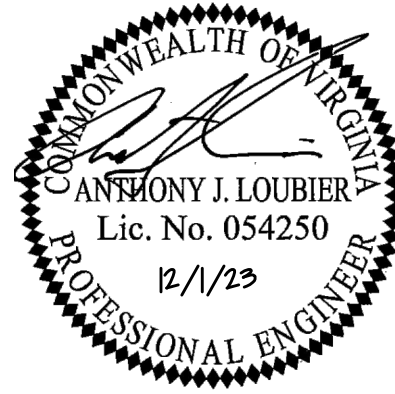
No.	Revision	Date	Appr'd.

Designed by	Checked by
KAM	AJL

Issued for	Date
Review	Dec. 3, 2023

Not Approved For Construction

Drawing Title  
**Layout and  
Materials Plan**

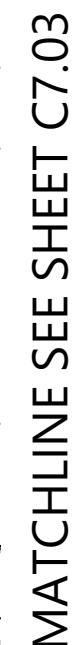
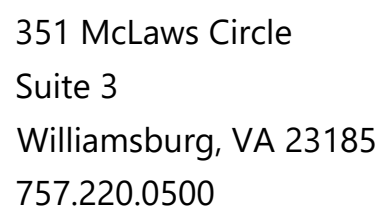


**C6.03**

Sheet 19 of 27

Project Number  
35273.31





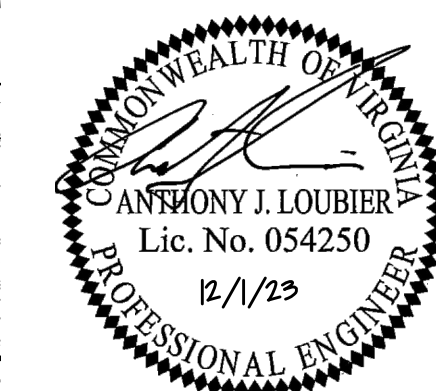
**Busch Gardens 2023**  
7851 Pocahontas Trail  
Williamsburg, VA

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Not Approved For Construction

Drawing Title

**Grading, Drainage and  
Utility Plan**



## C7.01

Sheet 20 of 27

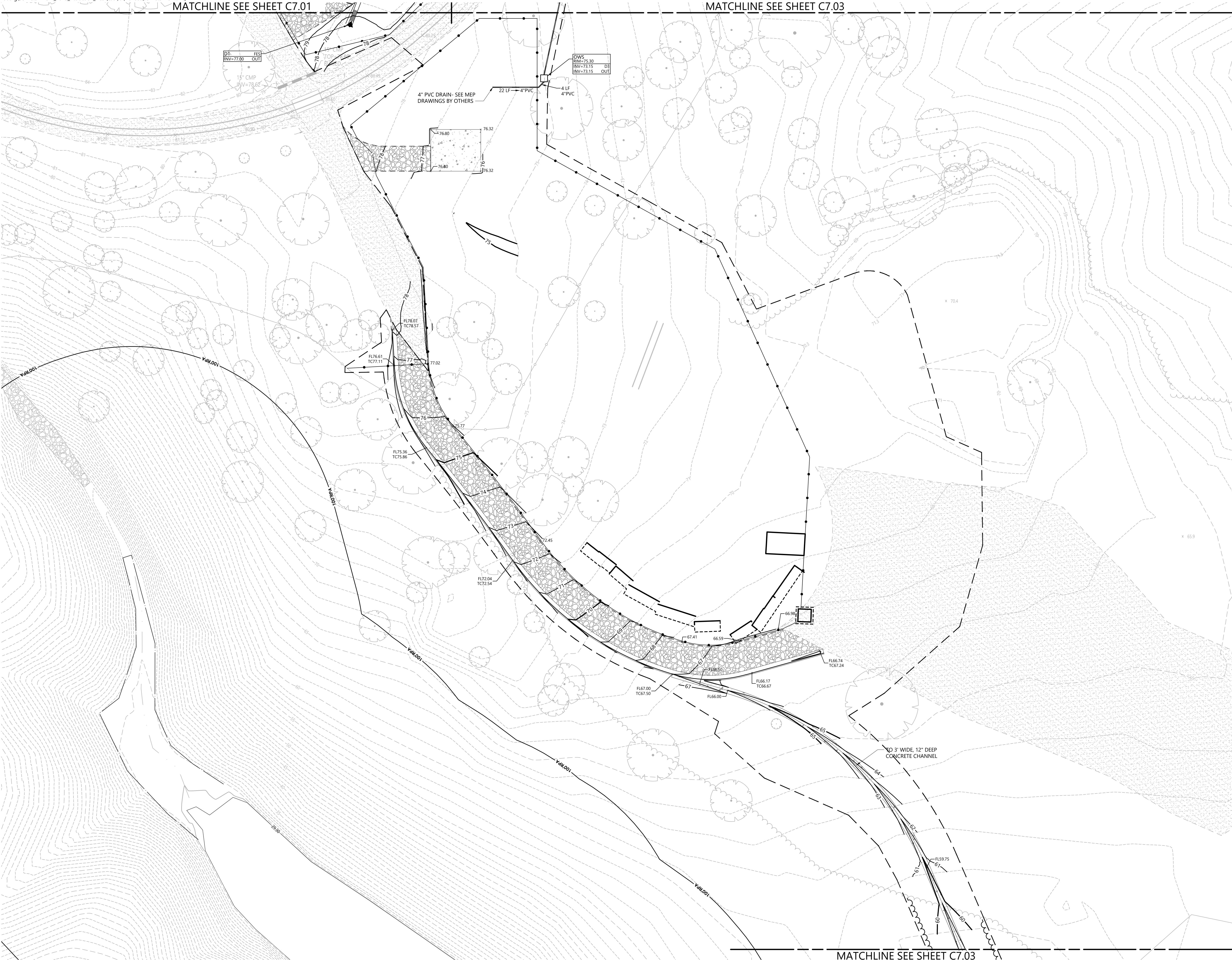
SP-23-0102  
Project Number  
**35273.31**

MATCHLINE SEE SHEET C7.02



MATCHLINE SEE SHEET C7.01

MATCHLINE SEE SHEET C7.03





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Busch Gardens 2023  
7851 Pocahontas Trail  
Williamsburg, VA

No.	Revision	Date	Apprd.

Designed by	KAM	Checked by	AJL
Issued for		Date	Dec. 3, 2023

Not Approved For Construction

Grading, Drainage and  
Utility Plan



C7.02

Sheet 21 of 27

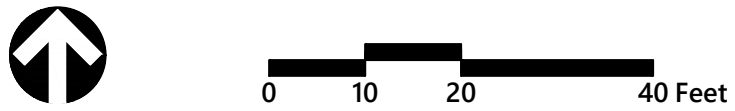
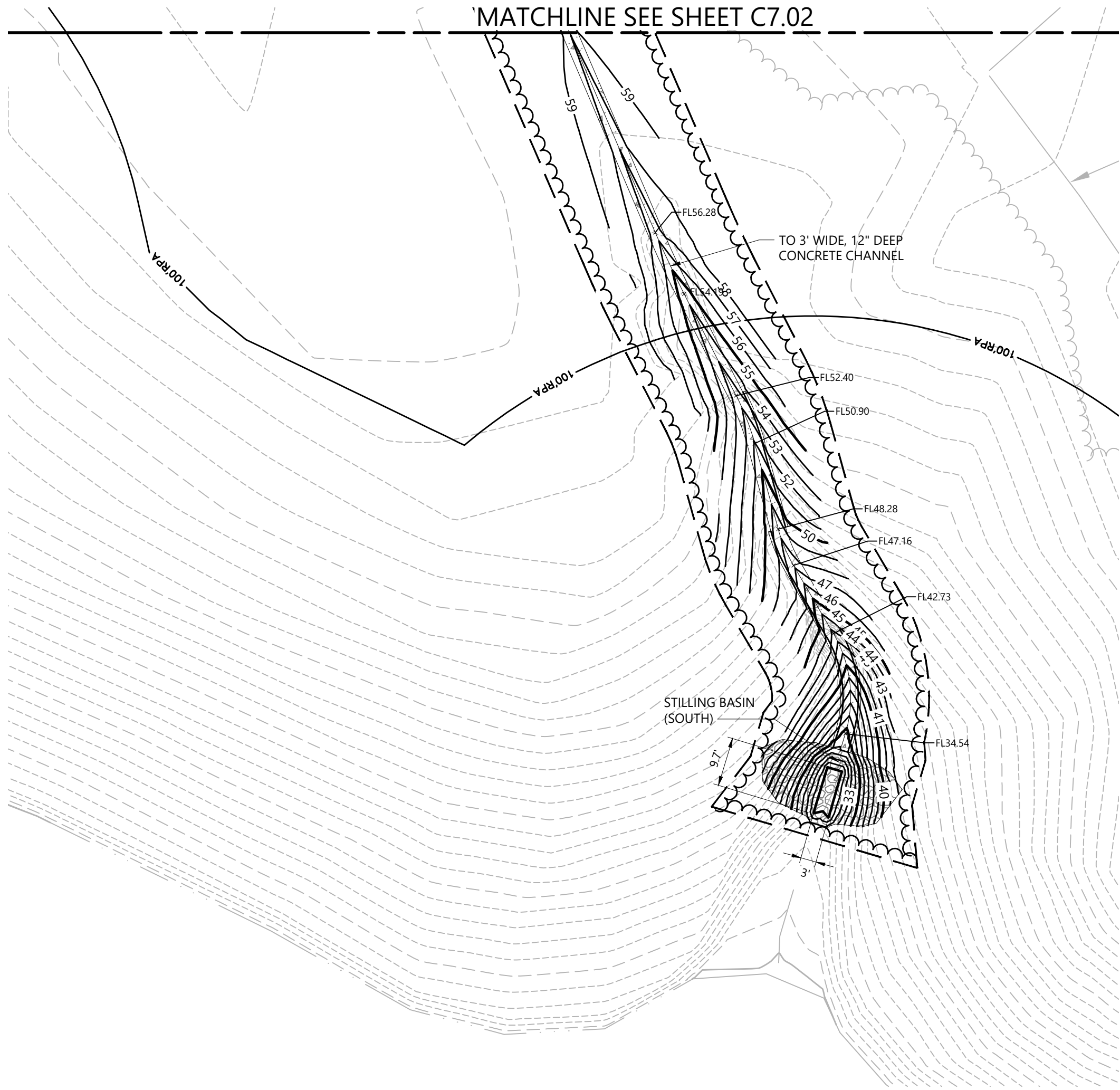
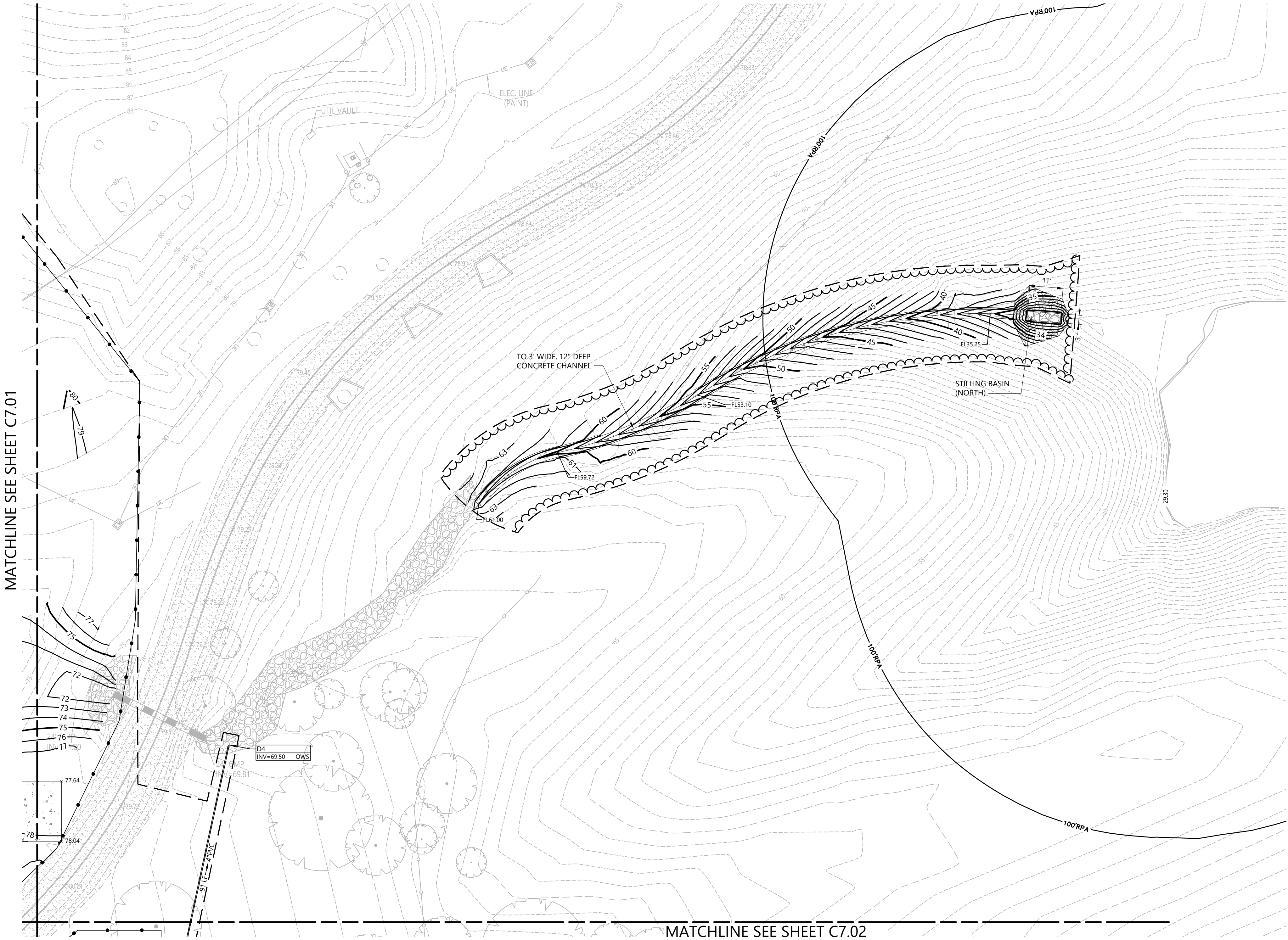
SP-23-0102  
35273.31

Saved Monday, December 4, 2023 11:04:02 AM ALOUBIER Plotted Monday, December 4, 2023 1:17:50 PM Jessica Denko





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Suite 3  
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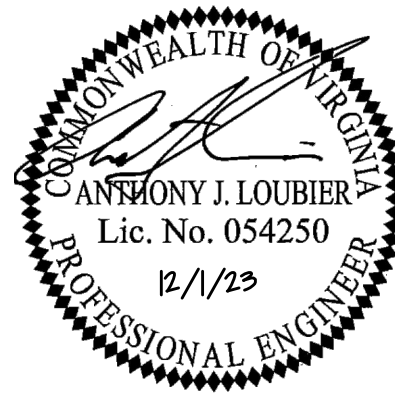
**Busch Gardens 2023**  
7851 Pocahontas Trail  
Williamsburg, VA

No.	Revision	Date	Apprd.

Designed by	KAM	Checked by	AJL
Issued for		Date	

**Review** Dec. 3, 2023

Not Approved For Construction  
Drawing Title  
**Grading, Drainage and  
Utility Plan**



**C7.03**

Sheet 22 of 27

Project Number  
SP-23-0102  
35273.31





**Perspective View**  
**Metal Fence**

N.T.S. Source: Virginia Erosion and Sediment Control Handbook Plate 3.01-1



N.T.S. Source: Virginia Erosion and Sediment Control Handbook Plate 3.02-1



### Detail A

THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE THE INLET DRAINS A RELATIVELY FLAT AREA (SLOPE NO GREATER THAN 5%) WHERE THE INLET SHEET OR OVERLAND FLOWS (NOT EXCEEDING 1 C.F.S.) ARE TYPICAL. THE METHOD SHALL NOT APPLY TO INLETS RECEIVING CONCENTRATED FLOWS, SUCH AS IN STREET OR HIGHWAY MEDIANS.

N.T.S. Source: Virginia Erosion and Sediment Control Handbook Plate 3.07-1



THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE HEAVY CONCENTRATED FLOWS ARE EXPECTED BUT NOT WHERE PONDING AROUND THE STRUCTURE MIGHT CAUSE EXCESSIVE INCONVENIENCE OR DAMAGE TO ADJACENT STRUCTURES AND UNPROTECTED AREAS.

- \* GRAVEL SHALL BE VDOT #3, #357 OR #5 COARSE AGGREGATE.

N.T.S. Source: Virginia Erosion and Sediment Control Handbook Plate 3.07-2



THIS METHOD OF INLET PROTECTION IS APPLICABLE AT CURB INLETS WHERE PONDING IN FRONT OF THE STRUCTURE IS NOT LIKELY TO CAUSE INCONVENIENCE OR DAMAGE TO ADJACENT STRUCTURES AND UNPROTECTED AREAS.

- \* GRAVEL SHALL BE VDOT #3, #357 OR 5 COARSE AGGREGATE.

N.T.S. Source: Virginia Erosion and Sediment Control Handbook Plate 3.07-6



N.T.S. Source: Virginia Erosion and Sediment Control Handbook Plate 3.08-1



N.T.S. Source: Virginia Erosion and Sediment Control Handbook Plate 3.05-1



N.T.S. Source: Virginia Erosion and Sediment Control Handbook Plate 3.05-2



N.T.S. Source: Virginia Erosion and Sediment Control Handbook Plate 3.18-1



N.T.S. Source: Virginia Erosion and Sediment Control Handbook Plate 3.36-5



N.T.S. Source: Virginia Erosion and Sediment Control Handbook Plate 3.36-6



N.T.S. Source: Virginia Erosion And Sediment Control Handbook PL 3.36.3



N.T.S. Source: Virginia Erosion and Sediment Control Handbook Plate 3.38-1



N.T.S. Source: Virginia Erosion and Sediment Control Handbook Plate 3.28-2

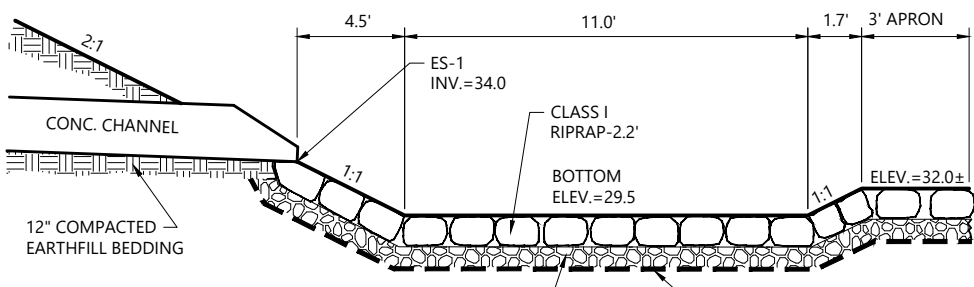




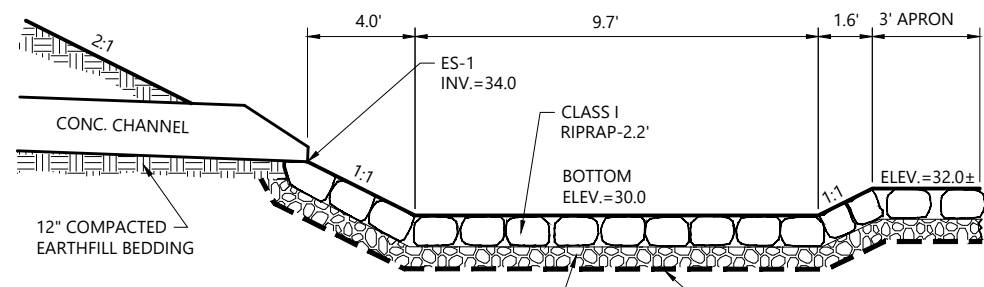




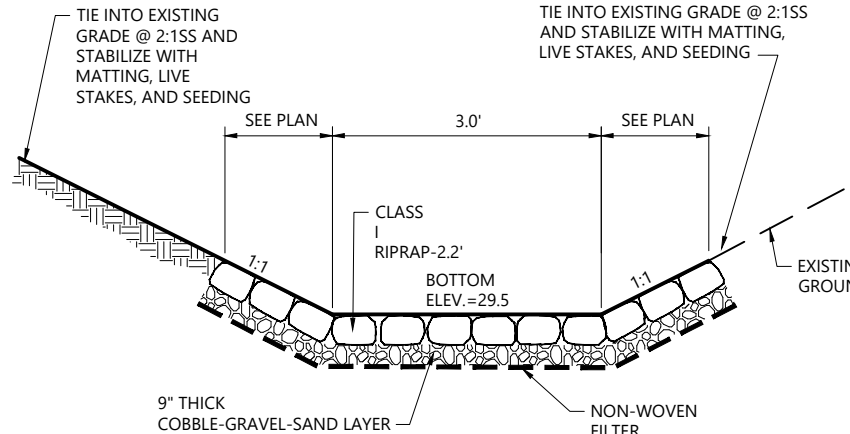
351 McLaws Circle  
Suite 3  
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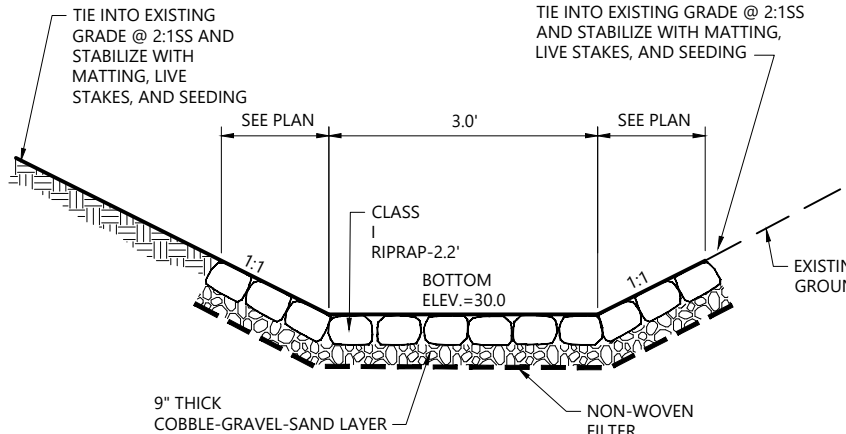
SECTION A-A



SECTION A-A



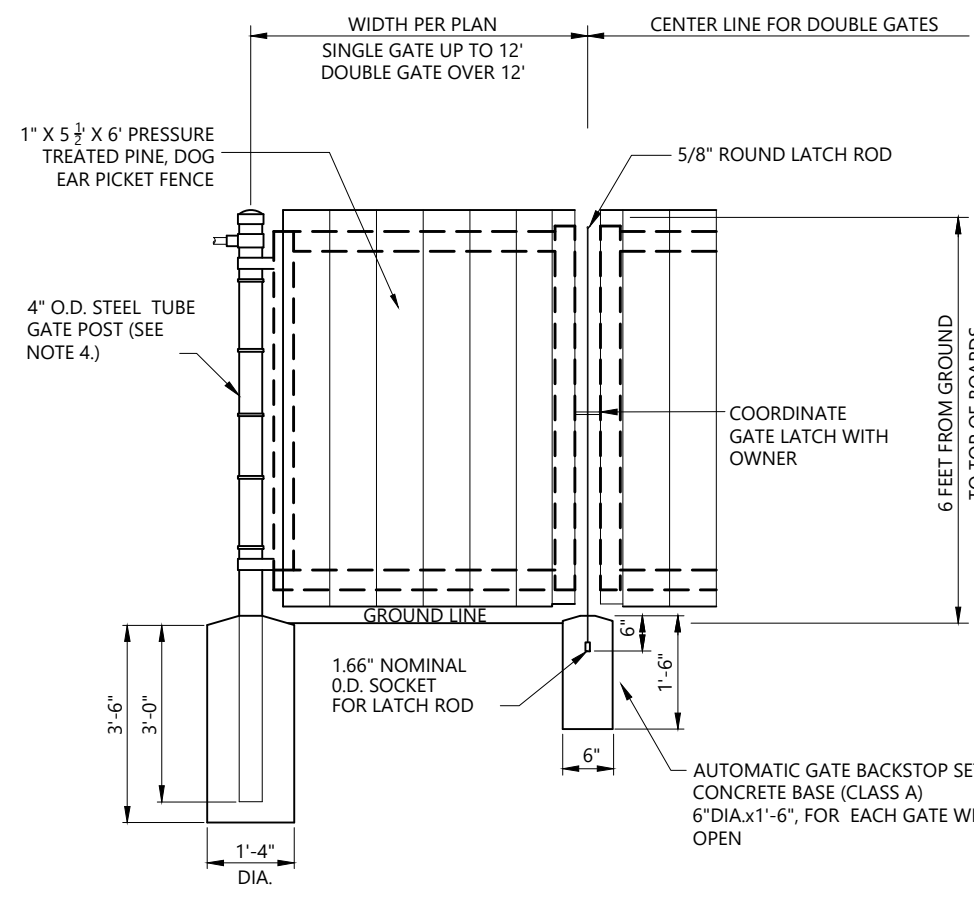
SECTION B-B



SECTION B-B

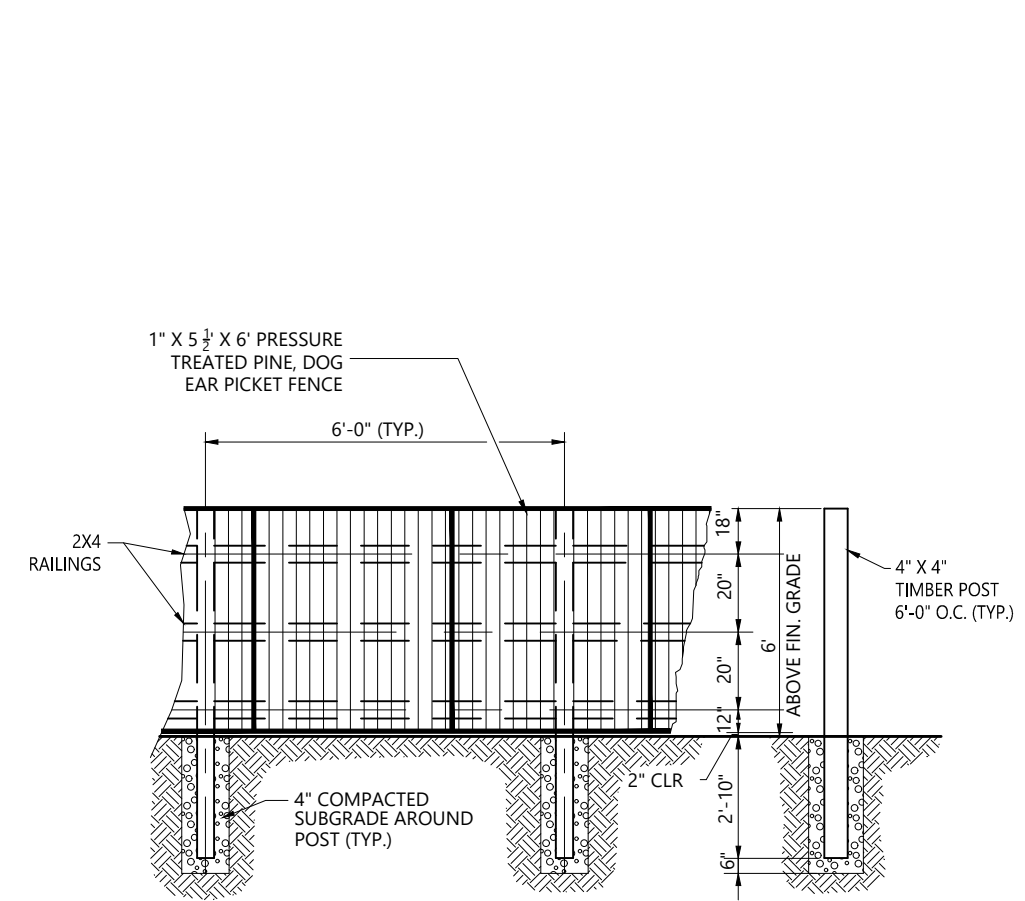
North Stilling Basin  
N.T.S. Source: VHB 11/23

South Stilling Basin  
N.T.S. Source: VHB 11/23



Notes:

- GATE POST BASE-PORTLAND CEMENT CONCRETE (3000 PSI).
- FENCE POSTS AND HARDWARE SHALL BE GALVANIZED STEEL PER SPECIFICATIONS.
- GATE POSTS TO BE USED ON EACH SIDE OF SINGLE AND DOUBLE GATE OPENINGS.

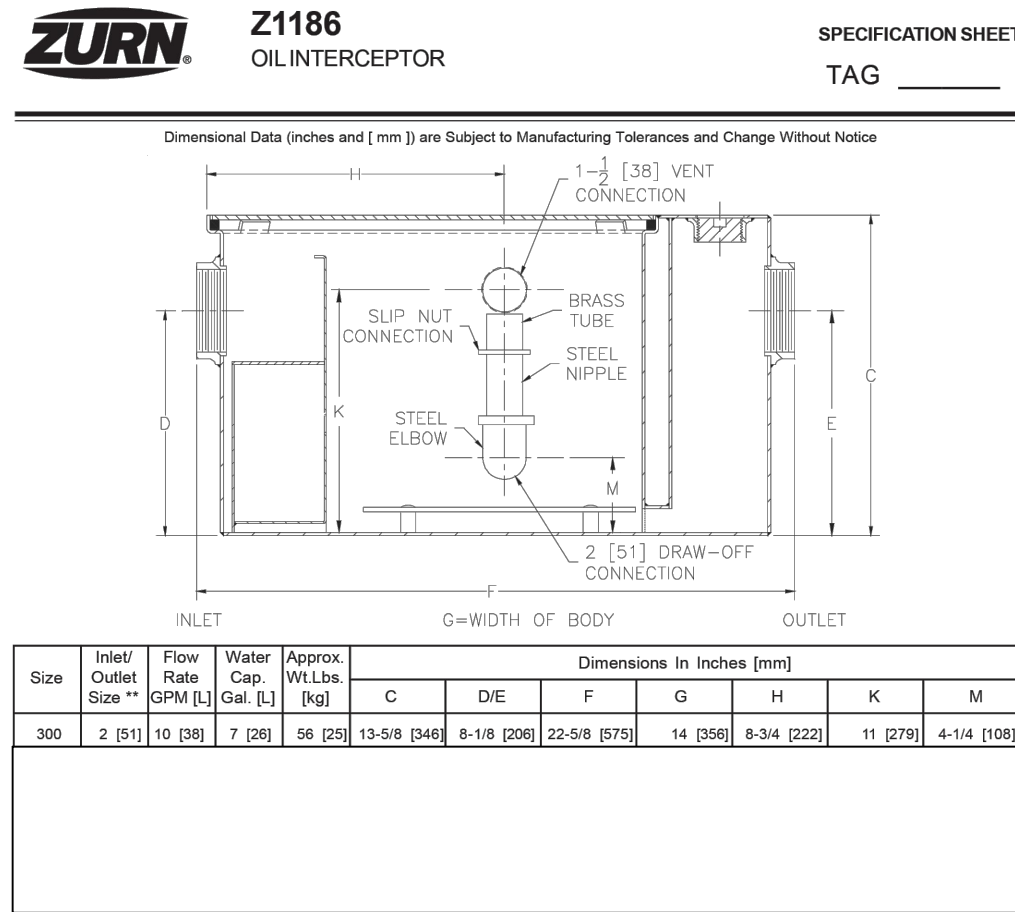
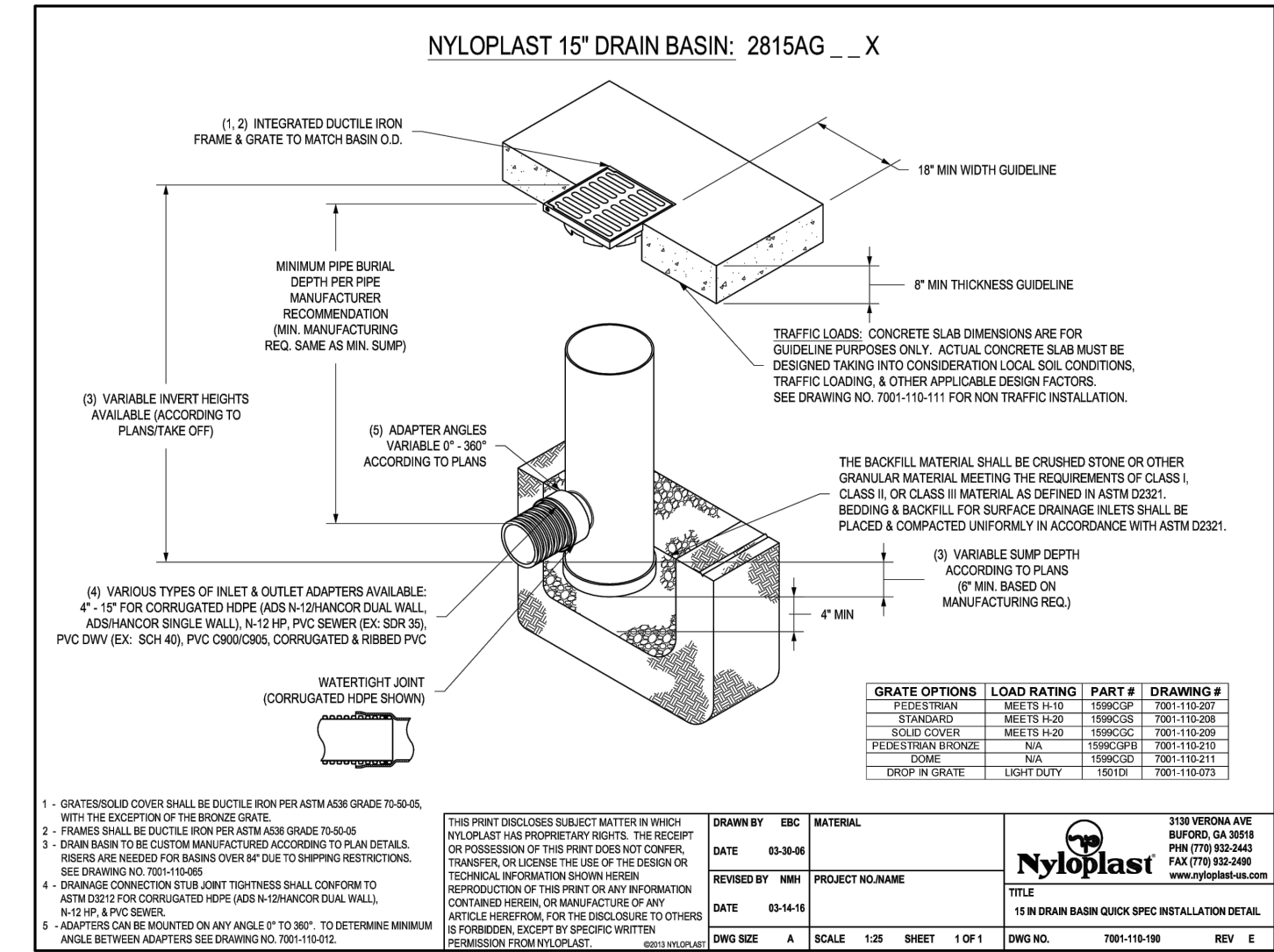


Notes:

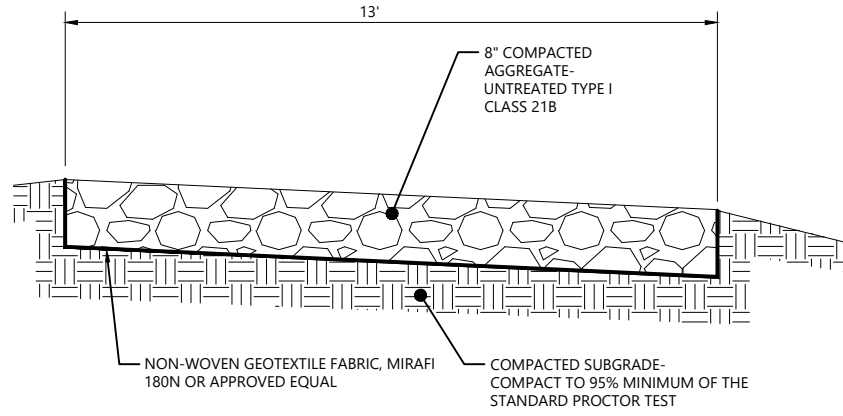
- PROVIDE LOCKABLE 16" DOUBLE GATE AND 48" ACCESS GATE AS SHOWN ON PLANS.

Board on Board Wood Screen Fence Gate  
N.T.S. Source: VHB 3/16

Board on Board Wood Screen Fence  
N.T.S. Source: VHB 12/14



Size	Inlet/Outlet Size	Flow Rate (GPM)	Water Temp. (°F)	Approx. Weight (Lbs)	Dimensions (Inches)	Dimensions (mm)
300	2 [51]	10 [38]	7 [38]	36 [36]	13-5/8 [348]	8-1/8 [206]
400	3 [76]	15 [57]	10 [38]	54 [54]	22-5/8 [575]	14 [356]
600	4 [102]	25 [95]	12 [49]	90 [90]	36-1/2 [927]	22-1/2 [571]
800	6 [152]	40 [152]	14 [56]	144 [144]	48-1/2 [1232]	30 [762]
1000	8 [203]	60 [227]	16 [64]	216 [216]	60-1/2 [1530]	36 [914]



Gravel Road Section  
N.T.S. Source: VHB 04/2014

Busch Gardens 2023  
7851 Pocahontas Trail  
Williamsburg, VA

No.	Revision	Date	Appr.
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Not Approved For Construction  
Drawing Title  
Site Details

Professional Engineer Seal for Anthony J. Loubier, License No. 054250, State of Virginia. Includes drawing title 'Site Details' and sheet number '25 of 27'.

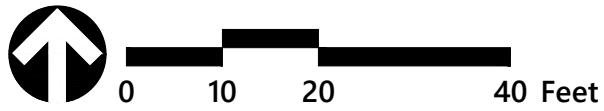
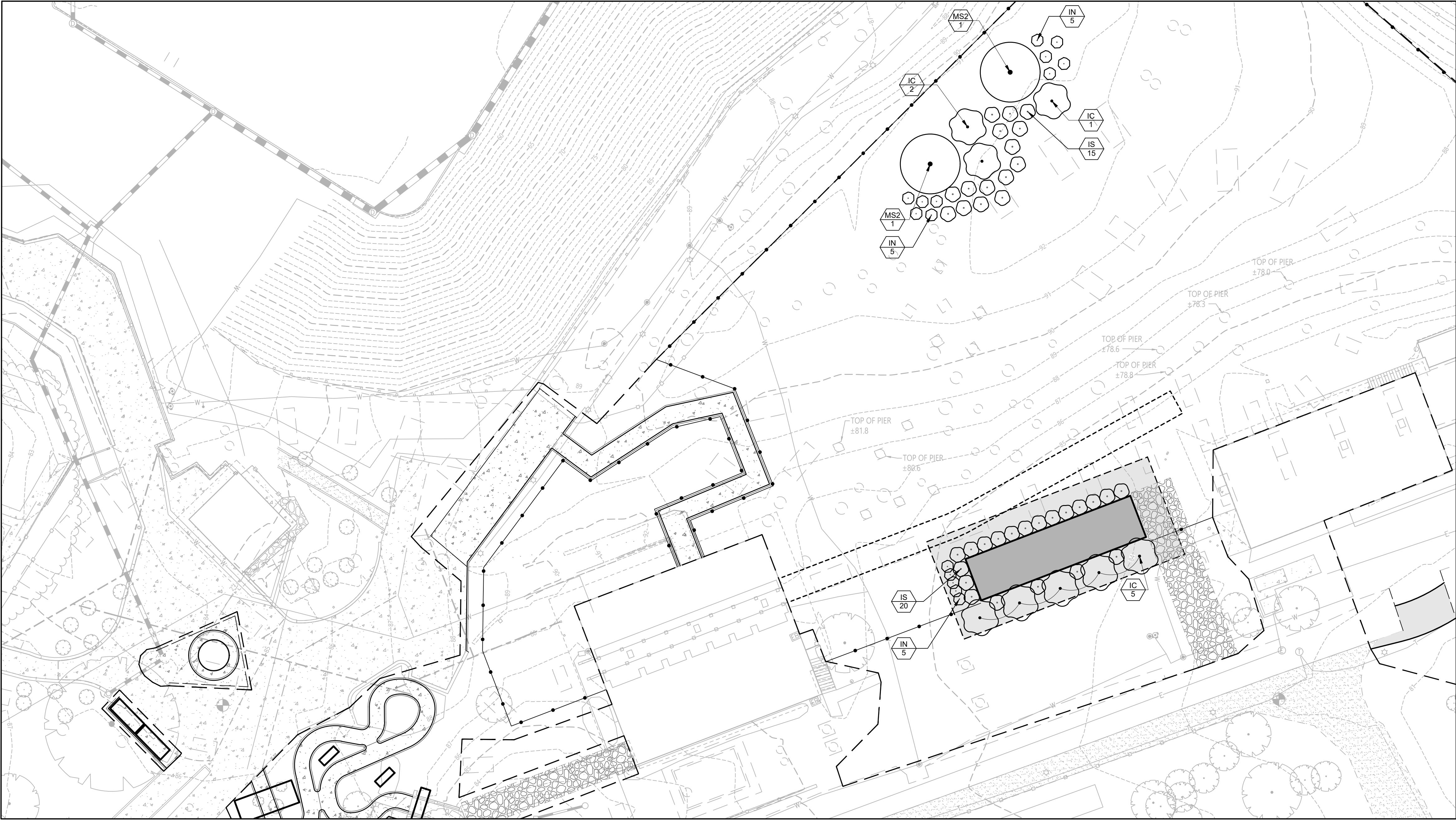


**BUILDING #50 PERIMETER LANDSCAPING - 1,874 SF**  
REQUIRED - 1,874 / 200 = 10 10 ORNAMENTAL TREES  
50 SHRUBS  
PROVIDED WITHIN 10' OF BUILDING - 5 ORNAMENTAL TREES  
25 SHRUBS  
PROVIDED ELSEWHERE ONSITE - 5 ORNAMENTAL TREES  
25 SHRUBS

5 TREES + 25 SHRUBS = 30 PLANTS  
10 TREES + 50 SHRUBS = 60 PLANTS  
30 / 60 = 50% OF PLANTING UNITS WITHIN 10' BUILDING PERIMETER

PLANT SCHEDULE 2025 RIDE

CODE	BOTANICAL NAME	COMMON NAME	CONT	SIZE	HEIGHT		QTY	REMARKS
TREES								
IC	ILEX X 'CONAF'	OAK LEAF™ HOLLY	B&B	1.25" CAL	8 FT, MIN		8	
MS2	MAGNOLIA VIRGINIANA	SWEETBAY MAGNOLIA	B&B		8 FT, MIN		2	MULTI-STEM
CODE	BOTANICAL NAME	COMMON NAME	CONT	HEIGHT	WIDTH	SPACING	QTY	REMARKS
SHRUBS								
IS	ILEX GLABRA 'SHAMROCK'	SHAMROCK INKBERRY HOLLY	#1	18" MIN	18" MIN	60" o.c.	35	
IN	ILEX VERTICILLATA 'NANA'	RED SPRITE WINTERBERRY	#1	24" MIN	24" MIN	48" o.c.	15	



**Busch Gardens 2023**  
7851 Pocahontas Trail  
Williamsburg, VA

No.	Revision	Date	Apprd.

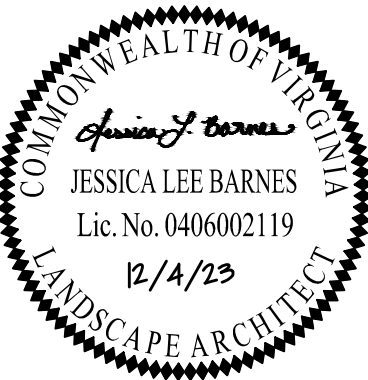
Designed by	KAM	Checked by	AJL
Issued for		Date	Dec. 3, 2023

Review

Not Approved For Construction

Drawing Title

Landscape Plan





### Planting Notes

1. ALL PROPOSED PLANTING LOCATIONS SHALL BE STAKED AS SHOWN ON THE PLANS FOR FIELD REVIEW AND APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
2. CONTRACTOR SHALL VERIFY LOCATIONS OF ALL BELOW GRADE AND ABOVE GROUND UTILITIES AND NOTIFY OWNERS REPRESENTATIVE OF CONFLICTS.
3. NO PLANT MATERIALS SHALL BE INSTALLED UNTIL ALL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA. CONTRACTOR SHALL NOTIFY OWNER'S REPRESENTATIVE OF ANY CONFLICT.
4. A 3-INCH DEEP MULCH PER SPECIFICATION SHALL BE INSTALLED UNDER ALL TREES AND SHRUBS, AND IN ALL PLANTING BEDS, UNLESS OTHERWISE INDICATED ON THE PLANS, OR AS DIRECTED BY OWNER'S REPRESENTATIVE.
5. ALL TREES SHALL BE BALLED AND BURLAPPED, UNLESS OTHERWISE NOTED IN THE DRAWINGS OR SPECIFICATION, OR APPROVED BY THE OWNER'S REPRESENTATIVE.
6. FINAL QUANTITY FOR EACH PLANT TYPE SHALL BE AS GRAPHICALLY SHOWN ON THE PLAN. THIS NUMBER SHALL TAKE PRECEDENCE IN CASE OF ANY DISCREPANCY BETWEEN QUANTITIES SHOWN ON THE PLANT LIST AND ON THE PLAN. THE CONTRACTOR SHALL REPORT ANY DISCREPANCIES BETWEEN THE NUMBER OF PLANTS SHOWN ON THE PLAN LIST AND PLANT LABELS PRIOR TO BIDDING.
7. ANY PROPOSED PLANT SUBSTITUTIONS MUST BE REVIEWED BY LANDSCAPE ARCHITECT AND APPROVED IN WRITING BY THE OWNER'S REPRESENTATIVE.
8. ALL PLANT MATERIALS INSTALLED SHALL MEET THE SPECIFICATIONS OF THE "AMERICAN STANDARDS FOR NURSERY STOCK" BY THE AMERICAN ASSOCIATION OF NURSEYMEN AND CONTRACT DOCUMENTS.
9. ALL PLANT MATERIALS SHALL BE GUARANTEED FOR ONE YEAR FOLLOWING DATE OF FINAL ACCEPTANCE.
10. LAWNS OVER 3:1 SLOPE SHALL BE PROTECTED WITH EROSION CONTROL FABRIC.
11. ALL DISTURBED AREAS NOT OTHERWISE NOTED ON CONTRACT DOCUMENTS SHALL BE SEEDED OR MULCHED AS DIRECTED BY OWNER'S REPRESENTATIVE.
12. THIS PLAN IS INTENDED FOR PLANTING PURPOSES. REFER TO SITE / CIVIL DRAWINGS FOR ALL OTHER SITE CONSTRUCTION INFORMATION.

## Tree Protection

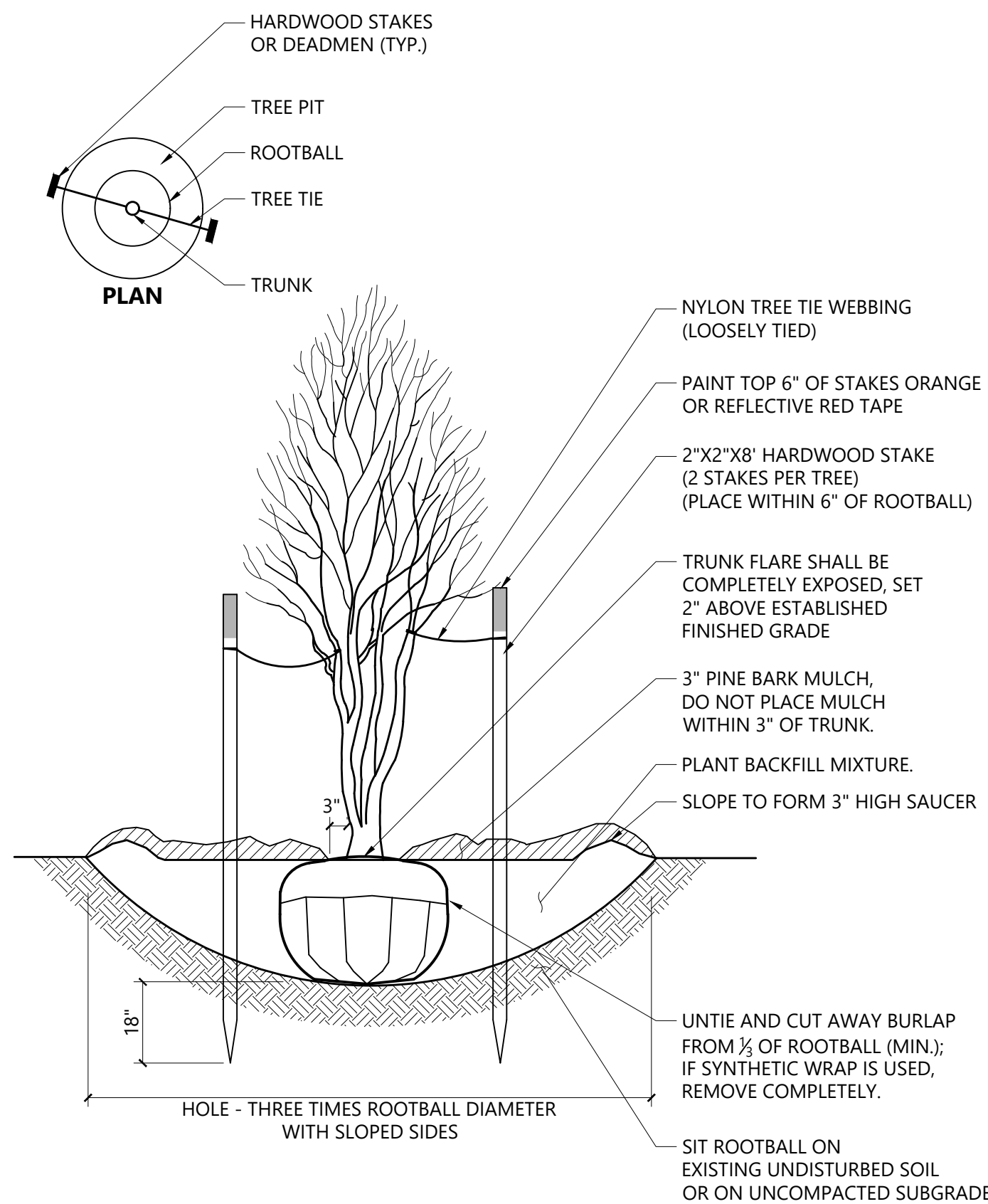
1. EXISTING TREES TO REMAIN SHALL BE PROTECTED WITH TEMPORARY CONSTRUCTION FENCE. ERECT FENCE AT EDGE OF THE TREE DRILIPIE PRIOR TO START OF CONSTRUCTION.
2. CONTRACTOR SHALL NOT OPERATE VEHICLES WITHIN THE TREE PROTECTION AREA. CONTRACTOR SHALL NOT STORE VEHICLES OR MATERIALS, OR DEPOSIT OF ANY WASTE MATERIALS, WITHIN THE TREE PROTECTION AREA.
3. DAMAGE TO EXISTING TREES CAUSED BY THE CONTRACTOR SHALL BE REPAIRED BY A CERTIFIED ARBORIST AT THE CONTRACTOR'S EXPENSE.

### Edge of Woods Clearing

1. EXISTING TREES TO REMAIN SHALL BE PROTECTED WITH TEMPORARY EROSION CONTROL FENCE AND HAY BALE BARRIER. ERECT BARRIER AT EDGE OF THE EARTHWORK CUT LINE PRIOR TO TREE CLEARING. LAY OUT THIS LINE BY FIELD SURVEY.

### Plant Maintenance Notes

1. CONTRACTOR SHALL PROVIDE COMPLETE MAINTENANCE OF THE LAWNS AND PLANTINGS. NO IRRIGATION IS PROPOSED FOR THIS SITE. THE CONTRACTOR SHALL SUPPLY SUPPLEMENTAL WATERING FOR NEW LAWNS AND PLANTINGS DURING THE ONE YEAR PLANT GUARANTEE PERIOD.
2. CONTRACTOR SHALL PROVIDE ALL MATERIALS, LABOR, AND EQUIPMENT FOR THE COMPLETE LANDSCAPE MAINTENANCE WORK. WATER SHALL BE PROVIDED BY THE CONTRACTOR.
3. WATERING SHALL BE REQUIRED DURING THE GROWING SEASON, WHEN NATURAL RAINFALL IS BELOW ONE INCH PER WEEK.
4. WATER SHALL BE APPLIED IN SUFFICIENT QUANTITY TO THOROUGHLY SATURATE THE SOIL IN THE ROOT ZONE OF EACH PLANT.
5. CONTRACTOR SHALL REPLACE DEAD OR DYING PLANTS AT THE END OF THE ONE YEAR GUARANTEE PERIOD. CONTRACTOR SHALL TURN OVER MAINTENANCE TO THE FACILITY MAINTENANCE STAFF AT THAT TIME.



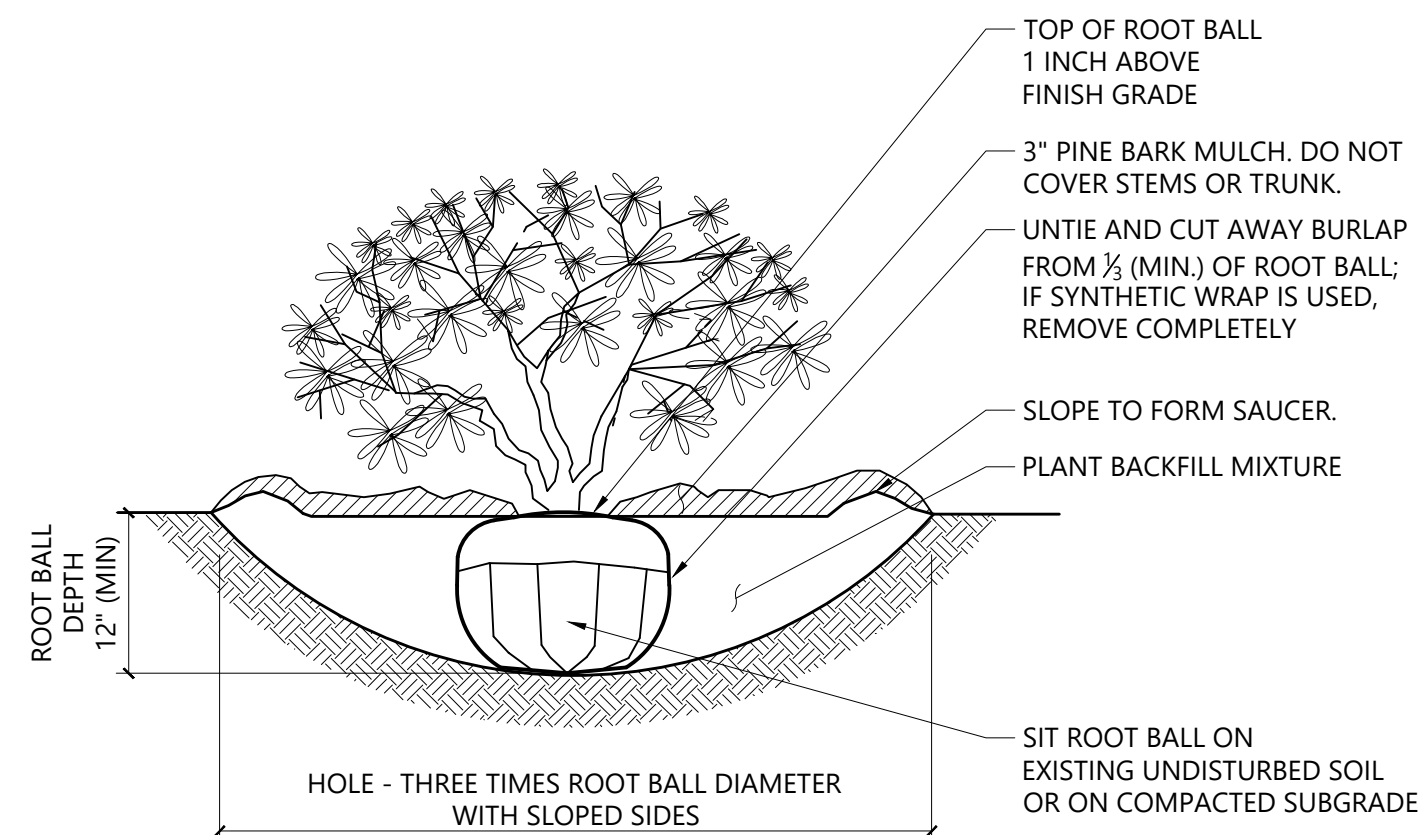
## Multistem Tree Planting

N.T.S.

Source: VHB

9/21

LD\_606



## NOTES

1. LOOSEN ROOTS AT THE OUTER EDGE OF ROOTBALL OF CONTAINER GROWN SHRUBS.

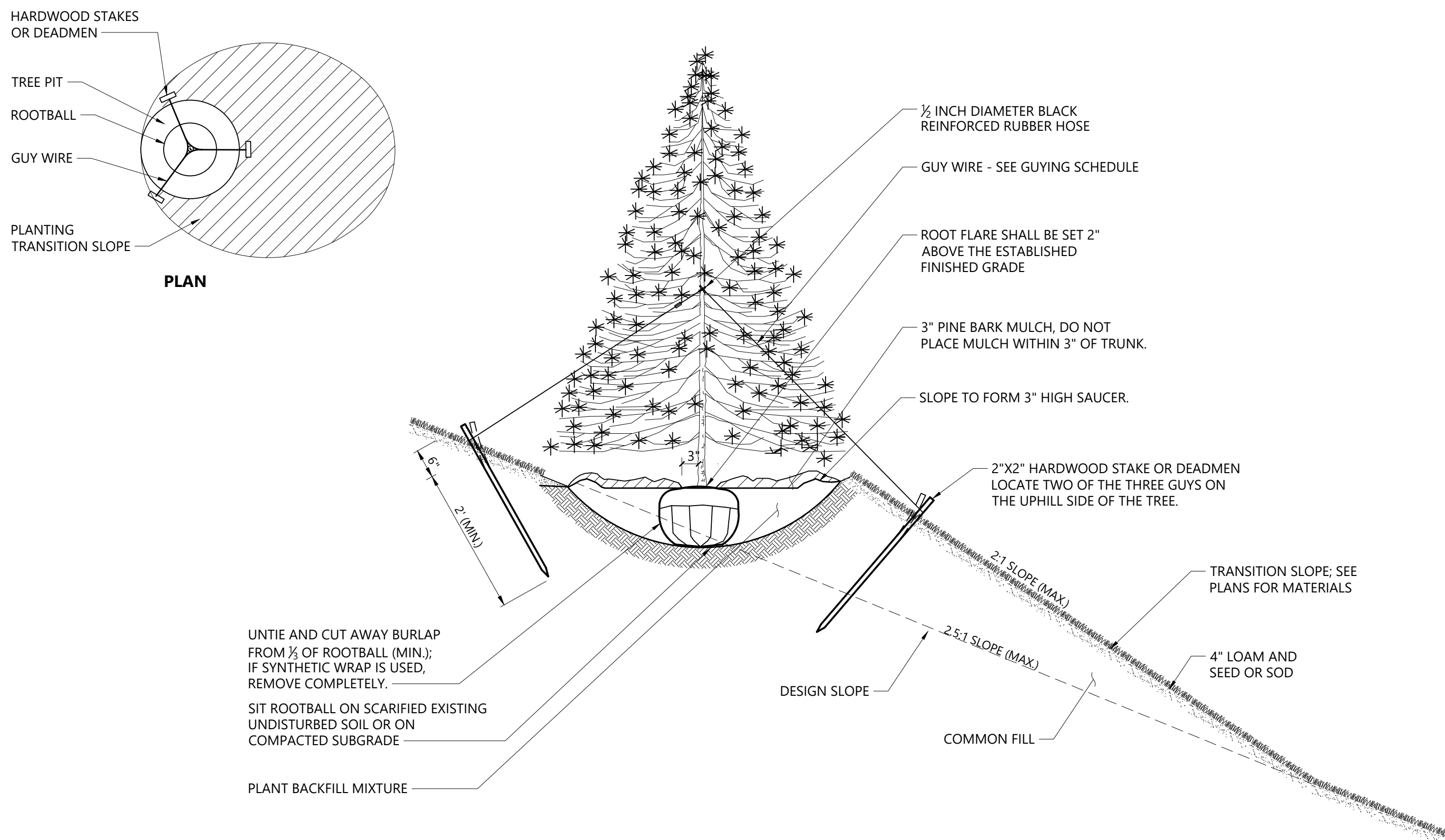
## Shrub Planting

N.T.S.

Source: VHB

1/16

LD 600



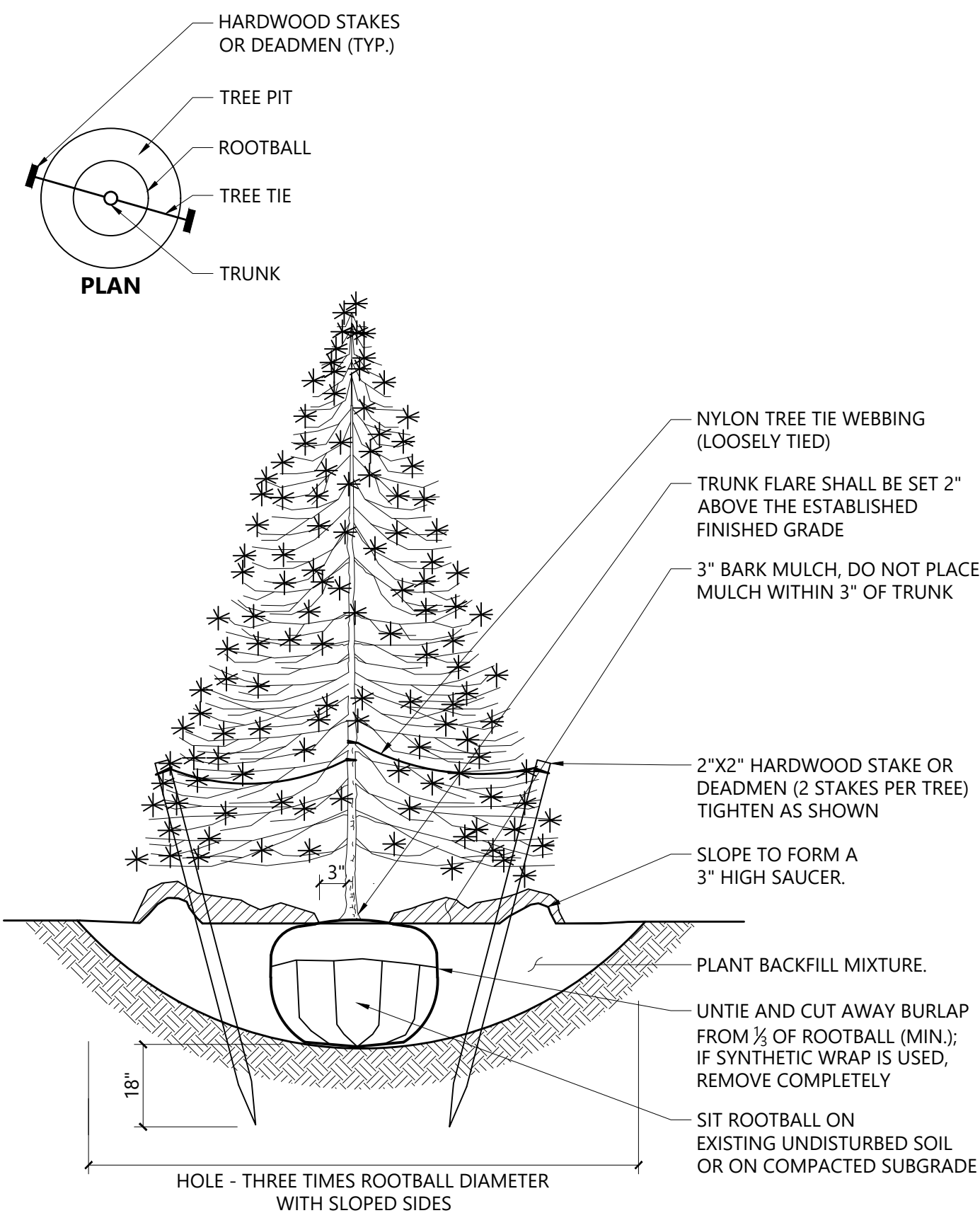
## Tree Planting on Slope

N.T.S.

Source: VHB

1/16

LD\_605



## Evergreen Tree Planting

N.T.S.

Source: VHB

9/21

LD\_604

# Busch Gardens 2023

7851 Pocahontas Trail  
Williamsburg, VA

[illegible]

Not Approved For Construction

## Landscape Details

Drawing Number

## L2.01

Sheet 27 of 27

SP-23-0102

35273.3

