ATTACHMENT 4

DAVIS & FLOYD

PLAN | DESIGN | ENGINEER

June 26, 2024

Dan Frazier
Principal Planner
Growth Management Department
20 Bridge Street
Bluffton, SC 29910

Re: Response to Plan Review Comments Dated 06/07/2024 and 6/12/2024 DRC meeting
Bluffton Community Hospital – 10 Innovation Drive
D|F Job Number: 32174.00

Dear Dan:

On behalf of South of Broad Healthcare, please find below the following in response to Preliminary DRC plan review comments dated 06/07/2024 and subsequent 6/12/2024 DRC approval for their proposed Bluffton Community Hospital project located at the Buckwalter and Bluffton Parkway intersection:

Fire Department Review

1. Fire hydrant on the north side is in the middle of a sidewalk. Relocate.
    a. The fire hydrant has been relocated outside of sidewalk.
2. Fire Department connection is currently obstructed by landscaping. Either consider a remote FDC or remove landscaping.
    a. The FDC has been relocated / The landscaping has been removed.
3. Add additional hydrant at the west entrance for fire protection of the Helipad.
    a. A fire hydrant has been added to the west entrance.
4. At time of final submittal provide water report showing fire flow from multiple hydrants.
    a. Please see the waterline report.
5. Provide information on the purpose of the fuel tank. Note that for both tanks (fuel and oxygen) if they are above- ground they will require bollard protection. Ensure there is adequate protection provided within the space allotted.
    a. The fuel tank will provide fuel for the emergency backup generators with a minimum of 96 hours of run time. Both the Fuel and Oxygen tanks will be above grade, will have bollard protection and be screened as shown on the landscape plan.

Planning Review – Senior

1. Address will be 10 Innovation Drive. Revise documents accordingly.
    a. Address updated to 10 Innovation Drive.

Planning Review – Senior

1. Provide additional information for fuel tank. If above ground, provide information on screening and size of proposed tank.
    a. Please see fuel and oxygen tank vegetative screening on landscape plans.
2. Provide justification for the removal of trees within the buffer areas as reflected on the Tree Protection and Removal Plan.

a. The trees marked for removal within the buffer areas are located within a platted utility and drainage easement. Site grading, access, sidewalks, and stormwater piping require the tree removal however landscape screening will be replanted as shown on the landscape plan.

Beaufort Jasper Water and Sewer Review

1. Pending submittal of project from Engineer on Record to BJWSA Design Review Team in accordance with BJWSA's Development Policy and Procedure Manual.
    a. Submittal to BJWSA Design Review Team forthcoming.

Planning Review – Principal

1. Comments provided under Senior Planner comments.
    a. See responses to Senior Planner comments.

Watershed Management Review DRC

1. Pervious pavers are proposed in the compliance calculator, however, nothing is proposed to drain to them. Provide additional information regarding drainage to the proposed BMP.
    a. Pervious pavements were shown as a BMP preliminarily however after further analysis they were deemed unnecessary for SOLOCO stormwater compliance and are now shown as standard asphalt parking.
2. Provide a detail for secondary containment for the fuel tank adjacent to wetland.
    a. Fuel tank will have secondary containment via a double lined exterior wall.
3. Provide retaining wall detail.
    a. See retaining wall detail in the landscape plan set.
4. Based on grading plan, it appears the 10-year exhibit will not function as drawn because the swales will not remain during the grading process.
    a. The 10-year exhibit and its "during construction sediment controls" have been revised to eliminate the sediment traps. Sedimentation modeling has been updated to show silt fencing shown will provide adequate sediment removal.
5. Show location of and label observation wells in the pervious pavement and infiltration basin BMPs and provide observation well detail for each BMP on the details sheet.
    a. Observation wells added to the infiltration basins and underground chambers.
6. Provide infiltration basin detail.
    a. See infiltration basin details in the civil plans.
7. The retaining wall appears to encroach on the silt fence and wetland buffer in some areas. Revise retaining wall location to not encroach on the silt fence and wetland buffer.
    a. Grading has been refined allowing the access drive to shift south to eliminate the western portion of the retaining wall. The remaining eastern portion of retaining wall and all silt fence have been shifted outside of the wetland buffer.

Please place this project on the 7/24/2024 Planning Commission agenda. Should you have any questions or concerns, please contact our office at (843) 379-2222. We appreciate your assistance in moving this project forward.

Yours truly,

DAVIS & FLOYD
PLAN | DESIGN | ENGINEER

Ryan Lyle, P.E.
Project Manager

LAND USE KEY

	ACREAGE
DETENTION	0.51
WETLAND BUFFER	1.09
WETLAND	3.27
COMMON AREA & 50' BUFFER	±3.28
HOSPITAL	±0.76
ROADS/PARKING	±3.60
TOTAL	12.519 ACRES

PERVIOUS AREA

	ACREAGE
IMPERVIOUS AREA	
- ROADS/PARKING/WALKS	3.6
- HOSPITAL BUILDING	0.76
TOTAL IMPERVIOUS AREA:	4.36
PERVIOUS AREA	
- DETENTION	0.51
- WETLAND AND WETLAND BUFFER	4.36
- COMMON AREA AND 50' BUFFER	3.28
TOTAL PERVIOUS AREA:	8.15

OPEN SPACE SUMMARY

OPEN SPACE (WETLAND BUFFER, LAGOON, COMMON AREA & 50' BUFFER)	± 4.83 ACRES
TOTAL SITE AREA	12.519 ACRES
OPEN SPACE REQUIRED	10%
OPEN SPACE PROVIDED	38.5%

PARKING

- REQUIRED PARKING: SPACES
  - 1 SPACE PER MEDICAL STAFF OR VISITING DOCTOR ..... ±27
    (PER BUCKWALTER PUD)
    (27 MEDICAL STAFF)
  - 1 SPACE PER 4 EMPLOYEES ..... ±164
    (PER BUCKWALTER PUD)
    (164 EMPLOYEES) *CALCULATION ASSUMES ONE SPACE PER EMPLOYEE
  - 1 SPACE PER 6 PATIENT BEDS 4
    (PER BUCKWALTER PUD)
    (20 PATIENT BEDS)
  - GUEST AND PATIENT PARKING ..... ±35
    (FOR ER VISITS, CT, LABS, X-RAY, OP SURGERY, OTHER)

  TOTAL SPACES REQUIRED: 230
- PROVIDED PARKING 231
  - 23 A.D.A PARKING SPACES INCLUDED

SITE INFORMATION

PARCEL 12B-2 BUCKWALTER PUD
NORTHWEST OF THE INTERSECTION OF BUCKWALTER PARKWAY AND BLUFFTON PARKWAY
TAX MAP ID NO.: R610 030 000 1705 0000
CURRENT ZONING: BUCKWALTER PUD

N
W E
0 25 50 75 100 125 150 175 200
Scale 1 " = 50'

PREPARED BY:

Witmer Jones Keefer Ltd.
landscape architecture
land planning
www.wjkltd.com

DAVIS & FLOYD
PLAN | DESIGN | ENGINEER

EWING COLE

CONCEPTUAL DRC SUBMITTAL.

PLAN IS CONCEPTUAL IN NATURE AND SUBJECT TO CHANGE.

SITE DEVELOPMENT PLANS
FOR

BLUFFTON COMMUNITY HOSPITAL

BLUFFTON, SOUTH CAROLINA

BEAUFORT COUNTY
PARCEL 12B-2 BUCKWALTER PUD;
TAX MAP NO: R610 030 000 1705 0000

PREPARED FOR:

SOUTH OF BROAD HEALTHCARE

DRAWING TITLE

SITE MASTER PLAN

REVISIONS

DATE:	JUNE 26, 2024
PROJECT NO.:	1876.01
DRAWN BY:	KJ
CHECKED BY:	DK

SHEET

L1 OF 3

STORMWATER BMP
EVERGREEN SHRUB, TYP.
FLOWERING SHRUB, TYP.
OVERSTORY TREE (LIVE OAK), TYP.
INNOVATION DRIVE
SABAL PALM
POTENTIAL HELI PAD LOCATION
OVERSTORY TREE (LIVE OAK)
STORMWATER BMP
STORMWATER BMP
MATCHLINE L2
FLOWERING UNDERSTORY TREE, TYP.
10' typ.
EMERGENCY ENTRY
HOSPITAL
MAIN ENTRY
MATCHLINE L2
EXISTING PARKWAY PATH
BUFFER PLANTINGS (UNDERSTORY TREES, SHRUBS, GROUNDCOVER, NATIVE GRASSES), TYP.
OVERSTORY TREES, TYP.
UNDERSTORY EVERGREEN TREE, TYP.
BLUFFTON PKWY

CONCEPTUAL HARDSCAPE MATERIALS

- WALKWAYS
- SPECIALTY PAVING
  - -PAVERS
  - -BRICK
- ADA TRUNCATED DOME

N
W E

0 15 30 45 60 75 90 105 120
Scale 1 " = 30'

PREPARED BY:

Witmer Jones Keefer Ltd.
landscape architecture
land planning
www.wjkltd.com

DAVIS & FLOYD
PLAN | DESIGN | ENGINEER

EWING COLE

CONCEPTUAL DRC SUBMITTAL.

PLAN IS CONCEPTUAL IN NATURE AND SUBJECT TO CHANGE.

SITE DEVELOPMENT PLANS FOR

BLUFFTON COMMUNITY HOSPITAL

BLUFFTON, SOUTH CAROLINA

BEAUFORT COUNTY
PARCEL 12B-2 BUCKWALTER PUD;
TAX MAP NO: R610 030 000 1705 0000

PREPARED FOR:

SOUTH OF BROAD HEALTHCARE

DRAWING TITLE

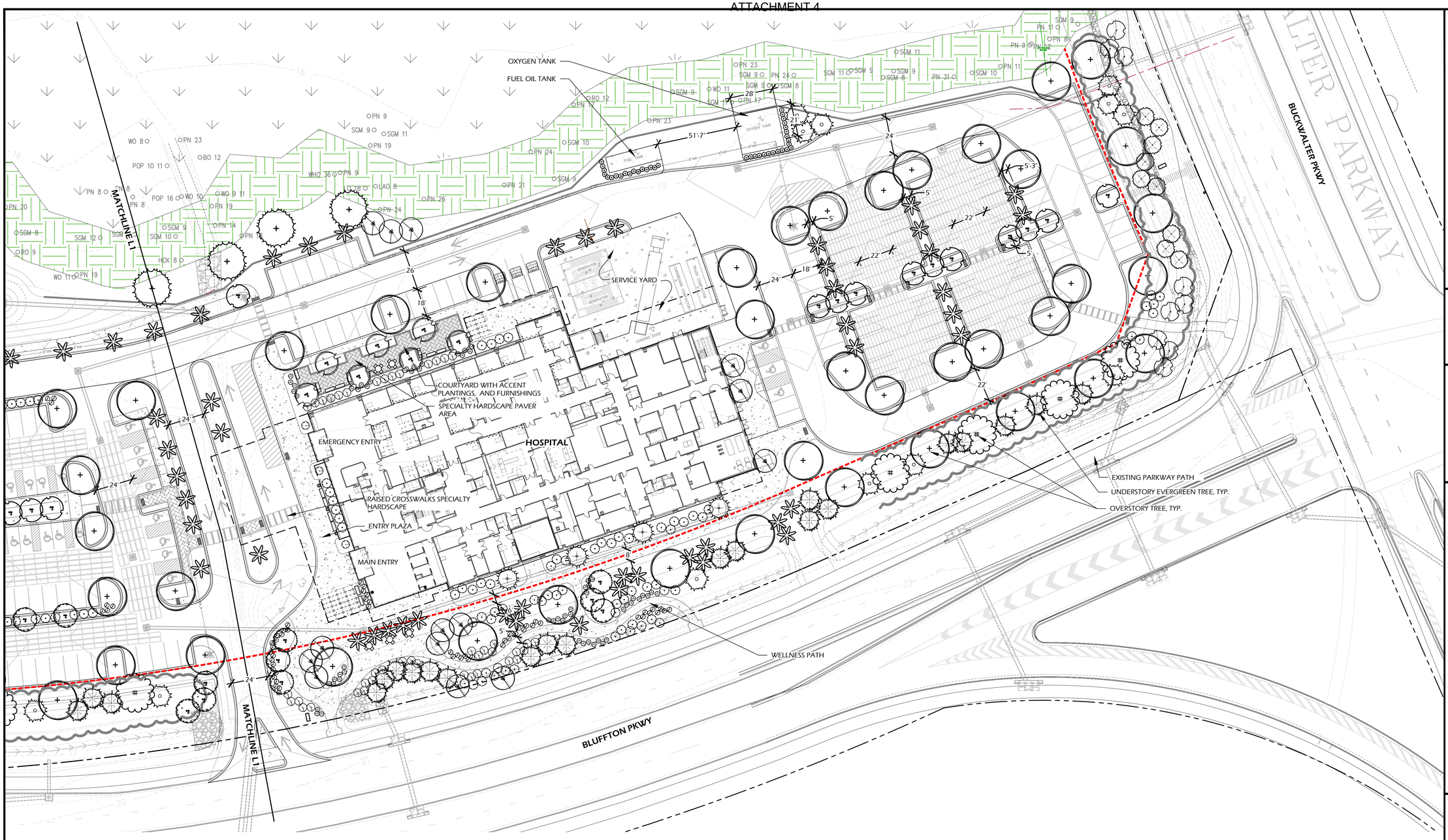
CONCEPTUAL LANDSCAPE PLAN 1

REVISIONS

DATE:	JUNE 26, 2024
PROJECT NO.:	1876.01
DRAWN BY:	KJ
CHECKED BY:	DK

SHEET

L2 of 3



CONCEPTUAL HARDSCAPE MATERIALS

- WALKWAYS
- SPECIALTY PAVING
  - -PAVERS
  - -BRICK
- ADA TRUNCATED DOME

N
W E

0 15 30 45 60 75 90 105 120

Scale 1 " = 30'

PREPARED BY:

Witmer Jones Keefer Ltd.
landscape architecture
land planning
www.wjkltd.com

DAVIS & FLOYD
PLAN | DESIGN | ENGINEER

EWING COLE

CONCEPTUAL DRC SUBMITTAL.

PLAN IS CONCEPTUAL IN NATURE AND SUBJECT TO CHANGE.

SITE DEVELOPMENT PLANS FOR

BLUFFTON COMMUNITY HOSPITAL

BLUFFTON, SOUTH CAROLINA

BEAUFORT COUNTY
PARCEL 12B-2 BUCKWALTER PUD;
TAX MAP NO: R610 030 000 1705 0000

PREPARED FOR:

SOUTH OF BROAD HEALTHCARE

DRAWING TITLE

CONCEPTUAL LANDSCAPE PLAN 2

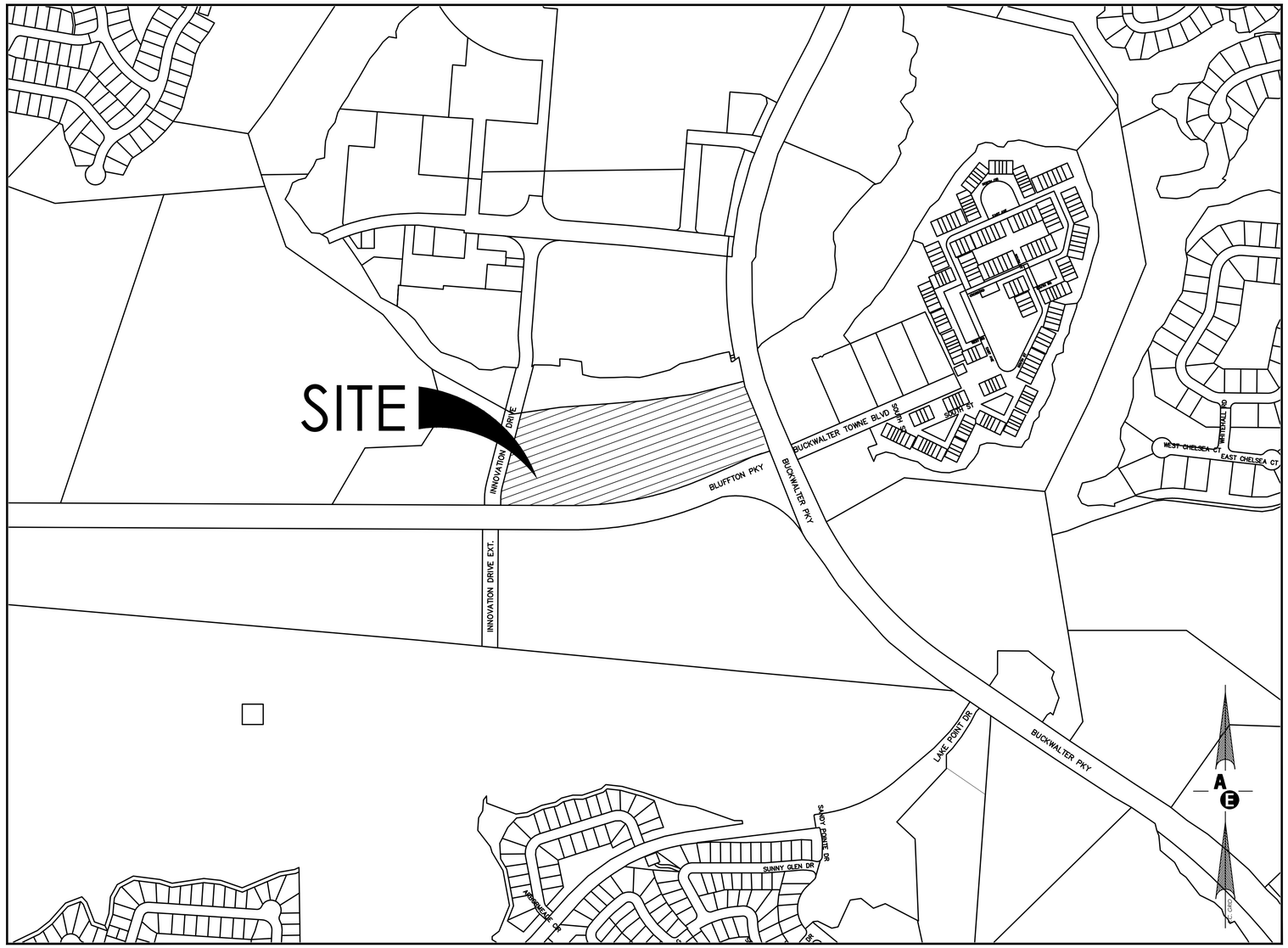
REVISIONS

DATE:	JUNE 26, 2024
PROJECT NO.:	1876.01
DRAWN BY:	KJ
CHECKED BY:	DK

SHEET

L3 of 3

SITE DEVELOPMENT PLAN
FOR
BLUFFTON COMMUNITY HOSPITAL
10 INNOVATION DRIVE
TOWN OF BLUFFTON
BEAUFORT COUNTY, SOUTH CAROLINA 29909



VICINITY MAP
SCALE: 1" = 300'

BJWSA NUMBER: #2019-047

N.P.D.E.S. DISTURBED AREA = 8.9 Acres

3 DAYS BEFORE DIGGING IN SOUTH CAROLINA
CALL 1-888-721-7877
PALMETTO UTILITY PROTECTION SERVICE

APPROXIMATE LOCATION OF SITE:
LONGITUDE: 80°-55'-01"
LATITUDE: 32°-16'-07"

DEVELOPER:	CIVIL ENGINEER:
SOUTH OF BROAD HEALTHCARE C/O RUSSELL BAXLEY 955 RIBAUT ROAD BEAUFORT, SC 29902 843-522-5140	DAVIS & FLOYD, INC. C/O RYAN LYLE 2712 BULL STREET, SUITE A BEAUFORT, SC 29902 843-379-2222

SURVEYOR:	PROJECT DATA:
DAVIS & FLOYD, INC. C/O JOHN GRAY (PLS#26954) 2712 BULL STREET, SUITE A BEAUFORT, SC 29902 843-379-2222	BLUFFTON COMMUNITY HOSPITAL DISTRICT #: 610 MAP #: 030 PARCEL #: 1705 PROJECT ZONING: PUD ZONING BOUNDARIES: PUD FEMA FLOOD ZONE: X

PHONE #:		PERMIT#:
B.J.W.S.A.	843.987.9200	----------
D.H.E.C.	843.522.3345	----------
O.C.R.M.	843.744.5898	----------
S.C.D.O.T.	843.524.7255	----------
S.C.E.&G.	843.525.7712	----------
PAL. ELEC.	843.208.5512	----------

APPROVED FOR CONSTRUCTION

BY: _____ ___/___/___
DATE

INDEX OF DRAWINGS

SHEET #	DESCRIPTION
	TITLE
A	TYPICAL LEGEND & NOTES SHEET
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3.2	SEDIMENT & EROSION CONTROL PLAN PHASE 2
4	SEDIMENT & EROSION CONTROL DETAILS SHEET 1
5	SEDIMENT & EROSION CONTROL DETAILS SHEET 2
6	SEDIMENT & EROSION CONTROL DETAILS SHEET 3
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8	HORIZONTAL CONTROL PLAN
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22	TOWN OF BLUFFTON 10-YEAR EXHIBIT STABILIZATION

DAVIS & FLOYD
PLAN | DESIGN | ENGINEER
DAVISFLOYD.COM
2712 BULL STREET SUITE A
BEAUFORT, SC 29902
(843) 379-2222

DRAWING RELEASED FOR:

☑ PLAN REVIEW	06 / 26 / 2024
☐ PERMIT DRAWINGS	____/____/____
☐ CONSTRUCTION DRAWINGS	____/____/____
☐ BID SET	____/____/____
☐ RECORD DRAWINGS	____/____/____
☐ OTHER: _____	____/____/____

SOUTH CAROLINA CERTIFICATE OF AUTHORIZATION
DAVIS & FLOYD, INC.
NO. C00538

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER
NO. 12860
06/26/2024
STEVEN WADE ANDERSON

PLAN REVISIONS

NO.	DESCRIPTION:	DATE:	BY:
1	–	–	–
2	–	–	–
3	–	–	–
4	–	–	–
5	–	–	–
6	–	–	–
7	–	–	–
8	–	–	–

DATUM REFERENCE:
NGVD 29

TYPICAL LINE TYPES

- CONSTRUCTED SWALE
- ROAD CENTERLINE(PROP & EXIST)
- CABLE TV LINE
- FIBER OPTICS
- CONDUIT LINE
- CHAIN LINK FENCE
- SQUARE WOODEN FENCE
- SILT FENCE
- TREE PROTECTION FENCE
- EXISTING PVC FORCEMAIN
- PROPOSED 1" PVC (C900-DR25) FORCEMAIN
- PROPOSED 2" PVC (C900-DR25) FORCEMAIN
- PROPOSED 4" PVC (C900-DR25) FORCEMAIN
- PROPOSED 6" PVC (C900-DR25) FORCEMAIN
- PROPOSED 8" PVC (C900-DR25) FORCEMAIN
- OVERHEAD POWERLINE
- EXISTING SANITARY SEWER LINE
- PROPOSED 10" SANITARY SEWER LINE
- PROPOSED 12" SANITARY SEWER LINE
- PROPOSED 6" SANITARY SEWER LINE
- PROPOSED 8" SANITARY SEWER LINE
- FUTURE SANITARY SEWER LINE
- EXISTING GAS LINE
- 4" DIP (DUCTILE IRON PIPE)
- 6" DIP
- 8" DIP
- 10" DIP
- EXISTING PROPERTY LINE
- FUTURE PROPERTY LINE
- PROPOSED PROPERTY LINE
- EXISTING RIGHT OF WAY
- FUTURE RIGHT OF WAY
- PROPOSED RIGHT OF WAY
- EXISTING SETBACK
- FUTURE SETBACK
- TELEPHONE LINE
- UNDERGROUND POWER LINE
- 3 UNDERGROUND TELEPHONE LINE
- UNDERGROUND TELEPHONE LINE
- PROPOSED 1" PE (SDR17) WATERLINE
- PROPOSED 10" PVC (C900-DR25-CL100) WATERLINE
- PROPOSED 12" PVC (C900-DR25-CL100) WATERLINE
- PROPOSED 2" PVC (SDR21-CL200) WATERLINE
- PROPOSED 30" PVC (C900-DR25-CL100) WATERLINE
- PROPOSED 4" PVC (C900-DR25-CL100) WATERLINE
- PROPOSED 6" PVC (C900-DR25-CL100) WATERLINE
- PROPOSED 8" PVC (C900-DR25-CL100) WATERLINE
- EXISTING WATERLINE
- EXISTING 10" PVC WATERLINE
- EXISTING 12" PVC WATERLINE
- EXISTING 2" PVC WATERLINE
- EXISTING 4" PVC WATERLINE
- EXISTING 20" PVC WATERLINE
- EXISTING 6" PVC WATERLINE
- EXISTING 8" PVC WATERLINE
- FUTURE PVC WATERLINE
- STRIPING LANE LINES
- STRIPING FOR TURN LANES
- STRIPED LANE MARKERS

TYPICAL ABBREVIATIONS

AC	AIR CONDITIONER
BB	BOTTOM OF BANK
BC	BUILDING CORNER
BD	BOTTOM OF DITCH
BENCH	TEMP. BENCHMARK
BFC	BOTTOM FACE OF CURB
BOC	BACK OF CURB
BS#	BACKSIGHT (POINT#)
BSW	BACK OF SIDEWALK
BW	BOTTOM OF WALL
CA	CORNER OF ASPHALT
CB	CATCH BASIN
CC	CORNER OF CONCRETE
CDK	CORNER OF DECK
CG	CORNER OF GRAVEL
CI	CURB INLET
CLBP	CENTERLINE OF BIKE PATH
CLCP	CENTERLINE CART PATH
CLCR	CENTERLINE OF CREEK
CLD	CENTERLINE OF DITCH
CLINT	CENTERLINE OF INTERSECTION
CLP	CENTERLINE OF PAVEMENT
CLR	CENTERLINE OF ROAD
CLSW	CENTERLINE OF SIDEWALK
CMF	CONCRETE MONUMENT FOUND
CMP	CORRUGATED METAL PIPE
CMS	CONCRETE MONUMENT SET
CO	CLEAN OUT
COGO	CALCULATED POINT
COL	COLUMN
CP	CONTROL PANEL
CPL	CORNER OF POOL
CPP	CORRUGATED PLASTIC PIPE
CRIT	S.C. COASTAL CRITICAL LINE
CSW	CORNER OF SIDEWALK
CTV	CABLE TELEVISION BOX
DK	DECK
EA	EDGE OF ASPHALT
EB	ELECTRIC BOX
EBP	EDGE OF BIKE PATH
EC	EDGE OF CONCRETE
ECON	ELECTRIC CONDUIT
EDK	EDGE OF DECK
EDR	EDGE OF DIRT ROAD
EDW	EDGE OF DRIVEWAY(DIRT/GRASS)
EG	EDGE OF GRAVEL
EM	EDGE OF MARSH
EMET	ELECTRIC METER
ECP	EDGE OF CART PATH
ESTUB	ELECTRIC STUB-OUT
ESW	EDGE OF SIDEWALK
EW	EDGE OF WATER
F	FENCE
FC	FENCE CORNER
FFE	FINISHED FLOOR ELEVATION
FH	FIRE HYDRANT
FL	FENCE LINE
FOM	FIBER OPTIC MARKER
FP	FLAG POLE
FS	FORESIGHT
GI	GRATE INLET
GL	GROUND LIGHT
GPS#	GPS CONTROL (POINT#)
GRV	GRAVE
GT	GAS TANK
GUT	GUTTER LINE
GV	GAS VALVE
GW	GUY WIRE
HPS	HANDICAP PARKING STRIPE
HSB	HOSE BIB
HT#	HUB & TACK (POINT#)
IM	IRRIGATION METER
INV	INVERT ELEVATION
IPC	IRON PIN CALCULATED(CORNER)
IPF	IRON PIN FOUND
IPS	IRON PIN SET
IV	IRRIGATION VALVE
LI	LANDSCAPE ISLAND
LP	LIGHT POLE/LAMP POST
MB	MAIL BOX
MW	MONITOR WELL
NWL	NORMAL WATER LEVEL

TYPICAL ABBREVIATIONS

OHP	OVER HEAD WIRE
PC	PORCH CORNER
PI	POINT OF INTERSECTION
PK#	P/K NAIL (AS SETUPS)
PP	POWER POLE
PS	PARKING STRIPE
PVC	POLYVINYL CHLORIDE PIPE
PKS	PK NAIL SET
RCP	REINFORCED CONCRETE PIPE
RIM	MANHOLE RIM
RIP	EDGE OF RIP-RAP
RP	RADIUS POINT
SB	SETBACK
SD	STORM DRAIN
SDMH	STORM DRAIN MANHOLE
SGN"DESC"	SIGN (THEN A DESC.)
SH	SPRINKLER HEAD
SLAT	SEWER LATERAL
SLM	SEWER LINE MARKER
SSMH	SANITARY SEWER MANHOLE
STOP	STOP BAR
STP	STEP
SUN#	SETUP NAIL#
SV	SEWER VALVE
SVM	SEWER VALVE MARKER
SWB	BACK OF SIDEWALK
T	TOPO SHOT (ELEVATION)
TB	TOP OF BANK
TBC	TOP BACK OF CURB
TBM	TEMPORARY BENCHMARK
TEL	TELEPHONE PEDESTAL
TIE#	TIE TO SETUP NAIL
TL	TREE LINE
TMH	TELEPHONE MANHOLE
TOP	TOP OF PIPE
TP	TRAVERSE POINT
TRNF	TRANSFORMER
TSB	TRAFFIC STOP BAR
TW	TOP OF WALL
UC	UNDERGROUND CABLE TV
UE	UNDERGROUND ELECTRIC
UFO	UNDERGROUND FIBER OPTIC
UGG	UNDERGROUND GAS LINE
UGM	UNDERGROUND GAS MARKER
USS	UNDERGROUND SANITARY SEWER
UT	UNDERGROUND TELEPHONE
UW	UNDERGROUND WATER
VCP	VERIFIED CLAY PIPE
WELL	WATER WELL
WF	WATER FOUNTAIN
WL	WHITE LINE
WLAT	WATER LATERAL
WLM	WHITE LINE MARKER
WM	WATER METER
WP	WATER PIPE
WT	WATER TANK
WV	WATER VALVE
WVM	WATER VALVE MARKER
YL	YELLOW LINE

SUFFIXES

END	END (EX. BFC_END)
OL	ON LINE (EX. BFC_OL)

UTILITY MARKINGS:

RED – ELECTRIC
GREEN –SEWER
BLUE – WATER
YELLOW– GAS
ORANGE – CABLE
ORANGE "T"S – TELEPHONE

TYPICAL LEGEND UNLESS OTHERWISE NOTED

- WETLANDS
- DEMOLITION
- LAGOON/POND
- EXISTING ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- STONE RIP RAP ON ENGR FABRIC
- BRICK PAVEMENT
- TYP. ASPHALT PAVEMENT
- PERVIOUS PAVEMENT

EDGE OF PAVEMENT	EP	EDGE OF GRAVEL	EG
TOP OF BANK	TB	BOTTOM OF BANK	BB
EXISTING SPOT ELEVATION		8.43 GS	
LANDSCAPE AREA		SHRUB	
CONCRETE MARKER		IRON PIN	
TEMPORARY BENCHMARK		SIGNAL BOX	
CURB INLET		GRATE INLET	
DRAINAGE MANHOLE	D	CATCH BASIN	
PROP FIRE HYDRANT		EXIST FIRE HYDRANT	
WATER VALVE	WV	IRRIGATION VALVE	V
WATER VALVE MARKER	WV	WATER METER	
POST INDICATOR VALVE		FIRE DEPT CONNECTOR	
MONITORING WELL	M	WELL	W
SPRINKLER HEAD		HOSE BIB	
SANITARY SEWER MANHOLE	S	SEWER VALVE	SV
SANITARY SEWER CLEAN OUT	O		
TRANSFORMER	TRANS	CABLE TV BOX	
EXISTING POWER POLE		TELEPHONE PEDESTAL	T
GUY WIRE		ELECTRIC BOX	ELEC.
LIGHT POLE		GROUND LIGHT	
AIR CONDITIONER	A/C	SIGN	
FIBER OPTIC MANHOLE	P		
UNDERGROUND GAS MARKER	G	GAS VALVE	GV
MAILBOX		FLAG POLE	

- DIP CROSSING
- PROP STORM DRAIN
- EXISTING STORM DRAIN
- TOP OF PAVEMENT — TP15.50
- TOP OF CURB — TC16.00
- TOP OF SIDEWALK — TS15.25
- FINISHED GRADE — FG13.50
- EXISTING CONTOUR — 18.00
- PROPOSED CONTOUR — 19

UTILITY NOTES:

1. SHOWN ON PLAN ARE KNOWN UNDERGROUND UTILITY LOCATIONS, HOWEVER, NOT SHOWN BUT POSSIBLY ENCOUNTERED IN THE AREA OF THE SITE ARE OTHER BURIED UTILITIES INCLUDING, BUT NOT NECESSARILY LIMITED TO;

A. TELEPHONE
B. FIBER OPTICS
C. CABLE TELEVISION
D. POTABLE WATER
E. SANITARY SEWER
F. GAS PIPELINE / TRANSMISSION LINE
G. STORM SEWER

(NOTE: ALL UTILITIES ENCOUNTERED TO BE PROTECTED DURING CONSTRUCTION)

2. WHEN ENCOUNTERED, THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH WRITTEN GRAPHICAL INFORMATION PERTAINING TO THE VERTICAL & HORIZONTAL ALIGNMENT OF UTILITY LOCATIONS.

3. ADDITIONAL COST ASSOCIATED WITH THE LOCATING, RELOCATING (DUE TO CONFLICTS), OR DELAYS AS A RESULT OF OTHER UNDERGROUND UTILITIES ENCOUNTERED WILL BE THE RESPONSIBILITY OF THE OWNER.

4. THOSE COSTS BEING ADDITIONAL PIPING, BORES, ASPHALT CUT & PATCH, CLEARING & GRUBBING, STABILIZATION & GRASSING, OR OTHER SPECIAL CONSTRUCTION TECHNIQUES TO BE CHARGED AT THE UNIT BID PRICE OR A NEGOTIATED FEE.

WATER & SANITARY SEWER NOTES:

1. THE EXISTING WATERLINE INFORMATION HAS BEEN SUPPLIED BY OTHERS. ITS LOCATION AND SIZE ARE APPROXIMATE. THE CONTRACTOR IS TO FIELD VERIFY THE EXACT SIZE AND LOCATION OF THE EXISTING WATERLINE PRIOR TO THE BEGINNING OF CONSTRUCTION.

2. THE CONTRACTOR IS TO COORDINATE THE WATERLINE TIE IN WITH BJWSA SEVENTY TWO (72) HOURS MINIMUM BEFORE WATERLINE SHUTDOWN.

3. WATERLINES 4" AND ABOVE ARE TO BE C900-DR18-CL150. ALL 2" WATERLINES ARE TO BE HDPE, AND ALL DUCTILE IRON PIPE (DIP) IS TO BE CL150.

4. WATER METERS ARE 1" DIA. UNLESS OTHERWISE NOTED, AND ARE TO BE PROVIDED AND SET BY BJWSA.

5. ALL SANITARY SEWER PIPE LENGTHS IN PLAN AND PROFILE VIEWS ARE TO THE CENTERLINE OF THE MANHOLES.

6. SANITARY SEWER PIPE IS TO BE PVC SDR26.

7. EXISTING MANHOLE LOCATION, RIM ELEVATION, AND INVERTS HAVE BEEN SUPPLIED BY THE SURVEYOR. THE PIPE LOCATION IS APPROXIMATE AND IS TO BE FIELD VERIFIED BY THE CONTRACTOR IF APPLICABLE.

8. SANITARY SEWER LATERALS ARE TO BE LAID WITH A MINIMUM SLOPE OF 2.00% AS SHOWN ON PLANS.

GENERAL NOTES:

1. NO SITE WORK SHALL BEGIN ON A REGULATED SITE UNTIL ALL TREE PROTECTION IS IN PLACE AND ALL REQUIRED SILT FENCE HAS BEEN INSTALLED.

2. A HORIZONTAL & VERTICAL CONTROL MONUMENT HAS BEEN DESIGNATED BY THE ENGINEER. THE VERTICAL DATUM IS NGVD-29, AND THE HORIZONTAL DATUM IS NAD 83.

3. ALL PAVEMENT DIMENSIONS (i.e.; ROAD WIDTHS, PARKING LOTS, LANDSCAPE ISLANDS, etc.) ARE GIVEN TO THE EDGE OF PAVEMENT OR BACK OF CURB, AS SITE DICTATES.

4. ALL BUILDING TIES ARE PERPENDICULAR TO THE PROPERTY LINES.

5. CONTRACTOR TO IDENTIFY AND LOCATE ALL UNDERGROUND UTILITIES PRIOR TO STARTING CONSTRUCTION.

6. CONTRACTOR RESPONSIBLE FOR TRAFFIC CONTROL AND SAFETY DURING CONSTRUCTION.

7. CONTRACTOR RESPONSIBLE FOR SECURING SITE DURING NON-WORKING HOURS TO ENSURE TRAFFIC AND PEDESTRIAN SAFETY.

8. THE GENERAL CONTRACTOR AND SUB-CONTRACTORS SHALL BE AWARE THAT SOME PART OR ALL OF THE CONSTRUCTION OF THIS SITE MAY FALL UNDER THE JURISDICTION OF SPECIFIC CONDITIONS RELEVANT TO A SCDOT OR BEAUFORT COUNTY ENCROACHMENT PERMIT, UNITED STATES ARMY CORPS PERMIT, SETBACKS/BUFFERS PERTINENT TO THE ESTABLISHED ZONING ORDINANCES, SC-DHEC PERMITS, DHEC-OCRM PERMITS OR THE WATER AND SEWER AUTHORITY OF JURISDICTION. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO CONFIRM THE EXISTENCE AND CONDITIONS OF ALL PERMITS RELEVANT TO THIS PROJECT PRIOR TO THE COMMENCEMENT OF THE IMPACTED PHASE(S) OF CONSTRUCTION.

9. THE WATER AND SEWER CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE INSTALLATION OF WATER AND SEWER SERVICES IN ACCORDANCE WITH THE SPECIFICATIONS AND RELEVANT DETAILS OF THE WATER AND SEWER AUTHORITY OF JURISDICTION. THE LOCATION OF WATER AND/OR SEWER SERVICES SHOWN ON THESE PLANS IS TO BE CONSIDERED TO BE SCHEMATIC AND HAS BEEN SHOWN ON THESE DRAWINGS FOR REFERENCE PURPOSES ONLY. SEE DETAILS OR ARCHITECTUAL DRAWINGS FOR EXACT LOCATION.

10. ALL DEDICATED FIRE LINES FROM PIV TO BUILDING AND FDC'S TO BE DESIGNED, PERMITTED, INSTALLED AND TESTED BY FIRE SPRINKLER DESIGNER/FIRE SPRINKLER CONTRACTOR.

11. CONTRACTOR IS MADE AWARE THAT OSHA REQUIRES A PROTECTIVE SYSTEM DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER FOR EXCAVATIONS DEEPER THAN 20 FT.

12. CONTRACTOR MUST TAKE NECESSARY ACTION TO MINIMIZE THE TRACKING OF MUD ONTO EXISTING ROADWAYS FROM CONSTRUCTION AREAS.

STORM SEWER NOTES:

1. RCP IS TO BE (CLIII). UNLESS OTHERWISE NOTED.

2. HDPE IS TO BE N-12 UNLESS OTHERWISE NOTED.

3. FOR DESIGN PURPOSES ALL PIPE LENGTHS IN THE PLAN AND PROFILE VIEWS ARE TO THE CENTERLINE OF THE STRUCTURE. (i.e.: CB, JB, OR OUTFALL, FOR PAYMENT IT WILL BE THE NET LENGTH INSTALLED)

4. SUBGRADE DRAIN IS TO BE 4" PERFORATED HDPE WITH GEOTEXTILE SOCK.

5. WRAP ALL JOINTS W/GEOTEXTILE FABRIC.

TREE PROTECTION & REMOVAL NOTES:

INSTALL ALL TREE PROTECTION FENCE PRIOR TO THE COMMENCEMENT OF LAND DISTURBANCE ACTIVITIES..

PROJECT REQUIREMENTS FOR HARGRAY TELEPHONE & CATV:

1. COMMERCIAL BUILDINGS-APARTMENTS-VILLAS TO HAVE A MINIMUM 4" DIAMETER CONDUIT SCH. 40 PVC WITH PULL STRING BURIED AT 24" TO 30" DEPTH, FROM THE EQUIPMENT ROOM OR POWER METER LOCATION TO A POINT DESIGNATED BY HARGRAY AT ROAD RIGHT-OF-WAY OR PROPERTY LINE. CONDUITS ARE REQUIRED FROM EACH BUILDING SITE & MULTIPLE CONDUITS MAY APPLY.

2. COMMERCIAL BUILDINGS WITH MULTIPLE "UNITS" MAY REQUIRE CONDUIT(S) MINIMUM 3/4" FROM MAIN EQUIPMENT ENTRY POINT TO TERMINATION POINT INSIDE UNIT. PLENUM TYPE CEILINGS REQUIRE CONDUITS OR FLAME RETARDANT TEFLON WIRING TO COMPLY WITH CODE.

3. HOTEL OR LARGE COMMERCIAL PROJECT REQUIREMENTS WOULD BE 2-4" DIAMETER SCH. 40 PVC UNDERGROUND CONDUITS.

4. EQUIPMENT ROOMS TO HAVE 3/4" 4'X8' SHEET OF PLYWOOD MOUNTED ON WALL TO RECEIVE TELEPHONE EQUIPMENT.

5. A POWER GROUND ACCESSIBLE AT EQUIPMENT ROOM OR AN INSULATED #6 FROM THE SERVICE PANEL OR POWER MGN TO THE BACKBOARD.

6. RESIDENTIAL WIRING REQUIRES MINIMUM THREE PAIR TWISTED IN LOOP CONFIGURATION (INDUSTRY STANDARD).

7. CATV INSIDE WIRING WILL BE RG6 FOIL WRAPPED 66% BRAID MINIMUM, HOME RUN TO EACH OUTLET.

8. ALL INTERIOR WIRING SHOULD BE PULLED TO THE AREA IMMEDIATELY ADJACENT TO THE PLYWOOD BACKBOARD OR POWER METER LOCATION. A MINIMUM OF 5' OF SLACK IS REQUIRED FOR TERMINATIONS.

9. EASEMENTS ARE REQUIRED.

South Carolina 811 Call 811 Before you Dig

PRELIMINARY / NOT FOR CONSTRUCTION

PLAN REVISIONS

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SOUTH CAROLINA PROFESSIONAL ENGINEER STEVEN WADE ANDREWS NO. 12860 06/26/2024 CERTIFICATE OF AUTHORIZATION DAVIS & FLOYD, INC. NO. C005538 SOUTH CAROLINA HOLLYWOOD

DAVIS & FLOYD
PLAN | DESIGN | ENGINEER
DAVISFLOYD.COM
2712 BULL STREET SUITE A
BEAUFORT, SC 29902
(843) 379-2222

Site Development Plan
For
Bluffton Comm. Hospital
Buckwalter & Bluffton Pkwy
Town of Bluffton
Beaufort County, SC

Typical Legend and Notes Sheet

Date Drawn:	05/31/18
Last Revised:	06/26/24
Drawn By:	L. Wilen
Engineer:	S. Andrews

SHEET #: A

JOB: 180021

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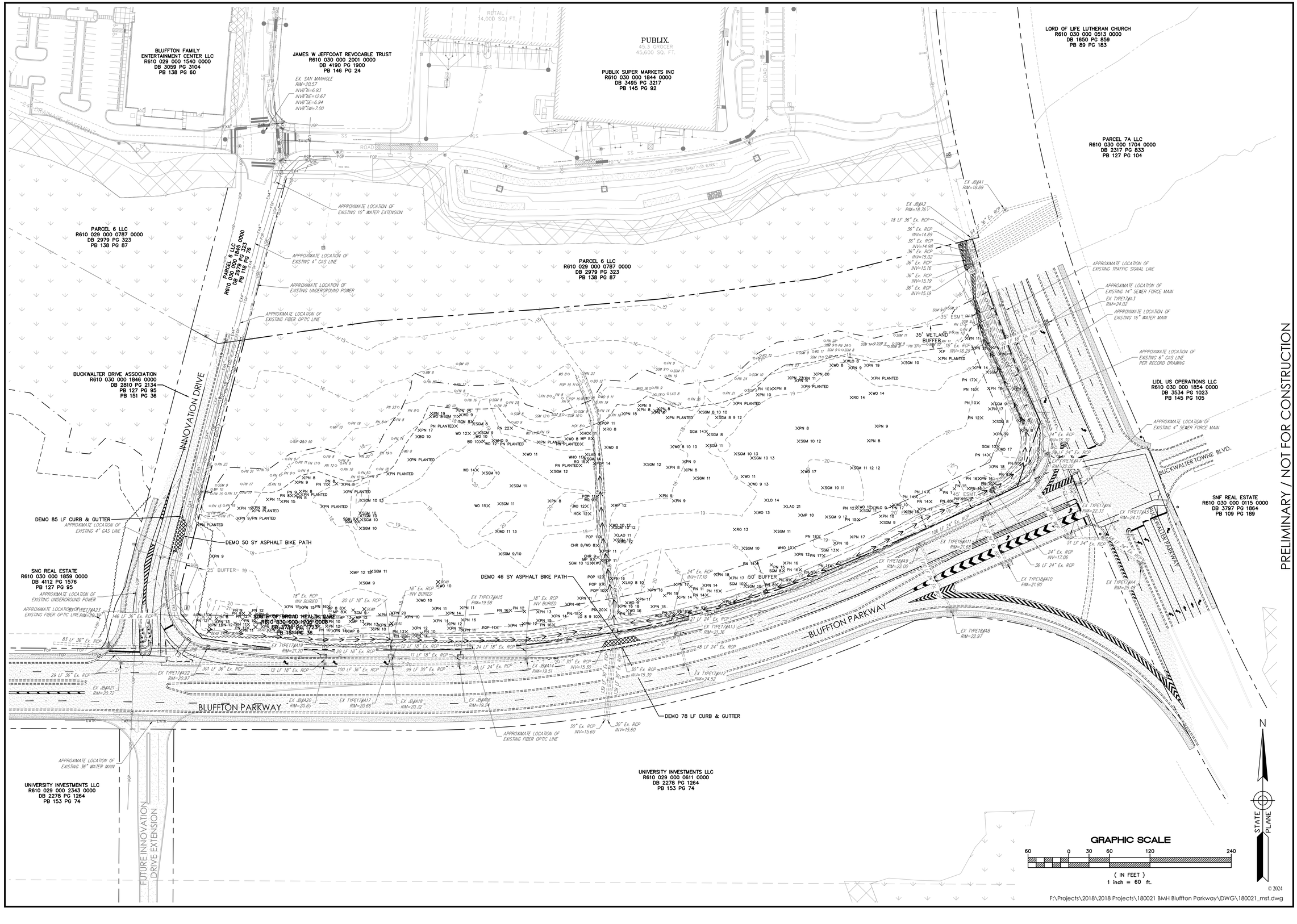

PRELIMINARY / NOT FOR CONSTRUCTION

PLAN REVISIONS

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SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER STEVEN WADE SMISLOW No. 31315 06/26/2024

SOUTH CAROLINA NOTWITHSTANDING CERTIFICATE OF DAVIS & FLOYD, INC. NO. C00536

DAVIS & FLOYD
PLAN | DESIGN | ENGINEER
DAVISFLOYD.COM
2712 BULL STREET SUITE A
BEAUFORT, SC 29902
(843) 379-2222

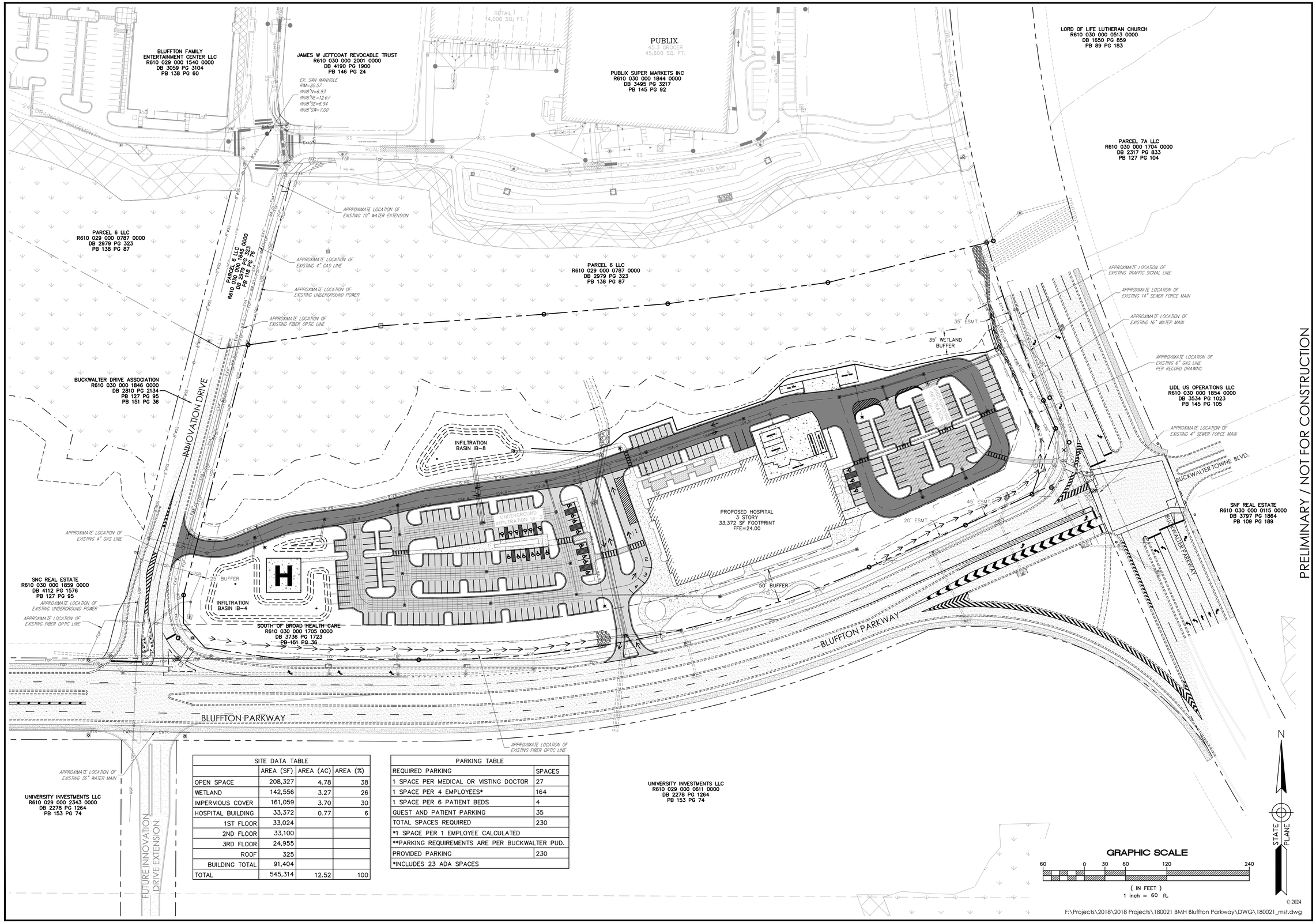
Site Development Plan
For
Bluffton Comm. Hospital
Buckwalter & Bluffton Pkwy
Town of Bluffton
Beaufort County, SC

Existing Site
and
Demolition Plan

Date Drawn:	05/31/18
Last Revised:	06/26/24
Drawn By:	L. Wilen
Engineer:	S. Andrews

SHEET #: 1

JOB: 180021



SITE DATA TABLE			
	AREA (SF)	AREA (AC)	AREA (%)
OPEN SPACE	208,327	4.78	38
WETLAND	142,556	3.27	26
IMPERVIOUS COVER	161,059	3.70	30
HOSPITAL BUILDING	33,372	0.77	6
1ST FLOOR	33,024		
2ND FLOOR	33,100		
3RD FLOOR	24,955		
ROOF	325		
BUILDING TOTAL	91,404		
TOTAL	545,314	12.52	100

PARKING TABLE	
REQUIRED PARKING	SPACES
1 SPACE PER MEDICAL OR VISTING DOCTOR	27
1 SPACE PER 4 EMPLOYEES*	164
1 SPACE PER 6 PATIENT BEDS	4
GUEST AND PATIENT PARKING	35
TOTAL SPACES REQUIRED	230
*1 SPACE PER 1 EMPLOYEE CALCULATED	
**PARKING REQUIREMENTS ARE PER BUCKWALTER PUD.	
PROVIDED PARKING	230
*INCLUDES 23 ADA SPACES	

PRELIMINARY / NOT FOR CONSTRUCTION

PLAN REVISIONS

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SOUTH CAROLINA PROFESSIONAL ENGINEER STEVEN WADE SMISHOW REG. 31284 06/26/2024

SOUTH CAROLINA NOTWITHSTANDING CERTIFICATE OF AUTHORIZATION DAVIS & FLOYD, INC. NO. C00536

DAVIS & FLOYD
PLAN | DESIGN | ENGINEER
DAVISFLOYD.COM
2712 BULL STREET SUITE A
BEAUFORT, SC 29902
(843) 379-2222

Site Development Plan
For
Bluffton Comm. Hospital
Buckwalter & Bluffton Pkwy
Town of Bluffton
Beaufort County, SC

Overall
Site Plan

Date Drawn:	05/31/18
Last Revised:	06/26/24
Drawn By:	L. Wilen
Engineer:	S. Andrews

SHEET #: 2

JOB: 180021

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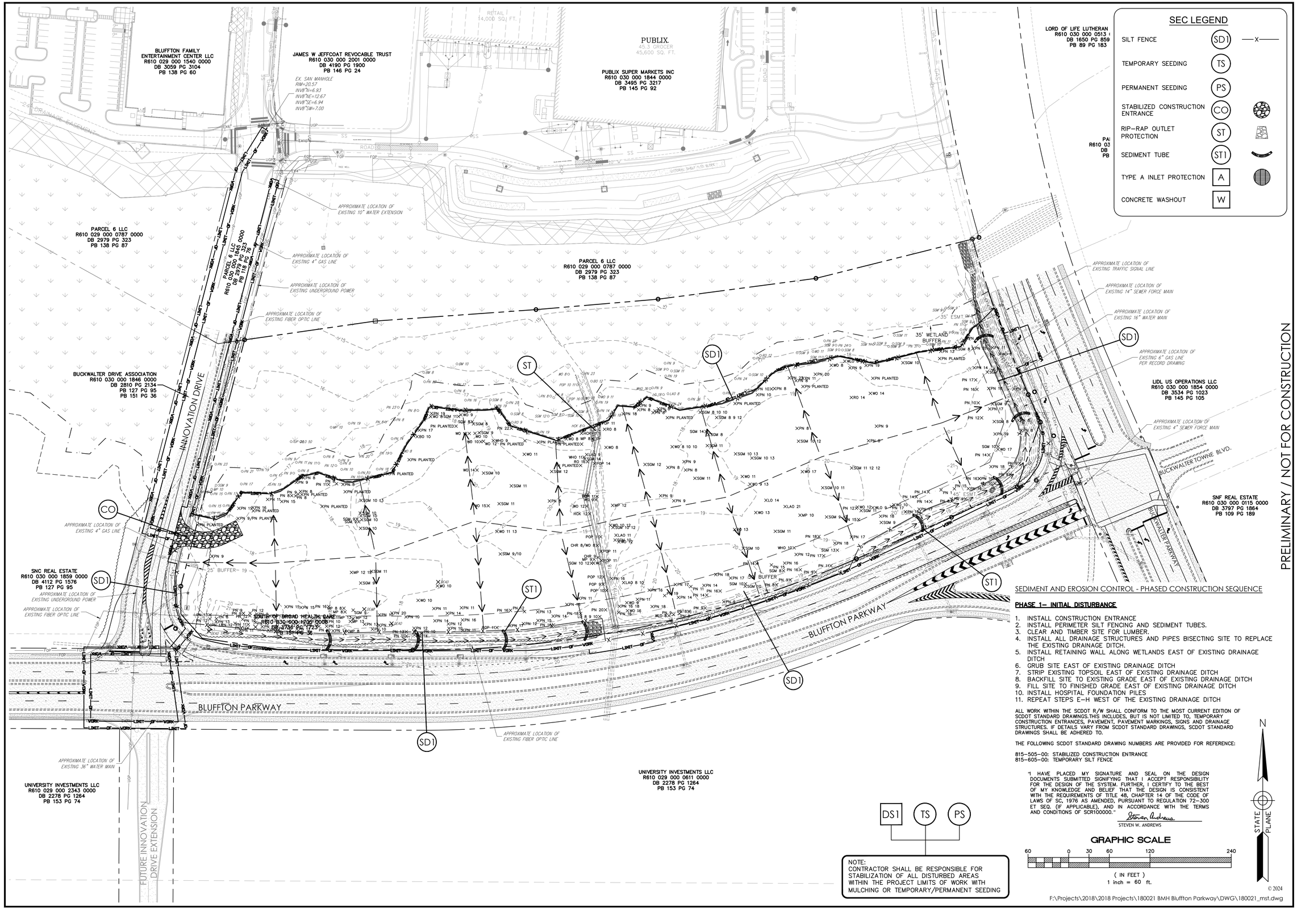
ATTACHMENT 4



SEC LEGEND

SILT FENCE	SD1	—X—
TEMPORARY SEEDING	TS	
PERMANENT SEEDING	PS	
STABILIZED CONSTRUCTION ENTRANCE	CO	
RIP-RAP OUTLET PROTECTION	ST	
SEDIMENT TUBE	ST1	
TYPE A INLET PROTECTION	A	
CONCRETE WASHOUT	W	

SEDIMENT AND EROSION CONTROL - PHASED CONSTRUCTION SEQUENCE

PHASE 1– INITIAL DISTURBANCE

1. INSTALL CONSTRUCTION ENTRANCE
2. INSTALL PERIMETER SILT FENCING AND SEDIMENT TUBES.
3. CLEAR AND TIMBER SITE FOR LUMBER.
4. INSTALL ALL DRAINAGE STRUCTURES AND PIPES BISECTING SITE TO REPLACE THE EXISTING DRAINAGE DITCH.
5. INSTALL RETAINING WALL ALONG WETLANDS EAST OF EXISTING DRAINAGE DITCH
6. GRUB SITE EAST OF EXISTING DRAINAGE DITCH
7. STRIP EXISTING TOPSOIL EAST OF EXISTING DRAINAGE DITCH
8. BACKFILL SITE TO EXISTING GRADE EAST OF EXISTING DRAINAGE DITCH
9. FILL SITE TO FINISHED GRADE EAST OF EXISTING DRAINAGE DITCH
10. INSTALL HOSPITAL FOUNDATION PILES
11. REPEAT STEPS E–H WEST OF THE EXISTING DRAINAGE DITCH

ALL WORK WITHIN THE SCDOT R/W SHALL CONFORM TO THE MOST CURRENT EDITION OF SCDOT STANDARD DRAWINGS.THIS INCLUDES, BUT IS NOT LIMITED TO, TEMPORARY CONSTRUCTION ENTRANCES, PAVEMENT, PAVEMENT MARKINGS, SIGNS AND DRAINAGE STRUCTURES. IF DETAILS VARY FROM SCDOT STANDARD DRAWINGS, SCDOT STANDARD DRAWINGS SHALL BE ADHERED TO.

THE FOLLOWING SCDOT STANDARD DRAWING NUMBERS ARE PROVIDED FOR REFERENCE:

815–505–00: STABILIZED CONSTRUCTION ENTRANCE
815–605–00: TEMPORARY SILT FENCE

"I HAVE PLACED MY SIGNATURE AND SEAL ON THE DESIGN DOCUMENTS SUBMITTED SIGNIFYING THAT I ACCEPT RESPONSIBILITY FOR THE DESIGN OF THE SYSTEM. FURTHER, I CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF THAT THE DESIGN IS CONSISTENT WITH THE REQUIREMENTS OF TITLE 48, CHAPTER 14 OF THE CODE OF LAWS OF SC, 1976 AS AMENDED, PURSUANT TO REGULATION 72–300 ET SEQ. (IF APPLICABLE), AND IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF SCR100000."

Steven Andrews
STEVEN W. ANDREWS

DS1 TS PS

NOTE:
CONTRACTOR SHALL BE RESPONSIBLE FOR STABILIZATION OF ALL DISTURBED AREAS WITHIN THE PROJECT LIMITS OF WORK WITH MULCHING OR TEMPORARY/PERMANENT SEEDING

GRAPHIC SCALE
60 0 30 60 120 240
(IN FEET)
1 inch = 60 ft.

N
STATE PLANE

PRELIMINARY / NOT FOR CONSTRUCTION

PLAN REVISIONS

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SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER STEVEN WADE SMISLOW No. 31283 06/26/2024 CERTIFICATE OF AUTHORIZATION SOUTH CAROLINA DAVIS & FLOYD, INC. NO. C00536

DAVIS & FLOYD
PLAN | DESIGN | ENGINEER
DAVISFLOYD.COM
2712 BULL STREET SUITE A
BEAUFORT, SC 29902
(843) 379-2222

Site Development Plan
For
Bluffton Comm. Hospital
Buckwalter & Bluffton Pkwy
Town of Bluffton
Beaufort County, SC

Sediment and Erosion Control Plan
Phase 1
Initial Disturbance

Date Drawn:	05/31/18
Last Revised:	06/26/24
Drawn By:	L. Wilen
Engineer:	S. Andrews

SHEET #:
3.1

JOB: 180021

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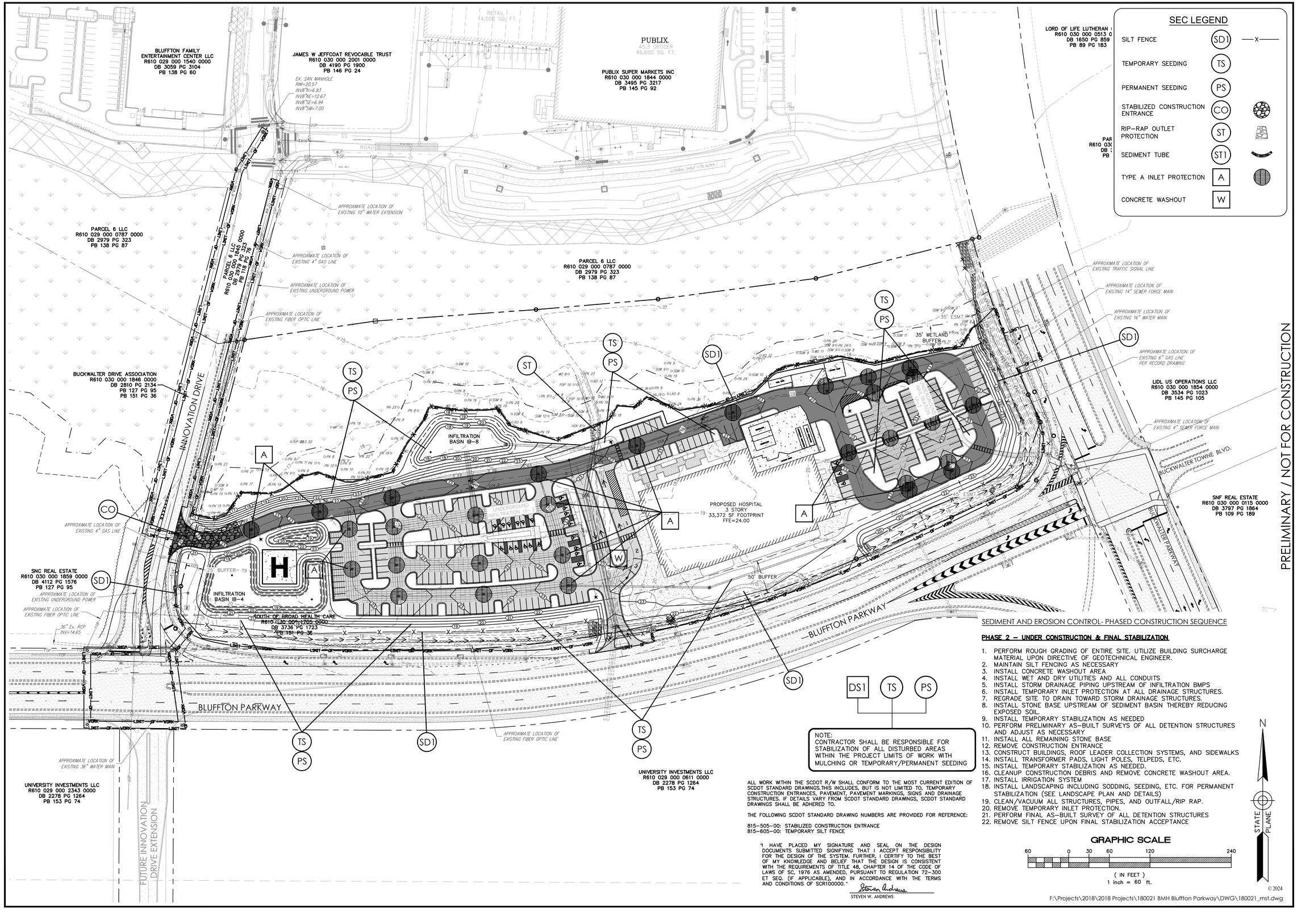
ATTACHMENT 4



PRELIMINARY / NOT FOR CONSTRUCTION

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PLAN REVISIONS

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 31315 STEVEN WADE SMALLOW 08/26/2024

SOUTH CAROLINA PROFESSIONAL ENGINEER SEAL 12980 STEVEN WADE SMALLOW 08/26/2024

CERTIFICATE OF AUTHORIZATION DAVIS & FLOYD, INC. NO. C00536

DAVIS & FLOYD
PLAN | DESIGN | ENGINEER
DAVISFLOYD.COM
2712 BULL STREET SUITE A
BEAUFORT, SC 29902
(843) 379-2222

Site Development Plan
For
Bluffton Comm. Hospital
Buckwalter & Bluffton Pkwy
Town of Bluffton
Beaufort County, SC

Sediment and Erosion Control Plan
Phase 2
Stabilization Phase

Date Drawn:	05/31/18
Last Revised:	06/26/24
Drawn By:	L. Wilen
Engineer:	S. Andrews

SHEET #:
3.2

JOB: 180021

SEDIMENT AND EROSION CONTROL- PHASED CONSTRUCTION SEQUENCE

PHASE 2 – UNDER CONSTRUCTION & FINAL STABILIZATION

1. PERFORM ROUGH GRADING OF ENTIRE SITE. UTILIZE BUILDING SURCHARGE MATERIAL UPON DIRECTIVE OF GEOTECHNICAL ENGINEER.
2. MAINTAIN SILT FENCING AS NECESSARY
3. INSTALL CONCRETE WASHOUT AREA
4. INSTALL WET AND DRY UTILITIES AND ALL CONDUITS
5. INSTALL STORM DRAINAGE PIPING UPSTREAM OF INFILTRATION BMPS
6. INSTALL TEMPORARY INLET PROTECTION AT ALL DRAINAGE STRUCTURES.
7. REGRADE SITE TO DRAIN TOWARD STORM DRAINAGE STRUCTURES.
8. INSTALL STONE BASE UPSTREAM OF SEDIMENT BASIN THEREBY REDUCING EXPOSED SOIL.
9. INSTALL TEMPORARY STABILIZATION AS NEEDED
10. PERFORM PRELIMINARY AS-BUILT SURVEYS OF ALL DETENTION STRUCTURES AND ADJUST AS NECESSARY
11. INSTALL ALL REMAINING STONE BASE
12. REMOVE CONSTRUCTION ENTRANCE
13. CONSTRUCT BUILDINGS, ROOF LEADER COLLECTION SYSTEMS, AND SIDEWALKS
14. INSTALL TRANSFORMER PADS, LIGHT POLES, TELPEDS, ETC.
15. INSTALL TEMPORARY STABILIZATION AS NEEDED.
16. CLEANUP CONSTRUCTION DEBRIS AND REMOVE CONCRETE WASHOUT AREA.
17. INSTALL IRRIGATION SYSTEM
18. INSTALL LANDSCAPING INCLUDING SODDING, SEEDING, ETC. FOR PERMANENT STABILIZATION (SEE LANDSCAPE PLAN AND DETAILS)
19. CLEAN/VACUUM ALL STRUCTURES, PIPES, AND OUTFALL/RIP RAP.
20. REMOVE TEMPORARY INLET PROTECTION.
21. PERFORM FINAL AS-BUILT SURVEY OF ALL DETENTION STRUCTURES
22. REMOVE SILT FENCE UPON FINAL STABILIZATION ACCEPTANCE

DS1 TS PS

NOTE:
CONTRACTOR SHALL BE RESPONSIBLE FOR STABILIZATION OF ALL DISTURBED AREAS WITHIN THE PROJECT LIMITS OF WORK WITH MULCHING OR TEMPORARY/PERMANENT SEEDING

ALL WORK WITHIN THE SCDOT R/W SHALL CONFORM TO THE MOST CURRENT EDITION OF SCDOT STANDARD DRAWINGS.THIS INCLUDES, BUT IS NOT LIMITED TO, TEMPORARY CONSTRUCTION ENTRANCES, PAVEMENT, PAVEMENT MARKINGS, SIGNS AND DRAINAGE STRUCTURES. IF DETAILS VARY FROM SCDOT STANDARD DRAWINGS, SCDOT STANDARD DRAWINGS SHALL BE ADHERED TO.

THE FOLLOWING SCDOT STANDARD DRAWING NUMBERS ARE PROVIDED FOR REFERENCE:

815-505-00: STABILIZED CONSTRUCTION ENTRANCE
815-605-00: TEMPORARY SILT FENCE

"I HAVE PLACED MY SIGNATURE AND SEAL ON THE DESIGN DOCUMENTS SUBMITTED SIGNIFYING THAT I ACCEPT RESPONSIBILITY FOR THE DESIGN OF THE SYSTEM. FURTHER, I CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF THAT THE DESIGN IS CONSISTENT WITH THE REQUIREMENTS OF TITLE 48, CHAPTER 14 OF THE CODE OF LAWS OF SC, 1976 AS AMENDED, PURSUANT TO REGULATION 72-300 ET SEQ. (IF APPLICABLE), AND IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF SCR100000."

STEVEN W. ANDREWS

N

STATE PLANE

GRAPHIC SCALE

60 0 30 60 120 240

(IN FEET)
1 inch = 60 ft.

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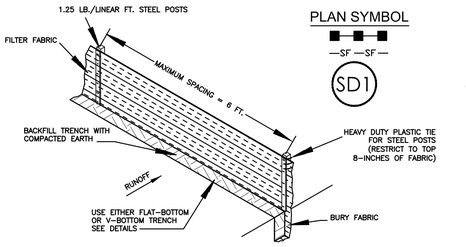
SILT FENCE INSTALLATION

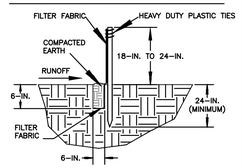


PLAN SYMBOL

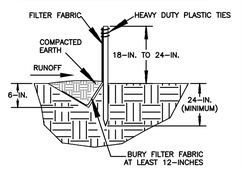
—SF—SF—

SD1

FLAT-BOTTOM TRENCH DETAIL



V-SHAPED TRENCH DETAIL



SILT FENCE – GENERAL NOTES

1. Do not place silt fence across channels or in other areas subject to concentrated flows. Silt fence should not be used as a velocity control BMP. Concentrated flows are any flows greater than 0.5 cfs.
2. Maximum sheet or overland flow path length to the silt fence shall be 100–feet.
3. Maximum slope steepness (normal [perpendicular] to the fence line) shall be 2:1.
4. Silt fence joints, when necessary, shall be completed by one of the following options:
   - Wrap each fabric together at a support post with both ends fastened to the post, with a 1–foot minimum overlap;
   - Overlap silt fence by installing 3–feet passed the support post to which the new silt fence roll is attached. Attach old roll to new roll with heavy–duty plastic ties; or,
   - Overlap entire width of each silt fence roll from one support post to the next support post.
5. Attach filter fabric to the steel posts using heavy–duty plastic ties that are evenly spaced within the top 8–inches of the fabric.
6. Install the silt fence perpendicular to the direction of the stormwater flow and place the silt fence the proper distance from the toe of steep slopes to provide sediment storage and access for maintenance and cleanout.
7. Install Silt Fence Checks (Tie–Backs) every 50–100 feet, dependent on slope, along silt fence that is installed with slope and where concentrated flows are expected or are documented along the proposed/installed silt fence.

South Carolina Department of Health and Environmental Control

SILT FENCE

STANDARD DRAWING NO. SC–03 Page 1 of 2

NOT TO SCALE FEBRUARY 2014 DATE

SILT FENCE – POST REQUIREMENTS

1. Silt Fence posts must be 48–inch long steel posts that meet, at a minimum, the following physical characteristics.
   - Composed of a high strength steel with a minimum yield strength of 50,000 psi.
   - Include a standard "T" section with a nominal face width of 1.38–inches and a nominal "T" length of 1.48–inches.
   - Weigh 1.25 pounds per foot (± 8%)
2. Posts shall be equipped with projections to aid in fastening of filter fabric.
3. Steel posts may need to have a metal soil stabilization plate welded near the bottom when installed along steep slopes or installed in loose soils. The plate should have a minimum cross section of 17–square inches and be composed of 15 gauge steel, at a minimum. The metal soil stabilization plate should be completely buried.
4. Install posts to a minimum of 24–inches. A minimum height of 1– to 2–inches above the fabric shall be maintained, and a maximum height of 3 feet shall be maintained above the ground.
5. Post spacing shall be at a maximum of 6–feet on center.

SILT FENCE – FABRIC REQUIREMENTS

1. Silt fence must be composed of woven geotextile filter fabric that consists of the following requirements:
   - Composed of fibers consisting of long chain synthetic polymers of at least 85% by weight of polyolefins, polyesters, or polyamides that are formed into a network such that the filaments or yarns retain dimensional stability relative to each other;
   - Free of any treatment or coating which might adversely alter its physical properties after installation;
   - Free of any defects or flaws that significantly affect its physical and/or filtering properties; and,
   - Have a minimum width of 36–inches.
2. Use only fabric appearing on SC DOT's Qualified Products Listing (QPL), Approval Sheet #34, meeting the requirements of the most current edition of the SC DOT Standard Specifications for Highway Construction.
3. 12–inches of the fabric should be placed within excavated trench and toed in when the trench is backfilled.
4. Filter Fabric shall be purchased in continuous rolls and cut to the length of the barrier to avoid joints.
5. Filter Fabric shall be installed at a minimum of 24–inches above the ground.

SILT FENCE – INSPECTION & MAINTENANCE

1. The key to functional silt fence is weekly inspections, routine maintenance, and regular sediment removal.
2. Regular inspections of silt fence shall be conducted once every calendar week and, as recommended, within 24–hours after each rainfall even that produces 1/2–inch or more of precipitation.
3. Attention to sediment accumulations along the silt fence is extremely important. Accumulated sediment should be continually monitored and removed when necessary.
4. Remove accumulated sediment when it reaches 1/3 the height of the silt fence.
5. Removed sediment shall be placed in stockpile storage areas or spread thinly across disturbed area. Stabilize the removed sediment after it is relocated.
6. Check for areas where stormwater runoff has eroded a channel beneath the silt fence, or where the fence has sagged or collapsed due to runoff overtopping the silt fence. Install checks/tie–backs and/or reinstall silt fence, as necessary.
7. Check for tears within the silt fence, areas where silt fence has begun to decompose, and for any other circumstance that may render the silt fence ineffective. Removed damaged silt fence and reinstall new silt fence immediately.
8. Silt fence should be removed within 30 days after final stabilization is achieved and once it is removed, the resulting disturbed area shall be permanently stabilized.

South Carolina Department of Health and Environmental Control

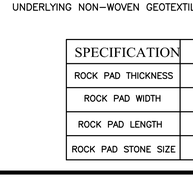
SILT FENCE

STANDARD DRAWING NO. SC–03 PAGE 2 of 2

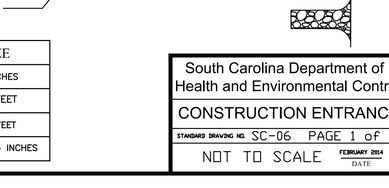
GENERAL NOTES DATE

SEDIMENT AND EROSION CONTROL NOTES

1. If necessary, slopes, which exceed eight (8) vertical feet should be stabilized with synthetic or vegetative mats, in addition to hydroseeding. It may be necessary to install temporary slope drains during construction. Temporary berms may be needed until the slope is brought to grade.
2. Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than fourteen (14) days after work has ceased, except as stated below.
   - Where stabilization by the 14th day is precluded by snow cover or frozen ground conditions stabilization measures must be initiated as soon as practicable.
   - Where construction activity on a portion of the Site is temporarily ceased, and earth–disturbing activities will be resumed within 14 days, temporary stabilization measures do not have to be initiated on that portion of the Site.
3. All sediment and erosion control devices shall be inspected once every calendar week. If periodic inspection or other information indicates that a BMP has been inappropriately or incorrectly installed, the Permittee must address the necessary replacement or modification required to correct the BMP within 48 hours of identification.
4. Provide silt fence and/or other control devices, as may be required, to control soil erosion during utility construction. All disturbed areas shall be cleaned, graded, and stabilized with grassing immediately after the utility installation. Fill, cover, and temporary seeding at the end of each day are recommended. If water is encountered while trenching, the water should be filtered to remove sediment before being pumped back into any waters of the State.
5. All erosion control devices shall be properly maintained during all phases of construction until the completion of all construction activities and all disturbed areas have been stabilized. Additional control devices may be required during construction in order to control erosion and/or offsite sedimentation. All temporary control devices shall be removed once construction is complete and the site is stabilized.
6. The contractor must take necessary action to minimize the tracking of mud onto paved roadway(s) from construction areas and the generation of dust. The contractor shall daily remove mud/soil from pavement, as may be required.
7. Residential subdivisions require erosion control features for infrastructure as well as for individual lot construction. Individual property owners shall follow these plans during construction or obtain approval of an individual plan in accordance with S.C Reg. 72–300 et seq. and SCR100000.
8. Temporary diversion berms and/or ditches will be provided as needed during construction to protect work areas from upslope runoff and/or to divert sediment–laden water to appropriate traps or stable outlets.
9. All waters of the State (WoS), including wetlands, are to be flagged or otherwise clearly marked in the field. A double row of silt fence is to be installed in all areas where a 50–foot buffer can't be maintained between the disturbed area and all WoS. A 10–foot buffer should be maintained between the last row of silt fence and all WoS.
10. Litter, construction debris, oils, fuels, and building products with significant potential for impact (such as stockpiles of freshly treated lumber) and construction chemicals that could be exposed to storm water must be prevented from becoming a pollutant source in storm water discharges.
11. A copy of the OS–SWPPP, inspections records, and rainfall data must be retained at the construction site or a nearby location easily accessible during normal business hours, from the date of commencement of construction activities to the date that final stabilization is reached.
12. Initiate stabilization measures on any exposed steep slope (3H:1V or greater) where land–disturbing activities have permanently or temporarily ceased, and will not resume for a period of 7 calendar days.
13. Minimize soil compaction and, unless infeasible, preserve topsoil.
14. Minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other wash waters. Wash waters must be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge;
15. Minimize the discharge of pollutants from dewatering of trenches and excavated areas. These discharges are to be routed through appropriate BMPs (sediment basin, filter bag, etc.).
16. The following discharges from sites are prohibited:
   - Wastewater from washout of concrete, unless managed by an appropriate control;
   - Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials;
   - Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance; and
   - Soaps or solvents used in vehicle and equipment washing.
17. After construction activities begin, inspections must be conducted at a minimum of at least once every calendar week and must be conducted until final stabilization is reached on all areas of the construction site.
18. If existing BMPs need to be modified or if additional BMPs are necessary to comply with the requirements of this permit and/or SC's Water Quality Standards, implementation must be completed before the next storm event whenever practicable. If implementation before the next storm event is impracticable, the situation must be documented in the OS–SWPPP and alternative BMPs must be implemented as soon as reasonably possible.
19. A Pre–Construction Conference must be held for each construction site with an approved On–Site SWPPP prior to the implementation of construction activities. For non–linear projects that disturb 10 acres or more this conference must be held on–site unless the Department has approved otherwise.



POST INSTALLATION DETAIL



FILTER FABRIC INSTALLATION DETAIL

FILTER FABRIC BURIAL DETAIL

PLAN SYMBOL

A

South Carolina Department of Health and Environmental Control

Type A

FILTER FABIC INLET PROTECTION

STANDARD DRAWING NO. SC–07 PAGE 1 of 2

NOT TO SCALE FEBRUARY 2014 DATE

TYPE A – FILTER FABRIC REQUIREMENTS

1. Silt fence must be composed of woven geotextile filter fabric that consists of the following requirements:
   - Composed of fibers consisting of long chain synthetic polymers of at least 85% by weight of polyolefins, polyesters, or polyamides that are formed into a network such that the filaments or yarns retain dimensional stability relative to each other;
   - Free of any treatment or coating which might adversely alter its physical properties after installation;
   - Free of any defects or flaws that significantly affect its physical and/or filtering properties; and,
   - Have a minimum width of 36–inches.
2. Use only fabric appearing on SC DOT's Qualified Products Listing (QPL), Approval Sheet #34, meeting the requirements of the most current edition of the SC DOT Standard Specifications for Highway Construction.
3. 12–inches of the fabric should be placed within excavated trench and toed in when the trench is backfilled.
4. Filter Fabric shall be purchased in continuous rolls and cut to the length of the barrier to avoid joints.
5. Filter Fabric shall be installed at a minimum of 24–inches above the ground.

TYPE A – POST REQUIREMENTS

1. Silt Fence posts must be 48–inch long steel posts that meet, at a minimum, the following physical characteristics.
   - Composed of a high strength steel with a minimum yield strength of 50,000 psi.
   - Include a standard "T" section with a nominal face width of 1.38–inches and a nominal "T" length of 1.48–inches.
   - Weigh 1.25 pounds per foot (± 8%)
2. Posts shall be equipped with projections to aid in fastening of filter fabric.
3. Install posts to a minimum of 24–inches. A minimum height of 1– to 2– inches above the fabric shall be maintained, and a maximum height of 3 feet shall be maintained above the ground.
4. Post spacing shall be at a maximum of 3–feet on center.

TYPE A – INSPECTION & MAINTENANCE

1. The key to functional inlet protection is weekly inspections, routine maintenance, and regular sediment removal.
2. Regular inspections of inlet protection shall be conducted once every calendar week and, as recommended, within 24–hours after each rainfall even that produces 1/2–inch or more of precipitation.
3. Attention to sediment accumulations along the filter fabric is extremely important. Accumulated sediment should be continually monitored and removed when necessary.
4. Remove accumulated sediment when it reaches 1/3 the height of the filter fabric. When a sump is installed in front of the fabric, sediment should be removed when it fills approximately 1/3 the depth of the sump.
5. Removed sediment shall be placed in stockpile storage areas or spread thinly across disturbed area. Stabilize the removed sediment after it is relocated.
6. Check for areas where stormwater runoff has eroded a channel beneath the filter fabric, or where the fabric has sagged or collapsed due to runoff overtopping the inlet protection.
7. Check for tears within the filter fabric, areas where fabric has begun to decompose, and for any other circumstance that may render the inlet protection ineffective. Removed damaged fabric and reinstall new filter fabric immediately.
8. Inlet protection structures should be removed after all the disturbed areas are permanently stabilized. Remove all construction material and sediment, and dispose of them properly. Grade the disturbed area to the elevation of the drop inlet structure crest. Stabilize all bare areas immediately.

South Carolina Department of Health and Environmental Control

Type A

FILTER FABIC INLET PROTECTION

STANDARD DRAWING NO. SC–07 PAGE 2 of 2

GENERAL NOTES DATE

SEDIMENT TUBE INSTALLATION

ST1

PLAN SYMBOL

SEDIMENT TUBE SPACING

SLOPE	MAX. SEDIMENT TUBE SPACING
LESS THAN 2%	150-FEET
2%	100-FEET
3%	75-FEET
4%	50-FEET
5%	40-FEET
6%	30-FEET
GREATER THAN 6%	25-FEET

South Carolina Department of Health and Environmental Control

SEDIMENT TUBES

STANDARD DRAWING NO. SC–05 PAGE 1 of 2

NOT TO SCALE FEBRUARY 2014 DATE

SPECIFICATION	SIZE
ROCK PAD THICKNESS	6 INCHES
ROCK PAD WIDTH	24 FEET
ROCK PAD LENGTH	100 FEET
ROCK PAD STONE SIZE	D = 2–3 INCHES

PLAN SYMBOL

CO

South Carolina Department of Health and Environmental Control

CONSTRUCTION ENTRANCE

STANDARD DRAWING NO. SC–06 PAGE 1 of 2

NOT TO SCALE FEBRUARY 2014 DATE

CONSTRUCTION ENTRANCE – GENERAL NOTES

1. Stabilized construction entrances should be used at all points where traffic will egress/ingress a construction site onto a public road or any impervious surfaces, such as parking lots.
2. Install a non–woven geotextile fabric prior to placing any stone.
3. Install a culvert pipe across the entrance when needed to provide positive drainage.
4. The entrance shall consist of 2–inch to 3–inch D50 stone placed at a minimum depth of 6–inches.
5. Minimum dimensions of the entrance shall be 24–feet wide by 100–feet long, and may be modified as necessary to accommodate site constraints.
6. The edges of the entrance shall be tapered out towards the road to prevent tracking at the edge of the entrance.
7. Divert all surface runoff and drainage from the stone pad to a sediment trap or basin or other sediment trapping structure.
8. Limestone may not be used for the stone pad.

CONSTR. ENTRANCE – INSPECTION & MAINTENANCE

1. The key to functional construction entrances is weekly inspections, routine maintenance, and regular sediment removal.
2. Regular inspections of construction entrances shall be conducted once every calendar week and, as recommended, within 24–hours after each rainfall even that produces 1/2–inch or more of precipitation.
3. During regular inspections, check for mud and sediment buildup and pad integrity. Inspection frequencies may need to be more frequent during long periods of wet weather.
4. Reshape the stone pad as necessary for drainage and runoff control.
5. Wash or replace stones as needed and as directed by site inspector. The stone in the entrance should be washed or replaced whenever the entrance fails to reduce the amount of mud being carried off–site by vehicles. Frequent washing will extend the useful life of stone pad.
6. Immediately remove mud and sediment tracked or washed onto adjacent impervious surfaces by brushing or sweeping. Flushing should only be used when the water can be discharged to a sediment trap or basin.
7. During maintenance activities, any broken pavement should be repaired immediately.
8. Construction entrances should be removed after the site has reached final stabilization. Permanent vegetation should replace areas from which construction entrances have been removed, unless area will be converted to an impervious surface to serve post–construction.

South Carolina Department of Health and Environmental Control

CONSTRUCTION ENTRANCE

STANDARD DRAWING NO. SC–06 PAGE 2 of 2

GENERAL NOTES DATE

SEDIMENT TUBES – GENERAL NOTES

1. Sediment tubes may be installed along contours, in drainage conveyance channels, and around inlets to help prevent off–site discharge of sediment–laden stormwater runoff.
2. Sediment tubes are elongated tubes of compacted geotextiles, curled excelsior wood, natural coconut fiber, or hardwood mulch. Straw, pine needle, and leaf mulch–filled sediment tubes are not permitted.
3. The outer netting of the sediment tube should consist of seamless, high–density polyethylene photodegradable materials treated with ultraviolet stabilizers or a seamless, high–density polyethylene non–degradable material.
4. Sediment tubes, when used as checks within channels, should range between 18–inches and 24–inches depending on channel dimensions. Diameters outside this range may be allowed where necessary when approved.
5. Curled excelsior wood, or natural coconut products that are rolled up to create a sediment tube are not allowed.
6. Sediment tubes should be staked using wooden stakes (2–inch X 2–inch) or steel posts (standard "U" or "T" sections with a minimum weight of 1.25 pounds per foot) at a minimum of 48–inches in length placed on 2–foot centers.
7. Install all sediment tubes to ensure that no gaps exist between the soil and the bottom of the tube. Manufacturer's recommendations should always be consulted before installation.
8. The ends of adjacent sediment tubes should be overlapped 6–inches to prevent flow and sediment from passing through the field joint.
9. Sediment tubes should not be stacked on top of one another, unless recommended by manufacturer.
10. Each sediment tube should be installed in a trench with a depth equal to 1/5 the diameter of the sediment tube.
11. Sediment tubes should continue up the side slopes a minimum of 1–foot above the design flow depth of the channel.
12. Install stakes at a diagonal facing incoming runoff.

SEDIMENT TUBES – INSPECTION & MAINTENANCE

1. The key to functional sediment tubes is weekly inspections, routine maintenance, and regular sediment removal.
2. Regular inspections of sediment tubes shall be conducted once every calendar week and, as recommended, within 24–hours after each rainfall even that produces 1/2–inch or more of precipitation.
3. Attention to sediment accumulations in front of the sediment tube is extremely important. Accumulated sediment should be continually monitored and removed when necessary.
4. Remove accumulated sediment when it reaches 1/3 the height of the sediment tube.
5. Removed sediment shall be placed in stockpile storage areas or spread thinly across disturbed area. Stabilize the removed sediment after it is relocated.
6. Large debris, trash, and leaves should be removed from in front of tubes when found.
7. If erosion causes the edges to fall to a height equal to or below the height of the sediment tube, repairs should be made immediately to prevent runoff from bypassing tube.
8. Sediment tubes should be removed after the contributing drainage area has been completely stabilized. Permanent vegetation should replace areas from which sediment tubes have been removed.

South Carolina Department of Health and Environmental Control

SEDIMENT TUBES

STANDARD DRAWING NO. SC–05 PAGE 2 of 2

GENERAL NOTES DATE

PRELIMINARY / NOT FOR CONSTRUCTION

PLAN REVISIONS

NO.	DESCRIPTION:	DATE:	BY:
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SOUTH CAROLINA PROFESSIONAL ENGINEER STEVEN WADE ANDREWS NO. 12860 06/26/2024

SOUTH CAROLINA ANDREWS ENGINEERING CO. No. C00008 CERTIFICATE OF AUTHORIZATION

Andrews Engineering & Surveying
2712 Bull Street Suite A
Beaufort, SC 29902
843.379.2222
Fax 843.379.2223

Site Development Plan
For
Bluffton Comm. Hospital
Buckwalter & Bluffton Pkwy
Town of Bluffton
Beaufort County, SC

Sediment and Erosion Control Details Sheet 1

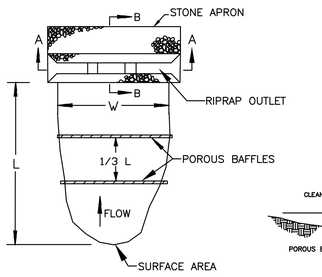
Date Drawn:	05/31/18
Last Revised:	06/26/24
Drawn By:	L. Wilen
Engineer:	S. Andrews

SHEET #: 4

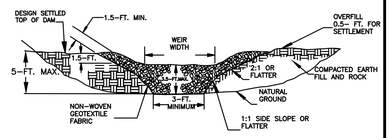
JOB: 180021

F:\Projects\2018\2018 Projects\180021 BMH Bluffton Parkway\DWG\180021_SEC details.dwg

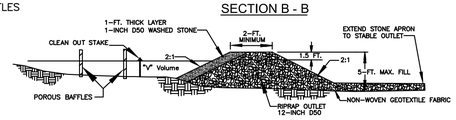
SEDIMENT TRAP PLAN VIEW



SECTION A - A



SECTION B - B



PLAN SYMBOL

SECTION A - A DIMENSIONS

Trap #	Riprap Outlet Height	Riprap Bottom Width	Riprap Top Width	Side Slopes	Embankment Height
1-3	1'	3'	4'	4:1	2'

SECTION B - B DIMENSIONS

Trap #	Riprap Bottom Length	Riprap Top Length	Side Slopes	Stone Apron Length	"V" Volume
1-3	10'	2'	2:1	5'	15,115 ft³

South Carolina Department of Health and Environmental Control

SEDIMENT TRAP

STANDARD DRAWING NO. SC-02 Page 1 of 2

NOT TO SCALE FEBRUARY 2014 DATE

SEDIMENT TRAP - GENERAL NOTES

1. Sediment traps should not be placed in Waters of the State or USGS blue-line streams (unless approved by Federal Authorities).
2. The rock outlet structure shall consist of 12-inch D50 riprap. The upstream face of this outlet shall consist of a 1-foot thick layer of 1-inch D50 washed stone. The maximum steepness of the rock outlet structure shall be 2:1.
3. Both the rock outlet and the stone apron shall have an underlying layer of non-woven geotextile filter fabric.
4. All internal side slopes of the sediment trap should be 3:1 or flatter.
5. A sediment cleanout stake should be installed and marked to remove sediment at 50% of the sediment storage volume.
6. At least two (2) porous baffles shall be installed within the sediment trap. There should be at least 10 linear feet between each baffle and between any row of baffles and any of the sediment trap's inlets/outlets.
7. After construction of each sediment trap, the area disturbed to construct the trap should be promptly stabilized, including all side slopes.
8. The following sediment trap requirements shall be maintained:
   - Maximum embankment height shall be 5-feet.
   - Maximum riprap outlet height shall be 3.5-feet.
   - Minimum width at bottom of riprap outlet shall be 3-feet.
   - Minimum flow length at top of riprap outlet shall be 2-feet.

SEDIMENT TRAP - INSPECTION AND MAINTENANCE

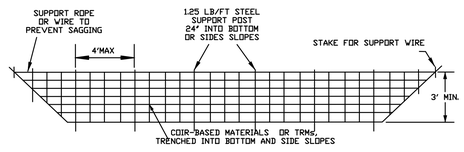
1. The key to a functional sediment trap is weekly inspections, routine maintenance and regular sediment removal.
2. Attention to sediment accumulations within the trap is extremely important. Accumulated sediment deposition should be continually monitored in the trap and removed when necessary.
3. Remove accumulated sediment when it reaches 50% of the designed sediment storage volume as marked by the cleanout stake.
4. Removed sediment from the trap shall be placed in stockpile storage areas or spread thinly across the disturbed area. Stabilize the removed sediment after it is relocated.
5. Regular inspections of sediment traps should be conducted once every calendar week and, as recommended, within 24-hours after each rainfall event that produces ½-inch or more of precipitation.
6. Disturbed areas resulting from the removal of the sediment trap should be permanently stabilized and additional BMPs, such as silt fence, should be utilized to handle stormwater runoff from this disturbed area until final stabilization is reached.

South Carolina Department of Health and Environmental Control

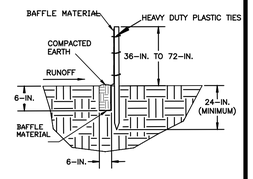
SEDIMENT TRAP

STANDARD DRAWING NO. SC-02 Page 2 of 2

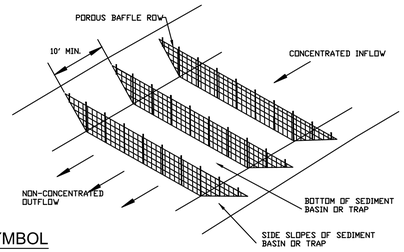
GENERAL NOTES FEBRUARY 2014 DATE



CROSS SECTION VIEW



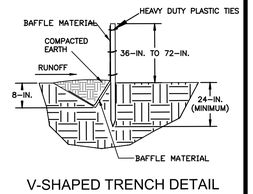
FLAT-BOTTOM TRENCH DETAIL



PERSPECTIVE VIEW

PLAN SYMBOL

—PB —PB—



V-SHAPED TRENCH DETAIL

South Carolina Department of Health and Environmental Control

POROUS BAFFLES

STANDARD DRAWING NO. SC-13 PAGE 1 of 2

NOT TO SCALE FEBRUARY 2014 DATE

BAFFLES - POST REQUIREMENTS

1. Porous baffle posts must be 60-inch to 96-inch long steel posts that meet, at a minimum, the following physical characteristics.
   - Composed of a high strength steel with a minimum yield strength of 50,000 psi.
   - Include a standard "T" section with a nominal face width of 1.38-inches and a nominal "T" length of 1.48-inches.
   - Weigh 1.25 pounds per foot (± 8%)
2. Posts shall be equipped with projections to aid in fastening of baffle material.
3. Install posts to a minimum of 24-inches. A minimum height of 1- to 2-inches above the fabric shall be maintained, and a maximum height of 3 feet shall be maintained above the ground.
4. Post spacing shall be at a maximum of 4-feet on center.

BAFFLES - MATERIAL REQUIREMENTS

1. Baffle material must be composed of coir-based materials or Turf Reinforcement Matting (TRM) that consists of the following requirements:
   - Have a light penetration (% openings) between 10-35%;
   - Free of loose straw material;
   - Have a minimum tensile strength of 145 lb/ft; and,
   - Have a minimum width of 48-inches.
2. 12-inches of the fabric should be placed within excavated trench and toed in when the trench is backfilled or baffle material may be stapled into ground by using 12-inch staples with a maximum spacing of 12-inches.
3. Baffle material shall be purchased in continuous rolls and cut to the width of the sediment basin or trap to avoid joints.

BAFFLES - GENERAL NOTES

1. Attach baffle to the steel posts using heavy-duty plastic ties that are evenly spaced along the above ground portion of each post.
2. Install the baffle rows perpendicular to the direction of the stormwater flow and place each baffle the proper distance from inlet and outlets to allow access for maintenance and clean-out.

BAFFLES - INSPECTION & MAINTENANCE

1. The key to functional porous baffles is weekly inspection, routine maintenance, and regular sediment removal.
2. Regular inspections of porous baffles shall be conducted once every calendar week and, as recommended, within 24-hours after each rainfall even that produces 1/2-inch or more of precipitation.
3. Attention to sediment accumulations along each row of baffles is extremely important. Accumulated sediment should be continually monitored and removed when necessary.
4. Remove accumulated sediment when it reaches 1/3 the height of the baffle row or when it reaches the clean-out height of the sediment basin or trap, whichever is reached first.
5. Removed sediment shall be placed in stockpile storage areas or spread thinly across disturbed area. Stabilize the removed sediment after it is relocated.
6. Check for areas where stormwater runoff has eroded a channel beneath each row of baffles, or where the baffle has sagged or collapsed due to runoff overtopping the baffle.
7. Check for tears/rips within the baffles, areas where the baffle has begun to decompose, and for any other circumstance that may render the baffle ineffective. Removed damaged baffles and reinstall new baffles immediately.
8. Porous baffles should be removed within 30 days after final stabilization is achieved and once it is removed, the resulting disturbed area shall be permanently stabilized.

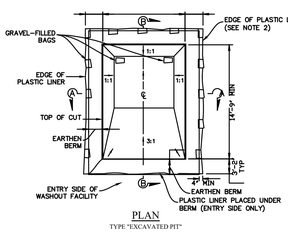
South Carolina Department of Health and Environmental Control

POROUS BAFFLES

STANDARD DRAWING NO. SC-13 PAGE 2 of 2

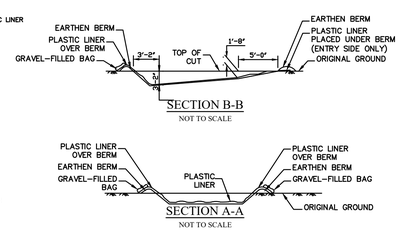
GENERAL NOTES FEBRUARY 2014 DATE

EXCAVATED PIT CONCRETE WASHOUT



PLAN

TYPE "EXCAVATED PIT"



SECTION B-B

NOT TO SCALE

SECTION A-A

NOT TO SCALE

LETTERS A MINIMUM OF 5" IN HEIGHT

CONCRETE WASHOUT

CONCRETE WASHOUT SIGN DETAIL

NOTES:

1. ACTUAL LAYOUT DETERMINED IN FIELD.
2. INSTALL CONCRETE WASHOUT SIGN (24"X24", MINIMUM) WITHIN 30' OF THE TEMPORARY CONCRETE WASHOUT FACILITY.
3. TEMPORARY WASHOUT AREA MUST BE AT LEAST 50' FROM A STORM DRAIN, CREEK BANK OR PERIMETER CONTROL.
4. CLEAN OUT CONCRETE WASHOUT AREA WHEN 50% FULL.
5. THE KEY TO FUNCTIONAL CONCRETE WASHOUTS IS WEEKLY INSPECTIONS, ROUTINE MAINTENANCE, AND REGULAR CLEAN OUT.
6. SILT FENCE SHALL BE INSTALLED AROUND PERIMETER OF CONCRETE WASHOUT AREA EXCEPT FOR THE SIDE UTILIZED FOR ACCESSING THE WASHOUT.
7. A ROCK CONSTRUCTION ENTRANCE MAY BE NECESSARY ALONG ONE SIDE OF THE WASHOUT TO PROVIDE VEHICLE ACCESS.

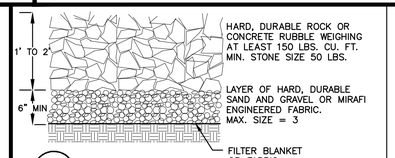
South Carolina Department of Health and Environmental Control

CONCRETE WASHOUT

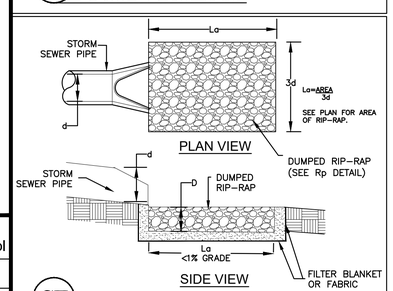
EXCAVATED PIT

STANDARD DRAWING NO. RC-08 PAGE 1 of 1

NOT TO SCALE FEBRUARY 2014 DATE



RP **DUMPED RIP-RAP**



SIDE VIEW

ST **RIP-RAP OUTLET PROTECTION**

NOTES:

1. SEE SHEET 3.1 OF PLAN SET FOR ALIGNMENT AND CONFIGURATION OF TEMPORARY SEDIMENT BASINS.
2. SEE SHEET 25 OF PLAN SET FOR DETAILS OF TEMPORARY SEDIMENT BASINS OUTLET CONTROL STRUCTURES.

PRELIMINARY / NOT FOR CONSTRUCTION

PLAN REVISIONS

NO.	DESCRIPTION:	DATE:	BY:
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8	-	-	-

SOUTH CAROLINA PROFESSIONAL ENGINEER STEVEN WADE SNYDER NO. 12860 06/26/2024

SOUTH CAROLINA ANDREWS ENGINEERING CO. No. C00008 CERTIFICATE OF AUTHORIZATION

Andrews Engineering
& Surveying
2712 Bull Street Suite A
Beaufort, SC 29902
843.379.2222
Fax 843.379.2223

Site Development Plan
For
Bluffton Comm. Hospital
Buckwalter & Bluffton Pkwy
Town of Bluffton
Beaufort County, SC

Sediment and Erosion Control Details Sheet 2

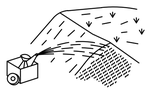
Date Drawn: 05/31/18
Last Revised: 06/26/24
Drawn By: L. Wilen
Engineer: S. Andrews

SHEET #: 5

JOB: 180021

F:\Projects\2018\2018 Projects\180021 BMH Bluffton Parkway\DWG\180021_SEC details.dwg

TS TEMPORARY SEEDING



ESTABLISHING TEMPORARY VEGETATIVE COVER WITH FAST GROWING SEEDINGS ON DISTURBED AREAS.

PS PERMANENT SEEDING

ESTABLISHING PERMANENT VEGETATIVE COVER SUCH AS: TREES,SHRUBS,VINES, GRASSES,SOD,OR LEGUMES ON DISTURBED AREAS.

VEGETATATIVE SEEDING NOTES

–TEMPORARY STABILIZATION IS REQUIRED WITHIN 14 DAYS AFTER CONSTRUCTION ACTIVITY IS COMPLETE UNLESS CONSTRUCTION ACTIVITY IS GOING TO RESUME WITHIN 21 DAYS.

–COVER SEEDED AREAS WITH AN APPROPRIATE MULCH TO PROVIDE PROTECTION FROM THE WEATHER.

–WHEN THE TEMPORARY VEGETATION DOES NOT GROW QUICKLY OR THICK ENOUGH TO PREVENT EROSION, RE–SEED AS SOON AS POSSIBLE.

–KEEP SEEDED AREAS ADEQUATELY MOIST. IRRIGATE THE SEEDED AREA IF NORMAL RAINFALL IS NOT ADEQUATE FOR THE GERMINATION AND GROWTH OF SEEDLINGS.

–WATER SEEDED AREAS AT CONTROLLED RATES THAT ARE LESS THAN THE RATE AT WHICH THE SOIL CAN ABSORB WATER TO PREVENT RUNOFF.

–SEED SELECTION IS BASED ON GEOGRAPHICAL LOCATION, SOIL TYPE AND THE SEASON OF THE YEAR IN WHICH THE PLANTING IS TO BE DONE.

Temporary Seeding – Coastal

Species	Lbs/Ac	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Sandy, Droughty Sites													
Browntop Millet	40 lbs./ac.												
Rye, Grain	56 lbs./ac.												
Ryegrass	50 lbs./ac.												
Well drained, clayey/loamey Sites													
Browntop Millet or Japanese Millet	40 lbs./ac.												
Rye, Grain or Oats	56 lbs./ac. 75 lbs./ac.												
Ryegrass	50 lbs./ac.												

Permanent Seeding - Coastal

Species	Lbs/Ac	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Sandy, Droughty Sites													
Browntop Millet Bahiagrass	10 lbs./ac. 40 lbs./ac.												
Browntop Millet Bahiagrass Sericea Lespedeza	10 lbs./ac. 30 lbs./ac. 40 lbs/ac.												
Browntop Millet Atlantic Coastal Panicgrass	10 lbs./ac. 15 lbs./ac. PLS												
Browntop Millet Switchgrass (Alamo) Little Bluestem Sericea Lespedeza	10 lbs./ac. 8 lbs./ac. PLS 4 lbs./ac. 20 lbs./ac.												
Browntop Millet Weeping Lovegrass	10 lbs./ac. 8 lbs./ac.												
Well drained, clayey/loamey Sites													
Browntop Millet Bahiagrass	10 lbs./ac. 40 lbs./ac.												
Rye, Grain Bahiagrass Clover, Crimson (Annual)	10 lbs./ac. 40 lbs./ac. 5 lbs./ac.												
Browntop Millet Bahiagrass Sericea lespedeza	10 lbs./ac. 30 lbs./ac. 40 lbs./ac.												
Browntop Millet Bermuda, Common Sericea lespedeza	10 lbs./ac. 10 lbs./ac. 40 lbs./ac.												
Browntop Millet Bermuda, Common Kobe Lespedeza (Annual)	10 lbs./ac. 12 lbs./ac. 10 lbs./ac.												
Browntop Millet Bahiagrass Bermuda, Common Sericea lespedeza	10 lbs./ac. 20 lbs./ac. 6 lbs./ac. 40 lbs./ac.												
Browntop Millet Switchgrass Little Bluestem Indiangrass	10 lbs./ac. 8 lbs./ac. PLS 3 lbs./ac. PLS 3 lbs./ac. PLS												

PRELIMINARY / NOT FOR CONSTRUCTION

PLAN REVISIONS

NO.	DESCRIPTION:	DATE:	BY:
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8	–	–	–

SOUTH CAROLINA PROFESSIONAL ENGINEER STEVEN WADE ANDREWS NO. 12860 06/26/2024

SOUTH CAROLINA ANDREWS ENGINEERING CO. No. C00008 CERTIFICATE OF AUTHORIZATION

Andrews Engineering & Surveying
2712 Bull Street Suite A
Beaufort, SC 29902
843.379.2222
Fax 843.379.2223

Site Development Plan
For
Bluffton Comm. Hospital
Buckwalter & Bluffton Pkwy
Town of Bluffton
Beaufort County, SC

Sediment and Erosion Control Details Sheet 3

Date Drawn:	05/31/18
Last Revised:	06/26/24
Drawn By:	L. Wilen
Engineer:	S. Andrews

SHEET #: 6

JOB: 180021

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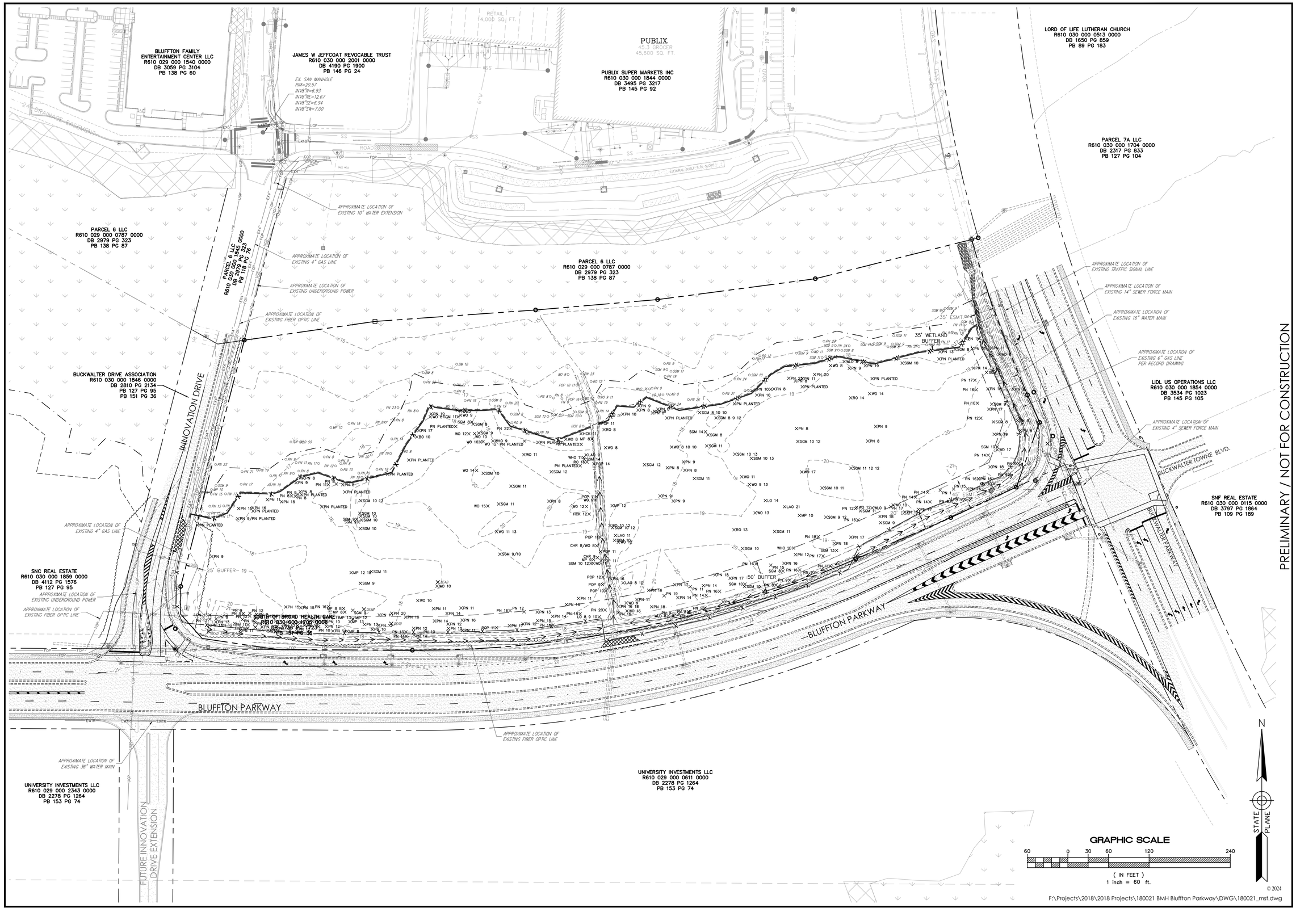
ATTACHMENT 4



PRELIMINARY / NOT FOR CONSTRUCTION

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8	-	-	-

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER STEVEN WADE SMISLOW No. 31315 08/26/2024

SOUTH CAROLINA CERTIFICATE OF NO. C005536 DAVIS & FLOYD, INC.

DAVIS & FLOYD
PLAN | DESIGN | ENGINEER
DAVISFLOYD.COM
2712 BULL STREET SUITE A
BEAUFORT, SC 29902
(843) 379-2222

Site Development Plan
For
Bluffton Comm. Hospital
Buckwalter & Bluffton Pkwy
Town of Bluffton
Beaufort County, SC

Tree Protection
and
Removal Plan

Date Drawn:	05/31/18
Last Revised:	06/26/24
Drawn By:	L. Wilen
Engineer:	S. Andrews

SHEET #: 7

JOB: 180021

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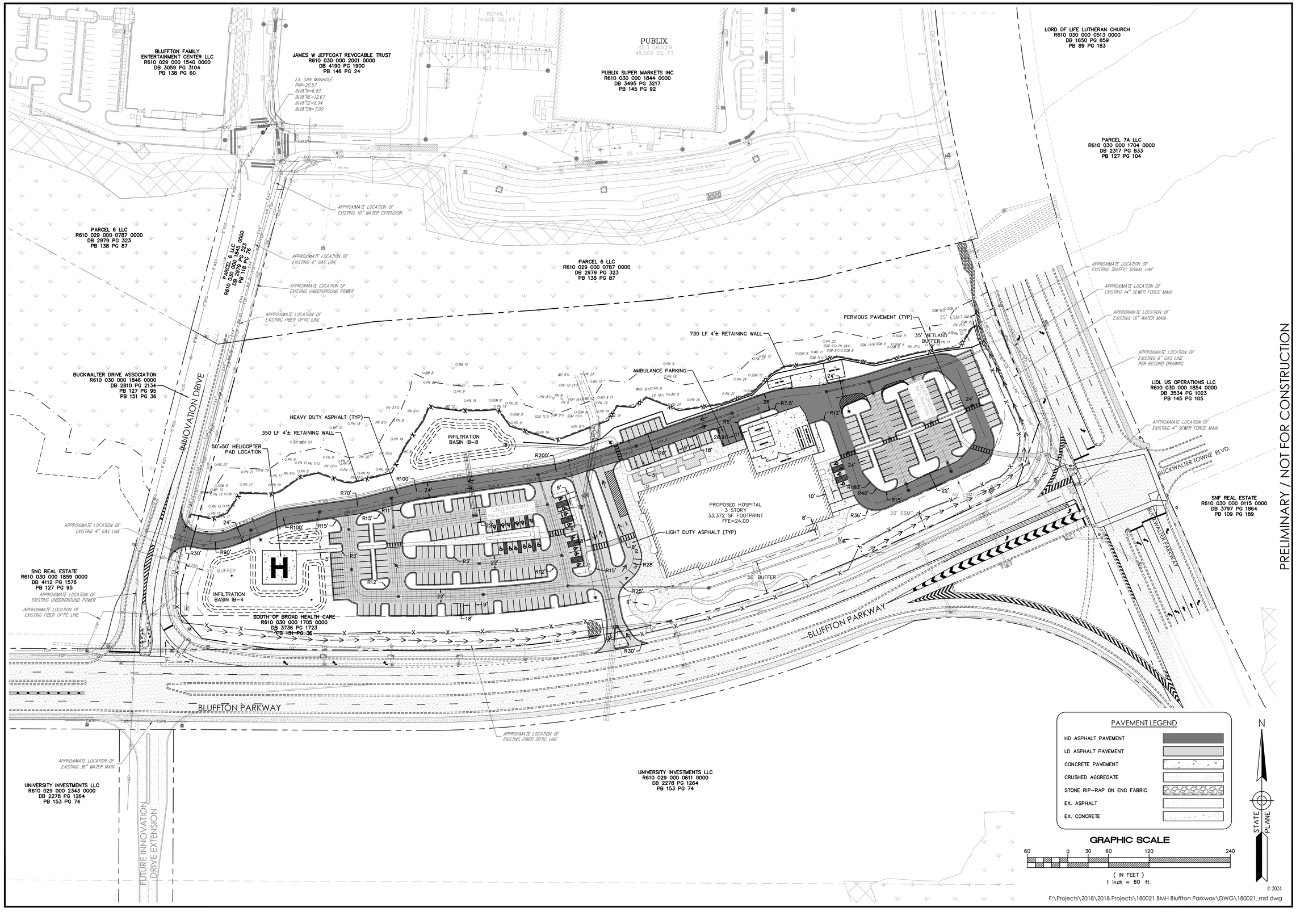
ATTACHMENT 4



PRELIMINARY / NOT FOR CONSTRUCTION

PLAN REVISIONS

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7	-	-	-
8	-	-	-

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER STEVEN WADE SMISLOW No. 31315 06/26/2024

SOUTH CAROLINA DAVIS & FLOYD, INC. NO. C00536 CERTIFICATE OF AUTHORIZATION

DAVIS & FLOYD
PLAN | DESIGN | ENGINEER
DAVISFLOYD.COM
2712 BULL STREET SUITE A
BEAUFORT, SC 29902
(843) 379-2222

Site Development Plan
For
Bluffton Comm. Hospital
Buckwalter & Bluffton Pkwy
Town of Bluffton
Beaufort County, SC

Horizontal
Control Plan

Date Drawn:	05/31/18
Last Revised:	06/26/24
Drawn By:	L. Wilen
Engineer:	S. Andrews

SHEET #: 8

JOB: 180021

ATTACHMENT 4

BLUFFTON FAMILY ENTERTAINMENT CENTER LLC
R610 029 000 1540 0000
DB 3059 PG 3104
PB 138 PG 60

JAMES W JEFFCOAT REVOCABLE TRUST
R610 030 000 2001 0000
DB 4190 PG 1900
PB 146 PG 24

RETAIL
14,000 SQ. FT.

PUBLIX.
45.3 GROCER
45,600 SQ. FT.

PUBLIX SUPER MARKETS INC
R610 030 000 1844 0000
DB 3495 PG 3217
PB 145 PG 92

LORD OF LIFE LUTHERAN CHURCH
R610 030 000 0513 0000
DB 1650 PG 859
PB 89 PG 183

PARCEL 7A LLC
R610 030 000 1704 0000
DB 2317 PG 833
PB 127 PG 104

PARCEL 6 LLC
R610 029 000 0787 0000
DB 2979 PG 323
PB 138 PG 87

PARCEL 6 LLC
R610 029 000 1845 0000
DB 2979 PG 323
PB 118 PG 76

BUCKWALTER DRIVE ASSOCIATION
R610 030 000 1846 0000
DB 2810 PG 2134
PB 127 PG 95
PB 151 PG 36

SNC REAL ESTATE
R610 030 000 1859 0000
DB 4112 PG 1576
PB 127 PG 95

SOUTH OF BROAD HEALTH CARE
R610 030 000 1705 0000
DB 3736 PG 1723
PB 151 PG 36

LIDL US OPERATIONS LLC
R610 030 000 1854 0000
DB 3534 PG 1023
PB 145 PG 105

SNF REAL ESTATE
R610 030 000 0115 0000
DB 3797 PG 1864
PB 109 PG 189

UNIVERSITY INVESTMENTS LLC
R610 029 000 2343 0000
DB 2278 PG 1264
PB 153 PG 74

UNIVERSITY INVESTMENTS LLC
R610 029 000 0611 0000
DB 2278 PG 1264
PB 153 PG 74

CORE DRILL AND BOOT EXISTING MANHOLE 8" SAN INV=7.03

EX. SAN MANHOLE RIM=20.57 INV8"N=6.93 INV8"NE=12.67 INV8"SE=6.94 INV8"SW=7.00

EX SSMH#A1 STA:0+00.00 RIM=20.57 INVus=7.03

67 LF 8" PVC (SDR26) SLOPE @ 0.38%

SSMH#A2 STA: 0+66.98 RIM=19.91 INVus=7.39 INVds=7.29

APPROXIMATE LOCATION OF EXISTING 10" WATER EXTENSION

REMOVE 10" PLUG AND EXTEND 524 LF 10" PVC WATERLINE

APPROXIMATE LOCATION OF EXISTING 4" GAS LINE

APPROXIMATE LOCATION OF EXISTING UNDERGROUND POWER

APPROXIMATE LOCATION OF EXISTING FIBER OPTIC LINE

285 LF 8" PVC (SDR26) SLOPE @ 0.42%

524 LF 10" PVC WATERLINE

SSMH#A3 STA: 3+51.98 RIM=18.75 INVus=8.69 INVds=8.59

264 LF 8" PVC (SDR26) SLOPE @ 0.40%

1-10"x8" MJ TEE
1-10" CAP
1-8" GATE VALVE W/BOX
6 LF 10" PVC WATERLINE

SSMH#A4 STA: 6+15.68 RIM=20.54 INVus=9.84 INVds=9.74

88 LF 8" PVC (SDR26) SLOPE @ 0.40%

603 LF 8" PVC WATERLINE

34 LF 6" DIP WATERLINE
1-8"x6" MJ TEE
1-8"x6" MJ TEE
1-6" GATE VALVE W/BOX
1-STANDARD FIRE HYDRANT

INFILTRATION BASIN IB-8
INV=18.00
WEIR=18.00
TOB=20.00

INFILTRATION BASIN OBSERVATION WELL (TYP)

INFILTRATION BASIN IB-8

INFILTRATION BASIN IB-4

INFILTRATION BASIN INV WEIR=18.67 TOB=20.67

372 LF 8" PVC WATERLINE

78 LF 6" DIP WATERLINE
1-8"x6" MJ TEE
1-6" GATE VALVE W/BOX
1-FIRE DEPARTMENT CONNECTION

REINFORCED STM CROSSING
27 LF 8" DIP WATERLINE
1-8"x6" MJ TEE
1-8"x2" REDUCER
1-6" GATE VALVE W/BOX

SSMH#A7 STA:12+48.91 RIM=22.75 INVus=12.67 INVds=12.57

SSMH#A6 STA: 9+76.37 RIM=22.36 INVus=11.48 INVds=11.38

273 LF 8" PVC (SDR26) SLOPE @ 0.40%

273 LF 8" PVC (SDR26) SLOPE @ 0.40%

208 LF 6" DIP WATERLINE

48 LF 6" DIP WATERLINE
1-8"x6" 90° MJ BEND
1-6" GATE VALVE W/BOX
1-STANDARD FIRE HYDRANT

SSMH#A8 STA:15+48.91 RIM=22.69 INVds=13.67

740 SC-160LP STORMTECH CHAMBERS INV=19.00 WEIR=19.25 TOP=21.00

943 SC-310 STORMTECH CHAMBERS INV=18.00 WEIR=18.25 TOP=20.33

300 LF 8" PVC (SDR26) SLOPE @ 0.40%

12 LF 6" PVC (SDR26) LATERAL SLOPE @ 1.00% MIN

PROPOSED HOSPITAL
3 STORY
33,372 SF FOOTPRINT
FFE=24.00

35' ESMT.

35' WETLAND BUFFER

50' BUFFER

APPROXIMATE LOCATION OF EXISTING TRAFFIC SIGNAL LINE

APPROXIMATE LOCATION OF EXISTING 14" SEWER FORCE MAIN

APPROXIMATE LOCATION OF EXISTING 16" WATER MAIN

APPROXIMATE LOCATION OF EXISTING 6" GAS LINE PER RECORD DRAWING

APPROXIMATE LOCATION OF EXISTING 4" SEWER FORCE MAIN

APPROXIMATE LOCATION OF EXISTING 36" WATER MAIN

INNOVATION DRIVE

BUCKWALTER TOWNE BLVD.

BUCKWALTER PARKWAY

BLUFFTON PARKWAY

FUTURE INNOVATION DRIVE EXTENSION

24' DRAINAGE EASEMENT

ROAD A

ROAD B

ROAD C

ROAD D

ROAD E

ROAD F

ROAD G

ROAD H

GRAPHIC SCALE
60 0 30 60 120 240
(IN FEET)
1 inch = 60 ft.

N
STATE PLANE

© 2024

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PRELIMINARY / NOT FOR CONSTRUCTION

PLAN REVISIONS

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7	-	-	-
8	-	-	-

SOUTH CAROLINA PROFESSIONAL ENGINEER STEVEN WADE SMISLOW REG. 31284 06/28/2024 CERTIFICATE OF AUTHORIZATION SOUTH CAROLINA DAVIS & FLOYD, INC. NO. C00536

DAVIS & FLOYD
PLAN | DESIGN | ENGINEER
DAVISFLOYD.COM
2712 BULL STREET SUITE A
BEAUFORT, SC 29902
(843) 379-2222

Site Development Plan
For
Bluffton Comm. Hospital
Buckwalter & Bluffton Pkwy
Town of Bluffton
Beaufort County, SC

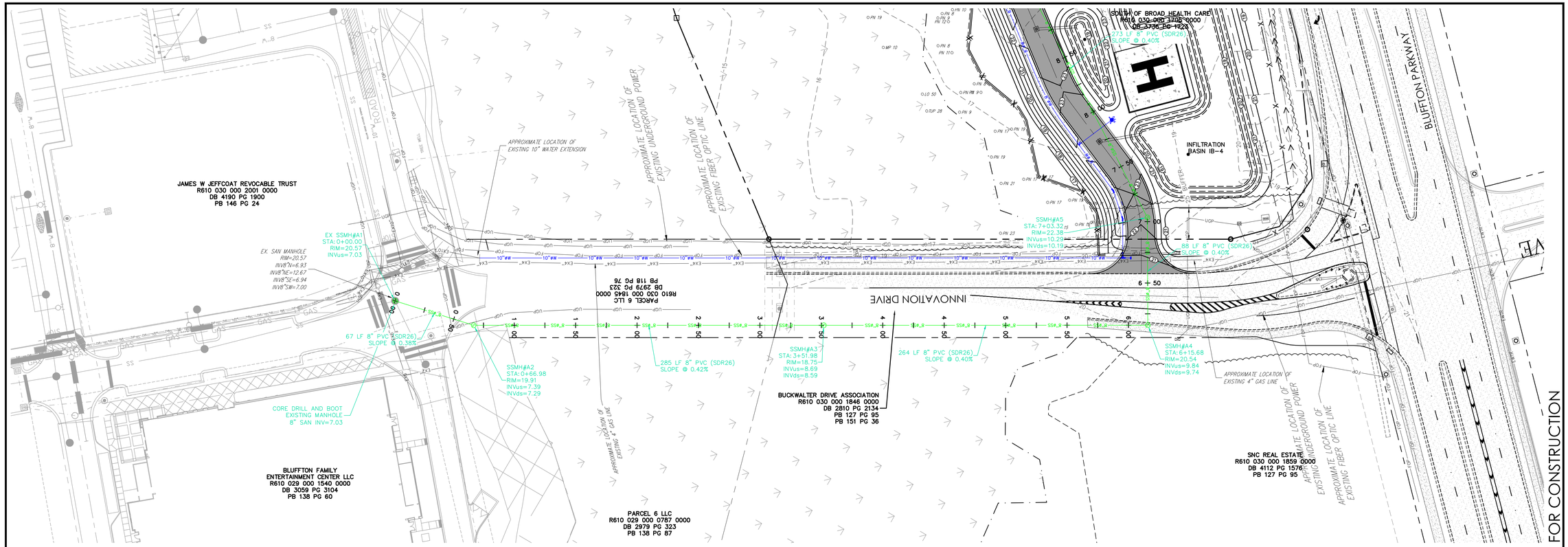
Sanitary Sewer
and
Waterline Plan

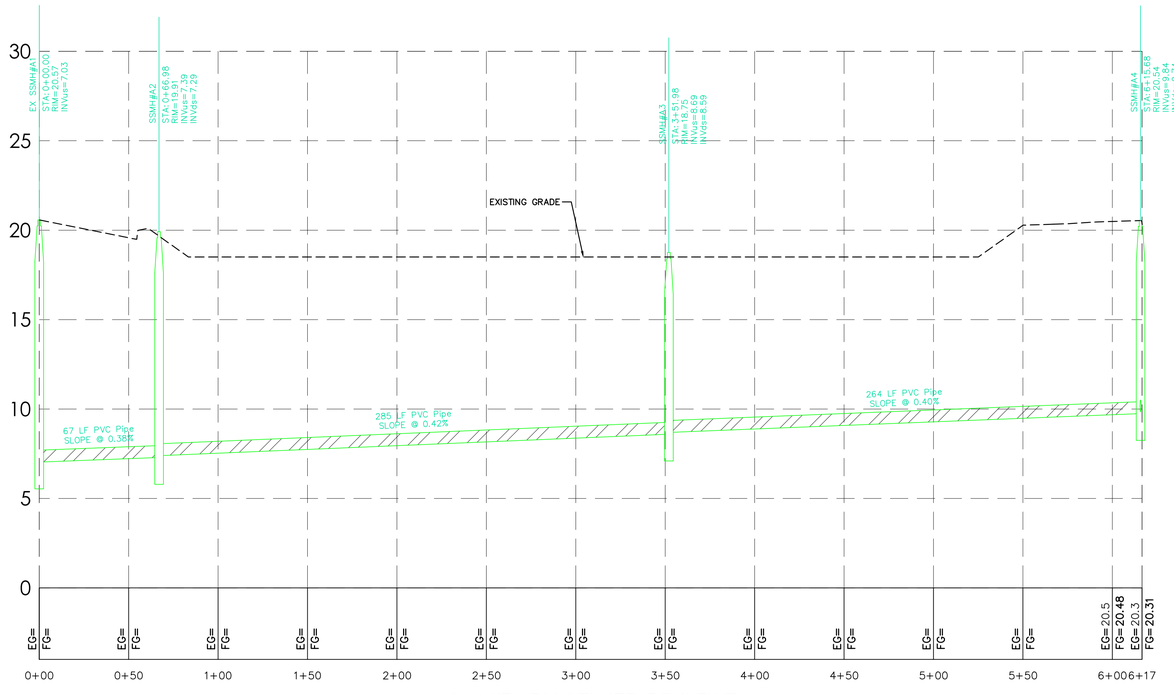
Date Drawn:	05/31/18
Last Revised:	09/19/18
Drawn By:	L. Wilen
Engineer:	S. Andrews

SHEET #: 9

JOB: 180021

ATTACHMENT 4





SANITARY SEWER PROFILE

SCALE: VERT 1"=4' HORZ 1"=40'

PRELIMINARY / NOT FOR CONSTRUCTION

PLAN REVISIONS			
NO.	DESCRIPTION:	DATE:	BY:
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3	-	-	-
4	-	-	-
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7	-	-	-
8	-	-	-

SOUTH CAROLINA PROFESSIONAL ENGINEER STEVEN WADE 31284 06/26/2024

SOUTH CAROLINA CERTIFICATE OF AUTHORIZATION DAVIS & FLOYD, INC. NO. C005536

DAVIS & FLOYD
PLAN | DESIGN | ENGINEER
DAVISFLOYD.COM
2712 BULL STREET SUITE A
BEAUFORT, SC 29902
(843) 379-2222

Site Development Plan
For
Bluffton Comm. Hospital
Buckwalter & Bluffton Pkwy
Town of Bluffton
Beaufort County, SC

Sanitary Sewer
Plan/Profile

Date Drawn:	05/31/18
Last Revised:	06/26/24
Drawn By:	L. Wilen
Engineer:	S. Andrews

SHEET #:
9.1

JOB: 180021

GRAPHIC SCALE
40 0 20 40 80 160
(IN FEET)
1 inch = 40 ft.

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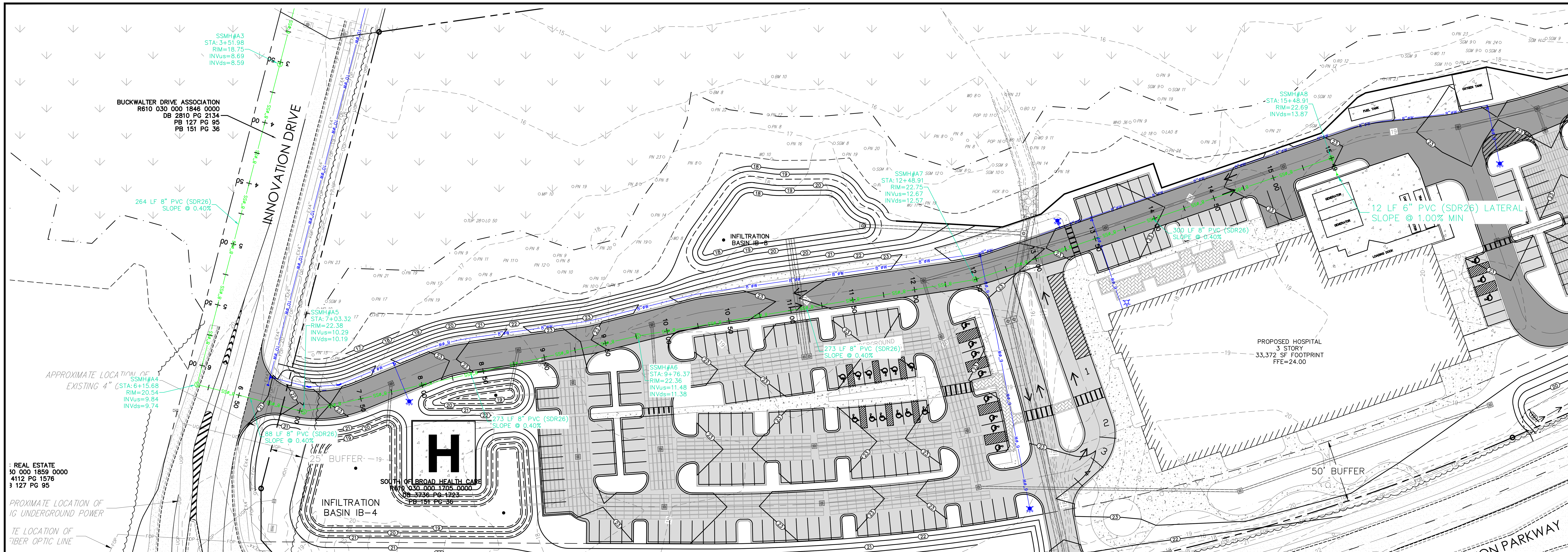

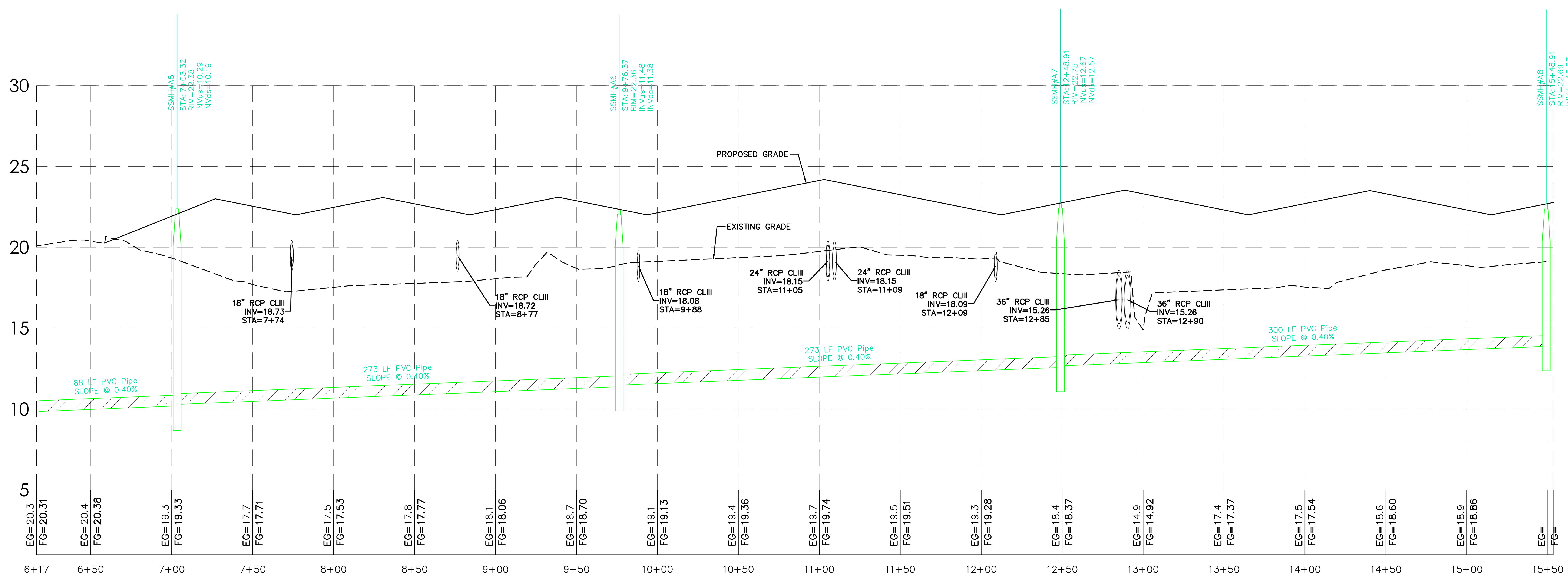

SANITARY SEWER PROFILE

SCALE: VERT 1"=4' HORZ 1"=40'

N

STATE PLANE

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

PRELIMINARY / NOT FOR CONSTRUCTION

PLAN REVISIONS

NO.	DESCRIPTION:	DATE:	BY:
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7	-	-	-
8	-	-	-

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER NO. 12860 STEVEN WADE ANDREWS 06/26/2024

SOUTH CAROLINA CERTIFICATE OF AUTHORIZATION DAVIS & FLOYD, INC. NO. C00538

DAVIS & FLOYD
PLAN | DESIGN | ENGINEER
DAVISFLOYD.COM
2712 BULL STREET SUITE A
BEAUFORT, SC 29902
(843) 379-2222

Site Development Plan
For
Bluffton Comm. Hospital
Buckwalter & Bluffton Pkwy
Town of Bluffton
Beaufort County, SC

Sanitary Sewer
Plan/Profile
Sheet 2

Date Drawn:	05/31/18
Last Revised:	06/26/24
Drawn By:	L. Wilen
Engineer:	S. Andrews

SHEET #: 9.2

JOB: 180021

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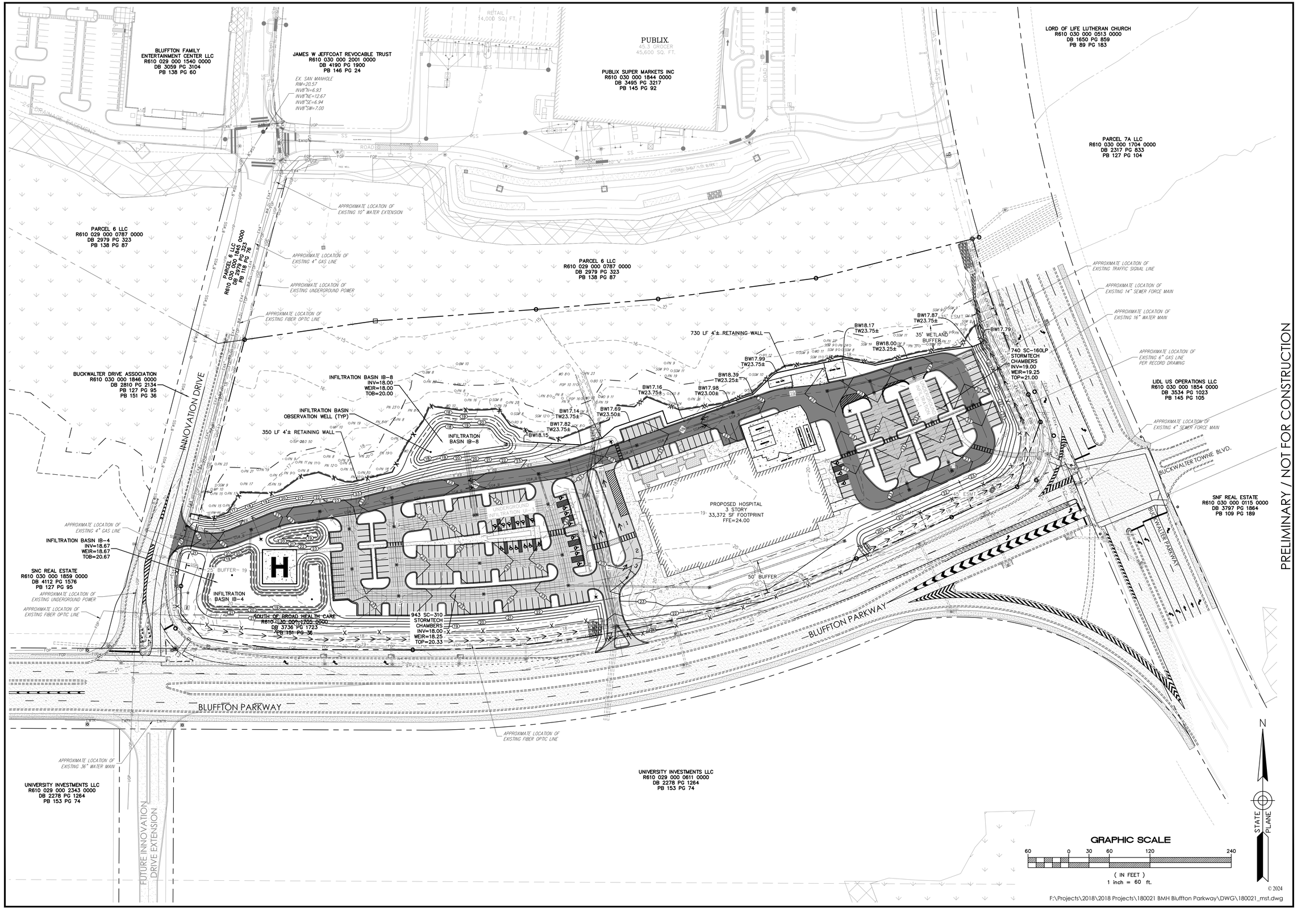
ATTACHMENT 4

ATTACHMENT 4



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PRELIMINARY / NOT FOR CONSTRUCTION

PLAN REVISIONS

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7	-	-	-
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SOUTH CAROLINA PROFESSIONAL ENGINEER STEVEN WADE SMISHOW 31315 06/26/2024

SOUTH CAROLINA NOTARY PUBLIC DAVIS & FLOYD, INC. NO. C00536 CERTIFICATE OF

DAVIS & FLOYD
PLAN | DESIGN | ENGINEER
DAVISFLOYD.COM
2712 BULL STREET SUITE A
BEAUFORT, SC 29902
(843) 379-2222

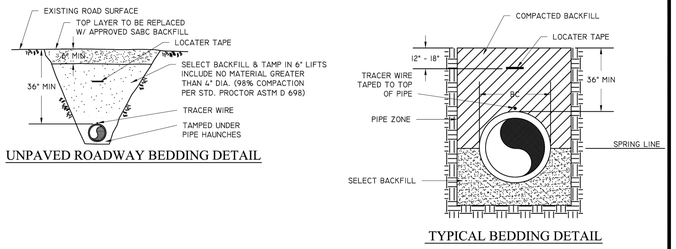
Site Development Plan
For
Bluffton Comm. Hospital
Buckwalter & Bluffton Pkwy
Town of Bluffton
Beaufort County, SC

Grading Plan

Date Drawn:	05/31/18
Last Revised:	06/26/24
Drawn By:	L. Wilen
Engineer:	S. Andrews

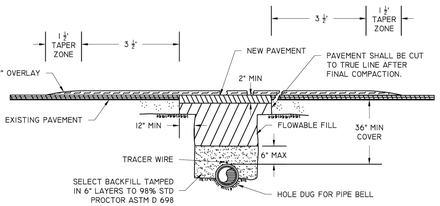
SHEET #: 11

JOB: 180021



UNPAVED ROADWAY BEDDING DETAIL

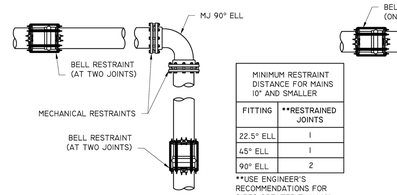
TYPICAL BEDDING DETAIL

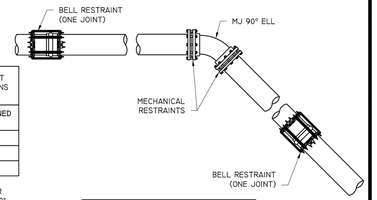


PAVED AREA DETAIL

NOTES:
1. PAVEMENT CUT TO EXTEND 12" BEYOND EDGES OF TRENCH AS SHOWN.
2. MATCH EXISTING PAVEMENT TYPE AND THICKNESS. MINIMUM THICKNESS OVER TRENCH IS 2".
3. ALL INSTALLATIONS IN PUBLIC ROADWAYS SHALL COMPLY WITH CONDITIONS OUTLINED ON APPLICABLE ENCROACHMENT PERMIT.

BEAUFORT - JASPER WATER & SEWER AUTHORITY			
BEDDING PRESSURE PIPE DETAIL			
DATE 07/01/09	DRAWN BY BMC	DRAWING # G-02	
SCALE N.T.S.	APPROVED BY ERS		

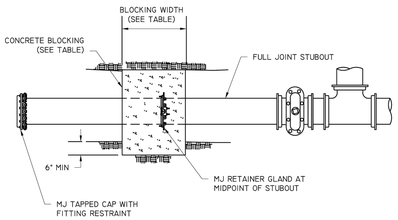




MINIMUM RESTRAINT DISTANCE FOR MAINS 10" AND SMALLER	
FITTING	**RESTRAINED JOINTS
22.5° ELL	1
45° ELL	1
90° ELL	2

**USE ENGINEER'S RECOMMENDATIONS FOR SIZES GREATER THAN 10"

TYPICAL FITTING AND JOINT RESTRAINT

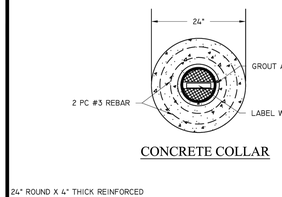


TYPICAL FUTURE STUBOUT

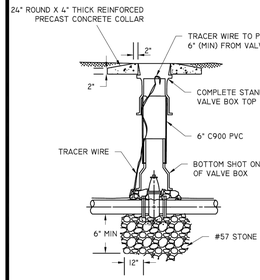
MINIMUM BLOCKING DIMENSIONS		
PIPE SIZE (IN)	BLOCKING BEARING AREA (FT²)	BLOCKING WIDTH (IN)
4	2	24
6	4	24
8	7	36
10	11	36
12	15	36
OVER 12" BY THE DESIGN ENGINEER		

NOTE:
1. THE MINIMUM DIMENSIONS TABLE IS BASED ON AN ASSUMED SOIL BEARING OF 2000 LBS PER SQ. FT. IF BEARING VALUE FOR SOIL IS LESS THAN AREA SHOWN HEREIN SHOULD BE INCREASED ACCORDINGLY.
2. JOINT IS DEFINED TO BE A MINIMUM OF 18" IN LENGTH.

BEAUFORT - JASPER WATER & SEWER AUTHORITY			
MECHANICAL RESTRAINT			
DATE 07/01/09	DRAWN BY BMC	DRAWING # G-08	
SCALE N.T.S.	APPROVED BY ERS		



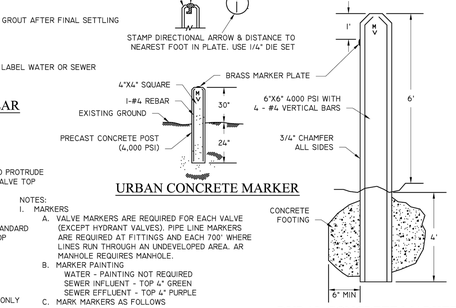
CONCRETE COLLAR



VALVE AND VALVE BOX

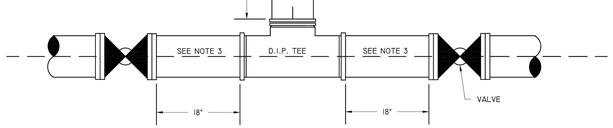
NOTES:
1. MARKERS
   A. VALVE MARKERS ARE REQUIRED FOR EACH VALVE (EXCEPT HYDRANT VALVES). PIPE LINE MARKERS ARE REQUIRED AT FITTINGS AND EACH 700' WHERE LINES RUN THROUGH AN UNDEVELOPED AREA. AR MANHOLE REQUIRES MANHOLE.
   B. MARKER PAINTING
      WATER - PAINTING NOT REQUIRED
      SEWER INFLUENT - TOP 4" GREEN
      SEWER EFFLUENT - TOP 4" PURPLE
   C. MARK MARKERS AS FOLLOWS
      MV - MAIN VALVE
      AV - AIR RELEASE VALVE
      PIPELINE - PIPELINE MARKER
   D. VALVE AND PIPELINE MARKERS IN MOWED AREAS TO BE SET TO AN EXPOSURE OF NOT MORE THAN 18" OR LESS THAN 6" ABOVE FINAL GRADE.
   E. IF SOILS ARE NOT STABLE ENOUGH TO MAINTAIN THE URBAN MARKERS VERTICAL, CONCRETE FOOTINGS ARE TO BE INSTALLED.
2. VALVE BOX LID SHALL BE WITHIN 1" OF COLLAR TOP. COLLAR TOP IS TO BE NO MORE THAN 1" ABOVE FINAL GRADE AND NO LOWER THAN 1" BELOW FINAL GRADE.
3. CONCRETE COLLAR NOT REQUIRED IN PAVEMENT. VALVE BOX TOP IS TO BE TRAFFIC RATED.

URBAN CONCRETE MARKER



RURAL CONCRETE MARKER

BEAUFORT - JASPER WATER & SEWER AUTHORITY			
STANDARD VALVE DETAIL			
DATE 07/01/09	DRAWN BY BMC	DRAWING # G-12	
SCALE N.T.S.	APPROVED BY ERS		



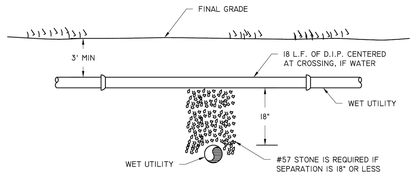
NOTES:
1. MINIMUM OF 6" STONE BEDDING REQUIRED.
2. ALL FITTINGS ARE RESTRAINED.
3. SPOOL PIECES BETWEEN VALVE AND TEE SHALL BE DIP EXCEPT FOR SEWER LESS THAN OR EQUAL TO 12".

BEAUFORT - JASPER WATER & SEWER AUTHORITY			
TEE AND VALVES			
DATE 07/01/09	DRAWN BY BMC	DRAWING # G-15	
SCALE N.T.S.	APPROVED BY ERS		

NOTES:
1. WRITTEN AUTHORIZATION FROM BJWSA IS REQUIRED FOR LESS THAN 18" SEPARATION.
2. NORMAL JOINT RESTRAINT IS REQUIRED.

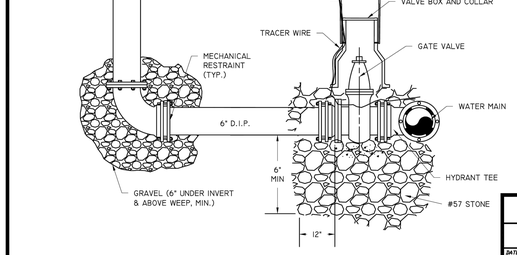
IF DISTANCE FROM FINAL GRADE TO BOTTOM OF MAIN AT STORM DRAIN IS LESS THAN 5', THEN 45° BENDS ARE NOT REQUIRED. (SEE NOTE 2)

PRESSURE PIPE UNDER WET UTILITY FOR FINAL DEPTH 5' OR GREATER



WET UTILITY CROSSING

BEAUFORT - JASPER WATER & SEWER AUTHORITY			
WET UTILITY CROSSING			
DATE 07/01/09	DRAWN BY BMC	DRAWING # G-16	
SCALE N.T.S.	APPROVED BY ERS		



NOTES:
1. BURY LINE INDICATED ON HYDRANT SHALL BE AT FINAL GRADE.
2. ALL FITTINGS SHALL BE RESTRAINED.

BEAUFORT - JASPER WATER & SEWER AUTHORITY			
STANDARD FIRE HYDRANT			
DATE 07/01/09	DRAWN BY BMC	DRAWING # W-03	
SCALE N.T.S.	APPROVED BY ERS		

PRELIMINARY / NOT FOR CONSTRUCTION

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PLAN REVISIONS

SOUTH CAROLINA PROFESSIONAL ENGINEER STEVEN WADE SNYDER NO. 12860 06/26/2024 REGISTERED

SOUTH CAROLINA DAVIS & FLOYD, INC. NO. C005538 CERTIFICATE OF AUTHORIZATION

DAVIS & FLOYD
PLAN | DESIGN | ENGINEER
DAVISFLOYD.COM
2712 BULL STREET SUITE A
BEAUFORT, SC 29902
(843) 379-2222

Site Development Plan
For
Bluffton Comm. Hospital
Buckwalter & Bluffton Pkwy
Town of Bluffton
Beaufort County, SC

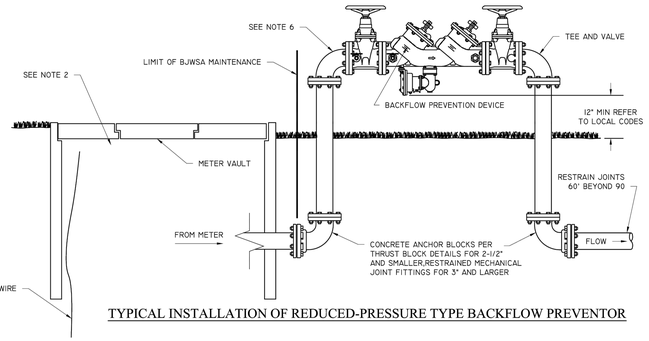
Waterline Details
Sheet 1

Date Drawn:	05/31/18
Last Revised:	06/26/24
Drawn By:	L. Wilen
Engineer:	S. Andrews

SHEET #: 12

JOB: 180021

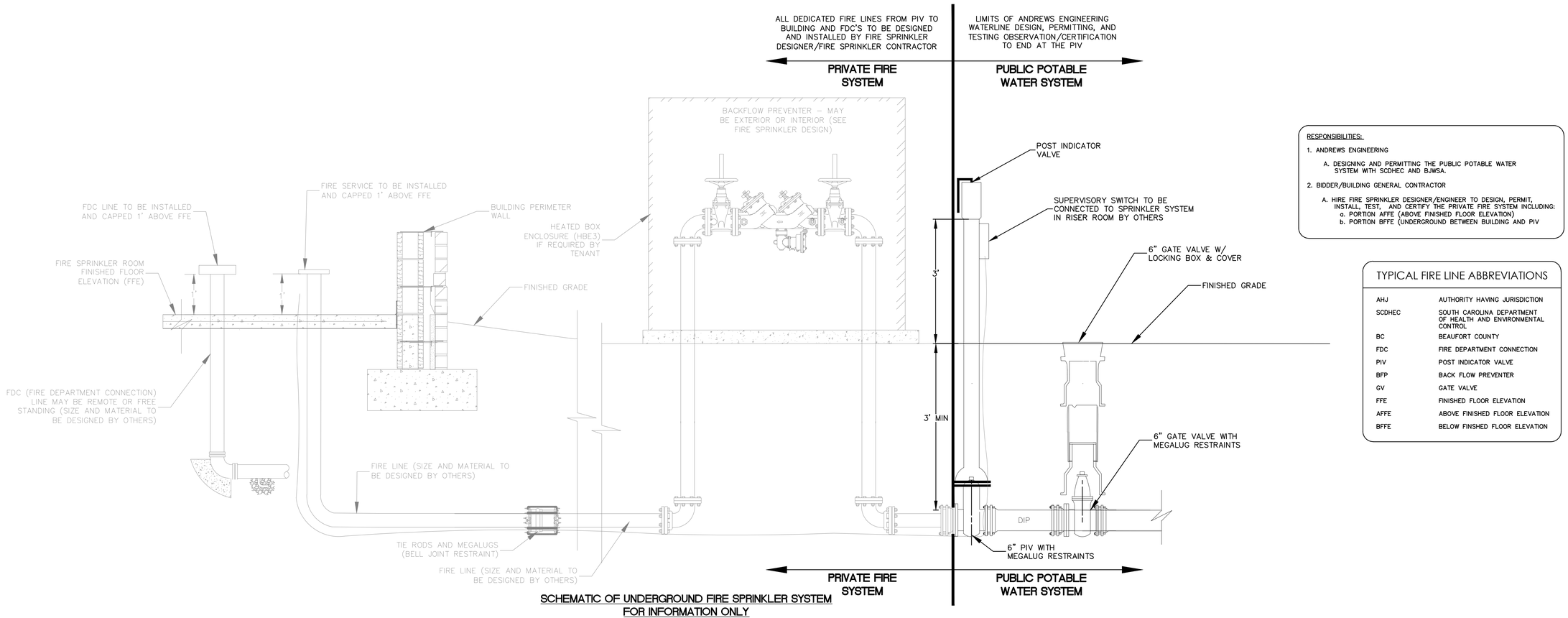
F:\Projects\2018\2018 Projects\180021 BMH Bluffton Parkway\DWG\180021_det.dwg



TYPICAL INSTALLATION OF REDUCED-PRESSURE TYPE BACKFLOW PREVENTOR

NOTES:
1. REDUCED-PRESSURE BACKFLOW PREVENTION DEVICES SHALL BE REQUIRED FOR ANY SERVICE WHERE TOXIC MATERIALS ARE USED OR WHERE POSITIVE PROTECTION FOR THE PUBLIC WATER SUPPLY IS REQUIRED. TYPICAL APPLICATIONS INCLUDE: HOSPITALS, MEDICAL & DENTAL LABS, MORTUARIES, INDUSTRIAL PLANTS, DRY CLEANERS, IRRIGATION SYSTEMS, OR AS DETERMINED BY BJWSA.
2. SEE SPECIFIC METER DETAIL FOR MORE INFORMAION.
3. BACKFLOW PREVENTION DEVICES SHALL BE INSTALLED ADJACENT TO AND ON PROPERTY SIDE OF SIDEWALK WHERE APPLICABLE. WHERE NO SIDEWALKS EXISTS, THE ASSEMBLY SHALL BE INSTALLED BEFORE ANY BRANCH AND AS CLOSE AS POSSIBLE TO THE WATER METER LOCATION. FINAL LOCATION TO BE APPROVED BY BJWSA PRIOR TO INSTALLATION.
4. SCREENING AND LANDSCAPING PLACES AROUND DEVICE SHALL ALLOW FOR ACCESS BY BJWSA PERSONNEL.
5. FREEZE PROTECTION IS THE OWNERS RESPOSIBILTY .
6. PIPING AND FITTINGS THROUGH 2 ½" SHALL BE SCHD 40 GALVANIZED STEEL. PIPING AND FITTINGS 3" AND LARGER SHALL BE FLANGED DUCTILE IRON.
7. REFER TO SCDHEC APPROVED LIST OF BACKFLOW PREVENTION DEVICES.
8. DUAL CHECK VALVES MAY BE INSTALLED IN UNDERGROUND VAULT (PRIOR APPROVAL BY BJWSA REQUIRED).

BEAUFORT - JASPER WATER & SEWER AUTHORITY		
BACKFLOW PREVENTION DETAIL		
DATE: 07/01/09	DRAWN BY: BMC	DRAWING #: W-01
SCALE: N.T.S.	APPROVED BY: ERS	



SCHEMATIC OF UNDERGROUND FIRE SPRINKLER SYSTEM
FOR INFORMATION ONLY
N.T.S.

RESPONSIBILITIES:

1. ANDREWS ENGINEERING
   A. DESIGNING AND PERMITTING THE PUBLIC POTABLE WATER SYSTEM WITH SCDHEC AND BJWSA.
2. BIDDER/BUILDING GENERAL CONTRACTOR
   A. HIRE FIRE SPRINKLER DESIGNER/ENGINEER TO DESIGN, PERMIT, INSTALL, TEST, AND CERTIFY THE PRIVATE FIRE SYSTEM INCLUDING:
      a. PORTION AFFE (ABOVE FINISHED FLOOR ELEVATION)
      b. PORTION BFFE (UNDERGROUND BETWEEN BUILDING AND PIV

TYPICAL FIRE LINE ABBREVIATIONS

AHJ	AUTHORITY HAVING JURISDICTION
SCDHEC	SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL
BC	BEAUFORT COUNTY
FDC	FIRE DEPARTMENT CONNECTION
PIV	POST INDICATOR VALVE
BFP	BACK FLOW PREVENTER
GV	GATE VALVE
FFE	FINISHED FLOOR ELEVATION
AFFE	ABOVE FINISHED FLOOR ELEVATION
BFFE	BELOW FINSHED FLOOR ELEVATION

PRELIMINARY / NOT FOR CONSTRUCTION

PLAN REVISIONS

NO.	DESCRIPTION:	DATE:	BY:
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7	-	-	-
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STATE OF SOUTH CAROLINA PROFESSIONAL ENGINEER STEVEN R. ANDREWS NO. 12860 06/26/2024

SOUTH CAROLINA NOTTINGHAM DAVIS & FLOYD, INC. NO. C00538 CERTIFICATE OF AUTHORIZATION

DAVIS & FLOYD
PLAN | DESIGN | ENGINEER
DAVISFLOYD.COM
2712 BULL STREET SUITE A
BEAUFORT, SC 29902
(843) 379-2222

Site Development Plan
For
Bluffton Comm. Hospital
Buckwalter & Bluffton Pkwy
Town of Bluffton
Beaufort County, SC

Waterline Details
Sheet 2

Date Drawn:	05/31/18
Last Revised:	06/26/24
Drawn By:	L. Wilen
Engineer:	S. Andrews

SHEET #: 13

JOB: 180021

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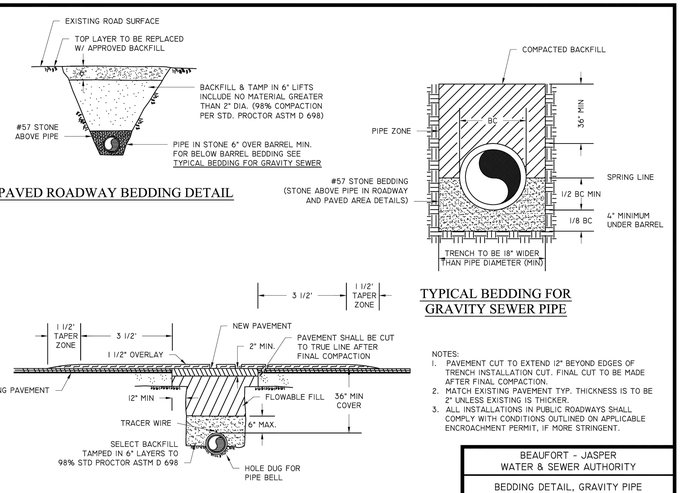
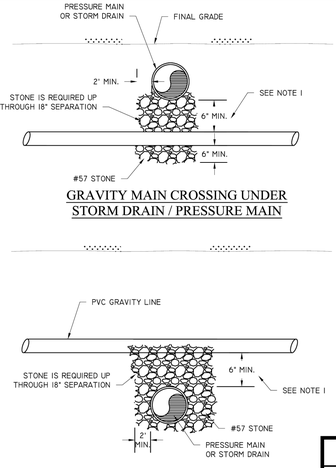


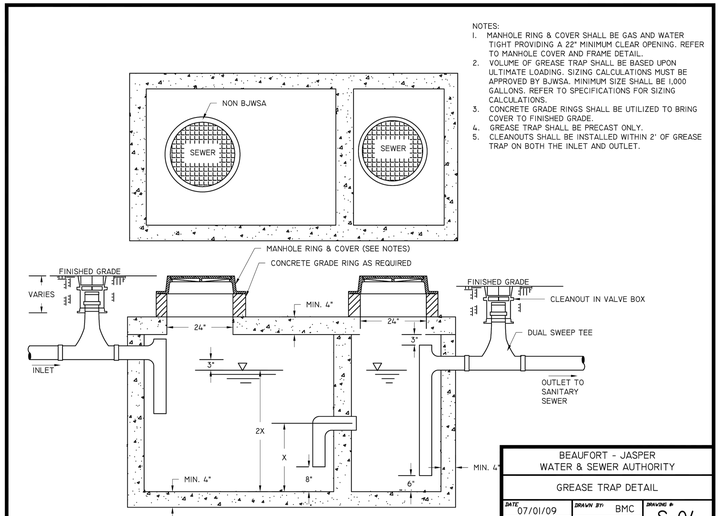
NOTES:
1. PAVEMENT CUT TO EXTEND 12" BEYOND EDGES OF TRENCH INSTALLATION CUT. FINAL CUT TO BE MADE AFTER FINAL COMPACTION.
2. MATCH EXISTING PAVEMENT TYP. THICKNESS IS TO BE 2" UNLESS EXISTING IS THICKER.
3. ALL INSTALLATIONS IN PUBLIC ROADWAYS SHALL COMPLY WITH CONDITIONS OUTLINED ON APPLICABLE ENCROACHMENT PERMIT, IF MORE STRINGENT.

BEAUFORT - JASPER WATER & SEWER AUTHORITY		
BEDDING DETAIL, GRAVITY PIPE		
DATE 07/01/09	DRAWN BY BMC	DRAWING # S-01
SCALE N.T.S.	APPROVED BY ERS	



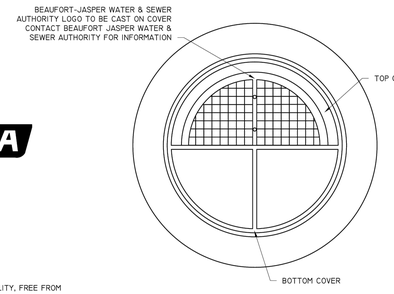
NOTE:
1. SYSTEMS SHOULD NOT BE DESIGNED WITH LESS THAN 12" SEPARATION. IF LESS SEPARATION IS UNAVOIDABLE, WRITTEN AUTHORIZATION FROM BJWSA IS REQUIRED.

BEAUFORT - JASPER WATER & SEWER AUTHORITY		
GRAVITY MAIN CROSSING		
DATE 07/01/09	DRAWN BY BMC	DRAWING # S-03
SCALE N.T.S.	APPROVED BY ERS	



NOTES:
1. MANHOLE RING & COVER SHALL BE GAS AND WATER TIGHT PROVIDING A 22" MINIMUM CLEAR OPENING. REFER TO MANHOLE COVER AND FRAME DETAIL.
2. VOLUME OF GREASE TRAP SHALL BE BASED UPON ULTIMATE LOADING. SIZING CALCULATIONS MUST BE APPROVED BY BJWSA. MINIMUM SIZE SHALL BE 1,000 GALLONS. REFER TO SPECIFICATIONS FOR SIZING CALCULATIONS.
3. CONCRETE GRADE RINGS SHALL BE UTILIZED TO BRING COVER TO FINISHED GRADE.
4. GREASE TRAP SHALL BE PRECAST ONLY.
5. CLEANOUTS SHALL BE INSTALLED WITHIN 2' OF GREASE TRAP ON BOTH THE INLET AND OUTLET.

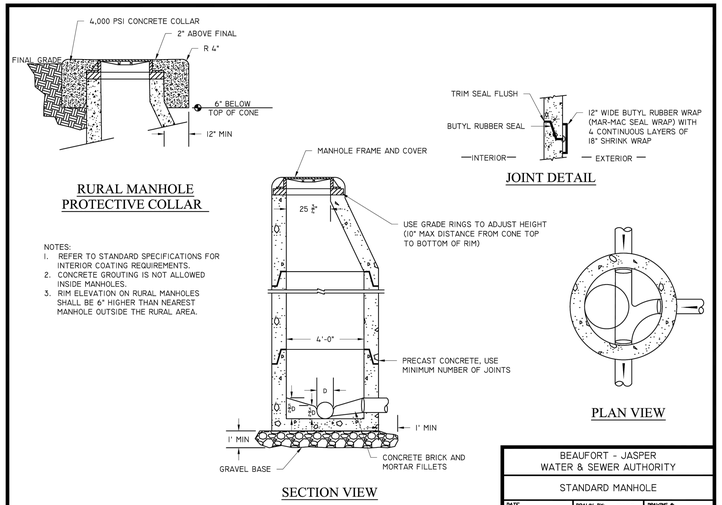
BEAUFORT - JASPER WATER & SEWER AUTHORITY		
GREASE TRAP DETAIL		
DATE 07/01/09	DRAWN BY BMC	DRAWING # S-04
SCALE N.T.S.	APPROVED BY ERS	



NOTES:

1. CASTINGS SHALL BE OF UNIFORM QUALITY, FREE FROM BLOWHOLES, POROSITY, HARD SPOTS, SHRINKAGE, DISTORTION OR OTHER DEFECTS. THEY SHALL BE SMOOTH AND WELL CLEANED BY SHOT BLASTING OR BY SOME OTHER APPROVED METHOD UNLESS AN ALTERNATIVE SPECIFICATION IS MADE.
2. MATERIALS USED IN THE MANUFACTURE OF CASTINGS SHOULD CONFORM TO ASTM, AASHTO, ASA, MIL, AMS OR FEDERAL SPECIFICATIONS FOR GRAY IRON OR DUCTILE IRON AS FOLLOWS: GRAY IRON-ASTM CLASS 35, DUCTILE IRON-GRADE 60-40-18.
3. ALL CASTINGS SHALL BE MANUFACTURED TRUE TO PATTERN

BEAUFORT - JASPER WATER & SEWER AUTHORITY		
MANHOLE, COVER AND FRAME		
DATE 07/01/09	DRAWN BY BMC	DRAWING # S-05
SCALE N.T.S.	APPROVED BY ERS	



NOTES:
1. REFER TO STANDARD SPECIFICATIONS FOR INTERIOR COATING REQUIREMENTS.
2. CONCRETE GROUTING IS NOT ALLOWED INSIDE MANHOLES.
3. RIM ELEVATION ON RURAL MANHOLES SHALL BE 4" HIGHER THAN NEAREST MANHOLE OUTSIDE THE RURAL AREA.

BEAUFORT - JASPER WATER & SEWER AUTHORITY		
STANDARD MANHOLE		
DATE 07/01/09	DRAWN BY BMC	DRAWING # S-09
SCALE N.T.S.	APPROVED BY ERS	

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PLAN REVISIONS			
NO.	DESCRIPTION:	DATE:	BY:
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SOUTH CAROLINA PROFESSIONAL ENGINEER STEVEN WADE ANDREWS NO. 12860 06/26/2024

SOUTH CAROLINA DAVIS & FLOYD, INC. NO. C00538 CERTIFICATE OF AUTHORIZATION

DAVIS & FLOYD
PLAN | DESIGN | ENGINEER
DAVISFLOYD.COM
2712 BULL STREET SUITE A
BEAUFORT, SC 29902
(843) 379-2222

Site Development Plan
For
Bluffton Comm. Hospital
Buckwalter & Bluffton Pkwy
Town of Bluffton
Beaufort County, SC

Sanitary Sewer Details
Sheet 1

Date Drawn:	05/31/18
Last Revised:	06/26/24
Drawn By:	L. Wilen
Engineer:	S. Andrews

SHEET #: 14

JOB: 180021

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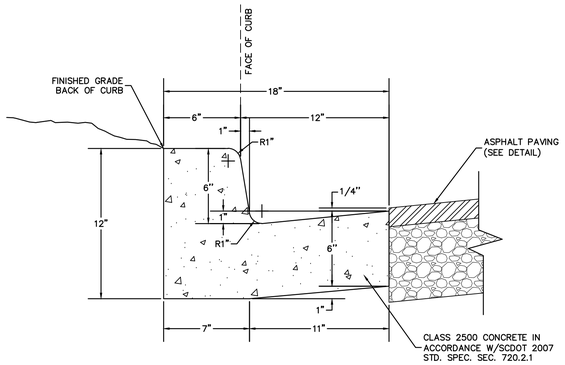
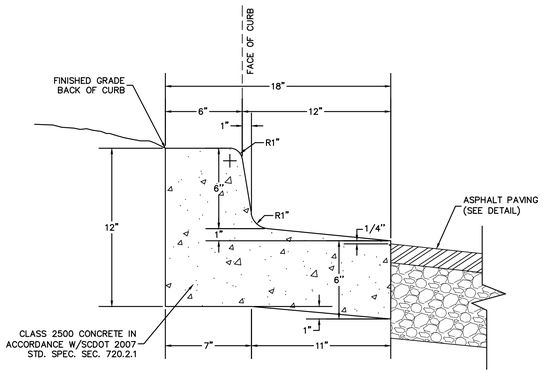


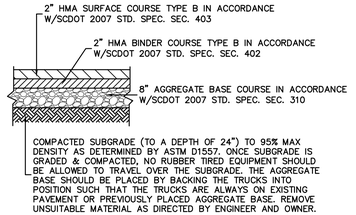
TYPICAL CROSS SECTION
SCDOT DRAWING NO. 720-105-01
1'-6'' CURB & GUTTER

N.T.S.



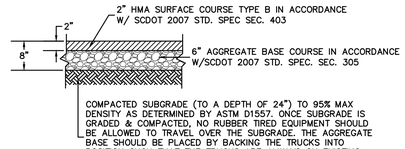
TYPICAL CROSS SECTION
SCDOT DRAWING NO. 720-105-01
1'-6'' CURB & GUTTER (PITCHED)

N.T.S.



HEAVY DUTY ASPHALT
PAVING DETAIL

N.T.S.

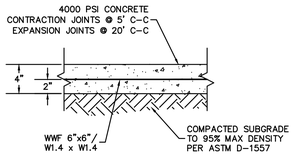


LIGHT DUTY ASPHALT
PAVING DETAIL

N.T.S

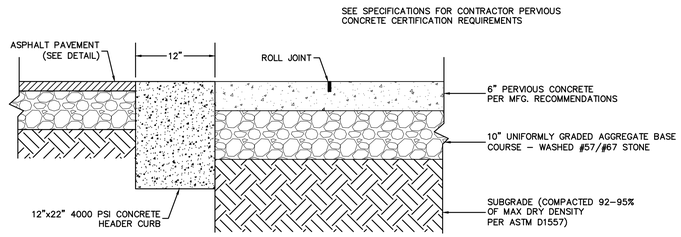
NOTES:
1. CONTRACTION JOINTS SHALL BE BY SCORING 1/4" DEEP. JOINT SPACING SHALL BE AT INTERVALS NOT MORE THAN 10' C-C.
2. EXPANSION JOINTS SHALL BE AT INTERVALS NOT MORE THAN 50' C-C. EXPANSION JOINT MATERIAL SHALL BE 3/4" THICK PREFORMED JOINT FILLER CONSISTING OF CELLULAR FIBERS SATURATED W/ BITUMINOUS BINDER.
3. CONTRACTOR MAY SUBMIT ALTERNATE ROLL TYPE OR MOUNTABLE CURB SHAPE FOR CONSIDERATION BY THE ENGINEER AND OWNER.
4. TRANSVERSE EXPANSION & CONTROL JOINTS SHALL BE PROVIDED IN THE CURB & GUTTER IN ACCORDANCE W/SCDOT 2007 STD. SPEC. SEC. 720.4.4 & 720.4.6.

NOTE: TRANSVERSE EXPANSION & CONTROL JOINTS SHALL BE PROVIDED IN THE CURB, GUTTER & SIDEWALK IN ACCORDANCE W/SCDOT 2007 STD SPEC SEC 720.4.6 EXPANSION JOINTS SHALL BE PLACED AT INTERVALS OF NOT MORE THAN 50' IN CURB & GUTTER AND NOT MORE THAN 20' IN SIDEWALK. CONTROL JOINTS SHALL BE PLACED AT INTERVALS OF NOT MORE THAN 10' IN CURB & GUTTER AND NOT MORE THAN 5' IN SIDEWALK.



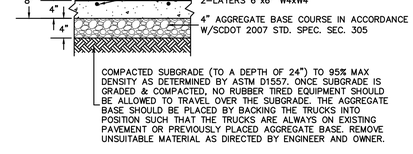
TYPICAL SECTION
CONCRETE SIDEWALK

N.T.S.



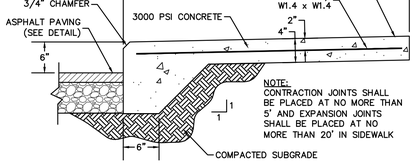
TYPICAL SECTION PERVIOUS
CONCRETE PAVING

N.T.S



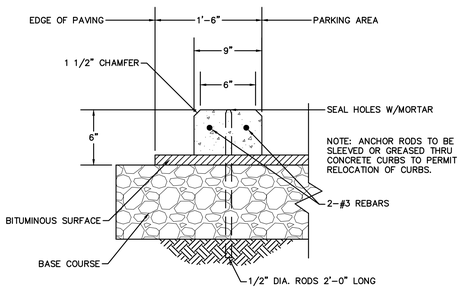
HEAVY DUTY CONCRETE
PAVING DETAIL

N.T.S

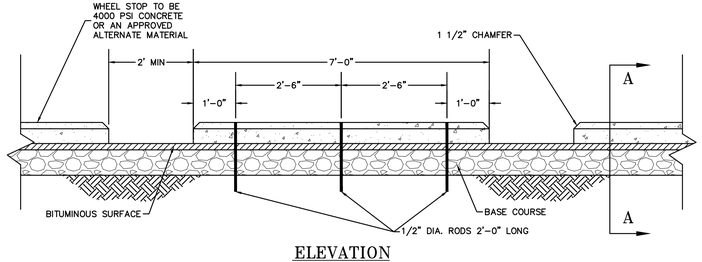


TYPICAL CURB SIDEWALK DETAIL

N.T.S



SECTION A-A



ELEVATION

WHEEL STOP DETAIL

N.T.S

PRELIMINARY / NOT FOR CONSTRUCTION

PLAN REVISIONS

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SOUTH CAROLINA PROFESSIONAL ENGINEER
STEVEN WADE SNISCHAL
REGISTERED
NO. 123860
06/26/2024

SOUTH CAROLINA
DAVIS &
FLOYD, INC.
NO. C00538
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Site Development Plan
For
Bluffton Comm. Hospital
Buckwalter & Bluffton Pkwy
Town of Bluffton
Beaufort County, SC

General Site
Details
Sheet 1

Date Drawn:	05/31/18
Last Revised:	06/26/24
Drawn By:	L. Wilen
Engineer:	S. Andrews

SHEET #:
15

JOB: 180021

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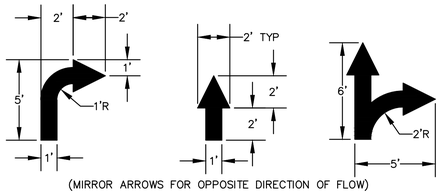


(MIRROR ARROWS FOR OPPOSITE DIRECTION OF FLOW)

NOTE:

ALL ARROWS, PAVEMENT WORDS & SYMBOL MARKINGS SHALL BE AS INDICATED ON THE PLANS AND INSTALLED IN ACCORDANCE WITH SECT. 3B.20 PAGES 387–393 of the 2009 MUTCD, OR MOST CURRENT EDITION IN EFFECT. UNLESS OTHERWISE DIRECTED.

ALL ARROWS, PAVEMENT WORDS, SYMBOLS AND STRIPING NOT IN R/W SHALL BE TO BE SOLID WHITE REFLECTIVE TRAFFIC PAINT. PER SCDOT STD SPEC 2007 EDITION, SEC 625

ALL ARROWS, PAVEMENT WORDS, SYMBOLS AND STRIPING IN SCDOT, CITY OR COUNTY R/W SHALL BE TO BE SOLID WHITE THERMOPLASTIC MARKINGS. PER SCDOT STD SPEC 2007 EDITION, SEC 627, UNLESS OTHERWISE DIRECTED.

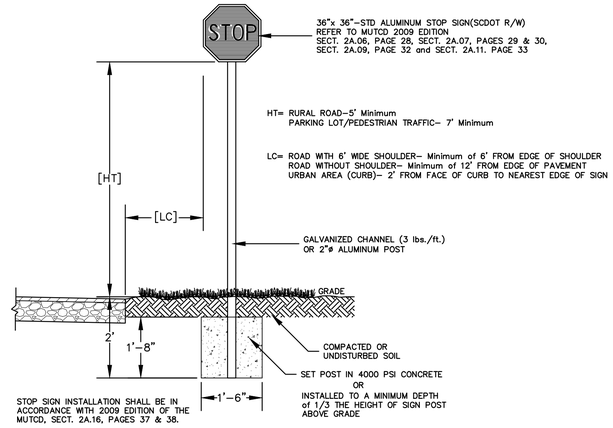
DIRECTIONAL ARROW STRIPE DETAIL

NOTE: ALL STOP BARS ARE TO BE SOLID WHITE LINES EXTENDING ACROSS THE LANE(S) AND INSTALLED IN ACCORDANCE WITH THE 2009 EDITION OF THE MUTCD SECT. 3B.16, PAGE 381.

ALL CROSSWALKS SHALL BE AS INSTALLED AS INDICATED ON THE PLANS AND IN ACCORDANCE WITH SECT. 3B.18, PAGE 383 OF THE 2009 MUTCD, OR MOST CURRENT EDITION, UNLESS OTHERWISE DIRECTED.

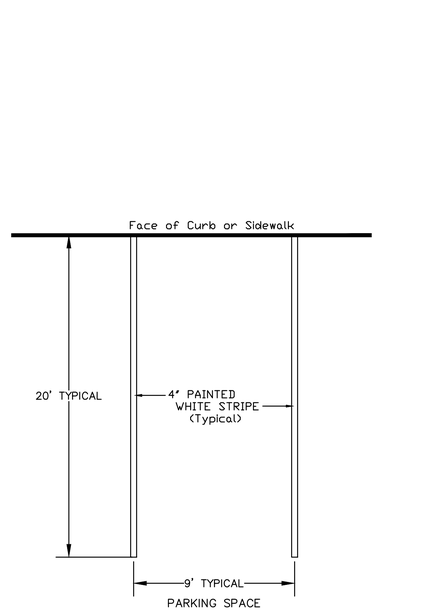
STOP BAR DETAIL

N.T.S.



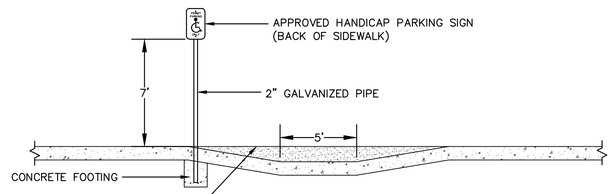
DETAIL–TYPICAL STOP SIGN

N.T.S

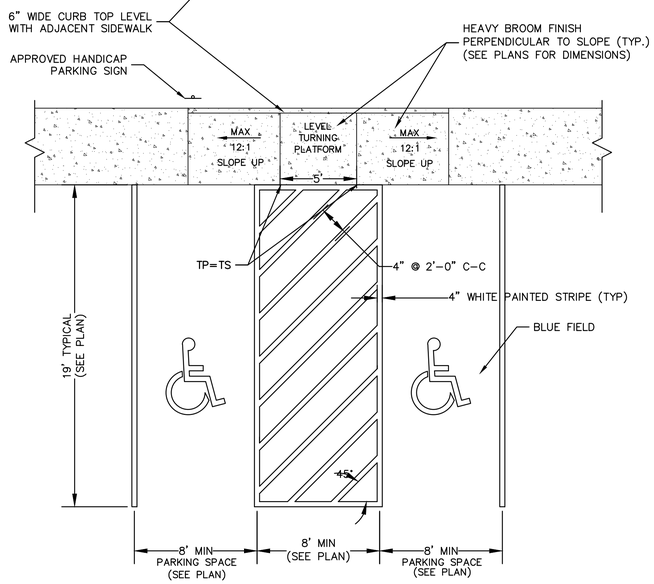


Detail–TYPICAL PARKING SPACE STRIPING

N.T.S.

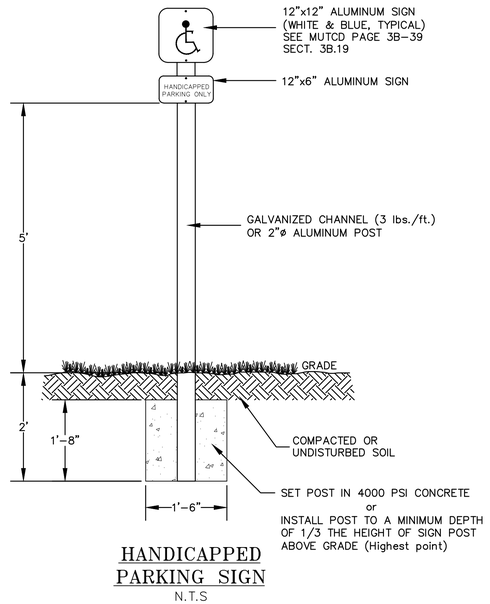


SECTION OF HANDICAP RAMP



HANDICAP PARKING DETAIL

N.T.S.



HANDICAPPED PARKING SIGN

N.T.S

PRELIMINARY / NOT FOR CONSTRUCTION

PLAN REVISIONS

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STEVEN WADE ANDREWS — REGISTERED PROFESSIONAL ENGINEER — SOUTH CAROLINA — No. 12860 — 06/26/2024

DAVIS & FLOYD, INC. — NO. C00538 — SOUTH CAROLINA — CERTIFICATE OF AUTHORIZATION

DAVIS & FLOYD
PLAN | DESIGN | ENGINEER
DAVISFLOYD.COM
2712 BULL STREET SUITE A
BEAUFORT, SC 29902
(843) 379-2222

Site Development Plan
For
Bluffton Comm. Hospital
Buckwalter & Bluffton Pkwy
Town of Bluffton
Beaufort County, SC

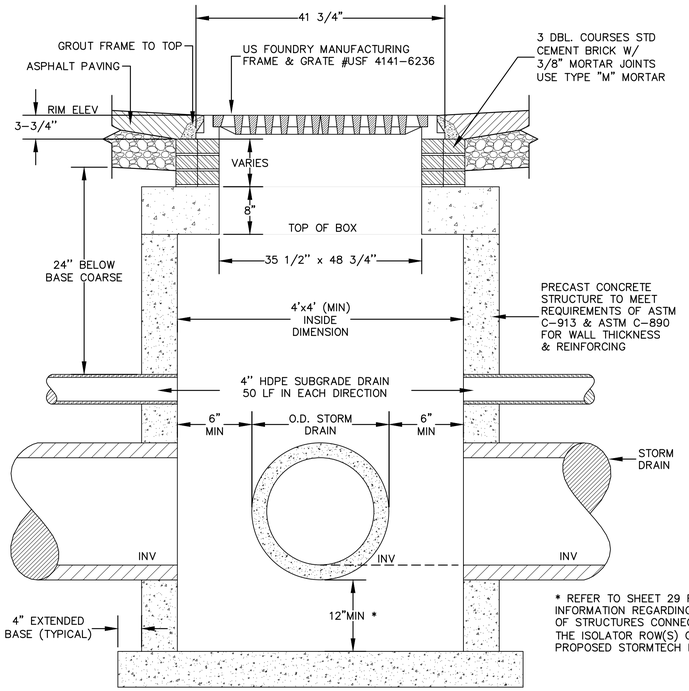
General Site Details
Sheet 2

Date Drawn:	05/31/18
Last Revised:	06/26/24
Drawn By:	L. Wilen
Engineer:	S. Andrews

SHEET #: 16

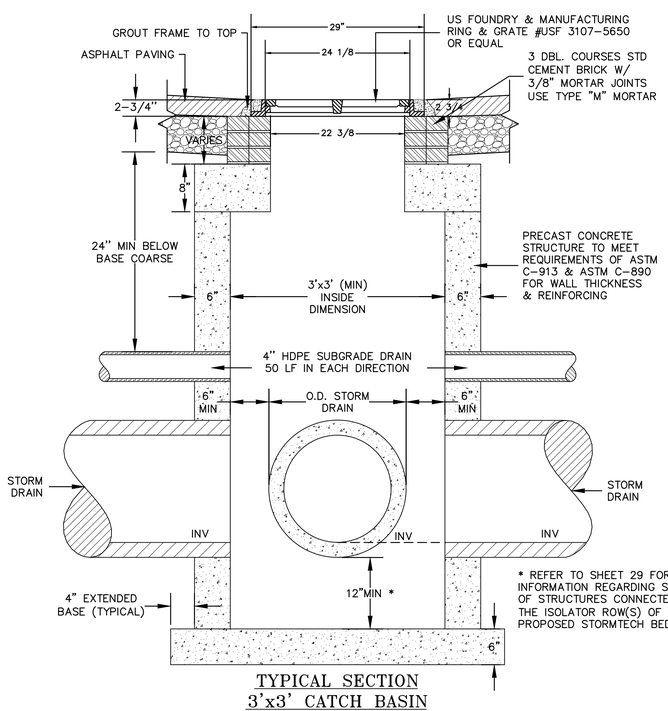
JOB: 180021

F:\Projects\2018\2018 Projects\180021 BMH Bluffton Parkway\DWG\180021_det.dwg



TYPICAL SECTION
4'x4'CATCH BASIN

N.T.S.



TYPICAL SECTION
3'x3' CATCH BASIN

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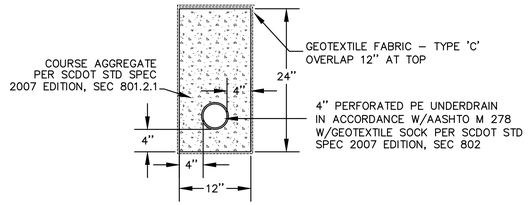
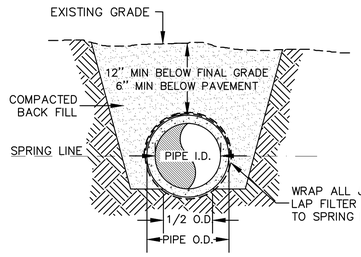


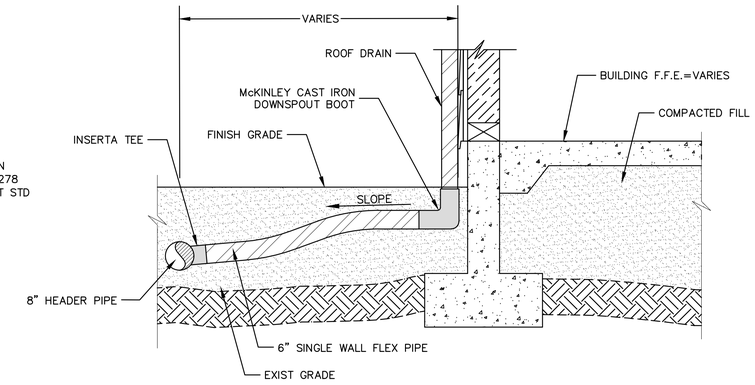
TYPICAL SUBGRADE
DRAIN DETAIL

N.T.S.



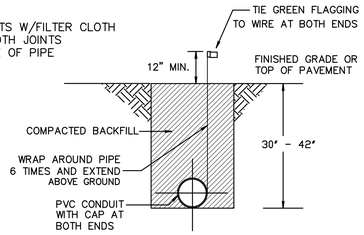
TYPICAL STORM SEWER
PIPE BEDDING DETAIL

N.T.S.



TYPICAL DETAIL AT ROOF DRAIN

N.T.S.



CONDUIT DETAIL

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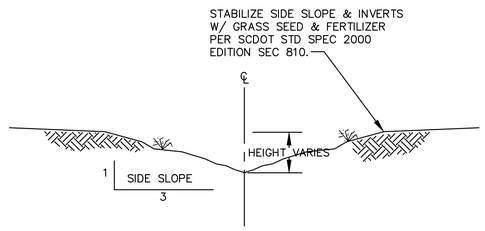


TYPICAL SECTION
GRASS SWALE

N.T.S

INFILTRATION BASIN NOTES:

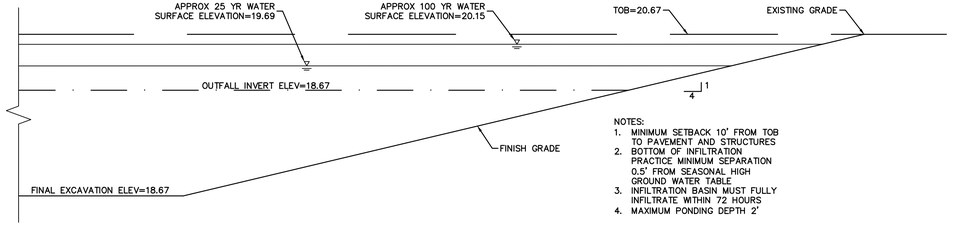
1. INFILTRATION BASIN SIDE SLOPES SHALL NOT EXCEED 4:1.
2. ENGINEERED SOIL MIX WILL ADHERE TO THE FOLLOWING:
   a. 40% SAND, 30% TOPSOIL, AND 30% COMPOST
   b. ORGANIC CONTENT MATTER FROM 8-10% BY WEIGHT
   c. LESS THAN 5% MINERAL FINES CONTENT (CLAY)
   d. 1.5 FOOT MINIMUM THICKNESS
   e. COMPACT TO 85% MAXIMUM DENSITY PER ASTM D 1557
   f. MINIMUM LONG-TERM HYDRAULIC CONDUCTIVITY OF 0.5 INCH/HOUR PER ASTM D2434.
   g. MAXIMUM IMMEDIATE HYDRAULIC CONDUCTIVITY OF 12 INCHES/HOUR.
2. ENGINEERED SOIL MAY BE OBTAINED OFF SITE OR CREATED BY TESTING NATIVE SOILS AND MIXING WITH IMPORTED MATERIALS AS NEEDED TO ACHIEVE SPECIFICATIONS.
3. ENGINEERED SOIL SHOULD BE MIXED UNIFORMLY AND ITS CHARACTERISTICS SHOULD BE VERIFIED BY MATERIALS TESTING PRIOR TO PLACEMENT.
4. PLACE UNSATURATED SOIL IN 6 INCH LIFTS. DO NOT PLACE IF SATURATED.
5. TO PRESERVE INFILTRATION CAPACITY OF NATIVE SOIL, KEEP MACHINERY OUTSIDE OF GREEN INFRASTRUCTURE AREA.
6. AFTER PLACEMENT, COMPACT EACH LIFT TO 85% MAXIMUM DENSITY USING WATER UNTIL JUST SATURATED OR BY WALKING ON THE SURFACE. DO NOT USE A VIBRATORY COMPACTOR.

INFILTRATION BASIN MAINTENANCE PLAN:

A. HARVEST DEAD VEGETATION AS NEEDED SINCE DECOMPOSING VEGETATION CAN RELEASE POLLUTANTS.
B. REPAIR ALL ERODED OR UNDERCUT AREAS AS NEEDED.
C. MOW THE SIDE SLOPES AND BOTTOM OF THE INFILTRATION BASIN MONTHLY.
D. CLEAR DEBRIS FROM ALL INLETS, OUTLET STRUCTURES, AND SPILLWAYS MONTHLY.
E. MONITOR SEDIMENT ACCUMULATION IN THE INFILTRATION BASIN AND REMOVE SEDIMENT WHEN BOTTOM AREA HAS BEEN SIGNIFICANTLY FILLED.
F. INSPECT SWALES AND SPILLWAY FOR SEDIMENT ACCUMULATION EVERY 6 MONTHS.

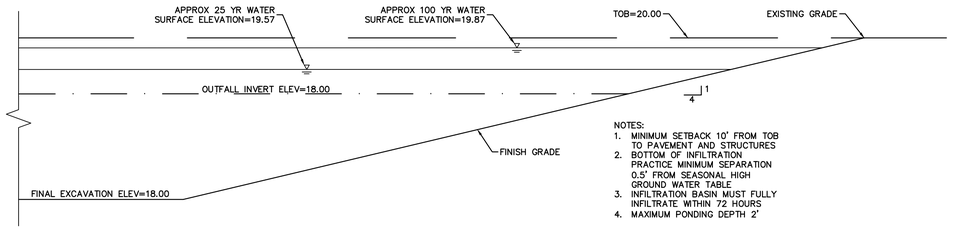
VEGETATION MAINTENANCE PLAN:

A. INSPECT PLANTS AS NEEDED UNTIL THEY ARE ESTABLISHED. PROVIDE WATER DURING HOT, DRY SPELLS, ESPECIALLY DURING THE FIRST TWO YEARS.
B. PRUNE, WEED, AND REMOVE ACCUMULATED TRASH MONTHLY. REPLACE MULCH AS NEEDED.
C. INSPECT DETENTION AREA AND RIP-RAP SPILLWAY EVERY 6 MONTHS AND REMOVE ACCUMULATED SEDIMENT BUILD-UP AS NECESSARY. ADD VEGETATION IN HEAVILY ERODED AREAS.



INFILTRATION BASIN IB-4 (TYPICAL CROSS SECTION)

N.T.S.



INFILTRATION BASIN IB-8 (TYPICAL CROSS SECTION)

N.T.S.

PRELIMINARY / NOT FOR CONSTRUCTION

PLAN REVISIONS

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SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER STEVEN WADE SNISCHAL NO. 12860 06/26/2024

SOUTH CAROLINA CERTIFICATE OF AUTHORIZATION DAVIS & FLOYD, INC. no. C00538

DAVIS & FLOYD
PLAN | DESIGN | ENGINEER
DAVISFLOYD.COM
2712 BULL STREET SUITE A
BEAUFORT, SC 29902
(843) 379-2222

Site Development Plan
For
Bluffton Comm. Hospital
Buckwalter & Bluffton Pkwy
Town of Bluffton
Beaufort County, SC

Drainage
Details
Sheet 1

Date Drawn:	05/31/18
Last Revised:	06/26/24
Drawn By:	L. Wilen
Engineer:	S. Andrews

SHEET #: 17

JOB: 180021

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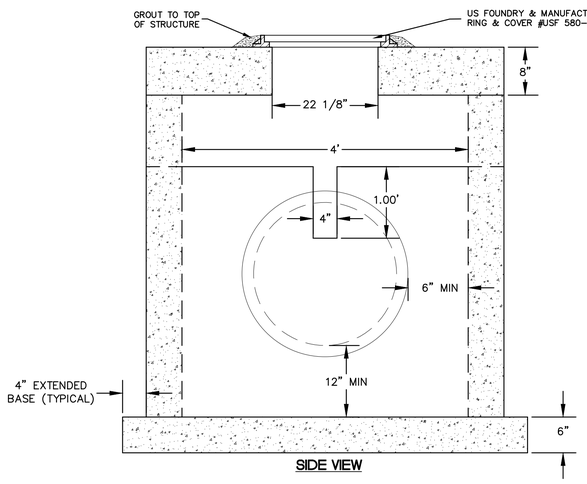
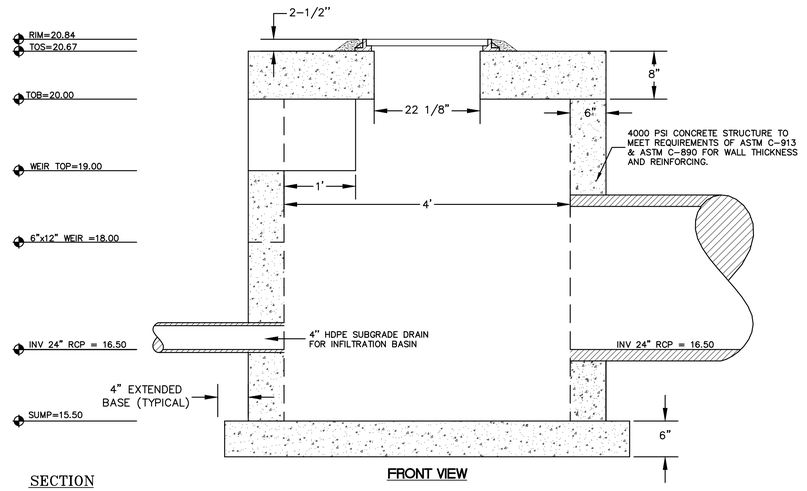
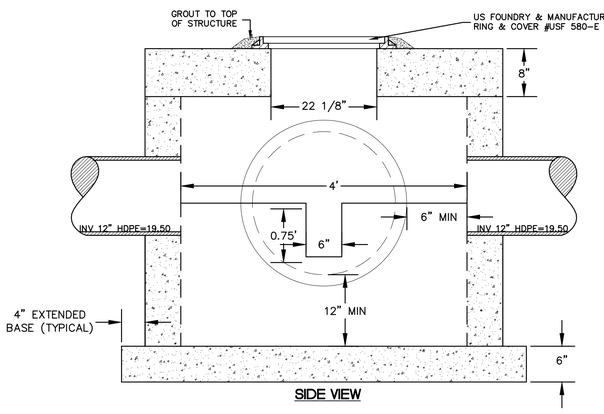
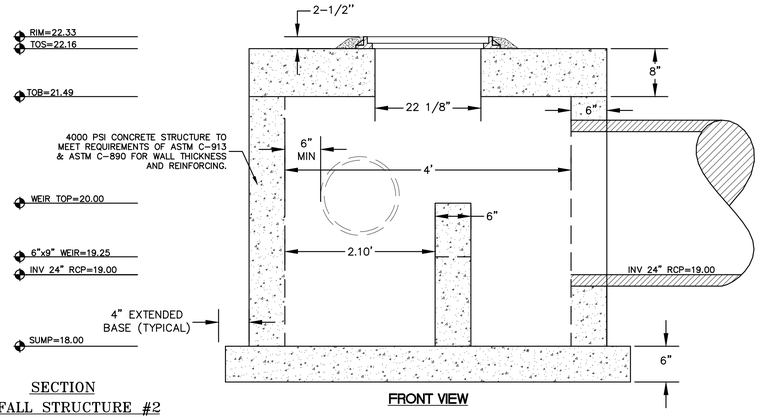




SECTION
OUTFALL STRUCTURE #1
N.T.S.





SECTION
OUTFALL STRUCTURE #2
N.T.S.

PRELIMINARY / NOT FOR CONSTRUCTION

PLAN REVISIONS

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SOUTH CAROLINA PROFESSIONAL ENGINEER STEVEN WADE ANDREWS NO. 12860 06/26/2024 REGISTERED

SOUTH CAROLINA DAVIS & FLOYD, INC. NO. C00538 CERTIFICATE OF AUTHORIZATION

DAVIS & FLOYD
PLAN | DESIGN | ENGINEER
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Site Development Plan
For
Bluffton Comm. Hospital
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Drainage
Details
Sheet 2

Date Drawn:	05/31/18
Last Revised:	06/26/24
Drawn By:	L. Wilen
Engineer:	S. Andrews

SHEET #:
18

JOB: 180021

ADS Advanced Drainage Systems, Inc.

ADS SiteAssist™
FOR STORMTECH INSTALLATION INSTRUCTIONS VISIT OUR APP

SC-310 STORMTECH CHAMBER SPECIFICATIONS

1. CHAMBERS SHALL BE STORMTECH SC-310.
2. CHAMBERS SHALL BE ARCH-SHAPED AND SHALL BE MANUFACTURED FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE OR POLYETHYLENE COPOLYMERS.
3. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2922 (POLETHYLENE) OR ASTM F2418 (POLYPROPYLENE), "STANDARD SPECIFICATION FOR CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
4. CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORTS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
5. THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
6. CHAMBERS SHALL BE DESIGNED, TESTED AND ALLOWABLE LOAD CONFIGURATIONS DETERMINED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". LOAD CONFIGURATIONS SHALL INCLUDE: 1) INSTANTANEOUS (<1 MIN) AASHTO DESIGN TRUCK LIVE LOAD ON MINIMUM COVER 2) MAXIMUM PERMANENT (75-YR) COVER LOAD AND 3) ALLOWABLE COVER WITH PARKED (1-WEEK) AASHTO DESIGN TRUCK.
7. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 2".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT SHALL BE GREATER THAN OR EQUAL TO 400 LBS/FT/% . THE ASC IS DEFINED IN SECTION 6.2.8 OF ASTM F2418. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.
8. ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. UPON REQUEST BY THE SITE DESIGN ENGINEER OR OWNER, THE CHAMBER MANUFACTURER SHALL SUBMIT A STRUCTURAL EVALUATION FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE AS FOLLOWS:
   - THE STRUCTURAL EVALUATION SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER.
   - THE STRUCTURAL EVALUATION SHALL DEMONSTRATE THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.95 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIRED BY ASTM F2787 AND BY SECTIONS 3 AND 12.12 OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR THERMOPLASTIC PIPE.
   - THE TEST DERIVED CREEP MODULUS AS SPECIFIED IN ASTM F2922 SHALL BE USED FOR PERMANENT DEAD LOAD DESIGN EXCEPT THAT IT SHALL BE THE 75-YEAR MODULUS USED FOR DESIGN.
9. CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.

IMPORTANT - NOTES FOR THE BIDDING AND INSTALLATION OF THE SC-310 SYSTEM

1. STORMTECH SC-310 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
2. STORMTECH SC-310 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
3. CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR AN EXCAVATOR SITUATED OVER THE CHAMBERS. STORMTECH RECOMMENDS 3 BACKFILL METHODS:
   - STONESHOOTER LOCATED OFF THE CHAMBER BED.
   - BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.
   - BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.
4. THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS.
5. JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
6. MAINTAIN MINIMUM - 6" (150 mm) SPACING BETWEEN THE CHAMBER ROWS.
7. EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE 3/4-2" (20-50 mm).
8. THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.
9. ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

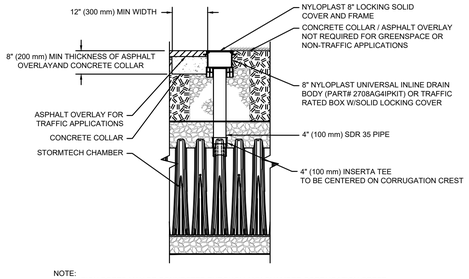
NOTES FOR CONSTRUCTION EQUIPMENT

1. STORMTECH SC-310 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
2. THE USE OF CONSTRUCTION EQUIPMENT OVER SC-310 & SC-740 CHAMBERS IS LIMITED:
   - NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.
   - NO RUBBER TIRED LOADERS, DUMP TRUCKS, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
   - WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
3. FULL 36" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.

USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO THE CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD WARRANTY.

CONTACT STORMTECH AT 1-888-892-2694 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.

3 SC-310 ISOLATOR ROW PLUS DETAIL



NOTE:
INSPECTION PORTS MAY BE CONNECTED THROUGH ANY CHAMBER CORRUGATION CREST.

4 4" PVC INSPECTION PORT DETAIL (SC SERIES CHAMBER)

INSPECTION & MAINTENANCE

STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
- A. INSPECTION PORTS (IF PRESENT)
  - A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
  - A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
  - A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
  - A.4. LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
  - A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR PLUS ROWS
  - B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS
  - B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
    - i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
    - ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
  - B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.

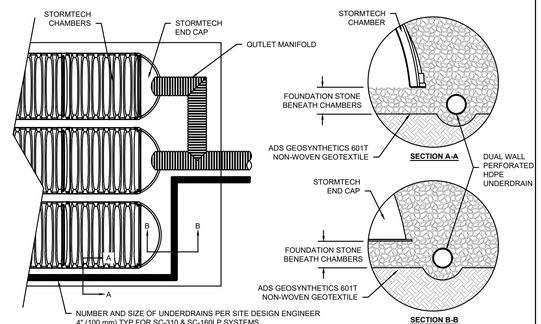
STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45° (1.1 m) OR MORE IS PREFERRED
- B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- C. VACUUM STRUCTURE SUMP AS REQUIRED

STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.

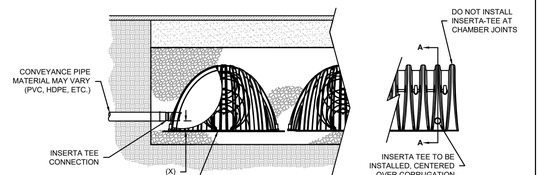
STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.



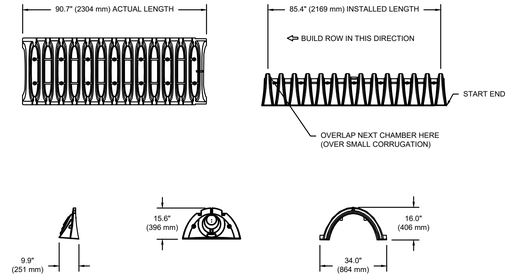
5 UNDERDRAIN DETAIL



NOTES:
- PART NUMBERS WILL VARY BASED ON INLET PIPE MATERIALS. CONTACT STORMTECH FOR MORE INFORMATION.
- CONTACT ADS ENGINEERING SERVICES IF INSERTA TEE INLET MUST BE RAISED AS NOT ALL INVERTS ARE POSSIBLE.

CHAMBER	MAX DIAMETER OF INSERTA TEE	HEIGHT FROM BASE OF CHAMBER (X)
SC-310	6" (150 mm)	4" (100 mm)
SC-740	10" (250 mm)	4" (100 mm)
SC-800	10" (250 mm)	4" (100 mm)
DC-780	10" (250 mm)	4" (100 mm)
MC-3500	12" (300 mm)	6" (150 mm)
MC-4500	12" (300 mm)	8" (200 mm)
MC-7200	12" (300 mm)	8" (200 mm)
INSERTA TEE FITTINGS AVAILABLE FOR SDR 26, SDR 35, SCH 40 IPS GASKETED & SOLVENT WELD, N-12, HP STORM, C-900 OR DUCTILE IRON		

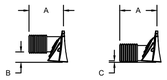
6 INSERTA-TEE SIDE INLET DETAIL



NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	34.0" X 16.0" X 85.4"	(864 mm X 406 mm X 2169 mm)
CHAMBER STORAGE	14.7 CUBIC FEET	(0.42 m³)
MINIMUM INSTALLED STORAGE*	31.0 CUBIC FEET	(0.88 m³)
WEIGHT	35.0 lbs.	(16.8 kg)

*ASSUMES 6" (152 mm) ABOVE, BELOW, AND BETWEEN CHAMBERS



PRE-FAB STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"
PRE-FAB STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"
PRE CORED END CAPS END WITH "PC"

PART #	STUB	A	B	C
SC310EPE06T / SC310EPE06TPC	6" (150 mm)	9.6" (244 mm)	5.8" (147 mm)	---
SC310EPE06B / SC310EPE06BPC			---	0.5" (13 mm)
SC310EPE08T / SC310EPE08TPC	8" (200 mm)	11.9" (302 mm)	3.5" (89 mm)	---
SC310EPE08B / SC310EPE08BPC			---	0.6" (15 mm)
SC310EPE10T / SC310EPE10TPC	10" (250 mm)	12.7" (323 mm)	1.4" (36 mm)	---
SC310EPE10B / SC310EPE10BPC			---	0.7" (18 mm)
SC310ECE2*	12" (300 mm)	13.5" (343 mm)	---	0.9" (23 mm)

ALL STUBS, EXCEPT FOR THE SC310ECEZ ARE PLACED AT BOTTOM OF END CAP SUCH THAT THE OUTSIDE DIAMETER OF THE STUB IS FLUSH WITH THE BOTTOM OF THE END CAP. FOR ADDITIONAL INFORMATION CONTACT STORMTECH AT 1-888-892-2694.

* FOR THE SC310ECEZ THE 12" (300 mm) STUB LIES BELOW THE BOTTOM OF THE END CAP APPROXIMATELY 0.25" (6 mm). BACKFILL MATERIAL SHOULD BE REMOVED FROM BELOW THE N-12 STUB SO THAT THE FITTING SITS LEVEL.

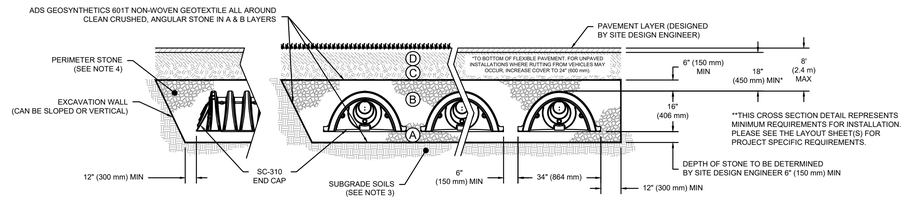
NOTE: ALL DIMENSIONS ARE NOMINAL

2 SC-310 TECHNICAL SPECIFICATIONS

ACCEPTABLE FILL MATERIALS: STORMTECH SC-310 CHAMBER SYSTEMS

	MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	**FINAL FILL:** FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER.	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145[1] A-1, A-2-4, A-3 OR AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE[5]	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE[5]	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE.[2,3]

PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (150 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
4. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.
5. WHERE RECYCLED CONCRETE AGGREGATE IS USED IN LAYERS 'A' OR 'B' THE MATERIAL SHOULD ALSO MEET THE ACCEPTABILITY CRITERIA OUTLINED IN TECHNICAL NOTE 6.20 "RECYCLED CONCRETE STRUCTURAL BACKFILL".



NOTES:

1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2922 (POLETHYLENE) OR ASTM F2418 (POLYPROPYLENE), "STANDARD SPECIFICATION FOR CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
2. SC-310 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
4. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
5. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 2".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2922 SHALL BE GREATER THAN OR EQUAL TO 400 LBS/FT/%. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

1 SC-310 CROSS SECTION DETAIL

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PRELIMINARY / NOT FOR CONSTRUCTION

PLAN REVISIONS

NO.	DESCRIPTION:	DATE:	BY:
1	-	-	-
2	-	-	-
3	-	-	-
4	-	-	-
5	-	-	-
6	-	-	-
7	-	-	-
8	-	-	-

SOUTH CAROLINA PROFESSIONAL ENGINEER STEVEN WADE ANDREWS NO. 12860 06/26/2024

SOUTH CAROLINA NOTIONAL DAVIS & FLOYD, INC. NO. C00538 CERTIFICATE OF AUTHORIZATION

DAVIS & FLOYD
PLAN | DESIGN | ENGINEER
DAVISFLOYD.COM
2712 BULL STREET SUITE A
BEAUFORT, SC 29902
(843) 379-2222

Site Development Plan
For
Bluffton Comm. Hospital
Buckwalter & Bluffton Pkwy
Town of Bluffton
Beaufort County, SC

Stormtech
SC-310 Details

Date Drawn:	05/31/18
Last Revised:	06/26/24
Drawn By:	L. Wilen
Engineer:	S. Andrews

SHEET #: 19

JOB: 180021

ADS Advanced Drainage Systems, Inc.

ADS SiteAssist® FOR STORMTECH INSTALLATION INSTRUCTIONS VISIT OUR APP

SC-160LP STORMTECH CHAMBER SPECIFICATIONS

1. CHAMBERS SHALL BE STORMTECH SC-160LP.
2. CHAMBERS SHALL BE ARCH-SHAPED AND SHALL BE MANUFACTURED FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE COPOLYMERS.
3. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
4. CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORTS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
5. THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
6. CHAMBERS SHALL BE DESIGNED, TESTED AND ALLOWABLE LOAD CONFIGURATIONS DETERMINED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". LOAD CONFIGURATIONS SHALL INCLUDE: 1) INSTANTANEOUS (<1 MIN) AASHTO DESIGN TRUCK LIVE LOAD ON MINIMUM COVER 2) MAXIMUM PERMANENT (75-YR) COVER LOAD AND 3) ALLOWABLE COVER WITH PARKED (1-WEEK) AASHTO DESIGN TRUCK.
7. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 1.5".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT SHALL BE GREATER THAN OR EQUAL TO 400 LBS/FT/%. THE ASC IS DEFINED IN SECTION 6.2.8 OF ASTM F2418. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.
8. ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. UPON REQUEST BY THE SITE DESIGN ENGINEER OR OWNER, THE CHAMBER MANUFACTURER SHALL SUBMIT A STRUCTURAL EVALUATION FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE AS FOLLOWS:
   - THE STRUCTURAL EVALUATION SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER.
   - THE STRUCTURAL EVALUATION SHALL DEMONSTRATE THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.95 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIRED BY ASTM F2787 AND BY SECTIONS 3 AND 12.12 OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR THERMOPLASTIC PIPE.
   - THE TEST DERIVED CREEP MODULUS AS SPECIFIED IN ASTM F2418 SHALL BE USED FOR PERMANENT DEAD LOAD DESIGN EXCEPT THAT IT SHALL BE THE 75-YEAR MODULUS USED FOR DESIGN.
9. CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.

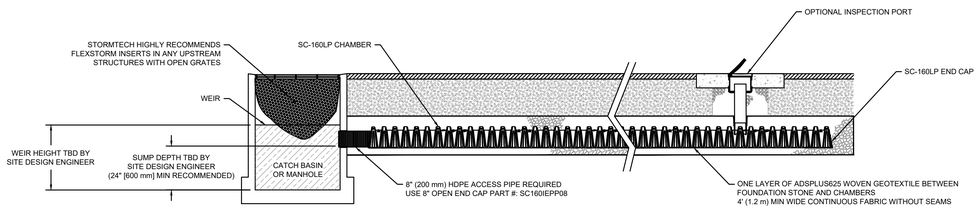
IMPORTANT - NOTES FOR THE BIDDING AND INSTALLATION OF THE SC-160LP SYSTEM

1. STORMTECH SC-160LP CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
2. STORMTECH SC-160LP CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-160LP CONSTRUCTION GUIDE".
3. FOUNDATION STONE AND EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE; AASHTO M43 #3,357, 4, 467, 5, 56, OR 57.
4. THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS.
5. THE DEPTH OF FOUNDATION STONE SHALL BE DETERMINED BASED ON THE SUBGRADE BEARING CAPACITY PROVIDED BY THE SITE DESIGN ENGINEER.
6. THE CONTRACTOR MUST REPORT ANY DISCREPANCIES CONCERNING CHAMBER FOUNDATION DESIGN AND SUBGRADE BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.
7. JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
8. CHAMBERS SHALL BE INSTALLED "TOE TO TOE". NO ADDITIONAL SPACING BETWEEN ROWS IS REQUIRED.
9. STORMTECH RECOMMENDS 3 BACKFILL METHODS:
   - STONESHOOTER LOCATED OFF THE CHAMBER BED.
   - BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.
   - BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.
10. ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

NOTES FOR CONSTRUCTION EQUIPMENT

1. THE USE OF CONSTRUCTION EQUIPMENT OVER SC-160LP CHAMBERS IS LIMITED:
   - NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.
   - NO RUBBER TIRED LOADERS, DUMP TRUCKS, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH SC-160LP CONSTRUCTION GUIDE".
   - WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH SC-106LP CONSTRUCTION GUIDE".
2. FULL 36" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.

CONTACT STORMTECH AT 1-888-892-2694 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.



3 SC-160LP ISOLATOR ROW PLUS DETAIL

INSPECTION & MAINTENANCE

STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
- A. INSPECTION PORTS (IF PRESENT)
  - A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
  - A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
  - A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
  - A.4. LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
  - A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR PLUS ROWS
  - B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS
  - B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
    - i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
    - ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
  - B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.

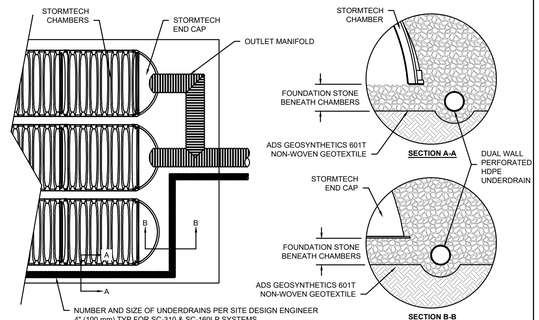
STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45° (1.1 m) OR MORE IS PREFERRED
- B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- C. VACUUM STRUCTURE SUMP AS REQUIRED

STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.

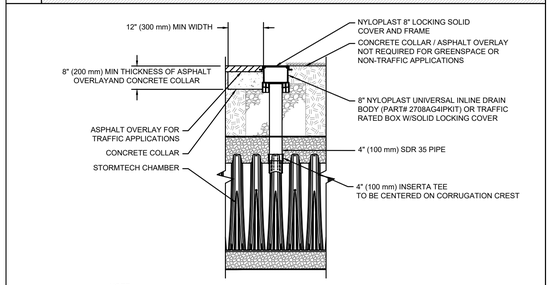
STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

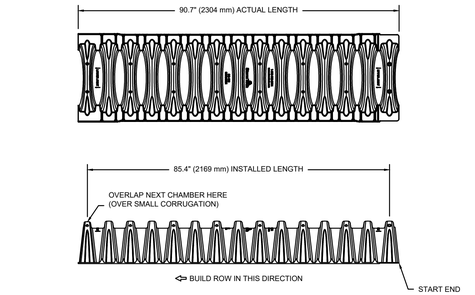


5 UNDERDRAIN DETAIL



NOTE:
INSPECTION PORTS MAY BE CONNECTED THROUGH ANY CHAMBER CORRUGATION CREST.

4 4" PVC INSPECTION PORT DETAIL (SC SERIES CHAMBER)

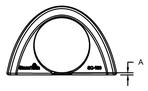


NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	25.0" X 12.0" X 85.4"	(635 mm X 305 mm X 2169 mm)
CHAMBER STORAGE	6.85 CUBIC FEET	(0.19 m³)
MINIMUM INSTALLED STORAGE*	16.0 CUBIC FEET	(0.45 m³)
WEIGHT	24.0 lbs.	(10.9 kg)

*ASSUMES 6" (152 mm) ABOVE, 6" (152 mm) BELOW, AND STONE BETWEEN CHAMBERS WITH 40% STONE POROSITY.

PART #	STUB	A
SC160EPP	6" (150 mm)	0.66" (16 mm)
	8" (200 mm)	0.80" (20 mm)
SC160EPP08	8" (200 mm)	0.96" (24 mm)



ALL STUBS ARE PLACED AT BOTTOM OF END CAP SUCH THAT THE OUTSIDE DIAMETER OF THE STUB IS FLUSH WITH THE BOTTOM OF THE END CAP. FOR ADDITIONAL INFORMATION CONTACT STORMTECH AT 1-888-892-2694.

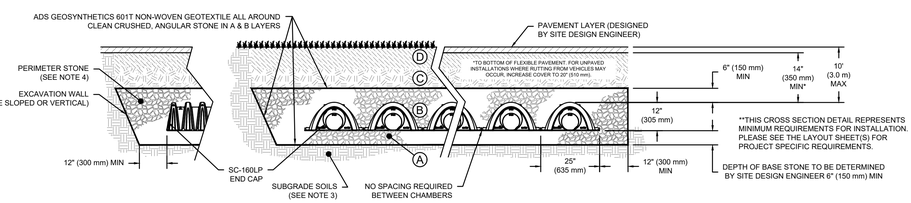
NOTE: ALL DIMENSIONS ARE NOMINAL

2 SC-160LP TECHNICAL SPECIFICATIONS

ACCEPTABLE FILL MATERIALS: STORMTECH SC-160LP CHAMBER SYSTEMS

	MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	**FINAL FILL:** FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 14" (355 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145[4] A-1, A-2-4, A-3 OR AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE[5]	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE[5]	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE.[2,3]

PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (150 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
4. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.
5. WHERE RECYCLED CONCRETE AGGREGATE IS USED IN LAYERS 'A' OR 'B' THE MATERIAL SHOULD ALSO MEET THE ACCEPTABILITY CRITERIA OUTLINED IN TECHNICAL NOTE 6.20 "RECYCLED CONCRETE STRUCTURAL BACKFILL".



NOTES:

1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
2. CHAMBERS SHALL BE DESIGNED, TESTED AND ALLOWABLE LOAD CONFIGURATIONS DETERMINED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". LOAD CONFIGURATIONS SHALL INCLUDE: 1) INSTANTANEOUS (<1 MIN) AASHTO DESIGN TRUCK LIVE LOAD ON MINIMUM COVER 2) MAXIMUM PERMANENT (75-YR) COVER LOAD AND 3) ALLOWABLE COVER WITH PARKED (1-WEEK) AASHTO DESIGN TRUCK.
3. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
4. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
5. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 1.5"
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 400 LBS/FT/%. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

1 SC-160LP CROSS SECTION DETAIL

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PRELIMINARY / NOT FOR CONSTRUCTION

PLAN REVISIONS

NO.	DESCRIPTION:	DATE:	BY:
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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 012860 STEVEN WADE ANDREWS 08/26/2024

SOUTH CAROLINA NOTARY PUBLIC DAVIS & FLOYD, INC. NO. C00538 CERTIFICATE OF AUTHORIZATION

DAVIS & FLOYD
PLAN | DESIGN | ENGINEER
DAVISFLOYD.COM
2712 BULL STREET SUITE A
BEAUFORT, SC 29902
(843) 379-2222

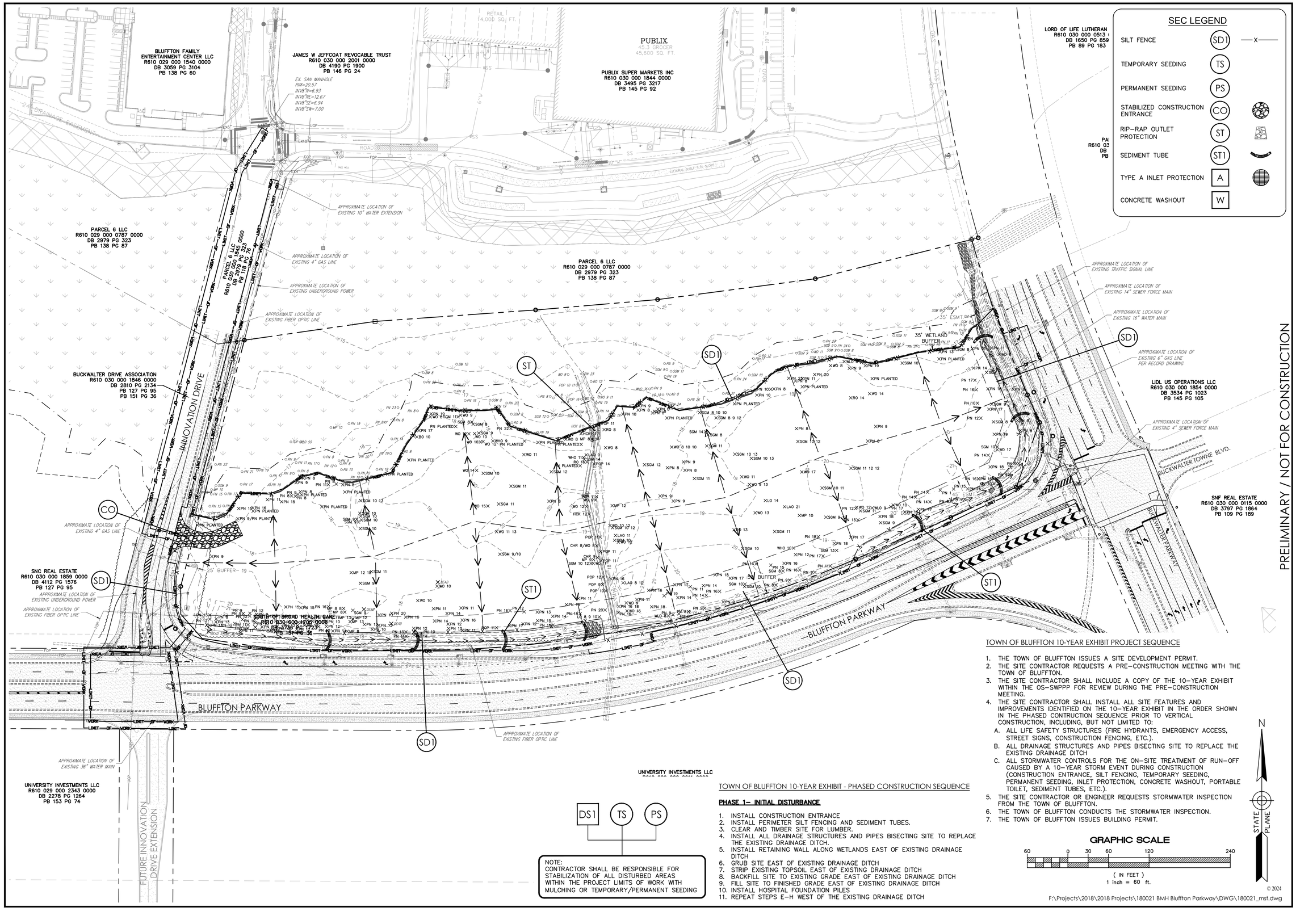
Site Development Plan For
Bluffton Comm. Hospital
Buckwalter & Bluffton Pkwy
Town of Bluffton
Beaufort County, SC

Stormtech SC-160LP Details

Date Drawn:	05/31/18
Last Revised:	06/26/24
Drawn By:	L. Wilen
Engineer:	S. Andrews

SHEET #: 20

JOB: 180021



SEC LEGEND

SILT FENCE	SD1	—X—
TEMPORARY SEEDING	TS	
PERMANENT SEEDING	PS	
STABILIZED CONSTRUCTION ENTRANCE	CO	
RIP-RAP OUTLET PROTECTION	ST	
SEDIMENT TUBE	ST1	
TYPE A INLET PROTECTION	A	
CONCRETE WASHOUT	W	

NOTE:
CONTRACTOR SHALL BE RESPONSIBLE FOR STABILIZATION OF ALL DISTURBED AREAS WITHIN THE PROJECT LIMITS OF WORK WITH MULCHING OR TEMPORARY/PERMANENT SEEDING

DS1 TS PS

TOWN OF BLUFFTON 10-YEAR EXHIBIT - PHASED CONSTRUCTION SEQUENCE

PHASE 1– INITIAL DISTURBANCE

1. INSTALL CONSTRUCTION ENTRANCE
2. INSTALL PERIMETER SILT FENCING AND SEDIMENT TUBES.
3. CLEAR AND TIMBER SITE FOR LUMBER.
4. INSTALL ALL DRAINAGE STRUCTURES AND PIPES BISECTING SITE TO REPLACE THE EXISTING DRAINAGE DITCH.
5. INSTALL RETAINING WALL ALONG WETLANDS EAST OF EXISTING DRAINAGE DITCH
6. GRUB SITE EAST OF EXISTING DRAINAGE DITCH
7. STRIP EXISTING TOPSOIL EAST OF EXISTING DRAINAGE DITCH
8. BACKFILL SITE TO EXISTING GRADE EAST OF EXISTING DRAINAGE DITCH
9. FILL SITE TO FINISHED GRADE EAST OF EXISTING DRAINAGE DITCH
10. INSTALL HOSPITAL FOUNDATION PILES
11. REPEAT STEPS E–H WEST OF THE EXISTING DRAINAGE DITCH

TOWN OF BLUFFTON 10-YEAR EXHIBIT PROJECT SEQUENCE

1. THE TOWN OF BLUFFTON ISSUES A SITE DEVELOPMENT PERMIT.
2. THE SITE CONTRACTOR REQUESTS A PRE–CONSTRUCTION MEETING WITH THE TOWN OF BLUFFTON.
3. THE SITE CONTRACTOR SHALL INCLUDE A COPY OF THE 10–YEAR EXHIBIT WITHIN THE OS–SWPPP FOR REVIEW DURING THE PRE–CONSTRUCTION MEETING.
4. THE SITE CONTRACTOR SHALL INSTALL ALL SITE FEATURES AND IMPROVEMENTS IDENTIFIED ON THE 10–YEAR EXHIBIT IN THE ORDER SHOWN IN THE PHASED CONTRUCTION SEQUENCE PRIOR TO VERTICAL CONSTRUCTION, INCLUDING, BUT NOT LIMITED TO:
   - A. ALL LIFE SAFETY STRUCTURES (FIRE HYDRANTS, EMERGENCY ACCESS, STREET SIGNS, CONSTRUCTION FENCING, ETC.).
   - B. ALL DRAINAGE STRUCTURES AND PIPES BISECTING SITE TO REPLACE THE EXISTING DRAINAGE DITCH
   - C. ALL STORMWATER CONTROLS FOR THE ON–SITE TREATMENT OF RUN–OFF CAUSED BY A 10–YEAR STORM EVENT DURING CONSTRUCTION (CONSTRUCTION ENTRANCE, SILT FENCING, TEMPORARY SEEDING, PERMANENT SEEDING, INLET PROTECTION, CONCRETE WASHOUT, PORTABLE TOILET, SEDIMENT TUBES, ETC.).
5. THE SITE CONTRACTOR OR ENGINEER REQUESTS STORMWATER INSPECTION FROM THE TOWN OF BLUFFTON.
6. THE TOWN OF BLUFFTON CONDUCTS THE STORMWATER INSPECTION.
7. THE TOWN OF BLUFFTON ISSUES BUILDING PERMIT.

GRAPHIC SCALE

60 0 30 60 120 240

(IN FEET)
1 inch = 60 ft.

N

STATE PLANE

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PRELIMINARY / NOT FOR CONSTRUCTION

PLAN REVISIONS

NO.	DESCRIPTION:	DATE:	BY:
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SOUTH CAROLINA PROFESSIONAL ENGINEER STEVEN WADE SMISHOW No. 31315 06/26/2024 CERTIFICATE OF AUTHORIZATION SOUTH CAROLINA DAVIS & FLOYD, INC. NO. C00536

DAVIS & FLOYD
PLAN | DESIGN | ENGINEER
DAVISFLOYD.COM
2712 BULL STREET SUITE A
BEAUFORT, SC 29902
(843) 379-2222

Site Development Plan
For
Bluffton Comm. Hospital
Buckwalter & Bluffton Pkwy
Town of Bluffton
Beaufort County, SC

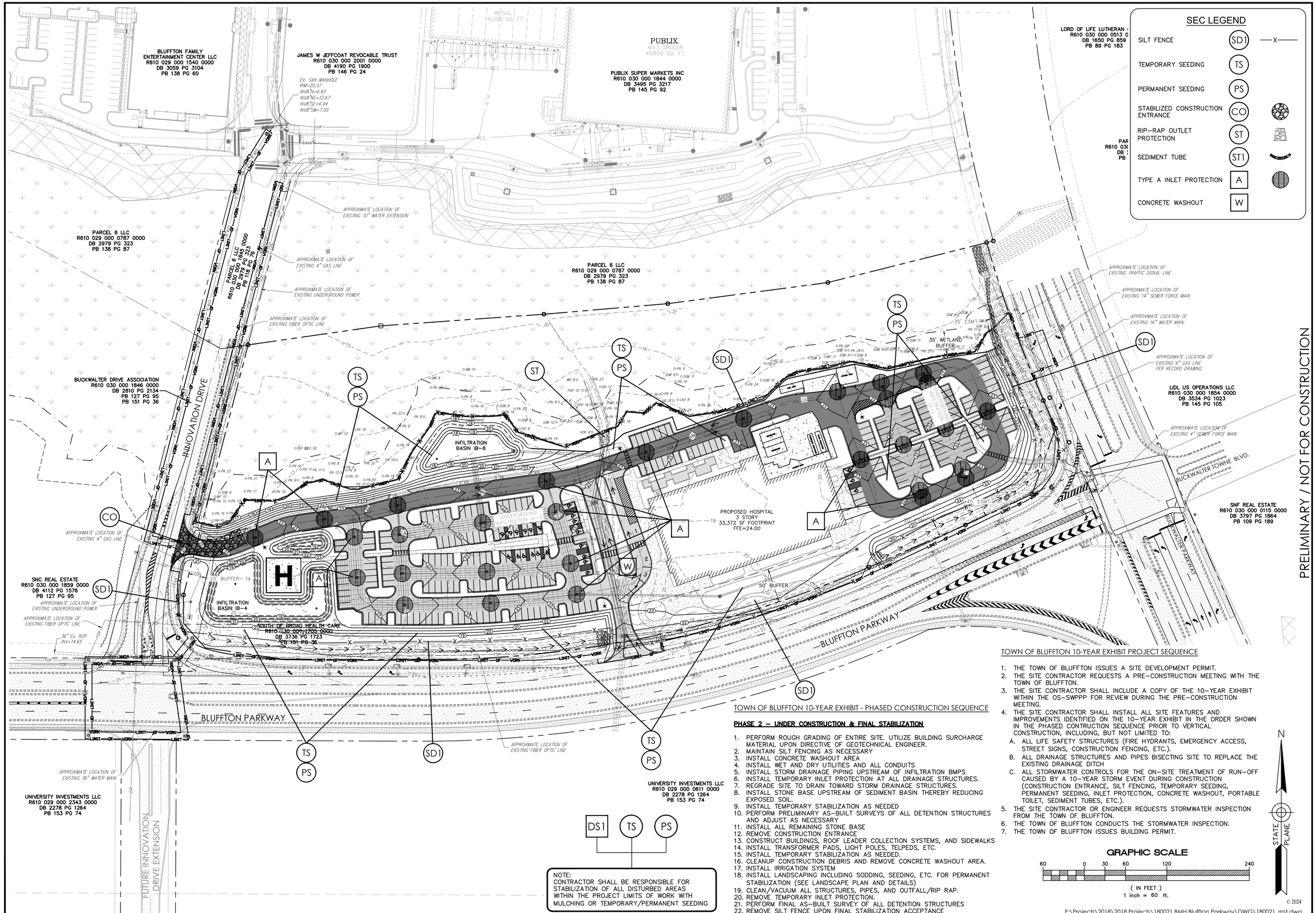
Town of Bluffton
10-Year Exhibit
Initial Disturbance

Date Drawn:	05/31/18
Last Revised:	06/26/24
Drawn By:	L. Wilen
Engineer:	S. Andrews

SHEET #: 21

JOB: 180021

ATTACHMENT 4



SEC LEGEND

SILT FENCE	SD1	—X—
TEMPORARY SEEDING	TS	
PERMANENT SEEDING	PS	
STABILIZED CONSTRUCTION ENTRANCE	CO	
RIP-RAP OUTLET PROTECTION	ST	
SEDIMENT TUBE	ST1	
TYPE A INLET PROTECTION	A	
CONCRETE WASHOUT	W	

TOWN OF BLUFFTON 10-YEAR EXHIBIT - PHASED CONSTRUCTION SEQUENCE

PHASE 2 – UNDER CONSTRUCTION & FINAL STABILIZATION

1. PERFORM ROUGH GRADING OF ENTIRE SITE. UTILIZE BUILDING SURCHARGE MATERIAL UPON DIRECTIVE OF GEOTECHNICAL ENGINEER.
2. MAINTAIN SILT FENCING AS NECESSARY
3. INSTALL CONCRETE WASHOUT AREA
4. INSTALL WET AND DRY UTILITIES AND ALL CONDUITS
5. INSTALL STORM DRAINAGE PIPING UPSTREAM OF INFILTRATION BMPS
6. INSTALL TEMPORARY INLET PROTECTION AT ALL DRAINAGE STRUCTURES.
7. REGRADE SITE TO DRAIN TOWARD STORM DRAINAGE STRUCTURES.
8. INSTALL STONE BASE UPSTREAM OF SEDIMENT BASIN THEREBY REDUCING EXPOSED SOIL.
9. INSTALL TEMPORARY STABILIZATION AS NEEDED
10. PERFORM PRELIMINARY AS-BUILT SURVEYS OF ALL DETENTION STRUCTURES AND ADJUST AS NECESSARY
11. INSTALL ALL REMAINING STONE BASE
12. REMOVE CONSTRUCTION ENTRANCE
13. CONSTRUCT BUILDINGS, ROOF LEADER COLLECTION SYSTEMS, AND SIDEWALKS
14. INSTALL TRANSFORMER PADS, LIGHT POLES, TELPEDS, ETC.
15. INSTALL TEMPORARY STABILIZATION AS NEEDED.
16. CLEANUP CONSTRUCTION DEBRIS AND REMOVE CONCRETE WASHOUT AREA.
17. INSTALL IRRIGATION SYSTEM
18. INSTALL LANDSCAPING INCLUDING SODDING, SEEDING, ETC. FOR PERMANENT STABILIZATION (SEE LANDSCAPE PLAN AND DETAILS)
19. CLEAN/VACUUM ALL STRUCTURES, PIPES, AND OUTFALL/RIP RAP.
20. REMOVE TEMPORARY INLET PROTECTION.
21. PERFORM FINAL AS-BUILT SURVEY OF ALL DETENTION STRUCTURES
22. REMOVE SILT FENCE UPON FINAL STABILIZATION ACCEPTANCE

DS1 TS PS

NOTE:
CONTRACTOR SHALL BE RESPONSIBLE FOR STABILIZATION OF ALL DISTURBED AREAS WITHIN THE PROJECT LIMITS OF WORK WITH MULCHING OR TEMPORARY/PERMANENT SEEDING

TOWN OF BLUFFTON 10-YEAR EXHIBIT PROJECT SEQUENCE

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GRAPHIC SCALE

60 0 30 60 120 240

(IN FEET)
1 inch = 60 ft.

N
STATE PLANE

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PRELIMINARY / NOT FOR CONSTRUCTION

PLAN REVISIONS

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SOUTH CAROLINA PROFESSIONAL ENGINEER STEVEN WADE SMISLOW No. 31315 DATE 08/26/2024

SOUTH CAROLINA DAVIS & FLOYD, INC. NO. C00536 CERTIFICATE OF

DAVIS & FLOYD
PLAN | DESIGN | ENGINEER
DAVISFLOYD.COM
2712 BULL STREET SUITE A
BEAUFORT, SC 29902
(843) 379-2222

Site Development Plan
For
Bluffton Comm. Hospital
Buckwalter & Bluffton Pkwy
Town of Bluffton
Beaufort County, SC

Town of Bluffton
10-Year Exhibit
Stabilization

Date Drawn:	05/31/18
Last Revised:	06/26/24
Drawn By:	L. Wilen
Engineer:	S. Andrews

SHEET #: 22

JOB: 180021

Built on Tradition

Highland Tank®

Fireguard® Tanks

HT-1105

Fireguard® tanks are thermally protected, double-wall steel aboveground tanks. Fireguard® is an alternative for the safe storage of motor fuels and other flammable and combustible liquids aboveground. They are used where a fire-protected tank is needed because of setback limitations or regulatory requirements. These tanks are UL labeled and meet or exceed the requirements of UL-2085 including:

- Two-Hour Full Scale Pool Fire Test
- Hose Stream Test
- Ballistics/Projectile Test
- Vehicle Impact Test
- Interstitial Communication Test

Blast effect analysis proved Fireguard® resists, with limited damage to the primary steel tank, the effects of a 50 lb man-portable explosive device,a 500 lb vehicle-born improvised explosive device, and a 10 psig vapor cloud explosion. Fireguard® tanks are approved and labeled for service in New York City with the addition of flanged and dished heads and a 15 to 50 psi hydro-test on the inner tank.

Fireguard® Features

Each tank is constructed with a minimum 3" interstice around the inner tank. The interstice is completely filled with a lightweight, monolithic material. This high efficiency insulation protects the inner tank in the unlikely event of a fire or extreme heat. It is porous to allow fluid migration through the interstice to the monitoring point.

Unlike concrete encased tanks, Fireguard® tanks' steel outer wall protects the insulation, eliminating the problem of cracking and spalling concrete. Because of its unique construction, each tank is pressure-testable in the factory and at the job-site.

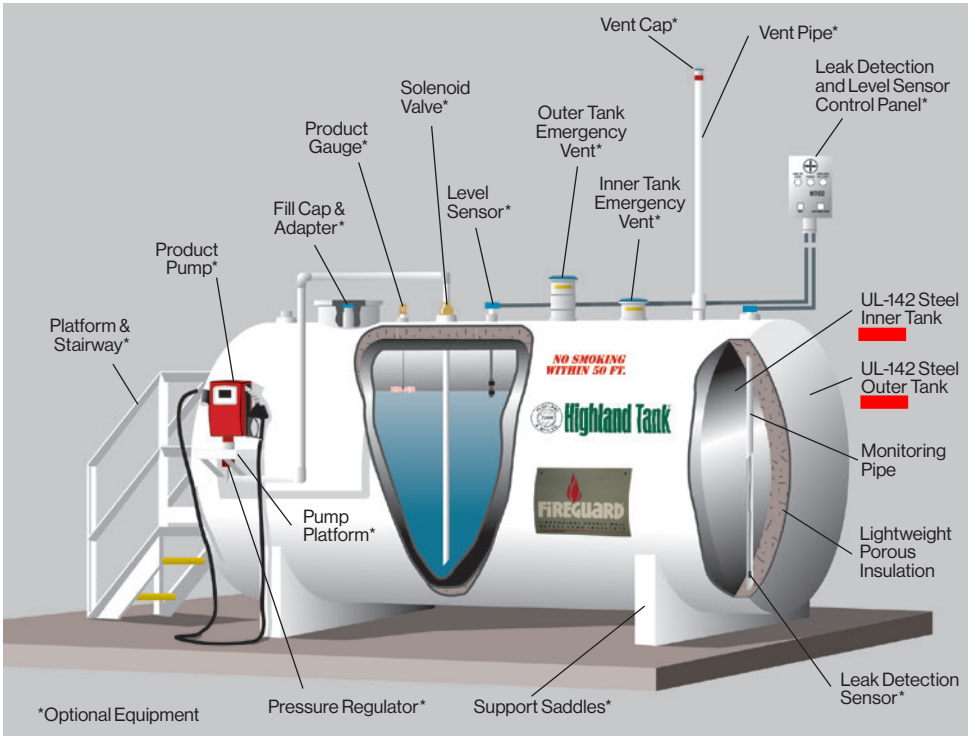
With Fireguard®, there is no question of compliance with fire codes; the tank is shipped with factory-installed emergency vents on both the primary and the secondary containment tanks for protection if exposed to fire or excessive pressure.

Cylindrical & Rectangular

Aboveground Double-Wall Tanks

ATTACHMENT 4

Double-wall, fire-protected, aboveground storage



Fireguard® Advantages

- Carries UL-2085 listing as Insulated Secondary Containment for Flammable Liquids
- Lightweight – insulation 75% lighter than concrete – costing less to ship and install
- Reduces tank setback and separation distance requirements by up to 50%
- Fireguard's® secondary containment can be tightness-tested on-site
- Steel outer wall protects insulation
- Available in rectangular or cylindrical design
- Wide range of tank capacities: 300-60,000 gallons
- Subject to strict, three-tier independent third-party quality assurance program
- STI® standard 30-year limited warranty

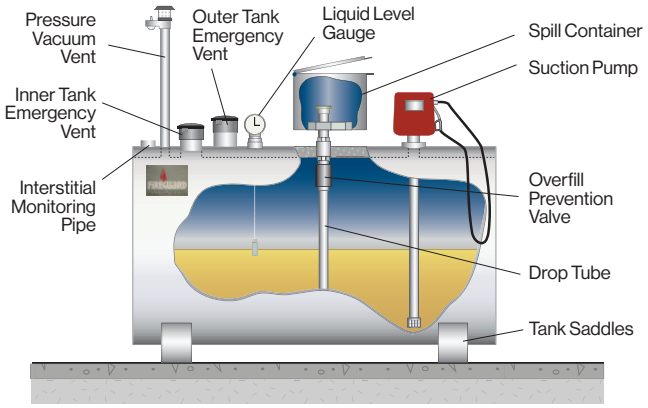
Pre-engineered design options - solution oriented designs

Highland Tank & MFG. CO. Highland Tank®

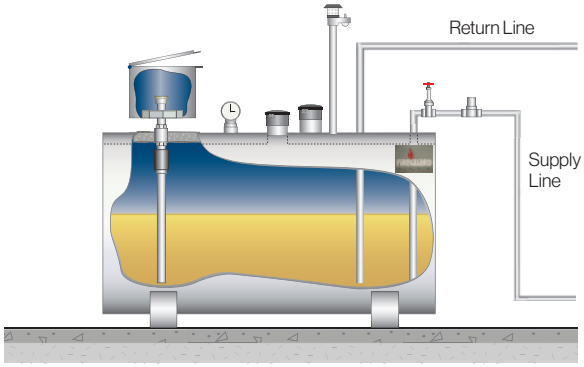
ATTACHMENT 4

Fireguard® Design Options

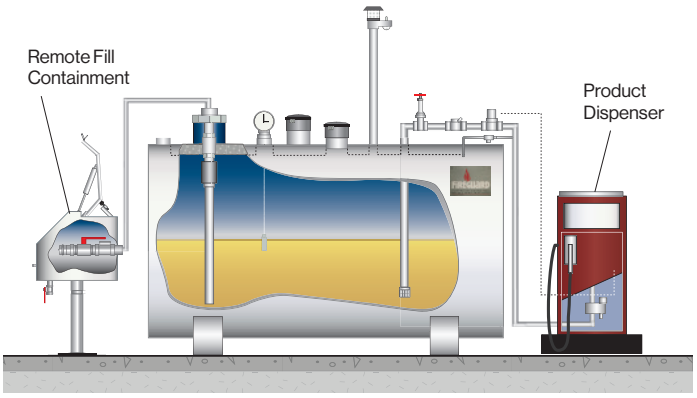
Highland Tank offers a wide range of accessories and options to configure your tank for your specific application including:



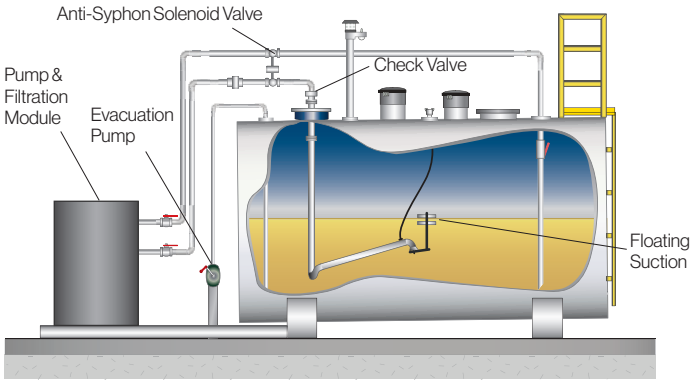
Diesel or Biodiesel Blend :
Top-fill and top-mounted pump suction system. This configuration is popular in many small diesel or biodiesel vehicle fueling applications.



Boiler or Emergency Diesel-Electric Generator :
Suction system with top-fill supply and return lines. This is a typical Fireguard® layout for fuel oil applications or supplying stationary combustion engines used for auxiliary power and emergency generators at first responder or mission critical facilities.



Gasoline or E85 Ethanol:
Suction system with remote fill and pump. This arrangement is common at many fleet vehicle maintenance facilities for diesel, biodiesel, gasoline or E85 fuel ethanol dispensing.



Aviation Refueling:
Fireguard® Tank as part of a modular system with pump and filtration module This arrangement would include an additional module(s) for direct-to-plane, truck load or remote dispensing. A specific application at a military or commercial installation would dictate engineered fueling systems.

Highland Tank®

ATTACHMENT 4

Sizing Schedules

Cylindrical

Volume Gallons	Inner Tank Nominal Dimensions Diameter	Length	Outer Tank Nominal Dimensions Diameter	Overall Height	Length
300	3'-2"	5'-0"	4'-2"	5'-0"	6'-0"
500	4'-0"	5'-5"	4'-6"	5'-4"	6'-0"
1,000	4'-0"	10'-8"	4'-6"	5'-4"	11'-3"
1,000	5'-4"	6'-0"	5'-10"	6'-7"	6'-7"
2,000	5'-4"	12'-0"	5'-10"	6'-8"	12'-7"
3,000	5'-4"	18'-0"	5'-10"	6'-8"	18'-7"
4,000	5'-4"	24'-0"	5'-10"	6'-8"	24'-7"
4,000	8'-0"	10'-8"	8'-6"	9'-4"	11'-3"
5,000	8'-0"	13'-4"	8'-6"	9'-4"	13'-11"
6,000	8'-0"	16'-0"	8'-6"	9'-4"	16'-7"
8,000	8'-0"	21'-4"	8'-6"	9'-4"	21'-11"
10,000	8'-0"	26'-8"	8'-6"	9'-4"	27'-3"
10,000	10'-0"	17'-1"	10'-6"	11'-4"	17'-8"
12,000	8'-0"	32'-0"	8'-6"	9'-4"	32'-7"
12,000	10'-0"	20'-6"	10'-6"	11'-4"	21'-1"
15,000	10'-0"	25'-6"	10'-6"	11'-4"	26'-1"
20,000	10'-0"	34'-1"	10'-6"	11'-4"	34'-8"
25,000	10'-0"	42'-7"	10'-6"	11'-4"	43'-2"
30,000	10'-0"	51'-1"	10'-6"	11'-4"	51'-8"
40,000	11'-6"	51'-6"	12'-0"	13'-0"	52'-1"
50,000	12'-0"	59'-2"	12'-6"	13'-6"	59'-9"
60,000	13'-0"	62'-2"	13'-6"	14'-6"	62'-8"

Rectangular

Volume Gallons	Inner Tank Nominal Dimensions Width	Height	Length	Outer Tank Nominal Dimensions Width	Overall Height	Length
300	3'-0"	3'-0"	4'-6"	4'-0"	4'-3"	5'-6"
500	3'-0"	3'-0"	7'-6"	4'-0"	4'-3"	8'-6"
1,000	4'-8"	3'-0"	9'-8"	5'-2"	3'-7"	10'-3"
2,000	6'-4"	4'-0"	10'-8"	6'-10"	4'-7"	11'-3"
3,000	5'-5"	5'-5"	13'-9"	6'-0"	6'-0"	14'-4"
4,000	5'-5"	5'-5"	18'-3"	6'-0"	6'-0"	18'-10"
5,000	5'-5"	5'-5"	22'-10"	6'-0"	6'-0"	23'-5"
6,000	10'-10"	5'-5"	13'-9"	11'-4"	6'-0"	14'-4"
8,000	10'-10"	5'-5"	18'-3"	11'-4"	6'-0"	18'-10"
10,000	10'-10"	5'-5"	22'-10"	11'-4"	6'-0"	23'-5"
12,000	10'-10"	5'-5"	27'-5"	11'-4"	6'-0"	28'-0"

Highland Tank®

MADE IN U. S. A.

Stoystown, PA
One Highland Rd.
Stoystown, PA 15563
(814) 893-5701

Manheim, PA
4535 Elizabethtown Rd.
Manheim, PA 17545
(717) 664-0600

Watervliet, NY
958 19th St.
Watervliet, NY 12189
(518) 273-0801

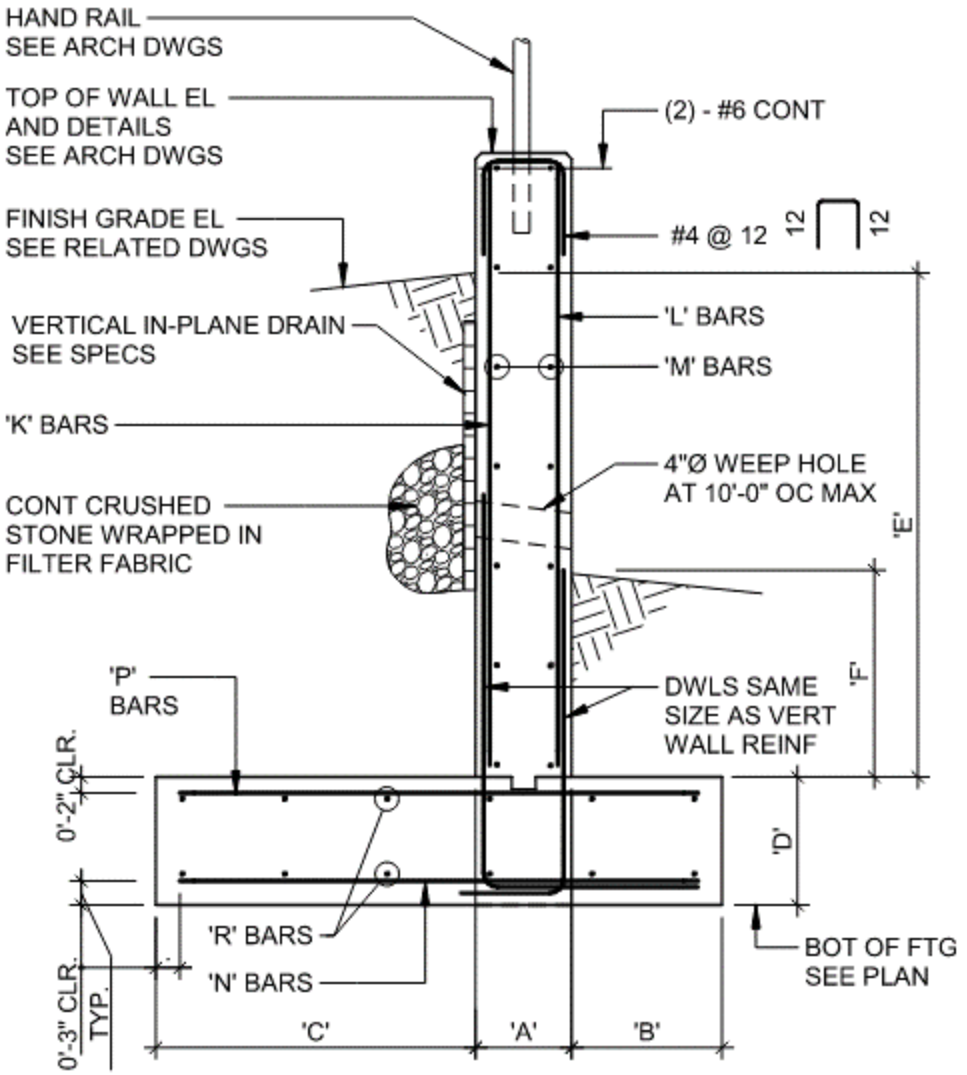
Greensboro, NC
2700 Patterson St.
Greensboro, NC 27407
(336) 218-0801

Friedens, PA
1510 Stoystown Rd.
Friedens, PA 15541
(814) 443-6800

Clarkston, MI
4701 White Lake Rd.
Clarkston, MI 48346
(248) 625-8700

Mancelona, MI
9517 Lake St.
Mancelona, MI 49659
(231) 587-8412

ATTACHMENT 4



SITE RETAINING WALL SCHEDULE												
WALL TYPE	DIMENSIONS						REINFORCING					
	A	B	C	D	E	F	K	L	M	N	P	R
W1	0'-8"	2'-0"	3'-0"	12"	4'-9"	2'-6"	#5@9"		#5 @ 12"*	#5 @ 12"	#5 @ 12"	#5 @ 12"
W2												
W3												
W4												

NOTE:

" * " - PROVIDE SINGLE LAYER OF WALL REINF.

8 TYPICAL DETAIL - SITE RETAINING WALL AND SCHEDULE

SCALE: 1/2" = 1'-0"