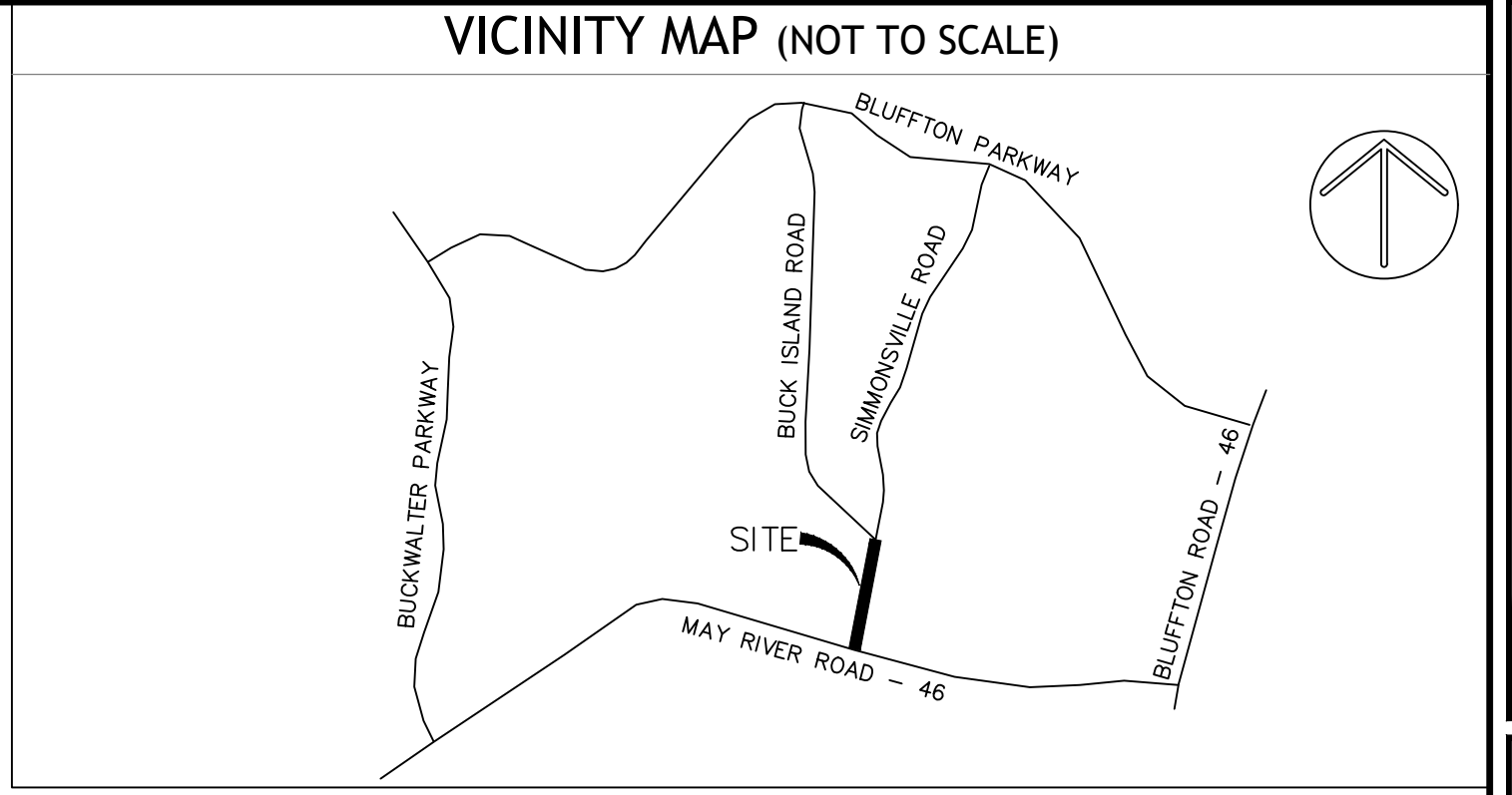


SITE DEVELOPMENT PLANS FOR BUCK ISLAND - SIMMONSVILLE NEIGHBORHOOD SIDEWALKS, PHASE 4 TOWN OF BLUFFTON, SOUTH CAROLINA



GENERAL NOTES:

- 1. BOUNDARY INFORMATION PROVIDED BY BFT-1732-AT1-FULL-EMALDING, DATED 12/29/17, BY ATLAS SURVEYING, INC.
2. TOPOGRAPHIC DATA PROVIDED BY ATLAS SURVEYING, INC. DATED 12/29/17.
3. APPROXIMATE LOCATION OF CERTAIN EXISTING UNDERGROUND UTILITY LINES AND STRUCTURES ARE SHOWN ON THE PLANS FOR INFORMATION ONLY...

WATER AND SEWER LINE CONSTRUCTION:

- 1. ALL WATER METERS AND CLEANSOUTS MUST BE RELOCATED OUTSIDE PROPOSED SIDEWALK PAVEMENT. CONTRACTOR SHALL COORDINATE RELOCATIONS WITH BJWSA.
2. ALL WATER AND SEWER LINE CONSTRUCTION SHALL CONFORM TO APPLICABLE STATE AND BEAUFORT JASPER WATER SEWER AUTHORITY (BJWSA) REQUIREMENTS, STANDARDS AND SPECIFICATIONS.
3. BJWSA WILL BE RESPONSIBLE FOR INSPECTION AND APPROVAL OF ALL WATER AND SEWER SYSTEM CONSTRUCTION AND FOR ACCEPTANCE FOR OPERATION AND MAINTENANCE.

WORK ON SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION RIGHT-OF-WAY:

- 1. CONTRACTOR SHALL REVIEW AND COMPLY WITH ALL CONDITIONS AND SPECIAL PROVISIONS CONTAINED IN THE SCDOT ENCROACHMENT PERMITS(S) ISSUED FOR THIS PROJECT.
2. CONTRACTOR IS RESPONSIBLE FOR SUBMITTING CONSTRUCTION NOTIFICATION FORM (48 HOUR MINIMUM) AND COORDINATION OF ALL WORK WITHIN SCDOT RIGHTS-OF-WAY WITH THE LOCAL AND/OR DISTRICT SCDOT ENGINEERING REPRESENTATIVE.
3. CONTRACTOR IS RESPONSIBLE FOR PREPARING AND SUBMITTING A TRAFFIC CONTROL PLAN TO SCDOT FOR APPROVAL MINIMUM 48 HOURS PRIOR TO CONDUCTING WORK IN THE RIGHT-OF-WAY.

TREE PROTECTION-BLUFFTON

- 1. ALL TREES HAVING A TRUNK DIAMETER OF 8-INCHES (dbh) OR LARGER, AND ENDANGERED OR VALUED TREES HAVING A TRUNK DIAMETER OF 4-INCHES (dbh) OR LARGER MUST BE PRESERVED UNLESS SPECIFICALLY APPROVED FOR REMOVAL IN ACCORDANCE WITH TOWN OF BLUFFTON DEVELOPMENT STANDARDS ORDINANCE AND INDICATED ON THE PLANS TO BE REMOVED.
2. THE CONTRACTOR IS RESPONSIBLE FOR MARKING THE TREES DESIGNATED TO BE PRESERVED IN ACCORDANCE WITH THE REQUIREMENTS CONTAINED IN THE TOWN OF BLUFFTON DEVELOPMENT STANDARDS ORDINANCE.
3. PRIOR TO COMMENCING ANY CLEARING OR CONSTRUCTION OPERATIONS ON THE SITE, THE CONTRACTOR SHALL ERRECT TREE PROTECTION BARRIERS AROUND EACH TREE OR GROUP OF TREES DESIGNATED FOR PRESERVATION IN ACCORDANCE WITH THE DETAILS ON THE PLANS AND THE REQUIREMENTS CONTAINED IN THE TOWN OF BLUFFTON UNIFIED ORDINANCE 6.1.6.

SITE GRADING AND DRAINAGE:

- 1. FINAL SIDEWALK GRABES AND SIDEWALKS SHALL NOT OBSTRUCT EXISTING SHEET FLOW AND DRAINAGE PATTERNS FROM ADJACENT PARCELS TO THE BUCK ISLAND ROADSIDE DITCH. PROVIDE AN SCDOT ACCEPTABLE DRAINAGE SOLUTION TO PREVENT IMPOUNDMENT OF EXISTING DRAINAGE FLOW TO EXISTING ROADSIDE DITCHES.
2. ALL UTILITIES SHOWN ARE APPROXIMATE LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING 72-HOUR NOTICE TO ALL RESPECTIVE UTILITY COMPANIES FOR FIELD VERIFICATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.
3. TEMPORARY CONTROL OF STORM WATER DRAINAGE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. SEQUENCING AND CONSTRUCTION TECHNIQUES SHALL PREVENT OBSTRUCTION OF STORM SEWERS, PONDING IN TRAFFIC AREAS OR RISING OF WATER LEVELS WHICH WOULD ENTER ADJACENT BUILDINGS OR STRUCTURES.

SCDHEC/OCRM SEDIMENT AND EROSION CONTROL STANDARD NOTES (REVISED DEC-2012)

- 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 SHOULD 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.
a. WHERE STABILIZATION BY THE 14TH DAY IS PRECLUDED BY SNOW COVER OR FROZEN GROUND CONDITIONS STABILIZATION MEASURES MUST BE INITIATED AS SOON AS PRACTICABLE.
b. 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.

DRY UTILITY CONDUITS FOR ELECTRIC, TELEPHONE AND CABLE TV:

- 1. ALL DRY UTILITY CONDUIT ENDS SHALL BE CAPPED AND MARKED WITH A STEEL REBAR STAKE IMBEDDED ONE (1) FOOT BELOW GROUND SURFACE.
2. 48" MINIMUM BURY DEPTH FOR ALL ELECTRICAL CONDUITS.
3. MAINTAIN MINIMUM 12" VERTICAL CLEARANCE WHEN CROSSING WATER, SEWER, AND STORM DRAIN LINES.
4. MAINTAIN MINIMUM 18" HORIZONTAL CLEARANCE WHEN PARALLELING WATER, SEWER AND STORM DRAIN LINES.
5. EXTEND CONDUIT BEYOND PAVEMENT, CURB, AND SIDEWALKS.

SITE CLEARING AND DEMOLITION:

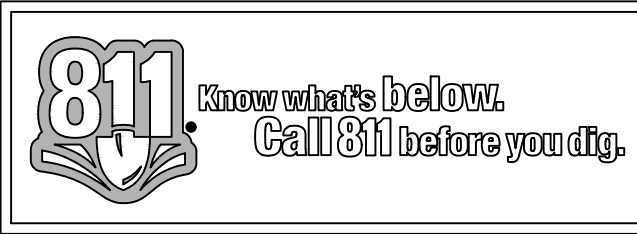
- 1. LIME UP EXISTING TREES AND UNDERBRUSH EXISTING VEGETATION AS NEEDED TO ACCOMMODATE SIDEWALK CONSTRUCTION. GAIN HOME CLEARING AND UNDER BRUSHING OPERATIONS.
2. REMOVE STUMP REMAINS WITHIN DESIGNATED BUFFER ZONES, TREE PROTECTION ZONES, OUTSIDE OF THE PROPERTY LINES OR BEYOND THE CLEARING LIMITS UNLESS OTHERWISE SPECIFICALLY SHOWN ON THE PLANS.
3. ONLY THOSE TREES DESIGNATED ON THE DRAWINGS FOR REMOVAL ARE TO BE REMOVED AS PART OF THE SITE CLEARING OPERATIONS.
4. THE CONTRACTOR SHALL INSTALL A CONTINUOUS LINE OF FLAGGING OR FENCING ALONG THE LIMITS OF CLEARING PRIOR TO COMMENCING ANY CLEARING, DEMOLITION, OR CONSTRUCTION WORK ON THE PROJECT.

UTILITY CONTACTS:

Table with columns for company name, phone number, and address for utility contacts including Palmetto Electric, SCE&G, BJWSA, Hargray Communications, Time Warner Cable, CenturyLink, and Santee Cooper.

CONTRACTOR NOTE:

CONTRACTOR TO OBTAIN AND BECOME FAMILIAR WITH GEOTECHNICAL REPORT # 2018-113 PREPARED BY WARD EDWARDS ENGINEERING. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING A COPY OF THE TECHNICAL SPECIFICATIONS IF NOT PROVIDED WITH THE DRAWINGS.



BUCK ISLAND - SIMMONSVILLE NEIGHBORHOOD SIDEWALKS, PHASE 4 BJWSA PROJECT #: 2018-113

PROJECT INFORMATION

DEVELOPER: TOWN OF BLUFFTON
PROPERTY OWNER: SCDOT
ADDRESS: 20 BRIDGE STREET, BLUFFTON, SC

PROJECT STREET ADDRESS: BUCK ISLAND ROAD, B/W SIMMONSVILLE ROAD AND KITTY ROAD
LATITUDE / LONGITUDE: N 32° 14' 39" W 80° 52' 39"

DEVELOPMENT PERMIT JURISDICTION: TOWN OF BLUFFTON
FLOOD ZONE: ZONE C

VERTICAL CONTROL DATUM: NAVD88
SITE AREA: DISTURBED: 0.75 ACRES

SHEET NO.

- C001 COVER SHEET & CONSTRUCTION NOTES
C002 OVERALL SITE PLAN
C101 EXISTING CONTROL PLANS
C201 CLEARING & DEMOLITION PLANS
C301 EROSION CONTROL PLANS AND DETAILS
C401 SITE LAYOUT, PAVING & STRIPING PLANS AND DETAILS
C501 DITCH PROFILE & CROSS SECTIONS
C601 GRADING & DRAINAGE PLANS AND DETAILS
S100 BOARDWALK STRUCTURAL DETAILS

SCHEDULE OF DRAWINGS

Table with columns for SHEET NO., DESCRIPTION, and DATE. It lists drawing sheets C001 through S100.

RELEASE SCHEDULE

Table with columns for RELEASE NO., DESCRIPTION, and DATE. It lists release dates for permitting and construction from 04-03-18 to 11-07-18.

SEQUENCE OF CONSTRUCTION ACTIVITIES

- ESTIMATED START DATE: 11-01-18 ESTIMATED COMPLETION DATE: 03-01-19
ITEMS MUST OCCUR IN THE ORDER LISTED; ITEMS CANNOT OCCUR CONCURRENTLY UNLESS SPECIFICALLY NOTED.
PHASE 1: (INITIAL)
1. RECEIVE NOTES COVERAGE FROM DHEC.
2. HOLD PRE-CONSTRUCTION MEETING.
3. NOTIFY DHEC EDC REGIONAL OFFICE OR OCRM OFFICE 48 HOURS PRIOR TO BEGINNING LAND-DISTURBING ACTIVITIES.

SCDHEC-OCRM CERTIFICATION:

"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."

SCDOT-WATER QUALITY & DRAINAGE CERTIFICATION:

"ALL ITEMS IN SECTION 100 OF THE CURRENT ARMS MANUAL FOR BOTH CONSTRUCTION AND POST-CONSTRUCTION DESIGN HAVE BEEN STUDIED AND ADDRESSED. ALL NECESSARY BMPs HAVE BEEN IMPLEMENTED FOR BOTH PHASES (CONSTRUCTION AND POST-CONSTRUCTION) TO AVOID NEGATIVELY IMPACTING IMPAIRED WATERS OF THE SCDOT SYSTEM AND/OR ITS DISCHARGES."

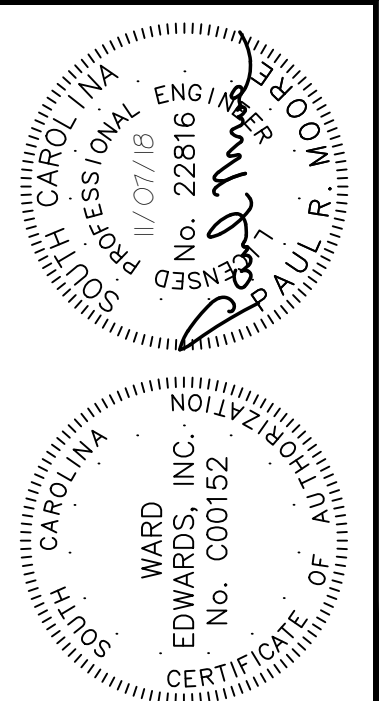


Table with columns for NO., DESCRIPTION, DATE, and PLAN REVISIONS.

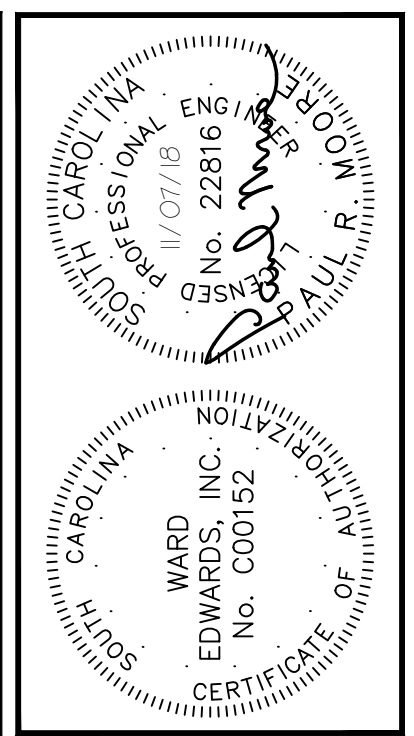
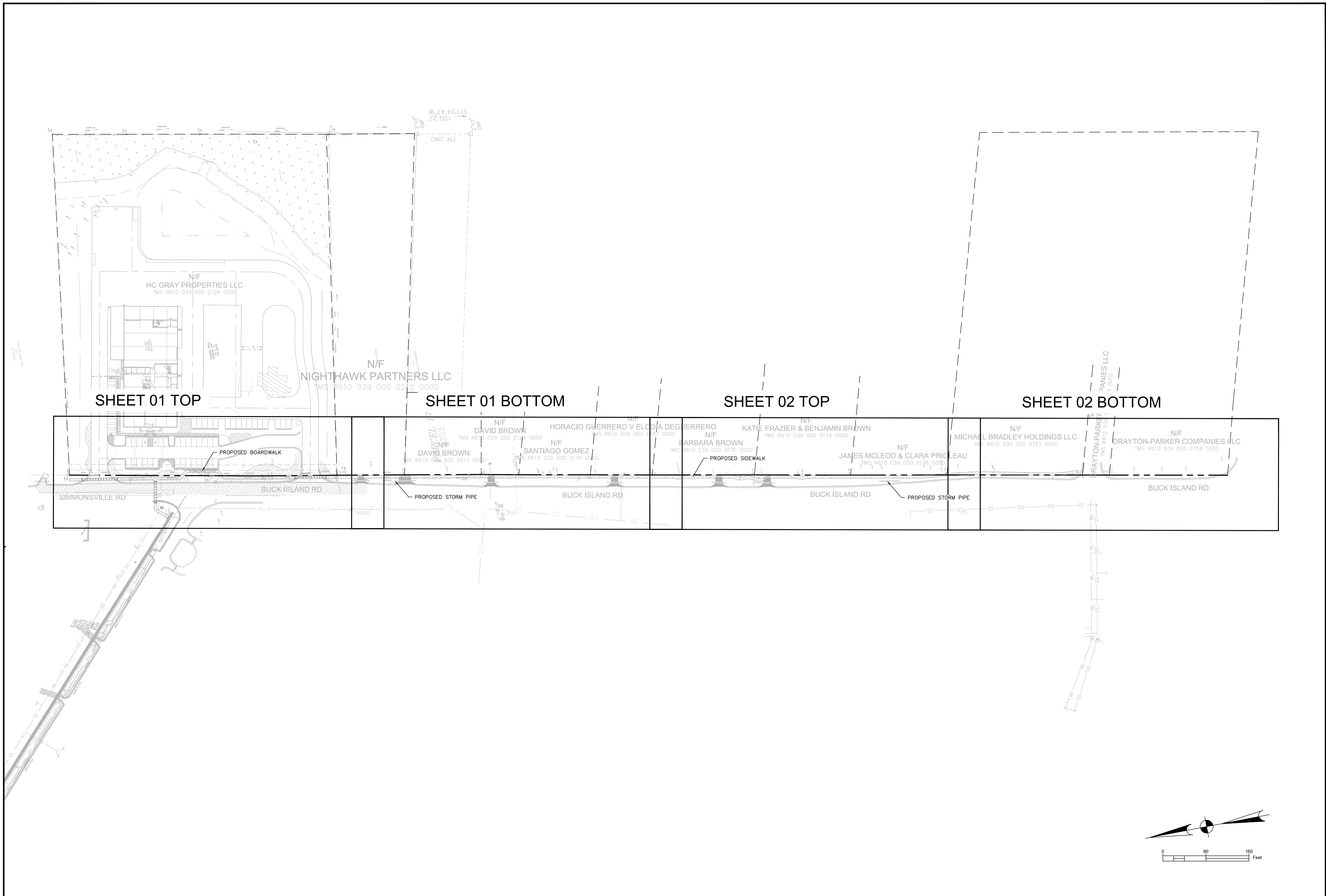
Ward Edwards ENGINEERING
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PH: (843) 837-5555 FAX: (843) 837-4258
WWW.WARDEDWARDS.COM

BUCK ISLAND - SIMMONSVILLE NEIGHBORHOOD SIDEWALKS, PHASE 4
BEAUFORT COUNTY, SOUTH CAROLINA
TOWN OF BLUFFTON
BLUFFTON, SOUTH CAROLINA
COVER SHEET & CONSTRUCTION NOTES

Not for construction / Released for construction checkbox and project information table.

SHEET C001

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BUCK ISLAND - SIMMONSVILLE NEIGHBORHOOD SIDEWALKS, PHASE 4
BEAUFORT COUNTY, SOUTH CAROLINA
TOWN OF BLUFFTON
BLUFFTON, SOUTH CAROLINA
OVERALL SITE PLAN

NOT FOR CONSTRUCTION
 RELEASED FOR CONSTRUCTION

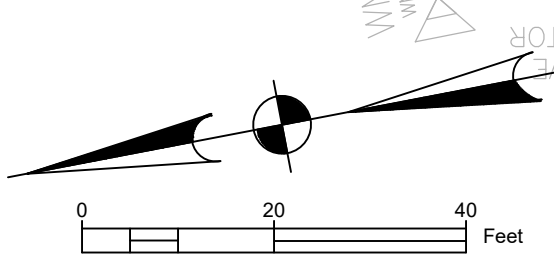
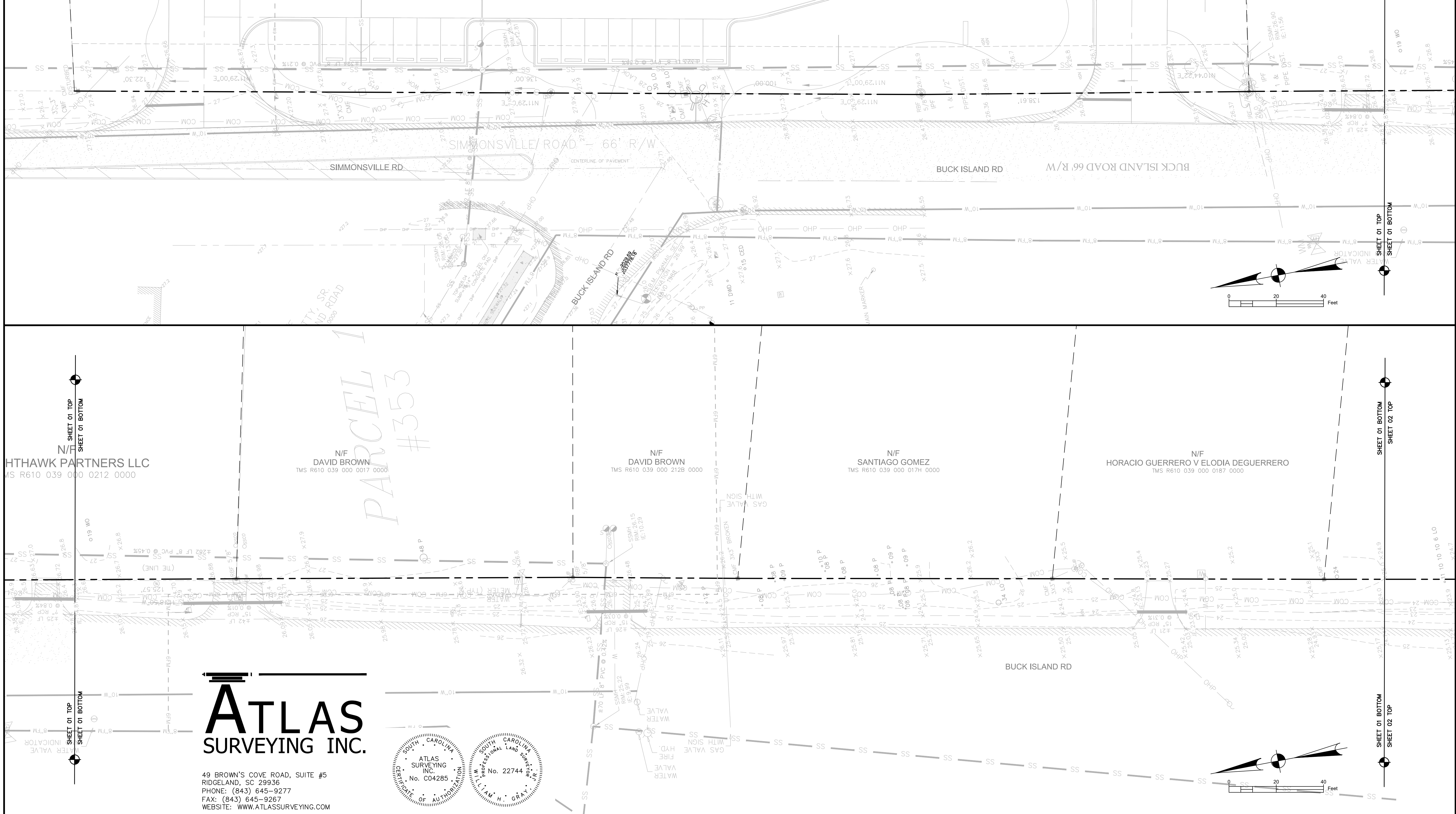
PROJECT #: 150605
DATE: 11/07/18
DESIGNED BY: CPB
CHECKED BY: FRM
SCALE: 1"=80'

SHEET C002

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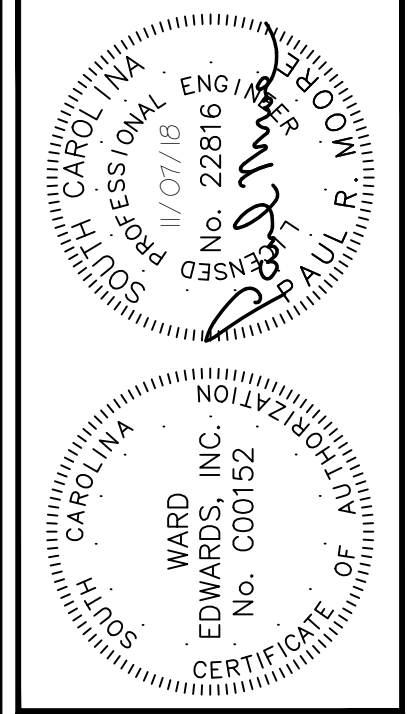
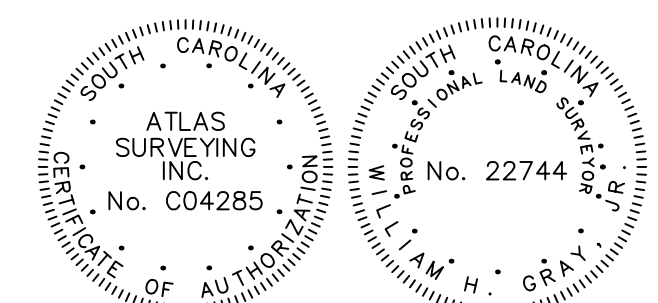
- NOTES**
- CONTOURS ARE IN ONE FOOT INTERVALS. TREES SIZES SHOWN ARE IN INCHES OF DIAMETER.
 - ELEVATIONS ARE ON NAVD 88.
 - CORDINATES ARE BASED ON SOUTH CAROLINA STATE PLANE GRID (NAD 83).
 - A BOUNDARY SURVEY WAS NOT PERFORMED ON THE PARCELS SHOWN. PROPERTY LINES WERE ESTABLISHED TO THE BEST OF OUR ABILITY AND ARE APPROXIMATE.
 - UNDERGROUND UTILITIES ARE SHOWN AS LOCATED IN THE FIELD AT TIME OF SURVEY.
- REFERENCE**
- | | |
|-------------------|----------|
| 1. PLAT BOOK: 53 | PAGE:171 |
| 2. PLAT BOOK: 72 | PAGE:169 |
| 3. PLAT BOOK: 144 | PAGE:33 |

- LEGEND**
- | | | |
|-----------------------------------|-----------------------------|------------------------------|
| WATER VALVE | LO LIVE OAK | PD PIPE DIRECTION |
| FIRE HYDRANT | WO WATER OAK | PVC POLYVINYL CHLORIDE PIPE |
| WATER LATERAL OR STUBOUT | P PINE | RCF REINFORCED CONCRETE PIPE |
| WATER METER | LA LAUREL OAK | WETLAND LINE |
| WATER VALVE MARKER | G SWEET GUM | OVERHEAD POWER LINE |
| SANITARY SEWER CLEAN OUT | MAP RED MAPLE | UNDERGROUND DRAINAGE LINE |
| SANITARY SEWER LATERAL OR STUBOUT | MAG MAGNOLA | UNDERGROUND SEWER LINE |
| SANITARY SEWER MANHOLE | CED CEDAR | UNDERGROUND WATER LINE |
| WETLAND FLAG | DWD DOGWOOD | X12.9 SPOT ELEVATION |
| JUNCTION BOX | WO WATER OAK | CMF CONC. MONUMENT FOUND |
| CABLE JUNCTION BOX | EDGE OF PAVEMENT | IPF IRON PIPE FOUND |
| TELEPHONE JUNCTION BOX | CONCRETE | RBF IRON REBAR FOUND |
| POWER POLE | IE INVERT ELEVATION | TRANSFORMER-ELECTRIC |
| SERVICE POLE-POWER | PCP PLASTIC CORRUGATED PIPE | DRAINAGE INLET |
| CONTOUR LINE | | |



ATLAS SURVEYING INC.

49 BROWN'S COVE ROAD, SUITE #5
 RIDGELAND, SC 29936
 PHONE: (843) 645-9277
 FAX: (843) 645-9267
 WEBSITE: WWW.ATLASSURVEYING.COM



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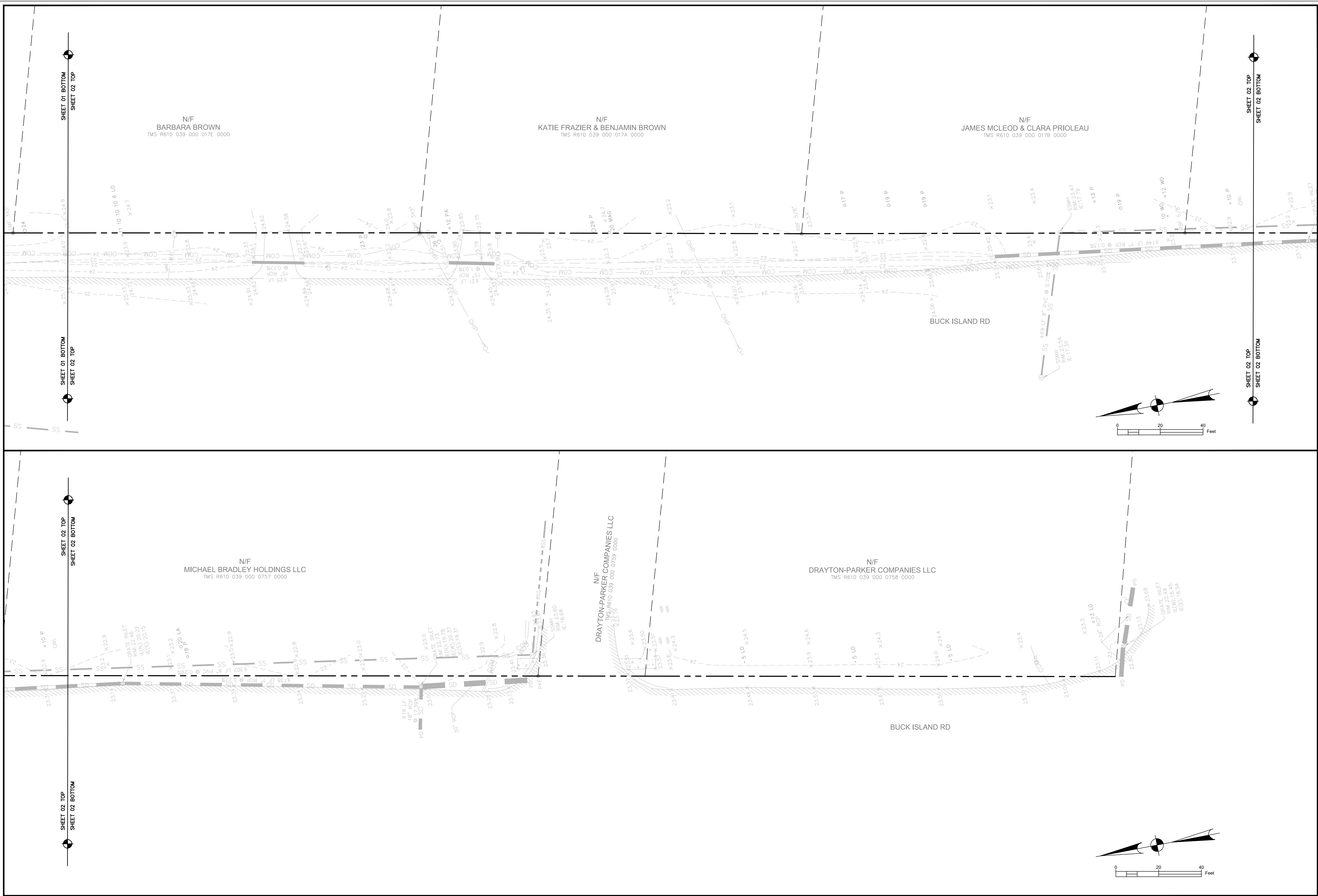
BUCK ISLAND - SIMMONSVILLE NEIGHBORHOOD SIDEWALKS, PHASE 4
 BEAUFORT COUNTY, SOUTH CAROLINA
TOWN OF BLUFFTON
BLUFFTON, SOUTH CAROLINA
EXISTING CONDITIONS PLAN

NOT FOR CONSTRUCTION
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PROJECT #: 150605
 DATE: 11/07/18
 DESIGNED BY: CPM
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SHEET C101

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Professional Engineer Seal: Ward Edwards, Inc. No. 000152, State of North Carolina, dated 11/07/18.

PLAN REVISIONS	
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BUCK ISLAND - SIMMONSVILLE NEIGHBORHOOD SIDEWALKS, PHASE 4
BEAUFORT COUNTY, SOUTH CAROLINA

TOWN OF BLUFFTON
BLUFFTON, SOUTH CAROLINA

EXISTING CONDITIONS PLAN

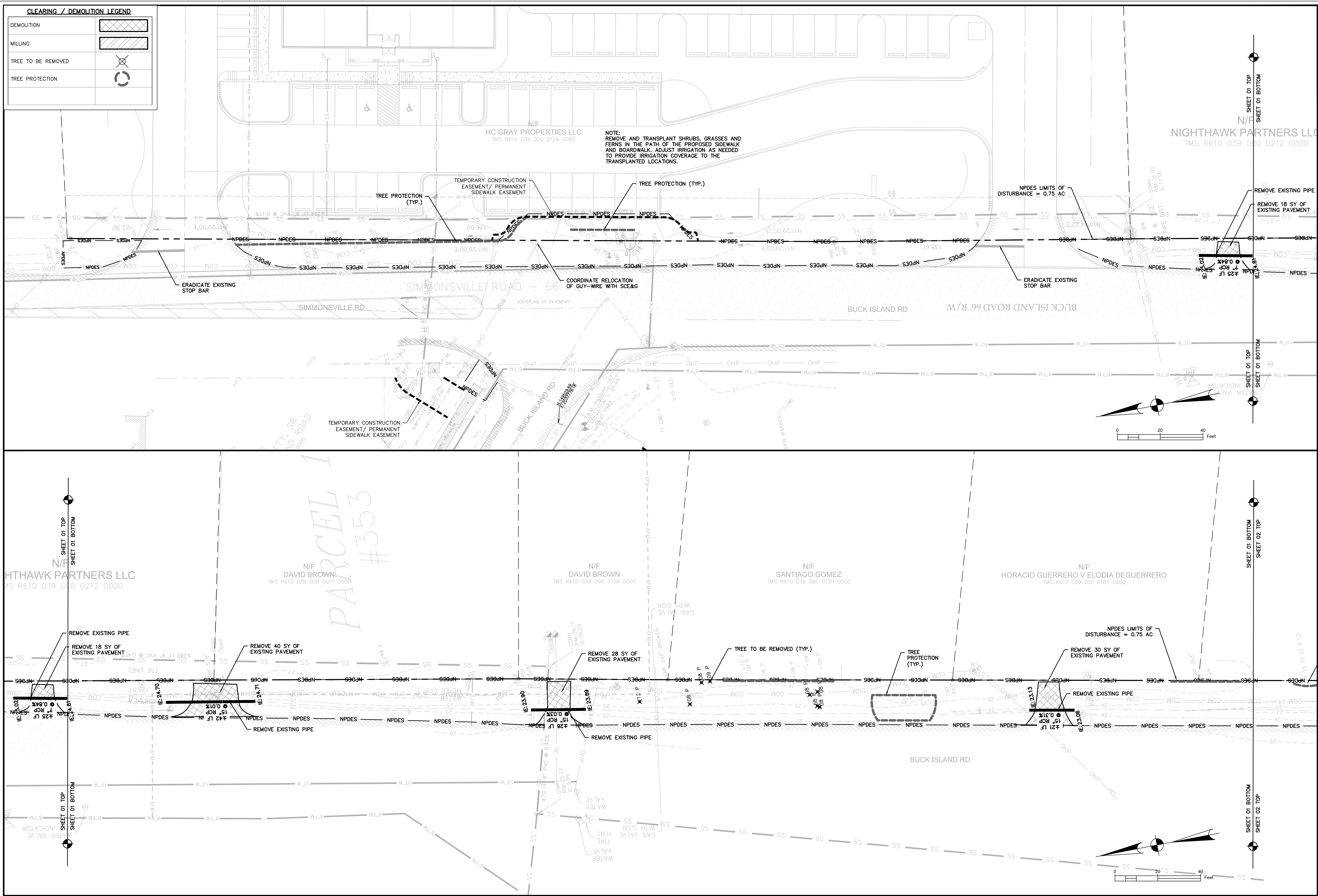
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PROJECT #:	150608
DATE:	11/07/18
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SHEET
C102

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CLEARING / DEMOLITION LEGEND

DEMOLITION	
MILLING	
TREE TO BE REMOVED	
TREE PROTECTION	

NOTE:
REMOVE AND TRANSPLANT SHRUBS, GRASSES AND FERNS IN THE PATH OF THE PROPOSED SIDEWALK AND BOARDWALK. ADJUST IRRIGATION AS NEEDED TO PROVIDE IRRIGATION COVERAGE TO THE TRANSPLANTED LOCATIONS.

PARCEL #3553

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BUCK ISLAND - SIMMONSVILLE NEIGHBORHOOD SIDEWALKS, PHASE 4
 BEAUFORT COUNTY, SOUTH CAROLINA
TOWN OF BLUFFTON
 BLUFFTON, SOUTH CAROLINA
CLEARING & DEMOLITION PLAN

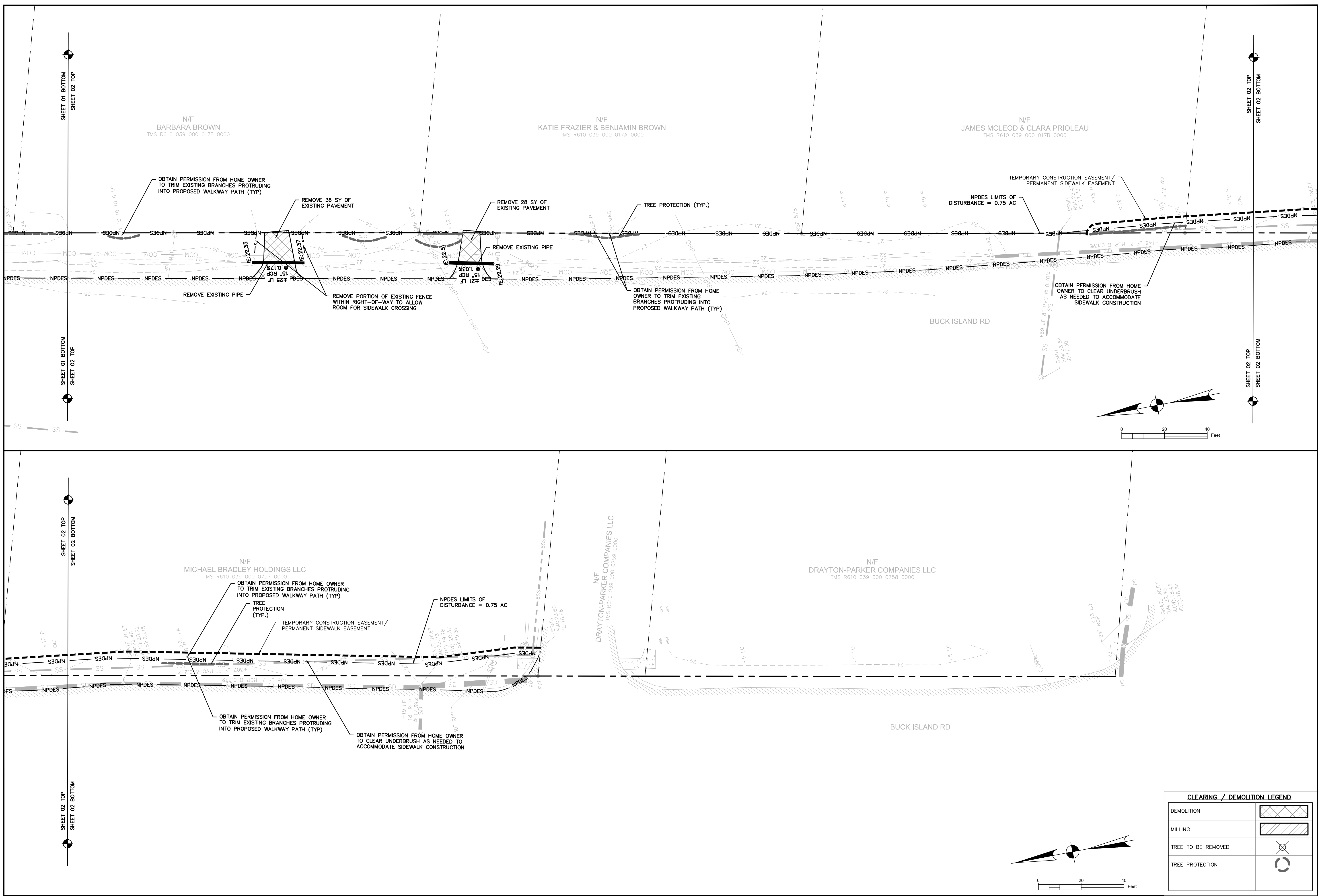
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Professional Engineer Seal for Ward Edwards, Inc. No. 22816, dated 11/07/18. Also includes a Certificate of Registration for the State of South Carolina.

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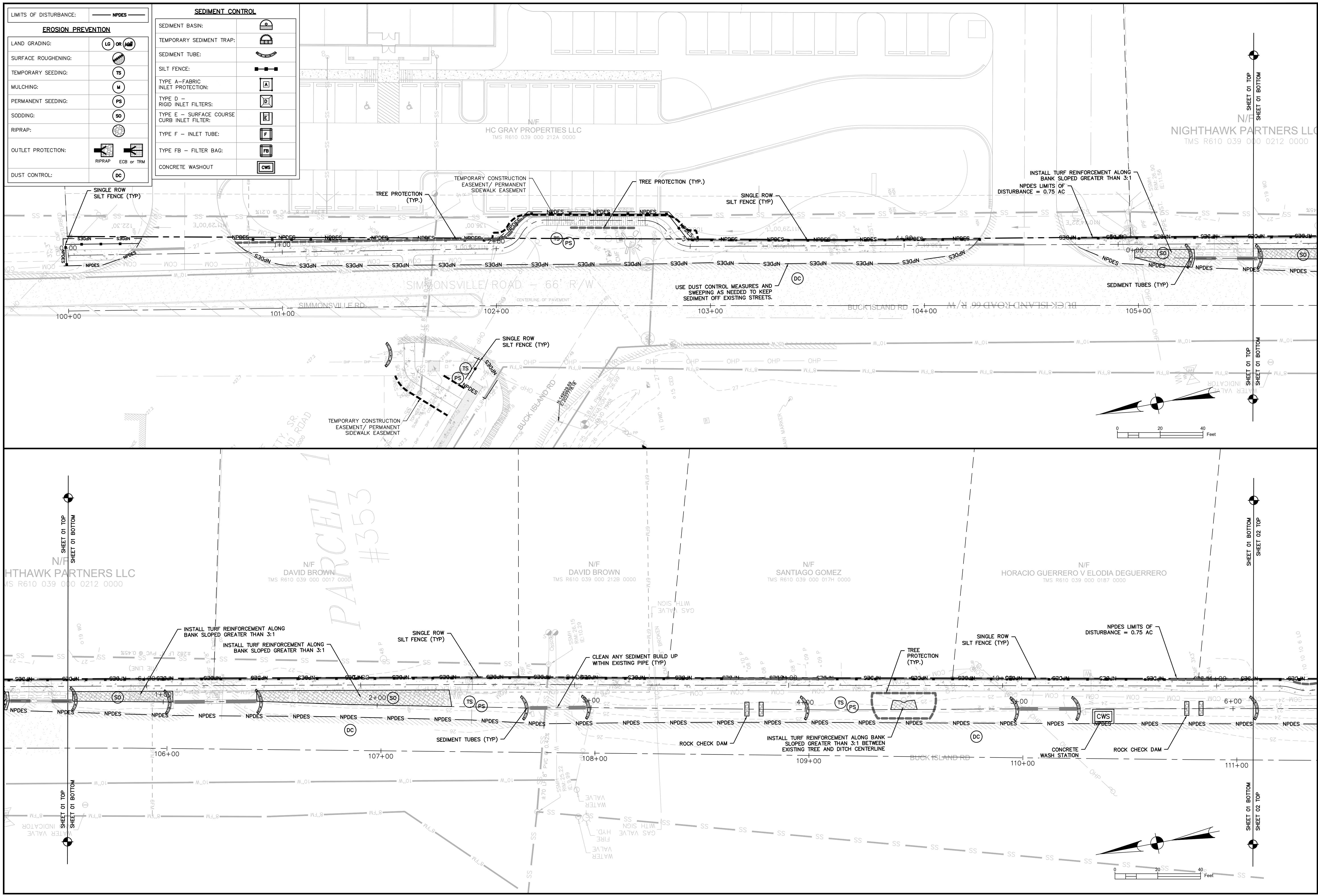
BUCK ISLAND - SIMMONSVILLE NEIGHBORHOOD SIDEWALKS, PHASE 4
BEAUFORT COUNTY, SOUTH CAROLINA
TOWN OF BLUFFTON
BLUFFTON, SOUTH CAROLINA
CLEARING & DEMOLITION PLAN

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PROJECT #:	150605
DATE:	11/07/18
DESIGNED BY:	CPB
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LIMITS OF DISTURBANCE: NPDES

EROSION PREVENTION

LAND GRADING:	LG OR
SURFACE ROUGHENING:	SR
TEMPORARY SEEDING:	TS
MULCHING:	M
PERMANENT SEEDING:	PS
SODDING:	SO
RIPRAP:	RI
OUTLET PROTECTION:	ECB or TRM
DUST CONTROL:	DC

SEDIMENT CONTROL

SEDIMENT BASIN:	SB
TEMPORARY SEDIMENT TRAP:	ST
SEDIMENT TUBE:	STB
SILT FENCE:	SF
TYPE A - FABRIC INLET PROTECTION:	A
TYPE D - RIGID INLET FILTERS:	D
TYPE E - SURFACE COURSE CURB INLET FILTER:	E
TYPE F - INLET TUBE:	F
TYPE FB - FILTER BAG:	FB
CONCRETE WASHOUT:	CWS

Professional Engineer Seal for Ward Edwards, Inc. License No. 222816, State of South Carolina. The seal includes the name 'Ward Edwards, Inc.', the license number 'No. 222816', and the state 'SOUTH CAROLINA'.

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 P.O. BOX 381, BLUFFTON, SOUTH CAROLINA 29910
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 WWW.WARDEDWARDS.COM

BUCK ISLAND - SIMMONSVILLE NEIGHBORHOOD SIDEWALKS, PHASE 4
 BEAUFORT COUNTY, SOUTH CAROLINA
TOWN OF BLUFFTON
 BLUFFTON, SOUTH CAROLINA
EROSION CONTROL PLAN

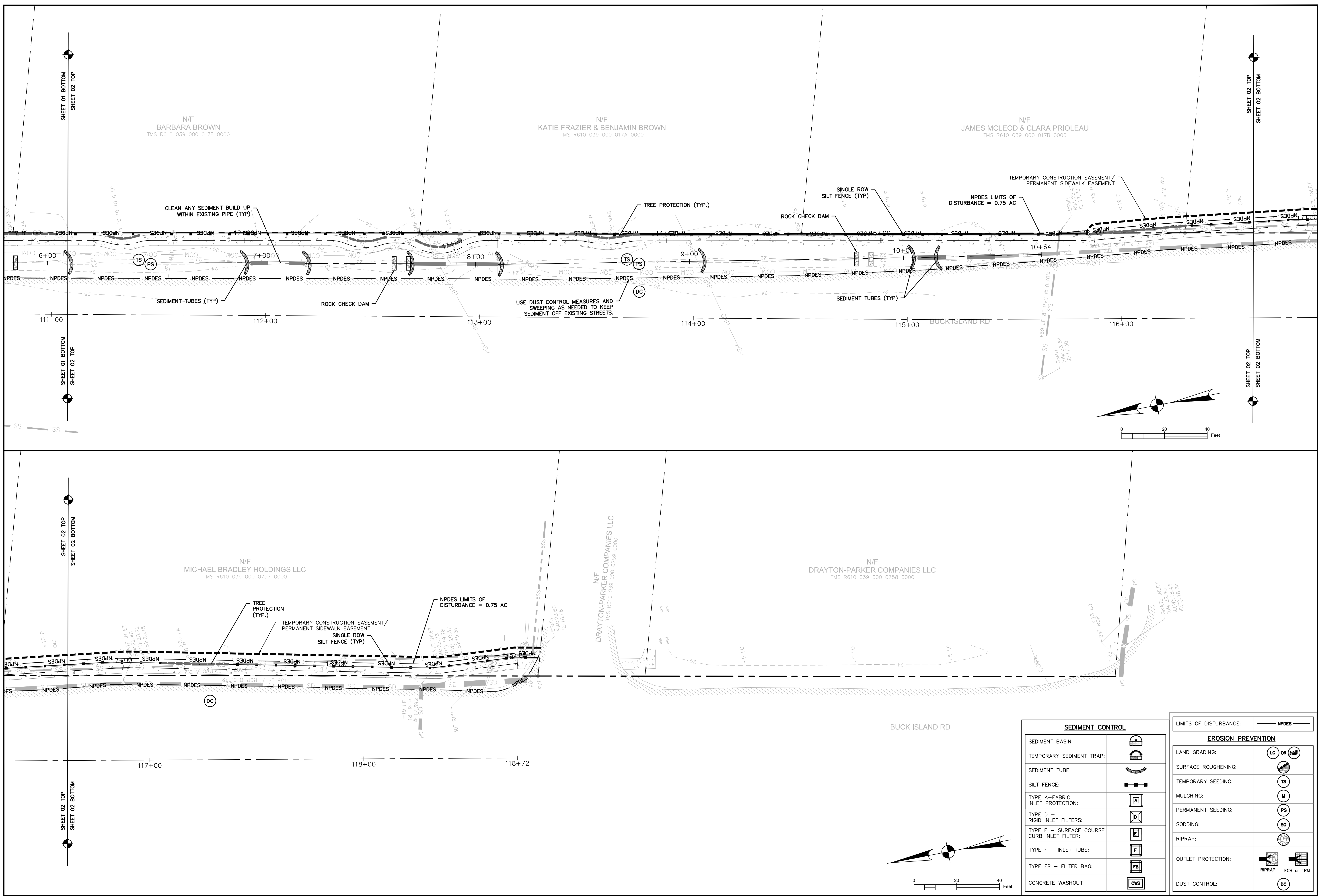
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PROJECT #:	150605
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SHEET C301

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SEDIMENT CONTROL	
SEDIMENT BASIN:	
TEMPORARY SEDIMENT TRAP:	
SEDIMENT TUBE:	
SILT FENCE:	
TYPE A - FABRIC INLET PROTECTION:	
TYPE D - RIGID INLET FILTERS:	
TYPE E - SURFACE COURSE CURB INLET FILTER:	
TYPE F - INLET TUBE:	
TYPE FB - FILTER BAG:	
CONCRETE WASHOUT:	

LIMITS OF DISTURBANCE:	
EROSION PREVENTION	
LAND GRADING:	
SURFACE ROUGHENING:	
TEMPORARY SEEDING:	
MULCHING:	
PERMANENT SEEDING:	
SODDING:	
RIPRAP:	
OUTLET PROTECTION:	
DUST CONTROL:	

Professional Engineer Seal for Ward Edwards, Inc. No. 22816, State of South Carolina. License expires 11/07/18.

PLAN REVISIONS		
NO.	DESCRIPTION	DATE
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BUCK ISLAND - SIMMONSVILLE NEIGHBORHOOD SIDEWALKS, PHASE 4
 BEAUFORT COUNTY, SOUTH CAROLINA
 TOWN OF BLUFFTON
 BLUFFTON, SOUTH CAROLINA
EROSION CONTROL PLAN

PROJECT #:	150605
DATE:	11/07/18
DESIGNED BY:	CPB
CHECKED BY:	PRM
SCALE:	1"=20'

SHEET C302

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PERMANENT SEEDING – COASTAL

SPECIES	LBS/AC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
SANDY, DROUGHTY SITES													
BROWNTOP MILLET	10 LBS/AC												
BAHIA GRASS	40 LBS/AC												
BROWNTOP MILLET	10 LBS/AC												
BAHIA GRASS	30 LBS/AC												
SERICA LEPEDEZA	40 LBS/AC												
BROWNTOP MILLET	10 LBS/AC												
ATLANTIC COASTAL PANICGRASS	15 LBS/AC												
PLS													
BROWNTOP MILLET	10 LBS/AC												
SWITCHGRASS (ALAMO)	8 LBS/AC												
LITTLE BLUESTEM	4 LBS/AC												
SERICA LEPEDEZA	20 LBS/AC												
BROWNTOP MILLET	10 LBS/AC												
WEeping LOVEGRASS	8 LBS/AC												
WELL DRAINED, CLAYEY/LOAMEY SITES													
BROWNTOP MILLET	10 LBS/AC												
BAHIA GRASS	40 LBS/AC												
RYE, GRAIN	10 LBS/AC												
BAHIA GRASS	40 LBS/AC												
CLOVER, CRIMSON (ANNUAL)	5 LBS/AC												
BROWNTOP MILLET	10 LBS/AC												
BAHIA GRASS	30 LBS/AC												
SERICA LEPEDEZA	40 LBS/AC												
BROWNTOP MILLET	10 LBS/AC												
BERMUDA, COMMON	10 LBS/AC												
SERICA LEPEDEZA	40 LBS/AC												
BROWNTOP MILLET	10 LBS/AC												
BERMUDA, COMMON	12 LBS/AC												
KOBE LEPEDEZA (ANNUAL)	10 LBS/AC												
BROWNTOP MILLET	10 LBS/AC												
BAHIA GRASS	20 LBS/AC												
BERMUDA, COMMON	6 LBS/AC												
SERICA LEPEDEZA	40 LBS/AC												
BROWNTOP MILLET	10 LBS/AC												
SWITCHGRASS	8 LBS/AC												
LITTLE BLUESTEM	3 LBS/AC												
INDIAN GRASS	3 LBS/AC												
PLS													

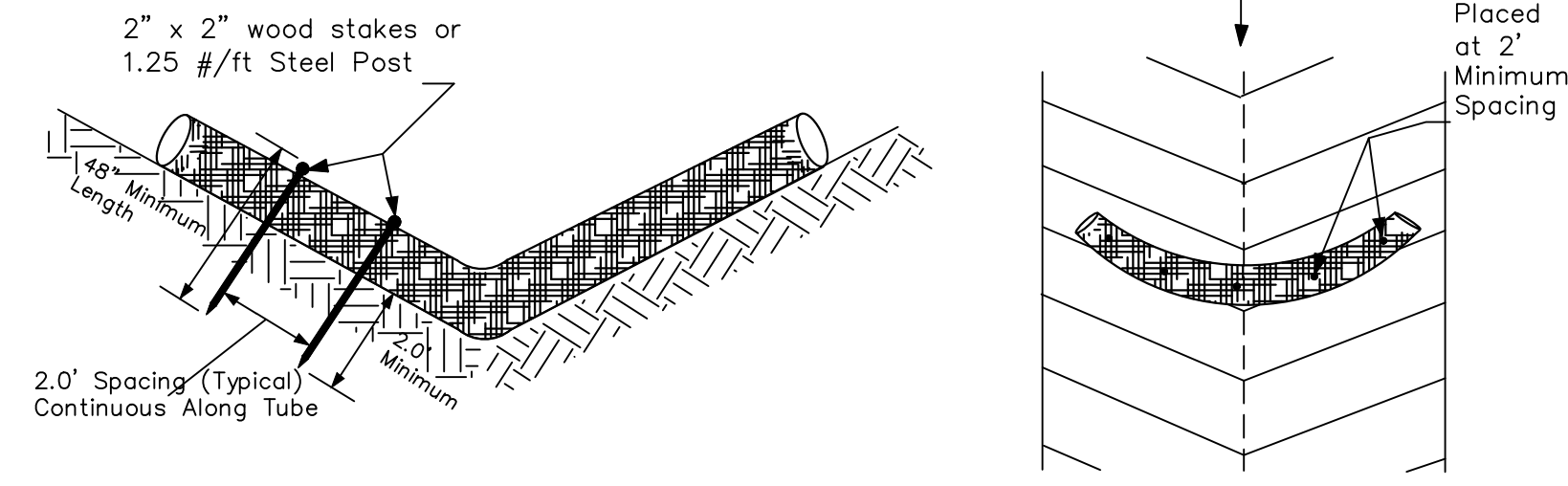
PS PERMANENT SEEDING - COASTAL
DETAIL 02370-010

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												
RYEGRASS	50 LBS/AC												

TS TEMPORARY SEEDING - COASTAL
DETAIL 02370-011

SEDIMENT TUBE INSTALLATION



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

SEDIMENT TUBES – GENERAL NOTES

- 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.
- 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.
- 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.
- 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.
- Curled excelsior wood, or natural coconut products that are rolled up to create a sediment tube are not allowed.
- 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.
- 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.
- The ends of adjacent sediment tubes should be overlapped 6-inches to prevent flow and sediment from passing through the field joint.
- Sediment tubes should not be stacked on top of one another, unless recommended by manufacturer.
- Each sediment tube should be installed in a trench with a depth equal to 1/5 the diameter of the sediment tube.
- Sediment tubes should continue up the side slopes a minimum of 1-foot above the design flow depth of the channel.
- Install stakes at a diagonal facing incoming runoff.

ROCK DITCH CHECK – GENERAL NOTES

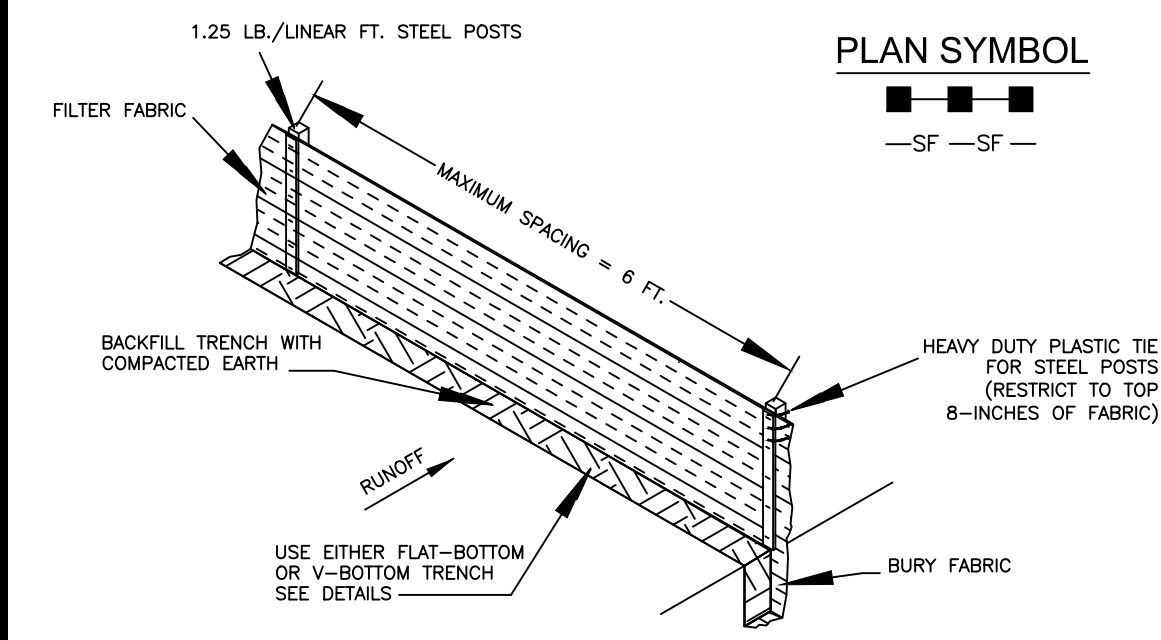
- Rock Ditch Checks should not be placed in Waters of the State or USGS blue-line streams (unless approved by Federal Authorities).
- Rock Ditch Checks should be installed in steeply sloped channels where adequate vegetation cannot be established. This BMP measure should only be used in small open channels.
- A non-woven geotextile fabric shall be installed over the soil surface where the rock ditch check is to be placed.
- The body of the rock ditch check shall be composed of 12-inch D50 Riprap. The upstream face may be composed of 1-inch D50 washed stone.
- Rock Ditch Checks should not exceed a height of 2-feet at the centerline of the channel.
- Rock Ditch Checks should have a minimum top flow length of 2-feet.
- Riprap should be placed over channel banks to prevent water from cutting around the ditch check.
- The riprap should be placed by hand or mechanical placement (no dumping of rock to form dam) to achieve complete coverage of the channel. Doing so will also ensure that the center of the check is lower than the edges.
- The maximum spacing between the dams should be such that the toe of the upstream check is at the same elevation as the top of the downstream check.

ROCK DITCH CHECK – INSPECTION & MAINTENANCE

- The key to functional rock ditch check is weekly inspections, routine maintenance, and regular sediment removal.
- Regular inspections of rock ditch checks 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.
- Attention to sediment accumulations in front of the rock ditch check is extremely important. Accumulated sediment should be continually monitored and removed when necessary.
- Remove accumulated sediment when it reaches 1/3 the height of the rock ditch check.
- Removed sediment shall be placed in stockpile storage areas or spread thinly across disturbed area. Stabilize the removed sediment after it is relocated.
- Inspect Rock Ditch Checks' edges for erosion and evidence of runoff bypassing the installed check. If evident repair promptly as necessary to prevent erosion and bypassing.
- In the case of grass-lined ditches, channels, and swales, rock ditch checks should be removed when the grass has matured sufficiently to protect the ditch or swale unless the slope of the swale is greater than 4%.
- After construction is completed and final stabilization is reached, the entirety of the rock ditch check should be removed if vegetation will be used for permanent erosion control measures. The area beneath the removed rock ditch check must be addressed with permanent stabilization measures.

South Carolina Department of Health and Environmental Control
ROCK DITCH CHECK
STANDARD DRAWING NO. SC-04 PAGE 2 of 2
GENERAL NOTES
FEBRUARY 2014 DATE

SILT FENCE INSTALLATION



- SILT FENCE – GENERAL NOTES**
- 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.
 - Maximum sheet or overlaid flow path length to the silt fence shall be 100-feet.
 - Maximum slope steepness (normal [perpendicular] to the fence line) shall be 2:1.
 - 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.
 - Attach filter fabric to the steel posts using heavy-duty plastic ties that are evenly spaced within the top 8-inches of the fabric.
 - 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.
 - 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.

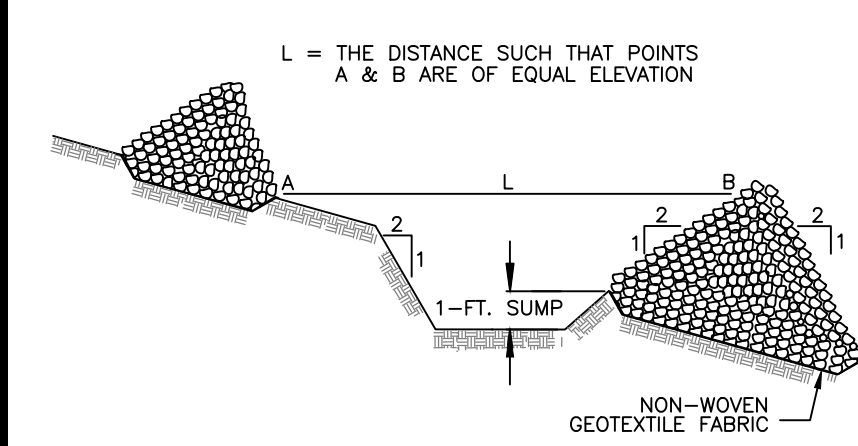
SILT FENCE – POST REQUIREMENTS

- 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.
 - Weight 1.25 pounds per foot (± 8%).
- Posts shall be equipped with projections to aid in fastening of filter fabric.
- 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.
- 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.
- Post spacing shall be at a maximum of 6-feet on center.

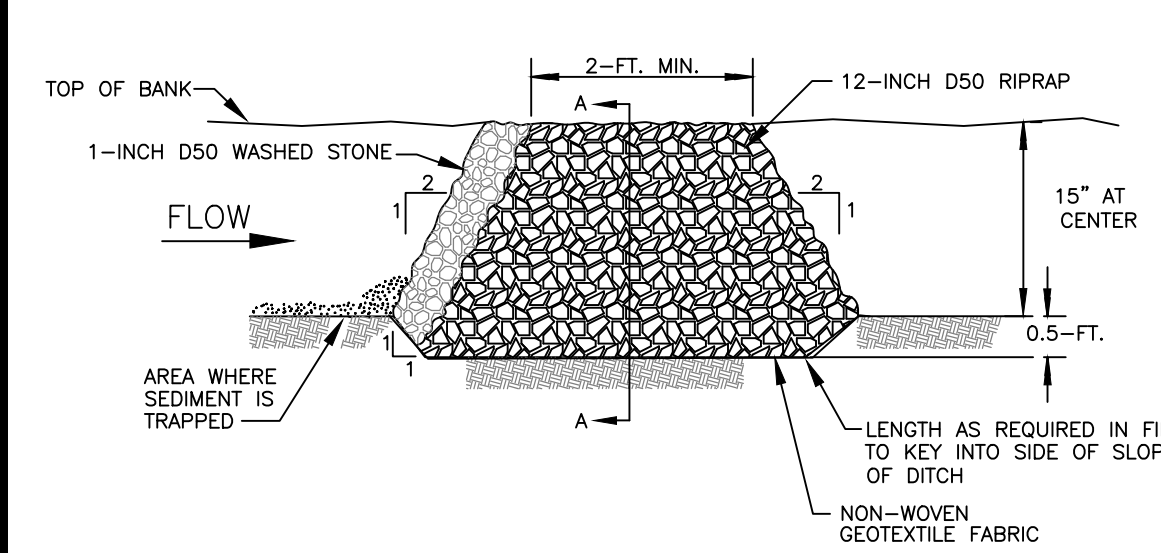
SILT FENCE – FABRIC REQUIREMENTS

- 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 polyethylene, 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.
- 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.
- 12-inches of the fabric should be placed within excavated trench and tied in when the trench is backfilled.
- Filter Fabric shall be purchased in continuous rolls and cut to the length of the barrier to avoid joints.
- Filter Fabric shall be installed at a minimum of 24-inches above the ground.

SPACING BETWEEN DITCH CHECK

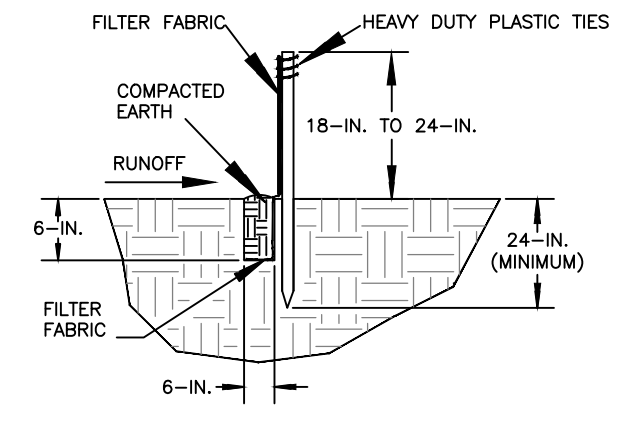


TYPICAL DITCH CHECK SECTION

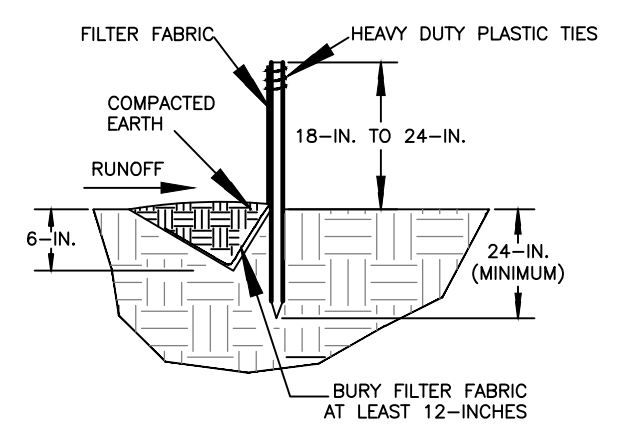


*MODIFIED BY WARD EDWARDS ENGINEERING 04/03/18

FLAT-BOTTOM TRENCH DETAIL



V-SHAPED TRENCH DETAIL



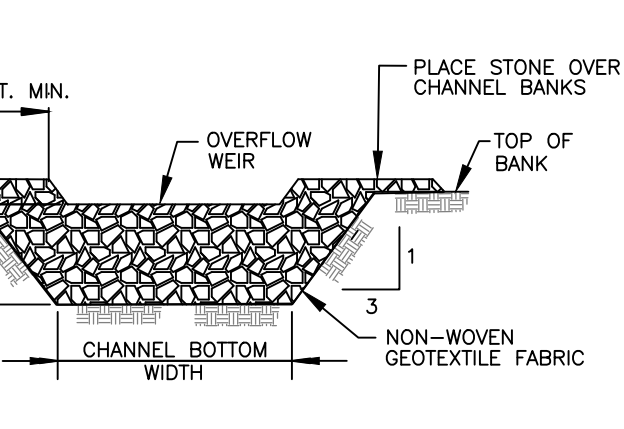
South Carolina Department of Health and Environmental Control
SILT FENCE
STANDARD DRAWING NO. SC-03 PAGE 1 of 2
NOT TO SCALE
FEBRUARY 2014 DATE

SILT FENCE – INSPECTION & MAINTENANCE

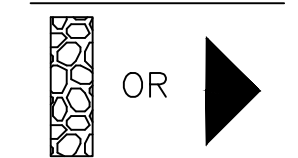
- The key to functional silt fence is weekly inspections, routine maintenance, and regular sediment removal.
- Regular inspections of silt fence shall be conducted once every calendar week and, as recommended, within 24-hours after each rainfall even that produces 1/2-inch or more of precipitation.
- Attention to sediment accumulations along the silt fence is extremely important. Accumulated sediment should be continually monitored and removed when necessary.
- Remove accumulated sediment when it reaches 1/3 the height of the silt fence.
- Removed sediment shall be placed in stockpile storage areas or spread thinly across disturbed area. Stabilize the removed sediment after it is relocated.
- 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.
- 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.
- Silt fence should be removed within 30 days after final stabilization is achieved and once it is removed, the resulting disturbed area should be permanently stabilized.

South Carolina Department of Health and Environmental Control
SILT FENCE
STANDARD DRAWING NO. SC-03 PAGE 2 of 2
GENERAL NOTES
FEBRUARY 2014 DATE

CROSS SECTION A-A THRU STONE DITCH CHECK



PLAN SYMBOL



South Carolina Department of Health and Environmental Control
ROCK DITCH CHECK
STANDARD DRAWING NO. SC-04 PAGE 1 of 2
NOT TO SCALE
FEBRUARY 2014 DATE

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Ward Edwards Engineering
ENGINEERING
P.O. BOX 381, BLUFFTON, SOUTH CAROLINA 29910
PH: (843) 837-5555 FAX: (843) 837-2936
WWW.WARDEDWARDS.COM

BUCK ISLAND - SIMMONSVILLE NEIGHBORHOOD SIDEWALKS, PHASE 4
BEAUFORT COUNTY, SOUTH CAROLINA
TOWN OF BLUFFTON
BLUFFTON, SOUTH CAROLINA
EROSION CONTROL DETAILS

PROJECT #: 150605
DATE: 11/07/18
DESIGNED BY: CPB
CHECKED BY: PRM
SCALE: AS NOTED
SHEET C303

WESTERN EXCELSIOR
Slope Installation Instructions EXCEL PP5-8
 * Drawings Not to Scale

Step 1 - Site Preparation
 Prepare site to design profile and grade. Remove debris, rocks, clods, etc. Ground surface should be smooth prior to installation to ensure blanket remains in contact with slope.

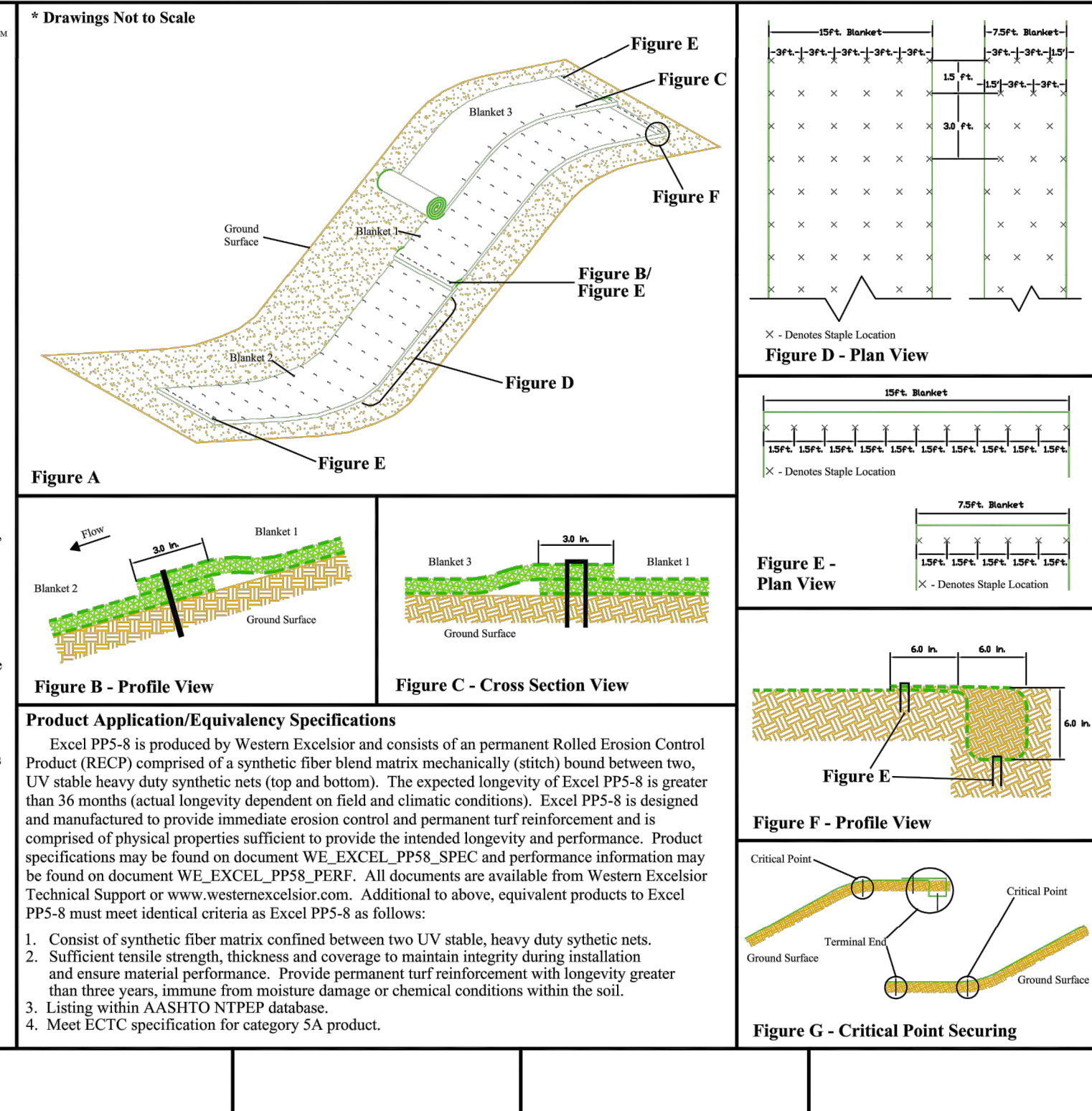
Step 2 - Seeding
 Seeding of site should be conducted to design requirements or to follow local or state seeding requirements as necessary.

Step 3 - Staple Selection
 At a minimum, 6 in. long by 1 in. crown, 11 gauge staples are to be used to secure the blanket to the ground surface. Installation in rocky, sandy or other loose soil may require longer staples.

Step 4 - Excavate Anchor Trench and Secure Blanket
 Excavate a trench along the top of the slope to secure the upstream end of the blanket. The trench should run along the length of the installation, be 6 in. wide and 6 in. deep. Staple blanket along bottom of trench, fill with compacted soil, overlap blanket towards toe of slope and secure with row of staples (shown in Figures A, E and F).

Step 5 - Secure Body of Blanket
 Roll blanket down slope from anchor trench. Staple body of blanket following the pattern shown in Figure D. Leave end of blanket unstapled to allow for overlap shown in Figure B. Place downstream blanket underneath upstream blanket to form shingle pattern. Staple seam as shown in Figure E. Secure downstream blanket with stapling pattern shown in Figure D. Stapling pattern shown in Figure D reflects minimum staples to be used. More staples may be required to ensure blanket is sufficiently secured to resist mowers and foot traffic and to ensure blanket is in contact with soil surface over the entire area of blanket. Further, critical points require additional staples. Critical points are identified in Figure G.

Step 6 - Continue Along Slope - Complete Installation
 Overlap adjacent blankets as shown in Figure C and repeat Step 5. Secure toe of slope using stapling pattern shown in Figure E. Secure edges of installation by stapling at 1.5' intervals along the terminal edge.



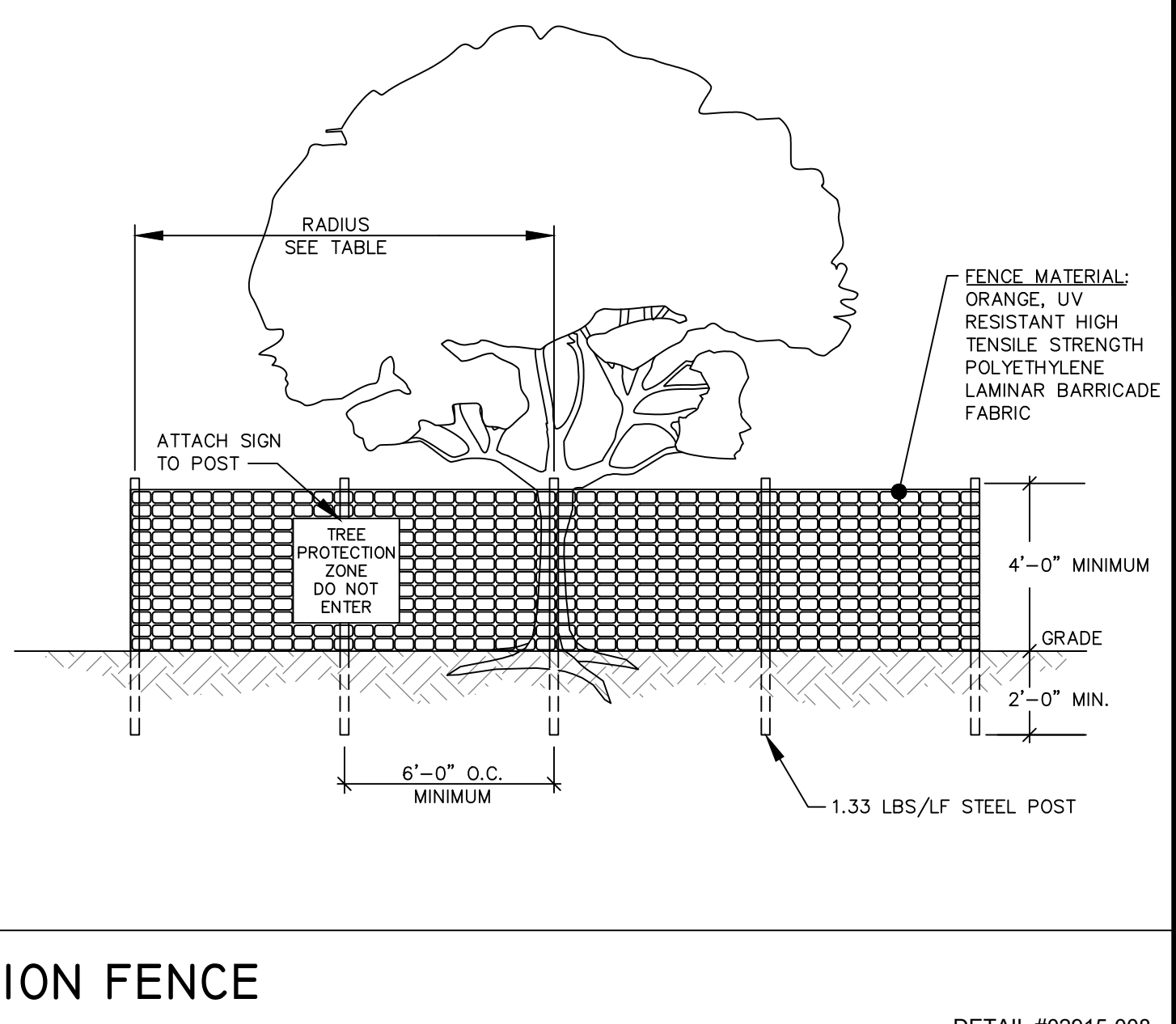
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- NOTES:**
1. ALL TREES DESIGNATED TO BE SAVED SHALL BE PROTECTED BY FENCING.
 2. INSTALL TREE PROTECTION FENCE TO RADIUS INDICATED IN TABLE UNLESS OTHERWISE INDICATED ON PLANS.
 3. WARNING SIGNS TO BE MADE OF DURABLE WATERPROOF MATERIAL.
 4. ALL WARNING SIGN LETTERS TO BE AT LEAST 3 INCHES HIGH, CLEARLY LEGIBLE AND SPACED A MINIMUM OF ONE EVERY 40 FT. FOR PROTECTION AREAS LESS THAN 40 FT IN PERIMETER, PROVIDE NO LESS THAN ONE SIGN PER SIDE.
 5. THE SIZE OF EACH WARNING SIGN MUST BE A MINIMUM OF 2' X 2' AND BE VISIBLE FROM BOTH SIDES OF THE FENCE.
 6. ATTACH SIGNS SECURELY TO FENCE POSTS AND FABRIC.
 7. THERE SHALL BE NO STORAGE OF MATERIAL WITHIN THE BOUNDARIES OF THE TREE PROTECTION FENCING.
 8. TREE PROTECTION FENCING SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT. FENCING MUST REMAIN UPRIGHT AND SLACK FREE.

TABLE - RADIUS OF TREE PROTECTION ZONE (TPZ)

JURISDICTION	RADIUS OF CIRCULAR TPZ
BEAUFORT COUNTY DSO 106-1846(b)(2) OR	1 FOOT PER INCH OF TRUNK DBH OR 5 FEET, WHICHEVER IS GREATER
TOWN OF BLUFFTON UDO 5.3.3, C(1)	1.5 FEET PER INCH OF TRUNK DBH
TOWN OF HILTON HEAD LMO 16-6-104, J	FENCING AT DRIP LINE FOR ALL TREES PROPOSED TO BE RETAINED
CITY OF BEAUFORT UDO 7.3, D(3)	0.5 FOOT PER INCH OF TRUNK DBH OR 5 FEET, WHICHEVER IS GREATER
JASPER COUNTY ZONING ORD. ART. 13	FENCING AT DRIP LINE FOR "SIGNIFICANT" AND "LANDMARK" TREES
CITY OF HARDEEVILLE MZDSO 4.8, F	FENCING AT DRIP LINE FOR "PROTECTED TREES", SEE PLANS FOR ALL OTHERS

DBH = TRUNK DIAMETER AT BREAST HEIGHT



TREE PROTECTION FENCE

DETAIL #02915-008

REFERENCES

- NATIONAL DOCUMENTS**
 AASHTO M 278
 AASHTO GEOMETRIC DESIGN
 AASHTO ROADSIDE DESIGN GUIDE
- SCDOT DOCUMENTS**
- RELATED ORDINANCES & REFERENCES**
 720-105-00

PRECONSTRUCTION SUPPORT ENGINEER



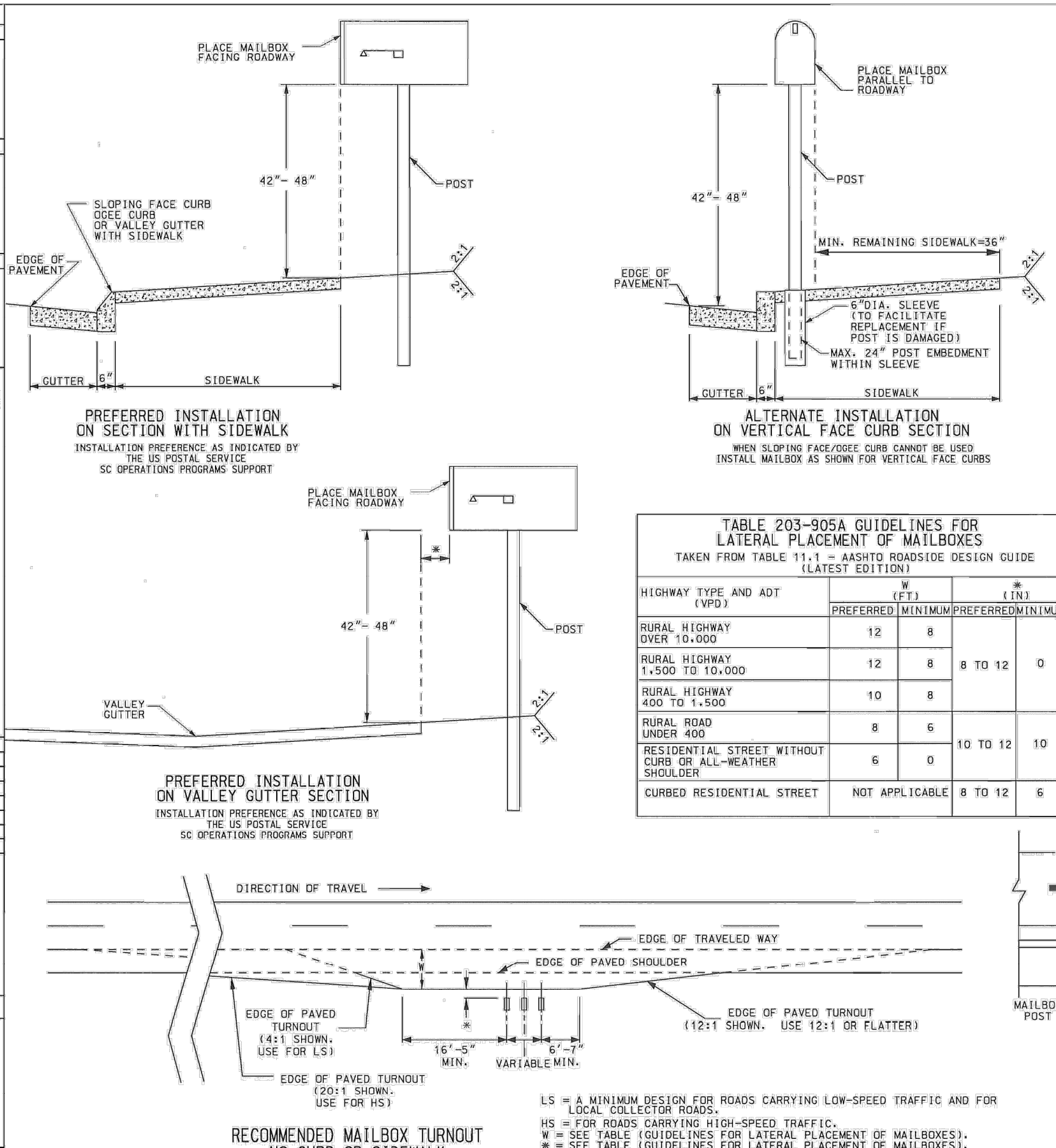
Signature: *E. Sylvester*
 DATE: MARCH 3, 2008

NO.	DATE	BY	DESCRIPTION
1	03/2008	ESD	GENERAL REVISIONS

SCDOT
 SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION
 DESIGN STANDARDS OFFICE
 955 PARK STREET
 ROOM 405
 COLUMBIA, SC 29201

STANDARD DRAWING
 EXCAVATION ASSOCIATED WORK (MAILBOX PLACEMENT)

203-905-00
 EFFECTIVE LETTING DATE: MAY 2008 THIS DRAWING IS NOT TO SCALE



- NOTES:**
1. MAILBOXES SHOULD MEET THE US POSTAL SERVICE REQUIREMENTS OF 36 CFS PER 1.5' OF CURB OR MAILBOXES. EXISTING MAILBOXES MEETING THE US POSTAL SERVICE REQUIREMENTS ARE TO BE RESET AS SHOWN EXCEPT IN THE MOST OBVIOUS NON-COMPLIANT CASES.
 2. IN GENERAL, THE PROPERTY OWNER IS RESPONSIBLE FOR ENSURING THAT THEIR MAILBOX IS IN COMPLIANCE WITH USPS REQUIREMENTS. ALL EXISTING MAILBOXES WILL BE RESET AS SHOWN EXCEPT IN THE MOST OBVIOUS NON-COMPLIANT CASES.
 3. IN ACCORDANCE WITH SECTION 203 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, MAILBOXES ARE TO BE RESET BY THE CONTRACTOR AS REQUIRED BY CONSTRUCTION ACTIVITIES IN ORDER TO MAINTAIN CURRENT MAIL DELIVERY.
 4. MAILBOXES WILL BE LOCATED ON THE RIGHT SIDE OF THE ROADWAY IN THE DIRECTION OF THE DELIVERY ROUTE EXCEPT ON ONE-WAY STREETS WHERE THEY MAY BE PLACED ON THE LEFT SIDE.
 5. MAILBOXES SHOULD BE INSTALLED ON THE TRAILING SIDE OF THE DRIVEWAY A MINIMUM OF 5' FROM THE DRIVE. IF MAILBOXES CANNOT BE INSTALLED ON THE TRAILING SIDE OF THE DRIVEWAY, INSTALL ON THE LEADING SIDE OF THE DRIVEWAY, A MINIMUM OF 16' FROM THE DRIVE.
 6. IF MORE THAN ONE MAILBOX IS TO BE INSTALLED AT A DRIVEWAY, DISTANCE BETWEEN POSTS SHALL BE EQUAL TO THE HEIGHT OF THE MAILBOX.
 7. THE BOTTOM OF THE BOX SHALL BE SET AT AN ELEVATION BETWEEN 3.5' AND 4.0' ABOVE THE ROADWAY SURFACE.
 8. WHEN MAILBOX IS PLACED IN A SIDEWALK, THE ORIENTATION OF THE MAILBOX WILL BE PARALLEL TO CENTERLINE OF THE ROADWAY TO ENABLE ACCESS TO THE BOX. THE BOX SHALL OPEN ON THE APPROACH SIDE AND THE SIDE OF THE BOX WILL EQUAL TO THE BACK OF THE CURB OR BACK OF VALLEY GUTTER.
 9. WHEN A CROSS AREA IS BETWEEN THE BACK OF CURB OR VALLEY GUTTER AND THE SIDEWALK, THE MAILBOX WILL BE INSTALLED PERPENDICULAR TO THE ROADWAY AS LONG AS THE BOX DOES NOT OVERHANG THE SIDEWALK. ALSO WHEN NO SIDEWALK IS PRESENT THE MAILBOX SHALL BE PLACED PERPENDICULAR TO THE ROADWAY.
 10. A 6" SOIL TUBE MEETING SCHEDULE 40 AND THE REQUIREMENTS OF AASHTO M 278 SHALL BE USED. THE INSTALLATION OF THE SOIL TUBE SHALL BE FROM THE TOP OF THE SIDEWALK TO THE BOTTOM OF THE POST. BACK FILL VOID BETWEEN SOIL TUBE AND MAILBOX POST WITH SAND WITHIN 2' OF FINISHED GRADE AND SEAL WITH SILLING CALK.
 11. WOOD POST SHOULD NOT BE SMALLER OR LARGER THAN RECOMMENDED. MAILBOX TO POST ATTACHMENT SHALL MEET THE REQUIREMENTS OF THE U.S. POSTAL SERVICE. NEWSPAPER RECEPTACLES ARE ALLOWED ON POST AS LONG AS NO INTERFERENCE IS ENCOUNTERED AND WILL BE INSTALLED PARALLEL TO THE MAILBOX ON THE FAR SIDE OF THE POST.
 12. THERE ARE NO SEPARATE PAY ITEMS TO RESET MAILBOXES. COST IS INCLUDED IN THE COST OF OTHER WORK WITHOUT ADDITIONAL COMPENSATION.

Ward Edwards ENGINEERING
 P.O. BOX 381, BLUFFTON, SOUTH CAROLINA 29910
 PH: (803) 837-5555 FAX: (803) 837-2536
 WWW.WARDEDWARDS.COM

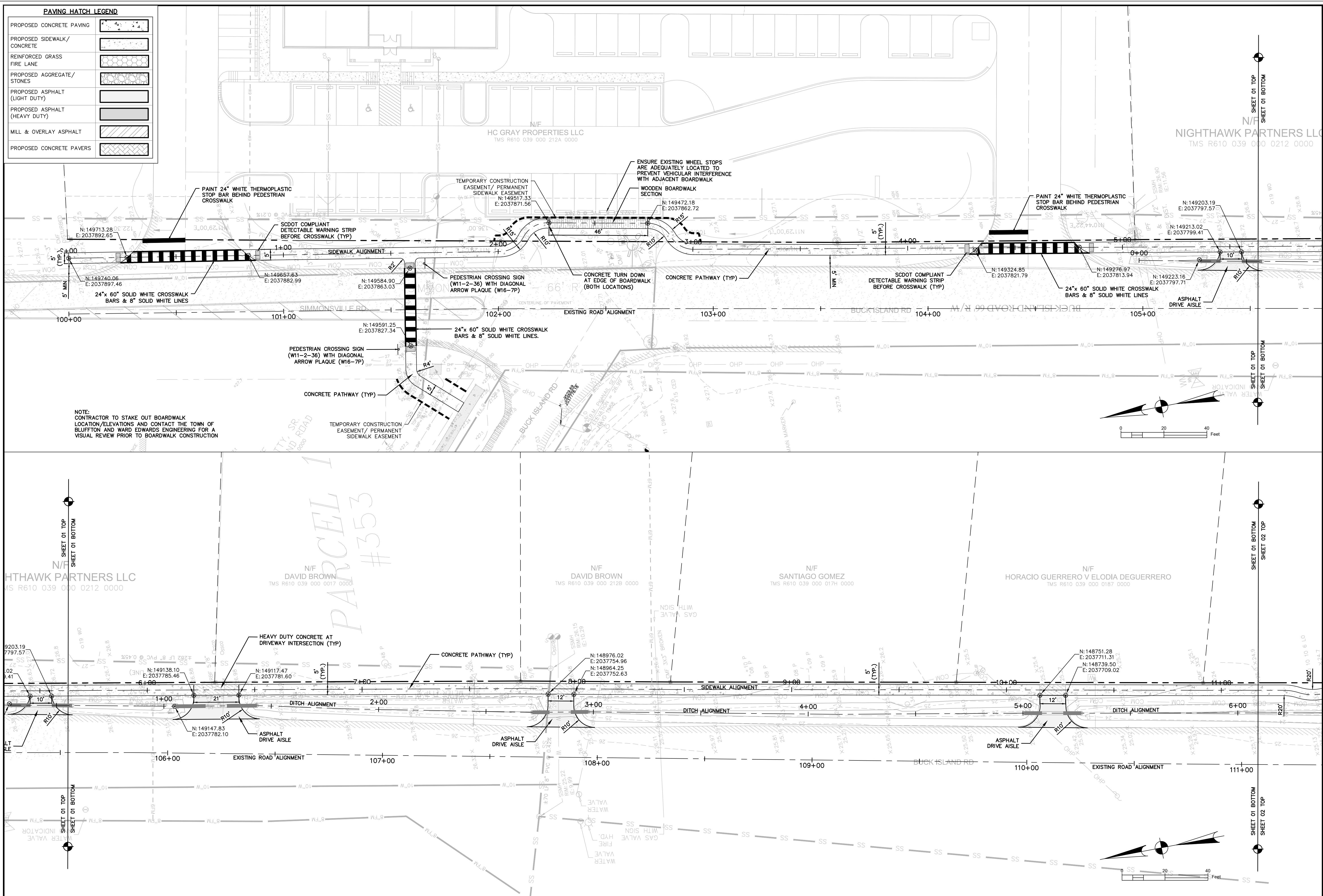
BUCK ISLAND - SIMMONSVILLE NEIGHBORHOOD SIDEWALKS, PHASE 4
 BEAUFORT COUNTY, SOUTH CAROLINA
 TOWN OF BLUFFTON
 BLUFFTON, SOUTH CAROLINA
EROSION CONTROL DETAILS

NOT FOR CONSTRUCTION
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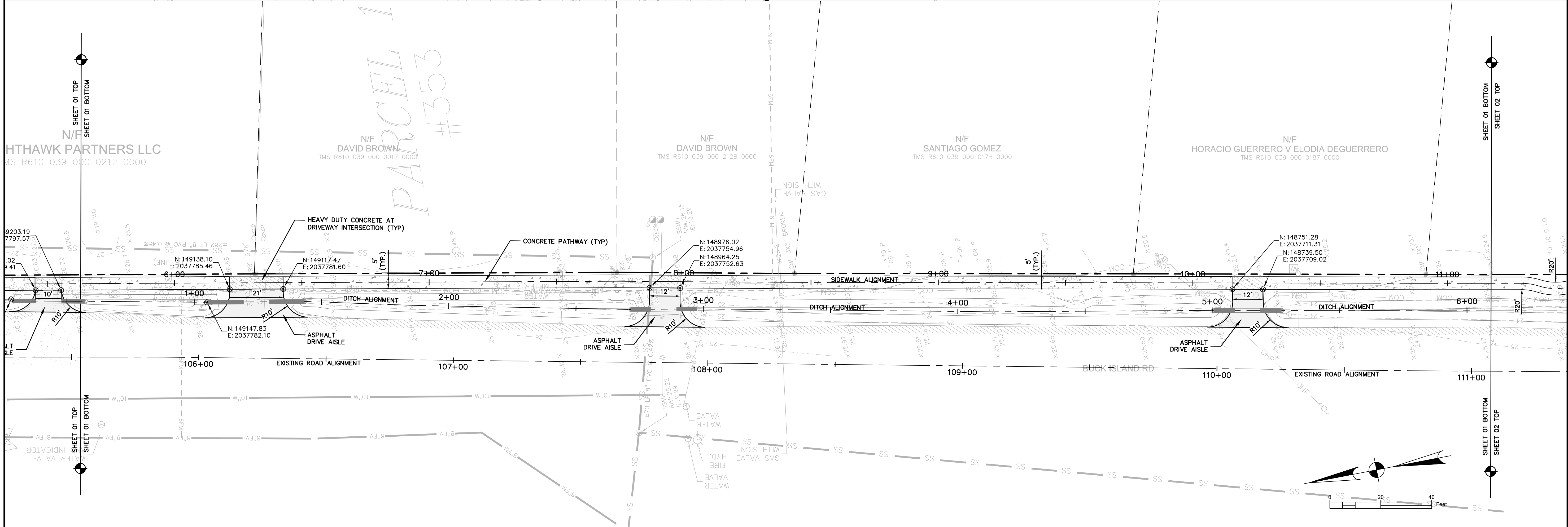
PROJECT #: 150608
 DATE: 11/07/18
 DESIGNED BY: CPB
 CHECKED BY: PRM
 SCALE: AS NOTED

SHEET
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NOTE: CONTRACTOR TO STAKE OUT BOARDWALK LOCATION ELEVATIONS AND CONTACT THE TOWN OF BLUFFTON AND WARD EDWARDS ENGINEERING FOR A VISUAL REVIEW PRIOR TO BOARDWALK CONSTRUCTION



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Ward Edwards ENGINEERING
 P.O. BOX 381, BLUFFTON, SOUTH CAROLINA 29910
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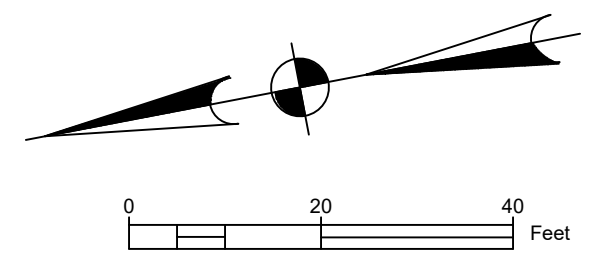
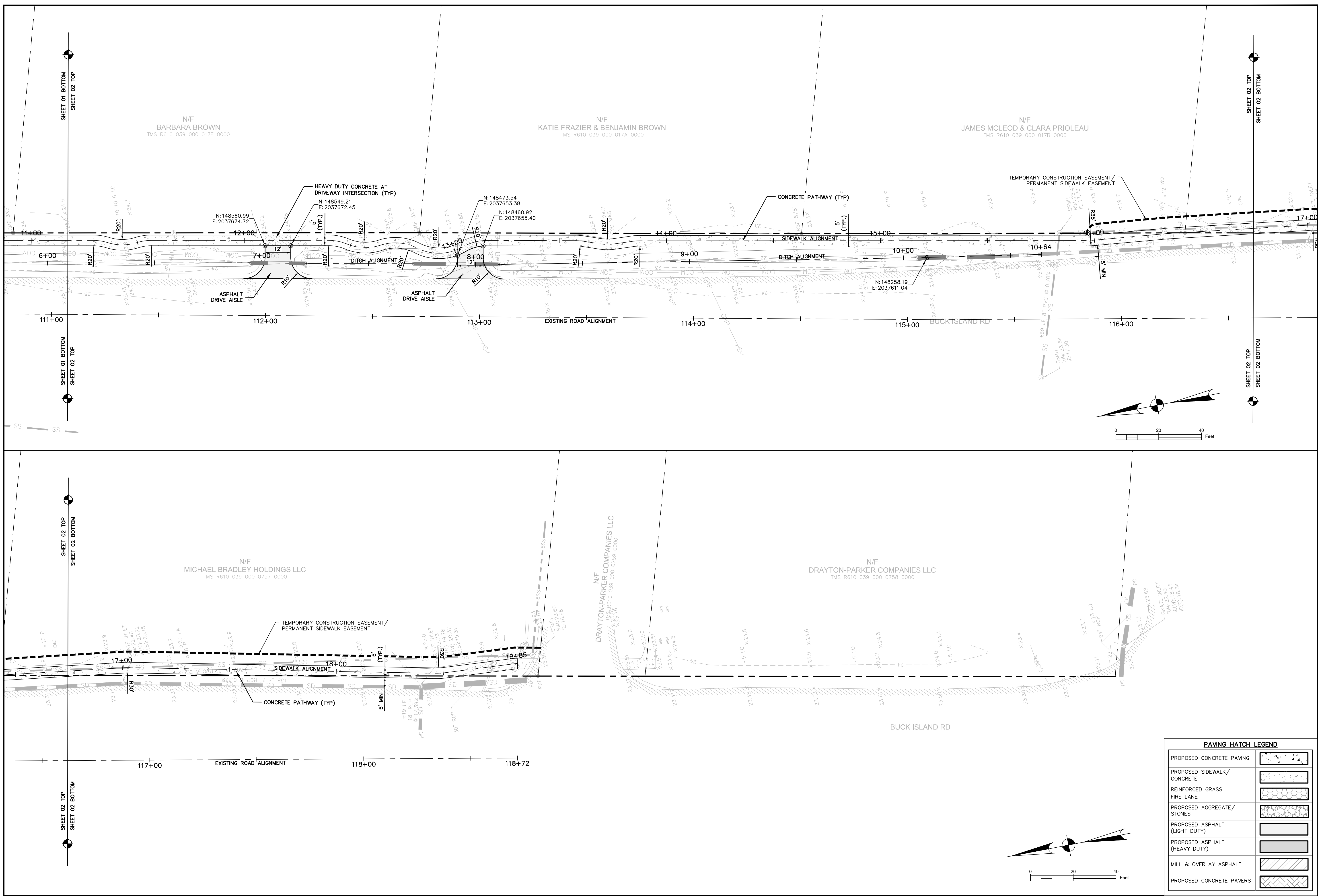
BUCK ISLAND - SIMMONSVILLE NEIGHBORHOOD SIDEWALKS, PHASE 4
 BEAUFORT COUNTY, SOUTH CAROLINA
TOWN OF BLUFFTON
 BLUFFTON, SOUTH CAROLINA
SITE LAYOUT, PAVING & STRIPING PLAN

NOT FOR CONSTRUCTION
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PROJECT #:	150605
DATE:	11/07/18
DESIGNED BY:	CPB
CHECKED BY:	FRM
SCALE:	1"=20'

SHEET C401

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PAVING HATCH LEGEND	
PROPOSED CONCRETE PAVING	
PROPOSED SIDEWALK/ CONCRETE	
REINFORCED GRASS	
FIRE LANE	
PROPOSED AGGREGATE/ STONES	
PROPOSED ASPHALT (LIGHT DUTY)	
PROPOSED ASPHALT (HEAVY DUTY)	
MILL & OVERLAY ASPHALT	
PROPOSED CONCRETE PAVERS	

Professional Engineer Seal for Ward Edwards, Inc. License No. 222816, State of South Carolina. The seal is circular with the engineer's name and license information around the perimeter.

PLAN REVISIONS	
NO.	DESCRIPTION
7	
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Ward Edwards ENGINEERING
 P.O. BOX 381, BLUFFTON, SOUTH CAROLINA 29910
 PH: (803) 837-5555 FAX: (843) 837-2536
 WWW.WARDEDWARDS.COM

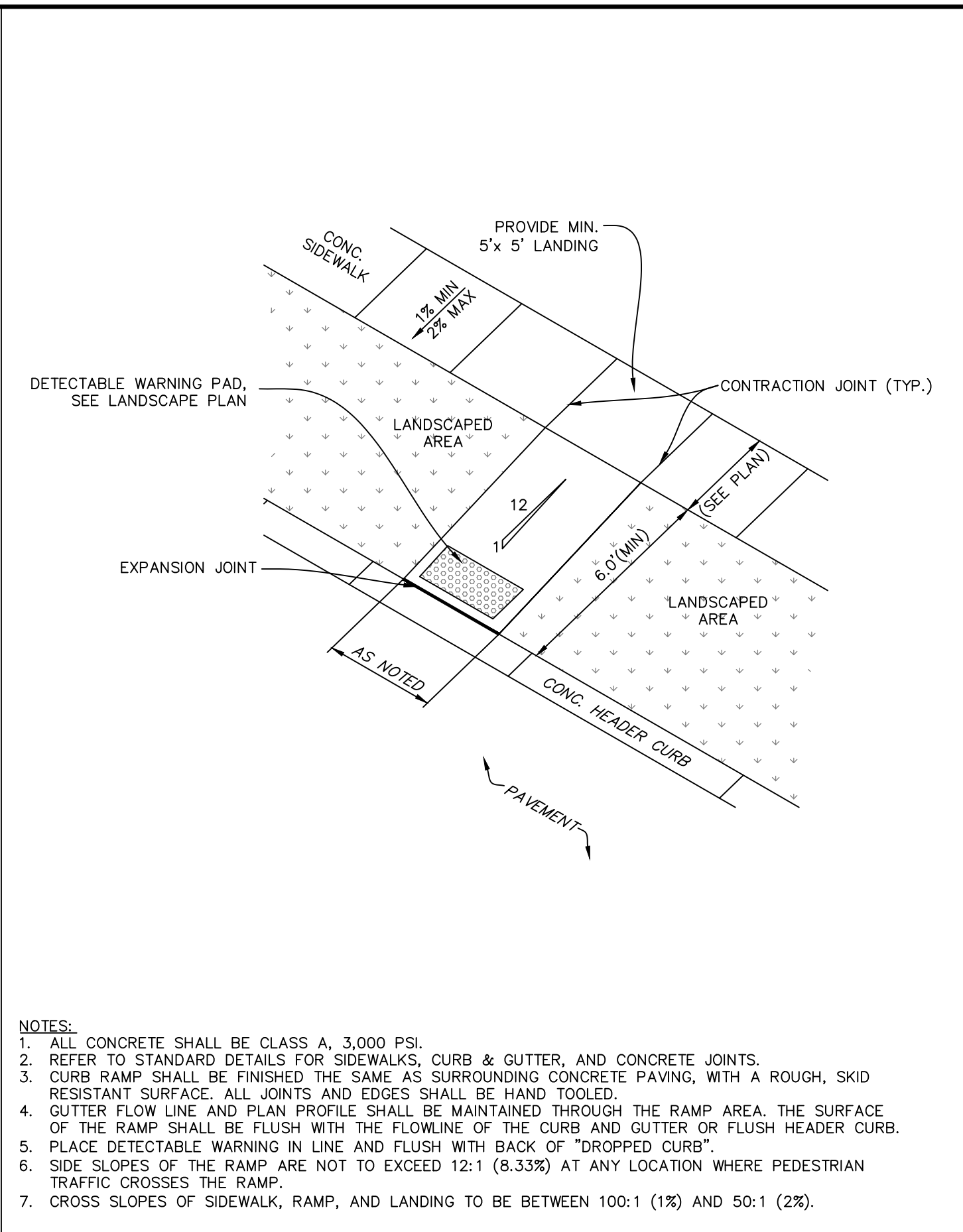
BUCK ISLAND - SIMMONSVILLE NEIGHBORHOOD SIDEWALKS, PHASE 4
 BEAUFORT COUNTY, SOUTH CAROLINA
 TOWN OF BLUFFTON
 BLUFFTON, SOUTH CAROLINA
SITE LAYOUT, PAVING & STRIPING PLAN

<input type="checkbox"/> NOT FOR CONSTRUCTION
<input checked="" type="checkbox"/> RELEASED FOR CONSTRUCTION
PROJECT #: 150605
DATE: 11/07/18
DESIGNED BY: CPB
CHECKED BY: FRM
SCALE: 1"=20'

SHEET C402

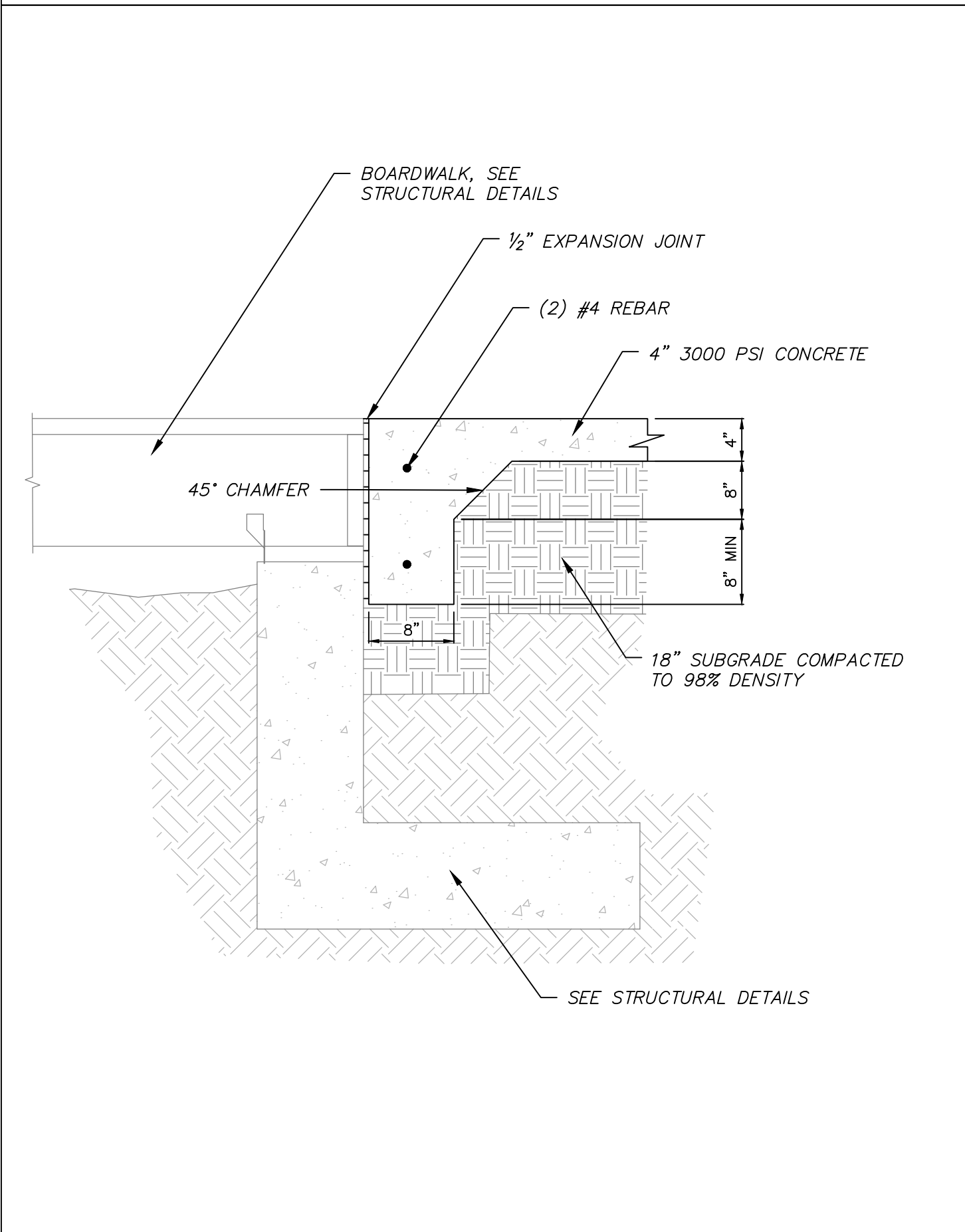
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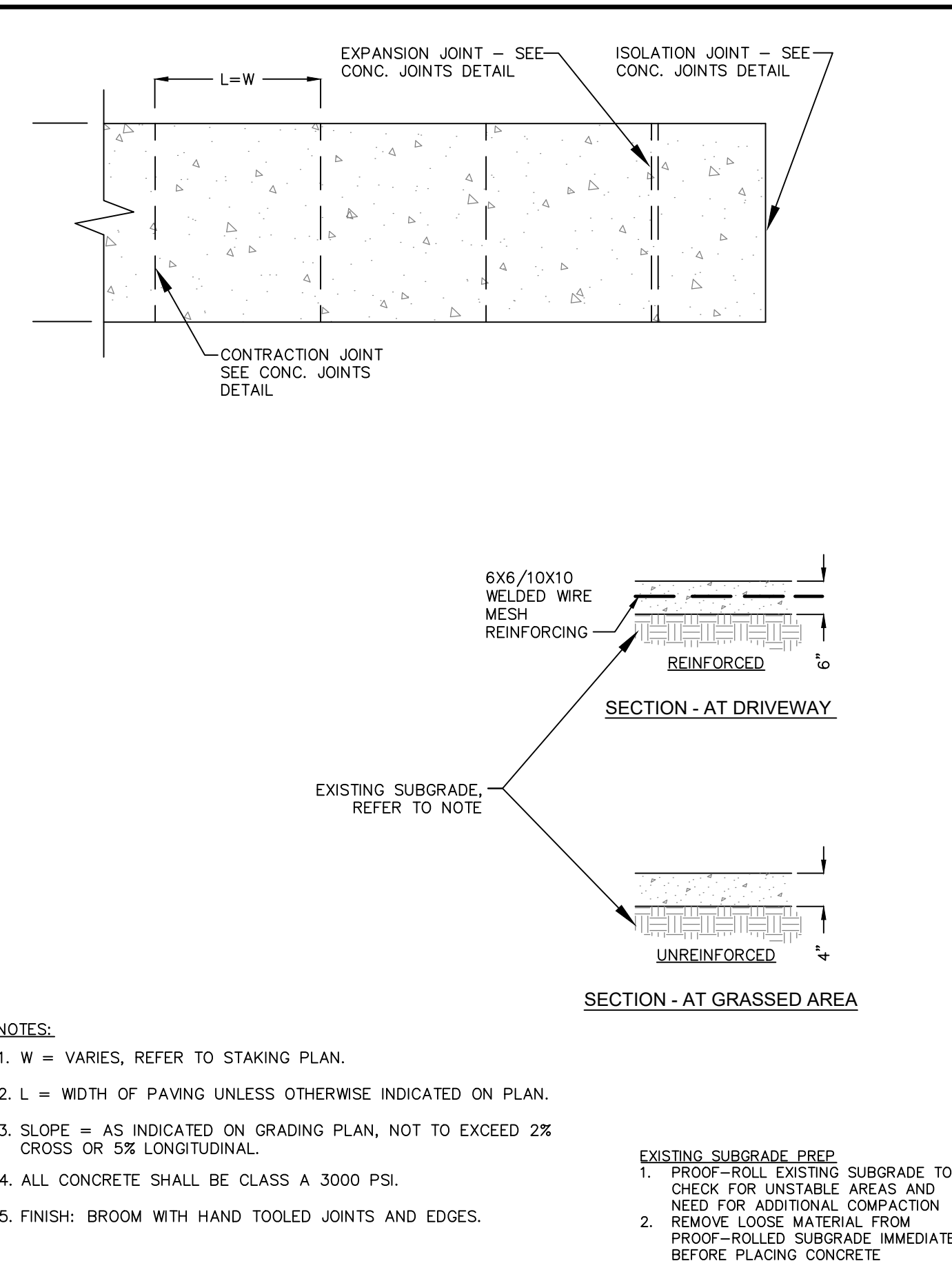
CONCRETE CURB RAMP- TYPE D

DETAIL 03300-033



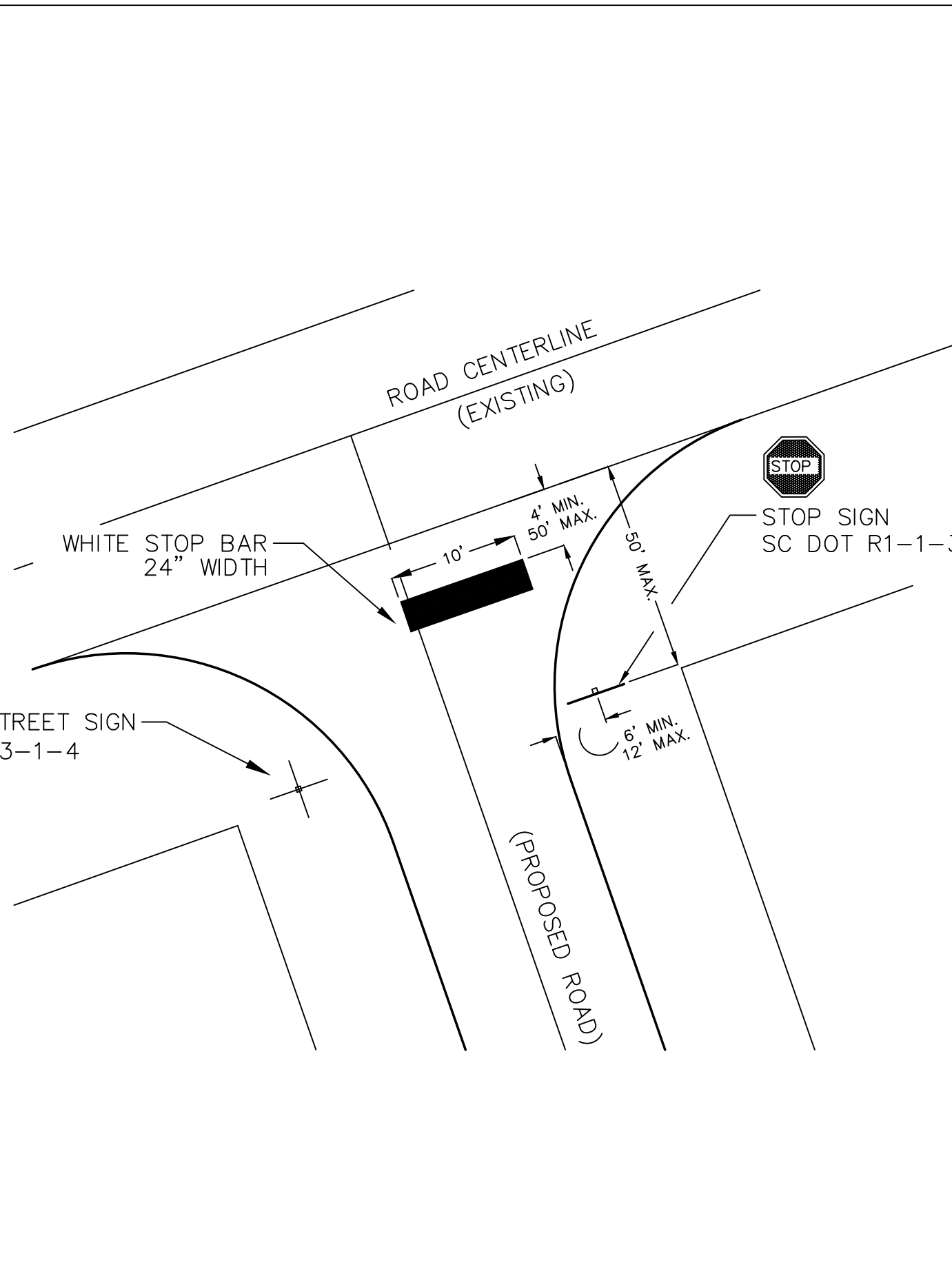
TURNED-DOWN CONCRETE

DETAIL 03300-003



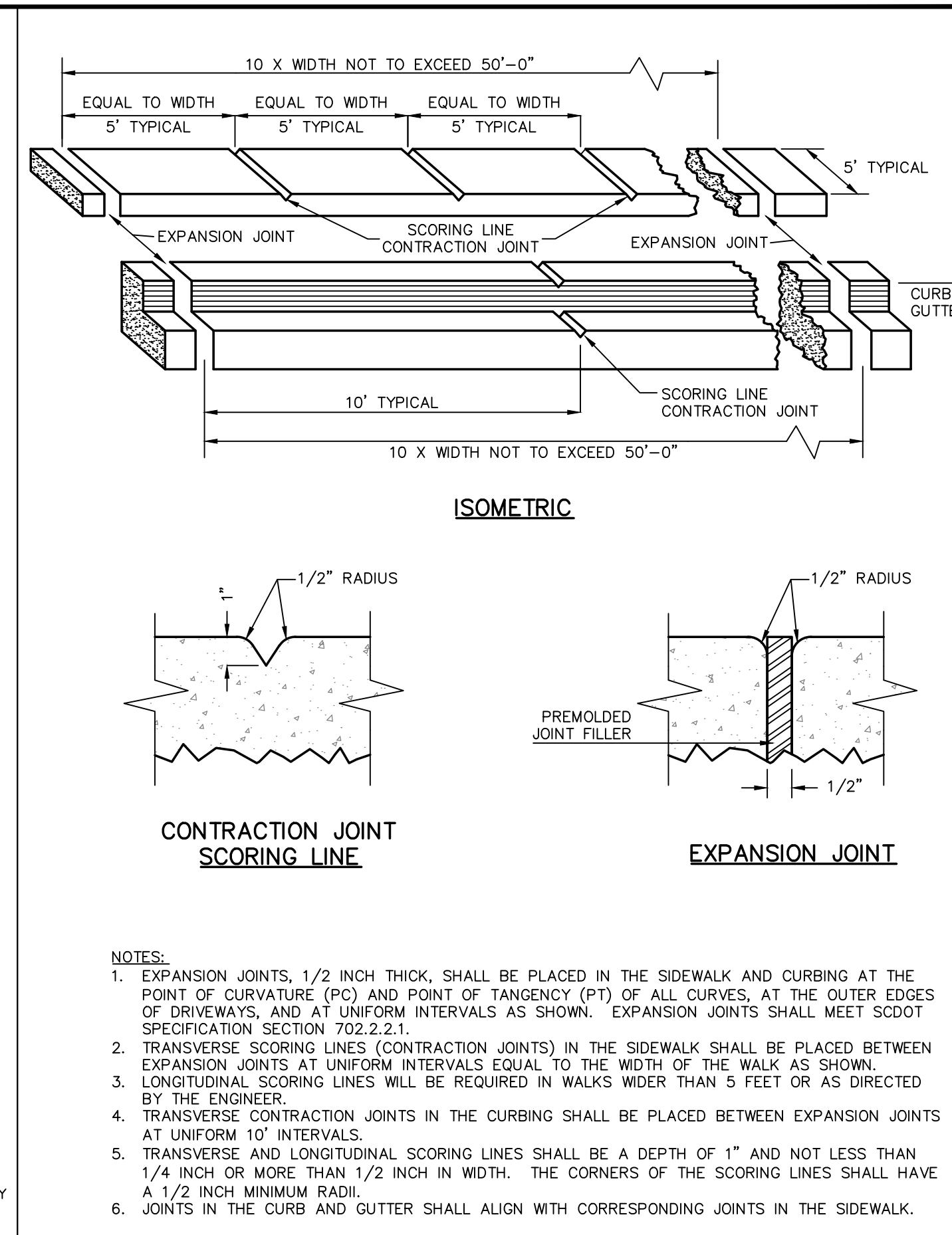
CONCRETE SIDEWALK

DETAIL 03300-022



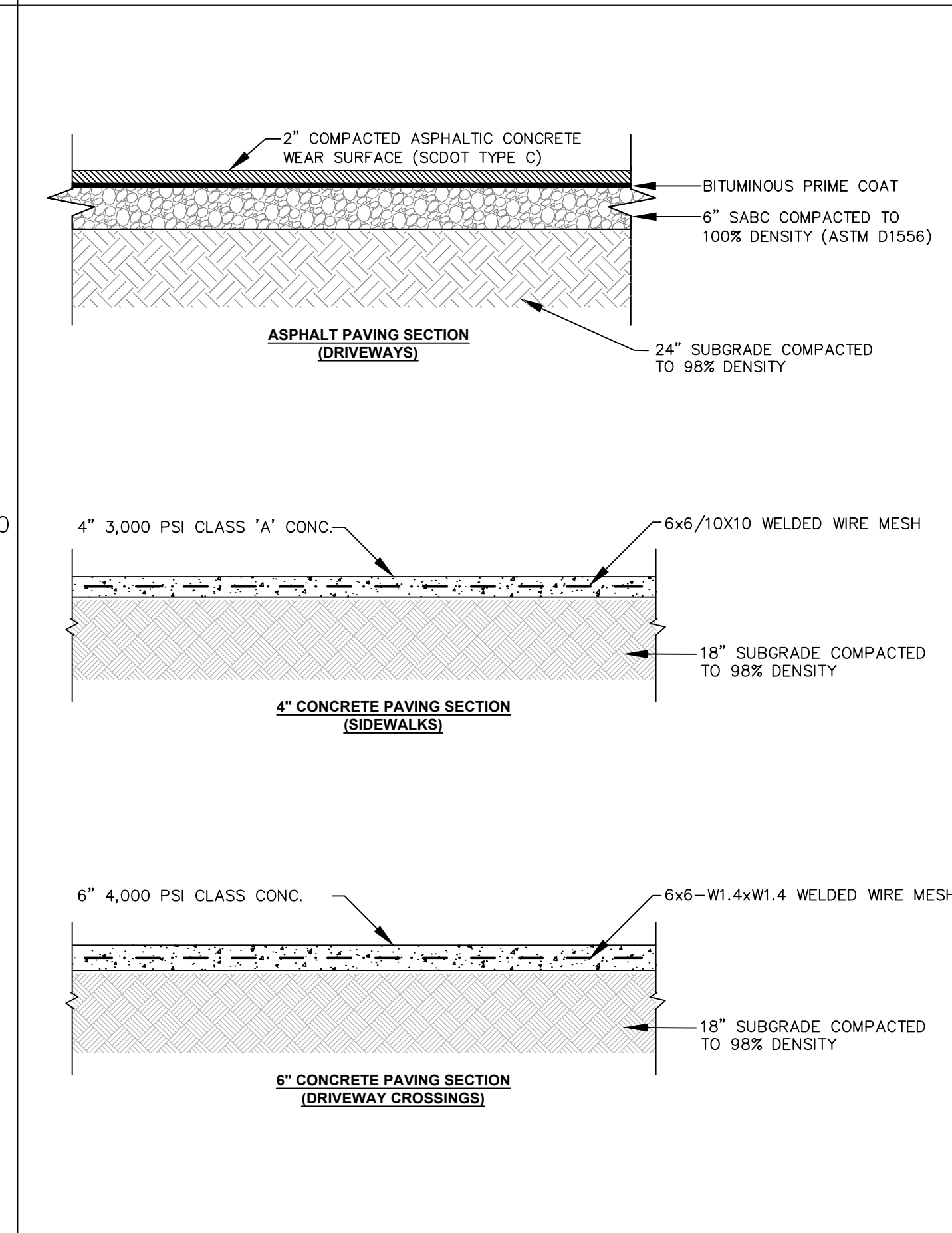
TYPICAL STOP SIGN & STOP BAR STRIPING AT INTERSECTION

DETAIL #02740-018



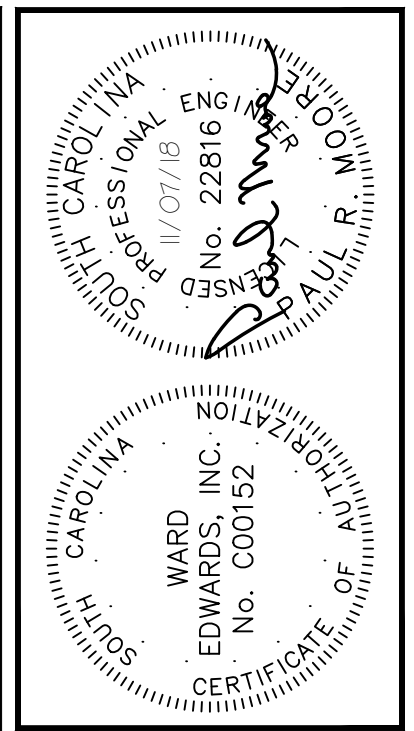
EXPANSION JOINTS AND SCORING LINES

DETAIL 03300-007A



TYPICAL PAVING SECTIONS

DETAIL 02740-016



NO.	DESCRIPTION	DATE
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ENGINEERING
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WWW.WARDEDWARDS.COM

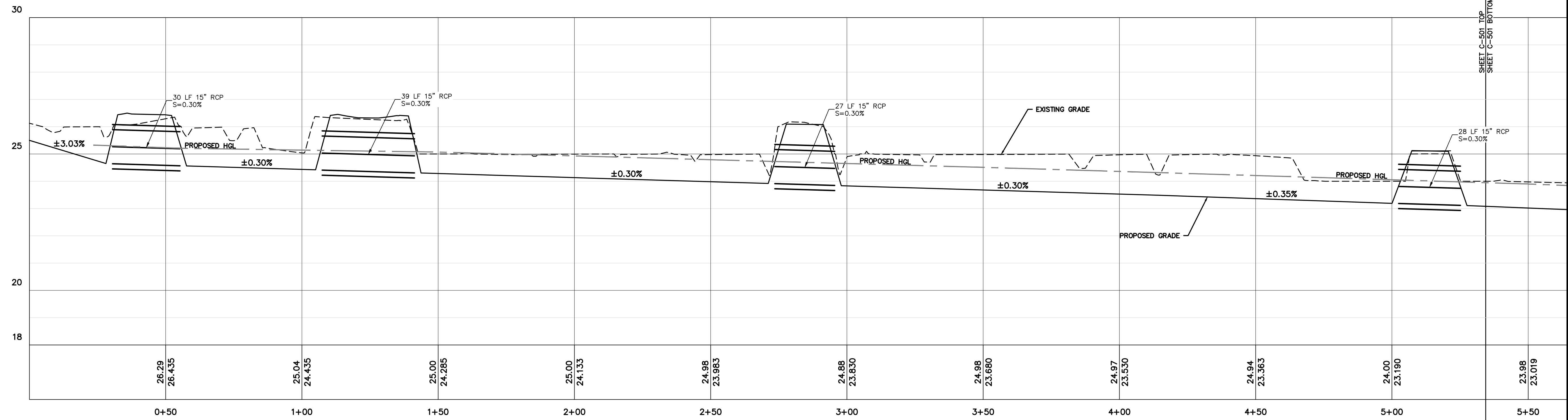
BUCK ISLAND - SIMMONSVILLE NEIGHBORHOOD SIDEWALKS, PHASE 4
BEAUFORT COUNTY, SOUTH CAROLINA
TOWN OF BLUFFTON
BLUFFTON, SOUTH CAROLINA
PAVING AND STRIPING DETAILS

NOT FOR CONSTRUCTION
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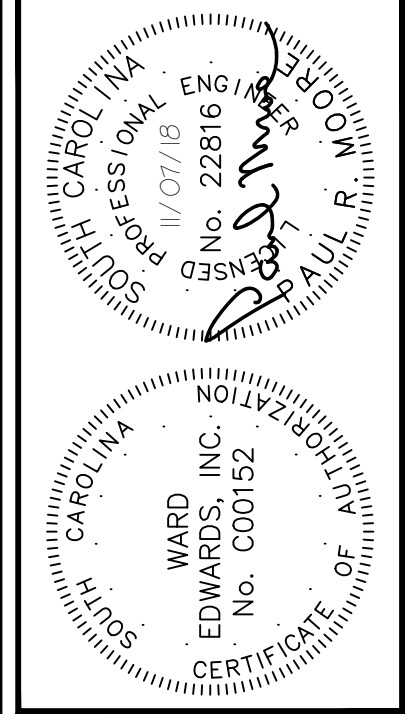
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SHEET C403

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DITCH PROFILE
SCALE: 1"=20' HORZ/1"=2' VERT



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Ward Edwards
ENGINEERING

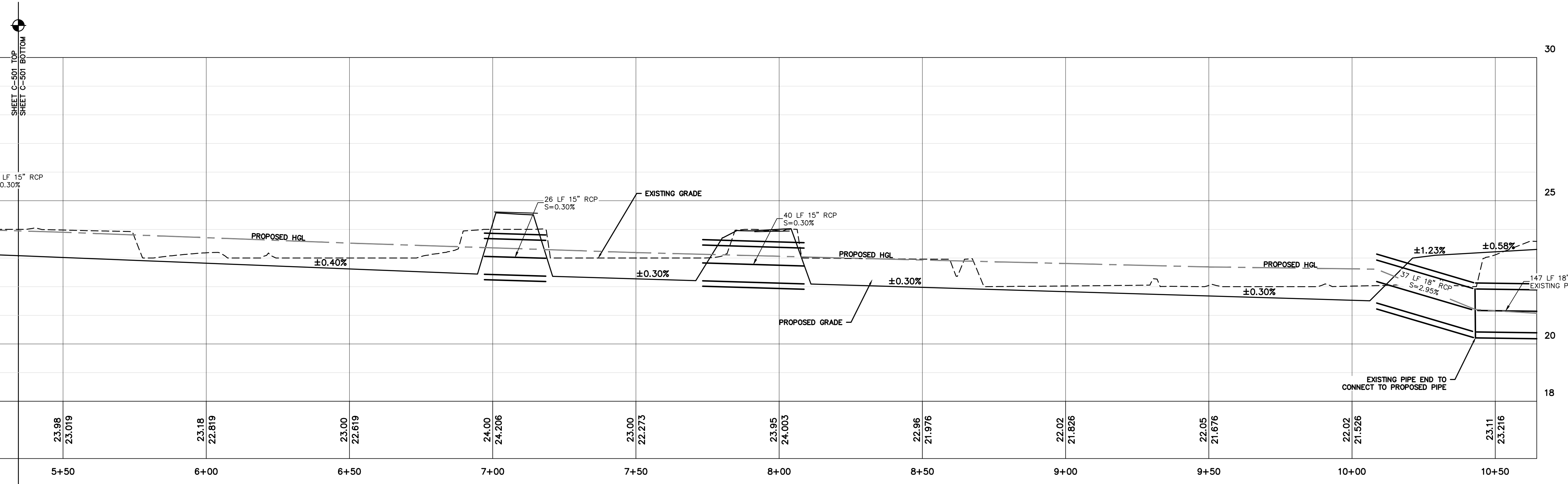
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BUCK ISLAND - SIMMONSVILLE NEIGHBORHOOD SIDEWALKS, PHASE 4
BEAUFORT COUNTY, SOUTH CAROLINA
TOWN OF BLUFFTON
BLUFFTON, SOUTH CAROLINA
DITCH PROFILE

NOT FOR CONSTRUCTION
 RELEASED FOR CONSTRUCTION

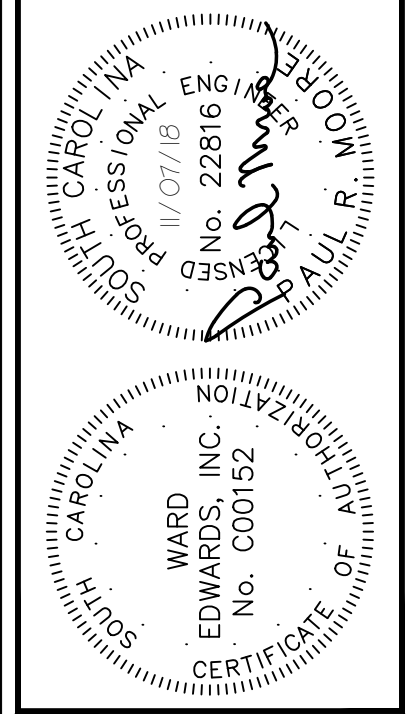
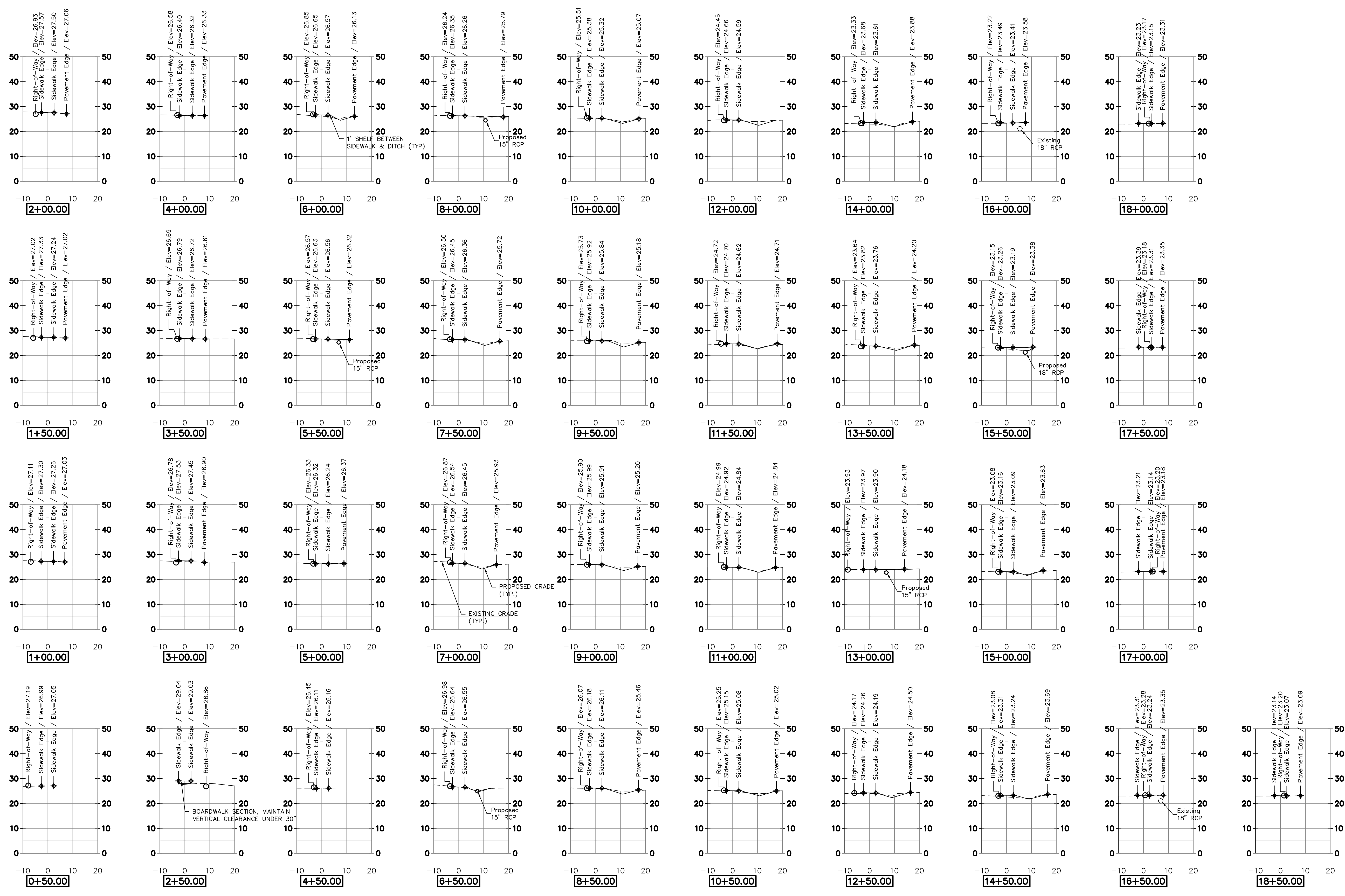
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SHEET C501



DITCH PROFILE
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Ward Edwards
ENGINEERING
P.O. BOX 381, BLUFFTON, SOUTH CAROLINA 29910
PH (843) 837-5555 FAX (843) 837-2536
WWW.WARDEDWARDS.COM

BUCK ISLAND - SIMMONSVILLE NEIGHBORHOOD SIDEWALKS, PHASE 4
BEAUFORT COUNTY, SOUTH CAROLINA
TOWN OF BLUFFTON
BLUFFTON, SOUTH CAROLINA
DITCH CROSS SECTIONS

NOT FOR CONSTRUCTION
 RELEASED FOR CONSTRUCTION

PROJECT #: 150605
DATE: 11/07/18
DESIGNED BY: CPB
CHECKED BY: PRM
SCALE: AS NOTED

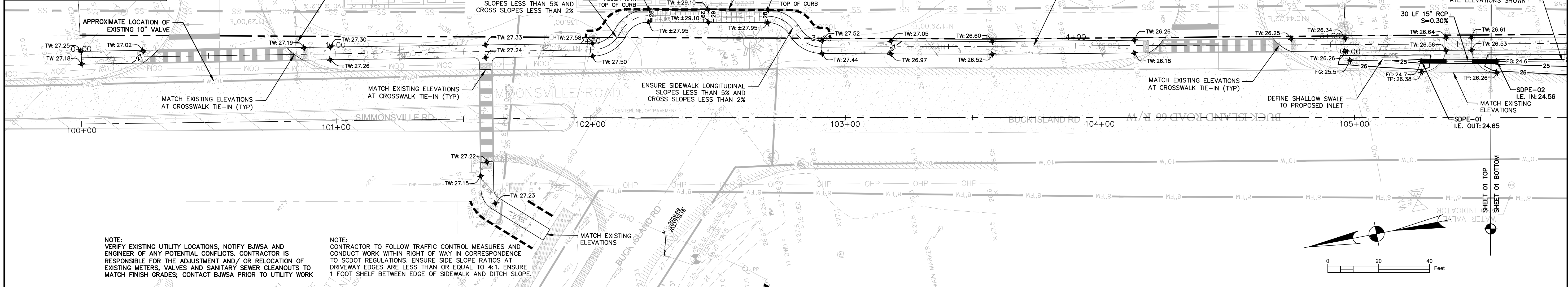
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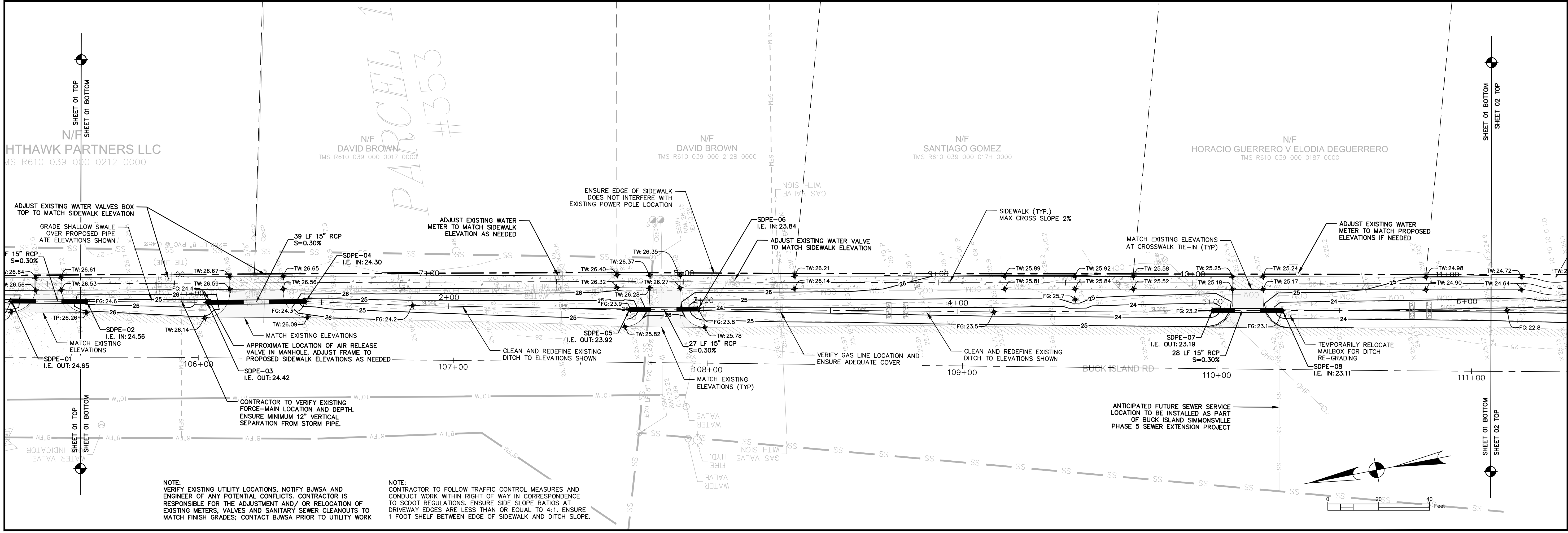
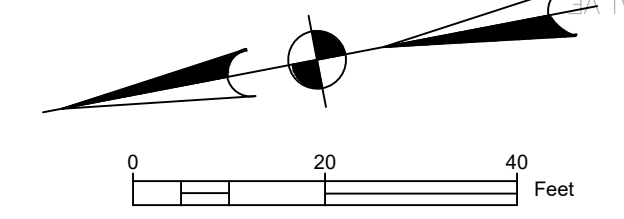
STORM SEWER/DRAINAGE LEGEND	
PROPOSED	PROPOSED
DROP INLET	DI: A1
CURB INLET (WITH GRATE)	CI: A1
TYPE 16 CURB INLET	CI: A1
VALLEY GUTTER INLET	VI: A1
TRENCH DRAIN	TD: A1
WEIR INLET	WI: A1
YARD INLET	YI: A1
JUNCTION BOX	JB: A1
CLEANOUT	CO
DOWNSPOUT	
STORM DRAIN	
UNDERDRAIN	
ROOF DRAIN COLLECTOR	
FLARED END SECTION	
HEADWALL	
HEADWALL WITH WINGS	
OUTLET CONTROL STRUCTURE	
DITCH CENTERLINE	→ PD →
DIRECTION OF FLOW	→

GRADING LEGEND	
PROPOSED	PROPOSED
TOP OF PAVEMENT ELEVATION	TP: 22.50
TOP OF WALK ELEVATION	TW: 22.50
TOP OF CURB ELEVATION	TC: 22.50
FINISH GRADE	FG: 22.5
HIGH POINT	HP
LOW POINT	LP
CONTOUR	19
DITCH CENTERLINE	→ PD →
DIRECTION OF FLOW	→
DOORWAY	▶



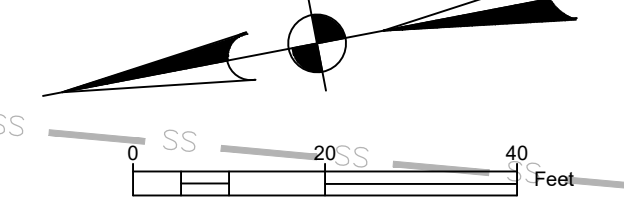
NOTE: VERIFY EXISTING UTILITY LOCATIONS, NOTIFY BJWSA AND ENGINEER OF ANY POTENTIAL CONFLICTS. CONTRACTOR IS RESPONSIBLE FOR THE ADJUSTMENT AND/OR RELOCATION OF EXISTING METERS, VALVES AND SANITARY SEWER CLEANOUTS TO MATCH FINISH GRADES; CONTACT BJWSA PRIOR TO UTILITY WORK

NOTE: CONTRACTOR TO FOLLOW TRAFFIC CONTROL MEASURES AND CONDUCT WORK WITHIN RIGHT OF WAY IN CORRESPONDENCE TO SCOTD REGULATIONS. ENSURE SIDE SLOPE RATIOS AT DRIVEWAY EDGES ARE LESS THAN OR EQUAL TO 4:1. ENSURE 1 FOOT SHELF BETWEEN EDGE OF SIDEWALK AND DITCH SLOPE.



NOTE: VERIFY EXISTING UTILITY LOCATIONS, NOTIFY BJWSA AND ENGINEER OF ANY POTENTIAL CONFLICTS. CONTRACTOR IS RESPONSIBLE FOR THE ADJUSTMENT AND/OR RELOCATION OF EXISTING METERS, VALVES AND SANITARY SEWER CLEANOUTS TO MATCH FINISH GRADES; CONTACT BJWSA PRIOR TO UTILITY WORK

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NO.	DESCRIPTION	DATE
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Ward Edwards
ENGINEERING
P.O. BOX 381, BLUFFTON, SOUTH CAROLINA 29910
PH: (803) 837-5555 FAX: (843) 837-2536
WWW.WARDEDWARDS.COM

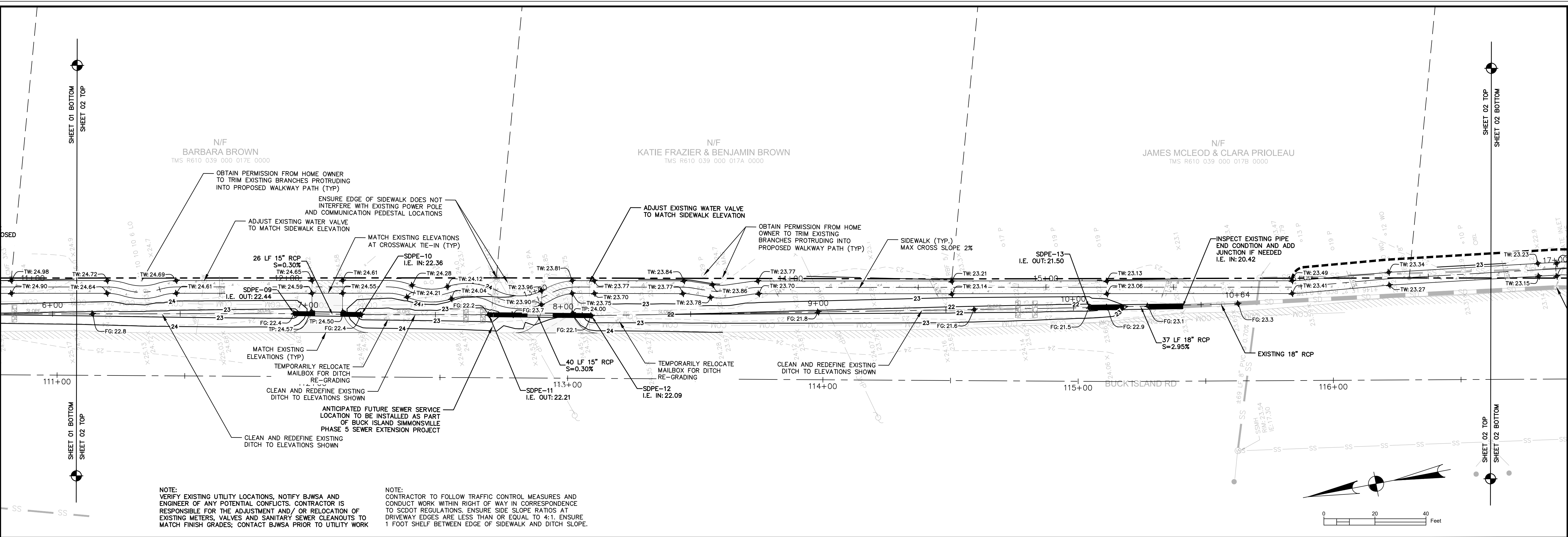
BUCK ISLAND - SIMMONSVILLE NEIGHBORHOOD SIDEWALKS, PHASE 4
TOWN OF BLUFFTON
BLUFFTON, SOUTH CAROLINA
GRADING & DRAINAGE PLAN

NOT FOR CONSTRUCTION
RELEASED FOR CONSTRUCTION

PROJECT #: 150605
DATE: 11/07/18
DESIGNED BY: CPM
CHECKED BY: PRM
SCALE: 1"=20'

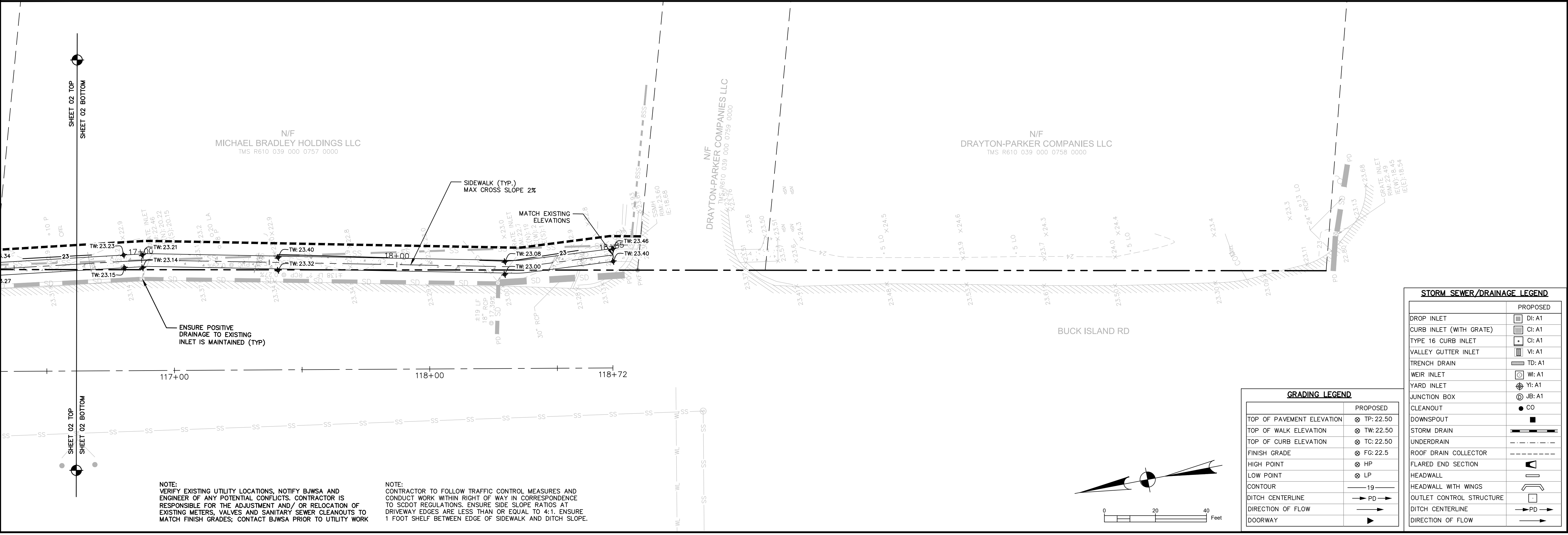
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NOTE:
CONTRACTOR TO FOLLOW TRAFFIC CONTROL MEASURES AND CONDUCT WORK WITHIN RIGHT OF WAY IN CORRESPONDENCE TO SCOTD REGULATIONS. ENSURE SIDE SLOPE RATIOS AT DRIVEWAY EDGES ARE LESS THAN OR EQUAL TO 4:1. ENSURE 1 FOOT SHELF BETWEEN EDGE OF SIDEWALK AND DITCH SLOPE.



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NOTE:
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GRADING LEGEND	
	PROPOSED
TOP OF PAVEMENT ELEVATION	⊗ TP: 22.50
TOP OF WALK ELEVATION	⊗ TW: 22.50
TOP OF CURB ELEVATION	⊗ TC: 22.50
FINISH GRADE	⊗ FG: 22.5
HIGH POINT	⊗ HP
LOW POINT	⊗ LP
CONTOUR	— 19
DITCH CENTERLINE	→ PD →
DIRECTION OF FLOW	→ PD →
DOORWAY	▶

STORM SEWER/DRAINAGE LEGEND	
	PROPOSED
DROP INLET	⊗ DI: A1
CURB INLET (WITH GRATE)	⊗ CI: A1
TYPE 16 CURB INLET	⊗ CI: A1
VALLEY GUTTER INLET	⊗ VI: A1
TRENCH DRAIN	⊗ TD: A1
WEIR INLET	⊗ WI: A1
YARD INLET	⊗ YI: A1
JUNCTION BOX	⊗ JB: A1
CLEANOUT	● CO
DOWNSPOUT	⊗ TP: 22.50
STORM DRAIN	—
UNDERDRAIN	---
ROOF DRAIN COLLECTOR	---
FLARED END SECTION	⊏
HEADWALL	⊏
HEADWALL WITH WINGS	⊏
OUTLET CONTROL STRUCTURE	⊏
DITCH CENTERLINE	→ PD →
DIRECTION OF FLOW	→ PD →

Professional Engineer Seal for Ward Edwards, Inc. License No. 22816, State of South Carolina. The seal includes the name 'WARD EDWARDS, INC.' and 'ENGINEER'.

PLAN REVISIONS	
NO.	DESCRIPTION
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Ward Edwards ENGINEERING
 P.O. BOX 381, BLUFFTON, SOUTH CAROLINA 29910
 PH: (803) 875-5555 FAX: (803) 875-2536
 WWW.WARDEDWARDS.COM

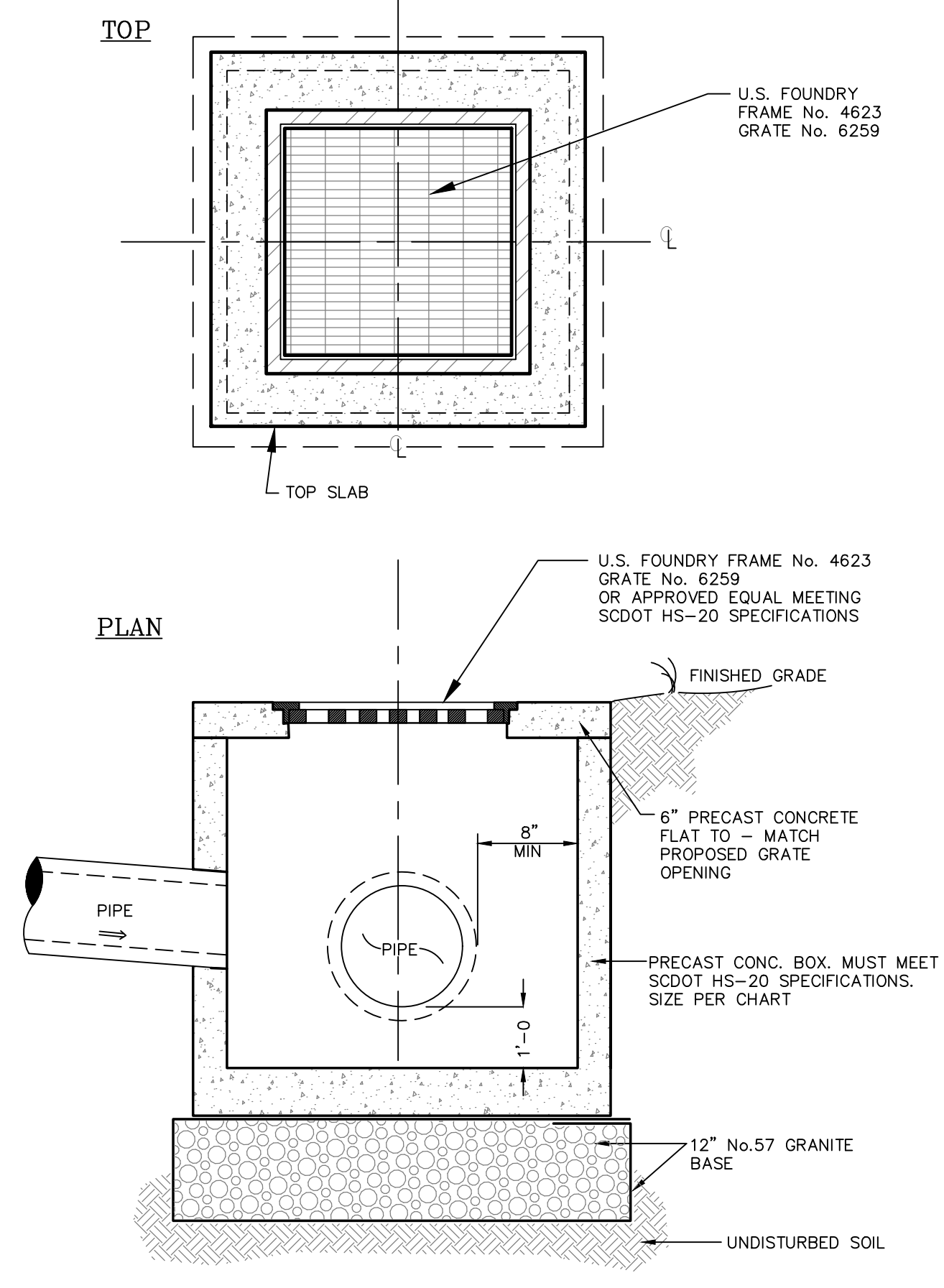
BUCK ISLAND - SIMMONSVILLE NEIGHBORHOOD SIDEWALKS, PHASE 4
 BEAUFORT COUNTY, SOUTH CAROLINA
TOWN OF BLUFFTON
BLUFFTON, SOUTH CAROLINA
GRADING & DRAINAGE PLAN

PROJECT #: 150605
 DATE: 11/07/18
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SHEET C602

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- BIWSA UTILITY AS-BUILT SURVEY REQUIREMENTS**
- CONTRACTOR SHALL PROVIDE ENGINEER WITH ELECTRONIC FILE OF SURVEYED UTILITY AS-BUILT POINTS. POINT DESCRIPTIONS SHALL BE CLEAR AND UNDERSTANDABLE.
 - CONTRACTOR SHALL ALSO PROVIDE CORRESPONDING REDLINE DRAWING TO SUPPLEMENT OR CLARIFY ELECTRONIC FILE CONTENT.
 - CONTRACTOR SHALL SCHEDULE SURVEYOR TO BE PRESENT DURING INSTALLATION IN ORDER TO OBTAIN ACCURATE INFORMATION ON UNDERGROUND FITTINGS AND SANITARY/STORM CROSSING ELEVATIONS. MULTIPLE SURVEYOR MOBILIZATIONS MAY BE NEEDED. IF SURVEYOR IS NOT PRESENT DURING INSTALLATION, CONTRACTOR SHALL ENSURE SURVEYOR HAS ACCESS TO ALL UTILITY COMPONENTS LISTED IN THESE NOTES.
 - CONTRACTOR'S SURVEYOR SHALL BE A PROFESSIONAL LAND SURVEYOR LICENSED IN SOUTH CAROLINA. CONTRACTOR'S SURVEYOR WILL REVIEW AND SIGN THE BIWSA CERTIFICATION ON THE UTILITY AS-BUILT DRAWING PREPARED BY ENGINEER UPON COMPLETION.
 - UTILITY AS-BUILT POINTS SHALL BE BASED UPON THE NORTH AMERICAN DATUM OF 1983 (NAD83) AND THE USGS NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD29).
 - AS BUILT SURVEY SHALL INCLUDE, BUT NOT NECESSARILY BE LIMITED TO, THE FOLLOWING:
 - GRAVITY SEWER**
 - MANHOLE LOCATIONS, FRAME ELEVATION, ALL INVERT ELEVATIONS
 - CLEANOUT LOCATIONS, GROUND ELEVATION, INVERT ELEVATION
 - POINTS FOR PERMANENT VISIBLE STRUCTURES NEARBY MANHOLES AND CLEANOUTS FOR REFERENCE (PAVEMENT, BUILDINGS, MANHOLES, CATCH BASINS, POWER POLES, OR PROPERTY CORNERS)
 - FORCE MAIN**
 - ELEVATION ON TOP OF FORCE MAIN CONNECTION TO MANHOLE OR FORCE MAIN MANIFOLD
 - AIR RELEASE VALVES
 - SIMPLE FORCE MAIN ALIGNMENTS ON 100 LF INCREMENTS
 - ARCS, BENDS ON 50 LF INCREMENTS
 - WATER**
 - HORIZONTAL AND VERTICAL LOCATION OF ALL VALVES, BENDS, TEES, AND STORM/SANITARY CROSSING POINTS (FOR AS-BUILT SEPARATION CALCULATIONS)
 - FIRE HYDRANTS
 - CONCRETE MARKERS, CONNECTIONS TO EXISTING LINES, BACKFLOW PREVENTORS, AIR RELEASE VALVES
 - POINTS FOR PERMANENT VISIBLE STRUCTURES NEAR WATER SYSTEM ELEMENTS DESCRIBED ABOVE FOR REFERENCE (PAVEMENT, BUILDINGS, MANHOLES, CATCH BASINS, POWER POLES, OR PROPERTY CORNERS). TWO SURVEYED REFERENCE POINT LOCATIONS ARE REQUIRED FOR EACH FITTING.
 - PUMP STATIONS**
 - COMPLETE LAYOUT OF PUMP STATION
 - MANHOLE LOCATIONS, FRAME ELEVATION, ALL INVERT ELEVATIONS
 - FENCING & GATES, CONTROL PANEL
 - TOP OF SLAB (INCL. BRASS BENCHMARK) & BOTTOM OF WETWELL
 - INFLUENT LINE INVERT
 - FLOAT LEVELS (PUMP OFF, PUMP ON, LEAD/LAG, BOAT PUMPS ON, HIGH WATER)
 - PROPERTY CORNERS, YARD HYDRANT, LIGHT POLE, DISCHARGE PIPING/VALVES



SHALLOW GRATE INLET (SDGI) DETAIL 02630-027

REFERENCES

NATIONAL DOCUMENTS
AASHTO M 253

SCDOT DOCUMENTS
QUALIFIED PRODUCT LIST 14

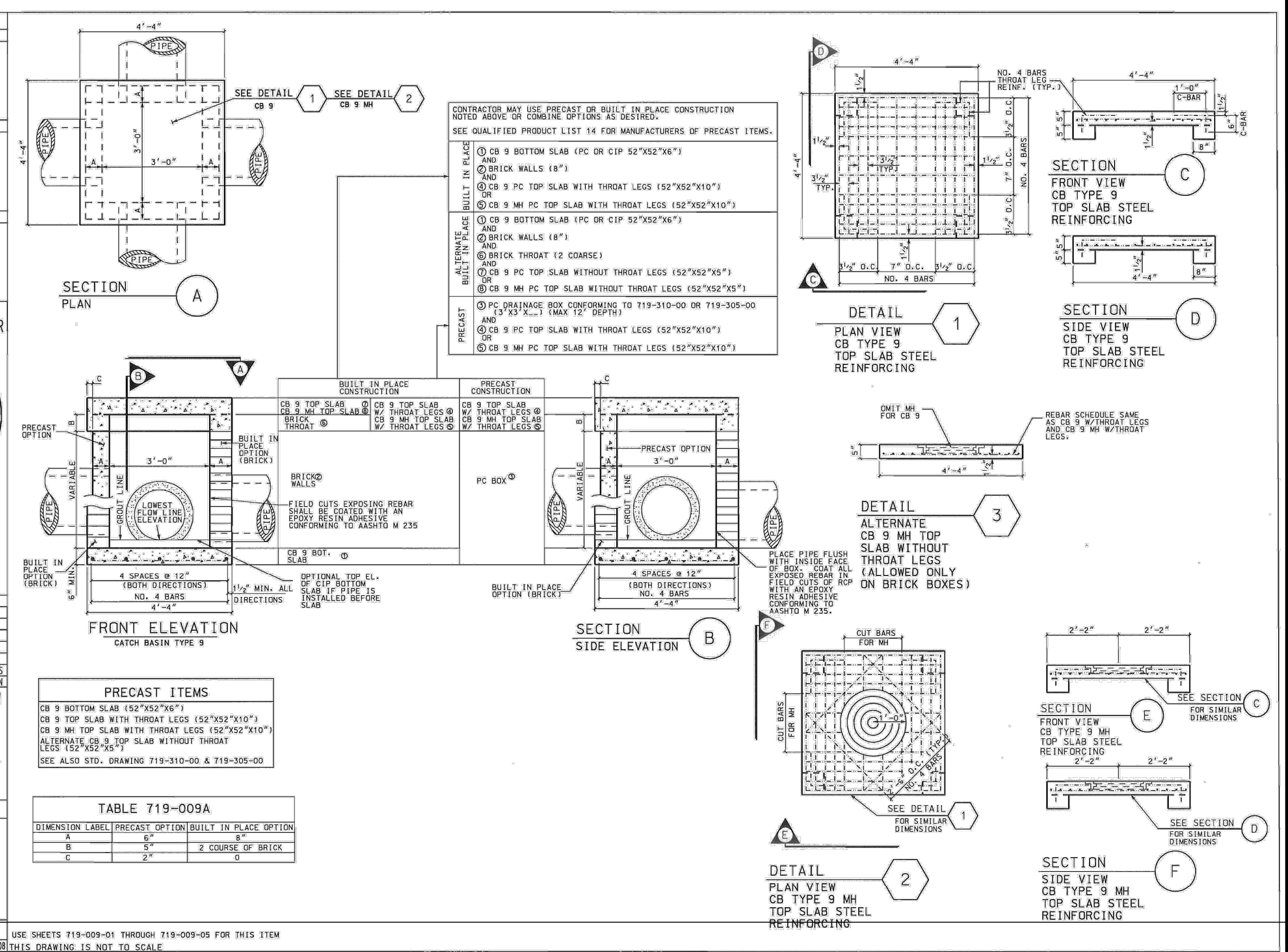
RELATED DRAWINGS & KEYWORDS
719-310-00, 719-305-00, 719-009-01 TO 719-009-05

PRECONSTRUCTION SUPPORT ENGINEER

SCDOT
SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION
DESIGN STANDARDS OFFICE
9505 PARK STREET
ROOM 405
COLUMBIA, SC 29201

STANDARD DRAWING
CATCH BASIN TYPE 9 & 9MH DETAILS

719-009-01 USE SHEETS 719-009-01 THROUGH 719-009-05 FOR THIS ITEM
EFFECTIVE LITTING DATE: MAY 2008 THIS DRAWING IS NOT TO SCALE



WARD EDWARDS, INC.
REGISTERED PROFESSIONAL ENGINEER
SOUTH CAROLINA
NO. 22816
11/07/18

WARD EDWARDS, INC.
REGISTERED PROFESSIONAL ENGINEER
SOUTH CAROLINA
NO. 000152
11/07/18

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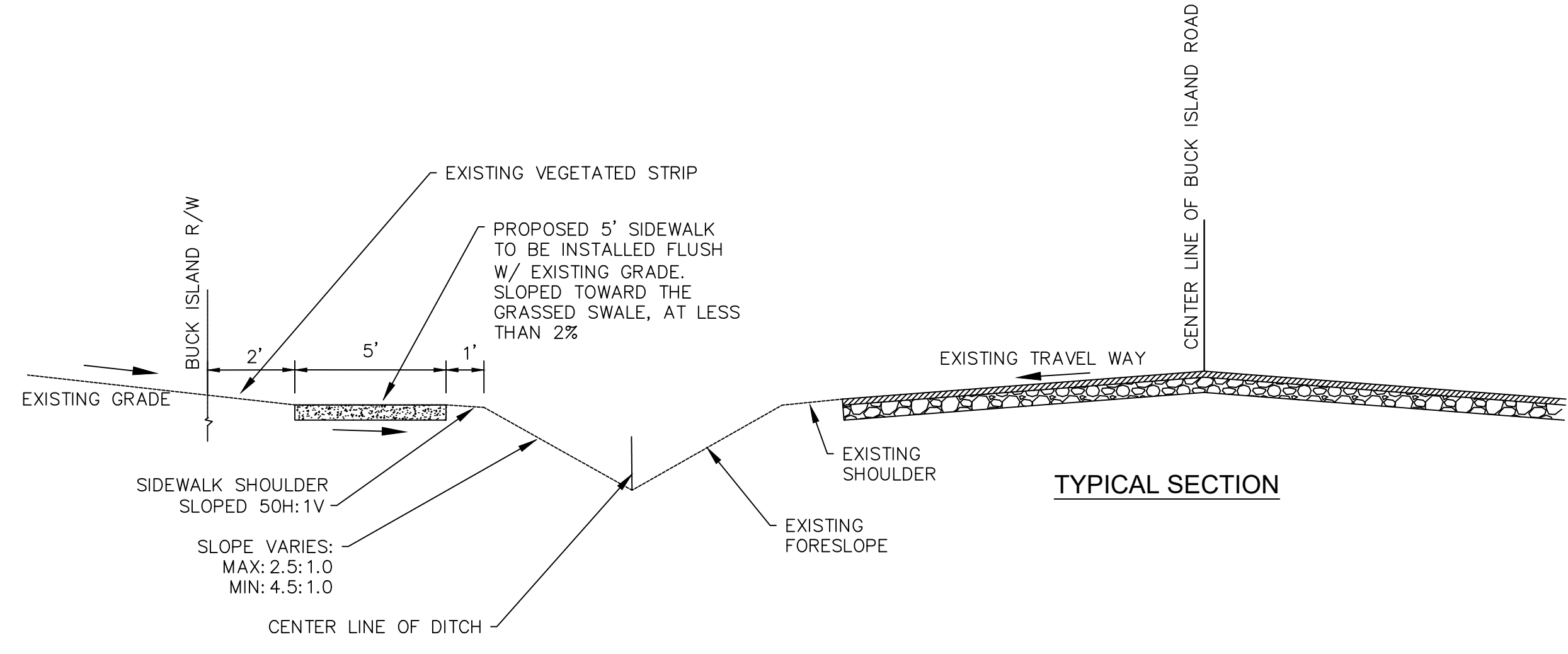
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PH: (803) 837-5555 FAX: (803) 837-2536
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BUCK ISLAND - SIMMONSVILLE NEIGHBORHOOD SIDEWALKS, PHASE 4
BEAUFORT COUNTY, SOUTH CAROLINA
TOWN OF BLUFFTON
BLUFFTON, SOUTH CAROLINA
GRADING & DRAINAGE DETAILS

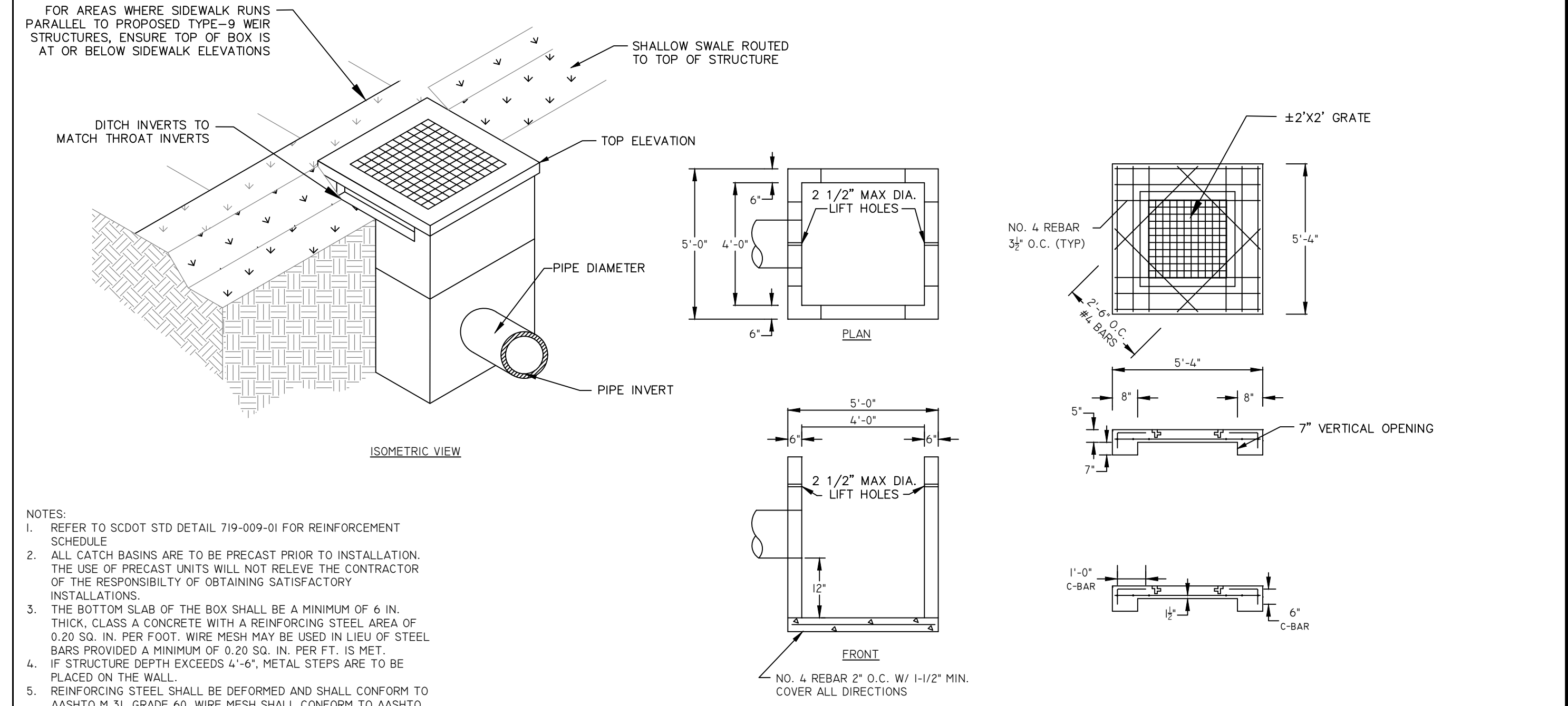
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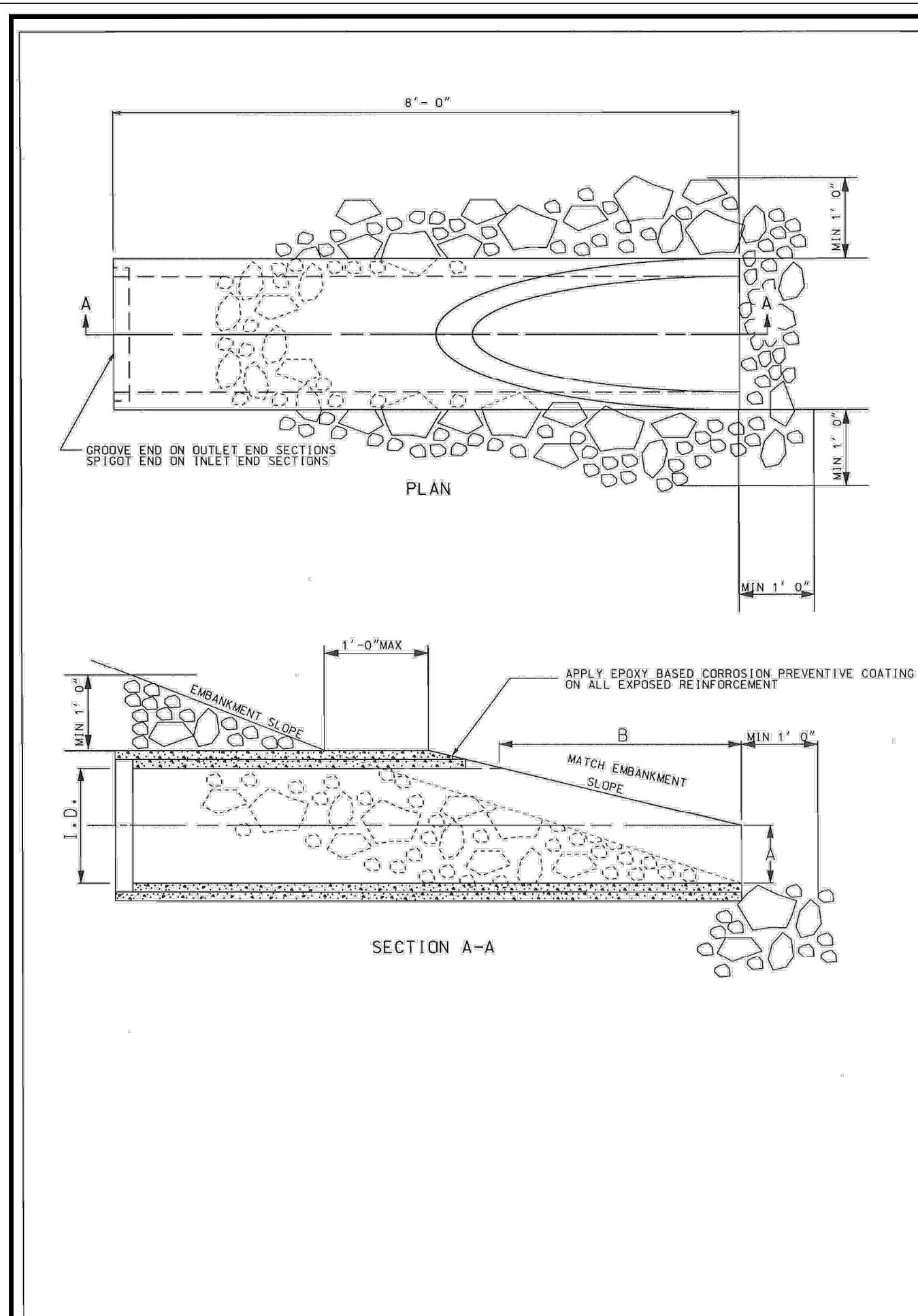


TYPICAL DITCH CROSS SECTION



DETAIL MODIFIED TYPE 9 WEIR INLET - SDGI:04

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NOTES:

- BEVELED END SECTIONS WILL BE MANUFACTURED IN ACCORDANCE WITH SCOT SUPPLEMENTAL TECHNICAL SPECIFICATIONS SC-M-714. THESE SPECIAL PIPE SECTIONS WILL BE MADE DURING THE MANUFACTURING OF OTHER STATE APPROVED REINFORCED CONCRETE PIPE.
- THE PIPE BEVEL MAY BE SAWED IN THE FIELD IN LIEU OF BEING MANUFACTURED. IN FIELD SAWING, THE PIPE OPENING MAY COME TO A POINT AT THE PIPE CREST RATHER THAN A RADIUS IF APPROVED BY THE PIPE MANUFACTURER. ALTERNATE PIPE FOR SLOPES MUST HAVE EACH END BEVELED TO MATCH THE ADJACENT SLOPES.
- PLACE RIPRAP AS DIRECTED BY THE RCP.
- PAYMENT FOR BEVELED END SECTIONS WILL BE AS DIRECTED IN SC-M-714.
- THE PAY ITEM SHALL BE:

719-100 BEVELING OF PIPE ENDS.....EA
8041XXX RIPRAP CLASS 2.....LN
8048XXX GEOTEXTILE FOR EROSION CONTROL UNDER RIPRAP CLASS 21 TYPE.....S.Y.

CLASS	D 50 (FT)	MINIMUM THICKNESS (FT)
B	0.75	1.50
C	1.30	2.60

I.D. (IN)	A (IN)	B (BEVELED LENGTH) (IN)
6	5	4
15	6	5
18	9	5
24	10	NA
30	12	NA
36	15	NA
42	20	NA
48	24	NA
54	24	NA
60	24	NA

REFERENCES

NATIONAL DOCUMENTS

SCOT DOCUMENTS

SCOT SUPPLEMENTAL TECHNICAL SPECIFICATION SC-M-714

INSTRUCTIONAL BULLETIN 2010-01

RELATED DRAWINGS & NETWORKS

714-105-01 TO 714-105-05

PRECONSTRUCTION SUPPORT ENGINEER

SOUTH CAROLINA PROFESSIONAL ENGINEER
No. 21242
JAMES W. KENDALL, JR.

Signature: James W. Kendall, Jr.
DATE: AUGUST 23, 2012

719-610-00
EFFECTIVE LETTING DATE: JAN. 2011

REFERENCES

NATIONAL DOCUMENTS

SCOT DOCUMENTS

SCOT SUPPLEMENTAL TECHNICAL SPECIFICATION SC-M-714

INSTRUCTIONAL BULLETIN 2010-01

RELATED DRAWINGS & NETWORKS

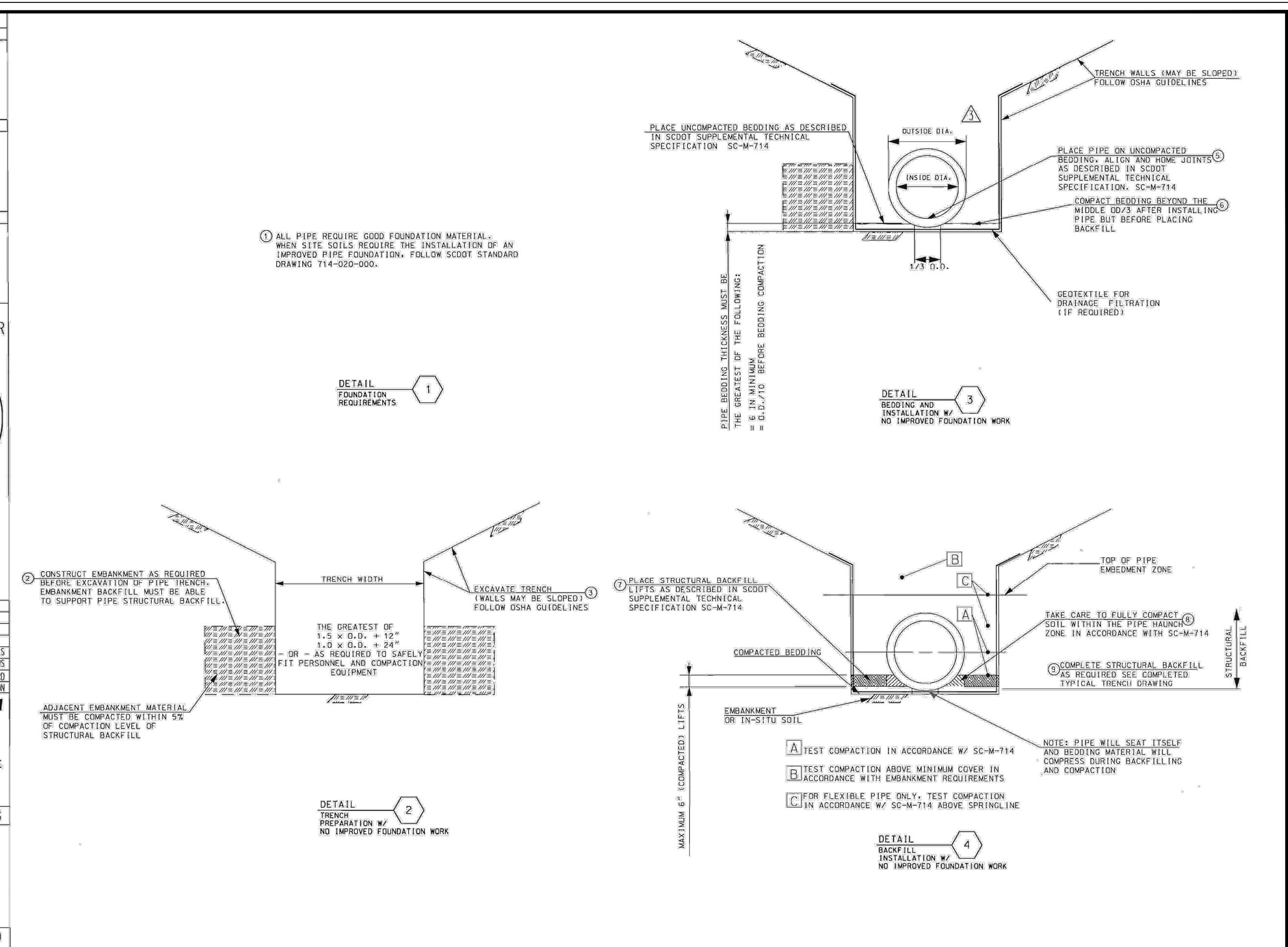
714-105-01 TO 714-105-05

PRECONSTRUCTION SUPPORT ENGINEER

SOUTH CAROLINA PROFESSIONAL ENGINEER
No. 8858
EDWIN SYLVESTER FARBLE, III

Signature: Edwin Sylvester Farble, III
DATE: APRIL 30, 2010

714-005-00
EFFECTIVE LETTING DATE: JANUARY 2011



REFERENCES

NATIONAL DOCUMENTS

SCOT DOCUMENTS

RELATED DRAWINGS & NETWORKS

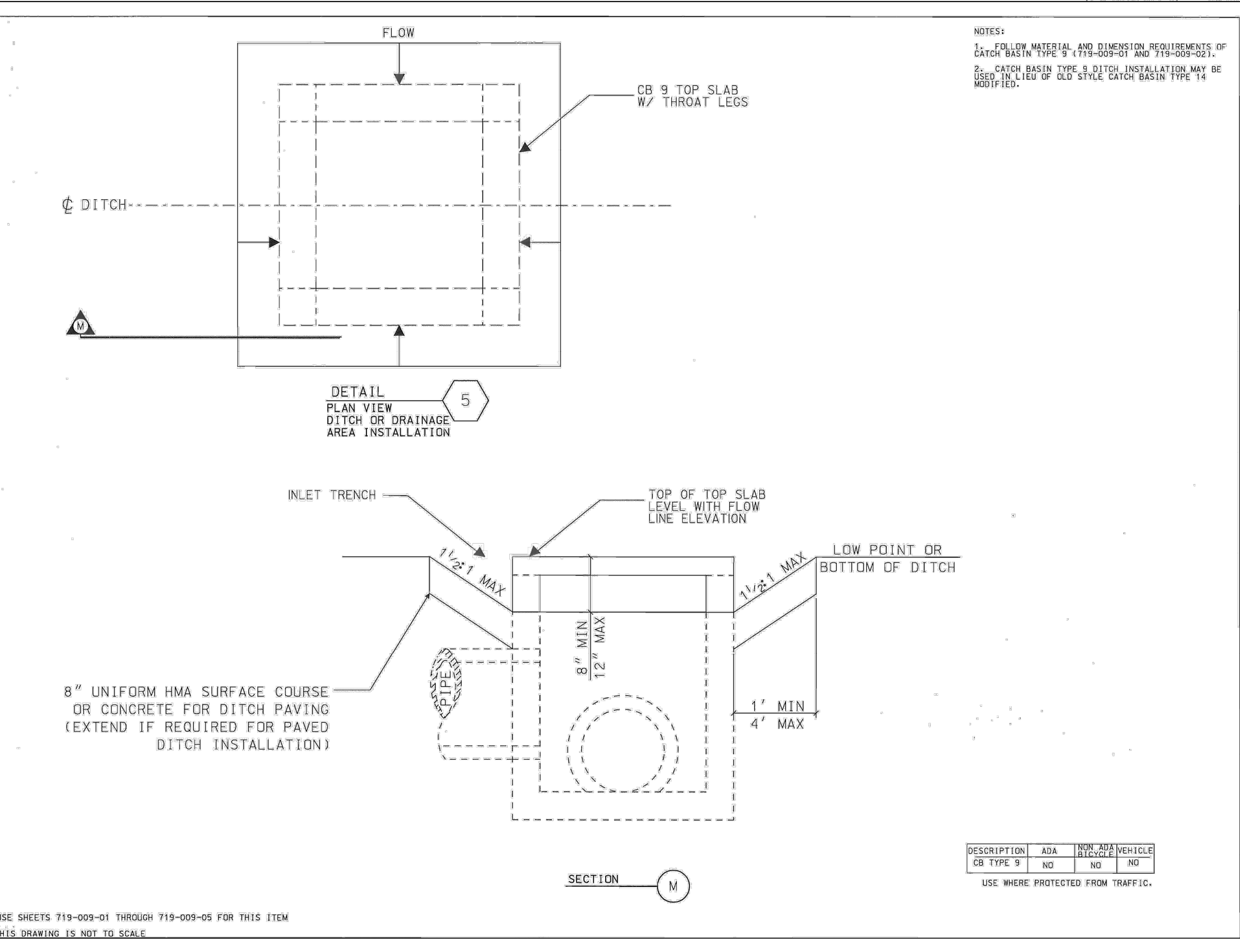
719-009-01 TO 719-009-02, 719-009-01 TO 719-009-05

PRECONSTRUCTION SUPPORT ENGINEER

SOUTH CAROLINA PROFESSIONAL ENGINEER
No. 8858
EDWIN SYLVESTER FARBLE, III

Signature: Edwin Sylvester Farble, III
DATE: MARCH 3, 2009

719-009-03
EFFECTIVE LETTING DATE: MAY 2009



REFERENCES

NATIONAL DOCUMENTS

ASTM C593 ASST. AGSTO W/OS. ASSTO W/OS.

SCOT DOCUMENTS

QUALIFIED PRODUCT LIST 13

QUALIFIED PRODUCT LIST 14

QUALIFIED PRODUCT LIST 45

RELATED DRAWINGS & NETWORKS

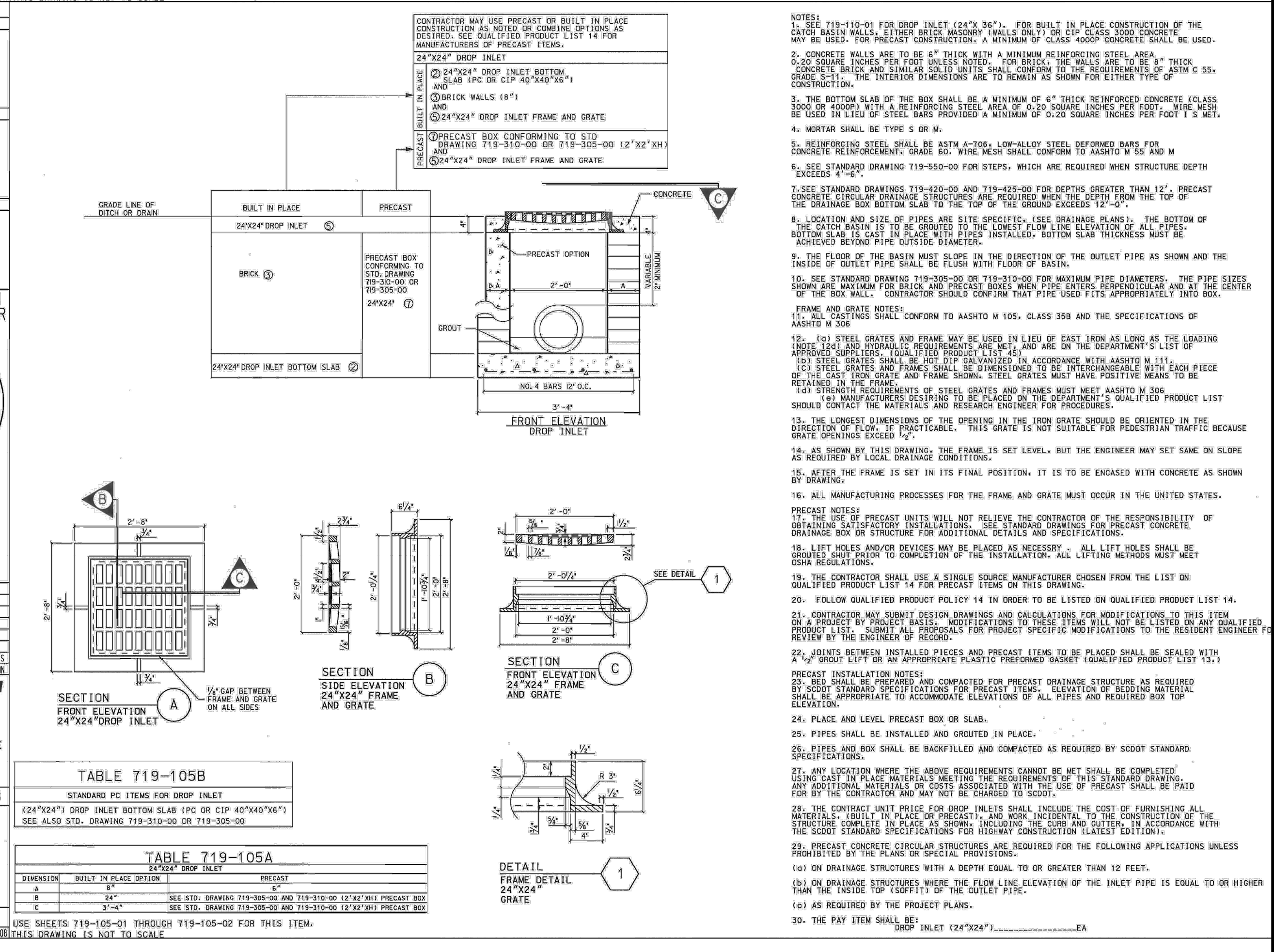
719-105-01 TO 719-105-02, 719-105-01, 719-305-00 TO 719-305-05, 719-425-00, 719-500-00 TO 719-500-06

PRECONSTRUCTION SUPPORT ENGINEER

SOUTH CAROLINA PROFESSIONAL ENGINEER
No. 8858
EDWIN SYLVESTER FARBLE, III

Signature: Edwin Sylvester Farble, III
DATE: MARCH 3, 2009

719-105-01
EFFECTIVE LETTING DATE: MAY 2009



SOUTH CAROLINA PROFESSIONAL ENGINEER
No. 22816
WARD EDWARDS, INC.
No. 000152
CERTIFICATE OF REGISTRATION

NO.	DESCRIPTION	DATE
7		
6		
5		
4		
3		
2		
1		

Ward Edwards
ENGINEERING

P.O. BOX 381, BLUFFTON, SOUTH CAROLINA 29910
PH: (803) 837-5555 FAX: (803) 837-2536
WWW.WARDEDWARDS.COM

BUCK ISLAND - SIMMONSVILLE NEIGHBORHOOD SIDEWALKS, PHASE 4
BEAUFORT COUNTY, SOUTH CAROLINA

TOWN OF BLUFFTON
BLUFFTON, SOUTH CAROLINA

GRADING & DRAINAGE DETAILS

NOT FOR CONSTRUCTION
RELEASED FOR CONSTRUCTION

PROJECT #: 150405
DATE: 11/07/18
DESIGNED BY: CPB
CHECKED BY: PRM
SCALE: AS NOTED

SHEET
C604

STRUCTURAL DESIGN CRITERIA

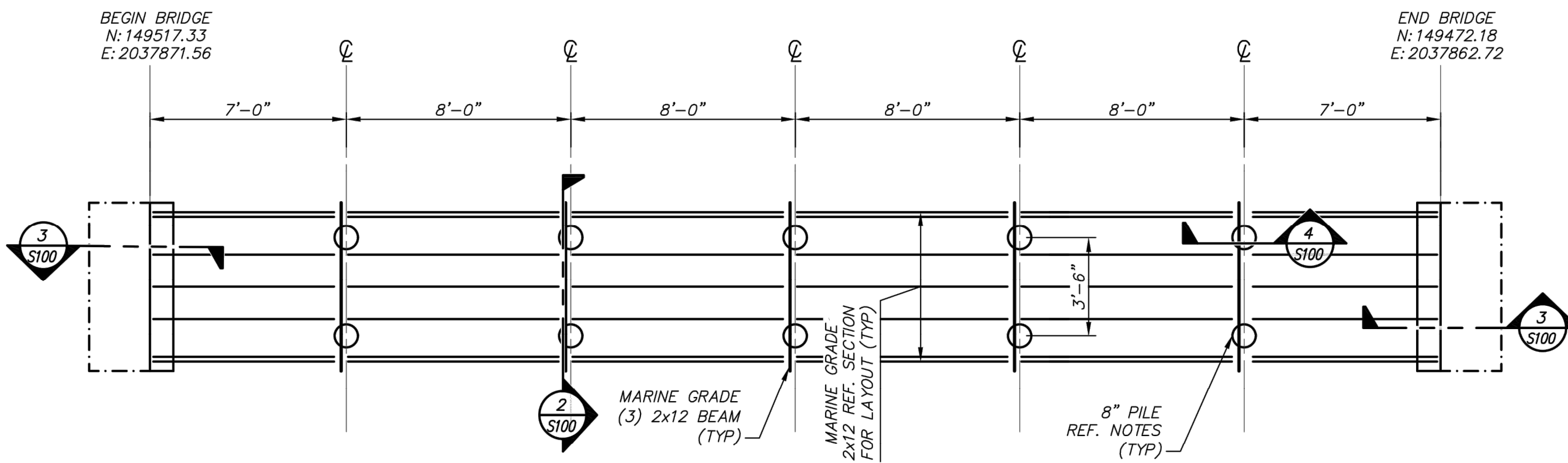
- DESIGN CODE:
AASHTO 2012 LRFD GUIDE SPECIFICATION FOR BRIDGE DESIGN
- DESIGN LOAD: UTILITY (VEHICLE) LOAD 2500 LBS PER AXLE
LIVE LOAD: 90 PSF
DEAD LOAD: 10 PSF

GENERAL REQUIREMENTS

- WHERE A SECTION OR DETAIL IS SHOWN FOR ONE CONDITION, IT SHALL APPLY TO ALL SIMILAR CONDITIONS.
- THE DESIGN ADEQUACY AND SAFETY OF ERECTION BRACING, SHORING, TEMPORARY SUPPORTS, ETC. SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- DO NOT SCALE DRAWINGS. FOLLOW DIMENSIONS SHOWN ON PLANS.
- SPECIFIED ANCHOR SYSTEMS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS. SPECIAL ATTENTION SHALL BE GIVEN TO THE DRILLING, CLEANING, AND PREPARATION OF HOLES. WHERE ADHESIVE ANCHORS ARE SHOWN, SPECIAL ATTENTION SHALL BE GIVEN TO THE REQUIRED MIXING, APPLICATION, AND CURING TIME OF ADHESIVE TYPE SPECIFIED.

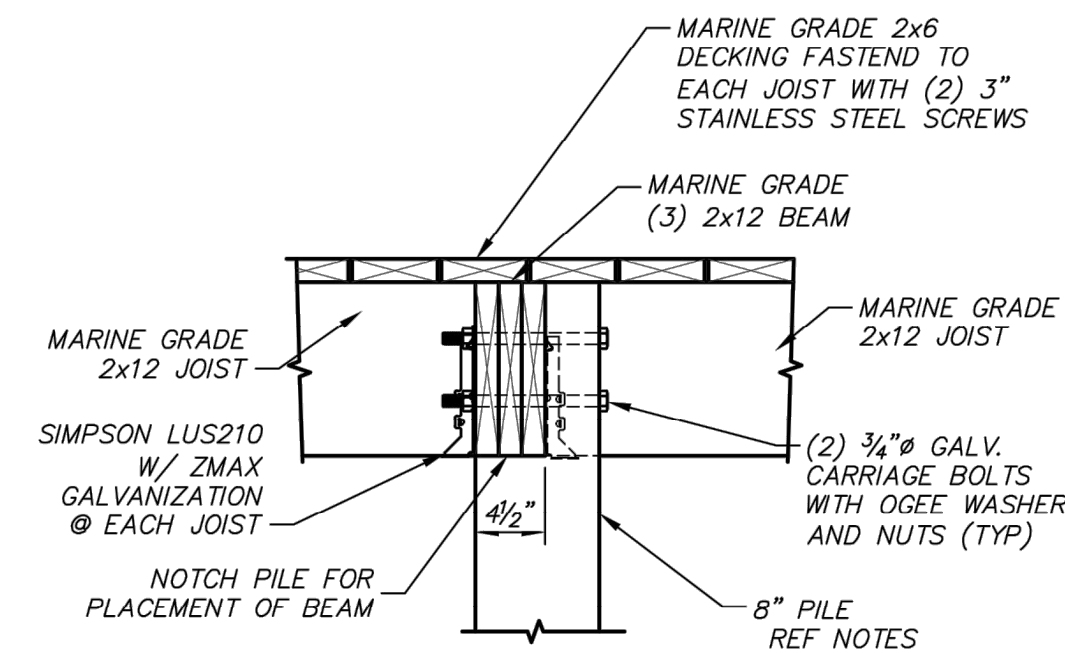
DRIVEN PILES

- TIMBER PILE FOUNDATIONS HAVE BEEN DESIGNED AND SHALL BE CONSTRUCTED IN ACCORDANCE WITH CRITERIA ESTABLISHED HEREIN.
- PILES SHALL BE TREATED TIMBER PILES, 6" MIN. TIP. 8" MINIMUM BUTT AT CUTOFF.
- ALL PILES ARE DESIGNED FOR A SAFE WORKING CAPACITY OF 2 TONS (4,000 LBS.) SUBJECT TO LOAD TESTS.
- PILE TIP ELEVATION SHALL BE A MINIMUM OF 10' BELOW EXISTING GRADE AND AS REQUIRED TO DEVELOP ALL CAPACITIES SPECIFIED.
- ALL PILING SHALL BE SOUTHERN PINE OR DOUGLAS FIR CONFORMING TO ASTM D25, PRESSURE TREATED IN ACCORDANCE WITH AWP STANDARD U1 (6" MINIMUM TIP).
- DESIGN PILE CAPACITY IS AS FOLLOWS:
COMPRESSION = 2 TONS
TENSION = .5 TONS (TENSION PILES ONLY)
LATERAL LOAD = .25 TONS (AT TOP OF PILE)
- PRIOR TO COMMENCING PILE OPERATION, THE CONTRACTOR SHALL SUBMIT A PILE LOCATION PLAN SHOWING THE LOCATION & DESIGNATION OF ALL PILES. ALL DETAIL RECORDS FOR INDIVIDUAL PILES SHALL BEAR IDENTIFICATION. PRIOR TO PILE DRIVING, SUBMIT DATA PERTAINING TO THE PILE DRIVING HAMMER AND RIG.
- THE FHWA GATES FORMULA MAY BE USED DURING DRIVING TO DETERMINE NOMINAL PILE RESISTANCE.
- THE BASIS FOR ACCEPTANCE OF THE PRODUCTION PILING SHALL BE:
A. THAT THE BLOW COUNT FOR THE LAST 10 FEET OF DRIVING SHALL BE NOT LESS THAN THE BLOW COUNT FOR THE LAST 10 FEET OR DRIVING OF SUCCESSFULLY DRIVEN (LOADED) TEST PILE WITH THE LEAST DRIVING RESISTANCE.
B. THAT THE PILING MEETS THE MINIMUM PENETRATION AND ANY OTHER PRODUCTION PILE DRIVING CRITERIA.
- ALL PILING SHALL BE DRIVEN TO A MAXIMUM TOLERANCE IN ANY DIRECTION OF TWO (2) INCHES PER PILE.
- ALL PILE OPERATIONS, INCLUDING TEST PILES, (LOAD TEST) AND PRODUCTION PILES SHALL BE DONE UNDER THE SUPERVISION OF AN INDEPENDENT TESTING LABORATORY, DIRECTED BY A PROFESSIONAL ENGINEER.
- BASED UPON THE DRIVING RESULTS OF THE TEST PILES THE ENGINEER WILL SELECT ONE (1) OF THE TEST PILES TO BE SUBJECTED TO A LOAD TEST. COMPRESSION LOAD TEST SHALL BE IN ACCORDANCE WITH ASTM D 1143. TENSION LOAD TEST SHALL BE IN ACCORDANCE WITH ASTM D 3689.
- BASED UPON THE RESULT OF THE TEST PILE DRIVING AND IN CONJUNCTION WITH THE PILE LOAD TEST RESULTS, THE ENGINEER WILL ESTABLISH THE PRODUCTION PILE DRIVING AND ACCEPTANCE CRITERIA.
- THE TESTING AGENCY SHALL RECORD RESULTS OF ALL PILES DRIVEN, GIVING PILE HAMMER USE, PILE SIZE, LENGTH AND DRIVING RESISTANCE FOR THE ENTIRE LENGTH OF PILE, RECORDED IN BLOWS PER FOOT. DRIVING RESULTS SHALL BE REPORTED TO THE ENGINEER ON A DAILY BASIS.
- UPON COMPLETION OF ALL PILE DRIVING, THE CONTRACTOR SHALL FURNISH THE ENGINEER A SURVEY OF AS - DRIVEN PILE LOCATIONS. THE SURVEY SHALL INDICATE THE MISALIGNMENT OF EACH PILE IN TWO PERPENDICULAR DIRECTIONS, GIVEN IN INCHES, AND THE ACTUAL CUT-OFF ELEVATION OF EACH PILE.



1 BRIDGE PLAN
SCALE: 1/4" = 1'-0"

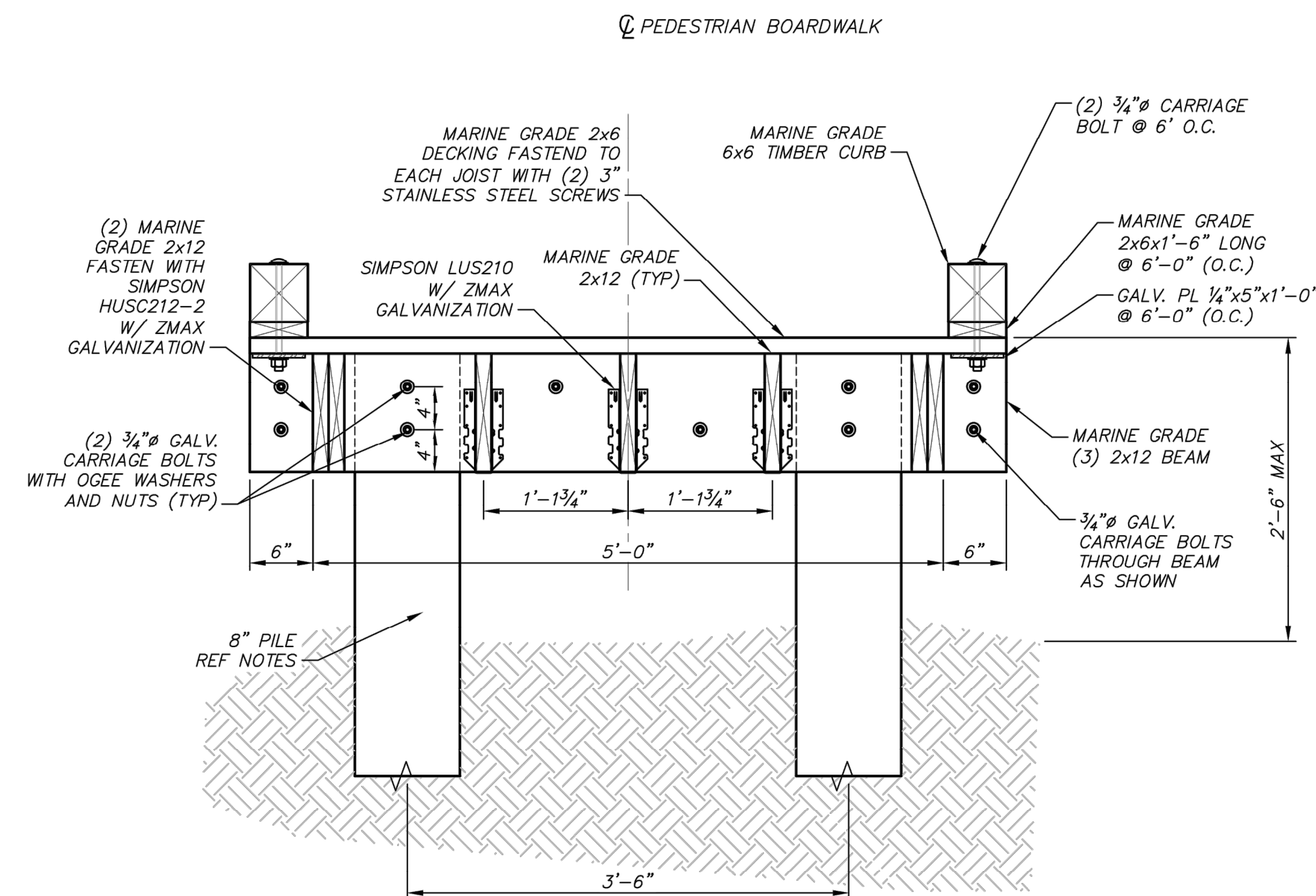
- FRAMING NOTES:
- MAXIMUM PILE SPACING IS 8' O.C. AND NOT TO BE EXCEEDED. ADJUST BENT LAYOUT IN FIELD AS NEEDED TO MINIMIZE ROOT DISTURBANCE OF ADJACENT EXISTING TREES.
 - ALL BRIDGE MATERIAL SHALL BE MARINE GRADE SYP.
 - FASTENERS SHALL BE SIMPSON STRONG-TIE ZMAX GALVANIZED OR EQUAL.
 - HEIGHT FROM FINISH GRADE TO BRIDGE DECK SHALL NOT EXCEED 2'-6".



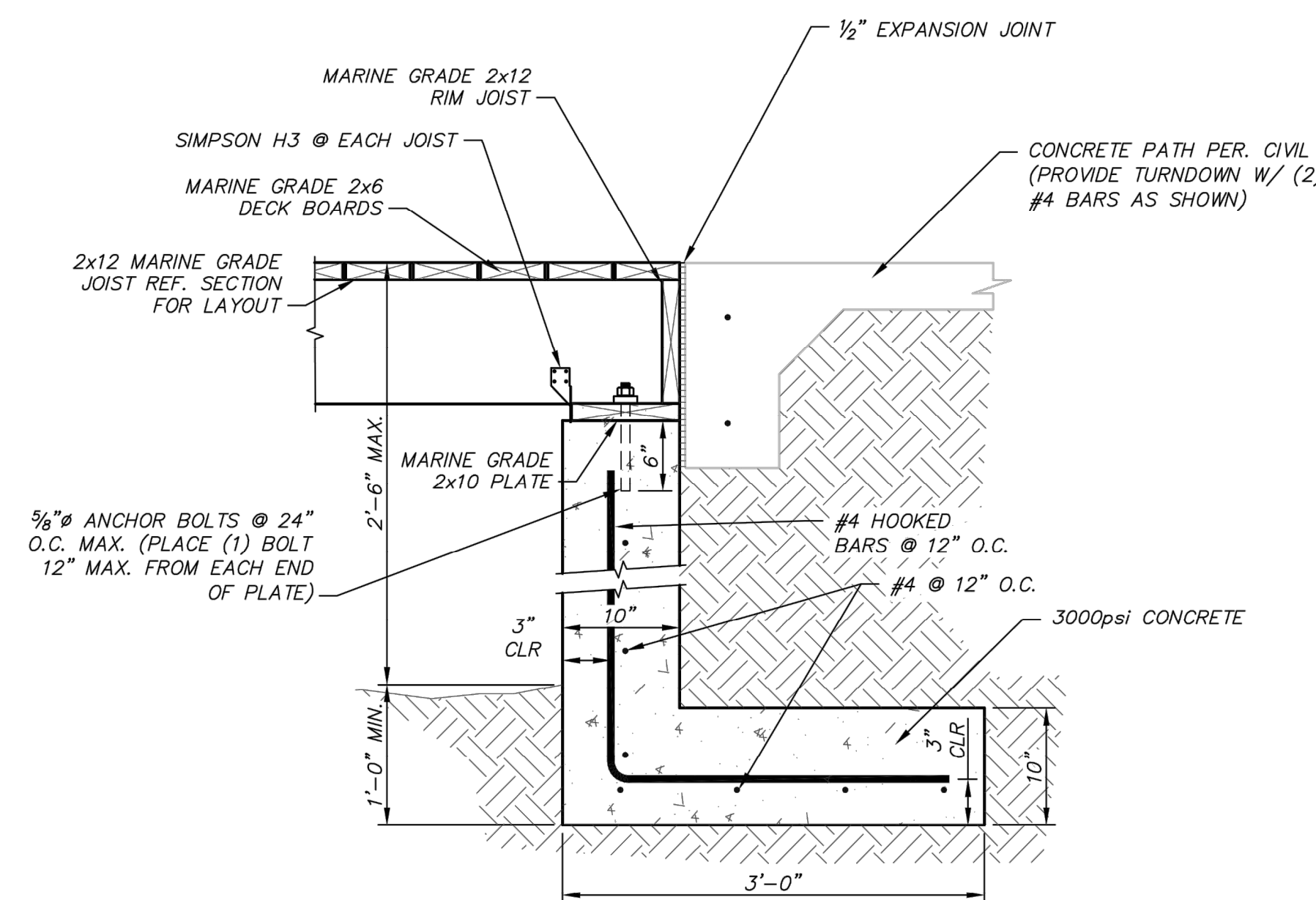
4 SECTION THROUGH PILE
NOT TO SCALE

DIMENSIONAL LUMBER FRAMING

- ALL STRUCTURAL LUMBER DESIGN SHALL CONFORM TO THE REQUIREMENTS OF THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION (NDS-2012).
- 8" DIAMETER WOOD PILES ARE TO BE SOUTHERN YELLOW PINE MEETING ASTM D25, WITH PENTACHLOROPHENOL PRESERVATIVE TREATMENT IN ACCORDANCE WITH AWP STANDARDS P9 AND C3, 0.60 PCF MINIMUM RETENTION.
- ALL SITE LUMBER TO BE SOUTHERN YELLOW PINE, GRADE #1, AWPB LP-22., MARINE GRADE PRESSURE TREATED.
- CONNECTORS INDICATED ARE SIMPSON STRONG TIE INC. USE ONLY SIMPSON HARDWARE TO ATTACH CONNECTORS.
- ALL FASTENERS ARE TO BE HOT DIPPED GALVANIZED.
- SEAL ALL WOOD MEMBERS WITH SEMI-TRANSPARENT LATEX BASE STAIN AS MANUFACTURED BY BEHER, GLIDDEN OR EQUAL UPON COMPLETION OF CARPENTRY WORK.
- DECK BOARDS TO BE PLACED "BARK SIDE UP".
- THE CONTRACTOR SHALL CAREFULLY SELECT LUMBER TO BE USED IN LOAD BEARING APPLICATIONS. THE LENGTH OF SPLIT ON THE WIDE FACE OF 2" NOMINAL LOAD BEARING FRAMING SHALL BE LIMITED TO LESS THAN 1/2 OF THE WIDE FACE DIMENSION. THE LENGTH OF SPLIT ON THE WIDE FACE OF 3" (NOMINAL) AND THICKER LUMBER SHALL BE LIMITED TO 1/2 OF THE NARROW FACE DIMENSIONS.
- NO CUTS, HOLES, OR COPES IN STRUCTURAL WOOD FRAMING SHALL BE PERMITTED WITHOUT PRIOR REVIEW AND APPROVAL BY THE STRUCTURAL ENGINEER.
- STRUCTURAL STEEL PLATE CONNECTORS SHALL CONFORM TO ASTM A 36 SPECIFICATIONS AND BE 1/4" THICK UNLESS OTHERWISE INDICATED. BOLTS CONNECTING WOOD MEMBERS SHALL BE PER ASTM A 307 AND BE 3/4" DIAMETER UNLESS OTHERWISE INDICATED. PROVIDE WASHERS FOR ALL BOLT HEADS AND NUTS IN CONTACT WITH WOOD SURFACES.
- BOLT HOLES SHALL BE CAREFULLY CENTERED AND DRILLED NOT MORE THAN 1/16" LARGER THAN THE BOLT DIAMETER. BOLTED CONNECTIONS SHALL BE SNUGGED TIGHT BUT NOT TO THE EXTENT OF CRUSHING WOOD UNDER WASHERS. HOLES AND NOTCHES DRILLED OR CUT INTO WOOD FRAMING SHALL NOT EXCEED THE REQUIREMENTS OF IBC, SECTION 23.
- ALL PLATES, ANCHORS, NAILS, BOLTS, NUTS, WASHERS, AND OTHER MISCELLANEOUS HARDWARE SHALL BE HOT DIP GALVANIZED U.N.O.
- ADEQUATE BRACING SHALL BE PROVIDED UNTIL PERMANENT BRACING ARE INSTALLED.
- WOOD FRAMING MATERIALS:
A. ALL BOLTS SHALL BE ASTM A307 WITH WASHERS, GALVANIZED
B. NAILS IN ACCORDANCE WITH MINIMUM NAILING REQUIREMENTS OF IBC EXCEPT WHERE NOTED IN DETAILS OR SPECIFICATIONS. ALL NAILS TO BE GALVANIZED.
C. ALL DIMENSIONAL LUMBER SHALL BE #1 SYP KD OR BETTER AND PROVIDE NOT LESS THAN THE FOLLOWING ALLOWABLE STRESSES:



2 BOARDWALK SECTION
NOT TO SCALE



3 BRIDGE TO PATH ABUTMENT
NOT TO SCALE



REV.	DATE	ISSUED FOR PERMIT	DESCRIPTION
0	09-21-2018		

BUCK ISLAND - SIMMONSVILLE
NEIGHBORHOOD
PEDESTRIAN BRIDGE
BLUFFTON, S.C.
FOUNDATION PLAN

DRAWN BY:	JTB
CHECKED BY:	JTB
APPROVED BY:	JRE
DATE:	09-21-2018
SCALE:	AS SHOWN
JOB No.	2018-0438
DRAWING No.	S100