



## **MEETING AGENDA**

The City of Beaufort

### **DESIGN REVIEW BOARD**

Thursday, October 12, 2023, 2:00 P.M.

City Hall, Council Chambers, 2<sup>nd</sup> Floor – 1911 Boundary Street, Beaufort, SC

Please click the link below to join the webinar:

<https://us02web.zoom.us/j/81450269503?pwd=S2dPWnNKbY1UIZ0RmI5QnJUV2pPZz09>

Passcode: 472091 Meeting ID: 814 5026 9503 Call in Phone#: 1+929-205-6099

### **STATEMENT OF MEDIA NOTIFICATION:**

"In accordance with South Carolina Code of Laws, 1976, Section 30-4-80(d), as amended, all local media were duly notified of the time, date, place and agenda of this meeting."

*Note: A project will not be reviewed if the applicant or a representative is not present at the meeting.*

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**I. Call to Order**

**II. Review of Minutes:**

**A. August 10, 2023 DRB Minutes**

**B. September 14, 2023 DRB Minutes**

**III. Applications:**

**A. Parker's Store (Beaufort Station), R120 028 000 1230 0000, 311 Robert Smalls Pkwy.  
Applicant: Sarah Hamblin, PE (23-07 DRB.1)**

The applicant is requesting final approval for Parker's Kitchen gas station and convenience store on a 1.55 acre outparcel within the Beaufort Station development.

**IV. Discussion**

**V. Adjournment**



# Design Review Board

## Meeting Minutes – August 10, 2023

### CALL TO ORDER

00:00:30

A meeting of the Design Review Board was held in-person on Thursday, August 10, 2023 at 2:00 pm.

### ATTENDEES

Members in attendance: Benjie Morillo (Chairman), Kim McFann (Vice-Chair), Erik Petersen, Clinton Hallman, and Bill Suter.

Staff in attendance: Curt Freese (Community Development Director), Jeremy Tate (Meadors Architecture) (virtual)

### REVIEW OF MINUTES

00:02:17

**Motion (00:02:25):** Ms. McFann made a motion to approve [the April 13, 2023] minutes; seconded by Mr. Suter. The motion passed unanimously.

*All Historic District Review Board Meeting minutes are recorded and can be found on the City's website at <http://www.cityofbeaufort.org/AgendaCenter>. Audio recordings are available upon request by contacting the City Clerk, Traci Guldner at 843-525-7024 or by email at [tguldner@cityofbeaufort.org](mailto:tguldner@cityofbeaufort.org).*

### APPLICATIONS

- A. **Battery Creek Apartments, PIN R120 028 00A 0409/0410/0411/0412/0413/0000,**  
25 Old Jericho Road

00:02:35

Applicant: Ryan Lyle, Andrews Engineering (23-01 DRB.4)

The applicant is requesting site plan approval of an 83-unit four-story apartment building with a pool and pool cabana and on-site parking.

**Motion (00:53:48)** Ms. McFann made a motion that based on the findings on pages three and four of the staff report, [the Board] recommends final approval of the site plan which is approval of the project as a whole subject to staff recommendations on page 5 of the staff recommendations; site and landscaping number 1-5; architecture 1-3 with the following additional conditions:

1. Add low trees along the Jericho Road sidewalk consistent with utility considerations.

2. Regarding Beaufort Jasper Water & Sewer Authority infrastructure, add a condition that the project cannot be built until the infrastructure is in place and planned for and put a three-year time limit on the infrastructure being in place and the ability to build. If the upgrades are not made and they cannot start within that three-year period, the project would need to reapply for site plan approval to the Design Review Board or the subsequent body that does site plan approvals in the future.
3. Consider moving the shed roof down over the forecourt or making other modifications to the forecourt to make the entryway more inviting.

;seconded by Mr. Hallman. The motion passed unanimously (5-0).

- B. **Beaufort Senior Apartments, PIN R122 029 000 0625 0000**, 1556 Salem Road **00:55:44**  
 Applicant: Michael Riley, Architect (23-02 HRB.5)

The applicant is requesting site plan approval for a 154-unit senior apartment building including (88) 1-bedroom units, (66) 2-bedroom units with on-site parking.

**Motion (01:22:28):** Ms. McFann made a motion for final approval of the project be deferred and the applicant come back before the Design Review Board after working with staff and the architect and that they consider doing the following:

1. As to page A3.1, the east elevation, consider simplification or change of the materials regarding the east elevation.
2. On page A3.4, consider simplifying the transitions of materials as shown in the drawings.
3. Provide color of real color samples when coming back.
4. Show cross section of parapet back on page A3.1
5. Also, on page A3.1, consider extension of the roof on the first floor farther over to the left-hand side over the windows adjacent to the roof section as shown.

;seconded by Mr. Petersen. The motion passed unanimously (5-0).

- C. **ALDI - Beaufort, PIN R120 028 000 0138 0000**, 361 Robert Smalls Parkway **01:24:53**  
 Applicant: Vanessa Banks, APD Engineering & Architecture, PLLC (23-09 DRB.1)

The applicant is requesting conceptual approval for a new Aldi Grocery store on an outparcel facing Robert Smalls Parkway in the Beaufort Station shopping center.

**Motion (02:38:55):** Ms. McFann made a motion to table the project; seconded by Mr. Suter. The motion passed (4-1), with Mr. Petersen in opposition.

## DISCUSSION

**02:40:37**

Ms. McFann asked city staff for a status of the structural changes. Mr. Freese stated that text amendments are going back to the MPC on August 21 with some revisions and that the new Board would have seven members.

**Motion (02:47:21):** Ms. McFann made a motion to adjourn the meeting, seconded by Mr. Petersen. The meeting was adjourned at 4:47 pm.

DRAFT



# Design Review Board

## Meeting Minutes – September 14, 2023

### CALL TO ORDER

**00:01:28**

A meeting of the Design Review Board was held in-person on Thursday, September 14, 2023 at 2:00 pm.

(Note: incorrect date was stated at beginning of recording.)

### ATTENDEES

Members in attendance: Benjie Morillo (Chairman), Kim McFann (Vice-Chair), Erik Petersen, Clinton Hallman, and Bill Suter.

Staff in attendance: Curt Freese (Community Development Director) and Nicholas Navia (Planning Intern), Jeremy Tate and Maria Short (Meadors) (virtual)

### REVIEW OF MINUTES

**00:02:27**

**Motion (00:02:56):** Ms. McFann made a motion to table [the 8/10/23 minutes]; seconded by Mr. Suter. The motion passed unanimously (5-0).

*All Design Review Board Meeting minutes are recorded and can be found on the City's website at <http://www.cityofbeaufort.org/AgendaCenter>. Audio recordings are available upon request by contacting the City Clerk, Traci Guldner at 843-525-7024 or by email at [tguldner@cityofbeaufort.org](mailto:tguldner@cityofbeaufort.org).*

### APPLICATIONS

**A. Beaufort Senior Apartments, PIN R122 029 000 0625 0000**

**04:00:20**

1556 Salem Road

Applicant: Michael Riley, Architect (23-02 DRB.5)

The applicant is requesting site plan approval for a 154-unit senior apartment building including (88) 1-bedroom units, (66) 2-bedroom units with on-site parking.

**Motion (00:26:08):** Ms. McFann made a motion for final approval subject to the following:

1. All previously approved conditions, except as referenced herein, as to condition #3, the Board will not require SDL windows, GBG is acceptable.
2. As to the color – (condition 10) – the Board recommends that the color previously substituted for the yellow color be again substitute for SW6109 be

used vs. SW6110 (for the yellow color) – Staff may review and either approve or recommend another color and/or come back to the Board regarding the matter of colors.

3. As to conditions 8 and 9, the applicant has agreed to provide the additional details requested by Staff – subject to Staff approval of those details, final approval would stand.

;seconded by Mr. Hallman. Motion passed (4-1), with Mr. Morillo in opposition.

## **DISCUSSION**

**00:28:21**

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Curt Freese discussed combination of the Design Review Board and the new Planning Commission.

## **ADJOURNMENT**

**00:35:00**

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**Motion (00:35:00):** Ms. McFann made a motion for adjournment, seconded by Mr. Hallman. The meeting adjourned at 2:36 pm.

Parker's Kitchen  
311 Robert Smalls Parkway



## STAFF REPORT: 311 Robert Smalls/Fuel Station-DRB

DATE: October 12, 2023

<b>GENERAL INFORMATION</b>		
Applicant:	Sarah Hamblin, Foresite Group	
Site Location/Address:	311 Robert Smalls Parkway/R 120 028 000 1230 0000	
Applicant's Request:	The Applicant is requesting Design Review Board Approval for a Parker's Kitchen Gas Station/Convenience store. The store will be 5,175 sq. ft. in size and there will be 8 pumps (16 fueling positions) on a 1.5 acre site in the T5-UC/RMX zone. Applicant has selected RMX zoning classification.	
Current Zoning:	T5-UC/RMX	
<b>ZONING DISTRICT INFORMATION</b>		
	<u>T5-UC/RMX</u>	
Max Density	N/A	
Min. Lot Size	N/A	
Front Setback	10' min/60' max	
Side Setback	10' min.	
Rear Setback	15' min.	
Building Height:	4 stories	
<b>SURROUNDING ZONING, LAND USE AND REQUIRED BUFFERS</b>		
<u>Adjacent Zoning</u>	<u>Adjacent Land Uses</u>	<u>Setbacks for Adjacent Zoning /Buffer required if rezoned</u>
North: T5-UC/RMX	Commercial	N/A
South: T5-UC/RMX	Vacant	N/A
East: T5-UC/RMX	Vacant	N/A
West: T5-UC/RMX	Future Retail	N/A

**Background:** The applicant first participated in a TRC pre-design meeting in June 2023 and has been consistent. The meeting was to properly identify the zoning requirements and needed processes.

**Streets/Access:** The project proposes a two-lane access road that will connect Robert Smalls Parkway and Parris Island Gateway and will provide access to the next phases of the Beaufort Station development. The project has two access points that connect to the proposed access road on the north and south sides of the building. Per code, a Traffic Impact Analysis is not required for this project. 9.8.2.D

**Lots and Blocks:**

While the property is zoned T5-DC/RMX, a typical urban lot and block street pattern does not currently exist. Moreover, due to the necessary connection to Robert Smalls Parkway, this development will allow the opportunity of a grid to be developed as Beaufort Station completes development.

**Heights:**

The nearest structures to the site are several one- and two-story commercial retail spaces. The max allowed height in a T5-UC zone is 5 stories and RMX zone is 4 stories. The applicant is proposing 1 story. Beaufort Station may have taller structures in the future, but this entry will begin with one story if this project is approved.

**Future Land Use:**

The Area is planned for Urban uses and development.

**Zoning:**

The zoning of the property T5-UC/RMX does not have a density limit, but does regulate a five-story maximum height, and basic setbacks. The use of a Fueling Station is permitted in the T5-UC/RMX district. The applicant has chosen the RMX zoning classification.

**Amenities:** This project proposes no amenities but is feasible since it is a fuel station.

**Staff Comments**

**Section 9.8.2 Decisions/Findings of Fact:** Following the public meeting, the Design Review Board may approve, deny, or approve with conditions the application for a Major Development. No Major Development shall be approved unless the following findings of fact can be made:

<b><u>9.8.2 Finding of Fact</u></b>	<b><u>Rationale Present (yes/no)</u></b>	<b><u>Staff Analysis of Rationale</u></b>
<b>1. The plan is consistent with the adopted plans and policies of the City.</b>	Yes	<ul style="list-style-type: none"> <li>✓ <b>The plan is consistent with density, use and setbacks of the T5-UC/RMX district, and the future land use plan.</b></li> <li>✓ <b>The applicant has taken Section of 9.8.2 into consideration, and has altered the height, scale and mass accordingly to</b></li> </ul>

		respect the surrounding built form.
<b>2. The plan complies with all applicable requirements of this Code.</b>	<b>Yes</b>	<ul style="list-style-type: none"> <li>✓ Staff believes the project complies with the major requirements of the code.</li> </ul>
<b>3. There exists adequate infrastructure (transportation and utilities) to support the plan as proposed.</b>	<b>Yes</b>	<ul style="list-style-type: none"> <li>✓ The applicant, along with the rest of Beaufort Station, is providing the road that will lead to the buildings.</li> <li>✓ While there is not urban infrastructure around the project, it is entitled with urban district standards, and the project should make for a more urban block better suited for transect based development in the future in the rest of Beaufort Station.</li> </ul>
<b>4. The proposed plan conforms to the character of the neighborhood, considering the location, type and height of buildings or structures and the type and extent of landscaping on the site</b>	<b>Yes</b>	<ul style="list-style-type: none"> <li>✓ The properties surrounding the site are largely vacant.</li> <li>✓ Staff acknowledges that the location of a fueling station near a primary street, Robert Smalls Parkway, adds to the desired future mix of services in Beaufort Station.</li> </ul>
<b>5. The proposed plan conforms to the Building Design Standards in Article 4.</b>	<b>Yes</b>	<ul style="list-style-type: none"> <li>✓ Applicant has demonstrated compliance with Section 4.5.12.B.2 and other applicable standards of the Beaufort Code.</li> </ul>
<b>6. The application will not substantially lessen the value of adjoining or abutting property and will not be detrimental to the use or development of adjacent properties or other neighborhood uses.</b>	<b>Yes</b>	<ul style="list-style-type: none"> <li>✓ The surrounding properties have T5-UC/RMX zoning classifications, and expectations of density.</li> <li>✓ Fuel stations are a need, and this project will add to the fuel stations options in the City and County.</li> </ul>

**FINDINGS AND RECOMMENDATIONS**

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**Staff Recommendation:**

**Staff recommends Final approval of the application at 311 Robert Smalls Parkway, in that it satisfies the findings and requirements of Section 9.8.2 the Beaufort Code found in pages 2-4 of this Staff Report with the following conditions:**

- 1. Staff is supportive of the current proposed design and modifications the applicant has made through the process.**
- 2. The applicant is proposing to comply with the 40% fenestration requirement (i.e., percentage of fenestration on wall) on the two street facing facades using both vision glazing and spandrel glass as noted under each of these elevations.**
  - A. Staff believes the intent of Section 4.6.4.C.1 is that the glazing required to meet the minimum fenestration requirement is to be transparent (vision) glazing and as such these two elevations must meet that requirement.**
  - B. The applicant has provided examples photos and a cutsheet of the spandrel coating they are proposing.**
- 3. Staff is supportive of the material and color palette shown, as well as the detail drawings on sheets A300 and A500.**



# DEVELOPMENT REVIEW PROCESS DESIGN REVIEW APPLICATION

Community Development Department  
1911 Boundary Street, Beaufort, South Carolina, 29902  
p. (843) 525-7011 / f. (843) 986-5606  
Email: development@cityofbeaufort.org / website: www.cityofbeaufort.org

- Staff Review
- Board Review

**Application Fee:**

**OFFICE USE ONLY:** Date Filed: \_\_\_\_\_ Application #: \_\_\_\_\_ Zoning District: \_\_\_\_\_

**Schedule:** The Design Review Board (DRB) typically meets the 2<sup>nd</sup> Thursday of each month at 2pm. Upon receipt of an application, staff will review the submittal and then contact the applicant letting them know when the meeting will be.

A complete schedule can be found at: <https://www.cityofbeaufort.org/379/Design-Review-Board>

**Submittal Requirements:** All forms and information shall be submitted digitally + 5 hardcopies of all documents. In addition to a complete application form, applicants shall submit the required items according to the checklists on the subsequent page.

**Review Request:**     Conceptual         Preliminary         Final

Pursuant to Section 6-29-1145 of the South Carolina Code of Laws, is this tract or parcel restricted by any recorded covenant that is contrary to, conflicts with, or prohibits the activity described in this application?     Yes     No

## Applicant, Property, and Project Information

Applicant Name: Sarah Hamblin, PE

Applicant Address: 960 Morrison Drive, Suite 200, Charleston, SC 29403

Applicant E-mail: shamblin@fg-inc.net                      Applicant Phone Number: 803-727-8777

Applicant Title:     Homeowner     Tenant     Architect     Engineer     Developer

Owner (if other than the Applicant): Beaufort Station Partners LLC

Owner Address: 4521 Sharon Rd Ste 275, Charlotte, NC 28211

Project Name: Parker's Store #124 (Beaufort Station)

Property Address: 311 Robert Smalls Parkway

Property Identification Number (Tax Map & Parcel Number): R120 028 000 1230 0000

Date Submitted: 07/24/23



# DEVELOPMENT REVIEW PROCESS DESIGN REVIEW APPLICATION

Community Development Department  
1911 Boundary Street, Beaufort, South Carolina, 29902  
p. (843) 525-7011 / f. (843) 986-5606  
Email: [development@cityofbeaufort.org](mailto:development@cityofbeaufort.org) / Website: [www.cityofbeaufort.org](http://www.cityofbeaufort.org)

### Required Project Information

Project Name: Parker's Store #124 (Beaufort Station)

Property Size in Acres: 1.55 ac. Proposed Building Use: Convenience Store/Fuel Station

Building Square Footage (if multiple buildings, please list each one and their square footage by floor): 5,175 SF

# of Parking Spaces Required: 25 # of Parking Spaces Provided: 34

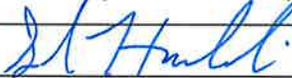
Is this project a redevelopment project: Y  N  Property valuation: \$ 1,000,000.00

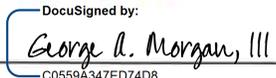
Are there existing buildings on the site? Y  N  if yes, will they remain? Y  N

Developed under RMX District/Zone (for Commercial Only)

Provide a brief Project Narrative and outline any specific questions you would like addressed.

Drayton-Parker LLC (Parker's) is proposing to build a Parker's Kitchen on a 1.55-acre outparcel within the Beaufort Station development, located at the intersection of Robert Smalls Parkway and Parris Island Gateway. The site will include a 5,175 square foot convenience store with 8 fuel dispensers under a covered canopy. Access to the site shall be provided via a private drive within the Beaufort Station development. The master development makes multiple connections to the Robert Smalls Parkway and Parris Island Gateway public rights-of-way. Utilities required to serve the development are available.

Applicant's Signature:  Date: 07/18/23

Owner's Signature:  Date: 7/19/2023

(The owner's signature is required if the applicant is not the owner.)

### **CONTACT INFORMATION:**

Attention: Julie A. Bachety, Administrative Assistant II  
City of Beaufort Community Development Department  
1911 Boundary Street, Beaufort, South Carolina 29902  
E-Mail: [development@cityofbeaufort.org](mailto:development@cityofbeaufort.org) | Phone: (843) 525-7011 | Fax: (843) 986-5606

## Jeremy Tate

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**From:** Sarah Hamblin <shamblin@fg-inc.net>  
**Sent:** Wednesday, October 4, 2023 11:47 AM  
**To:** Ryan Green  
**Cc:** Curt Freese; Jeremy Tate; Maria Short; Martie Kay McTeer; Daniel Ben-Yisrael; Betzandra Garcia Rocha; Wade Arnold; Christina Bryant  
**Subject:** RE: comments in prep for Oct. DRB

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Good morning Ryan,

Thank you and Curt again for allowing us to proceed with the October DRB meeting! We greatly appreciate your team working with us on this project. Please follow the link immediately below to download the revised items based on your comments and see e-mail thread below for our responses to those comments in **red**.

<https://foresitegroupinc.sharefile.com/d-s4a63be298cc7467794046aec402bb931>

There were not any comments related to the site plan, so I did not include it again in the link, but please let me know if you need me to resend it. Additionally, on the materials board if you click on each material, it will take you to the Specs. Please let us know if you need anything else prior to the meeting next Thursday!

Thanks again,

### **SARAH HAMBLIN PE**

*Division Leader*

**FORESITE GROUP, LLC** [www.foresitegroup.net](http://www.foresitegroup.net)

960 Morrison Dr, Suite 200 Charleston, SC 29403

o | 770.368.1399 f | 770.368.1944 c | 803.727.8777

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**From:** Ryan Green <rgreen@cityofbeaufort.org>  
**Sent:** Monday, October 2, 2023 11:46 AM  
**To:** Sarah Hamblin <shamblin@fg-inc.net>  
**Cc:** Curt Freese <cfreese@cityofbeaufort.org>; Jeremy Tate <jeremy@meadorsinc.com>; Maria Short <maria@meadorsinc.com>; Martie Kay McTeer <mmcteer@cityofbeaufort.org>  
**Subject:** comments in prep for Oct. DRB

You don't often get email from [rgreen@cityofbeaufort.org](mailto:rgreen@cityofbeaufort.org). [Learn why this is important](#)

**EXTERNAL EMAIL - THINK BEFORE YOU CLICK**

Hello,

Here are the comments from staff. Please provide these by Wednesday at noon, then we can revise our comments before issuing the packet on Thursday.

Parker's Comments:

T5-UC/RMX, remainder of Beaufort Station reviewed under RMX.

1. Per the DRB application checklist, please provide building section drawings as well as detail drawings of:
  - a. Typical wall section
  - b. Window details
  - c. Eave details
  - d. Colonnade/awning details

Please see sheets A300 and A500 for added information.

2. Applicant to submit a window detail showing the interior treatments and glazing treatments.

See detail 2/A300 and elevations for spandrel Opaci-coat 300 primary white glazing locations . Enclosed product data sheets and light fixture cut sheet for storefront wall wash.

3. The windows along the primary frontage (access road) are noted as spandrel glazing. Staff noted in the meeting with the Parker's team on 6/21 that spandrel glazing is only allowed on fenestration that does not count towards the 40% min. transparency requirement per Section 4.6.4.C.1. Staff believes the spandrel glazing does not meet the intent of the Beaufort Code to provide active streetfronts. Staff is supportive of the use of interior lighting to illuminate these areas.

See detail 5/A500 for exterior light fixture window wash fixture proposed. See enclosed product data sheet.

4. The applicant shall tabulate the percentage of transparent fenestration for each elevation facing the street to ensure that the design meets the requirements of section 4.6.4.C.1. Applicant to note percentage is measured from finish floor to ceiling across the façade facing the street(s).

Window wash light fixture proposed in lieu of transparent fenestration requirement. These areas are BOH and in front of coolers and vision glazing not possible.

5. During previous staff discussions with applicant regarding fenestration, it was noted that staff believes spandrel glass is not allowed by the code to count toward required glazing percentages. Any spandrel glass the applicant is seeking approval for, the applicant must provide a specification for spandrel glass system and provide pictures.

See enclosed Vitro IDC coatings IMAGES PDF. See Refuel project at 4 County shed road for precedence.

6. Staff supports the addition of the awning on the primary (west) façade and recommends adding an awning above the windows on the north façade to make this façade appear less flat.

Awning shed metal roofs were added to this façade where possible. Elevation updated to reflect three spandrel windows with lighting element at window head.

7. Applicant to provide cutsheets for the exterior building wall sconces.

The cut sheets for the exterior building wall sconces have been included in this resubmittal.

8. Applicant to provide cutsheets for all site lighting and ensure the specified lights comply with section 5.8 and specifically 5.8.4, Design Standards for Exterior Lighting.

The cut sheets for all site lighting have been included in this resubmittal.

9. Applicant to demonstrate compliance with 5.7.8 parking lot screening and landscaping. Applicant to note in table format the percentage of opacity at planting and projected height in f years.

The parking lot screening chart is now shown on Sheet L1.

10. Applicant to provide landscape screening around the air/vac pump per section 4.6.1.F.

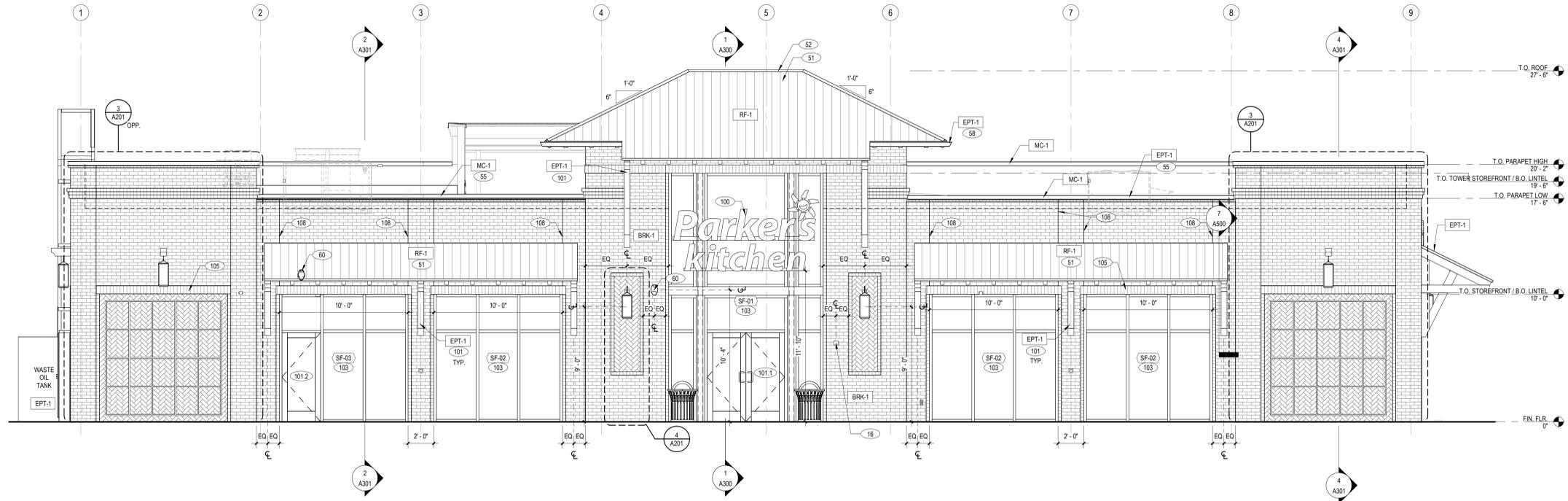
Landscape screening is now shown around the air/vac pump. See Sheet L1.

11. Given the prominent location of the building close to the intersection of Robert Smalls and US HWY 21, this store could be viewed as a gateway to the Beaufort Station complex. Staff recommends the applicant utilize a more prominent roof line like Parkers Kitchens' #73 and #79. The gable front and pitched roofs of #73 and #79 provide a little more prominence for this site.

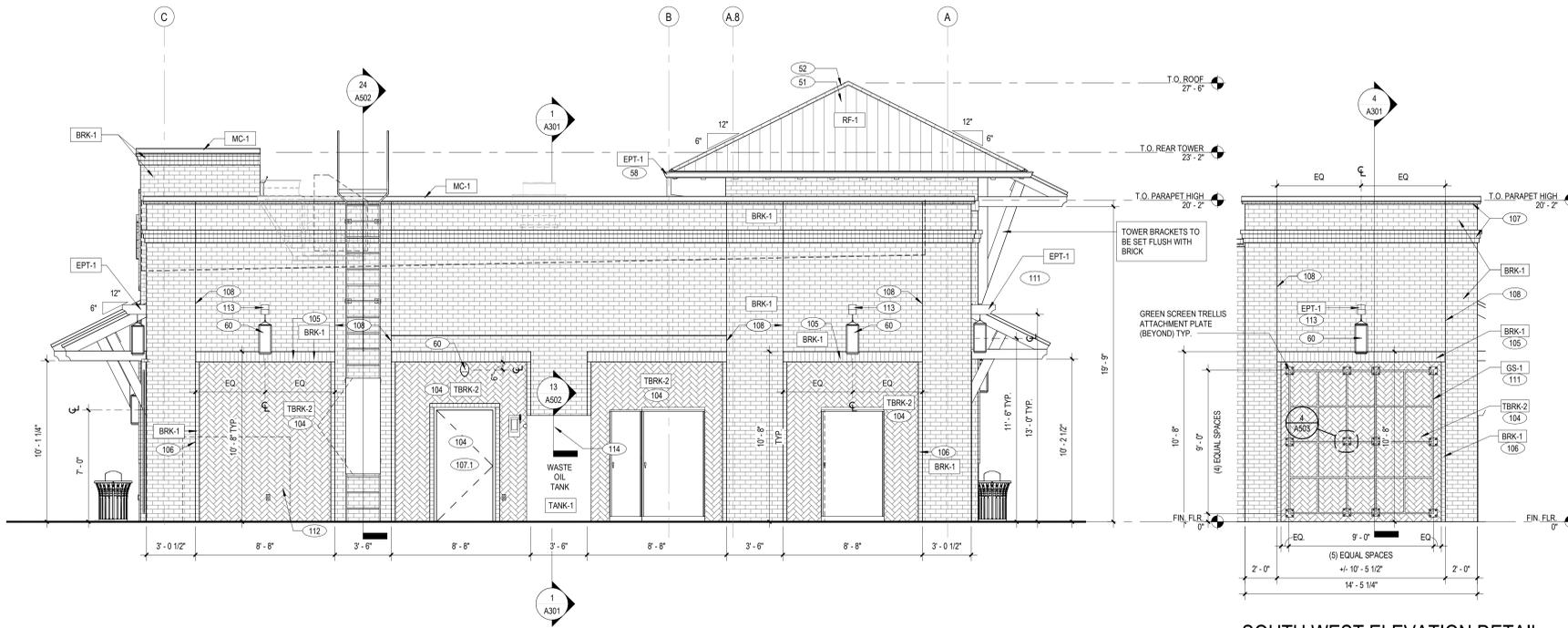
This Parker's convenience store design aesthetic has a Lowcountry feel on all prominent sides with design elements specific to this site. The main building entrance is facing directly towards the intersection of Robert Smalls and Parris Island Gateway. Glazing, heavy timber brackets and metal shed roofs have been added to the North West (facing Robert Smalls) and North East (facing the feeder road) side of the building per previous staff comments. Additional glazing and green screens along with a brick entrance tower gives

weight to feeder road (front) side of the building. Horizontal light fixtures also added to enhance the storefront spandrel glazing to promote an active and inviting atmosphere.

Ryan Green, MPA  
Planner II  
1911 Boudary St  
Beaufort, SC  
[rgreen@cityofbeaufort.org](mailto:rgreen@cityofbeaufort.org)  
843-525-7014

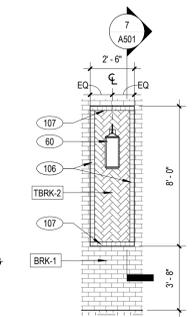


**1 SOUTH WEST ELEVATION**  
SCALE: 1/4" = 1'-0"

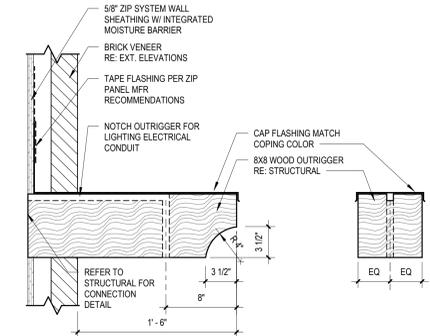


**2 SOUTH EAST ELEVATION**  
SCALE: 1/4" = 1'-0"

**3 SOUTH WEST ELEVATION DETAIL**  
SCALE: 1/4" = 1'-0"



**4 LIGHT RECESS**  
SCALE: 1/4" = 1'-0"



**6 OUTRIGGER**  
SCALE: 1 1/2" = 1'-0"

EXTERIOR FINISH SCHEDULE							
TAG	MATERIAL	MANUFACTURER	MODEL / PRODUCT	COLOR	FINISH	SIZE	COMMENTS
BRK-1	BRICK VENEER	ACME BRICK	782224	MENAWA	ROMABIO BIANCA WHITE LIMEWASH	QUEEN SIZE (7 625" WIDE x 2 75" HIGH x 3" DEEP NOMINAL, U.N.O.)	HOLCIM 200N IVORY BUFF
EPT-1	PAINT	BENJAMIN MOORE		HC104 COPLEY GRAY	SEMI-GLOSS		APPLIES TO STEEL TRELLIS GREEN SCREEN, OIL RECLAMATION TANK AND INSIDE THE TRASH
GS-1	GREEN SCREEN						PAINT EPT-1 PER THIS EXTERIOR FINISH SCHEDULE
MC-1	COPINGS	PAC-CLAD	GALVALLIME	GRANITE	SIVLER		
RF-1	STANDING SEAM METAL ROOF	PAC-CLAD	GALVALLIME				
ST-1	STUCCO SYSTEM			HC104 COPLEY GRAY	SEMI-GLOSS	7/8" THICK	REAR TOWER WALL
TANK-1	OIL RECLAMATION TANK					48" DIA	PAINT EPT-1 PER THIS EXTERIOR FINISH SCHEDULE
TBRK-2	THIN BRICK	ACME BRICK		MENAWA	ROMABIO BIANCA WHITE LIMEWASH	THIN BRICK	THICK SET HOLCIM WHITE GROUT

SHEET KEYNOTES	
16	KNOX BOX
51	METAL ROOFING, SEE EXTERIOR ELEVATIONS
52	CONTINUOUS RIDGE VENT
55	METAL PARAPET CAP
58	GUTTER AND 3/4" DOWNSPOUTS - PROVIDE WALKMAT UNDER DOWNSPOUT OUTFALL ON ROOF
60	EXTERIOR WALL MOUNTED LIGHT FIXTURE, SEE ELECTRICAL DWGS
100	4" DEEP ILLUMINATED BUILDING SIGN (UNDER SEPARATE SUBMITTAL AND PERMIT)
101	WOOD BRACKET, PAINTED AS NOTED
103	ALUMINUM STOREFRONT SYSTEM AND ENTRY DOOR
104	HERRINGBONE BRICK PATTERN
105	BRICK SOLDIER COURSE
106	STACKED BRICK COURSE
107	ROWLOCK BRICK COURSE
108	BRICK CONTROL JOINT, ALIGN WITH STACKED COURSE/STOREFRONT
111	PRE-FABRICATED STEEL BAR TRELLIS FOR NATURAL CLIMBING FOLIAGE, ATTACH TO SUBSTRATE PER MFR. SPECIFICATIONS, PROVIDE CONTINUOUS BLOCKING AT ALL FASTENING LOCATIONS, RE 3/A201
112	PROPANE KIOSK, COORDINATE WITH CIVIL
113	6X8 WOOD OUTRIGGER PAINTED AS NOTED, RE: DETAIL 6/A201 AND STRUCTURAL
114	THRU WALL PIPE FOR WASTE OIL, BEYOND

CLIENT NAME  
**PARKER'S KITCHEN**  
17 WEST MCDONOUGH STREET  
SAVANNAH, GA 31401

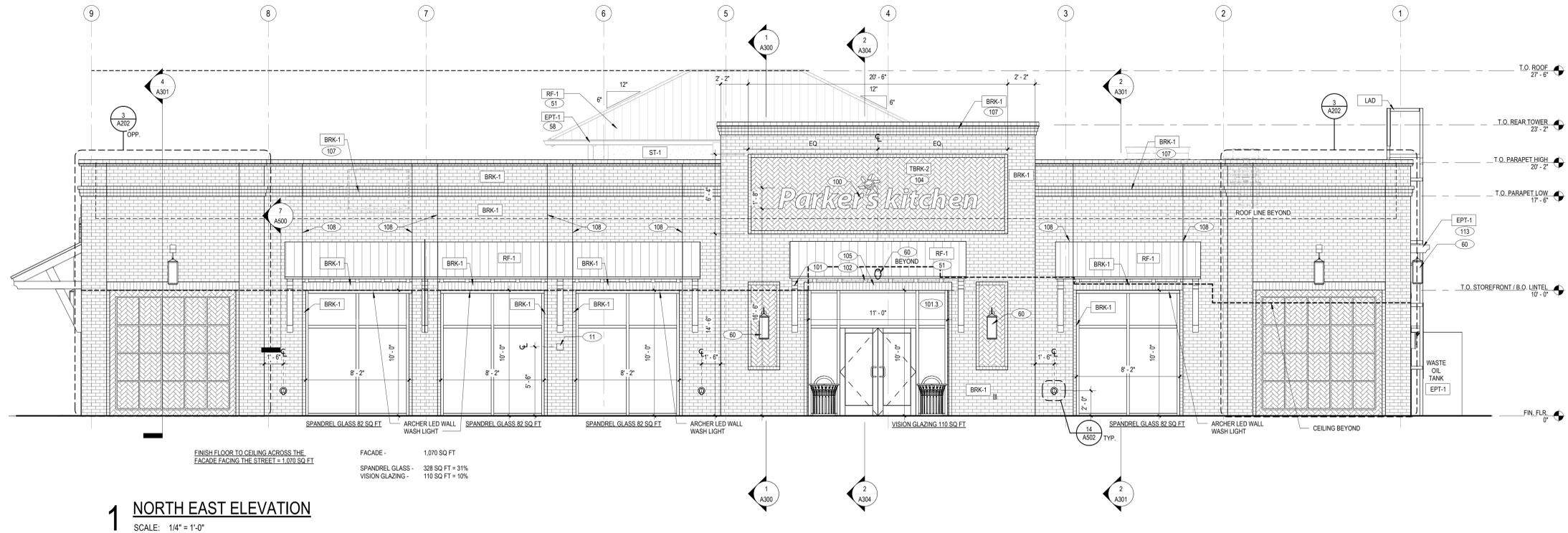
PROJECT NAME  
**PARKER'S KITCHEN STORE #124**  
311 ROBERT SMALLS PKWY  
BEAUFORT, SC

PROTOTYPE  
STANDARD v23.1

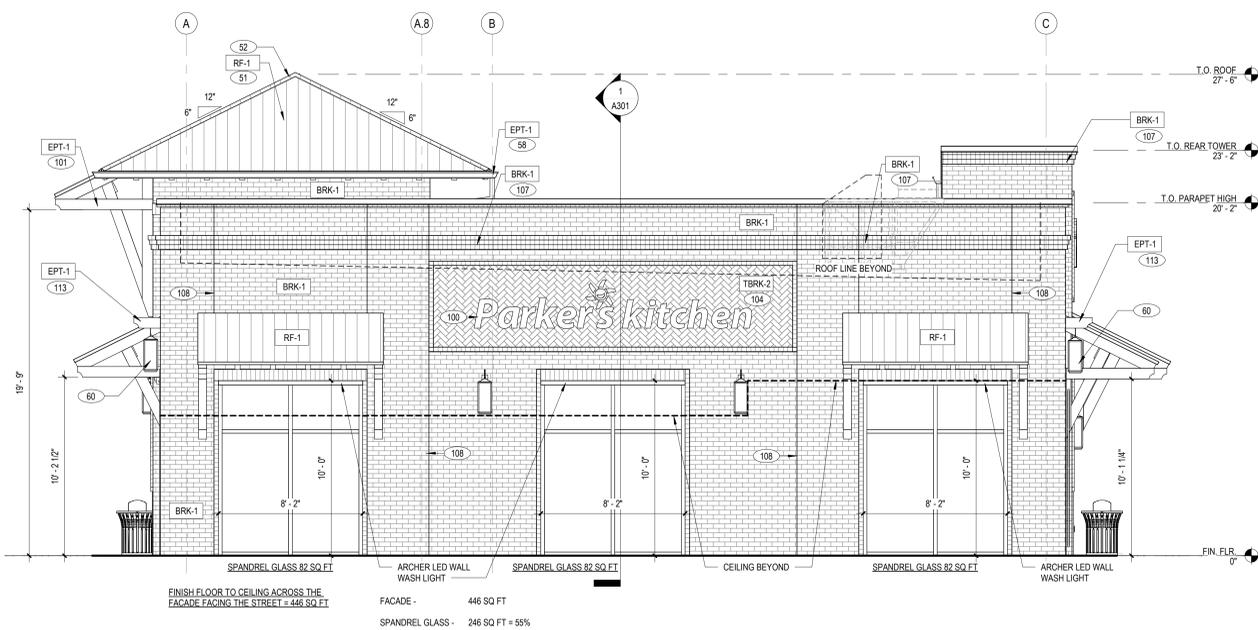
SHEET TITLE  
**EXTERIOR ELEVATIONS**

No.	Description	Date

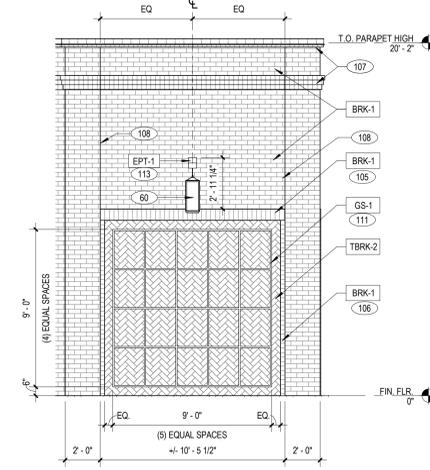
PROJECT NO.	DATE	DRAWN	CHECKED
2020207	10-04-2023	JIS	AWA



**1 NORTH EAST ELEVATION**  
SCALE: 1/4" = 1'-0"



**2 NORTH WEST ELEVATION**  
SCALE: 1/4" = 1'-0"



**3 NORTH EAST ELEVATION DETAIL**  
SCALE: 1/4" = 1'-0"

**EXTERIOR FINISH SCHEDULE**

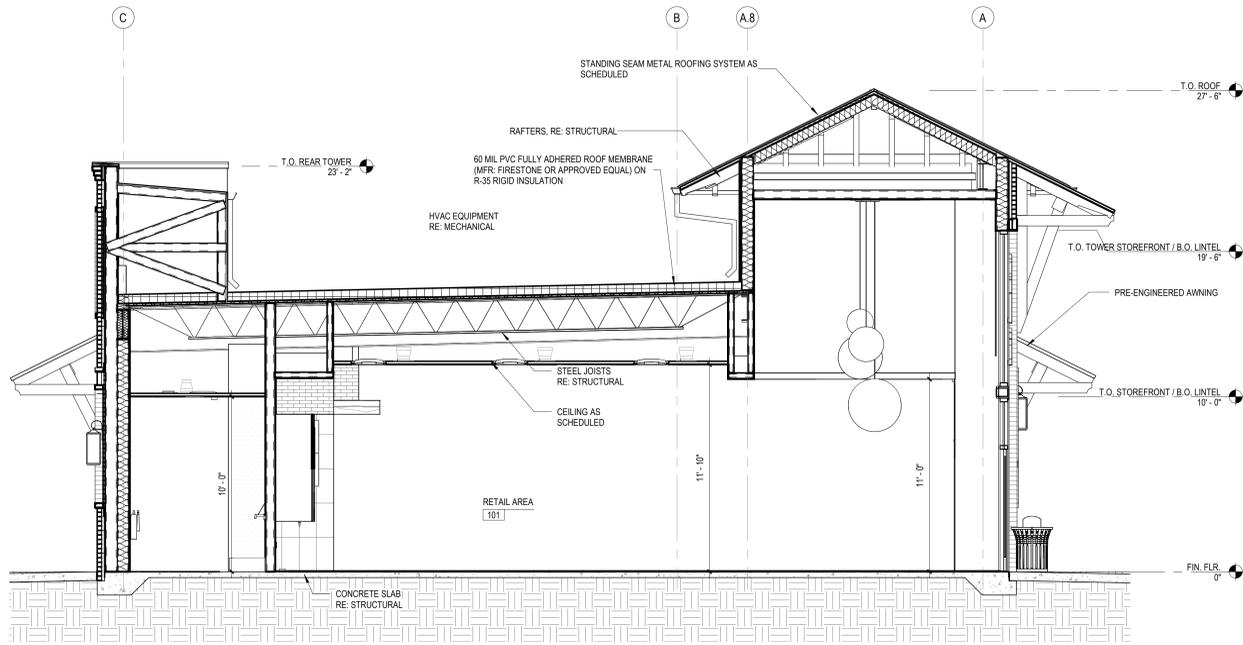
TAG	MATERIAL	MANUFACTURER	MODEL / PRODUCT	COLOR	FINISH	SIZE	COMMENTS
BRK-1	BRICK VENEER	ACME BRICK	782224	MENAWA	ROMABIO BIANCA WHITE LIMEWASH	QUEEN SIZE (7 625" WIDE x 2 75" HIGH x 3" DEEP NOMINAL, U.N.O.)	HOLCIM 200N IVORY BUFF
EPT-1	PAINT	BENJAMIN MOORE	-	HC104 COPLEY GRAY	SEMI-GLOSS	-	APPLIES TO STEEL TRELLIS GREEN SCREEN, OIL RECLAMATION TANK AND INSIDE THE TRASH
GS-1	GREEN SCREEN	-	-	-	-	-	PAINT EPT-1 PER THIS EXTERIOR FINISH SCHEDULE
MC-1	COPINGS	PAC-CLAD	GALVALLUME	GRANITE	-	-	-
RF-1	STANDING SEAM METAL ROOF	PAC-CLAD	GALVALLUME	SVLDR	-	-	-
ST-1	STUCCO SYSTEM	-	-	HC104 COPLEY GRAY	SEMI-GLOSS	7/8" THICK	REAR TOWER WALL
TANK-1	OIL RECLAMATION TANK	-	-	-	-	48" DIA	PAINT EPT-1 PER THIS EXTERIOR FINISH SCHEDULE
TBRK-2	THIN BRICK	ACME BRICK	-	MENAWA	ROMABIO BIANCA WHITE LIMEWASH	THIN BRICK	THICK SET HOLCIM WHITE GROUT

**SHEET KEYNOTES**

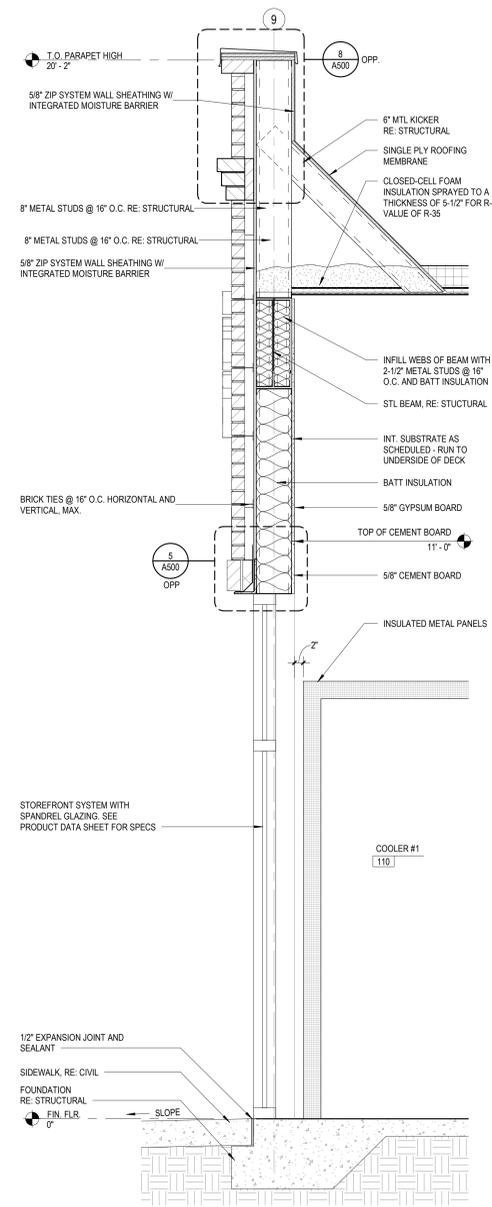
- 11 CO2 FILL BOX
- 51 METAL ROOFING. SEE EXTERIOR ELEVATIONS
- 52 CONTINUOUS RIDGE VENT
- 58 GUTTER AND 3/4" DOWNSPOUTS - PROVIDE WALKMAT UNDER DOWNSPOUT OUTFALL ON ROOF
- 60 EXTERIOR WALL MOUNTED LIGHT FIXTURE. SEE ELECTRICAL DIVS
- 100 4" DEEP ILLUMINATED BUILDING SIGN (UNDER SEPARATE SUBMITTAL AND PERMIT)
- 101 WOOD BRACKET. PAINTED AS NOTED
- 102 EXPOSED RAFTER TAIL. PAINTED AS NOTED
- 104 HERRINGBONE BRICK PATTERN
- 105 BRICK SOLDIER COURSE
- 106 STACKED BRICK COURSE
- 107 ROWLOCK BRICK COURSE
- 108 BRICK CONTROL JOINT. ALIGN WITH STACKED COURSE/STOREFRONT
- 111 PRE-FABRICATED STEEL BAR TRELLIS FOR NATURAL CLIMBING FOLIAGE. ATTACH TO SUBSTRATE PER MFR. SPECIFICATIONS. PROVIDE CONTINUOUS BLOCKING AT ALL FASTENING LOCATIONS, RE: 3A201
- 113 8X8 WOOD OUTRIGGER PAINTED AS NOTED, RE: DETAIL 6/A201 AND STRUCTURAL

Revision Schedule	
No.	Description

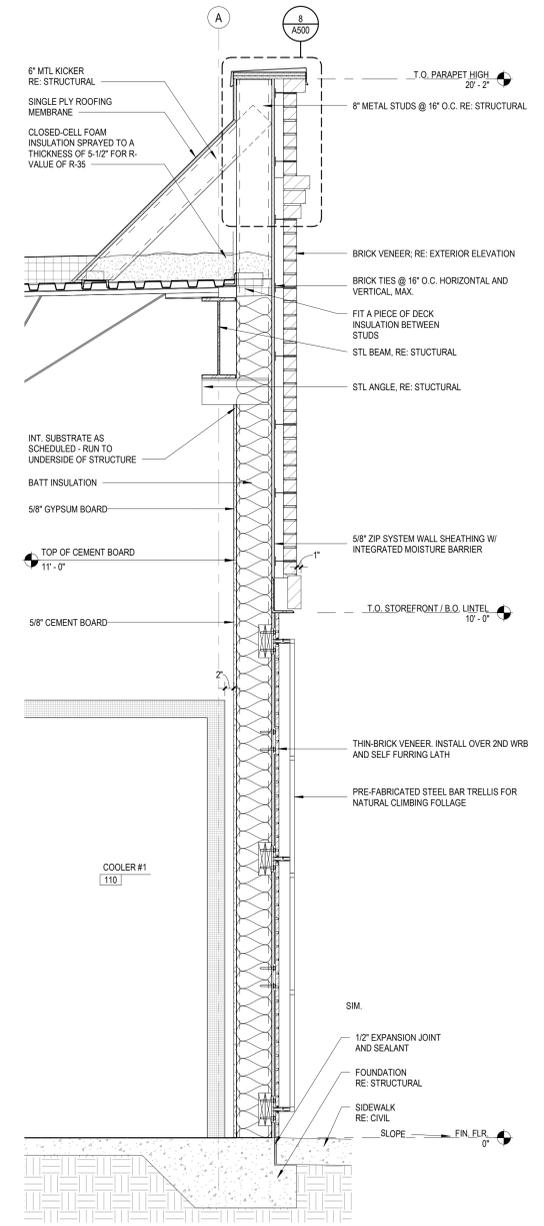
PROJECT NO. 2020207	DATE 10-04-2023	DRAWN JS	CHECKED AWA
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**1 BUILDING SECTION**  
SCALE: 1/4" = 1'-0"



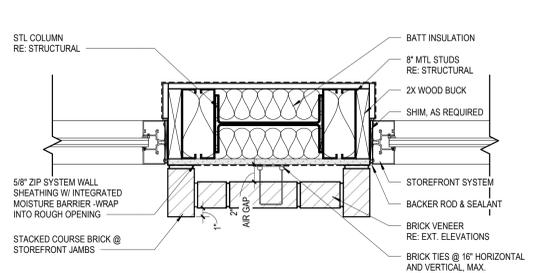
**2 SECTION AT SIDE WALL**  
SCALE: 3/4" = 1'-0"



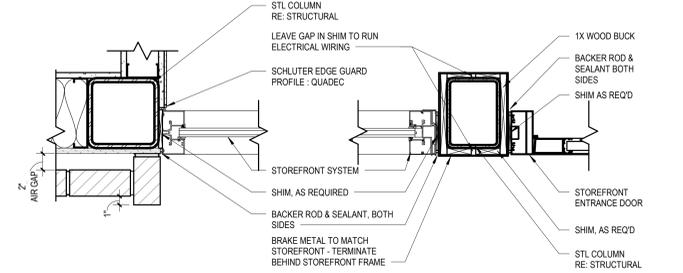
**3 SECTION AT FRONT WALL**  
SCALE: 3/4" = 1'-0"

Revision Schedule	
No.	Description

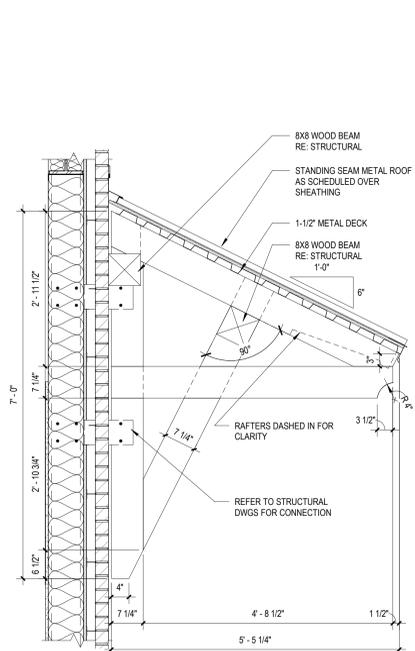
PROJECT NO. 20200207	DATE 10-04-2023	DRAWN JS	CHECKED AWA
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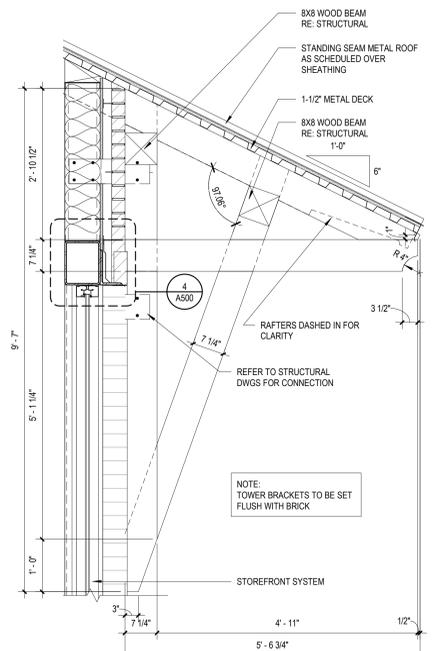
**2 STOREFRONT JAMB**  
SCALE: 1 1/2" = 1'-0"



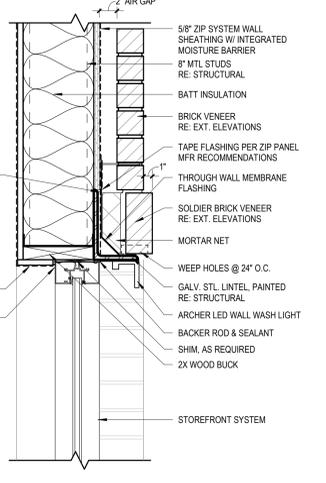
**1 STOREFRONT ENTRY JAMB**  
SCALE: 1 1/2" = 1'-0"



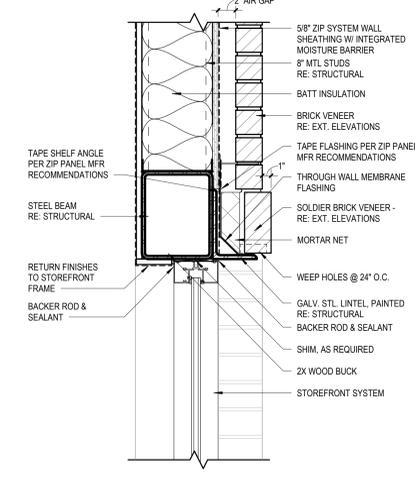
**7 AWNING SECTION**  
SCALE: 3/4" = 1'-0"



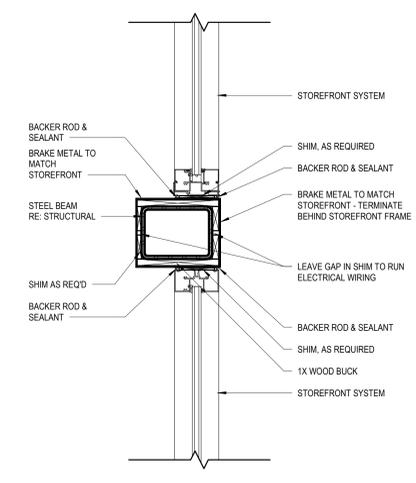
**6 AWNING SECTION AT FRONT ENTRY**  
SCALE: 3/4" = 1'-0"



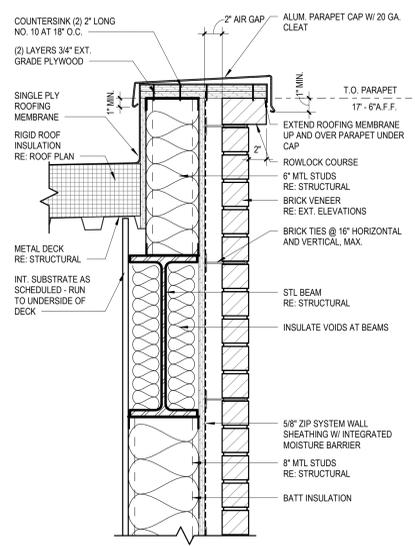
**5 STOREFRONT HEAD**  
SCALE: 1 1/2" = 1'-0"



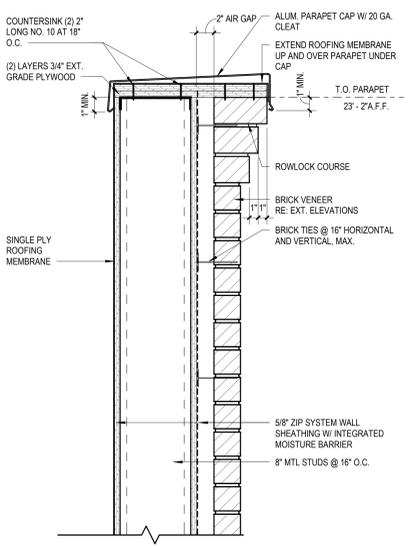
**4 STOREFRONT HEAD**  
SCALE: 1 1/2" = 1'-0"



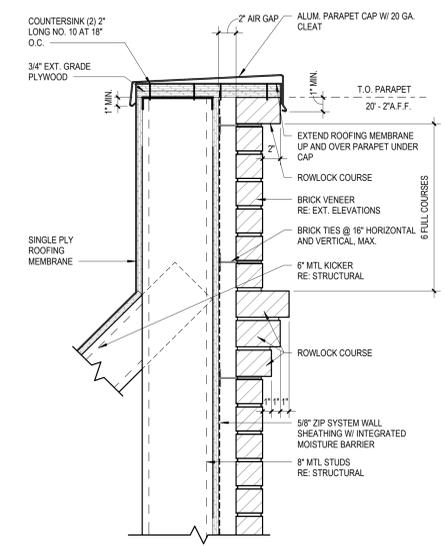
**3 STOREFRONT HEAD**  
SCALE: 1 1/2" = 1'-0"



**10 PARAPET DETAIL**  
SCALE: 1 1/2" = 1'-0"



**9 PARAPET DETAIL**  
SCALE: 1 1/2" = 1'-0"

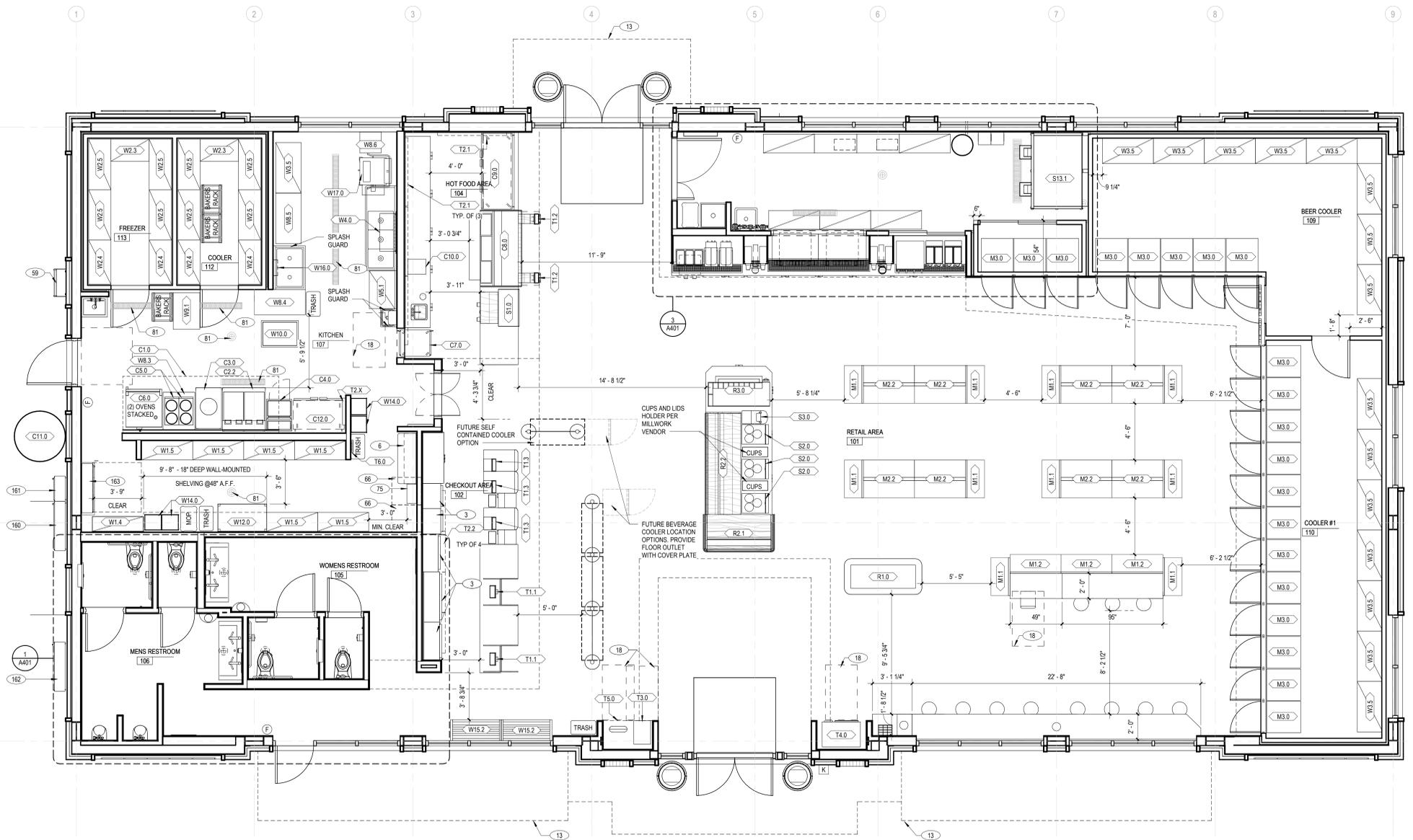


**8 PARAPET DETAIL**  
SCALE: 1 1/2" = 1'-0"



Revision	Number	Date	Description

PROJECT NO.	DATE	DRAWN	CHECKED
20230207	10-03-2023	JIS	WA



**1 EQUIPMENT PLAN**  
SCALE: 1/4" = 1'-0"

TAG	EQUIPMENT	QTY	MANUFACTURER	MODEL
C- COOKING / KITCHEN				
C1.0	KITCHEN HOOD	1	CAPTIVEAIRE	RE-MECHANICAL
C2.2	OPEN VAT ELECTRIC FRYER - 2 BANK	1	GILES	GBF-70 DBL
C3.0	ELECTRIC KETTLE FRYER	1	GILES	GEF-560
C4.0	BREADING AND BATTER TABLE	1	GILES	BBT-O
C5.0	INDUCTION PLATES	2	COOKTEK	1601601
C6.0	CONVECTION OVEN	2	UNOX	XAVC-06FS-EPR
C7.0	LOW TEMPERATURE HOT HOLDING CABINETS	1	ALTO-SHAAM	1200-LP
C8.0	HEATED DISPLAY SYSTEMS	1	ALTO-SHAAM	TY2-TZ-SS
C9.0	REFRIGERATED WORKTOP	1	BEVERAGE AIR	WTRZ24HC-FIP
C10.0	CONVEYOR TOASTER	1	AVA TOAST	1B4T140
C11.0	OIL WASTE STORAGE TANK - 40" DIA.	1	-	-
C12.0	48" W UNDERCOUNTER REFRIGERATOR	1	BEVERAGE AIR	UCR48AHC
F- OFFICE / ASSOCIATES				
F1.0	LOCKERS	2	TBD	TBD
F2.0	CUP HOLDER / SPEED RAIL	3		
M- MERCHANDISING / RETAIL				
M1.1	36"X18" MERCHANDISE GONDOLA	10	ROYSTON	L UNIT 36X48X18 - SILVER CLOUD 060
M1.2	48"X18" MERCHANDISE GONDOLA	3	ROYSTON	L UNIT 48X54X18 - SILVER CLOUD 060
M2.2	48"X36" MERCHANDISE GONDOLA	8	ROYSTON	T UNIT 48X54X18 - SILVER CLOUD 060
M3.0	2-8'X2-6" GRAVITY FLOW SHELVING	20	-	-
R- REFRIGERATION				

TAG	EQUIPMENT	QTY	MANUFACTURER	MODEL
R1.0	ICE CREAM DISPLAY MERCHANDISER	1	AHT	348867
R2.1	REFRIGERATED MULTI-DECK SELF-SERVICE	1	HUSSMANN	-
R2.2	REFRIGERATED MULTI-DECK SELF-SERVICE	1	HUSSMANN	-
R3.0	REFRIGERATED DROP-IN PAN	1	DELFIELD	N8131-FA
R4.1	ICE MAKER (FOUNTAIN DRINKS)	2	SCOTSMAN	NS9222R
S- SELF SERVE / DRINK EQUIPMENT				
S1.0	GRAB & GO WARMER	1	VENDO SANDEN	HFC020005
S2.0	COFFEE MACHINE	3	SCHAERER	COFFEE ART PLUS C
S3.0	HOT BEVERAGE DISPENSER	1	BUNN	38600.0001 IMX-3S+ SS LED BLK-BASE
S4.1	TRIPLE 5 GALLON BOWL	1	CRATHCO	CS-30-16
S5.0	TEA BREWER	2	BUNN	52000.0301 1TB_DDIL 120V
S5.1	TEA DISPENSER	4	BUNN	43600.0001 T63T-A
S6.0	FOUNTAIN MACHINE	2	CORNELIUS	ED300 12 VOLT W/ PUSH BUTTON LEV VALVES
S7.0	FROZEN CARBONATED BEVERAGE DISPENSER	1	FBD	774
S8.0	FROZEN DRINK MACHINE (AUTOFILL)	2	BUNN	34000.0522 (ULTRA-2 120V BLK/SS) HP CF (L) (EXT HDL)
S10.0	PRE-CHILLER	2	LANCER	500 PRECHILLER
S11.0	MICROWAVE	1	SOLOWAVE	180MW1000
S12.0	WATER FILTRATION SYSTEM	1	3M	DP260
S13.1	ICE STORAGE	1	KLOPPENBERG	DISP-2000-IBU
S14.0	COCOA TANK	1	-	-
T- TECHNOLOGY / SECURITY				
T1.1	POS - MAIN CHECKOUT	2	NCR	1535
T1.2	POS - HOT FOOD	2	NCR	-

TAG	EQUIPMENT	QTY	MANUFACTURER	MODEL
T1.3	POS - SELF-CHECKOUT	3	NCR	R6
T2.1	DIGITAL MONITOR (75")	4	SAMSUNG	CB75R
T2.2	DIGITAL MONITOR (43")	10	SAMSUNG	DB43J
T2.X	DIGITAL MONITOR (XX")	1	SAMSUNG	XXXX
T3.0	ATM	1	ATM USA	NEW GENMEGA ONYX
T4.0	LOTTO MACHINE	1	-	-
T5.0	SELF SERVICE KIOSK (PERKS TERMINAL)	1	POSBANK	BIGPOS
T6.0	TIME CLOCK	1	-	-
W- WORKSTATIONS / STORAGE / RACKING				
W1.4	14"D X 48"W WIRE SHELVING	1	TSS	GRAY
W1.5	18"D X 48"W WIRE SHELVING	11	TSS	GRAY
W2.3	21"D X 36"W WIRE SHELVING	2	CAMBRO	GRAY
W2.4	21"D X 42"W WIRE SHELVING	4	CAMBRO	GRAY
W2.5	21"D X 48"W WIRE SHELVING	8	TSS	GRAY
W3.5	24"D X 48"W WIRE SHELVING	16	-	-
W4.0	WALL MOUNTED TASK STATION	1	-	-
W5.1	DRYING RACK 24"D X 36"W	1	CAMBRO	EMU24367R/4580
W6.1	BAG IN BOX RACK	2	-	-
W6.3	30"X36" MOBILE WORKTABLE	1	Eagle Group	-
W6.4	24"X48" WORKTABLE W/ UNDERSHELF (NO BACKSLASH) INTERGAL W/ 2 COMP SINK	1	REGENCY	600TS2448S
W6.5	24"X48" WORKTABLE W/ UNDERSHELF (NO BACKSLASH)	1	REGENCY	600TS2448S
W6.6	20"X30" WORKTABLE W/ UNDERSHELF (NO BACKSLASH) INTERGAL W/ 2 COMP SINK	1	REGENCY	600TS2448S

TAG	EQUIPMENT	QTY	MANUFACTURER	MODEL
W9.1	MOBILE CAN RACK	1	REGENCY	600CANRKT2SS
W10.0	LANDING TABLE	1	GILES	LT-3
W12.0	MOBILE UTILITY CART	1	-	-
W14.0	HAMPER STAND	4	-	-
W15.2	DUNNAGE RACK 20"D X 48"W	2	-	-
W16.0	SAN JAMAR KNIFE STATION	1	SAN JAMAR KNIFE STATION	STK1008
W17.0	UPRIGHT COMMERCIAL DISHWASHER	1	CMA DISHWASHERS	CMA-180-VL

**EQUIPMENT PLAN GENERAL NOTES**

- GC TO COORDINATE EQUIPMENT LOCATION IN FIELD WITH PARKER'S MANAGEMENT.
- REFER TO SHEET A402 FOR MILLWORK
- ALL SHELVING OUTSIDE OF WALK-IN COOLERS TO BE SECURED TO WALL AND SECURED TOGETHER DESIGNATED ON EXTERIOR FINISH SCHEDULE
- WHITE INSULATION ON PIPING IN ALL COOLERS

**SHEET KEYNOTES**

- CIGARETTE DISPLAY
- LAMINATE OR SOLID SURFACE MILLWORK
- METAL CANOPY (FRAME AND SKIN) - GC PROVIDED, COLOR TO MATCH COLOR OF MC-1 AS DESIGNATED ON EXTERIOR FINISH SCHEDULE
- 30x42 CLEAR FLOOR SPACE FOR ACCESSIBILITY
- PREMANUFACTURED ROOF ACCESS LADDER, COLOR TO MATCH BRICK
- WALL MOUNTED IT CABINET
- VEEDER ROOT, SEE ELECTRICAL
- FLOOR DRAIN OR TRENCH DRAIN, SEE PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION AND LOCATIONS
- MAIN DISTRIBUTION SWITCHBOARD MDP
- MDP PULL SECTION
- CPI SECTION 1
- CPI SECTION 2



Northeast Elevation

Southeast Elevation



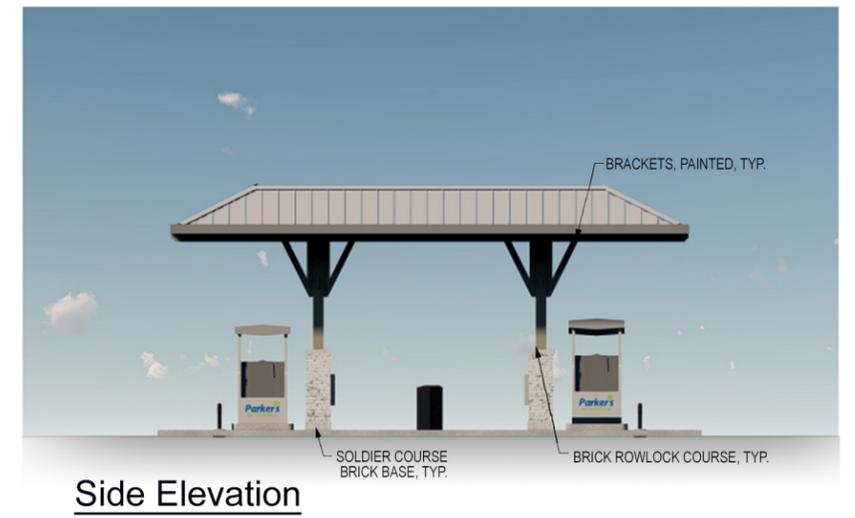
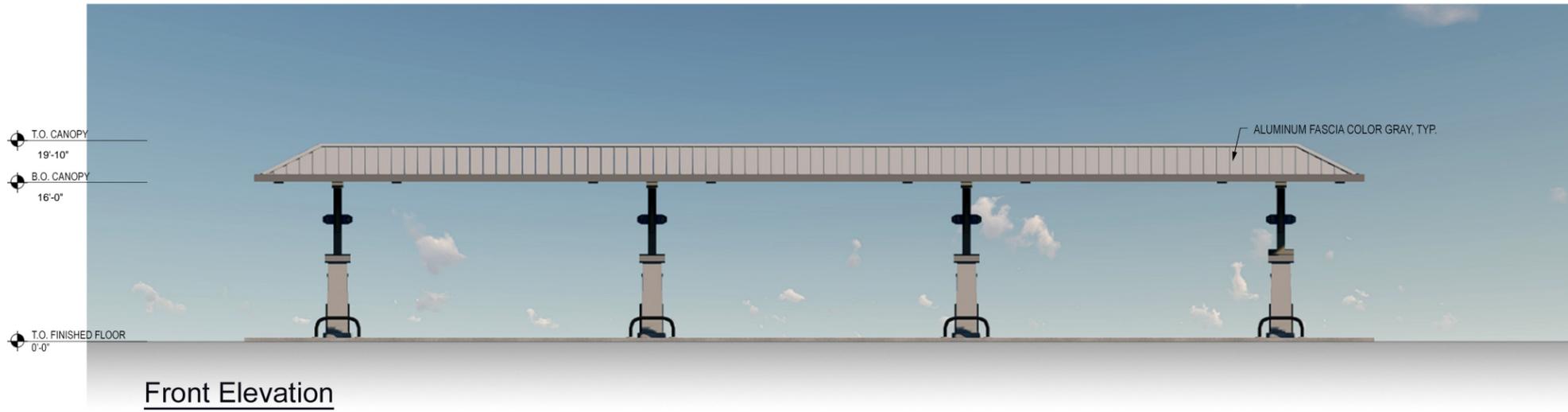
Southwest Elevation

Northwest Elevation

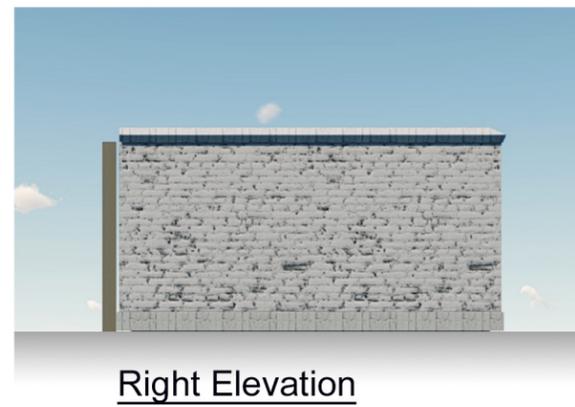
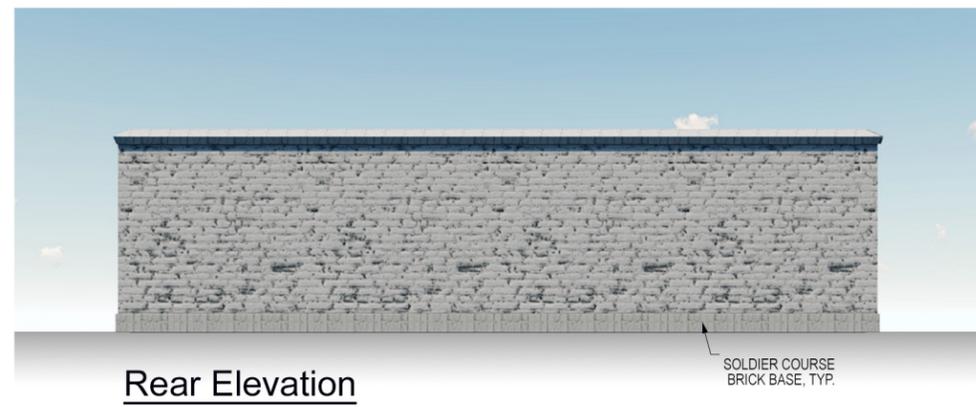
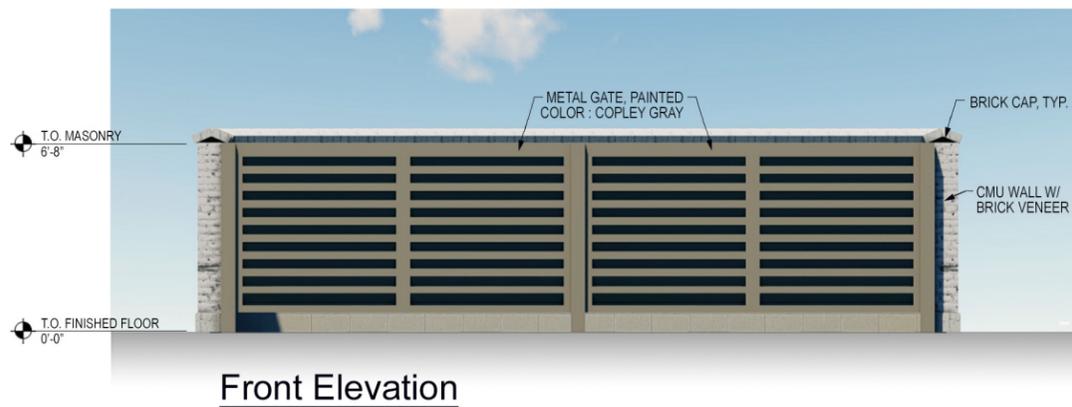
Color & Material Schedule

PAC-CLAD Coping	Benjamin Moore HC-104	Benjamin Moore HC-170	Storefront Metal	PAC-CLAD Standing Seam Awning	Acme Menawa Brick
Granite	Copley Gray	Stonington Gray	Clear Anodized	Silver	Romabio Bianco White

# Gas Canopy



# Trash Compound



Benjamin Moore HC-104	Benjamin Moore HC-170	Aluminum
Copley Gray	Stonington Gray	Gray
Acme Menawa Brick		
Romabio Bianco White		



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## PARKER'S KITCHEN STORE#124 - PERSPECTIVE RENDERING

S.C. 170 & S.C. Route 21 - Beaufort, Beaufort County, SC  
Project #20230207 • Date: 10/03/2023





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S.C. 170 & S.C. Route 21 - Beaufort, Beaufort County, SC

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Project #20230207 • Date: 10/03/2023





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S.C. 170 & S.C. Route 21 - Beaufort, Beaufort County, SC  
Project #20230207 • Date: 10/03/2023





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S.C. 170 & S.C. Route 21 - Beaufort, Beaufort County, SC  
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## PARKER'S KITCHEN STORE #124 - PERSPECTIVE RENDERING

S.C. 170 & S.C. Route 21 - Beaufort, Beaufort County, SC

Project #20230207 • Date: 10/03/2023



**Storefront Metal**

**Clear Anodized**



Granite\*



**Benjamin Moore  
HC-104**

**Copley Gray**

**Benjamin Moore  
HC-170**

**Stonington Gray**

**Acme Menawa Brick**



**Romabio Bianco White**

Parker's Kitchen Beaufort  
glazing images

Glass spec  
examples



Refuel - 4 county shed road



Glass spec  
examples



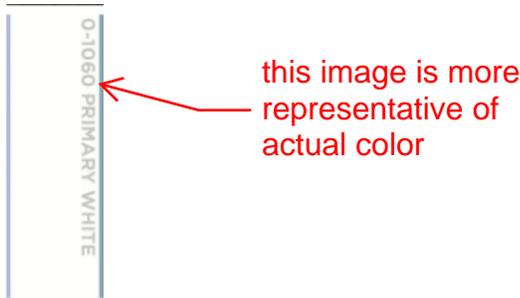
1,348 x 896

# GLAZING SPEC

<https://www.icdcoatings.com/opaci-coat-300>



## TECHNICAL INFORMATION



## Product Data Sheet (PDS)

### PRODUCT NAME

OPACI-COAT-300® water-based silicone glass coating.

### MANUFACTURER

Industrial Control Development, Inc.  
7350 S Union Ridge Parkway  
Ridgefield, WA USA 98642  
Phone: (360) 546-2286  
Fax: (360) 546-2287

### DESCRIPTION

"OPACI-COAT-300®" is the trade name for a patented one component, water-base silicone coating that is supplied as a flowable, thixotropic emulsion. Upon evaporation of water, the applied coating will cure to a tack-free silicone elastomeric film providing opacification in any color to glass and related construction materials.

### USE

Architects and designers select any color for opacifying glass for exterior spandrels or interior wall cladding. It may be used on annealed, heat strengthened or tempered glass with equal efficacy. It is a problem free method for opacifying reflective, high performance or tint glass.

**Adhesion:** OPACI-COAT-300® has outstanding adhesion to architectural glass substrates. ICD has performed rigorous testing involving various substrates. The results have been excellent.

**Glass Retention:** The elastomeric nature of OPACI-COAT-300® creates a rubber like film which meets all ASTM criteria for fallout protection without the need of additional taping or film application.

**Approved Factory Fabricators:** Quality application is assured by the preferential training and on-going inspection of "Approved Factory Fabricators".

**Field Repairable:** Any damage to the coating can easily be repaired at the job site.

**Quality Control:** Sample and batch quality control are achieved using computer technology.

**Color Availability:** There is a wide range of formulated special colors. Virtually any color can be achieved, and exact color matching is possible with the use of a computerized spectrophotometer.

**Color Fast:** All pigments used in OPACI-COAT-300® are rated excellent in color fastness.

**Application Methods:** OPACI-COAT-300® can be sprayed, curtain coated or roll coated.

**Ease of Clean-up:** Flushing with soap and water or a mild cleaning agent is usually all that is necessary to clean equipment of uncured emulsion.

### TYPICAL PROPERTIES

Maximum physical properties (full cure) of OPACI-COAT-300® are achieved at seven days, 70°F (21°C) and 50% relative humidity. The product will attain enough improved properties for shipment with adequate evaporation of water.

#### Uncured

**Color:** ..... Various  
**Percent Solids:** ..... 45-47%  
**Specific Gravity:** ..... 97 - 1.05  
**pH (CTM 0007):** ..... 11.2  
**VOC:** ..... under 25g/liter

#### Maximum Physical Properties:

7 days; 70°F (21°C)  
**Color** ..... Various  
**Durometer, Shore A (CTM0099)** ..... 40  
**Tensile, Psi (CTM01374):** ..... 400  
**Elongation % (CTM0137A):** ..... 400%  
**VOC:** ..... 0g/liter

#### Standard Colors:

#0-0020 Snow White  
#0-0186 Light White  
**#0-1060 Primary White**  
#1-0016 Charcoal  
#1-818 Black  
#2-0225 Evergreen  
#2-743 Harmony Solex  
#3-0586 Medium Gray  
#3-0770 Warm Gray  
#3-747 Graylite  
#3-820 Harmony Gray  
#3-967 Black-Gray  
#4-0925 Neutral  
#4-822 Harmony Bronze  
#4-975 Lava Bronze  
#6-0025 Harmony Blue

**Evaporation Methods:** OPACI-COAT-300® dries upon evaporation of water. Drying will take place at room temperature (70°F/21°C) and 50% relative humidity in approximately 2-4 hours. Acceleration of this drying rate can easily be accomplished by passing the coated glass through a drying oven. Drying rates vary depending upon heat and humidity.

**Shipping:** In no case should the coated product be shipped before the drying has taken place.

**Coating Thickness** should be a minimum of 8 mills (.2mm) applied. Less thickness affects the products durability.

**Storage:** OPACI-COAT-300® is a water-based material. The product, unapplied, must not freeze! Storage temperature should be between 32°F (0°C) and 72°F (22°C).

**Shelf Life:** The liquid shelf life is 6 months from date of shipment.

**Edge deletion** is required for fabrication of insulated glass units.

## LIMITATIONS

OPACI-COAT-300® is approved for **weather-seal only**. Edges must be deleted for structural applications unless project is pre-approved. Contact ICD.

Neoprene gaskets and/or setting blocks must **not** be used directly against the silicone coated surface.

Compatibility of other products should be confirmed with ICD. Under no circumstance should bonding materials with acidic hydrocarbon-based thinners be used.

Some applications may require different thickness for maximum protection. The coating should be applied at 60°F (16°C) or above. The substrate must be clean and dry. The coating must not freeze before curing.

This product is not recommended for use in vision areas. For proper viewing methods refer to ASTM C1048.

## PRECAUTIONS

The uncured emulsion can cause eye irritation. Skin and eye contact should be avoided. In case of eye contact, flush eyes with water for a least 15 minutes and obtain medical attention. For skin contact, flush affected areas with water as soon as practical.

## TECHNICAL DATA

### Applicable Standards:

GTA #89-1-6, Section 4.1 1991 – OPACI-COAT-300® offers the ability to meet or exceed fallout and safety glazing requirements.

**Flexibility:** Sub-zero temperatures to over 300°F (149°C).

**Maintains Adhesion:** From -50°F (-46°C) to 300°F (149°C).

**Excellent Ozone & Ultraviolet** radiation resistance.

**Waterproof:** Liquid will not pass through the coating.

**Weather Testing:** QUV Weatherometer testing confirms weatherability.

**Environmental Impact:** OPACI-COAT-300® is non-hazardous. It is organic solvent free. Costly, hazardous and environmentally undesirable hydrocarbon solvents are eliminated.

## AVAILABILITY AND COST

**Availability:** OPACI-COAT-300® is available for shipment anywhere in the world from our plant in Ridgefield, Washington USA to ICD Approved Factory Fabricators.

**Cost:** Contact ICD for a list of Approved Factory Fabricators in your area by phone at (360) 546-2286 or by email [icd@icdcoatings.com](mailto:icd@icdcoatings.com)

## WARRANTY

Approved Factory Fabricators of OPACI-COAT-300® are offered a ten-year limited warranty. Please contact a fabricator or the manufacturer for a copy.

Even with the latest design and materials, success depends upon quality products, installation, fabrication and workmanship. Silicone opacifier fabricator and sealant contractors significantly affect the ultimate performance and appearance of the project. It is important to ICD that products and materials be used to their best advantage. ICD feels it is important to periodically review, technical and application techniques for its fabricator's continued success with the use of ICD's product. Investing time and care before and during application has far reaching effects on the quality of the finished project. It is the goal of ICD to aid in quality control measures on a continuous basis and remain available to answer any question that may arise, whether it be from the architect, the interior designer, the fabricator, the building owner, the contractor or the glazier.

The information and data contained herein are believed to be accurate and reliable; however, it is the user's responsibility to determine suitability of use. Since ICD cannot know all of the uses to which these products may be put or the conditions of use, it makes no warranties concerning the fitness or suitability of its products for a particular use of purpose.

Users should thoroughly test any proposed use of these products and independently conclude satisfactory performance in the application. Likewise, if the manner in which these products is used requires governmental approval or clearance, the user must obtain it.

ICD warrants that these products will meet its specifications. There is no warranty of merchantability or fitness for use. ICD will not be liable for consequential damages of any kind.

## MAINTENANCE

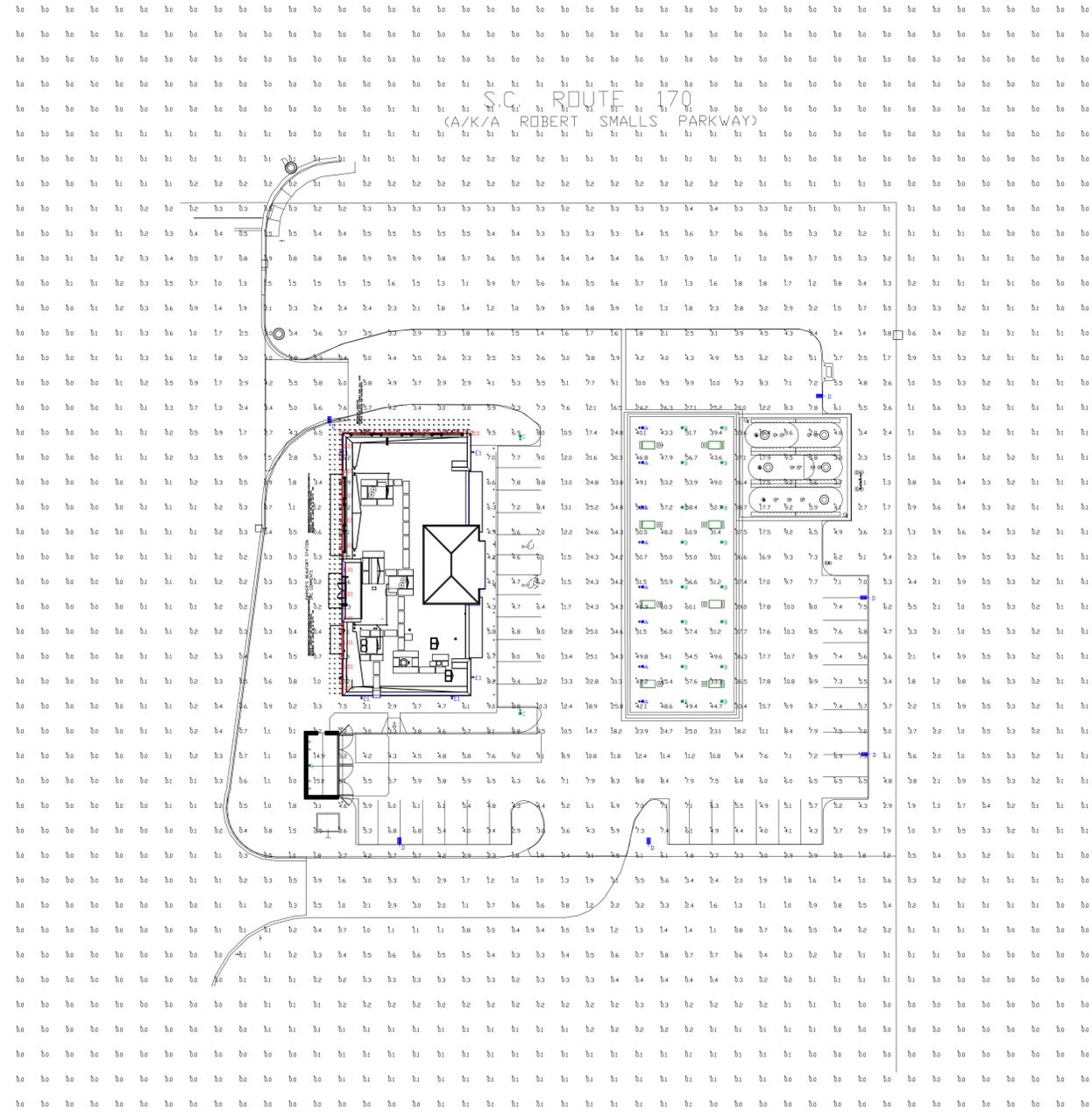
None required.

## TECHNICAL SERVICES

ICD has experienced staff available for technical consultation and fabricators in most major cities







Photometric data for fixture types "E1" are based upon another manufacturer's test data and as a result can not be verified by LSI Industries for this calculation.

NOTE: The ARCHER fixtures are custom cut to length in the field. Therefore, the final number of fixtures and the length of the fixtures could vary from this initial photometric design.

The final layout of the ARCHER fixtures to be verified by LSI Graphic Solutions Plus prior to ordering.

Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
ALL_CALC_POINTS	Illuminance	Fc	3.57	60.9	0.0	N.A.	N.A.
AREA_AROUND_BLDG	Illuminance	Fc	10.14	30.9	0.3	33.80	103.00
CANOPY	Illuminance	Fc	47.66	60.9	31.4	1.52	1.94
INSIDE_CURB	Illuminance	Fc	9.60	34.8	1.4	6.86	24.86

Symbol	Qty	Label	Arrangement	Description	Mounting Height	LLD	LLF	Arr. Lum. Lumens	Arr. Watts
	8	A	SINGLE	SCV-LED-23L-SCFT-50-REDI	15'	1.000	1.000	23101	188
	16	B	SINGLE	SCV-LED-15L-SC-50-REDI	15'	1.000	1.000	14963	102
	2	C	SINGLE	MPH-LED-35L-SIL-FT-50-70CRI	22'POLE+2'BASE	1.000	1.000	39636	294
	6	D	SINGLE	MRM-LED-30L-SIL-FT-50-70CRI-SINGLE	24'POLE+2'BASE	1.000	1.000	32425	232
	8	E1	SINGLE	P560004-020 FIXTURE BY OTHER	13'	1.000	1.000	900	9.9
	1	G	SINGLE	TMWP-LED-04L-50 TRASH ENCLOSURE	5'	1.000	1.000	4044	31.23
	15	L01	Single	ARCH-118-LED-BW-MULTI	17.5'	1.000	1.000	3341	51.6
	1	L03	Single	ARCH-59-LED-BW-MULTI-CUT TO 36"	17.5'	1.000	1.000	1019	16
	1	L04	Single	ARCH-118-LED-BW-MULTI-CUT TO 84"	17.5'	1.000	1.000	2378	37

PHOTOMETRIC EVALUATION  
NOT FOR CONSTRUCTION

Based on the information provided, all dimensions and luminaire locations shown represent recommended positions. The engineer and/or architect must determine the applicability of the layout to existing or future field conditions.

This lighting plan represents illumination levels calculated from laboratory data taken under controlled conditions in accordance with The Illuminating Engineering Society (IES) approved methods. Actual performance of any manufacturer's luminaires may vary due to changes in electrical voltage, tolerance in lamps/LED's and other variable field conditions. Calculations do not include obstructions such as buildings, curbs, landscaping, or any other architectural elements unless noted. Fixture nomenclature noted does not include mounting hardware or poles. This drawing is for photometric evaluation purposes only and should not be used as a construction document or as a final document for ordering product.

Total Project Watts  
Total Watts = 6053.431



LIGHTING PROPOSAL LD-158149-3

PARKER'S KITCHEN #124  
SC ROUTE 21  
BEAUFORT, SC

BY:AKK DATE:06-01-23 REV:09-27-23 SHEET 1 OF 1

SCALE: 1"=30' 0 30



LUCAS FORD ASSOCIATES INC.

**Date: Oct 4, 2023**

Lucas Ford III  
P.O. Box 420525  
Atlanta GA 30342  
Phone: (888) 895-3630  
Fax: (404) 252-0295

Job Name  
**Parker's Kitchen #124 Exterior Lighting**  
LFA-LUCAS323-17556  
Beaufort SC

Bid Date  
Sep 28, 2023

Submittal Date  
Oct 4, 2023

*Architect:*  
Cuhaci & Peterson  
2600 Maitland Center Pkwy Suite 200  
Maitland FL 32751

*Engineer:*  
Parker's Kitchen  
171 Crossroads Pky  
Savannah GA 31407



LUCAS FORD ASSOCIATES INC.

# Transmittal

Lucas Ford III  
 P.O. Box 420525  
 Atlanta GA 30342  
 Phone: (888) 895-3630  
**From: Lucas Ford III**

**Project** Parker's Kitchen #124 Exterior Lighting  
**Quote#** LFA-LUCAS323-17556  
**Location** Beaufort SC  
**To** Cuhaci & Peterson  
 2600 Maitland Center Pkwy Suite 200  
 Maitland FL 32751  
 Contact:

ATTACHED WE ARE SENDING YOU 1 COPY OF THE FOLLOWING ITEM:

- |                                   |   |        |
|-----------------------------------|---|--------|
| <input type="checkbox"/> Drawings | <input type="checkbox"/> Specifications | Other: |
| <input type="checkbox"/> Prints   | <input type="checkbox"/> Information    |        |
| <input type="checkbox"/> Plans    | <input type="checkbox"/> Submittals     |        |

THESE ARE TRANSMITTED FOR:

- |  |   |                                 |
|--|---|---------------------------------|
| <input type="checkbox"/> Prior Approval        | <input type="checkbox"/> Resubmittal for Approval | <input type="checkbox"/> Record |
| <input type="checkbox"/> Approval              | <input type="checkbox"/> Corrections              | Bids due on:                    |
| <input type="checkbox"/> Approval as Submitted | <input type="checkbox"/> Your Use                 | Other:                          |
| <input type="checkbox"/> Approval as Noted     | <input type="checkbox"/> Review and Comment       |                                 |

Qty	Type	MFG	Part
2	S1-C	LSI Petroleum	MPH LED 35L SIL FT UNV DIM 50 70CRI BRZ LED Area Light - NEW Mirada High-Lumen Post-Top (MPH)
2	S1-C	LSI Petroleum	4SQ T S11G22 N BRZ 4-inch Square Steel Pole (4SQ)
6	S2-D	LSI Petroleum	MRM LED 30L SIL FT UNV DIM 50 70CRI BRZ IL LED Area Light - NEW Mirada Medium (MRM)
6	S2-D	LSI Petroleum	4SQB3 S11G 24 S BRZ 4-inch Square Steel Pole (4SQ)
1	S3/WP/G	LSI Petroleum	TMWP LED 4L UNV DIM 50 BZA Traditional LED Wall Light - Medium (TMWP)
15	LO1	LSI Graphic Solutions	ARCH-118-LED-BW-MULTI
1	LO3	LSI Graphic Solutions	ARCH-59-LED-BW-MULTI
1	LO4	LSI Graphic Solutions	ARCH-118-LED-BW-MULTI
8	A	LSI Petroleum	SCV LED 23L SCFT UNV DIM 50 WHT SCV LED 23L SCFT UNV DIM 50 WHT Redi
16	B	LSI Petroleum	SCV LED 15L SC UNV DIM 50 WHT SCV LED 15L SC UNV DIM 50 WHT redi



LUCAS FORD ASSOCIATES INC.

**Job Name:**Parker's Kitchen #124 Exterior Lighting  
Architect: Cuhaci & Peterson (Maitland)  
Engineer: Parker's Kitchen (Savannah)**Catalog Number:**MPH LED 35L SIL FT UNV DIM 50  
70CRI BRZ  
Notes:**Type:****S1-C**

LFA-LUCAS323-17556



Catalog #: \_\_\_\_\_ Project: \_\_\_\_\_ Type: \_\_\_\_\_

Prepared By: \_\_\_\_\_ Date: \_\_\_\_\_

# Mirada Post Top (MPH)

## Outdoor LED Post Top



IP66

IK08

**OVERVIEW**

Lumen Package (lm)	35,000 - 72,000
Wattage Range (W)	252 - 566
Efficacy Range (LPW)	111 - 157
Weight lbs (kg)	60 (27)

**QUICK LINKS****FEATURES & SPECIFICATIONS****Construction**

- Rugged die-cast aluminum optical housing, cage, and fitter. Fitter contains factory pre-wired drivers and optional controls.
- Complete die-cast aluminum construction for maximum quality and surface finish.
- 1-PC die-cast aluminum cage with wire passages allows for IP66 full luminaire rating to protect integral components from harsh environments.
- Fixtures are finished with LSI's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling. Other standard LSI finishes available. Consult factory.
- Shipping weight: 60 lbs in carton.

**Optical System**

- State-of-the-Art one piece silicone optic sheet delivers industry leading optical control with an integrated gasket.
- Proprietary silicone refractor optics provide exceptional coverage and uniformity in IES Types 2, 3, 5W, FT, FTA and AM.
- Silicone optical material does not yellow or crack with age and provides a typical light transmittance of 93%.
- Available in 5000K, 4000K, and 3000K color temperatures per ANSI C78.377.
- Minimum CRI of 70
- Integral louver (IL) and house-side shield (IH) options available for improved back-light control without sacrificing street side performance. See page 7 for more details.

- Minimal uplight with less than 5% of the total lumen output going above 90°.

**Electrical**

- High-performance programmable driver features over-voltage, undervoltage, short-circuit and over temperature protection. Custom lumen and wattage packages available.
- 0-10V dimming (10% - 100%) standard.
- Standard Universal Voltage (120-277 Vac) Input 50/60 Hz or optional High Voltage (347-480 Vac).
- L92 Calculated Life: >100K Hours (See Lumen Maintenance on Page 3)
- Total harmonic distortion: <20%
- Operating temperature: -40°C to +50°C (-40°F to +122°F). 72L and 78L packages are limited to 40°C.
- Power factor: >.90
- Input power stays constant over life.
- Field replaceable surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).
- High-efficacy LEDs mounted to metal-core circuit board to maximize heat dissipation
- Components are fully encased in potting material for moisture resistance. Driver complies with FCC standards.
- Internal power supplies and controls can be serviced via (2) integral fitter removable power trays.

**Installation**

- Designed to mount to 2-3/8"-3" OD x 3" to 4-1/2" tall tenon.
- Secures to tenon with 8 stainless steel set screws.
- 6' wire leads with strain relief zip-ties are provided in fitter for ease of wiring.

**Warranty**

- LSI luminaires carry a 5-year limited warranty. Refer to website for details.

**Listings**

- Listed to UL 1598 and UL 8750.
- Title 24 Compliant; see local ordinance for qualification information.
- Suitable for wet Locations
- IP66 rated Luminaire per IEC 60598.
- 3G rated for ANSI C136.31 high vibration applications.
- IK08 rated luminaire per IEC 66262 mechanical impact code.
- DesignLights Consortium® (DLC) Premium qualified product. Not all versions of this product may be DLC Premium qualified. Please check the DLC Qualified Products List at [www.designlights.org/GPL](http://www.designlights.org/GPL) to confirm which versions are qualified.





LUCAS FORD ASSOCIATES INC.

**Job Name:**Parker's Kitchen #124 Exterior Lighting  
Architect: Cuhaci & Peterson (Maitland)  
Engineer: Parker's Kitchen (Savannah)**Catalog Number:**MPH LED 35L SIL FT UNV DIM 50  
70CRI BRZ

Notes:

**Type:****S1-C**

LFA-LUCAS323-17556

**Mirada Post Top (MPH)**

Type: \_\_\_\_\_

**Have questions?** Call us at (800) 436-7800**ORDERING GUIDE****TYPICAL ORDER EXAMPLE: MPH LED 45L SIL FTA UNV DIM 40 70CRI ALSC BLK IH**

Prefix	Light Source	Lumen Package	Light Output	Distribution	Voltage	Driver
MPH - Mirada Post Top High Lumen	LED	35L - 35,000 lm 45L - 45,000 lm 55L - 55,000 lm 65L - 65,000 lm 72L - 72,000 lm  Custom Lumen Packages <sup>8</sup>	SIL - Silicone	2 - Type 2 3 - Type 3 5W - Type 5 Wide FT - Forward Throw FTA - Forward Throw Automotive AM - Automotive Merchandise	UNV - Universal Voltage (120-277V) HV - High Voltage (347-480V)	DIM - 0-10V Dimming <sup>2</sup>

Color Temperature	Color Rendering	Controls (Choose One)	Finish	Options
50 - 5000K 40 - 4000K 30 - 3000K	70CRI - 70 CRI	(Blank) - None  <u>Wireless Controls System</u> ALSC - AirLink Synapse Control System  <u>Stand-Alone Controls</u> EXT - 0-10v Dimming (from external signal) CR7P - 7 Pin Control Receptacle ANSI C136.41 <sup>1</sup>	BLK - Black BRZ - Dark Bronze GMG - Gun Metal Gray GPT - Graphite MSV - Metallic Silver PLP - Platinum Plus SVG - Satin Verde Green WHT - White	Blank - None IH - Integral Houseside Shield <sup>2</sup> IL - Integral Louver (Sharp Spill Light Cutoff) <sup>2</sup>

Need more information?  
Click here for our glossary**Have additional questions?**

Call us at (800) 436-7800

**ACCESSORY ORDERING INFORMATION<sup>3</sup>**

Controls Accessories	
Part Number	Description
122514	PC120 Photocell for use with CR7P option (120V) <sup>4</sup>
122515	PC208-277 Photocell for use with CR7P option (208V, 240V, 277V) <sup>4</sup>
122516	Twist Lock Photocell (347V) for use with CR7P <sup>4</sup>
1225180	Twist Lock Photocell (480V) for use with CR7P <sup>4</sup>
663284CLR	PMOS24 - 24V Pole-Mount Occupancy Sensor <sup>5,6</sup>
61409	AirLink 5 Pin Twist Lock Controller <sup>4</sup>
661410	AirLink 7 Pin Twist Lock Controller <sup>4</sup>
149328	Shorting Cap for use with CR7P <sup>4</sup>

Mounting Accessories	
Part Number	Description
693664CLR	WM Wall Mount Bracket <sup>5</sup>
693665CLR	BK MPT BO Mount <sup>5</sup>
694638CLR	Internal Tenon Adapter For 4" Square Pole <sup>5</sup>
694641CLR	Internal Tenon Adapter 5" Square Pole <sup>5</sup>
694642CLR	Internal Tenon Adapter 6" Square Pole <sup>5</sup>
694643CLR	External Tenon Adapter 3" Round Pole <sup>5</sup>
694644CLR	External Tenon Adapter 3-1/2" RoundTapered Pole <sup>5</sup>
694645CLR	External Tenon Adapter 4" RoundTapered Pole <sup>5</sup>

Fusing Accessories	
Part Number	Description
FK120	Single Fusing (120V)
FK277	Single Fusing (277V)
DFK240	Double Fusing (208V,240V)
DFK347	Double Fusing (347V)
DFK480	Double Fusing (480V)

Shielding Accessories	
Part Number	Description
743417	IH - Integral House Side Shield
743423	IL - Integral Louver (Sharp Spill Light Cutoff)

1 - Control device or shorting cap must be ordered separately. See Accessory Ordering Information.

2 - Not available with 5W distribution

3 - Accessories are shipped separately and field installed.

4 - Factory installed CR7P option required. See Options.

5 - "CLR" denotes finish. See Finish options.

6 - Only available with ALSC/ALSC control options.

7 - Fusing must be located in hand hole of pole.

8 - Custom lumen and wattage packages available consult factory. Values are within industry standard tolerances but not DLC listed.





LUCAS FORD ASSOCIATES INC.

**Job Name:**Parker's Kitchen #124 Exterior Lighting  
Architect: Cuhaci & Peterson (Maitland)  
Engineer: Parker's Kitchen (Savannah)**Catalog Number:**

4SQ T S11G22 N BRZ

Notes:

**Type:****S1-C**

LFA-LUCAS323-17556



Catalog #: \_\_\_\_\_ Project: \_\_\_\_\_ Type: \_\_\_\_\_

Prepared By: \_\_\_\_\_ Date: \_\_\_\_\_

# Steel Poles

## Square Straight



### QUICK LINKS

### FEATURES & SPECIFICATIONS

**Pole Shaft**

- Straight poles are 4", 5", or 6" square.
- Pole shaft is electro-welded ASTM-A500 Grade C steel tubing with a minimum yield strength of 50,000 psi.
- On Tenon Mount steel poles, tenon is 2-3/8" O.D. high-strength pipe. Tenon is 4-3/4" in length.

**Hand-Hole**

- Standard hand-hole location is 12" above pole base.
- Poles 22' and above have a 3" x 6" reinforced hand-hole. Shorter poles have a 2" x 4" non-reinforced hand-hole.

**Base**

- Pole base is ASTM-A36 hot-rolled steel plate with a minimum yield strength of 36,000 psi.
- Two-piece square base cover is optional.

**Anchor Bolts**

- Poles are furnished with anchor bolts featuring zinc-plated double nuts and washers. Galvanized anchor bolts are optional.
- Anchor Bolts conform to ASTM F 1554-07a Grade 55 with a minimum yield strength of 55,000 PSI.

**Ground Lug**

- Ground lug is standard.

**Duplex Receptacle**

- Weatherproof duplex receptacle is optional.

**Ground Fault Circuit Interrupter**

- Self-testing Ground fault circuit interrupter is optional.

**Finishes**

- Every pole is provided with the DuraGrip Protection System and a 5-year limited warranty:
- When the top-of-the line DuraGrip Plus Protection System is selected, in addition to the DuraGrip Protection System, a non-porous, automotive-grade corrosion coating is applied to the lower portion of the pole interior sealing and further protecting it from corrosion. This option extends the limited warranty to 7 years.

**Determining The Luminaire/Pole Combination For Your Application:**

- Select luminaire from luminaire ordering information.
- Select bracket configuration if required
- Determine EPA value from luminaire/ bracket EPA chart

- Select Pole Height

- Select MPH to match wind speed in the application area (See windspeed maps).

- Confirm pole EPA equal to or exceeding value of luminaire/bracket EPA

- Consult factory for special wind load requirements and banner brackets.

**Pole Vibration Damper**

- A pole vibration damper is recommended in open terrain areas of the country where low steady state winds are common.

- Non-tapered poles and lightly loaded poles are more susceptible to destructive vibration if a damper is not installed.

**Listings**

- UL Listed
- BAA/TAA Compliant





LUCAS FORD ASSOCIATES INC.

**Job Name:**Parker's Kitchen #124 Exterior Lighting  
Architect: Cuhaci & Peterson (Maitland)  
Engineer: Parker's Kitchen (Savannah)**Catalog Number:**

4SQ T S11G22 N BRZ

Notes:

**Type:****S1-C**

LFA-LUCAS323-17556

**Steel Poles Square Straight**

Type: \_\_\_\_\_

**Have questions?** Call us at (800) 436-7800**ORDERING GUIDE****TYPICAL ORDER EXAMPLE: 4SQ B3 S11G 24 S PLP DGP**

Pole Series	Mounting Method	Material	Height <sup>2</sup>	Mounting Configuration	Pole Finish	Options
<b>4SQ</b> - 4" x 4" Square Straight Pole (New Build) <b>5SQ</b> - 5" x 5" Square Straight Pole (New Build) <b>6SQ</b> - 6" x 6" Square Straight Pole (New Build) <b>4SQU</b> - 4" x 4" Square Straight Pole (Retrofit) <b>5SQU</b> - 5" x 5" Square Straight Pole (Retrofit) <b>6SQU</b> - 6" x 6" Square Straight Pole (Retrofit)	<b>Bolt-On Mount<sup>1</sup></b> - See pole selection guide for patterns and fixture matches <b>B5</b> - 5" Traditional Drilling Pattern <b>B3</b> - 3" Reduced Drilling Pattern <b>B2</b> - 2" Reduced Drilling Pattern	<b>S11G</b> - 11 Ga. Steel (4SQ/4SQU and 5SQ/5SQU Only) <b>S07G</b> - 07 Ga. Steel	8' 10' 12' 13' 14' 15' 16' 17' 17'6" 18' 20' <b>22'</b> 22'6" 23' 24' 25' 26' 27' 28' 30' 32' 35' 39'	<b>S</b> - Single/Parallel <b>D180</b> - Double <b>D90</b> - Double <b>DN90</b> - Double <b>T90</b> - Triple <b>TN120</b> - Triple <b>Q90</b> - Quad <b>QN90</b> - Quad	<b>BRZ</b> - Bronze <b>BLK</b> - Black <b>PLP</b> - Platinum Plus <b>WHT</b> - White <b>SVG</b> - Satin Verde Green <b>GPT</b> - Graphite <b>MSV</b> - Metallic Silver <b>BZA</b> - Alternate Bronze	<b>GA</b> - Galvanized Anchor Bolts <b>SF</b> - Single Flood <sup>3</sup> <b>DF</b> - Double Flood <sup>3</sup> <b>DGP</b> - DuraGrip <sup>1</sup> Plus <b>LAB</b> - Less Anchor Bolts <b>CRXX</b> - Conduit Raceway <sup>4</sup>
	<b>T</b> - Tenon Mount - See pole selection guide for tenon and fixture/bracket matches			<b>N</b> - Tenon Mount (Standard Tenon size is 2-3/8" O.D.) <sup>8</sup> <b>(Blank)</b> - Use with I for Mounting Method		
	<b>I</b> - No Mounting Holes <sup>1</sup>					

**Need more information?**[Click here for our glossary.](#)**Have additional questions?**

Call us at (800) 436-7800

**ACCESSORY ORDERING INFORMATION**

Part Number	Description
<b>122559CLR</b>	4BC - 4" Square Base Cover
<b>122561CLR</b>	5BC - 5" Square Base Cover
<b>122563CLR</b>	6BC - 6" Square Base Cover
<b>132488CLR</b>	5BC - 5" Square Universal Base Cover
<b>131252CLR</b>	6BC - 6" Square Universal Base Cover
<b>122566CLR</b>	ER2 - Weatherproof Duplex Receptacle
<b>122567CLR</b>	GFI - Ground Fault Circuit Interrupter
<b>132336</b>	MH5 - mounting Hole Plugs for use with 5" traditional drill pattern (3 set of 3 plugs)
<b>681126</b>	MH3 - mounting Hole Plugs for use with 3" reduced drill pattern (3 set of 3 plugs)
<b>725841</b>	MH2 - Mounting Hole Plugs for use with 2" reduced drill pattern (3 sets of 3 plugs)
<b>172539</b>	Vibration Damper - 4" Square Pole (bolt-on mount only)
<b>172538</b>	Vibration Damper - 5" Square Pole (bolt-on mount only)
<b>178361</b>	Vibration Damper - 6" Square Pole (bolt-on mount only)

1 - See Area Light Brackets - 3" Reduced Drill Pattern and Area Light Brackets - 5" Traditional Drill Pattern Spec Sheets.

2 - Pole heights will have +/- 1/2" tolerance.

3 - See Flood Lighting Brackets section for choice of FBO brackets.

4 - CR selection must indicate required height and side of pole mounting location. Mounting template required at time of order.





LUCAS FORD ASSOCIATES INC.

**Job Name:**Parker's Kitchen #124 Exterior Lighting  
Architect: Cuhaci & Peterson (Maitland)  
Engineer: Parker's Kitchen (Savannah)**Catalog Number:**MRM LED 30L SIL FT UNV DIM 50  
70CRI BRZ IL  
Notes:**Type:****S2-D**

LFA-LUCAS323-17556



Catalog #: \_\_\_\_\_ Project: \_\_\_\_\_ Type: \_\_\_\_\_

Prepared By: \_\_\_\_\_ Date: \_\_\_\_\_

# Mirada Medium (MRM)

## Outdoor LED Area Light



IP66 IK08

**OVERVIEW**

Lumen Package	9,000 - 55,000
Wattage Range	62 - 438
Efficacy Range (LPW)	115 - 162
Weight lbs(kg)	30 (13.6)

**QUICK LINKS**[Ordering Guide](#)[Performance](#)[Photometrics](#)[Dimensions](#)**FEATURES & SPECIFICATIONS****Construction**

- Rugged die-cast aluminum housing contains factory prewired driver and optical unit. Cast aluminum wiring access door located underneath.
- Designed to mount to square or round poles.
- Fixtures are finished with LSI's DuraGrip<sup>®</sup> polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling. Other standard LSI finishes available. Consult factory.
- Shipping weight: 37 lbs in carton.

**Optical System**

- State-of-the-Art one piece silicone optic sheet delivers industry leading optical control with an integrated gasket to provide IP66 rated sealed optical chamber in 1 component.
- Proprietary silicone refractor optics provide exceptional coverage and uniformity in IES Types 2, 3, 5W, FT, FTA and AM.
- Silicone optical material does not yellow or crack with age and provides a typical light transmittance of 93%.
- Zero uplight.
- Available in 5000K, 4000K, and 3000K color temperatures per ANSI C78.377. Also Available in Phosphor Converted Amber with Peak intensity at 610nm.
- Minimum CRI of 70.
- Integral louver (IL) and integral half louver (IH) options available for enhanced backlight control.

**Electrical**

- High-performance programmable driver features over-voltage, under-voltage, short-circuit and over temperature protection. Custom lumen and wattage packages available.
- 0-10V dimming (10% - 100%) standard.
- Standard Universal Voltage (120-277 Vac) Input 50/60 Hz or optional High Voltage (347-480 Vac).
- L80 Calculated Life: >100k Hours (See Lumen Maintenance chart)
- Total harmonic distortion: <20%
- Operating temperature: -40°C to +50°C (-40°F to +122°F). 42L and 48L lumen packages rated to +40°C. 55L lumen package rate to +35°C.
- Power factor: >.90
- Input power stays constant over life.
- Field replaceable 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).
- High-efficacy LEDs mounted to metal-core circuit board to maximize heat dissipation
- Components are fully encased in potting material for moisture resistance. Driver and key electronic components can easily be accessed.

**Controls**

- Optional integral passive infrared Bluetooth<sup>™</sup> motion. Fixtures operate independently and can be commissioned via iOS or Android configuration app
- LSI's AirLink<sup>™</sup> wireless control system options reduce energy and maintenance

costs while optimizing light quality 24/7. (see controls section for more details).

**Installation**

- Designed to mount to square or round poles.
- A single fastener secures the hinged door, underneath the housing and provides quick & easy access to the electrical compartment.
- Included terminal block accepts up to 12 ga. wire.
- Utilizes LSI's traditional 3" drill pattern B3 for easy fastening of LSI products.

**Warranty**

- LSI LED Fixtures carry a 5-year warranty.

**Listings**

- Listed to UL 1598 and UL 8750.
- Meets Buy American Act requirements.
- IDA compliant; with 3000K color temperature selection.
- Title 24 Compliant; see local ordinance for qualification information.
- Suitable for wet Locations.
- IP66 rated Luminaire per IEC 60598.
- 3G rated for ANSI C136.31 high vibration applications are qualified.
- DesignLights Consortium<sup>®</sup> (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at [www.designlights.org/QPL](http://www.designlights.org/QPL) to confirm which versions are qualified.
- Patented Silicone Optics (US Patent NO. 10,816,165 B2)
- IK08 rated luminaire per IEC 66262 mechanical impact code





LUCAS FORD ASSOCIATES INC.

**Job Name:**

Parker's Kitchen #124 Exterior Lighting  
 Architect: Cuhaci & Peterson (Maitland)  
 Engineer: Parker's Kitchen (Savannah)

**Catalog Number:**

MRM LED 30L SIL FT UNV DIM 50  
 70CRI BRZ IL  
 Notes:

**Type:**

**S2-D**

LFA-LUCAS323-17556

**Mirada Medium Outdoor LED Area Light**

Type: \_\_\_\_\_

**Have questions?** Call us at (800) 436-7800

**ORDERING GUIDE**

[Back to Quick Links](#)

**TYPICAL ORDER EXAMPLE: MRM LED 36L SIL FTA UNV DIM 50 70CRI ALSCS04 BRZ IL**

Prefix	Light Source	Lumen Package	Lens	Distribution	Orientation <sup>2</sup>	Voltage	Driver
<b>MRM</b> - Mirada Medium Area Light	<b>LED</b>	9L - 9,000 lms 12L - 12,000 lms 18L - 18,000 lms 24L - 24,000 lms <b>30L - 30,000 lms</b> 36L - 36,000 lms 42L - 42,000 lms 48L - 48,000 lms 55L - 55,000 lms Custom Lumen Packages <sup>1</sup>	<b>SIL</b> - Silicone	2 - Type 2 3 - Type 3 5W - Type 5 Wide <b>FT</b> - Forward Throw FTA - Forward Throw Automotive AM - Automotive Merchandise	<b>(blank)</b> - standard L - Optics rotated left 90° R - Optics rotated right 90°	<b>UNV</b> - Universal Voltage (120-277V) <b>HV</b> - High Voltage (347-480V)	<b>DIM</b> - 0-10V Dimming (0-10%)

Color Temp	Color Rendering	Finish	Options
50 - 5,000 CCT 40 - 4,000 CCT 30 - 3,000 CCT AMB - Phosphor Converted Amber <sup>12</sup>	<b>70CRI</b> - 70 CRI	<b>BLK</b> - Black <b>BRZ</b> - Dark Bronze <b>GMG</b> - Gun Metal Gray <b>GPT</b> - Graphite	<b>MSV</b> - Metallic Silver <b>PLP</b> - Platinum Plus <b>SVG</b> - Satin Verde Green <b>WHT</b> - White  <b>(Blank)</b> - None IH - Integral Half Louver (Moderate Spill Light Cutoff) IL - Integral Louver (Sharp Spill Light Cutoff) <sup>2</sup>

**Controls (Choose One)**

**(Blank)** - None

**Wireless Controls System**

- ALSC - AirLink Synapse Control System
- ALSCS02 - AirLink Synapse Control System with 12-20' Motion Sensor
- ALSCS04 - AirLink Synapse Control System with 20-40' Motion Sensor
- ALBCS1 - AirLink Blue Wireless Motion & Photo Sensor Controller (8-24' mounting height)<sup>5</sup>
- ALBCS2 - AirLink Blue Wireless Motion & Photo Sensor Controller (25-40' mounting height)<sup>5</sup>

**Stand-Alone Controls**

- EXT - 0-10v Dimming leads extended to housing exterior
- CR7P - 7 Pin Control Receptacle ANSI C136.41<sup>6</sup>
- IMSBTL1 - Integral Bluetooth™ Motion and Photocell Sensor (8-24' MH)<sup>5</sup>
- IMSBTL2 - Integral Bluetooth™ Motion and Photocell Sensor (25-40' MH)<sup>5</sup>

**Button Type Photocells**

- PC120 - 120V
- PC1208-277 - 208-277V
- PC1347 - 347V



**Need more information?**  
 Click here for our glossary

**Have additional questions?**  
 Call us at (800) 436-7800



**ACCESSORY ORDERING INFORMATION<sup>7</sup>**

CONTROLS ACCESSORIES	
Description	Order Number
PC120 Photocell for use with CR7P option (120V) <sup>8</sup>	122514
PC208-277 Photocell for use with CR7P option (208V, 240V, 277V) <sup>8</sup>	122515
Twist Lock Photocell (347V) for use with CR7P <sup>8</sup>	122516
Twist Lock Photocell (480V) for use with CR7P <sup>8</sup>	1225180
AirLink 5 Pin Twist Lock Controller <sup>8</sup>	661409
AirLink 7 Pin Twist Lock Controller <sup>8</sup>	661410
Shorting Cap for use with CR7P	149528

FUSING OPTIONS <sup>11</sup>	
Single Fusing (120V)	<a href="#">See Fusing Accessory Guide</a>
Single Fusing (277V)	
Double Fusing (208V, 240V)	
Double Fusing (480V)	
Double Fusing (347V)	

SHIELDING OPTIONS	
Mirada Small	<a href="#">See Shielding Guide</a>
Mirada Medium	
Mirada Large	
Zone Medium	
Zone Large	

1. Custom lumen and wattage packages available, consult factory. Values are within industry standard tolerances but not DLC listed.  
 2. Not available with 5W distribution  
 3. Consult Factory for availability.  
 4. Not available in HV.  
 5. Motion sensors are field configurable via an app that can be downloaded from your smartphone's native app store. See controls section for more details.  
 6. Control device or shorting cap must be ordered separately. See Accessory Ordering Information.

7. Accessories are shipped separately and field installed.  
 8. Factory installed CR7P option required. See Options.  
 9. "CLR" denotes finish. See Finish options.  
 10. Only available with ALS/ALSCH control options.  
 11. Fusing must be located in hand hole of pole. See [Fusing Accessory Guide](#) for compatibility.  
 12. Only available in 9L, 12L, 18L and 24L Lumen Packages. Consult factory for lead time and availability.





LUCAS FORD ASSOCIATES INC.

**Job Name:**Parker's Kitchen #124 Exterior Lighting  
Architect: Cuhaci & Peterson (Maitland)  
Engineer: Parker's Kitchen (Savannah)**Catalog Number:**

4SQB3 S11G 24 S BRZ

Notes:

**Type:****S2-D**

LFA-LUCAS323-17556



Catalog #: \_\_\_\_\_ Project: \_\_\_\_\_ Type: \_\_\_\_\_

Prepared By: \_\_\_\_\_ Date: \_\_\_\_\_

# Steel Poles

## Square Straight



### QUICK LINKS

### FEATURES & SPECIFICATIONS

**Pole Shaft**

- Straight poles are 4", 5", or 6" square.
- Pole shaft is electro-welded ASTM-A500 Grade C steel tubing with a minimum yield strength of 50,000 psi.
- On Tenon Mount steel poles, tenon is 2-3/8" O.D. high-strength pipe. Tenon is 4-3/4" in length.

**Hand-Hole**

- Standard hand-hole location is 12" above pole base.
- Poles 22' and above have a 3" x 6" reinforced hand-hole. Shorter poles have a 2" x 4" non-reinforced hand-hole.

**Base**

- Pole base is ASTM-A36 hot-rolled steel plate with a minimum yield strength of 36,000 psi.
- Two-piece square base cover is optional.

**Anchor Bolts**

- Poles are furnished with anchor bolts featuring zinc-plated double nuts and washers. Galvanized anchor bolts are optional.
- Anchor Bolts conform to ASTM F 1554-07a Grade 55 with a minimum yield strength of 55,000 PSI.

**Ground Lug**

- Ground lug is standard.

**Duplex Receptacle**

- Weatherproof duplex receptacle is optional.

**Ground Fault Circuit Interrupter**

- Self-testing Ground fault circuit interrupter is optional.

**Finishes**

- Every pole is provided with the DuraGrip Protection System and a 5-year limited warranty:
- When the top-of-the line DuraGrip Plus Protection System is selected, in addition to the DuraGrip Protection System, a non-porous, automotive-grade corrosion coating is applied to the lower portion of the pole interior sealing and further protecting it from corrosion. This option extends the limited warranty to 7 years.

**Determining The Luminaire/Pole Combination For Your Application:**

- Select luminaire from luminaire ordering information.
- Select bracket configuration if required
- Determine EPA value from luminaire/ bracket EPA chart

- Select Pole Height

- Select MPH to match wind speed in the application area (See windspeed maps).
- Confirm pole EPA equal to or exceeding value of luminaire/bracket EPA
- Consult factory for special wind load requirements and banner brackets.

**Pole Vibration Damper**

- A pole vibration damper is recommended in open terrain areas of the country where low steady state winds are common.
- Non-tapered poles and lightly loaded poles are more susceptible to destructive vibration if a damper is not installed.

**Listings**

- UL Listed
- BAA/TAA Compliant





LUCAS FORD ASSOCIATES INC.

**Job Name:**Parker's Kitchen #124 Exterior Lighting  
Architect: Cuhaci & Peterson (Maitland)  
Engineer: Parker's Kitchen (Savannah)**Catalog Number:**

4SQB3 S11G 24 S BRZ

Notes:

**Type:****S2-D**

LFA-LUCAS323-17556

**Steel Poles Square Straight**

Type: \_\_\_\_\_

**Have questions?** Call us at (800) 436-7800**ORDERING GUIDE****TYPICAL ORDER EXAMPLE: 4SQ B3 S11G 24 S PLP DGP**

Pole Series	Mounting Method	Material	Height <sup>2</sup>	Mounting Configuration	Pole Finish	Options
<b>4SQ</b> - 4" x 4" Square Straight Pole (New Build)	<b>Bolt-On Mount<sup>1</sup></b> - See pole selection guide for patterns and fixture matches <b>B5</b> - 5" Traditional Drilling Pattern <b>B3</b> - 3" Reduced Drilling Pattern <b>B2</b> - 2" Reduced Drilling Pattern	<b>S11G</b> - 11 Ga. Steel (4SQ/4SQU and 5SQ/5SQU Only) <b>S07G</b> - 07 Ga. Steel	8'	<b>S</b> - Single/Parallel <b>D180</b> - Double <b>D90</b> - Double <b>DN90</b> - Double <b>T90</b> - Triple <b>TN120</b> - Triple <b>Q90</b> - Quad <b>QN90</b> - Quad	<b>BRZ</b> - Bronze <b>BLK</b> - Black <b>PLP</b> - Platinum Plus <b>WHT</b> - White <b>SVG</b> - Satin Verde Green <b>GPT</b> - Graphite <b>MSV</b> - Metallic Silver <b>BZA</b> - Alternate Bronze	<b>GA</b> - Galvanized Anchor Bolts <b>SF</b> - Single Flood <sup>3</sup> <b>DF</b> - Double Flood <sup>3</sup> <b>DGP</b> - DuraGrip <sup>1</sup> Plus <b>LAB</b> - Less Anchor Bolts <b>CRXX</b> - Conduit Raceway <sup>4</sup>
<b>5SQ</b> - 5" x 5" Square Straight Pole (New Build)						
<b>6SQ</b> - 6" x 6" Square Straight Pole (New Build)	<b>T</b> - Tenon Mount - See pole selection guide for tenon and fixture/bracket matches  <b>I</b> - No Mounting Holes <sup>1</sup>		12'	<b>N</b> - Tenon Mount (Standard Tenon size is 2-3/8" O.D.) <sup>8</sup> <b>(Blank)</b> - Use with I for Mounting Method		
<b>4SQU</b> - 4" x 4" Square Straight Pole (Retrofit)			13'			
<b>5SQU</b> - 5" x 5" Square Straight Pole (Retrofit)			14'			
<b>6SQU</b> - 6" x 6" Square Straight Pole (Retrofit)			15'			
			16'			
			17'			
			17'6"			
			18'			
			20'			
			22'			
			22'6"			
			23'			
	24'					
	25'					
	26'					
	27'					
	28'					
	30'					
	32'					
	35'					
	39'					

**Need more information?**[Click here for our glossary.](#)**Have additional questions?**

Call us at (800) 436-7800

**ACCESSORY ORDERING INFORMATION**

Part Number	Description
122559CLR	4BC - 4" Square Base Cover
122561CLR	5BC - 5" Square Base Cover
122563CLR	6BC - 6" Square Base Cover
132488CLR	5BC - 5" Square Universal Base Cover
131252CLR	6BC - 6" Square Universal Base Cover
122566CLR	ER2 - Weatherproof Duplex Receptacle
122567CLR	GFI - Ground Fault Circuit Interrupter
132336	MH5 - mounting Hole Plugs for use with 5" traditional drill pattern (3 set of 3 plugs)
681126	MH3 - mounting Hole Plugs for use with 3" reduced drill pattern (3 set of 3 plugs)
725841	MH2 - Mounting Hole Plugs for use with 2" reduced drill pattern (3 sets of 3 plugs)
172539	Vibration Damper - 4" Square Pole (bolt-on mount only)
172538	Vibration Damper - 5" Square Pole (bolt-on mount only)
178361	Vibration Damper - 6" Square Pole (bolt-on mount only)

1 - See Area Light Brackets - 3" Reduced Drill Pattern and Area Light Brackets - 5" Traditional Drill Pattern Spec Sheets.

2 - Pole heights will have +/- 1/2" tolerance.

3 - See Flood Lighting Brackets section for choice of FBO brackets.

4 - CR selection must indicate required height and side of pole mounting location. Mounting template required at time of order.



**Job Name:**Parker's Kitchen #124 Exterior Lighting  
Architect: Cuhaci & Peterson (Maitland)  
Engineer: Parker's Kitchen (Savannah)**Catalog Number:**

TMWP LED 4L UNV DIM 50 BZA

Notes:

**Type:****S3/WP/G**

LFA-LUCAS323-17556

Catalog #: \_\_\_\_\_ Project: \_\_\_\_\_ Type: \_\_\_\_\_  
Prepared By: \_\_\_\_\_ Date: \_\_\_\_\_

# Traditional Wall Light (TMWP)

## Medium

**OVERVIEW**

Lumen Package (lm)	4,000
Wattage Range (W)	38 - 78
Efficacy Range (LPW)	125 - 130
Weight lbs (kg)	6.6 (3.0)

**QUICK LINKS****FEATURES & SPECIFICATIONS****Construction**

- Rugged traditional aluminum die cast housing provides proven environmental protection for LED modules.
- Traditional fixture design provides a familiar look and standard installation requirements.
- Retaining this look allows the ability to upgrade fixtures gradually, while retaining the same overall fixture appearance throughout a facility.
- Patent pending thermal stacking technology system features a unique internal design that allows for lower operating temperatures which results in a brighter, whiter light, more stable color and longer LED and driver life.
- LEDs manufactured for the TMWP series utilize Epoxy Guard conformal coating which reduces the chance of board corrosion.

**Optical System**

- Tempered glass lens.
- Lens assembly is designed to provide high efficiency and to target the light where needed to satisfy outdoor lighting requirements.
- Positioning of the LEDs result in the light being directed to desired locations eliminating glare and offensive light.

- Available in 5000K, 4000K and 3000K color temperatures per ANSI C78.377.
- Minimum CRI of 80.

**Electrical**

- High-performance driver features overvoltage, under-voltage, short-circuit and over temperature protection.
- 0-10V dimming (10% - 100%) standard.
- Standard Universal Voltage (120-277 VAC) Input 50/60 Hz
- Total harmonic distortion: <20%
- Operating temperature: -40°C to +40°C (-40°F to +104°F).
- Power factor: >0.90
- Components are fully encased in potting material for moisture resistance. Driver complies with FCC standards. Driver and key electronic components can easily be accessed.
- Minimum 2.5kV surge rating.

**Controls**

- Optional factory installed electronic button photocontrol (apertures for field install).

**Installation**

- Fixture retains the same knock-out sizes and positions as previous models, reducing wiring costs.

**Warranty**

- LSI luminaires carry a 5-year limited warranty. Refer to <https://www.lsicorp.com/resources/terms-conditions-warranty/> for more information.
- 1 Year warranty on optional button photocell.
- 1 Year warranty on optional Battery Back Up. Test regularly in accordance with local codes.

**Listings**

- Listed to UL 1598 and UL 8750.
- CSA Listed.
- Meets Buy American Act requirements.
- RoHS Compliant.
- Suitable for wet locations





LUCAS FORD ASSOCIATES INC.

**Job Name:**Parker's Kitchen #124 Exterior Lighting  
Architect: Cuhaci & Peterson (Maitland)  
Engineer: Parker's Kitchen (Savannah)**Catalog Number:**

TMWP LED 4L UNV DIM 50 BZA

Notes:

**Type:****S3/WP/G**

LFA-LUCAS323-17556

**Traditional Wall Light (TMWP) Medium**

Type: \_\_\_\_\_

**Have questions?** Call us at (800) 436-7800**ORDERING GUIDE****TYPICAL ORDER EXAMPLE: TMWP 4L UNV 40 BZA PCI120**

Prefix	Lumen Package	Voltage	Dimming	Color Temperature	Finish	Controls
TMWP LED - Traditional Wall Light Medium	4L - 4,000	UNV - 120 - 277V	DIM - Dim to 10% (0-10V)	50 - 5000K 40 - 4000K 30 - 3000K	BZA - Bronze BLK - Black SLV - Silver WHT - White	PCI120 - 120V Button Photocell PCI208-277 - 208-277V Button Photocell

**Need more information?**[Click here for our glossary.](#)**Have additional questions?**

Call us at (800) 436-7800

**PERFORMANCE****Delivered Lumens<sup>7</sup>**

Lumen Package	CRI	3000K			4000K			5000K			Wattage
		Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	
4L	80	3913	125	B1-U3-G3	3913	125	B1-U3-G3	4044	130	B1-U3-G3	31

**Electrical Data - Current Draw AMPS<sup>8</sup>**

Lumen Package	120V	208V	240V	277V
4L	0.26	0.15	0.13	0.11

\*Electrical data at 25C (77F). Actual wattage may differ by +/-10%.

**Energy Savings**

LED		HID			Annual Savings
Wattage	Annual Cost	Source Wattage	Total Wattage Used	Annual Cost	
27	\$12	50	72	\$52	\$40
		70	90	\$59	\$47
		100	129	\$77	\$65





LUCAS FORD ASSOCIATES INC.

**Job Name:**

Parker's Kitchen #124 Exterior Lighting  
 Architect: Cuhaci & Peterson (Maitland)  
 Engineer: Parker's Kitchen (Savannah)

**Catalog Number:**

ARCH-118-LED-BW-MULTI

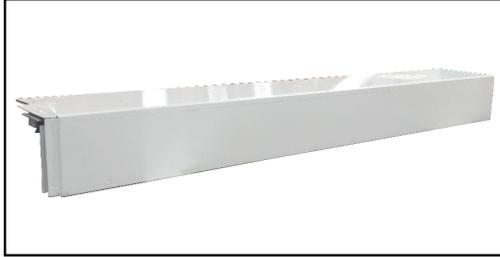
Notes:

**Type:**

**LO1**

LFA-LUCAS323-17556

**ARCHER LED CANOPY LIGHTING**



**APPLICATION** - A highly efficient and dramatic means of canopy illuminated, designed for seamless continuous row mounting on canopy fascia. This canopy system adds brilliant LED performance to new installations on new or existing canopy structures. Optimal performance can be achieved at a mounting height of 16 ft. above finished floor.

**LEDS** - High Lux LEDs that produce approximately 492.21 lumens at 5.91 watts per foot in True White (7000°K nominal) and Bright White (5000°K nominal) color temperature. Lumen output and wattage may vary depending upon run length, power supply and LED Kelvin temperature.

**OPTICS** - Custom optics for narrow beam.

**HOUSING** - Fabricated aluminum, pre-painted with several finish options.

**POWER SUPPLY** - 100-120V 47-63Hz input / 60W and 120W 12VDC output power supplies constant current and is potted for use in damp locations. Other input voltages and frequencies are available, please consult the factory for details.

**OPERATING TEMPERATURE** - -40°C to +50°C (-40°F to +122°F)

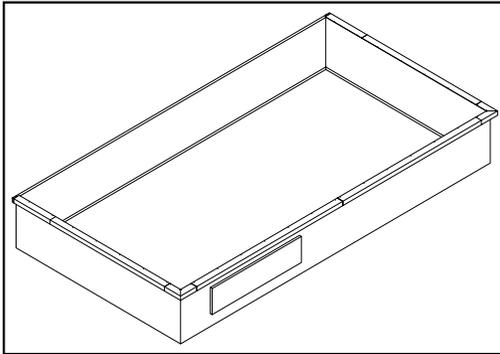
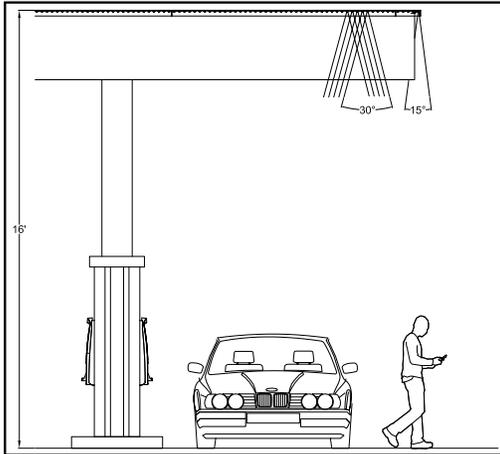
**INSTALLATION** - Installs in continuous row applications designed to illuminate canopy fascia.

**EXPECTED LIFE** - Minimum 60,000 hours to 100,000 hours depending upon the ambient temperature of the installation location. See LSI web site for specific guidance.

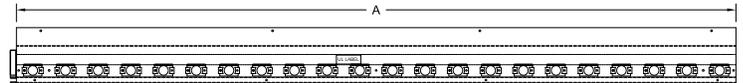
**WARRANTY** - Limited 5-year product / 5-year labor warranty.

**LISTING** - UL Listed Wet location, UL48 outline lighting for signage

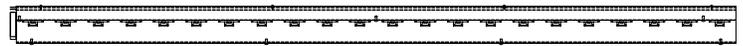
**PHOTOMETRICS** - Application layouts are available upon request. Contact LSI Applications Group at [lighting.apps@lsi-industries.com](mailto:lighting.apps@lsi-industries.com).



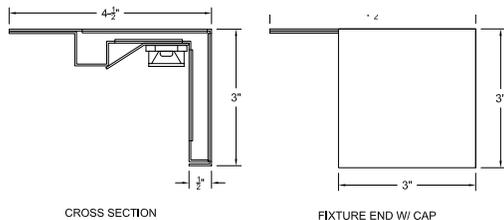
**DIMENSIONS**



PLAN VIEW



FRONT VIEW



CROSS SECTION

FIXTURE END W/ CAP

Description	Dim "A"
9' 8" housing	118"
4' 11" housing	59"
2' 5-1/2" housing	29.5"

Dimensions are for determining overall length of individual sections. Specify total linear run length per individual straight run to insure proper power supply requirements. Standard maximum length of a single unit is 118 inches. All other specified lengths are combinations of 118" and below.



Project Name \_\_\_\_\_ Fixture Type \_\_\_\_\_

Catalog # \_\_\_\_\_

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LUCAS FORD ASSOCIATES INC.

**Job Name:**

Parker's Kitchen #124 Exterior Lighting  
 Architect: Cuhaci & Peterson (Maitland)  
 Engineer: Parker's Kitchen (Savannah)

**Catalog Number:**

ARCH-118-LED-BW-MULTI

Notes:

**Type:**

**LO1**

LFA-LUCAS323-17556

**ARCHER LED CANOPY LIGHTING**

**FIXTURE ORDERING INFORMATION**

**TYPICAL ORDER EXAMPLE: ARCH 118 LED TW SVR MULTI**

Prefix	Section Length	Light Source	LED Color	Finish <sup>1</sup>	Input Voltage
ARCH	118 - 118 in	LED - Light Emitting Diode	TW - True White	WHT - White	MULTI - 90-244 <sup>2</sup>
	59 - 59 in		BW - Bright White	BLK - Black	
	29.5 - 29.5 in			SVR - Silver	
	CNR - 13.5 x 13.5 in			RED - Red	
				BLU - Blue	
				GRN - Green	

**NOTE:**

- 1 - Additional colors are available upon request, consult factory for details
- 2 - Consult factory for other input voltage options
- 3 - All end caps would be manufactured to match fixture finish
- 4 - Each 118" section requires (1) 60W power supply
- 5 - End caps come in sets, comprised of a left and right pieces, consult factory for individual piece needs.

**ACCESSORY ORDERING INFORMATION<sup>3</sup> (Accessories are field installed)**

Description	Part Number
60W Power Supply <sup>4</sup>	640933
120W Power Supply	640934
Square End Caps <sup>5</sup>	
Radius End Caps <sup>5</sup>	
Angled End Caps <sup>5</sup>	

**Square End Caps**

**Radius End Caps**

**Angled End Caps**



Project Name \_\_\_\_\_ Fixture Type \_\_\_\_\_

Catalog # \_\_\_\_\_

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LUCAS FORD ASSOCIATES INC.

**Job Name:**

Parker's Kitchen #124 Exterior Lighting  
 Architect: Cuhaci & Peterson (Maitland)  
 Engineer: Parker's Kitchen (Savannah)

**Catalog Number:**

ARCH-59-LED-BW-MULTI

Notes:

**Type:**

**LO3**

LFA-LUCAS323-17556

**ARCHER LED CANOPY LIGHTING**

**FIXTURE ORDERING INFORMATION**

**TYPICAL ORDER EXAMPLE: ARCH 118 LED TW SVR MULTI**

Prefix	Section Length	Light Source	LED Color	Finish <sup>1</sup>	Input Voltage
ARCH	118 - 118 in 59 - 59 in 29.5 - 29.5 in CNR - 13.5 x 13.5 in	LED - Light Emitting Diode	TW - True White BW - Bright White	WHT - White BLK - Black SVR - Silver RED - Red BLU - Blue GRN - Green	MULTI - 90-244 <sup>2</sup>

**NOTE:**

- 1 - Additional colors are available upon request, consult factory for details
- 2 - Consult factory for other input voltage options
- 3 - All end caps would be manufactured to match fixture finish
- 4 - Each 118" section requires (1) 60W power supply
- 5 - End caps come in sets, comprised of a left and right pieces, consult factory for individual piece needs.

**ACCESSORY ORDERING INFORMATION<sup>3</sup> (Accessories are field installed)**

Description	Part Number
60W Power Supply <sup>4</sup>	640933
120W Power Supply	640934
Square End Caps <sup>5</sup>	
Radius End Caps <sup>5</sup>	
Angled End Caps <sup>5</sup>	

**Square End Caps**

**Radius End Caps**

**Angled End Caps**



Project Name \_\_\_\_\_ Fixture Type \_\_\_\_\_

Catalog # \_\_\_\_\_



LUCAS FORD ASSOCIATES INC.

**Job Name:**

Parker's Kitchen #124 Exterior Lighting  
 Architect: Cuhaci & Peterson (Maitland)  
 Engineer: Parker's Kitchen (Savannah)

**Catalog Number:**

ARCH-118-LED-BW-MULTI

Notes:

**Type:**

**LO4**

LFA-LUCAS323-17556

**ARCHER LED CANOPY LIGHTING**

**FIXTURE ORDERING INFORMATION**

**TYPICAL ORDER EXAMPLE: ARCH 118 LED TW SVR MULTI**

Prefix	Section Length	Light Source	LED Color	Finish <sup>1</sup>	Input Voltage
ARCH	118 - 118 in	LED - Light Emitting Diode	TW - True White	WHT - White	MULTI - 90-244 <sup>2</sup>
	59 - 59 in		BW - Bright White	BLK - Black	
	29.5 - 29.5 in			SVR - Silver	
	CNR - 13.5 x 13.5 in			RED - Red	
				BLU - Blue	
				GRN - Green	

**NOTE:**

- 1 - Additional colors are available upon request, consult factory for details
- 2 - Consult factory for other input voltage options
- 3 - All end caps would be manufactured to match fixture finish
- 4 - Each 118" section requires (1) 60W power supply
- 5 - End caps come in sets, comprised of a left and right pieces, consult factory for individual piece needs.

**ACCESSORY ORDERING INFORMATION<sup>3</sup> (Accessories are field installed)**

Description	Part Number
60W Power Supply <sup>4</sup>	640933
120W Power Supply	640934
Square End Caps <sup>5</sup>	
Radius End Caps <sup>5</sup>	
Angled End Caps <sup>5</sup>	

**Square End Caps**

**Radius End Caps**

**Angled End Caps**



Project Name \_\_\_\_\_ Fixture Type \_\_\_\_\_

Catalog # \_\_\_\_\_



LUCAS FORD ASSOCIATES INC.

**Job Name:**Parker's Kitchen #124 Exterior Lighting  
Architect: Cuhaci & Peterson (Maitland)  
Engineer: Parker's Kitchen (Savannah)**Catalog Number:**SCV LED 23L SCFT UNV DIM 50  
WHT  
Notes:**Type:****A**

LFA-LUCAS323-17556



Catalog # : \_\_\_\_\_ Project : \_\_\_\_\_

Prepared By : \_\_\_\_\_ Date : \_\_\_\_\_

# Scottsdale Vertex™ (SCV)

## Petroleum Canopy LED Luminaire

**OVERVIEW**

Lumen Package	9,000 - 24,000
Wattage Range	66 - 192
Efficacy Range (LPW)	119 - 156
Weight lbs(kg)	15 (6.8)

**QUICK LINKS**[Ordering Guide](#)[Performance](#)[Photometrics](#)[Dimensions](#)**FEATURES & SPECIFICATIONS****Construction**

- Rugged low-profile die-cast aluminum housing, optical unit, and driver cover.
- Below canopy access to optical chamber and driver housing for serviceability.
- IP66 rated optical unit protects integral components from dust and water.
- Fixtures are finished with LSI's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling.
- A single fastener secures access door to driver and key components and provides quick & easy access to the electrical compartment for servicing.
- Shipping weight: 15 lbs in carton.

**Optical System**

- Proprietary silicone refractor optics provide exceptional coverage and uniformity in Symmetrical or Combination Forward Throw distributions.
- State-of-the-art silicone optics deliver industry leading optical control with an integrated gasket to provide an IP66 rated sealed optical chamber in one component.
- Silicone optical material does not yellow or crack with age and provides a minimum light transmittance of 93%.
- Available in 5000K and 4000K (+/- 275K) color temperatures.
- Minimum CRI of 70.

**Electrical**

- High-performance driver features over-voltage, under-voltage, short-circuit and over temperature protection.
- 0-10V dimming (10% - 100%) standard.
- Standard Universal Voltage (120-277 Vac) Input 50/60 Hz or optional High Voltage (347-480 Vac).
- L80 Calculated Life: >100k Hours (See Lumen Maintenance on Page 2)

- Total harmonic distortion: <20%
- Operating temperature: -40°C to +50°C (-40°F to +122°F) when mounted to Steel/ Aluminum surfaces for 10L, 13L, & 15L Lumen Packages, +45°C for 20L Lumen Package, and +40°C for 23L Lumen Package. If mounted to a non-metallic surface, reduce ambient by 5°C.
- Power factor: >0.90
- Field replaceable surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).
- High-efficacy LEDs are mounted to (4) circuit boards to maximize heat dissipation
- Driver components are fully encased in potting material for moisture resistance. Driver complies with FCC standards.

**Hazardous Location**

- Designed for lighter than air fuel applications. Product is suitable for Class 1 Division 2 with all lumen packages and distributions only when properly installed per LSI installation instructions. Models with optional controls are not approved for Class 1, Division 2 applications.
- T5 Temperature Classification** - The surface temperature of this product will not rise above 100°C., within a 40°C ambient.
- Gas Groups A,B,C, and D** - Group A: Acetylene / Group B: Hydrogen / Group C: Propane and Ethylene / Group D: Benzene, Butane, Methane & Propane.

**Installation**

- Installs in a 12" or 16" deck pan.
- Four fasteners are provided with the fixture for using deck, metallic canopy substrates only when classified as suitable for use by installing professional otherwise suitable fasteners should be provided by others.
- Unit is designed to quickly retrofit into existing Scottsdale (4") hole.

- Aluminum locking collar and gasket are included and required for complete seal and support of canopy deck.
- Retrofit panels are available for existing Encores, Richmond, 2x2 Universal, and more.

**Warranty**

- LSI LED Fixtures carry a 5-year warranty or 10-year warranty with registration for petroleum applications only (contact your LSI representative for details).

**Listings**

- Listed to UL 1598 and UL 8750.
- RoHS Compliant.
- Meets Buy American Act requirements.
- State of California Title 24 Compliant with IMSBT or ALSC/ALSCS option.
- IP66 Rated Optical Unit per IEC 60598.
- DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at [www.designlights.org/QPL](http://www.designlights.org/QPL) to confirm which versions are qualified.





LUCAS FORD ASSOCIATES INC.

**Job Name:**

Parker's Kitchen #124 Exterior Lighting  
 Architect: Cuhaci & Peterson (Maitland)  
 Engineer: Parker's Kitchen (Savannah)

**Catalog Number:**

SCV LED 23L SCFT UNV DIM 50  
 WHT  
 Notes:

**Type:**

**A**

LFA-LUCAS323-17556



**Scottsdale Vertex SCV Petroleum**

**ORDERING GUIDE**

[Back to Quick Links](#)

TYPICAL ORDER EXAMPLE: **SCV LED 13L SC UNV DIM 50 WHT IMSBT2**

Family / Size	LED Gen	Lumen Package	Distribution	Voltage	Driver	Color Temperature	Finish	Controls
SCV - Petroleum Canopy Luminaire	LED	10L - 10000 Lumens 13L - 13000 Lumens 15L - 15000 Lumens 20L - 20000 Lumens 23L - 23000 Lumens	SC - Standard Symmetric	UNV - 120-277V  HV - 347-480V	DIM - Dims to 10% (0 to 10V dimming)	40 - 4000K 50 - 5000K	WHT - White BLK - Black BRZ - Bronze	Blank - NONE ALSC - AirLink Synapse Wireless Control System <sup>1</sup> ALSCS - AirLink Synapse Wireless Control System with Sensor <sup>1</sup> ALBCS1 - AirLink Blue Wireless Motion & Photo Sensor Controller (8-24' mounting height) <sup>5</sup> ALBCS2 - AirLink Blue Wireless Motion & Photo Sensor Controller (25-40' mounting height) <sup>5</sup> IMSBT1 - Integral Bluetooth™ Motion and Photocell Sensor 8 - 24' mounting height <sup>2,5</sup> IMSBT2 - Integral Bluetooth™ Motion and Photocell Sensor 25 - 40' mounting height <sup>2,5</sup>
		23L - 23000 Lumens	SCFT - Combination Standard Symmetric and Forward Throw					

**Accessory Ordering Information**

Description	Part Number	Description	Part Number
Retrofit Panel Kit - EC / ECTA / SCF to SCV, for 16" Deck Panel with larger openings <sup>3</sup>	673425	26" X 32" Beauty Plate Kit (with 4" Center hole)	564160WHT
Retrofit Panel Kit - EC / ECTA / SCF to SCV, for 12" Deck Panel <sup>4</sup>	676011	Junction Box	687461
Retrofit Panel Kit - RECU Richmond to SCV	673426	Kit - Hole Plugs and Sealant (enough for 25 retrofits)	1320540
Retrofit Panel Kit - UNV Universal 2x2 to SCV	673427	Rectangular Top Plate Kit (includes top plate and sealant)	678291WHT
Retrofit 2x2 Cover Panel Blank (no holes)	357282	Surface Mount Box	673433
Retrofit RIC Cover Panel Blank (no holes)	354702	Retrofit Kit - CRU/CRUS to SCV	687462
26" X 26" Beauty Plate Kit (with 4" Center hole)	557193WHT	Retrofit Kit for SCM/SCV to upgrade SC/SCF/EC/ECTA White	74333

**FOOTNOTES:**

1 - Consult factory for HV with AirLink Synapse Wireless Control System.  
 2 - IMSBT is field configurable via the LSI app that can be downloaded from your smartphone's native app store.

3 - Ideal for 9" to 12" openings.  
 4 - Ideal for 9" openings.  
 5 - Not available in HV.

**PERFORMANCE**

[Back to Quick Links](#)

**DELIVERED LUMENS**

Drive Current	3000K CCT			4000K CCT			5000K CCT			Wattage
	Delivered Lumens	Efficiency	BUG Ratings	Delivered Lumens	Efficiency	BUG Ratings	Delivered Lumens	Efficiency	BUG Ratings	
10L	8723	132	B3-U0-G1	10218	156	B3-U0-G1	10306	156	B3-U0-G1	66
13L	10921	130	B3-U0-G1	12793	153	B3-U0-G1	12933	153	B3-U0-G1	84
15L	12984	125	B3-U0-G1	15209	150	B3-U0-G1	15411	150	B3-U0-G1	103
20L	17145	132	B3-U0-G1	20083	153	B4-U0-G2	20141	155	B4-U0-G2	130
23L	19338	126	B4-U0-G2	22652	149	B4-U0-G2	23150	152	B4-U0-G2	153
23L (SCFT)	22778	119	B3-U0-G3	24581	128	B4-U0-G3	24361	127	B3-U0-G3	192

\*LEDs are frequently updated therefore values are nominal.

**ELECTRICAL DATA\***

Lumen Level	120V	208V	240V	277V	347V	480V
10L	0.55	0.32	0.28	0.24	0.19	0.14
13L	0.70	0.41	0.35	0.30	0.24	0.18
15L	0.86	0.50	0.43	0.37	0.30	0.21
20L	1.09	0.63	0.54	0.47	0.38	0.27
23L (SC)	1.27	0.73	0.64	0.55	0.44	0.32
23L (SCFT)	1.60	0.92	0.80	0.69	0.55	0.40

\*Electrical data at 25°C (77°F)

**SC DISTRIBUTION RECOMMENDED LUMEN MAINTENANCE<sup>1</sup>**

Ambient Temperature C	Lumen Multiplier				
	0 hrs. <sup>2</sup>	25K hrs. <sup>2</sup>	50K hrs. <sup>2</sup>	75K hrs. <sup>2</sup>	100K hrs. <sup>2</sup>
25	1.00	0.96	0.92	0.88	0.84
30	1.00	0.96	0.91	0.87	0.83
35	1.00	0.96	0.91	0.87	0.83
40	1.00	0.96	0.91	0.87	0.83
45	1.00	0.96	0.91	0.87	0.82

**SCFT DISTRIBUTION RECOMMENDED LUMEN MAINTENANCE<sup>1</sup>**

Ambient Temperature C	Lumen Multiplier				
	0 hrs. <sup>2</sup>	25K hrs. <sup>2</sup>	50K hrs. <sup>2</sup>	75K hrs. <sup>2</sup>	100K hrs. <sup>2</sup>
25	1.00	1.00	1.00	0.99	0.99
30	1.00	1.00	0.99	0.99	0.99
35	1.00	1.00	0.99	0.99	0.99
40	1.00	1.00	0.99	0.99	0.99

- Lumen maintenance values at 25°C are calculated per TM-21 based on LM-80 data and in-situ luminaire testing.
- In accordance with IESNA TM-21-11, Projected Values represent interpolated value based on time durations that are within six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing ((DUT) i.e. the packaged LED chip).
- In accordance with IESNA TM-21-11, Calculated Values represent time durations that exceed six times NA LM-80-08 total test duration (in hours) for the device under testing ((DUT) i.e. the packaged LED chip).





LUCAS FORD ASSOCIATES INC.

**Job Name:**

Parker's Kitchen #124 Exterior Lighting  
 Architect: Cuhaci & Peterson (Maitland)  
 Engineer: Parker's Kitchen (Savannah)

**Catalog Number:**

SCV LED 15L SC UNV DIM 50 WHT

Notes:

**Type:**

**B**

LFA-LUCAS323-17556



**Scottsdale Vertex SCV Petroleum**

**ORDERING GUIDE**

[Back to Quick Links](#)

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Family / Size	LED Gen	Lumen Package	Distribution	Voltage	Driver	Color Temperature	Finish	Controls
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		23L - 23000 Lumens	SCFT - Combination Standard Symmetric and Forward Throw					

**Accessory Ordering Information**

Description	Part Number	Description	Part Number
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Retrofit 2x2 Cover Panel Blank (no holes)	357282	Surface Mount Box	673433
Retrofit RIC Cover Panel Blank (no holes)	354702	Retrofit Kit - CRU/CRUS to SCV	687462
26" X 26" Beauty Plate Kit (with 4" Center hole)	557193WHT	Retrofit Kit for SCM/SCV to upgrade SC/SCF/EC/ECTA White	74333

**FOOTNOTES:**

1 - Consult factory for HV with AirLink Synapse Wireless Control System.  
 2 - IMSBT is field configurable via the LSI app that can be downloaded from your smartphone's native app store.

3 - Ideal for 9" to 12" openings.  
 4 - Ideal for 9" openings.  
 5 - Not available in HV.

**PERFORMANCE**

[Back to Quick Links](#)

**DELIVERED LUMENS**

Drive Current	3000K CCT			4000K CCT			5000K CCT			Wattage
	Delivered Lumens	Efficiency	BUG Ratings	Delivered Lumens	Efficiency	BUG Ratings	Delivered Lumens	Efficiency	BUG Ratings	
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20L	17145	132	B3-U0-G1	20083	153	B4-U0-G2	20141	155	B4-U0-G2	130
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23L (SCFT)	22778	119	B3-U0-G3	24581	128	B4-U0-G3	24361	127	B3-U0-G3	192

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15L	0.86	0.50	0.43	0.37	0.30	0.21
20L	1.09	0.63	0.54	0.47	0.38	0.27
23L (SC)	1.27	0.73	0.64	0.55	0.44	0.32
23L (SCFT)	1.60	0.92	0.80	0.69	0.55	0.40

\*Electrical data at 25°C (77°F)

**SC DISTRIBUTION RECOMMENDED LUMEN MAINTENANCE<sup>1</sup>**

Ambient Temperature C	Lumen Multiplier				
	0 hrs. <sup>2</sup>	25K hrs. <sup>2</sup>	50K hrs. <sup>2</sup>	75K hrs. <sup>2</sup>	100K hrs. <sup>2</sup>
25	1.00	0.96	0.92	0.88	0.84
30	1.00	0.96	0.91	0.87	0.83
35	1.00	0.96	0.91	0.87	0.83
40	1.00	0.96	0.91	0.87	0.83
45	1.00	0.96	0.91	0.87	0.82

**SCFT DISTRIBUTION RECOMMENDED LUMEN MAINTENANCE<sup>1</sup>**

Ambient Temperature C	Lumen Multiplier				
	0 hrs. <sup>2</sup>	25K hrs. <sup>2</sup>	50K hrs. <sup>2</sup>	75K hrs. <sup>2</sup>	100K hrs. <sup>2</sup>
25	1.00	1.00	1.00	0.99	0.99
30	1.00	1.00	0.99	0.99	0.99
35	1.00	1.00	0.99	0.99	0.99
40	1.00	1.00	0.99	0.99	0.99

- Lumen maintenance values at 25°C are calculated per TM-21 based on LM-80 data and in-situ luminaire testing.
- In accordance with IESNA TM-21-11, Projected Values represent interpolated value based on time durations that are within six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing ((DUT) i.e. the packaged LED chip).
- In accordance with IESNA TM-21-11, Calculated Values represent time durations that exceed six times NA LM-80-08 total test duration (in hours) for the device under testing ((DUT) i.e. the packaged LED chip).



DATE: \_\_\_\_\_ TYPE: \_\_\_\_\_

NAME: \_\_\_\_\_

PROJECT: \_\_\_\_\_

Incandescent

# P550004-020

## Gibbes Street

Elongated frames capture the romantic charm of vintage gas lanterns. Inspired by a stroll down a Charlestonian street bearing the same name, the Gibbes Street outdoor lantern collection features clear beveled glass and an Antique Bronze finish. Wall, post and hanging lanterns complete the family.

- Antique Bronze finish
- Elongated frame
- Captures the romantic charm of a vintage gas lantern
- Clear beveled glass

**Category:** Outdoor

**Finish:** Antique Bronze (painted)

**Construction:** Aluminum construction

**Glass/Shade:** Clear beveled glass panels



**Diameter:** 9-1/2"

**Height:** 23-3/4"

**Overall Ht. W/Chain:** 99"

MOUNTING	ELECTRICAL	LAMPING	ADDITIONAL INFORMATION
Ceiling mounted Mounting strap for outlet box included Six feet of 9 gauge chain supplied Canopy covers a standard 4" hexagonal recessed outlet box 5" W., 0.875" depth	Pre-wired 10 feet of wire supplied 120 V	Quantity: Three 60w max. Candelabra Base E12 base phenolic socket	cULus Damp location listed 1 year warranty

DATE: \_\_\_\_\_ TYPE: \_\_\_\_\_

NAME: \_\_\_\_\_

PROJECT: \_\_\_\_\_



Incandescent

# P560023-020

## Gibbes Street

Elongated frames capture the romantic charm of vintage gas lanterns. Inspired by a stroll down a Charlestonian street bearing the same name, the Gibbes Street outdoor lantern collection features clear beveled glass and an Antique Bronze finish. Wall, post and hanging lanterns complete the family.

Width: 9-1/2"  
Height: 30-5/8"  
Depth: 11-1/4"  
H/CTR: 10-3/4" (facing up)

- Antique Bronze finish
- Elongated frame
- Captures the romantic charm of a vintage gas lantern
- Clear beveled glass

**Category:** Outdoor

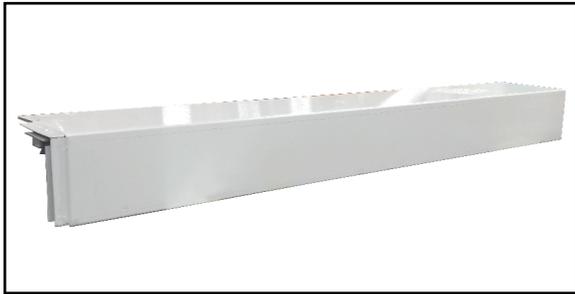
**Finish:** Antique Bronze (painted)

**Construction:** Aluminum construction

**Glass/Shade:** Clear beveled glass panels

MOUNTING	ELECTRICAL	LAMPING	ADDITIONAL INFORMATION
Wall mounted  Mounting strap for outlet box included  Backplate covers a standard 4" hexagonal recessed outlet box  4.5" W., 12" ht., 1" depth	Pre-wired  6" of wire supplied  120 V	Quantity:  Three 60w max. Candelabra Base  E12 base phenolic socket	cCSAus Wet location listed  1 year warranty

# ARCHER LED CANOPY LIGHTING



**APPLICATION** - A highly efficient and dramatic means of canopy illuminated, designed for seamless continuous row mounting on canopy fascia. This canopy system adds brilliant LED performance to new installations on new or existing canopy structures. Optimal performance can be achieved at a mounting height of 16 ft. above finished floor.

**LEDS** - High Lux LEDs that produce approximately 492.21 lumens at 5.91 watts per foot in True White (7000°K nominal) and Bright White (5000°K nominal) color temperature. Lumen output and wattage may vary depending upon run length, power supply and LED Kelvin temperature.

**OPTICS** - Custom optics for narrow beam.

**HOUSING** - Fabricated aluminum, pre-painted with several finish options.

**POWER SUPPLY** - 100-120V 47-63Hz input / 60W and 120W 12VDC output power supplies constant current and is potted for use in damp locations. Other input voltages and frequencies are available, please consult the factory for details.

**OPERATING TEMPERATURE** - -40°C to +50°C (-40°F to +122°F)

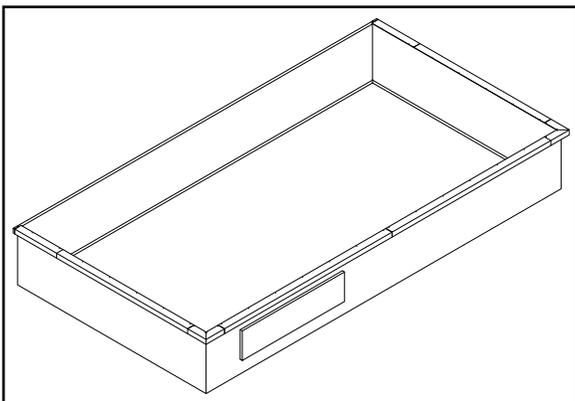
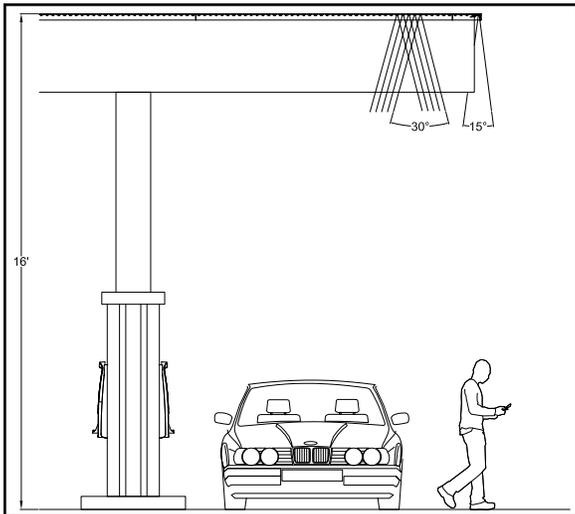
**INSTALLATION** - Installs in continuous row applications designed to illuminate canopy fascia.

**EXPECTED LIFE** - Minimum 60,000 hours to 100,000 hours depending upon the ambient temperature of the installation location. See LSI web site for specific guidance.

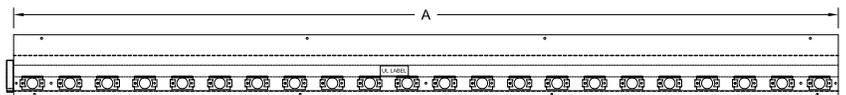
**WARRANTY** - Limited 5-year product / 5-year labor warranty.

**LISTING** - UL Listed Wet location, UL48 outline lighting for signage

**PHOTOMETRICS** - Application layouts are available upon request. Contact LSI Applications Group at [lighting.apps@lsi-industries.com](mailto:lighting.apps@lsi-industries.com).



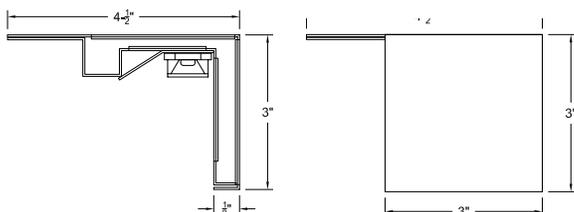
## DIMENSIONS



PLAN VIEW



FRONT VIEW



CROSS SECTION

FIXTURE END W/ CAP

Description	Dim "A"
9' 8" housing	118"
4' 11" housing	59"
2' 5-1/2" housing	29.5"

Dimensions are for determining overall length of individual sections. Specify total linear run length per individual straight run to insure proper power supply requirements. Standard maximum length of a single unit is 118 inches. All other specified lengths are combinations of 118" and below.



Project Name \_\_\_\_\_ Fixture Type \_\_\_\_\_

Catalog # \_\_\_\_\_

# ARCHER LED CANOPY LIGHTING

## FIXTURE ORDERING INFORMATION

TYPICAL ORDER EXAMPLE: **ARCH 118 LED TW SVR MULTI**

Prefix	Section Length	Light Source	LED Color	Finish <sup>1</sup>	Input Voltage
ARCH	118 - 118 in 59 - 59 in 29.5 - 29.5 in CNR - 13.5 x 13.5 in	LED - Light Emitting Diode	TW - True White BW - Bright White	WHT - White BLK - Black SVR - Silver RED - Red BLU - Blue GRN - Green	MULTI - 90-244 <sup>2</sup>

**NOTE:**

- 1 - Additional colors are available upon request, consult factory for details
- 2 - Consult factory for other input voltage options
- 3 - All end caps would be manufactured to match fixture finish
- 4 - Each 118" section requires (1) 60W power supply
- 5 - End caps come in sets, comprised of a left and right pieces, consult factory for individual piece needs.

ACCESSORY ORDERING INFORMATION <sup>3</sup>	(Accessories are field installed)
Description	Part Number
60W Power Supply <sup>4</sup>	640933
120W Power Supply	640934
Square End Caps <sup>5</sup>	
Radius End Caps <sup>5</sup>	
Angled End Caps <sup>5</sup>	

**Square End Caps**

**Radius End Caps**

**Angled End Caps**



Project Name \_\_\_\_\_ Fixture Type \_\_\_\_\_

Catalog # \_\_\_\_\_



GENERAL NOTES

- A. DESIGN DATA PROVIDED IN ELECTRONIC FORMAT IS FOR INFORMATION PURPOSES ONLY AND SHOULD BE USED AT YOUR OWN RISK... B. UTILITIES: THERE MAY BE ADDITIONAL EXISTING UTILITIES NOT SHOWN ON THESE PLANS... C. TEMPORARY PROVISIONS: SEQUENCE THE WORK AND PROVIDE TEMPORARY MEASURES AS NEEDED TO MAINTAIN ACCESS TO THE SITE... D. EQUIPMENT STORAGE: DO NOT PARK EQUIPMENT OR STORE MATERIALS IN STATE, COUNTY, OR CITY RIGHT-OF-WAY... E. NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BETWEEN THE EXISTING CONDITIONS IN THE FIELD AND THE SURVEY SHOWN ON THE PLANS BEFORE PROCEEDING WITH ANY NEW CONSTRUCTION... F. OBTAIN ALL REQUIRED CONSTRUCTION RELATED PERMITS, INCLUDING DEMOLITION PERMIT, BEFORE STARTING WORK... G. APPROVAL OF THESE PLANS DOES NOT CONSTITUTE APPROVAL OF ANY LAND DISTURBING ACTIVITIES WITHIN WETLAND AREAS... H. SIGNS (LOCATION, NUMBER, AND SIZE) ARE NOT APPROVED UNDER THE GENERAL DEVELOPMENT PERMIT... I. NO CERTIFICATE OF OCCUPANCY WILL BE ISSUED UNTIL ALL SITE IMPROVEMENTS HAVE BEEN COMPLETED ON THE SITE... J. COMPLY WITH ALL APPLICABLE STATE, FEDERAL, AND LOCAL BUILDING AND UTILITY INSTALLATION CODES... K. DO NOT DEVIATE FROM THESE PLANS AND SPECIFICATIONS WITHOUT PRIOR WRITTEN APPROVAL FROM THE ENGINEER OF RECORD... L. WORK WITHIN D.O.T. RIGHT-OF-WAY... M. ARRANGE HIGH INTENSITY LIGHTING TO CONCEAL THE SOURCE OF LIGHT FROM PUBLIC VIEW AND PREVENT INTERFERENCE WITH TRAFFIC... N. ENSURE CORRECT HORIZONTAL AND VERTICAL ALIGNMENT OF ALL TIES BETWEEN PROPOSED AND EXISTING PAVEMENTS, CURB AND GUTTER, SIDEWALKS, WALLS, AND UTILITIES BEFORE BEGINNING WORK...

- M. ARRANGE HIGH INTENSITY LIGHTING TO CONCEAL THE SOURCE OF LIGHT FROM PUBLIC VIEW AND PREVENT INTERFERENCE WITH TRAFFIC... N. ENSURE CORRECT HORIZONTAL AND VERTICAL ALIGNMENT OF ALL TIES BETWEEN PROPOSED AND EXISTING PAVEMENTS, CURB AND GUTTER, SIDEWALKS, WALLS, AND UTILITIES BEFORE BEGINNING WORK... NOTIFY ENGINEER IF DISCREPANCIES EXIST.

TRAFFIC CONTROL

- A. IF DRAWINGS DO NOT INDICATE SITE SPECIFIC TRAFFIC CONTROL MEASURES, CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A TEMPORARY TRAFFIC CONTROL PLAN IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION... B. ALL TEMPORARY TRAFFIC CONTROL SIGNAGE AND MARKINGS SHALL BE INSTALLED PRIOR TO CONSTRUCTION AND MAINTAINED DURING CONSTRUCTION IN ACCORDANCE WITH THE MUTCD, LATEST EDITION... C. CONTACT PROPERTY OWNERS TO BE AFFECTED BY CONSTRUCTION AND COORDINATE TEMPORARY DRIVEWAY CLOSURES AND SEQUENCING... D. CONTROL DUST AS NECESSARY TO PREVENT INTERFERENCE WITH TRAFFIC... E. INSPECT TRAFFIC CONTROL DEVICES ON A DAILY BASIS TO ENSURE PLACEMENT OF BARRICADES AND FUNCTION OF LIGHTS IS MAINTAINED THROUGHOUT CONSTRUCTION... F. COORDINATE ALL LANE CLOSURES WITH THE LOCAL JURISDICTION HAVING AUTHORITY.

STRUCTURE & SITE DEMOLITION

- A. VERIFY THAT UTILITIES HAVE BEEN DISCONNECTED AND CAPPED BEFORE STARTING DEMOLITION OPERATIONS... B. VERIFY THAT HAZARDOUS MATERIALS HAVE BEEN REMEDIATED BEFORE PROCEEDING WITH BUILDING DEMOLITION OPERATIONS... C. ENVIRONMENTAL & GEOTECHNICAL: REVIEW ALL PROJECT ENVIRONMENTAL AND GEOTECHNICAL REPORTS... D. EXISTING UTILITIES: LOCATE, IDENTIFY, DISCONNECT, AND SEAL OR CAP OFF INDICATED UTILITIES SERVING BUILDINGS AND STRUCTURES TO BE DEMOLISHED... E. EXISTING UTILITIES: MAINTAIN UTILITY SERVICES TO REMAIN AND PROTECT FROM DAMAGE DURING DEMOLITION OPERATIONS... F. TEMPORARY PROTECTION: ERECT TEMPORARY PROTECTION, SUCH AS WALKS, FENCES, RAILINGS, CANOPIES, AND COVERED PASSAGEWAYS... G. REMOVE TEMPORARY BARRIERS AND PROTECTIONS WHERE HAZARDS NO LONGER EXIST... H. REMOVE DEMOLITION WASTE MATERIALS FROM PROJECT SITE AND LEGALLY DISPOSE OF THEM IN AN EPA-APPROVED LANDFILL... I. CLEAN ADJACENT STRUCTURES AND IMPROVEMENTS OF DUST, DIRT, AND DEBRIS CAUSED BY BUILDING DEMOLITION OPERATIONS...

SITE CLEARING

- 1.) PROJECT CONDITIONS
A. TRAFFIC: MINIMIZE INTERFERENCE WITH ADJOINING ROADS, STREETS, WALKS, AND OTHER ADJACENT OCCUPIED OR USED FACILITIES DURING SITE-CLEARING OPERATIONS...
B. ENVIRONMENTAL & GEOTECHNICAL: REVIEW ALL PROJECT ENVIRONMENTAL AND GEOTECHNICAL REPORTS...
C. UTILITY LOCATOR SERVICE: NOTIFY UTILITY LOCATOR SERVICE FOR AREA WHERE PROJECT IS LOCATED BEFORE SITE CLEARING...
2.) TEMPORARY EROSION AND SEDIMENTATION CONTROL
A. PROVIDE TEMPORARY EROSION- AND SEDIMENTATION-CONTROL MEASURES TO PREVENT SOIL EROSION AND DISCHARGE OF SOIL-BEARING WATER RUNOFF...
B. VERIFY THAT FLOWS OF WATER REDIRECTED FROM CONSTRUCTION AREAS OR GENERATED BY CONSTRUCTION ACTIVITY DO NOT ENTER OR CROSS PROTECTION ZONES...
C. INSPECT, MAINTAIN, AND REPAIR EROSION- AND SEDIMENTATION-CONTROL MEASURES DURING CONSTRUCTION UNTIL PERMANENT VEGETATION HAS BEEN ESTABLISHED...
3.) TREE AND PLANT PROTECTION
A. REPAIR OR REPLACE TREES, SHRUBS, AND OTHER VEGETATION INDICATED TO REMAIN OR BE RELOCATED...
4.) EXISTING UTILITIES
A. LOCATE, IDENTIFY, DISCONNECT, AND SEAL OR CAP UTILITIES INDICATED TO BE REMOVED OR ABANDONED...
B. INTERRUPTING EXISTING UTILITIES: DO NOT INTERRUPT UTILITIES SERVING FACILITIES OCCUPIED BY OWNER OR OTHERS...
C. CLEARING AND GRUBBING
A. REMOVE OBSTRUCTIONS, CONCRETE, ASPHALT, TREES, SHRUBS, AND OTHER VEGETATION TO PERMIT INSTALLATION OF NEW CONSTRUCTION...
1. DO NOT REMOVE TREES, SHRUBS, AND OTHER VEGETATION INDICATED TO REMAIN OR TO BE RELOCATED...
2. GRIND DOWN STUMPS AND REMOVE ROOTS, OBSTRUCTIONS, AND DEBRIS TO A DEPTH OF 12 INCHES BELOW EXPOSED SUBGRADE...
3. USE ONLY HAND METHODS FOR GRUBBING WITHIN PROTECTION ZONES...
4. THE SUBGRADE TO REMAIN SHALL BE COMPACTED TO 95% STANDARD PROCTOR MAXIMUM DRY DENSITY FOLLOWING CLEARING AND GRUBBING ACTIVITIES...
5.) TOPSOIL STRIPPING
A. REMOVE SOIL AND GRASS BEFORE STRIPPING TOPSOIL...
B. STRIP TOPSOIL IN A MANNER TO PREVENT INTERMINGLING WITH UNDERLYING SUBSOIL OR OTHER WASTE MATERIALS...
C. STOCKPILE TOPSOIL AWAY FROM EDGE OF EXCAVATIONS WITHOUT INTERMIXING WITH SUBSOIL GRADE AND SHAPE STOCKPILES TO DRAIN SURFACE WATER...
D. DISPOSE OF SURPLUS TOPSOIL, SURPLUS TOPSOIL IS THAT WHICH EXCEEDS QUANTITY INDICATED TO BE STOCKPILED OR REUSED.

- 1. NOTIFY UTILITY OWNER NOT LESS THAN TWO DAYS IN ADVANCE OF PROPOSED UTILITY INTERRUPTIONS...
2. DO NOT PROCEED WITH UTILITY INTERRUPTIONS WITHOUT UTILITY OWNER'S WRITTEN PERMISSION...
3. POT-HOLE EXISTING WATER LINES, UNDERGROUND ELECTRICAL LINES, GAS LINES, UNDERGROUND TELEPHONE LINES, FIBER OPTIC, AND ANY OTHER EXISTING UTILITY LINES WITHIN THE PROJECT LIMITS DURING SITE CLEARING AND DEMOLITION ACTIVITIES...
4. INTERIOR COATING: COMPLYING WITH AWWA C550...
5.) GATE VALVES
A. CAST-IRON GATE VALVES: NONRISING-STEM, RESILIENT-SEATED GATE VALVES...
B. DUCTILE-IRON BODY AND BONNET, WITH BRONZE OR GRAY OR DUCTILE-IRON GATE, RESILIENT SEATS, BRONZE STEM, AND STEM NUT...
1. STANDARD: AWWA C558...
2. MINIMUM PRESSURE RATING: 250 PSIG...
3. END CONNECTIONS: MECHANICAL JOINT...
4. INTERIOR COATING: COMPLYING WITH AWWA C550...
6.) TAPPING-SLEEVE ASSEMBLIES: SLEEVE AND VALVE COMPATIBLE WITH DRILLING MACHINE...
1. STANDARD: MSS SP-60...
2. TAPPING SLEEVE: CAST-IRON OR DUCTILE-IRON OR STAINLESS-STEEL...
3. SLEEVE WITH FLANGED OUTLET FOR NEW BRANCH CONNECTION...
4. MATCHING SIZE AND TYPE OF PIPE MATERIAL BEING TAPPED AND WITH RECESSED FLANGE FOR BRANCH VALVE...
5. VALVE: AWWA CAST-IRON, NONRISING-STEM, RESILIENT-SEATED GATE VALVE WITH ONE RAISED FLANGE FLANGE MATING TAPPING-SLEEVE FLANGE...
6. VALVE BOXES: COMPLY WITH AWWA M44 FOR CAST-IRON VALVE BOXES...
7. ADJUSTABLE EXTENSION OF LENGTH REQUIRED FOR DEPTH OF BURIAL OF VALVE, PLUS WITH LETTERING "WATER" AND BOTTOM SECTION WITH BASE THAT FITS OVER VALVE AND WITH A BARREL APPROXIMATELY 5 INCHES IN DIAMETER...
7.) BACKFLOW PREVENTERS
A. DOUBLE-CHECK DETECTOR-ASSEMBLY BACKFLOW PREVENTERS...
1. STANDARDS: ASSE 1048 AND UL LISTED OR FMG APPROVED...
2. OPERATION: CONTINUOUS-PRESSURE APPLICATIONS...
3. PRESSURE LOSS: 5 PSIG MAXIMUM, THROUGH MIDDLE 1/3 OF FLOW RANGE...
4. BODY: CAST IRON WITH INTERIOR LINING COMPLYING WITH AWWA C550 OR THAT IS FDA APPROVED...
5. END CONNECTIONS: FLANGED...
6. CONFIGURATION: DESIGNED FOR HORIZONTAL, STRAIGHT FLOW...
8.) WATER METER BOXES
A. DESCRIPTION: CAST-IRON BODY AND COVER FOR DISC-TYPE WATER METER...
1. LADDER: ASTM A 36/A 286, STEEL OR POLYETHYLENE-ENCASED STEEL STEPS...
2. MANHOLE: ASTM A 48/A 48M CLASS NO. 35A MINIMUM TENSILE STRENGTH, GRAY-IRON TRAFFIC FRAME AND COVER...
3. DIMENSION: 24-INCH MINIMUM DIAMETER, UNLESS OTHERWISE INDICATED...
4. DRAIN: ASME A112.8.3, CAST-IRON FLOOR DRAIN WITH OUTLET OF SIZE INDICATED...
5. BODY ANCHOR FLANGE, LIGHT-DUTY CAST-IRON GRATE, BOTTOM OUTLET, AND INTEGRAL OR FLANGE-INSTALLED BRONZE BALL OR CLAPPER-TYPE BACKWATER VALVE...
10.) FIRE HYDRANTS
A. DRY-BARREL FIRE HYDRANTS: FREESTANDING, WITH ONE NPS 4-1/2 AND TWO NPS 2-1/2 OUTLETS, 5-1/4-INCH MAIN VALVE, DRAIN VALVE, AND NPS 6 MECHANICAL-JOINT INLET...
1. STANDARD: AWWA C502...
2. PRESSURE RATING: 250 PSIG...
11.) FIRE DEPARTMENT CONNECTIONS
A. FIRE DEPARTMENT CONNECTIONS: FREESTANDING, WITH CAST-BRONZE BODY, THREAD INLETS ACCORDING TO NFPA 1963 AND MATCHING LOCAL FIRE DEPARTMENT HOSE THREADS...
1. DIMENSION: 24-INCH MINIMUM DIAMETER, UNLESS OTHERWISE INDICATED...
2. DRAIN: ASME A112.8.3, CAST-IRON FLOOR DRAIN WITH OUTLET OF SIZE INDICATED...
3. BODY ANCHOR FLANGE, LIGHT-DUTY CAST-IRON GRATE, BOTTOM OUTLET, AND INTEGRAL OR FLANGE-INSTALLED BRONZE BALL OR CLAPPER-TYPE BACKWATER VALVE...
12.) VALVE APPLICATIONS
A. DRAWINGS INDICATE VALVE TYPES TO BE USED WHERE SPECIFIC VALVE TYPES ARE NOT INDICATED...
1. UNDERGROUND VALVES: NPS 3 AND LARGER: AWWA, CAST-IRON, NONRISING-STEM, RESILIENT-SEATED GATE VALVES WITH VALVE BOX...
2. USE THE FOLLOWING FOR VALVES IN VAULTS AND ABOVEGROUND:
a. GATE VALVES, NPS 2 AND SMALLER: BRONZE, NONRISING STEM...
b. GATE VALVES, NPS 3 AND LARGER: AWWA, CAST IRON, OS&Y RISING STEM, RESILIENT SEATED...
c. CHECK VALVES: AWWA C508, SWING TYPE...
13.) FIELD QUALITY CONTROL
A. PIPING TESTS: CONDUCT PIPING TESTS BEFORE JOINTS ARE COVERED AND AFTER CONCRETE THRUST BLOCKS HAVE HARDENED SUFFICIENTLY...
B. HYDROSTATIC TESTS: TEST AT NOT LESS THAN ONE-AND-ONE-HALF TIMES WORKING PRESSURE FOR TWO HOURS...
C. DISINFECTIOIN: CLEAN AND DISINFECT POTABLE WATER MAINS AS DIRECTED BY THE LOCAL AUTHORITY...
D. PREPARE REPORTS OF TESTING ACTIVITIES AND SUBMIT TO THE ENGINEER FOR APPROVAL...
14.) IDENTIFICATION
A. INSTALL CONTINUOUS UNDERGROUND DETECTABLE WARNING TAPE DURING BACKFILLING OF TRENCH FOR UNDERGROUND WATER-DISTRIBUTION PIPING...
1. STANDARD: MSS SP-48...
2. MATERIAL: ASTM A 536, GRADE 60-40-18 DUCTILE IRON UNLESS OTHERWISE INDICATED...
3. END CONNECTIONS: MECHANICAL JOINT...
4. INTERIOR COATING: COMPLYING WITH AWWA C550...
5. END CONNECTIONS: FLANGED...
6. CONFIGURATION: DESIGNED FOR HORIZONTAL, STRAIGHT FLOW...
8.) WATER METER BOXES
A. DESCRIPTION: CAST-IRON BODY AND COVER FOR DISC-TYPE WATER METER...
1. LADDER: ASTM A 36/A 286, STEEL OR POLYETHYLENE-ENCASED STEEL STEPS...
2. MANHOLE: ASTM A 48/A 48M CLASS NO. 35A MINIMUM TENSILE STRENGTH, GRAY-IRON TRAFFIC FRAME AND COVER...
3. DIMENSION: 24-INCH MINIMUM DIAMETER, UNLESS OTHERWISE INDICATED...
4. DRAIN: ASME A112.8.3, CAST-IRON FLOOR DRAIN WITH OUTLET OF SIZE INDICATED...
5. BODY ANCHOR FLANGE, LIGHT-DUTY CAST-IRON GRATE, BOTTOM OUTLET, AND INTEGRAL OR FLANGE-INSTALLED BRONZE BALL OR CLAPPER-TYPE BACKWATER VALVE...
10.) FIRE HYDRANTS
A. DRY-BARREL FIRE HYDRANTS: FREESTANDING, WITH ONE NPS 4-1/2 AND TWO NPS 2-1/2 OUTLETS, 5-1/4-INCH MAIN VALVE, DRAIN VALVE, AND NPS 6 MECHANICAL-JOINT INLET...
1. STANDARD: AWWA C502...
2. PRESSURE RATING: 250 PSIG...
11.) FIRE DEPARTMENT CONNECTIONS
A. FIRE DEPARTMENT CONNECTIONS: FREESTANDING, WITH CAST-BRONZE BODY, THREAD INLETS ACCORDING TO NFPA 1963 AND MATCHING LOCAL FIRE DEPARTMENT HOSE THREADS...
1. DIMENSION: 24-INCH MINIMUM DIAMETER, UNLESS OTHERWISE INDICATED...
2. DRAIN: ASME A112.8.3, CAST-IRON FLOOR DRAIN WITH OUTLET OF SIZE INDICATED...
3. BODY ANCHOR FLANGE, LIGHT-DUTY CAST-IRON GRATE, BOTTOM OUTLET, AND INTEGRAL OR FLANGE-INSTALLED BRONZE BALL OR CLAPPER-TYPE BACKWATER VALVE...
12.) VALVE APPLICATIONS
A. DRAWINGS INDICATE VALVE TYPES TO BE USED WHERE SPECIFIC VALVE TYPES ARE NOT INDICATED...
1. UNDERGROUND VALVES: NPS 3 AND LARGER: AWWA, CAST-IRON, NONRISING-STEM, RESILIENT-SEATED GATE VALVES WITH VALVE BOX...
2. USE THE FOLLOWING FOR VALVES IN VAULTS AND ABOVEGROUND:
a. GATE VALVES, NPS 2 AND SMALLER: BRONZE, NONRISING STEM...
b. GATE VALVES, NPS 3 AND LARGER: AWWA, CAST IRON, OS&Y RISING STEM, RESILIENT SEATED...
c. CHECK VALVES: AWWA C508, SWING TYPE...
13.) FIELD QUALITY CONTROL
A. PIPING TESTS: CONDUCT PIPING TESTS BEFORE JOINTS ARE COVERED AND AFTER CONCRETE THRUST BLOCKS HAVE HARDENED SUFFICIENTLY...
B. HYDROSTATIC TESTS: TEST AT NOT LESS THAN ONE-AND-ONE-HALF TIMES WORKING PRESSURE FOR TWO HOURS...
C. DISINFECTIOIN: CLEAN AND DISINFECT POTABLE WATER MAINS AS DIRECTED BY THE LOCAL AUTHORITY...
D. PREPARE REPORTS OF TESTING ACTIVITIES AND SUBMIT TO THE ENGINEER FOR APPROVAL...
14.) IDENTIFICATION
A. INSTALL CONTINUOUS UNDERGROUND DETECTABLE WARNING TAPE DURING BACKFILLING OF TRENCH FOR UNDERGROUND WATER-DISTRIBUTION PIPING...
1. STANDARD: MSS SP-48...
2. MATERIAL: ASTM A 536, GRADE 60-40-18 DUCTILE IRON UNLESS OTHERWISE INDICATED...
3. END CONNECTIONS: MECHANICAL JOINT...
4. INTERIOR COATING: COMPLYING WITH AWWA C550...
5. END CONNECTIONS: FLANGED...
6. CONFIGURATION: DESIGNED FOR HORIZONTAL, STRAIGHT FLOW...
8.) WATER METER BOXES
A. DESCRIPTION: CAST-IRON BODY AND COVER FOR DISC-TYPE WATER METER...
1. LADDER: ASTM A 36/A 286, STEEL OR POLYETHYLENE-ENCASED STEEL STEPS...
2. MANHOLE: ASTM A 48/A 48M CLASS NO. 35A MINIMUM TENSILE STRENGTH, GRAY-IRON TRAFFIC FRAME AND COVER...
3. DIMENSION: 24-INCH MINIMUM DIAMETER, UNLESS OTHERWISE INDICATED...
4. DRAIN: ASME A112.8.3, CAST-IRON FLOOR DRAIN WITH OUTLET OF SIZE INDICATED...
5. BODY ANCHOR FLANGE, LIGHT-DUTY CAST-IRON GRATE, BOTTOM OUTLET, AND INTEGRAL OR FLANGE-INSTALLED BRONZE BALL OR CLAPPER-TYPE BACKWATER VALVE...
10.) FIRE HYDRANTS
A. DRY-BARREL FIRE HYDRANTS: FREESTANDING, WITH ONE NPS 4-1/2 AND TWO NPS 2-1/2 OUTLETS, 5-1/4-INCH MAIN VALVE, DRAIN VALVE, AND NPS 6 MECHANICAL-JOINT INLET...
1. STANDARD: AWWA C502...
2. PRESSURE RATING: 250 PSIG...
11.) FIRE DEPARTMENT CONNECTIONS
A. FIRE DEPARTMENT CONNECTIONS: FREESTANDING, WITH CAST-BRONZE BODY, THREAD INLETS ACCORDING TO NFPA 1963 AND MATCHING LOCAL FIRE DEPARTMENT HOSE THREADS...
1. DIMENSION: 24-INCH MINIMUM DIAMETER, UNLESS OTHERWISE INDICATED...
2. DRAIN: ASME A112.8.3, CAST-IRON FLOOR DRAIN WITH OUTLET OF SIZE INDICATED...
3. BODY ANCHOR FLANGE, LIGHT-DUTY CAST-IRON GRATE, BOTTOM OUTLET, AND INTEGRAL OR FLANGE-INSTALLED BRONZE BALL OR CLAPPER-TYPE BACKWATER VALVE...
12.) VALVE APPLICATIONS
A. DRAWINGS INDICATE VALVE TYPES TO BE USED WHERE SPECIFIC VALVE TYPES ARE NOT INDICATED...
1. UNDERGROUND VALVES: NPS 3 AND LARGER: AWWA, CAST-IRON, NONRISING-STEM, RESILIENT-SEATED GATE VALVES WITH VALVE BOX...
2. USE THE FOLLOWING FOR VALVES IN VAULTS AND ABOVEGROUND:
a. GATE VALVES, NPS 2 AND SMALLER: BRONZE, NONRISING STEM...
b. GATE VALVES, NPS 3 AND LARGER: AWWA, CAST IRON, OS&Y RISING STEM, RESILIENT SEATED...
c. CHECK VALVES: AWWA C508, SWING TYPE...
13.) FIELD QUALITY CONTROL
A. PIPING TESTS: CONDUCT PIPING TESTS BEFORE JOINTS ARE COVERED AND AFTER CONCRETE THRUST BLOCKS HAVE HARDENED SUFFICIENTLY...
B. HYDROSTATIC TESTS: TEST AT NOT LESS THAN ONE-AND-ONE-HALF TIMES WORKING PRESSURE FOR TWO HOURS...
C. DISINFECTIOIN: CLEAN AND DISINFECT POTABLE WATER MAINS AS DIRECTED BY THE LOCAL AUTHORITY...
D. PREPARE REPORTS OF TESTING ACTIVITIES AND SUBMIT TO THE ENGINEER FOR APPROVAL...
14.) IDENTIFICATION
A. INSTALL CONTINUOUS UNDERGROUND DETECTABLE WARNING TAPE DURING BACKFILLING OF TRENCH FOR UNDERGROUND WATER-DISTRIBUTION PIPING...
1. STANDARD: MSS SP-48...
2. MATERIAL: ASTM A 536, GRADE 60-40-18 DUCTILE IRON UNLESS OTHERWISE INDICATED...
3. END CONNECTIONS: MECHANICAL JOINT...
4. INTERIOR COATING: COMPLYING WITH AWWA C550...
5. END CONNECTIONS: FLANGED...
6. CONFIGURATION: DESIGNED FOR HORIZONTAL, STRAIGHT FLOW...
8.) WATER METER BOXES
A. DESCRIPTION: CAST-IRON BODY AND COVER FOR DISC-TYPE WATER METER...
1. LADDER: ASTM A 36/A 286, STEEL OR POLYETHYLENE-ENCASED STEEL STEPS...
2. MANHOLE: ASTM A 48/A 48M CLASS NO. 35A MINIMUM TENSILE STRENGTH, GRAY-IRON TRAFFIC FRAME AND COVER...
3. DIMENSION: 24-INCH MINIMUM DIAMETER, UNLESS OTHERWISE INDICATED...
4. DRAIN: ASME A112.8.3, CAST-IRON FLOOR DRAIN WITH OUTLET OF SIZE INDICATED...
5. BODY ANCHOR FLANGE, LIGHT-DUTY CAST-IRON GRATE, BOTTOM OUTLET, AND INTEGRAL OR FLANGE-INSTALLED BRONZE BALL OR CLAPPER-TYPE BACKWATER VALVE...
10.) FIRE HYDRANTS
A. DRY-BARREL FIRE HYDRANTS: FREESTANDING, WITH ONE NPS 4-1/2 AND TWO NPS 2-1/2 OUTLETS, 5-1/4-INCH MAIN VALVE, DRAIN VALVE, AND NPS 6 MECHANICAL-JOINT INLET...
1. STANDARD: AWWA C502...
2. PRESSURE RATING: 250 PSIG...
11.) FIRE DEPARTMENT CONNECTIONS
A. FIRE DEPARTMENT CONNECTIONS: FREESTANDING, WITH CAST-BRONZE BODY, THREAD INLETS ACCORDING TO NFPA 1963 AND MATCHING LOCAL FIRE DEPARTMENT HOSE THREADS...
1. DIMENSION: 24-INCH MINIMUM DIAMETER, UNLESS OTHERWISE INDICATED...
2. DRAIN: ASME A112.8.3, CAST-IRON FLOOR DRAIN WITH OUTLET OF SIZE INDICATED...
3. BODY ANCHOR FLANGE, LIGHT-DUTY CAST-IRON GRATE, BOTTOM OUTLET, AND INTEGRAL OR FLANGE-INSTALLED BRONZE BALL OR CLAPPER-TYPE BACKWATER VALVE...
12.) VALVE APPLICATIONS
A. DRAWINGS INDICATE VALVE TYPES TO BE USED WHERE SPECIFIC VALVE TYPES ARE NOT INDICATED...
1. UNDERGROUND VALVES: NPS 3 AND LARGER: AWWA, CAST-IRON, NONRISING-STEM, RESILIENT-SEATED GATE VALVES WITH VALVE BOX...
2. USE THE FOLLOWING FOR VALVES IN VAULTS AND ABOVEGROUND:
a. GATE VALVES, NPS 2 AND SMALLER: BRONZE, NONRISING STEM...
b. GATE VALVES, NPS 3 AND LARGER: AWWA, CAST IRON, OS&Y RISING STEM, RESILIENT SEATED...
c. CHECK VALVES: AWWA C508, SWING TYPE...
13.) FIELD QUALITY CONTROL
A. PIPING TESTS: CONDUCT PIPING TESTS BEFORE JOINTS ARE COVERED AND AFTER CONCRETE THRUST BLOCKS HAVE HARDENED SUFFICIENTLY...
B. HYDROSTATIC TESTS: TEST AT NOT LESS THAN ONE-AND-ONE-HALF TIMES WORKING PRESSURE FOR TWO HOURS...
C. DISINFECTIOIN: CLEAN AND DISINFECT POTABLE WATER MAINS AS DIRECTED BY THE LOCAL AUTHORITY...
D. PREPARE REPORTS OF TESTING ACTIVITIES AND SUBMIT TO THE ENGINEER FOR APPROVAL...
14.) IDENTIFICATION
A. INSTALL CONTINUOUS UNDERGROUND DETECTABLE WARNING TAPE DURING BACKFILLING OF TRENCH FOR UNDERGROUND WATER-DISTRIBUTION PIPING...
1. STANDARD: MSS SP-48...
2. MATERIAL: ASTM A 536, GRADE 60-40-18 DUCTILE IRON UNLESS OTHERWISE INDICATED...
3. END CONNECTIONS: MECHANICAL JOINT...
4. INTERIOR COATING: COMPLYING WITH AWWA C550...
5. END CONNECTIONS: FLANGED...
6. CONFIGURATION: DESIGNED FOR HORIZONTAL, STRAIGHT FLOW...
8.) WATER METER BOXES
A. DESCRIPTION: CAST-IRON BODY AND COVER FOR DISC-TYPE WATER METER...
1. LADDER: ASTM A 36/A 286, STEEL OR POLYETHYLENE-ENCASED STEEL STEPS...
2. MANHOLE: ASTM A 48/A 48M CLASS NO. 35A MINIMUM TENSILE STRENGTH, GRAY-IRON TRAFFIC FRAME AND COVER...
3. DIMENSION: 24-INCH MINIMUM DIAMETER, UNLESS OTHERWISE INDICATED...
4. DRAIN: ASME A112.8.3, CAST-IRON FLOOR DRAIN WITH OUTLET OF SIZE INDICATED...
5. BODY ANCHOR FLANGE, LIGHT-DUTY CAST-IRON GRATE, BOTTOM OUTLET, AND INTEGRAL OR FLANGE-INSTALLED BRONZE BALL OR CLAPPER-TYPE BACKWATER VALVE...
10.) FIRE HYDRANTS
A. DRY-BARREL FIRE HYDRANTS: FREESTANDING, WITH ONE NPS 4-1/2 AND TWO NPS 2-1/2 OUTLETS, 5-1/4-INCH MAIN VALVE, DRAIN VALVE, AND NPS 6 MECHANICAL-JOINT INLET...
1. STANDARD: AWWA C502...
2. PRESSURE RATING: 250 PSIG...
11.) FIRE DEPARTMENT CONNECTIONS
A. FIRE DEPARTMENT CONNECTIONS: FREESTANDING, WITH CAST-BRONZE BODY, THREAD INLETS ACCORDING TO NFPA 1963 AND MATCHING LOCAL FIRE DEPARTMENT HOSE THREADS...
1. DIMENSION: 24-INCH MINIMUM DIAMETER, UNLESS OTHERWISE INDICATED...
2. DRAIN: ASME A112.8.3, CAST-IRON FLOOR DRAIN WITH OUTLET OF SIZE INDICATED...
3. BODY ANCHOR FLANGE, LIGHT-DUTY CAST-IRON GRATE, BOTTOM OUTLET, AND INTEGRAL OR FLANGE-INSTALLED BRONZE BALL OR CLAPPER-TYPE BACKWATER VALVE...
12.) VALVE APPLICATIONS
A. DRAWINGS INDICATE VALVE TYPES TO BE USED WHERE SPECIFIC VALVE TYPES ARE NOT INDICATED...
1. UNDERGROUND VALVES: NPS 3 AND LARGER: AWWA, CAST-IRON, NONRISING-STEM, RESILIENT-SEATED GATE VALVES WITH VALVE BOX...
2. USE THE FOLLOWING FOR VALVES IN VAULTS AND ABOVEGROUND:
a. GATE VALVES, NPS 2 AND SMALLER: BRONZE, NONRISING STEM...
b. GATE VALVES, NPS 3 AND LARGER: AWWA, CAST IRON, OS&Y RISING STEM, RESILIENT SEATED...
c. CHECK VALVES: AWWA C508, SWING TYPE...
13.) FIELD QUALITY CONTROL
A. PIPING TESTS: CONDUCT PIPING TESTS BEFORE JOINTS ARE COVERED AND AFTER CONCRETE THRUST BLOCKS HAVE HARDENED SUFFICIENTLY...
B. HYDROSTATIC TESTS: TEST AT NOT LESS THAN ONE-AND-ONE-HALF TIMES WORKING PRESSURE FOR TWO HOURS...
C. DISINFECTIOIN: CLEAN AND DISINFECT POTABLE WATER MAINS AS DIRECTED BY THE LOCAL AUTHORITY...
D. PREPARE REPORTS OF TESTING ACTIVITIES AND SUBMIT TO THE ENGINEER FOR APPROVAL...
14.) IDENTIFICATION
A. INSTALL CONTINUOUS UNDERGROUND DETECTABLE WARNING TAPE DURING BACKFILLING OF TRENCH FOR UNDERGROUND WATER-DISTRIBUTION PIPING...
1. STANDARD: MSS SP-48...
2. MATERIAL: ASTM A 536, GRADE 60-40-18 DUCTILE IRON UNLESS OTHERWISE INDICATED...
3. END CONNECTIONS: MECHANICAL JOINT...
4. INTERIOR COATING: COMPLYING WITH AWWA C550...
5. END CONNECTIONS: FLANGED...
6. CONFIGURATION: DESIGNED FOR HORIZONTAL, STRAIGHT FLOW...
8.) WATER METER BOXES
A. DESCRIPTION: CAST-IRON BODY AND COVER FOR DISC-TYPE WATER METER...
1. LADDER: ASTM A 36/A 286, STEEL OR POLYETHYLENE-ENCASED STEEL STEPS...
2. MANHOLE: ASTM A 48/A 48M CLASS NO. 35A MINIMUM TENSILE STRENGTH, GRAY-IRON TRAFFIC FRAME AND COVER...
3. DIMENSION: 24-INCH MINIMUM DIAMETER, UNLESS OTHERWISE INDICATED...
4. DRAIN: ASME A112.8.3, CAST-IRON FLOOR DRAIN WITH OUTLET OF SIZE INDICATED...
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10.) FIRE HYDRANTS
A. DRY-BARREL FIRE HYDRANTS: FREESTANDING, WITH ONE NPS 4-1/2 AND TWO NPS 2-1/2 OUTLETS, 5-1/4-INCH MAIN VALVE, DRAIN VALVE, AND NPS 6 MECHANICAL-JOINT INLET...
1. STANDARD: AWWA C502...
2. PRESSURE RATING: 250 PSIG...
11.) FIRE DEPARTMENT CONNECTIONS
A. FIRE DEPARTMENT CONNECTIONS: FREESTANDING, WITH CAST-BRONZE BODY, THREAD INLETS ACCORDING TO NFPA 1963 AND MATCHING LOCAL FIRE DEPARTMENT HOSE THREADS...
1. DIMENSION: 24-INCH MINIMUM DIAMETER, UNLESS OTHERWISE INDICATED...
2. DRAIN: ASME A112.8.3, CAST-IRON FLOOR DRAIN WITH OUTLET OF SIZE INDICATED...
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c. CHECK VALVES: AWWA C508, SWING TYPE...
13.) FIELD QUALITY CONTROL
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3. END CONNECTIONS: MECHANICAL JOINT...
4. INTERIOR COATING: COMPLYING WITH AWWA C550...
5. END CONNECTIONS: FLANGED...
6. CONFIGURATION: DESIGNED FOR HORIZONTAL, STRAIGHT FLOW...
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1. STANDARD: AWWA C502...
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3. END CONNECTIONS: MECHANICAL JOINT...
4. INTERIOR COATING: COMPLYING WITH AWWA C550...
5. END CONNECTIONS: FLANGED...
6. CONFIGURATION: DESIGNED FOR HORIZONTAL, STRAIGHT FLOW...
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1. STANDARD: AWWA C502...
2. PRESSURE RATING: 250 PSIG...
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4. INTERIOR COATING: COMPLYING WITH AWWA C550...
5. END CONNECTIONS: FLANGED...
6. CONFIGURATION: DESIGNED FOR HORIZONTAL, STRAIGHT FLOW...
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1. STANDARD: AWWA C502...
2. PRESSURE RATING: 250 PSIG...
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c. CHECK VALVES: AWWA C508, SWING TYPE...
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3. END CONNECTIONS: MECHANICAL JOINT...
4. INTERIOR COATING: COMPLYING WITH AWWA C550...
5. END CONNECTIONS: FLANGED...
6. CONFIGURATION: DESIGNED FOR HORIZONTAL, STRAIGHT FLOW...
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10.) FIRE HYDRANTS
A. DRY-BARREL FIRE HYDRANTS:

EARTH MOVING

- 1.) PROJECT CONDITIONS
A. UTILITY LOCATOR SERVICE: NOTIFY UTILITY LOCATOR SERVICE FOR AREA WHERE PROJECT IS LOCATED BEFORE BEGINNING EARTH MOVING OPERATIONS.
B. DO NOT COMMENCE EARTH MOVING OPERATIONS UNTIL TEMPORARY EROSION- AND SEDIMENTATION CONTROL MEASURES ARE IN PLACE.
C. DO NOT COMMENCE EARTH MOVING OPERATIONS UNTIL PLANT-PROTECTION MEASURES ARE IN PLACE.
D. DO NOT COMMENCE EARTH MOVING OPERATIONS WITHOUT REVIEWING AND MAKING PROVISIONS FOR ALL GEOTECHNICAL RECOMMENDATIONS MADE IN THE PROJECT GEOTECHNICAL REPORT.
E. RETAIN A COPY OF THE PROJECT GEOTECHNICAL REPORT AT THE WORK SITE AT ALL TIMES. ANY DISCREPANCIES BETWEEN THESE SPECIFICATIONS AND THE PROJECT GEOTECHNICAL REPORT SHALL BE RESOLVED IN FAVOR OF THE PROJECT GEOTECHNICAL REPORT.
F. PROTECT STRUCTURES, UTILITIES, SIDEWALKS, PAVEMENTS, AND OTHER FACILITIES FROM DAMAGE CAUSED BY SETTLEMENT, LATERAL MOVEMENT, UNDERMINING, WASHOUT, AND OTHER HAZARDS CREATED BY EARTH MOVING OPERATIONS.
G. PROTECT AND MAINTAIN EROSION AND SEDIMENTATION CONTROLS DURING EARTH MOVING OPERATIONS.
2.) DEWATERING
A. PREVENT SURFACE WATER AND GROUND WATER FROM ENTERING EXCAVATIONS, FROM PONDING ON PREPARED SUBGRADES, AND FROM FLOODING PROJECT SITE AND SURROUNDING AREA.
B. PROTECT SUBGRADES FROM SOFTENING, UNDERMINING, WASH-OUT, AND DAMAGE BY RAIN OR WATER ACCUMULATION.
C. DESIGN AND PROVIDE DEWATERINGS SYSTEM USING ACCEPTED AND PROFESSIONAL METHODS CONSISTENT WITH CURRENT INDUSTRY PRACTICE.
D. DESIGN AND PROVIDE DEWATERINGS SYSTEM USING ACCEPTED AND PROFESSIONAL METHODS CONSISTENT WITH CURRENT INDUSTRY PRACTICE.
E. OPEN PUMPING WITH SUMPS AND DITCHES SHALL BE ALLOWED, PROVIDED IT DOES NOT RESULT IN BOLLS, LOSS OF FINES, SOFTENING OF THE GROUND, OR INSTABILITY OF SLOPES.
F. WHEN CONSTRUCTION IS COMPLETE, PROPERLY REMOVE ALL DEWATERING EQUIPMENT FROM THE SITE, INCLUDING WELLS AND RELATED TEMPORARY ELECTRICAL SERVICE.
3.) SUBGRADE
A. NOTIFY PROJECT GEOTECHNICAL ENGINEER WHEN EXCAVATIONS HAVE REACHED REQUIRED SUBGRADE.
B. PROTECT GEOTECHNICAL ENGINEER DETERMINES THAT UNSATISFACTORY SOIL IS PRESENT.
C. PROOF-ROLL SUBGRADE BELOW THE BUILDING SLABS AND PAVEMENTS WITH A PNEUMATIC-TIRED AND LOADED 10-WHEEL, TANDEM-AXLE DUMP TRUCK WEIGHING NOT LESS THAN 15 TONS TO IDENTIFY SOFT POCKETS AND AREAS OF EXCESS YIELDING.
D. IN HEAVY DUTY PAVING AREAS, THE GRAVEL AGGREGATE BASE SHALL BE EXTENDED UNDER THE CURB AND GUTTER SECTION TO PROVIDE ADDITIONAL STABILITY FOR TRUCK TRAVEL.
E. UTILITY TRENCH BEDDINGS AND BACKFILL
A. PLACE AND COMPACT BEDDING COURSE ON TRENCH BOTTOMS AND WHERE INDICATED, SHAPE BEDDING COURSE TO PROVIDE CONTINUOUS SUPPORT FOR BELLS, JOINTS, AND BARRELS OF PIPES AND FOR JOINTS, FITTINGS, AND BODIES OF CONDUITS.
B. USE CLASS B BEDDING UNDER ALL PVC PIPING.
C. CAREFULLY COMPACT INITIAL BACKFILL UNDER PIPE HANDS AND COMPACT EVENLY UP ON BOTH SIDES AND ALONG THE FULL LENGTH OF PIPING OR CONDUIT TO AVOID DAMAGE OR DISPLACEMENT OF PIPING OR CONDUIT.
D. BACKFILL ALL UTILITIES UNDER ROADWAYS AND TRAFFIC AREAS WITH CRUSHED STONE.
E. COMPACTATION OF SOIL BACKFILLS AND FILLS
A. PLACE BACKFILL AND FILL SOIL MATERIALS IN LAYERS NOT MORE THAN 8 INCHES IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HEAVY COMPACTOR EQUIPMENT, AND NOT MORE THAN 4 INCHES IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HAND-OPERATED TAMPERS.
B. PLACE BACKFILL AND FILL SOIL MATERIALS EVENLY ON ALL SIDES OF STRUCTURES TO REQUIRED ELEVATIONS, AND UNIFORMLY ALONG THE FULL LENGTH OF EACH STRUCTURE.
C. PROVIDE CONSTRUCTION PHASE MONITORING AND TESTING AS RECOMMENDED IN THE PROJECT GEOTECHNICAL REPORT.
6.) GRADING
A. GENERAL: UNIFORMLY GRADE AREAS TO A SMOOTH SURFACE, FREE OF IRREGULAR SURFACE CHANGES, COMPLY WITH CONNECTION REQUIREMENTS AND GRADE TO CROSS SECTIONS, LINES, AND ELEVATIONS INDICATED.
B. LANDSCAPE ISLANDS: FILL ALL CURBED ISLANDS TO TOP OF CURB WITH TOPSOIL AND APPLY SEED AND MULCH UNLESS DRAWINGS INDICATE OTHERWISE.
C. SLOPES: DO NOT CREATE CUT OR FILL SLOPES STEEPER THAN 2H:1V WITHOUT OBTAINING SPECIAL WRITTEN PERMISSION FROM THE ENGINEER OF RECORD AND PROJECT GEOTECHNICAL ENGINEER.
7.) PROTECTION
A. PROTECTING GRADED AREAS: PROTECT NEWLY GRADED AREAS FROM TRAFFIC, FREEZING, AND EROSION. KEEP FREE OF TRASH AND DEBRIS. SEE EROSION AND SEDIMENT CONTROL PLAN AND NOTES FOR FURTHER INFORMATION.

ASPHALT PAVING

- 1.) FIELD CONDITIONS
A. ENVIRONMENTAL LIMITATIONS: DO NOT APPLY ASPHALT MATERIALS IF SUBGRADE IS WET OR EXCESSIVELY DAMP. IF RAIN IS IMMINENT OR EXPECTED BEFORE TIME REQUIRED FOR ADEQUATE CURE, OR IF THE FOLLOWING CONDITIONS ARE NOT MET:
1. PRIME COAT: MINIMUM SURFACE TEMPERATURE OF 40 DEG F.
2. TACK COAT: MINIMUM SURFACE TEMPERATURE OF 60 DEG F.
3. SLURRY COAT: COMPLY WITH WEATHER LIMITATIONS IN ASTM D 3910.
4. ASPHALT BASE COURSE: MINIMUM SURFACE TEMPERATURE OF 40 DEG F AND RISING AT TIME OF PLACEMENT.
5. ASPHALT SURFACE COURSE: MINIMUM SURFACE TEMPERATURE OF 60 DEG F AT TIME OF PLACEMENT.
2.) ASPHALT MATERIALS
A. REFER TO PROJECT GEOTECHNICAL REPORT AND PROJECT DRAWINGS FOR REQUIRED ASPHALT MATERIAL DESIGN.
B. AGGREGATES SHALL MEET THE REQUIREMENTS OF THE LOCAL DEPARTMENT OF TRANSPORTATION.
C. RECLAIMED ASPHALT PAVEMENT (RAP) SHALL NOT BE USED IN THE MIX DESIGN.
3.) PATCHING
A. ASPHALT PAVEMENT: SAW CUT PERIMETER OF PATCH AND EXCAVATE EXISTING PAVEMENT SECTION TO SOUND BASE. EXCAVATE RECTANGULAR OR TRAPEZOIDAL PATCHES, EXTENDING 12 INCHES INTO PERIMETER OF ADJACENT SOUND PAVEMENT, UNLESS OTHERWISE INDICATED. CUT EXCAVATION FACES VERTICALLY. REMOVE EXCAVATED MATERIAL. RECOMPACT EXISTING UNBOUND-AGGREGATE BASE COURSE TO FORM NEW SUBGRADE.
B. TACK COAT: BEFORE PLACING PATCH MATERIAL, APPLY TACK COAT UNIFORMLY TO VERTICAL FACES BETWEEN NEW AND EXISTING SURFACES.
1. ALLOW TACK COAT TO CURE UNDISTURBED BEFORE APPLYING HOT-MIX ASPHALT PAVING.
2. AVOID SMEARING OR STAINING ADJOINING SURFACES, APPURTENANCES, AND SURROUNDINGS. REMOVE SPILLAGES AND CLEAN AFFECTED SURFACES.
C. PLACING PATCH MATERIAL: FILL EXCAVATED PAVEMENT AREAS WITH HOT-MIX ASPHALT BASE MIX FOR FULL THICKNESS OF PATCH AND, WHILE STILL HOT, COMPACT FLUSH WITH ADJACENT SURFACE.
4.) SURFACE PREPARATION
A. GENERAL: IMMEDIATELY BEFORE PLACING ASPHALT MATERIALS, REMOVE LOOSE AND DELETERIOUS MATERIAL FROM SUBSTRATE SURFACES. ENSURE THAT PREPARED SUBGRADE IS READY TO RECEIVE PAVING. SAWCUT EXISTING PAVEMENT TO THE JOINED TO PROVIDE VERTICAL FACES BETWEEN NEW AND EXISTING SURFACES.
B. EMULSIFIED ASPHALT PRIME COAT: APPLY UNIFORMLY OVER SURFACE OF COMPACTED UNBOUND-AGGREGATE BASE COURSE AT A RATE OF 0.10 TO 0.30 GALL./SQ. YD, PER INCH DEPTH. APPLY ENOUGH MATERIAL TO PENETRATE AND SEAL, BUT NOT FLOOD, SURFACE. ALLOW PRIME COAT TO CURE.
1. IF PRIME COAT IS NOT ENTIRELY ABSORBED WITHIN 24 HOURS AFTER APPLICATION, SPREAD SAND OVER SURFACE TO BLOT EXCESS ASPHALT. USE ENOUGH SAND TO PREVENT PICKUP UNDER TRAFFIC. REMOVE LOOSE SAND BY SWEEPING BEFORE PAVEMENT IS PLACED AND AFTER VOLATILES HAVE EVAPORATED.
2. PROTECT PRIMED SUBSTRATE FROM DAMAGE UNTIL READY TO RECEIVE PAVING.
C. TACK COAT: APPLY UNIFORMLY TO SURFACES OF EXISTING PAVEMENT AT A RATE OF 0.02 TO 0.08 GALL./SQ. YD.
1. ALLOW TACK COAT TO CURE UNDISTURBED BEFORE APPLYING HOT-MIX ASPHALT PAVING.
2. AVOID SMEARING OR STAINING ADJOINING SURFACES, APPURTENANCES, AND SURROUNDINGS. REMOVE SPILLAGES AND CLEAN AFFECTED SURFACES.
5.) PLACING HOT-MIX ASPHALT
A. MACHINE PLACE HOT-MIX ASPHALT ON PREPARED SURFACE, SPREAD UNIFORMLY, AND STRIKE OFF. PLACE ASPHALT MIX BY HAND IN AREAS INACCESSIBLE TO EQUIPMENT IN A MANNER THAT PREVENTS SEGREGATION OF MIX. PLACE EACH COURSE TO REQUIRED GRADE, CROSS SECTION, AND THICKNESS WHEN COMPACTED.
1. PLACE HOT-MIX ASPHALT BASE COURSE IN NUMBER OF LIFTS AND THICKNESSES INDICATED.
2. PLACE HOT-MIX ASPHALT SURFACE COURSE IN SINGLE LIFT.
3. SPREAD MIX AT A MINIMUM TEMPERATURE OF 250 DEG F.
4. BEGIN APPLYING MIX ALONG CENTERLINE OF CROWN FOR CROWNED SECTIONS AND ON HIGH SIDE OF ONE-WAY SLOPES UNLESS OTHERWISE INDICATED.
5. REGULATE PAVEMENT MACHINE SPEED TO OBTAIN SMOOTH, CONTINUOUS SURFACE FREE OF PULLS AND TEARS IN ASPHALT-PAVING MAT.
B. PLACE PAVING IN CONSECUTIVE STRIPS NOT LESS THAN 10 FEET WIDE UNLESS INFILL EDGE STRIPS OF A LESSER WIDTH ARE REQUIRED.
6.) JOINTS
A. CONSTRUCT JOINTS TO ENSURE A CONTINUOUS BOND BETWEEN ADJOINING PAVING SECTIONS. CONSTRUCT JOINTS FREE OF DEPRESSIONS, WITH SAME TEXTURE AND SMOOTHNESS AS OTHER SECTIONS OF HOT-MIX ASPHALT COURSE.
B. CONSTRUCT SMOOTH TRANSITIONS BETWEEN NEW AND EXISTING PAVING SECTIONS.
7.) COMPACTION
A. GENERAL: BEGIN COMPACTION AS SOON AS PLACED HOT-MIX PAVING WILL BEAR ROLLER WEIGHT WITHOUT EXCESSIVE DISPLACEMENT. COMPACT HOT-MIX PAVING WITH HOT, HAND TAMPERS OR WITH VIBRATORY-PLATE COMPACTORS IN AREAS INACCESSIBLE TO ROLLERS. COMPLETE COMPACTION BEFORE MIX TEMPERATURE COOLS TO 185 DEG F.
1. INITIAL LIFT: AVERAGE OF 92% OF MAXIMUM THEORETICAL DENSITY.
2. TOP SURFACE LIFT: AVERAGE OF 93% OF MAXIMUM THEORETICAL DENSITY.
3. TOLERANCE: +2.0%, -1.0% OF ANY INDIVIDUAL TEST.
B. FINISH ROLLING: FINISH ROLL PAVED SURFACES TO REMOVE ROLLER MARKS WHILE HOT-MIX ASPHALT IS STILL WARM.
C. ERECT BARRICADES TO PROTECT PAVING FROM TRAFFIC FOR AT LEAST 24 HOURS AFTER PLACEMENT FOR THE BINDER COURSE, AND AT LEAST 72 HOURS AFTER PLACEMENT FOR THE FINAL WEARING SURFACE.
D. IF THE AMBIENT AIR TEMPERATURE IS IN EXCESS OF 90 DEGREES FAHRENHEIT DURING THE 72 HOUR PROTECTION PERIOD, THE PAVEMENT SURFACE SHALL BE FLOODED WITH WATER TO RAPIDLY COOL THE PAVEMENT AT LEAST ONCE PER DAY.
8.) FIELD QUALITY CONTROL
A. TESTING AGENCY: ENGAGE A QUALIFIED TESTING AGENCY TO PERFORM TESTS AND INSPECTIONS.
B. CONDUCT TESTS AND REPORTS SPECIFIED IN THE PROJECT GEOTECHNICAL REPORT.
C. TESTING AGENCY MUST INSPECT AND APPROVE THE SUBGRADE, EACH FILL LAYER, AND THE SUBBASE AND BASE COURSE.
D. PROMPTLY SEND TEST REPORTS TO THE ENGINEER FOR REVIEW AND APPROVAL.
E. REMOVE AND REPLACE OR INSTALL ADDITIONAL HOT-MIX ASPHALT WHERE TEST RESULTS OR MEASUREMENTS INDICATE THAT IT DOES NOT COMPLY WITH SPECIFIED REQUIREMENTS.

CONCRETE PAVING

- 1.) PROJECT CONDITIONS
A. TRAFFIC CONTROL: MAINTAIN ACCESS FOR VEHICULAR AND PEDESTRIAN TRAFFIC AS REQUIRED FOR OTHER CONSTRUCTION ACTIVITIES.
2.) STEEL REINFORCEMENT
A. PLAIN-STEEL WELDED WIRE REINFORCEMENT: ASTM A 185/A 185M, FABRICATED FROM AS-DRAWN STEEL WIRE INTO FLAT SHEETS.
B. REINFORCING BARS: ASTM A 815/A 815M, GRADE 60, DEFORMED.
C. JOINT DOWEL BARS: ASTM A 815/A 815M, GRADE 60 PLAIN-STEEL BARS. CUT BARS TRUE TO LENGTH WITH ENDS SQUARE AND FREE OF BURRS.
D. BAR SUPPORTS: BOLSTERS, CHAIRS, SPACERS, AND OTHER DEVICES FOR SPACING, SUPPORTING, AND FASTENING REINFORCING BARS, WELDED WIRE REINFORCEMENT, AND DOWELS IN PLACE. MANUFACTURE BAR SUPPORTS ACCORDING TO CRISIS "MANUAL OF STANDARD PRACTICE" FROM STEEL WIRE, PLASTIC, OR PRECAST CONCRETE OF GREATER COMPRESSIVE STRENGTH THAN CONCRETE SPECIFIED, AND AS FOLLOWS:
3.) CEMENTITIOUS MATERIAL: USE CEMENTITIOUS MATERIALS, OF SAME TYPE, BRAND, AND SOURCE THROUGHOUT PROJECT.
B. NORMAL-WEIGHT AGGREGATES: ASTM C 33, UNIFORMLY GRADED. PROVIDE AGGREGATES FROM A SINGLE SOURCE.
1. MAXIMUM COARSE-AGGREGATE SIZE: 1 INCH NOMINAL.
2. FINE AGGREGATE: FREE OF MATERIALS WITH DELETERIOUS REACTIVITY TO ALKALI IN CEMENT.
4.) RELATED MATERIALS
A. JOINT FILLERS: ASTM D 1751, ASPHALT-SATURATED CELLULOSIC FIBER IN PREFORMED STRIPS.
5.) WHEEL STOPS
A. WHEEL STOPS: PRECAST, AIR-ENTRAINED CONCRETE, 2500-PSI MINIMUM COMPRESSIVE STRENGTH. PROVIDE CHAMFERED CORNERS AND DRAINAGE SLOTS ON UNDERSIDE AND HOLES FOR ANCHORING TO SUBSTRATE.
6.) SIDEWALKS
A. SIDEWALKS: SLOPE SIDEWALKS AWAY FROM BUILDING WITH A 1.5% CROSS-SLOPE UNLESS DRAWINGS INDICATE OTHERWISE.
7.) PREPARATION
A. REMOVE ALL DELETERIOUS MATERIAL FROM COMPACTED SUBBASE SURFACE IMMEDIATELY BEFORE PLACING CONCRETE.
8.) STEEL REINFORCEMENT
A. GENERAL: COMPLY WITH CRISIS "MANUAL OF STANDARD PRACTICE" FOR FABRICATING, PLACING, AND SUPPORTING REINFORCEMENT.
B. CLEAN REINFORCEMENT OF LOOSE RUST AND MILL SCALE, EARTH, ICE, OR OTHER BOND-REDUCING MATERIALS.
C. ARRANGE, SPACE, AND SECURELY TIE THE BARS AND BAR SUPPORTS TO HOLD REINFORCEMENT IN POSITION DURING CONCRETE PLACEMENT. MAINTAIN MINIMUM COVER TO REINFORCEMENT.
D. INSTALL WELDED WIRE REINFORCEMENT IN LENGTHS AS LONG AS PRACTICABLE. LAP ADJOINING PIECES AT LEAST ONE FULL MESH, AND LACE SPLICES WITH WIRE. OFFSET LAPS OF ADJOINING WIDTHS TO PREVENT CONTINUOUS LAPS IN EITHER DIRECTION.
E. ZINC-COATED REINFORCEMENT: USE GALVANIZED-STEEL WIRE TIES TO FASTEN ZINC-COATED REINFORCEMENT. REPAIR CUT AND DAMAGED ZINC COATINGS WITH ZINC REPAIR MATERIAL.
9.) JOINTS
A. GENERAL: FORM CONSTRUCTION, ISOLATION, AND CONTRACTION JOINTS AND TOOL EDGES TRUE TO LINE, WITH FACES PERPENDICULAR TO SURFACE PLANE OF CONCRETE. CONSTRUCT TRANSVERSE JOINTS AT RIGHT ANGLES TO CENTERLINE UNLESS OTHERWISE INDICATED.
1. WHEN JOINING EXISTING PAVING, PLACE TRANSVERSE JOINTS TO ALIGN WITH PREVIOUSLY PLACED JOINTS UNLESS OTHERWISE INDICATED.
2. ENSURE FORMS PROVIDE CORRECT HORIZONTAL AND VERTICAL ALIGNMENT BETWEEN NEW AND EXISTING PAVEMENTS; SIDEWALKS, CURBS AND GUTTER, ETC.
B. CONSTRUCTION JOINTS: SET CONSTRUCTION JOINTS AT SIDE AND END TERMINATIONS OF PAVING AND AT LOCATIONS WHERE PAVING OPERATIONS ARE STOPPED FOR MORE THAN ONE-HALF HOUR UNLESS PAVING TERMINATES AT ISOLATION JOINTS.
1. CONTINUE STEEL REINFORCEMENT ACROSS CONSTRUCTION JOINTS UNLESS OTHERWISE INDICATED. DO NOT CONTINUE REINFORCEMENT THROUGH SIDES OF PAVING STRIPS UNLESS OTHERWISE INDICATED.
2. PROVIDE THE BARS AT SIDES OF PAVING STRIPS WHERE INDICATED.
3. KEVED JOINTS: PROVIDE PREFORMED KEYWAY-SECTION FORMS OR BULKHEAD FORMS WITH KEYS UNLESS OTHERWISE INDICATED. EMBED KEYS AT LEAST 1-1/2 INCHES INTO CONCRETE.
4. DOWELED JOINTS: INSTALL DOWEL BARS AND SUPPORT ASSEMBLIES AT JOINTS WHERE INDICATED. LUBRICATE OR COAT WITH ASPHALT ONE-HALF OF DOWEL LENGTH TO PREVENT CONCRETE BONDING TO ONE SIDE OF JOINT.
C. ISOLATION JOINTS: FORM ISOLATION JOINTS OF PREFORMED JOINT-FILLER STRIPS ABUTTING CONCRETE CURBS, CATCH BASINS, MANHOLES, INLETS, STRUCTURES, OTHER FIXED OBJECTS, AND WHERE INDICATED.
1. LOCATE EXPANSION JOINTS AT INTERVALS OF 30 FEET UNLESS OTHERWISE INDICATED.
2. EXTEND JOINT FILLERS FULL WIDTH AND DEPTH OF JOINT.
3. TERMINATE JOINT FILLER NOT LESS THAN 1/2 INCH OR MORE THAN 1 INCH BELOW FINISHED SURFACE IF JOINT SEALANT IS INDICATED.
4. PLACE TOP OF JOINT FILLER FLUSH WITH FINISHED CONCRETE SURFACE IF JOINT SEALANT IS NOT INDICATED.
5. FURNISH JOINT FILLERS IN ONE-PIECE LENGTHS, WHERE MORE THAN ONE LENGTH IS REQUIRED, LACE OR CLIP JOINT-FILLER SECTIONS TOGETHER.
6. DURING CONCRETE PLACEMENT, PROTECT TOP EDGE OF JOINT FILLER WITH METAL, PLASTIC, OR OTHER TEMPORARY PREFORMED CAP. REMOVE PROTECTIVE CAP AFTER CONCRETE HAS BEEN PLACED ON BOTH SIDES OF JOINT.
D. CONTRACTION JOINTS: FORM WEAKENED-PLANE CONTRACTION JOINTS, SECTIONING CONCRETE INTO AREAS AS INDICATED. CONSTRUCT CONTRACTION JOINTS FOR A DEPTH EQUAL TO AT LEAST ONE-FOURTH OF THE CONCRETE THICKNESS, AS FOLLOWS:
1. GROOVED JOINTS: FORM CONTRACTION JOINTS AFTER INITIAL FLOATING BY GROOVING AND FINISHING EACH EDGE OF JOINT WITH GROOVING TOOL TO A 1/4-INCH RADIUS. REPEAT GROOVING OF CONTRACTION JOINTS AFTER APPLYING SURFACE FINISHES. ELIMINATE GROOVING-TOOL MARKS ON CONCRETE SURFACES.
2. SAVED JOINTS: FORM CONTRACTION JOINTS WITH POWER SAWS EQUIPPED WITH SHATTERPROOF ABRASIVE OR DIAMOND-RIMMED BLADES. CUT 1/8-INCH-WIDE JOINTS INTO CONCRETE WHEN CUTTING ACTION WILL NOT TEAR, ABRADE, OR OTHERWISE DAMAGE SURFACE AND BEFORE DEVELOPING RANDOM CONTRACTION CRACKS.
3. DOWELED CONTRACTION JOINTS: INSTALL DOWEL BARS AND SUPPORT ASSEMBLIES AT JOINTS WHERE INDICATED. LUBRICATE OR COAT WITH ASPHALT ONE-HALF OF DOWEL LENGTH TO PREVENT CONCRETE BONDING TO ONE SIDE OF JOINT.
E. EDGING: AFTER INITIAL FLOATING, TOOL EDGES OF PAVING, GUTTERS, CURBS, AND JOINTS IN CONCRETE WITH AN EDGING TOOL TO A 1/4-INCH RADIUS. REPEAT TOOLING OF EDGES AFTER APPLYING SURFACE FINISHES. ELIMINATE EDGING-TOOL MARKS ON CONCRETE SURFACES.

FIELD QUALITY CONTROL

- TESTING AGENCY: ENGAGE A QUALIFIED TESTING AGENCY TO PERFORM TESTS AND INSPECTIONS.
PROMPTLY SEND TEST REPORTS TO THE ENGINEER FOR REVIEW AND APPROVAL.
TESTING SERVICES: TESTING OF COMPOSITE SAMPLES OF FRESH CONCRETE OBTAINED ACCORDING TO ASTM C 172 SHALL BE PERFORMED BY THE GENERAL CONTRACTOR'S TESTING AGENCY ACCORDING TO THE FOLLOWING REQUIREMENTS:
1. TESTING FREQUENCY: OBTAIN AT LEAST ONE COMPOSITE SAMPLE FOR EACH 100 CU. YD. OR FRACTION THEREOF OF EACH CONCRETE MIXTURE PLACED EACH DAY, WHEN FREQUENCY OF TESTING WILL PROVIDE FEWER THAN FIVE COMPRESSIVE-STRENGTH TESTS FOR EACH CONCRETE MIXTURE. TESTING SHALL BE CONDUCTED FROM AT LEAST FIVE RANDOMLY SELECTED BATCHES OR FROM EACH BATCH IF FEWER THAN FIVE ARE USED.
2. SLUMP: ASTM C 143/C 143M; ONE TEST AT POINT OF PLACEMENT FOR EACH COMPOSITE SAMPLE, BUT NOT LESS THAN ONE TEST FOR EACH DAY'S POUR OF EACH CONCRETE MIXTURE. PERFORM ADDITIONAL TESTS WHEN CONCRETE CONSISTENCY APPEARS TO CHANGE.
3. AIR CONTENT: ASTM C 231, PRESSURE METHOD; ONE TEST FOR EACH COMPOSITE SAMPLE, BUT NOT LESS THAN ONE TEST FOR EACH DAY'S POUR OF EACH CONCRETE MIXTURE. CONCRETE TEMPERATURE: ASTM C 1064/C 1064M; ONE TEST HOURLY WHEN AIR TEMPERATURE IS 40 DEG F AND BELOW AND WHEN IT IS 80 DEG F AND ABOVE, AND ONE TEST FOR EACH COMPOSITE SAMPLE.
4. COMPRESSIVE STRENGTH TESTS: ASTM C 31C 31M; CAST AND LABORATORY CURE ONE SET OF THREE STANDARD CYLINDER SPECIMENS FOR EACH COMPOSITE SAMPLE. COMPRESSIVE-STRENGTH TESTS: ASTM C 39/C 39M; TEST ONE SPECIMEN AT SEVEN DAYS AND TWO SPECIMENS AT 28 DAYS. A COMPRESSIVE-STRENGTH TEST SHALL BE THE AVERAGE COMPRESSIVE STRENGTH FROM TWO SPECIMENS OBTAINED FROM SAME COMPOSITE SAMPLE AND TESTED AT 28 DAYS.
5. STRENGTH OF EACH CONCRETE MIXTURE WILL BE SATISFACTORY IF AVERAGE OF ANY THREE CONSECUTIVE COMPRESSIVE-STRENGTH TESTS EQUALS OR EXCEEDS SPECIFIED COMPRESSIVE STRENGTH AND NO COMPRESSIVE-STRENGTH TEST VALUE FALLS BELOW SPECIFIED COMPRESSIVE STRENGTH BY MORE THAN 500 PSI.
6. TEST RESULTS SHALL BE REPORTED IN WRITING TO ENGINEER, CONCRETE MANUFACTURER, AND CONTRACTOR WITHIN 48 HOURS OF TESTING. REPORTS OF COMPRESSIVE-STRENGTH TESTS SHALL CONTAIN PROJECT IDENTIFICATION NAME AND NUMBER, DATE OF CONCRETE PLACEMENT, NAME OF CONCRETE TESTING AND INSPECTING AGENCY, LOCATION OF CONCRETE BATCH IN WORK, DESIGN COMPRESSIVE STRENGTH AT 28 DAYS, CONCRETE MIXTURE PROPORTIONS AND MATERIALS, COMPRESSIVE BREAKING STRENGTH, AND TYPE OF BREAK FOR BOTH 7- AND 28-DAY TESTS.
7. ADDITIONAL TESTS: TESTING AND INSPECTING AGENCY SHALL MAKE ADDITIONAL TESTS OF CONCRETE WHEN TEST RESULTS INDICATE THAT SLUMP, AIR ENTRAINMENT, COMPRESSIVE STRENGTHS, OR OTHER REQUIREMENTS HAVE NOT BEEN MET, AS DIRECTED BY ENGINEER. CONCRETE PAVING WILL BE CONSIDERED DEFECTIVE IF IT DOES NOT PASS TESTS AND INSPECTIONS.
8. ADDITIONAL TESTING AND INSPECTING AT CONTRACTOR'S EXPENSE, WILL BE PERFORMED TO DETERMINE COMPLIANCE OF REPLACED OR ADDITIONAL WORK WITH SPECIFIED REQUIREMENTS.
9. PREPARE TEST AND INSPECTION REPORTS.
10.) REPAIRS AND PROTECTION
A. REMOVE AND REPLACE CONCRETE PAVING THAT IS BROKEN, DAMAGED, OR DEFECTIVE OR THAT DOES NOT COMPLY WITH REQUIREMENTS IN THIS SECTION. REMOVE WORK IN COMPLETE SECTIONS FROM JOINT TO JOINT UNLESS OTHERWISE APPROVED BY ENGINEER.
B. DRILL TEST CORES, WHERE DIRECTED BY ENGINEER, WHEN NECESSARY TO DETERMINE MAGNITUDE OF CRACKS OR DEFECTIVE AREAS. FILL DRILLED CORE HOLES IN SATISFACTORY PAVING AREAS WITH PORTLAND CEMENT CONCRETE BONDED TO PAVING WITH EPOXY ADHESIVE.
C. PROTECT CONCRETE PAVING FROM DAMAGE. EXCLUDE TRAFFIC FROM PAVING FOR AT LEAST 14 DAYS AFTER PLACEMENT. WHEN CONSTRUCTION TRAFFIC IS PERMITTED, MAINTAIN PAVING AS CLEAN AS POSSIBLE BY REMOVING SURFACE STAINS AND SPILLAGE OF MATERIALS AS THEY OCCUR.
D. MAINTAIN CONCRETE PAVING FREE OF STAINS, DISCOLORATION, DIRT, AND OTHER FOREIGN MATERIAL. SWEEP PAVING NOT MORE THAN TWO DAYS BEFORE DATE SCHEDULED FOR SUBSTANTIAL COMPLETION INSPECTIONS.

PAVEMENT MARKINGS

- QUALITY ASSURANCE: COMPLY WITH MATERIALS, WORKMANSHIP, AND OTHER REGULATORY REQUIREMENTS OF STATE DOT OR LOCAL MUNICIPALITY FOR PAVEMENT-MARKING WORK.
FIELD CONDITIONS
A. ENVIRONMENTAL LIMITATIONS: PROCEED WITH PAVEMENT MARKING ONLY ON CLEAN, DRY SURFACES AND AT A MINIMUM AMBIENT OR SURFACE TEMPERATURE OF 40 DEG F FOR ALKYD MATERIALS, 55 DEG F FOR WATER-BASED MATERIALS, AND NOT EXCEEDING 95 DEG F.
3.) PAVEMENT-MARKING PAINT
A. PAVEMENT-MARKING PAINT: ALKYD-RESIN TYPE, LEAD AND CHROMATE FREE, READY MIXED, COMPLYING WITH ASTM D 249; OR TYPICALLY COMPLYING WITH FTS TFR-1852, COLOR, AS INDICATED.
B. ALL PAVEMENT MARKING WITH D.O.T. RIGHT-OF-WAY SHALL BE THERMOPLASTIC AND IN ACCORDANCE WITH D.O.T. SPECIFICATIONS.
4.) PAVEMENT MARKING
A. APPLY THERMOPLASTIC PAVEMENT MARKING BEFORE TRAFFIC IS ALLOWED ON ANY NEWLY PAVED AREA OR AS SITE CONDITIONS DICTATE. ALLOW FINAL WEARING SURFACE TO AGE FOR A MINIMUM OF 30 DAYS BEFORE APPLYING FINAL PERMANENT PAVEMENT MARKING.
5.) PROTECTING AND CLEANING
A. PROTECT PAVEMENT MARKINGS FROM DAMAGE AND WEAR DURING REMAINDER OF CONSTRUCTION PERIOD.
B. CLEAN SPILLAGE AND SOILING FROM ADJACENT CONSTRUCTION USING CLEANING AGENTS AND PROCEDURES RECOMMENDED BY MANUFACTURER OF AFFECTED CONSTRUCTION.
CHAIN LINK FENCES AND GATES
1.) PROJECT CONDITIONS
A. FIELD MEASUREMENTS: VERIFY LAYOUT INFORMATION FOR CHAIN-LINK FENCES AND GATES SHOWN ON DRAWINGS IN RELATION TO PROPERTY SURVEY AND EXISTING STRUCTURES. VERIFY DIMENSIONS BY FIELD MEASUREMENTS.
2.) WARRANTY
A. SPECIAL WARRANTY: MANUFACTURER'S STANDARD FORM IN WHICH INSTALLER AGREES TO REPAIR OR REPLACE COMPONENTS OF CHAIN-LINK FENCES AND GATES THAT FAIL IN MATERIALS OR WORKMANSHIP WITHIN SPECIFIED WARRANTY PERIOD.
3.) CHAIN-LINK FENCE FABRIC
A. GENERAL: PROVIDE FABRIC IN ONE-PIECE HEIGHTS MEASURED BETWEEN TOP AND BOTTOM OF OUTER EDGE OF VESSEL KNUCKLE OR TWIST, COMPLY WITH CLFM PRODUCT MANUAL AND WITH REQUIREMENTS INDICATED BELOW.
1. FABRIC HEIGHT: AS INDICATED ON DRAWINGS.
2. STEEL WIRE FABRIC: WIRE WITH A DIAMETER OF 0.148 INCH.
a. MESH SIZE: 2 INCHES.
b. POLYMER-COATED FABRIC: ASTM F 668, OVER ZINC-COATED STEEL WIRE. COLOR: BLACK. COMPLYING WITH ASTM F 934.
3. SELVAGE: TWISTED TOP AND KNUCKLED BOTTOM.
4.) FENCE FRAMING
A. POSTS AND RAILS: COMPLY WITH ASTM F 1043 FOR FRAMING, INCLUDING RAILS, BRACES, AND LINE TERMINAL, AND CORNER POSTS. PROVIDE MEMBERS WITH MINIMUM DIMENSIONS AND WALL THICKNESS ACCORDING TO ASTM F 1043 BASED ON THE FOLLOWING:
1. FENCE HEIGHT: AS INDICATED ON DRAWINGS.
2. MATERIAL
a. LINE POST: 1.9 INCHES IN DIAMETER.
b. END, CORNER AND PULL POST: 2.375 INCHES.
3. HORIZONTAL FRAMEWORK MEMBERS: TOP RAILS COMPLYING WITH ASTM F 1043, TOP RAIL: 1.68 INCHES IN DIAMETER.
4. BRACE RAILS: COMPLY WITH ASTM F 1043.
5. METALLIC COATING FOR STEEL FRAMING: TYPE A, CONSISTING OF NOT LESS THAN MINIMUM 2.0-OZ./SQ. FT. AVERAGE ZINC COATING PER ASTM A 123/A 123M OR 4.0-OZ./SQ. FT. ZINC COATING PER ASTM A 653/A 653M.
5.) TENSION WIRE
A. METALLIC-COATED STEEL WIRE: 0.177-INCH- DIAMETER, MARCELED TENSION WIRE COMPLYING WITH ASTM A 817 AND ASTM A 824, WITH THE FOLLOWING METALLIC COATING: TYPE II, ZINC COATING (GALVANIZED) BY HOT-DIP PROCESS, WITH THE FOLLOWING MINIMUM COATING WEIGHT: MATCHING CHAIN-LINK FABRIC COATING WEIGHT.
6.) SWING GATES
A. GENERAL: COMPLY WITH ASTM F 900 FOR GATE POSTS AND SINGLE OR DOUBLE SWING GATE TYPES.
1. GATE LEAF WIDTH: AS INDICATED.
2. GATE FABRIC HEIGHT: AS INDICATED.
B. PIPE AND TUBING
1. ZINC-COATED STEEL: COMPLY WITH ASTM F 1043 AND ASTM F 1083; PROTECTIVE COATING AND FINISH TO MATCH FENCE FRAMING.
2. GATE POSTS: ROUND TUBULAR STEEL.
3. GATE FRAMES AND BRACING: ROUND TUBULAR STEEL.
C. FRAME CORNER CONSTRUCTION: ASSEMBLED WITH CORNER FITTINGS.
D. HARDWARE:
1. HINGES: 360-DEGREE INWARD AND OUTWARD SWING.
2. LATCHES PERMITTING OPERATION FROM BOTH SIDES OF GATE WITH PROVISION FOR PADLOCK ACCESSIBLE FROM BOTH SIDES OF GATE.
7.) FITTINGS
A. GENERAL: COMPLY WITH ASTM F 626.
B. POST CAPS: PROVIDE FOR EACH POST, PROVIDE LINE POST CAPS WITH LOOP TO RECEIVE TENSION WIRE OR TOP RAIL.
C. RAIL AND BRACE ENDS: FOR EACH GATE, CORNER, PULL, AND END POST.
D. RAIL FITTINGS: PROVIDE THE FOLLOWING:
1. TOP RAIL SLEEVES: PRESSED-STEEL OR ROUND-STEEL TUBING NOT LESS THAN 6 INCHES LONG.
2. RAIL CLAMPS: LINE AND CORNER BOULEVARD CLAMPS FOR CONNECTING RAILS IN THE FENCE LINE-TO-LINE POSTS.
E. TENSION AND BRACE BANDS: PRESSED STEEL.
F. TENSION BARS: STEEL, LENGTH NOT LESS THAN 2 INCHES SHORTER THAN FULL HEIGHT OF CHAIN-LINK FABRIC. PROVIDE ONE BAR FOR EACH GATE AND END POST, AND TWO FOR EACH CORNER AND PULL POST, UNLESS FABRIC IS INTEGRALLY WOVEN INTO POST.
G. TRUSS ROD ASSEMBLIES: STEEL, HOT-DIP GALVANIZED AFTER THREADING ROD AND TURNBUCKLE OR OTHER MEANS OF ADJUSTMENT.
H. THE WIRES, CLIPS, AND FASTENERS: ACCORDING TO ASTM F 626. STANDARD ROUND WIRE TIES: FOR ATTACHING CHAIN-LINK FABRIC TO POSTS, RAILS, AND FRAMES, COMPLYING WITH THE FOLLOWING: HOT-DIP GALVANIZED STEEL, 0.148-INCH- DIAMETER WIRE; GALVANIZED COATING THICKNESS MATCHING COATING THICKNESS OF CHAIN-LINK FABRIC.
8.) GROUT AND ANCHORING CEMENT
A. NONSHRINK, NONMETALLIC GROUT: PREMIXED, FACTORY-PACKAGED, NONSTAINING, NONCORROSIVE, NONGASEOUS GROUT COMPLYING WITH ASTM C 1107. PROVIDE GROUT, RECOMMENDED IN WRITING BY MANUFACTURER, FOR EXTERIOR APPLICATIONS.
B. EROSION-RESISTANT ANCHORING CEMENT: FACTORY-PACKAGED, NONSHRINK, NONSTAINING, HYDRALIC-CONTROLLED EXPANSION CEMENT FORMULATION FOR MIXING WITH POTABLE WATER AT PROJECT SITE TO CREATE POURABLE ANCHORING, PATCHING, AND GROUTING COMPOUND. PROVIDE FORMULATION THAT IS RESISTANT TO EROSION FROM WATER EXPOSURE WITHOUT NEEDING PROTECTION BY A SEALER OR WATERPROOF COATING AND THAT IS RECOMMENDED IN WRITING BY MANUFACTURER, FOR EXTERIOR APPLICATIONS.
9.) ADJUSTING
A. GATES: ADJUST GATES TO OPERATE SMOOTHLY, EASILY, AND QUIETLY, FREE OF BINDING, WARP, EXCESSIVE DEFLECTION, DISTORTION, NONALIGNMENT, MISPLACEMENT, DISRUPTION, OR MALFUNCTION, THROUGHOUT ENTIRE OPERATIONAL RANGE. CONFIRM THAT LATCHES AND LOCKS ENGAGE ACCURATELY AND SECURELY WITHOUT FORCING OR BINDING.

ENGINEER: FORESITE group
DEVELOPER: Parker's kitchen
DRAYTON-PARKER COMPANIES, LLC
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SAVANNAH, GA 31401
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CONTACT: DANIEL BEN-YISRAEL

PARKER'S KITCHEN
STORE #124 (BEAUFORT STATION)
311 ROBERT SMALLS PKWY
BEAUFORT COUNTY, SC
PARCEL #R120 028 000 1230 0000
PROJECT: BEAUFORT COUNTY, SC

SEAL: SOUTH CAROLINA PROFESSIONAL ENGINEER
No. 35977
SALEM M. HAMILTON
REVISIONS: DATE

PROJECT MANAGER: SMH
DRAWING BY: SC
JURISDICTION: BEAUFORT, SC
DATE: 2023-8-29
SCALE: AS SHOWN
TITLE: GENERAL NOTES
SHEET NUMBER: G-2.1
COMMENTS: NOT RELEASED FOR CONSTRUCTION
JOB/FILE NUMBER: 00.2009.015

Plot on 8/29/2023 1:45:16 PM by: SALEM M. HAMILTON, 2023/08/29 1:45:16 PM



# ALTA / NSPS LAND TITLE SURVEY

## OF

### OUTLOT 1 - BEAUFORT STATION

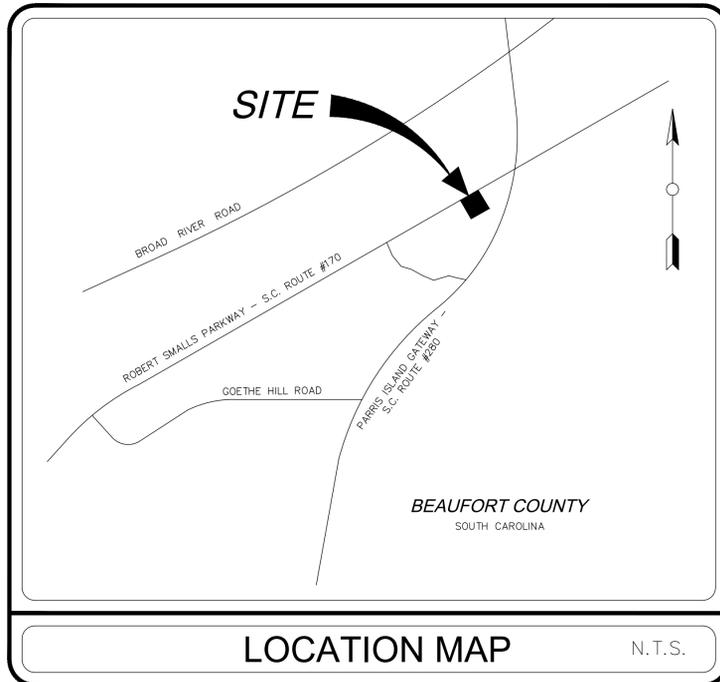
#### BEAUFORT COUNTY, SOUTH CAROLINA

#### EMC PROJECT NO. 23-2039

THIS BOX IS RESERVED FOR THE SUPERIOR COURT CLERK'S FILING INFORMATION

### LEGEND

PROPERTY BOUNDARY	---	WATER MAIN LINE	---W---
ADJACENT PROPERTY LINE	---	FIRE HYDRANT	⊕
METES AND BOUNDS	$N 47^{\circ}45'54" E - 497.06'$	WATER VALVE	⊕WV
TAG LABEL	L# or C#	WATER METER	⊕WM
5/8" IRON REBAR FOUND	⊙ 5/8" RBF	UNDERGROUND CABLE	---TV---
1/2" IRON REBAR FOUND	⊙ 1/2" IRF	UNDERGROUND TELEPHONE	---T---
IRON REBAR SET W/ CAP	● RBS	OVERHEAD CABLE	---TV---
RIGHT-OF-WAY MONUMENT FOUND	□ RWMF	UNDERGROUND FIBER OPTIC	---FO---
BOLLARD	○ BLR	UNDERGROUND COMM. BOX	□ UCB
POINT OF COMMENCING	P.O.C.	FIBER OPTIC MARKER	⊕ FOMK
PROPERTY ID NUMBER	PIN	TRAFFIC SIGNAL CONTROLLER	⊕ TFSB
NOW OR FORMERLY	N/F	TRAFFIC SIGNAL POLE	⊕ TFP
RIGHT-OF-WAY	R/W	TELECOMMUNICATION MANHOLE	⊕ TMH
BUILDING SETBACK LINE	BSL	TELECOMMUNICATION PEDESTAL	⊕ TP
PLAT BOOK	PB	GAS LINE MARKER	⊕ GMK
DEED BOOK	DB	CLEAN OUT	○ CO
PAGE	PG	SANITARY SEWER MANHOLE	⊕ SSMH
NOT TO SCALE	N.T.S.	SANITARY SEWER LINE	---SS---
UNDERGROUND GAS LINE	---G---	VITRIFIED CLAY PIPE	VCP
GAS SERVICE METER	⊕ GM	STORM MANHOLE	⊕
AIR CONDITIONING UNIT	□ AC	STORM DRAINAGE LINE	---ST---
PEDESTRIAN SIGNAL POLE	⊕ PEDSP	INVERT ELEVATION	IE: 12.00
SIGN - SINGLE POLE	⊕	REINFORCED CONCRETE PIPE	RCP
HANDICAP PARKING	⊕	BOTTOM OF STORM BOX	⊕ BOB
TREE LINE	⊕	GRATE INLET	⊕
CONCRETE SURFACE	⊕	DOUBLE WING CATCH BASIN	⊕ DWCB
ELECTRIC OUTLET BOX	⊕ EO	SINGLE WING CATCH BASIN	⊕ SWCB
ELECTRIC TRANSFORMER	⊕ ET	OVERHEAD ELECTRIC	---E---
LIGHT POLE	⊕ LP	GUY WIRE ANCHOR	⊕ GWA
		POWER POLE	⊕ PP
		ELECTRIC SERVICE METER	⊕ EM



### SCHEDULE B, PART II EXCEPTIONS

Fidelity National Title Insurance Company      Comm. No.: NACS230030      Effective Date: January 17, 2023 at 08:00 A.M.

**ITEMS 1-8 ARE NOT SURVEY RELATED MATTERS.**

9. Easement granted by J.W. Gray, to South Carolina Power Company, dated January 16, 1931, and recorded May 11, 1931, in Book 48, Page 113. **(DOES NOT AFFECT SUBJECT PROPERTY)**

10. Easement granted by J. W. Gray, to South Carolina Electric & Gas Company, dated October 27, 1964, and recorded December 10, 1964, in Book 126, Page 250. **(DOES NOT AFFECT SUBJECT PROPERTY)**

11. Easement granted by John W. Gray, III, and Cecile Gray, to South Carolina Electric & Gas Company, dated September 2, 1983, and recorded September 29, 1983, in Book 378, Page 1414. **(DOES NOT AFFECT SUBJECT PROPERTY)**

12. Easement granted by John W. Gray to South Carolina Electric & Gas Company, dated December 17, 1984, and recorded in Book 413, Page 16. **(DOES NOT AFFECT SUBJECT PROPERTY)**

13. Easement granted by John W. Gray, III, and Cecile Gray (Life Estate), to South Carolina Electric & Gas Company, dated August 9, 1989, and recorded January 12, 1990, in Book 544, Page 722. **(DOES NOT AFFECT SUBJECT PROPERTY)**

14. Easement granted by John W. Gray, III, and Cecile Gray (Life Estate), to South Carolina Electric & Gas Company, dated September 6, 1989, and recorded January 12, 1990, in Book 544, Page 724. **(DOES NOT AFFECT SUBJECT PROPERTY)**

15. Easement granted by John W. Gray, III, to South Carolina Electric & Gas Company, dated June 26, 1991, and recorded February 28, 1992, in Book 593, Page 1165. **(DOES NOT AFFECT SUBJECT PROPERTY)**

16. Easement granted by John W. Gray, III, to South Carolina Electric & Gas Company, dated June 30, 2000, and recorded August 14, 2000, in Book 1322, Page 1883. **(DOES NOT AFFECT SUBJECT PROPERTY)**

17. Easement granted by Myrtle Bush Farms, L.P., to South Carolina Electric & Gas Company, dated June 30, 2000, and recorded August 14, 2000, in Book 1322, Page 1885, as affected by a partial release filed in the Partial Release of Easement by SCE&G dated August 15, 2017, and recorded September 21, 2017, in Book 3607, Page 3169. **(AFFECTS SUBJECT PROPERTY - BLANKET EASEMENT)**

18. Annotated Condemnation Notice and Tender of Payment in the matter of South Carolina Department of Transportation v. Myrtle Bush Farms, L.P., Case Number 19-CP-07-2679, recorded on March 24, 2021, in Book 3988, Page 2365. **(DOES NOT AFFECT SUBJECT PROPERTY)**

19. Cost Sharing and Easement Agreement by and between Beaufort Station Partners, LLC, a Delaware limited liability company, and Myrtle Bush Farms L.P., a South Carolina limited partnership, dated December 22, 2021, and recorded January 4, 2022, in Book 4101, Page 588. **(DOES NOT AFFECT SUBJECT PROPERTY)**

20. Memorandum of Right of First Refusal by and between Myrtle Bush Farms L.P., a South Carolina limited partnership, and Beaufort Station Partners, LLC, a Delaware limited liability company, dated December 22, 2021, and recorded January 4, 2022, in Book 4101, Page 603. **(DOES NOT AFFECT SUBJECT PROPERTY)**

21. All easements and matters of survey entitled, "ALTA/NSPS Land Title Survey of A Portion of Tax ID R120-028-000-0138-0000 Beaufort County, South Carolina, Surveyed For Beaufort Station Partners, LLC", by Timmons Group, Inc., dated and recorded in Plat Book 158, Page 45, including, but not limited to the following:  
a. Underground and Painted Telephone Lines, and Telephone Pedestal;  
b. 24" CMP;  
c. Concrete Walk;  
d. Dirt Road, and  
e. Sanitary Sewer Lines.  
**(SUBJECT PROPERTY LIES WITHIN THIS FORMER PLAT - NO ITEMS SHOWN AFFECT SUBJECT PROPERTY)**

22. Contractors Notice of Project Commencement by WIMCO Corp. against Beaufort Station Partners, LLC, dated February 23, 2022, and recorded February 25, 2022, in Book 4116, Page 3295. **(DOES NOT AFFECT SUBJECT PROPERTY)**

23. Memorandum of Lease by and between Beaufort Station Partners, LLC, a Delaware limited liability company, as Landlord, and Hobby Lobby Stores, Inc., an Oklahoma corporation, as Tenant, dated January 27, 2022, and recorded January 31, 2022, in Book 4110, Page 1454. **(DOES NOT AFFECT SUBJECT PROPERTY)**

24. Memorandum of Lease by and between Beaufort Station Partners, LLC, a Delaware limited liability company, as Landlord, and Ross Dress For Less, Inc., a Virginia corporation, as Tenant, dated December 17, 2021, and recorded January 11, 2022, in Book 4114, Page 1441. **(DOES NOT AFFECT SUBJECT PROPERTY)**

25. Memorandum of Lease by and between Beaufort Station Partners, LLC, a Delaware limited liability company, as Landlord, and PETSMART LLC, as Tenant, dated March 17, 2022, (executed on June 15, 2022), and recorded October 21, 2022, in Book 4191, Page 2913. **(DOES NOT AFFECT SUBJECT PROPERTY)**

END OF SCHEDULE B, PART II

### OF RECORD LEGAL DESCRIPTION

Fidelity National Title Insurance Company      Commitment No. NACS230030      Effective Date: January 17, 2023 at 08:00 A.M.

EXHIBIT "A" Legal Description:  
Lying and situate in Beaufort County, South Carolina, and described as follows:  
Being all that certain lot, parcel or tract of land located in Beaufort County, South Carolina, depicted as "Proposed Tract A" containing 1,387.509 S.F. or 31.853 AC. on that certain survey thereof entitled, "ALTA/NSPS Land Title Survey of A Portion of Tax ID R120-028-000-0138-0000 - Beaufort County, South Carolina," prepared by Michael S. Miller (PLS 26212) of Timmons Group, Inc. (L-3857), dated December 17, 2021, and recorded in the Register of Deeds Office for Beaufort County, South Carolina, in Plat Book 158, Page 45, Instrument Number 2021088252, reference to said survey being made hereby for a more accurate and complete description of such property.

### AS SURVEYED LEGAL DESCRIPTION

All that certain lot, tract, or parcel of land situate, lying and being in the Beaufort County, South Carolina, and being more particularly described as follows:  
COMMENCING at a 5/8" iron rebar found at the intersection of the southern right-of-way of South Carolina Route 170 - Robert Smalls Parkway (public right-of-way varies) and the western right-of-way of South Carolina Route 280 - Parris Island Gateway (public right-of-way varies), having a coordinate value of North 215400.98 and East 2083545.34, according to the South Carolina State Plane Coordinate System, NAD83, International Foot, said point also being known as the POINT OF COMMENCEMENT;  
Thence along the southern right-of-way of S.C. Route 170 S 61°15'35" W a distance of 45.38' to a 5/8" iron pipe found; Thence S 62°24'20" W a distance of 100.02' to a 5/8" iron pipe found; Thence S 61°15'35" W a distance of 50.16' to a 5/8" iron rebar found; Thence S 65°50'01" W a distance of 50.16' to a 5/8" iron rebar found; Thence S 61°15'35" W a distance of 100.00' to a 5/8" iron rebar set, and having a coordinate value of North 215224.00 and East 2083210.16, according to the South Carolina State Plane Coordinate System, NAD83, International Foot, said point also being known as the POINT OF BEGINNING;  
THENCE departing aforesaid southerly right-of-way, and along lands of Beaufort Station Partners, LLC S 28°38'46" E a distance of 262.68' to a 5/8" iron rebar set; Thence S 61°15'21" W a distance of 250.61' to a 5/8" iron rebar set; Thence with a curve turning to the right with an arc length of 35.13', a radius of 19.52', a chord bearing of N 67°09'41" W, and a chord length of 30.58', to a 5/8" iron rebar set; Thence N 13°20'47" W a distance of 1.46' to a 5/8" iron rebar set; Thence with a curve turning to the left with an arc length of 110.86', a radius of 412.50', a chord bearing of N 21°02'43" W, and a chord length of 110.52', to a 5/8" iron rebar set; Thence N 28°44'39" W a distance of 91.02' to a 5/8" iron rebar set; Thence N 25°52'55" W a distance of 10.01' to a 5/8" iron rebar set; Thence N 28°44'39" W a distance of 15.22' to a 5/8" iron rebar set; Thence with a curve turning to the right with an arc length of 11.93', a radius of 28.00', a chord bearing of N 16°32'27" W, and a chord length of 11.84', to a 5/8" iron rebar set, on the southerly right-of-way of aforesaid S.C. Route 170; Thence along the southerly right-of-way N 61°15'35" E a distance of 251.86' to a 5/8" iron rebar set, the SAID POINT OF BEGINNING.  
Said parcel contains 1,550 acres (67,719 square feet) of land, more or less.  
This being a portion of the same parcel of land as described Fidelity National Title Insurance Company Commitment No.: NACS230030, with an effective date of January 17, 2023 at 08:00 a.m.

### SURVEYOR'S CERTIFICATION

To: Drayton-Parker Companies, LLC, a Georgia limited liability company; Fidelity National Title Insurance Company.  
Fidelity National Title Insurance Company      Commitment No. NACS230030      Effective Date: January 17, 2023 at 08:00 A.M.

This is to certify that this map or plat of the survey on which it is based was made in accordance with the 2021 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS and includes items 1, 2, 3, 4, 5, 6(a), 7(a), 7(b)(1), 7(c), 8, 9, 10, 11(a), 11(b), 13, 14, 16, and 19 of Table A thereof.

The fieldwork was completed on April 25, 2023.

"I hereby state that to the best of my knowledge, information and belief, the survey shown herein was made in accordance with the requirements of the Standards of Practice Manual for Surveyors in South Carolina, and meets or exceeds the requirements for a Class "A" Survey as specified therein; also there are no visible encroachments or projections other than shown."

**J. D. LANGFORD, JR.**  
S.C. LIC.# 19396

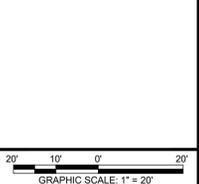
SC REG. L. S. LIC. NO. 19396      DATE

### SURVEY NOTES

- Horizontal Datum is South Carolina State Plane Coordinate System, North American Datum of 1983 (NAD83).
- Vertical Datum is North American Vertical Datum of 1988 (NAVD88).
- Basis of Bearings, Horizontal Control, Vertical Control and some spot elevations were obtained utilizing GPS (global positioning systems). The equipment used to obtain this data was a eGPS 20TL GNSS receiver (RTK Accuracy (Horizontal: 8mm + 1ppm RMS) (Vertical: 15mm + 1ppm RMS)) with a Juniper Systems Mesa 3 data collector receiving RTK corrections via a Verizon Jetpack MFI 8620L from the South Carolina Real Time Network. The technique used was RTK corrected measurements from a Trimble VRS Real Time Network operated by South Carolina Revenue and Fiscal Affairs Department.
- All deed book references shown hereon are recorded in the Register of Deeds Office of Beaufort County, South Carolina.
- Structures visible on the date of this survey are shown hereon.
- This property is located in Zone X, not a Special Flood Hazard Area per the Federal Emergency Management Agency's Flood Insurance Rate Map No. 45013C0161G; Effective Date: 3/23/2021. This determination is based on lines taken digitally from <http://hazards-fema.maps.arcgis.com>, and have not been verified in the field by EMC Engineering Services, Inc.
- The utilities as shown are per the location of poles, manholes, valves, pedestals, etc., existing drawings and information provided by utility personnel. The surveyor makes no guarantee that the utilities shown comprise all such utilities in the area, either in service or abandoned. The surveyor further does not warrant that the utilities shown are in the exact location indicated, although he does certify that they are located as accurately as possible from the information available.
- All wetlands are under the jurisdiction of the U.S. Army Corps of Engineers and/or the State of South Carolina Department of Natural Resources. Lot owners are subject to penalty by law for disturbance to these protected areas without proper permit application and approval.
- The site is currently under construction. At the time of this survey, the subject property was being graded to proposed elevations, storm water, detention, and sanitary sewer and other utilities were being installed.
- There were no proposed changes in street right of way lines made available to the surveyor by the controlling jurisdiction. There were no wetland delineation markers observed in the process of conducting the fieldwork.
- At the time of this survey, there was no observable evidence of the site being used as a burial ground or cemetery.
- At the time of this survey, there was no observable evidence of the site being used as a landfill or solid waste dump.
- At the time of this survey, there was no observable evidence of any intrusion of buildings, fences or other improvements within the subject property.
- There are no gaps, gores, or overlaps inherent to the surveyed property based on the survey performed and title commitment provided.
- The subject property has direct access to S.C. Hwy 170 (Robert Smalls Parkway).

SURVEY DATA	
Outlot 1	1.550 Acres (67,719 Square Feet)
Plat Closure:	1 in 155,792
Field Closure:	1 in 63,308
Angular Error:	04" per angle point
Adjusted by:	Compass Rule
Equipment used:	Carlson CR2+ Robotic Total Station
	eGPS 20TL GNSS Receiver/GPS Network
Field Work Completed on:	April 25, 2023
<b>REFERENCES:</b>	
DB 4099, PG 1301	PB 158, PG 45      PB 158, PG 132

NO.	REVISION DESCRIPTION	DATE



**EMC ENGINEERING SERVICES, INC.**  
120 North Laurens Street, Suite 200  
Greenville, SC 29601  
PH: (770) 860-1404  
www.emc-eng.com

**CIVIL ENGINEER**  
MARINE ENVIRONMENTAL

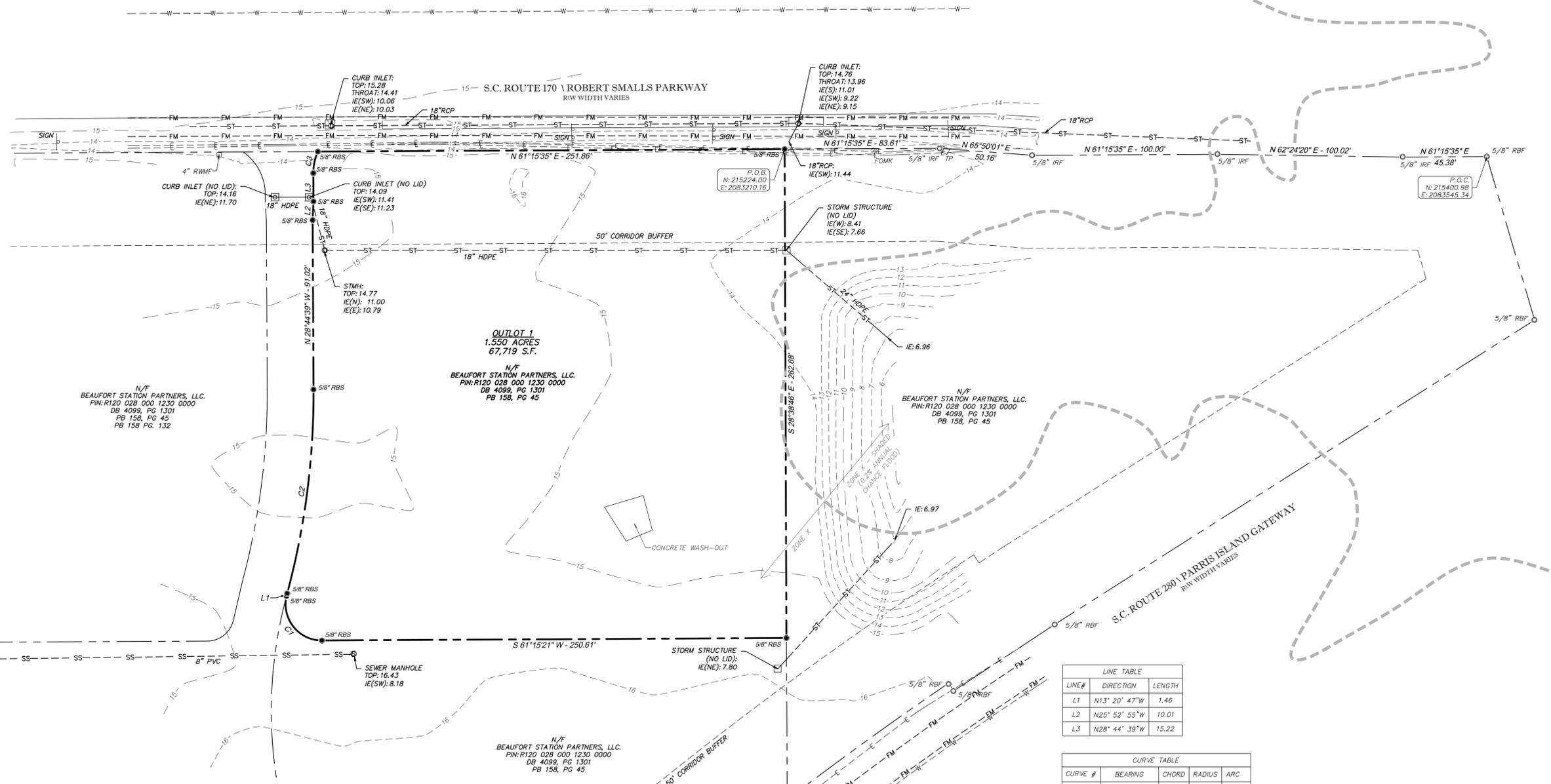
ALBANY • ATLANTA • AUGUSTA • BRUNSWICK • COLUMBUS  
GREENVILLE • SAVANNAH • STATESBORO • THOMASTON • VALDOSTA

ALTA / NSPS LAND TITLE SURVEY  
**OUTLOT 1 - BEAUFORT STATION**  
BEAUFORT COUNTY, SOUTH CAROLINA  
Prepared for:  
**DRAYTON-PARKER COMPANIES, LLC**

PROJECT NO.:	23-2039
DRAWN BY:	WEC/WPW
DESIGNED BY:	---
SURVEYED BY:	NCH
SURVEY DATE:	4/25/2023
CHECKED BY:	WPW
SCALE:	1" = 30'
DATE:	5/1/2023

01/2023/23-2039 PARKERS - BEAUFORT STATION/DMC 23-2039/NOT BEAUFORT STATION, SC.DWG 5/1/2023 4:47 PM

THIS BOX IS RESERVED FOR THE SUPERIOR COURT CLERKS FILING INFORMATION



LINE#	DIRECTION	LENGTH
L1	N13° 20' 47\"W	1.46
L2	N25° 52' 55\"W	10.01
L3	N28° 44' 39\"W	15.22

CURVE #	BEARING	CHORD	RADIUS	ARC
C1	N67° 09' 41\"W	30.58	19.52	35.13
C2	N21° 02' 43\"W	110.52	412.50	110.86
C3	N16° 32' 27\"W	11.84	28.00	11.93

### LEGEND

PROPERTY BOUNDARY	---	WATER MAIN LINE	---
ADJACENT PROPERTY LINE	---	FIRE HYDRANT	⊗
METES AND BOUNDS	N 47°45'54\" E - 497.06'	WATER VALVE	⊗
TAG LABEL	L# or C#	WATER METER	⊗
5/8\" IRON REBAR FOUND	⊙ 5/8\" RBF	UNDERGROUND CABLE	---
1/2\" IRON REBAR FOUND	⊙ 1/2\" IRF	UNDERGROUND TELEPHONE	---
IRON REBAR SET W/ICAP	⊙ RBS	OVERHEAD CABLE	---
RIGHT-OF-WAY MONUMENT FOUND	□ RWMF	UNDERGROUND FIBER OPTIC	---
BOLLARD	○ BLR	UNDERGROUND COMM. BOX	□ UVCB
POINT OF COMMENCING	P.O.C.	FIBER OPTIC MARKER	⊙ FOMK
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PAGE	PG	SANITARY SEWER MANHOLE	⊙ SSMH
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AIR CONDITIONING UNIT	⊙ AC	STORM DRAINAGE LINE	---
PEDESTRIAN SIGNAL POLE	⊙ PEDSP	INVERT ELEVATION	IE: 12.00
SIGN - SINGLE POLE	⊙	REINFORCED CONCRETE PIPE	RCP
HANDICAP PARKING	⊙	BOTTOM OF STORM BOX	⊙ BOB
TREE LINE	⊙	GRATE INLET	⊙
CONCRETE SURFACE	⊙	DOUBLE WING CATCH BASIN	⊙ DWCB
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LIGHT POLE	⊙ LP	GUY WIRE ANCHOR	⊙ GWA
		POWER POLE	⊙ PP
		ELECTRIC SERVICE METER	⊙ EM

### SURVEYOR'S CERTIFICATION

To: Drayton-Parker Companies, LLC, a Georgia limited liability company; Fidelity National Title Insurance Company.  
 Fidelity National Title Insurance Company Commitment No. NACS230030 Effective Date: January 17, 2023 at 08:00 A.M.

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2021 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS and includes items 1, 2, 3, 4, 5, 6(a), 7(a), 7(b)(1), 7(c), 8, 9, 10, 11(a), 11(b), 13, 14, 16, and 19 of Table A thereof.

The fieldwork was completed on April 25, 2023.

I hereby state that to the best of my knowledge, information and belief, the survey shown herein was made in accordance with the requirements of the Standards of Practice Manual for Surveyors in South Carolina, and meets or exceeds the requirements for a Class "A" Survey as specified therein; also there are no visible encroachments or projections other than shown.



**J. D. LANGFORD, JR.**  
S.C. LIC. # 19396

SC REG. L. S. LIC. NO. 19396 DATE \_\_\_\_\_

NO.	REVISION DESCRIPTION	DATE



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ALTA / NSPS LAND TITLE SURVEY  
 OUTLOT 1 - BEAUFORT STATION  
 BEAUFORT COUNTY, SOUTH CAROLINA  
 Prepared for:  
 DRAYTON-PARKER COMPANIES, LLC

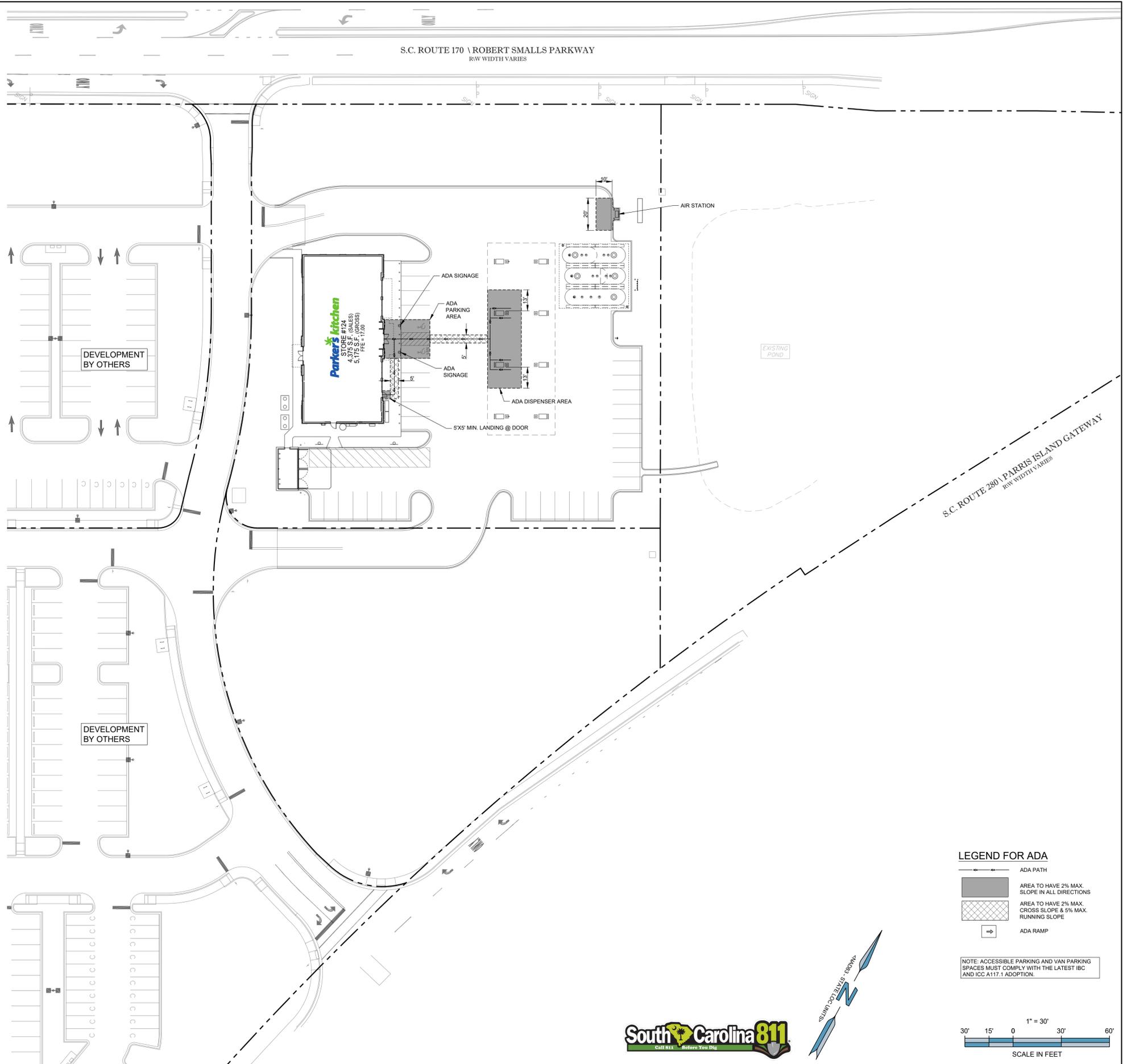
PROJECT NO.: 23-2039  
 DRAWN BY: WEC/WPW  
 DESIGNED BY: ---  
 SURVEYED BY: NCH  
 SURVEY DATE: 4/25/2023  
 CHECKED BY: WPW  
 SCALE: 1" = 30'  
 DATE: 5/1/2023

SHEET  
**2**  
 OF 2

01/2023/23-2039 PARKERS - BEAUFORT STATION (DWG 23-2039)\_01 BEAUFORT STATION, SCDWG 5/1/2023 4:47 PM



Z:\PROJECTS\2023\08\20230808\_000119\_BEAUFORT\_SC\_PARKERS\_KITCHEN\_STATIONING\_FINAL.DWG: SITE & LAYOUT PLAN.DWG 8/20/2023 10:28 AM B:\BIM\A\CAMINO\_Sheet Size.rvt



ENGINEER:  
**FORESITE**  
 group

DEVELOPER:  
**Parker's kitchen**  
 DRAYTON-PARKER COMPANIES, LLC  
 17 W MCDONOUGH ST  
 SAVANNAH, GA 31401  
 (912) 677-0693  
 CONTACT: DANIEL BEN-YISRAEL

PROJECT:  
**PARKER'S KITCHEN**  
 STORE #124 (BEAUFORT STATION)  
 311 ROBERT SMALLS PKWY  
 BEAUFORT, BEAUFORT COUNTY, SC  
 PARCEL #: R120 028 000 1230 0000



REVISIONS	DATE

PROJECT MANAGER: SMH  
 DRAWING BY: SC  
 JURISDICTION: BEAUFORT, SC  
 DATE: 2023-8-29  
 SCALE: 1" = 30'  
 TITLE:

ACCESSIBILITY PLAN  
 SHEET NUMBER:  
**C-1.1**  
 COMMENTS: NOT RELEASED FOR CONSTRUCTION  
 JOB FILE NUMBER: 00.2009.015

**LEGEND FOR ADA**

- ADA PATH
- AREA TO HAVE 2% MAX. SLOPE IN ALL DIRECTIONS
- ▨ AREA TO HAVE 2% MAX. CROSS SLOPE & 5% MAX. RUNNING SLOPE
- ⇒ ADA RAMP

NOTE: ACCESSIBLE PARKING AND VAN PARKING SPACES MUST COMPLY WITH THE LATEST IBC AND ICC A117.1 ADOPTION.

30' 15' 0 30' 60'  
 1" = 30'  
 SCALE IN FEET



**GENERAL NOTES:**

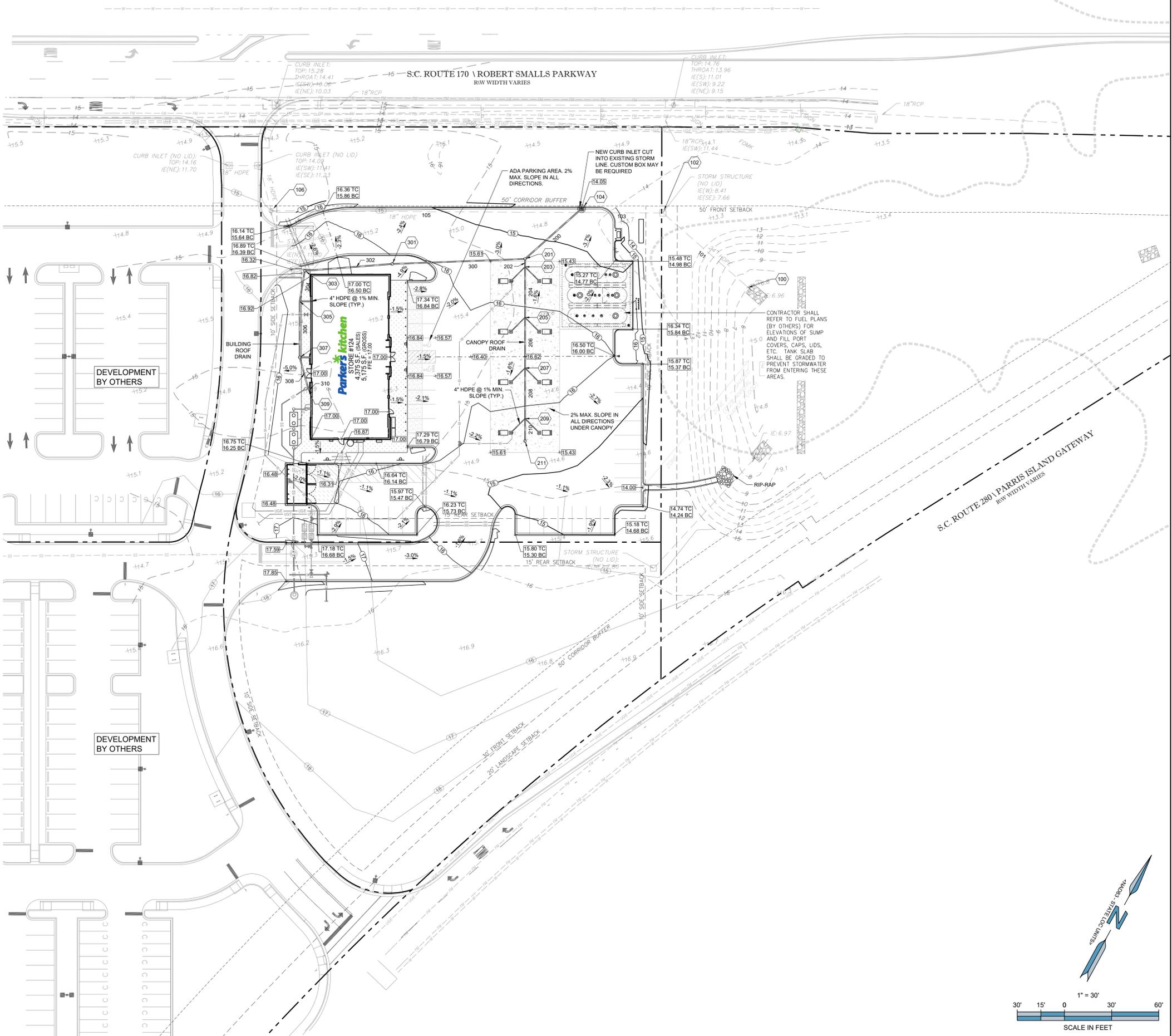
- 1) ALL SPOT ELEVATIONS SHOWN ARE AT THE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
  - 2) ALL PROPOSED SIDEWALKS SHALL BE BUILT WITH A 1.5% CROSS-SLOPE AWAY FROM THE BUILDING.
  - 3) ALL HEAD WALL SECTIONS SHALL BE CONSTRUCTED TO BE FLUSH WITH THE EXISTING DITCH BANK AND PROPOSED EMBANKMENT SLOPES.
- THE SOURCE OF THE TOPOGRAPHIC AND ELEVATION DATA IS FROM THE TOPOGRAPHIC SURVEY PROVIDED BY TIMMONS GROUP DATED 12/17/2021.

**SITE NOTES:**

- 1) THE CONTRACTOR SHALL CLEAN OUT ACCUMULATED SILT IN STORM WATER CONVEYANCE CHANNELS AND PIPES AT END OF CONSTRUCTION WHEN DISTURBED AREAS HAVE BEEN STABILIZED.
- 2) COORDINATE WITH CITY OF BEAUFORT INSPECTIONS DURING CONSTRUCTION.
- 3) NO CERTIFICATE OF OCCUPANCY WILL BE ISSUED UNTIL ALL SITE IMPROVEMENTS HAVE BEEN COMPLETED.
- 4) CONSTRUCT EROSION CONTROL BARRIERS PER CITY OF BEAUFORT INSPECTOR AND MAINTAIN UNTIL PERMANENT VEGETATION IS ESTABLISHED.
- 5) THE CONTRACTOR SHALL RE-ESTABLISH ALL RIGHT OF WAY AREA WHICH IS DAMAGED OR DISTURBED TO ORIGINAL CONDITIONS OR BETTER DURING AUTHORIZED WORK. ALL WORK IN CITY OF BEAUFORT RIGHT OF WAY SHALL COMPLY WITH GDOT SPECIFICATIONS.
- 6) ALL CURBED LANDSCAPE ISLANDS SHALL BE FILLED TO TOP OF CURB WITH TOPSOIL AND SEEDED.
- 7) MAXIMUM CUT OR FILL SLOPES IS 2H:1V
- 8) TREE PROTECTION FENCE SHALL BE INSTALLED PRIOR TO ANY CLEARING OR GRADING ACTIVITIES.
- 9) ALL PLASTIC STORM PIPE SHOWN ON THIS PLAN SHALL BE WRAPPED WITH LOCATION WIRE AND TAPE.
- 10) ALL CMP STORM PIPE SHALL BE TYPE 2 ALUMINIZED. ALL HDPE SHALL BE AASHTO TYPE "S" AND SHALL BE INSTALLED IN ACCORDANCE TO ASTM D2321 OR AASHTO SECTION 30 STANDARD PRACTICES AND AS RECOMMENDED BY THE MANUFACTURER. ALL RCP STORM PIPE SHALL BE CLASS III.
- 11) IN ALL AREAS OF FILL OR OTHERWISE DISTURBANCE OF EXISTING CONDITIONS, UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL FULLY AND COMPLETELY REMOVE AND LEGALLY DISPOSE OFF-SITE. ALL PLANT MATERIALS INCLUDING BUT NOT LIMITED TO ROOT SYSTEMS, CONCRETE, REINFORCED CONCRETE, ASPHALT, DEBRIS, UNDERBRUSH, TOPSOIL, AND OTHER DELETERIOUS MATERIAL. THE SUBGRADE TO REMAIN SHALL BE COMPACTED TO 95% STANDARD PROCTOR MAXIMUM DRY DENSITY FOLLOWING FULL REMOVAL OF THESE MATERIALS.
- 12) REFER TO SUBSURFACE EXPLORATION AND GEOTECHNICAL ENGINEERING EVALUATION REPORTS AS PROVIDED BY OWNER FOR RECOMMENDATIONS ASSOCIATED WITH GENERAL SITE PREPARATION, BUILDING PAD PREPARATION, SUBGRADE PREP, AREAS TO RECEIVE FILL, AREAS TO BE OVEREXCAVATED, PAVEMENT SECTIONS, FILL, SLOPES AND EXCAVATION. THE CONTRACTOR SHALL HAVE THIS REPORT ON THE JOB SITE FOR REFERENCE AT ALL TIMES. THE CONTRACTOR SHALL PROVIDE EARTHWORK OPERATIONS AND CONSTRUCTION PHASE MONITORING TO ENSURE THAT ALL COMPACTION IS COMPLETED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT. THE CONTRACTOR SHALL PROVIDE TESTING REPORTS TO THE OWNER REGARDING COMPACTION TESTING PER THE TESTING PROTOCOL IN THE GEOTECHNICAL REPORT.
- 13) IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN QUALIFIED PROFESSIONAL ADVICE WHEN QUESTIONS ARISE CONCERNING DESIGN AND EFFECTIVENESS OF EROSION CONTROL DEVICES. 24 HR. CONTACT: SARAH HANBLIM (803) 727-8777
- 14) DETENTION FACILITIES AND EROSION CONTROL MEASURES ARE TO BE ACCOMPLISHED PRIOR TO ANY OTHER CONSTRUCTION ON THE SITE AND MAINTAINED UNTIL PERMANENT GROUND COVER IS ESTABLISHED.
- 15) EXTREME CAUTION SHALL BE USED WHEN WORKING WITHIN THE VICINITY OF THE EXISTING OVERHEAD POWER LINES. CONTRACTORS SHALL NOTIFY/COORDINATE WITH DOMINION PRIOR TO CONSTRUCTION.
- 16) STORM WATER MANAGEMENT SHALL BE IN ACCORDANCE WITH COUNTY, STATE, AND OTHER APPROPRIATE ORDINANCES AND REGULATIONS IN EFFECT AT TIME OF CONSTRUCTION PLAN APPROVAL.
- 17) IN HEAVY DUTY PAVEMENT AREAS G.A.B. SHALL EXTEND UNDER THE GUTTER TO PROVIDE ADDITIONAL STABILITY FOR TRUCK TRAVEL.
- 18) CONTRACTOR SHALL INSTALL DOWNSTREAM STORM PIPE CONNECTION IN THE RIGHT-OF-WAY PRIOR TO INSTALLATION OF ON-SITE STORM PIPING AND/OR STORM WATER DETENTION FACILITY. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES SHOWN ON THE PLANS BY POT HOLEING THE LINES. THE CONTRACTOR SHALL HAVE THE LINES SURVEYED, INCLUDING HORIZONTAL AND VERTICAL LOCATION, AND THE SURVEYED POINTS SENT TO THE PROJECT ENGINEER TO DETERMINE IF ANY UTILITY CONFLICTS WILL AFFECT THE CURRENT STORM DRAINAGE DESIGN.

**LEGEND**

- EXISTING CONTOURS
- - - - PROPOSED CONTOURS
- - - - EXISTING STORM PIPE
- - - - PROPOSED STORM PIPE
- +.....+ EXISTING SPOT ELEVATION
- +.....+ PROPOSED SPOT ELEVATION
- +.....+ PROPOSED SPOT ELEVATION FOR TOP OF WALL / BOTTOM OF WALL AT FINISHED SURFACE GRADE (SEE STRUCTURAL FOR FOOTING ELEVATIONS)



ENGINEER:

**FORESITE**  
group

DEVELOPER:

**Parker's kitchen**

DRAYTON-PARKER COMPANIES, LLC  
17 W MCDONOUGH ST  
SAVANNAH, GA 31401  
(912) 677-0693

CONTACT: DANIEL BEN-YISRAEL

PROJECT:

**PARKER'S KITCHEN**

311 ROBERT SMALLS PKWY  
CITY OF BEAUFORT, BEAUFORT COUNTY, SC  
PARCEL #: R120 028 000 1230 0000

SEAL:

REVISIONS	DATE

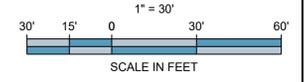
PROJECT MANAGER: SMH  
DRAWING BY: SC  
JURISDICTION: CITY OF BEAUFORT, SC  
DATE: 2023-07-19  
SCALE: 1" = 30'  
TITLE:

**GRADING & DRAINAGE PLAN**

SHEET NUMBER: **C-2**

COMMENTS: NOT RELEASED FOR CONSTRUCTION

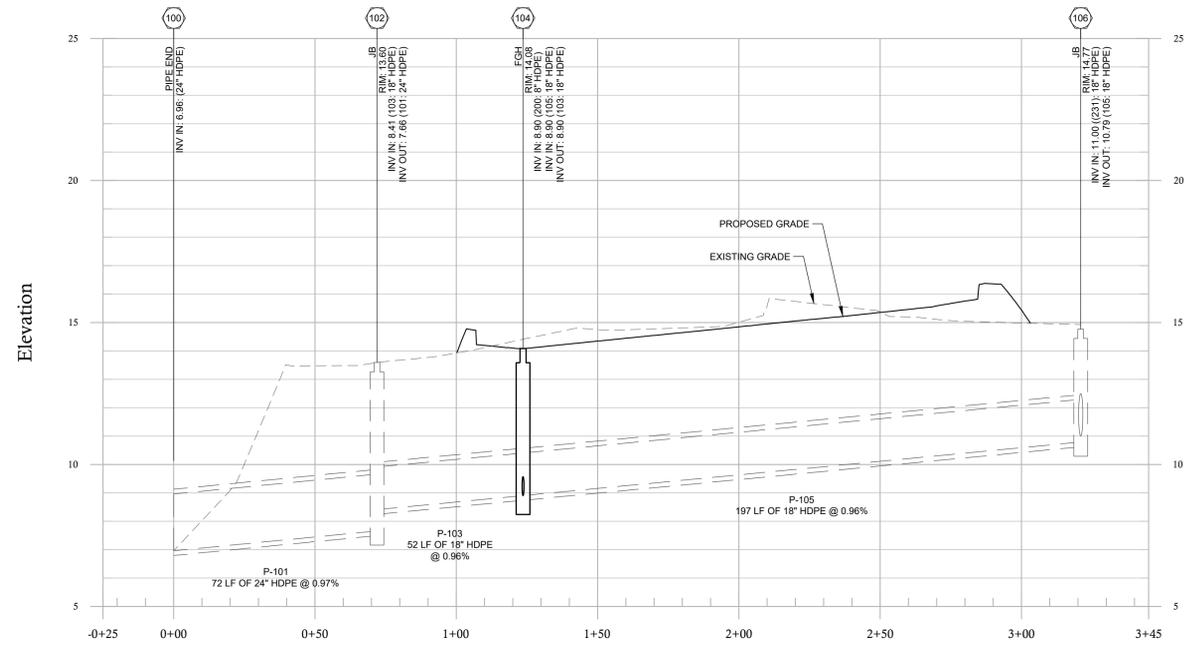
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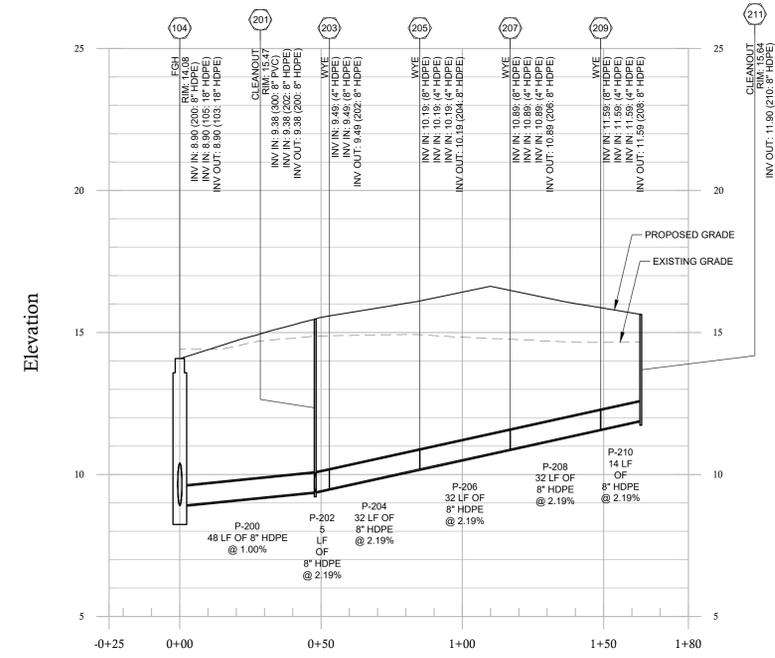
**GENERAL NOTES:**

- 1) PIPE LENGTHS REFLECT THE PIPES LINEAR LENGTH AND ARE SHOWN FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
- 2) EXISTING UTILITY DEPTHS ARE APPROXIMATED BASED ON 4 FT COVER FROM THE EXISTING GROUND SURFACE. PROPOSED UTILITY DEPTHS ARE BASED ON 4 FT OF COVER FROM THE PROPOSED GROUND SURFACE. CONTRACTOR SHALL FIELD VERIFY ALL UTILITY DEPTHS AT CROSSING AND CONTACT ENGINEER IMMEDIATELY IF CONFLICTS ARE ENCOUNTERED.
- 3) CONTRACTOR TO FIELD VERIFY EXISTING ELEVATIONS OF UTILITIES IN RIGHT OF WAY TO AVOID CONFLICTS. CONTACT ENGINEER IMMEDIATELY IF FIELD ELEVATIONS DIFFER FROM THE DESIGN DRAWINGS.
- 4) MAINTAIN MINIMUM 2' OF COVER OVER METAL AND PLASTIC PIPES DURING CONSTRUCTION ACTIVITIES.

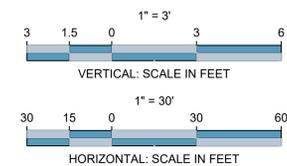
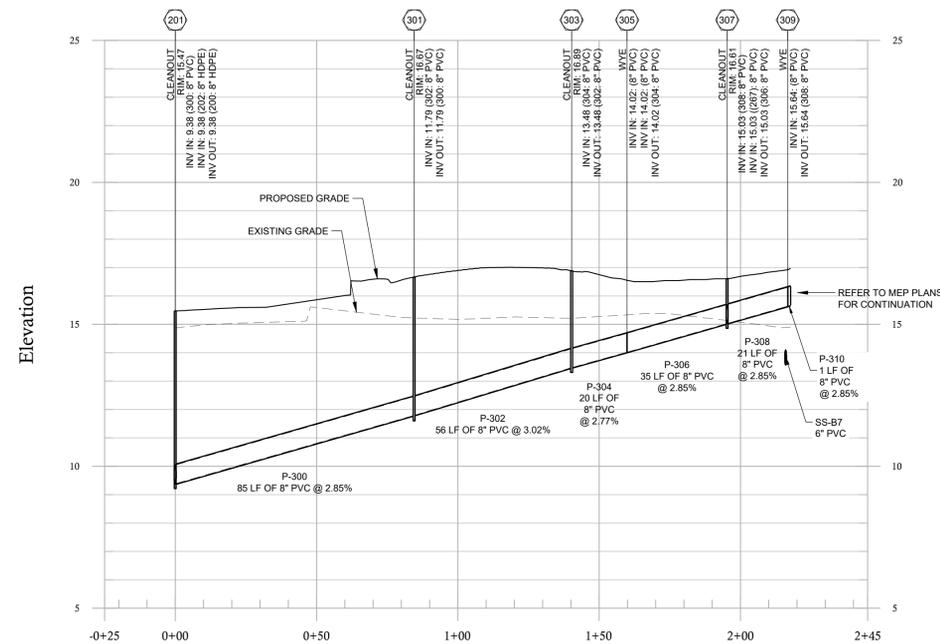
**STORM 100**  
1" = 30' H, 1" = 3" V



**STORM 200 (2)**  
1" = 30' H, 1" = 3" V



**STORM 300**  
1" = 30' H, 1" = 3" V



ENGINEER:



DEVELOPER:



DRAYTON-PARKER COMPANIES, LLC  
17 W MCDONOUGH ST  
SAVANNAH, GA 31401  
(912) 677-0693

CONTACT: DANIEL BEN-YISRAEL

PROJECT:

**PARKER'S KITCHEN**  
STORE #124 (BEAUFORT STATION)

311 ROBERT SMALLS PKWY  
BEAUFORT, BEAUFORT COUNTY, SC  
PARCEL #: R120 028 000 1230 0000

SEAL:



REVISIONS DATE

PROJECT MANAGER: SMH  
DRAWING BY: SC  
JURISDICTION: BEAUFORT, SC  
DATE: 2023-8-29  
SCALE: AS SHOWN  
TITLE:

**STORM DRAINAGE PROFILES**

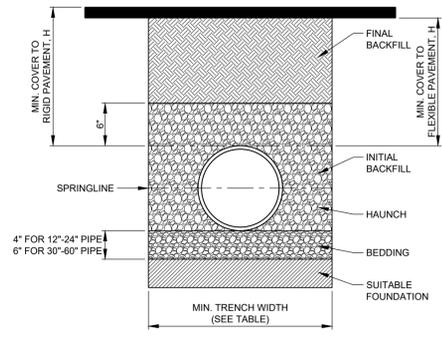
SHEET NUMBER:

**C-2.1**

COMMENTS: NOT RELEASED FOR CONSTRUCTION

JOB/FILE NUMBER: 00.2009.015





**RECOMMENDED MINIMUM TRENCH WIDTHS**

PIPE DIAM.	MIN. TRENCH WIDTH
4"	21"
6"	23"
8"	26"
10"	28"
12"	30"
15"	34"
18"	39"
24"	48"
30"	56"
36"	64"
42"	72"
48"	80"
54"	88"
60"	96"

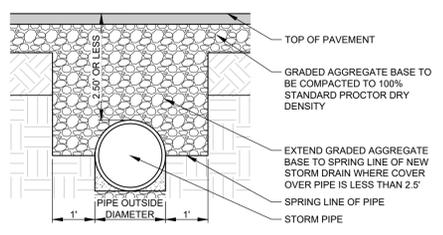
**MINIMUM RECOMMENDED COVER BASED ON VEHICLE LOADING CONDITIONS**

PIPE DIAM.	SURFACE LIVE LOADING CONDITION	
	H-25	HEAVY CONSTRUCTION (75T AXLE LOAD)
12" - 48"	12"	48"
54" - 60"	24"	60"

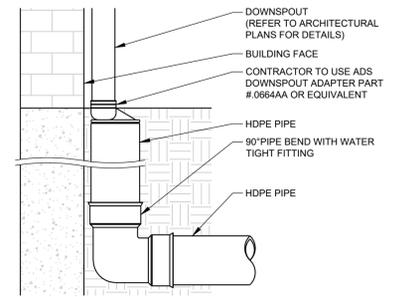
**MINIMUM RECOMMENDED COVER BASED ON RAILWAY LOADING CONDITIONS**

PIPE DIAM.	COOPER	
	E-80**	E-80**
UP TO 24"	24"	24"
30"-36"	36"	36"
42"-60"	48"	48"

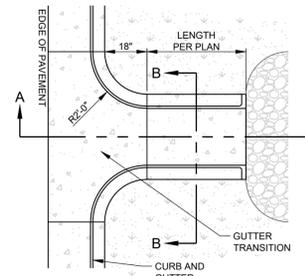
\*\* COVER IS MEASURED FROM TOP OF PIPE TO BOTTOM OF RAILWAY TIE.  
 \*\* E-80 COVER REQUIREMENTS, ARE ONLY APPLICABLE TO ASTM F 2306 PIPE.



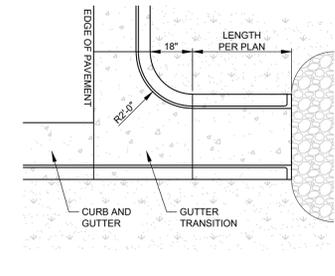
**STORM PIPE MINIMUM COVER**  
NOT TO SCALE



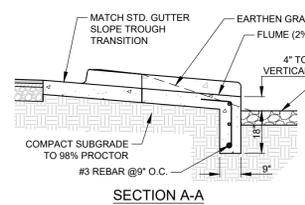
**DOWNSPOUT CONNECTION**  
NOT TO SCALE



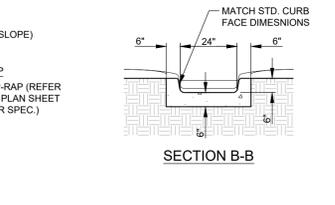
**PLAN VIEW: LONGITUDINAL FLUME**



**PLAN VIEW: CORNER FLUME**



**SECTION A-A**

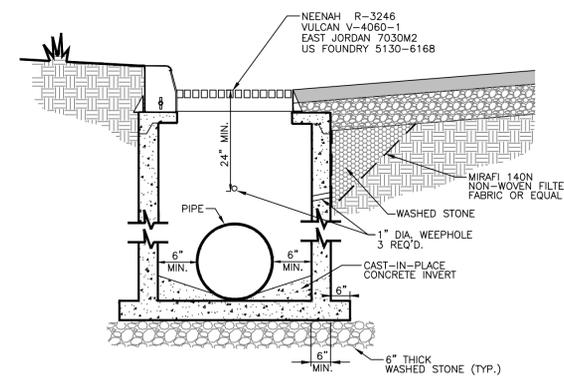


**SECTION B-B**

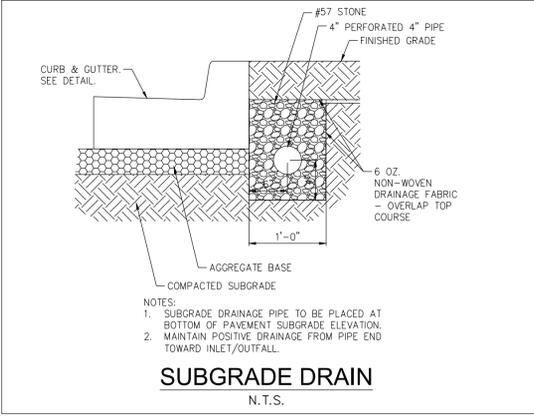
**CONCRETE CURB FLUME**  
NOT TO SCALE

- NOTES:**
- ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS". LATEST EDITION.
  - MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.
  - FOUNDATION:** WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER, AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
  - BEDDING:** SUITABLE MATERIAL SHALL BE CLASS I, II OR III. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER, UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 4"-24" (100mm-600mm); 6" (150mm) FOR 30"-60" (750mm-900mm).
  - INITIAL BACKFILL:** SUITABLE MATERIAL SHALL BE CLASS I, II OR III IN THE PIPE ZONE EXTENDING NOT LESS THAN 6' ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER, MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.
  - MINIMUM COVER:** MINIMUM COVER, H, IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM THE TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER, H, IS 12" UP TO 48" DIAMETER PIPE AND 24" OF COVER FOR 54"-60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.

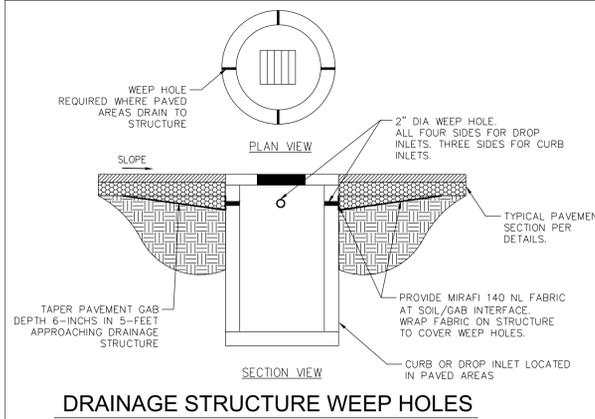
**HDPE BEDDING, TRENCHING, AND BACKFILL**  
NOT TO SCALE



**CURB INLET WITH GRATE**  
N. T.S.  
PRE-CAST CATCH BASIN, TRAFFIC RATING.  
SITE GRADING/STORM CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF ALL CATCH BASINS DURING CONSTRUCTION.



**SUBGRADE DRAIN**  
N. T.S.



**DRAINAGE STRUCTURE WEEP HOLES**  
NO SCALE

ENGINEER:  
**FORESITE group**

DEVELOPER:  
**Parker's kitchen**  
DRAYTON-PARKER COMPANIES, LLC  
17 W MCDONOUGH ST  
SAVANNAH, GA 31401  
(912) 677-0693  
CONTACT: DANIEL BEN-YISRAEL

PROJECT:  
**PARKER'S KITCHEN**  
STORE #124 (BEAUFORT STATION)  
311 ROBERT SMALLS PKWY  
BEAUFORT, BEAUFORT COUNTY, SC  
PARCEL #: R120 028 000 1230 0000

SEAL:  
  
SARAH M. HAMBLIN

REVISIONS

NO.	DATE	DESCRIPTION

PROJECT MANAGER: SMH  
DRAWING BY: SC  
JURISDICTION: BEAUFORT, SC  
DATE: 2023-8-29  
SCALE: AS SHOWN  
TITLE:

**STORM DRAINAGE DETAILS**  
SHEET NUMBER: **C-2.2**  
COMMENTS: NOT RELEASED FOR CONSTRUCTION  
JOB/FILE NUMBER: 00.2009.015



Z:\PROJECTS\2023\08\20230808\_000\_119\BEAUFORT\_SC\PROJECTS\STATION\DRAWING FILES\C-2.2 STORM DRAINAGE DETAILS.DWG Date: 8/29/23 10:30 AM B:\SIGNAL\CAD\DWG\2023\08\20230808\_000\_119\BEAUFORT\_SC\PROJECTS\STATION\DRAWING FILES\C-2.2 STORM DRAINAGE DETAILS.DWG

**UTILITY NOTES:**

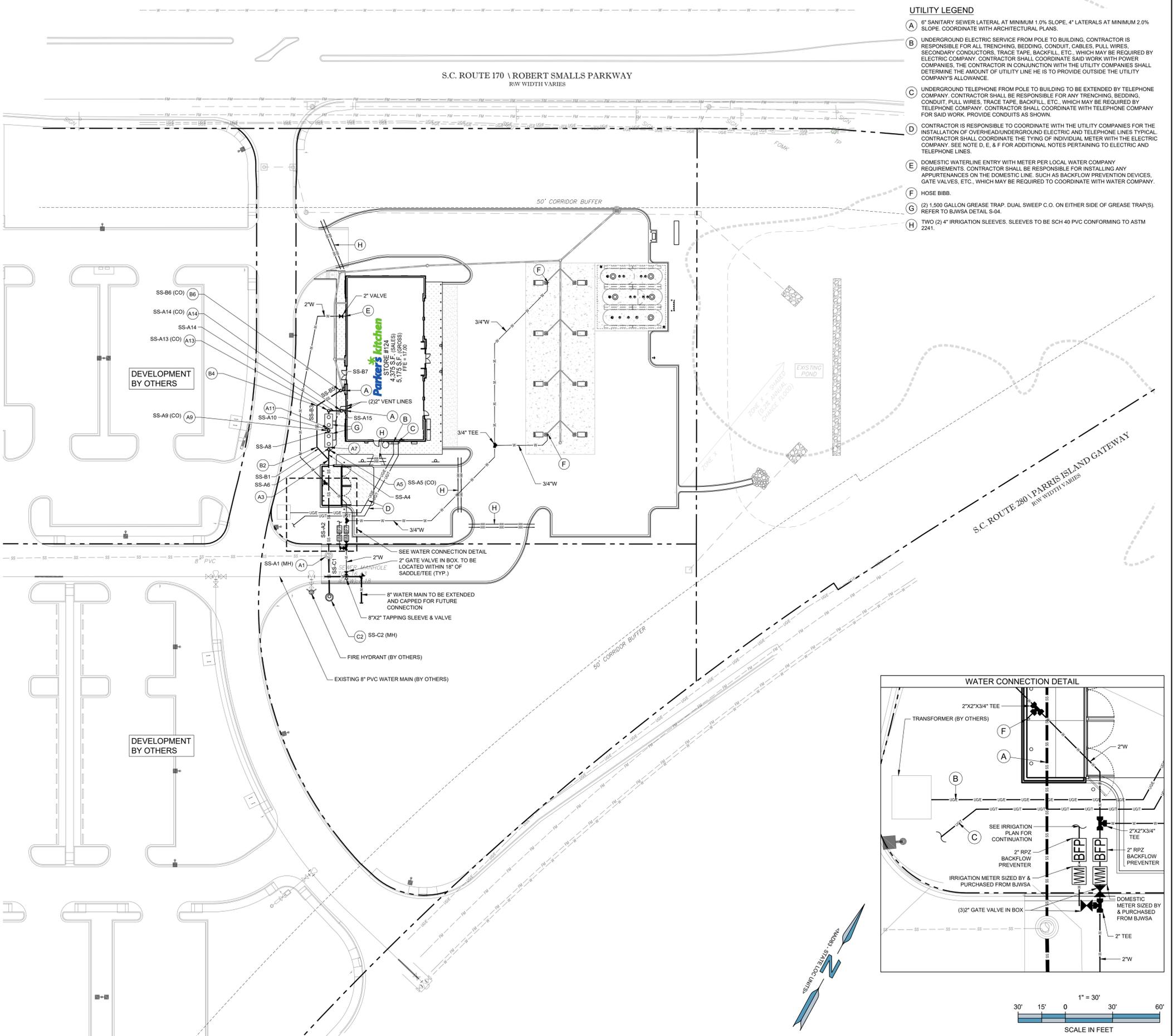
- 1) DOMINION ENERGY WILL PROVIDE UNDERGROUND ELECTRICAL SERVICE FROM THE EXISTING SERVICE POLE TO THE TRANSFORMER PAD. CONTRACTOR MUST PROVIDE TWO (2) 6" PVC (SCH 80) CONDUITS AND A PULL STRING FROM THE EXISTING ELECTRICAL SERVICE POLE TO THE PROPOSED TRANSFORMER LOCATION. THE CONTRACTOR IS ALSO RESPONSIBLE FOR INSTALLING THREE (3) 4" PVC CONDUITS AND SECONDARY WIRING FROM THE TRANSFORMER PAD TO THE PROPOSED BUILDING. THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE POWER SERVICE INSTALLATION AND SHALL COORDINATE WITH THE POWER COMPANY FOR FINAL UNDERGROUND CONDUIT LOCATIONS.
- 2) DOMINION ENERGY WILL PERFORM THE GAS SERVICE CONNECTION. INSTALL THE CONDUIT, AND SET THE METER FOR THE BUILDING. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE SERVICE FROM THE METER INTO THE PROPOSED BUILDING. CONTRACTOR MUST COORDINATE WITH THE ATLANTA GAS LIGHT COMPANY.
- 3) CONTRACTOR MUST PROVIDE AND INSTALL TWO (2) 4" PVC CONDUITS WITH PULL STRINGS, FROM THE EXISTING TELEPHONE SERVICE POLE TO THE TELEPHONE BOARD IN THE BUILDING. THE CONTRACTOR MUST ALSO PROVIDE A #8 GROUND WIRE AT THE TELEPHONE BOARD FOR THE TELEPHONE COMPANY TO INSTALL A PHONE LINE.
- 4) BEAUFORT JASPER WATER & SEWER WILL FURNISH THE DOMESTIC WATER METER AND ALL EQUIPMENT NEEDED TO TAP THE EXISTING WATER LINE. THE CONTRACTOR MUST PROVIDE AND INSTALL THE METER BOX, DOUBLE CHECK BACKFLOW PREVENTER AND ENCLOSURE, AND THE WATER SERVICE LINE FROM THE WATER METER TO THE BUILDING.
- 5) BEAUFORT JASPER WATER & SEWER WILL FURNISH THE IRRIGATION METER AND ALL EQUIPMENT NEEDED TO TAP THE EXISTING WATER LINE. THE CONTRACTOR MUST PROVIDE AND INSTALL THE METER BOX, DOUBLE CHECK BACKFLOW PREVENTER AND ENCLOSURE, AND THE IRRIGATION LINES TO THE AREAS SPECIFIED ON THIS SHEET AND ON SHEET I-1.
- 6) COORDINATE AS REQUIRED WITH THE CITY OF BEAUFORT, BEAUFORT COUNTY INSPECTIONS DURING CONSTRUCTION FOR REQUIRED INSPECTIONS.
- 7) THIS SITE INDICATES POTABLE WATER SERVICE AND SANITARY SEWER LATERALS. THIS WORK TO BE INSTALLED BY A LICENSED PLUMBER IF STATE LAW REQUIRES. ALL WORK MUST BE INSPECTED THE CITY OF BEAUFORT, BEAUFORT COUNTY CODES AND INSPECTION DEPARTMENT.
- 8) ALL ON-SITE PVC PIPE SHALL HAVE CLASS B BEDDING.
- 9) ALL CONDUIT, PIPE, AND CHASE PIPE SHALL BE WRAPPED WITH THE APPROPRIATE LOCATION WIRE AND TAPE.
- 10) NO PRESSURE REDUCING VALVES ARE TO BE INSTALLED ON FIRE LINES. ALL FIRE LINES ARE TO BE INSPECTED BY THE CITY OF BEAUFORT, BEAUFORT COUNTY FIRE SERVICE PRIOR TO COVERING.
- 11) NOTIFY WATER AND SEWER INSPECTOR PRIOR TO START OF CONSTRUCTION.
- 12) THE CONTRACTOR SHALL PROVIDE A COMPLETE SET OF AS-BUILT DRAWINGS INCLUDING ALL RIM ELEVATIONS, INVERT ELEVATIONS, PIPE SIZES, AND PIPE MATERIAL FOR ALL PUBLIC MAINS TO THE ENGINEER AS SOON AS INSTALLATION IS COMPLETE.
- 13) OWNER SHALL BE RESPONSIBLE FOR ANY REPAIR OR REPLACEMENT OF ANY IMPROVEMENTS WITHIN THE SANITARY SEWER, WATER, DRAINAGE EASEMENT(S) DUE TO MAINTENANCE OF SEWER, WATER, STORM DRAIN OF THE CITY OF BEAUFORT, BEAUFORT COUNTY.
- 14) CONTRACTOR SHALL INSTALL THE DOWNSTREAM SANITARY SEWER CONNECTION IN THE RIGHT-OF-WAY PRIOR TO THE INSTALLATION OF THE ON-SITE SERVICE LATERALS. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES SHOWN ON THE PLANS BY HOLDING THE LINES. THE CONTRACTOR SHALL HAVE THE LINES SURVEYED, INCLUDING HORIZONTAL AND VERTICAL LOCATION, AND THE SURVEYED POINTS SENT TO THE PROJECT ENGINEER TO DETERMINE IF ANY UTILITY CONFLICTS WILL AFFECT THE CURRENT SANITARY SEWER DESIGN.
- 15) PVC WATER LINES LESS THAN 3" SHALL BE ASTM D 2241, SDR 21 WITH INTEGRALLY MOLDED BELL ENDS, ASTM D 2672. PVC WATER LINES 3" AND LARGER SHALL BE AWWA C900, RATED DR 18 (CLASS 150) WITH INTEGRALLY MOLDED BELL ENDS, ASTM D3139. DIP WATER LINES SHALL BE AWWA C151, THICKNESS CLASS 50.
- 16) PVC SANITARY SEWER LINES SHALL BE ASTM D 3034, RATED SDR 35 WITH INTEGRALLY MOLDED BELL ENDS, ASTM D 3034, TABLE 2, WITH FACTORY SUPPLIED ELASTOMERIC GASKETS AND LUBRICANT. DIP SANITARY SEWER LINES SHALL BE ASTM A746, CLASS 50 WITH AWWA C111, RUBBER GASKET JOINT DEVICES.
- 17) DEMOLISHED UTILITIES NOT DEPICTED ON THIS SHEET. REFER TO THE DEMOLITION PLAN.

LEGEND	
---	EXISTING FENCE LINE
---	PROPERTY LINE
---	EXISTING CABLE TELEVISION LINE
---	EXISTING FIBER OPTIC LINE
---	EXISTING OVERHEAD POWER LINE
---	EXISTING UNDERGROUND POWER LINE
---	EXISTING UNDERGROUND TELEPHONE LINE
---	EXISTING GAS LINE
---	EXISTING SANITARY SEWER LINE
---	EXISTING WATER LINE
---	EXISTING STORM LINE
---	PROPOSED CABLE TELEVISION LINE
---	PROPOSED FIBER OPTIC LINE
---	PROPOSED OVERHEAD POWER LINE
---	PROPOSED UNDERGROUND POWER LINE
---	PROPOSED UNDERGROUND TELEPHONE LINE
---	PROPOSED GAS LINE
---	PROPOSED SANITARY SEWER LINE
---	PROPOSED WATER LINE
---	PROPOSED FIRE WATER LINE
---	PROPOSED STORM LINE

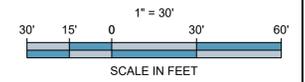
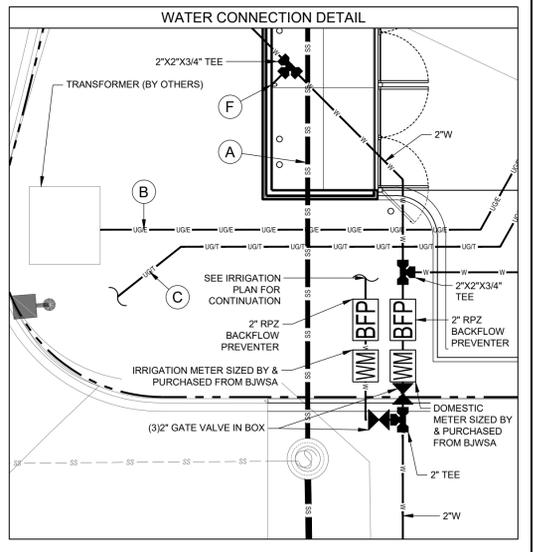
FIRE WATER FLOW TEST	
TEST 1- EXISTING HYDRANT	XXXXXXXXXX, 20XX
DATE OF FLOW TEST:	XX/XX/XX AT X.XXX.XX FT.
STATIC PRESSURE:	X,XXX GPM WITH XX PSI
RECORDED FLOW:	RESIDUAL PRESSURE:
DEVELOPMENT MAXIMUM ELEVATION:	X,XXX.XX M.S.L.
FLOW AVAILABLE AT MAX. ELEVATION:	(TO BE DETERMINED BY DEVELOPER)
SIZE OF WATER MAIN AT PROJECT CONNECTION POINT:	X,XXX GPM WITH XX PSI
	RESIDUAL PRESSURE:
	X INCHES

CONTRACTOR TO CONTACT UTILITIES PROTECTION CENTER PRIOR TO ANY EXCAVATION

S.C. ROUTE 170 \ ROBERT SMALLS PARKWAY  
RW WIDTH VARIES



- UTILITY LEGEND**
- (A) 6" SANITARY SEWER LATERAL AT MINIMUM 1.0% SLOPE, 4" LATERALS AT MINIMUM 2.0% SLOPE. COORDINATE WITH ARCHITECTURAL PLANS.
  - (B) UNDERGROUND ELECTRIC SERVICE FROM POLE TO BUILDING, CONTRACTOR IS RESPONSIBLE FOR ALL TRENCHING, BEDDING, CONDUIT, CABLES, PULL WIRES, SECONDARY CONDUCTORS, TRACE TAPE, BACKFILL, ETC., WHICH MAY BE REQUIRED BY ELECTRIC COMPANY. CONTRACTOR SHALL COORDINATE SAID WORK WITH POWER COMPANIES. THE CONTRACTOR IN CONJUNCTION WITH THE UTILITY COMPANIES SHALL DETERMINE THE AMOUNT OF UTILITY LINE HE IS TO PROVIDE OUTSIDE THE UTILITY COMPANY'S ALLOWANCE.
  - (C) UNDERGROUND TELEPHONE FROM POLE TO BUILDING TO BE EXTENDED BY TELEPHONE COMPANY. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY TRENCHING, BEDDING, CONDUIT, PULL WIRES, TRACE TAPE, BACKFILL, ETC., WHICH MAY BE REQUIRED BY TELEPHONE COMPANY. CONTRACTOR SHALL COORDINATE WITH TELEPHONE COMPANY FOR SAID WORK. PROVIDE CONDUITS AS SHOWN.
  - (D) CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH THE UTILITY COMPANIES FOR THE INSTALLATION OF OVERHEAD/UNDERGROUND ELECTRIC AND TELEPHONE LINES TYPICAL CONTRACTOR SHALL COORDINATE THE TYING OF INDIVIDUAL METER WITH THE ELECTRIC COMPANY. SEE NOTE D, E, & F FOR ADDITIONAL NOTES PERTAINING TO ELECTRIC AND TELEPHONE LINES.
  - (E) DOMESTIC WATERLINE ENTRY WITH METER PER LOCAL WATER COMPANY REQUIREMENTS. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ANY APPURTENANCES ON THE DOMESTIC LINE, SUCH AS BACKFLOW PREVENTION DEVICES, GATE VALVES, ETC., WHICH MAY BE REQUIRED TO COORDINATE WITH WATER COMPANY.
  - (F) HOSE BIBB.
  - (G) (2) 1,500 GALLON GREASE TRAP. DUAL SWEEP C.O. ON EITHER SIDE OF GREASE TRAP(S). REFER TO BJWSA DETAIL S-04.
  - (H) TWO (2) 4" IRRIGATION SLEEVES. SLEEVES TO BE SCH 40 PVC CONFORMING TO ASTM 2241.



ENGINEER:

**FORESITE**  
group

DEVELOPER:

**Parker's kitchen**

DRAYTON-PARKER COMPANIES, LLC  
17 W MC DONOUGH ST  
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(912) 677-0693

CONTACT: DANIEL BEN-YISRAEL

PROJECT:

**PARKER'S KITCHEN**

311 ROBERT SMALLS PARKWAY  
BEAUFORT COUNTY, SC  
PARCEL #R120 028 000 1230 0000

SEAL:

REVISIONS	DATE

PROJECT MANAGER: SMH  
DRAWING BY: SC  
JURISDICTION: BEAUFORT, SC  
DATE: 2023-8-29  
SCALE: 1" = 30'  
TITLE:

UTILITIES PLAN

SHEET NUMBER: **C-3**

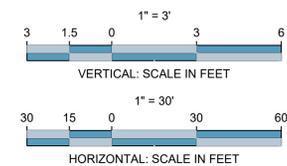
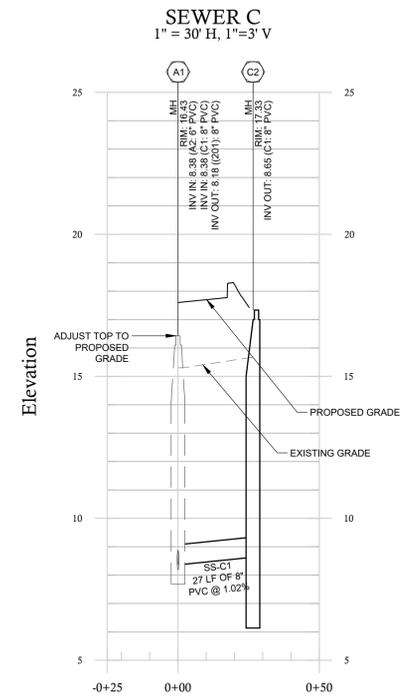
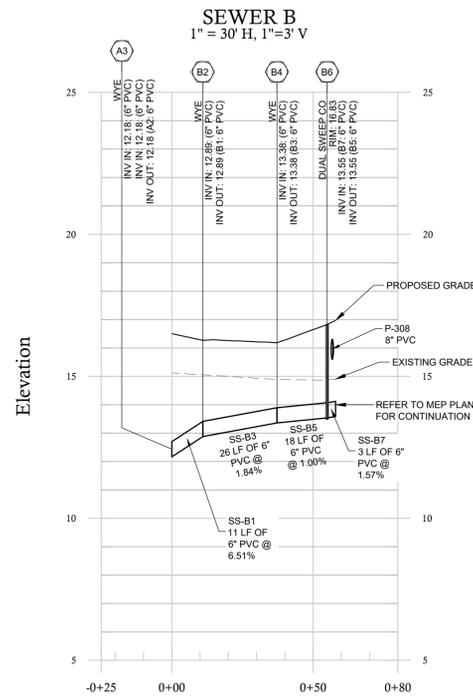
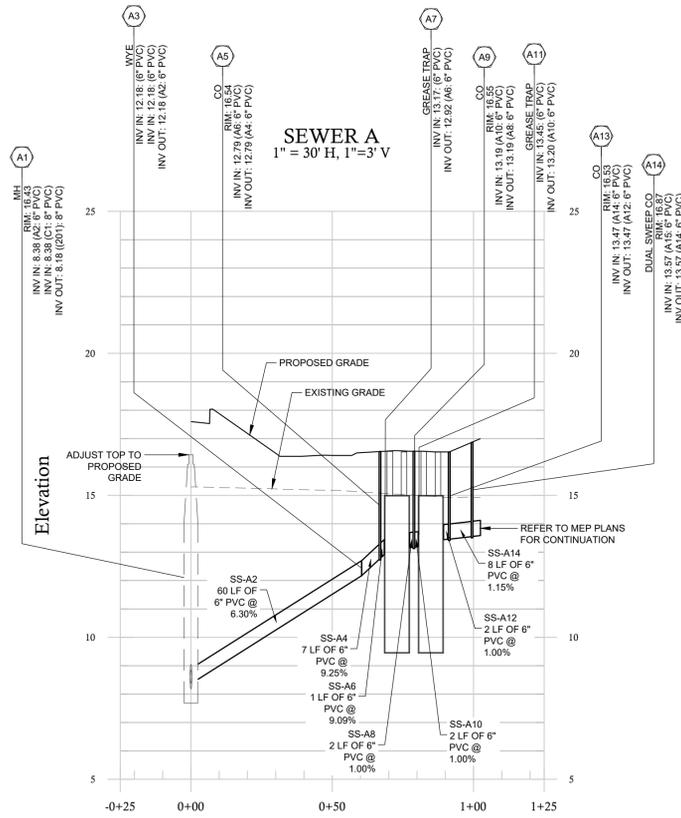
COMMENTS: NOT RELEASED FOR CONSTRUCTION

JOB FILE NUMBER: 00.2009.015



**GENERAL NOTES:**

- 1) PIPE LENGTHS REFLECT THE PIPES LINEAR LENGTH AND ARE SHOWN FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
- 2) EXISTING UTILITY DEPTHS ARE APPROXIMATED BASED ON 4 FT COVER FROM THE EXISTING GROUND SURFACE. PROPOSED UTILITY DEPTHS ARE BASED ON 4 FT OF COVER FROM THE PROPOSED GROUND SURFACE. CONTRACTOR SHALL FIELD VERIFY ALL UTILITY DEPTHS AT CROSSING AND CONTACT ENGINEER IMMEDIATELY IF CONFLICTS ARE ENCOUNTERED.
- 3) CONTRACTOR TO FIELD VERIFY EXISTING ELEVATIONS OF UTILITIES IN RIGHT OF WAY TO AVOID CONFLICTS. CONTACT ENGINEER IMMEDIATELY IF FIELD ELEVATIONS DIFFER FROM THE DESIGN DRAWINGS.
- 4) MAINTAIN MINIMUM 2' OF COVER OVER METAL AND PLASTIC PIPES DURING CONSTRUCTION ACTIVITIES.



ENGINEER:  
**FORESITE**  
group

DEVELOPER:  
**Parker's kitchen**  
  
DRAYTON-PARKER COMPANIES, LLC  
17 W MCDONOUGH ST  
SAVANNAH, GA 31401  
(912) 677-0693  
CONTACT: DANIEL BEN-YISRAEL

PROJECT:  
**PARKER'S KITCHEN**  
STORE #124 (BEAUFORT STATION)  
311 ROBERT SMALLS PKWY  
BEAUFORT, BEAUFORT COUNTY, SC  
PARCEL #: R120 028 000 1230 0000



REVISIONS \_\_\_\_\_ DATE \_\_\_\_\_

PROJECT MANAGER: SMH  
DRAWING BY: SC  
JURISDICTION: BEAUFORT, SC  
DATE: 2023-8-29  
SCALE: AS SHOWN  
TITLE:

**SANITARY SEWER PROFILES**

SHEET NUMBER: **C-3.1**  
COMMENTS: NOT RELEASED FOR CONSTRUCTION  
JOB/FILE NUMBER: 00.2009.015

**GENERAL EROSION CONTROL NOTES:**

- 1) THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION CONTROL MEASURES AND PRACTICES PRIOR TO ALL LAND DISTURBING ACTIVITIES THROUGHOUT THE ENTIRE PROJECT.
2) EROSION AND SEDIMENT CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.

- 3) ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING.
4) A COPY OF THE APPROVED LAND DISTURBANCE PLAN AND PERMIT SHALL BE PRESENT ON THE SITE WHENEVER LAND DISTURBANCE ACTIVITIES IS IN PROGRESS.

- 5) THE CONTRACTOR IS RESPONSIBLE FOR THE MAINTENANCE OF ALL SOIL, EROSION AND SEDIMENTATION CONTROL MEASURES AND BEST MANAGEMENT PRACTICES, WHETHER TEMPORARY OR PERMANENT.
6) EROSION CONTROL DEVICES THAT ARE INSTALLED AS DIRECTED BY AN INSPECTOR BUT NOT SHOWN ON THE APPROVED PLAN ARE THE RESPONSIBILITY OF THE CONTRACTOR.

- 7) IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN QUALIFIED PROFESSIONAL ADVICE WHEN QUESTIONS ARISE CONCERNING TIMING, DESIGN AND EFFECTIVENESS OF EROSION CONTROL DEVICES. 24 HR CONTACT: SARAH HAMBLIN 803-727-8777.
8) ALL SLOPES STEEPER THAN 2.5:1 WITH A HEIGHT OF TEN FEET OR GREATER SHALL BE STABILIZED WITH THE APPROPRIATE EROSION CONTROL MATTING AS SLOPES ARE CONSTRUCTED.

- 9) THE CONTRACTOR SHALL STOCKPILE AND REUSE TOPSOIL TO DRESS FINAL GRADES. CONFIRM THE STOCKPILE LOCATION WITH THE OWNER PRIOR TO COMMENCEMENT OF CONSTRUCTION. SEE GRADING AND DRAINAGE PLANS FOR NOTES REGARDING EXCESS TOPSOIL AND OTHER UNCLASSIFIED FILLEXCAVATION.
10) THE CONTRACTOR IS RESPONSIBLE FOR THE CLEANING OUT OF ANY ACCUMULATED SILT IN THE STORM DRAINAGE PIPES AT END OF CONSTRUCTION WHEN DISTURBED AREAS HAVE BEEN STABILIZED.

- 11) CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING EROSION CONTROL MEASURES UNTIL THE ENTIRE PROJECT HAS UNDERGONE FINAL STABILIZATION AND ALL CONSTRUCTION HAS BEEN COMPLETED.
12) RED LINE COMMENTS ON WORKING SETS OF PLANS SHOULD BE MAINTAINED ON SITE FOR ANY CHANGES MADE TO EROSION CONTROL PLAN. COMMENTS SHOULD INCLUDE DATE AND JUSTIFICATION FOR CHANGES.

- 13) OFF-SITE VEHICLE TRACKING OF DIRT, SOILS, AND SEDIMENTS AND THE GENERATION OF DUST SHALL BE MINIMIZED OR ELIMINATED TO THE MAXIMUM EXTENT PRACTICAL. DUST CONTROL MEASURES MAY CONSIST OF APPLICATION OF MULCHES, VEGETATIVE COVER, SPRAY ON ASPHALTS, CALCIUM CHLORIDE, THE USE OF IRRIGATION, AND/OR THE CONSTRUCTION OF BARRIERS TO PREVENT FROM WIND OR SCREEN AROUNDHOPE PARTICULATES.
14) IF THE ACTION OF VEHICLES TRAVELING OVER THE GRAVEL CONSTRUCTION EXIT PAD DOES NOT SUFFICIENTLY REMOVE MUD FROM VEHICLE TIRES, THE TIRES SHOULD BE WASHED BEFORE LEAVING THE PROJECT SITE. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON THE CONSTRUCTION PAD OR OTHER AREA STABILIZED WITH CRUSHED STONE. ALL RUNOFF FROM WASHING AREAS MUST BE DIRECTED TO A SEDIMENT TRAP OR SEDIMENT BASIN INCLUDED IN THESE PLANS.

**STREAMS AND WETLANDS**

- 1) NO CONSTRUCTION ACTIVITY SHALL BE CONDUCTED WITHIN THE BANKS OF STREAMS OR WITHIN A WETLAND AREA EXCEPT UPON RECEIPT OF AUTHORIZATION FOR SUCH ACTIVITY FROM THE U.S. ARMY CORPS OF ENGINEERS.
2) EXCEPT AS PROVIDED IN NO. 4 BELOW, NO CONSTRUCTION ACTIVITIES SHALL BE CONDUCTED WITHIN A 25 FOOT BUFFER ALONG THE BANKS OF ALL STATE WATERS, AS MEASURED HORIZONTALLY FROM THE POINT WHERE VEGETATION HAS BEEN WRESTED BY NORMAL STREAM FLOW OR WAIVE ACTION EXCEPT WHERE THE DIRECTOR HAS DETERMINED TO ALLOW A VARIANCE THAT IS AT LEAST AS PROTECTIVE OF NATURAL RESOURCES AND THE ENVIRONMENT IN ACCORDANCE WITH THE PROVISIONS OF O.C.G.A. 12-7-4, OR WHERE A DRAINAGE STRUCTURE OR A ROADWAY DRAINAGE STRUCTURE MUST BE CONSTRUCTED. PROVIDED THAT ADEQUATE EROSION CONTROL MEASURES ARE INCORPORATED IN THE PROJECT PLANS AND SPECIFICATIONS AND ARE IMPLEMENTED, OR ALONG ANY EMBANKMENTS AND SEAWALLS MUST BE CONSTRUCTED TO PREVENT THE EROSION OF THE BANKS AND THE ENVIRONMENT IN ACCORDANCE WITH THE PROVISIONS OF O.C.G.A. 12-7-4, OR WHERE A DRAINAGE STRUCTURE OR A ROADWAY DRAINAGE STRUCTURE MUST BE CONSTRUCTED. PROVIDED THAT ADEQUATE EROSION CONTROL MEASURES ARE INCORPORATED IN THE PROJECT PLANS AND SPECIFICATIONS AND ARE IMPLEMENTED.

- 3) PUBLIC DRINKING WATER SYSTEM RESERVOIRS.
4) STREAM CROSSINGS FOR WATER LINES AND SEWER LINES. PROVIDED THAT THE STREAM CROSSINGS OCCUR AT AN ANGLE, AS MEASURED FROM THE POINT OF CROSSING, WITHIN 25 DEGREES OF PERPENDICULAR TO THE STREAM AND CAUSE A WIDTH OF DISTURBANCE OF NOT MORE THAN 50 FEET WITHIN THE BUFFER, AND NATIVE RIPARIAN VEGETATION IS RE-ESTABLISHED IN ANY BARE OR DISTURBED AREAS WITHIN THE BUFFER.
5) STREAM CROSSINGS FOR UTILITY LINES. PROVIDED THAT: (A) THE NEW UTILITY LINE RIGHT-OF-WAY WIDTH DOES NOT EXCEED 100 LINEAR FEET. (B) UTILITY LINES ARE ROUTED AND CONSTRUCTED SO AS TO MINIMIZE THE NUMBER OF STREAM CROSSINGS AND DISTURBANCES TO THE BUFFER. (C) ONLY TREES AND TREE DEBRIS ARE REMOVED FROM WITHIN THE BUFFER RESULTING IN ONLY MINOR SOIL EROSION (I.E. DISTURBANCE TO UNDERLYING VEGETATION IS MINIMIZED). AND (D) NATIVE RIPARIAN VEGETATION IS RE-ESTABLISHED IN ANY BARE OR DISTURBED AREAS WITHIN THE BUFFER. THE PLAN SHALL SHOW THE AERIAL UTILITY LINES. PROVIDED THAT: (A) THE AREA OF BUFFER DISTURBANCE INCLUDING AREA AND LENGTH OF BUFFER DISTURBANCE, ESTIMATED LENGTH OF TIME OF BUFFER DISTURBANCE, AND JUSTIFICATION.
6) UTILITY STRUCTURES WITHIN THE CURRENT RIGHT-OF-WAY UNDERTAKEN OR FINANCED IN WHOLE OR IN PART BY THE DEPARTMENT OF TRANSPORTATION, THE GEORGIA HIGHWAY AUTHORITY OR THE STATE ROAD AND TOLLWAY AUTHORITY OR UNDERTAKEN BY ANY COUNTY OR MUNICIPALITY. PROVIDED THAT: (A) THE AREA OF BUFFER DISTURBANCE DOES NOT EXCEED 100 SQUARE FEET PER STRUCTURE. (B) THE AREA OF BUFFER VEGETATION TO BE CUT (NOT GRUBBED) DOES NOT EXCEED 1,000 SQUARE FEET PER STRUCTURE. (C) NATIVE RIPARIAN VEGETATION IS RE-ESTABLISHED IN ANY BARE OR DISTURBED AREAS WITHIN THE BUFFER AND (D) THE ENTITY IS NOT A SECONDARY PERMITEE FOR A PROJECT LOCATED WITHIN A COMMON ZONED WITHIN A COMMON ZONE UNDER THIS PERMIT.

- 7) RIGHT-OF-WAY POSTS, GUY-WIRES, ANCHORS, SURVEY MARKERS AND THE REPLACEMENT AND MAINTENANCE OF EXISTING UTILITY STRUCTURES WITHIN THE CURRENT RIGHT-OF-WAY BY ANY ELECTRIC MEMBERSHIP CORPORATION OR MUNICIPAL ELECTRICAL SYSTEM OR ANY PUBLIC UTILITY UNDER THE REGULATORY JURISDICTION OF THE PUBLIC SERVICE COMMISSION, ANY UTILITY UNDER THE REGULATORY JURISDICTION OF THE FEDERAL ENERGY REGULATORY COMMISSION, ANY CABLE TELEVISION SYSTEM AS DEFINED IN CODE SECTION 36-18-1, OR ANY AGENCY OR INSTRUMENTALITY OF THE UNITED STATES ENGAGED IN THE GENERATION, TRANSMISSION OR DISTRIBUTION OF POWER, PROVIDED THAT: (A) THE STREAM CROSSINGS OCCUR AT AN ANGLE, AS MEASURED FROM THE POINT OF CROSSING, WITHIN 25 DEGREES OF PERPENDICULAR TO THE STREAM AND CAUSE A WIDTH OF DISTURBANCE OF NOT MORE THAN 50 FEET WITHIN THE BUFFER, AND NATIVE RIPARIAN VEGETATION IS RE-ESTABLISHED IN ANY BARE OR DISTURBED AREAS WITHIN THE BUFFER.
8) BUFFER CROSSINGS FOR FENCES. PROVIDED THAT THE CROSSINGS OCCUR AT AN ANGLE, AS MEASURED FROM THE POINT OF CROSSING, WITHIN 25 DEGREES OF PERPENDICULAR TO THE STREAM AND CAUSE A WIDTH OF DISTURBANCE OF NOT MORE THAN 50 FEET WITHIN THE BUFFER, AND NATIVE RIPARIAN VEGETATION IS RE-ESTABLISHED IN ANY BARE OR DISTURBED AREAS WITHIN THE BUFFER.
9) STREAM CROSSINGS FOR AERIAL UTILITY LINES. PROVIDED THAT: (A) THE NEW UTILITY LINE RIGHT-OF-WAY WIDTH DOES NOT EXCEED 100 LINEAR FEET. (B) UTILITY LINES ARE ROUTED AND CONSTRUCTED SO AS TO MINIMIZE THE NUMBER OF STREAM CROSSINGS AND DISTURBANCES TO THE BUFFER. (C) ONLY TREES AND TREE DEBRIS ARE REMOVED FROM WITHIN THE BUFFER RESULTING IN ONLY MINOR SOIL EROSION (I.E. DISTURBANCE TO UNDERLYING VEGETATION IS MINIMIZED). AND (D) NATIVE RIPARIAN VEGETATION IS RE-ESTABLISHED IN ANY BARE OR DISTURBED AREAS WITHIN THE BUFFER. THE PLAN SHALL SHOW THE AERIAL UTILITY LINES. PROVIDED THAT: (A) THE AREA OF BUFFER DISTURBANCE INCLUDING AREA AND LENGTH OF BUFFER DISTURBANCE, ESTIMATED LENGTH OF TIME OF BUFFER DISTURBANCE, AND JUSTIFICATION.
10) UTILITY STRUCTURES WITHIN THE CURRENT RIGHT-OF-WAY UNDERTAKEN OR FINANCED IN WHOLE OR IN PART BY THE DEPARTMENT OF TRANSPORTATION, THE GEORGIA HIGHWAY AUTHORITY OR THE STATE ROAD AND TOLLWAY AUTHORITY OR UNDERTAKEN BY ANY COUNTY OR MUNICIPALITY. PROVIDED THAT: (A) THE AREA OF BUFFER DISTURBANCE DOES NOT EXCEED 100 SQUARE FEET PER STRUCTURE. (B) THE AREA OF BUFFER VEGETATION TO BE CUT (NOT GRUBBED) DOES NOT EXCEED 1,000 SQUARE FEET PER STRUCTURE. (C) NATIVE RIPARIAN VEGETATION IS RE-ESTABLISHED IN ANY BARE OR DISTURBED AREAS WITHIN THE BUFFER AND (D) THE ENTITY IS NOT A SECONDARY PERMITEE FOR A PROJECT LOCATED WITHIN A COMMON ZONED WITHIN A COMMON ZONE UNDER THIS PERMIT.

- 11) MAINTENANCE (INCLUDING DREDGING), REPAIR AND/OR UPGRADE OF SOIL AND WATER CONSERVATION DISTRICT WATERSHED DAMS WHEN UNDER THE TECHNICAL SUPERVISION OF THE USDA NATURAL RESOURCES CONSERVATION SERVICE.
12) NO CONSTRUCTION ACTIVITIES SHALL BE CONDUCTED WITHIN A 50 FOOT BUFFER, AS MEASURED HORIZONTALLY FROM THE POINT WHERE VEGETATION HAS BEEN WRESTED BY NORMAL STREAM FLOW OR WAIVE ACTION, ALONG THE BANKS OF ANY STATE WATERS CLASSIFIED AS "TROUT STREAMS" EXCEPT WHEN APPROVAL IS GRANTED BY THE DIRECTOR OF EPD FOR ALTERNATE BUFFER REQUIREMENTS IN ACCORDANCE WITH THE PROVISIONS OF O.C.G.A. 12-7-6, OR WHERE A ROADWAY DRAINAGE STRUCTURE MUST BE CONSTRUCTED. PROVIDED, HOWEVER, THAT SMALL SPRINGS AND STREAMS CLASSIFIED AS "TROUT STREAMS" WHICH DISCHARGE AN AVERAGE ANNUAL FLOW OF 25 GALLONS PER MINUTE OR LESS SHALL HAVE A 25 FOOT BUFFER OR THEY MAY BE PEPPED, AT THE DISCRETION OF THE PERMITEE, PURSUANT TO THE TERMS OF A RULE PROVIDING FOR A GENERAL VARIANCE PROMULGATED BY THE BOARD OF NATURAL RESOURCES INCLUDING NOTIFICATION OF SUCH TO EPD AND THE LOCAL ISSUING AUTHORITY OF THE LOCATION AND EXTENT OF THE PIPING AND DESCRIBED METHODOLOGY FOR MINIMIZING THE IMPACT OF SUCH PIPING SHORT OF THE DOWNSTREAM PERMITEE'S PROPERTY, AND THE PERMITEE MUST COMPLY WITH THE BUFFER REQUIREMENT FOR ANY ADJACENT TRIBUTARY STREAMS. THE BUFFER SHALL NOT APPLY TO ACTIVITIES LISTED IN 2 THROUGH 2h PROVIDED THAT ADEQUATE EROSION CONTROL MEASURES ARE INCORPORATED INTO THE PROJECT PLANS AND SPECIFICATIONS IMPLEMENTED.

- 13) EXCEPT AS PROVIDED ABOVE, FOR BUFFERS REQUIRED PURSUANT TO NO. 2 AND 3, NO CONSTRUCTION ACTIVITIES SHALL BE CONDUCTED WITHIN A BUFFER AND A BUFFER SHALL REMAIN IN ITS NATURAL, UNDISTURBED, STATE OF VEGETATION UNTIL ALL LAND DISTURBING ACTIVITIES ON THE CONSTRUCTION SITE ARE COMPLETED UNDER THE PERMIT. A BUFFER CANNOT BE THINNED OR TRIMMED OF VEGETATION AND A PROTECTIVE VEGETATIVE COVER MUST REMAIN TO PROTECT WATER QUALITY AND AQUATIC HABITAT AND A NATURAL CANOPY MUST BE LEFT IN SUFFICIENT QUANTITY TO KEEP SHADE ON THE STREAM BED.

**POST-CONSTRUCTION STORMWATER BMP'S (PART IV.D.3.b)**

- 1) <ADD A DESCRIPTION OF PROPOSED STRUCTURAL PRACTICES (DESCRIBE DETENTION, RETENTION, BIORETENTION, USE OF MEASURES SUCH AS VEGETATED SWALES, ETC.)>
2) <ADD A DESCRIPTION OF DISCHARGE POINTS TO OUTFALLS AND NOTE WHAT WILL BE DONE FOR VELOCITY DISSIPATION. IF VELOCITIES EXCEED 5 FPS CALL OUT GDOT STD 1120 HEADWALL WITH ENERGY DISSIPATION AT OUTLET END. NOTE RIP-RAP TO BE MAINTAINED AFTER CONSTRUCTION.>
3) <IF ANY GREEN INFRASTRUCTURE PRACTICES ARE USED, NOTE THEM HERE. SEE WWW.COASTALGADNR.ORG/CM/GREENGUIDE FOR ADDITIONAL INFO ON GREEN INFRASTRUCTURE.>

**BMP MAINTENANCE (PART IV.D.5)**

- 1) THE CONTRACTOR SHALL TAKE IMMEDIATE ACTION UPON DISCOVERY OF ANY DEFICIENCIES IN EROSION CONTROL BEST MANAGEMENT PRACTICES, WHETHER OR NOT IT IS INCLUDED IN AN INSPECTION REPORT.
2) ALL STRUCTURAL EROSION AND SEDIMENT CONTROL MEASURES MUST BE CLEANED OUT OR RECONSTRUCTED WHEN SEDIMENT VOLUMES EXCEED 1/3 OF THE STORAGE CAPACITY OF THE MEASURE .

- 3) ALL SILT FENCE STORAGE SHALL BE CLEANED OUT OR RECONSTRUCTED WHEN SEDIMENT VOLUMES EXCEED 1/2 OF THE HEIGHT OF THE SILT FENCE.
4) SEDIMENT CLEANED OUT FROM STORAGE DEVICES AND SILT FENCE SHOULD BE SPREAD IN UPLAND AREAS, MIXED WITH TOPSOIL, AND MULCHED OR SEEDED IMMEDIATELY. DO NOT SPILL IN AREAS WHERE STRUCTURAL FILLS ARE REQUIRED (SUCH AS PAVEMENT, BUILDING FOOTPRINTS, ETC.)

- 5) WHERE THE INITIATION OF STABILIZATION MEASURES BY THE 14TH DAY AFTER CONSTRUCTION ACTIVITY TEMPORARILY OR PERMANENTLY CEASE IS PRECLUDED BY SNOW COVER OR OTHER ADVERSE WEATHER CONDITIONS, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE.
6) WHERE CONSTRUCTION ACTIVITY WILL RESUME ON A PORTION OF THE SITE WITHIN 21 DAYS FROM WHEN ACTIVITIES CEASED, (E.G. THE TOTAL TIME PERIOD THAT THE CONSTRUCTION ACTIVITY IS TEMPORARILY CEASED LESS THAN 21 DAYS) THEN STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF THE SITE BY THE 14TH DAY AFTER CONSTRUCTION ACTIVITY TEMPORARILY CEASED.

- 7) REAPPLICATION OF VEGETATIVE BMP'S MAY BE REQUIRED TO ACHIEVE FULL COVERAGE. REFER TO VEGETATIVE BMP NOTES AND DETAILS FOR INSTALLATION AND MAINTENANCE OF VEGETATIVE BMP'S.
8) INSPECTIONS (PART IV.D.4)

- 1) IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO MAKE SURE THAT INSPECTIONS ARE BEING PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THIS PERMIT NOTE BELOW.
2) EACH DAY WHEN ANY TYPE OF CONSTRUCTION ACTIVITY HAS TAKEN PLACE AT A PRIMARY PERMITEE'S SITE, CERTIFIED PERSONNEL PROVIDED BY THE PRIMARY PERMITEE SHALL INSPECT: (A) ALL AREAS AT THE PRIMARY PERMITEE'S SITE WHERE PETROLEUM PRODUCTS ARE STORED, USED, OR HANDLED FOR SPILLS AND LEAKS FROM VEHICLES AND EQUIPMENT AND (B) ALL LOCATIONS AT THE PRIMARY PERMITEE'S SITE WHERE VEHICLES ENTER OR EXIT THE SITE FOR EVIDENCE OF OFF-SITE SEDIMENT TRACKING. THESE INSPECTIONS MUST BE CONDUCTED UNTIL A NOTICE OF TERMINATION IS SUBMITTED.
3) MEASURE RAINFALL ONCE EVERY 24 HOURS EXCEPT ANY NON-WORKING SATURDAY, NON-WORKING SUNDAY AND NON-WORKING FEDERAL HOLIDAY UNTIL A NOTICE OF TERMINATION IS SUBMITTED. MEASUREMENT OF RAINFALL MAY BE SUSPENDED IF ALL AREAS OF THE SITE HAVE UNDERGONE FINAL STABILIZATION OR ESTABLISHED A CROP OF ANNUAL VEGETATION AND A SEEDING OF TARGET PERENNIALS APPROPRIATE FOR THE REGION.

- 4) CERTIFIED PERSONNEL (PROVIDED BY THE PRIMARY PERMITEE) SHALL INSPECT THE FOLLOWING AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.5 INCHES RAINFALL OR GREATER (UNLESS SUCH STORM ENDS AFTER 5:00 PM ON ANY FRIDAY OR ON ANY NON-WORKING SATURDAY, NON-WORKING SUNDAY OR ANY NON-WORKING FEDERAL HOLIDAY IN WHICH CASE THE INSPECTION SHALL BE COMPLETED BY THE END OF THE NEXT BUSINESS DAY AND/OR WORKING DAY, WHICHEVER OCCURS FIRST): (A) DISTURBED AREAS OF THE PRIMARY PERMITEE'S CONSTRUCTION SITE; (B) AREAS USED BY THE PRIMARY PERMITEE FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION; AND (C) STRUCTURAL CONTROL MEASURES, EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN APPLICABLE TO THE PRIMARY PERMITEE'S SITE SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. WHERE DISCHARGE LOCATIONS OR POINTS ARE ACCESSIBLE, THEY SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO RECEIVING WATERS; FOR AREAS OF A SITE THAT HAVE UNDERGONE FINAL STABILIZATION OR ESTABLISHED A CROP OF ANNUAL VEGETATION AND A SEEDING OF TARGET PERENNIALS APPROPRIATE FOR THE REGION, THE PERMITEE MUST COMPLY WITH PART IV.D.4.(4). THESE INSPECTIONS MUST BE CONDUCTED UNTIL A NOTICE OF TERMINATION IS SUBMITTED.

- 5) CERTIFIED PERSONNEL (PROVIDED BY THE PRIMARY PERMITEE) SHALL INSPECT AT LEAST ONCE PER MONTH DURING THE TERM OF THIS PERMIT (I.E. UNTIL A NOTICE OF TERMINATION IS RECEIVED BY EPD) THE AREAS OF THE SITE THAT HAVE UNDERGONE FINAL STABILIZATION OR ESTABLISHED A CROP OF ANNUAL VEGETATION AND A SEEDING OF TARGET PERENNIALS APPROPRIATE FOR THE REGION. THESE AREAS SHALL BE INSPECTED FOR EVIDENCE OF, OR POTENTIAL FOR, POLLUTANTS ENTERING THE RECEIVING WATER(S) AND THE RECEIVING WATER(S). EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. WHERE DISCHARGE LOCATIONS OR POINTS ARE ACCESSIBLE, THEY SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO RECEIVING WATERS.)
6) BASED ON THE RESULTS OF EACH INSPECTION, THE SITE DESCRIPTION AND THE POLLUTION PREVENTION AND CONTROL MEASURES IDENTIFIED IN THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN, THE PLAN SHALL BE REVISED AS APPROPRIATE NOT LATER THAN SEVEN (7) CALENDAR DAYS FOLLOWING EACH INSPECTION. THE REVISED PLAN SHALL BE MADE AS SOON AS PRACTICAL, BUT IN NO CASE LATER THAN SEVEN (7) CALENDAR DAYS FOLLOWING EACH INSPECTION.

- 7) SAMPLING REQUIREMENTS (PART IV.D.6): THIS PERMIT REQUIRES THE MONITORING OF NEPHELOMETRIC TURBIDITY IN RECEIVING WATER(S) OR OUTFALLS IN ACCORDANCE WITH THIS PERMIT. THIS PARAGRAPH SHALL NOT APPLY TO ANY LAND DISTURBANCE ASSOCIATED WITH THE CONSTRUCTION OF SINGLE-FAMILY HOMES WHICH ARE NOT PART OF A SUBDIVISION OR PLANNED COMMON DEVELOPMENT UNLESS FIVE (5) ACRES OR MORE WILL BE DISTURBED. THE FOLLOWING PROCEDURES CONSTITUTE EPDS GUIDELINES FOR SAMPLING TURBIDITY.
8) SAMPLING TYPE:
1) ALL SAMPLING SHALL BE COLLECTED BY "GRAB SAMPLES" AND THE ANALYSIS OF THESE SAMPLES MUST BE CONDUCTED IN ACCORDANCE WITH METHODOLOGY AND TEST PROCEDURES ESTABLISHED BY 40 CFR PART 136 (UNLESS OTHER TEST PROCEDURES HAVE BEEN APPROVED); THE GUIDANCE DOCUMENT TITLED "NPDES STORM WATER SAMPLING GUIDANCE DOCUMENT, EPA 833-R-92-001" AND GUIDANCE DOCUMENTS THAT MAY BE PREPARED BY THE EPD.
9) SAMPLE CONTAINERS SHOULD BE LABELED PRIOR TO COLLECTING THE SAMPLES.
10) SAMPLES SHOULD BE WELL MIXED BEFORE TRANSFERRING TO A SECONDARY CONTAINER.
11) LARGE MOUTH, WELL CLEANED AND RINSED GLASS OR PLASTIC JARS SHOULD BE USED FOR COLLECTING SAMPLES. THE JARS SHOULD BE CLEANED THOROUGHLY TO AVOID CONTAMINATION.
12) MANUAL, AUTOMATIC OR RISING STAKE SAMPLING MAY BE UTILIZED. SAMPLES REQUIRED BY THIS PERMIT SHOULD BE ANALYZED IMMEDIATELY, BUT IN NO CASE LATER THAN 48 HOURS AFTER COLLECTION; HOWEVER, SAMPLES FROM AUTOMATIC SAMPLERS MUST BE COLLECTED NO LATER THAN THE NEXT BUSINESS DAY AFTER THEIR ACCUMULATION, UNLESS FLOW THROUGH AUTOMATED ANALYSIS IS UTILIZED. IF AUTOMATIC SAMPLING IS UTILIZED AND THE AUTOMATIC SAMPLER IS NOT ACTIVATED DURING THE QUALIFYING EVENT, THE PERMITEE MUST UTILIZE MANUAL SAMPLING OR RISING STAKE SAMPLING DURING THE NEXT QUALIFYING EVENT. DILUTION OF SAMPLES IS NOT REQUIRED. SAMPLES MAY BE ANALYZED DIRECTLY WITH A PROPERLY CALIBRATED TURBIDITY METER. SAMPLES ARE NOT REQUIRED TO BE ANALYZED IMMEDIATELY.
13) SAMPLING AND ANALYSIS OF THE RECEIVING WATER(S) OR OUTFALLS BEYOND THE MINIMUM FREQUENCY STATED IN THIS PERMIT MUST BE REPORTED TO EPD AS SPECIFIED IN PART IV.E. OF THE NPDES PERMIT.

- 14) SAMPLING POINTS:
1) FOR CONSTRUCTION ACTIVITIES THE PRIMARY PERMITEE MUST SAMPLE ALL RECEIVING WATER(S), OR ALL OUTFALL(S), OR A COMBINATION OF RECEIVING WATER(S) AND OUTFALL(S), SAMPLES TAKEN FOR THE PURPOSE OF COMPLIANCE WITH THIS PERMIT SHALL BE REPRESENTATIVE OF THE MONITORED ACTIVITY AND REPRESENTATIVE OF THE WATER QUALITY OF THE RECEIVING WATER(S) AND/OR THE STORM WATER OUTFALLS USING THE FOLLOWING MINIMUM GUIDELINES.
2) THE UPSTREAM SAMPLE FOR EACH RECEIVING WATER(S) MUST BE TAKEN IMMEDIATELY UPSTREAM OF THE CONFLUENCE OF THE FIRST STORM WATER DISCHARGE FROM THE PERMITTED ACTIVITY (I.E. THE DISCHARGE FARTHEST UPSTREAM AT THE SITE) BUT DOWNSTREAM OF ANY OTHER STORM WATER DISCHARGES NOT ASSOCIATED WITH THE PERMITTED ACTIVITY. WHERE APPROPRIATE, SEVERAL DOWNSTREAM SAMPLES FROM ACROSS THE RECEIVING WATER(S) MAY NEED TO BE TAKEN AND THE ARITHMETIC AVERAGE OF THE TURBIDITY OF THESE SAMPLES USED FOR THE UPSTREAM TURBIDITY VALUE.
3) THE DOWNSTREAM SAMPLE FOR EACH RECEIVING WATER(S) MUST BE TAKEN DOWNSTREAM OF THE CONFLUENCE OF THE LAST STORM WATER DISCHARGE FROM THE PERMITTED ACTIVITY (I.E. THE DISCHARGE FARTHEST DOWNSTREAM AT THE SITE) BUT UPSTREAM OF ANY OTHER STORM WATER DISCHARGE NOT ASSOCIATED WITH THE PERMITTED ACTIVITY. WHERE APPROPRIATE, SEVERAL DOWNSTREAM SAMPLES FROM ACROSS THE RECEIVING WATER(S) MAY NEED TO BE TAKEN AND THE ARITHMETIC AVERAGE OF THE TURBIDITY OF THESE SAMPLES USED FOR THE DOWNSTREAM TURBIDITY VALUE.
4) IDEALLY THE SAMPLES SHOULD BE TAKEN FROM THE HORIZONTAL AND VERTICAL CENTER OF THE RECEIVING WATER(S) OR THE STORM WATER OUTFALL CHANNEL(S).
5) CARE SHOULD BE TAKEN TO AVOID STIRRING THE BOTTOM SEDIMENTS IN THE RECEIVING WATER(S) OR IN THE OUTFALL STORM WATER CHANNEL.
6) THE SAMPLING CONTAINER SHOULD BE HELD SO THAT THE OPENING FACES UPSTREAM.
7) PERMITEES DO NOT HAVE TO SAMPLE STEEP FLOW THAT FLOWS ONTO UNDISTURBED NATURAL AREAS OR AREAS STABILIZED BY THE PROJECT. FOR PORTIONS OF THIS SECTION, STABILIZED SHALL MEAN, FOR UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES AND AREAS LOCATED OUTSIDE THE WASTE DISPOSAL LIMITS OF A LANDFILL CELL THAT HAS BEEN CERTIFIED BY EPD FOR WASTE DISPOSAL, 100% OF THE SOIL SURFACE IS UNIFORMLY COVERED WITH PERENNIAL VEGETATION WITH A DENSITY OF 70% OR GREATER, OR LANDSCAPED ACCORDING TO THE PLAN (UNIFORMLY COVERED WITH LANDSCAPING MATERIALS IN PLANNED LANDSCAPED AREAS), OR EQUIVALENT PERMANENT STABILIZATION MEASURES AS DEFINED IN THE MANUAL, EXCLUDING A CROP OF ANNUAL VEGETATION AND A SEEDING OF TARGET CROP PERENNIALS APPROPRIATE FOR THE REGION).
8) ALL SAMPLING PURSUANT TO THIS PERMIT MUST BE DONE IN SUCH A WAY (INCLUDING GENERALLY ACCEPTED SAMPLING METHODS, LOCATIONS, TIMING, AND FREQUENCY) AS TO ACCURATELY REFLECT WHETHER STORM WATER RUNOFF FROM THE CONSTRUCTION SITE IS IN COMPLIANCE WITH THE STANDARD SET FORTH IN PARTS 111.D.3. OR 111.D.4. . . , WHICHEVER IS APPLICABLE.

- 9) SAMPLING FREQUENCY:
1) THE PRIMARY PERMITEE MUST SAMPLE IN ACCORDANCE WITH THE PLAN AT LEAST ONCE FOR EACH RAINFALL EVENT DESCRIBED BELOW FOR A QUALIFYING EVENT, THE PERMITEE SHALL SAMPLE AT THE BEGINNING OF ANY STORM WATER DISCHARGE TO A MONITORED RECEIVING WATER AND/OR A MONITORED OUTFALL LOCATION WITHIN IN FORTY-FIVE (45) MINUTES OR AS SOON AS POSSIBLE.
2) HOWEVER, WHERE MANUAL AND AUTOMATIC SAMPLING ARE IMPOSSIBLE (AS DEFINED IN THIS PERMIT), OR ARE BEYOND THE PERMITEE'S CONTROL, THE PERMITEE SHALL TAKE SAMPLES AS SOON AS POSSIBLE, BUT IN NO CASE MORE THAN TWELVE (12) HOURS AFTER THE BEGINNING OF THE STORM WATER DISCHARGE.
3) SAMPLING BY THE PERMITEE SHALL OCCUR FOR THE FOLLOWING QUALIFYING EVENTS:
A) FOR EACH AREA OF THE SITE THAT DISCHARGES TO A RECEIVING WATER OR FROM AN OUTFALL, THE FIRST RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH WITH A STORM WATER DISCHARGE THAT OCCURS DURING NORMAL BUSINESS HOURS AS DEFINED IN THIS PERMIT AFTER ALL CLEARING AND GRUBBING OPERATIONS HAVE BEEN COMPLETED, BUT PRIOR TO COMPLETION OF MASS GRADING OPERATIONS, IN THE DRAINAGE AREA OF THE LOCATION SELECTED AS THE SAMPLING LOCATION.
B) IN ADDITION TO (A) ABOVE, FOR EACH AREA OF THE SITE THAT DISCHARGES TO A RECEIVING WATER OR FROM AN OUTFALL, THE FIRST RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH WITH A STORM WATER DISCHARGE THAT OCCURS DURING NORMAL BUSINESS HOURS AS DEFINED IN THIS PERMIT EITHER 90 DAYS AFTER THE FIRST SAMPLING EVENT OR AFTER ALL MASS GRADING OPERATIONS HAVE BEEN COMPLETED, BUT PRIOR TO SUBMITTAL OF A NOT, IN THE DRAINAGE AREA OF THE LOCATION SELECTED AS THE SAMPLING LOCATION.
C) AT THE TIME OF SAMPLING PERFORMED PURSUANT TO (A) AND (B) ABOVE, IF BMP'S IN ANY AREA OF THE SITE THAT DISCHARGES TO A RECEIVING WATER OR FROM AN OUTFALL ARE NOT PROPERLY DESIGNED, INSTALLED AND MAINTAINED, CORRECTIVE ACTION SHALL BE DEFINED AND IMPLEMENTED WITHIN TWO (2) BUSINESS DAYS, AND TURBIDITY SAMPLES SHALL BE TAKEN FROM DISCHARGES FROM THAT AREA OF THE SITE FOR EACH SUBSEQUENT RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH DURING NORMAL BUSINESS HOURS UNTIL THE SELECTED TURBIDITY STANDARD IS ATTAINED, OR UNTIL POST-STORM EVENT INSPECTIONS DETERMINE THAT BMP'S ARE PROPERLY DESIGNED, INSTALLED AND MAINTAINED.
D) WHERE SAMPLING PURSUANT TO (A), (B) OR (C) ABOVE IS REQUIRED BUT NOT POSSIBLE (OR NOT REQUIRED BECAUSE THERE IS NO DISCHARGE), THE PERMITEE, IN ACCORDANCE WITH PART IV.D.4.(6), MUST INCLUDE A WRITTEN JUSTIFICATION IN THE INSPECTION REPORT OF WHY SAMPLING WAS NOT PERFORMED. PROVIDING THIS JUSTIFICATION DOES NOT RELIEVE THE PERMITEE OF ANY SUBSEQUENT SAMPLING OBLIGATIONS UNDER (A), (B) OR (C) ABOVE; AND
E) EXISTING CONSTRUCTION ACTIVITIES, I.E., THOSE THAT ARE OCCURRING ON OR BEFORE THE EFFECTIVE DATE OF THIS PERMIT, THAT HAVE MET THE SAMPLING REQUIRED BY (A) ABOVE SHALL SAMPLE IN ACCORDANCE WITH (B). THOSE EXISTING CONSTRUCTION ACTIVITIES THAT HAVE MET THE SAMPLING REQUIRED BY (A) ABOVE SHALL NOT BE REQUIRED TO CONDUCT ADDITIONAL SAMPLING OTHER THAN AS REQUIRED BY (A) ABOVE.
\*\* NOTE THAT THE PERMITEE MAY CHOOSE TO MEET THE REQUIREMENTS OF (A) AND (B) ABOVE BY COLLECTING TURBIDITY SAMPLES FROM ANY RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH AND ALLOWS FOR SAMPLING AT ANY TIME OF THE DAY OR WEEK.

**REPORTING (PART V.E)**

- 1) THE APPLICABLE PERMITEES ARE REQUIRED TO SUBMIT THE SAMPLING RESULTS TO THE EPD AT THE ADDRESS SHOWN IN PART 11.C. OF THE PERMIT BY THE FIFTEENTH DAY OF THE MONTH FOLLOWING THE REPORTING PERIOD. REPORTING PERIODS ARE MONTHS DURING WHICH SAMPLES ARE TAKEN IN ACCORDANCE WITH THIS PERMIT. SAMPLING RESULTS SHALL BE IN A CLEARLY LEGIBLE FORMAT. UPON WRITTEN NOTIFICATION, EPD REQUIRE THE APPLICABLE PERMITEE TO SUBMIT THE SAMPLING RESULTS ON A MORE FREQUENT BASIS. SAMPLING AND ANALYSIS OF ANY STORM WATER DISCHARGE(S) OR THE RECEIVING WATER(S) BEYOND THE MINIMUM FREQUENCY STATED IN THIS PERMIT MUST BE REPORTED IN A SIMILAR MANNER TO THE EPD. THE SAMPLING REPORTS MUST BE SIGNED IN ACCORDANCE WITH PART V.G.2 OF THE PERMIT. SAMPLING REPORTS MUST BE SUBMITTED TO EPD UNTIL SUCH TIME AS A NOT IS SUBMITTED IN ACCORDANCE WITH PART V.I OF THE PERMIT.
2) ALL SAMPLING REPORTS SHALL INCLUDE THE FOLLOWING INFORMATION:
A) SAMPLE CONTAINERS SHOULD BE LABELED PRIOR TO COLLECTING THE SAMPLES.
B) THE RAINFALL AMOUNT, DATE, EXACT PLACE AND TIME OF SAMPLING OR MEASUREMENTS;
C) THE NAME(S) OF THE CERTIFIED PERSONNEL WHO PERFORMED THE SAMPLING AND MEASUREMENTS;
D) THE DATE(S) ANALYSES WERE PERFORMED;
E) THE TIME(S) ANALYSES WERE INITIATED;
F) THE NAME(S) OF THE CERTIFIED PERSONNEL WHO PERFORMED THE ANALYSES;
G) REFERENCES AND WRITTEN PROCEDURES, WHEN AVAILABLE, FOR THE ANALYTICAL TECHNIQUES OR METHODS USED;
H) THE RESULTS OF SUCH ANALYSES, INCLUDING THE BENCH SHEETS, INSTRUMENT READOUTS, COMPUTER DISKS OR TAPES, ETC., USED TO DETERMINE THESE RESULTS;
I) RESULTS WHICH EXCEED 1000 NTU SHALL BE REPORTED AS "EXCEEDS 1000 NTU"; AND
J) CERTIFICATION STATEMENT THAT SAMPLING WAS CONDUCTED AS PER THE PLAN.

- 3) ALL WRITTEN CORRESPONDENCE REQUIRED BY THIS PERMIT SHALL BE SUBMITTED BY RETURN RECEIPT CERTIFIED MAIL (OR SIMILAR SERVICE) TO THE APPROPRIATE DISTRICT OFFICE OF THE EPD ACCORDING TO THE SCHEDULE IN APPENDIX A OF THIS PERMIT. THE PERMITEE SHALL RETAIN A COPY OF THE PROOF OF SUBMITTAL AT THE CONSTRUCTION SITE OR THE PROOF OF SUBMITTAL SHALL BE READILY AVAILABLE AT A DESIGNATED LOCATION FROM COMMENCEMENT OF CONSTRUCTION UNTIL SUCH TIME AS A NOT IS SUBMITTED IN ACCORDANCE WITH PART VI. IF AN ELECTRONIC SUBMITTAL IS PROVIDED BY EPD THEN THE WRITTEN CORRESPONDENCE MAY BE SUBMITTED ELECTRONICALLY; IF REQUIRED, A PAPER COPY MUST ALSO BE SUBMITTED BY RETURN RECEIPT CERTIFIED MAIL OR SIMILAR SERVICE.

**RETENTION OF RECORDS (PART IV.F):**

- 1) THE PRIMARY PERMITEE SHALL RETAIN THE FOLLOWING RECORDS AT THE CONSTRUCTION SITE OR THE RECORDS SHALL BE READILY AVAILABLE AT A DESIGNATED ALTERNATE LOCATION FROM COMMENCEMENT OF CONSTRUCTION UNTIL SUCH TIME AS A NOT IS SUBMITTED IN ACCORDANCE WITH PART VI:
A) A COPY OF ALL NOTICES OF INTENT SUBMITTED TO EPD;
B) A COPY OF THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN REQUIRED BY THIS PERMIT;
C) THE DESIGN PROFESSIONAL'S REPORT OF THE RESULTS OF THE INSPECTION CONDUCTED IN ACCORDANCE WITH PART IV.A.5. OF THIS PERMIT;
D) A COPY OF ALL MONITORING INFORMATION, RESULTS, AND REPORTS REQUIRED BY THIS PERMIT;
E) A COPY OF ALL INSPECTION REPORTS GENERATED IN ACCORDANCE WITH PART IV.D.4. OF THIS PERMIT;
F) A COPY OF ALL VIOLATION SUMMARIES AND VIOLATION SUMMARY REPORTS GENERATED IN ACCORDANCE WITH PART III.0.2. OF THIS PERMIT; AND
G) DAILY RAINFALL INFORMATION COLLECTED IN ACCORDANCE WITH PART IV.D.4.(1)(C) OF THIS PERMIT.

- 2) COPIES OF ALL NOTIS, NOTICES, REPORTS, PLANS, MONITORING REPORTS, MONITORING INFORMATION, INCLUDING ALL CALIBRATION AND MAINTENANCE RECORDS AND ALL ORIGINAL STRIP CHART RECORDINGS FOR CONTINUOUS MONITORING INSTRUMENTATION, EROSION, SEDIMENTATION AND POLLUTION CONTROL PLANS, RECORDS OF ALL DATA USED TO COMPLETE THE NOTICE OF INTENT TO BE COVERED BY THIS PERMIT AND ALL OTHER RECORDS REQUIRED BY THIS PERMIT SHALL BE RETAINED BY THE PERMITEE WHO EITHER PRODUCED OR USED IT FOR A PERIOD OF AT LEAST THREE YEARS FROM THE DATE THAT THE NOT IS SUBMITTED IN ACCORDANCE WITH PART VI OF THIS PERMIT. THESE RECORDS MUST BE MAINTAINED AT THE PERMITEE'S PRIMARY PLACE OF BUSINESS OR AT A DESIGNATED ALTERNATIVE LOCATION ONCE THE CONSTRUCTION ACTIVITY HAS CEASED AT THE PERMITTED SITE. THIS PERIOD MAY BE EXTENDED BY REQUEST OF THE EPD AT ANY TIME UPON WRITTEN NOTIFICATION TO THE PERMITEE.

**RISK REDUCTION/POLLUTION CONTROL (PART IV.D.3.c)**

- 1) AN EFFORT SHALL BE MADE TO MAINTAIN THE MINIMUM AMOUNT OF MATERIAL NEEDED TO COMPLETE THE JOB ONSITE.
2) ALL MATERIALS STORED ONSITE WILL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS.
3) PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THE ORIGINAL MANUFACTURER'S LABEL.
4) SUBSTANCES WILL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER.
5) WHENEVER POSSIBLE, ALL OF A PRODUCT WILL BE USED UP BEFORE DISPOSING OF THE CONTAINER.
6) MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL WILL BE FOLLOWED.
7) THE SITE SUPERINTENDENT WILL INSPECT DAILY TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS ONSITE.

- 8) BULK STORAGE 1) BULK STORAGE INCLUDING THE STORAGE OF RAW FINISHED PRODUCTS AND BYPRODUCTS STORED IN LARGE PILES OR STACKS ON A TEMPORARY OR PERMANENT BASIS, INCLUDING GRAVEL, COMPOST, CHEMICALS, LOGS, TREATED WOOD, SAWDUST, WOOD CHIPS, COAL, BUILDING MATERIALS, CONCRETE, AND METAL PRODUCTS. FOR BULK STORAGE OF TOPSOIL, REFER TO TOPSOIL STOCKPILING BMP'S.
2) BULK MATERIALS SHOULD NOT BE ALLOWED TO WASH OFF THE SITE OR DISCHARGE INTO SURFACE WATERS. PROTECT STOCKPILES WITH A WATERPROOF COVER, WHERE FEASIBLE. THE COVER SHOULD BE ADEQUATELY SECURED AND REMAIN IN PLACE AT ALL TIMES WHEN STOCKPILE MATERIALS ARE NOT BEING USED. WHEN INFESABLE, RUNOFF FROM THE STOCKPILE SHOULD BE DIVERTED TO STRUCTURAL, EROSION & SEDIMENT CONTROL BMP'S.
3) LOCATE STOCKPILES A MINIMUM OF 50 FEET FROM CONCENTRATED FLOW AREAS.
4) INSPECT DAILY FOR EROSION AND/OR LEACHING OF STOCKPILES OF RAW MATERIALS.

- 9) LIQUID STORAGE 1) LIQUID STORAGE CONTAINERS MUST HAVE TIGHT FITTING LIDS AND BE PROPERLY LABELED WITH THE CONTENTS AND ANY POSSIBLE HAZARDS.
2) ALL LIQUID STORAGE CONTAINERS SHOULD BE PLACED IN A DESIGNATED AREA WITH A SECONDARY CONTAINMENT SYSTEM, SUCH AS CURBING, BERMS, DIKES, LINERS, OR USE OF SPILL PALLETS SUCH THAT CONTENTS WILL NOT DISCHARGE, FLOW, OR BE WASHED INTO THE STORMWATER DRAINAGE SYSTEM IF THE CONTAINER LEAKS OR RUPTURES. SECONDARY CONTAINMENT SHOULD BE DESIGNED TO STORE 110% OF THE VOLUME OF THE LARGEST CONTAINER OR 10% OF THE VOLUME OF ALL CONTAINERS, WHICHEVER IS GREATER.
3) RUNOFF BEYOND SECONDARY STORAGE AREAS SHOULD BE DIVERTED TO EROSION CONTROL BMP'S. IF BMP'S WITH A SKIMMER DEVICE ARE CONSTRUCTED ON THE PROPERTY, LIQUID STORAGE CONTAINMENT RUNOFF SHOULD BE DIVERTED TO SUCH MEASURES.
4) PROVIDE BARRIERS AROUND LIQUID STORAGE AREAS TO PREVENT DAMAGE FROM VEHICLES OR EQUIPMENT.
5) ADDITIONAL REQUIREMENTS ARE INCLUDED IN THE PLAN FOR OIL/PETROLEUM LEAKAGE INSPECTION DAILY FOR LEAKS AND SPILLS.
6) USE DRY ABSORBENTS, SUCH AS ABSORBENT GRANULES, SOCKS, AND PADS TO CLEAN UP ANY SPILLS OR LEAKING FLUIDS.

- 10) WASTE DISPOSAL 1) ALL WASTE MATERIALS WILL BE COLLECTED AND STORED TO BE PROPERLY DISPOSED OF AT A LICENSED SOLID WASTE MANAGEMENT COMPANY.
2) LOCATE WASTE COLLECTION AREAS AWAY FROM STREETS, GUTTERS, WATERCOURSES, AND STORM DRAINS. WASTE COLLECTION AREAS, SUCH AS DUMPSTERS, ARE OFTEN BEST LOCATED NEAR CONSTRUCTION SITE ENTRANCES OR THE SOURCE OF TRAFFIC TO MINIMIZE TRAFFIC ON DISTURBED SOIL. DISPOSAL SHALL BE PERIODICALLY AS NEEDED.
3) COVER TEMPORARY WASTE PILES WITH A WATERPROOF COVER WHEN FEASIBLE TO DO SO.
4) NO CONSTRUCTION MATERIALS WILL BE BURIED ONSITE.
5) ALL PERSONNEL WILL BE INSTRUCTED CONCERNING WASTE DISPOSAL. THE CONTRACTOR WILL BE RESPONSIBLE FOR THIS INSTRUCTION, AND WILL BE RESPONSIBLE FOR SEEING THAT THESE INSTRUCTIONS ARE FOLLOWED.
6) INSPECT SOLID WASTE DISPOSAL AREAS DAILY TO ENSURE THERE ARE NO LEAKS OR SPILLS, AND THERE IS NO LOOSE/UNSECURED TRASH OR SOLID WASTE MATERIAL.

- 11) HAZARDOUS MATERIALS 1) THESE PRACTICES ARE USED TO REDUCE THE RISKS ASSOCIATED WITH HAZARDOUS MATERIALS:
A) PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS UNLESS THEY ARE NOT RE-SEALABLE.
B) ORIGINAL LABELS AND MATERIAL SAFETY DATA DIAL BE RETAINED.
C) IF SURPLUS PRODUCT MUST BE DISPOSED OF, MANUFACTURER'S OR LOCAL AND STATE RECOMMENDED METHODS FOR PROPER DISPOSAL WILL BE FOLLOWED.
2) ALL HAZARDOUS WASTE MATERIALS (AS DEFINED IN 40 CFR PART 261) WILL BE SEPARATED FROM CONSTRUCTION WASTE AND WILL BE DISPOSERD OF IN THE MANNER SPECIFIED BY LOCAL OR STATE REGULATION OR BY THE MANUFACTURER. SITE PERSONNEL WILL BE INSTRUCTED IN THESE PRACTICES, AND THE CONTRACTOR WILL BE RESPONSIBLE FOR SEEING THAT THESE PRACTICES ARE FOLLOWED.
3) MATERIAL DATA SAFETY SHEETS FOR EACH SUBSTANCE WITH HAZARDOUS PROPERTIES THAT IS USED ON THE JOB SITE MUST BE OBTAINED AND USED FOR THE PROPER MANAGEMENT OF POTENTIAL WASTES THAT MAY RESULT FROM THESE PRODUCTS. AN MSDS WILL BE POSTED IN THE IMMEDIATE AREA WHERE SUCH PRODUCT IS STORED. EACH EMPLOYEE WHO MUST HANDLE A SUBSTANCE WITH HAZARDOUS PROPERTIES WILL BE INSTRUCTED ON THE USE OF THE MSDS SHEETS AND THE SPECIFIC INFORMATION IN THE APPLICABLE MSDS FOR THE PRODUCT HE/SHE IS USING, PARTICULARLY REGARDING SPILL CONTROL TECHNIQUES.
4) HAZARDOUS WASTE STORAGE AREAS SHOULD, AT A MINIMUM, BE SHELTERED FROM PRECIPITATION AND RAISED OFF THE GROUND WITH SECONDARY CONTAINMENT (SUCH AS SPILL PALLETS) TO PREVENT LEACHING AND DELIVERY FROM RUNOFF. ALL STORAGE MUST COMPLY WITH STATE AND FEDERAL REGULATIONS.

**SANITARY WASTE**

- 1) ALL SANITARY WASTE WILL BE MANAGED APPROPRIATELY BY PERMANENT EXISTING ON-SITE FACILITIES OR PORTABLE UNITS.
2) ALL SANITARY WASTE TO BE DISPOSED OF PROPERLY ACCORDING TO STATE AND FEDERAL CODE.
3) A MINIMUM OF ONE SANITARY UNIT WILL BE PROVIDED FOR EVERY TEN (10) WORKERS ON SITE OR AS OTHERWISE REQUIRED BY LOCAL REGULATIONS.

**ON-SITE VEHICLE MAINTENANCE**

- 1) FOR ALL OUTDOOR MAINTENANCE ACTIVITIES, A TARP OR GROUND CLOTH AND DRP PANS SHOULD BE PLACED BENEATH THE VEHICLE TO CAPTURE SPILLS AND DRIPS.
2) AVOID CHANGING MOTOR OIL OR OTHER VEHICLE FLUIDS, OR PERFORMING HEAVY EQUIPMENT MAINTENANCE NEAR A STORMWATER DRAIN, DRAINAGE DITCH, SURFACE WATER, OR ANYWHERE WHERE THE CONTAMINANTS COULD COME INTO CONTACT WITH RAIN OR STORMWATER RUNOFF.
3) ALWAYS USE FUNNELS WHEN POURING LIQUIDS, AND USE DRIP PANS UNDER A VEHICLE WHEN UNCLIPPING HOSES, UNSCREWING FILTERS, AND REMOVING OTHER PARTS THAT ARE SUBJECT TO LEAKS. CLEAN UP VEHICLE FLUIDS WITH RAGS OR ABSORBENT MATERIALS IMMEDIATELY.
4) CONCRETE WASHOUT 1) WASHOUT OF THE DRUM OF A CONCRETE TRUCK ON THE CONSTRUCTION SITE IS PROHIBITED. CONCRETE WASHDOWN OF TOOLS, CONCRETE MIXER CHUTES, HOPPERS, AND THE REAR OF VEHICLES WILL ONLY BE ALLOWED IN DESIGNATED CONCRETE WASHDOWN AREAS SHOWN IN THIS PLAN, AND CONCRETE WASHDOWN AREAS MUST HAVE THE CM BMP INSTALLED IN ACCORDANCE WITH PLAN REQUIREMENTS AND AREAS WITHOUT CONCRETE WASHOUT AREA IS SHOWN, THE PLAN MUST BE AMENDED FOR CONCRETE WASHOUT TO BE ALLOWED AT THE LOCATION THAT IS DESIGNATED ON THE PLAN. WASHDOWN MUST ADDITIONALLY MEET THE FOLLOWING PRACTICES:
A) PREVENT WASHDOWN WATER FROM FLOWING OUT OF THE WASHDOWN AREA.
B) USE THE MINIMUM AMOUNT OF WATER TO WASH DOWN TOOLS, MIXER CHUTES, HOPPERS, AND THE REAR OF ANY VEHICLES.
C) REMOVE ANY CONCRETE SEDIMENT FROM THE AREA SURROUNDING THE WASHOUT AREA BEFORE IT HARDENS; AND
D) REMOVE ANY CONCRETE RESIDUE FROM THE AREA ONCE IT HAS HARDENED.
E) NEVER DISCHARGE OR DUMP RAW, EXCESS WASTE MATERIALS, GUMMERY, OR RINSE WATER INTO A STORMWATER DRAIN, DRAINAGE DITCH, OR SURFACE WATER. APPROPRIATELY DISPOSE OF ANY SOLID CONCRETE OR ASPHALT WASTE, INCLUDING DUST PRODUCED FROM SAWCUTTING/MILLING OPERATIONS.

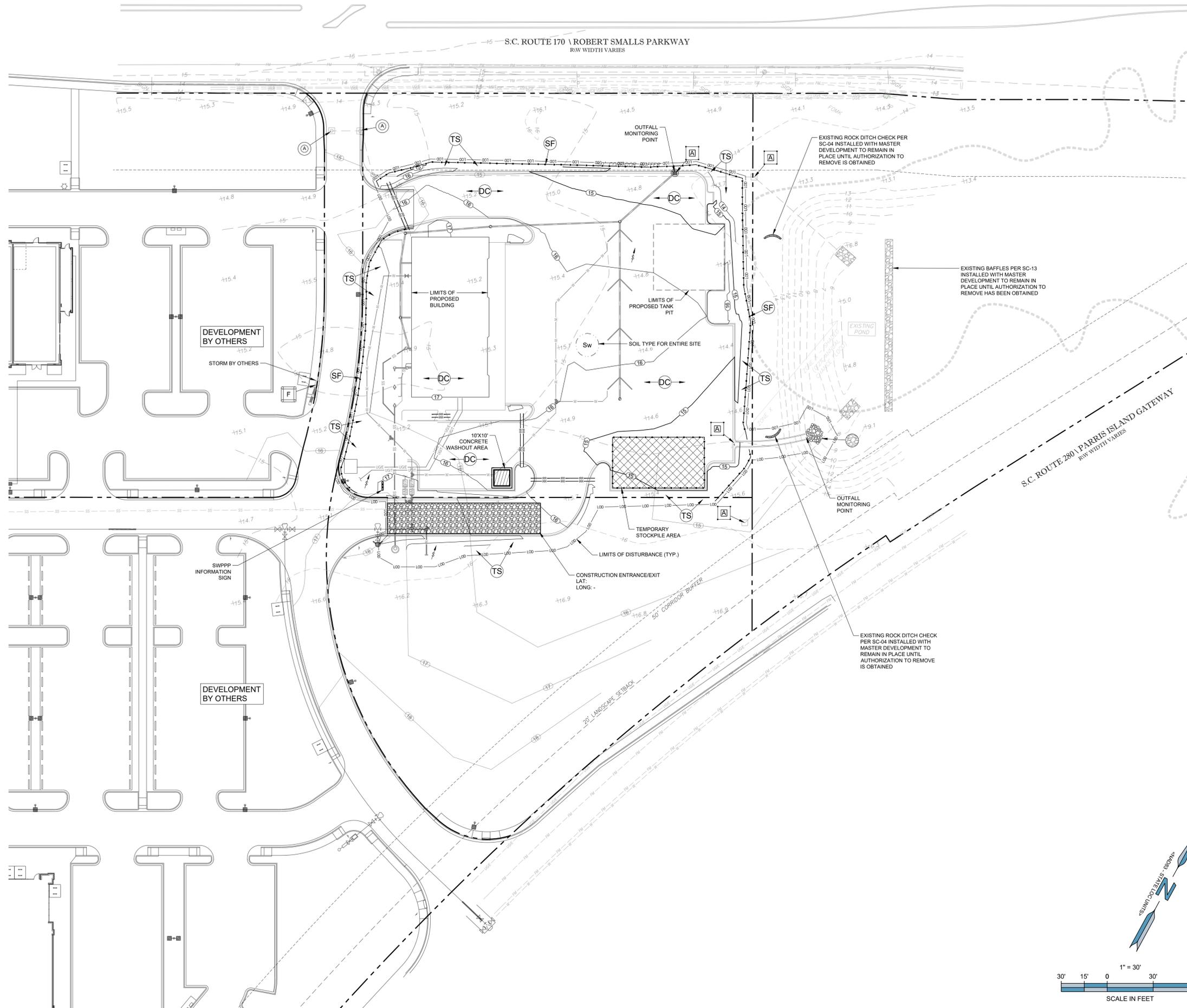
- 2) PETROLEUM / OIL PRODUCTS 1) INSPECT VEHICLES AND EQUIPMENT DAILY FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE. PETROLEUM PRODUCTS WILL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED.
2) THERE SHALL BE NO ON-SITE STORAGE OF PETROLEUM FOR FUEL





SITE DATA	
UNKNOWN AT THIS TIME	
TOTAL SITE AREA =	1.555 AC.
TOTAL DISTURBED AREA =	1.5 AC.
TOTAL STORAGE REQUIRED =	94.72 CY.
STORAGE PROVIDED:	
S&S STORAGE PROVIDED =	0 CY.
TOTAL STORAGE PROVIDED =	0 CY.

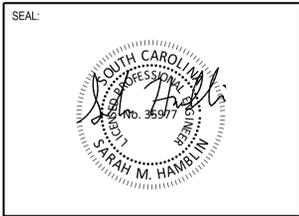
NOTE: ENTIRE SITE HAS BEEN DISTURBED AND CLEARED BY MASTER DEVELOPMENT. EXISTING POND ON ADJACENT PARCEL WILL CONTINUE TO PROVIDE SEDIMENT STORAGE. REFERENCE BEAUFORT STATION SHOPPING CENTER PLANS FOR ADDITIONAL INFORMATION



ENGINEER:  
**FORESITE**  
group

DEVELOPER:  
**Parker's kitchen**  
  
DRAYTON-PARKER COMPANIES, LLC  
17 W MCDONOUGH ST  
SAVANNAH, GA 31401  
(912) 677-0693  
CONTACT: DANIEL BEN-YISRAEL

PROJECT:  
**PARKER'S KITCHEN**  
STORE #124 (BEAUFORT STATION)  
311 ROBERT SMALLS PARKWAY  
BEAUFORT COUNTY, SC  
PARCEL #: R120 028 000 1230 0000

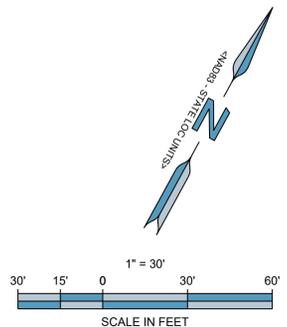


REVISIONS	DATE

PROJECT MANAGER: SMH  
DRAWING BY: SC  
JURISDICTION: BEAUFORT, SC  
DATE: 2023-8-29  
SCALE: 1" = 30'

**INTERMEDIATE EROSION,  
SEDIMENTATION, & POLLUTION  
CONTROL PLAN**

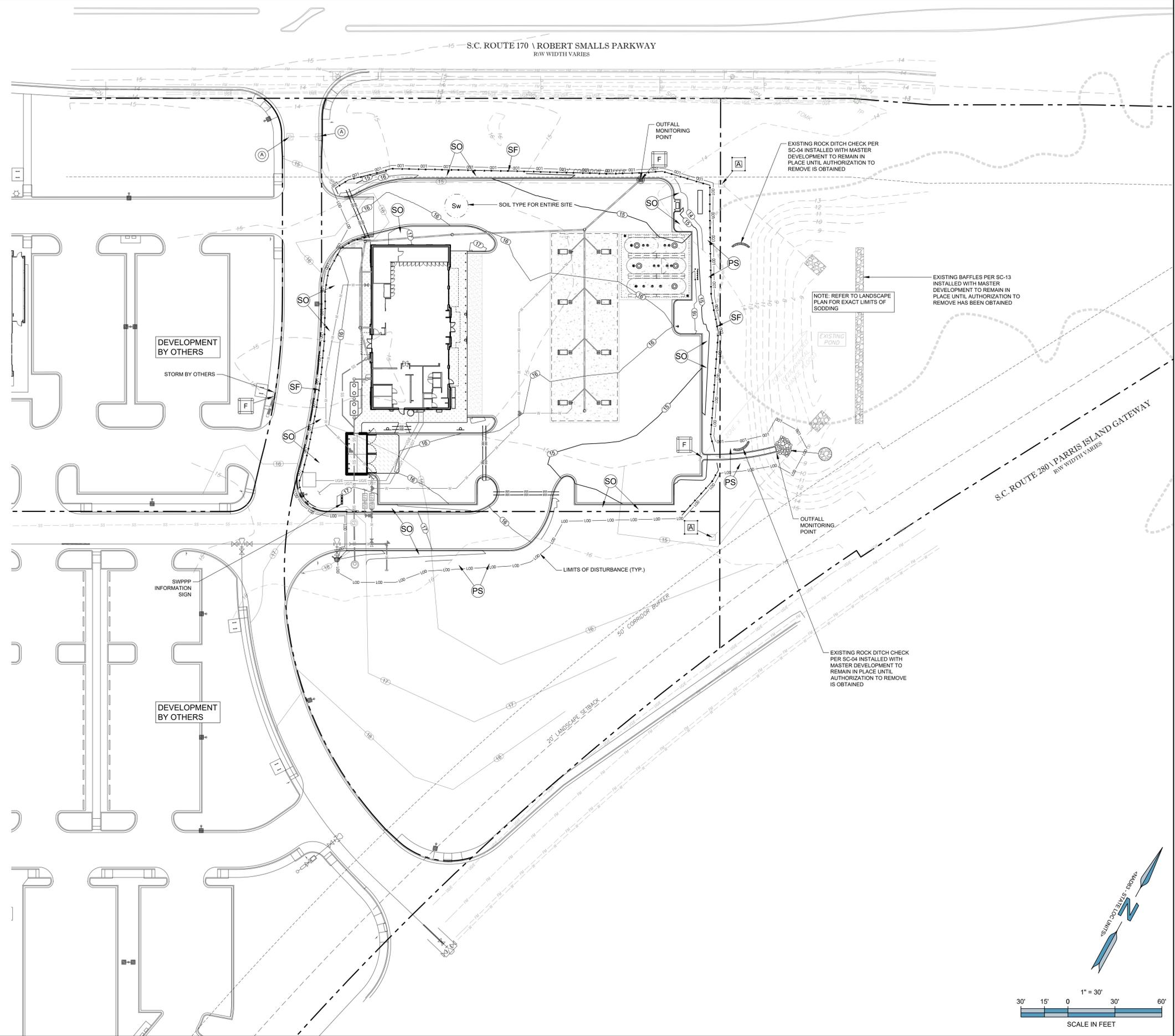
SHEET NUMBER:  
**C-4.3**  
COMMENTS: NOT RELEASED FOR CONSTRUCTION  
JOB/FILE NUMBER: 00.2009.015



Z:\PROJECTS\2023\08\20230820\000 119 BEAUFORT, SC PARKER'S AT BEAUFORT STATION\DRAWING FILES\SCALE EROSION CONTROL PLAN.DWG Plot on: 8/29/2023 2:52:02 PM By: SHALIN CANON, Seed: 5046, P: 1

SITE DATA	
TOTAL SITE AREA =	1.555 AC.
TOTAL DISTURBED AREA =	1.5 AC.
TOTAL STORAGE REQUIRED =	94.72 CY.
STORAGE PROVIDED:	
Sd3 STORAGE PROVIDED =	0 CY.
TOTAL STORAGE PROVIDED =	0 CY.

NOTE: ENTIRE SITE HAS BEEN DISTURBED AND CLEARED BY MASTER DEVELOPMENT. EXISTING POND ON ADJACENT PARCEL WILL CONTINUE TO PROVIDE SEDIMENT STORAGE. REFERENCE BEAUFORT STATION SHOPPING CENTER PLANS FOR ADDITIONAL INFORMATION



ENGINEER:  
**FORESITE**  
group

DEVELOPER:  
**Parker's kitchen**  
  
DRAYTON-PARKER COMPANIES, LLC  
17 W MCDONOUGH ST  
SAVANNAH, GA 31401  
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CONTACT: DANIEL BEN-YISRAEL

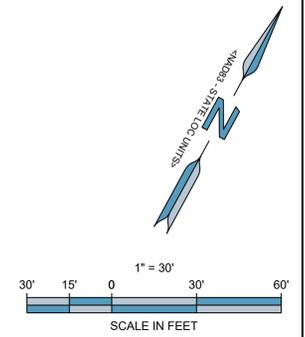
PROJECT:  
**PARKER'S KITCHEN**  
STORE #124 (BEAUFORT STATION)  
  
311 ROBERT SMALLS PKWY  
BEAUFORT COUNTY, SC  
PARCEL #: R120 028 000 1230 0000



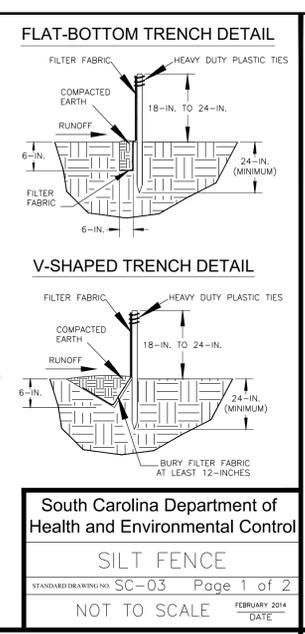
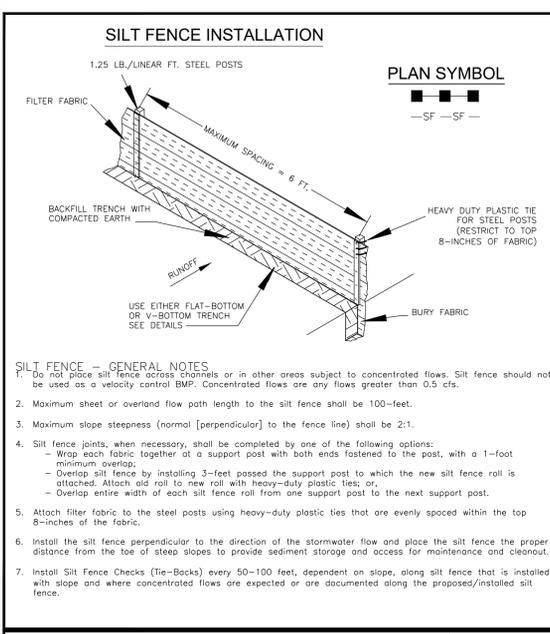
REVISIONS	DATE

PROJECT MANAGER: SMH  
DRAWING BY: SC  
JURISDICTION: BEAUFORT, SC  
DATE: 2023-8-29  
SCALE: 1" = 30'  
TITLE:

FINAL EROSION,  
SEDIMENTATION, & POLLUTION  
CONTROL PLAN  
SHEET NUMBER:  
**C-4.4**  
COMMENTS: NOT RELEASED FOR CONSTRUCTION  
JOB/FILE NUMBER: 00.2009.015



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### 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 - 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 event 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 re-install 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 re-install 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 shall be permanently stabilized.

### 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 overland 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.

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 - FABRIC REQUIREMENTS

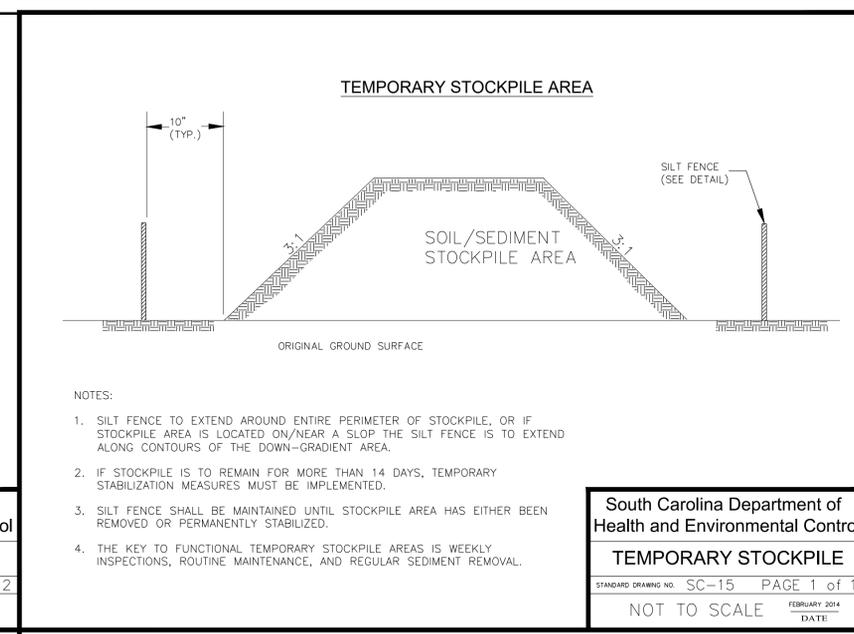
- Silt fence must be composed of woven geotextile filter fabric that consists of the following requirements:
  - Composed of fibers consisting of long chain synthetic polymers of at least 85% by weight of polyolefins, polyesters, or polyamides that are formed into a network such that the filaments or yarns retain dimensional stability relative to each other.
  - Free of any treatment or coating which might adversely affect 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.

South Carolina Department of Health and Environmental Control

### SILT FENCE

STANDARD DRAWING NO. SC-03 PAGE 2 of 2

GENERAL NOTES FEBRUARY 2014 DATE



NOTES:

- SILT FENCE TO EXTEND AROUND ENTIRE PERIMETER OF STOCKPILE, OR IF STOCKPILE AREA IS LOCATED ON/NEAR A SLOPE THE SILT FENCE IS TO EXTEND ALONG CONTOURS OF THE DOWN-GRADIENT AREA.
- IF STOCKPILE IS TO REMAIN FOR MORE THAN 14 DAYS, TEMPORARY STABILIZATION MEASURES MUST BE IMPLEMENTED.
- SILT FENCE SHALL BE MAINTAINED UNTIL STOCKPILE AREA HAS EITHER BEEN REMOVED OR PERMANENTLY STABILIZED.
- THE KEY TO FUNCTIONAL TEMPORARY STOCKPILE AREAS IS WEEKLY INSPECTIONS, ROUTINE MAINTENANCE, AND REGULAR SEDIMENT REMOVAL.

South Carolina Department of Health and Environmental Control

### TEMPORARY STOCKPILE

STANDARD DRAWING NO. SC-15 PAGE 1 of 1

NOT TO SCALE FEBRUARY 2014 DATE



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

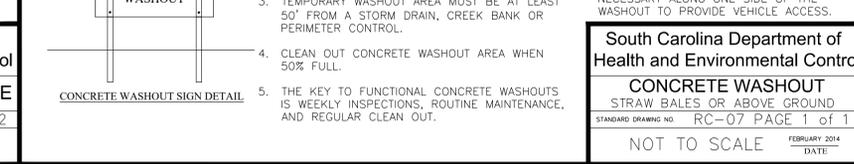
- Stabilized construction entrances should be used at all points where traffic will egress/ingress a construction site onto a public road or any impervious surfaces, such as parking lots.
- Install a non-woven geotextile fabric prior to placing any stone.
- Install a culvert pipe across the entrance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

South Carolina Department of Health and Environmental Control

### CONSTRUCTION ENTRANCE

STANDARD DRAWING NO. SC-06 PAGE 2 of 2

GENERAL NOTES FEBRUARY 2014 DATE



LETTERS A MINIMUM OF 5" IN HEIGHT

CONCRETE WASHOUT SIGN DETAIL

NOTES:

- ACTUAL LAYOUT DETERMINED IN FIELD.
- INSTALL CONCRETE WASHOUT SIGN (24"x24", MINIMUM) WITHIN 30' OF THE TEMPORARY CONCRETE WASHOUT FACILITY.
- TEMPORARY WASHOUT AREA MUST BE AT LEAST 50' FROM A STORM DRAIN, CREEK BANK OR PERIMETER CONTROL.
- CLEAN OUT CONCRETE WASHOUT AREA WHEN 50% FULL.
- THE KEY TO FUNCTIONAL CONCRETE WASHOUTS IS WEEKLY INSPECTIONS, ROUTINE MAINTENANCE, AND REGULAR CLEAN OUT.

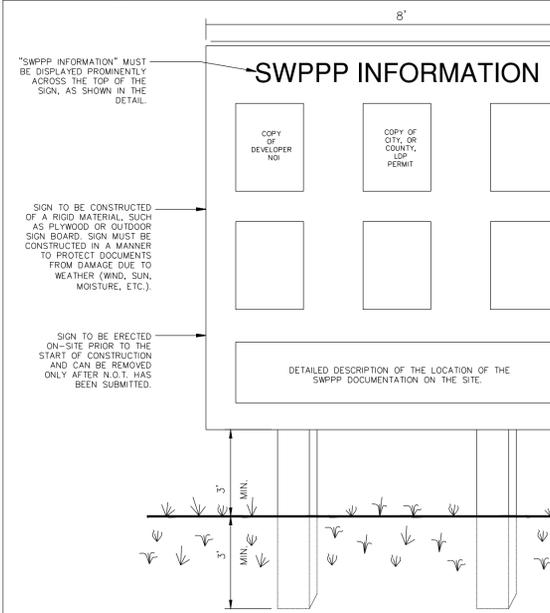
South Carolina Department of Health and Environmental Control

### CONCRETE WASHOUT

STRAW BALES OR ABOVE GROUND

STANDARD DRAWING NO. RC-07 PAGE 1 of 1

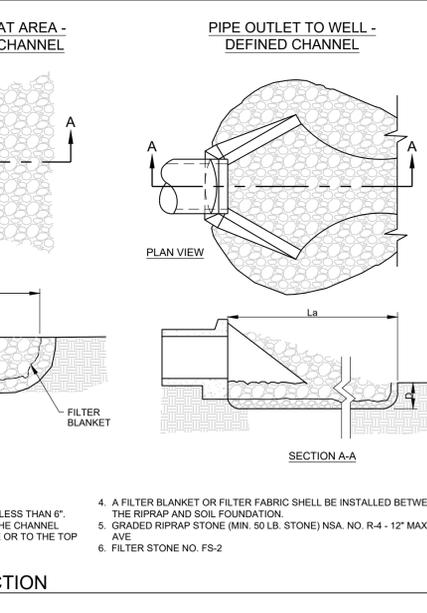
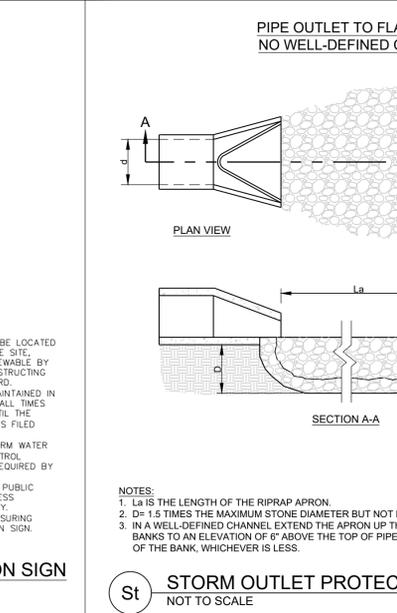
NOT TO SCALE FEBRUARY 2014 DATE



NOTES:

- THE SWPPP INFORMATION SIGN MUST BE LOCATED NEAR THE CONSTRUCTION EXIT OF THE SITE, SUCH THAT IT IS ACCESSIBLE AND VIEWABLE BY THE GENERAL PUBLIC, BUT NOT OBSTRUCTING VIEWS AS TO CAUSE A SAFETY HAZARD.
- ALL POSTED DOCUMENTS MUST BE MAINTAINED IN A CLEARLY READABLE CONDITION AT ALL TIMES THROUGHOUT CONSTRUCTION AND UNTIL THE NOTICE-OF-TERMINATION (NOT) IS FILED FOR THE PERMIT.
- CONTRACTOR SHALL POST OTHER STORM WATER AND/OR EROSION AND SEDIMENT CONTROL RELATED PERMITS ON THE SIGN AS REQUIRED BY THE GOVERNING AGENCY.
- SIGN SHALL BE LOCATED OUTSIDE OF PUBLIC RIGHT-OF-WAY AND EASEMENTS UNLESS APPROVED BY THE GOVERNING AGENCY.
- CONTRACTOR IS RESPONSIBLE FOR ENSURING STABILITY OF THE SWPPP INFORMATION SIGN.

SWPPP INFORMATION SIGN N.T.S.



NOTES:

- La IS THE LENGTH OF THE RIPRAP APRON.
- D = 1.5 TIMES THE MAXIMUM STONE DIAMETER BUT NOT LESS THAN 6".
- IN A WELL-DEFINED CHANNEL EXTEND THE APRON UP THE CHANNEL BANKS TO AN ELEVATION OF 6" ABOVE THE TOP OF PIPE OR TO THE TOP OF THE BANK, WHICHEVER IS GREATER.
- A FILTER BLANKET OR FILTER FABRIC SHALL BE INSTALLED BETWEEN THE RIPRAP AND SOIL FOUNDATION.
- GRADED RIPRAP STONE (MIN. 50 LB. STONE) NSA, NO. R-4 - 12" MAX. 6" AVE
- FILTER STONE NO. FS-2

St STORM OUTLET PROTECTION NOT TO SCALE

### Rip-Rap Apron Summary

Headwall ID	Pipe Diameter, DO (in)	25-year Velocity, Q (cfs)	25-year Velocity, V (ft/sec)	GDOT Type III Rip-Rap Size d50	Initial Apron width (ft)	Apron Length, La (ft)	Apron Width, W (ft)
100	24	18.8	11.1	0.75	6	13	15
124	18	2.4	5.4	0.75	4.5	9	10.5
300	24	8.2	6.1	0.75	6	13	15
400	18	5.2	9.4	0.75	4.5	9	10.5
600	18	1.9	5.5	0.75	4.5	9	10.5
700	18	5.5	8.6	0.75	4.5	9	10.5
800	18	3.5	6.0	0.75	4.5	9	10.5
900	18	1.5	4.0	0.75	4.5	9	10.5

ENGINEER:

DEVELOPER:

DRAYTON-PARKER COMPANIES, LLC  
17 W MCDONOUGH ST  
SAVANNAH, GA 31401  
(912) 677-0693

CONTACT: DANIEL BEN-YISRAEL

PROJECT:

PARKER'S KITCHEN  
STORE #124 (BEAUFORT STATION)

311 ROBERT SMALLS PKWY  
BEAUFORT COUNTY, SC  
PARCEL #R120 028 000 1230 0000

SEAL:

South Carolina Department of Health and Environmental Control

### CONCRETE WASHOUT

STRAW BALES OR ABOVE GROUND

STANDARD DRAWING NO. RC-07 PAGE 1 of 1

NOT TO SCALE FEBRUARY 2014 DATE

REVISIONS \_\_\_\_\_ DATE \_\_\_\_\_

PROJECT MANAGER: SMH

DRAWING BY: SC

JURISDICTION: BEAUFORT, SC

DATE: 2023-8-29

SCALE: AS SHOWN

TITLE:

EROSION, SEDIMENTATION, & POLLUTION CONTROL DETAILS

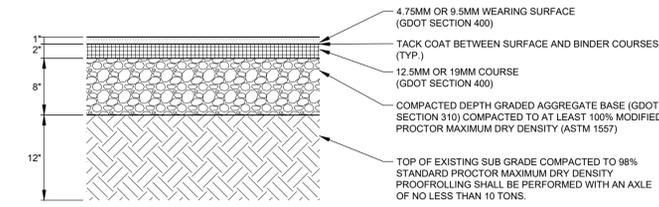
SHEET NUMBER: **C-4.5**

COMMENTS: NOT RELEASED FOR CONSTRUCTION

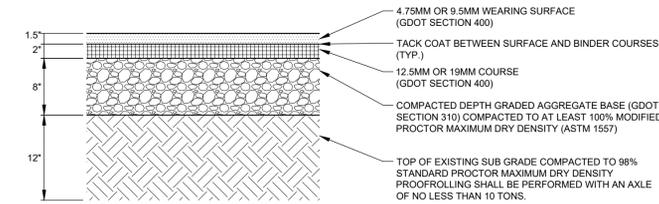
JOB/FILE NUMBER: 00.2009.015



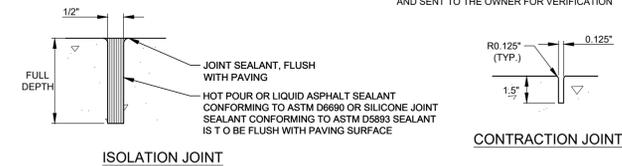
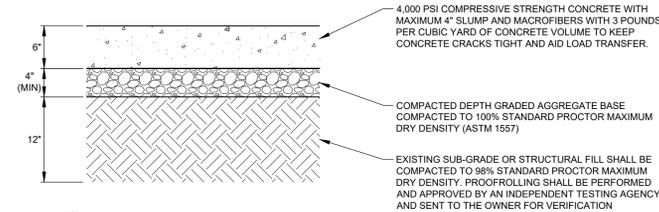




**MEDIUM (STANDARD) DUTY ASPHALT PAVING**  
NOT TO SCALE

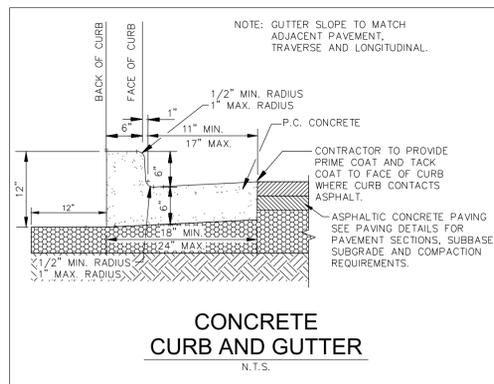


**HEAVY DUTY ASPHALT PAVING**  
NOT TO SCALE

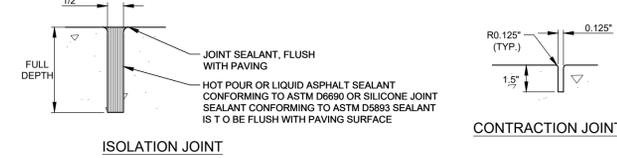
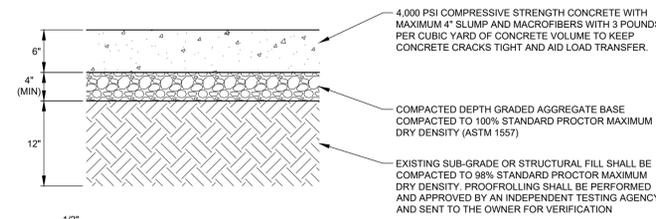


**NOTE:**  
1. DETAIL REFLECTS HEAVY DUTY CONCRETE PAVING RECOMMENDATION BY PROJECT GEOTECHNICAL ENGINEER.  
2. A TACK COAT SHALL BE APPLIED BETWEEN THE HD SECTION AND THE ON-SITE ASPHALT SECTION.  
3. **UNLESS OTHERWISE NOTED ON PLANS, CONTRACTION JOINTS TO BE 10'-0\"/>**

**MEDIUM (STANDARD) DUTY CONCRETE PAVING**  
NOT TO SCALE

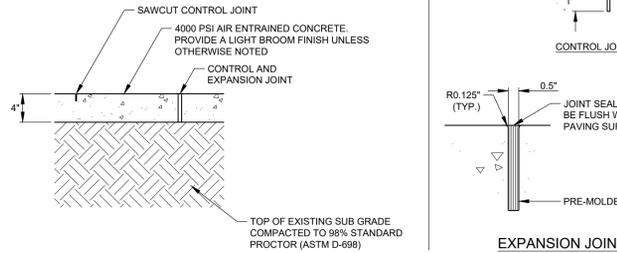


**CONCRETE CURB AND GUTTER**  
N.T.S.



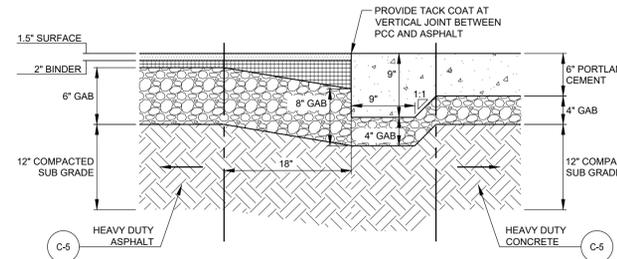
**NOTE:**  
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2. A TACK COAT SHALL BE APPLIED BETWEEN THE HD SECTION AND THE ON-SITE ASPHALT SECTION.  
3. **UNLESS OTHERWISE NOTED ON PLANS, CONTRACTION JOINTS TO BE 10'-0\"/>**

**HEAVY DUTY CONCRETE PAVING**  
NOT TO SCALE

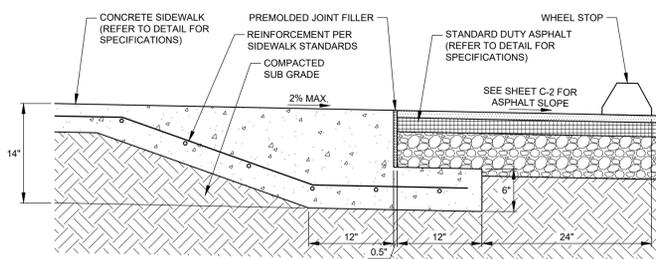


**NOTE:**  
1. UNLESS OTHERWISE INDICATED, PREFORMED EXPANSION JOINTS TO BE 40'-0\"/>

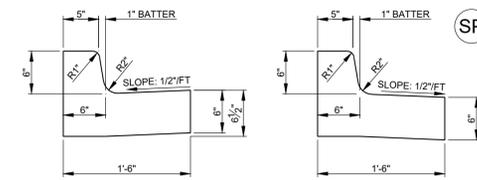
**CONCRETE SIDEWALK**  
NOT TO SCALE



**HEAVY DUTY ASPHALT / CONCRETE TRANSITION**  
NOT TO SCALE

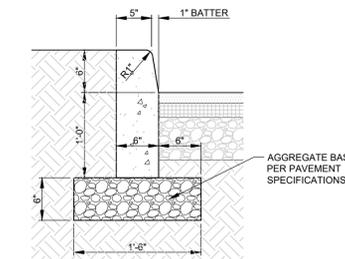


**CONCRETE SIDEWALK / ASPHALT TRANSITION**  
NOT TO SCALE



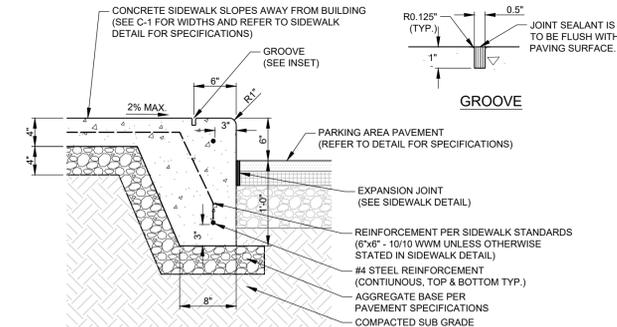
**NOTE:**  
1. 1/2\"/>

**18\"/>**

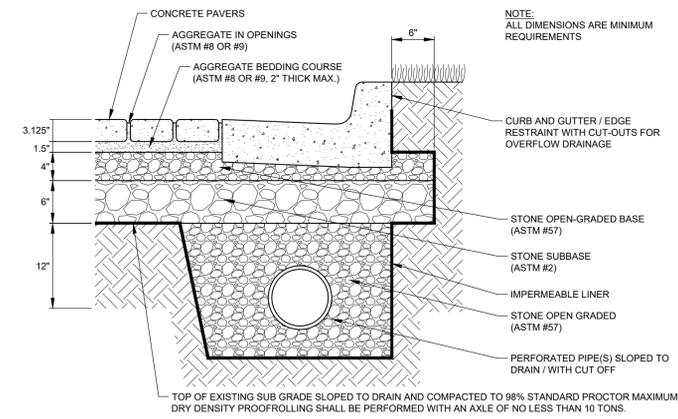


**NOTE:**  
1. 1/2\"/>

**CONCRETE HEADER CURB**  
NOT TO SCALE



**TURN-DOWN SIDEWALK CONCRETE CURB**  
NOT TO SCALE



**CONCRETE PERMEABLE PAVERS**  
NOT TO SCALE

ENGINEER:  
**FORESITE**  
group

DEVELOPER:  
**Parker's kitchen**

DRAYTON-PARKER COMPANIES, LLC  
17 W MCDONOUGH ST  
SAVANNAH, GA 31401  
(912) 677-0693  
CONTACT: DANIEL BEN-YISRAEL

PROJECT:  
**PARKER'S KITCHEN**  
STORE #124 (BEAUFORT STATION)  
311 ROBERT SMALLS PKWY  
BEAUFORT COUNTY, SC  
PARCEL #R120 028 000 1230 0000

SEAL:  
SOUTH CAROLINA PROFESSIONAL ENGINEER  
No. 35977  
SARAH M. HAMBLEN

REVISIONS: \_\_\_\_\_ DATE: \_\_\_\_\_

PROJECT MANAGER: SMH  
DRAWING BY: SC  
JURISDICTION: BEAUFORT, SC  
DATE: 2023-8-29  
SCALE: AS SHOWN  
TITLE:

SHEET NUMBER:  
**C-5**

COMMENTS: NOT RELEASED FOR CONSTRUCTION

JOB FILE NUMBER: 00.2009.015



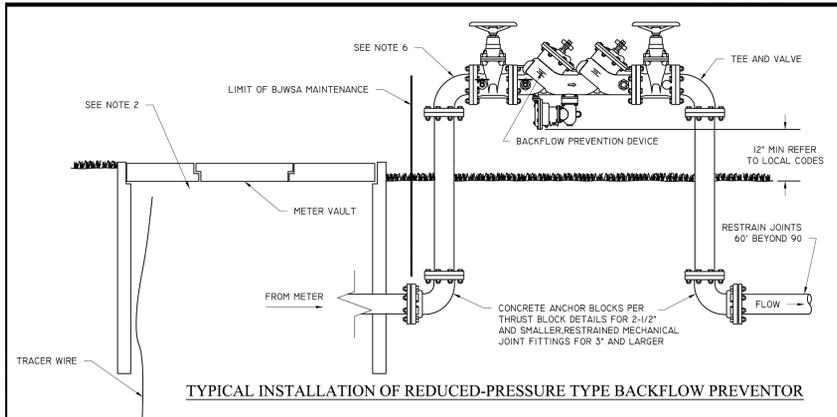






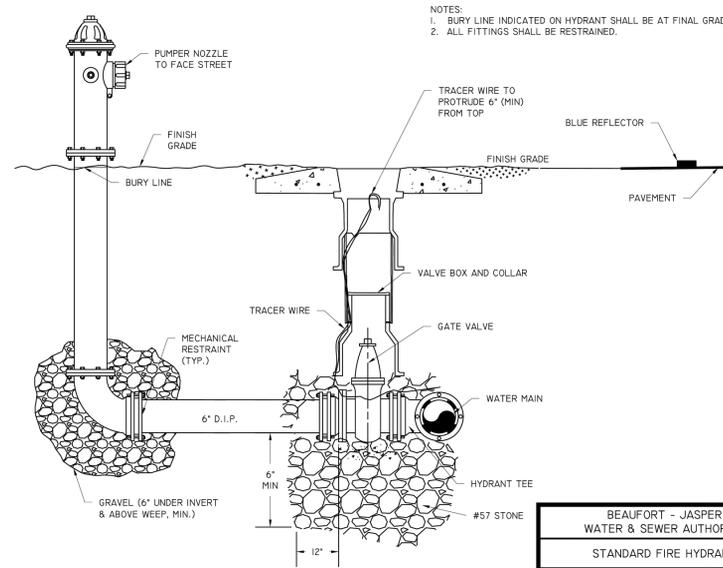




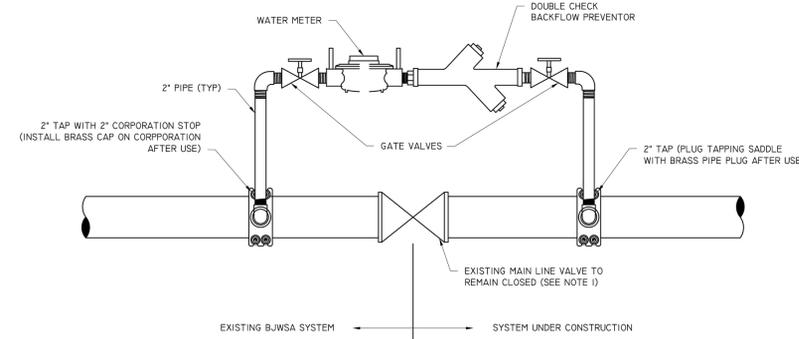


- NOTES:
1. REDUCED-PRESSURE BACKFLOW PREVENTION DEVICES SHALL BE REQUIRED FOR ANY SERVICE WHERE TOXIC MATERIALS ARE USED OR WHERE POSITIVE PROTECTION FOR THE PUBLIC WATER SUPPLY IS REQUIRED. TYPICAL APPLICATIONS INCLUDE: HOSPITALS, MEDICAL & DENTAL LABS, MORTUARIES, INDUSTRIAL PLANTS, DRY CLEANERS, IRRIGATION SYSTEMS, OR AS DETERMINED BY BJWSA.
  2. SEE SPECIFIC METER DETAIL FOR MORE INFORMATION.
  3. BACKFLOW PREVENTION DEVICES SHALL BE INSTALLED ADJACENT TO AND ON PROPERTY SIDE OF SIDEWALK WHERE APPLICABLE. WHERE NO SIDEWALK 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 RESPONSIBILITY.
  6. PIPING AND FITTINGS THROUGH 2" SHALL BE SCHD 40 GALVANIZED STEEL. PIPING AND FITTINGS 3" AND LARGER SHALL BE FLANGED DUCTILE IRON.
  7. REFER TO SCHEIC 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	DESIGNED BY BMC	DRAWING # W-01
SCALE N.T.S.	APPROVED BY ERS		

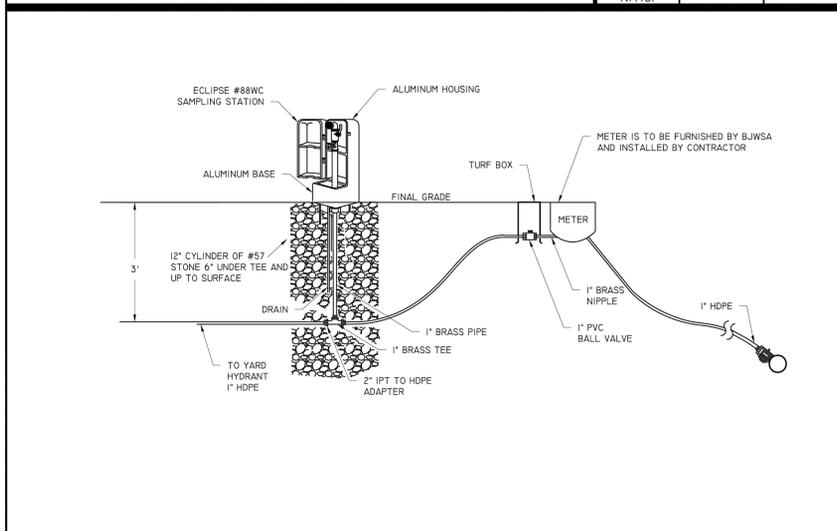


BEAUFORT - JASPER WATER & SEWER AUTHORITY			
STANDARD FIRE HYDRANT			
DATE 07/01/09	DRAWN BY BMC	DESIGNED BY BMC	DRAWING # W-03
SCALE N.T.S.	APPROVED BY ERS		



- NOTES:
1. MAIN LINE VALVE SHALL REMAIN CLOSED AT ALL TIMES UNTIL PERMIT TO OPERATE IS ISSUED BY SC DHEC. MAINLINE VALVE SHALL ONLY BE OPERATED BY BJWSA PERSONNEL. VIOLATION OF THIS POLICY IS PUNISHABLE BY A FINE OF NOT LESS THAN \$500 PLUS ESTIMATED WATER USAGE AND POSSIBLE CRIMINAL PROSECUTION.
  2. ALL WATERLINE EXTENSIONS MUST CONTAIN A JUMPER CONNECTION FOR FILLING/CHLORINATION REQUIREMENTS.
  3. METER AND BACKFLOW ASSEMBLY MUST BE OBTAINED FROM BJWSA.
  4. TAPPING SADDLES AND CORPORATION STOPS SHALL COMPLY WITH BJWSA SPECIFICATIONS.
  5. ALL TAPS ON MAINLINE SHALL BE HORIZONTAL.

BEAUFORT - JASPER WATER & SEWER AUTHORITY			
JUMPER CONNECTION DETAIL			
DATE 07/01/09	DRAWN BY BMC	DESIGNED BY BMC	DRAWING # W-05
SCALE N.T.S.	APPROVED BY ERS		



BEAUFORT - JASPER WATER & SEWER AUTHORITY			
WATER SAMPLING STATION			
DATE 07/01/09	DRAWN BY BMC	DESIGNED BY BMC	DRAWING # W-10
SCALE N.T.S.	APPROVED BY ERS		



REVISIONS	DATE

PROJECT MANAGER:	SMH
DRAWING BY:	SC
JURISDICTION:	BEAUFORT, SC
DATE:	2023-8-29
SCALE:	AS SHOWN
TITLE:	