

SIGNAL EQUIPMENT

ONE (1) 8 PHASE FULLY ACTUATED STANDARD 2070 CONTROLLER WITH FLASHER, SIGNAL MONITOR UNIT, AND BASE - MOUNTED 332A CABINET.

EXT.

PROP.

WACT. & SIGN

9 MODEL 222, (2)-CHANNEL VEHICLE DETECTOR UNITS

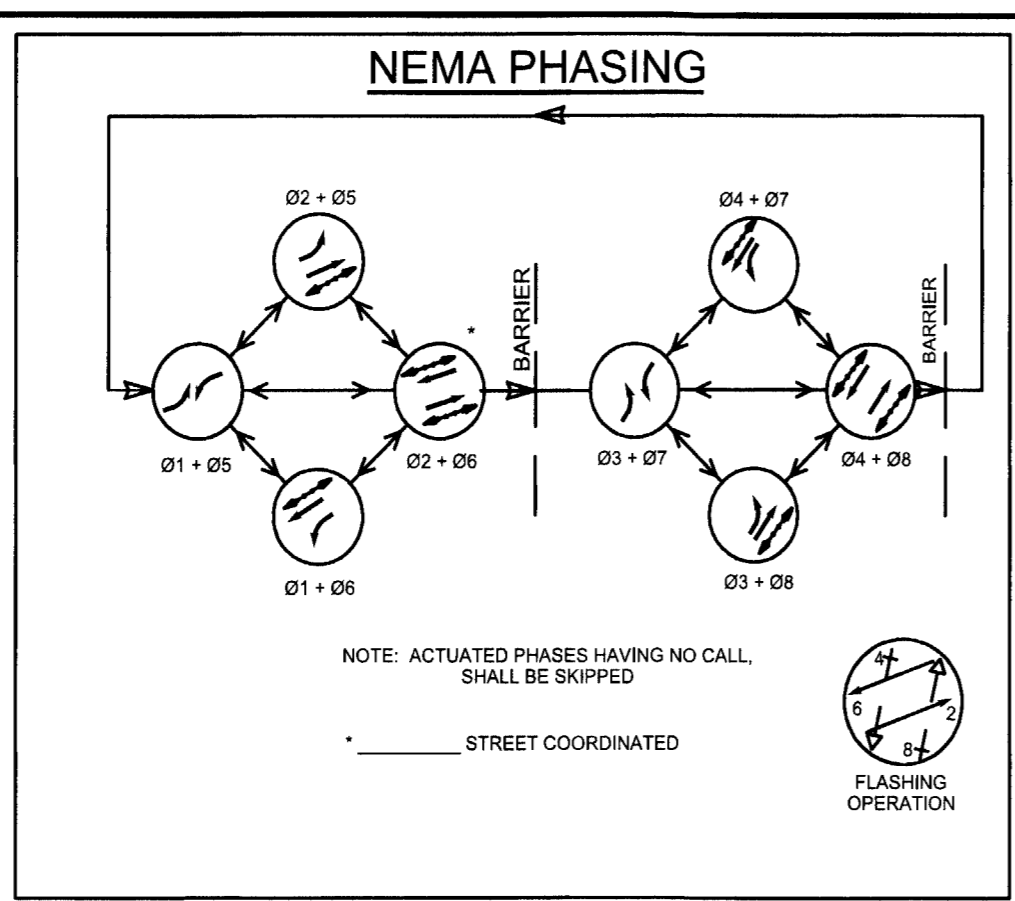
8 PEDESTRIAN PUSH BUTTONS:

8 PEDESTRIAN SIGNALS:

VEHICLE SIGNALS:

HEAD NUMBER	1,2F	2	3,4F	4	5,6F	6	7,8F	8	2P	4P	6P	8P
LENS												
PHASE	1,OLA	2	3,OLB	4	5,OLC	6	7,OLD	8	2P	4P	6P	8P
SIZE	12"	12"	12"	12"	12"	12"	12"	12"	16"	16"	16"	16"
QUANTITY	1	2	1	2	1	2	1	2	2	2	2	2

OLA= 01+02 (FYA) OLC= 05+06 (FYA)
 OLB= 03+04 (FYA) OLD= 07+08 (FYA)



MAST ARM NOTES:

- Mast arm pole foundation designs to be the responsibility of Contractor.
- Beaufort County to provide mast arms, street lighting, and street name signs.
- SCDOT contractor to construct mast arm foundations & install mast arm & street name signs.
- Mast arm lengths are estimated based on known field conditions. Mast arms of appropriate length to be furnished by Beaufort County based on final foundation locations.

OVERHEAD SIGNS

SIGN "A"

 R10-12A-30

SIGN "B1"

 D3-1

SIGN "B2"

 D3-1

PEDESTRIAN SIGNS

R10-36R
 9" X 15"

R10-36R
 9" X 15"

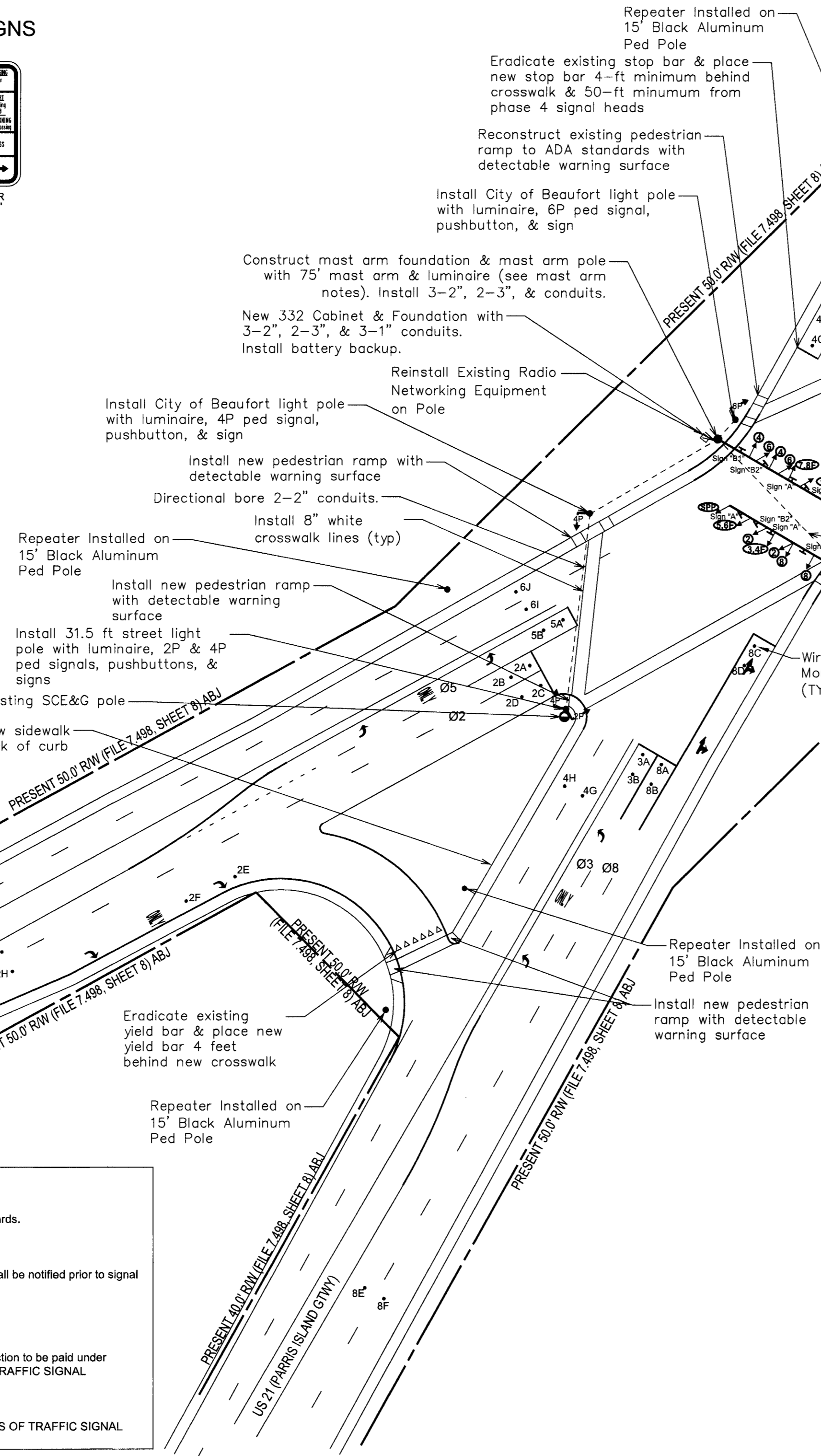
NOTE: Signal is part of a coordinated system. Below signal timings are for free operation. Contact Beaufort County Traffic Engineering for Time of Day plan details.

SIGNAL TIMINGS

	PHASE							
	1	2	3	4	5	6	7	8
WALK		7		7		7		7
DONT WALK	43		26		39		23	
MIN INITIAL	6	15	6	15	6	15	6	15
MAX INITIAL	25		25		25		25	
ADDEVT	1.2		1.2		1.2		1.2	
VEH EXH	2.5	3.5	2.5	3.5	2.5	3.5	2.5	3.5
TIM BFR REDUC	25		25		25		25	
TIME TO REDUC	10		10		10		10	
MIN GAP	2.5		2.5		2.5		2.5	
MAX LIMIT	20	45	20	45	20	45	20	45
MAXIMUM 2								
YELLOW	4.4	4.4	4.7	4.7	4.4	4.4	4.7	4.7
RED CLEAR	5.4	5.4	4.5	4.5	5.4	5.4	4.5	4.5

LOOP DETECTOR INSTALLATION SPECIAL CHART

PHASE/ DETECTOR	WIRELESS			SPECIAL OPERATION			LOOP DESIGN				
	AMP NO.	CHAN NO.	PHASE(S)	TO LOCK	NON-LOCK	TO PULSE	DELAY SEC	EXT SEC	TIME OF DAY-TOD SWITCHING, etc.	SIZE X	DIST. FROM STOP BAR
1A,1B				X	X					3'18"	
2A,2B				X	X					3'18"	
2C,2D				X	X					3'18"	
2E,2F				X	X					215',230'	
2G,2H				X	X					330'	
2I,2J				X	X					10'	
2K,2L,2M,2N,2O				X	X					0'	
3A,3B				X	X					3'18"	
4A,4B				X	X					3'18"	
4C,4D				X	X					3'18"	
4E,4F				X	X					330'	
4G,4H				X	X					10'	
5A,5B				X	X					3'18"	
6A,6B				X	X					3'18"	
6C,6D				X	X					3'18"	
6E,6F				X	X					215',230'	
6G,6H				X	X					330'	
6I,6J				X	X					10'	
7A,7B				X	X					3'18"	
8A,8B				X	X					3'18"	
8C,8D				X	X					3'18"	
8E,8F				X	X					330'	
8G,8H				X	X					10'	



SIGNAL DISPLAY SEQUENCE CHART

PHASE	NON-CONFLICTING PHASE (B)	CONFLICTING PHASE - (A)
1	5,6	2,3,4,7,8
2	5,6	1,3,4,7,8
3	7,8	1,2,4,5,6
4	7,8	1,3,3,5,6
5	1,2	3,4,5,7,8
6	1,2	3,4,5,7,8
7	3,4	1,2,5,6,8
8	3,4	1,2,5,6,7

NOTE A: ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE OMITTED.
 NOTE B: WHEN ONE PHASE IS ON ALONE, ANY NON-CONFLICTING PHASE MAY START TIMING CURRENTLY WITHOUT A CLEARANCE INTERVAL. (SEE CHART) CONFLICTING PHASES REQUIRE A CLEARANCE INTERVAL.

** WHEN CALLED, DISPLAY SOLID WALKING PERSON AND TIMES OUT WALK TIMING, THEN DISPLAYS FLASHING UPRAISED HAND AND TIMES WALK CLEARANCE (DO NOT WALK TIMING), THEN DISPLAYS A SOLID UPRAISED HAND.

SIGNAL DISPLAY SEQUENCE (PREFERENTIAL PHASING)

SIGNAL HEAD NUMBER	PHASE	CLEARING	PHASE	CLEARING	PHASE	CLEARING	PHASE	CLEARING
1,2F	RRRRRRRR	RRRR	RRRRRRRR	RRRR	RRRRRRRR	RRRR	RRRRRRRR	RRRR
2	RRRRRRRR	RRRR	RRRRRRRR	RRRR	RRRRRRRR	RRRR	RRRRRRRR	RRRR
3,4F	RRRRRRRR	RRRR	RRRRRRRR	RRRR	RRRRRRRR	RRRR	RRRRRRRR	RRRR
4	RRRRRRRR	RRRR	RRRRRRRR	RRRR	RRRRRRRR	RRRR	RRRRRRRR	RRRR
5,6F	RRRRRRRR	RRRR	RRRRRRRR	RRRR	RRRRRRRR	RRRR	RRRRRRRR	RRRR
6	RRRRRRRR	RRRR	RRRRRRRR	RRRR	RRRRRRRR	RRRR	RRRRRRRR	RRRR
7,8F	RRRRRRRR	RRRR	RRRRRRRR	RRRR	RRRRRRRR	RRRR	RRRRRRRR	RRRR
8	RRRRRRRR	RRRR	RRRRRRRR	RRRR	RRRRRRRR	RRRR	RRRRRRRR	RRRR
2P	RRRRRRRR	RRRR	RRRRRRRR	RRRR	RRRRRRRR	RRRR	RRRRRRRR	RRRR
4P	RRRRRRRR	RRRR	RRRRRRRR	RRRR	RRRRRRRR	RRRR	RRRRRRRR	RRRR
6P	RRRRRRRR	RRRR	RRRRRRRR	RRRR	RRRRRRRR	RRRR	RRRRRRRR	RRRR
8P	RRRRRRRR	RRRR	RRRRRRRR	RRRR	RRRRRRRR	RRRR	RRRRRRRR	RRRR

ALTERNATE PHASES

SIGNAL HEAD NUMBER	PHASE	CLEARING	PHASE	CLEARING
1,2F	RRRRRRRR	RRRR	RRRRRRRR	RRRR
2	RRRRRRRR	RRRR	RRRRRRRR	RRRR
3,4F	RRRRRRRR	RRRR	RRRRRRRR	RRRR
4	RRRRRRRR	RRRR	RRRRRRRR	RRRR
5,6F	RRRRRRRR	RRRR	RRRRRRRR	RRRR
6	RRRRRRRR	RRRR	RRRRRRRR	RRRR
7,8F	RRRRRRRR	RRRR	RRRRRRRR	RRRR
8	RRRRRRRR	RRRR	RRRRRRRR	RRRR
2P	RRRRRRRR	RRRR	RRRRRRRR	RRRR
4P	RRRRRRRR	RRRR	RRRRRRRR	RRRR
6P	RRRRRRRR	RRRR	RRRRRRRR	RRRR
8P	RRRRRRRR	RRRR	RRRRRRRR	RRRR

ROUTE NUMBER: SC-170, US-21

APPROACH DIRECTION: WB, EB, SB, NB

SIGNAL DESIGN SPEED: 45, 45, 45, 45

GRADE (%): 0*, 0*, 0*, -3*

* ESTIMATED

SCALE IN FEET

0 50 100 200

BEAUFORT COUNTY TRAFFIC ENGINEERING DEPARTMENT

DATE: _____ REVISIONS: _____

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION
CHARLESTON, S.C.

SUBJECT TITLE: DISTRICT 6 SIGNAL REBUILDS

SPECIFIC LOCATION: US-21 (Parris Island Parkway) & SC-170 (Robert Smalls Parkway)

CITY: BEAUFORT COUNTY: BEAUFORT

DESIGNED: _____ APPROVED BY: _____

DRAWN: _____

CHECKED: DISTRICT #8 TRAFFIC ENGINEER

REVIEWED: SCALE: DATE: SHEET NO.: INDEX NO.:

RECOMMENDED: 1" = 50' 11/16

NOTES:

- All signal heads and signs shall be installed according to SCDOT specifications & standards
- All materials and workmanship shall meet SCDOT and Beaufort County specifications & standards.
- Contractor shall coordinate with existing utilities with regards to pole and conduit locations.
- Provide a minimum 36" coverage for high-density polyethylene conduit.
- All pull boxes shall be 12"x24"x18" unless otherwise specified.
- Beaufort County Traffic Engineering to be included in any pre-construction conferences and shall be notified prior to signal being placed in operation.
- Ped buttons shall be solid state with audio and tone and must be MUTCD compliant.
- Install wireless detection system that integrates with Beaufort County's SNAPS system.
- All signal heads shall be installed with retro reflective backplates.
- All crosswalks are new. All pavement marking revisions to meet SCDOT standards.
- Wireless detection equipment to be provided by Beaufort County. Installation of wireless detection to be paid under "INSTALL FLUSH MOUNTED WIRELESS SENSOR" and "TEMPORARY ADJUSTMENTS OF TRAFFIC SIGNAL EQUIPMENT".
- SCDOT contractor to furnish & install all 10' & 15' pedestrian poles & repeater poles.
- Battery backup system to be provided by Beaufort County.
- Any relocation of communications equipment to be paid under "TEMPORARY ADJUSTMENTS OF TRAFFIC SIGNAL EQUIPMENT".