

1-JUL-2021 14:42 :*ITS&SU*ITS Signals*Workgroups*Sig Man*Zafar*Plans*090726*090726*090726_sm_ele_20210713.dgn

																			
													PR	OJECT	PEFERE	NCE NO.	. SH	EET N	10 . 2 1
															20101	D	010) I I U	-
SIGNAL HEAD HOOK-UP CHART																			
S2	53	S	\$4	S5	S6	S7	S8	59	S	10	S11	S12	AUX S1	AUX S2	AUX S3	AUX S4	AUX S5	AUX S6	
2	13		3	4	14	5	6	15		7	8	16	9	10	17	11	12	18	
2	2 PED		3	4	4 PED	5	6	6 PED		7	8	8 PED	OLA	OLB	SPARE	OLC	OLD	SPARE	:
22,23	NU	23	31 . 32 33	41,42 43	P41, P42	NU	62,63	NU	63	71,72	81 . 82 83	NU	61 *	NU	NU	21	NU	NU	
128				101			134				107								
129				102			135				108								
130				103			136				109								
			116							122			A121			A114			
		117	117						123	123			A122			A115			
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		118	118						124	124									
					104														
					106														
tori 	Jsed torial of head wiring in detail this sheet. <u>COUNTDOWN PEDESTRIAN SIGNAL OPERATION</u> ntdown Ped Signals are required to display timing only during Clearance Interval. Consult Ped Signal Module user's manual instructions on selecting this feature																		
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					<u>A (</u>	<u>510</u> (w:	ire sig	<u> </u>	<u>וח .</u> neads	$\frac{1}{as}$ sh	i Di Iown)	<u>= /-</u>							
01	(wire signal heads as shown) OLA RED (A121) OLA YELLOW (A122) OLA GREEN (A123) OLA GREEN (A123) OLC GREEN (A116) OLC GREEN (A116) O																		
	PHASE SEQUENCE PROGRAMMING DETAIL (program controller as shown below) FROM OASIS LOCAL CONTROLLER MAIN MENU SELECT: 4 PHASE SEQUENCE																		
	PHASE SEQUENCE: PAGE 1 NEXT: PAGES) 🔄 RNG!LEAD BARRIER 1 X-LAG!LEAD BARRIER 2 X-LAG																		

ectrical Detail							DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED
RICAL AND PROGRAMMING DETAILS FOR.	SR	4315	(Kern	ersville	e Roa	ad)	SEAL
Prepared In the Offices of:	SR	2632	a (Sedg	t e Garden		ad)	SEAL 031001
	PLAN DATE:	.lung '	2021	REVIEWED BY:	WINSLO		WGINEER
HS I I I I I I I I I I I I I I I I I I I	PREPARED BY:	Zarrar	Zafar	REVIEWED BY:			TODD JOYCHIN
G JE TRANSPORT		REVISIONS			INIT.	DATE	DocuSigned by: 7/13/2021
Greenfield Pkwy,Garner,NC 27529							
							SIG. INVENTORY NO. 09-0726

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11-OCT-2017 08:25 S:*ITS&SU#ITS Signals*Signal Design Section*Eastern Region*M Sheets*2016*2014 Sig.M3 Std. Fabrication Details-Stra

11-DCT-2017 08:

		0111/1	I B II E II O
N. BITTING	REVIEWED BY:	D.C.	SARKAR
REVISIONS		INIT.	DATE

			ST	stan Rain	IDARD POL	ES		STANDARD FOUNDATIONS 48" Diameter Drilled Pier Length (L) – Feet					Reinforcement					
			Polo	Base	Reaction	ns at the	Pole Base	Clay		Sand		Longitudinal		Stirrups				
		Case No.	Height (Ft.)	BC (In.)	Axial (kip)	Shear (kip)	Moment (ft–kip)	Medium N–Value 4–8	Stiff N–Value 9–15	Very Stiff N–Value 16–30	Hard N–Value >30	Loose N–Value 4–10	Medium N–Value 11–30	Dense N–Value > 30	Bar Size (#)	Quantity (ea.)	Bar Size (#)	Spacing (in.)
W I	L	S26L3	26	25	2	11	270	19	13	10	8	17	14.5	12.5	8	12	4	12
Ñ D	G H	S30L3	30	25	2	11	300	19.5	13.5	10	8	17.5	15	13	8	14	4	12
Z O	Ť	S35L3	35	25	3	11	320	20	13.5	10.5	8	17.5	15	13	8	14	4	12
N E	H E A	S30H3	30	29	3	16	450	24.5	16	12	9	21	17.5	15	8	16	4	6
1	V Y	S35H3	35	29	4	16	515	26	17	12.5	9.5	22	18.5	16	8	16	4	6
Ņ	Ļ	S26L2	26	23	2	10	245	18	12.5	9.5	8	16.5	14	12	8	12	4	12
	ц С Н	S30L2	30	23	2	10	270	18.5	12.5	10	8	16.5	14	12.5	8	12	4	12
z	Ť	S35L2	35	23	3	10	300	19.5	13	10	8	17	14.5	13	8	12	4	12
	H E △	S30H2	30	29	3	15	415	23	15.5	11.5	9	20	17	14.5	8	16	4	6
2	V Y	S35H2	35	29	4	15	475	25	16.5	12	9.5	21	17.5	15.5	8	16	4	6
N T	L	S26L2	26	23	2	10	245	18	12.5	9.5	8	16.5	14	12	8	12	4	12
	G H	S30L2	30	23	2	10	270	18.5	12.5	10	8	16.5	14	12.5	8	12	4	12
7	Ť	S35L2	35	23	3	10	300	19.5	13	10	8	17	14.5	13	8	12	4	12
N E	H E ⊿	S30H2	30	29	3	15	415	23	15.5	11.5	9	20	17	14.5	8	16	4	6
3	V Y	S35H2	35	29	4	15	475	25	16.5	12	9.5	21	17.5	15.5	8	16	4	6
v	Ļ	S26L1	26	22	2	8	190	16	11.5	8.5	8	15	12.5	11	8	12	4	12
J	G H	S30L1	30	22	2	8	205	16.5	11.5	9	8	15	13	11.5	8	12	4	12
	Ť	S35L1	35	22	3	8	230	17	12	9	8	15.5	13.5	11.5	8	12	4	12
	H E A	S30H1	30	25	3	12	320	20.5	13.5	10.5	8	18	15	13.5	8	16	4	6
1	V Y	S35H1	35	25	4	12	350	21	14	10.5	8.5	18.5	15.5	13.5	8	16	4	6
N I	Ļ	S26L2	26	23	2	10	245	18	12.5	9.5	8	16.5	14	12	8	12	4	12
N D	ц С Ц	S30L2	30	23	2	10	270	18.5	12.5	10	8	16.5	14	12.5	8	12	4	12
$\frac{7}{5}$	Ť	S35L2	35	23	3	10	300	19.5	13	10	8	17	14.5	13	8	12	4	12
	H E ^	S30H2	30	29	3	15	415	23	15.5	11.5	9	20	17	14.5	8	16	4	6
5	A V V	S35H2	35	29	4	15	475	25	16.5	12	9.5	21	17.5	15.5	8	16	4	6

Prepared In the Offices of: Notifice of the providence of the prov	
"Design "So"	PLAN
750 N.Greenfield Pkwy,Garner,NC 27529	PREP
SCALE	Chang
NONE	

PROJECT ID. NO.	SH
U-2579AB	S

General Notes:

1. Values shown in the "Reactions at the Pole Base" column represent the minimum acceptable capacity allowed for design using a design CSR of 1.00. 2. Use chairs and spacers to maintain proper clearance. 3. For foundation, always use air-entrain concrete mix.

Foundation Selection:

1. Perform a standard penetration test at each proposed foundation site to determine "N" value. 2. Select the appropriate wind zone from M 1 drawing. 3. Select the soil type (Clay or Sand) that best describes the soil characteristics. 4. Get the appropriate standard pole case number from the plans or from the Engineer. 5. Select the appropriate column under "Standard Foundations" based on soil type and "N" value. Select the appropriate row based on the pole load case. 6. The foundation depth is the value shown in the "Standard Foundations" category where the column and the row intersect. 7. Use Construction Procedures and Design Methods prescribed

by FHWA-NHI-10-016 for Reference Drilled Shafts.

Condition Soil oundation–All ЦĽ ole Strain Standard

Standard S [.] Foundatio Soil Con	train n for nditio	Pol All ns	9		
N DATE: OCTOBER 2017	DESIGNED BY:	С.В.	COGDELL		
PARED BY: N. BITTING	REVIEWED BY:	D.C.	SARKAR		
REVISIONS		INI	T. DATE	C	D
ged "Foundation Depth" to "Drilled Pier Le	ngth"in Conc. Eqn.	N.B.	7/12/2015		Ve
					—4

10/11/2017

DATE

\wedge	
$\frac{1}{2}$	
$\frac{2}{2}$	
$\sqrt{3}$	EXISTING ETHERNET (OR COAX) CABLE
4	INSTALL SMFO CABLE
$\frac{5}{5}$	EXISTING SMFO CABLE
<u>/6</u>	INSTALL FIBER OPTIC DROP CABLE
	INSTALL TRACER WIRE
8	TRENCH
9	INSTALL PVC CONDUIT
10	INSTALL RIGID, GALVANIZED STEEL CONDUIT
11	INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD
12	INSTALL RIGID, GALVANIZED STEEL RISER WITH FIBER OPTIC CABLE SEAL
13	INSTALL OUTER-DUCT POLYETHYLENE CONDUIT
14	INSTALL POLYETHYLENE CONDUIT
15	DIRECTIONAL DRILL CONDUIT
16	BORE AND JACK CONDUIT
17	INSTALL CABLE(S) IN EXISTING CONDUIT
18	INSTALL CABLE(S) IN NEW CONDUIT
19	INSTALL CABLE(S) IN EXISTING RISER
20	INSTALL CABLE(S) IN NEW RISER
21	INSTALL CABLE(S) IN EXISTING CONDUIT STUB-OUTS
22	INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUB–OUTS WHEN AVAILABLE)
23	INSTALL NEW RISER INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUB–OUTS WHEN AVAILABLE)
24	INSTALL NEW CONDUIT INTO EXISTING POLE MOUNTED CABINET
25	INSTALL NEW RISER INTO EXISTING POLE MOUNTED CABINET
26	INSTALL NEW ETHERNET EDGE SWITCH
27	INSTALL NEW FIBER OPTIC TRANSCEIVER
28	INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS AND FUSION SPLICE CABLE IN CABINET
29	INSTALL UNDERGROUND SPLICE ENCLOSURE
30	INSTALL AERIAL SPLICE ENCLOSURE
31	MODIFY EXISTING INTERCONNECT CENTER /SPLICE ENCLOSURE
32	INSTALL POLE MOUNTED SPLICE CABINET
33	INSTALL BASE MOUNTED SPLICE CABINET

	INSTALL CABINET FOUNDATION			END FR OPTIC COMMUNICATIO	INS CARLE	PROJECT REFERENCE NO. U-2579AB	SHEET NO. SCP-1
		F U	EXISTING	COMMUNICATIONS CABLE			
	INSTALL CCTV CAMERA POLE MOUNTED CABINET	REN	EXISTING	COMMUNICATIONS CABLE	to be removed		
36	INSTALL CCTV CAMERA ASSEMBLY		NEW AER	RIAL GUY ASSEMBLY			
37	INSTALL CCTV CAMERA WOOD POLE						
38	INSTALL CCTV CAMERA METAL POLE AND FOUNDATION		NEW DIR	ECTIONAL DRILLED CONDU	UIT		
39	INSTALL JUNCTION BOX						
40A	INSTALL OVERSIZED JUNCTION BOX	NEW			EXISTING		
40B	INSTALL SPECIAL OVERSIZED JUNCTION BOX (36" x 24" x 24"	') <u> </u>	OVERSIZED J WOO	UNCTION BOX	•		
41	REMOVE EXISTING JUNCTION BOX	(S)	AERIAL SPLIC	CE ENCLOSURE			
42	INSTALL WOOD POLE	(s)	UNDERGROUND META	SPLICE ENCLOSURE	(s) D		
43	REMOVE EXISTING WOOD POLE		CCTV	ASSEMBLY			
44	INSTALL AERIAL GUY ASSEMBLY	(STANDARD (GUY ASSEMBLY			
45	INSTALL STANDARD GUY ASSEMBLY	$\bigcirc \bigcirc$	CABLE STORAGE RA	ACKS (SNOW SHOES)			
46	INSTALL SIDEWALK GUY ASSEMBLY		SIGNAL/EQUI	PMENT CABINET			
47	INSTALL MESSENGER CABLE	S	SPLICE	CABINET			
48A	REMOVE EXISTING COMMUNICATIONS AND MESSENGER CAE	BLE ((()-	FLAT PANEL A	NTENNA (SINGLE)			
48B	REMOVE EXISTING COMMUNICATIONS CABLE	-1 -	YAGI ANTENNA REPEATER	OPERATION			
49	BACK PULL EXISTING COMMUNICATIONS CABLE			NNA (SINGLE) NTENNA	<u>└──⊞</u> + └──(((,),))		
50	INSTALL CELL MODEM AND ANTENNA	SP	SIGNAL	L POLE	SP		
51	INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF CABLE	XX-XXXX	SIGNAL INVE	NTORY NUMBER	XX-XXXX		
52A	INSTALL DELINEATOR MARKER						
52B	INSTALL JUNCTION BOX MARKER		-	CONSTRUCTIO	N NOTE SY.	MBOLOGY K	KEY_
53A	STORE 20 FEET OF COMMUNICATIONS CABLE			XX INDICATES	NUMBER OF CABLES	S, LOOPS, ETC. PER_CABLE,	
53B	STORE 50 FEET OF EACH COMMUNICATIONS CABLE			XX TWISTED PA	AIRS PER CABLE, ETC		
54	LASH CABLE(S) TO EXISTING COMMUNICATIONS CABLE				DIAMETER OF RISER	(S) / CONDUIT(S) (INC	H)
55	LASH CABLE(S) TO EXISTING MESSENGER CABLE				Γ	NUMBER OF FIBERS/TWISTED PA	IRS
56	LASH CABLE(S) TO NEW MESSENGER CABLE	ATTACHMENT POINT:		CABLE(3)			
57	MODIFY EXISTING ELECTRICAL SERVICE	$\frac{XX}{YYY} \xrightarrow{\text{DISTANCE ABOVE (IN)/A}} REFERENCE POINT$	HACHMENT POINT		$ (\mathbf{x}\mathbf{x} /\mathbf{x}\mathbf{x}) = -$		CABLE (CABLE
58	INSTALL NEW ELECTRICAL SERVICE	YYY REFERENCE POINT XX″/SS DISTANCE BELOW (IN)/	attachment point	- <			
59	INSTALL NEW EQUIPMENT CABINET DISCONNECT	"SS" REFERENCE LOCATION		NUMBER		DIAMETER	
60	BOND TRACER WIRE TO EQUIPMENT GROUND BUS	FS = FRONT SIDE OF POLE BS = BACK SIDE OF POLE		OF RISER(S)⁄CONDUIT(S)	RISER(S)⁄C	OF ONDUIT(S) (INCH)	
61	DO NOT BOND TRACER WIRE TO EQUIPMENT GROUND BUS						
62	BOND RISER AND MESSENGER CABLE TO POLE GROUND						EINAL
63	BOND RISER TO POLE GROUND	ARE	A 3, STAGE 1 Prepared in the Offices of:		UNLESS ALL S		PLETED
64	BOND MESSENGER CABLE TO POLE GROUND		NOBILITY and S.	CUNCLEIILT	TON NOTES		
65	INSTALL HEAT SHRINK TUBING RETROFIT KIT		Solution unit			SEAL	NAT NE
66	INSTALL MOLDABLE DUCT SEAL	750 N	Greenfield Pkwy., Garner, NC 27529	LAN DATE: DECEMBER 2020 REPARED BY: D. SONDERFAN	REVIEWED BY: DocuSigned by: Grugg Gruun		
67	SLACK SPAN				99F8BBEF705A4FA	DATE DocuSigned by:	8/2021
						4009E000EB66417 SIGNATURE	DATE

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LEGEND	
X = FUSION SPLICE	l
C = CAP IN TRAY	(1) E
EXPRESS = EXPRESS ALL FIBERS/	(2)
BUFFER TUBES	(3)
SPLICE = SPLICE ALL FIBERS/	(4)
BUFFER TUBES	(5)
	(6)
	LEGEND X = FUSION SPLICE C = CAP IN TRAY EXPRESS = EXPRESS ALL FIBERS/ BUFFER TUBES SPLICE = SPLICE ALL FIBERS/ BUFFER TUBES

- DIFFERS FROM THE SUPPLIED SPLICE DETAILS.

- 1) SPLICE LOCATION
- 2) DATE
- 4) NAME OF INDIVIDUAL PERFORMING THE SPLICING

PRIOR TO INSTALLING THE COVER ON THE SPLICE TRAY TAKE A DIGITAL PHOTOGRAPH SHOWING THE SPLICE TRAY AND INFORMATION SHOWN ABOVE (1–4) AND SUBMIT PHOTOGRAPH ALONG WITH OTDR TEST RESULTS.

		U-2579AB	SHEET NO. SCP-8
	·		
4⁄EIA 598–A			
JE (7) RED			
REEN (9) YELLOW			
OWN (10) VIOLET			
HITE (12) AQUA			
EXISTING 24-FIBER			
TO EXISTING			
OF NICOLE RD.			
۲ <u>۲</u>			
		CONSIDEDED	
P DESIGN I (TMP PHASE I)	UNLESS ALL SIGN	ATURES COMI	rINAL PLETED
II-257	9AB	SEAL	0.11
SPLICE D	ETAILS	A PERSON	
DIVISION 9 FORSYTHE C	DUNTY WINSTON-SALE	SEAL 025895	01/1
reenfield Pkwy., Garner, NC 27529 PLAN DATE: DECEMBER 2020	REVIEWED BY: Congr Could by:	- SO SWGINES	DIATIN'
REVISIONS		DocuSigned by:	2021
		A060E000EB66417	

	NEW AERIAL SPLICE ENCLO KERNERSVILLE RD. AT I–74 WB RAMPS SIG. INV. # 09–0740
	Notes: Unused fibers left coiled and stored Unused Buffer Tubes left coiled and
	EXISTING 36-FIBER TO EXISTING AERIAL SE AT 09-0660
1) FIVE (5) DAYS PRIOR TO BEGINN AT (336) 748–3228 TO ARRANGE CONFIGURATION DATA, INCLUDI ID INFORMATION. NOTIFY THE E PROPERLY. WORK IS NOT COMPL	ING WORK ON THE SIGNAL SYST FOR THE CITY TO PROGRAM TH NG BUT NOT LIMITED TO: THE PRO NGINEER AFTER ALL WORK IS PERFO ETE UNTIL THE SIGNAL SYSTEM IS
2) CONTRACTOR TO RECORD EXIST THE ENGINEER TO DETERMINE H DIFFERS FROM THE SUPPLIED SPI	TING SPLICE ARRANGEMENT FOR CO OW TO PROCEED WITH RESPLICIN LICE DETAILS.
 3) ETHERNET SWITCH TERMINATION 4) INCLUDE ON THE COVER OF E 1) SPLICE LOCATION 2) DATE 	CONFIGURATIONS ARE GENERIC.
3) COMPANY NAME 4) NAME OF INDIVIDUAL PERFORMI	ING THE SPLICING

PRIOR TO INSTALLING THE COVER ON THE SPLICE TRAY TAKE A DIGITAL PHOTOGRAPH SHOWING THE SPLICE TRAY AND INFORMATION SHOWN ABOVE (1–4) AND SUBMIT PHOTOGRAPH ALONG WITH OTDR TEST RESULTS.

ORMED TO ENSURE THAT ALL FIBER CIRCUITS ARE FUNCTIONING BACK UP AND OPERATIONAL.

NG: REFERENCE SECTION 1731 "FIBER OPTIC SPLICE ENCLOSURE"

	NEW AERIAL SPLICE ENCI KERNERSVILLE RD. AT I-74 EB RAMPS
	SIG. INV. # 09–074
	Notes: Unused fibers left coiled and sto Unused Buffer Tubes left coiled a
	EXISTING 34 FIRED
	TO NEW
	AT 09-0740
	BL
1) FIVE (5) DAYS PRIOR TO BEGINNING	G WORK ON THE SIGNAL SYST
CONFIGURATION DATA, INCLUDING ID INFORMATION. NOTIFY THE ENG PROPERLY. WORK IS NOT COMPLETE	BUT NOT LIMITED TO: THE PR INEER AFTER ALL WORK IS PERF UNTIL THE SIGNAL SYSTEM IS
2) CONTRACTOR TO RECORD EXISTING THE ENGINEER TO DETERMINE HOW DIFFERS FROM THE SUPPLIED SPLICE	G SPLICE ARRANGEMENT FOR C TO PROCEED WITH RESPLICE DETAILS.
3) ETHERNET SWITCH TERMINATION CO	ONFIGURATIONS ARE GENERIC.
4) INCLUDE ON THE COVER OF EAC	H SPLICE TRAY THE FOLLOWI
1) SPLICE LOCATION 2) DATE 3) COMPANY NAME 4) NAME OF INDIVIDUAL PERFORMING	THE SPUCING
PRIOR TO INSTALLING THE COVER C	ON THE SPLICE TRAY TAKE A
INFORMATION SHOWN ABOVE (1-4)	AND SUBMIT PHOTOGRAPH

FORMED TO ENSURE THAT ALL FIBER CIRCUITS ARE FUNCTIONING BACK UP AND OPERATIONAL.

ING: REFERENCE SECTION 1731 "FIBER OPTIC SPLICE ENCLOSURE"

ALONG WITH OTDR TEST RESULTS.