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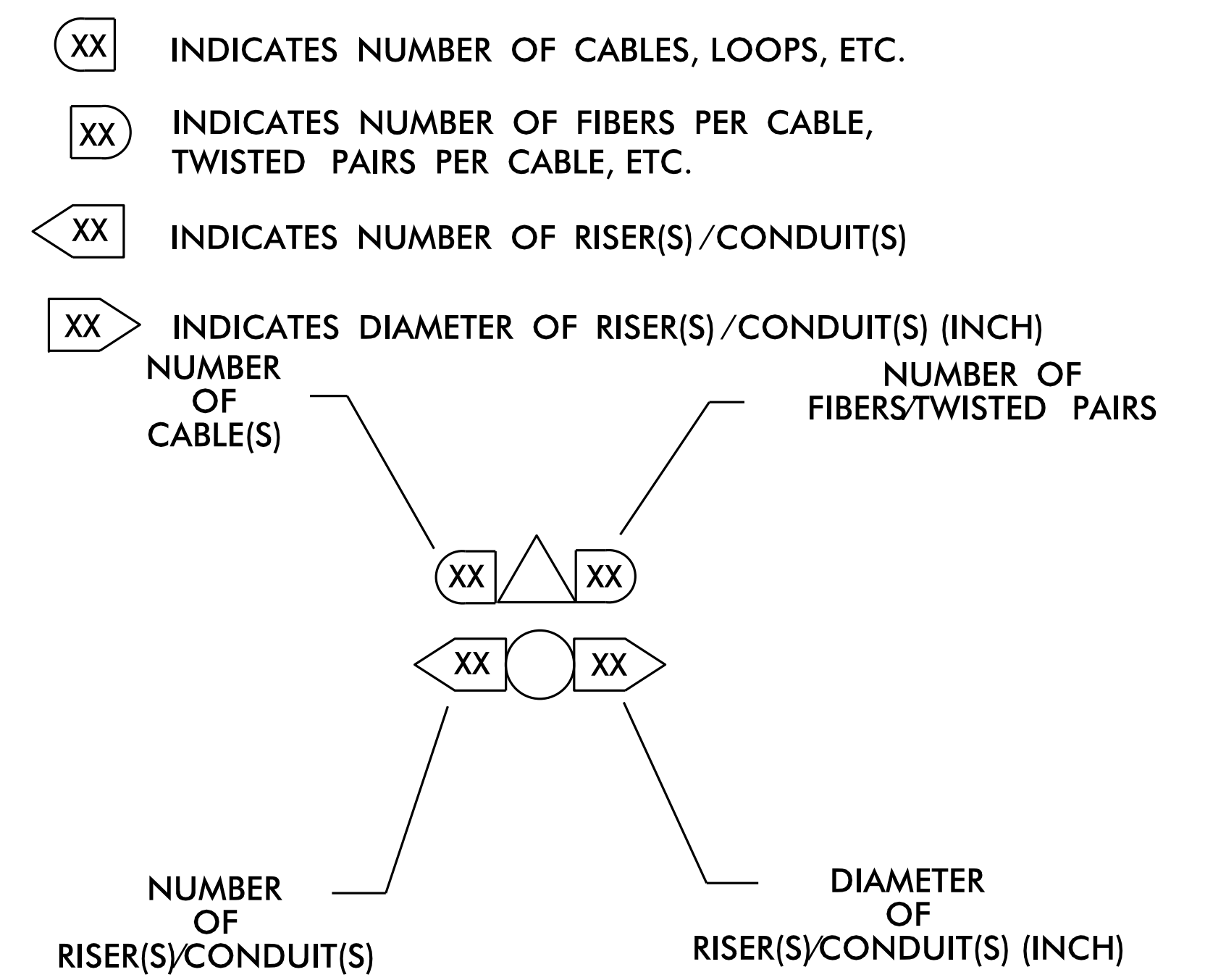
- 1 INSTALL REA, PE - 22, SHIELDED, TWISTED PAIR COMMUNICATIONS CABLE
- 2 INSTALL REA, PE - 38, (FIGURE - 8) SHIELDED, TWISTED PAIR COMMUNICATIONS CABLE
- 3 INSTALL REA, PE - 39, (UNDERGROUND) SHIELDED, TWISTED PAIR COMMUNICATIONS CABLE
- 4 INSTALL SMFO CABLE
- 5 INSTALL MMFO CABLE
- 6 INSTALL FIBER OPTIC DROP CABLE ASSEMBLY
- 7 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 STUBOUTS
- 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 FIBER-OPTIC VIDEODATA TRANCEIVER
- 27 INSTALL FIBER-OPTIC TRANCEIVER - DROP AND REPEAT
- 28 INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
- 29 INSTALL UNDERGROUND SPLICE ENCLOSURE
- 30 MODIFY EXISTING SPLICE ENCLOSURE
- 31 INSTALL POLE MOUNTED SPLICE CABINET
- 32 INSTALL BASE MOUNTED SPLICE CABINET
- 33 REMOVE EXISTING SPLICE CABINET
- 34 INSTALL CABINET FOUNDATION

- 35 REMOVE EXISTING CABINET FOUNDATION
- 36 INSTALL CCTV CAMERA ASSEMBLY
- 37 INSTALL CCTV CAMERA WOOD POLE
- 38 INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
- 39 INSTALL JUNCTION BOX
- 40 INSTALL OVERSIZED JUNCTION BOX
- 41 REMOVE EXISTING JUNCTION BOX
- 42 INSTALL WOOD POLE
- 43 REMOVE EXISTING WOOD POLE
- 44 INSTALL AERIAL GUY ASSEMBLY
- 45 INSTALL STANDARD GUY ASSEMBLY
- 46 INSTALL SIDEWALK GUY ASSEMBLY
- 47 INSTALL MESSENGER CABLE
- 48 REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE
- 49 REMOVE EXISTING COMMUNICATIONS CABLE
- 50 INSTALL CELL MODEM
- 51 INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF CABLE
- 52 INSTALL DELINEATOR MARKER
- 53 STORE 30 FEET OF COMMUNICATIONS CABLE
- 54 LASH CABLE(S) TO EXISTING SIGNAL/COMMUNICATIONS CABLE
- 55 LASH CABLE(S) TO EXISTING MESSENGER CABLE
- 56 LASH CABLE(S) TO NEW MESSENGER CABLE
- 57 MODIFY EXISTING ELECTRICAL SERVICE
- 58 INSTALL NEW ELECTRICAL SERVICE
- 59 INSTALL NEW POLE MOUNTED CCTV CABINET
- 60 BOND TRACER WIRE TO EQUIPMENT GROUND BUS

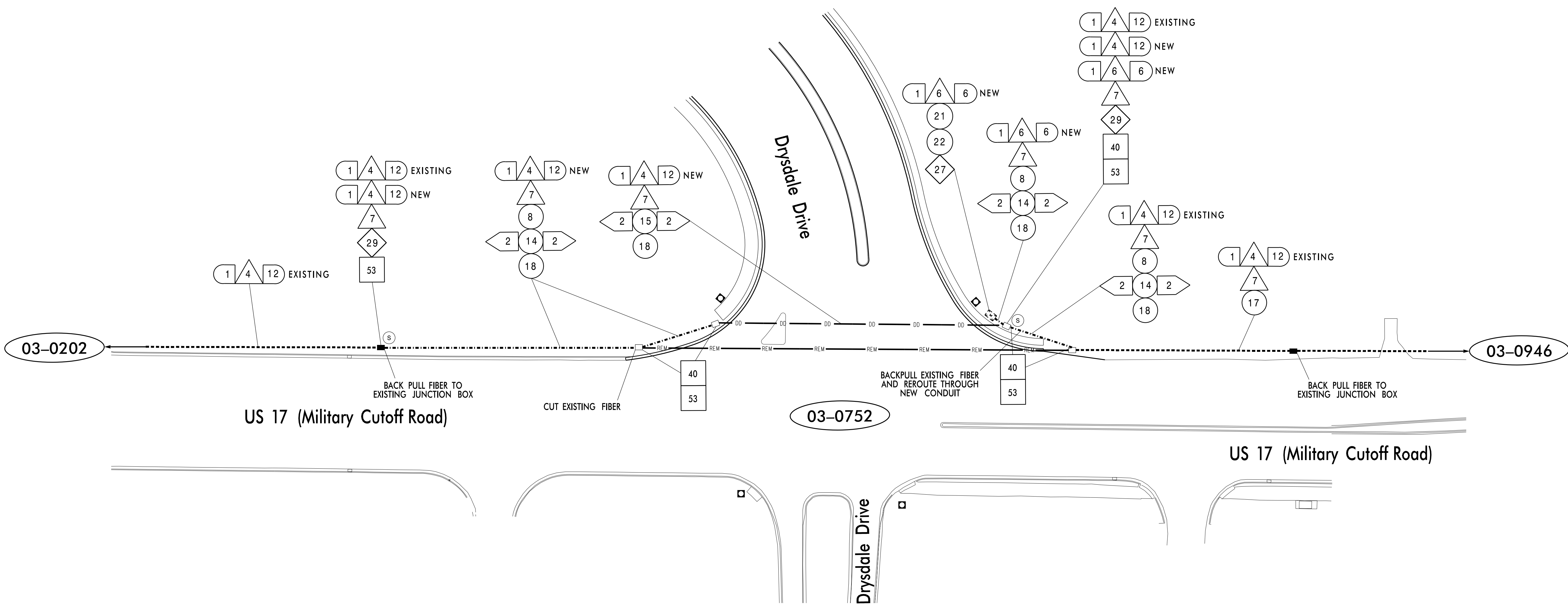
**LEGEND**

- NEW FIBER OPTIC COMMUNICATIONS CABLE
- NEW TWISTED PAIR COMMUNICATIONS CABLE
- EXISTING COMMUNICATIONS CABLE
- EXISTING COMMUNICATIONS CABLE TO BE REMOVED
- NEW AERIAL GUY ASSEMBLY
- NEW CONDUIT
- EXISTING CONDUIT
- NEW DIRECTIONAL DRILLED CONDUIT
- NEW BORED AND JACKED CONDUIT
- NEW JUNCTION BOX
- EXISTING JUNCTION BOX
- NEW WOOD POLE
- EXISTING WOOD POLE
- NEW UNDERGROUND SPLICE ENCLOSURE
- NEW METAL POLE
- EXISTING METAL POLE
- NEW CCTV CAMERA ASSEMBLY
- EXISTING CCTV CAMERA ASSEMBLY
- NEW STANDARD GUY ASSEMBLY
- NEW STANDARD GUY USING EXISTING ANCHOR
- NEW SIDEWALK GUY ASSEMBLY
- NEW CABLE STORAGE RACKS (SNOW SHOES)
- EXISTING CONTROLLER AND CABINET
- EXISTING SPLICE CABINET
- NEW SPLICE CABINET
- SIGNAL POLE
- SIGNAL INVENTORY NUMBER

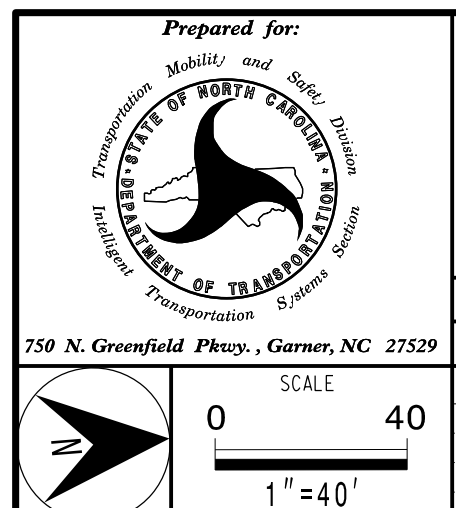
**CONSTRUCTION NOTE SYMBOLOGY KEY**



	<b>Construction Notes</b>		DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED
	Division 3 New Hanover County Wilmington		
Prepared For:	PLAN DATE: November 2021	REVIEWED BY: WJ Hamilton	DATE: 11/08/2021
750 N. Greenfield Pkwy., Garner, NC 27529	PREPARED BY: A. Andrews	RKA PROJ NO: 19258 (041)	
SCALE: 0	REVISIONS	INIT. DATE	SIGNATURE

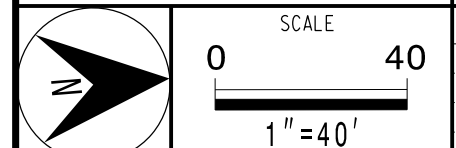


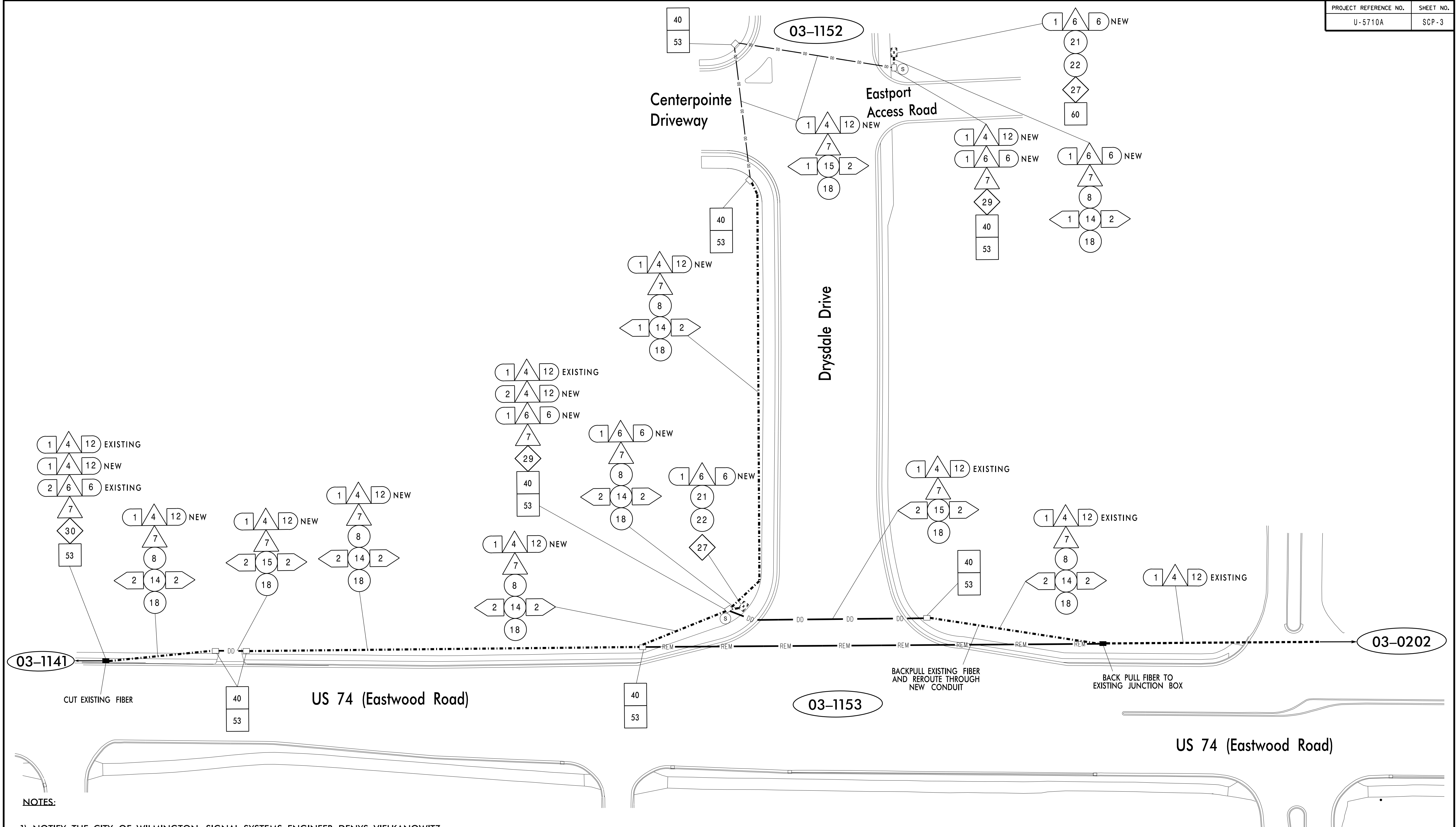
- 1) NOTIFY THE CITY OF WILMINGTON SIGNAL SYSTEMS ENGINEER, DENYS VIELKANOWITZ, AT 910-341-4676 FIVE (5) DAYS PRIOR TO BEGINNING WORK ON SIGNAL SYSTEM COMMUNICATIONS CABLE. NOTIFY THE CITY OF WILMINGTON SIGNAL SYSTEMS ENGINEER AFTER ALL WORK IS PERFORMED TO ENSURE THAT ALL FIBER CIRCUITS ARE FUNCTIONING PROPERLY. ALL WORK IS NOT COMPLETE UNTIL THE SIGNAL SYSTEM IS BACK UP AND OPERATIONAL.
- 2) RESTORE COMMUNICATIONS WITHIN 24 HOURS IF THE FIBER OPTIC CABLE IS CUT OR NOT COMMUNICATING PROPERLY DURING CONSTRUCTION.
- 3) CONTRACTOR TO RECORD EXISTING SPLICE ARRANGEMENT FOR COMPARISON TO THE SUPPLIED SPLICE DETAILS. IF DISCREPANCIES EXIST, CONTACT THE ENGINEER TO DETERMINE HOW TO PROCEED WITH RESPLICING. PROVIDE AS-BUILT PLANS TO THE ENGINEER IF FINAL SPLICE ARRANGEMENT DIFFERS FROM THE SUPPLIED SPLICE DETAILS.
- 4) CONTRACTOR SHALL ENSURE THAT SYSTEM DOWN TIME IS MINIMIZED DURING SPLICING OF NEW FIBER.
- 5) ALL JUNCTION BOX LIDS TO READ "NCDOT FIBER OPTIC CABLE"



<b>Drysdale Drive at US 17 (Military Cutoff Road) Cable Routing Plan</b>	
Division 3	New Hanover County
Wilmington	
PLAN DATE: November 2021	REVIEWED BY: WJ Hamilton
PREPARED BY: A. Andrews	RKA PROJ. No.: 19258 (041)
REVISIONS	INIT. DATE

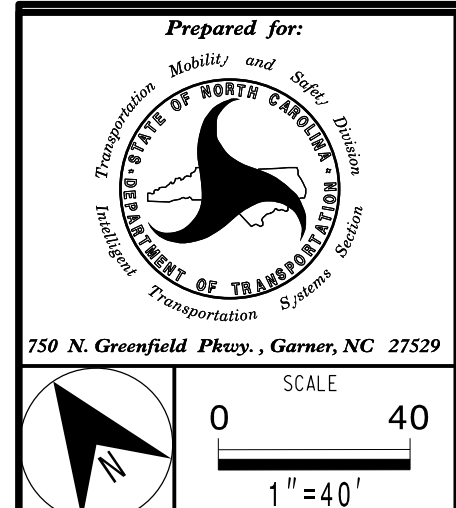
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
SEAL WILLIAM J. HAMILTON PROFESSIONAL ENGINEER STATE OF NORTH CAROLINA LICENSE NO. 32396	SIGNATURE William J. Hamilton DATE 11/08/2021





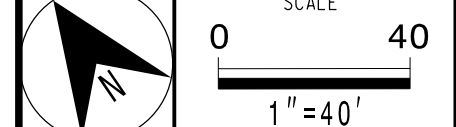
**NOTES:**

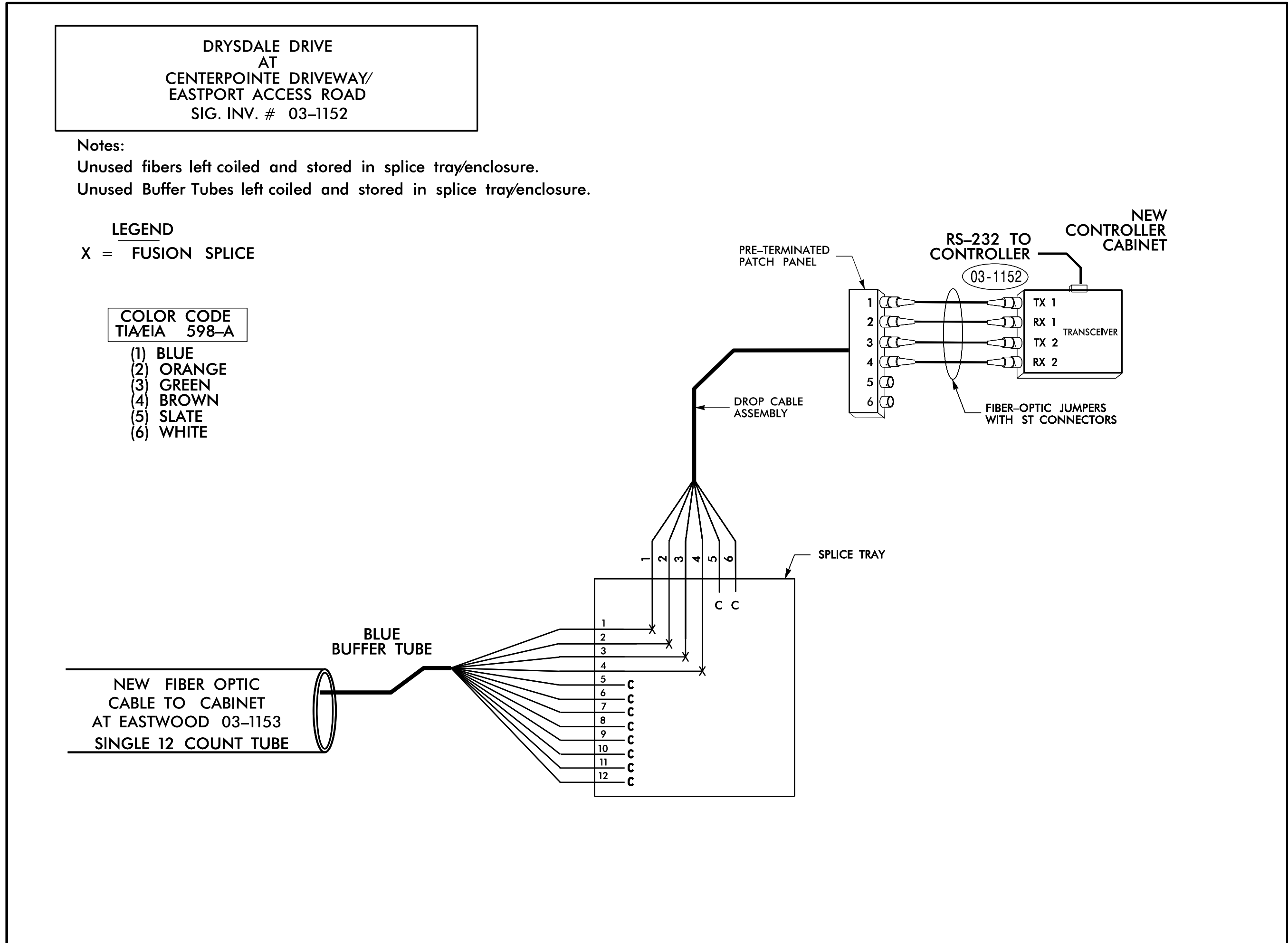
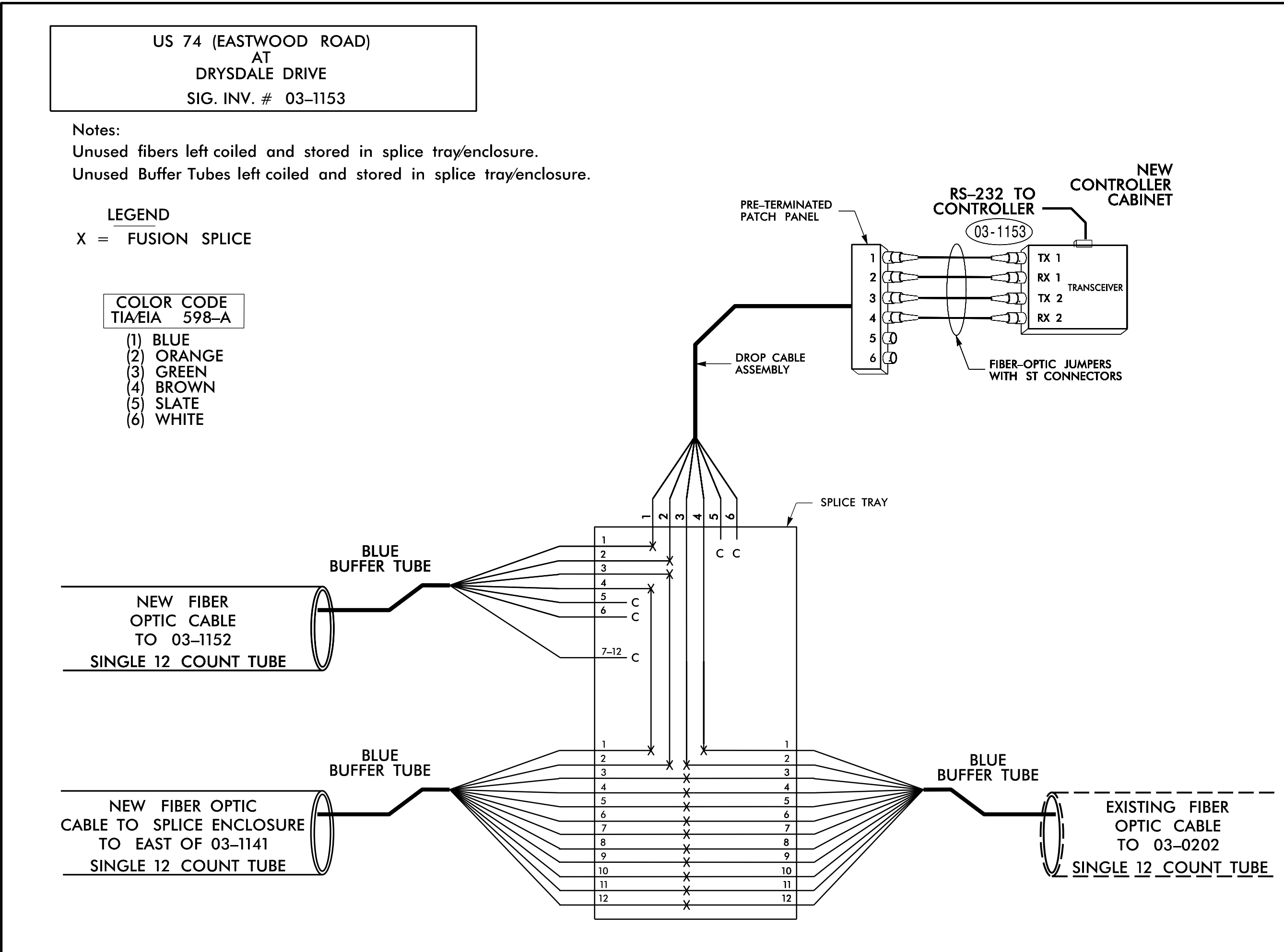
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- 2) RESTORE COMMUNICATIONS WITHIN 24 HOURS IF THE FIBER OPTIC CABLE IS CUT OR NOT COMMUNICATING PROPERLY DURING CONSTRUCTION.
- 3) CONTRACTOR TO RECORD EXISTING SPLICE ARRANGEMENT FOR COMPARISON TO THE SUPPLIED SPLICE DETAILS. IF DISCREPANCIES EXIST, CONTACT THE ENGINEER TO DETERMINE HOW TO PROCEED WITH RESPLICING. PROVIDE AS-BUILT PLANS TO THE ENGINEER IF FINAL SPLICE ARRANGEMENT DIFFERS FROM THE SUPPLIED SPLICE DETAILS.
- 4) CONTRACTOR SHALL ENSURE THAT SYSTEM DOWN TIME IS MINIMIZED DURING SPLICING OF NEW FIBER.
- 5) ALL JUNCTION BOX LIDS TO READ "NCDOT FIBER OPTIC CABLE"



<b>Drysdale Drive Cable Routing Plan</b>	
Division 3	New Hanover County
Wilmington	
PLAN DATE: November 2021	REVIEWED BY: WJ Hamilton
PREPARED BY: A. Andrews	RKA PROJ. No.: 19258 (041)
REVISIONS	INIT. DATE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
SEAL WILLIAM J. HAMILTON ENGINEER NORTH CAROLINA PROFESSIONAL SEAL 32396	11/08/2021 DATE





**NOTES:**

- 1) NOTIFY THE CITY OF WILMINGTON SIGNAL SYSTEMS ENGINEER, DENYS VIELKANOWITZ, AT 910-341-4676 FIVE (5) DAYS PRIOR TO BEGINNING WORK ON SIGNAL SYSTEM COMMUNICATIONS CABLE. NOTIFY THE CITY OF WILMINGTON SIGNAL SYSTEMS ENGINEER AFTER ALL WORK IS PERFORMED TO ENSURE THAT ALL FIBER CIRCUITS ARE FUNCTIONING PROPERLY. ALL WORK IS NOT COMPLETE UNTIL THE SIGNAL SYSTEM IS BACK UP AND OPERATIONAL.
- 2) CONTRACTOR TO RECORD EXISTING SPLICE ARRANGEMENT FOR COMPARISON TO THE SUPPLIED SPLICE DETAILS. IF DISCREPANCIES EXIST, CONTACT THE ENGINEER TO DETERMINE HOW TO PROCEED WITH RESPLICING. PROVIDE AS-BUILT PLANS TO THE ENGINEER IF FINAL SPLICE ARRANGEMENT DIFFERS FROM THE SUPPLIED SPLICE DETAILS.
- 3) INCLUDE ON THE COVER OF EACH SPLICE TRAY THE FOLLOWING: REFERENCE SECTION 1731 "FIBER OPTIC SPLICE ENCLOSURE"
  - 1) SPLICE LOCATION
  - 2) DATE
  - 3) COMPANY NAME
  - 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.

4) CONTRACTOR SHALL ENSURE THAT SYSTEM DOWN TIME IS MINIMIZED DURING SPLICING OF NEW FIBER.



	<b>Splice Details</b>		SEAL 
	Division 3 New Hanover County Wilmington PLAN DATE: November 2021 REVIEWED BY: WJ Hamilton PREPARED BY: A. Andrews RKA PROJ. No.: 19258 (041)		
SCALE 0 N/A	REVISIONS _____ _____ _____	INIT. DATE _____ _____	DATE 11/08/2021

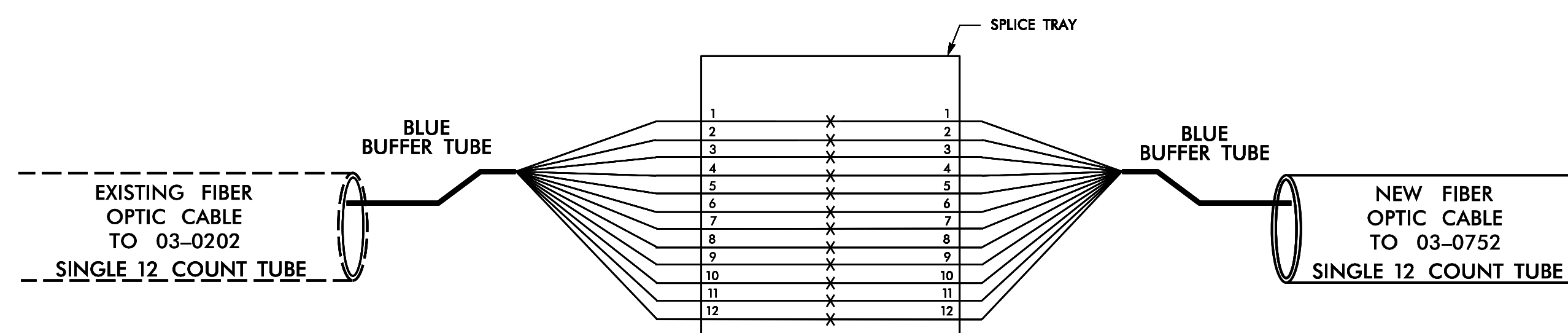
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

**NEW SPLICE ENCLOSURE  
SOUTH OF 03-0752 US 17 (MILITARY  
CUTOFF ROAD) AT DRYSDALE DRIVE**

Notes:  
Unused fibers left coiled and stored in splice tray/enclosure.  
Unused Buffer Tubes left coiled and stored in splice tray/enclosure.

LEGEND  
X = FUSION SPLICE

- COLOR CODE  
TIA/EIA 598-A
- (1) BLUE
  - (2) ORANGE
  - (3) GREEN
  - (4) BROWN
  - (5) SLATE
  - (6) WHITE

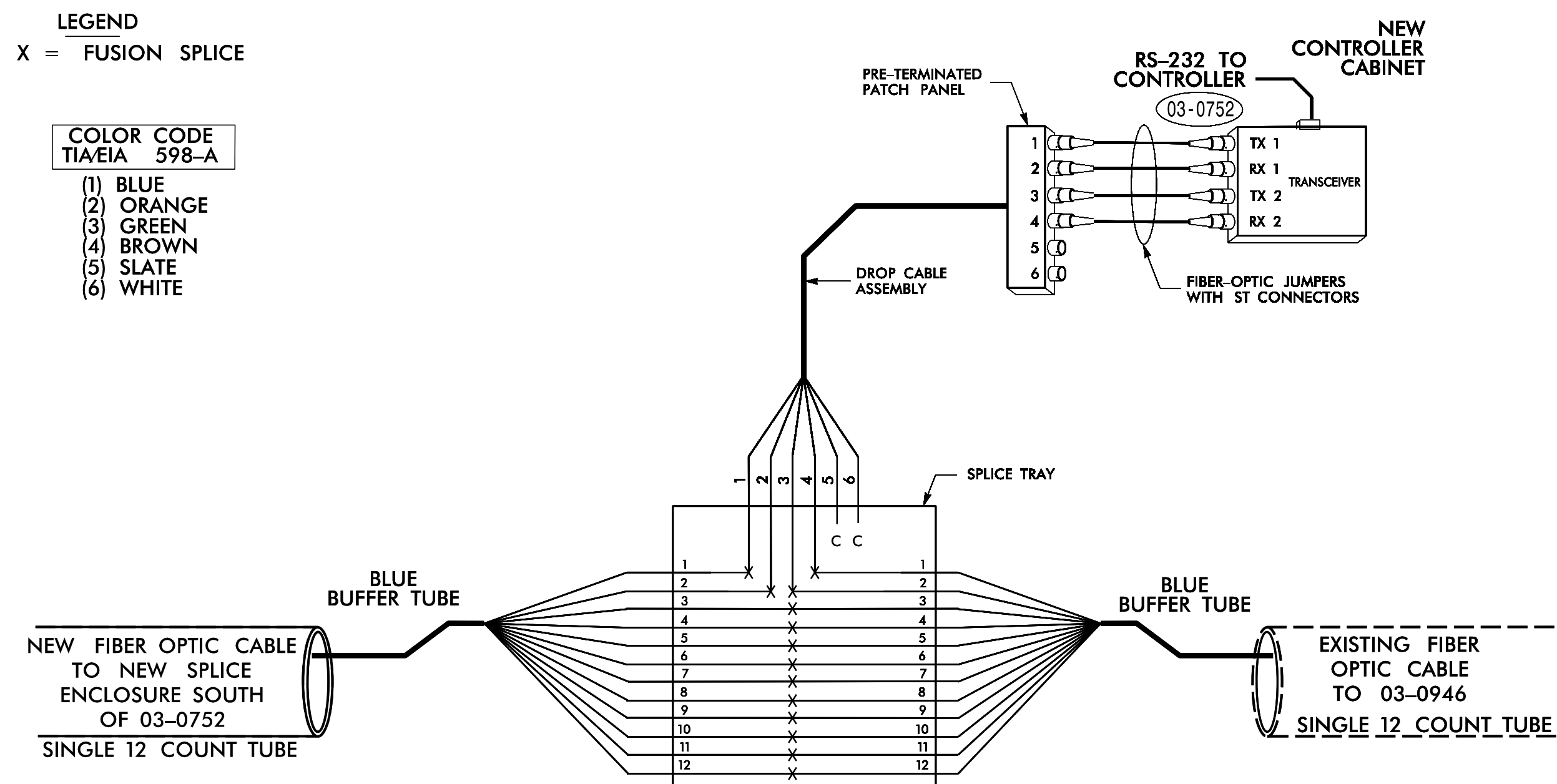


**US 17 (MILITARY CUTOFF ROAD)  
AT  
DRYSDALE DRIVE  
SIG. INV. # 03-0752**

Notes:  
Unused fibers left coiled and stored in splice tray/enclosure.  
Unused Buffer Tubes left coiled and stored in splice tray/enclosure.

LEGEND  
X = FUSION SPLICE

- COLOR CODE  
TIA/EIA 598-A
- (1) BLUE
  - (2) ORANGE
  - (3) GREEN
  - (4) BROWN
  - (5) SLATE
  - (6) WHITE



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- 2) CONTRACTOR TO RECORD EXISTING SPLICE ARRANGEMENT FOR COMPARISON TO THE SUPPLIED SPLICE DETAILS. IF DISCREPANCIES EXIST, CONTACT THE ENGINEER TO DETERMINE HOW TO PROCEED WITH RESPLICING. PROVIDE AS-BUILT PLANS TO THE ENGINEER IF FINAL SPLICE ARRANGEMENT DIFFERS FROM THE SUPPLIED SPLICE DETAILS.
- 3) INCLUDE ON THE COVER OF EACH SPLICE TRAY THE FOLLOWING: REFERENCE SECTION 1731 "FIBER OPTIC SPLICE ENCLOSURE"
  - 1) SPLICE LOCATION
  - 2) DATE
  - 3) COMPANY NAME
  - 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.

- 4) CONTRACTOR SHALL ENSURE THAT SYSTEM DOWN TIME IS MINIMIZED DURING SPLICING OF NEW FIBER.



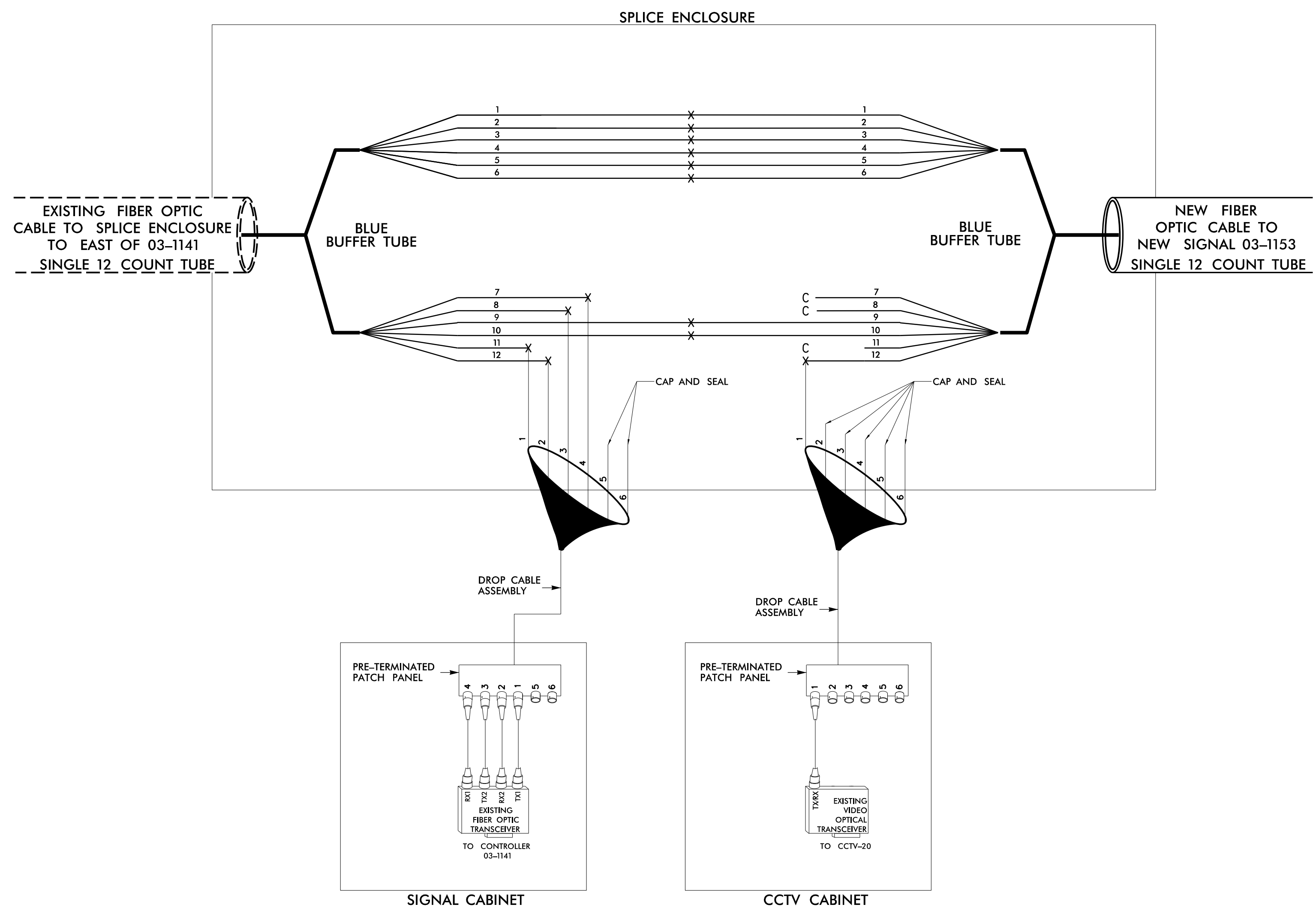
 Prepared for: TRANSPORTATION DIVISION 3	<h3>Splice Details</h3>		DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED  SEAL  WILLIAM J. HAMILTON PROFESSIONAL ENGINEER SIGNATURE
	Division 3 New Hanover County Wilmington PLAN DATE: November 2021 REVIEWED BY: WJ Hamilton PREPARED BY: A. Andrews RKA PROJ. No.: 19258 (041)	SCALE 0 N/A	

**MODIFIED SPLICE ENCLOSURE  
EAST OF 03-1141 (US 74 AT  
CAVALIER DRIVE)**

Notes:  
Unused fibers left coiled and stored in splice tray/enclosure.  
Unused Buffer Tubes left coiled and stored in splice tray/enclosure.

**LEGEND**  
C = CAP AND SEAL  
X = FUSION SPLICE

COLOR CODE TIA/EIA 598-A	
(1) BLUE	(7) RED
(2) ORANGE	(8) BLACK
(3) GREEN	(9) YELLOW
(4) BROWN	(10) VIOLET
(5) SLATE	(11) ROSE
(6) WHITE	(12) AQUA



**NOTES:**

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- 3) INCLUDE ON THE COVER OF EACH SPLICE TRAY THE FOLLOWING: REFERENCE SECTION 1731 "FIBER OPTIC SPLICE ENCLOSURE"
  - 1) SPLICE LOCATION
  - 2) DATE
  - 3) COMPANY NAME
  - 4) NAME OF INDIVIDUAL PERFORMING THE SPLICING

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4) CONTRACTOR SHALL ENSURE THAT SYSTEM DOWN TIME IS MINIMIZED DURING SPLICING OF NEW FIBER.



	<b>Splice Details</b>		DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED  SEAL 
	Division 3 New Hanover County Wilmington PLAN DATE: November 2021 REVIEWED BY: WJ Hamilton PREPARED BY: A. Andrews RKA PROJ. No.: 19258 (041)	SCALE 0 N/A	