

- 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
- 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 TERMINATE COMMUNICATIONS CABLE ON EXISTING TELEMETRY INTERFACE PANEL IN TRAFFIC SIGNAL CONTROLLER CABINET
- 27 INSTALL NEW TELEMETRY INTERFACE PANEL IN TRAFFIC SIGNAL CONTROLLER CABINET
- 28 INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPlice CABLE IN CABINET
- 29 INSTALL UNDERGROUND SPlice ENCLOSURE
- 30 INSTALL AERIAL SPlice ENCLOSURE
- 31 INSTALL POLE MOUNTED SPlice CABINET
- 32 INSTALL BASE MOUNTED SPlice CABINET
- 33 REMOVE EXISTING SPlice CABINET
- 34 INSTALL CABINET FOUNDATION

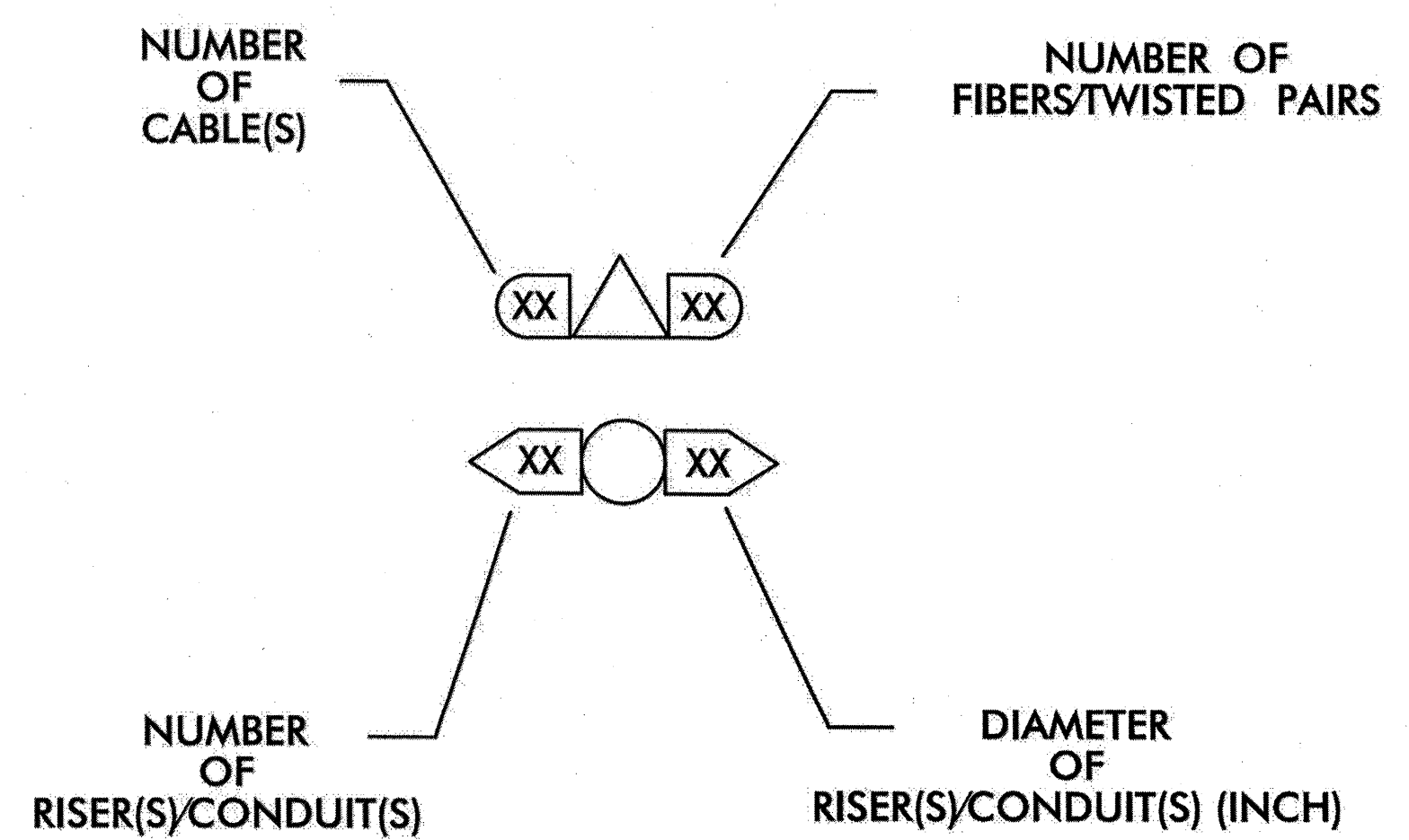
- 35 REMOVE EXISTING CABINET FOUNDATION
- 36 INSTALL CCTV CAMERA ASSEMBLY
- 37 INSTALL CCTV CAMERA WOOD POLE
- 38 INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
- 39 INSTALL JUNCTION BOX
- 40 INSTALL OVERSIZED JUNCTION BOX
- 41 REMOVE EXISTING JUNCTION BOX
- 42 INSTALL WOOD POLE
- 43 REMOVE EXISTING WOOD 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 TELEPHONE SERVICE
- 51 INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF CABLE
- 52 INSTALL DELINEATOR MARKER
- 53 STORE 20 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

LEGEND

- FO NEW FIBER OPTIC COMMUNICATIONS CABLE
- TWIST PR NEW TWISTED PAIR COMMUNICATIONS CABLE
- EXT EXISTING COMMUNICATIONS CABLE
- REM EXISTING COMMUNICATIONS CABLE TO BE REMOVED
- NEW AERIAL GUY ASSEMBLY
- NEW CONDUIT
- EXISTING CONDUIT
- DD NEW DIRECTIONAL DRILLED CONDUIT
- B&J NEW BORED AND JACKED CONDUIT
- NEW JUNCTION BOX
- EXISTING JUNCTION BOX
- NEW WOOD POLE
- EXISTING WOOD POLE
- NEW AERIAL SPlice ENCLOSURE
- NEW METAL POLE
- EXISTING METAL POLE
- NEW 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
- SP SIGNAL POLE
- XX-XXXX SIGNAL INVENTORY NUMBER

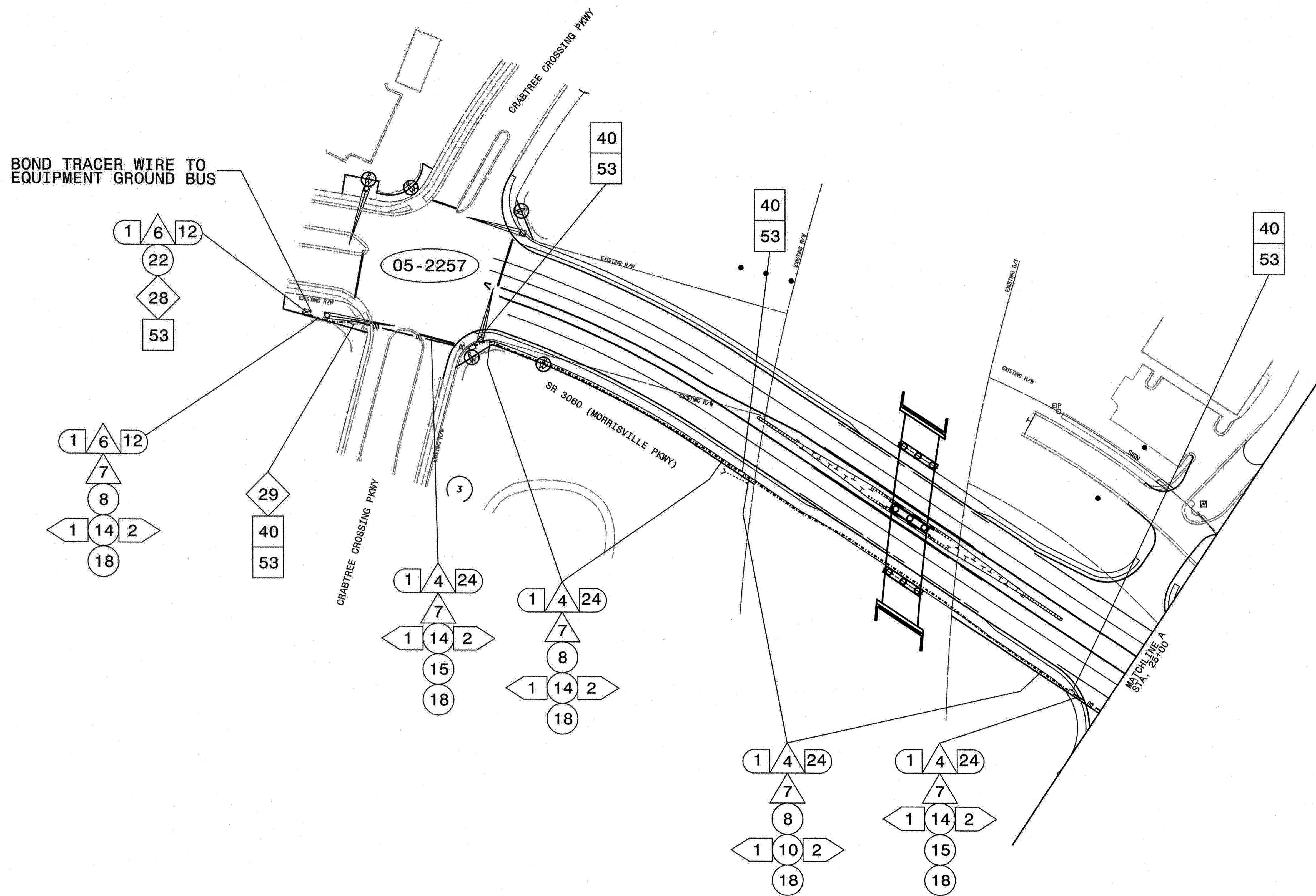
CONSTRUCTION NOTE SYMBOLOGY KEY

- XX INDICATES NUMBER OF CABLES, LOOPS, ETC.
- XX INDICATES NUMBER OF FIBERS PER CABLE, TWISTED PAIRS PER CABLE, ETC.
- XX INDICATES NUMBER OF RISER(S)/CONDUIT(S)
- XX INDICATES DIAMETER OF RISER(S)/CONDUIT(S) (INCH)



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	GENERAL NOTES	
	PLAN DATE: May 2013 PREPARED BY: S. W. Cox	REVIEWED BY: C. N. Mussman REVIEWED BY: S. Nandagiri
SCALE: 0 NOT TO SCALE	REVISIONS:	INIT. DATE:
SIGNATURE: <i>Steven W. Cox</i>		DATE: 9-16-13

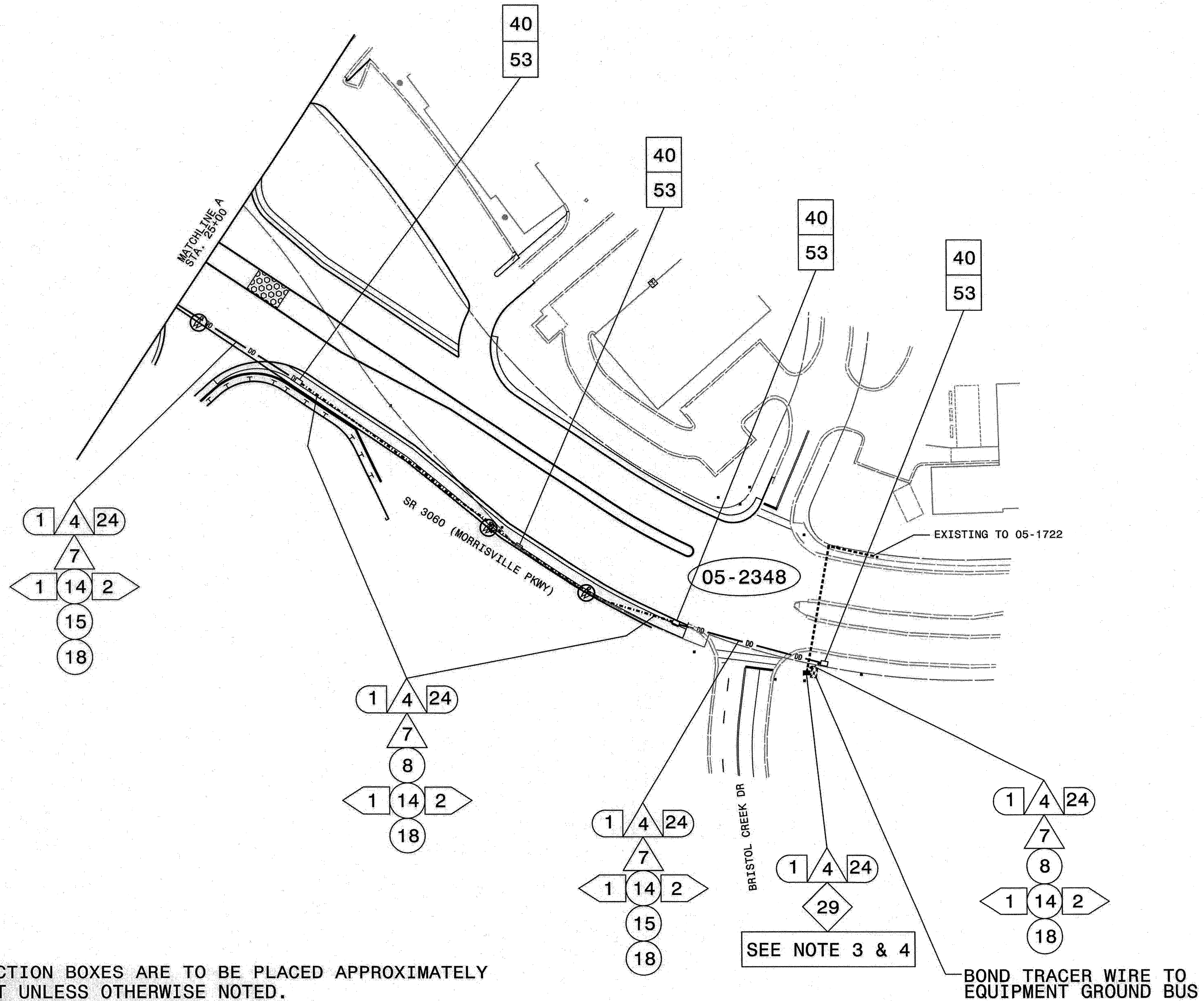


NOTES:

1. OVERSIZED JUNCTION BOXES ARE TO BE PLACED APPROXIMATELY 400 FEET APART UNLESS OTHERWISE NOTED.
2. SEAL CONDUIT END WITH MECHANICAL SEALING DEVICES AT ALL JUNCTION BOX / CABINET ENTRANCES.

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	COMMUNICATIONS CABLE AND CONDUIT ROUTING PLANS MORRISVILLE PARKWAY		
	PLAN DATE: May 2013 PREPARED BY: S. W. Cox	REVIEWED BY: C. N. Mussman REVIEWED BY: S. Nandagiri	

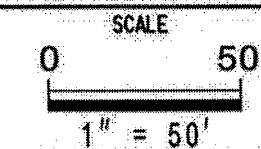


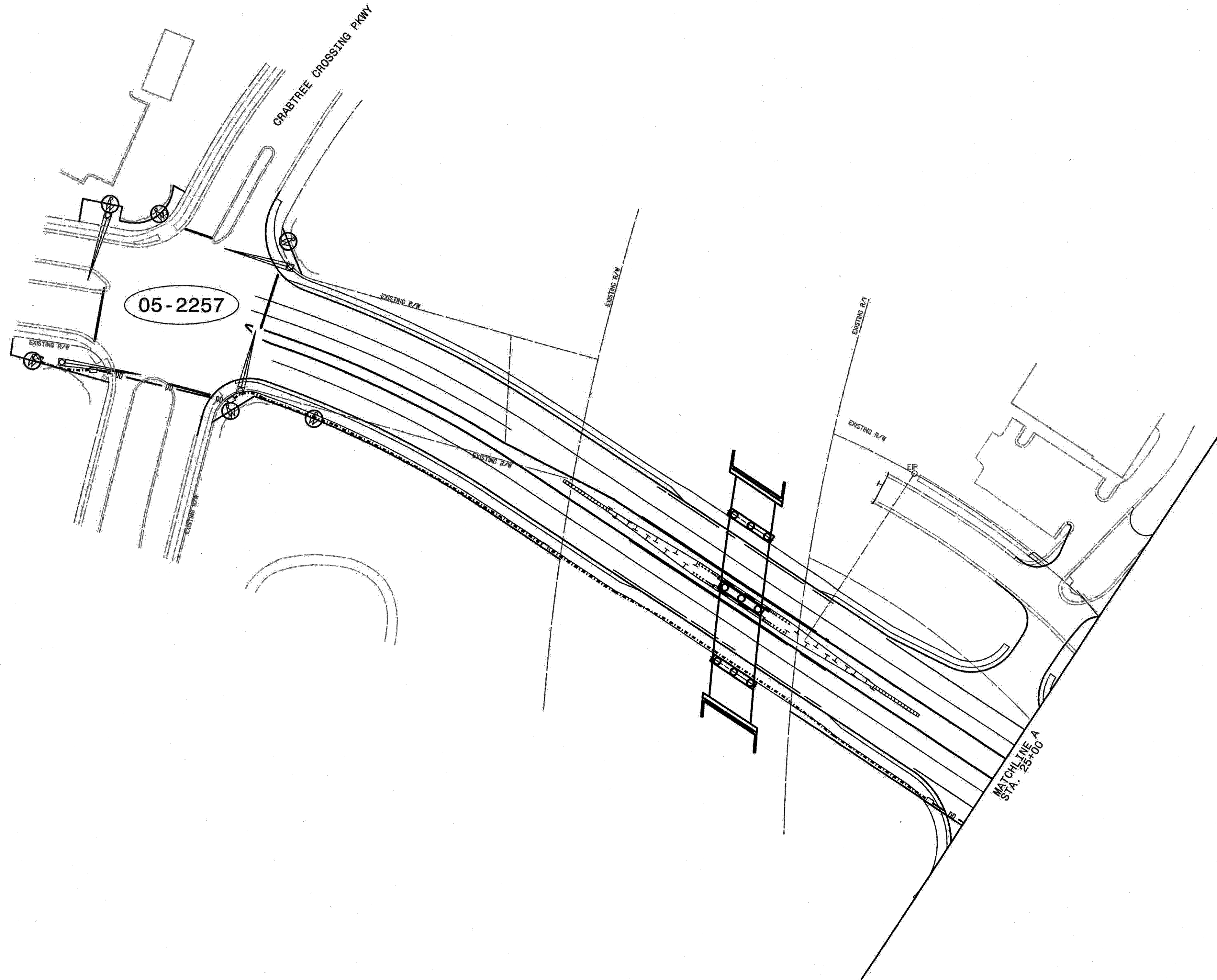
NOTES:

1. OVERSIZED JUNCTION BOXES ARE TO BE PLACED APPROXIMATELY 400 FEET APART UNLESS OTHERWISE NOTED.
2. SEAL CONDUIT END WITH MECHANICAL SEALING DEVICES AT ALL JUNCTION BOX / CABINET ENTRANCES.
3. RECORD EXISTING FIBER OPTIC TERMINATIONS CONFIGURATIONS PRIOR TO REMOVING THE EXISTING SPLICE ENCLOSURE. COMPARE RECORDED INFORMATION TO WHAT IS SUPPLIED IN THE SPLICE PLANS. IF THERE ARE DIFFERENCES, SPLICE BACK USING RECORDED INFORMATION.
4. REMOVE EXISTING SPLICE ENCLOSURE AND SPLICE TO EXISTING FIBERS IN THE NEW SPLICE ENCLOSURE.

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	COMMUNICATIONS CABLE AND CONDUIT ROUTING PLANS MORRISVILLE PARKWAY	
	PLAN DATE: May 2013 PREPARED BY: S. W. Cox REVISIONS:	REVIEWED BY: C. N. Mussman REVIEWED BY: S. Nandagiri INIT. DATE

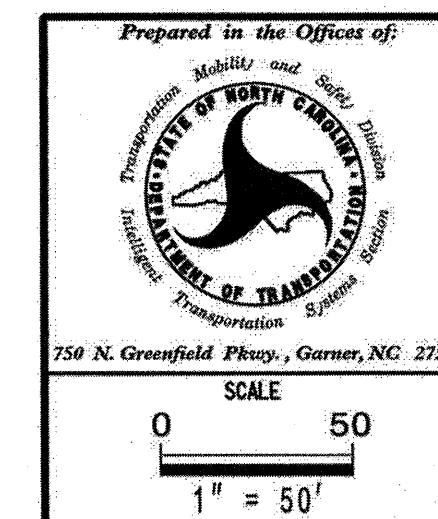




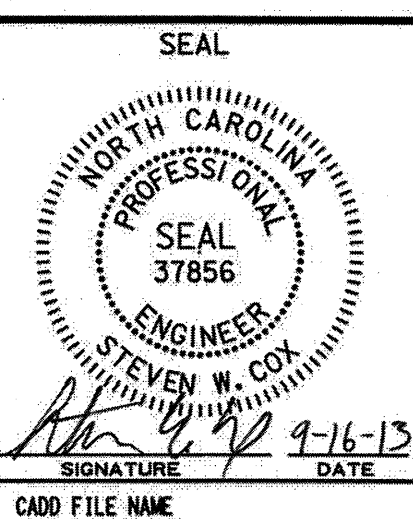
NOTES:

1. NO UMR NEEDED THIS SHEET

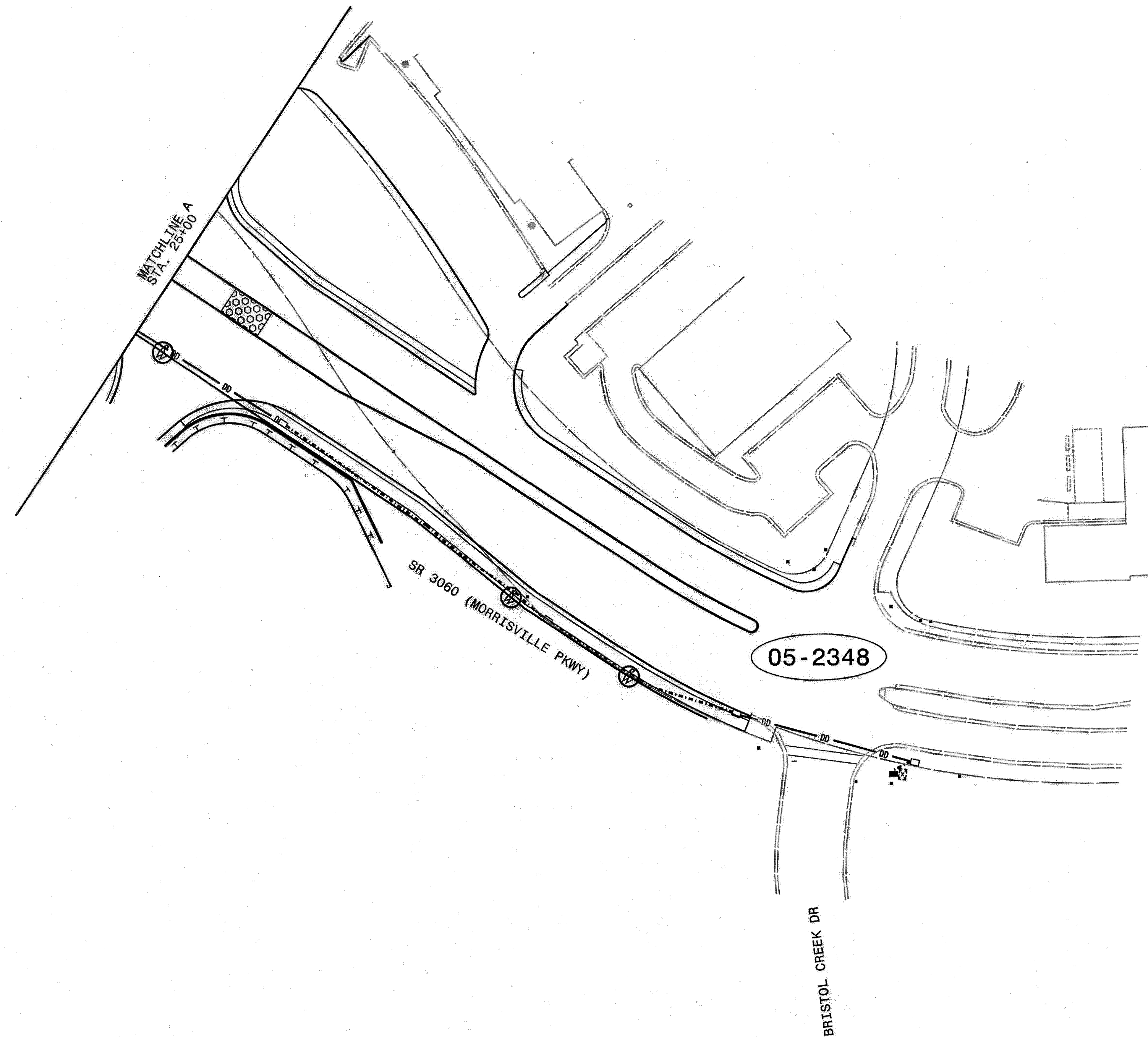
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 Phone: 919-854-6200



UTILITY MAKE READY PLANS MORRISVILLE PARKWAY	
PLAN DATE: May 2013	REVIEWED BY: C. N. Mussman
PREPARED BY: S. W. Cox	REVIEWED BY: S. Nandagiri
REVISIONS	INIT. DATE



SIGNATURE: *[Signature]* DATE: 9-16-13
 CADD FILE NAME:



NOTES:

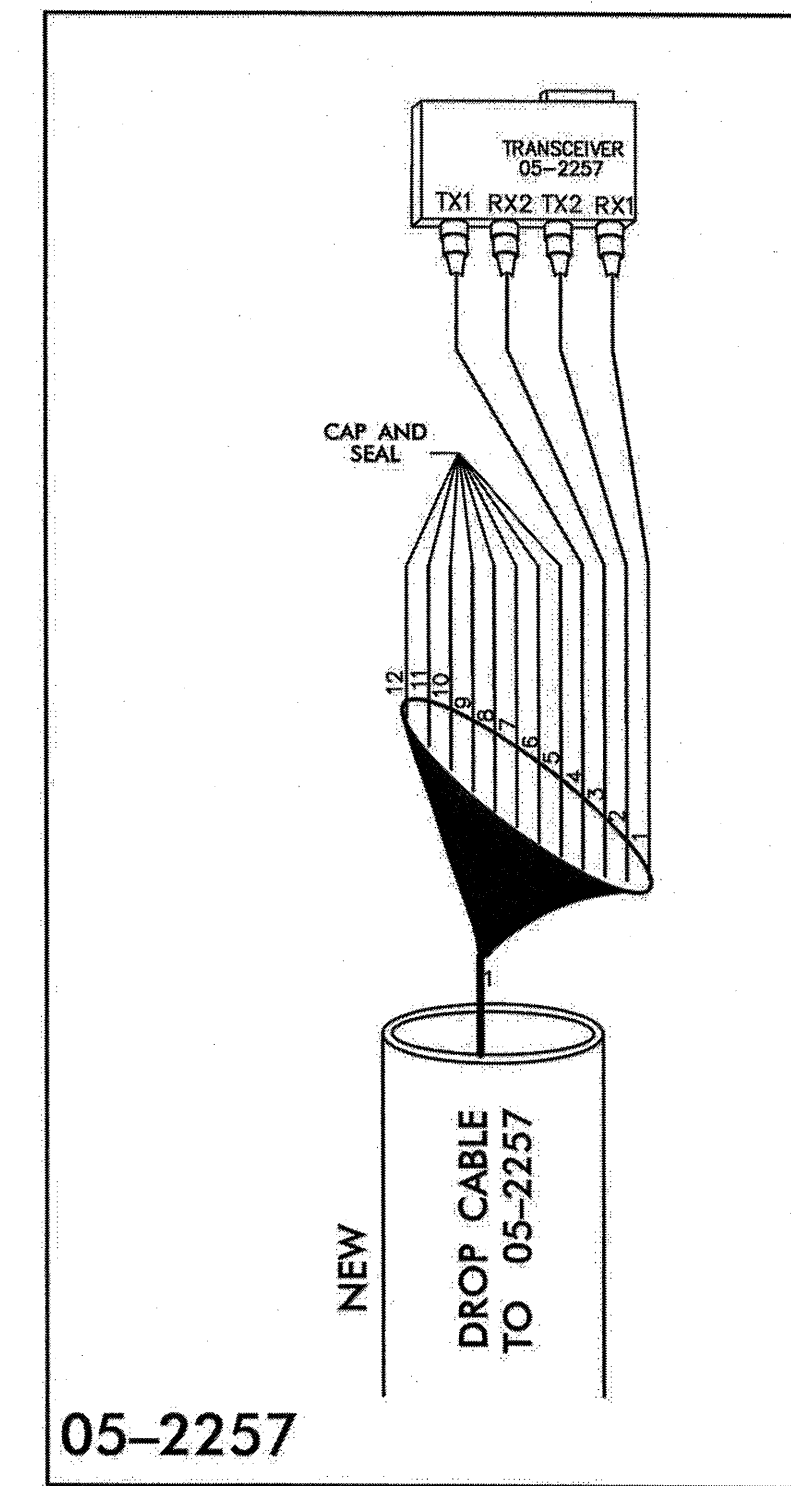
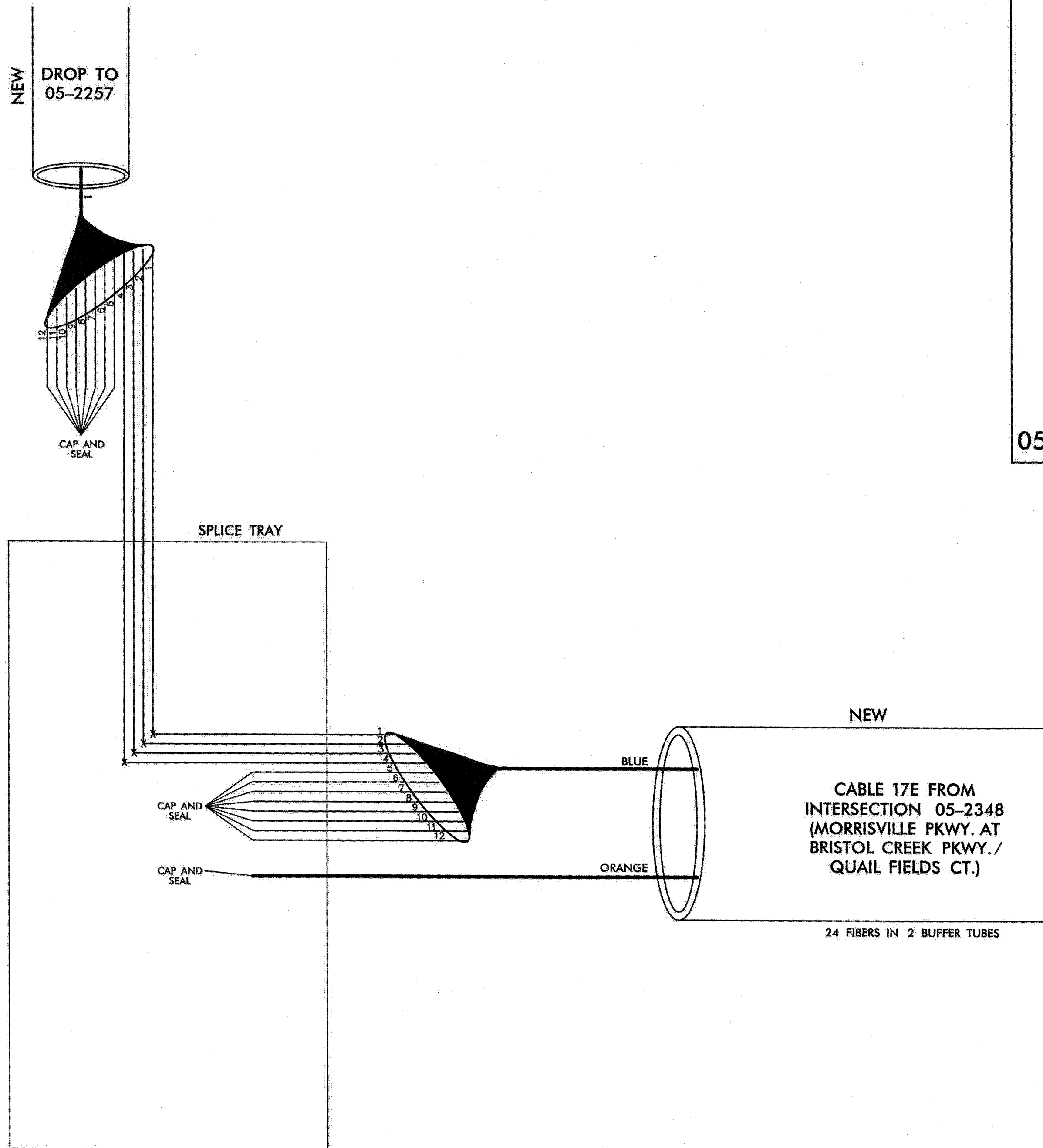
1. NO UMR NEEDED THIS SHEET

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	UTILITY MAKE READY PLANS MORRISVILLE PARKWAY		
	PLAN DATE: May 2013 PREPARED BY: S. W. Cox REVISIONS:	REVIEWED BY: C. N. Mussman REVIEWED BY: S. Nandagiri INIT. DATE	
SCALE: 0 50 1" = 50'		SEAL NORTH CAROLINA PROFESSIONAL ENGINEER SEVEN W. COX 37856	

SIG. INV. # 05-2257
 MORRISVILLE PARKWAY AT
 CRABTREE CROSSING PARKWAY



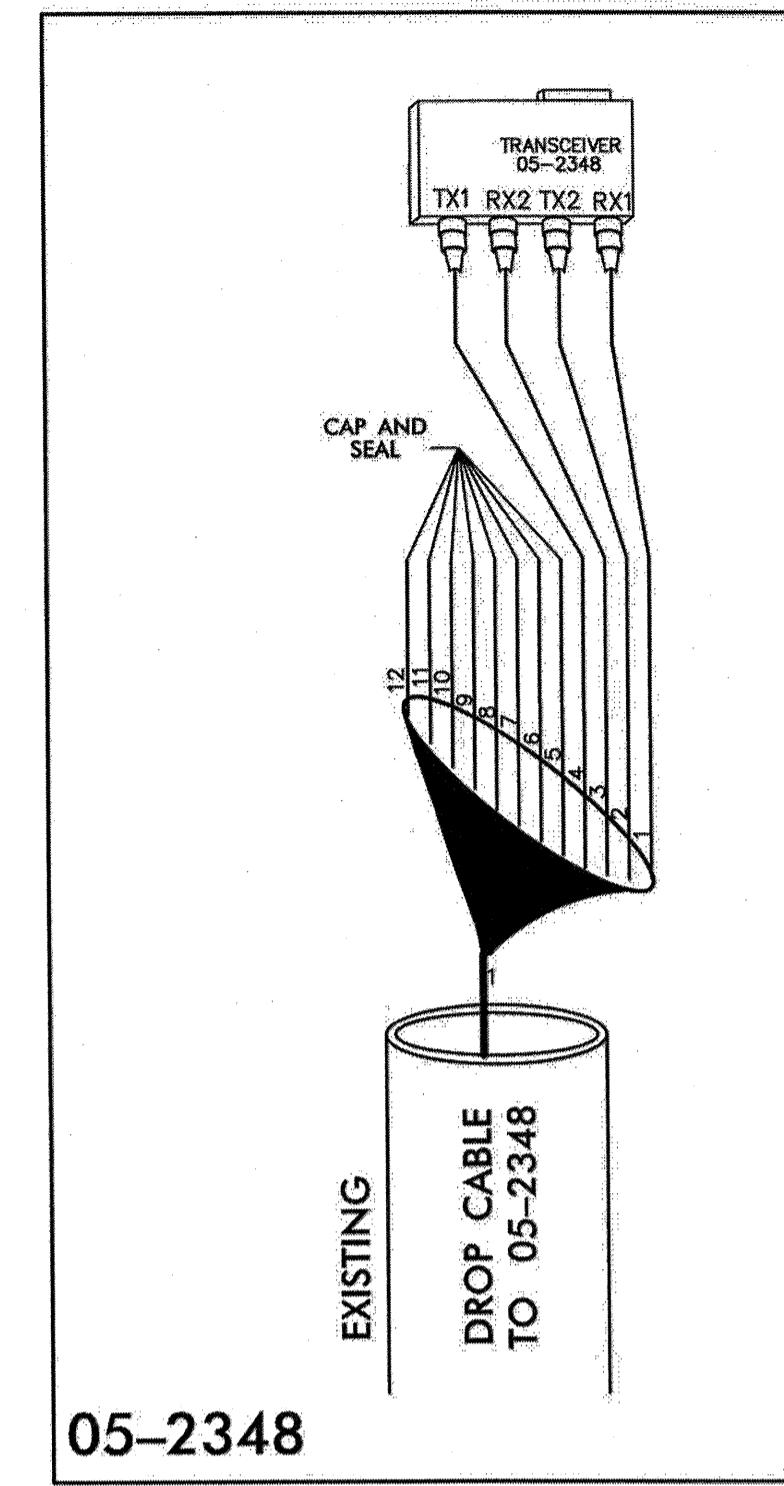
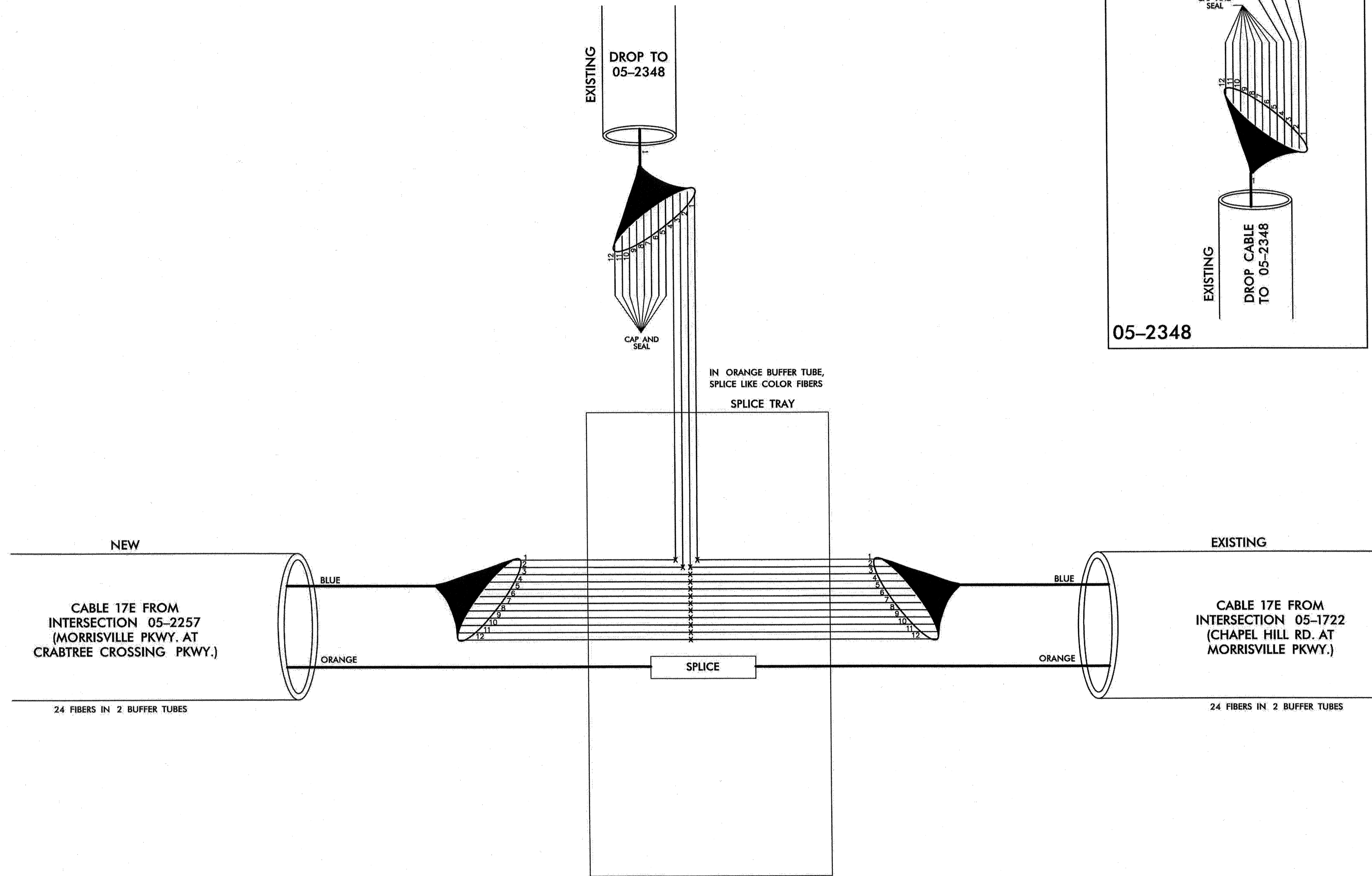
- LEGEND**
 X = FUSION SPLICE
- | COLOR CODE | |
|------------|------------|
| TI | AEIA 598-A |
- (1) BLUE (7) RED
 - (2) ORANGE (8) BLACK
 - (3) GREEN (9) YELLOW
 - (4) BROWN (10) VIOLET
 - (5) SLATE (11) ROSE
 - (6) WHITE (12) AQUA

AECOM
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 Phone: 919-854-6200

	SPLICE DETAIL MORRISVILLE PARKWAY	
	PLAN DATE: May 2013 PREPARED BY: S. W. Cox	REVIEWED BY: C. N. Mussman REVIEWED BY: S. Nandagiri
SCALE: 0	REVISIONS	INIT. DATE
CADD FILE NAME		SIGNATURE: <i>[Signature]</i> DATE: 9-16-13

SIG. INV. # 05-2348

MORRISVILLE PARKWAY AT
BRISTOL CREEK DRIVE/
QUAIL FIELDS COURT

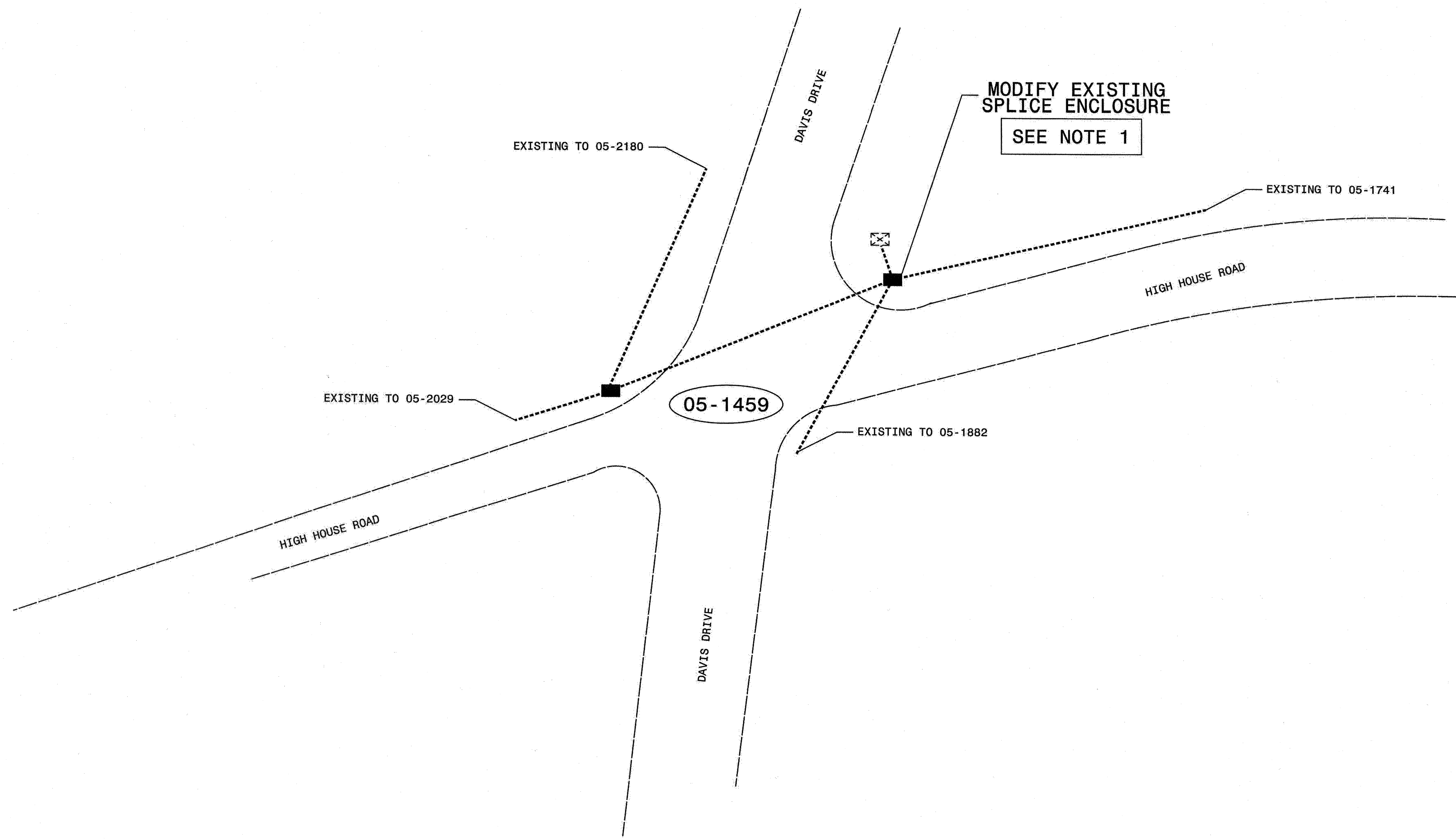


- LEGEND**
- X = FUSION SPLICE
- COLOR CODE**
TIA/EIA 598-A
- | | |
|------------|-------------|
| (1) BLUE | (7) RED |
| (2) ORANGE | (8) BLACK |
| (3) GREEN | (9) YELLOW |
| (4) BROWN | (10) VIOLET |
| (5) SLATE | (11) ROSE |
| (6) WHITE | (12) AQUA |

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Phone: 919-854-6200

	SPLICE DETAIL MORRISVILLE PARKWAY	
	PLAN DATE: May 2013 PREPARED BY: S. W. COX	REVIEWED BY: C. N. Mussman REVIEWED BY: S. Nandagiri
SCALE:	REVISIONS:	INIT. DATE SIGNATURE: <i>[Signature]</i> DATE: 9-16-13 CADD FILE NAME:

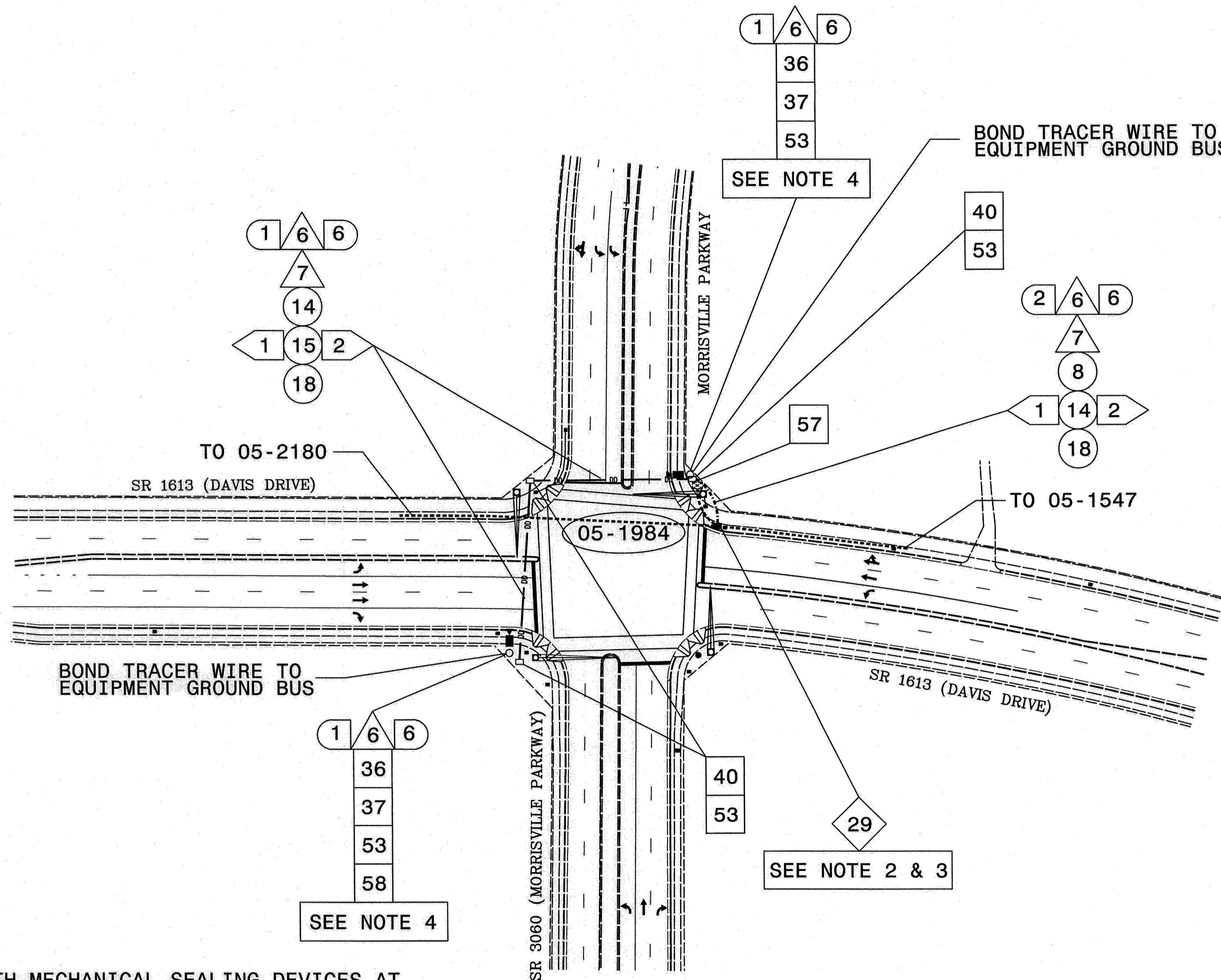


NOTES:

1. RECORD EXISTING FIBER OPTIC TERMINATIONS PRIOR TO MODIFYING THE EXISTING SPLICE ENCLOSURE. COMPARE RECORDED INFORMATION TO WHAT IS SUPPLIED IN THE SPLICE PLANS. IF THERE ARE DIFFERENCES, SPLICE FIBERS AS PER THE ENGINEER.

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	COMMUNICATIONS CABLE AND CONDUIT ROUTING PLANS DAVIS DRIVE		SEAL NORTH CAROLINA PROFESSIONAL ENGINEER STEVEN W. COX 37856 SIGNATURE DATE 4/16/13
	PLAN DATE: May 2013 PREPARED BY: S. W. Cox	REVIEWED BY: C. N. Mussman REVIEWED BY: S. Nandagiri	
SCALE 0 50 1" = 50'	CADD FILE NAME		



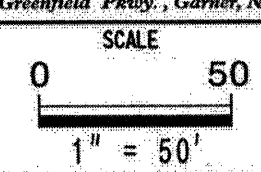
NOTES:

1. SEAL CONDUIT END WITH MECHANICAL SEALING DEVICES AT ALL JUNCTION BOX / CABINET ENTRANCES.
2. RECORD EXISTING FIBER OPTIC TERMINATIONS CONFIGURATIONS PRIOR TO REMOVING THE EXISTING SPLICE ENCLOSURE. COMPARE RECORDED INFORMATION TO WHAT IS SUPPLIED IN THE SPLICE PLANS. IF THERE ARE DIFFERENCES, SPLICE BACK USING RECORDED INFORMATION.
3. REMOVE EXISTING SPLICE ENCLOSURE AND SPLICE TO EXISTING FIBERS IN THE NEW SPLICE ENCLOSURE.
4. MOUNT CCTV CAMERAS AT 30 TO 35 FEET.

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TEMPORARY CCTV INSTALLATION

	CCTV CAMERA LOCATION DAVIS DRIVE		SEAL NORTH CAROLINA PROFESSIONAL ENGINEER STEVEN W. COX 37856 SIGNATURE: <i>Steven W. Cox</i> 9-16-13 DATE
	PLAN DATE: May 2013 PREPARED BY: S. W. Cox REVISIONS:	REVIEWED BY: C. N. Mussman REVIEWED BY: S. Nandagiri INIT.: DATE:	



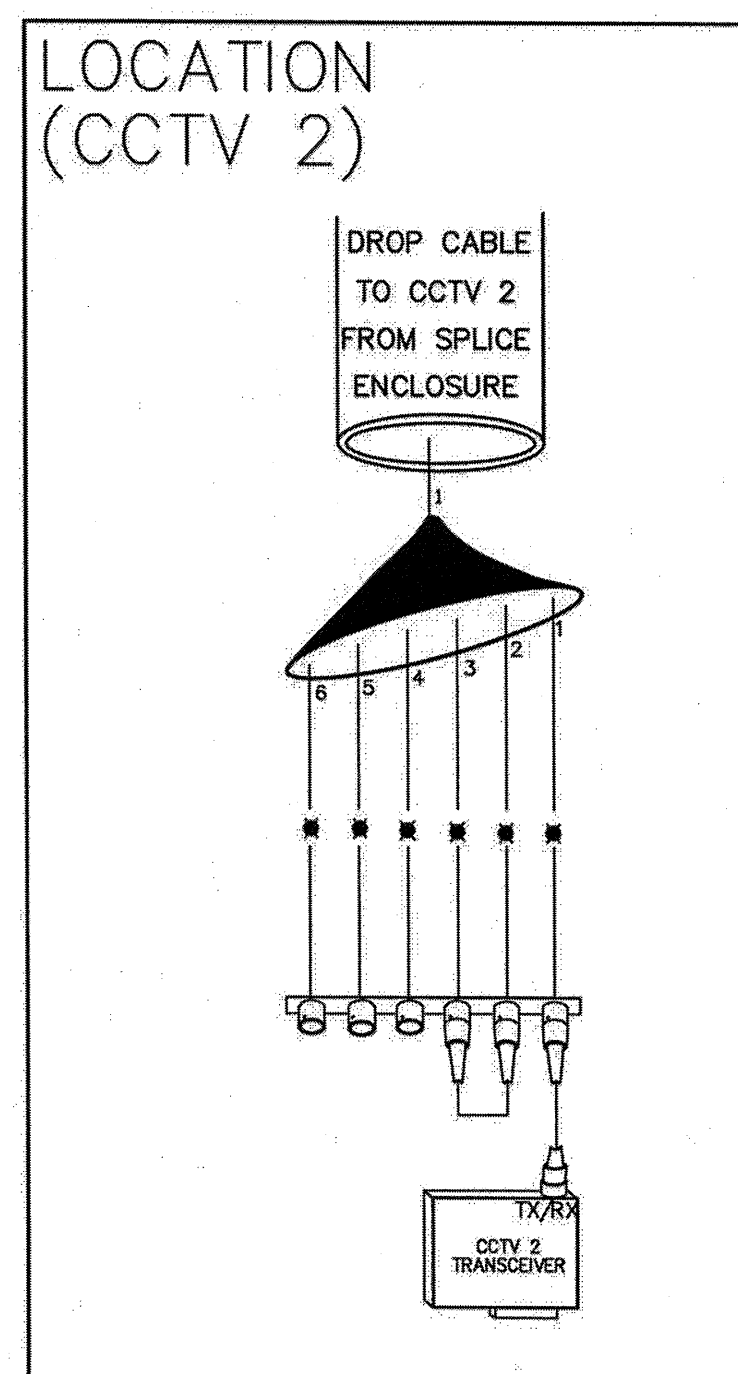
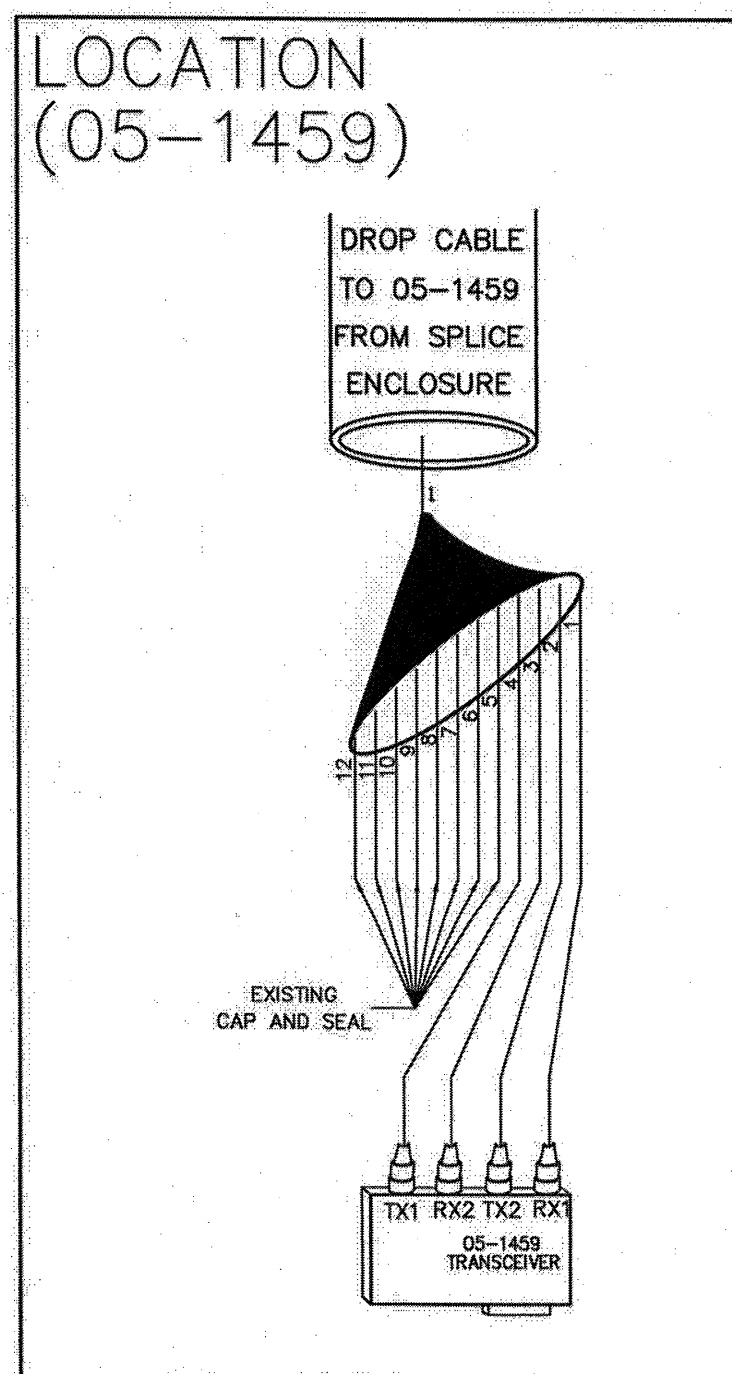
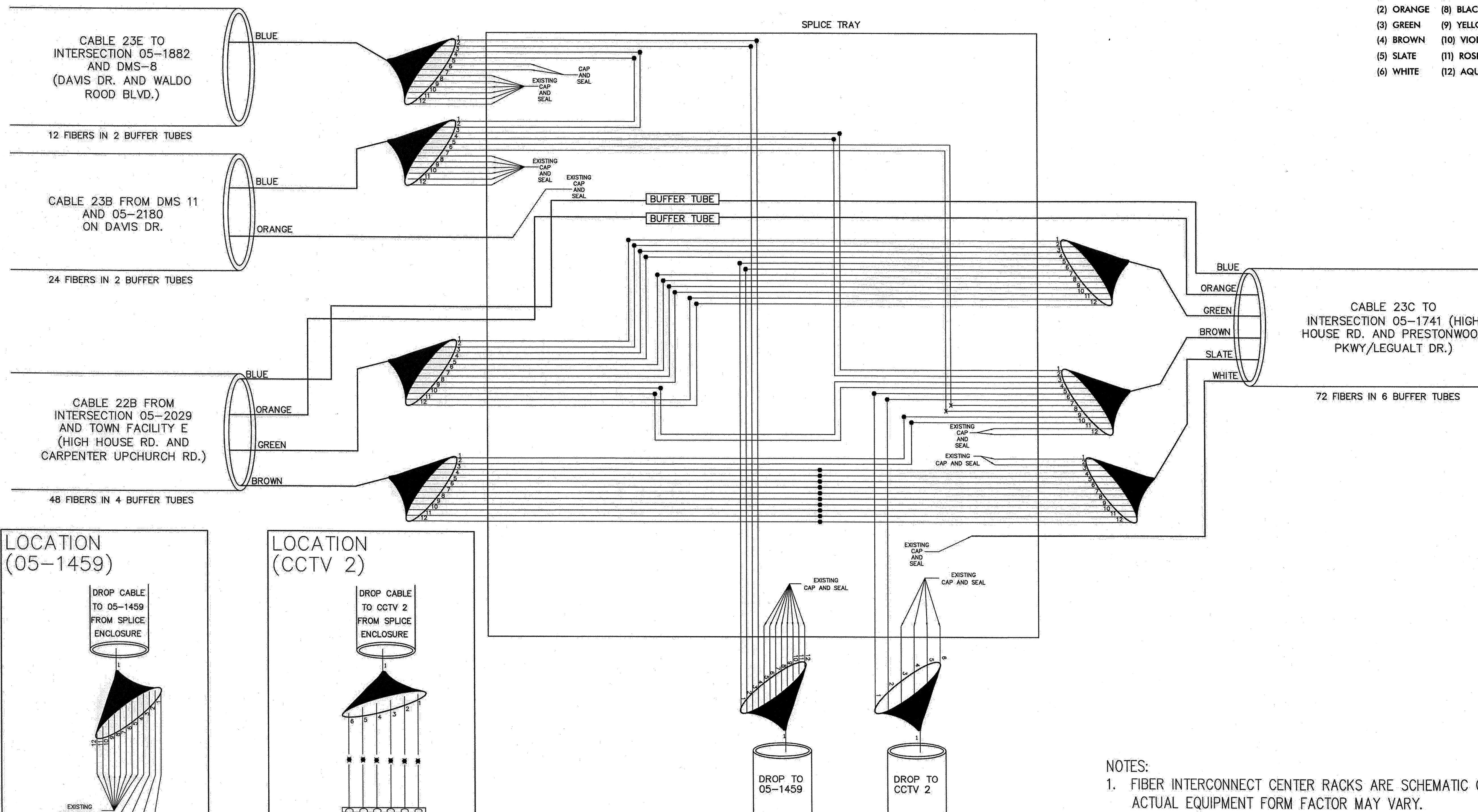
SIG. INV. # 05-1459

DAVIS DRIVE AT
HIGH HOUSE ROAD
CHANNEL 23

LEGEND
 X = FUSION SPLICE
 ● = EXISTING 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:
 1. FIBER INTERCONNECT CENTER RACKS ARE SCHEMATIC ONLY - ACTUAL EQUIPMENT FORM FACTOR MAY VARY.

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	SPLICE DETAIL DAVIS DRIVE	
	PLAN DATE: May 2013 PREPARED BY: S. W. Cox SCALE: 0	REVIEWED BY: C. N. Mussman REVIEWED BY: S. Nandagiri REVISIONS:
Prepared in the Offices of: 		SEAL NORTH CAROLINA PROFESSIONAL ENGINEER STEVEN W. COX SIGNATURE: <i>[Signature]</i> DATE: 9-16-13 CADD FILE NAME:

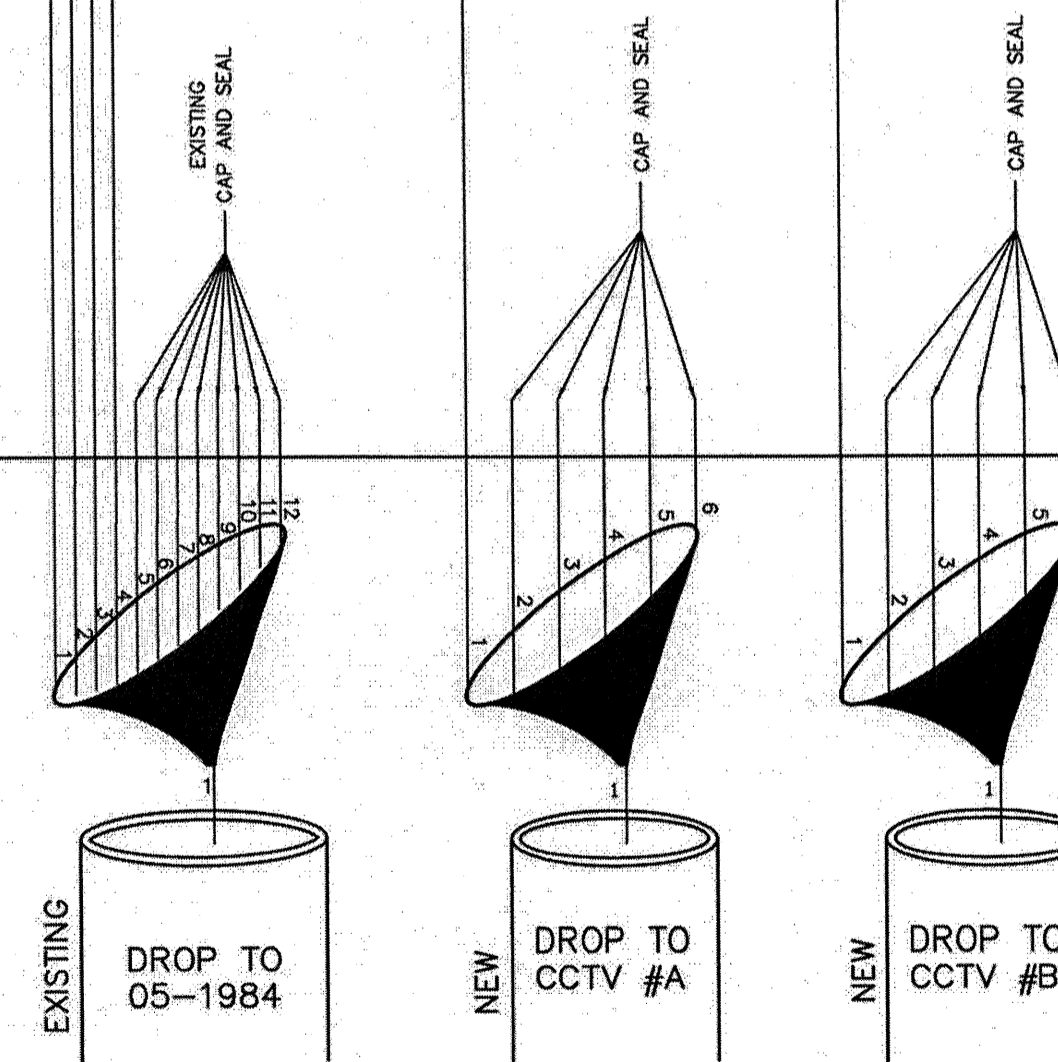
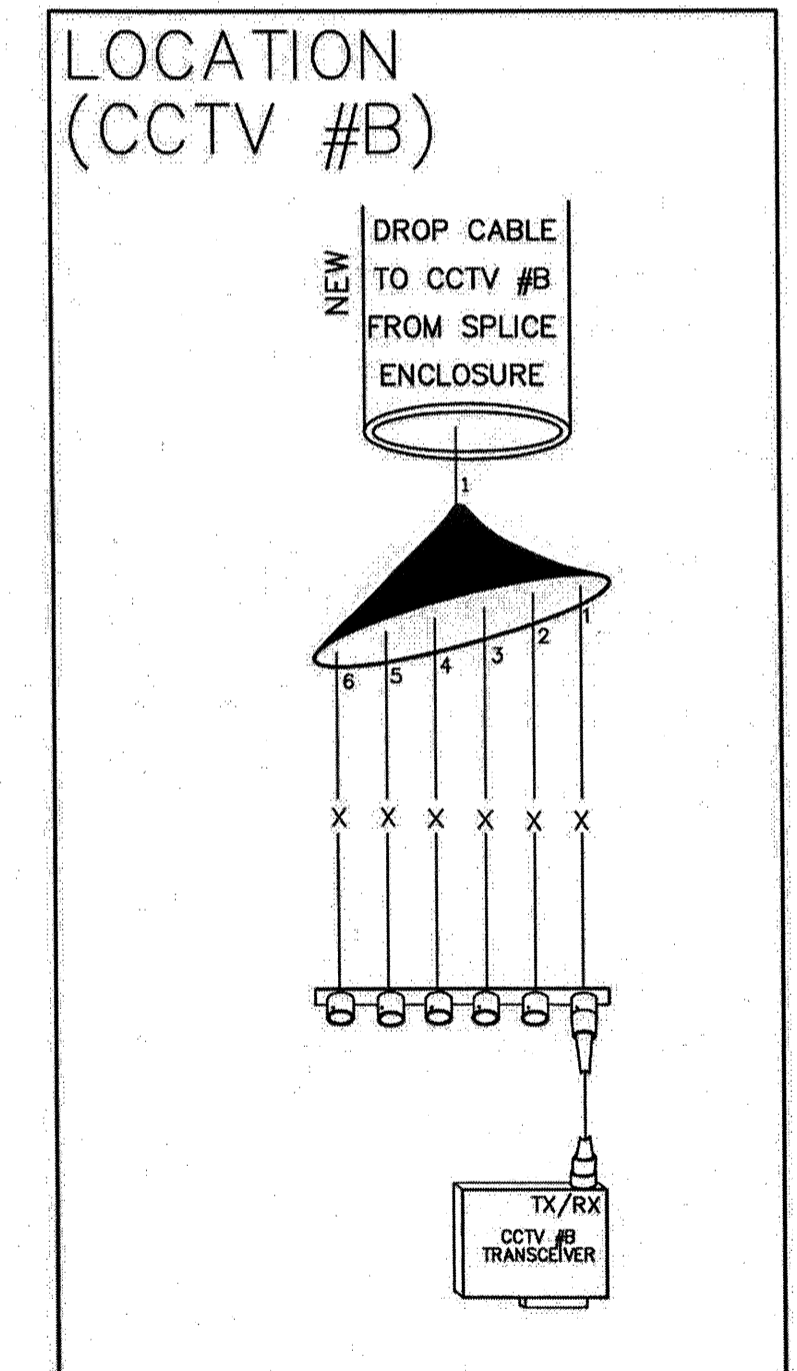
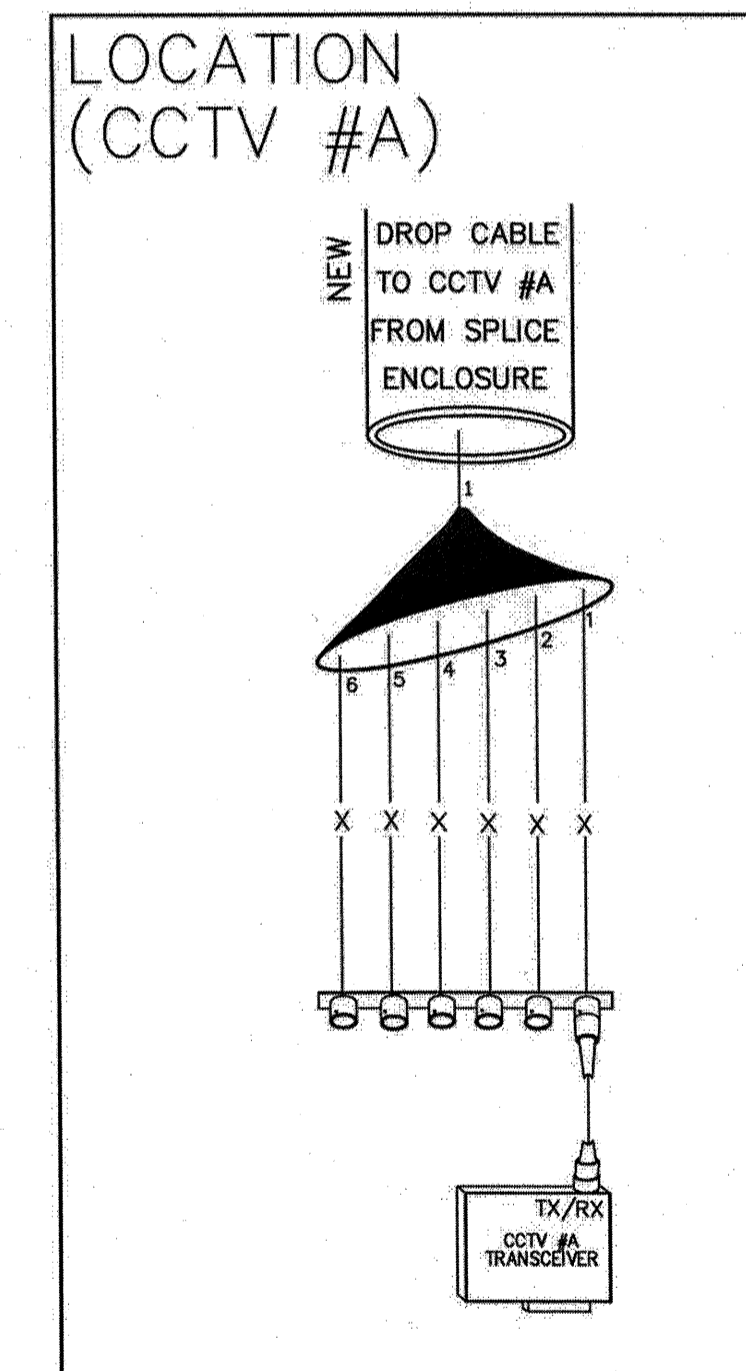
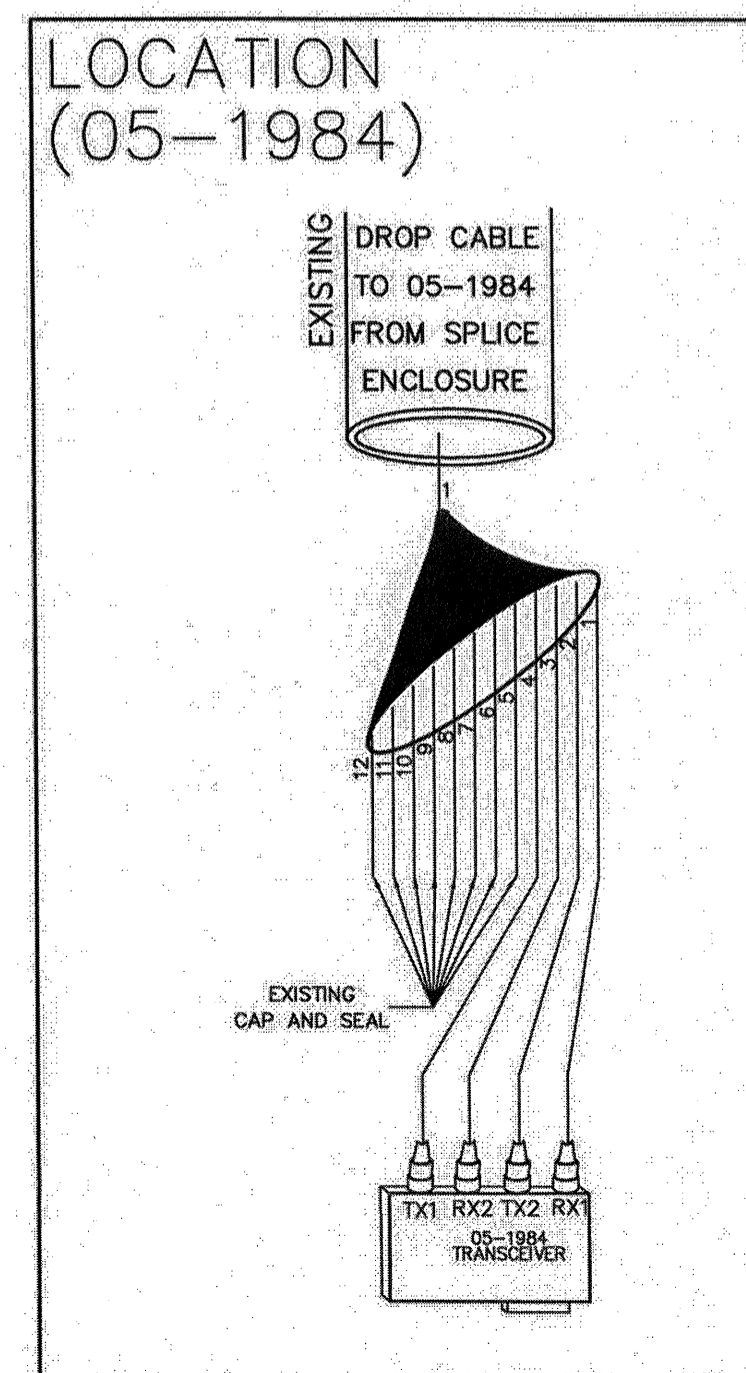
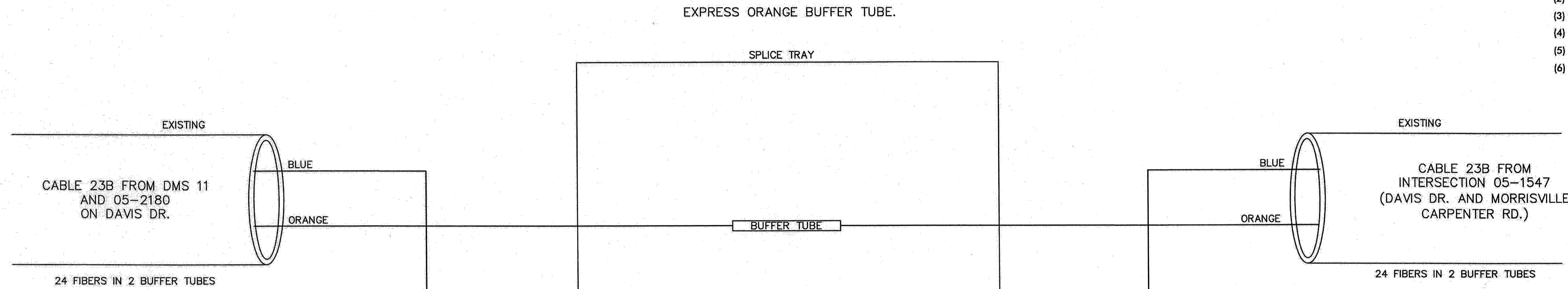
SIG. INV. # 05-1984

DAVIS DRIVE AT
MORRISVILLE PARKWAY
CHANNEL 23

LEGEND
X = FUSION SPLICE
● = EXISTING 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 |

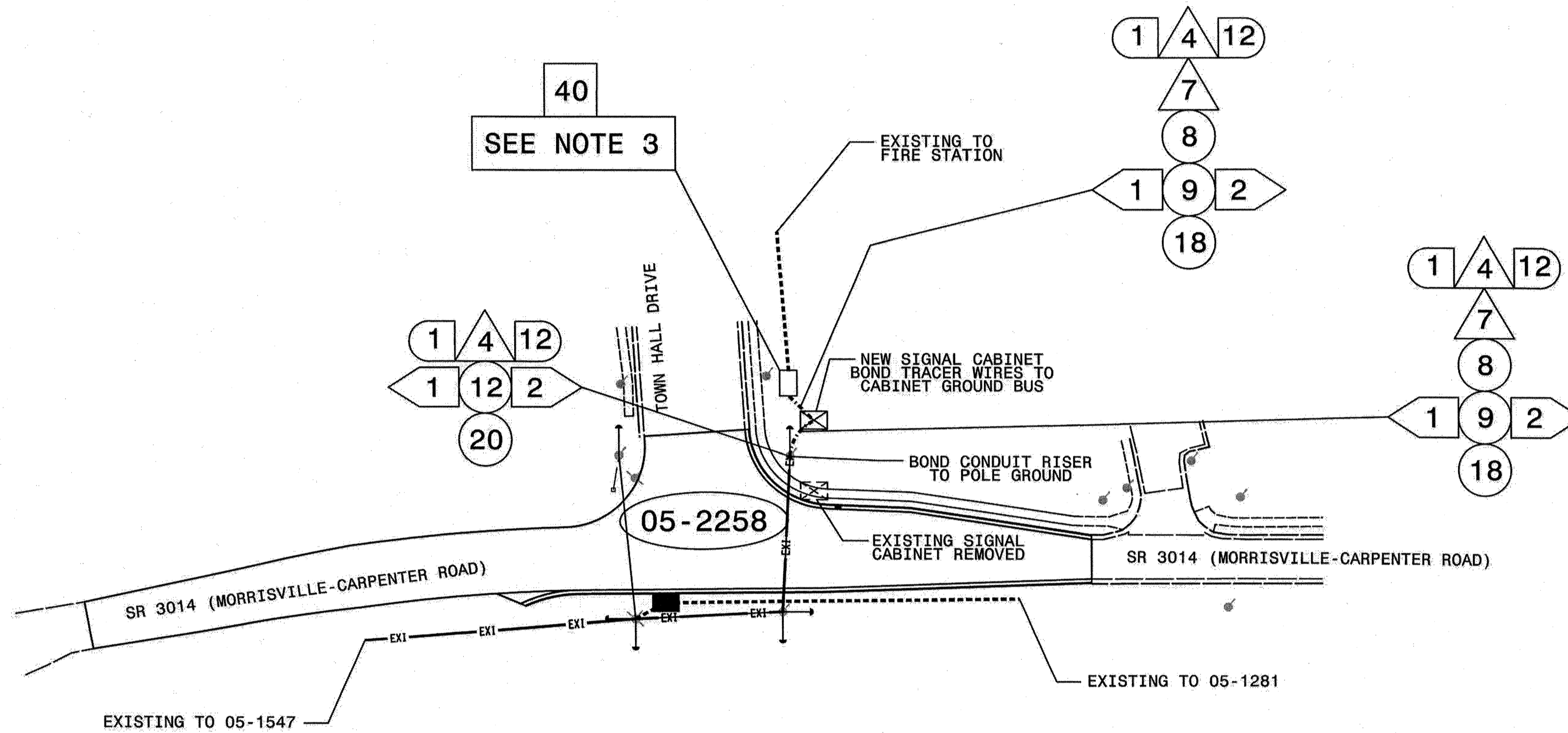


NOTES:

- FIBER INTERCONNECT CENTER RACKS ARE SCHEMATIC ONLY - ACTUAL EQUIPMENT FORM FACTOR MAY VARY.
- CCTV NUMBERS TO BE ASSIGNED DURING CONSTRUCTION.

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 Phone: 919-854-6200

	SPLICE DETAIL DAVIS DRIVE	
	PLAN DATE: May 2013 PREPARED BY: S. W. COX REVISIONS:	REVIEWED BY: C. N. MUSSMAN REVIEWED BY: S. Nandagiri INIT. DATE:
SCALE: 0	SIGNATURE: <i>Steven W. Cox</i> DATE: 9-16-13 CADD FILE NAME:	



NOTES:

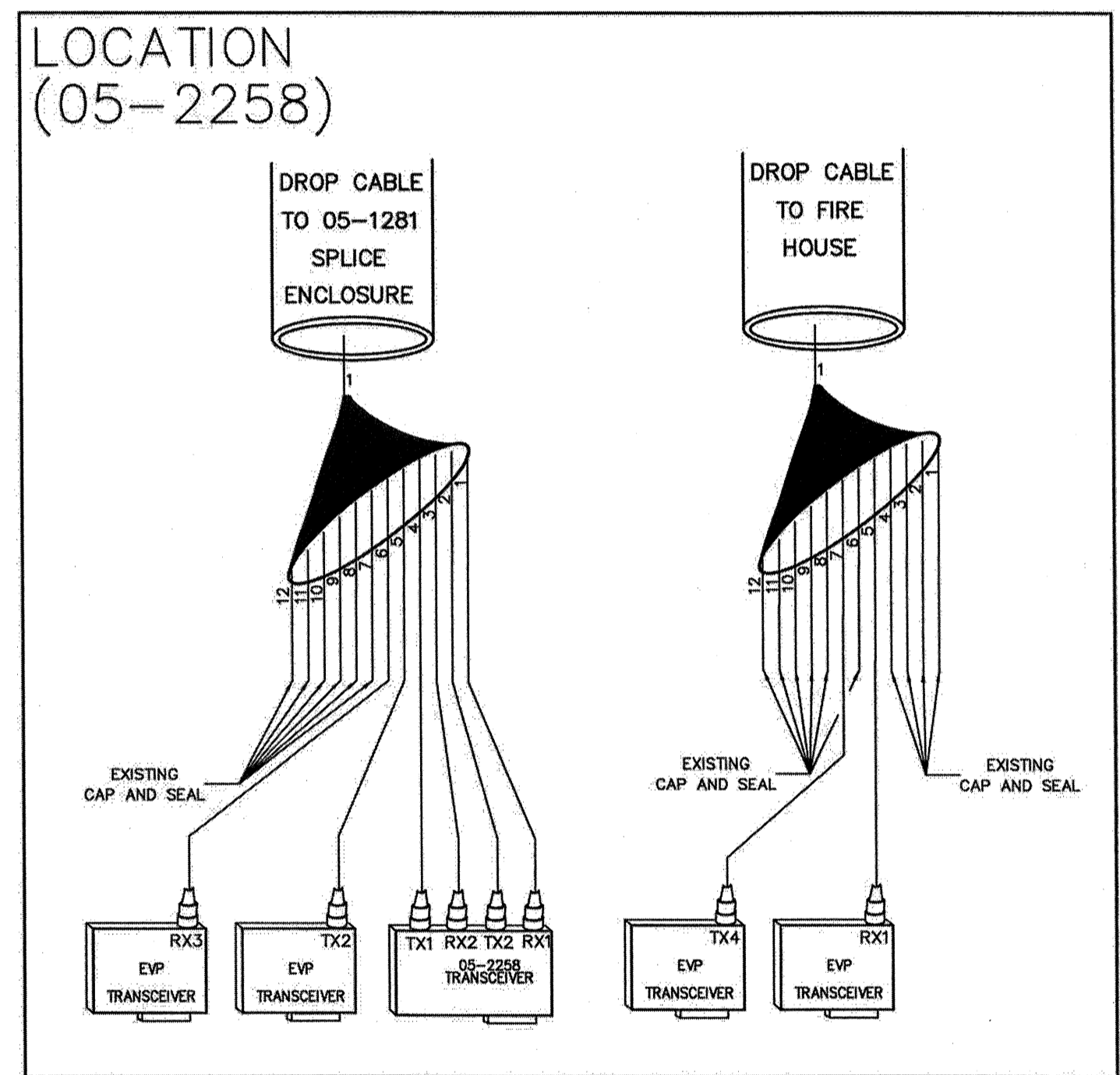
1. SEAL CONDUIT END WITH MECHANICAL SEALING DEVICES AT ALL JUNCTION BOX / CABINET ENTRANCES.
2. NO SPLICING IS ANTICIPATED AT THIS LOCATION. IF SPLICING IS REQUIRED DUE TO CONSTRUCTION ACTIVITIES, RECORD EXISTING FIBER OPTIC TERMINATIONS PRIOR TO REMOVAL. COMPARE RECORDED INFORMATION TO WHAT IS SUPPLIED IN THE SPLICE PLANS. IF THERE ARE DIFFERENCES, SPLICE BACK USING RECORDED INFORMATION.
3. STORE ANY EXCESS FIBER TO THE FIRE STATION AT THIS LOCATION.
4. STORE ANY OTHER EXCESS FIBER WITHIN THE SIGNAL CABINET.
5. THIS PLAN IS BASED ON ROUTING PLANS COMPLETED IN 2003 PRIOR TO SIGNAL INSTALLATION AT THIS LOCATION, CONTRACTOR TO FIELD VERIFY ROUTING LOCATIONS.
6. RELOCATE AND RECONNECT EXISTING PREEMPTION FIBER OPTIC EQUIPMENT FROM THE EXISTING SIGNAL CABINET INTO THE NEW SIGNAL CABINET.

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	SR 3014 (MORRISVILLE-CARPENTER ROAD) AT TOWN HALL DRIVE	
	PLAN DATE: May 2013 PREPARED BY: S. W. Cox	REVIEWED BY: C. N. Mussman REVIEWED BY: S. Nandagiri
SCALE: 1" = 50' 	REVISIONS: _____ INIT.: _____ DATE: _____	SIGNATURE: _____ DATE: 4-16-13 CADD FILE NAME: _____

SIG. INV. # 05-2258
 MORRISVILLE-CARPENTER
 ROAD AT
 TOWN HALL DRIVE
 CHANNEL 23

- LEGEND**
 X = FUSION SPLICE
 ● = EXISTING 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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 Phone: 919-854-6200

	SPLICE DETAIL TOWN HALL DRIVE		SEAL NORTH CAROLINA PROFESSIONAL ENGINEER STEVEN W. COX SEAL 37856 9-16-13
	PLAN DATE: May 2013 PREPARED BY: S. W. COX	REVIEWED BY: C. N. MUSSMAN REVIEWED BY: S. Nandagiri	
SCALE 	CAD FILE NAME		SIGNATURE DATE