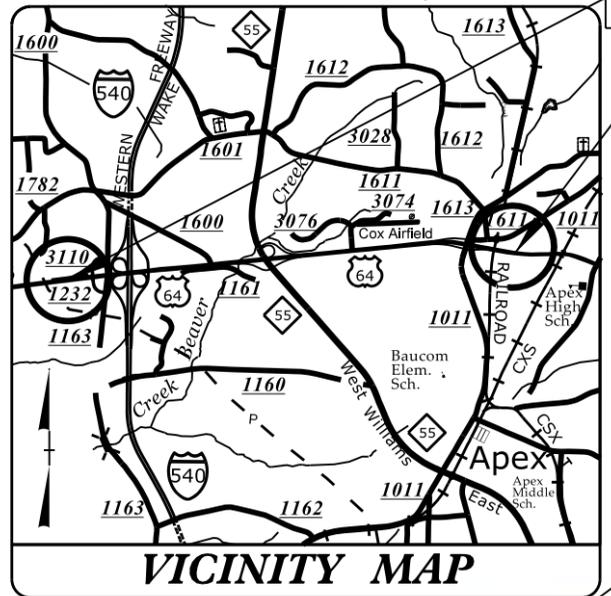


09/28/15

See Sheet 1-A For Index of Sheets
See Sheet 1-B For Conventional Symbols

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
WAKE COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	W-5601AY	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
50138.1.52	HSIP-0540(31)	P.E.	
50138.3.52	HSIP-0540(31)	R/W CONST	



BEGIN PROJECT:
W-5601AY

END PROJECT:
W-5201AY

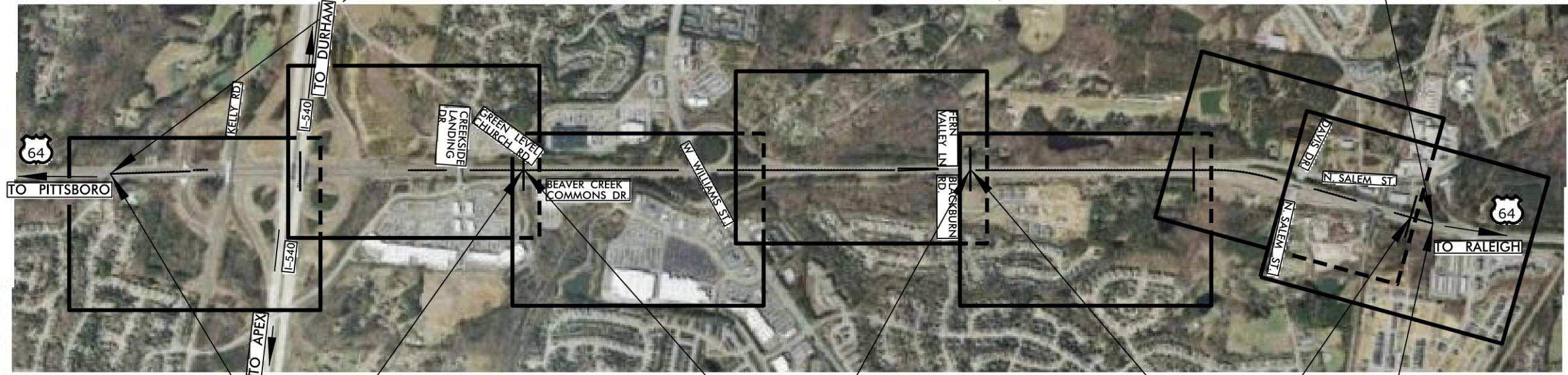
BEGIN TIP PROJECT:
W-5601AY

END TIP PROJECT:
W-5601AY

LOCATION: ON US-64 FROM NC-540 TO SR-1613 (DAVIS DR.)
TYPE OF WORK: INSTALL MEDIAN CABLE GUIDERAIL

TIP PROJECT: W-5601AY

CONTRACT: DE00133

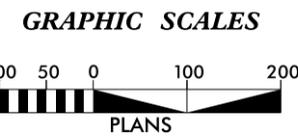


SHEET 4

SHEET 5

SHEET 6

SHEET 7



DESIGN DATA

PROJECT LENGTH

LENGTH ROADWAY PROJECT SS4905CS = 3.056 MILES
TOTAL LENGTH TIP PROJECT SS4905CS = 3.056 MILES

Prepared in the Office of:
DIVISION OF HIGHWAYS
1000 Birch Ridge Dr., Raleigh NC, 27610

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: _____

LETTING DATE: _____

BEN UPSHAW, PE
PROJECT ENGINEER

SUNIL J PATEL
PROJECT DESIGN ENGINEER

DIVISION DESIGN ENGINEER
ROADWAY DESIGN AND HYDRAULICS

DocuSigner: BEN UPSHAW
Ben Upshaw
9/28/2015
P.E.

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

FIFTH DIVISION
J.R. HOPKINS, P.E.
DIVISION ENGINEER



22-SEP-2015 16:41 R:\Roadway\Proj\W5601AY_Rdy_Tsh.dgn icharova AT 05-00261643

PROJECT REFERENCE NO. W-5601AY	SHEET NO. 1A
ROADWAY DESIGN ENGINEER	
	
DocuSigned by: <i>Ben Upshaw</i> 28/2015	
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INDEX OF SHEETS

<u>SHEET NUMBER</u>	<u>SHEET</u>
1	TITLE SHEET
1A	INDEX OF SHEETS, AND LIST OF STANDARD DRAWINGS
1B	CONVENTIONAL SYMBOLS
3B	SUMMARY OF CABLE GUIDERAIL
4 THRU 7	PLAN SHEETS
TMP-1 THRU TMP-3	TRANSPORTATION MANAGEMENT PLANS

2012 ROADWAY ENGLISH STANDARD DRAWINGS

The following Roadway Standards as appear in "Roadway Standard Drawings" Highway Design Branch - N. C. Department of Transportation - Raleigh, N. C., Dated January, 2012 are applicable to this project and by reference hereby are considered a part of these plans:

<u>STD.NO.</u>	<u>TITLE</u>
DIVISION 8 - INCIDENTALS	
865.01	CABLE GUIDERAIL

STATE OF NORTH CAROLINA, DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

Note: Not to Scale *S.U.E. = *Subsurface Utility Engineering*

04/20/15

BOUNDARIES AND PROPERTY:

State Line	-----
County Line	-----
Township Line	-----
City Line	-----
Reservation Line	-----
Property Line	-----
Existing Iron Pin	○ EIP
Property Corner	-----
Property Monument	□ ECM
Parcel/Sequence Number	②③
Existing Fence Line	-x-x-x-
Proposed Woven Wire Fence	○
Proposed Chain Link Fence	□
Proposed Barbed Wire Fence	◇
Existing Wetland Boundary	--- WLB
Proposed Wetland Boundary	--- WLB
Existing Endangered Animal Boundary	--- EAB
Existing Endangered Plant Boundary	--- EPB
Existing Historic Property Boundary	--- HPB
Known Contamination Area: Soil	☠
Potential Contamination Area: Soil	☠
Known Contamination Area: Water	☠
Potential Contamination Area: Water	☠
Contaminated Site: Known or Potential	☠

BUILDINGS AND OTHER CULTURE:

Gas Pump Vent or U/G Tank Cap	○
Sign	○
Well	○
Small Mine	✕
Foundation	□
Area Outline	□
Cemetery	+
Building	□
School	□
Church	□
Dam	▬

HYDROLOGY:

Stream or Body of Water	-----
Hydro, Pool or Reservoir	□
Jurisdictional Stream	--- JS
Buffer Zone 1	--- BZ 1
Buffer Zone 2	--- BZ 2
Flow Arrow	←
Disappearing Stream	→
Spring	○
Wetland	---
Proposed Lateral, Tail, Head Ditch	▬
False Sump	▽

RAILROADS:

Standard Gauge	-----
RR Signal Milepost	○
Switch	□
RR Abandoned	-----
RR Dismantled	-----

RIGHT OF WAY:

Baseline Control Point	◆
Existing Right of Way Marker	△
Existing Right of Way Line	-----
Proposed Right of Way Line	-----
Proposed Right of Way Line with Iron Pin and Cap Marker	○
Proposed Right of Way Line with Concrete or Granite RW Marker	△
Proposed Control of Access Line with Concrete C/A Marker	△
Existing Control of Access	○
Proposed Control of Access	○
Existing Easement Line	--- E
Proposed Temporary Construction Easement	--- E
Proposed Temporary Drainage Easement	--- TDE
Proposed Permanent Drainage Easement	--- PDE
Proposed Permanent Drainage / Utility Easement	--- DUE
Proposed Permanent Utility Easement	--- PUE
Proposed Temporary Utility Easement	--- TUE
Proposed Aerial Utility Easement	--- AUE
Proposed Permanent Easement with Iron Pin and Cap Marker	◆

ROADS AND RELATED FEATURES:

Existing Edge of Pavement	-----
Existing Curb	-----
Proposed Slope Stakes Cut	--- C
Proposed Slope Stakes Fill	--- F
Proposed Curb Ramp	○
Existing Metal Guardrail	-----
Proposed Guardrail	-----
Existing Cable Guiderail	-----
Proposed Cable Guiderail	-----
Equality Symbol	⊕
Pavement Removal	▨

VEGETATION:

Single Tree	☼
Single Shrub	☼
Hedge	-----
Woods Line	-----

Orchard	☼
Vineyard	□

EXISTING STRUCTURES:

MAJOR:	
Bridge, Tunnel or Box Culvert	▬
Bridge Wing Wall, Head Wall and End Wall	▬
MINOR:	
Head and End Wall	▬
Pipe Culvert	-----
Footbridge	-----
Drainage Box: Catch Basin, DI or JB	□
Paved Ditch Gutter	-----
Storm Sewer Manhole	○
Storm Sewer	-----

UTILITIES:

POWER:	
Existing Power Pole	●
Proposed Power Pole	○
Existing Joint Use Pole	●
Proposed Joint Use Pole	○
Power Manhole	⊕
Power Line Tower	⊗
Power Transformer	⊗
U/G Power Cable Hand Hole	○
H-Frame Pole	●
U/G Power Line LOS B (S.U.E.*)	-----
U/G Power Line LOS C (S.U.E.*)	-----
U/G Power Line LOS D (S.U.E.*)	-----

TELEPHONE:

Existing Telephone Pole	●
Proposed Telephone Pole	○
Telephone Manhole	⊕
Telephone Pedestal	⊕
Telephone Cell Tower	⊕
U/G Telephone Cable Hand Hole	○
U/G Telephone Cable LOS B (S.U.E.*)	-----
U/G Telephone Cable LOS C (S.U.E.*)	-----
U/G Telephone Cable LOS D (S.U.E.*)	-----
U/G Telephone Conduit LOS B (S.U.E.*)	-----
U/G Telephone Conduit LOS C (S.U.E.*)	-----
U/G Telephone Conduit LOS D (S.U.E.*)	-----
U/G Fiber Optics Cable LOS B (S.U.E.*)	-----
U/G Fiber Optics Cable LOS C (S.U.E.*)	-----
U/G Fiber Optics Cable LOS D (S.U.E.*)	-----

WATER:

Water Manhole	⊕
Water Meter	○
Water Valve	⊗
Water Hydrant	⊕
U/G Water Line LOS B (S.U.E.*)	-----
U/G Water Line LOS C (S.U.E.*)	-----
U/G Water Line LOS D (S.U.E.*)	-----
Above Ground Water Line	-----

TV:

TV Pedestal	⊕
TV Tower	⊗
U/G TV Cable Hand Hole	○
U/G TV Cable LOS B (S.U.E.*)	-----
U/G TV Cable LOS C (S.U.E.*)	-----
U/G TV Cable LOS D (S.U.E.*)	-----
U/G Fiber Optic Cable LOS B (S.U.E.*)	-----
U/G Fiber Optic Cable LOS C (S.U.E.*)	-----
U/G Fiber Optic Cable LOS D (S.U.E.*)	-----

GAS:

Gas Valve	◇
Gas Meter	⊕
U/G Gas Line LOS B (S.U.E.*)	-----
U/G Gas Line LOS C (S.U.E.*)	-----
U/G Gas Line LOS D (S.U.E.*)	-----
Above Ground Gas Line	-----

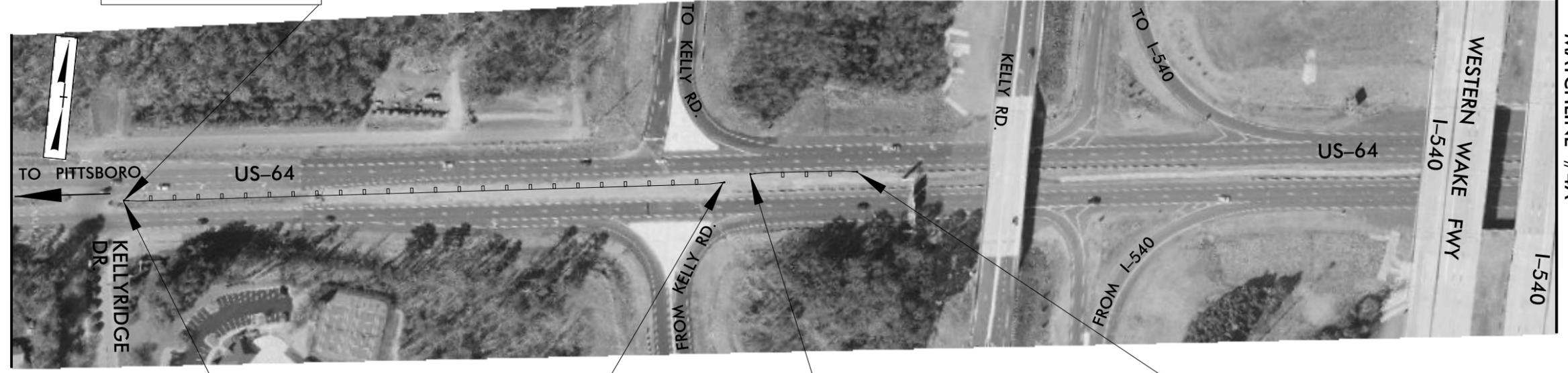
SANITARY SEWER:

Sanitary Sewer Manhole	⊕
Sanitary Sewer Cleanout	⊕
U/G Sanitary Sewer Line	-----
Above Ground Sanitary Sewer	-----
SS Forced Main Line LOS B (S.U.E.*)	-----
SS Forced Main Line LOS C (S.U.E.*)	-----
SS Forced Main Line LOS D (S.U.E.*)	-----

MISCELLANEOUS:

Utility Pole	●
Utility Pole with Base	□
Utility Located Object	○
Utility Traffic Signal Box	⊕
Utility Unknown U/G Line LOS B (S.U.E.*)	-----
U/G Tank; Water, Gas, Oil	□
Underground Storage Tank, Approx. Loc.	⊕
A/G Tank; Water, Gas, Oil	□
Geoenvironmental Boring	⊕
U/G Test Hole LOS A (S.U.E.*)	○
Abandoned According to Utility Records	AATUR
End of Information	E.O.I.

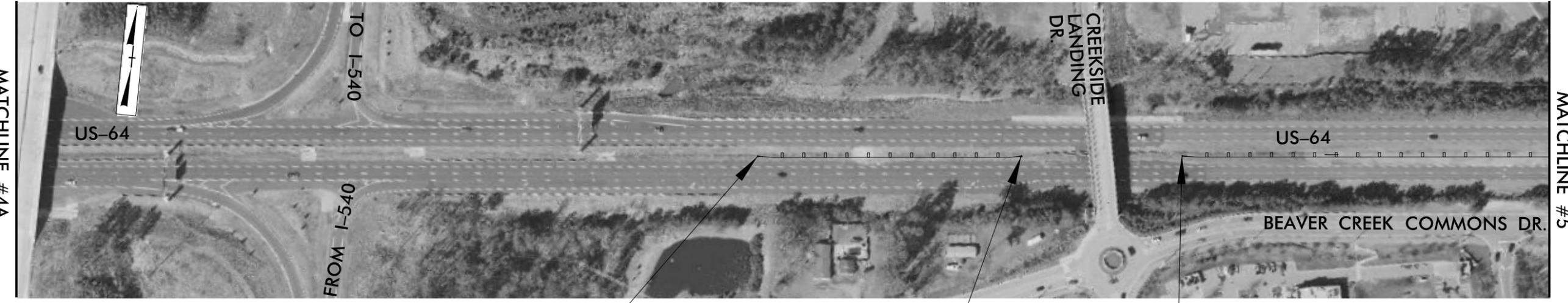
BEGIN TIP PROJECT:
W-5601AY



MATCHLINE #4A

PROPOSED CABLE GUIDERAIL ANCHOR UNIT
PROPOSED DOUBLE FACE CABLE GUIDERAIL
963' +/-

PROPOSED CABLE GUIDERAIL ANCHOR UNIT
PROPOSED SINGLE FACE CABLE GUIDERAIL
173' +/-



MATCHLINE #4A

MATCHLINE #5

PROPOSED CABLE GUIDERAIL ANCHOR UNIT
PROPOSED DOUBLE FACE CABLE GUIDERAIL
466' +/-

PROPOSED CABLE GUIDERAIL ANCHOR UNIT
START PROPOSED DOUBLE FACE CABLE GUIDERAIL
2520' +/-

NOTES:
1). UNLESS OTHERWISE NOTED, ALL DOUBLE FACE CABLE GUIDERAIL IS TO BE PLACED AT AN OFFSET OF 12' FROM EOT.
2). UNLESS OTHERWISE NOTED, ALL SINGLE FACE CABLE GUIDERAIL IS TO BE PLACED AT AN OFFSET OF 8' FROM EOT.

DIVISION FIVE DESIGN

DocuSign
Ben Upshaw
P.E.
SIGNATURE
COBEB1006E54E5...

INSTALL MEDIAN CABLE GUIDERAIL
ON US-64 FROM NC-540
TO SR-1613 (DAVIS DR.)

DIVISION 05	WAKE COUNTY	APEX
REVISIONS	INIT.	DATE

N.C. DEPARTMENT of TRANSPORTATION
DIVISION of HIGHWAYS
DIVISION FIVE DESIGN UNIT

SCALE: 1"=200'
DATE: 9/2015
PREPARED BY: LUDA CHAROVA
REVIEWED BY: BEN UPSHAW, PE
REVIEWED BY:

PROPOSED CABLE GUIDERAIL ANCHOR UNIT
END PROPOSED DOUBLE FACE CABLE GUIDERAIL
2520' +/-

PROPOSED CABLE GUIDERAIL ANCHOR UNIT
START PROPOSED DOUBLE FACE CABLE GUIDERAIL
2146' +/-



PROPOSED CABLE GUIDERAIL ANCHOR UNIT
END PROPOSED DOUBLE FACE CABLE GUIDERAIL
2146' +/-

PROPOSED CABLE GUIDERAIL ANCHOR UNIT
PROPOSED SINGLE FACE CABLE GUIDERAIL
488' +/- LT



PROPOSED CABLE GUIDERAIL ANCHOR UNIT
PROPOSED SINGLE FACE CABLE GUIDERAIL
488' +/- RT

NOTES:
1). UNLESS OTHERWISE NOTED, ALL DOUBLE FACE CABLE GUIDERAIL IS TO BE PLACED AT AN OFFSET OF 12' FROM EOT.
2). UNLESS OTHERWISE NOTED, ALL SINGLE FACE CABLE GUIDERAIL IS TO BE PLACED AT AN OFFSET OF 8' FROM EOT.

DIVISION FIVE DESIGN

DocuSign
Ben Upshaw
SIGNATURE
036554-10655455 P.E.

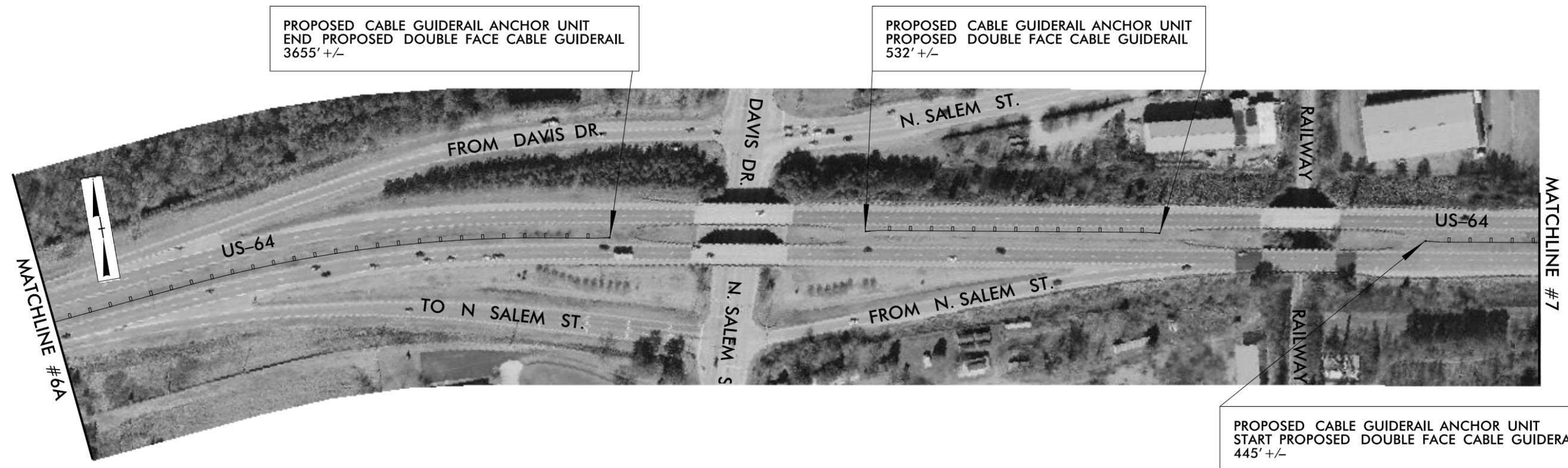
INSTALL MEDIAN CABLE GUIDERAIL
ON US-64 FROM NC-540
TO SR-1613 (DAVIS DR.)

DIVISION 05 WAKE COUNTY WAKE

REVISIONS	INIT.	DATE

N.C. DEPARTMENT of TRANSPORTATION
DIVISION of HIGHWAYS
DIVISION FIVE DESIGN UNIT

SCALE: 1"=200' DATE: 09/2015
PREPARED BY: LUDA CHAROVA
REVIEWED BY: BEN UPSHAW
REVIEWED BY:



NOTES:
 1). UNLESS OTHERWISE NOTED, ALL DOUBLE FACE CABLE GUIDERAIL IS TO BE PLACED AT AN OFFSET OF 12' FROM EOT.
 2). UNLESS OTHERWISE NOTED, ALL SINGLE FACE CABLE GUIDERAIL IS TO BE PLACED AT AN OFFSET OF 8' FROM EOT.

DIVISION FIVE DESIGN

DocuSigned by:
 Ben Upshaw
 09/28/2015

Ben Upshaw P.E.
 SIGNATURE
 108E8110D8E54E5

INSTALL MEDIAN CABLE GUIDERAIL
 ON US-64 FROM NC-540
 TO SR-1613 (DAVIS DR.)

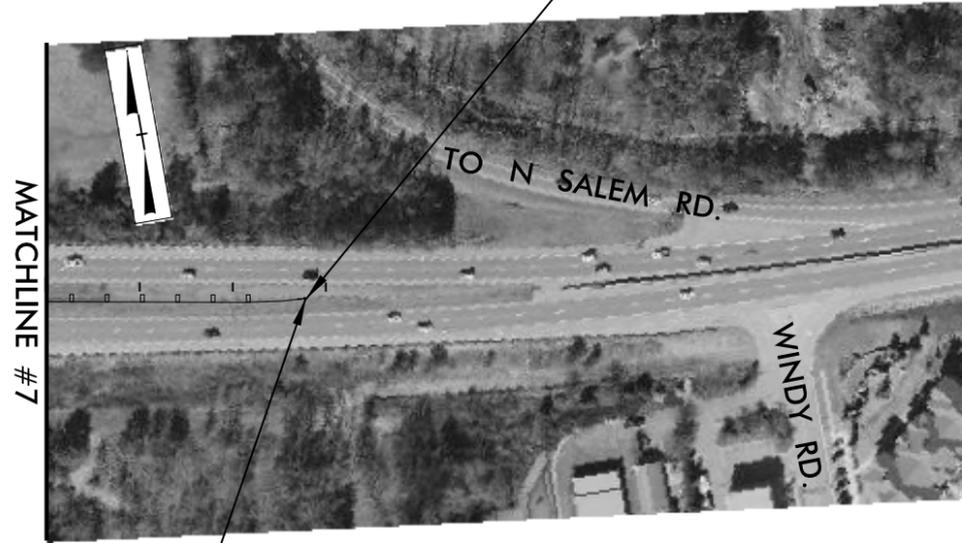
DIVISION 05	WAKE COUNTY	WAKE
REVISIONS	INIT.	DATE

N.C. DEPARTMENT of TRANSPORTATION
 DIVISION of HIGHWAYS
 DIVISION FIVE DESIGN UNIT

SCALE: 1"=200' DATE: 09/15

PREPARED BY: LUDA CHAROVA
 REVIEWED BY: BEN UPSHAW
 REVIEWED BY:

END TIP PROJECT:
W-5601AY



PROPOSED CABLE GUIDERAIL ANCHOR UNIT
END PROPOSED DOUBLE FACE CABLE GUIDERAIL
445' +/-

NOTES:
1). UNLESS OTHERWISE NOTED, ALL DOUBLE FACE CABLE GUIDERAIL IS TO BE PLACED AT AN OFFSET OF 12' FROM EOT.
2). UNLESS OTHERWISE NOTED, ALL SINGLE FACE CABLE GUIDERAIL IS TO BE PLACED AT AN OFFSET OF 8' FROM EOT.

DIVISION FIVE DESIGN

DocuSigned by:
Ben Upshaw
SIGNATURE
9/28/2015 P.E.

INSTALL MEDIAN CABLE GUIDERAIL
ON US-64 FROM NC-540
TO SR-1613 (DAVIS DR.)

DIVISION 05 WAKE COUNTY APEX

REVISIONS	INIT.	DATE

N.C. DEPARTMENT of TRANSPORTATION
DIVISION of HIGHWAYS
DIVISION FIVE DESIGN UNIT

SCALE: 1"=200' DATE: 9/2015

PREPARED BY: LUDA CHAROVA
REVIEWED BY: BEN UPSHAW, PE
REVIEWED BY:

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

STATE PROJECT REFERENCE NO.		SHEET NO.
W-5601AY		TMP-1
STATE PROJ. NO.	P.A. PROJ. NO.	DESCRIPTION
50138.1.52	HSIP-0540(31)	P.E.
50138.3.52		CONST.

TRANSPORTATION MANAGEMENT PLAN
WAKE COUNTY



LEGEND

- GENERAL**
- DIRECTION OF TRAFFIC FLOW
 - NORTH ARROW
 - PROPOSED PVMT. EXIST. PVMT.
 - WORK AREA
 - REMOVAL OF EXISTING PAVEMENT

TRAFFIC CONTROL DEVICES

- TYPE I BARRICADE
- TYPE II BARRICADE
- TYPE III BARRICADE
- CONE
- DRUM
- FLASHING ARROW PANEL (TYPE C)
- TYPE 'B' WARNING LIGHT
- STATIONARY SIGN
- PORTABLE SIGN
- WARNING FLAGS
- CRASH CUSHION
- CHANGEABLE MESSAGE SIGN
- TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)
- POLICE
- FLAGGER

PAVEMENT MARKINGS

- CRYSTAL PAVEMENT MARKER
- YELLOW/YELLOW PAVEMENT MARKER
- CRYSTAL/RED PAVEMENT MARKER
- PAVEMENT MARKING SYMBOLS

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2012 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
1101.01	WORK ZONE ADVANCE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1101.05	WORK ZONE VEHICLE ACCESSES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.02	PORTABLE WORK ZONE SIGNS
1115.01	FLASHING ARROW BOARDS
1130.01	DRUMS

INDEX OF SHEETS

SHEET NO.	TITLE
TMP-1	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, LEGEND AND INDEX OF SHEETS
TMP-2	PROJECT NOTES
TMP-3	TRAFFIC CONTROL DETAIL

TIP PROJECT: W-5601AY

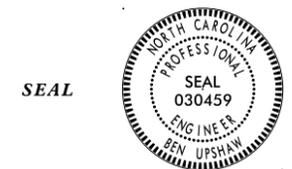


N.C.D.O.T. WORK ZONE TRAFFIC CONTROL
1561 MAIL SERVICE CENTER (MSC) RALEIGH, NC 27699-1561
750 N. GREENFIELD PARKWAY, GARNER, NC 27529 (DELIVERY)
PHONE: (919) 773-2800 FAX: (919) 771-2745

STATE TRAFFIC MANAGEMENT ENGINEER
BEN UPSHAW, PE TRAFFIC CONTROL PROJECT ENGINEER
SUNIL PATEL TRAFFIC CONTROL PROJECT DESIGN ENGINEER
TRAFFIC CONTROL DESIGN ENGINEER



DocuSigned by:
APPROVED: *Ben Upshaw*
DATE: 9/28/2015
CD6EB110D6E64E5...



GENERAL NOTES

CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS IN THE DETAIL DRAWINGS, STANDARD DETAILS, AND ROADWAY DETAILS ARE NOT ATTAINABLE TO MEET FIELD CONDITIONS OR RESULT IN DUPLICATE OR UNDESIRABLE OVERLAPPING OF DEVICES. MODIFICATION MAY INCLUDE: MOVING, SUPPLEMENTING, COVERING, OR REMOVAL OF DEVICES AS DIRECTED BY THE ENGINEER.

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT EXCEPT WHEN OTHERWISE NOTED IN THE PLAN OR DIRECTED BY THE ENGINEER.

TIME RESTRICTIONS

A) DO NOT CLOSE OR NARROW TRAVEL LANES AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS
US-64	MONDAY THRU FRIDAY 6:00 AM TO 9:00 AM AND 4:00 PM TO 7:00 PM

B) DO NOT CONDUCT ANY HAULING OPERATIONS AGAINST THE FLOW OF TRAFFIC OF AN OPEN TRAVELWAY UNLESS THE HAULING OPERATION IS PROTECTED BY BARRIER OR GUARDRAIL OR AS DIRECTED BY THE

LANE AND SHOULDER CLOSURE REQUIREMENTS

C) REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING PERFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NO LONGER NEEDED OR AS DIRECTED BY THE ENGINEER.

D) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER USING ROADWAY STANDARD DRAWING NO. 1101.04 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL OR A LANE CLOSURE IS INSTALLED.

E) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO AN UNDIVIDED FACILITY AND WITHIN 5 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO A DIVIDED FACILITY AND WITHIN 10 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

F) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL OF AN UNDIVIDED OR DIVIDED FACILITY, CLOSE THE LANE ACCORDING TO THE TRAFFIC CONTROL PLANS, ROADWAY STANDARD DRAWINGS, OR AS DIRECTED BY THE ENGINEER. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.

G) DO NOT WORK SIMULTANEOUSLY WITHIN 15 FT ON BOTH SIDES OF AN OPEN TRAVELWAY, RAMP, OR LOOP WITHIN THE SAME LOCATION UNLESS PROTECTED WITH GUARDRAIL OR BARRIER.

H) DO NOT INSTALL MORE THAN TWO (2) MILES OF LANE CLOSURE ON US-64 MEASURED FROM THE BEGINNING OF THE MERGE TAPER TO THE END OF THE LANE CLOSURE.

I) DO NOT INSTALL MORE THAN ONE LANE CLOSURE IN ANY ONE DIRECTION SIMULTANEOUS LANE CLOSURES IN ON US-64.

TRAFFIC PATTERN ALTERATIONS

J) NOTIFY THE ENGINEER TWENTY ONE (21) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

SIGNING

K) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

TRAFFIC CONTROL DEVICES

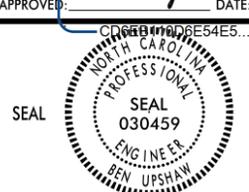
L) WHEN LANE CLOSURES ARE NOT IN EFFECT SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER IN FEET THAN TWICE THE POSTED SPEED LIMIT (MPH) EXCEPT, 10 FT ON-CENTER IN RADII, AND 3 FT OFF THE EDGE OF AN OPEN TRAVELWAY. REFER TO STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES SECTIONS 1130 (DRUMS), 1135 (CONES) AND 1180 (SKINNY DRUMS) FOR ADDITIONAL REQUIREMENTS.

M) PLACE ADDITIONAL SETS OF THREE CHANNELIZING DEVICES DRUMS PERPENDICULAR TO THE EDGE OF TRAVELWAY ON 500 FT CENTERS WHEN UNOPENED LANES ARE CLOSED TO TRAFFIC.

LOCAL NOTE:

N) ADVANCE WORK ZONE SIGNS SHALL BE PLACED ON PORTABLE SUPPORTS ACCORDING TO RSD 1101.01 WHERE "CONSTRUCTION LIMITS" WILL BE DEFINED AS THE AREA OF ACTIVE WORK (INCLUDING LANE CLOSURES AND SHOULDER CLOSURES) WITHIN 40 FEET FROM THE EDGE OF TRAVEL LANE.

DocuSigned by:
Ben Upshaw 0/28/2015

<p>APPROVED: <i>Ben Upshaw</i> DATE: 09/28/2015</p> <div style="text-align: center;">  <p>SEAL 030459 ENGINEER BEN UPSHAW</p> </div>	<h2 style="margin: 0;">PROJECT NOTES</h2> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">SCALE: NONE</td> <td style="width: 50%;">REVISIONS</td> </tr> <tr> <td>DATE: 09 / 2015</td> <td></td> </tr> <tr> <td>DWG. BY:</td> <td></td> </tr> <tr> <td>DESIGN BY: LUDA CHAROVA</td> <td></td> </tr> <tr> <td>REVIEWED BY: BEN UPSHAW</td> <td></td> </tr> </table> <div style="text-align: center; margin-top: 10px;">  </div>	SCALE: NONE	REVISIONS	DATE: 09 / 2015		DWG. BY:		DESIGN BY: LUDA CHAROVA		REVIEWED BY: BEN UPSHAW	
SCALE: NONE	REVISIONS										
DATE: 09 / 2015											
DWG. BY:											
DESIGN BY: LUDA CHAROVA											
REVIEWED BY: BEN UPSHAW											

NOTES:

- 1) INSTALL PROPOSED CABLERAIL WITH THE DIRECTION OF TRAFFIC FLOW.
- 2) MAY INSTALL PROPOSED CABLERAIL IN BOTH DIRECTIONS AT THE SAME TIME.
- 3) COMPLETE ONE AREA OF PROPOSED CABLERAIL INSTALLATION BEFORE ADVANCING TO THE NEXT AREA, AS DIRECTED BY THE ENGINEER.
- 4) LEAVE NO CABLERAIL POSTS EXPOSED TO TRAFFIC. INSTALL A SHOULDER CLOSURE ON THE DIRECTION AFFECTED IF NO POSITIVE PROTECTION IS PRESENT TO SHIELD THE POSTS.
- 5) PROTECT ALL BLUNT ENDS OF PROPOSED CABLERAIL WITH A TMIA.
- 6) LENGTH OF LANE CLOSURE SHOULD NOT EXCEED THE AMOUNT OF PROPOSED CABLERAIL THAT CAN BE INSTALLED IN 1 DAY.
- 7) LANE CLOSURE NOT TO EXCEED 2 MILES MEASURED FROM BEGINNING OF MERGE TAPER TO LAST DRUM OF LANE CLOSURE.
- 8) NO MORE THAN 1 LANE CLOSURES ALLOWED PER DIRECTION AT A TIME.
- 9) LANE CLOSURES SHALL BE A MINIMUM OF 2 MILES APART AS MEASURED FROM THE LAST DRUM OF A LANE CLOSURE TO THE FIRST SIGN ASSOCIATED WITH THE NEXT LANE CLOSURE.
- 10) EACH LANE CLOSURE WILL REQUIRE A MINIMUM OF 1 CMS, 1 FAP, AND 1 TMIA. THE TMIA SHALL BE USED IN ADVANCE OF THE WORK TO PROTECT WORKERS. A SECOND TMIA WILL BE REQUIRED FOR OPPOSING TRAFFIC TO PROTECT WORKERS AND PROTECT TRAFFIC FROM BLUNT END OF CABLERAIL, UNLESS POSITIVE PROTECTION IS IN PLACE OR A MEDIAN LANE CLOSURE IS ALSO INSTALLED FOR OPPOSING TRAFFIC.

PHASING

STEP 1)

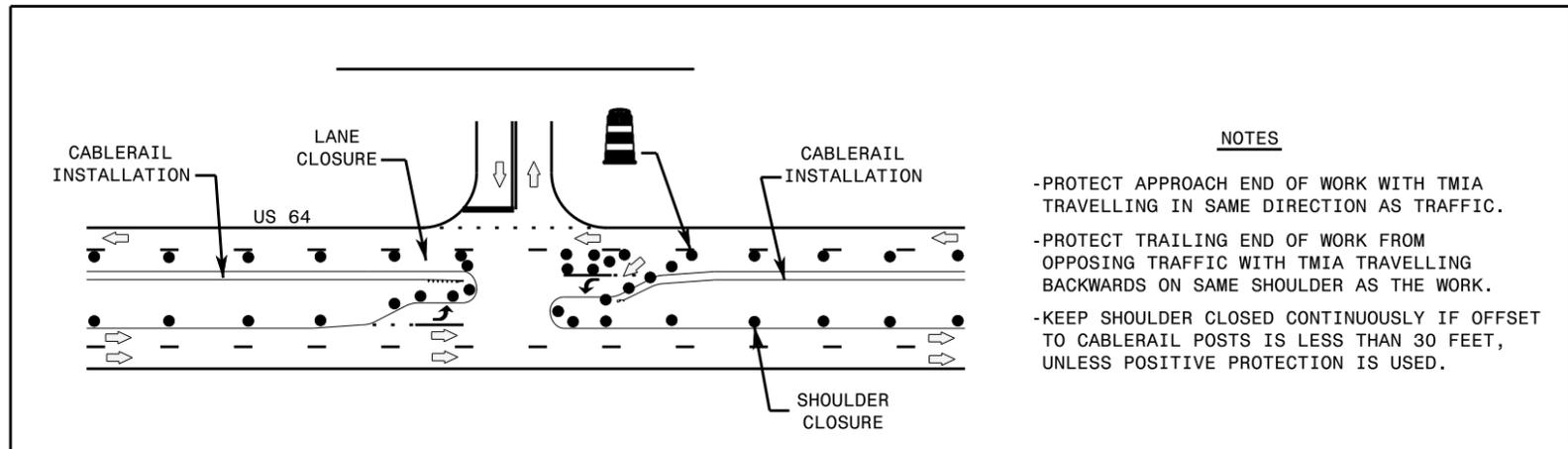
INSTALL WORK ZONE ADVANCE WARNING SIGNS ON ALL ROADS IN ACCORDANCE WITH RSD 1101.01. WORK ZONE SIGNS MAY BE INSTALLED AS PORTABLE SIGNS AND POSITIONED/RELOCATED FOR EACH DAYS WORK, AS DIRECTED BY THE ENGINEER.

STEP 2)

USING ROADWAY STANDARD DRAWING 1101.02, SH. 3 OF 9, ROADWAY STANDARD DRAWING 1101.04, AND THE DRAWINGS SHOWN ON THIS SHEET, INSTALL PROPOSED CABLERAIL ALONG US 64.

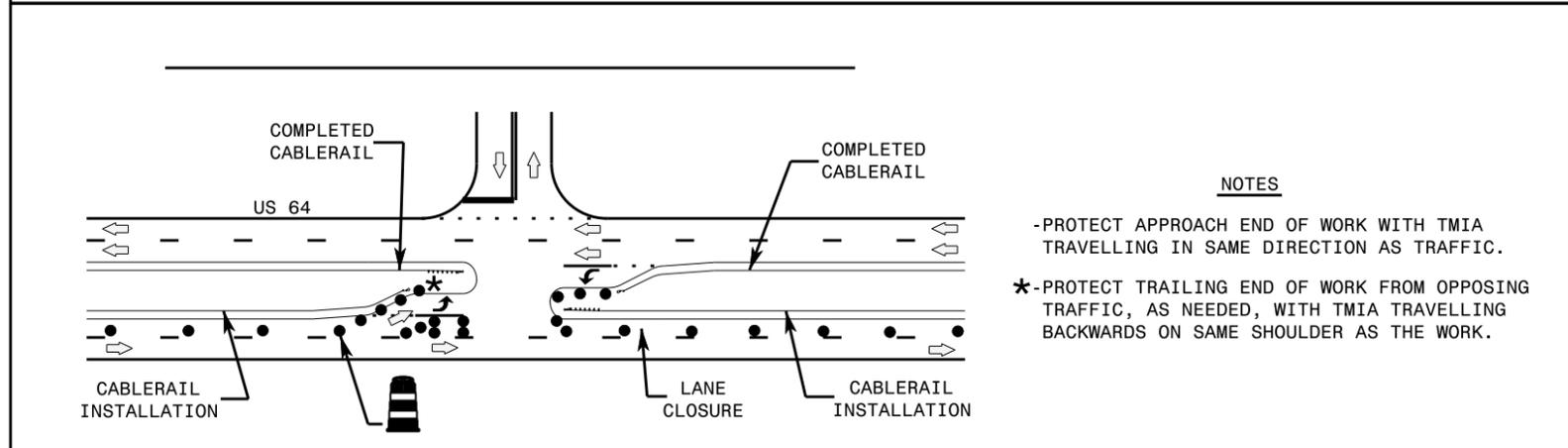
STEP 3)

REMOVE WORK ZONE ADVANCE WARNING SIGNS AND ANY REMAINING WORK ZONE TRAFFIC CONTROL DEVICES.



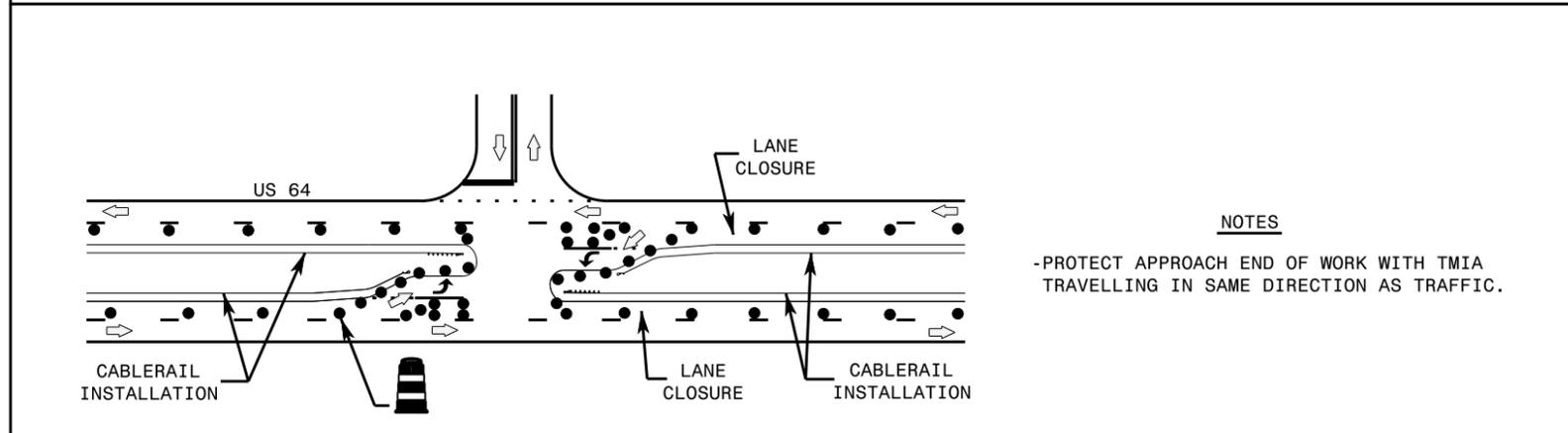
NOTES

- PROTECT APPROACH END OF WORK WITH TMIA TRAVELLING IN SAME DIRECTION AS TRAFFIC.
- PROTECT TRAILING END OF WORK FROM OPPOSING TRAFFIC WITH TMIA TRAVELLING BACKWARDS ON SAME SHOULDER AS THE WORK.
- KEEP SHOULDER CLOSED CONTINUOUSLY IF OFFSET TO CABLERAIL POSTS IS LESS THAN 30 FEET, UNLESS POSITIVE PROTECTION IS USED.



NOTES

- PROTECT APPROACH END OF WORK WITH TMIA TRAVELLING IN SAME DIRECTION AS TRAFFIC.
- *-PROTECT TRAILING END OF WORK FROM OPPOSING TRAFFIC, AS NEEDED, WITH TMIA TRAVELLING BACKWARDS ON SAME SHOULDER AS THE WORK.



NOTES

- PROTECT APPROACH END OF WORK WITH TMIA TRAVELLING IN SAME DIRECTION AS TRAFFIC.

28-SEP-2015 10:03 R:\Roadway\Pr01\TMP_PSH\W5601AY_TC_TMP-3.dgn lchirova AT 05-00261643

DocuSigned by:
Ben Upshaw 28/2015
 APPROVED: _____ DATE: _____
 SEAL
 NORTH CAROLINA PROFESSIONAL ENGINEER
 SEAL 030459
 BEN UPSHAW



TRAFFIC CONTROL DETAIL