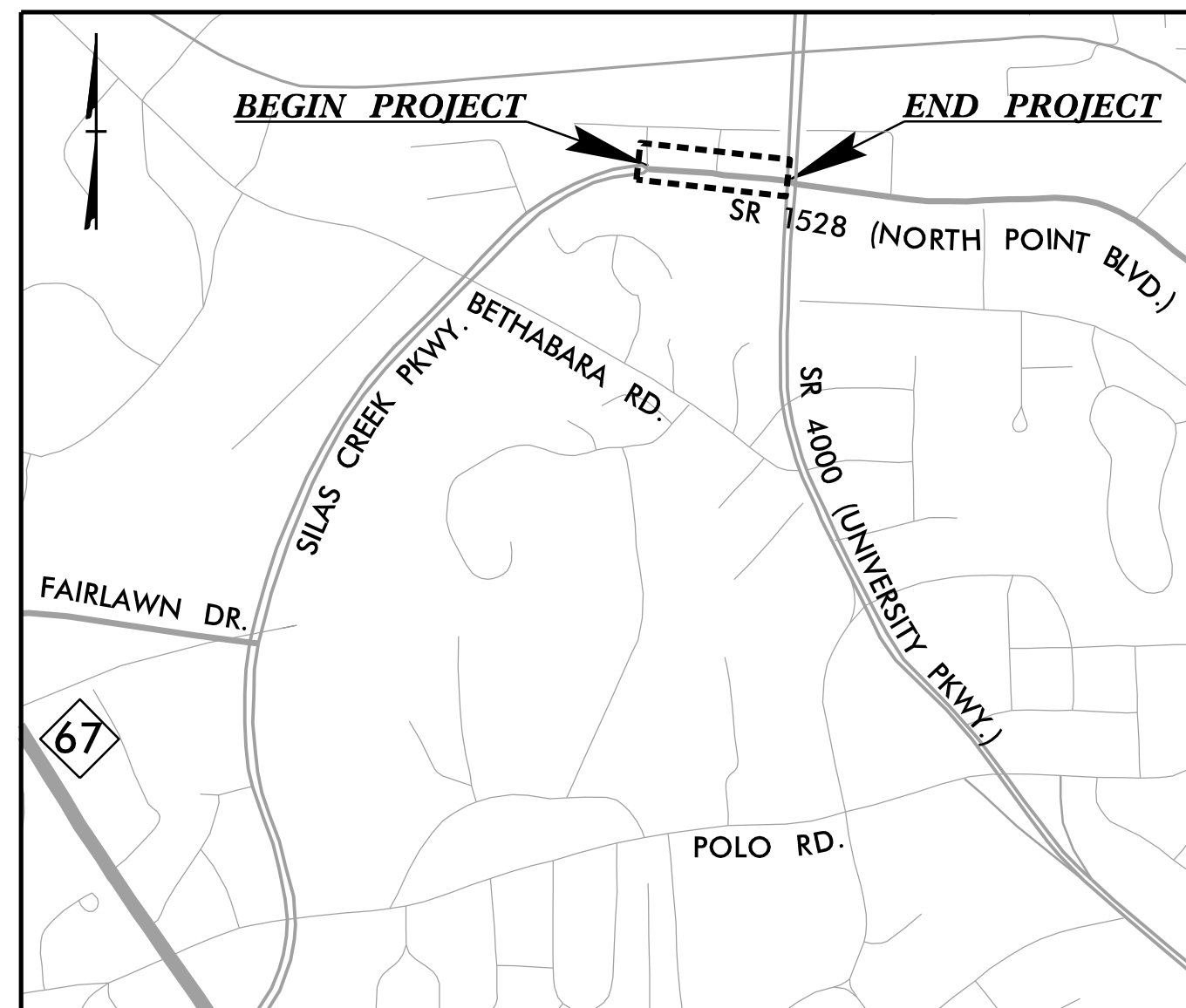


See Sheet 1A For Index of Sheets  
See Sheet 1B For Conventional Symbols



**VICINITY MAP**  
N.T.S.

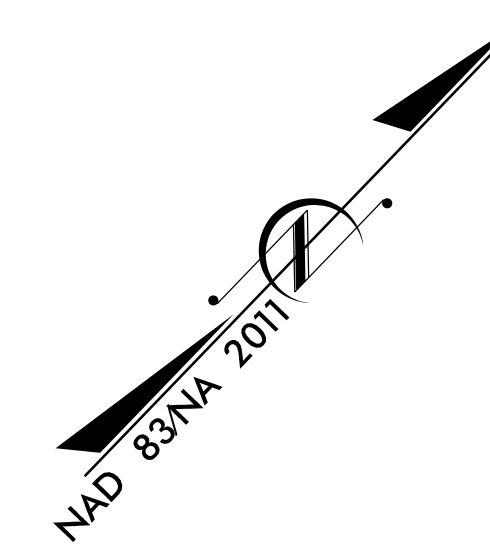
STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS  
**FORSYTH COUNTY**

**LOCATION:** SR 1528 (NORTH POINT BOULEVARD) FROM BETHABARA ROAD TO SR 400 (UNIVERSITY PARKWAY)

**TYPE OF WORK:** GRADING, SIDEWALK, & DRAINAGE

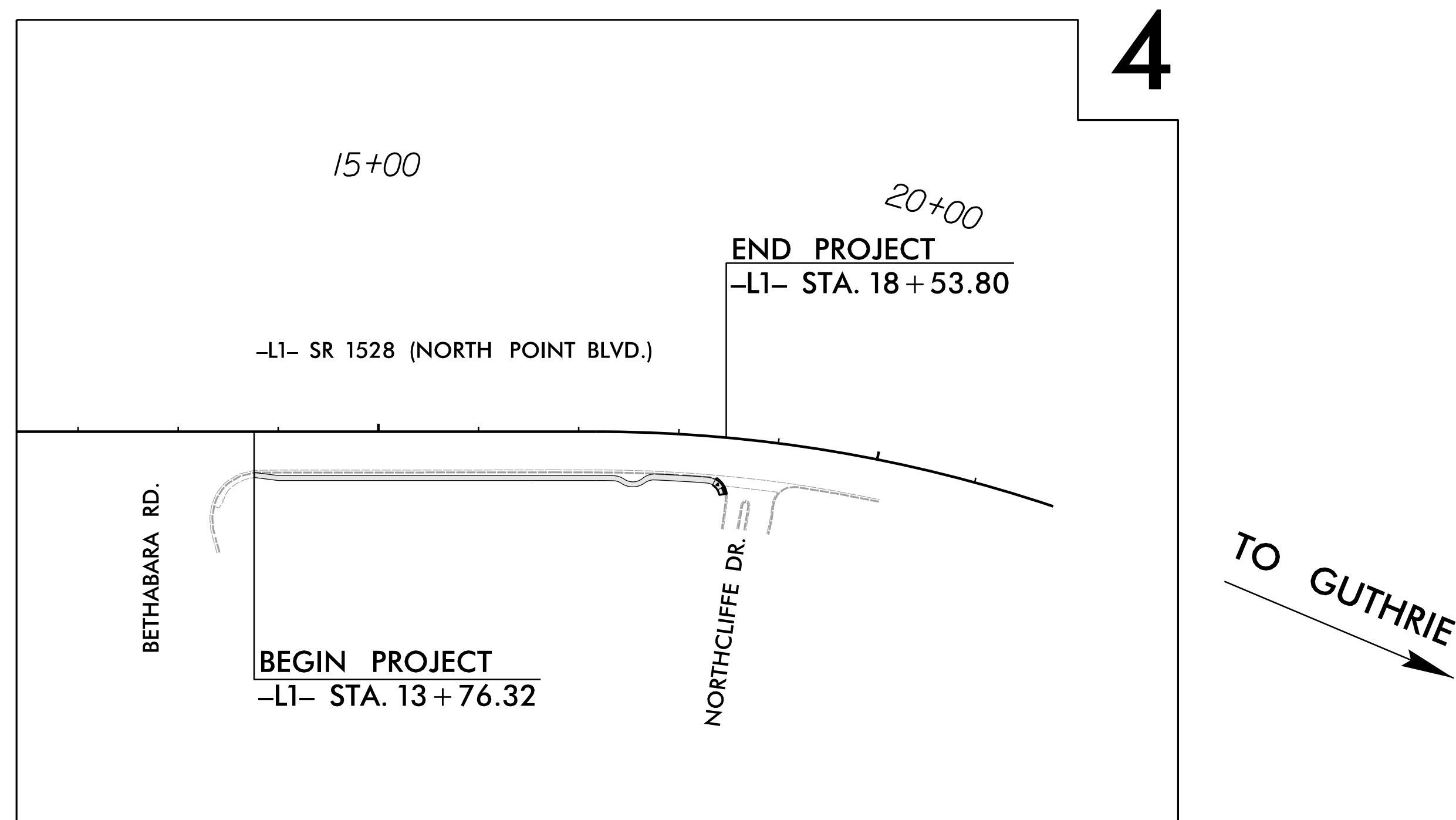
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-5789I	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
44919.1.10	0918133	PE	
44919.3.10	0918133	CONST.	

DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED



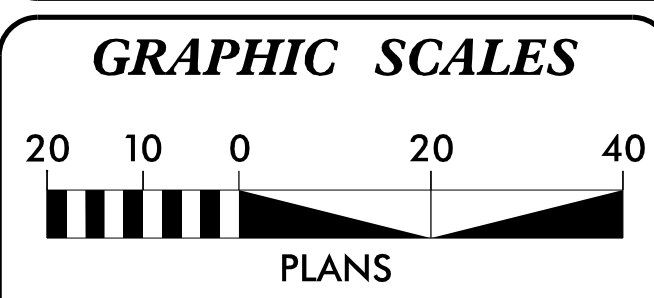
**TIP PROJECT: R-5789I**

**CONTRACT: DI00336**



**SITE 1 PLANS**

CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II SHOWN ON RSD 200.02



**DESIGN DATA**

ADT 2023 =	27,000
ADT 2043 =	36,000
V =	50 MPH

**PROJECT LENGTH**

LENGTH ROADWAY PROJECT =	0.090 MILES
--------------------------	-------------

**NCDOT CONTACT:** W. JEFF TURNER  
DIVISION PROPOSALS ENGINEER  
PH: 336-747-7800

Prepared in the Office of:  
Infrastructure Consulting Services, Inc.

**RKA**  
RAMEY KEMP ASSOCIATES  
5808 Farrington Place Raleigh, North Carolina 27609  
Phone: 919-872-5115 | www.rameykemp.com | NC License No. P-1489

2018 STANDARD SPECIFICATIONS

**RIGHT OF WAY DATE:** SEPTEMBER 27, 2023  
**LETTING DATE:**

MICHAEL P. DIOQUINO, PE  
PROJECT ENGINEER

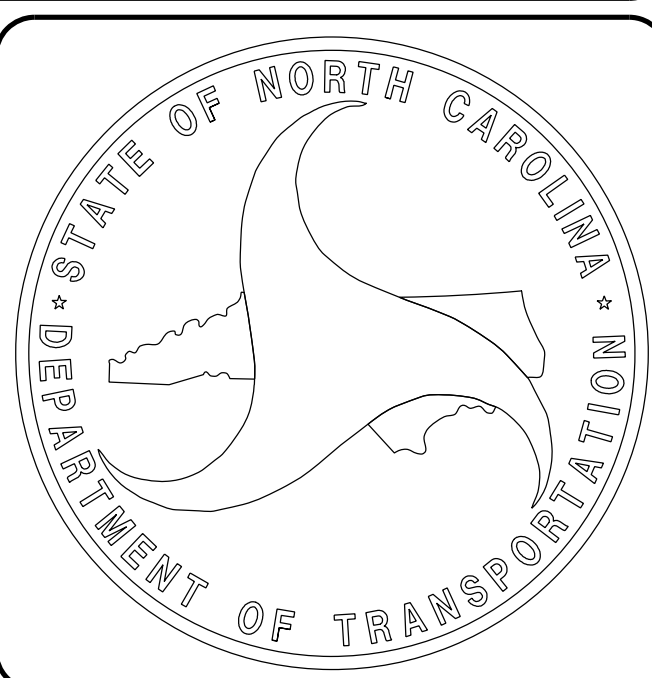
MIKAYLA M. LINDSEY, EI  
PROJECT DESIGNER

**HYDRAULICS ENGINEER**

MICHAEL D. BYWALETZ, PE  
SIGNATURE:

**ROADWAY DESIGN ENGINEER**

MICHAEL P. DIOQUINO, PE  
SIGNATURE:





PROJECT REFERENCE NO. <b>R-57891</b>	SHEET NO. <b>1A</b>
ROADWAY DESIGN ENGINEER 	
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	

# INDEX OF SHEETS, GENERAL NOTES AND 2018 ROADWAY ENGLISH STANDARD DRAWINGS

## INDEX OF SHEETS

1	TITLE SHEET
1A	INDEX OF SHEETS, GENERAL NOTES, & STANDARD DRAWINGS
1B	CONVENTIONAL SYMBOLS
2A-1	TYPICAL SECTIONS
2C-1	CURB RAMP DETAILS
3B-1	ROADWAY SUMMARY SHEET
4	PLAN SHEET
TMP-1A THRU TMP-2	TRAFFIC MANAGEMENT PLANS
EC-1 THRU EC-4	EROSION CONTROL PLANS
X-1	CROSS SECTION SHEETS

## GENERAL NOTES

**CLEARING:**  
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II.

**UTILITIES:**  
UTILITY OWNERS ON THIS PROJECT ARE NCDOT, CITY OF WINSTON-SALEM, DUKE ENERGY, MCI, SPIRIT, AND SPRINT.

**CURB RAMPS:**  
CURB RAMPS ARE SHOWN ON THE PLANS AT APPROXIMATE LOCATIONS. CONSTRUCT ALL CURB RAMPS IN ACCORDANCE WITH STD. 848.05 AND/OR 848.06 OR RAMP TYPE SHOWN ON PLANS.

## 2018 SPECIFICATIONS

EFF. 01-16-2018

## 2018 ROADWAY ENGLISH STANDARD DRAWINGS

EFF. 01-16-2018

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" HIGHWAY DESIGN BRANCH - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY, 2018 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HERBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
DIVISION 2 - EARTHWORK	
200.02	METHOD OF CLEARING - METHOD II
DIVISION 8 - INCIDENTALS	
846.01	CONCRETE CURB, GUTTER, AND CURB & GUTTER
848.01	CONCRETE SIDEWALK
848.06	CURB RAMP - EXISTING CURB & GUTTER

# STATE OF NORTH CAROLINA, DIVISION OF HIGHWAYS CONVENTIONAL PLAN SHEET SYMBOLS

Infrastructure Consulting Services, Inc.  
  
**RAMEY KEMP ASSOCIATES**  
 5808 Faringdon Place  
 Raleigh, North Carolina 27609  
 Phone: 919-872-5115  
 NC License No. F-1489  
 www.rameykemp.com

PROJECT REFERENCE NO.	SHEET NO.
R-57891	1B

Note: Not to Scale

### BOUNDARIES AND PROPERTY:

State Line	-----
County Line	-----
Township Line	-----
City Line	-----
Reservation Line	-----
Property Line	-----
Existing Iron Pin (EIP)	○
Computed Property Corner	×
Existing Concrete 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	-S-S-
Potential Contamination Area: Soil	-S-S-
Known Contamination Area: Water	-W-W-
Potential Contamination Area: Water	-W-W-
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 & PROJECT CONTROL:

Primary Horiz Control Point	○
Primary Horiz and Vert Control Point	●
Secondary Horiz and Vert Control Point	◆
Vertical Benchmark	⊕
Existing Right of Way Monument	△
Proposed Right of Way Monument (Rebar and Cap)	▲
Proposed Right of Way Monument (Concrete)	⊕
Existing Permanent Easement Monument	◇
Proposed Permanent Easement Monument (Rebar and Cap)	◆
Existing C/A Monument	△
Proposed C/A Monument (Rebar and Cap)	▲
Proposed C/A Monument (Concrete)	⊕
Existing Right of Way Line	-----
Proposed Right of Way Line	-----
Existing Control of Access Line	-----
Proposed Control of Access Line	-----
Proposed ROW and CA Line	-----
Existing Easement Line	-----
Proposed Temporary Construction Easement	-----
Proposed Temporary Drainage Easement	-----
Proposed Permanent Drainage Easement	-----
Proposed Permanent Drainage/Utility Easement	-----
Proposed Permanent Utility Easement	-----
Proposed Temporary Utility Easement	-----
Proposed Aerial Utility Easement	-----

### ROADS AND RELATED FEATURES:

Existing Edge of Pavement	-----
Existing Curb	-----
Proposed Slope Stakes Cut	-----
Proposed Slope Stakes Fill	-----
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:

\* SUE - Subsurface Utility Engineering  
 LOS - Level of Service - A,B,C or D (Accuracy)

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 Test Hole (SUE - LOS A)*	⊕
U/G Power Line (SUE - LOS B)*	-----
U/G Power Line (SUE - LOS C)*	-----
U/G Power Line (SUE - LOS D)*	-----
TELEPHONE:	
Existing Telephone Pole	●
Proposed Telephone Pole	○
Telephone Manhole	⊕
Telephone Pedestal	⊕
Telephone Cell Tower	⊕
U/G Telephone Cable Hand Hole	⊕
U/G Telephone Test Hole (SUE - LOS A)*	⊕
U/G Telephone Cable (SUE - LOS B)*	-----
U/G Telephone Cable (SUE - LOS C)*	-----
U/G Telephone Cable (SUE - LOS D)*	-----
U/G Telephone Conduit (SUE - LOS B)*	-----
U/G Telephone Conduit (SUE - LOS C)*	-----
U/G Telephone Conduit (SUE - LOS D)*	-----
U/G Fiber Optics Cable (SUE - LOS B)*	-----
U/G Fiber Optics Cable (SUE - LOS C)*	-----
U/G Fiber Optics Cable (SUE - LOS D)*	-----

### WATER:

Water Manhole	⊕
Water Meter	○
Water Valve	⊕
Water Hydrant	⊕
U/G Water Line Test Hole (SUE - LOS A)*	⊕
U/G Water Line (SUE - LOS B)*	-----
U/G Water Line (SUE - LOS C)*	-----
U/G Water Line (SUE - LOS D)*	-----
Above Ground Water Line	-----

### TV:

TV Pedestal	⊕
TV Tower	⊕
U/G TV Cable Hand Hole	⊕
U/G TV Test Hole (SUE - LOS A)*	⊕
U/G TV Cable (SUE - LOS B)*	-----
U/G TV Cable (SUE - LOS C)*	-----
U/G TV Cable (SUE - LOS D)*	-----
U/G Fiber Optic Cable (SUE - LOS B)*	-----
U/G Fiber Optic Cable (SUE - LOS C)*	-----
U/G Fiber Optic Cable (SUE - LOS D)*	-----

### GAS:

Gas Valve	◇
Gas Meter	⊕
U/G Gas Line Test Hole (SUE - LOS A)*	⊕
U/G Gas Line (SUE - LOS B)*	-----
U/G Gas Line (SUE - LOS C)*	-----
U/G Gas Line (SUE - LOS D)*	-----
Above Ground Gas Line	-----

### SANITARY SEWER:

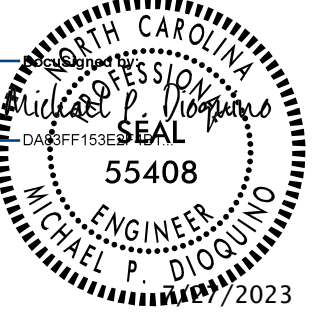
Sanitary Sewer Manhole	⊕
Sanitary Sewer Cleanout	⊕
U/G Sanitary Sewer Line	-----
Above Ground Sanitary Sewer	-----
SS Force Main Line Test Hole (SUE - LOS A)*	⊕
SS Force Main Line (SUE - LOS B)*	-----
SS Force Main Line (SUE - LOS C)*	-----
SS Force Main Line (SUE - LOS D)*	-----

### MISCELLANEOUS:

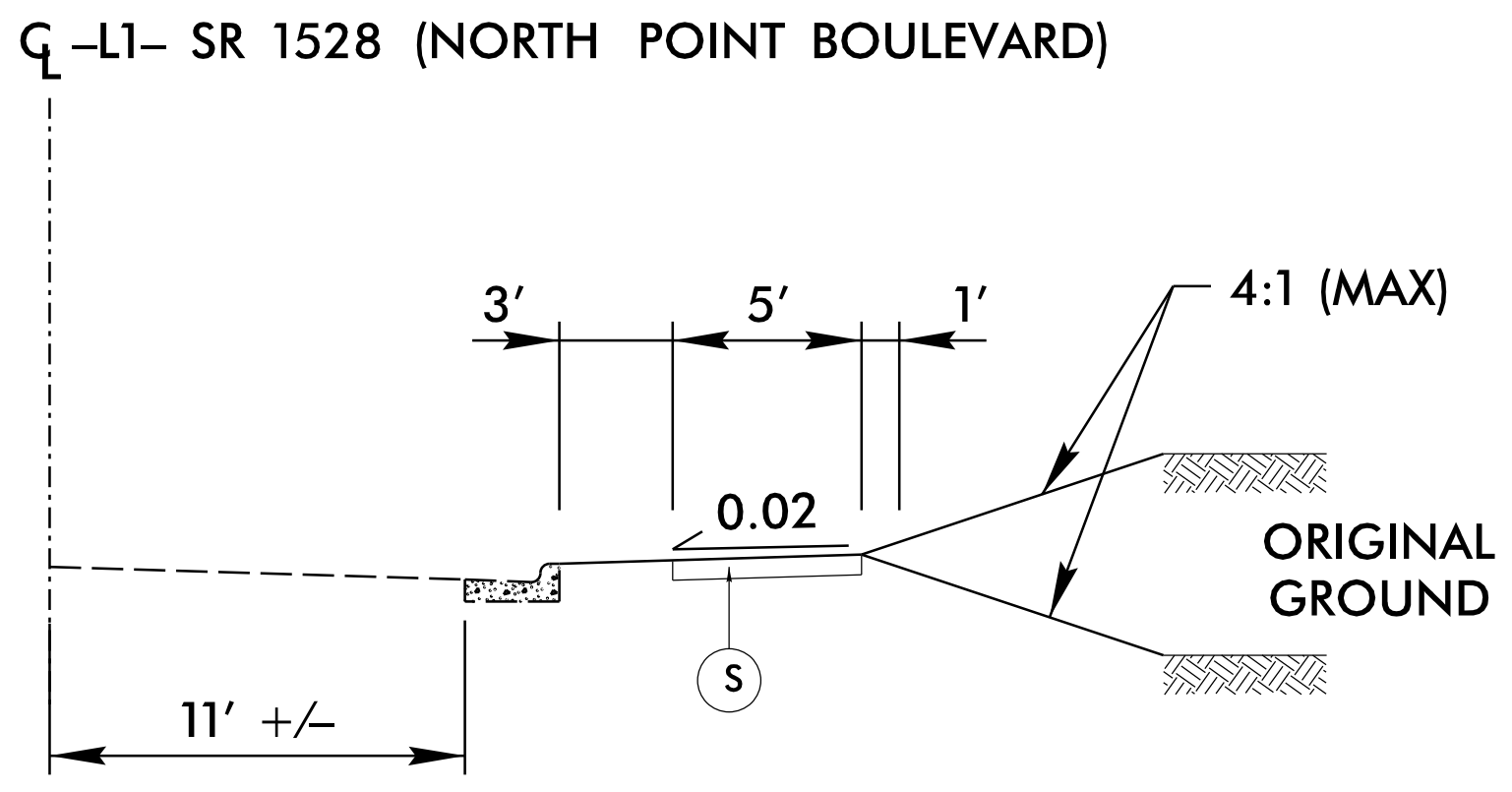
Utility Pole	●
Utility Pole with Base	□
Utility Located Object	○
Utility Traffic Signal Box	⊕
Utility Unknown U/G Line (SUE - LOS B)*	-----
U/G Tank; Water, Gas, Oil	□
Underground Storage Tank, Approx. Loc.	⊕
A/G Tank; Water, Gas, Oil	□
Geoenvironmental Boring	⊕
Abandoned According to Utility Records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

PAVEMENT SCHEDULE	
S	4" CONCRETE SIDEWALK.

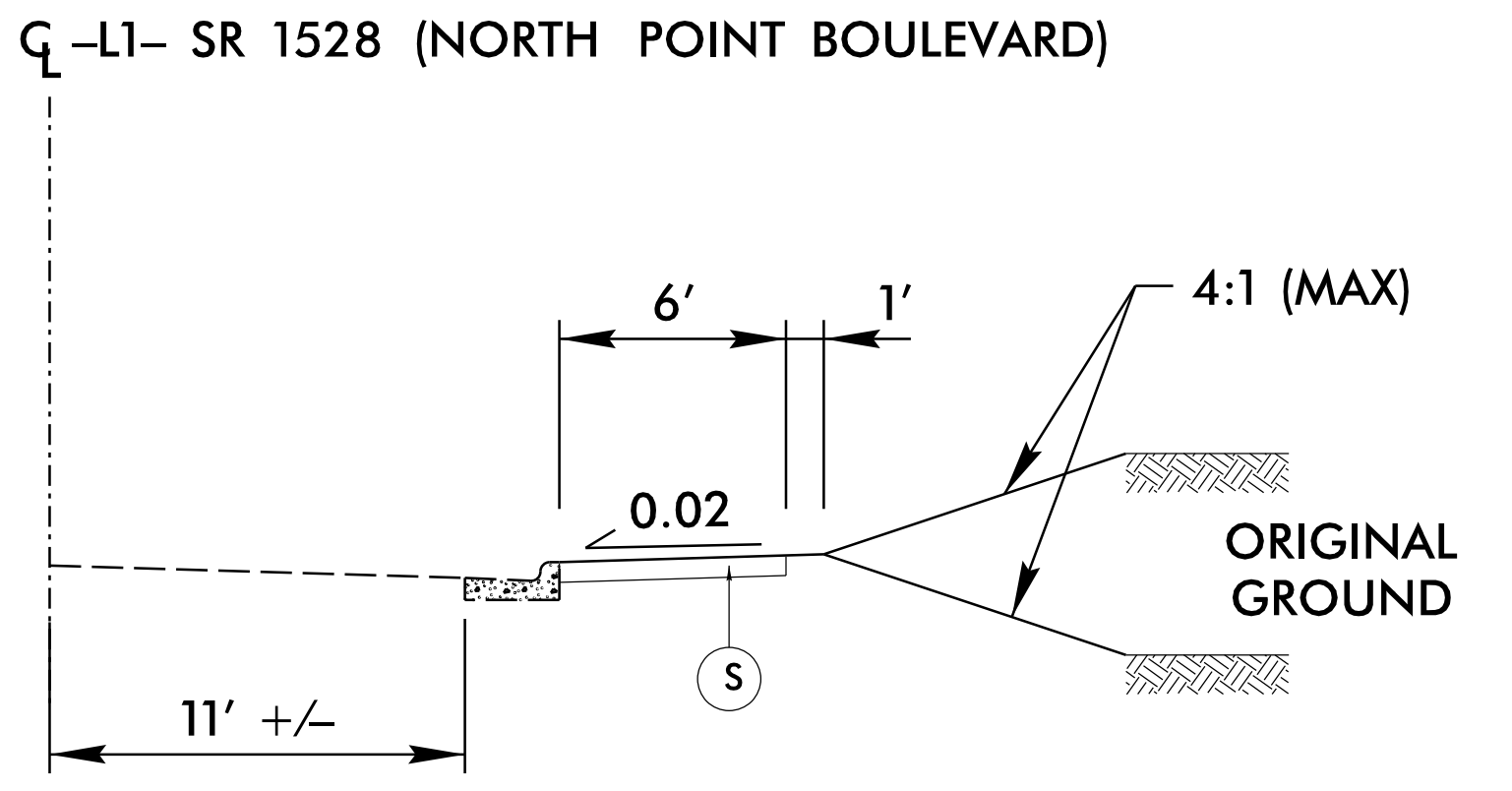
Infrastructure Consulting Services, Inc.  
**RKA**  
**RAMEY KEMP ASSOCIATES**  
 5808 Faringdon Place Raleigh, North Carolina 27609 Phone: 919-872-5115  
 NC License No. F-1489 www.rameykemp.com

PROJECT REFERENCE NO. <b>R-57891</b>	SHEET NO. <b>2A-1</b>
ROADWAY DESIGN ENGINEER 	

**DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED**

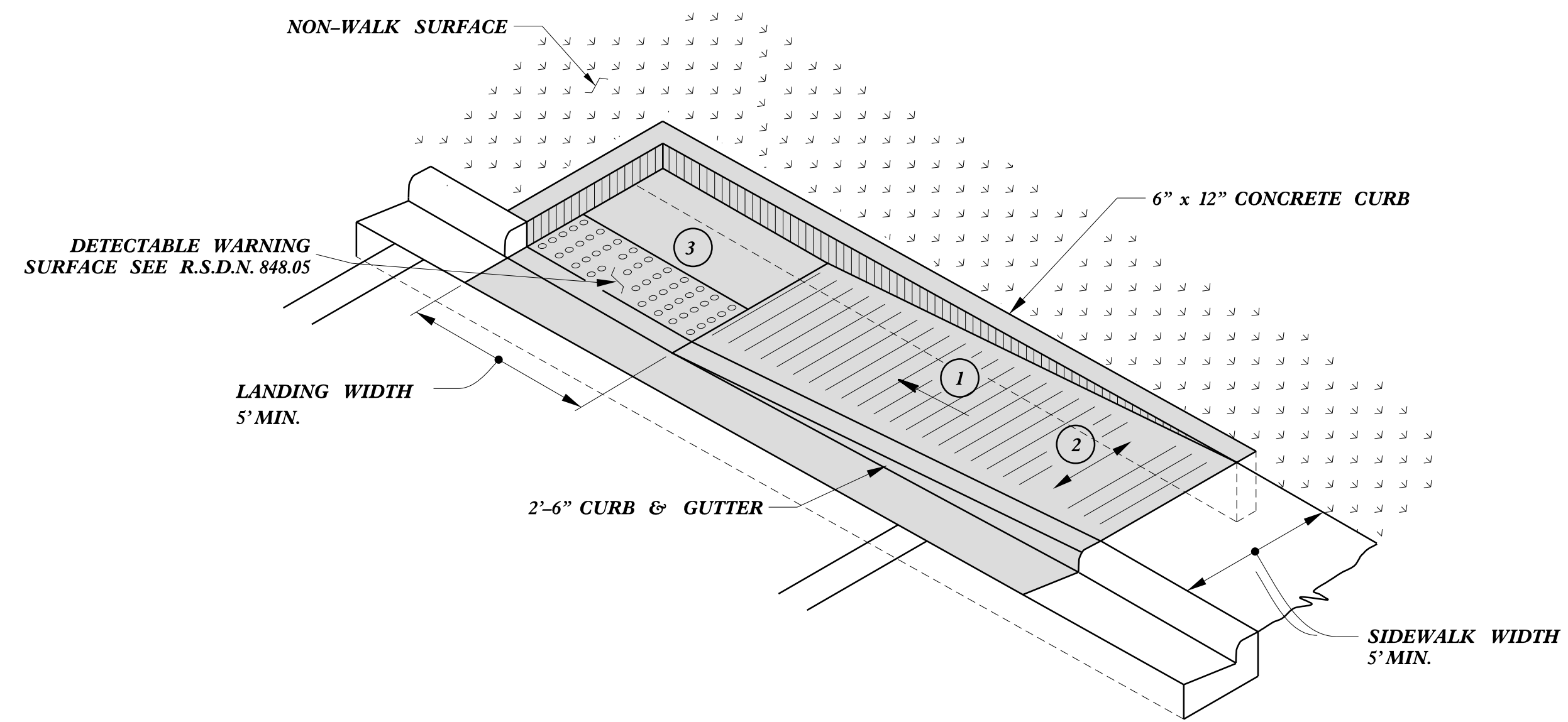


**TYPICAL SECTION 1**  
 -L1- STA. 13 + 76.32 TO -L1- STA. 17 + 78.92




**TYPICAL SECTION 2**  
 -L1- STA. 17 + 78.92 TO -L1- STA. 18 + 53.80

**DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED**



### TYPE 1A

- ① 8.33% (12:1) MAX RAMP SLOPE
- ② CROSS SLOPE: 2.00%
- ③ CURB RAMPS REQUIRE A (4'-0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SLOPE TO DRAIN TO CURB.

 PAY LIMITS FOR 1 CURB RAMP

REFER TO ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES

COMPUTED BY:	MML	DATE:	5/2/2023
CHECKED BY:	MPD	DATE:	5/2/2023

## STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

PROJECT NO. R-57891	SHEET NO. 3B-1
 <b>RKA</b> RAMEY KEMP ASSOCIATES <small>2858 Farrington Place Raleigh, North Carolina 27609 Phone: 919-872-4115</small>	

### SUMMARY OF EARTHWORK

LINE	Station	Station	Uncl. Excav.	Embank.	Borrow	Waste
-L1-	13+50.00	18+50.00	34	4	0	30
<b>TOTAL</b>			34	4	0	30
<b>ADJUSTMENTS DUE TO</b>						
Est. Loss Due To Clearing And Grubbing			0			0
Rock Waste To Replace Borrow						
Adjust For Rock Swell That Replaces Borrow						
Eliminate Shrinkage For Matl That Is Now Rock						
Earth Waste to Replace Borrow					0	0
<b>PROJECT TOTAL</b>			34	4	0	30
Est. 5% to Replace Topsoil in Borrow Pits					0	
<b>GRAND TOTAL</b>			34		0	
<b>SAY</b>			100		0	
Est. Shoulder Borrow			0			
Est. Drainage Ditch Excav.			0			
Select Granular Material			0			
Geotextile For Soil Stab.			0			
Estimate Undercut			0			
Estimate Shallow Undercut			0			
Class IV Subgrade Stab.			0			

**Approximate quantities only. Unclassified excavation, shoulder borrow, fine grading, clearing and grubbing, breaking of existing pavement, and removal of existing pavement will be paid for at the lump sum price for "Grading".**

8/17/99

Infrastructure Consulting Services, Inc.  
**RKA**  
**RAMEY KEMP ASSOCIATES**  
 5808 Faringdon Place Raleigh, North Carolina 27609 Phone: 919-872-5115  
 NC License No. F-1489 www.rameykemp.com

PROJECT REFERENCE NO. <b>R-57891</b>	SHEET NO. <b>4</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER 	HYDRAULICS ENGINEER 
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	



15+00

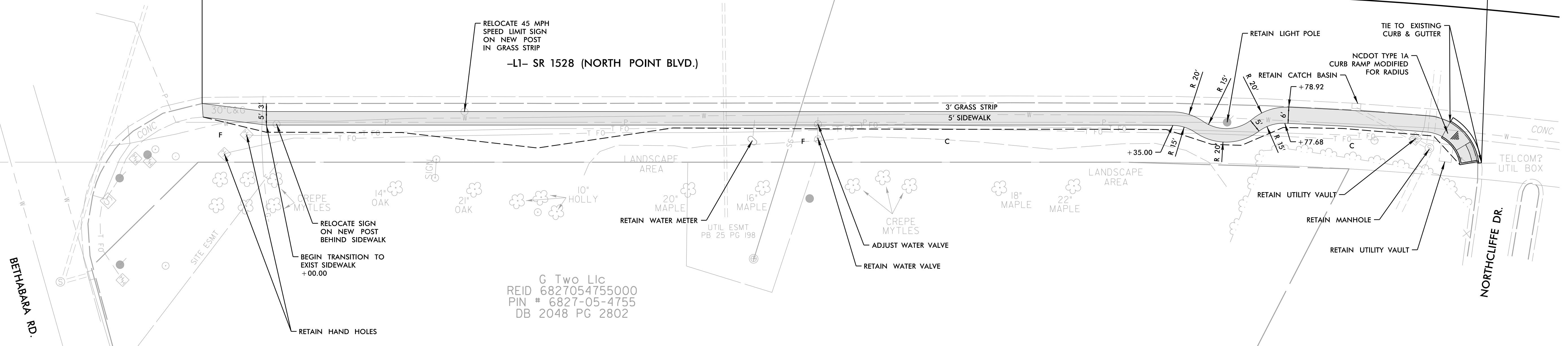
-LJ- PC Sta. 17+17.29

**BEGIN PROJECT**  
-L1- STA. 13+76.32

**END PROJECT**  
-L1- STA. 18+53.80

N 46°04'29.8" E

RELOCATE 45 MPH  
SPEED LIMIT SIGN  
ON NEW POST  
IN GRASS STRIP  
-L1- SR 1528 (NORTH POINT BLVD.)



G Two Lic  
 REID 6827054755000  
 PIN # 6827-05-4755  
 DB 2048 PG 2802

-LJ-  
 PI Sta 19+51.67  
 $\Delta = 18' 33' 42.8" (RT)$   
 $D = 3' 59' 40.8"$   
 $L = 464.67'$   
 $T = 234.39'$   
 $R = 1,434.31'$

REVISIONS

7/26/2023  
 I:\Projects\7891\rdj\PSH4\_Site 1.dgn  
 User: matoquin

# 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 UNDESIRE 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
NORTH POINT BOULEVARD	MONDAY THRU FRIDAY 6AM-9AM AND 4PM-6PM

B) DO NOT CLOSE OR NARROW TRAVEL LANES DURING HOLIDAYS AND SPECIAL EVENTS AS FOLLOWS:

ROAD NAME
NORTH POINT BOULEVARD

### HOLIDAY

- FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
- FOR NEW YEAR'S, BETWEEN THE HOURS OF 6:00 P.M. DECEMBER 31st TO 6:00 A.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 6:00 P.M. THE FOLLOWING TUESDAY.
- FOR EASTER, BETWEEN THE HOURS OF 6:00 P.M. THURSDAY AND 6:00 A.M. MONDAY.
- FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00 P.M. FRIDAY TO 6:00 A.M. TUESDAY.
- FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:00 P.M. THE DAY BEFORE INDEPENDENCE DAY AND 6:00 A.M. THE DAY AFTER INDEPENDENCE DAY.  
  
IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY THEN BETWEEN THE HOURS OF 6:00 P.M. THE THURSDAY BEFORE INDEPENDENCE DAY AND 6:00 A.M. THE TUESDAY AFTER INDEPENDENCE DAY.
- FOR LABOR DAY, BETWEEN THE HOURS OF 6:00 P.M. FRIDAY AND 6:00 A.M. TUESDAY.
- FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 6:00 P.M. TUESDAY TO 6:00 A.M. MONDAY.
- FOR CHRISTMAS, BETWEEN THE HOURS OF 6:00 P.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 6:00 A.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.

C) 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 ENGINEER.

## LANE AND SHOULDER CLOSURE REQUIREMENTS

- 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.
- 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.
- 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.
- 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.
- 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.
- DO NOT INSTALL MORE THAN ONE LANE CLOSURE IN ANY ONE DIRECTION ON NORTH POINT BOULEVARD.

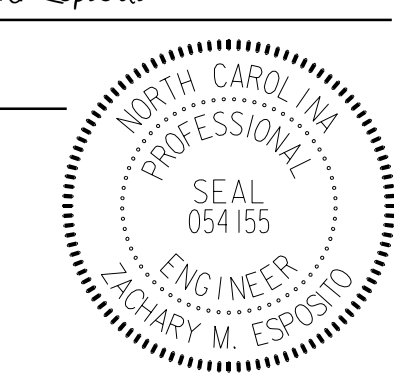
## PAVEMENT EDGE DROP OFF REQUIREMENTS

- BACKFILL AT A 6:1 SLOPE UP TO THE EDGE AND ELEVATION OF EXISTING PAVEMENT IN AREAS ADJACENT TO AN OPENED TRAVEL LANE THAT HAS AN EDGE OF PAVEMENT DROP-OFF AS FOLLOWS:  
  
BACKFILL DROP-OFFS THAT EXCEED 2 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS OF 45 MPH OR GREATER.  
  
BACKFILL DROP-OFFS THAT EXCEED 3 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS LESS THAN 45 MPH.  
  
BACKFILL WITH SUITABLE COMPACTED MATERIAL, AS APPROVED BY THE ENGINEER, AT NO EXPENSE TO THE DEPARTMENT.
- DO NOT EXCEED A DIFFERENCE OF 2 INCHES IN ELEVATION BETWEEN OPEN LANES OF TRAFFIC FOR NOMINAL LIFTS OF 1.5 INCHES. INSTALL ADVANCE WARNING "UNEVEN LANES" SIGNS (W8-11) 350 FT IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

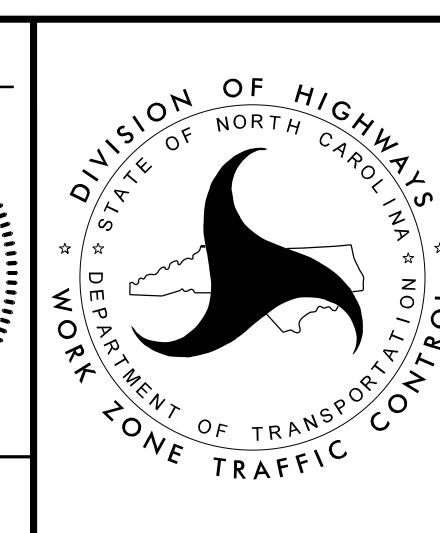
PROJ. REFERENCE NO.	SHEET NO.
R-5789I	TMP-1A
Infrastructure Consulting Services, Inc.	
 <b>RKA</b> <b>RAMEY KEMP ASSOCIATES</b> <small>5808 Fairington Place Raleigh, North Carolina 27609 Phone: 919-872-8115</small>	
<small>NC License No. F-1489 www.rameykemp.com</small>	

APPROVED: *Zachary M. Esposito*  
3590F-130903E4EB  
 DATE: 7/27/2023

SEAL



**DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED**



GENERAL NOTES



# GENERAL NOTES

**TRAFFIC PATTERN ALTERATIONS**

L) NOTIFY THE ENGINEER THIRTY (30) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

**SIGNING**

- M) INSTALL ADVANCE WORK ZONE WARNING SIGNS WHEN WORK IS WITHIN 40 FT FROM THE EDGE OF TRAVEL LANE AND NO MORE THAN THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.
- N) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.
- O) INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) AND/OR "BUMP" SIGNS (W8-1) 350 FT IN ADVANCE OF THE UNEVEN AREA, OR AS DIRECTED BY THE ENGINEER.

**PAVEMENT MARKINGS AND MARKERS**

- P) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- Q) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.


**MISCELLANEOUS**

- R) ALL CURB RAMP LOCATIONS SHALL BE DERIVED FROM STATIONING SHOWN ON PAVEMENT MARKING PLANS OR AS DIRECTED BY THE ENGINEER IN COORDINATION WITH THE SIGNING AND DELINEATION UNIT.
- S) CONTRACTOR SHALL MAINTAIN SIDEWALK ACCESS AT ALL TIMES AS STATED IN THE PHASING. CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE TEMPORARY SIDEWALKS (CONCRETE, ASPHALT, OR OTHER SUITABLE MATERIAL AS APPROVED BY THE ENGINEER) AT ALL LOCATIONS WHERE THE OPEN PEDESTRIAN TRAVELWAY HAS BEEN REMOVED FOR CONSTRUCTION OPERATIONS (UTILITIES, DRAINAGE, ETC.).

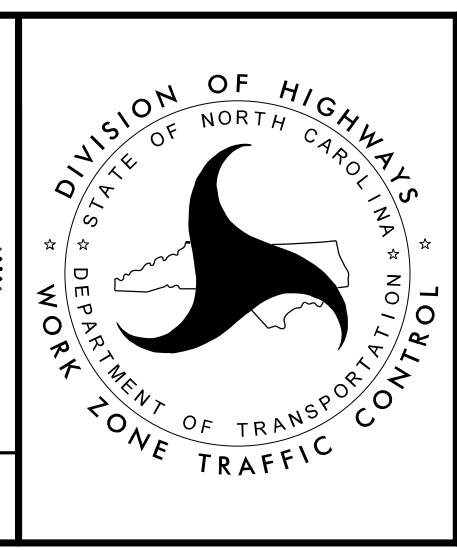
APPROVED: *Zachary M. Esposito*  
3550F1309D3E4EB

DATE: 7/27/2023

SEAL



**DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED**



GENERAL NOTES

# ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2018 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD.NO.	TITLE
1101.01	WORK ZONE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.02	PORTABLE WORK ZONE SIGNS
1115.01	FLASHING ARROW BOARDS
1130.01	DRUMS
1150.01	FLAGGING DEVICES
1180.01	SKINNY - DRUMS
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO LANE AND MULTILANE ROADWAYS
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.07	PAVEMENT MARKINGS - PEDESTRIAN CROSSWALKS

# TRANSPORTATION MANAGEMENT STRATEGIES

BEFORE BEGINNING ANY CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL INSTALL ALL ADVANCE WARNING SIGNS AND TRAFFIC CONTROL DEVICES (RSD 1101.01). FIELD VERIFY LOCATIONS WITH THE ENGINEER PRIOR TO INSTALLATION.

MAINTAIN VEHICULAR ACCESS TO ALL RESIDENCES, SCHOOLS, BUS STOPS, EMERGENCY SERVICES, AND BUSINESSES DURING THE LIFE OF THE CONTRACT, PRIOR TO INCORPORATION, OBTAIN WRITTEN APPROVAL FROM THE ENGINEER ON METHOD TO MAINTAIN ACCESS.

COMPLETE ANY PROPOSED OR TEMPORARY WIDENING IN SUCH A MANNER THAT NO PONDING OF WATER WILL OCCUR WITHIN THE TRAVEL LANE.

WHEN USING LANE CLOSURES (RSD 1101.02), RETURN TRAFFIC TO EXISTING AND/OR TEMPORARY TRAFFIC PATTERN UPON ACTIVITIES COMPLETION, UNLESS OTHERWISE NOTED IN THE PHASING PLANS.

WHEN PHASING STATES TO USE LANE CLOSURES, REFER TO THE FOLLOWING FOR ALL EXISTING AND PROPOSED ROADS:

-ALL MULTI-LANE FACILITIES POSTED < 60 MPH SEE RSD 1101.02 SHEET 3 OF 14

COMPLETE PAVING UP TO, BUT NOT INCLUDING, THE FINAL LAYER OF SURFACE COURSE UNTIL STATED TO PLACE FINAL LAYER IN THE PHASING PLANS.

REPLACE MARKINGS AND RETURN TRAFFIC TO THE CURRENT TRAFFIC PATTERN AT THE END OF EACH WORK PERIOD UNLESS OTHERWISE NOTED IN THE PHASING OR DIRECTED BY THE ENGINEER.

**TRAFFIC CONTROL NOTE:**  
FOR THE DURATION OF CONSTRUCTION, ENSURE ALL DRIVEWAY ACCESS IS MAINTAINED.

# PHASING PLAN

## PHASE I

**STEP 1:**  
INSTALL WORK ZONE ADVANCE WARNING SIGNS (RSD 1101.01).

USING LANE CLOSURES AS NEEDED, SHIFT TRAFFIC TO THE PHASE I TRAFFIC PATTERN. PHASE I TRAFFIC PATTERN ENTAILS CLOSING THE NORTHBOUND OUTERMOST THROUGH LANE ALONG NORTH POINT BOULEVARD FROM BETHABARA ROAD TO NORTHCLIFFE DRIVE. USING RSD 1101.02 SHEET 3 OF 14, NORTHBOUND NORTH POINT BOULEVARD WILL BE REDUCED DOWN TO ONE THROUGH LANE FOR THE DURATION OF THIS PHASE. NORTHBOUND RIGHT TURN LANE AT THE INTERSECTION OF NORTH POINT BOULEVARD AND BETHABARA ROAD WILL REMAIN OPEN AND UNAFFECTED BY LANE CLOSURE FOR THE DURATION OF THIS PHASE.

ONCE SHIFTED INTO PHASE I TRAFFIC PATTERN, COMPLETE CURB RAMP AND SIDEWALK IMPROVEMENTS ALONG NORTH POINT BOULEVARD.

**NOTE:**  
CONTRACTOR SHALL ENSURE ALL PEDESTRIAN ACCESS WILL BE MAINTAINED THROUGHOUT THIS PHASE.

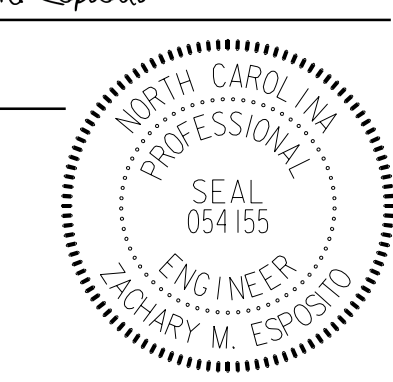

## PHASE II

**STEP 1:**  
MAINTAIN NECESSARY WORK ZONE ADVANCE WARNING SIGNS (RSD 1101.01).

AWAY FROM TRAFFIC, USING LANE CLOSURES AS NEEDED, COMPLETE ANY REMAINING ROADWAY IMPROVEMENTS AND INSTALL FINAL PAVEMENT MARKINGS AND MARKERS.

REMOVE ALL REMAINING TRAFFIC CONTROL DEVICES AND ALLOW NORMAL TRAFFIC OPERATION.

PROJ. REFERENCE NO. R - 5789I	SHEET NO. TMP-2
Infrastructure Consulting Services, Inc.	
 <b>RKA</b> <b>RAMEY KEMP ASSOCIATES</b>	
<small>5808 Fairington Place Raleigh, North Carolina 27609 Phone: 919-872-8115</small>	
<small>NC License No. F-1489 www.rameykemp.com</small>	

<p>APPROVED: <i>Zachary M. Esposito</i> DATE: 7/27/2023</p> <p style="text-align: center;">SEAL</p> <p style="text-align: center;">  </p>		<h2>TRANSPORTATION MANAGEMENT STRATEGIES AND PHASING PLAN</h2>
<p><b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b></p>		

09/20/2019

**TIP PROJECT: R-57891**

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

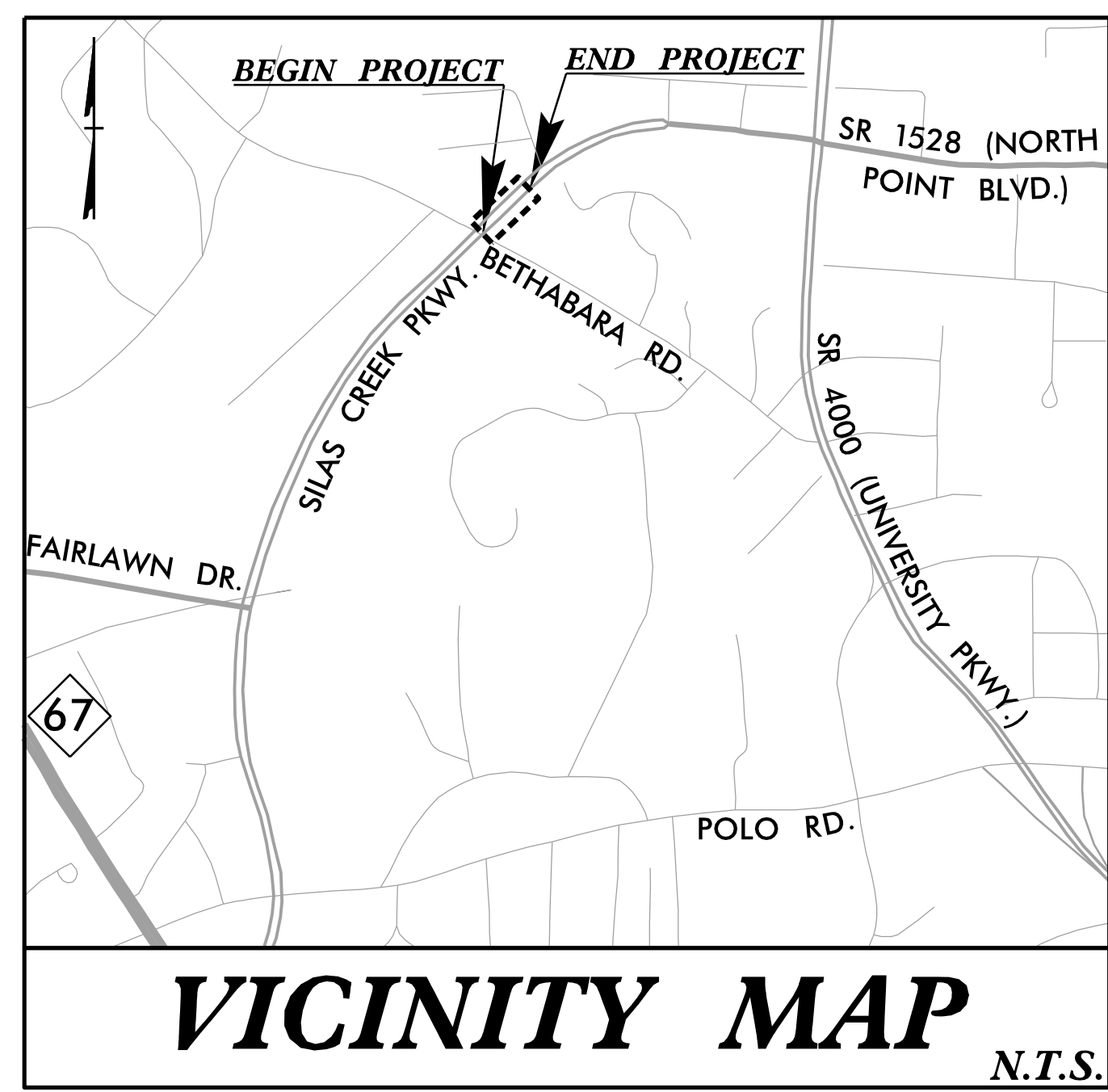
**PLAN FOR PROPOSED  
HIGHWAY EROSION CONTROL**

**FORSYTH COUNTY**

**LOCATION:** SR 1528 (NORTH POINT BOULEVARD) FROM  
BETHABARA ROAD TO SR 4000 (UNIVERSITY PKWY)

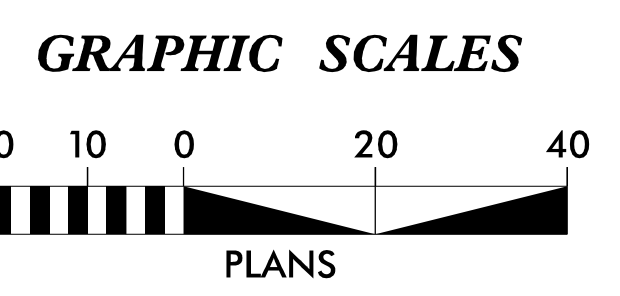
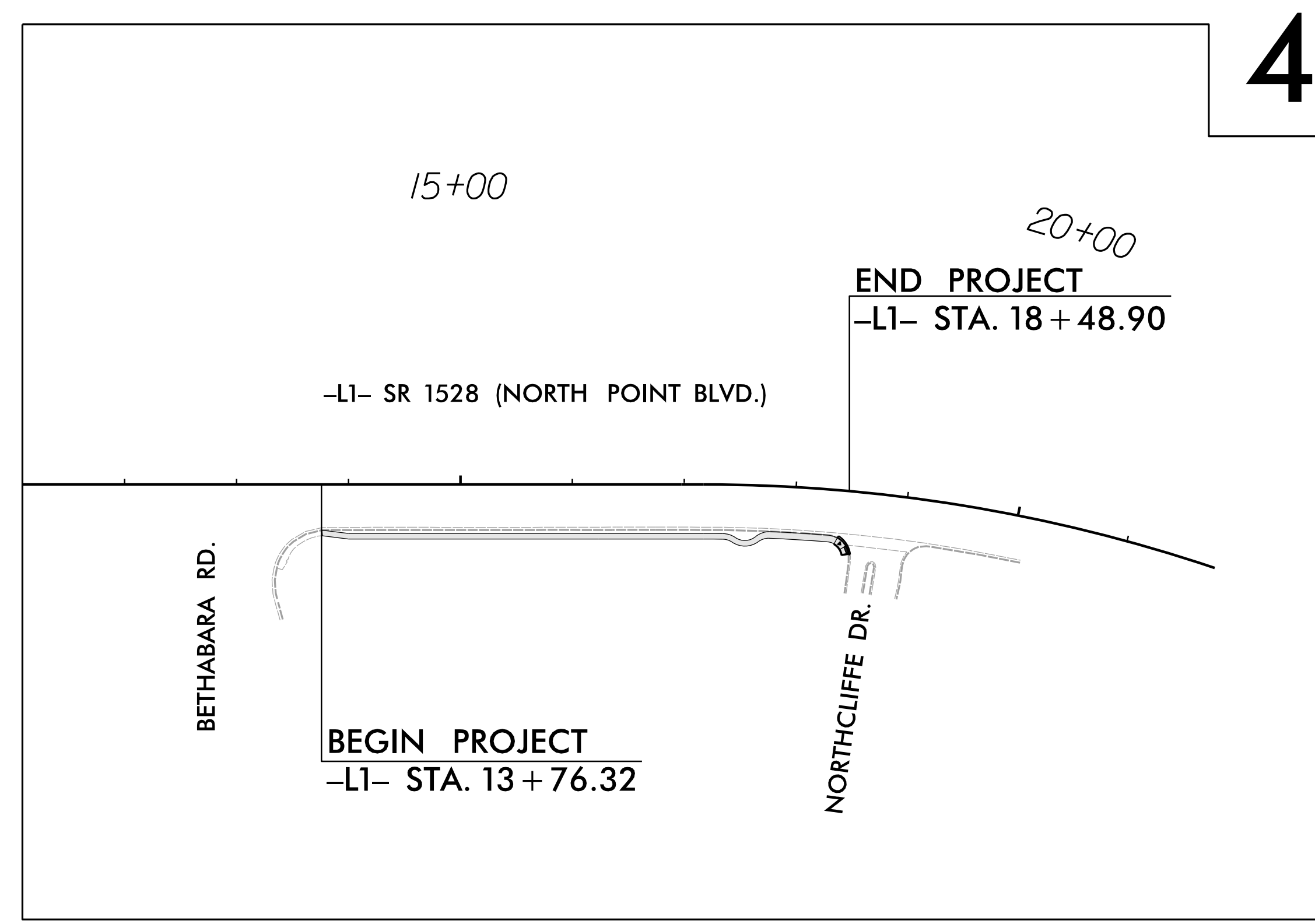
**TYPE OF WORK:** GRADING, SIDEWALK, & DRAINAGE

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-57891	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	



**EROSION AND SEDIMENT CONTROL MEASURES**

Std. #	Description	Symbol
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	
1622.01	Temporary Berms and Slope Drains	
1630.02	Silt Basin Type B	
1630.03	Temporary Silt Ditch	
1630.04	Stilling Basin	
1630.05	Temporary Diversion	
1630.06	Special Stilling Basin	
1632.01	Rock Inlet Sediment Trap Type A	
1632.02	Rock Inlet Sediment Trap Type B	
1632.03	Rock Inlet Sediment Trap Type C	
1633.01	Temporary Rock Silt Check Type-A	
	Temporary Rock Silt Check Type-A with Matting & Polyacrylamide (PAM)	
1633.02	Temporary Rock Silt Check Type-B	
1634.01	Temporary Rock Sediment Dam Type-A	
1634.02	Temporary Rock Sediment Dam Type-B	
1635.01	Rock Pipe Inlet Sediment Trap Type-A	
1635.02	Rock Pipe Inlet Sediment Trap Type-B	
SP	Wattle / Coir Fiber Wattle	
SP	Wattle / Coir Fiber Wattle with Polyacrylamide (PAM)	
SP	Skimmer Basin	
SP	Tiered Skimmer Basin	
SP	Infiltration Basin	
SP	Tree Protection Fence	
	Limits of Disturbance	



**THESE EROSION & SEDIMENT CONTROL PLANS COMPLY WITH THE APPLICABLE REGULATIONS SET FORTH BY THE NCG-010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE APRIL 1, 2019 AND ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY DIVISION OF WATER RESOURCES.**

Prepared In the Office of:  
**Infrastructure Consulting Services, Inc.**  
dba  
**RKA**  
**RAMEY KEMP ASSOCIATES**  
5808 Faringdon Place Raleigh, North Carolina 27609  
Phone: 919-872-5115 | www.rameykemp.com | NC License No. F-1489

**ROADSIDE ENVIRONMENTAL UNIT**  
1 SOUTH WILMINGTON STREET, RALEIGH, NC 27611  
2018 STANDARD SPECIFICATIONS

Designed by:  
**MICHAEL D. BYWALETZ, PE** 4039  
NAME LEVEL III CERTIFICATION NO.

Roadway Standard Drawings

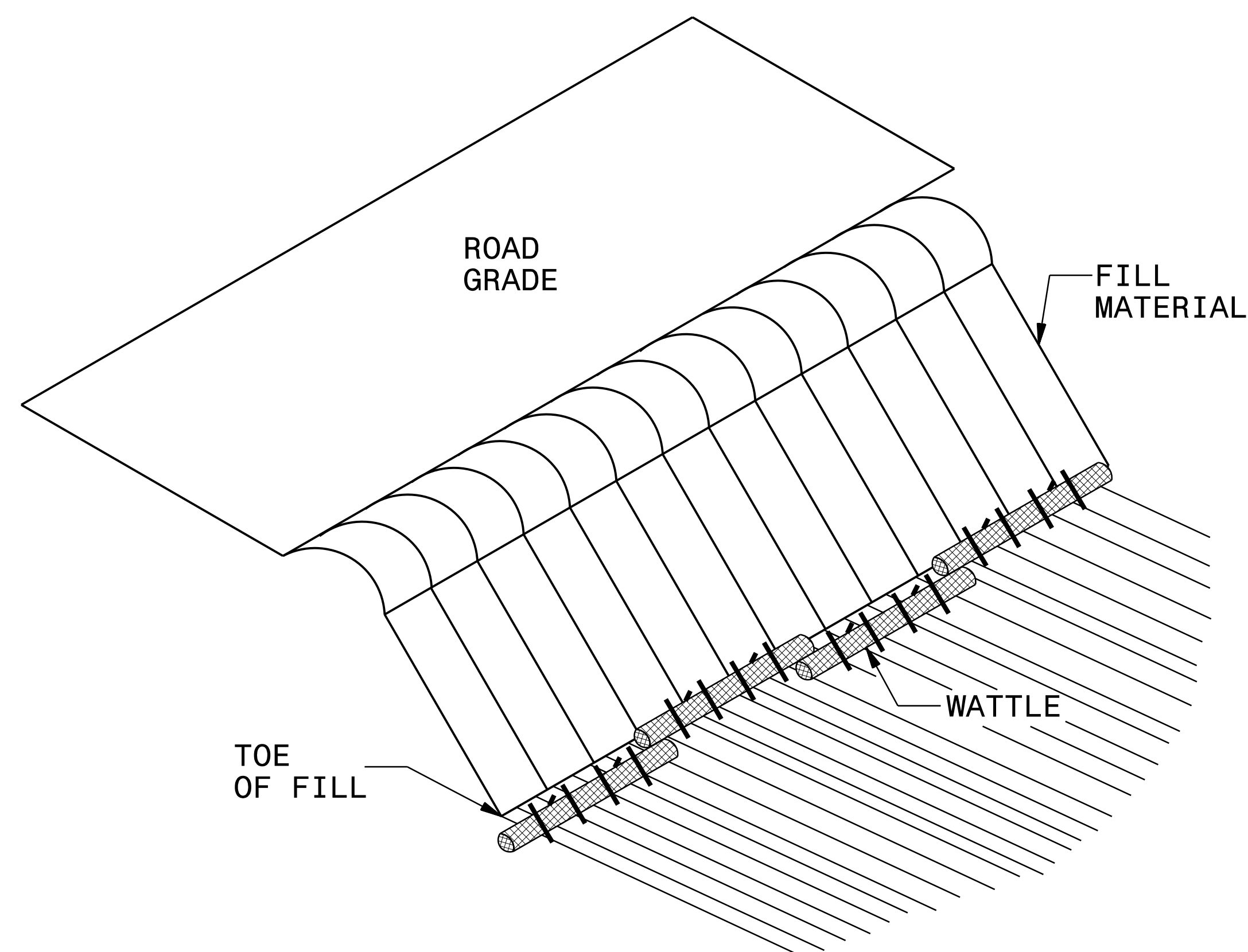
The following roadway english standards as appear in "Roadway Standard Drawings" - Roadway Design Unit - N.C. Department of Transportation - Raleigh, N.C., dated January 2018 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

1604.01	Railroad Erosion Control Detail	1632.01	Rock Inlet Sediment Trap Type A
1605.01	Temporary Silt Fence	1362.02	Rock Inlet Sediment Trap Type J
1606.01	Special Sediment Control Fence	1632.03	Rock Inlet Sediment Trap Type C
1607.01	Gravel Construction Entrance	1633.01	Temporary Rock Silt Check Type A
1622.01	Temporary Berms and Slope Drains	1633.02	Temporary Rock Silt Check Type J
1630.01	Riser Basin	1634.01	Temporary Rock Sediment Dam Type A
1630.02	Silt Basin Type J	1634.02	Temporary Rock Sediment Dam Type J
1630.03	Temporary Silt Ditch	1635.01	Rock Pipe Inlet Sediment Trap Type A
1630.04	Stilling Basin	1635.02	Rock Pipe Inlet Sediment Trap Type J
1630.05	Temporary Diversion	1640.01	Coir Fiber Wattle
1630.06	Special Stilling Basin	1645.01	Temporary Stream Crossing
1631.01	Matting Installation		

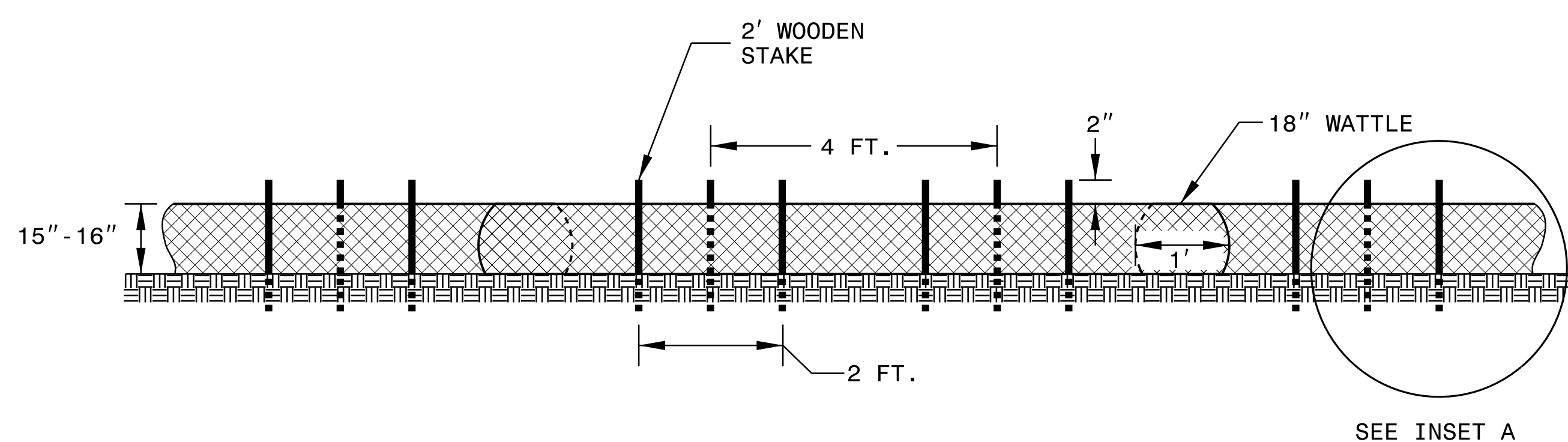
7/26/2023  
User: mrcollino



# COIR FIBER WATTLE BARRIER DETAIL



**ISOMETRIC VIEW**



**FRONT VIEW**

**NOTES:**

USE MINIMUM 18 IN. NOMINAL DIAMETER COIR FIBER (COCONUT) WATTLE AND LENGTH OF 10 FT.

EXCAVATE A 2 TO 3 INCH TRENCH FOR WATTLE TO BE PLACED.

DO NOT PLACE WATTLES ON TOE OF SLOPE.

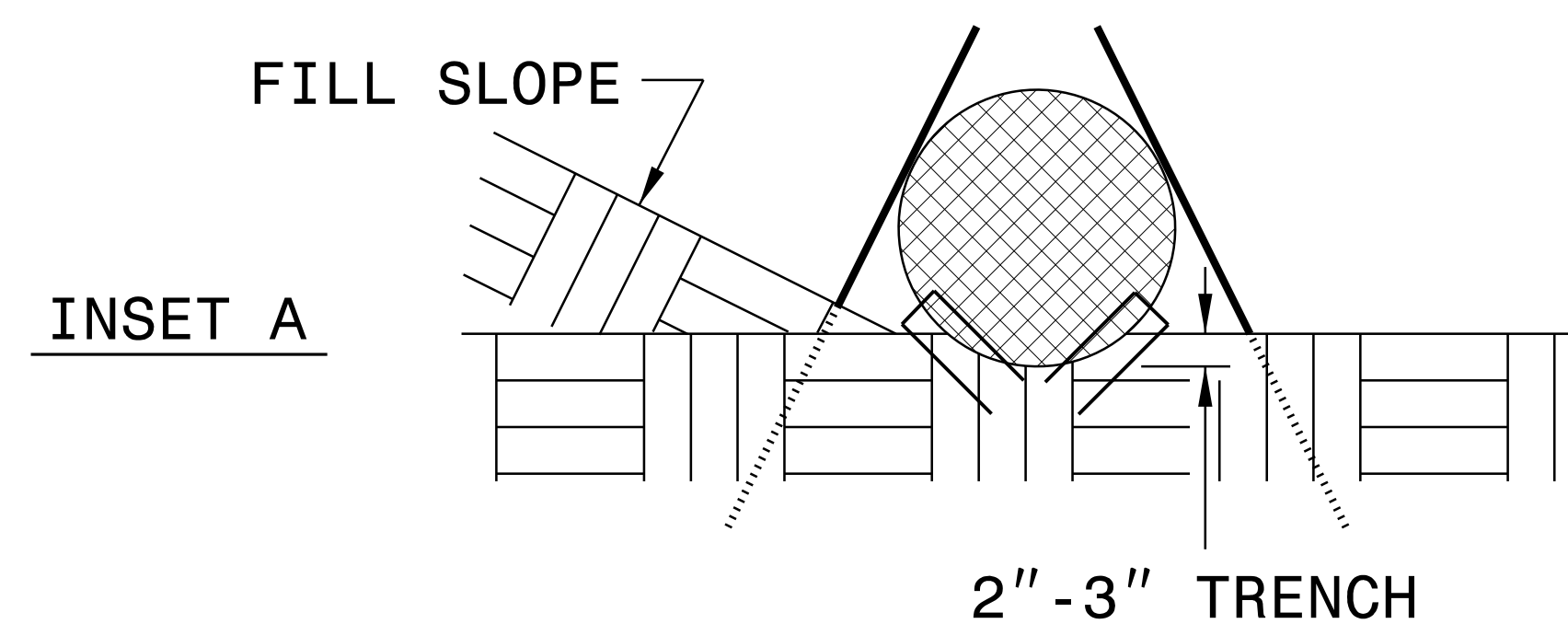
USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.

INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO GROUND.

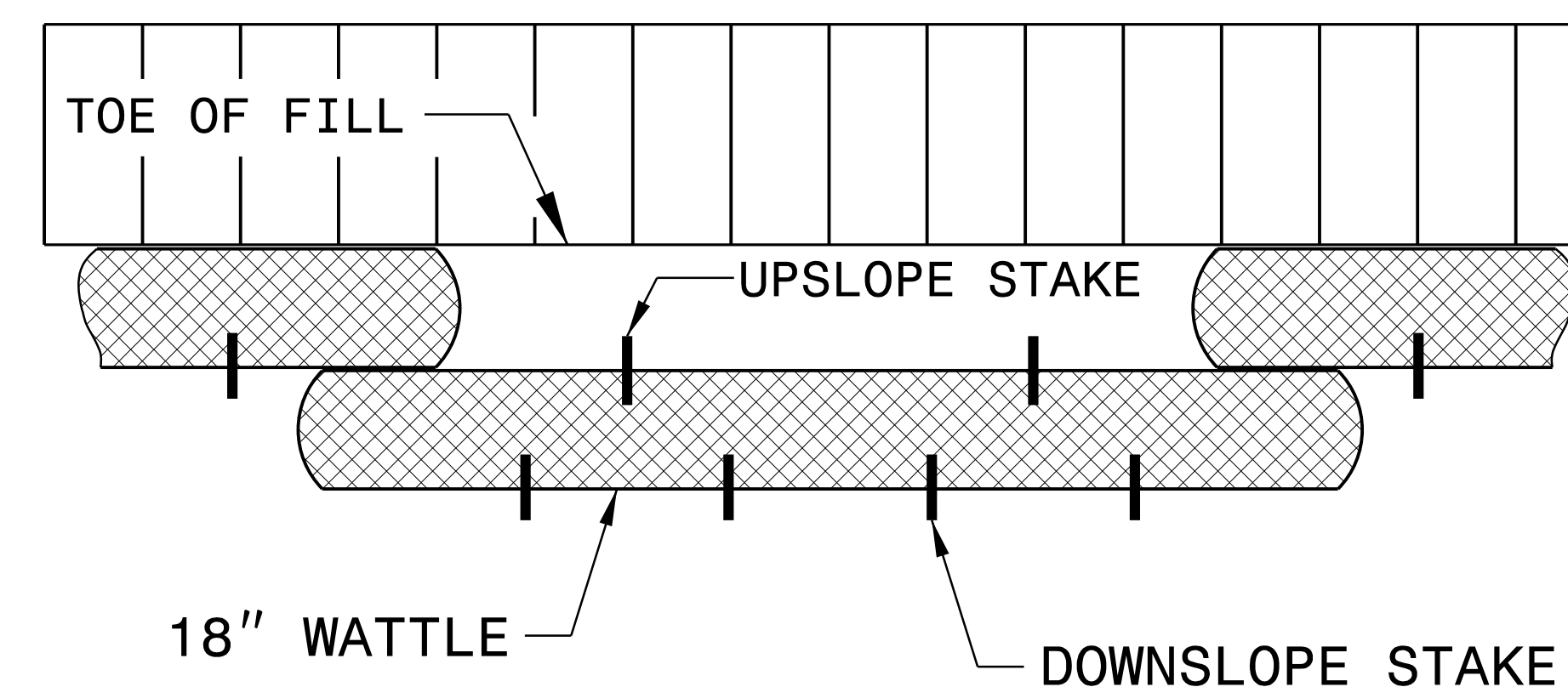
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

FOR BREAKS ALONG LARGE SLOPES, USE MAXIMUM SPACING OF 25 FT.



**INSET A**



**TOP VIEW**

DIVISION OF HIGHWAYS  
STATE OF NORTH CAROLINA

---

---

---

## ***SOIL STABILIZATION TIMEFRAMES***

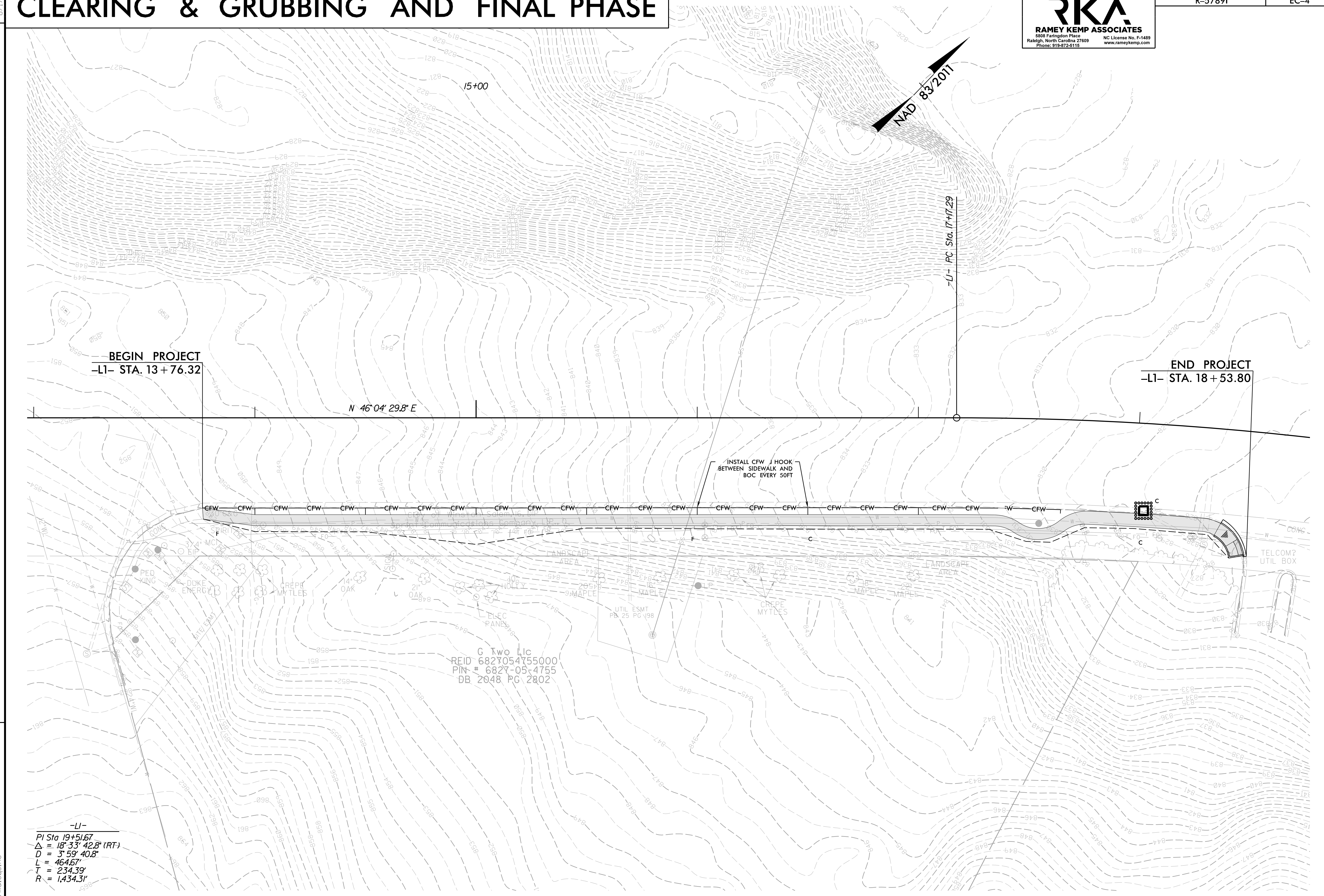
<i>SITE DESCRIPTION</i>	<i>STABILIZATION TIME</i>	<i>TIMEFRAME EXCEPTIONS</i>
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH.
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HQW ZONES.

8.17.99

# CLEARING & GRUBBING AND FINAL PHASE

Infrastructure Consulting Services, Inc.  
**RKA**  
 RAMEY KEMP ASSOCIATES  
 5808 Faringdon Place  
 Raleigh, North Carolina 27609  
 Phone: 919-872-5115  
 NC License No. F-1489  
 www.rameykemp.com

PROJECT REFERENCE NO.	SHEET NO.
R-57891	EC-4



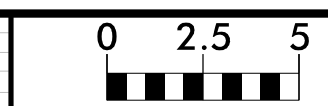
REVISIONS

-LI-  
 PI Sta 19+51.67  
 $\Delta = 18^{\circ} 33' 42.8" (RT)$   
 $D = 3^{\circ} 59' 40.8"$   
 $L = 464.67'$   
 $T = 234.39'$   
 $R = 1,434.31'$

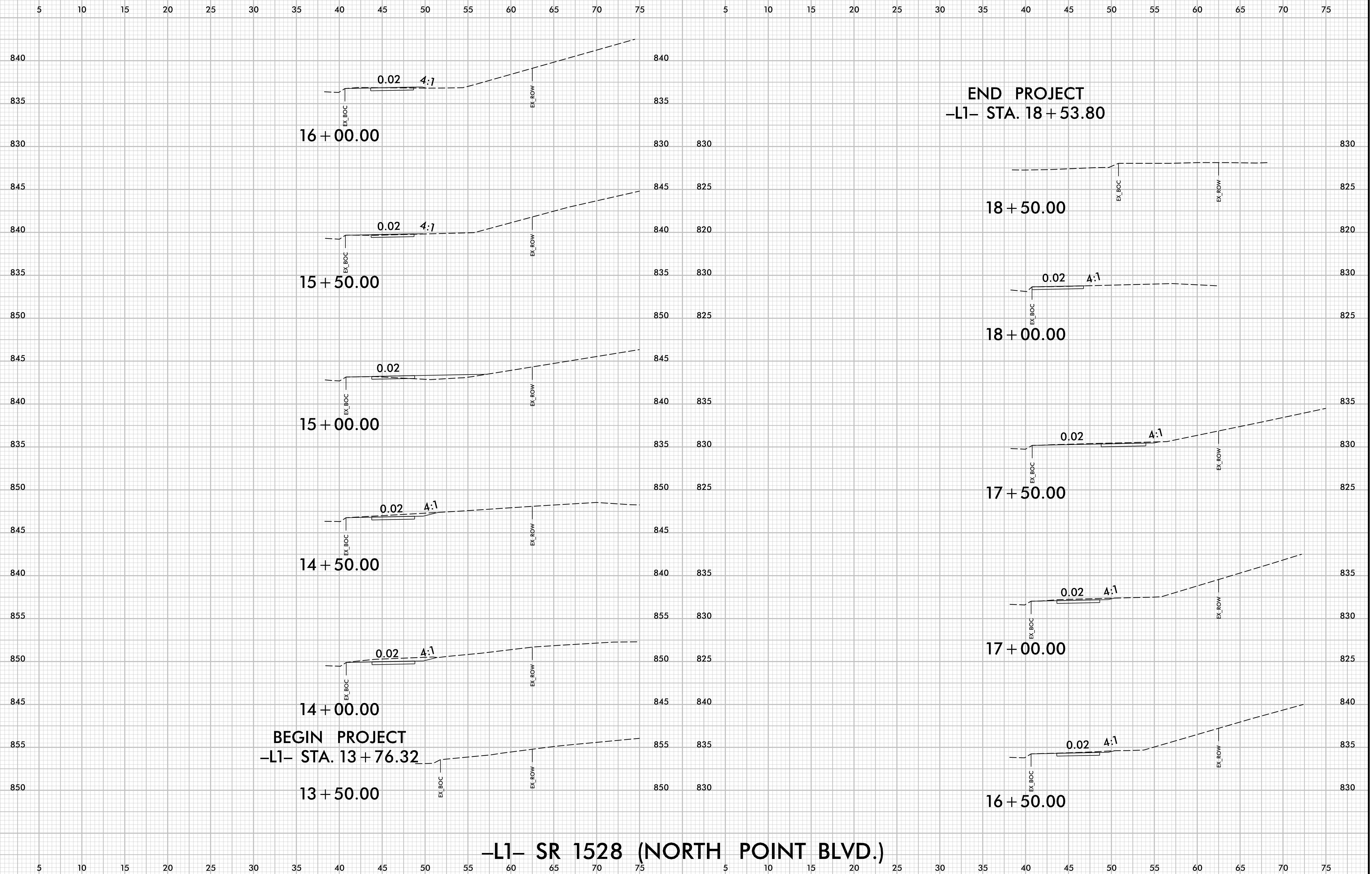
G Two Lic  
 REID 6827054755000  
 PIN # 6827-05-4755  
 DB 2048 PG 2802

7/26/2023  
 \\SR57891\_EC\_PSH4\_Site 1.dgn  
 User: matoquin

6/23/16



PROJ. REFERENCE NO.	SHEET NO.
R-57891	X-1

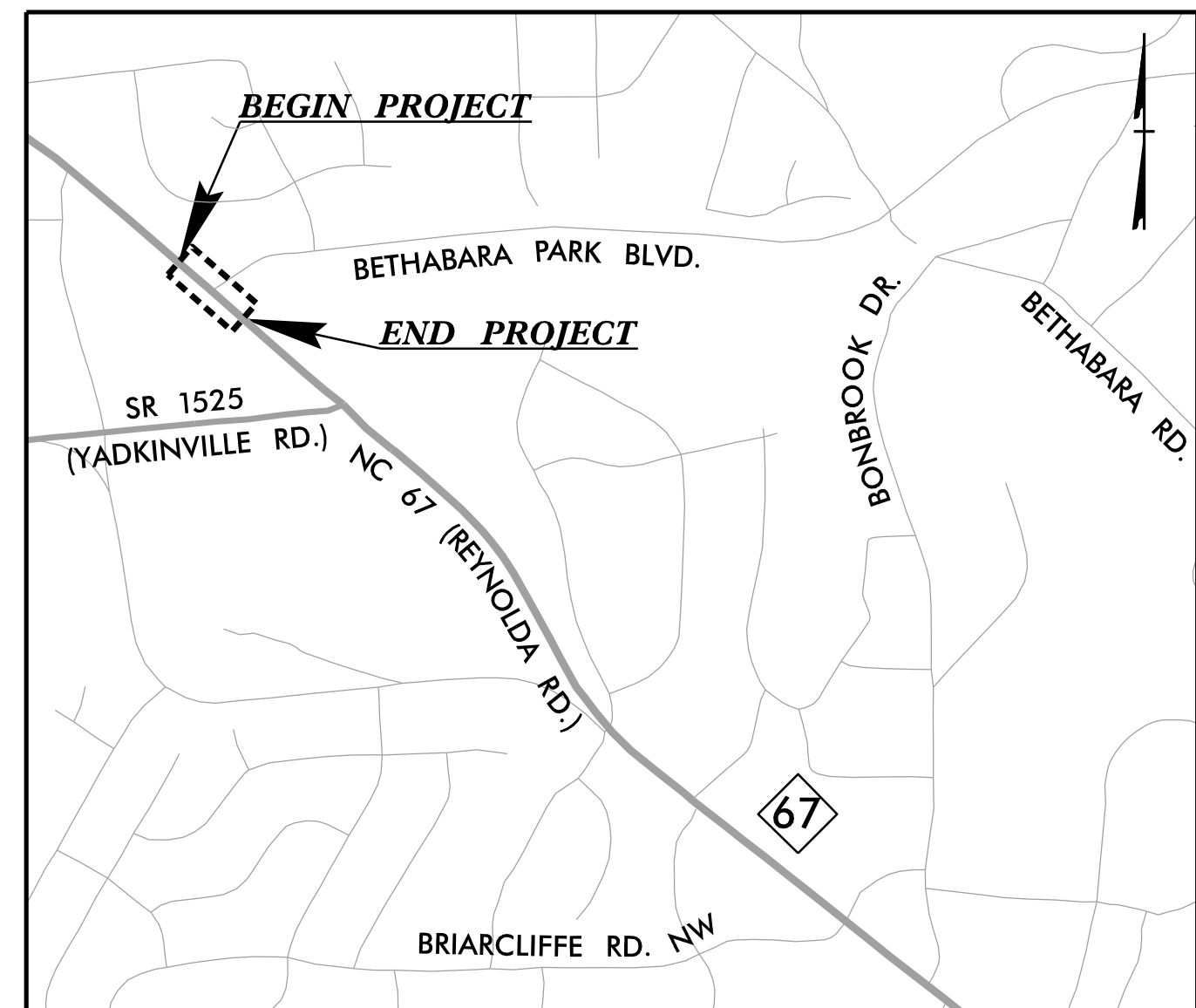


7/26/2023  
\\XSC\VP\7891\_rdu\1.XPL.dgn  
User: meloquino



09/28/2019

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



**VICINITY MAP**  
N.T.S.

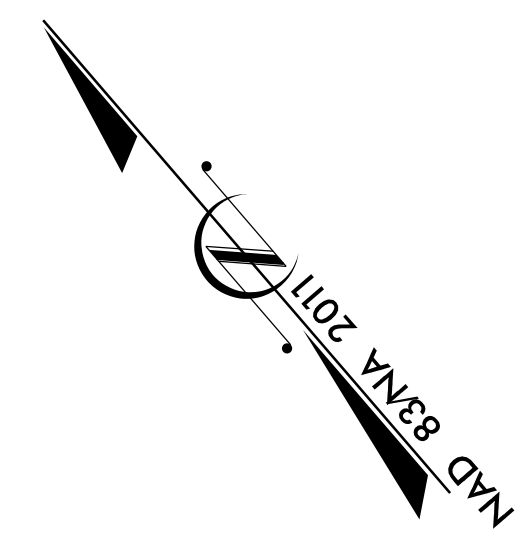
STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS  
**FORSYTH COUNTY**

**LOCATION:** NC 67 (REYNOLDA ROAD) AT BETHABARA PARK BOULEVARD

**TYPE OF WORK:** ISLAND, CROSSWALKS

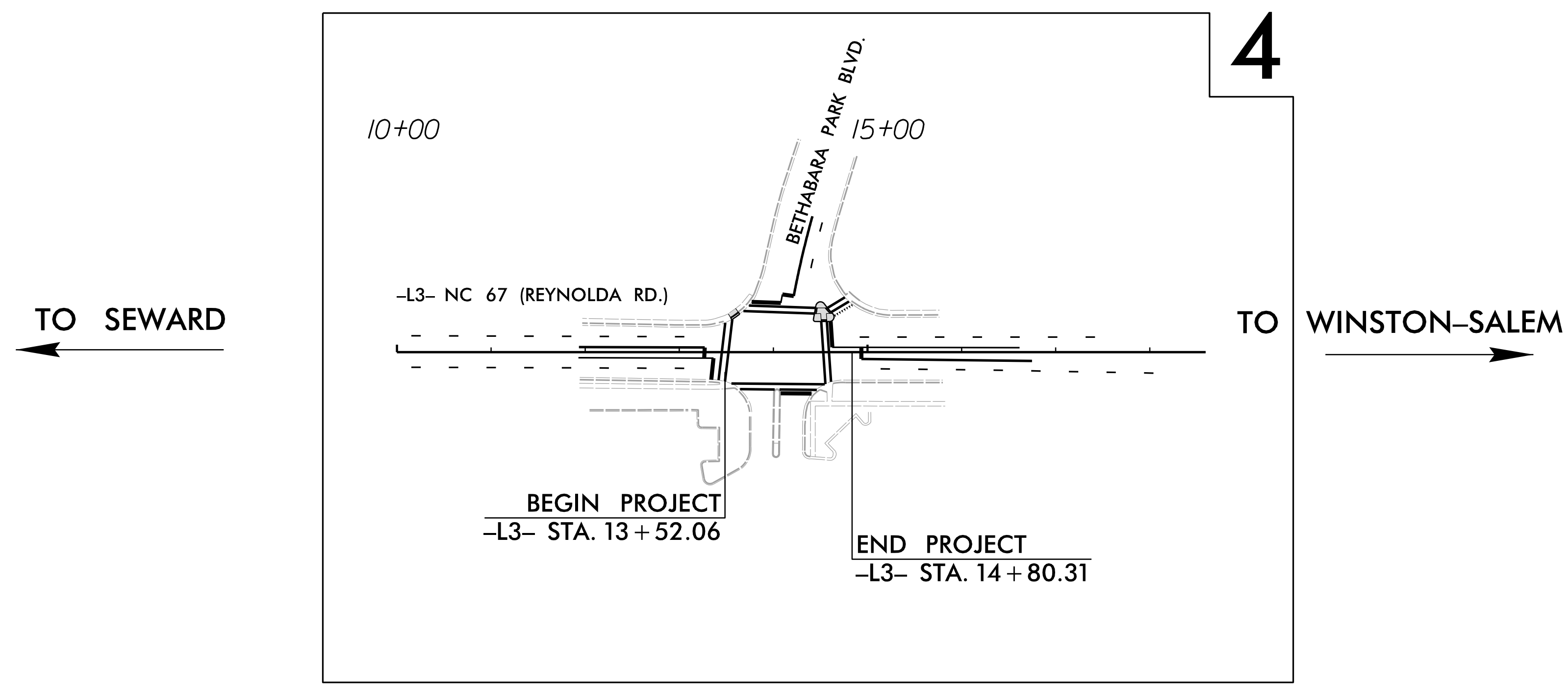
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-5789I	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
44919.1.10	0918133	PE	
44919.3.10	0918133	CONST.	

DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED



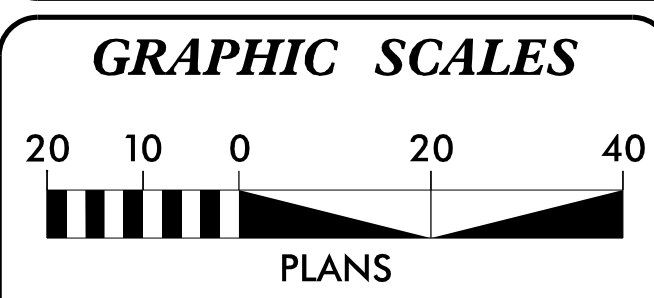
**TIP PROJECT: R-5789I**

**CONTRACT: DI00336**



**SITE 2 PLANS**

CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II SHOWN ON RSD 200.02



**DESIGN DATA**

ADT 2023 = 18,000
ADT 2043 = 20,800
V = 50 MPH

**PROJECT LENGTH**

LENGTH ROADWAY PROJECT = 0.024 MILES
--------------------------------------

**NCDOT CONTACT:** W. JEFF TURNER  
DIVISION PROPOSALS ENGINEER  
PH: 336-747-7800

Prepared in the Office of:  
Infrastructure Consulting Services, Inc.

**RKA**  
RAMEY KEMP ASSOCIATES  
5808 Farrington Place Raleigh, North Carolina 27609  
Phone: 919-872-5115 | www.rameykemp.com | NC License No. P-1489

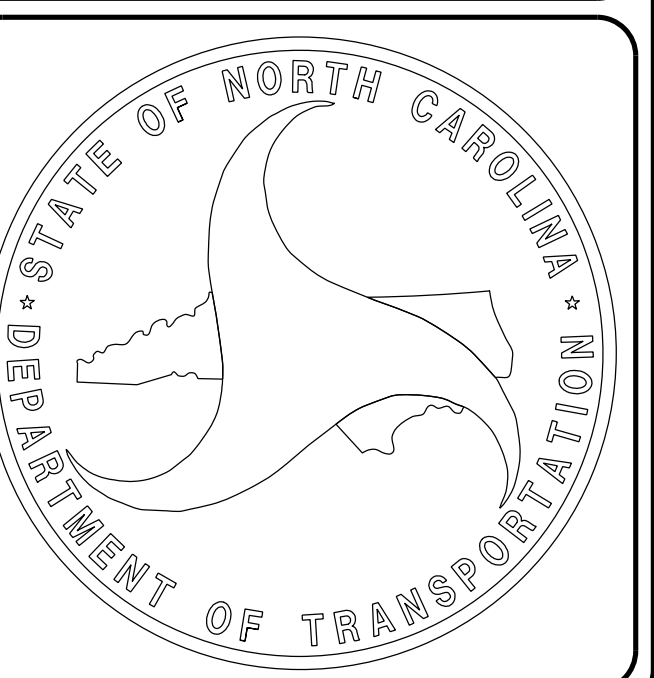
2018 STANDARD SPECIFICATIONS	
RIGHT OF WAY DATE:	MICHAEL P. DIOQUINO, PE PROJECT ENGINEER
LETTING DATE:	MIKAYLA M. LINDSEY, EI PROJECT DESIGNER

**HYDRAULICS ENGINEER**

MICHAEL P. DIOQUINO, PE  
SIGNATURE:

**ROADWAY DESIGN ENGINEER**

MICHAEL P. DIOQUINO, PE  
SIGNATURE:



7/26/2023  
T:\Proj\195789I\rdy\_TSH\_Site\_3.dgn  
User: mioduino



PROJECT REFERENCE NO. <b>R-57891</b>	SHEET NO. <b>1A</b>
ROADWAY DESIGN ENGINEER	
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	

# INDEX OF SHEETS, GENERAL NOTES AND 2018 ROADWAY ENGLISH STANDARD DRAWINGS

INDEX OF SHEETS	GENERAL NOTES	2018 SPECIFICATIONS	EFF. 01-16-2018
1	TITLE SHEET	CURB RAMPS:	
1A	INDEX OF SHEETS, GENERAL NOTES, & STANDARD DRAWINGS	CURB RAMPS ARE SHOWN ON THE PLANS AT APPROXIMATE LOCATIONS. CONSTRUCT ALL CURB RAMPS IN ACCORDANCE WITH STD. 848.05 AND/OR 848.06.	
1B	CONVENTIONAL SYMBOLS		
2C-1	ROADWAY DETAIL SHEET		
4	PLAN SHEET		
SIG-1 THRU SIG-9	SIGNAL PLANS		

## 2018 ROADWAY ENGLISH STANDARD DRAWINGS EFF. 01-16-2018

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" HIGHWAY DESIGN BRANCH - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY, 2018 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HERBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
DIVISION 8 - INCIDENTALS	
846.01	CONCRETE CURB, GUTTER, AND CURB & GUTTER
848.01	CONCRETE SIDEWALK
848.06	CURB RAMP - EXISTING CURB & GUTTER
852.01	CONCRETE ISLANDS

# STATE OF NORTH CAROLINA, DIVISION OF HIGHWAYS CONVENTIONAL PLAN SHEET SYMBOLS

Infrastructure Consulting Services, Inc.  
  
**RAMEY KEMP ASSOCIATES**  
 5808 Faringdon Place  
 Raleigh, North Carolina 27609  
 Phone: 919-872-5115  
 NC License No. F-1489  
 www.rameykemp.com

PROJECT REFERENCE NO.	SHEET NO.
R-57891	1B

Note: Not to Scale

### BOUNDARIES AND PROPERTY:

State Line	-----
County Line	-----
Township Line	-----
City Line	-----
Reservation Line	-----
Property Line	-----
Existing Iron Pin (EIP)	○
Computed Property Corner	×
Existing Concrete 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	-S-S-
Potential Contamination Area: Soil	-S-S-
Known Contamination Area: Water	-W-W-
Potential Contamination Area: Water	-W-W-
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 & PROJECT CONTROL:

Primary Horiz Control Point	○
Primary Horiz and Vert Control Point	●
Secondary Horiz and Vert Control Point	◆
Vertical Benchmark	⊕
Existing Right of Way Monument	△
Proposed Right of Way Monument (Rebar and Cap)	▲
Proposed Right of Way Monument (Concrete)	⊙
Existing Permanent Easement Monument	◇
Proposed Permanent Easement Monument (Rebar and Cap)	◆
Existing C/A Monument	△
Proposed C/A Monument (Rebar and Cap)	▲
Proposed C/A Monument (Concrete)	⊙
Existing Right of Way Line	-----
Proposed Right of Way Line	-----
Existing Control of Access Line	-----
Proposed Control of Access Line	-----
Proposed ROW and CA Line	-----
Existing Easement Line	-----
Proposed Temporary Construction Easement	-----
Proposed Temporary Drainage Easement	-----
Proposed Permanent Drainage Easement	-----
Proposed Permanent Drainage/Utility Easement	-----
Proposed Permanent Utility Easement	-----
Proposed Temporary Utility Easement	-----
Proposed Aerial Utility Easement	-----

### ROADS AND RELATED FEATURES:

Existing Edge of Pavement	-----
Existing Curb	-----
Proposed Slope Stakes Cut	-----
Proposed Slope Stakes Fill	-----
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:

\* SUE - Subsurface Utility Engineering  
LOS - Level of Service - A,B,C or D (Accuracy)

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 Test Hole (SUE - LOS A)*	⊕
U/G Power Line (SUE - LOS B)*	-----
U/G Power Line (SUE - LOS C)*	-----
U/G Power Line (SUE - LOS D)*	-----

### TELEPHONE:

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

### WATER:

Water Manhole	⊕
Water Meter	○
Water Valve	⊗
Water Hydrant	⊕
U/G Water Line Test Hole (SUE - LOS A)*	⊕
U/G Water Line (SUE - LOS B)*	-----
U/G Water Line (SUE - LOS C)*	-----
U/G Water Line (SUE - LOS D)*	-----
Above Ground Water Line	-----

### TV:

TV Pedestal	⊕
TV Tower	⊗
U/G TV Cable Hand Hole	⊕
U/G TV Test Hole (SUE - LOS A)*	⊕
U/G TV Cable (SUE - LOS B)*	-----
U/G TV Cable (SUE - LOS C)*	-----
U/G TV Cable (SUE - LOS D)*	-----
U/G Fiber Optic Cable (SUE - LOS B)*	-----
U/G Fiber Optic Cable (SUE - LOS C)*	-----
U/G Fiber Optic Cable (SUE - LOS D)*	-----

### GAS:

Gas Valve	◇
Gas Meter	⊕
U/G Gas Line Test Hole (SUE - LOS A)*	⊕
U/G Gas Line (SUE - LOS B)*	-----
U/G Gas Line (SUE - LOS C)*	-----
U/G Gas Line (SUE - LOS D)*	-----
Above Ground Gas Line	-----

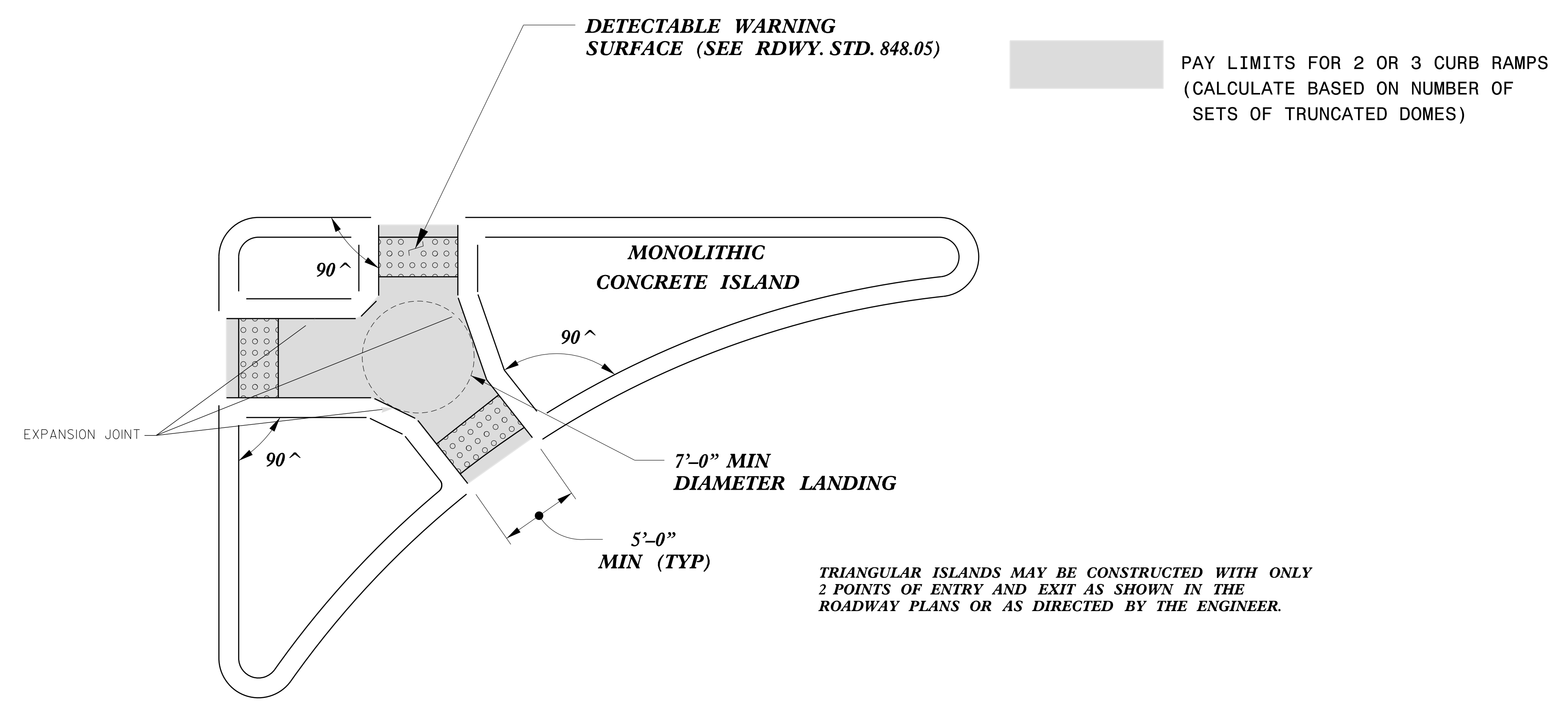
### SANITARY SEWER:

Sanitary Sewer Manhole	⊕
Sanitary Sewer Cleanout	⊕
U/G Sanitary Sewer Line	-----
Above Ground Sanitary Sewer	-----
SS Force Main Line Test Hole (SUE - LOS A)*	⊕
SS Force Main Line (SUE - LOS B)*	-----
SS Force Main Line (SUE - LOS C)*	-----
SS Force Main Line (SUE - LOS D)*	-----

### MISCELLANEOUS:

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

**DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED**



*TRIANGULAR ISLANDS MAY BE CONSTRUCTED WITH ONLY 2 POINTS OF ENTRY AND EXIT AS SHOWN IN THE ROADWAY PLANS OR AS DIRECTED BY THE ENGINEER.*

**TRIANGULAR ISLAND WITH CUT THROUGH**

**TYPE 7**

8/17/99

NOTE: CONTRACTOR TO REFER TO THE APPROVED SIGNAL PLANS FOR LOCATION OF STOP BARS AND CROSSWALKS. PUSH BUTTON PEDESTAL IN ISLAND SHALL BE LOCATED PRIOR TO POURING ISLAND.

Infrastructure Consulting Services, Inc.

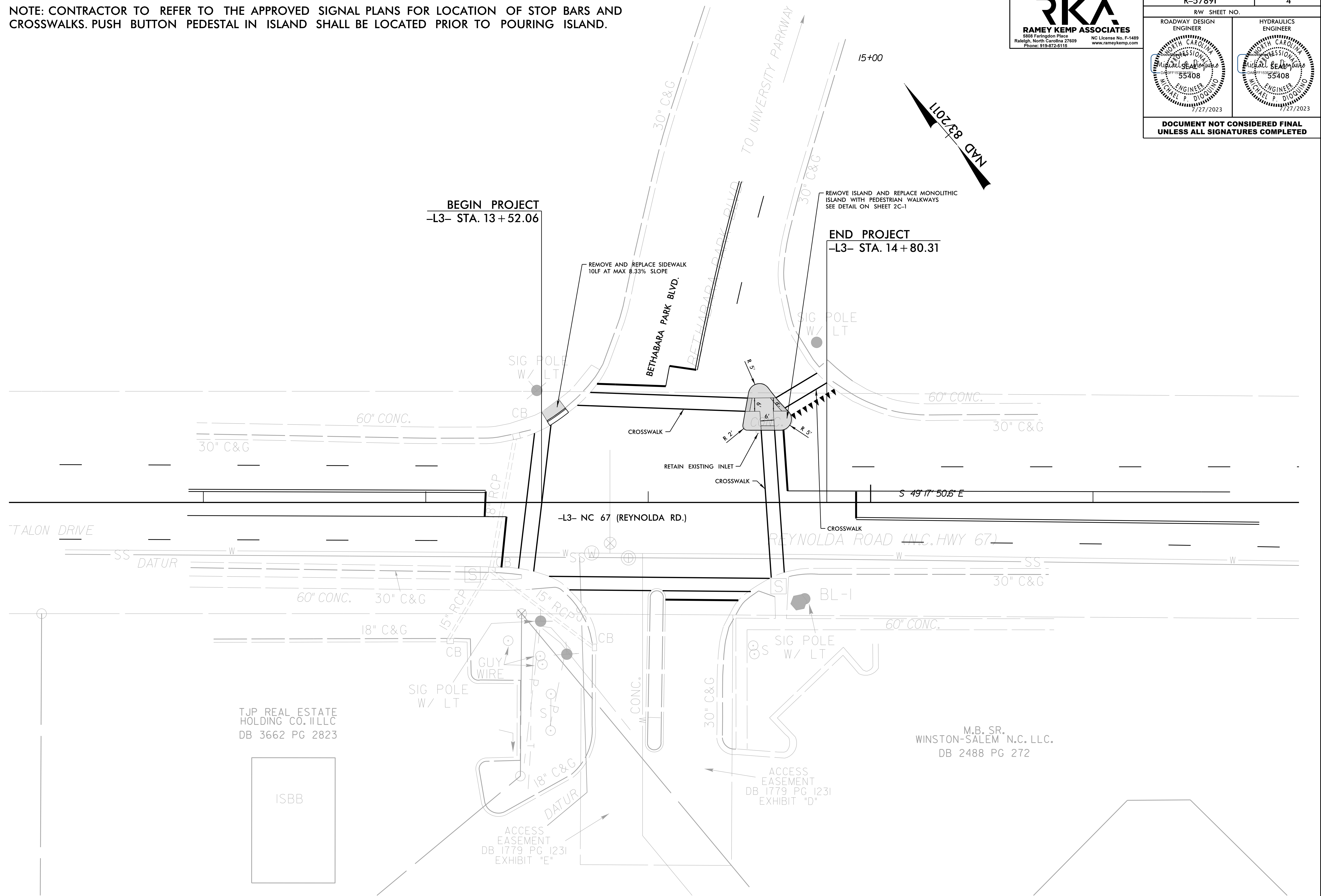


PROJECT REFERENCE NO. <b>R-57891</b>	SHEET NO. <b>4</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER 	HYDRAULICS ENGINEER 
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	

REVISIONS

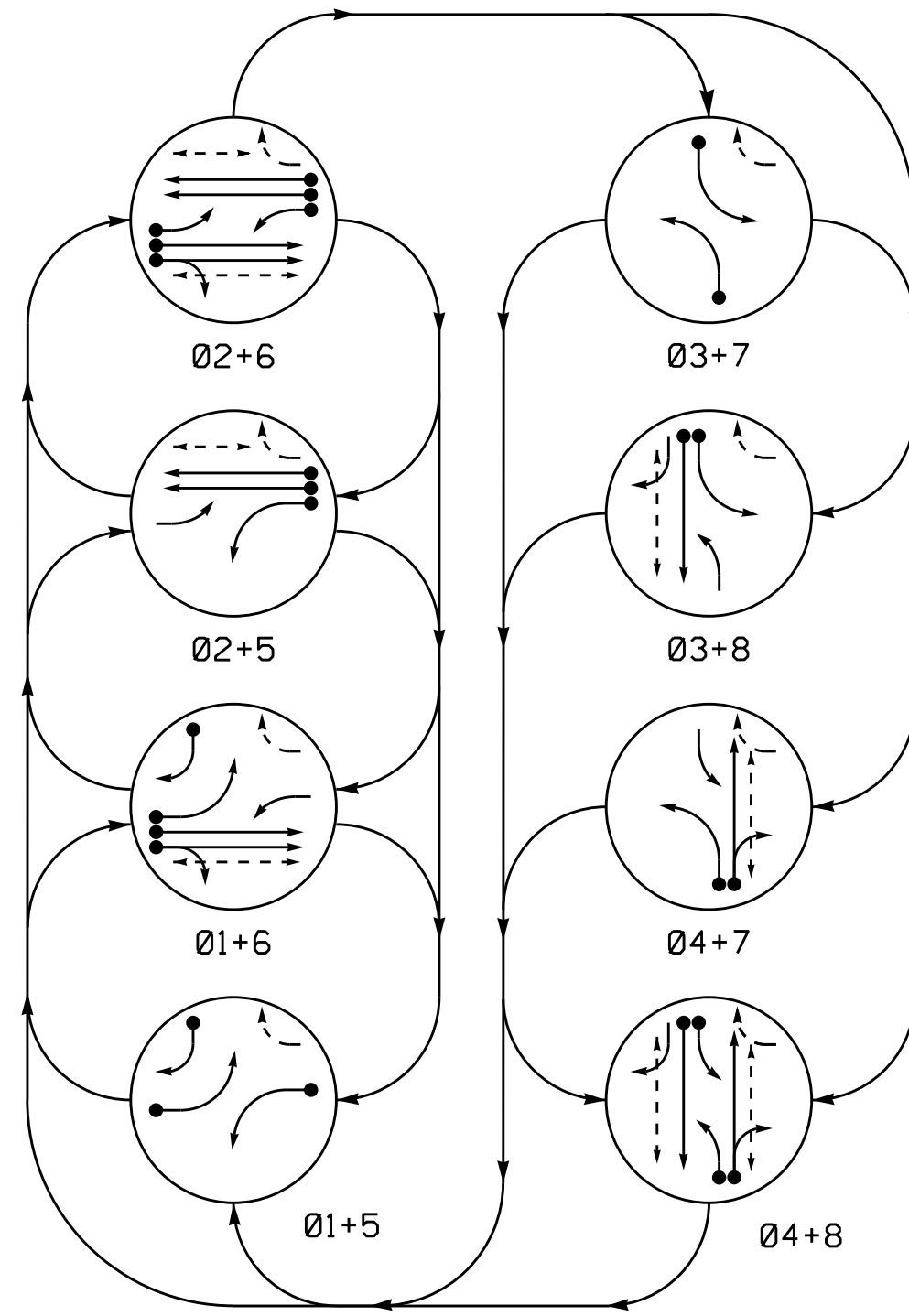
**BEGIN PROJECT**  
-L3- STA. 13 + 52.06

**END PROJECT**  
-L3- STA. 14 + 80.31

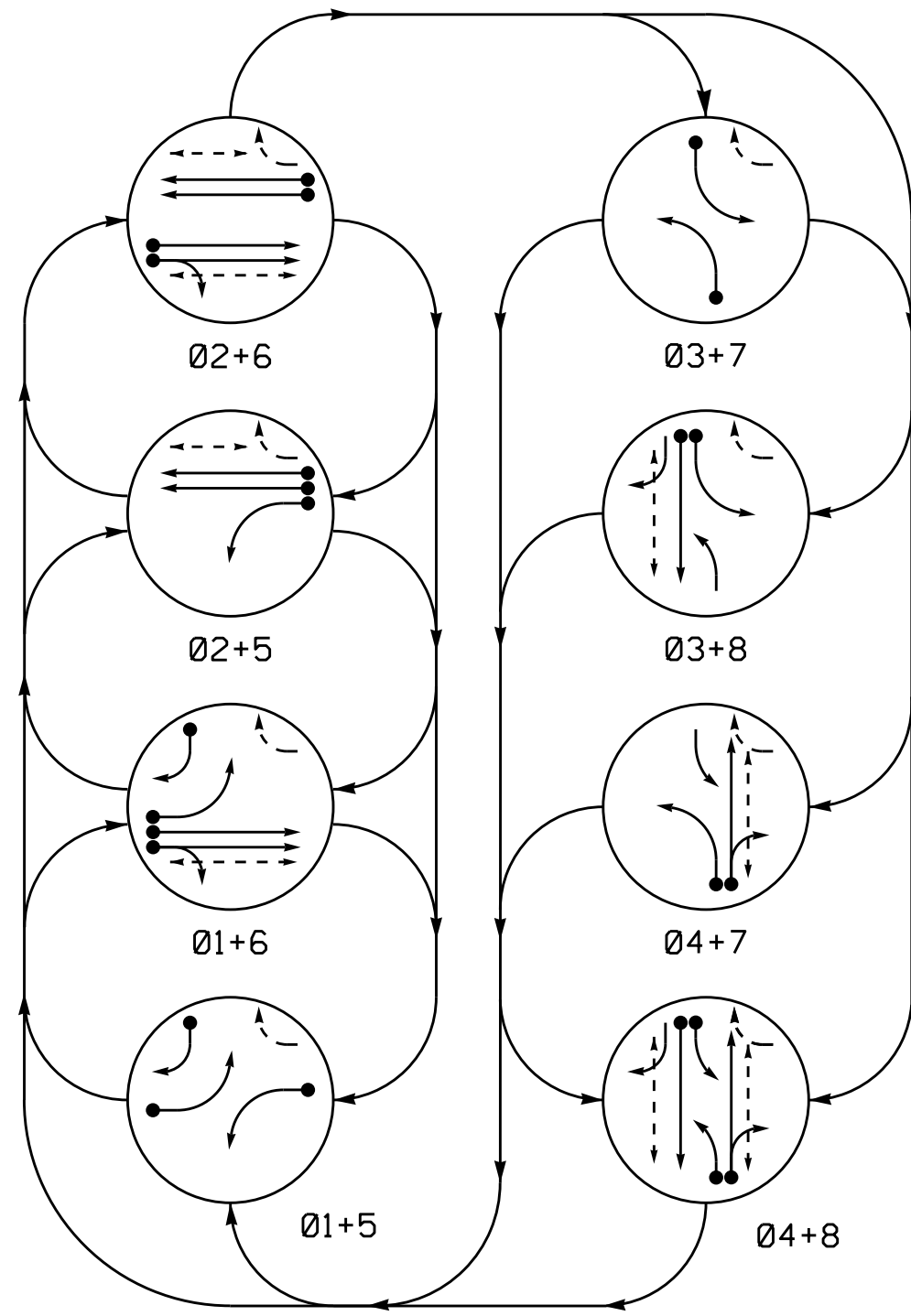


7/26/2023  
User: matoquinio  
\\rs6789\rdj\_psh4\_s.te\_3.dgn

DEFAULT PHASING DIAGRAM



ALTERNATE PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

- ←●→ DETECTED MOVEMENT
- ←○→ UNDETECTED MOVEMENT (OVERLAP)
- ←○→ UNSIGNALIZED MOVEMENT
- ←○→ PEDESTRIAN MOVEMENT

DEFAULT PHASING TABLE OF OPERATION

SIGNAL FACE	PHASE							
	01+5	01+6	02+5	02+6	03+7	03+8	04+7	04+8
11	---	---	---	---	---	---	---	---
21, 22	R	R	G	G	R	R	R	Y
31	---	---	---	---	---	---	---	---
41, 42	R	R	R	R	R	G	G	R
51	---	---	---	---	---	---	---	---
61, 62	R	G	R	G	R	R	R	Y
71	---	---	---	---	---	---	---	---
81	R	R	R	R	G	R	G	R
82	R	R	R	R	G	R	G	R
P21, P22	DW	DW	W	W	DW	DW	DW	DRK
P41, P42	DW	DW	DW	DW	DW	DW	W	DRK
P61, P62	DW	W	DW	W	DW	DW	DW	DRK
P81, P82	DW	DW	DW	DW	DW	W	W	DRK

ALTERNATE PHASING TABLE OF OPERATION

SIGNAL FACE	PHASE							
	01+5	01+6	02+5	02+6	03+7	03+8	04+7	04+8
11	---	---	---	---	---	---	---	---
21, 22	R	R	G	G	R	R	R	Y
31	---	---	---	---	---	---	---	---
41, 42	R	R	R	R	R	G	G	R
51	---	---	---	---	---	---	---	---
61, 62	R	G	R	G	R	R	R	Y
71	---	---	---	---	---	---	---	---
81	R	R	R	R	G	R	G	R
82	R	R	R	R	G	R	G	R
P21, P22	DW	DW	W	W	DW	DW	DW	DRK
P41, P42	DW	DW	DW	DW	DW	DW	W	DRK
P61, P62	DW	W	DW	W	DW	DW	DW	DRK
P81, P82	DW	DW	DW	DW	DW	W	W	DRK

OASIS 2070 LOOP & DETECTOR INSTALLATION CHART

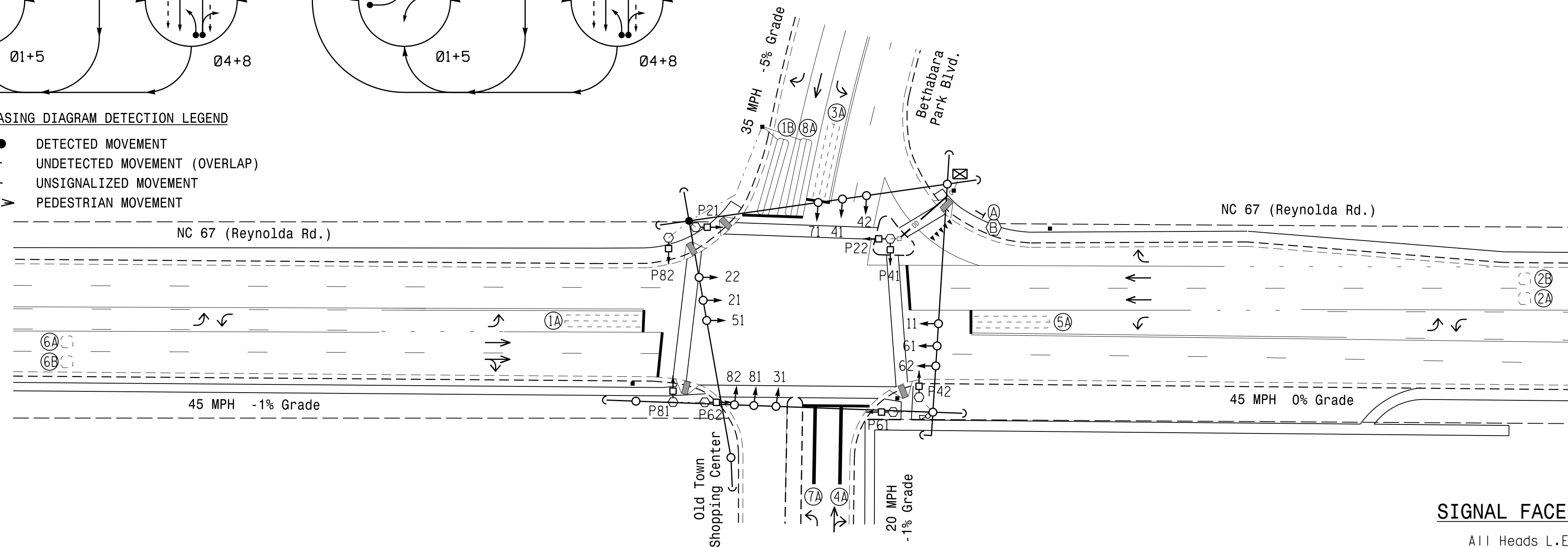
LOOP / ZONE	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	DETECTOR PROGRAMMING				STRETCH TIME	DELAY TIME	SYSTEM LOOP	NEW CARD
					PHASE	CALLING	EXTENSION	FULL TIME DELAY				
1A	6X40	0	2-4-2	-	1	Y	Y	-	-	15**	-	Y
1B	6X40	0	2-4-2	Y	1	Y	Y	-	-	15	-	Y
2A	6X6	310	EXIST	-	2	Y	Y	-	-	-	-	Y
2B	6X6	310	EXIST	-	2	Y	Y	-	-	-	-	Y
3A	6X40	0	2-4-2	-	3	Y	Y	-	-	15	-	Y
4A*	6X40	0	*	*	4	Y	Y	-	-	10	-	*
5A	6X40	0	2-4-2	-	5	Y	Y	-	-	15**	-	Y
6A	6X6	300	EXIST	-	6	Y	Y	-	-	-	-	Y
6B	6X6	300	EXIST	-	6	Y	Y	-	-	-	-	Y
7A*	6X40	0	*	*	7	Y	Y	-	-	15	-	*
8A	6X40	0	2-4-2	Y	8	Y	Y	-	-	-	-	Y

\* Radar Detection Zone.  
 \*\* Reduce Delay to 3 seconds during Alternate Phasing Operation.  
 # Disable call for loop during Alternate Phasing Operation.

8 Phase Fully Actuated (Winston-Salem Signal System)

NOTES

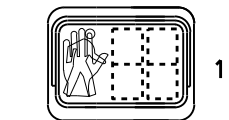
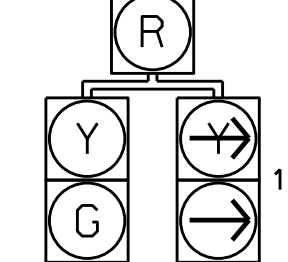
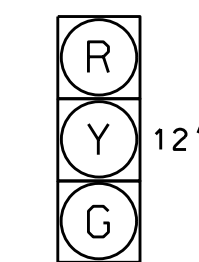
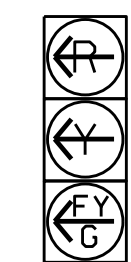
1. Refer to "Roadway Standard Drawings NCDOT" dated January 2018 and "Standard Specifications for Roads and Structures" dated January 2018.
2. Maintain (ON or OFF) TOD late night flash based on existing programming for this location.
3. Phase 1 and/or phase 5 may be lagged.
4. Phase 3 and/or phase 7 may be lagged.
5. Set all detector units to presence mode.
6. Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
7. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
8. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
9. Pavement markings are existing unless otherwise shown.
10. The Division (City) Traffic Engineer will determine the hours of use for each phasing plan.
11. This intersection uses radar detection. Install detectors according to the manufacturer's instructions to achieve the desired detection.
12. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.



SIGNAL FACE I.D.

All Heads L.E.D.

(FY) = Bimodal Section



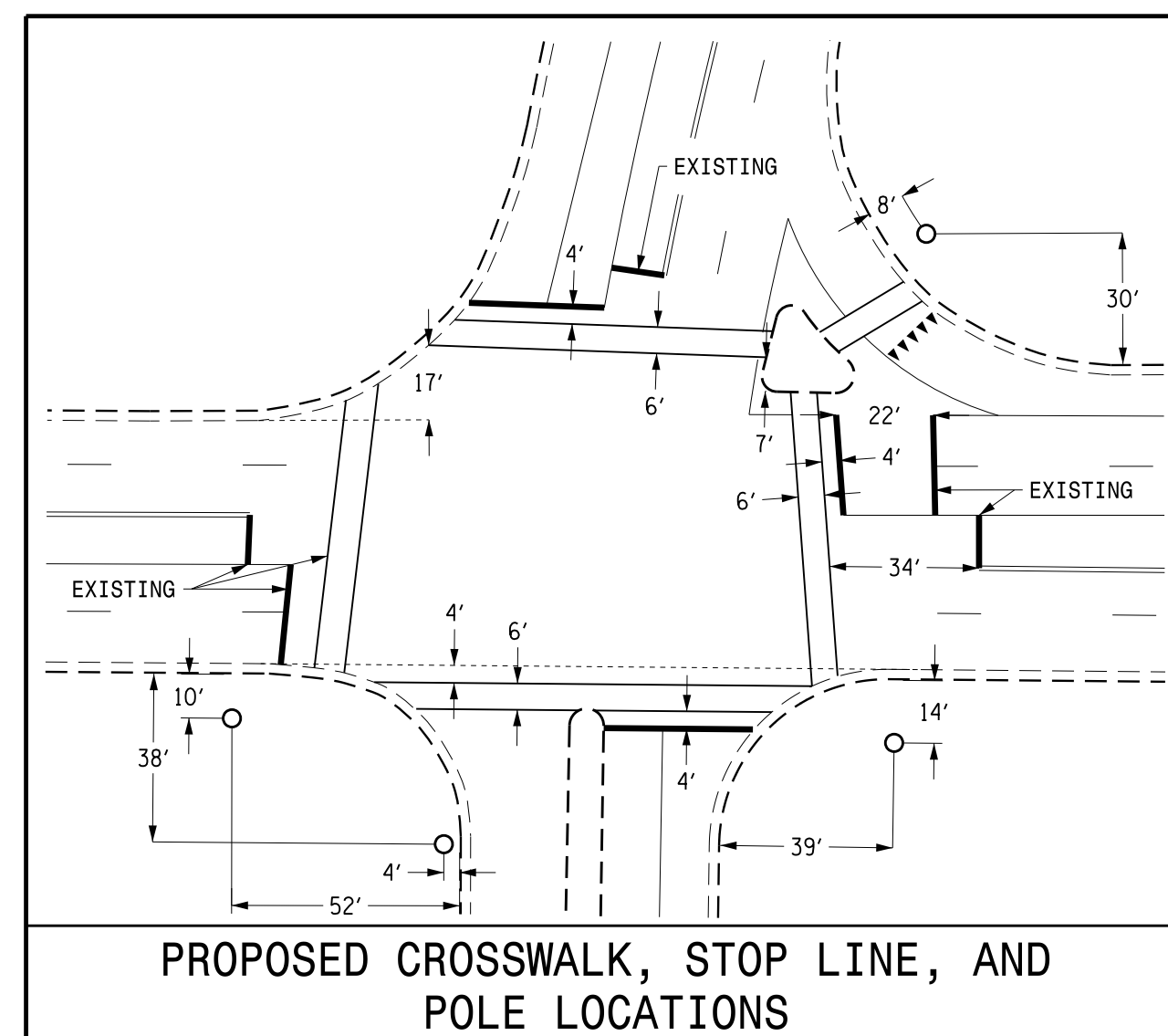
LEGEND

- | PROPOSED | EXISTING |
|----------|----------|
|          |          |
|          | N/A      |
|          |          |
|          |          |
|          |          |
|          |          |
|          |          |
|          |          |
|          |          |
|          |          |
|          |          |
|          |          |
|          | N/A      |
|          |          |
|          |          |
|          |          |

OASIS 2070 TIMING CHART

FEATURE	PHASE							
	1	2	3	4	5	6	7	8
Min Green 1 *	7	12	7	7	7	12	7	7
Extension 1 *	2.0	6.0	2.0	2.0	2.0	6.0	2.0	2.0
Max Green 1 *	25	90	20	30	20	90	20	30
Yellow Clearance	3.0	4.6	3.1	4.2	3.0	4.6	3.0	4.2
Red Clearance	3.3	1.9	2.9	3.1	3.3	1.9	2.9	3.1
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Advance Walk *	-	3	-	3	-	3	-	3
Walk 1 *	-	7	-	7	-	7	-	7
Don't Walk 1	-	17	-	16	-	21	-	15
Seconds Per Actuation *	-	1.5	-	-	-	1.5	-	-
Max Variable Initial *	-	34	-	-	-	34	-	-
Time Before Reduction *	-	15	-	-	-	15	-	-
Time To Reduce *	-	30	-	-	-	30	-	-
Minimum Gap	-	3.0	-	-	-	3.0	-	-
Recall Mode	-	MIN RECALL	-	-	-	MIN RECALL	-	-
Vehicle Call Memory	-	YELLOW	-	-	-	YELLOW	-	-
Dual Entry	-	-	-	ON	-	-	-	ON
Simultaneous Gap	ON	ON	ON	ON	ON	ON	ON	ON

\* These values may be field adjusted. Do not adjust Min Green and Extension times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.



Signal Upgrade

Prepared in the Offices of:

750 N. Greenfield Pkwy, Garner, NC 27529

NC 67 (Reynolda Road)  
 at  
 Bethabara Park Boulevard  
 and Old Town Shopping Center

Division 9 Forsyth County Winston-Salem

PLAN DATE: March 2023 REVIEWED BY:

PREPARED BY: J.A. Lohr REVIEWED BY:

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

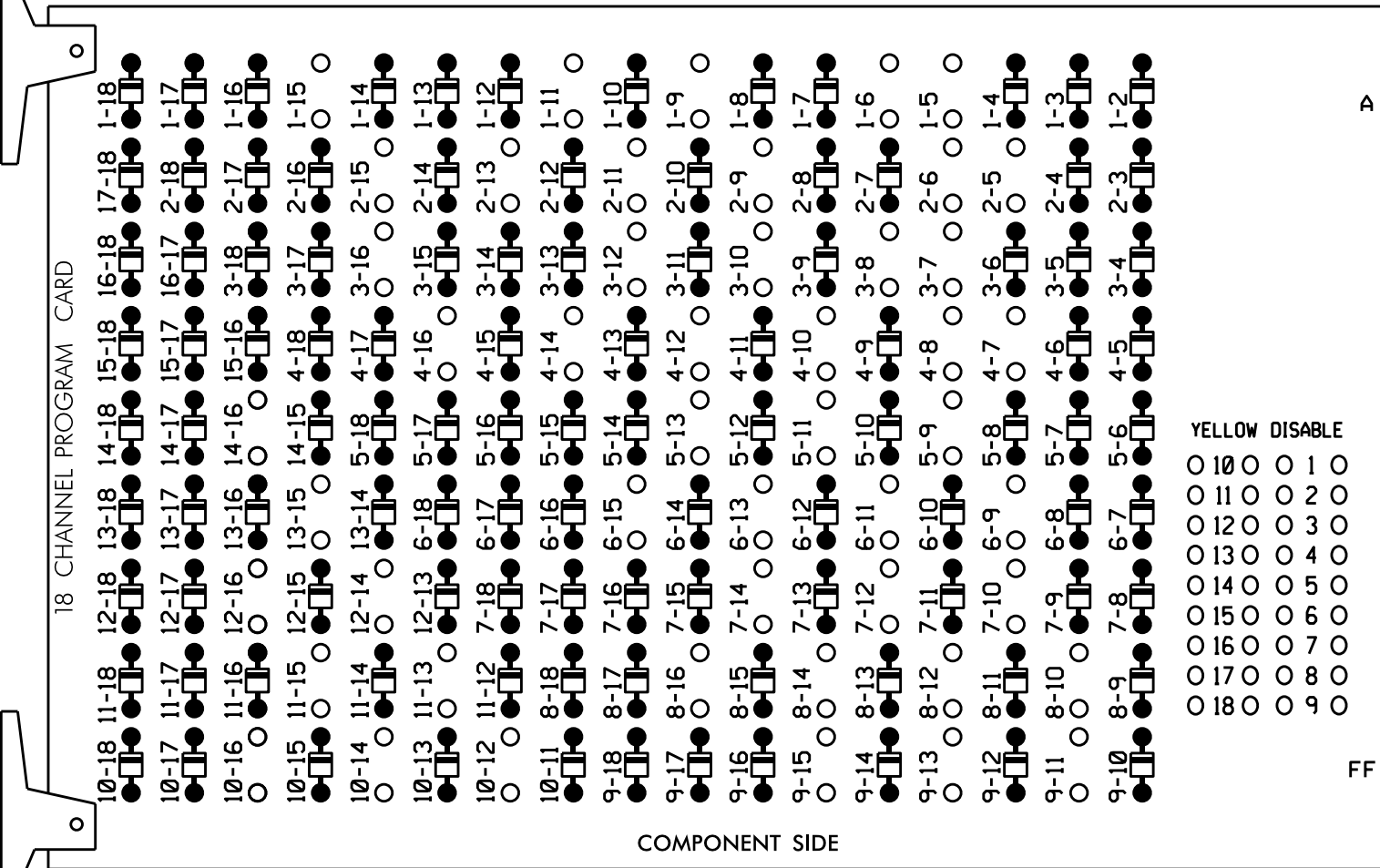
SEAL

04/26/2023

### 18 CHANNEL IP CONFLICT MONITOR

#### PROGRAMMING DETAIL

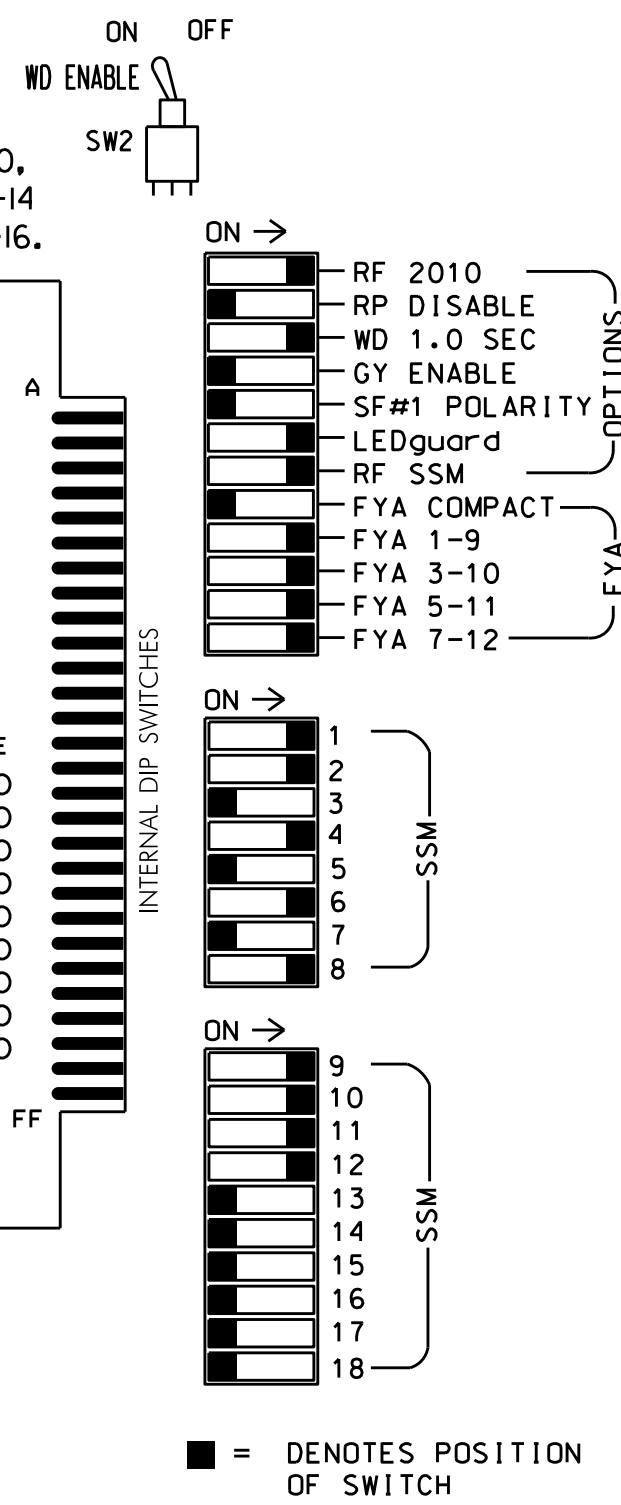
(remove jumpers and set switches as shown)  
 REMOVE DIODE JUMPERS 1-5, 1-6, 1-9, 1-11, 1-15, 2-5, 2-6, 2-9, 2-11, 2-13, 2-15, 3-7, 3-8, 3-10, 3-12, 3-16, 4-7, 4-8, 4-10, 4-12, 4-14, 4-16, 5-9, 5-11, 5-13, 6-9, 6-11, 6-13, 6-15, 7-10, 7-12, 7-14, 8-10, 8-12, 8-14, 8-16, 9-11, 9-13, 9-15, 10-12, 10-14, 10-16, 11-13, 11-15, 12-14, 12-16, 13-15 and 14-16.



REMOVE JUMPERS AS SHOWN

**NOTES:**

- Card is provided with all diode jumpers in place. Removal of any jumper allows its channels to run concurrently.
- Ensure jumpers SEL2-SEL5 and SEL9 are present on the monitor board.
- Ensure that Red Enable is active at all times during normal operation.
- Integrate monitor with Ethernet network in cabinet.



■ = DENOTES POSITION OF SWITCH

### NOTES

- To prevent "flash-conflict" problems, insert red flash program blocks for all unused vehicle load switches in the output file. The installer shall verify that signal heads flash in accordance with the Signal Plans.
- Program phases 4 and 8 for Dual Entry.
- Enable Simultaneous Gap-Out for all Phases.
- Program phases 2 and 6 for Variable Initial and Gap Reduction.
- Program phases 2 and 6 for Startup In Green.
- Program phases 4 and 8 for Startup Ped Call.
- Program phases 2 and 6 for Yellow Flash, and overlaps 1 and 2 as Wag Overlaps.
- The cabinet and controller are part of the Winston-Salem Signal System.

### EQUIPMENT INFORMATION

CONTROLLER.....2070  
 CABINET.....332 W/ AUX  
 SOFTWARE.....ECONOLITE OASIS  
 CABINET MOUNT.....BASE  
 OUTPUT FILE POSITIONS...18 WITH AUX. OUTPUT FILE S12,AUX S1,AUX S2,AUX S4,AUX S5  
 LOAD SWITCHES USED.....S1,S2,S3,S4,S5,S6,S7,S8,S9,S10,S11,  
 PHASES USED.....1,2,2PED,3,4,4PED,5,6,6PED,7,8,8PED  
 OVERLAP "A".....1+2  
 OVERLAP "B".....3+4  
 OVERLAP "C".....5+6  
 OVERLAP "D".....7+8

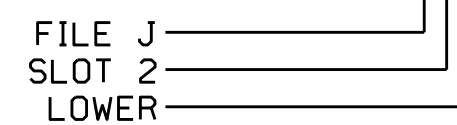
### INPUT FILE CONNECTION & PROGRAMMING CHART

LOOP NO.	LOOP TERMINAL	INPUT FILE POS.	PIN NO.	INPUT ASSIGNMENT NO.	DETECTOR NO.	NEMA PHASE	CALL	EXTEND	FULL TIME DELAY	STRETCH TIME	DELAY TIME
1A <sup>1</sup>	TB2-1,2	I1U	56	18	1	1	Y	Y			15
	-	J4U	48	10	26	6	Y	Y	Y		3
2A	TB2-5,6	I2U	39	1	2	2	Y	Y			
2B	TB2-7,8	I2L	43	5	12	2	Y	Y			
1B	TB2-9,10	I3U	63	25	32	1	Y	Y			15
	-	J8U	50	12	28	8	Y	Y			3
3A <sup>2</sup>	TB4-5,6	I5U	58	20	3	3	Y	Y			15
	-	J8U	50	12	28	8	Y	Y			3
5A <sup>3</sup>	TB3-1,2	J1U	55	17	5	5	Y	Y			15
	-	I4U	47	9	22	2	Y	Y	Y		3
6A	TB3-5,6	J2U	40	2	6	6	Y	Y			
6B	TB3-7,8	J2L	44	6	16	6	Y	Y			
8A	TB5-9,10	J6U	42	4	8	8	Y	Y			
PED PUSH BUTTONS											
P21,P22	TB8-4,6	I12U	67	29	PED 2	2	PED				
P41,P42	TB8-5,6	I12L	69	31	PED 4	4	PED				
P61,P62	TB8-7,9	I13U	68	30	PED 6	6	PED				
P81,P82	TB8-8,9	I13L	70	32	PED 8	8	PED				

NOTE:  
 INSTALL DC ISOLATORS IN INPUT FILE SLOTS 112 AND 113.

- Add jumper from I1-W to J4-W, on rear of input file.
  - Add jumper from I5-W to J8-W, on rear of input file.
  - Add jumper from J1-W to I4-W, on rear of input file.
- \* See Input Page Assignment programming details on sheets 4 and 5.

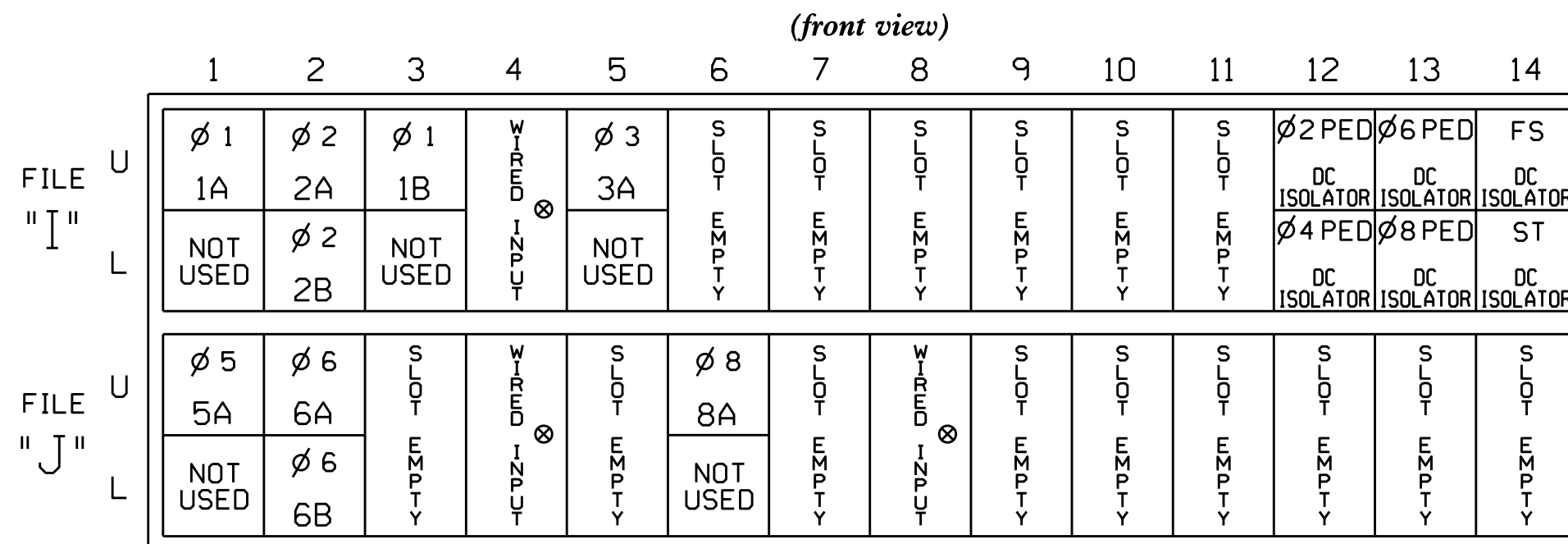
INPUT FILE POSITION LEGEND: J2L



### COUNTDOWN PEDESTRIAN SIGNAL OPERATION

Countdown Ped Signals are required to display timing only during Ped Clearance Interval. Consult Ped Signal Module user's manual for instructions on selecting this feature.

### INPUT FILE POSITION LAYOUT



EX.: 1A, 2A, ETC. = LOOP NO.'S  
 FS = FLASH SENSE  
 ST = STOP TIME

\* Wired Input - Do not populate slot with detector card

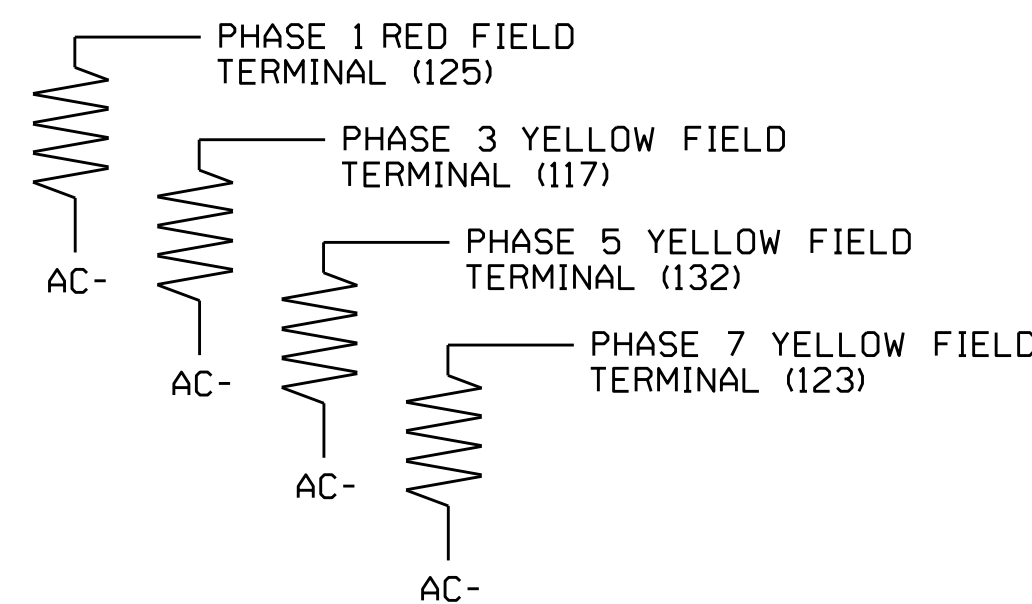
### SPECIAL DETECTOR NOTE

Install a radar detection system for vehicle detection for phases 4 and 7. Perform installation according to manufacturer's directions and NCDOT engineer approved mounting locations to accomplish the detection schemes shown on the Signal Design Plans.

### LOAD RESISTOR INSTALLATION DETAIL

(install resistors as shown below)

VALUE (ohms)	WATTAGE
1.5K - 1.9K	25W (min)
2.0K - 3.0K	10W (min)



### SIGNAL HEAD HOOK-UP CHART

LOAD SWITCH NO.	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	AUX S1	AUX S2	AUX S3	AUX S4	AUX S5	AUX S6	
CMU CHANNEL NO.	1	2	13	3	4	14	5	6	15	7	8	16	9	10	17	11	12	18	
PHASE	1	2	2 PED	3	4	4 PED	5	6	6 PED	7	8	8 PED	OLA	OLB	SPARE	OLC	OLD	SPARE	
SIGNAL HEAD NO.	11	82	21,22	P21, P22	31	41,42	P41, P42	51	61,62	P61, P62	71	81,82	P81, P82	11	31	NU	51	71	NU
RED	*	128			101			134			107								
YELLOW		129		*	102		*	135		*	108								
GREEN		130			103			136			109								
RED ARROW													A121	A124		A114	A101		
YELLOW ARROW	126												A122	A125		A115	A102		
FLASHING YELLOW ARROW													A123	A126		A116	A103		
GREEN ARROW	127	127			118			133			124								
					113			104			119			110					
					115			106			121			112					

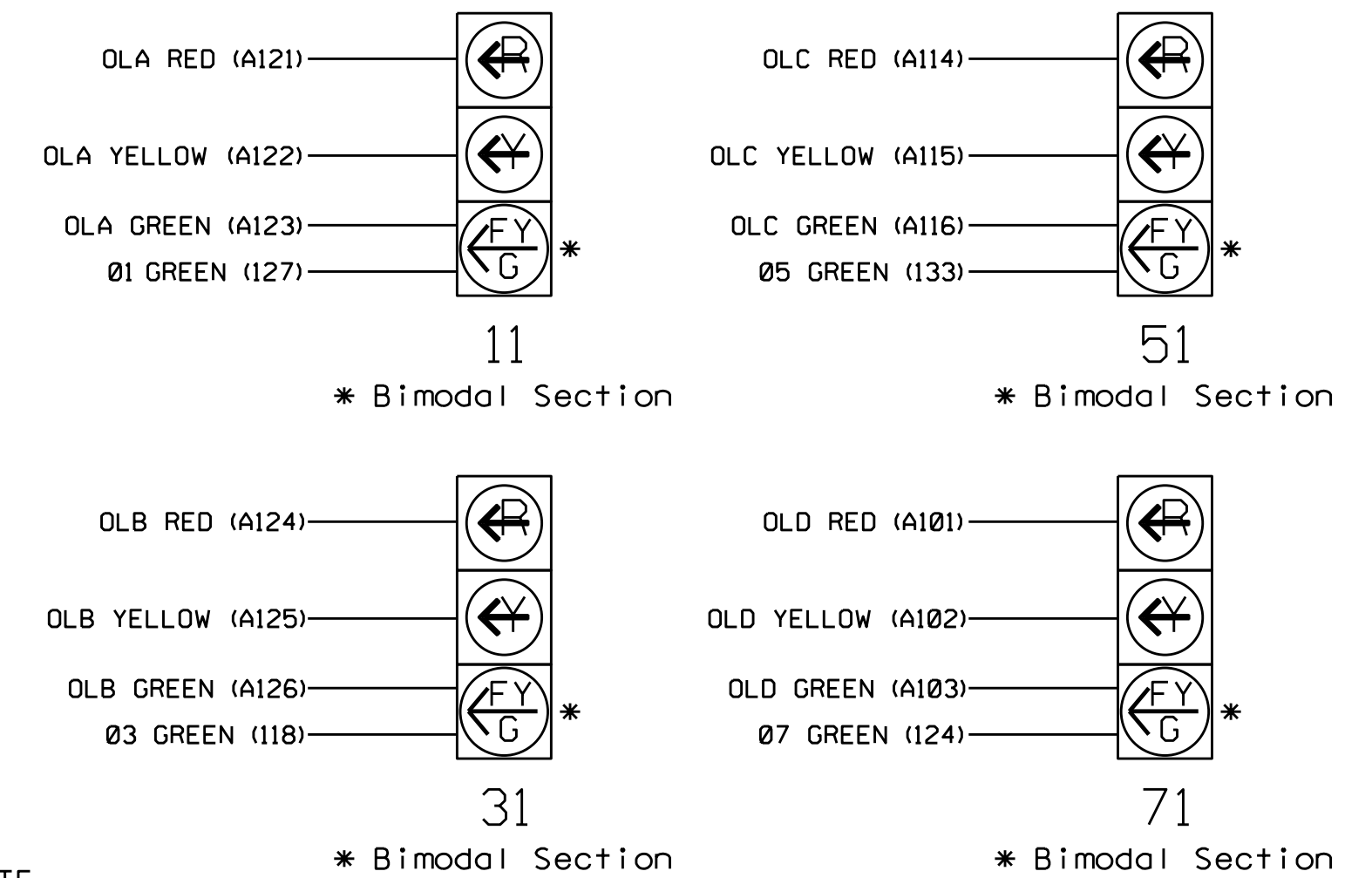
NU = Not Used

\* Denotes install load resistor. See load resistor installation detail this sheet.

\* See pictorial of head wiring in detail this sheet.

### FYA SIGNAL WIRING DETAIL

(wire signal heads as shown)



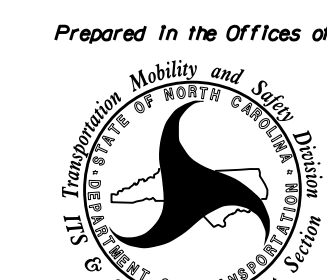
**NOTE**

The sequence display for signal heads 11, 31, 51, and 71 requires special logic programming. See sheet 2 for programming instructions.

THIS ELECTRICAL DETAIL IS FOR THE SIGNAL DESIGN: 09-0999  
 DESIGNED: March 2023  
 SEALED: 04/26/2022  
 REVISED: N/A

Electrical Detail - Sheet 1 of 6

ELECTRICAL AND PROGRAMMING DETAILS FOR:



750 N. Greenfield Pkwy, Corner, NC 27529

NC 67 (Reynolda Road) at Bethabara Park Boulevard and Old Town Shopping Center

Division 9 Forsyth County Winston-Salem

PLAN DATE: April 2023 REVIEWED BY:

PREPARED BY: S.Kirkpatrick REVIEWED BY:

REVISIONS	INIT.	DATE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL

North Carolina Professional Seal 036833

SEAL 036833

RYAN W. HOUGH

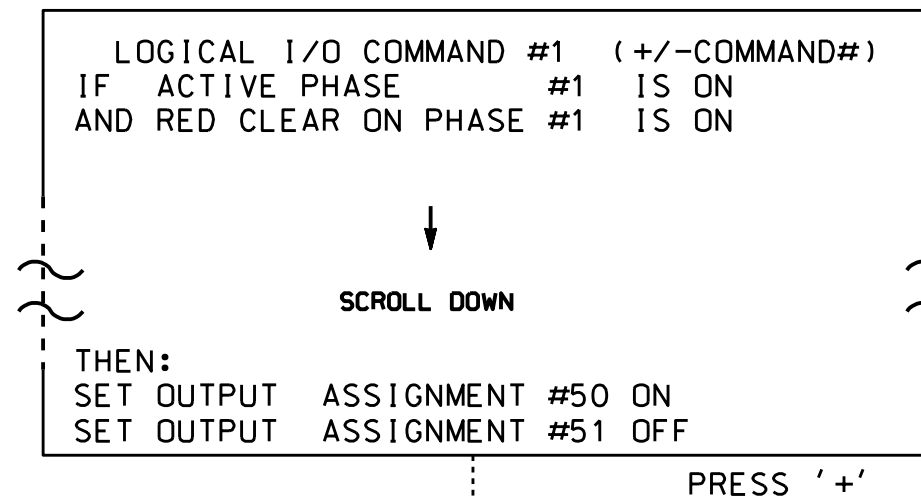
DocuSigned by: Ryan W. Hough 04/26/2023

SIG. INVENTORY NO. 09-0999

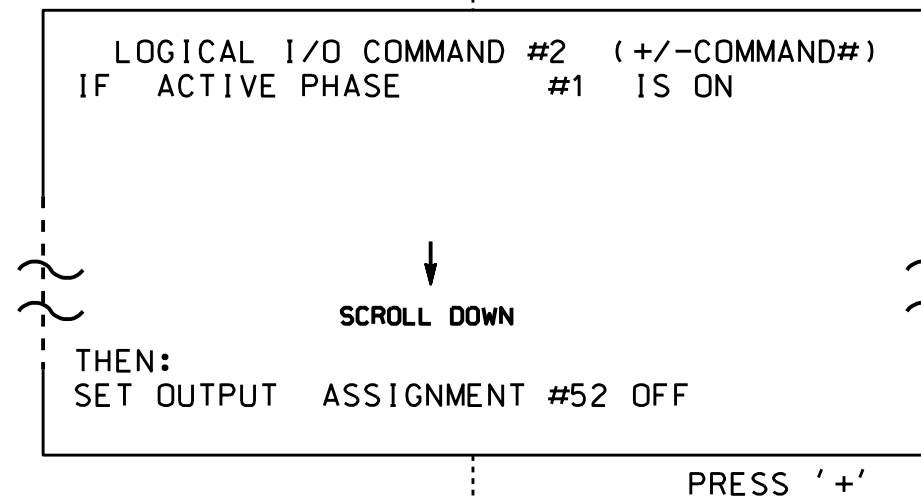
## LOGICAL I/O PROCESSOR PROGRAMMING DETAIL TO PRODUCE SPECIAL FYA-PPLT SIGNAL SEQUENCE

(program controller as shown below)

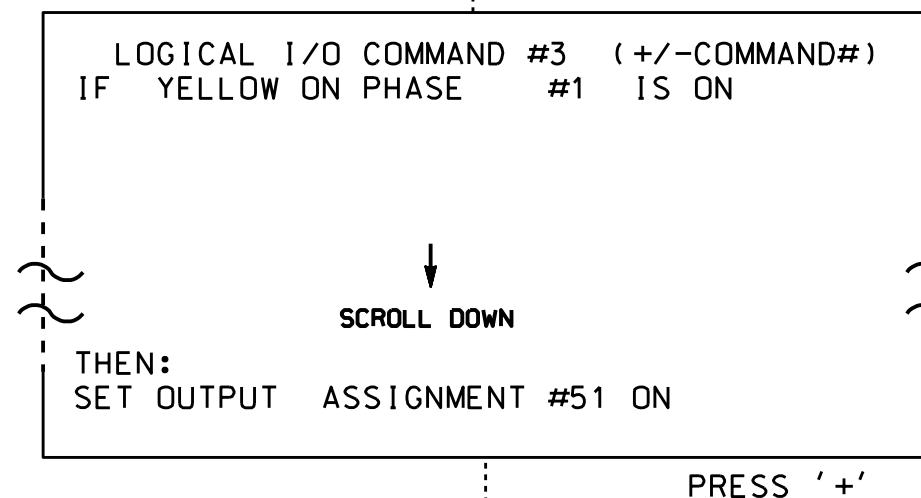
1. FROM MAIN MENU PRESS '2' (PHASE CONTROL), THEN '1' (PHASE CONTROL FUNCTIONS). SCROLL TO THE BOTTOM OF THE MENU AND ENABLE ACT LOGIC COMMANDS 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15 AND 16.
2. FROM MAIN MENU PRESS '6' (OUTPUTS), THEN '3' (LOGICAL I/O PROCESSOR).



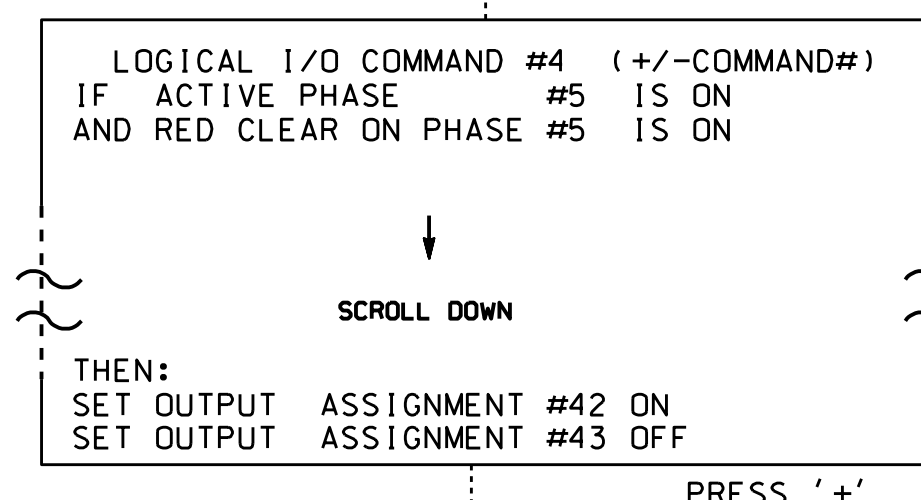
NOTE: LOGIC FOR PHASE 1 RED CLEAR WHEN TRANSITIONING FROM PHASE 1 TO PHASE 2 (HEAD 11).



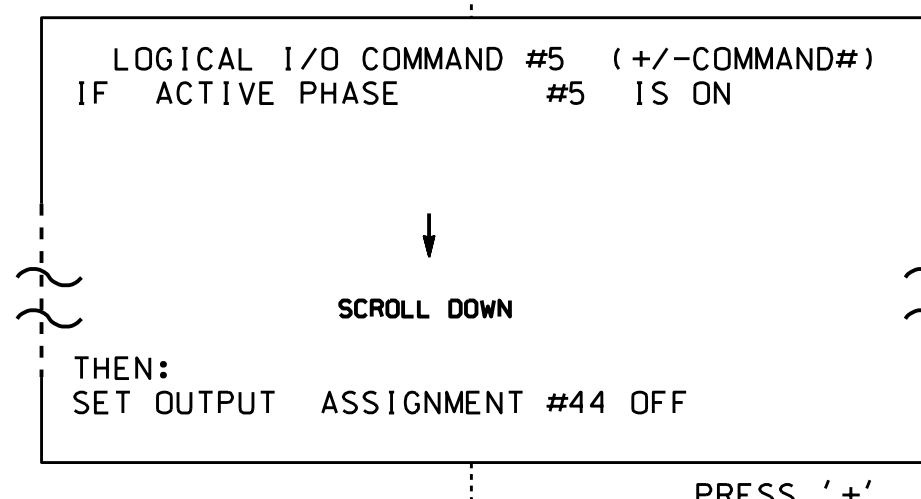
NOTE: LOGIC FOR SWITCHING FLASHING YELLOW ARROW "OFF" DURING PHASE 1 (HEAD 11).



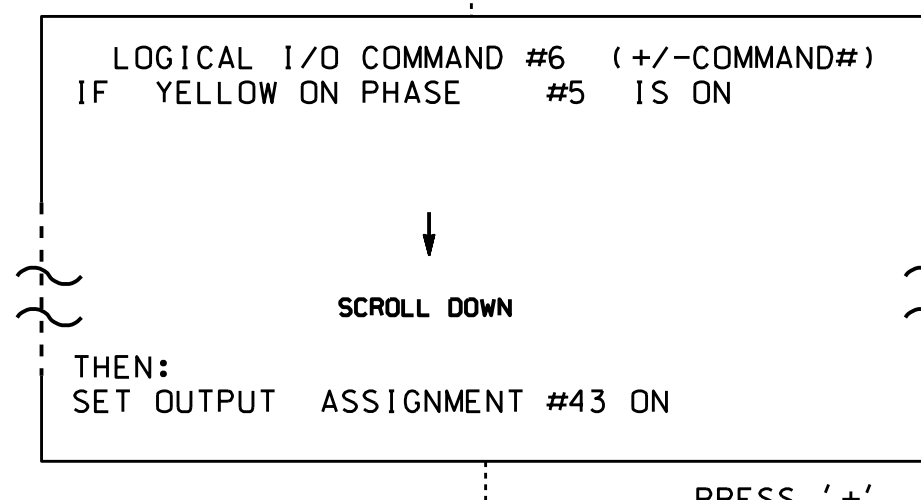
NOTE: LOGIC FOR YELLOW ARROW CLEARANCE FROM PHASE 1 (HEAD 11).



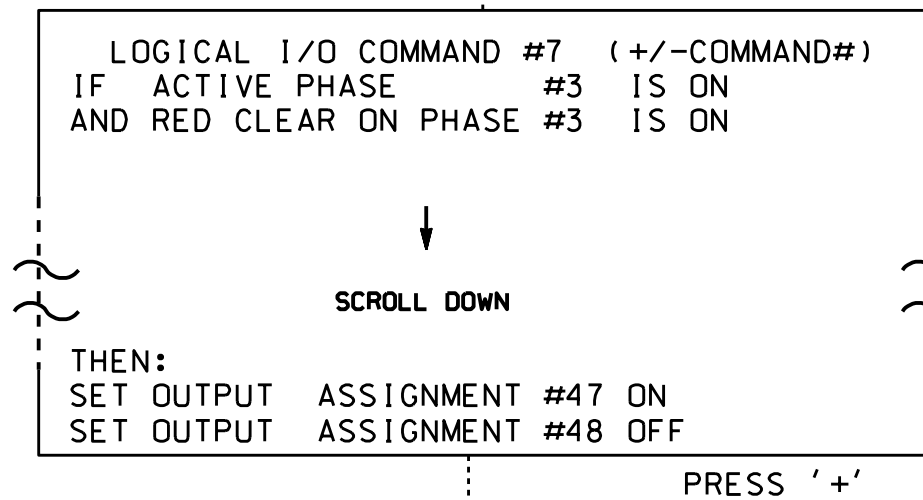
NOTE: LOGIC FOR PHASE 5 RED CLEAR WHEN TRANSITIONING FROM PHASE 5 TO PHASE 6 (HEAD 51).



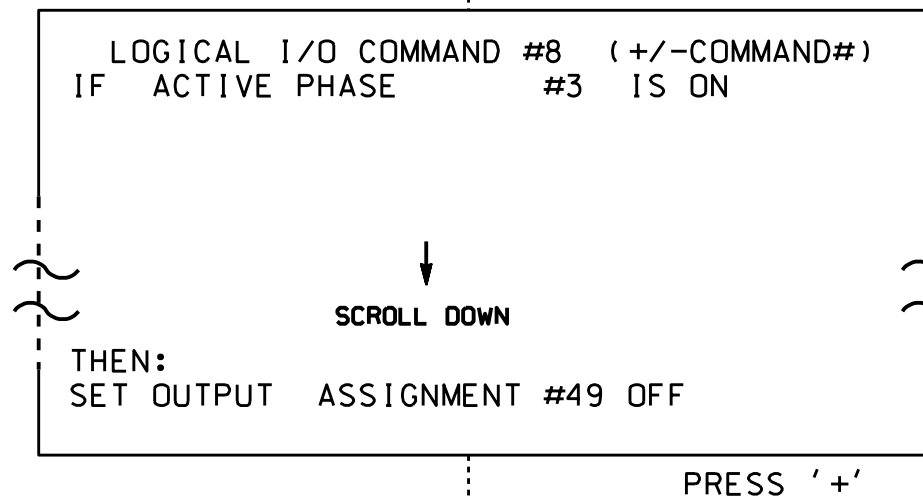
NOTE: LOGIC FOR SWITCHING FLASHING YELLOW ARROW "OFF" DURING PHASE 5 (HEAD 51).



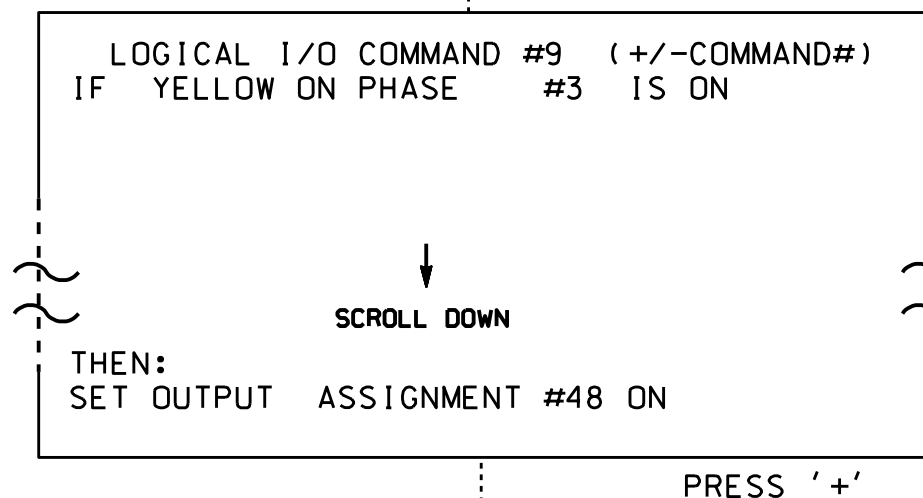
NOTE: LOGIC FOR YELLOW ARROW CLEARANCE FROM PHASE 5 (HEAD 51).



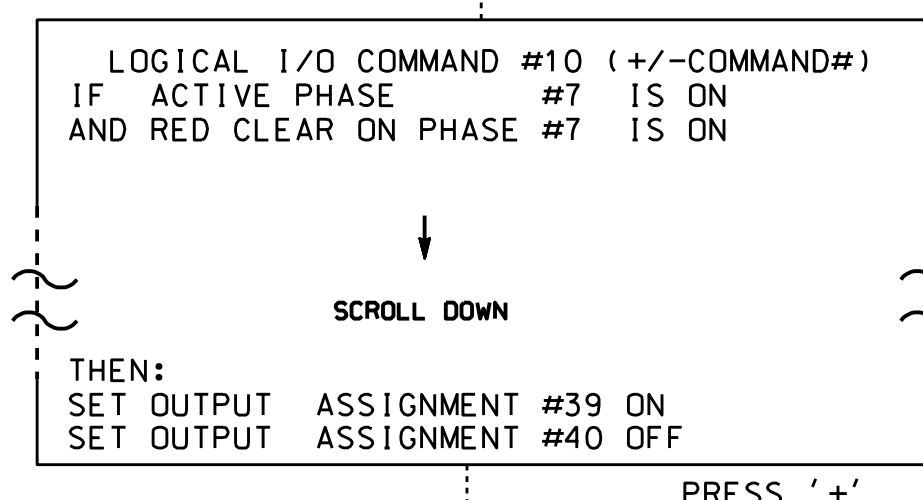
NOTE: LOGIC FOR PHASE 3 RED CLEAR WHEN TRANSITIONING FROM PHASE 3 TO PHASE 4 (HEAD 31).



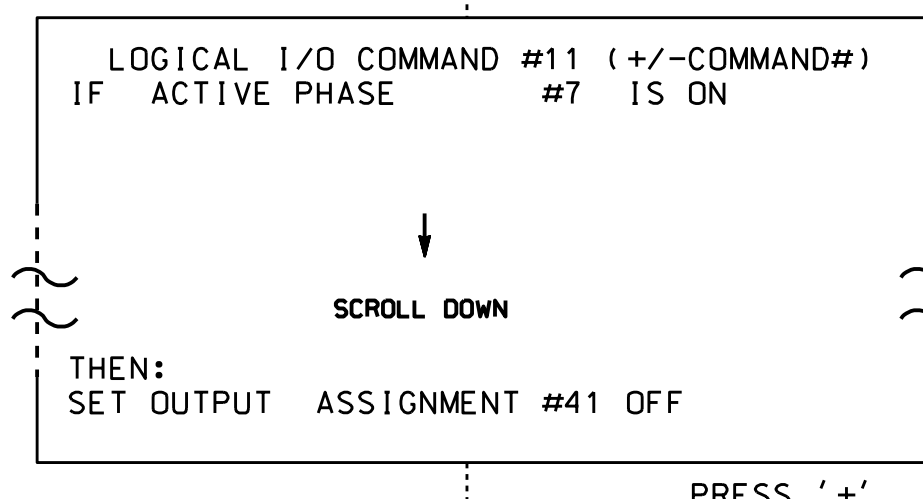
NOTE: LOGIC FOR SWITCHING FLASHING YELLOW ARROW "OFF" DURING PHASE 3 (HEAD 31).



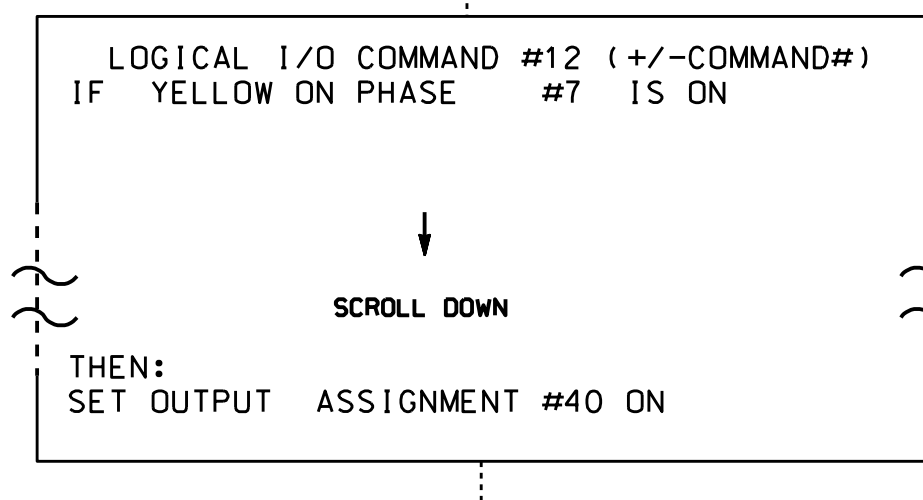
NOTE: LOGIC FOR YELLOW ARROW CLEARANCE FROM PHASE 3 (HEAD 31).



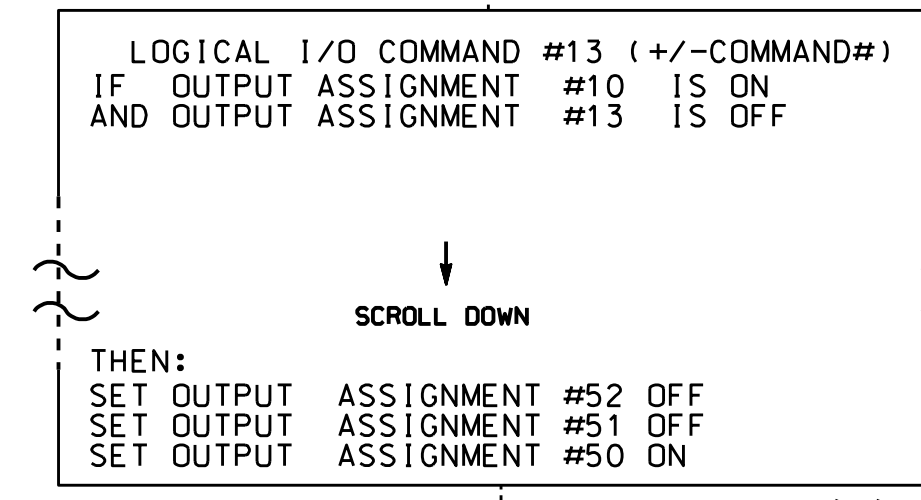
NOTE: LOGIC FOR PHASE 7 RED CLEAR WHEN TRANSITIONING FROM PHASE 7 TO PHASE 8 (HEAD 71).



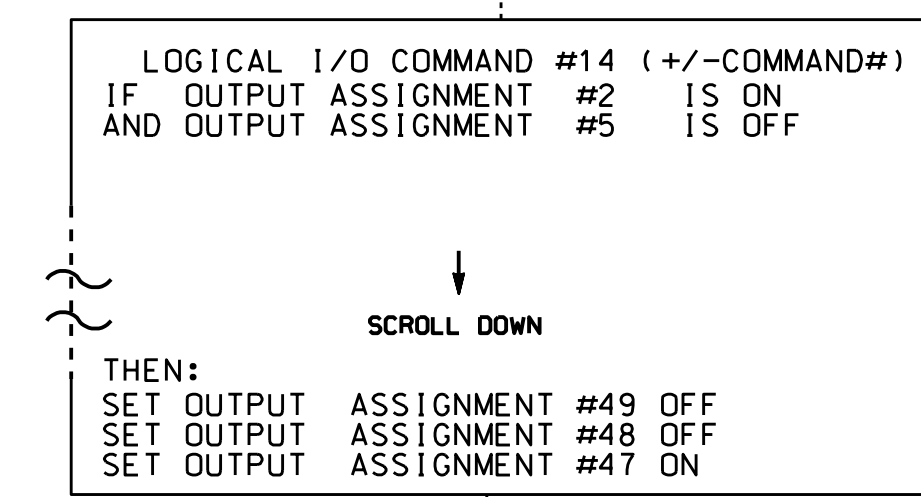
NOTE: LOGIC FOR SWITCHING FLASHING YELLOW ARROW "OFF" DURING PHASE 7 (HEAD 71).



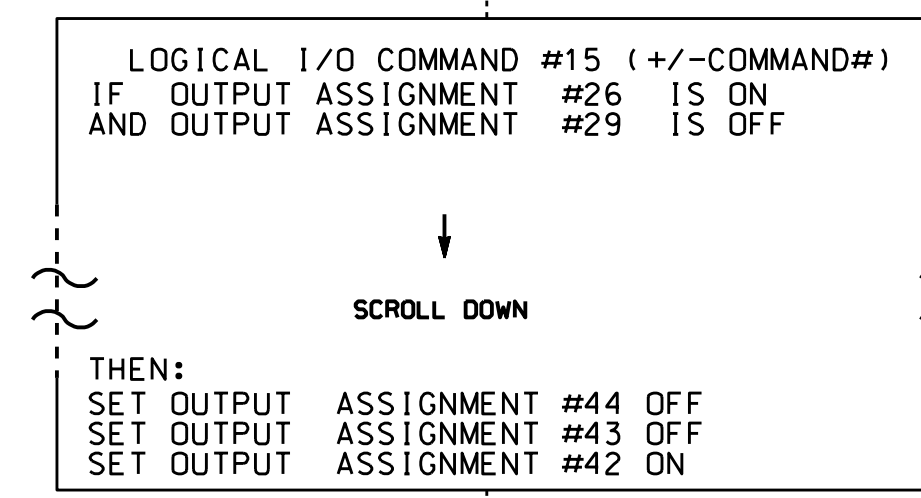
NOTE: LOGIC FOR YELLOW ARROW CLEARANCE FROM PHASE 7 (HEAD 71).



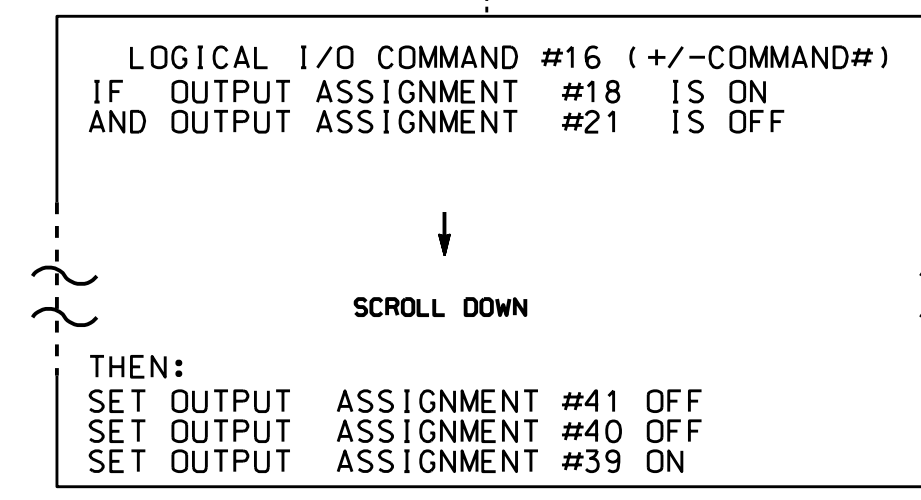
NOTE: LOGIC STATEMENT FOR ADVANCE WALK WITH FYA'S. TURN FYA HEAD 11 OFF DURING PED 2 ADVANCE WALK.



NOTE: LOGIC STATEMENT FOR ADVANCE WALK WITH FYA'S. TURN FYA HEAD 31 OFF DURING PED 4 ADVANCE WALK.



NOTE: LOGIC STATEMENT FOR ADVANCE WALK WITH FYA'S. TURN FYA HEAD 51 OFF DURING PED 6 ADVANCE WALK.



NOTE: LOGIC STATEMENT FOR ADVANCE WALK WITH FYA'S. TURN FYA HEAD 71 OFF DURING PED 8 ADVANCE WALK.

LOGIC I/O PROCESSOR PROGRAMMING COMPLETE

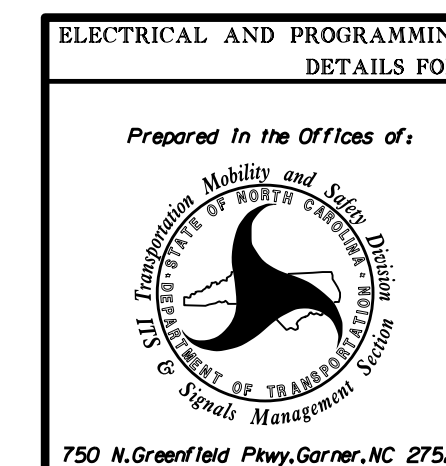
### OUTPUT REFERENCE SCHEDULE

USE TO INTERPRET LOGIC PROCESSOR

- OUTPUT 2 = 4 PED Walk
- OUTPUT 5 = Vehicle 4 Green
- OUTPUT 10 = 2 PED WALK
- OUTPUT 13 = Vehicle 2 Green
- OUTPUT 18 = 8 PED Walk
- OUTPUT 21 = Vehicle 8 Green
- OUTPUT 26 = 6 PED Walk
- OUTPUT 29 = Vehicle 6 Green
- OUTPUT 39 = Overlap D Red
- OUTPUT 40 = Overlap D Yellow
- OUTPUT 41 = Overlap D Green
- OUTPUT 42 = Overlap C Red
- OUTPUT 43 = Overlap C Yellow
- OUTPUT 44 = Overlap C Green
- OUTPUT 47 = Overlap B Red
- OUTPUT 48 = Overlap B Yellow
- OUTPUT 49 = Overlap B Green
- OUTPUT 50 = Overlap A Red
- OUTPUT 51 = Overlap A Yellow
- OUTPUT 52 = Overlap A Green

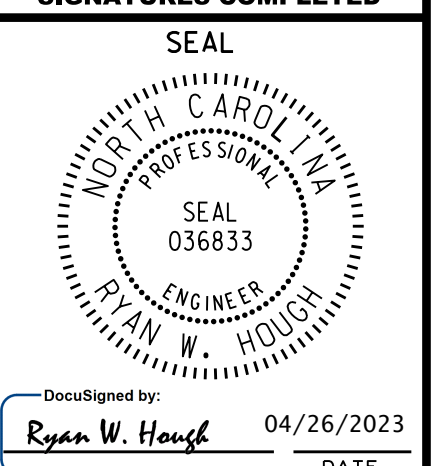
THIS ELECTRICAL DETAIL IS FOR  
THE SIGNAL DESIGN: 09-0999  
DESIGNED: March 2023  
SEALED: 04/26/2023  
REVISED: N/A

Electrical Detail - Sheet 2 of 6



<b>NC 67 (Reynolda Road)</b>	
at <b>Bethabara Park Boulevard</b> and <b>Old Town Shopping Center</b>	
Division 9	Forsyth County
Winston-Salem	
PLAN DATE: April 2023	REVIEWED BY:
PREPARED BY: S. Kirkpatrick	REVIEWED BY:
REVISIONS	INIT. DATE

DOCUMENT NOT CONSIDERED  
FINAL UNLESS ALL  
SIGNATURES COMPLETED



DocuSigned by:  
**Ryan W. Hough** 04/26/2023  
DATE  
SIG. INVENTORY NO. 09-0999



**OVERLAP PROGRAMMING DETAIL FOR DEFAULT PHASING**

(program controller as shown below)

FROM MAIN MENU PRESS '8' (OVERLAPS), THEN '1' (VEHICLE OVERLAP SETTINGS).

PAGE 1: VEHICLE OVERLAP 'A' SETTINGS  
 PHASE: :12345678910111213141516  
 VEH OVL PARENTS: :XX  
 VEH OVL NOT VEH: :  
 VEH OVL NOT PED: :  
 VEH OVL GRN EXT: :  
 STARTUP COLOR: - RED - YELLOW - GREEN  
 FLASH COLORS: - RED - YELLOW X GREEN  
 SELECT VEHICLE OVERLAP OPTIONS: (Y/N)  
 FLASH YELLOW IN CONTROLLER FLASH?...Y  
 GREEN EXTENSION (0-255 SEC)...0  
 YELLOW CLEAR (0=PARENT,3-25.5 SEC)...0.0  
 RED CLEAR (0=PARENT,0.1-25.5 SEC)...0.0  
 OUTPUT AS PHASE # (0=NONE, 1-16)...0

← NOTICE GREEN FLASH

PRESS '+'

PAGE 1: VEHICLE OVERLAP 'B' SETTINGS  
 PHASE: :12345678910111213141516  
 VEH OVL PARENTS: :XX  
 VEH OVL NOT VEH: :  
 VEH OVL NOT PED: :  
 VEH OVL GRN EXT: :  
 STARTUP COLOR: - RED - YELLOW - GREEN  
 FLASH COLORS: - RED - YELLOW X GREEN  
 SELECT VEHICLE OVERLAP OPTIONS: (Y/N)  
 FLASH YELLOW IN CONTROLLER FLASH?...N  
 GREEN EXTENSION (0-255 SEC)...0  
 YELLOW CLEAR (0=PARENT,3-25.5 SEC)...0.0  
 RED CLEAR (0=PARENT,0.1-25.5 SEC)...0.0  
 OUTPUT AS PHASE # (0=NONE, 1-16)...0

← NOTICE GREEN FLASH

PRESS '+'

PAGE 1: VEHICLE OVERLAP 'C' SETTINGS  
 PHASE: :12345678910111213141516  
 VEH OVL PARENTS: :XX  
 VEH OVL NOT VEH: :  
 VEH OVL NOT PED: :  
 VEH OVL GRN EXT: :  
 STARTUP COLOR: - RED - YELLOW - GREEN  
 FLASH COLORS: - RED - YELLOW X GREEN  
 SELECT VEHICLE OVERLAP OPTIONS: (Y/N)  
 FLASH YELLOW IN CONTROLLER FLASH?...Y  
 GREEN EXTENSION (0-255 SEC)...0  
 YELLOW CLEAR (0=PARENT,3-25.5 SEC)...0.0  
 RED CLEAR (0=PARENT,0.1-25.5 SEC)...0.0  
 OUTPUT AS PHASE # (0=NONE, 1-16)...0

← NOTICE GREEN FLASH

PRESS '+'

PAGE 1: VEHICLE OVERLAP 'D' SETTINGS  
 PHASE: :12345678910111213141516  
 VEH OVL PARENTS: :XX  
 VEH OVL NOT VEH: :  
 VEH OVL NOT PED: :  
 VEH OVL GRN EXT: :  
 STARTUP COLOR: - RED - YELLOW - GREEN  
 FLASH COLORS: - RED - YELLOW X GREEN  
 SELECT VEHICLE OVERLAP OPTIONS: (Y/N)  
 FLASH YELLOW IN CONTROLLER FLASH?...N  
 GREEN EXTENSION (0-255 SEC)...0  
 YELLOW CLEAR (0=PARENT,3-25.5 SEC)...0.0  
 RED CLEAR (0=PARENT,0.1-25.5 SEC)...0.0  
 OUTPUT AS PHASE # (0=NONE, 1-16)...0

← NOTICE GREEN FLASH

OVERLAP PROGRAMMING COMPLETE

**OVERLAP PROGRAMMING DETAIL FOR ALTERNATE PHASING**

(program controller as shown below)

FROM MAIN MENU PRESS '8' (OVERLAPS), THEN '1' (VEHICLE OVERLAP SETTINGS), PRESS 'NEXT' TO ADVANCE TO PAGE 2.

NOTICE PAGE 2 →

PAGE 2: VEHICLE OVERLAP 'A' SETTINGS  
 PHASE: :12345678910111213141516  
 VEH OVL PARENTS: :X  
 VEH OVL NOT VEH: :  
 VEH OVL NOT PED: :  
 VEH OVL GRN EXT: :  
 STARTUP COLOR: - RED - YELLOW - GREEN  
 FLASH COLORS: - RED - YELLOW - GREEN  
 SELECT VEHICLE OVERLAP OPTIONS: (Y/N)  
 FLASH YELLOW IN CONTROLLER FLASH?...Y  
 GREEN EXTENSION (0-255 SEC)...0  
 YELLOW CLEAR (0=PARENT,3-25.5 SEC)...0.0  
 RED CLEAR (0=PARENT,0.1-25.5 SEC)...0.0  
 OUTPUT AS PHASE # (0=NONE, 1-16)...0

NOTICE PAGE 2 →

PAGE 2: VEHICLE OVERLAP 'C' SETTINGS  
 PHASE: :12345678910111213141516  
 VEH OVL PARENTS: :X  
 VEH OVL NOT VEH: :  
 VEH OVL NOT PED: :  
 VEH OVL GRN EXT: :  
 STARTUP COLOR: - RED - YELLOW - GREEN  
 FLASH COLORS: - RED - YELLOW - GREEN  
 SELECT VEHICLE OVERLAP OPTIONS: (Y/N)  
 FLASH YELLOW IN CONTROLLER FLASH?...Y  
 GREEN EXTENSION (0-255 SEC)...0  
 YELLOW CLEAR (0=PARENT,3-25.5 SEC)...0.0  
 RED CLEAR (0=PARENT,0.1-25.5 SEC)...0.0  
 OUTPUT AS PHASE # (0=NONE, 1-16)...0

← NOTICE GREEN FLASH

PRESS '+'

NOTICE PAGE 2 →

PAGE 2: VEHICLE OVERLAP 'B' SETTINGS  
 PHASE: :12345678910111213141516  
 VEH OVL PARENTS: :XX  
 VEH OVL NOT VEH: :  
 VEH OVL NOT PED: :  
 VEH OVL GRN EXT: :  
 STARTUP COLOR: - RED - YELLOW - GREEN  
 FLASH COLORS: - RED - YELLOW X GREEN  
 SELECT VEHICLE OVERLAP OPTIONS: (Y/N)  
 FLASH YELLOW IN CONTROLLER FLASH?...N  
 GREEN EXTENSION (0-255 SEC)...0  
 YELLOW CLEAR (0=PARENT,3-25.5 SEC)...0.0  
 RED CLEAR (0=PARENT,0.1-25.5 SEC)...0.0  
 OUTPUT AS PHASE # (0=NONE, 1-16)...0

NOTICE PAGE 2 →

PAGE 2: VEHICLE OVERLAP 'D' SETTINGS  
 PHASE: :12345678910111213141516  
 VEH OVL PARENTS: :XX  
 VEH OVL NOT VEH: :  
 VEH OVL NOT PED: :  
 VEH OVL GRN EXT: :  
 STARTUP COLOR: - RED - YELLOW - GREEN  
 FLASH COLORS: - RED - YELLOW X GREEN  
 SELECT VEHICLE OVERLAP OPTIONS: (Y/N)  
 FLASH YELLOW IN CONTROLLER FLASH?...N  
 GREEN EXTENSION (0-255 SEC)...0  
 YELLOW CLEAR (0=PARENT,3-25.5 SEC)...0.0  
 RED CLEAR (0=PARENT,0.1-25.5 SEC)...0.0  
 OUTPUT AS PHASE # (0=NONE, 1-16)...0

← NOTICE GREEN FLASH

PRESS '+'

OVERLAP PROGRAMMING COMPLETE

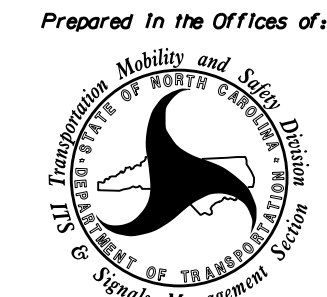
**ADVANCED WALK NOTE**

(program controller as shown below)

From Main Menu press '2' (Phase Control), then '1' (Phase Control Functions). Program phases 2, 4, 6 and 8 for 'Advanced Walk'. Make sure the Walk Advance Time shown on the Signal Design plans are programmed in the 'Phase Timing' menu.

THIS ELECTRICAL DETAIL IS FOR THE SIGNAL DESIGN: 09-0999  
 DESIGNED: March 2023  
 SEALED: 04/26/2023  
 REVISED: N/A

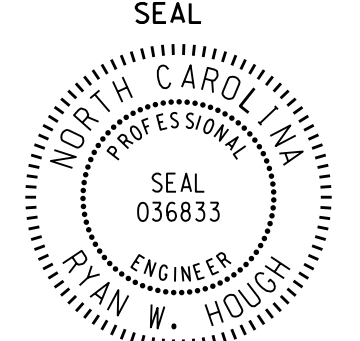
Electrical Detail - Sheet 3 of 6

ELECTRICAL AND PROGRAMMING DETAILS FOR:  
 Prepared in the Offices of:  
  
 750 N. Greenfield Pkwy, Corner, NC 27529

NC 67 (Reynolda Road)  
 at  
 Bethabara Park Boulevard  
 and Old Town Shopping Center  
 Division 9 Forsyth County Winston-Salem  
 PLAN DATE: April 2023 REVIEWED BY:  
 PREPARED BY: S. Kirkpatrick REVIEWED BY:  

REVISIONS	INIT.	DATE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

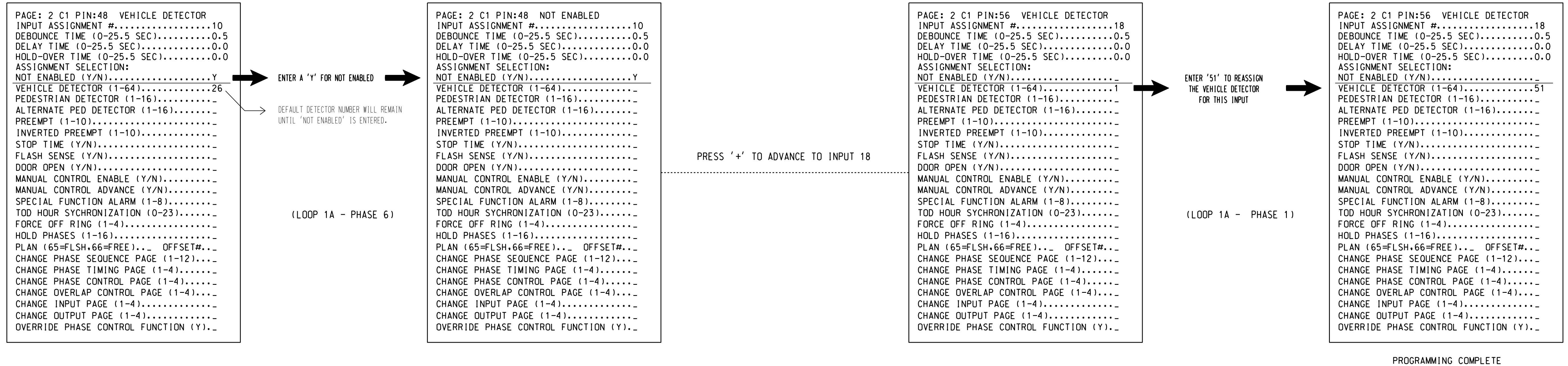
SEAL  
  
 Ryan W. Hough  
 04/26/2023  
 DATE  
 SIG. INVENTORY NO. 09-0999

INPUT PAGE 2 ASSIGNMENT PROGRAMMING DETAIL FOR ALTERNATE PHASING - LOOP 1A

(program controller as shown below)

- NOTES: 1. THIS PROGRAMMING APPLIES FOR INPUT PAGE 2 ONLY. INPUT PAGE 1 WILL USE STANDARD DEFAULT SETTINGS. THIS PROGRAMMING IS NECESSARY FOR PROPER DETECTOR OPERATION DURING ALTERNATE PHASING OPERATION.
2. THE FIRST TASK THIS PROGRAMMING ACCOMPLISHES IS THE DISABLING OF INPUT #10 (DETECTOR 26) SO THAT A VEHICLE CALL WILL NOT BE PLACED TO PHASE 6 DURING ALTERNATE PHASING OPERATION. THE SECOND TASK THIS PROGRAMMING ACCOMPLISHES IS THAT IT REASSIGNS DETECTOR 51 TO INPUT #18 SO THAT THE DELAY ON LOOP 1A CAN BE REDUCED FROM 15 SECONDS TO 3 SECONDS.

FROM MAIN MENU PRESS '5' (INPUTS), THEN PRESS 'NEXT' TO GET TO INPUT PAGE '2'. PRESS THE '+' KEY UNTIL INPUT 10 IS REACHED.

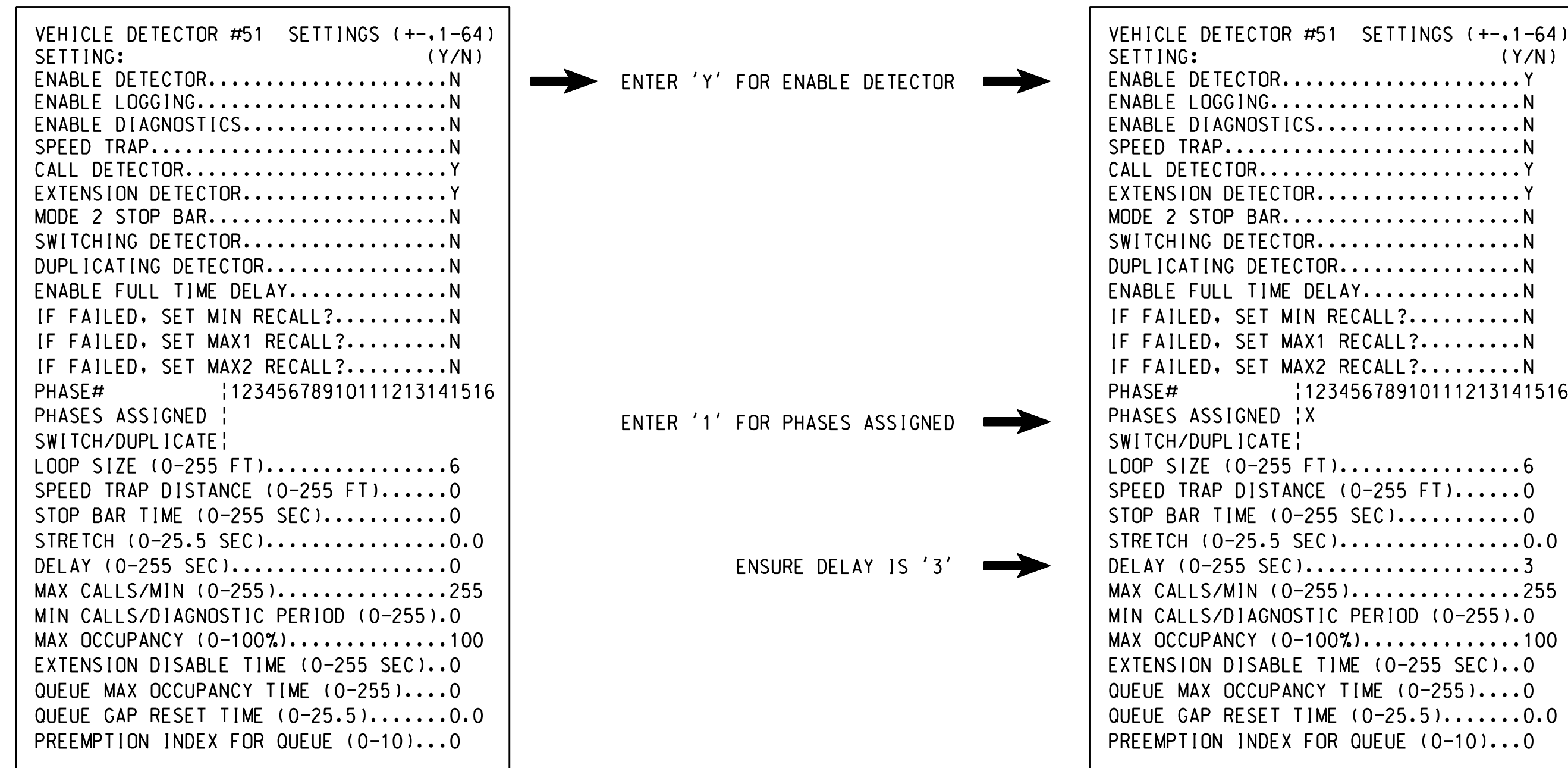


PROGRAMMING COMPLETE

SPECIAL DETECTOR PROGRAMMING DETAIL - LOOP 1A (ALT.)

(program controller as shown below)

FROM MAIN MENU PRESS '7' (DETECTORS), THEN PRESS '1' FOR VEHICLE DETECTORS. PRESS THE '-' KEY TO GET TO VEHICLE DETECTOR #51.



DETECTOR PROGRAMMING COMPLETE

NOTE: DETECTOR IS PROGRAMMED PER THE INPUT FILE CONNECTION AND PROGRAMMING CHART SHOWN ON SHEET 1.

THIS ELECTRICAL DETAIL IS FOR THE SIGNAL DESIGN: 09-0999  
 DESIGNED: March 2023  
 SEALED: 04/26/2023  
 REVISED: N/A

Electrical Detail - Sheet 4 of 6

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Offices of:  
 Transportation, Mobility and Safety Division  
 STATE OF NORTH CAROLINA  
 Department of Transportation  
 Signal Management

750 N. Greenfield Pkwy, Corner, NC 27529

NC 67 (Reynolda Road) at Bethabara Park Boulevard and Old Town Shopping Center

Division 9 Forsyth County Winston-Salem

PLAN DATE: April 2023 REVIEWED BY:

PREPARED BY: S. Kirkpatrick REVIEWED BY:

REVISIONS	INIT.	DATE

DocuSigned by: Ryan W. Hough 04/26/2023

SEAL 036833

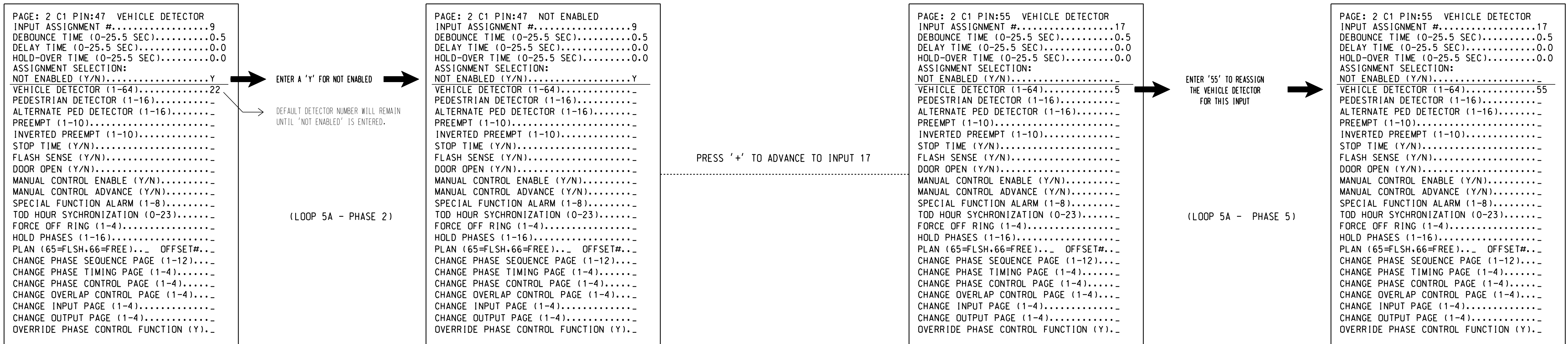
SIG. INVENTORY NO. 09-0999

INPUT PAGE 2 ASSIGNMENT PROGRAMMING DETAIL FOR ALTERNATE PHASING - LOOP 5A

(program controller as shown below)

- NOTES: 1. THIS PROGRAMMING APPLIES FOR INPUT PAGE 2 ONLY. INPUT PAGE 1 WILL USE STANDARD DEFAULT SETTINGS. THIS PROGRAMMING IS NECESSARY FOR PROPER DETECTOR OPERATION DURING ALTERNATE PHASING OPERATION.
2. THE FIRST TASK THIS PROGRAMMING ACCOMPLISHES IS THE DISABLING OF INPUT #9 (DETECTOR 22) SO THAT A VEHICLE CALL WILL NOT BE PLACED TO PHASE 2 DURING ALTERNATE PHASING OPERATION. THE SECOND TASK THIS PROGRAMMING ACCOMPLISHES IS THAT IT REASSIGNS DETECTOR 55 TO INPUT #17 SO THAT THE DELAY ON LOOP 5A CAN BE REDUCED FROM 15 SECONDS TO 3 SECONDS.

FROM MAIN MENU PRESS '5' (INPUTS), THEN PRESS 'NEXT' TO GET TO INPUT PAGE '2'. PRESS THE '+' KEY UNTIL INPUT 9 IS REACHED.

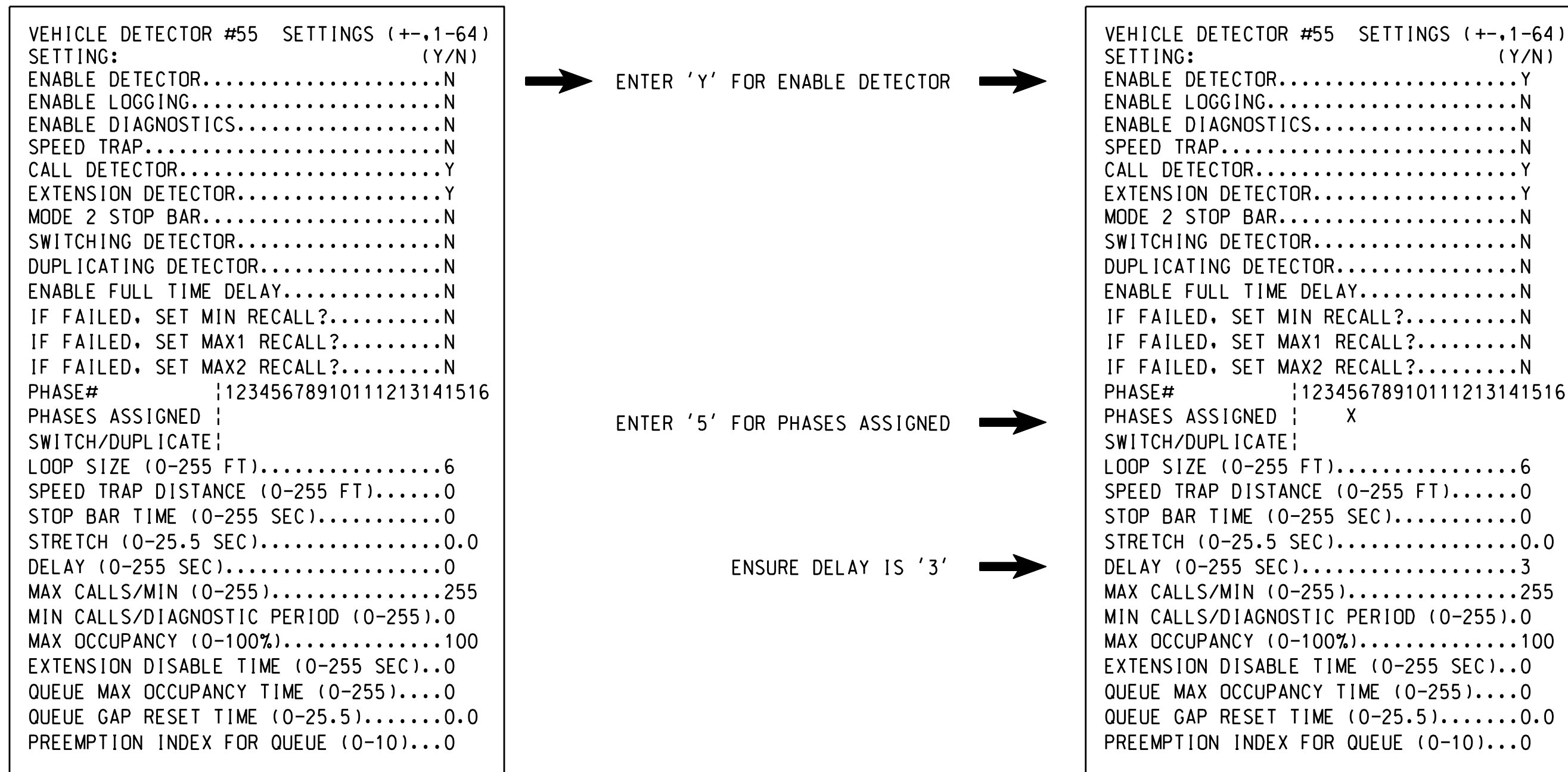


PROGRAMMING COMPLETE

SPECIAL DETECTOR PROGRAMMING DETAIL - LOOP 5A (ALT.)

(program controller as shown below)

FROM MAIN MENU PRESS '7' (DETECTORS), THEN PRESS '1' FOR VEHICLE DETECTORS. PRESS THE '-' KEY TO GET TO VEHICLE DETECTOR #55.



NOTE: DETECTOR IS PROGRAMMED PER THE INPUT FILE CONNECTION AND PROGRAMMING CHART SHOWN ON SHEET 1.

THIS ELECTRICAL DETAIL IS FOR THE SIGNAL DESIGN: 09-0999  
 DESIGNED: March 2023  
 SEALED: 04/26/2023  
 REVISED: N/A

Electrical Detail - Sheet 5 of 6

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL  
 NORTH CAROLINA PROFESSIONAL ENGINEER  
 SEAL 036833  
 RYAN W. HOUGH

Prepared in the Offices of:  
 Transportation, Mobility and Safety Division  
 STATE OF NORTH CAROLINA  
 Department of Transportation  
 750 N. Greenfield Pkwy, Corner, NC 27529

750 N. Greenfield Pkwy, Corner, NC 27529

NC 67 (Reynolda Road) at Bethabara Park Boulevard and Old Town Shopping Center

Division 9 Forsyth County Winston-Salem

PLAN DATE: April 2023 REVIEWED BY:

PREPARED BY: S. Kirkpatrick REVIEWED BY:

REVISIONS	INIT.	DATE

DocuSigned by:  
 Ryan W. Hough 04/26/2023  
 DATE

SIG. INVENTORY NO. 09-0999

26-APR-2023 13:49  
 S:\IT\GIS\GIS\Sigal\Workgroups\4519 Mon#Projects From Signal Design\Mch1\ve Projects\Mch1\sigal\09-0999\090999\_sm.ele\_20230426.dgn  
 sgp:lrp:chr:ck

## ALTERNATE PHASING ACTIVATION DETAIL

TO RUN ALT. PHASING DURING COORDINATION - SELECT ALL PAGE CHANGES (AS SHOWN BELOW) WITHIN COORDINATION PLAN PROGRAMMING.

TO RUN ALT. PHASING DURING FREE RUN - PROGRAM PAGE CHANGES (SHOWN BELOW) IN SEPARATE TIME OF DAY EVENTS. IF PAGE 1 IS USED, NO EVENT PROGRAMMING IS NECESSARY FOR THAT PARTICULAR PAGE.

<u>PHASING</u>	<u>INPUTS PAGE</u>	<u>OVERLAPS PAGE</u>
ACTIVE PAGES REQUIRED TO RUN <u>DEFAULT PHASING</u>	1	1
ACTIVE PAGES REQUIRED TO RUN <u>ALTERNATE PHASING</u>	2	2

NOTE: PAGES NOT SHOWN (i.e. sequence, phase control, etc.) SHOULD REMAIN AS '1', OR AS DEFINED BY TIMING ENGINEER.

IMPORTANT: IF ALT. PHASING IS USED DURING FREE RUN AND COORDINATION, DO NOT OPERATE TIME OF DAY PAGE CHANGE EVENTS CONCURRENTLY WITH COORDINATION PLAN EVENTS IN THE EVENT SCHEDULER. (EX. FREE RUN PAGE CHANGE EVENT SHOULD END BEFORE COORDINATION PLAN EVENT STARTS AND VICE-VERSA).

### ALTERNATE PHASING PAGE CHANGE SUMMARY

THE FOLLOWING IS A SUMMARY OF WHAT TAKES PLACE WHEN THESE OVERLAP/INPUT PAGE CHANGES ACTIVATE TO CALL THE "ALTERNATE PHASING":

OVERLAPS PAGE 2: Modifies overlap parent phases for heads 11 and 51 to run protected turns only.

INPUTS PAGE 2: Disables phase 6 call on loop 1A and reduces delay time for phase 1 call on loop 1A to 3 seconds.

Disables phase 2 call on loop 5A and reduces delay time for phase 5 call on loop 5A to 3 seconds.

## FLASHER CIRCUIT MODIFICATION DETAIL

IN ORDER TO ENSURE THAT SIGNALS FLASH CONCURRENTLY ON THE SAME APPROACH, MAKE THE FOLLOWING FLASHER CIRCUIT CHANGES:

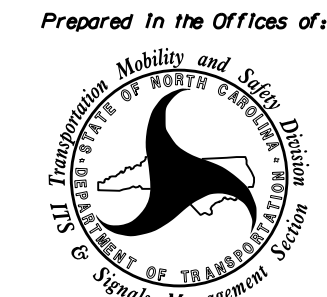
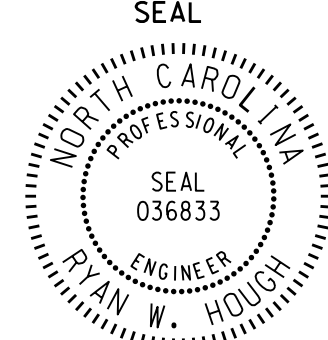
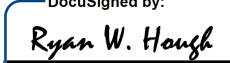
1. ON REAR OF PDA - REMOVE WIRE FROM TERM. T2-4 AND TERMINATE ON T2-2.
2. ON REAR OF PDA - REMOVE WIRE FROM TERM. T2-5 AND TERMINATE ON T2-3.
3. REMOVE FLASHER UNIT 2.

THE CHANGES LISTED ABOVE TIES ALL PHASES AND OVERLAPS TO FLASHER UNIT 1.

THIS ELECTRICAL DETAIL IS FOR THE SIGNAL DESIGN: 09-0999  
 DESIGNED: March 2023  
 SEALED: 04/26/2023  
 REVISED: N/A

Electrical Detail - Sheet 6 of 6

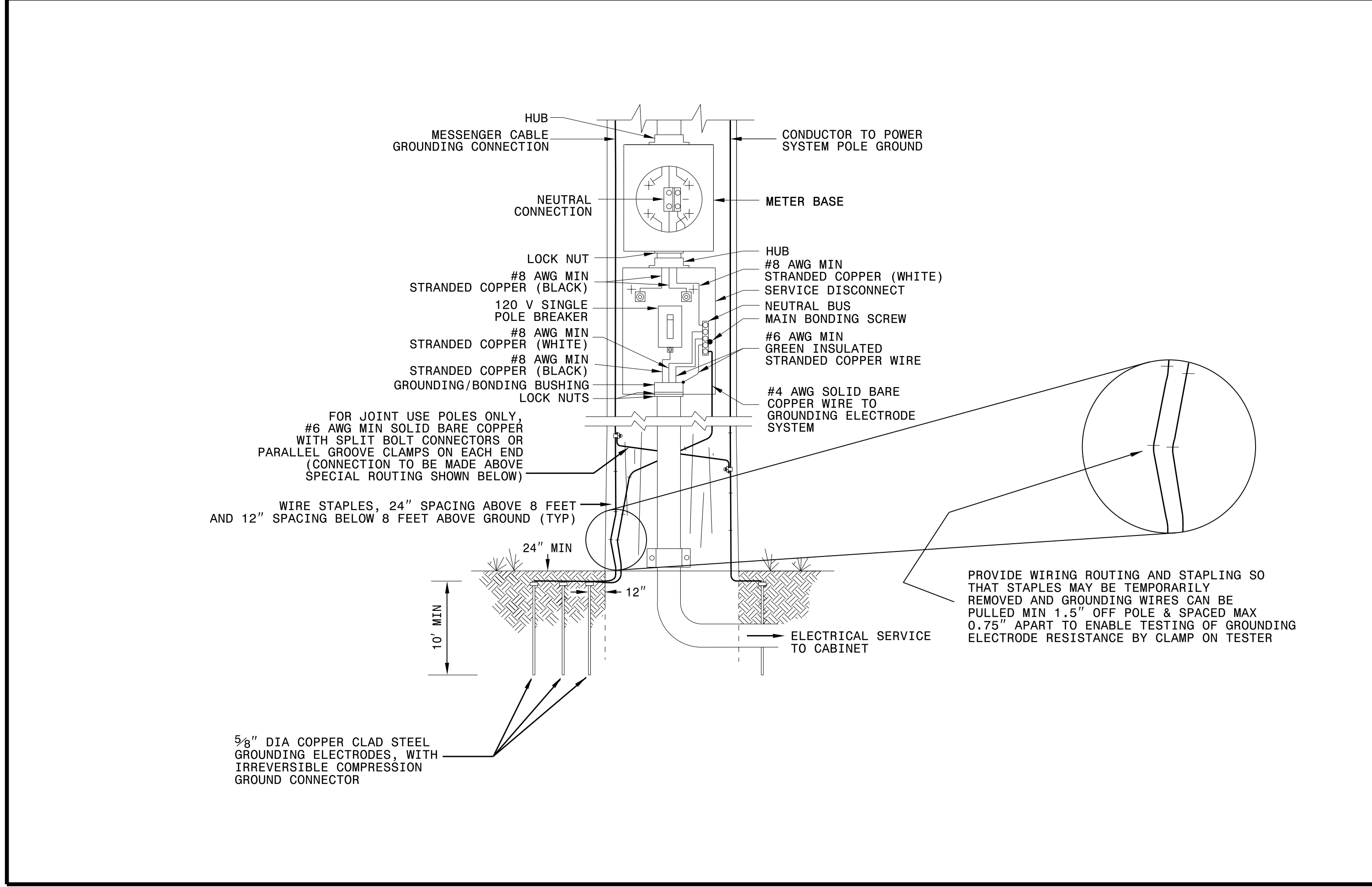
DOCUMENT NOT CONSIDERED  
FINAL UNLESS ALL  
SIGNATURES COMPLETED

 Prepared in the Offices of: 750 N. Greenfield Pkwy, Garner, NC 27529	<b>NC 67 (Reynolda Road)</b> at <b>Bethabara Park Boulevard</b> and Old Town Shoppng Center Division 9    Forsyth County    Winston-Salem PLAN DATE: April 2023    REVIEWED BY: PREPARED BY: S. Kirkpatrick    REVIEWED BY:	SEAL  SEAL 036833 RYAN W. HOUGH ENGINEER									
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 80%;">REVISIONS</th> <th style="width: 10%;">INIT.</th> <th style="width: 10%;">DATE</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>		REVISIONS	INIT.	DATE							DocuSigned by:  04/26/2023 DATE SIG. INVENTORY NO. 09-0999
REVISIONS	INIT.	DATE									

1-18 STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR  
**ELECTRICAL SERVICE GROUNDING**  
GROUNDING AND BONDING

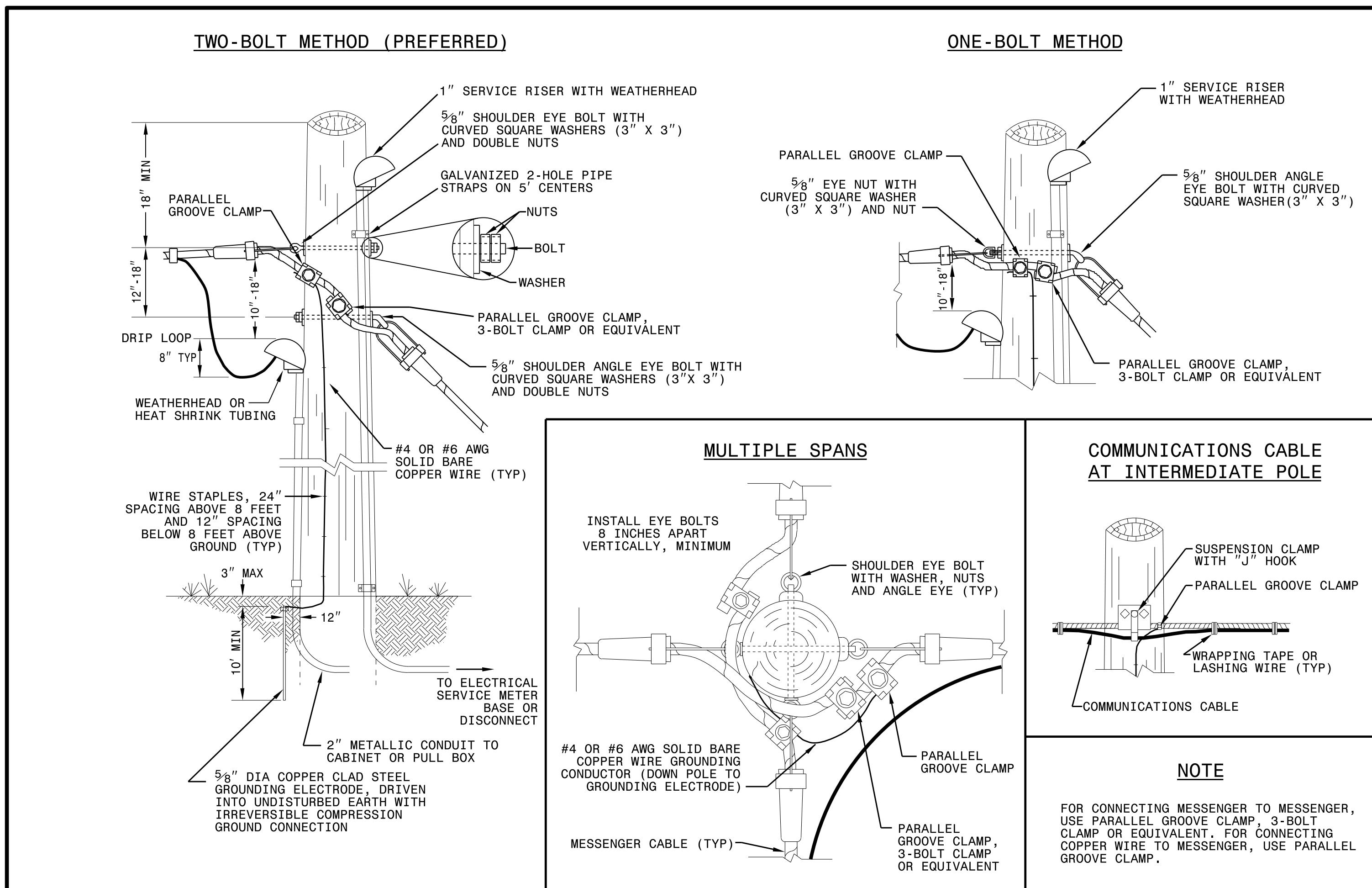
SHEET 1 OF 1  
**1700D01**



1-18 STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR  
**WOOD POLES**  
METHODS OF ATTACHMENT AND GROUNDING

SHEET 1 OF 1  
**1720D01**



DOCUMENT NOT CONSIDERED  
FINAL UNLESS ALL  
SIGNATURES COMPLETED

See Plate for Title

Prepared in the Offices of:

SEAL

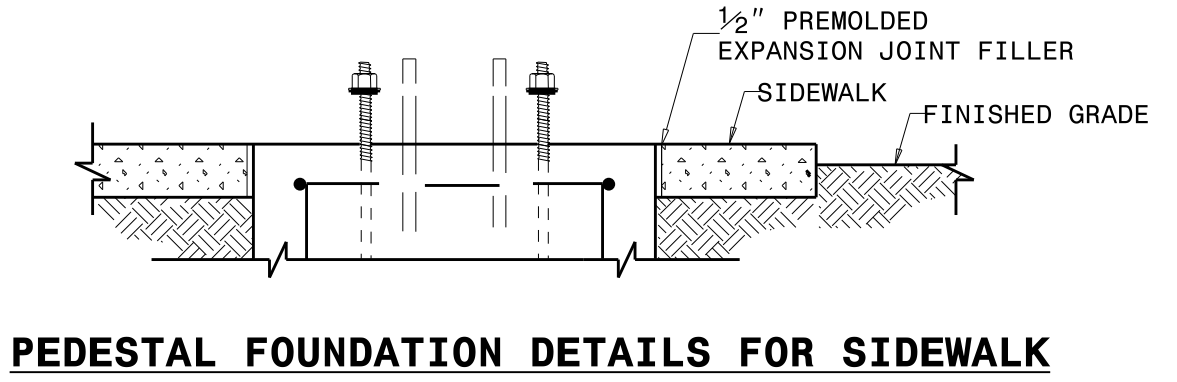
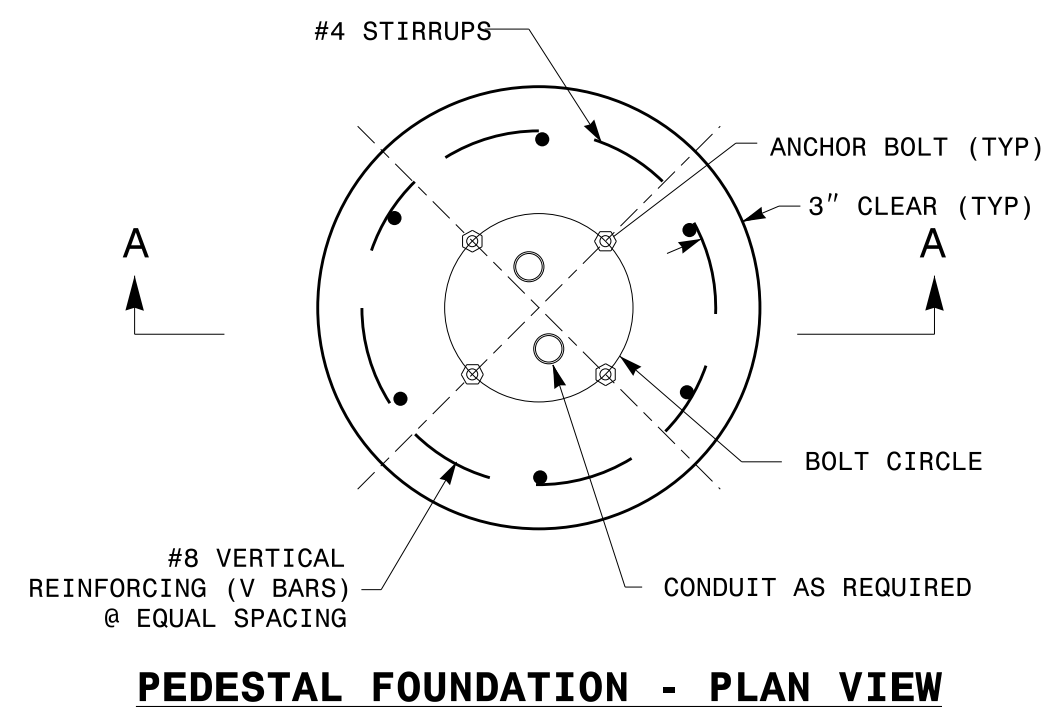
DocuSigned by:  
Mohd Aslami

10/11/2017

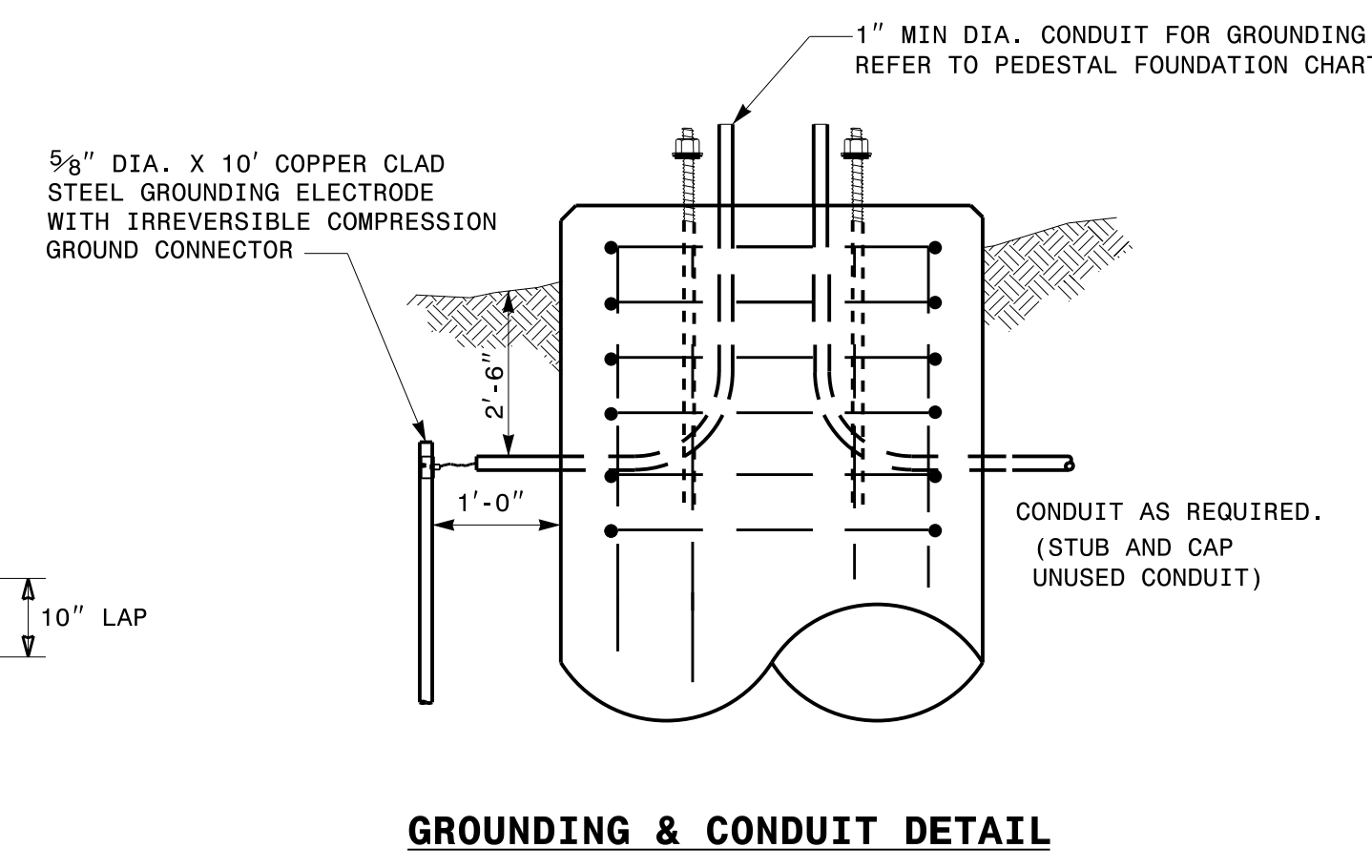
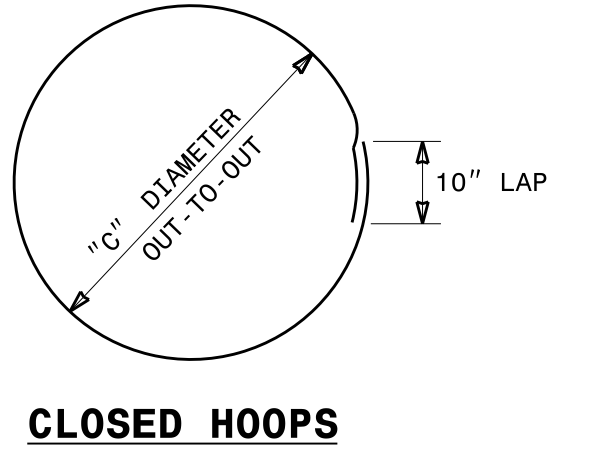
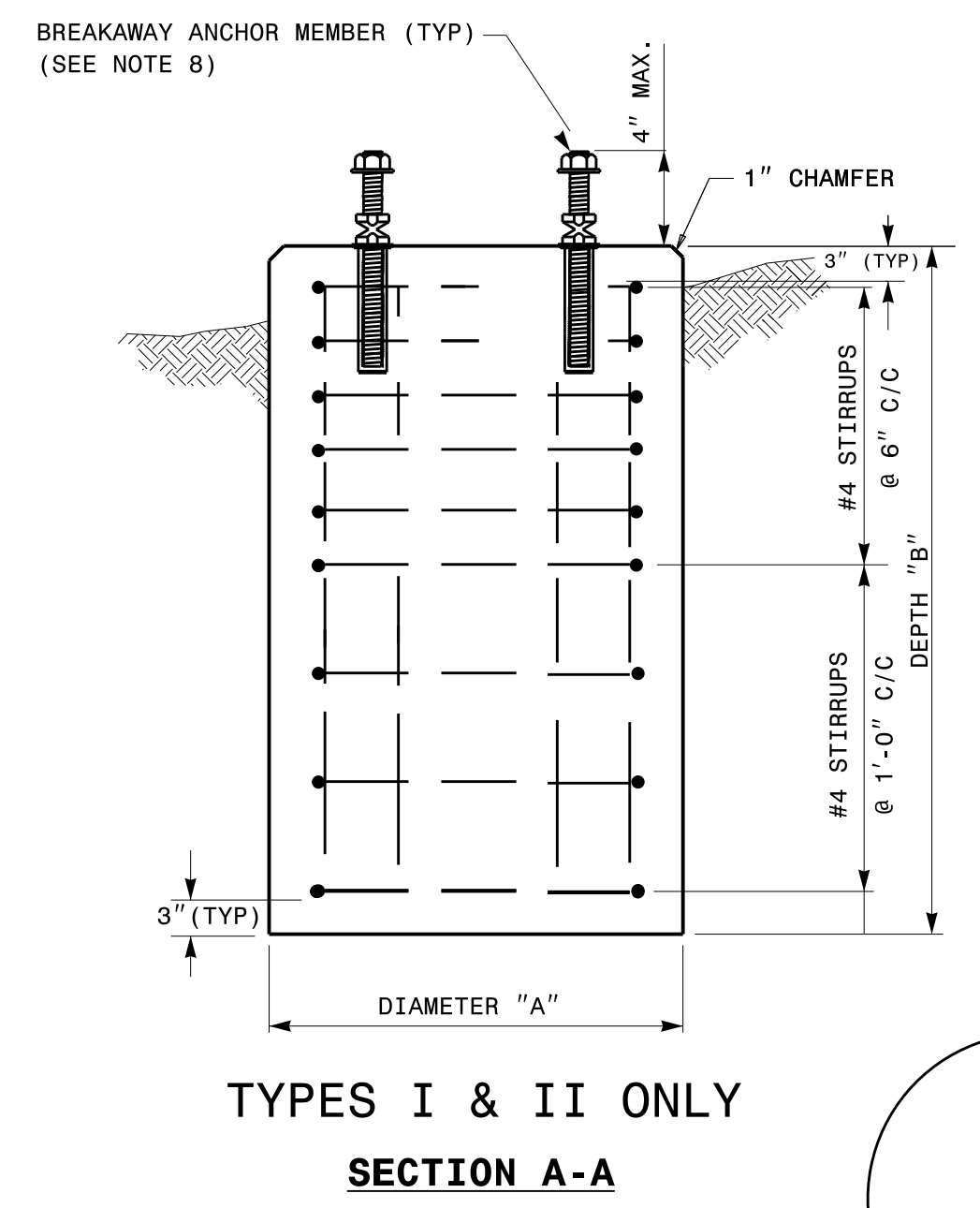
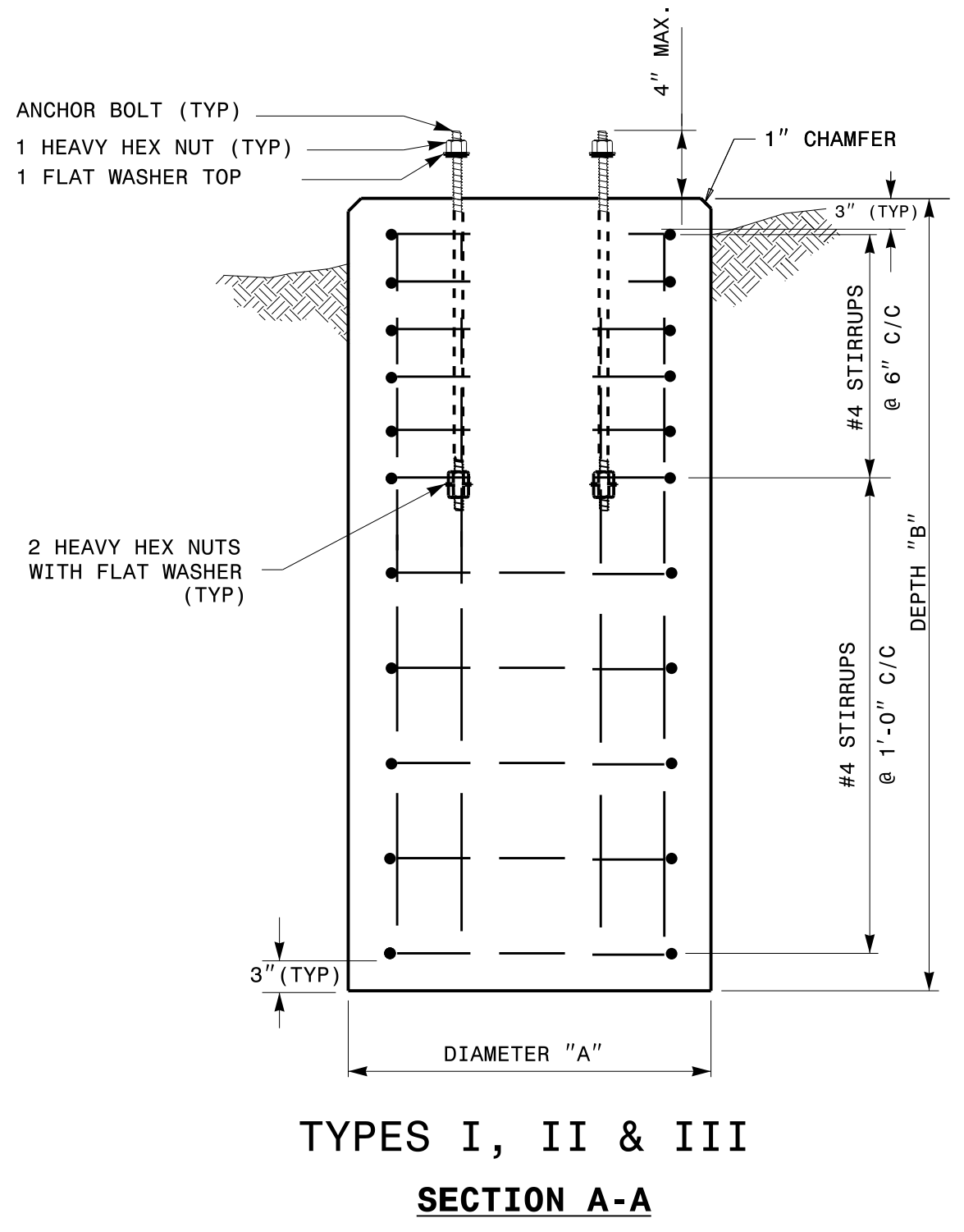
750 N. Greenfield Parkway  
Garner, NC 27529

DATE

11-0CT-2017\_08r56  
11-2018\_S14\_DrawingPlate\_Sheets2018\_Plate\_Sheet.dgn  
r:\rough



- NOTES:**
- CAST FOUNDATION AGAINST UNDISTURBED SOIL WHEREVER CONDITIONS PERMIT. IN UNSTABLE SOIL, CAST-IN-PLACE TUBE FORMS ARE ALLOWED WITH APPROVAL.
  - COMPLY WITH APPLICABLE PROVISIONS OF SECTION 825 FOR CONCRETE CONSTRUCTION.
  - USE CLASS "A" CONCRETE THAT MEETS THE REQUIREMENTS OF SECTION 1000 WITH A COMPRESSION STRENGTH AT 28 DAYS OF  $F'c = 3000$  PSI (MIN.).
  - USE ASTM GRADE 60 DEFORMED BARS FOR ALL REINFORCING STEEL.
  - GRADE IS ASSUMED TO BE (8H:1V) OR FLATTER. FOUNDATION SIZE AND DEPTHS ARE BASED ON THE FOLLOWING SOIL DESIGN PARAMETERS:
    - SANDY TYPE SOIL
    - NO GROUND WATER WITHIN 5'-0" OF SURFACE ELEVATION
    - WIND SPEED NOT TO EXCEED 140 MPH
 IF ACTUAL CONDITIONS VARY SUBSTANTIALLY FROM THOSE ASSUMED, THE FOUNDATION DEPTH MAY BE ADJUSTED. IN THIS CASE, CONTACT THE ENGINEER.
  - MAINTAIN AT LEAST 3" COVER ON ALL REINFORCEMENT.
  - ORIENT CONDUIT AS REQUIRED BY THE DESIGN OR AS DICTATED BY FIELD CONDITIONS.
  - USE ADHESIVE ANCHOR FOR THREADED COUPLING INSERT. FOR TYPE I MINIMUM DEPTH NECESSARY IS 0'-4 1/2" AND FOR TYPE II MINIMUM DEPTH NECESSARY IS 0'-6 5/8". FOLLOW MANUFACTURER'S INSTALLATION INSTRUCTIONS.



PEDESTAL FOUNDATION TYPE AND SIZE							
TYPE	PEDESTAL DESCRIPTION	SIZE			ANCHOR BOLT		INSTALL GROUNDING SYSTEM (YES/NO)
		DIAMETER "A" FT	DEPTH "B" FT	CONCRETE VOLUME CY	DIAMETER (MIN.) IN	LENGTH FT-IN	
I	PEDESTRIAN PUSHBUTTON	2'-0"	3'-6"	.41	1/2	1'-6"	NO
II	NORMAL-DUTY	2'-0"	5'-0"	.58	3/4	2'-0"	YES
III	HEAVY-DUTY	2'-6"	7'-0"	1.27	1	4'-0"	YES

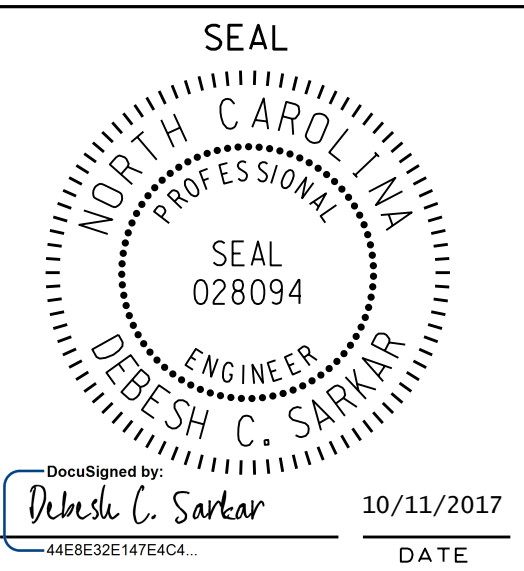
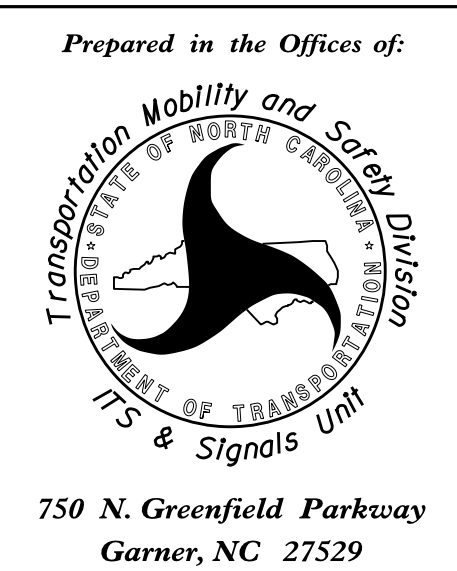
REINFORCING STEEL SCHEDULE													
TYPE	V-BAR				STIRRUP								
	SIZE #	QTY	LENGTH	WEIGHT LBS	QUANTITY			LENGTH	DIAMETER "C" FT	OVERLAP MIN.	WEIGHT LBS	TOTAL STEEL WEIGHT LBS	
					VERTICAL ON 6" CENTERS	ON 12" CENTERS	TOTAL						
I	8	6	3'-0"	56	4	0	4	5'-7"	1'-6"	0'-10"	15	71	
II	8	6	4'-6"	86	4	5	3	8	5'-7"	1'-6"	0'-10"	30	116
III	8	6	6'-6"	122	4	7	4	11	7'-2"	2'-0"	0'-10"	53	175

STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR  
**PEDESTALS**  
FOUNDATIONS

SHEET 1 OF 1  
**1743D01**

See Plate for Title



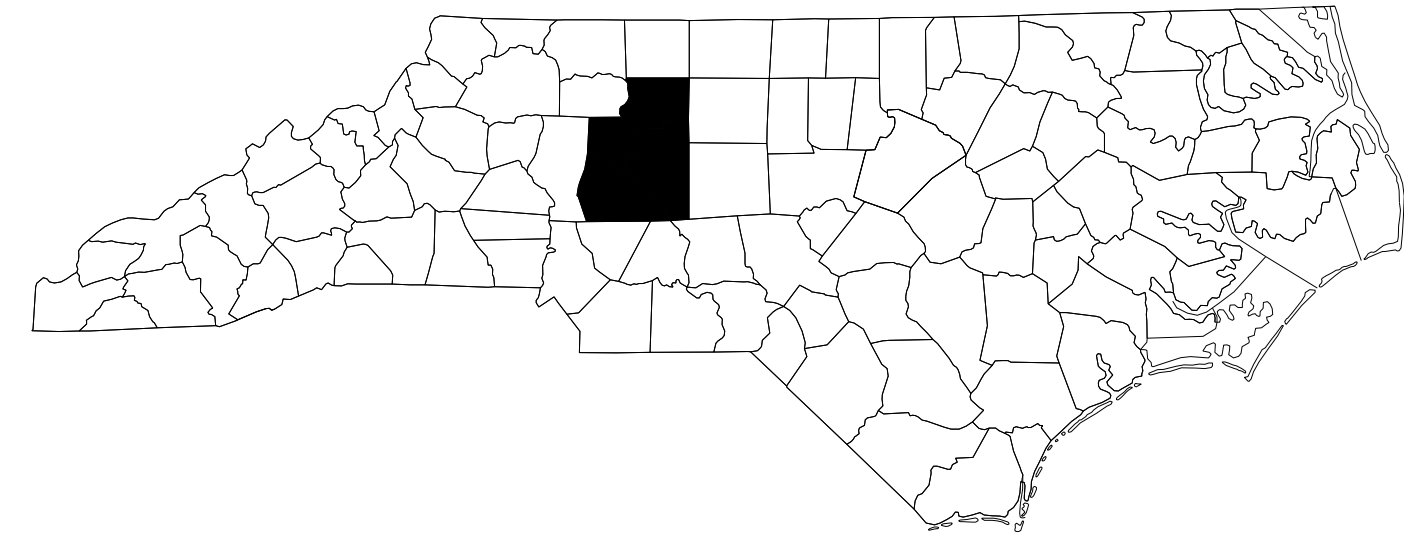
DOCUMENT NOT CONSIDERED  
FINAL UNLESS ALL  
SIGNATURES COMPLETED

750 N. Greenfield Parkway  
Garner, NC 27529

Disc Signed by: *Debesh C. Sarkar*  
10/11/2017  
DATE

11-10-2017 08:03  
U:\2018 S14 Drawings\Plate Sheets\2018\_Plate Sheet - .dgn  
r:\rough

**CONTRACT: DI00336 TIP PROJECT: R-5789I**



STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

***DIVISIONWIDE***

**LOCATION: DAVIDSON, DAVIE, FORSYTH, AND ROWAN COUNTY  
DIVISION 9**

**TYPE OF WORK: CURB RAMP INSTALLATIONS**

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-5789I	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
44919.1.10	0918133	PE	
44919.3.10	0918133	CONST.	



Prepared In the Office of:  
Infrastructure Consulting Services, Inc.



**RAMEY KEMP ASSOCIATES**

5808 Farrington Place Raleigh, North Carolina 27608  
Phone: 919-872-5115 | www.rameykemp.com | NC License No. P-1489

2018 STANDARD SPECIFICATIONS

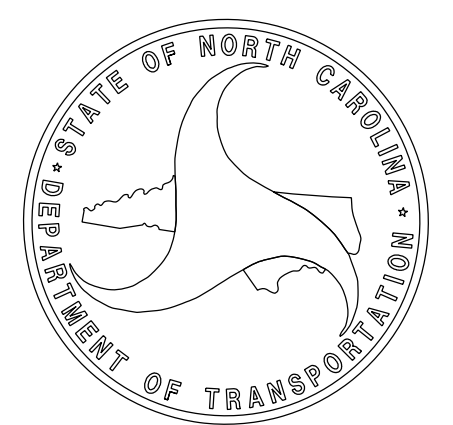
RIGHT OF WAY DATE:

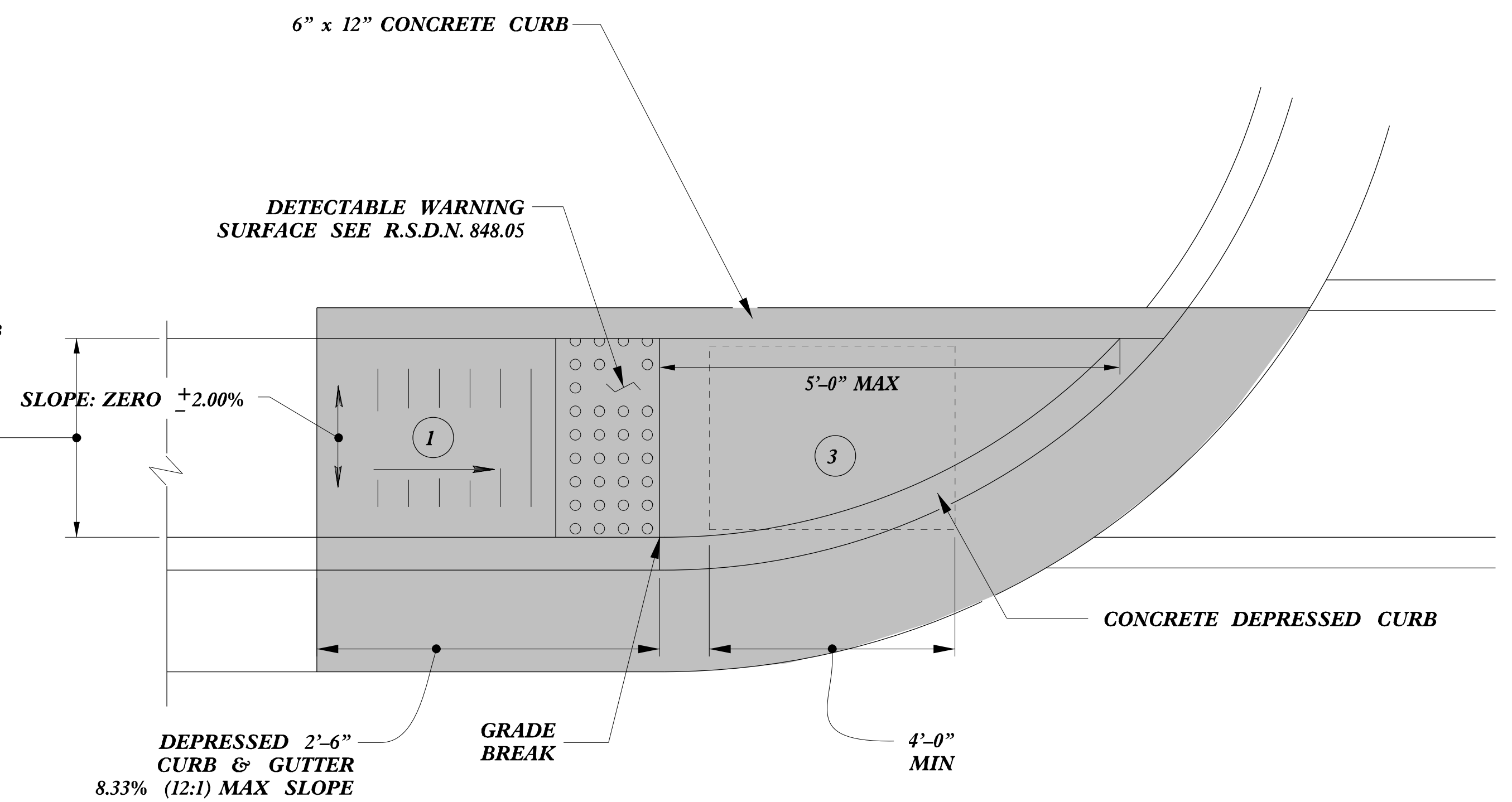
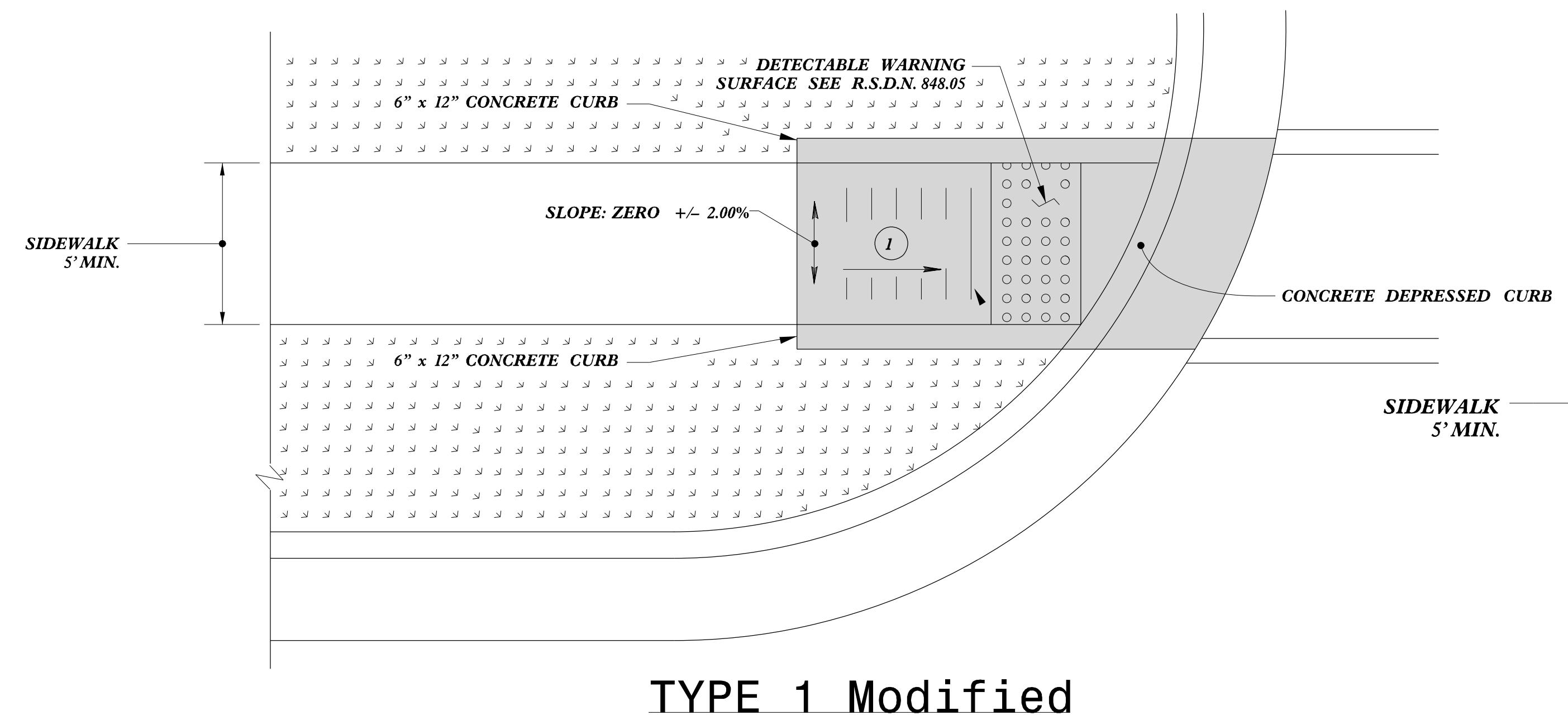
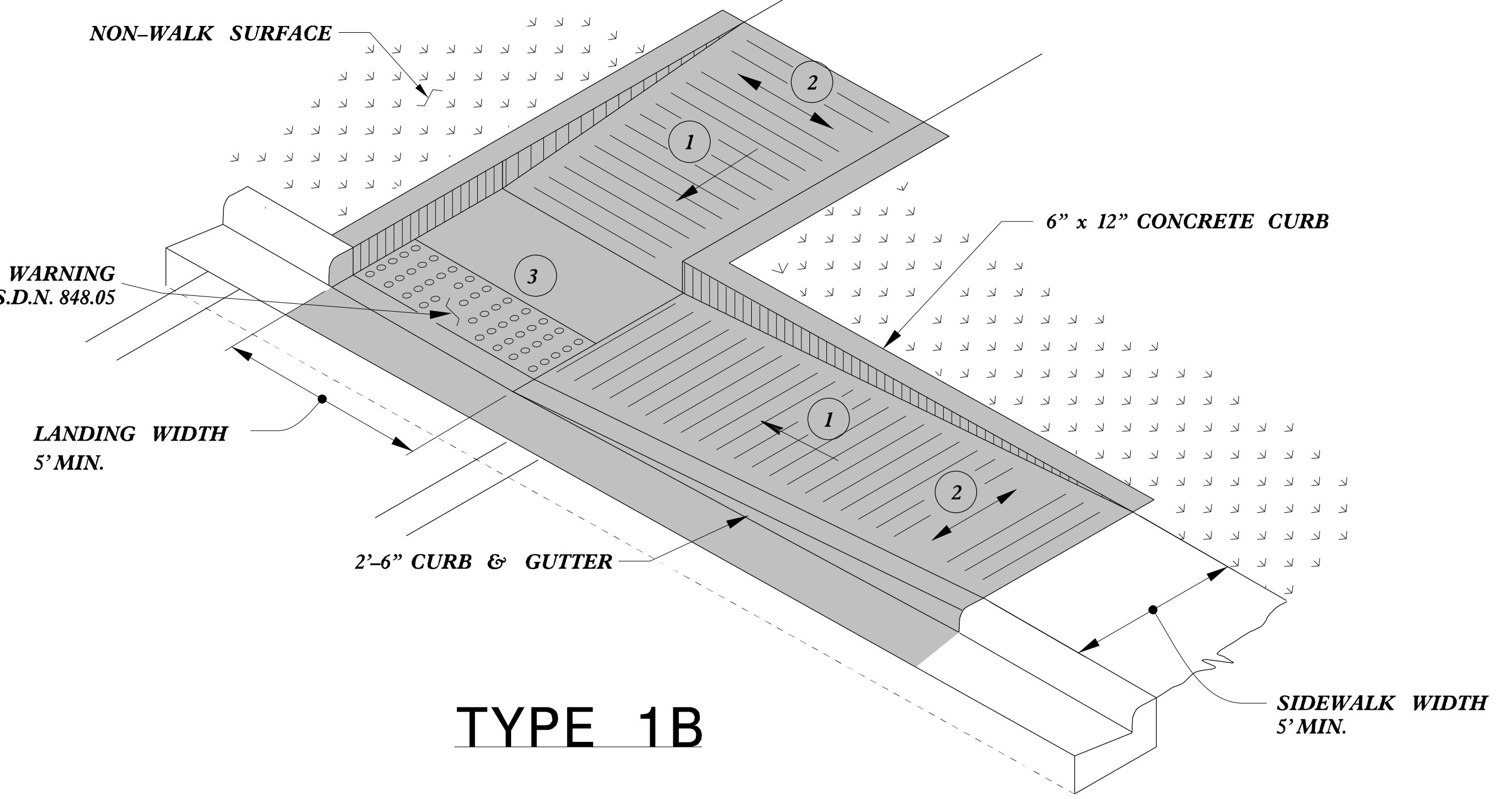
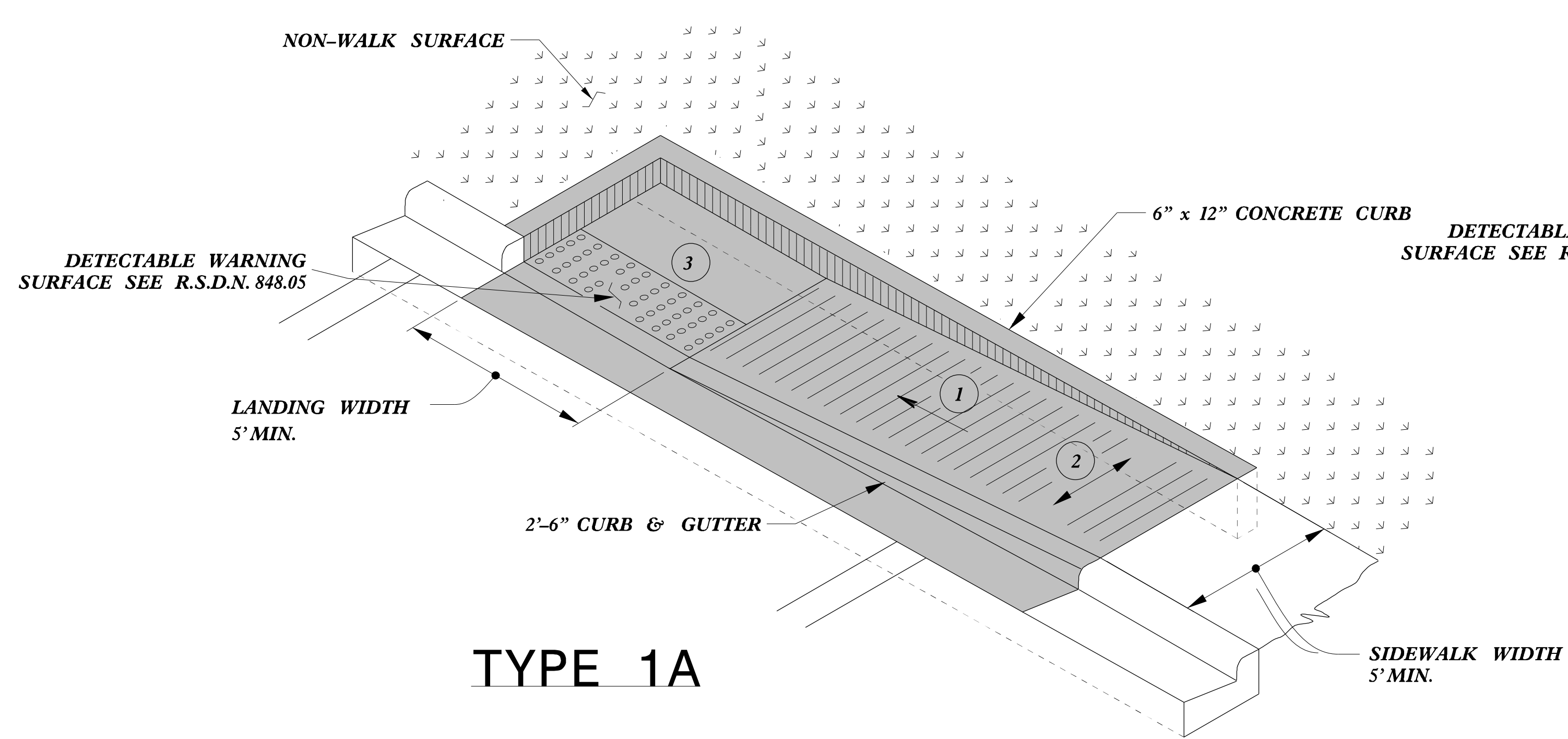
-

LETTING DATE:  
SEPTEMBER 27, 2023

W. JEFF TURNER  
PROJECT ENGINEER

RAMEY KEMP & ASSOCIATES  
PROJECT DESIGN ENGINEER



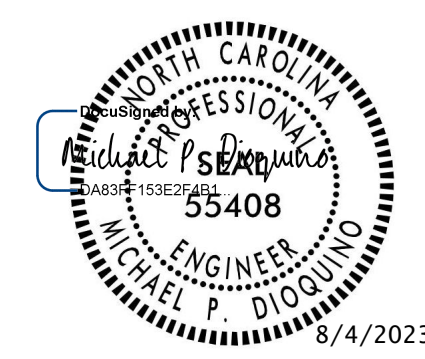


- 1 8.33% (12:1) MAX RAMP SLOPE
- 2 CROSS SLOPE: 2.00%
- 3 CURB RAMPS REQUIRE A (4'-0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SLOPE TO DRAIN TO CURB.



PAY LIMITS FOR 1 CURB RAMP

REFER TO ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

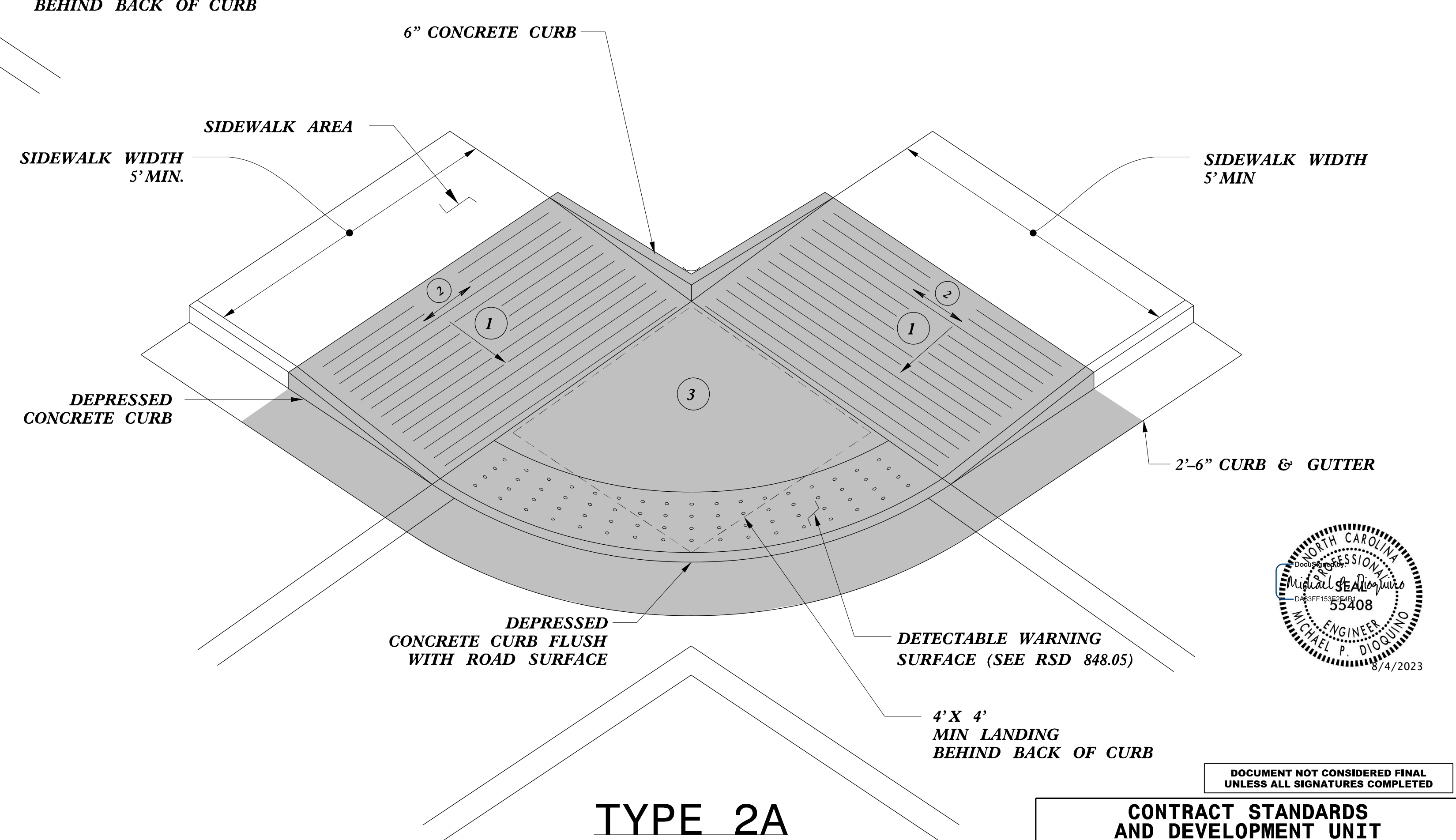
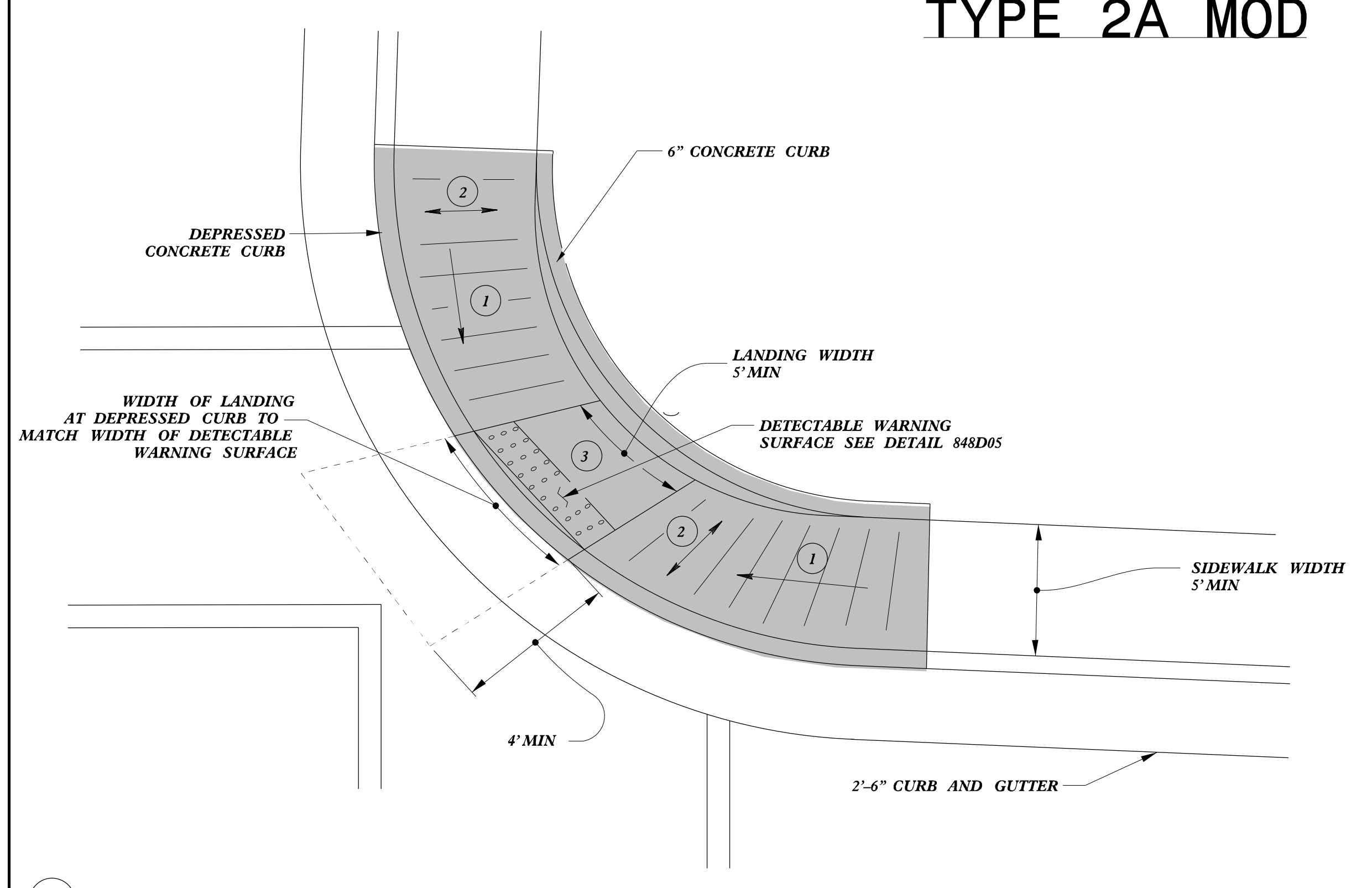
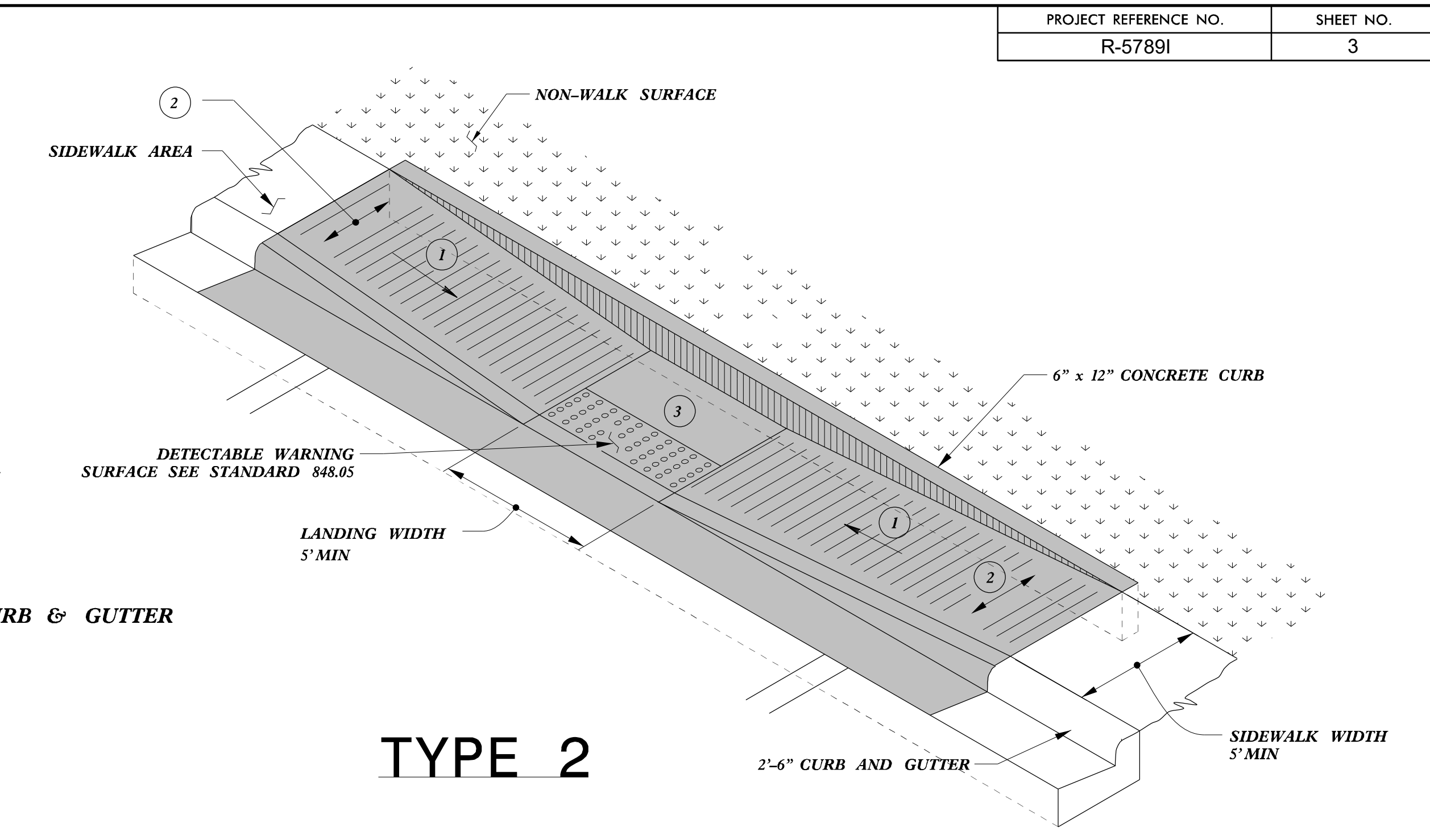
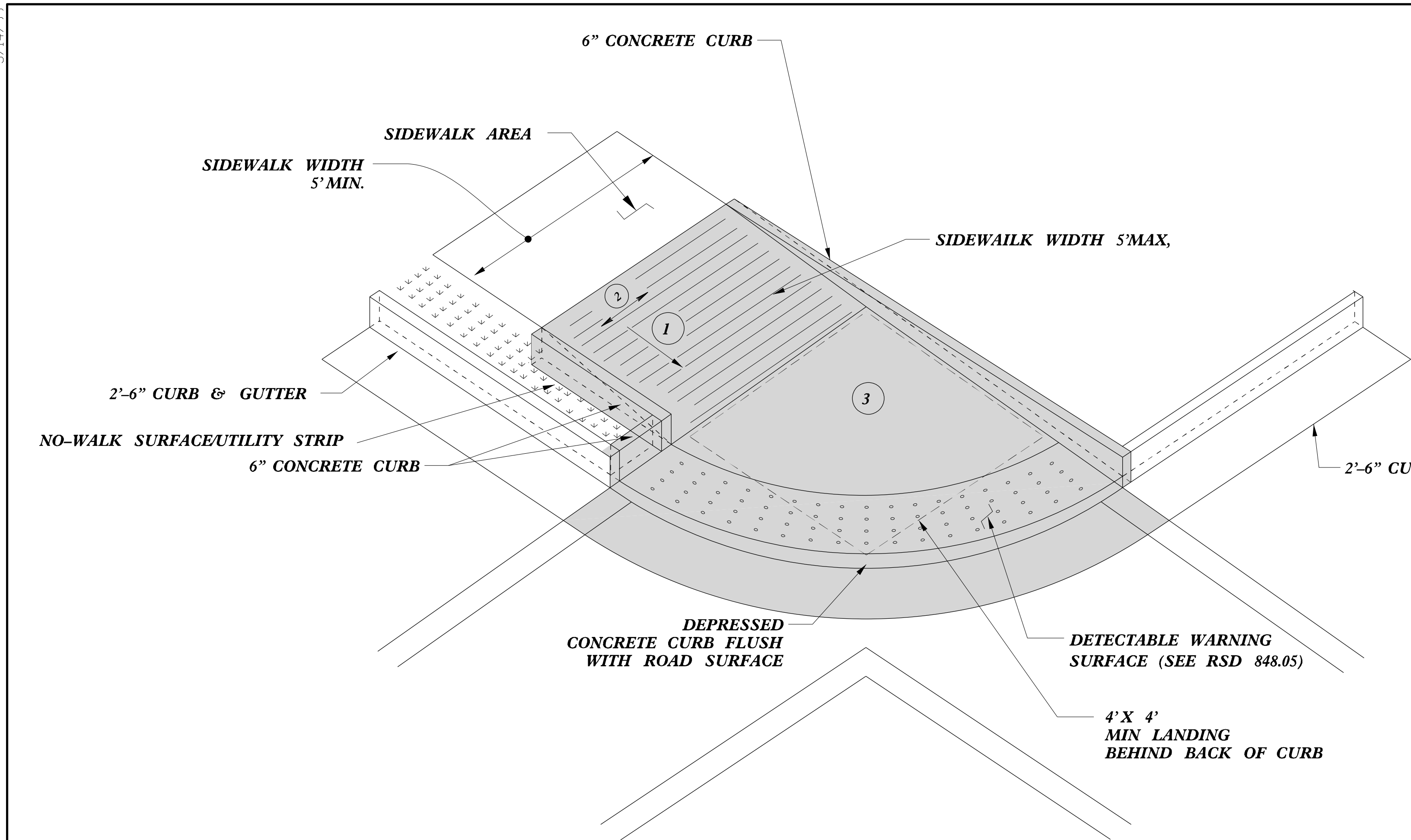
**CONTRACT STANDARDS AND DEVELOPMENT UNIT**  
Office 919-707-6950 FAX 919-250-4119

**CURB RAMPS**  
Directional Ramps

ORIGINAL BY: J.S. HOWERTON DATE: 7/7/11  
 MODIFIED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 CHECKED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 FILE SPEC: stds/2012CurbRamp/CurbRampDetails.dgn

5/14/19 SYSTEMS DESIGN & CONSTRUCTION SERVICES, INC. 10000 W. BERRY AVE. SUITE 1000 DALLAS, TX 75243



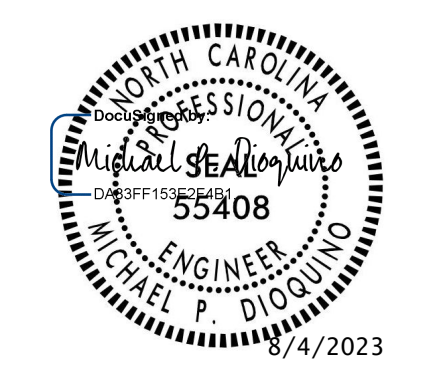


1 8.33% (12:1) MAX RAMP SLOPE

2 CROSS SLOPE: 2.00%

3 CURB RAMPS REQUIRE A (4'-0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SLOPE TO DRAIN TO CURB.

PAY LIMITS FOR 1 CURB RAMP

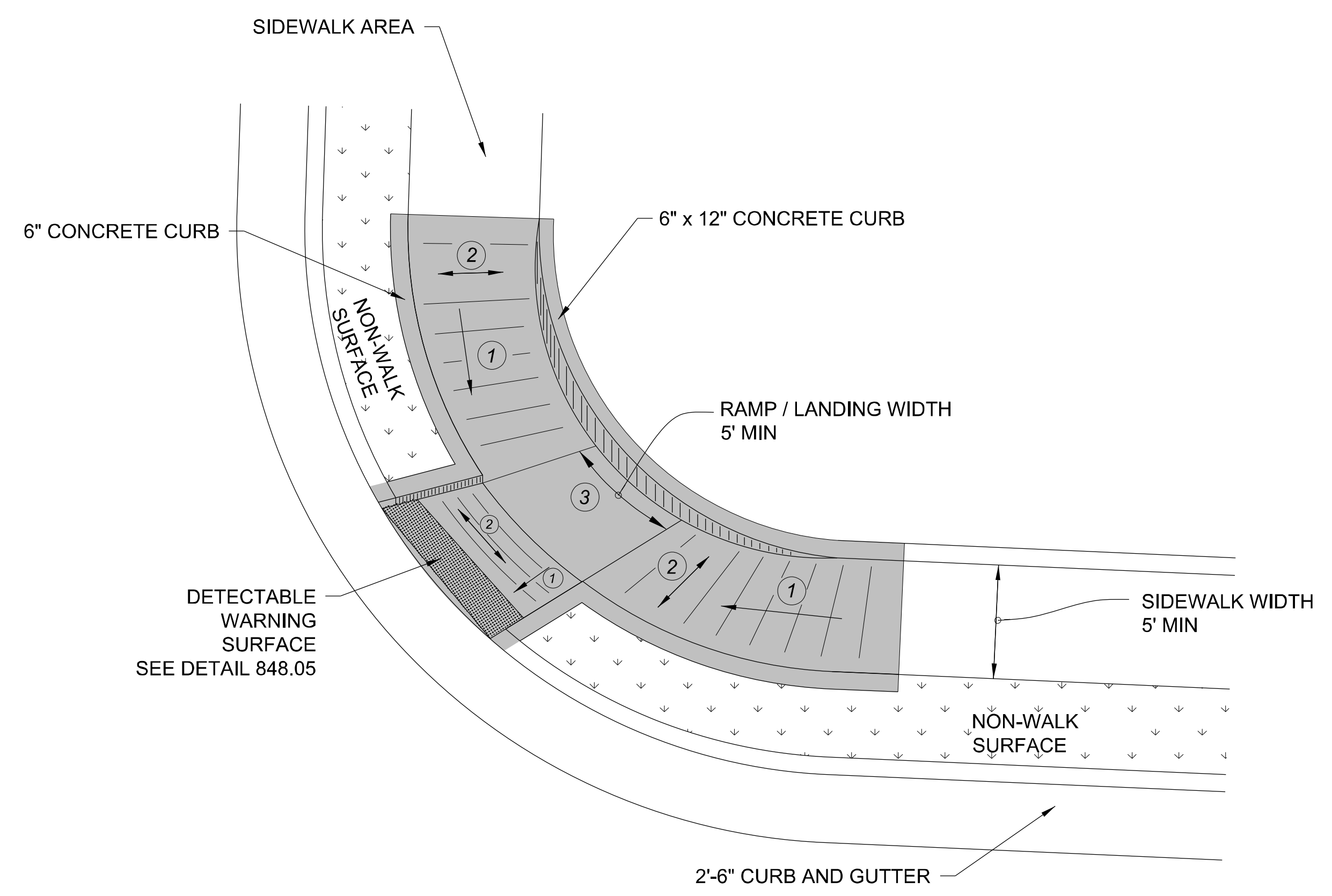


DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

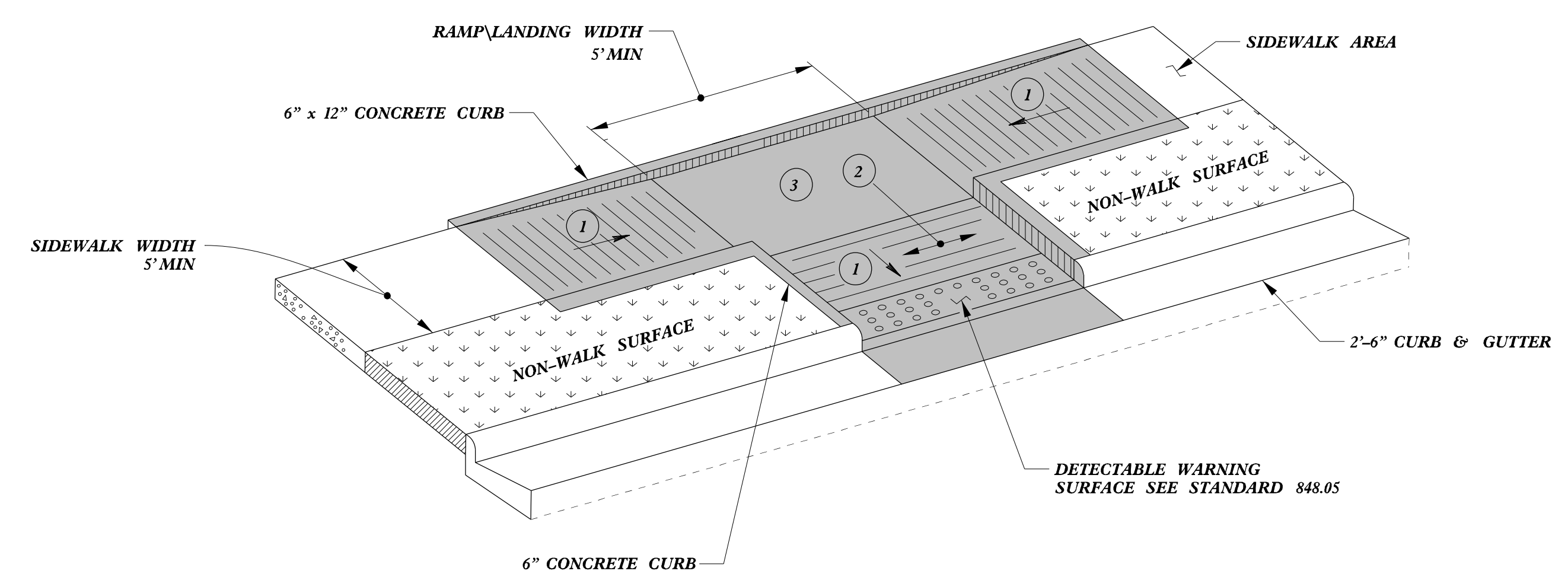
<b>CONTRACT STANDARDS AND DEVELOPMENT UNIT</b>	
Office 919-707-6950	FAX 919-250-4119
<b>CURB RAMPS</b>	
ORIGINAL BY: J.S. HOWERTON	DATE: 7/7/11
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
FILE SPEC: stds/2012CurbRamp/CurbRampDetails.dgn	

5/14/99 SYSTEMS DESIGN & CONSTRUCTION SERVICES, INC. 1000 W. GARDNER STREET, SUITE 100, RALEIGH, NC 27603

**PAY LIMITS FOR 1 CURB RAMP**

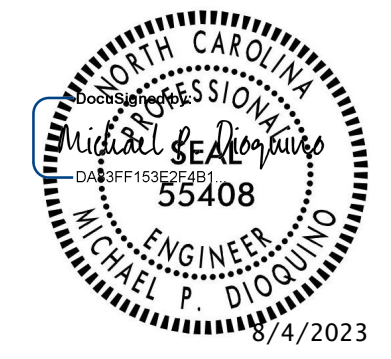


**TYPE 3 MODIFIED  
INSTALLATION IN A RADIUS**



**TYPE 3**

- 1 8.33% (12:1) MAX RAMP SLOPE
- 2 CROSS SLOPE: 2.00%
- 3 CURB RAMPS REQUIRE A (4'-0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SLOPE TO DRAIN TO CURB.



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

**CONTRACT STANDARDS AND DEVELOPMENT UNIT**

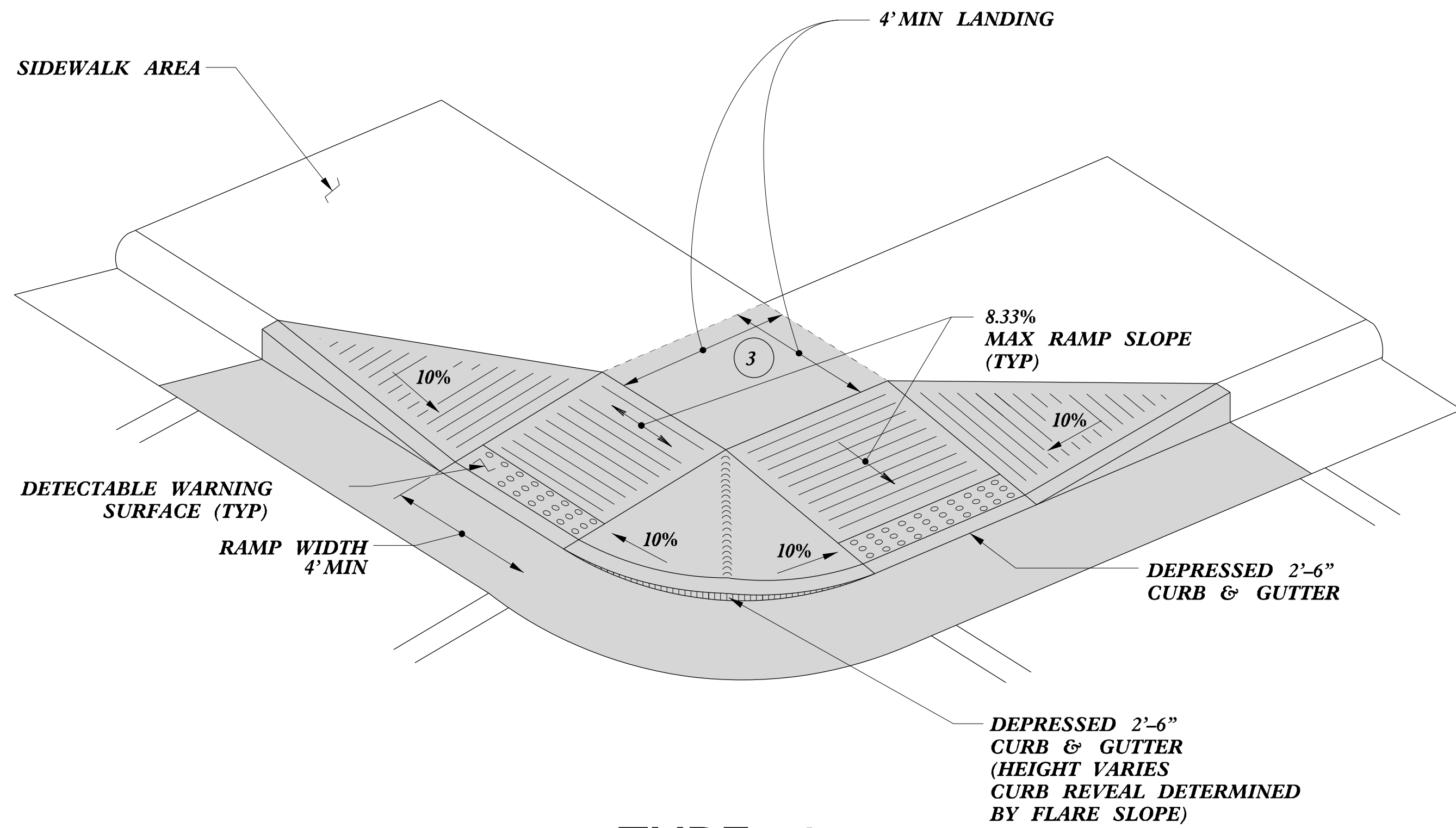
Office 919-707-6950 FAX 919-250-4119

**CURB RAMPS**

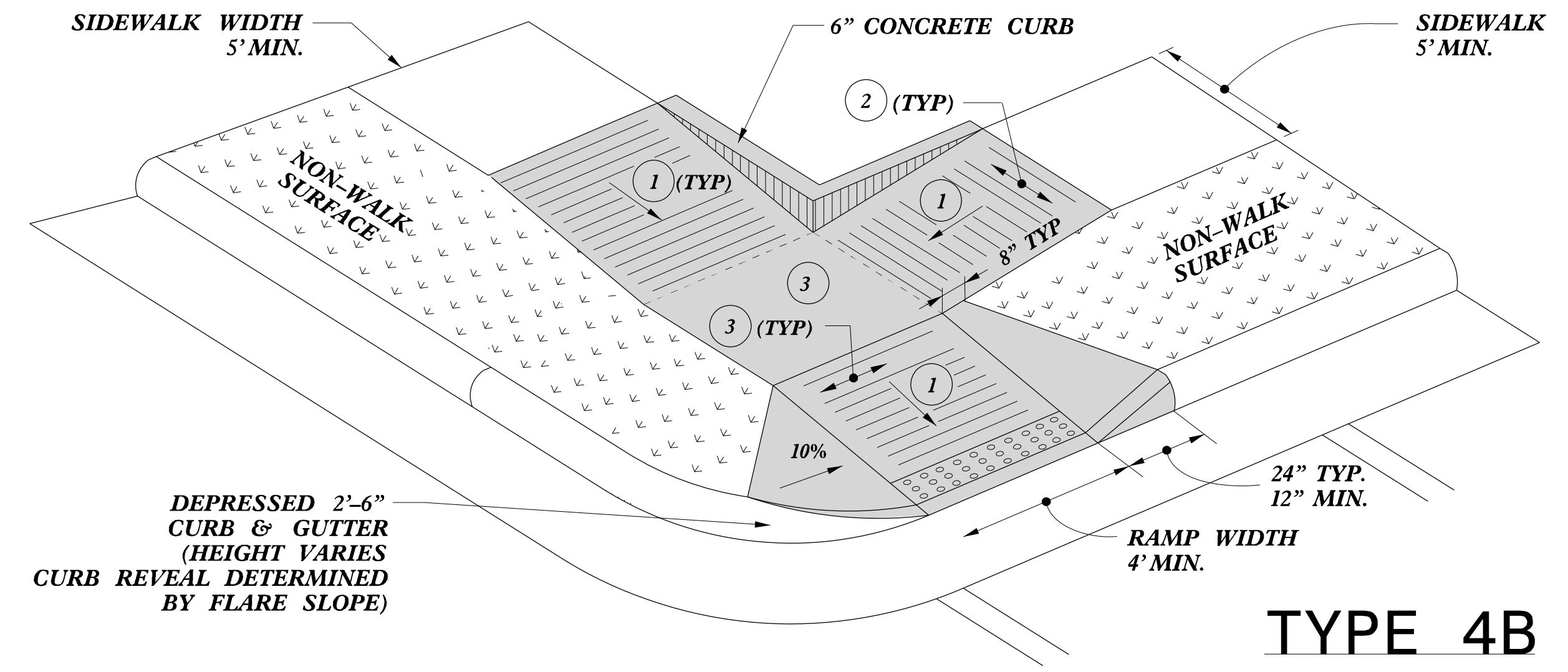
ORIGINAL BY: J.S. HOWERTON DATE: 7/7/11  
 MODIFIED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 CHECKED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 FILE SPEC: stds/2012CurbRamp/CurbRampDetails.dgn

SYSTEMS ENGINEERING  
 5/14/99

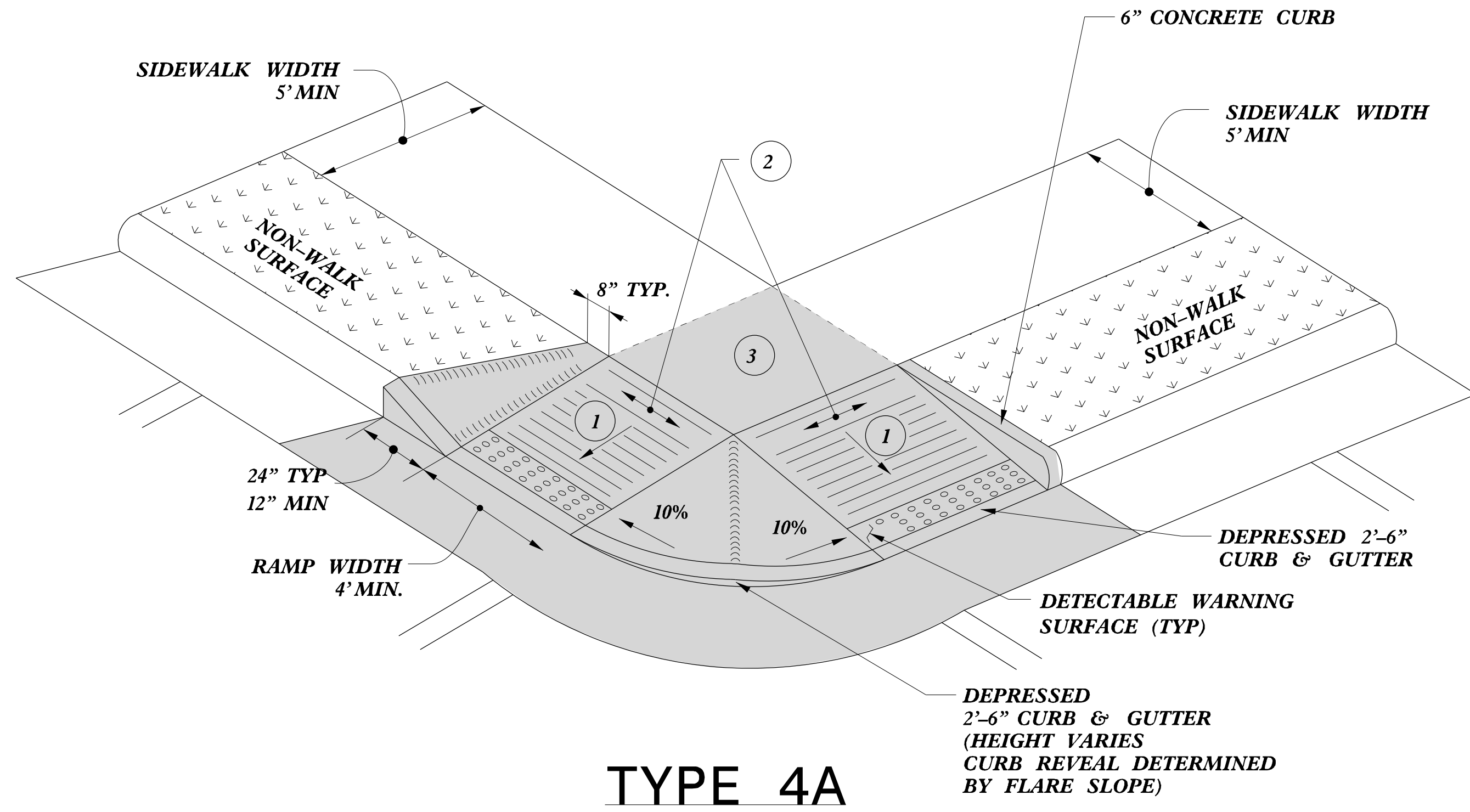
**PAY LIMITS FOR 1 OR 2 CURB RAMPS  
(CALCULATE BASED ON NUMBER OF SETS  
OF TRUNCATED DOMES)**



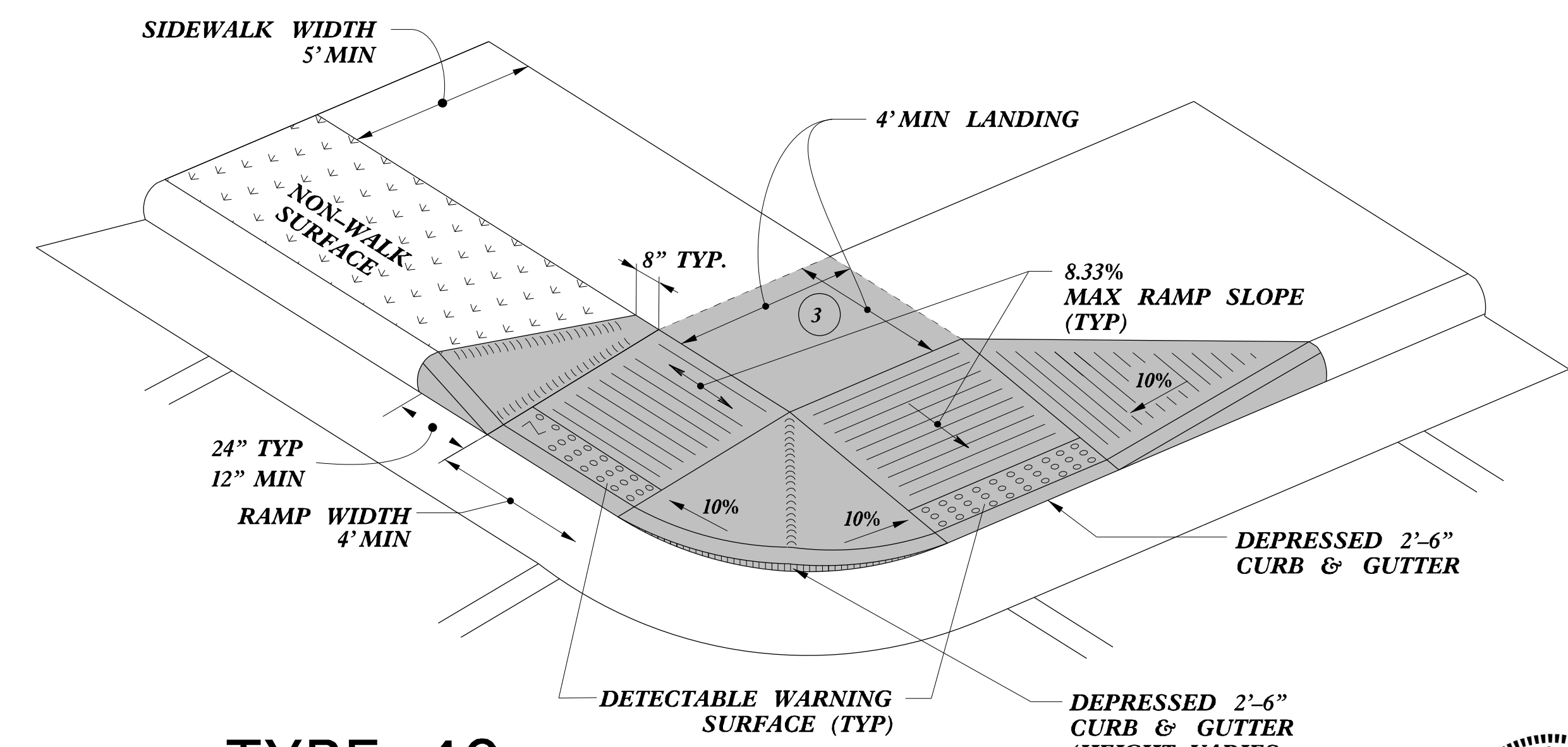
**TYPE 4**



**TYPE 4B**



**TYPE 4A**



**TYPE 4C**

- 1 8.33% (12:1) MAX RAMP SLOPE
- 2 CROSS SLOPE: 2.00%
- 3 CURB RAMPS REQUIRE A (4'-0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SLOPE TO DRAIN TO CURB.



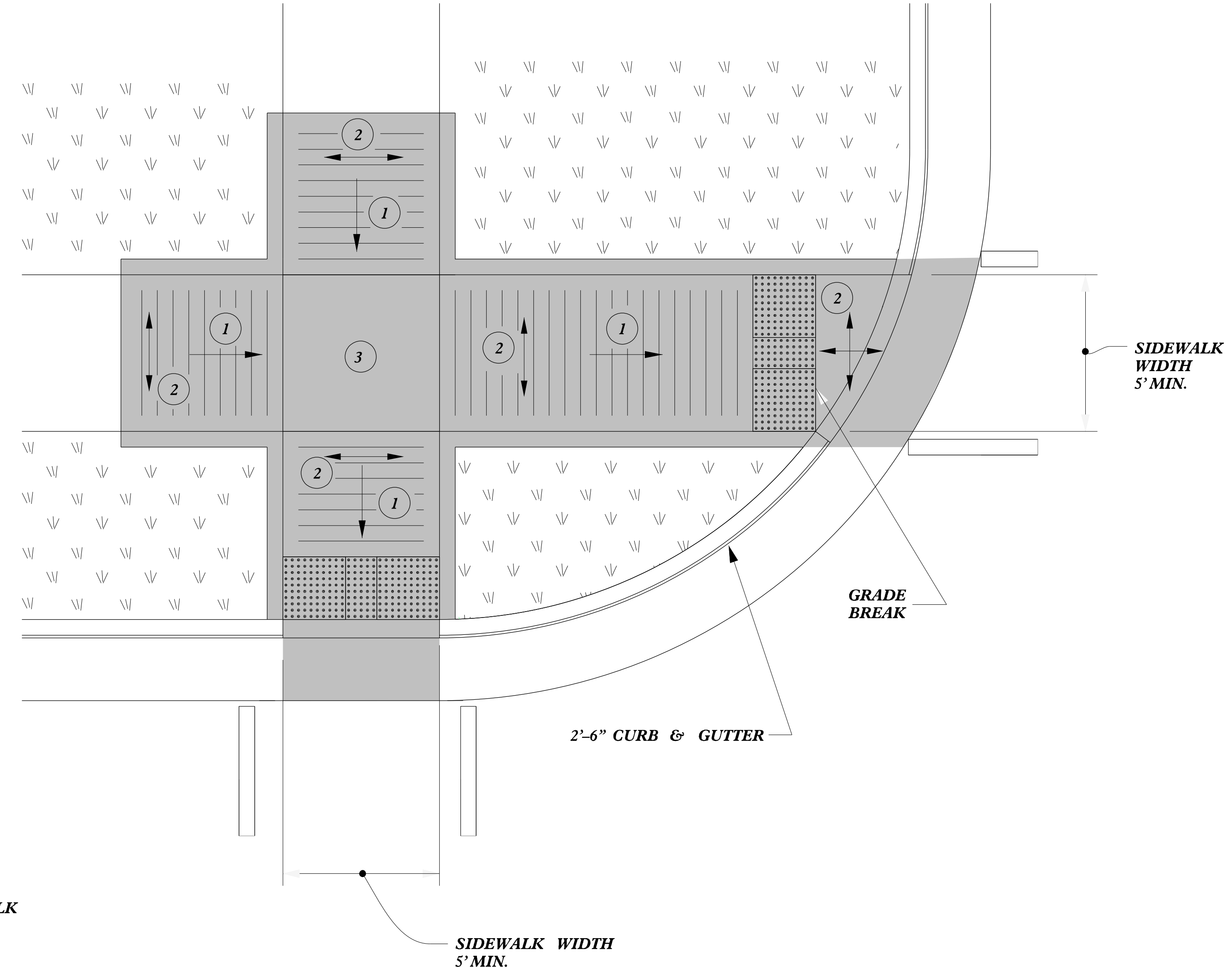
DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED

<b>CONTRACT STANDARDS AND DEVELOPMENT UNIT</b>	
Office 919-707-6950	FAX 919-250-4119
<b>CURB RAMPS</b>	
ORIGINAL BY: J.S. HOWERTON	DATE: 7/7/11
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
FILE SPEC: stds/2012CurbRamp/CurbRampDetails.dgn	

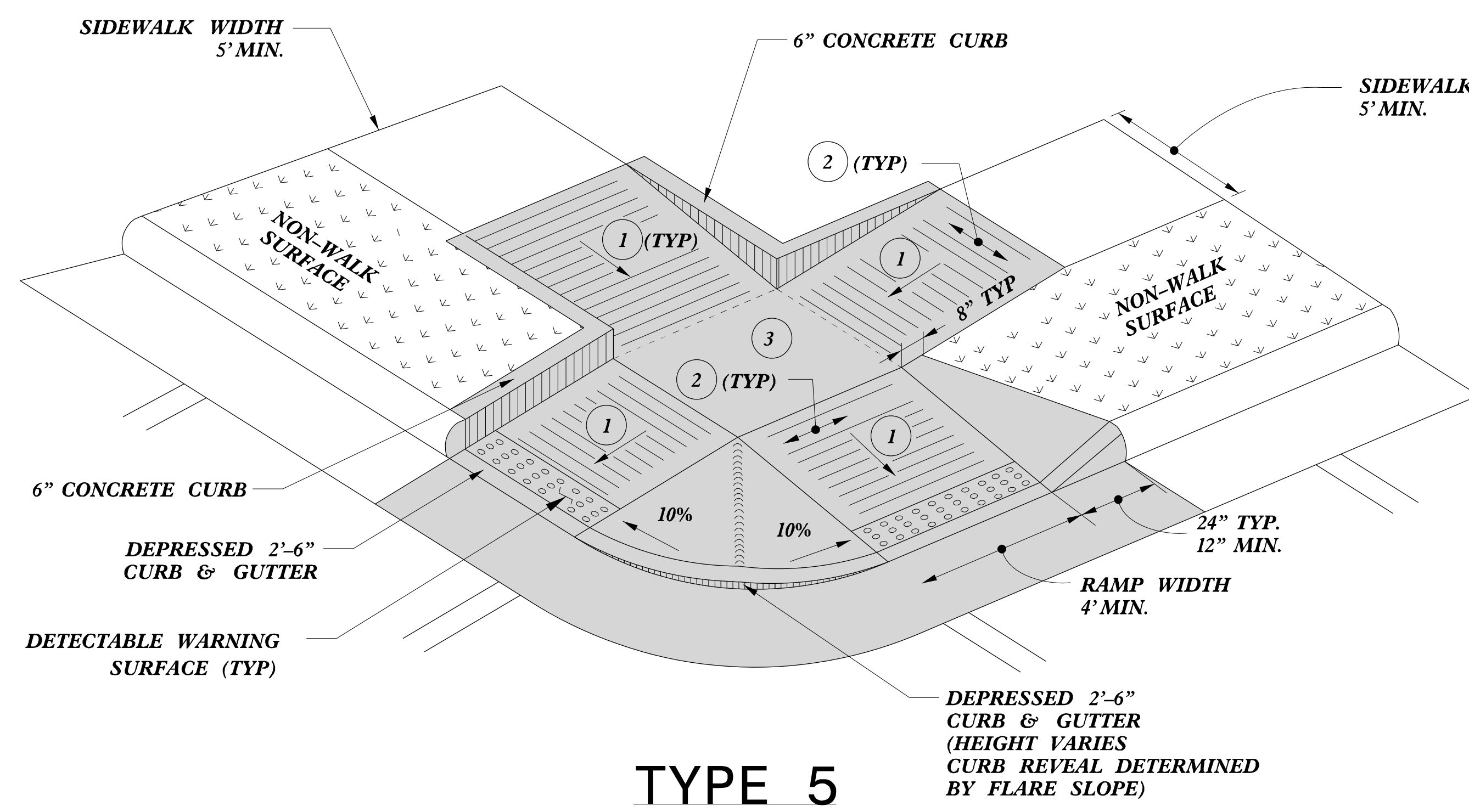
REFER TO ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES

SYSTEMS ENGINEERING  
DESIGN  
CONSTRUCTION  
OPERATIONS  
MAINTENANCE  
SALES  
MARKETING  
CUSTOMER SERVICE  
TRAINING  
RESEARCH & DEVELOPMENT  
FINANCIAL SERVICES  
LEGAL COUNSEL  
HUMAN RESOURCES  
COMMUNICATIONS  
GENERAL SERVICES  
PROPERTY MANAGEMENT  
PLANNING  
INFORMATION TECHNOLOGY  
CORPORATE SECURITY  
ENVIRONMENTAL SERVICES  
CORPORATE AFFAIRS  
UNIVERSITY OF NORTH CAROLINA  
STATE COLLEGE OF DISTANCE EDUCATION  
55408  
MICHAEL P. DIQUINO  
ENGINEER  
7/4/2023

**PAY LIMITS FOR 1 OR 2 CURB RAMPS  
(CALCULATE BASED ON NUMBER OF SETS  
OF TRUNCATED DOMES)**

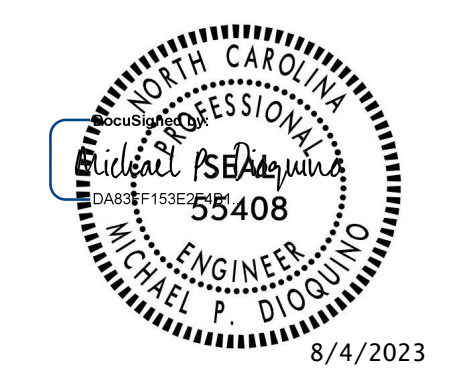


**TYPE 5A**



**TYPE 5**

- 1 8.33% (12:1) MAX RAMP SLOPE
- 2 CROSS SLOPE: 2.00%
- 3 CURB RAMPS REQUIRE A (4'-0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SLOPE TO DRAIN TO CURB.




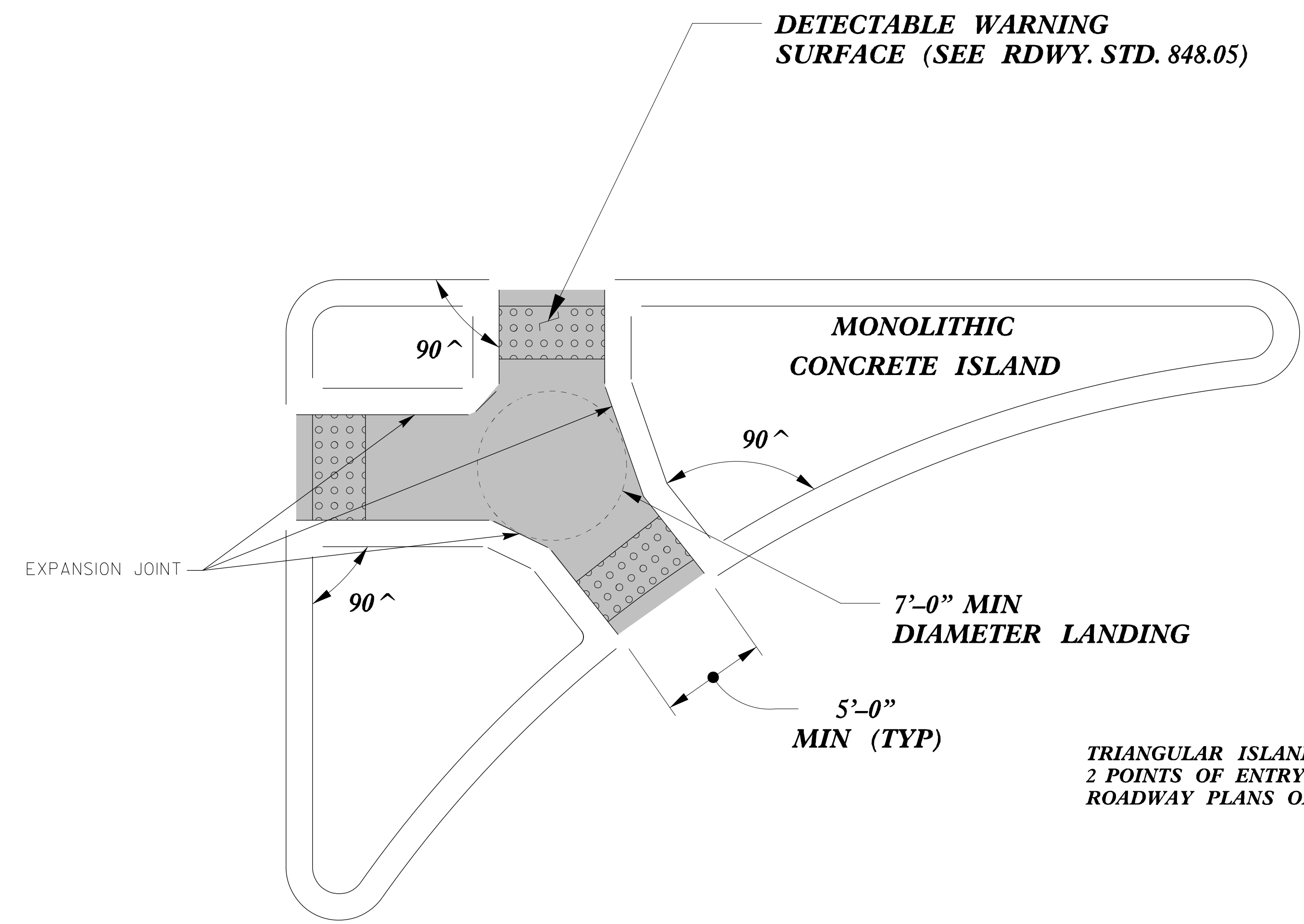
DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED

<b>CONTRACT STANDARDS AND DEVELOPMENT UNIT</b>	
Office 919-707-6950	FAX 919-250-4119
<b>CURB RAMPS</b>	
ORIGINAL BY: J.S. HOWERTON	DATE: 7/7/11
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
FILE SPEC: stds/2012CurbRamp/CurbRampDetails.dgn	

REFER TO ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES

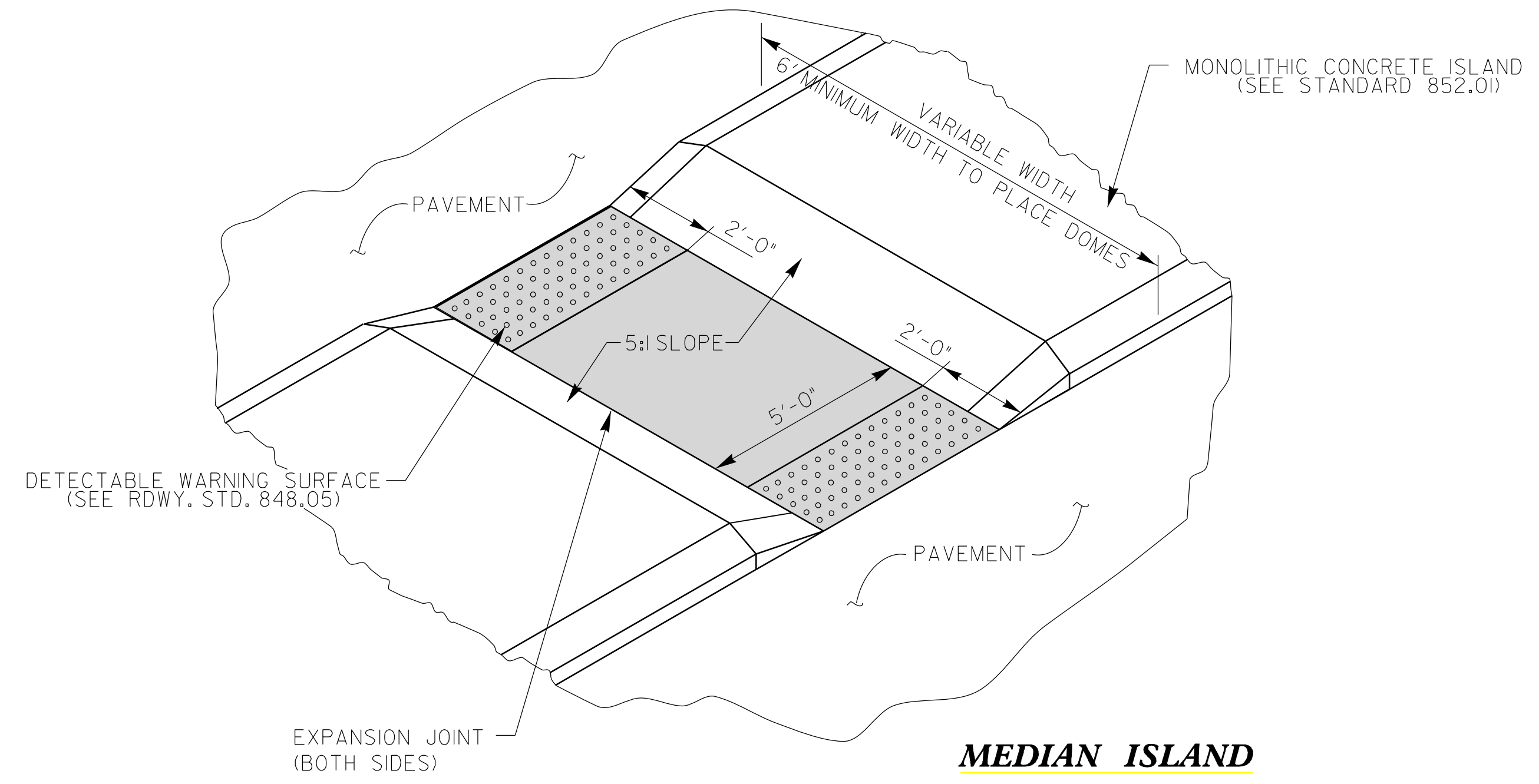
SYSTEM GENERATED FROM: 2012CurbRamp/CurbRampDetails.dgn  
 DATE: 8/4/2023 10:54:08 AM  
 USER: JSD

 PAY LIMITS FOR 2 OR 3 CURB RAMPS  
(CALCULATE BASED ON NUMBER OF  
SETS OF TRUNCATED DOMES)

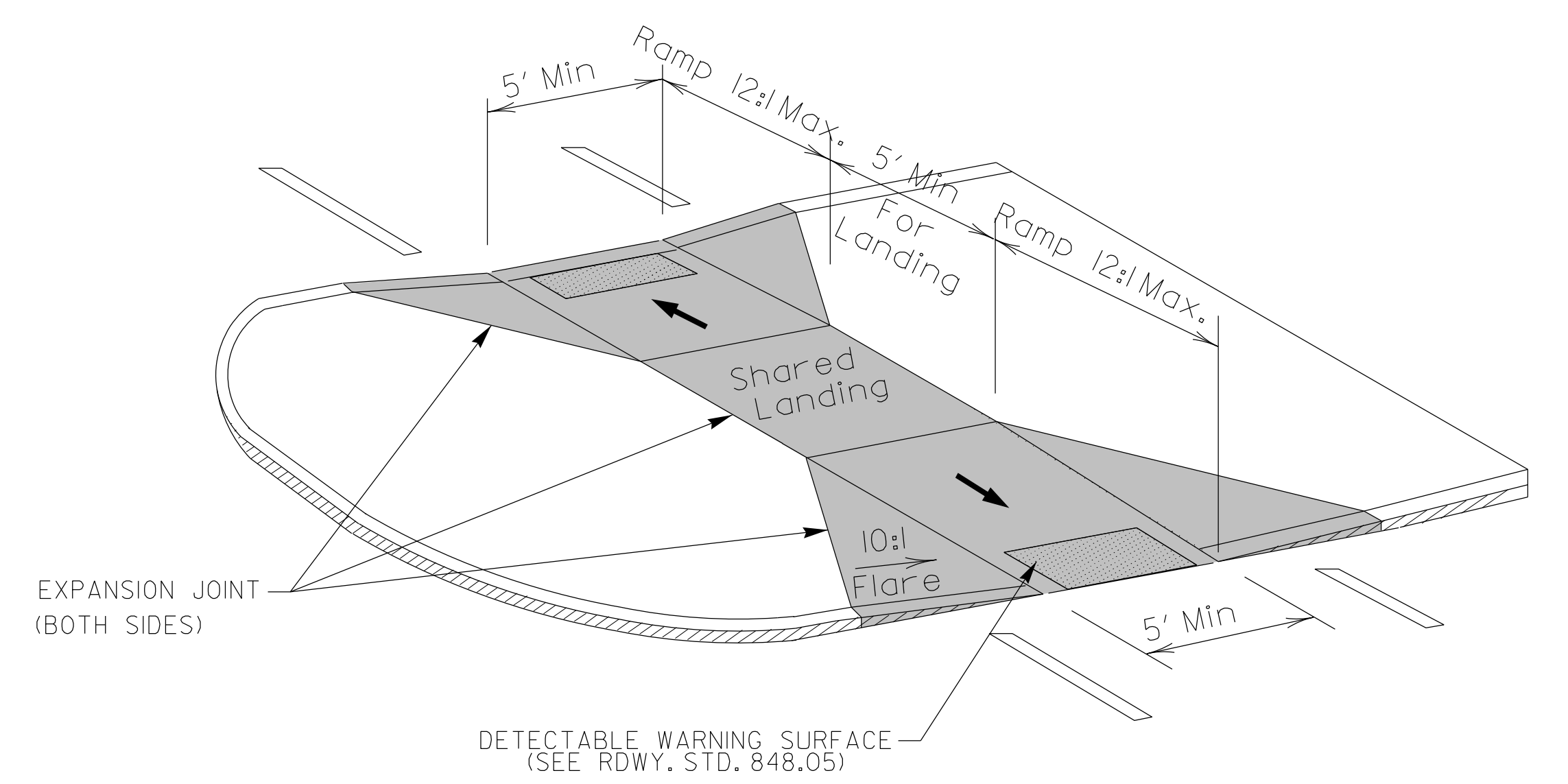


TRIANGULAR ISLANDS MAY BE CONSTRUCTED WITH ONLY  
2 POINTS OF ENTRY AND EXIT AS SHOWN IN THE  
ROADWAY PLANS OR AS DIRECTED BY THE ENGINEER.

**TRIANGULAR ISLAND  
WITH CUT THROUGH  
TYPE 6**



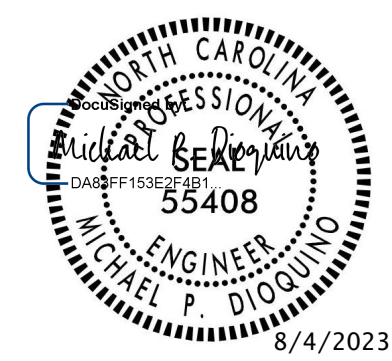
**MEDIAN ISLAND  
WITH CUT THROUGH  
TYPE 7**



**MEDIAN ISLAND  
TYPE 8  
CURB RAMPS**

DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED

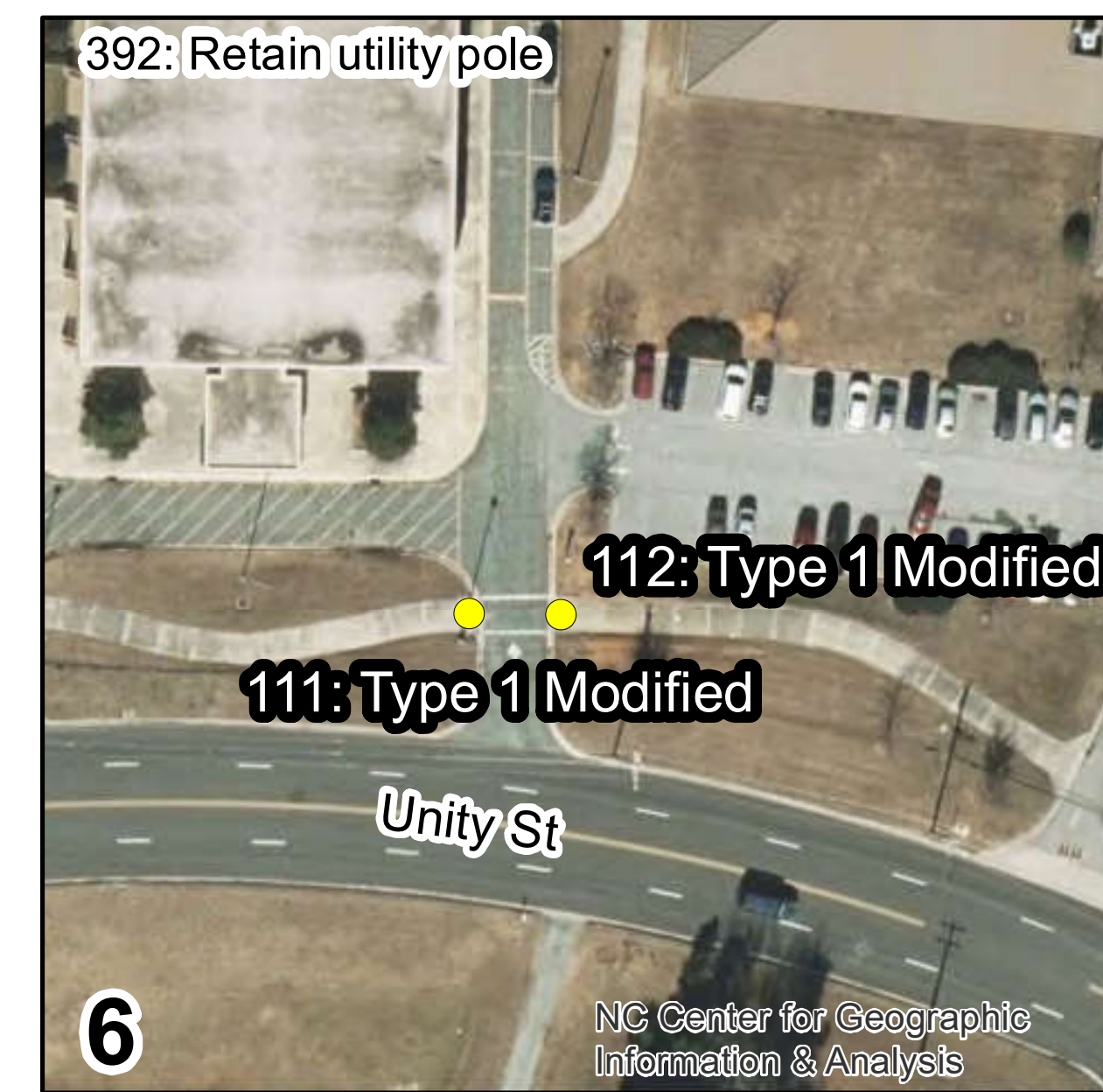
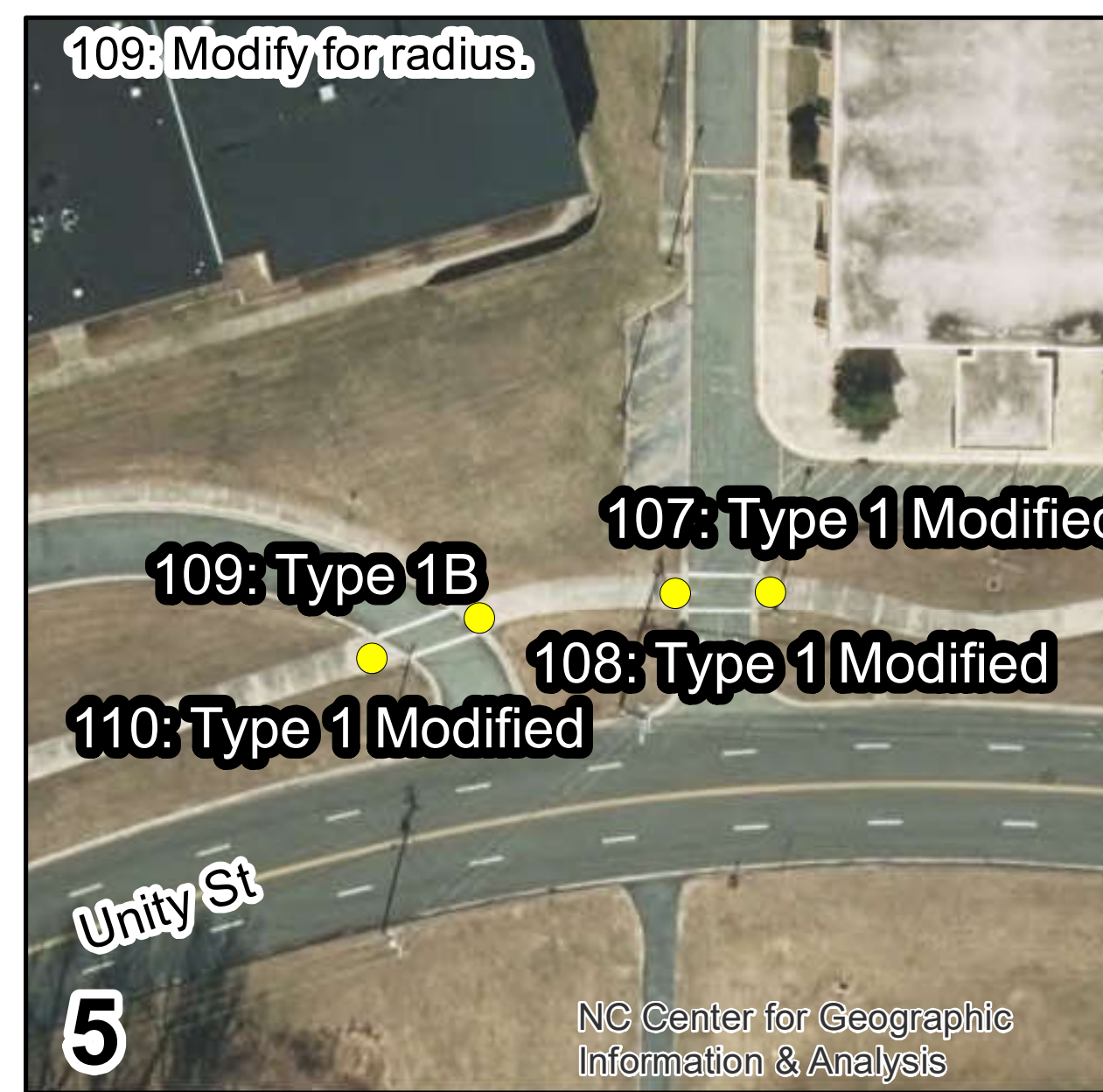
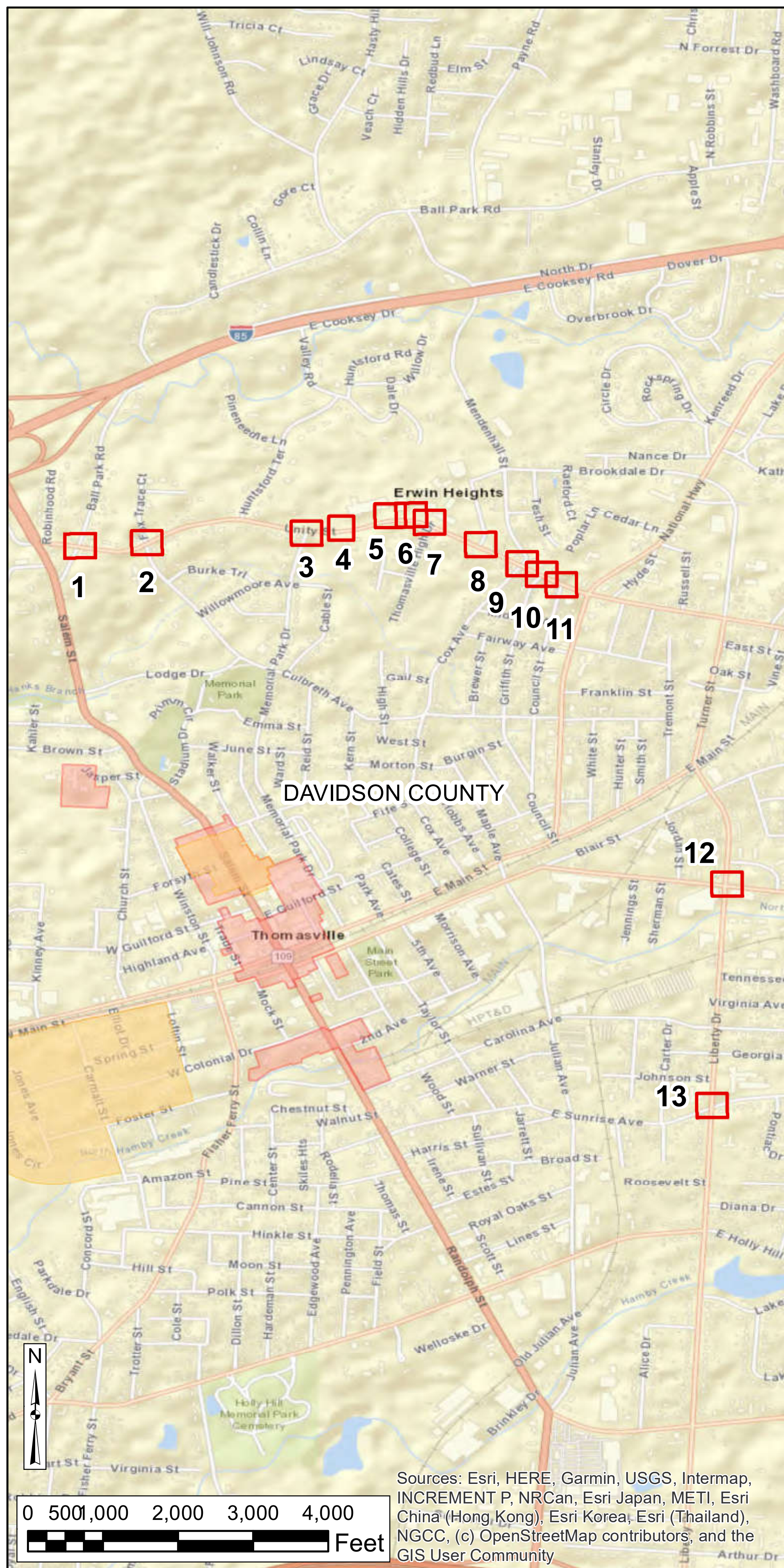
<b>CONTRACT STANDARDS AND DEVELOPMENT UNIT</b>	
Office 919-707-6950	FAX 919-250-4119
<b>CURB RAMPS</b>	
Median or Turn Lane Islands	
ORIGINAL BY: J.S. HOWERTON	DATE: 7/7/11
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
FILE SPEC: stds/2012CurbRamp/CurbRampDetails.dgn	



5/14/99  
SYSTEM GENERATED FROM THE PROJECT'S DESIGN SOFTWARE

SUMMARY OF QUANTITIES - DIVISION 9

Ramp ID	Map Number	Inset Number	County	Municipality	Route 1	Route 2	254900000-E	259100000-E	284500000-N	283000000-N	764800000-N	588200000-E	Dome Style/Color	260000000-N	261300000-N	260500000-N	000915000-N	Ramp Type
							2'-6" Concrete Curb & Gutter LF	4" Concrete Sidewalk SY	Adjust Valve / Meter EA	Adjust Manhole EA	Relocate Sign EA	Adjust Utility Box EA		Retrofit Existing Curb Ramps EA	Remove & Replace Curb Ramps EA	Concrete Curb Ramps EA	Remove Curb Ramp - SP EA	
96	1	1	Davidson	Thomasville	SR 2150 (Unity St)	Ball Park Rd (non-system)							Red		1			Type 1A
97	1	2	Davidson	Thomasville	SR 2150 (Unity St)	Fox Trace Ct (non-system)					1		Red		1			Type 1
98	1	2	Davidson	Thomasville	SR 2150 (Unity St)	Fox Trace Ct (non-system)					1		Red		1			Type 1
99	1	3	Davidson	Thomasville	SR 2051 (Unity St)	Memorial Park Dr (non-system)							Red		1			Type 1A
100	1	3	Davidson	Thomasville	SR 2051 (Unity St)	Memorial Park Dr (non-system)							Black		1			Type 1A
103	1	4	Davidson	Thomasville	SR 2051 (Unity St)	400 Unity St (Middle School)							Black		1			Type 1 Modified
104	1	4	Davidson	Thomasville	SR 2051 (Unity St)	400 Unity St (Middle School)							Black		1			Type 1 Modified
105	1	4	Davidson	Thomasville	SR 2051 (Unity St)	400 Unity St (Middle School)							Black		1			Type 1B
106	1	4	Davidson	Thomasville	SR 2051 (Unity St)	400 Unity St (Middle School)							Black		1			Type 1 Modified
107	1	5	Davidson	Thomasville	SR 2051 (Unity St)	406 Unity St (High School)							Black		1			Type 1 Modified
108	1	5	Davidson	Thomasville	SR 2051 (Unity St)	406 Unity St (High School)							Black		1			Type 1 Modified
109	1	5	Davidson	Thomasville	SR 2051 (Unity St)	400 Unity St (Middle School)							Black		1			Type 1B
110	1	5	Davidson	Thomasville	SR 2051 (Unity St)	400 Unity St (Middle School)							Black		1			Type 1 Modified
111	1	6	Davidson	Thomasville	SR 2051 (Unity St)	406 Unity St (High School)							Black		1			Type 1 Modified
112	1	6	Davidson	Thomasville	SR 2051 (Unity St)	406 Unity St (High School)							Black		1			Type 1 Modified
113	1	7	Davidson	Thomasville	SR 2051 (Unity St)	406 Unity St (High School)							Black		1			Type 1 Modified
114	1	7	Davidson	Thomasville	SR 2051 (Unity St)	406 Unity St (High School)							Black		1			Type 1B
117	1	8	Davidson	Thomasville	SR 2051 (Unity St)	Bull Dog Dr (non-system)							Red		1			Type 1A
118	1	8	Davidson	Thomasville	SR 2051 (Unity St)	Bull Dog Dr (non-system)							Red		1			Type 1A
120	1	9	Davidson	Thomasville	SR 2150 (Unity St)	Mendenhall St (non-system)	12						Yellow				1	Remove
122	1	9	Davidson	Thomasville	SR 2150 (Unity St)	Mendenhall St (non-system)	15						Yellow				1	Remove
124	1	9	Davidson	Thomasville	SR 2150 (Unity St)	Mendenhall St (non-system)							Yellow		1			Type 1
125	1	10	Davidson	Thomasville	SR 2051 (Unity St)	Griffith St (non-system)							Red		1			Type 1A
126	1	10	Davidson	Thomasville	SR 2051 (Unity St)	Griffith St (non-system)							Red		1			Type 1A
127	1	11	Davidson	Thomasville	SR 2051 (Unity St)	Council St (non-system)							Red		1			Type 1A
128	1	11	Davidson	Thomasville	SR 2051 (Unity St)	Council St (non-system)							Red		1			Type 1A
133	1	12	Davidson	Thomasville	SR 2056 (Sunrise Ave)	SR 2055 (Liberty Drive)							Black		1			Type 2B
134	1	12	Davidson	Thomasville	SR 2056 (Sunrise Ave)	SR 2055 (Liberty Drive)			1				Black			1		Type 2B
135	1	12	Davidson	Thomasville	SR 2056 (Sunrise Ave)	SR 2055 (Liberty Drive)							Black			1		Type 2B
136	1	12	Davidson	Thomasville	SR 2056 (Sunrise Ave)	SR 2055 (Liberty Drive)					1		Black			1		Type 2B
137	1	12	Davidson	Thomasville	SR 2056 (Sunrise Ave)	SR 2055 (Liberty Drive)							Black		1			Type 2B
75	2	1	Davie	Cooleemee	SR 1139 (Marginal St)	Davie St (non-system)							Yellow		1			Type 2B
76	2	1	Davie	Cooleemee	SR 1139 (Marginal St)	Davie St (non-system)							Yellow		1			Type 2B
194	3	1	Forsyth	Winston-Salem	Reynolda Rd	Bethabara Park Blvd							Black	1				Retrofit
196	3	1	Forsyth	Winston-Salem	Reynolda Rd	Bethabara Park Blvd							Black				1	Type 1A
197	3	1	Forsyth	Winston-Salem	Reynolda Rd	Bethabara Park Blvd							Black	1				Retrofit
188	3	2	Forsyth	Winston-Salem	North Point Blvd	Bethabara Rd							Black		1			NCDOT Std. 848.06
189	3	2	Forsyth	Winston-Salem	North Point Blvd	Bethabara Rd							Black	1				Retrofit
190	3	2	Forsyth	Winston-Salem	North Point Blvd	Bethabara Rd							Black		1			Type 2B
191	3	2	Forsyth	Winston-Salem	North Point Blvd	Bethabara Rd							Black		1			Type 1A
192	3	2	Forsyth	Winston-Salem	North Point Blvd	Bethabara Rd							Black		1			NCDOT Std. 848.06
210	3	2	Forsyth	Winston-Salem	North Point Blvd	Bethabara Rd							Black	1				Retrofit
186	3	3	Forsyth	Winston-Salem	North Point Blvd	University Pkwy			1				Black				1	Type 2B
209	3	4	Forsyth	Winston-Salem	S. Main St	Woughtown St							Black		1			Type 2
202	3	5	Forsyth	Winston-Salem	University Pkwy	Long Rd							Black				1	Type 3 Modified
153	4	1	Rowan	China Grove	SR 1225 (Patterson St)	Elizabeth St (non-system)							Black		1			Type 1A
149	4	2	Rowan	China Grove	SR 1225 (Patterson St)	Clinton St (non-system)							Black		1			Type 1 Modified
152	4	2	Rowan	China Grove	SR 1225 (Patterson St)	Chinaberry Lane (non-system)							Black		1			Type 1
146	4	3	Rowan	China Grove	SR 1225 (Patterson St)	Cedar St (non-system)			1				Black		1			Type 2A Modified
147	4	3	Rowan	China Grove	SR 1225 (Patterson St)	Cedar St (non-system)							Black		1			Type 1 Modified
148	4	3	Rowan	China Grove	SR 1225 (Patterson St)	Cedar St (non-system)							Black				1	Type 3
143	4	4	Rowan	China Grove	SR 1225 (Patterson St)	Franklin St (non-system)							Black		1			Type 1B
144	4	4	Rowan	China Grove	SR 1225 (Patterson St)	Franklin St (non-system)			2				Black		1			Type 2A
145	4	4	Rowan	China Grove	SR 1225 (Patterson St)	Franklin St (non-system)							Black		1			Type 2A
154	4	5	Rowan	China Grove	SR 1227 (Ketchie St)	Myrtle Ave (non-system)							Black		1			Type 1 Modified
155	4	6	Rowan	China Grove	SR 1227 (Ketchie St)	Franklin St (non-system)							Black		1			Type 2A
156	4	6	Rowan	China Grove	SR 1227 (Ketchie St)	Franklin St (non-system)					1		Black		1			Type 2A Modified
157	4	6	Rowan	China Grove	SR 1227 (Ketchie St)	Franklin St (non-system)							Black		1			Type 2A
158	4	6	Rowan	China Grove	SR 1227 (Ketchie St)	Franklin St (non-system)							Black		1			Type 2A Modified
161	4	7	Rowan	China Grove	NC 152 (W Church St)	SR 1569 (Mitchell Ave)							Black		1			Type 2B
93	5	1	Rowan	Granite Quarry	US 52	218 Salisbury Ave							Black		1			Type 1 Modified
94	5	1	Rowan	Granite Quarry	US 52	218 Salisbury Ave							Black		1			Type 1 Modified
86	5	2	Rowan	Granite Quarry	US 52	111 Salisbury Ave							Black		1			Type 1
87	5	2	Rowan	Granite Quarry	US 52	111 Salisbury Ave							Black		1			Type 2B
89	5	2	Rowan	Granite Quarry	US 52	111 Salisbury Ave							Black		1			NCDOT Std. 848.06
90	5	2	Rowan	Granite Quarry	US 52	111 Salisbury Ave							Black		1			Type 2B
91	5	2	Rowan	Granite Quarry	US 52	111 Salisbury Ave							Black		1			Type 2B
167	5	3	Rowan	Granite Quarry	US 52	111 Salisbury Ave							Black		1			Type 1
168	5	3	Rowan	Granite Quarry	US 52	111 Salisbury Ave							Black				1	Type 7
169	5	3	Rowan	Granite Quarry	US 52	111 Salisbury Ave							Black		1			Type 1
140	6	1	Rowan	Kannapolis	SR 1254 (22nd St)	Linda Ave (non-system)							Yellow		1			Type 1
141	6	1	Rowan	Kannapolis	SR 1254 (22nd St)	Linda Ave (non-system)							Yellow		1			Type 1
<b>TOTALS:</b>							<b>27</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>4</b>	<b>1</b>	<b>-</b>	<b>4</b>	<b>58</b>	<b>8</b>	<b>2</b>	
							254900000-E 2'-6" Concrete Curb & Gutter LF	259100000-E 4" Concrete Sidewalk SY	284500000-N Adjust Valve / Meter EA	283000000-N Adjust Manhole EA	764800000-N Relocate Sign EA	588200000-E Adjust Utility Box EA		260000000-N Retrofit Existing Curb Ramps EA	261300000-N Remove & Replace Curb Ramps EA	260500000-N Concrete Curb Ramps EA	000915000-N Remove Curb Ramp - SP EA	



**LEGEND**

- MISSING
- NOT COMPLIANT
- ▬ MUNICIPAL BOUNDARY
- ▭ NCHPO HISTORIC PROPERTY OR DISTRICT

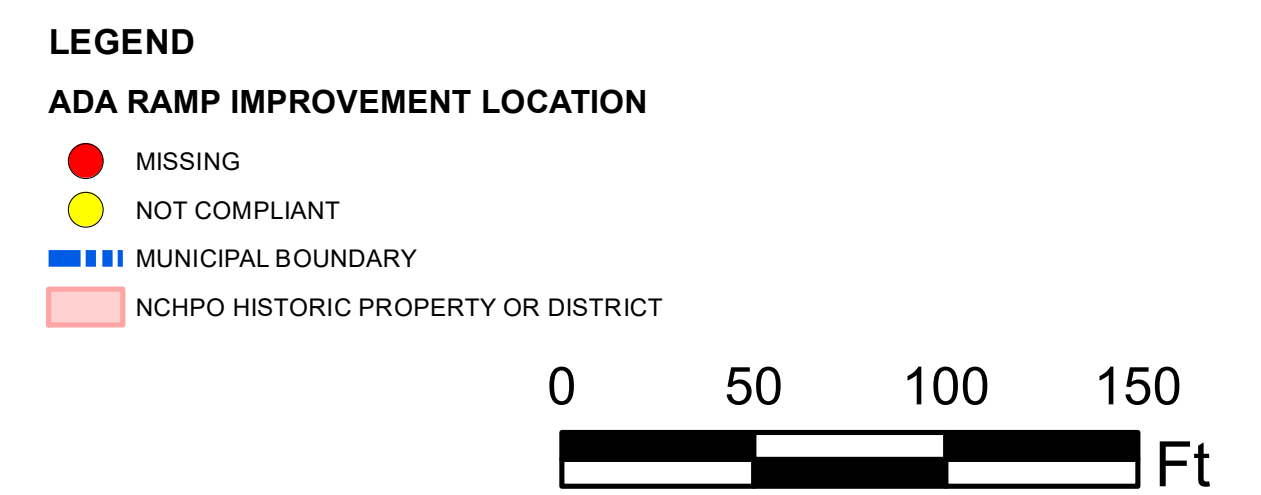
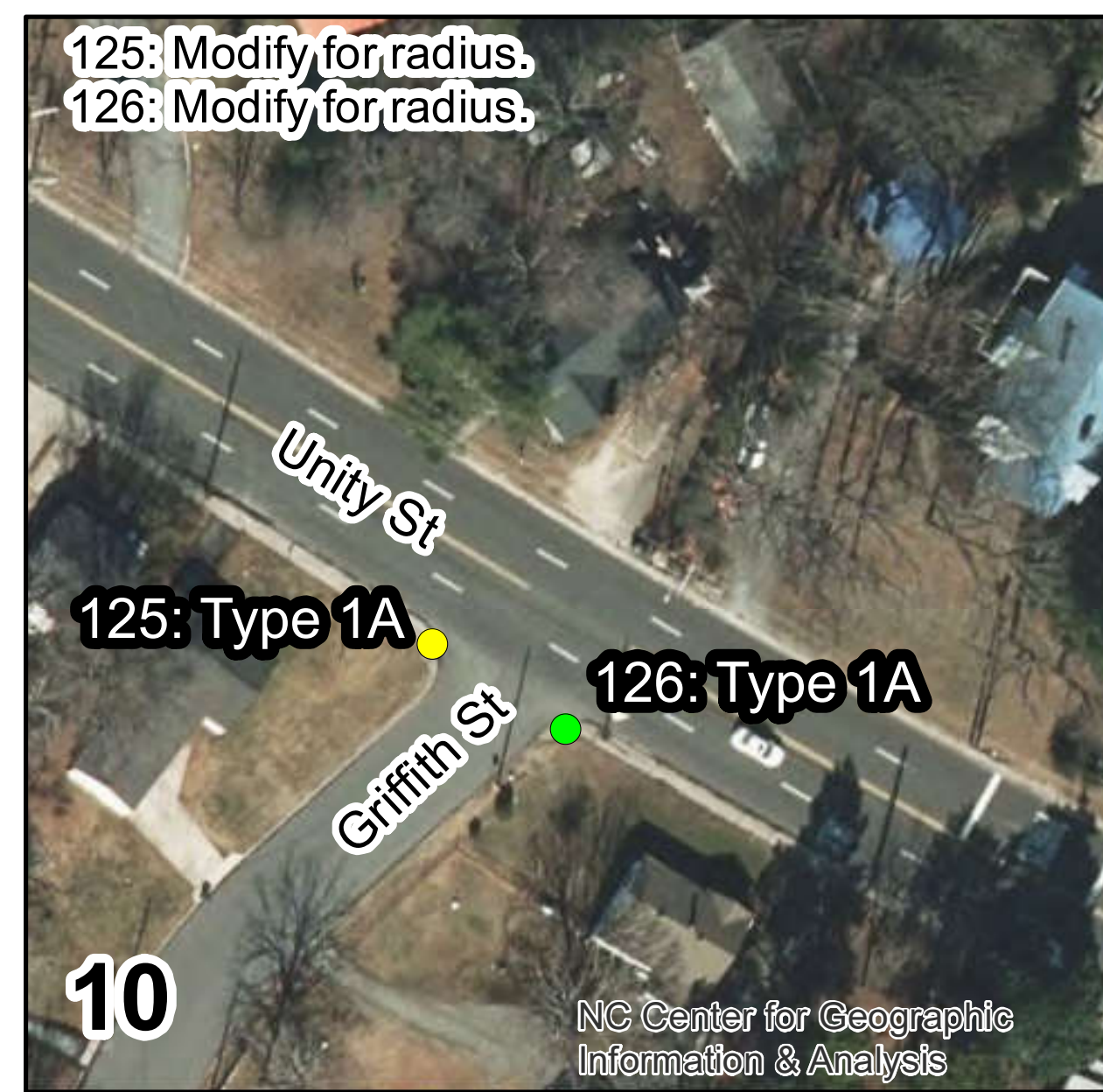
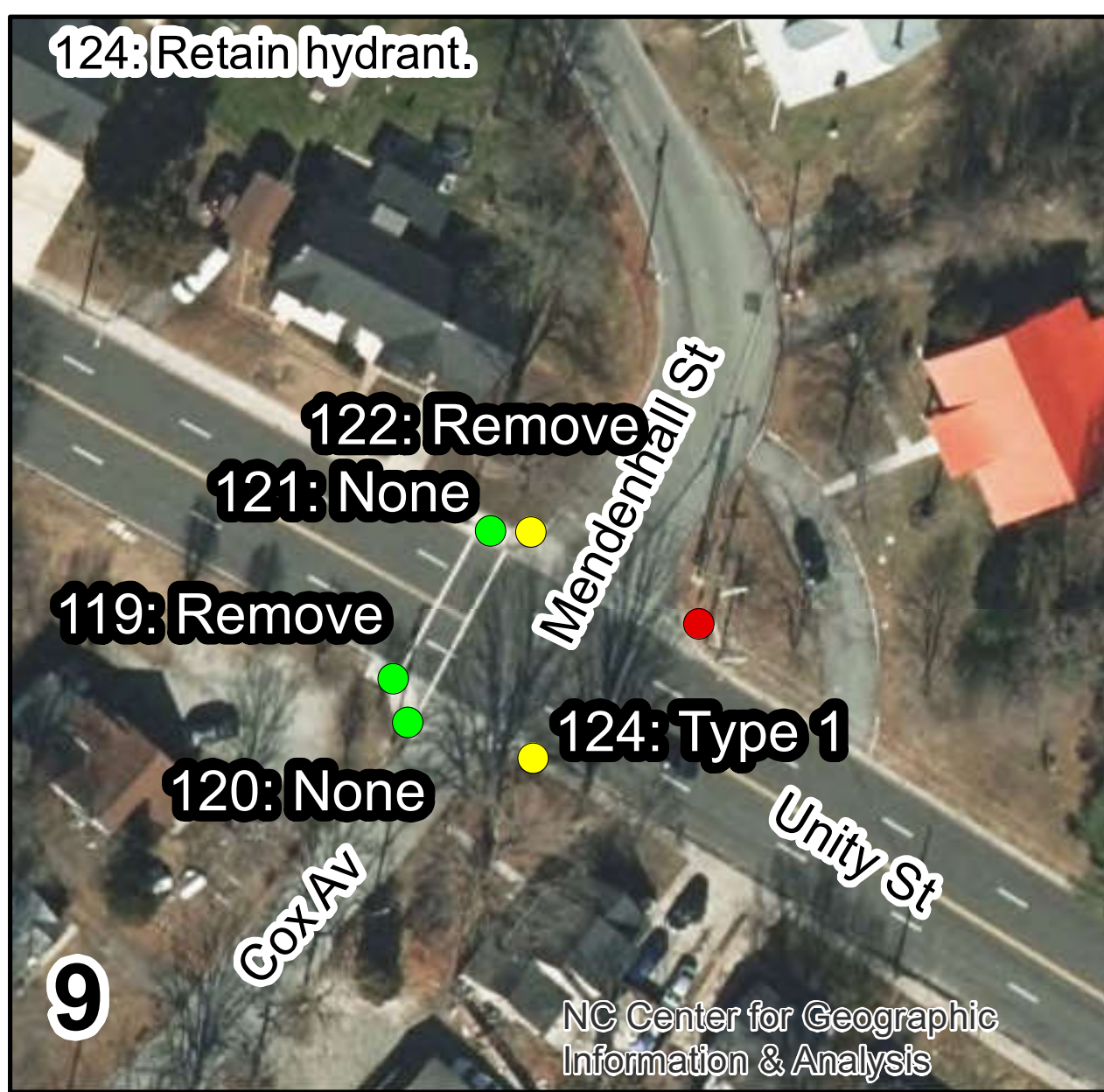
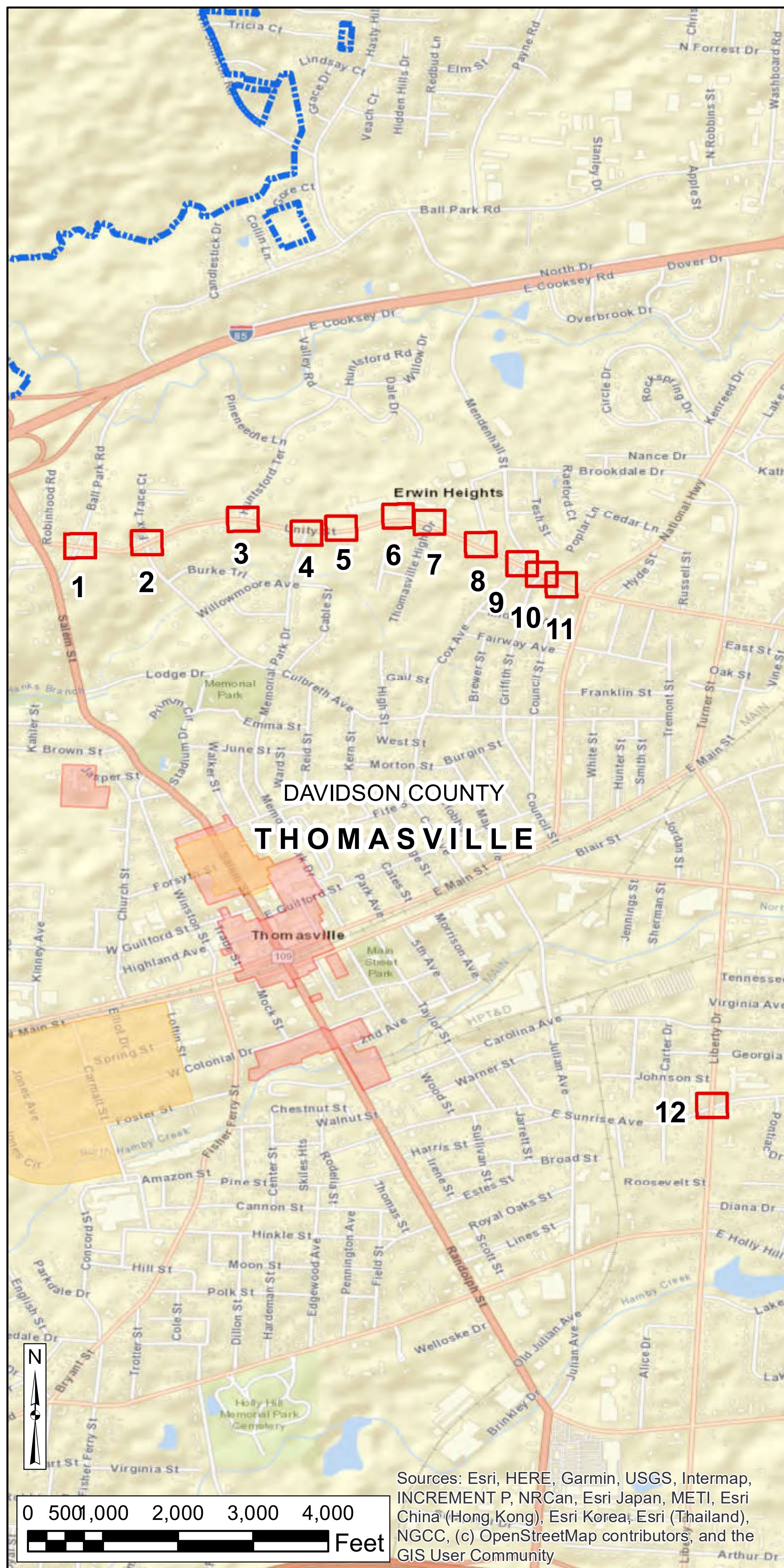
0 50 100 150 Ft

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

RAMEY KEMP ASSOCIATES, INC

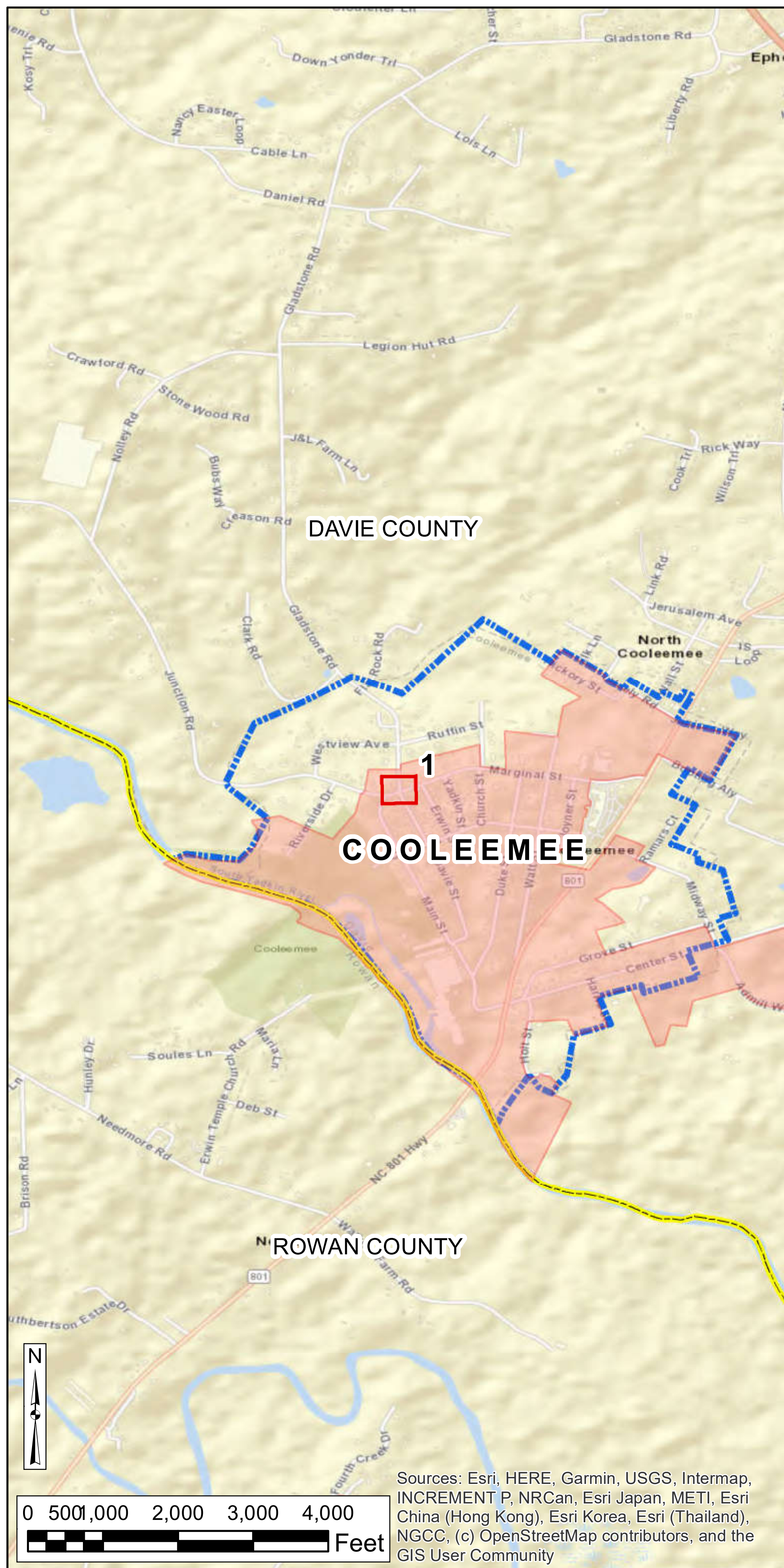
DIVISION 9 INTERSECTION ADA IMPROVEMENTS  
DAVIDSON, DAVIE, FORSYTH, AND ROWAN COUNTIES  
STIP PROJECT R-5789I

MAP 1

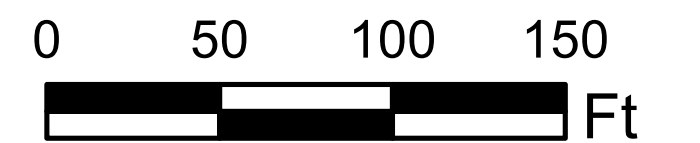


	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS
	RAMEY KEMP ASSOCIATES, INC
DIVISION 9 INTERSECTION ADA IMPROVEMENTS DAVIDSON, DAVIE, FORSYTH, AND ROWAN COUNTIES STIP PROJECT R-5789I	
MAP 1	

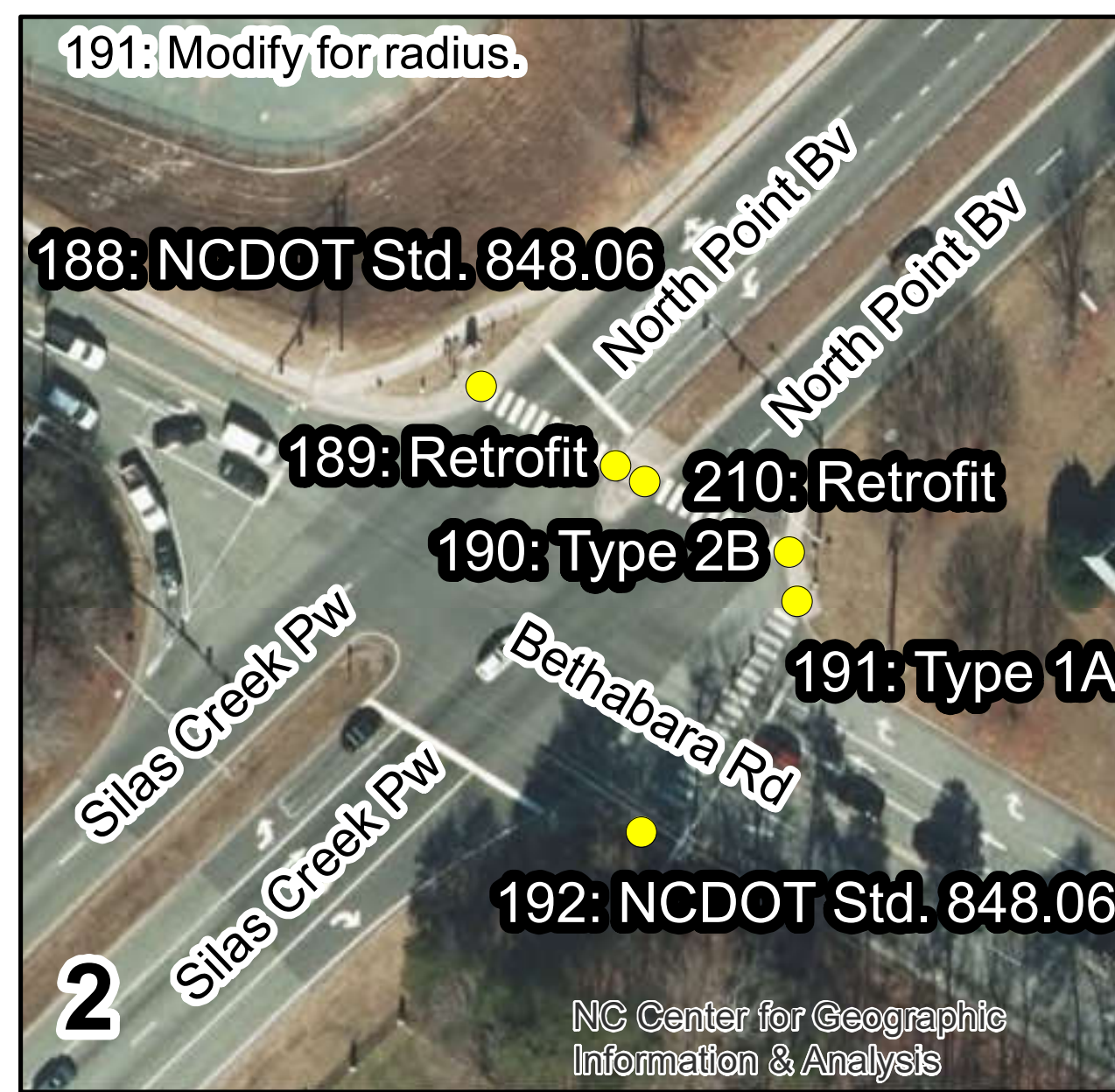
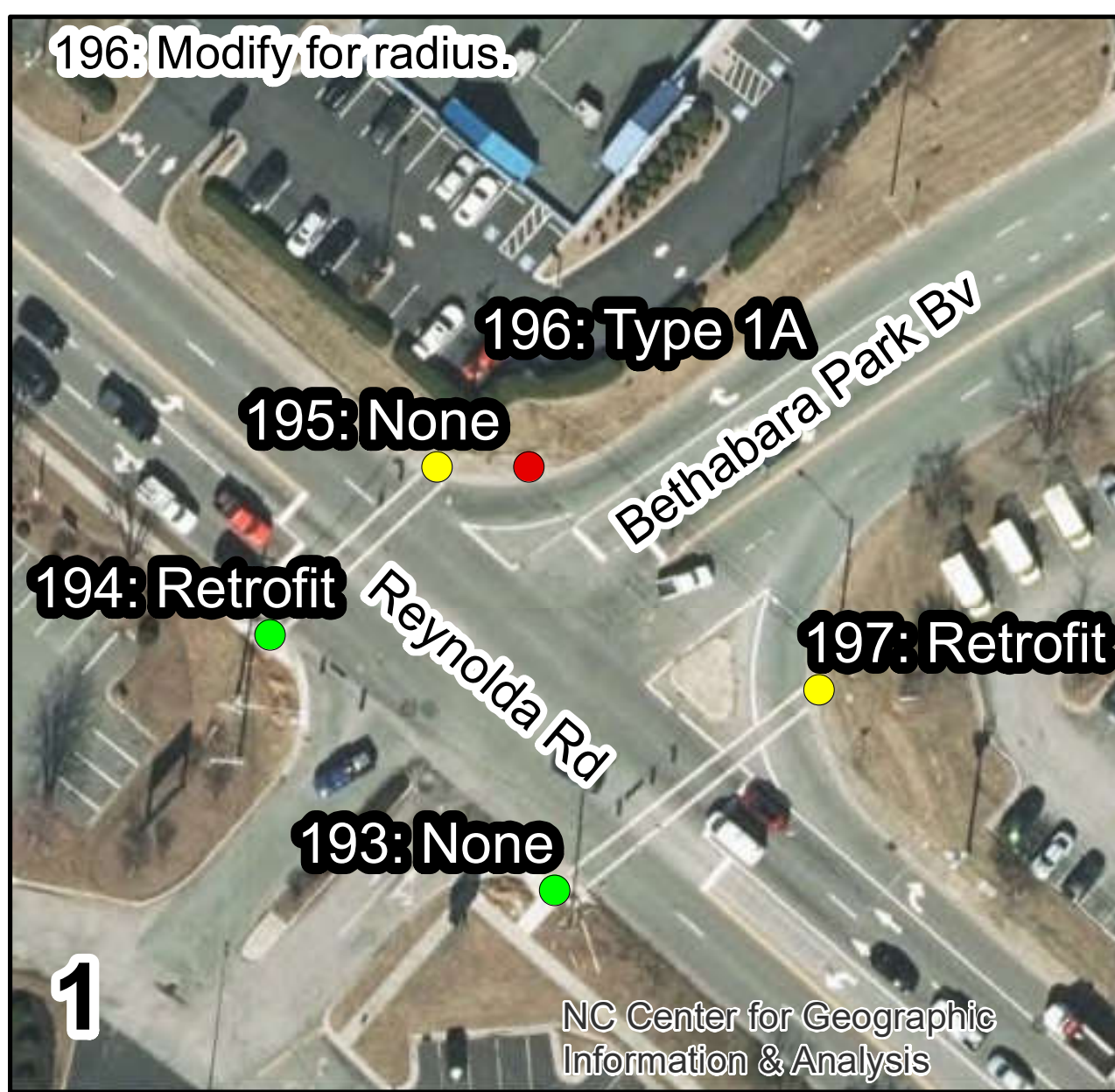
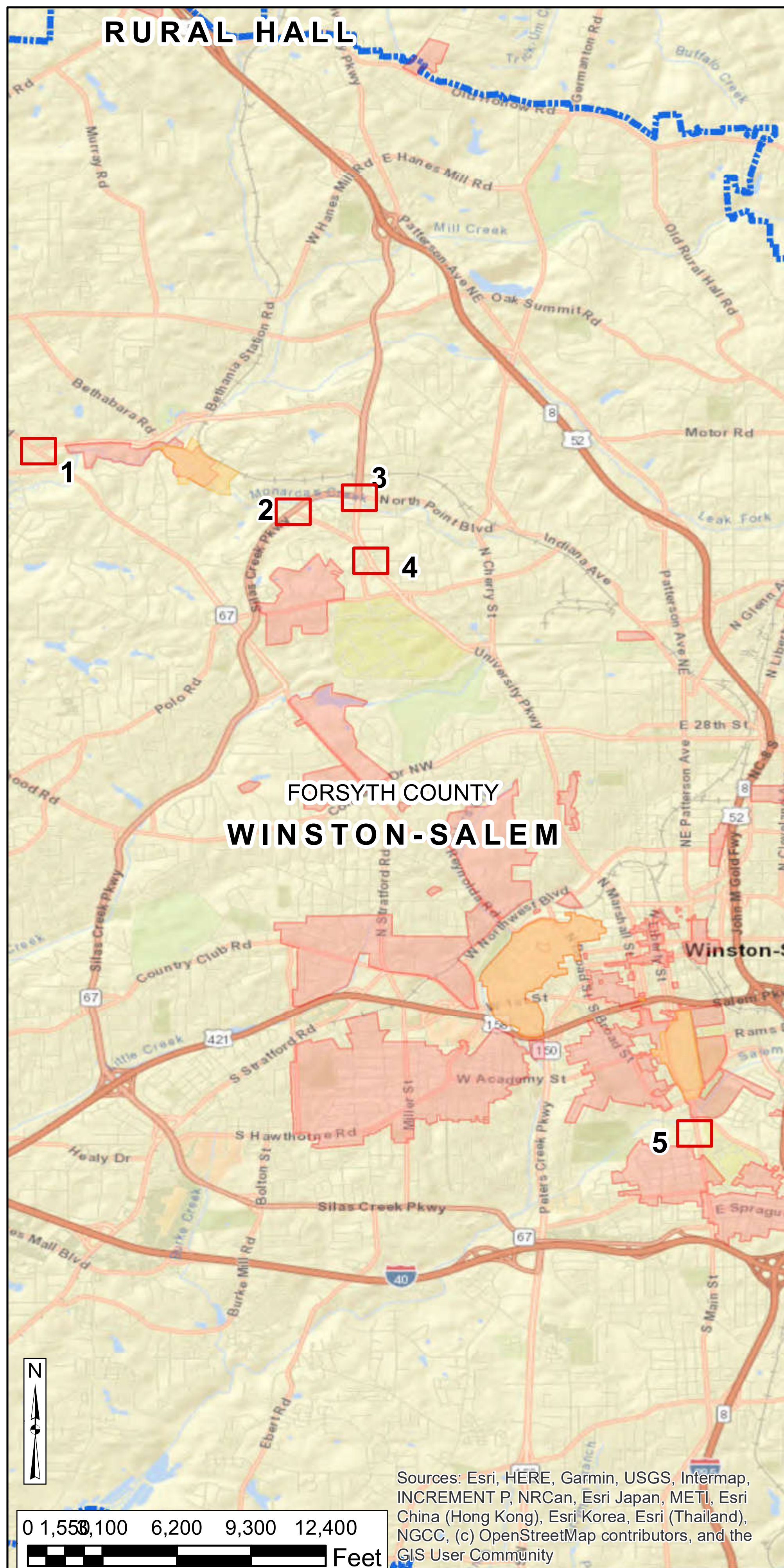




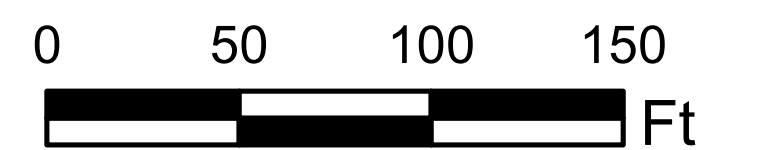
- LEGEND**
- ADA RAMP IMPROVEMENT LOCATION**
- MISSING
  - NOT COMPLIANT
  - ▬ MUNICIPAL BOUNDARY
  - ▭ NCHPO HISTORIC PROPERTY OR DISTRICT



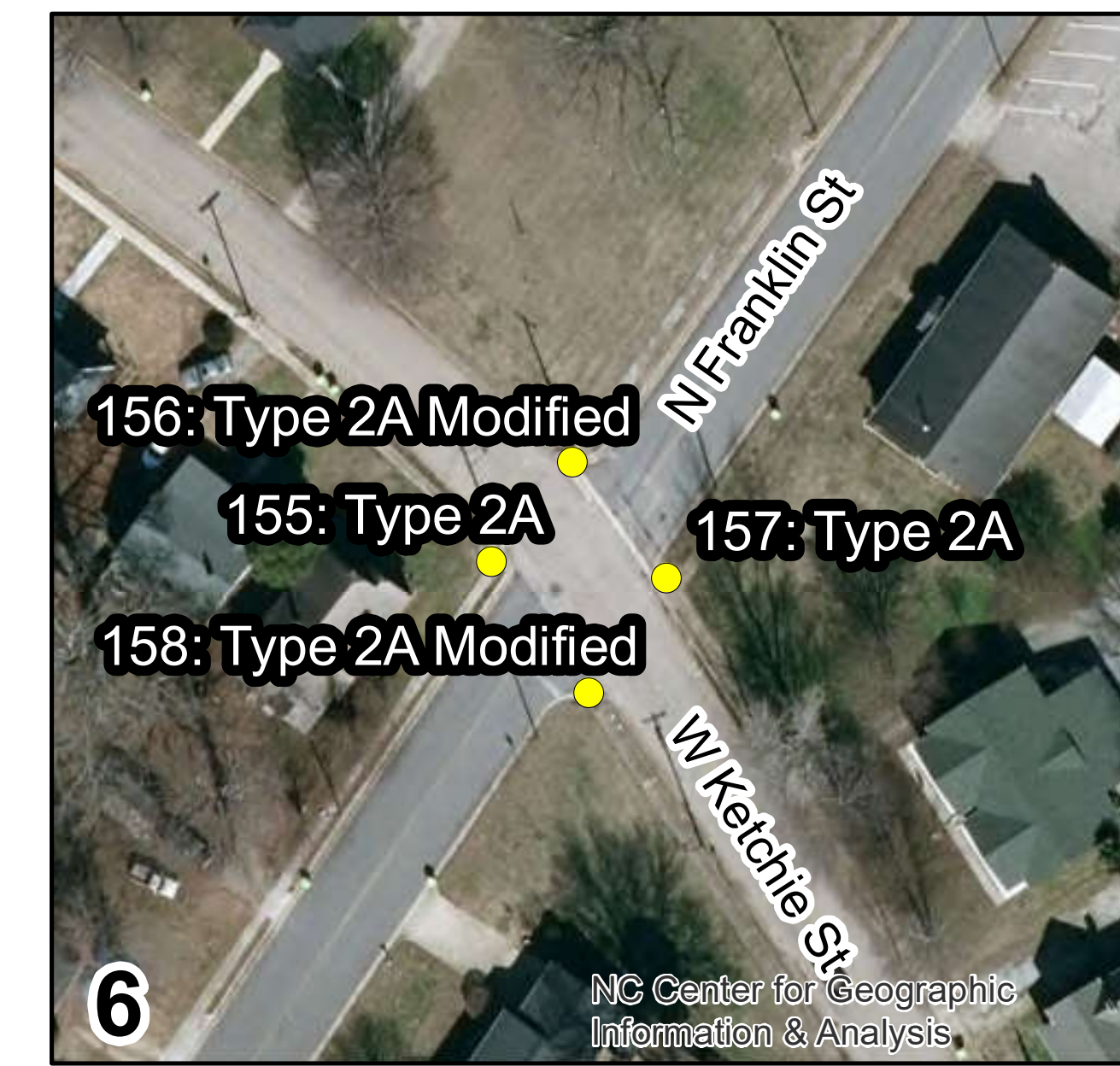
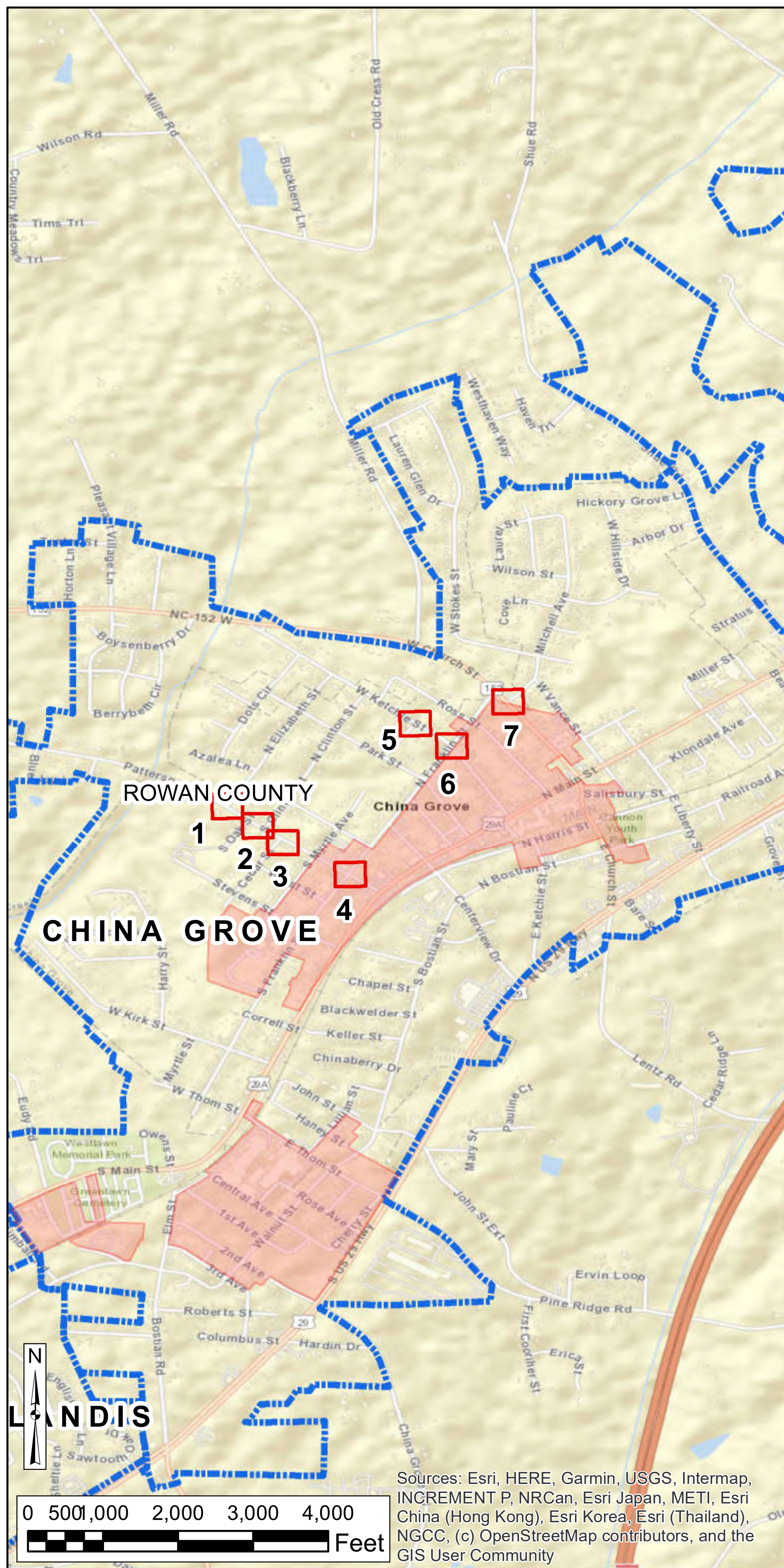
	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS
	RAMEY KEMP ASSOCIATES, INC
DIVISION 9 INTERSECTION ADA IMPROVEMENTS DAVIDSON, DAVIE, FORSYTH, AND ROWAN COUNTIES STIP PROJECT R-5789I	
MAP 2	



**LEGEND**  
**ADA RAMP IMPROVEMENT LOCATION**  
 ● MISSING  
 ● NOT COMPLIANT  
 ■ MUNICIPAL BOUNDARY  
 ■ NCHPO HISTORIC PROPERTY OR DISTRICT



	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS
	RAMEY KEMP ASSOCIATES, INC
DIVISION 9 INTERSECTION ADA IMPROVEMENTS DAVIDSON, DAVIE, FORSYTH, AND ROWAN COUNTIES STIP PROJECT R-5789I	
MAP 3	



**LEGEND**

**ADA RAMP IMPROVEMENT LOCATION**

- MISSING
- NOT COMPLIANT
- MUNICIPAL BOUNDARY
- NCHPO HISTORIC PROPERTY OR DISTRICT

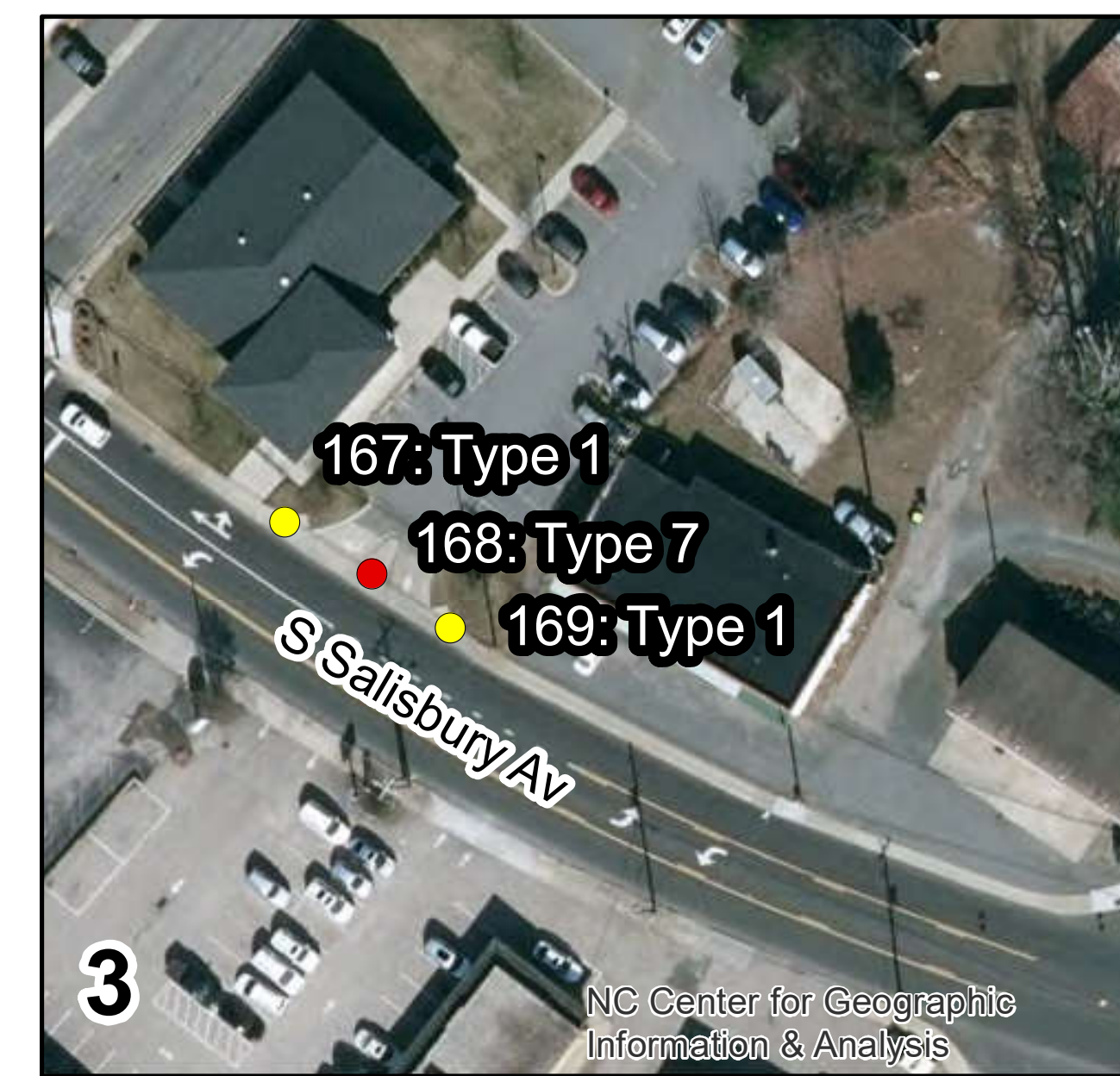
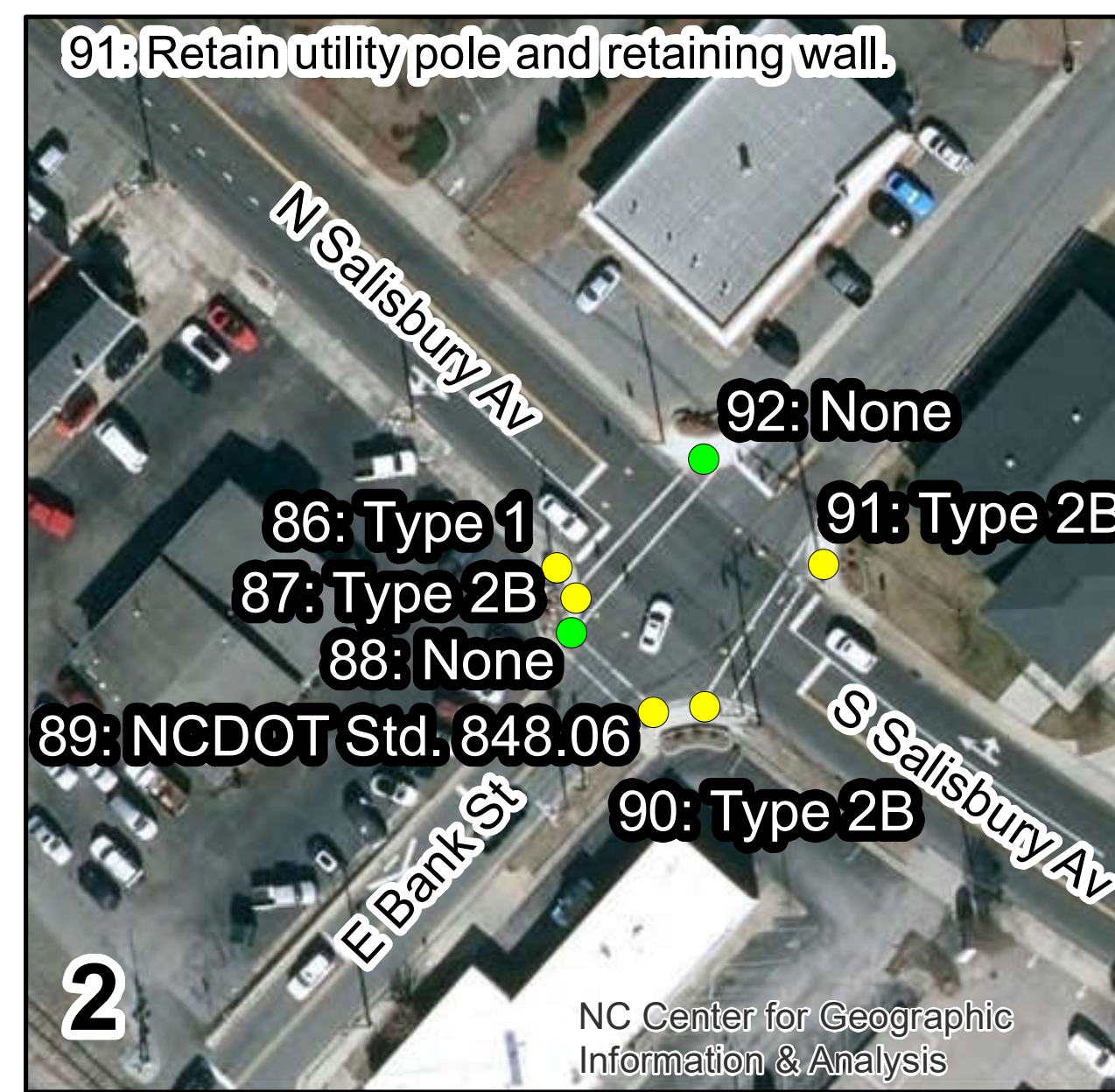
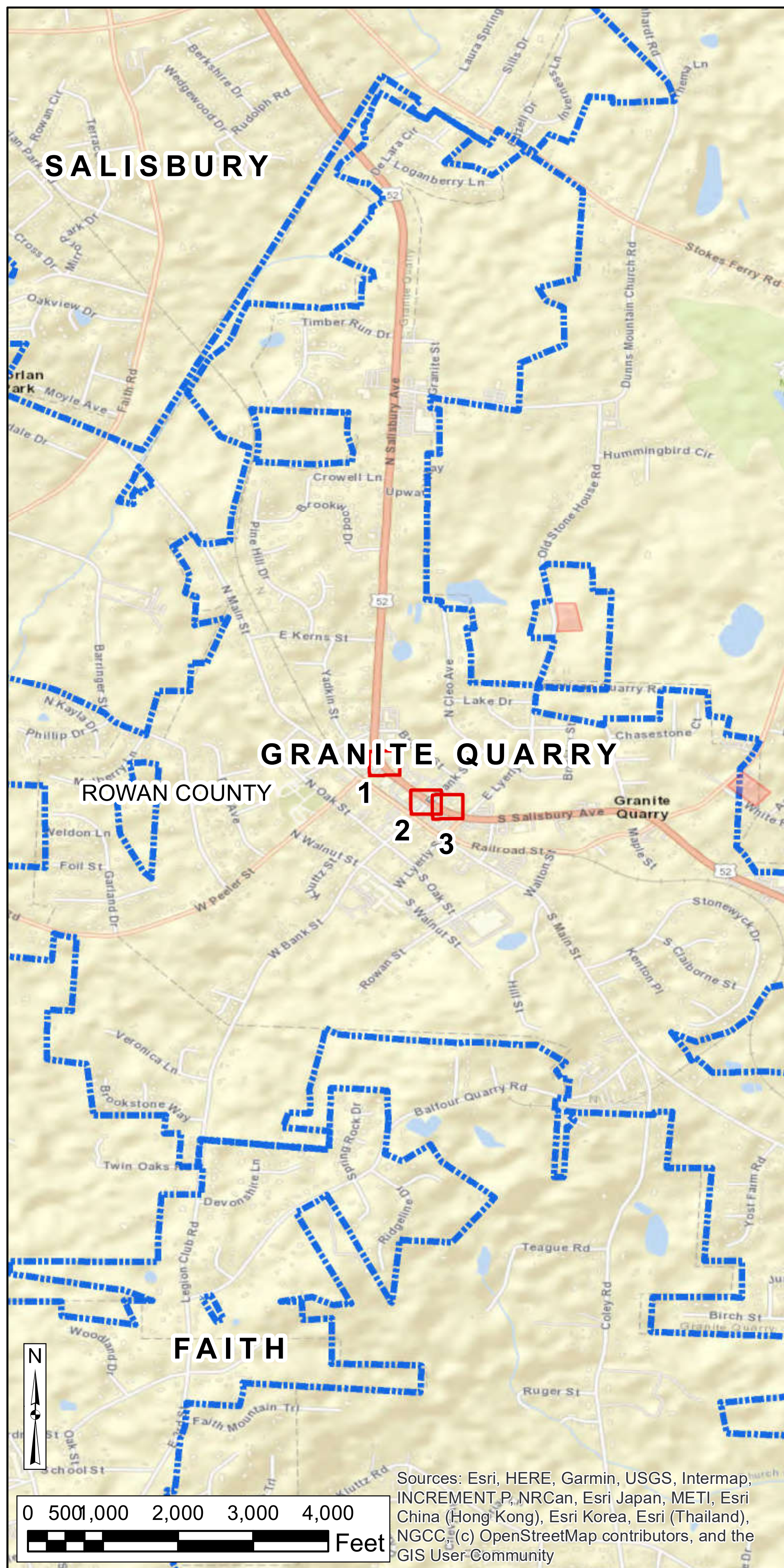
0 50 100 150 Ft

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

RAMEY KEMP ASSOCIATES, INC

DIVISION 9 INTERSECTION ADA IMPROVEMENTS  
DAVIDSON, DAVIE, FORSYTH, AND ROWAN COUNTIES  
STIP PROJECT R-5789I

MAP 4




**LEGEND**

**ADA RAMP IMPROVEMENT LOCATION**

- MISSING
- NOT COMPLIANT
- MUNICIPAL BOUNDARY
- NCHPO HISTORIC PROPERTY OR DISTRICT

0 50 100 150  
Ft

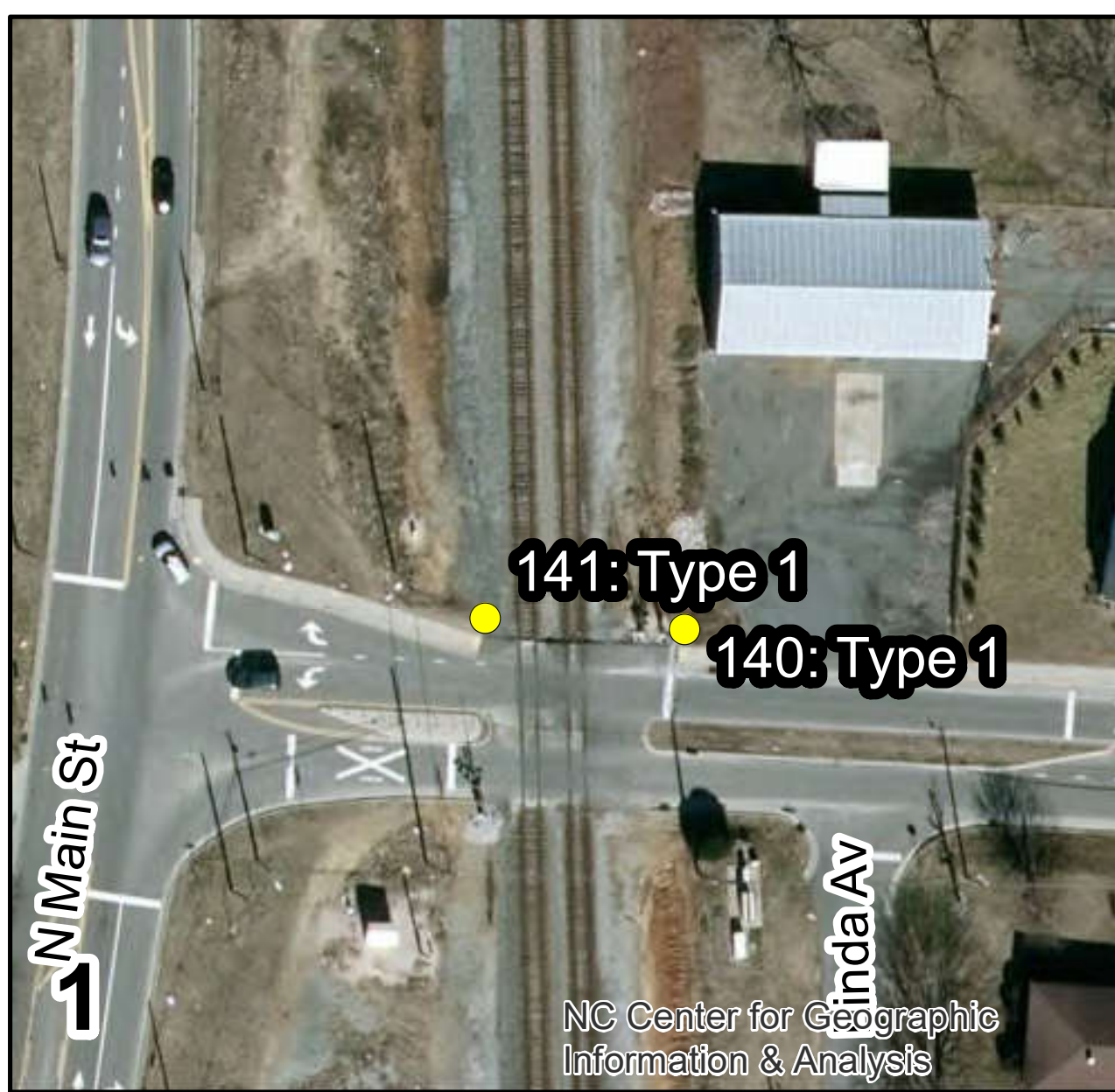
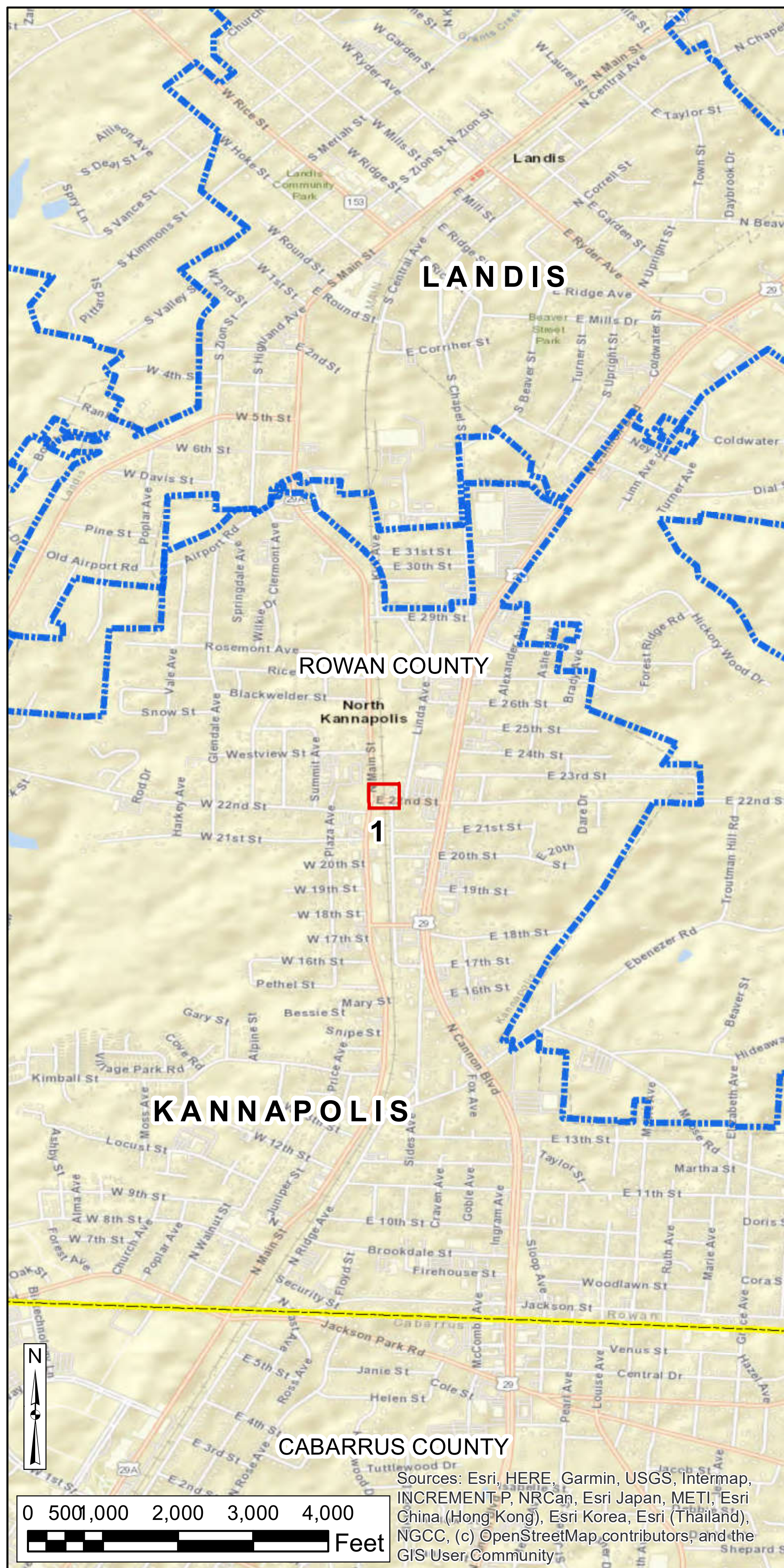
 NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

RAMEY KEMP ASSOCIATES, INC

DIVISION 9 INTERSECTION  
ADA IMPROVEMENTS  
DAVIDSON, DAVIE, FORSYTH,  
AND ROWAN COUNTIES  
STIP PROJECT R-5789I

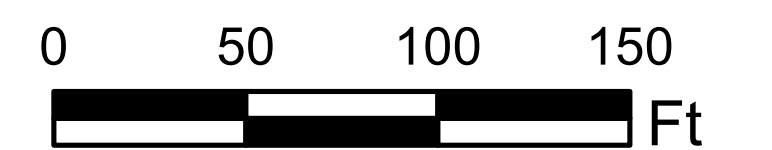
MAP 5



**LEGEND**

**ADA RAMP IMPROVEMENT LOCATION**

- MISSING
- NOT COMPLIANT
- ▬▬▬ MUNICIPAL BOUNDARY
- NCHPO HISTORIC PROPERTY OR DISTRICT



**NORTH CAROLINA DEPARTMENT OF TRANSPORTATION**  
DIVISION OF HIGHWAYS

RAMEY KEMP ASSOCIATES, INC

**DIVISION 9 INTERSECTION ADA IMPROVEMENTS**  
DAVIDSON, DAVIE, FORSYTH, AND ROWAN COUNTIES  
STIP PROJECT R-5789I