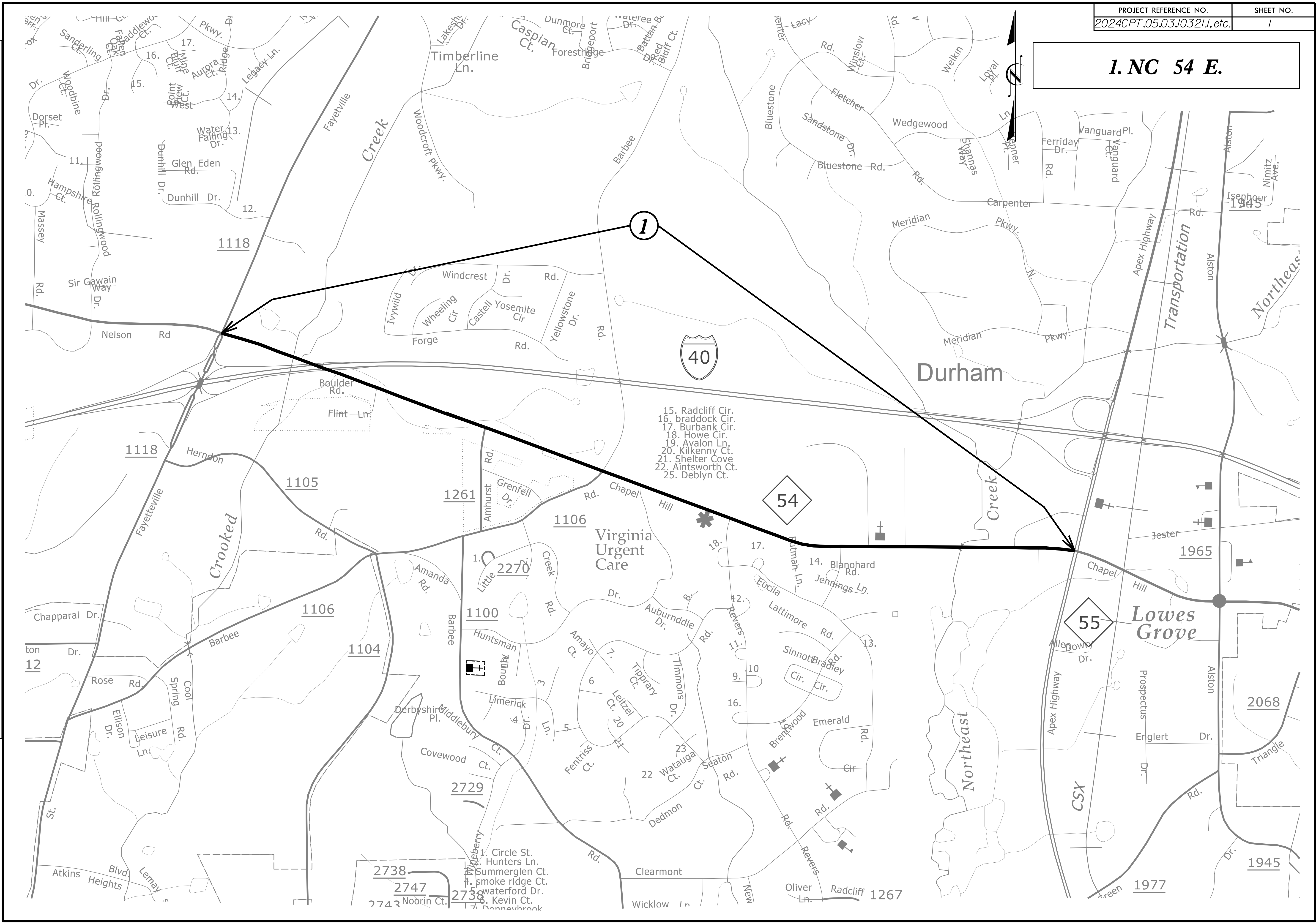


I. NC 54 E.

8/17/99

REVISIONS



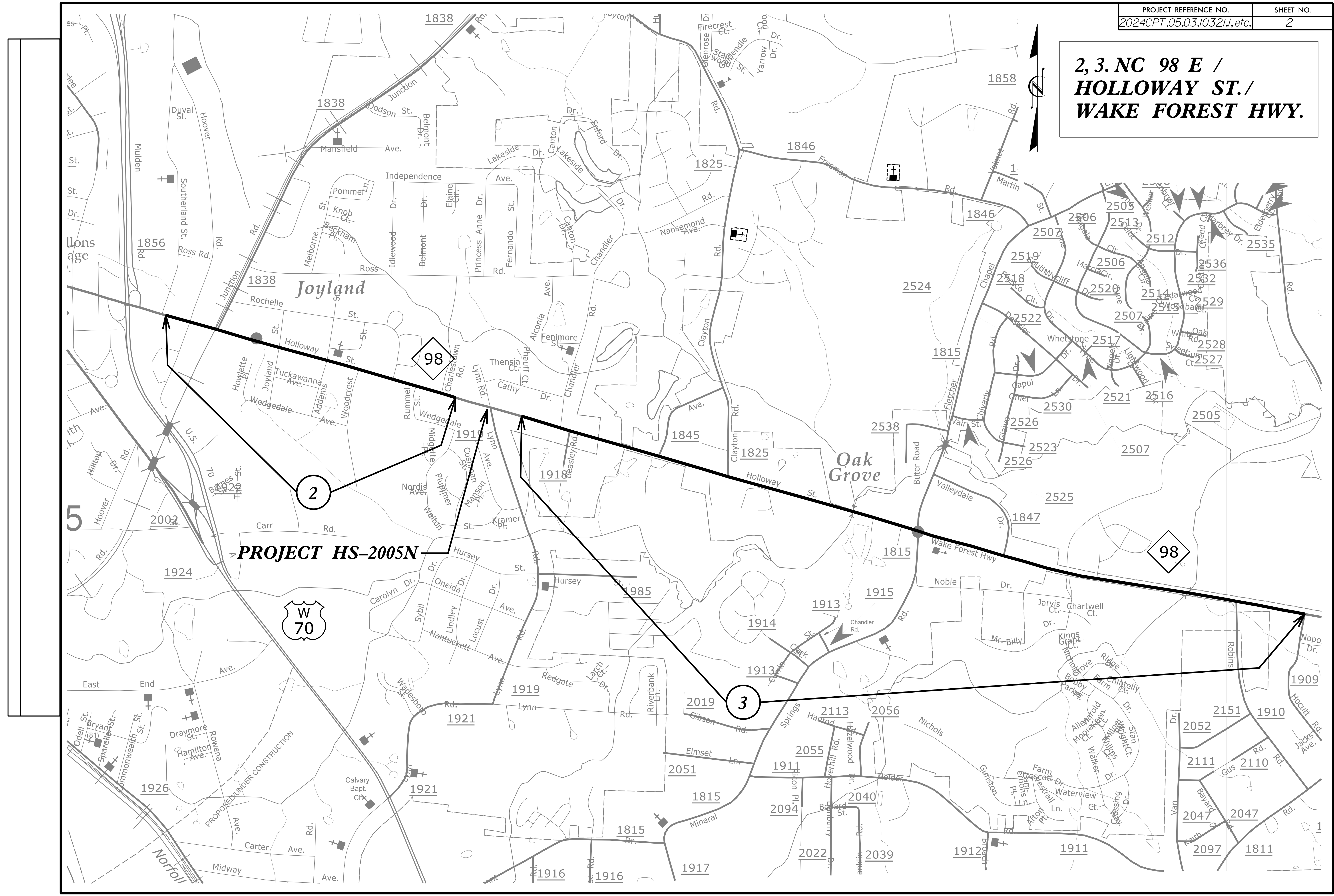
ton Dr.
12

2738
2747
2743 Noorin Ct.
2738
2736
2738
1. Circle St.
2. Hunters Ln.
3. Summerrglen Ct.
4. Smoke ridge Ct.
5. Waterford Dr.
6. Kevin Ct.
7. Donnevbrack

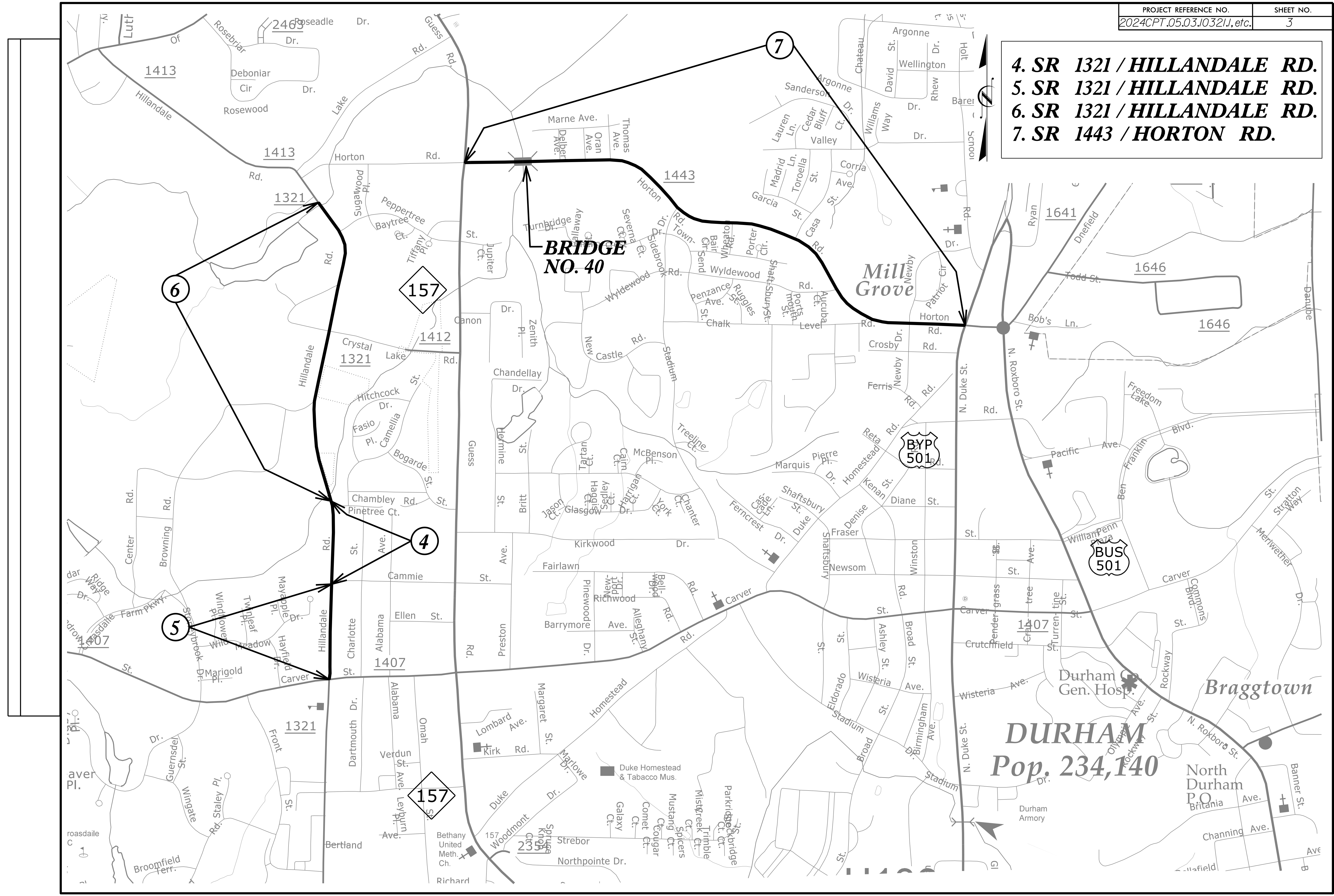
15. Radcliff Cir.
16. Braddock Cir.
17. Burbank Cir.
18. Howe Cir.
19. Avalon Ln.
20. Kilkenny Ct.
21. Shelter Cove
22. Aintsworth Ct.
25. Debyn Ct.

1945

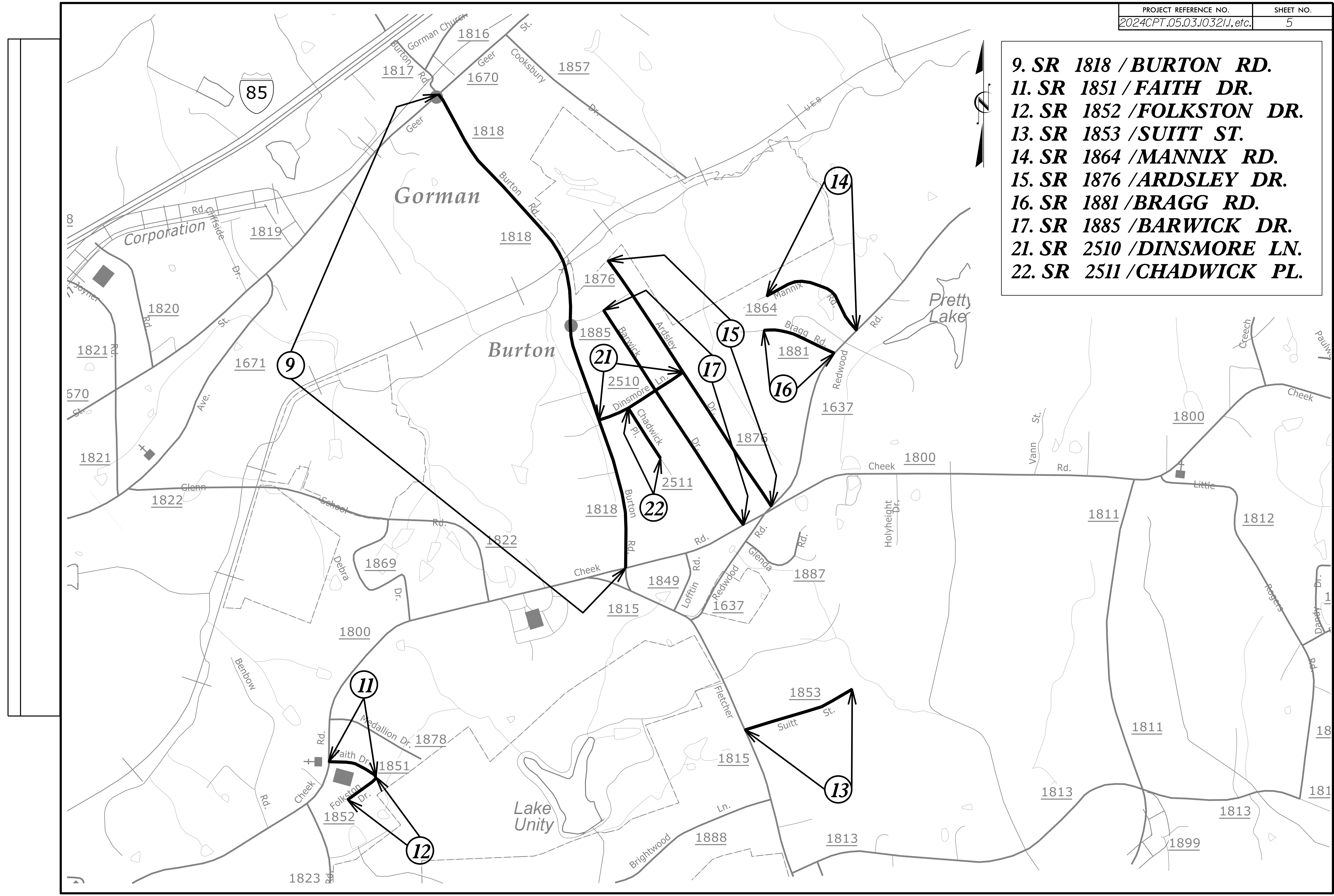
**2, 3. NC 98 E /
HOLLOWAY ST. /
WAKE FOREST HWY.**



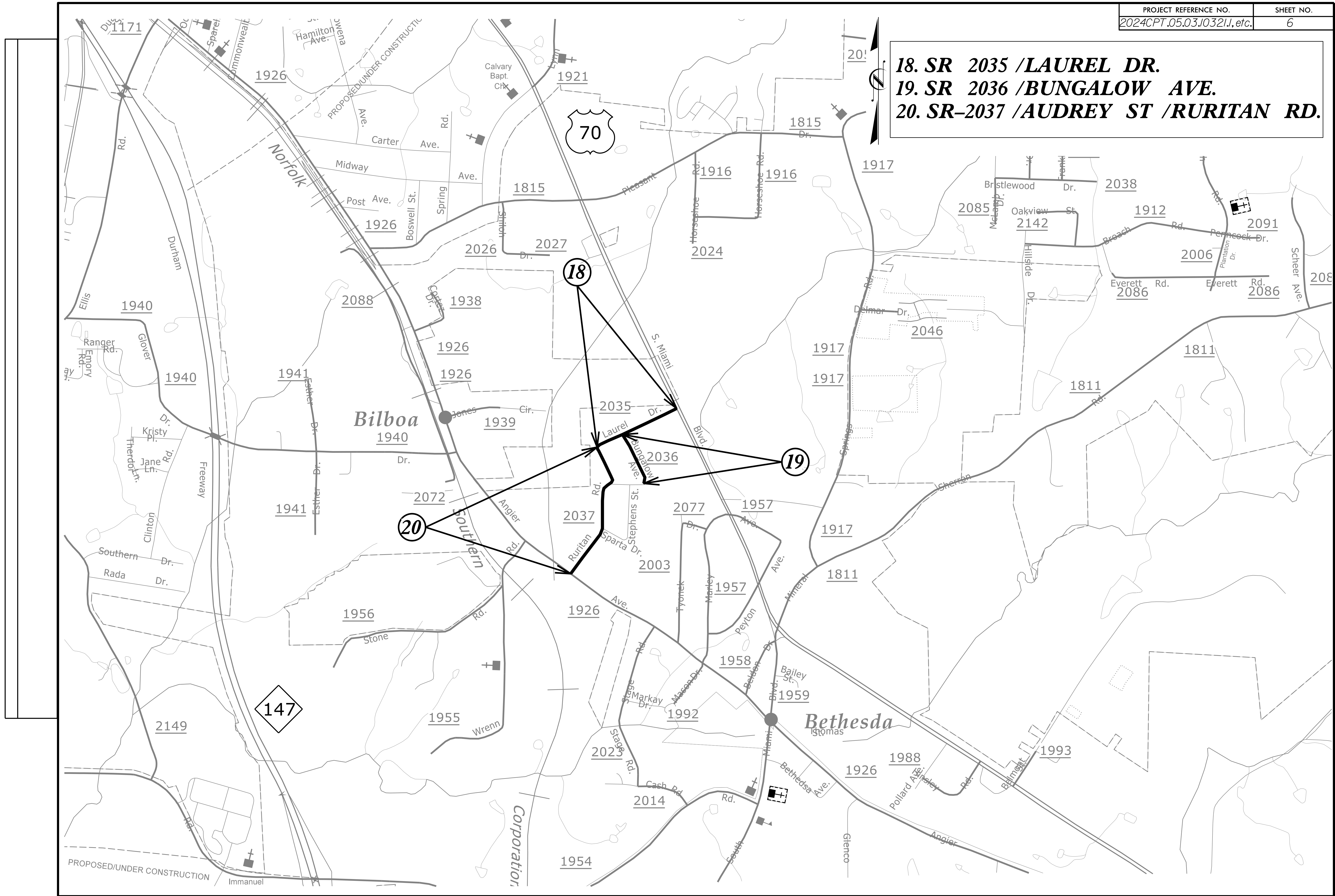
- 4. SR 1321 / HILLANDALE RD.
- 5. SR 1321 / HILLANDALE RD.
- 6. SR 1321 / HILLANDALE RD.
- 7. SR 1443 / HORTON RD.



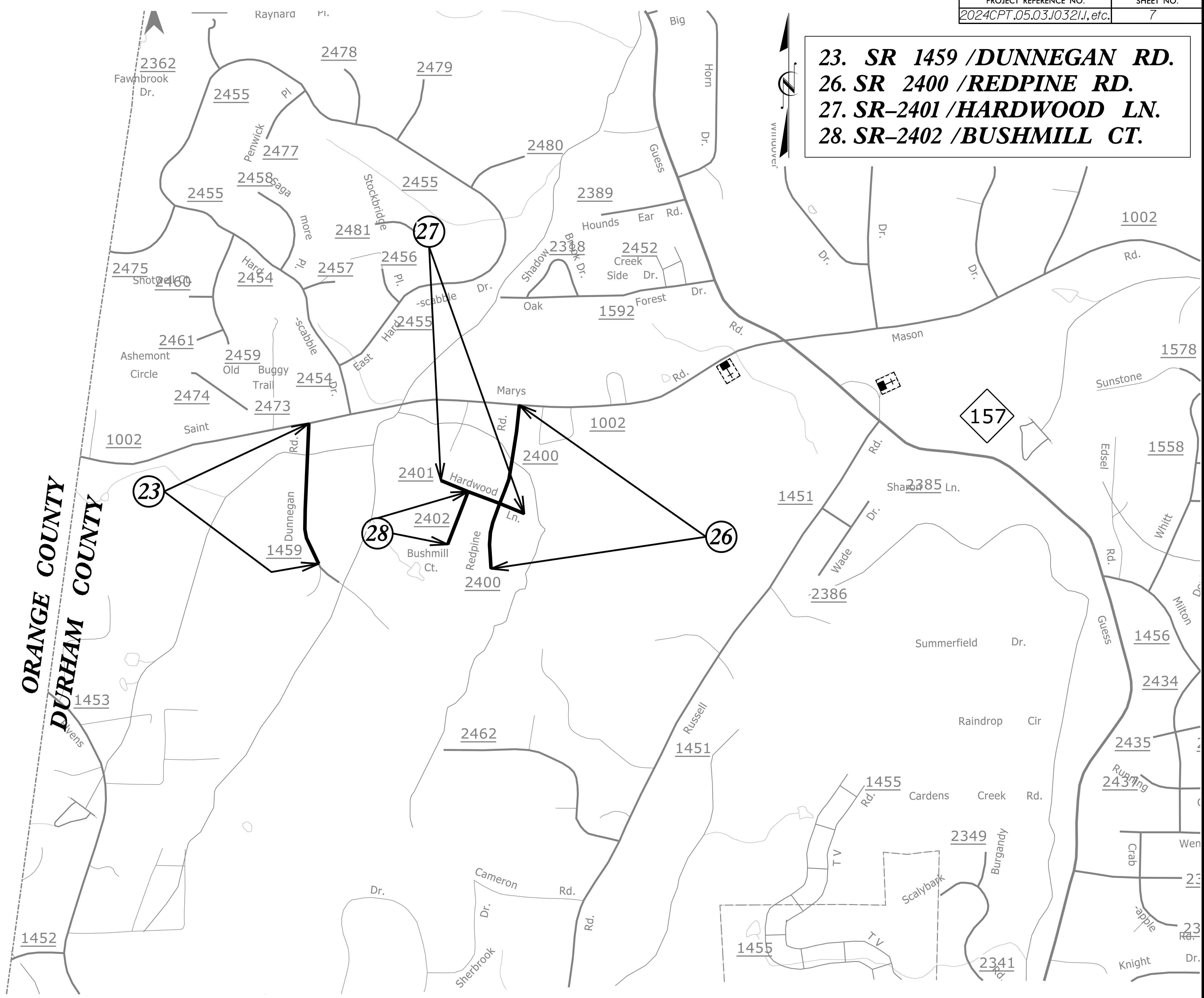
- 9. SR 1818 / BURTON RD.**
- 11. SR 1851 / FAITH DR.**
- 12. SR 1852 / FOLKSTON DR.**
- 13. SR 1853 / SUITT ST.**
- 14. SR 1864 / MANNIX RD.**
- 15. SR 1876 / ARDSLEY DR.**
- 16. SR 1881 / BRAGG RD.**
- 17. SR 1885 / BARWICK DR.**
- 21. SR 2510 / DINSMORE LN.**
- 22. SR 2511 / CHADWICK PL.**



18. SR 2035 /LAUREL DR.
19. SR 2036 /BUNGALOW AVE.
20. SR-2037 /AUDREY ST /RURITAN RD.

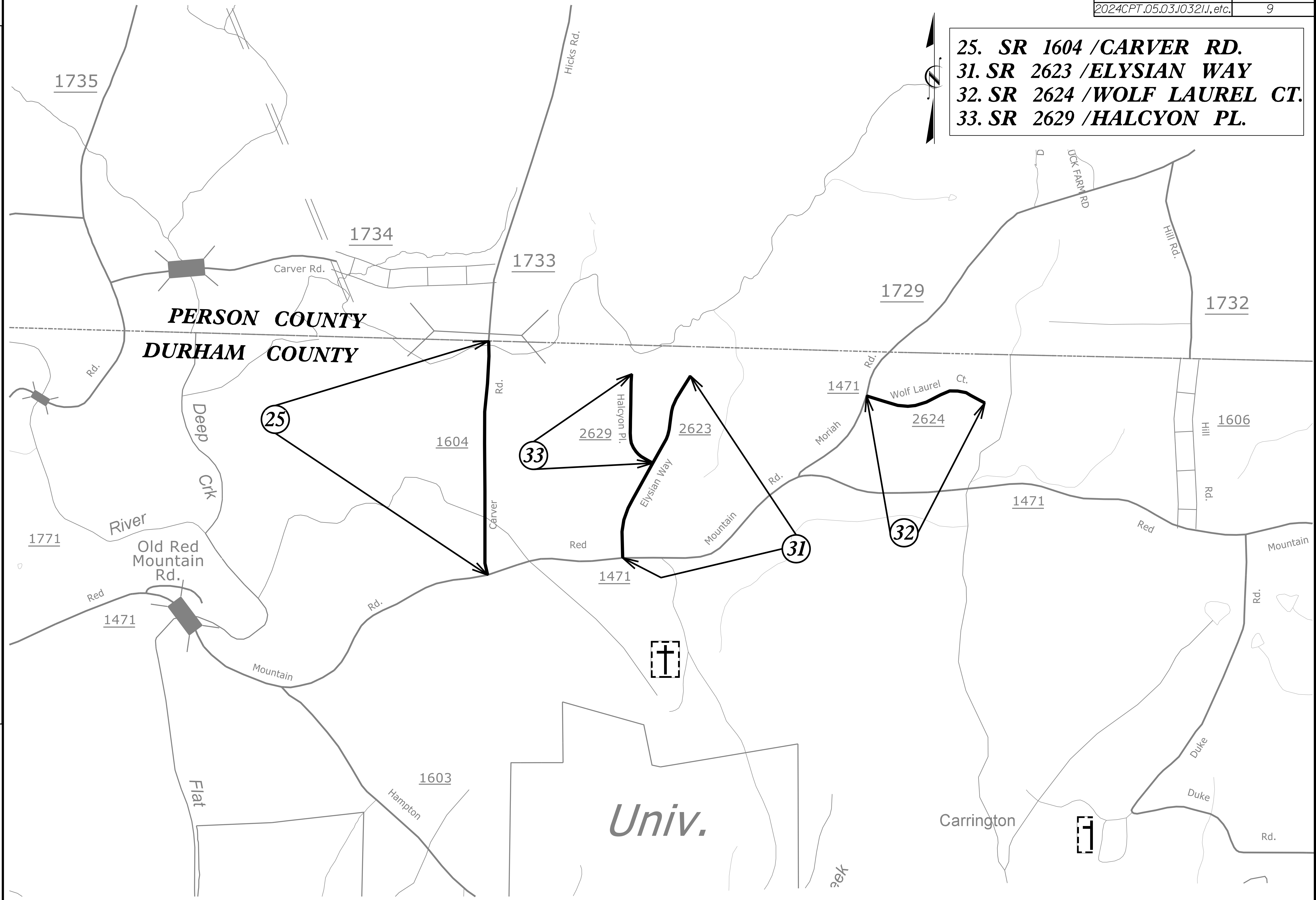


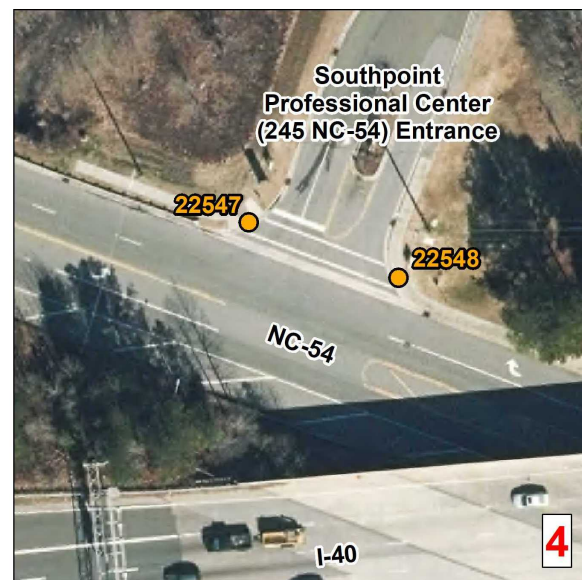
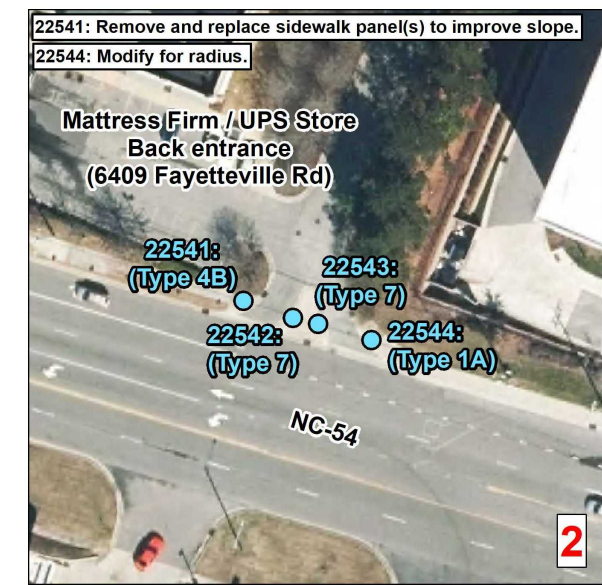
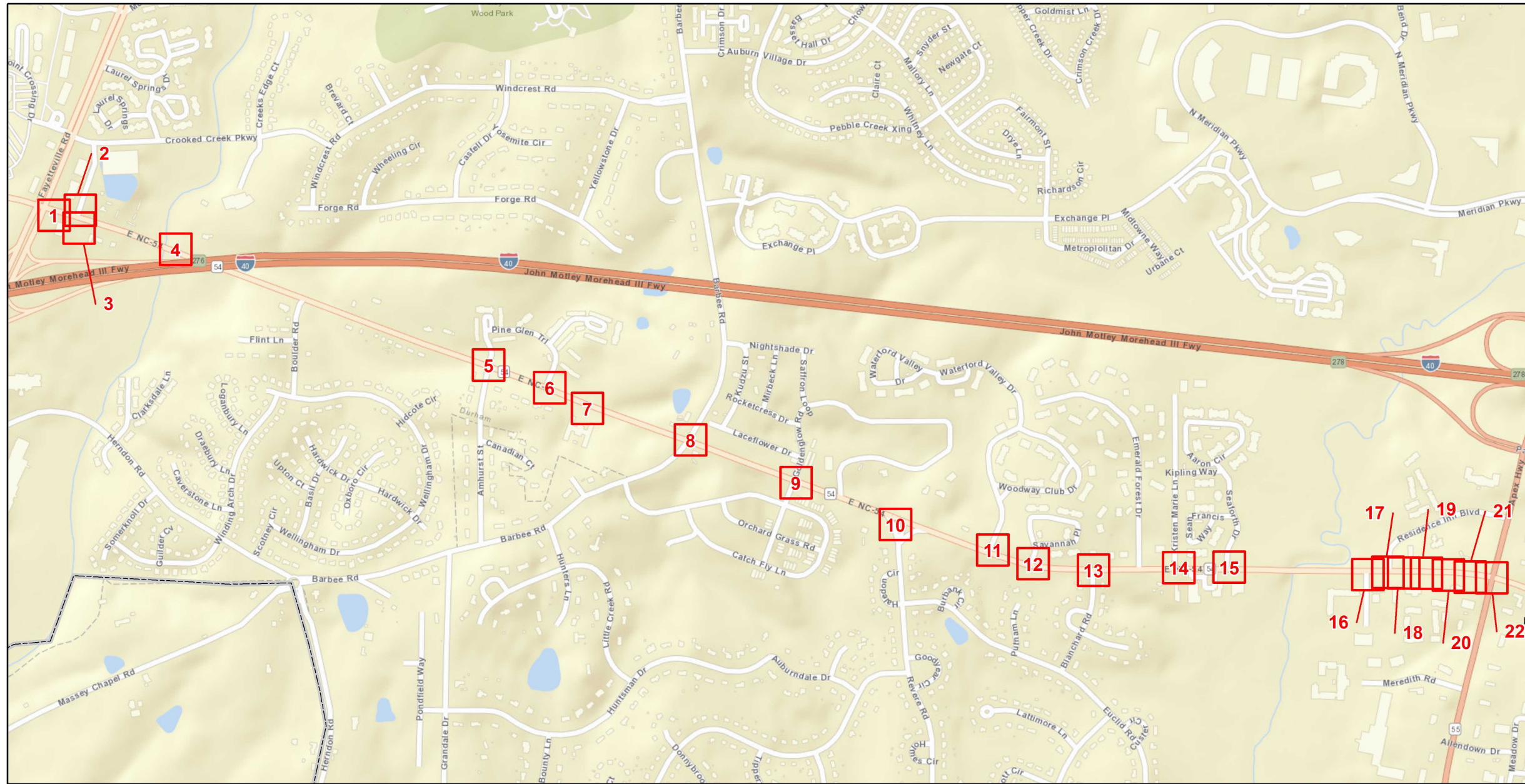
- 23. SR 1459 /DUNNEGAN RD.**
- 26. SR 2400 /REDPINE RD.**
- 27. SR-2401 /HARDWOOD LN.**
- 28. SR-2402 /BUSHMILL CT.**



ORANGE COUNTY
DURHAM COUNTY

- 25. SR 1604 / CARVER RD.**
31. SR 2623 / ELYSIAN WAY
32. SR 2624 / WOLF LAUREL CT.
33. SR 2629 / HALCYON PL.





Curb Ramps To Be Repaired

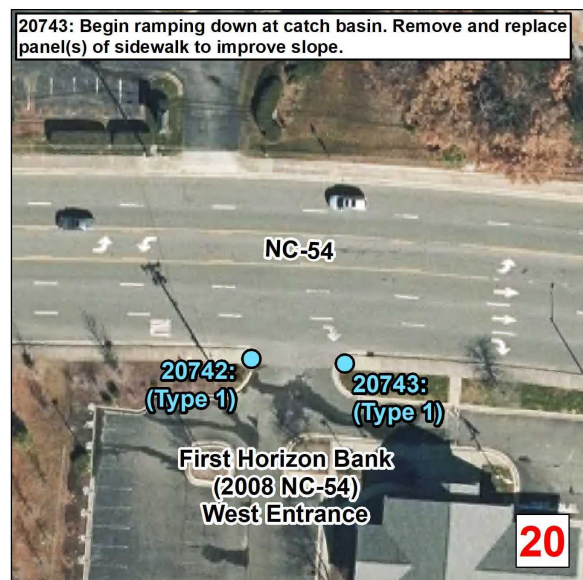
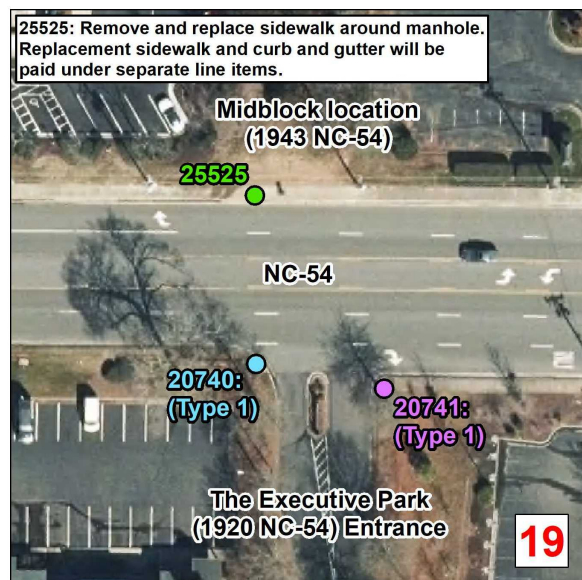
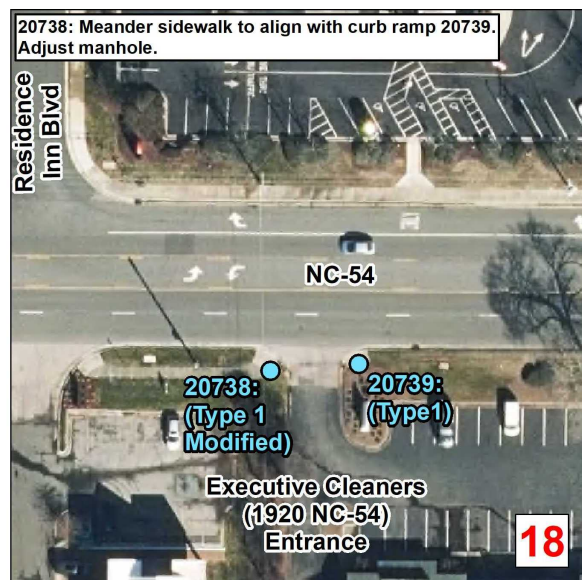
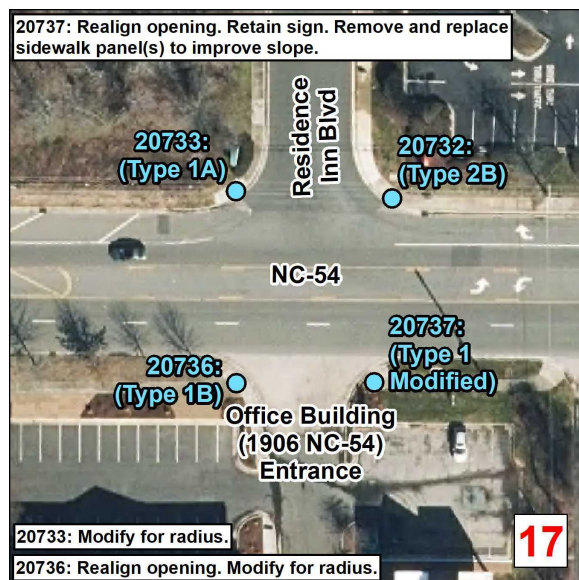
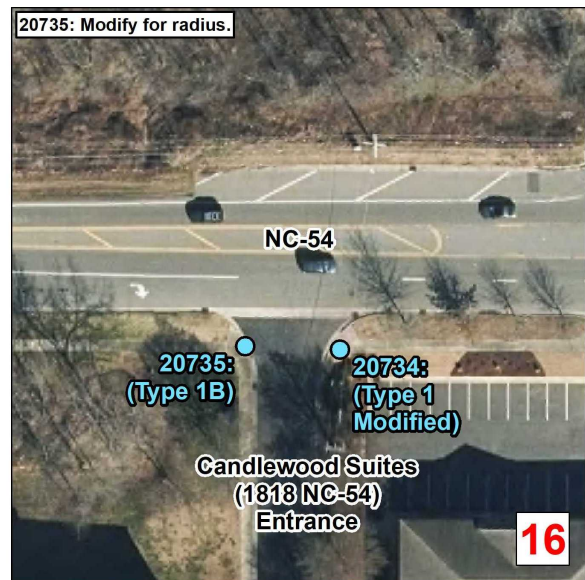
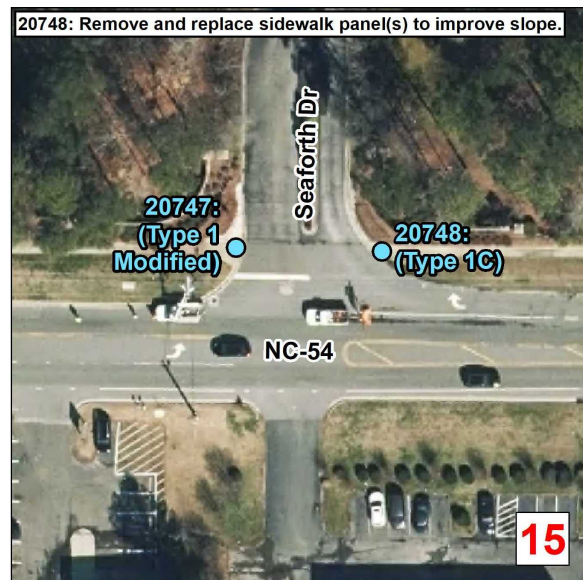
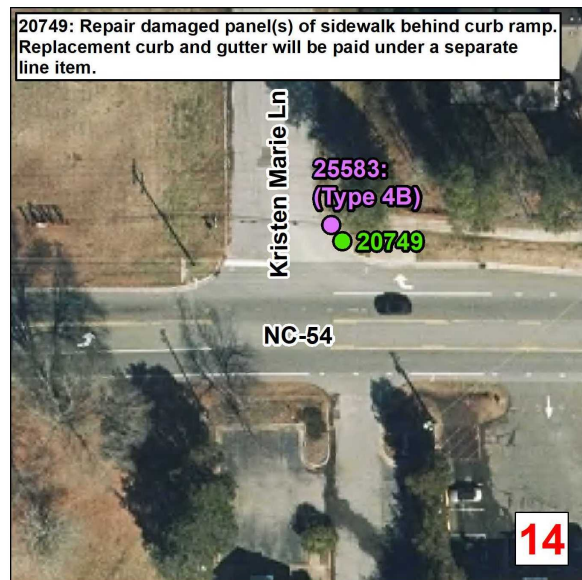
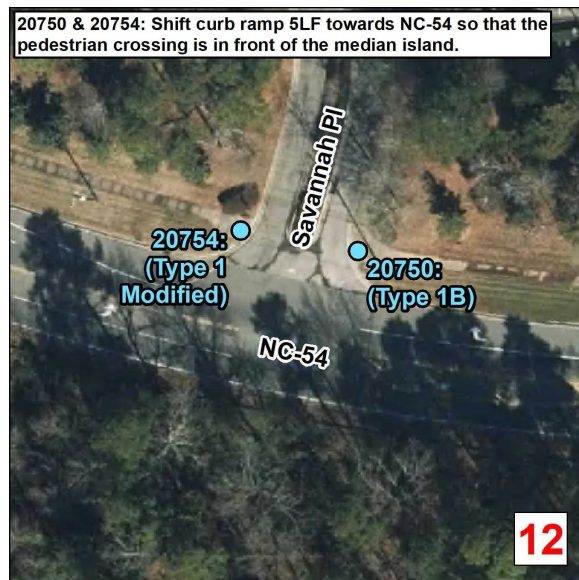
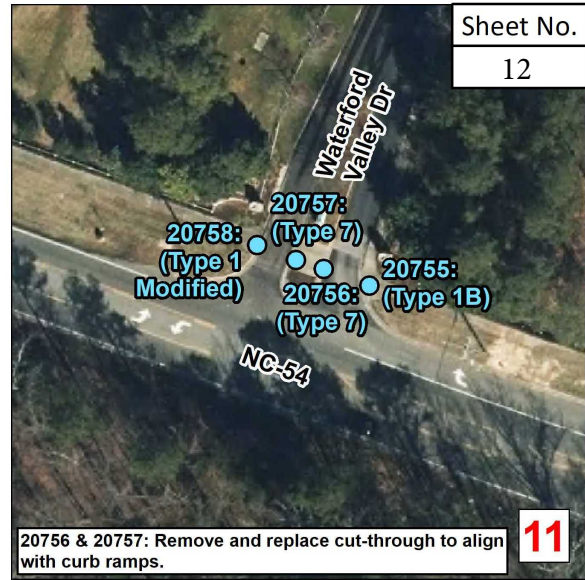
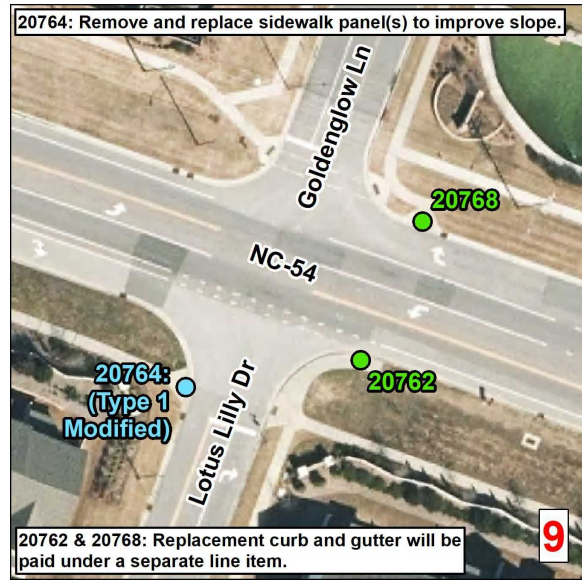
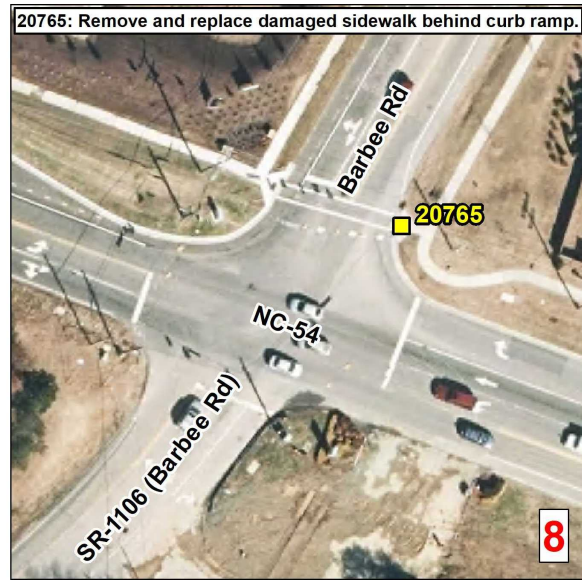
- Retrofit
- Remove and Replace
- New Curb Ramp
- Remove Ramp
- Other

Municipal Boundary
 NCHPO Historic Boundary (NR and LHD)

Durham
WBS: 2024CPT.05.03.10321.1
NC 54
From Fayetteville Rd To NC 55

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
 DIVISION 5

Source: NV5 Engineers and Consultants Inc., ESRI, NC OneMap, NCDOT, NCHPO



Curb Ramps To Be Repaired

- Retrofit
- Remove and Replace
- New Curb Ramp
- Remove Ramp
- Other

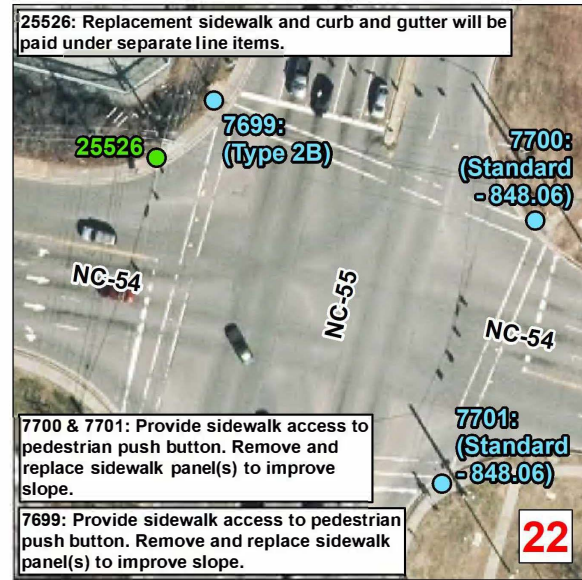
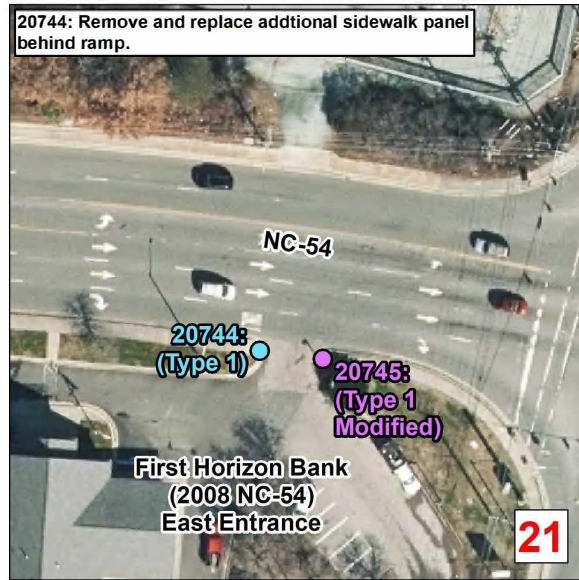
Municipal Boundary

NCHPO Historic Boundary (NR and LHD)

Durham
WBS: 2024CPT.05.03.10321.1
NC 54
From Fayetteville Rd To NC 55

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION 5


Source: NV5 Engineers and Consultants Inc., ESRI, NC OneMap, NCDOT, NCHPO




Curb Ramps To Be Repaired

- Retrofit
- Remove and Replace
- New Curb Ramp
- Remove Ramp
- Other

Municipal Boundary
 NCHPO Historic Boundary (NR and LHD)

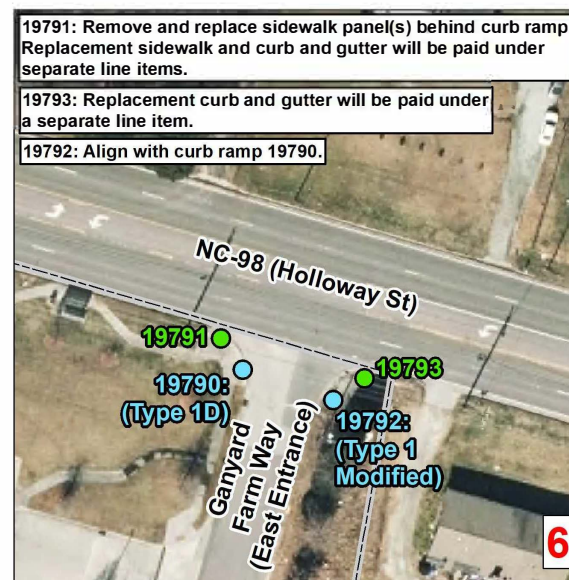
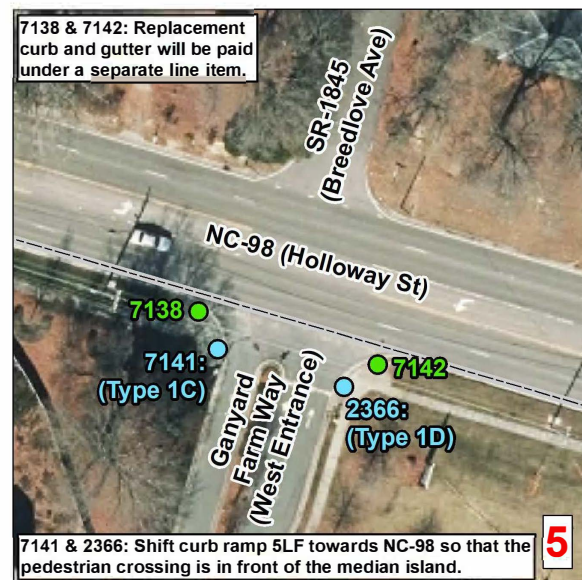
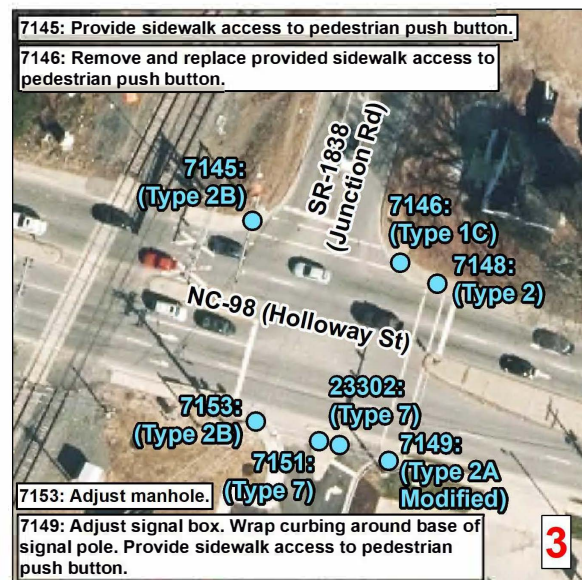
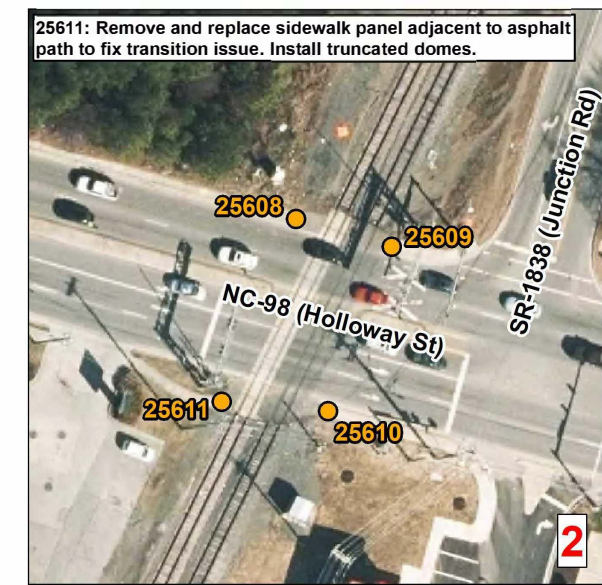
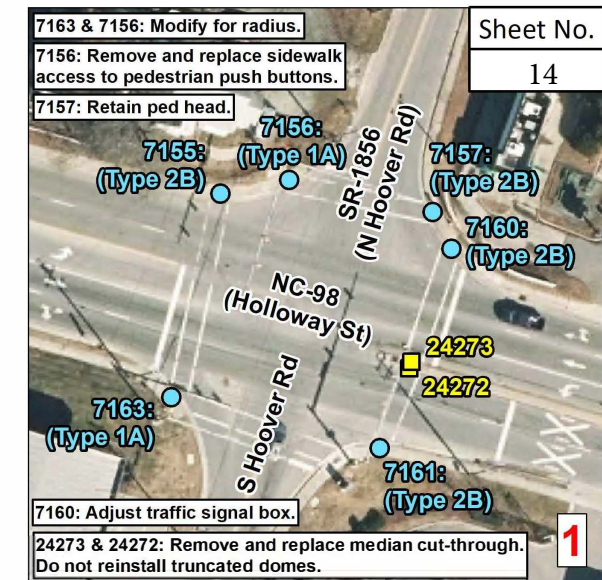
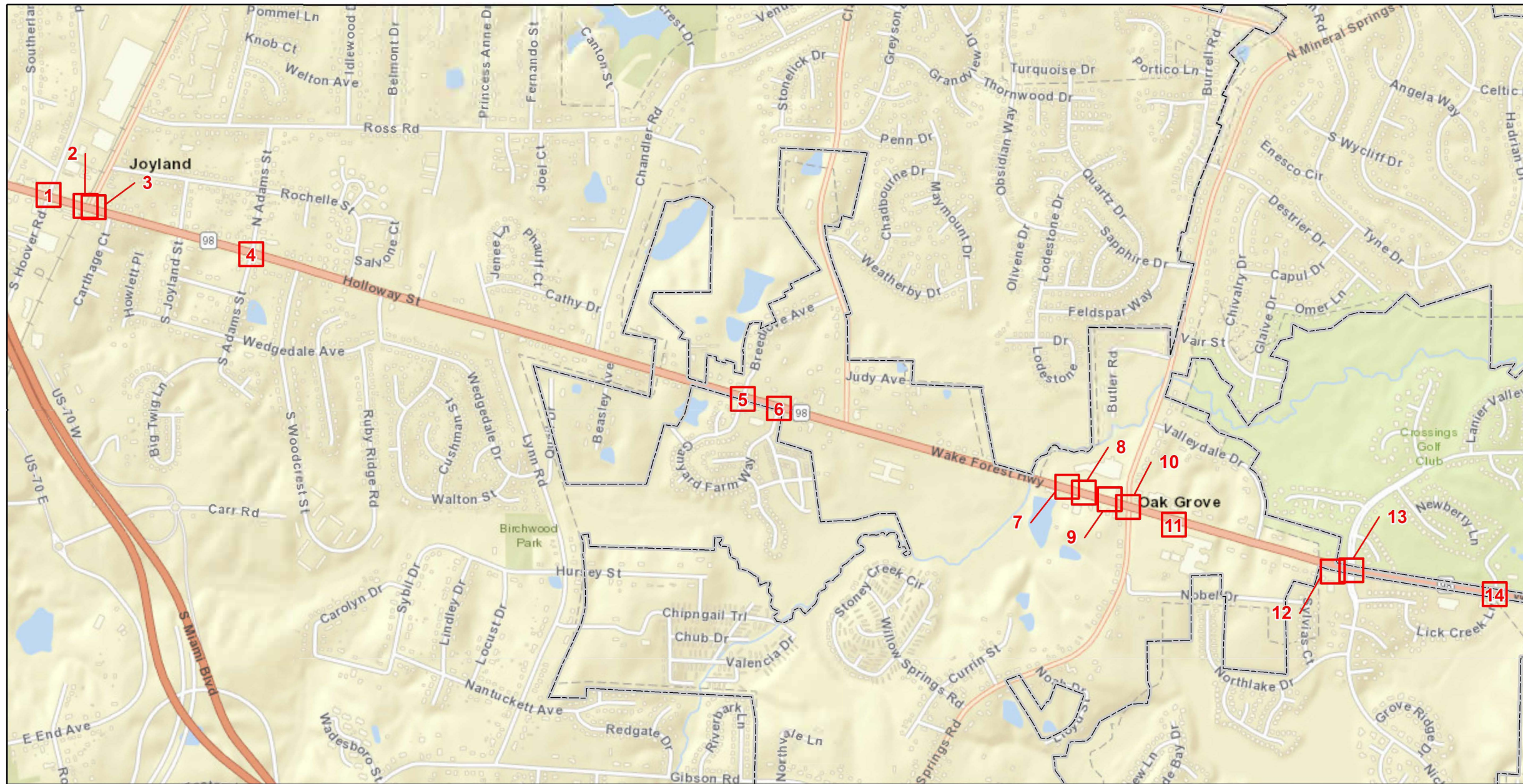


Durham
WBS: 2024CPT.05.03.10321.1
NC 54
From Fayetteville Rd To NC 55



NORTH CAROLINA DEPARTMENT
OF TRANSPORTATION
DIVISION 5

Source: NV5 Engineers and Consultants Inc., ESRI, NC OneMap, NCDOT, NCHPO



Curb Ramps To Be Repaired

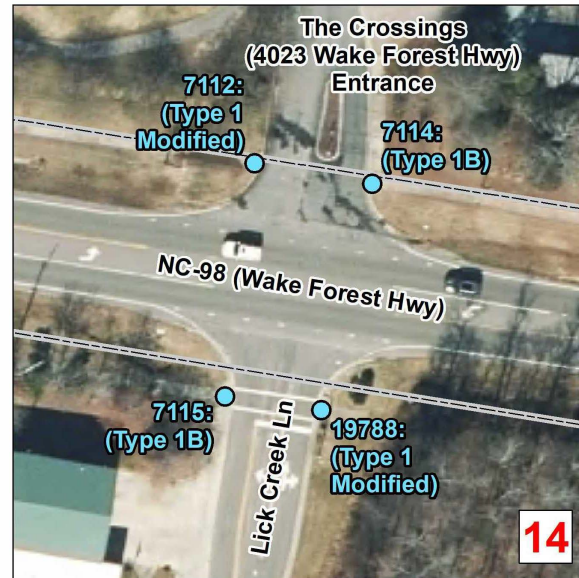
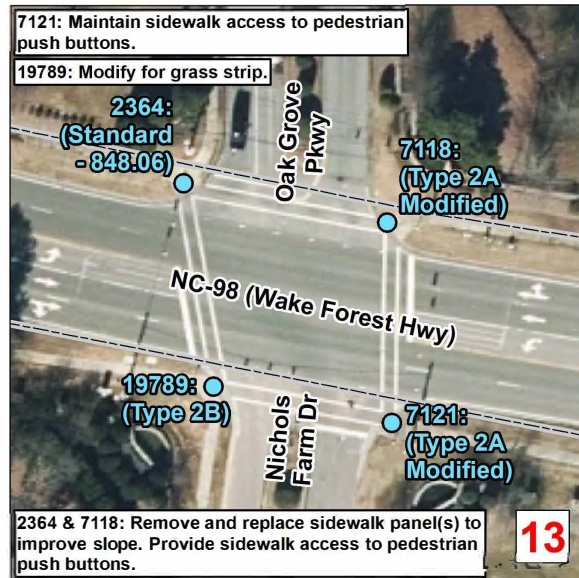
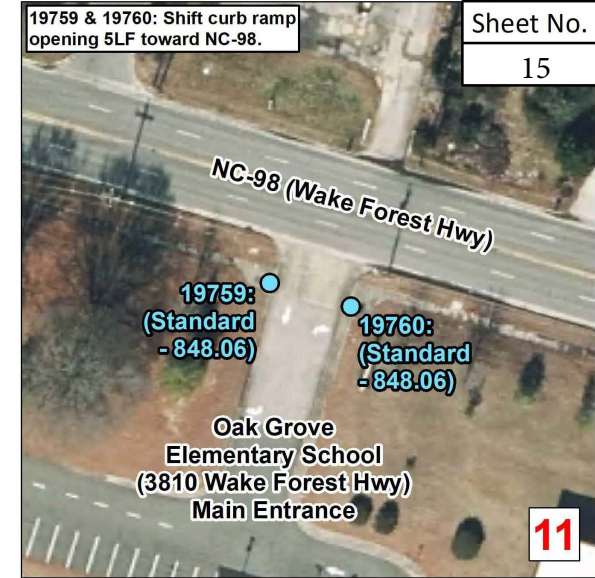
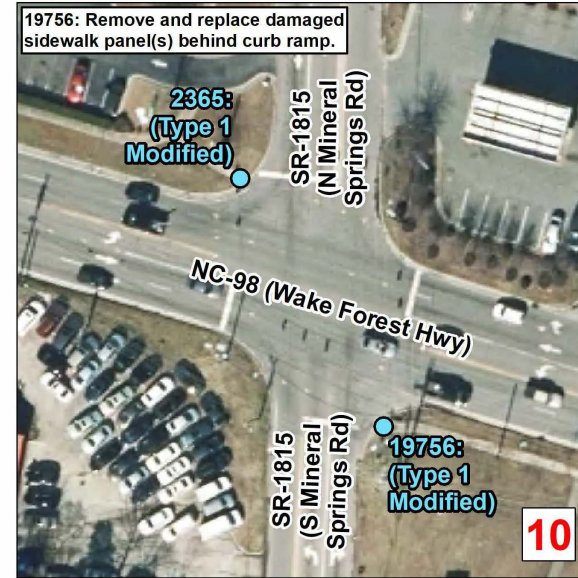
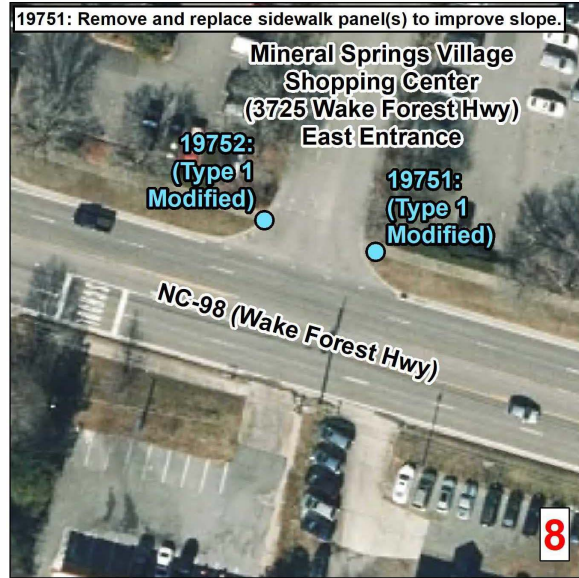
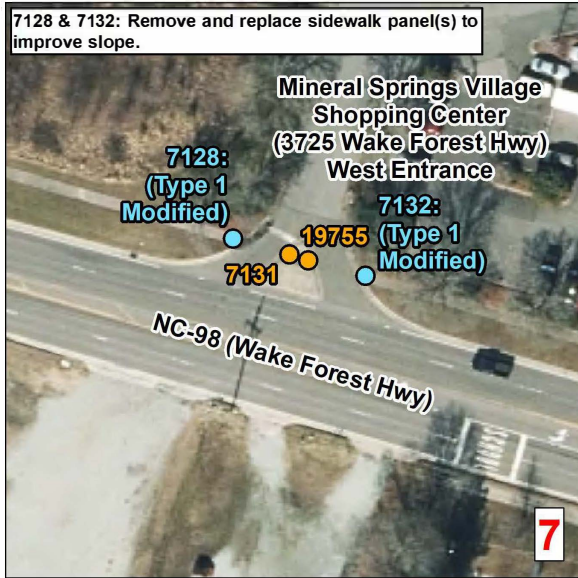
- Retrofit
- Remove and Replace
- New Curb Ramp
- Remove Ramp
- Other

□ Municipal Boundary
 □ NCHPO Historic Boundary (NR and LHD)

Durham
WBS: 2024CPT.05.03.10321.1
NC 98
From End Divided Hwy To SR 1909

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
 DIVISION 5

Source: NV5 Engineers and Consultants Inc., ESRI, NC OneMap, NCDOT, NCHPO



Curb Ramps To Be Repaired

- Retrofit
- Remove and Replace
- New Curb Ramp
- Remove Ramp
- Other

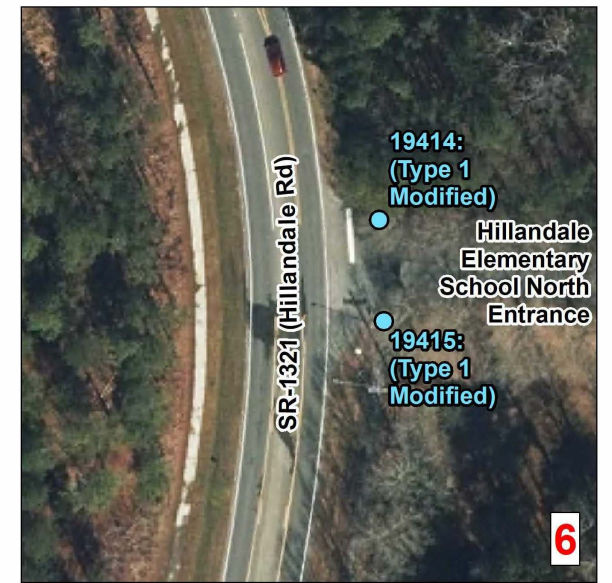
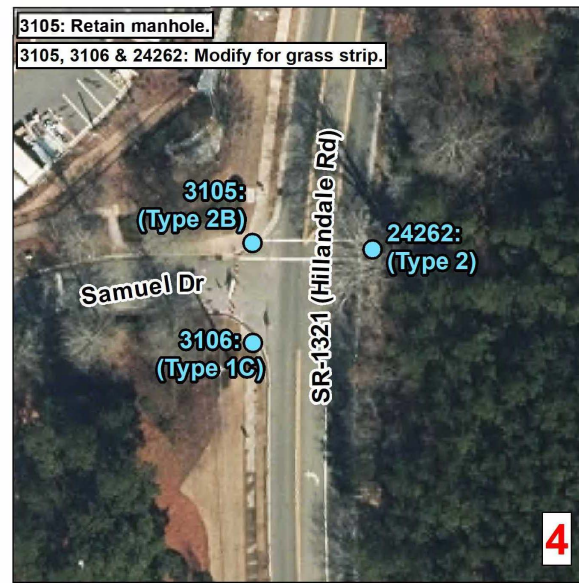
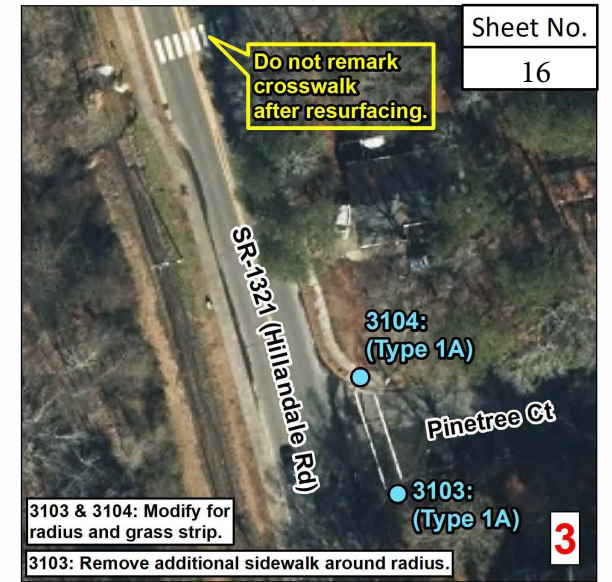
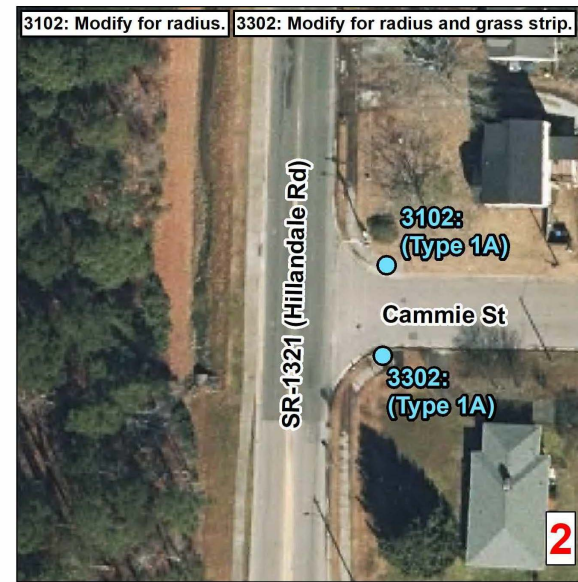
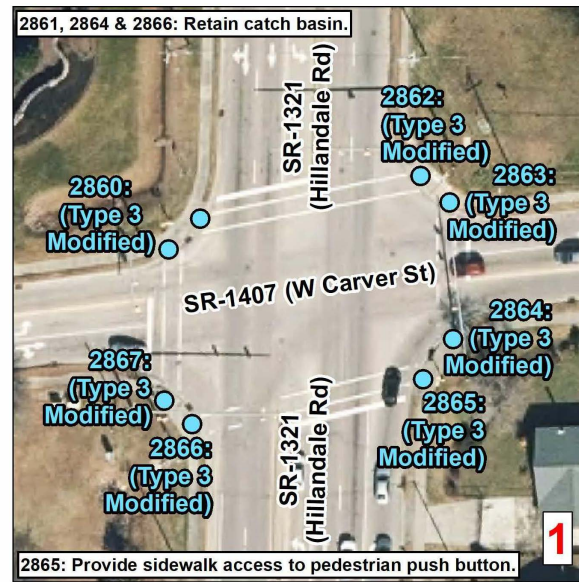
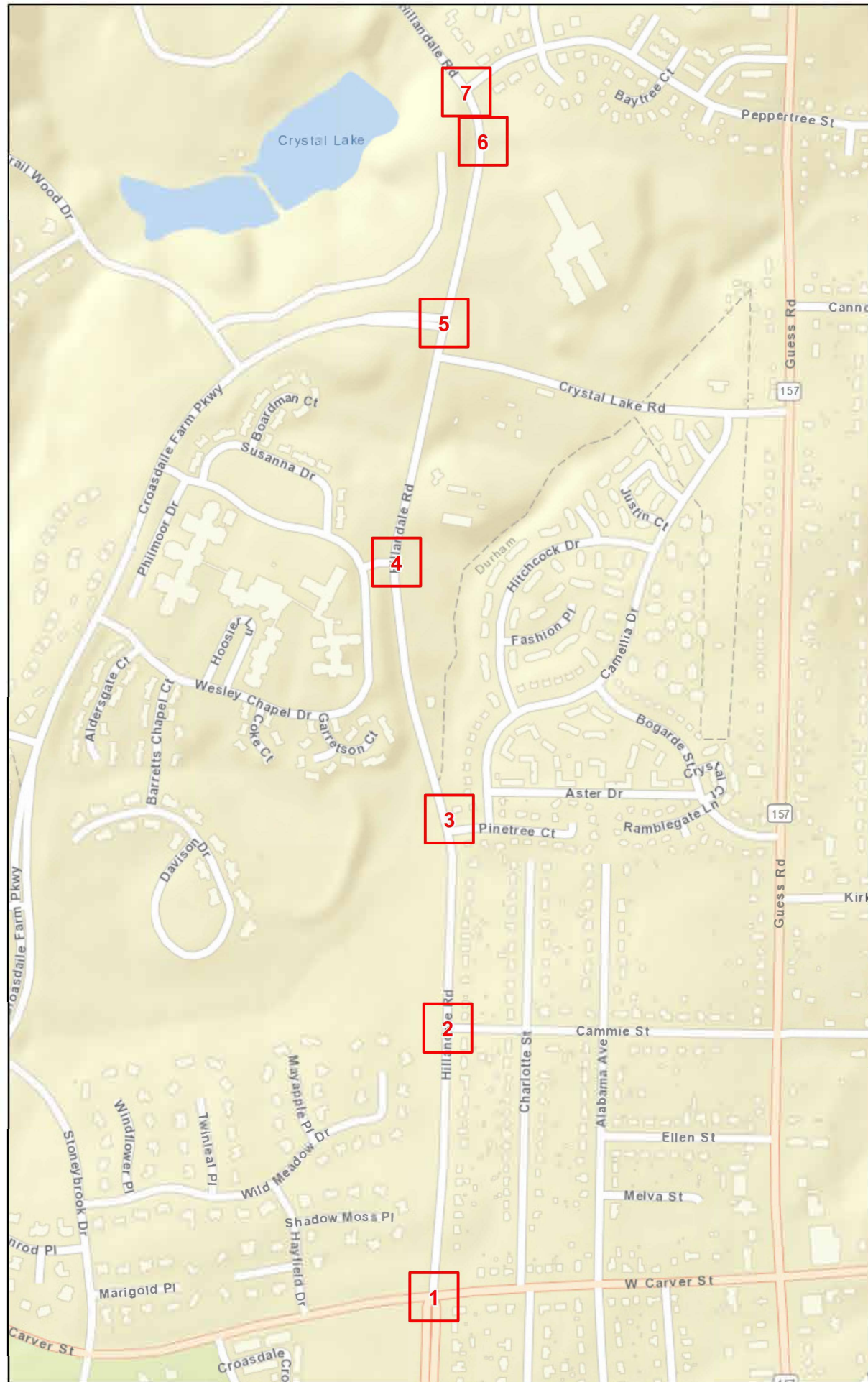
Municipal Boundary

NCHPO Historic Boundary (NR and LHD)

Durham
WBS: 2024CPT.05.03.10321.1
NC 98
From End Divided Hwy To SR 1909

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION 5

Source: NV5 Engineers and Consultants Inc., ESRI, NC OneMap, NCDOT, NCHPO



Curb Ramps To Be Repaired

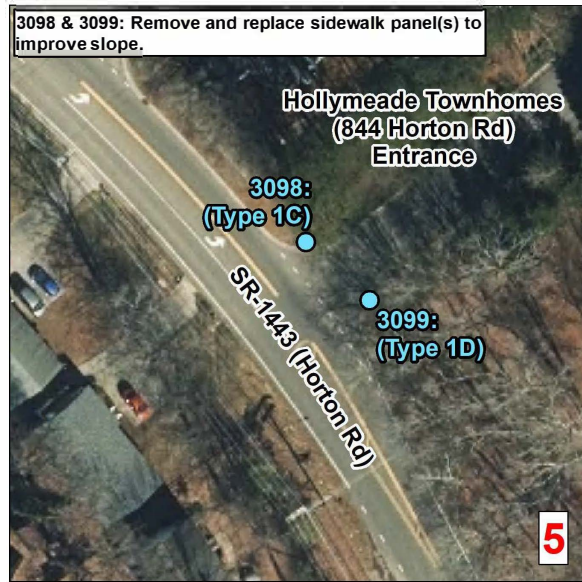
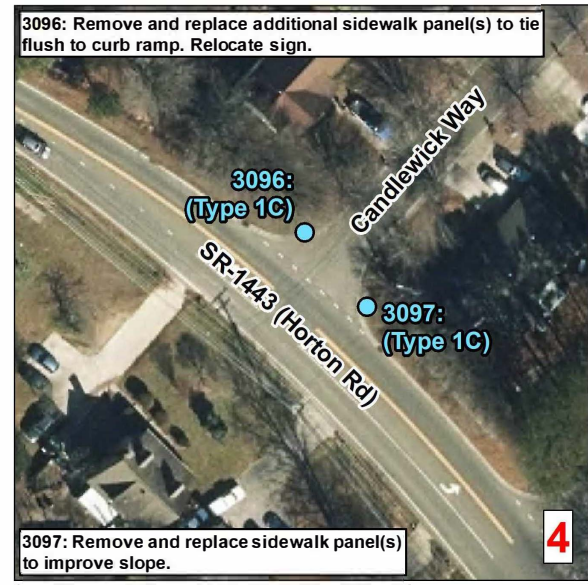
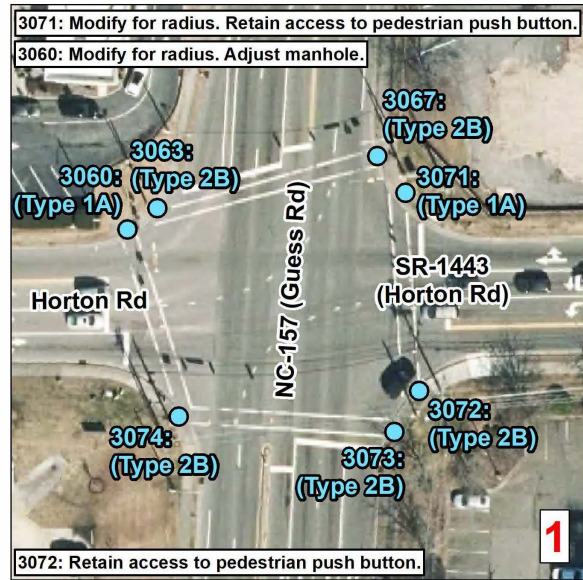
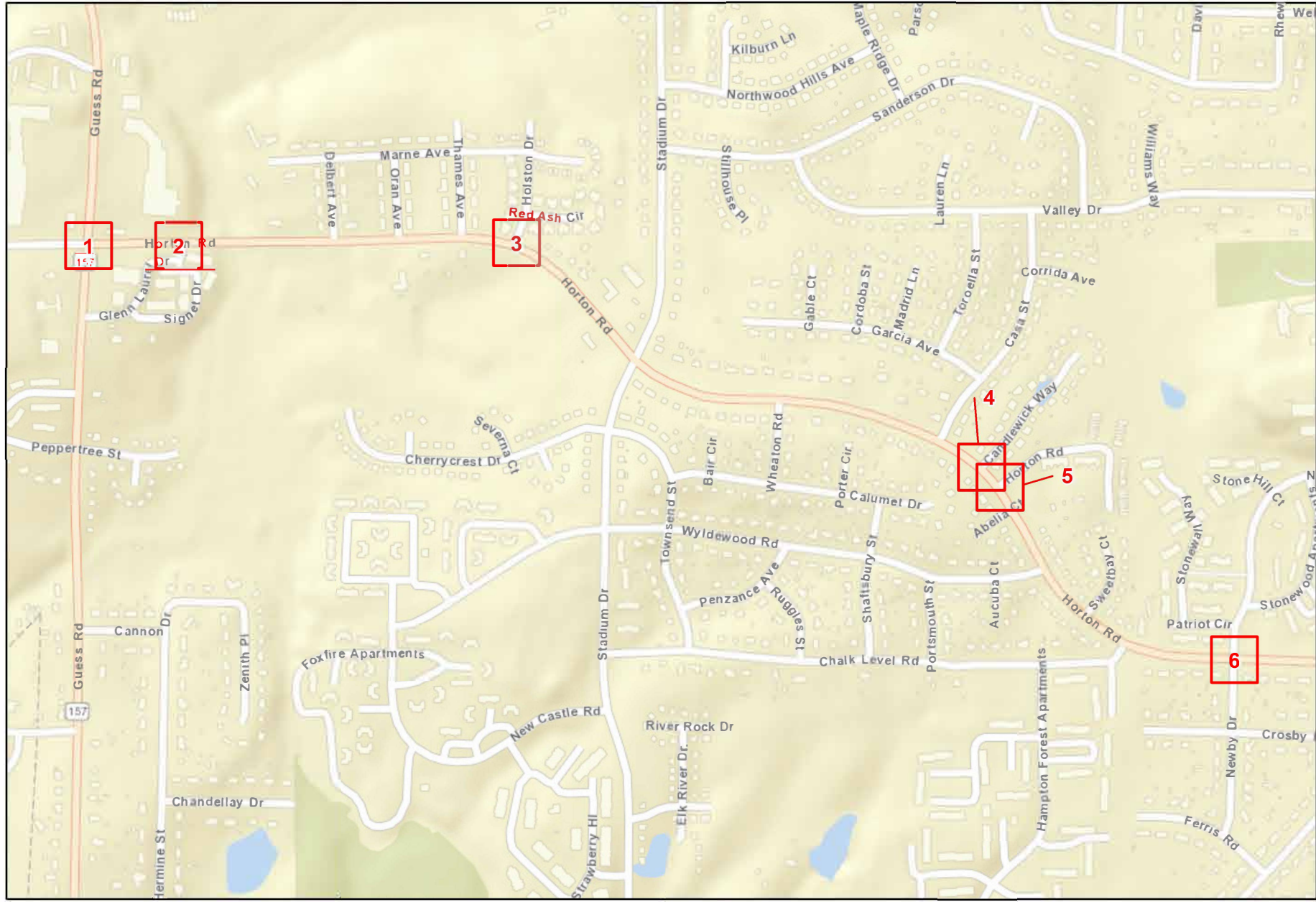
- Retrofit
- Remove and Replace
- New Curb Ramp
- Remove Ramp
- Other

Municipal Boundary
 NCHPO Historic Boundary (NR and LHD)

Durham
WBS: 2024CPT.05.03.20321.1
Hillandale Rd
From SR 1407 To SR 1413

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
 DIVISION 5

Source: NV5 Engineers and Consultants Inc., ESRI, NC OneMap, NCDOT, NCHPO



Curb Ramps To Be Repaired

- Retrofit
- Remove and Replace
- New Curb Ramp
- Remove Ramp
- Other

Municipal Boundary
 NCHPO Historic Boundary (NR and LHD)

Durham
WBS: 2024CPT.05.03.20321.1
Horton Rd
From NC 157 To US 501

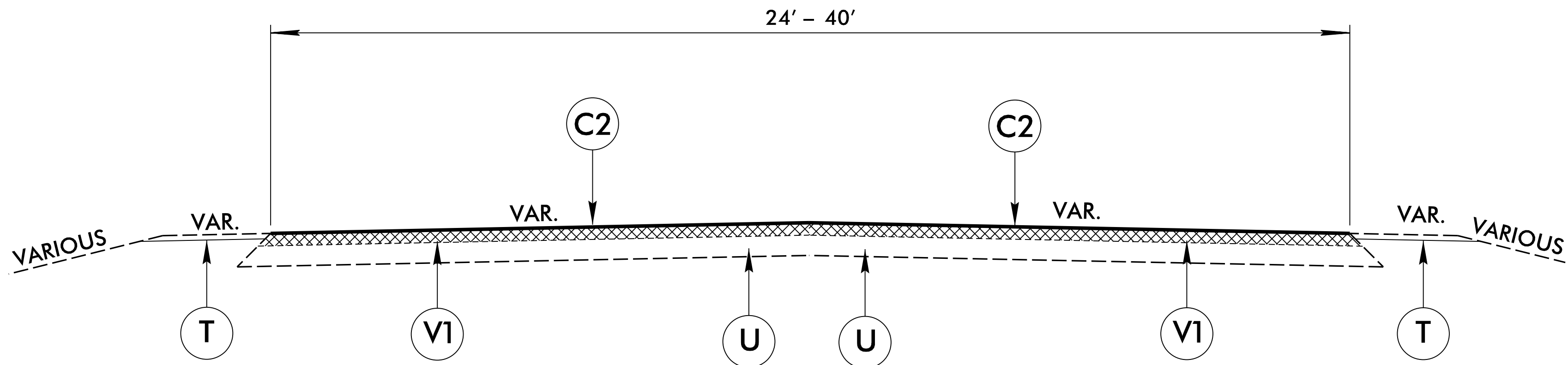
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
 DIVISION 5

Source: NV5 Engineers and Consultants Inc., ESRI, NC OneMap, NCDOT, NCHPO

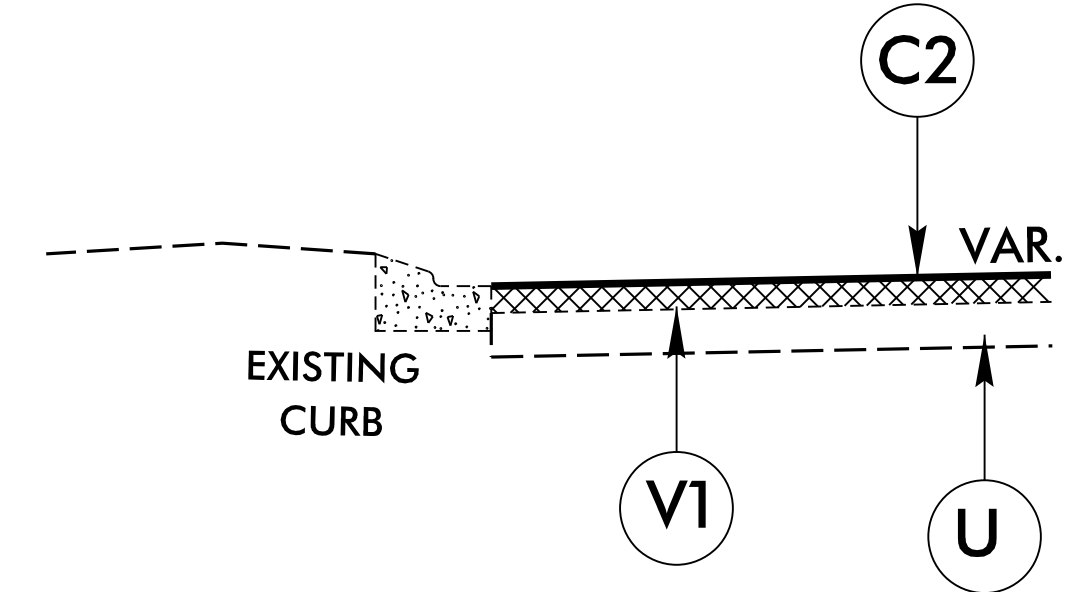
8/17/99

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
C2	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C3	PROP. APPROX. 1" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD.
D1	PROP. APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
V1	MILLING OF EXISTING ASPHALT PAVEMENT AT DEPTH OF 1½"
V2	MILLING OF EXISTING ASPHALT PAVEMENT AT DEPTH OF 5.5"
T	SHOULDER RECONSTRUCTION
U	EXISTING PAVEMENT

PROJECT REFERENCE NO.	SHEET NO.
2024CPT.05.03.10321J, etc.	18

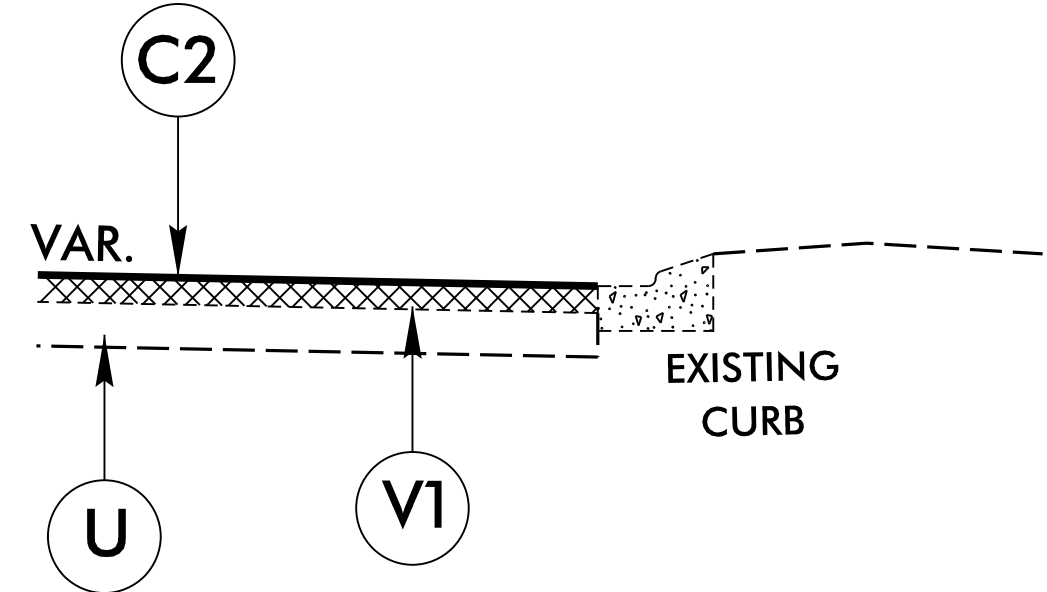


TYPICAL SECTION NO. 1



USE IN CONJUNCTION WITH TYPICAL SECTION NO. 1

MAP 1 NC 54
 CURB AND GUTTER SECTION - 6,770' +/-
 MAP 2 NC 98
 CURB AND GUTTER SECTION - 14,890' +/-



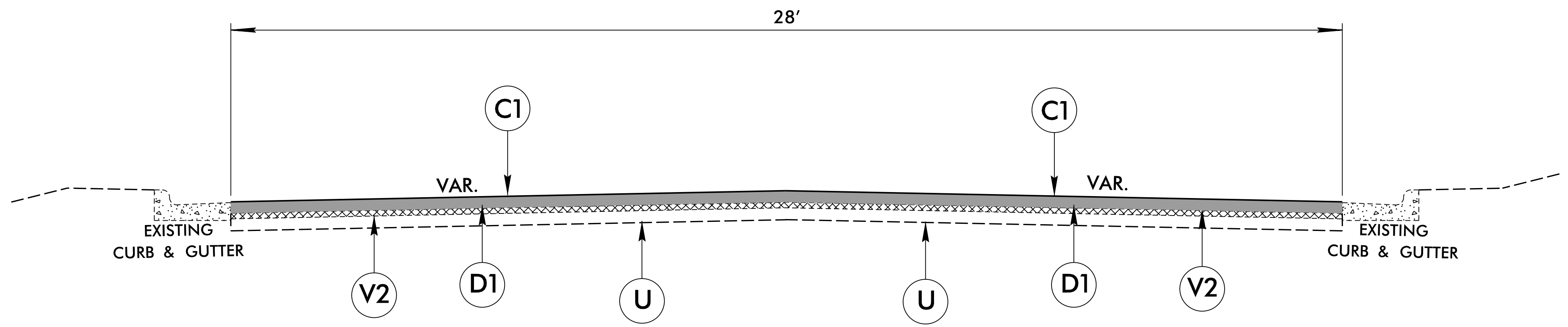
USE IN CONJUNCTION WITH TYPICAL SECTION NO. 1

MAP 1 NC 54
 CURB AND GUTTER SECTION - 5,915' +/-
 MAP 2 NC 98
 CURB AND GUTTER SECTION - 14,990' +/-
 MAP 8 REDWOOD RD.
 CURB AND GUTTER SECTION - 150' +/-

NOTE:
 AGGREGATE SHOULDER BORROW IS TO BE CONSIDERED A CONTINGENCY ITEM.
 EXACT QUANTITIES ARE NOT DETERMINED.
 USE AS NEEDED FOR SHOULDER TREATMENT.

8/17/99

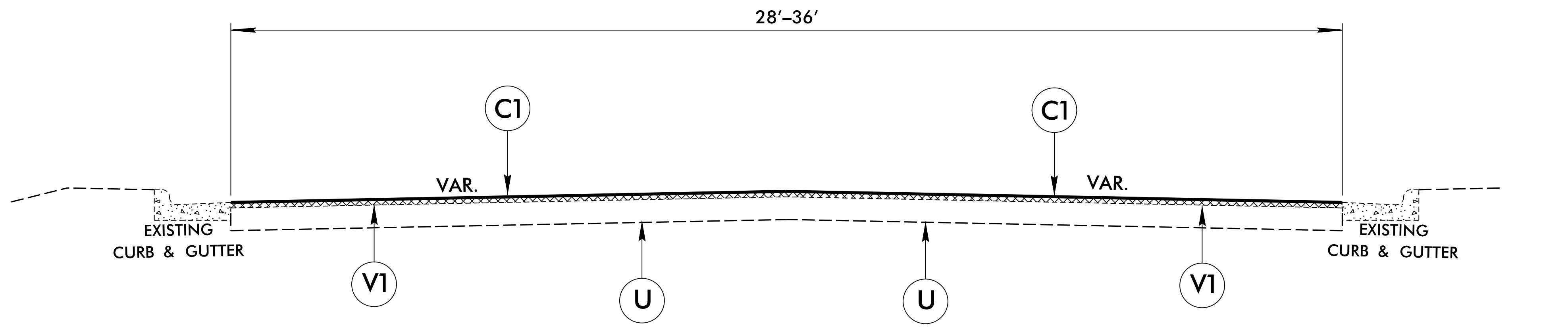
PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
C2	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C3	PROP. APPROX. 1" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD.
D1	PROP. APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
*E1	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
V1	MILLING OF EXISTING ASPHALT PAVEMENT AT DEPTH OF 1½"
V2	MILLING OF EXISTING ASPHALT PAVEMENT AT DEPTH OF 5.5"
T	SHOULDER RECONSTRUCTION
U	EXISTING PAVEMENT



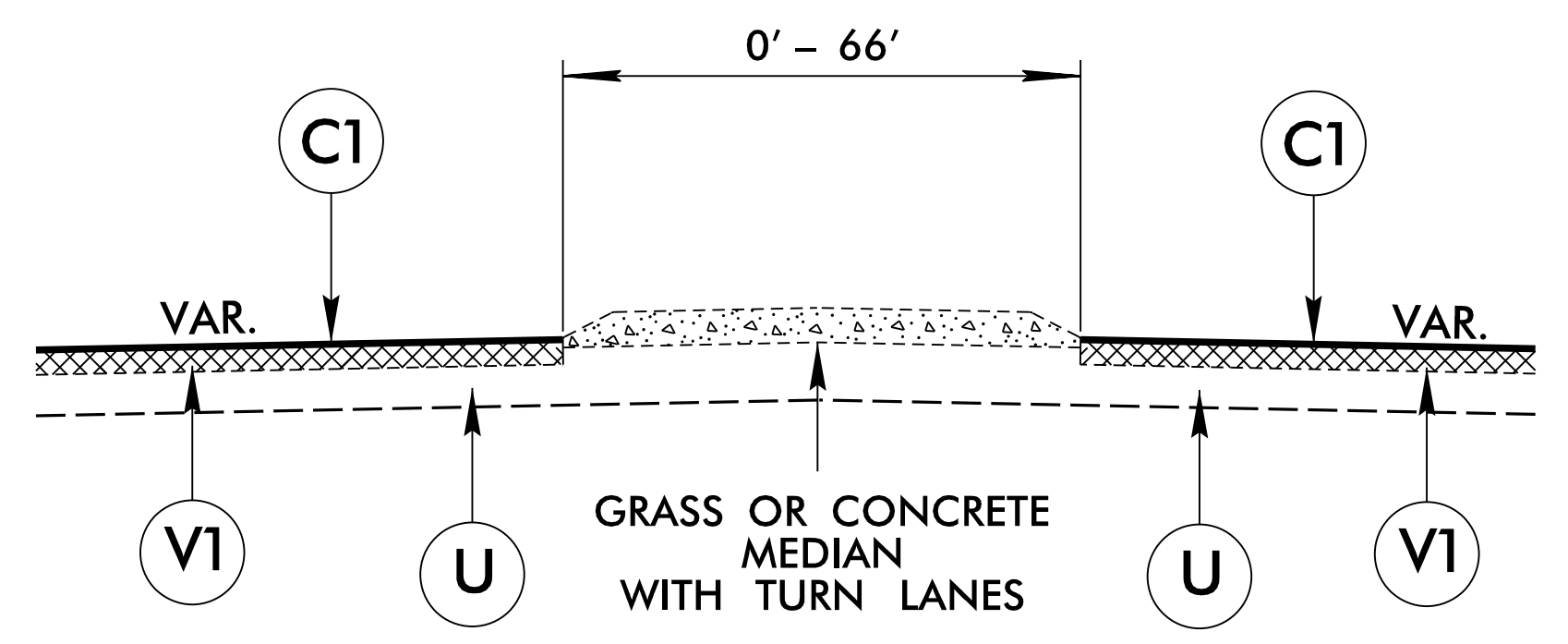
TYPICAL SECTION NO. 2

TYPICAL SECTION NO. 2
MAP 4 – HILLINDALE RD. CONTINGENCY ITEMS ONLY
DAMAGE DUE TO SUBGRADE FAILURE

8" SHALLOW UNDERCUT
 8" CLASS IV SUBGRADE STABILIZATION
 GEOTEXTILE FOR SUBGRADE STABILIZATION
 * 4" ASPHALT CONC BASE COURSE, TYPE B25.0C
 2'-6" CONCRETE CURB & GUTTER
 4" CONCRETE SIDEWALK



TYPICAL SECTION NO. 3



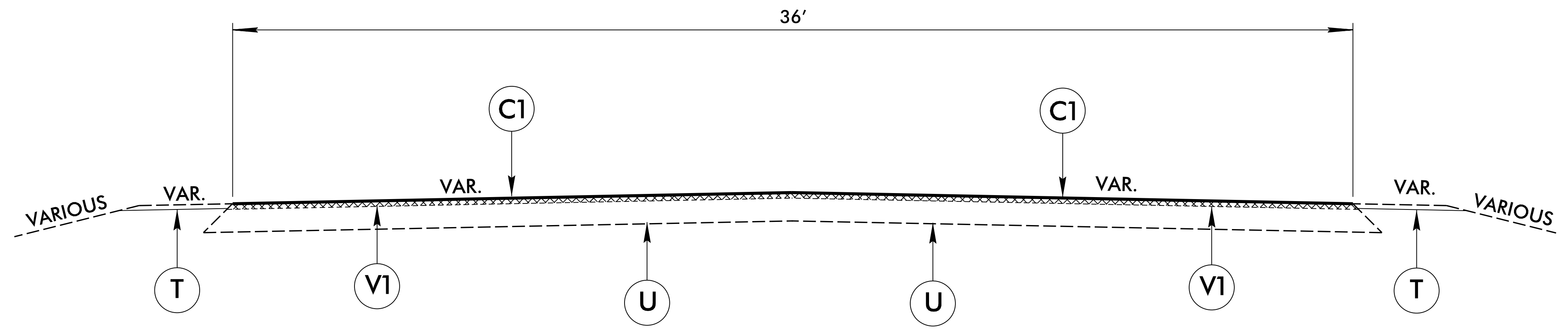
USE IN CONJUNCTION WITH TYPICAL SECTION NO. 3

MAP 5 HILLINDALE RD.
 MEDIAN SECTION – 460' +/-

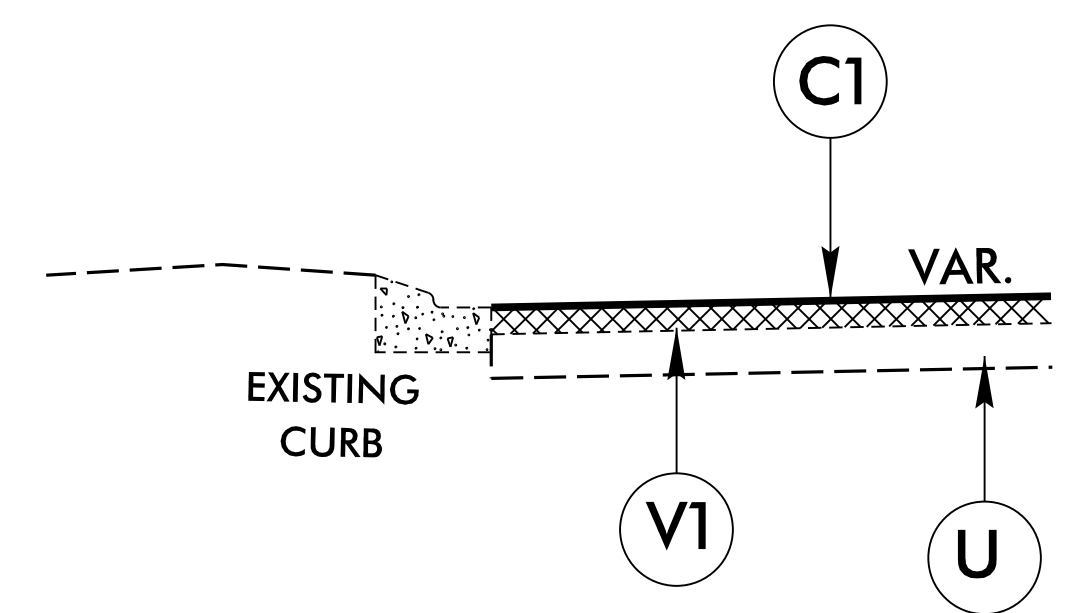
8/17/99

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
C2	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C3	PROP. APPROX. 1" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD.
D1	PROP. APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
V1	MILLING OF EXISTING ASPHALT PAVEMENT AT DEPTH OF 1½"
V2	MILLING OF EXISTING ASPHALT PAVEMENT AT DEPTH OF 5.5"
T	SHOULDER RECONSTRUCTION
U	EXISTING PAVEMENT

PROJECT REFERENCE NO.	SHEET NO.
2024CPT.05.03.103211, etc.	20

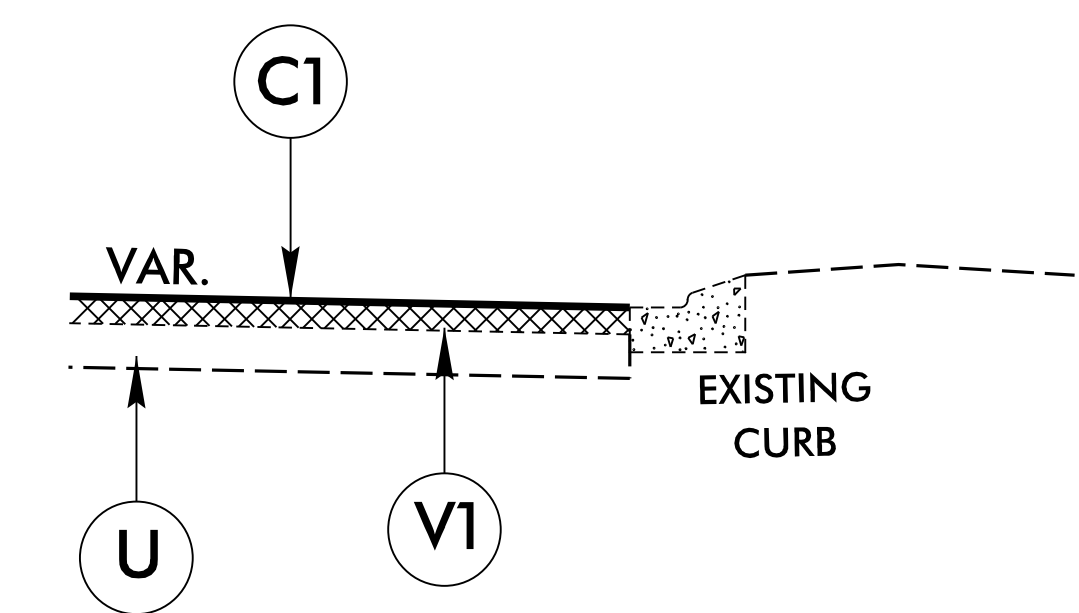


TYPICAL SECTION NO. 4



USE IN CONJUNCTION WITH TYPICAL SECTION NO. 4

MAP 6 HILLINDALE RD.
CURB AND GUTTER SECTION - 2,773' +/-



USE IN CONJUNCTION WITH TYPICAL SECTION NO. 4

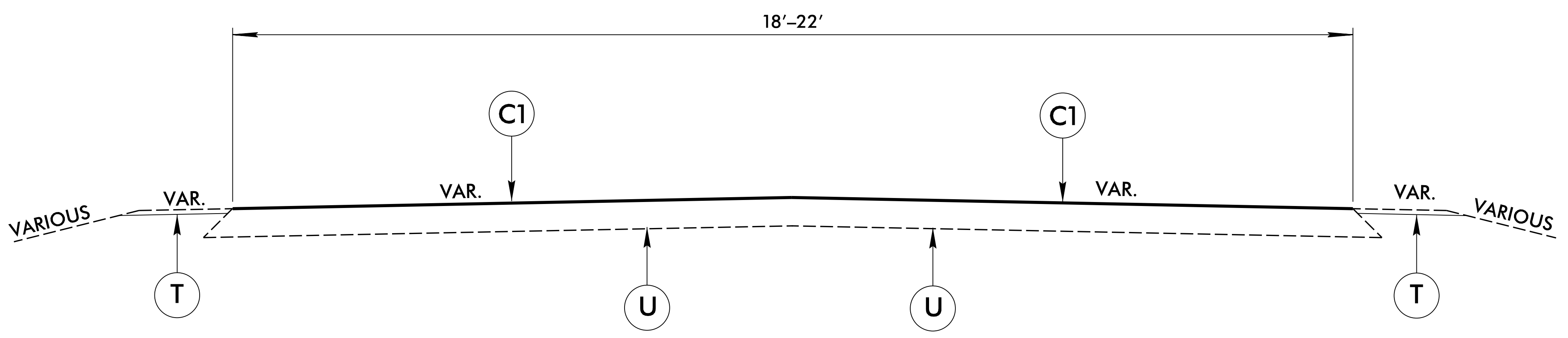
MAP 6 HILLINDALE RD.
CURB AND GUTTER SECTION - 3,143' +/-

NOTE:
AGGREGATE SHOULDER BORROW IS TO BE CONSIDERED A CONTINGENCY ITEM.
EXACT QUANTITIES ARE NOT DETERMINED.
USE AS NEEDED FOR SHOULDER TREATMENT.

8/17/99

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
C2	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C3	PROP. APPROX. 1" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD.
D1	PROP. APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
V1	MILLING OF EXISTING ASPHALT PAVEMENT AT DEPTH OF 1½"
V2	MILLING OF EXISTING ASPHALT PAVEMENT AT DEPTH OF 5.5"
V3	MILLING OF EXISTING ASPHALT PAVEMENT 0" TO 1.5"
T	SHOULDER RECONSTRUCTION
U	EXISTING PAVEMENT

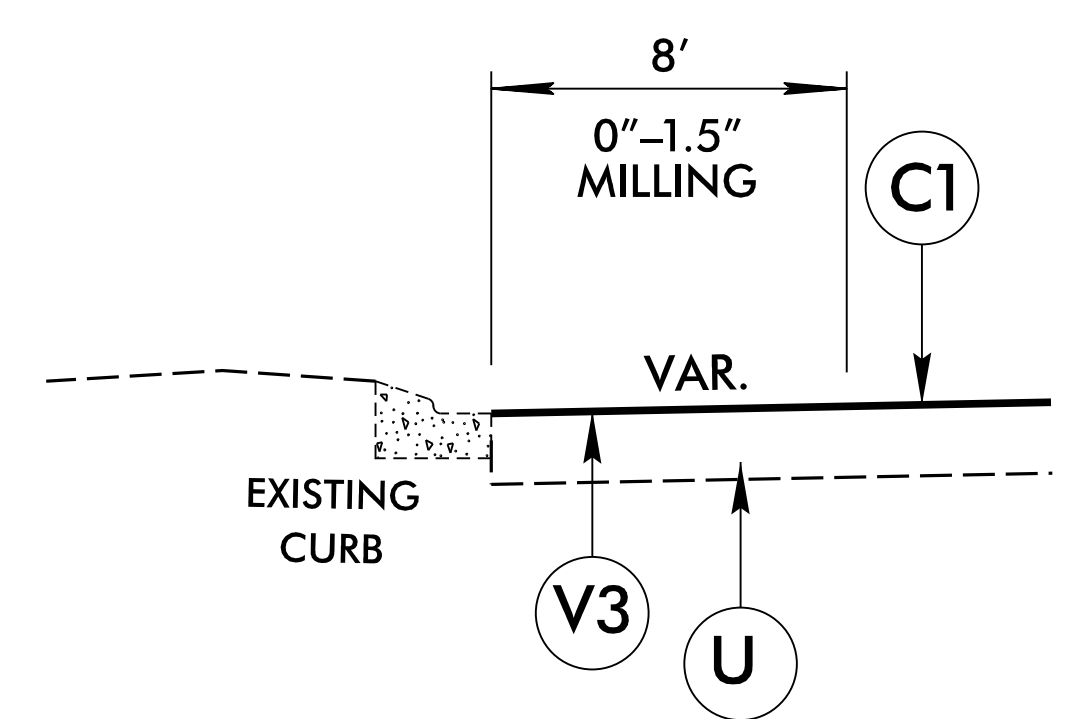
PROJECT REFERENCE NO.	SHEET NO.
2024CPT.05.03.10321J, etc.	21



TYPICAL SECTION NO. 5

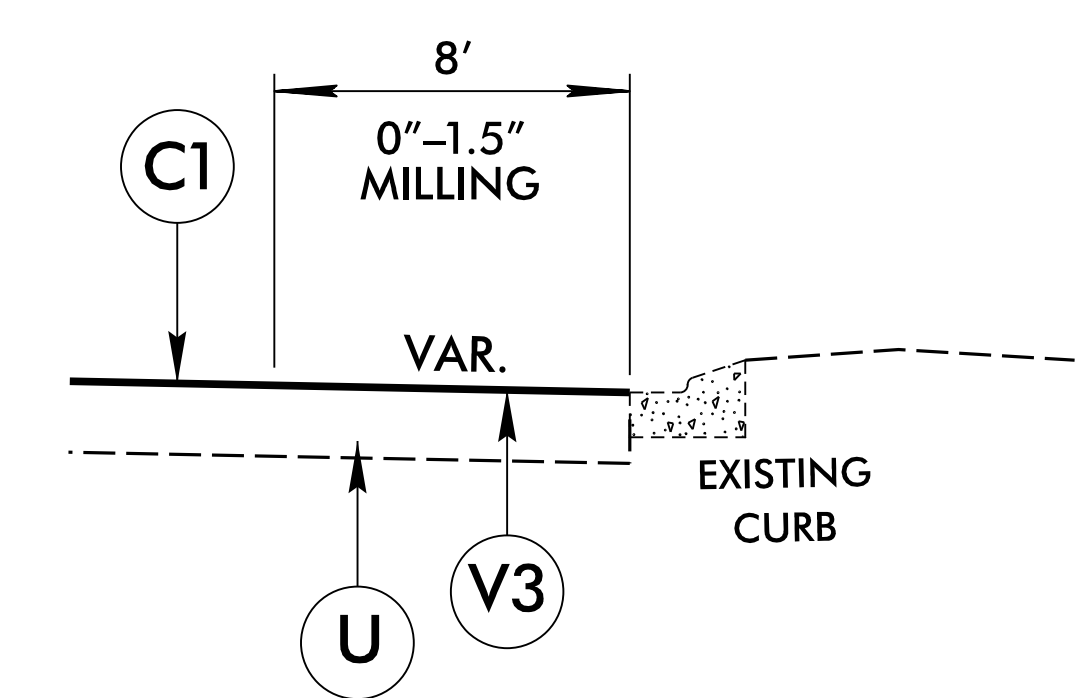
NO SHOULDER RECONSTRUCTION

MAP 20



USE IN CONJUNCTION WITH TYPICAL SECTION NO. 5

MAP 7 HORTON RD.
CURB AND GUTTER SECTION - 1,850' +/-



USE IN CONJUNCTION WITH TYPICAL SECTION NO. 5

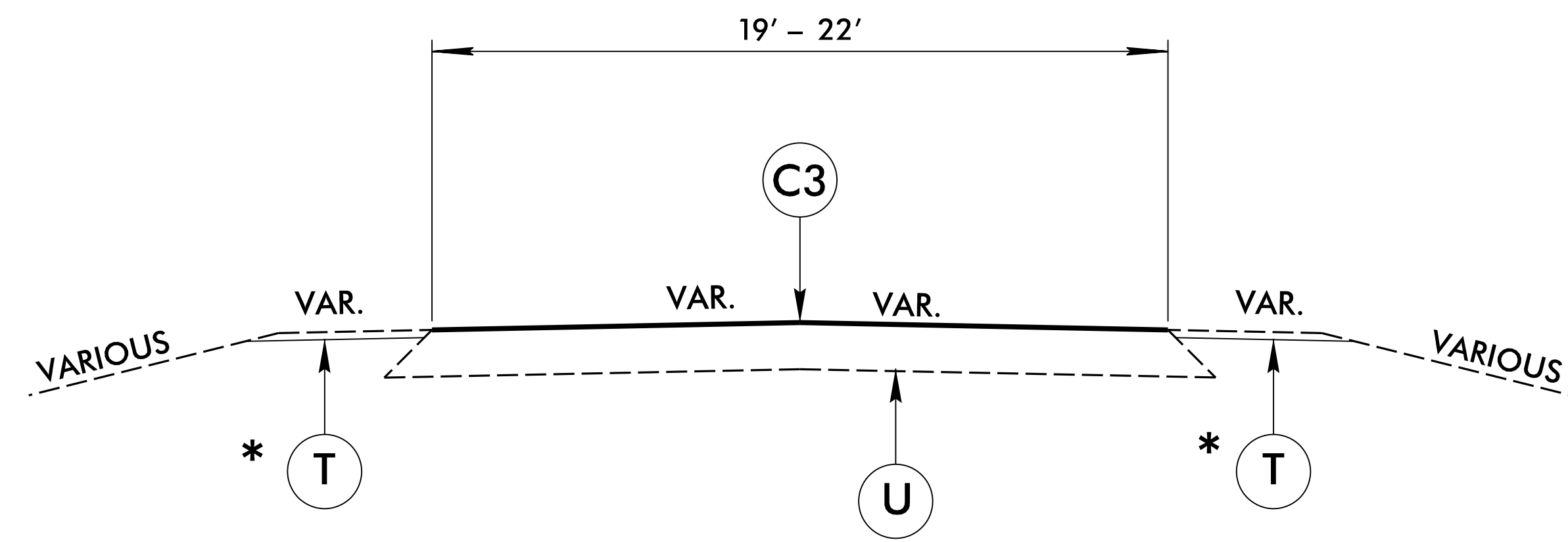
MAP 7 HORTON RD.
CURB AND GUTTER SECTION - 1,142' +/-

NOTE:
AGGREGATE SHOULDER BORROW IS TO BE CONSIDERED A CONTINGENCY ITEM.
EXACT QUANTITIES ARE NOT DETERMINED.
USE AS NEEDED FOR SHOULDER TREATMENT.

8/17/99

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
C2	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C3	PROP. APPROX. 1" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD.
D1	PROP. APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
V1	MILLING OF EXISTING ASPHALT PAVEMENT AT DEPTH OF 1½"
V2	MILLING OF EXISTING ASPHALT PAVEMENT AT DEPTH OF 5.5"
T	SHOULDER RECONSTRUCTION
U	EXISTING PAVEMENT

PROJECT REFERENCE NO.	SHEET NO.
2024CPT.05.03.103211, etc.	22



TYPICAL SECTION NO. 6

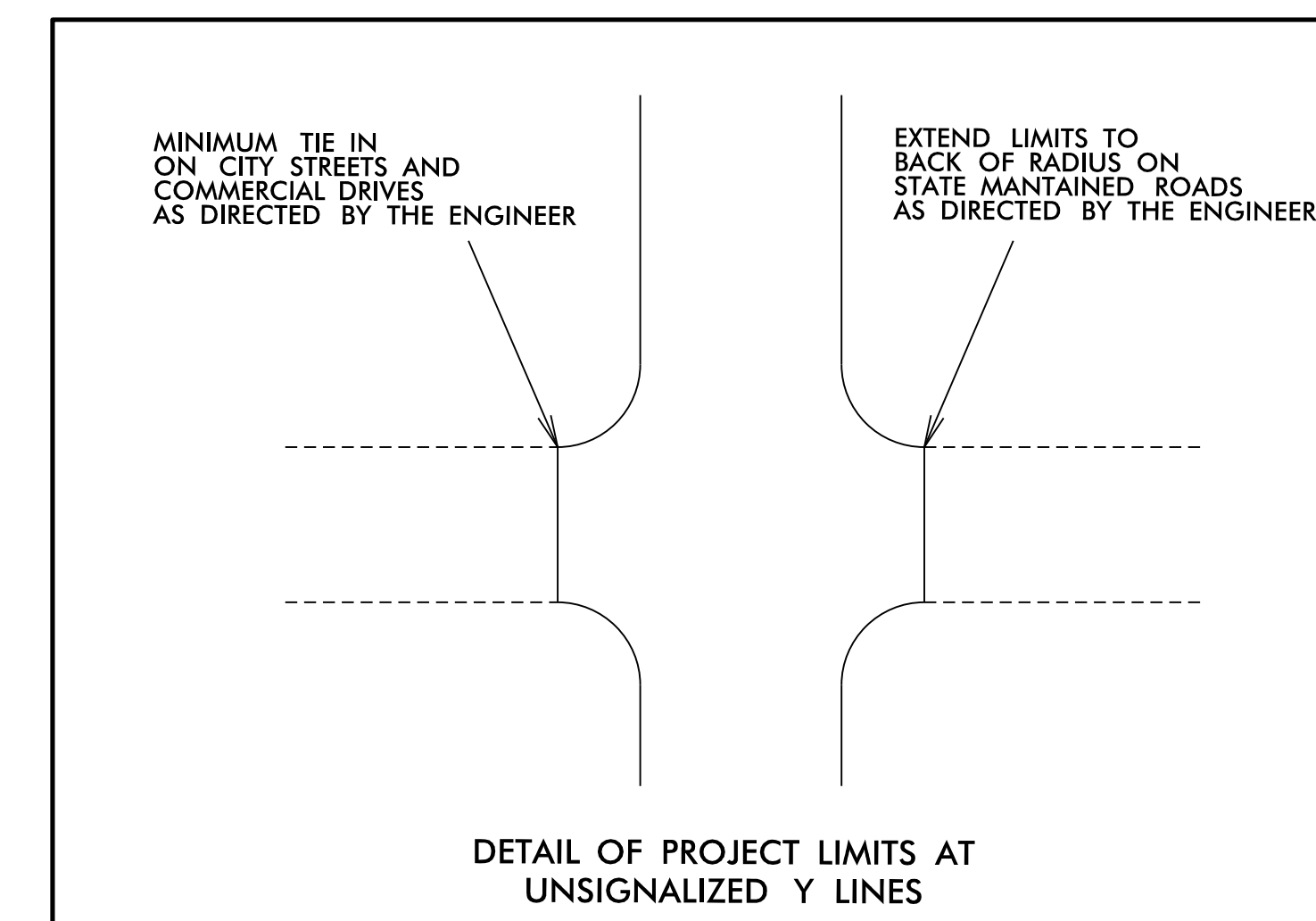
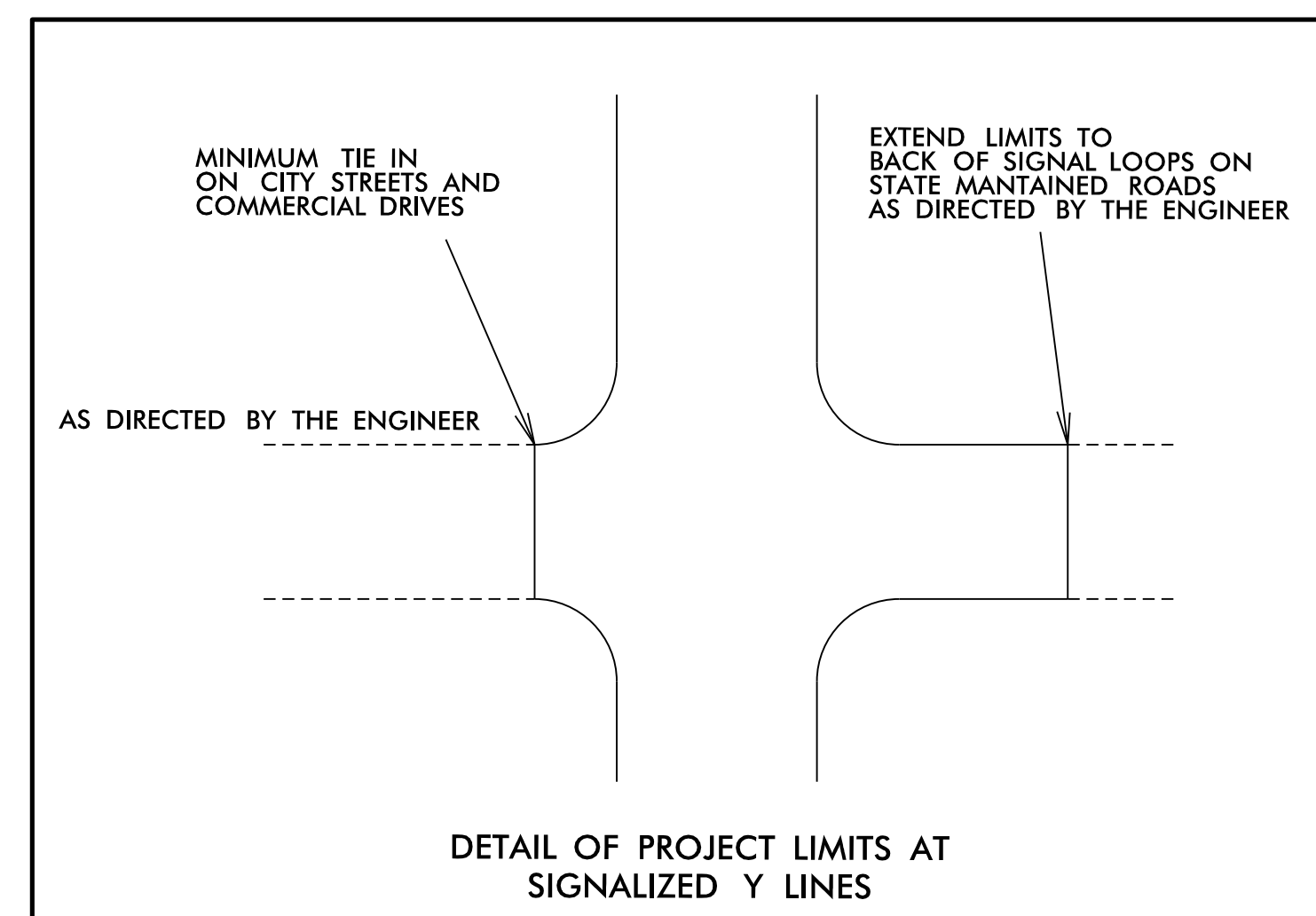
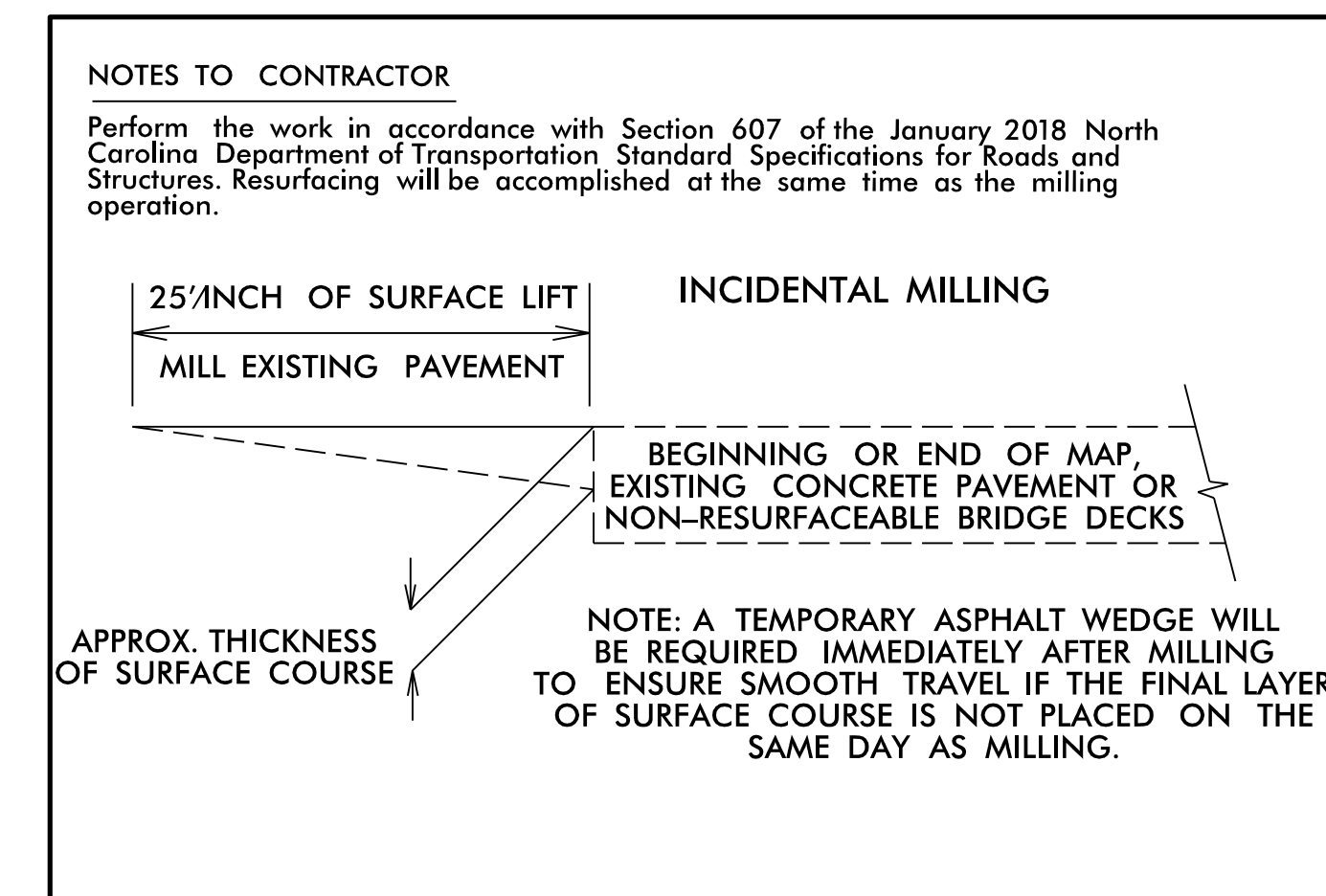
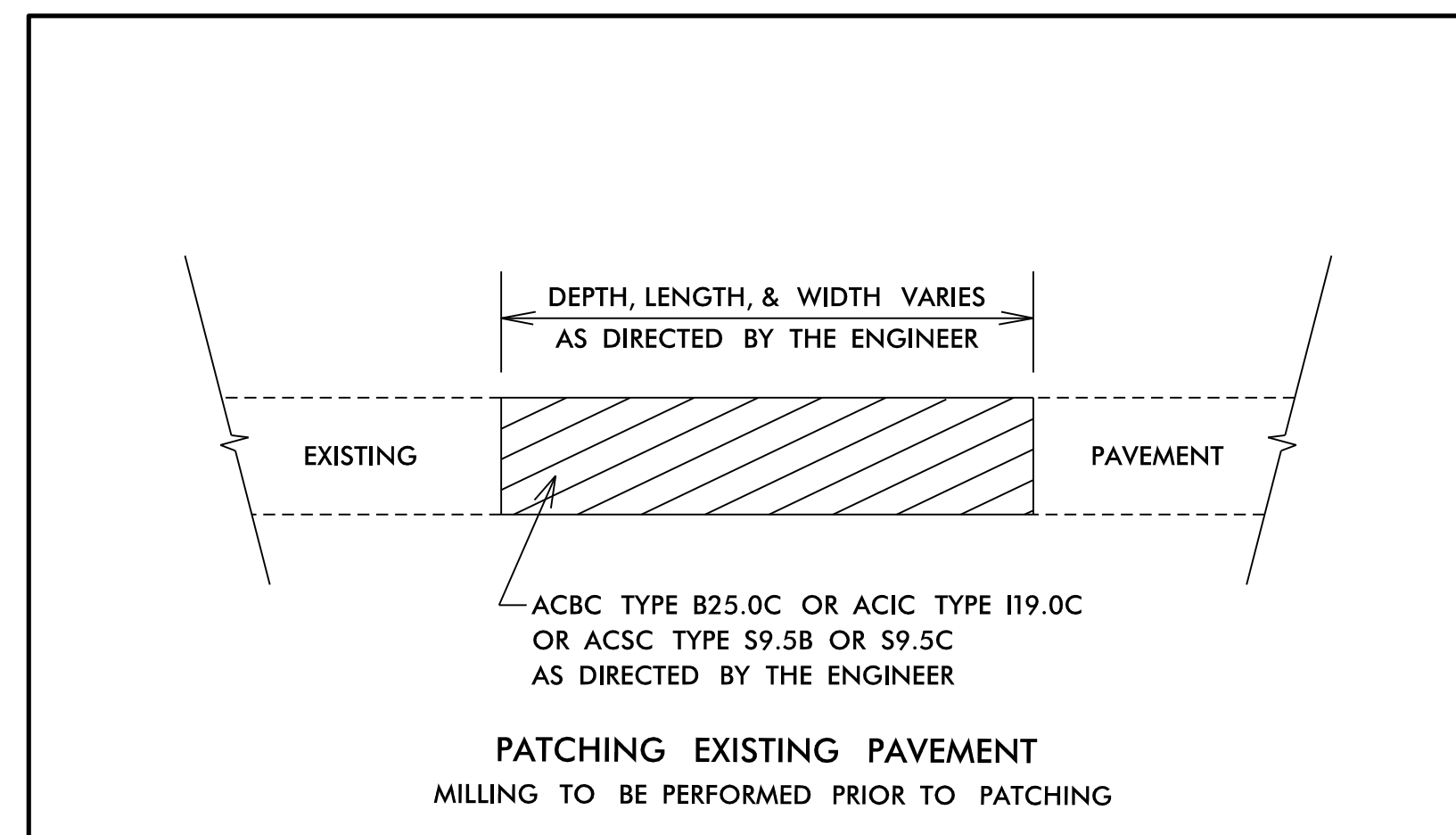
* SHOULDER RECONSTRUCTION ONLY

- MAP 29
- MAP 30
- MAP 33
- MAP 34

NOTE:
 AGGREGATE SHOULDER BORROW IS TO BE CONSIDERED A CONTINGENCY ITEM.
 EXACT QUANTITIES ARE NOT DETERMINED.
 USE AS NEEDED FOR SHOULDER TREATMENT.

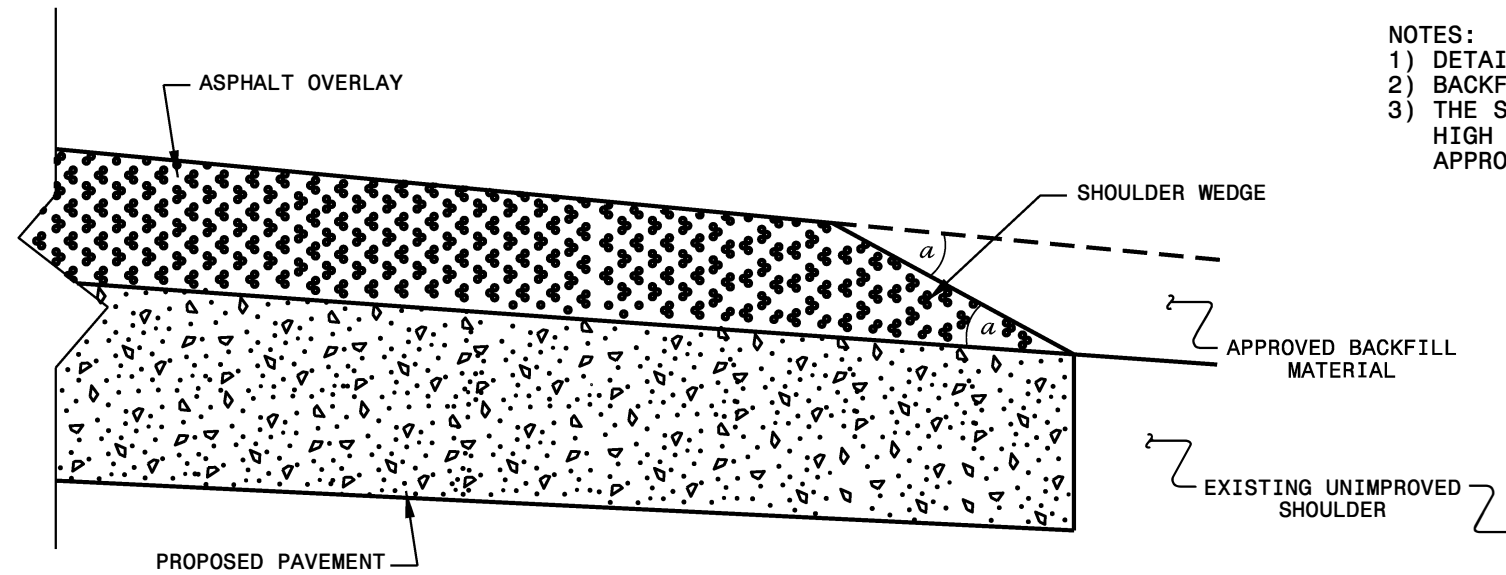
NOTES

ALL UNPAVED S.R. ROADS TO BE RESURFACED 50' FROM EDGE OF PAVEMENT OF MAIN PROJECT.
 ALL PAVED S.R. ROADS TO BE RESURFACED TO THE ENDS OF THE RADII, OR AS DIRECTED BY THE ENGINEER.
 EDGES, PAVEMENT WIDENING, INTERSECTIONS AND BRIDGE FLARES ARE INCLUDED IN THE TABLE OF QUANTITIES.
 BRIDGES TO BE RESURFACED AT LOCATIONS AND TO DEPTH AS DIRECTED BY THE ENGINEER.



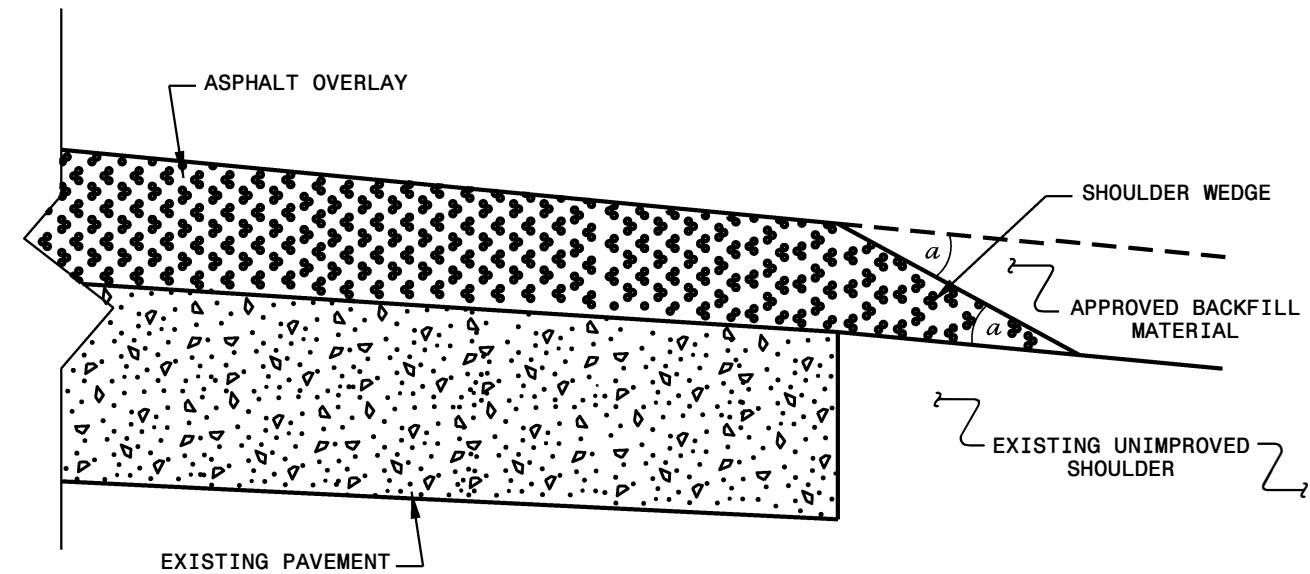
NOTES:

- 1) DETAIL DOES NOT APPLY TO OGAFB AND ULTRA-THIN BONDED WEARING COURSE.
- 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
- 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS, SIDE STREETS, HIGH SHOULDERS, AND OTHER LOCATIONS NOT FEASIBLE TO CONSTRUCT AS APPROVED BY THE ENGINEER.



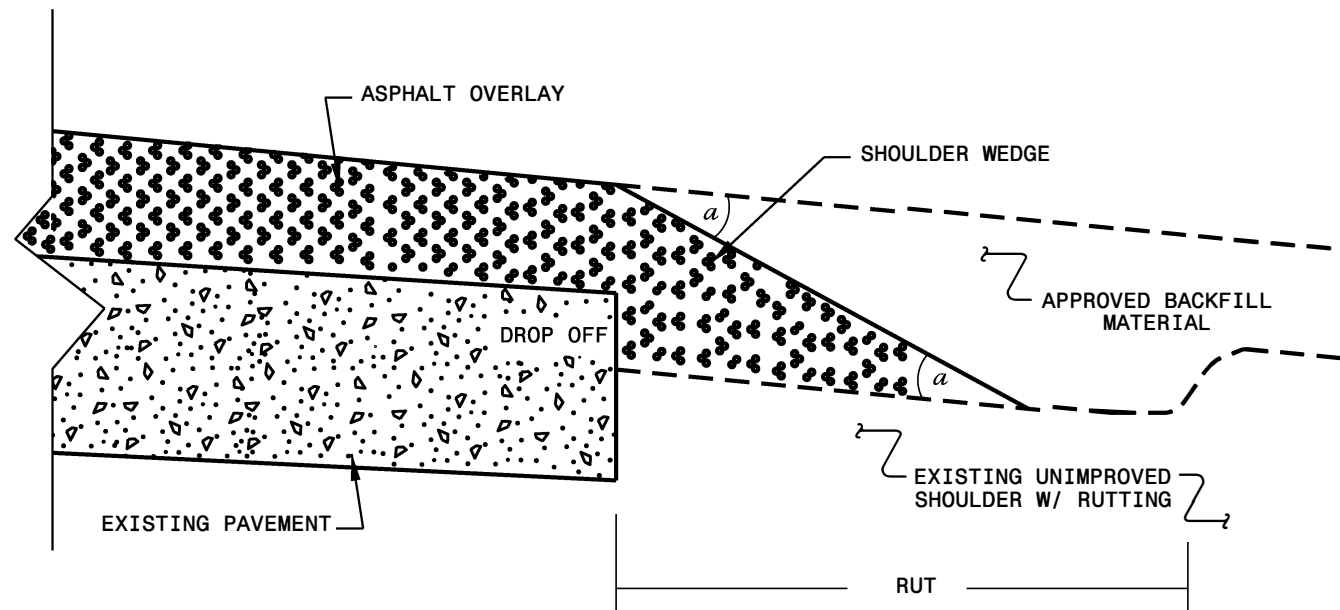
SHOULDER WEDGE DETAIL

(Resurfacing Projects w/ Widening or with Existing Paved Shoulder having no dropoffs)



SHOULDER WEDGE DETAIL

(Resurfacing Projects w/ NO Widening)



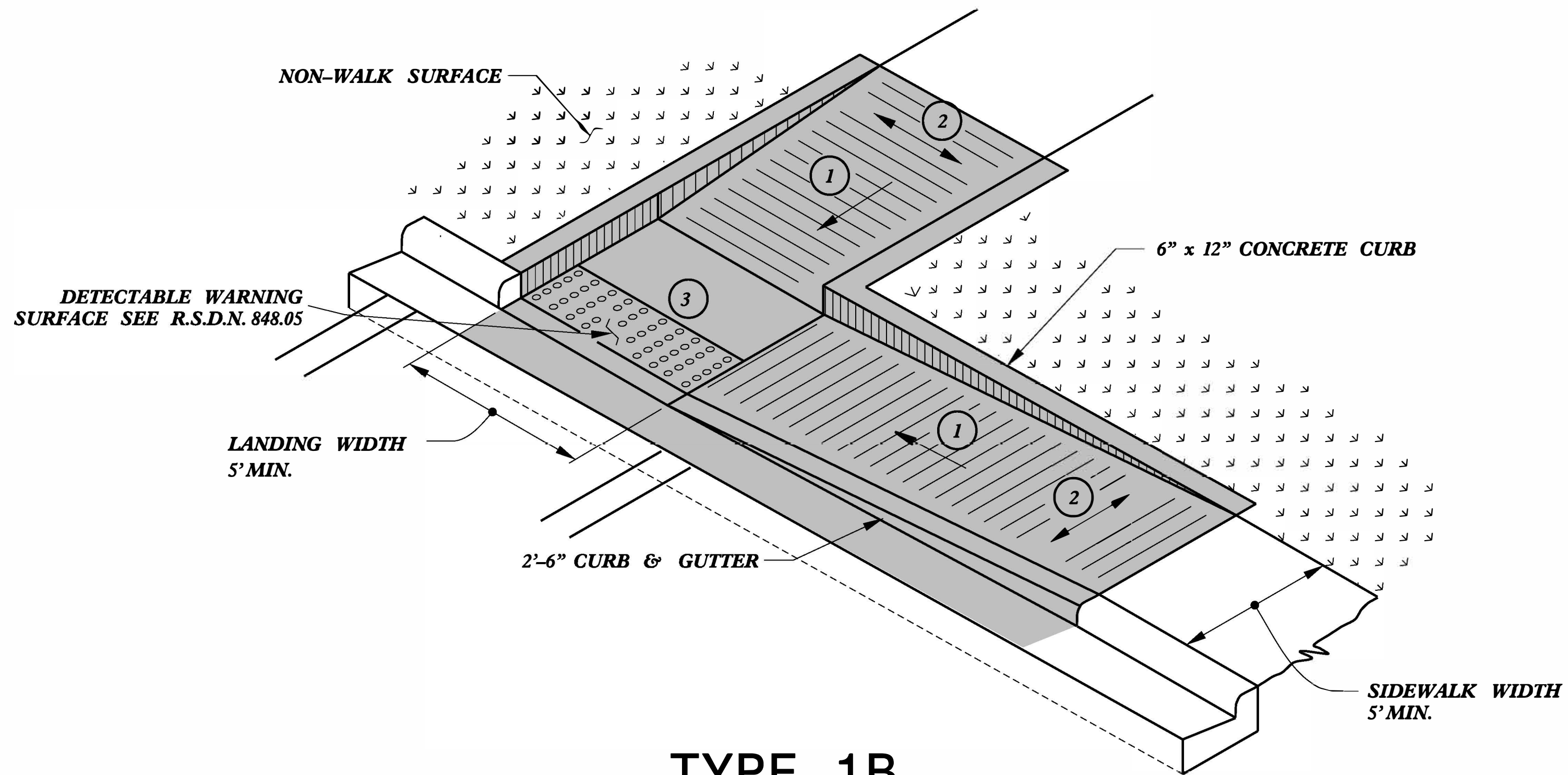
SHOULDER WEDGE DETAIL

(Resurfacing Adjacent to Rutted Shoulder)

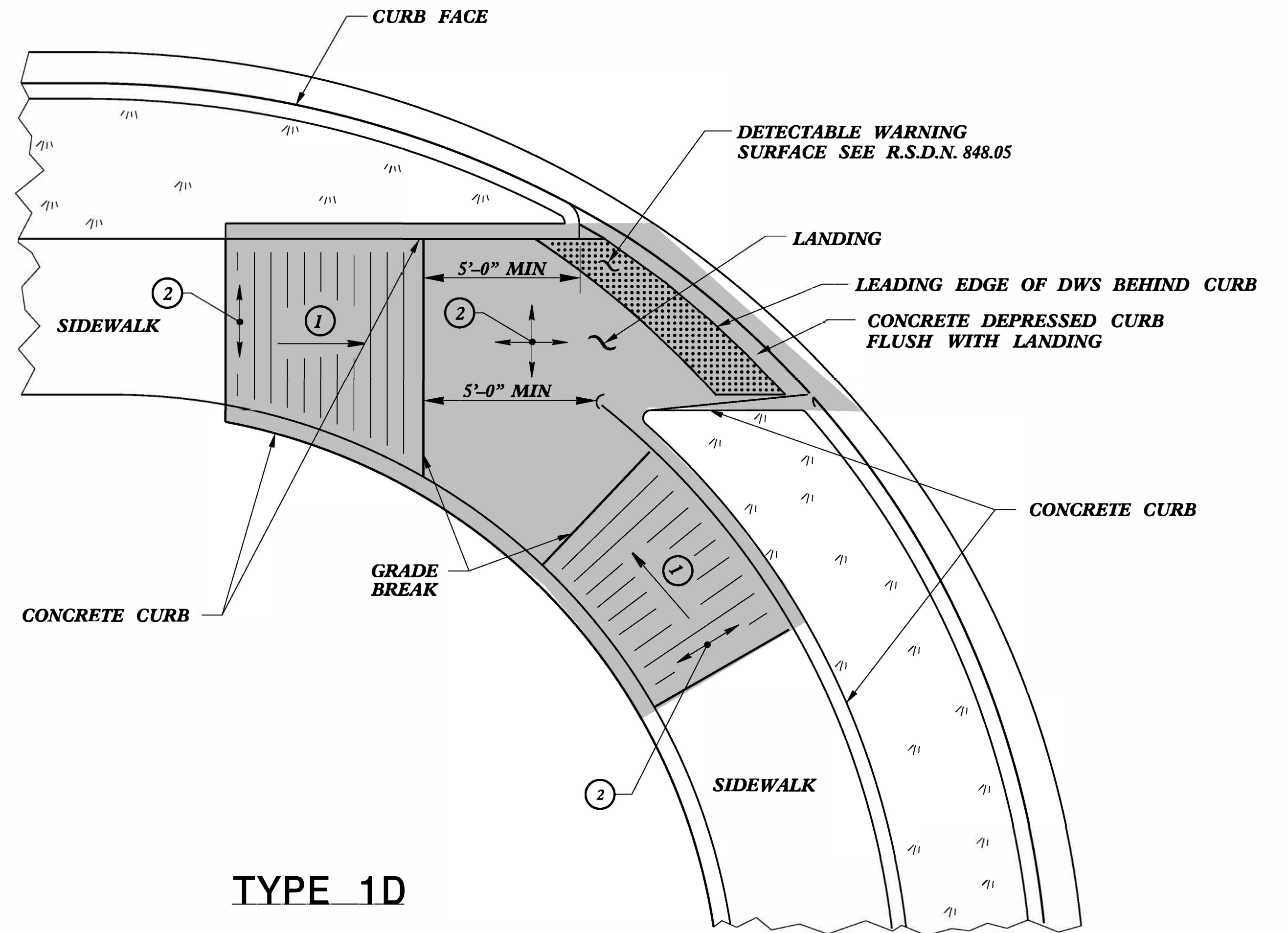
- SHOULDER WEDGE ANGLE = 30°

CONTRACT STANDARDS AND DEVELOPMENT UNIT	
Office 919-707-6950	FAX 919-250-4119
SHOULDER WEDGE DETAILS	
ORIGINAL BY: T.SPELL	DATE: 7-19-11
MODIFIED BY: _____	DATE: 2/2/16
CHECKED BY: _____	DATE: _____
FILE SPEC.: s:\usr\details\stand\shoulderwedgedetail.dgn	

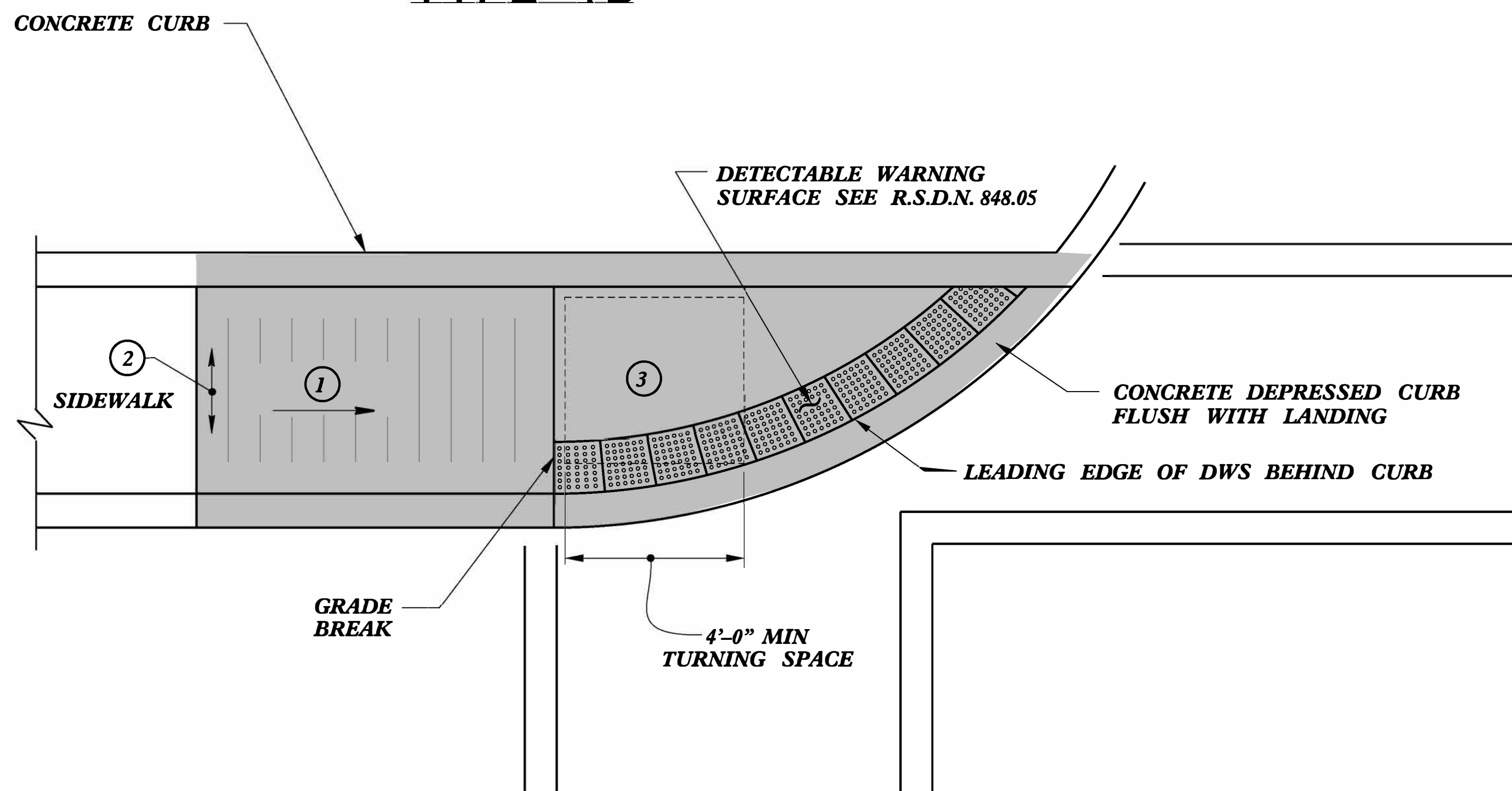
22 JAN 2018 09:41
 S:\projects\Resurfacing Projects\Division 4\1-5937 Wilson March 2018\Revised Shoulder Wedge Detail.dgn
 P:\corporate\1-5937\2018



TYPE 1B



TYPE 1D

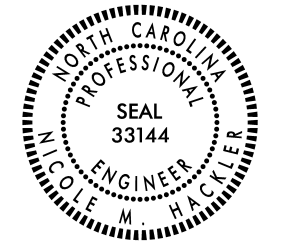


TYPE 1C

- 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

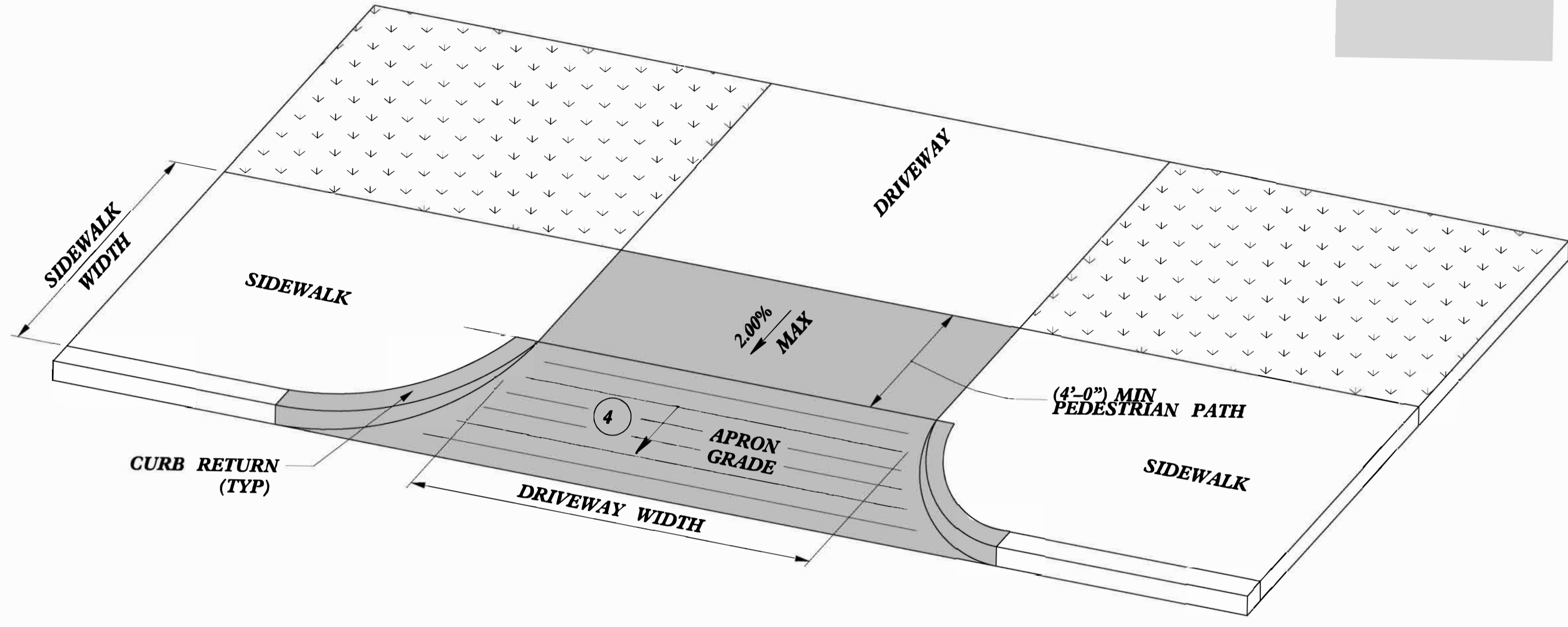
ORIGINAL BY: J.S. HOWERTON DATE: 7/7/11
 MODIFIED BY: _____ DATE: _____
 CHECKED BY: _____ DATE: _____
 FILE SPEC: stds/2012CurbRamp/CurbRampDetails.dwg

5/14/99

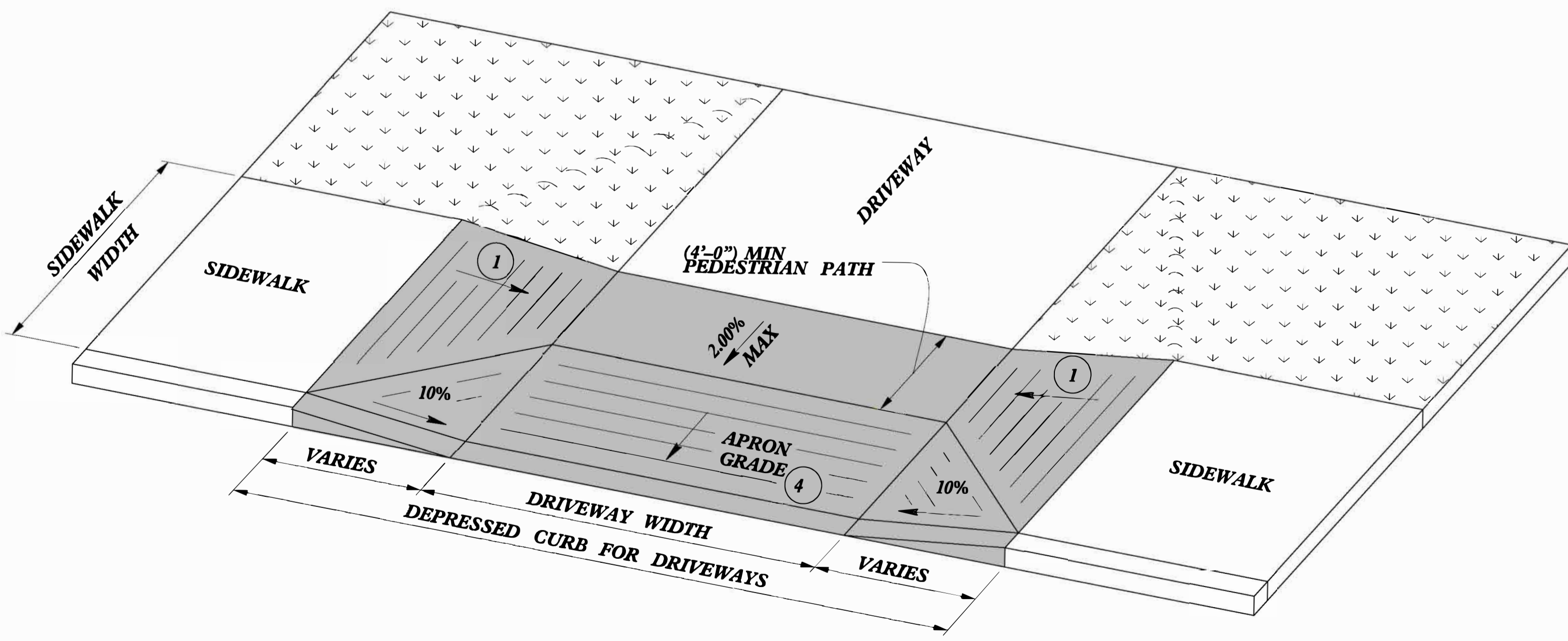
5/14/99

- 1 8.33% (12:1) MAX RAMP SLOPE
- 2 CROSS SLOPE: 2.00%
- 4 8.00% MAX CHANGE IN GRADE BETWEEN ROAD SURFACE AND DRIVEWAY

 PAY LIMITS FOR 1 CURB RAMP



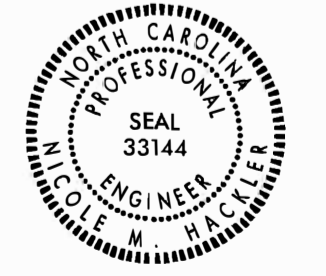
**DRIVEWAY APRON
OPTION 1**



**DRIVEWAY APRON
OPTION 2**

-SEE ROADWAY DETAIL DRAWING 848.05 FOR DETECTABLE WARNING SURFACE AND FOR RAMP NOTES.

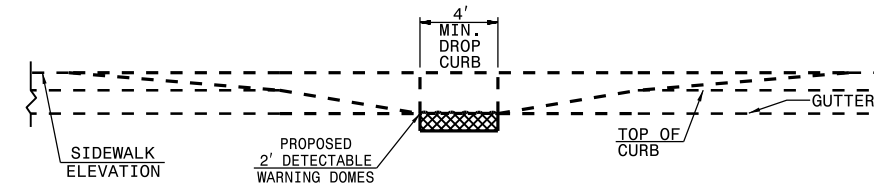
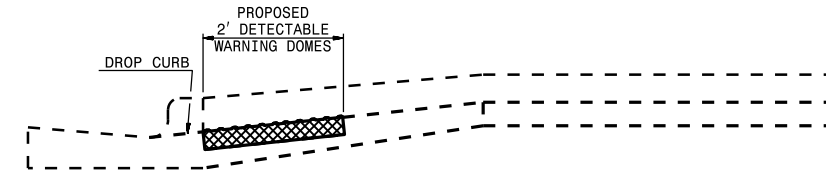
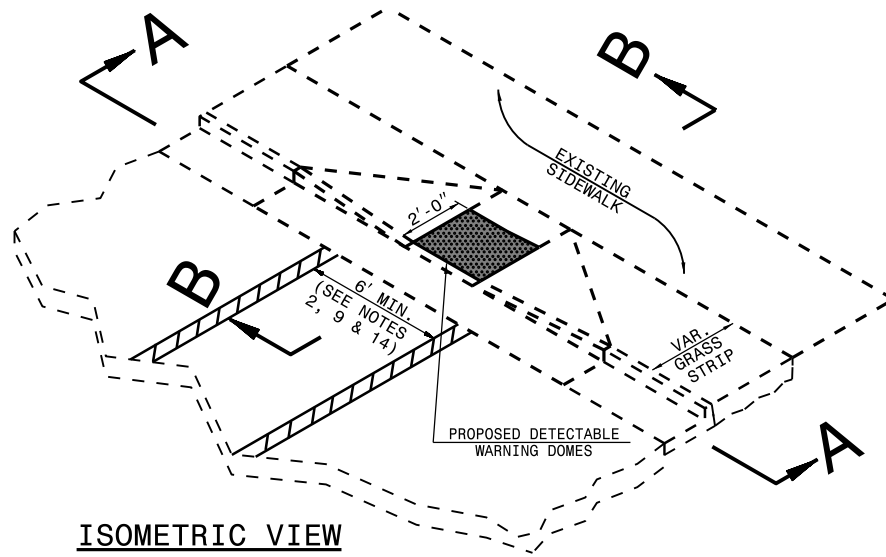
-SEE ROADWAY STANDARD DRAWING 848.02 FOR CONCRETE DRIVEWAYS.



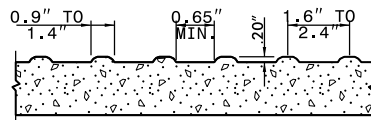
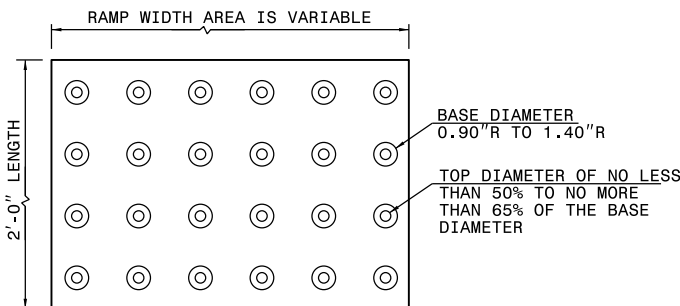
**CONTRACT STANDARDS
AND DEVELOPMENT UNIT**
Office 919-707-6950 FAX 919-250-4119

**CURB RAMPS
@ DRIVEWAY OPENINGS**

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

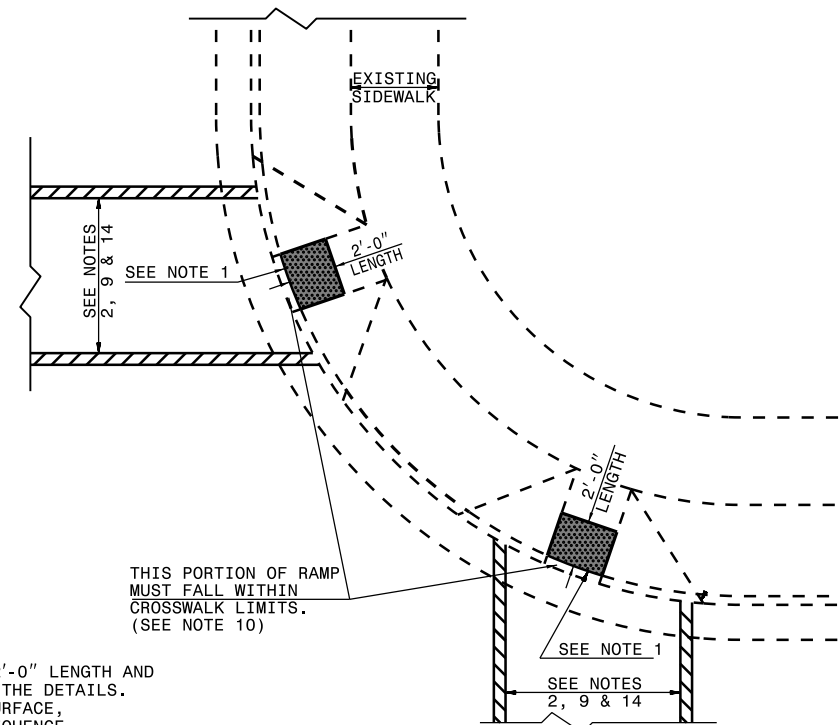


PAY LIMITS OF RETROFIT CURB RAMP



DETECTABLE WARNING DOMES

- NOTES:
1. PLACE DETECTABLE WARNING DOMES TO COVER 2'-0" LENGTH AND FULL WIDTH OF THE RAMP FLOOR AS SHOWN ON THE DETAILS.
 2. OBTAIN VISIBLE CONTRAST WITH ADJOINING SURFACE, EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT SEQUENCE COVERING THE ENTIRE RAMP.



PLAN VIEW

DUAL RAMPS
ANY RADII
(40" MIN. FLOOR WIDTH)

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

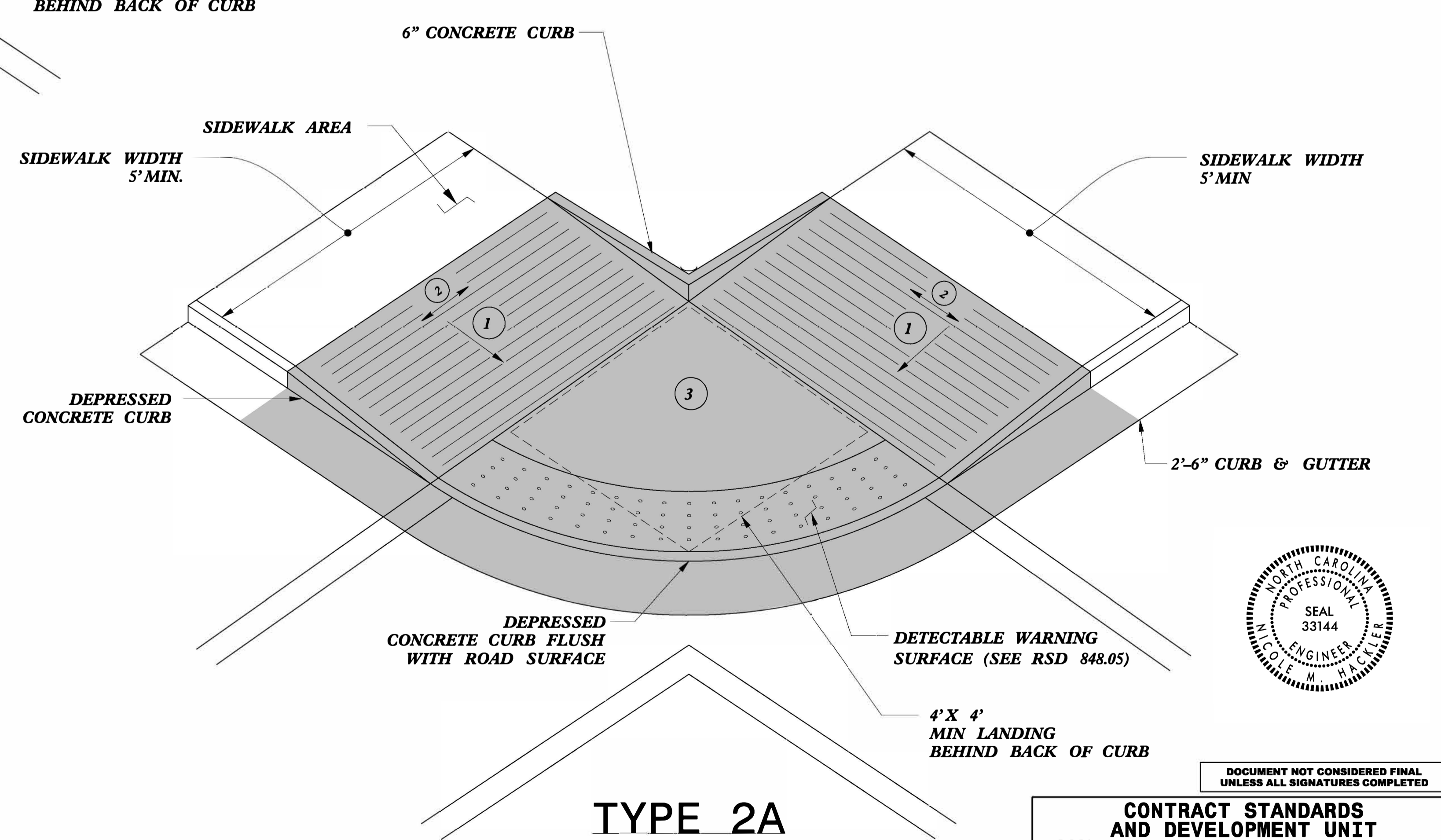
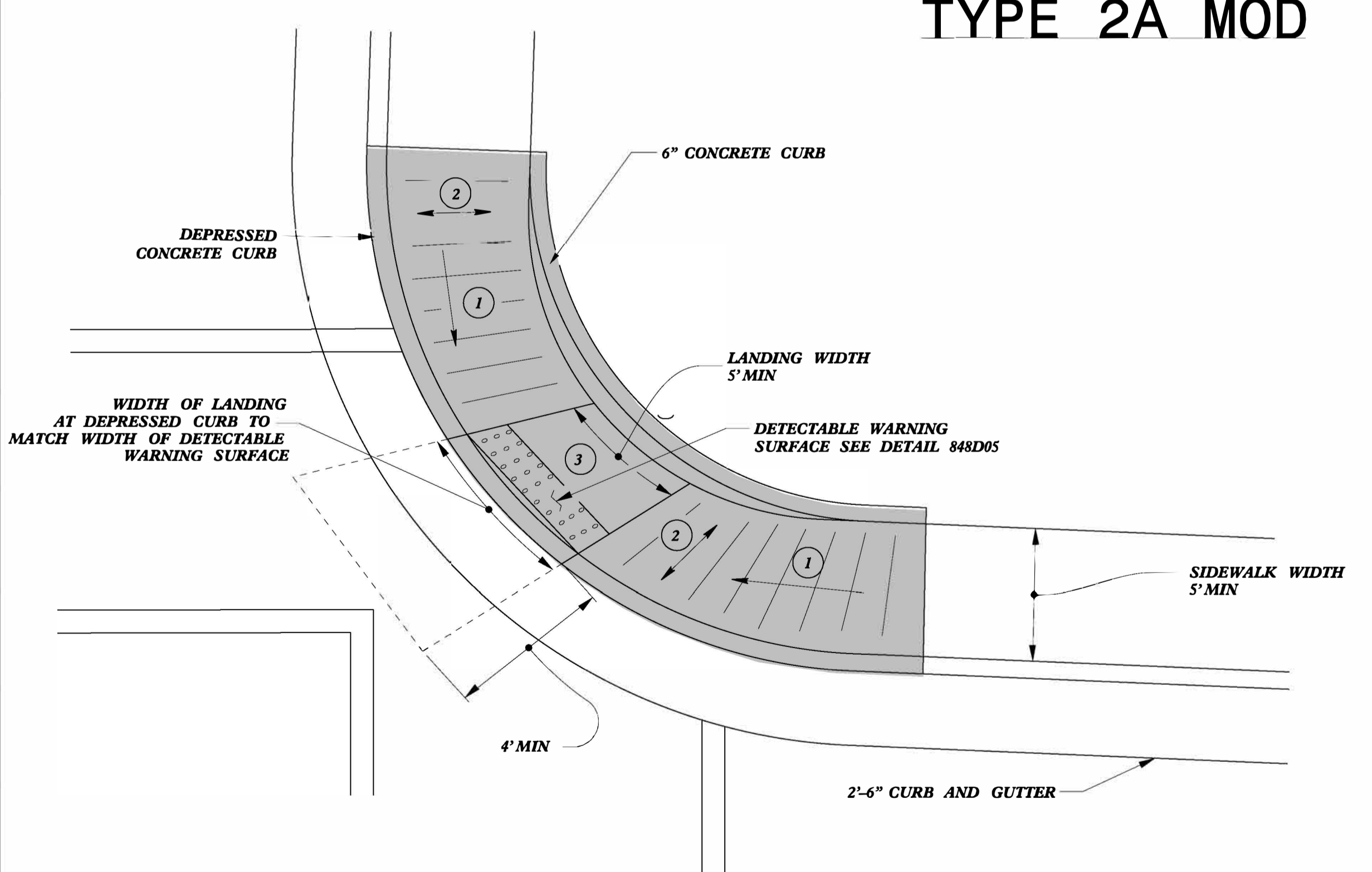
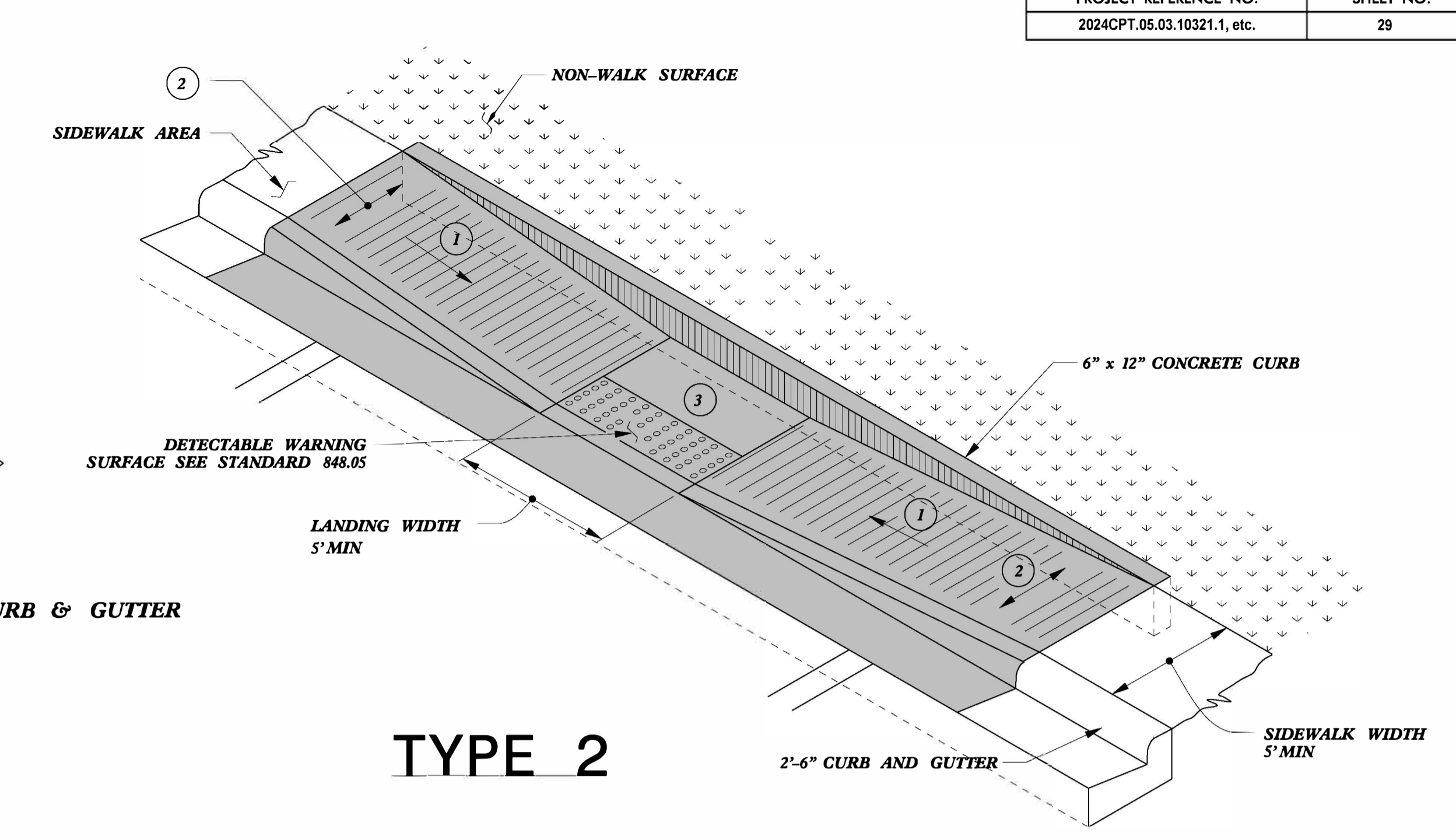
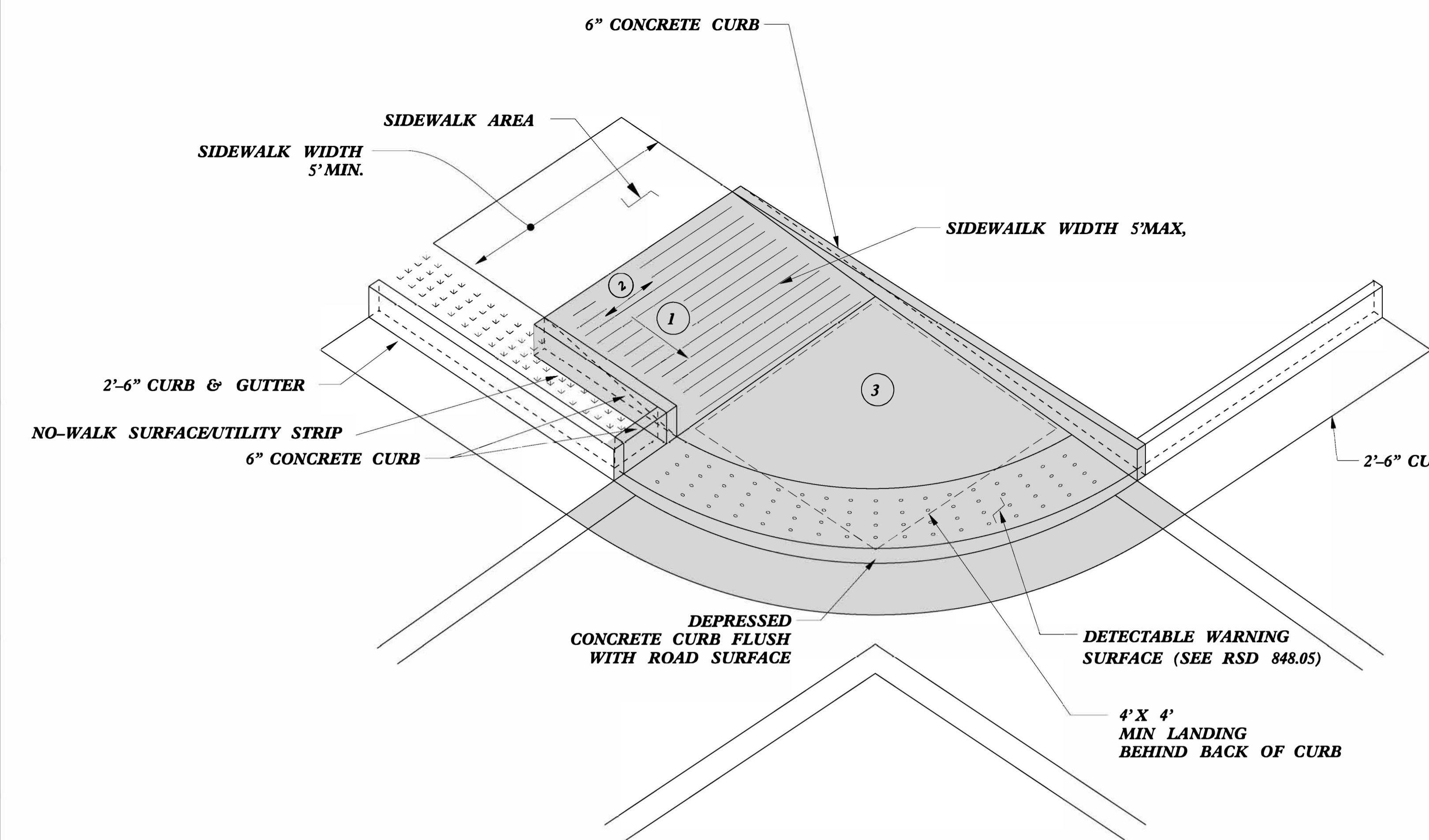
1-18

ROADWAY STANDARD DRAWING FOR

CURB RAMP

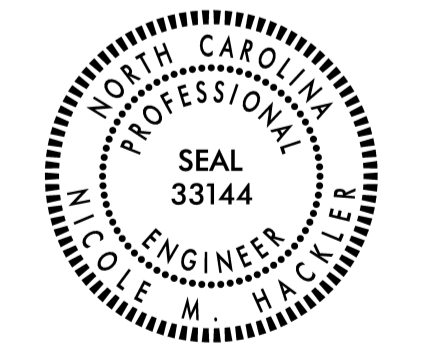
EXISTING CURB AND GUTTER

5/14/99



- 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

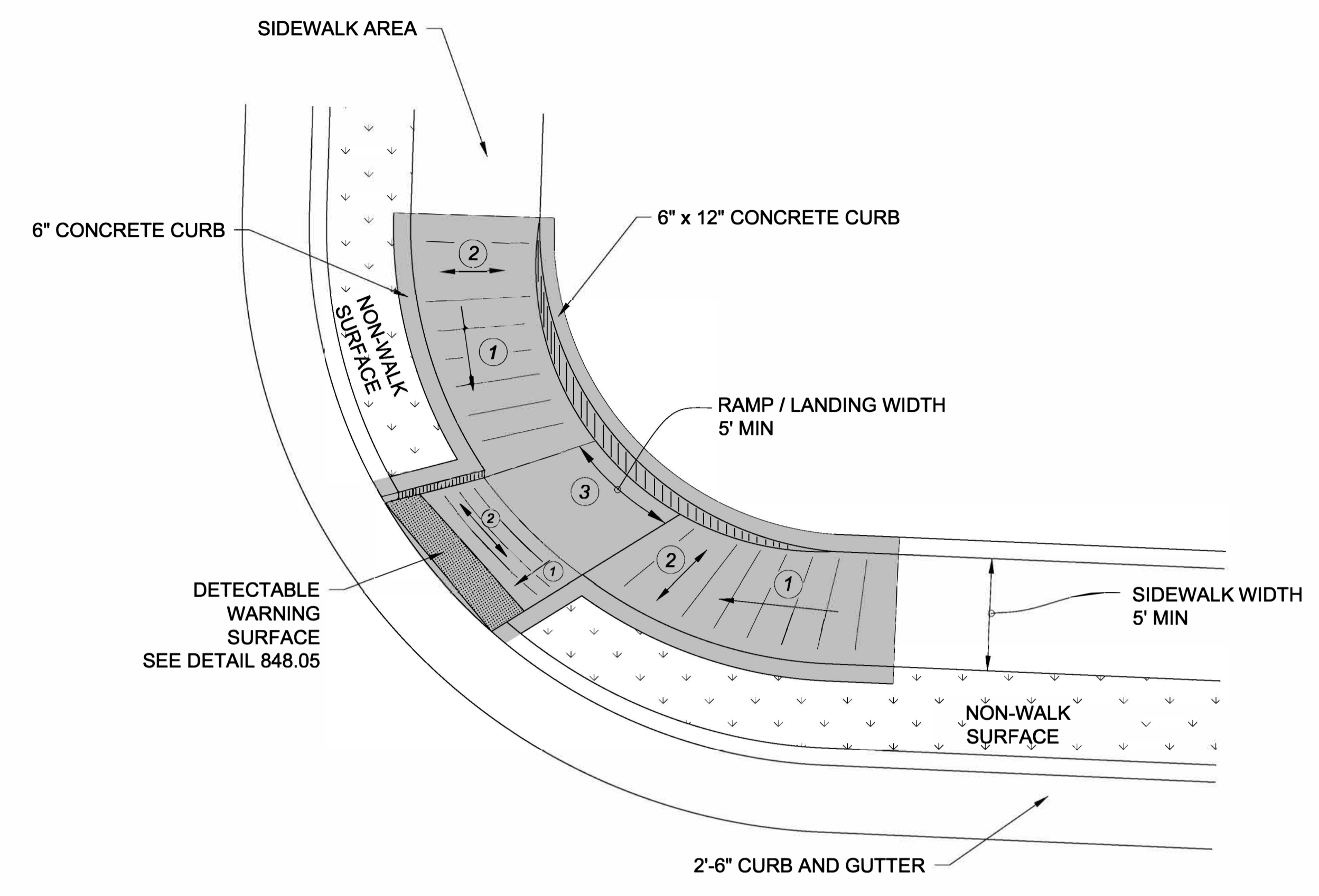


DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

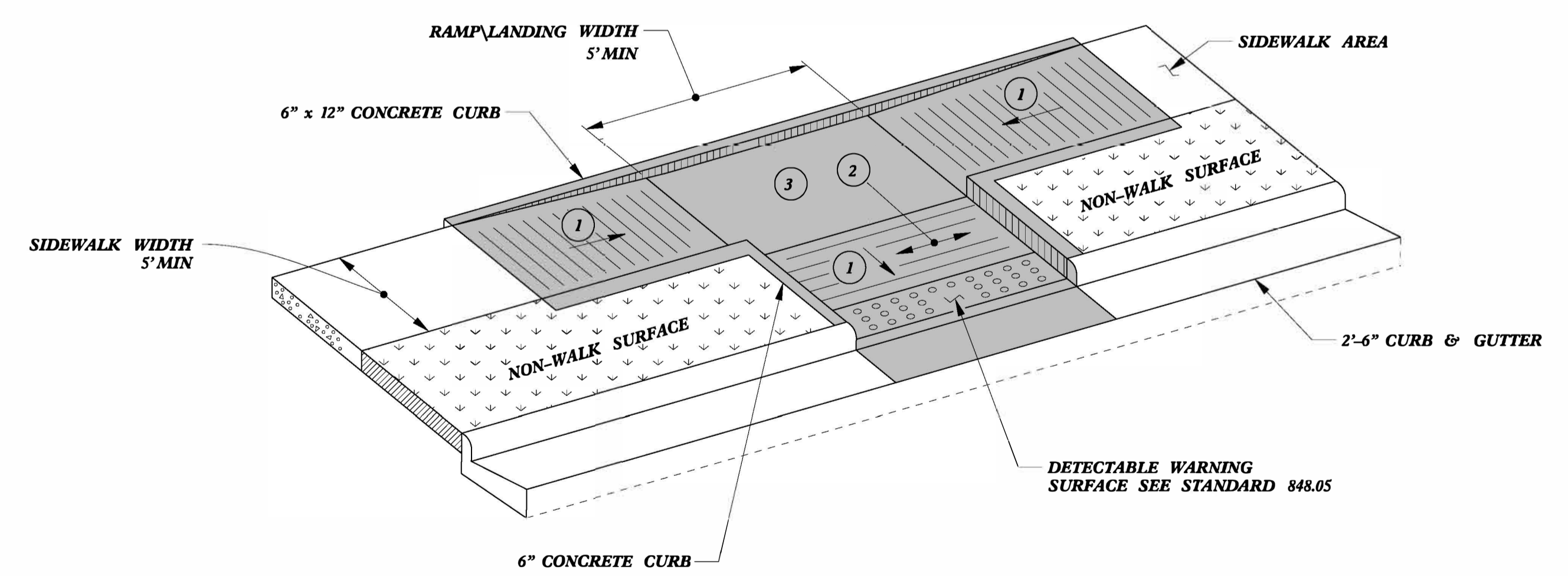
CONTRACT STANDARDS AND DEVELOPMENT UNIT	
Office 919-707-6950	FAX 919-250-4119
CURB RAMPS	
ORIGINAL BY: J.S. HOWERTON	DATE: 7/7/11
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
FILE SPEC. :stds/2012CurbRamp/CurbRampDetails.dgn	

C:\TIME\99\5\14\99\DWG\CURB RAMPS\CURB RAMPS.dwg

PAY LIMITS FOR 1 CURB RAMP



**TYPE 3 MODIFIED
INSTALLATION IN A RADIUS**



TYPE 3

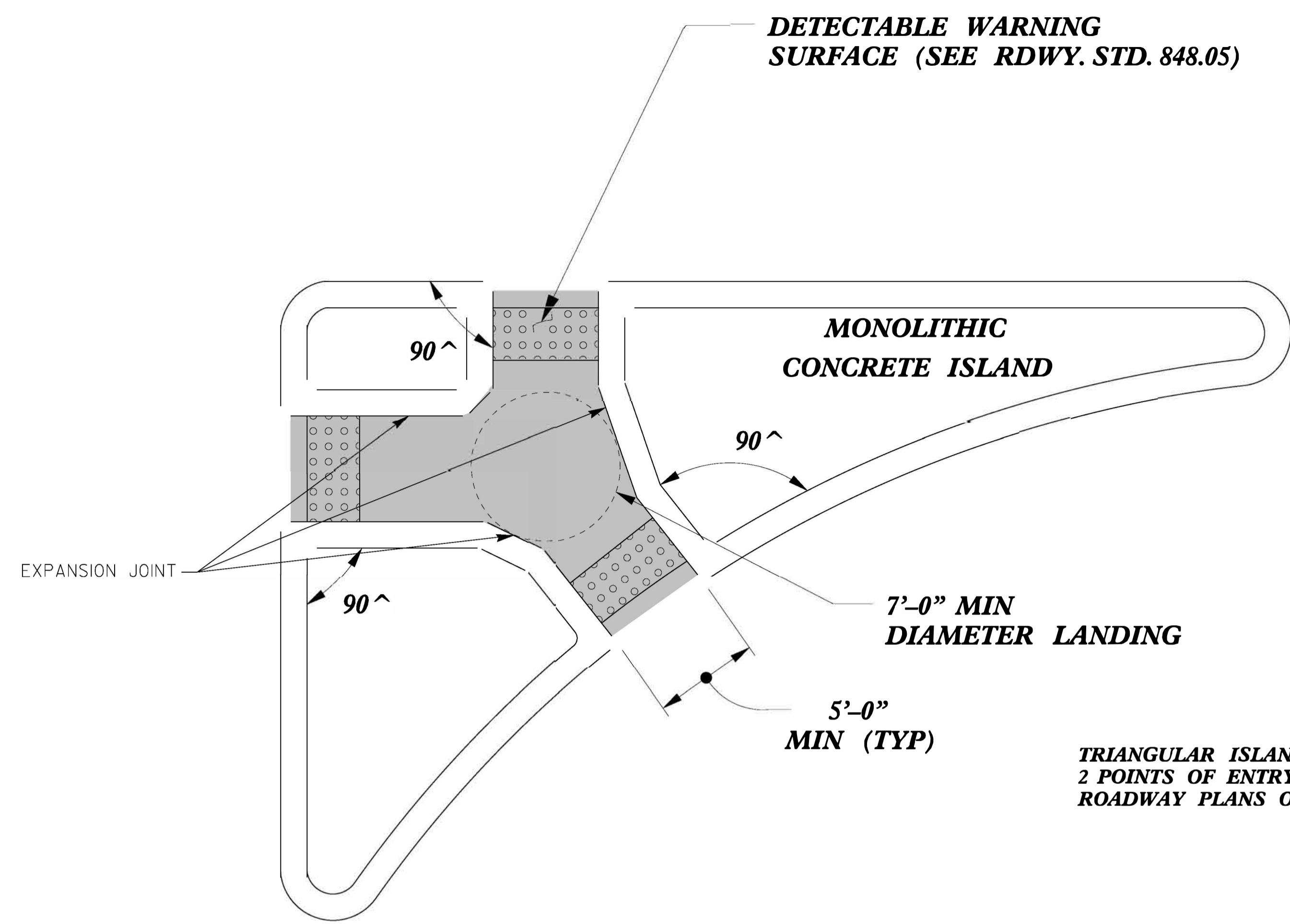
- 1 8.33% (12:1) MAX RAMP SLOPE
- 2 CROSS SLOPE: 2.00%
- 3 CURB RAMPS REQUIRE A (4'-0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SLOPE TO DRAIN TO CURB.



DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

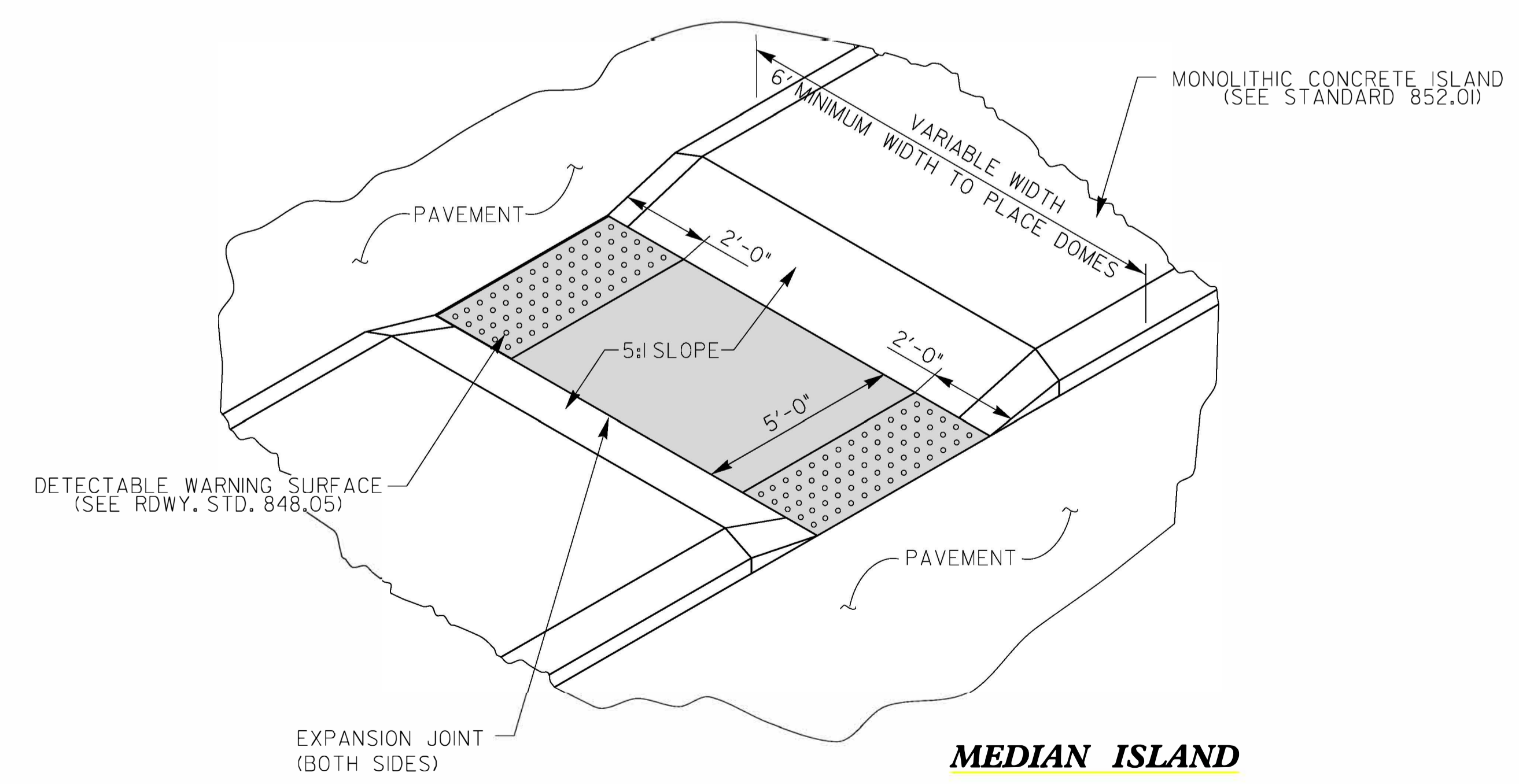
CONTRACT STANDARDS AND DEVELOPMENT UNIT	
Office 919-707-6950	FAX 919-250-4119
CURB RAMPS	
ORIGINAL BY: J.S. HOWERTON	DATE: 7/7/11
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
FILE SPEC. :stds/2012CurbRamp/CurbRampDetails.dgn	

5/14/99
C:\P\2012\2012CurbRamp\CurbRampDetails.dgn

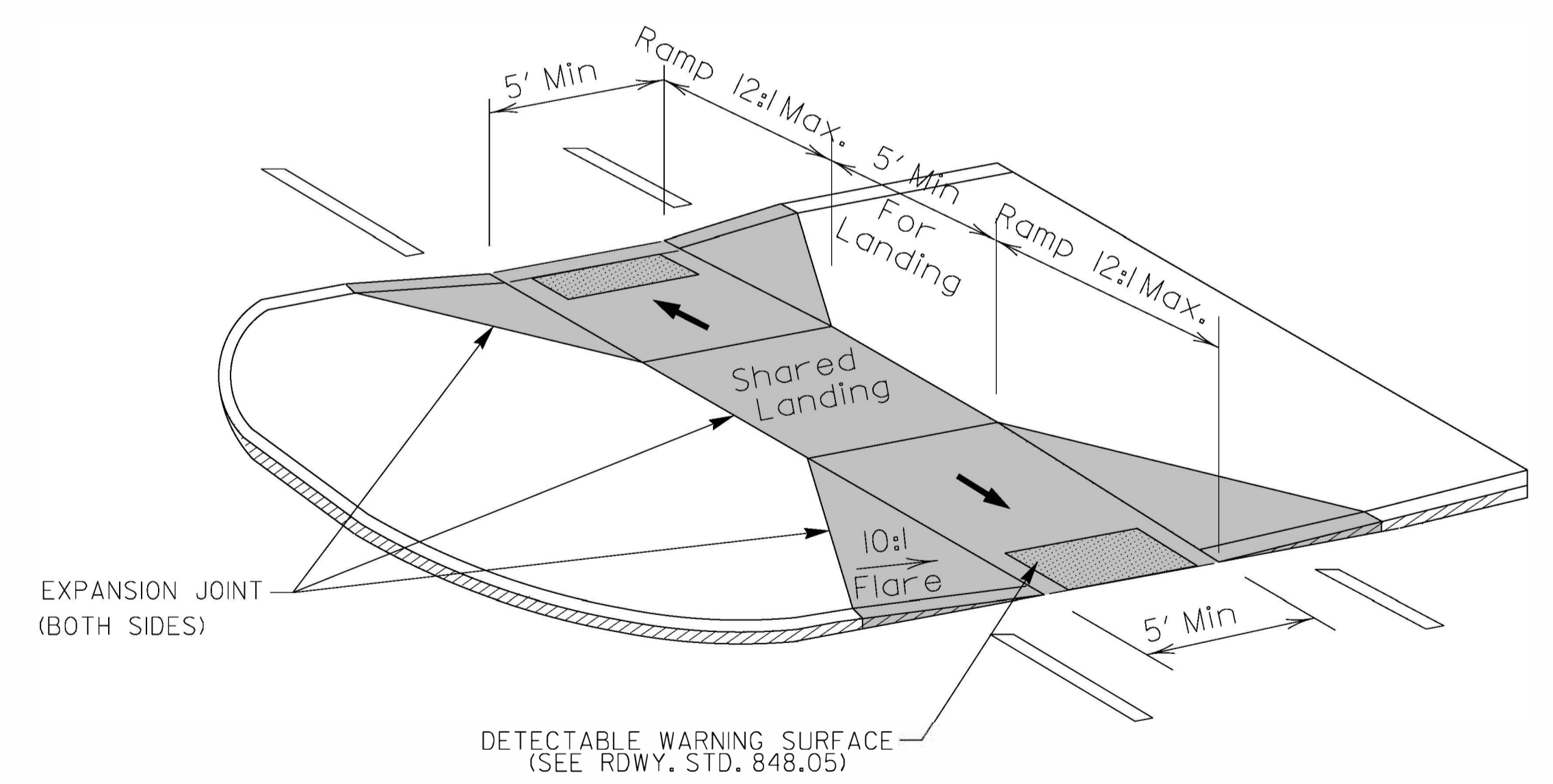


PAY LIMITS FOR 2 OR 3 CURB RAMPS
(CALCULATE BASED ON NUMBER OF
SETS OF TRUNCATED DOMES)

**TRIANGULAR ISLAND
WITH CUT THROUGH
TYPE 6**



**MEDIAN ISLAND
WITH CUT THROUGH
TYPE 7**



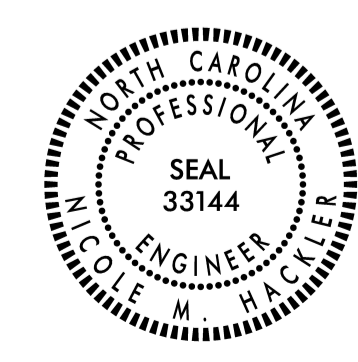
**MEDIAN ISLAND
CURB RAMPS
TYPE 8**

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

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

CURB RAMPS
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
SYTIME
SUGERNAVE

ADA SUMMARY OF QUANTITIES - TOTALS

Project Number:	Durham
WBS Number:	2024CPT.05.03.20321.1
County:	Durham

Sheet No
34

Project Number	County	Municipality	Resurfacing Route	444700000-E (LF) Pedestrian Channelizing Devices	460000000-N (EA) Generic Traffic Control Item - Pedestrian Transport Service	460000000-N (EA) Generic Traffic Control Item - Audible Warning Device	254900000-E (LF) 2'-6" Concrete Curb & Gutter	275200000-E (LF) Remove Curb & Gutter	259100000-E (SY) 4" Concrete Sidewalk	273800000-E (SY) Remove and Replace Sidewalk	273800000-E (SY) Remove Sidewalk	283000000-N (EA) Adjustment of Manholes	284500000-N (EA) Adjustment of Meter Boxes or Valve Boxes	411610000-N (EA) Relocate Sign Type E	273800000-E (SY) Remove and Replace Island	275900000-N (EA) Retrofit Curb Ramp Detectable Warnings	261300000-N (EA) Remove and Replace Curb Ramp	260500000-N (EA) Concrete Curb Ramp	275900000-N (EA) Remove Curb Ramp
Durham	Durham	Durham Outside Municipality	NC 54 From Fayetteville Rd To NC 55	120	20	4	125	83	27	62	30	1	0	0	0	7	36	5	6
Durham	Durham	Durham Outside Municipality	NC 98 From End Divided Highway To SR 1909				98	10	13	65	0	1	2	1	10	6	41	0	4
Durham	Durham	Durham	Hillandale Rd From SR 1407 To SR 1413	60	10	2	18	0	16	0	6	0	0	0	0	0	22	0	1
Durham	Durham	Durham	Horton Rd From NC 157 To US 501				16	0	6	18	0	1	0	1	0	0	17	0	1
GRAND TOTAL				180	30	6	257	93	62	145	36	3	2	2	10	13	116	5	12

ADA SUMMARY OF QUANTITIES - NC 54 FROM FAYETTEVILLE RD TO NC 55

Municipality:	Durham
Project Number:	Durham
WBS Number:	2024CPT.05.03.10321.1
County:	Durham

Sheet No.	35
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Ramp ID	Inset Map Number	Route 1	Route 2	2549000000-E (LF) 2'-6" Concrete Curb & Gutter	2752000000-E (LF) Remove Curb & Gutter	2591000000-E (SY) 4" Concrete Sidewalk	2738000000-E (SY) Remove and Replace Sidewalk	2738000000-E (SY) Remove Sidewalk	2830000000-N (EA) Adjustment of Manholes	2845000000-N (EA) Adjustment of Meter Boxes or Valve Boxes	4116100000-N (EA) Relocate Sign Type E	2738000000-E (SY) Remove and Replace Island	2759000000-N (EA) Retrofit Curb Ramp Detectable Warnings	2613000000-N (EA) Remove and Replace Curb Ramp	2605000000-N (EA) Concrete Curb Ramp	2759000000-N (EA) Remove Curb Ramp	Improvement Type
22570	1	NC-54	Exxon (106 NC-54) West Entrance										1				RetrofitWarnings
22571	1	NC-54	Exxon (106 NC-54) West Entrance										1				RetrofitWarnings
22541	2	NC-54	Mattress Firm / UPS Store Back entrance (6409 Fayetteville Rd)				6							1			Type4B
22542	2	NC-54	Mattress Firm / UPS Store Back entrance (6409 Fayetteville Rd)											1			Type7
22543	2	NC-54	Mattress Firm / UPS Store Back entrance (6409 Fayetteville Rd)											1			Type7
22544	2	NC-54	Mattress Firm / UPS Store Back entrance (6409 Fayetteville Rd)											1			Type1A
22572	3	NC-54	Exxon (106 NC-54) East Entrance										1				RetrofitWarnings
22573	3	NC-54	Exxon (106 NC-54) East Entrance										1				RetrofitWarnings
22574	3	NC-54	Waffle House (112 NC-54)											1			Type1Modified
22575	3	NC-54	Waffle House (112 NC-54)										1				RetrofitWarnings
22547	4	NC-54	Southpoint Professional Center (245 NC-54) Entrance										1				RetrofitWarnings
22548	4	NC-54	Southpoint Professional Center (245 NC-54) Entrance										1				RetrofitWarnings
22535	5	NC-54	Pine Glen Trl (West Entrance)											1			Type1C
22536	5	NC-54	Pine Glen Trl (West Entrance)											1			Type1C
22537	6	NC-54	Pine Glen Trl (East Entrance)											1			Type1C
22538	6	NC-54	Pine Glen Trl (East Entrance)											1			Type1C
22539	7	NC-54	Seasons at Southpoint (1002 NC-54) Entrance		8										1		Type1Modified
22540	7	NC-54	Seasons at Southpoint (1002 NC-54) Entrance		8										1		Type1Modified
20765	8	NC-54	Barbee Rd				3										Other
20762	9	NC-54	Lotus Lilly Dr	18				20								1	Remove Ramp
20764	9	NC-54	Lotus Lilly Dr				3							1			Type1Modified
20768	9	NC-54	Goldenglow Rd	15				10								1	Remove Ramp
25524	10	NC-54	Revere Rd			3								1			Type1A
20755	11	NC-54	Waterford Valley Dr											1			Type1B
20756	11	NC-54	Waterford Valley Dr											1			Type7
Sub-Total				33	16	3	12	30	0	0	0	0	7	13	2	2	

Note: ADA quantity totals are provided on the project 'ADA SUMMARY OF QUANTITIES - TOTALS' page.

ADA SUMMARY OF QUANTITIES - NC 54 FROM FAYETTEVILLE RD TO NC 55

Municipality:	Durham
Project Number:	Durham
WBS Number:	2024CPT.05.03.10321.1
County:	Durham

Sheet No.
36

Ramp ID	Inset Map Number	Route 1	Route 2	2549000000-E (LF) 2'-6" Concrete Curb & Gutter	2752000000-E (LF) Remove Curb & Gutter	2591000000-E (SY) 4" Concrete Sidewalk	2738000000-E (SY) Remove and Replace Sidewalk	2738000000-E (SY) Remove Sidewalk	2830000000-N (EA) Adjustment of Manholes	2845000000-N (EA) Adjustment of Meter Boxes or Valve Boxes	4116100000-N (EA) Relocate Sign Type E	2738000000-E (SY) Remove and Replace Island	2759000000-N (EA) Retrofit Curb Ramp Detectable Warnings	2613000000-N (EA) Remove and Replace Curb Ramp	2605000000-N (EA) Concrete Curb Ramp	2759000000-N (EA) Remove Curb Ramp	Improvement Type
20757	11	NC-54	Waterford Valley Dr											1			Type7
20758	11	NC-54	Waterford Valley Dr											1			Type1Modified
20750	12	NC-54	Savannah Pl	8	8	5	3							1			Type1B
20754	12	NC-54	Savannah Pl	8	8	3	6							1			Type1Modified
20751	13	NC-54	Blanchard Rd											1			Standard - 848.06
20752	13	NC-54	Blanchard Rd	15												1	Remove Ramp
20753	13	NC-54	Blanchard Rd											1			Standard - 848.06
20749	14	NC-54	Kristen Marie Ln	16			6									1	Remove Ramp
25583	14	NC-54	Kristen Marie Ln		10										1		Type4B
20747	15	NC-54	Seaforth Dr											1			Type1Modified
20748	15	NC-54	Seaforth Dr				3							1			Type1C
20734	16	NC-54	Candlewood Suites (1818 NC-54) Entrance											1			Type1Modified
20735	16	NC-54	Candlewood Suites (1818 NC-54) Entrance											1			Type1B
20732	17	NC-54	Residence Inn Blvd											1			Type2B
20733	17	NC-54	Residence Inn Blvd											1			Type1A
20736	17	NC-54	Office Building (1906 NC-54) Entrance	6	6		6							1			Type1B
20737	17	NC-54	Office Building (1906 NC-54) Entrance	6	6		3							1			Type1Modified
20738	18	NC-54	Executive Cleaners (1920 NC-54) Entrance	6	6				1					1			Type1Modified
20739	18	NC-54	Executive Cleaners (1920 NC-54) Entrance											1			Type1
20740	19	NC-54	The Executive Park (1920 NC-54) Entrance											1			Type1
20741	19	NC-54	The Executive Park (1920 NC-54) Entrance		15										1		Type1
25525	19	NC-54	Midblock location (1943 NC-54)	12		7	5									1	Remove Ramp
20742	20	NC-54	First Horizon Bank (2008 NC-54) West Entrance											1			Type1
20743	20	NC-54	First Horizon Bank (2008 NC-54) West Entrance				3							1			Type1
20744	21	NC-54	First Horizon Bank (2008 NC-54) East Entrance				3							1			Type1
20745	21	NC-54	First Horizon Bank (2008 NC-54) East Entrance		8										1		Type1Modified
7699	22	NC-55	NC-54				6							1			Type2B
7700	22	NC-55	NC-54				3							1			Standard - 848.06
7701	22	NC-55	NC-54				3							1			Standard - 848.06
Sub-Total				77	67	15	50	0	1	0	0	0	0	23	3	3	

Note: ADA quantity totals are provided on the project 'ADA SUMMARY OF QUANTITIES - TOTALS' page.

ADA SUMMARY OF QUANTITIES - NC 54 FROM FAYETTEVILLE RD TO NC 55

Sheet No.
37

Municipality:	Durham
Project Number:	Durham
WBS Number:	2024CPT.05.03.10321.1
County:	Durham

Ramp ID	Inset Map Number	Route 1	Route 2	2549000000-E (LF) 2'-6" Concrete Curb & Gutter	2752000000-E (LF) Remove Curb & Gutter	2591000000-E (SY) 4" Concrete Sidewalk	2738000000-E (SY) Remove and Replace Sidewalk	2738000000-E (SY) Remove Sidewalk	2830000000-N (EA) Adjustment of Manholes	2845000000-N (EA) Adjustment of Meter Boxes or Valve Boxes	4116100000-N (EA) Relocate Sign Type E	2738000000-E (SY) Remove and Replace Island	2759000000-N (EA) Retrofit Curb Ramp Detectable Warnings	2613000000-N (EA) Remove and Replace Curb Ramp	2605000000-N (EA) Concrete Curb Ramp	2759000000-N (EA) Remove Curb Ramp	Improvement Type
25526	22	NC-54	NC-55	15	0	9	0	0	0	0	0	0	0	0	0	1	Remove Ramp
Sub-Total				15	0	9	0	0	0	0	0	0	0	0	0	1	
Sub-Total for NC 54 From Fayetteville Rd To NC 55				125	83	27	62	30	1	0	0	0	7	36	5	6	

Note: ADA quantity totals are provided on the project 'ADA SUMMARY OF QUANTITIES - TOTALS' page.

ADA SUMMARY OF QUANTITIES - NC 98 FROM END DIVIDED HIGHWAY TO SR 1909

Municipality:	Durham
Project Number:	Outside Municipality
WBS Number:	Durham
County:	2024CPT.05.03.10321.1
	Durham

Sheet No.	38
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Ramp ID	Inset Map Number	Route 1	Route 2	2549000000-E (LF) 2'-6" Concrete Curb & Gutter	2752000000-E (LF) Remove Curb & Gutter	2591000000-E (SY) 4" Concrete Sidewalk	2738000000-E (SY) Remove and Replace Sidewalk	2738000000-E (SY) Remove Sidewalk	2830000000-N (EA) Adjustment of Manholes	2845000000-N (EA) Adjustment of Meter Boxes or Valve Boxes	4116100000-N (EA) Relocate Sign Type E	2738000000-E (SY) Remove and Replace Island	2759000000-N (EA) Retrofit Curb Ramp Detectable Warnings	2613000000-N (EA) Remove and Replace Curb Ramp	2605000000-N (EA) Concrete Curb Ramp	2759000000-N (EA) Remove Curb Ramp	Improvement Type
7155	1	NC-98 (Holloway St)	N Hoover Rd											1			Type2B
7156	1	NC-98 (Holloway St)	N Hoover Rd				6							1			Type1A
7157	1	NC-98 (Holloway St)	N Hoover Rd											1			Type2B
7160	1	NC-98 (Holloway St)	N Hoover Rd							1				1			Type2B
7161	1	NC-98 (Holloway St)	S Hoover Rd											1			Type2B
7163	1	NC-98 (Holloway St)	S Hoover Rd											1			Type1A
24272	1	NC-98 (Holloway St)	S Hoover Rd									2					Other
24273	1	NC-98 (Holloway St)	S Hoover Rd									2					Other
25608	2	NC-98 (Holloway St)	Junction Rd Railroad Crossing										1				RetrofitWarnings
25609	2	NC-98 (Holloway St)	Junction Rd Railroad Crossing										1				RetrofitWarnings
25610	2	NC-98 (Holloway St)	Junction Rd Railroad Crossing										1				RetrofitWarnings
25611	2	NC-98 (Holloway St)	Junction Rd Railroad Crossing				3						1				RetrofitWarnings
7145	3	NC-98 (Holloway St)	SR-1838 (Junction Rd)			3								1			Type2B
7146	3	NC-98 (Holloway St)	SR-1838 (Junction Rd)				2							1			Type1C
7148	3	NC-98 (Holloway St)	SR-1838 (Junction Rd)											1			Type2
7149	3	NC-98 (Holloway St)	SR-1838 (Junction Rd)			1	3			1				1			Type2AModified
7151	3	NC-98 (Holloway St)	SR-1838 (Junction Rd)									3		1			Type7
7153	3	NC-98 (Holloway St)	SR-1838 (Junction Rd)						1					1			Type2B
23302	3	NC-98 (Holloway St)	SR-1838 (Junction Rd)									3		1			Type7
24866	4	NC-98 (Holloway St)	S Adams St											1			Type3Modified
24867	4	NC-98 (Holloway St)	S Adams St											1			Type3Modified
2366	5	NC-98 (Holloway St)	Ganyard Farm Way (West Entrance)	5	5									1			Type1D
7138	5	NC-98 (Holloway St)	Ganyard Farm Way (West Entrance)	15												1	Remove Ramp
7141	5	NC-98 (Holloway St)	Ganyard Farm Way (West Entrance)	5	5									1			Type1C
7142	5	NC-98 (Holloway St)	Ganyard Farm Way (West Entrance)	15												1	Remove Ramp
19790	6	NC-98 (Holloway St)	Ganyard Farm Way (East Entrance)			6	3							1			Type1D
19791	6	NC-98 (Holloway St)	Ganyard Farm Way (East Entrance)	18			9									1	Remove Ramp
19792	6	NC-98 (Holloway St)	Ganyard Farm Way (East Entrance)	10			3							1			Type1Modified
19793	6	NC-98 (Holloway St)	Ganyard Farm Way (East Entrance)	20												1	Remove Ramp
Sub-Total				88	10	10	29	0	1	2	0	10	4	19	0	4	

Note: ADA quantity totals are provided on the project 'ADA SUMMARY OF QUANTITIES - TOTALS' page.

ADA SUMMARY OF QUANTITIES - NC 98 FROM END DIVIDED HIGHWAY TO SR 1909

Municipality:	Durham
Project Number:	Outside Municipality
WBS Number:	Durham
County:	2024CPT.05.03.10321.1
	Durham

Sheet No.
39

Ramp ID	Inset Map Number	Route 1	Route 2	2549000000-E (LF) 2'-6" Concrete Curb & Gutter	2752000000-E (LF) Remove Curb & Gutter	2591000000-E (SY) 4" Concrete Sidewalk	2738000000-E (SY) Remove and Replace Sidewalk	2738000000-E (SY) Remove Sidewalk	2830000000-N (EA) Adjustment of Manholes	2845000000-N (EA) Adjustment of Meter Boxes or Valve Boxes	4116100000-N (EA) Relocate Sign Type E	2738000000-E (SY) Remove and Replace Island	2759000000-N (EA) Retrofit Curb Ramp Detectable Warnings	2613000000-N (EA) Remove and Replace Curb Ramp	2605000000-N (EA) Concrete Curb Ramp	2759000000-N (EA) Remove Curb Ramp	Improvement Type
7128	7	NC-98 (Wake Forest Hwy)	Mineral Springs Village Shopping Center (3725 Wake Forest Hwy) West Entrance				3							1			Type1Modified
7131	7	NC-98 (Wake Forest Hwy)	Mineral Springs Village Shopping Center (3725 Wake Forest Hwy) West Entrance										1				RetrofitWarnings
7132	7	NC-98 (Wake Forest Hwy)	Mineral Springs Village Shopping Center (3725 Wake Forest Hwy) West Entrance				6							1			Type1Modified
19755	7	NC-98 (Wake Forest Hwy)	Mineral Springs Village Shopping Center (3725 Wake Forest Hwy) West Entrance										1				RetrofitWarnings
19751	8	NC-98 (Wake Forest Hwy)	Mineral Springs Village Shopping Center (3725 Wake Forest Hwy) East Entrance				3							1			Type1Modified
19752	8	NC-98 (Wake Forest Hwy)	Mineral Springs Village Shopping Center (3725 Wake Forest Hwy) East Entrance											1			Type1Modified
19747	9	NC-98 (Wake Forest Hwy)	Papa John's (3751 Holloway St) Entrance											1			Type1Modified
19748	9	NC-98 (Wake Forest Hwy)	Papa John's (3751 Holloway St) Entrance											1			Type7
19749	9	NC-98 (Wake Forest Hwy)	Papa John's (3751 Holloway St) Entrance											1			Type7
19750	9	NC-98 (Wake Forest Hwy)	Papa John's (3751 Holloway St) Entrance											1			Type1Modified
2365	10	NC-98 (Wake Forest Hwy)	SR-1815 (N Mineral Springs Rd)											1			Type1Modified
19756	10	NC-98 (Wake Forest Hwy)	SR-1815 (S Mineral Springs Rd)				3							1			Type1Modified
19759	11	NC-98 (Wake Forest Hwy)	Oak Grove Elementary School (3810 Wake Forest Hwy) Main Entrance	5										1			Standard - 848.06
19760	11	NC-98 (Wake Forest Hwy)	Oak Grove Elementary School (3810 Wake Forest Hwy) Main Entrance	5		3					1			1			Standard - 848.06
24861	12	NC-98 (Wake Forest Hwy)	La Petite Academy of Durham (4022 Wake Forest Hwy)											1			Type1B
24860	12	NC-98 (Wake Forest Hwy)	La Petite Academy of Durham (4022 Wake Forest Hwy)				6							1			Type1Modified
2364	13	NC-98 (Wake Forest Hwy)	Oak Grove Pkwy				9							1			Standard - 848.06
7118	13	NC-98 (Wake Forest Hwy)	Oak Grove Pkwy				6							1			Type2AModified
7121	13	NC-98 (Wake Forest Hwy)	Nichols Farm Dr											1			Type2AModified
19789	13	NC-98 (Wake Forest Hwy)	Nichols Farm Dr											1			Type2B
7112	14	NC-98 (Wake Forest Hwy)	The Crossings (4023 Wake Forest Hwy) Entrance											1			Type1Modified
Sub-Total				10	0	3	36	0	0	0	1	0	2	19	0	0	

Note: ADA quantity totals are provided on the project 'ADA SUMMARY OF QUANTITIES - TOTALS' page.

ADA SUMMARY OF QUANTITIES - NC 98 FROM END DIVIDED HIGHWAY TO SR 1909

Municipality:	Durham
Project Number:	Outside Municipality
WBS Number:	Durham
Number:	2024CPT.05.03.10321.1
County:	Durham

Sheet No.
39B

Ramp ID	Inset Map Number	Route 1	Route 2	2549000000-E (LF) 2'-6" Concrete Curb & Gutter	2752000000-E (LF) Remove Curb & Gutter	2591000000-E (SY) 4" Concrete Sidewalk	2738000000-E (SY) Remove and Replace Sidewalk	2738000000-E (SY) Remove Sidewalk	2830000000-N (EA) Adjustment of Manholes	2845000000-N (EA) Adjustment of Meter Boxes or Valve Boxes	4116100000-N (EA) Relocate Sign Type E	2738000000-E (SY) Remove and Replace Island	2759000000-N (EA) Retrofit Curb Ramp Detectable Warnings	2613000000-N (EA) Remove and Replace Curb Ramp	2605000000-N (EA) Concrete Curb Ramp	2759000000-N (EA) Remove Curb Ramp	Improvement Type
7114	14	NC-98 (Wake Forest Hwy)	The Crossings (4023 Wake Forest Hwy) Entrance											1			Type1B
7115	14	NC-98 (Wake Forest Hwy)	Lick Creek Ln											1			Type1B
19788	14	NC-98 (Wake Forest Hwy)	Lick Creek Ln											1			Type1Modified
Sub-Total				0	0	0	0	0	0	0	0	0	0	3	0	0	
Sub-Total for NC 98 From End Divided Highway To SR 1909				98	10	13	65	0	1	2	1	10	6	41	0	4	

Note: ADA quantity totals are provided on the project 'ADA SUMMARY OF QUANTITIES - TOTALS' page.

ADA SUMMARY OF QUANTITIES - HILLANDALE RD FROM SR 1407 TO SR 1413

Municipality:	Durham
Project Number:	Durham
WBS Number:	2024CPT.05.03.20321.1
County:	Durham

Sheet No.
40

Ramp ID	Inset Map Number	Route 1	Route 2	2549000000-E (LF) 2'-6" Concrete Curb & Gutter	2752000000-E (LF) Remove Curb & Gutter	2591000000-E (SY) 4" Concrete Sidewalk	2738000000-E (SY) Remove and Replace Sidewalk	2738000000-E (SY) Remove Sidewalk	2830000000-N (EA) Adjustment of Manholes	2845000000-N (EA) Adjustment of Meter Boxes or Valve Boxes	4116100000-N (EA) Relocate Sign Type E	2738000000-E (SY) Remove and Replace Island	2759000000-N (EA) Retrofit Curb Ramp Detectable Warnings	2613000000-N (EA) Remove and Replace Curb Ramp	2605000000-N (EA) Concrete Curb Ramp	2759000000-N (EA) Remove Curb Ramp	Improvement Type
2860	1	SR-1321 (Hillandale Rd)	SR-1407 (W Carver St)											1			Type3Modified
2861	1	SR-1321 (Hillandale Rd)	SR-1407 (W Carver St)											1			Type3Modified
2862	1	SR-1321 (Hillandale Rd)	SR-1407 (W Carver St)											1			Type3Modified
2863	1	SR-1321 (Hillandale Rd)	SR-1407 (W Carver St)											1			Type3Modified
2864	1	SR-1321 (Hillandale Rd)	SR-1407 (W Carver St)											1			Type3Modified
2865	1	SR-1321 (Hillandale Rd)	SR-1407 (W Carver St)			2								1			Type3Modified
2866	1	SR-1321 (Hillandale Rd)	SR-1407 (W Carver St)											1			Type3Modified
2867	1	SR-1321 (Hillandale Rd)	SR-1407 (W Carver St)											1			Type3Modified
3102	2	SR-1321 (Hillandale Rd)	Cammie St											1			Type1A
3302	2	SR-1321 (Hillandale Rd)	Cammie St											1			Type1A
3103	3	SR-1321 (Hillandale Rd)	Pinetree Ct					6						1			Type1A
3104	3	SR-1321 (Hillandale Rd)	Pinetree Ct											1			Type1A
3105	4	SR-1321 (Hillandale Rd)	Samuel Dr											1			Type2B
3106	4	SR-1321 (Hillandale Rd)	Samuel Dr											1			Type1C
24262	4	SR-1321 (Hillandale Rd)	Samuel Dr											1			Type2
3109	5	SR-1321 (Hillandale Rd)	Croasdaile Farm Pkwy	18		14										1	Remove Ramp
3110	5	SR-1321 (Hillandale Rd)	Croasdaile Farm Pkwy											1			Type2B
3112	5	SR-1321 (Hillandale Rd)	Croasdaile Farm Pkwy											1			Type3Modified
3113	5	SR-1321 (Hillandale Rd)	Croasdaile Farm Pkwy											1			Type3Modified
3303	5	SR-1321 (Hillandale Rd)	Croasdaile Farm Pkwy											1			Type3
19414	6	SR-1321 (Hillandale Rd)	Hillandale Elementary School North Entrance											1			Type1Modified
19415	6	SR-1321 (Hillandale Rd)	Hillandale Elementary School North Entrance											1			Type1Modified
3114	7	SR-1321 (Hillandale Rd)	Peppertree St											1			Type1A
Sub-Total for Hillandale Rd From SR 1407 To SR 1413				18	0	16	0	6	0	0	0	0	0	22	0	1	

Note: ADA quantity totals are provided on the project 'ADA SUMMARY OF QUANTITIES - TOTALS' page.

ADA SUMMARY OF QUANTITIES - HORTON RD FROM NC 157 TO US 501

Municipality:	Durham
Project Number:	Durham
WBS Number:	2024CPT.05.03.20321.1
County:	Durham

Sheet No.
41

Ramp ID	Inset Map Number	Route 1	Route 2	2549000000-E (LF) 2'-6" Concrete Curb & Gutter	2752000000-E (LF) Remove Curb & Gutter	2591000000-E (SY) 4" Concrete Sidewalk	2738000000-E (SY) Remove and Replace Sidewalk	2738000000-E (SY) Remove Sidewalk	2830000000-N (EA) Adjustment of Manholes	2845000000-N (EA) Adjustment of Meter Boxes or Valve Boxes	4116100000-N (EA) Relocate Sign Type E	2738000000-E (SY) Remove and Replace Island	2759000000-N (EA) Retrofit Curb Ramp Detectable Warnings	2613000000-N (EA) Remove and Replace Curb Ramp	2605000000-N (EA) Concrete Curb Ramp	2759000000-N (EA) Remove Curb Ramp	Improvement Type	
3060	1	NC-157 (Guess Rd)	Horton Rd						1					1				Type1A
3063	1	NC-157 (Guess Rd)	Horton Rd											1				Type2B
3067	1	NC-157 (Guess Rd)	SR-1443 (Horton Rd)											1				Type2B
3071	1	NC-157 (Guess Rd)	SR-1443 (Horton Rd)											1				Type1A
3072	1	NC-157 (Guess Rd)	SR-1443 (Horton Rd)											1				Type2B
3073	1	NC-157 (Guess Rd)	SR-1443 (Horton Rd)											1				Type2B
3074	1	NC-157 (Guess Rd)	Horton Rd											1				Type2B
3091	2	SR-1443 (Horton Rd)	Glenn Laurel Dr	16		6										1		Remove Ramp
3092	2	SR-1443 (Horton Rd)	Glenn Laurel Dr											1				Type1A
3093	2	SR-1443 (Horton Rd)	Glenn Laurel Dr											1				Type1B
3094	3	SR-1443 (Horton Rd)	Holston Dr				3							1				Type1Modified
3095	3	SR-1443 (Horton Rd)	Holston Dr											1				Type1D
3096	4	SR-1443 (Horton Rd)	Candlewick Way				3				1			1				Type1C
3097	4	SR-1443 (Horton Rd)	Candlewick Way				3							1				Type1C
3098	5	SR-1443 (Horton Rd)	Hollymeade Townhomes (844 Horton Rd) Entrance				6							1				Type1C
3099	5	SR-1443 (Horton Rd)	Hollymeade Townhomes (844 Horton Rd) Entrance				3							1				Type1D
3100	6	SR-1443 (Horton Rd)	Newby Dr											1				Type1C
3101	6	SR-1443 (Horton Rd)	Newby Dr											1				Type1C
Sub-Total for Horton Rd From NC 157 To US 501				16	0	6	18	0	1	0	1	0	0	17	0	1		

Note: ADA quantity totals are provided on the project 'ADA SUMMARY OF QUANTITIES - TOTALS' page.

SUMMARY OF QUANTITIES

REVISIONS

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH		WORK ZONE ADVANCE/GENERAL WARNING SIGNING	PEDESTRIAN CHANNELIZING DEVICES	4685000000-E		4695000000-E		4700000000-E		4709000000-E THERMOPLASTIC MARKING LINES (24" X 90 M) WHITE	4720000000-E			
								MI	FT			4" X 90 M WHITE THERMO	4" X 90 M YELLOW THERMO	8" X 90 M WHITE THERMO	8" X 90 M YELLOW THERMO	12" X 90 M WHITE THERMO	12" X 90 M YELLOW THERMO		THERMO MSG ONLY 90 M	THERMO MSG SCHOOL 90 M	THERMO MSG RXR 90 M	
2024CPT.05.03.10321.1	Durham	1	NC-54 E / NC 54 E HWY	FROM SR 1118 FAYETTEVILLE RD TO NC 55	1	2	2WU	2.295	40	159	60	24,970	33,910			640	780	470	12			
2024CPT.05.03.10321.1	Durham	2	NC-98 E / HOLLOWAY ST/WAKE FOREST HWY	FROM END DIV HWY TO BEGIN HS-2005N	1	2	2WD	0.915	34	41		3,160	8,430	350				400		12	12	
2024CPT.05.03.10321.1	Durham	3	NC-98 E / HOLLOWAY ST/WAKE FOREST HWY	END HS-2005N TO SR 1909	1	2	2WD	2.403	340	166	120	14,310	33,550	330	560			870		12	12	
TOTAL FOR PROJ NO. 2024CPT.05.03.10321.1								5.613		366	180	42,440	75,890	680	560	640	780	1,740	12	24	12	48
												118,330	1,240	1,420								
2024CPT.05.03.20321.1	Durham	4	SR-1321 / HILLDALE RD	FROM PAVEMENT CHANGE @ CAMMIE ST TO PAVEMENT JOINT NORTH OF PINETREE CT	2	2	2WU	0.221	28	63			2,310									
2024CPT.05.03.20321.1	Durham	5	SR-1321 / HILLDALE RD	FROM SR 1407 TO PAVEMENT CHANGE @ CAMMIE ST	3	2	2WD	0.253	28	63		810	2,290		180							
2024CPT.05.03.20321.1	Durham	6	SR-1321 / HILLDALE RD	FROM PAVEMENT JOINT NORTH OF PINETREE CT TO SR 1413	4	2	2WD	0.828	36	63		5,730	14,550	110			100	300		12		
2024CPT.05.03.20321.1	Durham	7	SR-1443 / HORTON RD	FROM NC 157 TO US 501	4	2	2WD	1.497	22	95		14,540	17,460		140			160				
2024CPT.05.03.20321.1	Durham	8	SR-1637 / REDWOOD RD	FROM SR 1670 TO SR 1690	1	2	2WD	0.425	24	256		4,940	4,620				420	70				
2024CPT.05.03.20321.1	Durham	9	SR-1818 / BURTON RD	FROM SR 1670 TO SR 1815	5	2	2WD	1.386	20	160		17,060	18,280				110	80				
2024CPT.05.03.20321.1	Durham	10	SR-1848 / GOOCH RD	FROM SR 1670 TO DEAD END	5	2	2WD	0.3	18	88												
2024CPT.05.03.20321.1	Durham	11	SR-1851 / FAITH DR	FROM SR 1800 TO SR 1852	5	2	2WD	0.142	20	96												
2024CPT.05.03.20321.1	Durham	12	SR-1852 / FOLKSTON DR	FROM SR 1851 TO SR 1851 +.1 MILES	5	2	2WD	0.099	20	88												
2024CPT.05.03.20321.1	Durham	13	SR-1853 / SUITT ST	FROM SR 1815 TO DEAD END	5	2	2WD	0.31	20	88												
2024CPT.05.03.20321.1	Durham	14	SR-1864 / MANNIX RD	FROM SR 1637 TO END PVMT	5	2	2WU	0.31	18	88												
2024CPT.05.03.20321.1	Durham	15	SR-1876 / ARDSLEY DR	FROM SR 1637 TO END PVMT	5	2	2WU	0.79	20	96												
2024CPT.05.03.20321.1	Durham	16	SR-1881 / BRAGG RD	FROM SR 1637 TO END MAINT	5	2	2WU	0.16	18	88												
2024CPT.05.03.20321.1	Durham	17	SR-1885 / BARWICK DR	FROM SR 1800 TO END MAINT	5	2	2WU	0.681	20	104												
2024CPT.05.03.20321.1	Durham	18	SR-2035 / LAUREL DR	FROM US 70 TO SP 2037	5	2	2WU	0.239	20	120		2,540	2,540									
2024CPT.05.03.20321.1	Durham	19	SR-2036 / BUNGALOW AVE	FROM SR 2035 TO SR 1926	5	2	2WD	0.125	20	128												
2024CPT.05.03.20321.1	Durham	20	SR-2037 / AUDREY ST/RURITAN RD	FROM SR 2035 TO SR 1926	5	2	2WD	0.385	20	112		4,270	4,270									
2024CPT.05.03.20321.1	Durham	21	SR-2510 / DINSMORE LN	FROM SR 1818 TO SR 1876	5	2	2WU	0.259	20	128												
2024CPT.05.03.20321.1	Durham	22	SR-2511 / CHADWICK PL	FROM SR 2510 TO END MAINT	5	2	2WU	0.16	20	88												
TOTAL FOR PROJ NO. 2024CPT.05.03.20321.1								8.57		2,012		49,890	66,320	110	320		630	610		12	12	
												116,210	430	630								
2024CPT.05.03.20322.1	Durham	23	SR-1459 / DUNNEGAN RD	FROM SR 1002 TO END MAINT	6	2	2WD	0.33	19	96												
2024CPT.05.03.20322.1	Durham	24	SR-1600 / HARRIS MILL RD	FROM US 501 TO PERSON CO	6	2	2WD	0.58	20	104		6,690	6,680					30				
2024CPT.05.03.20322.1	Durham	25	SR-1604 / CARVER DR	FROM SR 1471 TO PERSON CO	6	2	2WD	0.604	20	128		6,850	6,740									
2024CPT.05.03.20322.1	Durham	26	SR-2400 / REDPINE RD	FROM SR 1002 TO END MAINT	6	2	2WU	0.391	20	96												
2024CPT.05.03.20322.1	Durham	27	SR-2401 / HARDWOOD LN	FROM CUL-DE-SAC TO END MAINT	6	2	2WU	0.203	20	120												
2024CPT.05.03.20322.1	Durham	28	SR-2402 / BUSHMILL CT	FROM SR 2401 TO CUL-DE-SAC	6	2	2WU	0.128	20	88												
2024CPT.05.03.20322.1	Durham	29	SR-2470 / VISTA DEL RIO DR	FROM SR 1461 TO SR 2471	6	2	2WU	0.16	20	112												
2024CPT.05.03.20322.1	Durham	30	SR-2471 / VISTA DEL RIO DR	FROM CDS TO CDS	6	2	2WU	0.057	20	88												
2024CPT.05.03.20322.1	Durham	31	SR-2623 / ELYSIAN WAY	FROM SR 1471 TO DEAD END	6	2	2WD	0.512	22	128												
2024CPT.05.03.20322.1	Durham	32	SR-2624 / WOLF LAUREL CT	FROM SR 1605 TO DEAD END	6	2	2WD	0.278	20	88												
2024CPT.05.03.20322.1	Durham	33	SR-2629 / HALCYON PL	FROM SR 2623 TO DEAD END	6	2	2WU	0.257	20	88												
TOTAL FOR PROJ NO. 2024CPT.05.03.20322.1								3.5		1,136		13,540	13,420				30					
												26,960										
2024CPT.05.03.20732.1	Person	34	SR-1739 / HARRIS MILL RD	FROM DURHAM COUNTY TO END MAINTENANCE	6	2	2WD	0.591	20	108		6,640	6,640									
TOTAL FOR PROJ NO. 2024CPT.05.03.20732.1								0.591		108		6,640	6,640									
												13,280										
GRAND TOTAL								18.274		3,622	180	112,510	162,270	790	880	640	1,410	2,380	12	36	12	
												274,780	1,670	2,050								

SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH		4725000000-E						4810000000-E	4704000000-E	4905100000-N	4457000000-N
								MI	FT	THERMO MERGE ARROW 90 M	THERMO LT ARROW 90 M	THERMO RT ARROW 90 M	THERMO STR ARROW 90 M	THERMO STR & RT ARROW 90 M	THERMO LT STR RT ARROW 90 M	4" YELLOW PAINT	THERMOPLASTIC MARKING LINES (16" X 90 M) WHITE	NON-CAST IRON SNOWPLOWABLE PAVEMENT MARKER	TEMPORARY TRAFFIC CONTROL
								EA	EA	EA	EA	EA	EA	LF	LF	EA	LS		
2024CPT.05.03.10321.1	Durham	1	NC-54 E / NC 54 E HWY	FROM SR 1118 FAYETTEVILLE RD TO NC 55	1	2	2WU	2.295	40	3	63	27	16	2			710	0.03	
2024CPT.05.03.10321.1	Durham	2	NC-98 E / HOLLOWAY ST/WAKE FOREST HWY	FROM END DIV HWY TO BEGIN HS-2005N	1	2	2WD	0.915	34		9		12	6		300	914	0.03	
2024CPT.05.03.10321.1	Durham	3	NC-98 E / HOLLOWAY ST/WAKE FOREST HWY	END HS-2005N TO SR 1909	1	2	2WD	2.403	340	3	23	2	13			660	0.03		
TOTAL FOR PROJ NO. 2024CPT.05.03.10321.1								5.613		6	95	29	41	8		300	2,284	0.09	
										179									
2024CPT.05.03.20321.1	Durham	4	SR-1321 / HILLANDALE RD	FROM PAVEMENT CHANGE @ CAMMIE ST TO PAVEMENT JOINT NORTH OF PINETREE CT	2	2	2WU	0.221	28						2,310			0.03	
2024CPT.05.03.20321.1	Durham	5	SR-1321 / HILLANDALE RD	FROM SR 1407 TO PAVEMENT CHANGE @ CAMMIE ST	3	2	2WD	0.253	28	4	2		2	2				0.03	
2024CPT.05.03.20321.1	Durham	6	SR-1321 / HILLANDALE RD	FROM PAVEMENT JOINT NORTH OF PINETREE CT TO SR 1413	4	2	2WD	0.828	36		23							0.03	
2024CPT.05.03.20321.1	Durham	7	SR-1443 / HORTON RD	FROM NC 157 TO US 501	4	2	2WD	1.497	22		13	3		3				0.03	
2024CPT.05.03.20321.1	Durham	8	SR-1637 / REDWOOD RD	FROM SR 1670 TO SR 1690	1	2	2WD	0.425	24						1			0.03	
2024CPT.05.03.20321.1	Durham	9	SR-1818 / BURTON RD	FROM SR 1670 TO SR 1815	5	2	2WD	1.386	20									0.03	
2024CPT.05.03.20321.1	Durham	10	SR-1848 / GOOCH RD	FROM SR 1670 TO DEAD END	5	2	2WD	0.3	18									0.03	
2024CPT.05.03.20321.1	Durham	11	SR-1851 / FAITH DR	FROM SR 1800 TO SR 1852	5	2	2WD	0.142	20									0.03	
2024CPT.05.03.20321.1	Durham	12	SR-1852 / FOLKSTON DR	FROM SR 1851 TO SR 1851 +.1 MILES	5	2	2WD	0.099	20									0.03	
2024CPT.05.03.20321.1	Durham	13	SR-1853 / SUITT ST	FROM SR 1815 TO DEAD END	5	2	2WD	0.31	20									0.03	
2024CPT.05.03.20321.1	Durham	14	SR-1864 / MANNIX RD	FROM SR 1637 TO END PVMT	5	2	2WU	0.31	18									0.03	
2024CPT.05.03.20321.1	Durham	15	SR-1876 / ARDSLEY DR	FROM SR 1637 TO END PVMT	5	2	2WU	0.79	20									0.03	
2024CPT.05.03.20321.1	Durham	16	SR-1881 / BRAGG RD	FROM SR 1637 TO END MAINT	5	2	2WU	0.16	18									0.03	
2024CPT.05.03.20321.1	Durham	17	SR-1885 / BARWICK DR	FROM SR 1800 TO END MAINT	5	2	2WU	0.681	20									0.03	
2024CPT.05.03.20321.1	Durham	18	SR-2035 / LAUREL DR	FROM US 70 TO SP 2037	5	2	2WU	0.239	20									0.03	
2024CPT.05.03.20321.1	Durham	19	SR-2036 / BUNGALOW AVE	FROM SR 2035 TO SR 1926	5	2	2WD	0.125	20									0.03	
2024CPT.05.03.20321.1	Durham	20	SR-2037 / AUDREY ST/RURITAN RD	FROM SR 2035 TO SR 1926	5	2	2WD	0.385	20									0.03	
2024CPT.05.03.20321.1	Durham	21	SR-2510 / DINSMORE LN	FROM SR 1818 TO SR 1876	5	2	2WU	0.259	20									0.03	
2024CPT.05.03.20321.1	Durham	22	SR-2511 / CHADWICK PL	FROM SR 2510 TO END MAINT	5	2	2WU	0.16	20									0.03	
TOTAL FOR PROJ NO. 2024CPT.05.03.20321.1								8.57		4	38	3	2	5	1	2,310		0.57	
										53									
2024CPT.05.03.20322.1	Durham	23	SR-1459 / DUNNEGAN RD	FROM SR 1002 TO END MAINT	6	2	2WD	0.33	19									0.03	
2024CPT.05.03.20322.1	Durham	24	SR-1600 / HARRIS MILL RD	FROM US 501 TO PERSON CO	6	2	2WD	0.58	20									0.03	
2024CPT.05.03.20322.1	Durham	25	SR-1604 / CARVER RD	FROM SR 1471 TO PERSON CO	6	2	2WD	0.604	20									0.03	
2024CPT.05.03.20322.1	Durham	26	SR-2400 / REDPINE RD	FROM SR 1002 TO END MAINT	6	2	2WU	0.391	20									0.03	
2024CPT.05.03.20322.1	Durham	27	SR-2401 / HARDWOOD LN	FROM CUL-DE-SAC TO END MAINT	6	2	2WU	0.203	20									0.03	
2024CPT.05.03.20322.1	Durham	28	SR-2402 / BUSHMILL CT	FROM SR 2401 TO CUL-DE-SAC	6	2	2WU	0.128	20									0.03	
2024CPT.05.03.20322.1	Durham	29	SR-2470 / VISTA DEL RIO DR	FROM SR 1461 TO SR 2471	6	2	2WU	0.16	20									0.03	
2024CPT.05.03.20322.1	Durham	30	SR-2471 / VISTA DEL RIO DR	FROM CDS TO CDS	6	2	2WU	0.057	20									0.03	
2024CPT.05.03.20322.1	Durham	31	SR-2623 / ELYSIAN WAY	FROM SR 1471 TO DEAD END	6	2		0.512	22									0.03	
2024CPT.05.03.20322.1	Durham	32	SR-2624 / WOLF LAUREL CT	FROM SR 1605 TO DEAD END	6	2	2WD	0.278	20									0.03	
2024CPT.05.03.20322.1	Durham	33	SR-2629 / HALCYON PL	FROM SR 2623 TO DEAD END	6	2	2WU	0.257	20									0.03	
TOTAL FOR PROJ NO. 2024CPT.05.03.20322.1								3.5										0.33	
2024CPT.05.03.20732.1	Person	34	SR-1739 / HARRIS MILL RD	FROM DURHAM COUNTY TO END MAINTENANCE	6	2	2WD	0.591	20									0.03	
TOTAL FOR PROJ NO. 2024CPT.05.03.20732.1								0.591										0.03	
GRAND TOTAL								18.274		10	133	32	43	13	1	2,310	300	2,284	1
										232									

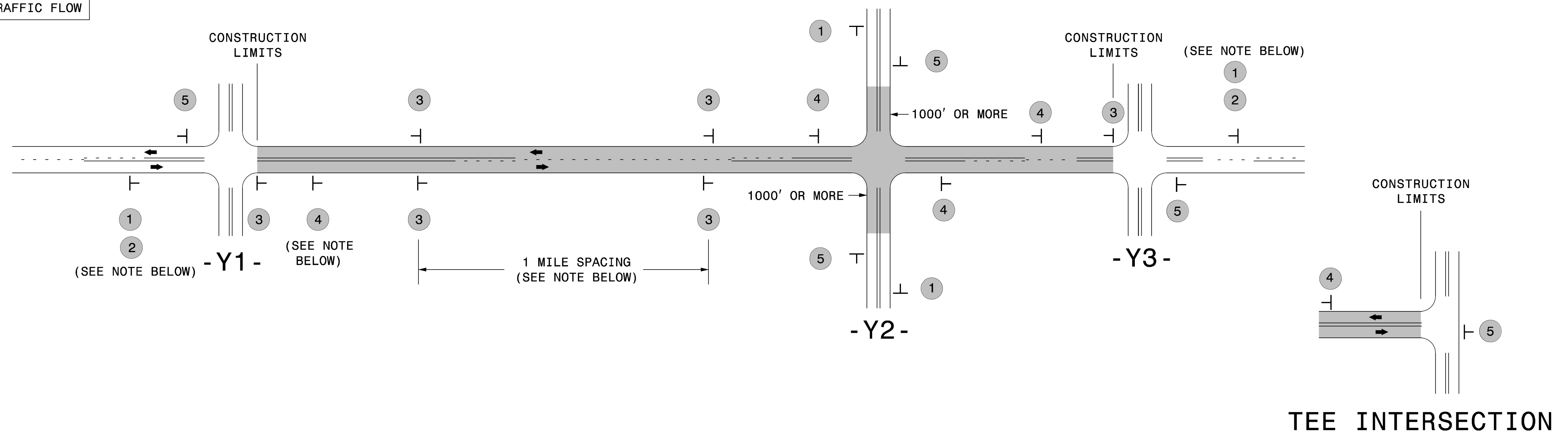
REVISIONS

8/17/99

10/5/2023
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SIGNING FOR RESURFACING PROJECTS

LEGEND
 ┣ STATIONARY SIGN
 ← DIRECTION OF TRAFFIC FLOW



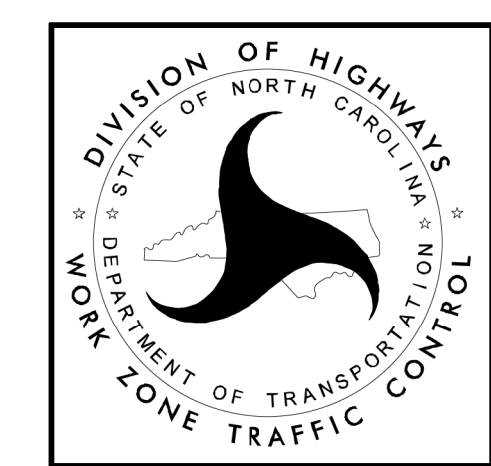
MAINLINE (-L-) SIGNING

-Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION	 	<p>PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE.</p> <p>#2 SIGN ONLY USED WHEN CONSTRUCTION LIMITS ARE 2 OR MORE MILES IN LENGTH. ROUND UP TO NEXT WHOLE NUMBER. (NO FRACTIONAL OR DECIMAL NUMBERS)</p>	<p>NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:</p> <ol style="list-style-type: none"> 1) LESS THAN 1000' OF RESURFACING ALONG -Y- LINE 2) SUBDIVISION ROADS 3) DEAD END ROADS <p>WHEN PAVING/CONSTRUCTION ACTIVITIES PROCEED ACROSS AN UNSIGNED -Y- LINE, PORTABLE ADVANCE WARNING SIGNS SHALL BE USED ALONG THE -Y- LINE AS SHOWN BELOW. REMOVE UPON COMPLETION OF WORK.</p> <div style="display: flex; justify-content: space-around;"> <div> PLACED 500' IN ADVANCE OF FLAGGER. </div> <div> PLACED 250' IN ADVANCE OF FLAGGER. </div> </div>
		<p>- PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACE 1 MILE APART THEREAFTER.</p> <p>- AT TEE INTERSECTIONS INSTALL INITIALLY 1/2 MILE FROM INTERSECTION AND SPACE 1 MILE APART THEREAFTER.</p>	
		<p>- THESE ARE FOR -Y- LINES THAT ARE "THROUGH" ROADWAYS.</p> <p>- DEAD END AND SUBDIVISION ROADS ARE NOT "THROUGH" ROADWAYS.</p> <p>- INSTALL 500' +/- FROM EACH -Y- LINE APPROACH AS SHOWN ABOVE.</p> <p>- FOR MULTIPLE -Y- LINES THAT ARE SEPARATED BY 0.25 MILES OR LESS, TREAT AS A SINGLE UNIT AND INSTALL WITHIN 500' OF EACH APPROACH.</p> <p>- A MAXIMUM OF 2 SIGN SETS PER MILE. DO NOT INSTALL WHEN -Y- LINES ARE WITHIN 0.5 MILES FROM "END ROAD WORK" SIGN.</p> <p>- FOR TEE INTERSECTIONS, INSTALL WITHIN 500' +/- OF THE INTERSECTION ALONG -L- LINE.</p>	
		<p>PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS OR AS SHOWN WHEN WORK ENDS AT A 3-WAY TEE INTERSECTION.</p>	
	<p>THE ABOVE SIGNS ARE ALL THAT ARE REQUIRED FOR A CONTRACTOR TO BEGIN A RESURFACING CONTRACT. ANY ADDITIONAL SIGNS REQUESTED BY NCDOT DIVISIONS SHALL BE INSTALLED WITHIN 7 BUSINESS DAYS OF THE START OF CONTRACT WORK.</p>		

MAPS LESS THAN 2 MILES

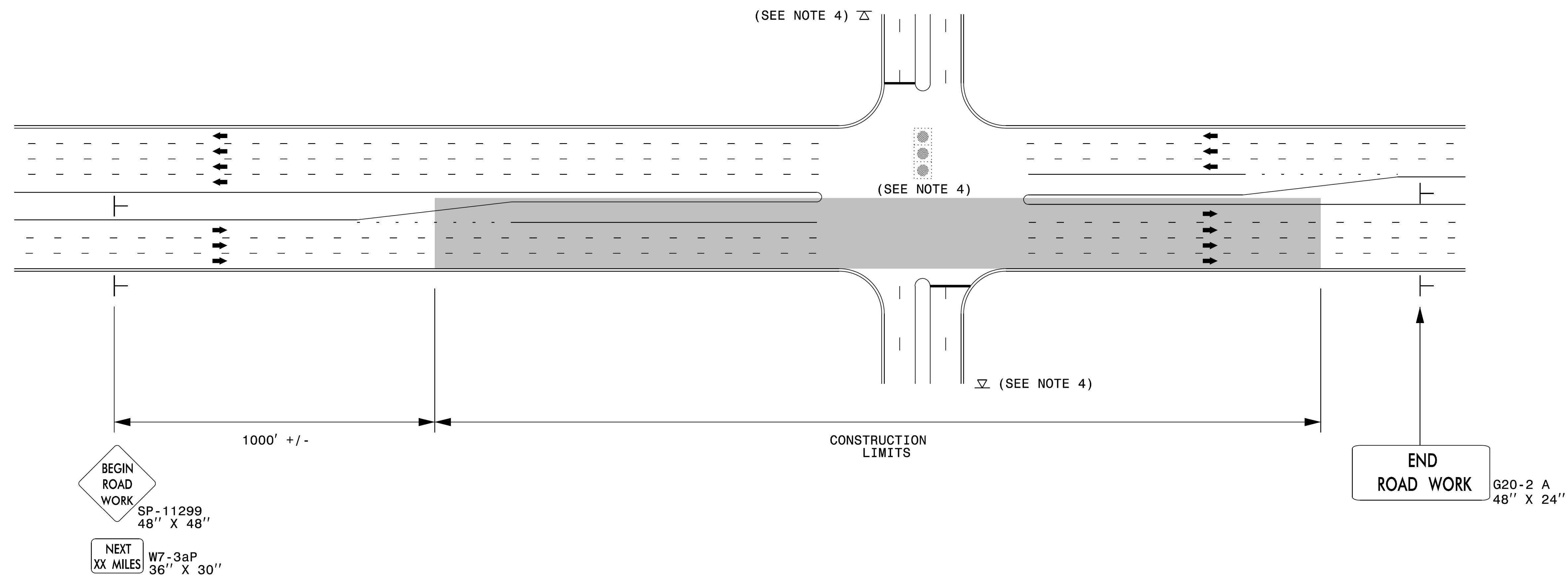
FOR RESURFACING MAPS WITH CONSTRUCTION LIMITS LESS THAN 2 MILES IN LENGTH, NO STATIONARY SIGNS ARE REQUIRED. USE PORTABLE "ROAD UNDER CONSTRUCTION" OR "ROAD WORK AHEAD" SIGNS IN LIEU OF STATIONARY ADVANCE WARNINGS SIGNS.



ADVANCE WARNING SIGNS FOR RURAL AND SUBURBAN 2-LANE ROADWAY RESURFACING

5/4/15/2017 S:\TMD\WZTC\Resurfacing\2L2W & AST Resurfacing Details\Resurfacing_AdvWarn_2Ln.dgn User:keddis

URBAN / SUBURBAN WORKZONES



NOTES:

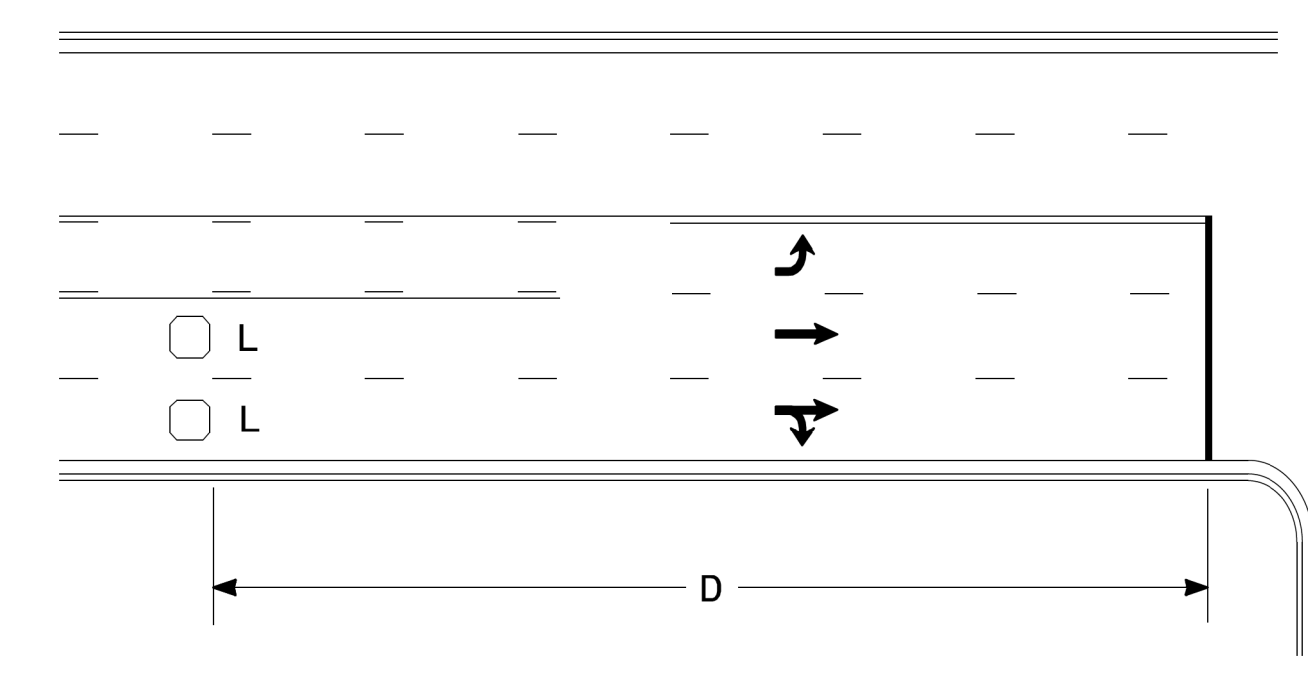
- 1) 48" x 48" SIZED SIGNS (SP- 11299) MAY BE REDUCED TO 36" X 36" ON ROADWAYS WITH SPEED LIMITS OF 40 MPH OR LESS.
- 2) MOUNT SIGNS THAT ARE LARGER THAN 10 SQUARE FEET IN AREA ON TWO OR MORE WOOD OR U-CHANNEL SUPPORTS. PERFORATED SQUARE TUBING SUPPORT SYSTEMS MAY SUPPORT LARGER AREAS ON A SINGLE SUPPORT. FOLLOW MANUFACTURER'S RECOMMENDATIONS. THESE SYSTEMS SHALL BE NCHRP 350 COMPLIANT AND NCDOT APPROVED.
- 3) ADVANCE WARNING SIGNS NOT REQUIRED ON NON-SIGNALIZED SIDE STREETS.
- 4) MAY USE LAW ENFORCEMENT TO CONTROL TRAFFIC AT SIGNALIZED INTERSECTIONS AS DIRECTED BY THE ENGINEER. PROVIDE PORTABLE "ROAD WORK AHEAD" (W20-1) SIGNS 500' IN ADVANCE ALONG BOTH APPROACHES FROM THE SIDE STREETS WHEN PAVING PROCEEDS THROUGH THE INTERSECTION.
- 5) LATERAL CLEARANCE AT ALL SIGN LOCATIONS SHALL BE 2' AS MEASURED FROM THE EDGE OF PAVEMENT OR THE FACE OF THE CURB. WHEN UNABLE TO OBTAIN THE LATERAL CLEARANCE WITHIN THE MEDIAN AREA USE SHOULDER MOUNTS ONLY.
- 6) SIGN MOUNT LOCATIONS SHALL NOT BLOCK SIDEWALKS OR DRIVEWAYS.
- 7) IF STATIONARY GENERAL WARNING SIGNS ARE USED, THEY WILL BE PAID FOR PER SECTION 104 OF THE NCDOT STANDARD SPECIFICATIONS AS EXTRA WORK.
- 8) IF MILLED AREAS ARE NOT PAVED BACK BY THE END OF THE WORK DAY, PORTABLE SIGNS SHALL BE USED TO WARN DRIVERS OF THE PRESENT CONDITIONS. THESE ARE TO INCLUDE, BUT NOT LIMITED TO "ROUGH ROAD" W8-8, "UNEVEN LANES" W8-11, "GROOVED PAVEMENT" W8-15 w/MOTORCYCLE PLAQUE MOUNTED BELOW. THESE ARE TO BE DOUBLE INDICATED ON MULTI-LANE ROADWAYS WITH SPEED LIMITS 45 MPH AND GREATER WHERE LATERAL CLEARANCE CAN BE OBTAINED WITHIN THE MEDIAN AREAS. THESE PORTABLE SIGNS ARE INCIDENTAL TO THE OTHER ITEMS OF WORK INCLUDED IN THE TEMPORARY TRAFFIC CONTROL (LUMP SUM) PAY ITEM.

LEGEND	
├	STATIONARY SIGN
➔	DIRECTION OF TRAFFIC FLOW

	RESURFACING ADVANCE WARNING SIGNS FOR URBAN / SUBURBAN FACILITIES
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4/8/2015
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High Speed Detection (≥40 mph)

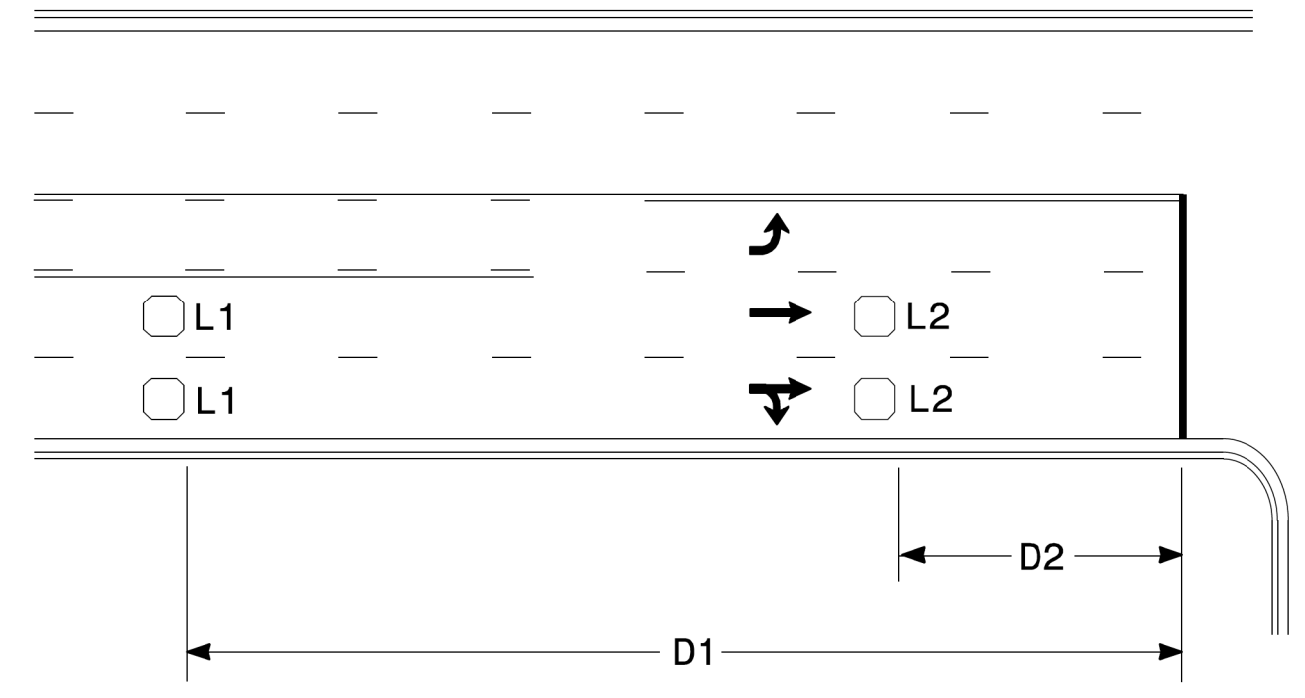


Speed Limit mph	D ft
40	250
45	300
50	355
55	420

L = 6ft X 6ft
Wired in series for TS1
Controllers
Wired separately for TS2,
170, and 2070L Controllers

Volume Density Operation

OR

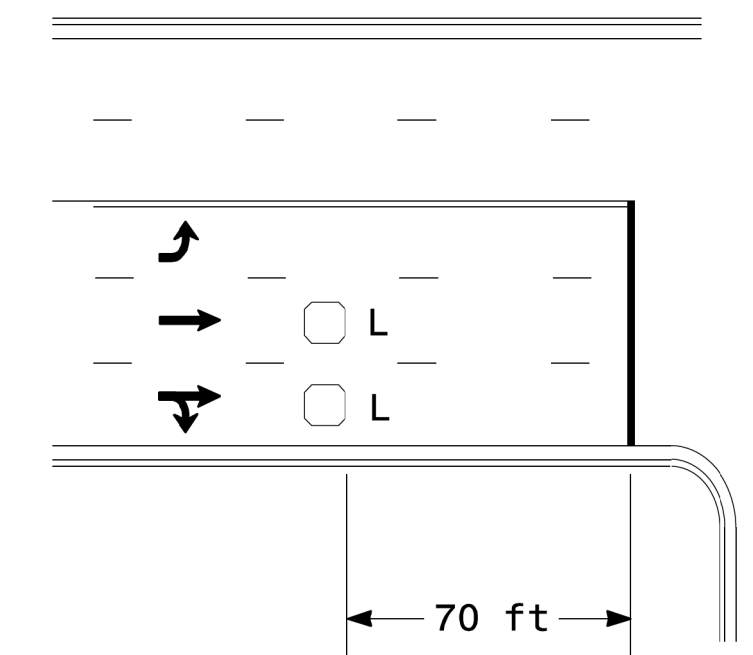


Speed Limit mph	D1 ft	D2 ft
40	250	80
45	300	90
50	355	100
55	420	110

L1 = 6ft X 6ft
Wired in series
L2 = 6ft X 6ft
Wired in series

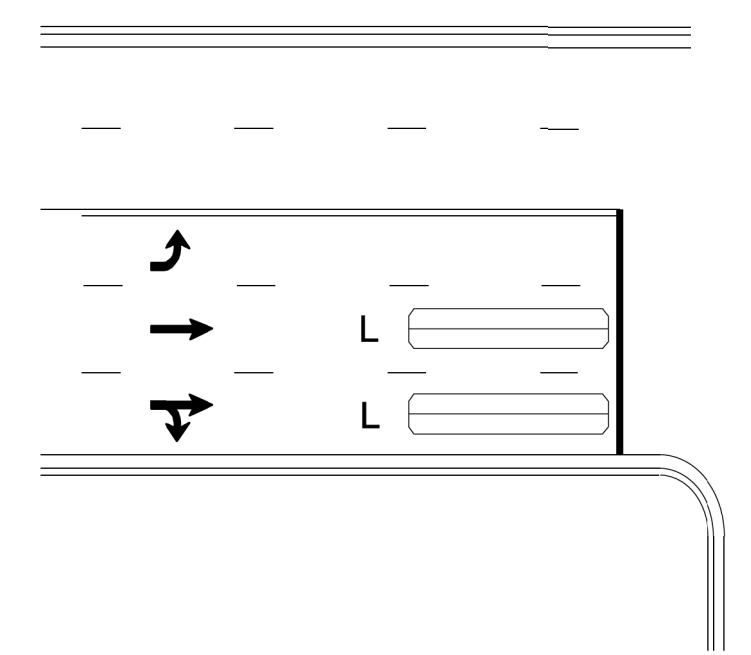
"Stretch" Operation

Low Speed Detection (≤35 mph)



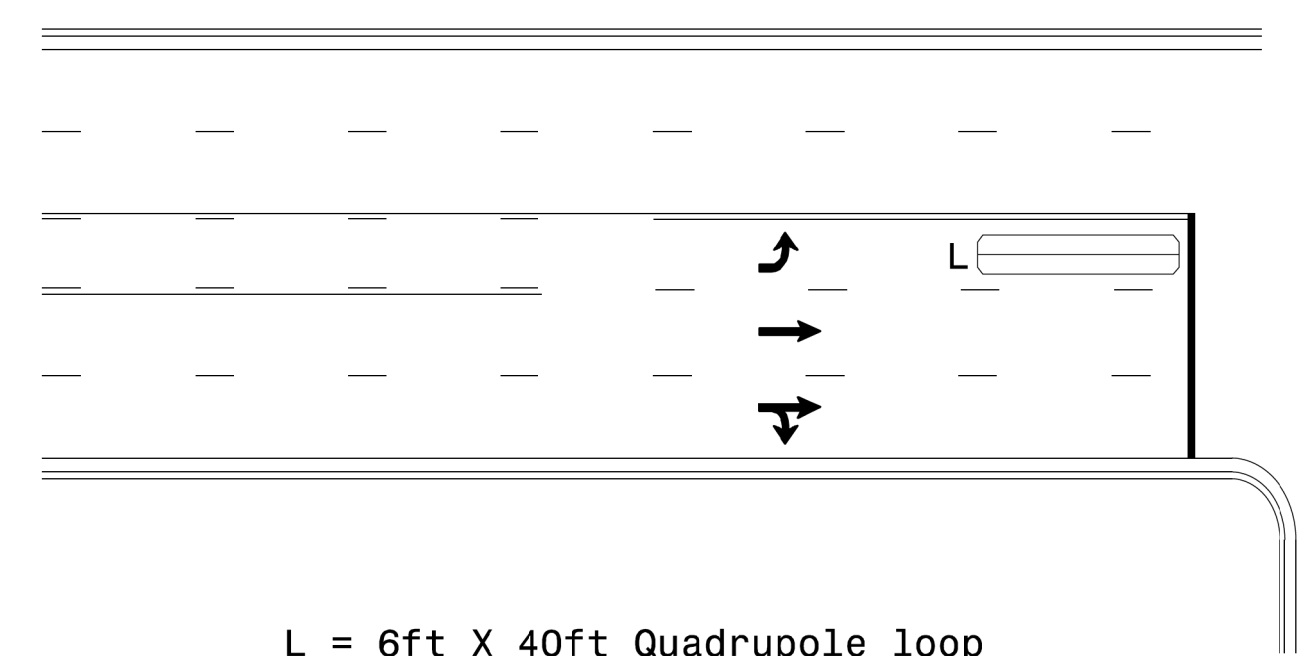
L = 6ft X 6ft
Wired in series

OR



L = 6ft X 40ft
Quadrupole loop, wired separately

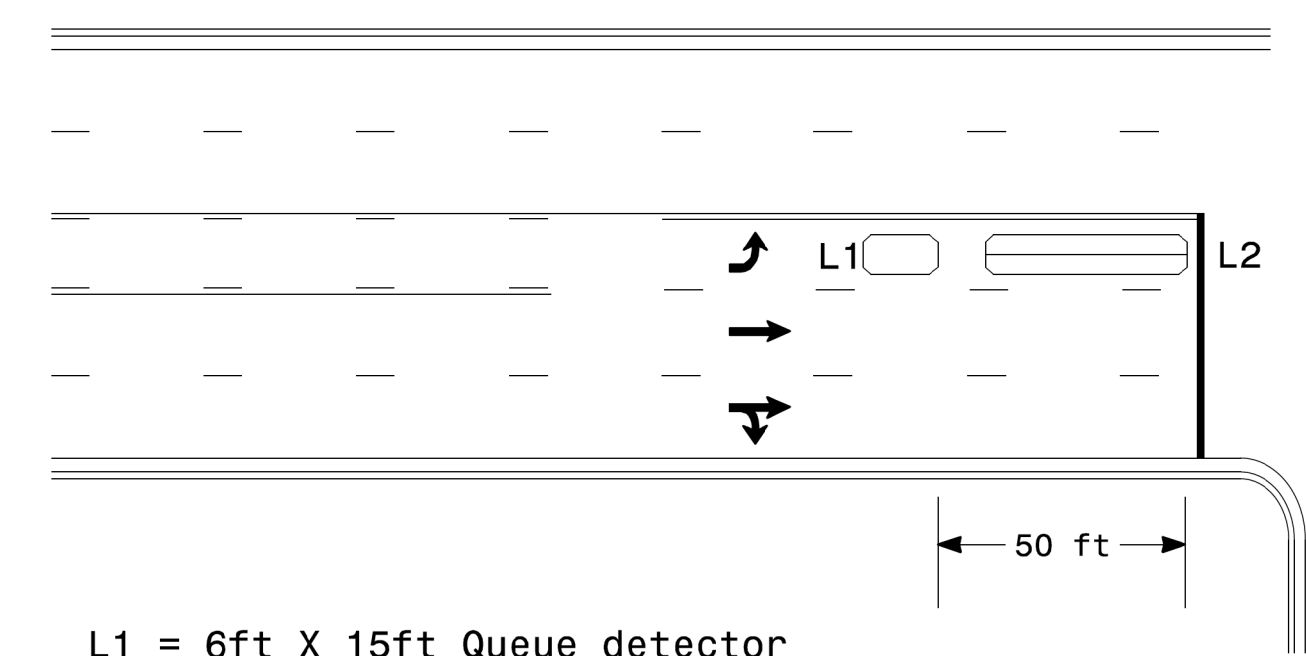
Left Turn Lane Detection



L = 6ft X 40ft Quadrupole loop

Presence Loop Detection

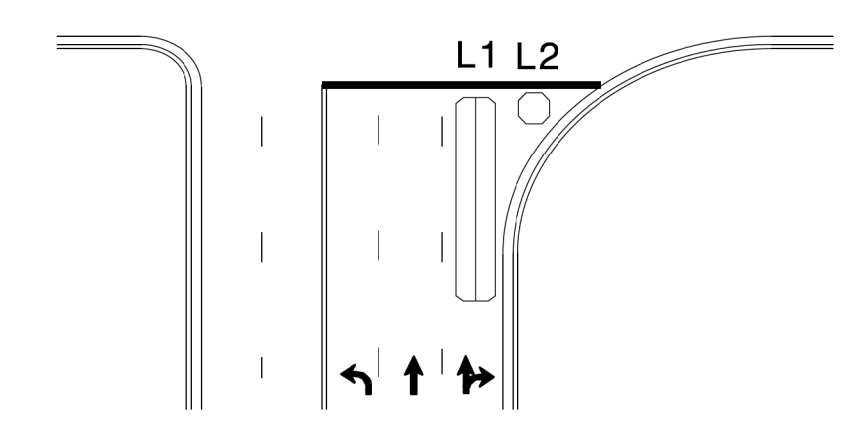
OR



L1 = 6ft X 15ft Queue detector
L2 = 6ft X 40ft Quadrupole loop

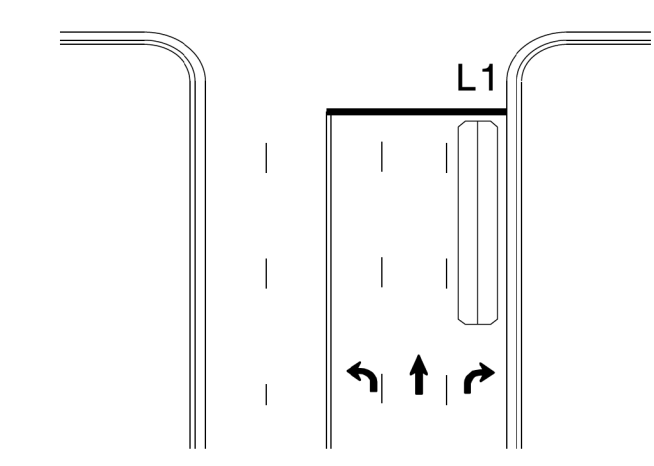
Queue Loop Detection

Right Turn Lane Detection

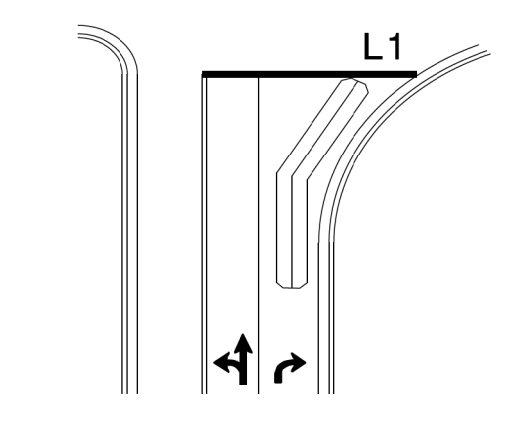


Shared Lane/
Wide Radius Turn

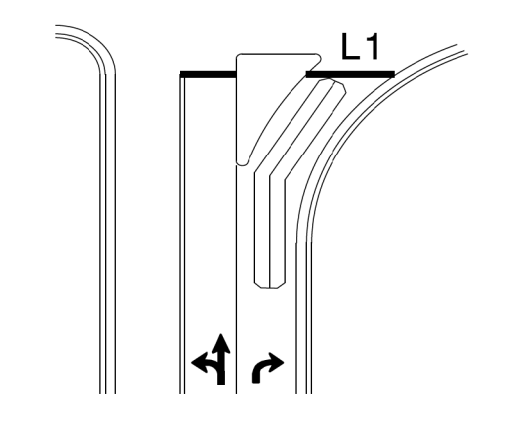
L1 = 6ft X 40ft Quadrupole loop
L2 = 6ft X 6ft [Minimum] Presence loop
Wired separately



Standard Turn

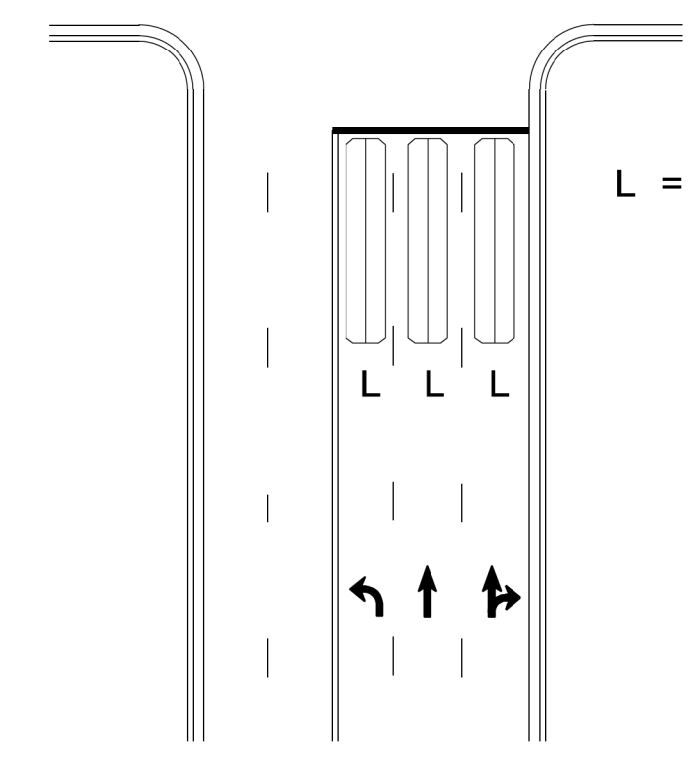


Wide Radius Turn



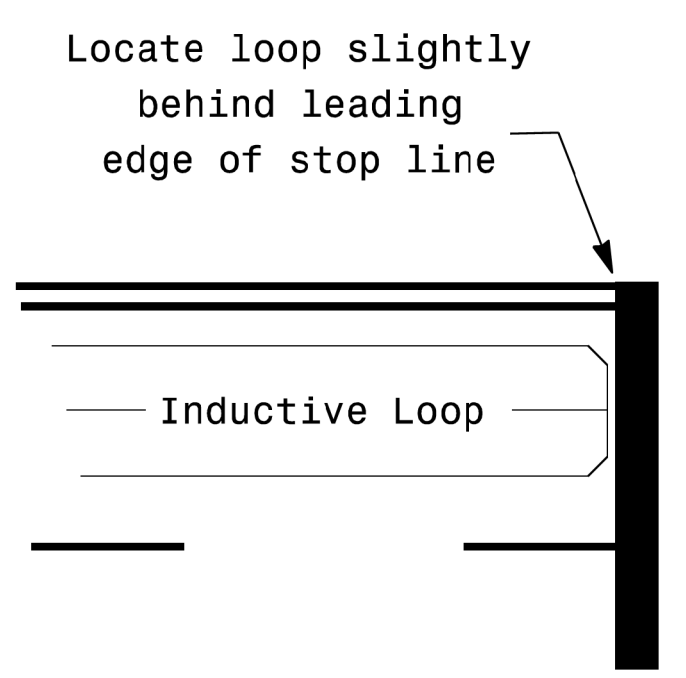
Channelized Turn

Side Street Detection



L = 6ft X 40ft
Quadrupole loop
Wired to separate
detectors/channels

Presence Loop Placement at Stop Lines



Locate loop slightly
behind leading
edge of stop line

Note:
Loop may be located in advance
of stop line under any of the
following conditions:
1) stop line is greater than 15'
from edge of intersecting
roadway
2) loop detects a permissive or
protected/permissive left turn
3) for an exclusive right turn
lane

Recommended Number of Turns

Single 6' X 6' loop
(when wired separately):

Length of Lead-in ft	Number of Turns
< 250	3
250-375	4
375-525	5
> 525	6

Quadrupole loops: Use 2-4-2 turns

6' X 15' Loops:
Lead-in < 150', use 2 turns
Lead-in > 150', use 3 turns

	Typical Signal Loop Locations	
	PLAN DATE: January 2015 PREPARED BY: PLA	REVIEWED BY: JPG REVIEWED BY:
SCALE N/A	REVISIONS	INIT. DATE 1/30/2015
SIG. INVENTORY NO.		

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