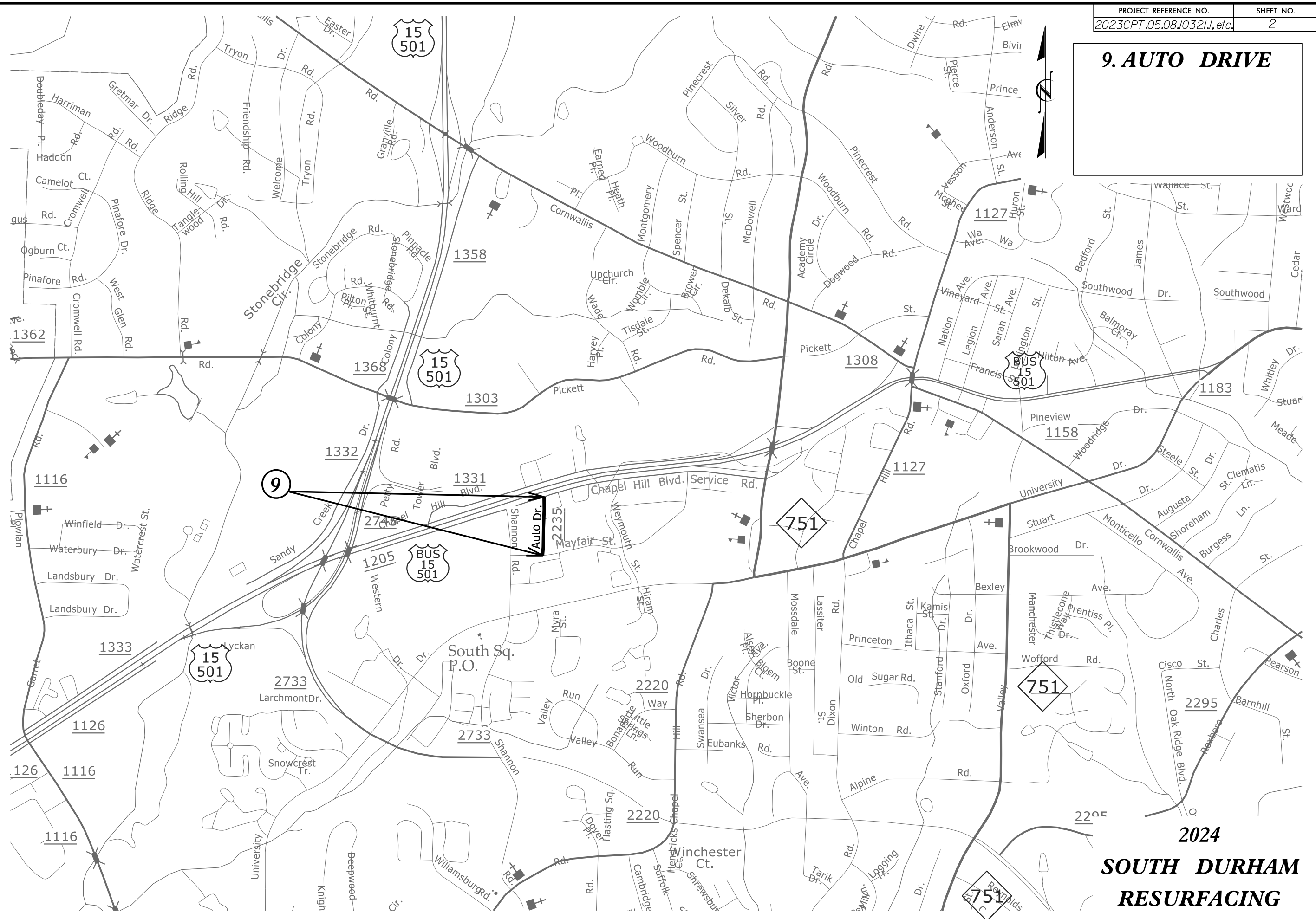


9. *AUTO DRIVE*



2024

SOUTH DURHAM RESURFACING

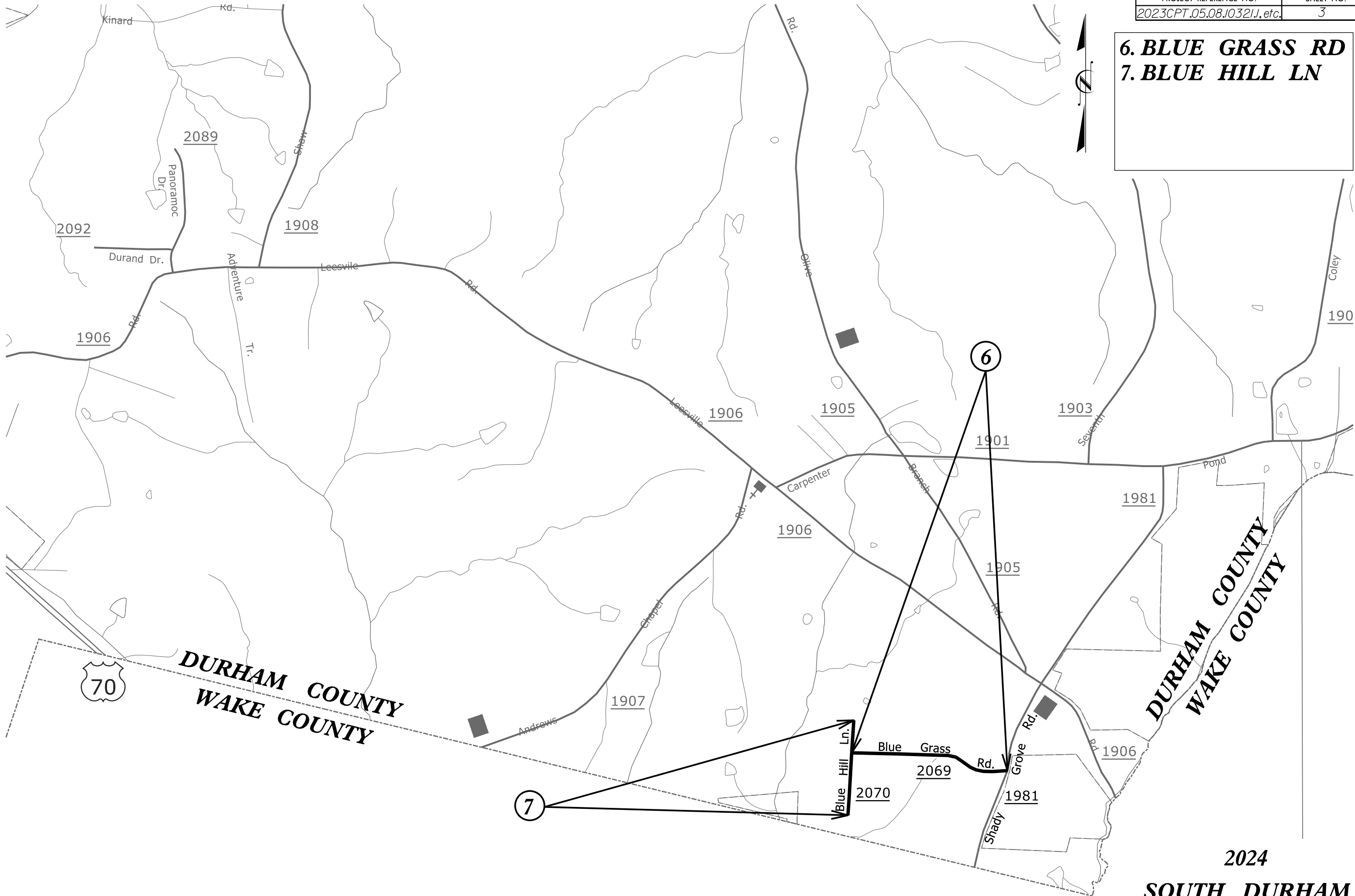
8/17/99

REVISIONS

PROJECT REFERENCE NO.
2023CPT.05.08.103211, etc.

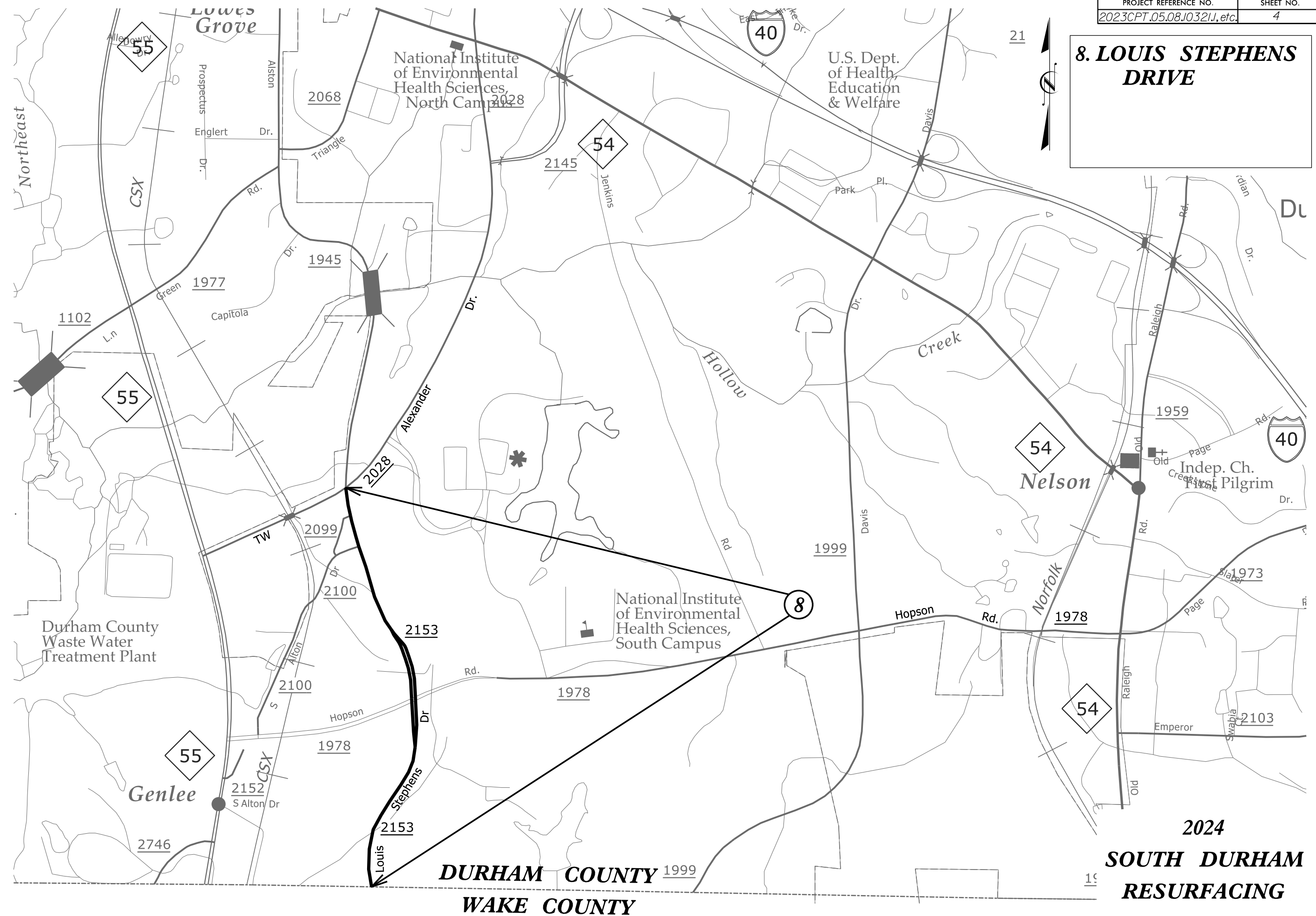
SHEET NO.
3

6. **BLUE GRASS RD**
7. **BLUE HILL LN**



2024
**SOUTH DURHAM
RESURFACING**

**8. LOUIS STEPHENS
DRIVE**

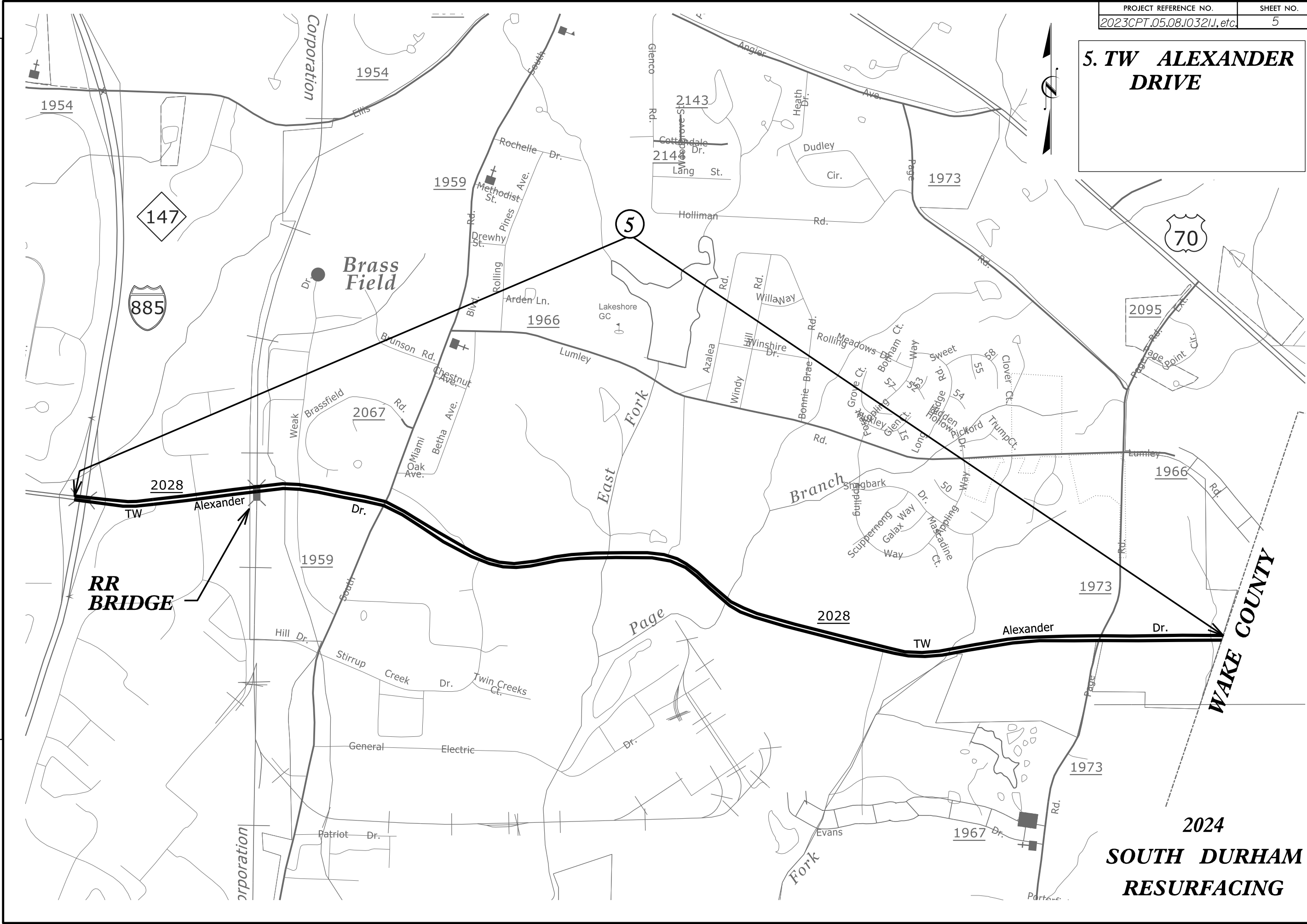


8/17/99

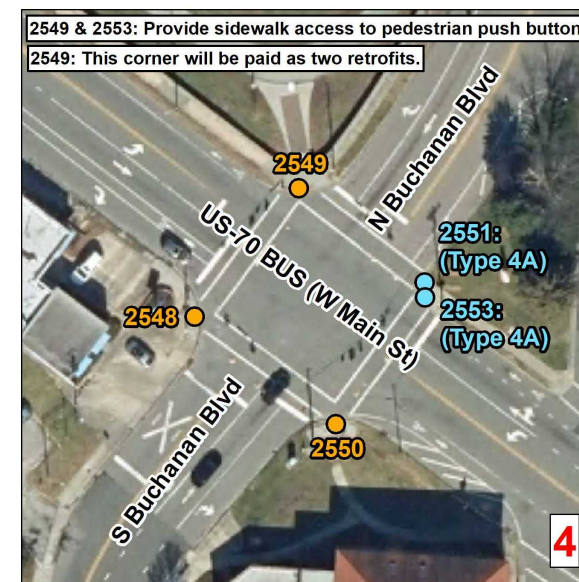
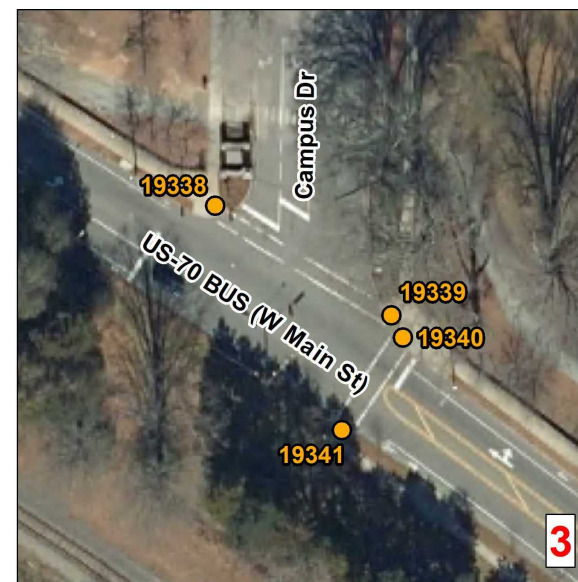
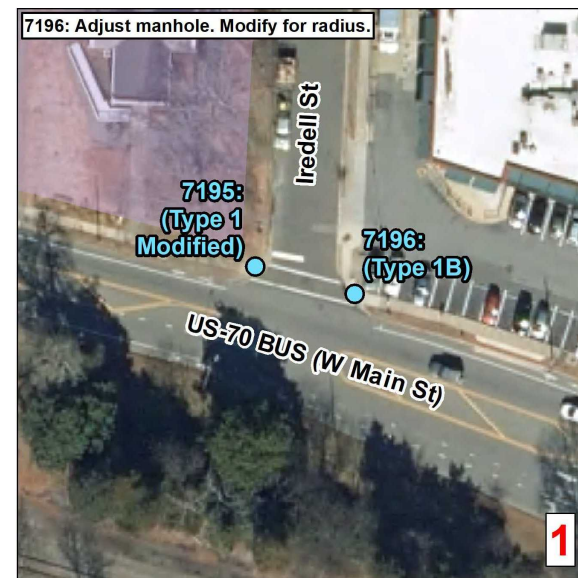
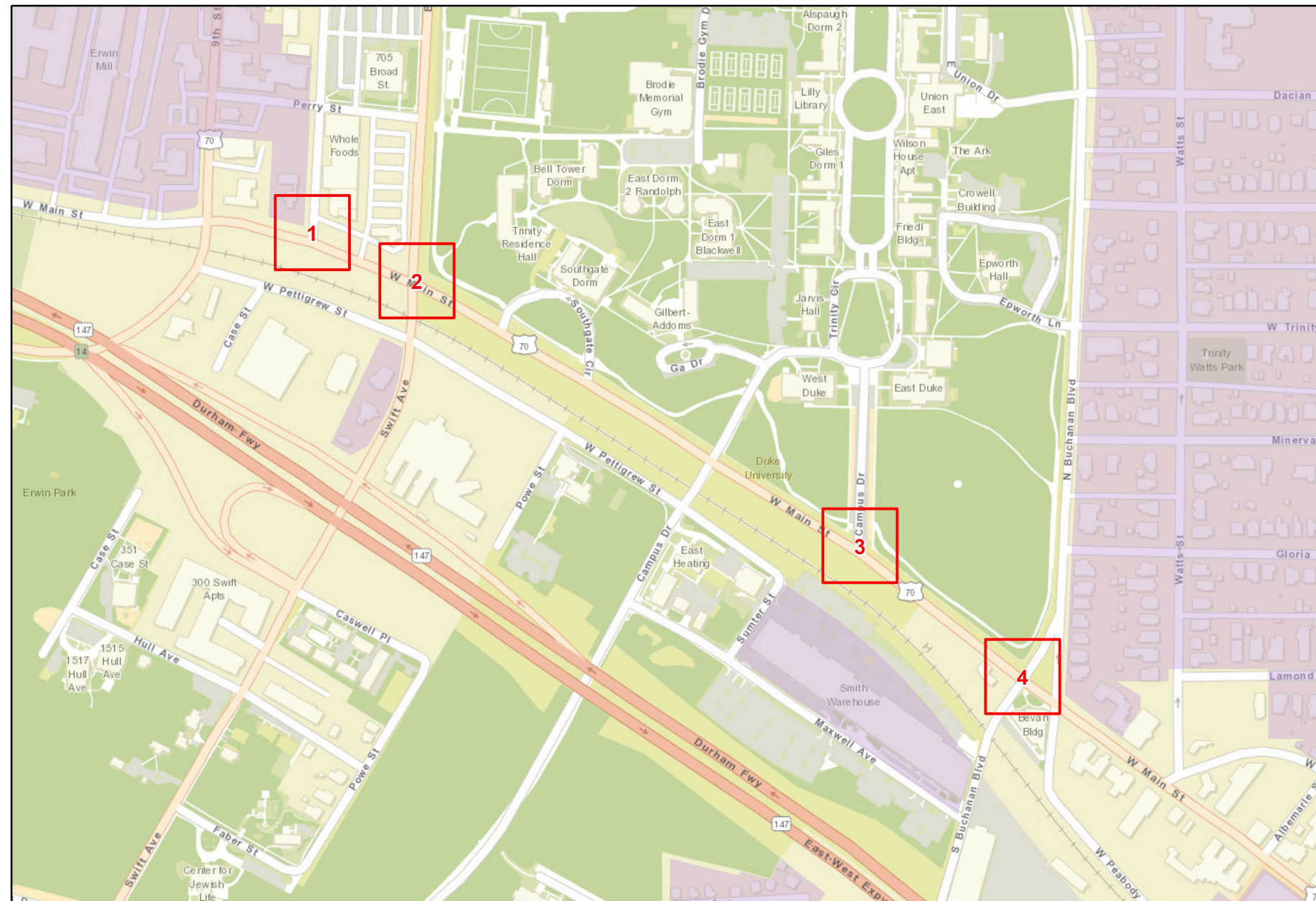
REVISIONS

PROJECT REFERENCE NO.	SHEET NO.
2023CPT.05.08.103211, etc.	5

5. TW ALEXANDER DRIVE



**2024
SOUTH DURHAM
RESURFACING**



Curb Ramps To Be Repaired

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

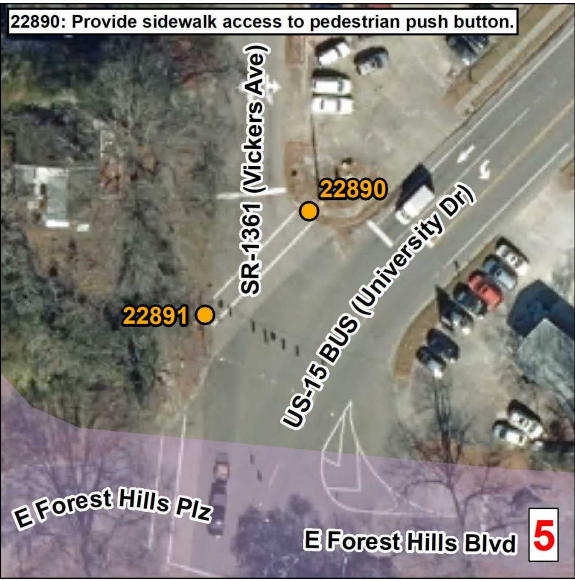
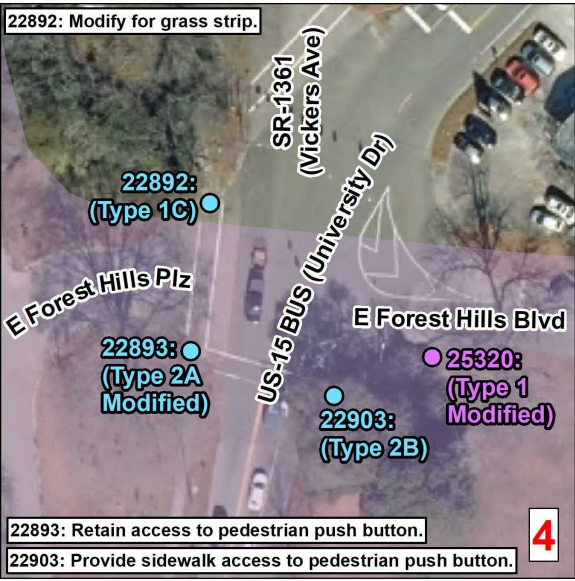
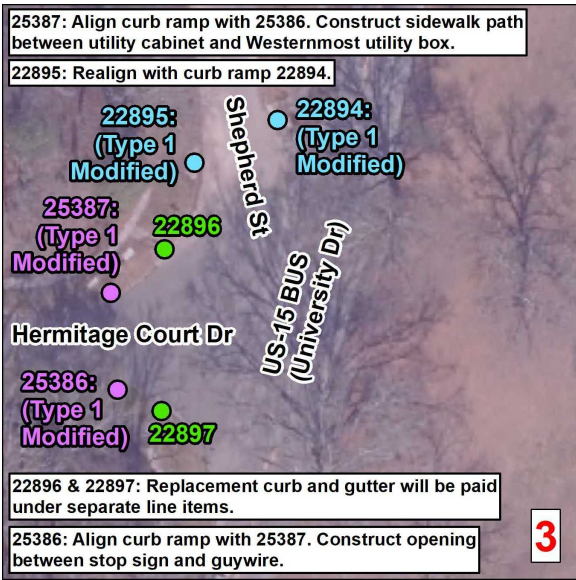
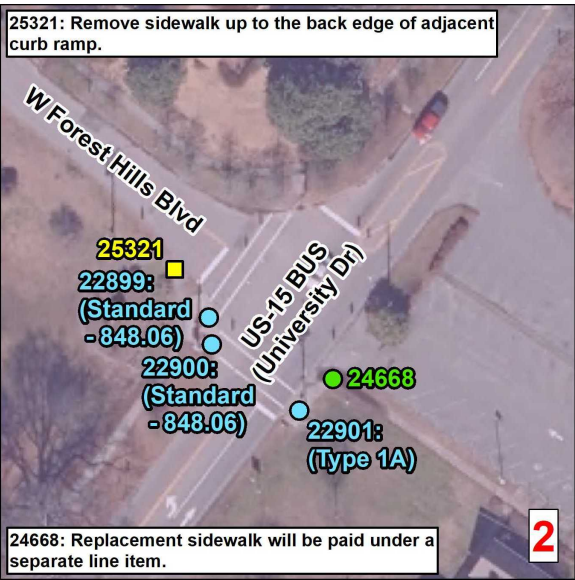
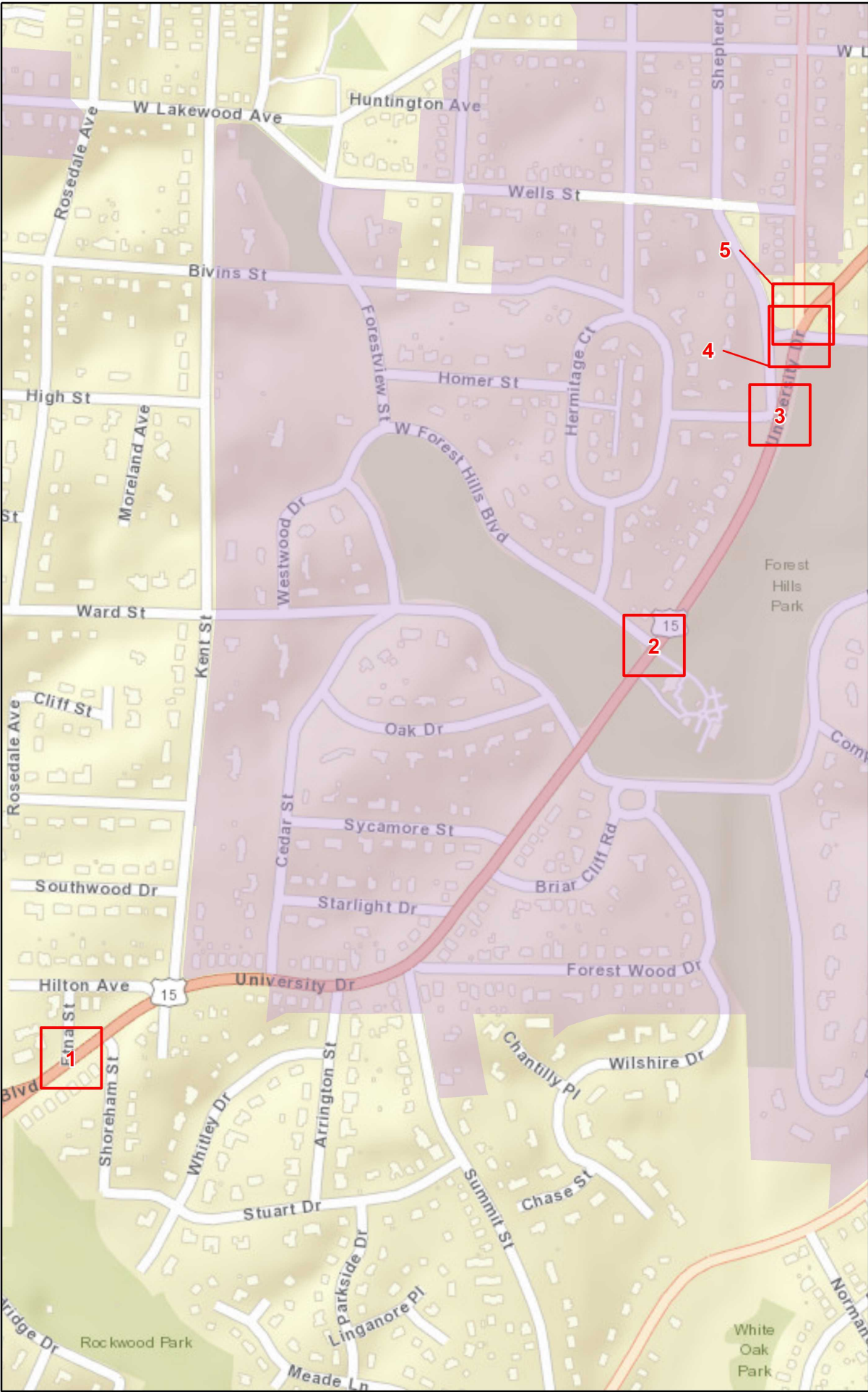
Municipal Boundary

NCHPO Historic Boundary (NR and LHD)

2024 S Durham
WBS: 2023CPT.05.08.10321.1
US 70 Bus
From SR 1320 To S Buchanan Blvd

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)

2024 S Durham

WBS: 2023CPT.05.08.10321.1

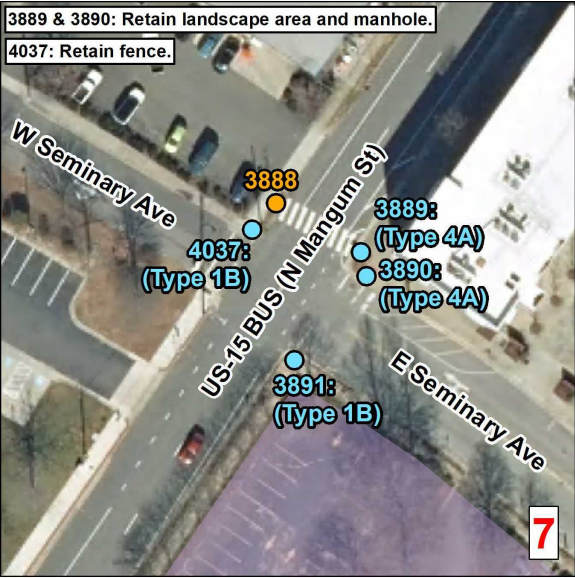
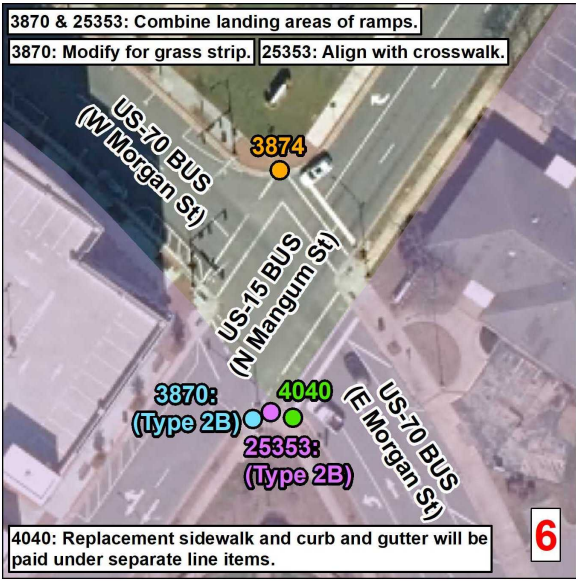
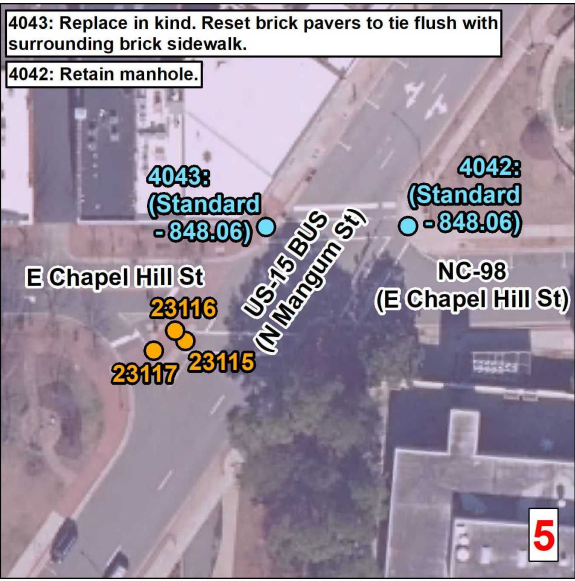
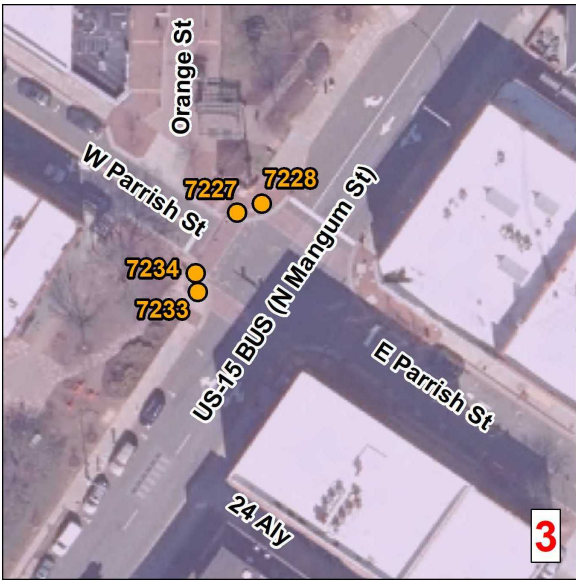
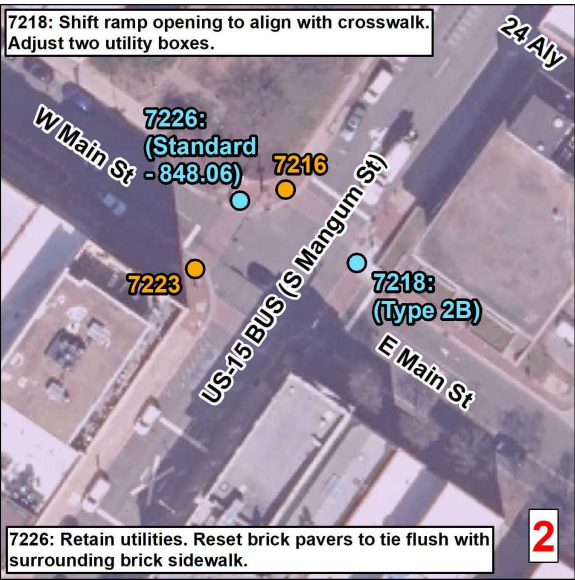
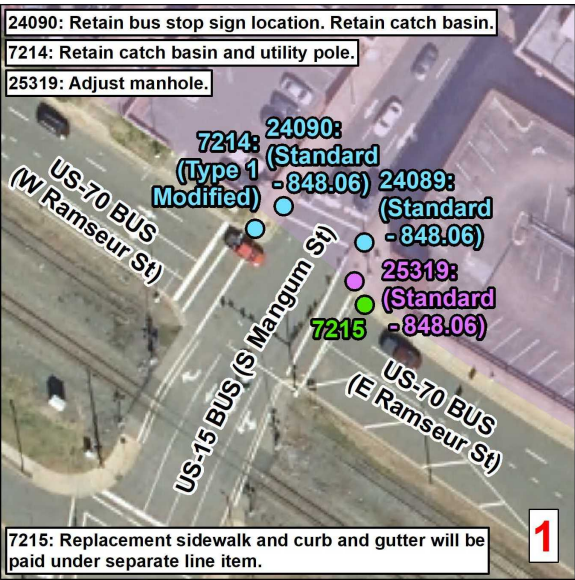
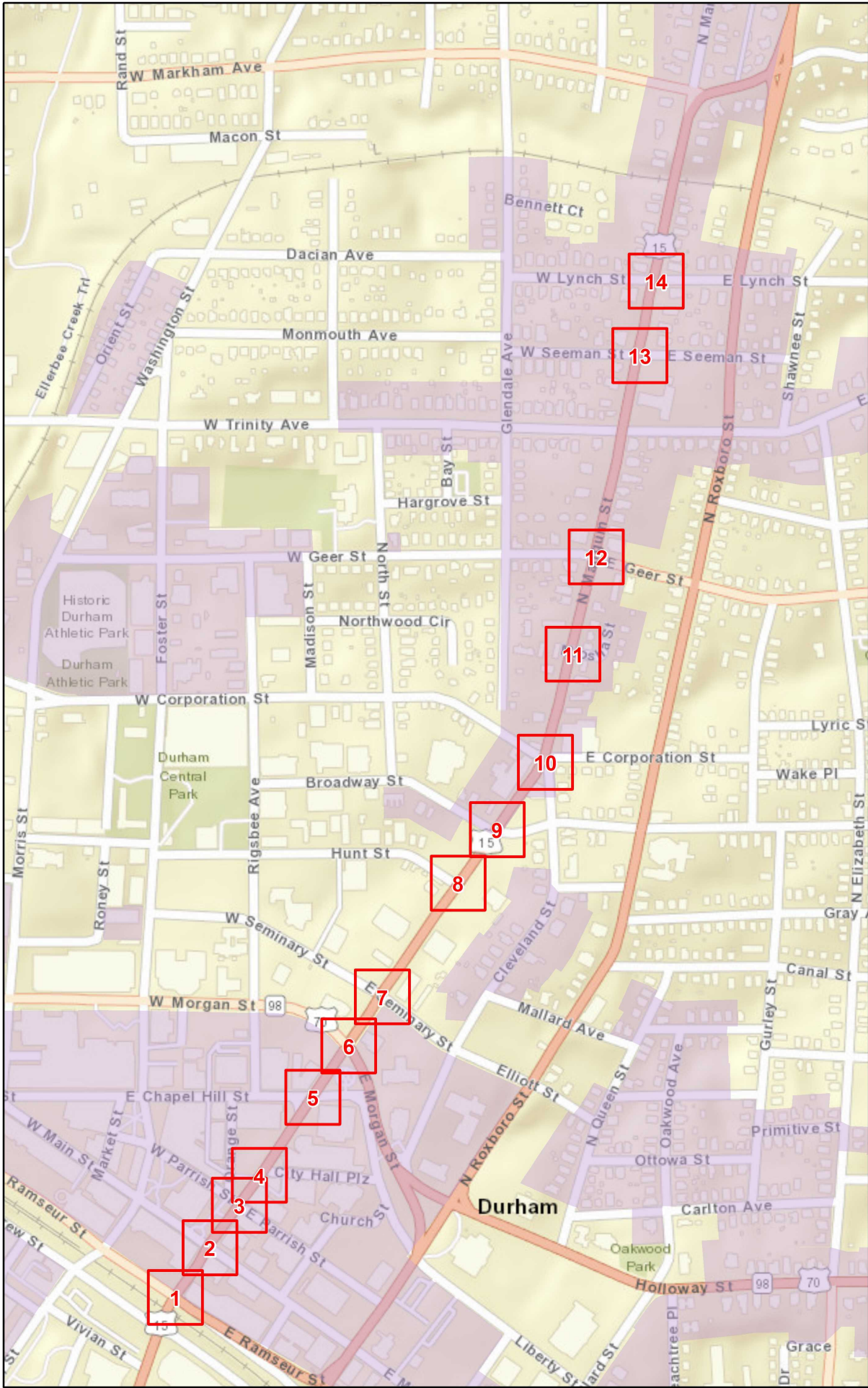
US 15 Bus

From SR 1183 To E Forest Hills Blvd

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

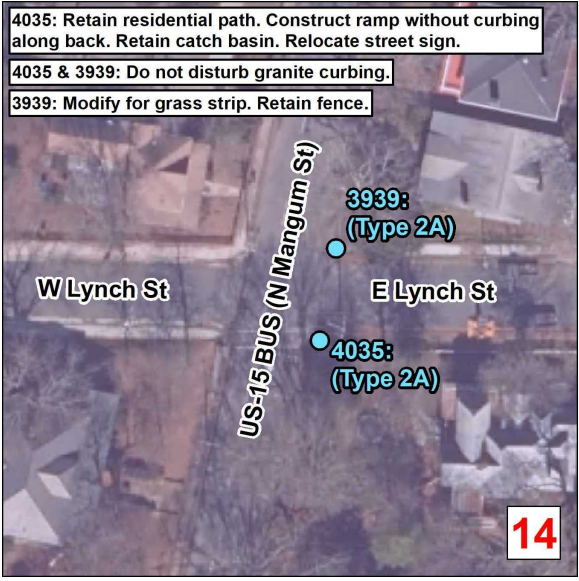
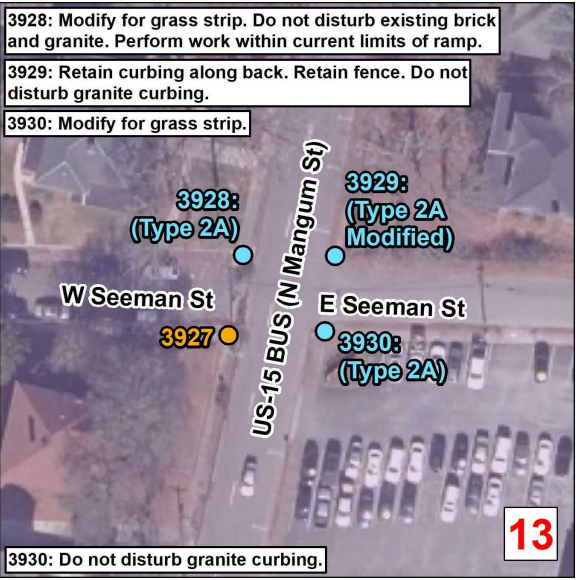
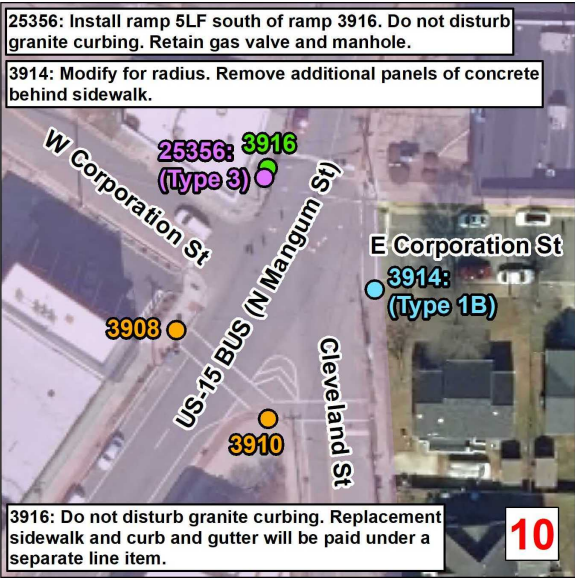
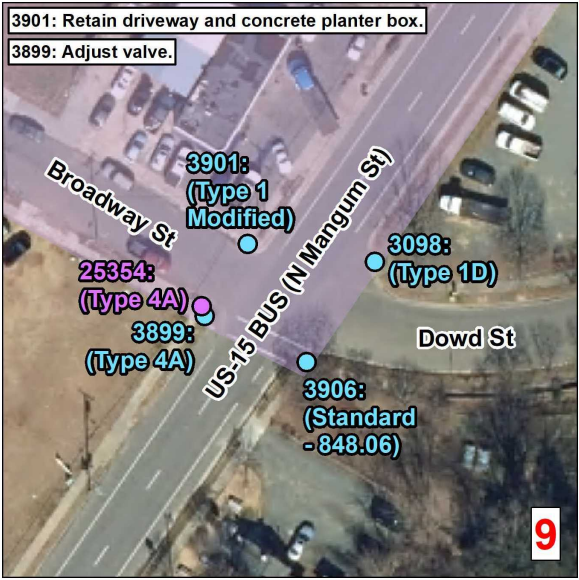
□ Municipal Boundary
□ NCHPO Historic Boundary (NR and LHD)

2024 S Durham
WBS: 22023CPT.05.08.10321.1

US 15 Bus
From US 15 Bus To US 70 Bus

 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

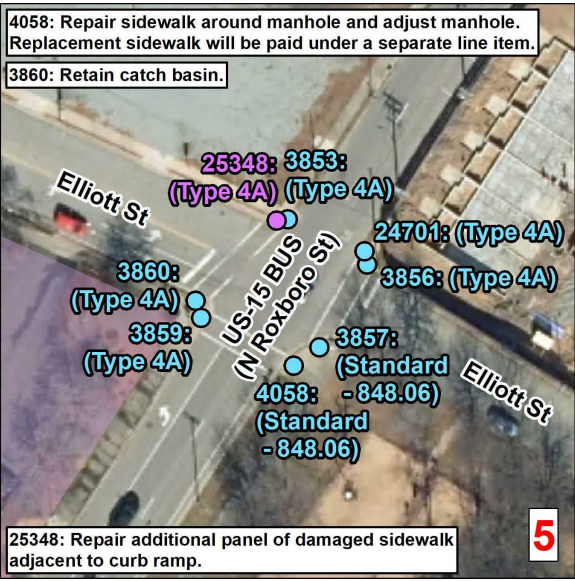
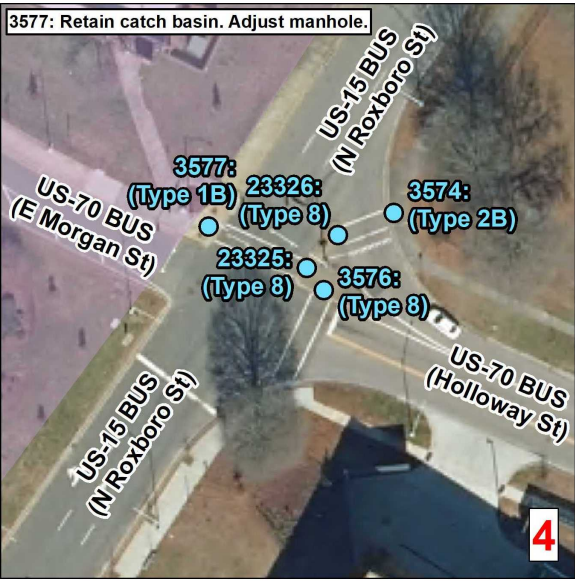
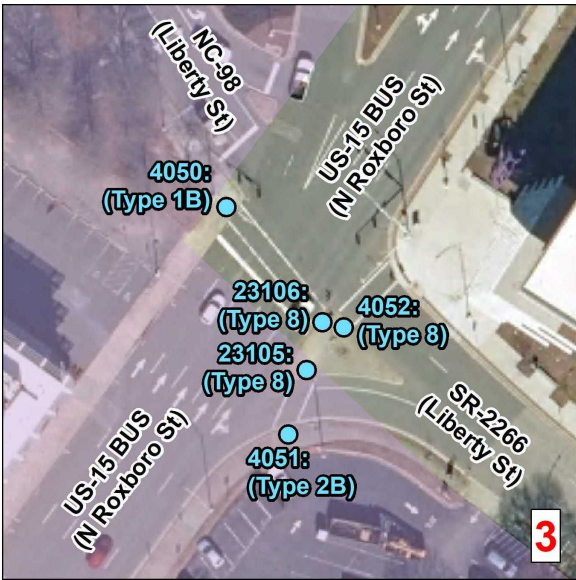
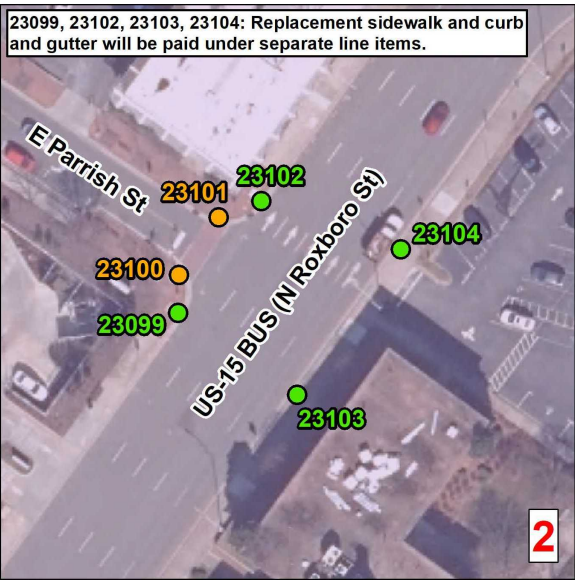
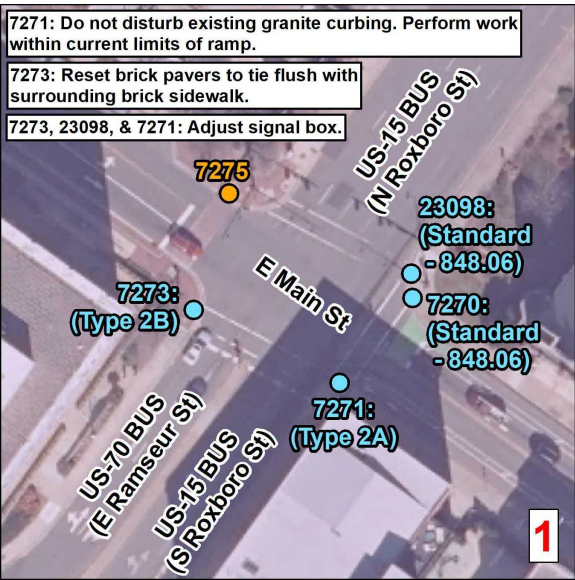
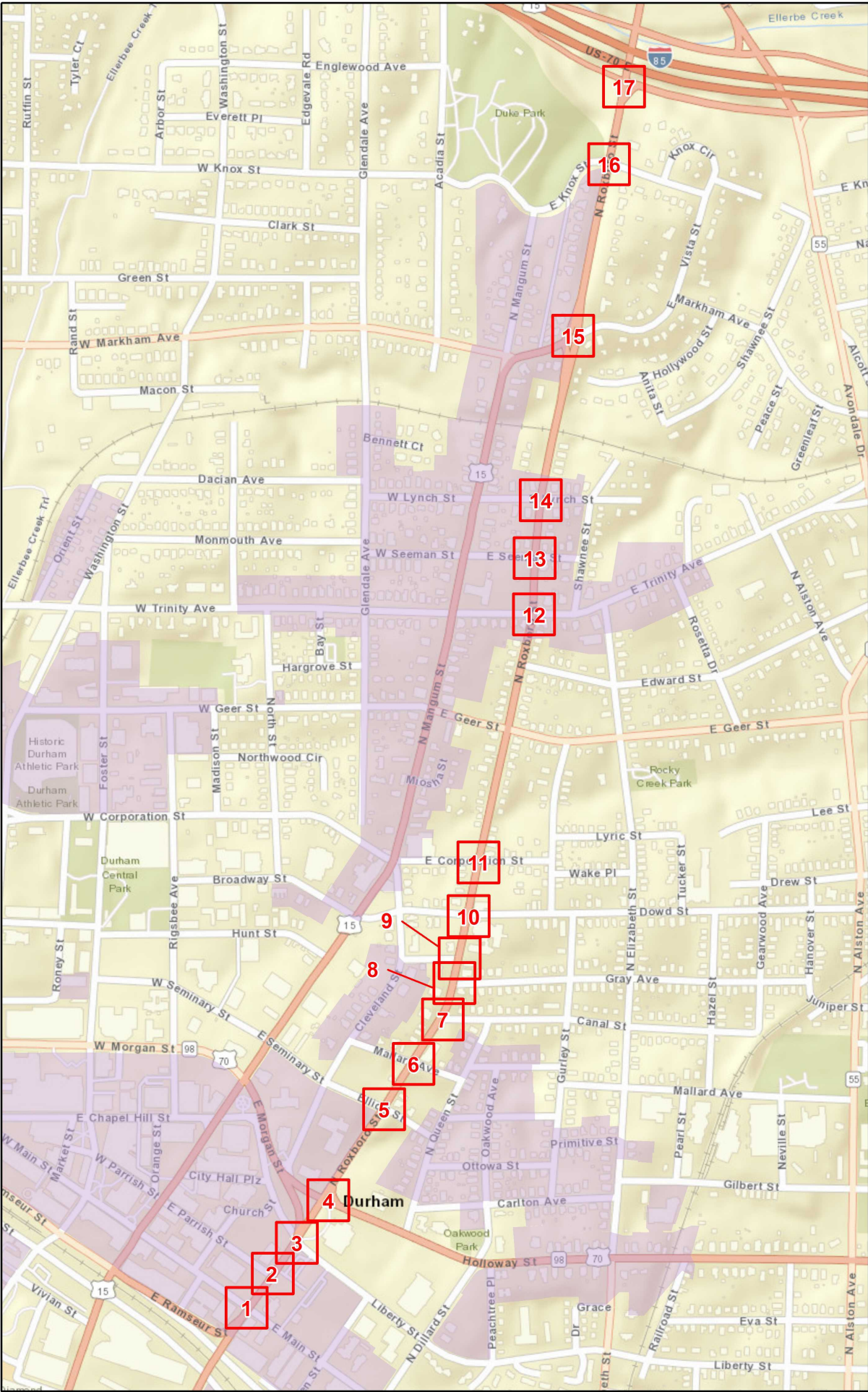
Municipal Boundary

NCHPO Historic Boundary (NR and LHD)

2024 S Durham
WBS: 22023CPT.05.08.10321.1
US 15 Bus
From US 15 Bus To US 70 Bus

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)

2024 S Durham

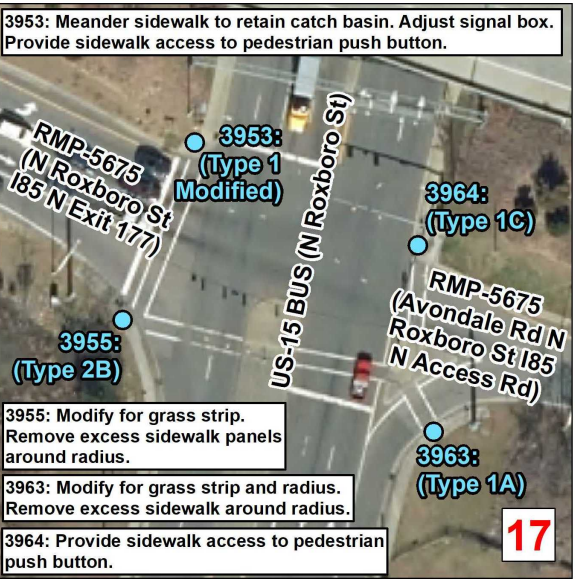
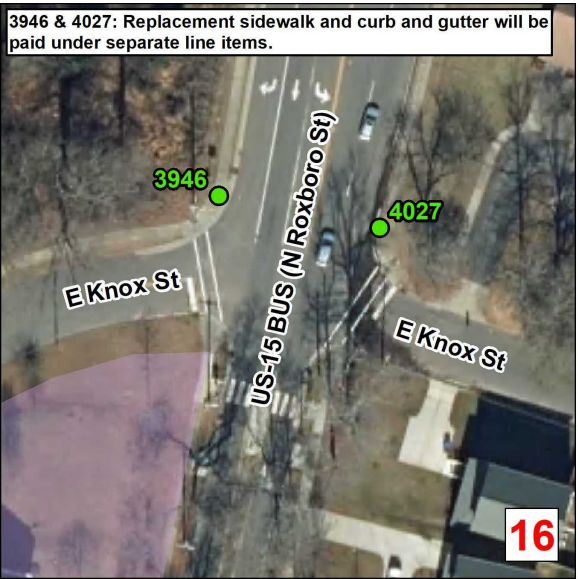
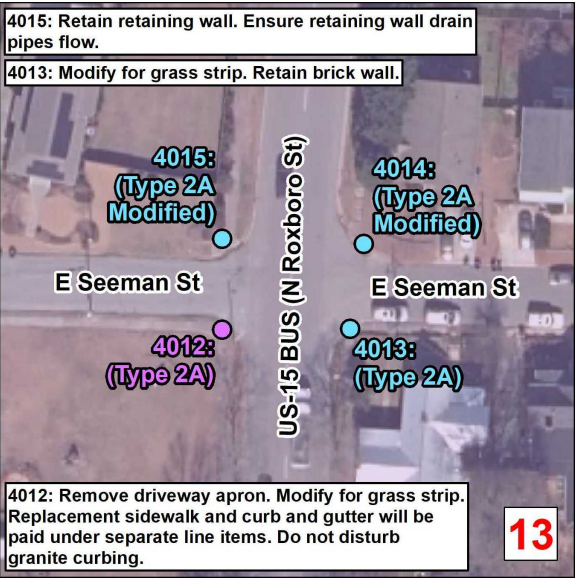
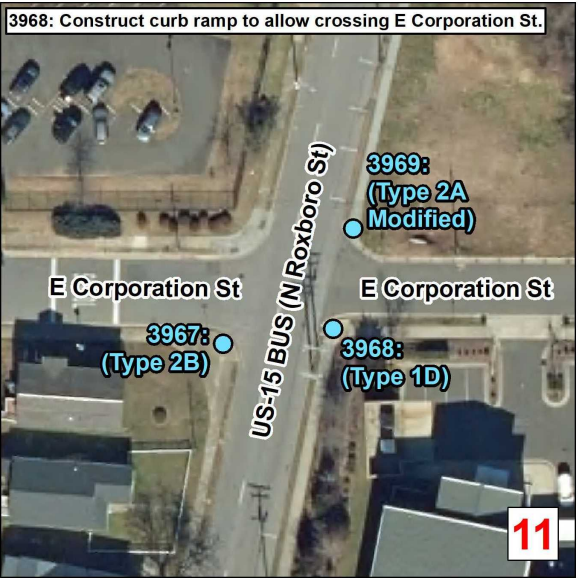
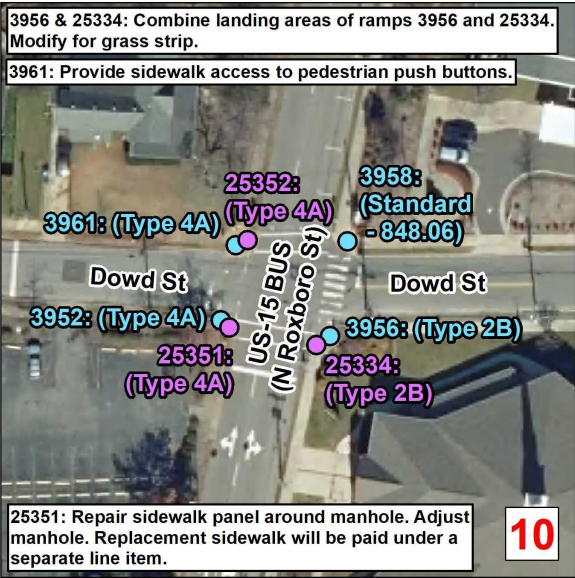
WBS: 2023CPT.05.08.10321.1

US 15 Bus

From E Main St To I-85

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)

2024 S Durham

WBS: 2023CPT.05.08.10321.1

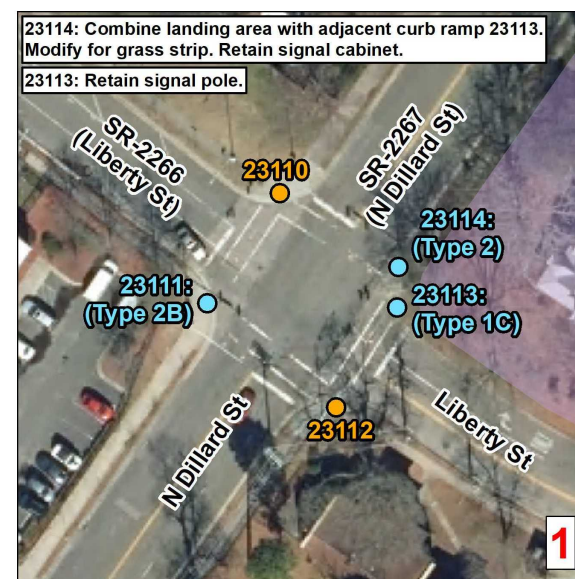
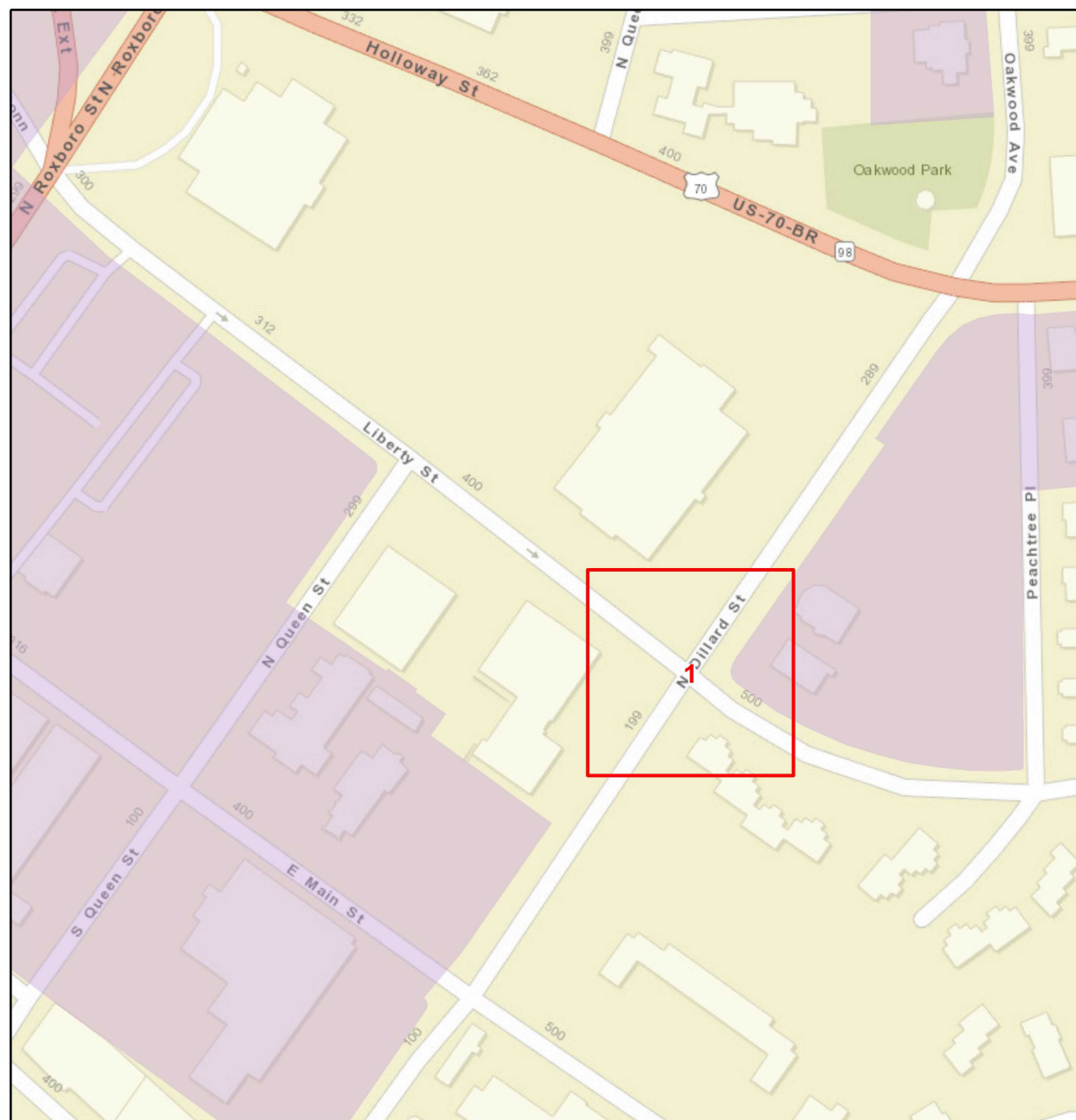
US 15 Bus

From E Main St To I-85

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

DIVISION 5

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

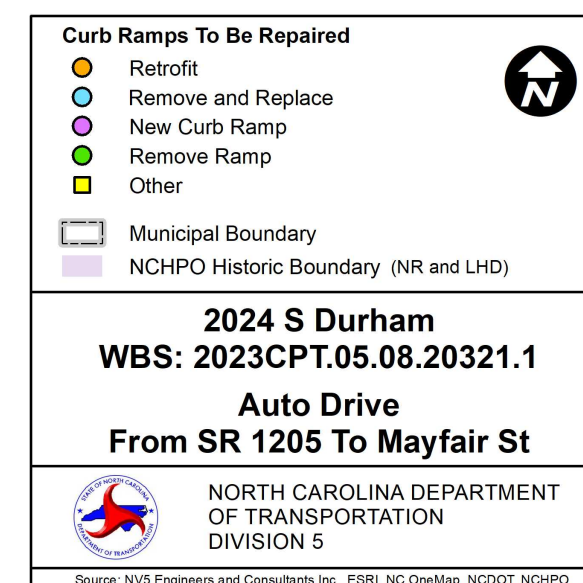
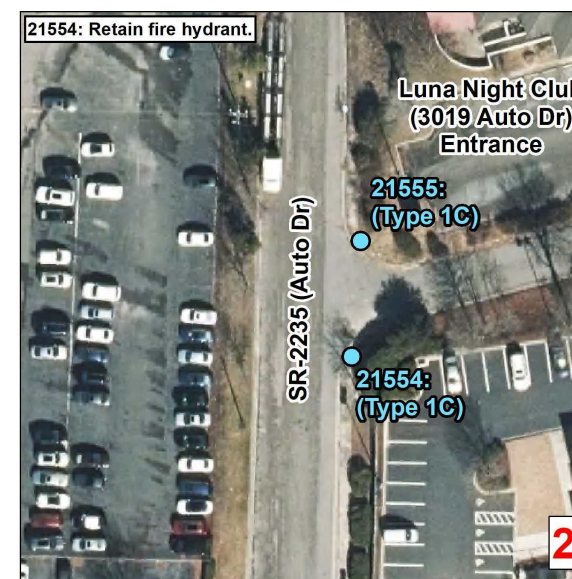
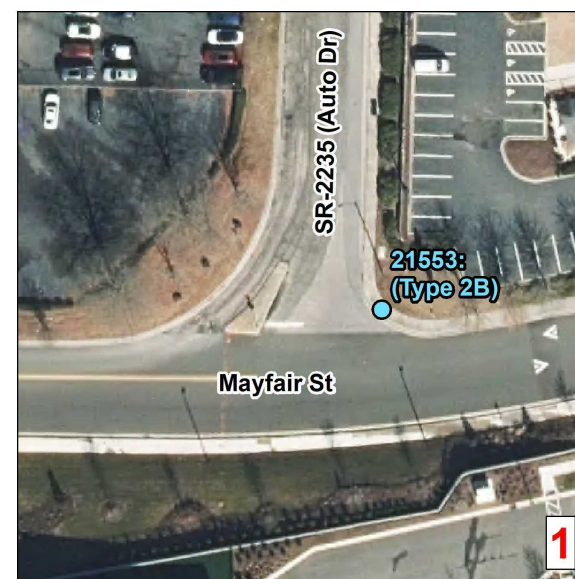


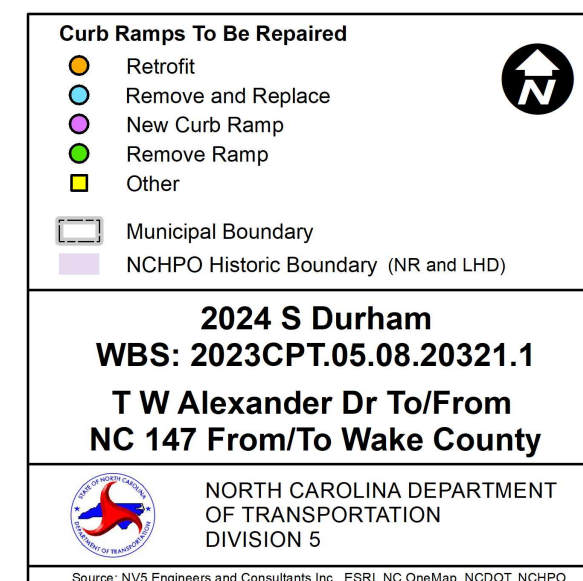
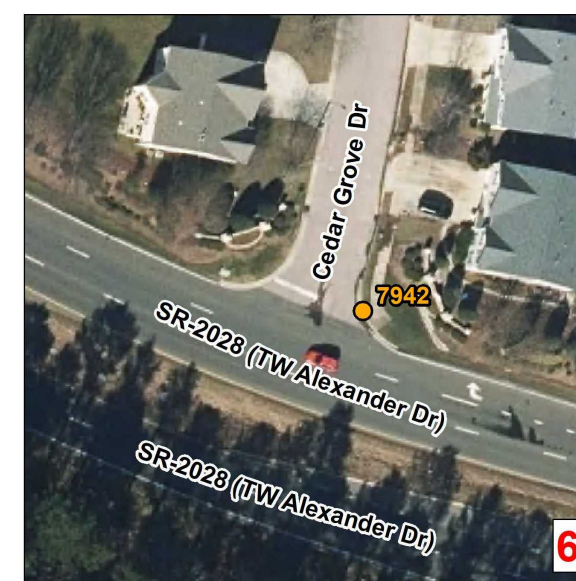
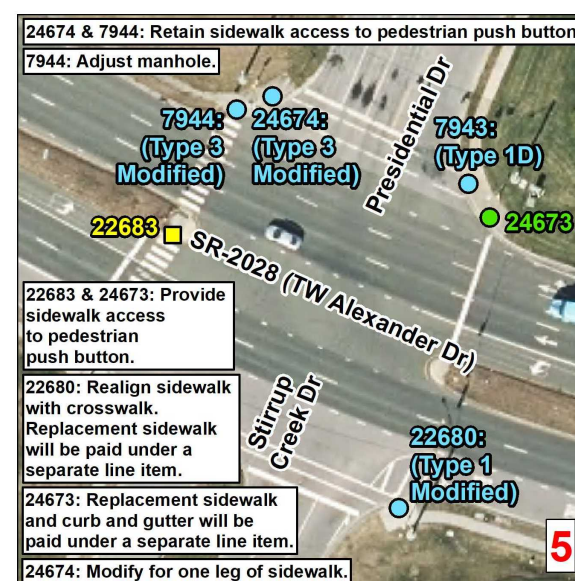
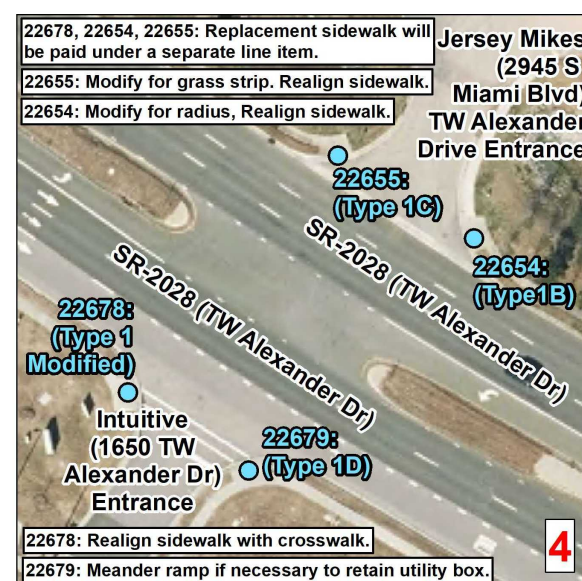
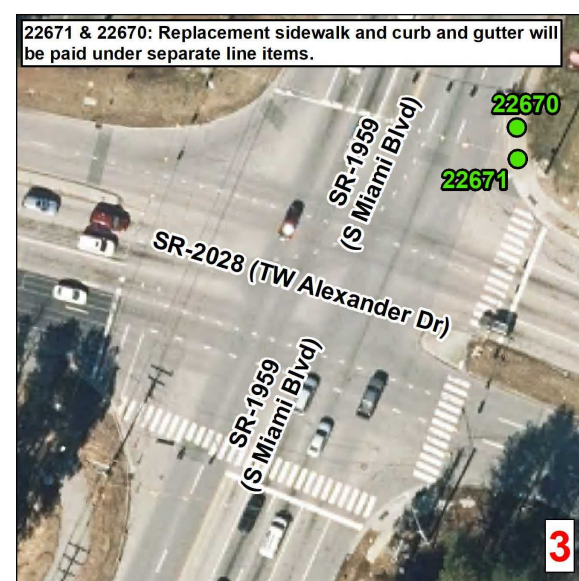
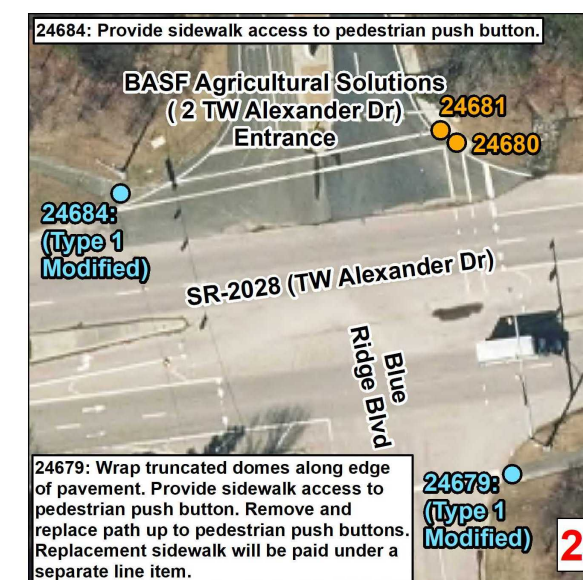
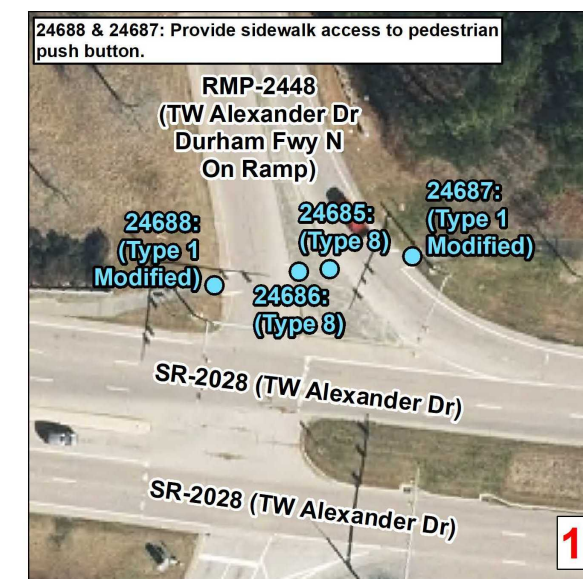
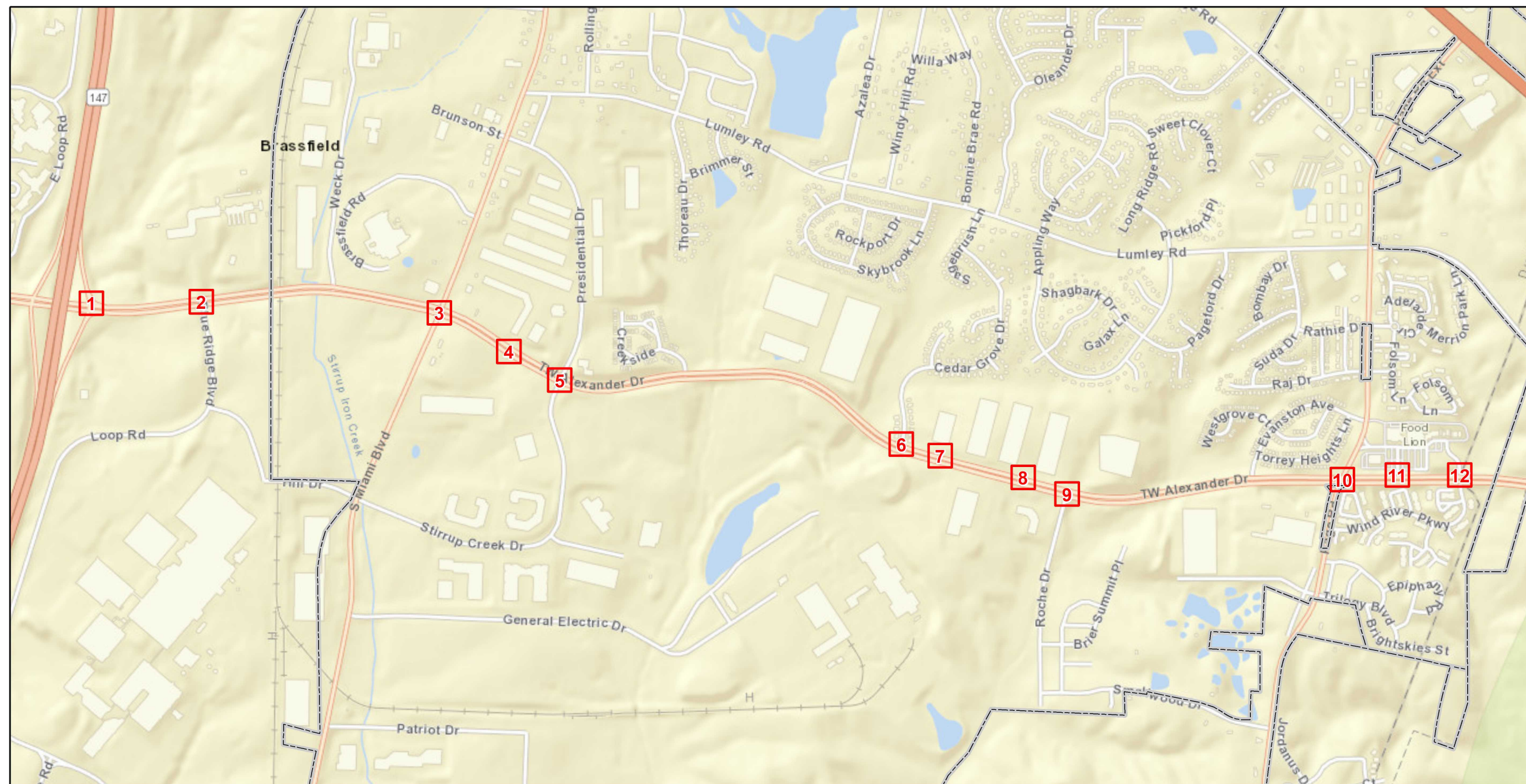
Curb Ramps To Be Repaired

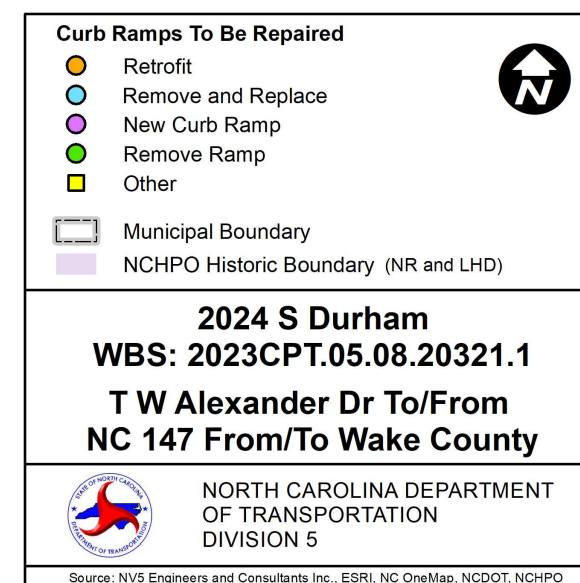
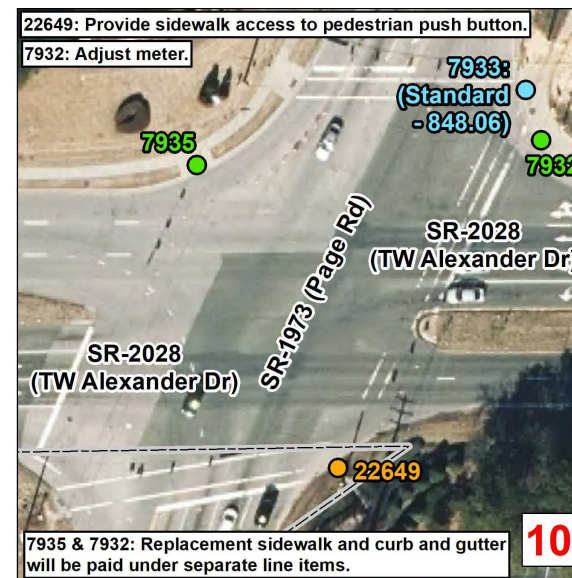
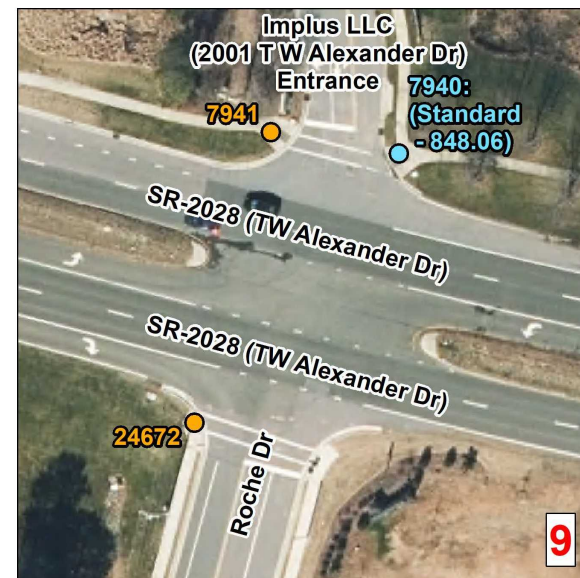
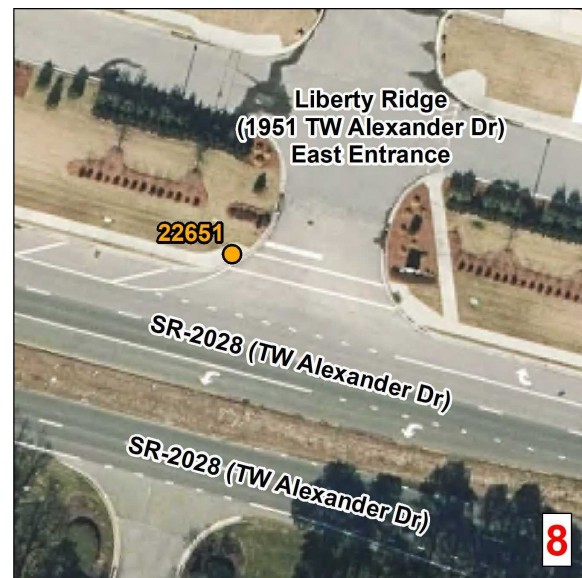
-  Retrofit
-  Remove and Replace
-  New Curb Ramp
-  Remove Ramp
-  Other

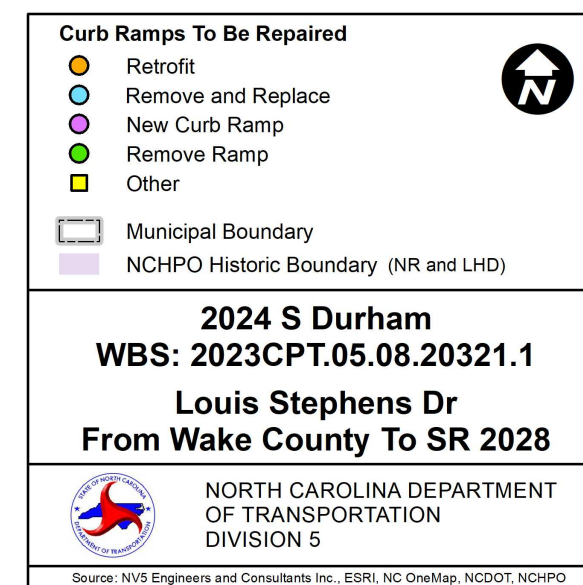
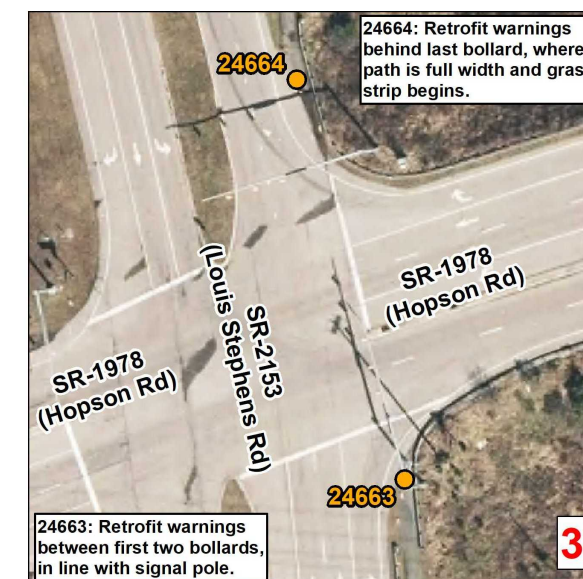
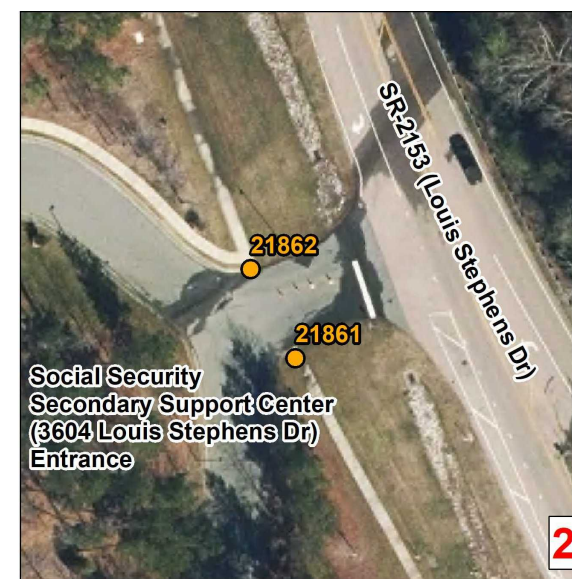
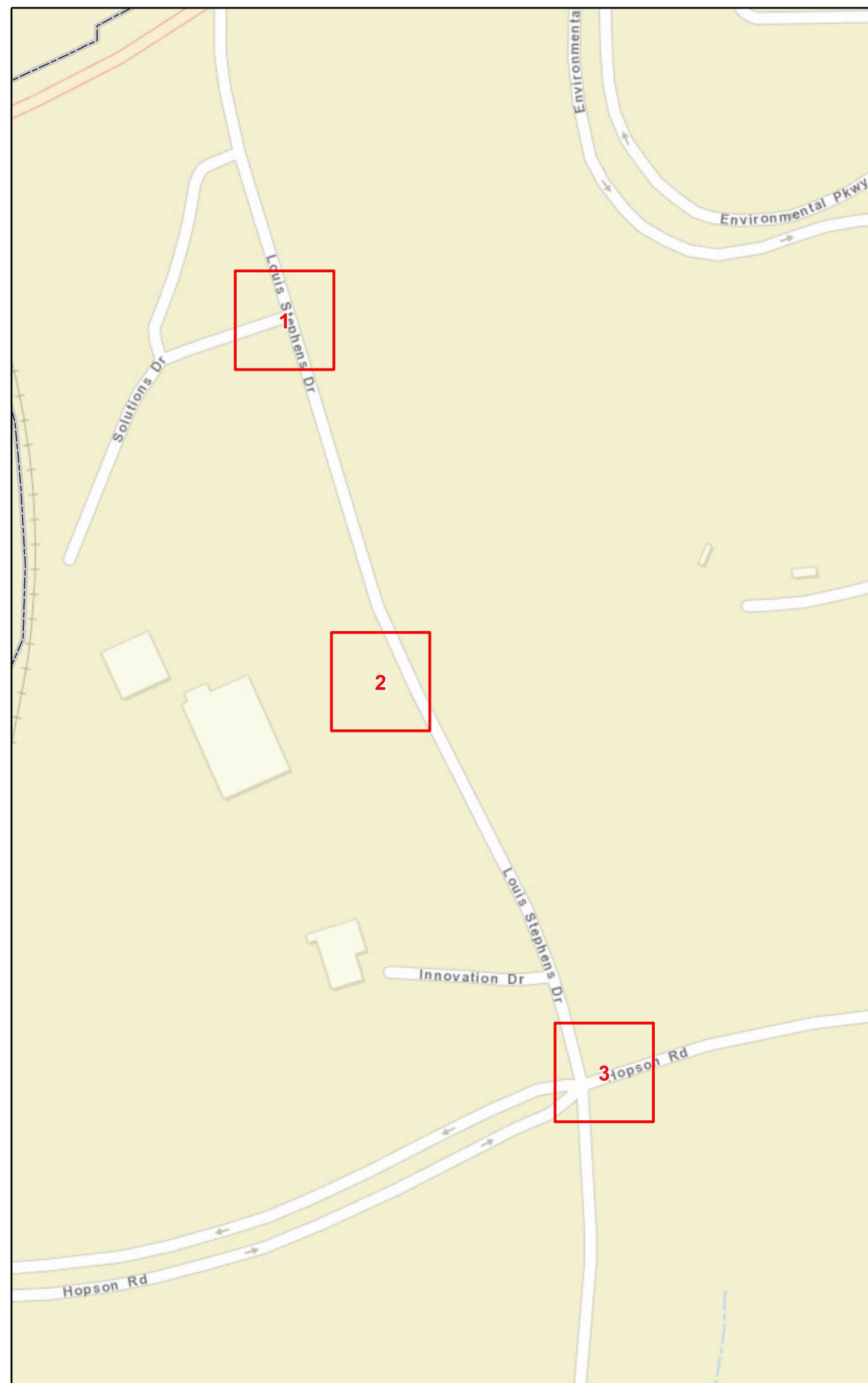
 Municipal Boundary

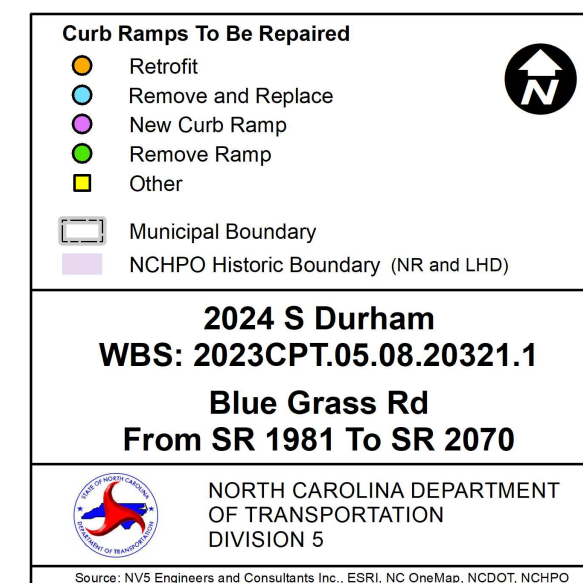
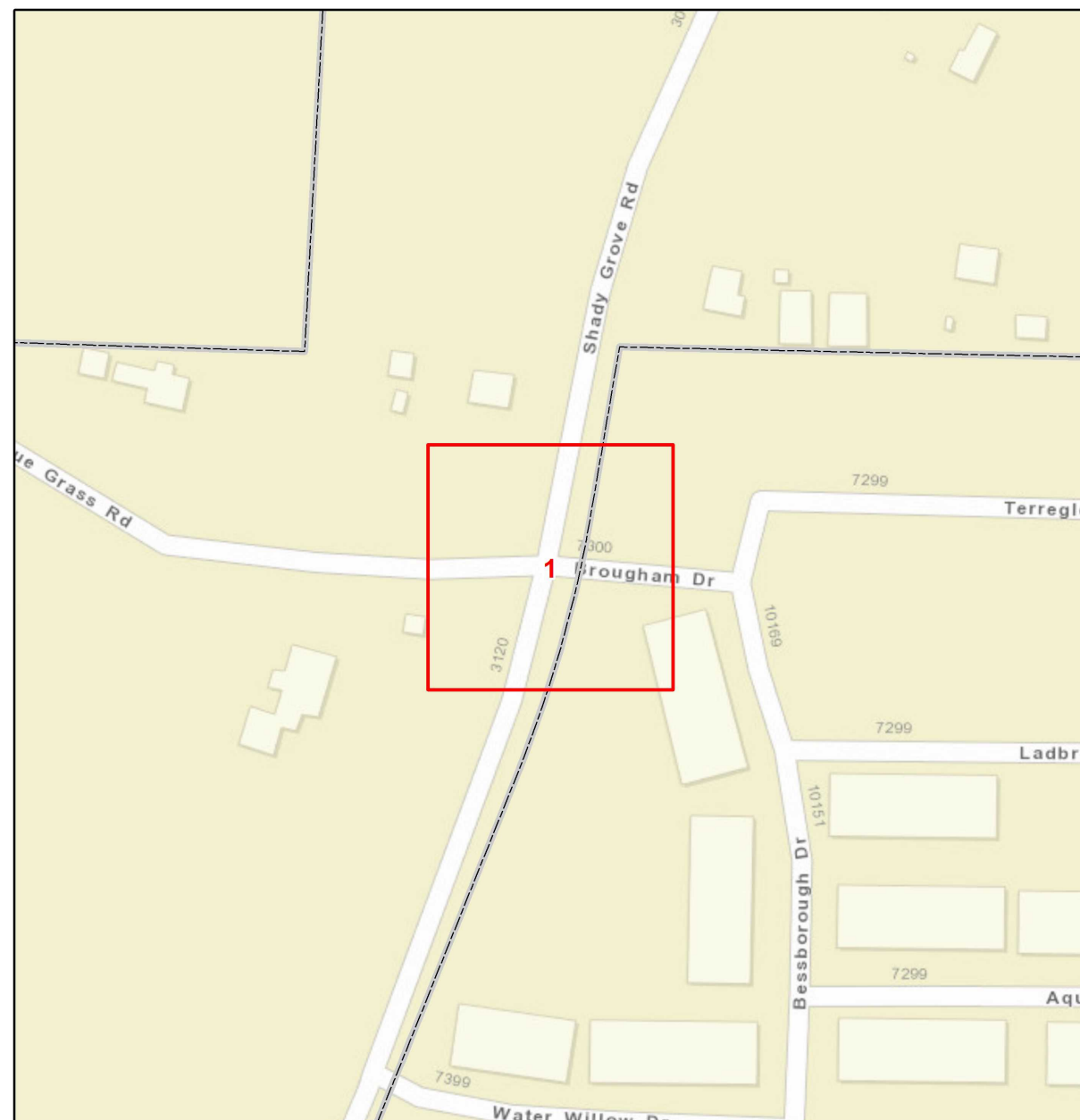
 NCHPO Historic Boundary (NR and LHD)







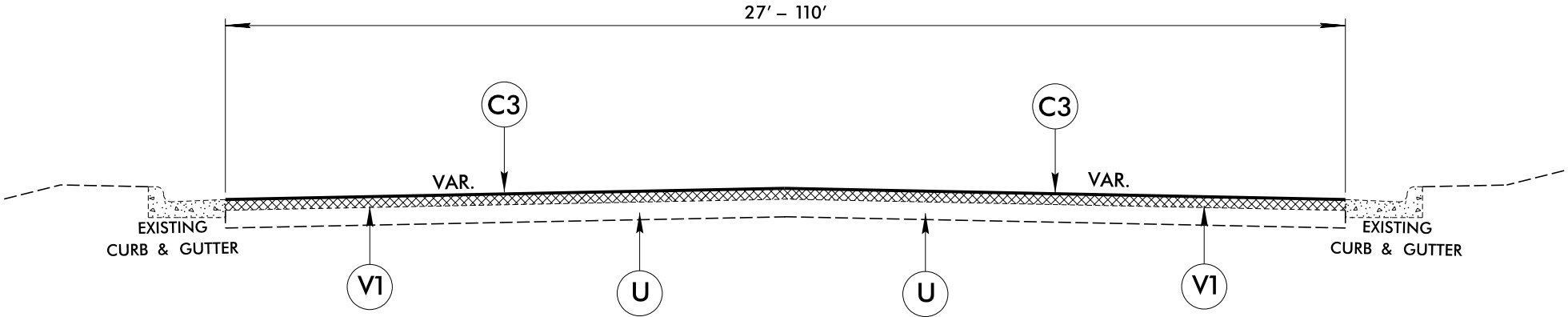




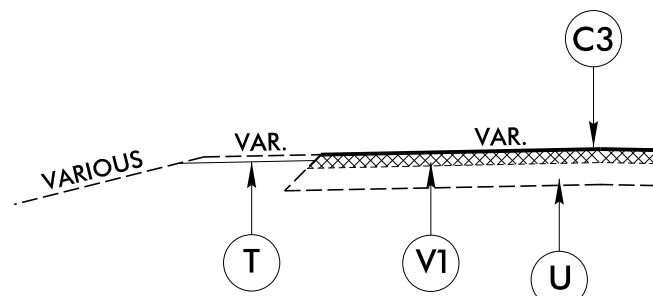
8/17/99

	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. 3" ASPHALT CONCRETE SURFACE COURSE TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ.YD. IN EACH OF TWO LAYERS.
C3	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C4	PROP. APPROX. 2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
V1	MILLING OF EXISTING ASPHALT PAVEMENT AT DEPTH OF 1½"
V2	MILLING OF EXISTING ASPHALT PAVEMENT AT DEPTH OF 2"
V3	MILLING OF EXISTING ASPHALT PAVEMENT AT DEPTH OF 3"
T	SHOULDER GRADING
U	EXISTING PAVEMENT

PROJECT REFERENCE NO.	SHEET NO.
2023CPT.05.08.I0321I, etc.	18

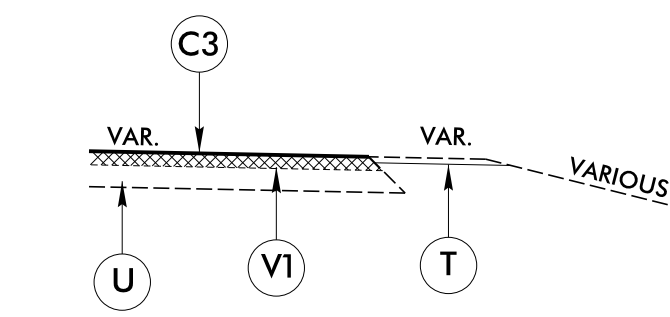


TYPICAL SECTION NO. 1



USE IN CONJUNCTION WITH TYPICAL SECTION NO. 1

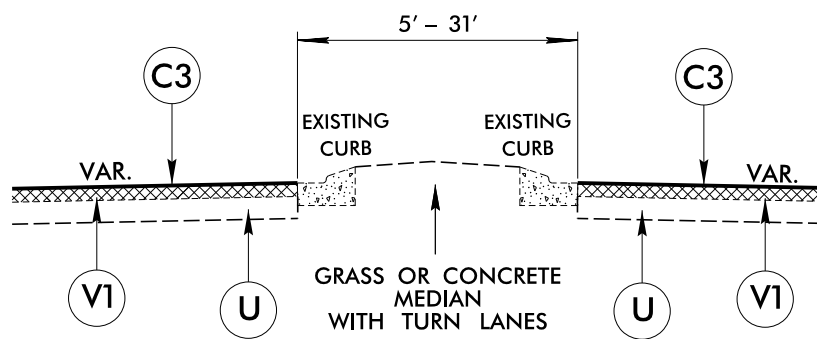
MAP 5 TW ALEXANDER DRIVE
SHOULDER SECTION EB. - 14,230' +/-



USE IN CONJUNCTION WITH TYPICAL SECTION NO. 1

MAP 1 US 15 501 BUSINESS
SHOULDER SECTION RT. - 1,960' +/-

MAP 5 TW ALEXANDER DRIVE
SHOULDER SECTION WB. - 8,470' +/-



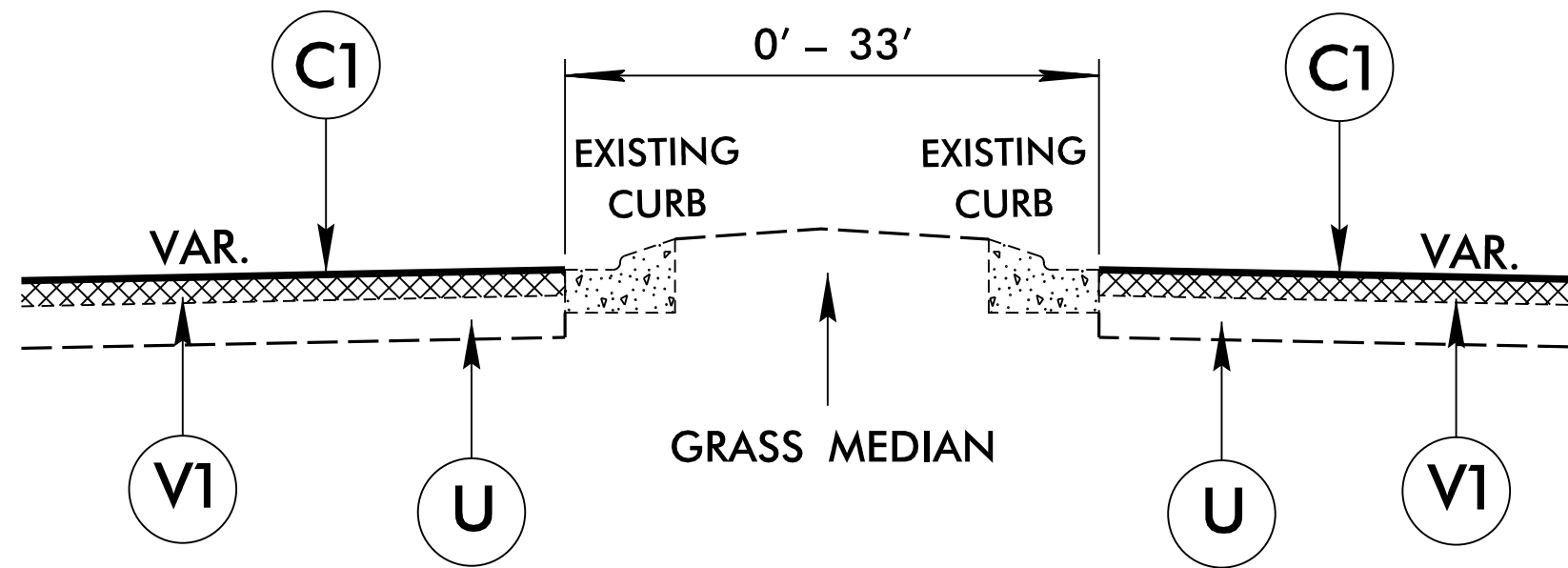
USE IN CONJUNCTION WITH TYPICAL SECTION NO. 1

MAP 5 TW ALEXANDER DRIVE
MEDIAN SECTION - 1,020' +/-

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

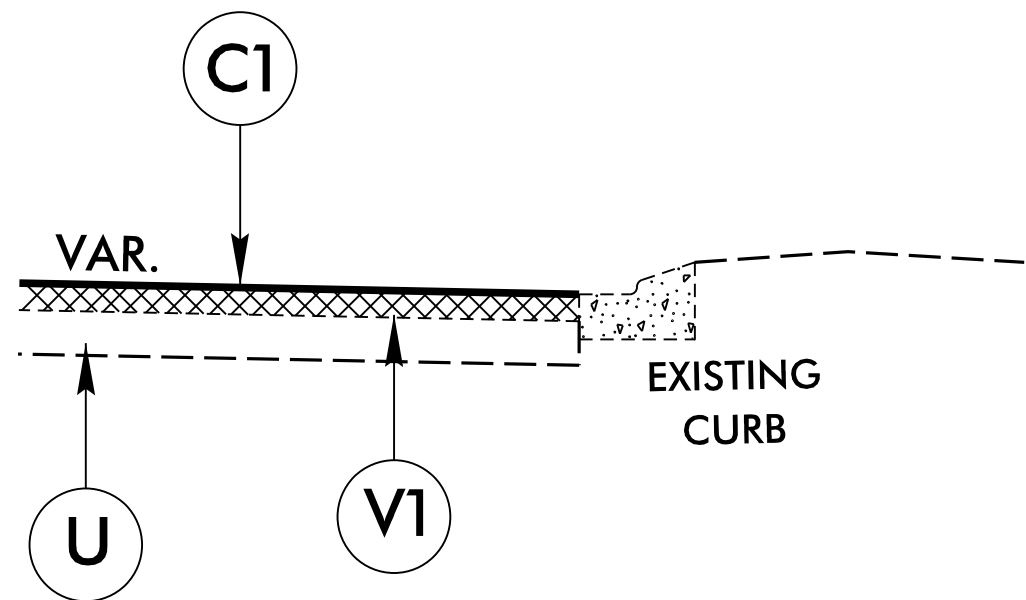
8/17/99

	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. 3" ASPHALT CONCRETE SURFACE COURSE TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ.YD. IN EACH OF TWO LAYERS.
C3	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C4	PROP. APPROX. 2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
V1	MILLING OF EXISTING ASPHALT PAVEMENT AT DEPTH OF 1½"
V2	MILLING OF EXISTING ASPHALT PAVEMENT AT DEPTH OF 2"
V3	MILLING OF EXISTING ASPHALT PAVEMENT AT DEPTH OF 3"
T	SHOULDER GRADING
U	EXISTING PAVEMENT



USE IN CONJUNCTION WITH TYPICAL SECTION NO. 3

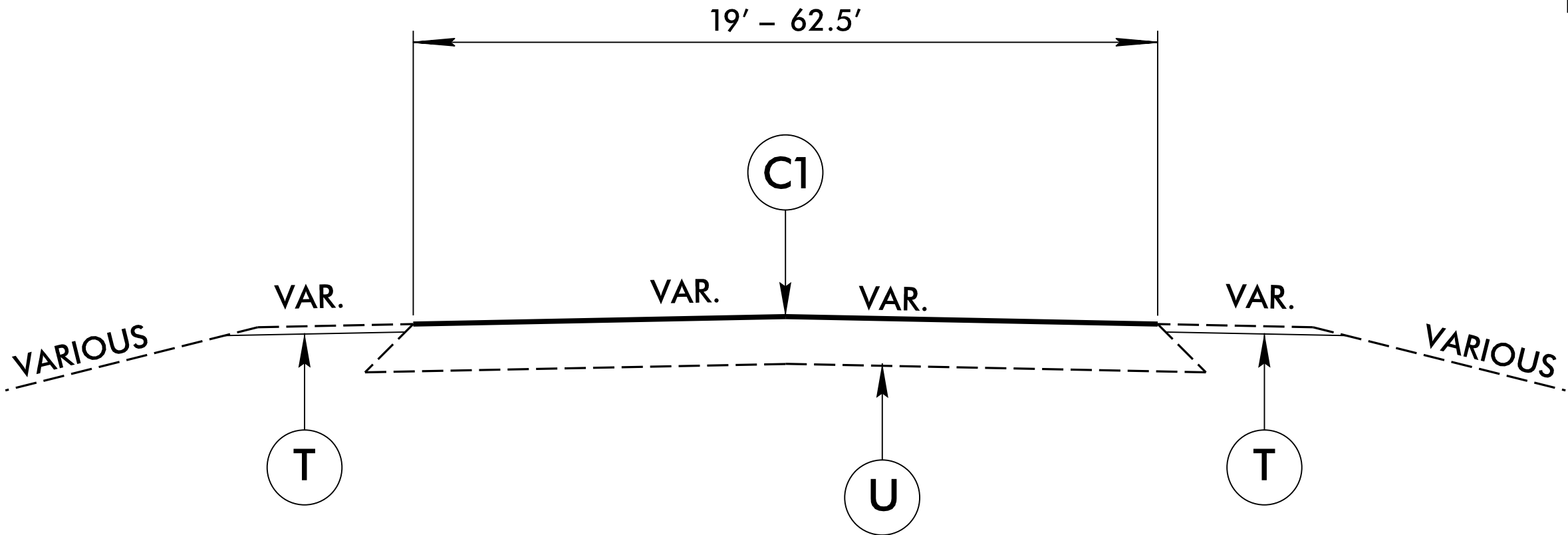
MAP 8 LOUIS STEPHENS DRIVE
MEDIAN SECTION - 1,558' +/-



USE IN CONJUNCTION WITH TYPICAL SECTION NO. 3

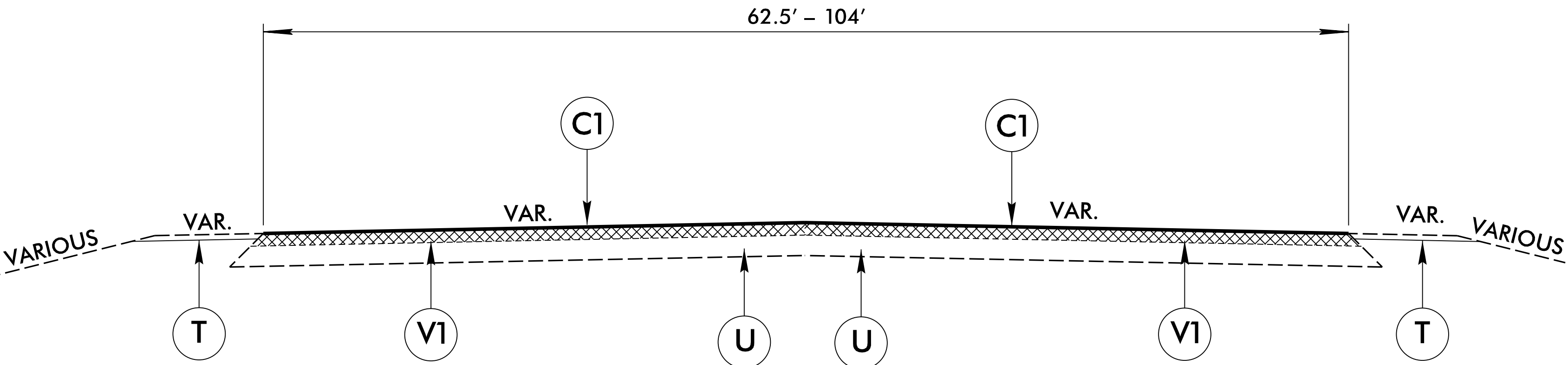
MAP 8 LOUIS STEPHENS DRIVE
CURB AND GUTTER SECTION - 1,530' +/-

PROJECT REFERENCE NO.	SHEET NO.
2023CPT.05.08.I0321I, etc.	19



TYPICAL SECTION NO. 2

MAP 8 LOUIS STEPHENS DRIVE
FROM SR 2028 (TW ALEXANDER DR.) 0.35 MILES TO
BEGIN MEDIAN ISLAND SECTION



TYPICAL SECTION NO. 3

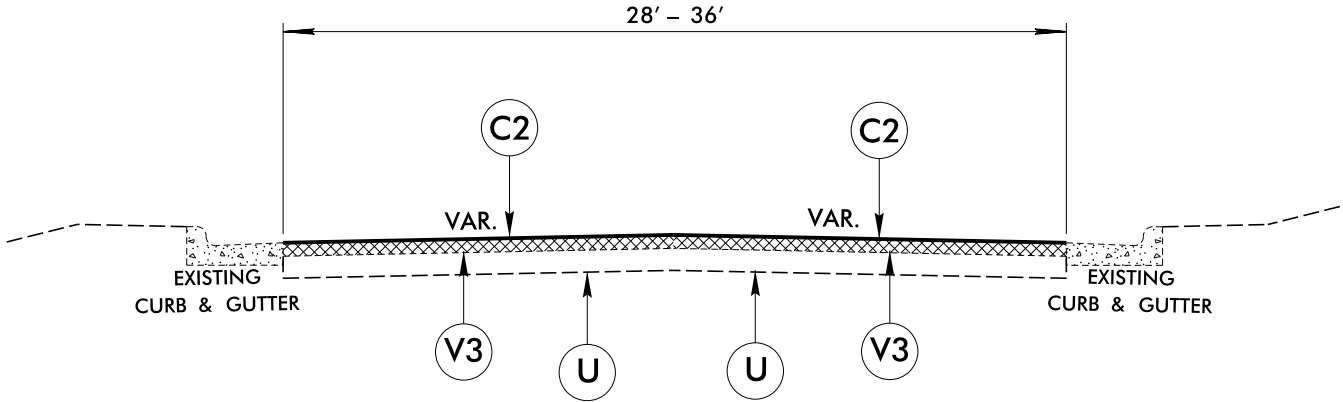
MAP 8 LOUIS STEPHENS DRIVE
FROM 0.18 MILES NORTH OF HOPSON RD. TO
WAKE COUNTY LINE

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

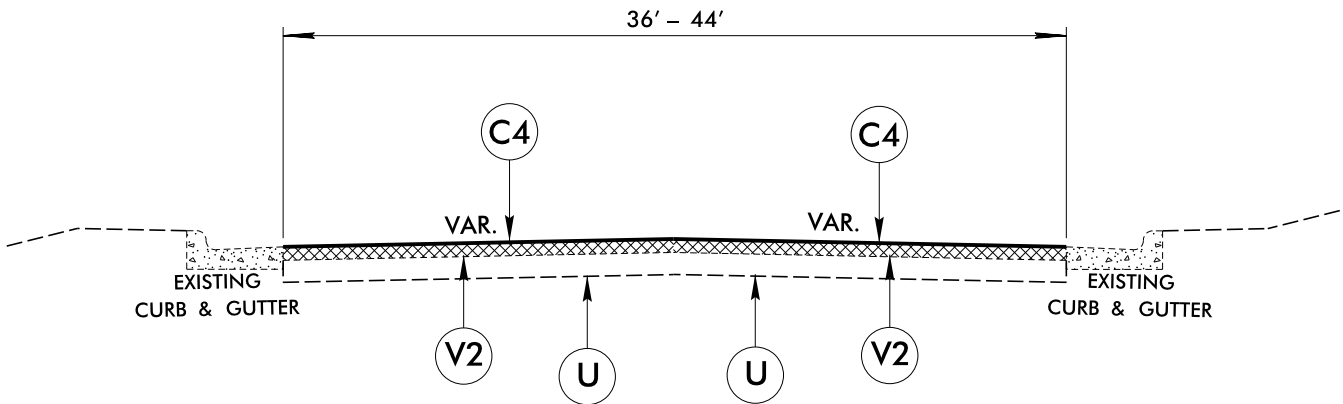
8/17/99

	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. 3" ASPHALT CONCRETE SURFACE COURSE TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ.YD. IN EACH OF TWO LAYERS.
C3	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C4	PROP. APPROX. 2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
V1	MILLING OF EXISTING ASPHALT PAVEMENT AT DEPTH OF 1½"
V2	MILLING OF EXISTING ASPHALT PAVEMENT AT DEPTH OF 2"
V3	MILLING OF EXISTING ASPHALT PAVEMENT AT DEPTH OF 3"
T	SHOULDER GRADING
U	EXISTING PAVEMENT

PROJECT REFERENCE NO.	SHEET NO.
2023CPT.05.08.J0321I, etc.	20



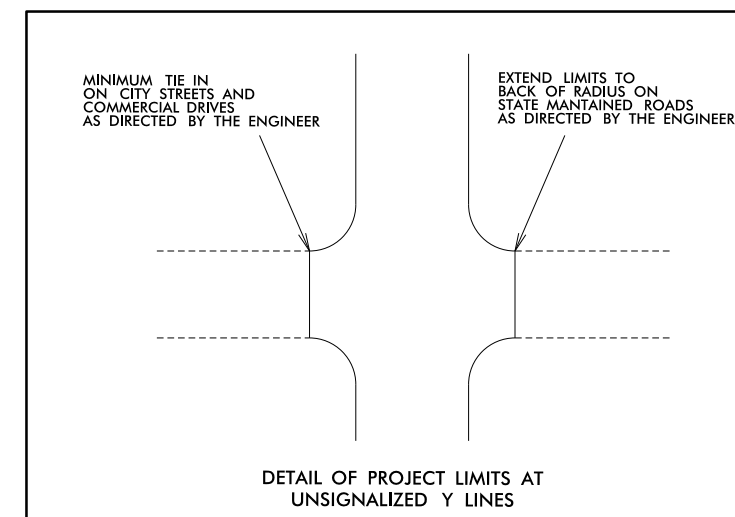
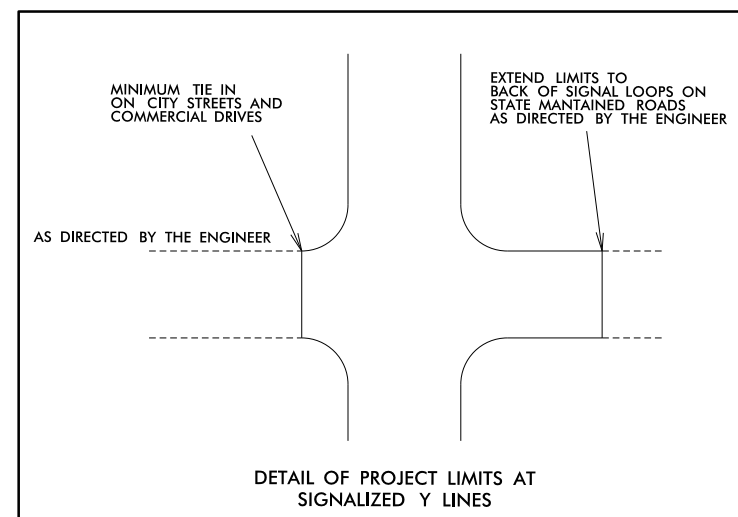
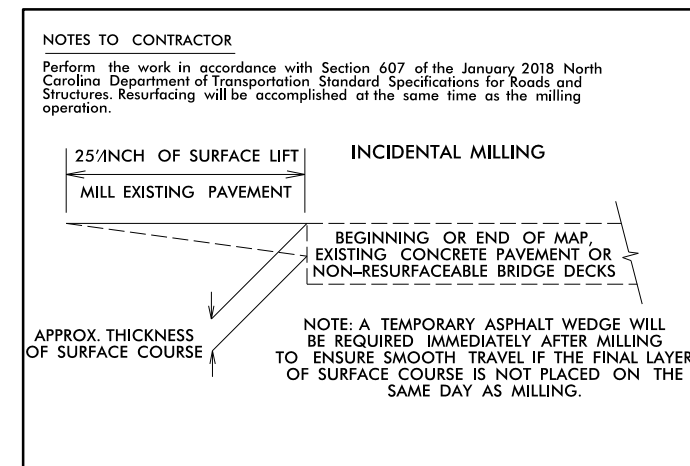
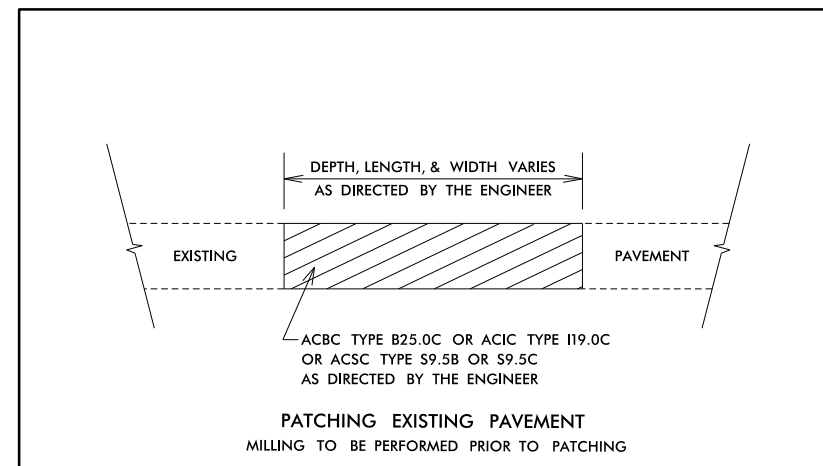
TYPICAL SECTION NO. 4



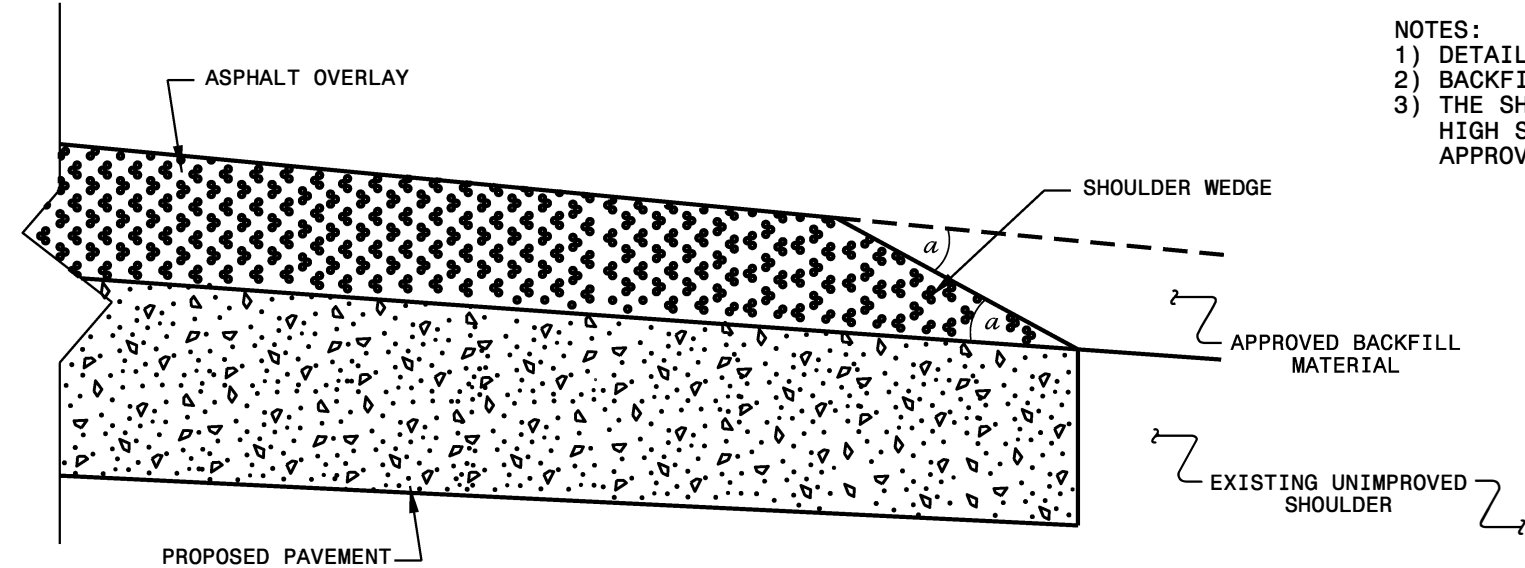
TYPICAL SECTION NO. 5

NOTES

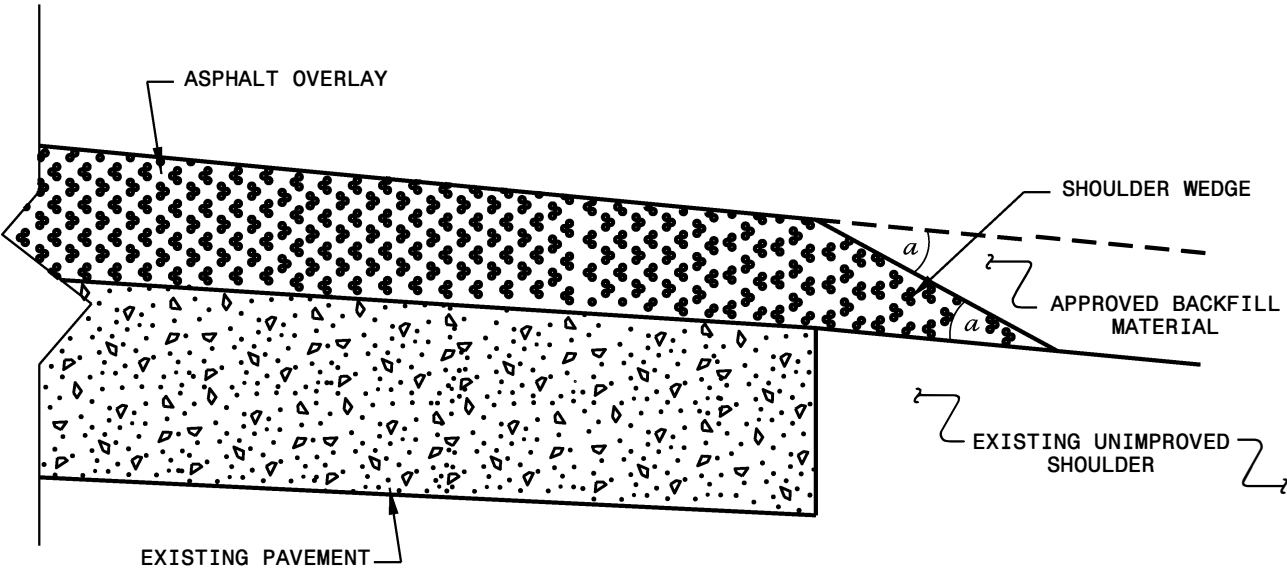
ALL UNPAVED S.R. ROADS TO BE RESURFACED 50' FROM EDGE OF PAVEMENT OF MAIN PROJECT.
ALL PAVED S.R. ROADS TO BE RESURFACED TO THE ENDS OF THE RADII, OR AS DIRECTED BY THE ENGINEER.
EDGES, PAVEMENT WIDENING, INTERSECTIONS AND BRIDGE FLARES ARE INCLUDED IN THE TABLE OF QUANTITIES.
BRIDGES TO BE RESURFACED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



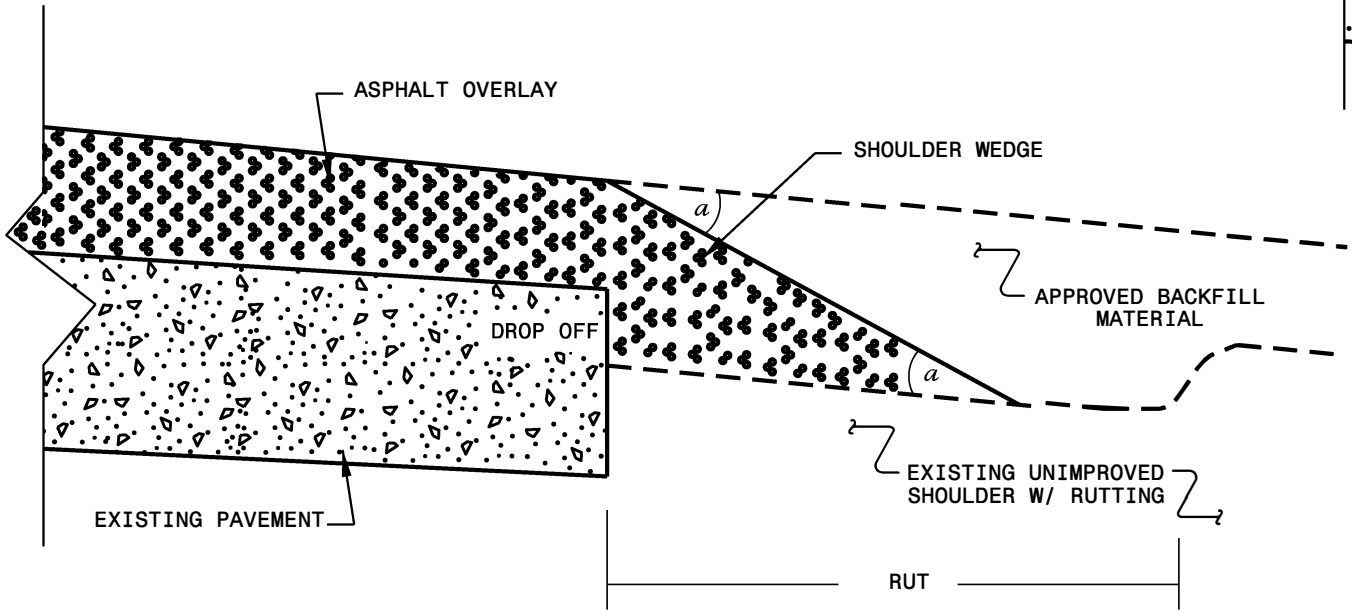
- NOTES:
- 1) DETAIL DOES NOT APPLY TO OGAFc AND ULTRA-THIN BONDED WEARING COURSE.
 - 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
 - 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS, SIDE STREETS, HIGH SHOULDERS, AND OTHER LOCATIONS NOT FEASIBLE TO CONSTRUCT AS APPROVED BY THE ENGINEER.



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



SHOULDER WEDGE DETAIL
(Resurfacing Projects w/ NO Widening)

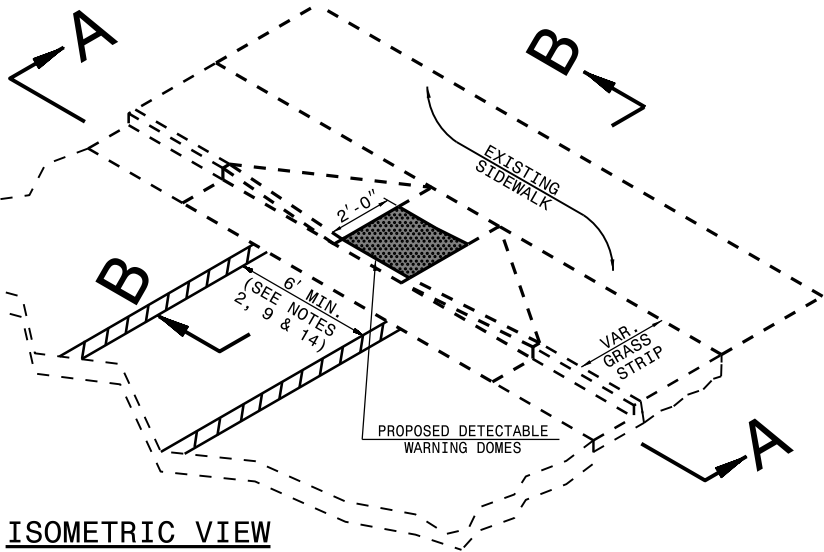


SHOULDER WEDGE DETAIL
(Resurfacing Adjacent to
Rutted Shoulder)

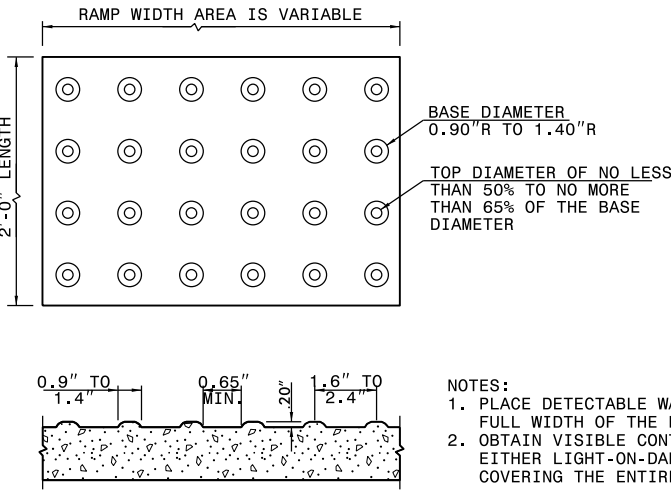
- SHOULDER WEDGE ANGLE = 30°

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

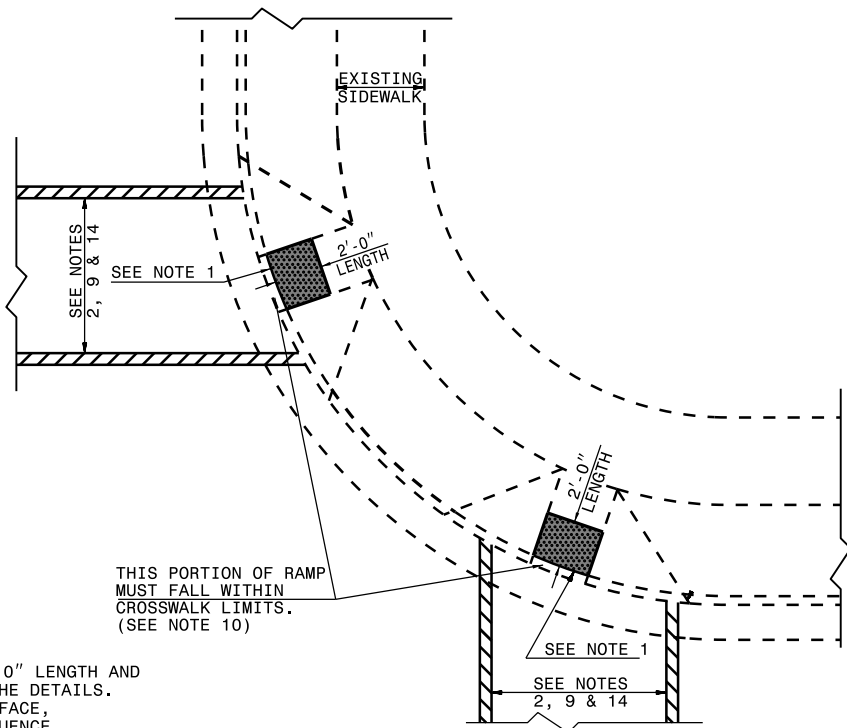
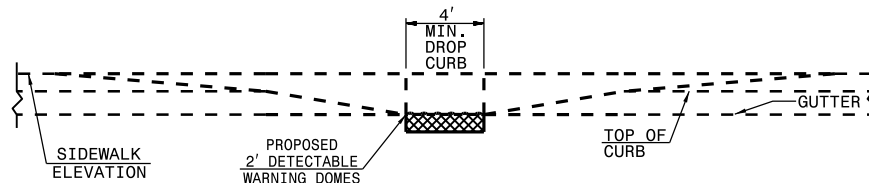
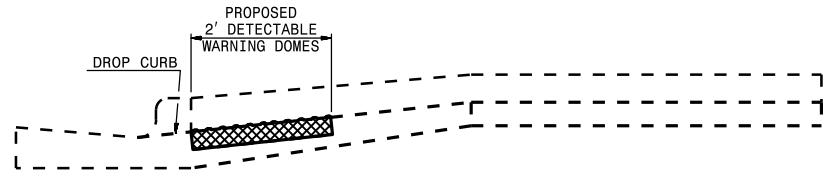
22-JAN-2016 09:41
C:\Users\jporter\Documents\Projects\Division 4\1-5937 Wilson March 2018\Revised Shoulder Wedge Detail.dgn
jporter At 10:26:52



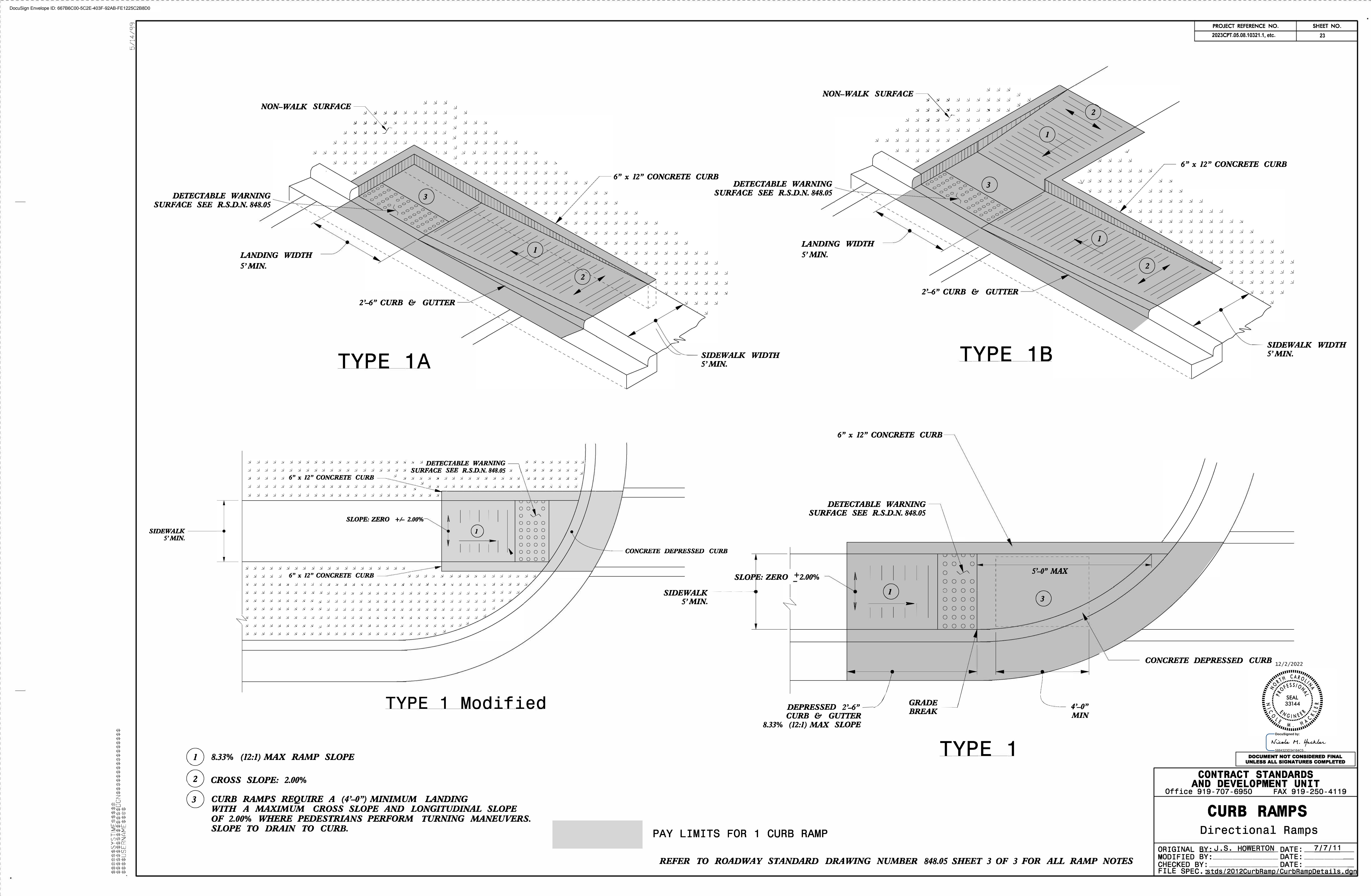
PAY LIMITS OF RETROFIT CURB RAMP



- 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.

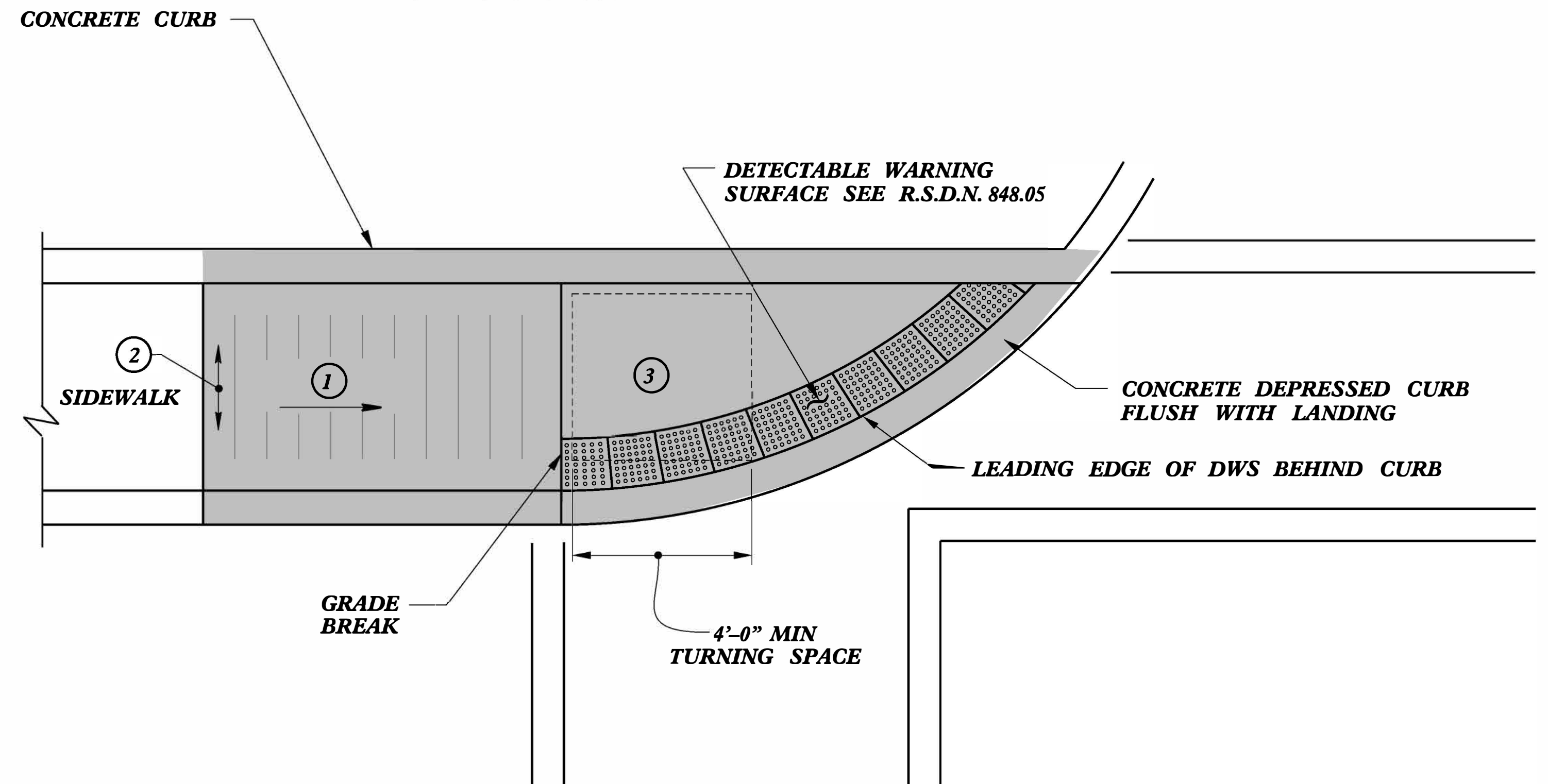
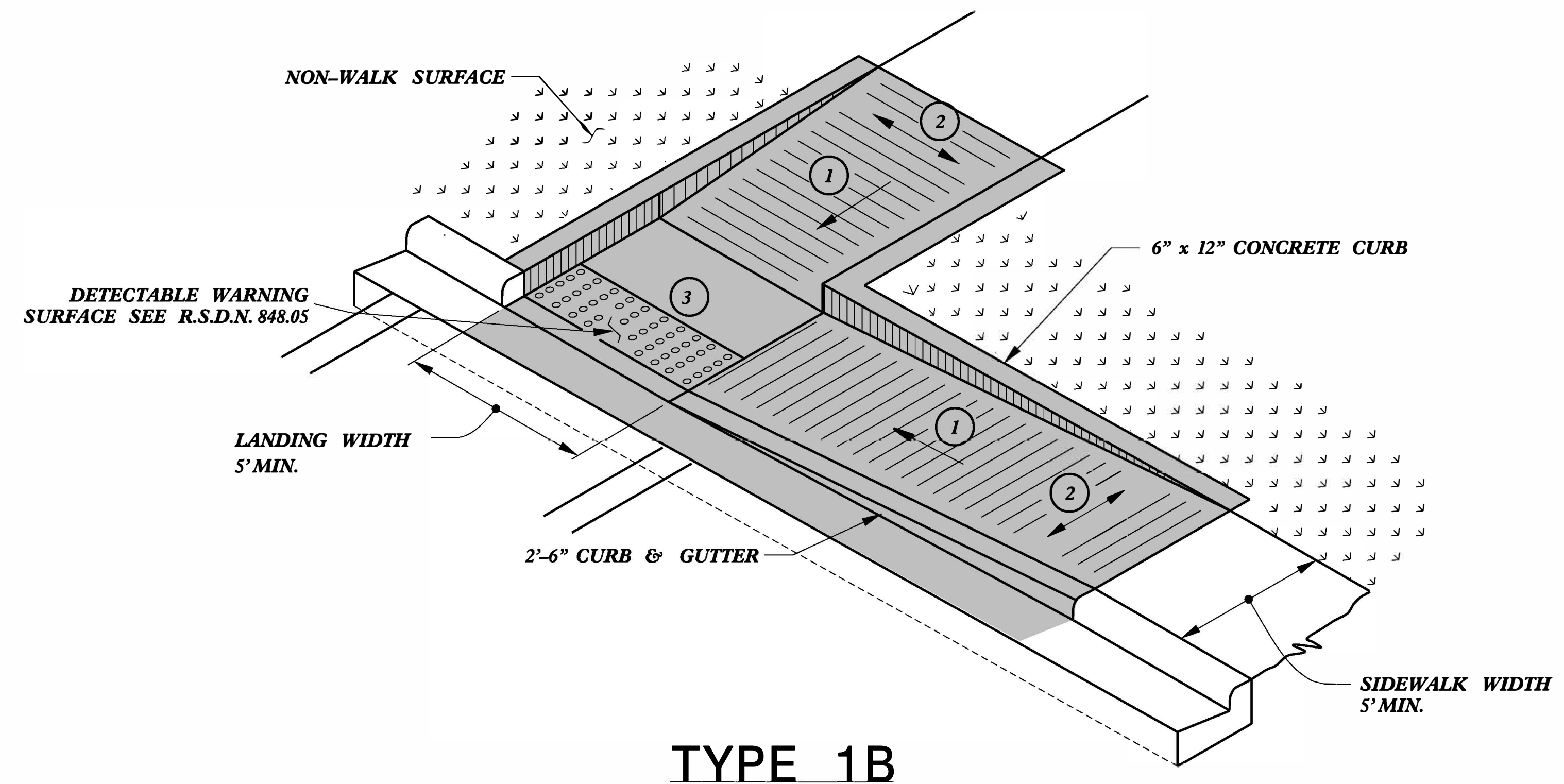


DUAL RAMPS
ANY RADII
(40" MIN. FLOOR WIDTH)



5/14/99
SYSTEMS
DESIGN
ENGINEERS
P.C.

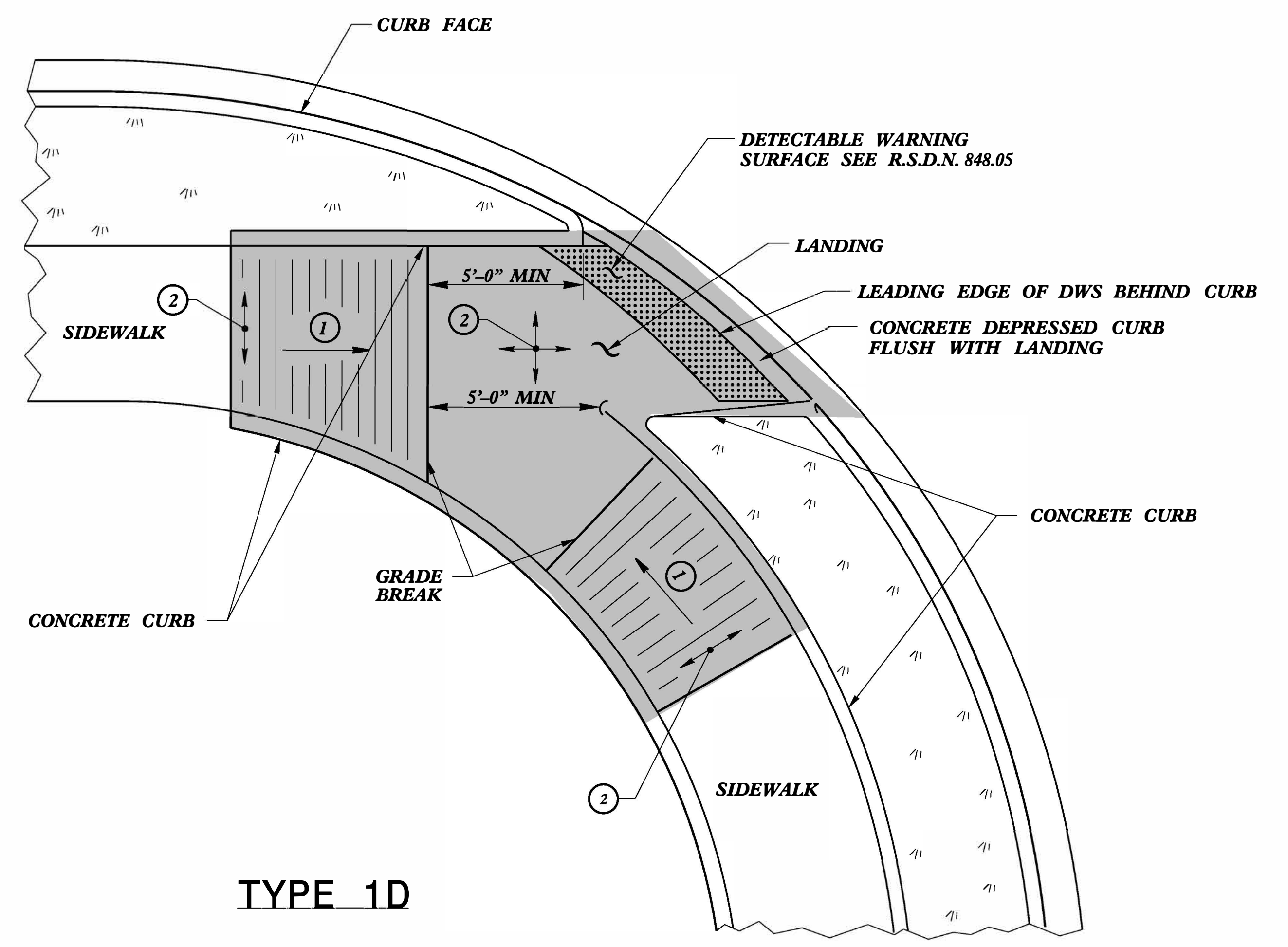
PROJECT REFERENCE NO.	SHEET NO.
2023CPT.05.08.10321.1, etc.	23A



- 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.

TYPE 1C

PAY LIMITS FOR 1 CURB RAMP



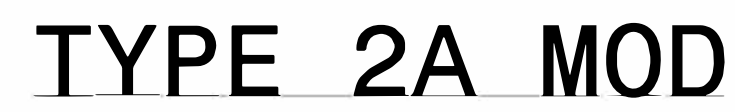
TYPE 1D



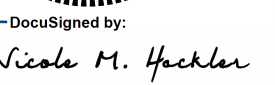
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

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	

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



- ### PAY LIMITS FOR 1 CURB RAMP



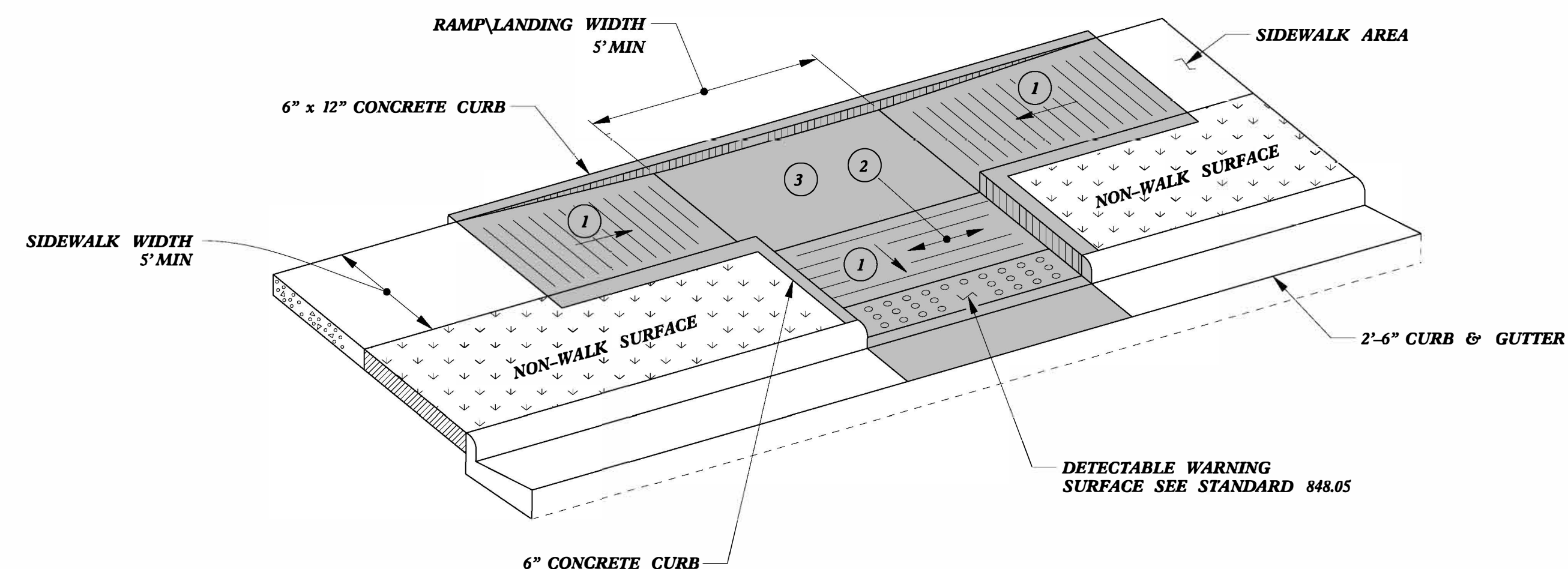
**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

**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

PAY LIMITS FOR 1 CURB RAMP



TYPE 3

-

DocuSigned by:
Nicole M. Hackler

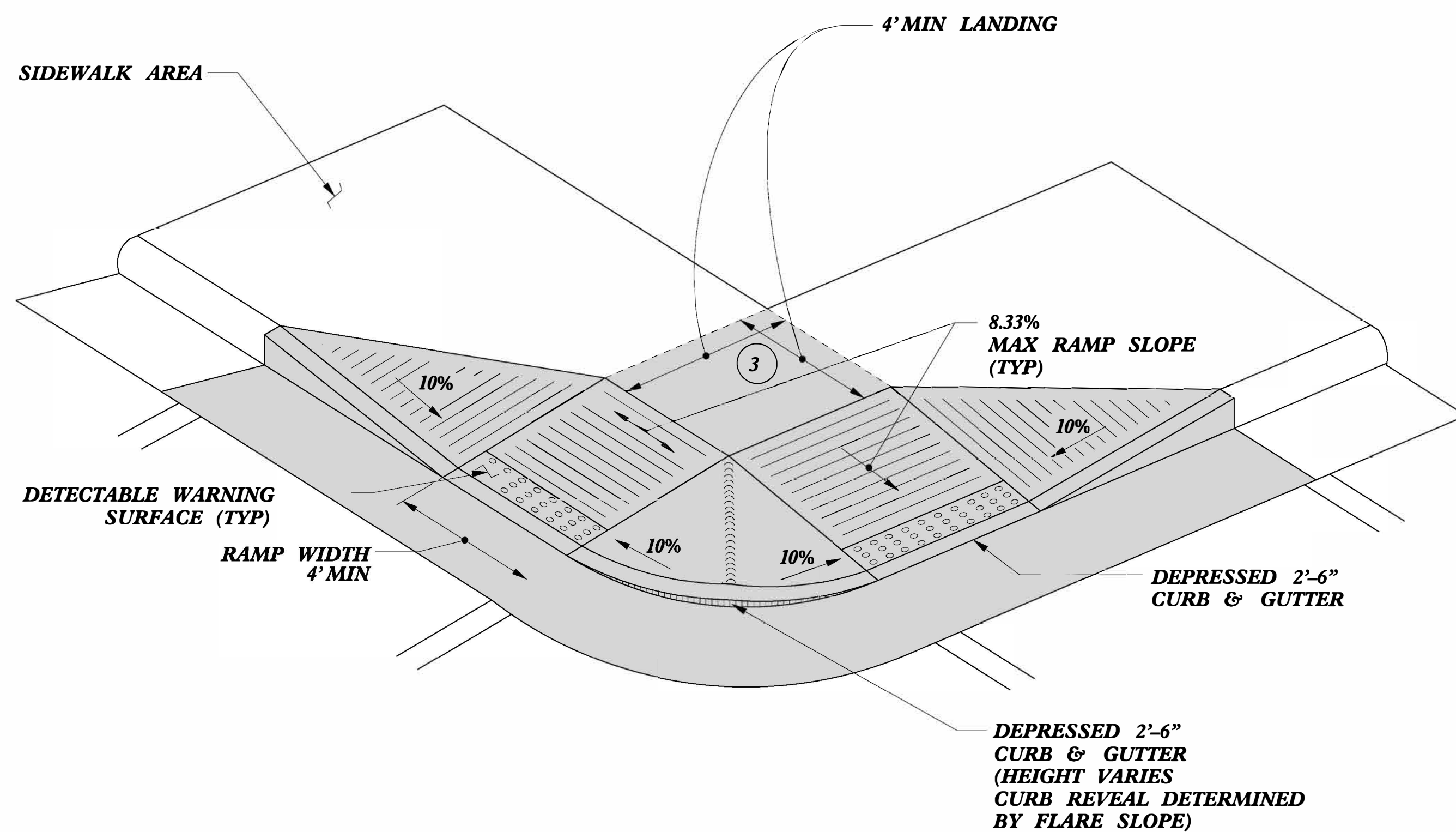
5884323034164C6...

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

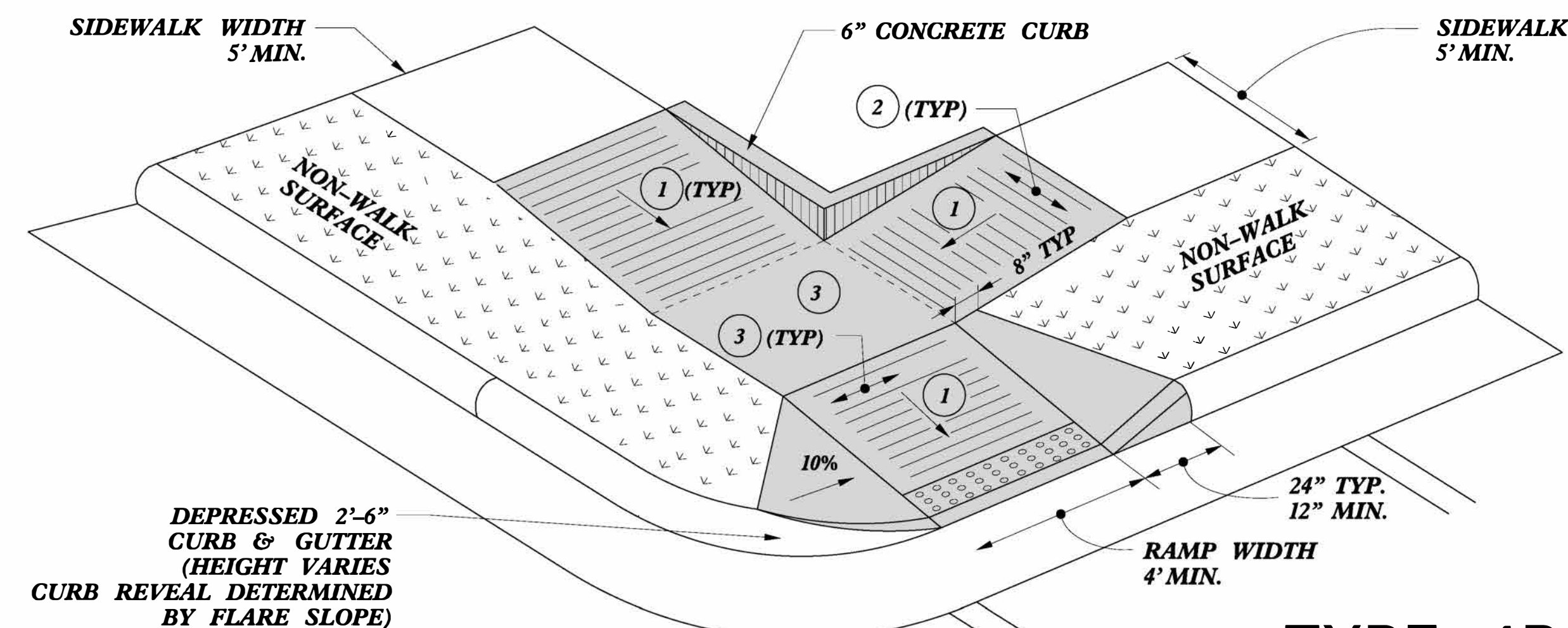
**CONTRACT STANDARDS
AND DEVELOPMENT UNIT**
Office 919-707-6950 FAX 919-250-4119

CURB RAMPS

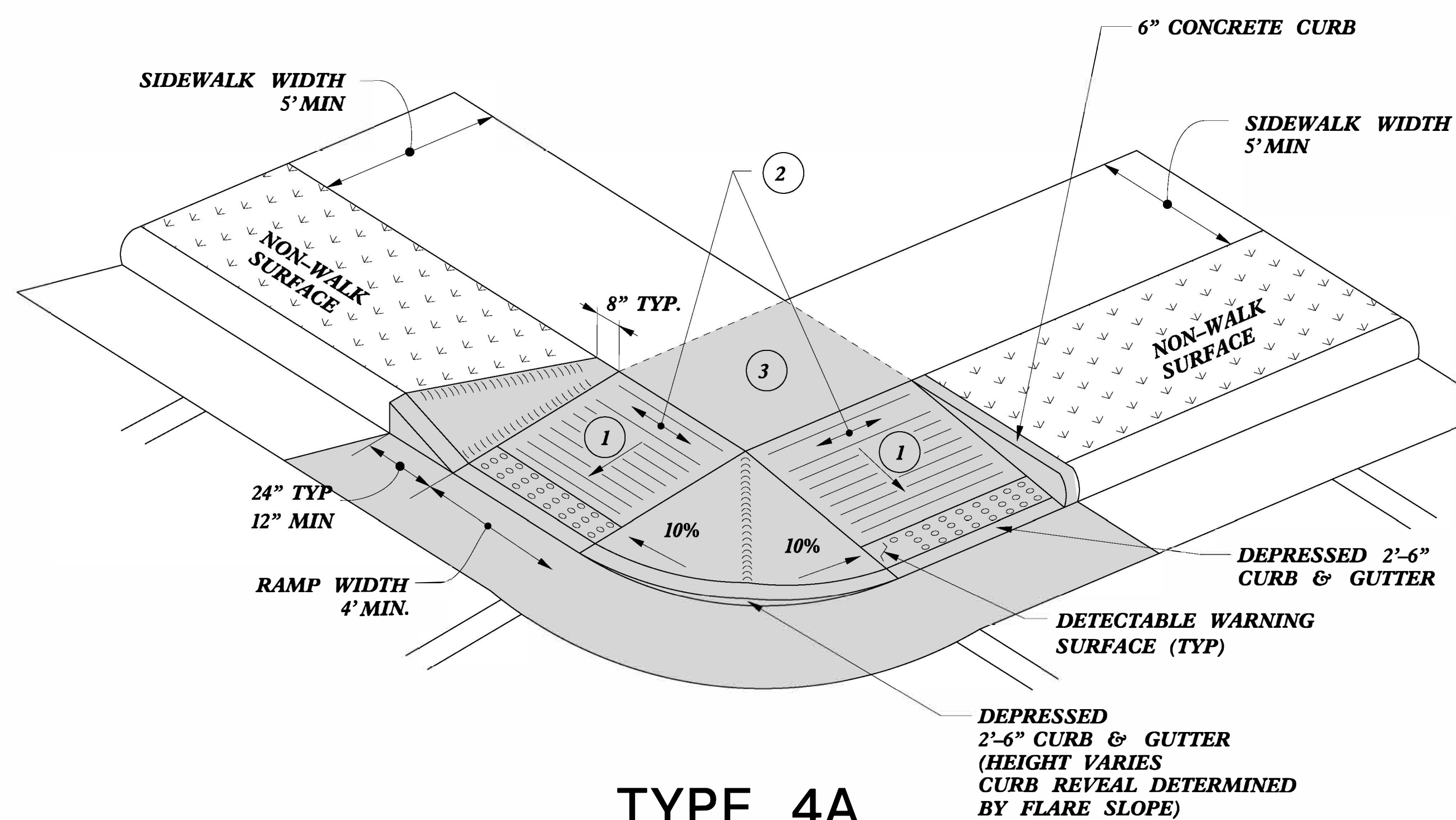
ORIGINAL BY: J.S. HOWERTON DATE: 7/7/11
MODIFIED BY: DATE:
CHECKED BY: DATE:
FILE SPEC. stds/2012CurbRamp/CurbRampDetails.do



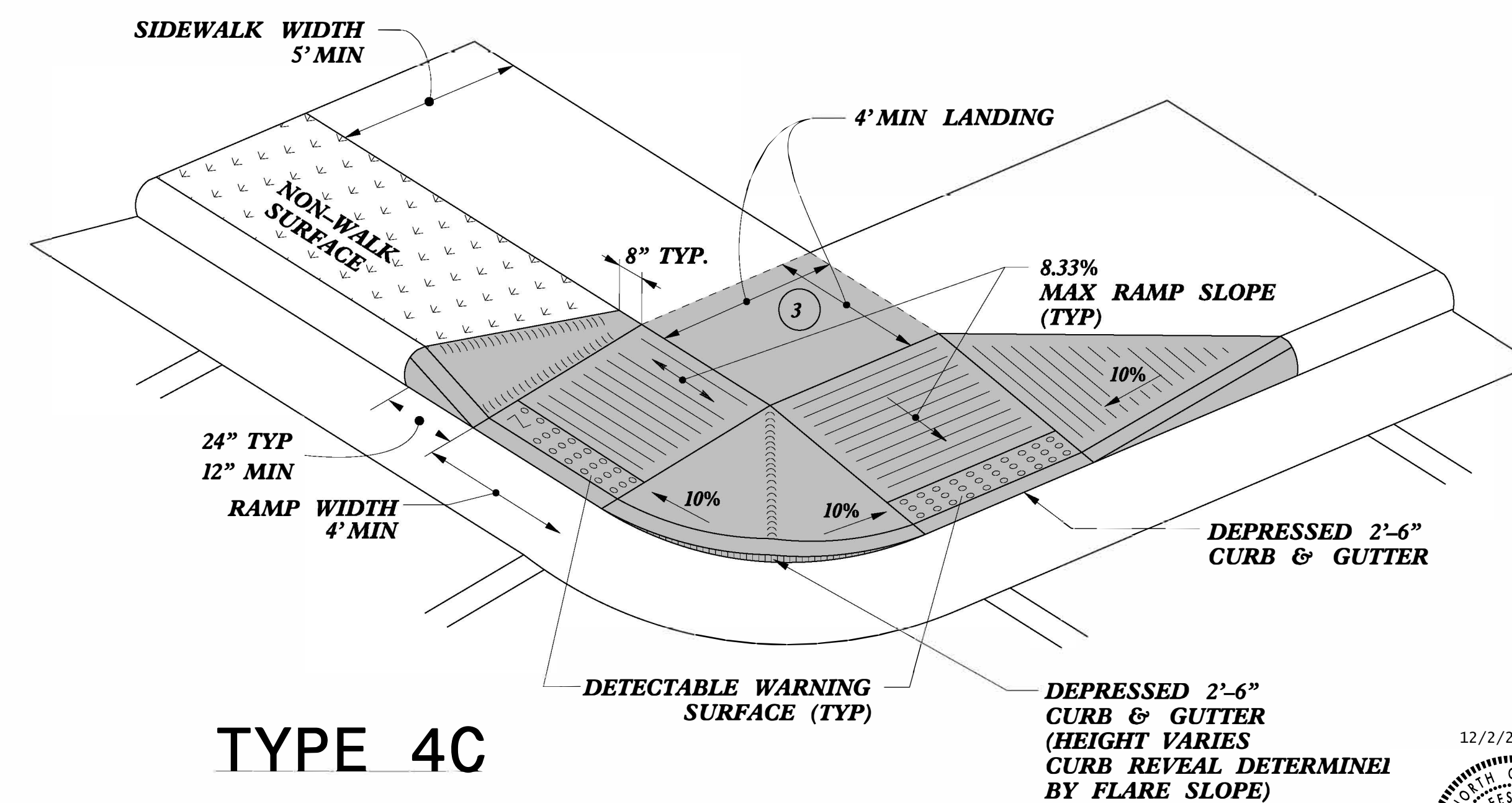
TYPE 4



TYPE 4B



TYPE 4A

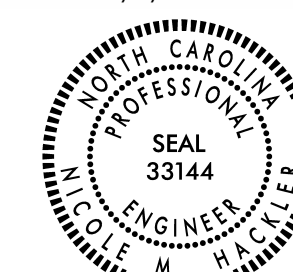


TYPE 4C

- 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.

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

12/2/2022



DocuSigned by:
Nicole M. Heckler
E98432D74156C6

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

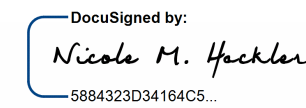
**CONTRACT STANDARDS
AND DEVELOPMENT UNIT**
Office 919-707-6950 FAX 919-250-4119

CURB RAMPS

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



- 12/2/2022



CURB RAMPS

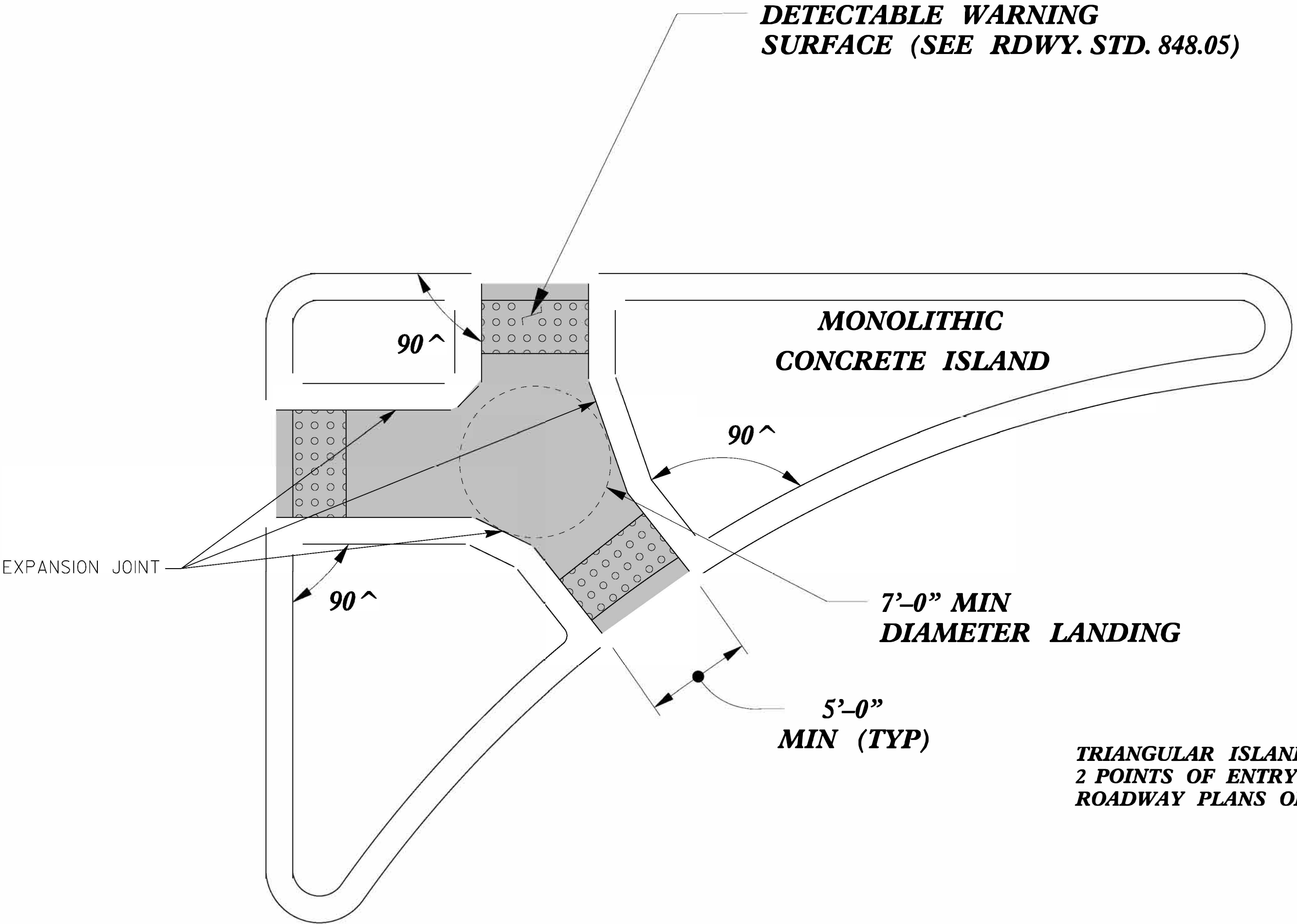
ORIGINAL BY: J.S. HOWERTON DATE: 7/7/11
MODIFIED BY: _____ DATE: _____
CHECKED BY: _____ DATE: _____
FILE SPEC. stds/2012CurbRamp/CurbRampDetails.dwg

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

5/14/99

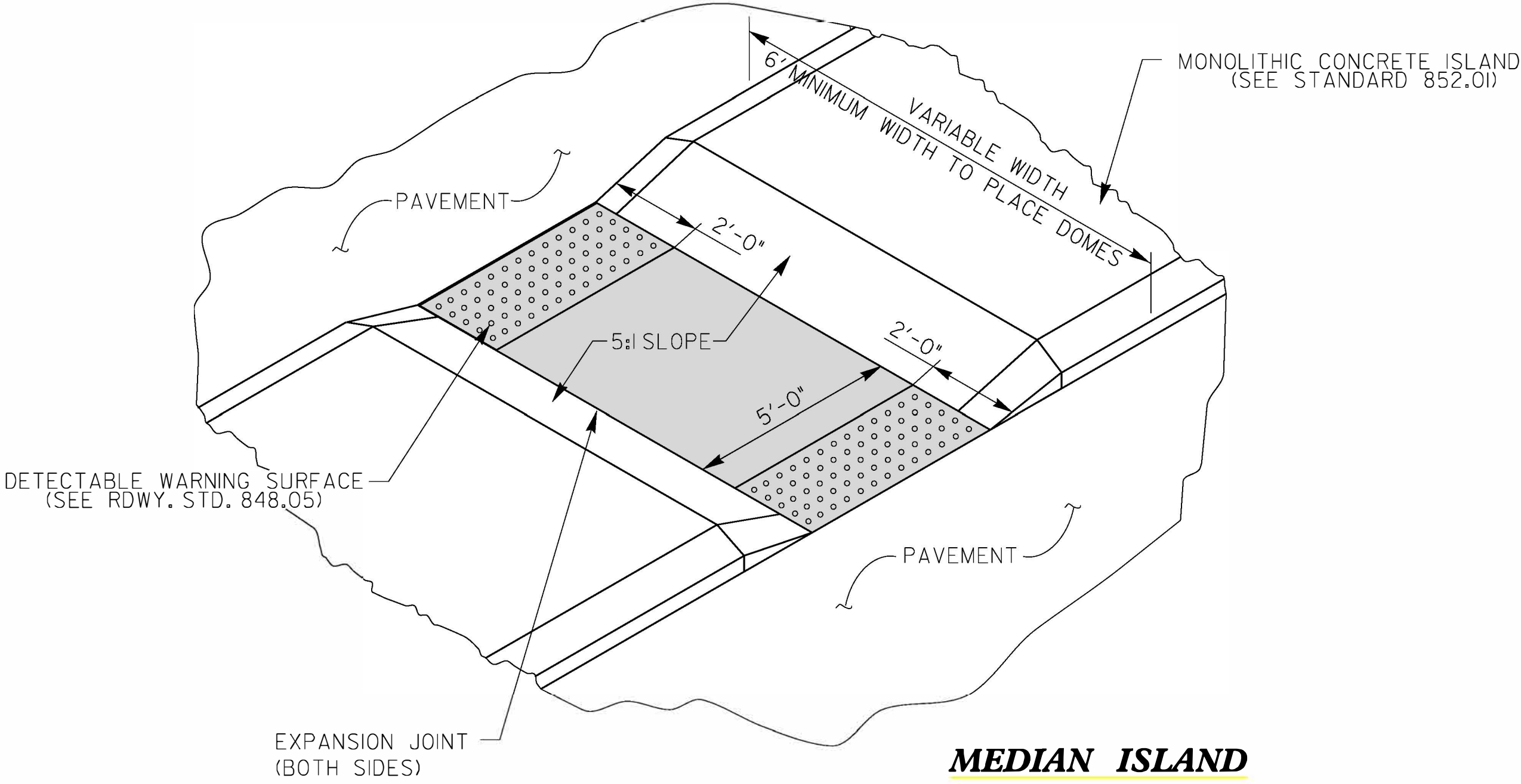
PROJECT REFERENCE NO.	SHEET NO.
2023CPT.05.08.10321.1, etc.	28

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

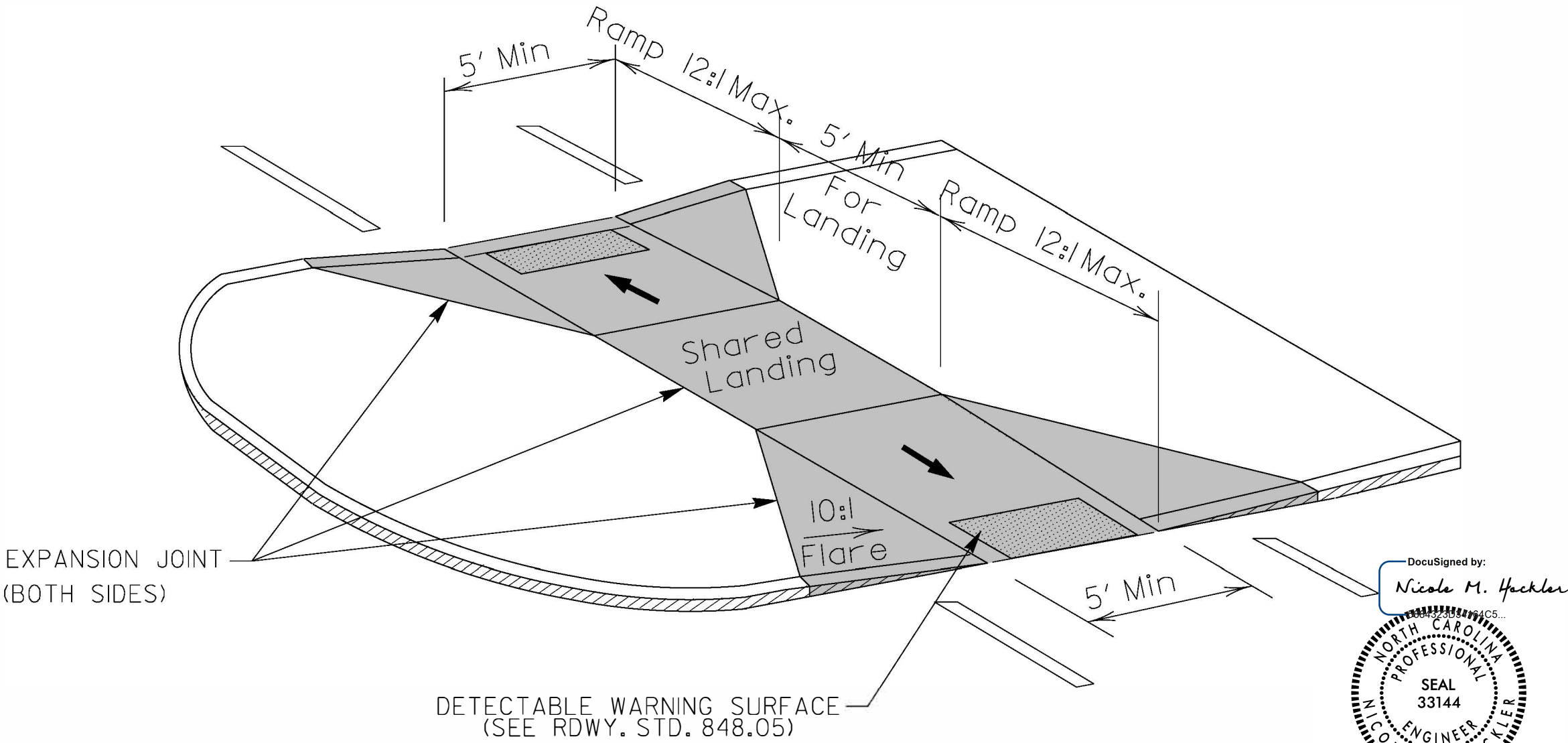


TRIANGULAR ISLANDS MAY BE CONSTRUCTED WITH ONLY
2 POINTS OF ENTRY AND EXIT AS SHOWN IN THE
ROADWAY PLANS OR AS DIRECTED BY THE ENGINEER.

**TRIANGULAR ISLAND
WITH CUT THROUGH
TYPE 6**



**MEDIAN ISLAND
WITH CUT THROUGH
TYPE 7**



**MEDIAN ISLAND
CURB RAMPS
TYPE 8**

DocuSigned by:
Nicola M. Hecker
NORTH CAROLINA
PROFESSIONAL
SEAL
33144
ENGINEER
12/7/2022

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	



**CITY OF
DURHAM**

**Public Works
Department**
Engineering Services
101 City Hall Plaza
Durham, NC 27701
(919) 560-4326 | DURHAM.NC.GOV



CITY OF DURHAM
PUBLIC WORKS DEPARTMENT
APPROVED

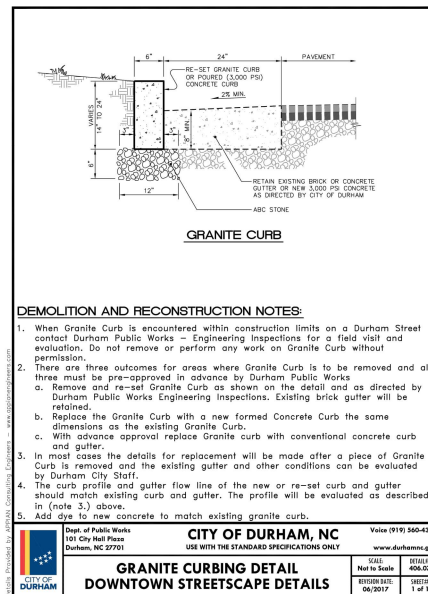
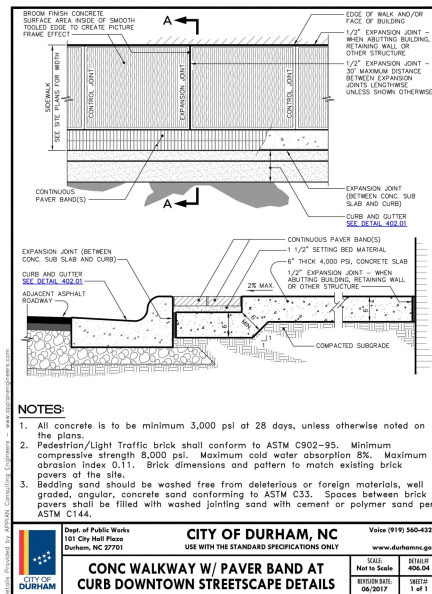
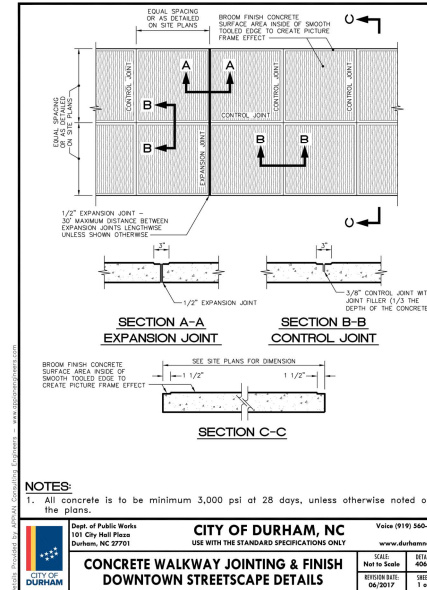
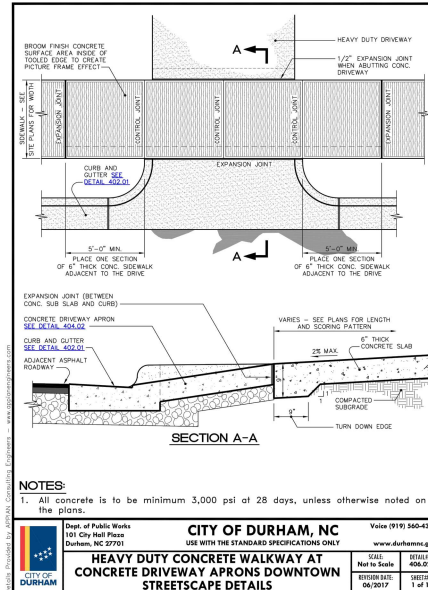
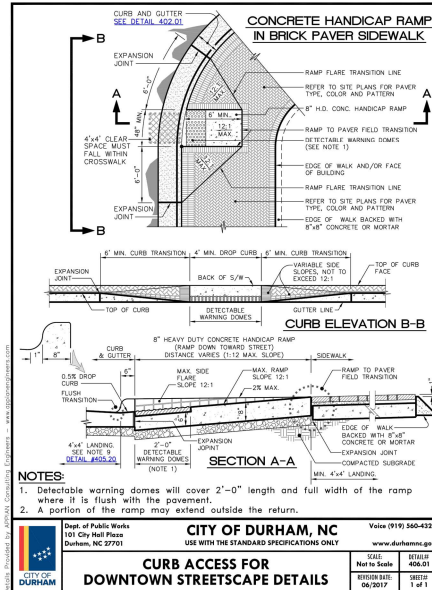
ENGINEERING DATE _____
STANDARD DATE _____
TRANSPORTATION DATE _____
DATE _____

DOWNTOWN DURHAM DETAILS



NO.	REVISIONS	DATE	BY

DETAIL | 1



ADA SUMMARY OF QUANTITIES - TOTALS

Project Number:	2024 S Durham
WBS Number:	2023CPT.05.08.20321.1
	2023CPT.05.08.10321.1
County:	Durham

Project Number	County	Municipality	Resurfacing Route	4447000000-E	4600000000-N	4600000000-N	2549000000-E	2752000000-E	2752000000-E	2591000000-E	2738000000-E	2738000000-E	2738000000-E	2830000000-N	2845000000-N	4116100000-N	2738000000-E	2759000000-N	2613000000-N	2605000000-N	2759000000-N
				Pedestrian Channelizing Devices	Generic Traffic Control Item - Pedestrian Transport Service EA	Generic Traffic Control Item - Audible Warning Device EA	2'-6" Concrete Curb & Gutter	Remove and Replace Curb & Gutter	Remove Curb & Gutter	4" Concrete Sidewalk	Nonstandard Sidewalk	Remove and Replace Sidewalk	Remove Sidewalk	Adjustment of Manholes	Adjustment of Meter Boxes or Valve Boxes	Relocate Sign Type E	Remove Driveway Apron	Retrofit Curb Ramp Detectable Warnings	Remove and Replace Curb Ramp	Concrete Curb Ramp	Remove Curb Ramp
				LF	EA	EA	LF	LF	LF	SY	SY	SY	SY	EA	EA	EA	SY	EA	EA	EA	EA
2024 S Durham	Durham	Durham	US 70 Bus From SR 1320 To S Buchanan Blvd	160	40	6	0	0	0	5	0	3	0	1	0	0	0	8	5	0	0
2024 S Durham	Durham	Durham	US 15 Bus From SR 1183 To E Forest Hills Blvd				30	0	16	25	0	6	24	0	0	0	0	3	8	3	3
2024 S Durham	Durham	Durham	US 15 Bus From US 15 Bus To US 70 Bus				21	5	30	15	0	9	39	0	4	3	0	14	28	4	3
2024 S Durham	Durham	Durham	US 15 Bus From E Main St To I-85				177	16	18	84	30	48	55	3	4	0	22	3	51	7	9
2024 S Durham	Durham	Durham	Liberty St From US 15 BUS To SR 2267	60	10	2	0	0	0	0	0	0	0	0	0	0	0	2	3	0	0
2024 S Durham	Durham	Durham	Auto Drive From SR 1205 To Mayfair St				0	0	0	0	0	0	0	0	0	0	0	0	3	0	0
2024 S Durham	Durham	Durham / Outside Municipality	TW Alexander Dr To/From NC 147 From/To Wake County				87	0	0	64	0	54	0	1	1	0	0	7	20	0	5
2024 S Durham	Durham	Outside Municipality	Louis Stephens Dr From Wake County To SR 2028				0	0	0	0	0	0	0	0	0	0	0	4	2	0	0
2024 S Durham	Durham	Raleigh	Blue Grass Rd From SR 1981 To SR 2070				22	0	0	0	0	0	0	0	0	1	0	0	2	0	1
GRAND TOTAL				220	50	8	337	21	64	193	30	120	118	5	9	4	22	41	122	14	21

ADA SUMMARY OF QUANTITIES - US 70 BUS FROM SR 1320 TO S BUCHANAN BLVD

Municipality:	Durham
Project Number:	2024 S Durham
WBS Number:	2023CPT.05.08.10321.1
County:	Durham

Ramp ID	Inset Map Number	Route 1	Route 2	2549000000-E	2752000000-E	2752000000-E	2591000000-E	2738000000-E	2738000000-E	2738000000-E	2830000000-N	2845000000-N	4116100000-N	2738000000-E	2759000000-N	2613000000-N	2605000000-N	2759000000-N	Improvement Type
				2'-6" Concrete Curb & Gutter	Remove and Replace Curb & Gutter	Remove Curb & Gutter	4" Concrete Sidewalk	Nonstandard Sidewalk	Remove and Replace Sidewalk	Remove Sidewalk	Adjustment of Manholes	Adjustment of Meter Boxes or Valve Boxes	Relocate Sign Type E	Remove Driveway Apron	Retrofit Curb Ramp Detectable Warnings	Remove and Replace Curb Ramp	Concrete Curb Ramp	Remove Curb Ramp	
				LF	LF	LF	SY	SY	SY	SY	EA	EA	EA	SY	EA	EA	EA	EA	
7195	1	US-70-BUS (W Main St)	Iredell St												1				Type1Modified
7196	1	US-70-BUS (W Main St)	Iredell St								1				1				Type1B
7204	2	US-70 BUS (W Main St)	SR-1322 (Swift Ave)						3						1				Type1Modified
19338	3	US-70-BUS (W Main St)	Campus Dr												1				RetrofitWarnings
19339	3	US-70-BUS (W Main St)	Campus Dr												1				RetrofitWarnings
19340	3	US-70-BUS (W Main St)	Campus Dr												1				RetrofitWarnings
19341	3	US-70-BUS (W Main St)	Campus Dr												1				RetrofitWarnings
2548	4	US-70 BUS (W Main St)	S Buchanan Blvd												1				RetrofitWarnings
2549	4	US-70 BUS (W Main St)	N Buchanan Blvd				3								2				RetrofitWarnings
2550	4	US-70 BUS (W Main St)	S Buchanan Blvd												1				RetrofitWarnings
2551	4	US-70 BUS (W Main St)	N Buchanan Blvd													1			Type4A
2553	4	US-70 BUS (W Main St)	N Buchanan Blvd				2									1			Type4A
Sub-Total for US 70 Bus From SR 1320 To S Buchanan Blvd				0	0	0	5	0	3	0	1	0	0	0	8	5	0	0	

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

ADA SUMMARY OF QUANTITIES - US 15 BUS FROM SR 1183 TO E FOREST HILLS BLVD

Municipality:	Durham
Project Number:	2024 S Durham
WBS Number:	2023CPT.05.08.10321.1
County:	Durham

Ramp ID	Inset Map Number	Route 1	Route 2	2549000000-E	2752000000-E	2752000000-E	2591000000-E	2738000000-E	2738000000-E	2738000000-E	2830000000-N	2845000000-N	4116100000-N	2738000000-E	2759000000-N	2613000000-N	2605000000-N	2759000000-N	Improvement Type
				2'-6" Concrete Curb & Gutter LF	Remove and Replace Curb & Gutter LF	Remove Curb & Gutter LF	4" Concrete Sidewalk SY	Nonstandard Sidewalk SY	Remove and Replace Sidewalk SY	Remove Sidewalk SY	Adjustment of Manholes EA	Adjustment of Meter Boxes or Valve Boxes EA	Relocate Sign Type E EA	Remove Driveway Apron SY	Retrofit Curb Ramp Detectable Warnings EA	Remove and Replace Curb Ramp EA	Concrete Curb Ramp EA	Remove Curb Ramp EA	
24669	1	US-15 BUS (University Dr)	Etna St												1				RetrofitWarnings
22899	2	US-15-BUS (University Dr)	W Forest Hills Blvd													1			Standard - 848.06
22900	2	US-15-BUS (University Dr)	W Forest Hills Blvd													1			Standard - 848.06
22901	2	US-15-BUS (University Dr)	W Forest Hills Blvd													1			Type1A
24668	2	US-15 BUS (University Dr)	W Forest Hills Blvd				9											1	Remove Ramp
25321	2	US-15 BUS (University Dr)	W Forest Hills Blvd						8										Other
22894	3	US-15-BUS (University Dr)	Shepherd St													1			Type1Modified
22895	3	US-15-BUS (University Dr)	Shepherd St						6							1			Type1Modified
22896	3	US-15-BUS (University Dr)	Hermitage Court Dr	15					6									1	Remove Ramp
22897	3	US-15-BUS (University Dr)	Hermitage Court Dr	15					3									1	Remove Ramp
25387	3	US-15-BUS (University Dr)	Hermitage Court Dr			8	6										1		Type1Modified
25386	3	US-15-BUS (University Dr)	Hermitage Court Dr			8	6										1		Type1Modified
22892	4	US-15-BUS (University Dr)	E Forest Hills Plz													1			Type 1C
22893	4	US-15-BUS (University Dr)	E Forest Hills Plz													1			Type2AModified
22903	4	US-15-BUS (University Dr)	E Forest Hills Blvd				2									1			Type2B
25320	4	US-15-BUS (University Dr)	E Forest Hills Blvd						7								1		Type1Modified
22890	5	US-15-BUS (University Dr)	SR-1361 (Vickers Ave)				2								1				RetrofitWarnings
22891	5	US-15-BUS (University Dr)	SR-1361 (Vickers Ave)												1				RetrofitWarnings
Sub-Total for US 15 Bus From SR 1183 To E Forest Hills Blvd				30	0	16	25	0	6	24	0	0	0	0	3	8	3	3	

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

ADA SUMMARY OF QUANTITIES - US 15 BUS FROM US 15 BUS TO US 70 BUS

Municipality:	Durham
Project Number:	2024 S Durham
WBS Number:	2023CPT.05.08.10321.1
County:	Durham

Ramp ID	Inset Map Number	Route 1	Route 2	2549000000-E	2752000000-E	2752000000-E	2591000000-E	2738000000-E	2738000000-E	2738000000-E	2830000000-N	2845000000-N	4116100000-N	2738000000-E	2759000000-N	2613000000-N	2605000000-N	2759000000-N	Improvement Type
				2'-6" Concrete Curb & Gutter	Remove and Replace Curb & Gutter	Remove Curb & Gutter	4" Concrete Sidewalk	Nonstandard Sidewalk	Remove and Replace Sidewalk	Remove Sidewalk	Adjustment of Manholes	Adjustment of Meter Boxes or Valve Boxes	Relocate Sign Type E	Remove Driveway Apron	Retrofit Curb Ramp Detectable Warnings	Remove and Replace Curb Ramp	Concrete Curb Ramp	Remove Curb Ramp	
				LF	LF	LF	SY	SY	SY	SY	EA	EA	EA	SY	EA	EA	EA	EA	
7214	1	US-15 BUS (S Mangum St)	US-70 BUS (W Ramseur St)													1			Type1Modified
7215	1	US-15 BUS (S Mangum St)	US-70 BUS (E Ramseur St)	8			3										1		Remove Ramp
24089	1	US-15 BUS (S Mangum St)	US-70 BUS (E Ramseur St)													1			Standard - 848.06
24090	1	US-15 BUS (S Mangum St)	US-70 BUS (W Ramseur St)										1			1			Standard - 848.06
25319	1	US-15 BUS (S Mangum St)	US-70 BUS (E Ramseur St)			15			6	12							1		Standard - 848.06
7218	2	US-15 BUS (N Mangum St)	E Main St		5				3			2				1			Type2B
7223	2	US-15 BUS (S Mangum St)	W Main St												1				RetrofitWarnings
7226	2	US-15 BUS (N Mangum St)	W Main St													1			Standard - 848.06
7216	2	US-15 BUS (N Mangum St)	W Main St													1			RetrofitWarnings
7228	3	US-15 BUS (N Mangum St)	W Parrish St													1			RetrofitWarnings
7227	3	US-15 BUS (N Mangum St)	W Parrish St													1			RetrofitWarnings
7233	3	US-15 BUS (N Mangum St)	W Parrish St													1			RetrofitWarnings
7234	3	US-15 BUS (N Mangum St)	W Parrish St													1			RetrofitWarnings
7237	4	US-15 BUS (N Mangum St)	City Hall Plz														1		Type1
7238	4	US-15 BUS (N Mangum St)	City Hall Plz														1		Standard - 848.06
4042	5	US-15 BUS (N Mangum St)	NC-98 (E Chapel Hill St)														1		Standard - 848.06
4043	5	US-15 BUS (N Mangum St)	E Chapel Hill St														1		Standard - 848.06
23115	5	US-15-BUS (N Mangum St)	E Chapel Hill St													1			RetrofitWarnings
23116	5	US-15-BUS (N Mangum St)	E Chapel Hill St													1			RetrofitWarnings
23117	5	US-15-BUS (N Mangum St)	E Chapel Hill St													1			RetrofitWarnings
3870	6	US-15-BUS (N Mangum St)	US-70-BUS (E Morgan St)														1		Type2B
3874	6	US-15-BUS (N Mangum St)	US-70-BUS (W Morgan St)															1	RetrofitWarnings
4040	6	US-15-BUS (N Mangum St)	US-70-BUS (E Morgan St)	8			9											1	Remove Ramp
25353	6	US-15-BUS (N Mangum St)	US-70-BUS (E Morgan St)			10				9							1		Type2B
3888	7	US-15 BUS (N Mangum St)	W Seminary Ave												1				RetrofitWarnings
3889	7	US-15 BUS (N Mangum St)	E Seminary Ave														1		Type4A
3890	7	US-15 BUS (N Mangum St)	E Seminary Ave														1		Type4A
3891	7	US-15-BUS (N Mangum St)	E Seminary Ave														1		Type1B
4037	7	US-15-BUS (N Mangum St)	W Seminary Ave														1		Type1B
3893	8	US-15-BUS (N Mangum St)	Hunt St											1			1		Type4B
3899	9	US-15-BUS (N Mangum St)	Broadway St									1					1		Type4A
3901	9	US-15-BUS (N Mangum St)	Broadway St														1		Type1Modified
3903	9	US-15-BUS (N Mangum St)	Dowd St														1		Type 1D
3906	9	US-15-BUS (N Mangum St)	Dowd St														1		Standard - 848.06
25354	9	US-15 BUS (N Mangum St)	Broadway St															1	Type4A
3908	10	US-15-BUS (N Mangum St)	W Corporation St															1	RetrofitWarnings
3910	10	US-15 BUS (N Mangum St)	Cleveland St												1				RetrofitWarnings
3914	10	US-15 BUS (N Mangum St)	E Corporation St							12							1		Type1B
3916	10	US-15-BUS (N Mangum St)	W Corporation St	5			3											1	Remove Ramp
25356	10	US-15 BUS (N Mangum St)	W Corporation St			5				6		1					1		Type3
3917	11	US-15 BUS (N Mangum St)	Miosha St														1		Type1B
3918	11	US-15 BUS (N Mangum St)	Miosha St														1		Type1Modified
3919	12	US-15-BUS (N Mangum St)	W Geer St														1		Type2B
3927	13	US-15-BUS (N Mangum St)	W Seeman St															1	RetrofitWarnings
3928	13	US-15-BUS (N Mangum St)	W Seeman St														1		Type2A
3929	13	US-15-BUS (N Mangum St)	E Seeman St														1		Type2AModified
3930	13	US-15-BUS (N Mangum St)	E Seeman St														1		Type2A
3939	14	US-15-BUS (N Mangum St)	E Lynch St														1		Type2A
4035	14	US-15-BUS (N Mangum St)	E Lynch St											1			1		Type2A
Sub-Total for US 15 Bus From US 15 Bus To US 70 Bus				21	5	30	15	0	9	39	0	4	3	0	14	28	4	3	

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

ADA SUMMARY OF QUANTITIES - US 15 BUS FROM E MAIN ST TO I-85

Municipality:	Durham
Project Number:	2024 S Durham
WBS Number:	2023CPT.05.08.10321.1
County:	Durham

Ramp ID	Inset Map Number	Route 1	Route 2	2549000000-E	2752000000-E	2752000000-E	2591000000-E	2738000000-E	2738000000-E	2738000000-E	2830000000-N	2845000000-N	4116100000-N	2738000000-E	2759000000-N	2613000000-N	2605000000-N	2759000000-N	Improvement Type
				2'-6" Concrete Curb & Gutter	Remove and Replace Curb & Gutter	Remove Curb & Gutter	4" Concrete Sidewalk	Nonstandard Sidewalk	Remove and Replace Sidewalk	Remove Sidewalk	Adjustment of Manholes	Adjustment of Meter Boxes or Valve Boxes	Relocate Sign Type E	Remove Driveway Apron	Retrofit Curb Ramp Detectable Warnings	Remove and Replace Curb Ramp	Concrete Curb Ramp	Remove Curb Ramp	
				LF	LF	LF	SY	SY	SY	SY	EA	EA	EA	SY	EA	EA	EA	EA	
7270	1	US-15 BUS (N Roxboro St)	E Main St													1			Standard - 848.06
7271	1	US-15 BUS (S Roxboro St)	E Main St									1				1			Type2A
7273	1	US-15 BUS (S Roxboro St)	E Main St									1				1			Type2B
7275	1	US-15 BUS (N Roxboro St)	E Main St												1				RetrofitWarnings
23098	1	US-15 BUS (N Roxboro St)	E Main St									1				1			Standard - 848.06
23099	2	US-15-BUS (N Roxboro St)	E Parrish St	20				15										1	Remove Ramp
23100	2	US-15-BUS (N Roxboro St)	E Parrish St												1				RetrofitWarnings
23101	2	US-15-BUS (N Roxboro St)	E Parrish St												1				RetrofitWarnings
23102	2	US-15-BUS (N Roxboro St)	E Parrish St	20				15										1	Remove Ramp
23103	2	US-15-BUS (N Roxboro St)	E Parrish St	15			15											1	Remove Ramp
23104	2	US-15-BUS (N Roxboro St)	E Parrish St	15			15											1	Remove Ramp
4050	3	US-15 BUS (N Roxboro St)	NC-98 (Liberty St)													1			Type1B
4051	3	US-15-BUS (N Roxboro St)	SR-2266 (Liberty St)													1			Type2B
4052	3	US-15-BUS (N Roxboro St)	SR-2266 (Liberty St)													1			Type8
23105	3	US-15-BUS (N Roxboro St)	SR-2266 (Liberty St)													1			Type8
23106	3	US-15-BUS (N Roxboro St)	SR-2266 (Liberty St)													1			Type8
3574	4	US-15-BUS (N Roxboro St)	US-70-BUS (Holloway St)													1			Type2B
3576	4	US-15-BUS (N Roxboro St)	US-70-BUS (Holloway St)													1			Type8
3577	4	US-15-BUS (N Roxboro St)	US-70-BUS (Holloway St)						6		1					1			Type1B
23325	4	US-15-BUS (N Roxboro St)	US-70-BUS (Holloway St)													1			Type8
23326	4	US-15-BUS (N Roxboro St)	US-70-BUS (Holloway St)													1			Type8
3853	5	US-15-BUS (N Roxboro St)	Elliott St													1			Type4A
3856	5	US-15-BUS (N Roxboro St)	Elliott St													1			Type4A
3857	5	US-15-BUS (N Roxboro St)	Elliott St													1			Standard - 848.06
3859	5	US-15-BUS (N Roxboro St)	Elliott St													1			Type4A
3860	5	US-15-BUS (N Roxboro St)	Elliott St													1			Type4A
4058	5	US-15-BUS (N Roxboro St)	Elliott St						6		1					1			Standard - 848.06
24701	5	US-15-BUS (N Roxboro St)	Elliott St													1			Type4A
25348	5	US-15-BUS (N Roxboro St)	Elliott St			5			3	3							1		Type4A
3863	6	US-15-BUS (N Roxboro St)	Mallard Ave													1			Type4B
3865	6	US-15-BUS (N Roxboro St)	Mallard Ave													1			Type4
3866	6	US-15-BUS (N Roxboro St)	Mallard Ave													1			Type4A
25349	6	US-15-BUS (N Roxboro St)	Mallard Ave							3							1		Type4A
25350	6	US-15-BUS (N Roxboro St)	Mallard Ave														1		Type4
3877	7	US-15-BUS (N Roxboro St)	Canal St													1			Type1Modified
3879	7	US-15-BUS (N Roxboro St)	Canal St													1			Type1Modified
24702	7	US-15 BUS (N Roxboro St)	Canal St	15			9											1	Remove Ramp
3884	8	US-15-BUS (N Roxboro St)	Gray Ave													1			Type1Modified
3886	8	US-15-BUS (N Roxboro St)	Gray Ave													1			Type1Modified
24703	8	US-15 BUS (N Roxboro St)	Gray Ave	15			9											1	Remove Ramp
3895	9	US-15-BUS (N Roxboro St)	Gray Ave													1			Type1Modified
3897	9	US-15-BUS (N Roxboro St)	Gray Ave													1			Type1B
3952	10	US-15-BUS (N Roxboro St)	Dowd St													1			Type4A
3956	10	US-15-BUS (N Roxboro St)	Dowd St													1			Type2B
3958	10	US-15-BUS (N Roxboro St)	Dowd St													1			Standard - 848.06
3961	10	US-15-BUS (N Roxboro St)	Dowd St				2									1			Type4A
25334	10	US-15-BUS (N Roxboro St)	Dowd St							9							1		Type2B
25351	10	US-15-BUS (N Roxboro St)	Dowd St			3			6	1	1						1		Type4A
25352	10	US-15-BUS (N Roxboro St)	Dowd St														1		Type4A
3967	11	US-15 BUS (N Roxboro St)	E Corporation St													1			Type2B
3968	11	US-15 BUS (N Roxboro St)	E Corporation St													1			Type 1D
3969	11	US-15 BUS (N Roxboro St)	E Corporation St													1			Type2AModified
4003	12	US-15-BUS (N Roxboro St)	E Trinity Ave													1			Type2A
4008	12	US-15-BUS (N Roxboro St)	E Trinity Ave	15					9						3	1			Type2B
4010	12	US-15-BUS (N Roxboro St)	E Trinity Ave													1			Type2B
4012	13	US-15-BUS (N Roxboro St)	E Seeman St	8						15					7		1		Type2A
4013	13	US-15-BUS (N Roxboro St)	E Seeman St													1			Type2A
4014	13	US-15-BUS (N Roxboro St)	E Seeman St													1			Type2AModified
4015	13	US-15-BUS (N Roxboro St)	E Seeman St													1			Type2AModified
4016	14	US-15-BUS (N Roxboro St)	E Lynch St													1			Type2A
4017	14	US-15-BUS (N Roxboro St)	E Lynch St													1			Type2B
4018	14	US-15-BUS (N Roxboro St)	E Lynch St													1			Type1B
4019	14	US-15-BUS (N Roxboro St)	E Lynch St													1			Type1B
4033	15	US-15-BUS (N Roxboro St)	US-15-BUS (E Markham Ave)	12	8		9		9									1	Remove Ramp
25355	15	US-15 BUS (N Roxboro St)	US-15 BUS (E Markham Ave)	12	8		7		7						12				Other
3946	16	US-15 BUS (N Roxboro St)	E Knox St	15			9											1	Remove Ramp
4027	16	US-15 BUS (N Roxboro St)	E Knox St	15			9											1	Remove Ramp
3953	17	US-15 BUS (N Roxboro St)	RMP-5675 (N Roxboro St I85 N Exit 177)									1				1			Type1Modified
3955	17	US-15 BUS (N Roxboro St)	RMP-5675 (N Roxboro St I85 N Exit 177)							14						1			Type2B
3963	17	US-15 BUS (N Roxboro St)	RMP-5675 (Avondale Rd N Roxboro St I85 N Access Rd)							10						1			Type1A
3964	17	US-15 BUS (N Roxboro St)	RMP-5675 (Avondale Rd N Roxboro St I85 N Access Rd)													1			Type 1C
Sub-Total for US 15 Bus From E Main St To I-85				177	16	18	84	30	48	55	3	4	0	22	3	51	7	9	

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

Municipality:	Durham
Project Number:	2024 S Durham
WBS Number:	2023CPT.05.08.20321.1
County:	Durham

Ramp ID	Inset Map Number	Route 1	Route 2	2549000000-E	2752000000-E	2752000000-E	2591000000-E	2738000000-E	2738000000-E	2738000000-E	2830000000-N	2845000000-N	4116100000-N	2738000000-E	2759000000-N	2613000000-N	2605000000-N	2759000000-N	Improvement Type
				Z'-6" Concrete Curb & Gutter	Remove and Replace Curb & Gutter	Remove Curb & Gutter	4" Concrete Sidewalk	Nonstandard Sidewalk	Remove and Replace Sidewalk	Remove Sidewalk	Adjustment of Manholes	Adjustment of Meter Boxes or Valve Boxes	Relocate Sign Type E	Remove Driveway Apron	Retrofit Curb Ramp Detectable Warnings	Remove and Replace Curb Ramp	Concrete Curb Ramp	Remove Curb Ramp	
				LF	LF	LF	SY	SY	SY	SY	EA	EA	EA	SY	EA	EA	EA	EA	
23110	1	SR-2267 (N Dillard St)	SR-2266 (Liberty St)												1				RetrofitWarnings
23111	1	SR-2267 (N Dillard St)	SR-2266 (Liberty St)													1			Type2B
23112	1	SR-2267 (N Dillard St)	SR-2266 (Liberty St)												1				RetrofitWarnings
23113	1	SR-2267 (N Dillard St)	SR-2266 (Liberty St)													1			Type 1C
23114	1	SR-2267 (N Dillard St)	SR-2266 (Liberty St)													1			Type2
Sub-Total for Liberty St From US 15 BUS To SR 2267				0	0	0	0	0	0	0	0	0	0	0	2	3	0	0	

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

ADA SUMMARY OF QUANTITIES - AUTO DRIVE FROM SR 1205 TO MAYFAIR ST

Municipality:	Durham
Project Number:	2024 S Durham
WBS Number:	2023CPT.05.08.20321.1
County:	Durham

Ramp ID	Inset Map Number	Route 1	Route 2	2549000000-E	2752000000-E	2752000000-E	2591000000-E	2738000000-E	2738000000-E	2738000000-E	2830000000-N	2845000000-N	4116100000-N	2738000000-E	2759000000-N	2613000000-N	2605000000-N	2759000000-N	Improvement Type
				Z'-6" Concrete Curb & Gutter	Remove and Replace Curb & Gutter	Remove Curb & Gutter	4" Concrete Sidewalk	Nonstandard Sidewalk	Remove and Replace Sidewalk	Remove Sidewalk	Adjustment of Manholes	Adjustment of Meter Boxes or Valve Boxes	Relocate Sign Type E	Remove Driveway Apron	Retrofit Curb Ramp Detectable Warnings	Remove and Replace Curb Ramp	Concrete Curb Ramp	Remove Curb Ramp	
				LF	LF	LF	SY	SY	SY	SY	EA	EA	EA	SY	EA	EA	EA	EA	
21553	1	SR-2235 (Auto Dr)	Mayfair St													1			Type2B
21554	2	SR-2235 (Auto Dr)	Luna Night Club (3019 Auto Dr) Entrance													1			Type 1C
21555	2	SR-2235 (Auto Dr)	Luna Night Club (3019 Auto Dr) Entrance													1			Type 1C
Sub-Total for Auto Drive From SR 1205 To Mayfair St				0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	

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

ADA SUMMARY OF QUANTITIES - TW ALEXANDER DR TO/FROM NC 147 FROM/TO WAKE COUNTY

Municipality:	Durham / Outside Municipality
Project Number:	2024 S Durham
WBS Number:	2023CPT.05.08.20321.1
County:	Durham

Ramp ID	Inset Map Number	Route 1	Route 2	2549000000-E	2752000000-E	2752000000-E	2591000000-E	2738000000-E	2738000000-E	2738000000-E	2830000000-N	2845000000-N	4116100000-N	2738000000-E	2759000000-N	2613000000-N	2605000000-N	2759000000-N	Improvement Type
				2'-6" Concrete Curb & Gutter LF	Remove and Replace Curb & Gutter LF	Remove Curb & Gutter LF	4" Concrete Sidewalk SY	Nonstandard Sidewalk SY	Remove and Replace Sidewalk SY	Remove Sidewalk SY	Adjustment of Manholes EA	Adjustment of Meter Boxes or Valve Boxes EA	Relocate Sign Type E EA	Remove Driveway Apron SY	Retrofit Curb Ramp Detectable Warnings EA	Remove and Replace Curb Ramp EA	Concrete Curb Ramp EA	Remove Curb Ramp EA	
24688	1	SR-2028 (TW Alexander Dr)	RMP-2448 (TW Alexander Dr Durham Fwy N On Ramp)				3		7							1			Type1Modified
24687	1	SR-2028 (TW Alexander Dr)	RMP-2448 (TW Alexander Dr Durham Fwy N On Ramp)				2		5							1			Type1Modified
24686	1	SR-2028 (TW Alexander Dr)	RMP-2448 (TW Alexander Dr Durham Fwy N On Ramp)													1			Type8
24685	1	SR-2028 (TW Alexander Dr)	RMP-2448 (TW Alexander Dr Durham Fwy N On Ramp)													1			Type8
24684	2	SR-2028 (TW Alexander Dr)	BASF Agricultural Solutions (2 TW Alexander Dr) Entrance				2		5							1			Type1Modified
24681	2	SR-2028 (TW Alexander Dr)	BASF Agricultural Solutions (2 TW Alexander Dr) Entrance												1				RetrofitWarnings
24680	2	SR-2028 (TW Alexander Dr)	BASF Agricultural Solutions (2 TW Alexander Dr) Entrance												1				RetrofitWarnings
24679	2	SR-2028 (TW Alexander Dr)	Blue Ridge Blvd				3		13							1			Type1Modified
22670	3	SR-2028 (TW Alexander Dr)	SR-1959 (S Miami Blvd)	15			9											1	Remove Ramp
22671	3	SR-2028 (TW Alexander Dr)	SR-1959 (S Miami Blvd)	15			9											1	Remove Ramp
22654	4	SR-2028 (TW Alexander Dr)	Jersey Mikes (2945 S Miami Blvd) TW Alexander Drive Entrance						6							1			Type1B
22655	4	SR-2028 (TW Alexander Dr)	Jersey Mikes (2945 S Miami Blvd) TW Alexander Drive Entrance						6							1			Type 1C
22678	4	SR-2028 (TW Alexander Dr)	Intuitive (1650 TW Alexander Dr) Entrance						6							1			Type1Modified
22679	4	SR-2028 (TW Alexander Dr)	Intuitive (1650 TW Alexander Dr) Entrance													1			Type 1D
7943	5	SR-2028 (TW Alexander Dr)	Presidential Dr																Type 1D
7944	5	SR-2028 (TW Alexander Dr)	Presidential Dr								1					1			Type3Modified
22680	5	SR-2028 (TW Alexander Dr)	Stirrup Creek Dr				5		6							1			Type1Modified
22683	5	SR-2028 (TW Alexander Dr)	Stirrup Creek Dr				3												Other
24674	5	SR-2028 (TW Alexander Dr)	Presidential Dr													1			Type3Modified
24673	5	SR-2028 (TW Alexander Dr)	Presidential Dr	24			5											1	Remove Ramp
7942	6	SR-2028 (TW Alexander Dr)	Cedar Grove Dr												1				RetrofitWarnings
22653	7	SR-2028 (TW Alexander Dr)	Liberty Ridge (1951 TW Alexander Dr) West Entrance													1			Type 1D
22651	8	SR-2028 (TW Alexander Dr)	Liberty Ridge (1951 TW Alexander Dr) East Entrance												1				RetrofitWarnings
7940	9	SR-2028 (TW Alexander Dr)	Implus LLC (2001 TW Alexander Dr) Entrance													1			Standard - 848.06
7941	9	SR-2028 (TW Alexander Dr)	Implus LLC (2001 TW Alexander Dr) Entrance												1				RetrofitWarnings
24672	9	SR-2028 (TW Alexander Dr)	Roche Dr												1				RetrofitWarnings
7932	10	SR-2028 (TW Alexander Dr)	SR-1973 (Page Rd)	18			12					1						1	Remove Ramp
7933	10	SR-2028 (TW Alexander Dr)	SR-1973 (Page Rd)													1			Standard - 848.06
7935	10	SR-2028 (TW Alexander Dr)	SR-1973 (Page Rd)	15			9											1	Remove Ramp
22649	10	SR-2028 (TW Alexander Dr)	SR-1973 (Page Rd)				2								1				RetrofitWarnings
7930	11	SR-2028 (TW Alexander Dr)	Alexander Village Shopping Center (2121 TW Alexander Drive) West Entrance													1			Type4B
7931	11	SR-2028 (TW Alexander Dr)	Alexander Village Shopping Center (2121 TW Alexander Drive) West Entrance													1			Type1Modified
7928	12	SR-2028 (TW Alexander Dr)	Alexander Village Shopping Center (2121 TW Alexander Drive) East Entrance													1			Type1Modified
7929	12	SR-2028 (TW Alexander Dr)	Alexander Village Shopping Center (2121 TW Alexander Drive) East Entrance													1			Type4B
Sub-Total for TW Alexander Dr To/From NC 147 From/To Wake County				87	0	0	64	0	54	0	1	1	0	0	7	20	0	5	

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

Municipality:	Outside Municipality
Project Number:	2024 S Durham
WBS Number:	2023CPT.05.08.20321.1
County:	Durham

Ramp ID	Inset Map Number	Route 1	Route 2	2549000000-E	2752000000-E	2752000000-E	2591000000-E	2738000000-E	2738000000-E	2738000000-E	2830000000-N	2845000000-N	4116100000-N	2738000000-E	2759000000-N	2613000000-N	2605000000-N	2759000000-N	Improvement Type
				2'-6" Concrete Curb & Gutter	Remove and Replace Curb & Gutter	Remove Curb & Gutter	4" Concrete Sidewalk	Nonstandard Sidewalk	Remove and Replace Sidewalk	Remove Sidewalk	Adjustment of Manholes	Adjustment of Meter Boxes or Valve Boxes	Relocate Sign Type E	Remove Driveway Apron	Retrofit Curb Ramp Detectable Warnings	Remove and Replace Curb Ramp	Concrete Curb Ramp	Remove Curb Ramp	
				LF	LF	LF	SY	SY	SY	SY	EA	EA	EA	SY	EA	EA	EA	EA	
21859	1	SR-2153 (Louis Stephens Dr)	SR-2100 (Solutions Dr)													1			Type1Modified
21860	1	SR-2153 (Louis Stephens Dr)	SR-2100 (Solutions Dr)													1			Type1Modified
21861	2	SR-2153 (Louis Stephens Dr)	Social Security Secondary Support Center (3604 Louis Stephens Dr) Entrance												1				RetrofitWarnings
21862	2	SR-2153 (Louis Stephens Dr)	Social Security Secondary Support Center (3604 Louis Stephens Dr) Entrance												1				RetrofitWarnings
24664	3	SR-2153 (Louis Stephens Dr)	SR-1978 (Hopson Rd)												1				RetrofitWarnings
24663	3	SR-2153 (Louis Stephens Dr)	SR-1978 (Hopson Rd)												1				RetrofitWarnings
Sub-Total for Louis Stephens Dr From Wake County To SR 2028				0	0	0	0	0	0	0	0	0	0	0	4	2	0	0	

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

Municipality:	Raleigh
Project Number:	2024 S Durham
WBS Number:	2023CPT.05.08.20321.1
County:	Durham

Ramp ID	Inset Map Number	Route 1	Route 2	2549000000-E	2752000000-E	2752000000-E	2591000000-E	2738000000-E	2738000000-E	2738000000-E	2830000000-N	2845000000-N	4116100000-N	2738000000-E	2759000000-N	2613000000-N	2605000000-N	2759000000-N	Improvement Type
				Z'-6" Concrete Curb & Gutter	Remove and Replace Curb & Gutter	Remove Curb & Gutter	4" Concrete Sidewalk	Nonstandard Sidewalk	Remove and Replace Sidewalk	Remove Sidewalk	Adjustment of Manholes	Adjustment of Meter Boxes or Valve Boxes	Relocate Sign Type E	Remove Driveway Apron	Retrofit Curb Ramp Detectable Warnings	Remove and Replace Curb Ramp	Concrete Curb Ramp	Remove Curb Ramp	
				LF	LF	LF	SY	SY	SY	SY	EA	EA	EA	SY	EA	EA	EA	EA	
7794	1	SR-1981 (Shady Grove Rd)	Brougham Dr													1			Type 1C
7795	1	SR-1981 (Shady Grove Rd)	Brougham Dr										1			1			Type 1C
24670	1	SR-1981 (Shady Grove Rd)	Brougham Dr	22													1		Remove Ramp
Sub-Total for Blue Grass Rd From SR 1981 To SR 2070				22	0	0	0	0	0	0	0	0	1	0	0	2	0	1	

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

SUMMARY OF QUANTITIES

PROJECT NO.	SHEET NO.	TOTAL NO.
2023CPT.05.08.10321.1, etc.	39	

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH	WIDTH	1245000000-E	1220000000-E	1260000000-E	1297000000-E			1330000000-E	1519000000-E	1523000000-E	1575000000-E	1704000000-E	2549000000-E	2591000000-E	2605000000-N
												SHOULDER RECONSTRUCTION	INCIDENTAL STONE BASE	AGGREGATE SHOULDER BORROW	MILLING ASPHALT PAVEMENT, 1.5" DEPTH	MILLING ASPHALT PAVEMENT, 2" DEPTH	MILLING ASPHALT PAVEMENT, 3" DEPTH	INCIDENTAL MILLING	ASPHALT CONC SURFACE COURSE, TYPE S9.5B	ASPHALT CONC SURFACE COURSE, TYPE S9.5C	ASPHALT BINDER FOR PLANT MIX	PATCHING EXISTING PAVEMENT	2'-6" CONCRETE CURB & GUTTER	4" CONCRETE SIDEWALK	CONCRETE CURB RAMPS
										MI	FT	SMI	TON	TON	SY	SY	SY	SY	TON	TON	TON	TON	LF	SY	EA
2023CPT.05.08.10321.1	DURHAM	1	US 15-501 BUS. NB (UNIVERSITY DR.)	FROM US 15-501 BUS. (DURHAM CHAPEL-HILL BLVD.) TO FOREST HILL BLVD.	1	2	MD	NO	NO	0.960	27-40	0.50	1.25	10	17,434			294		1,537	95	150	30	25	3
TOTAL FOR MAP NO. 1										0.960		0.50	1.25	10	17,434			294		1,537	100	150	30	25	3
2023CPT.05.08.10321.1	DURHAM	2	US 15-501 BUS. NB (UNIVERSITY DR.)	FROM MAIN ST TO I-85	1	2-5	MD	NO	NO	1.600	30-56				35,636			2,228		3,143	205	301	177	84	7
TOTAL FOR MAP NO. 2										1.600					35,636			2,228		3,143	205	301	177	84	7
2023CPT.05.08.10321.1	DURHAM	3	US 15-501 BUS. SB (MAGNUM ST)	US 15 BUS NB TO US 70 BUS E (RAMSEUR ST)	1	2-3	MD	NO	NO	1.240	30-36				22,730			1,537		2,004	130	193	21.0	15	4
TOTAL FOR MAP NO. 3										1.240					22,730			1,537		2,004	130	193	21	15	4
2023CPT.05.08.10321.1	DURHAM	4	US 70 BUS (MAIN ST)	FROM SR 1320 (ERWIN RD) TO BUCHANON BLVD	1	2	M2	NO	NO	0.600	39-62				15,675			1,206		1,383	90	133		5	
TOTAL FOR MAP NO. 4										0.600					15,675			1,206		1,383	90	133		5	
TOTAL FOR PROJ NO. 2023CPT.05.08.10321.1										4.400		0.50	1.25	10	91,475			5,265		8,067	525	777	228	129	14
2023CPT.05.08.20321.1	DURHAM	5	SR 2028 (T.W. ALEXANDER)	FROM I-885 TO WAKE CL	1	4	2WU	NO	NO	3.030	83-110	4.00	5.0	50	146,166			2,344		12,892	835	1,230	87	64	
TOTAL FOR MAP NO. 5										3.030		4.00	5.0	50	146,166			2,344		12,892	835	1,230	87	64	
2023CPT.05.08.20321.1	DURHAM	6	SR 2069 (BLUE GRASS RD)	FROM SR 1981 (SHADY RD) TO SR 2070 (BLUE HILL LN)	2	2	2WD	NO	NO	0.390	19	0.20	5.0	50				348	351		30	36	22		
TOTAL FOR MAP NO. 6										0.390		0.20	5.0	50				348	351		30	36	22		
2023CPT.05.08.20321.1	DURHAM	7	SR 2070 (BLUE HILL LN)	FROM CUL-DE-SAC TO CUL-DE-SAC	2	2	2WU	NO	NO	0.230	19	0.15	5.0	50					275		20	28	0.0		
TOTAL FOR MAP NO. 7										0.230		0.15	5.0	50					275		20	28	0.0		
2023CPT.05.08.20321.1	DURHAM	8	SR 2153 (LOUIS STEPHENSON RD)	FROM SR 2028 (T.W. ALEXANDER BLVD) TO WAKE CL	2,3	2-3	2WU	NO	NO	1.080	62.5-104	1.50	5.0	50	21,350			1,393	2405		175	230	0.0		
TOTAL FOR MAP NO. 8										1.080		1.50	5.0	50	21,350			1,393	2,405		175	230	0.0		
2023CPT.05.08.20321.1	DURHAM	9	SR 2235 (AUTO DR)	FROM SR 1205 (CHAPEL HILL BLVD SERVICE RD) TO MAYFAIR ST	4	2	2WU	NO	NO	0.180	28-36						2,081	717	361		30	40	0.0		
TOTAL FOR MAP NO. 9										0.180							2,081	717	361		30	40	0.0		
2023CPT.05.08.20321.1	DURHAM	10	SR 2266 (LIBERTY ST)	FROM US 15 BUS (ROXBORO ST) TO SR 2267 (DILLARD ST)	5	1-3	2WU	NO	NO	0.190	36					3,143		580		370	30	30	0.0		
TOTAL FOR MAP NO. 10										0.190						3,143		580		370	30	30	0.0		
2023CPT.05.08.20321.1	DURHAM	11	SR 2267 (DILLARD ST)	FROM SR 2266 (LIBERTY ST) TO US 70 BUS (HOLLOWAY ST)	5	4	2WU	NO	NO	0.110	43-44					1,909		569		225	20	20	0.0		
TOTAL FOR MAP NO. 11										0.110						1,909		569		225	20	20			
TOTAL FOR PROJ NO. 2023CPT.05.08.20321.1										5.210		5.85	20	200	167,516	5,052	2,081	5,952	3,392	13,487	1,140	1,614	109	64	
GRAND TOTAL										9.610		6.35	21.25	210	258,991	5,052	2,081	11,217	3,392	21,554	1,665	2,391	337	193	14

SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	4413000000-E WORK ZONE ADVANCE/GENERAL WARNING SIGNING	4447000000-E PEDESTRIAN CHANNELIZING DEVICES	4457000000-N TEMPORARY TRAFFIC CONTROL	4510000000-N LAW ENFORCEMENT	4685000000-E 4" X 90 M WHITE THERMO	4" X 90 M YELLOW THERMO	4695000000-E 8" X 90 M WHITE THERMO	8" X 90 M YELLOW THERMO	4700000000-E 12" X 90 M WHITE THERMO	12" X 90 M YELLOW THERMO	4709000000-E THERMOPLASTIC PAVEMENT MARKING LINES [24", 90MILS] WHITE	THERMO MSG ONLY 90 M	4720000000-E THERMO MSG RXR 90 M	THERMO MSG SCHOOL 90 M	THERMO LT ARROW 90 M	THERMO RT ARROW 90 M	THERMO STR ARROW 90 M	THERMO STR & LT ARROW 90 M	THERMO STR & RT ARROW 90 M	4725000000-E THERMOLT, STR, & RT ARROW 90 M	THERMO MERGE ARROW 90 M	THERMOPLASTIC HANDICAP PARKING SYMBOL 90 M	THERMOPLASTIC MARKING SYMBOL U- TURN ARROW	THERMO YIELD TRIANGLE 90 M
								MI	FT	SF	LF	LS	HR	LF	LF	LF	LF	LF	LF	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA
2023CPT.05.08.10321.1	DURHAM	1	US 15-501BUS. NB (UNIVERSITY DR.)	FROM US 15-501 BUS. (DURHAM CHAPEL-HILL BLVD.) TO FOREST HILL BLVD.	1	2	MD	0.960	27.40	108	40.00	*	160	4,480	11,030		220			380				7	1	2	1	1					
TOTAL FOR MAP NO. 1								0.960		108	40		160	4,480	11,030		220			380				7	1	2	1	1					
2023CPT.05.08.10321.1	DURHAM	2	US 15-501BUS. NB (UNIVERSITY DR.)	FROM MAIN ST TO I-85	1	2-5	MD	1.600	30.56	154	40.00		320	6,890	4,520	840	120			3,050	16	4	6	15	6	30	9	8				7	
TOTAL FOR MAP NO. 2								1.600		154	40		320	6,890	4,520	840	120			3,050	16	4	6	15	6	30	9	8				7	
2023CPT.05.08.10321.1	DURHAM	3	US 15-501 BUS SB. (MAGNUM ST)	US 15 BUS NB TO US 70 BUS E (RAMSEUR ST)	1	2-3	MD	1.240	30.36	135	40.00		360	6,190	1,210	440	110			2,605		2		1	2	5	13	8		1		4	
TOTAL FOR MAP NO. 3								1.240		135	40		360	6,190	1,210	440	110			2,605		2		1	2	5	13	8		1		4	
2023CPT.05.08.10321.1	DURHAM	4	US 70 BUS (MAIN ST)	FROM SR 1320 (ERWIN RD) TO BUCHANON BLVD	1	2	M2	0.600	39.62	68	40.00		160	7,650	10,010	400	750			780		4		11	5	9		5				7	
TOTAL FOR MAP NO. 4								0.600		68	40		160	7,650	10,010	400	750			780		4		11	5	9		5				7	
TOTAL FOR PROJ NO. 2023CPT.05.08.10321.1								4.408		465	160	*	1,000	25,210	26,770	1,680	1,200			6,815	16	10	6	34	14	46	23	22		1		18	
														51,980		2,880						32							158				
2023CPT.05.08.20321.1	DURHAM	5	SR 2028 (T.W. ALEXANDER)	FROM I-885 TO WAKE CL	1	4	2WU	0.030	89.110	126	15	*	240	49,170	25,130	2,700		490		3,240	32			84	49	70	1	13		3			
TOTAL FOR MAP NO. 5								0.030		126	15		240	49,170	25,130	2,700		490		3,240	32			84	49	70	1	13		3			
2023CPT.05.08.20321.1	DURHAM	6	SR 2069 (BLUE GRASS RD)	FROM SR 1981 (SHADY RD) TO SR 2070 (BLUE HILL LN)	2	2	2WD	0.390	19	43	0																						
TOTAL FOR MAP NO. 6								0.390		43	0																						
2023CPT.05.08.20321.1	DURHAM	7	SR 2070 (BLUE HILL LN)	FROM CUL-DE-SAC TO CUL-DE-SAC	2	2	2WU	0.230	19	26	0																						
TOTAL FOR MAP NO. 7								0.230		26	0																						
2023CPT.05.08.20321.1	DURHAM	8	SR 2153 (LOUIS STEPHENSON RD)	FROM SR 2028 (T.W. ALEXANDER BLVD) TO WAKE CL	2-3	2-3	2WU	1.080	62.5-104	197	15		80	14,530	11,620		160	240		360	8			12	11	9				3			
TOTAL FOR MAP NO. 8								1.080		197	15		80	14,530	11,620		160	240		360	8			12	11	9				3			
2023CPT.05.08.20321.1	DURHAM	9	SR 2235 (AUTO ST)	FROM SR 1205 (CHAPEL HILL BLVD SERVICE RD) TOMAYFAIR ST	4	2	2WU	0.180	28.36	17	15			160	1,710	110	80			20				2									
TOTAL FOR MAP NO. 9								0.180		17	15			*	160	1,710	110	80			20				2								
2023CPT.05.08.20321.1	DURHAM	10	SR 2266 (LIBERTY ST)	FROM US 15 BUS (ROXBOROST) TO SR 2267 (DILLARDST)	5	1-3	2WU	0.190	36	126	15		40	720	30	100				270				3				3					
TOTAL FOR MAP NO. 10								0.190		126	15		40	720	30	100				270				3				3					
2023CPT.05.08.20321.1	DURHAM	11	SR 2267 (DILLARD ST)	FROM SR 2266 (LIBERTY ST) TO US 70 BUS (HOLLOWAY ST)	5	4	2WU	0.110	43.44	126	0			260	1,020					190				1									
TOTAL FOR MAP NO. 11								0.110		126	0			260	1,020					190				1									
TOTAL FOR PROJ NO. 2023CPT.05.08.20321.1								5.218		661	60	*	360	64,840	35,510	2,910	30	650	240	4,080	40			102	60	79	1	16		6		264	
														104,350		2,940		890			40												
GRAND TOTAL								9.610		1,126	220	1.00	1,360	90,050	66,280	4,590	1,230	650	240	10,895	56	10	6	136	74	125	24	98	1	6			18
														156,330		5,820		890			72								422				

SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	4726110000-E			4770000000-E		4780000000-E	4805000000-N		4810000000-E		4820000000-E		4825000000-E		4835000000-E	4850000000-E	4860000000-E	4870000000-E	4875000000-N	470400000D-E	4520000000-N	4905100000-N
										THERMOPLASTIC BICYCLE SYMBOL (HEATED IN PLACE) 90 M	THERMOPLASTIC BICYCLE STRAIGHT ARROW (HEATED IN PLACE) 90 M	THERMOPLASTIC SHARROW (HEATED IN PLACE) 90 M	COLD APPLIED 4" WHITE, TYPE II	COLD APPLIED 4" YELLOW, TYPE II	COLD APPLIED 8" YELLOW, TYPE II	COLD APPLIED LT ARROW, TYPE II	COLD APPLIED STRAIGHT ARROW, TYPE II	4" WHITE PAINT	4" YELLOW PAINT	8" WHITE PAINT	8" YELLOW PAINT	12" WHITE PAINT	12" YELLOW PAINT	24" WHITE PAINT	4" LINE REMOVAL	8" LINE REMOVAL	24" LINE REMOVAL	REML OF PVMT MRKG SYMBOLS & CHARACTERS	16"x 90 M WHITE THERMC	TUBULAR MARKERS (FIXED)	NON-CAST IRON SNOWPLOWABLE PAVEMENT MARKER
										EA	EA	EA	LF	LF	LF	EA	EA	LF	LF					LF	LF	LF	LF	EA	LF	EA	EA
2023CPT.05.08.10321.1	DURHAM	1	US 15-501 BUS. NB (UNIVERSITY DR.)	FROM US 15-501 BUS. (DURHAM CHAPEL-HILL BLVD.) TO FOREST HILL BLVD.	1	2	MD	0.960	27-40	12	12							4,480	11,030		220			380	60	100	20				140
TOTAL FOR MAP NO. 1									0.960	12	12							4,480	11,030		220			380	60	100	20				140
2023CPT.05.08.10321.1	DURHAM	2	US 15-501 BUS. NB (UNIVERSITY DR.)	FROM MAIN ST TO I-85	1	2-5	MD	1.600	30-56									6,890	4,520	840	120			3,050	120				100		340
TOTAL FOR MAP NO. 2									1.600									6,890	4,520	840	120			3,050	120				100		340
2023CPT.05.08.10321.1	DURHAM	3	JS 15-501 BUS SB. (MAGNUM ST)	US 15 BUS NB TO US 70 BUS E (RAMSEUR ST)	1	2-3	MD	1.240	30-36									6,190	1,210	440	110			2,605					50		140
TOTAL FOR MAP NO. 3									1.240									6,190	1,210	440	110			2,605					50		140
2023CPT.05.08.10321.1	DURHAM	4	US 70 BUS (MAIN ST)	FROM SR 1320 (ERWIN RD) TO BUCHANON BLVD	1	2	M2	0.600	39-62	20	20	1	290	570	70			7,650	10,010	400	750			780	1,010	80	70		100		490
TOTAL FOR MAP NO. 4									0.600	20	20	1	290	570	70			7,650	10,010	400	750			780	1,010	80	70		100		490
TOTAL FOR PROJ NO. 2023CPT.05.08.10321.1									4.400	32	32	1	290	570	70			25,210	26,770	1,680	1,200			6,815	1,190	180	140		250		1,110
2023CPT.05.08.20321.1	DURHAM	5	SR 2028 (T.W. ALEXANDER)	FROM I-885 TO WAKE CL	1	4	2WU	3.030	83-110				810			4	8	49,170	25,130	2,700		490		3,240	740			12		20	3020
TOTAL FOR MAP NO. 5									3.030				810			4	8	49,170	25,130	2,700		490		3,240	740			12		20	3,020
2023CPT.05.08.20321.1	DURHAM	6	SR 2069 (BLUE GRASS RD)	FROM SR 1981 (SHADY RD) TO SR 2070 (BLUE HILL LN)	2	2	2WD	0.390	19																						
TOTAL FOR MAP NO. 6									0.390																						
2023CPT.05.08.20321.1	DURHAM	7	SR 2070 (BLUE HILL LN)	FROM CUL-DE-SAC TO CUL-DE-SAC	2	2	2WU	0.230	19																						
TOTAL FOR MAP NO. 7									0.230																						
2023CPT.05.08.20321.1	DURHAM	8	SR 2153 (LOUIS STEPHENSON RD)	FROM SR 2028 (T.W. ALEXANDER BLVD) TO WAKE CL	2,3	2-3	2WU	1.080	62.5-104									14,530	11,620			160	240	360	350		50				370
TOTAL FOR MAP NO. 8									1.080									14,530	11,620			160	240	360	350		50				370
2023CPT.05.08.20321.1	DURHAM	9	SR 2235 (AUTO ST)	FROM SR 1205 (CHAPEL HILL BLVD SERVICE RD) TO MAYFAIR ST	4	2	2WU	0.180	28-36									160	1,710	110	30			20							40
TOTAL FOR MAP NO. 9									0.180									160	1,710	110	30			20							40
2023CPT.05.08.20321.1	DURHAM	10	SR 2266 (LIBERTY ST)	FROM US 15 BUS (ROXBORO ST) TO SR 2267 (DILLARD ST)	5	1-3	2WU	0.190	36									720	30	100				270							40
TOTAL FOR MAP NO. 10									0.190									720	30	100				270							40
2023CPT.05.08.20321.1	DURHAM	11	SR 2267 (DILLARD ST)	FROM SR 2266 (LIBERTY ST) TO US 70 BUS (HOLLOWAY ST)	5	4	2WU	0.110	43-44									260	1,020					190							30
TOTAL FOR MAP NO. 11									0.110									260	1,020					190							30
TOTAL FOR PROJ NO. 2023CPT.05.08.20321.1									5.210				810			4	8	64,840	39,510	2,910	30	650	240	4,080	1,090		50	12		20	3,500
GRAND TOTAL									9.610	32	32	1	1,100	570	70			90,050	66,280	4,590	1,230	650	890	10,895	2,280	180	190	12	250	20	4,610

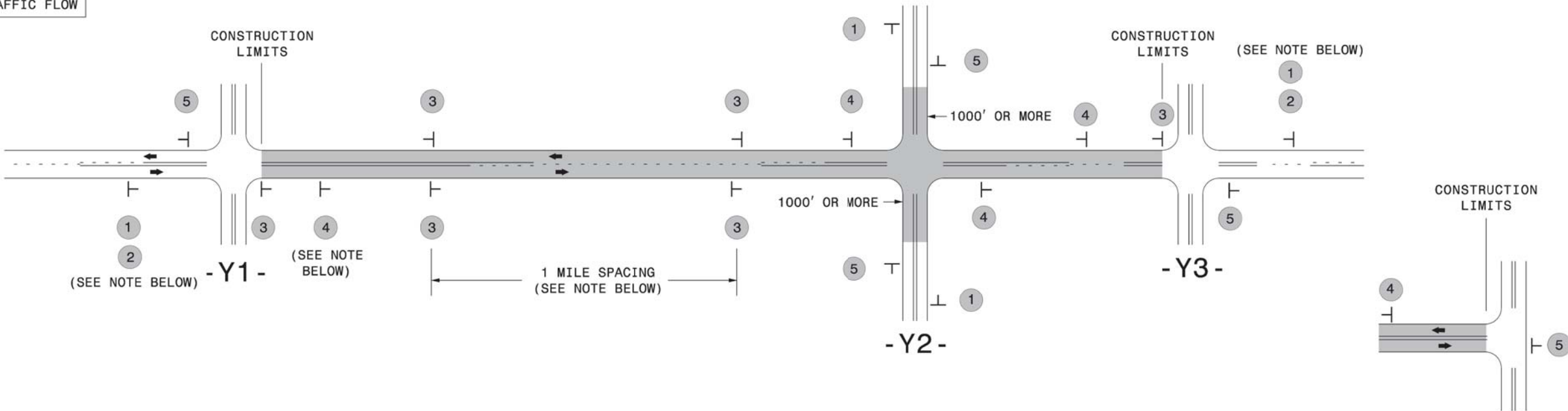
REVISIONS

SIGNING FOR RESURFACING PROJECTS

LEGEND

STATIONARY SIGN

DIRECTION OF TRAFFIC FLOW



MAINLINE (-L-) SIGNING

-Y- LINE SIGNING

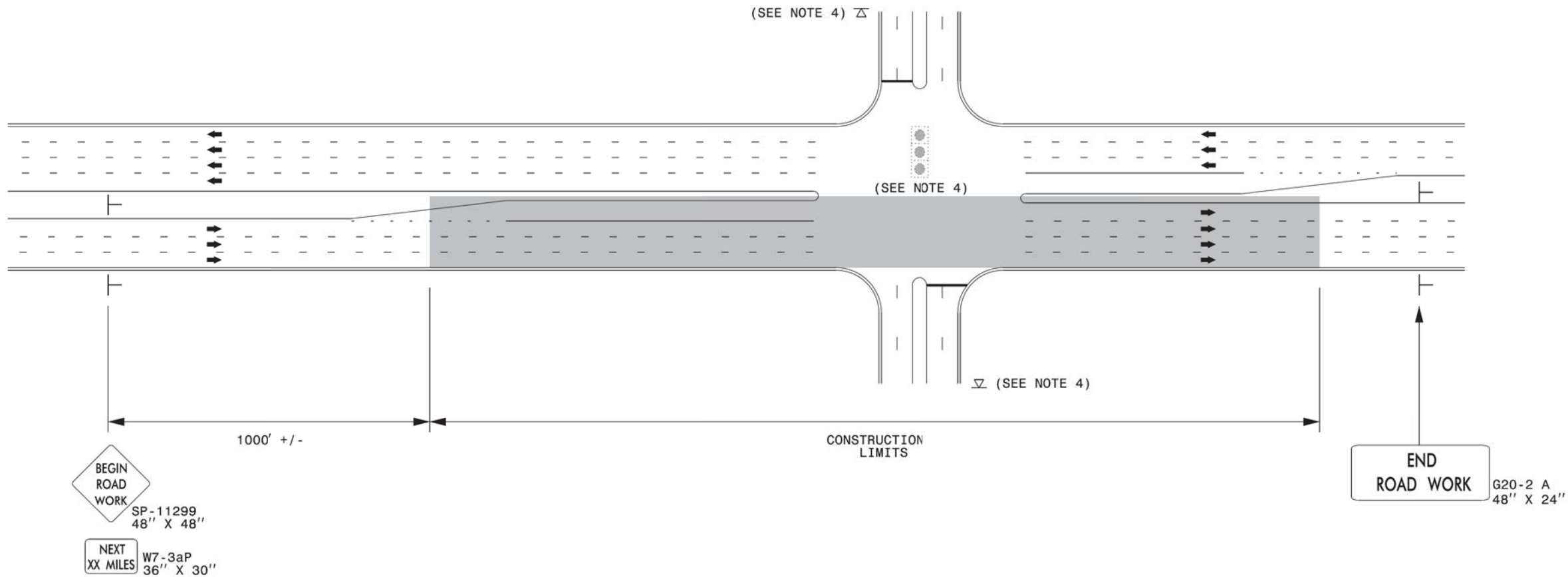
SIGNING NOTES AND PLACEMENT PER DIRECTION	1 ROAD WORK AHEAD W20-1 48" X 48" NEXT XX MILES W7-3aP 24" X 18" PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE. #2 SIGN ONLY USED WHEN CONSTRUCTION LIMITS ARE 2 OR MORE MILES IN LENGTH. ROUND UP TO NEXT WHOLE NUMBER.(NO FRACTIONAL OR DECIMAL NUMBERS)	NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS: 1) LESS THAN 1000' OF RESURFACING ALONG -Y- LINE 2) SUBDIVISION ROADS 3) DEAD END ROADS 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. ROAD WORK AHEAD W20-1 48" X 48" PLACED 500' IN ADVANCE OF FLAGGER. ROAD WORK AHEAD W20-7 A 48" X 48" PLACED 250' IN ADVANCE OF FLAGGER.
	3 LOW/SOFT SHOULDER SP 13107 48" X 48" - PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACE 1 MILE APART THEREAFTER. - AT TEE INTERSECTIONS INSTALL INITIALLY ½ MILE FROM INTERSECTION AND SPACE 1 MILE APART THEREAFTER.	
	4 ROAD UNDER CONST SP 13106 48" X 48" - THESE ARE FOR -Y- LINES THAT ARE "THROUGH" ROADWAYS. - DEAD END AND SUBDIVISION ROADS ARE NOT "THROUGH" ROADWAYS. - INSTALL 500' +/- FROM EACH -Y- LINE APPROACH AS SHOWN ABOVE. - 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. - A MAXIMUM OF 2 SIGN SETS PER MILE. DO NOT INSTALL WHEN -Y- LINES ARE WITHIN 0.5 MILES FROM "END ROAD WORK" SIGN. - FOR TEE INTERSECTIONS, INSTALL WITHIN 500' +/- OF THE INTERSECTION ALONG -L- LINE.	
	5 END ROAD WORK G2C-2 A 48" X 24" PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS OR AS SHOWN WHEN WORK ENDS AT A 3-WAY TEE INTERSECTION.	
	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.	
LESS 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.	

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
WORK ZONE TRAFFIC CONTROL



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

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.

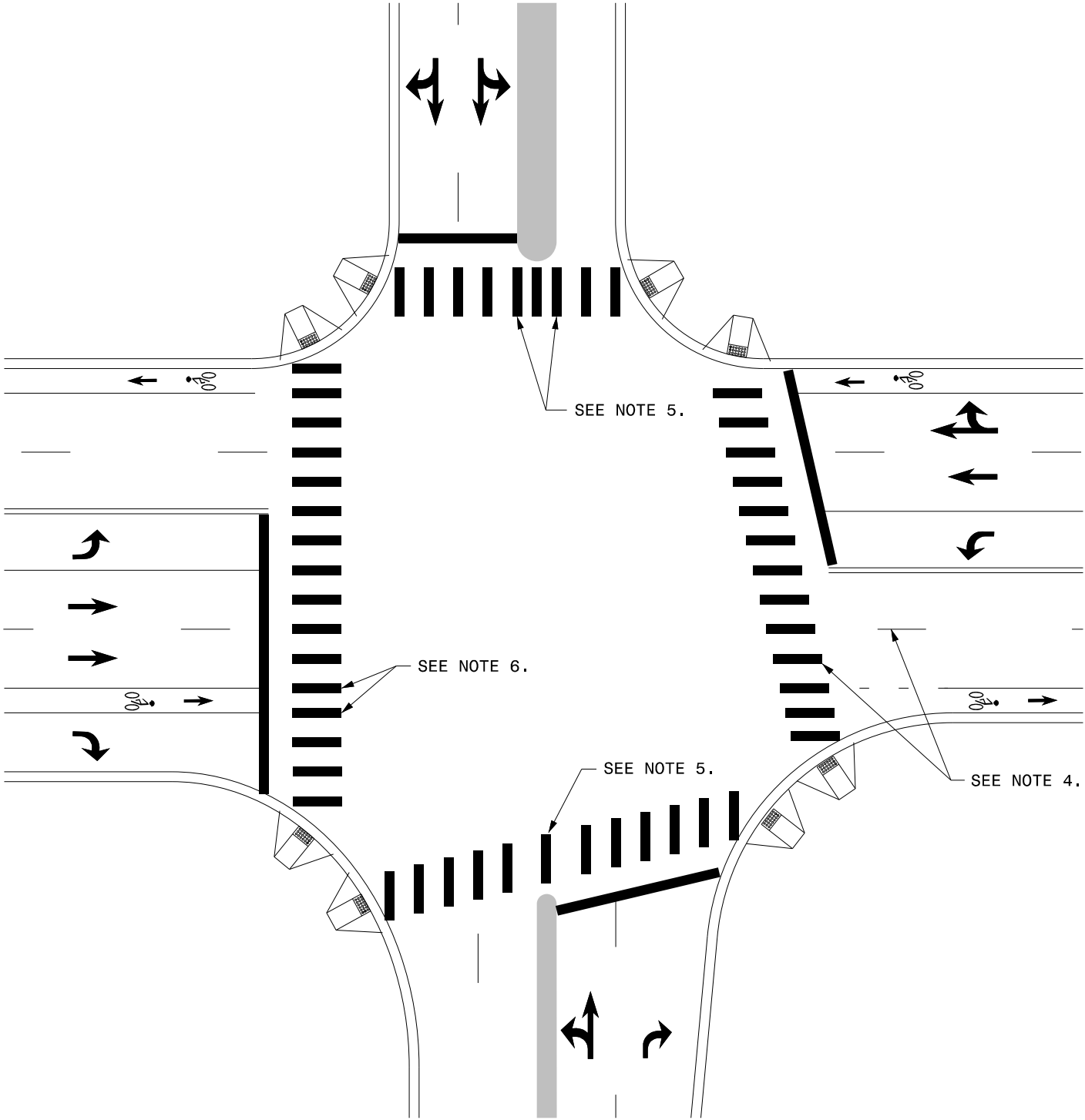
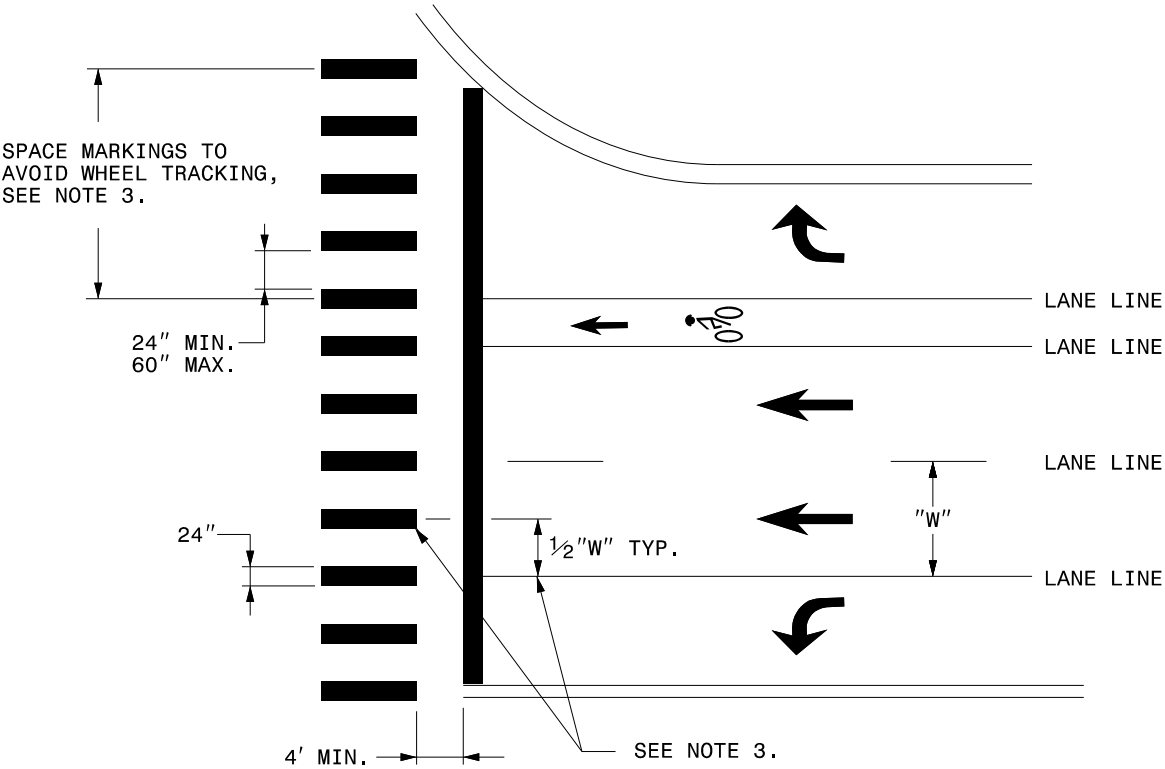
LEGEND

STATIONARY SIGN

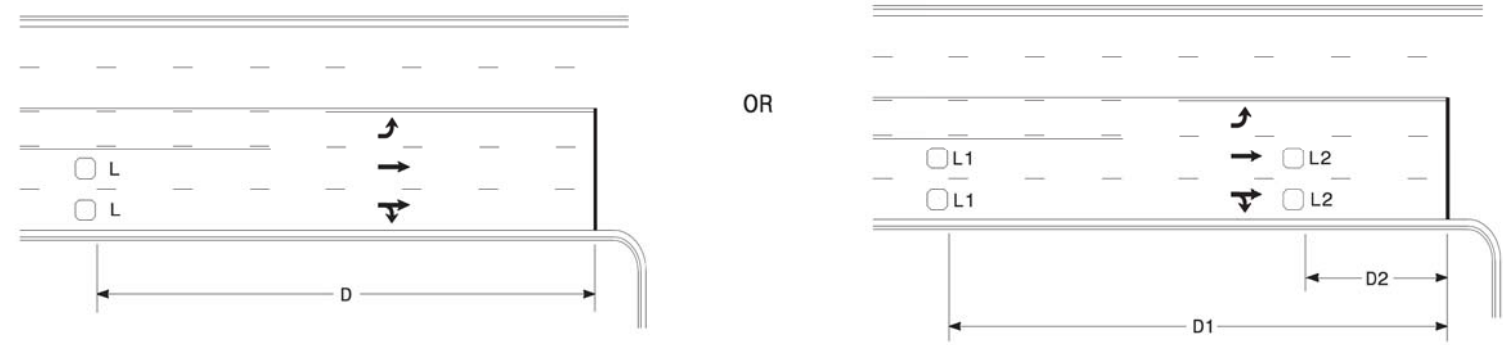
DIRECTION OF TRAFFIC FLOW



RESURFACING ADVANCE
WARNING SIGNS FOR
URBAN / SUBURBAN
FACILITIES

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C. 5-18		ENGLISH DETAIL DRAWING FOR PAVEMENT MARKINGS HI-VISIBILITY CROSSWALKS NO-TRACK MARKING GUIDANCE		STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C. 5-18	
		CROSSWALK INTERSECTION DETAIL			
GENERAL NOTES: 1- THE GUIDANCE IN THIS DETAIL IS TO BE USED WHEN NO-TRACK SPACING OF HI-VISIBILITY MARKINGS IS REQUESTED. 2- USE THE GUIDANCE SHOWN ON THE ABOVE DETAILS IN CONJUNCTION WITH PAVEMENT MARKING GUIDANCE SHOWN ON ROADWAY STANDARD DRAWINGS 1205.01 AND 1205.07. 3- PLACE MARKINGS TO AVOID WHEELPATH OF VEHICLES. MARKINGS TYPICALLY WILL BE LOCATED CENTERED AT THE LANE LINES AND EDGE LINES WITH ONE ADDITIONAL MARKING CENTERED IN THE MIDDLE OF THE LANE. AT WIDE LANE WIDTHS DUE TO TAPERS AND LARGE RADII, LOCATE MARKINGS AT BEST SPACING TO AVOID WHEEL TRACKING. THE SPACE BETWEEN MARKINGS SHALL NOT BE LESS THAN 24 INCHES OR GREATER THAN 60 INCHES.		4- WHERE THE CROSSWALK IS SKEWED TO THE LANE LINES, THE MARKINGS SHOULD BE PARALLEL TO THE LANE LINES. 5- PLACE MARKINGS ON BOTH EDGES OF THE NOSE OF A MEDIAN. FOR NARROW MEDIANS LESS THAN 4 FEET, A SINGLE MARKING MAY BE USED. FOR WIDE MEDIANS, INSTALL ADDITIONAL MARKINGS IN THE MEDIAN AREA. THE SPACE BETWEEN THE MARKINGS SHALL NOT TO BE LESS THAN 24 INCHES OR GREATER THAN 60 INCHES. 6- LOCATE MARKINGS CENTERED ON BICYCLE LANE LINES. MARKINGS SHALL NOT BE LOCATED IN THE CENTER OF THE BICYCLE PATH.		ENGLISH DETAIL DRAWING FOR PAVEMENT MARKINGS HI-VISIBILITY CROSSWALKS NO-TRACK MARKING GUIDANCE	
SHEET 1 OF 1		SHEET 1 OF 1		6-7-18	

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

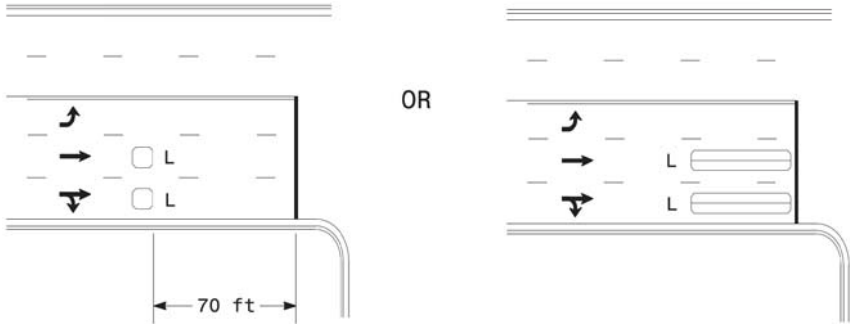
Volume Density Operation

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

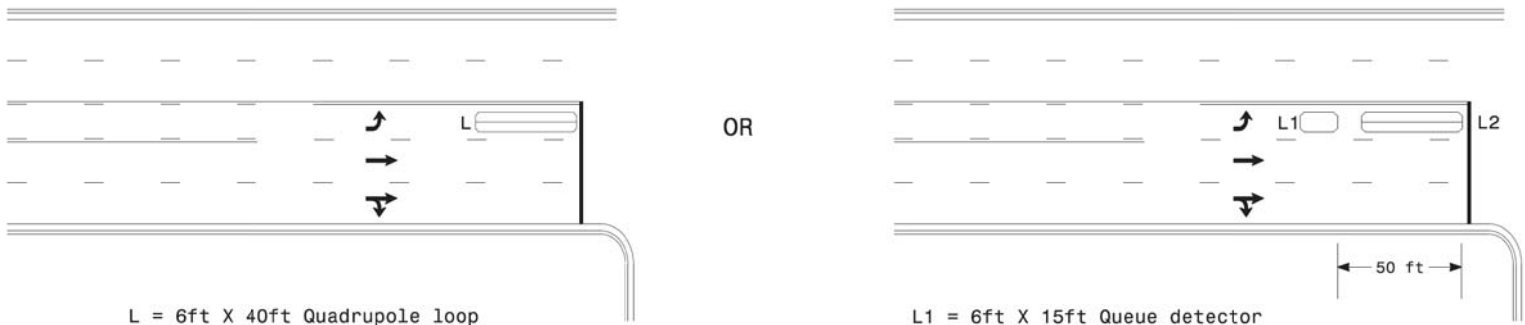
Low Speed Detection
(≤35 mph)



L = 6ft X 6ft
Wired in series

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

Left Turn Lane Detection



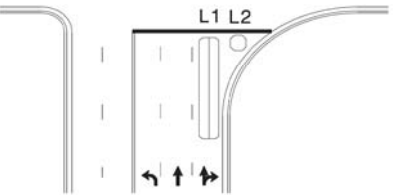
L = 6ft X 40ft Quadrupole loop

Presence Loop Detection

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

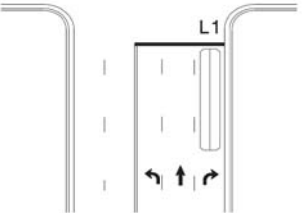
Queue Loop Detection

Right Turn Lane Detection

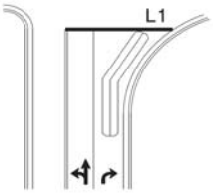


Shared Lane/
Wide Radius Turn

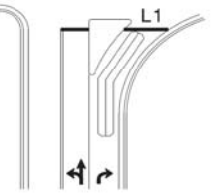
L1 = 6ft X 40ft Quadrupole loop
L2 = 6ft X 6ft [Minimum] Presence loop
Wired separately



Standard Turn

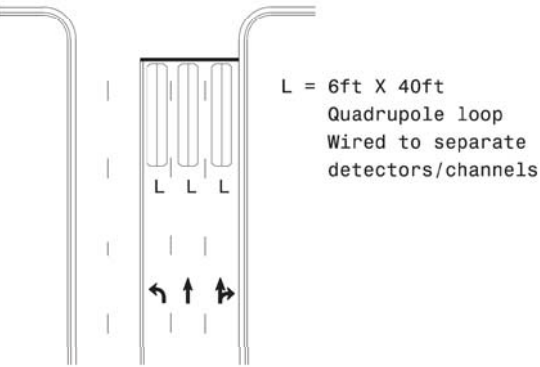


Wide Radius Turn



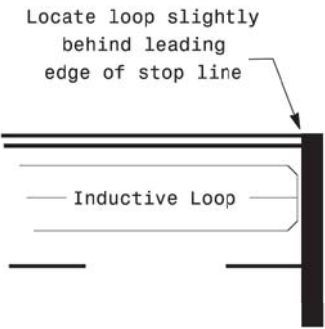
Channelized Turn

Side Street Detection



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

Presence Loop Placement at Stop Lines



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

Prepared in the Offices of:

750 N. Greenfield Hwy, Garner, NC 27529

Typical Signal Loop Locations
PLAN DATE: January 2015
REVIEWED BY: JPG
SCALE: N/A

REVISIONS
INIT. DATE
1/30/2015

SEAL
NORTH CAROLINA
PROFESSIONAL ENGINEER
SEAL 23489
P. J. Alexander
SIG. INVENTORY NO.