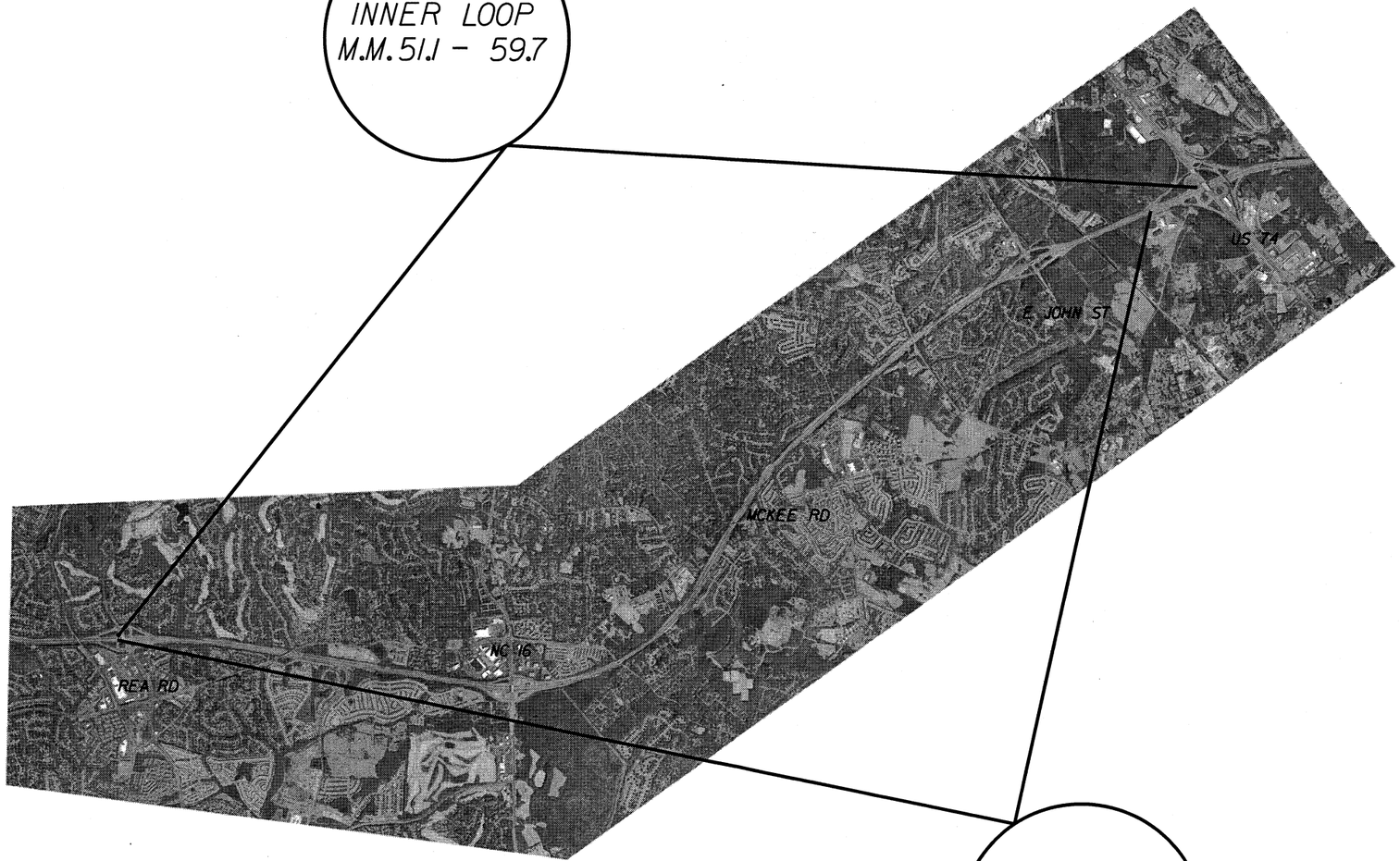
STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-5318	1	
WBS NO.			

INNER LOOP
M.M. 51.1 - 59.7



OUTER LOOP
M.M. 51.4 - 59.7

N

I-485

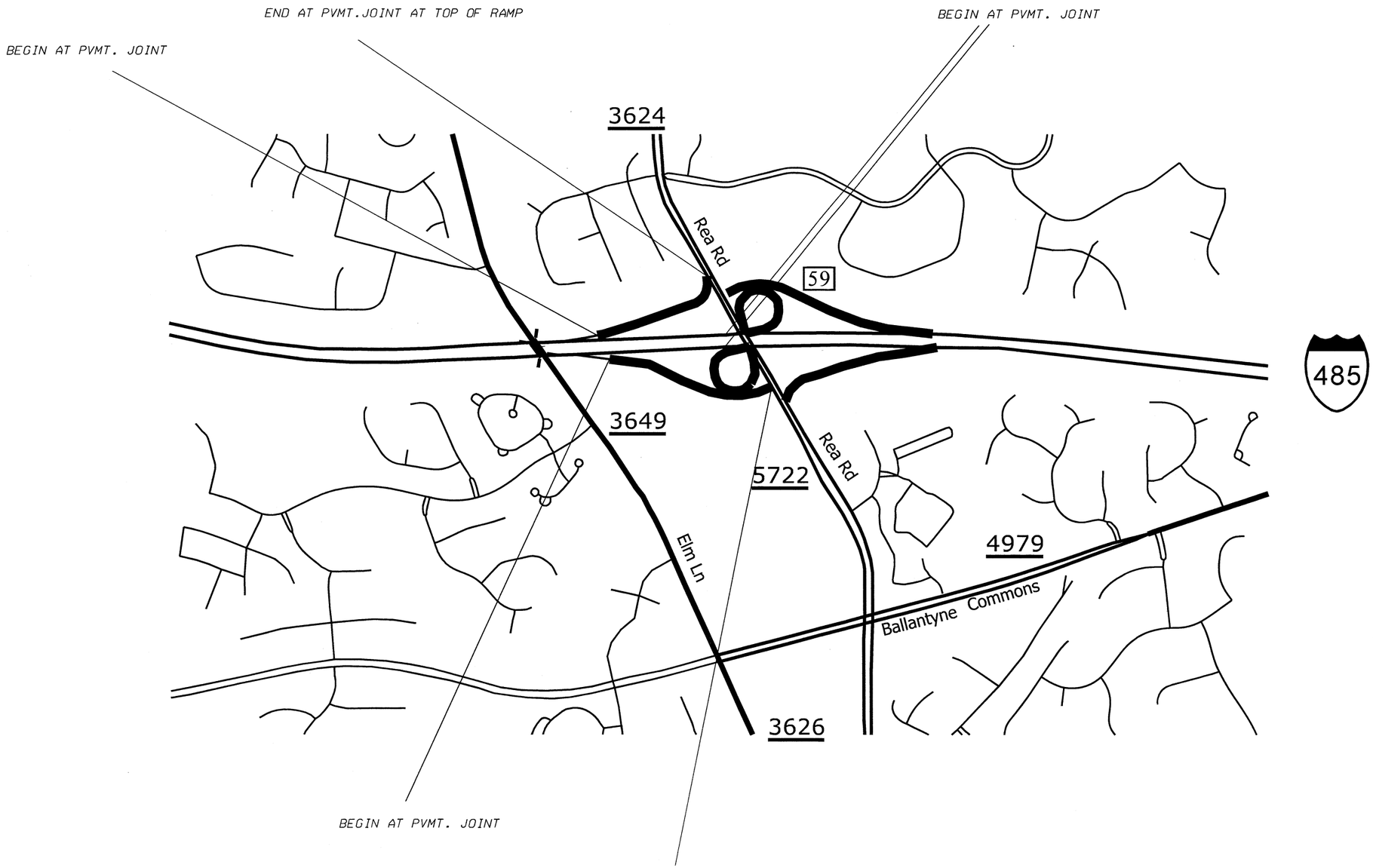
VICINITY MAP

SCALE	-NA-
DATE	11/14
DWG. BY	WAT
DESIGN BY	WAT
APPROVED	BDC

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DISTRICT 2

REVISIONS	

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-538	2	
WBS NO.			



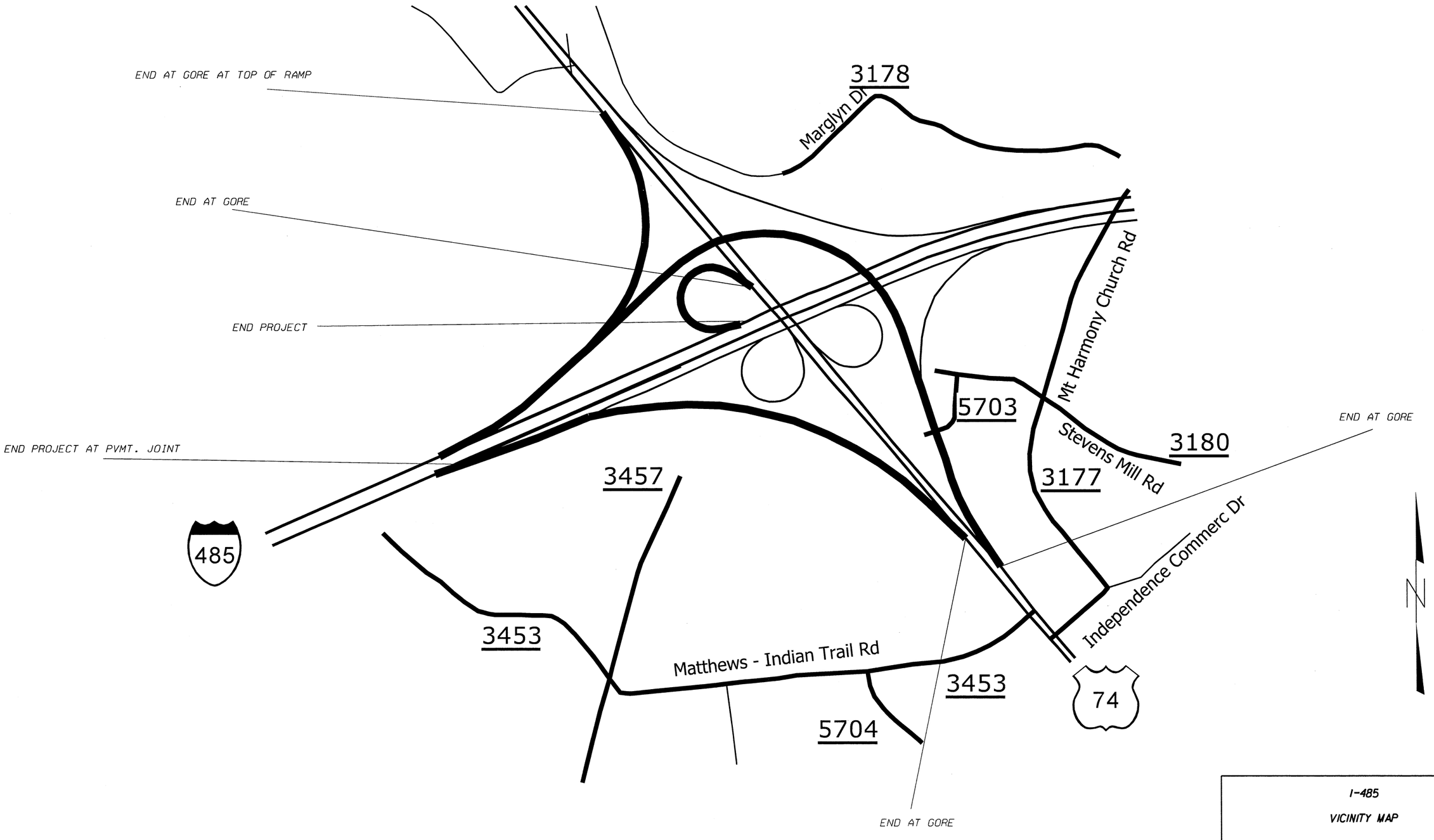
I-485

VICINITY MAP

SCALE	-NA-
DATE	11/14
DWG. BY	WAT
DESIGN BY	WAT
APPROVED	BDC

REVISIONS	

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-5318	3	
WBS NO.			



I-485

VICINITY MAP

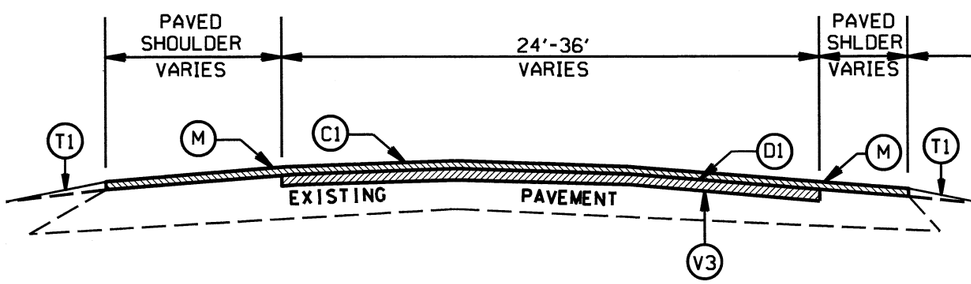
SCALE	-NA-
DATE	11/14
DWG. BY	WAT
DESIGN BY	WAT
APPROVED	BDC

DIVISION OF HIGHWAYS DISTRICT 3

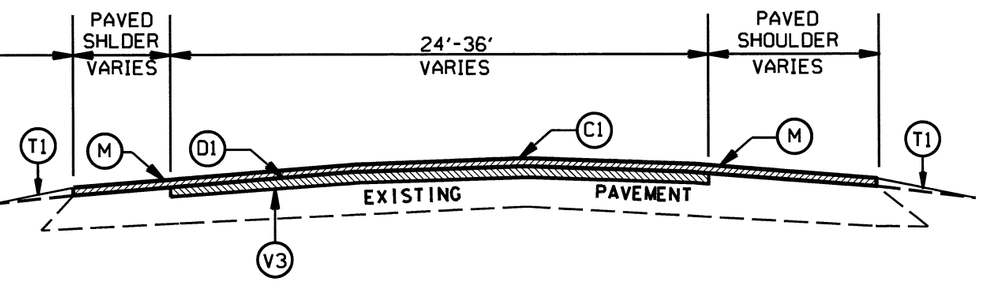
REVISIONS	

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-5318	4	
WBS NO.			

INNER LOOP



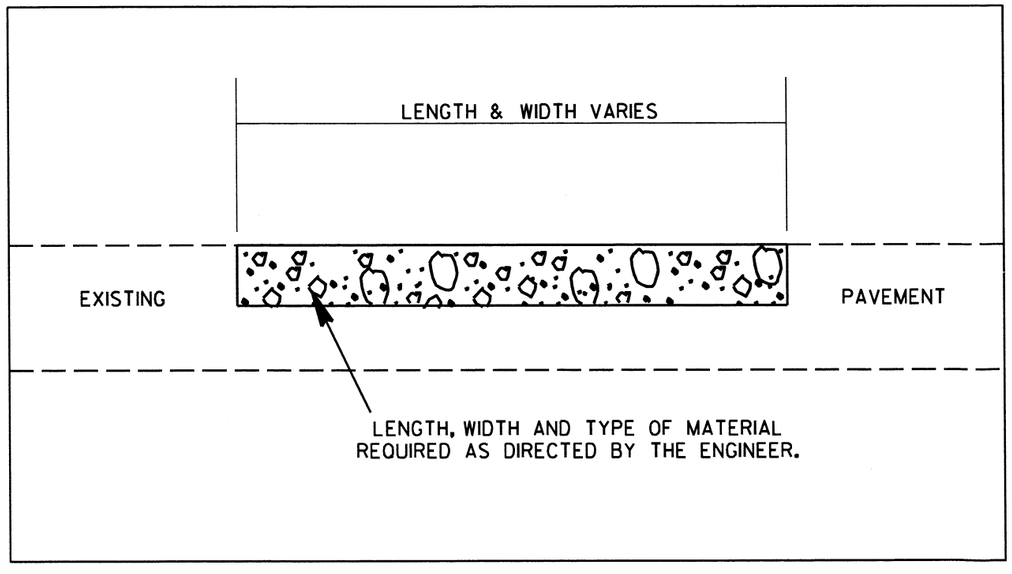
OUTER LOOP



TYPICAL SECTION NO. 1

SR 5772 (REA RD) TO SR 3440 (MCKEE RD)

PATCHING DETAIL



PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5D, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
D1	PROP. APPROX. 2.5" ASPHALT CONCRETE INTERMEDIATE COURSE TYPE I19.0D AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.
T1	SHOULDER RECONSTRUCTION.
V1	PROFILE MILLING 0" TO 1.5"
V2	MILLING 1.5" DEPTH
V3	MILLING 2.5" DEPTH
V4	MILLING 4.0" DEPTH
M	MILLED RUMBLE STRIPS

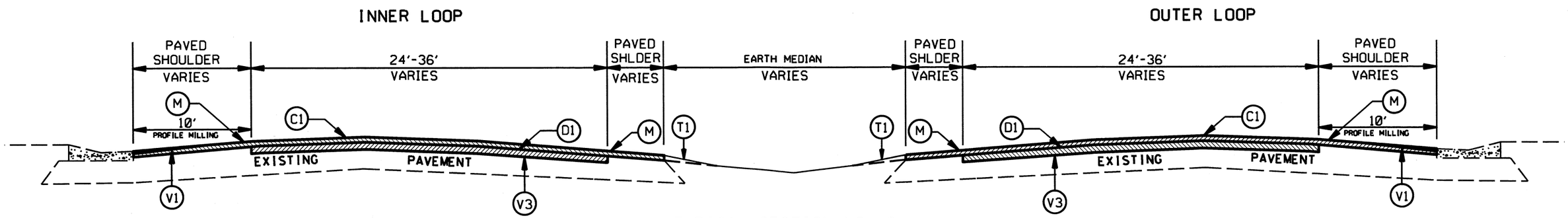
ALL PAVEMENT EDGE SLOPES ARE 1:1 UNLESS NOTED OTHERWISE.

I-485 PAVEMENT REHABILITATION

SCALE	-NA-
DATE	10/14
DWG. BY	WAT
DESIGN BY	WAT
APPROVED	BDC

REVISIONS	

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-5318	5	
WBS NO.			



TYPICAL SECTION NO. 2

SR 5772 (REA RD) TO SR 3440 (MCKEE RD)

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5D, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
D1	PROP. APPROX. 2.5" ASPHALT CONCRETE INTERMEDIATE COURSE TYPE I19.0D AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.
T1	SHOULDER RECONSTRUCTION.
V1	PROFILE MILLING 0" TO 1.5"
V2	MILLING 1.5" DEPTH
V3	MILLING 2.5" DEPTH
V4	MILLING 4.0" DEPTH
M	MILLED RUMBLE STRIPS

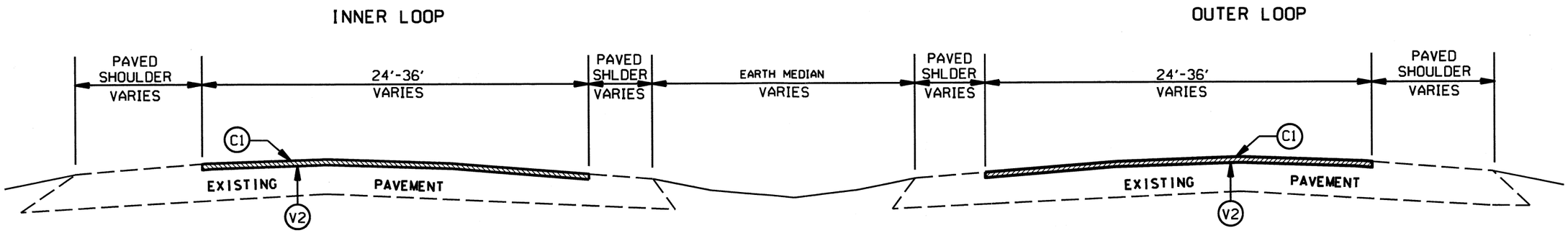
ALL PAVEMENT EDGE SLOPES ARE 1:1 UNLESS NOTED OTHERWISE.

I-485 PAVEMENT REHABILITATION

SCALE	-NA-
DATE	10/14
DWG. BY	WAT
DESIGN BY	WAT
APPROVED	BDC

REVISIONS	

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-5318	6	
WBS NO.			



TYPICAL SECTION NO. 3

SR 3440 (MCKEE RD) TO US 74 (E INDEPENDENCE BLVD)

THE CONTRACTOR SHALL NOT DISTURB THE EXISTING RUMBLE STRIPS ALONG THE SHOULDER OF I-485 IN THIS SECTION

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5D, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
D1	PROP. APPROX. 2.5" ASPHALT CONCRETE INTERMEDIATE COURSE TYPE I19.0D AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.
T1	SHOULDER RECONSTRUCTION.
V1	PROFILE MILLING 0" TO 1.5"
V2	MILLING 1.5" DEPTH
V3	MILLING 2.5" DEPTH
V4	MILLING 4.0" DEPTH
M	MILLED RUMBLE STRIPS

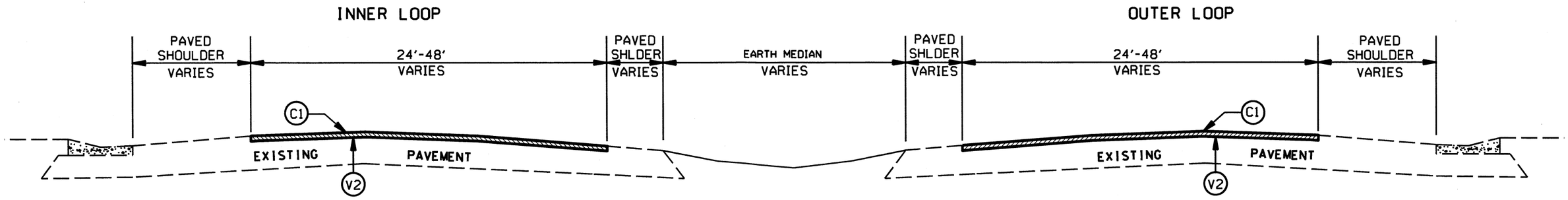
ALL PAVEMENT EDGE SLOPES ARE 1:1 UNLESS NOTED OTHERWISE.

I-485 PAVEMENT REHABILITATION

SCALE	-NA-
DATE	10/14
DWG. BY	WAT
DESIGN BY	WAT
APPROVED	BDC

REVISIONS	

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-5318	7	
WBS NO.			



TYPICAL SECTION NO. 4

SR 3440 (MCKEE RD) TO US 74 (E INDEPENDENCE BLVD)

THE CONTRACTOR SHALL NOT DISTURB THE EXISTING RUMBLE STRIPS ALONG THE SHOULDER OF I-485 IN THIS SECTION

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5D, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
D1	PROP. APPROX. 2.5" ASPHALT CONCRETE INTERMEDIATE COURSE TYPE I19.0D AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.
T1	SHOULDER RECONSTRUCTION.
V1	PROFILE MILLING 0" TO 1.5"
V2	MILLING 1.5" DEPTH
V3	MILLING 2.5" DEPTH
V4	MILLING 4.0" DEPTH
M	MILLED RUMBLE STRIPS

ALL PAVEMENT EDGE SLOPES ARE 1:1 UNLESS NOTED OTHERWISE.

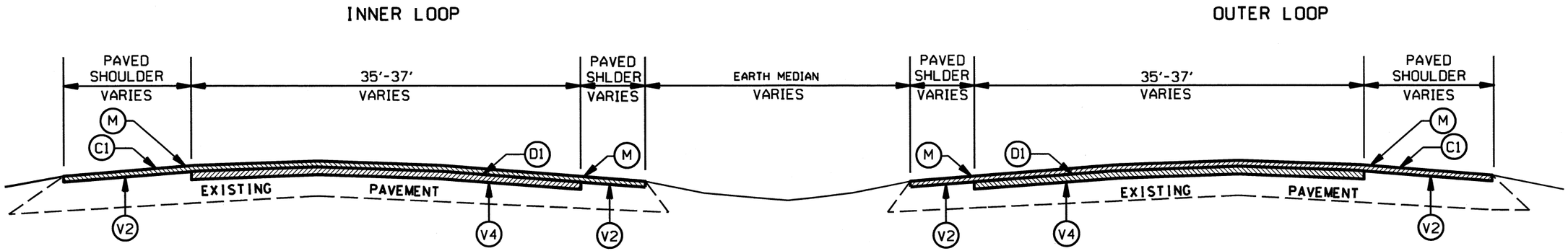
I-485 PAVEMENT REHABILITATION

SCALE	-NA-
DATE	10/14
DWG. BY	WAT
DESIGN BY	WAT
APPROVED	BDC

DIVISION OF HIGHWAYS DISTRICT 3

REVISIONS	

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-5318	8	
WBS NO.			



TYPICAL SECTION NO. 5

SR 5772 (REA RD) BRIDGE

TRAVEL LANES: 75' BEFORE AND AFTER THE BRIDGE.
TRANSITION MILLING FROM 2.5" TO 4.0".

PAVED SHOULDERS: 75' BEFORE AND AFTER THE BRIDGE.
TRANSITION MILLING FROM 0" TO 1.5".

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5D, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
D1	PROP. APPROX. 2.5" ASPHALT CONCRETE INTERMEDIATE COURSE TYPE I19.0D AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.
T1	SHOULDER RECONSTRUCTION.
V1	PROFILE MILLING 0" TO 1.5"
V2	MILLING 1.5" DEPTH
V3	MILLING 2.5" DEPTH
V4	MILLING 4.0" DEPTH
M	MILLED RUMBLE STRIPS

ALL PAVEMENT EDGE SLOPES ARE 1:1 UNLESS NOTED OTHERWISE.

I-485 PAVEMENT REHABILITATION

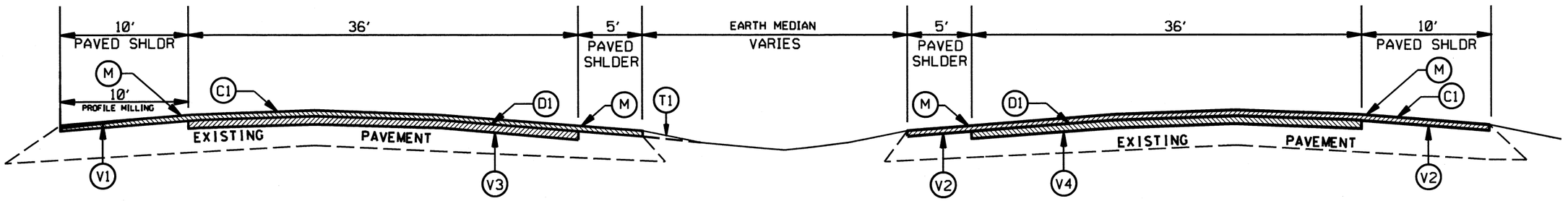
SCALE	-NA-
DATE	10/14
DWG. BY	WAT
DESIGN BY	WAT
APPROVED	BDC

REVISIONS	

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-5318	9	
WBS NO.			

INNER LOOP

OUTER LOOP



TYPICAL SECTION NO. 7

NC 16 BRIDGE

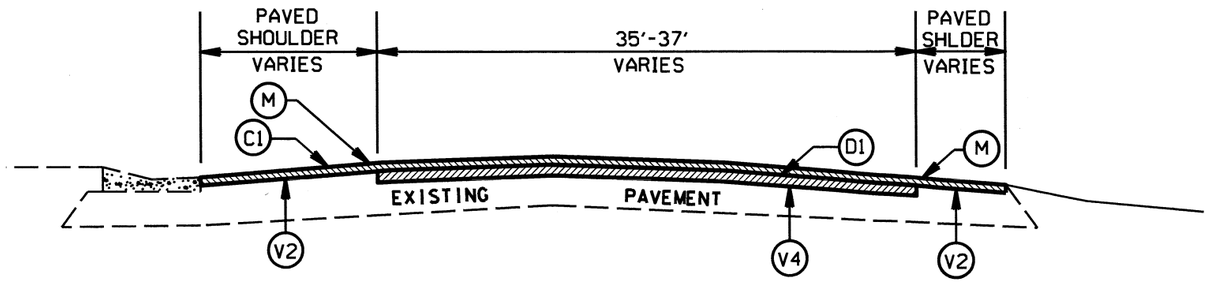
OUTER LOOP TRAVEL LANES: 75' BEFORE AND AFTER THE BRIDGE. TRANSITION MILLING FROM 2.5" TO 4.0".

OUTER LOOP PAVED SHOULDERS: 75' BEFORE AND AFTER THE BRIDGE. TRANSITION MILLING FROM 0" TO 1.5".

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5D, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
D1	PROP. APPROX. 2.5" ASPHALT CONCRETE INTERMEDIATE COURSE TYPE I19.0D AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.
T1	SHOULDER RECONSTRUCTION.
V1	PROFILE MILLING 0" TO 1.5"
V2	MILLING 1.5" DEPTH
V3	MILLING 2.5" DEPTH
V4	MILLING 4.0" DEPTH
M	MILLED RUMBLE STRIPS

ALL PAVEMENT EDGE SLOPES ARE 1:1 UNLESS NOTED OTHERWISE.

INNER LOOP



TYPICAL SECTION NO. 6

SIGN 162 @ REA RD OFFRAMP

TRAVEL LANES: 75' BEFORE AND AFTER THE OVERHEAD SIGN. TRANSITION MILLING FROM 2.5" TO 4.0".

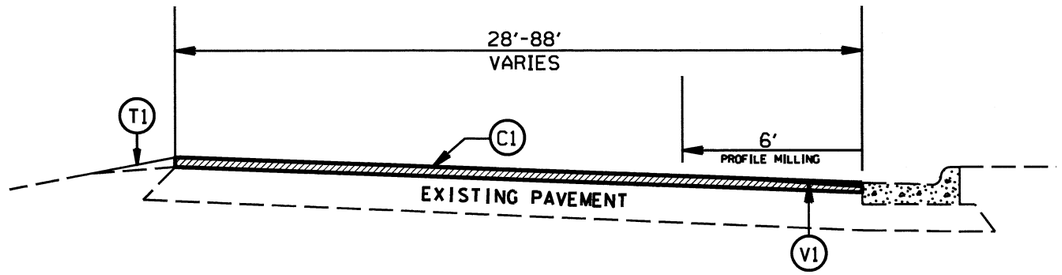
PAVED SHOULDERS: 75' BEFORE AND AFTER THE OVERHEAD SIGN. TRANSITION MILLING FROM 0" TO 1.5".

I-485 PAVEMENT REHABILITATION

SCALE	-NA-
DATE	10/14
DWG. BY	WAT
DESIGN BY	WAT
APPROVED	BDC

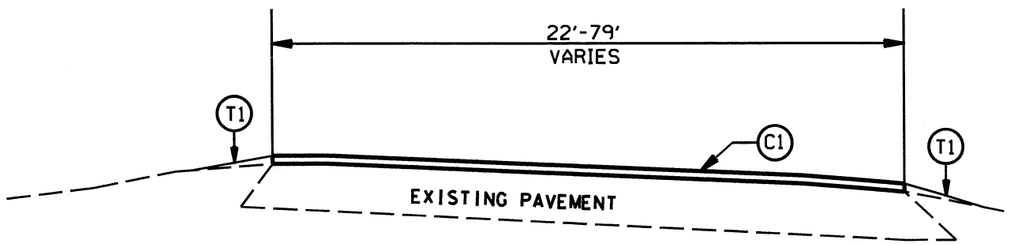
REVISIONS	

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-5318	10	
WBS NO.			



TYPICAL SECTION NO. 9

INNER LOOP REA RD OFFRAMP
OUTER LOOP REA RD ONRAMP
INNER LOOP NC 16 OFFRAMP
OUTER LOOP NC 16 OFFRAMP



TYPICAL SECTION NO. 8

INNER LOOP REA RD ONRAMP
INNER LOOP REA RD OFFRAMP
OUTER LOOP REA RD OFFRAMP
INNER LOOP NC 16 ONRAMP
INNER LOOP NC 16 OFFRAMP
OUTER LOOP NC 16 OFFRAMP
OUTER LOOP NC 16 ONRAMP

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5D, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
D1	PROP. APPROX. 2.5" ASPHALT CONCRETE INTERMEDIATE COURSE TYPE I19.0D AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.
T1	SHOULDER RECONSTRUCTION.
V1	PROFILE MILLING 0" TO 1.5"
V2	MILLING 1.5" DEPTH
V3	MILLING 2.5" DEPTH
V4	MILLING 4.0" DEPTH
M	MILLED RUMBLE STRIPS

RAMPS SHALL BE PAVED FROM MAINLINE GORE TO STOP BAR OR GORE AT TOP OF RAMP.

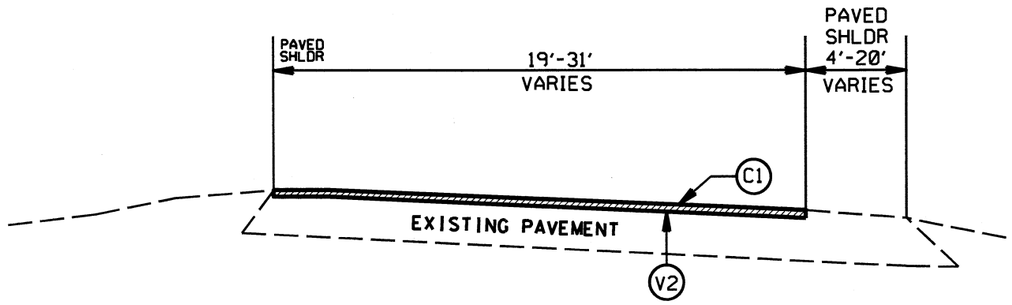
ALL PAVEMENT EDGE SLOPES ARE 1:1 UNLESS NOTED OTHERWISE.

I-485 PAVEMENT REHABILITATION

SCALE	-NA-
DATE	10/14
DWG. BY	WAT
DESIGN BY	WAT
APPROVED	BDC

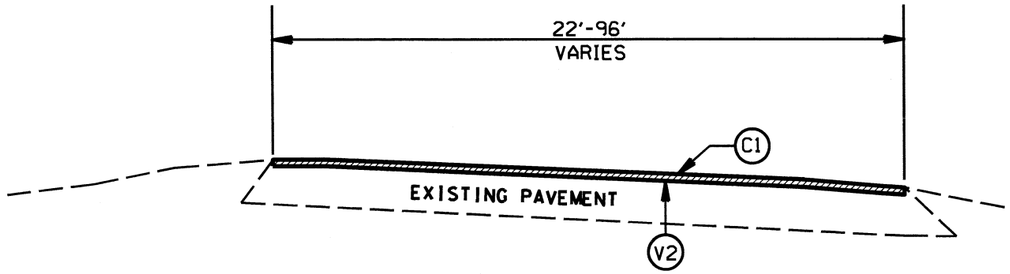
REVISIONS	

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-5318	11	
WBS NO.			



TYPICAL SECTION NO. 11

OUTER LOOP E JOHN ST OFFRAMP
INNER LOOP US 74 COLLECTOR-DISTRIBUTOR
OUTER LOOP US 74 OFFRAMP



TYPICAL SECTION NO. 10

INNER LOOP E JOHN ST ONRAMP
INNER LOOP E JOHN ST OFFRAMP
OUTER LOOP E JOHN ST OFFRAMP
OUTER LOOP E JOHN ST ONRAMP
INNER LOOP US 74 ONRAMP
INNER LOOP US 74 COLLECTOR-DISTRIBUTOR
OUTER LOOP US 74 OFFRAMP

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5D, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
D1	PROP. APPROX. 2.5" ASPHALT CONCRETE INTERMEDIATE COURSE TYPE I19.0D AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.
T1	SHOULDER RECONSTRUCTION.
V1	PROFILE MILLING 0" TO 1.5"
V2	MILLING 1.5" DEPTH
V3	MILLING 2.5" DEPTH
V4	MILLING 4.0" DEPTH
M	MILLED RUMBLE STRIPS

RAMPS SHALL BE PAVED FROM MAINLINE GORE TO STOP BAR OR GORE AT TOP OF RAMP.

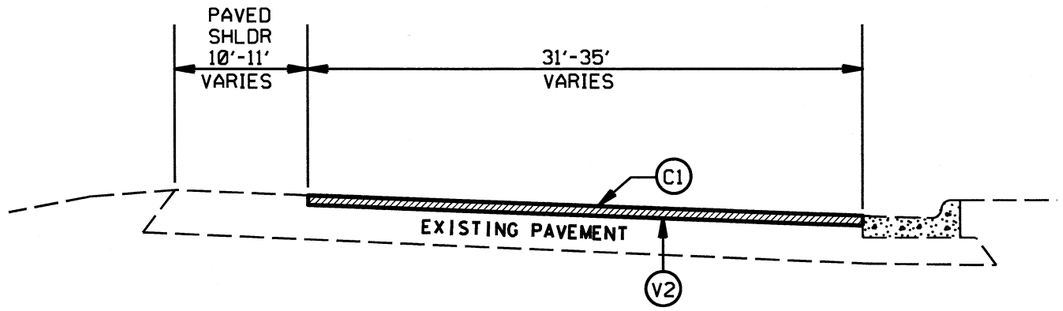
ALL PAVEMENT EDGE SLOPES ARE 1:1 UNLESS NOTED OTHERWISE.

I-485 PAVEMENT REHABILITATION

SCALE	-NA-
DATE	10/14
DWG. BY	WAT
DESIGN BY	WAT
APPROVED	BDC

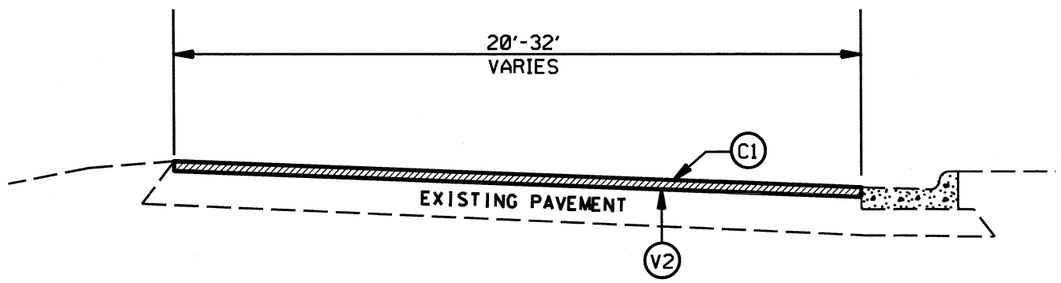
REVISIONS	

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-5318	12	
WBS NO.			



TYPICAL SECTION NO. 13

INNER LOOP US 74 COLLECTOR DISTRIBUTOR



TYPICAL SECTION NO. 12

INNER LOOP REA RD ONRAMP LOOP
OUTER LOOP REA RD ONRAMP LOOP
INNER LOOP NC 16 ONRAMP LOOP
OUTER LOOP NC 16 ONRAMP LOOP
INNER LOOP US 74 OFFRAMP LOOP

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5D, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
D1	PROP. APPROX. 2.5" ASPHALT CONCRETE INTERMEDIATE COURSE TYPE I19.0D AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.
T1	SHOULDER RECONSTRUCTION.
V1	PROFILE MILLING 0" TO 1.5"
V2	MILLING 1.5" DEPTH
V3	MILLING 2.5" DEPTH
V4	MILLING 4.0" DEPTH
M	MILLED RUMBLE STRIPS

RAMPS SHALL BE PAVED FROM MAINLINE GORE TO STOP BAR OR GORE AT TOP OF RAMP.

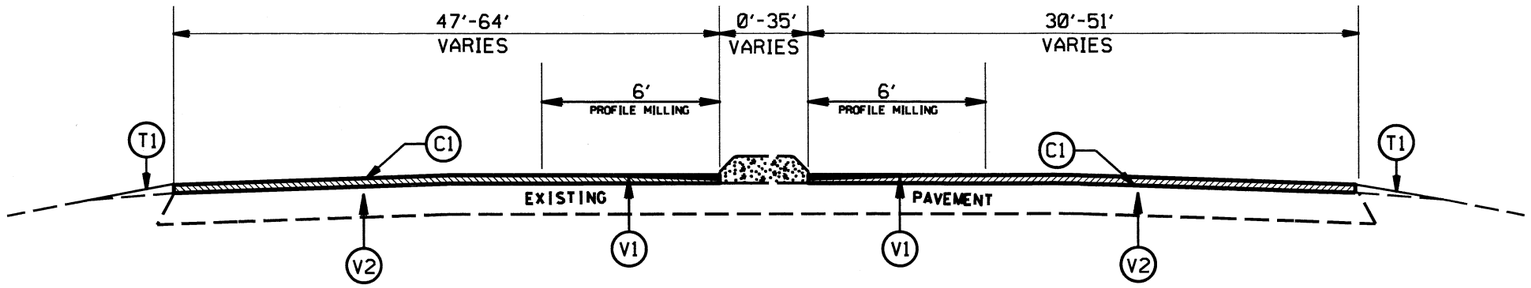
ALL PAVEMENT EDGE SLOPES ARE 1:1 UNLESS NOTED OTHERWISE.

I-485 PAVEMENT REHABILITATION

SCALE	-NA-
DATE	10/14
DWG. BY	WAT
DESIGN BY	WAT
APPROVED	BDC

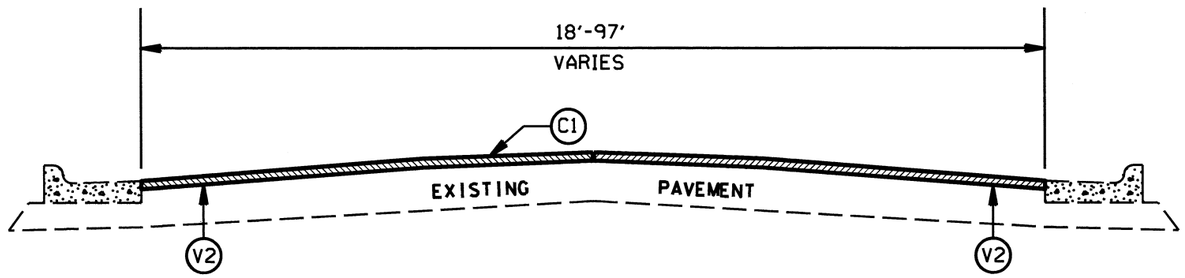
REVISIONS	

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-5318	13	
WBS NO.			



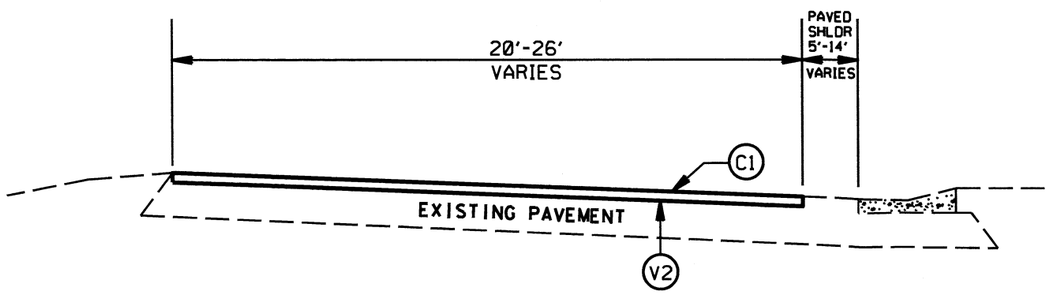
TYPICAL SECTION NO. 16

OUTER LOOP REA RD OFFRAMP



TYPICAL SECTION NO. 15

INNER LOOP NC 16 ONRAMP



TYPICAL SECTION NO. 14

INNER LOOP E JOHN ST ONRAMP
OUTER LOOP E JOHN ST OFFRAMP
OUTER LOOP E JOHN ST ONRAMP
OUTER LOOP US 74 OFFRAMP

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5D, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
D1	PROP. APPROX. 2.5" ASPHALT CONCRETE INTERMEDIATE COURSE TYPE I19.0D AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.
T1	SHOULDER RECONSTRUCTION.
V1	PROFILE MILLING 0" TO 1.5"
V2	MILLING 1.5" DEPTH
V3	MILLING 2.5" DEPTH
V4	MILLING 4.0" DEPTH
M	MILLED RUMBLE STRIPS

RAMPS SHALL BE PAVED FROM MAINLINE GORE TO STOP BAR OR GORE AT TOP OF RAMP.

ALL PAVEMENT EDGE SLOPES ARE 1:1 UNLESS NOTED OTHERWISE.

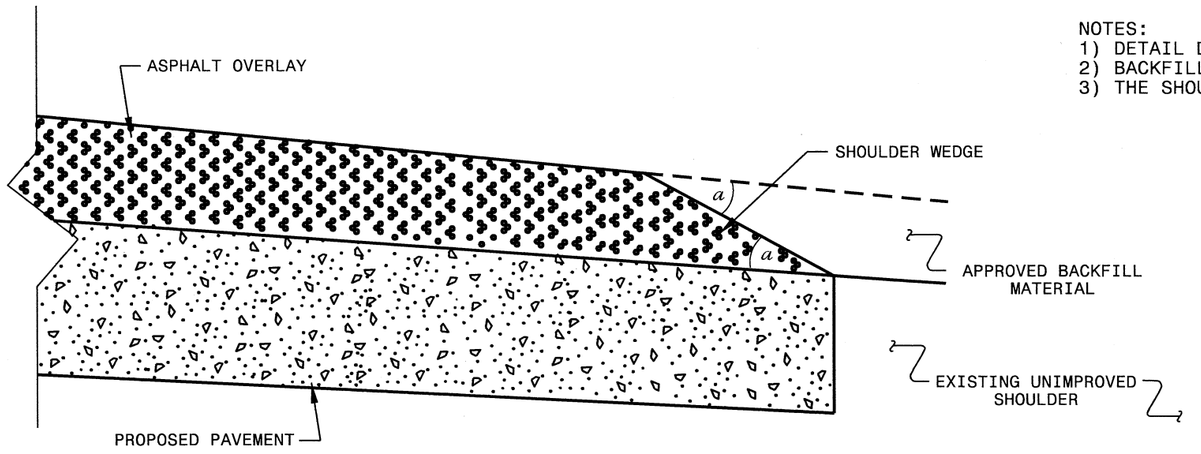
I-485 PAVEMENT REHABILITATION

SCALE	-NA-
DATE	10/14
DWG. BY	WAT
DESIGN BY	WAT
APPROVED	BDC

REVISIONS	

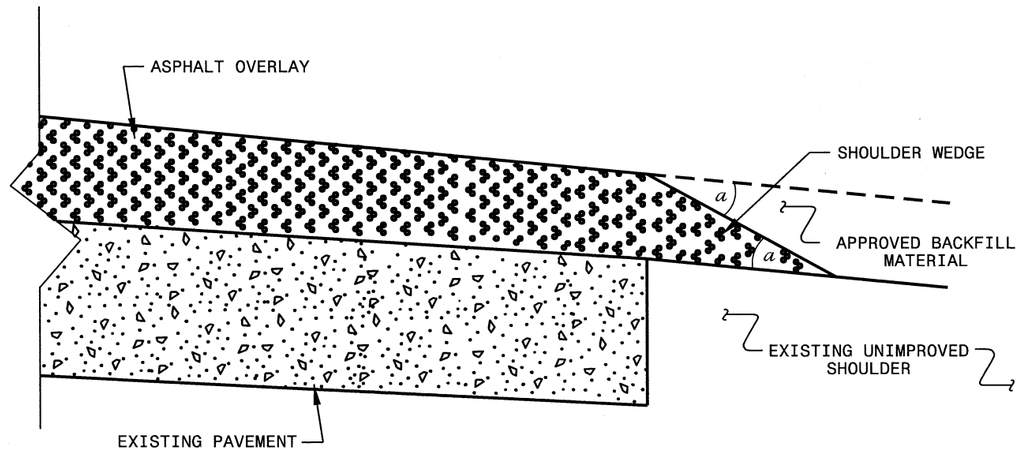
PROJECT REFERENCE NO.	SHEET NO.
I-5318	14

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 AND SIDE STREETS.



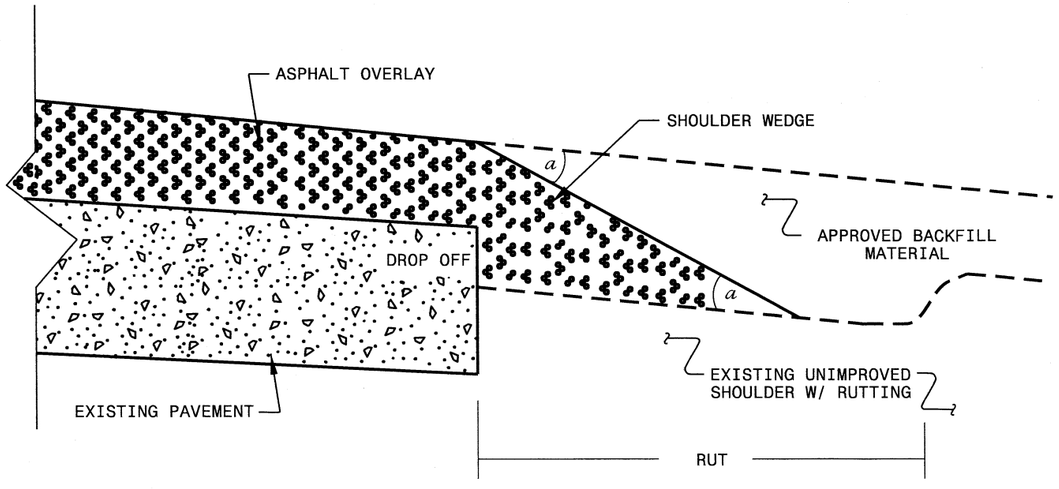
SHOULDER WEDGE DETAIL

(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:	10/16/12
CHECKED BY:		DATE:	
FILE SPEC.:	s:usr/details/stand/shoulderwedgedetail.dgn		

$$$$$$$SYSTIME$$$$$
$$$$$$$USERNAME$$$$DGN$$$$$$$$$$$$$$$$$$$$$

PROJECT NO.	SHEET NO.	TOTAL NO.
I-5318	15	

SUMMARY OF QUANTITIES

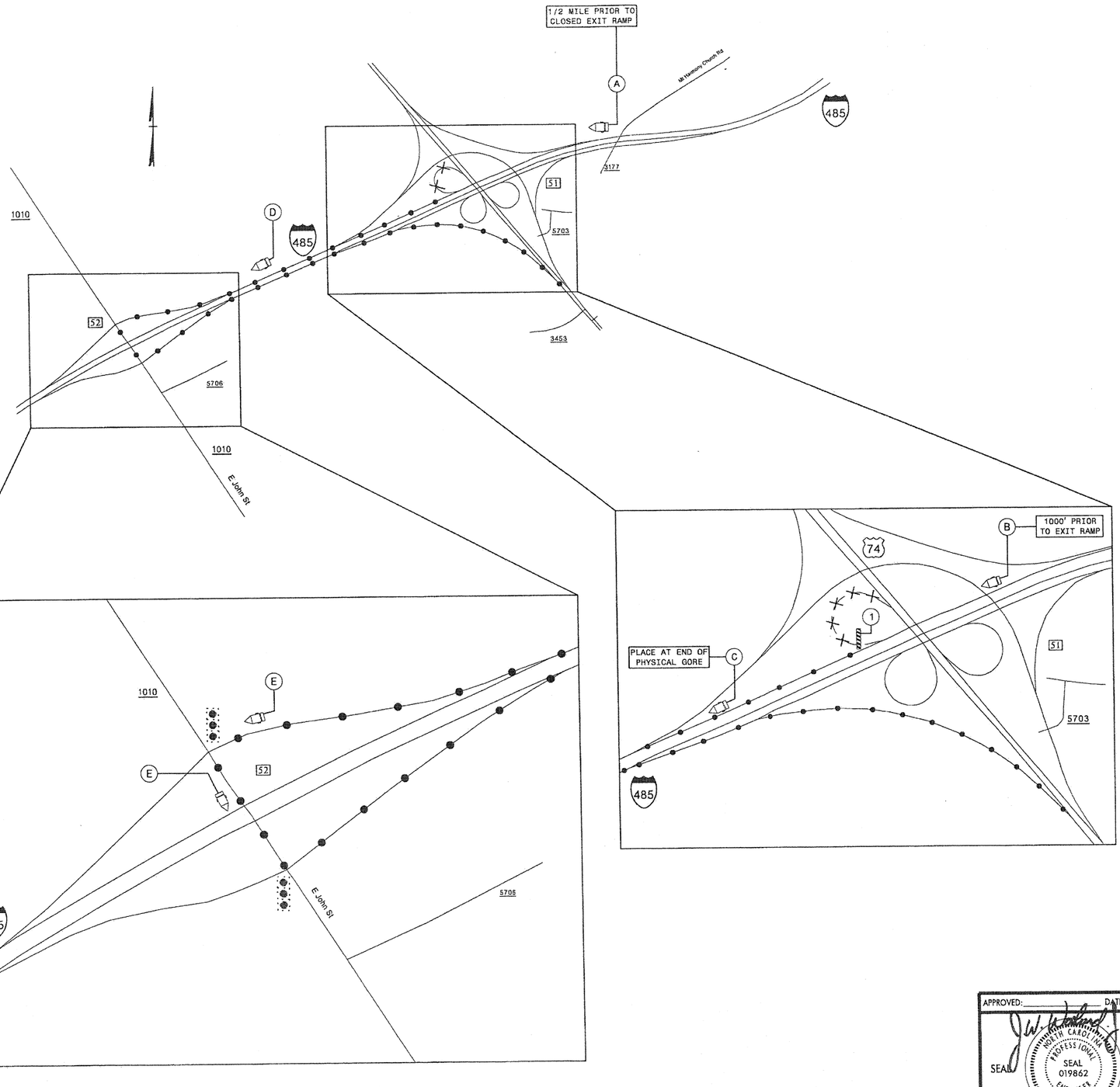
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH MI	WIDTH FT	BORROW CY	SHOULDER RECONSTRUCTION SMI	4" MILLING SY	2.5" MILLING SY	1½" MILLING SY	0" TO 1.5" MILLING SY	2.5" TO 4" MILLING SY	INCIDENTAL MILLING SY	INTER-MEDIATE COURSE, I19.0D TONS	SURFACE COURSE, S9.5D TON	ASPHALT BINDER FOR PLANT MIX TONS	POLYMER MODIFIED ASPHALT BINDER FOR PLANT MIX TONS	PATCHING EXISTING PAVEMENT TONS	MILLED RUMBLE STRIPS LF	PORTABLE LIGHTING LS	TEMPORARY SILT FENCE LF	STONE FOR EROSION CONTROL, CLASS B TN	SEDIMENT CONTROL STONE TN	WATTLE LF	POLYACRYLAMIDE (PAM) LB
I-5318	Mecklenburg	1	I-485	FROM REA RD (SR-5722) TO E INDEPENDENCE BLVD (US 74)		4		Yes	NO	8.7	80	1,419	20.00	1,457	152,777	193,175	7,628	3,209	2,447	22,436	40,254	1,010	2,294	2,000	93,374	1.00	1,917	256	128	384	12
TOTAL FOR MAP NO. 1										**8.7**		**1,419**	**20.00**	**1,457**	**152,777**	**193,175**	**7,628**	**3,209**	**2,447**	**22,436**	**40,254**	**1,010**	**2,294**	**2,000**	**93,374**	**1.00**	**1,917**	**256**	**128**	**384**	**12**
TOTAL FOR PROJ NO. 47038.3.FS1										**8.7**		**1,419**	**20.00**	**1,457**	**152,777**	**193,175**	**7,628**	**3,209**	**2,447**	**22,436**	**40,254**	**1,010**	**2,294**	**2,000**	**93,374**	**1.00**	**1,917**	**256**	**128**	**384**	**12**
GRAND TOTAL										**8.7**		**1,419**	**20.00**	**1,457**	**152,777**	**193,175**	**7,628**	**3,209**	**2,447**	**22,436**	**40,254**	**1,010**	**2,294**	**2,000**	**93,374**	**1.00**	**1,917**	**256**	**128**	**384**	**12**

THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	4413000000-E WORK ZONE ADVANCE/ GENERAL WARNING SIGNING SF	4510000000-N LAW ENFORCEMENT HR	4457000000-N TEMP. TRAFFIC CONTROL LS	4685000000-E 4" X 90 M WHITE THERMO LF	4685000000-E 4" X 90 M YELLOW THERMO LF	4686000000-E 4" X 120 M WHITE THERMO LF	4688000000-E 6" X 90 M WHITE THERMO LF	4688000000-E 6" X 90 M YELLOW THERMO LF	4690000000-E 6" X 120 M WHITE THERMO LF	4695000000-E 8" X 90 M WHITE THERMO LF	4700000000-E 12" X 90 M WHITE THERMO LF	4702000000-E 12" X 120 M WHITE THERMO LF	4710000000-E 24" X 120 M WHITE THERMO LF	4721000000-E THERMO MSG ONLY 120 M EA
I-5318	Mecklenburg	1	I-485	FROM REA RD (SR-5722) TO E INDEPENDENCE BLVD (US 74)		4		8.7	80	510.0	40	1	23,623	25,980	5,178	87,197	87,237	23,532	1,999	9,220	1,496	314	20
TOTAL FOR MAP NO. 1								**8.7**		**510**	**40**	**1**	**23,623**	**25,980**	**5,178**	**87,197**	**87,237**	**23,532**	**1,999**	**9,220**	**1,496**	**314**	**20**
TOTAL FOR PROJ NO. 47038.3.FS1								**8.7**		**510**	**40**	**1**	**23,623**	**25,980**	**5,178**	**87,197**	**87,237**	**23,532**	**1,999**	**9,220**	**1,496**	**314**	**20**
													49,603			**174,434**							
GRAND TOTAL								**8.7**		**510**	**40**	**1**	**23,623**	**25,980**	**5,178**	**87,197**	**87,237**	**23,532**	**1,999**	**9,220**	**1,496**	**314**	**20**
													49,603			**174,434**							

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	4725000000-E THERMO LT ARROW 90 M EA	4725000000-E THERMO RT ARROW 90 M EA	4725000000-E THERMO STR & RT ARROW 90 M EA	4725000000-E THERMO STR & LT ARROW 90 M EA	4725000000-E MERGE ARROW EA	4810000000-E 4" WHITE PAINT LF	4810000000-E 4" YELLOW PAINT LF	4820000000-E 8" WHITE PAINT LF	4835000000-E 24" WHITE PAINT LF	4840000000-N PAINT MSG ONLY EA	4845000000-N PAINT LT ARROW EA	4845000000-N PAINT RT ARROW EA	4845000000-N PAINT STR & RT ARROW EA	4845000000-N PAINT STR & LT ARROW EA	4845000000-N PAINT MERGE ARROW EA	4905000000-N SNOW PLOWABLE MARKERS EA
I-5318	Mecklenburg	1	I-485	FROM REA RD (SR-5722) TO E INDEPENDENCE BLVD (US 74)		4		8.7	80	21	26	4	4	32	139,530	113,217	12,715	314	20	21	26	4	4	32	2,119
TOTAL FOR MAP NO. 1								**8.7**		**21**	**26**	**4**	**4**	**32**	**139,530**	**113,217**	**12,715**	**314**	**20**	**21**	**26**	**4**	**4**	**32**	**2,119**
TOTAL FOR PROJ NO. 47038.3.FS1								**8.7**		**21**	**26**	**4**	**4**	**32**	**139,530**	**113,217**	**12,715**	**314**	**20**	**21**	**26**	**4**	**4**	**32**	**2,119**
										87					**252,747**					**87**					
GRAND TOTAL								**8.7**		**21**	**26**	**4**	**4**	**32**	**139,530**	**113,217**	**12,715**	**314**	**20**	**21**	**26**	**4**	**4**	**32**	**2,119**
										87					**252,747**					**87**					

PROJ. REFERENCE NO.	SHEET NO.
I-5318	TMP-1



R11-2
48" x 30"
ROAD CLOSED
TYPE III BARRICADE

R11-2
48" x 30"
ROAD CLOSED
TYPE III BARRICADE

1

MESSAGE NO. 1	MESSAGE NO. 2
EXIT 51B CLOSED AHEAD	DETOUR AHEAD

CHANGEABLE MESSAGE SIGN
A

MESSAGE NO. 1	MESSAGE NO. 2
EXIT 51B US 74 E CLOSED	DETOUR TO EXIT 52

CHANGEABLE MESSAGE SIGN
B

MESSAGE NO. 1	MESSAGE NO. 2
DETOUR US 74 E 1/2 MILE	USE EXIT 52 1/2 MILE

CHANGEABLE MESSAGE SIGN
C

MESSAGE NO. 1	MESSAGE NO. 2
DETOUR US 74 EAST	EXIT 52 NEXT RIGHT

CHANGEABLE MESSAGE SIGN
D

MESSAGE NO. 1	MESSAGE NO. 2
DETOUR US 74 EAST	LEFT AT SIGNAL

CHANGEABLE MESSAGE SIGN
E

APPROVED: _____ DATE: _____

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 019862 ENGINEER J. W. WOOLARD, JR.

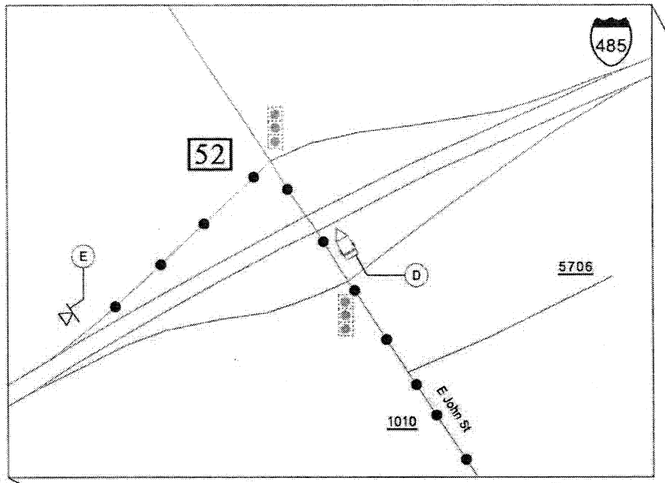
10/16/17

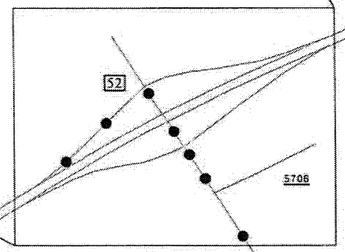
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
WORK ZONE TRAFFIC CONTROL

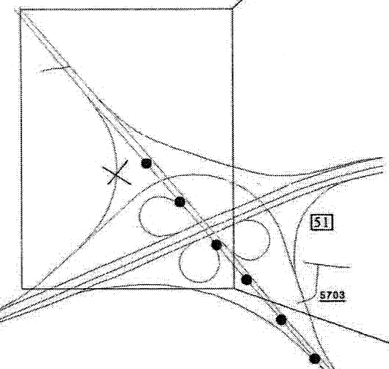
LOOP CLOSURE AT EXIT 51B FROM I-485 SOUTHBOUND (INNER LOOP) TO US 74 EASTBOUND

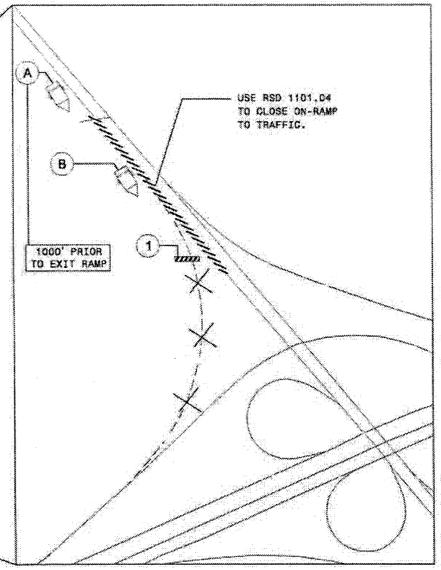
10/1/2014
S:\TMU\WZTC\Resurfacing\2014Resurfacing\2014 Western\2014_Div0\C203501_I-5318_47038.3.FSI_Mecklenburg_I-485_mill_sh\Detours\TCP\US 74\I-5318_TC_TMP_US74_NW-Loop.dgn
User:shosson

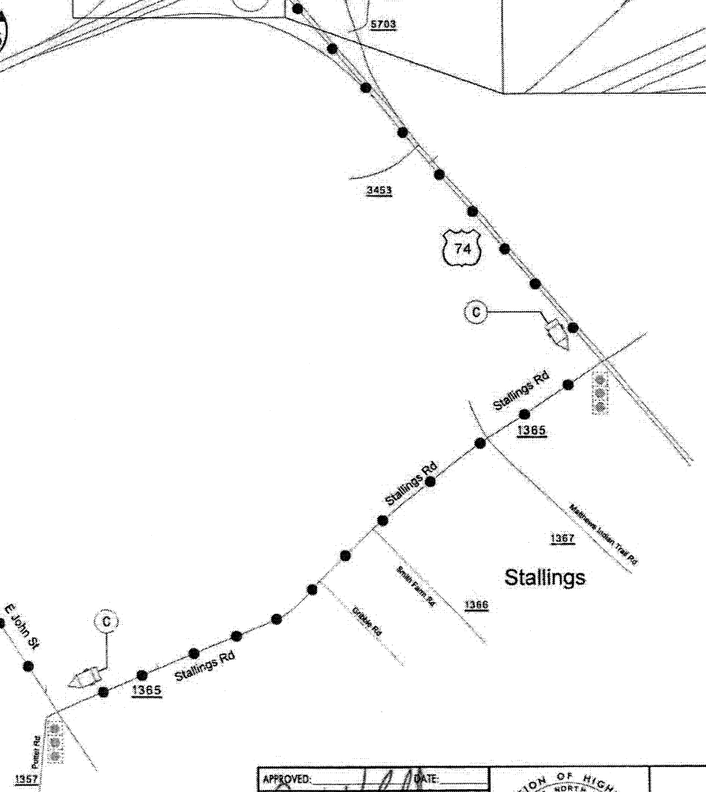
PROJ. REFERENCE NO.	SHEET NO.
I-5318	TMP-2











MESSAGE NO. 1	MESSAGE NO. 2
RAMP TO I-485 CLOSED	DETOUR AHEAD

CHANGEABLE MESSAGE SIGN
(A)

MESSAGE NO. 1	MESSAGE NO. 2
DETOUR I-485 INNER	STRAIGHT US 74 EAST

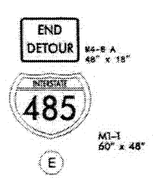
CHANGEABLE MESSAGE SIGN
(B)

MESSAGE NO. 1	MESSAGE NO. 2
DETOUR I-485 INNER	RIGHT AT SIGNAL

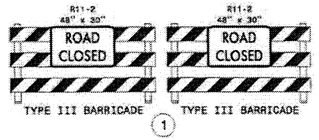
CHANGEABLE MESSAGE SIGN
(C)

MESSAGE NO. 1	MESSAGE NO. 2
DETOUR I-485 INNER	LEFT AT SIGNAL

CHANGEABLE MESSAGE SIGN
(D)



(E)



(1)

APPROVED: J.W. Woolard DATE: 1/5/15

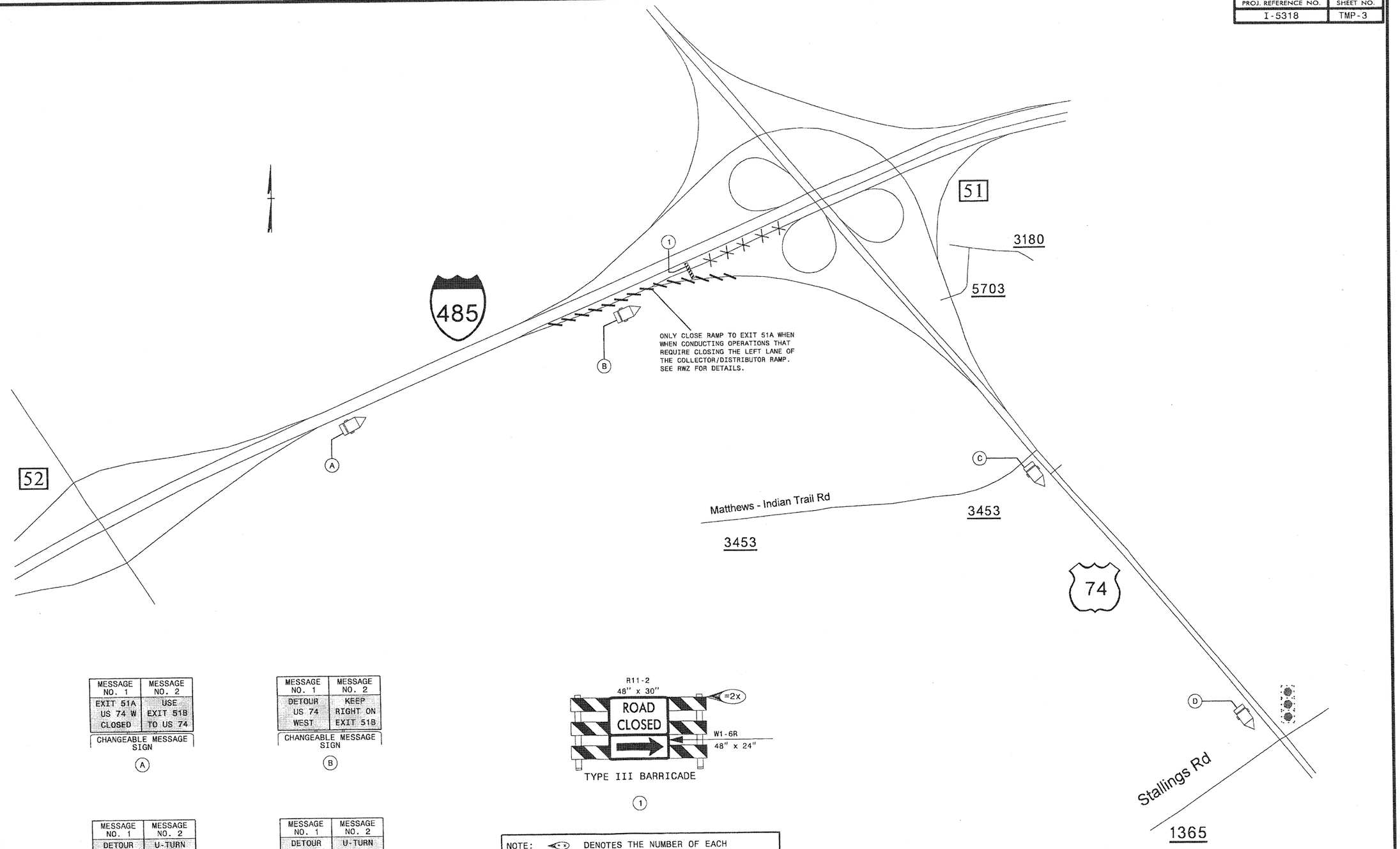
SEAL
NORTH CAROLINA PROFESSIONAL SEAL 019862 ENGINEER J. W. WOOLARD

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

OFF-RAMP CLOSURE AT EXIT 51
FROM US 74 EASTBOUND
TO I-485 SOUTHBOUND
(INNER LOOP)

12/30/2014
15:14:02
User:SJOSEPH
Plot By:SJOSEPH
File:N:\Traffic\Projects\I-5318_47038.3.FS1_Mecklenburg_I-485_Widening\Design\Western\2014_Div0\C203501_I-5318_47038.3.FS1_Mecklenburg_I-485_mslink\Detours\TCP\US-74\I-5318_TC_TMP_US74_NW-Ramp.dgn

PROJ. REFERENCE NO.	SHEET NO.
I-5318	TMP-3



MESSAGE NO. 1	MESSAGE NO. 2
EXIT 51A US 74 W CLOSED	USE EXIT 51B TO US 74

CHANGEABLE MESSAGE SIGN

(A)

MESSAGE NO. 1	MESSAGE NO. 2
DETOUR US 74 WEST	KEEP RIGHT ON EXIT 51B

CHANGEABLE MESSAGE SIGN

(B)

MESSAGE NO. 1	MESSAGE NO. 2
DETOUR US 74 WEST	U-TURN AT NEXT SIGNAL

CHANGEABLE MESSAGE SIGN

(C)

MESSAGE NO. 1	MESSAGE NO. 2
DETOUR US 74 WEST	U-TURN AT SIGNAL

CHANGEABLE MESSAGE SIGN

(D)

TYPE III BARRICADE

(1)

NOTE: ‹x› DENOTES THE NUMBER OF EACH BARRICADE/SIGN ASSEMBLY TO BE USED.

APPROVED: _____ DATE: _____

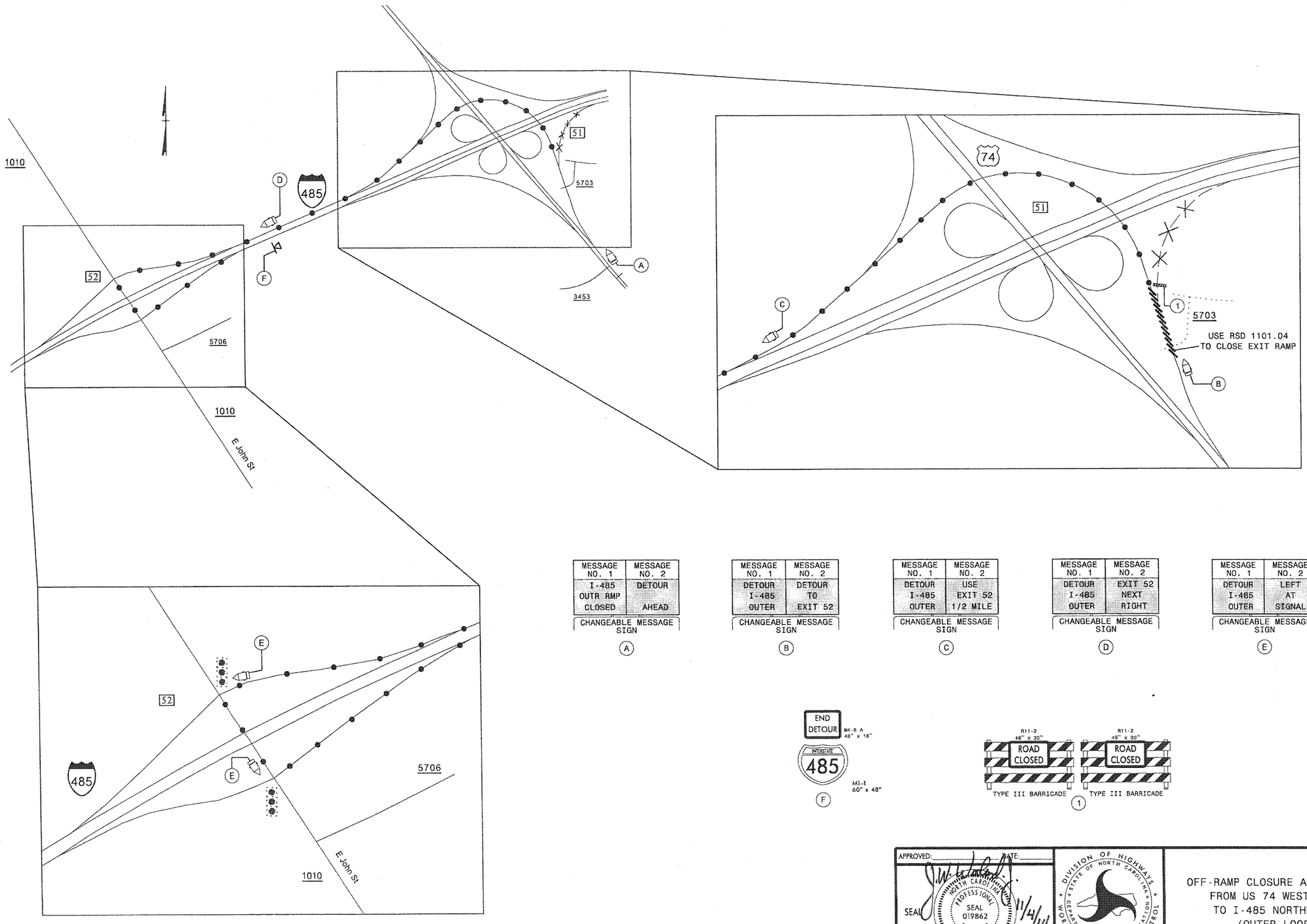
SEAL — NORTH CAROLINA PROFESSIONAL SEAL 019862 ENGINEER J. WOOLAND JR. — 10/14/14

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

OFF-RAMP CLOSURE AT EXIT 51
FROM I-485 NORTHBOUND
(OUTER LOOP)
TO US 74 WESTBOUND

10/1/2014
S:\TMU\WZTC\Resurfacing\2014Resurfacing\2014 WesternV2014_DivIV\C203501\I-5318_47038.3.FSI_Mecklenburg_I-485_mill_sh\Detours\TCP\US 74\I-5318_TC_TMP_US74_SE-Loop.dgn
User:shassan

PROJ. REFERENCE NO.	SHEET NO.
I-5318	TMP-4



MESSAGE NO. 1	MESSAGE NO. 2
I-485 OUTR RMP CLOSED	DETOUR AHEAD

CHANGEABLE MESSAGE SIGN

(A)

MESSAGE NO. 1	MESSAGE NO. 2
DETOUR I-485 OUTER	DETOUR TO EXIT 52

CHANGEABLE MESSAGE SIGN

(B)

MESSAGE NO. 1	MESSAGE NO. 2
DETOUR I-485 OUTER	USE EXIT 52 1/2 MILE

CHANGEABLE MESSAGE SIGN

(C)

MESSAGE NO. 1	MESSAGE NO. 2
DETOUR I-485 OUTER	EXIT 52 NEXT RIGHT

CHANGEABLE MESSAGE SIGN

(D)

MESSAGE NO. 1	MESSAGE NO. 2
DETOUR I-485 OUTER	LEFT AT SIGNAL

CHANGEABLE MESSAGE SIGN

(E)

(F)

(1)

APPROVED: _____ DATE: _____

SEAL

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 019862 JAMES W. WOOLARD JR.

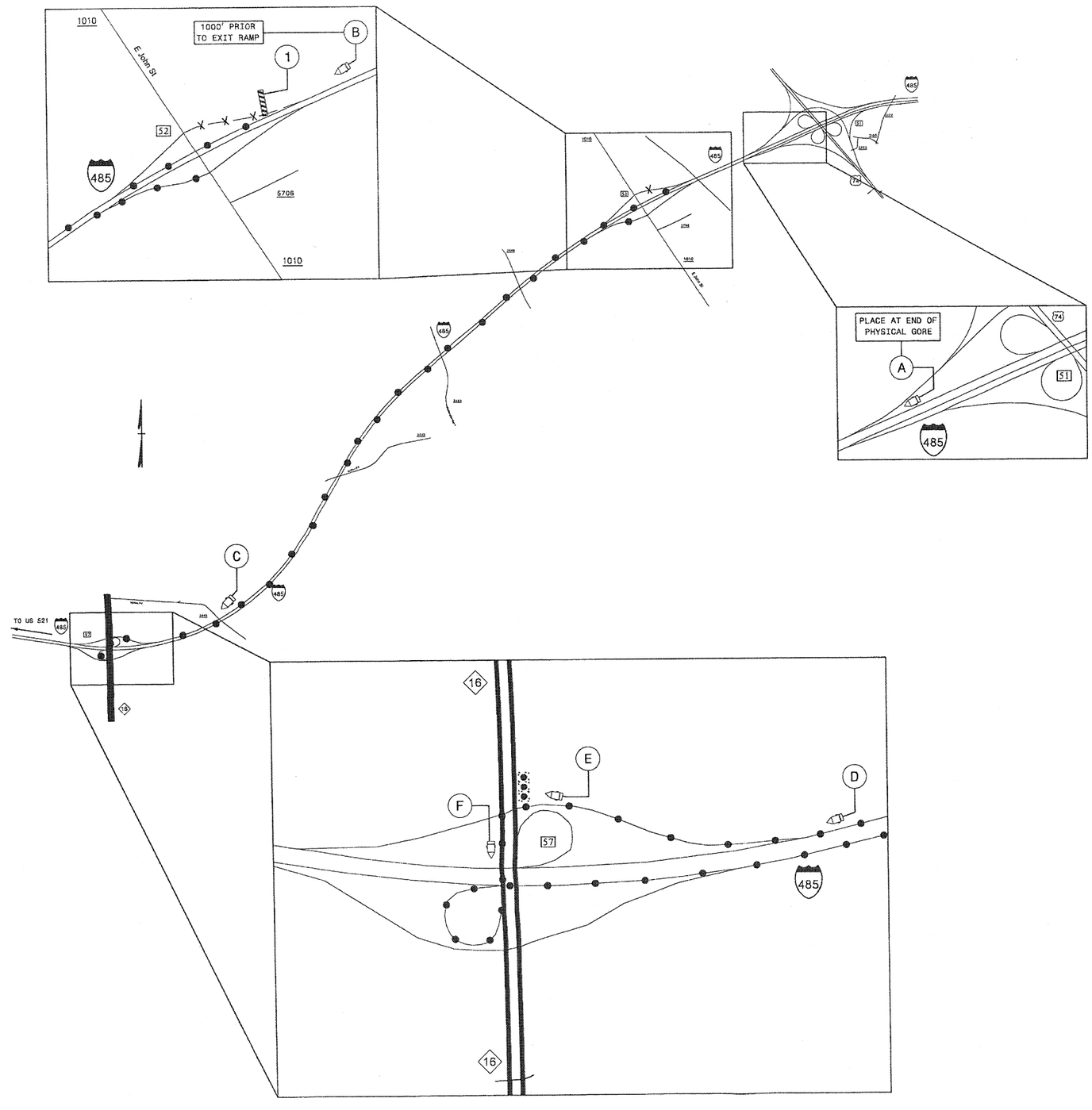
11/4/14

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

OFF-RAMP CLOSURE AT EXIT 51
FROM US 74 WESTBOUND
TO I-485 NORTHBOUND
(OUTER LOOP)

11/4/2014
S:\TMW\WZTC\Resurfacing\2014Resurfacing\2014 Western\2014_Div10\C203501\I-5318_47038.3.FSI_Mecklenburg_I-485_m*_sh\Detours\TCP\US 74\I-5318_TC_TMP_US74_SE-Ramp.dgn
User:sjmason

PROJ. REFERENCE NO.	SHEET NO.
I-5318	TMP-5



MESSAGE NO. 1	MESSAGE NO. 2
EXIT 52 CLOSED AHEAD	DETOUR AHEAD

CHANGEABLE MESSAGE SIGN
(A)

MESSAGE NO. 1	MESSAGE NO. 2
EXIT 52 E JOHN CLOSED	DETOUR TO EXIT 57

CHANGEABLE MESSAGE SIGN
(B)

MESSAGE NO. 1	MESSAGE NO. 2
E JOHN ST DETOUR	USE EXIT 57 1/2 MILE

CHANGEABLE MESSAGE SIGN
(C)

MESSAGE NO. 1	MESSAGE NO. 2
E JOHN ST DETOUR	EXIT 57 NEXT RIGHT

CHANGEABLE MESSAGE SIGN
(D)

MESSAGE NO. 1	MESSAGE NO. 2
E JOHN ST DETOUR	LEFT AT SIGNAL

CHANGEABLE MESSAGE SIGN
(E)

MESSAGE NO. 1	MESSAGE NO. 2
E JOHN ST DETOUR	NEXT RIGHT TO I-485

CHANGEABLE MESSAGE SIGN
(F)

R11-2
48" x 30"
ROAD CLOSED
TYPE III BARRICADE

R11-2
48" x 30"
ROAD CLOSED
TYPE III BARRICADE

(1)

APPROVED: _____ DATE: _____

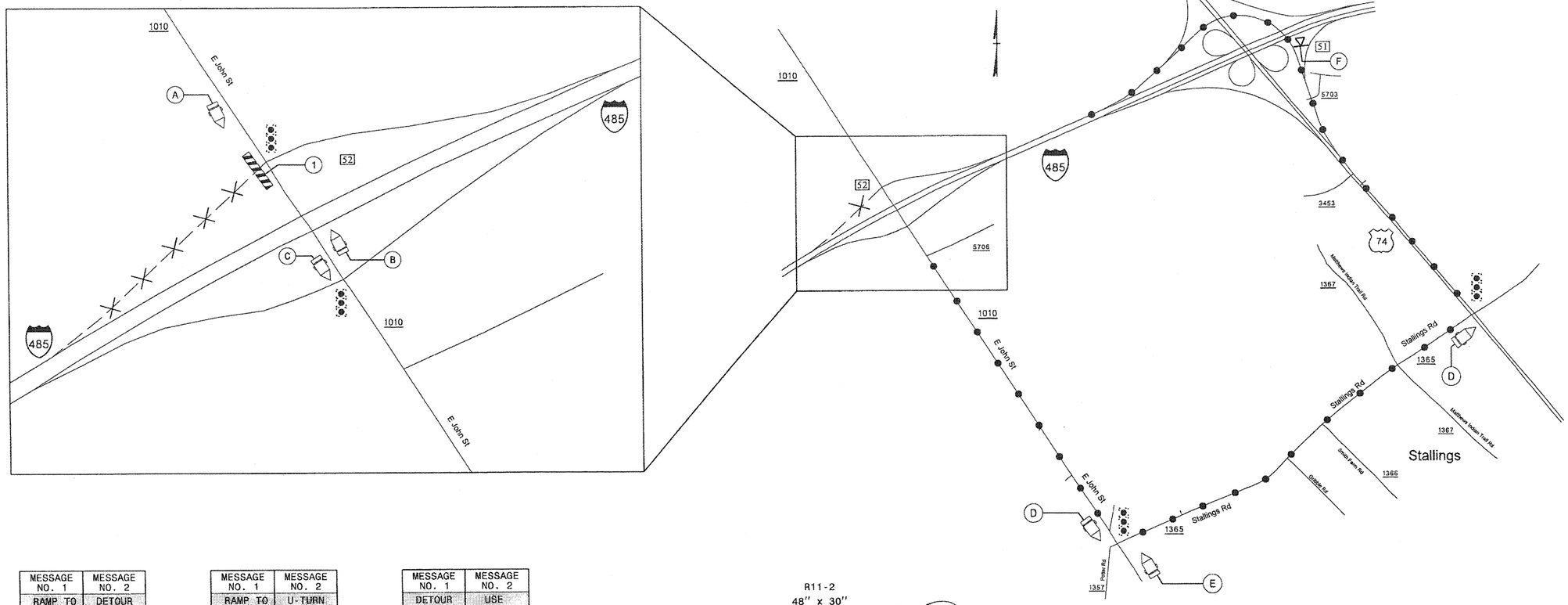
SEAL
NORTH CAROLINA PROFESSIONAL SEAL 019862 ENGINEER J. W. WOODLAND, JR.
10/16/14

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

OFF-RAMP CLOSURE AT EXIT 52
FROM I-485 SOUTHBOUND
(INNER LOOP)
TO E JOHN ST

10/1/2014
S:\MUNI\ZTC\Resurfacing\2014Resurfacing\2014 Western\2014_Div0\C203501_I-5318_47038.3.FS1_Mecklenburg_I-485_mill_sh\Detours\TCP\E John St\I-5318_TC_BTMP_EJohn_NE-Ramp.dgn
User:shassan

PROJ. REFERENCE NO.	SHEET NO.
I-5318	TMP-6



MESSAGE NO. 1	MESSAGE NO. 2
RAMP TO I-485 CLOSED	DETOUR AHEAD

CHANGEABLE MESSAGE SIGN

(A)

MESSAGE NO. 1	MESSAGE NO. 2
RAMP TO I-485 CLOSED	U-TURN AT NEXT SIGNAL

CHANGEABLE MESSAGE SIGN

(B)

MESSAGE NO. 1	MESSAGE NO. 2
DETOUR I-485 INNER	USE E JOHN ST

CHANGEABLE MESSAGE SIGN

(C)

MESSAGE NO. 1	MESSAGE NO. 2
DETOUR I-485 INNER	LEFT AT SIGNAL

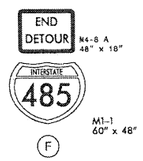
CHANGEABLE MESSAGE SIGN

(D)

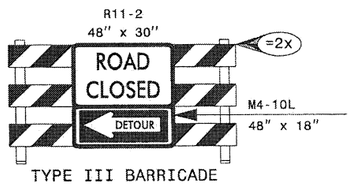
MESSAGE NO. 1	MESSAGE NO. 2
DETOUR I-485 INNER	RIGHT AT SIGNAL

CHANGEABLE MESSAGE SIGN

(E)



(F)



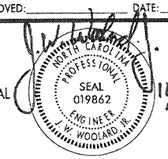
TYPE III BARRICADE

(1)

NOTE: =2x DENOTES THE NUMBER OF EACH BARRICADE/SIGN ASSEMBLY TO BE USED.

APPROVED: _____ DATE: _____

SEAL



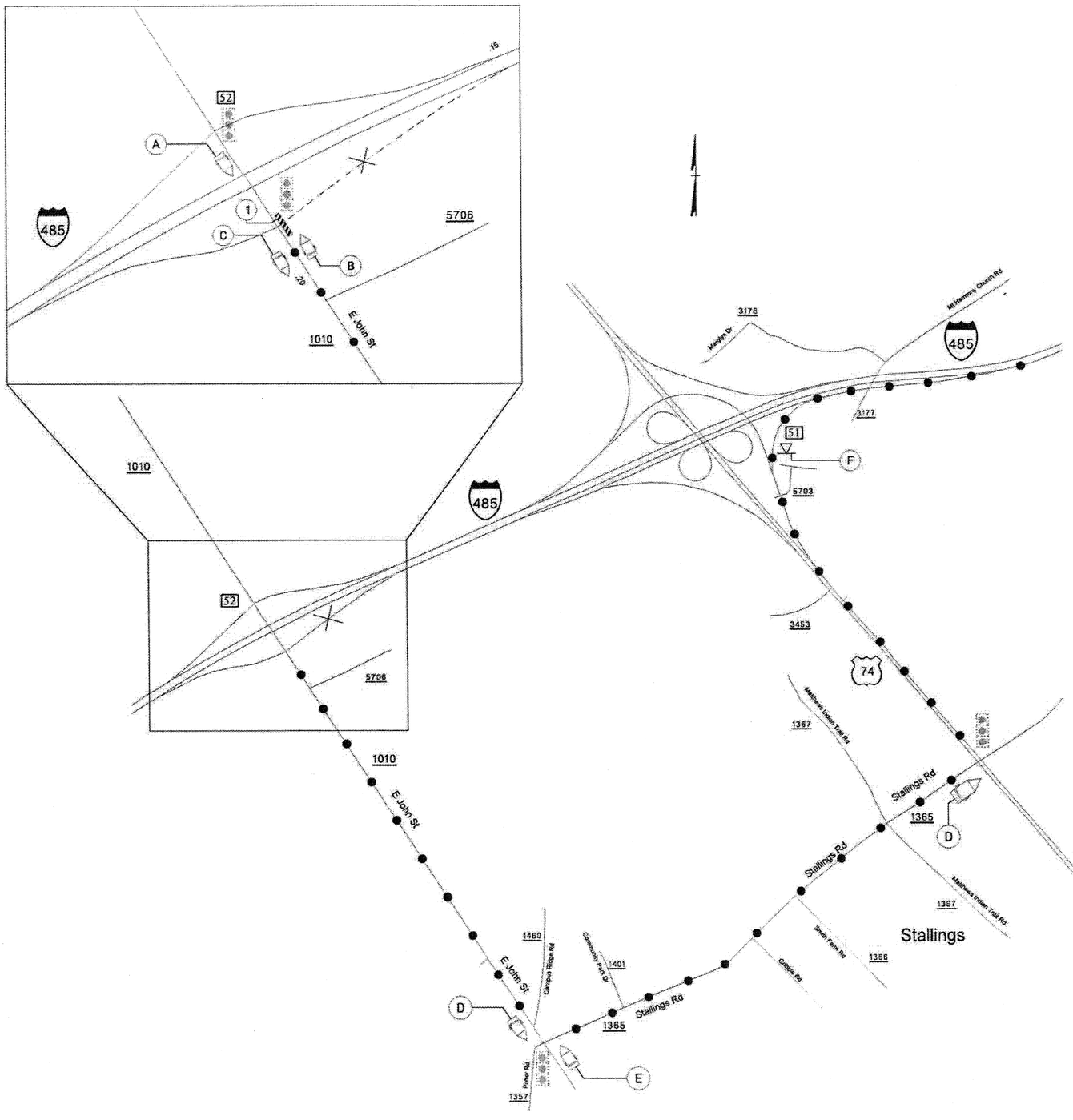
11/4/14

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

ON-RAMP CLOSURE AT EXIT 52
FROM E JOHN ST
TO I-485 SOUTHBOUND
(INNER LOOP)

11/4/2014
S:\TMU\WZTC\Resurfacing\2014Resurfacing\2014 Western\2014_Div10\C203501_I-5318_47038.3.FSI_Mecklenburg_I-485_m*_sh\Detours\TCP\E John St\I-5318_TC_BTMP_EJohn_NW-Ramp.dgn
User: sjnason

PROJ. REFERENCE NO.	SHEET NO.
I-5318	TMP-7



MESSAGE NO. 1	MESSAGE NO. 2
RAMP TO I-485 CLOSED	DETOUR AHEAD

CHANGEABLE MESSAGE SIGN

(A)

MESSAGE NO. 1	MESSAGE NO. 2
RAMP TO I-485 CLOSED	U-TURN AT NEXT SIGNAL

CHANGEABLE MESSAGE SIGN

(B)

MESSAGE NO. 1	MESSAGE NO. 2
DETOUR I-485 OUTER	USE E JOHN ST

CHANGEABLE MESSAGE SIGN

(C)

MESSAGE NO. 1	MESSAGE NO. 2
DETOUR I-485 OUTER	LEFT AT SIGNAL

CHANGEABLE MESSAGE SIGN

(D)

MESSAGE NO. 1	MESSAGE NO. 2
DETOUR I-485 OUTER	RIGHT AT SIGNAL

CHANGEABLE MESSAGE SIGN

(E)

END DETOUR

M4-6 A
48" x 18"

INTERSTATE 485

M1-1
60" x 48"

(F)

R11-2
48" x 30"

ROAD CLOSED

DETOUR

=2x

M4-10R
48" x 18"

TYPE III BARRICADE

(1)

NOTE: =x DENOTES THE NUMBER OF EACH BARRICADE/SIGN ASSEMBLY TO BE USED.

APPROVED: J. W. Woolard DATE: 1/5/15

SEAL

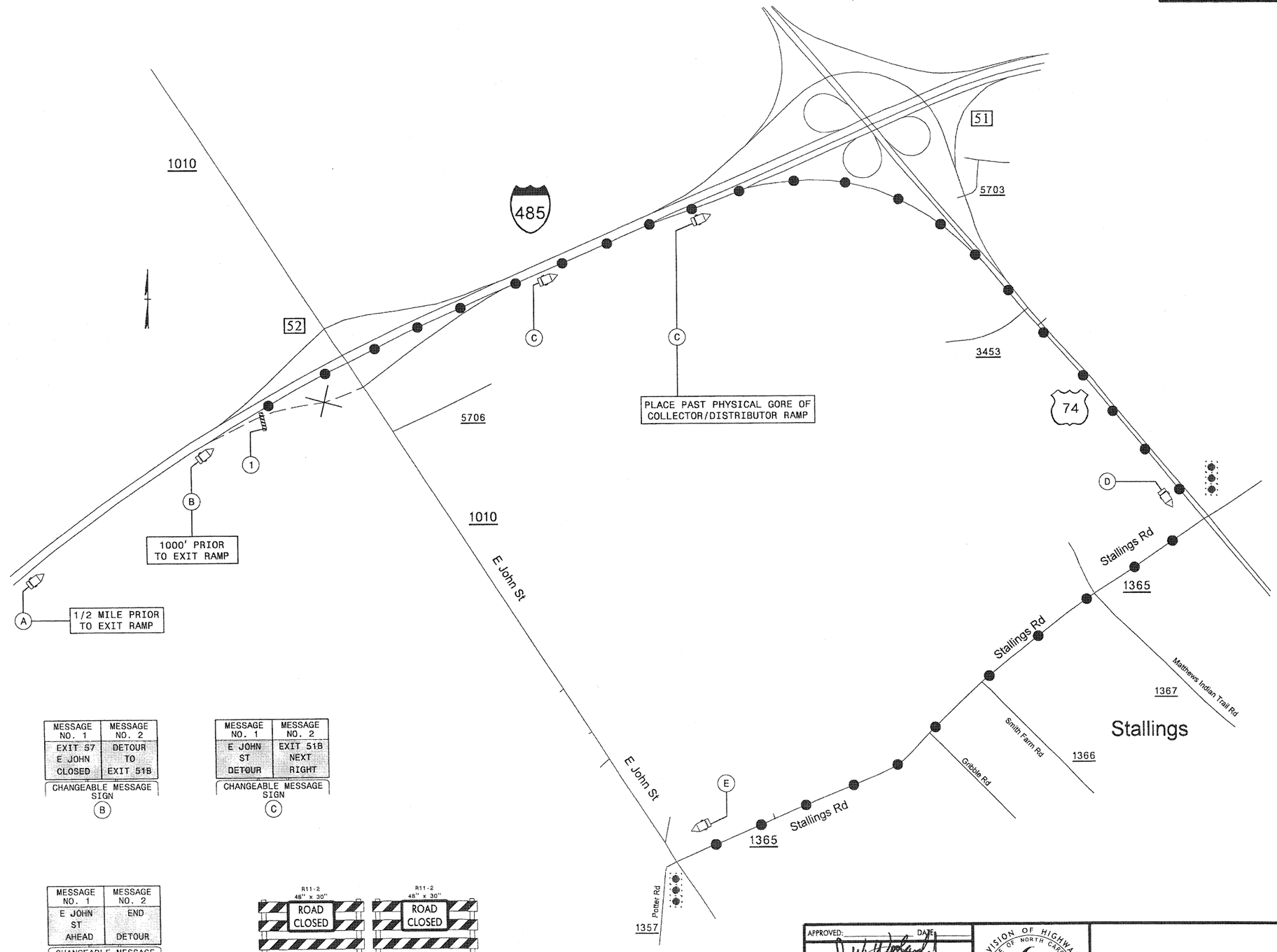
NORTH CAROLINA PROFESSIONAL SEAL 019862 ENGINEER J. W. WOOLARD, JR.

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

ON-RAMP CLOSURE AT EXIT 52
FROM E JOHN ST
TO I-485 NORTHBOUND
(OUTER LOOP)

12/30/2014
C:\TMW2\C\Resurfacing\2014Resurfacing\2014 Western\2014_Div10\C203501_I-538_47038.3.1_SL_Mecklenburg_I-485_m*_shp\Detours\TCP\E. John St_I-538_TC_BTMP_E.John_SE-Ramp.dgn
User: sshosaun

PROJ. REFERENCE NO.	SHEET NO.
I-5318	TMP-8



MESSAGE NO. 1	MESSAGE NO. 2
EXIT 52 CLOSED AHEAD	DETOUR AHEAD

CHANGEABLE MESSAGE SIGN (A)

MESSAGE NO. 1	MESSAGE NO. 2
EXIT 57 E JOHN CLOSED	DETOUR TO EXIT 51B

CHANGEABLE MESSAGE SIGN (B)

MESSAGE NO. 1	MESSAGE NO. 2
E JOHN ST DETOUR	EXIT 51B NEXT RIGHT

CHANGEABLE MESSAGE SIGN (C)

MESSAGE NO. 1	MESSAGE NO. 2
E JOHN ST DETOUR	RIGHT AT NEXT SIGNAL

CHANGEABLE MESSAGE SIGN (D)

MESSAGE NO. 1	MESSAGE NO. 2
E JOHN ST AHEAD	END DETOUR

CHANGEABLE MESSAGE SIGN (E)

R11-2 48" x 30" ROAD CLOSED — TYPE III BARRICADE

R11-2 48" x 30" ROAD CLOSED — TYPE III BARRICADE (1)

APPROVED: J. W. Woolard Jr. DATE: 10/14/14

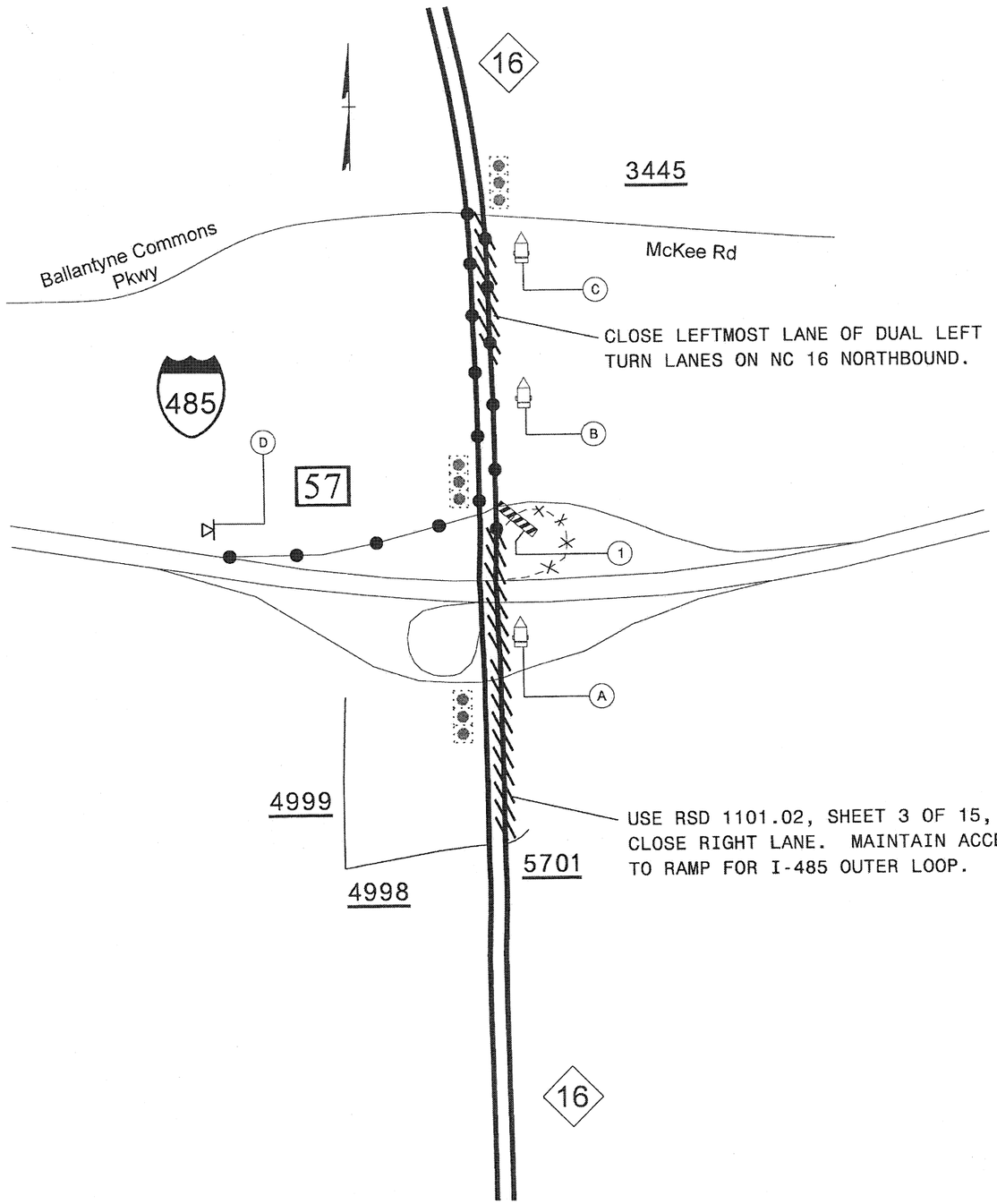
SEAL — NORTH CAROLINA PROFESSIONAL SEAL 019862 ENGINEER J. W. WOOLARD JR.

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

OFF-RAMP CLOSURE AT EXIT 52
FROM I-485 NORTHBOUND
(OUTER LOOP)
TO E JOHN ST

10/1/2014
S:\TMU\WZTC\Resurfacing\2014Resurfacing\2014 Western\2014_Div10\C203501_I-5318_47038.3.FS1_Mecklenburg_I-485_m*_sh\Detours\TCP\E John St\I-5318_TC_BTMP_EJohn_SW-Ramp.dgn
User:shasson

PROJ. REFERENCE NO.	SHEET NO.
I-5318	TMP-9



MESSAGE NO. 1	MESSAGE NO. 2
RAMP TO I-485 CLOSED	DETOUR AHEAD

CHANGEABLE MESSAGE SIGN

(A)

MESSAGE NO. 1	MESSAGE NO. 2
DETOUR I-485 INNER	U-TURN AT NEXT SIGNAL

CHANGEABLE MESSAGE SIGN

(B)

MESSAGE NO. 1	MESSAGE NO. 2
DETOUR I-485 INNER	U-TURN AT SIGNAL

CHANGEABLE MESSAGE SIGN

(C)

END DETOUR
M4-8 A
48" x 18"

INTERSTATE
485

M1-1
60" x 48"

(D)

R11-2
48" x 30"
ROAD CLOSED
TYPE III BARRICADE

R11-2
48" x 30"
ROAD CLOSED
TYPE III BARRICADE

(1)

APPROVED: _____ DATE: 10/16/14

SEAL

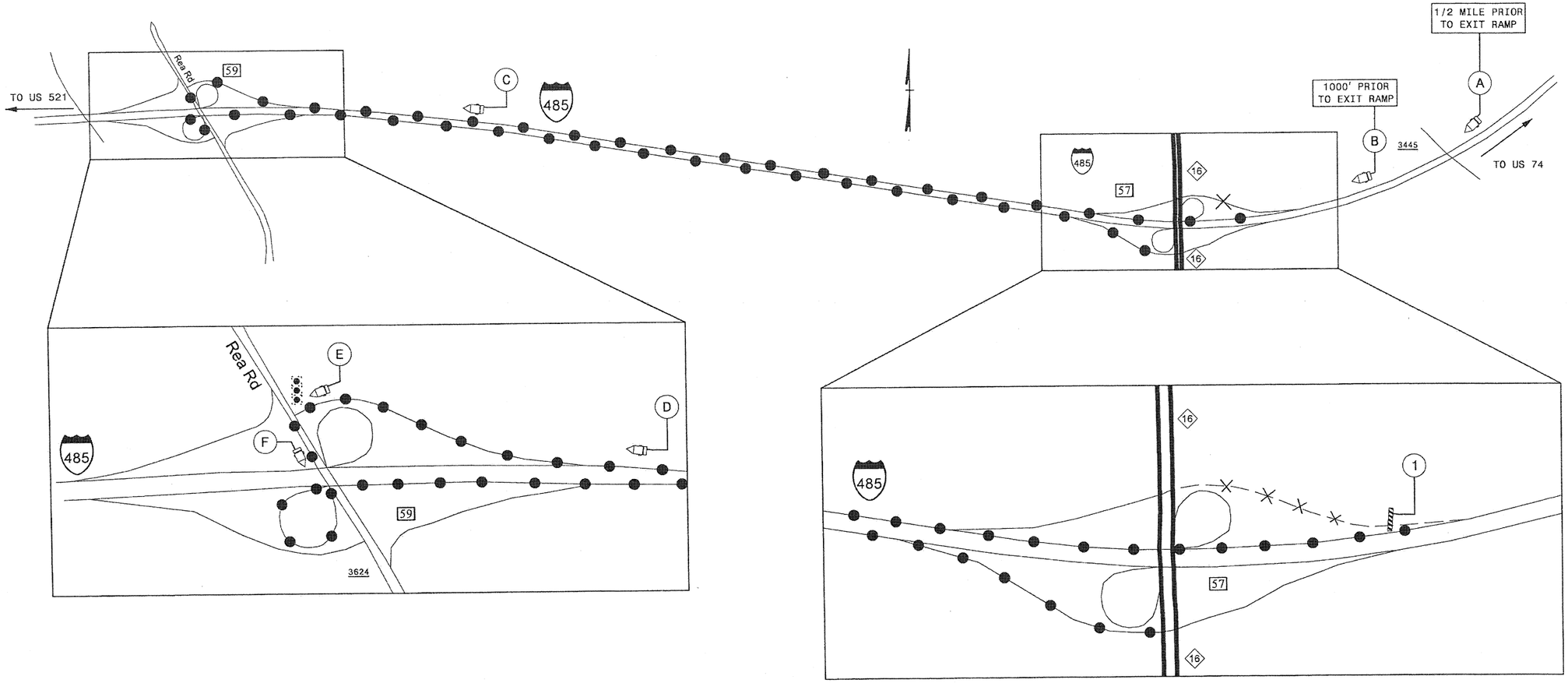
NORTH CAROLINA PROFESSIONAL SEAL 019862 ENGINEER J. W. WOOLARD, JR.

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

LOOP CLOSURE AT EXIT 57
FROM NC 16 NORTHBOUND
TO I-485 SOUTHBOUND
(INNER LOOP)

10/1/2014
S:\TMU\WZTC\Resurfacing\2014Resurfacing\2014 Western\2014_Div0\C203501_I-5318_47038.3.FSI_Mecklenburg_I-485_m*.sh\Detours\TCP\NC 16\I-5318_TC_TMP_NC16_NE-Loop.dgn
User:shassan

PROJ. REFERENCE NO.	SHEET NO.
I-5318	TMP-10



MESSAGE NO. 1	MESSAGE NO. 2
EXIT 57 CLOSED AHEAD	DETOUR AHEAD

CHANGEABLE MESSAGE SIGN
(A)

MESSAGE NO. 1	MESSAGE NO. 2
EXIT 57 NC 16 CLOSED	DETOUR TO EXIT 59

CHANGEABLE MESSAGE SIGN
(B)

MESSAGE NO. 1	MESSAGE NO. 2
DETOUR NC 16 1/2 MILE	USE EXIT 57 1/2 MILE

CHANGEABLE MESSAGE SIGN
(C)

MESSAGE NO. 1	MESSAGE NO. 2
DETOUR NC 16	EXIT 57 NEXT RIGHT

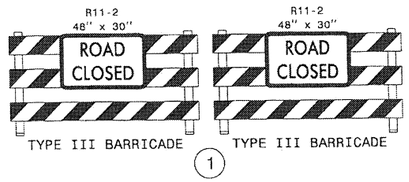
CHANGEABLE MESSAGE SIGN
(D)

MESSAGE NO. 1	MESSAGE NO. 2
DETOUR NC 16	LEFT AT SIGNAL

CHANGEABLE MESSAGE SIGN
(E)

MESSAGE NO. 1	MESSAGE NO. 2
DETOUR NC 16	NEXT RIGHT TO I-485

CHANGEABLE MESSAGE SIGN
(F)



(1)

APPROVED: DATE: 10/16/14

SEAL

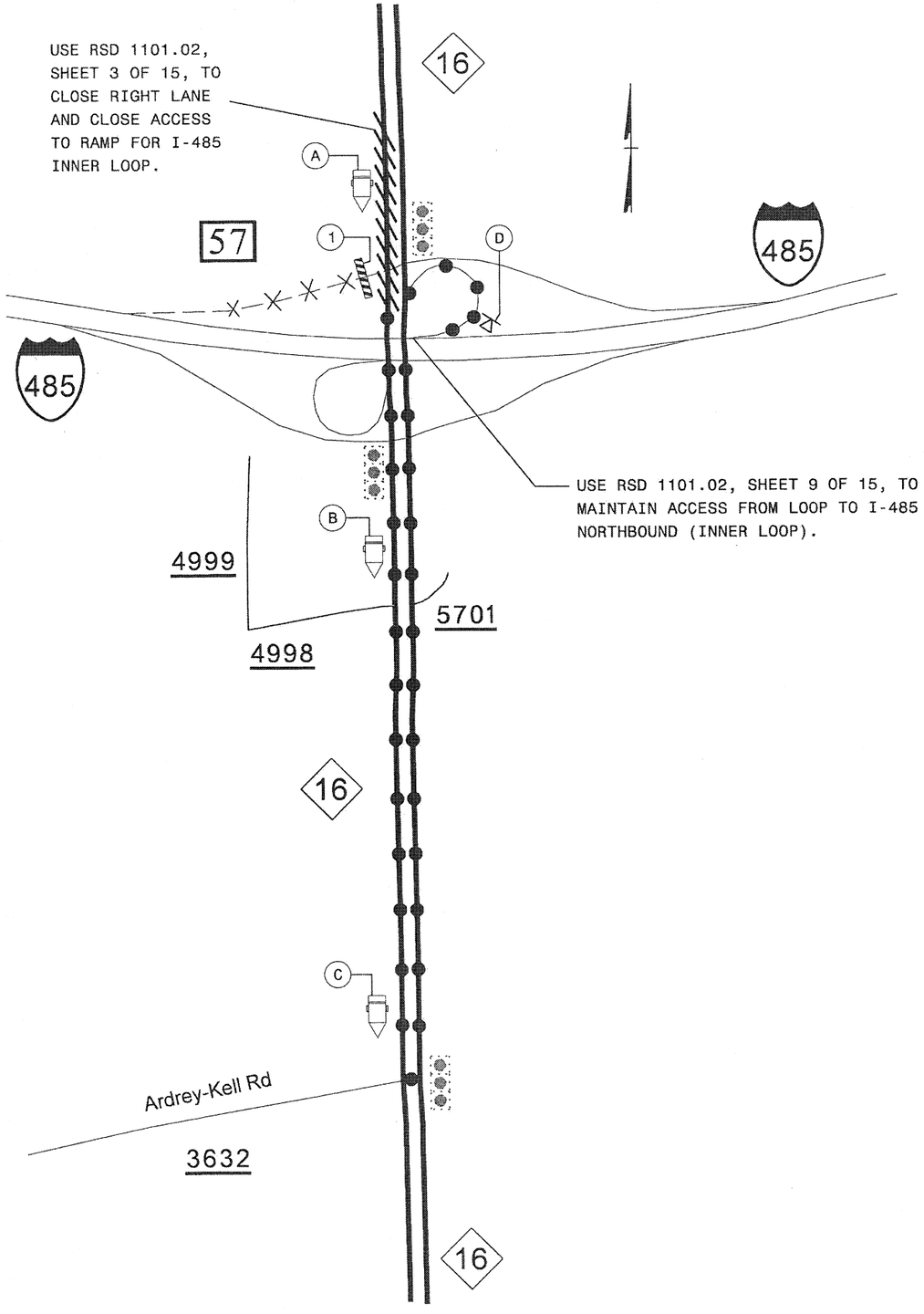
NORTH CAROLINA PROFESSIONAL SEAL 019862 ENGINEER J. W. WOOLARD, JR.

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

OFF-RAMP CLOSURE AT EXIT 57
FROM I-485 SOUTHBOUND
(INNER LOOP)
TO NC 16

10/1/2014
S:\TMU\WZTC\Resurfacing\2014Resurfacing\2014 Western\2014_Div0\C203501\I-5318_47038.3.FSI_Mecklenburg-I-485_mill_sh\Detours\TCP\NC 16\I-5318_TC_TMP_NC16_NE-Ramp.dgn
User:shassan

PROJ. REFERENCE NO.	SHEET NO.
I-5318	TMP-11



MESSAGE NO. 1	MESSAGE NO. 2
I-485 INNR RMP CLOSED	DETOUR AHEAD

CHANGEABLE MESSAGE SIGN

(A)

MESSAGE NO. 1	MESSAGE NO. 2
DETOUR I-485 INNER	U-TURN AT NEXT SIGNAL

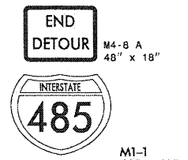
CHANGEABLE MESSAGE SIGN

(B)

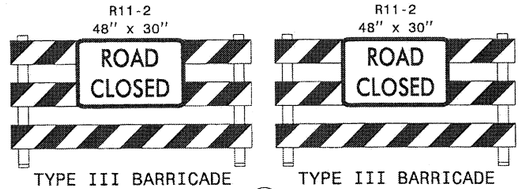
MESSAGE NO. 1	MESSAGE NO. 2
DETOUR I-485 INNER	U-TURN AT SIGNAL

CHANGEABLE MESSAGE SIGN

(C)



(D)



TYPE III BARRICADE TYPE III BARRICADE

(1)

APPROVED: DATE:

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 019862 ENGINEER W. WOOLARD JR.

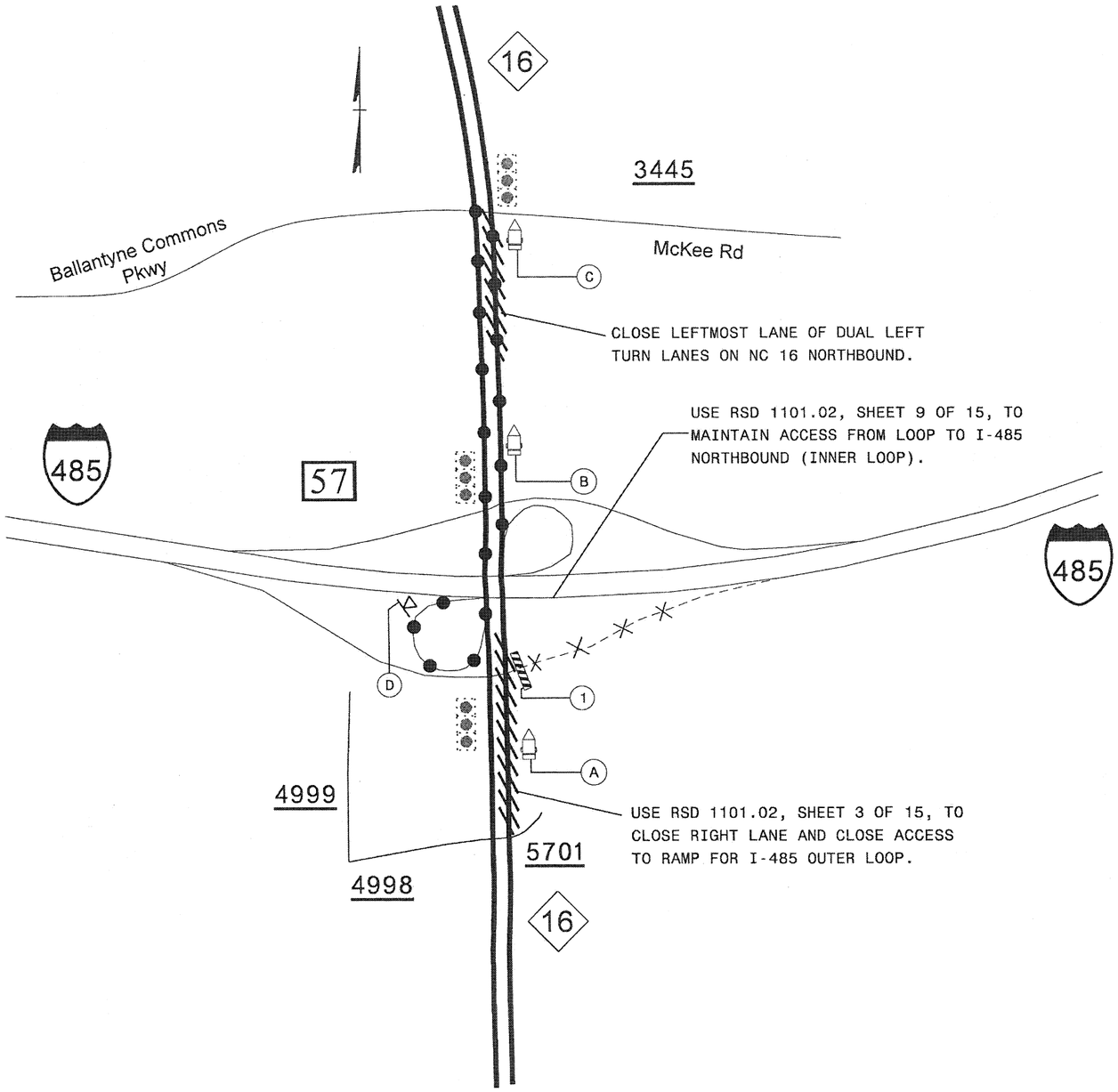
11/4/14

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

ON-RAMP CLOSURE AT EXIT 57
FROM NC 16 SOUTHBOUND
TO I-485 SOUTHBOUND
(INNER LOOP)

11/4/2014
S:\TMU\WZTC\Resurfacing\2014Resurfacing\2014 Western\2014_Div10\C203501_I-5318_47038.3.FSI_Mecklenburg_I-485_m*_sh\Detours\TCP_NC (6)_I-5318_TC_TMP_NC16_NW-Ramp.dgn
User:shasson

PROJ. REFERENCE NO.	SHEET NO.
I-5318	TMP-12



MESSAGE NO. 1	MESSAGE NO. 2
I-485 OUTR RMP CLOSED	DETOUR AHEAD

CHANGEABLE MESSAGE SIGN

(A)

MESSAGE NO. 1	MESSAGE NO. 2
DETOUR I-485 OUTER	U-TURN AT NEXT SIGNAL

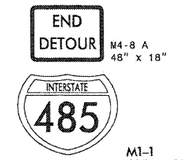
CHANGEABLE MESSAGE SIGN

(B)

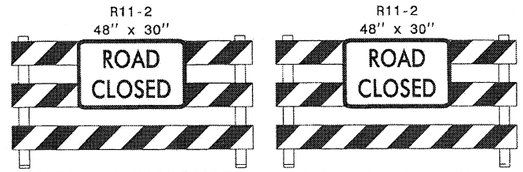
MESSAGE NO. 1	MESSAGE NO. 2
DETOUR I-485 OUTER	U-TURN AT SIGNAL

CHANGEABLE MESSAGE SIGN

(C)



(D)



(1)

APPROVED: DATE:

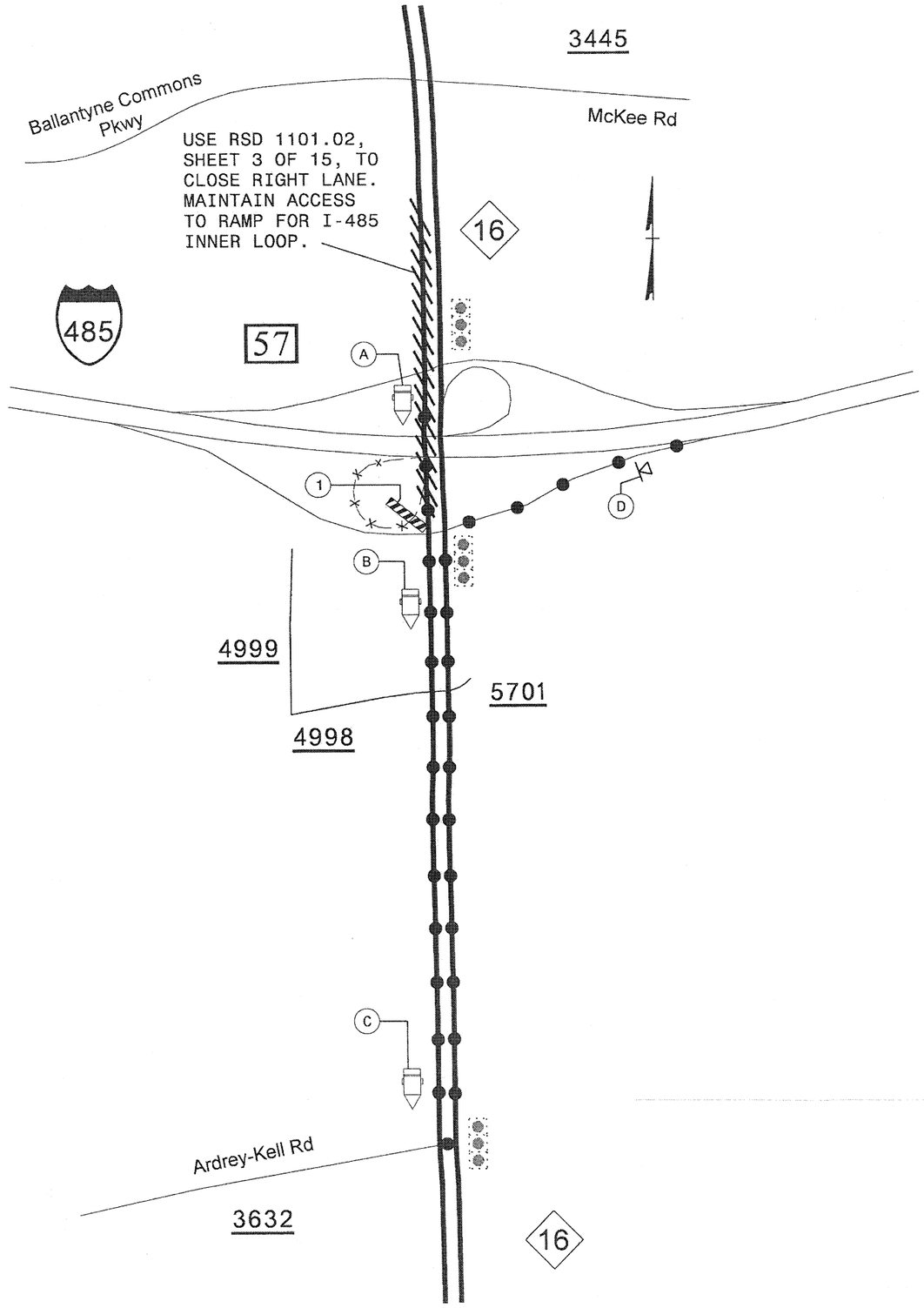
SEAL — NORTH CAROLINA PROFESSIONAL SEAL 019862 ENGINEER J. W. WOODLAND JR. — 11/4/12

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

LOOP CLOSURE AT EXIT 57
FROM NC 16 NORTHBOUND
TO I-485 NORTHBOUND
(OUTER LOOP)

11/4/2014
S:\TMU\WZTC\Resurfacing\2014Resurfacing\2014 Western\2014_Div10\C203501\I-5318_47038;3;FSI_Mecklenburg_I-485_m*_sh\Detours\TCP\NC 16\I-5318_TC_TMP_NC16_SE-Ramp.dgn
User:sthossan

PROJ. REFERENCE NO.	SHEET NO.
I-5318	TMP-13



MESSAGE NO. 1	MESSAGE NO. 2
I-485 OUTR RMP CLOSED	DETOUR AHEAD

CHANGEABLE MESSAGE SIGN

(A)

MESSAGE NO. 1	MESSAGE NO. 2
DETOUR I-485 OUTER	U-TURN AT NEXT SIGNAL

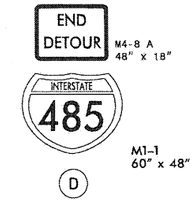
CHANGEABLE MESSAGE SIGN

(B)

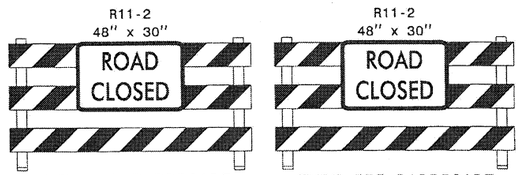
MESSAGE NO. 1	MESSAGE NO. 2
DETOUR I-485 OUTER	U-TURN AT SIGNAL

CHANGEABLE MESSAGE SIGN

(C)



(D)



(1)

APPROVED: _____ DATE: 11/4/14

SEAL

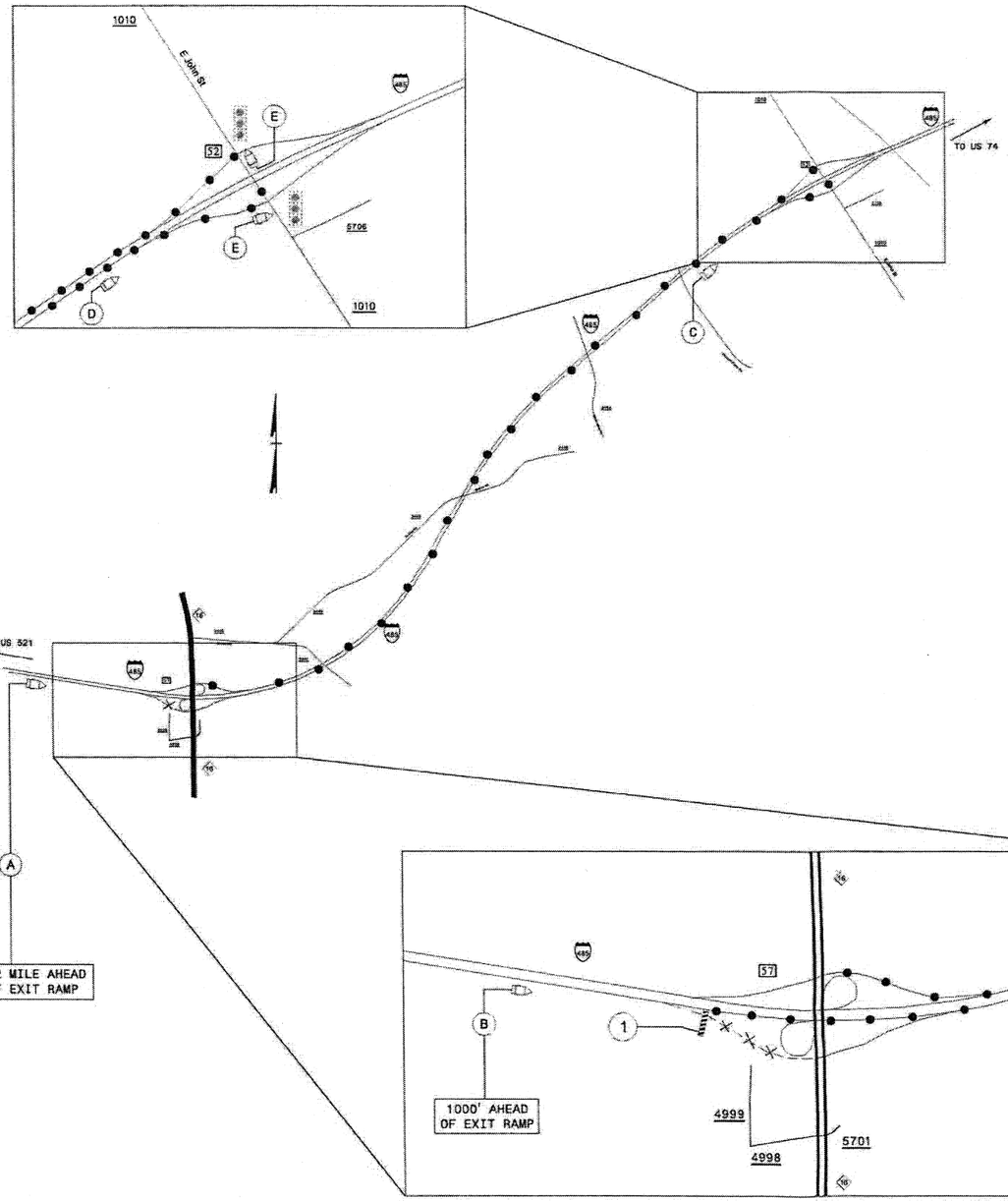
NORTH CAROLINA PROFESSIONAL SEAL 019862 ENGINEER J. W. WOODLARD, JR.

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

LOOP CLOSURE AT EXIT 57
FROM NC 16 NORTHBOUND
TO I-485 NORTHBOUND
(OUTER LOOP)

11/4/2014
S:\TMU\WZTC\Resurfacing\2014Resurfacing\2014 Western\2014_Divi0\C203501_I-5318_47038.3.FS1_Mecklenburg_I-485_m*_sh\Detours\TCP\NC 16\I-5318_TC_TMP_NC16_SW-Loop.dgn
User:sstosson

PROJ. REFERENCE NO.	SHEET NO.
I-5318	TMP-14



MESSAGE NO. 1	MESSAGE NO. 2
EXIT 57 CLOSED AHEAD	DETOUR AHEAD

CHANGEABLE MESSAGE SIGN
(A)

MESSAGE NO. 1	MESSAGE NO. 2
EXIT 57 NC 16 CLOSED	DETOUR TO EXIT 52

CHANGEABLE MESSAGE SIGN
(B)

MESSAGE NO. 1	MESSAGE NO. 2
DETOUR NC 16 1/2 MILE	USE EXIT 52 1/2 MILE

CHANGEABLE MESSAGE SIGN
(C)

MESSAGE NO. 1	MESSAGE NO. 2
DETOUR NC 16	EXIT 52 NEXT RIGHT

CHANGEABLE MESSAGE SIGN
(D)

MESSAGE NO. 1	MESSAGE NO. 2
DETOUR NC 16	LEFT AT SIGNAL

CHANGEABLE MESSAGE SIGN
(E)

R11-2
48" x 30"
ROAD CLOSED
TYPE III BARRICADE

R11-2
48" x 30"
ROAD CLOSED
TYPE III BARRICADE
(1)

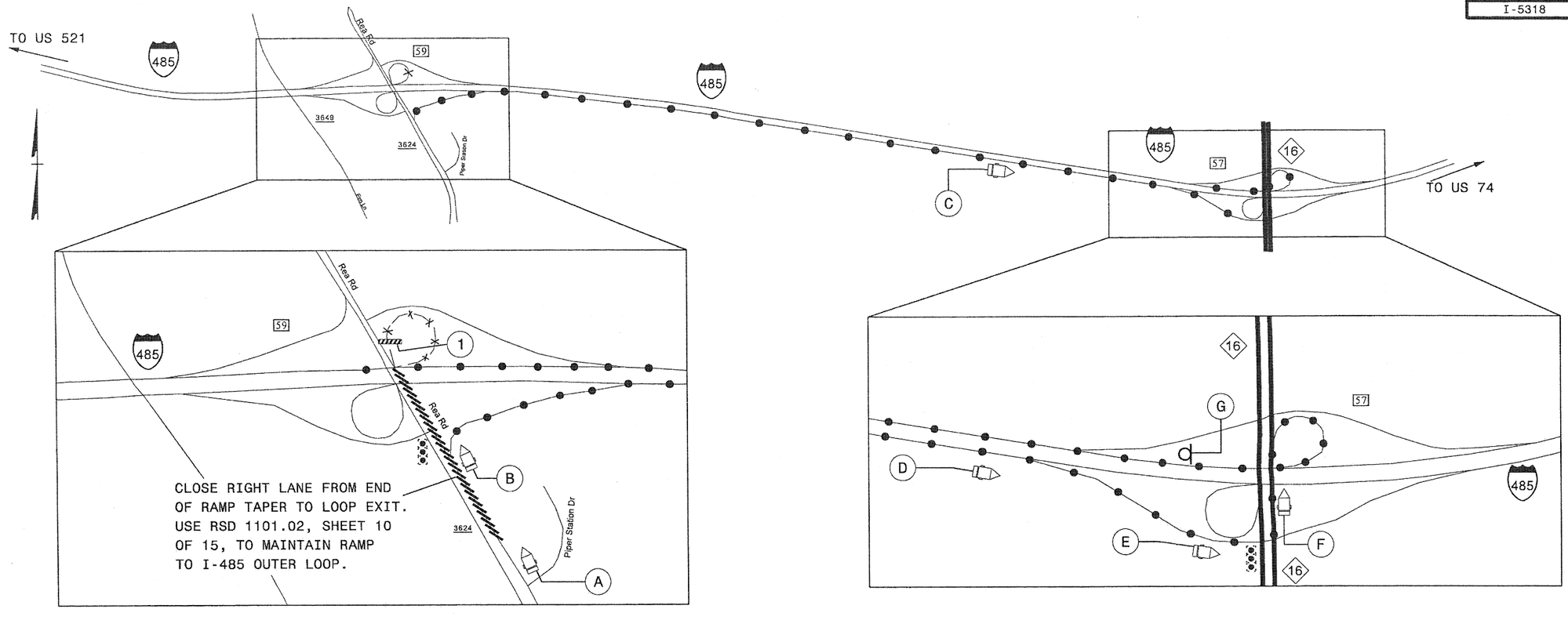
APPROVED
DATE: 11/5/15
SEAL
NORTH CAROLINA PROFESSIONAL SEAL 019862 ENGINEER W. WOOLARD JR.

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

OFF-RAMP CLOSURE AT EXIT 57
FROM I-485 NORTHBOUND
(OUTER LOOP)
TO NC 16

12/30/2014
5:\TMD\WZTC\Resurfacing\2014Resurfacing\2014 Western\2014_Div0\C203501_I-5318_47038.3.FSL_Mecklenburg_I-485_mm_sht\Detours\TCP\NC 16\I-5318_TC_TMP_NC16_SW-Ramp.dgn
User:rshogson

PROJ. REFERENCE NO.	SHEET NO.
I-5318	TMP-15



MESSAGE NO. 1	MESSAGE NO. 2
I-485 INNR RMP CLOSED	DETOUR AHEAD

CHANGEABLE MESSAGE SIGN
(A)

MESSAGE NO. 1	MESSAGE NO. 2
DETOUR I-485 INNER	EXIT RIGHT AT SIGNAL

CHANGEABLE MESSAGE SIGN
(B)

MESSAGE NO. 1	MESSAGE NO. 2
DETOUR I-485 INNER	USE EXIT 57 1/2 MILE

CHANGEABLE MESSAGE SIGN
(C)

MESSAGE NO. 1	MESSAGE NO. 2
DETOUR I-485 INNER	EXIT 57 NEXT RIGHT

CHANGEABLE MESSAGE SIGN
(D)

MESSAGE NO. 1	MESSAGE NO. 2
DETOUR I-485 INNER	LEFT AT SIGNAL

CHANGEABLE MESSAGE SIGN
(E)

MESSAGE NO. 1	MESSAGE NO. 2
DETOUR I-485 INNER	EXIT NEXT RIGHT

CHANGEABLE MESSAGE SIGN
(F)

END DETOUR
M4-8 A
48" x 18"

INTERSTATE 485
M1-1
60" x 48"

(G)

R11-2
48" x 30"
ROAD CLOSED
TYPE III BARRICADE

R11-2
48" x 30"
ROAD CLOSED
TYPE III BARRICADE

(1)

APPROVED: _____ DATE: 11/4/14

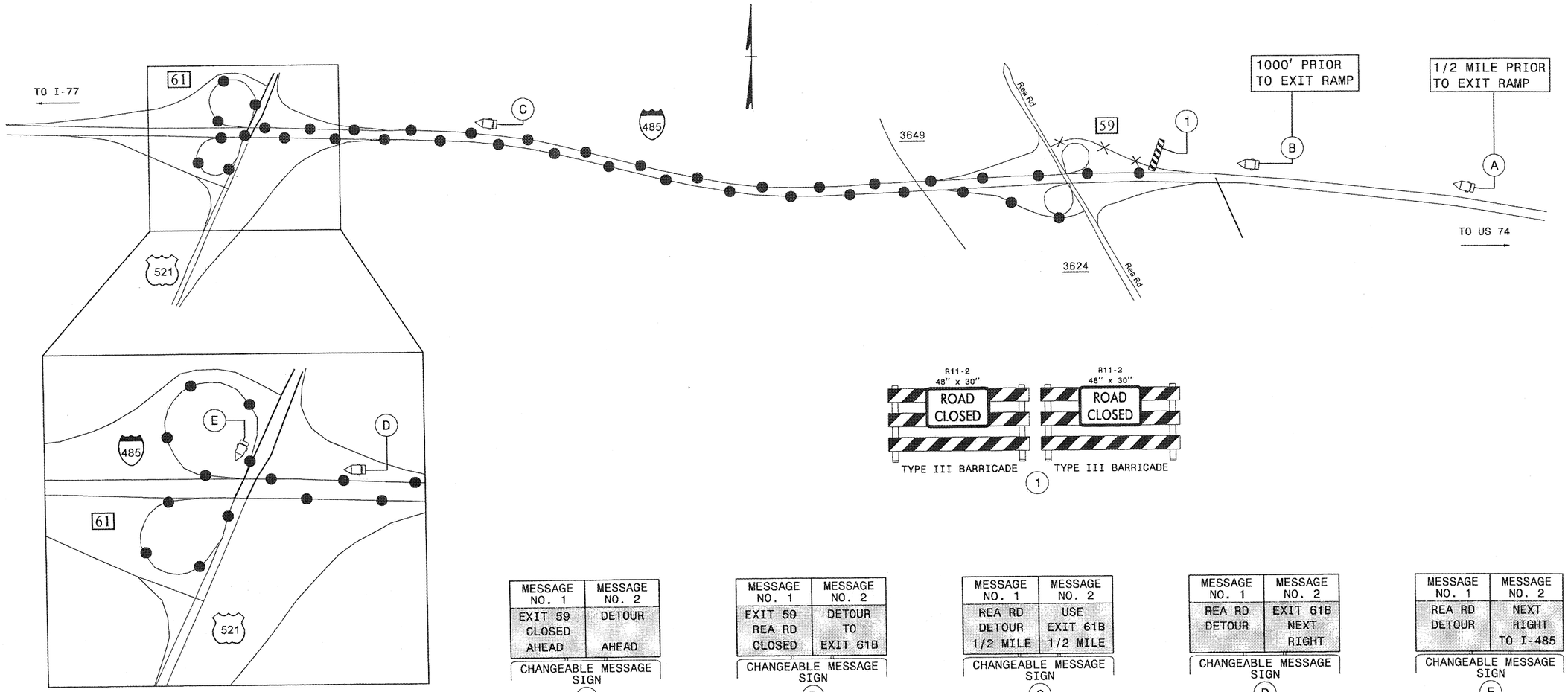
SEAL
NORTH CAROLINA PROFESSIONAL SEAL 019862 ENGINEER J.W. WOODARD, JR.

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

LOOP CLOSURE AT EXIT 59
FROM REA RD NORTHBOUND
TO I-485 NORTHBOUND
(INNER LOOP)

11/4/2014
S:\TMU\WZTC\Resurfacing\2014Resurfacing\2014 Western\2014_Div10\C203501_I-5318_47038.3.FS1_Mecklenburg_I-485_m*_sh\Detours\TCP\Rea Rd\I-5318_TC_TMP_Rea_NE-Loop.dgn
User: rsmosson

PROJ. REFERENCE NO.	SHEET NO.
I-5318	TMP-16



R11-2
48" x 30"
ROAD CLOSED
TYPE III BARRICADE

R11-2
48" x 30"
ROAD CLOSED
TYPE III BARRICADE

1

MESSAGE NO. 1	MESSAGE NO. 2
EXIT 59 CLOSED AHEAD	DETOUR AHEAD

CHANGEABLE MESSAGE SIGN
(A)

MESSAGE NO. 1	MESSAGE NO. 2
EXIT 59 REA RD CLOSED	DETOUR TO EXIT 61B

CHANGEABLE MESSAGE SIGN
(B)

MESSAGE NO. 1	MESSAGE NO. 2
REA RD DETOUR 1/2 MILE	USE EXIT 61B 1/2 MILE

CHANGEABLE MESSAGE SIGN
(C)

MESSAGE NO. 1	MESSAGE NO. 2
REA RD DETOUR	EXIT 61B NEXT RIGHT

CHANGEABLE MESSAGE SIGN
(D)

MESSAGE NO. 1	MESSAGE NO. 2
REA RD DETOUR	NEXT RIGHT TO I-485

CHANGEABLE MESSAGE SIGN
(E)

APPROVED: _____ DATE: _____

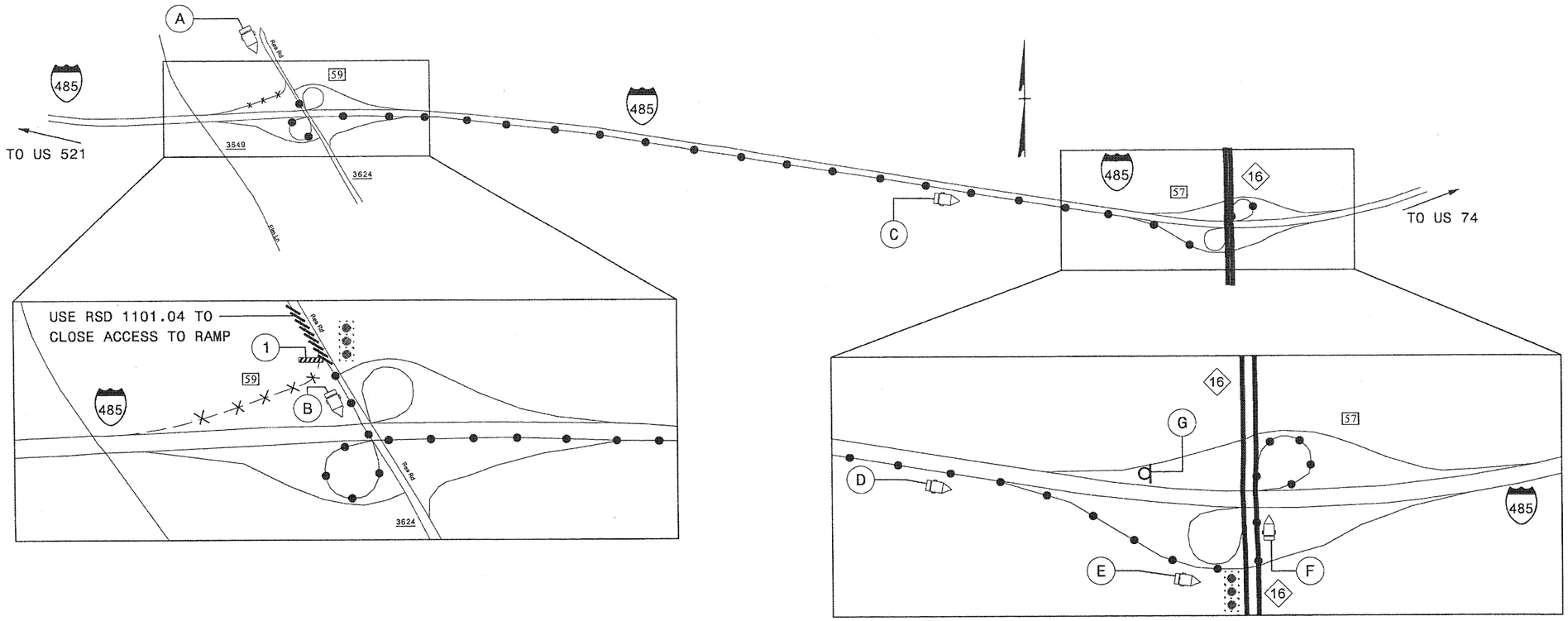
SEAL
NORTH CAROLINA PROFESSIONAL SEAL 019862 ENGINEER J. W. WOOLARD, JR.
10/16/14

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

OFF-RAMP CLOSURE AT EXIT 59
FROM I-485 NORTHBOUND
(INNER LOOP)
TO REA RD

10/1/2014
S:\TMU\WZTC\Resurfacing\2014Resurfacing\2014 Western\2014_Div10\C203501\I-5318_47038.3.FS1_Mecklenburg_I-485_mm_sh\Detours\TCP\Rea Rd\I-5318_TC_TMP_Rea_NE-Ramp.dgn
User:shossain

PROJ. REFERENCE NO.	SHEET NO.
I-5318	TMP-17



MESSAGE NO. 1	MESSAGE NO. 2
I-485 INNR RMP CLOSED	DETOUR AHEAD

CHANGEABLE MESSAGE SIGN
(A)

MESSAGE NO. 1	MESSAGE NO. 2
DETOUR I-485 INNER	EXIT NEXT RIGHT

CHANGEABLE MESSAGE SIGN
(B)

MESSAGE NO. 1	MESSAGE NO. 2
DETOUR I-485 INNER	USE EXIT 57 1/2 MILE

CHANGEABLE MESSAGE SIGN
(C)

MESSAGE NO. 1	MESSAGE NO. 2
DETOUR I-485 INNER	EXIT 57 NEXT RIGHT

CHANGEABLE MESSAGE SIGN
(D)

MESSAGE NO. 1	MESSAGE NO. 2
DETOUR I-485 INNER	LEFT AT SIGNAL

CHANGEABLE MESSAGE SIGN
(E)

MESSAGE NO. 1	MESSAGE NO. 2
DETOUR I-485 INNER	EXIT NEXT RIGHT

CHANGEABLE MESSAGE SIGN
(F)

END DETOUR
M4-8 A
48" x 18"

INTERSTATE 485
M1-1
60" x 48"
(G)

R11-2
48" x 30"
ROAD CLOSED
TYPE III BARRICADE

R11-2
48" x 30"
ROAD CLOSED
TYPE III BARRICADE
(1)

APPROVED _____ DATE _____

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 019862 ENGINEER W. WOOLARD, JR.

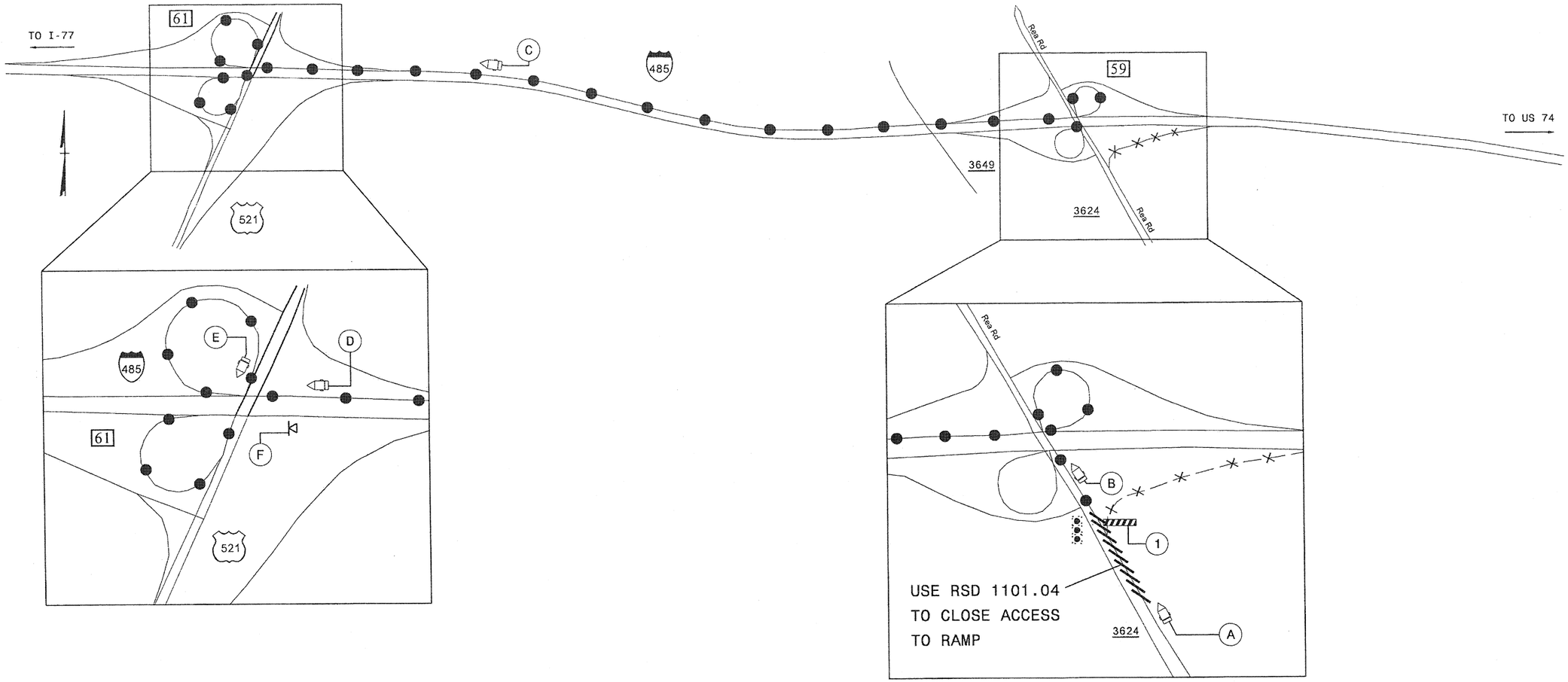
11/4/14

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

ON-RAMP CLOSURE AT EXIT 59
FROM REA RD SOUTHBOUND
TO I-485 NORTHBOUND
(INNER LOOP)

11/4/2014
S:\TMU\WZTC\Resurfacing\2014Resurfacing\2014 Western\2014_Divi0\C203501_I-5318_47038.3.FS1_Mecklenburg_I-485_m*_sh\Detours\TCP\Rea Rd\I-5318_TC_TMP_Rea_NW Ramp.dgn
User:shassch

PROJ. REFERENCE NO.	SHEET NO.
I-5318	TMP-18



MESSAGE NO. 1	MESSAGE NO. 2
I-485 OUTR RMP CLOSED	DETOUR AHEAD

CHANGEABLE MESSAGE SIGN

(A)

MESSAGE NO. 1	MESSAGE NO. 2
DETOUR I-485 OUTER	DETOUR NEXT RIGHT

CHANGEABLE MESSAGE SIGN

(B)

MESSAGE NO. 1	MESSAGE NO. 2
DETOUR I-485 OUTER	USE EXIT 61B 1/2 MILE

CHANGEABLE MESSAGE SIGN

(C)

MESSAGE NO. 1	MESSAGE NO. 2
DETOUR I-485 OUTER	EXIT 61B NEXT RIGHT

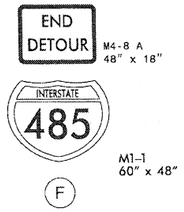
CHANGEABLE MESSAGE SIGN

(D)

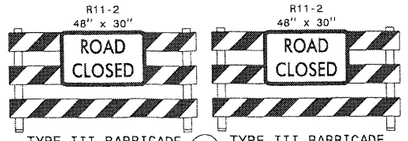
MESSAGE NO. 1	MESSAGE NO. 2
DETOUR I-485 OUTER	EXIT NEXT RIGHT

CHANGEABLE MESSAGE SIGN

(E)



(F)



(1)

APPROVED: DATE: 11/4/14

SEAL

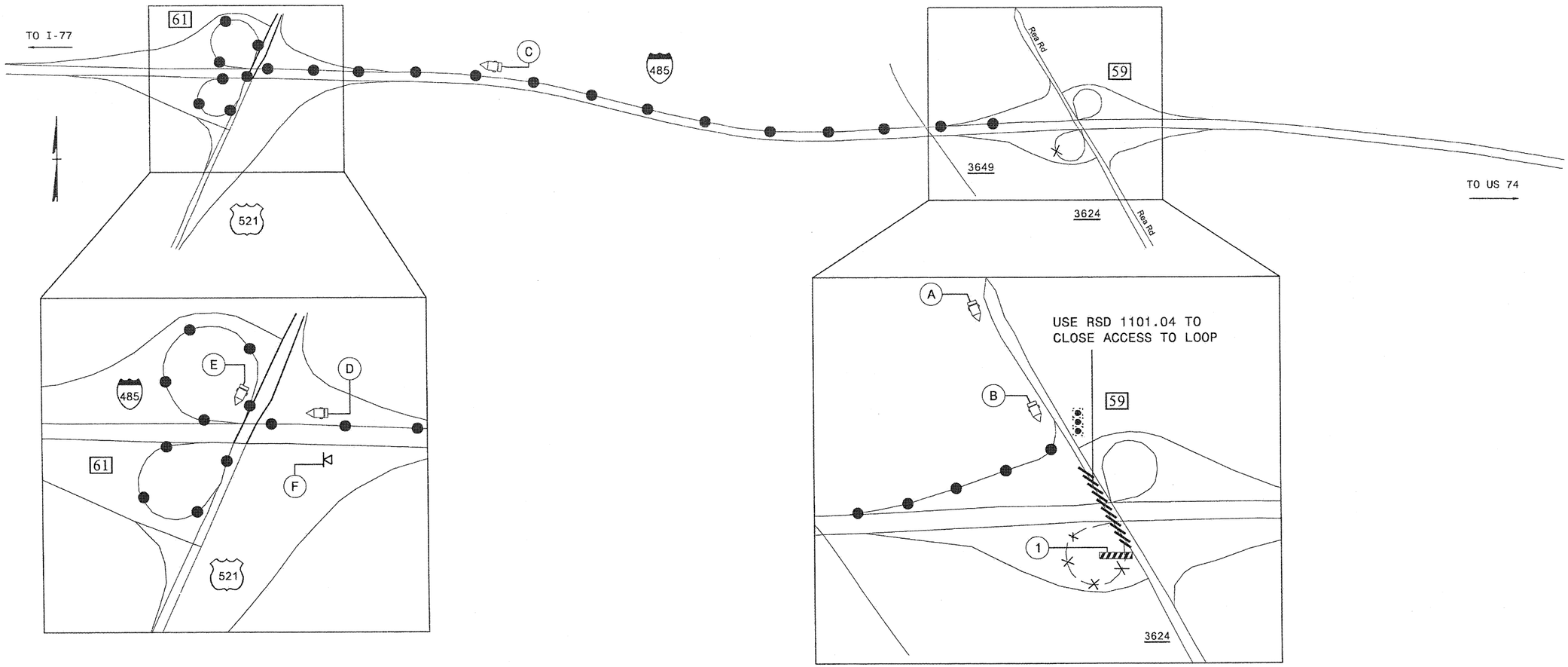
NORTH CAROLINA PROFESSIONAL SEAL 019862 ENGINEER W. WOOLARD JR.

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

ON-RAMP CLOSURE AT EXIT 59
FROM REA RD NORTHBOUND
TO I-485 SOUTHBOUND
(OUTER LOOP)

11/4/2014
S:\TMU\WZTC\Resurfacing\2014Resurfacing\2014 Western\2014_Divi0\C203501_I-5318_47038.3.FSI_Mecklenburg_I-485_m*_sn\Detours\TCP\Rea Rd\I-5318_TC_TMP_Rea_SE-Ramp.dgn
User:snagson

PROJ. REFERENCE NO.	SHEET NO.
I-5318	TMP-19



MESSAGE NO. 1	MESSAGE NO. 2
I-485 OUTR RMP CLOSED	DETOUR AHEAD

CHANGEABLE MESSAGE SIGN
(A)

MESSAGE NO. 1	MESSAGE NO. 2
DETOUR I-485 OUTER	EXIT NEXT RIGHT

CHANGEABLE MESSAGE SIGN
(B)

MESSAGE NO. 1	MESSAGE NO. 2
DETOUR I-485 OUTER	USE EXIT 61B 1/2 MILE

CHANGEABLE MESSAGE SIGN
(C)

MESSAGE NO. 1	MESSAGE NO. 2
DETOUR I-485 OUTER	EXIT 61B NEXT RIGHT

CHANGEABLE MESSAGE SIGN
(D)

MESSAGE NO. 1	MESSAGE NO. 2
DETOUR I-485 OUTER	EXIT NEXT RIGHT

CHANGEABLE MESSAGE SIGN
(E)

END DETOUR
M4-8 A
48" x 18"

INTERSTATE 485
M1-1
60" x 48"

(F)

R11-2
48" x 30"
ROAD CLOSED
TYPE III BARRICADE

R11-2
48" x 30"
ROAD CLOSED
TYPE III BARRICADE

(1)

APPROVED: DATE:

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 019862 ENGINEER J. W. WOOLARD JR.

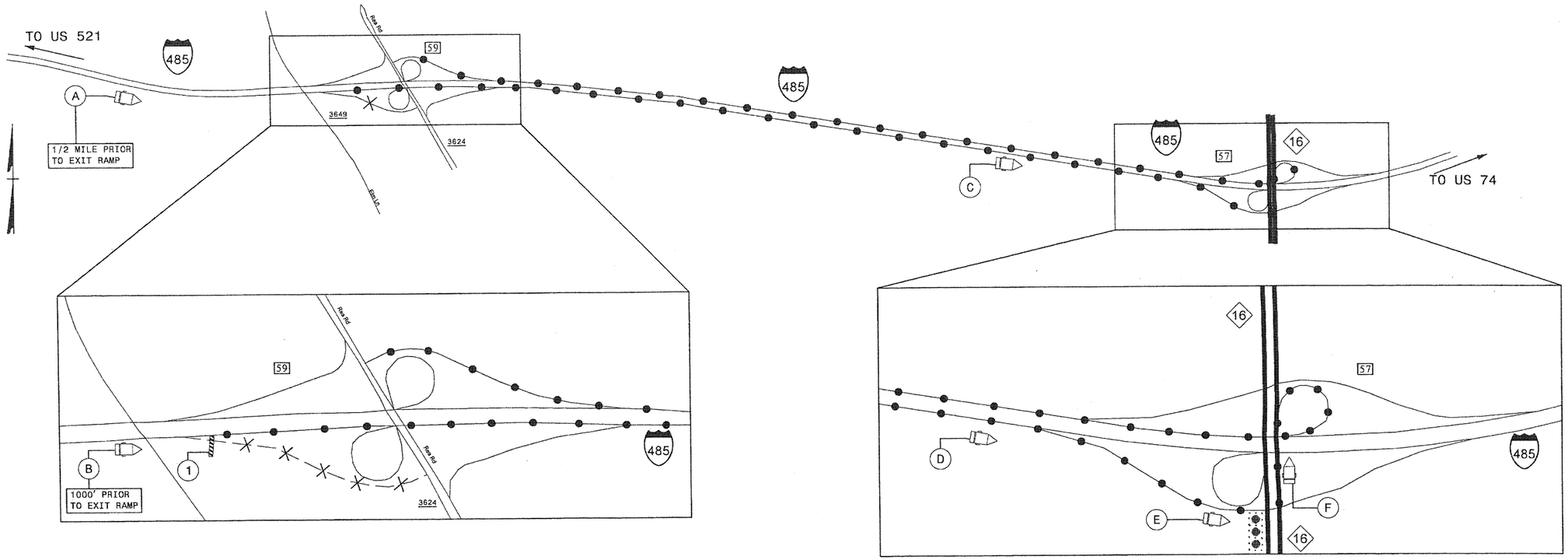
11/4/14

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

LOOP CLOSURE AT EXIT 59
FROM REA RD SOUTHBOUND
TO I-485 SOUTHBOUND
(OUTER LOOP)

11/4/2014
S:\TMU\WZTC\Resurfacing\2014Resurfacing\2014 Western\2014_Div10\C203501\I-5318_47038.3.FS1_Mecklenburg_I-485_m#_sh\Detours\TCP\Rea Rd\I-5318_TC_TMP_Rea_SW-Loop.dgn
User:smsosa

PROJ. REFERENCE NO.	SHEET NO.
I-5318	TMP-20



MESSAGE NO. 1	MESSAGE NO. 2
EXIT 59 CLOSED AHEAD	DETOUR AHEAD

CHANGEABLE MESSAGE SIGN (A)

MESSAGE NO. 1	MESSAGE NO. 2
EXIT 59 REA RD CLOSED	DETOUR TO EXIT 57

CHANGEABLE MESSAGE SIGN (B)

MESSAGE NO. 1	MESSAGE NO. 2
REA RD DETOUR 1/2 MILE	USE EXIT 57 1/2 MILE

CHANGEABLE MESSAGE SIGN (C)

MESSAGE NO. 1	MESSAGE NO. 2
REA RD DETOUR	EXIT 57 NEXT RIGHT

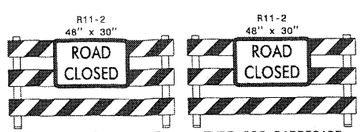
CHANGEABLE MESSAGE SIGN (D)

MESSAGE NO. 1	MESSAGE NO. 2
REA RD DETOUR	LEFT AT SIGNAL

CHANGEABLE MESSAGE SIGN (E)

MESSAGE NO. 1	MESSAGE NO. 2
REA RD DETOUR	NEXT RIGHT TO I-485

CHANGEABLE MESSAGE SIGN (F)



(1)

APPROVED: DATE:

SEAL — NORTH CAROLINA PROFESSIONAL SEAL 019862 ENGINEER W. WOOLARD JR. — 10/16/14

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

OFF-RAMP CLOSURE AT EXIT 59
FROM I-485 SOUTHBOUND
(OUTER LOOP)
TO REA RD

10/1/2014
S:\TMU\WZTC\Resurfacing\2014Resurfacing\2014 Western\2014_Div0\C203501\I-5318_47038.3.FSI_Mecklenburg_I-485_mf_sh\Detours\TCP\Rea Rd\I-5318_TC_TMP_Rea_SW-Ramp.dgn
User:shosson

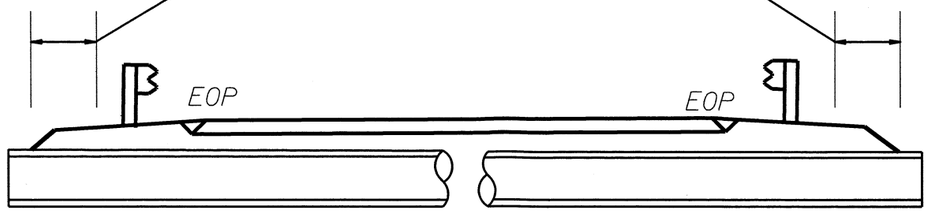
PROJECT REFERENCE NO.	SHEET NO.
I-5318	EC-1

NOTES: Less than 5' - 10' undisturbed buffer from ROW, ditchline, water feature, or drainage inlet, add BMP.

BMP Options: Wattle, Silt Fence or Hardened Aggregate.

EROSION CONTROL DETAIL

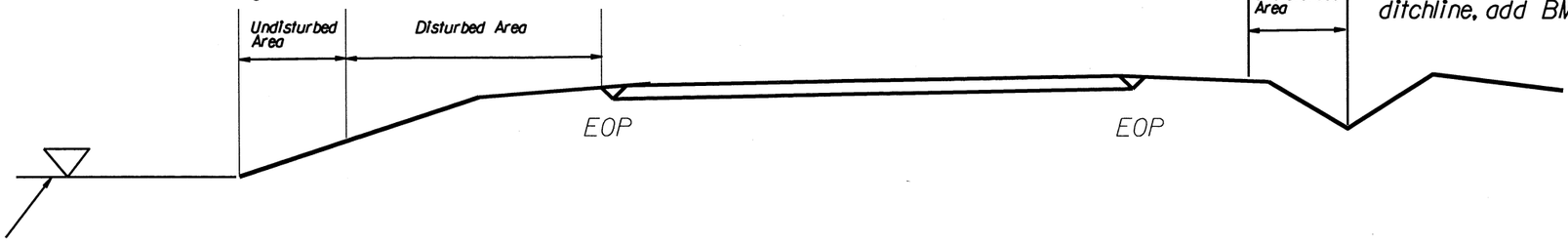
< 5' - 10' Undisturbed buffer add BMP



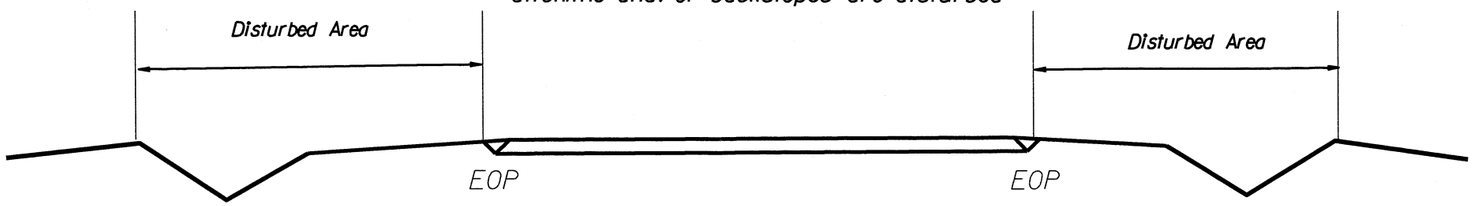
Pipe/Culvert

< 5' - 10' Undisturbed buffer from jurisdictional feature add BMP

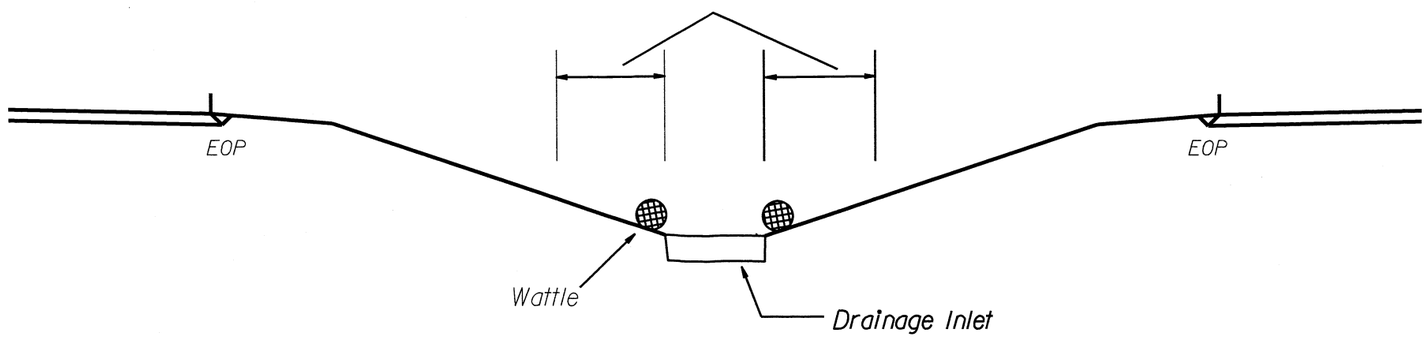
< 5' - 10' Undisturbed buffer from ditchline, add BMP



Use BMP's if shoulders and/or frontslopes and/or ditchline and/or backslopes are disturbed



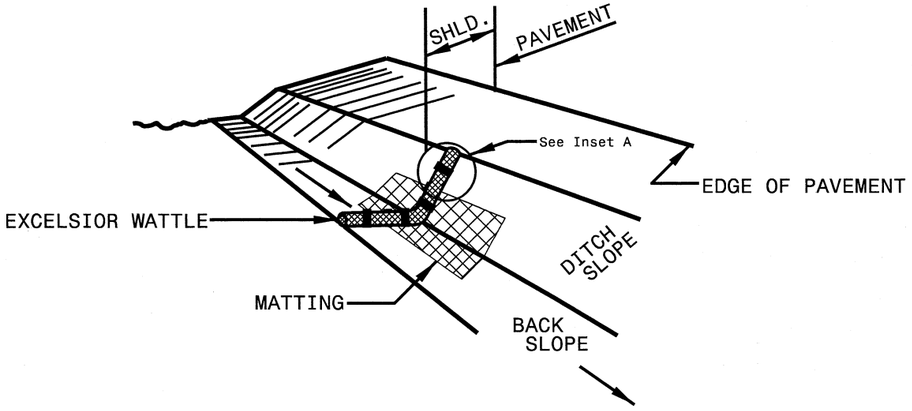
< 5' - 10' Undisturbed buffer from inlet, add wattle



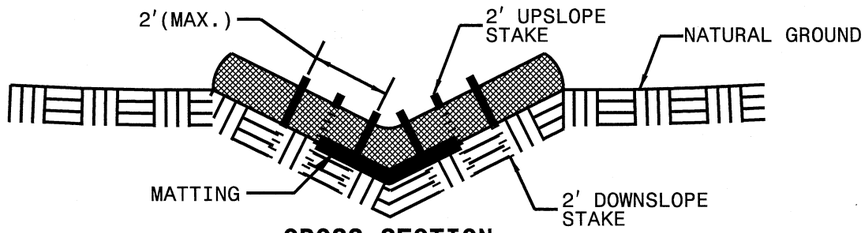
NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
1-5318	EC-2

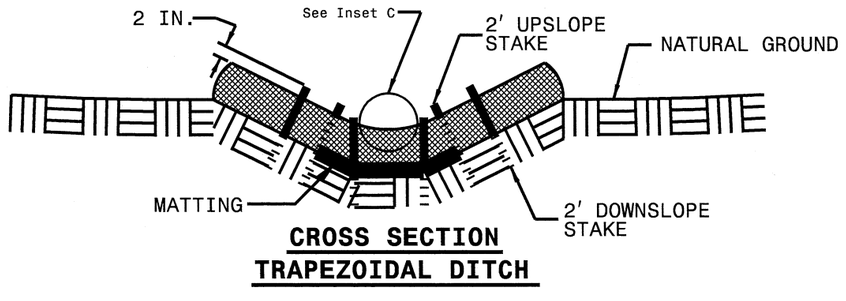
WATTLE WITH POLYACRYLAMIDE DETAIL



ISOMETRIC VIEW



CROSS SECTION VEE DITCH



CROSS SECTION TRAPEZOIDAL DITCH

NOTES:

USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.

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

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

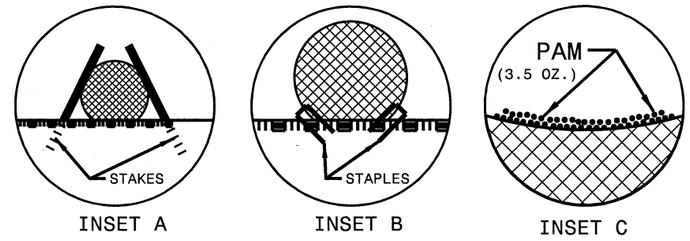
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

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

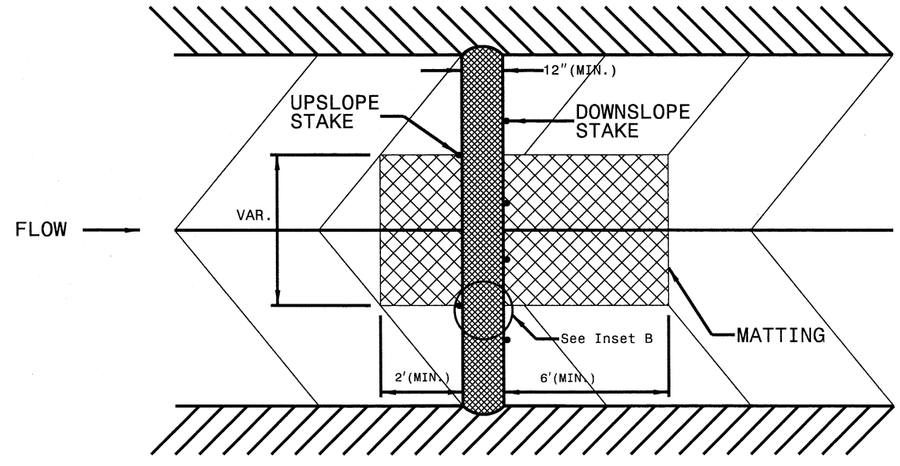
INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.

PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH WATTLE.

INITIALLY APPLY 3.5 OUNCES OF ANIONIC OR NEUTRALLY CHARGED POLYACRYLAMIDE (PAM) OVER WATTLE WHERE WATER WILL FLOW AND AFTER EVERY RAINFALL EVENT THAT IS EQUAL TO OR EXCEEDS 0.50 IN.



INSET A INSET B INSET C



TOP VIEW