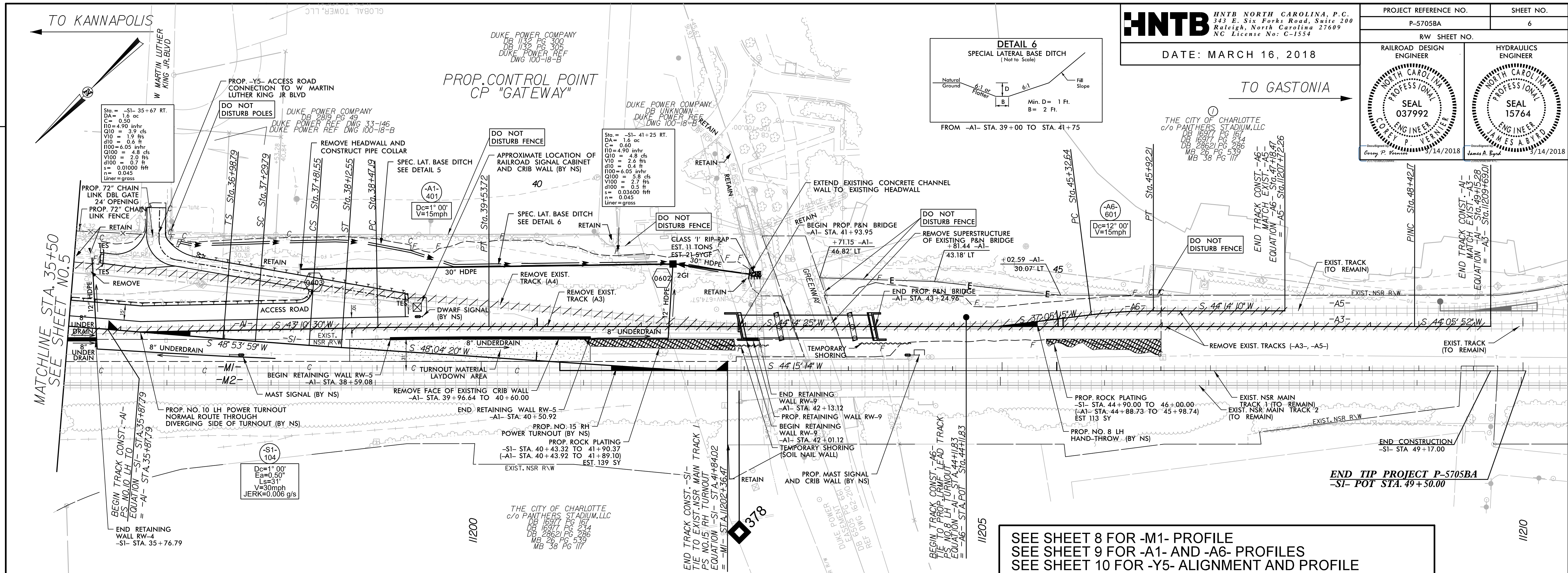


**This electronic collection of documents is provided
for the convenience of the user
and is Not a Certified Document –**

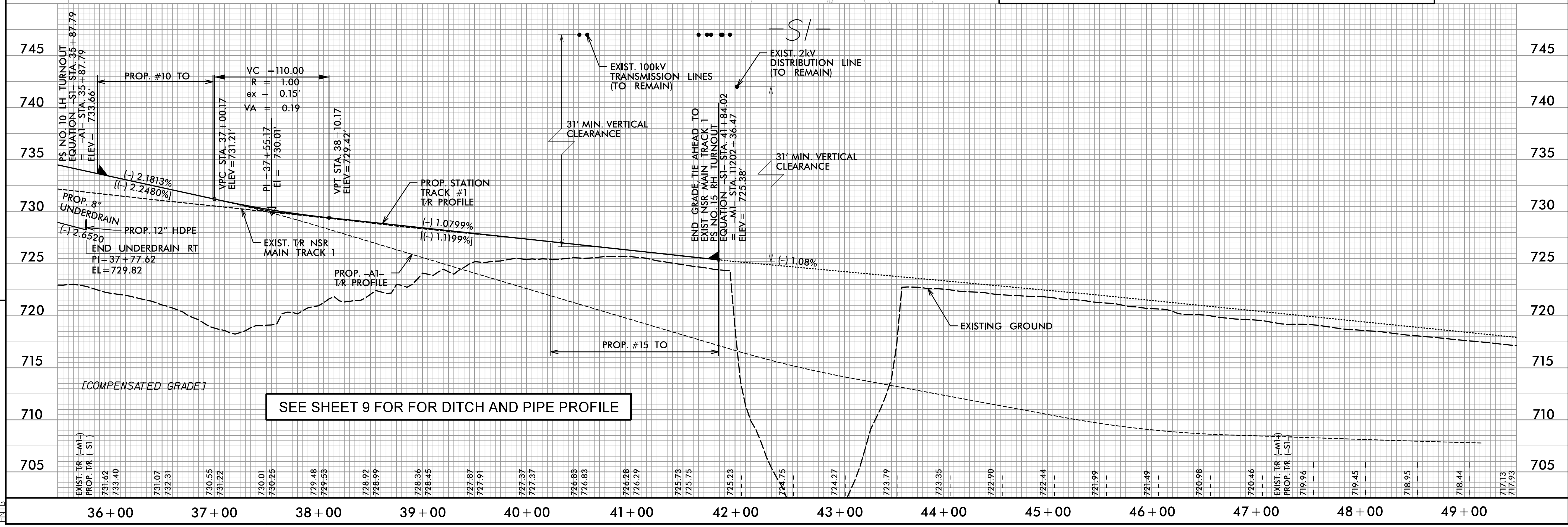
**The documents contained herein were originally issued
and sealed by the individuals whose names and license
numbers appear on each page, on the dates appearing
with their signature on that page.**

**This file or an individual page
shall not be considered a certified document.**

PROJECT REFERENCE NO. P-5705BA	SHEET NO. 6
RW SHEET NO.	
RAILROAD DESIGN ENGINEER	HYDRAULICS ENGINEER



SEE SHEET 8 FOR -M1- PROFILE
SEE SHEET 9 FOR -A1- AND -A6- PROFILES
SEE SHEET 10 FOR -Y5- ALIGNMENT AND PROFILE



SEE SHEET 9 FOR FOR DITCH AND PIPE PROFILE

REVISIONS

3/14/2018
hntb-esh_06.dgn

-S2-

HNTB HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554

PROJECT REFERENCE NO. P-5705BA SHEET NO. 7

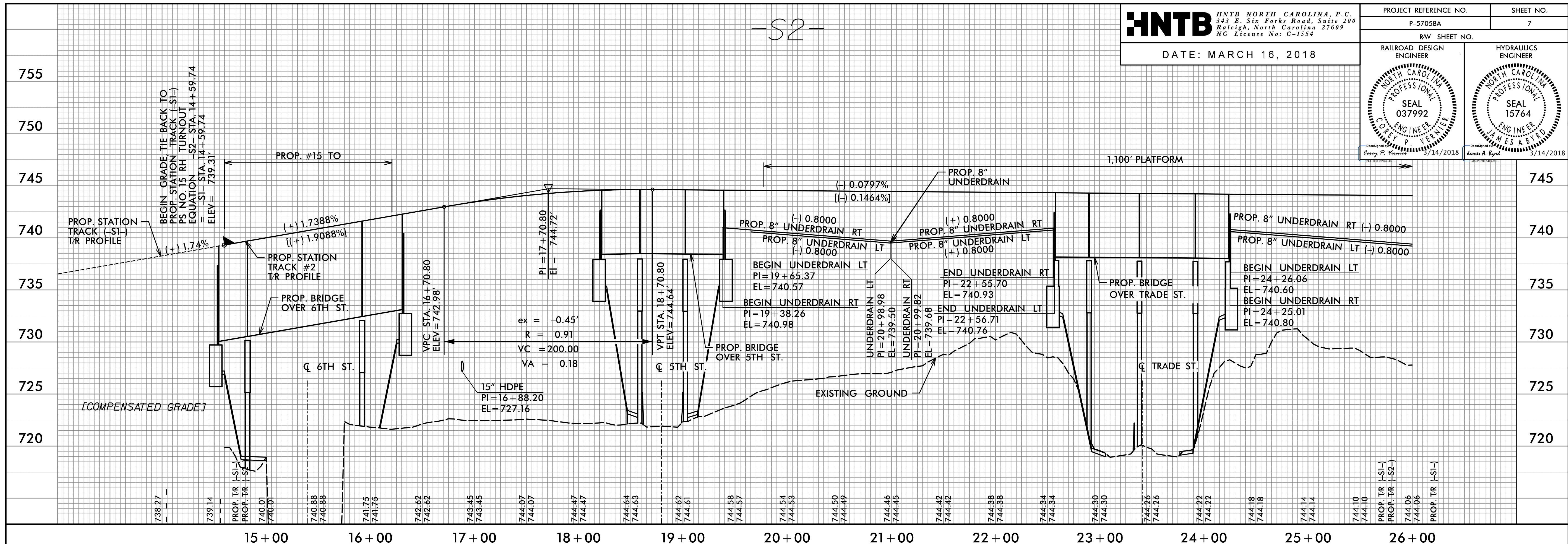
RW SHEET NO.

DATE: MARCH 16, 2018

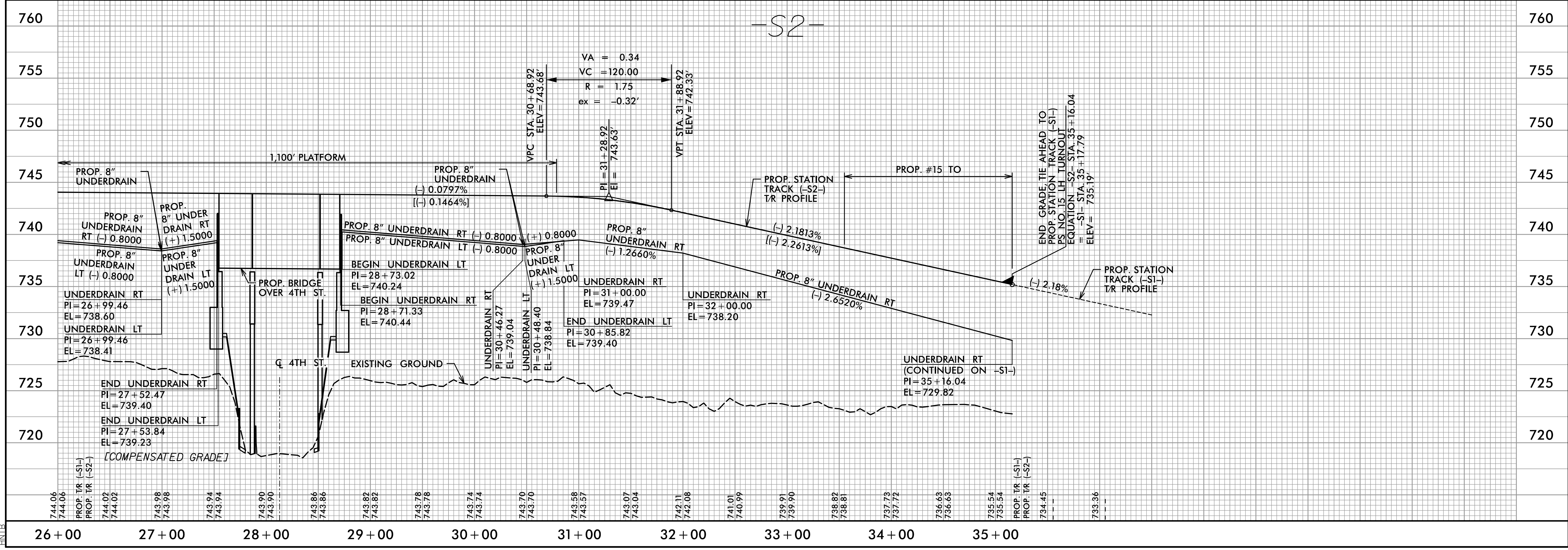
RAILROAD DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 037992
COLEY P. VERNIER

HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 15764
JAMES A. BYRD

3/14/2018

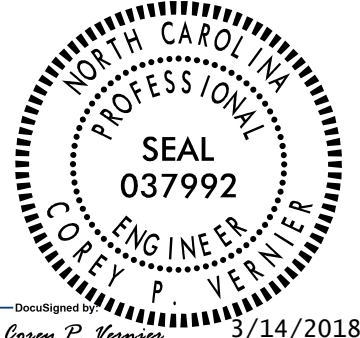
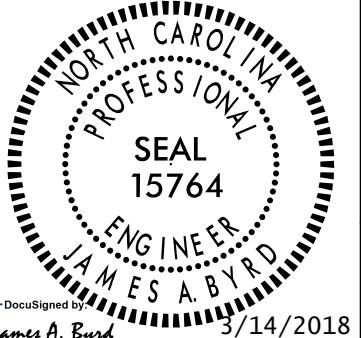


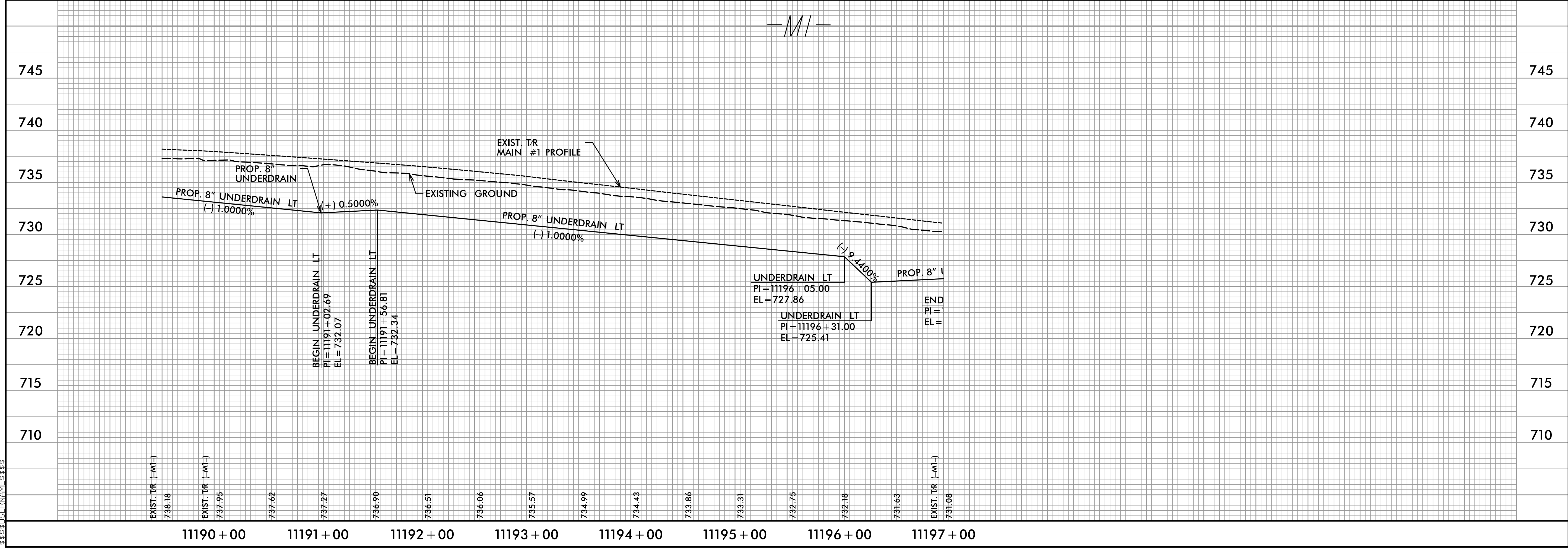
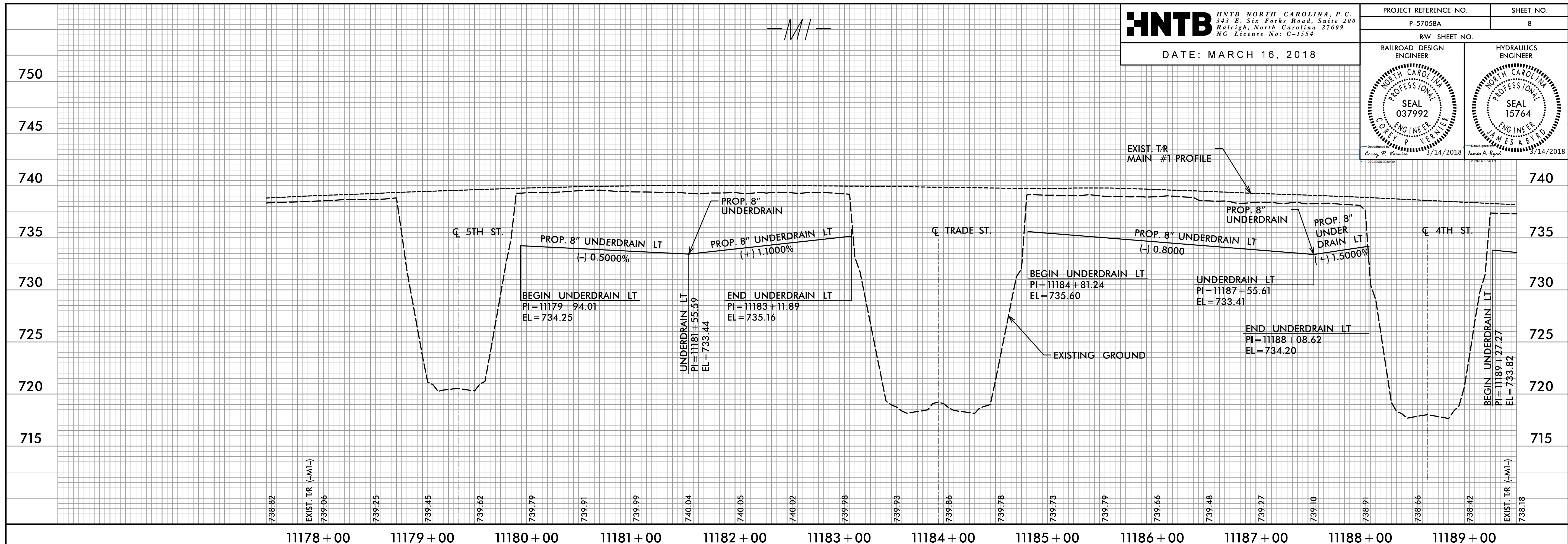
-S2-



HNTB HNTB NORTH CAROLINA, P.C.
 343 E. Six Forks Road, Suite 200
 Raleigh, North Carolina 27609
 NC License No: C-1554

DATE: MARCH 16, 2018

PROJECT REFERENCE NO. P-5705BA		SHEET NO. 8
RW SHEET NO.		
RAILROAD DESIGN ENGINEER	HYDRAULICS ENGINEER	
		
<small>Designed by: Casey P. Hanson</small> <small>3/14/2018</small>	<small>Designed by: James A. Byrd</small> <small>3/14/2018</small>	



C:\Users\jverrier\OneDrive\Documents\Projects\11190-11197\11190-11197.dwg

HNTB HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554

PROJECT REFERENCE NO. P-5705BA
SHEET NO. 9

DATE: JANUARY 30, 2018

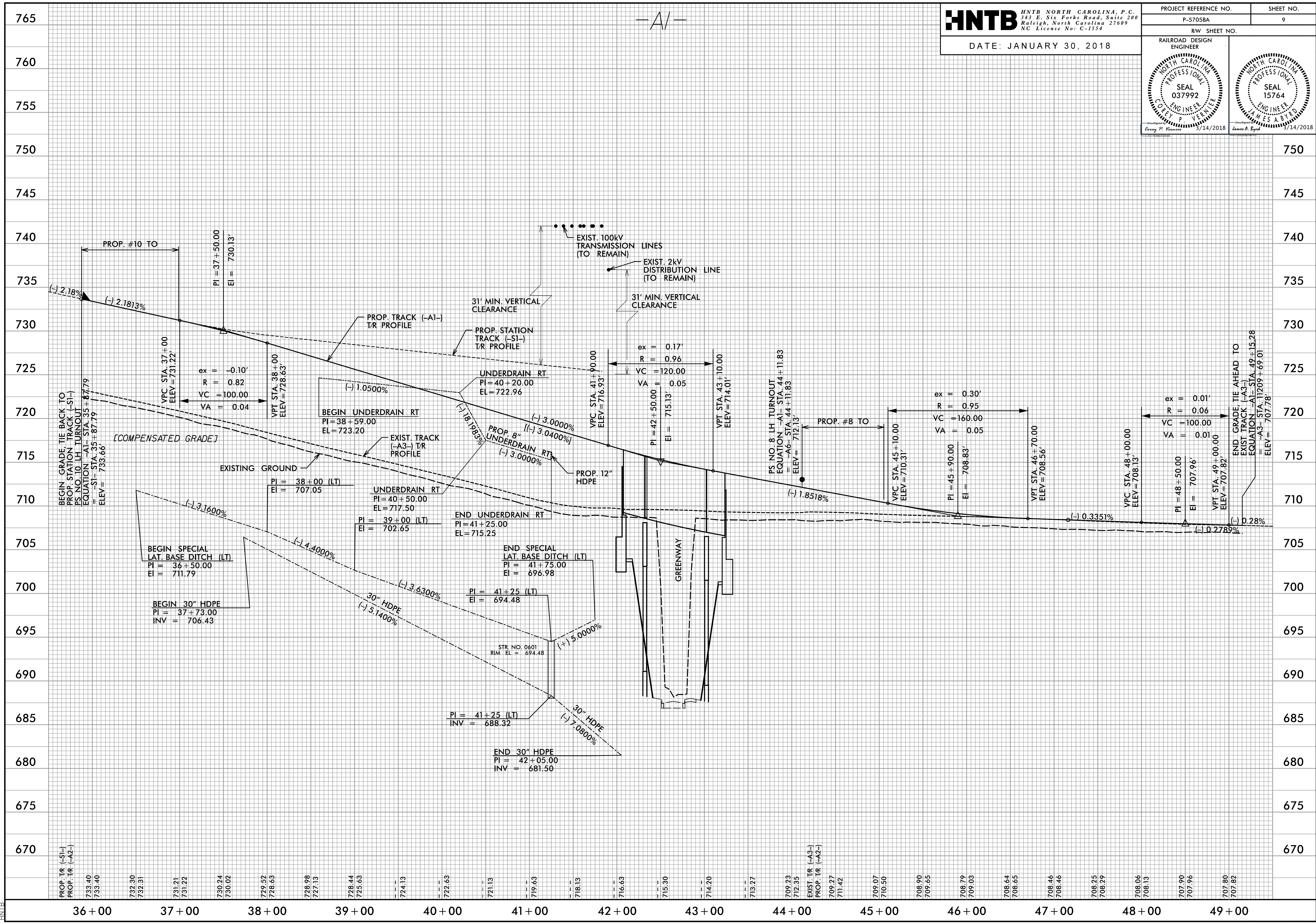
PROJECT REFERENCE NO. P-5705BA
SHEET NO. 9

RAILROAD DESIGN ENGINEER

SEAL 037992
COLEY
ENGINEER

SEAL 15764
JAMES A. BYRD
ENGINEER

3/14/2018

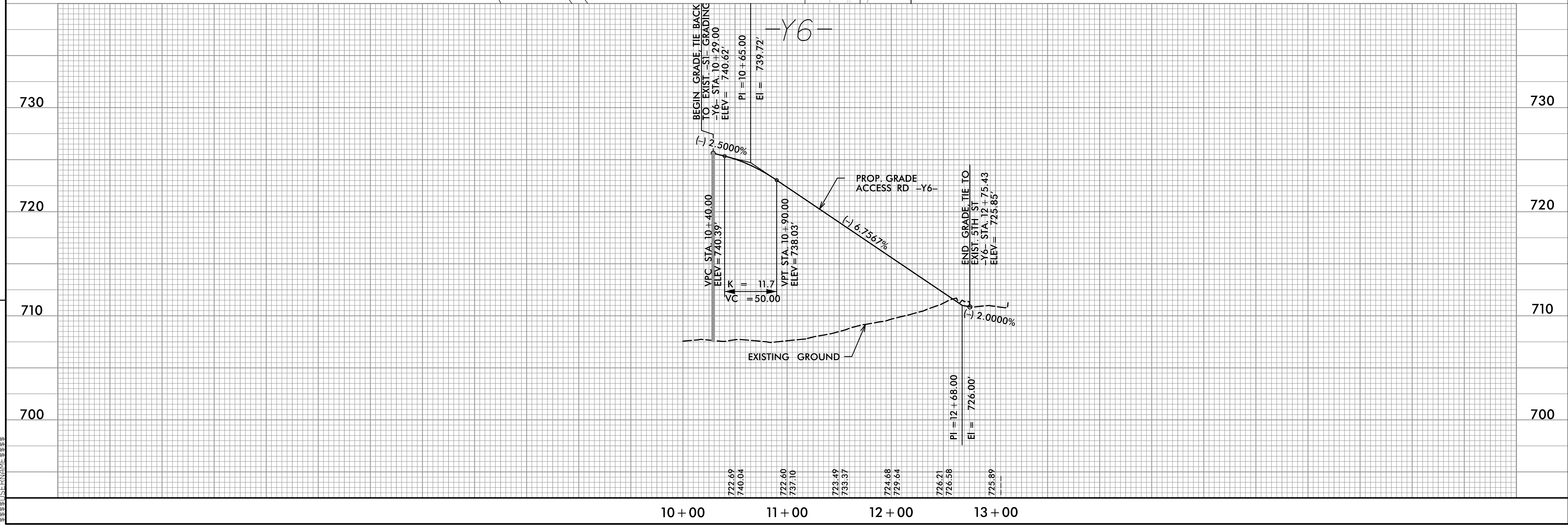
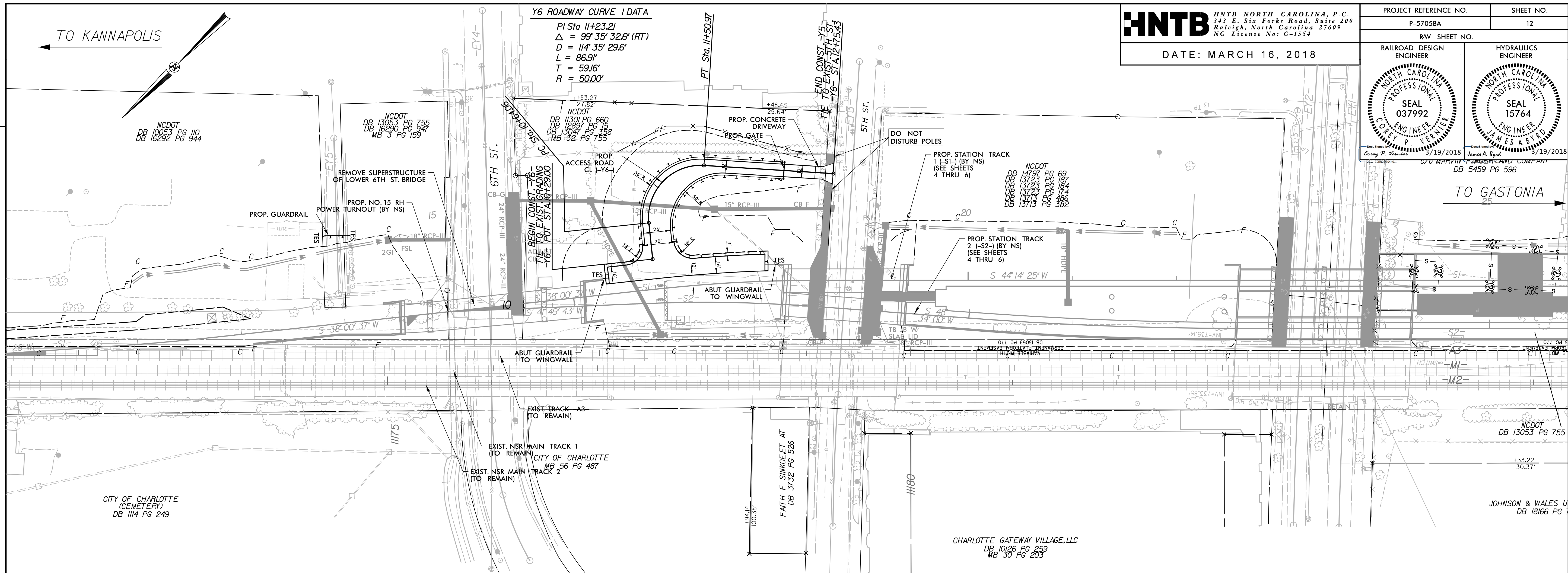


3/14/2018
36+00-49+00.dgn

HNTB HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554

DATE: MARCH 16, 2018

PROJECT REFERENCE NO. P-5705BA	SHEET NO. 12
RW SHEET NO.	
RAILROAD DESIGN ENGINEER	HYDRAULICS ENGINEER
Designated by: Gregory P. Vannoy 07/01/2017 DB 13053 PG 596	Designated by: James A. Byrd 07/01/2017 DB 5459 PG 596



REVISIONS

1
 2
 3
 4
 5
 6
 7
 8
 9
 10
 11
 12
 13
 14
 15
 16
 17
 18
 19
 20
 21
 22
 23
 24
 25
 26
 27
 28
 29
 30
 31
 32
 33
 34
 35
 36
 37
 38
 39
 40
 41
 42
 43
 44
 45
 46
 47
 48
 49
 50
 51
 52
 53
 54
 55
 56
 57
 58
 59
 60
 61
 62
 63
 64
 65
 66
 67
 68
 69
 70
 71
 72
 73
 74
 75
 76
 77
 78
 79
 80
 81
 82
 83
 84
 85
 86
 87
 88
 89
 90
 91
 92
 93
 94
 95
 96
 97
 98
 99
 100

730

720

710

700

730

720

710

700

10+00 11+00 12+00 13+00

6TH ST. ROADWAY PLAN SHEET

HNTB HNTB NORTH CAROLINA, P.C.
 343 E. Six Forks Road, Suite 200
 Raleigh, North Carolina 27609
 NC License No: C-1554

PROJECT REFERENCE NO. P-5705BA
 SHEET NO. 13

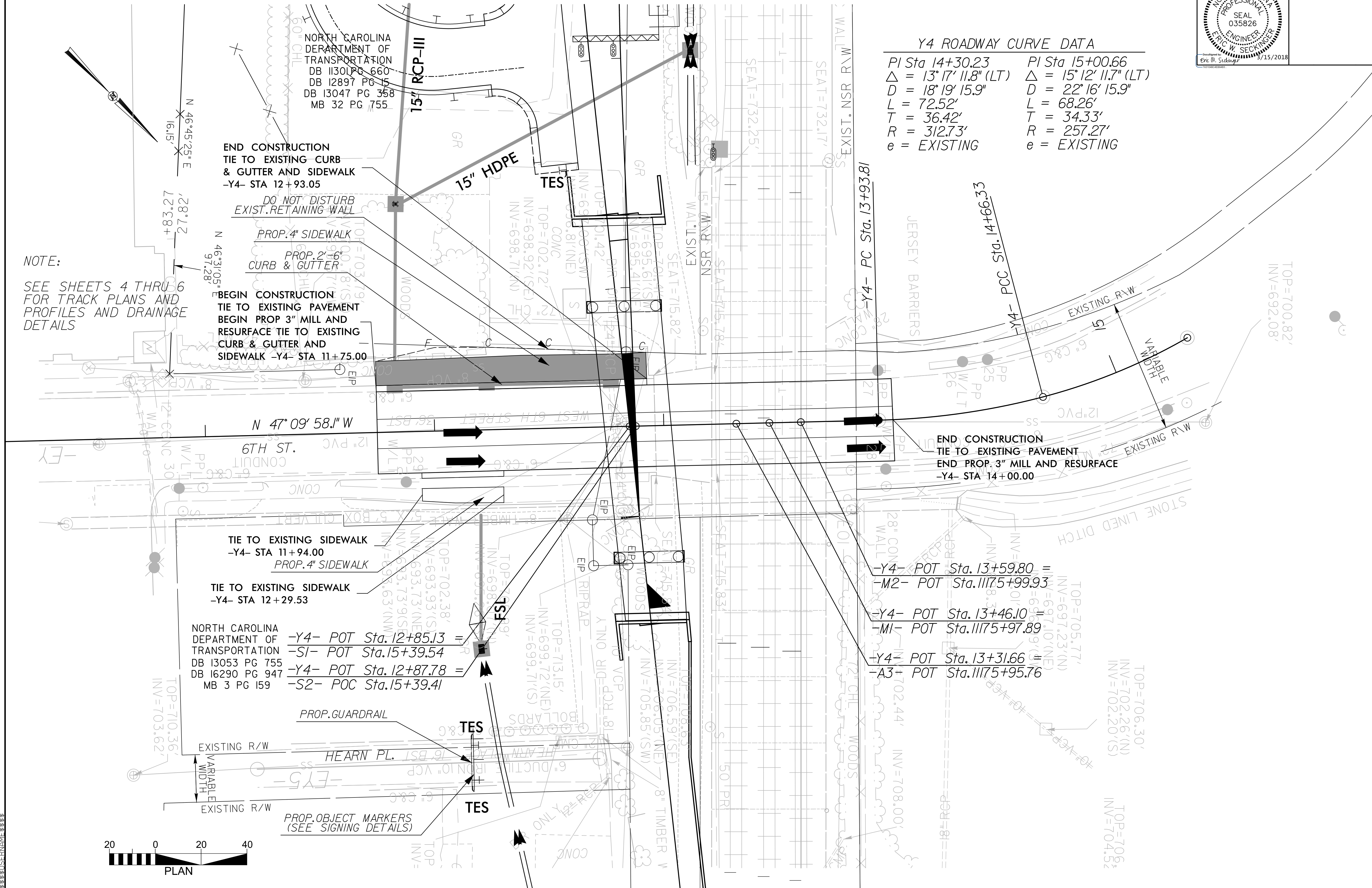
DATE: MARCH 16, 2018

ROADWAY DESIGN ENGINEER

ERIC W. SECKINGER
 NORTH CAROLINA PROFESSIONAL ENGINEER
 SEAL 035826
 3/15/2018

Y4 ROADWAY CURVE DATA

PI Sta	PI Sta
14+30.23	15+00.66
$\Delta = 13^{\circ}17'11.8''$ (LT)	$\Delta = 15^{\circ}12'11.7''$ (LT)
$D = 18^{\circ}19'15.9''$	$D = 22^{\circ}16'15.9''$
$L = 72.52'$	$L = 68.26'$
$T = 36.42'$	$T = 34.33'$
$R = 312.73'$	$R = 257.27'$
$e = \text{EXISTING}$	$e = \text{EXISTING}$



NOTE:
 SEE SHEETS 4 THRU 6
 FOR TRACK PLANS AND
 PROFILES AND DRAINAGE
 DETAILS

END CONSTRUCTION
 TIE TO EXISTING CURB
 & GUTTER AND SIDEWALK
 -Y4- STA 12+93.05

DO NOT DISTURB
 EXIST. RETAINING WALL

PROP. 4" SIDEWALK
 PROP. 2'-6"
 CURB & GUTTER

BEGIN CONSTRUCTION
 TIE TO EXISTING PAVEMENT
 BEGIN PROP 3" MILL AND
 RESURFACE TIE TO EXISTING
 CURB & GUTTER AND
 SIDEWALK -Y4- STA 11+75.00

TIE TO EXISTING SIDEWALK
 -Y4- STA 11+94.00
 PROP. 4" SIDEWALK

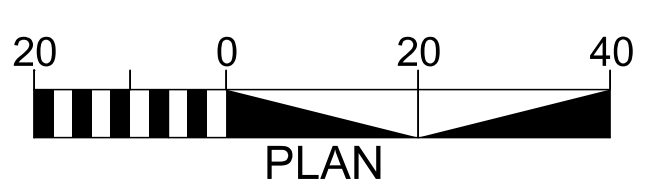
TIE TO EXISTING SIDEWALK
 -Y4- STA 12+29.53

NORTH CAROLINA
 DEPARTMENT OF
 TRANSPORTATION
 DB 13053 PG 755
 DB 16290 PG 947
 MB 3 PG 159

-Y4- POT Sta. 12+85.13 =
 -S1- POT Sta. 15+39.54
 -Y4- POT Sta. 12+87.78 =
 -S2- POC Sta. 15+39.41

END CONSTRUCTION
 TIE TO EXISTING PAVEMENT
 END PROP. 3" MILL AND RESURFACE
 -Y4- STA 14+00.00

-Y4- POT Sta. 13+59.80 =
 -M2- POT Sta. 11175+99.93
 -Y4- POT Sta. 13+46.10 =
 -M1- POT Sta. 11175+97.89
 -Y4- POT Sta. 13+31.66 =
 -A3- POT Sta. 11175+95.76



5TH ST. ROADWAY PLAN SHEET

HNTB HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554

PROJECT REFERENCE NO. P-5705BA SHEET NO. 14

DATE: MARCH 16, 2018

R/W SHEET NO.

ROADWAY DESIGN ENGINEER

Eric W. Seckinger 3/15/2018

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DB 14797 PG 69
DB 13723 PG 187
DB 13723 PG 184
DB 13723 PG 174
DB 13713 PG 486
DB 13713 PG 382

NOTE:
SEE SHEETS 4 THRU 6
FOR TRACK PLANS AND
PROFILES AND DRAINAGE
DETAILS

PROP. EMERGENCY EGRESS
STAIRS AND WALKWAY
(SEE P-5705BB PLANS)

BEGIN P-5705BB -SI- STA. 19+15.71
(GATE, WALKWAY, EGRESS STAIRS,
AND OTHER ITEMS DETAILED
IN P-5705BB PLANS)

CHARLOTTE GATEWAY VILLAGE, LLC
DB 10126 PG 259
MB 30 PG 203

TIE TO EXISTING CURB
& GUTTER
-Y3- STA 12+55.99

END PROP. FULL
DEPTH PAVEMENT
-Y3- STA 12+56.96

TIE TO EXISTING SIDEWALK
AT -Y3- STA 12+70.83

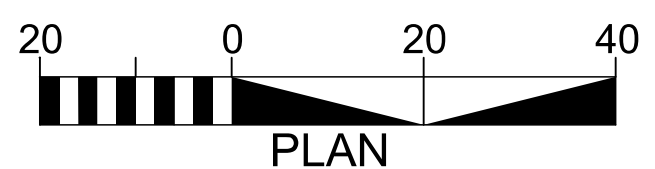
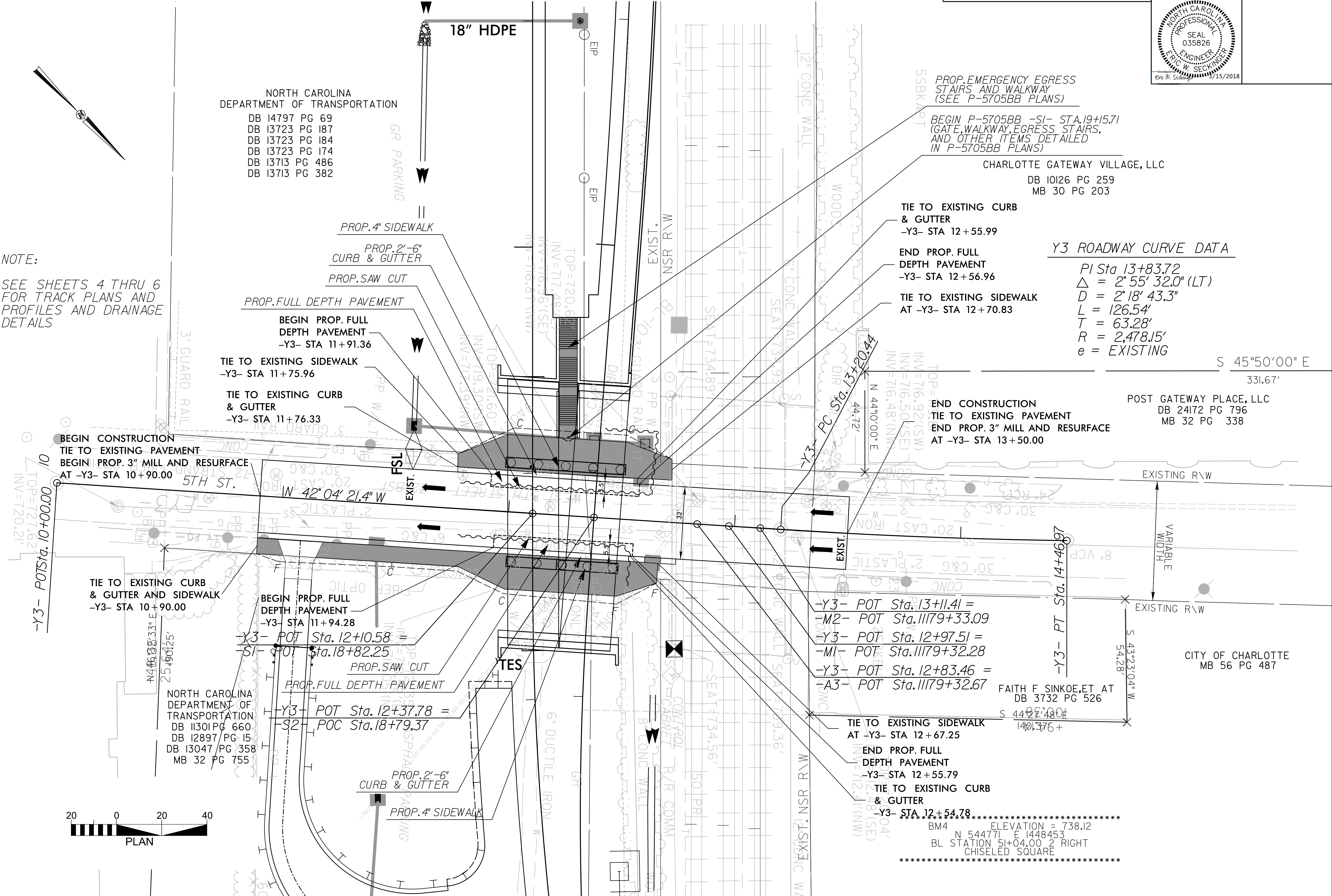
Y3 ROADWAY CURVE DATA

PI Sta 13+83.72
 $\Delta = 2^\circ 55' 32.0" (LT)$
 $D = 2^\circ 18' 43.3"$
 $L = 126.54'$
 $T = 63.28'$
 $R = 2,478.15'$
 $e = EXISTING$

S 45°50'00" E
331.67'

END CONSTRUCTION
TIE TO EXISTING PAVEMENT
END PROP. 3" MILL AND RESURFACE
AT -Y3- STA 13+50.00

POST GATEWAY PLACE, LLC
DB 24172 PG 796
MB 32 PG 338



3/14/2018
hntb-14.dgn

ELEVATION = 738.12
BM4 N 544771 E 1448453
BL STATION 51+04.00 2 RIGHT
CHISELED SQUARE

TRADE ST. ROADWAY PLAN SHEET

HNTB HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554

PROJECT REFERENCE NO. P-5705BA	SHEET NO. 15
RW SHEET NO.	

DATE: MARCH 16, 2018

ROADWAY DESIGN ENGINEER

THE CITY OF CHARLOTTE
DB 24319 PG 421

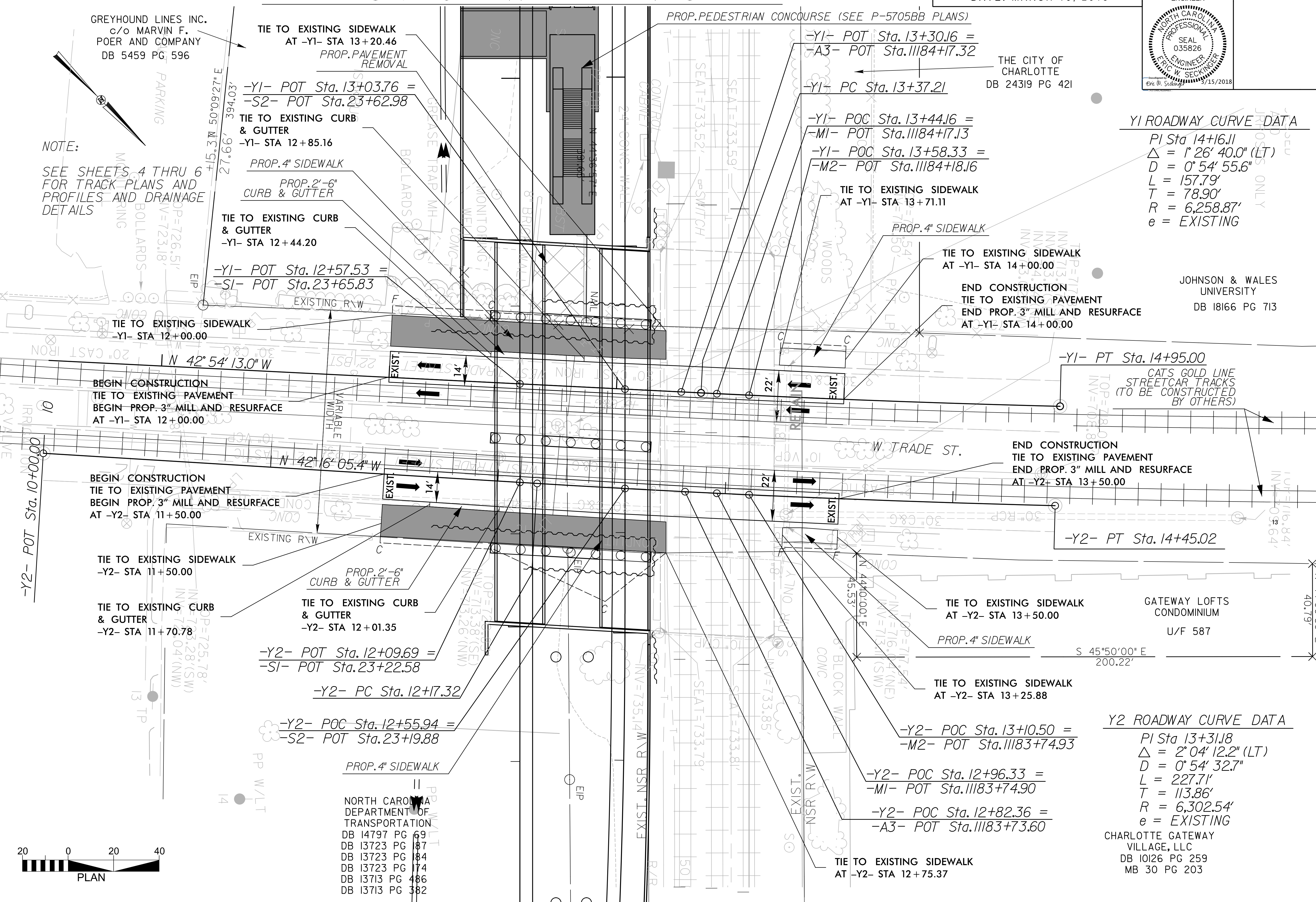
JOHNSON & WALES UNIVERSITY
DB 18166 PG 713

GATEWAY LOFTS CONDOMINIUM
U/F 587

CHARLOTTE GATEWAY VILLAGE, LLC
DB 10126 PG 259
MB 30 PG 203

GREYHOUND LINES INC.
c/o MARVIN F. POER AND COMPANY
DB 5459 PG. 596

NOTE:
SEE SHEETS 4 THRU 6 FOR TRACK PLANS AND PROFILES AND DRAINAGE DETAILS

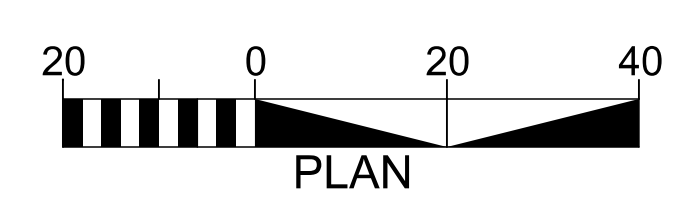


Y1 ROADWAY CURVE DATA

PI Sta 14+16.11
$\Delta = 1^\circ 26' 40.0''$ (LT)
$D = 0^\circ 54' 55.6''$
$L = 157.79'$
$T = 78.90'$
$R = 6,258.87'$
$e = EXISTING$

Y2 ROADWAY CURVE DATA

PI Sta 13+31.18
$\Delta = 2^\circ 04' 12.2''$ (LT)
$D = 0^\circ 54' 32.7''$
$L = 227.71'$
$T = 113.86'$
$R = 6,302.54'$
$e = EXISTING$



NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DB 14797 PG 69
DB 13723 PG 87
DB 13723 PG 84
DB 13723 PG 174
DB 13713 PG 486
DB 13713 PG 382

3/14/2018
3:42:52 PM
h_15.dgn
HNTB

4TH ST. ROADWAY PLAN SHEET

HNTB HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554

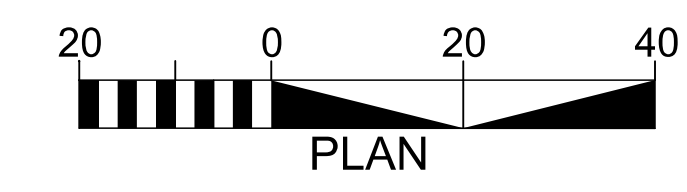
PROJECT REFERENCE NO. P-5705BA SHEET NO. 16

DATE: MARCH 16, 2018

R/W SHEET NO.

ROADWAY DESIGN ENGINEER

NOTE:
SEE SHEETS 4 THRU 6
FOR TRACK PLANS AND
PROFILES



-Y- POC Sta. 12+06.49 =
-S2- POT Sta. 28+12.88
NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DB 10605 PG 225
DB 13053 PG 755
DB 23210 PG 693
PROP. EMERGENCY EGRESS TUNNEL
(SEE P-5705BA PLANS)

TIE TO EXISTING CURB
& GUTTER
-Y- STA 11+67.28

PROP. 2'-6"
CURB & GUTTER

TIE TO EXISTING CURB
& GUTTER
-Y- STA 11+42.16

-Y- PRC Sta. 11+48.18

PROP. 4" SIDEWALK

TIE TO EXISTING SIDEWALK
AT -Y- STA 12+21.48

-Y- POC Sta. 12+33.00 =
-A3- POT Sta. 11188+65.63

-Y- POC Sta. 12+47.26 =
-MI- POT Sta. 11188+64.34

-Y- POC Sta. 12+61.43 =
-M2- POT Sta. 11188+64.25

Y ROADWAY CURVE DATA

PI Sta 11+10.71	PI Sta 11+97.81	PI Sta 13+21.96
$\Delta = 1^{\circ} 35' 21.4"$ (LT)	$\Delta = 4^{\circ} 22' 43.2"$ (RT)	$\Delta = 5^{\circ} 18' 08.1"$ (LT)
$D = 2^{\circ} 07' 12.9"$	$D = 4^{\circ} 24' 50.5"$	$D = 3^{\circ} 33' 27.5"$
$L = 74.96'$	$L = 99.20'$	$L = 149.04'$
$T = 37.48'$	$T = 49.62'$	$T = 74.57'$
$R = 2,702.32'$	$R = 1,298.04'$	$R = 1,610.51'$
$e = \text{EXISTING}$	$e = \text{EXISTING}$	$e = \text{EXISTING}$

TIE TO EXISTING SIDEWALK
-Y- STA 10+50

TIE TO EXISTING PAVEMENT
BEGIN PROP. 3" MILL AND RESURFACE
AT -Y- STA 10+50.00

END CONSTRUCTION
TIE TO EXISTING PAVEMENT
END PROP. 3" MILL AND RESURFACE
AT -Y- STA 13+00.00 OR NEAREST
PAVEMENT JOINT

-Y- POT Sta. 10+00.00

-Y- PC Sta. 10+73.23

TIE TO EXISTING CURB
& GUTTER
-Y- STA 11+28.53

TIE TO EXISTING SIDEWALK
-Y- STA 11+28.53

BEGIN PROP. FULL
DEPTH PAVEMENT
-Y- STA 11+42.07

-Y- PRC Sta. 12+47.38

END PROP. FULL
DEPTH PAVEMENT
-Y- STA 12+27.98

TIE TO EXISTING CURB
& GUTTER
-Y- STA 12+27.23

TIE TO EXISTING SIDEWALK
AT -Y- STA 12+28.46

-Y- POC Sta. 11+60.17 =
-SI- POT Sta. 28+17.22

PROP. FULL DEPTH PAVEMENT

PROP. 2'-6"
CURB & GUTTER

PROP. 4" SIDEWALK

BM3 ELEVATION = 737.50
N 544105 E 1447804
BL STATION 41+74.00 RIGHT
CHISELED SQUARE


JOHNSON & WALES UNIVERSITY
DB 18166 PG 713

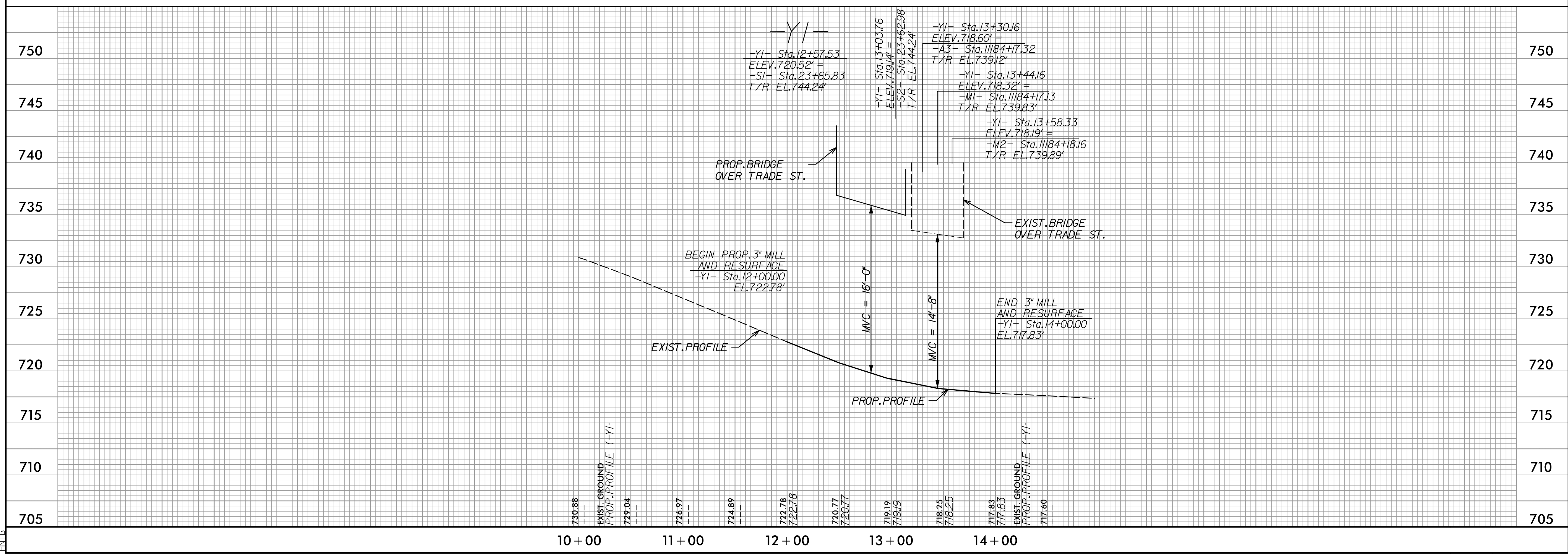
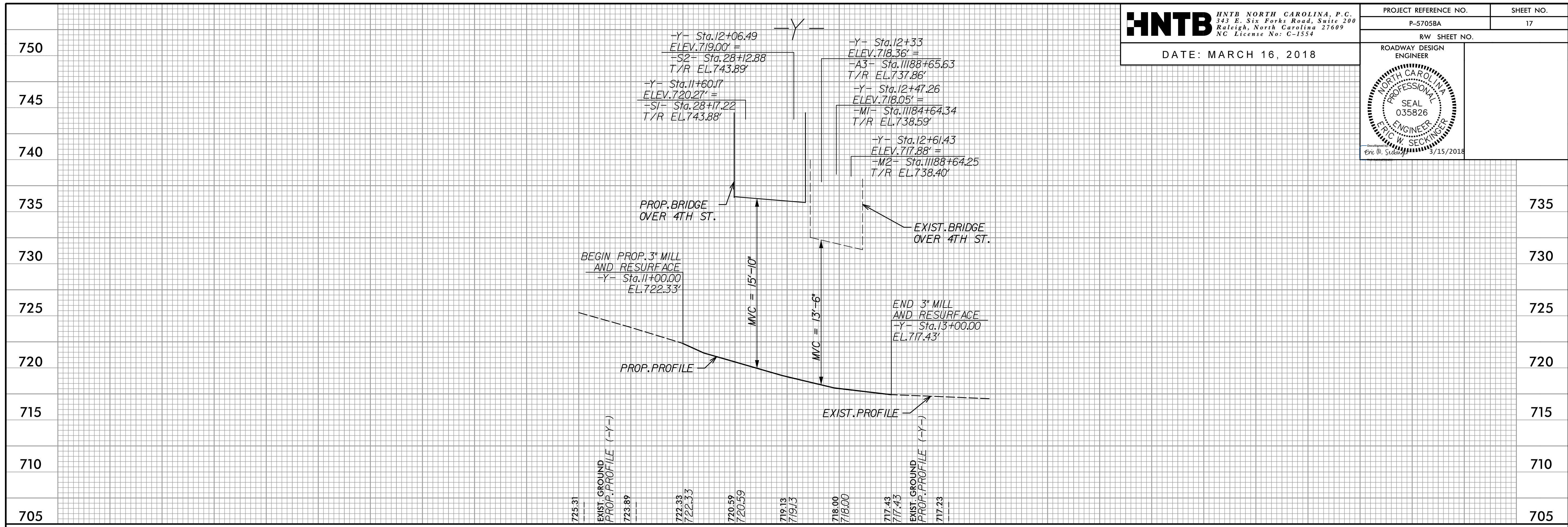
GREYHOUND LINES
INC. c/o MARVIN F.
POER AND COMPANY
DB 5459 PG 596

0012DEL_P28

HNTB HNTB NORTH CAROLINA, P.C.
 343 E. Six Forks Road, Suite 200
 Raleigh, North Carolina 27609
 NC License No: C-1554

DATE: MARCH 16, 2018

PROJECT REFERENCE NO. P-5705BA	SHEET NO. 17
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	
	
Eric W. Seckinger 3/15/2018	

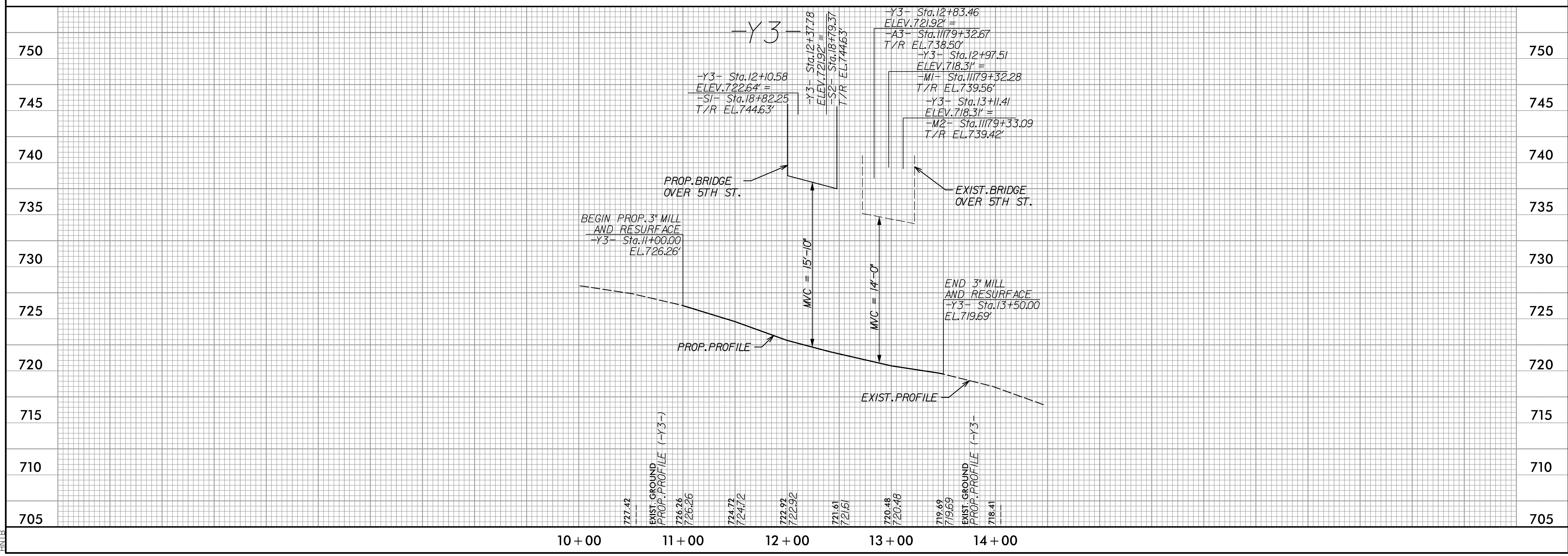
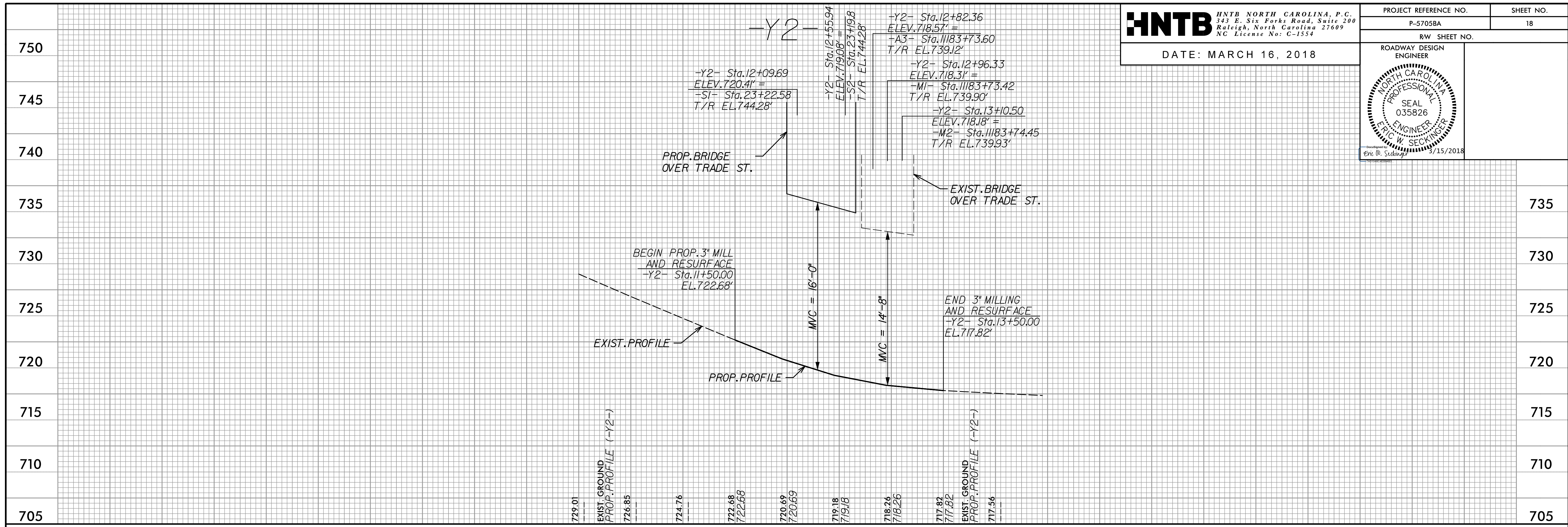


3/14/2018 3:02:52 PM h_17.dgn

HNTB HNTB NORTH CAROLINA, P.C.
 343 E. Six Forks Road, Suite 200
 Raleigh, North Carolina 27609
 NC License No: C-1554

DATE: MARCH 16, 2018

PROJECT REFERENCE NO.	SHEET NO.
P-5705BA	18
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	



0012DEL_P28

HNTB HNTB NORTH CAROLINA, P.C.
 343 E. Six Forks Road, Suite 200
 Raleigh, North Carolina 27609
 NC License No: C-1554

PROJECT REFERENCE NO. P-5705BA
 SHEET NO. 19

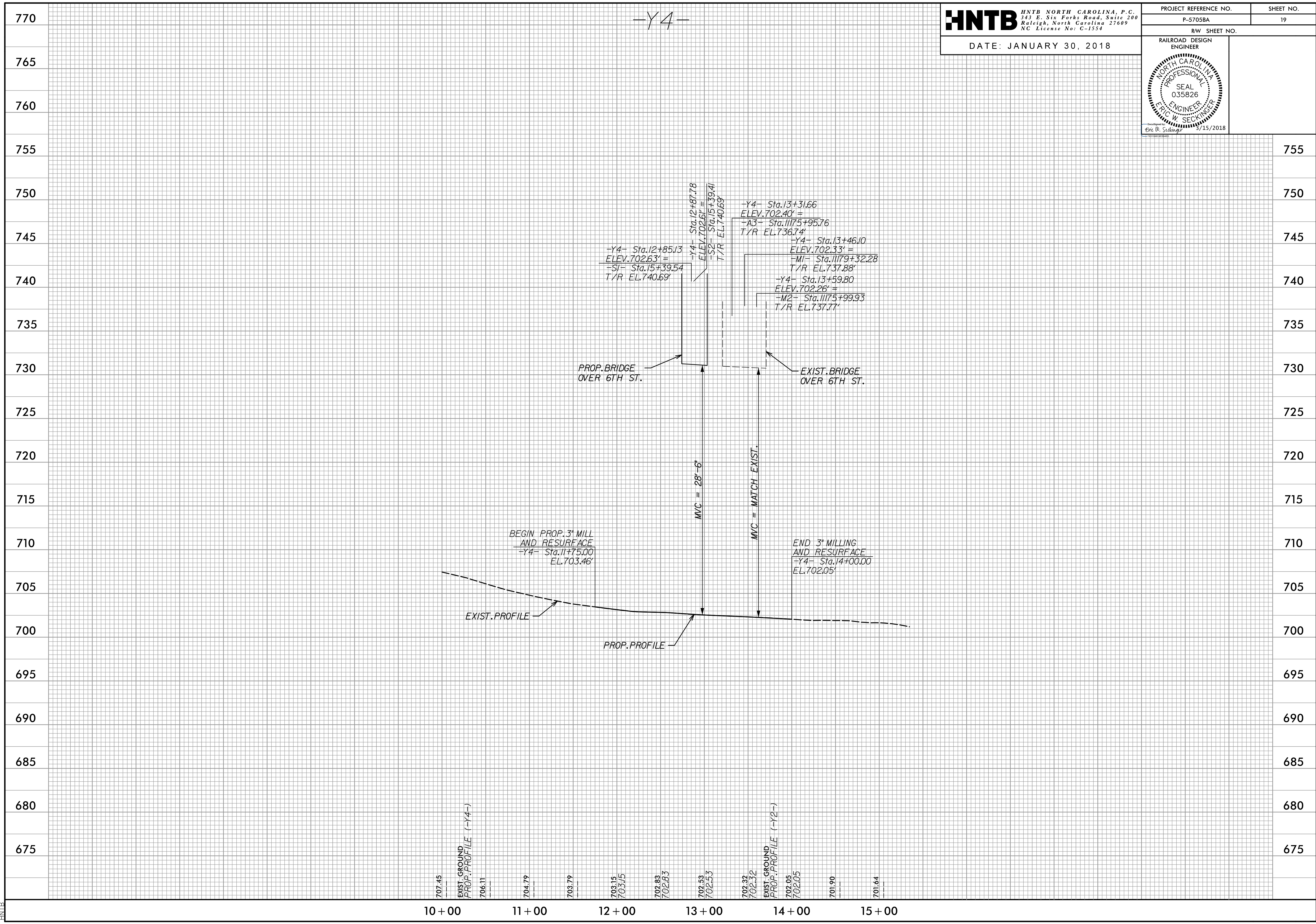
DATE: JANUARY 30, 2018

PROJECT REFERENCE NO. P-5705BA
 SHEET NO. 19

RAILROAD DESIGN ENGINEER

PROFESSIONAL SEAL
 035826
 ENGINEER
 ERIC W. SECKINGER

3/15/2018



3/14/2018
 3:02:58 PM
 hntb

← TO KANNAPOLIS

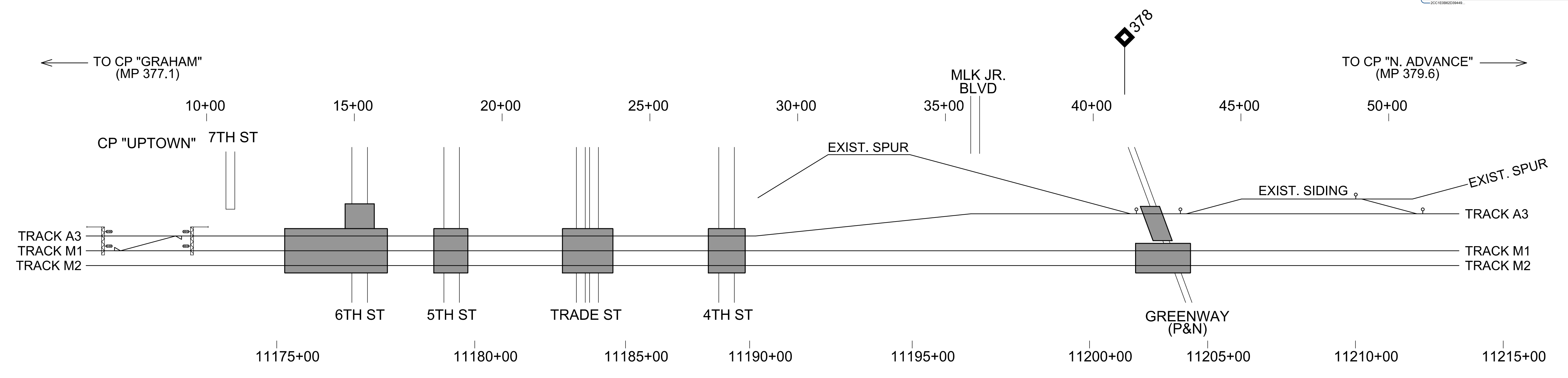
FOR INFORMATION ONLY

THESE PLANS ARE PROVIDED TO THE NCDOT CONTRACTOR TO PROVIDE CONTEXT FOR COORDINATION WITH NORFOLK SOUTHERN AND ITS CONTRACTOR.

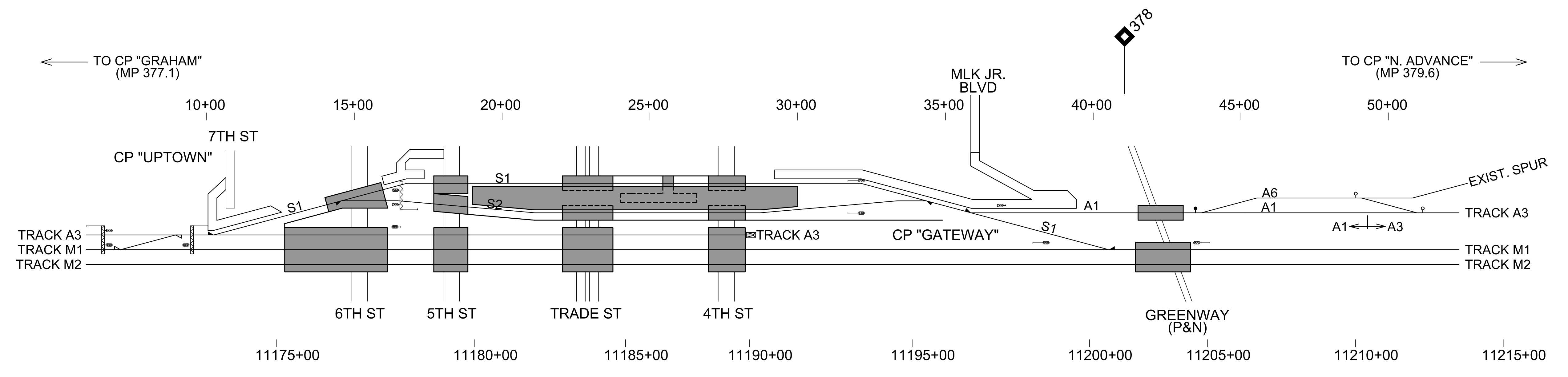
HNTB HNTB NORTH CAROLINA, P.C. 343 E. Six Forks Road, Suite 200 Raleigh, North Carolina 27609 NC License No: C-1554	PROJECT REFERENCE NO. P-5705BA	SHEET NO. CP-01
	DATE: MARCH 16, 2018	
RAILROAD DESIGN ENGINEER		

→ TO GASTONIA

ORIGINAL / EXISTING



FINAL BUILD OUT



0012DEL_P28

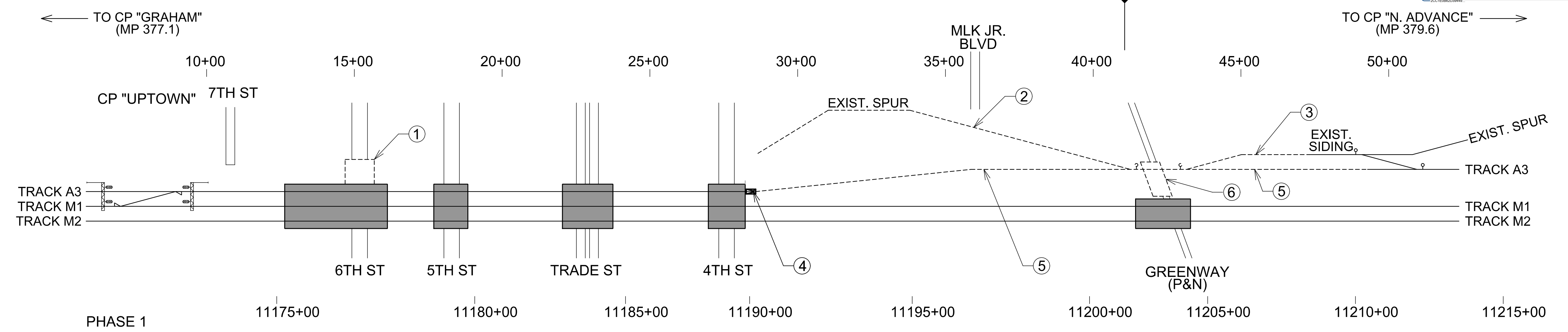
TO KANNAPOLIS

FOR INFORMATION ONLY

THESE PLANS ARE PROVIDED TO THE NCDOT CONTRACTOR TO PROVIDE CONTEXT FOR COORDINATION WITH NORFOLK SOUTHERN AND ITS CONTRACTOR.

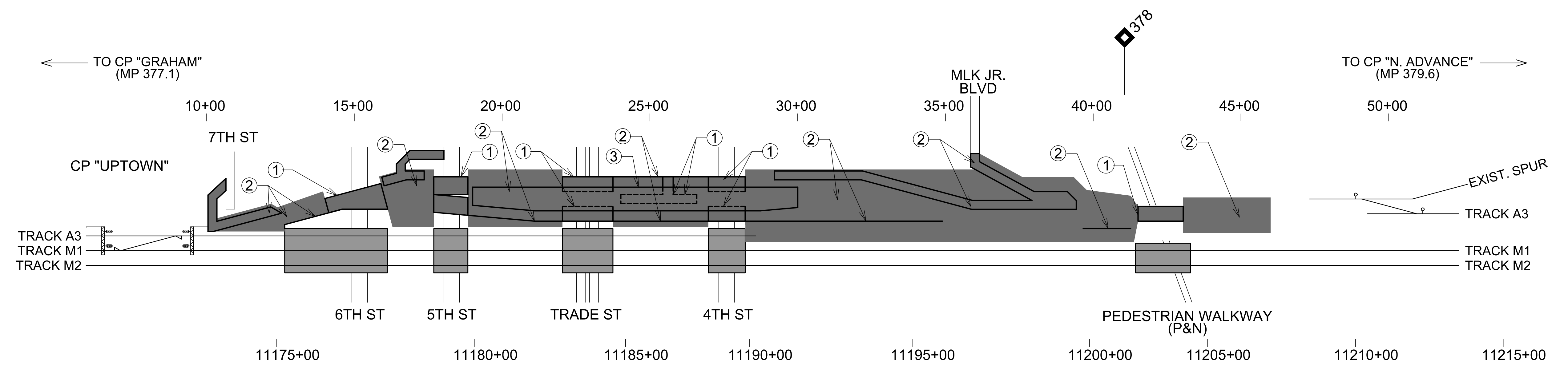
HNTB HNTB NORTH CAROLINA, P.C. 343 E. Six Forks Road, Suite 200 Raleigh, North Carolina 27609 NC License No: C-1554	PROJECT REFERENCE NO. P-5705BA	SHEET NO. CP-02
	RW SHEET NO.	
DATE: MARCH 16, 2018		

TO GASTONIA



- PHASE 1**
1. REMOVE SUPERSTRUCTURE OF LOWER EXISTING 6TH ST. BRIDGE.
 2. REMOVE EXISTING SPUR TRACK (-A4-) UP TO THE TURNOUT IN EXISTING TRACK A3.
 3. REMOVE PORTION EXISTING SIDING TRACK (-A5-) BETWEEN STA. 11205+59 AND STA. 11207+72.
- TAKE TRACK A3 OUT OF SERVICES SOUTH OF 4TH STREET.
4. CONSTRUCT EARTH MOUND BETWEEN -A3- STA. 11189+26 AND STA. 11189+49.
 5. REMOVE EXISTING TRACK A3 BETWEEN STA. 11189+49 AND STA. 11209+69, INCLUDING TURNOUTS.
 6. REMOVE EXISTING P&N BRIDGE.

PHASE 2



- PHASE 2**
1. CONSTRUCT ALL BRIDGES, TUNNELS AND CONCOURSE.
 2. CONSTRUCT ROADBED, ACCESS ROADS AND RETAINING WALLS FOR -S1-, -S2-, -A1-, -A6-, AND -Y5-.
 3. CONSTRUCT PLATFORM.

3/14/2018 11:02:38 AM C:\psh_cp02 (separate set).dgn

