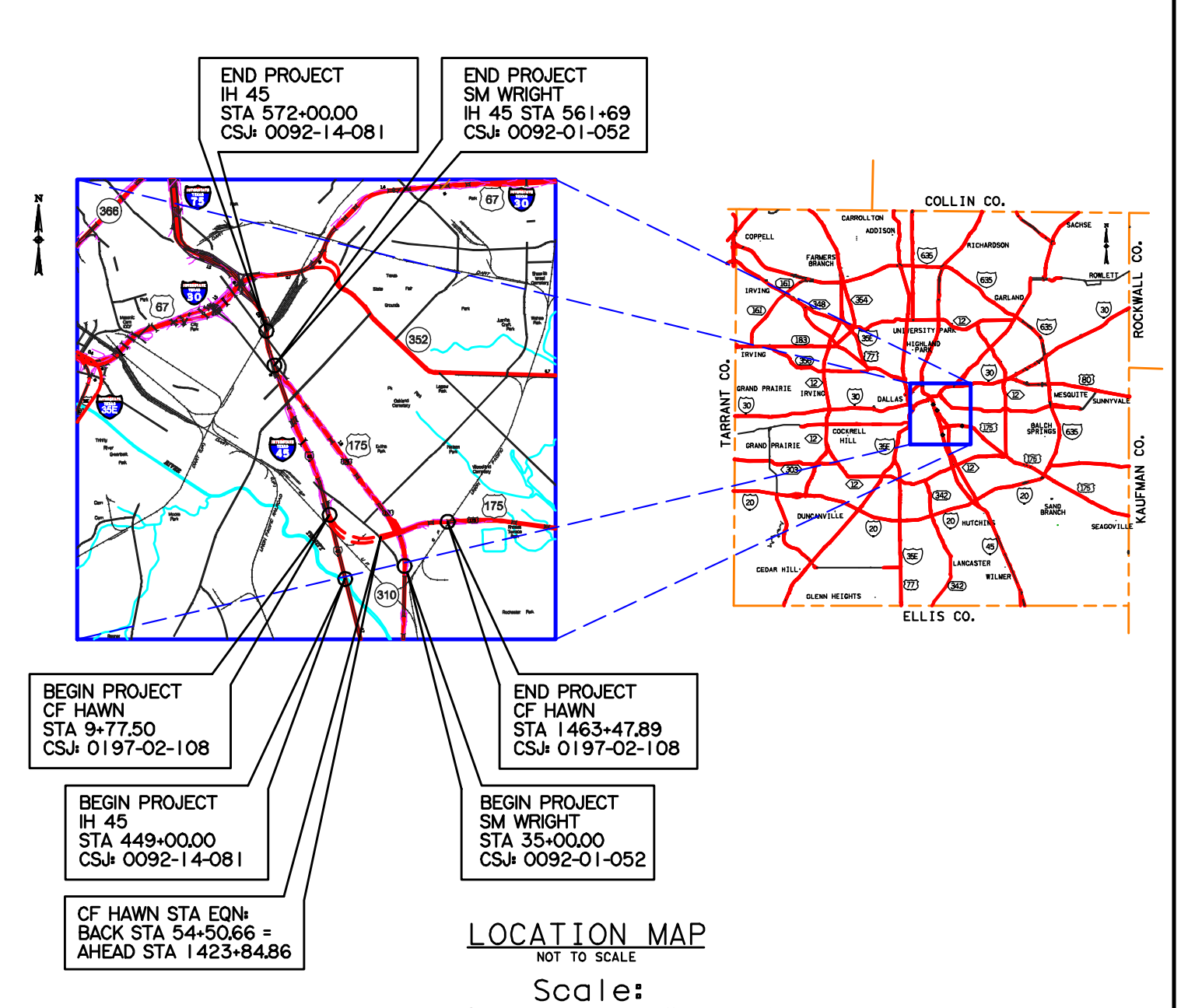
TEXAS DEPARTMENT OF TRANSPORTATION
TxDOT DALLAS DISTRICT
WILLIAM L. HALE, P.E., DISTRICT ENGINEER

DESIGN SCHEMATIC
SM WRIGHT PROJECT
DALLAS COUNTY
CSJ: 0092-01-052, 0197-02-108, 0092-14-081

	SM WRIGHT (EX. US 175 & SH 310) CSJ:0092-01-052	CF HAWN (US 175) CSJ:0197-02-108	IH 45 CSJ:0092-14-081
SCHEMATIC ROLL:	1*	2*	3*
AVG DAILY TRAFFIC:	57,500 (2035)	186,200 (2035)	171,800 (2035)
FUNCTIONAL CLASS:	URBAN ARTERIAL	URBAN FREEWAY	URBAN FREEWAY
FROM:	N. OF BUDD ST	BEXAR ST	S. OF LAMAR ST
TO:	IH 45	IH 45	SM WRIGHT
LENGTH:	2.20 MILES	1.60 MILES	2.33 MILES
DESIGN SPEED			
MAIN LANES	35 mph	50 mph	60 mph
DIRECT CONNECTORS:	- -	50 mph	50 mph
RAMPS:	20 - 30 mph	40 mph	40 mph
FRONTAGE RDS:	- -	30 - 40 mph	40 mph
CROSS STREETS:	25 - 30 mph	30 mph	15 - 30 mph

* FRONTAGE ROAD, CROSS STREET, AND RAMP PROFILES FOUND ON ROLL 4.


END PROJECT
IH 45
STA 572+00.00
CSJ: 0092-14-081
END PROJECT
SM WRIGHT
IH 45 STA 561+69
CSJ: 0092-01-052
BEGIN PROJECT
CF HAWN
STA 9+77.50
CSJ: 0197-02-108
END PROJECT
CF HAWN
STA 1463+47.89
CSJ: 0197-02-108
BEGIN PROJECT
IH 45
STA 449+00.00
CSJ: 0092-14-081
BEGIN PROJECT
SM WRIGHT
STA 35+00.00
CSJ: 0092-01-052
CF HAWN STA EQN:
BACK STA 54+50.66 =
AHEAD STA 1423+84.86
COLLIN CO.
ROCKWALL CO.
TARRANT CO.
KAUFMAN CO.
ELLIS CO.

LOCATION MAP
NOT TO SCALE

Scale:
Horizontal 1"=200'
Vertical 1"=20'

JUNE 2013
Roll 4 of 4

PRELIMINARY
FOR INTERIM REVIEW ONLY
THESE DOCUMENTS ARE FOR INTERIM REVIEW AND NOT INTENDED FOR REGULATORY APPROVAL, BIDDING OR CONSTRUCTION PURPOSES. THEY WERE PREPARED BY OR UNDER THE SUPERVISION OF:

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HALFF ASSOCIATES, INC.
TBPE FIRM #F-312

HALFF
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RICHARDSON, TEXAS 75081-2275
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FAX (214) 739-0095

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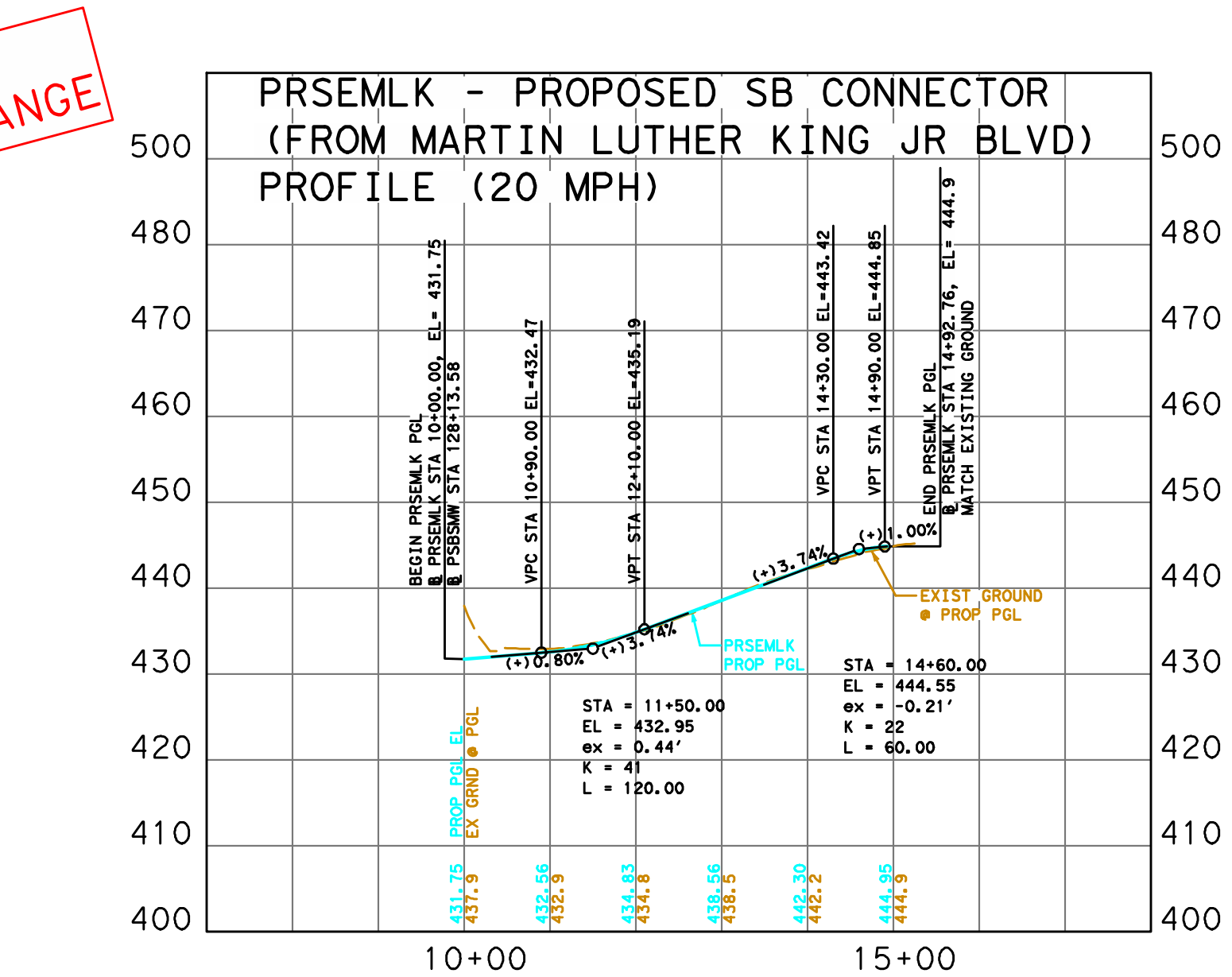
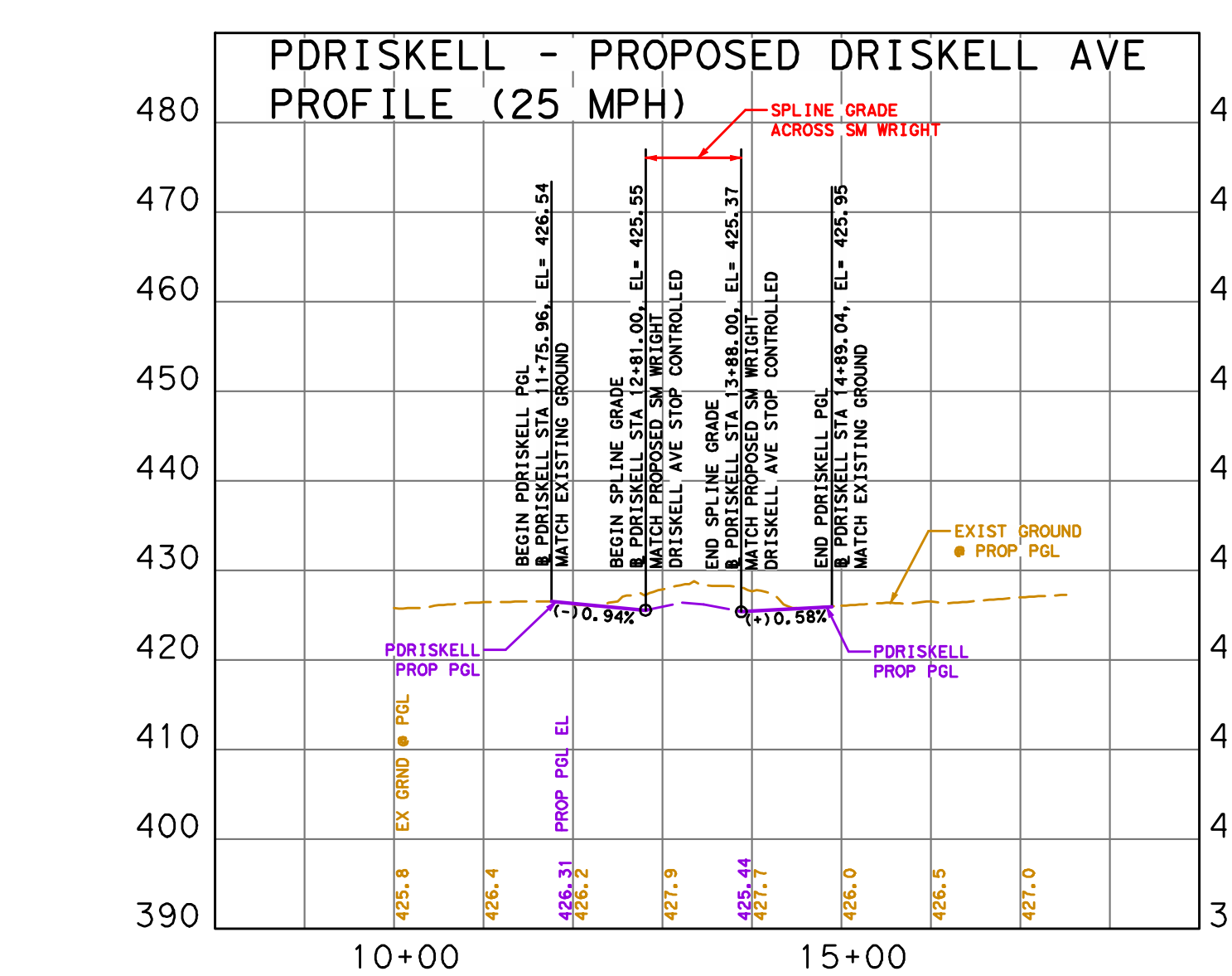
ROLL 4 OF 4 PROFILES

PRELIMINARY
SUBJECT TO CHANGE

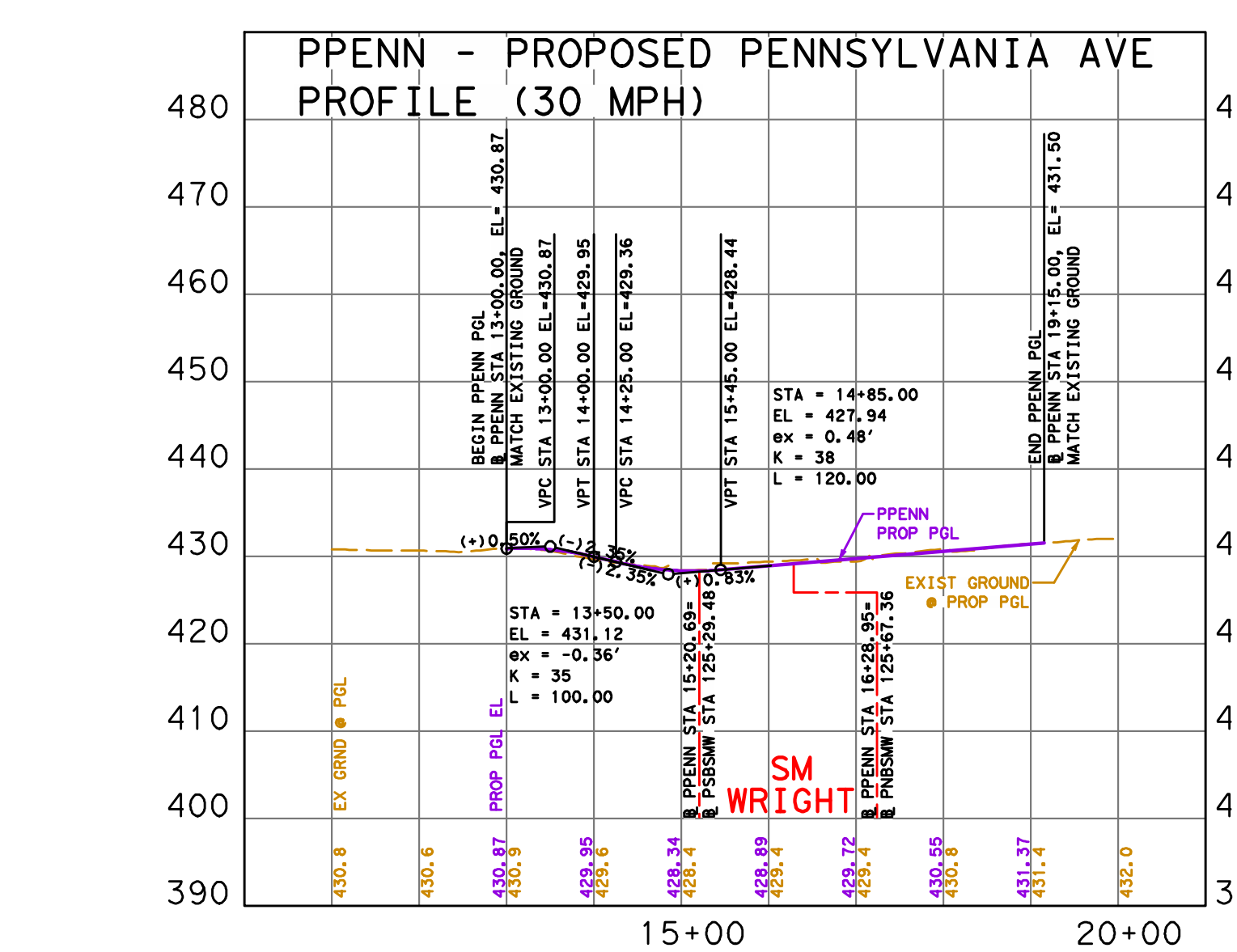
PRSEMLK - PROPOSED SB CONNECTOR (FROM MARTIN LUTHER KING JR BLVD) PROFILE (20 MPH)


BEGIN PRSEMLK PGL
VPC STA 10+90.00 EL=432.47
VPT STA 12+10.00 EL=436.19
VPC STA 14+30.00 EL=443.42
VPT STA 14+90.00 EL=444.85
END PRSEMLK PGL
(+)0.80%
(+)13.74%
(+)1.00%
STA = 11+50.00
EL = 432.95
ex = 0.44'
K = 41
L = 120.00
STA = 14+60.00
EL = 444.55
ex = -0.21'
K = 22
L = 60.00
PRSEMLK PROP PGL
EXIST GROUND
PROP PGL
10+00
15+00

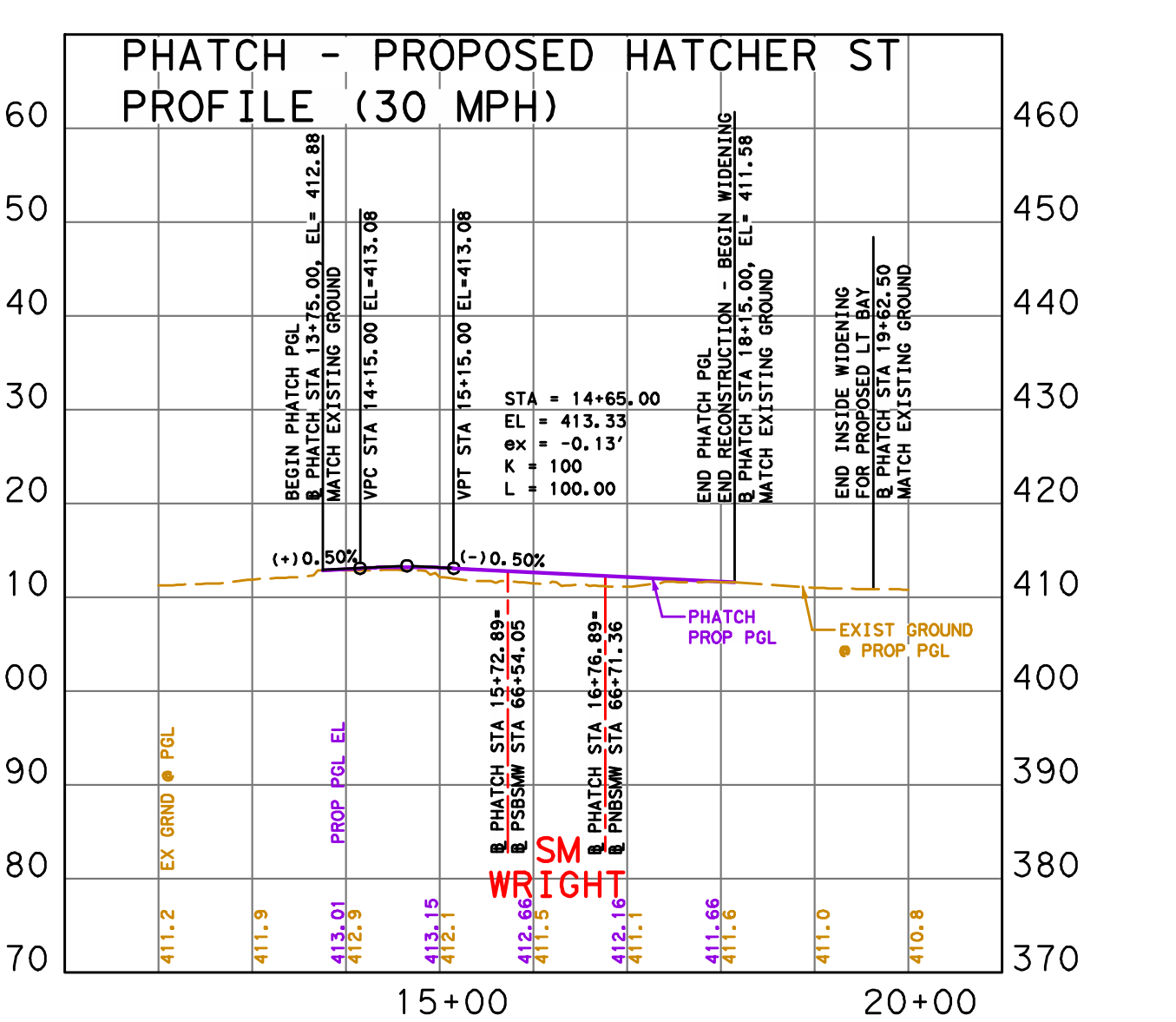
PDRISKELL - PROPOSED DRISKELL AVE PROFILE (25 MPH)


SPLINE GRADE ACROSS SM WRIGHT
BEGIN PDRISKELL PGL
BEGIN SPLINE GRADE
END SPLINE GRADE
END PDRISKELL PGL
(+)0.94%
(-)1.58%
PDRISKELL PROP PGL
EXIST GROUND
PROP PGL
10+00
15+00

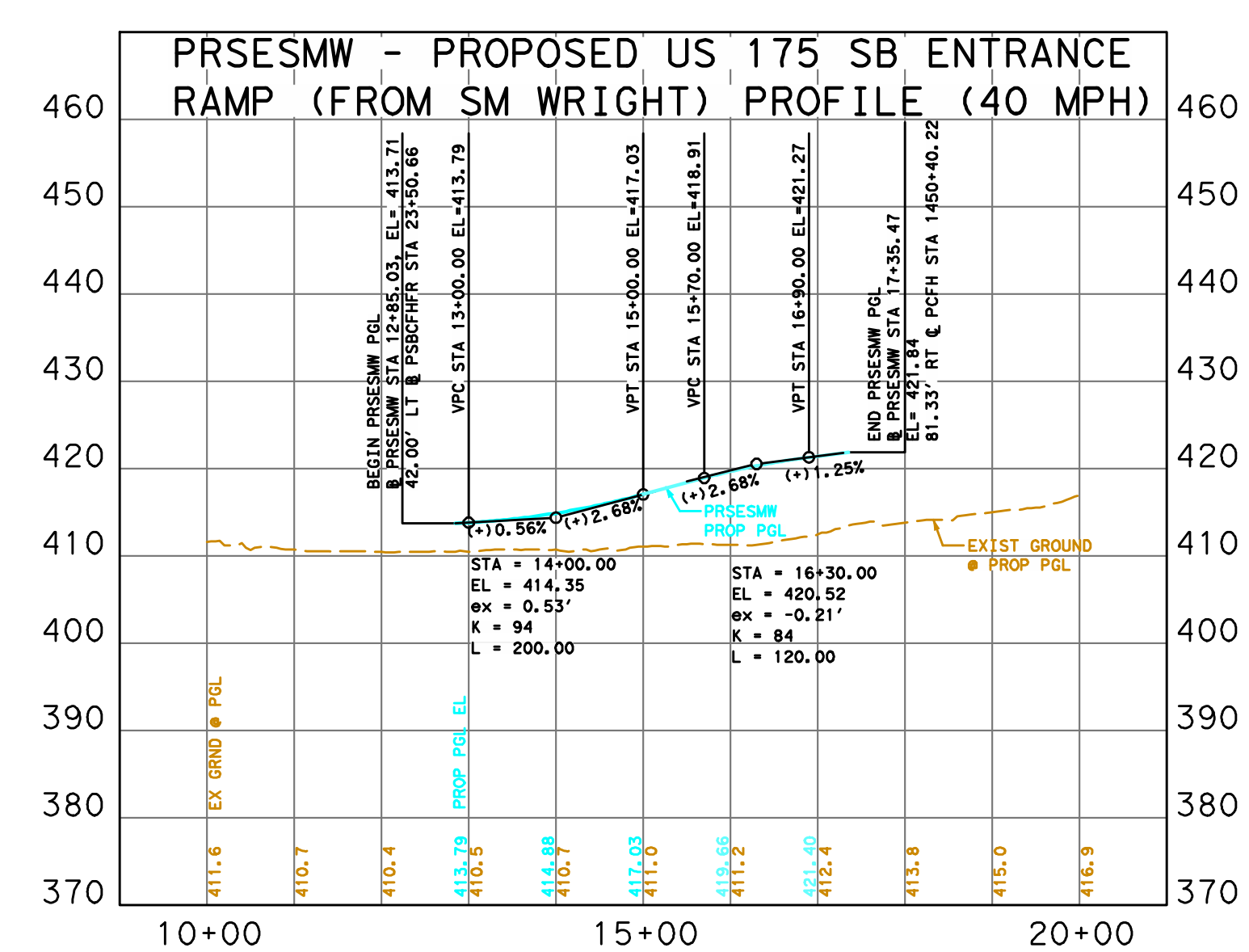
PPENN - PROPOSED PENNSYLVANIA AVE PROFILE (30 MPH)


BEGIN PPENN PGL
END PPENN PGL
STA = 13+50.00
EL = 431.12
ex = -0.36'
K = 35
L = 100.00
STA = 14+85.00
EL = 427.94
ex = 0.48'
K = 38
L = 120.00
(+)0.50%
(-)2.35%
(+)0.83%
PPENN PROP PGL
EXIST GROUND
PROP PGL
SM WRIGHT
15+00
20+00

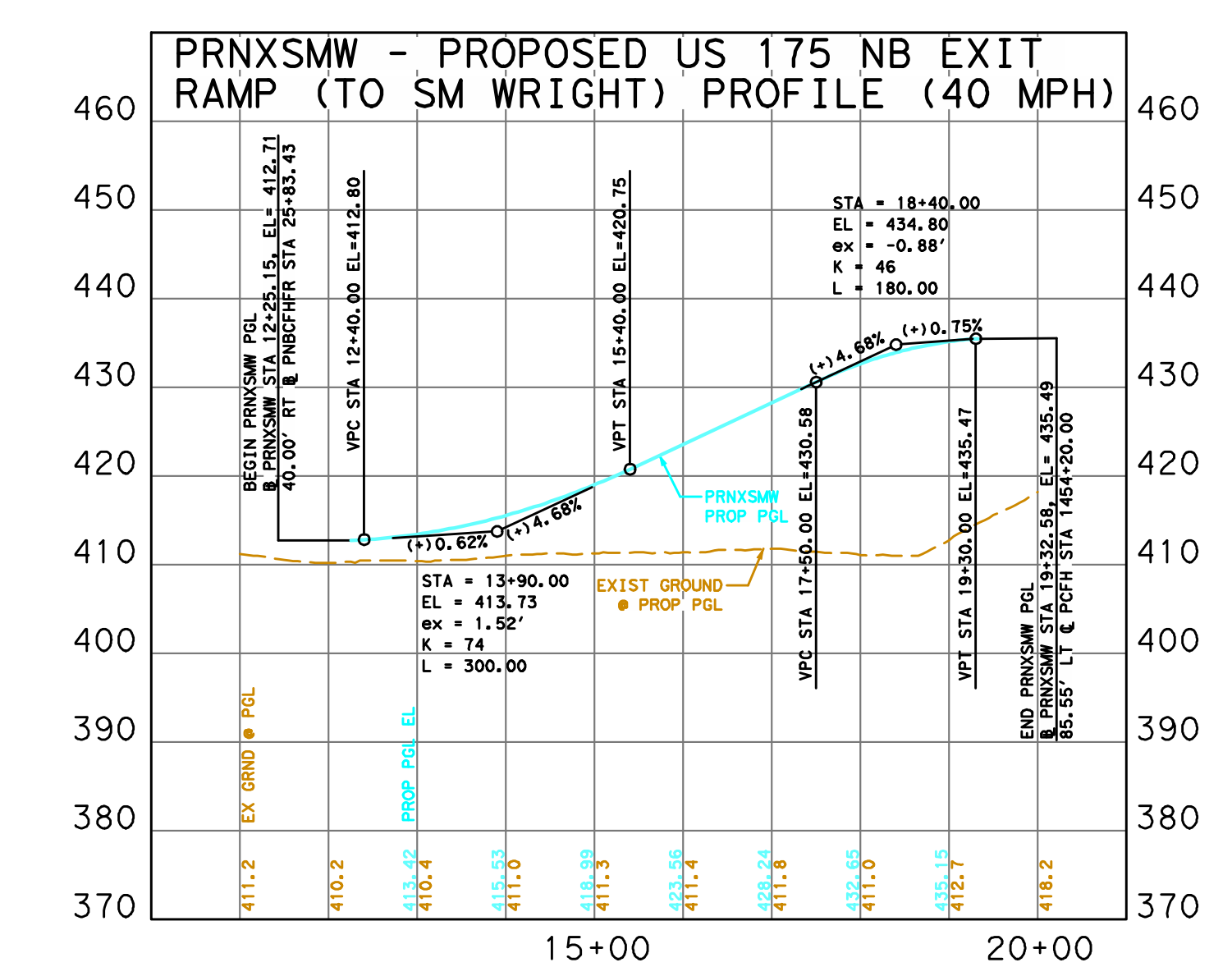
PHATCH - PROPOSED HATCHER ST PROFILE (30 MPH)


BEGIN PHATCH PGL
STA = 14+65.00
EL = 413.33
ex = -0.13'
K = 100
L = 100.00
END PHATCH PGL
(+)0.50%
(-)0.50%
PHATCH PROP PGL
EXIST GROUND
PROP PGL
SM WRIGHT
15+00
20+00

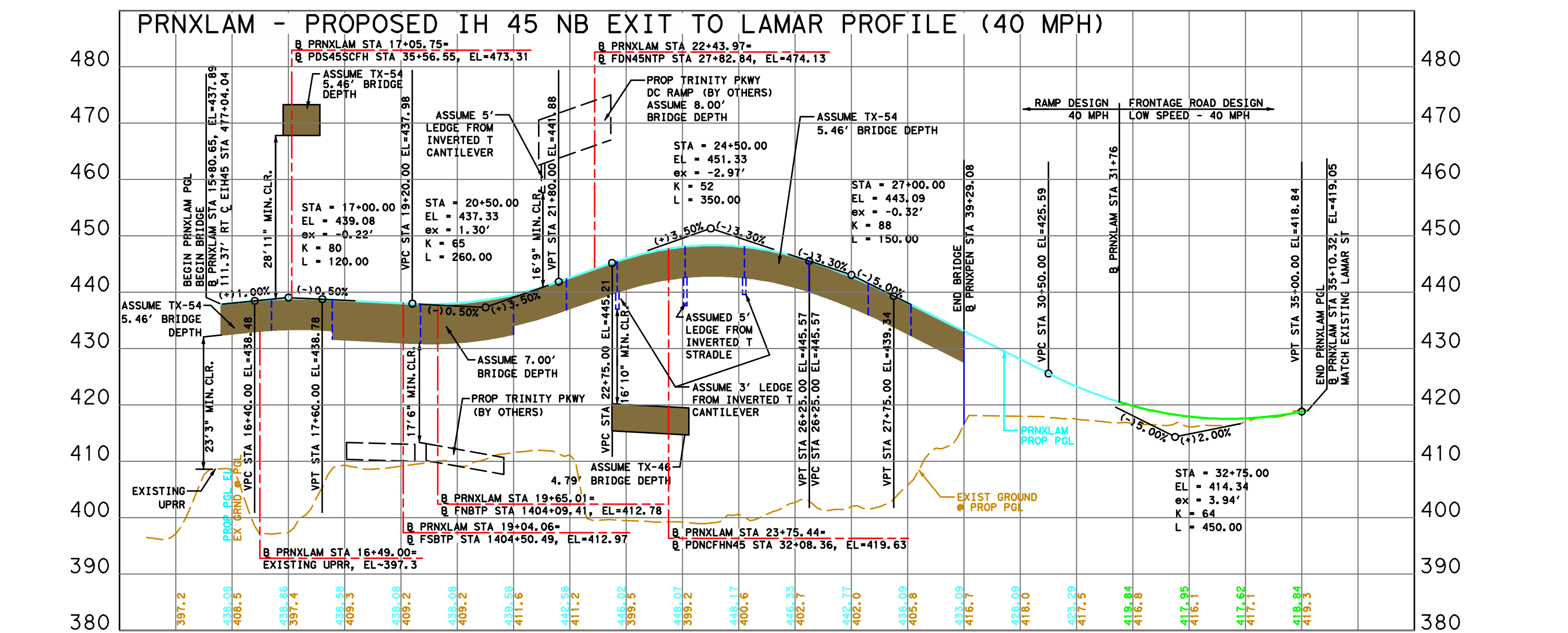
PRSESMW - PROPOSED US 175 SB ENTRANCE RAMP (FROM SM WRIGHT) PROFILE (40 MPH)


BEGIN PRSESMW PGL
END PRSESMW PGL
STA = 14+00.00
EL = 414.35
ex = 0.53'
K = 94
L = 200.00
STA = 16+30.00
EL = 420.52
ex = -0.21'
K = 84
L = 120.00
(+)0.56%
(+)2.68%
(+)1.25%
PRSESMW PROP PGL
EXIST GROUND
PROP PGL
10+00
15+00
20+00

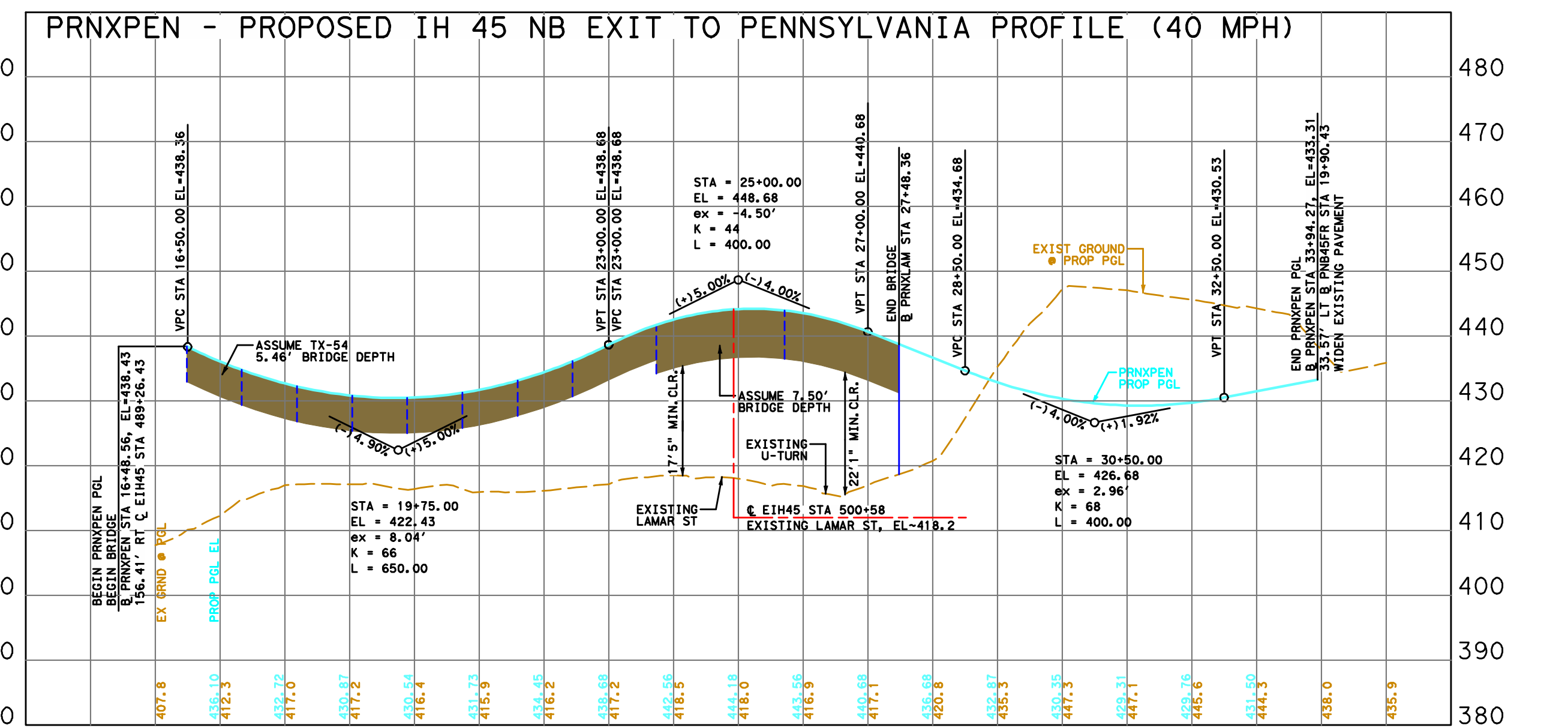
PRNXSMW - PROPOSED US 175 NB EXIT RAMP (TO SM WRIGHT) PROFILE (40 MPH)


BEGIN PRNXSMW PGL
END PRNXSMW PGL
STA = 13+90.00
EL = 413.73
ex = 1.52'
K = 74
L = 300.00
STA = 18+40.00
EL = 434.80
ex = -0.88'
K = 46
L = 180.00
(+)0.62%
(+)4.68%
(+)0.75%
PRNXSMW PROP PGL
EXIST GROUND
PROP PGL
15+00
20+00

PRNXLAM - PROPOSED IH 45 NB EXIT TO LAMAR PROFILE (40 MPH)

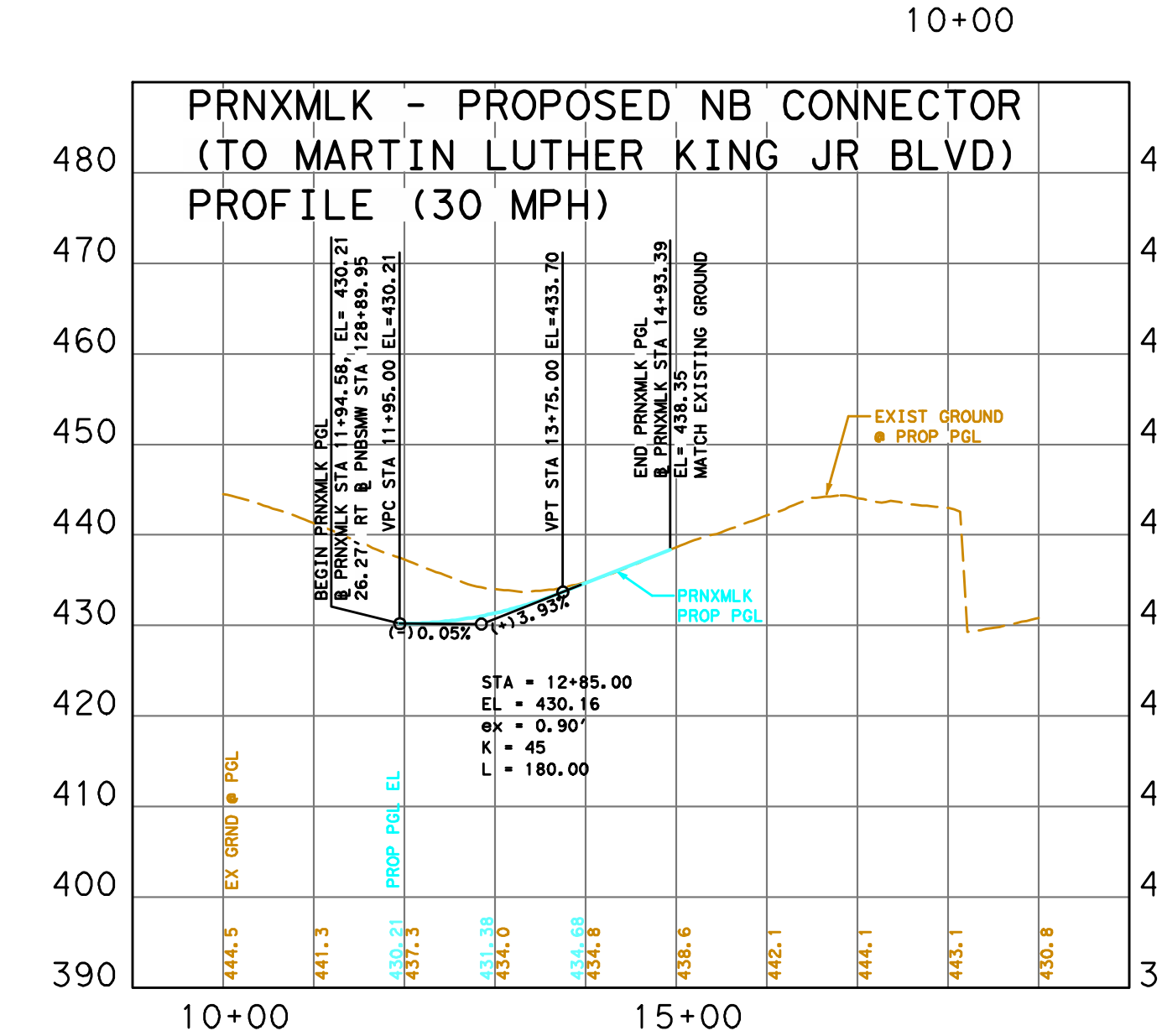

ASSUME TX-54 5.46' BRIDGE DEPTH
PROP TRINITY PKWY DC RAMP (BY OTHERS) ASSUME 8.00' BRIDGE DEPTH
ASSUME 5' LEDGE FROM INVERTED T CANTILEVER
ASSUME 7.00' BRIDGE DEPTH
ASSUME 3' LEDGE FROM INVERTED T CANTILEVER
ASSUME TX-46 4.79' BRIDGE DEPTH
EXISTING UPRR
RAMP DESIGN 40 MPH
FRONTAGE ROAD DESIGN LOW SPEED - 40 MPH
STA = 24+50.00
EL = 451.33
ex = -2.97'
K = 52
L = 350.00
STA = 27+00.00
EL = 443.09
ex = -0.32'
K = 88
L = 150.00
STA = 32+75.00
EL = 414.34
ex = 3.94'
K = 64
L = 450.00
(+)3.50%
(-)13.30%
(-)15.00%
(+)12.00%
PRNXLAM PROP PGL
EXIST GROUND
PROP PGL
15+00
20+00
25+00
30+00
35+00

PRNXPEN - PROPOSED IH 45 NB EXIT TO PENNSYLVANIA PROFILE (40 MPH)

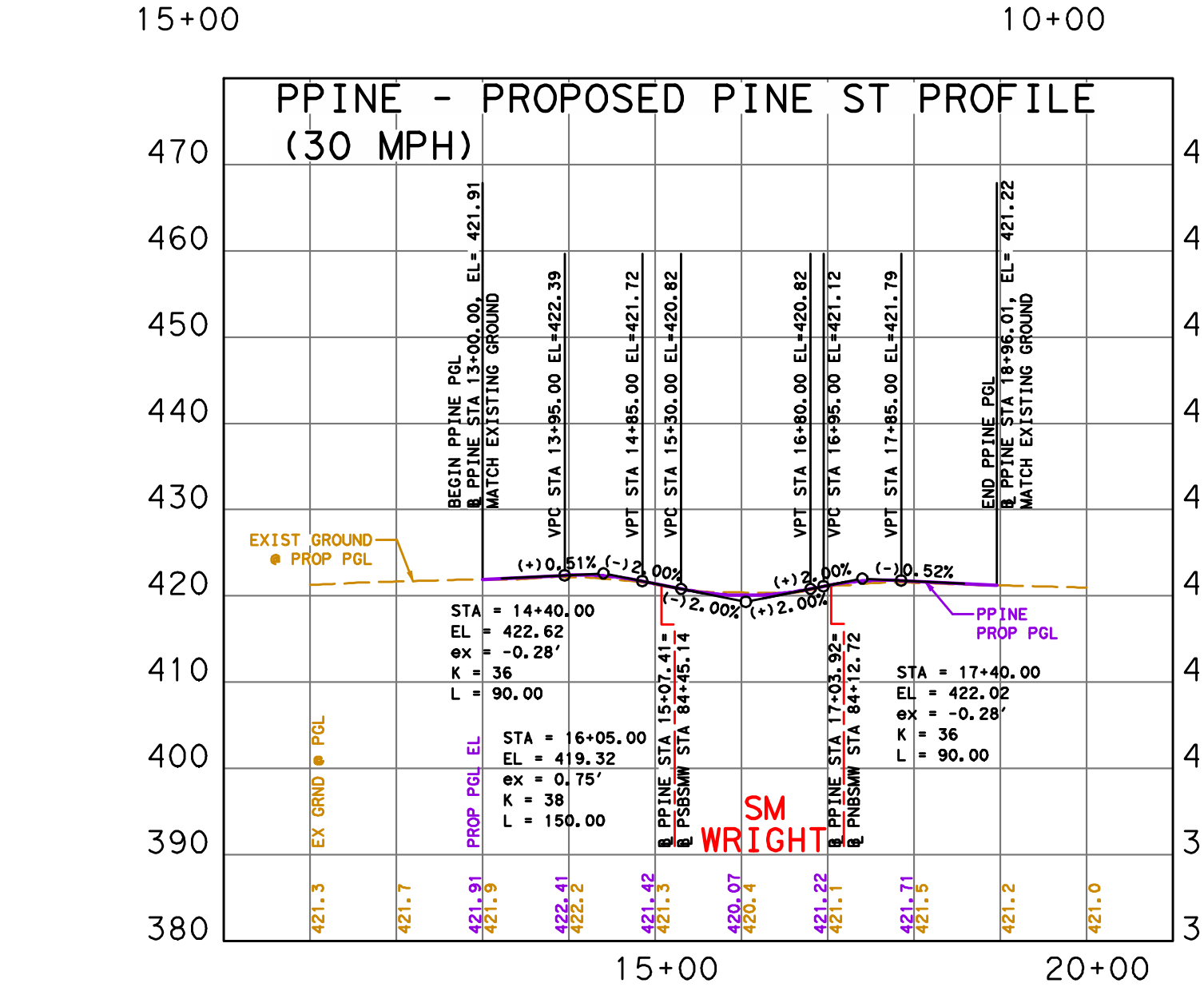

BEGIN PRNXPEN PGL
ASSUME TX-54 5.46' BRIDGE DEPTH
ASSUME 7.50' BRIDGE DEPTH
EXISTING U-TURN
EXISTING LAMAR ST
EXISTING LAMAR ST, EL=418.2
STA = 19+75.00
EL = 422.43
ex = 8.04'
K = 66
L = 650.00
STA = 25+00.00
EL = 448.68
ex = -4.50'
K = 44
L = 400.00
STA = 30+50.00
EL = 426.68
ex = 2.96'
K = 68
L = 400.00
(-)14.90%
(+)15.00%
(-)14.00%
(-)4.00%
(+)1.92%
PRNXPEN PROP PGL
EXIST GROUND
PROP PGL
END PRNXPEN PGL
15+00
20+00
25+00
30+00
35+00

PRELIMINARY
SUBJECT TO CHANGE

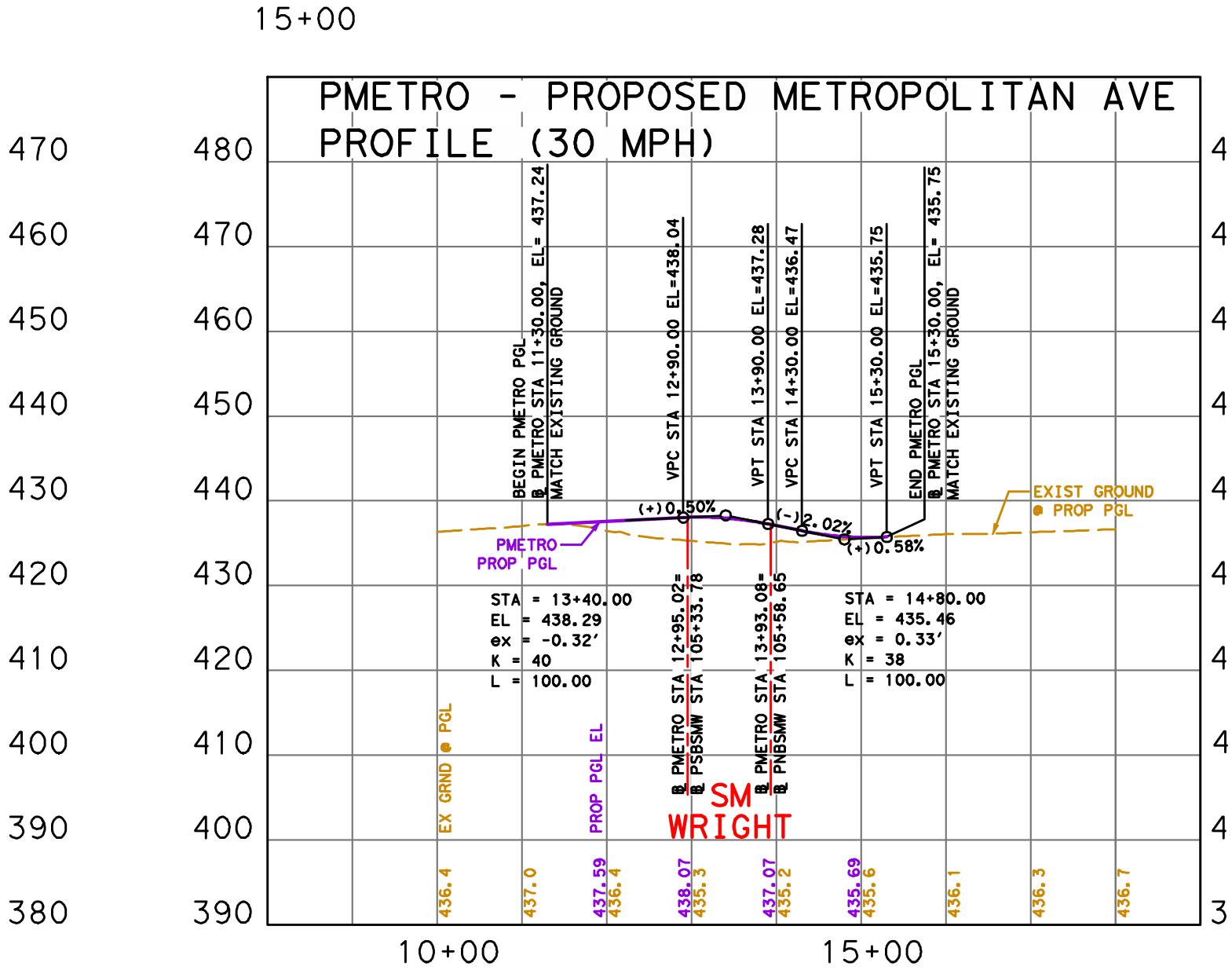
PRNXMLK - PROPOSED NB CONNECTOR (TO MARTIN LUTHER KING JR BLVD) PROFILE (30 MPH)


BEGIN PRNXMLK PGL
VPT STA 13+75.00 EL=433.70
END PRNXMLK PGL
STA = 12+85.00
EL = 430.16
ex = 0.90'
K = 45
L = 180.00
(+)0.05%
(+)13.93%
PRNXMLK PROP PGL
EXIST GROUND
PROP PGL
10+00
15+00

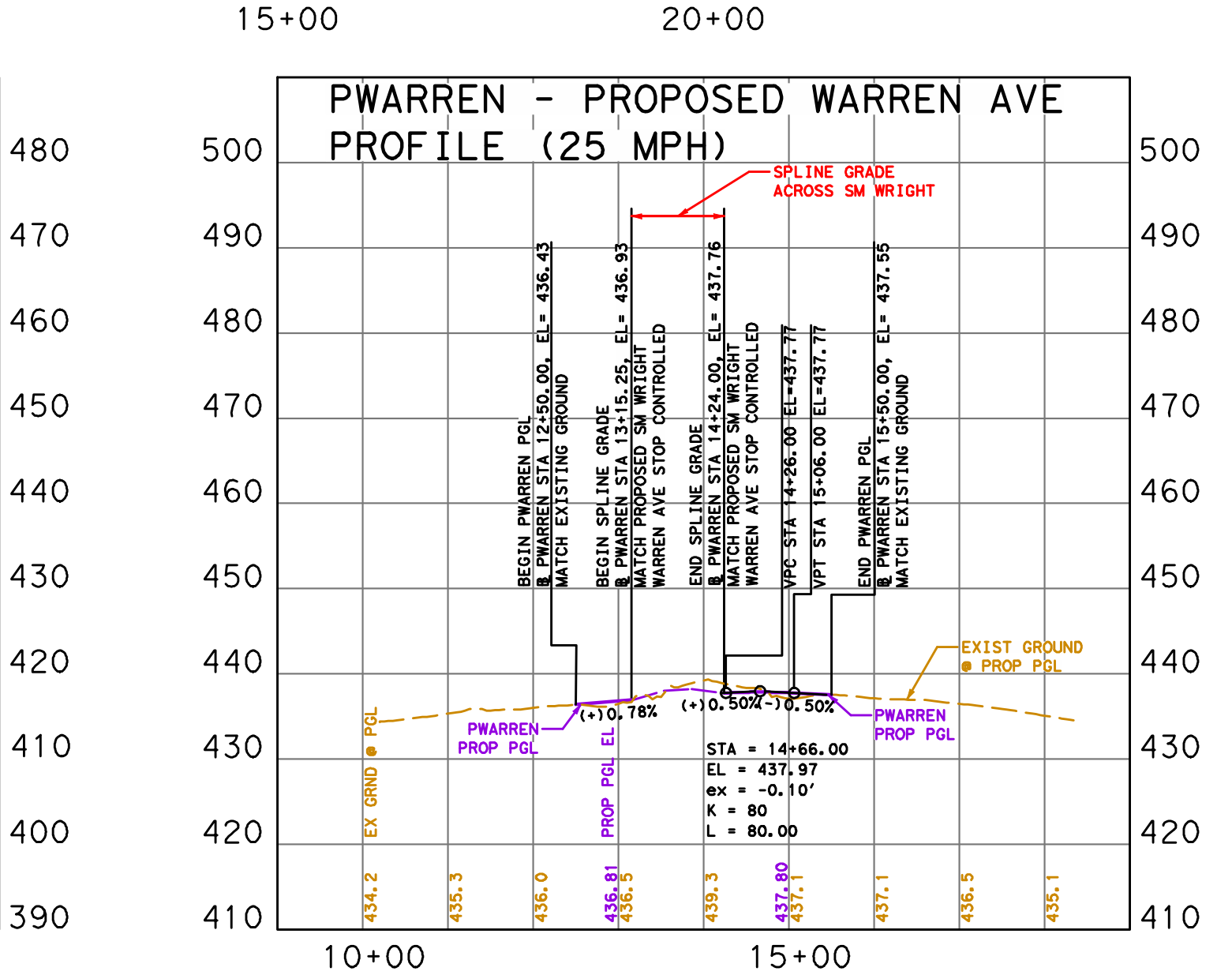
PPINE - PROPOSED PINE ST PROFILE (30 MPH)


BEGIN PPINE PGL
END PPINE PGL
STA = 14+40.00
EL = 422.62
ex = -0.28'
K = 36
L = 90.00
STA = 16+05.00
EL = 419.32
ex = 0.75'
K = 38
L = 150.00
STA = 17+40.00
EL = 422.02
ex = -0.28'
K = 36
L = 90.00
(+)0.51%
(-)2.00%
(+)2.00%
(-)0.52%
PPINE PROP PGL
EXIST GROUND
PROP PGL
SM WRIGHT
15+00
20+00

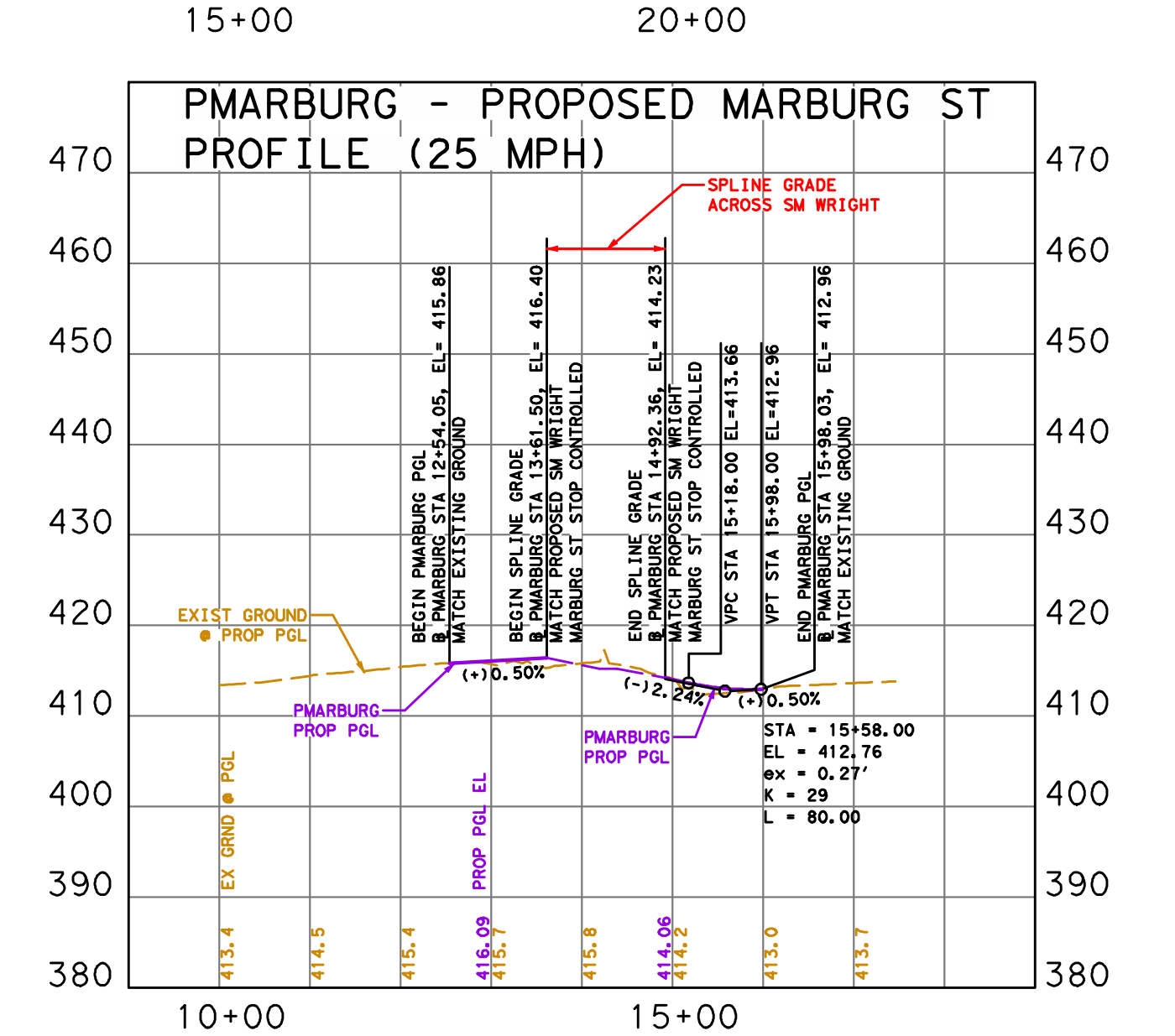
PMETRO - PROPOSED METROPOLITAN AVE PROFILE (30 MPH)


BEGIN PMETRO PGL
END PMETRO PGL
STA = 13+40.00
EL = 438.29
ex = -0.32'
K = 40
L = 100.00
STA = 14+80.00
EL = 435.46
ex = 0.33'
K = 38
L = 100.00
(+)0.50%
(-)2.02%
(+)0.58%
PMETRO PROP PGL
EXIST GROUND
PROP PGL
SM WRIGHT
10+00
15+00

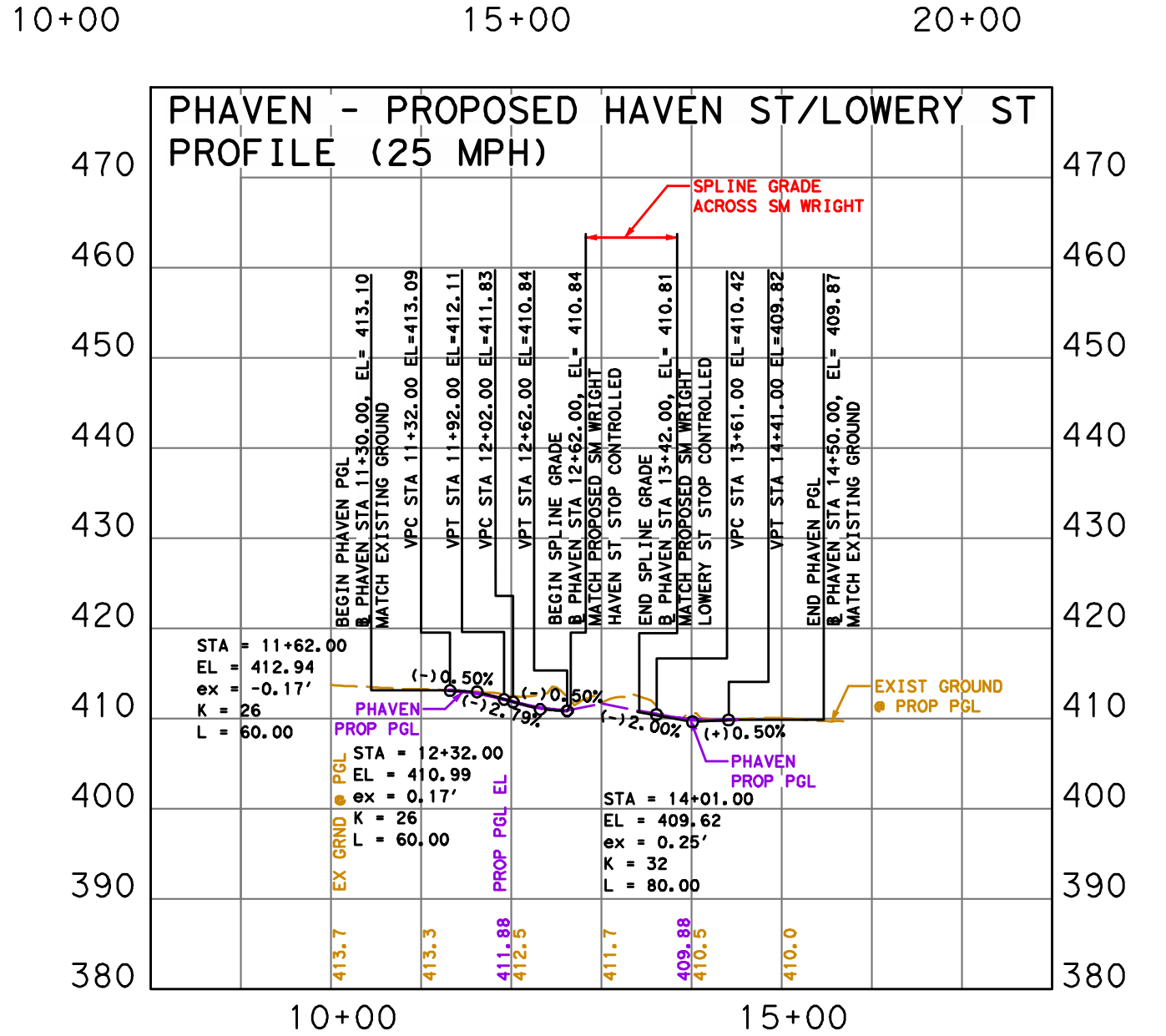
PWARREN - PROPOSED WARREN AVE PROFILE (25 MPH)


SPLINE GRADE ACROSS SM WRIGHT
BEGIN PWARREN PGL
BEGIN SPLINE GRADE
END SPLINE GRADE
END PWARREN PGL
STA = 14+66.00
EL = 437.97
ex = -0.10'
K = 80
L = 80.00
(+)0.78%
(+)0.50%
(-)0.50%
PWARREN PROP PGL
EXIST GROUND
PROP PGL
10+00
15+00

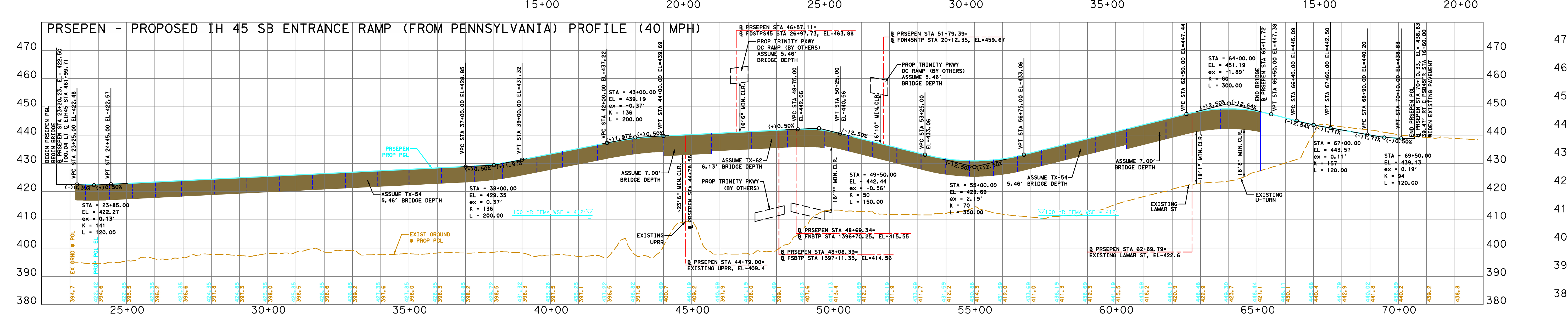
PMARBURG - PROPOSED MARBURG ST PROFILE (25 MPH)


SPLINE GRADE ACROSS SM WRIGHT
BEGIN PMARBURG PGL
BEGIN SPLINE GRADE
END SPLINE GRADE
END PMARBURG PGL
STA = 15+58.00
EL = 412.76
ex = 0.27'
K = 29
L = 80.00
(+)0.50%
(-)2.24%
(+)0.50%
PMARBURG PROP PGL
EXIST GROUND
PROP PGL
10+00
15+00

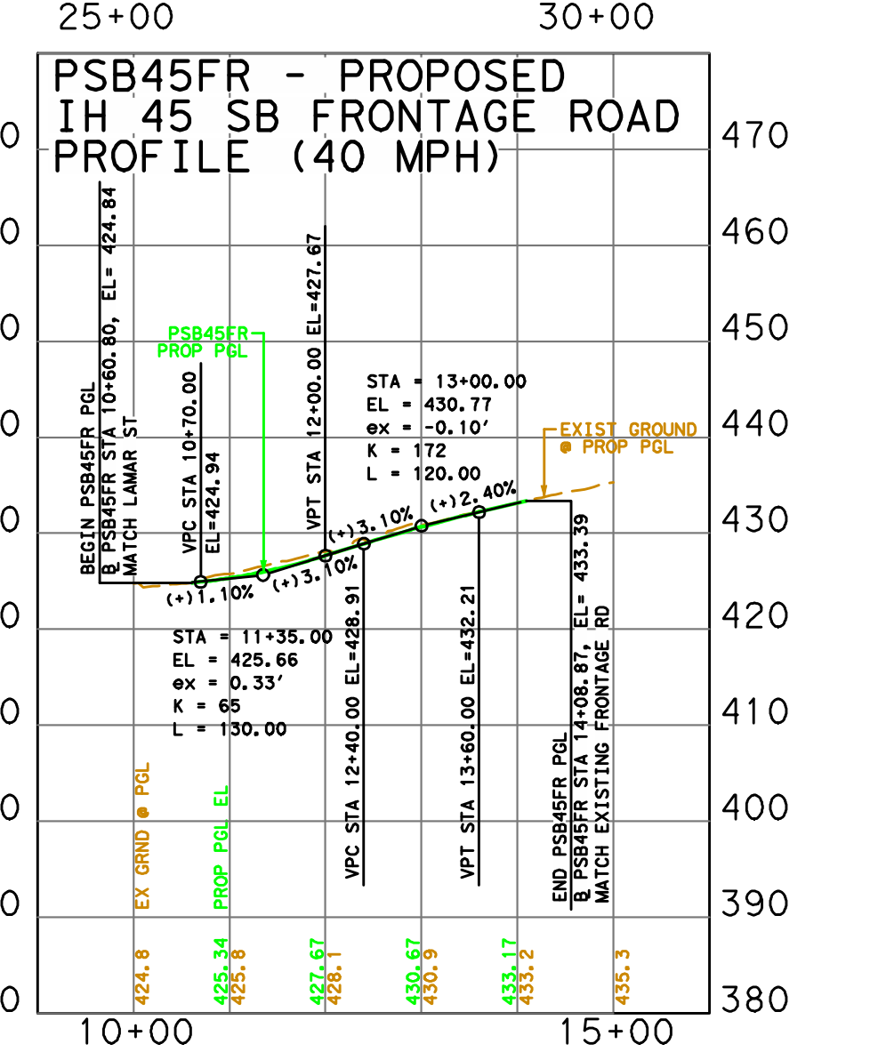
PHAVEN - PROPOSED HAVEN ST/LOWERY ST PROFILE (25 MPH)


SPLINE GRADE ACROSS SM WRIGHT
BEGIN PHAVEN PGL
END PHAVEN PGL
STA = 11+62.00
EL = 412.94
ex = -0.17'
K = 26
L = 60.00
STA = 12+32.00
EL = 410.99
ex = 0.17'
K = 26
L = 60.00
STA = 14+01.00
EL = 409.62
ex = -0.25'
K = 32
L = 80.00
(-)0.50%
(-)2.78%
(-)0.50%
(-)2.00%
(+)0.50%
PHAVEN PROP PGL
EXIST GROUND
PROP PGL
10+00
15+00

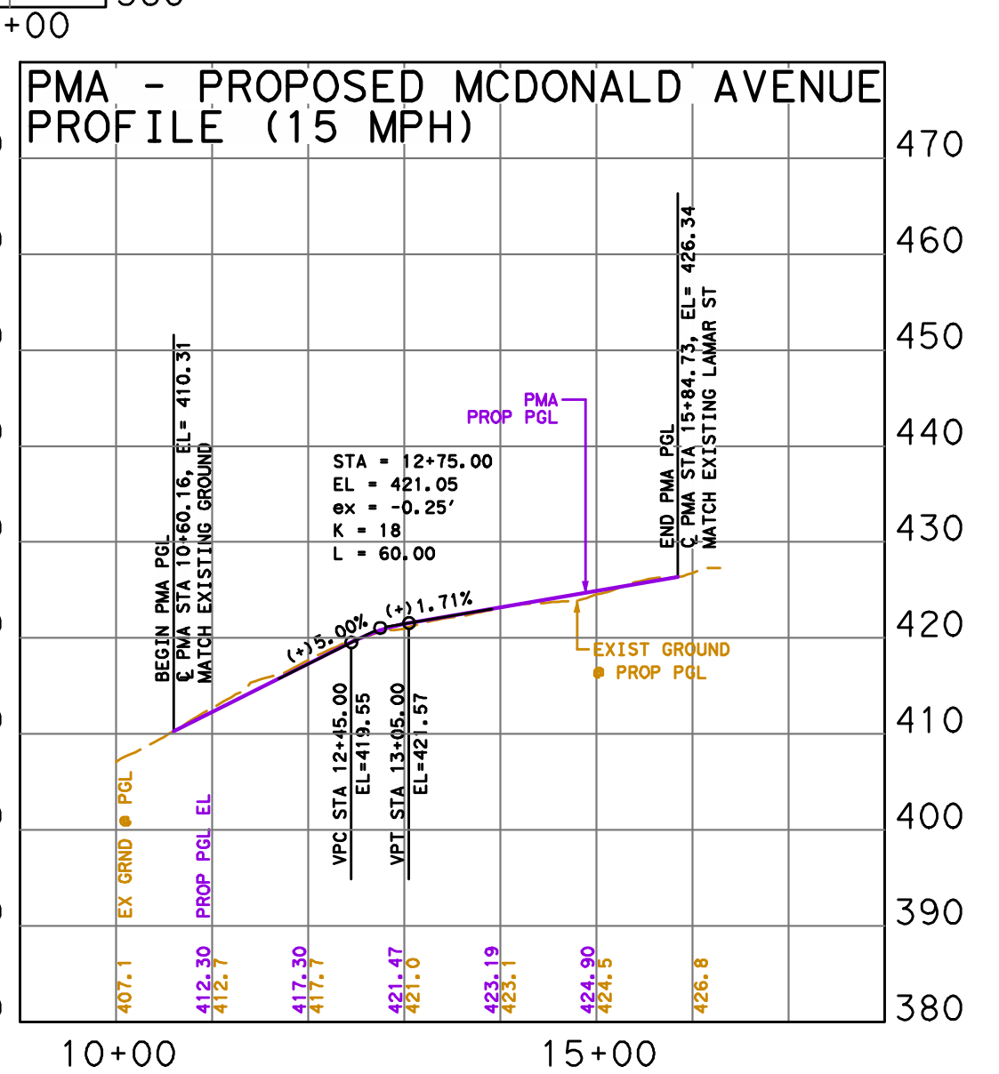
PRSEPEN - PROPOSED IH 45 SB ENTRANCE RAMP (FROM PENNSYLVANIA) PROFILE (40 MPH)


BEGIN PRSEPEN PGL
ASSUME TX-54 5.46' BRIDGE DEPTH
PROP TRINITY PKWY DC RAMP (BY OTHERS) ASSUME 5.46' BRIDGE DEPTH
ASSUME 7.00' BRIDGE DEPTH
ASSUME TX-62 6.13' BRIDGE DEPTH
PROP TRINITY PKWY (BY OTHERS)
EXISTING UPRR
EXISTING LAMAR ST
EXISTING U-TURN
100 YR FEMA WSEL= 412'
STA = 23+85.00
EL = 422.27
ex = 0.13'
K = 141
L = 120.00
STA = 38+00.00
EL = 429.35
ex = 0.37'
K = 136
L = 200.00
STA = 43+00.00
EL = 439.19
ex = -0.37'
K = 136
L = 200.00
STA = 49+50.00
EL = 442.44
ex = -0.56'
K = 50
L = 150.00
STA = 55+00.00
EL = 420.69
ex = 2.19'
K = 70
L = 350.00
STA = 64+00.00
EL = 451.19
ex = -1.89'
K = 60
L = 300.00
STA = 67+00.00
EL = 443.57
ex = 0.11'
K = 157
L = 120.00
STA = 69+50.00
EL = 439.13
ex = 0.19'
K = 94
L = 120.00
PRSEPEN PROP PGL
EXIST GROUND
PROP PGL
25+00
30+00
35+00
40+00
45+00
50+00
55+00
60+00
65+00
70+00

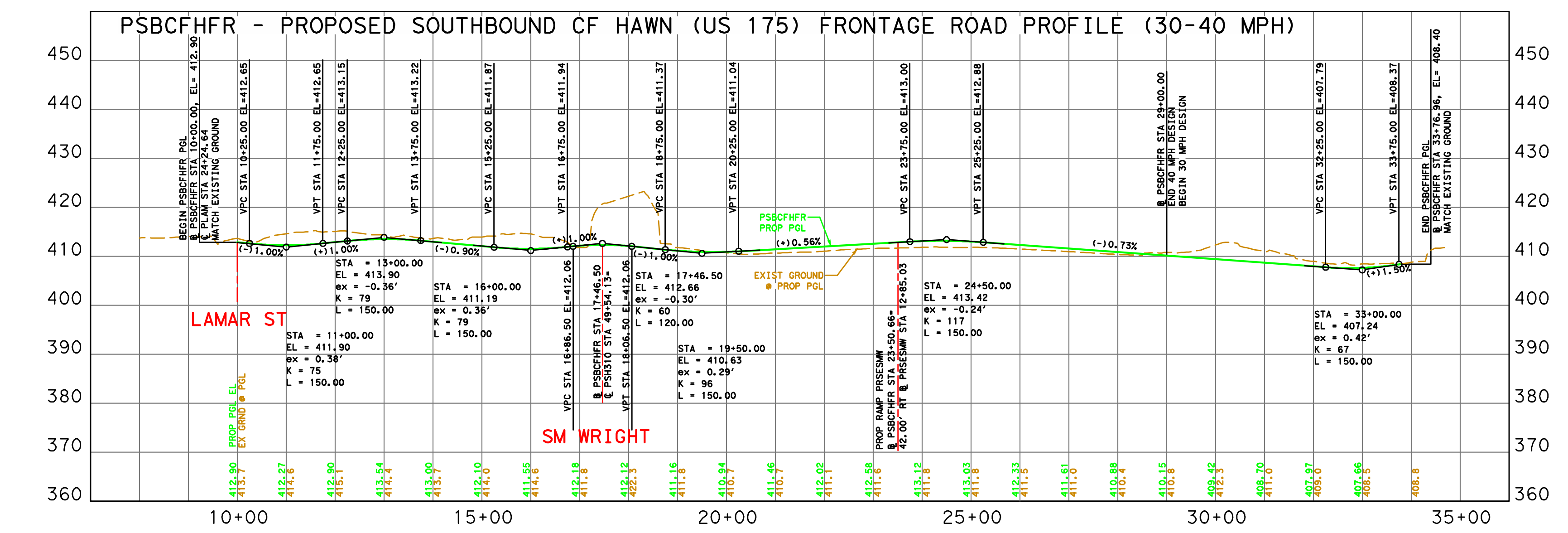
PSB45FR - PROPOSED IH 45 SB FRONTAGE ROAD PROFILE (40 MPH)


BEGIN PSB45FR PGL
END PSB45FR PGL
STA = 11+35.00
EL = 425.66
ex = 0.33'
K = 65
L = 130.00
STA = 13+00.00
EL = 430.77
ex = -0.10'
K = 172
L = 120.00
(+)1.10%
(+)3.10%
(+)2.40%
PSB45FR PROP PGL
EXIST GROUND
PROP PGL
10+00
15+00

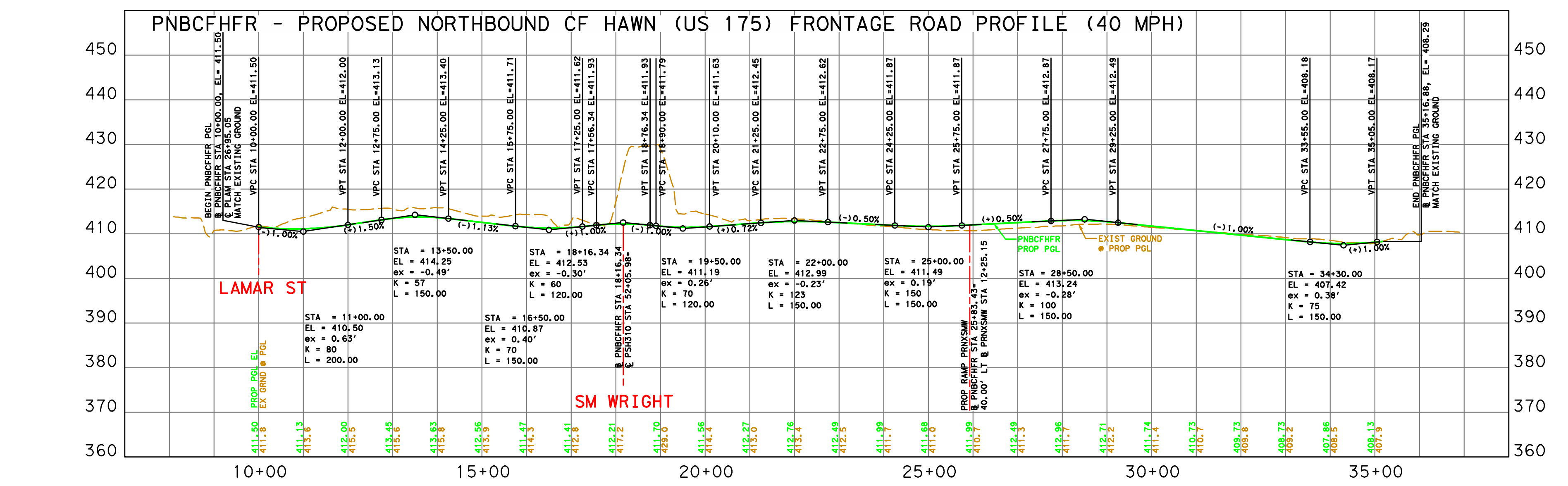
PMA - PROPOSED MCDONALD AVENUE PROFILE (15 MPH)


BEGIN PMA PGL
END PMA PGL
STA = 12+75.00
EL = 421.05
ex = -0.25'
K = 18
L = 60.00
(+)5.00%
(+)1.71%
PMA PROP PGL
EXIST GROUND
PROP PGL
10+00
15+00

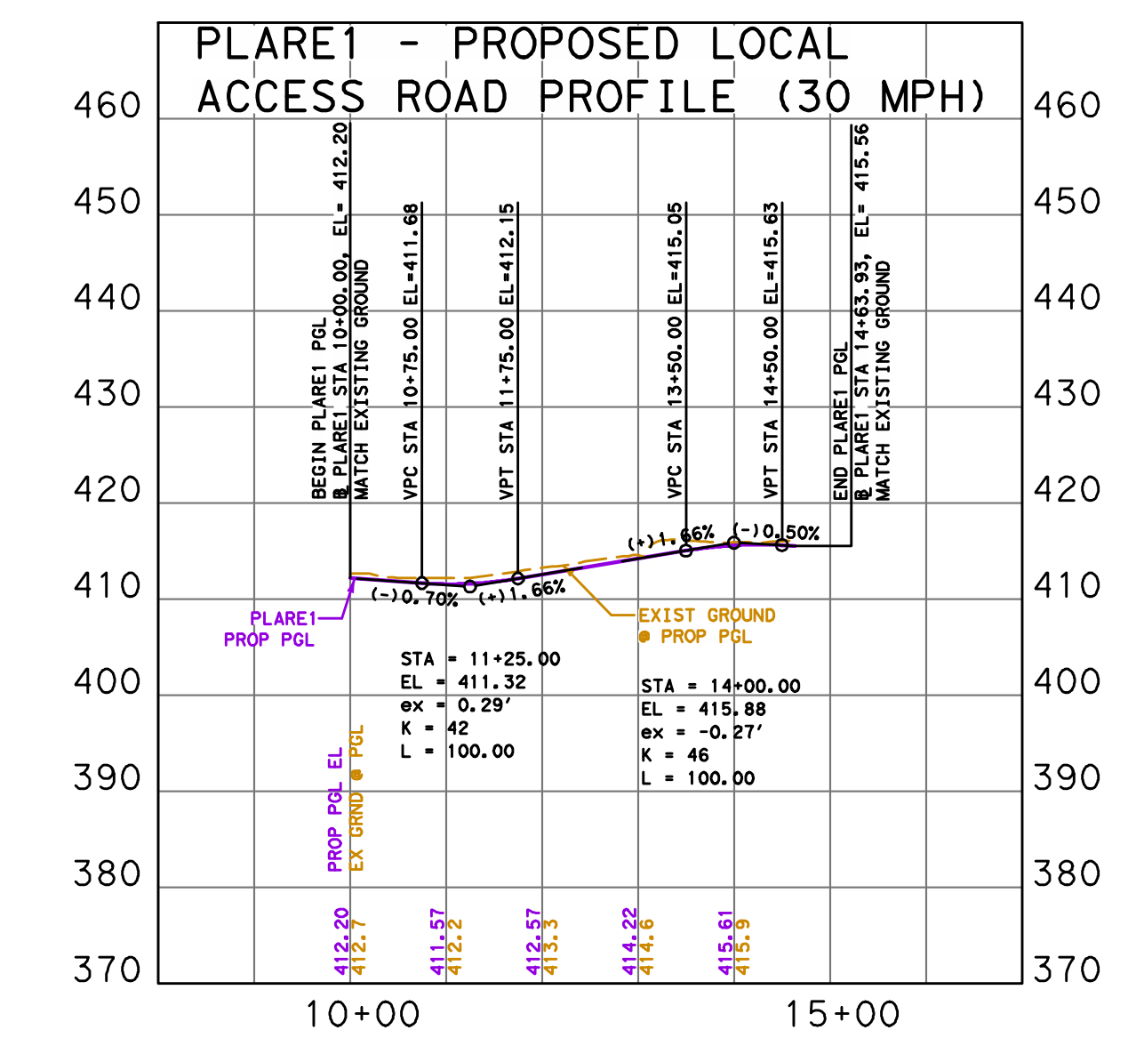
PSBCFHFR - PROPOSED SOUTHBOUND CF HAWN (US 175) FRONTAGE ROAD PROFILE (30-40 MPH)


BEGIN PSBCFHFR PGL
END PSBCFHFR PGL
END 40 MPH DESIGN
BEGIN 30 MPH DESIGN
STA = 11+00.00
EL = 411.90
ex = 0.38'
K = 75
L = 150.00
STA = 13+00.00
EL = 413.90
ex = -0.36'
K = 79
L = 150.00
STA = 16+00.00
EL = 411.19
ex = 0.36'
K = 79
L = 150.00
STA = 17+46.50
EL = 412.66
ex = -0.30'
K = 60
L = 120.00
STA = 19+50.00
EL = 410.63
ex = 0.29'
K = 96
L = 150.00
STA = 24+50.00
EL = 413.42
ex = -0.24'
K = 117
L = 150.00
STA = 33+00.00
EL = 407.24
ex = 0.42'
K = 67
L = 150.00
PSBCFHFR PROP PGL
EXIST GROUND
PROP PGL
LAMAR ST
SM WRIGHT
10+00
15+00
20+00
25+00
30+00
35+00

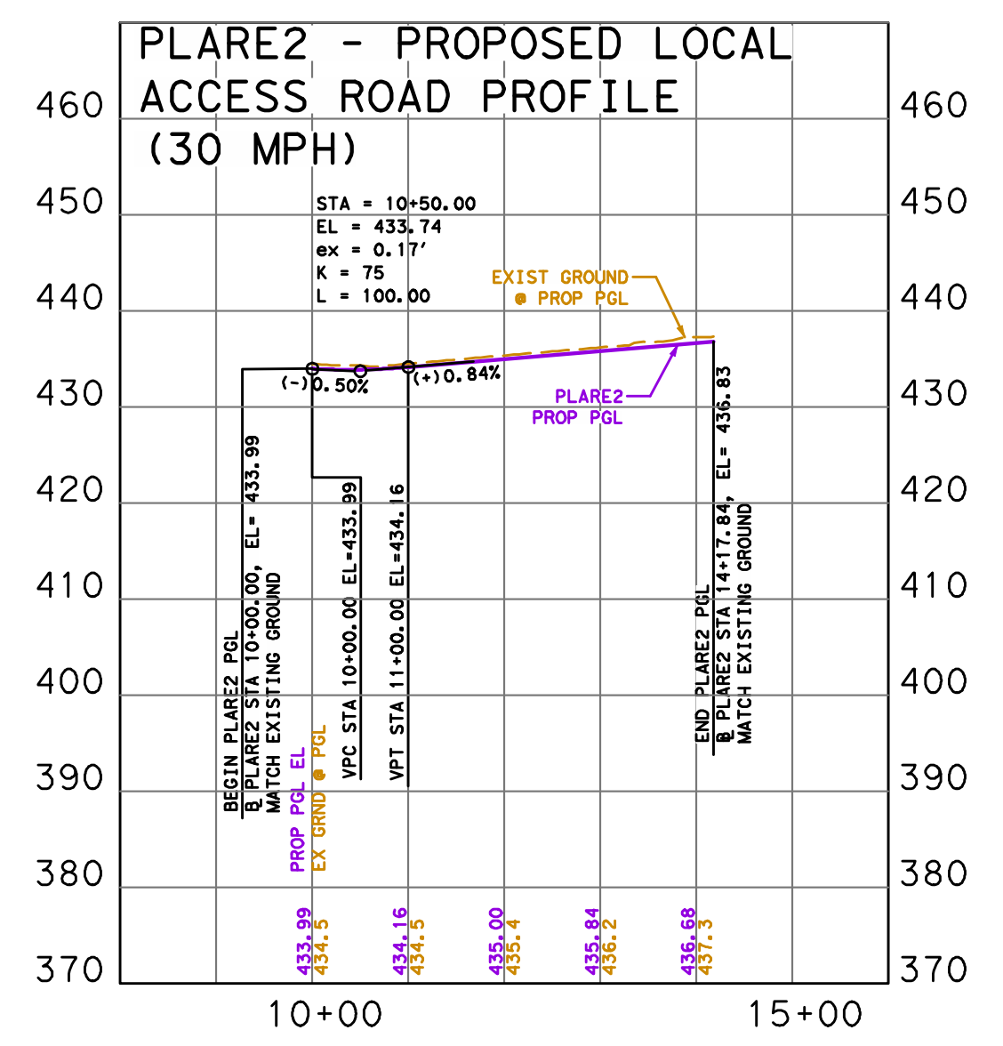
PNBCFHFR - PROPOSED NORTHBOUND CF HAWN (US 175) FRONTAGE ROAD PROFILE (40 MPH)


BEGIN PNBCFHFR PGL
END PNBCFHFR PGL
STA = 11+00.00
EL = 410.50
ex = 0.63'
K = 80
L = 200.00
STA = 13+50.00
EL = 414.25
ex = -0.49'
K = 57
L = 150.00
STA = 16+50.00
EL = 410.87
ex = 0.40'
K = 70
L = 150.00
STA = 18+16.34
EL = 412.53
ex = -0.30'
K = 60
L = 120.00
STA = 19+50.00
EL = 411.19
ex = 0.26'
K = 70
L = 120.00
STA = 22+00.00
EL = 412.99
ex = -0.23'
K = 123
L = 150.00
STA = 25+00.00
EL = 411.49
ex = 0.19'
K = 150
L = 150.00
STA = 28+50.00
EL = 413.24
ex = -0.28'
K = 100
L = 150.00
STA = 34+30.00
EL = 407.42
ex = 0.38'
K = 75
L = 150.00
PNBCFHFR PROP PGL
EXIST GROUND
PROP PGL
LAMAR ST
SM WRIGHT
10+00
15+00
20+00
25+00
30+00
35+00

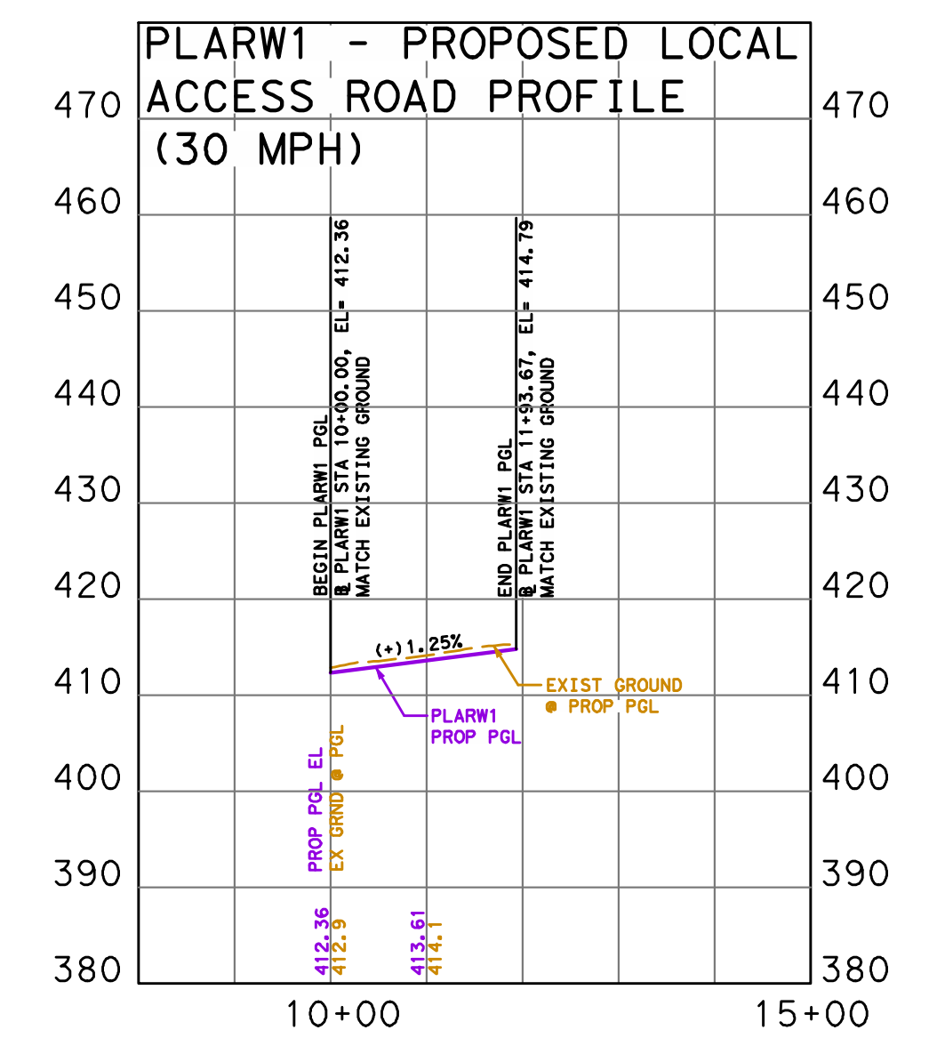
PLARE1 - PROPOSED LOCAL ACCESS ROAD PROFILE (30 MPH)


BEGIN PLARE1 PGL
END PLARE1 PGL
STA = 11+25.00
EL = 411.32
ex = 0.29'
K = 42
L = 100.00
STA = 14+00.00
EL = 415.88
ex = -0.27'
K = 46
L = 100.00
(-)0.70%
(+)1.66%
(+)1.56%
(-)0.50%
PLARE1 PROP PGL
EXIST GROUND
PROP PGL
10+00
15+00

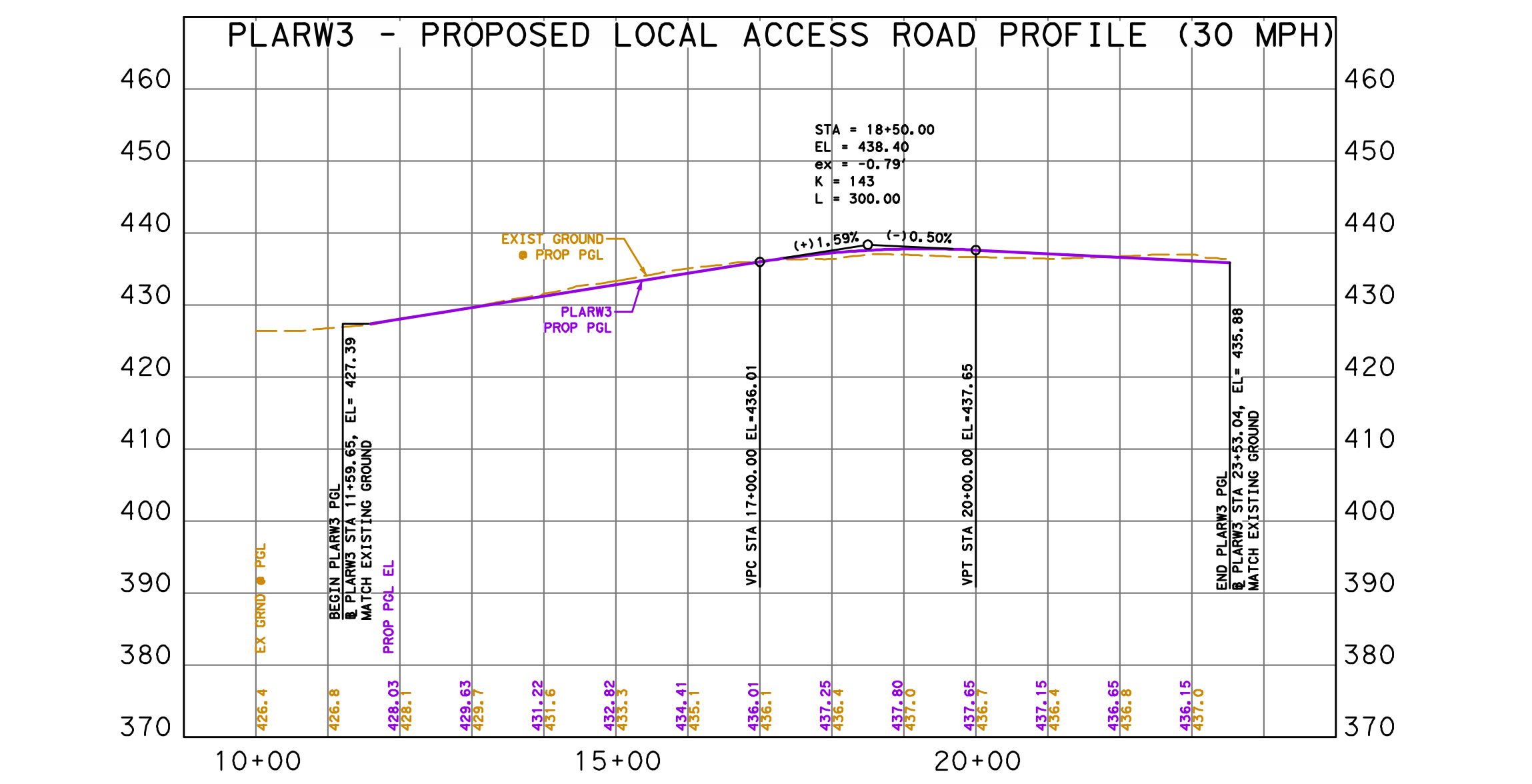
PLARE2 - PROPOSED LOCAL ACCESS ROAD PROFILE (30 MPH)


BEGIN PLARE2 PGL
END PLARE2 PGL
STA = 10+50.00
EL = 433.74
ex = 0.17'
K = 75
L = 100.00
(-)0.50%
(+)0.84%
PLARE2 PROP PGL
EXIST GROUND
PROP PGL
10+00
15+00

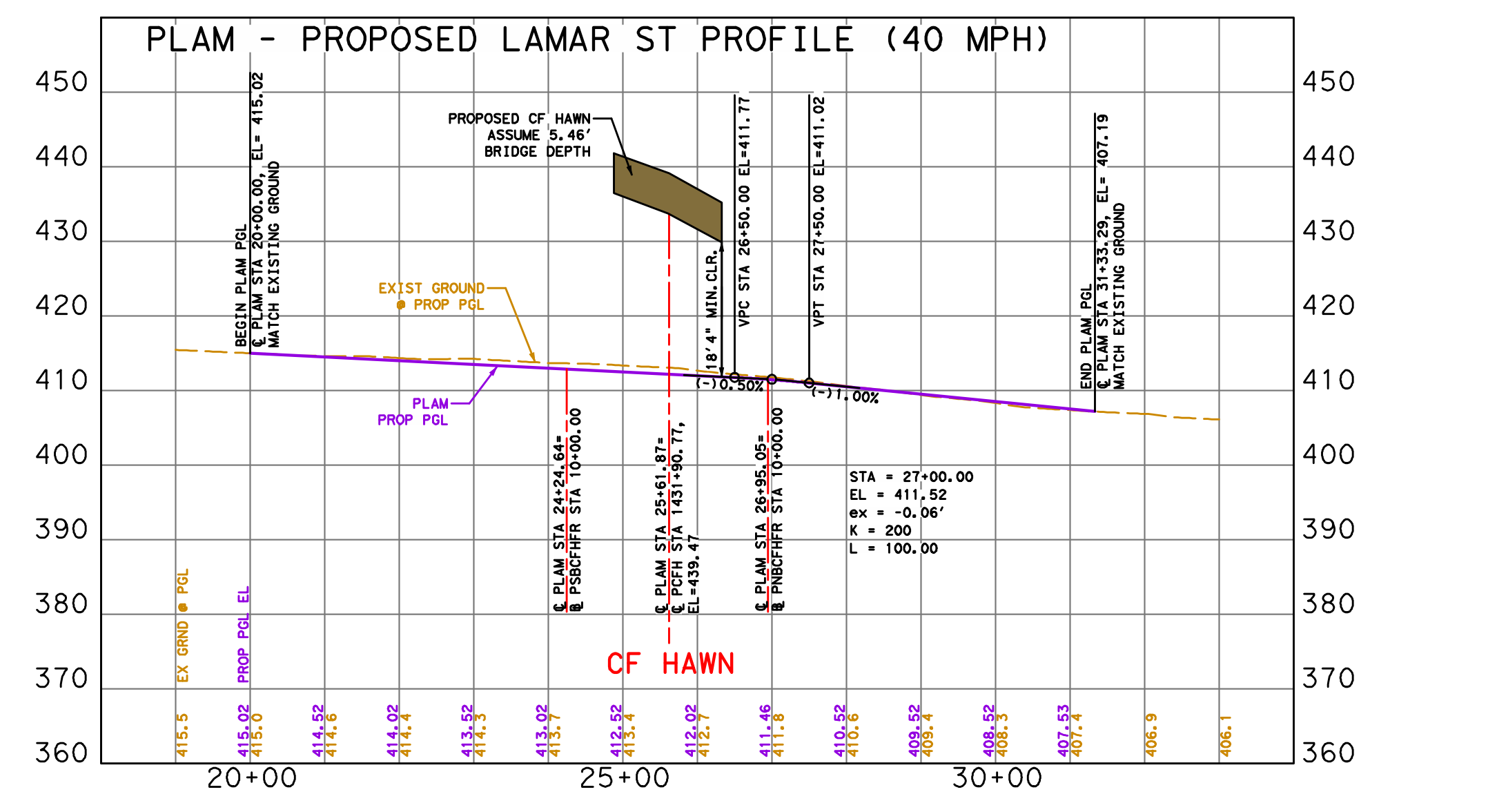
PLARW1 - PROPOSED LOCAL ACCESS ROAD PROFILE (30 MPH)


BEGIN PLARW1 PGL
END PLARW1 PGL
(+)1.25%
PLARW1 PROP PGL
EXIST GROUND
PROP PGL
10+00
15+00

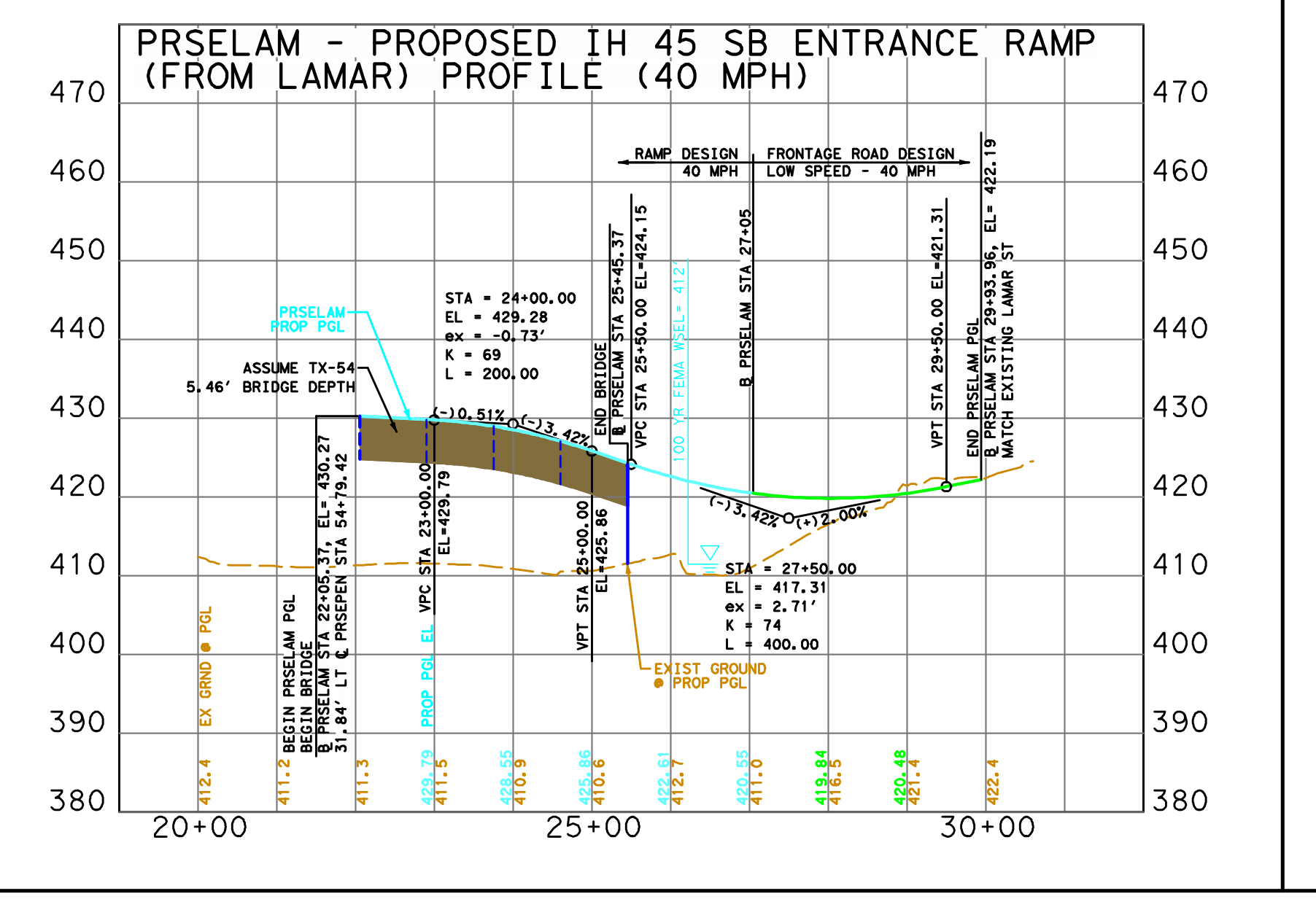
PLARW3 - PROPOSED LOCAL ACCESS ROAD PROFILE (30 MPH)


BEGIN PLARW3 PGL
END PLARW3 PGL
STA = 18+50.00
EL = 438.40
ex = -0.79'
K = 143
L = 300.00
(+)1.59%
(-)0.50%
PLARW3 PROP PGL
EXIST GROUND
PROP PGL
10+00
15+00
20+00

PLAM - PROPOSED LAMAR ST PROFILE (40 MPH)


PROPOSED CF HAWN ASSUME 5.46' BRIDGE DEPTH
BEGIN PLAM PGL
END PLAM PGL
STA = 27+00.00
EL = 411.52
ex = -0.06'
K = 200
L = 100.00
(-)0.50%
(-)1.00%
PLAM PROP PGL
EXIST GROUND
PROP PGL
CF HAWN
20+00
25+00
30+00

PRSELAM - PROPOSED IH 45 SB ENTRANCE RAMP (FROM LAMAR) PROFILE (40 MPH)


RAMP DESIGN 40 MPH
FRONTAGE ROAD DESIGN LOW SPEED - 40 MPH
ASSUME TX-54 5.46' BRIDGE DEPTH
BEGIN PRSELAM PGL
END PRSELAM PGL
STA = 24+00.00
EL = 429.28
ex = -0.73'
K = 69
L = 200.00
STA = 27+50.00
EL = 417.31
ex = 2.71'
K = 74
L = 400.00
(-)0.51%
(-)3.42%
(-)13.42%
(+)2.00%
PRSELAM PROP PGL
EXIST GROUND
PROP PGL
20+00
25+00
30+00

TEXAS DEPARTMENT OF TRANSPORTATION
TxDOT DALLAS DISTRICT
WILLIAM L. HALE, P.E., DISTRICT ENGINEER

DESIGN SCHEMATIC
SM WRIGHT PROJECT
DALLAS COUNTY
CSJ: 0092-01-052, 0197-02-108, 0092-14-081

* FRONTAGE ROAD, CROSS STREET, AND RAMP PROFILES FOUND ON ROLL 4.

LOCATION MAP
NOT TO SCALE
Scale:
Horizontal 1"=200'
Vertical 1"=20'
JUNE 2013
Roll 4 of 4
PRELIMINARY
FOR INTERIM REVIEW ONLY
HALFF ASSOCIATES, INC.
TBPE FIRM #F-312
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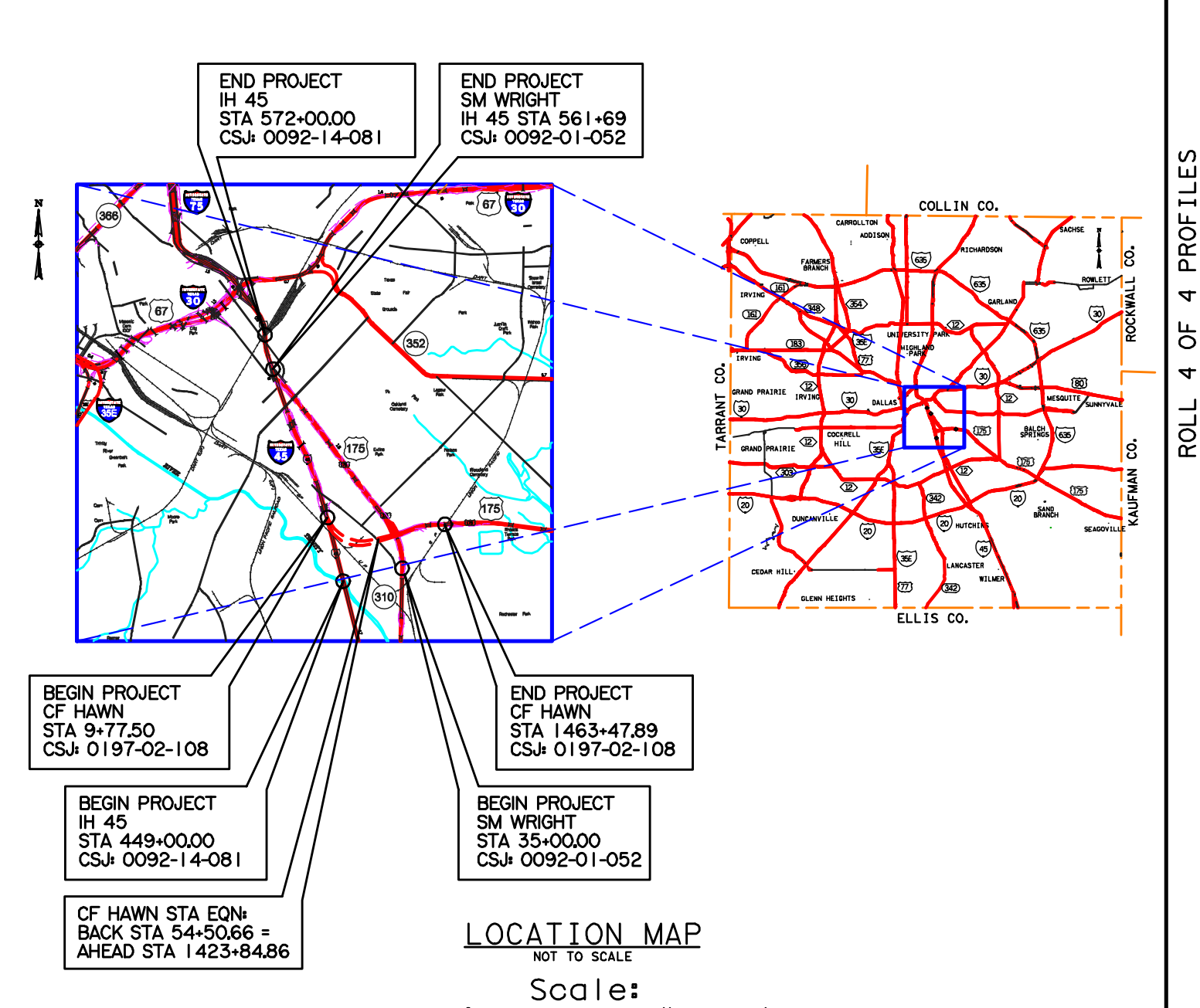
ROLL 4 OF 4 PROFILES


END PROJECT
IH 45
STA 572+00.00
CSJ: 0092-14-081
END PROJECT
SM WRIGHT
IH 45 STA 561+69
CSJ: 0092-01-052
BEGIN PROJECT
CF HAWN
STA 9+77.50
CSJ: 0197-02-108
END PROJECT
CF HAWN
STA 1463+47.89
CSJ: 0197-02-108
BEGIN PROJECT
IH 45
STA 449+00.00
CSJ: 0092-14-081
BEGIN PROJECT
SM WRIGHT
STA 35+00.00
CSJ: 0092-01-052
CF HAWN STA EQN:
BACK STA 54+50.66 =
AHEAD STA 1423+84.86