NOT FOR CONSTRUCTION

CLEAR CREEK ROAD IMPROVEMENTS
(FROM CLARE ROAD TO K-7 HIGHWAY)
CITY OF SHAWNEE, KANSAS

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	CROSS SECTIONS (CART PATH)
	CROSS SECTIONS (TRAIL CONNECTION)

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11250 Corporate Avenue
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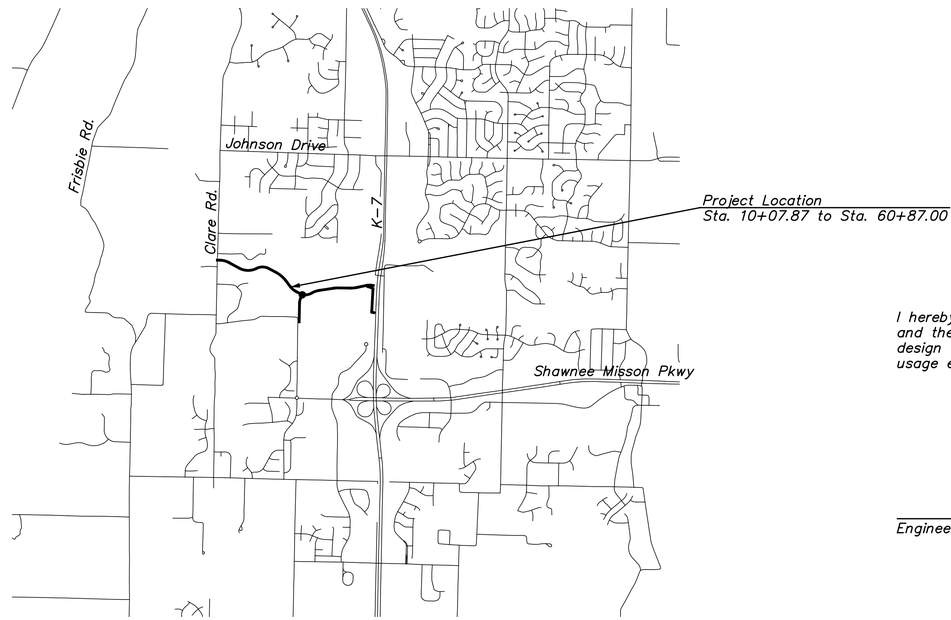

LOCATION MAP
NOT TO SCALE

I hereby certify that this project has been designed, and these plans prepared, to meet or exceed the design criteria of Shawnee, Kansas, in current usage except as indicated below.

Engineer

City Engineer

Approved

Date

Adopted this ____ day of _____, __ 2016

Entry No._____

Project No. _____ C.D. No. _____

Sheet __ of ___ File No. _____

UTILITY CONTACTS

BEFORE YOU
DIG – DRILL – BLAST
Call 1-800-344-7233
KANSAS ONE CALL SYSTEM, INC.

Legend

BM	Benchmark
BORING	Boring Hole
CFB	Cable @ Face of Building
LPCB	Light Pole with Concrete Base
EM	Drain Inlet
HYD	Electric Meter
	Fire Hydrant
	Flag Pole
GA	Guy Anchor
GMH	Gas Manhole
GFB	Gas @ Face of Building
GC	Gas Filler Cap
GR	Gas Riser
GM	Gas Meter
GUY	Guy Pole
GREG	Gas Regulator
	Grave Marker
GV	Gas Valve
	Gas Vent Pipe
CATV	Buried Cable TV
G	Buried Gas
	Construction Limit (C.L.)
K.C.P&L	Kansas City Power & Light Manhole
	Light Pole
SIGN	Lighted Sign
MB	Mailbox
MH	Manhole
PB	Pipe Ballard
PFB	Power @ Face of Building
PIV	Post Indicator Valve
PM	Parking Meter
PP	Power Pole
PL	Power Pole with Light
PPT	Power Pole & Transformer
P RISER	Power Riser
	Pay Telephone
RD	Roof Drain
SCO	Sewer Cleanout
SCV	Sprinkler Control Valve
	Satellite Dish
SAN	Sewer Manhole
STORM	Storm Manhole
UP	Buried Power
P	Overhead Power
W	Buried Water
	Sewer Vent Pipe
S.W.B.	Southwestern Bell Telephone Manhole
PED	Telephone Pedestal
TFB	Telephone @ Face of Building
TMH	Telephone Manhole
	Telephone Pole
T RISER	Telephone Riser
	Traffic Signal Pole
SIGN	Traffic Sign
TVPED	Television Pedestal
UMH	Unknown Manhole
	Water Face Building
WM	Water Meter
WM	Water Meter Manhole
WV	Water Valve
YL	Yard Light
S	Buried Sewer
T	Buried Telephone
	Existing TreeLine
X	Existing Fence

DESIGN CRITERIA

Classification
Design Speed 35 (MPH)
Min. SSD (crest)
Min. K 29 (crest)
Min. K without Lighting 49 (sag)
Max. Grade 10%
Min. Grade 1%
Curb Return Radii

LAYOUT: MODEL | BY: jadams | DATE: 13-JUL-2016 5:41:51 PM
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CLEAR CREEK PARKWAY
CITY OF SHAWNEE, KANSAS

RECAPITULATION OF QUANTITIES

SHAFER, KLINE & WARREN
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Designed By: PRP
Drawn By: JCK/JAA
Checked By: HDL
Issue Date: JULY 2016

NO.	DATE	REVISIONS	BY	APP'D
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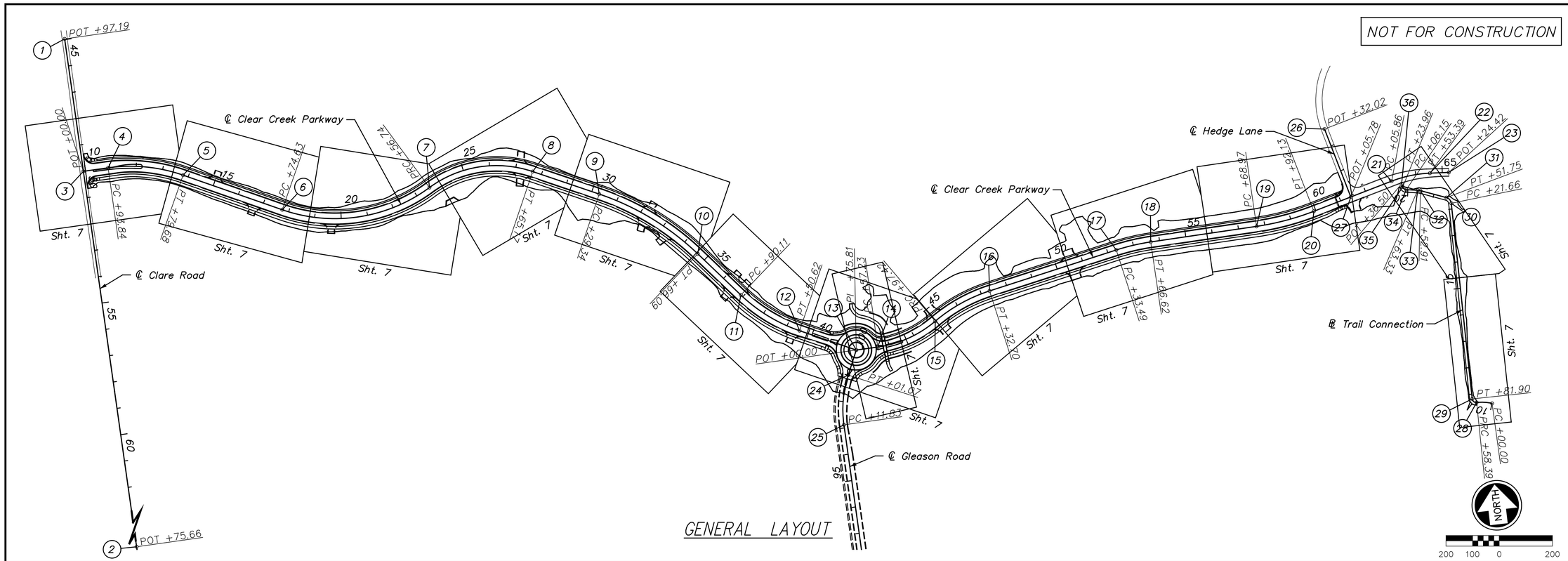


GENERAL LAYOUT

REFERENCE TIES

Pt. No.	Northing	Easting	Station	Description
Clare Road				
1	266121.5260	2200933.3116	44+97.19	POT
2	263444.0147	2201004.9705	71+75.66	POT
Clear Creek Parkway				
3	265618.8960	2200946.7636	10+00.00	POT
4	265621.4066	2201040.5743	10+93.84	PC Curve 1
5	265561.9835	2201317.4115	13+79.68	PT Curve 1
6	265390.3238	2201673.1004	17+74.63	PC Curve 2
7	265410.1585	2202232.3000	23+56.74	PRC
8	265425.8880	2202624.8776	27+65.17	PT Curve 3
9	265313.2605	2202863.8289	30+29.34	PC Curve 4
10	265048.0004	2203206.4352	34+66.09	PT Curve 4
11	264875.7373	2203349.6508	36+90.11	PC Curve 5
12	264717.2409	2203553.8196	39+50.62	PT Curve 5
13	264620.7055	2203757.2714	41+75.81	PI
14	264622.7852	2203838.6648	42+57.23	PC Curve 6
15	264694.6617	2204064.5083	44+97.42	PRC
16	264784.5402	2204280.3137	47+32.70	PT Curve 7
17	264883.3274	2204771.2589	52+33.49	PC Curve 8
18	264898.6338	2204903.3590	53+66.62	PT Curve 8
19	264911.5648	2205305.4938	57+68.97	PC Curve 9
20	264943.4621	2205525.8958	59+92.13	PT Curve 9
21	265022.6932	2205829.4619	63+05.86	PC Curve 10
22	265036.0960	2205975.7191	64+53.39	PT Curve 10
23	265030.9487	2206046.5550	65+24.42	POT
Gleason Road				
24	264530.5799	2203716.4778	99+01.07	PT Curve 11
25	264346.6618	2203679.2442	97+11.83	PC Curve 11
Hedge Lane				
26	265245.9713	2205600.9084	50+32.02	POT
27	264981.0849	2205670.0440	53+05.78	POT
Trail Connection				
28	264159.5970	2206052.1686	10+58.39	PRC
29	264174.7045	2206037.3265	10+81.90	PT Curve 12
30	264914.4413	2206042.6699	18+21.66	PC Curve 13
31	264937.8891	2206026.8159	18+51.75	PT Curve 13
32	264974.8956	2205932.6645	19+52.91	PC Curve 14
33	264977.6737	2205922.6363	19+63.33	PT Curve 14
34	264984.7486	2205880.4114	20+06.15	PC Curve 15
35	264996.3065	2205868.2432	20+23.96	PT Curve 15
36	265008.5561	2205865.5370	20+36.50	POT

PROJECT BENCHMARKS

TBM #1
Exist spike step in S side power pole 420' +/– S of 6020 Clare Rd. on E side of Clare Rd.
N XXX
E XXX
Elev. 929.43

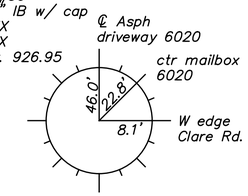
TBM #2
"a" cut on ctr FF of curb inlet on S side of Clear Creek Parkway @ intersection of Hedge Lane Terr.
N XXX
E XXX
Elev. 835.57

TBM #3
"a" cut on ctr W side on conc pad to brick restroom building
N XXX
E XXX
Elev. 839.99

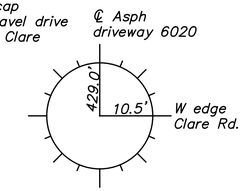
TBM #4
80 pny spike step in N side of E pole of cross country power line 1st pole S of proposed Clear Creek Parkway
N XXX
E XXX
Elev. 872.99

CONTROL POINTS

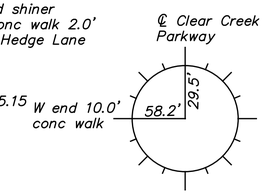
CP #50
1/2" IB w/ cap
N XX
E XX
Elev. 926.95



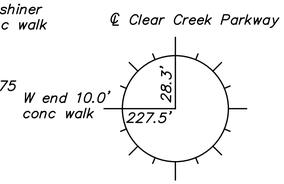
CP #51
1/2" IB w/ cap
In line w/ gravel drive on E side of Clare
N XX
E XX
Elev. 926.45



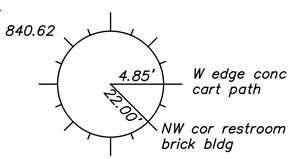
CP #52
mag and shiner
in ctr conc walk 2.0' W to ℄ Hedge Lane Terrace
N XX
E XX
Elev. 835.15



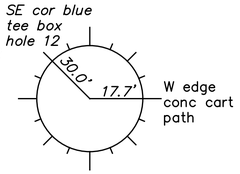
CP #53
mag and shiner
in ctr conc walk @ PC
N XX
E XX
Elev. 838.75



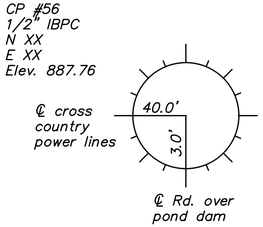
CP #54
1/2" IBPC
N XX
E XX
Elev. 840.62



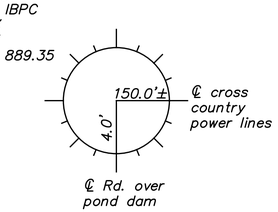
CP #55
1/2" IBPC
N XX
E XX
Elev. 858.52



CP #56
1/2" IBPC
N XX
E XX
Elev. 887.76



CP #57
1/2" IBPC
N XX
E XX
Elev. 889.35



NO.	DATE	REVISIONS	BY	APP'D
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CLEAR CREEK PARKWAY
CITY OF SHAWNEE, KANSAS

GENERAL LAYOUT & REFERENCE POINTS

150561-010

SHEET NO.
3 OF 106

LAYOUT: MODEL | BY: jadams | DATE: 13-JUL-2016 5:42:01 PM
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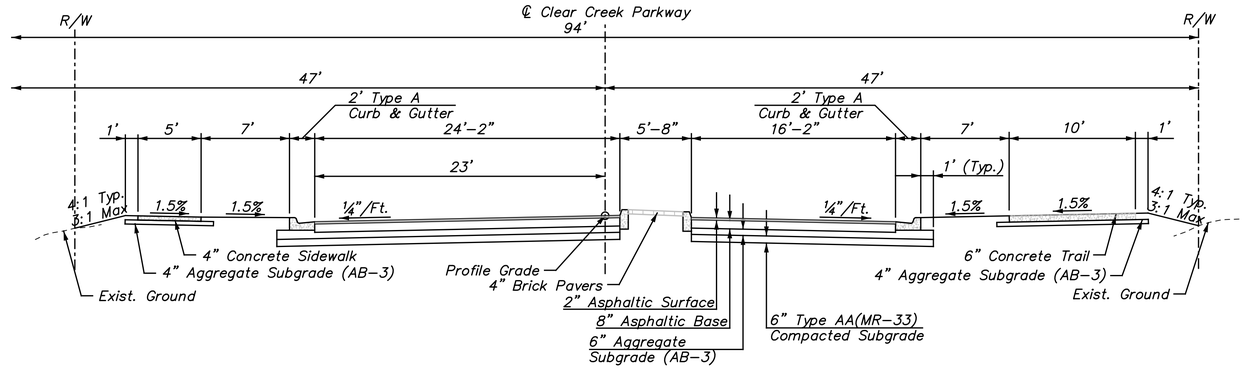
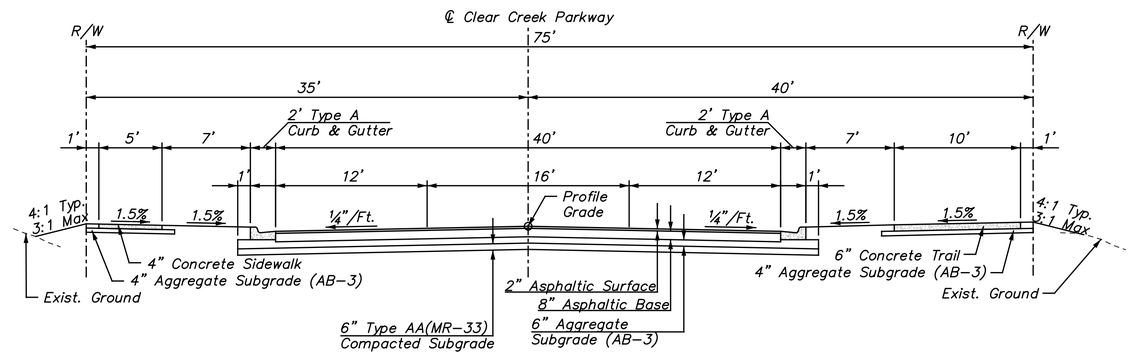
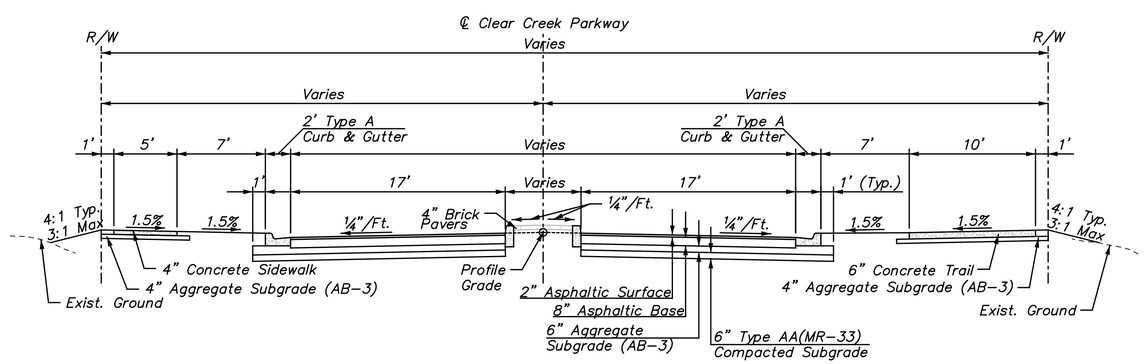


Typical Section–Clear Creek Parkway @ Clare Road
Not to Scale
Sta. 10+07.86 to Sta. 12+23.00



Typical Section–Clear Creek Parkway
Not to Scale
Sta. 12+23.00 to Sta. 40+00.07
Sta. 43+53.07 to Sta. 60+87.00



Typical Section–Clear Creek Parkway At Roundabout Splitter Islands
Not to Scale
Sta. 40+00.07 to Sta. 41+00.81
Sta. 42+50.81 to Sta. 43+53.07

NO.	DATE	REVISIONS	BY	APP'D
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CLEAR CREEK PARKWAY
CITY OF SHAWNEE, KANSAS

TYPICAL SECTIONS
ASPHALT OPTION (1)

150561-010

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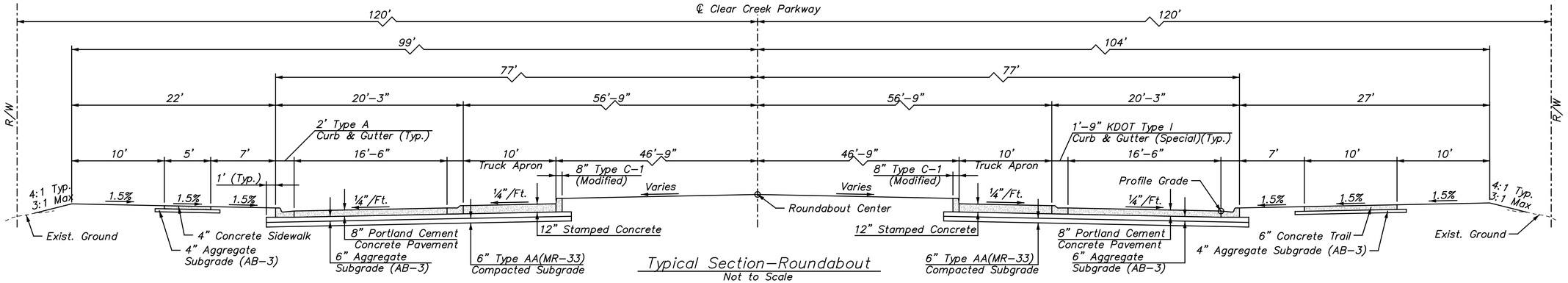
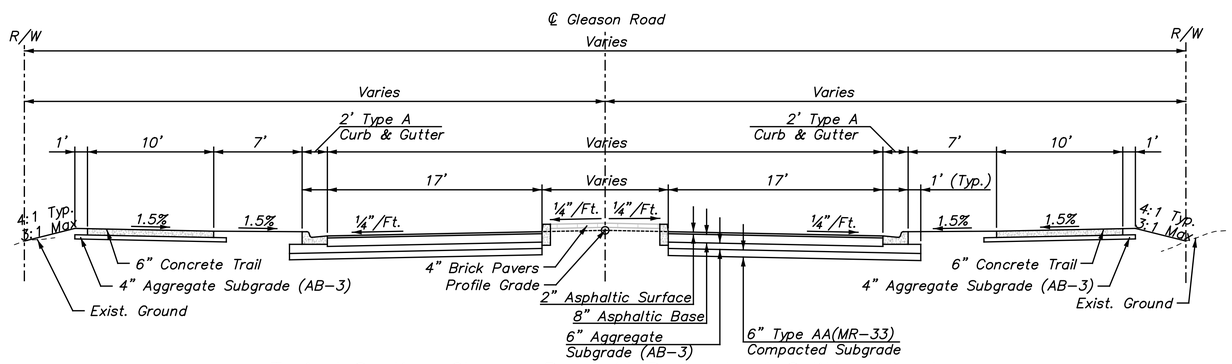
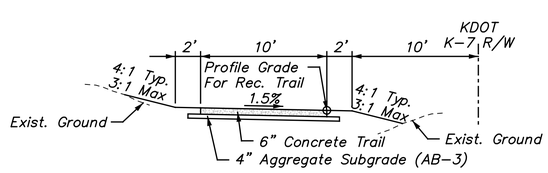


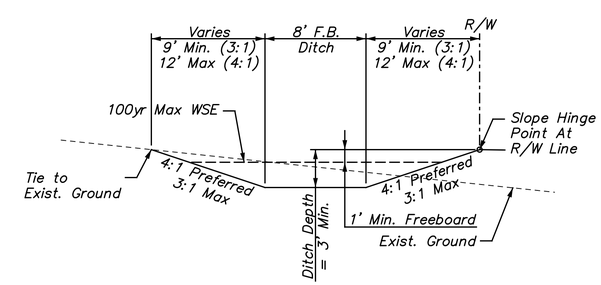
Typical Section–Roundabout
Not to Scale
Sta. 41+00.81 to Sta. 42+50.81



Typical Section–Gleason Road At Roundabout Splitter Islands
Not to Scale
Sta. 98+86.86 to Sta. 99+25.00



Typical Section–Concrete Trail/Golf Cart Path
Not to Scale
Sta. xx+xx.xx to Sta. xx+xx.xx



Typical Section–Fill Slope Ditch
Not to Scale
(Only Used Where Needed For Drainage
And/Or to Protect the Roadway Fill Slope)
Sta. xx+xx.xx to Sta. xx+xx.xx

NO.	DATE	REVISIONS	BY	APP'D
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CLEAR CREEK PARKWAY
CITY OF SHAWNEE, KANSAS

TYPICAL SECTIONS
ASPHALT OPTION (2)

150561–010

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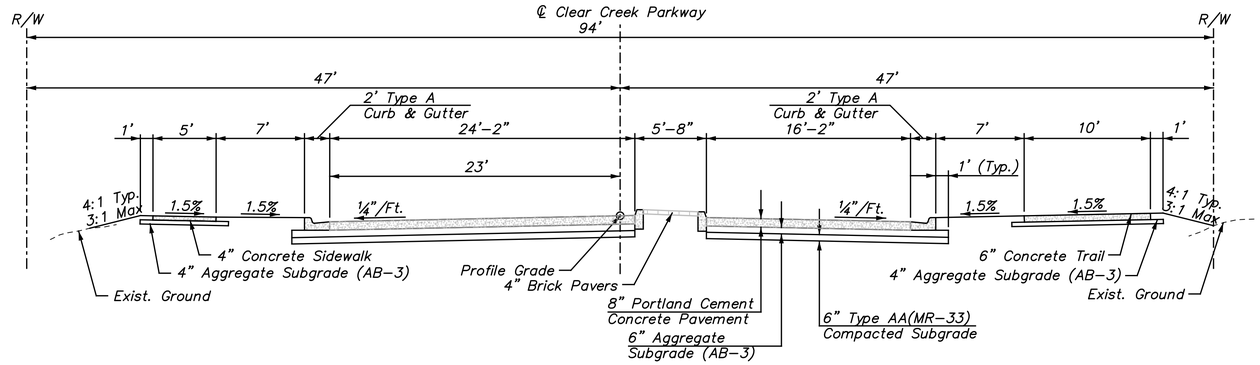
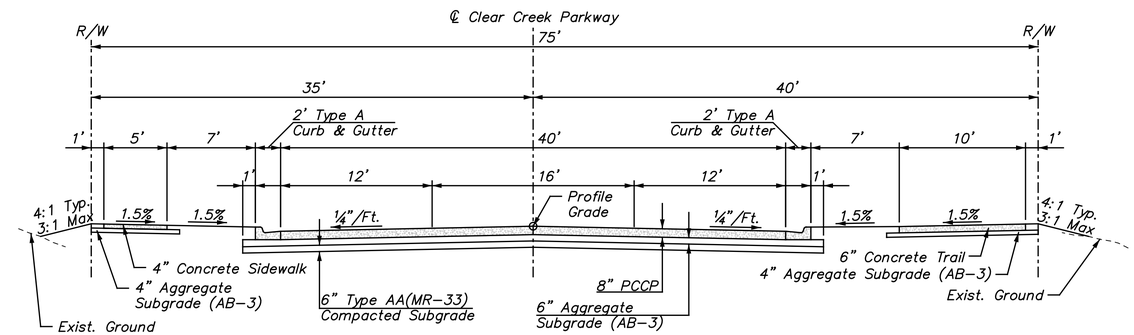
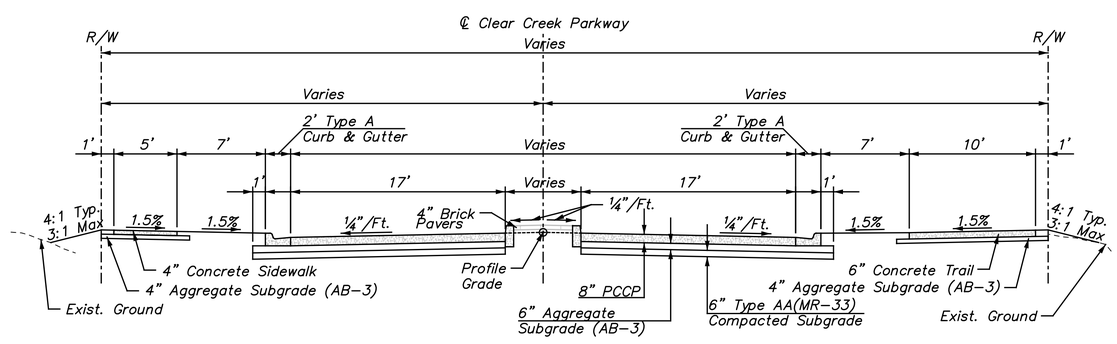


Typical Section–Clear Creek Parkway @ Clare Road
Not to Scale
Sta. 10+07.86 to Sta. 12+23.00



Typical Section–Clear Creek Parkway
Not to Scale
Sta. 12+23.00 to Sta. 40+00.07
Sta. 43+53.07 to Sta. 60+87.00



Typical Section–Clear Creek Parkway At Roundabout Splitter Islands
Not to Scale
Sta. 40+00.07 to Sta. 41+00.81
Sta. 42+50.81 to Sta. 43+53.07

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CLEAR CREEK PARKWAY
CITY OF SHAWNEE, KANSAS

TYPICAL SECTIONS
CONCRETE OPTION (3)

150561-010

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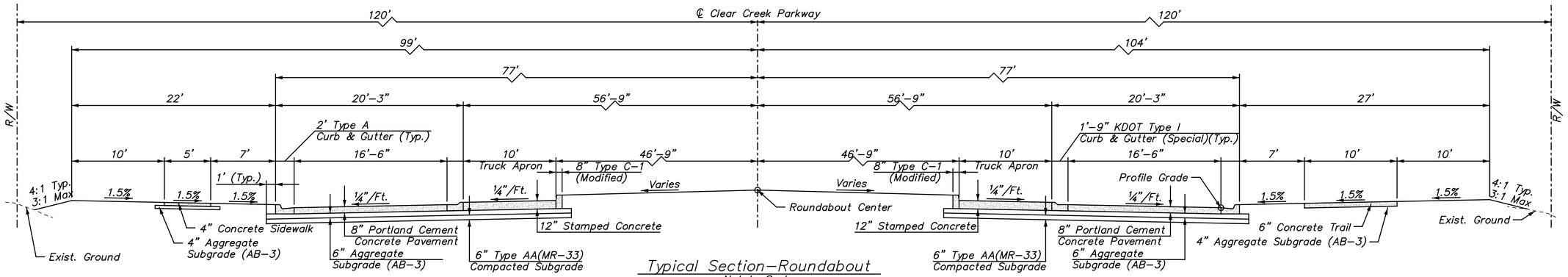
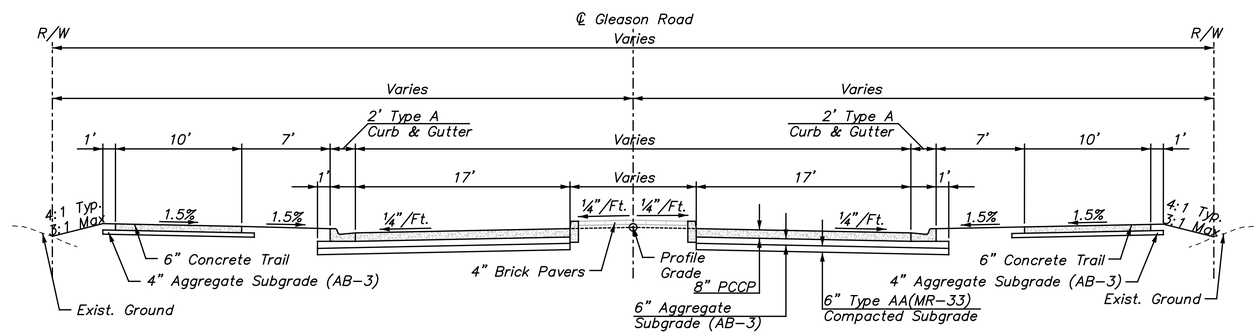
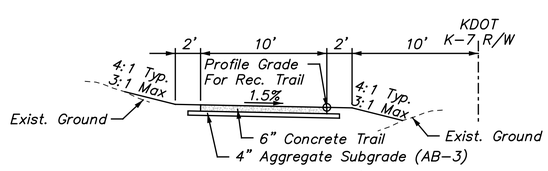


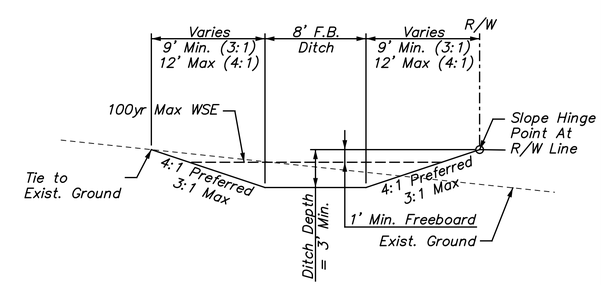
Typical Section–Roundabout
Not to Scale
Sta. 41+00.81 to Sta. 42+50.81



Typical Section–Gleason Road At Roundabout Splitter Islands
Not to Scale
Sta. 98+86.86 to Sta. 99+25.00



Typical Section–Concrete Trail/Golf Cart Path
Not to Scale
Sta. xx+xx.xx to Sta. xx+xx.xx



Typical Section–Fill Slope Ditch
Not to Scale
(Only Used Where Needed For Drainage
And/Or to Protect the Roadway Fill Slope)
Sta. xx+xx.xx to Sta. xx+xx.xx

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CITY OF SHAWNEE, KANSAS

TYPICAL SECTIONS
CONCRETE OPTION (4)

150561–010

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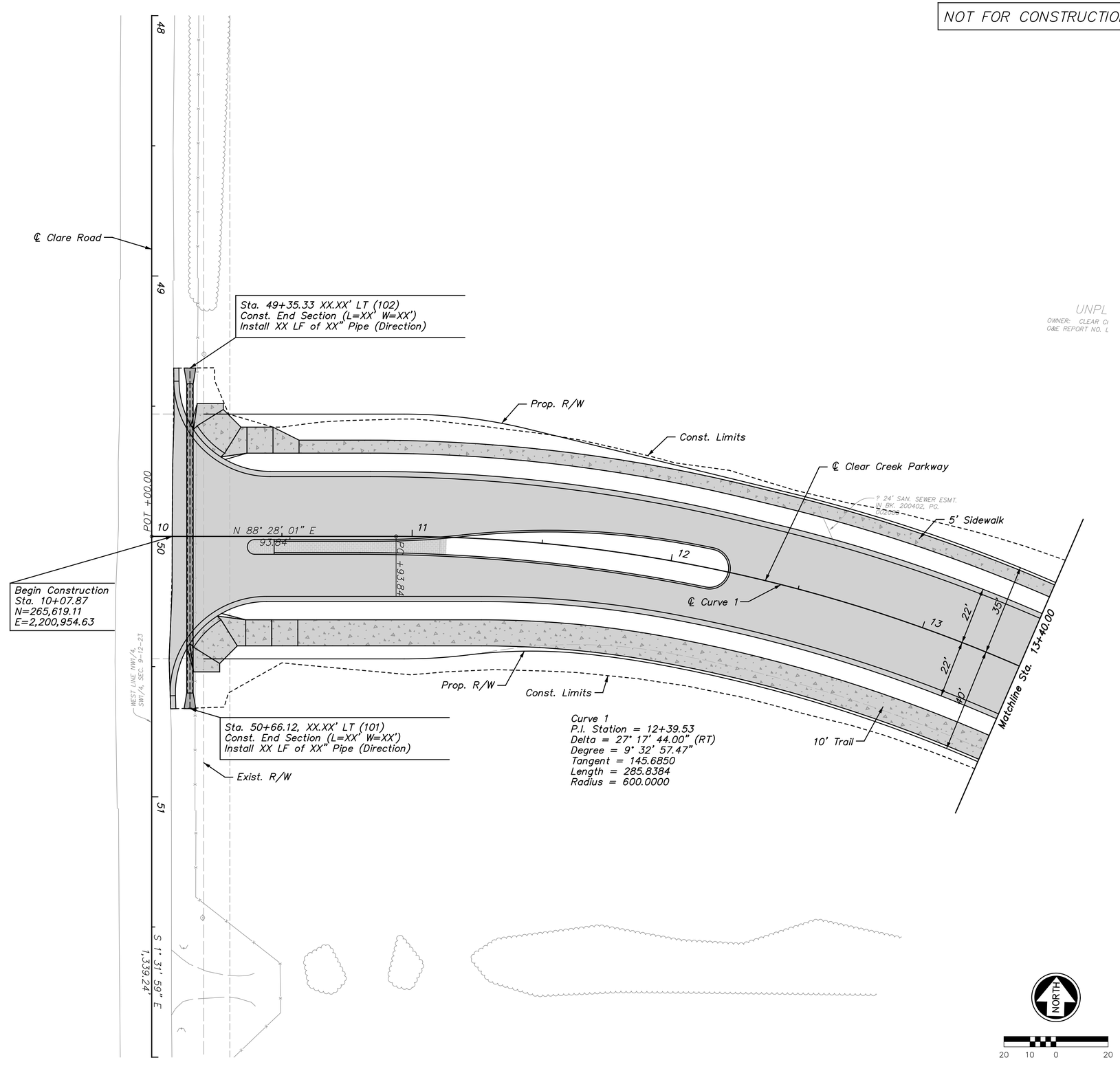

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CITY OF SHAWNEE, KANSAS

PLAN SHEET (1)
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150561-010

SHEET NO.
8 OF 106

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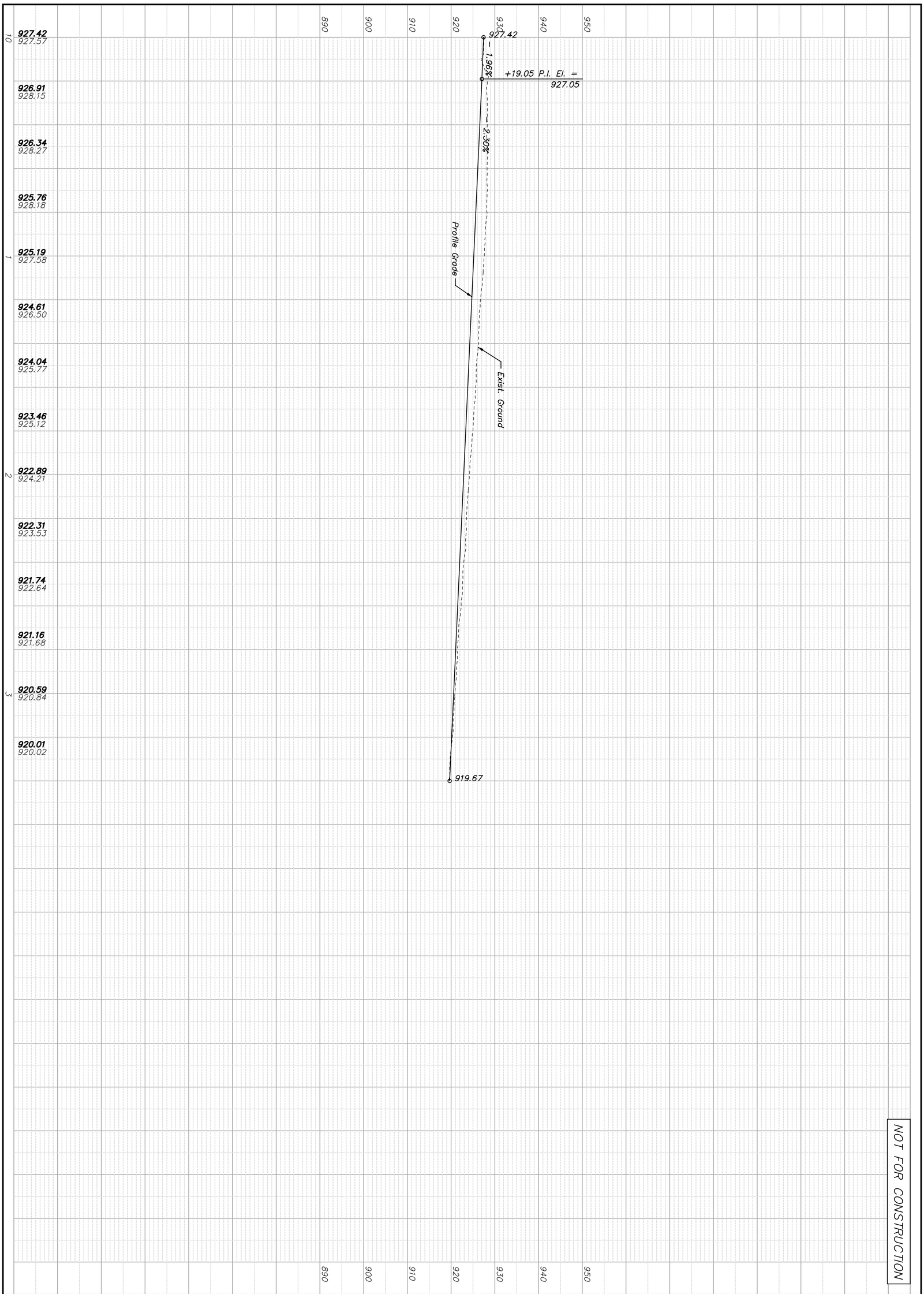

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SHEET NO. 9 OF 106

CLEAR CREEK PARKWAY
CITY OF SHAWNEE, KANSAS

PROFILE SHEET (1)
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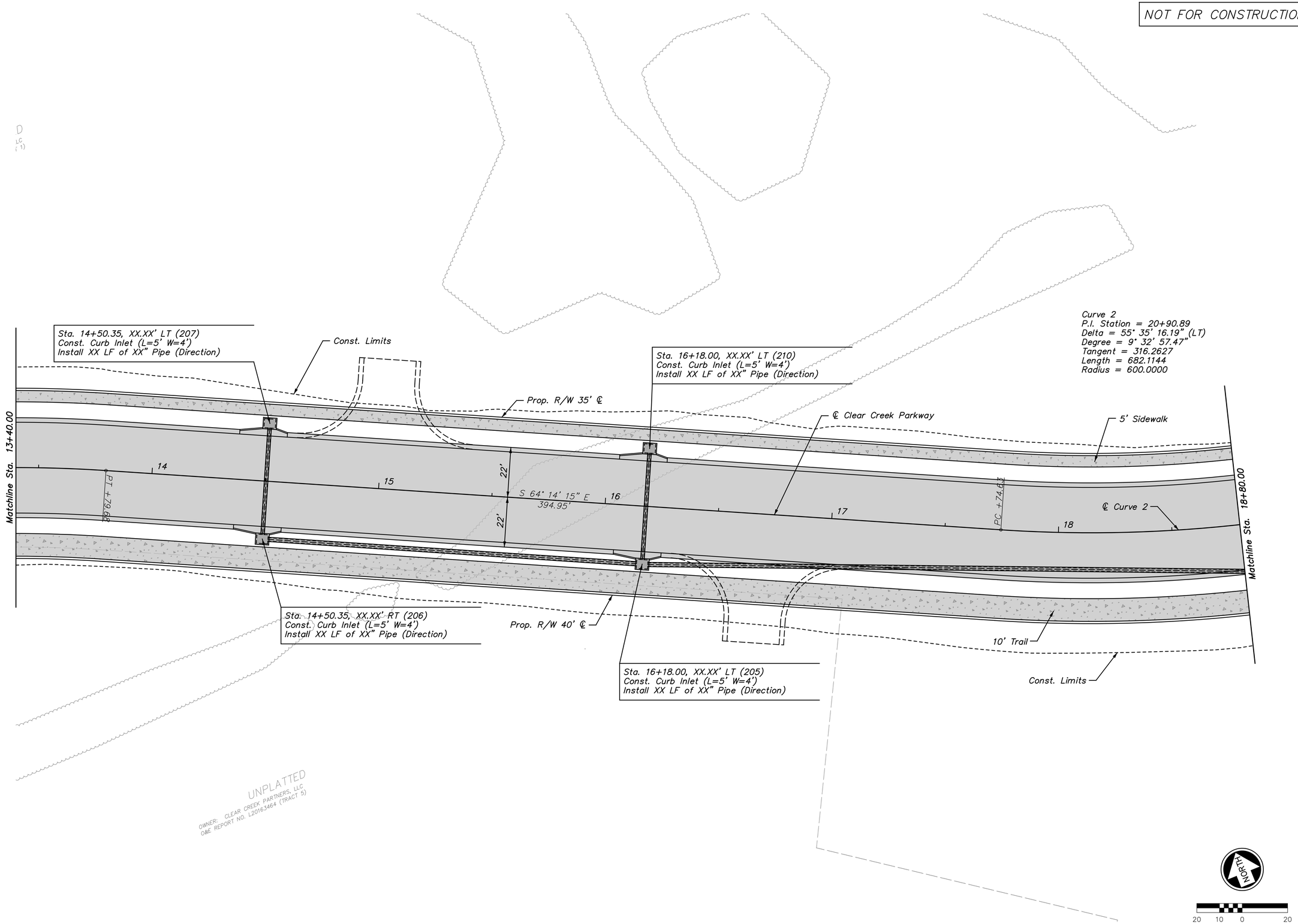

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CLEAR CREEK PARKWAY
CITY OF SHAWNEE, KANSAS

PLAN SHEET (2)
STA. 13+40.00 TO STA. 18+80.00

150561-010

SHEET NO.
10 OF 106

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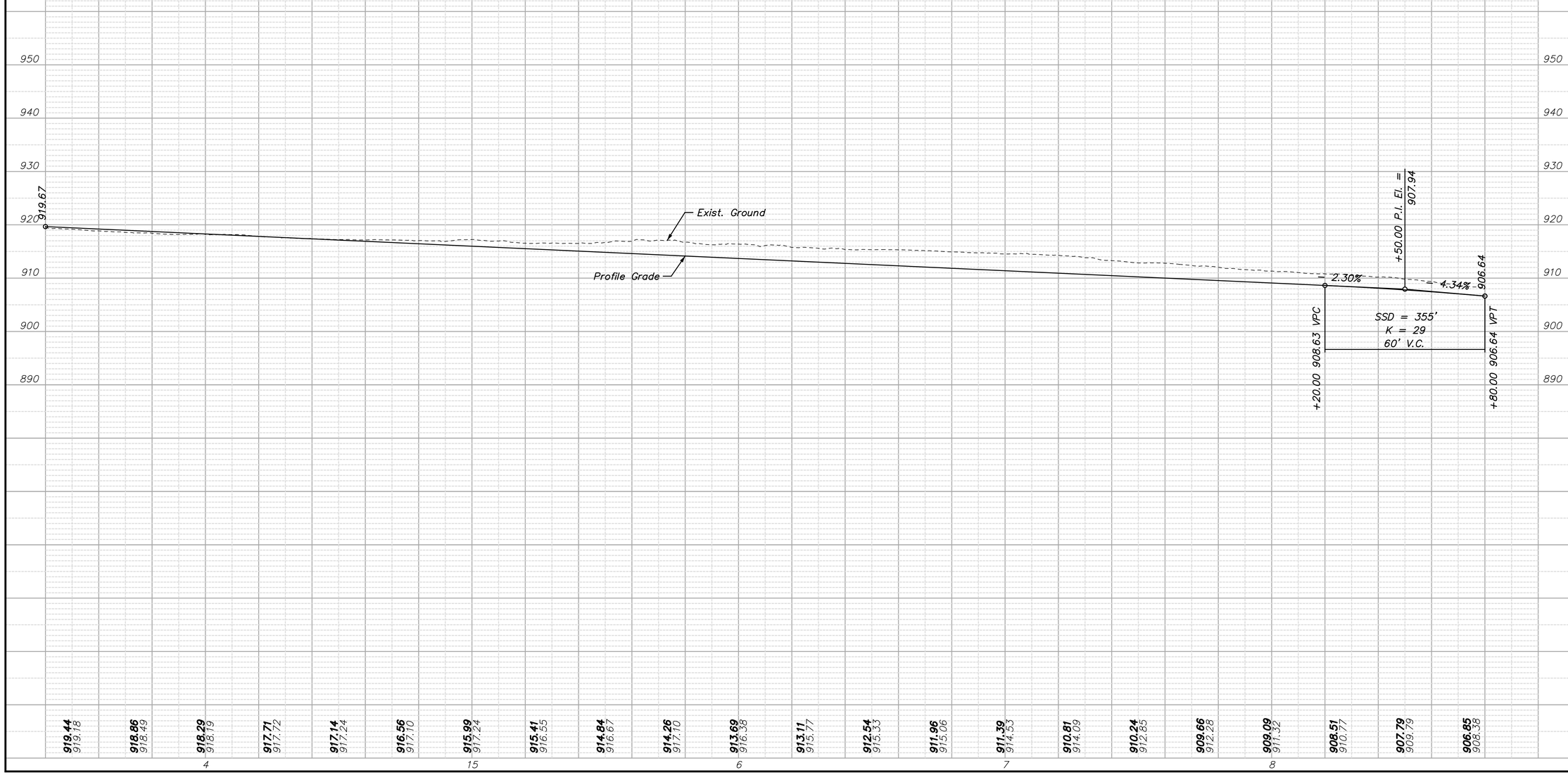

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CITY OF SHAWNEE, KANSAS

PROFILE SHEET (2)
STA. 13+40.00 TO STA. 18+80.00

150561-010

SHEET NO.
11 OF 106

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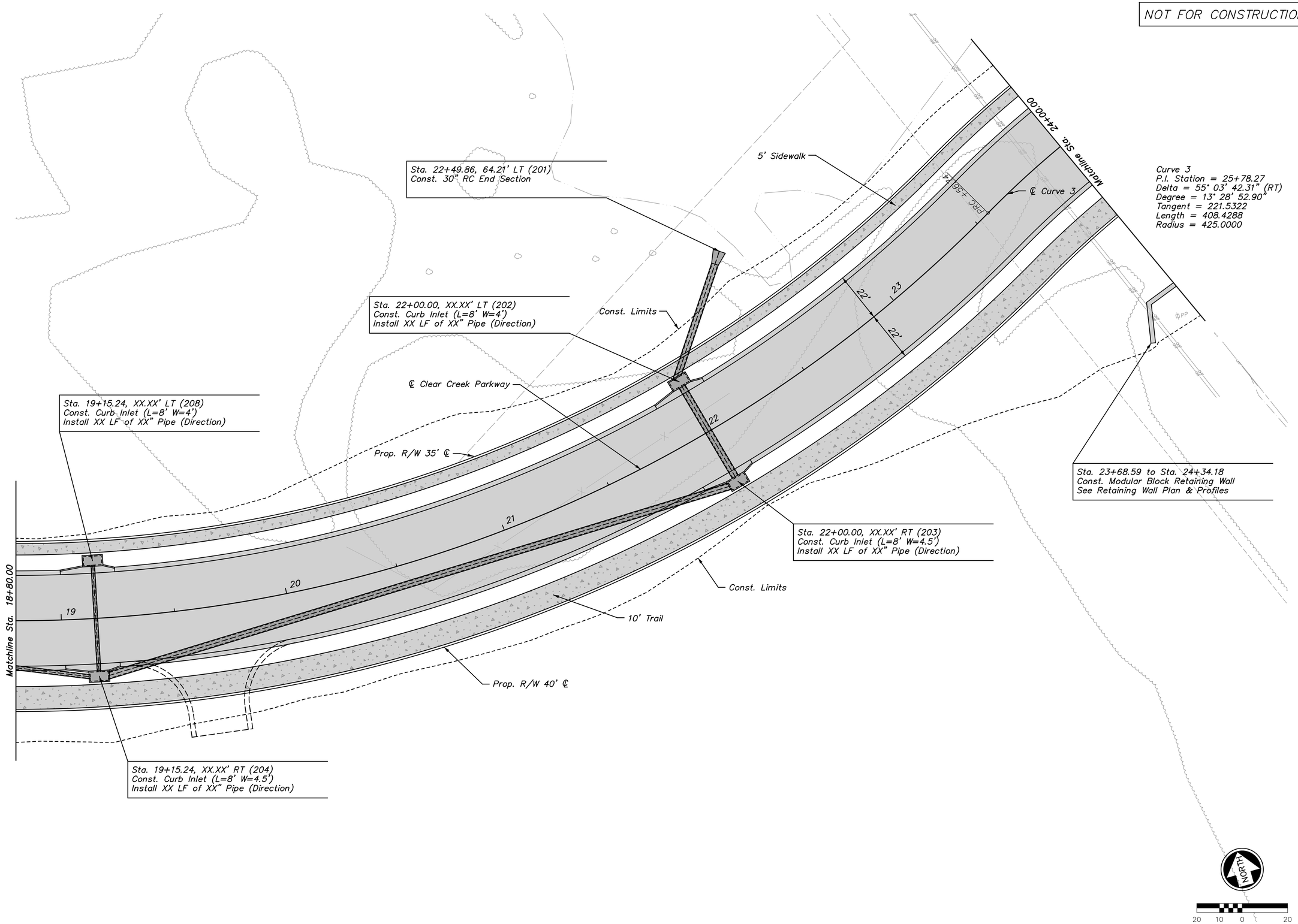

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CITY OF SHAWNEE, KANSAS

PLAN SHEET (3)
STA. 18+80.00 TO STA. 24+00.00

150561-010

SHEET NO.
12 OF 106

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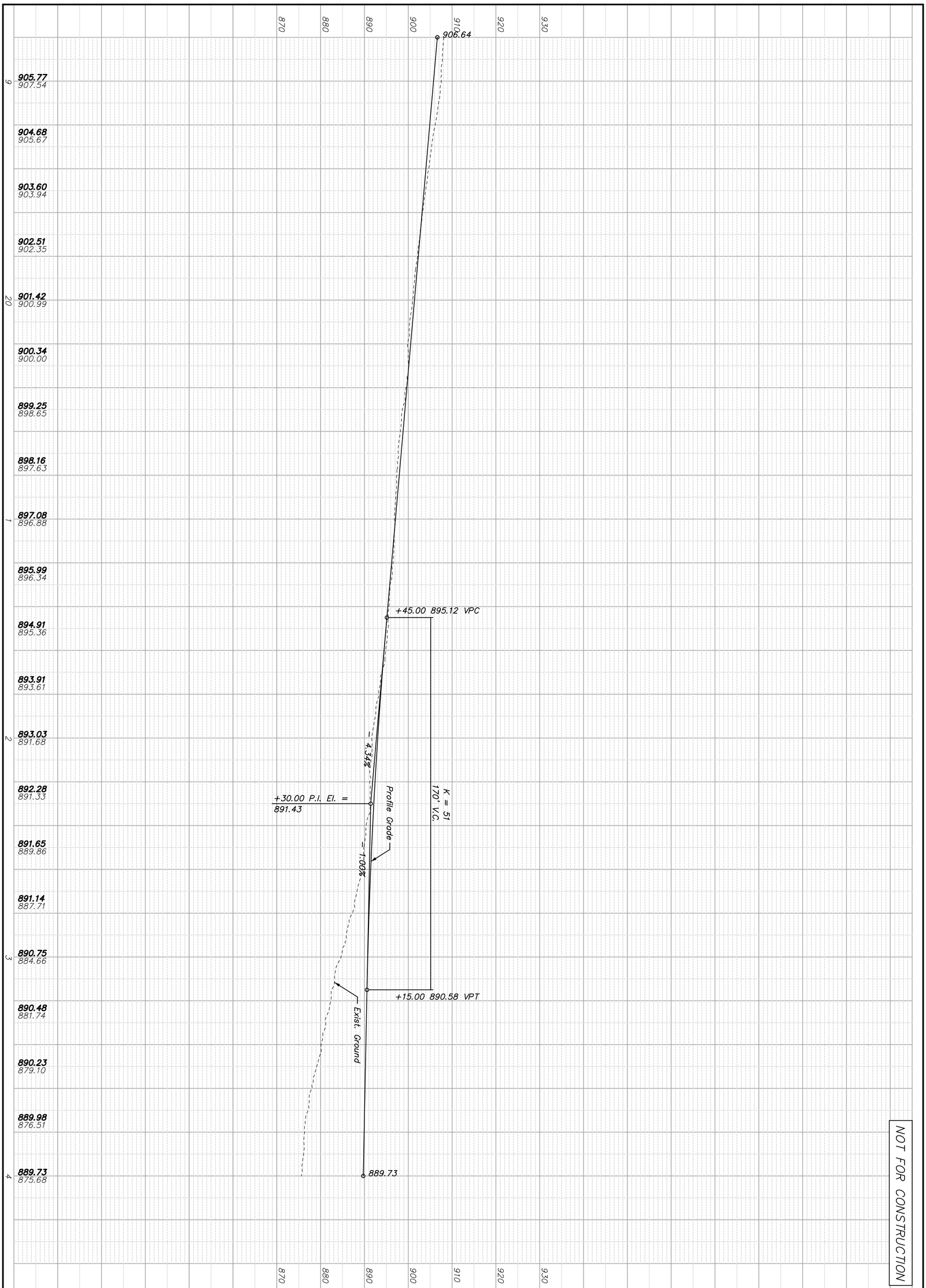

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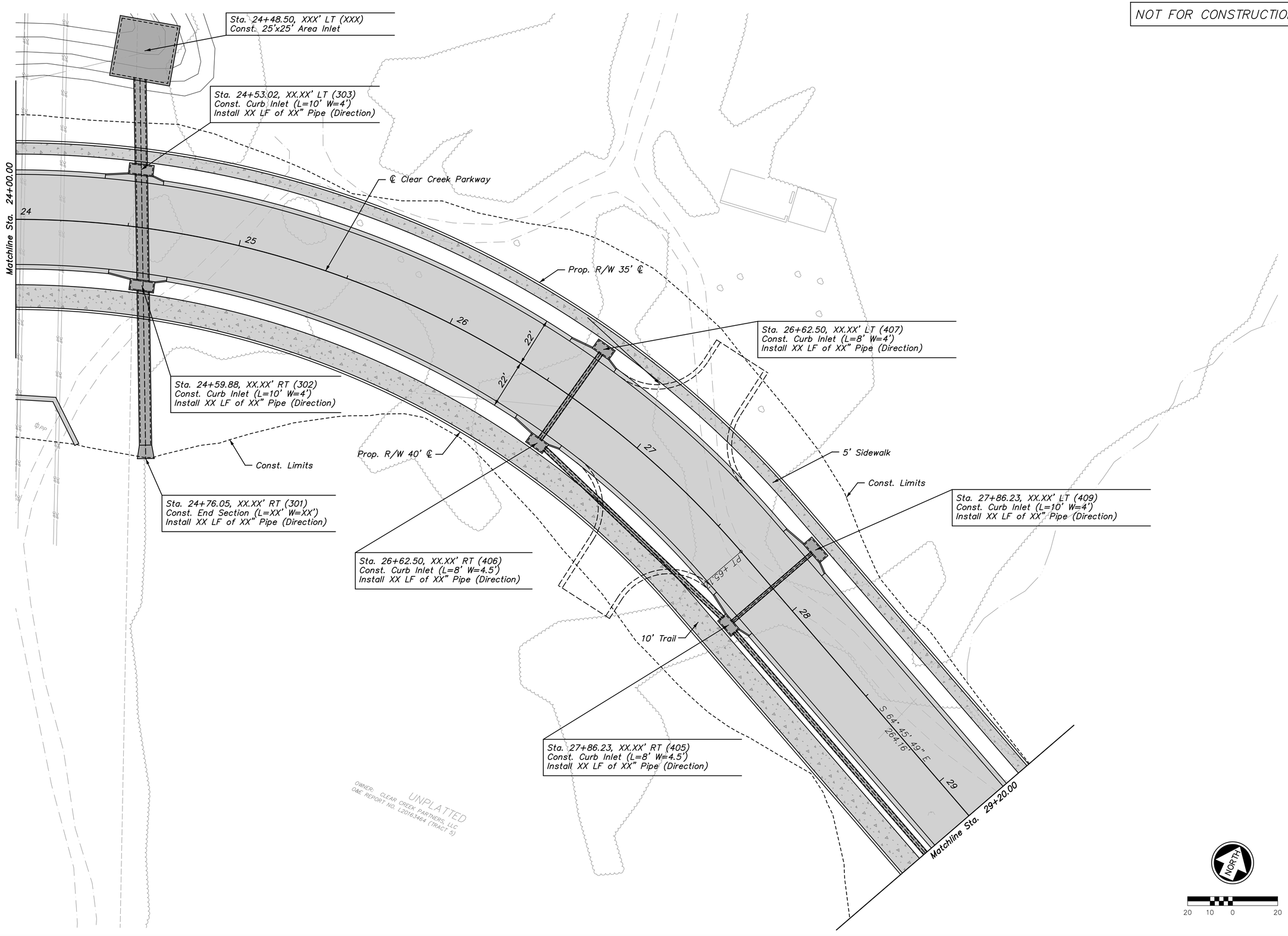

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PLAN SHEET (4)
STA. 24+00.00 TO STA. 29+20.00

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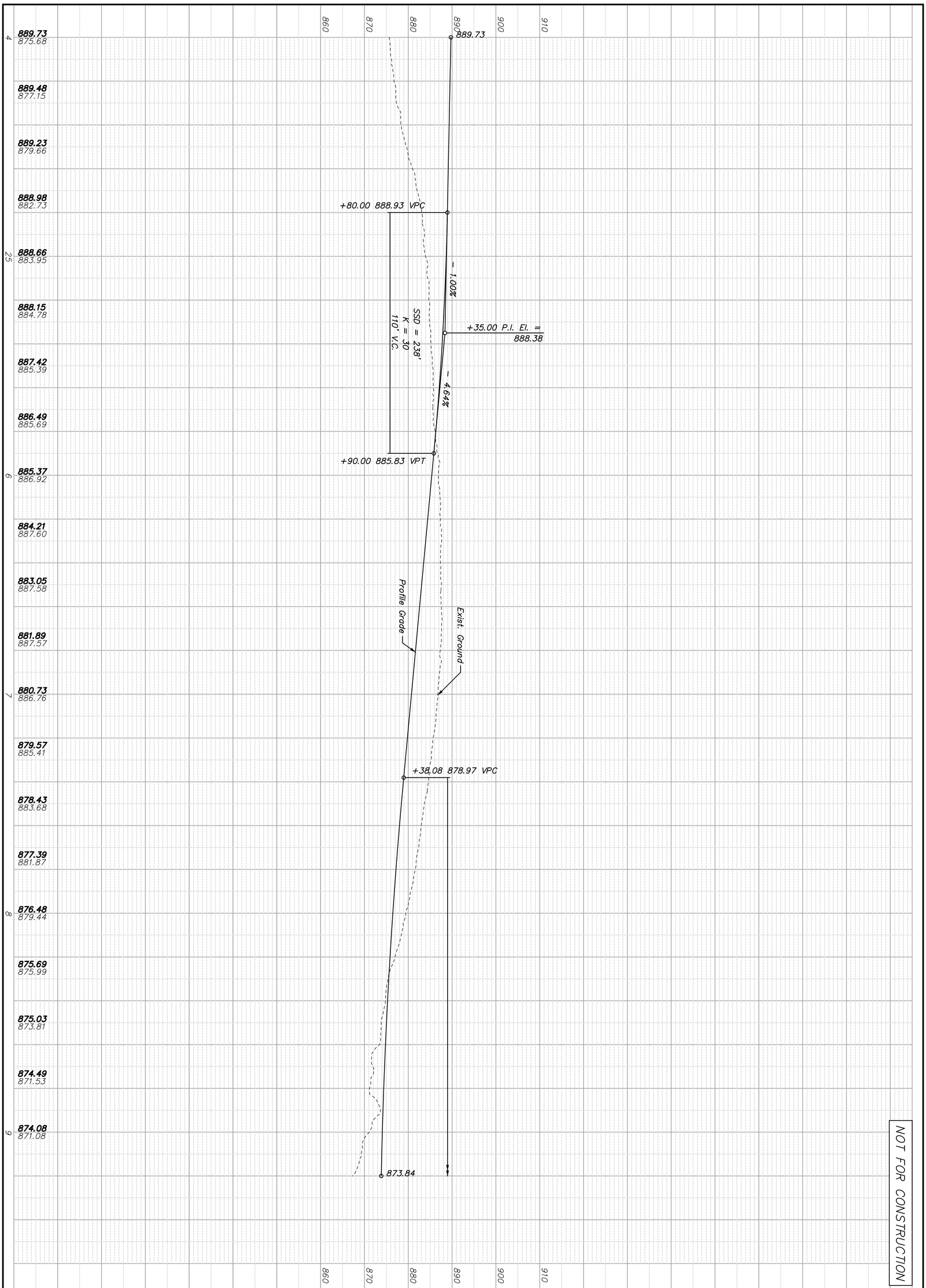

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SHEET NO. 15 OF 106

CLEAR CREEK PARKWAY
CITY OF SHAWNEE, KANSAS

PROFILE SHEET (4)
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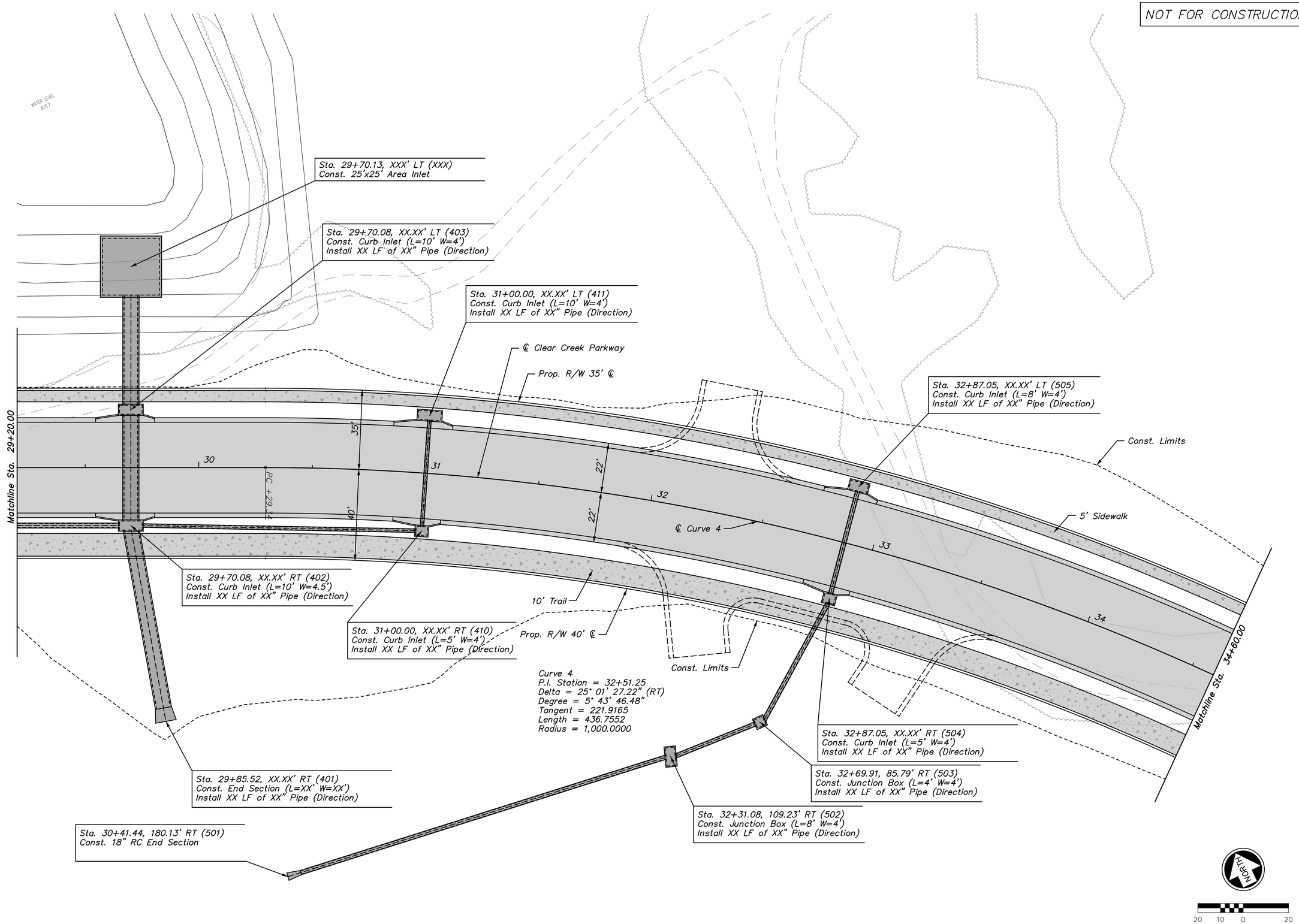

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PLAN SHEET (5)
STA. 29+20.00 TO STA. 34+60.00

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16 OF 106

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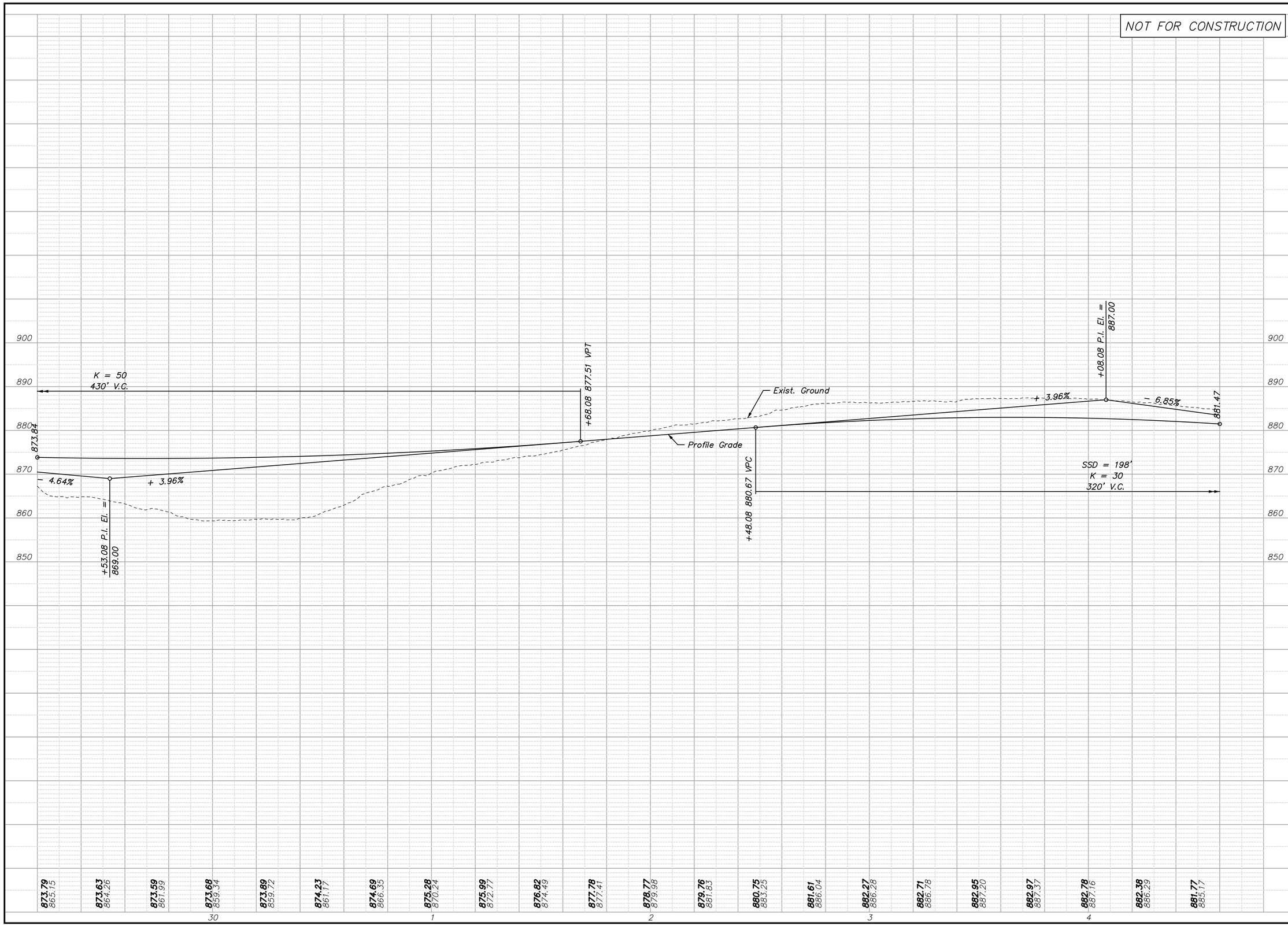

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PROFILE SHEET (5)
STA. 29+20.00 TO STA. 34+60.00

150561-010

SHEET NO. 17 OF 106

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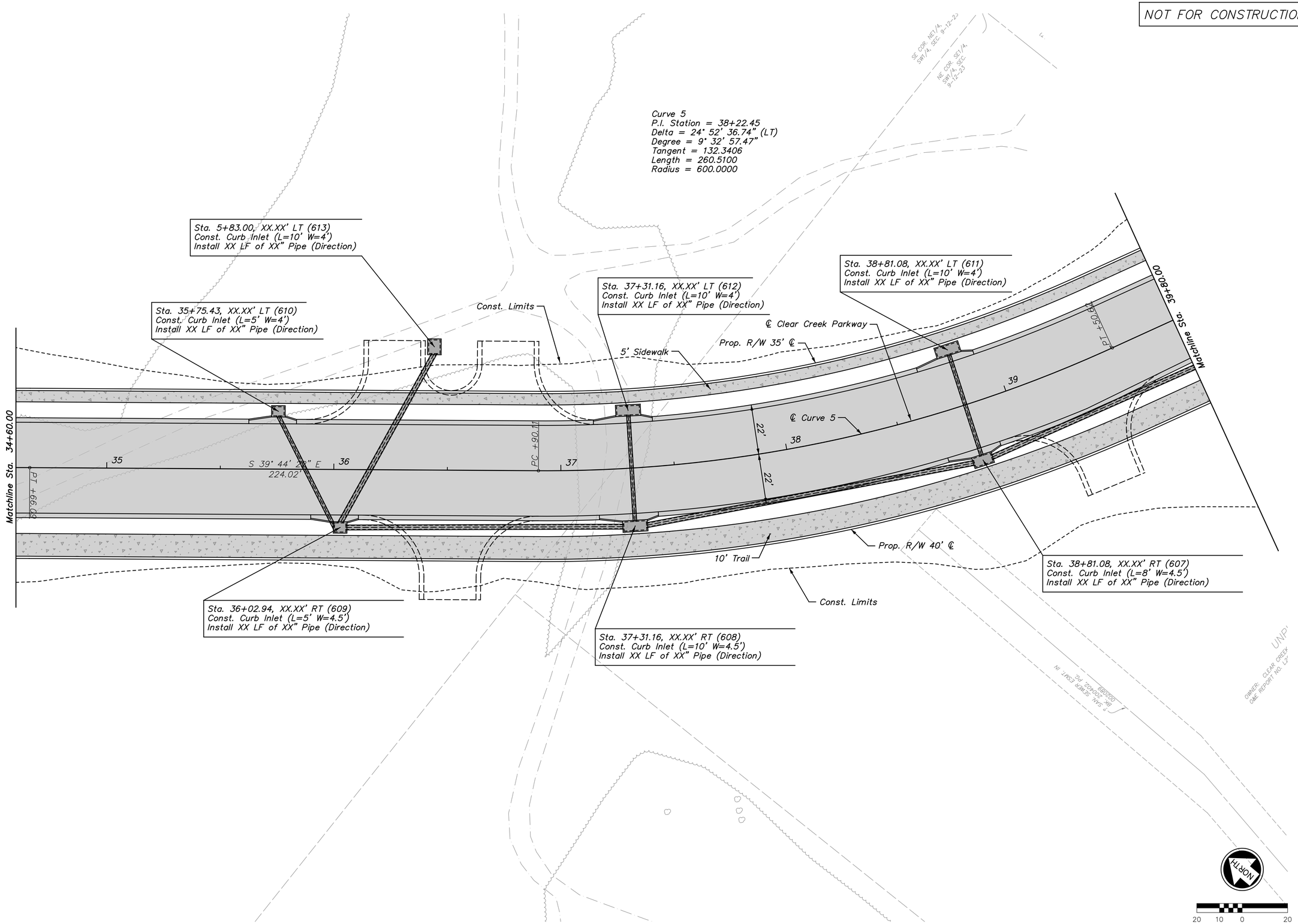

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CLEAR CREEK PARKWAY
CITY OF SHAWNEE, KANSAS

PLAN SHEET (6)
STA. 34+60.00 TO STA. 39+80.00

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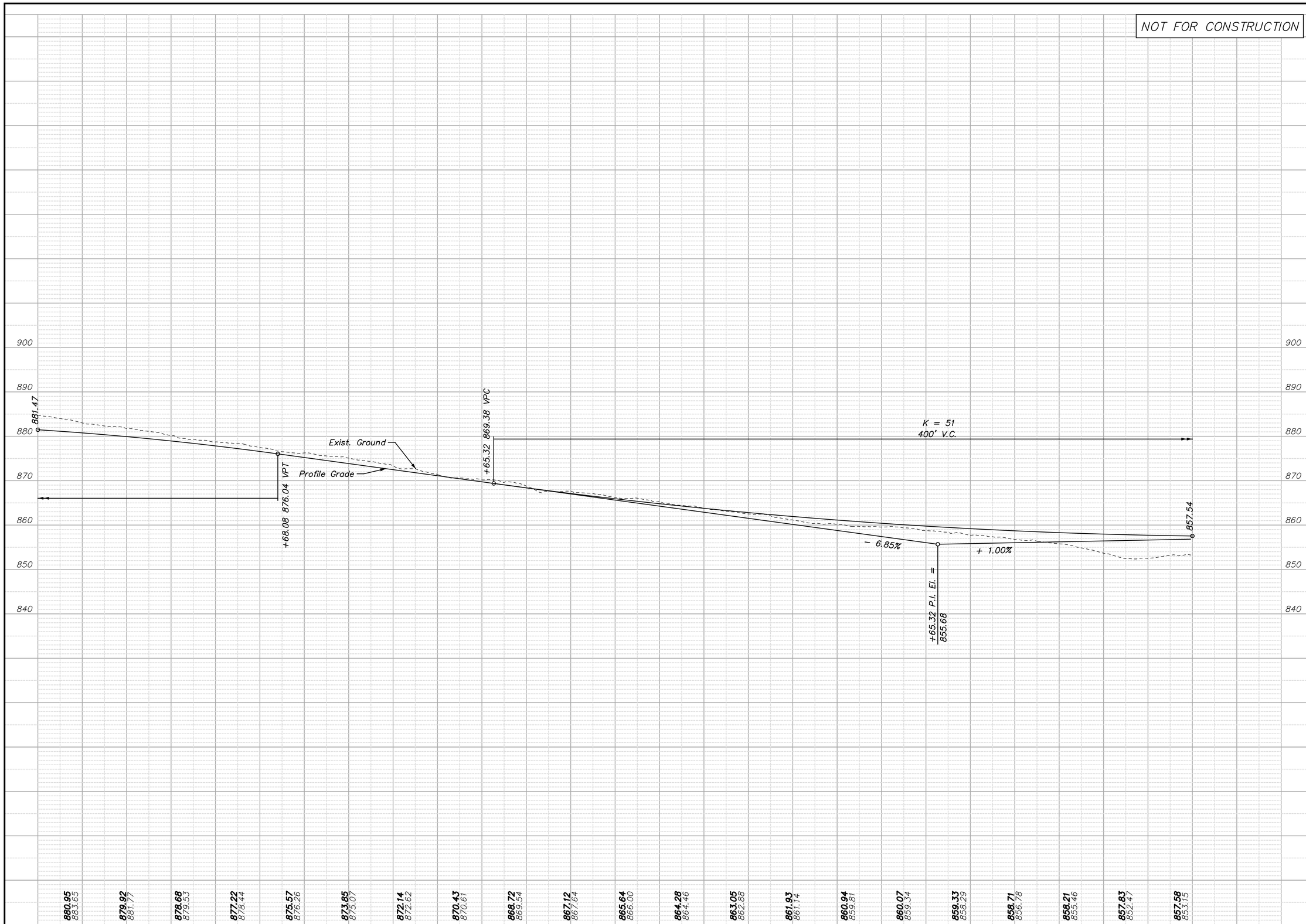

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PROFILE SHEET (6)
STA. 34+60.00 TO STA. 39+80.00

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Sta. 42+47.44, XX.XX' LT (603)
Const. End Section (L=XX' W=XX')
Install XX LF of XX" Pipe (Direction)

Sta. 44+45.00, XX.XX' LT (706)
Const. Curb Inlet (L=5' W=4')
Install XX LF of XX" Pipe (Direction)

Sta. 41+03.75 to Sta. 43+68.07
Const. Modular Block Retaining Wall
See Retaining Wall Plan & Profiles

Sta. 39+99.55, 63.78' LT (606)
Const. Area Inlet (L=4' W=4')
Install XX LF of XX" Pipe (Direction)

Sta. 40+14.37, XX.XX' LT (605)
Const. Curb Inlet (L=10' W=4')
Install XX LF of XX" Pipe (Direction)

Sta. 40+14.85, XX.XX' RT (604)
Const. Curb Inlet (L=10' W=4.5')
Install XX LF of XX" Pipe (Direction)

Sta. 40+95.28, XX.XX' RT (602)
Const. Junction Box (L=XX' W=XX')
Install XX LF of XX" Pipe (Direction)

Sta. 99+10.22, XX.XX' LT (618)
Const. Curb Inlet (L=8' W=4')
Install XX LF of XX" Pipe (Direction)

℄ Sta. 41+75.81 Clear Creek Parkway =
℄ Sta. 100+00.00 Gleason Road

Sta. 99+10.22, XX.XX' RT (619)
Const. Curb Inlet (L=8' W=4')
Install XX LF of XX" Pipe (Direction)

Sta. 44+45.00, XX.XX' RT (705)
Const. Curb Inlet (L=5' W=4')
Install XX LF of XX" Pipe (Direction)

Sta. 42+27.56 to Sta. 43+68.07
Const. Modular Block Retaining Wall
See Retaining Wall Plan & Profiles

Sta. 42+83.07
Const. 112.00 L.F. of Cart Path Tunnel
See Cart Path Plan & Profile

Curve 6
P.I. Station = 43+80.63
Delta = 32° 22' 50.68" (LT)
Degree = 13° 28' 52.90"
Tangent = 123.3965
Length = 240.1890
Radius = 425.0000

Curve 7
P.I. Station = 46+16.59
Delta = 22° 28' 02.68" (RT)
Degree = 9° 32' 57.47"
Tangent = 119.1700
Length = 235.2782
Radius = 600.0000

Curve 11
P.I. Station = 98+08.08
Delta = 25° 49' 00.00" (RT)
Degree = 13° 38' 30.67"
Tangent = 96.2571
Length = 189.2461
Radius = 420.0000

Const. Limits
Prop. R/W 35' ℄
5' Sidewalk
℄ Clear Creek Parkway
℄ Curve 6
℄ Curve 7
Matchline Sta. 45+00.00
Prop. R/W 40' ℄
10' Trail
Prop. R/W
Matchline Sta. 39+80.00
Matchline Sta. 98+80.00
℄ Gleason Road
Curve 11
15' U/E (PER PLAT)
30' B/L (PER PLAT)
PRC +92.12
PCC +55.60
PRC +92.30
PCC +45.73
PT +01.62
PT +31.55
PT +16.65
PT +58.58
BT +20.01
N 41° 37' 55" E
38.66
N 88° 32' 11" E
81.42
N 88° 50' 00" W
123.95
N 24° 21' 11" E
98.93
S 64° 36' 58" E
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22'
22'
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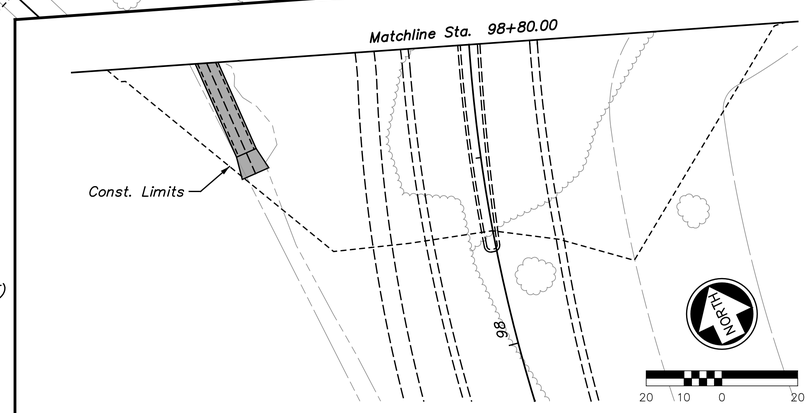

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CITY OF SHAWNEE, KANSAS

PLAN SHEET (7)
STA. 39+80.00 TO STA. 45+00.00

150561-010

SHEET NO.
20 OF 106

LAYOUT: MODEL | BY: jadams | DATE: 13-JUL-2016 6:19:01 PM
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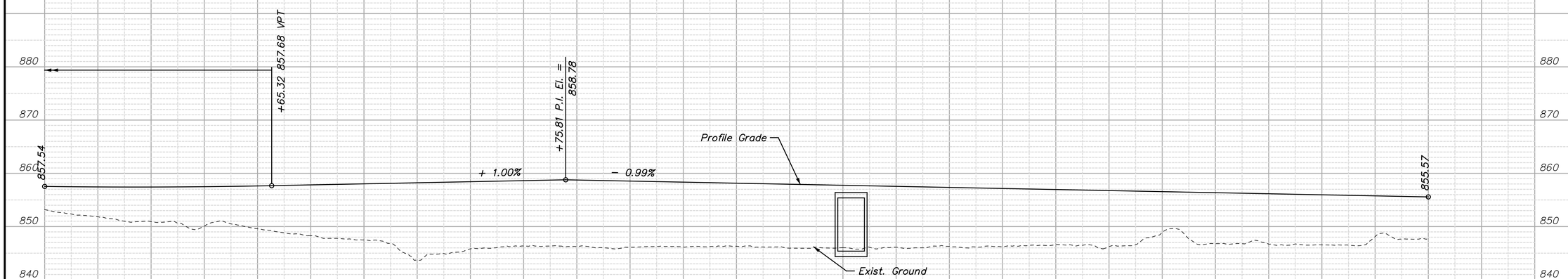

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PROFILE SHEET (7)
STA. 39+80.00 TO STA. 45+00.00

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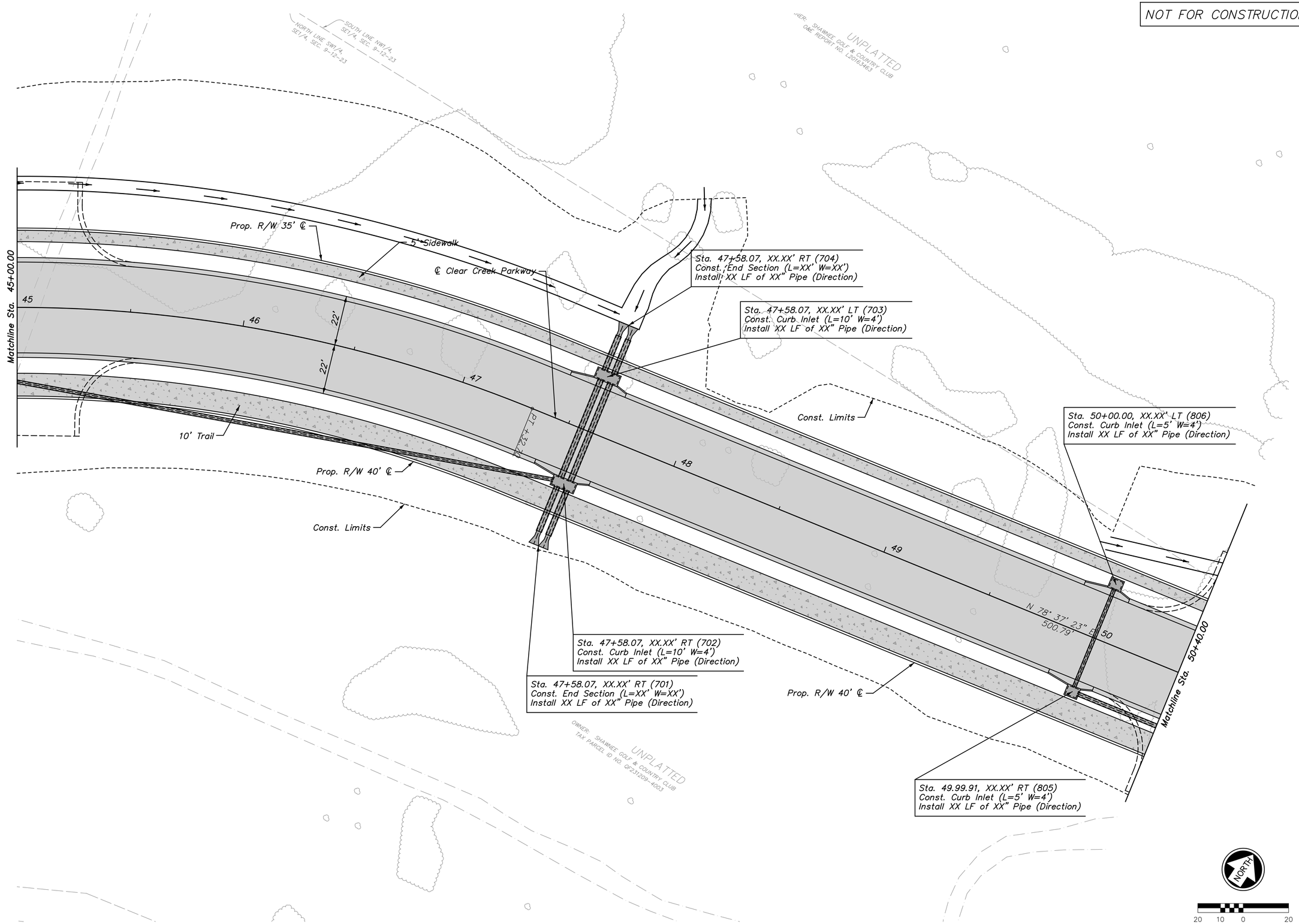

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CLEAR CREEK PARKWAY
CITY OF SHAWNEE, KANSAS

PLAN SHEET (8)
STA. 45+00.00 TO STA. 50+40.00

150561-010

SHEET NO.
22 OF 106

LAYOUT: MODEL | BY: jadams | DATE: 13-JUL-2016 6:19:37 PM
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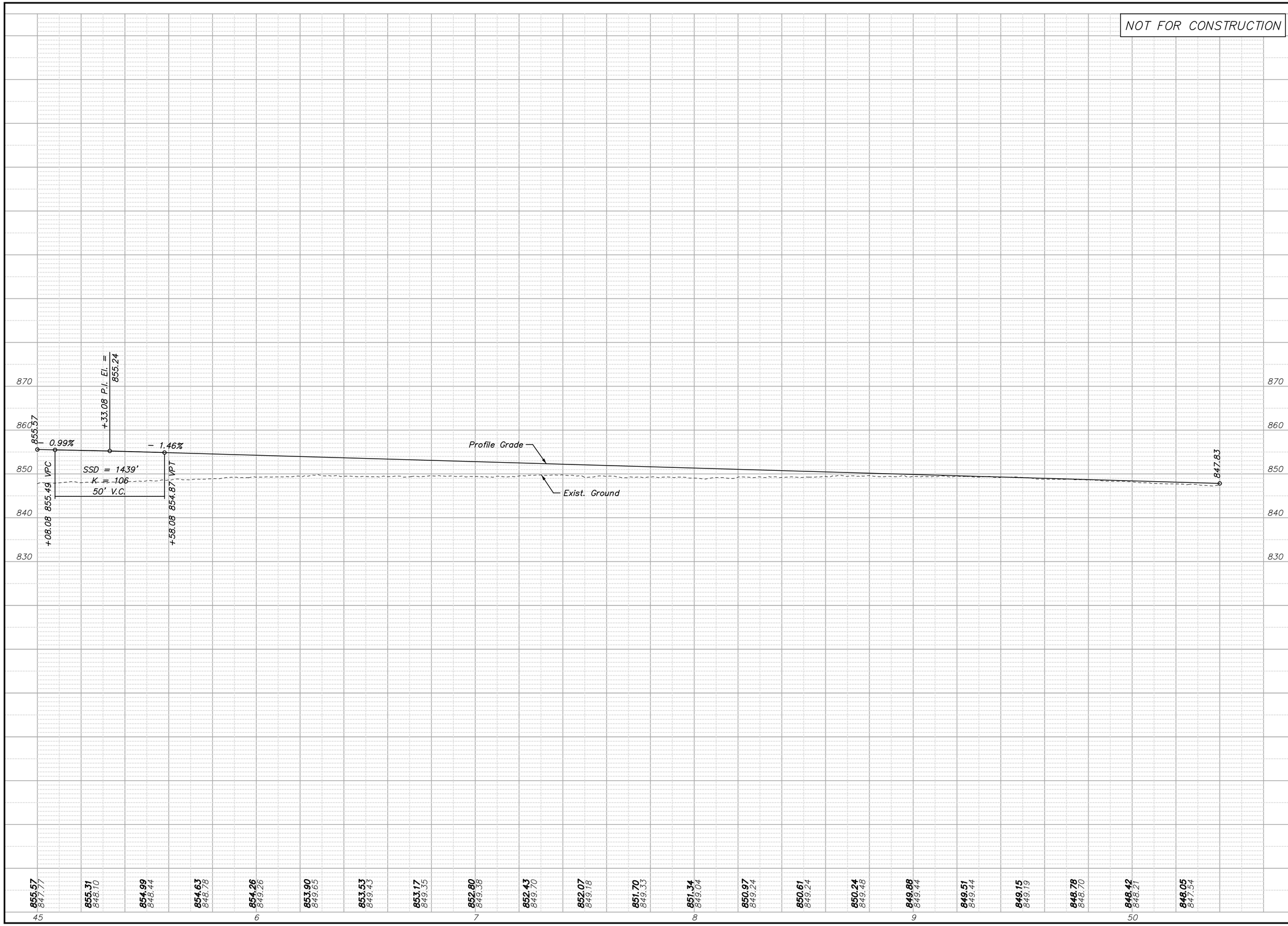

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PROFILE SHEET (8)
STA. 45+00.00 TO STA. 50+40.00

150561-010

SHEET NO.
23 OF 106

LAYOUT: MODEL | BY: jaddams | DATE: 13-JUL-2016 6:19:56 PM
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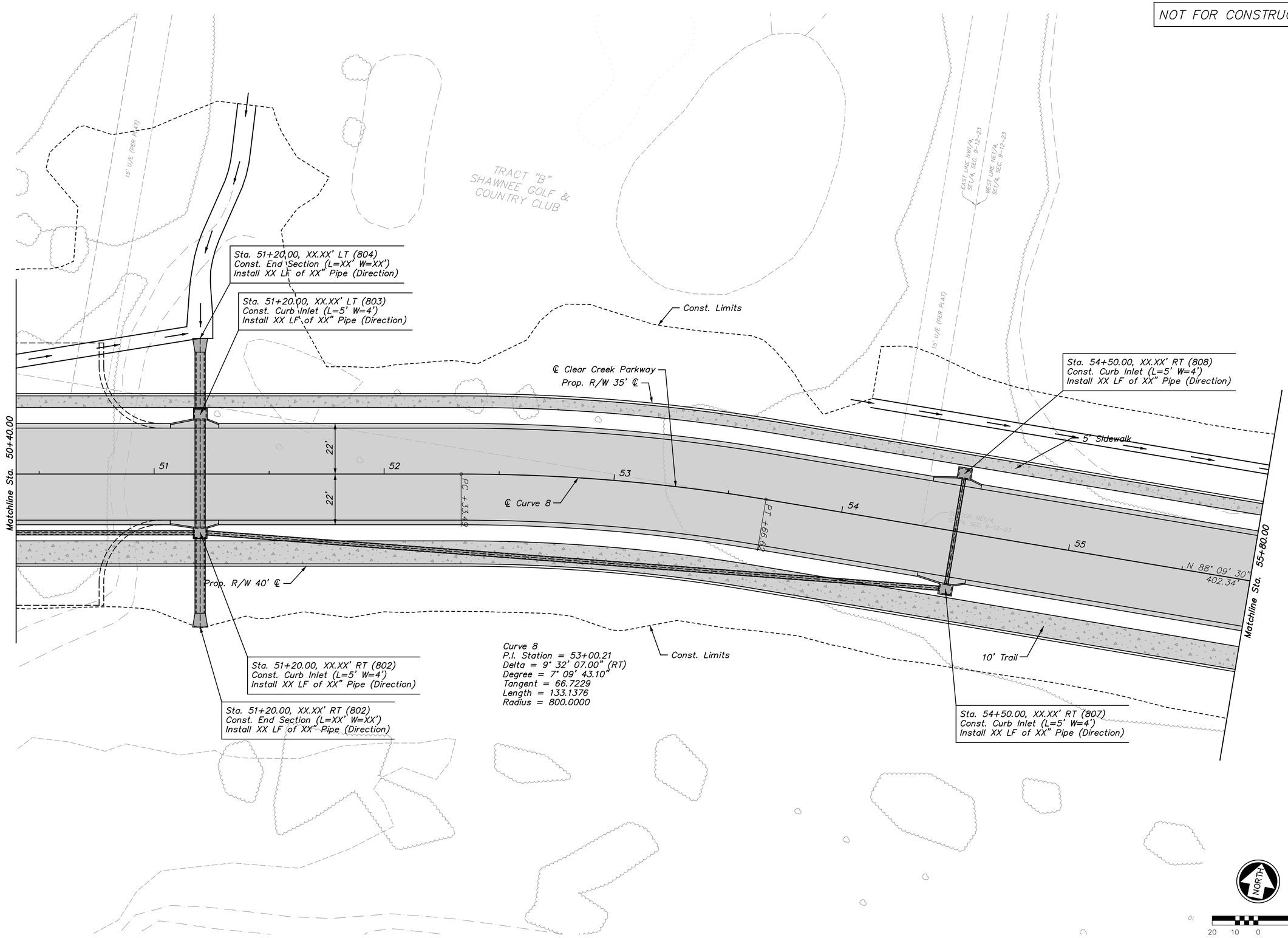

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CLEAR CREEK PARKWAY
CITY OF SHAWNEE, KANSAS

PLAN SHEET (9)
STA. 50+40.00 TO STA. 55+80.00

150561-010

LAYOUT: MODEL | BY: jadams | DATE: 13-JUL-2016 6:20:02 PM
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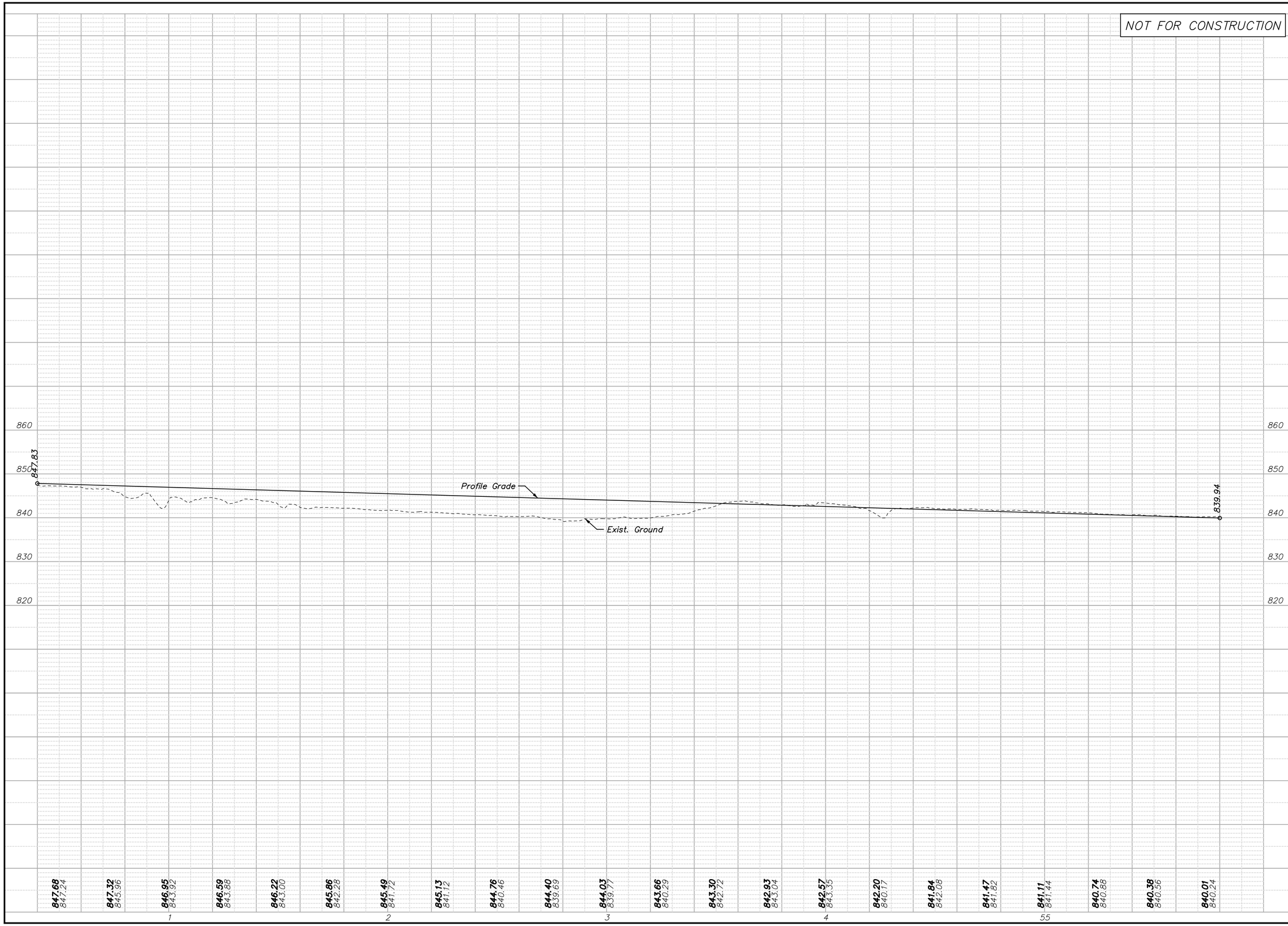

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CLEAR CREEK PARKWAY
CITY OF SHAWNEE, KANSAS

PROFILE SHEET (9)
STA. 50+40.00 TO STA. 55+80.00

150561-010

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NOT FOR CONSTRUCTION

Curve 9
P.I. Station = 58+81.01
Delta = 12° 47' 10.26" (LT)
Degree = 5° 43' 46.48"
Tangent = 112.0459
Length = 223.1610
Radius = 1,000.0000

UNPLATTED
OWNER: KIMBALL DEVELOPMENT, LLC
TAX PARCEL ID NO. QF231209-4004

Field Check
Pavement condition
at tie end

POT +68.90

52

S 14° 37' 41" E
136.88

Sta. 60+28.65, XX.XX' LT (904)
Const. End Section (L=XX' W=XX')
Install XX LF of XX" Pipe (Direction)

Const. Limits

Sta. 57+80.00, XX.XX' LT (906)
Const. Curb Inlet (L=5' W=4')
Install XX LF of XX" Pipe (Direction)

Sta. 60+28.65, XX.XX' LT (903)
Const. Curb Inlet (L=10' W=4')
Install XX LF of XX" Pipe (Direction)

℄ Clear Creek Parkway

Prop. R/W 35' ℄

5' Sidewalk

61 N 75° 22' 19" E
313.74'

53

PT +92.12

60

℄ Curve 9

59

PC +68.97

58

57

56

E

22'

22'

Matchline Sta. 55+80.00

SOUTH
SEC. 24

LINE SE1/4,
SEC. 9-12-23

Sta. 60+28.65, XX.XX' LT (902)
Const. Curb Inlet (L=10' W=4')
Install XX LF of XX" Pipe (Direction)

Sta. 60+48.96, XX.XX' RT (901)
Const. End Section (L=XX' W=XX')
Install XX LF of XX" Pipe (Direction)

10' Trail

Prop. R/W 40' ℄

Const. Limits

Sta. 57+80.00, XX.XX' RT (905)
Const. Curb Inlet (L=5' W=4')
Install XX LF of XX" Pipe (Direction)

UNPLATTED

NORTH

20 10 0 20

NO.	DATE	REVISIONS	BY	APP'D
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CLEAR CREEK PARKWAY
CITY OF SHAWNEE, KANSAS

PLAN SHEET (10)
STA. 55+80.00 TO STA. 60+87.00

150561-010

SHEET NO.
26 OF 106

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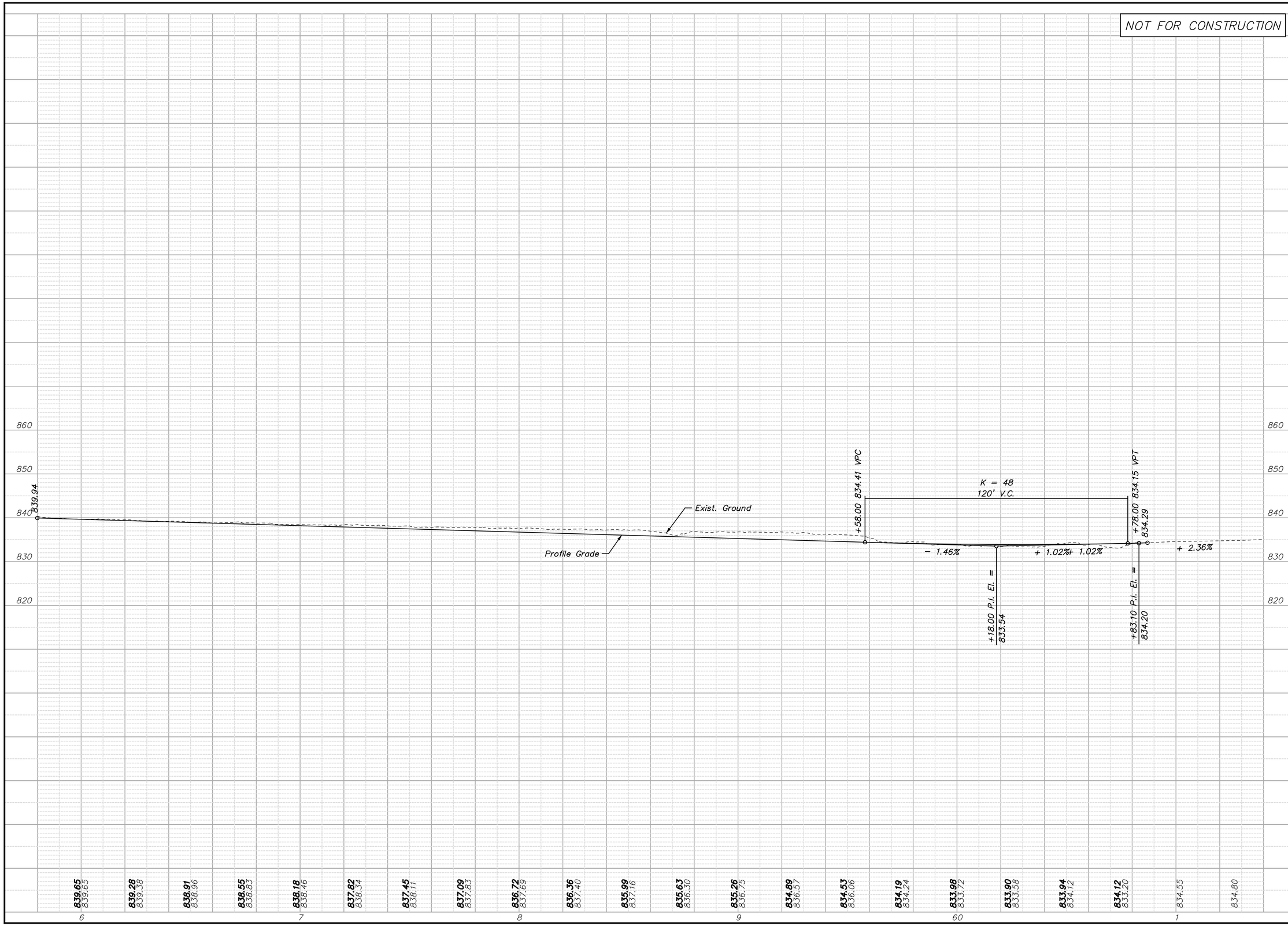

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CLEAR CREEK PARKWAY
CITY OF SHAWNEE, KANSAS

PROFILE SHEET (10)
STA. 55+80.00 TO STA. 60+87.00

150561-010

LAYOUT: MODEL | BY: jadams | DATE: 13-JUL-2016 6:20:45 PM
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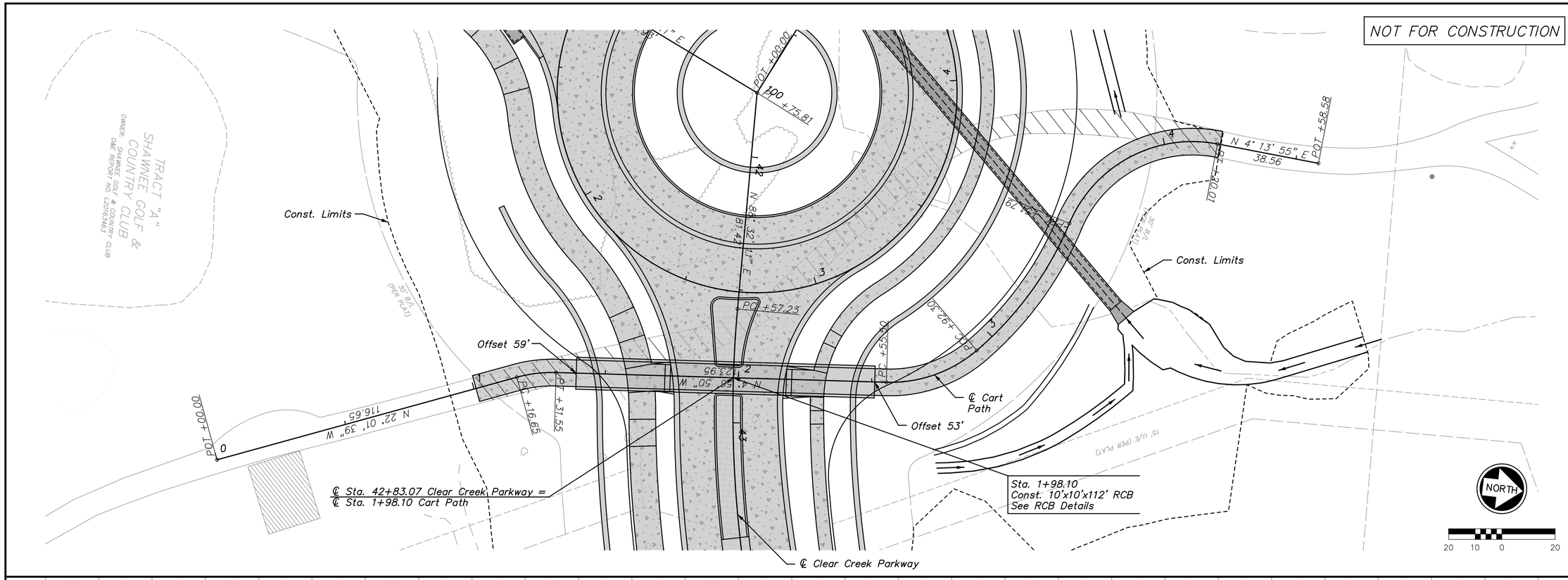

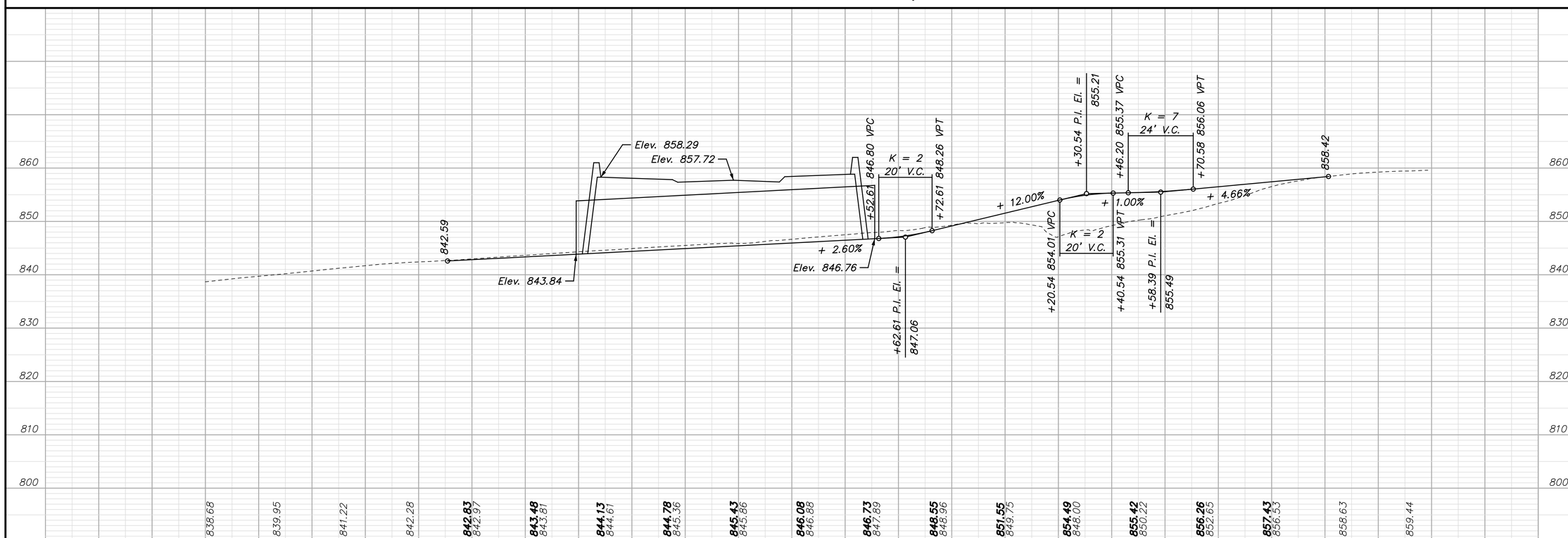

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CLEAR CREEK PARKWAY
CITY OF SHAWNEE, KANSAS

PLAN AND PROFILE SHEET (11)
CART PATH TUNNEL

150561-010

SHEET NO.
28 OF 106

LAYOUT: MODEL | BY: jadams | DATE: 13-JUL-2016 6:20:51 PM
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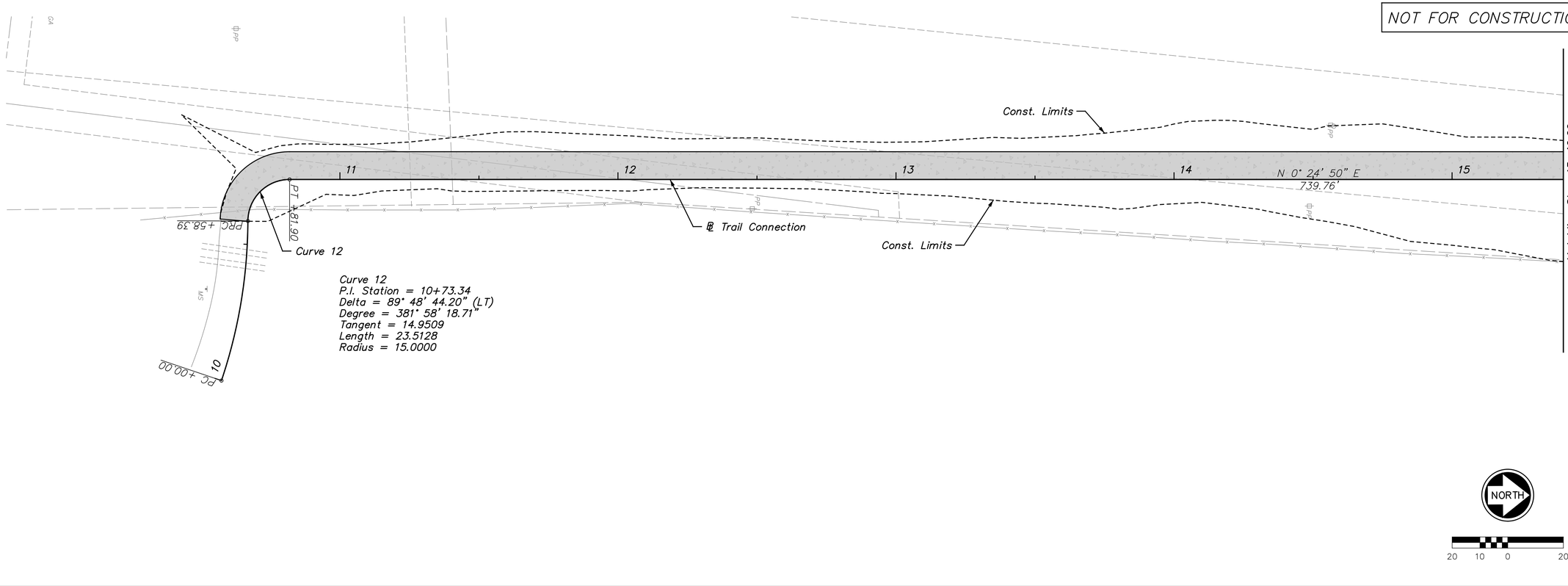

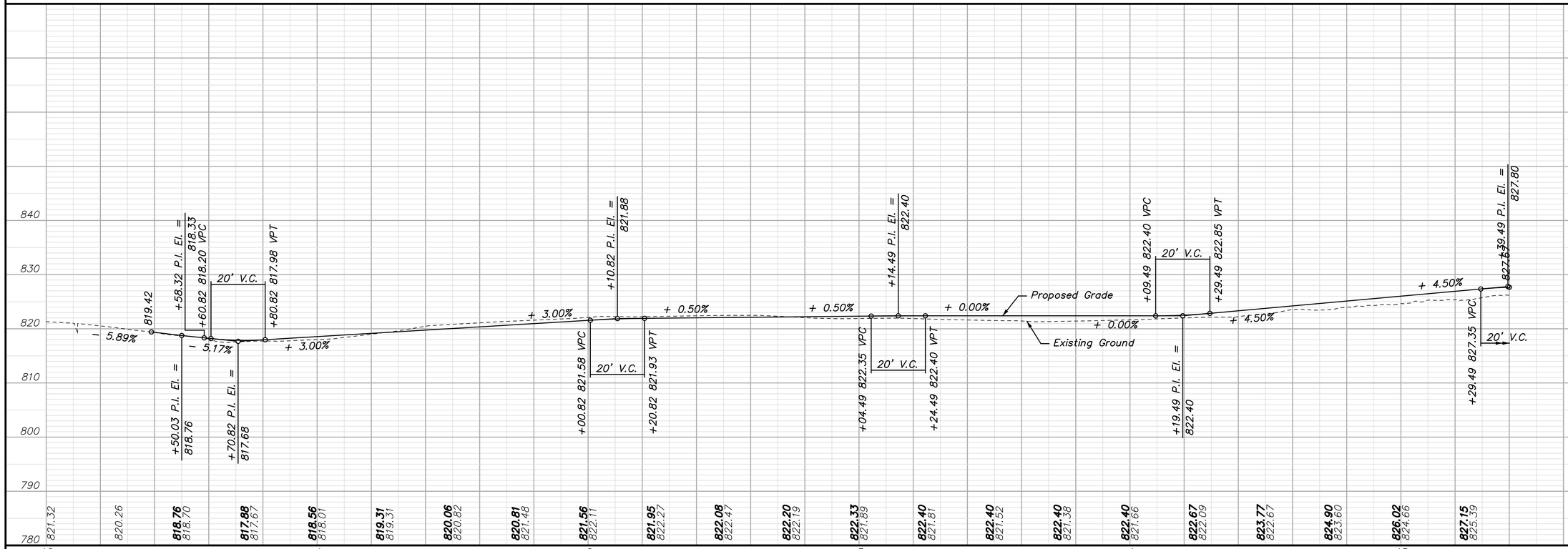

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CLEAR CREEK PARKWAY
CITY OF SHAWNEE, KANSAS

PLAN AND PROFILE SHEET (12)
STA. 10+00.00 TO STA. 15+40.00

150561-010

LAYOUT: MODEL | BY: jadams | DATE: 13-JUL-2016 6:21:11 PM
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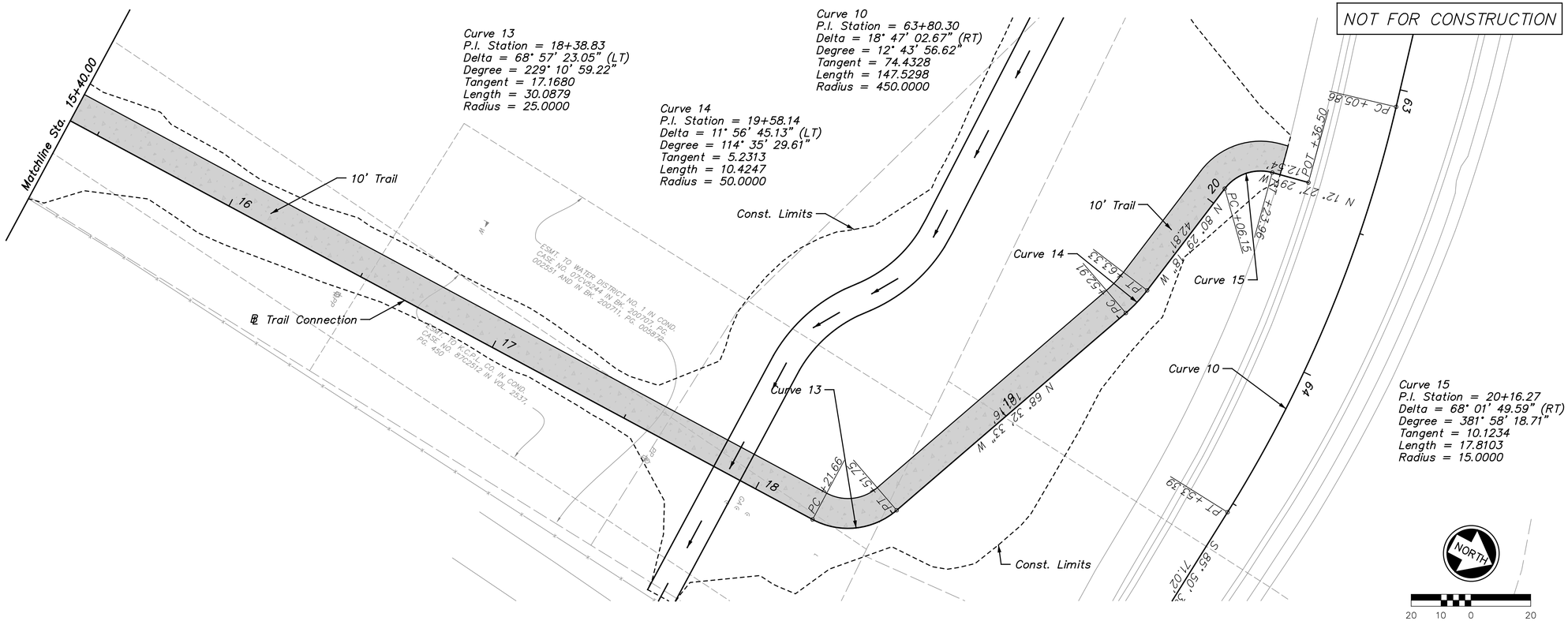
NOT FOR CONSTRUCTION

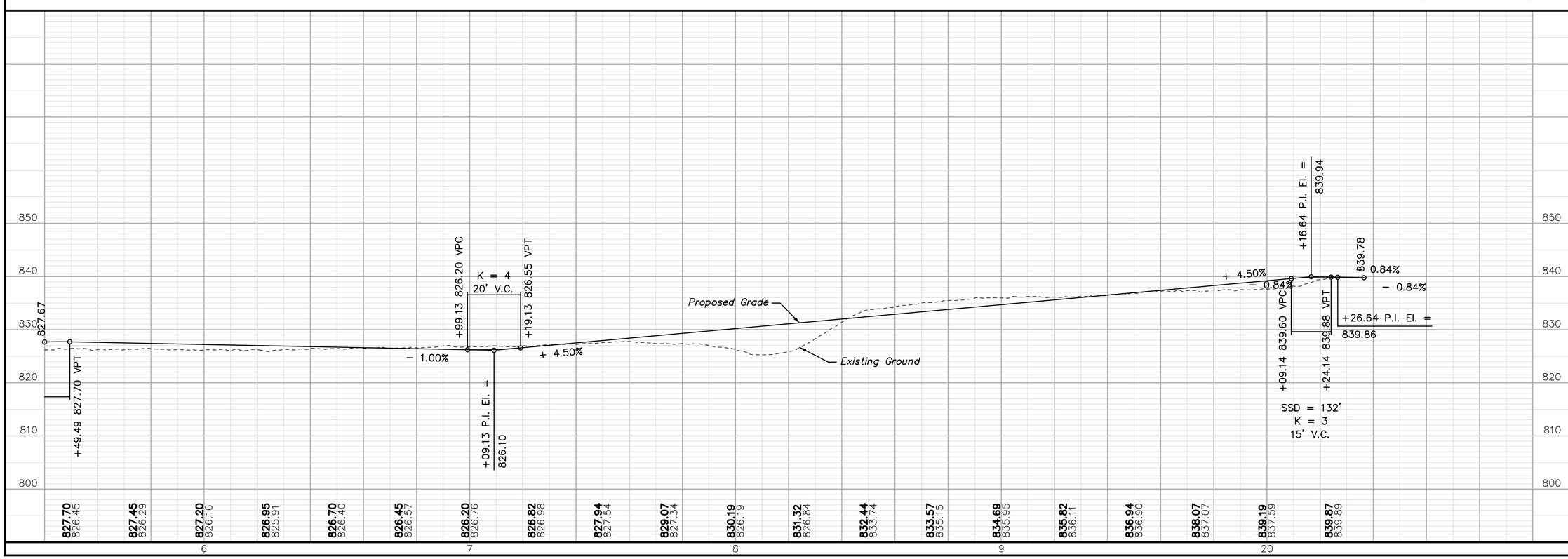
Curve 13
P.I. Station = 18+38.83
Delta = 68° 57' 23.05" (LT)
Degree = 229° 10' 59.22"
Tangent = 17.1680
Length = 30.0879
Radius = 25.0000

Curve 10
P.I. Station = 63+80.30
Delta = 18° 47' 02.67" (RT)
Degree = 12° 43' 56.62"
Tangent = 74.4328
Length = 147.5298
Radius = 450.0000

Curve 14
P.I. Station = 19+58.14
Delta = 11° 56' 45.13" (LT)
Degree = 114° 35' 29.61"
Tangent = 5.2313
Length = 10.4247
Radius = 50.0000

Curve 15
P.I. Station = 20+16.27
Delta = 68° 01' 49.59" (RT)
Degree = 381° 58' 18.71"
Tangent = 10.1234
Length = 17.8103
Radius = 15.0000





NO.	DATE	REVISIONS	BY	APP'D
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CLEAR CREEK PARKWAY
CITY OF SHAWNEE, KANSAS

PLAN AND PROFILE SHEET (13)
STA. 15+40.00 TO STA. 20+36.50

150561-010

SHEET NO.
30 OF 106

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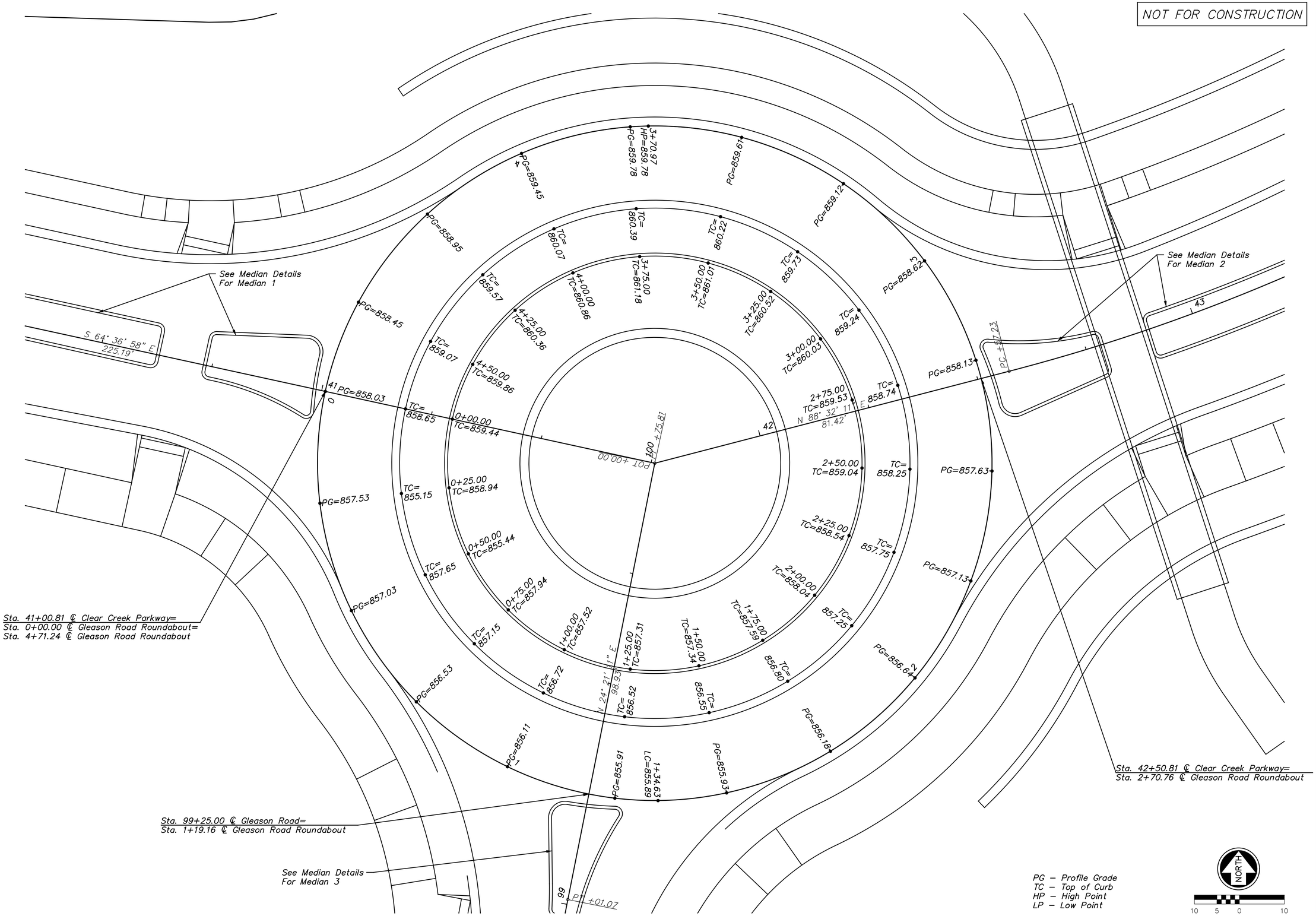

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CLEAR CREEK PARKWAY
CITY OF SHAWNEE, KANSAS

ROUNDABOUT PLAN

150561-010

SHEET NO.
31 OF 106

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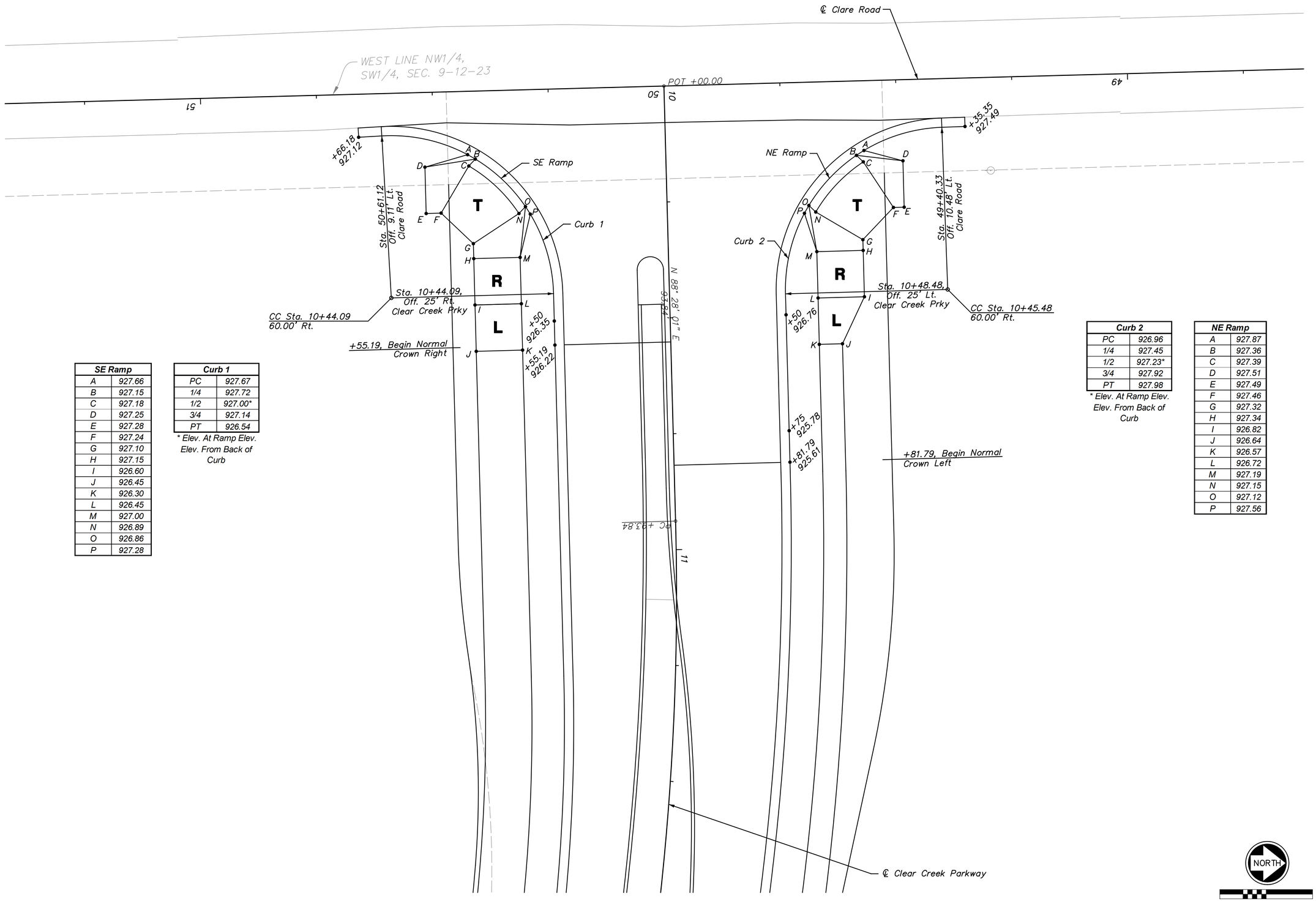

SE Ramp	
A	927.66
B	927.15
C	927.18
D	927.25
E	927.28
F	927.24
G	927.10
H	927.15
I	926.60
J	926.45
K	926.30
L	926.45
M	927.00
N	926.89
O	926.86
P	927.28

Curb 1	
PC	927.67
1/4	927.72
1/2	927.00*
3/4	927.14
PT	926.54

* Elev. At Ramp Elev.
Elev. From Back of Curb

Curb 2	
PC	926.96
1/4	927.45
1/2	927.23*
3/4	927.92
PT	927.98

* Elev. At Ramp Elev.
Elev. From Back of Curb

NE Ramp	
A	927.87
B	927.36
C	927.39
D	927.51
E	927.49
F	927.46
G	927.32
H	927.34
I	926.82
J	926.64
K	926.57
L	926.72
M	927.19
N	927.15
O	927.12
P	927.56

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CLEAR CREEK PARKWAY
CITY OF SHAWNEE, KANSAS

INTERSECTION DETAIL (1)
CLARE ROAD & CLEAR CREEK PARKWAY

150561-010

LAYOUT: MODEL | BY: jadams | DATE: 13-JUL-2016 5:47:31 PM
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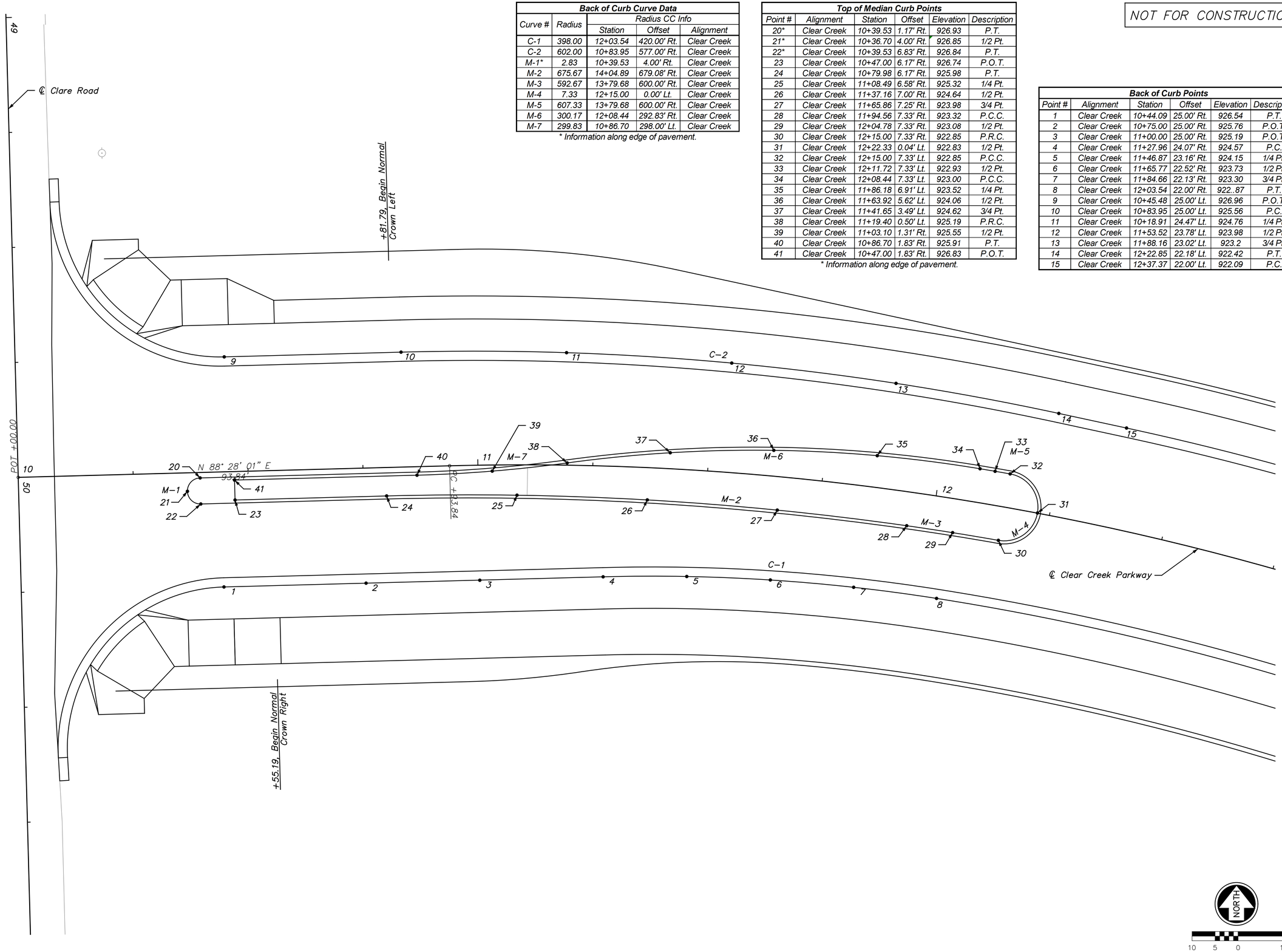
Back of Curb Curve Data				
Curve #	Radius	Radius CC Info		
		Station	Offset	Alignment
C-1	398.00	12+03.54	420.00' Rt.	Clear Creek
C-2	602.00	10+83.95	577.00' Rt.	Clear Creek
M-1*	2.83	10+39.53	4.00' Rt.	Clear Creek
M-2	675.67	14+04.89	679.08' Rt.	Clear Creek
M-3	592.67	13+79.68	600.00' Rt.	Clear Creek
M-4	7.33	12+15.00	0.00' Lt.	Clear Creek
M-5	607.33	13+79.68	600.00' Rt.	Clear Creek
M-6	300.17	12+08.44	292.83' Rt.	Clear Creek
M-7	299.83	10+86.70	298.00' Lt.	Clear Creek

* Information along edge of pavement.

Top of Median Curb Points					
Point #	Alignment	Station	Offset	Elevation	Description
20*	Clear Creek	10+39.53	1.17' Rt.	926.93	P.T.
21*	Clear Creek	10+36.70	4.00' Rt.	926.85	1/2 Pt.
22*	Clear Creek	10+39.53	6.83' Rt.	926.84	P.T.
23	Clear Creek	10+47.00	6.17' Rt.	926.74	P.O.T.
24	Clear Creek	10+79.98	6.17' Rt.	925.98	P.T.
25	Clear Creek	11+08.49	6.58' Rt.	925.32	1/4 Pt.
26	Clear Creek	11+37.16	7.00' Rt.	924.64	1/2 Pt.
27	Clear Creek	11+65.86	7.25' Rt.	923.98	3/4 Pt.
28	Clear Creek	11+94.56	7.33' Rt.	923.32	P.C.C.
29	Clear Creek	12+04.78	7.33' Rt.	923.08	1/2 Pt.
30	Clear Creek	12+15.00	7.33' Rt.	922.85	P.R.C.
31	Clear Creek	12+22.33	0.04' Lt.	922.83	1/2 Pt.
32	Clear Creek	12+15.00	7.33' Lt.	922.85	P.C.C.
33	Clear Creek	12+11.72	7.33' Lt.	922.93	1/2 Pt.
34	Clear Creek	12+08.44	7.33' Lt.	923.00	P.C.C.
35	Clear Creek	11+86.18	6.91' Lt.	923.52	1/4 Pt.
36	Clear Creek	11+63.92	5.62' Lt.	924.06	1/2 Pt.
37	Clear Creek	11+41.65	3.49' Lt.	924.62	3/4 Pt.
38	Clear Creek	11+19.40	0.50' Lt.	925.19	P.R.C.
39	Clear Creek	11+03.10	1.31' Rt.	925.55	1/2 Pt.
40	Clear Creek	10+86.70	1.83' Rt.	925.91	P.T.
41	Clear Creek	10+47.00	1.83' Rt.	926.83	P.O.T.

* Information along edge of pavement.

Back of Curb Points					
Point #	Alignment	Station	Offset	Elevation	Description
1	Clear Creek	10+44.09	25.00' Rt.	926.54	P.T.
2	Clear Creek	10+75.00	25.00' Rt.	925.76	P.O.T.
3	Clear Creek	11+00.00	25.00' Rt.	925.19	P.O.T.
4	Clear Creek	11+27.96	24.07' Rt.	924.57	P.C.
5	Clear Creek	11+46.87	23.16' Rt.	924.15	1/4 Pt.
6	Clear Creek	11+65.77	22.52' Rt.	923.73	1/2 Pt.
7	Clear Creek	11+84.66	22.13' Rt.	923.30	3/4 Pt.
8	Clear Creek	12+03.54	22.00' Rt.	922..87	P.T.
9	Clear Creek	10+45.48	25.00' Lt.	926.96	P.O.T.
10	Clear Creek	10+83.95	25.00' Lt.	925.56	P.C.
11	Clear Creek	10+18.91	24.47' Lt.	924.76	1/4 Pt.
12	Clear Creek	11+53.52	23.78' Lt.	923.98	1/2 Pt.
13	Clear Creek	11+88.16	23.02' Lt.	923.2	3/4 Pt.
14	Clear Creek	12+22.85	22.18' Lt.	922.42	P.T.
15	Clear Creek	12+37.37	22.00' Lt.	922.09	P.C.



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CLEAR CREEK PARKWAY
CITY OF SHAWNEE, KANSAS

INTERSECTION DETAIL (2)
CLARE ROAD & CLEAR CREEK PARKWAY

150561-010

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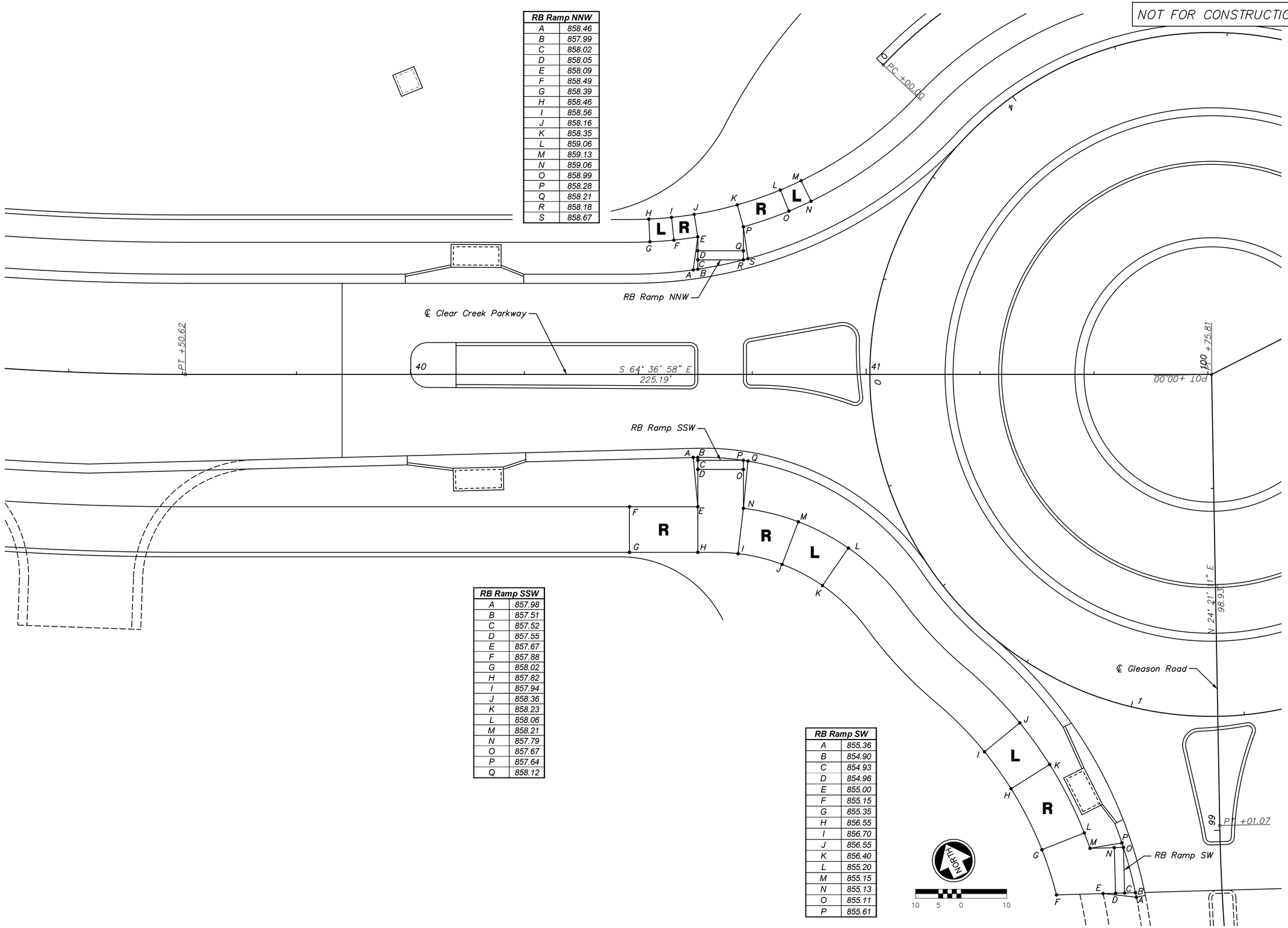

RB Ramp NNW	
A	858.46
B	857.99
C	858.02
D	858.05
E	858.09
F	858.49
G	858.39
H	858.46
I	858.56
J	858.16
K	858.35
L	859.06
M	859.13
N	859.06
O	858.99
P	858.28
Q	858.21
R	858.18
S	858.67

RB Ramp SSW	
A	857.98
B	857.51
C	857.52
D	857.55
E	857.67
F	857.88
G	858.02
H	857.82
I	857.94
J	858.36
K	858.23
L	858.06
M	858.21
N	857.79
O	857.67
P	857.64
Q	858.12

RB Ramp SW	
A	855.36
B	854.90
C	854.93
D	854.96
E	855.00
F	855.15
G	855.35
H	856.55
I	856.70
J	856.55
K	856.40
L	855.20
M	855.15
N	855.13
O	855.11
P	855.61

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CLEAR CREEK PARKWAY
CITY OF SHAWNEE, KANSAS

INTERSECTION DETAIL (3)

150561-010

SHEET NO.
34 OF 106

LAYOUT: MODEL | BY: jadams | DATE: 13-JUL-2016 5:47:38 PM
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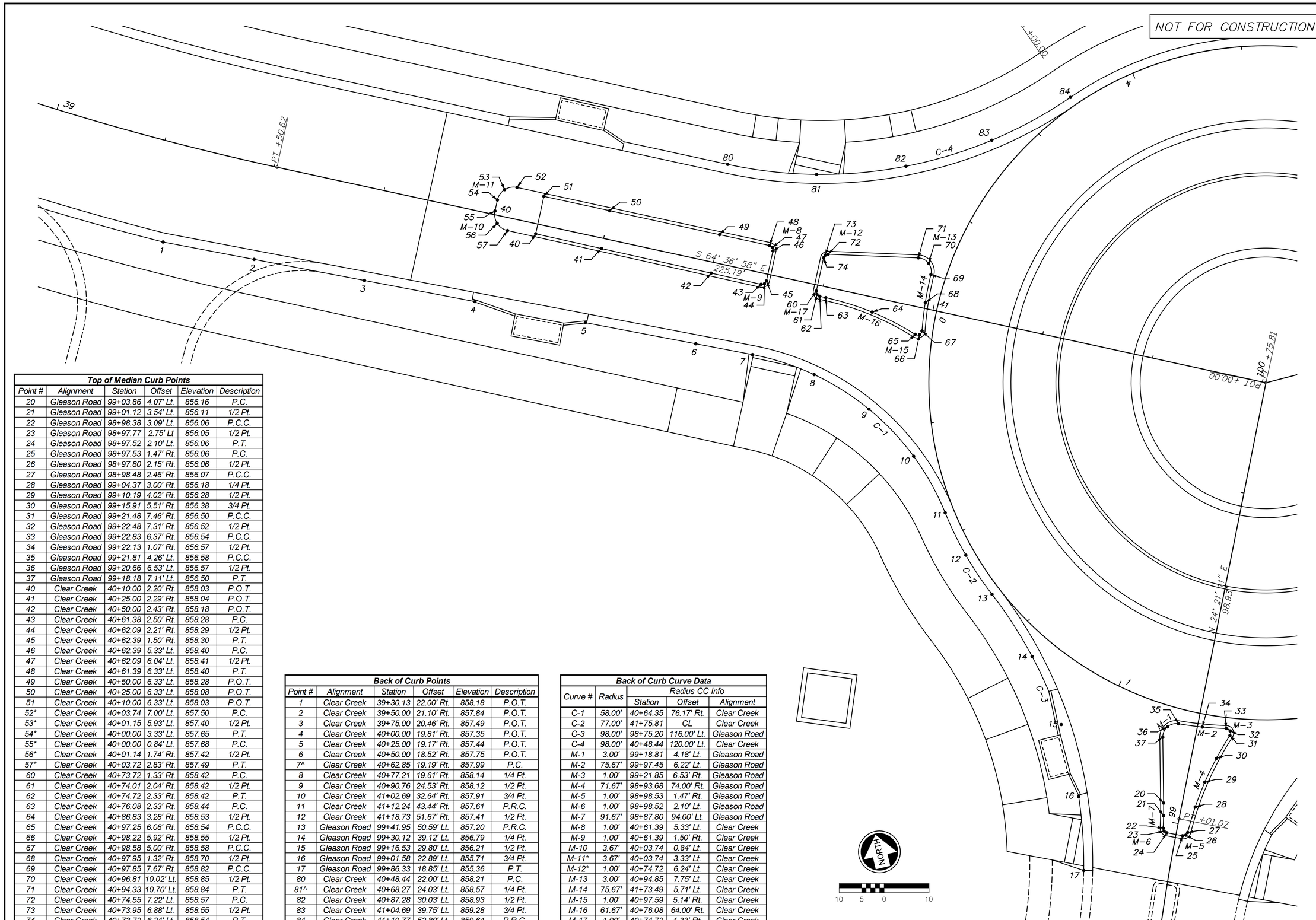

Top of Median Curb Points					
Point #	Alignment	Station	Offset	Elevation	Description
20	Gleason Road	99+03.86	4.07' Lt.	856.16	P.C.
21	Gleason Road	99+01.12	3.54' Lt.	856.11	1/2 Pt.
22	Gleason Road	98+98.38	3.09' Lt.	856.06	P.C.C.
23	Gleason Road	98+97.77	2.75' Lt	856.05	1/2 Pt.
24	Gleason Road	98+97.52	2.10' Lt.	856.06	P.T.
25	Gleason Road	98+97.53	1.47' Rt.	856.06	P.C.
26	Gleason Road	98+97.80	2.15' Rt.	856.06	1/2 Pt.
27	Gleason Road	98+98.48	2.46' Rt.	856.07	P.C.C.
28	Gleason Road	99+04.37	3.00' Rt.	856.18	1/4 Pt.
29	Gleason Road	99+10.19	4.02' Rt.	856.28	1/2 Pt.
30	Gleason Road	99+15.91	5.51' Rt.	856.38	3/4 Pt.
31	Gleason Road	99+21.48	7.46' Rt.	856.50	P.C.C.
32	Gleason Road	99+22.48	7.31' Rt.	856.52	1/2 Pt.
33	Gleason Road	99+22.83	6.37' Rt.	856.54	P.C.C.
34	Gleason Road	99+22.13	1.07' Rt.	856.57	1/2 Pt.
35	Gleason Road	99+21.81	4.26' Lt.	856.58	P.C.C.
36	Gleason Road	99+20.66	6.53' Lt.	856.57	1/2 Pt.
37	Gleason Road	99+18.18	7.11' Lt.	856.50	P.T.
40	Clear Creek	40+10.00	2.20' Rt.	858.03	P.O.T.
41	Clear Creek	40+25.00	2.29' Rt.	858.04	P.O.T.
42	Clear Creek	40+50.00	2.43' Rt.	858.18	P.O.T.
43	Clear Creek	40+61.38	2.50' Rt.	858.28	P.C.
44	Clear Creek	40+62.09	2.21' Rt.	858.29	1/2 Pt.
45	Clear Creek	40+62.39	1.50' Rt.	858.30	P.T.
46	Clear Creek	40+62.39	5.33' Lt.	858.40	P.C.
47	Clear Creek	40+62.09	6.04' Lt.	858.41	1/2 Pt.
48	Clear Creek	40+61.39	6.33' Lt.	858.40	P.T.
49	Clear Creek	40+50.00	6.33' Lt.	858.28	P.O.T.
50	Clear Creek	40+25.00	6.33' Lt.	858.08	P.O.T.
51	Clear Creek	40+10.00	6.33' Lt.	858.03	P.O.T.
52*	Clear Creek	40+03.74	7.00' Lt.	857.50	P.C.
53*	Clear Creek	40+01.15	5.93' Lt.	857.40	1/2 Pt.
54*	Clear Creek	40+00.00	3.33' Lt.	857.65	P.T.
55*	Clear Creek	40+00.00	0.84' Lt.	857.68	P.C.
56*	Clear Creek	40+01.14	1.74' Rt.	857.42	1/2 Pt.
57*	Clear Creek	40+03.72	2.83' Rt.	857.49	P.T.
60	Clear Creek	40+73.72	1.33' Rt.	858.42	P.C.
61	Clear Creek	40+74.01	2.04' Rt.	858.42	1/2 Pt.
62	Clear Creek	40+74.72	2.33' Rt.	858.42	P.T.
63	Clear Creek	40+76.08	2.33' Rt.	858.44	P.C.
64	Clear Creek	40+86.83	3.28' Rt.	858.53	1/2 Pt.
65	Clear Creek	40+97.25	6.08' Rt.	858.54	P.C.C.
66	Clear Creek	40+98.22	5.92' Rt.	858.55	1/2 Pt.
67	Clear Creek	40+98.58	5.00' Rt.	858.58	P.C.C.
68	Clear Creek	40+97.95	1.32' Rt.	858.70	1/2 Pt.
69	Clear Creek	40+97.85	7.67' Rt.	858.82	P.C.C.
70	Clear Creek	40+96.81	10.02' Lt.	858.85	1/2 Pt.
71	Clear Creek	40+94.33	10.70' Lt.	858.84	P.T.
72	Clear Creek	40+74.55	7.22' Lt.	858.57	P.C.
73	Clear Creek	40+73.95	6.88' Lt.	858.55	1/2 Pt.
74	Clear Creek	40+73.72	6.24' Lt.	858.54	P.T.

* Information along edge of pavement.

Back of Curb Points					
Point #	Alignment	Station	Offset	Elevation	Description
1	Clear Creek	39+30.13	22.00' Rt.	858.18	P.O.T.
2	Clear Creek	39+50.00	21.10' Rt.	857.84	P.O.T.
3	Clear Creek	39+75.00	20.46' Rt.	857.49	P.O.T.
4	Clear Creek	40+00.00	19.81' Rt.	857.35	P.O.T.
5	Clear Creek	40+25.00	19.17' Rt.	857.44	P.O.T.
6	Clear Creek	40+50.00	18.52' Rt.	857.75	P.O.T.
7^	Clear Creek	40+62.85	19.19' Rt.	857.99	P.C.
8	Clear Creek	40+77.21	19.61' Rt.	858.14	1/4 Pt.
9	Clear Creek	40+90.76	24.53' Rt.	858.12	1/2 Pt.
10	Clear Creek	41+02.69	32.64' Rt.	857.91	3/4 Pt.
11	Clear Creek	41+12.24	43.44' Rt.	857.61	P.R.C.
12	Clear Creek	41+18.73	51.67' Rt.	857.41	1/2 Pt.
13	Gleason Road	99+41.95	50.59' Lt.	857.20	P.R.C.
14	Gleason Road	99+30.12	39.12' Lt.	856.79	1/4 Pt.
15	Gleason Road	99+16.53	29.80' Lt.	856.21	1/2 Pt.
16	Gleason Road	99+01.58	22.89' Lt.	855.71	3/4 Pt.
17	Gleason Road	99+86.33	18.85' Lt.	855.36	P.T.
80	Clear Creek	40+48.44	22.00' Lt.	858.21	P.C.
81^	Clear Creek	40+68.27	24.03' Lt.	858.57	1/4 Pt.
82	Clear Creek	40+87.28	30.03' Lt.	858.93	1/2 Pt.
83	Clear Creek	41+04.69	39.75' Lt.	859.28	3/4 Pt.
84	Clear Creek	41+19.77	52.80' Lt.	859.64	P.R.C.

^ Point located in ramp. Elevation is full curb height.

Back of Curb Curve Data				
Curve #	Radius	Radius CC Info		
		Station	Offset	Alignment
C-1	58.00'	40+64.35	76.17' Rt.	Clear Creek
C-2	77.00'	41+75.81	CL	Clear Creek
C-3	98.00'	98+75.20	116.00' Lt.	Gleason Road
C-4	98.00'	40+48.44	120.00' Lt.	Clear Creek
M-1	3.00'	99+18.81	4.18' Lt.	Gleason Road
M-2	75.67'	99+97.45	6.22' Lt.	Gleason Road
M-3	1.00'	99+21.85	6.53' Rt.	Gleason Road
M-4	71.67'	98+93.68	74.00' Rt.	Gleason Road
M-5	1.00'	98+98.53	1.47' Rt.	Gleason Road
M-6	1.00'	98+98.52	2.10' Lt.	Gleason Road
M-7	91.67'	98+87.80	94.00' Lt.	Gleason Road
M-8	1.00'	40+61.39	5.33' Lt.	Clear Creek
M-9	1.00'	40+61.39	1.50' Rt.	Clear Creek
M-10	3.67'	40+03.74	0.84' Lt.	Clear Creek
M-11*	3.67'	40+03.74	3.33' Lt.	Clear Creek
M-12*	1.00'	40+74.72	6.24' Lt.	Clear Creek
M-13	3.00'	40+94.85	7.75' Lt.	Clear Creek
M-14	75.67'	41+73.49	5.71' Lt.	Clear Creek
M-15	1.00'	40+97.59	5.14' Rt.	Clear Creek
M-16	61.67'	40+76.08	64.00' Rt.	Clear Creek
M-17	1.00'	40+74.72	1.33' Rt.	Clear Creek

* Information along edge of pavement.

NO.	DATE	REVISIONS	BY	APP'D
1				
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Designed By: PRP
Drawn By: JCK/JAA
Checked By: HDL
Issue Date: JULY 2016

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CLEAR CREEK PARKWAY
CITY OF SHAWNEE, KANSAS

INTERSECTION DETAIL (4)

150561-010

SHEET NO.
35 OF 106

LAYOUT: MODEL | BY: jadams | DATE: 13-JUL-2016 5:47:41 PM
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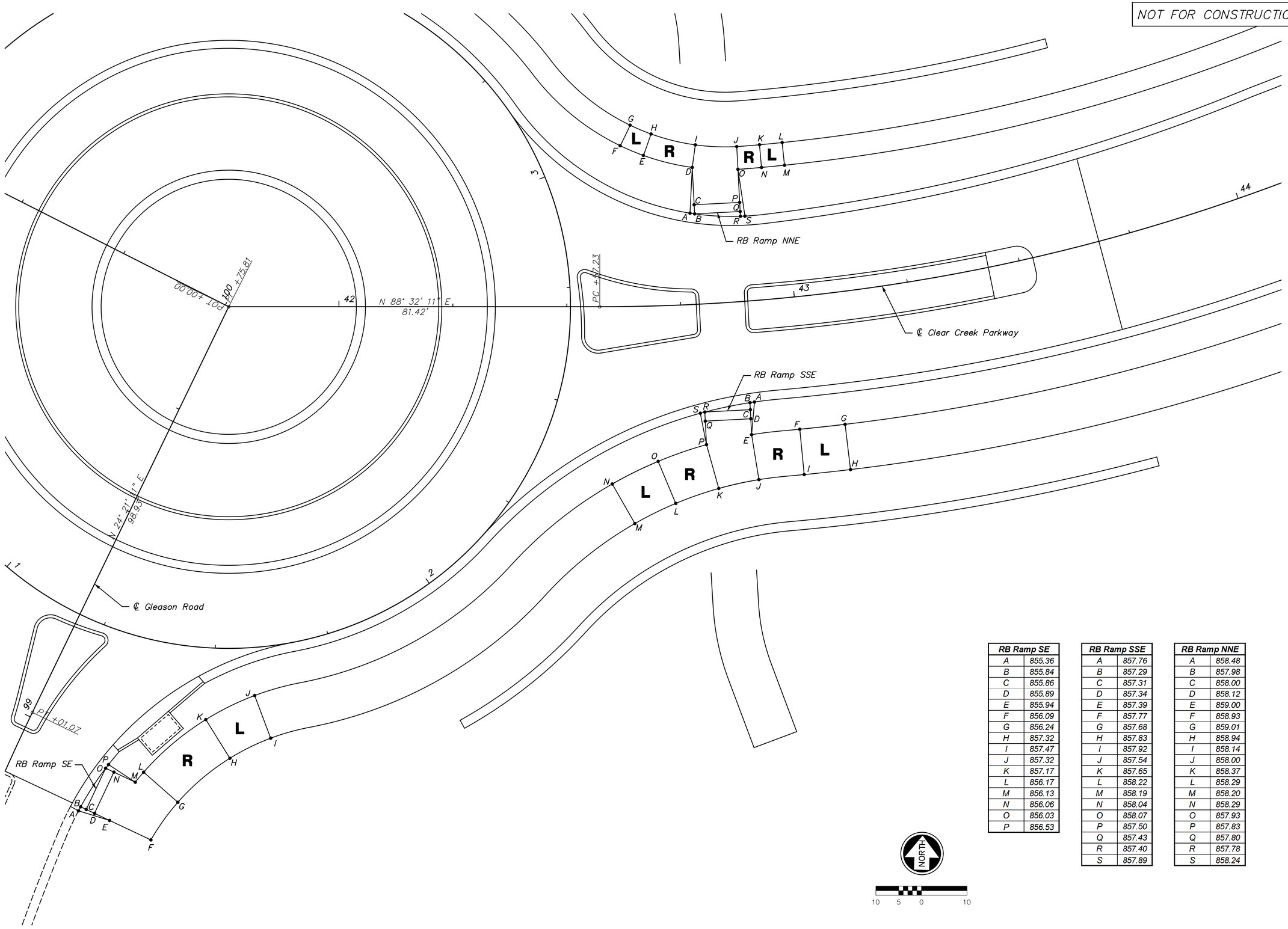

RB Ramp SE	
A	855.36
B	855.84
C	855.86
D	855.89
E	855.94
F	856.09
G	856.24
H	857.32
I	857.47
J	857.32
K	857.17
L	856.17
M	856.13
N	856.06
O	856.03
P	856.53

RB Ramp SSE	
A	857.76
B	857.29
C	857.31
D	857.34
E	857.39
F	857.77
G	857.68
H	857.83
I	857.92
J	857.54
K	857.65
L	858.22
M	858.19
N	858.04
O	858.07
P	857.50
Q	857.43
R	857.40
S	857.89

RB Ramp NNE	
A	858.48
B	857.98
C	858.00
D	858.12
E	859.00
F	858.93
G	859.01
H	858.94
I	858.14
J	858.00
K	858.37
L	858.29
M	858.20
N	858.29
O	857.93
P	857.83
Q	857.80
R	857.78
S	858.24

NORTH

10 5 0 10

NO.	DATE	REVISIONS	BY	APP'D
1				
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CLEAR CREEK PARKWAY
CITY OF SHAWNEE, KANSAS

INTERSECTION DETAIL (5)

150561-010

LAYOUT: MODEL | BY: jadams | DATE: 13-JUL-2016 5:47:48 PM
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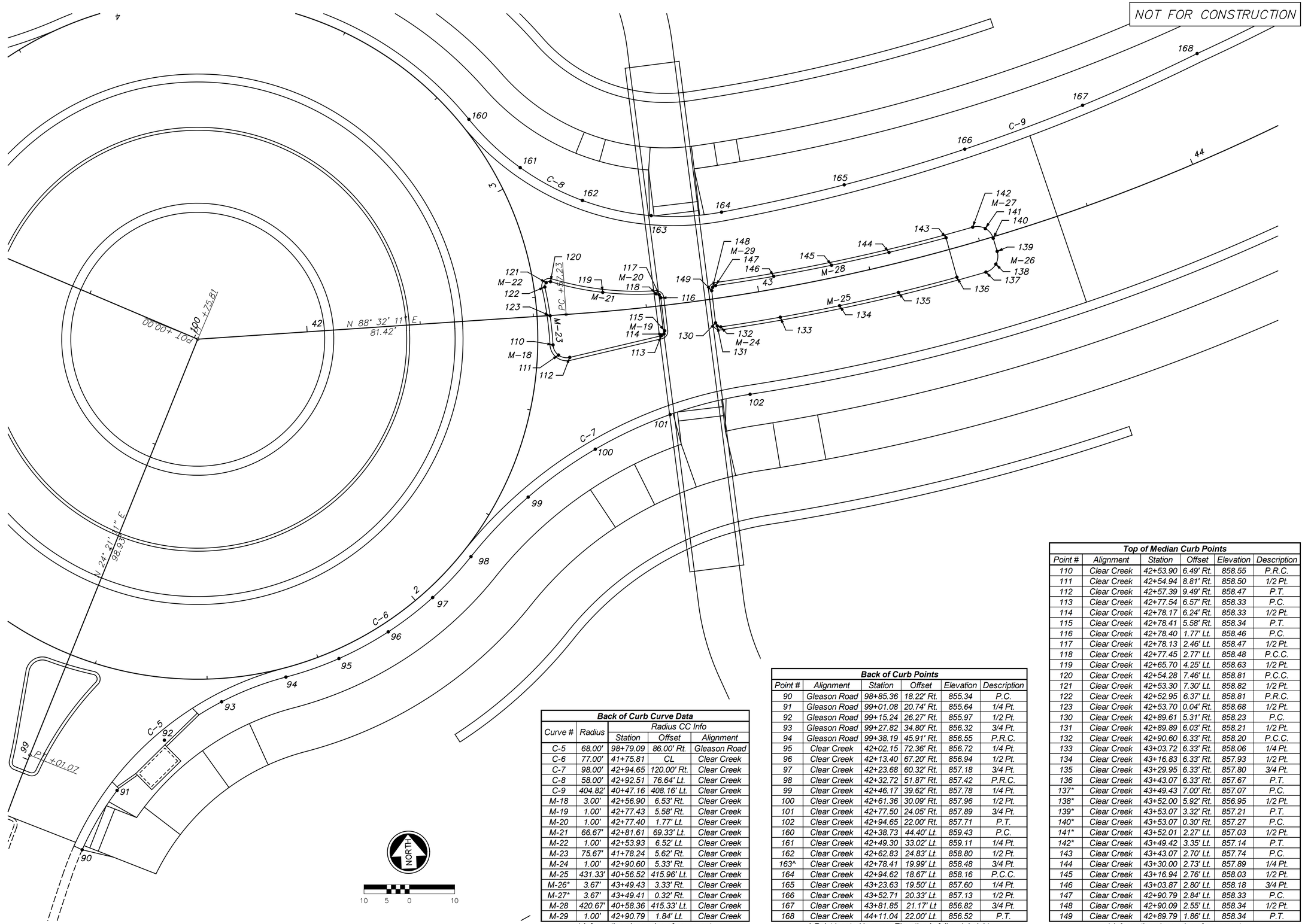

Back of Curb Curve Data

Curve #	Radius	Radius CC Info		
		Station	Offset	Alignment
C-5	68.00'	98+79.09	86.00' Rt.	Gleason Road
C-6	77.00'	41+75.81	CL	Clear Creek
C-7	98.00'	42+94.65	120.00' Rt.	Clear Creek
C-8	58.00'	42+92.51	76.64' Lt.	Clear Creek
C-9	404.82'	40+47.16	408.16' Lt.	Clear Creek
M-18	3.00'	42+56.90	6.53' Rt.	Clear Creek
M-19	1.00'	42+77.43	5.58' Rt.	Clear Creek
M-20	1.00'	42+77.40	1.77' Lt.	Clear Creek
M-21	66.67'	42+81.61	69.33' Lt.	Clear Creek
M-22	1.00'	42+53.93	6.52' Lt.	Clear Creek
M-23	75.67'	41+78.24	5.62' Rt.	Clear Creek
M-24	1.00'	42+90.60	5.33' Rt.	Clear Creek
M-25	431.33'	40+56.52	415.96' Lt.	Clear Creek
M-26*	3.67'	43+49.43	3.33' Rt.	Clear Creek
M-27*	3.67'	43+49.41	0.32' Rt.	Clear Creek
M-28	420.67'	40+58.36	415.33' Lt.	Clear Creek
M-29	1.00'	42+90.79	1.84' Lt.	Clear Creek

* Information along edge of pavement.

Back of Curb Points

Point #	Alignment	Station	Offset	Elevation	Description
90	Gleason Road	98+85.36	18.22' Rt.	855.34	P.C.
91	Gleason Road	99+01.08	20.74' Rt.	855.64	1/4 Pt.
92	Gleason Road	99+15.24	26.27' Rt.	855.97	1/2 Pt.
93	Gleason Road	99+27.82	34.80' Rt.	856.32	3/4 Pt.
94	Gleason Road	99+38.19	45.91' Rt.	856.55	P.R.C.
95	Clear Creek	42+02.15	72.36' Rt.	856.72	1/4 Pt.
96	Clear Creek	42+13.40	67.20' Rt.	856.94	1/2 Pt.
97	Clear Creek	42+23.68	60.32' Rt.	857.18	3/4 Pt.
98	Clear Creek	42+32.72	51.87' Rt.	857.42	P.R.C.
99	Clear Creek	42+46.17	39.62' Rt.	857.78	1/4 Pt.
100	Clear Creek	42+61.36	30.09' Rt.	857.96	1/2 Pt.
101	Clear Creek	42+77.50	24.05' Rt.	857.89	3/4 Pt.
102	Clear Creek	42+94.65	22.00' Rt.	857.71	P.T.
160	Clear Creek	42+38.73	44.40' Lt.	859.43	P.C.
161	Clear Creek	42+49.30	33.02' Lt.	859.11	1/4 Pt.
162	Clear Creek	42+62.83	24.83' Lt.	858.80	1/2 Pt.
163^	Clear Creek	42+78.41	19.99' Lt.	858.48	3/4 Pt.
164	Clear Creek	42+94.62	18.67' Lt.	858.16	P.C.C.
165	Clear Creek	43+23.63	19.50' Lt.	857.60	1/4 Pt.
166	Clear Creek	43+52.71	20.33' Lt.	857.13	1/2 Pt.
167	Clear Creek	43+81.85	21.17' Lt	856.82	3/4 Pt.
168	Clear Creek	44+11.04	22.00' Lt.	856.52	P.T.

^ Point located in ramp. Elevation is full curb height.

Top of Median Curb Points

Point #	Alignment	Station	Offset	Elevation	Description
110	Clear Creek	42+53.90	6.49' Rt.	858.55	P.R.C.
111	Clear Creek	42+54.94	8.81' Rt.	858.50	1/2 Pt.
112	Clear Creek	42+57.39	9.49' Rt.	858.47	P.T.
113	Clear Creek	42+77.54	6.57' Rt.	858.33	P.C.
114	Clear Creek	42+78.17	6.24' Rt.	858.33	1/2 Pt.
115	Clear Creek	42+78.41	5.58' Rt.	858.34	P.T.
116	Clear Creek	42+78.40	1.77' Lt.	858.46	P.C.
117	Clear Creek	42+78.13	2.46' Lt.	858.47	1/2 Pt.
118	Clear Creek	42+77.45	2.77' Lt.	858.48	P.C.C.
119	Clear Creek	42+65.70	4.25' Lt.	858.63	1/2 Pt.
120	Clear Creek	42+54.28	7.46' Lt.	858.81	P.C.C.
121	Clear Creek	42+53.30	7.30' Lt.	858.82	1/2 Pt.
122	Clear Creek	42+52.95	6.37' Lt.	858.81	P.R.C.
123	Clear Creek	42+53.70	0.04' Rt.	858.68	1/2 Pt.
130	Clear Creek	42+89.61	5.31' Rt.	858.23	P.C.
131	Clear Creek	42+89.89	6.03' Rt.	858.21	1/2 Pt.
132	Clear Creek	42+90.60	6.33' Rt.	858.20	P.C.C.
133	Clear Creek	43+03.72	6.33' Rt.	858.06	1/4 Pt.
134	Clear Creek	43+16.83	6.33' Rt.	857.93	1/2 Pt.
135	Clear Creek	43+29.95	6.33' Rt.	857.80	3/4 Pt.
136	Clear Creek	43+43.07	6.33' Rt.	857.67	P.T.
137*	Clear Creek	43+49.43	7.00' Rt.	857.07	P.C.
138*	Clear Creek	43+52.00	5.92' Rt.	856.95	1/2 Pt.
139*	Clear Creek	43+53.07	3.32' Rt.	857.21	P.T.
140*	Clear Creek	43+53.07	0.30' Rt.	857.27	P.C.
141*	Clear Creek	43+52.01	2.27' Lt.	857.03	1/2 Pt.
142*	Clear Creek	43+49.42	3.35' Lt.	857.14	P.T.
143	Clear Creek	43+43.07	2.70' Lt.	857.74	P.C.
144	Clear Creek	43+30.00	2.73' Lt.	857.89	1/4 Pt.
145	Clear Creek	43+16.94	2.76' Lt.	858.03	1/2 Pt.
146	Clear Creek	43+03.87	2.80' Lt.	858.18	3/4 Pt.
147	Clear Creek	42+90.79	2.84' Lt.	858.33	P.C.
148	Clear Creek	42+90.09	2.55' Lt.	858.34	1/2 Pt.
149	Clear Creek	42+89.79	1.86' Lt.	858.34	P.T.

* Information along edge of pavement.

NO.	DATE	REVISIONS	BY	APP'D
1				
2				
3				
4				
5				

Designed By: PRP
Drawn By: JCK/JAA
Checked By: HDL
Issue Date: JULY 2016

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CLEAR CREEK PARKWAY
CITY OF SHAWNEE, KANSAS

INTERSECTION DETAIL (6)

150561-010

SHEET NO.
37 OF 106

LAYOUT: MODEL | BY: jadams | DATE: 13-JUL-2016 5:47:50 PM
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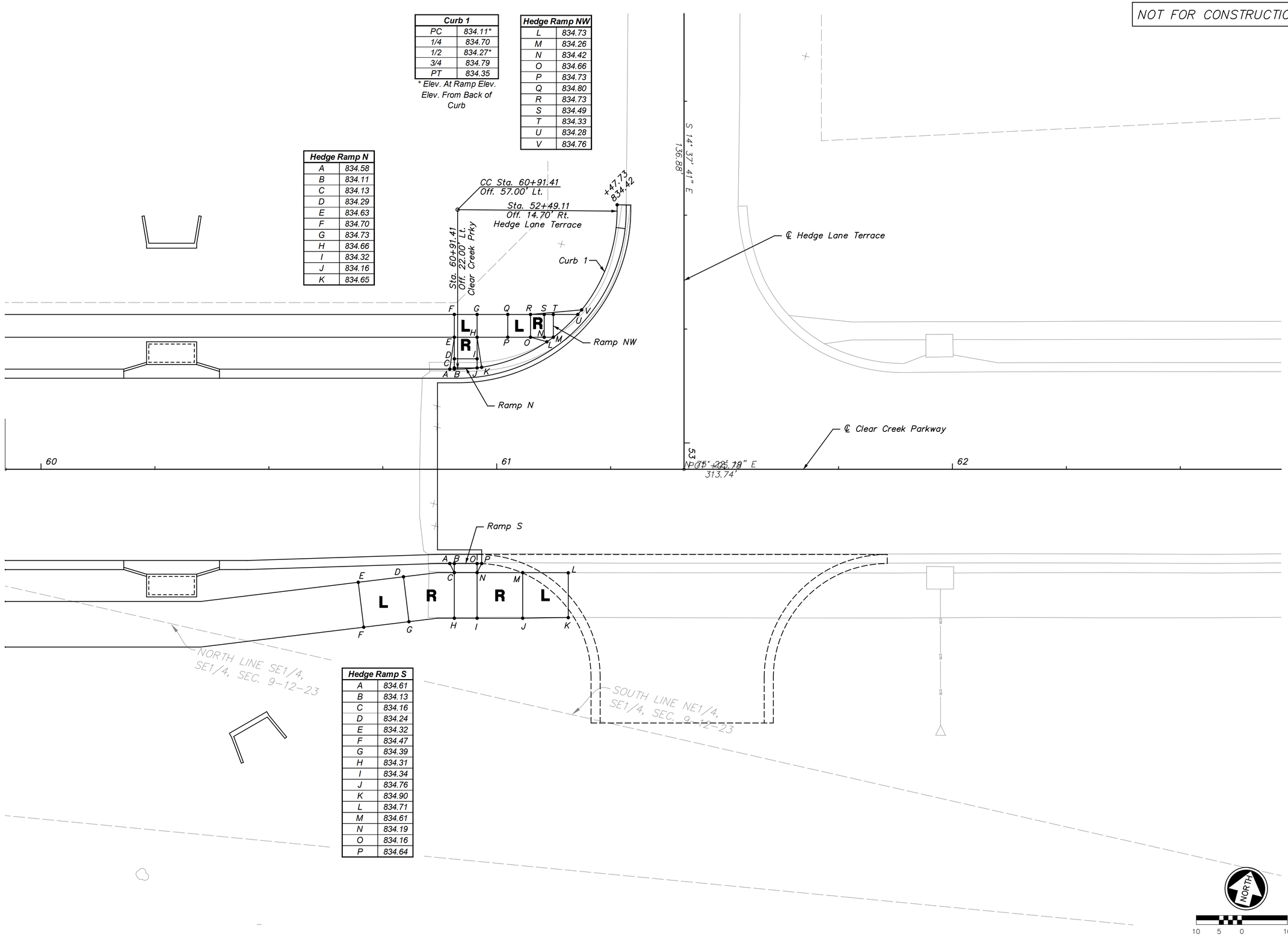
NOT FOR CONSTRUCTION

Curb 1	
PC	834.11*
1/4	834.70
1/2	834.27*
3/4	834.79
PT	834.35

* Elev. At Ramp Elev.
Elev. From Back of Curb

Hedge Ramp NW	
L	834.73
M	834.26
N	834.42
O	834.66
P	834.73
Q	834.80
R	834.73
S	834.49
T	834.33
U	834.28
V	834.76

Hedge Ramp N	
A	834.58
B	834.11
C	834.13
D	834.29
E	834.63
F	834.70
G	834.73
H	834.66
I	834.32
J	834.16
K	834.65



Hedge Ramp S	
A	834.61
B	834.13
C	834.16
D	834.24
E	834.32
F	834.47
G	834.39
H	834.31
I	834.34
J	834.76
K	834.90
L	834.71
M	834.61
N	834.19
O	834.16
P	834.64

NO.	DATE	REVISIONS	BY	APP'D
5				
4				
3				
2				
1				

Designed By: PRP
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Issue Date: JULY 2016

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CLEAR CREEK PARKWAY
CITY OF SHAWNEE, KANSAS

INTERSECTION DETAIL (7)

150561-010

LAYOUT: MODEL | BY: jadams | DATE: 13-JUL-2016 5:48:00 PM
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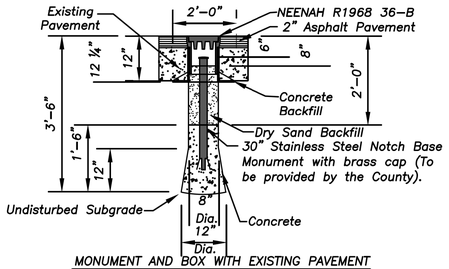
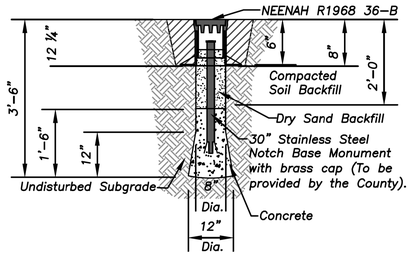


MONUMENT AND BOX WITH EXISTING PAVEMENT



MONUMENT AND BOX WITH COMPACTED BACKFILL

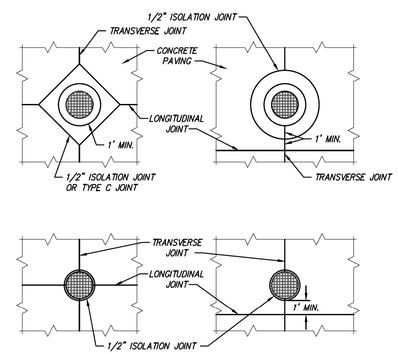
Monument Notes:

1. All survey work related to preserving location and establishment of new monument shall be performed under supervision of the construction surveyor, who shall be a land surveyor licensed in the State of Kansas.
2. Construction surveyor is responsible for filing Notice of Endangerment Activity Report and Completion of Endangerment Activity Report with Kansas State Historical Society, Johnson County Engineer, and the City. Reports shall have at least 5 reference ties to points unlikely to be disturbed by construction, or 3 ties & State Plane Coordinates.
3. Stainless steel monument with brass cap will be furnished to the construction surveyor by Johnson County Public Works upon satisfactory review of Notice of Endangerment Activity Report.
4. Monument box and other material shall be furnished by Contractor.
5. Brass cap is not pre punched and after the monument is set in concrete the construction surveyor shall punch brass cap at exact location. No other information shall be punched on the cap by the construction surveyor.

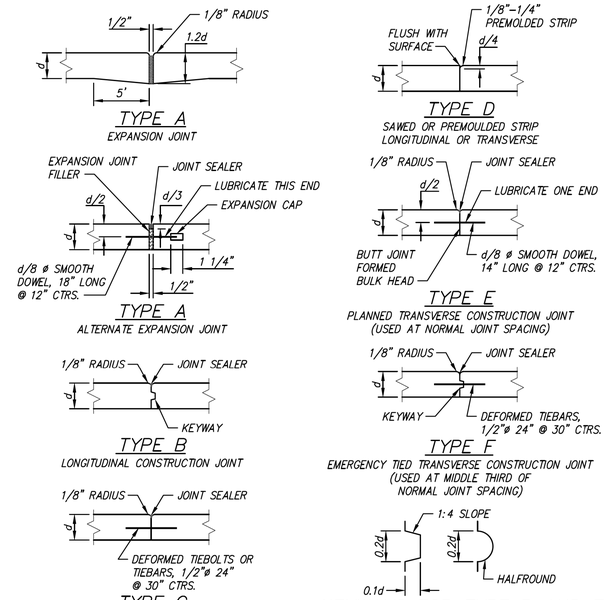
Government Corners to be preserved per this monument detail:

Corner	Section	Township	Range

LAND CORNER MONUMENT BOX

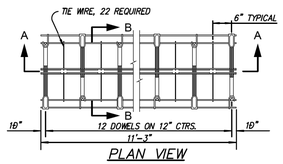


CONCRETE JOINT DETAILS AT MANHOLES

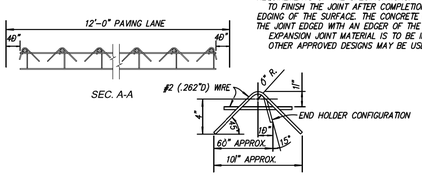


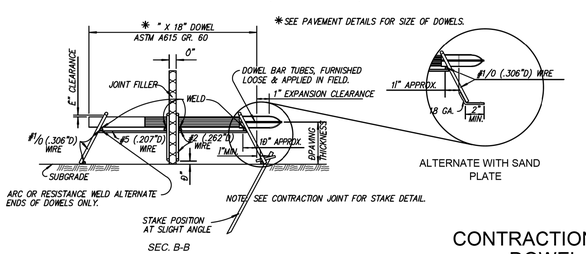
CONCRETE PAVING JOINT DETAILS

PERSPECTIVE VIEW



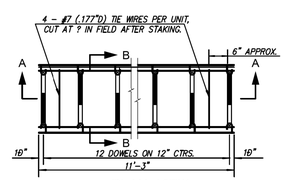
PLAN VIEW



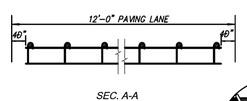


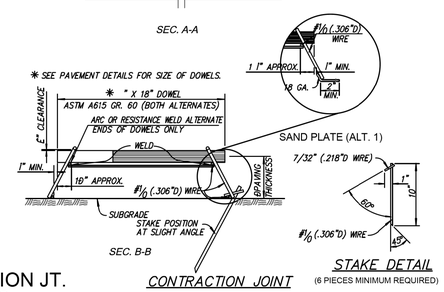
EXPANSION JOINT

PERSPECTIVE VIEW



PLAN VIEW





CONTRACTION & EXPANSION JT. DOWEL ASSEMBLIES

NOTES:

WIRE SIZES SHOWN ARE MINIMUM REQUIRED.

SIDES HELD TOGETHER WITH TIE WIRE, ALLOWING QUICK SEPARATION OF SIDES & INSERTION OF EXPANSION MATERIAL, PROVIDED IN FIELD.

ONE LENGTH OF PREFORMED EXPANSION JOINT FILLER (TYPE B), OR OTHER APPROVED MATERIAL, CUT TO FIT CROWN AND SUBGRADE SHALL BE USED FOR EACH LANE OF PAVEMENT AS EXPANSION JOINT FILLER.

A STRING LINE SHALL BE STRETCHED BETWEEN THE PAVEMENT FORMS ALONG THE CENTER LINE OF THE JOINT.

EACH DOWEL BAR SHALL BE COATED WITH AN EPOXY COATING WITH THE AVERAGE FILM THICKNESS OF NOT LESS THAN 10 MILS ON ANY BAR, WITH INDIVIDUAL DETERMINATIONS WITHIN A TOLERANCE OF + 3 MILS OF THE AVERAGE. THE COATING NEED NOT BE APPLIED TO THE END FACES OF THE BARS AND WILL NOT BE REQUIRED WITH~ IN 2 INCHES OF THE END WHICH WILL BE FIXED IN THE SUPPORTING BASKET BY WELD~ ING. THE COATING MATERIAL SHALL BE A POWDERED EPOXY RESIN APPROVED BY THE ENGINEER OF MATERIALS AND SHALL BE UNIFORMLY APPLIED ACCORDING TO ACCEPTED PRACTICES AND THE RESIN MANUFACTURER'S RECOMMENDATIONS.

IN ORDER TO IDENTIFY THE LOCATION OF THE BOND BREAKER APPLICATION, THE WORKING END OF DOWEL AND THE SUPPORTING LEG SHALL RECEIVE A LIGHT APPLICATION OF RED PAINT AT THE PLACE OF FABRICATION. THE BOND BREAKER TO BE APPLIED IN THE FIELD PRIOR TO CONCRETE PLACEMENT SHALL CONSIST OF COATING APPROXIMATELY THREE FIFTHS OF THE LENGTH OF EACH DOWEL BAR WITH HARD GREASE AT THE WORKING END IDENTIFIED BY THE RED PAINT.

THE CUTTING TO LENGTH OF THE DOWEL BARS SHALL BE DONE IN SUCH A MANNER TO RESULT IN NO APPRECIABLE DEFORMATION OF THE ENDS.

THE ENTIRE JOINT ASSEMBLY SHALL BE CAREFULLY LEVELED UP SO THAT THE DOWELS ARE PARALLEL TO THE SLAB SURFACE AND FREE TO SLIDE IN THE DOWEL HOLDERS. ANY GREASE SCRAPED OFF THE DOWELS IN ASSEMBLING THE JOINT SHALL BE REPLACED. ANY EXCESS GREASE ON THE DOWEL HOLDERS SHALL BE REMOVED.

AFTER THE COMPLETE EXPANSION JOINT IS ASSEMBLED, IT SHALL BE CHECKED TO BE CERTAIN THAT THE VERTICAL PLANE OF THE JOINT WILL BE PERPENDICULAR TO THE FINISHED SURFACE OF THE SLAB AND AT A RIGHT ANGLE WITH THE CENTER LINE OF THE SLAB. THE DOWELS SHALL BE CHECKED TO BE CERTAIN THAT THEY ARE LEVEL AND WILL REMAIN IN A POSITION PARALLEL WITH THE FINISHED SURFACE OF THE SLAB.

CONCRETE SHALL BE PLACED OVER AND ADJACENT TO THE JOINT IN ACCORDANCE WITH THE REQUIREMENTS OF THE SPECIFICATIONS.

TO FINISH THE JOINT AFTER COMPLETION OF MACHINE FINISHING, FLOATING AND STRAIGHT EDDING OF THE SURFACE. THE CONCRETE OVER THE FILLER SHALL BE CAREFULLY REMOVED AND THE JOINT EDGED WITH AN EDGER OF THE PROPER SIZE.

EXPANSION JOINT MATERIAL IS TO BE INSTALLED IN THE FIELD.

OTHER APPROVED DESIGNS MAY BE USED IN LIEU OF THE TYPE SHOWN.

GENERAL NOTES:

DOWEL BAR INSERTION MAY BE BY MECHANICAL DOWEL PLACERS REGARDLESS OF THE JOINT SPACING.

EACH DOWEL BAR SHALL BE COATED WITH AN EPOXY COATING THAT MEETS CURRENT KANSAS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS. THE COATING MATERIAL SHALL BE A POWDERED EPOXY RESIN APPROVED BY THE KANSAS DEPARTMENT OF TRANSPORTATION AND SHALL BE UNIFORMLY APPLIED ACCORDING TO ACCEPTED PRACTICES AND THE RESIN MANUFACTURER'S RECOMMENDATIONS. FOR ALT. 1 THE COATING NEED NOT BE APPLIED TO THE END FACES OF THE BARS AND WILL NOT BE REQUIRED WITHIN 50 MM OF THE END WHICH WILL BE FIXED IN THE SUPPORTING BASKET BY WELDING.

THE CUTTING TO LENGTH OF THE DOWEL BARS SHALL BE DONE IN SUCH A MANNER TO RESULT IN NO APPRECIABLE DEFORMATION OF THE ENDS.

ALT. 1 (BASKTS)

WIRE SIZES SHOWN ARE MINIMUM REQUIRED.

BASKET TO BE STAKED TO SUB~GRADE, AS SHOWN. RAMSET OR SIMILAR TYPE FASTENER WITH CLIP TO BE USED WHEN SUBGRADE CONDITION REQUIRES IT.

A STRING LINE SHALL BE STRETCHED BETWEEN THE PAVEMENT FORMS ALONG THE CENTER LINE OF THE JOINT. THE POSITION OF THE JOINT SHALL BE CAREFULLY MARKED SO THAT THE SAW CUT WILL COINCIDE WITH THE CENTER LINE OF THE JOINT.

IN ORDER TO IDENTIFY THE LOCATION OF THE BOND BREAKER APPLICATION, THE WORKING END OF DOWEL AND THE SUPPORTING LEG SHALL RECEIVE A LIGHT APPLICATION OF RED PAINT AT THE PLACE OF FABRICATION. THE BOND BREAKER TO BE APPLIED IN THE FIELD PRIOR TO CONCRETE PLACEMENT SHALL CONSIST OF COATING APPROXIMATELY THREE~FIFTHS OF THE LENGTH OF EACH DOWEL BAR WITH HARD GREASE AT THE WORKING END IDENTIFIED BY THE RED PAINT.

THE ENTIRE JOINT ASSEMBLY SHALL BE CAREFULLY LEVELED SO THAT THE DOWELS ARE PARALLEL TO THE SLAB SURFACE AND FREE TO SLIDE IN THE DOWEL HOLDERS. ANY COATING SCRAPED OFF THE DOWELS IN ASSEMBLING THE JOINT SHALL BE REPLACED.

AFTER THE COMPLETE CONTRACTION JOINT IS ASSEMBLED, IT SHALL BE CHECKED TO BE CERTAIN THAT THE VERTICAL PLANE OF THE JOINT WILL BE PERPENDICULAR TO THE FINISHED SURFACE OF THE SLAB AND AT A RIGHT ANGLE WITH THE CENTER LINE OF THE SLAB UNLESS SHOWN OTHERWISE ON THE PLANS. THE DOWELS SHALL BE CHECKED TO BE CERTAIN THAT THEY ARE LEVEL AND WILL REMAIN IN A POSITION PARALLEL WITH THE FINISHED SURFACE OF THE SLAB.

CONCRETE SHALL BE PLACED OVER AND ADJACENT TO THE JOINT IN ACCORDANCE WITH THE REQUIREMENTS OF THE SPECIFICATIONS.

OTHER APPROVED DESIGNS MAY BE USED IN LIEU OF THE TYPE SHOWN.

ALT. 2 (MECHANICAL PLACEMENT)

JOINT SPACING SHALL BE NORMAL TO CENTERLINE.

THE PAVEMENT SHALL BE PLACED AND CONSOLIDATED TO FULL DEPTH PRIOR TO INSERTION OF THE DOWEL BARS.

THE DOWEL BARS SHALL BE COATED WITH A BOND BREAKING AGENT PRIOR TO IN~ SERTION INTO THE PLASTIC CONCRETE.

THE DOWEL BARS SHALL BE INSERTED INTO THE PLASTIC CONCRETE AHEAD OF THE FINISHING BEAM OR SCREED.

THE INSTALLING DEVICE SHALL CONSOLIDATE THE CONCRETE AROUND THE DOWEL BARS SUCH THAT NO VOIDS EXIST, WITHOUT THE SUPPLEMENTAL USE OF HAND HELD VIBRATORS.

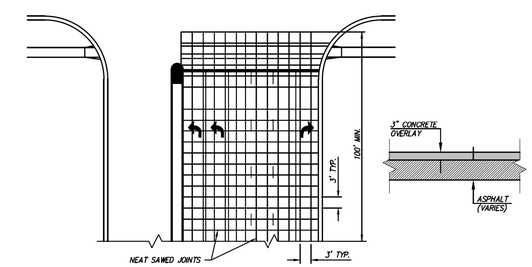
THE DOWEL BARS SHALL BE LOCATED WITHIN ONE INCH OF THE PLANNED TRANSVERSE LOCATION AND WITHIN THE RANGE OF DEPTH OF D 0.1 D MEASURED / 2 ~ FROM MID DEPTH AND MID LENGTH OF THE BAR WHERE D REPRESENTS THE PAVEMENT THICKNESS.

THE DOWEL BARS SHALL BE LOCATED WITHIN TWO INCHES OF THE PLANNED LONGITUDINAL LOCATION.

THE DOWEL BARS SHALL BE PARALLEL TO THE PAVEMENT SURFACE AND CENTERLINE WITHIN A TOLERANCE OF ONE HALF INCH IN 18 INCHES IN BOTH THE VERTICAL AND HORIZONTAL DIRECTION.

THE FORWARD MOVEMENT OF THE FINISHING BEAM OR SCREED SHALL NOT BE INTERRUPTED BY THE INSERTING OF THE DOWEL BARS.

A POSITIVE METHOD OF MARKING THE LOCATIONS OF THE TRANSVERSE JOINTS SHALL BE PROVIDED.



NOTES:

1. CONCRETE USED IN THIS WORK SHALL BE KCMMBSK AS APPROVED BY THE KANSAS CITY METROPOLITAN MATERIALS BOARD, AND SHALL MEET THE REQUIREMENTS OF THE SHAWNEE TECHNICAL SPECIFICATIONS.
2. ALL WORK SHALL MEET THE REQUIREMENTS OF THE SHAWNEE TECHNICAL SPECIFICATIONS.

CONCRETE INLAY

Date	Revision	By	Appr.
3-1-14	SHAWNEE DESIGN & CONSTRUCTION MANUAL REVISIONS	MRS	PJL
8-21-12	REVISED TO MATCH CONSTRUCTION SPECIFICATION REVISIONS	MRS	PJL

CONCRETE PAVEMENT DETAILS / MONUMENT BOX

DEVELOPMENT SERVICES

Good Starts Here SHAWNEE KANSAS

DATE: 08-27-2007 | 3210

DRAWN BY: MRS

CHECKED BY: PJL

SHEET 1 OF 1

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CLEAR CREEK PARKWAY
CITY OF SHAWNEE, KANSAS

ROADWAY DETAILS (1)

150561-010

SHEET NO. 39 OF 106

LAYOUT: MODEL | BY: jadams | DATE: 13-JUL-2016 5:48:04 PM
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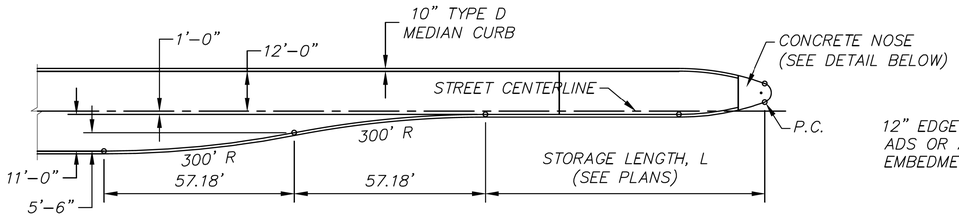
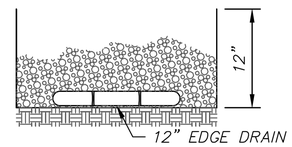


TYPICAL LEFT TURN LANE



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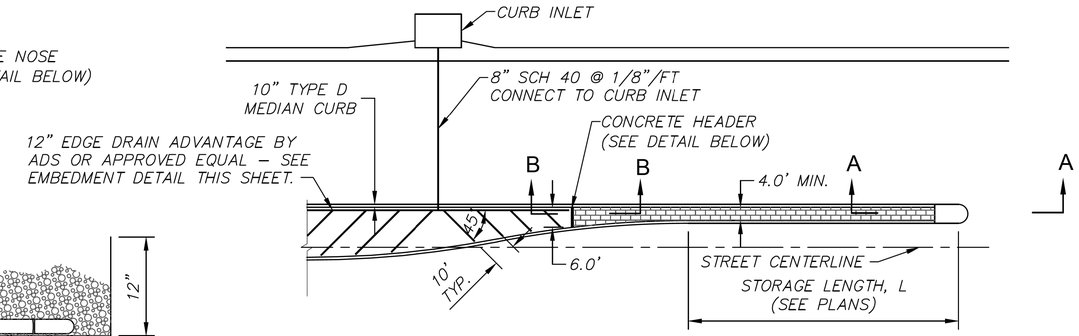
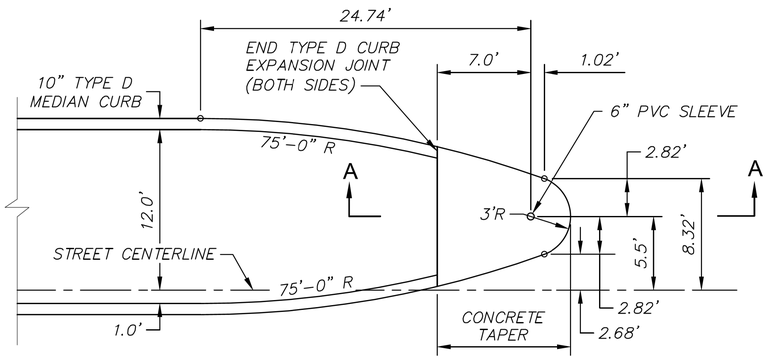
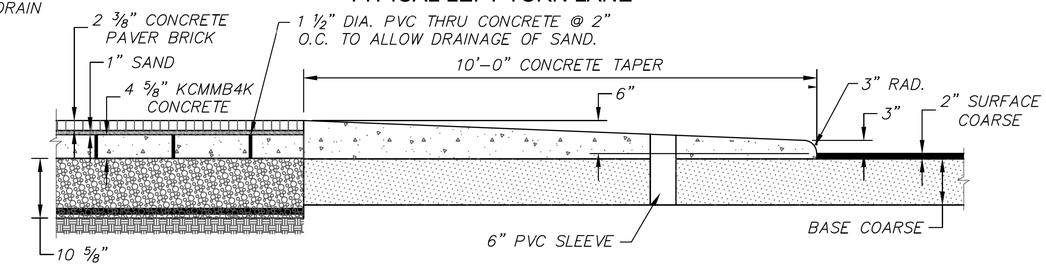


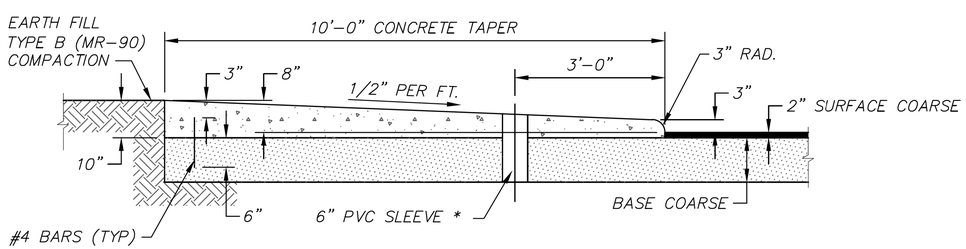
TYPICAL LEFT TURN LANE



CONCRETE NOSE DETAIL

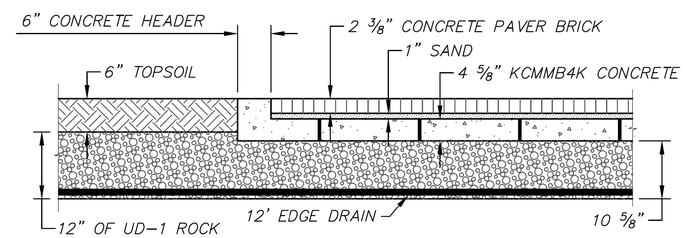


SECTION A-A



SECTION A-A

* PVC SLEEVE SHALL EXTEND AT LEAST 3' BELOW THE TOP OF THE MEDIAN NOSE AND SHALL BE FILLED WITH SAND.



SECTION B-B
PAVER BRICK AND PAVER BRICK HEADER DETAIL

PAVING BRICK NOTES:

1. INTERLOCKING CONCRETE PAVING BRICKS SHALL MEET THE REQUIREMENTS OF ASTM C936.
2. PAVING BRICK SHALL BE RED, COBBLESTONE STYLE CONSISTING OF:

   FULL STONES (4 5/8"X7"X2 3/8");
   TWO THIRDS STONES (4 5/8"X4 5/8"X2 3/8");
   ONE THIRD STONES (4 5/8"X2 5/16"X2 3/8").
   THE MIX OF STONE SIZES SHALL BE APPROXIMATELY 28% FULL SIZE, 57% TWO THIRDS SIZE AND 15% ONE THIRD SIZE.
3. PAVING BRICK SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

MEDIAN NOSE DETAIL
LEFT TURN BAY ISLANDS

PAVING BRICK DETAIL
LEFT TURN BAY ISLANDS

Date	Revision	By	Appr
3-1-14	SHAWNEE DESIGN & CONSTRUCTION MANUAL REVISIONS	MRS	PJL
8-21-12	REVISED TO MATCH CONSTRUCTION SPECIFICATION REVISIONS	MRS	PJL

MEDIAN ISLAND
WITH UNDERDRAIN

DEVELOPMENT SERVICES

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SHAWNEE KANSAS

DATE:	08-27-2007	3216
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CHECKED BY:	PJL	SHEET 2 OF 2

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CLEAR CREEK PARKWAY
CITY OF SHAWNEE, KANSAS

ROADWAY DETAILS (2)

150561-010

LAYOUT: MODEL BY: jadams DATE: 13-JUL-2016 5:48:38 PM
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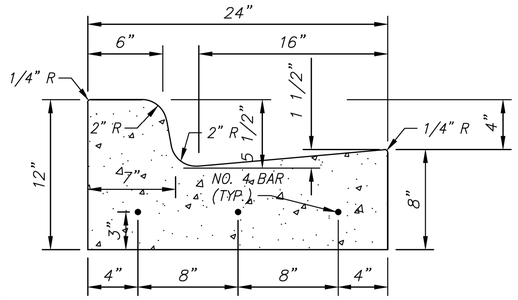
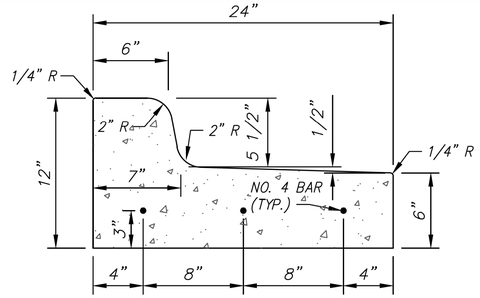
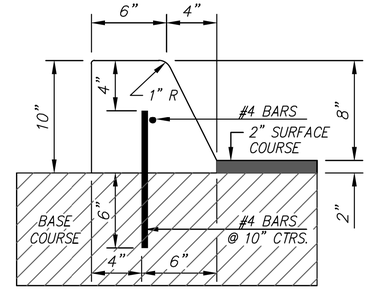


TYPE A

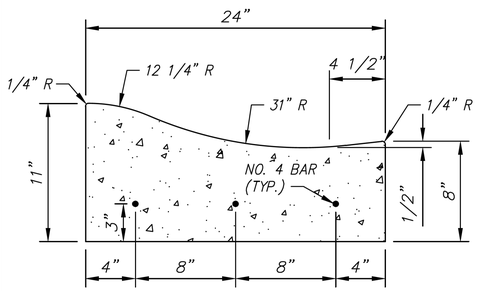


TYPE A1 (DRY)

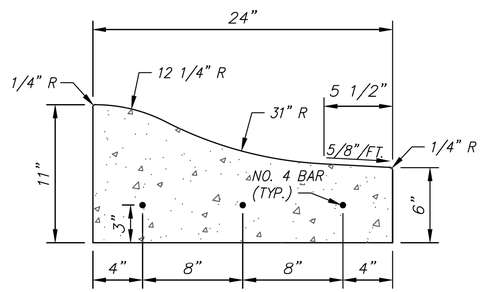


TYPE D

MEDIAN CURB



TYPE B

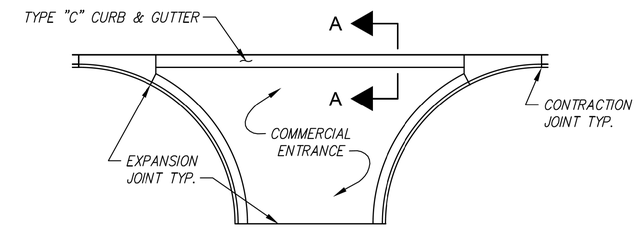


TYPE B1 (DRY)

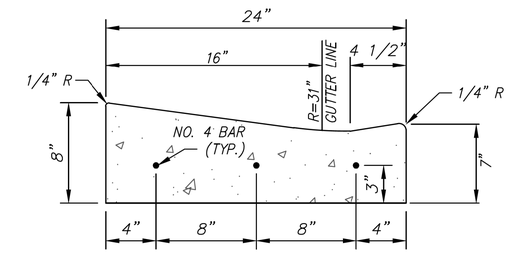
CONCRETE CURB & GUTTER

NOTES:

1. 1/2" PREMOLDED EXPANSION JOINT MATERIAL SHALL BE PLACED AT POINTS OF CURVATURE, CURB RETURNS, CURB INLETS, AND AT 250' CENTERS. CONTRACTION JOINTS SHALL BE 2" DEEP AND PLACED AT 10' INTERVALS EQUALLY SPACED BETWEEN EXPANSION JOINTS.
2. ALL CONCRETE USED FOR A PUBLIC IMPROVEMENT SHALL COMPLY WITH THE STANDARDS AND SPECIFICATIONS OF THE KANSAS CITY METRO MATERIALS BOARD (KCMMB). THE CONTRACTOR SHALL PROVIDE TO THE CITY ENGINEER THE CONCRETE SUPPLIER AND THE MIX NUMBER (KCMMB4K).
3. ALL REINFORCING STEEL SHALL BE TIED AND SUPPORTED ON CHAIRS.
4. JOINTS SHALL BE TOOLED IF CURB IS HAND FORMED.

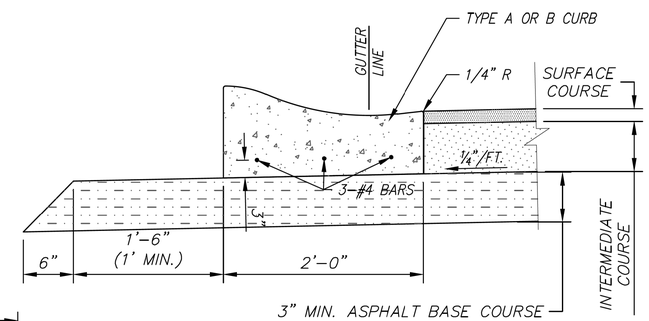


PLAN



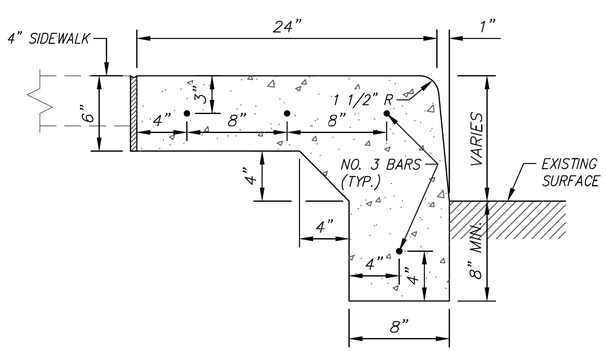
SECTION A-A

TYPE C CONCRETE CURB & GUTTER



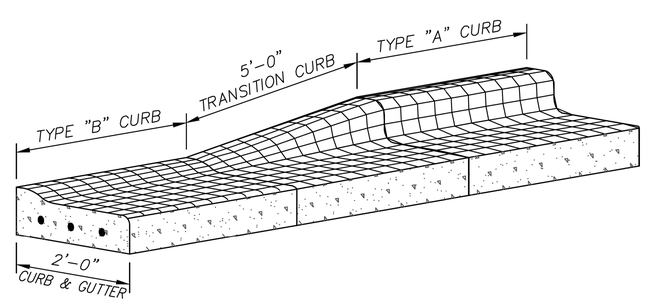
CURB WITH ASPHALT BENEATH

CURB SECTION WITH ASPHALT BENEATH

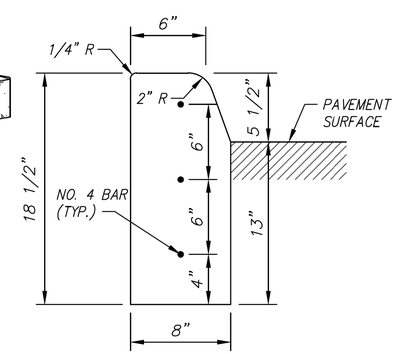


CROSS SECTION

INTEGRAL CURB & SIDEWALK



CURB TRANSITION DETAIL



TYPE E

STRAIGHT CURB

Date	Revision	By	Appr.
3-1-14	SHAWNEE DESIGN & CONSTRUCTION MANUAL REVISIONS	MRS	PJL
8-21-12	REVISED TO MATCH CONSTRUCTION SPECIFICATION REVISIONS	MRS	PJL

CURB & GUTTER

DEVELOPMENT SERVICES

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CLEAR CREEK PARKWAY
CITY OF SHAWNEE, KANSAS

ROADWAY DETAILS (3)

150561-010

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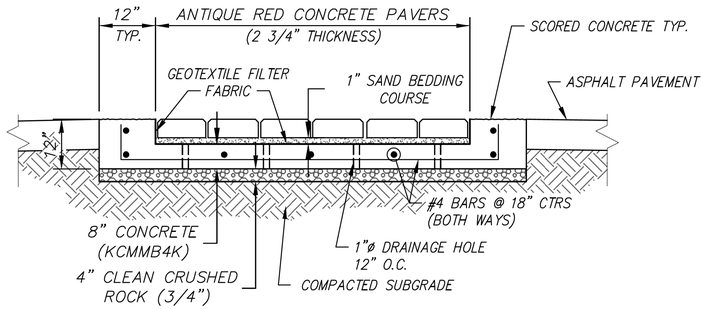
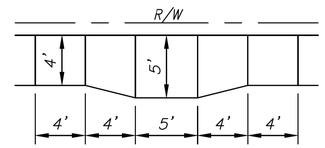


NOTES:

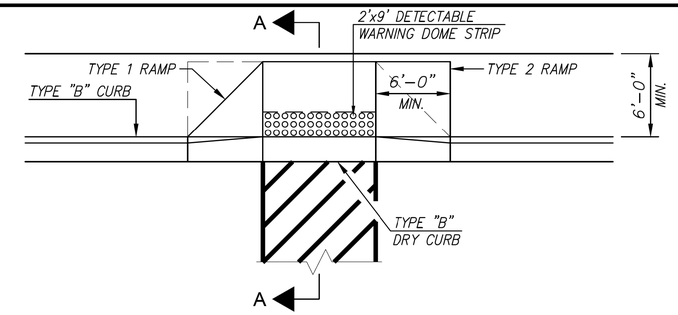
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. CONFIRM COLOR AND SIZE WITH OWNER PRIOR TO INSTALLATION

CROSSWALK / CONCRETE PAVER DETAIL

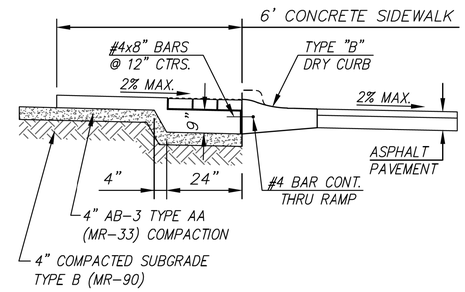


NOTES:
1. WHEELCHAIR PASSING SPACE SHALL BE CONSTRUCTED WHERE LENGTH OF 4' WIDE SIDEWALK EXCEEDS 200'.

WHEELCHAIR PASSING SPACE



PLAN



SECTION A-A

NOTES:

PAVING BRICK SHALL BE 2 1/4" X 3 5/8" X 7 5/8" ENDICOTT CLAY PRODUCTS CO., HANDICAP DETECTABLE WARNING PAVERS, MANGANESE IRONSPOT COLOR, OR APPROVED EQUAL AND SHALL MEET THE REQUIREMENTS OF ASTM C902 FOR CLASS SX TYPE 1 BRICK AND ASTM C1272.

THE BRICKS SHALL BE PLACED IN A SOLDIER COURSE PATTERN.

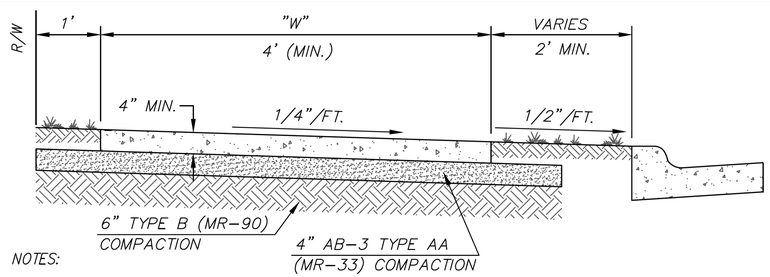
THE BRICKS SHALL BE SAW CUT ONLY AND ANY BRICK SHALL NOT BE LESS THAN 25% OF A FULL BRICK.

TYPE M MORTAR SHALL BE USED FOR THE SETTING BED AND JOINTS IN ACCORDANCE WITH ASTM C270, TABLE 1 (MASONRY CEMENT TYPE ONLY).

TYPE 1 RAMP SHALL BE USED WHEN SIDEWALK IS GREATER THAN 6' OR LESS IN WIDTH.

TYPE 2 RAMP SHALL BE USED WHEN SIDEWALK IS 6' IN WIDTH.

TRUNCATED DOME MID-BLOCK RAMP DETAIL



NOTES:

1. TOOLED JOINTS SHALL BE PLACED "W" CENTERS.
2. EXPANSION JOINTS SHALL BE PLACED AT 250' CENTERS AND WHERE WALK ABUTS EXISTING CONCRETE.
3. ALL CONCRETE SHALL BE KCMMB4K.
4. ALL SIDES OF EACH PANEL SHALL HAVE A 3" "PICTURE FRAME" EDGING, UNLESS OTHERWISE APPROVED OR NOTED ON THE PLANS.
5. WHEN UTILITY SERVICE BOXES, METER BOXES, ETC. WHICH MEASURE LESS THAN 1 FT. SQUARE MUST BE PLACED IN THE SIDEWALK, THE UTILITY SERVICE BOXES, ETC. SHALL BE NO CLOSER TO ANY EDGE OF THE SIDEWALK PANEL THAN 1 FT.
6. WHEN UTILITY BOXES, METER BOXES, ETC. GREATER THAN 1 FT. IN ANY DIMENSION MUST BE PLACED IN THE SIDEWALK, THEY SHALL BE PLACED IN THE CORNER OF THE SIDEWALK PANEL. IN ADDITION, FLOWABLE FILL SHALL BE USED AS BACKFILL FOR THESE STRUCTURES AND SHALL EXTEND TO UNEXCAVATED GROUND.
7. AN ISOLATION JOINT SHALL BE PLACED BETWEEN THE CONCRETE AND ANY UTILITY BOX, ETC. WHICH IS PLACED IN THE SIDEWALK.
8. NO SECTION OF SIDEWALK LESS THAN 12" IN ANY DIMENSION.
9. AB-3 MUST BE MOIST (MIN 5% MOISTURE) AND COMPACTED. CLEAN ROCK (3/4") SHALL BE USED WHERE SIDEWALK IS PLACED LESS THAN 100' IN A CONTINUOUS LENGTH AND WHERE SIDEWALK IS PLACES AS PART OF A BUILDING PERMIT FOR A SINGLE FAMILY OR MULTI-FAMILY UNIT.
10. IT IS THE CONTRACTORS RESPONSIBILITY TO CONSTRUCT SIDEWALK PER ADA REQUIREMENTS.
11. REFER TO SECTION 4405 FOR CURING REQUIREMENTS.

TYPICAL SIDEWALK

Date	Revision	By	Appr
3-1-14	SHAWNEE DESIGN & CONSTRUCTION MANUAL REVISIONS	MRS	PJL
8-21-12	REVISED TO MATCH CONSTRUCTION SPECIFICATION REVISIONS	MRS	PJL

SIDEWALK DETAILS

DEVELOPMENT SERVICES

Good Starts Here SHAWNEE KANSAS

DATE:	08-27-2007	3225
DRAWN BY:	MRS	
CHECKED BY:	PJL	SHEET 1 OF 1

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CLEAR CREEK PARKWAY
CITY OF SHAWNEE, KANSAS

ROADWAY DETAILS (4)

150561-010

LAYOUT: MODEL BY: jadams DATE: 13-JUL-2016 5:49:31 PM
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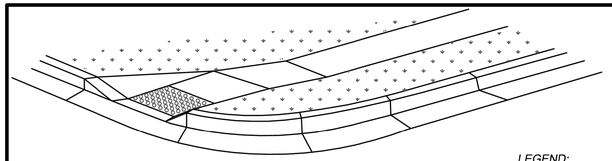
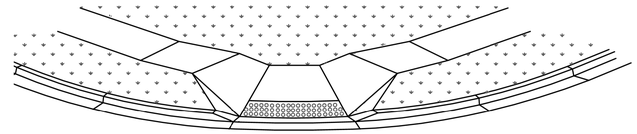
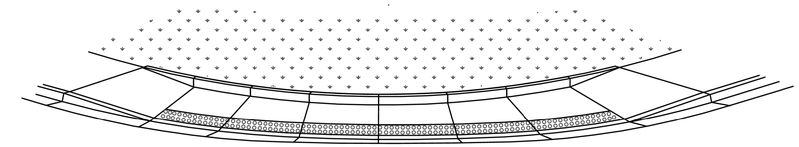
NOT FOR CONSTRUCTION



3-D VIEW TYPE A
SIDEWALK RAMP
NOT TO SCALE



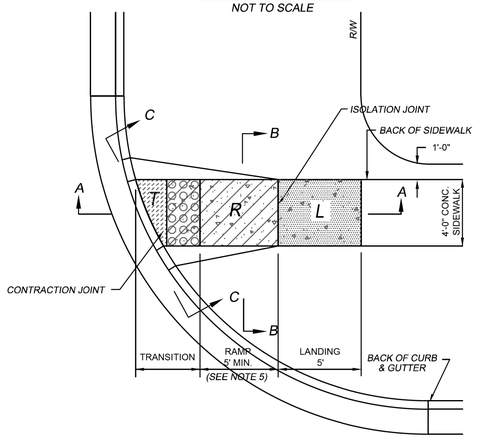
3-D VIEW TYPE B
SIDEWALK RAMP
NOT TO SCALE



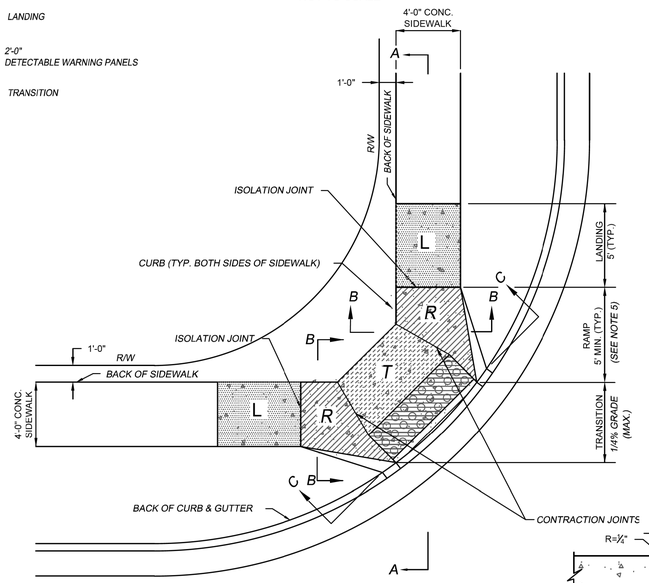
3-D VIEW TYPE C
SIDEWALK RAMP
NOT TO SCALE

LEGEND:

- R — RAMP
- L — LANDING
- 2'-0" DETECTABLE WARNING PANELS
- T — TRANSITION



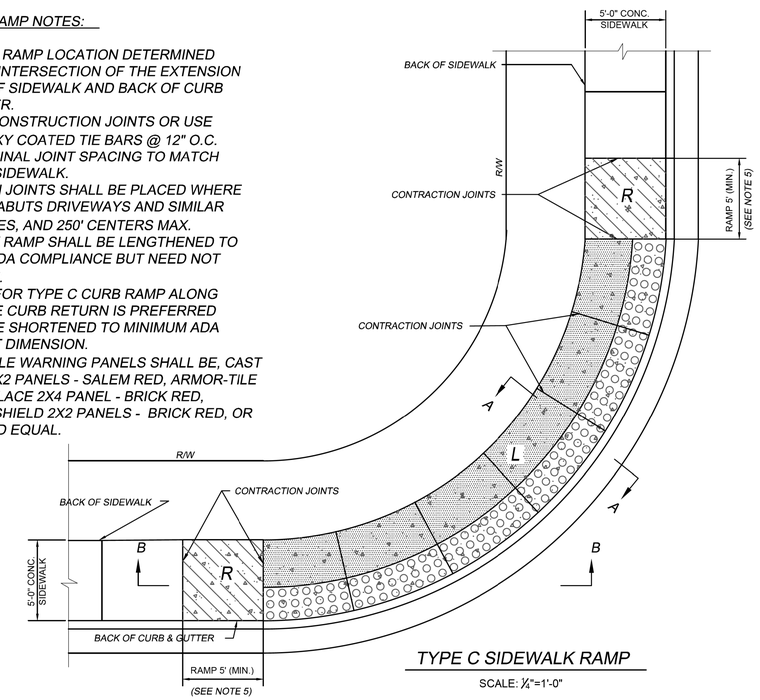
TYPE A SIDEWALK RAMP
SCALE: ¼"=1'-0"



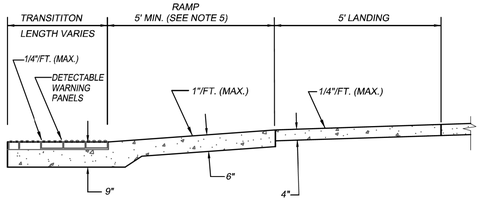
TYPE B SIDEWALK RAMP
SCALE: ¼"=1'-0"

SIDEWALK RAMP NOTES:

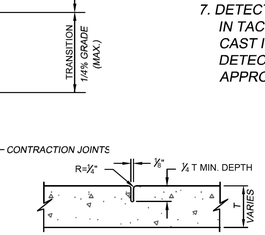
1. SIDEWALK RAMP LOCATION DETERMINED FROM THE INTERSECTION OF THE EXTENSION OF BACK OF SIDEWALK AND BACK OF CURB AND GUTTER.
2. KEY ALL CONSTRUCTION JOINTS OR USE 18"-#4 EPOXY COATED TIE BARS @ 12" O.C.
3. LONGITUDINAL JOINT SPACING TO MATCH WIDTH OF SIDEWALK.
4. ISOLATION JOINTS SHALL BE PLACED WHERE SIDEWALK ABUTS DRIVEWAYS AND SIMILAR STRUCTURES, AND 250' CENTERS MAX.
5. SIDEWALK RAMP SHALL BE LENGTHENED TO PROVIDE ADA COMPLIANCE BUT NEED NOT EXCEED 15'.
6. LANDING FOR TYPE C CURB RAMP ALONG THE ENTIRE CURB RETURN IS PREFERRED BUT MAY BE SHORTENED TO MINIMUM ADA COMPLIANT DIMENSION.
7. DETECTABLE WARNING PANELS SHALL BE, CAST IN TACT 2X2 PANELS - SALEM RED, ARMOR-TILE CAST IN PLACE 2X4 PANEL - BRICK RED, DETECTASHIELD 2X2 PANELS - BRICK RED, OR APPROVED EQUAL.



TYPE C SIDEWALK RAMP
SCALE: ¼"=1'-0"



SECTION A-A
TYPE A & B SIDEWALK RAMP
SCALE: ½"=1'-0"



CONTRACTION JOINT
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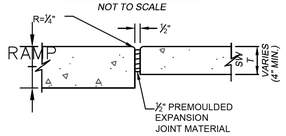

ISOLATION JOINT
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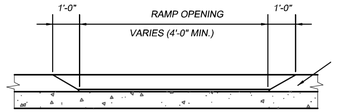
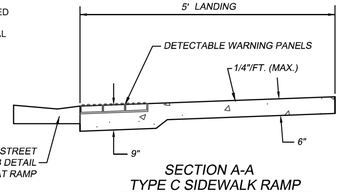


SECTION C-C
TYPE A & B SIDEWALK RAMP
SCALE: ½"=1'-0"



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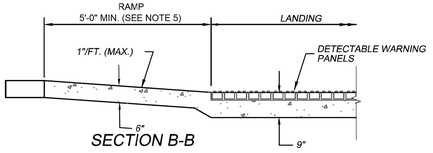
TYPE C SIDEWALK RAMP
SCALE: ½"=1'-0"



SECTION B-B
TYPE C SIDEWALK RAMP
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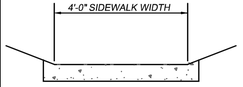

SECTION B-B
TYPE A SIDEWALK RAMP
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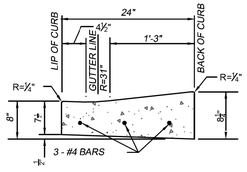
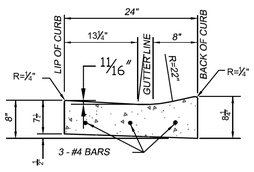
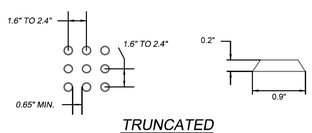


USE WITH TYPE A CURB



USE WITH TYPE B CURB

STREET CURB DETAIL AT RAMP
NOT TO SCALE



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Date	Revision	By	Appr.
3-1-14	SHAWNEE DESIGN & CONSTRUCTION MANUAL REVISIONS	MRS	PJL
8-21-12	REVISED TO MATCH CONSTRUCTION SPECIFICATION REVISIONS	MRS	PJL

SIDEWALK RAMP DETAILS

DEVELOPMENT SERVICES

Good Starts Here. SHAWNEE KANSAS

DATE:	08-27-2007	3225-3
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CHECKED BY:	PJL	SHEET 1 OF 1

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Drawn By: JCK/JAA
Checked By: HDL
Issue Date: JULY 2016

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CLEAR CREEK PARKWAY
CITY OF SHAWNEE, KANSAS

ROADWAY DETAILS (5)

150561-010

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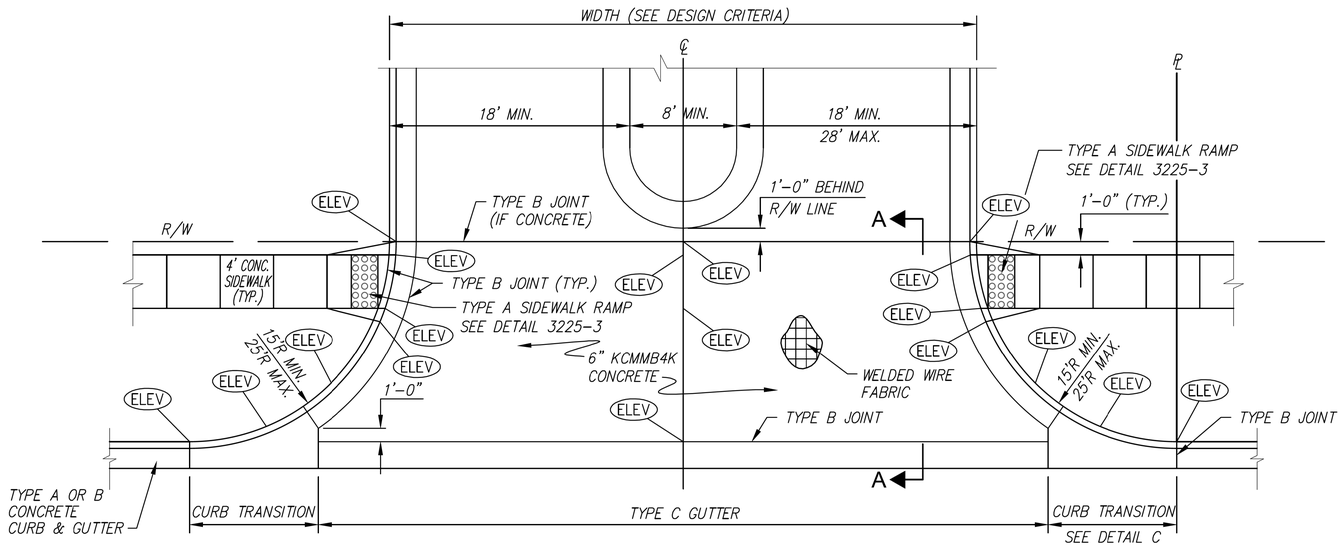
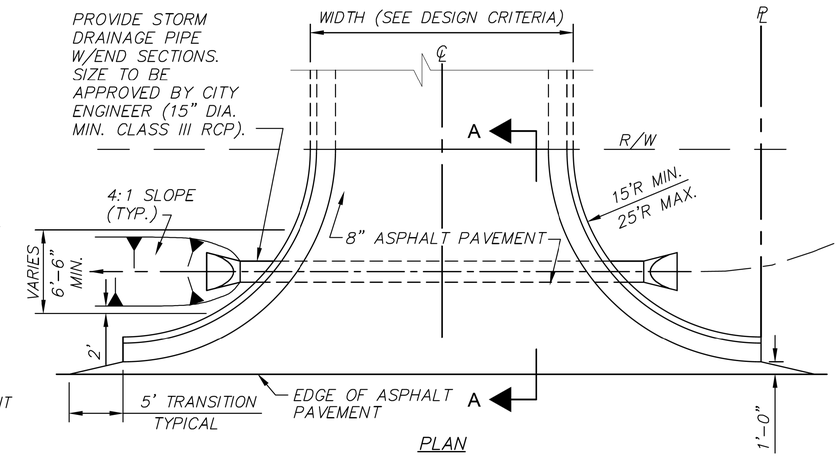
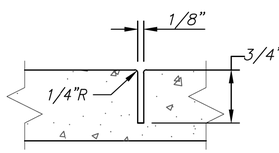


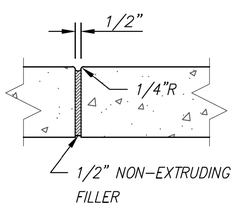
PLAN



PLAN

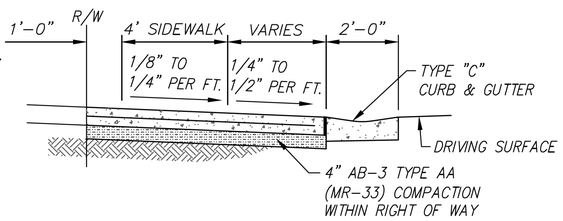


TYPE A

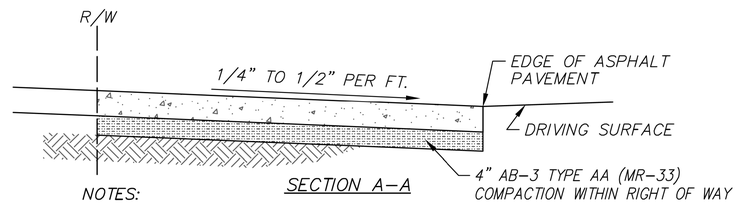


TYPE B

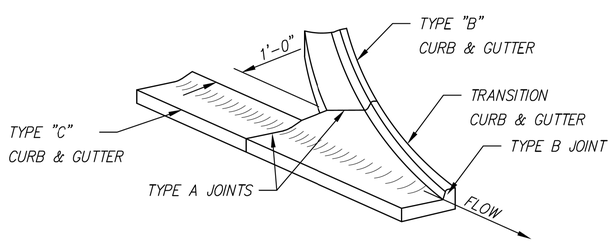
JOINT DETAILS



SECTION A–A



SECTION A–A



DETAIL C

COMMERCIAL DRIVE NOTES:

1. ALL CONCRETE USED IN THIS WORK SHALL MEET THE REQUIREMENTS OF THE SHAWNEE MUNICIPAL CODE. KCMMB4K CONCRETE SHALL BE USED THROUGHOUT.
2. CONCRETE PAVEMENT SHALL BE JOINTED WITH TYPE A JOINTS. NO JOINTED SLAB SHALL EXCEED 12' X 12'.
3. DOWELS ARE NOT REQUIRED FOR TYPE B JOINTS BETWEEN THE DRIVEWAY APRON AND ABUTTING CURB AND GUTTER, OR BETWEEN COMMERCIAL ENTRANCE CURB AND ABUTTING SIDEWALK.
4. IF EXISTING STREET CURB TYPE IS TYPE B, CURB MUST BE REMOVED BETWEEN RADIUS POINTS AND REPLACED WITH TRANSITION CURB AND TYPE C GUTTER.
5. COMMERCIAL ENTRANCE SHALL NOT EXTEND PAST SIDE PROPERTY LINE EXTENSION.

NOTES:

1. ALL CONCRETE USED IN THIS WORK SHALL MEET THE REQUIREMENTS OF THE SHAWNEE MUNICIPAL CODE. KCMMB4K CONCRETE SHALL BE USED THROUGHOUT.
2. CONCRETE PAVEMENT SHALL BE JOINTED WITH TYPE A JOINTS. NO JOINTED SLAB SHALL EXCEED 12' X 12'.
3. COMMERCIAL ENTRANCE SHALL NOT EXTEND PAST SIDE PROPERTY LINE EXTENSION.

COMMERCIAL DRIVE APPROACH - TYPE "II"

COMMERCIAL DRIVE APPROACH - TYPE "I"

Date	Revision	By	Appr.
3-1-14	SHAWNEE DESIGN & CONSTRUCTION MANUAL REVISIONS	MRS	PJL
8-21-12	REVISED TO MATCH CONSTRUCTION SPECIFICATION REVISIONS	MRS	PJL

COMMERCIAL
DRIVE APPROACHES

DEVELOPMENT SERVICES

Good Starts Here. SHAWNEE KANSAS

DATE:	08-27-2007	3227
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CLEAR CREEK PARKWAY
CITY OF SHAWNEE, KANSAS

ROADWAY DETAILS (6)

150561-010

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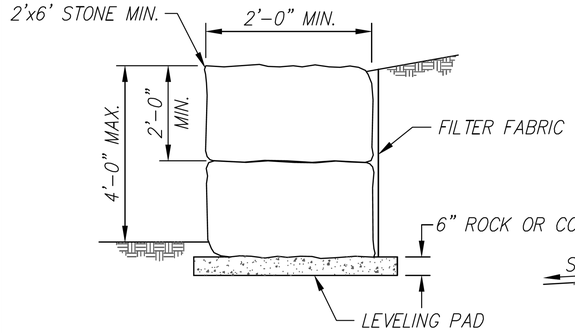
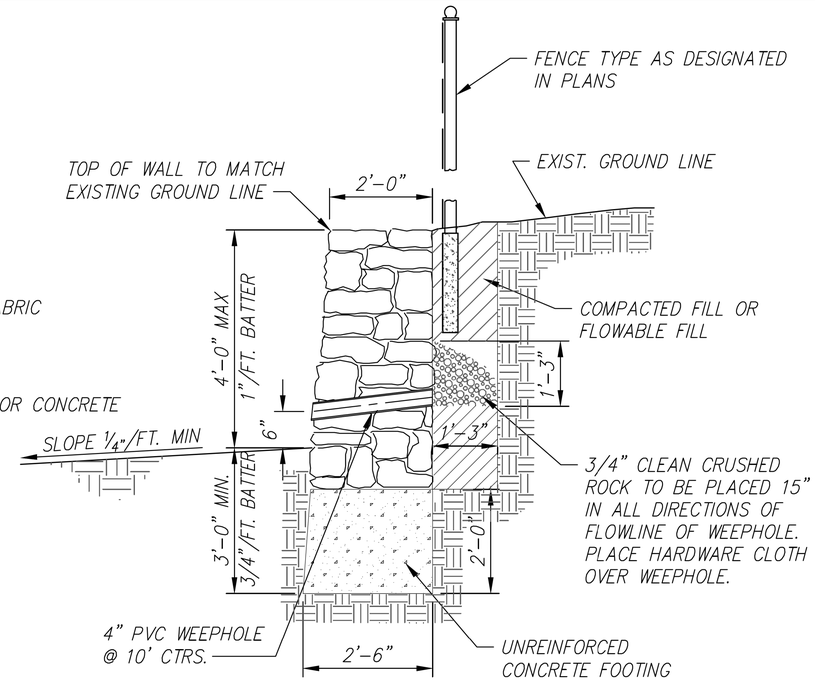
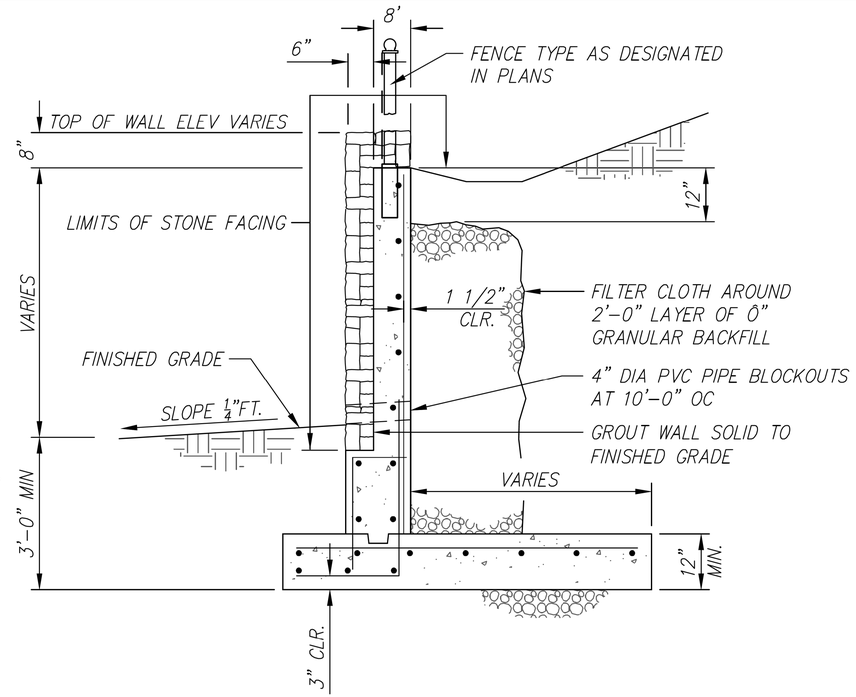


STONE GRAVITY WALL



STONE RETAINING WALL (MORTARED)



CAST IN PLACE SECTION W/ STONE FACING

GENERAL NOTES:

1. STONE RETAINING WALLS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DETAILS SHOWN ON THE PLANS AND TO THE LINES, GRADES AND DIMENSIONS INDICATED THEREON. EXCAVATION AND/OR BACKFILL REQUIRED FOR CONSTRUCTION OF STONE RETAINING WALLS SHALL BE PERFORMED AS REQUIRED FOR THE PROPER CONSTRUCTION OF THE WALL.

2. STONE FOR RETAINING WALLS SHALL BE SOUND, DURABLE AND FREE FROM DELETERIOUS MATERIAL. THE STONE FOR STONE (MORTARED) RETAINING WALLS SHALL BE NOT LESS THAN 8" THICK AND 12" WIDE, AND SHALL BE 18" TO 36" IN LENGTH. THE WIDTH SHALL BE NOT LESS THAN THE THICKNESS, NOR SHALL THE LENGTH EXCEED THREE TIMES THE THICKNESS. THE STONE SHALL BE ROUGHLY SQUARED ON JOINTS, BEDS AND FACES. SELECTED STONE SHALL BE USED FOR THE ENDS AND THE ANGLES OF WALLS AND SHALL BE NEATLY PITCHED TO LINE.

3. STONE FACE SHALL BE 6" NOMINAL GROUTED STONE FACING. DIMENSIONS AND REINFORCING STEEL REQUIREMENTS SHALL BE AS SHOWN ON THE PLANS FOR CONCRETE/STONE FACED WALLS. THE CONTRACTOR SHALL BE REQUIRED TO SUBMIT A STONE SAMPLE FOR ALL TYPES OF WALLS, TO THE CITY FOR APPROVAL, PRIOR TO INSTALLATION.

4. MORTAR USED FOR STONE RETAINING WALLS SHALL BE COMPOSED OF ONE PART PORTLAND CEMENT PLUS 10% BY VOLUME OF HYDRATED LIME AND 2 PARTS APPROVED CLEAN SAND BY VOLUME. AFTER THE DRY MATERIALS HAVE BEEN THOROUGHLY MIXED, WATER SHALL BE ADDED AND THE MIXTURE SHALL BE TURNED AND CHOPPED UNTIL A STIFF MORTAR RESULTS. MORTAR SHALL NOT BE MIXED MORE THAN 30 MINUTES IN ADVANCE OF USE AND RETEMPERING WILL NOT BE PERMITTED.

5. ALL STONES FOR USE IN RETAINING WALLS SHALL BE THOROUGHLY WETTED AND LAID UPON THEIR NATURAL BEDS WITH JOINTS APPROXIMATELY HORIZONTAL AND VERTICAL. EACH STONE OR BLOCK SHALL BE SETTLED INTO PLACE IN A FULL BED OF MORTAR, THE WALL BEING COMPLETELY AND MOSTLY LAID WITH FACE JOINTS NOT EXCEEDING 1" IN THICKNESS. THE VERTICAL JOINTS IN THE INTERIOR OF THE WALL SHALL BE FILLED WITH SUITABLE STONE OR SPALLS THOROUGHLY BEDDED IN MORTAR. VOIDS WILL NOT BE PERMITTED. HEADERS SHALL BE ARRANGED TO OCCUPY AT LEAST ONE-QUARTER THE AREA OF THE FACE AND BACK SHALL BE EVENLY DISTRIBUTED. STONE SHALL BE PLACED SO THAT AT LEAST TWO HEADERS ARE USED IN EACH COURSE WITH FRONT, BACK AND INTERMEDIATE HEADERS ARRANGED TO LAP AT LEAST 12". HORIZONTAL JOINTS SHALL BE ARRANGED TO PROVIDE A REASONABLE PROTECTION SO THAT INDIVIDUAL STONES ARE MECHANICALLY INTERLOCKED AFTER BEDDING.

6. CONCRETE USED IN THIS WORK SHALL BE KCMMB5K AS APPROVED BY THE KANSAS CITY METROPOLITAN MATERIALS BOARD.

7. ALL MATERIALS AND WORKMANSHIP SHALL MEET THE REQUIREMENTS OF THE SHAWNEE DESIGN AND CONSTRUCTION MANUAL.

Date	Revision	By	Appr.
3-1-14	SHAWNEE DESIGN & CONSTRUCTION MANUAL REVISIONS	MRS	PJL
8-21-12	REVISED TO MATCH CONSTRUCTION SPECIFICATION REVISIONS	MRS	PJL

STONE RETAINING WALLS
(CONCRETE / STONE
FACED, GRAVITY, MORTARED STONE)

DEVELOPMENT SERVICES

Good Starts Here SHAWNEE KANSAS

DATE:	08-27-2007	3625-1
DRAWN BY:	MRS	
CHECKED BY:	PJL	SHEET 1 OF 1

STONE RETAINING WALLS

NO.	DATE	REVISIONS	BY	APP'D
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CLEAR CREEK PARKWAY
CITY OF SHAWNEE, KANSAS

ROADWAY DETAILS (7)

150561-010

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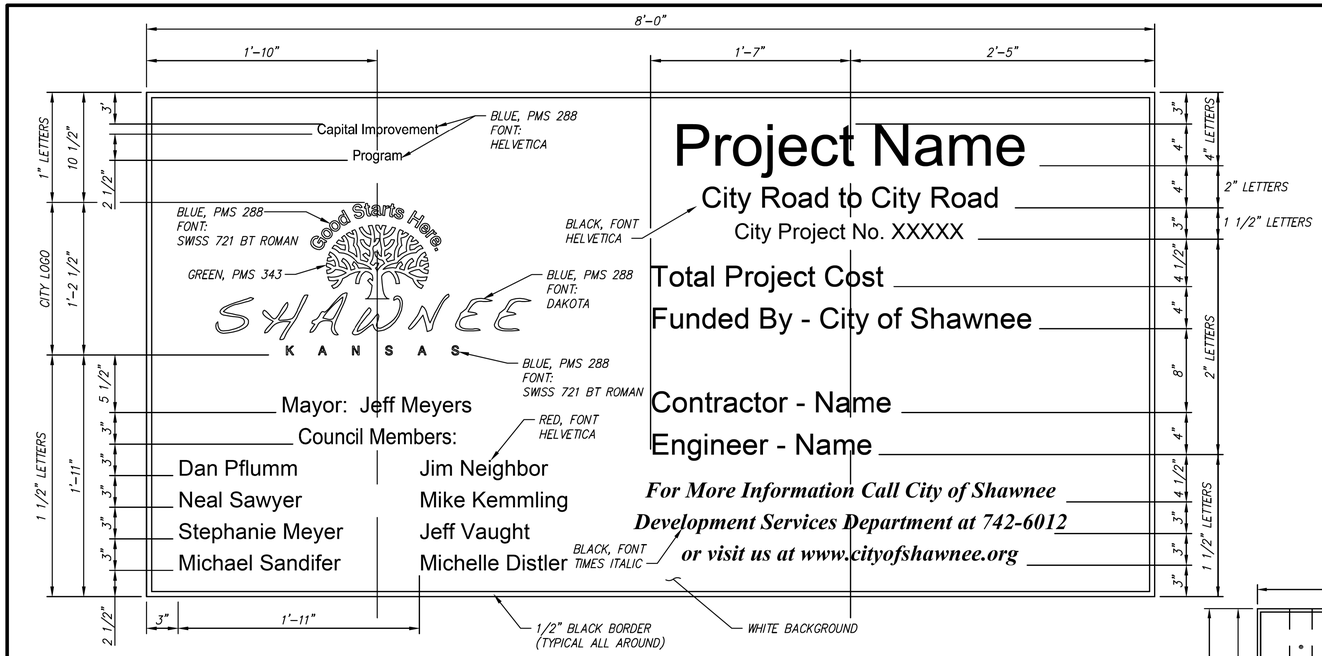
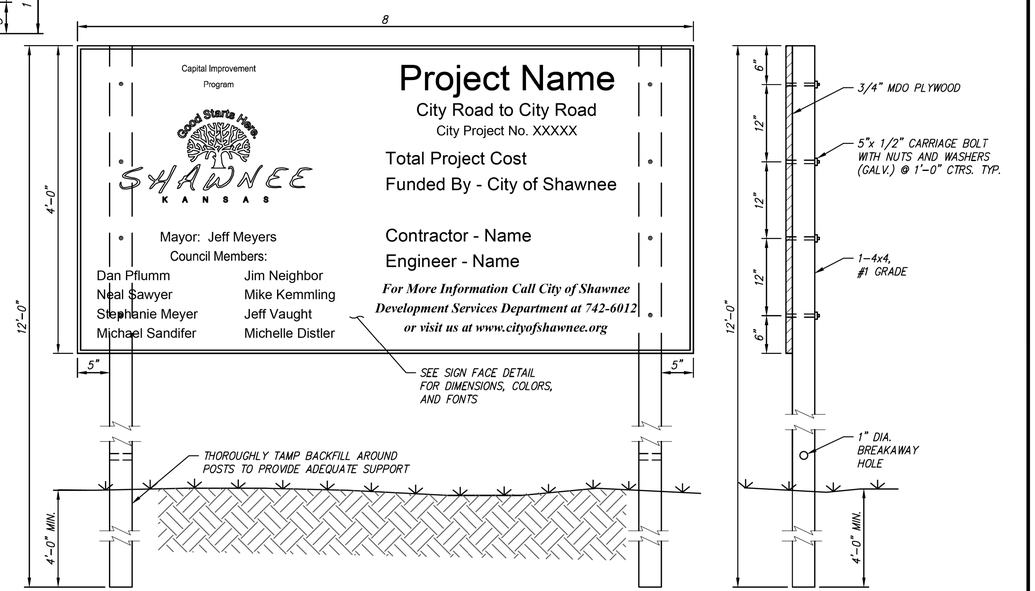


SIGN FACE DETAIL

NAMES MUST BE CURRENT, CONTRACTOR WILL BE REQUIRED TO UPDATE DURING CONSTRUCTION.



PROJECT SIGN NOTES:

1. LETTERING SHALL BE BOLD, ITALIC, AND ANTIQUE OLIVE STYLE AS SHOWN. LETTERING AND CITY LOGO SHALL BE BLOCK VINYL COMPUTER CUT SCOTCHCAL OR APPROVED EQUAL. PAINTED LETTERING OR LOGO SYMBOL SHALL NOT BE ALLOWED. ONE SIDE OF SIGN ONLY.
2. LETTER SIZES SHOWN ARE FOR CAPITAL LETTERS.
3. SIGN AND POSTS SHALL BE PAINTED ON ALL SIDES WITH TWO (2) COATS EXTERIOR WHITE PRIMER AND ONE (1) COAT EXTERIOR WHITE SEMI-GLASS FINISH.
4. A SCALE DRAWING OF THE SHAWNEE CITY LOGO AND COLOR SIGN MUST BE OBTAINED THROUGH THE CITY ENGINEER.
5. THE CONTRACTOR SHALL PROVIDE AND INSTALL PROJECT SIGN(S) ON THE PROJECT SITE IN THE NUMBERS AND LOCATIONS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. MEASUREMENT AND PAYMENT SHALL BE MADE AT THE CONTRACT UNIT PRICE BID PER EACH FOR THE BID ITEM "PROJECT SIGN".
6. SIGN SHALL BE ERECTED PRIOR TO ANY CONSTRUCTION ACTIVITY AND MAINTAINED BY THE CONTRACTOR THROUGHOUT CONSTRUCTION. SIGN SHALL BE REMOVED AND DISPOSED BY CONTRACTOR UPON PROJECT COMPLETION.
7. CONTENT OF ITEMS TO BE FILLED IN SHALL BE SUPPLIED BY THE CITY ENGINEER.
8. SAMPLES OF COLORS TO BE USED SHALL BE SUBMITTED TO THE CITY ENGINEER FOR APPROVAL.
9. THE SIGN SHALL BE MANUFACTURED BY A REPUTABLE, PROFESSIONAL SIGN MAKER.
10. ALL FONTS SHALL BE AS CALLED OUT IN THE DETAIL OR APPROVED EQUAL.
11. ALL COLORS, WITH EXCEPTION OF THE CITY LOGO, SHALL BE PANTONE COLORS AS CALLED OUT IN THE DETAIL OR APPROVED EQUAL. COLORS WERE SELECTED USING THE "PANTONE, COLOR FORMULA GUIDE PRINTER EDITION, FIRST EDITION 2001, SECOND PRINTING", WITH COLORS AS FOLLOWS:

COLOR	PANTONE COLOR NUMBER
BLACK	BLACK U
RED	200 U
BLUE	2925 U
GREEN	355 U
BLUE-GREEN	326 U

12. COLORS FOR THE CITY LOGO ARE CALLED OUT ON THE DETAIL. THE PMS 288 (BLUE) HAS THE FOLLOWING VALUES: C=100, M=67, Y=0, K=23. R=0, G=75, B=141. THE PMS 343 (GREEN) HAS THE FOLLOWING VALUES: C=98, M=0, Y=72, K=61. R=0, G=87, B=61. THE LOGO SHALL BE COMPUTER CUT SCOTCHCAL, OR APPROVED EQUAL, AND CANNOT BE PAINTED.

CITY PROJECT SIGN - STANDARD DETAILS

Date	Revision	By	Appr
3-1-14	SHAWNEE DESIGN & CONSTRUCTION MANUAL REVISIONS	MRS	PJL
8-21-12	REVISED TO MATCH CONSTRUCTION SPECIFICATION REVISIONS	MRS	PJL

CITY PROJECT SIGN
& MOUNTING DETAIL

DEVELOPMENT SERVICES

Good Starts Here SHAWNEE KANSAS

DATE:	08-27-2007	3630-1
DRAWN BY:	MRS	
CHECKED BY:	PJL	SHEET 1 OF 1

NO.	DATE	REVISIONS	BY	APP'D
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Designed By: PRP
Drawn By: JCK/JAA
Checked By: HDL
Issue Date: JULY 2016

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CLEAR CREEK PARKWAY
CITY OF SHAWNEE, KANSAS

ROADWAY DETAILS (8)

150561-010

LAYOUT: MODEL BY: jadams DATE: 13-JUL-2016 5:51:12 PM
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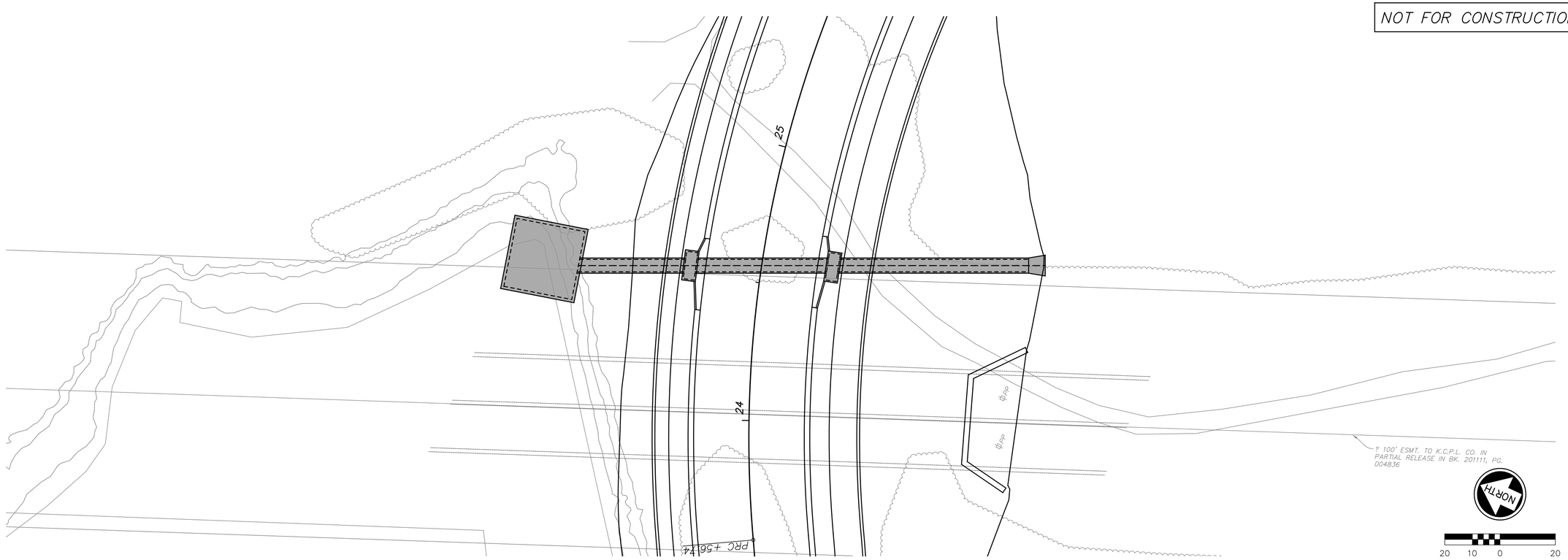

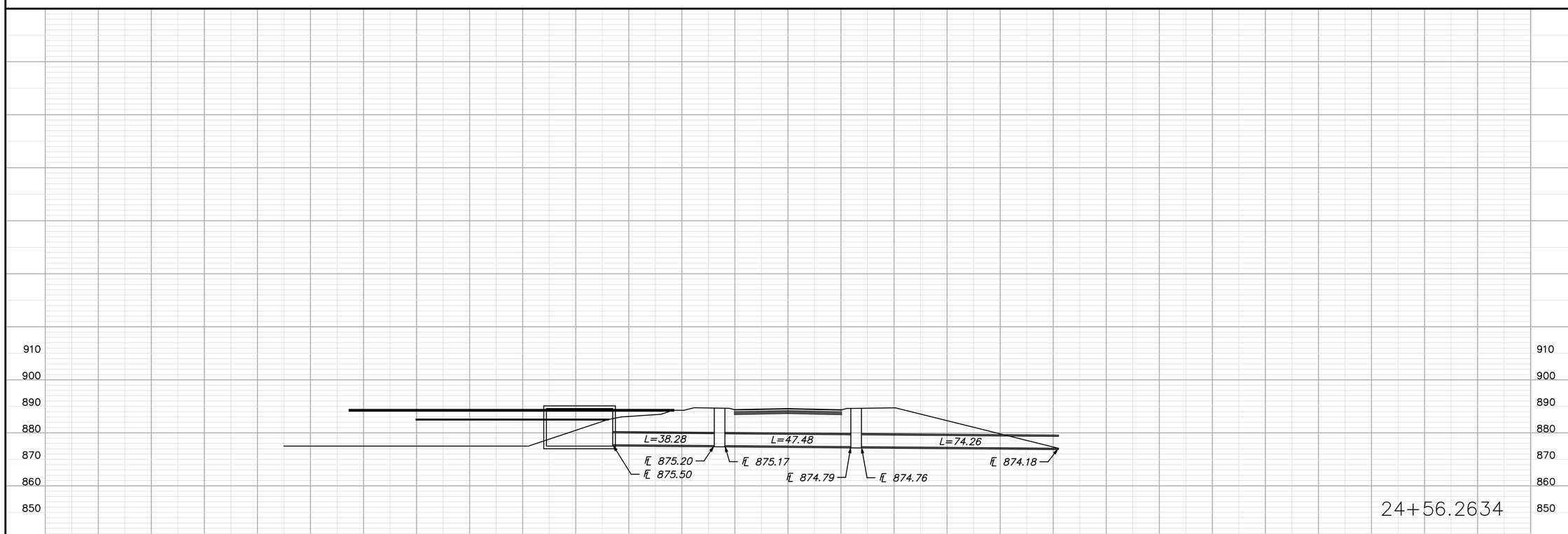

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CLEAR CREEK PARKWAY
CITY OF SHAWNEE, KANSAS

CROSS ROAD PIPE PLAN & PROFILE (1)
PIPE AT STATION 24+56

150561-010

SHEET NO.
47 OF 106

LAYOUT: MODEL | BY: jaddams | DATE: 13-JUL-2016 5:51:36 PM
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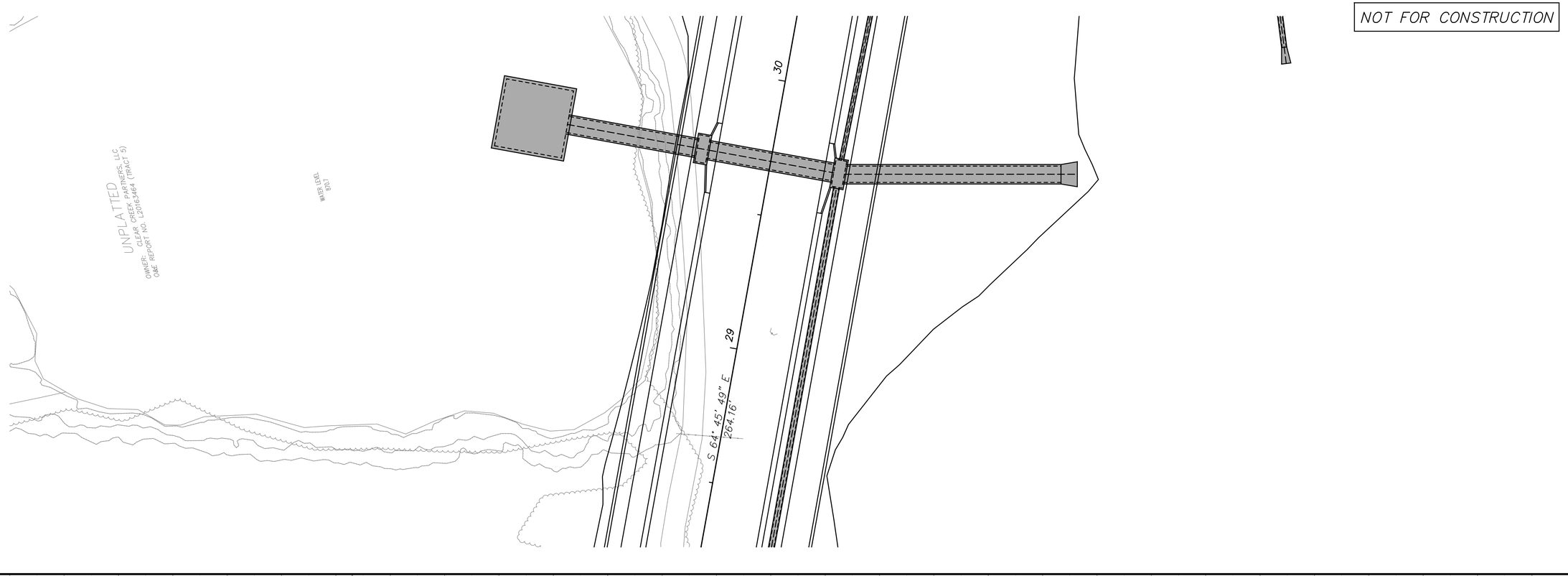

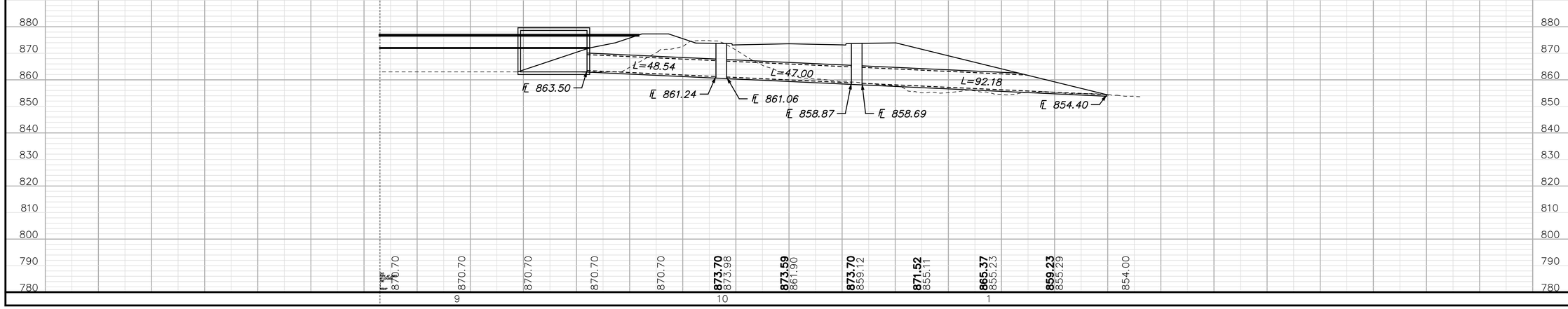

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CLEAR CREEK PARKWAY
CITY OF SHAWNEE, KANSAS

CROSS ROAD PIPE PLAN & PROFILE (2)
PIPE AT STATION 29+70

150561-010

SHEET NO.
48 OF 106

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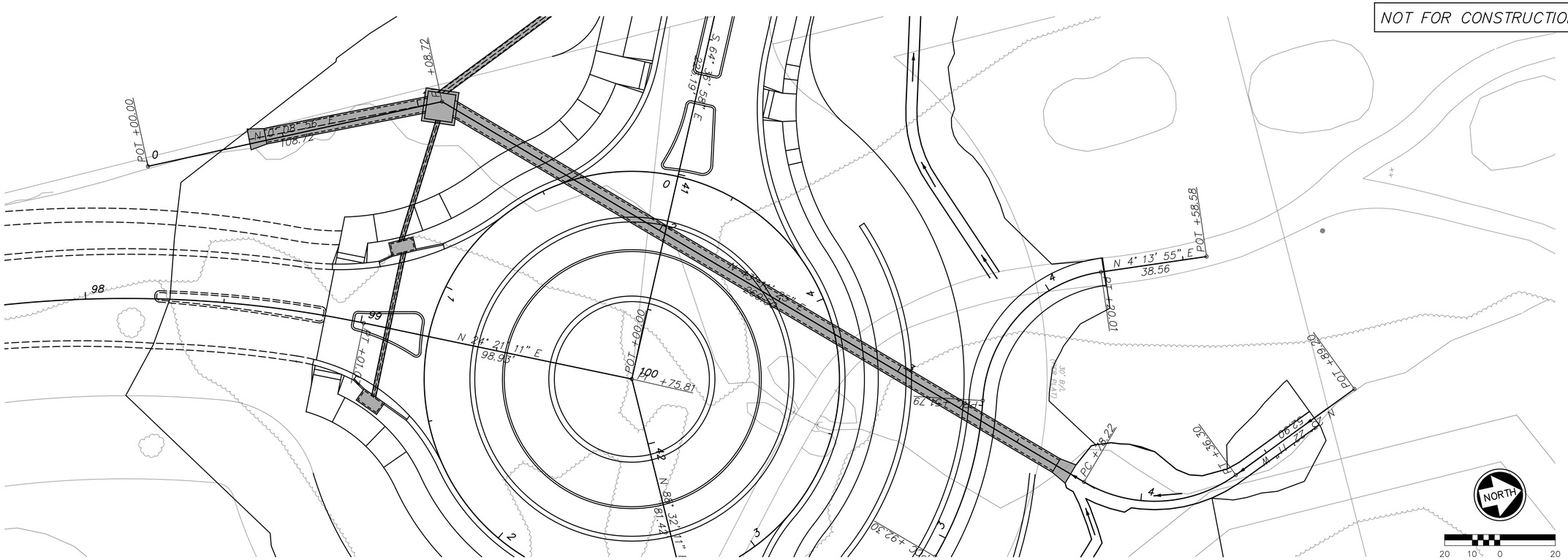

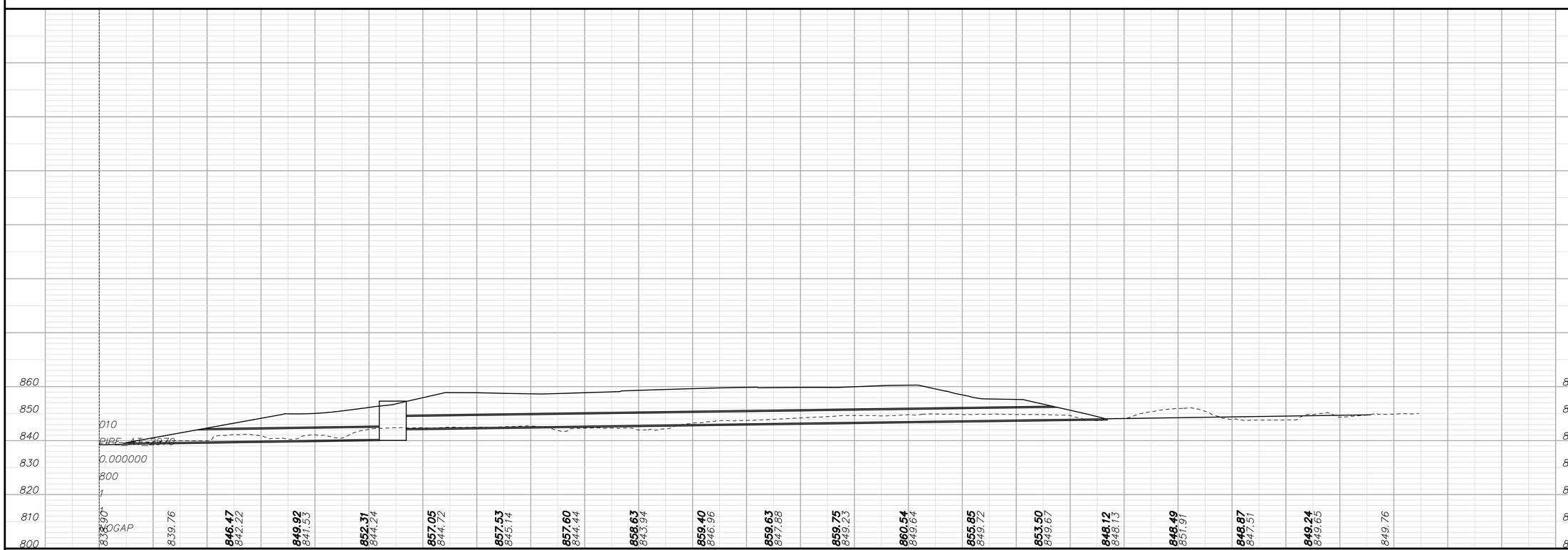

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CLEAR CREEK PARKWAY
CITY OF SHAWNEE, KANSAS

CROSS ROAD PIPE PLAN & PROFILE (3)
PIPE UNDER ROUNDABOUT

150561-010

SHEET NO.
49 OF 106

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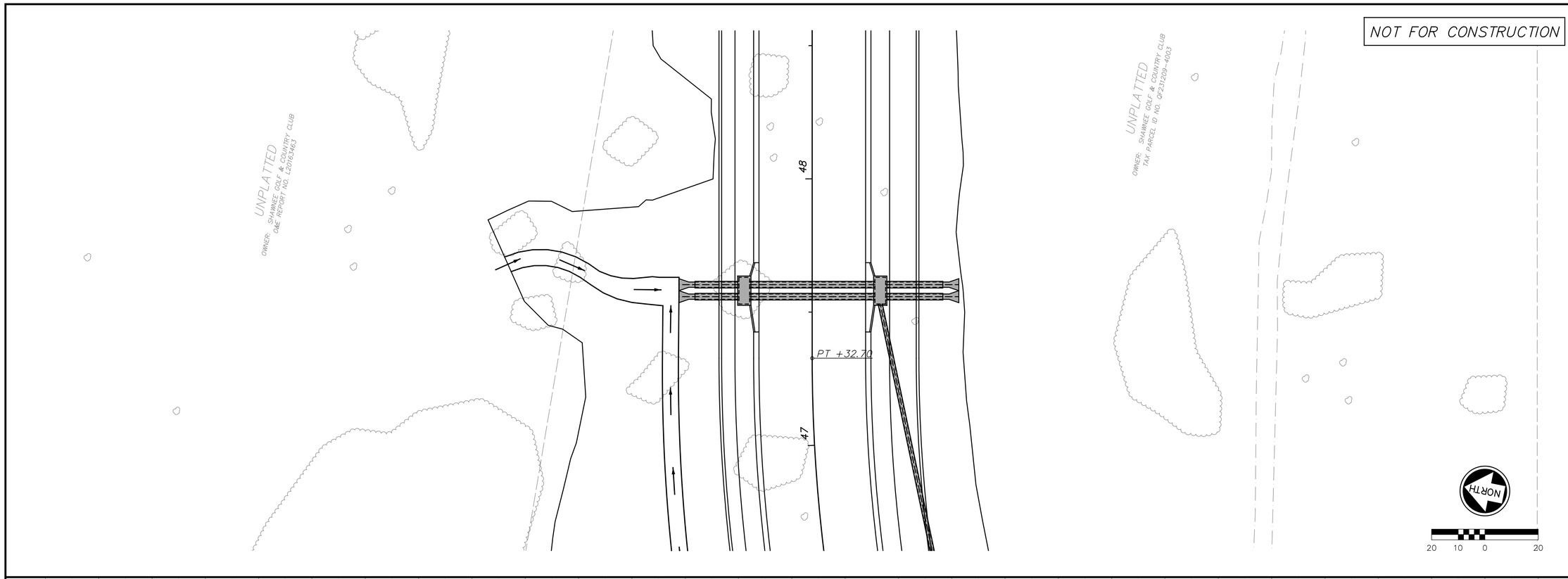

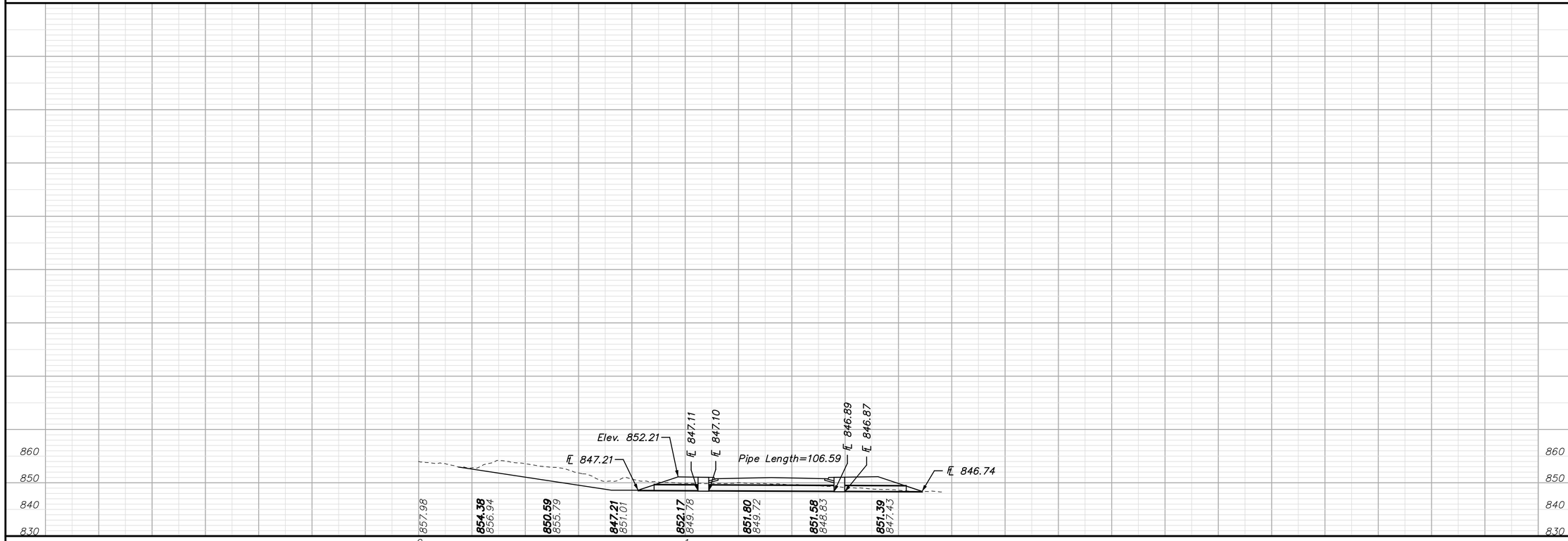

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CLEAR CREEK PARKWAY
CITY OF SHAWNEE, KANSAS

CROSS ROAD PIPE PLAN & PROFILE (4)
PIPE AT STATION 47+58

150561-010

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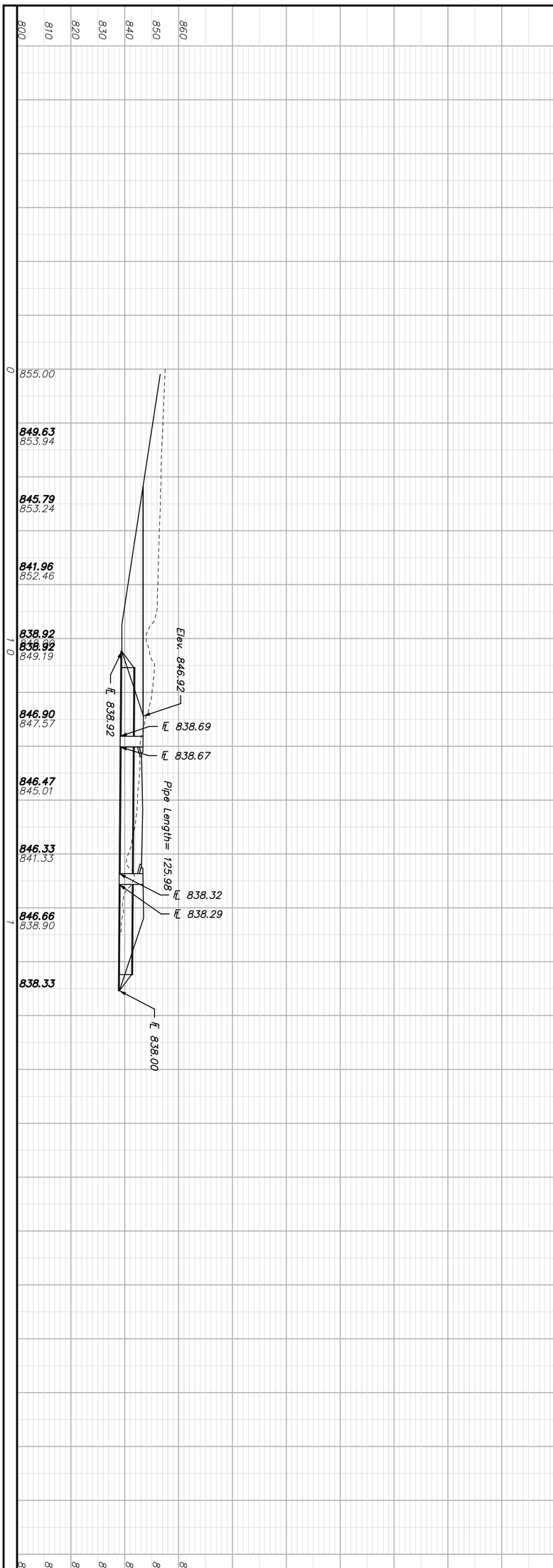

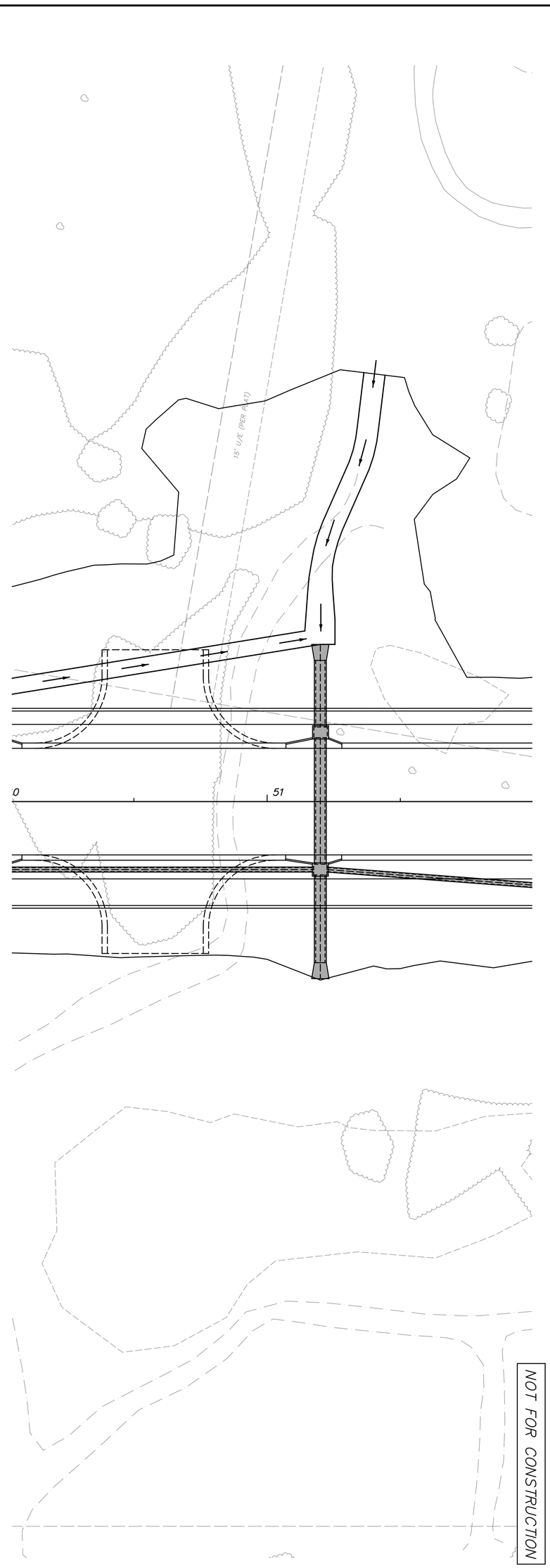

NOT FOR CONSTRUCTION

CLEAR CREEK PARKWAY
CITY OF SHAWNEE, KANSAS

CROSS ROAD PIPE PLAN & PROFILE (5)
PIPE AT STATION 51+20

150561-010
SHEET NO. 51 OF 106

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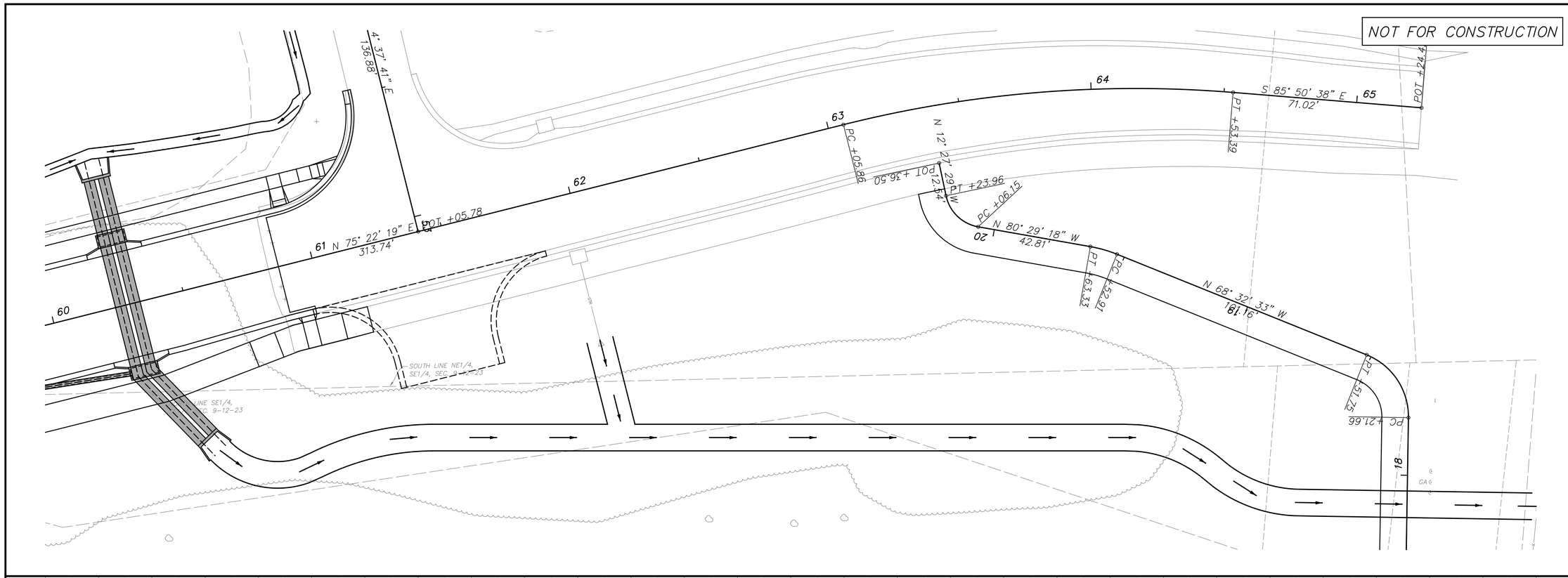

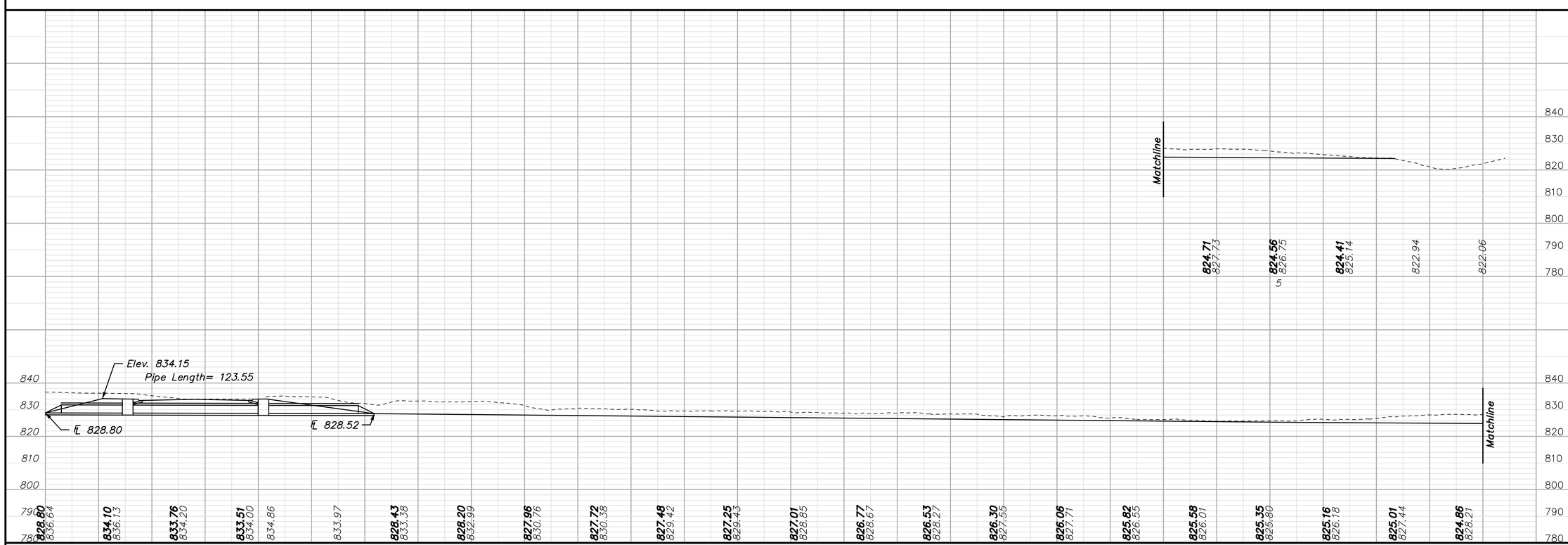

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CLEAR CREEK PARKWAY
CITY OF SHAWNEE, KANSAS

CROSS ROAD PIPE PLAN & PROFILE (6)
PIPE AT STATION 60+28

150561-010

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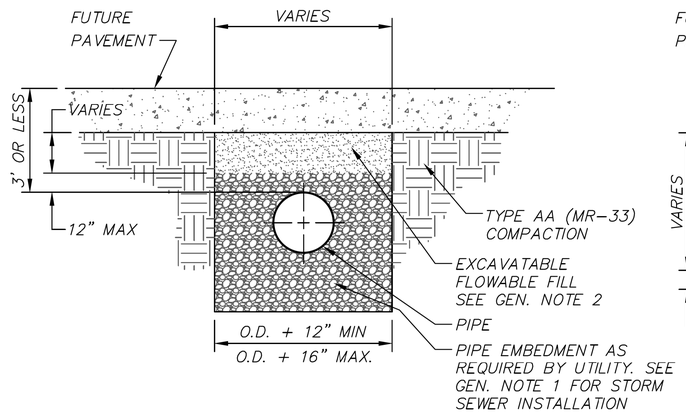
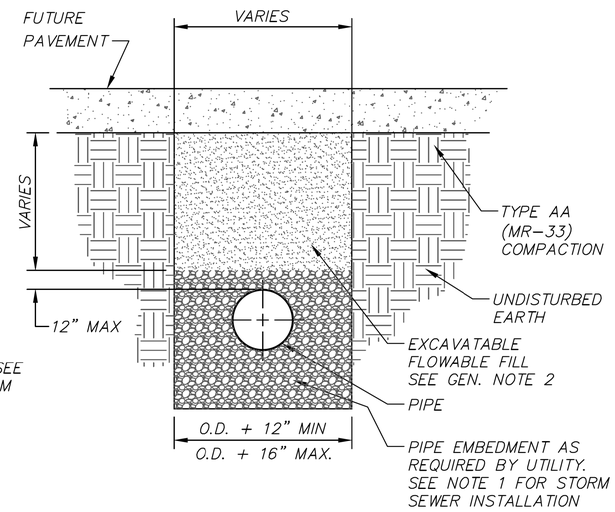
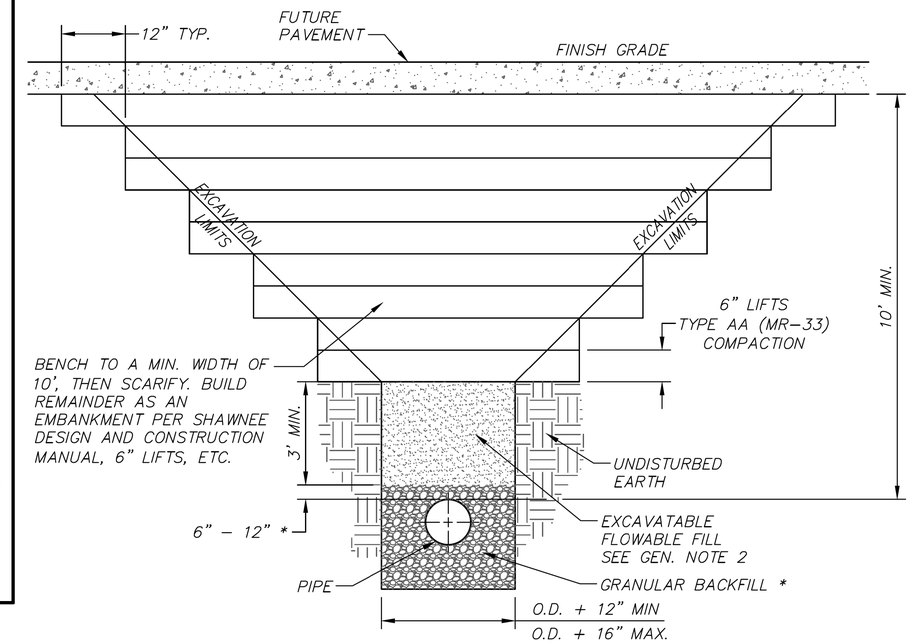
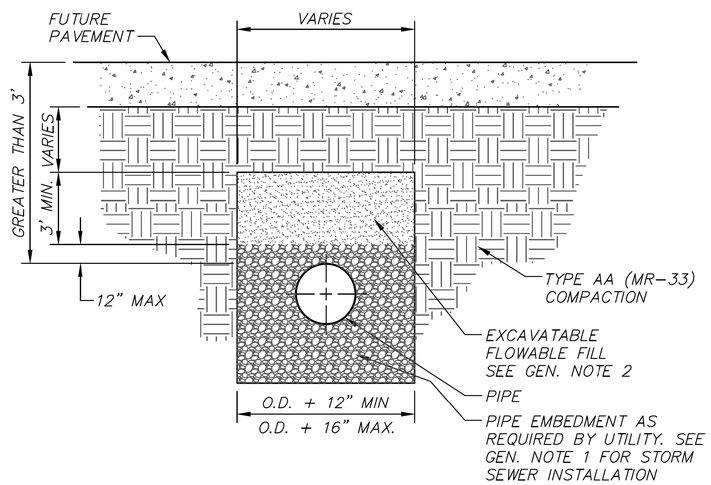


FILL CONDITION EQUAL TO OR LESS THAN 3'



TRENCH IN A CUT CONDITION





FILL CONDITION GREATER THAN 3'

GENERAL NOTES:

1. FOR STORM SEWER INSTALLATION PIPE EMBEDMENT SHALL BE FILLED NO HIGHER THEN THE PIPE SPRINGLINE ELEVATION.
2. FLOWABLE FILL SHALL MEET REQUIREMENTS AS SHOWN IN SECTION 4410 OF THE SHAWNEE DESIGN AND CONSTRUCTION MANUAL.
3. PIPE SHALL BE INSTALLED IN A TRENCH CONDITION. FILL AREA SHALL BE BROUGHT UP TO A MINIMUM OF 2' ABOVE THE TOP OF PIPE THEN TRENCH SHALL BE EXCAVATED TO INSTALL PIPE.
4. SHAWNEE DESIGN AND CONSTRUCTION MANUAL, THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, AND THE STANDARD SPECIFICATIONS FOR STATE ROAD AND BRIDGE CONSTRUCTION, KANSAS DEPARTMENT OF TRANSPORTATION, AND SPECIAL PROVISIONS ARE INCORPORATED EXCEPT AS OTHERWISE NOTED.
5. ANY EXCAVATION LEFT OPEN OVERNIGHT SHALL BE SECURED W/ ORANGE CONSTRUCTION FENCING.

STREET CROSSING DETAILS FOR ALL UTILITIES

NOTES:

1. CONTRACTOR SHALL CONTACT THE CITY FOR INSPECTION PRIOR TO PLACING BACKFILL AND AGAIN PRIOR TO PLACING ASPHALT.
2. THE 1.0' EITHER SIDE OF ORIGINAL TRENCH SHALL NOT BE REMOVED UNTIL BACKFILL HAS BEEN PLACED AND COMPACTED.
3. EARTH BACKFILL IS ONLY ALLOWABLE WITHIN UNPAVED AREAS WITHIN THE RIGHT-OF-WAY, WITHIN DRAINAGE EASEMENTS, AND IN ACCORDANCE WITH THIS DETAIL. BACKFILL MATERIAL OR TAMPED PIPE EMBEDMENT SHALL CONFORM TO THE SHAWNEE DESIGN AND CONSTRUCTION MANUAL, SECTION 4115 – EARTHWORK. ON-SITE OR IMPORTED MATERIAL TO BE USED AS BACKFILL SHALL BE FREE OF MUCK, FROZEN MATERIAL, EXCESS MOISTURE, ORGANIC MATERIAL, TOPSOIL RUBBISH, CONSTRUCTION DEBRIS, AND ROCK LARGER THAN 3 INCHES IN DIAMETER. FLOWABLE FILL IS REQUIRED TO BE USED AS BACKFILL BENEATH ALL PAVEMENT AND FUTURE PAVEMENT WITHIN THE RIGHT-OF-WAY, SIDEWALKS AND RECREATIONAL TRAILS. PLACEMENT OF FLOWABLE FILL SHALL CONFORM TO THE SHAWNEE DESIGN AND CONSTRUCTION MANUAL, SECTION 4510 – FLOWABLE FILL. THE CONTRACTOR SHALL ASSURE THAT THE PIPE EMBEDMENT AND BACKFILL OF THE PIPE SHALL BE DONE IN THE PRESENCE OF THE CITY ENGINEER OR REPRESENTATIVE.
4. ALL PIPES SHALL BE INSPECTED PRIOR TO BACKFILL. ALL PIPE COVERED PRIOR TO INSPECTION SHALL BE UNCOVERED AT THE CONTRACTOR'S EXPENSE.
5. UNLESS OTHERWISE AUTHORIZED BY THE CITY ENGINEER; TRENCH BACKFILL IN AREAS OF FUTURE STREET CONSTRUCTION SHALL CONFORM TO THIS DETAIL. BACKFILL LIMITS FOR THIS DETAIL EXTEND TO THE TOP OF TRENCH AND 3 FT. BACK OF ALL CURBS, AND UNDER ANY SIDEWALKS, EXISTING OR PROPOSED.
6. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO THE CITY OF SHAWNEE DESIGN AND CONSTRUCTION MANUAL.
7. TRENCH WIDTHS IN EXCESS OF 3' WIDE MAY BE COMPACTED USING SELECT EXCAVATED MATERIALS. FOR COMPACTION OF COHESIVE SOILS SUCH AS CLAY, A SHEEPSFOOT ROLLER SHALL BE USED TO BLEND AND BOND THE SOILS. ALL BACKFILLING OPERATIONS SHALL CONFORM TO THE SHAWNEE DESIGN AND CONSTRUCTION MANUAL, SECTION 4115 – BACKFILLING FOR STRUCTURES.
8. WHERE SELECT EXCAVATED MATERIAL IS USED FOR MATERIAL, THE CONTRACTOR SHALL SUBMIT DENSITY TESTS AS REQUIRED BY THE CITY ENGINEER.

SANITARY / STORM CROSSINGS (DEEP FILL)

Date	Revision	By	Appr.

STREET CROSSING AND SANITARY / STORM CROSSING DETAILS FOR NEW INFRASTRUCTURE

DEVELOPMENT SERVICES

Good Starts Here — SHAWNEE KANSAS

DATE:	3-1-14	3202-3
DRAWN BY:	MRS	
CHECKED BY:	RL	SHEET 1 OF 1

NO.	DATE	REVISIONS	BY	APP'D
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CLEAR CREEK PARKWAY
CITY OF SHAWNEE, KANSAS

DRAINAGE DETAILS (1)

150561-010

LAYOUT: MODEL | BY: jadams | DATE: 13-JUL-2016 5:51:58 PM
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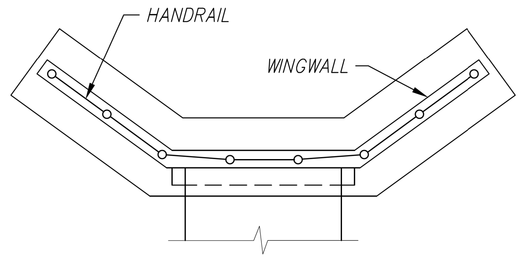
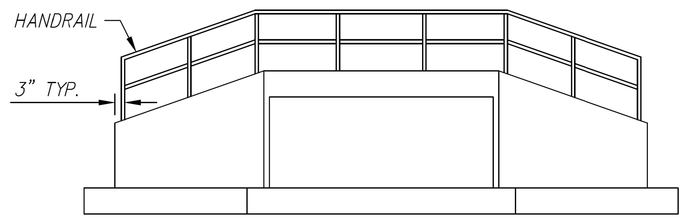
HANDRAIL NOTES:

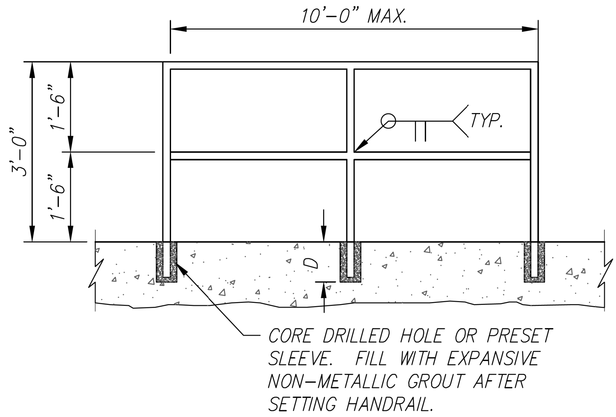
1. ALL RAILS AND POSTS SHALL BE SQUARE TUBING 2" NOMINAL PIPE AND SHALL BE GALVANIZED & PAINTED WITH 2 COATS OF "FOREST GREEN" PAINT. COLOR SHALL BE SUBMITTED TO CITY ENGINEER FOR APPROVAL PRIOR TO USE.
2. FABRICATION AND ERECTION SHALL BE IN ACCORDANCE WITH THE AISC MANUAL OF STEEL CONSTRUCTION.
3. ALL SHOP AND FIELD WELDING SHALL CONFORM TO AWS STRUCTURAL WELDING CODE STEEL, ANSI/AWS 01.1.
4. ALL WELDING SHALL BE DONE BY AWS CERTIFIED WELDERS HAVING CURRENT CERTIFICATION IN TYPE OF WELD SHOWN ON THE DRAWINGS OR NOTES.
5. THE HANDRAIL HEIGHT SHALL MEET ADA REQUIREMENTS.



ABUTMENT PLAN



ABUTMENT ELEVATION
AT STREAM FACE



HANDRAIL SECTION (TYP.)

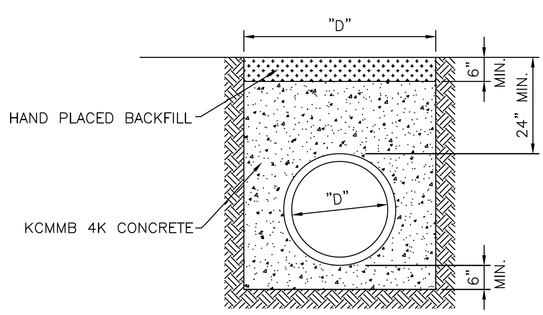
Date	Revision	By	Appr
3-1-14	SHAWNEE DESIGN & CONSTRUCTION MANUAL REVISIONS	MRS	PJL
8-21-12	REVISED TO MATCH CONSTRUCTION SPECIFICATION REVISIONS	MRS	PJL

HANDRAIL
(CULVERT HEADWALL
& WINGWALLS)

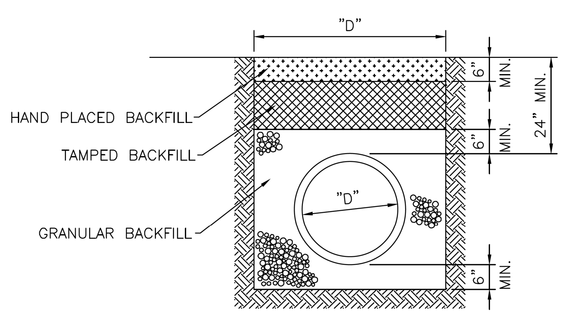
DEVELOPMENT SERVICES

Good Starts Here. SHAWNEE KANSAS

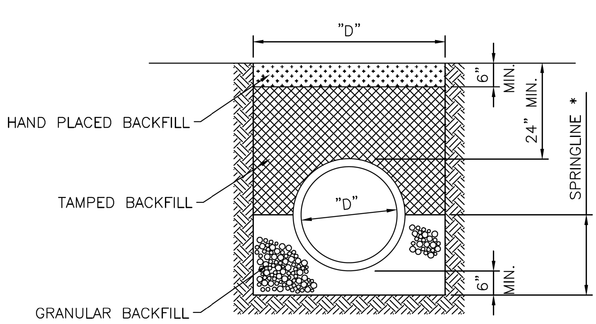
DATE:	08-27-2007	3620-3
DRAWN BY:	MRS	
CHECKED BY:	PJL	SHEET 1 OF 1



CONCRETE ENCASEMENT
CLASS A



HPPP/HDPE/PVC PIPE BEDDING
CLASS C



FIRST CLASS BEDDING (RCP)
CLASS B

NOTES:

1. GRANULAR FILL SHALL BE AS SHOWN IN TABLE, AND SHALL BE PLACED IN 6" LIFTS AND UNIFORMLY COMPACTED.
2. TAMPED FILL SHALL BE SUITABLE FINE GRADED SOIL, FREE OF DEBRIS, ORGANIC MATERIAL, AND STONES, COMPACTED TO TYPE AA MR-33 COMPACTION.
3. HAND PLACED FILL SHALL BE SUITABLE FINE GRADED TOP-SOIL MATERIAL, FREE OF DEBRIS AND STONES, COMPACTED TO TYPE AA MR-33 COMPACTION.
4. ALL PIPE SHALL BE INSPECTED PRIOR TO BACKFILL. ALL PIPE COVERED PRIOR TO INSPECTION SHALL BE UNCOVERED AT THE CONTRACTORS EXPENSE.
5. IF FLOWABLE FILL IS REQUIRED, SEE SHAWNEE DESIGN AND CONSTRUCTION MANUAL FOR INFORMATION.

* RCP INSTALLED IN ROCK CONDITIONS SHALL BE BACKFILLED W/ GRANULAR BACKFILL UP TO THE SPRINGLINE OF THE PIPE.

GRANULAR BACKFILL GRADATION

Sieve	% Retained
1"	100
3/4"	90-100
3/8"	20-65
#4	0-25

TRENCH WIDTH "D" TABLE

Pipe Size (inches)	Minimum Side Wall Clearance (inches)
12 - 30	6
33 - 42	9
48 - 60	12
66 - 90	18
96 - 108	24

Date	Revision	By	Appr
3-1-14	SHAWNEE DESIGN & CONSTRUCTION MANUAL REVISIONS	MRS	PJL
8-21-12	REVISED TO MATCH CONSTRUCTION SPECIFICATION REVISIONS	MRS	PJL

PIPE BEDDING

DEVELOPMENT SERVICES

Good Starts Here. SHAWNEE KANSAS

DATE:	03-12-2012	3305-4
DRAWN BY:	MRS	
CHECKED BY:	PJL	SHEET 1 OF 1

NOT FOR CONSTRUCTION

CLEAR CREEK PARKWAY
CITY OF SHAWNEE, KANSAS

DRAINAGE DETAILS (2)

SHAFER, KLINE & WARREN
11250 Corporate Avenue
Lenexa, KS 66219-1392
913.888.7800 FAX:913.888.7868
SURVEYING | ENGINEERING | CONSTRUCTION

Designed By: PRP
Drawn By: JCK/JAA
Checked By: HDL
Issue Date: JULY 2016

NO.	DATE	REVISIONS	BY	APP'D
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4				
3				
2				
1				

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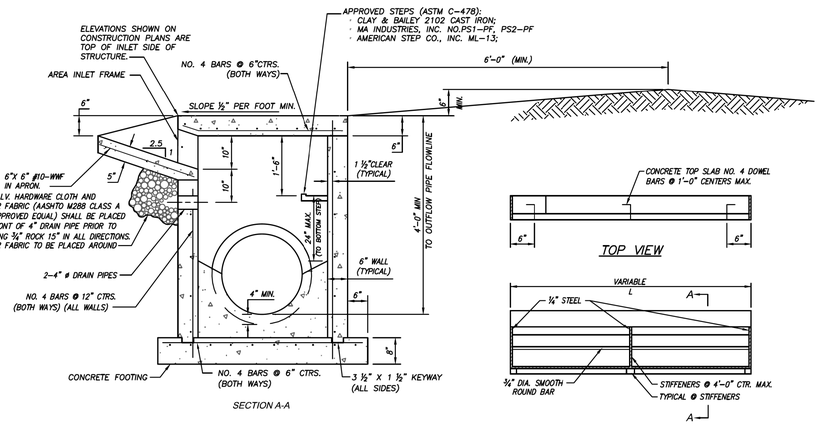
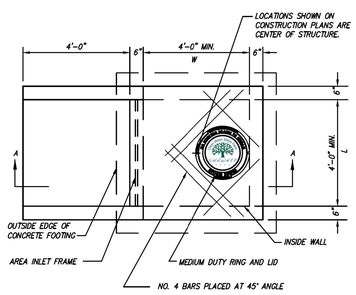
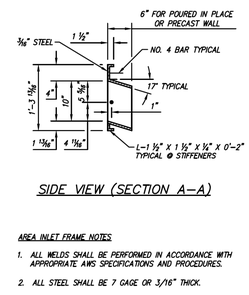
NOT FOR CONSTRUCTION



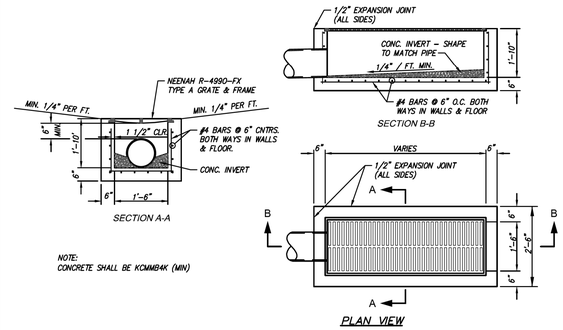


AREA INLET

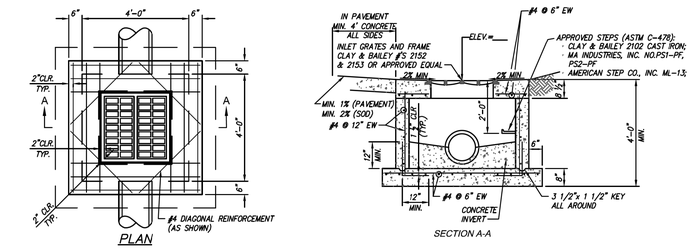


AREA INLET FRAME NOTES:

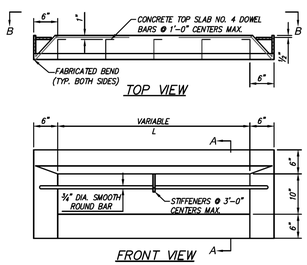
1. ALL WELDS SHALL BE PERFORMED IN ACCORDANCE WITH APPROPRIATE AWS SPECIFICATIONS AND PROCEDURES.
2. ALL STEEL SHALL BE 7 GAGE OR 3/16" THICK.
3. ALL WELDS ON EXPOSED SURFACES SHALL BE DRESSED SO AS TO PROVIDE A PLEASING FINISHED APPEARANCE.
4. THE ENTIRE FRAME SHALL BE HOT DIP ZINC COATED IN ACCORDANCE WITH ASTM A-123.

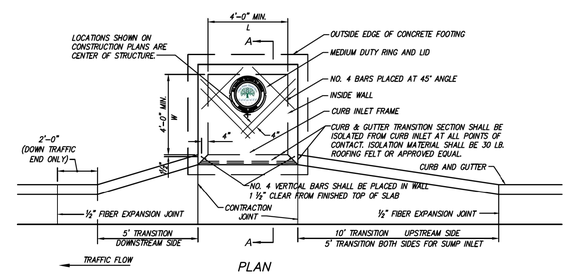


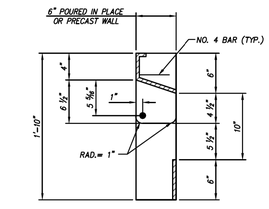
TRENCH DRAIN

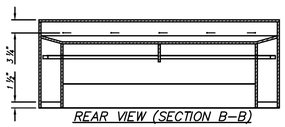


GRATE INLET









STEEL INLET FRAME NOTES:

1. ALL WELDS SHALL BE PERFORMED IN ACCORDANCE WITH APPROPRIATE AWS SPECIFICATIONS AND PROCEDURES.
2. ALL STEEL SHALL BE 7 GAGE OR 3/16" THICK.
3. ALL WELDS ON EXPOSED SURFACES SHALL BE DRESSED SO AS TO PROVIDE A PLEASING FINISHED APPEARANCE.
4. THE ENTIRE FRAME SHALL BE HOT DIP ZINC COATED IN ACCORDANCE WITH ASTM A-123.

INLET GENERAL NOTES

GENERAL

1. ALL STORM SEWER STRUCTURES SHALL BE PRECAST OR POURED IN PLACE. TOPS SHALL BE POURED IN PLACE AND WALL STEEL SHALL BE LEFT EXPOSED TO A HEIGHT 2" BELOW THE FINISH TOP ELEVATION, OR AS DIRECTED BY THE CITY ENGINEER.
2. PRECAST SHOP DRAWINGS ARE TO BE APPROVED BY THE CITY ENGINEER (OR REPRESENTATIVE THEREOF) FOR PUBLICLY FINANCED OR ADMINISTERED PROJECTS. PRECAST SHOP DRAWINGS FOR PRIVATELY FINANCED PROJECTS ARE TO BE SUBMITTED TO THE ENGINEER.
3. DO NOT SCALE THESE DRAWINGS FOR DIMENSIONS OR CLEARANCES. ANY QUESTIONS REGARDING DIMENSIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONSTRUCTION.
4. THE FIRST DIMENSION LISTED IN THE CONSTRUCTION NOTES IS THE "L" DIMENSION. THE SECOND DIMENSION IS THE "W" DIMENSION. THE CONCRETE THICKNESS AND REINFORCEMENT SHOWN IS FOR BOXES WITH ("L"+"W") AND ("W"+"W") LESS THEN OR EQUAL TO 20. FOR BOXES WITH EITHER OF THESE CALCULATIONS GREATER THAN 20, A SPECIAL DESIGN IS REQUIRED.
5. RING & COVER TO BE EAST JORDAN IRON WORKS #00150132, NEENAH #2016 OR APPROVED EQUAL.
6. INLET TOPS SHALL BE SLOPED WITH CURB PROFILE.

CONCRETE

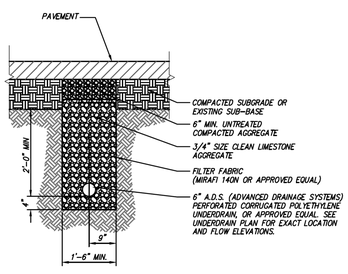
7. CONCRETE USED IN THIS WORK SHALL BE KCMMB4K FOR ALL PRECAST STRUCTURAL COMPONENTS, AND KCMMB5K FOR ALL POURED-IN-PLACE COMPONENTS AS APPROVED BY THE KANSAS CITY METROPOLITAN MATERIALS BOARD, AND SHALL MEET THE REQUIREMENTS OF THE SHAWNEE DESIGN AND CONSTRUCTION MANUAL.
8. CONCRETE CONSTRUCTION SHALL MEET THE APPLICABLE REQUIREMENTS OF STANDARD SPECIFICATIONS FOR STATE ROAD AND BRIDGE CONSTRUCTION, KANSAS DEPARTMENT OF TRANSPORTATION, LATEST EDITION.
9. INLET FLOORS SHALL BE SHAPED WITH NON-REINFORCED KCMMB4K CONCRETE INVERTS TO PROVIDE SMOOTH FLOW.
10. BEVEL ALL EXPOSED EDGES WITH ¾" TRIANGULAR MOLDING.

REINFORCING STEEL

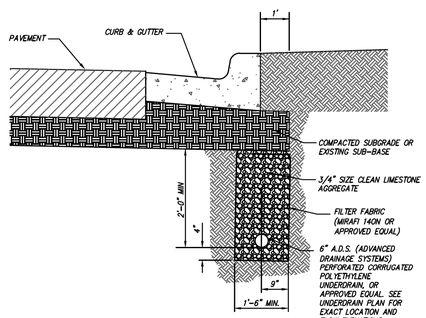
11. REINFORCING STEEL SHALL BE NEW BILLET, MINIMUM GRADE 40 AS PER ASTM A615, AND SHALL BE BENT COLD.
12. ALL DIMENSIONS RELATIVE TO REINFORCING STEEL ARE TO CENTERLINE OF BARS. 2" CLEARANCE SHALL BE PROVIDED THROUGHOUT UNLESS NOTED OTHERWISE. TOLERANCE OF +/- ⅛" SHALL BE PERMITTED.
13. ALL LAP SPLICES NOT SHOWN SHALL BE A MINIMUM OF 40 BAR DIAMETERS IN LENGTH.
14. ALL REINFORCING STEEL SHALL BE SUPPORTED ON FABRICATED STEEL BAR SUPPORTS @ 3'-0" MAXIMUM SPACING.
15. ALL DOWELS SHALL BE ACCURATELY PLACED AND SECURELY TIED IN PLACE PRIOR TO PLACEMENT OF BOTTOM SLAB CONCRETE. STICKING OF DOWELS INTO FRESH OR PARTIALLY HARDENED CONCRETE WILL NOT BE ACCEPTABLE.

CONSTRUCTION

16. THE BOTTOM SLAB SHALL BE AT LEAST 24 HOURS OLD BEFORE PLACING SIDEWALL CONCRETE. ALL SIDEWALL FORMS SHALL REMAIN IN PLACE A MINIMUM OF 24 HOURS AFTER SIDEWALLS ARE POURED BEFORE REMOVAL, AND AFTER REMOVAL SHALL BE IMMEDIATELY TREATED WITH MEMBRANE CURING COMPOUND.
17. PIPE CONNECTIONS TO PRE-CAST STRUCTURES SHALL HAVE A MINIMUM OF 6" OF CONCRETE AROUND THE ENTIRE PIPE WITHIN 2' OF THE STRUCTURE.
18. ALL STRUCTURES THAT ABUT SIDEWALK SHALL BE BACKFILLED WITH FLOWABLE FILL TO UNEXCAVATED GROUND. FLOWABLE FILL SHALL BE BROUGHT TO 12" BELOW FINISHED GRADE. REMAINING BACKFILL SHALL MEET THE STANDARD DETAILS FOR SIDEWALK CONSTRUCTION.
19. MATERIAL SELECTION AND COMPACTION REQUIREMENTS FOR BACKFILL AROUND STRUCTURES SHALL BE AS SPECIFIED IN THE SHAWNEE DESIGN AND CONSTRUCTION MANUAL.
20. ALL TOPS SHALL BE POURED-IN-PLACE USING KCMMB5K.
21. ALL INVERTS & CONNECTIONS SHALL BE CONSIDERED SUBSIDIARY TO INSTALLATION OF STRUCTURE.



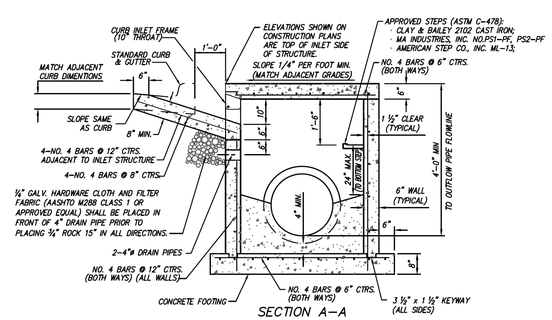
UNDERDRAIN DETAIL
(UNDER PAVEMENT)



UNDERDRAIN DETAIL
(BEHIND CURB)

NOTES:

1. PROPOSED UNDERDRAIN LAYOUT, FLOWLINE ELEVATIONS, INLET CONNECTION POINTS, AND DETAILS SHALL BE APPROVED PRIOR TO CONSTRUCTION BY THE CITY ENGINEER.
2. ALL UNDERDRAIN PIPES SHALL HAVE WATERTIGHT JOINTS. ALL OUTLET PIPES SHALL BE TIED INTO THE NEAREST STORM SEWER INLET AS APPROVED. ALL CONNECTIONS BEWEEN UNDERDRAIN PIPES AND CURB INLETS SHALL BE MADE WITH 2' LENGTH OF OUTLET PIPE.
3. ALL UNDERDRAIN PIPES SHALL BE INSTALLED AT A MINIMUM SLOPE OF 1%. PIPE SHALL BE INSTALLED WITH THE PERFORATIONS PLACED DOWN.
4. FILTER FABRIC SEAMS SHALL BE OVERLAPPED A MINIMUM OF 12".
5. CONTRACTOR SHALL NOT MIX UNDERDRAIN TYPES OF MATERIALS WITHIN ANY UNDERDRAIN SYSTEM.



SETBACK CURB INLET DETAIL

Date	Revision	By	Appr.
3-1-14	SHAWNEE DESIGN & CONSTRUCTION MANUAL REVISIONS	MRS	PJL
8-21-12	REVISED TO MATCH CONSTRUCTION SPECIFICATION REVISIONS	MRS	PJL

STORM INLETS

DEVELOPMENT SERVICES

Good Starts Here. SHAWNEE KANSAS

DATE:	08-27-2007	3310A
DRAWN BY:	MRS	
CHECKED BY:	PJL	SHEET 1 OF 1

NO.	DATE	REVISIONS	BY	APP'D
5				
4				
3				
2				
1				

Designed By: PRP
Drawn By: JCK/JAA
Checked By: HDL
Issue Date: JULY 2016

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SURVEYING | ENGINEERING | CONSTRUCTION

CLEAR CREEK PARKWAY
CITY OF SHAWNEE, KANSAS

DRAINAGE DETAILS (3)

150561-010

SHEET NO.
55 OF 106

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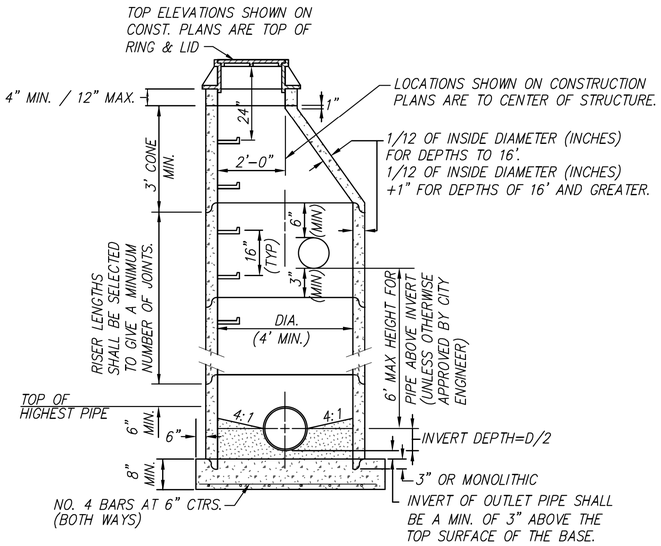
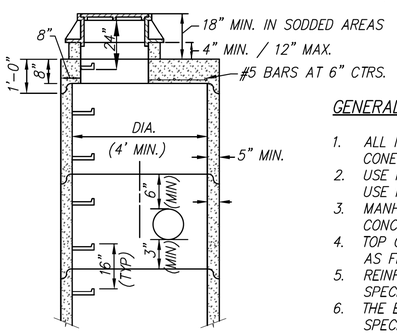
NOT FOR CONSTRUCTION



STANDARD PRECAST MANHOLE

(ECCENTRIC CONE)

MANHOLE DETAILS



STANDARD PRECAST MANHOLE

(SHALLOW TYPE)

GENERAL NOTES:

1. ALL MANHOLES ARE TO BE PRECAST CONCRETE AND OF ECCENTRIC CONE TYPE UNLESS OTHERWISE SPECIFIED.
2. USE KCMMB5K FOR ALL PUBLIC & PRIVATE STORM SEWER MANHOLES. USE KCMMB4K FOR ALL INVERTS.
3. MANHOLE TOP ADJUSTMENTS SHALL BE ACCOMPLISHED BY THE USE OF CONCRETE ADJUSTMENT RINGS.
4. TOP OF MANHOLE CASTING SHALL BE SET FLUSH AND ON SAME SLOPE AS FINISHED SURFACE OR AS DIRECTED BY THE ENGINEER.
5. REINFORCEMENT IN ALL SECTIONS SHALL EQUAL OR EXCEED ASTM C478 SPECIFICATIONS.
6. THE ENGINEER SHALL DESIGNATE MODIFICATIONS FOR MANHOLES WITH SPECIAL DESIGNS.
7. THE INSIDE DIAMETER OF THE MANHOLE SHALL BE 4'-0" FOR PIPE DIAMETERS FROM 12" THROUGH 24", 5'-0" FOR PIPE DIAMETERS FROM 27" THROUGH 36", AND 6'-0" FOR PIPE DIAMETERS 42" THROUGH 48".
8. CLEARANCE TOLERANCE OF PIPE OPENINGS: THE MAXIMUM ALLOWABLE PIPE OPENING ON A HORIZONTAL AXIS SHALL BE THE OUTSIDE DIAMETER OF THE PIPE PLUS 12". THE MAXIMUM ALLOWABLE PIPE OPENING ON VERTICAL AXIS SHALL BE THE OUTSIDE DIAMETER PLUS 8". THE MINIMUM CLEARANCE BETWEEN THE OUTSIDE SURFACE OF AN INSTALLED PIPE AND THE CONCRETE OF THE MANHOLE SHALL BE 2".
9. INSTALLATION OF PIPE OPENINGS: ALL REQUIRED PIPE OPENINGS SHALL BE PLANT CAST IN MANHOLE UNITS. FIELD ALTERATIONS OF OPENINGS WILL BE PERMITTED PROVIDED WALLS ARE SCORED WITH A MASONRY SAW TO A DEPTH SUFFICIENT TO SEVER REINFORCING STEEL. A CHIPPING HAMMER MAY THEN BE USED TO REMOVE THE CONCRETE. MINIMUM DISTANCE BETWEEN ANY TWO ADJACENT PIPES SHALL BE 6".
10. ALL INVERTS & CONNECTIONS SHALL BE CONSIDERED SUBSIDIARY TO INSTALLATION OF MANHOLE.
11. RING & COVER TO BE EAST JORDAN IRON WORKS #00150230 (HEAVY DUTY) OR APPROVED EQUAL.
12. ALL STRUCTURES THAT ABUT SIDEWALK SHALL BE BACKFILLED WITH FLOWABLE FILL TO UNEXCAVATED GROUND. FLOWABLE FILL SHALL BE BROUGHT TO 12" BELOW FINISHED GRADE. REMAINING BACKFILL SHALL MEET THE STANDARD DETAILS FOR SIDEWALK CONSTRUCTION.
13. MATERIAL SELECTION AND COMPACTION REQUIREMENTS FOR BACKFILL AROUND STRUCTURES SHALL BE AS SPECIFIED IN THE SHAWNEE DESIGN AND CONSTRUCTION MANUAL.

GENERAL NOTES

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CONSTRUCTION

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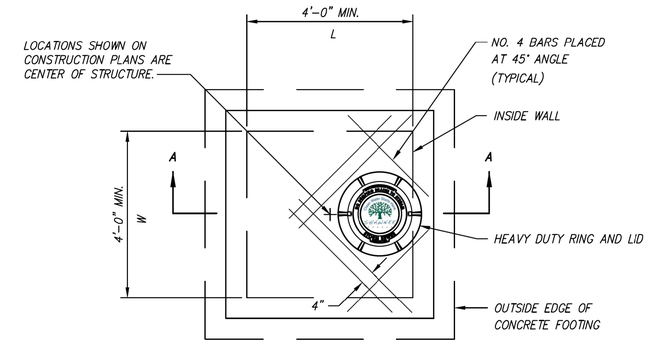
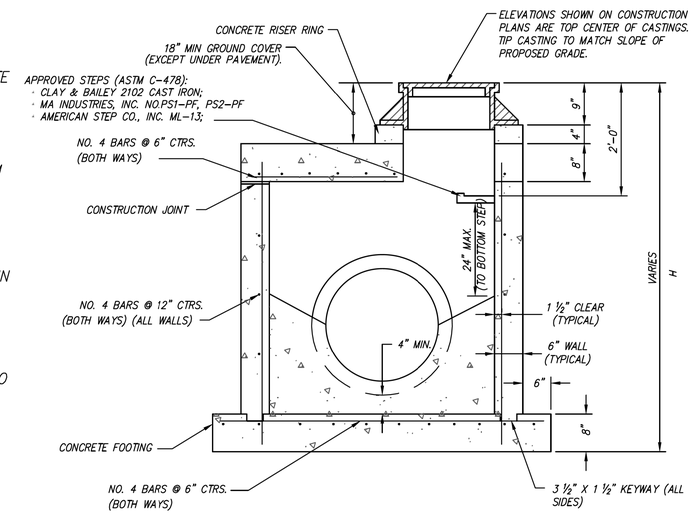


PLAN



SECTION A-A

JUNCTION BOX DETAILS

Date	Revision	By	Appr.
3-1-14	SHAWNEE DESIGN & CONSTRUCTION MANUAL REVISIONS	MRS	PJL
8-21-12	REVISED TO MATCH CONSTRUCTION SPECIFICATION REVISIONS	MRS	PJL

JUNCTION BOX / MANHOLE DETAILS

DEVELOPMENT SERVICES

Good Starts Here. SHAWNEE KANSAS

DATE:	08-27-2007	3310B
DRAWN BY:	MRS	
CHECKED BY:	PJL	SHEET 1 OF 1

NO.	DATE	REVISIONS	BY	APP'D
1				
2				
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Designed By: PRP
Drawn By: JCK/JAA
Checked By: HDL
Issue Date: JULY 2016

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913.888.7800 FAX:913.888.7868
SURVEYING | ENGINEERING | CONSTRUCTION

CLEAR CREEK PARKWAY
CITY OF SHAWNEE, KANSAS

DRAINAGE DETAILS (4)

150561-010

LAYOUT: MODEL | BY: jadams | DATE: 13-JUL-2016 5:53:33 PM
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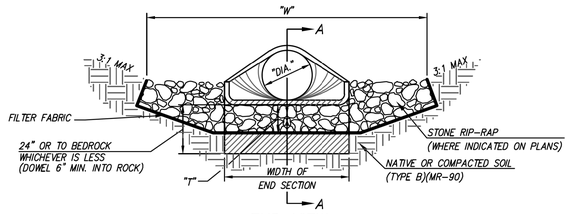
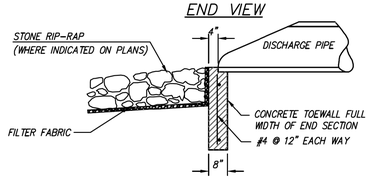


END VIEW

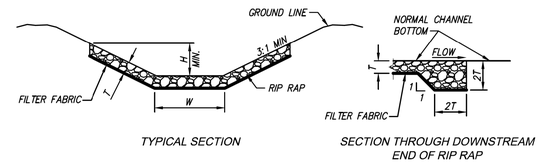


SECTION A–A

NOTE:
CONCRETE SHALL BE KCMMB4K (MIN)

STORM SEWER END SECTION W/ TOEWALL & RIP-RAP

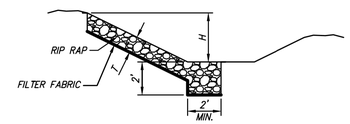
SLOPE PROTECTION TABLE		
OUTLET DIAMETER (INCHES)	MINIMUM DEPTH (T) X WIDTH (W) X LENGTH (FEET)	RIPRAP LINING (CUBIC YARDS)
18	1.5 X 4 X 12	3
24	1.5 X 6 X 14	5
30	1.5 X 7 X 16	6
36	1.5 X 9 X 18	9
42	2 X 10 X 20	15
48	2 X 12 X 20	18
54	2 X 13.5 X 22	22
60	2 X 15 X 25	28
66	2 X 18 X 25	33
72	2 X 20 X 30	44
84	2.5 X 25 X 35	81
96	2.5 X 30 X 40	111
108	3 X 32 X 40	142



TYPICAL SECTION

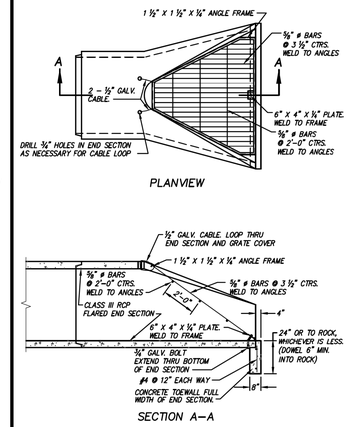
SECTION THROUGH DOWNSTREAM END OF RIP RAP

RIP RAP FOR SMALL DRAINAGE CHANNELS



TYPICAL SECTION OF RIP RAP ALONG SLOPES

RIP RAP



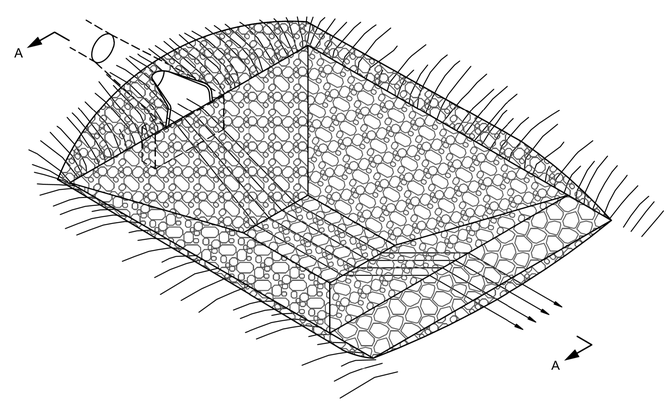
END SECTION NOTES

1. GRATE COVER DETAIL SHALL BE ADJUSTED AS NECESSARY TO FIT END SECTION PROVIDED.
2. MAXIMUM OPENING THRU END SECTION SHALL BE NO GREATER THAN 6". ADJUST DETAIL AS NECESSARY.
3. ALL METAL SURFACES SHALL BE HOT DIP ZINC COATED IN ACCORDANCE WITH ASTM A–123.
4. USE KCMMB4K CONCRETE THROUGHOUT.
5. ALL CONCRETE USED IN THIS WORK SHALL MEET THE REQUIREMENTS OF THE SHAWNEE TECHNICAL SPECIFICATIONS.
6. REINFORCING STEEL SHALL BE NEW BILLET, MINIMUM GRADE 40 AS PER ASTM A615, AND SHALL BE BENT COLD.
7. ALL DIMENSIONS RELATIVE TO REINFORCING STEEL ARE TO CENTERLINE OF BARS. 2" CLEARANCE SHALL BE PROVIDED THROUGHOUT UNLESS NOTED OTHERWISE. TOLERANCE OF +/– 1/8" SHALL BE PERMITTED.
8. ALL LAP SPLICES NOT SHOWN SHALL BE A MINIMUM OF 40 BAR DIAMETERS IN LENGTH.
9. ALL CONCRETE CONSTRUCTION SHALL MEET THE APPLICABLE REQUIREMENTS OF STANDARD SPECIFICATIONS FOR STATE ROAD AND BRIDGE CONSTRUCTION, KANSAS DEPARTMENT OF TRANSPORTATION, LATEST EDITION, AND SPECIAL PROVISIONS.
10. ALL DOWELS SHALL BE ACCURATELY PLACED AND SECURELY TIED IN PLACE PRIOR TO PLACEMENT OF BOTTOM SLAB CONCRETE. STICKING OF DOWELS INTO FRESH OR PARTIALLY HARDENED CONCRETE WILL NOT BE ACCEPTABLE.
11. ALL REINFORCING STEEL SHALL BE SUPPORTED ON FABRICATED STEEL BAR SUPPORTS @ 3'–0" MAXIMUM SPACING.
12. DO NOT SCALE THESE DRAWINGS FOR DIMENSIONS OR CLEARANCES. SEE PLANS FOR PROPER DIMENSIONS.
13. INCLUSION OF ALL GRATES SHALL BE PRE APPROVED BY CITY ENGINEER.

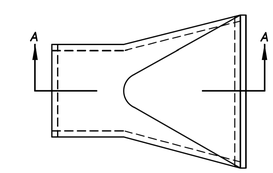
END SECTION TOEWALL & GRATE

SECTION A–A

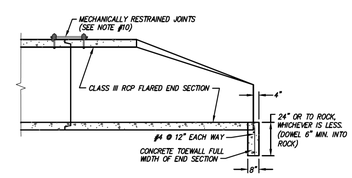
NOTE:
DESIGN OF PLUNGE POOL DISSIPATOR SHALL BE PER HEC–14 AND SHALL BE APPROVED BY CITY ENGINEER.



PLUNGE POOL DISSIPATOR



PLAN VIEW



SECTION A–A

END SECTION NOTES

1. USE KCMMB4K CONCRETE THROUGHOUT.
2. ALL CONCRETE USED IN THIS WORK SHALL MEET THE REQUIREMENTS OF THE SHAWNEE TECHNICAL SPECIFICATION.
3. REINFORCING STEEL SHALL BE NEW BILLET, MINIMUM GRADE 40 AS PER ASTM A615, AND SHALL BE BENT COLD.
4. ALL DIMENSIONS RELATIVE TO REINFORCING STEEL ARE TO CENTERLINE OF BARS. 2" CLEARANCE SHALL BE PROVIDED THROUGHOUT UNLESS NOTED OTHERWISE. TOLERANCE OF +/– 1/8" SHALL BE PERMITTED.
5. ALL LAP SPLICES NOT SHOWN SHALL BE A MINIMUM OF 40 BAR DIAMETERS IN LENGTH.
6. ALL CONCRETE CONSTRUCTION SHALL MEET THE APPLICABLE REQUIREMENTS OF STANDARD SPECIFICATIONS FOR STATE ROAD AND BRIDGE CONSTRUCTION, KANSAS DEPARTMENT OF TRANSPORTATION, LATEST EDITION, AND SPECIAL PROVISIONS.
7. ALL DOWELS SHALL BE ACCURATELY PLACED AND SECURELY TIED IN PLACE PRIOR TO PLACEMENT OF BOTTOM SLAB CONCRETE. STICKING OF DOWELS INTO FRESH OR PARTIALLY HARDENED CONCRETE WILL NOT BE ACCEPTABLE.
8. ALL REINFORCING STEEL SHALL BE SUPPORTED ON FABRICATED STEEL BAR SUPPORTS @ 3'–0" MAXIMUM SPACING.
9. DO NOT SCALE THESE DRAWINGS FOR DIMENSIONS OR CLEARANCES. SEE PLANS FOR PROPER DIMENSIONS.
10. THE LAST THREE JOINTS OF RCP, INCLUDING THE END SECTION, SHALL BE MECHANICALLY RESTRAINED WHERE DISCHARGING INTO UNIMPROVED SYSTEMS.

END SECTION TOEWALL

Date	Revision	By	Appr.
3–1–14	SHAWNEE DESIGN & CONSTRUCTION MANUAL REVISIONS	MRS	PJL
8–21–12	REVISED TO MATCH CONSTRUCTION SPECIFICATION REVISIONS	MRS	PJL

TOEWALL / RIP RAP DETAILS

DEVELOPMENT SERVICES

Good Starts Here. SHAWNEE KANSAS

DATE:	08–27–2007	3311
DRAWN BY:	MRS	
CHECKED BY:	PJL	SHEET 1 OF 1

NO.	DATE	REVISIONS	BY	APP'D
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2				
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Drawn By: JCK/JAA
Checked By: HDL
Issue Date: JULY 2016

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CLEAR CREEK PARKWAY
CITY OF SHAWNEE, KANSAS

DRAINAGE DETAILS (5)

150561–010

LAYOUT: MODEL | BY: jadams | DATE: 13–JUL–2016 5:53:59 PM
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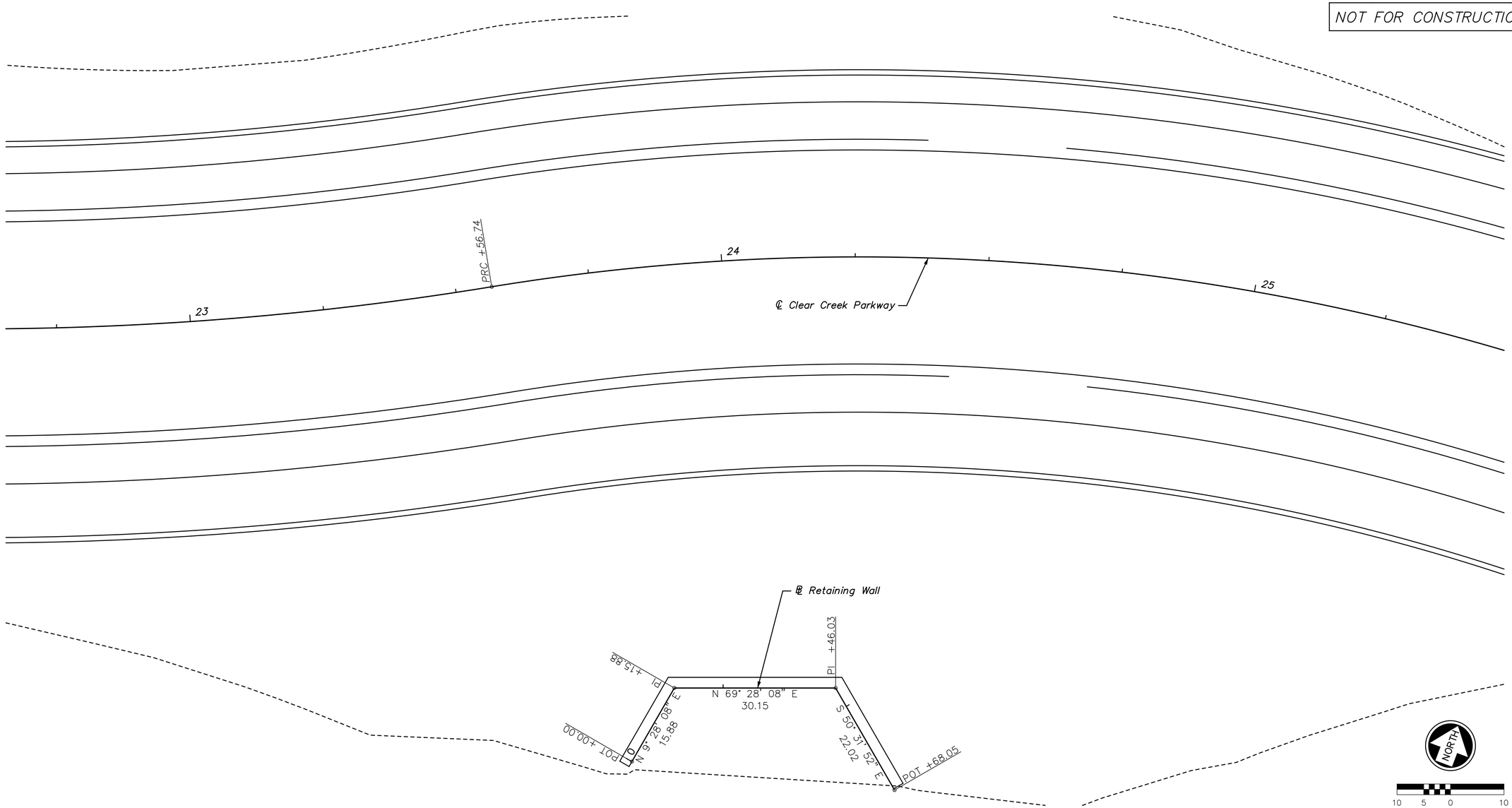
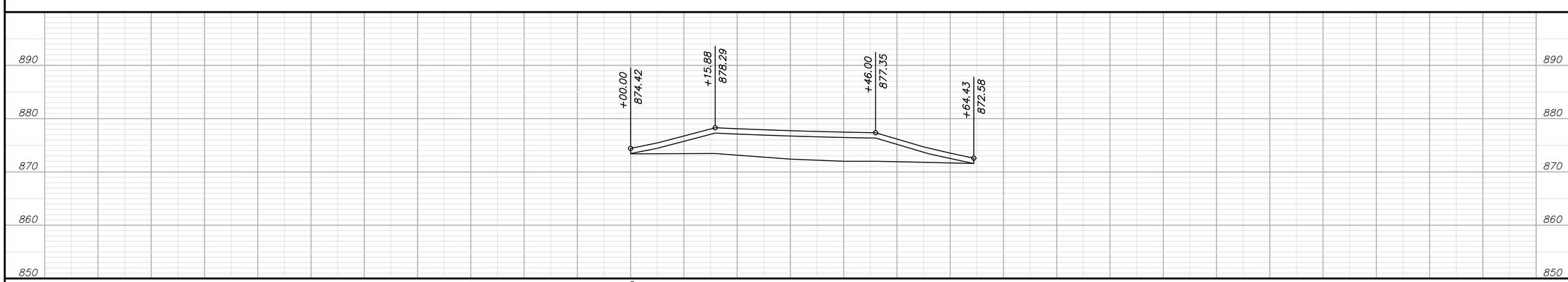
NOT FOR CONSTRUCTION





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CLEAR CREEK PARKWAY
CITY OF SHAWNEE, KANSAS

RETAINING WALL PLAN AND PROFILE (1)
RETAINING WALL AROUND POWER POLES

150561-010

SHEET NO.
58 OF 106

LAYOUT: MODEL | BY: jadams | DATE: 13-JUL-2016 5:54:29 PM
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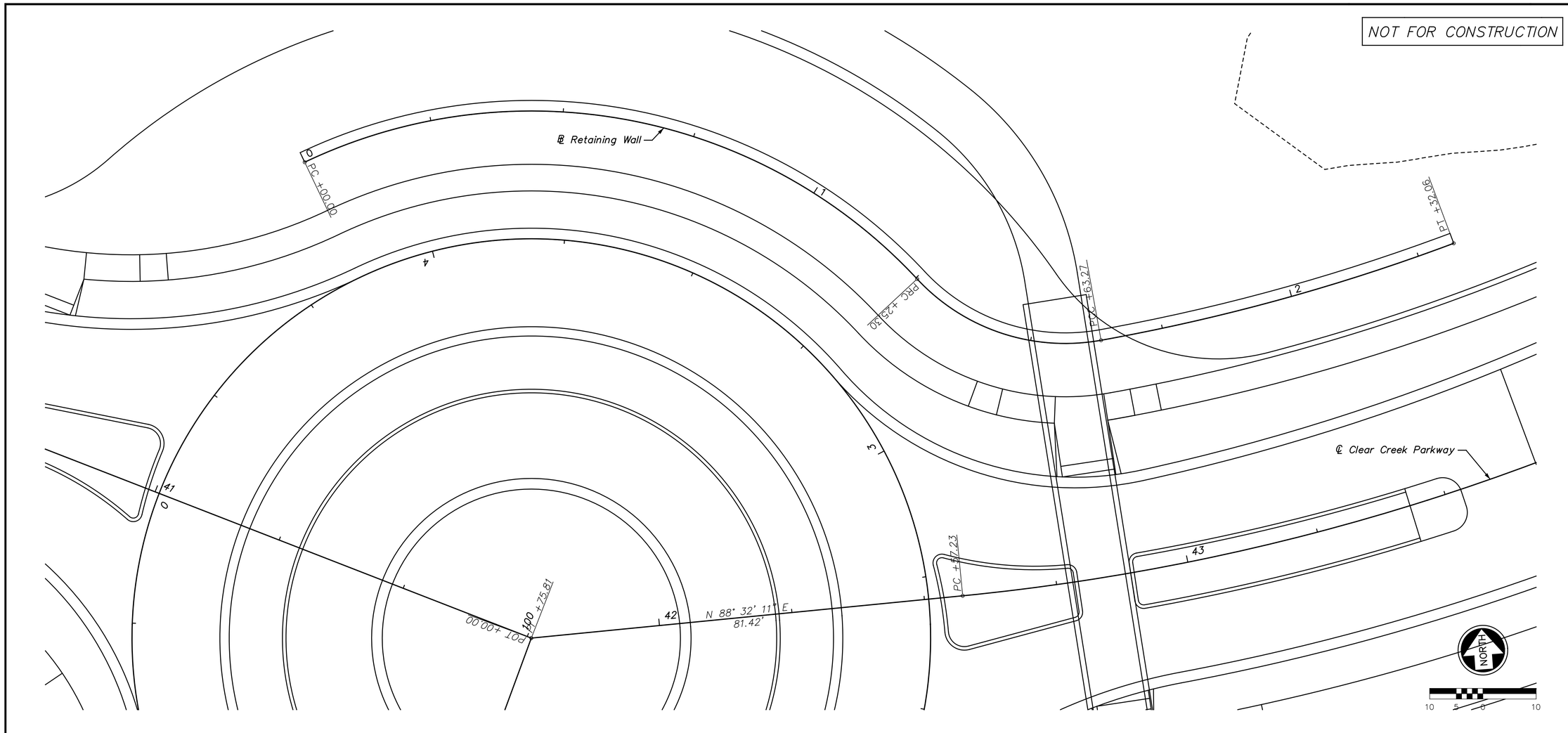

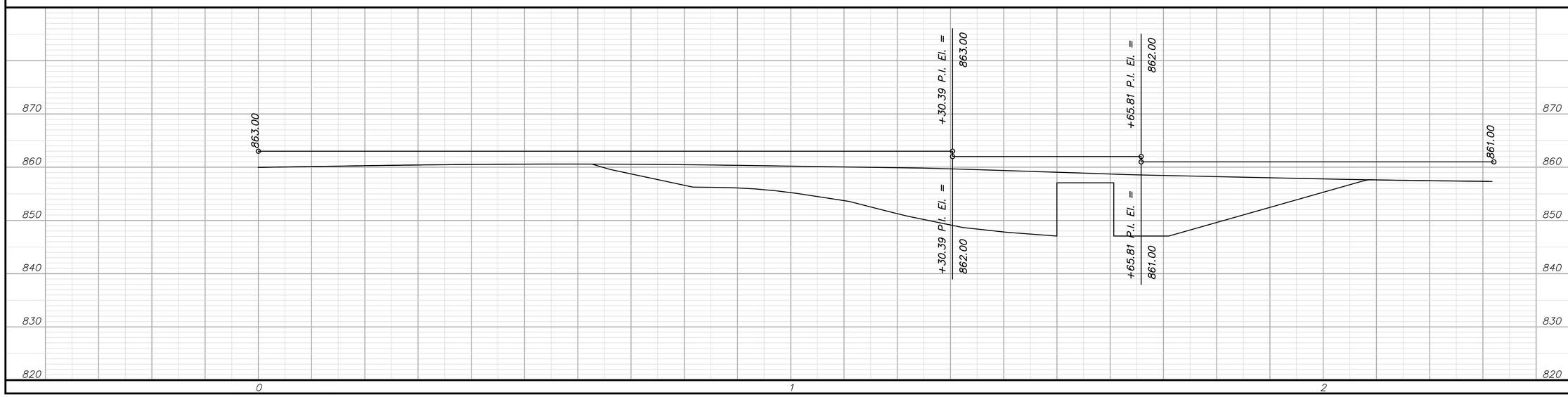

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CLEAR CREEK PARKWAY
CITY OF SHAWNEE, KANSAS

RETAINING WALL PLAN AND PROFILE (2)
RETAINING WALL NORTH OF ROUNDABOUT

150561-010

LAYOUT: MODEL | BY: jadams | DATE: 13-JUL-2016 5:54:31 PM
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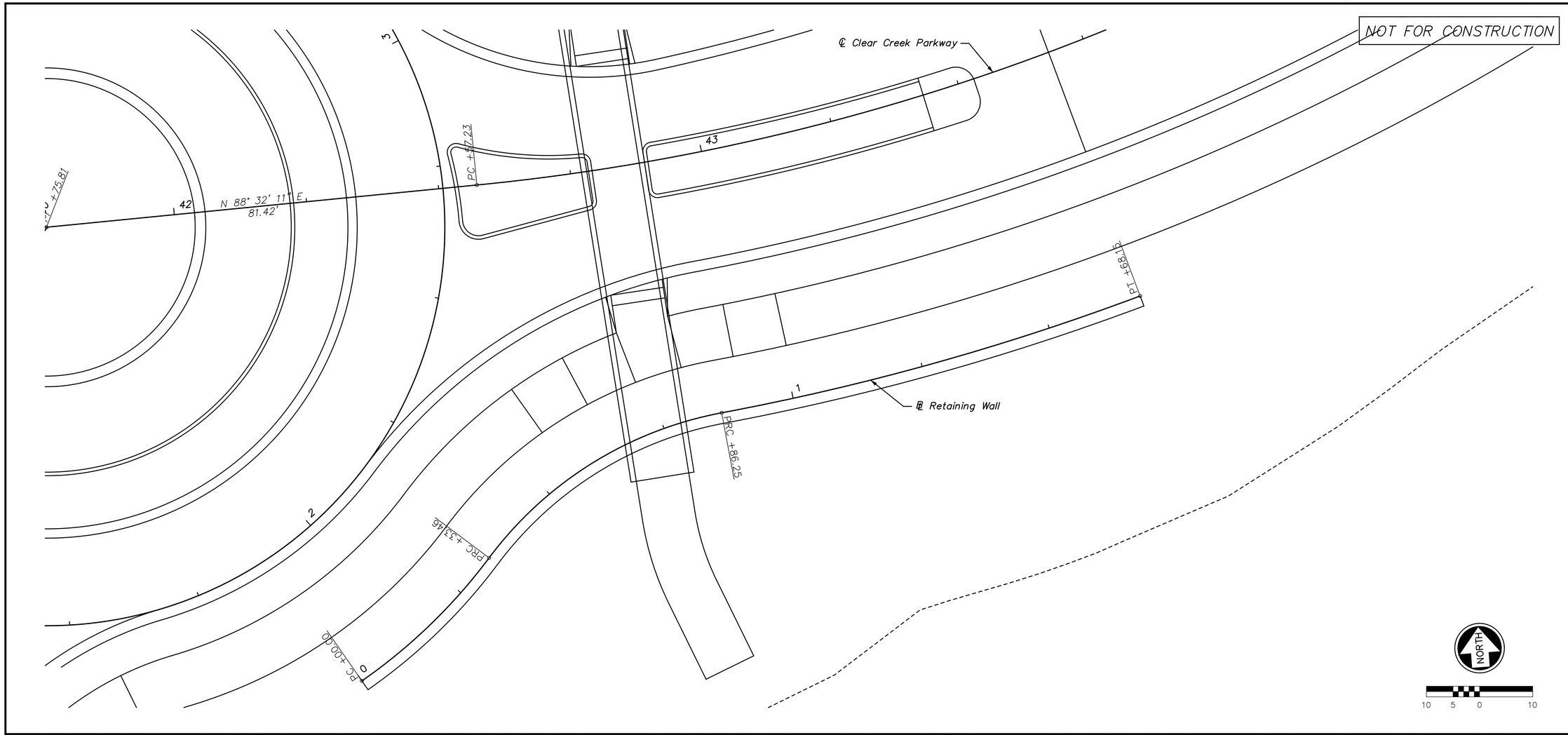

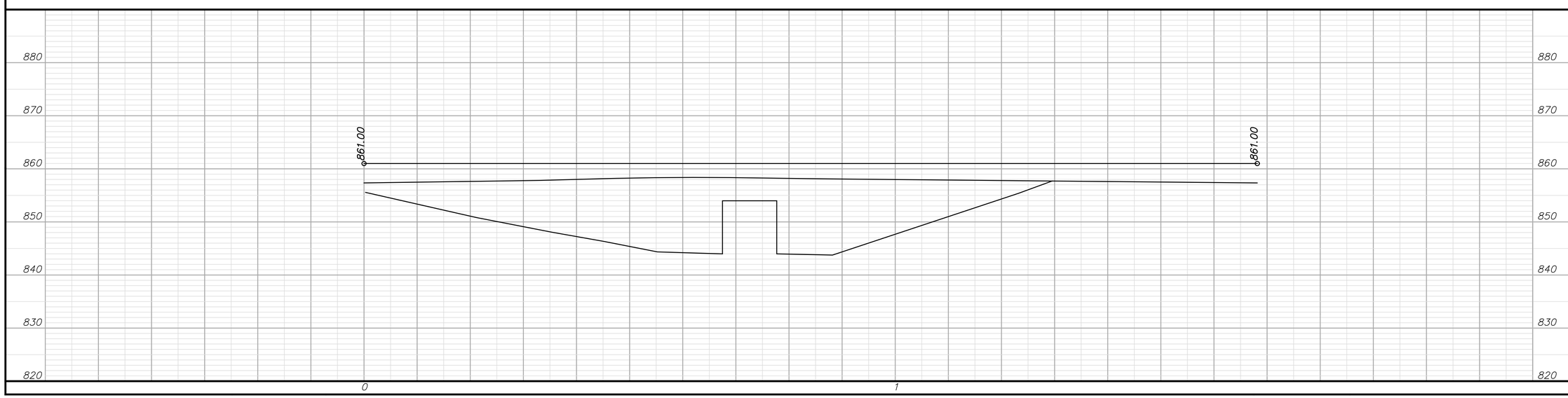

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RETAINING WALL PLAN AND PROFILE (3)
RETAINING WALL NORTH OF ROUNDABOUT

150561-010

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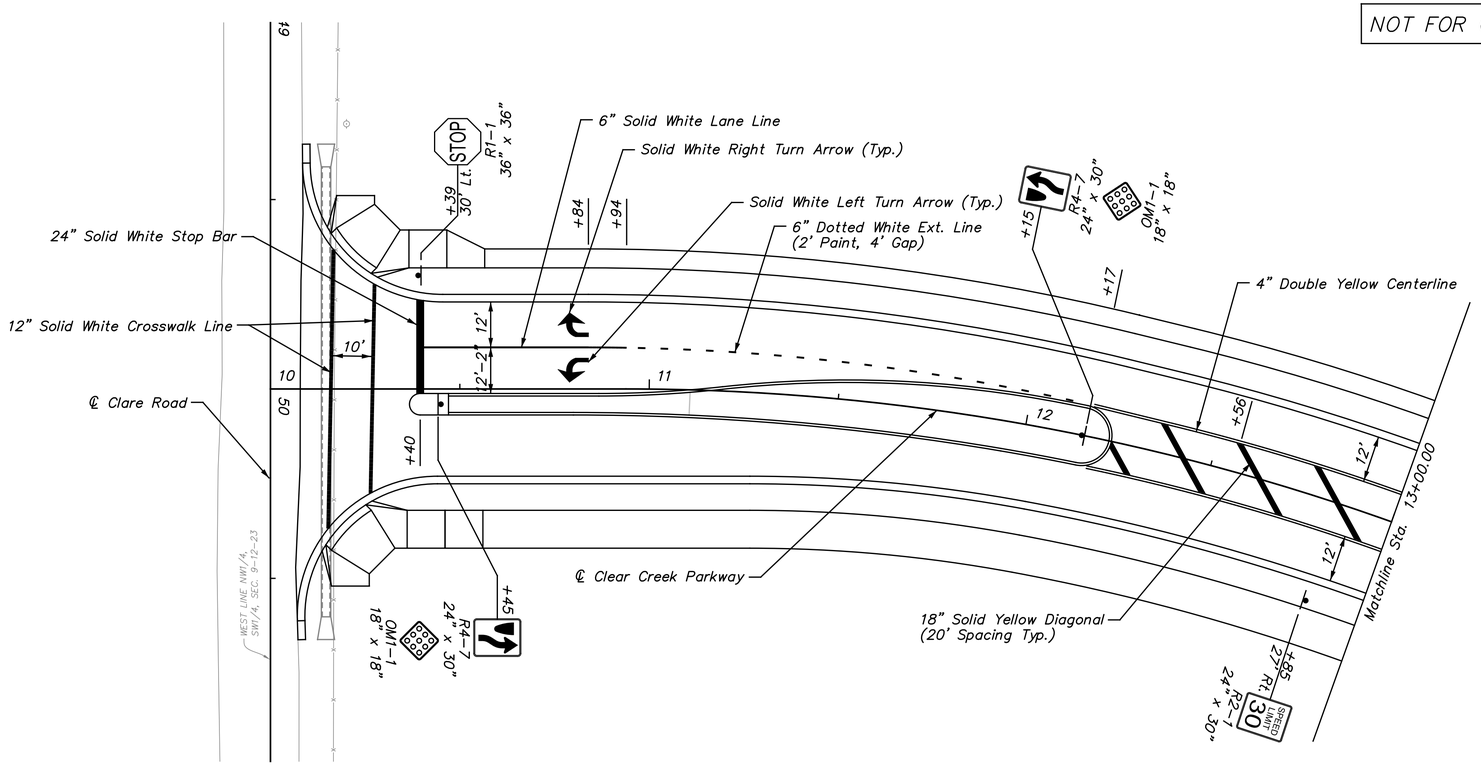

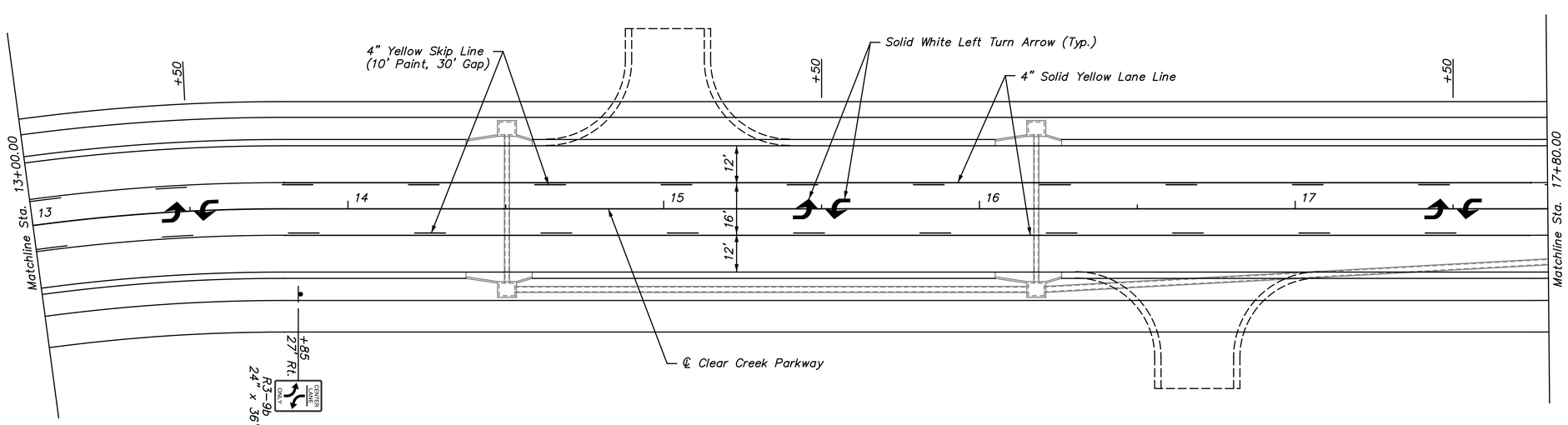

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CLEAR CREEK PARKWAY
CITY OF SHAWNEE, KANSAS

PAVEMENT MARKING & SIGNING PLAN (1)
STA. 10+00.00 TO STA. 17+80.00

150561-010

SHEET NO.
61 OF 106

LAYOUT: MODEL | BY: jadams | DATE: 13-JUL-2016 5:54:38 PM
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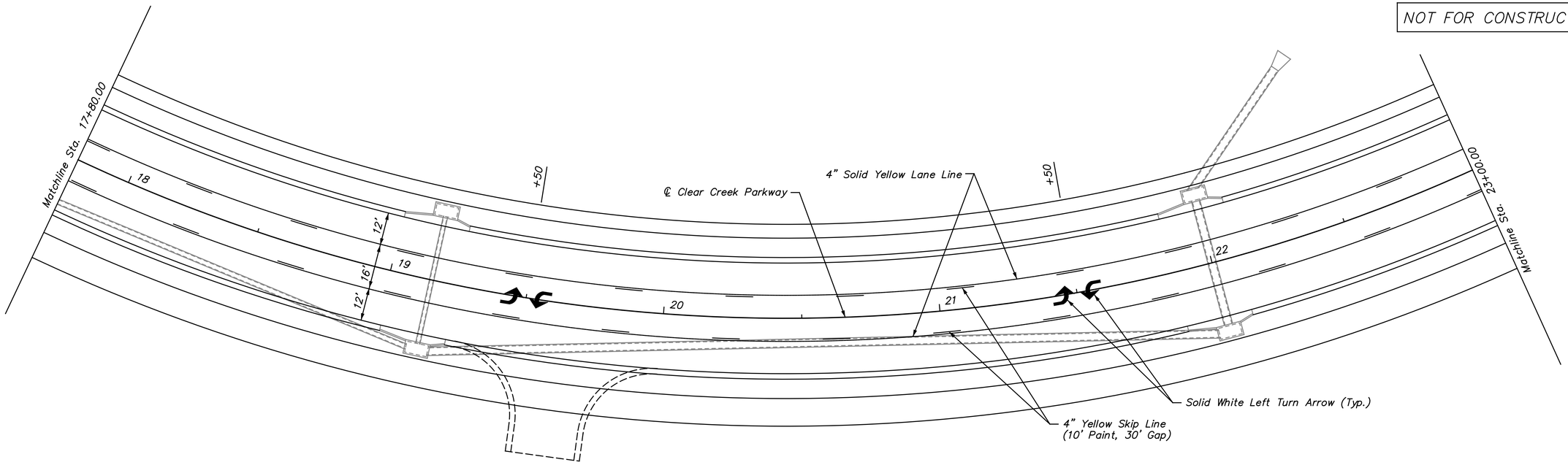

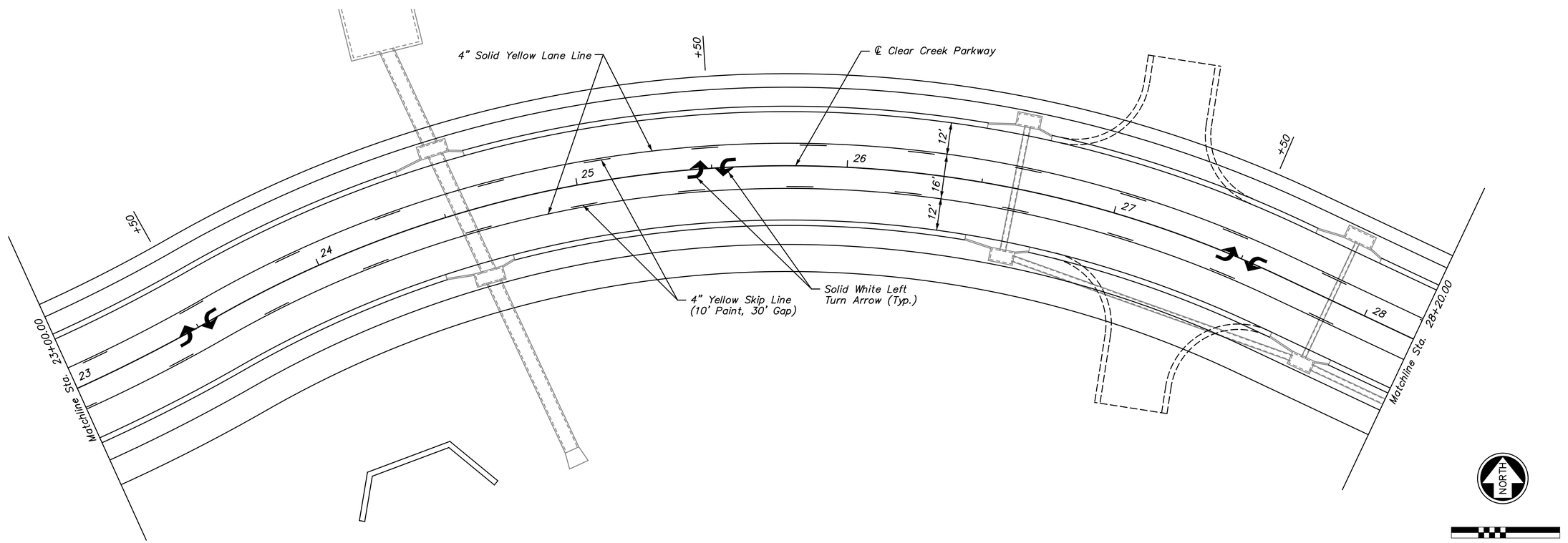

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CITY OF SHAWNEE, KANSAS

PAVEMENT MARKING & SIGNING PLAN (2)
STA. 17+80.00 TO STA. 28+20.00

150561-010

LAYOUT: MODEL | BY: jadams | DATE: 13-JUL-2016 5:54:40 PM
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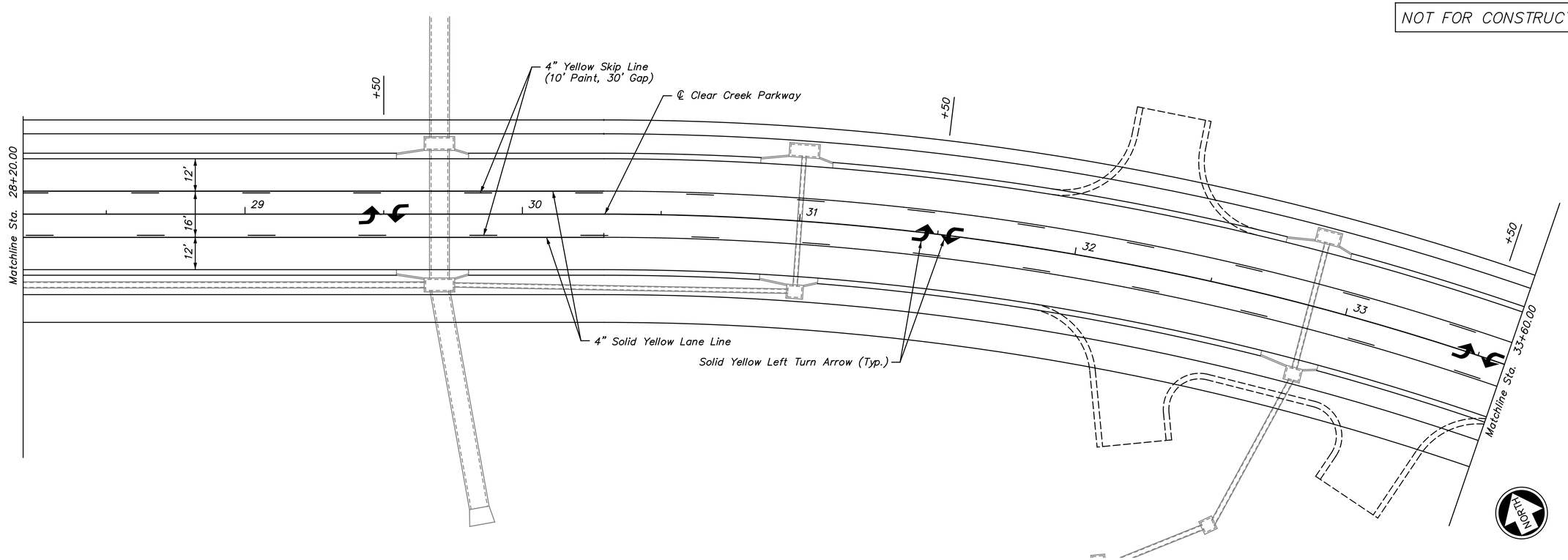

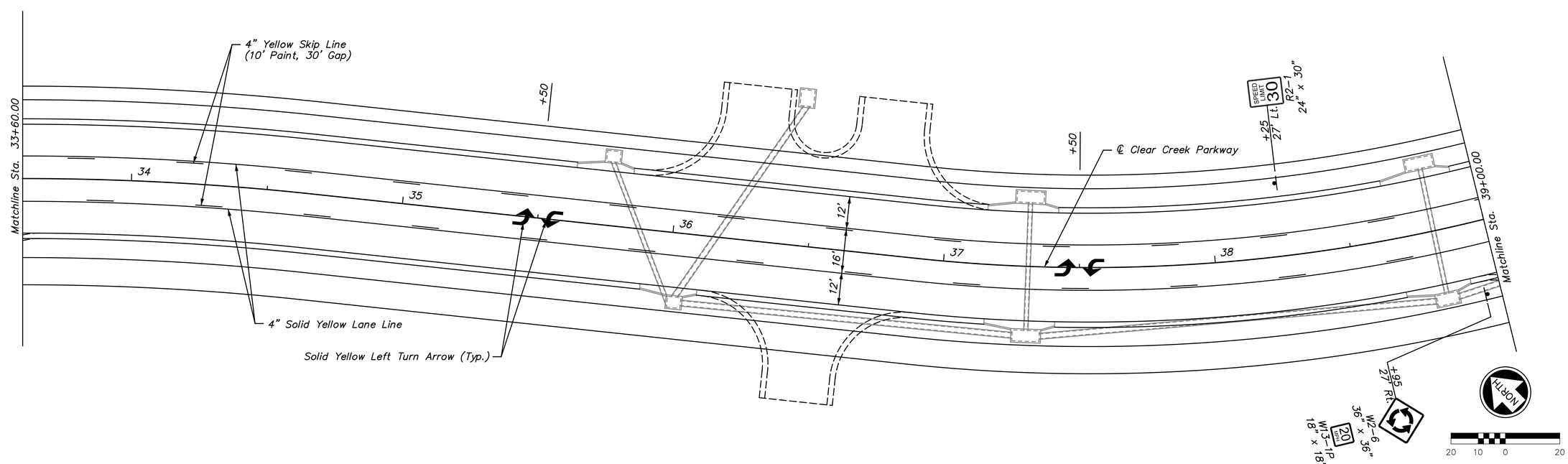

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CLEAR CREEK PARKWAY
CITY OF SHAWNEE, KANSAS

PAVEMENT MARKING & SIGNING PLAN (3)
STA. 28+20.00 TO STA. 39+00.00

150561-010

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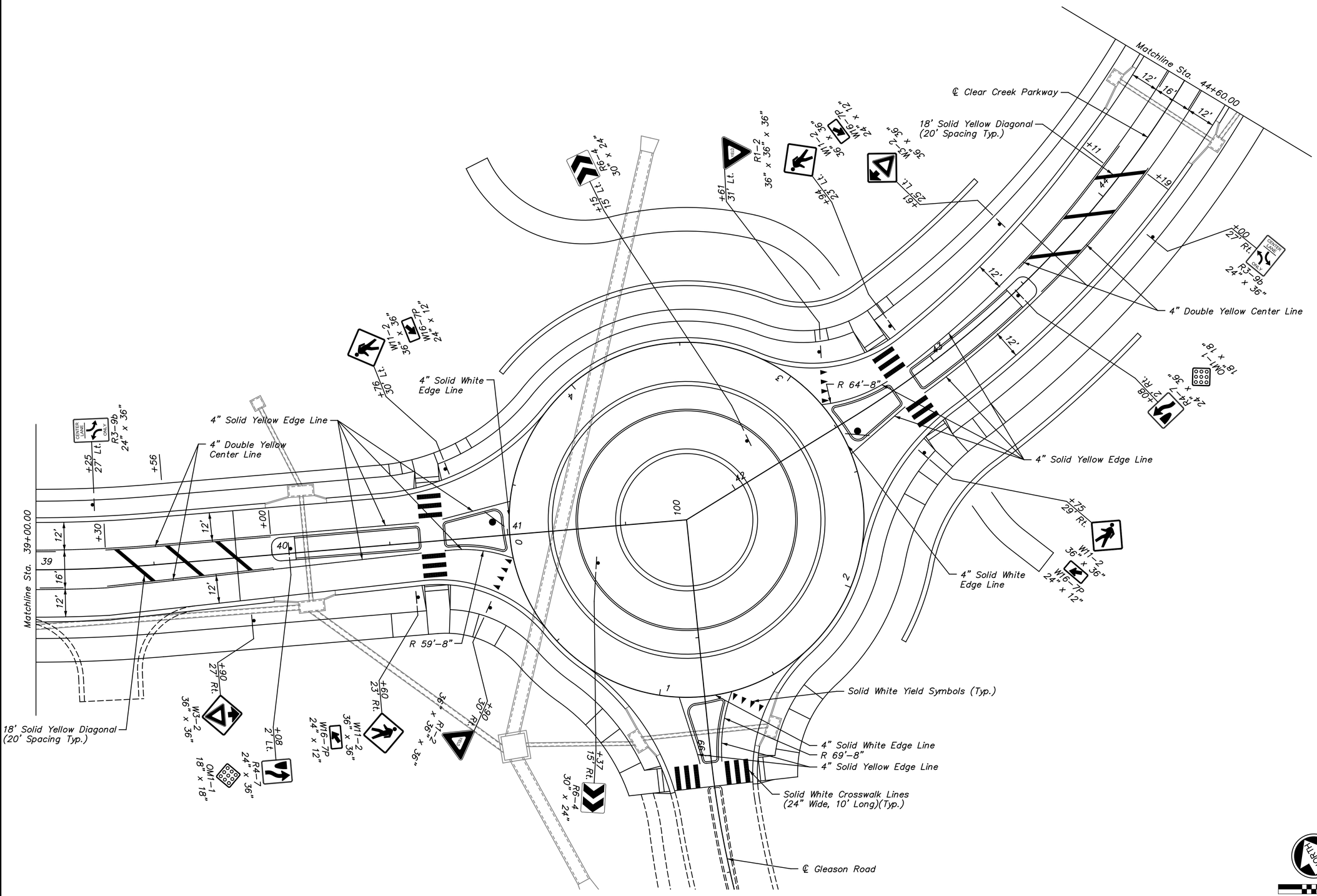

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CITY OF SHAWNEE, KANSAS

PAVEMENT MARKING & SIGNING PLAN (4)
STA. 39+00.00 TO STA. 44+60.00

150561-010

SHEET NO.
64 OF 106

LAYOUT: MODEL | BY: jadams | DATE: 13-JUL-2016 5:54:44 PM
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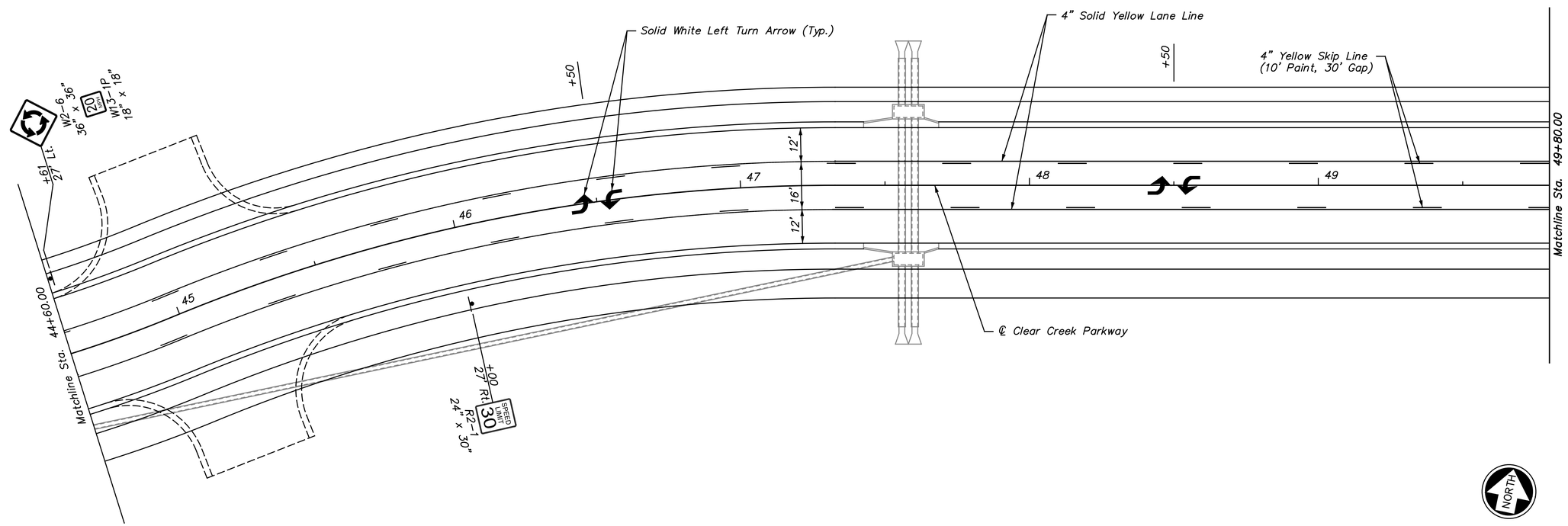

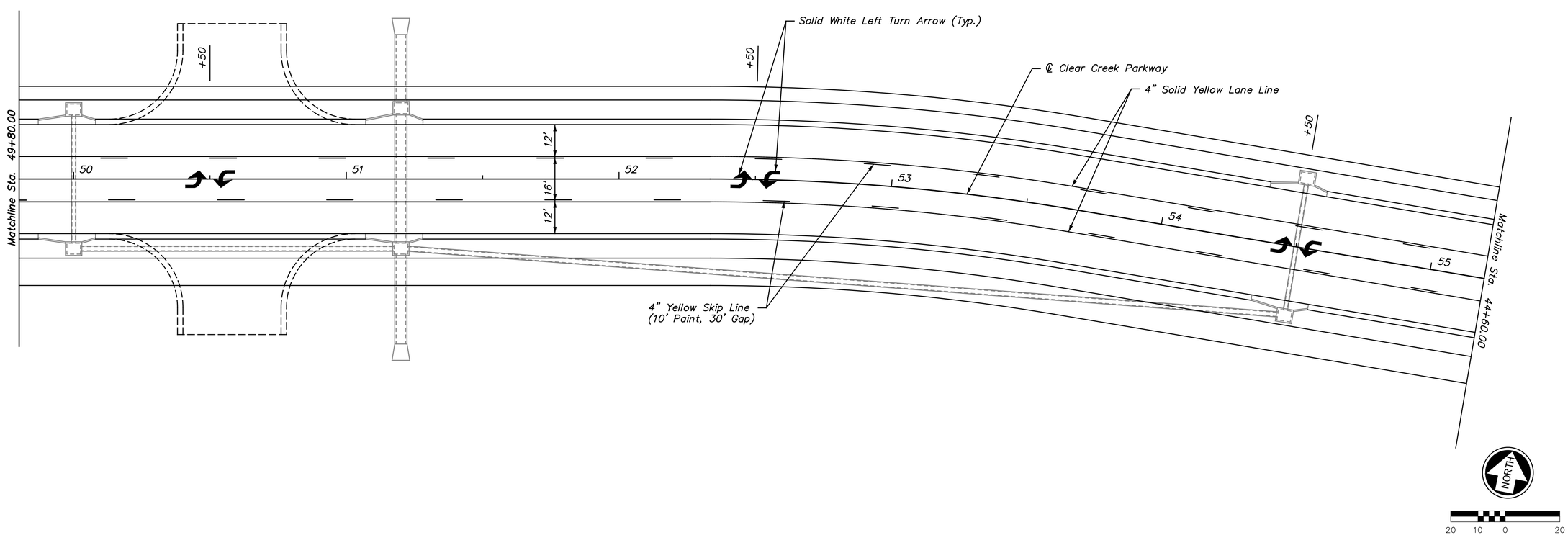

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CLEAR CREEK PARKWAY
CITY OF SHAWNEE, KANSAS

PAVEMENT MARKING & SIGNING PLAN (5)
STA. 44+60.00 TO STA. 44+60.00

150561-010

LAYOUT: MODEL | BY: jadams | DATE: 13-JUL-2016 5:54:46 PM
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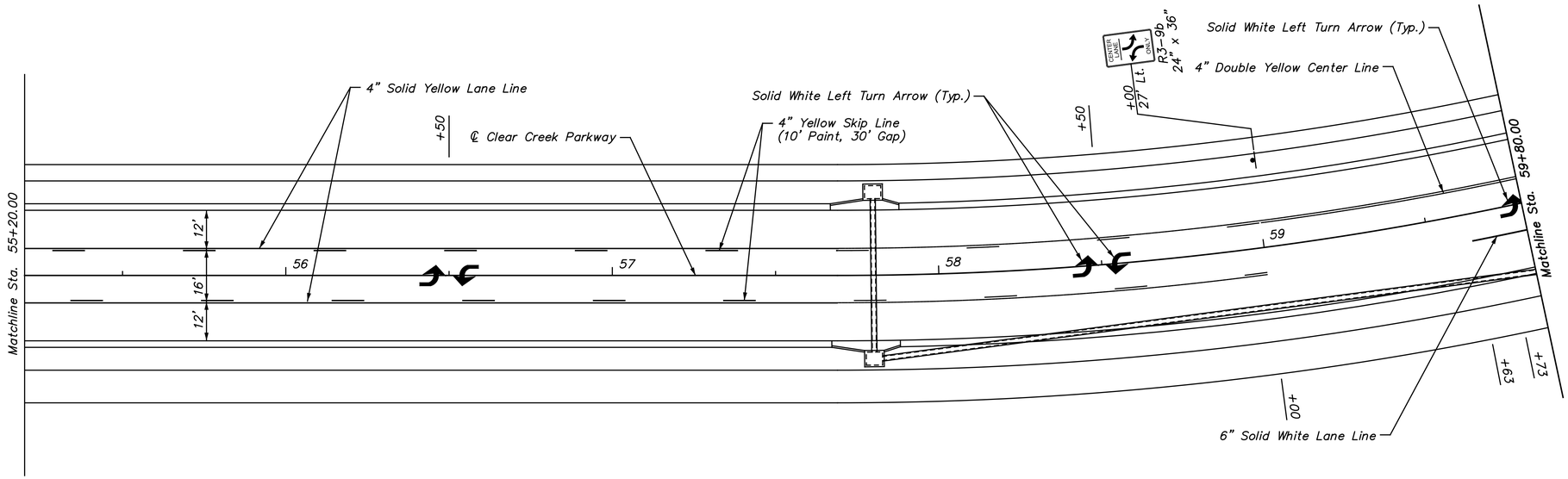

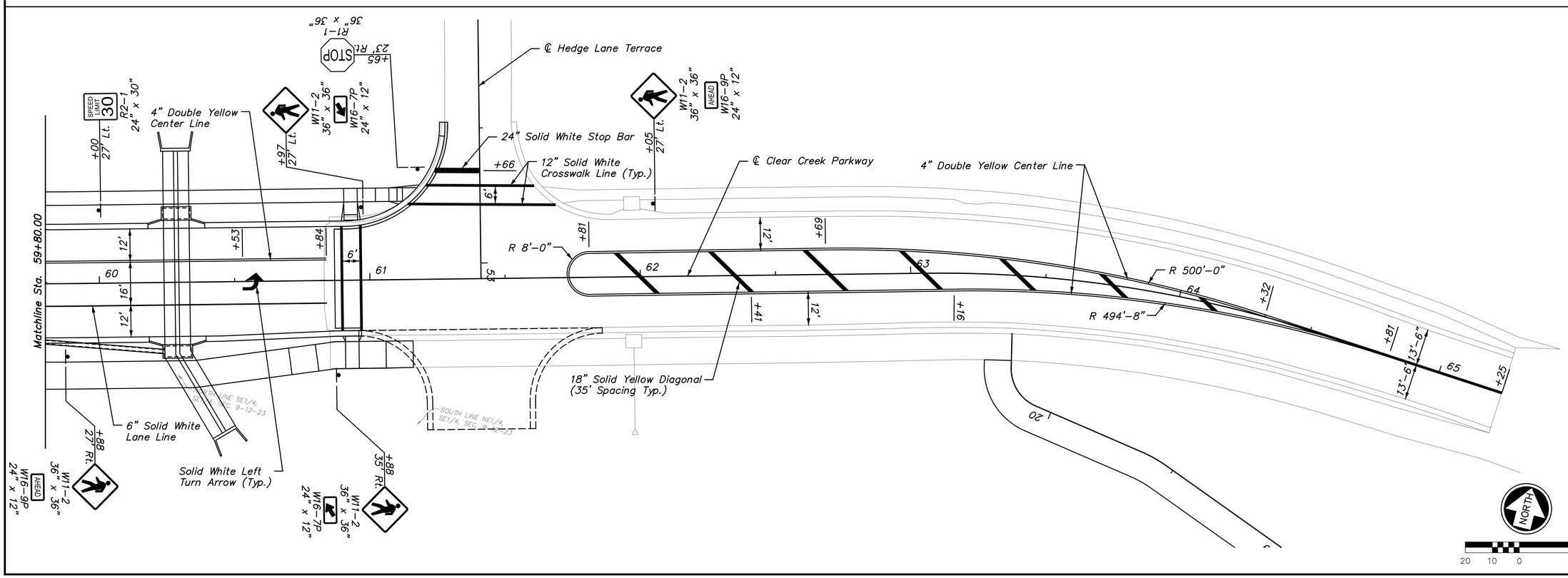

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PAVEMENT MARKING & SIGNING PLAN (6)
STA. 55+20.00 TO STA. 62+36.63

150561-010

SHEET NO.
66 OF 106

LAYOUT: MODEL | BY: jadams | DATE: 13-JUL-2016 5:54:52 PM
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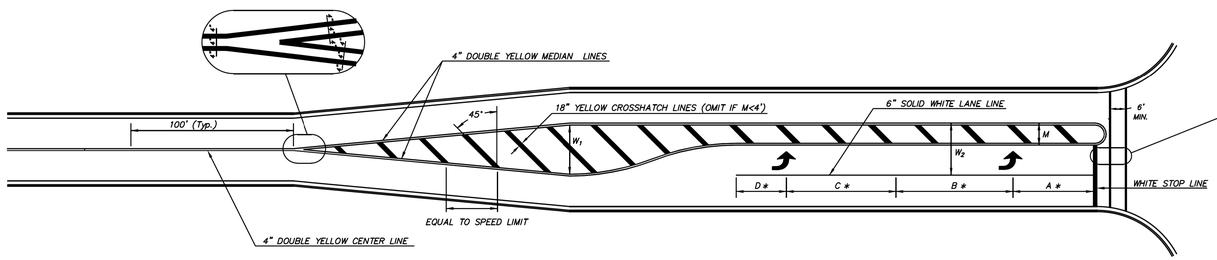
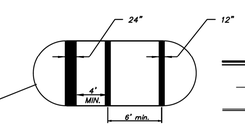
NOT FOR CONSTRUCTION

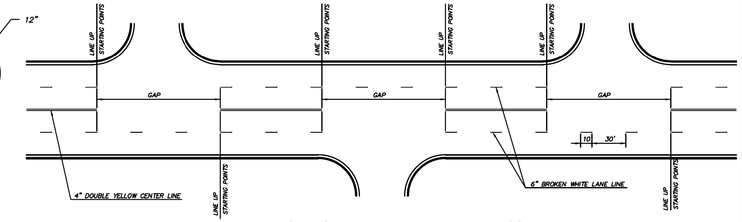
TYPICAL PAVEMENT MARKING DETAILS



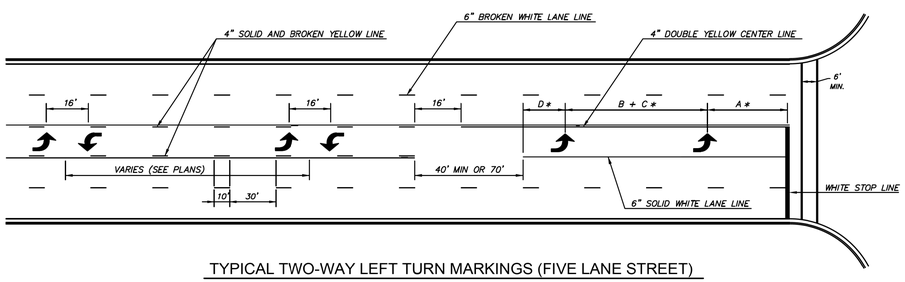
TYPICAL STRIPED LEFT TURN MEDIAN MARKINGS



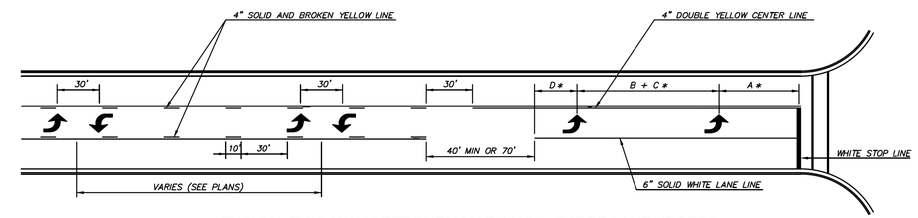
TYPICAL DETAIL OF STOP LINE AND CROSSWALK SEPARATION



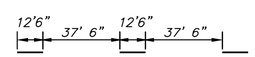
TYPICAL FOUR-LANE UNDIVIDED MARKINGS WITH SIDE STREET INTERSECTIONS



TYPICAL TWO-WAY LEFT TURN MARKINGS (FIVE LANE STREET)



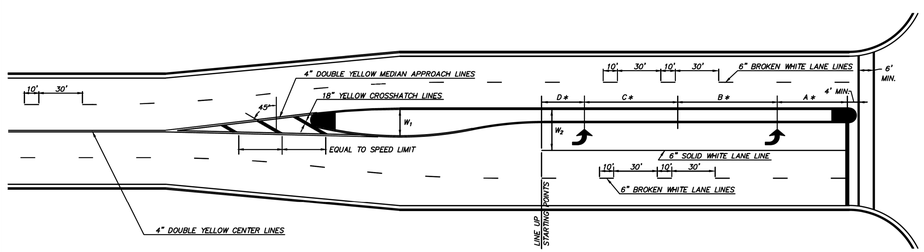
TYPICAL TWO-WAY LEFT TURN MARKINGS (THREE LANE STREET)



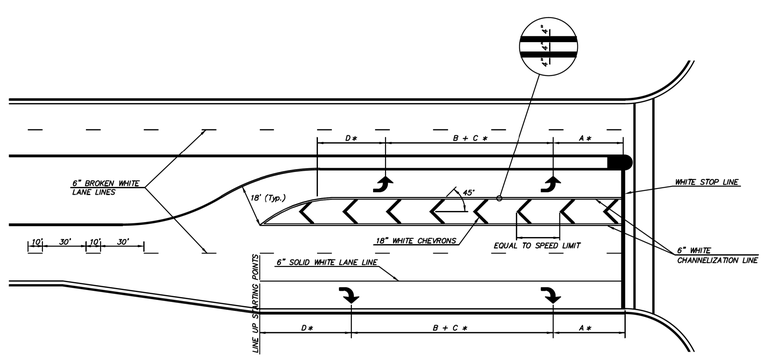
BROKEN LINE SPACING FOR SPEED > 45 MPH

NOTES:

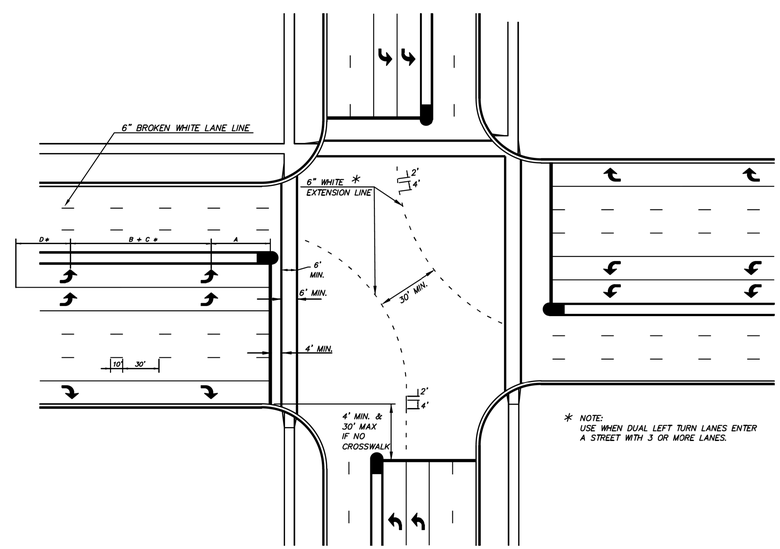
1) * VARIABLE, SEE SCHEDULE AND/OR PLAN VIEWS FOR LOCATION.
2) ≠ DO NOT INSTALL IF TURN LANE EXCEPT FOR TRAP LANE



FOR MEDIAN WIDTH, $W_1 \geq 6'$



TYPICAL STRIPED OUT LEFT TURN CHANNELIZATION LANE MARKINGS



TYPICAL CROSSWALK AND LEFT TURN EXTENSION LINE MARKINGS

* NOTE:
USE WHEN DUAL LEFT TURN LANES ENTER A STREET WITH 3 OR MORE LANES.

PAVEMENT MARKING NOTES:

1) ALL PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.).
2) ALL TURN ARROWS AND LEGENDS SHALL BE CENTERED IN THEIR REPECTIVE TRAFFIC LANES.
3) ALL WORDS AND SYMBOLS SHALL CONFORM TO THE LATEST EDITION OF "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS" PRINTED BY THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION.
4) ON ASPHALT PAVEMENT, ALL LONGITUDINAL AND DIAGONAL LINES, AND ALL LEGENDS, SYMBOLS AND TRANSVERSE LINES SHALL BE PREFORMED THERMOPLASTIC. IF THERMOPLASTIC IS APPROVED AS AN OPTION, IT SHALL BE HOT APPLIED.
5) ON CONCRETE PAVEMENT, ALL MARKINGS SHALL BE EPOXY, OR PREFORMED THERMOPLASTIC WITH A BINDER, AND GROOVED INTO THE PAVEMENT. (SEE SPECIFICATIONS)
6) PAVEMENT MARKINGS, EITHER TEMPORARY OR PERMANENT, ARE REQUIRED AT ALL TIMES IF THE ROADWAY IS OPEN TO TRAFFIC. (SEE SPECIFICATIONS)
7) ALL MARKINGS THAT CONFLICT WITH THE DESIRED MARKINGS SHALL BE COMPLETELY REMOVED. (SEE SPECIFICATIONS)
8) THE PROPOSED PERMANENT MARKINGS SHALL BE LAID OUT BY THE CONTRACTOR IN ADVANCE OF THE MARKING INSTALLATION. MARKINGS SHALL NOT BE APPLIED UNTIL THE LAYOUT AND CONDITIONS OF THE SURFACE HAVE BEEN APPROVED BY THE CITY INSPECTOR.

Date	Revision	By	Appr.
3-1-14	SHAWNEE DESIGN & CONSTRUCTION MANUAL REVISIONS	MRS	PJL
8-21-12	REVISED TO MATCH CONSTRUCTION SPECIFICATION REVISIONS	MRS	PJL

PAVEMENT MARKING DETAILS

DEVELOPMENT SERVICES

SHAWNEE KANSAS

DATE:	08-27-2007	3520
DRAWN BY:	MRS	
CHECKED BY:	PJL	SHEET 1 OF 3

NO.	DATE	REVISIONS	BY	APP'D
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Designed By: PRP
Drawn By: JCK/JAA
Checked By: HDL
Issue Date: JULY 2016

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CLEAR CREEK PARKWAY
CITY OF SHAWNEE, KANSAS

PAVEMENT MARKING DETAILS (1)

150561-010

SHEET NO.
67 OF 106

LAYOUT: MODEL | BY: jadams | DATE: 13-JUL-2016 5:54:54 PM
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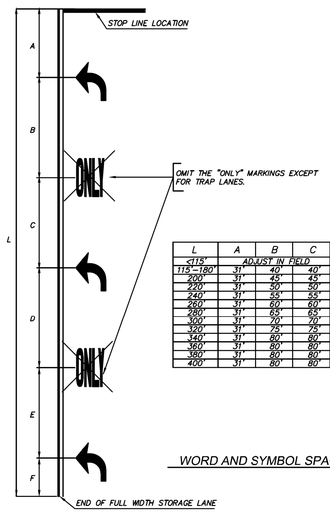


L	A	B	C	D	E	F
<115'	ADJUST IN FIELD					VARIES
115–180'	31'	40'	40'			VARIES
200'	31'	45'	45'			79'
220'	31'	50'	50'			89'
240'	31'	55'	55'			99'
260'	31'	60'	60'			109'
280'	31'	65'	65'			119'
300'	31'	70'	70'			129'
320'	31'	75'	75'			139'
340'	31'	80'	80'			149'
360'	31'	80'	80'	80'	80'	9'
380'	31'	80'	80'	80'	80'	29'
400'	31'	80'	80'	80'	80'	49'

WORD AND SYMBOL SPACING SCHEDULE

PAVEMENT MARKING NOTES:

1) ALL PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.).

2) ALL TURN ARROWS AND LEGENDS SHALL BE CENTERED IN THEIR REPECTIVE TRAFFIC LANES.

3) ALL WORDS AND SYMBOLS SHALL CONFORM TO THE LATEST EDITION OF "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS" PRINTED BY THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION.

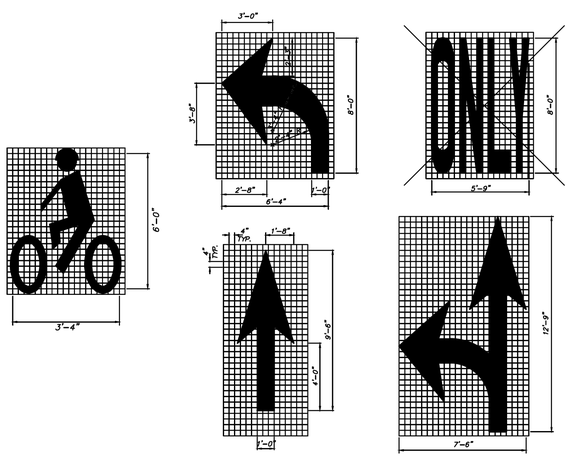
4) ON ASPHALT PAVEMENT, ALL LONGITUDINAL AND DIAGONAL LINES, AND ALL LEGENDS, SYMBOLS AND TRANSVERSE LINES SHALL BE PREFORMED THERMOPLASTIC. IF THERMOPLASTIC IS APPROVED AS AN OPTION, IT SHALL BE HOT APPLIED.

5) ON CONCRETE PAVEMENT, ALL MARKINGS SHALL BE EPOXY, OR PREFORMED THERMOPLASTIC WITH A BINDER, AND GROOVED INTO THE PAVEMENT. (SEE SPECIFICATIONS)

6) PAVEMENT MARKINGS, EITHER TEMPORARY OR PERMANENT, ARE REQUIRED AT ALL TIMES IF THE ROADWAY IS OPEN TO TRAFFIC. (SEE SPECIFICATIONS)

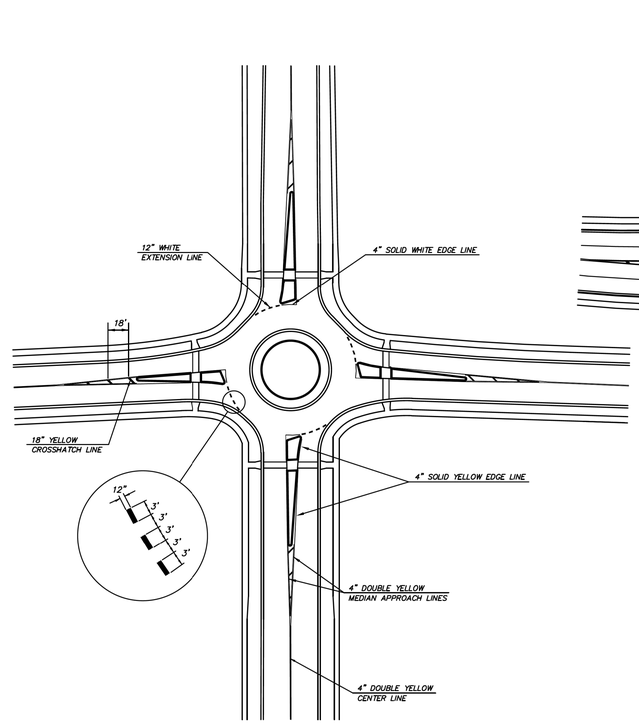
7) ALL MARKINGS THAT CONFLICT WITH THE DESIRED MARKINGS SHALL BE COMPLETELY REMOVED. (SEE SPECIFICATIONS)

8) THE PROPOSED PERMANENT MARKINGS SHALL BE LAID OUT BY THE CONTRACTOR IN ADVANCE OF THE MARKING INSTALLATION. MARKINGS SHALL NOT BE APPLIED UNTIL THE LAYOUT AND CONDITIONS OF THE SURFACE HAVE BEEN APPROVED BY THE CITY INSPECTOR.

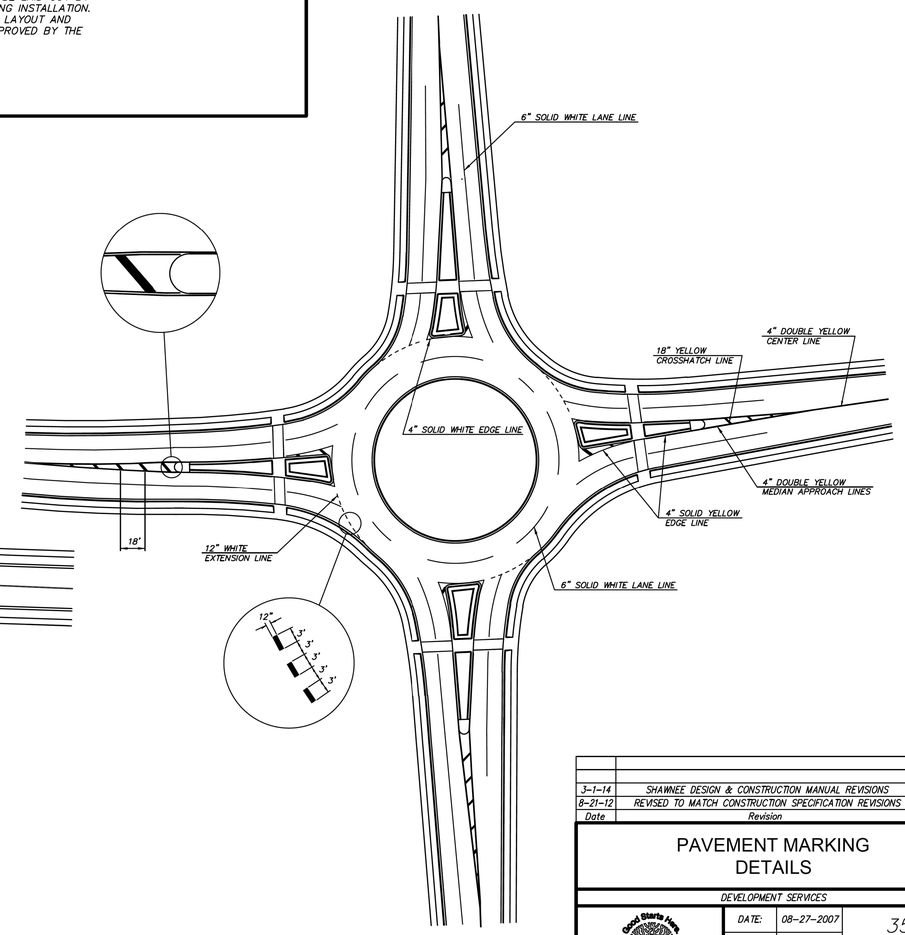


WORD AND SYMBOL DETAILS

NOTES:
1) WORD & SYMBOL MARKINGS SHALL BE WHITE.
2) RIGHT TURN AND COMBINATION RIGHT TURN/STRAIGHT ARROWS ARE REVERSE OF ARROWS SHOWN.
3) BIKE LANE SYMBOL TO FACE STREET SIDE NOT CURB SIDE.



TYPICAL ONE-LANE ROUNDABOUT MARKING DETAILS



TYPICAL TWO-LANE ROUNDABOUT MARKING DETAILS

Date	Revision	By	Appr.
3-1-14	SHAWNEE DESIGN & CONSTRUCTION MANUAL REVISIONS	MRS	PJL
8-21-12	REVISED TO MATCH CONSTRUCTION SPECIFICATION REVISIONS	MRS	PJL

PAVEMENT MARKING DETAILS

DEVELOPMENT SERVICES

Good Starts Here SHAWNEE KANSAS

DATE:	08-27-2007	3521
DRAWN BY:	MRS	
CHECKED BY:	PJL	SHEET 2 OF 3

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CLEAR CREEK PARKWAY
CITY OF SHAWNEE, KANSAS

PAVEMENT MARKING DETAILS (2)

150561-010

SHEET NO.
68 OF 106

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PAVEMENT MARKING SUMMARY - (PRE FORMED THERMOPLASTIC) for use on concrete or asphalt pavements

STATION TO STATION		LOCATION		6" SOLID WHITE LANE LINES	6" BROKEN WHITE LANE LINES	4" SOLID WHITE EDGE LINE	4" SOLID YELLOW EDGE LINE	4" SOLID & BROKEN YELLOW LINE	4" DOUBLE YELLOW CENTERLINE	24" WHITE CROSSWALK LINES	6" WHITE LANE EXTENSION LINE	24" WHITE STOP LINE	18" YELLOW CROSSHATCH LINES	12" WHITE LANE EXTENSION LINE	18" WHITE CHEVRON LINES		WHITE TURN ARROWS		WHITE THRU TRAFFIC ARROWS	WHITE THRU TRAFFIC & RT./LT. TURN ARROWS		WHITE "ONLY" MARKINGS
																	RT.	LT.		THRU/RT	THRU/LT	

PAVEMENT MARKING SUMMARY - (EPOXY) for use on concrete or asphalt pavements

STATION TO STATION		LOCATION		6" SOLID WHITE LANE LINES	6" BROKEN WHITE LANE LINES	4" SOLID WHITE EDGE LINE	4" SOLID YELLOW EDGE LINE	4" SOLID & BROKEN YELLOW LINE	4" DOUBLE YELLOW CENTERLINE	24" WHITE CROSSWALK LINES	6" WHITE LANE EXTENSION LINE	24" WHITE STOP LINE	18" YELLOW CROSSHATCH LINES	12" WHITE LANE EXTENSION LINE	18" WHITE CHEVRON LINES		WHITE TURN ARROWS		WHITE THRU TRAFFIC ARROWS	WHITE THRU TRAFFIC & RT./LT. TURN ARROWS		WHITE "ONLY" MARKINGS
																	RT.	LT.		THRU/RT	THRU/LT	

PAVEMENT MARKING SUMMARY - (THERMOPLASTIC) for use on asphalt pavements

STATION TO STATION		LOCATION		6" SOLID WHITE LANE LINES	6" BROKEN WHITE LANE LINES	4" SOLID WHITE EDGE LINE	4" SOLID YELLOW EDGE LINE	4" SOLID & BROKEN YELLOW LINE	4" DOUBLE YELLOW CENTERLINE	24" WHITE CROSSWALK LINES	6" WHITE LANE EXTENSION LINE	24" WHITE STOP LINE	18" YELLOW CROSSHATCH LINES	12" WHITE LANE EXTENSION LINE	18" WHITE CHEVRON LINES		WHITE TURN ARROWS		WHITE THRU TRAFFIC ARROWS	WHITE THRU TRAFFIC & RT./LT. TURN ARROWS		WHITE "ONLY" MARKINGS
																	RT.	LT.		THRU/RT	THRU/LT	

PAVEMENT MARKING SUMMARY - (KANSAS HIGH BUILD PAINT-Rehn and Hass HD-21 acrylic resin) if approved

STATION TO STATION		LOCATION		6" SOLID WHITE LANE LINES	6" BROKEN WHITE LANE LINES	4" SOLID WHITE EDGE LINE	4" SOLID YELLOW EDGE LINE	4" SOLID & BROKEN YELLOW LINE	4" DOUBLE YELLOW CENTERLINE	24" WHITE CROSSWALK LINES	6" WHITE LANE EXTENSION LINE	24" WHITE STOP LINE	18" YELLOW CROSSHATCH LINES	12" WHITE LANE EXTENSION LINE	18" WHITE CHEVRON LINES		WHITE TURN ARROWS		WHITE THRU TRAFFIC ARROWS	WHITE THRU TRAFFIC & RT./LT. TURN ARROWS		WHITE "ONLY" MARKINGS
																	RT.	LT.		THRU/RT	THRU/LT	

NOTE:
DELETE TABLES THAT ARE NOT APPLICABLE TO SPECIFIC PROJECT

NOTES:
1) THESE APPROXIMATE QUANTITIES WERE PREPARED SOLELY FOR THE CONTRACTORS CONVENIENCE AS A MEANS OF SETTING FORTH MAJOR ITEMS AND IS NOT GUARANTEED TO BE A COMPLETE NOR ACCURATE LIST OF ALL ITEMS NECESSARY TO COMPLETE THIS WORK. OTHER ITEMS REQUIRED FOR A COMPLETE INSTALLATION, AS SHOWN OR DESCRIBED SHALL BE INCLUDED IN THE PRICES AS BID.

PAVEMENT MARKING NOTES:

1) ALL PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.).
2) ALL TURN ARROWS AND LEGENDS SHALL BE CENTERED IN THEIR REPECTIVE TRAFFIC LANES.
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5) ON CONCRETE PAVEMENT, ALL MARKINGS SHALL BE EPOXY OR PREFORMED THERMOPLASTIC GROOVED INTO PAVEMENT. (SEE SPECIFICATIONS)
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Date	Revision	By	Appr.
3-1-14	SHAWNEE DESIGN & CONSTRUCTION MANUAL REVISIONS	MRS	PJL
8-21-12	REVISED TO MATCH CONSTRUCTION SPECIFICATION REVISIONS	MRS	PJL

PAVEMENT MARKING QUANTITIES

DEVELOPMENT SERVICES

Good Starts Here SHAWNEE KANSAS

DATE:	08-27-2007	3522
DRAWN BY:	MRS	
CHECKED BY:	PJL	SHEET 3 OF 3

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Drawn By: JCK/JAA
Checked By: HDL
Issue Date: JULY 2016

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CLEAR CREEK PARKWAY
CITY OF SHAWNEE, KANSAS

PAVEMENT MARKING SUMMARY OF QUANTITIES

150561-010

SHEET NO.
69 OF 106

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<u>PAVEMENT INSTALLATION SEQUENCE</u>

1. SIGN POST ANCHOR DRIVEN PARTIALLY INTO SUBGRADE USING A DRIVE CAP WITH SLEDGE OR POWER EQUPMENT PRIOR TO THE PLACEMENT OF THE PAVEMENT.
2. ANCHOR SLEEVE SLIPPED OVER ANCHOR AND DRIVEN INTO SUBGRADE TOGETHER WITH THE SIGN POST ANCHOR PRIOR TO THE PLACEMENT OF THE PAVEMENT.
3. INSERT SIGN POST INTO THE POST ANCHOR AND BOLT IN PLACE.

<u>GROUND INSTALLATION SEQUENCE</u>

1. SIGN POST ANCHOR DRIVEN PARTIALLY INTO THE GROUND USING A DRIVE CAP WITH SLEDGE OR POWER EQUIPMENT.
2. ANCHOR SLEEVE SLIPPED OVER ANCHOR AND DRIVEN INTO THE GROUND TOGETHER WITH THE SIGN POST ANCHOR.
3. IINSERT SIGN POST INTO THE POST ANCHOR AND BOLT IN PLACE.

NOTE: IN ALL INSTALLATIONS THE FIRST HOLE ABOVE THE FINISHED GRADE LEVEL IN ALL THREE UNITS MUST BE IN LINE FOR INSERTION OF THE CORNER BOLT.

ALL CORNER BOLTS AND NUTS FOR FASTENING THE SIGNS AND SIGN POST ASSEMBLY AND ALL WASHERS SHALL COMPLY WITH APPROPRIATE SECTIONS OF THE STANDARD SPECIFICATIONS (LATEST EDITION) AND SHALL BE A SUBSIDARY ITEM.

NOTE: ALL SPEED CONTROL SIGNS, ROUTE MARKERS & STREET NAME SIGNS WITHIN THE LIMITS OF CONSTRUCTION SHALL BE REMOVED PRIOR TO CONSTRUCTION AND REPLACED IN APPROXIMATELY THE SAME LOCATION, AS DIRECTED BY THE ENGINEER WHEN CONSTRUCTION IS COMPLETED, AS SUBSIDARY ITEMS UNLESS OTHERWISE INDICATED IN THE PLANS OR GENERAL NOTES.

ALL LETTER, NUMBER & SYMBOL SIZES, SPACING & COLORS AND THE SIGN COLORS SHALL CONFORM TO THE CURRENT "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES."

ALL SIGN MATERIAL TO BE 0.08" THICK ALUMINUM WITH HIGH INTENSITY SHEETING UNLESS OTHERWISE SPECIFIED. (SEE SPECS.)

<u>MATERIAL REQUIREMENTS</u>

SIGN POSTS, POST ANCHORS, AND POST ANCHOR SLEEVES:
THE SIGN POSTS, POST ANCHORS, AND POST ANCHOR SLEEVES SHALL BE GALVANIZED FINISH HOT ROLLED CARBON STEEL ASTM A-446 GRADE A WITH A GALVANIZING COMFORMING TO ASTM A-525, DESIGNATION G-90.

THE SIGN POST SHALL HAVE 7/16" DIA. HOLES AT 1" CENTERS ON ALL FOUR SIDES FOR TOTAL LENGTH OF POST.

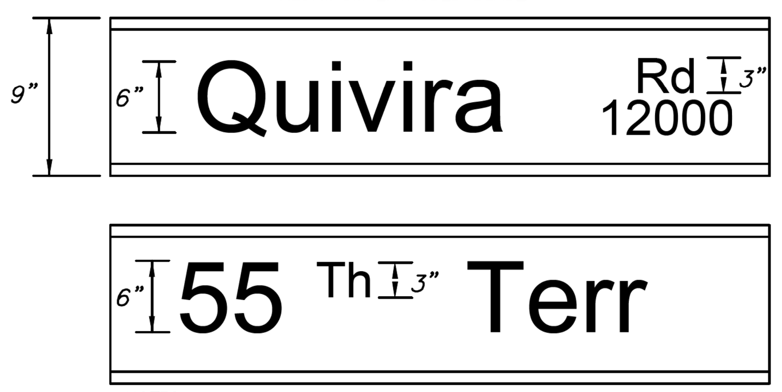
THE POST ANCHOR AND POST ANCHOR SLEEVE SHALL BE FURNISHED WITH THE BOLT HOLES ON ALL FOUR SIDES ALONG THE ENTIRE LENGTH.

ALL HOLES SHALL BE DRILLED OR PUNCHED AND ALL WELDS, CUTS, BURRS, AND SHARP EDGES ARE TO BE SMOOTHED OFF BEFORE APPLICATION OF FINISH.

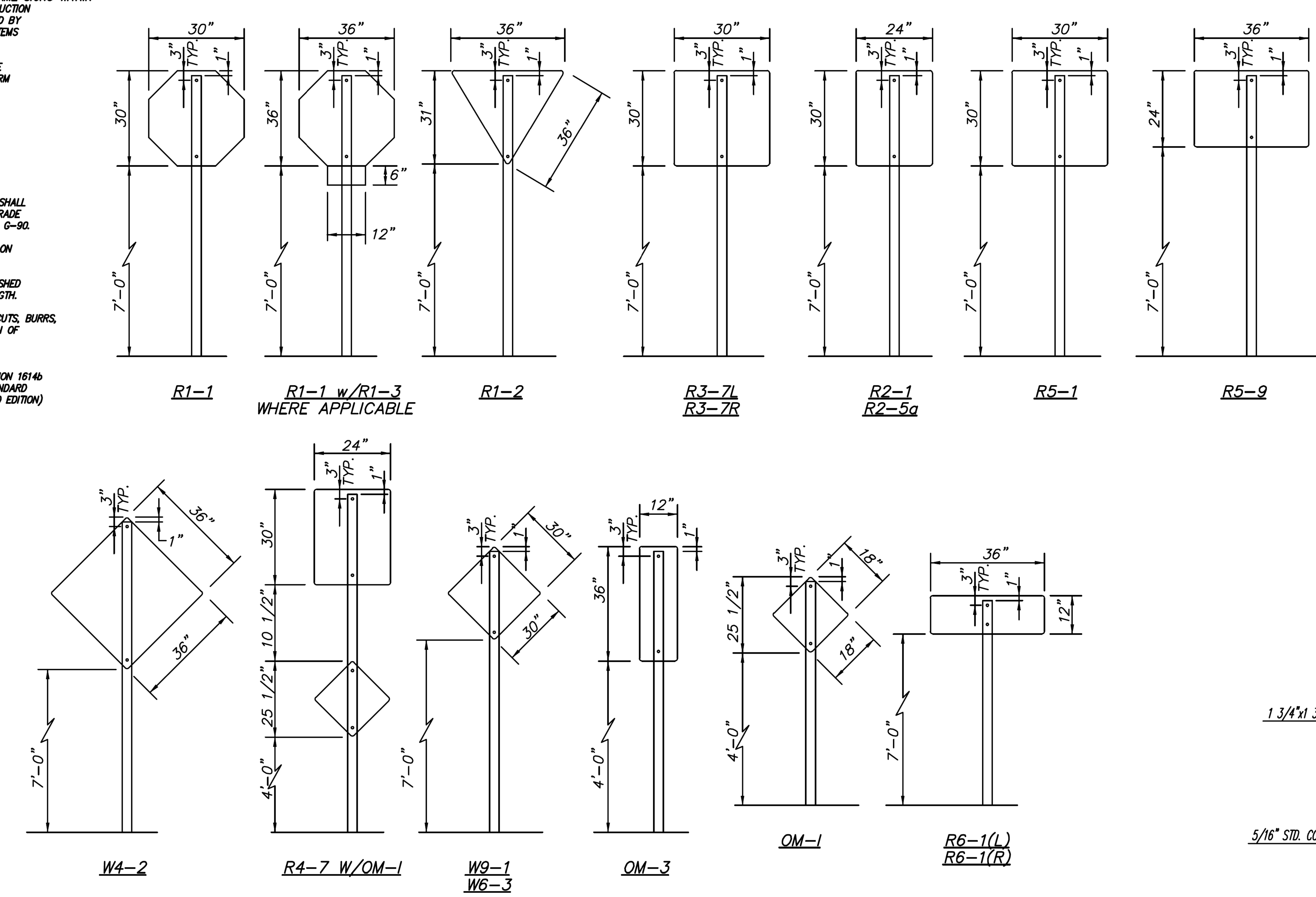
FASTENING ACCESSORIES:
THE BOLTS, NUTS, AND WASHERS SHALL COMPLY WITH SUBSECTION 1614b AND 1614e OF THE KANSAS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR STATE ROAD AND BRIDGE CONSTRUCTION (1990 EDITION)

<u>STREET NAME SIGN DETAIL</u>

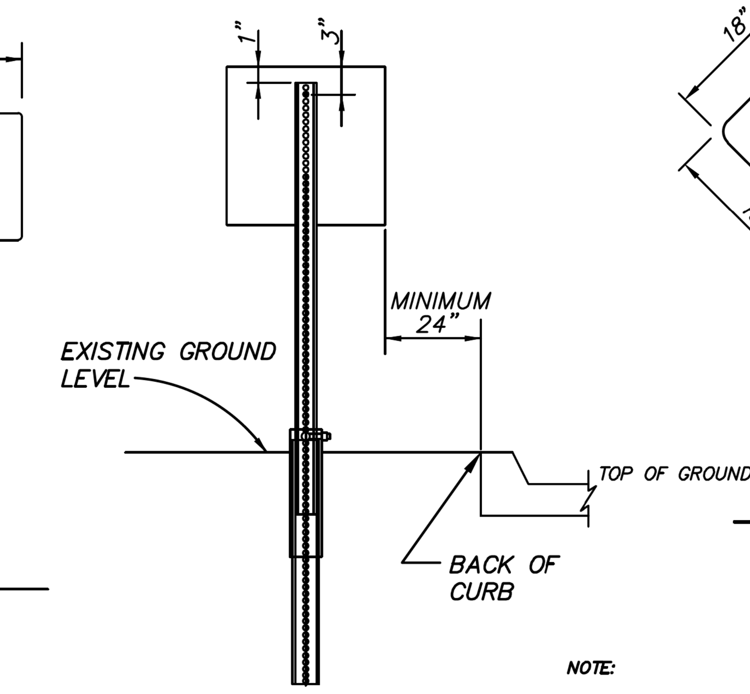
ALUMINUM EXTRUDED BLADE



NOTES:
1) FONT TO BE HIGHWAY GOTHIC SERIES C (LEAD CAPITAL LETTER)
2) ON NAMED STREETS ALL STREET CLASSIFACTION SHALL BE 3" EVEN ACROSS THE TOP WHEN HUNDRED BLOCKS ARE USED WITH STREET CLASSIFACTION CENTER WITH 1/4" GAP BETWEEN
3) HUNDRED BLOCKS ARE ONLY TO BE USED WHEN NOTED BY TRAFFIC ENGINEER

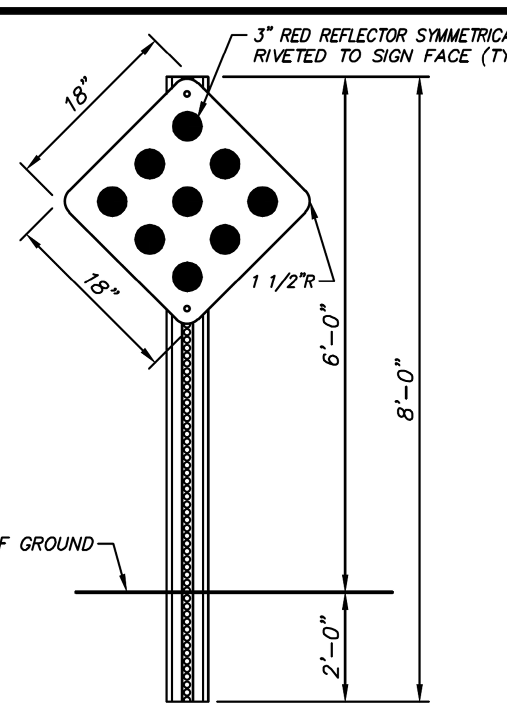


SIGN MOUNTING DETAILS



TRAFFIC SIGN

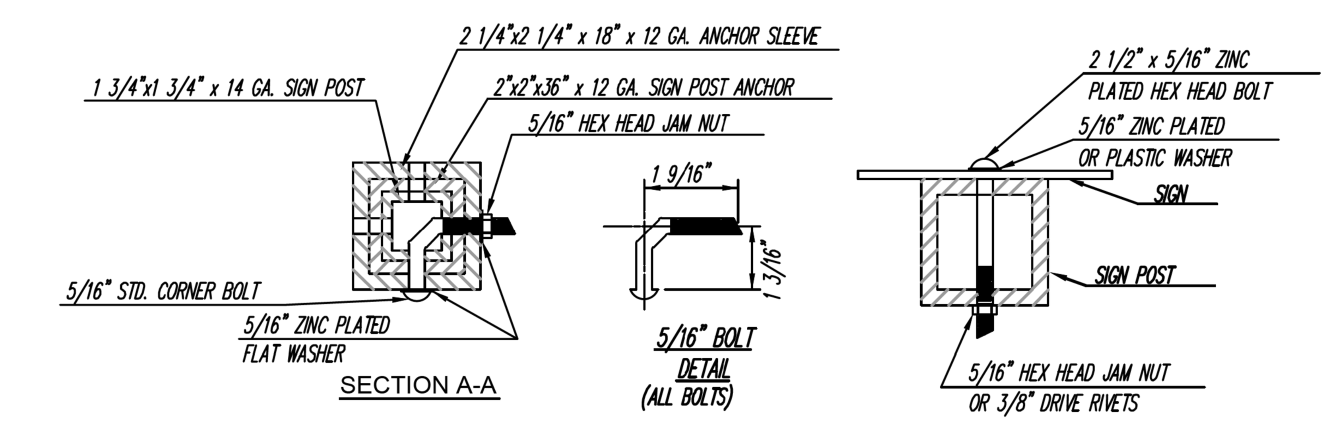
INSTALLATION DETAIL

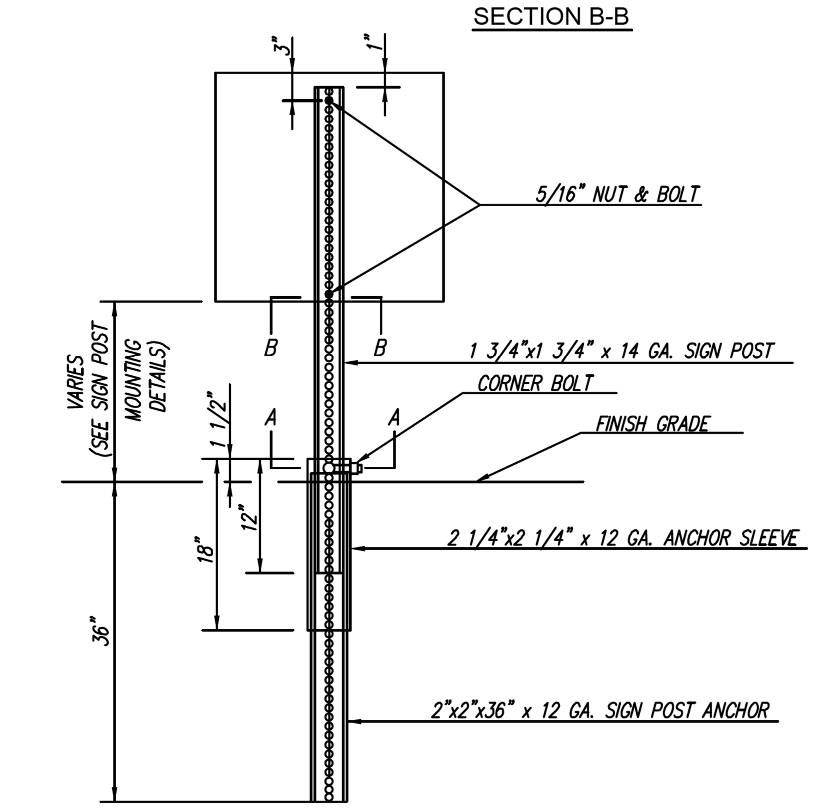


NOTE:

1. SIGN SHALL BE 0.080 GAUGE ALUMINUM COVERED WITH 3-M RED ENGINEERING GRADE RED DIAMOND REFLECTIVE SHEETING OR EQUIVALENT.
2. POST SHALL BE 1 3/4" SQUARE 14 GAUGE BREAKAWAY POST.
3. POSTS SHALL BE SPACED EVENLY AT A MAXIMUM OF 6' APART AND CENTERED PERPENDICULAR TO THE ROADWAY.
4. HARDWARE SHALL BE ZINC PLATED COMMON GRADE. HEX BOLT 5/16"x 2 1/2"x 2", FLAT WASHER, NYLON WASHER, LOCK WASHER, AND NUT TO BE COMPATIBLE WITH THE HEX BOL.
5. ALL LETTER, NUMBER AND SYMBOL SIZES, SPACING, COLORS, AND THE SIGN COLORS SHALL CONFORM TO THE CURRENT "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES."

END OF ROAD MARKER





BREAK-AWAY SIGN POST DETAIL *

* FOR SPEED LIMITS GREATER THAN 45 MPH ADD 1/4" TO POST, SLEAVE, AND ANCHOR DIMENSIONS

SUMMARY OF QUANTITIES

ITEMS	TOTALS	UNITS

SIGN DESCRIPTIONS					TRAFFIC CONTROL SIGNS & SIGN POSTS																										
CLASSIFICATION	TYPE	PROCESS	SIZE	AREA	STA.	LOCATION FROM ℄	CLASSIFACATION - EACH																			SIGN POST LENGTH		

3-1-14	SHAWNEE DESIGN & CONSTRUCTION MANUAL REVISIONS	MRS	PJL
8-21-12	REVISED TO MATCH CONSTRUCTION SPECIFICATION REVISIONS	MRS	PJL
Date	Revision	By	Appr.

SIGN DETAILS

DEVELOPMENT SERVICES

Good Starts Here. SHAWNEE KANSAS

DATE:	08-27-2007	3525
DRAWN BY:	MRS	
CHECKED BY:	PJL	SHEET 1 OF 1

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CLEAR CREEK PARKWAY
CITY OF SHAWNEE, KANSAS

SIGNING SUMMARY OF QUANTITIES

150561-010

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CLEAR CREEK PARKWAY
CITY OF SHAWNEE, KANSAS

SUMMARY OF QUANTITIES (1)

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SUMMARY OF QUANTITIES (2)

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CLEAR CREEK PARKWAY
CITY OF SHAWNEE, KANSAS

SCHEDULE OF INLETS AND MANHOLES

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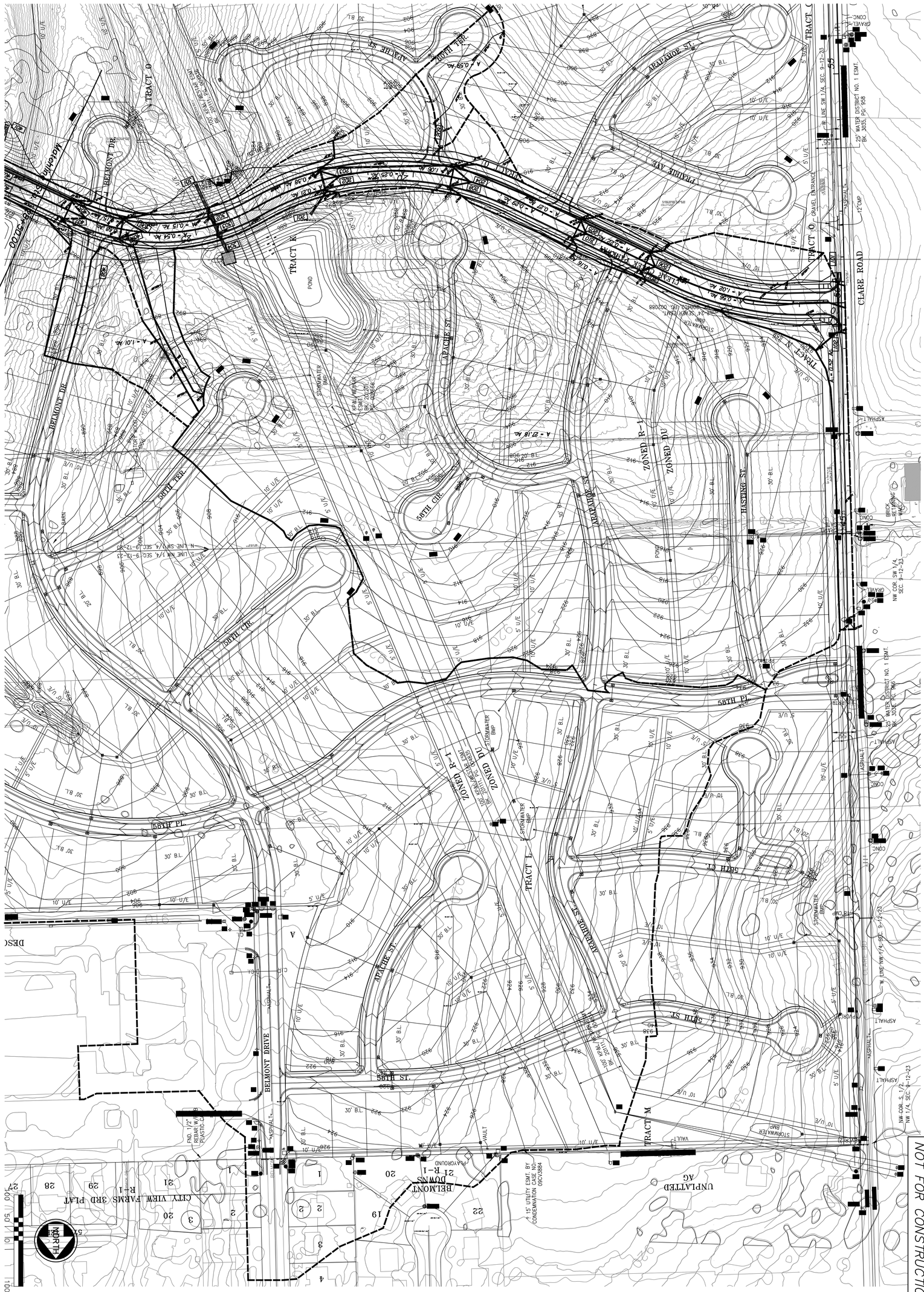

150561-010	CLEAR CREEK PARKWAY CITY OF SHAWNEE, KANSAS	**SHAFER, KLINE & WARREN** 11250 Corporate Avenue Lenexa, KS 66219-1392 913.888.7800 FAX:913.888.7868 SURVEYING | ENGINEERING | CONSTRUCTION	Designed By: PRP Drawn By: JCK/JAA Checked By: HDL Issue Date: JULY 2016
SHEET NO. 74 OF 106	DRAINAGE AREA MAP (1)		

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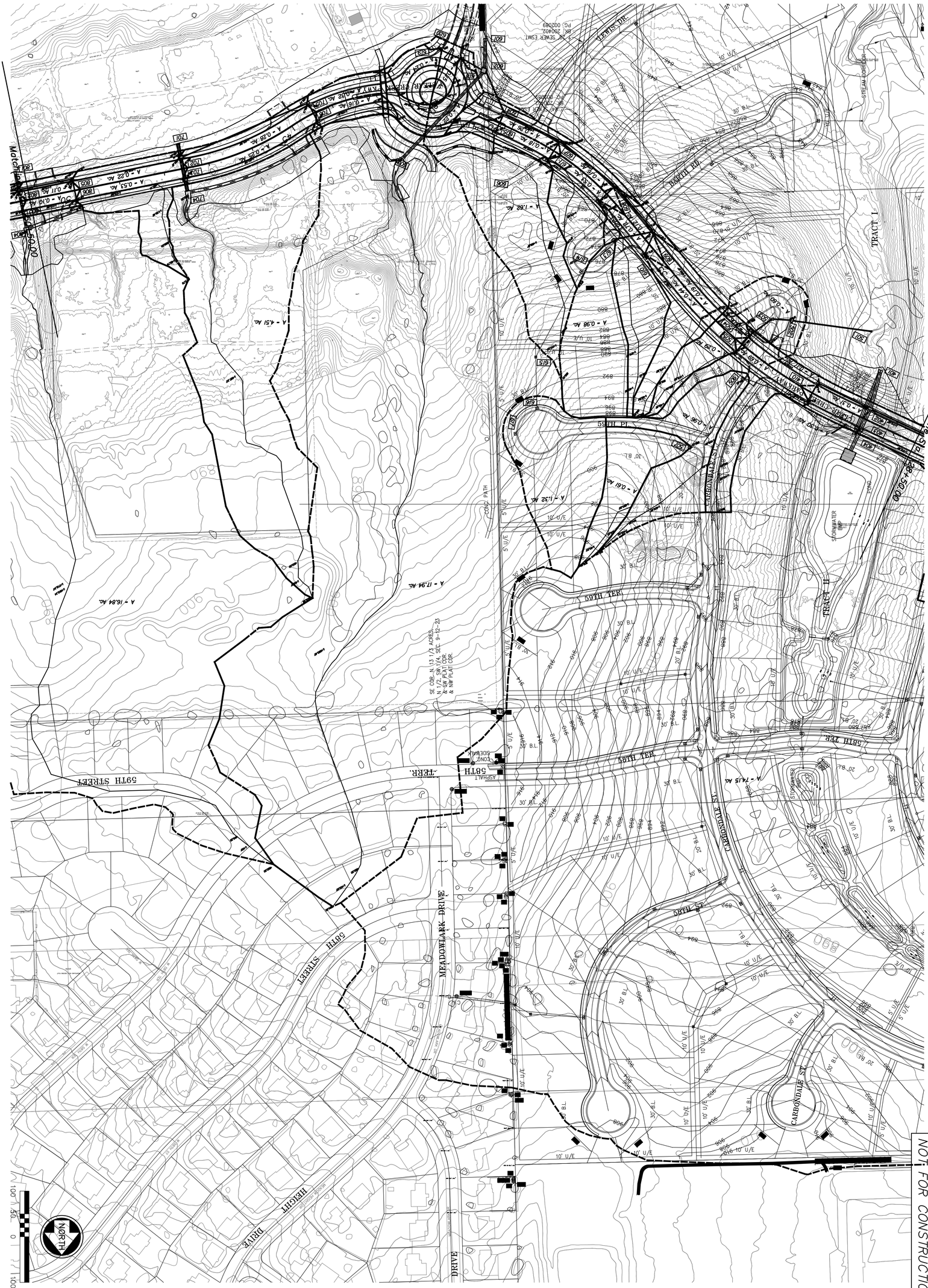

SHEET NO. 75 OF 106	150561-010	CLEAR CREEK PARKWAY CITY OF SHAWNEE, KANSAS	DRAINAGE AREA MAP (2)

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CLEAR CREEK PARKWAY
CITY OF SHAWNEE, KANSAS

DRAINAGE AREA MAP (3)

150561-010

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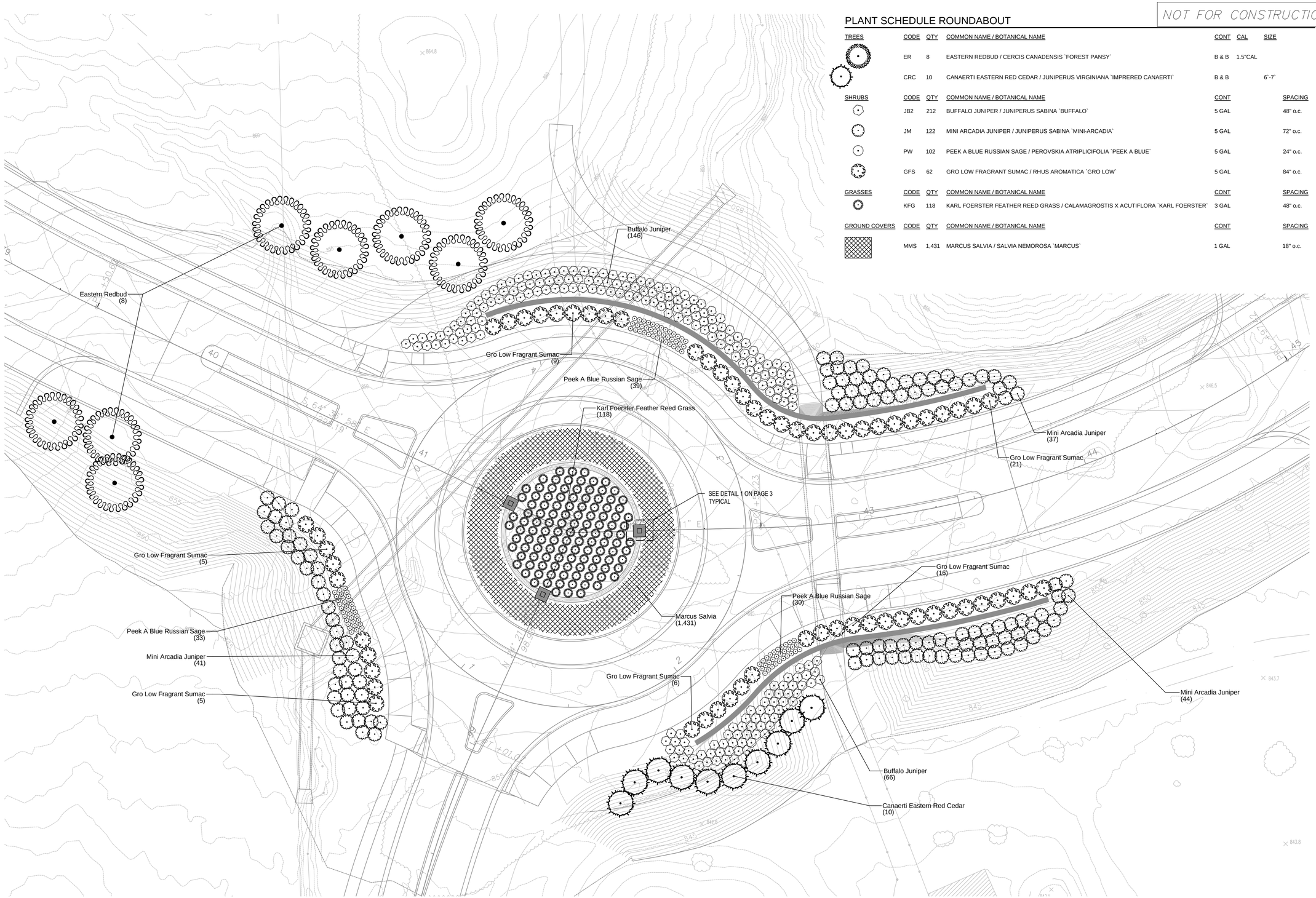
PLANT SCHEDULE ROUNDABOUT

TREES	CODE	QTY	COMMON NAME / BOTANICAL NAME	CONT	CAL	SIZE
	ER	8	EASTERN REDBUD / CERCIS CANADENSIS `FOREST PANSY`	B & B	1.5"CAL	
	CRC	10	CANAERTI EASTERN RED CEDAR / JUNIPERUS VIRGINIANA `IMPRERED CANAERTI`	B & B		6`-7`

SHRUBS	CODE	QTY	COMMON NAME / BOTANICAL NAME	CONT	SPACING
	JB2	212	BUFFALO JUNIPER / JUNIPERUS SABINA `BUFFALO`	5 GAL	48" o.c.
	JM	122	MINI ARCADIA JUNIPER / JUNIPERUS SABINA `MINI-ARCADIA`	5 GAL	72" o.c.
	PW	102	PEEK A BLUE RUSSIAN SAGE / PEROVSKIA ATRIPLICIFOLIA `PEEK A BLUE`	5 GAL	24" o.c.
	GFS	62	GRO LOW FRAGRANT SUMAC / RHUS AROMATICA `GRO LOW`	5 GAL	84" o.c.

GRASSES	CODE	QTY	COMMON NAME / BOTANICAL NAME	CONT	SPACING
	KFG	118	KARL FOERSTER FEATHER REED GRASS / CALAMAGROSTIS X ACUTIFLORA `KARL FOERSTER`	3 GAL	48" o.c.

GROUND COVERS	CODE	QTY	COMMON NAME / BOTANICAL NAME	CONT	SPACING
	MMS	1,431	MARCUS SALVIA / SALVIA NEMOROSA `MARCUS`	1 GAL	18" o.c.



1 Roundabout Landscape Plan

SCALE: 1" = 20' - 0"

NORTH

0 20 40 60 feet

SCALE: 1" = 20'

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ROUNDABOUT
LANDSCAPE PLAN

150561-010

SHEET NO.
1 OF 4

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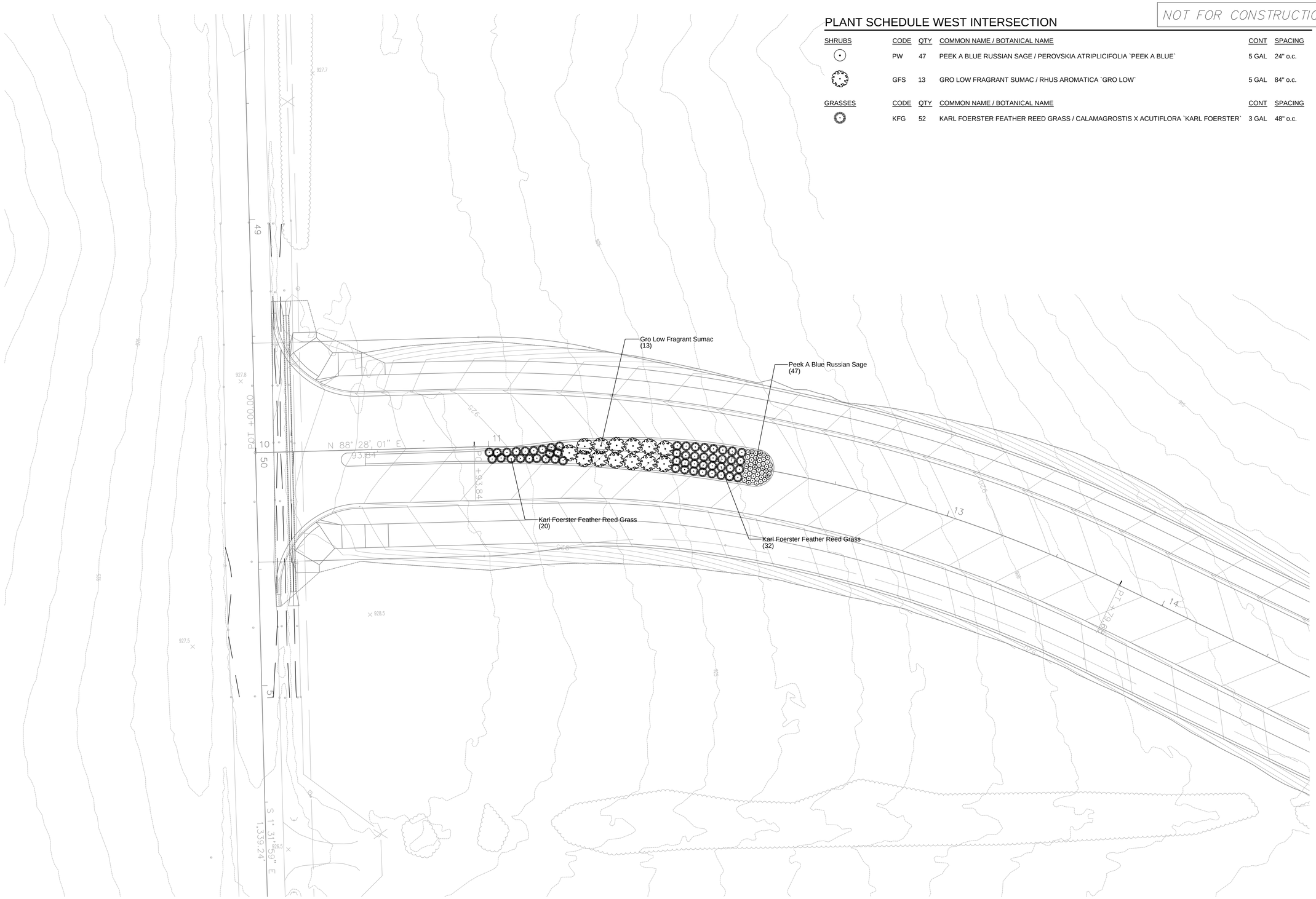
PLANT SCHEDULE WEST INTERSECTION

SHRUBS	CODE	QTY	COMMON NAME / BOTANICAL NAME	CONT	SPACING
	PW	47	PEEK A BLUE RUSSIAN SAGE / PEROVSKIA ATRIPLICIFOLIA `PEEK A BLUE`	5 GAL	24" o.c.
	GFS	13	GRO LOW FRAGRANT SUMAC / RHUS AROMATICA `GRO LOW`	5 GAL	84" o.c.

GRASSES	CODE	QTY	COMMON NAME / BOTANICAL NAME	CONT	SPACING
	KFG	52	KARL FOERSTER FEATHER REED GRASS / CALAMAGROSTIS X ACUTIFLORA `KARL FOERSTER`	3 GAL	48" o.c.



1 West Intersection Landscape Plan

SCALE: 1" = 20' - 0"

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WEST INTERSECTION
LANDSCAPE PLAN

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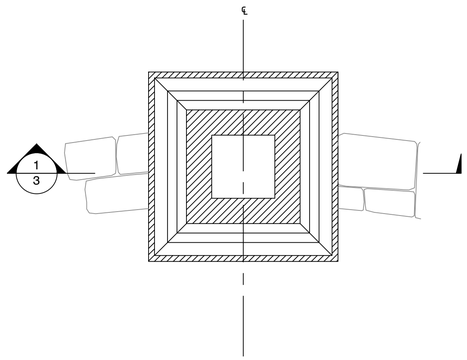
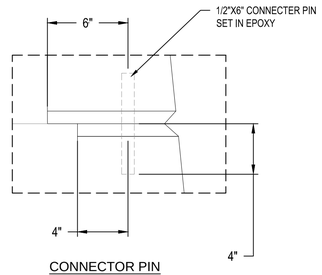
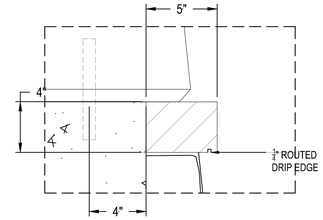


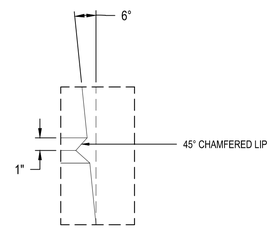
PLAN VIEW



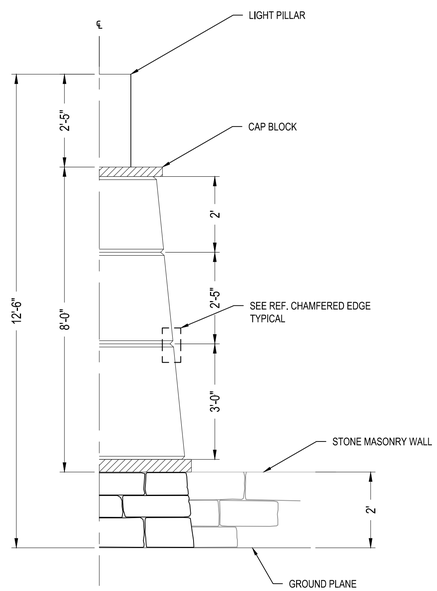
CONNECTOR PIN



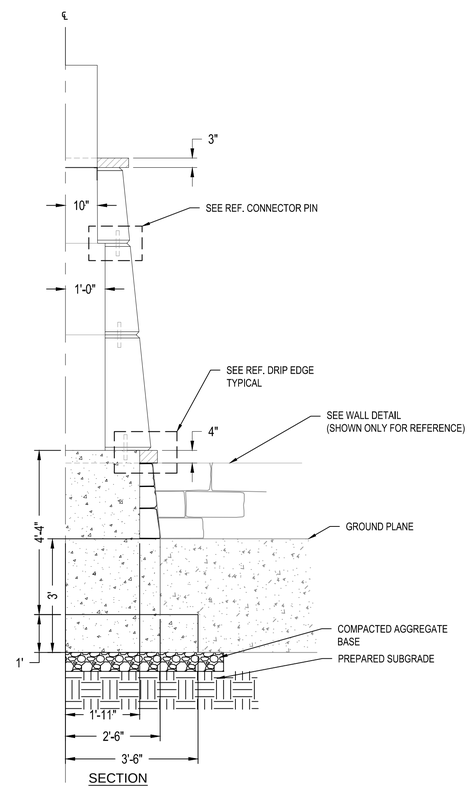
DRIP EDGE



CHAMFERED EDGE



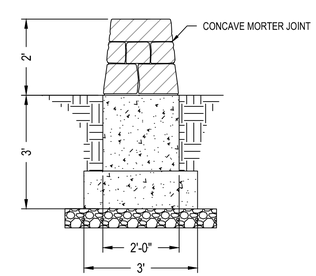
ELEVATION



SECTION

1 Light Pillar

SCALE: 1/2" = 1' - 0"



2 Stone Wall Detail

SCALE: 1/2" = 1' - 0"

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CITY OF SHAWNEE, KANSAS

LANDSCAPE PLAN
DETAILS

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Landscaping Notes:

1. CONTRACTOR SHALL LOCATE ALL UTILITIES BEFORE COMMENCING WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OF ANY DAMAGE TO UTILITIES RESULTING FROM LANDSCAPE OPERATIONS. ANY UTILITIES SHOWN ON PLAN ARE FOR REFERENCE ONLY AND MAY OR MAY NOT DEPICT THE ACTUAL LOCATION OF SERVICES.
2. LANDSCAPE CONTRACTOR IS REPONSIBLE FOR OBTAINING NECESSARY PERMITS AND APPROVALS, AND REQUIRED INSPECTIONS BY THE LEGAL AUTHORITIES.
3. NO MATERIAL SUBSTITUTIONS SHALL BE MADE WITHOUT LANDSCAPE ARCHITECT'S APPROVAL. ALTERNATE MATERIALS OF SIMILAR SIZE AND CHARACTER MAY BE CONSIDERED IF SPECIFIED PLANT MATERIALS CANNOT BE OBTAINED. LANDSCAPE ARCHITECT RESERVES THE RIGHT TO REVISE PLANT LIST AS DEEMED NECESSARY.
4. QUANTITIES OF MATERIALS SHOWN ON THE PLANTING PLAN TAKE PRECEDENCE OVER QUANTITIES SHOWN ON THE PLANT MATERIAL SCHEDULE. LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL QUANTITIES ON THE PLANTING PLAN PRIOR TO BIDDING.
5. REPORT ANY DISCREPANCIES IN THE PLANTING PLAN TO THE LANDSCAPE ARCHITECT, PRIOR TO PURCHASING MATERIALS OR STARTING CONSTRUCTION.
6. EXISTING TREES AND THEIR ROOT ZONES SHALL BE PROTECTED FROM ALL CONSTRUCTION ACTIVITIES. PROTECTION ZONES SHALL BE IDENTIFIED ON THE PROPERTY BY USING STANDARD ORANGE BARRICADE FENCING 4' IN HEIGHT AND SUPPORTED WITH CHANNEL POSTS.
7. ALL LAND AREAS NOT COVERED BY BUILDING OR PAVEMENT SHALL BE BROUGHT TO FINISH GRADE AND PLANTED IN SOD OR OTHER APPROPRIATE GROUND COVERS.

PLANTING PREPARATION

8. ALL PLANTING BEDS SHALL BE AMENDED WITH 1 CUBIC YARD OF PEAT MOSS PER 1,000 SQUARE FEET. TILL PEAT MOSS INTO SOIL TO AN 8" DEPTH.
9. PLANT PIT BACKFILL FOR TREES AND SHRUBS SHALL BE 1/3 TOPSOIL AND 2/3 EXISTING SOIL. ADD 3 MYCHORIZZAL TABLETS IN PIT FOR EACH TREE.
10. PLANTED BED EDGES SHALL BE IN STRAIGHT LINES OR GENTLE FLOWING CURVES AS DESIGNED. SUDDEN CURVES OR SHARP ANGLES SHOULD BE AVOIDED.
11. MOUND ALL PLANTING BEDS NOT ADJACENT TO BUILDINGS. PROVIDE POSITIVE DRAINAGE AROUND ALL PLANTING BEDS.
12. FERTILIZE ALL PLANTS WITH 6-10-4 COMMERCIAL FERTILIZER AS DIRECTED BY INSTRUCTIONS ON FERTILIZER

PLANTING MATERIALS

13. ALL PLANT MATERIAL SHALL BE WELL-FORMED AND DEVELOPED IN GOOD CONDITION, HEALTHY AND DISEASE-FREE, AND BE TYPICAL OF THE SPECIES. PLANTS SHALL COMPLY WITH ACCEPTABLE STANDARDS AS SET FORTH IN THE AMERICAN ASSOCIATION OF NURSERYMAN'S "AMERICAN STANDARD OF NURSERY STOCK."
14. ALL PLANT MATERIALS SHALL BE PROTECTED FROM THE DRYING ACTION OF THE SUN AND WIND AFTER BEING DUG, WHILE BEING TRANSPORTED, AND WHILE AWAITING PLANTING. BALLS OF PLANTS WHICH CANNOT BE PLANTED IMMEDIATELY SHALL BE PROTECTED FROM DRYING ACTION BY COVERING THEM WITH MOIST MULCH. PERIODICALLY, APPLY WATER TO MULCH-COVERED BALLS TO KEEP MOIST. IF PLANTING SHOULD OCCUR DURING GROWING SEASON, APPLY ANTI-DESSICANT TO LEAVES BEFORE TRANSPORT TO REDUCE LIKELIHOOD OF WINDBURN. REAPPLY ANTI-DESSICANT AFTER PLANTING TO REDUCE TRANSPIRATION.
15. PLANTS DESIGNATED CONTAINER GROWN SHALL HAVE BEEN GROWN IN POTS, CANS OR BOXES FOR A MINIMUM OF SIX MONTHS AND A MAXIMUM OF TWO YEARS. THESE PLANTS SHALL BE REMOVED FROM CONTAINERS BEFORE PLANTING. PLANTS THAT APPEAR ROOT-BOUND SHALL BE REJECTED.
16. ALL PLANT LOCATIONS ARE APPROXIMATE, ADJUST AS NECESSARY TO AVOID CONFLICTS. THE FOLLOWING APPLIES FOR GENERAL PLANT LOCATIONS:
    A. CREEPING GROUNDCOVER SHALL BE A MINIMUM OF 6" FROM PAVING EDGE.
    B. ALL TREES SHALL BE A MINIMUM OF 3' FROM PAVING EDGE.
    C. EQUALLY SPACE ALL PLANTS OF THE SAME SPECIES FOR BEST VIEWING.
    D. ALL SHRUBS SHALL BE A MINIMUM OF 2' FROM PAVING EDGE, AND 3.5' FROM BUILDINGS.

SEED/SOD

17. SOD SOD SHALL BE CERTIFIED TURFGRASS SOD COMPLYING WITH ASPA SPECIFICATIONS FOR MACHINE-CUT THICKNESS, SIZE, STRENGTH, MOSITURE CONTENT, AND MOWED HEIGHT, AND BE FREE OF WEEDS AND UNDESIRABLE NATIVE GRASSES. SOD SHALL BE A BLEND OF NOT LESS THAN 3 IMPROVED KENTUCKY BLUEGRASS (POSPARATENSIS) VARIETIES. A NATIVE MIXTURE OF HOUNDOG, REBEL, OR FALCON FINELEAFED TALL FESCUE (FESCUE ARUNDINADEA), AND RYE (LOLIUM JULTIFLORIUM AND PERENE DOMESTIC). IT SHALL BE A MIX OF 20% KENTUCKY BLUEGRASS, 70% FINELEAFED TALL FESCUE, AND 10% RYE. SOD SHALL BE WELL ROOTED, 2 YEAR OLD STOCK, HARVESTED IN ROLLS, and FERTILIZED 2-3 WEEKS PRIOR TO CUTTING. ALL SOD SHALL BE MACHINE CUT AND VIGOROUSLY GROWING (NOT DORMANT). MAXIMUM TIME FROM STRIPPING TO PLANTING SHALL BE 24 HOURS.
18. SEED ALL DISTURBED AREAS NOT MAKED AS "SOD" SHALL RECEIVE GREASS SEED. SEED SHALL COMPLY WITH US DEPT. OF AGRICULTURE RULES AND REGULATIONS UNDER THE FEDERAL SEED ACT AND EQUAL IN QUALITY TO STANDARDS FOR CERTIFIED SEED. SEED SHALL BE A TURF-TYPE FESCUE (3-WAY BLEND. SEED BLEND SHALL CONSIST OF THE FOLLOWING:

TURF-TYPE TALL FESCUE	85%
KENTUCKY BLUEGRASS	10%
ANNUAL RYEGRASS	5%

ALL SEEDED AREAS TO BE MULCHED WITH STRAW OR HYDROMULCH AT TIME OF INSTALLATION UNTIL SEED HAS ESTABLISHED.

RELATED ITEMS

19. MULCH: USE 3" SHREDDED HARDWOOD MULCH IN PLANTING BEDS AND AROUND TREES. MULCH SHALL CONSIST OF PURE WOOD PRODUCTS AND BE FREE OF ALL FOREIGN SUBSTANCES. PROVIDE AND INSTALL PRE-EMERGENT HERBICIDE PRIOR TO MULCH INSTALLATION PER MANUFACTURERS INSTRUCTIONS.
20. EDGING: ALL PLANT BEDS AND TURF AREAS MUST BE SEPARATED WITH A CULTIVATED EDGE.
21. TREE TIES: CONTRACTOR SHALL USE AN APPROVED TREE TIE SYSTEM THAT IS EASILY ADJUSTABLE, STRONG IN ALL WEATHER, AND EASILY ATTACHED AND REMOVED. HOSE AND WIRE ARE NOT ACCEPTABLE FOR STAKED TREES.

    PROVIDE THE FOLLOWING, OR APPROVED EQUAL:

"CINCH TIES,"	J. LICHTENTHALER
"ADJ-A-TYPE,"	HEAVYWEIGHT ONLY, A PLASTIC TWIST TIE
"PLATIC BINDER TYE.	TIE WITH TAPERED BEADS THAT SNAP LOCK, A.M. LEONARD AND SONS.

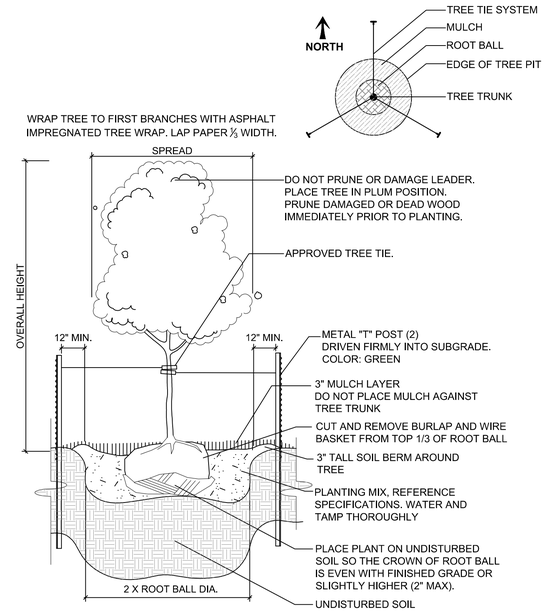
22. ANNUALS: ANNUAL PLANT SELECTION SHALL BE APPROVED BY OWNER. SPECIES CHOSEN SHALL BE APPROPRIATE FOR SEASON OF INSTALLATION.

MAINTENANCE AND CLEAN-UP

23. THE CONTRACTOR SHALL PROVIDE ALL WATER, WATERING DEVICES AND LABOR NEEDED TO IRRIGATE PLANT MATERIALS UNTIL PROVISIONAL ACCEPTANCE OF THE PROJECT. THE CONTRACTOR SHALL SUPPLY ENOUGH WATER TO MAINTAIN THE PLANT'S HEALTHY CONDITION.
24. REMOVE ALL RUBBISH, EQUIPMENT, AND MATERIAL AND LEAVE THE AREA IN A NEAT, CLEAN CONDITION EACH DAY. MAINTAIN PAVED AREAS UTILIZED FOR HAULING EQUIPMENT AND MATERIALS BY OTHER TRADES IN A CLEAN AND UNOBSTRUCTED CONDITION AT ALL TIMES. REMOVE SOIL OR DIRT THAT ACCUMULATES DUE TO PLANTING OPERATIONS EACH DAY.

INSPECTION, WARRANTIES AND GUARANTEE

25. AT THE COMPLETION OF PLANTING OPERATIONS ALL PLANTS SHALL BE INSPECTED BY THE OWNER'S REPRESENTATIVE. CONTRACTOR SHALL REPLACE IMMEDIATELY ANY PLANTS NOT IN HEALTHY AND VIGOROUS CONDITION AT THAT TIME AT NO EXPENSE TO THE OWNER. ANY PLANT NOT IN HEALTHY CONDITION AFTER ONE FULL YEAR FROM THE DATE OF FINAL ACCEPTANCE SHALL BE REPLACED AS PER THE ORIGINAL SPECIFICATIONS, FREE OF CHARGE TO THE OWNER.
26. OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO REJECT AT ANY TIME OR PLACE PRIOR TO FINAL ACCEPTANCE OF WORK, ANY AND ALL PLANTS WHICH, IN THEIR OPINION, FAIL TO MEET THESE SPECIFICATION REQUIREMENTS.
27. CONTRACTOR SHALL GUARANTEE TREES, SHRUBS, PERENNIALS AND TURF FOR ONE CALENDAR YEAR FOLLOWING PROVISIONAL ACCEPTANCE OF THE OVERALL PROJECT. DURING THE GUARANTEE PERIOD, PLANTS THAT DIE DUE TO NATURAL CAUSES OR THAT ARE UNHEALTHY OR UNSIGHTLY IN CONDITION, SHALL BE REPLACED BY THE CONTRACTOR. PLANTS USED FOR THE REPLACEMENT SHALL BE OF THE SAME VARIETY AND SIZE AS ORIGINALLY SPECIFIED IN THE PLANT SCHEDULE. REPLACEMENTS SHALL BE MADE WITHIN ONE WEEK OF REQUEST PENDING FAVORABLE SEASONAL PLANTING CONDITIONS. GUARANTEE WILL NOT BE ENFORCED SHOULD THE PLANT MATERIAL DIE DUE TO VANDALISM, OVER OR UNDER WATERING BY THE OWNER, IMPROPER MAINTENANCE PROCEDURES CARRIED OUT BY THE OWNER INVOLVING LAWN MOWER DAMAGE, OVER FERTILIZATION, ACTS NOT RELATED TO CONTRACTUAL RESPONSIBILITIES OF CONTRACTOR OR SIMILAR CIRCUMSTANCES BEYOND THE CONTROL OF THE CONTRACTOR.



1 Deciduous Tree Planting Detail

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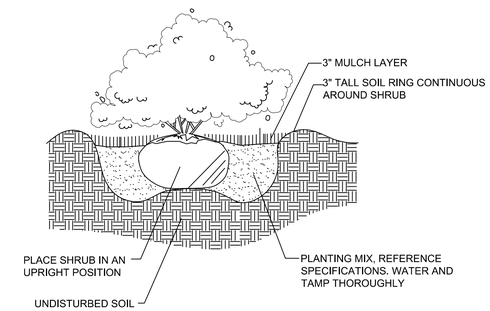

2 Shrub Planting Detail

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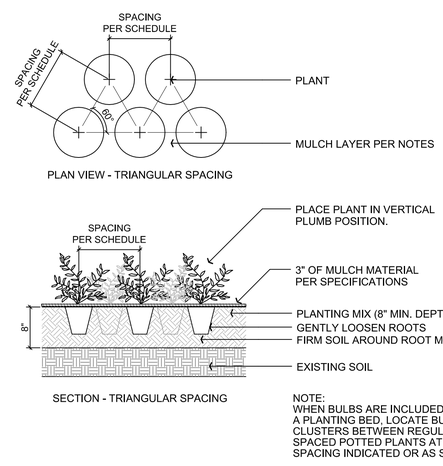
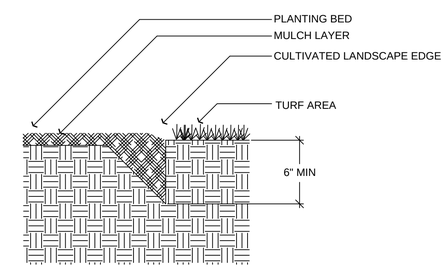


NOTE:
WHEN BULBS ARE INCLUDED IN A PLANTING BED, LOCATE BULB CLUSTERS BETWEEN REGULARLY SPACED POTTED PLANTS AT SPACING INDICATED OR AS SHOWN.

3 Plant Spacing Detail

SCALE: NTS



4 Cultivated Edge Detail

SCALE: NTS

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LANDSCAPE PLAN
PLANTING DETAILS

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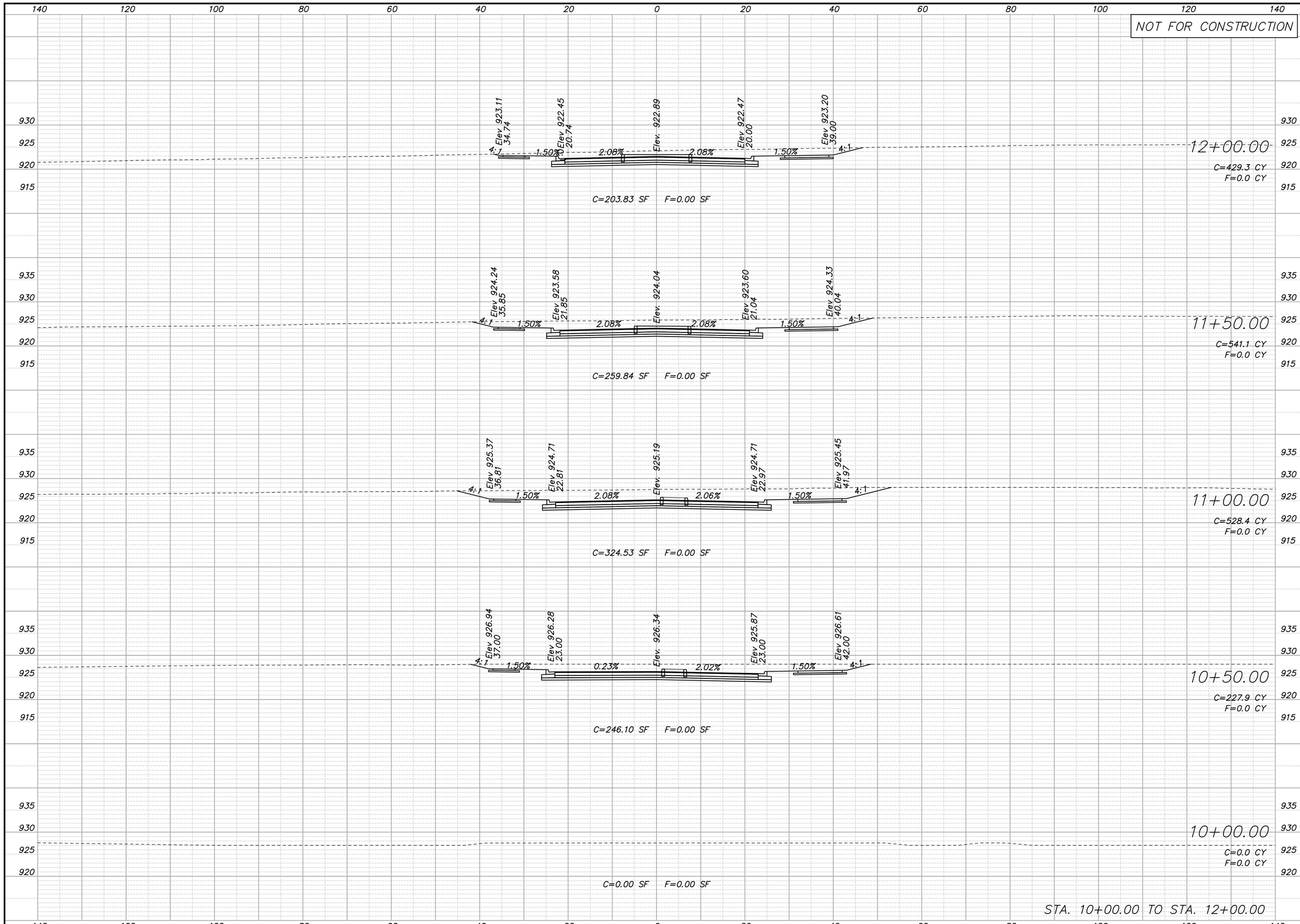

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CLEAR CREEK
CROSS SECTIONS

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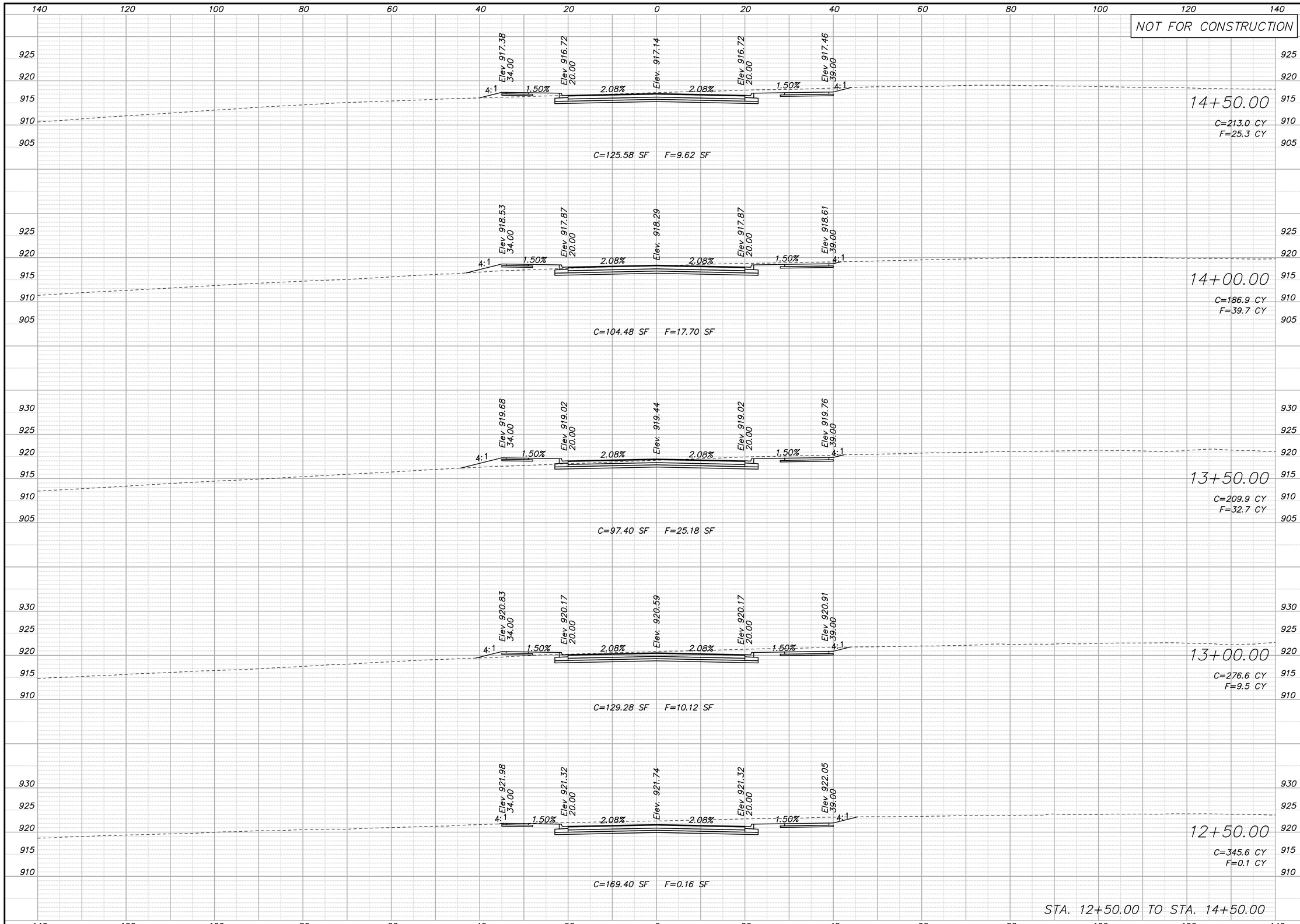

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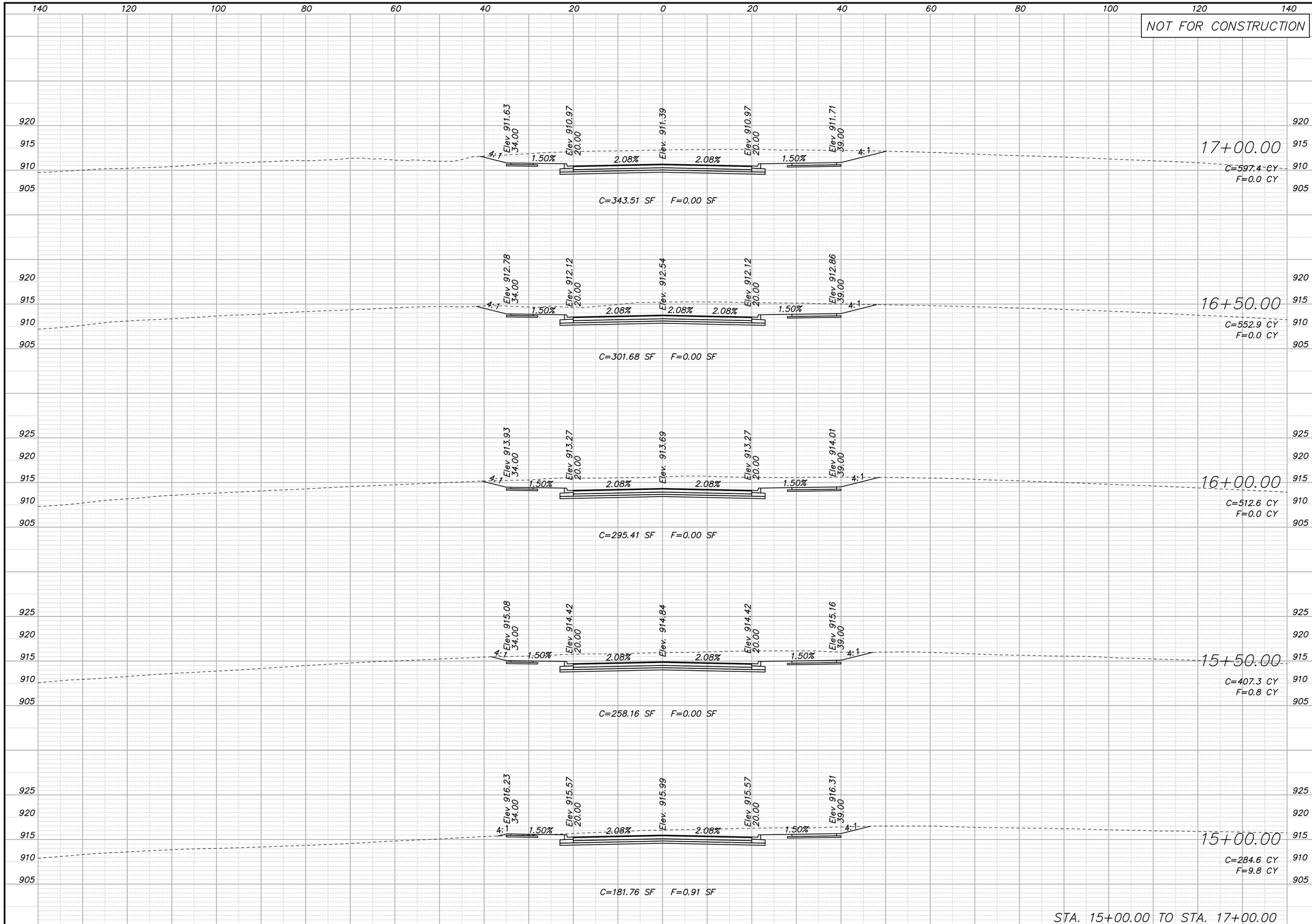

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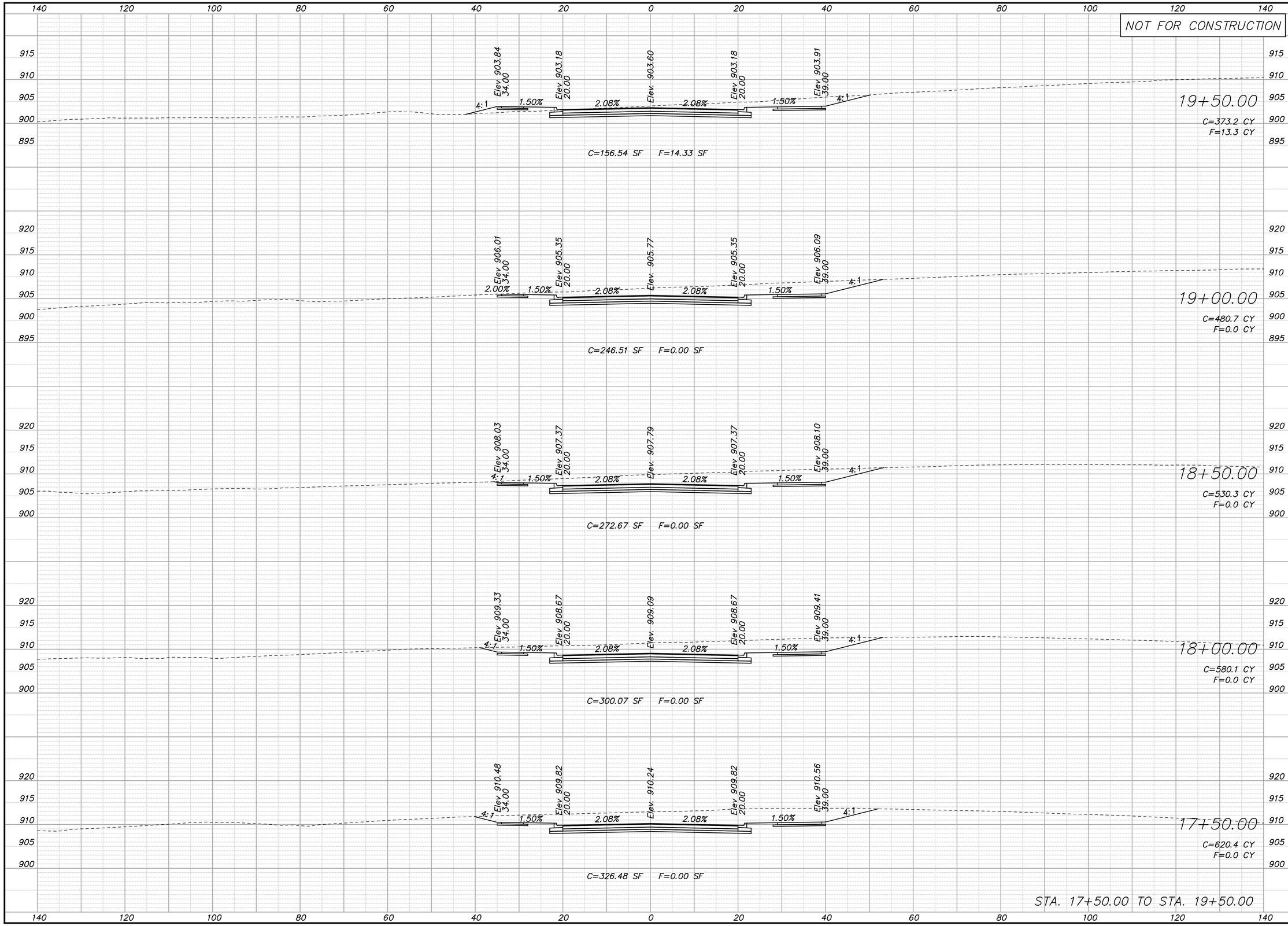

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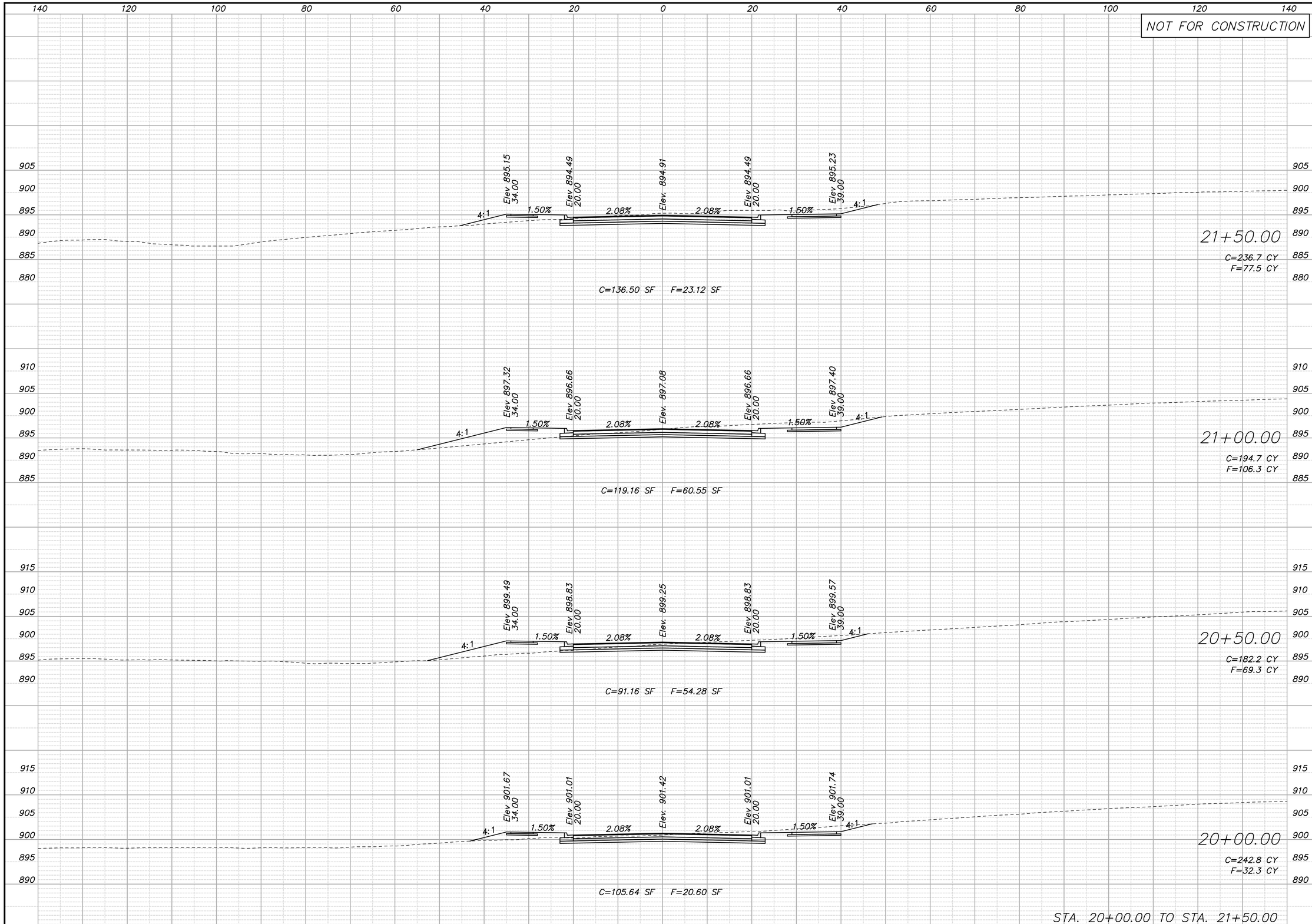

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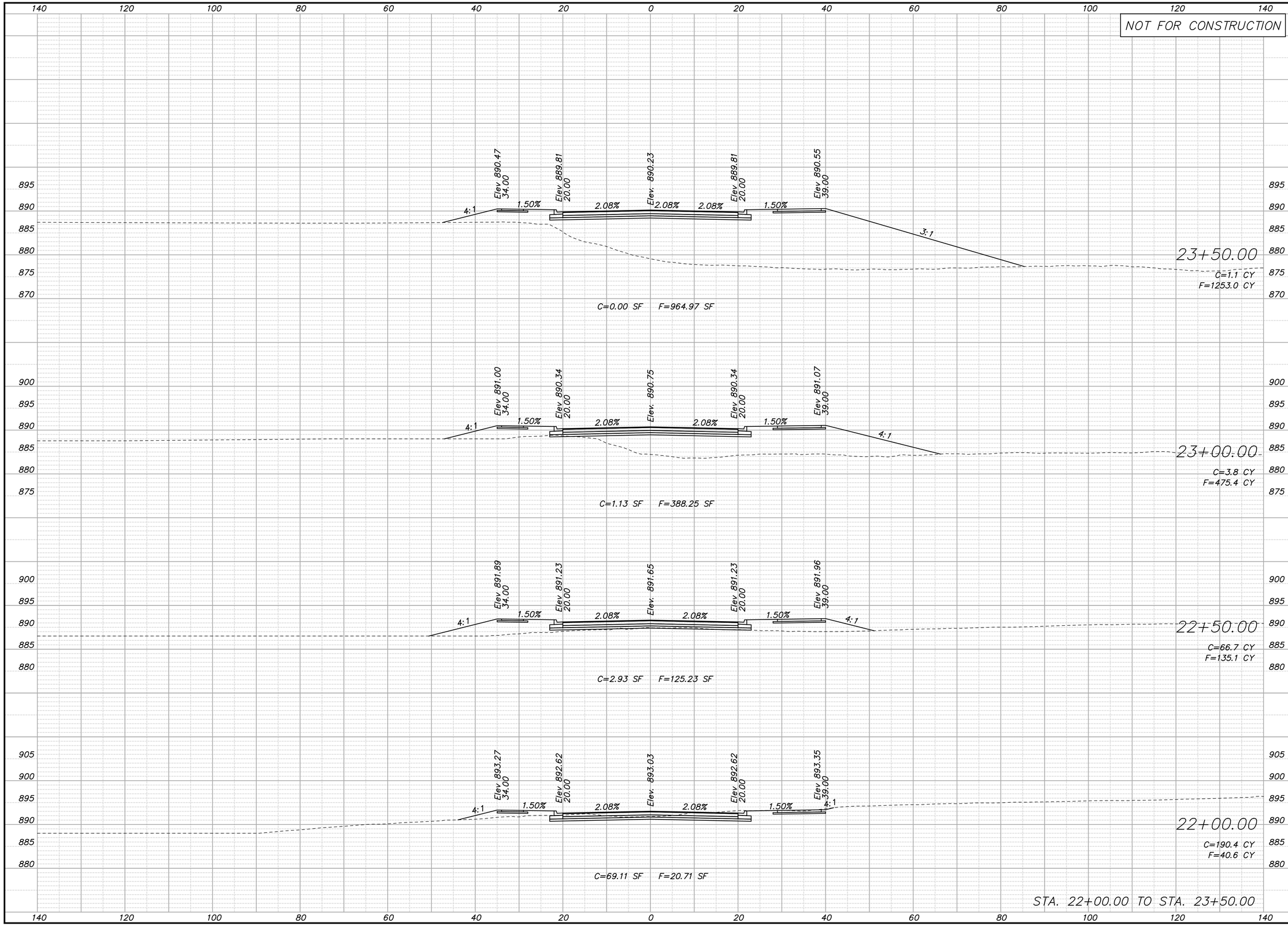

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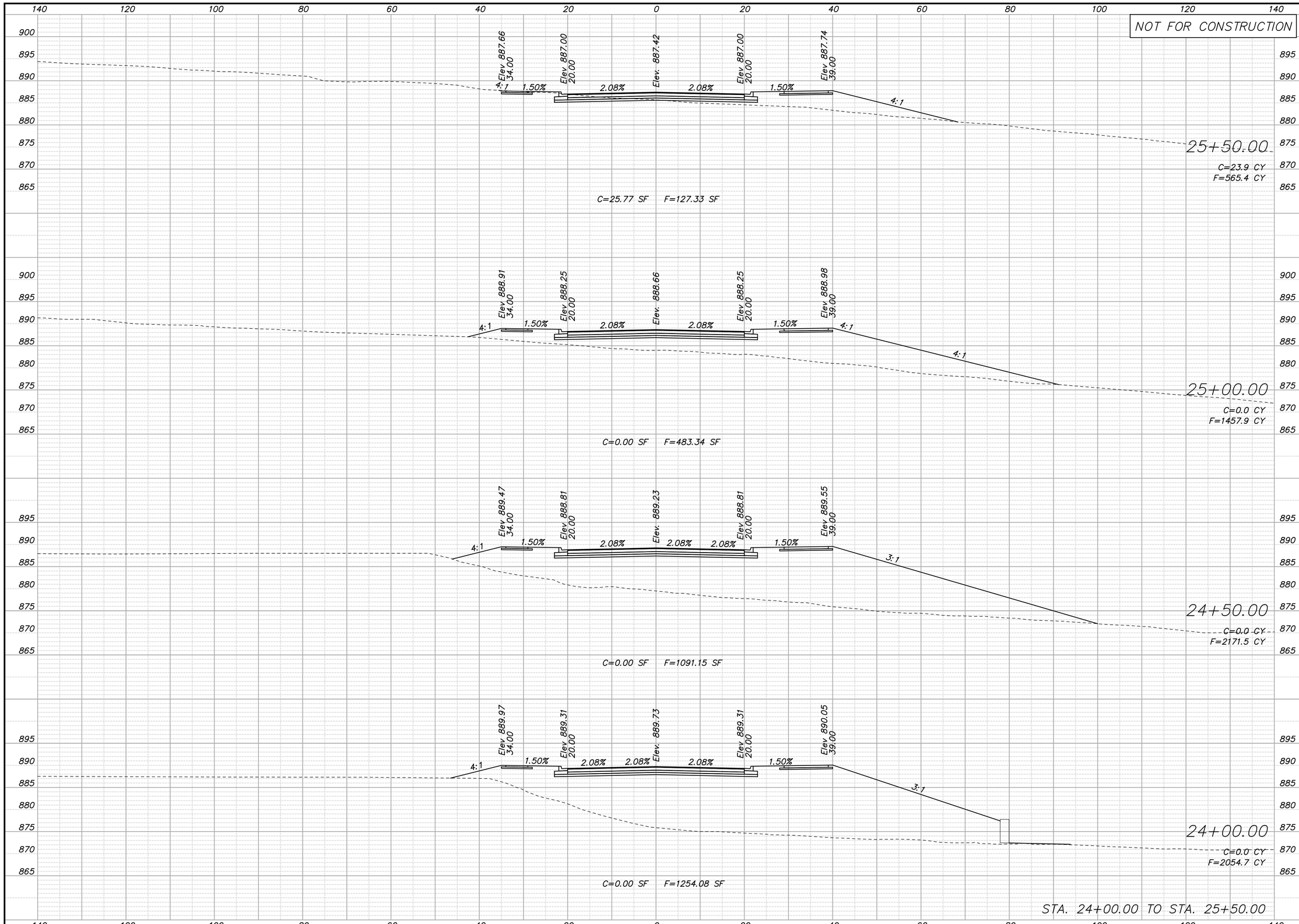

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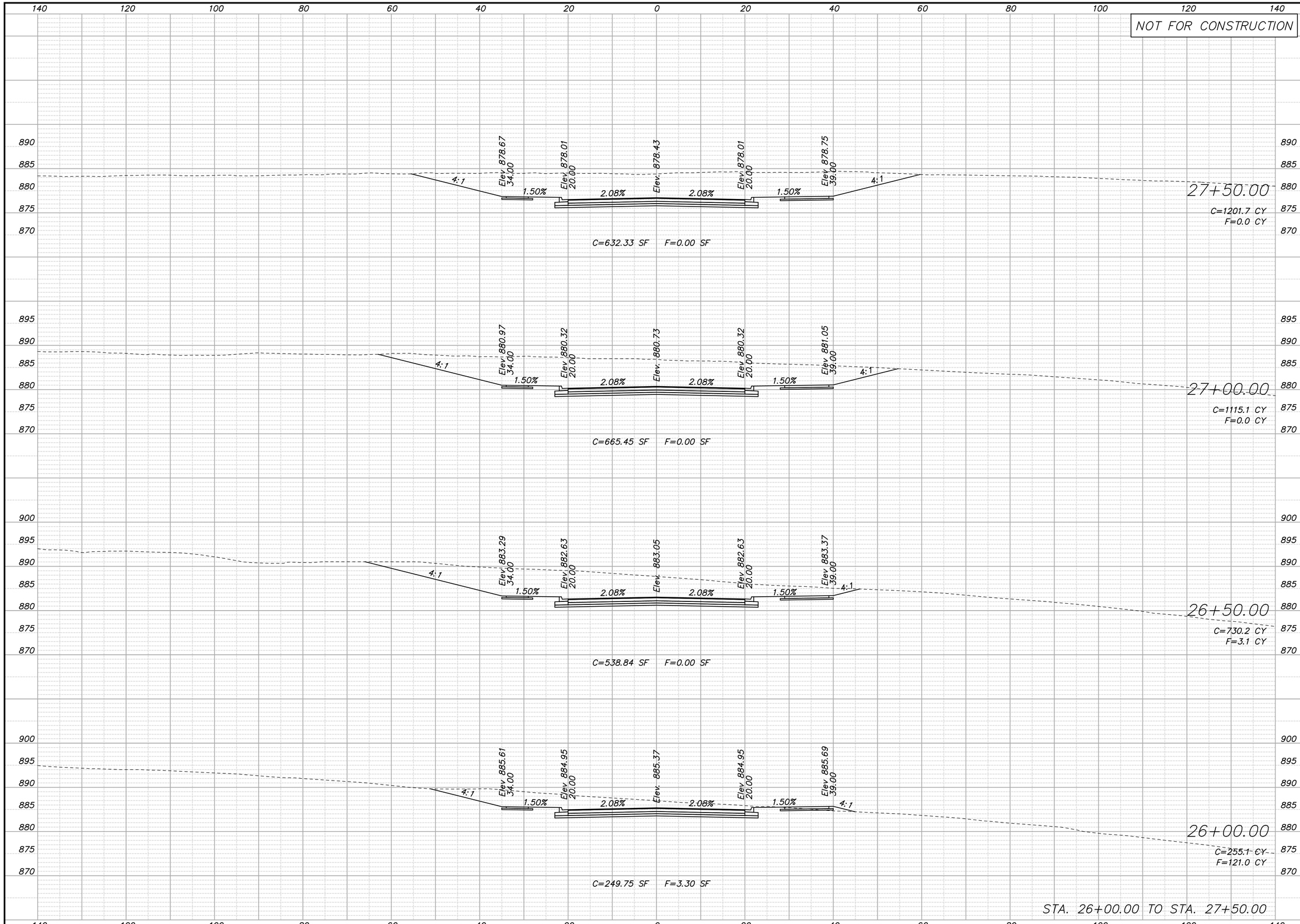

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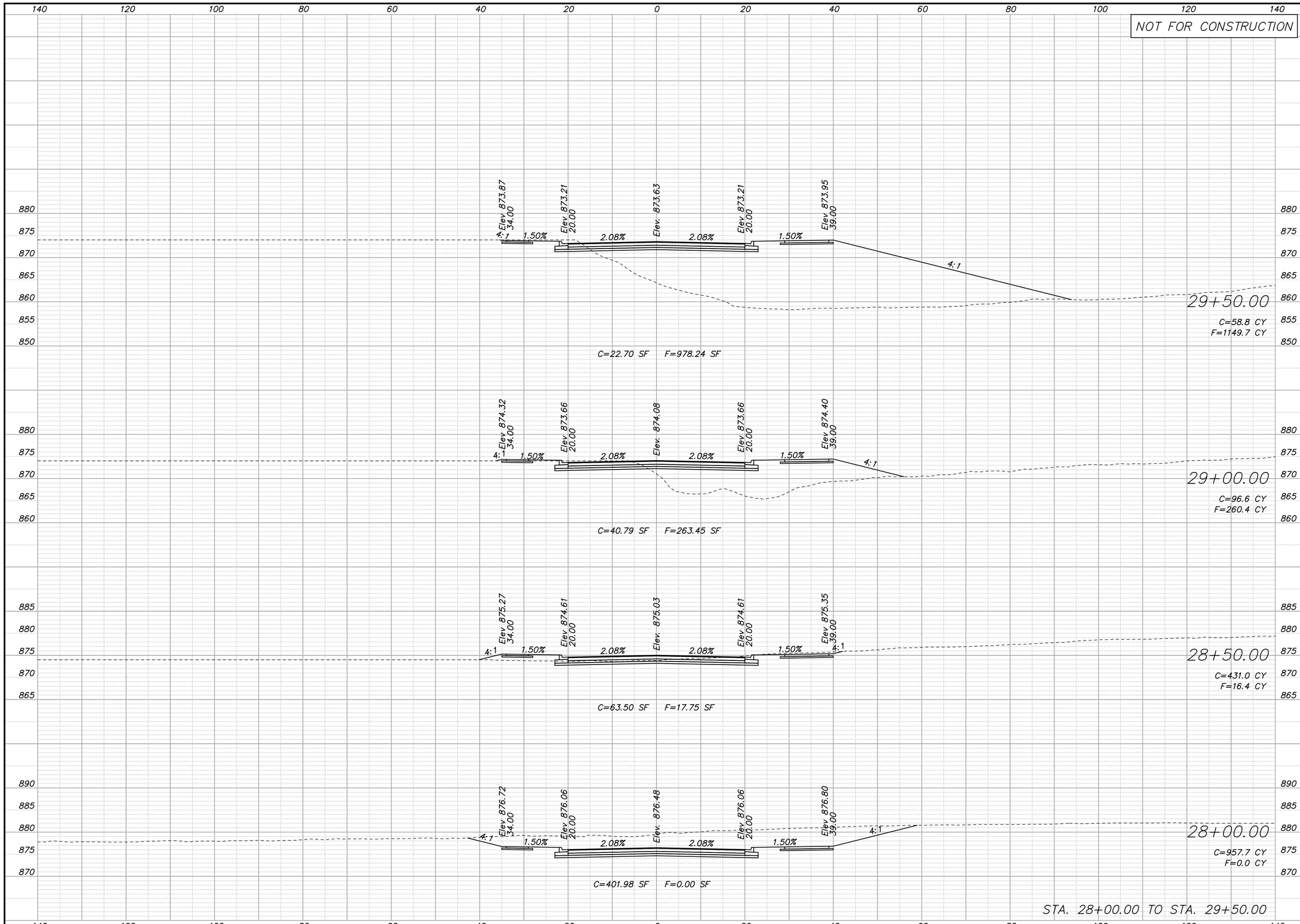

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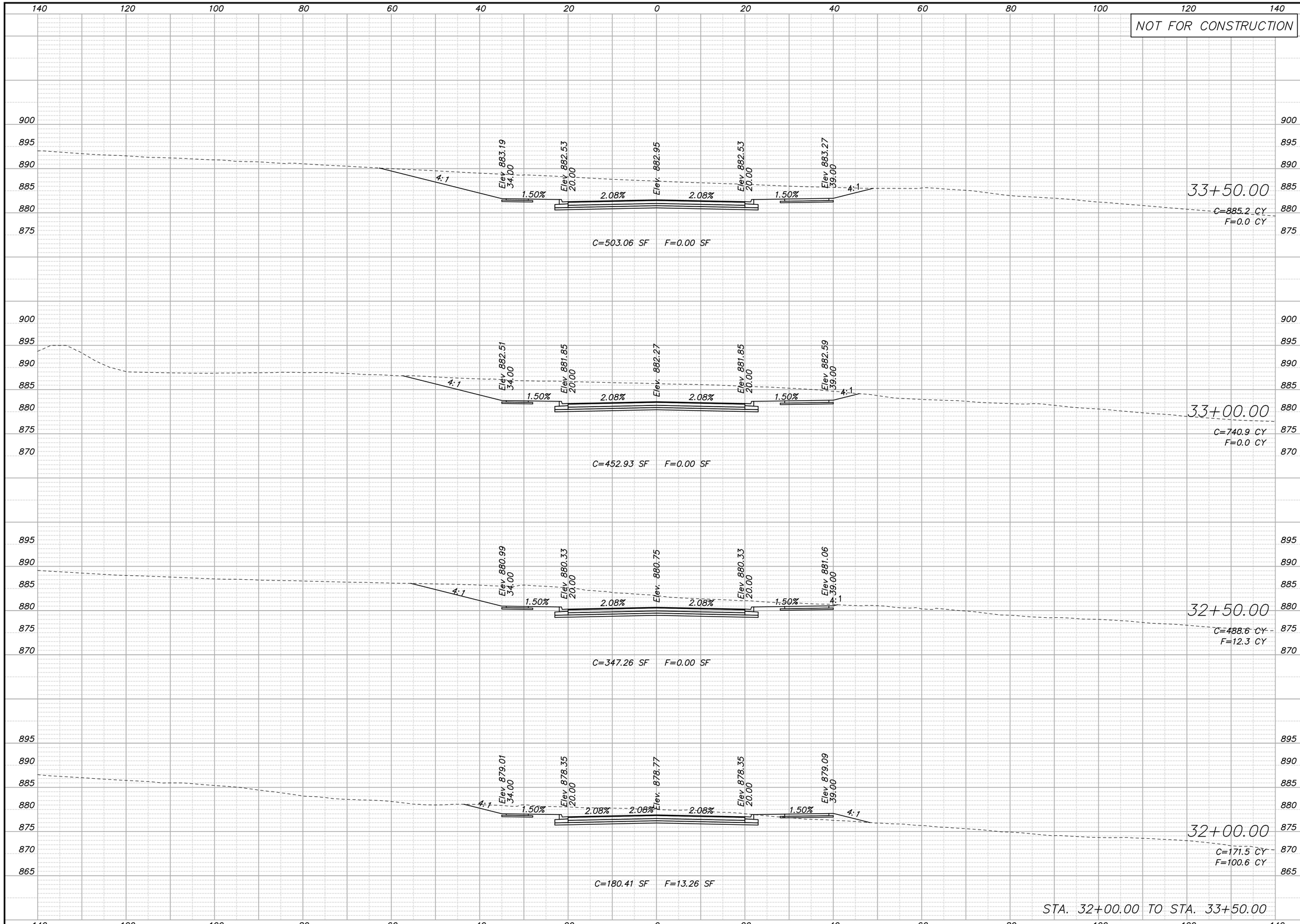

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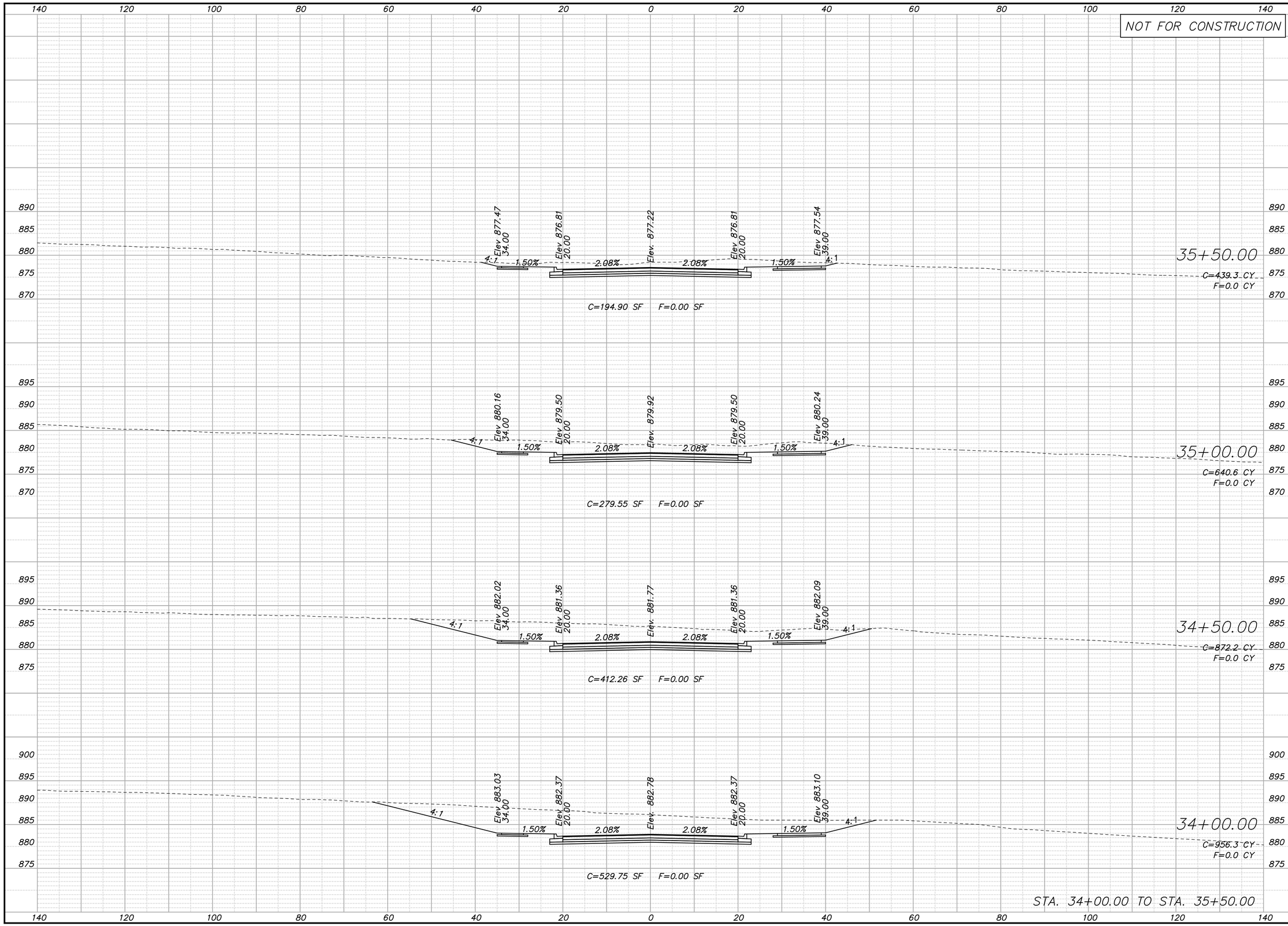

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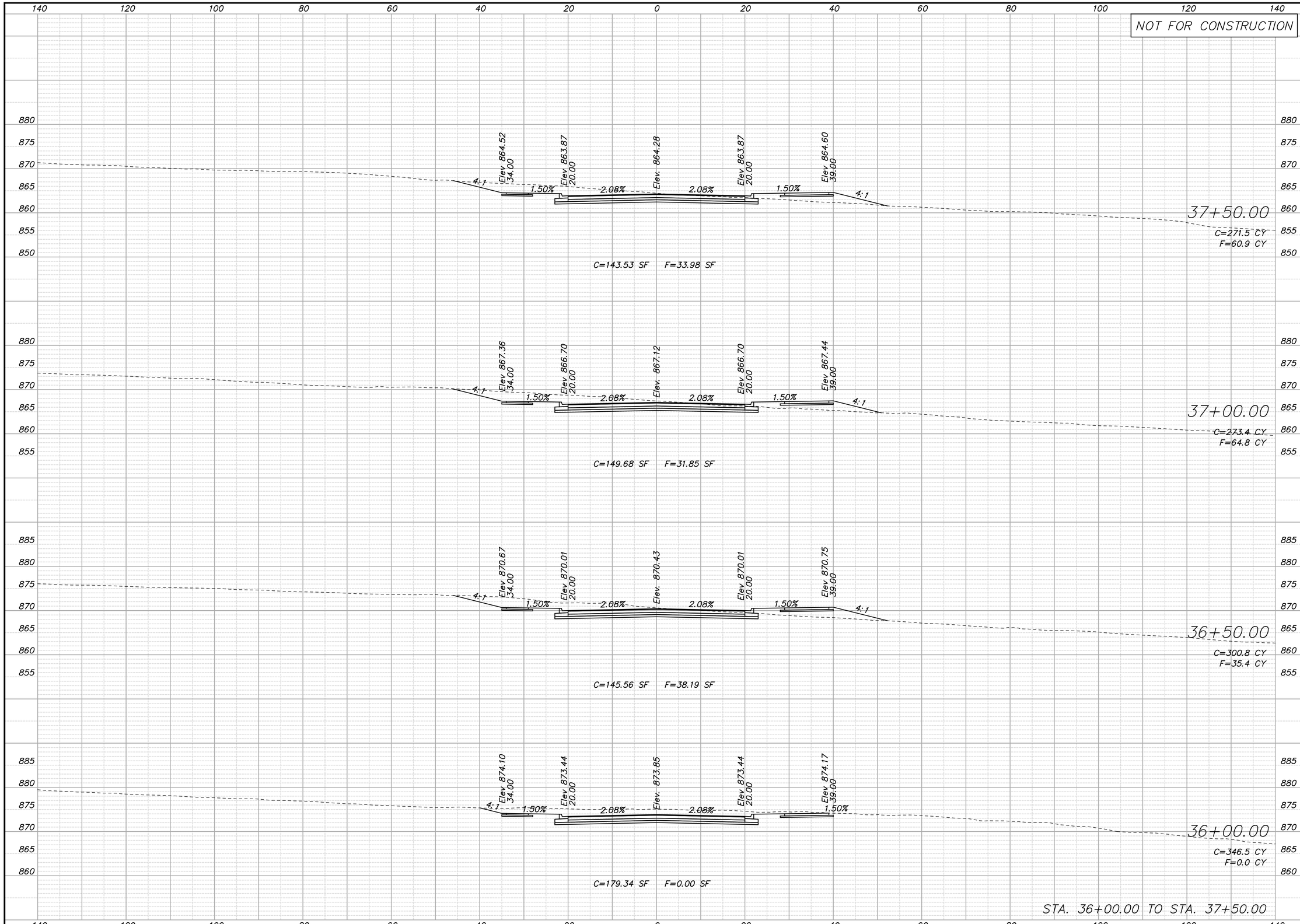

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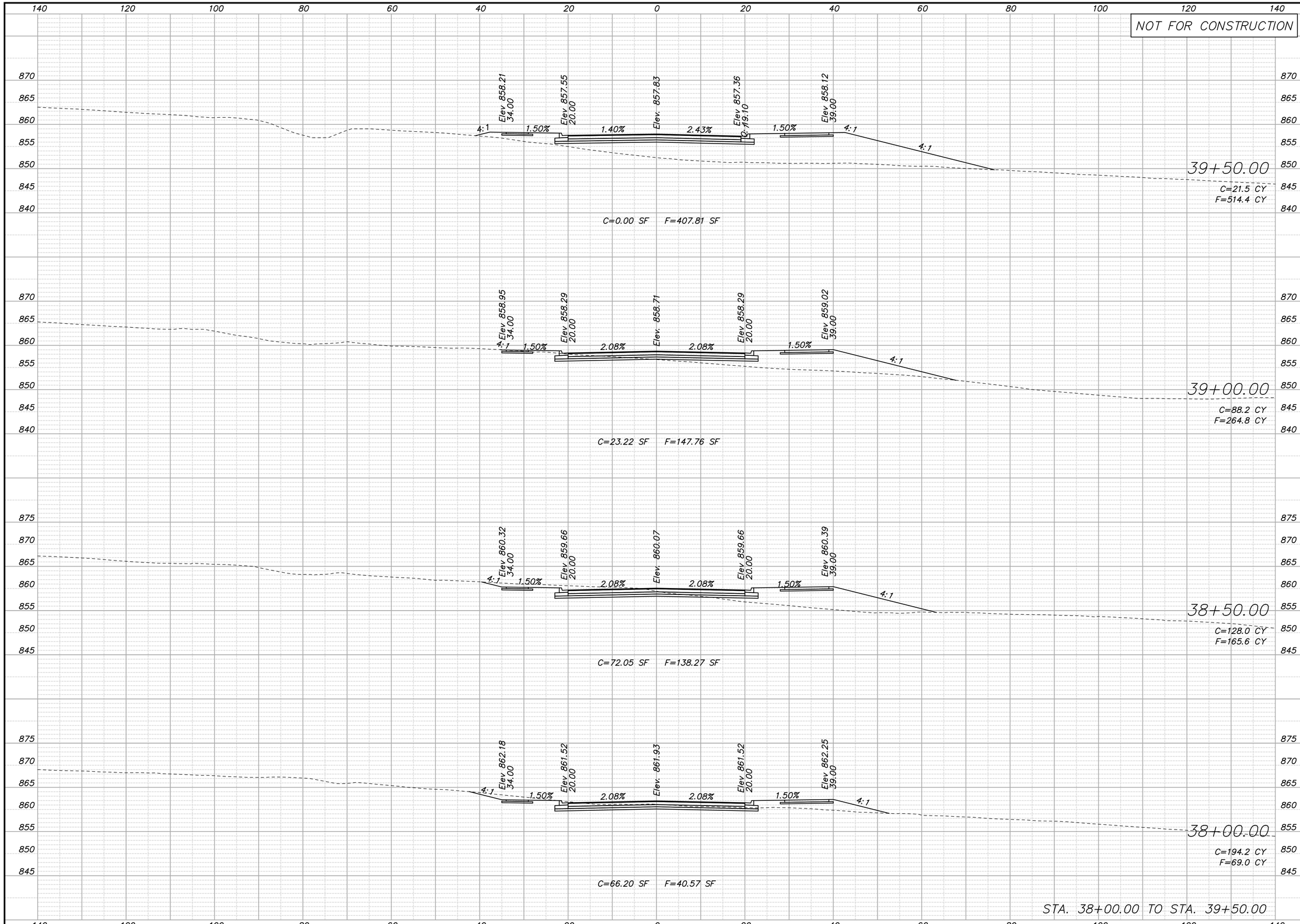

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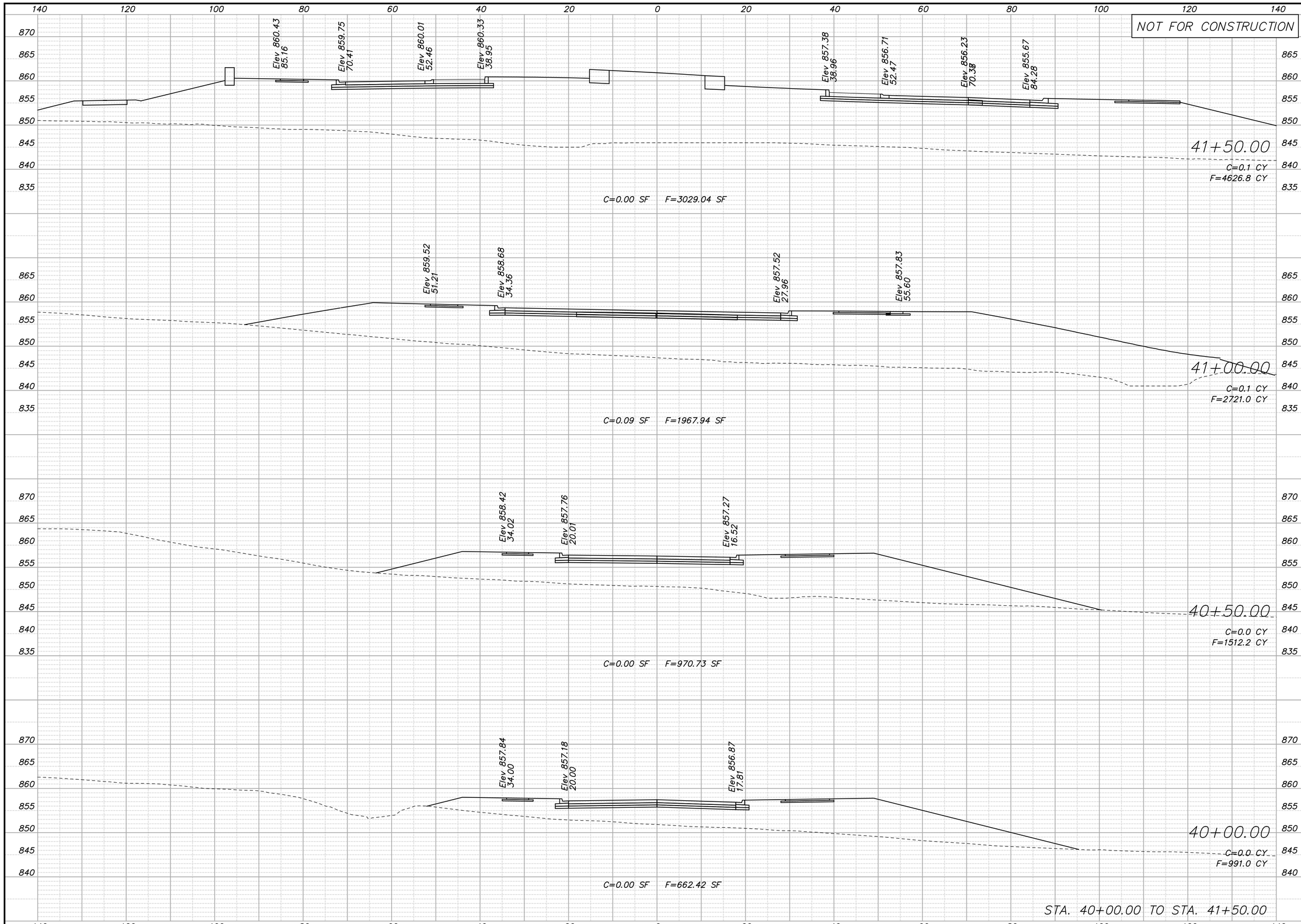

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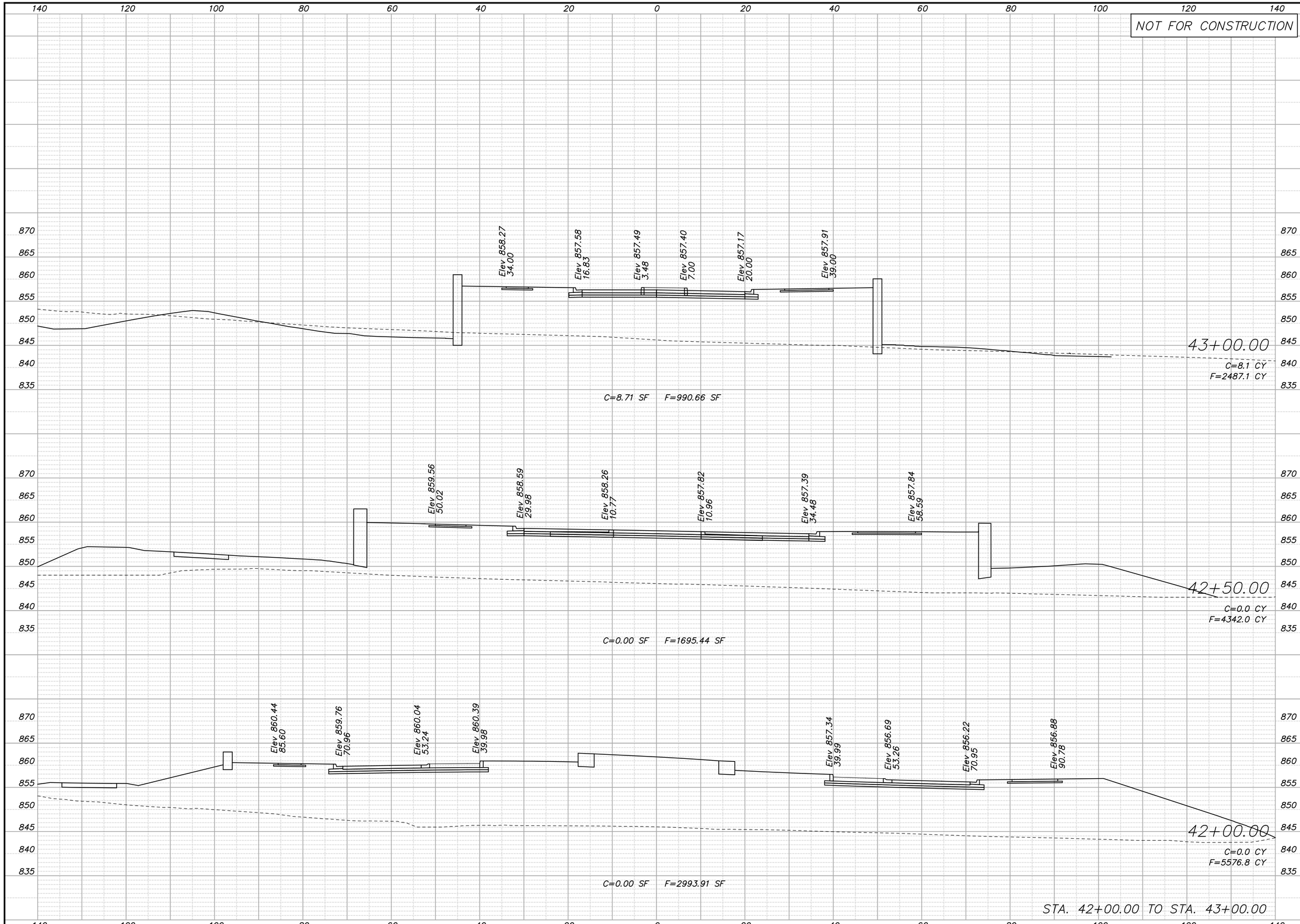

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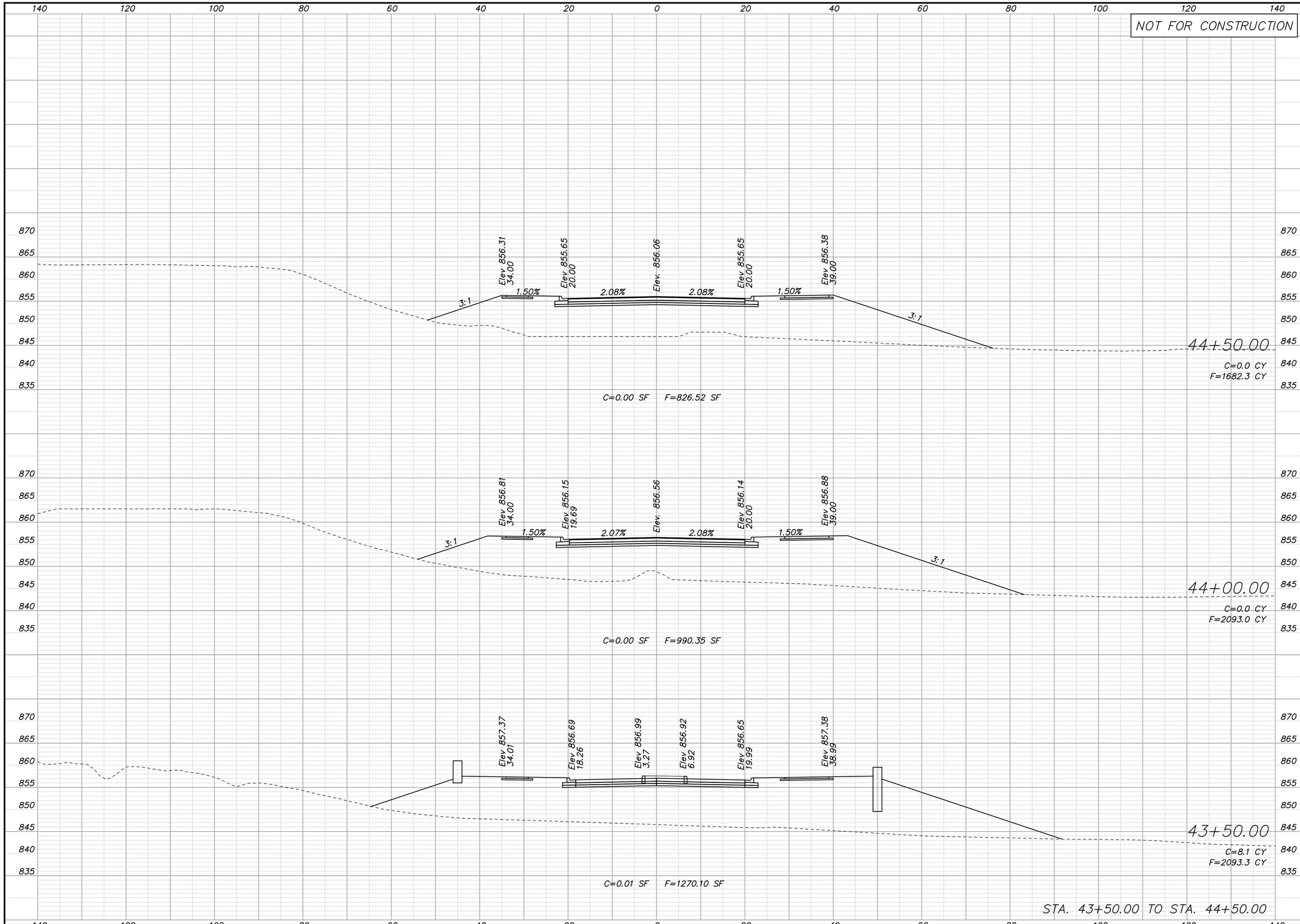

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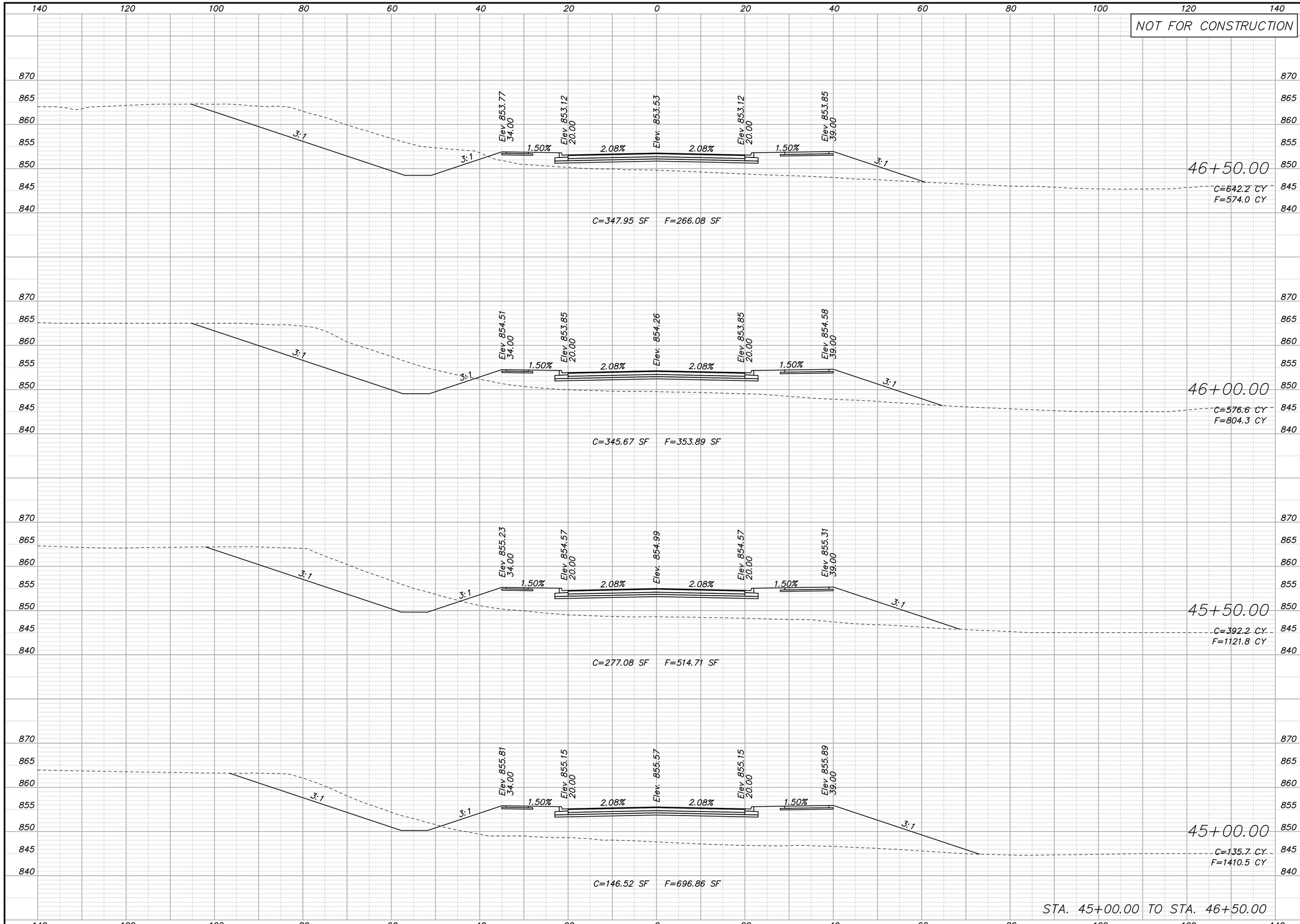

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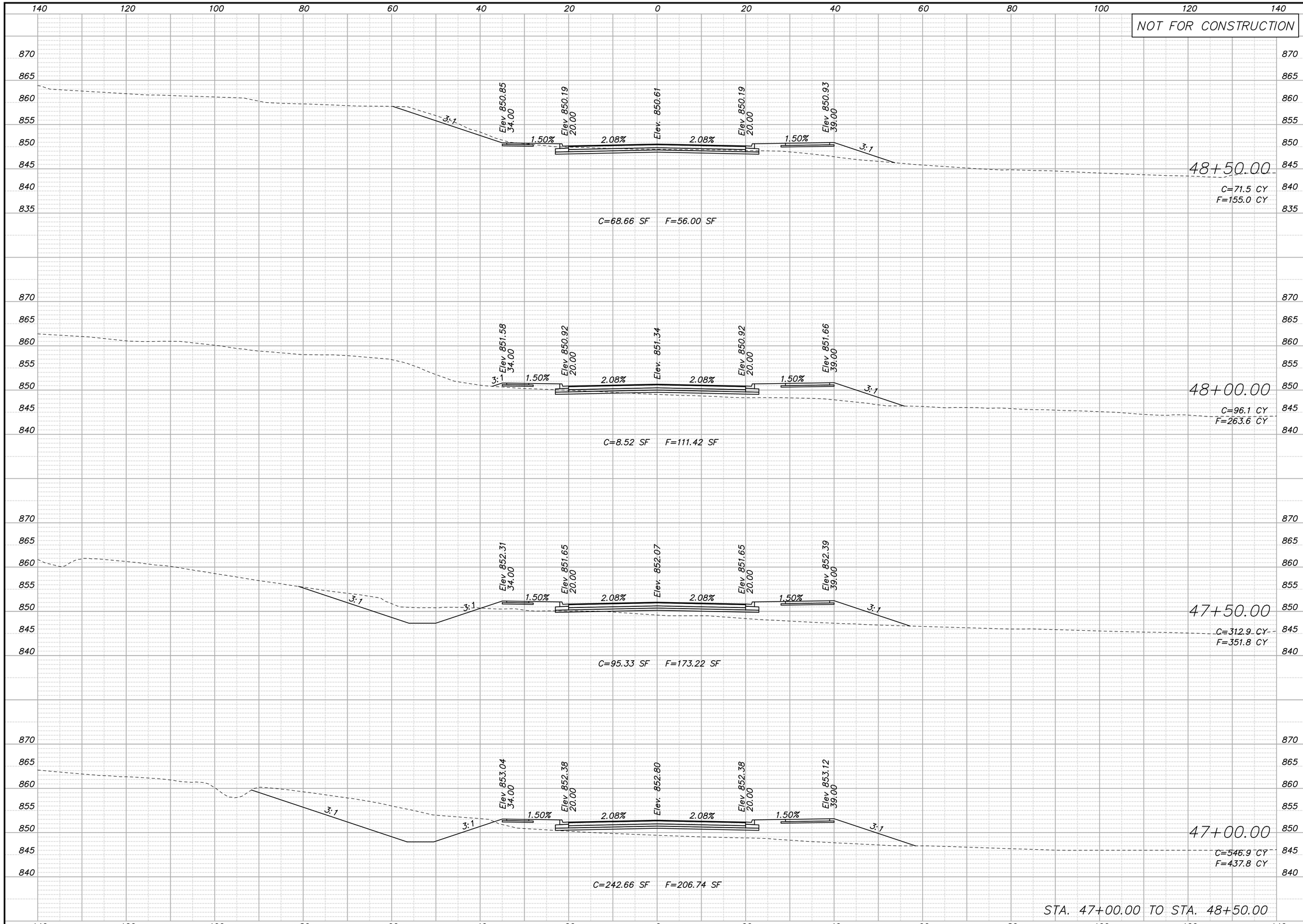

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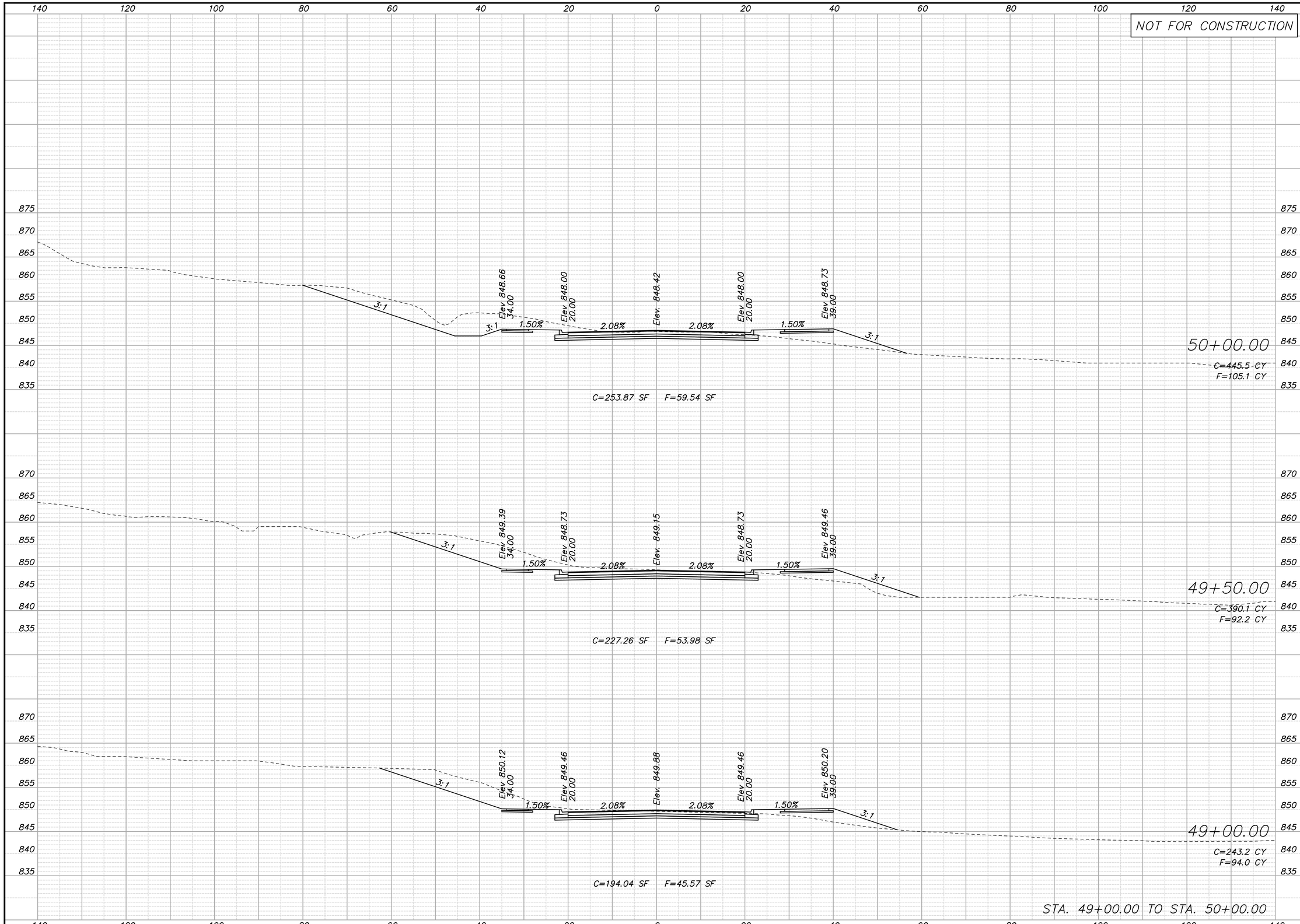

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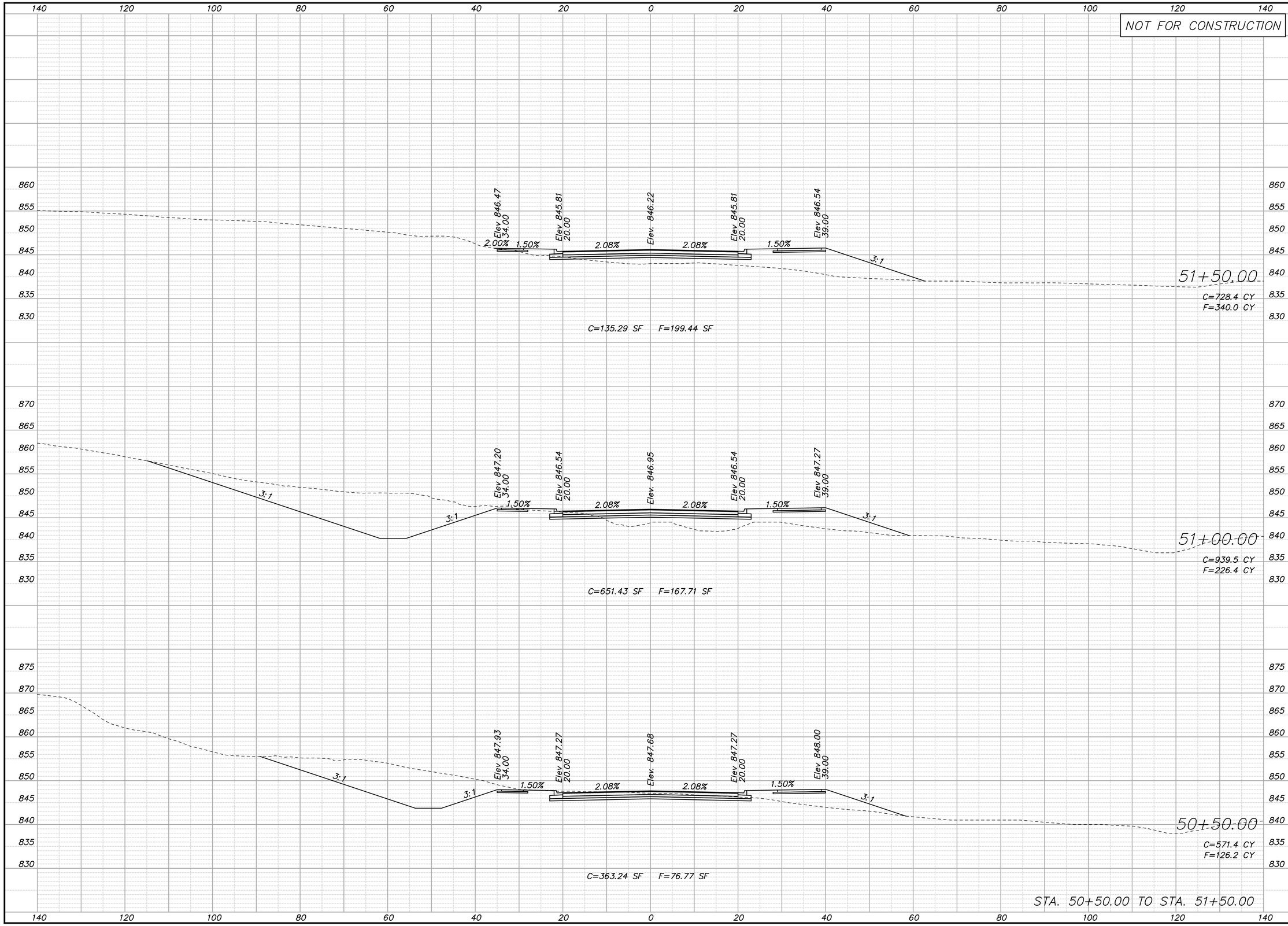

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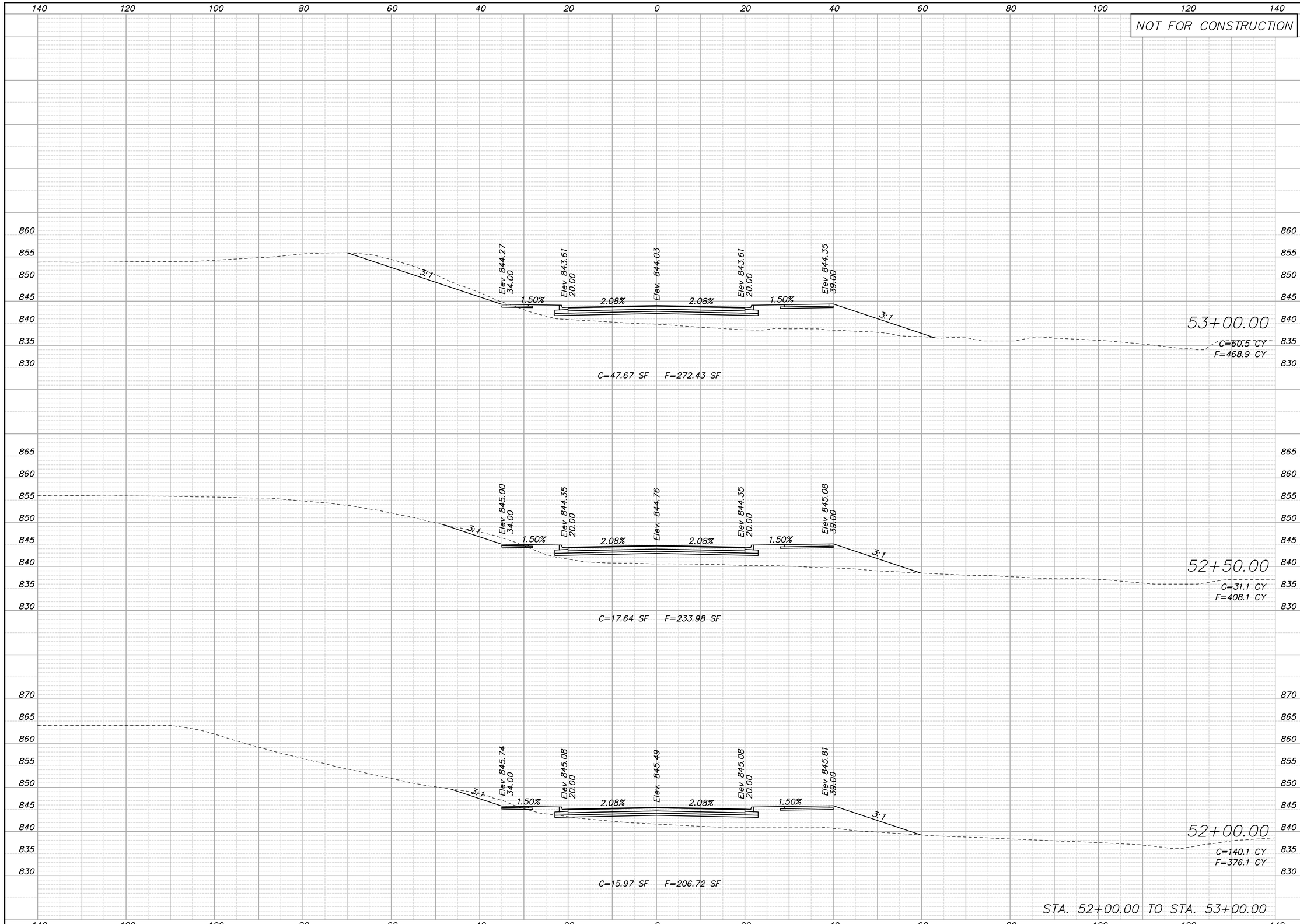

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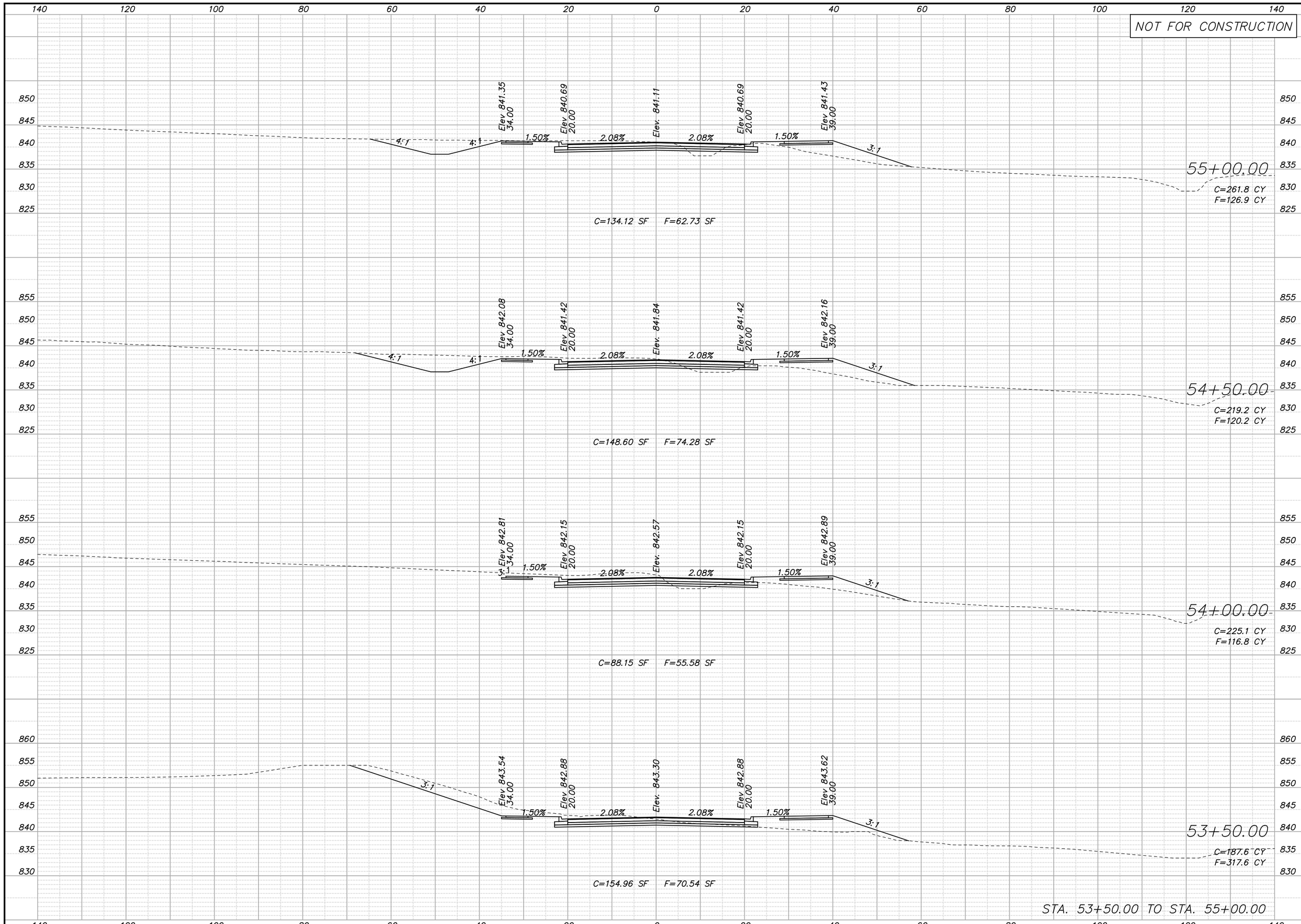

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CROSS SECTIONS

150561-010

SHEET NO.
103 OF 106

LAYOUT: MODEL | BY: jaddams | DATE: 13-JUL-2016 5:57:28 PM
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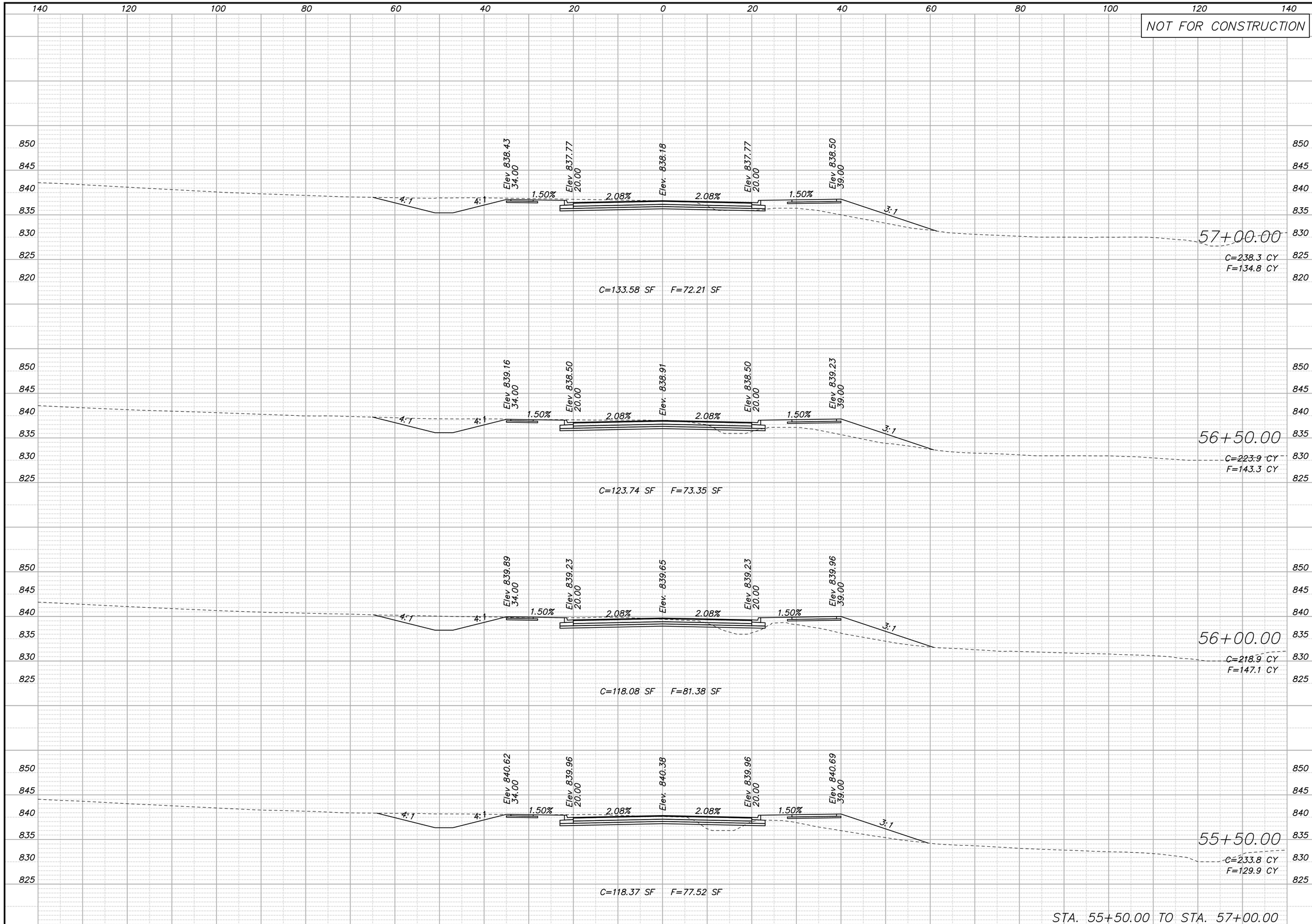

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CLEAR CREEK PARKWAY
CITY OF SHAWNEE, KANSAS

CLEAR CREEK
CROSS SECTIONS

150561-010

SHEET NO.
104 OF 106

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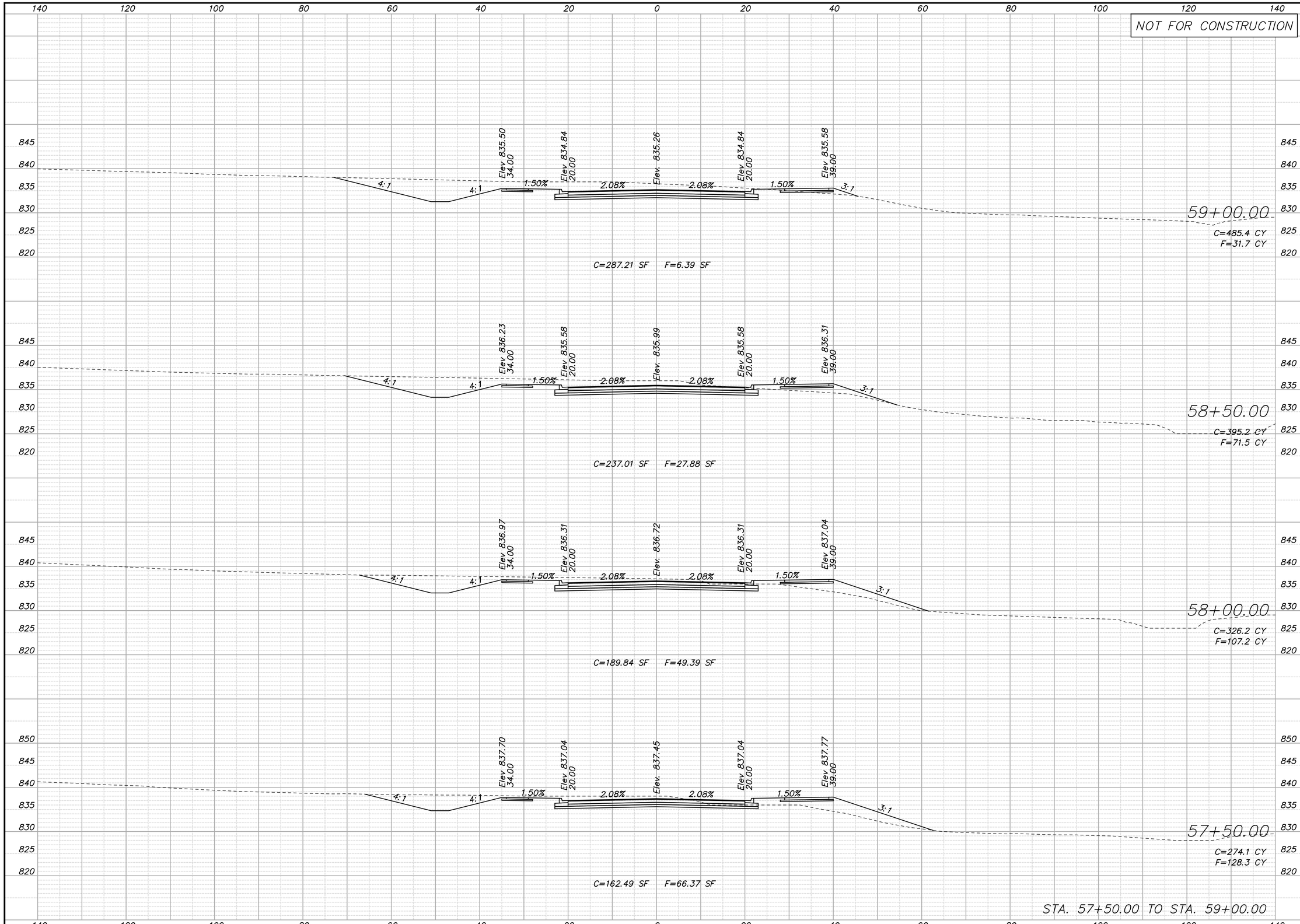

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CLEAR CREEK
CROSS SECTIONS

150561-010

SHEET NO.
105 OF 106

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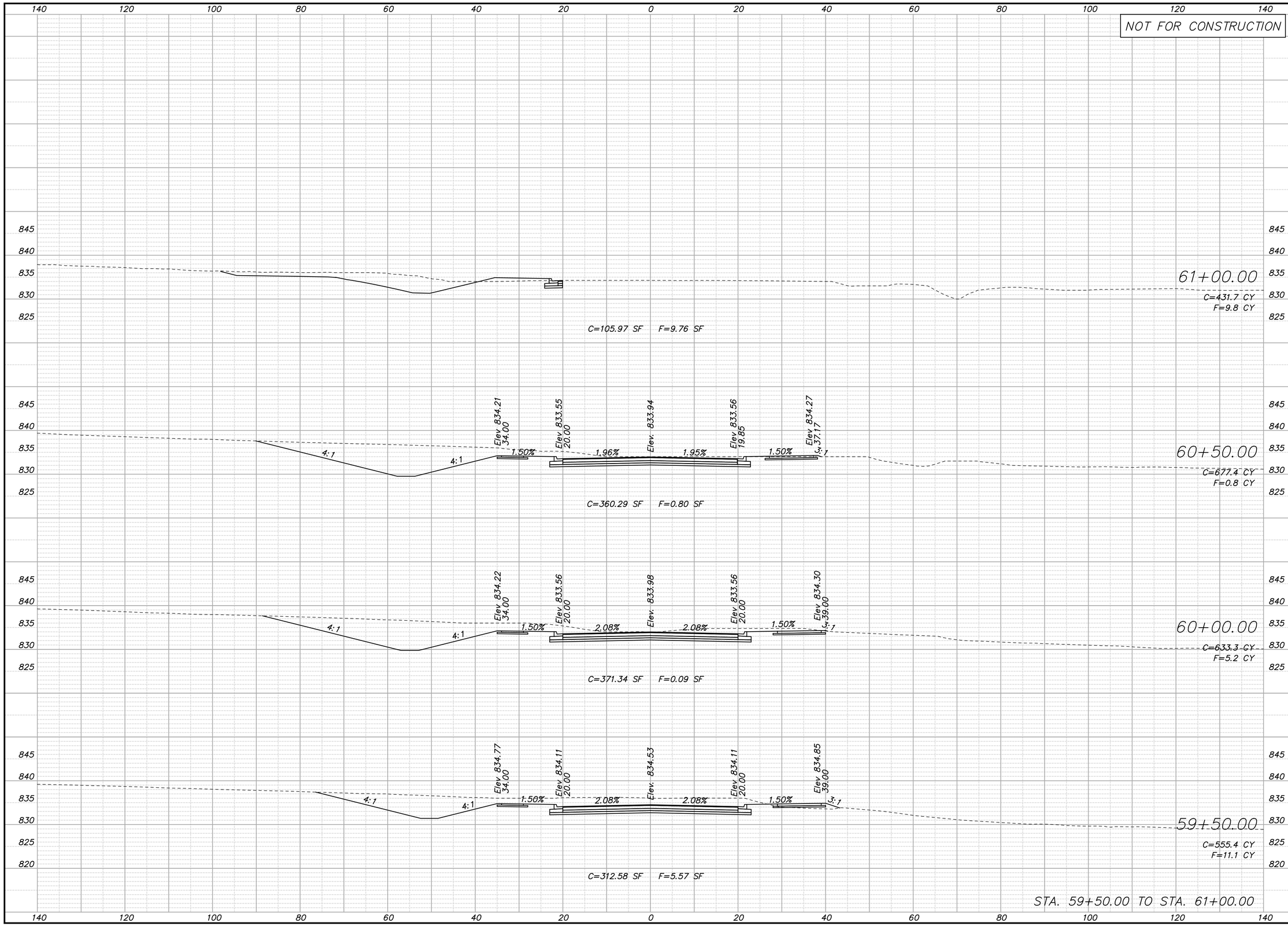

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CLEAR CREEK
CROSS SECTIONS

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106 OF 106

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