



CUY-90-14.90

PID 77332/85531

APPENDIX LD-04

**Substructure “No-Build” Zones
(Contract Document)**

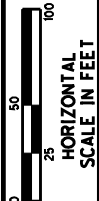
State of Ohio
Department of Transportation
Jolene M. Molitoris, Director

**Innerbelt Bridge
Construction Contract Group 1 (CCG1)**

Revision Date: July 23, 2010



- Addendum No. 9 - Updated for drives, Abbey Road
Parking Elimination and NS Access Road Addition



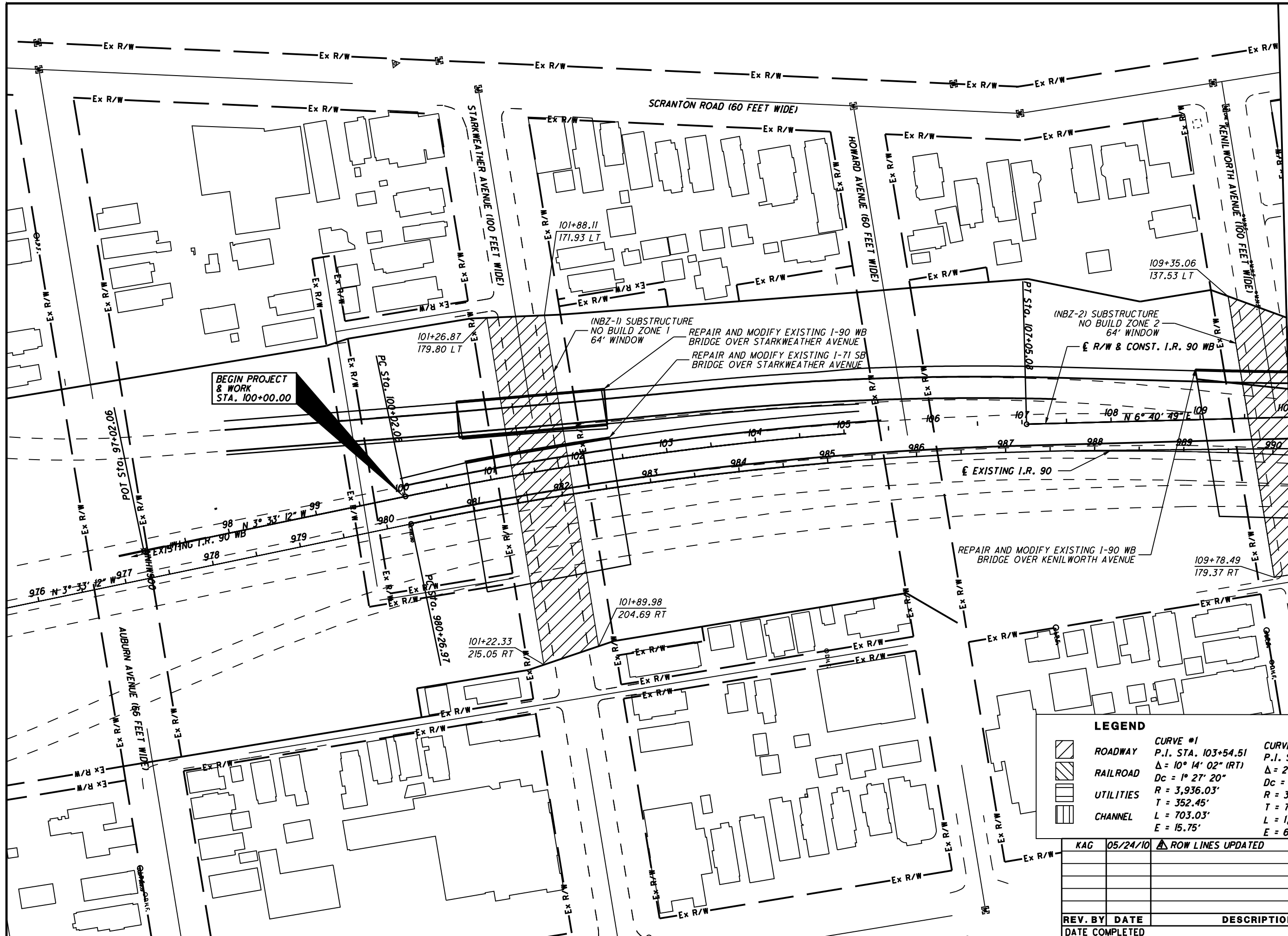
PID NO.
77332

R/W DESIGNER
RSW
R/W REVIEWER
LPC

SUBSTRUCTURE "NO-BUILD" ZONES
STA. 100+00.00 TO STA. 110+00.00

CUY-90-14.90

1/10

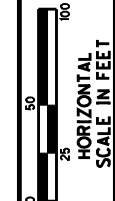


BEGIN PROJECT & WORK
STA. 100+00.00

MATCHLINE STA. 110+00.00, SEE SHEET 2/9

LEGEND		
	ROADWAY	CURVE #1 P.I. STA. 103+54.51 Δ = 10° 14' 02" (RT) Dc = 1° 27' 20" R = 3,936.03' T = 352.45' L = 703.03' E = 15.75'
	RAILROAD	CURVE #2 P.I. STA. 987+44.34 Δ = 20° 48' 40" (RT) Dc = 1° 28' 00" R = 3,906.53' T = 717.37' L = 1,418.94' E = 65.32'
	UTILITIES	
	CHANNEL	

REV. BY	DATE	DESCRIPTION
KAG	05/24/10	ROW LINES UPDATED



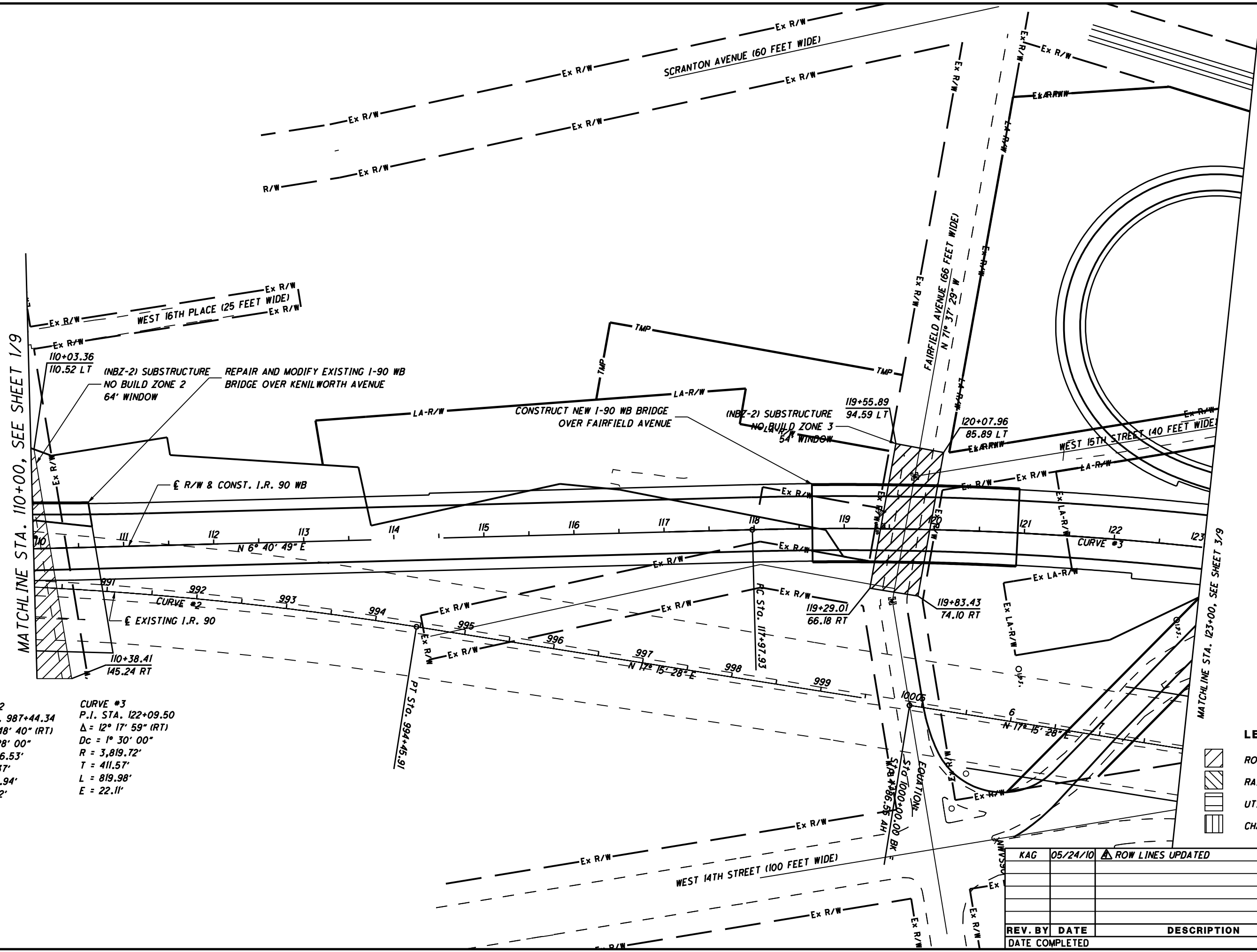
PID NO.
77332

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LPC

"NO-BUILD" ZONES
SUBSTRUCTURE "NO-BUILD" ZONES
STA. 110+00.00 TO STA. 123+00.00

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2 / 10



MATCHLINE STA. 110+00, SEE SHEET 1/9

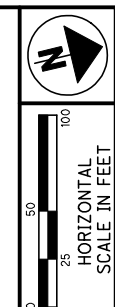
MATCHLINE STA. 123+00, SEE SHEET 3/9

CURVE #2	CURVE #3
P.I. STA. 987+44.34	P.I. STA. 122+09.50
$\Delta = 20^\circ 48' 40" \text{ (RT)}$	$\Delta = 12^\circ 17' 59" \text{ (RT)}$
$Dc = 1^\circ 28' 00"$	$Dc = 1^\circ 30' 00"$
$R = 3,906.53'$	$R = 3,819.72'$
$T = 717.37'$	$T = 411.57'$
$L = 1,418.94'$	$L = 819.98'$
$E = 65.32'$	$E = 22.11'$

LEGEND

	ROADWAY
	RAILROAD
	UTILITIES
	CHANNEL

KAG	05/24/10	▲ ROW LINES UPDATED
REV. BY	DATE	DESCRIPTION
DATE COMPLETED		

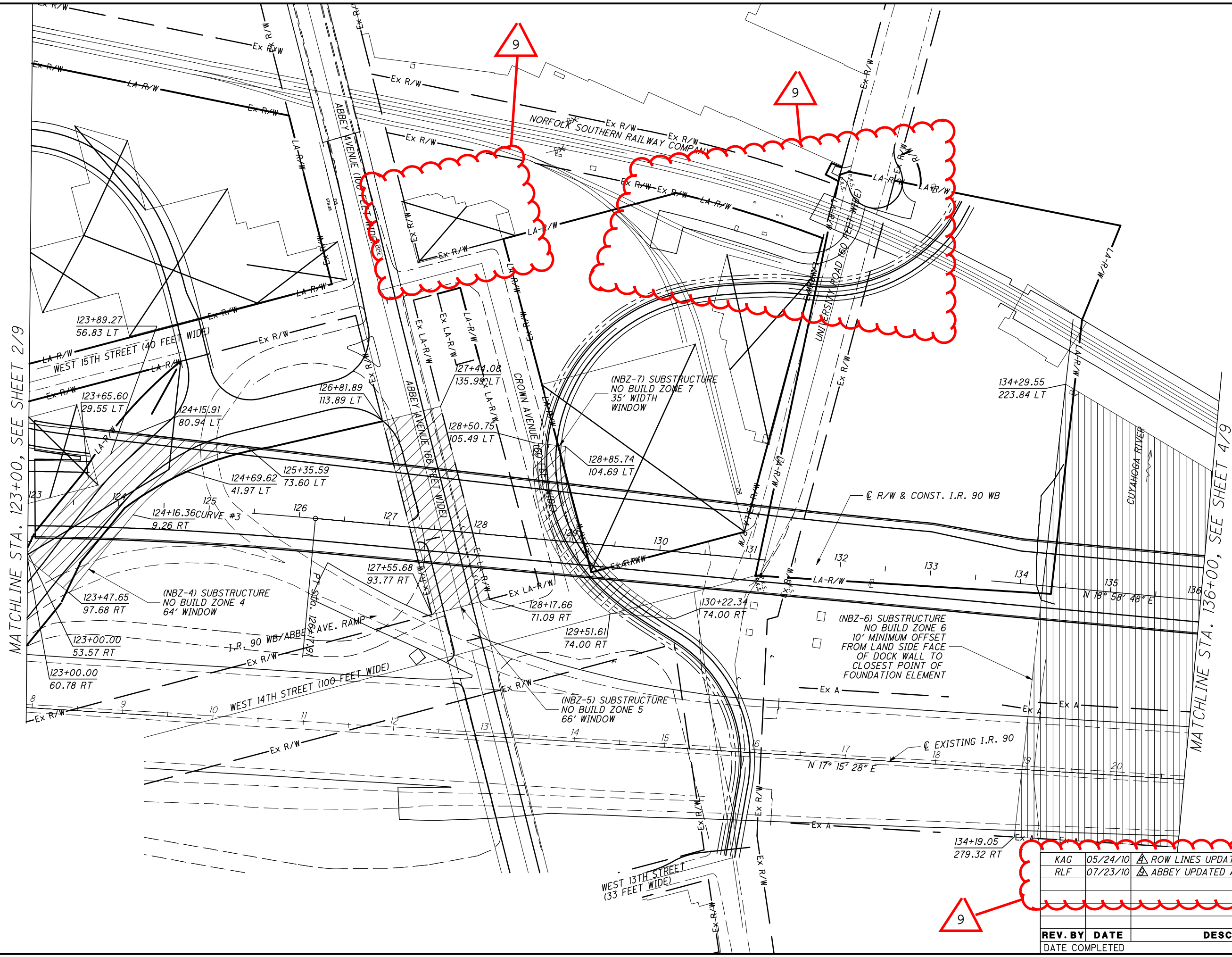


PID NO. **77332**

R/W DESIGNER: RSW
R/W REVIEWER: LPC

SUBSTRUCTURE "NO-BUILD" ZONES
STA. 123+00.00 TO STA. 136+00.00

CUY-90-14.90



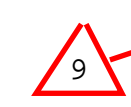
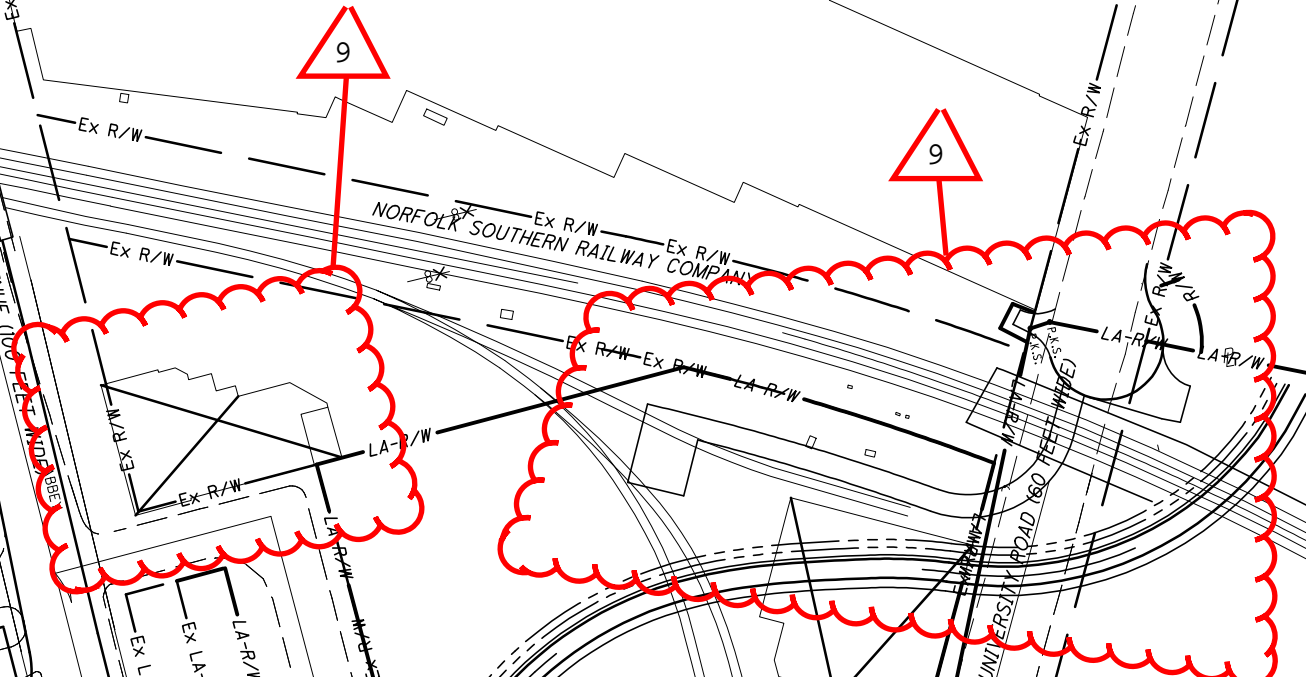
MATCHLINE STA. 123+00, SEE SHEET 2/9

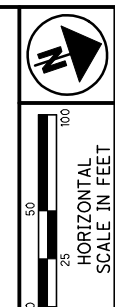
MATCHLINE STA. 136+00, SEE SHEET 4/9

- LEGEND**
- ROADWAY
 - RAILROAD
 - UTILITIES
 - CHANNEL

CURVE #3
 P.I. STA. 122+09.50
 $\Delta = 12^\circ 17' 59''$ (RT)
 $D_c = 1^\circ 30' 00''$
 $R = 3,819.72'$
 $T = 411.57'$
 $L = 819.98'$
 $E = 22.11'$

REV. BY	DATE	DESCRIPTION
KAG	05/24/10	ROW LINES UPDATED
RLF	07/23/10	ABBAY UPDATED AND NS ACCESS DRIVE





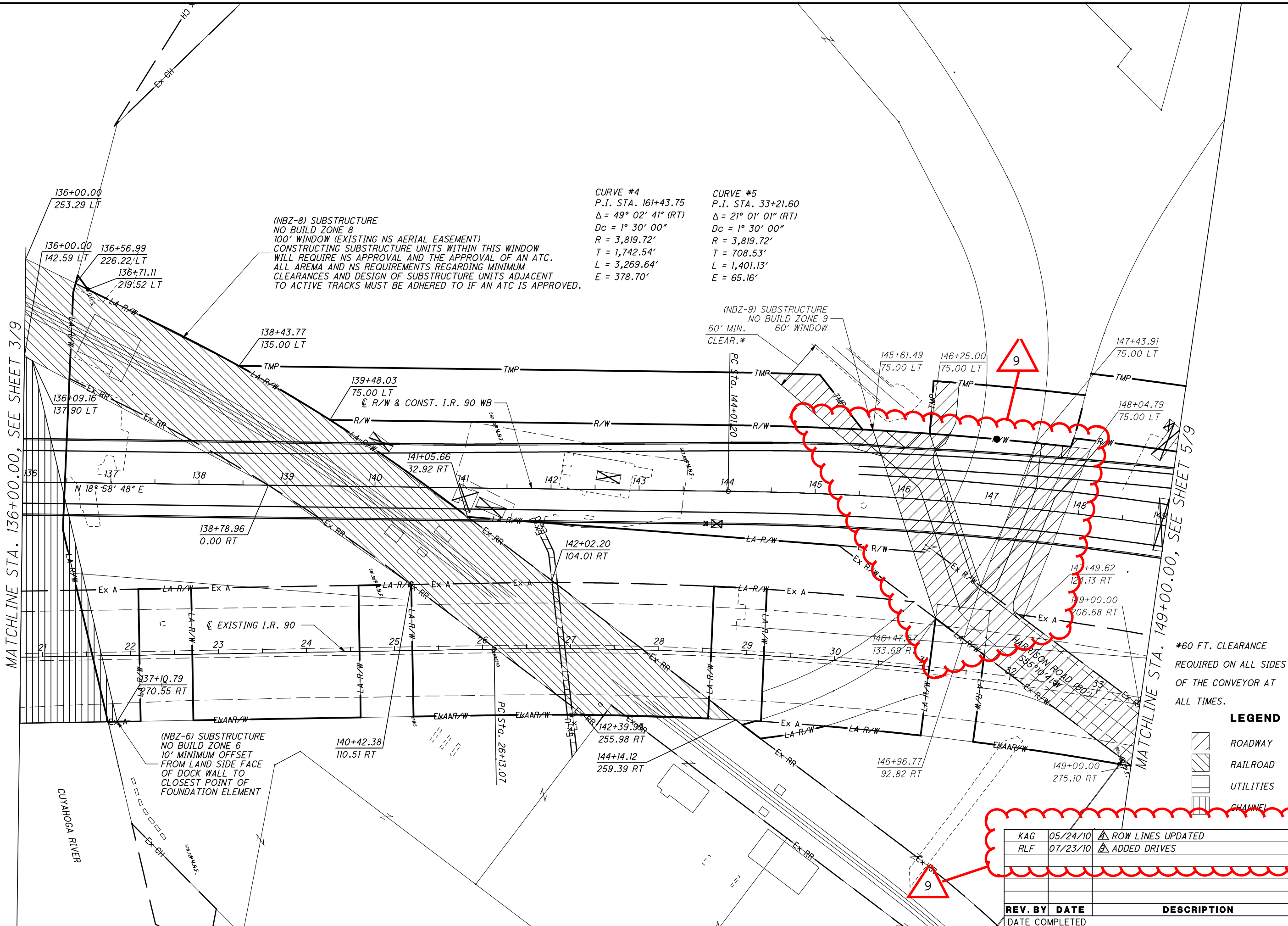
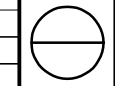
PID NO.
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**SUBSTRUCTURE "NO-BUILD" ZONES
STA. 136+00.00 TO STA. 149+00.00**

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4 / 10



(NBZ-8) SUBSTRUCTURE
NO BUILD ZONE 8
100' WINDOW (EXISTING NS AERIAL EASEMENT)
CONSTRUCTING SUBSTRUCTURE UNITS WITHIN THIS WINDOW
WILL REQUIRE NS APPROVAL AND THE APPROVAL OF AN ATC.
ALL AREMA AND NS REQUIREMENTS REGARDING MINIMUM
CLEARANCES AND DESIGN OF SUBSTRUCTURE UNITS ADJACENT
TO ACTIVE TRACKS MUST BE ADHERED TO IF AN ATC IS APPROVED.

CURVE #4
P.I. STA. 161+43.75
 $\Delta = 49^\circ 02' 41''$ (RT)
 $D_c = 1^\circ 30' 00''$
 $R = 3,819.72'$
 $T = 1,742.54'$
 $L = 3,269.64'$
 $E = 378.70'$

CURVE #5
P.I. STA. 33+21.60
 $\Delta = 21^\circ 01' 01''$ (RT)
 $D_c = 1^\circ 30' 00''$
 $R = 3,819.72'$
 $T = 708.53'$
 $L = 1,401.13'$
 $E = 65.16'$

(NBZ-9) SUBSTRUCTURE
NO BUILD ZONE 9
60' MIN. CLEAR.*
60' WINDOW

(NBZ-6) SUBSTRUCTURE
NO BUILD ZONE 6
10' MINIMUM OFFSET
FROM LAND SIDE FACE
OF DOCK WALL TO
CLOSEST POINT OF
FOUNDATION ELEMENT

*60 FT. CLEARANCE
REQUIRED ON ALL SIDES
OF THE CONVEYOR AT
ALL TIMES.

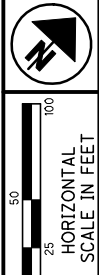
LEGEND

- ROADWAY
- RAILROAD
- UTILITIES
- CHANNEL

KAG	05/24/10	▲ ROW LINES UPDATED
RLF	07/23/10	▲ ADDED DRIVES
REV. BY	DATE	DESCRIPTION

MATCHLINE STA. 136+00.00, SEE SHEET 3/9

MATCHLINE STA. 149+00.00, SEE SHEET 5/9



PID NO. 77332

R/W DESIGNER RSW R/W REVIEWER LPC

SUBSTRUCTURE "NO-BUILD" ZONES STA. 149+00.00 TO STA. 162+00.00

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(NBZ-12) SUBSTRUCTURE NO BUILD ZONE 12 80' WINDOW (EXISTING CSXT R/W) CONSTRUCTING SUBSTRUCTURE UNITS WITHIN THIS WINDOW WILL REQUIRE APPROVAL OF AN ATC. ALL AREMA AND CSXT REQUIREMENTS REGARDING MINIMUM CLEARANCES AND DESIGN OF SUBSTRUCTURE UNITS ADJACENT TO ACTIVE TRACKS MUST BE ADHERED TO IF AN ATC IS APPROVED.

SUBSTRUCTURE NO BUILD ZONE 15 SEE DETAIL A, SHEET 10/10.

(NBZ-14) SUBSTRUCTURE NO BUILD ZONE 14 30' WINDOW (EXISTING CEI HORIZON TUNNEL EASEMENT)

SUBSTRUCTURE NO BUILD ZONE 11 70' WINDOW

(NBZ-10) SUBSTRUCTURE NO BUILD ZONE 10 50' WINDOW

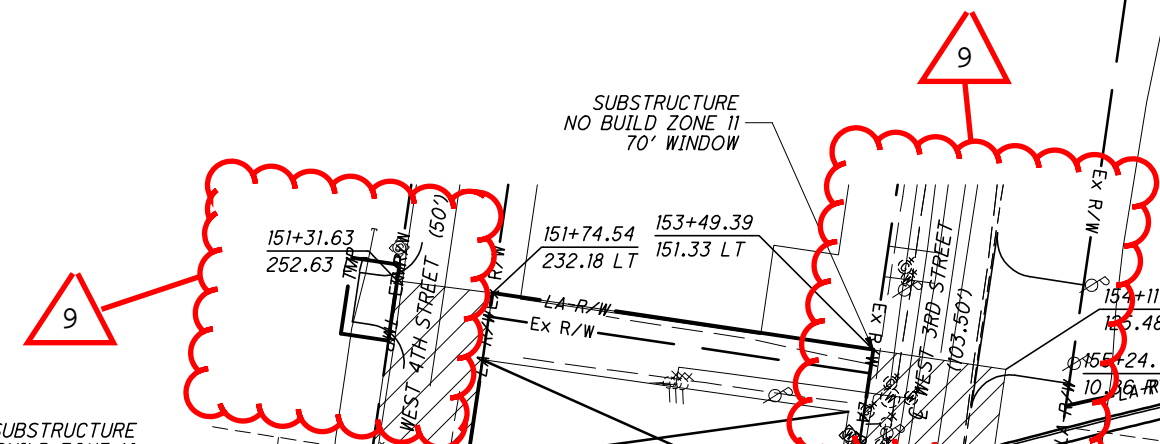
MATCHLINE STA. 162+00.00, SEE SHEET 6/9

MATCHLINE STA. 149+00.00, SEE SHEET 4/9

CURVE #4
P.I. STA. 161+43.75
Δ = 49° 02' 41" (RT)
Dc = 1° 30' 00"
R = 3,819.72'
T = 1,742.54'
L = 3,269.64'
E = 378.70'

CURVE #5
P.I. STA. 33+21.60
Δ = 21° 01' 01" (RT)
Dc = 1° 30' 00"
R = 3,819.72'
T = 708.53'
L = 1,401.13'
E = 65.16'

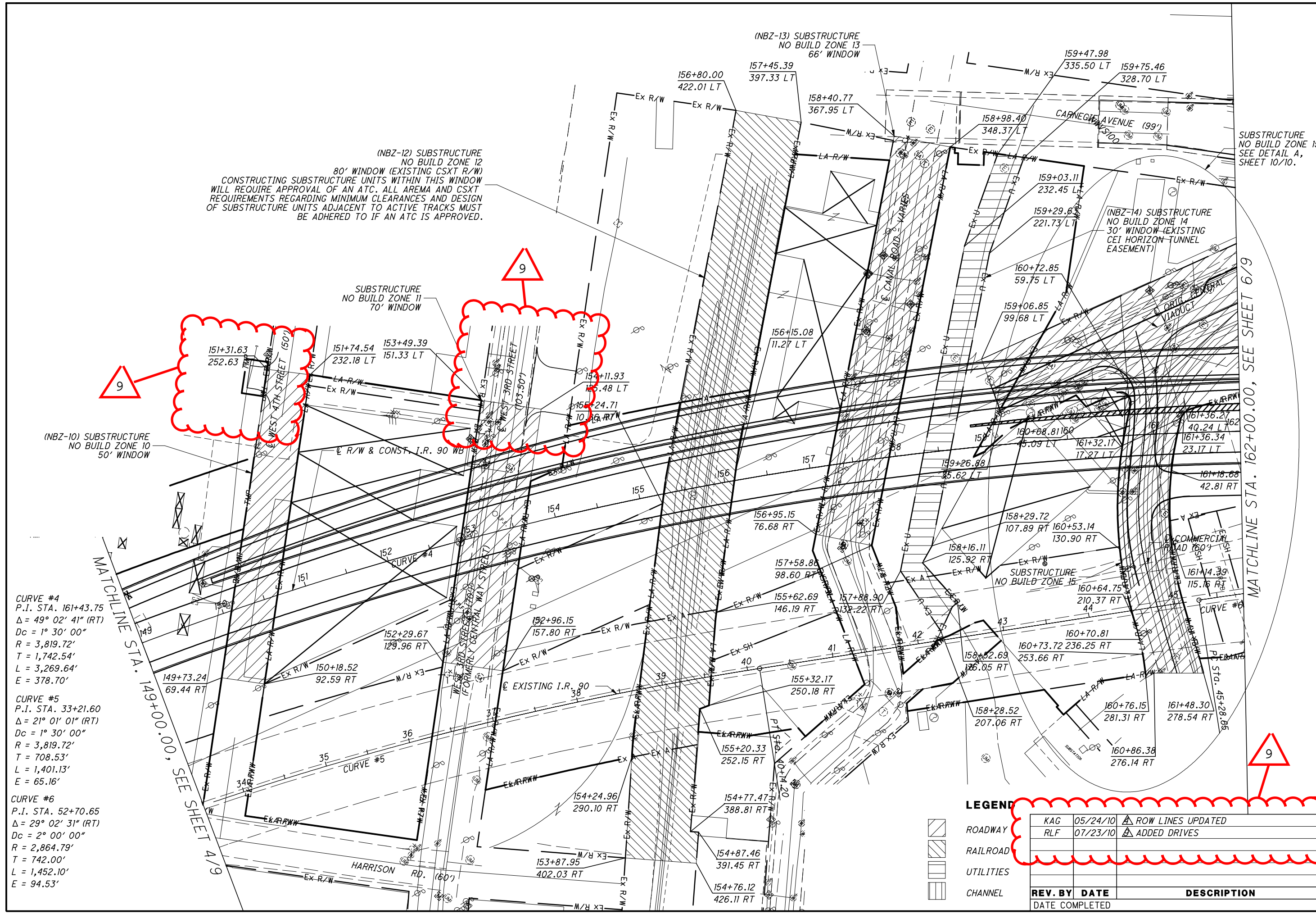
CURVE #6
P.I. STA. 52+70.65
Δ = 29° 02' 31" (RT)
Dc = 2° 00' 00"
R = 2,864.79'
T = 742.00'
L = 1,452.10'
E = 94.53'

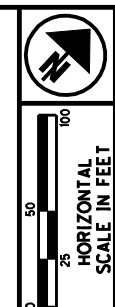


LEGEND

- ROADWAY
- RAILROAD
- UTILITIES
- CHANNEL

KAG	05/24/10	▲ ROW LINES UPDATED
RLF	07/23/10	▲ ADDED DRIVES
REV. BY	DATE	DESCRIPTION





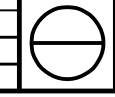
PID NO.
77332

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SUBSTRUCTURE "NO-BUILD" ZONES
STA. 162+00.00 TO STA. 175+00.00

CUY-90-14.90

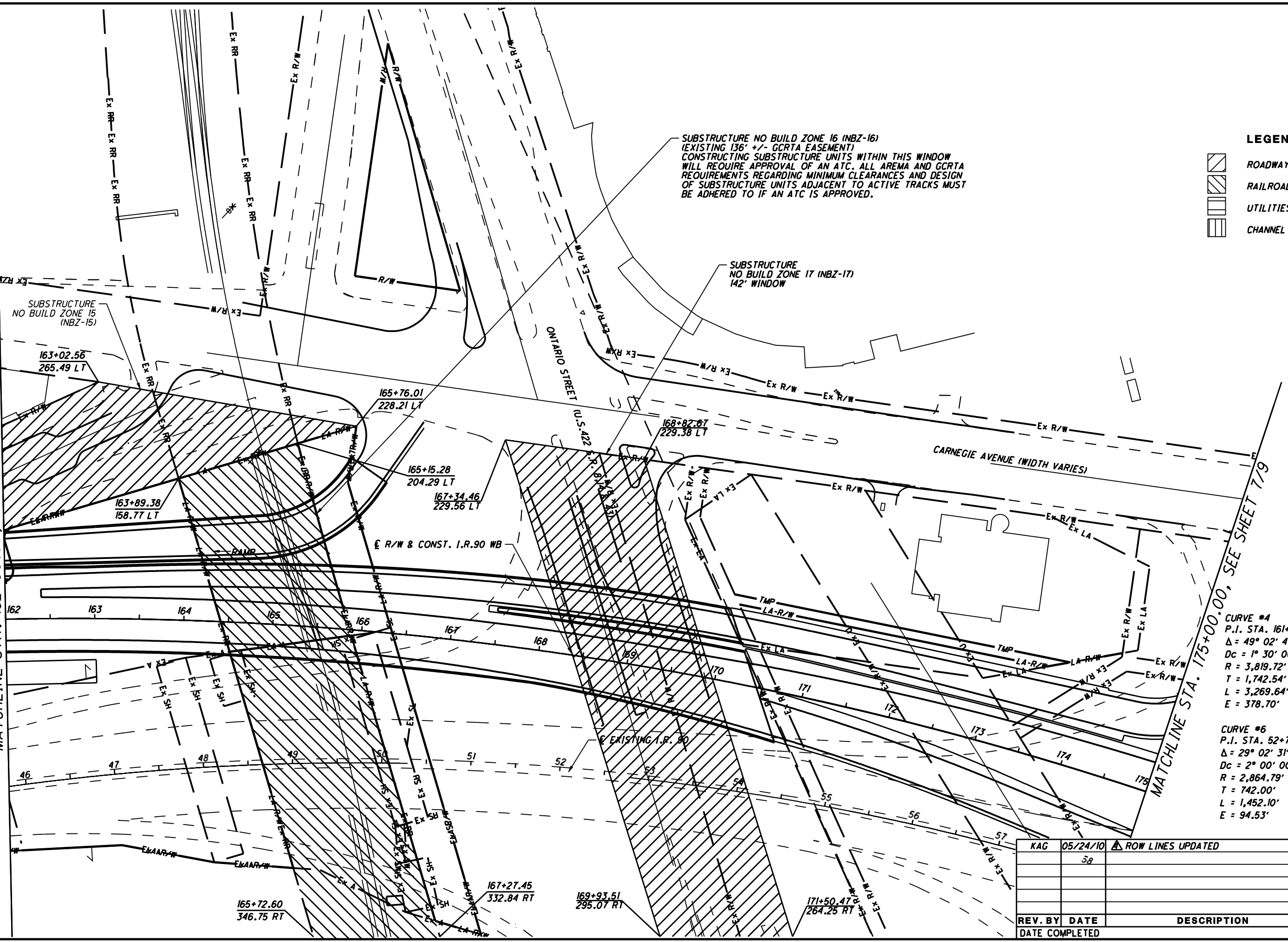
6 / 10



- LEGEND**
- ROADWAY
 - RAILROAD
 - UTILITIES
 - CHANNEL

SUBSTRUCTURE NO BUILD ZONE 16 (NBZ-16)
(EXISTING 136' +/- GCRTA EASEMENT)
CONSTRUCTING SUBSTRUCTURE UNITS WITHIN THIS WINDOW
WILL REQUIRE APPROVAL OF AN ATC. ALL AREMA AND GCRTA
REQUIREMENTS REGARDING MINIMUM CLEARANCES AND DESIGN
OF SUBSTRUCTURE UNITS ADJACENT TO ACTIVE TRACKS MUST
BE ADHERED TO IF AN ATC IS APPROVED.

SUBSTRUCTURE
NO BUILD ZONE 17 (NBZ-17)
142' WINDOW



MATCHLINE STA. 162+00.00, SEE SHEET 5/9

MATCHLINE STA. 175+00.00, SEE SHEET 7/9

CURVE #4
P.I. STA. 161+43.75
 $\Delta = 49^\circ 02' 41''$ (RT)
Dc = 1° 30' 00"
R = 3,819.72'
T = 1,742.54'
L = 3,269.64'
E = 378.70'

CURVE #6
P.I. STA. 52+70.65
 $\Delta = 29^\circ 02' 31''$ (RT)
Dc = 2° 00' 00"
R = 2,864.79'
T = 742.00'
L = 1,452.10'
E = 94.53'

KAG	05/24/10	▲ ROW LINES UPDATED
	58	
REV. BY	DATE	DESCRIPTION
DATE COMPLETED		

SUBSTRUCTURE
NO BUILD ZONE 15 (NBZ-15)

163+02.56
265.49 LT

163+89.38
158.77 LT

165+76.01
228.21 LT

165+15.28
204.29 LT

167+34.46
229.56 LT

168+82.67
229.38 LT

EXISTING I.R. 90 WB

EXISTING I.R. 80

165+72.60
346.75 RT

167+27.45
332.84 RT

169+93.51
295.07 RT

171+50.47
264.25 RT



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RSW
R/W REVIEWER
LPC

**SUBSTRUCTURE "NO-BUILD" ZONES
STA. 175+00.00 TO STA. 188+00.00**

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LEGEND

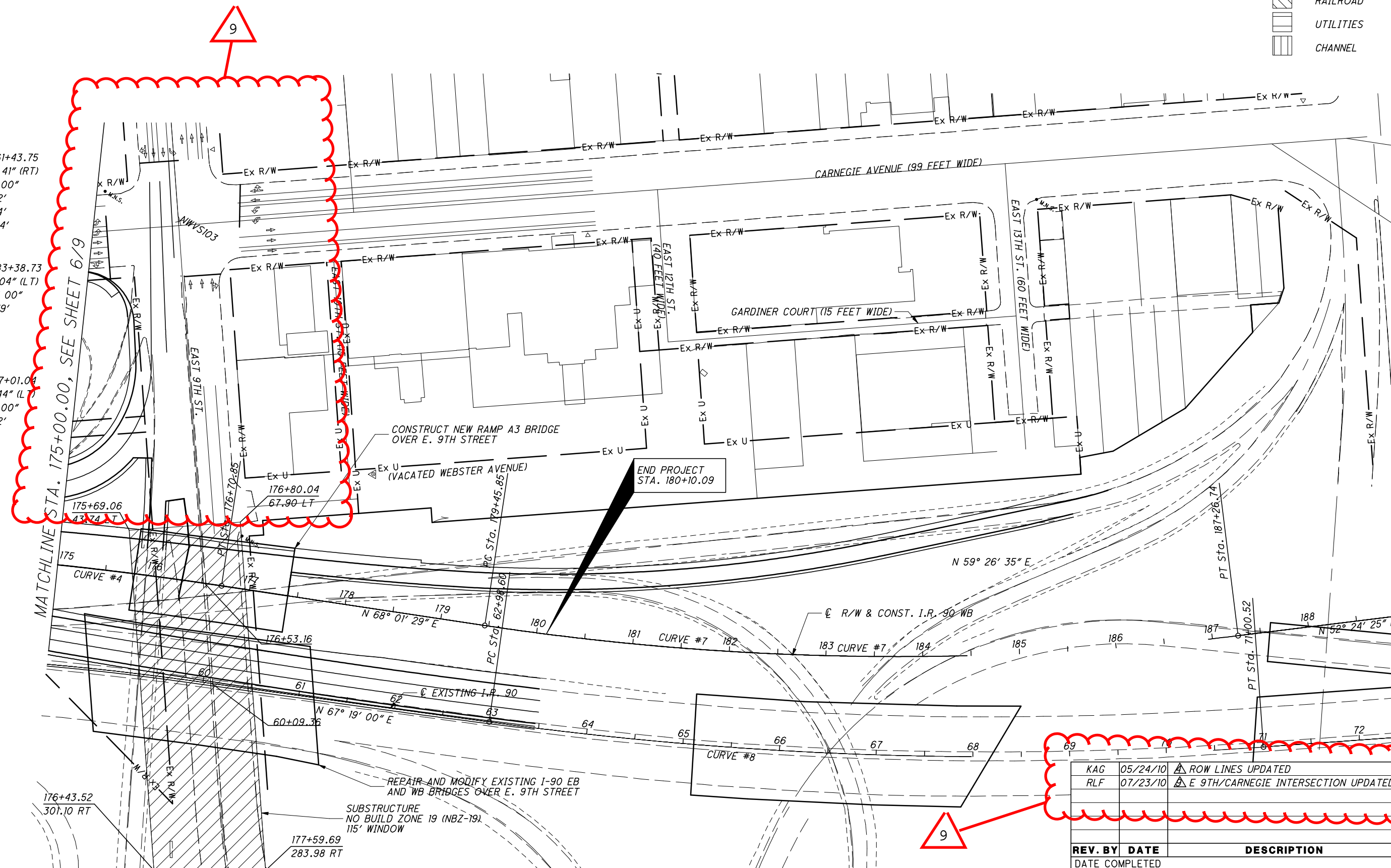
	ROADWAY
	RAILROAD
	UTILITIES
	CHANNEL

CURVE #4
P.I. STA. 161+43.75
 $\Delta = 49^\circ 02' 41''$ (RT)
 $D_c = 1^\circ 30' 00''$
 $R = 3,819.72'$
 $T = 1,742.54'$
 $L = 3,269.64'$
 $E = 378.70'$

CURVE #7
P.I. STA. 183+38.73
 $\Delta = 15^\circ 37' 04''$ (LT)
 $D_c = 2^\circ 00' 00''$
 $R = 2,864.79'$
 $T = 392.88'$
 $L = 780.89'$
 $E = 26.81'$

CURVE #8
P.I. STA. 67+01.04
 $\Delta = 12^\circ 01' 44''$ (LT)
 $D_c = 1^\circ 30' 00''$
 $R = 3,819.72'$
 $T = 402.44'$
 $L = 801.92'$
 $E = 21.14'$

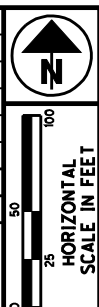
MATCHLINE STA. 175+00.00, SEE SHEET 6/9



KAG	05/24/10	ROW LINES UPDATED
RLF	07/23/10	E 9TH/CARNEGIE INTERSECTION UPDATED

REV. BY	DATE	DESCRIPTION

KAG	05/24/10	▲ ROW LINES UPDATED
REV. BY	DATE	DESCRIPTION
DATE COMPLETED		



PID NO.
77332

R/W DESIGNER
RSW

R/W REVIEWER
LPC

**SUBSTRUCTURE "NO-BUILD" ZONES
E. 9TH EXTENSION**

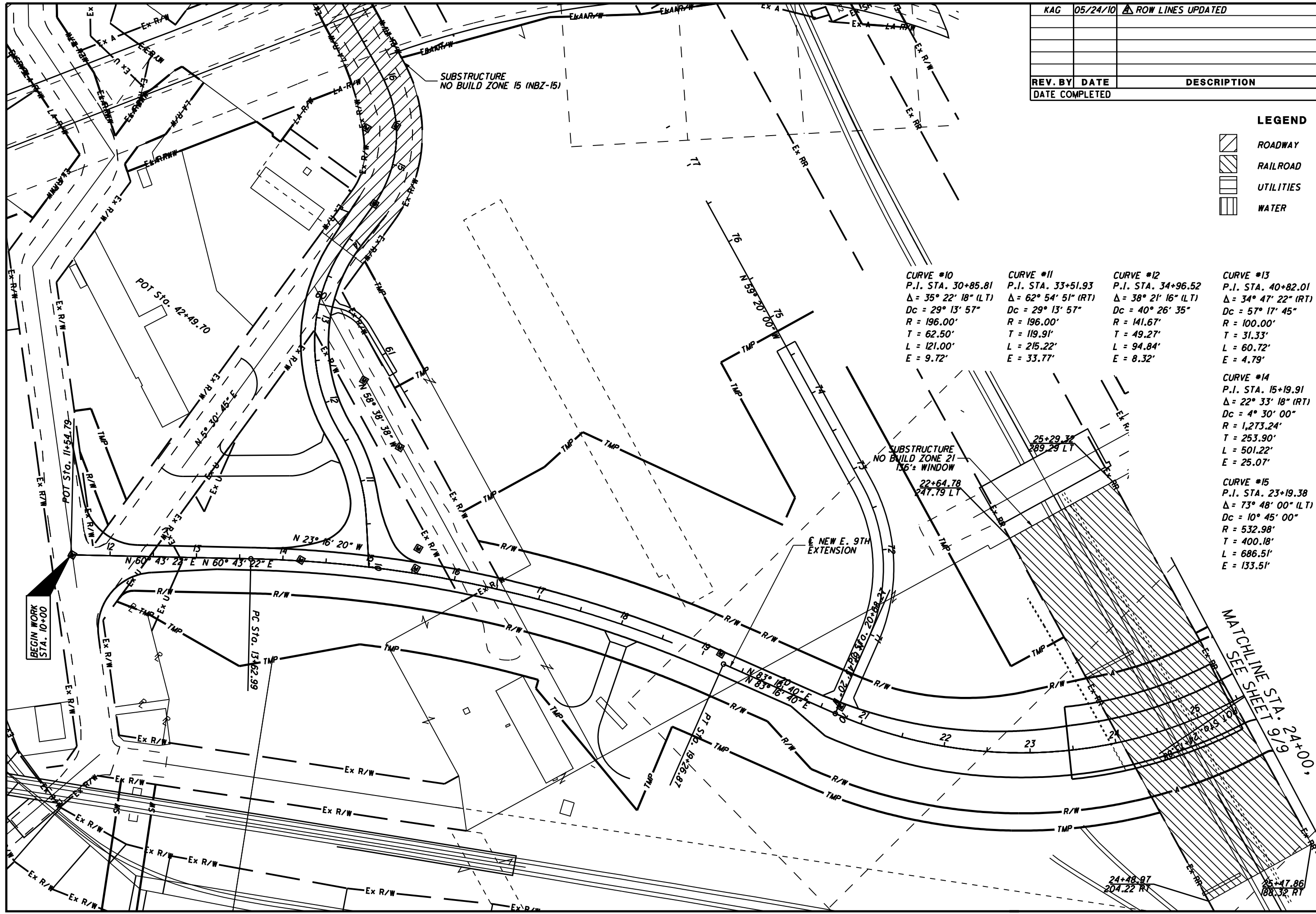
CUY-90-14.90



LEGEND

	ROADWAY
	RAILROAD
	UTILITIES
	WATER

<p>CURVE #10 P.I. STA. 30+85.81 $\Delta = 35^\circ 22' 18''$ (LT) Dc = 29' 13' 57" R = 196.00' T = 62.50' L = 121.00' E = 9.72'</p>	<p>CURVE #11 P.I. STA. 33+51.93 $\Delta = 62^\circ 54' 51''$ (RT) Dc = 29' 13' 57" R = 196.00' T = 119.91' L = 215.22' E = 33.77'</p>	<p>CURVE #12 P.I. STA. 34+96.52 $\Delta = 38^\circ 21' 16''$ (LT) Dc = 40' 26' 35" R = 141.67' T = 49.27' L = 94.84' E = 8.32'</p>	<p>CURVE #13 P.I. STA. 40+82.01 $\Delta = 34^\circ 47' 22''$ (RT) Dc = 57' 17' 45" R = 100.00' T = 31.33' L = 60.72' E = 4.79'</p>
			<p>CURVE #14 P.I. STA. 15+19.91 $\Delta = 22^\circ 33' 18''$ (RT) Dc = 4' 30' 00" R = 1,273.24' T = 253.90' L = 501.22' E = 25.07'</p>
			<p>CURVE #15 P.I. STA. 23+19.38 $\Delta = 73^\circ 48' 00''$ (LT) Dc = 10' 45' 00" R = 532.98' T = 400.18' L = 686.51' E = 133.51'</p>



BEGIN WORK
STA. 10+00

POT Sta. 42+49.70

PC Sta. 13+62.99

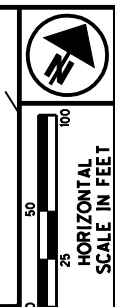
E NEW E. 9TH
EXTENSION

SUBSTRUCTURE
NO BUILD ZONE 21
136' WINDOW

MATCHLINE SHEET
STA. 24+00.00

24+48.97
204.22 RT

25+47.86
188.32 RT



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R/W DESIGNER
RSW
R/W REVIEWER
LPC

**SUBSTRUCTURE "NO-BUILD" ZONES
E. 9TH EXTENSION**

CUY-90-14.90

9 / 10



P.I. STA. 12+29.03
 $\Delta = 2^\circ 52' 47" (LT)$
 $Dc = 2^\circ 00' 00"$
 $R = 2,864.79'$
 $T = 72.01'$
 $L = 143.98'$
 $E = 0.90'$

END ACQUISITION
END WORK
STA. 10+00.00

END WORK
STA. 14+38.07

END ACQUISITION
STA. 14+38.52

END ACQUISITION
STA. 29+23.83

END WORK
STA. 26+60.32

P.I. STA. 21+04.12
 $\Delta = 21^\circ 36' 37" (RT)$
 $Dc = 5^\circ 00' 00"$
 $R = 1,145.92'$
 $T = 218.70'$
 $L = 432.21'$
 $E = 20.68'$

P.I. STA. 17+02.01
 $\Delta = 22^\circ 17' 46" (LT)$
 $Dc = 6^\circ 00' 00"$
 $R = 954.93'$
 $T = 188.17'$
 $L = 371.58'$
 $E = 18.36'$

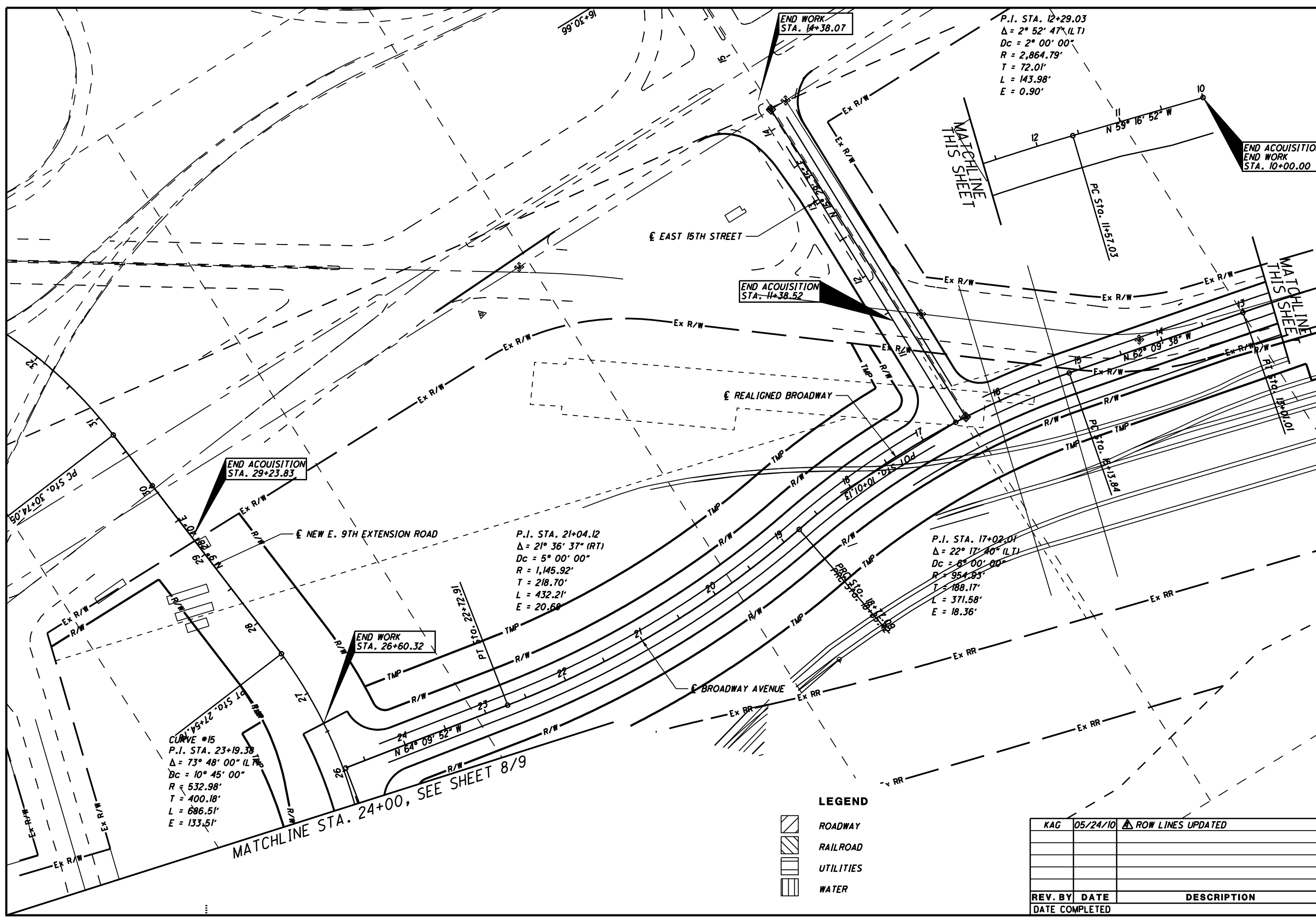
CURVE #15
P.I. STA. 23+19.38
 $\Delta = 73^\circ 48' 00" (LT)$
 $Dc = 10^\circ 45' 00"$
 $R = 532.98'$
 $T = 400.18'$
 $L = 686.51'$
 $E = 133.51'$

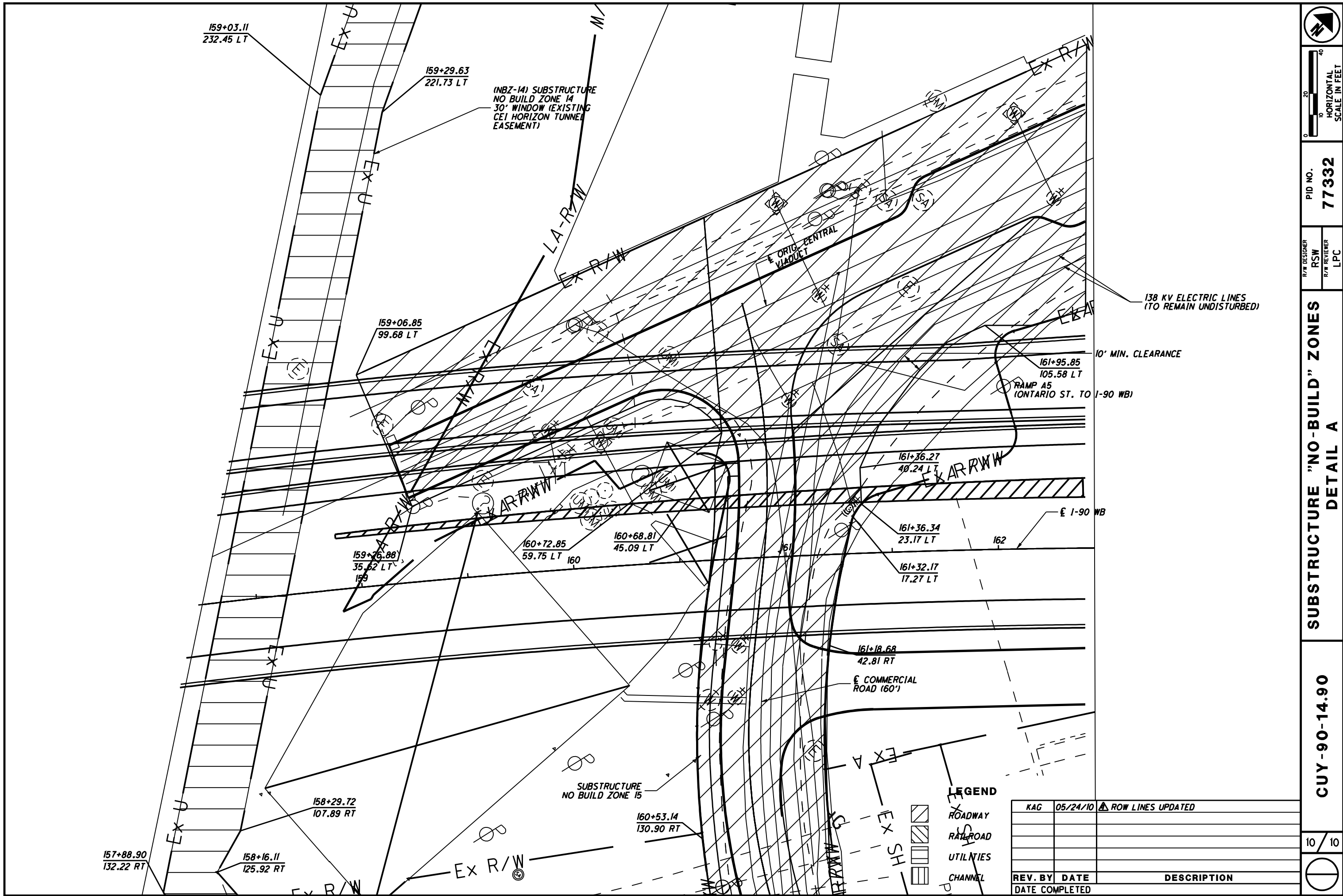
MATCHLINE STA. 24+00, SEE SHEET 8/9

LEGEND

- ROADWAY
- RAILROAD
- UTILITIES
- WATER

KAG	05/24/10	▲ ROW LINES UPDATED
REV. BY	DATE	DESCRIPTION





159+03.11
232.45 LT

159+29.63
221.73 LT

(NBZ-14) SUBSTRUCTURE
NO BUILD ZONE 14
30' WINDOW (EXISTING
CEI HORIZON TUNNEL
EASEMENT)

159+06.85
99.68 LT

138 KV ELECTRIC LINES
(TO REMAIN UNDISTURBED)

10' MIN. CLEARANCE

161+95.85
105.58 LT

RAMP A5
(ONTARIO ST. TO I-90 WB)

161+36.27
40.24 LT

161+36.34
23.17 LT

161+32.17
17.27 LT

159+76.88
35.62 LT

160+72.85
59.75 LT

160+68.81
45.09 LT

161+18.68
42.81 RT

COMMERCIAL
ROAD (60')

158+29.72
107.89 RT

SUBSTRUCTURE
NO BUILD ZONE 15

160+53.14
130.90 RT

157+88.90
132.22 RT

158+16.11
125.92 RT

LEGEND

- ROADWAY
- RAILROAD
- UTILITIES
- CHANNEL

KAG	05/24/10	ROW LINES UPDATED
REV. BY	DATE	DESCRIPTION



HORIZONTAL
SCALE IN FEET

0 20 40

PID NO.
77332

R/W DESIGNER
RSW

R/W REVIEWER
LPC

**SUBSTRUCTURE "NO-BUILD" ZONES
DETAIL A**

CUY-90-14.90

10/10