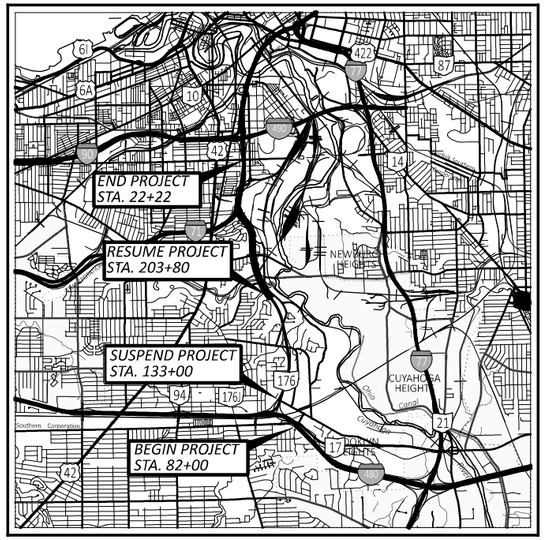
STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

CUY-176-10.65

CITY OF CLEVELAND
VILLAGE OF BROOKLYN HEIGHTS
CUYAHOGA COUNTY



LOCATION MAP

LATITUDE: 41°26'25"N LONGITUDE: 81°41'1"W

N

PORTION TO BE IMPROVED
INTERSTATE HIGHWAY
FEDERAL ROUTES
STATE ROUTES
COUNTY & TOWNSHIP ROADS
OTHER ROADS

DESIGN DESIGNATION

	NORTH OF DENISON	SOUTH OF SPRING
CURRENT ADT (2023)	89,210	93,420
DESIGN YEAR ADT (2043)	94,490	98,940
DESIGN HOURLY VOLUME (2043)	8,300	8,920
DIRECTIONAL DISTRIBUTION	53%	52%
TRUCKS (24 HOUR B&C)	1%	3%
DESIGN SPEED	60 MPH	60 MPH
LEGAL SPEED	50 MPH	60 MPH

DESIGN FUNCTIONAL CLASSIFICATION:
02 URBAN FREEWAY
NHS PROJECT — YES

DESIGN EXCEPTIONS

DESIGN FEATURE	APPROVAL DATES	SHEET NUMBER
LANE WIDTH	02/28/25	P.50 - P.69
SHOULDER WIDTH	02/21/25	P.50 - P.69

ADA DESIGN WAIVERS

NONE

INDEX OF SHEETS:

FEDERAL PROJECT NUMBER

N/A

RAILROAD INVOLVEMENT

NONE

PROJECT DESCRIPTION

RESTRIPING OF SR-176 TO CARRY THREE (3) THROUGH LANES FROM THE DENISON AVE OVERPASS TO THE IR-71/IR-90/IR-490 INTERCHANGE IN THE NORTH AND SOUTHBOUND DIRECTIONS AND RECONFIGURATION OF SB SR-176 TO CARRY TWO LANES TO IR-480 EB AND REMOVAL OF THE SR 17 ENTRANCE RAMP TO IR-480 EB.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA:	0.10 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	N/A ACRES
NOTICE OF INTENT EARTH DISTURBED AREA:	0.10 ACRES

LIMITED ACCESS

THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE OHIO REVISED CODE.

2023 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS, CHANGES LISTED IN THE PROPOSAL, AND THE SUPPLEMENTAL SPECIFICATION 800 VERSION INDICATED ON THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

John Picuri, P.E., P.S.
District 12 Deputy Director

Pamela Boratyn
Director, Department of Transportation

STANDARD CONSTRUCTION DRAWINGS								SUPPLEMENTAL SPECIFICATIONS		SPECIAL PROVISIONS
BP-3.1	1/19/24	RM-4.2	7/18/25	TC-15.116	7/18/25	TC-71.10	7/18/25	800-2023	7/18/25	
BP-4.1	7/19/13	RM-4.3	7/18/25	TC-21.11	7/16/21	TC-72.20	7/18/25	814	7/15/16	
BP-5.1	7/18/25	RM-4.6	7/18/25	TC-22.10	1/17/25			821	4/20/12	
BP-9.1	1/18/19			TC-22.20	7/18/25			832	7/18/25	
		MT-95.30	7/18/25	TC-41.20	10/18/13			902	7/19/19	
DM-4.4	1/15/16	MT-95.40	7/18/25	TC-41.30	4/21/23			914	7/15/16	
		MT-95.45	7/21/23	TC-42.10	10/18/13			921	7/19/24	
I-2A	7/19/24	MT-95.50	7/21/17	TC-42.20	10/18/13			987	1/16/09	
I-3B, 3B1	1/17/25	MT-99.20	4/19/19	TC-51.11	7/18/25					
		MT-99.60	7/19/24	TC-51.12	7/18/25					
MH-3	7/19/24	MT-101.70	7/19/24	TC-52.10	10/18/13					
		MT-101.75	7/21/23	TC-52.20	1/15/21					
MGS-2.1	7/18/25	MT-101.90	7/17/20	TC-61.30	7/19/24					
MGS-5.2	7/15/16	MT-102.10	10/16/15	TC-64.10	7/21/23					
		MT-105.10	1/17/20	TC-65.10	1/17/14					
				TC-65.11	1/17/25					

ENGINEER'S SEAL

STATE OF OHIO
CHRIS W. PRETO
E-69222
REGISTERED
PROFESSIONAL ENGINEER

Chris Preto

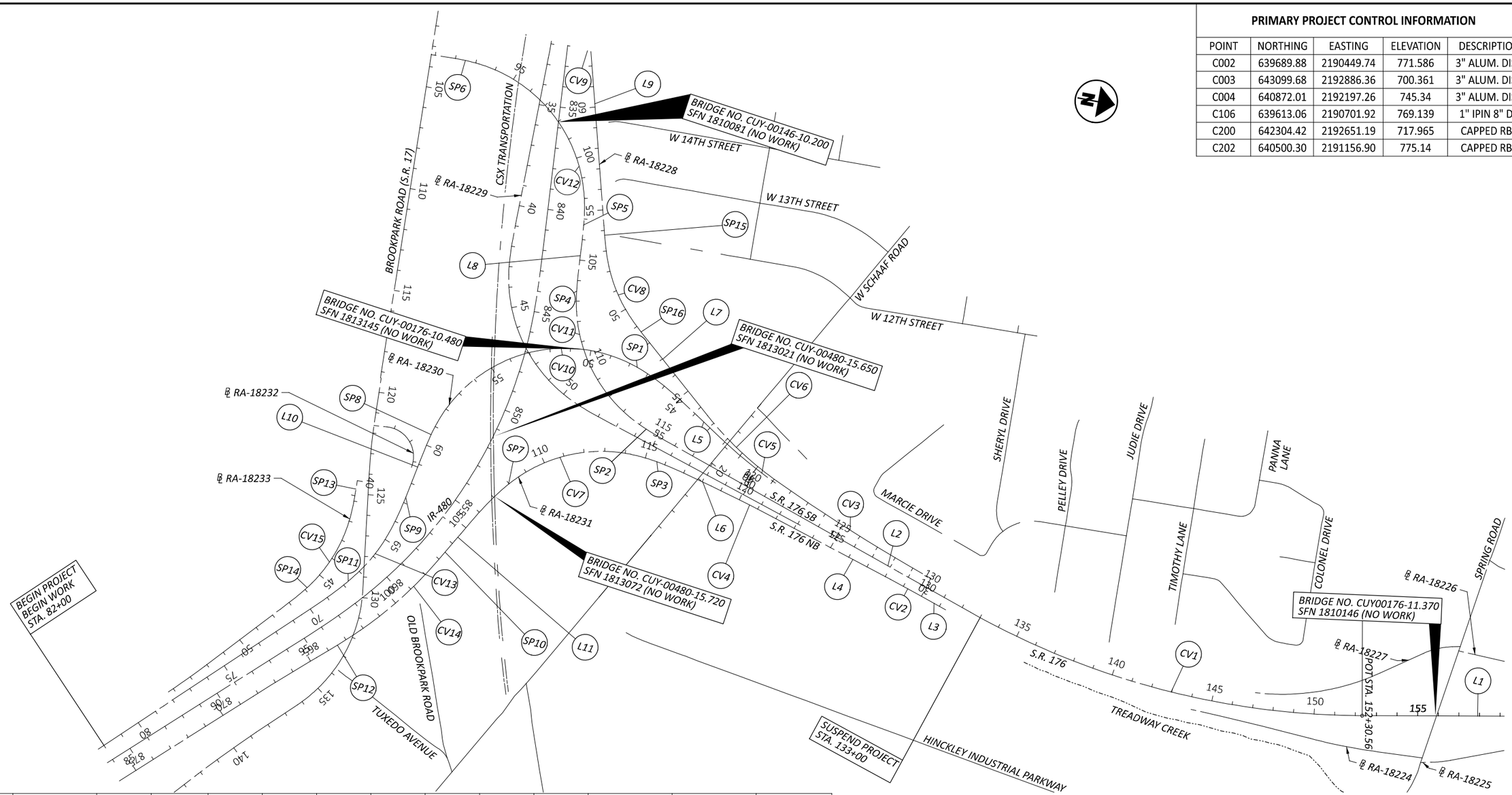
Digitally signed by Chris Preto
DN: C=US, E=preto@cvelimited.com, CN=Chris Preto
Date: 2026.01.13 11:13:37-05'00'

UNDERGROUND UTILITIES
Contact Two Working Days Before You Dig
OHIO811.org Before You Dig
OHIO811, 8-1-1, or 1-800-362-2764
(Non members must be called directly)

CHAGRIN VALLEY ENGINEERING, LTD.
Creative Engineers. Intelligent Solutions.
22999 Forbes Road, Suite B Cleveland, Ohio 44146-5667
Phone • 440.439.1999 Fax • 440.439.1969 www.cvelimited.com

TITLE SHEET

DESIGN AGENCY: CHAGRIN VALLEY ENGINEERING, LTD.
DESIGNER: SHT
REVIEWER: CWP 10/07/25
PROJECT ID: 120469
SHEET P.01 TOTAL 86



PRIMARY PROJECT CONTROL INFORMATION

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
C002	639689.88	2190449.74	771.586	3" ALUM. DISK
C003	643099.68	2192886.36	700.361	3" ALUM. DISK
C004	640872.01	2192197.26	745.34	3" ALUM. DISK
C106	639613.06	2190701.92	769.139	1" IPIN 8" DP
C200	642304.42	2192651.19	717.965	CAPPED RBS
C202	640500.30	2191156.90	775.14	CAPPED RBS

HORIZONTAL SCALE IN FEET
0 125 250 500

SCHEMATIC PLAN
BEGIN PROJECT TO SUSPEND PROJECT

SPIRAL	P.I.	LS	ΘS	LT	ST	x	y	k	p	C	START	END	C.B.
SP1	STA. 46+55.05	400.00'	16°07'00''	267.78'	134.35'	396.85'	37.29'	199.47'	9.35'	398.60'	STA. 43+87.27	STA. 47+87.27	S27°07'24''W
SP2	STA. 114+24.97	250.00'	10°00'00''	166.93'	83.58'	247.97'	28.99'	124.87'	3.63'	249.66'	STA. 113+41.39	STA. 115+91.39	N21°38'03''E
SP3	STA. 115+44.38	350.00'	14°00'00''	234.07'	117.33'	344.45'	56.63'	174.65'	7.11'	349.07'	STA. 114+27.05	STA. 117+77.05	N09°42'20''E
SP4	STA. 106+63.96	250.00'	10°00'00''	166.93'	83.58'	249.24'	14.51'	124.87'	3.63'	249.66'	STA. 104+97.03	STA. 107+47.03	N82°31'05''E
SP5	STA. 102+78.21	250.00'	9°57'27''	166.93'	83.57'	247.99'	28.87'	124.87'	3.62'	249.66'	STA. 101+94.64	STA. 104+44.64	N82°31'55''E
SP6	STA. 92+47.45	200.00'	7°57'58''	133.47'	66.79'	199.61'	9.26'	99.94'	2.32'	199.83'	STA. 91+13.98	STA. 93+13.98	N00°25'41''E
SP7	STA. 107+30.68	400.00'	16°00'00''	267.76'	134.33'	396.89'	37.03'	199.48'	9.28'	398.62'	STA. 104+62.92	STA. 108+62.92	N55°25'50''W
SP8	STA. 59+45.31	200.00'	8°03'30''	133.47'	66.79'	198.95'	18.71'	99.93'	2.34'	199.82'	STA. 58+78.52	STA. 60+78.52	S76°56'01''E
SP9	STA. 64+32.08	375.00'	14°22'30''	250.83'	125.75'	372.65'	31.22'	187.11'	7.82'	373.95'	STA. 61+81.25	STA. 65+56.25	S74°49'48''E
SP10	STA. 102+50.58	250.00'	3°45'00''	166.70'	83.37'	249.71'	10.90'	124.98'	1.36'	249.95'	STA. 101+67.21	STA. 104+17.21	N59°30'37''W
SP11	STA. 67+53.05	450.00'	17°15'00''	301.44'	151.31'	439.19'	89.39'	224.32'	11.25'	448.19'	STA. 66+01.74	STA. 70+51.74	S50°15'06''E
SP12	STA. 97+00.58	250.00'	3°45'00''	166.70'	83.37'	249.89'	5.45'	125.98'	1.36'	249.95'	STA. 95+33.88	STA. 97+83.88	N43°00'37''W
SP13	STA. 41+33.47	200.00'	8°00'00''	133.47'	66.79'	199.61'	9.30'	99.94'	2.33'	199.83'	STA. 40+00.00	STA. 42+00.00	S89°34'28''E
SP14	STA. 46+19.39	200.00'	8°00'00''	133.47'	66.79'	198.96'	18.58'	99.94'	2.33'	199.83'	STA. 45+52.60	STA. 47+52.60	S50°51'57''E
SP15	STA. 52+90.20	200.00'	8°00'00''	133.47'	66.79'	198.96'	18.58'	99.94'	2.33'	199.83'	STA. 52+23.41	STA. 54+23.41	S71°59'22''W
SP16	STA. 49+29.04	200.00'	8°00'00''	133.47'	66.79'	199.61'	9.30'	99.94'	2.33'	199.83'	STA. 47+95.57	STA. 49+95.57	S43°33'57''W

CURVE	P.I.	Δ	D_c	R	T	L	E
CV1	STA. 142+59.23	29°08'14'' LT	01°28'00''	3,906.53'	1,015.29'	1,986.62'	129.78'
CV2	STA. 129+13.76	1°25'56'' RT	00°50'00''	6,875.49'	85.93'	171.85'	0.54'
CV3	STA. 34+41.90	5°54'06'' RT	00°40'00''	8,594.37'	443.03'	885.27'	11.41'
CV4	STA. 120+14.35	2°30'00'' RT	00°45'00''	7,639.44'	166.69'	333.33'	1.82'
CV5	STA. 40+55.39	8°17'18'' RT	02°25'27''	2,363.49'	171.25'	341.90'	6.20'
CV6	STA. 41+17.49	16°13'30'' RT	03°30'00''	1,637.02'	233.35'	463.57'	16.55'
CV7	STA. 111+60.53	45°07'49'' RT	08°00'00''	716.20'	297.61'	564.13'	59.37'
CV8	STA. 51+10.46	18°13'37'' RT	08°00'00''	716.20'	114.89'	227.84'	9.16'
CV9	STA. 64+04.72	10°33'36'' RT	04°00'00''	1,432.39'	132.37'	264.00'	6.10'
CV10	STA. 54+73.13	87°56'10'' LT	08°03'30''	711.01'	685.85'	1,091.24'	276.88'
CV11	STA. 110+62.53	47°32'55'' LT	08°00'00''	716.20'	315.50'	594.36'	66.41'
CV12	STA. 98+19.04	70°09'14'' RT	07°57'58''	719.25'	505.06'	880.66'	159.62'
CV13	STA. 65+79.00	3°29'17'' RT	07°40'00''	747.34'	22.75'	45.50'	0.35'
CV14	STA. 99+76.19	11°30'00'' LT	03°00'00''	1,909.86'	192.31'	383.33'	9.66'
CV15	STA. 43+79.95	28°12'28'' RT	08°00'00''	716.20'	179.95'	352.60'	22.26'

LINE	BEARING	DISTANCE
L1	N10°21'51''W	2,070.91'
L2	N18°18'07''E	1,652.55'
L3	N18°18'07''E	135.00'
L4	N16°52'11''E	646.84'
L5	S32°29'31''W	161.23'
L6	N14°22'11''E	70.61'
L7	S40°25'43''W	447.86'
L8	N85°51'01''E	52.39'
L9	S74°39'20''W	848.93'
L10	S79°37'09''E	102.73'
L11	N60°45'37''W	45.71'

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER
CJD

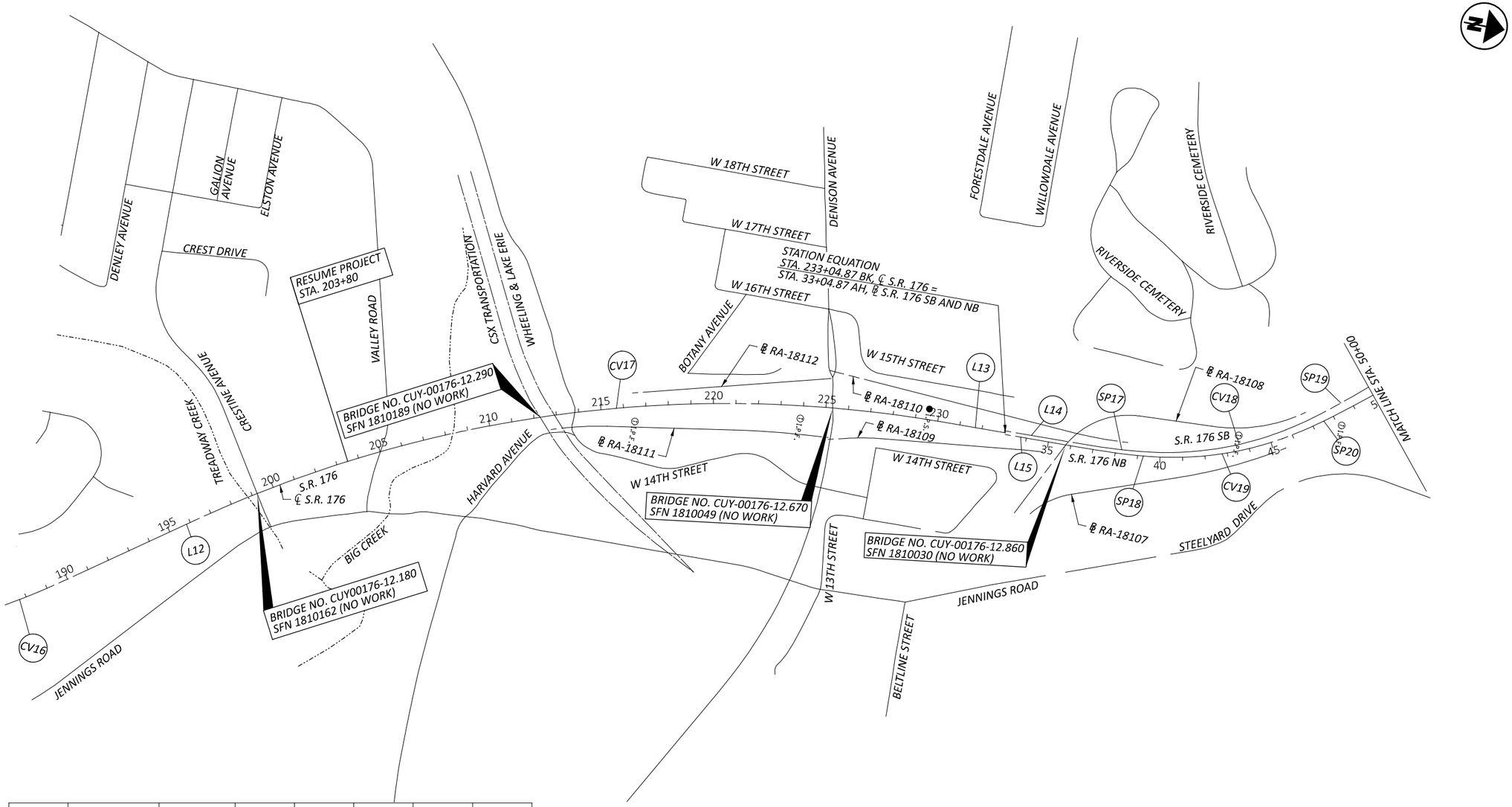
REVIEWER
CWP 10/07/25

PROJECT ID
120469

SHEET P.02 TOTAL 86

CUY-176-10.65

MODEL: Sheet 1 PAPERSIZE: 34x22 (in.) DATE: 10/7/2025 TIME: 8:27:47 AM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: thomas@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 120469 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\24156 ODOT D12-D3 GES FY2025-26\119814\Task 8 - CUY-176-10.65\120469\400-Engineering\Roadway\Sheets\120469_GB001.dgn



CURVE	P.I.	Δ	DC	R	T	L	E
CV16	STA. 181+67.52	25°00'00'' LT	01°28'00''	3,906.53'	866.05'	1,704.54'	94.85'
CV17	STA. 213+68.95	34°28'30'' RT	01°01'00''	5,635.65'	1,748.56'	3,390.98'	265.03'
CV18	STA. 42+93.29	22°17'56'' LT	04°00'00''	1,432.39'	282.31'	557.47'	27.55'
CV19	STA. 43+01.73	20°19'08'' LT	04°00'00''	1,432.39'	256.68'	507.97'	22.82'

SPIRAL	P.I.	LS	ΘS	LT	ST	x	y	k	p	C	START	END	C.B.
SP17	STA. 38+61.37	450.00'	9°00'00''	300.39'	150.35'	448.89'	23.52'	224.82'	5.89'	449.51'	STA. 35+60.98	STA. 40+10.98	N03°53'19''W
SP18	STA. 38+95.43	450.00'	9°00'00''	300.39'	150.35'	448.89'	23.52'	224.82'	5.89'	449.51'	STA. 35+95.05	STA. 40+45.05	N03°53'19''W
SP19	STA. 47+18.80	450.00'	9°00'00''	300.39'	150.35'	447.04'	46.99'	224.82'	5.89'	449.51'	STA. 45+68.45	STA. 50+18.45	N38°11'19''W
SP20	STA. 47+03.37	450.00'	9°00'00''	300.39'	150.35'	447.04'	46.99'	224.82'	5.89'	449.51'	STA. 45+53.01	STA. 33+04.87	N36°12'31''W

LINE	BEARING	DISTANCE
L12	N35°21'51''W	641.38'
L13	N00°53'21''W	293.51'
L14	N00°53'21''W	256.11'
L15	N00°53'21''W	290.18'

NOTE:

FOR PROJECT CONTROL SEE SHEET 4.

HORIZONTAL SCALE IN FEET
0 125 250 500

SCHEMATIC PLAN
RESUME PROJECT TO STA. 50+00

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

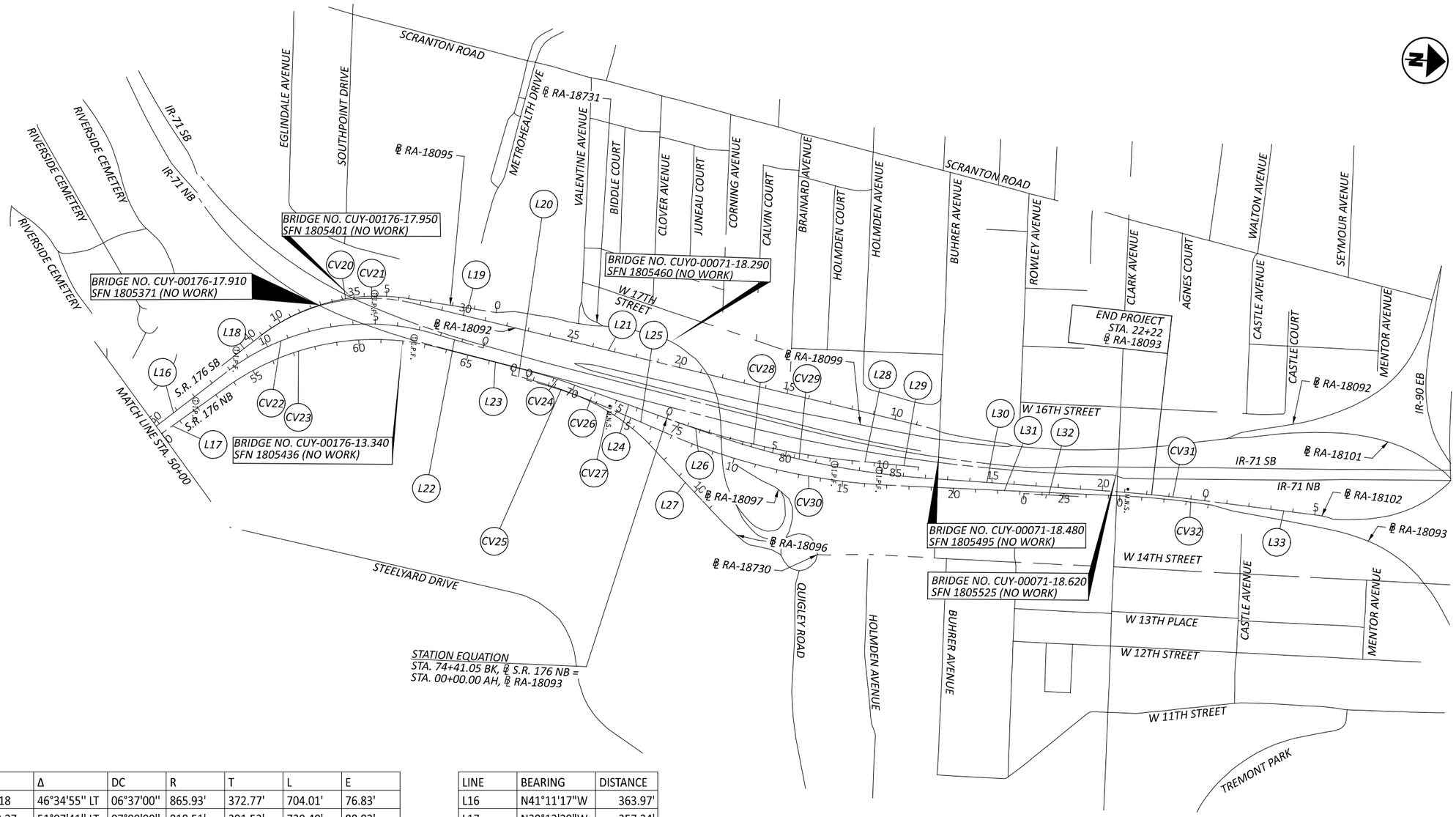
DESIGNER
CJD

REVIEWER
CWP 10/07/25

PROJECT ID
120469

SHEET P.03 TOTAL 86

CUY-176-10.65



CURVE	P.I.	Δ	DC	R	T	L	E
CV20	STA. 7+77.18	46°34'55'' LT	06°37'00''	865.93'	372.77'	704.01'	76.83'
CV21	STA. 36+22.27	51°07'41'' LT	07°00'00''	818.51'	391.53'	730.40'	88.82'
CV22	STA. 7+68.30	53°41'21'' LT	05°30'00''	1,041.74'	527.24'	976.17'	125.82'
CV23	STA. 58+95.62	50°05'00'' RT	05°00'00''	1,145.92'	535.37'	1,001.67'	118.89'
CV24	STA. 68+88.96	5°19'44'' RT	02°30'00''	2,291.83'	106.66'	213.16'	2.48'
CV25	STA. 1+75.24	8°17'42'' RT	03°00'00''	1,909.86'	138.49'	276.50'	5.01'
CV26	STA. 1+87.71	9°21'52'' RT	02°30'00''	2,291.83'	187.71'	374.58'	7.67'
CV27	STA. 5+20.11	24°26'43'' RT	06°00'00''	954.93'	206.93'	407.42'	22.15'
CV28	STA. 78+77.21	14°11'30'' LT	01°38'07''	3,503.76'	436.16'	867.85'	27.04'
CV29	STA. 7+03.57	15°17'48'' LT	01°30'00''	3,819.72'	512.94'	1,019.77'	34.29'
CV30	STA. 12+04.74	20°45'45'' LT	02°00'00''	2,864.79'	524.82'	1,038.13'	47.68'
CV31	STA. 22+37.15	3°12'55'' RT	00°42'46''	8,039.34'	225.64'	451.16'	3.17'
CV32	STA. 2+08.93	6°15'42'' RT	01°30'00''	3,819.72'	208.93'	417.44'	5.71'

LINE	BEARING	DISTANCE
L16	N41°11'17"W	363.97'
L17	N39°12'29"W	357.24'
L18	S41°11'17"E	219.03'
L19	S05°23'38"W	404.41'
L20	N10°23'53"E	36.75'
L21	S09°56'24"W	2,400.74'
L22	S12°30'04"W	241.06'
L23	N10°52'31"E	420.38'
L24	N16°12'15"E	445.59'
L25	N19°45'45"E	305.34'
L26	N15°43'37"E	190.63'
L27	N43°08'17"E	478.17'
L28	N02°00'45"E	113.74'
L29	N02°00'45"E	178.69'
L30	N00°25'50"E	801.11'
L31	N01°00'00"W	1,032.83'
L32	N00°27'45"W	245.29'
L33	N03°38'45"E	520.44

PRIMARY PROJECT CONTROL INFORMATION

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
100	476528.266	179983.179	643.027	½" IRON PIN FOUND
101	476784.908	179668.735	645.389	½" IRON PIN FOUND
103	478647.852	179574.379	646.8	MAG NAIL SET
102	477748.823	179323.593	640.245	½" IRON PIN FOUND
104	479675.938	179772.563	656.461	½" IRON PIN FOUND
105	479878.407	179786.513	658.467	½" IRON PIN FOUND
106	477559.129	179135.891	668.222	½" IRON PIN FOUND
107	476952.768	179430.075	654.532	½" IRON PIN FOUND
108	476087.405	180110.615	641.062	½" IRON PIN FOUND
109	473440.456	180541.88	648.401	½" IRON PIN FOUND
110	474160.237	180394.402	652.261	½" IRON PIN FOUND
112	481001.849	179800.161	666.881	MAG NAIL SET
113	474716.035	180247.642	651.768	IRON PIN SET

SCHEMATIC PLAN
STA. 50+00 TO END PROJECT

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER
CJD

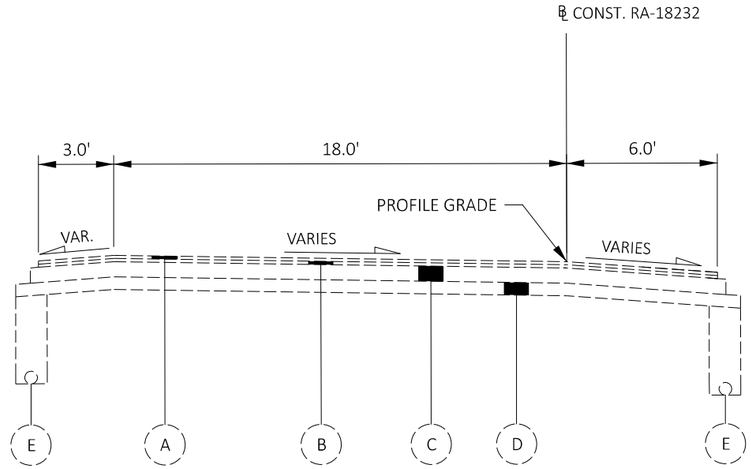
REVIEWER
CWP 10/07/25

PROJECT ID
120469

SHEET P.04 TOTAL 86

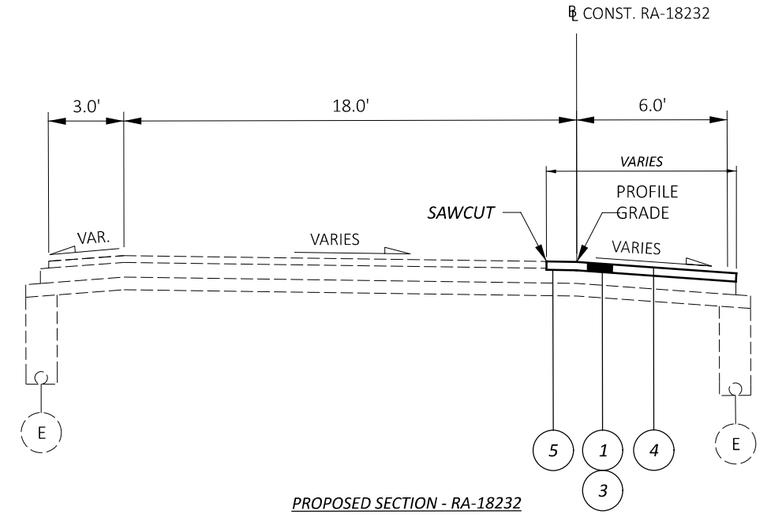
CUY-176-10.65

MODEL: Sheet 3 PAPERSIZE: 34x22 (in.) DATE: 10/7/2025 TIME: 8:28:01 AM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: thomas@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 120469 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\24156 ODOT D12-D3 GES FY2025-26\119814\Task 8 - CUY-176-10.65\120469\400-Engineering\Roadway\Sheets\120469_GB001.dgn



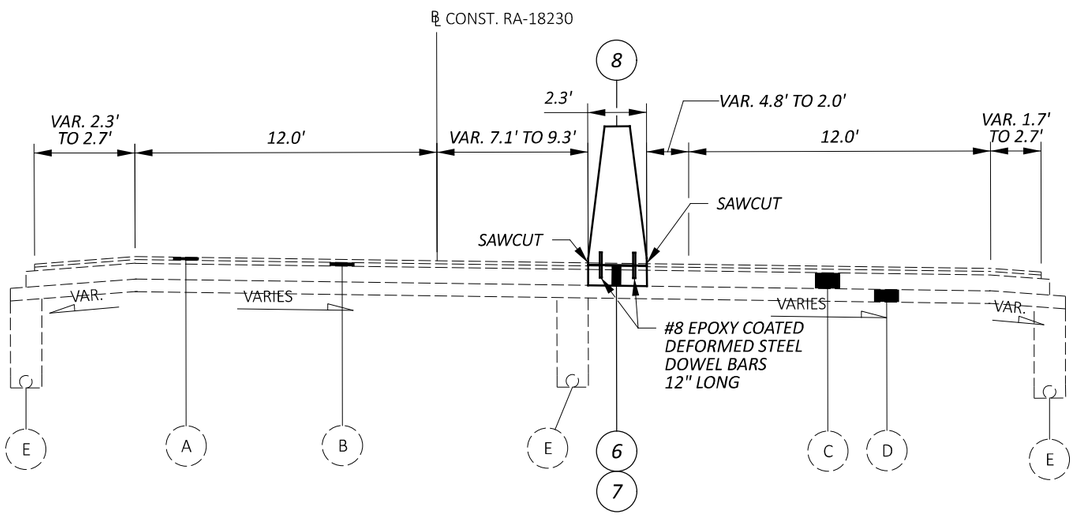
EXISTING SECTION - RA-18232

STA . 30+29.00 TO STA. 33+28.49



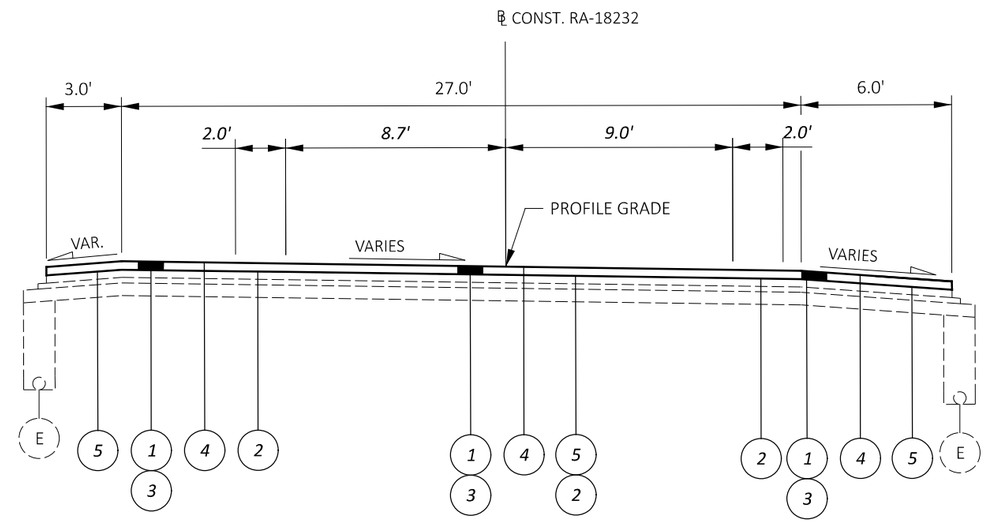
PROPOSED SECTION - RA-18232

STA . 32+83.61 TO STA. 33+28.49
TOTAL LENGTH = 44.88'



PROPOSED BARRIER SECTION - RA-18230

STA . 69+72.00 TO STA. 70+72.00
TOTAL LENGTH = 100.00'

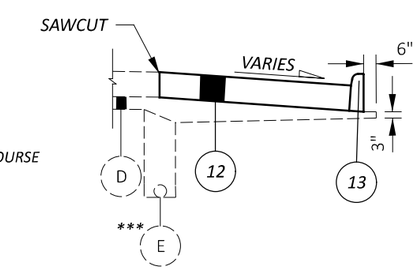


PROPOSED SECTION - RA-18232

STA . 30+29.00 TO STA. 30+59.00
TOTAL LENGTH = 30.00'

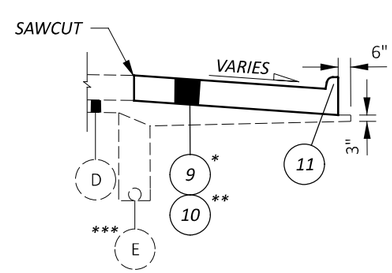
EXISTING LEGEND

- (A) 1.5" ASPHALT CONCRETE SURFACE COURSE
- (B) 1.75" ASPHALT CONCRETE INTERMEDIATE COURSE
- (C) 7.5" ASPHALT CONCRETE BASE
- (D) 6" AGGREGATE BASE
- (E) 6" PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC



SHOULDER REPLACEMENT WITH INCIDENTAL CURB DETAIL

**** - LOCATION VARIES*



SHOULDER REPLACEMENT WITH INTEGRAL CURB DETAIL

** - STA. 226+75 TO STA. 232+21.45*
*** - NORTH OF STA. 232+21.45*
**** - LOCATION VARIES*

PROPOSED LEGEND

1. ITEM 202 - 4" PAVEMENT REMOVED
2. ITEM 204 - GEOGRID
3. ITEM 659 - TOPSOIL
4. ITEM 659 - SEEDING AND MULCHING, CLASS 2
5. ITEM 204 - GEOTEXTILE FABRIC
6. ITEM 202 - 10.75" PAVEMENT REMOVED
7. ITEM 305 - CONCRETE BASE, MISC.: 9.75" CONCRETE BASE, CLASS QC 1P
8. ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE C
9. ITEM 255 - 12" FULL DEPTH RIGID PAVEMENT REMOVAL AND REPLACEMENT, TYPE 2, CLASS QC 1, AS PER PLAN
10. ITEM 255 - 13.5" FULL DEPTH RIGID PAVEMENT REMOVAL AND RIGID REPLACEMENT, TYPE 1, CLASS QC 1, AS PER PLAN
11. ITEM 609 - CURB, TYPE 2-A
12. ITEM 252 - FULL DEPTH RIGID REMOVAL AND FLEXIBLE REPLACEMENT, AS PER PLAN
13. ITEM 609 - CURB, TYPE 6

TYPICAL SECTIONS

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER: MJP
REVIEWER: CWP 10/07/25
PROJECT ID: 120469
SHEET: P.05 TOTAL: 86

CUY-176-10.65

GENERAL

UTILITIES

LISTED BELOW ARE ALL UTILITIES POTENTIALLY LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

AT&T
JAMES JANIS
1360 LORAIN AVENUE
CLEVELAND, OH 44111
216-534-7285
PJ8191@ATT.COM

FIRST ENERGY
JOHN M. ZASSICK
6896 MILLER ROAD, SUITE 101
BRECKSVILLE, OH 44141
440-546-8706
JMZASSICK@FIRSTENERGYCORP.COM

CHARTER COMMUNICATIONS
DANIEL MCCAFFERTY
8197 DOW CIRCLE
STRONGSVILLE, OH 44136
216-701-5980
DANIEL MCCAFFERTY@CHARTER.COM

COX COMMUNICATIONS
CRAIG J. SMITH
12221 PLAZA DRIVE
PARMA, OH 44130
216-535-3356
CRAIG.SMITH@COX.COM

CROWN CASTLE
JON TARNOWSKI
15565 NEO PARKWAY
GARFIELD HEIGHTS, OH 44128
614-940-2462
JON.TARNOWSKI@CROWNCASTLE.COM

ENBRIDGE (FORMERLY DOMINION ENERGY)
RELOCATION
320 SPRINGSIDE DRIVE
AKRON, OH 44333
330-664-2409
RELOCATION@DOMINIONENERGY.COM

EVERSTREAM
GIO REILLO
1228 EUCLID AVENUE, SUITE 250
CLEVELAND, OH 44115
216-241-5981
GREILLO@EVERSTREAM.NET

LUMEN
DOUG HOLLOWAY
4000 CHESTER AVENUE
CLEVELAND, OH 44103
216-906-6284
DOUG.HOLLOWAY@CENTURYLINK.COM

VERIZON (MCI)
AL GUEST
120 RAVINE STREET
AKRON, OH 44303
330-329-5495
ALLAN.GUEST@VERIZON.COM

ZAYO FIBER SOLUTIONS
DAVE GALUSKA
4199 KINROSS LAKES PARKWAY, SUITE 10
RICHFIELD, OH 44286
234-281-0025
DAVE.GALUSKA@ZAYO.COM

CITY OF CLEVELAND DIVISION OF TRAFFIC ENGINEERING
ROB MAVEC
601 LAKESIDE AVENUE, RM 25
CLEVELAND,OH 44114
216-664-3195
RMAVEC@CITY.CLEVELAND.OH.US

CITY OF CLEVELAND DIVISION OF WATER POLLUTION CONTROL
ALAN SCHIELY
12302 KIRBY ROAD
CLEVELAND, OH 44108
216-664-3638
ASCHIELY@CLEVELANDWPC.COM

GREATER CLEVELAND REGIONAL TRANSIT AUTHORITY
MIKE SCHIPPER
1240 WEST 6TH STREET
CLEVELAND, OH 44113
216-356-3112
MSCHIPPER@GCRTA.COM

CITY OF CLEVELAND
RICK SWITALSKI
601 LAKESIDE AVENUE
CLEVELAND, OH 44114
216-664-2381
RSWITALSKI@CLEVELANDOHIO.GOV

VILLAGE OF BROOKLYN HEIGHTS
C/O CHAGRIN VALLEY ENGINEERING
JENNY ZOLDAK
22999 FORBES ROAD, SUITE B
OAKWOOD, OH 44146
440-439-1999
ZOLDAK@CVELIMITED.COM

ODOT ITS LAB
1606 WEST BROAD STREET
COLUMBUS, OH 43223
614-387-4113
CEN.ITS.LAB@DOT.OHIO.GOV

TRAFFIC MONITORING SECTION ODOT
1980 WEST BROAD STREET
COLUMBUS, OH 43223
ED NEWMEYER (FIELD MANAGER) 614-204-0914
DARREN GERSTENSLAGER 614-273-4783
SANDRA MAPEL (FIELD OPERATIONS) 614-644-0291

CORIX (CLEVELAND THERMAL)
JOE HIRZEL
1921 HAMILTON AVENUE
CLEVELAND, OH 44114
216-241-5981
JOSEPH.HIRZEL@CORIX.COM

WINDSTREAM (CAVALIER)
GEOFFREY HAMM
560 TERNES AVENUE
ELYRIA, OH 44035
440-329-4245
GEOFFREY.P.HAMM@WINDSTREAM.COM

UNITI FIBER
RICHARD JENKINS
107 ST. FRANCIS STREET, SUITE 1800
MOBILE, AL 36602
251-525-6776
RICHARD.JENKINS@UNITI.COM

NORTHEAST OHIO REGIONAL SEWER DISTRICT
ROBERT STOERKEL
3900 EUCLID AVENUE
CLEVELAND, OH 44116
216-881-6600 EXT. 6802
STOERKELR@NEORSD.ORG

CITY OF CLEVELAND DIVISION OF CLEVELAND PUBLIC POWER
CHRISTOPHER M. HIRZEL
1300 LAKESIDE AVENUE, ROOM 152
CLEVELAND, OH 44114-1135
216-664-3922 EX 76115
CHIRZEL@CPP.ORG

CITY OF CLEVELAND DIVISION OF WATER
FRED ROBERTS
1201 LAKESIDE AVENUE
CLEVELAND, OH 44114
216-664-2444 EX 75590
PLANREVIEW@CLEVELANDWATER.COM

ODOT DISTRICT 12 LIGHTING
DAVE NIMRICHTER
5500 TRANSPORTATION BLVD
GARFIELD HEIGHTS, OH 44125
216-584-2296
DAVID.NIMRICHTER@DOT.OHIO.GOV

SURVEYING PARAMETERS

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. SEE SHEETS 2 AND 4 OF THE PLANS FOR A TABLE CONTAINING PROJECT CONTROL INFORMATION.

USE THE FOLLOWING PROJECT CONTROL, VERTICAL POSITIONING, AND HORIZONTAL POSITIONING PARAMETERS FOR ALL SURVEYING:

PROJECT CONTROL

POSITIONING METHOD: ODOT REAL TIME NETWORK (2011)
MONUMENT TYPE: MAGNETIC NAILS SET

VERTICAL POSITIONING

ORTHOMETRIC HEIGHT DATUM: NAVD 88
GEOID: 18

HORIZONTAL POSITIONING

REFERENCE FRAME: NAD83 (2011 ADJ, 2010.0)
ELLIPSOID: GRS 80
MAP COORDINATE SYSTEM: CUYAHOGA COUNTY
CUYAHOGA LDP PROJECTION PARAMETERS:
PROJECTION: TRANSVERSE MERCATOR
CENTRAL LATITUDE: N 40°09'00"
CENTRAL LONGITUDE: E 278° 15' 00"

FALSE NORTHING: 0 METERS
FALSE EASTING: 50,000 METERS
PROJECTION SCALE FACTOR: 1.000029

SURVEYING PARAMETERS (CONT.)

USE THE POSITIONING METHODS AND MONUMENT TYPE USED IN THE ORIGINAL SURVEY TO RESTORE ALL MONUMENTS RELATED TO THE PRIMARY PROJECT CONTROL THAT ARE DAMAGED OR DESTROYED BY CONSTRUCTION ACTIVITIES. RESTORE THE DAMAGED OR DESTROYED MONUMENTS IN ACCORDANCE WITH C&MS 623.

UNITS ARE IN U.S. SURVEY FEET.

CLEARING AND GRUBBING

ALTHOUGH THERE ARE NO TREES OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF THE PROJECT, A LUMP SUM QUANTITY IS INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201, CLEARING AND GRUBBING. ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM ARE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201, CLEARING AND GRUBBING.

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. PROVIDE THE INSTALLATION AND OPERATION OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

PROTECTION OF RIGHT-OF-WAY LANDSCAPING

PRIOR TO BEGINNING WORK, THE CONTRACTOR, THE PROJECT ENGINEER, AND A REPRESENTATIVE OF THE MAINTAINING AGENCY WILL REVIEW AND RECORD ALL LANDSCAPING ITEMS WITHIN THE RIGHT-OF-WAY (BOTH WITHIN AND OUTSIDE THE CONSTRUCTION LIMITS). A RECORD OF THIS REVIEW WILL BE KEPT IN THE PROJECT ENGINEER'S FILES. PRIOR TO FINAL ACCEPTANCE, A FINAL REVIEW OF LANDSCAPING ITEMS WILL BE MADE.

CONSTRICT ALL ACTIVITIES, EQUIPMENT STORAGE, AND STAGING TO WITHIN THE CONSTRUCTION LIMITS. UNLESS OTHERWISE IDENTIFIED IN THE PLANS OR PROPOSAL, THE CONSTRUCTION LIMITS ARE IDENTIFIED AS 30 FEET FROM THE EDGE OF PAVEMENT.

SUBMIT A WRITTEN REQUEST TO THE PROJECT ENGINEER TO USE ANY AREA OUTSIDE THESE LIMITS. THE DOCUMENT SUBMITTED MUST CLEARLY IDENTIFY THE AREA AND EXPLAIN THE PROPOSED USE AND RESTORATION OF THE AREA. USE OF THESE AREAS FOR DISPOSAL OF WASTE MATERIAL AND CONSTRUCTION DEBRIS, EXCAVATION OF BORROW MATERIAL AND PLACEMENT OF PORTABLE PLANTS IS PROHIBITED. THE REQUEST MUST BE APPROVED, IN WRITING, BEFORE THE CONTRACTOR HAS PERMISSION TO USE THE AREA.

ANY ITEMS DAMAGED BEYOND THE CONSTRUCTION LIMITS, AS DEFINED ABOVE, WILL BE REPLACED IN KIND OR AS APPROVED BY THE PROJECT ENGINEER.

COOPERATION BETWEEN CONTRACTORS

THE CONTRACTOR SHALL COOPERATE AND COORDINATE OPERATIONS WITH THE CONTRACTORS ON OTHER PROJECTS THAT MAY BE IN FORCE, WITHIN THE PROJECT AREA DURING THE LIFE OF THE CONTRACT.

GENERAL (CONT.)

EQUIPMENT AND MATERIAL STORAGE

IN ORDER TO PROVIDE FOR THE SAFETY OF THE TRAVELING PUBLIC THE CONTRACTOR'S ATTENTION IS DIRECTED TO 614.03. IN ADDITION THE FOLLOWING PROVISIONS SHALL APPLY.

1. ANY REMOVED ITEMS SHALL NOT BE STORED ON THE RIGHT OF WAY FOR MORE THAN THIRTY (30) DAYS.
2. THE STORAGE OF EQUIPMENT, MATERIALS, AND VEHICLES WITHIN THE HIGHWAY RIGHT OF WAY WILL BE PERMITTED. THE NUMBER OF AREAS AND EXACT LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
3. ALL DISTURBED AREAS SHALL BE RETURNED TO THEIR ORIGINAL CONDITION AT NO EXPENSE TO THE STATE.

ITEM 623, CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF THE C&MS, THIS ITEM OF WORK WILL INCLUDE THE FOLLOWING ADDITIONAL REQUIREMENTS:

THE CONTRACTOR SHALL USE COMPETENT PERSONNEL AND SUITABLE EQUIPMENT FOR THE LAYOUT WORK REQUIRED AND SHALL PROVIDE THAT IT BE DONE UNDER THE SUPERVISION OF A REGISTERED SURVEYOR, LICENSED TO PRACTICE IN THE STATE OF OHIO.

THE CONTRACTOR SHALL USE A GPS UNIT CAPABLE OF LOCATING THE PROPOSED SIGN LOCATIONS WITHIN +/- ONE FOOT.

AFTER COMPLETION OF ALL WORK, BUT PRIOR TO FINAL ACCEPTANCE OF THE PROJECT, AN OHIO PROFESSIONAL SURVEYOR SHALL DETERMINE THE MINIMUM VERTICAL CLEARANCES OF ALL EXISTING AND NEW BRIDGES WITHIN THE PROJECT LIMITS. AT A MINIMUM, MEASUREMENTS SHALL BE TAKEN ALONG EACH FASCIA BEAM AT THE EDGE OF SHOULDERS, EDGE LINES, LANES LINES, AND CROWN OF THE ROADWAY BELOW. THE ODOT DISTRICT 12 VERTICAL CLEARANCE SURVEY FORM SHALL BE USED, WHERE APPLICABLE, TO DOCUMENT THE MEASUREMENTS. WHERE THE ODOT DISTRICT 12 VERTICAL CLEARANCE SURVEY FORM IS NOT APPLICABLE, THE MEASURMENTS SHALL BE DOCUMENTED ON A CONTRACTOR-DEVELOPED FORM THAT CLOSELY RESEMBLES THE ODOT DISTRICT 12 VERTICAL CLEARANCE SURVEY FORM AND ACCURATELY DEPICTS THE BRIDGE AND THE LANE AND SHOULDER CONFIGURATION OF THE ROADWAY THAT PASSES BELOW THE BRIDGE. THE COMPLETED FORM SHALL BEAR THE STAMP OR SEAL OF THE OHIO PROFESSIONAL SURVEYOR WHO HAS TAKEN THE MEASURMENTS AND SHALL BE SUBMITTED TO THE PROJECT ENGINEER PRIOR TO FINAL ACCCEPTANCE OF THE PROJECT.

THE ODOT DISTRICT 12 VERTICAL CLEARANCE SURVEY FORM CAN BE DOWNLOADED FROM THE FOLLOWING FTP SITE:

FTP://FTP.DOT.STATE.OH.US/PUB/CONTRACTS/ATTACH/CUY-120469

PAYMENT FOR ALL OF THE ABOVE WORK SHALL BE AT THE UNIT PRICE BID FOR ITEM 623 CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN, WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

ROADWAY

CONNECTION BETWEEN EXISTING AND PROPOSED GUARDRAIL

WHEN IT IS NECESSARY TO SPLICE PROPOSED GUARDRAIL TO EXISTING GUARDRAIL, ONLY THE EXISTING GUARDRAIL SHALL BE CUT, DRILLED, OR PUNCHED. THE CONNECTION SHALL BE MADE USING A W-BEAM, BEAM SPLICE AS SHOWN IN AASHTO M 180-12, EXCEPT THE BEAM WASHERS ARE NOT TO BE USED. PAYMENT SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE RESPECTIVE GUARDRAIL ITEMS.

ROADWAY (CONT.)

ITEM 606 - ANCHOR ASSEMBLY, TYPE E

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE MASH 2016 TYPE E TANGENETIAL END TREATMENTS FOR TYPE MGS GUARDRAIL AS LISTED UNDER "PRODUCTS ACCEPTED FOR NEW INSTALLATIONS" ON THE ROADWAY APPROVED PRODUCTS LIST POSTED ON ROADWAY ENGINEERING'S WEB PAGE. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS. REFER TO THE POSTED SHOP DRAWINGS FOR THE MOST CURRENT APPROVED PRODUCT MODELS.

REFER TO THE MANUFACTURER'S INSTRUCTIONS REGARDING THE INSTALLATION OF, AND THE GRADING AROUND THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4 INCHES ABOVE THE GROUND. ON-SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES PROJECT MORE THAN 4 INCHES ABOVE THE GROUND LINE. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 31 INCHES FROM THE EDGE OF THE SHOULDER.

THE FACE OF THE TYPE E IMPACT HEAD SHALL BE COVERED WITH SOLID FLUORESCENT YELLOW REBOUNDABLE RETROREFLECTIVE SHEETING, PER CMS 730.191.

WHEN THE FACE OF THE ADJACENT (ATTACHED) GUARDRAIL IS LESS THAN 4' OFFSET FROM THE PROPOSED EDGE LINE, AND PERMITTING SITE CONDITIONS EXIST: THE PROPOSED TYPE E ANCHOR ASSEMBLY SHALL BE INSTALLED AT A CONSISTENT FLARE RATE THROUGH THE FULL LENGTH OF THE SYSTEM. THE FLARE RATE SHALL BE A MAXIMUM OF 25:1 (RESULTING IN A 2' OFFSET). THE INSTALLATION SHALL BE IN ACCORDANCE WITH THE SHOP DRAWINGS, PRODUCT INSTALLATION MANUAL/GUIDANCE, AND AS DIRECTED BY THE ENGINEER.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, MGS TYPE E, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, REFLECTIVE SHEETING, HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS/BACKSTOPS, TRANSITIONS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

ITEM 606 - IMPACT ATTENUATOR, TYPE 3 (UNIDIRECTIONAL)

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE MASH 2016 TYPE 3 IMPACT ATTENUATORS AS LISTED UNDER "PRODUCTS ACCEPTED FOR NEW, PERMANENT INSTALLATIONS" ON THE ROADWAY APPROVED PRODUCTS LIST POSTED ON THE OFFICE OF ROADWAY ENGINEERING'S WEB PAGE (REFER TO THE POSTED SHOP DRAWINGS FOR THE MOST CURRENT APPROVED PRODUCT MODELS).

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, IMPACT ATTENUATOR, TYPE 3 (60 MPH, 28 INCHES), (UNIDIRECTIONAL), EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS/BACKSTOPS, TRANSITIONS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

PAVEMENT

ITEM 252 – FULL DEPTH RIGID PAVEMENT REMOVAL AND FLEXIBLE REPLACEMENT, AS PER PLAN

THIS ITEM SHALL CONSIST OF REPLACING EXISTING PAVEMENT PER ITEM 252 AND THE NOTES BELOW.

EXISTING CONCRETE PAVEMENT THICKNESS MAY VARY FROM THAT SHOWN ON THE TYPICAL SECTIONS BY PLUS TWO INCHES OR MINUS ONE INCH. NO ADJUSTMENT IN PAYMENT FOR THIS ITEM SHALL BE MADE PROVIDING THAT THE AVERAGE PAVEMENT THICKNESS IS WITHIN ONE INCH OF THE THICKNESS SHOWN ON THE TYPICAL SECTIONS. ADDITIONAL COMPENSATION SHALL BE MADE BY CHANGE ORDER FOR THE MATERIAL COST OF CONCRETE ONLY WHEN THE AVERAGE THICKNESS EXCEEDS THE ONE INCH MAXIMUM TOLERANCE ABOVE. THE VOLUME OF CONCRETE PAID FOR SHALL BE BASED UPON THE AMOUNT OF CONCRETE ADDITIONAL ABOVE THE ONE INCH TOLERANCE LIMIT.

THE CONTRACTOR SHALL REMOVE THE EXISTING RIGID PAVEMENT WITH CARE SO AS TO NOT DISTURB THE ADJACENT REMAINING CONCRETE PAVEMENT, ADJACENT BARRIER, AND EXISTING UNDERDRAIN.

IF, AFTER REMOVAL OF THE RIGID PAVEMENT THE ENGINEER DETERMINES THAT THE SUBBASE OR SUBGRADE HAS FAILED OR IS PUMPING, THE ENGINEER WILL DIRECT THE CONTRACTOR TO EXCAVATE THE UNSUITABLE MATERIAL AND REPLACE IT WITH COMPACTED 304 AGGREGATE. QUANTITIES OF ITEM 203 - EXCAVATION AND ITEM 304 - AGGREGATE BASE HAVE BEEN PROVIDED TO REPAIR SAID FAILED SUBBASE OR SUBGRADE AREAS, ASSUMING HALF OF THE REPAIR AREAS WILL NEED SUBBASE OR SUGBRADE REPAIR.

FOR ESTIMATED QUANTITIES, SEE SHEET P.11.

ITEM 255 – 13.5" FULL DEPTH RIGID PAVEMENT REMOVAL AND RIGID REPLACEMENT, TYPE 1, CLASS QC 1, AS PER PLAN

ITEM 255 – FULL DEPTH RIGID PAVEMENT REMOVAL AND RIGID REPLACEMENT, TYPE 2, CLASS QC 1, AS PER PLAN

THIS ITEM SHALL CONSIST OF REPLACING EXISTING PAVEMENT PER ITEM 255 AND THE NOTES BELOW AND DETAIL ON P.05.

EXISTING CONCRETE PAVEMENT THICKNESS MAY VARY FROM THAT SHOWN ON THE TYPICAL SECTIONS BY PLUS TWO INCHES OR MINUS ONE INCH. NO ADJUSTMENT IN PAYMENT FOR THIS ITEM SHALL BE MADE PROVIDING THAT THE AVERAGE PAVEMENT THICKNESS IS WITHIN ONE INCH OF THE THICKNESS SHOWN ON THE TYPICAL SECTIONS. ADDITIONAL COMPENSATION SHALL BE MADE BY CHANGE ORDER FOR THE MATERIAL COST OF CONCRETE ONLY WHEN THE AVERAGE THICKNESS EXCEEDS THE ONE INCH MAXIMUM TOLERANCE ABOVE. THE VOLUME OF CONCRETE PAID FOR SHALL BE BASED UPON THE AMOUNT OF CONCRETE ADDITIONAL ABOVE THE ONE INCH TOLERANCE LIMIT.

THE CONTRACTOR SHALL REMOVE THE EXISTING RIGID PAVEMENT WITH CARE SO AS TO NOT DISTURB THE ADJACENT REMAINING CONCRETE PAVEMENT, ADJACENT BARRIER, AND EXISTING UNDERDRAIN.

IF, AFTER REMOVAL OF THE RIGID PAVEMENT THE ENGINEER DETERMINES THAT THE SUBBASE OR SUBGRADE HAS FAILED OR IS PUMPING, THE ENGINEER WILL DIRECT THE CONTRACTOR TO EXCAVATE THE UNSUITABLE MATERIAL AND REPLACE IT WITH COMPACTED 304 AGGREGATE. QUANTITIES OF ITEM 203 - EXCAVATION AND ITEM 304 - AGGREGATE BASE HAVE BEEN PROVIDED TO REPAIR SAID FAILED SUBBASE OR SUBGRADE AREAS.

ITEM 442 – ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (449), AS PER PLAN, PG64-22

THE COARSE VIRGIN AGGREGATE AND AT LEAST 50% OF FINE VIRGIN AGGREGATE FOR THIS ITEM SHALL BE LIMITED TO AIR COOLED BLAST FURNACE SLAG (ACBFS) OR TRAP ROCK FROM ONTARIO.

TABLE 442.02-2 APPLIES EXCEPT NO. 4 SIEVE REQUIREMENTS ARE 52 TO 60 TOTAL PERCENT PASSING. FOR THE NO. 4 SIEVE DO NOT EXCEED 63 IN PRODUCTION.

IN ADDITION TO THE JOINT SEALING REQUIREMENTS SPECIFIED IN 401.17, THE CONTRACTOR SHALL SEAL THE PERIMETER OF ALL RUMBLE STRIP PAVEMENT REPLACEMENT AREAS. THE MATERIAL USED SHALL BE A CERTIFIED 702.01 PG BINDER. THE WIDTH OF THE SEALER SHALL BE 2-3 INCHES.

PAYMENT FOR ALL LABOR, MATERIALS AND EQUIPMENT REQUIRED TO PERFORM THE ABOVE WORK SHALL BE INCLUDED IN THE CONTRACT PRICE FOR ITEM 442 – ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (449), AS PER PLAN, PG64-22.

PAVEMENT RESTORATION FOR PIPE INSTALLATIONS AND/OR REMOVALS

THE FOLLOWING QUANTITY HAS BEEN PROVIDED FOR PAVEMENT RESTORATION FOLLOWING INSTALLATION AND/OR REMOVAL OF PIPES.

ITEM 255, 13.5" FULL DEPTH RIGID PAVEMENT REMOVAL AND RIGID REPLACEMENT, TYPE 1, CLASS QC 1, AS PER PLAN 474 SY

ITEM 255, FULL DEPTH RIGID PAVEMENT REMOVAL AND RIGID REPLACEMENT, TYPE 2, CLASS QC 1, AS PER PLAN 269 SY

THE ABOVE ITEM 255 QUANTITIES ARE BASED ON MATCHING THE EXISTING CONCRETE THICKNESS OF 12 INCHES (STA. 226+75 TO STA. 232+21.45) AND 3.5 INCHES OF ASPHALT AND 10 INCHES OF CONCRETE (NORTH OF STA. 232+21.45) AND A PAVEMENT RESTORATION WIDTH THAT INCLUDES THE TRENCH WIDTH PLUS TWO FEET ON EACH SIDE OF THE TRENCH.

PROVIDE ANY MATERIALS USED OUTSIDE THE LIMITS STATED ABOVE AT NO ADDITIONAL COST.

PAVEMENT RESTORATION FOR DRAINAGE STRUCTURE INSTALLATIONS

THE FOLLOWING QUANTITY IS PROVIDED FOR PAVEMENT RESTORATION FOLLOWING INSTALLATION OF ITEM 611, DRAINAGE STRUCTURES.

ITEM 255, 13.5" FULL DEPTH RIGID PAVEMENT REMOVAL AND RIGID REPLACEMENT, TYPE 1, CLASS QC 1, AS PER PLAN 20 SY

ITEM 255, FULL DEPTH RIGID PAVEMENT REMOVAL AND RIGID REPLACEMENT, TYPE 2, CLASS QC 1, AS PER PLAN 36 SY

THE ABOVE ITEM 255 QUANTITIES ARE BASED ON MATCHING THE EXISTING CONCRETE THICKNESS OF 12 INCHES (STA. 226+75 TO STA. 232+21.45) AND 3.5 INCHES OF ASPHALT AND 10 INCHES OF CONCRETE (NORTH OF STA. 232+21.45) AND A WIDTH OF TWO FEET AROUND THE PERIMETER OF THE DRAINAGE STRUCTURE.

PROVIDE ANY MATERIALS USED OUTSIDE THE LIMITS STATED ABOVE AT NO ADDITIONAL COST.

ITEM 305 - CONCRETE BASE, MISC.: 9.75" CONCRETE BASE, CLASS QC 1P

THE THICKNESS OF THIS ITEM IS 9.75". ALL REQUIREMENTS OF ITEM 305 APPLY.

GENERAL NOTES

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER RHB
REVIEWER CWP 10/07/25
PROJECT ID 120469
SHEET P.07 TOTAL 86

MODEL: Sheet_SurvFt PAPERSIZE: 34x22 (in.) DATE: 1/13/2026 TIME: 9:21:39 AM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: thomas@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 120469 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\24156 ODOT D12-D3 GES FY2025-26\119814\Task 8 - CUY-176-10.65\120469\400-Engineering\Roadway\Sheets\120469_GN002.dgn

DRAINAGE

CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES

WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO LAY THE PROPOSED CONDUIT.

IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT, OR EXISTING APPURTENANCE TO BE CONNECTED, DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN CONDUIT SLOPE, NOTIFY THE ENGINEER BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATIONS.

IF IT IS DETERMINED THAT THE PROPOSED CONDUIT WILL INTERSECT AN EXISTING SEWER OR UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN ON THE PLAN, NOTIFY THE ENGINEER BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY.

PAYMENT FOR ALL THE OPERATIONS DESCRIBED ABOVE IS INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEM.

NEW CFN

THE FOLLOWING DRAINAGE ITEMS ARE TO BE ADDED OR REPLACED AS FOLLOWS:

OUTLET STRUCTURE REFERENCE NUMBER	REFERENCE NUMBER	PROP. CONDUIT FILE NUMBER (CFN)	WORK	LOCATION	SHEET NO.
D-1	P-2	1999371	CONDUIT SEGMENT WITH OUTLET STRUCTURE	STA. 226+75.00, LT.	P.62
D-2	P-1	1999369	CONDUIT SEGMENT WITH OUTLET STRUCTURE	STA. 226+75.00, RT.	P.62
D-4	P-3	1999370	CONDUIT SEGMENT WITH OUTLET STRUCTURE	STA. 228+50.00, LT.	P.62-63
D-5	P-4	1999372	CONDUIT SEGMENT WITH OUTLET STRUCTURE	STA. 229+50.00, RT.	P.62-63
D-6	P-5		CONDUIT SEGMENT WITH OUTLET STRUCTURE	STA. 229+50.00, RT.	P.63
D-8	P-5A		CONDUIT SEGMENT WITH OUTLET STRUCTURE	STA. 230+50.00, RT.	P.63
D-10	P-6		CONDUIT SEGMENT WITH OUTLET STRUCTURE	STA. 75+65.25, RT.	P.67
D-11	P-6A		CONDUIT SEGMENT WITH OUTLET STRUCTURE	STA. 76+50.00, RT.	P.67
D-13	P-10		CONDUIT SEGMENT WITH OUTLET STRUCTURE	STA. 76+50.00, LT.	P.67
D-14	P-7A		CONDUIT SEGMENT WITH OUTLET STRUCTURE	STA. 3+68.25, RT.	P.67
D-14A	P-7		CONDUIT SEGMENT WITH MANHOLE STRUCTURE	STA. 3+88.29, RT.	P.67-68
D-15	P-7B		CONDUIT SEGMENT WITH OUTLET STRUCTURE	STA. 5+50.00, RT.	P.68
D-21	P-8		CONDUIT SEGMENT WITH OUTLET STRUCTURE	STA. 13+46.83, LT.	P.68-69
D-22	P-9	1999373	CONDUIT SEGMENT WITH OUTLET STRUCTURE	STA. 15+00.00, LT.	P.69

REVIEW OF DRAINAGE FACILITIES

PRIOR TO THE START OF WORK AND AGAIN BEFORE FINAL ACCEPTANCE, PERFORM AN INSPECTION WITH REPRESENTATIVES OF THE DEPARTMENT, CONTRACTOR, AND LOCALS OF ALL EXISTING DRAINAGE FACILITIES THAT ARE TO REMAIN IN SERVICE WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCES IS DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION ARE MAINTAINED BY THE DEPARTMENT.

CONFIRM ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE MENTIONED PARTIES ARE MAINTAINED AND LEFT IN A CONDITION COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. THE CONTRACTOR IS RESPONSIBLE TO CORRECT ANY CHANGE IN THE CONDITION RESULTING FROM THEIR OPERATIONS AS DIRECTED AND APPROVED BY THE ENGINEER.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE IS INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEMS.

ITEM 611 - CONDUITS, AS PER PLAN
ITEM 611 - INLETS, AS PER PLAN
ITEM 611 - MANHOLE, AS PER PLAN

PROPOSED DRAINAGE STRUCTURE ELEVATIONS HAVE BEEN INTERPOLATED FROM RECORD PLANS AND ARE NOT GUARANTEED. CONTRACTOR SHALL FIELD VERIFY ALL ELEVATIONS PRIOR TO ORDERING ANY DRAINAGE STRUCTURES. ALL LABOR, EQUIPMENT AND MATERIAL COSTS ASSOCIATED WITH THE MODIFICATION OF STRUCTURES IN THE FIELD SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 611, AS PER PLAN. ANY MODIFICATIONS NECESSARY TO THE PLAN INVERTS, PIPE SIZES AND SLOPES SHALL BE AT THE APPROVAL OF THE ENGINEER.

EROSION CONTROL

SEEDING AND MULCHING

THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS:

ITEM 659, SOIL ANALYSIS TEST	2 EACH
ITEM 659, TOPSOIL	129 CU. YD.
ITEM 659, SEEDING AND MULCHING, CLASS 2	1157 SQ. YD.
ITEM 659, REPAIR SEEDING AND MULCHING	58 SQ. YD.
ITEM 659, INTER-SEEDING	58 SQ. YD.
ITEM 659, COMMERCIAL FERTILIZER	0.19 TONS
ITEM 659, LIME	0.24 ACRES
ITEM 659, WATER	7 M. GAL.

APPLY SEEDING AND MULCHING S TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS.

TRAFFIC CONTROL

SIGNS

UNLESS OTHERWISE DIRECTED BY THE ENGINEER, THE FOLLOWING CONDITIONS SHALL APPLY:

WHERE PHYSICAL CONDITIONS PERMIT, SIGNS SHALL HAVE THE CORRECT LATERAL AND VERTICAL CLEARANCE WITH RESPECT TO THE EDGE OF PAVEMENT IN ACCORDANCE WITH THE MINIMUM DISTANCE SHOWN ON THE STANDARD DRAWING. WHERE PHYSICAL CONDITIONS PERMIT, SIGNS ERECTED OR RE-ERECTED ON NEW POST SUPPORTS SHALL BE LOCATED LONGITUDINALLY TO THE ROADWAY IN THE SAME POSITION AS THE EXISTING SIGNS. THE PLANS ARE APPROXIMATE TO SHOW THE ORDER OF SIGNS IN RELATIONSHIP TO EACH OTHER AND ARE NOT TO BE CONSIDERED EXACT LOCATIONS.

SIGNS (CONT.)

EXISTING SIGNS NOT SHOWN ON THE SUMMARY AS WORK LOCATIONS SHALL NOT BE DISTURBED.

IF A SIGN IS ENCOUNTERED IN THE FIELD WHICH IS NOT LISTED, DOUBLE CHECK WITH ODOT ENGINEER BEFORE PROCEEDING WITH ACTION ON THAT SIGN.

SIGN DESIGN FILES (SIGNCAD)

SIGN DESIGN FILES (SIGNCAD FILES) FOR NON-STANDARD GUIDE SIGN SIZES WILL BE PROVIDED AT THE PROJECT PRE-CONSTRUCTION MEETING. THE SIGN DESIGN FILES SUPPLEMENT THE SIGN INFORMATION IN THE PLAN SET. REFER TO THE ESTIMATED QUANTITY SHEETS AND PLAN DETAILS FOR SIZE AND TYPE OF ALL SIGN PANELS. DIRECT ALL QUESTIONS OR COMMENTS TO THE PROJECT ENGINEER.

SIGN SHOP DRAWINGS

THE CONTRACTOR SHALL SUBMIT A COMPLETE SET OF SIGN SHOP DRAWINGS TO THE PROJECT ENGINEER FOR APPROVAL A MINIMUM OF FOUR (4) WEEKS PRIOR TO THE BEGINNING OF FABRICATION. THE PROJECT ENGINEER SHOULD FORWARD THE SIGN SHOP DRAWINGS TO THE DISTRICT PRODUCTION DEPARTMENT FOR APPROVAL.

ITEM 621 - RAISED PAVEMENT MARKER REMOVED

EXISTING RAISED PAVEMENT MARKERS THAT CONFLICT WITH THE PROPOSED PAVEMENT MARKINGS WILL BE REMOVED. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER:

ITEM 621 - RAISED PAVEMENT MARKER REMOVED 498 EACH

LIGHTING

ITEM 625 - DISTRIBUTION CABLE, MISC.: NO. 2 AWG 5000 VOLT DISTRIBUTION CABLE

THIS PAY ITEM IS INTENDED TO MATCH THE EXISTING CABLE TYPE IN THE MEDIAN BARRIER THAT WILL BE REPLACED. ALL REQUIREMENTS OF ITEM 625 APPLY. PAYMENT FOR THIS ITEM SHALL BE PAID AT THE UNIT PRICE BID FOR ITEM 625 - DISTRIBUTION CABLE, MISC.: NO. 2 AWG 5000 VOLT DISTRIBUTION CABLE.

HIGH VOLTAGE TEST WAIVED

THE HIGH VOLTAGE TEST SHALL NOT BE PERFORMED ON THE CIRCUITS CONSTRUCTED BY THIS PROJECT, SINCE THE TEST COULD DAMAGE THE PORTION OF THE COMPLETED CIRCUIT WHICH HAS BEEN IN SERVICE PRIOR TO THIS PROJECT.

SPECIAL, MAINTAIN EXISTING LIGHTING

EXISITING ROADWAYS ARE TO REMAIN OPEN TO TRAFFIC DURING CONSTRUCTION OF THIS PROJECT AND WHICH ARE LIGHTED SHALL HAVE THE LIGHTING MAINTAINED AS DESCRIBED HEREIN.

BEFORE ANY WORK IS STARTED IN THE IMMEDIATE VICINITY OF THE EXISITING LIGHTING CIRCUITS, REPRESENTATIVES OF ODOT, THE MAINTAINING AGENCY AND THE CONTRACTOR SHALL MAKE A VISUAL INSPECTION OF THE EXISTING ROADWAY LIGHTING CIRCUITS TO BE MAINTAINED. DURING THIS INSPECTION, A WRITTEN RECORD OF THE CONDITION OF EXISTING LIGHTING SHALL BE MADE BY ODOT'S REPRESENTATIVE. THIS WRITTEN REPORT SHALL NOTE INDIVIDUAL LUMINARIES WHICH ARE NOT IN WORKING ORDER, INDIVIDUAL POLES WHICH ARE NOT STANDING, AND INDIVIDUAL CIRCUITS WHICH ARE NOT IN WORKING ORDER. THE COMPLETE REPORT SHALL BE SIGNED BY THE REPRESENTATIVE OF ODOT, THE MAINTAINING AGENCY AND THE CONTRACTOR.

SPECIAL, MAINTAIN EXISTING LIGHTING (CONT.)

IF, AS A RESULT OF THIS INSPECTION, IT IS DETERMINED THAT THE CONDITION OF THE EXISTING SYSTEM IS BELOW THAT REQUIRED FOR THE SAFETY OF THE TRAVELING PUBLIC, THEN THE MAINTAINING AGENCY SHALL MAKE THE REPAIRS NECESSARY TO RETURN THE SYSTEM TO AN ACCEPTABLE CONDITION. FOLOWING THESE REPAIRS, THE SYSTEM SHALL AGAIN BE INSPECTED AND A REPORT SHALL BE MADE AND SIGNED AS OUTLINED HEREIN.

WHEN THE EXISITING SYSTEM IS IN AN ACCEPTABLE CONDITON, IT SHALL BE TURNED OVER TO THE CONTRACTOR WHO SHALL THEN BE REQUIRED MAINTAIN THE EXISTING LIGHTING TO THE CONDITION OUTLINED IN THIS REPORT WITH THE EXCEPTION OF KNOCKDOWNS DUE TO TRAFFIC CRASHES.

REPLACEMENT OF KNOCKED DOWNED UNITS SHALL BE DONE ONLY WHEN THE ENGINEER HAS DETERMINED THAT THE REPLACEMENT OF THE KNOCKED DOWN UNIT IS NECCESSARY AND SHALL BE PAID SEPARATELY ON A UNIT BASIS.

BETTERMENTS SHALL BE COVERED IN ITEMS OF WORK PERTAINING TO THE CONSTRUCTION OF PERMANENT IMPROVEMENT.

WHEN THE SEQUENCE OF CONSTRUCTION ACTIVITIES REQUIRES, OR SHOULD THE CONTRACTOR DESIRE, THE REMOVAL OF THE EXISTING LIGHTING BEFORE THE NEW LIGHTING IS OPERATIONAL, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING TEMPORARY LIGHTING OF THIS PORTION OF THE ROADWAY.

PRIOR TO INSTALLING SUCH LIGHTING, THE CONTRACTOR SHALL PREPARE AND SUBMIT FOUR SETS OF THE TEMPORARY LIGHTING PLAN TO THE ENGINEER FOR REVIEW AND APPROVAL.

THIS PLAN SHALL SHOW LOCATIONS OF POLES, LENGTHS OF BRACKET ARMS, STYLES OF LUMINARIES, MOUNTING HEIGHTS, WIRING METHODS AND OTHER PERTINENT INFORMATION. THE TEMPORARY LIGHTING SHALL PROVIDE AN AVERAGE INITIAL INTENSITY OF 1.2 FOOTCANDLES WITH AN AVERAGE TO MINIMUM UNIFORMITY NOT TO EXCEED 3:1. MOUNTING HEIGHT OF TEMPORARY LUMINARIES SHALL NOT BE LESS THAN 30 FEET, AND THE MINIMUM OVERHEAD CONDUCTOR CLEARANCE SHALL BE 20 FEET. TEMPORARY OVERHEAD CONSTRUCTION SHALL NOT BE LESS THAN GRADE "B" FOR STRENGTH REQUIREMENTS AS DEFINED BY THE NATIONAL ELECTRIC SAFETY CODE. WOOD POLES WITH OVERHEAD WIRING MAY BE USED. HOWEVER, TEMPORARY LIGHTING SHALL MEET FEDERAL AND STATE SAFETY CRITERIA. IF BREAKAWAY POLES ARE USED TO MEET THESE CRITERIA, THEN UNDERGROUND WIRING SHALL BE USED. RECONDITIONED OR USED MATERIALS MAY BE FURNISHED FOR TEMPORARY LIGHTING. ALL MATERIALS NECESSARY TO COMPLETE THE TEMPORARY LIGHTING SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. WHEN NO LONGER NEEDED, THE TEMPORARY LIGHTING INSTALLATION SHALL BE REMOVED AND PROPERLY DISPOSED OF BY THE CONTRACTOR.

WHEN THE PROJECT BEGINS AND THE CONTRACTOR HAS TAKEN OVER MAINTENANCE OF THE EXISTING FACILITIES, THE CONTRACTOR IS RESPONSIBLE FOR ALL REQUIRED LAYOUTS AND LOCATIONS OF THE EXISTING AND PROPOSED ELECTRICAL CIRCUITS AND RELATED ITEMS WITHIN THE PROJECTS LIMITS. THE CONTRACTOR SHALL LOCATE AND MARK ALL UNDERGROUND ELECTRICAL CIRCUITS (INCLUDING TRAFFIC LOOPS AND LOOP LEAD-INS) FOR THE DURATION OF THE PROJECT.

THE MAINTAINING AGENCY WILL PAY FOR ELECTRICAL ENERGY CONSUMED BY EXISTING POWER SERVICES AND BY PROPOSED PERMANENT POWER SERVICES AFTER ACCEPTANCE OF THE LIGHTING WORK. THE CONTRACTOR WILL PAY FOR ELECTRICAL ENERGY, INSTALLATION, REMOVAL AND MAINTENANCE OF ANY TEMPORARY POWER SERVICES.

THE LUMP SUM PRICE BID FOR ITEM SPECIAL "MAINTAIN EXISTING LIGHTING" SHALL INCLUDE PAYMENTS FOR ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO MAINTAIN THE EXISTING LIGHTING AS SPECIFIED HEREIN.

GENERAL NOTES

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER RHB
REVIEWER CWP 10/07/25
PROJECT ID 120469
SHEET P.08 TOTAL 86

ITEM 614, MAINTAINING TRAFFIC, AS PER PLAN

A MINIMUM OF TWO LANE(S) OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES BY USE OF THE EXISTING PAVEMENT.

NO WORK SHALL BE PERFORMED AND ALL EXISTING LANES SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING DESIGNATED HOLIDAYS OR SPECIAL EVENTS:

NEW YEAR'S (OBSERVED)
MEMORIAL DAY
FOURTH OF JULY (OBSERVED)
LABOR DAY
GENERAL/REGULAR ELECTION DAY (NOV)
CHRISTMAS (OBSERVED)
(OTHER HOLIDAY OR SPECIAL EVENT)

THE PERIOD OF TIME THAT THE LANES ARE TO BE OPEN DEPENDS ON THE DAY OF THE WEEK ON WHICH THE HOLIDAY OR SPECIAL EVENT FALLS. THE FOLLOWING SCHEDULE SHALL BE USED TO DETERMINE THIS PERIOD:

DAY OF HOLDAY OR SPECIAL	TIME ALL LANES MUST BE OPEN FOR TRAFFIC
SUNDAY	12:00N FRIDAY THROUGH 6:00 AM MONDAY
MONDAY	12:00N FRIDAY THROUGH 6:00 AM TUESDAY
TUESDAY	12:00N MONDAY THROUGH 6:00 AM WEDNESDAY
TUESDAY (GEN./REG. ELECTION)	5:00 AM TUESDAY THROUGH 12:00 AM WEDNESDAY
WEDNESDAY	12:00N TUESDAY THROUGH 6:00 AM THURSDAY
THURSDAY	12:00N WEDNESDAY THROUGH 6:00 AM FRIDAY
THURSDAY (THANKSGIVING ONLY)	6:00 AM WEDNESDAY THROUGH 6:00 AM MONDAY
FRIDAY	12:00N THURSDAY THROUGH 6:00 AM MONDAY
SATURDAY	12:00N FRIDAY THROUGH 6:00 AM MONDAY

LANE VALUE CONTRACT TABLE

DESCRIPTION OF CRITICAL LANE/ RAMP TO BE MAINTAINED	RESTRICTED TIME PERIOD	TIME UNIT	DISINCENTIVE $ PER TIME UNIT
SR 176 SB FROM HARVARD/DENISON TO I-480	AS PER THE D12 PERMITTED LANE CLOSURE SCHEDULE	EACH MINUTE	$130
SR 176 NB & SB FROM HARVARD TO JENNINGS RAMPS	AS PER THE D12 PERMITTED LANE CLOSURE SCHEDULE	EACH MINUTE	$185
SR 176 NB FROM JENNINGS RAMP TO W. 14TH	AS PER THE D12 PERMITTED LANE CLOSURE SCHEDULE	EACH MINUTE	$145
SR 176 SB FROM W. 14TH/VALENTINE ON RAMP TO JENNINGS EXIT RAMP	AS PER THE D12 PERMITTED LANE CLOSURE SCHEDULE	EACH MINUTE	$155

THE CONTRACTOR SHALL BE ASSESSED DISINCENTIVES AS DESIGNATED IN THE LANE VALUE CONTRACT TABLE FOR EACH UNIT OF TIME THE DESCRIBED CRITICAL LANE/RAMP IS RESTRICTED FROM FULL USE BY THE TRAVELING PUBLIC WITHIN THE RESTRICTED TIME PERIOD. THE LANE VALUE CONTRACT TABLE IS LOCATED IN THE PLAN GENERAL NOTES. THE DISINCENTIVES WILL BE ASSESED FOR ALL RESTRICTIONS OF THE CRITICAL WORK.

CRITICAL WORK IS SHOWN IN THE LANE VALUE CONTRACT TABLE.

ITEM 614, MAINTAINING TRAFFIC, AS PER PLAN (CONT.)

CRITICAL WORK IS DEFINED AS HAVING THE DESIGNATED SECTIONS OPEN TO UNRESTRICTED TRAFFIC AS SHOWN IN THE TABLE, OR THE ENTIRE PROJECT IF NOT OTHERWISE LISTED.

UNRESTRICTED TRAFFIC IS DEFINED AS ALL TRAFFIC LANES BEING AVAILABLE FOR USE WITH SPECIFIC STRIPING AND SAFETY FEATURES IN PLACE.

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIRMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE PER THE LANE VALUE CONTRACT (PN 127).

LENGTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH C&MS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT, AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM, MAINTAINING TRAFFIC, AS PER PLAN, UNLESS SEPERATELY ITEMIZED IN THE PLAN.

PERMITTED LANE CLOSURE SCHEDULE (PLCS)

LANE CLOSURE(S) SHALL CONFORM TO THE PLCS. PUBLISHED PLCS INFORMATION CAN BE FOUND ON THE ODOT WEBSITE AT: HTTPS://WWW.TRANSPORTATION.OHIO.GOV/WPS/PORTAL/GOV/ODOT/WORKING/DATA-TOOLS/RESOURCES/PERMITTED-LANE-CLOSURE

THE MONTHLY PUBLISHED SCHEDULES REQUIRED TO BE USED, FOR EACH PLCS SEGMENT WITHIN THE PROJECT AREA, ARE THOSE THAT COMPRISE THE CONSECUTIVE 12-MONTH PERIOD BEGINNING 15 MONTHS PRIOR TO THE MONTH AND YEAR OF THE SALE AND ENDING 4 MONTHS PRIOR TO THE MONTH AND YEAR OF SALE. THESE SAME 12 MONTHS APPLY FOR THE LIFE OF THE PROJECT AND SHALL BE APPLIED TO EACH RESPECTIVE MONTH OF CONSTRUCTION (MONTH OF LANE CLOSURE(S) SHALL MATCH MONTH OF PLCS USED). LANE CLOSURE(S) IN PLACE FOR MULTIPLE MONTHS SHALL ALWAYS COMPLY WITH THE CURRENT RESPECTIVE MONTH.

MORE RESTRICTIVE CHANGES TO THE ALLOWABLE LANE CLOSURE HOURS ARE AT THE DISCRETION OF THE ENGINEER IN ORDER TO COMPLY WITH THE TRAFFIC MANAGEMENT IN WORK ZONES POLICY (21-008(p)) AND STANDARD PROCEDURE (123-001(SP)).

LESS RESTRICTIVE CHANGES TO THE ALLOWABLE LANE CLOSURE HOURS ARE SUBJECT TO THE TRAFFIC MANAGEMENT IN WORK ZONE POLICY (21-008(p)) AND STANDARD PROCEDURE (123-001(SP)) AND SHALL NOT BE IMPLEMENTED UNTIL, AND UNLESS, APPROVED BY THE PROPER ODOT AUTHORITY.

ALLOWABLE LANE CLOSURE HOURS FOR FACILITIES NOT COVERED BY THE PLCS CAN BE FOUND IN THE "SCHEDULE OF THROUGH LANES TO BE MAINTAINED." CONTACT TROY ONESTI, DISTRICT 12 WORK ZONE TRAFFIC MANAGER, AT (216) 379-5337 IF THERE ARE ANY QUESTIONS.

GENERAL MAINTENANCE OF TRAFFIC OPERATIONS

ALL LANE CLOSURES SHALL FOLLOW THE ODOT PERMITTED LANE CLOSURE SCHEDULES. CONTRACTOR SHALL ONLY USE DRUMS TO PROTECT WORK ZONES. THE CONTRACTOR SHALL ENSURE THERE IS ADEQUATE GUIDE SIGNS AND LINEAR DELINEATORS TO PROPERLY DIRECT THE TRAVELING PUBLIC. ALL LANE CLOSURES SHALL FOLLOW ODOT SCD MT-95.50 FOR ADVANCED SIGNS USED IN LANE CLOSURES. THE CONTRACTOR CAN SUBMIT ALTERNATE MAINTENANCE OF TRAFFIC SCHEMES TO ODOT DISTRICT 12 FOR APPROVAL. THE USE OF TEMPORARY PAVEMENT MARKINGS SHALL BE APPROVED PER THE ENGINEER.

ALL CANTILEVER AND TRUSS EXTRUSHEET SIGNS TO BE REPLACED ON THE EXISTING STRUCTURE SHALL FOLLOW ODOT SCD MT-95.45 FOR CLOSING SHOULDERS USING DRUMS ONLY. THE CONTRACTOR SHALL FOLLOW ODOT SCD MT-95.30 FOR CLOSING ANY LANES ONLY IF ADDITIONAL LATERAL BUFFER SPACE IS NECESSARY FOR CONSTRUCTION. THE CONTRACTOR SHALL FOLLOW ODOT SCD MT-99.60 FOR ANY SIGN INSTALLATIONS OVER THE MIDDLE LANES OF TRAFFIC.

ALL POST MOUNTED SIGNS SHALL BE CONSTRUCTED WITH A SHOULDER CLOSING ONLY WITH DRUMS AS PER ODOT SCD MT-95.45. WHEN A LANE CLOSURE IS REQUIRED FOR THE NECESSARY LATERAL BUFFER SPACE FOR CONSTRUCTION, THE CONTRACTOR SHALL FOLLOW ODOT SCD MT-95.30 FOR LANE CLOSURES.

ALL QUANTITIES FOR MAINTENANCE OF TRAFFIC OPERATIONS DETAILED HERE ARE INCLUDED IN THE LUMP SUM ITEM 614 - MAINTAINING TRAFFIC, AS PER PLAN OR HAVE BEEN QUANTIFIED SEPARATELY IN THE PLANS TO BE USED AT THE DIRECTION OF THE ENGINEER.

FLOODLIGHTING

FLOODLIGHTING OF THE WORK SITE FOR OPERATIONS CONDUCTED DURING NIGHTTIME PERIODS SHALL BE ACCOMPLISHED SO THAT THE LIGHTS DO NOT CAUSE GLARE TO THE DRIVERS ON THE ROADWAY. TO ENSURE THE ADEQUACY OF THE FLOODLIGHT PLACEMENT, THE CONTRACTOR AND THE ENGINEER SHALL DRIVE THROUGH THE WORK SITE EACH NIGHT WHEN THE LIGHTING IS IN PLACE AND OPERATIVE PRIOR TO COMMENCING ANY WORK. IF GLARE IS DETECTED, THE LIGHT PLACEMENT AND SHIELDING SHALL BE ADJUSTED TO THE SATISFACTION OF THE ENGINEER BEFORE WORK PROCEEDS.

PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, AS PER PLAN.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, A CHANGEABLE MESSAGE SIGN. THE SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS AVAILABLE ON THE OFFICE OF MATERIALS MANAGEMENT WEB PAGE. THE LIST CONTAINS CLASS A AND B UNITS WITH MINIMUM LEGIBILITY DISTANCES OF 800 FEET AND 650 FEET, RESPECTIVELY.

EACH SIGN SHALL BE TRAILER-MOUNTED AND EQUIPPED WITH A FUNCTIONAL DIMMING MECHANISM, TO DIM THE SIGN DURING DARKNESS, AND A TAMPER AND VANDAL PROOF ENCLOSURE. EACH SIGN SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ON-SITE PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT. THE SIGN SHALL ALSO BE CAPABLE OF BEING POWERED BY AN ELECTRICAL SERVICE DROP FROM A LOCAL UTILITY COMPANY. THE PCMS SHALL BE DELINEATED IN ACCORDANCE WITH C&MS 614.03.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN (CONT.)

THE PROBABLE PCMS LOCATIONS AND WORK LIMITS FOR THOSE LOCATIONS SHALL BE AS SHOWN IN THE SCD OR AS DIRECTED BY THE ENGINEER. PLACEMENT, OPERATION, MAINTENANCE AND ALL ACTIVATION OF THE SIGNS BY THE CONTRACTOR SHALL BE AS DIRECTED BY THE ENGINEER. THE PCMS SHALL BE LOCATED IN A HIGHLY VISIBLE POSITION YET PROTECTED FROM TRAFFIC. THE CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS SHALL BE TURNED OFF. ADDITIONALLY, WHEN NOT IN USE FOR EXTENDED PERIODS OF TIME, THE PCMS SHALL BE TURNED AWAY FROM ALL TRAFFIC.

THE ENGINEER SHALL BE PROVIDED ACCESS TO EACH SIGN UNIT AND SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ODOT PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT, AND TO REVISE SIGN MESSAGES, IF NECESSARY.

THE CONTRACTOR SHALL IMPLEMENT A SYSTEM WHEREBY CHANGABLE MESSAGES WILL BE IMPLEMENTED WITHIN 2 HOURS FOLLOWING TELEPHONE NOTIFICATION FROM THE PROJECT ENGINEER TO A DESIGNATED PHONE.

ALL MESSAGES TO BE DISPLAYED ON THE SIGN WILL BE PROVIDED BY THE ENGINEER. A LIST OF ALL REQUIRED PRE-PROGRAMMED MESSAGES WILL BE GIVEN TO THE CONTRACTOR AT THE PROJECT PRECONSTRUCTION CONFERENCE. THE SIGN SHALL HAVE THE CAPABILITY TO STORE UP TO 99 MESSAGES. MESSAGE MEMORY OR PRE-PROGRAMMED DISPLAYS SHALL NOT BE LOST AS A RESULT OF POWER FAILURES TO THE ON-BOARD COMPUTER. THE SIGN LEGEND SHALL BE CAPABLE OF BEING CHANGED IN THE FIELD. THREE-LINE PRESENTATION FORMATS WITH UP TO SIX MESSAGE PHASES SHALL BE SOPPORTED. PCMS FORMAT SHALL PERMIT THE COMPLETE MESSAGE FOR EACH PHASE TO BE READ AT LEAST TWICE.

THE PCMS SHALL CONTAIN AN ACCURATE CLOCK AND PROGRAMMING LOGIC WHICH WILL ALLOW THE SIGN TO BE ACTIVATED, DEACTIVATED OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES OF THE DAY FOR DIFFERENT DAYS OF THE WEEK.

THE PCMS SHALL CONTAIN A CELLULAR TELEPHONE DATA LINK WHICH WILL (IN ACTIVE CELLULAR PHONE AREAS) ALLOW REMOTE SIGN ACTIVATION, MESSAGE CHANGES, MESSAGE ADDITIONS AND REVISIONS TO TIME OF DAY PROGRAMS. THE SYSTEM SHALL ALSO PERMIT VERIFICATION OF CURRENT AND PROGRAMMED MESSAGES. ONE REMOTE DATA INPUT DEVICE (LAPTOP COMPUTER PLUS MODEM OR EQUIVALENT)

SHALL BE FURNISHED FOR THE USE BY THE DISTRICT TRAFFIC ENGINEER, OR EQUIVALENT, AND SHALL BE INSURED AGAINST THEFT. THE PCMS UNIT SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF C&MS 614.07. THE CONTRACTOR SHALL, PRIOR TO ACTIVATING THE UNIT, MAKE ARRANGEMENTS, WITH AN AUTHORIZED SERVICE AGENT FOR THE PCMS, TO ASSURE PROMPT SERVICE IN THE EVENT OF FAILURE. ANY FAILURE SHALL NOT RESULT IN THE SIGN BEING OUT OF SERVICE FOR MORE THAN 12 HOURS, INCLUDING WEEKENDS. FAILURE TO COMPLY MAY RESULT IN AN ORDER TO STOP WORK AND OPEN ALL TRAFFIC LANES AND/OR IN THE DEPARTMENT TAKING APPROPRIATE ACTION TO SAFELY CONTROL TRAFFIC. THE ENTIRE COST TO CONTROL TRAFFIC, ACCRUED BY THE DEPARTMENT DUE TO THE CONTRACTOR'S NONCOMPLIANCE, WILL BE DEDUCTED FROM MONEYS DUE, OR TO BECOME DUE THE CONTRACTOR ON HIS CONTRACT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR 24-HOUR-PER-DAY OPERATION AND MAINTENANCE OF THESE SIGNS ON THE PROJECT FOR THE DURATION OF THE PHASES WHEN THE PLAN REQUIRES THEIR USE.

PAYMENT FOR THE ABOVE DESCRIBED ITEM SHALL BE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FUELS, LUBRICATING OILS, SOFTWARE, HARDWARE AND INCIDENTALS TO PERFORM THE ABOVE DESCRIBED WORK.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN 8
SIGN MONTH ASSUMING **2** PCMS SIGN(S) FOR **4** MONTH(S)

MAINTENANCE OF TRAFFIC GENERAL NOTES

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER RHB
REVIEWER CWP 10/07/25
PROJECT ID 120469
SHEET P.09 TOTAL 86

DELINEATION OF PORTABLE AND PERMANENT BARRIER

BARRIER REFLECTORS AND OBJECT MARKERS SHALL BE INSTALLED ON ALL PORTABLE BARRIER (PB) USED FOR TRAFFIC CONTROL; AND, ON PERMANENT CONCRETE BARRIER (INCLUDING BRIDGE PARAPETS) LOCATED WITHIN 5 FEET OF THE EDGE OF THE ADJACENT TRAVEL LANE.

BARRIER REFLECTORS SHALL CONFORM TO C&MS 626, EXCEPT THAT THE SPACING SHALL BE AS PER TRAFFIC SCD MT-101.70. OBJECT MARKERS AND THEIR INSTALLATION SHALL CONFORM TO C&MS 614.03 AND SCD MT-101.70. WHEN THE PB OR PERMANENT BARRIER (INCLUDING BRIDGE PARAPETS) CONTAINS GLARE SCREEN, ONE SET OF THREE VERTICAL STRIPES OF SHEETING SHALL BE CONSIDERED EQUIVALENT TO AN OBJECT MARKER, ONE-WAY.

INCREASED BARRIER DELINEATION, AS SPECIFIED HEREIN, SHALL BE INSTALLED ON ALL PB AND PERMANENT CONCRETE BARRIER LOCATED WITHIN 5 FEET OF THE EDGE OF THE TRAVELED LANE UNDER EITHER OF THE FOLLOWING CONDITIONS: ALONG TAPERS AND TRANSITION AREAS; OR ALONG CURVES (OUTSIDE ONLY) WITH DEGREE OF CURVATURE GREATER THAN OR EQUAL TO 3 DEGREES.

THE INCREASED BARRIER DELINEATION SHALL CONSIST OF EITHER DELINEATION PANELS OR THE TRIPLE STACKING OF WORK ZONE BARRIER REFLECTORS.

DELINEATION PANELS SHALL CONSIST OF PANELS OF DELINEATION, APPROXIMATELY 34 INCHES LONG AND 6 INCHES WIDE AND SHALL BE "CRIMPED." PANELS SHALL BE INSTALLED AND SPACED PER TRAFFIC SCD MT-101.70.

TRIPLE-STACKED BARRIER REFLECTORS SHALL CONSIST OF ALIGNING THREE BARRIER REFLECTORS VERTICALLY, AT LOCATIONS WHERE A SINGLE BARRIER REFLECTOR WOULD BE OTHERWISE ATTACHED. THERE SHALL BE NO OPEN SPACE BETWEEN THE ADJACENT BARRIER REFLECTORS. THE TRIPLE-STACKED BARRIER REFLECTORS SHALL CONFORM TO C&MS 626, EXCEPT THAT THEY SHALL BE SPACED AND ALIGNED PER TRAFFIC SCD MT-101.70.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE PLANS AND CARRIED TO THE GENERAL SUMMARY:

ITEM 614, BARRIER REFLECTOR, TYPE 1, BI-DIRECTIONAL 176 EACH

ITEM 614, OBJECT MARKER, ONE-WAY 176 EACH

ITEM 614, INCREASED BARRIER DELINEATION (PERMANENT BARRIER) 2,010 FEET

ITEM 614, INCREASED BARRIER DELINEATION (TEMPORARY BARRIER) 6,748 FEET

PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIAL, LABOR, INCIDENTALS AND EQUIPMENT NECESSARY FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING EACH OF THE ABOVE ITEMS.

ALONG RUNS OF INCREASED BARRIER DELINEATION WHERE THIS ITEM IS PROVIDED, THE QUANTITY SHALL BE MEASURED AS THE ENTIRE LENGTH OF THE RUN OF INCREASED BARRIER DELINEATION, INCLUDING THE SPACES BETWEEN THE INDIVIDUAL DELINEATION PANELS OR STACKS OF BARRIER REFLECTORS.

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS

USE OF LAW ENFORCEMENT OFFICERS (LEOS) BY CONTRACTORS OTHER THAN THE USES SPECIFIED BELOW SHALL NOT BE PERMITTED AT PROJECT COST NOR TIME COMPENSATION. LEOS SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF C&MS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHALL BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS:

DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.

DURING A TRAFFIC SIGNAL INSTALLATION WHEN IMPACTING THE NORMAL FUNCTION OF THE SIGNAL OR THE FLOW OF TRAFFIC, OR WHEN TRAFFIC NEEDS TO BE DIRECTED THROUGH AN ENERGIZED TRAFFIC SIGNAL CONTRARY TO THE SIGNAL DISPLAY (E.G., DIRECTING MOTORISTS THROUGH A RED LIGHT).

DURING PERIODS WHERE TRAFFIC NEEDSS TO BE DIRECTED CONTRARY TO A TRAFFIC CONTROL DEVICE (FLAGGER, SIGN [E.G. STOP SIGN, STREET OR HIGHWAY SIGNS, ETC], SIGNAL OR OTHER DEVICE USED TO REGULATE, WARN OR GUIDE TRAFFIC). TRAFFIC IN THIS INSTANCE INCLUDES VEHICULAR, PEDESTRIAN AND/PR SHARED USE PATH USERS.

IN ADDITION TO THE REQUIREMENT OF C&MS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHOULD BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS AS APPROVED BY THE ENGINEER:

FOR LANE CLOSURES THAT MEET ALL OF THE CRITERIA LISTED BELOW: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED FOR LONG-TERM LANE CLOSURES/SHIFTS (FOR THE FIRST AND LAST DAY OR MAJOR CHANGES IN TRAFFIC CONTROL SETUP).

CRITERIA:

ON A MULTI-LANE DIVIDED INTERSTATE, OTHER FREEWAY OR EXPRESSWAY; AND,

AN AUTHORIZED SPEED LIMIT OF 45 MPH OR GREATER THAT IS IN EFFECT AT THE TIME OF THE OPERATION; AND,

AADT OF 50,000 (OR 30,000 WITH 25% HIGHER PERCENT TRUCKS).

IN GENERAL, LEOS SHOULD BE POSITIONED IN ADVANCE OF AND ON THE SAME SIDE AS THE LANE RESTRICTION (OR AT THE POINT OF ROAD CLOSURE), AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH SIGNALIZED INTERSECTIONS AND/OR IN CONTRARY TO OTHER TRAFFIC CONTROL DEVICES IN WORK ZONES.

LEOS SHOULD NOT FORGO THEIR TRAFFIC CONTROL RESPONSIBILITIES TO APPREHEND MOTORISTS FOR ROUTINE TRAFFIC VIOLATIONS. HOWEVER, IF A MOTORIST'S ACTIONS ARE CONSIDERED TO BE RECKLESS, THEN PURSUIT OF THE MOTORIST IS APPROPRIATE.

THE LEOS WORK AT THE DIRECTION OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEOS WITH THE APPROPRIATE AGENCIES AND COMMUNICATING THE INTENTIONS OF THE PLANS WITH RESPECT TO DUTIES OF THE LEOS. THE ENGINEER SHALL HAVE FINAL CONTROL OVER THE LEOS' DUTIES AND PLACEMENT, AND WILL RESOLVE ANY ISSUES THAT MAY ARISE BETWEEN THE TWO PARTIES.

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS (CONT.)

ENSURE PROVIDED LEOS HAVE BEEN TRAINED APPROPRIATE TO THE JOB DECISIONS THEY ARE REQUIRED TO MAKE WHILE ON THE PROJECT, IN ACCORDANCE WITH C&MS 614.03.

THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT. THE SHIFT DURATION SHALL NOT BE LESS THAN THE LEO'S MINIMUM SHOW-UP TIME REQUIRED BY THEIR LAW ENFORCEMENT AGENCY. THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE LEO SHALL REPORT TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHALL NOTIFY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO-WAY COMMUNICATION DEVICE THAT SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

LEOS (WITH PATROL CAR) REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE (HOURLY) BASIS UNDER ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE 240 HOURS.

THE HOURS PAID SHALL INCLUDE ANY MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED.

ANY ADDITIONAL COSTS (ADMINISTRATIVE OR OTHERWISE) INCURRED BY THE CONTRACTOR TO OBTAIN THE SERVICES OF A LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS.

ITEM 614 - WORK ZONE PAVEMENT MARKING, MISC.: REMOVABLE, NON-REFLECTIVE PREFORMED BLACKOUT TAPE

THIS ITEM SHALL CONFORM TO CMS 614.11 WORK ZONE PAVEMENT MARKING REQUIREMENTS WITH THE EXCEPTION THAT THE MARKING MATERIAL SHALL BE BLACKOUT TAPE CONFORMING TO SUPPLEMENTAL SPECIFICATION 987. THE BLACKOUT TAPE SHALL BE MANUFACTURED BY A SUPPLIER ON ODOT'S QUALIFIED PRODUCTS LIST FOR THIS ITEM. PAYMENT FOR THIS ITEM SHALL BE MADE AT THE UNIT PRICE BID PER LINEAR FOOT FOR ITEM 614 WORK ZONE PAVEMENT MARKING, MISC.: REMOVABLE, NON-REFLECTIVE PREFORMED BLACKOUT TAPE AND SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, AND INCIDENTALS NECESSARY TO FURNISH, INSTALL, MAINTAIN AND REMOVE THIS ITEM.

THE CONTRACTOR SHALL INSTALL A SINGLE CONTINUOUS PIECE OF BLACKOUT TAPE TO COVER THE EXISTING EDGE LINES AND LANE LINES AS INDICATED IN THE PLANS.

COORDINATION WITH OTHER PROJECTS

THE CONTRACTOR SHALL BE ADVISED THAT PROJECTS 122409, 122328, AND 122200 MAY BE ONGOING IN AN AREA IMMEDIATELY ADJACENT TO AND WITHIN THE PROJECT LIMITS OF THIS PROJECT. THE CONTRACTOR SHALL SCHEDULE HIS WORK SO AS TO CAUSE A MINIMUM OF DELAY OR CONFLICT WITH THE OTHER PROJECTS. IN ACCORDANCE WITH 105.08, THE CONTRACTOR SHALL ARRANGE WITH THE OTHER CONTRACTORS APPROVAL OF THE ENGINEER PRIOR TO COMMERCING ANY OPERATIONS. ANY CONFLICT BETWEEN CONTRACTORS INVOLVING WORK SCHEDULE, WORKING AREA, OR COOPERATION SHALL BE RESOLVED BY THE ENGINEER.

NOTIFICATION OF TRAFFIC RESTRICTIONS

THROUGHOUT THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES. THE CONTRACTOR SHALL ENSURE THE WRITTEN NOTIFICATION IS SUBMITTED IN A TIMELY MANNER TO ALLOW THE PROJECT ENGINEER TO MEET THE REQUIRED TIME FRAMES SET FORTH IN THE TABLE BELOW TO INFORM THE SPECIAL HAULING PERMITS SECTION (HAULING.PERMITS@DOT.OHIO.GOV) AND THE DISTRICT PUBLIC INFORMATION OFFICE (PIO). THIS NOTIFICATION SHALL BE RECEIVED BY THE PROJECT ENGINEER PRIOR TO PHYSICAL SETUP OF ANY APPLICABLE SIGNS OR MESSAGE BOARDS.

INFORMATION SHOULD INCLUDE, BUT IS NOT LIMITED TO, ALL CONSTRUCTION ACTIVITIES THAT IMPACT OR INTERFERE WITH TRAFFIC AND SHALL LIST THE SPECIFIC LOCATION, TYPE OF WORK, ROAD STATUS, DATE AND TIME OF RESTRICTION, DURATION OF RESTRICTION, NUMBER OF LANES MAINTAINED, NUMBER OF LANES CLOSED, MINIMUM VERTICAL CLEARANCE, MINIMUM WIDTH OF DRIVABLE PAVEMENT, DETOUR ROUTES, IF APPLICABLE, AND ANY OTHER INFORMATION REQUESTED BY THE PROJECT ENGINEER.

NOTIFICATION OF TRAFFIC RESTRICTIONS TIME TABLE

ITEM	DURATION OF CLOSURE	NOTICE DUE TO PREMITS & PIO
RAMP & ROAD CLOSURES	≥ 2 WEEKS	21 CALENDAR DAYS PRIOR TO CLOSURE
	>12 HOURS & < 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	≤ 12 HOURS	4 BUSINESS DAYS
LANE CLOSURES & RESTRICTIONS	≥ 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	< 2 WEEKS	5 BUSINESS DAYS PRIOR TO CLOSURE
START OF CONSTRUCTION & TRAFFIC PATTERN CHANGES	N/A	14 CALENDAR DAYS PRIOR TO IMPLEMENTATION

DELINEATION OF TEMPORARY AND PERMANENT GUARDRAIL

BARRIER REFLECTORS SHALL BE INSTALLED ON ALL PERMANENT GUARDRAIL LOCATED WITHIN 5 FEET OF THE EDGE OF THE ADJACENT TRAVEL LANE. BARRIER REFLECTORS SHALL CONFORM TO C&MS 626 AND THE SPACING SHALL BE APPROXIMATELY 50 FEET.

OBJECT MARKERS SHALL BE INSTALLED ON ALL TEMPORARY AND PERMANENT GUARDRAIL LOCATED WITHIN 5 FEET OF THE EDGE OF THE ADJACENT TRAVEL LANE. GUARDRAIL-MOUNTING OF OBJECT MARKERS SHALL BE MADE BY INSTALLING THE OBJECT MARKERS ON THE EXTENSION BLOCKS RATHER THAN DIRECTLY ONTO THE GUARDRAIL ITSELF. OBJECT MARKERS SHALL CONFORM TO C&MS 614.03 AND THE SPACING SHALL BE APPROXIMATELY 50 FEET WITH A 25 FOOT OFFSET FROM THE BARRIER REFLECTORS.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE PLANS AND CARRIED TO THE GENERAL SUMMARY:

ITEM 614, BARRIER REFLECTOR, TYPE 3, ONE-WAY 22 EACH

ITEM 614, OBJECT MARKER, ONE-WAY 22 EACH

PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIAL, LABOR, INCIDENTALS AND EQUIPMENT NECESSARY FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING THE ABOVE ITEM(S).

MAINTENANCE OF TRAFFIC GENERAL NOTES

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER RHB
REVIEWER CWP 10/07/25
PROJECT ID 120469
SHEET P.10 TOTAL 86

CUY-176-10.65

TRANSVERSE RUMBLE STRIP REMOVAL

ALL EXISTING TRANSVERSE RUMBLE STRIPS THAT ARE IN CONFLICT WITH THE PROPOSED MOVEMENT OF TRAFFIC AS SHOWN IN THESE PLANS SHALL BE REMOVED BY PAVEMENT PLANING. THE REMOVED RUMBLE STRIP AREA SHALL BE FILLED WITH ASPHALT CONCRETE SURFACE COURSE.

THE RUMBLE STRIP REMOVAL AND REPLACEMENT SHALL BE 1.5 INCHES DEEP AND VARY IN WIDTH TO MATCH THE WIDTH REQUIRED FOR REMOVAL. THE PAVEMENT PLANING AND PLACEMENT OF ASPHALT CONCRETE SURFACE COURSE SHOULD BE COMPLETED IN THE SAME OPERATION.

LONGITUDINAL RUMBLE STRIP REMOVAL

ALL EXISTING RUMBLE STRIPS THAT ARE IN CONFLICT WITH THE PROPOSED MOVEMENT OF TRAFFIC AS SHOWN IN THESE PLANS SHALL BE REMOVED BY PAVEMENT PLANING. THE REMOVED RUMBLE STRIP AREAS SHALL BE FILLED WITH ASPHALT CONCRETE SURFACE COURSE. THE RUMBLE STRIP REMOVAL AND REPLACEMENT AREA SHALL BE 2.5 FEET WIDE AND 1.5 INCHES DEEP, CENTERED ON THE RUMBLE STRIP IN THE AREA OF LONGITUDINAL RUMBLE STRIPS. THE PLANING AND PLACEMENT OF ASPHALT CONCRETE SURFACE COURSE SHOULD BE COMPLETED IN THE SAME OPERATION.

ITEM 614, WORK ZONE IMPACT ATTENUATOR FOR 24" WIDE HAZARDS, UNIDIRECTIONAL

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING A NON-GATING IMPACT ATTENUATOR. FURNISH AN IMPACT ATTENUATOR FROM THE OFFICE OF ROADWAY ENGINEERING'S APPROVED LIST FOR WORK ZONE IMPACT ATTENUATORS, FROM THE ROADWAY STANDARDS APPROVED PRODUCTS WEB PAGE.

INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE CONTRACTOR SHALL REPAIR OR REPLACE A DAMAGED UNIT WITHIN 24 HOURS OF A DAMAGING IMPACT.

WHEN BIDIRECTIONAL DESIGNS ARE SPECIFIED, THE CONTRACTOR SHALL SUPPLY APPROPRIATE TRANSITIONS.

WHEN GATING IMPACT ATTENUATORS ARE DESIRED, THE CONTRACTOR SHALL SUBMIT DOCUMENTATION TO THE ENGINEER FOR ACCEPTANCE.

THE COST FOR THE ADDITIONAL BARRIER REQUIRED FOR A GATING IMPACT ATTENUATOR SHALL BE INCLUDED IN THE COST OF THE GATING IMPACT ATTENUATOR.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT AND MAINTAIN A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS, TRANSITIONS, LEVELING PADS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

SEQUENCE OF CONSTRUCTION

THE NORTHERN AND SOUTHERN SECTION MAY BE CONSTRUCTED AT THE SAME TIME.

NORTHERN SECTION
℄ S.R. 176 STA. 122+00.00 TO ⅊ RA-18093 STA. 22+21.91

CONTRACTOR MAY COMPLETE WORK IN SEGMENTS WITHIN STAGES 2 AND 3. CONTRACTOR SHALL SCHEDULE WORK TO ENSURE ALL PAVEMENT MARKINGS REMOVED ARE REPLACED WITH PAVEMENT MARKINGS THAT ENSURE SAFE OPERATIONS FOR THE PUBLIC EACH MORNING.

SEQUENCE OF CONSTRUCTION (CONT.)
PRE-STAGE 1

WORK ON PROPOSED MEDIAN INLETS ARE TO BE DONE WITH LANE CLOSURES DETAILED ON SHEETS P.14 - P.15.

WORK ON PROPOSED DRAINAGE CROSSING S.R. 176 FROM PROPOSED MEDIAN INLETS TO SHOULDER STRUCTURES VIA OPEN CUT TO BE COMPLETED DURING ONE (1) WEEKEND CLOSURE. SEE PIS 209565 ON SHEETS P.85 - P.86.

THE CONTRACTOR MAY NOT WORK ON MEDIAN FROM STA. 226+00.00 TO STA. 230+00.00 WHILE WORK ON OUTSIDE SHOULDER FROM STA. 226+65.00 TO STA. 232+50.00 IS ONGOING UNLESS DURING WEEKEND CLOSURE.

WORK ON PROPOSED DRAINAGE AND ROADWAY ITEMS ALONG AND OUTSIDE OF SHOULDER TO BE DONE FOLLOWING SCD'S MT-95.40 AND MT-95.45.

ASSUMING 3 WORK ZONES, AT AN AVERAGE LENGTH OF 650', AND 720' TAPER LENGTH THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 614, WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL) 3 EACH

ITEM 614, PORTABLE BARRIER, UNANCHORED 4,110 FT

IF EXISTING SHOULDER PAVEMENT IS NOT SUITABLE TO DRIVE ON, THE CONTRACTOR IS TO REPAIR THE SHOULDER PAVEMENT WITH ASPHALT CONCRETE OF THE SAME THICKNESS AS EXISTING.

IT IS ASSUMED 10% OF ALL SHOULDERS THROUGHOUT THE PROJECT LIMITS WILL NEED REPAIRED. OF THE ASSUMED SHOULDERS, 1% OF THE SHOULDER SUBGRADE IS ASSUMED TO NEED REPLACED.

THERE IS APPROXIMATELY 25,800 LINEAR FEET OF SHOULDER IN THE NORTHERN SECTION OF THE PROJECT. ASSUMING 10% WILL NEED REPAIRED IS 2,580 LINEAR FEET OF SHOULDER. ASSUMING AN AVERAGE WIDTH OF 8' GIVES AN AREA OF 20,640 SF. ASSUMING A THICKNESS OF 12" GIVES A VOLUME OF 20,640 CF.

SAWCUTS ASSUME AN AVERAGE REPAIR LENGTH OF 20' WITH 2 SAWCUTS ON EACH END AT 8' EACH PLUS THE LENGTH OF THE ASSUMED TOTAL SHOULDER REPAIR.

EXCAVATION AND AGGREGATE BASE ASSUME THE ESTIMATED REPAIR AREAS AT A THICKNESS OF 6" GIVES A VOLUME OF 1,032 CF.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 252, FULL DEPTH RIGID PAVEMENT REMOVAL AND FLEXIBLE REPLACEMENT, AS PER PLAN 2,294 SY

ITEM 252, FULL DEPTH PAVEMENT SAWING 4,644 FT

ITEM 203, EXCAVATION 39 CY

ITEM 304, AGGREGATE BASE 39 CY

ITEM 609, CURB, TYPE 6 1,290 FT

SEE SHEET P.07 FOR DETAILS ON ITEM 252, FULL DEPTH RIGID PAVEMENT REMOVAL AND FLEXIBLE REPLACEMENT, AS PER PLAN.

REMOVE ALL RUMBLE STRIPS THAT WILL BE IN CONFLICT WITH PROPOSED PAVEMENT MARKINGS AS SHOWN IN THESE PLANS.

SEQUENCE OF CONSTRUCTION (CONT.)

STAGE 1 (TO BE COMPLETED DURING PERMITTED LANE CLOSURES)

WORK ON SOUTHBOUND LANES ONLY. REMOVE AND REPLACE LANE MARKINGS IN SEGMENTS. OPEN LANES TO TRAFFIC ONLY AFTER MARKINGS ARE COMPLETE OR TEMPORARY MARKINGS ARE IN PLACE.

ASSUMING THE CONTRACTOR WILL WORK OPPOSITE THE DIRECTION OF TRAVEL SUCH THAT THREE (3) LANES ARE ESTABLISHED AND TRANSITION TO EXISTING THREE (3) LANES OF TRAVEL, THE AVERAGE LANE SHIFT TO EXISTING IS ASSUMED TO BE SIX (6) FEET. IT IS ASSUMED THAT IT WILL TAKE THE CONTRACTOR FOUR (4) DAYS TO COMPLETE THE MARKINGS AND RPM WORK. IT IS ASSUMED THE CONTRACTOR WILL NOT TRANSITION EDGE LINES.

6' X 60 MPH = 360' TRANSITION PER LANE MARKING
2 CHANNELIZING LINES = 2 X 360' = 720'
4 NIGHTS (MINUS 1 FOR COMPLETION) = 3 X 720' = 2,160'

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 614, WORK ZONE CHANNELIZING LINE, CLASS II, 12" 2160 FEET

REMOVE AND REPLACE SIGNS. REMOVE SIGNS ONLY WHEN REPLACEMENT SIGNS ARE ON THE SITE. REPLACE SIGN WITHIN SAME WORK PERIOD/DAY IN WHICH SIGN IS REMOVED.

PERFORM DRAINAGE AND OTHER WORK.

STAGE 2 (TO BE COMPLETED DURING PERMITTED LANE CLOSURES)

WORK ON NORTHBOUND LANES ONLY. REMOVE AND REPLACE LANE MARKINGS IN SEGMENTS. OPEN LANES TO TRAFFIC ONLY AFTER MARKINGS ARE COMPLETE.

ASSUMING THE CONTRACTOR WILL WORK OPPOSITE THE DIRECTION OF TRAVEL SUCH THAT THREE (3) LANES ARE ESTABLISHED AND TRANSITION TO EXISTING THREE (3) LANES OF TRAVEL, THE AVERAGE LANE SHIFT TO EXISTING IS ASSUMED TO BE SIX (6) FEET. IT IS ASSUMED THAT IT WILL TAKE THE CONTRACTOR FOUR (4) DAYS TO COMPLETE THE MARKINGS AND RPM WORK. IT IS ASSUMED THE CONTRACTOR WILL NOT TRANSITION EDGE LINES.

6' X 60 MPH = 360' TRANSITION PER LANE MARKING
2 CHANNELIZING LINES = 2 X 360' = 720'
4 NIGHTS (MINUS 1 FOR COMPLETION) = 3 X 720' = 2,160'

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 614, WORK ZONE CHANNELIZING LINE, CLASS II, 12" 2160 FEET

REMOVE AND REPLACE SIGNS. REMOVE SIGNS ONLY WHEN REPLACEMENT SIGNS ARE ON SITE. REPLACE SIGN WITHIN SAME WORK PERIOD/DAY IN WHICH SIGN IS REMOVED.

PERFORM DRAINAGE AND OTHER WORK.

STAGE 3 (TO BE COMPLETED DURING PERMITTED LANE CLOSURES)

INSTALL PROPOSED RUMBLE STRIPS AS SHOWN IN THESE PLANS.

STAGE 4 (TO BE COMPLETED DURING PERMITTED LANE CLOSURES)

MARKINGS WILL BE RE-APPLIED A SECOND TIME NEAR COMPLETION OF THE PROJECT.

SEQUENCE OF CONSTRUCTION (CONT.)

SOUTHERN SECTION
℄ S.R. 176 STA. 122+00.00 TO ⅊ RA-18230 STA. 82+00.00

RAMP 18232 WILL BE UTILIZED IN THE DETOUR FOR PID 110810 AND CLOSED UPON BRIDGE AND RAMP 18252 RETURNING TO SERVICE.

CONTRACTOR SHALL SCHEDULE WORK TO ENSURE ALL PAVEMENT MARKINGS REMOVED ARE REPLACED WITH PAVEMENT MARKINGS THAT ENSURE SAFE OPERATIONS FOR THE PUBLIC EACH MORNING.

PRE-STAGE 1
ERECT SIGN TRUSS AND GUARDRAIL AT STA. 47+00.00 AHEAD OF PROJECT.
ERECT SIGN TRUSS AND GUARDRAIL AT STA. 61+50.00 AHEAD OF PROJECT, BUT AFTER RAMP 18232 IS CONSTRUCTED

STAGE 1
CLOSE WB SR 17 ENTRANCE RAMP TO IR-480 EB (RAMP 18232).
PERFORM WORK ALONG RAMP.

MOT DETAILS FOR BARRIER WORK ON SHEETS P.12 - P.13.

STAGE 2 (TO BE COMPLETED DURING PERMITTED LANE CLOSURES)

REMOVE AND REPLACE LANE MARKINGS. OPEN LANES TO TRAFFIC ONLY AFTER MARKINGS ARE COMPLETE.

REMOVE AND REPLACE SIGNS. REMOVE SIGNS ONLY WHEN REPLACEMENT SIGNS ARE ON THE SITE. REPLACE SIGN WITHIN SAME WORK PERIOD/DAY IN WHICH SIGN IS REMOVED.

PERFORM OTHER WORK.

IF EXISTING SHOULDER PAVEMENT IS NOT SUITABLE TO DRIVE ON, THE CONTRACTOR IS TO REPAIR THE SHOULDER PAVEMENT WITH ASPHALT CONCRETE OF THE SAME THICKNESS AS EXISTING.

IT IS ASSUMED 1% OF ALL SHOULDERS THROUGHOUT THE PROJECT LIMITS WILL NEED REPAIRED.

THERE IS APPROXIMATELY 6,800 LINEAR FEET OF SHOULDER IN THE SOUTHERN SECTION OF THE PROJECT. ASSUMING 1% WILL NEED REPAIRED IS 68 LINEAR FEET OF SHOULDER. ASSUMING AN AVERAGE WIDTH OF 8' GIVES AN AREA OF 544 SF. ASSUMING A THICKNESS OF 12" GIVES A VOLUME OF 544 CF.

SAWCUTS ASSUME AN AVERAGE REPAIR LENGTH OF 20' WITH 2 SAWCUTS ON EACH END AT 8' EACH PLUS THE LENGTH OF THE ASSUMED TOTAL SHOULDER REPAIR.

EXCAVATION AND AGGREGATE BASE ASSUME THE ESTIMATED REPAIR AREAS AT A THICKNESS OF 6" GIVES A VOLUME OF 272 CF.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 252, FULL DEPTH RIGID PAVEMENT REMOVAL AND FLEXIBLE REPLACEMENT, AS PER PLAN 61 SY

ITEM 252, FULL DEPTH PAVEMENT SAWING 132 FT

ITEM 203, EXCAVATION 11 CY

ITEM 304, AGGREGATE BASE 11 CY

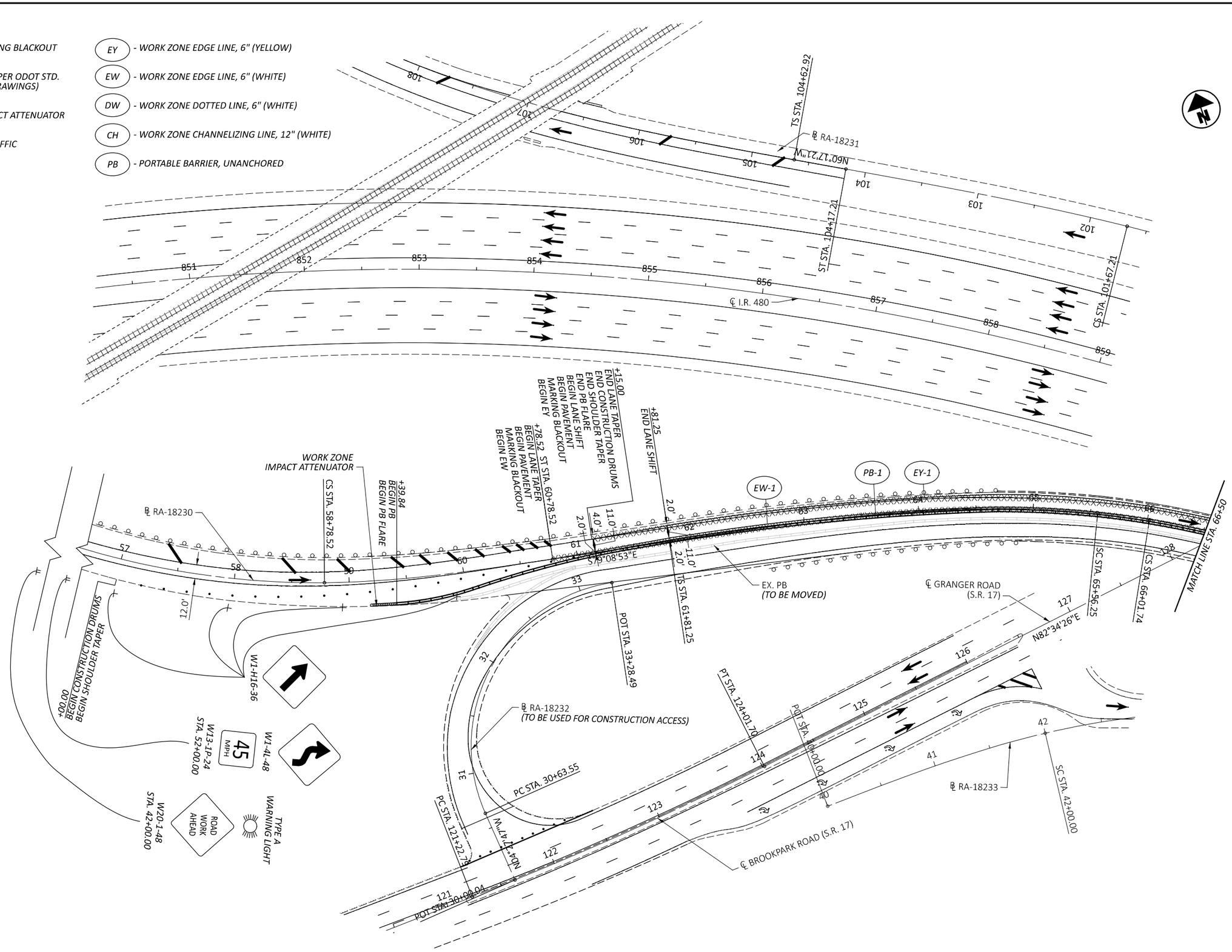
SEE SHEET P.07 FOR DETAILS ON ITEM 252, FULL DEPTH RIGID PAVEMENT REMOVAL AND FLEXIBLE REPLACEMENT, AS PER PLAN.

MAINTENANCE OF TRAFFIC GENERAL NOTES

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER RHB
REVIEWER CWP 10/07/25
PROJECT ID 120469
SHEET P.11 TOTAL 86

MODEL: Sheet_SurvFt PAPERSIZE: 34x22 (in.) DATE: 1/13/2026 TIME: 9:14:44 AM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: thomas@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 120469 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\24156 ODOT D12-D3 GES FY2025-26\119814\Task 8 - CUY-176-10.65\120469\400-Engineering\MOT\Sheets\120469_MN003.dgn



MAINTENANCE OF TRAFFIC - RA-18230 - STAGE 1
BEGIN TO STA. 66+50

CUY-176-10.65

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

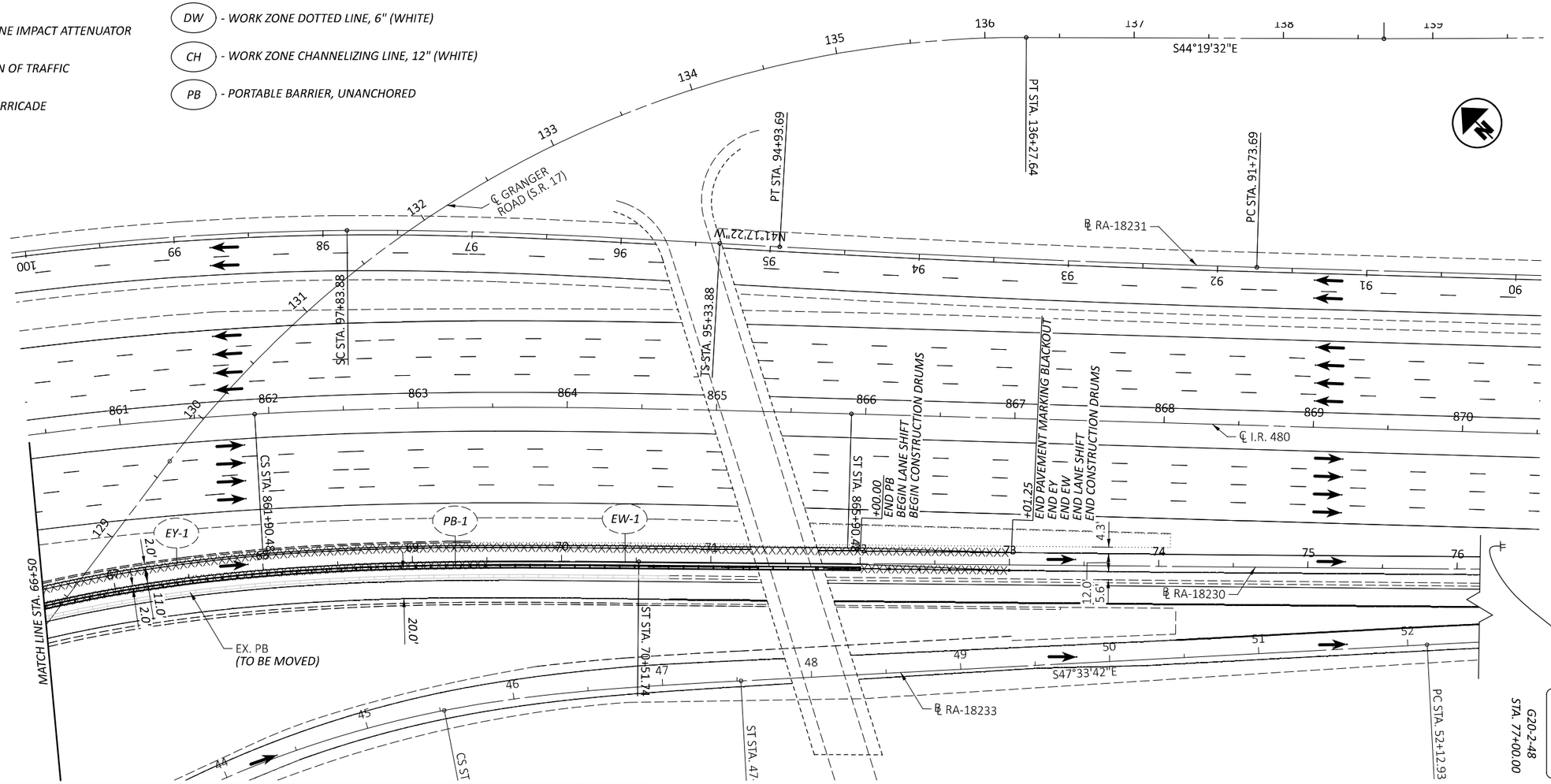
DESIGNER	JRS
REVIEWER	SHT 10/07/25
PROJECT ID	120469
SHEET	P.12
TOTAL	86

MODEL: Plan 3 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 10/7/2025 TIME: 8:28:28 AM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: thomas@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 120469 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\24156 ODOT D12-D3 GES FY2025-26\119814\Task 8 - CUY-176-10.65\120469\400-Engineering\MOT\Sheets\120469_MP002.dgn

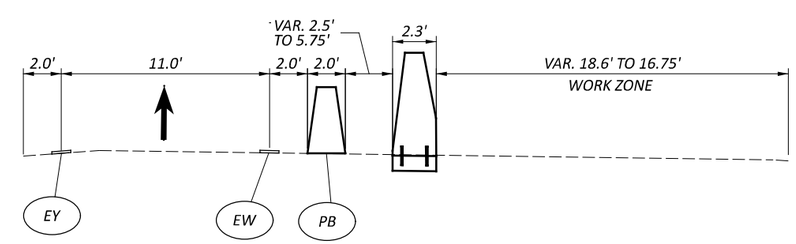
LEGEND

- PAVEMENT MARKING BLACKOUT
- DRUMS (SPACING PER ODOT STD. CONSTRUCTION DRAWINGS)
- WORK ZONE IMPACT ATTENUATOR
- DIRECTION OF TRAFFIC
- TYPE 3 BARRICADE

EY - WORK ZONE EDGE LINE, 6" (YELLOW)
EW - WORK ZONE EDGE LINE, 6" (WHITE)
DW - WORK ZONE DOTTED LINE, 6" (WHITE)
CH - WORK ZONE CHANNELIZING LINE, 12" (WHITE)
PB - PORTABLE BARRIER, UNANCHORED



SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	LENGTH	SIDE	614 WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	614 WORK ZONE EDGE LINE, CLASS I, 6" (YELLOW)	614 WORK ZONE EDGE LINE, CLASS I, 6" (WHITE)	614 WORK ZONE PAVEMENT MARKING, MISC.: REMOVABLE, NON-REFLECTIVE PREFORMED BLACKOUT TAPE	622 PORTABLE BARRIER, UNANCHORED
						EACH	MILE	MILE	MILE	FT
12-13	PB-1	59+46.88	72+00.00	1254	RT	1				1254
12-13	EW-1	60+78.52	73+01.25	1223	RT			0.24	0.24	
12-13	EY-1	61+15.00	73+01.25	1187	LT		0.23		0.23	
SUBTOTALS						1	0.23	0.24	0.47	1254
TOTALS CARRIED TO GENERAL SUMMARY						1	0.47		0.47	1254



REPRESENTATIVE MOT TYPICAL SECTION

HORIZONTAL SCALE IN FEET 0 20 40 80

MAINTENANCE OF TRAFFIC - RA-18230 - STAGE 1
STA. 66+50 TO END

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER JRS
REVIEWER SHT 10/07/25
PROJECT ID 120469
SHEET P.13 TOTAL 86

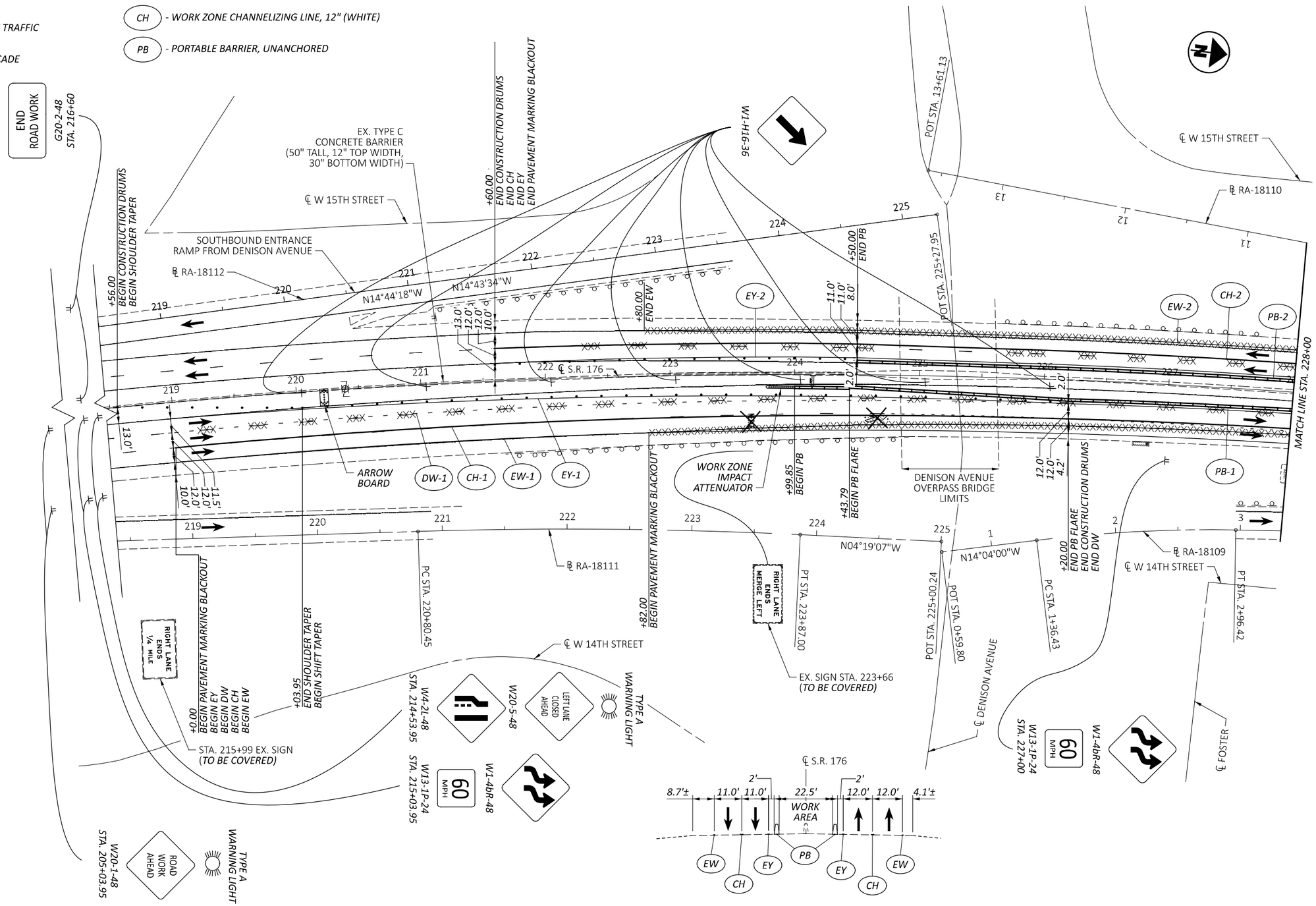
CUY-176-10.65

LEGEND

- *PAVEMENT MARKING BLACKOUT*
- *DRUMS (SPACING PER ODOT STD. CONSTRUCTION DRAWINGS)*
- *WORK ZONE IMPACT ATTENUATOR*
- *DIRECTION OF TRAFFIC*
- *TYPE 3 BARRICADE*
- EY - *WORK ZONE EDGE LINE, 6" (YELLOW)*
- EW - *WORK ZONE EDGE LINE, 6" (WHITE)*
- DW - *WORK ZONE DOTTED LINE, 6" (WHITE)*
- CH - *WORK ZONE CHANNELIZING LINE, 12" (WHITE)*
- PB - *PORTABLE BARRIER, UNANCHORED*

NOTES:

1. CONTRACTOR TO COVER EXISTING CONFLICTING SIGNS. PAYMENT TO BE INCLUDED IN LUMP SUM BID FOR ITEM 614 - MAINTAINING TRAFFIC.



REPRESENTATIVE MOT TYPICAL SECTION

HORIZONTAL SCALE IN FEET 0 20 40 80

MAINTENANCE OF TRAFFIC - S.R. 176 - PRE-STAGE 1
BEGIN TO STA. 228+00

DESIGN AGENCY: CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER: JRS

REVIEWER: SHT 10/07/25

PROJECT ID: 120469

SHEET: P.14 TOTAL: 86

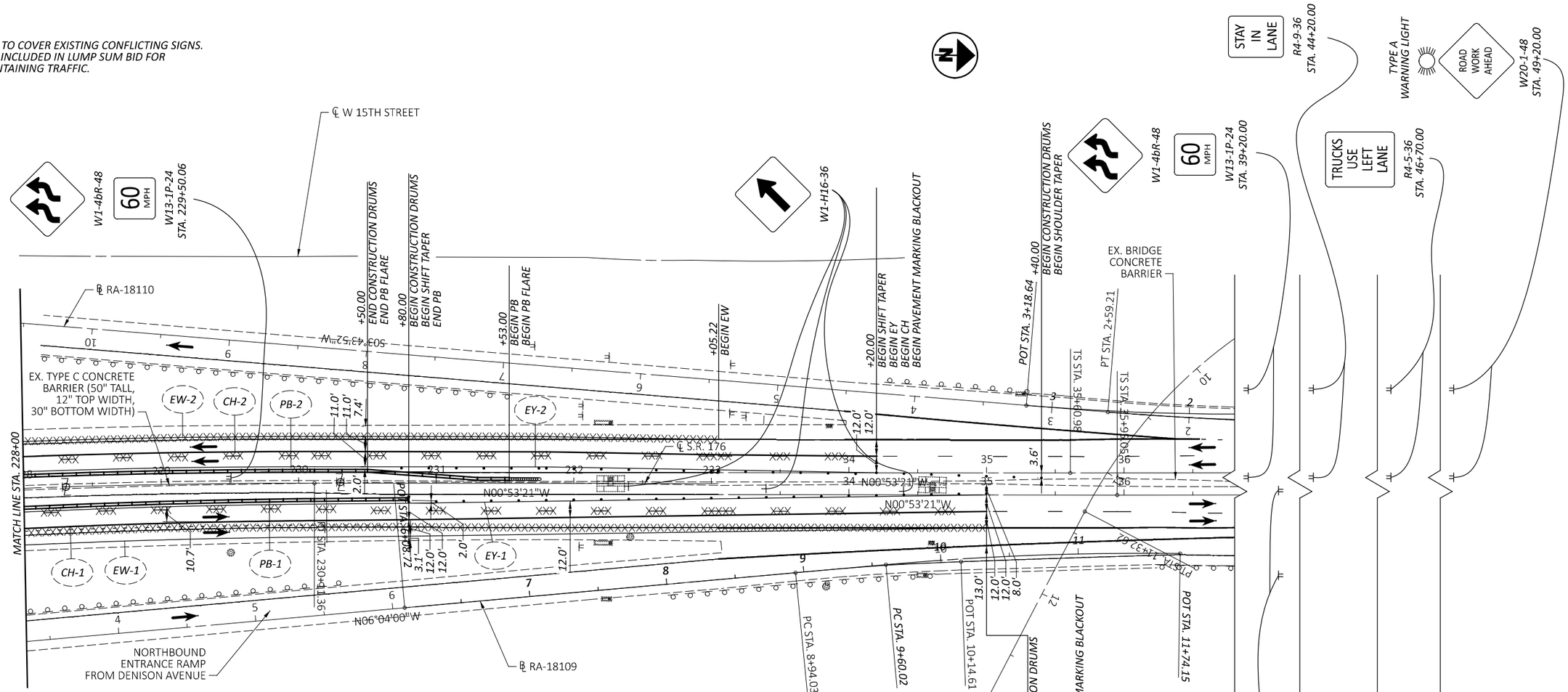
CUY-176-10.65

MODEL: Plan 13 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 10/7/2025 TIME: 8:28:46 AM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: thomas@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 120469 PRODUCT: OpenRoadsDesigner 24.00.00.205

P:\24156 ODOT D12-D3 GES FY2025-26\119814\Task 8 - CUY-176-10.65\120469\400-Engineering\MOT\Sheets\120469_MP003.dgn

NOTES:

1. CONTRACTOR TO COVER EXISTING CONFLICTING SIGNS. PAYMENT TO BE INCLUDED IN LUMP SUM BID FOR ITEM 614 - MAINTAINING TRAFFIC.



SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	LENGTH	SIDE	614 WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	614 WORK ZONE EDGE LINE, CLASS I, 6" (YELLOW)	614 WORK ZONE EDGE LINE, CLASS I, 6" (WHITE)	614 WORK ZONE CHANNELIZING LINE, CLASS I, 12" (WHITE)	614 WORK ZONE DOTTED LINE, CLASS I, 6" (WHITE)	614 WORK ZONE PAVEMENT MARKING, MISC.: REMOVABLE, NON-REFLECTIVE PREFORMED BLACKOUT TAPE	622 PORTABLE BARRIER, UNANCHORED
						EACH	MILE	MILE	FT	FT	MILE	FT
14-15	EY-1	219+00.00	235+00.00	1600	RT		0.31					
14-15	EY-2	221+60.00	234+21.04	1262	LT		0.24					
14-15	EW-1	219+00.00	235+00.00	1600	RT			0.31			0.23	
14-15	EW-2	222+80.00	233+05.22	1026	LT			0.2			0.20	
14	DW-1	219+00.00	226+20.00	720	RT					720.00		
14-15	CH-1	219+00.00	235+00.00	1600	RT				1600		0.10	
14-15	CH-2	221+60.00	234+20.00	1260	LT				1260		0.08	
14-15	PB-1	223+99.85	230+80.00	681	RT	1						681
14-15	PB-2	224+50.06	231+53.00	703	LT	1						703
SUBTOTALS						2	0.55	0.51	2860	720	0.61	1384
TOTALS CARRIED TO GENERAL SUMMARY						2	1.06		2860	720	0.61	1384

LEGEND

- *PAVEMENT MARKING BLACKOUT*
- *DRUMS (SPACING PER ODOT STD. CONSTRUCTION DRAWINGS)*
- *WORK ZONE IMPACT ATTENUATOR*
- *DIRECTION OF TRAFFIC*
- *TYPE 3 BARRICADE*

- EY - *WORK ZONE EDGE LINE, 6" (YELLOW)*
- EW - *WORK ZONE EDGE LINE, 6" (WHITE)*
- DW - *WORK ZONE DOTTED LINE, 6" (WHITE)*
- CH - *WORK ZONE CHANNELIZING LINE, 12" (WHITE)*
- PB - *PORTABLE BARRIER, UNANCHORED*

MAINTENANCE OF TRAFFIC - S.R. 176 - PRE-STAGE 1
S.R. 176 STA. 228+00 TO S.R. 176 NB END

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER: JRS
REVIEWER: SHT 10/07/25
PROJECT ID: 120469
SHEET: P.15 TOTAL: 86

CUY-176-10.65

MODEL: Plan 14 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 10/7/2025 TIME: 8:28:50 AM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: thomas@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 120469 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\24156 ODOT D12-D3 GES FY2025-26\119814\Task 8 - CUY-176-10.65\120469\400-Engineering\MOT\Sheets\120469_VP003.dgn

SHEET NUMBER													PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
6	7	8	10	11	18	19	20	22	23	26	27	29	01/NHS						
																		ROADWAY	
LS													LS	201	11000	LS		CLEARING AND GRUBBING	
							338		20				358	202	23000	358	SY	PAVEMENT REMOVED	
					1,185				40				1,225	202	30700	1,225	FT	CONCRETE BARRIER REMOVED	
							1,359						1,359	202	32000	1,359	FT	CURB REMOVED	
						64							64	202	35100	64	FT	PIPE REMOVED, 24" DIAMETER AND UNDER	
					747								747	202	38000	747	FT	GUARDRAIL REMOVED	
					5								5	202	42010	5	EACH	ANCHOR ASSEMBLY REMOVED, TYPE E	
					2								2	202	47800	2	EACH	IMPACT ATTENUATOR REMOVED	
				50									50	203	10000	50	CY	EXCAVATION	
							155						155	204	50000	155	SY	GEOTEXTILE FABRIC	
							69						69	204	51000	69	SY	GEOGRID	
					957								957	606	15050	957	FT	GUARDRAIL, TYPE MGS	
					6								6	606	26150	6	EACH	ANCHOR ASSEMBLY, MGS TYPE E	
					1								1	606	60040	1	EACH	IMPACT ATTENUATOR, TYPE 3 UNIDIRECTIONAL, 60 MPH, 28 INCHES	
					85								85	622	10120	85	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE C	
					1								1	622	25008	1	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE C	
																		EROSION CONTROL	
		2											2	659	00100	2	EACH	SOIL ANALYSIS TEST	
		129											129	659	00300	129	CY	TOPSOIL	
		1,157											1,157	659	00510	1,157	SY	SEEDING AND MULCHING, CLASS 2	
		58											58	659	14000	58	SY	REPAIR SEEDING AND MULCHING	
		58											58	659	15000	58	SY	INTER-SEEDING	
		0.19											0.19	659	20000	0.19	TON	COMMERCIAL FERTILIZER	
		0.24											0.24	659	31000	0.24	ACRE	LIME	
		7											7	659	35000	7	MGAL	WATER	
													19,635	832	30000	19,635	EACH	EROSION CONTROL	
																		DRAINAGE	
						947							947	611	05901	947	FT	15" CONDUIT, TYPE B, AS PER PLAN	8
						588							588	611	06101	588	FT	15" CONDUIT, TYPE C, AS PER PLAN	8
						16							16	611	09101	16	FT	21" CONDUIT, TYPE C, AS PER PLAN	8
						2							2	611	98805	2	EACH	INLET, NO. 3B50, AS PER PLAN	8
						5							5	611	98841	5	EACH	INLET, NO. 2-A-6, AS PER PLAN	8
						4							4	611	98851	4	EACH	INLET, NO. 2-A-8, AS PER PLAN	8
						9							9	611	99150	9	EACH	INLET ADJUSTED TO GRADE	
						5							5	611	99575	5	EACH	MANHOLE, NO. 3, AS PER PLAN	8
																		PAVEMENT	
				2,355									2,355	252	01001	2,355	SY	FULL DEPTH RIGID PAVEMENT REMOVAL AND FLEXIBLE REPLACEMENT, AS PER PLAN	7
				4,776									4,776	252	01500	4,776	FT	FULL DEPTH PAVEMENT SAWING	
								1,378					1,378	254	01000	1,378	SY	PAVEMENT PLANING, ASPHALT CONCRETE, (1.5")	
								351					351	254	01010	351	SY	PAVEMENT PLANING, PORTLAND CEMENT CONCRETE, (1.5")	
	494												494	255	11001	494	SY	FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, TYPE 1, CLASS QC1, AS PER PLAN	7
							722		104				826	255	20000	826	FT	FULL DEPTH PAVEMENT SAWING	
	305												305	255	12001	305	SY	FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, TYPE 2, CLASS QC1, AS PER PLAN	7
				50									50	304	20000	50	CY	AGGREGATE BASE	
							25						25	305	17500	25	SY	CONCRETE BASE, MISC.: 9.75" CONCRETE BASE, CLASS QC 1P	7
								157					157	407	20000	157	GAL	NON-TRACKING TACK COAT	
								73					73	442	22101	73	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (449), AS PER PLAN, PG64-22	7
							547						547	609	14000	547	FT	CURB, TYPE 2-A	
							15						15	609	22000	15	FT	CURB, TYPE 3-B	
				1,290			693						1,983	609	26000	1,983	FT	CURB, TYPE 6	
								4,060					4,060	618	40100	4,060	FT	RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE)	
								3,898					3,898	618	40200	3,898	FT	RUMBLE STRIPS, SHOULDER (CONCRETE)	
																		LIGHTING	
									8				8	625	00480	8	EACH	CONNECTION, UNFUSED PERMANENT	
									80				80	625	23308	80	FT	DISTRIBUTION CABLE, MISC.: NO. 2 AWG 5000 VOLT DISTRIBUTION CABLE	8
		LS											LS	SPECIAL	62540000	LS		MAINTAIN EXISTING LIGHTING	8
									2				2	625	75800	2	EACH	DISCONNECT CIRCUIT	

GENERAL SUMMARY

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER
RHB

REVIEWER
CWP 10/07/25

PROJECT ID
120469

SHEET NUMBER													PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
7	9	10	11	13	15	18	20	22	23	26	27	29	01/NHS						
																		TRAFFIC CONTROL	
										700	404		1,104	621	00100	1,104	EACH	RPM	
													498	621	54000	498	EACH	RAISED PAVEMENT MARKER REMOVED	
												4	4	625	32000	4	EACH	GROUND ROD	
						4							4	626	00102	4	EACH	BARRIER REFLECTOR, TYPE 1, ONE WAY	
						14							14	626	00110	14	EACH	BARRIER REFLECTOR, TYPE 2, ONE WAY	
												312.0	312.0	630	03100	312.0	FT	GROUND MOUNTED SUPPORT, NO. 3 POST	
												6	6	630	08600	6	EACH	SIGN POST REFLECTOR	
												2	2	630	72410	2	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 1	
												4	4	630	75000	4	EACH	SIGN ATTACHMENT ASSEMBLY	
												330.0	330.0	630	80100	330.0	SF	SIGN, FLAT SHEET	
												891.7	891.7	630	80224	891.7	SF	SIGN, OVERHEAD EXTRUSHEET	
												648	648	630	80300	648	SF	SIGN, TEMPORARY OVERLAY	
												112	112	630	83000	112	SF	COVERING OF SIGN	
												4	4	630	84510	4	EACH	RIGID OVERHEAD SIGN SUPPORT FOUNDATION	
												9	9	630	84900	9	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
												11	11	630	86002	11	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
												33	33	630	87400	33	EACH	REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL	
												1	1	630	89706	1	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL, TYPE TC-12.30	
										8.8			8.8	642	00104	8.8	MILE	EDGE LINE, 6", TYPE 1	
										6.88			6.88	642	00204	6.88	MILE	LANE LINE, 6", TYPE 1	
										25,326			25,326	642	00404	25,326	FT	CHANNELIZING LINE, 12", TYPE 1	
										668			668	642	00720	668	FT	CHEVRON MARKING, TYPE 1	
										2,534			2,534	642	01510	2,534	FT	DOTTED LINE, 6", TYPE 1	
										6,084			6,084	642	01560	6,084	FT	DOTTED LINE, 12", TYPE 1	
										12,183	3,233		15,416	642	30000	15,416	FT	REMOVAL OF PAVEMENT MARKING	
										2			2	642	30020	2	EACH	REMOVAL OF PAVEMENT MARKING	
										7.08	3.09		10.17	642	30030	10.17	MILE	REMOVAL OF PAVEMENT MARKING	
											1.61		1.61	646	10010	1.61	MILE	EDGE LINE, 6"	
											0.66		0.66	646	10110	0.66	MILE	LANE LINE, 6"	
											5,027		5,027	646	10310	5,027	FT	CHANNELIZING LINE, 12"	
											427		427	646	10620	427	FT	CHEVRON MARKING	
											3,150		3,150	646	20510	3,150	FT	DOTTED LINE, 12"	
											4		4	814	00010	4	EACH	INTERSTATE ELONGATED ROUTE SHIELD SYMBOL MARKING, TYPE B125	
											2		2	814	00016	2	EACH	CARDINAL DIRECTION (NORTH, SOUTH, WEST & EAST) MARKING, TYPE B125	
																		MAINTENANCE OF TRAFFIC	
		240											240	614	11110	240	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
		8,758											8,758	614	11630	8,758	FT	INCREASED BARRIER DELINEATION	
			3	1	2								6	614	12380	6	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	
		176											176	614	13310	176	EACH	BARRIER REFLECTOR, TYPE 1, BI-DIRECTIONAL	
		22											22	614	13314	22	EACH	BARRIER REFLECTOR, TYPE 3, ONE WAY	
		198											198	614	13350	198	EACH	OBJECT MARKER, ONE WAY	
	8												8	614	18601	8	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	9
				0.47	1.06								1.53	614	22010	1.53	MILE	WORK ZONE EDGE LINE, CLASS I, 6"	
					2,860								2,860	614	23010	2,860	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 12"	
			4,320										4,320	614	23656	4,320	FT	WORK ZONE CHANNELIZING LINE, CLASS II, 12"	
					720								720	614	24000	720	FT	WORK ZONE DOTTED LINE, CLASS I	
				0.47	0.61								1.08	614	98000	1.08	MILE	WORK ZONE PAVEMENT MARKING, MISC.:REMOVABLE NON-REFLECTIVE PREFORMED BLACKOUT TAPE	10
			4,110	1,254	1,384								6,748	622	41100	6,748	FT	PORTABLE BARRIER, UNANCHORED	
																		INCIDENTALS	
	LS												LS	614	11001	LS		MAINTAINING TRAFFIC, AS PER PLAN	9
LS													LS	623	10001	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN	7
													LS	624	10000	LS		MOBILIZATION	

GENERAL SUMMARY

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER
RHB

REVIEWER
CWP 10/07/25

PROJECT ID
120469

SHEET P.17 TOTAL 86

CUY-176-10.65

ROADWAY SUBSUMMARY

SHEET NO.	REFERENCE NO.	LOCATION	STATION FROM	STATION TO	SIDE	202 CONCRETE BARRIER REMOVED (FT)	202 GUARDRAIL REMOVED (FT)	202 ANCHOR ASSEMBLY REMOVED, TYPE E (EACH)	202 IMPACT ATTENUATOR REMOVED (EACH)	606 GUARDRAIL, TYPE MGS (FT)	606 ANCHOR ASSEMBLY, MGS TYPE E (EACH)	606 IMPACT ATTENUATOR, TYPE 3 UNIDIRECTIONAL (EACH)	622 CONCRETE BARRIER, SINGLE SLOPE, TYPE C (FT)	622 CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE C (EACH)	626 BARRIER REFLECTOR, TYPE 1 (EACH)	626 BARRIER REFLECTOR, TYPE 2 (EACH)
30	R-1	RA-18230	46+46.07	46+96.07	LT			1								
30	R-2	RA-18230	47+33.57	47+83.57	RT			1								
32	R-3	RA-18230	59+46.88	59+69.54	RT				1							
32-33	R-4	RA-18230	59+69.54	70+72.08	RT	1103										
32	R-5	RA-18232	32+01.18	32+21.38	LT				1							
32	R-6	RA-18232	32+21.38	33+02.61	LT	82										
32	R-7	RA-18230	62+64.29	63+72.20	RT		58	1								
42	R-8	S.R. 176	225+65.51	227+72.77	LT		158	1								
47-48	R-9	RA-18098	0+22.70	5+53.00	RT		481	1								
47	R-10	S.R. 176	76+16.38	76+66.38	LT		50									
50	GR-1	RA-18230	45+93.27	47+43.27	LT					100	1					2
50	GR-2	RA-18230	46+46.07	47+83.57	RT					88	1					2
52	GR-3	RA-18230	60+84.70	63+72.20	RT					238	1					3
53	B-1	RA-18230	69+50.00	69+72.00	RT							1				
53	B-1	RA-18230	69+72.00	69+87.00	RT									1		
53	B-1	RA-18230	69+87.00	70+72.00	RT								85		4	
62	GR-4	S.R. 176	226+75.00	227+75.00	RT					50	1					1
67-68	GR-5	RA-18098	0+22.70	5+53.00	RT					431	2					5
67	GR-6	S.R. 176	76+24.94	76+74.94	LT					50						1
TOTALS CARRIED TO GENERAL SUMMARY						1185	747	5	2	957	6	1	85	1	4	14

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER
SHT

REVIEWER
CWP 10/07/25

PROJECT ID
120469

SHEET P.18 TOTAL 86

CUY-176-10.65

SHEET NO.	REFERENCE NO.	LOCATION	STATION FROM	STATION TO	SIDE	202 PIPE REMOVED, 24" DIAMETER AND UNDER	611 15" CONDUIT, TYPE B, AS PER PLAN	611 15" CONDUIT, TYPE C, AS PER PLAN	611 21" CONDUIT, TYPE C, AS PER PLAN	611 INLET, NO. 3B50, AS PER PLAN	611 INLET, NO. 2-A-6, AS PER PLAN	611 INLET, NO. 2-A-8, AS PER PLAN	611 INLET ADJUSTED TO GRADE	611 MANHOLE, NO. 3, AS PER PLAN
			FROM	TO		FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH
62	D-1	S.R. 176	226+75.00		LT							1		
62	D-2	S.R. 176	226+75.00		CL					1				
62	D-3	S.R. 176	226+79.81		RT									
62	D-4	S.R. 176	228+50.00		LT							1		
62	P-1	S.R. 176	226+75.00	226+79.81	RT		50							
62	P-2	S.R. 176	226+75.00	228+50.00	LT		175							
62-63	P-3	S.R. 176	228+50.00	232+21.45	LT		372							
63	D-5	S.R. 176	229+50.00		CL					1				
63	D-6	S.R. 176	229+50.00		RT						1			
63	D-7	S.R. 176	229+50.00		RT	16		16						
63	D-8	S.R. 176	230+50.00		RT						1			
63	D-8A	S.R. 176	230+50.00		RT	16		16						1
63	D-9	S.R. 176	232+21.45		LT									
63	P-4	S.R. 176	229+50.00	229+50.00	RT		50							
63	P-5	S.R. 176	229+50.00	229+50.14	RT			8						
63	P-5A	S.R. 176	230+50.00		RT	16		8						
67	D-10	S.R. 176 NB/RA-18098	74+65.25		RT								1	
67	D-11	S.R. 176 NB/RA-18098	76+50.00		RT						1			
67	D-11A	S.R. 176 NB/RA-18098	76+50.00		RT									1
67	D-12	S.R. 176 NB/RA-18098	74+63.04		LT								1	
67	D-13	S.R. 176 NB/RA-18098	76+50.00		LT						1			
67	D-13A	S.R. 176 NB/RA-18098	76+61.13		LT	16			16					1
67	D-14	RA-18098	3+68.25		RT									
67	D-14A	RA-18098	3+88.29		RT									1
67	P-6	S.R. 176 NB/RA-18098	74+65.25	76+50.00	RT			185						
67	P-6A	S.R. 176 NB/RA-18098	76+50.00	76+50.00	RT			8						
67	P-10	S.R. 176 NB/RA-18098	76+50.00	76+61.13	LT			8						
67-68	P-7	RA-18098	3+88.29	5+42.56	RT			155						
67	P-7A	RA-18098	3+68.25	3+88.29	RT			20						
68	P-7B	RA-18098	5+42.56	5+50.00	RT			10						
68	D-15	RA-18098	5+50.00		RT						1			
68	D-15A	RA-18098	5+42.56		RT									1
68	D-16	RA-18098	7+37.54		LT								1	
68	D-17	RA-18093	13+99.82		RT								1	
68	D-18	RA-18098	9+10.55		LT								1	
68	D-19	RA-18093	17+14.05		RT								1	
68	D-20	RA-18093	20+20.48		RT								1	
68	D-21	RA-18098	13+46.83		LT								1	
68-69	P-8	RA-18098	13+46.83	15+00.00	LT			154						
69	D-22	RA-18098	15+00.00		LT							1		
69	D-23	RA-18098	18+00.00		RT							1		
69	D-24	RA-18098	22+03.68		LT								1	
69	P-9	RA-18098	15+00.00	18+00.00	LT/RT		300							
TOTALS CARRIED TO GENERAL SUMMARY						64	947	588	16	2	5	4	9	5

DRAINAGE SUBSUMMARY

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER
RHB

REVIEWER
CWP 10/07/25

PROJECT ID
120469

SHEET P.19 TOTAL 86

CUY-176-10.65

SHEET NO.	REFERENCE NO.	LOCATION	STATION FROM	STATION TO	SIDE	LENGTH FT	AVERAGE WIDTH FT	AREA SF	202 PAVEMENT REMOVED SY	202 CURB REMOVED FT	204 GEOTEXTILE FABRIC SY	204 GEOGRID SY	252 FULL DEPTH PAVEMENT SAWING FT	305 CONCRETE BASE, MISC.: 9.75" CONCRETE BASE, CLASS QC 1P SY	609 CURB, TYPE 2-A FT	609 CURB, TYPE 3-B FT	609 CURB, TYPE 6 FT
32, 73	R-13	RA-18232	30+27.88	31+37.39	RT	147.79				148							
32, 73	R-12	RA-18232	30+29.50	30+99.91	LT	82.18				83							
32, 73	R-11	RA-18232	30+29.00	30+59.00	LT/RT	30.00		2038.31	227								
32, 73	R-11	RA-18232	30+29.00	30+59.00	LT/RT	30.00	20.70	621.00			69	69					
32, 73	R-11	RA-18232	30+29.00		LT/RT		124.57						125				
32, 73	R-11	RA-18232	30+59.00		LT/RT		49.91						50				
32, 73	R-11	RA-18232	30+29.00	30+59.00	LT/RT	30.00							60				
32, 73	R-11	RA-18232	30+39.00	33+28.49	LT/RT	30.00		2038.31									
32, 73	R-11	RA-18230	60+84.70		RT		15.01						16				
32, 73	R-11	RA-18230	60+84.70	63+50.00	RT	265.30							266				
32, 73	R-11	RA-18232	60+84.70	63+50.00	RT	265.30		771.69	86		86						
33	B-1	RA-18230	69+72.00	70+72.00	RT	100.00	2.25	225.00	25								
33	B-1	RA-18230	69+72.00	70+72.00	RT	100.00	2.25						205				
33	B-1	RA-18230	69+72.00	70+72.00	RT	100.00	2.25	225.00						25			
52, 73	C-1	SR 17	121+23.00	121+55.00	LT	32.00											32
52, 73	C-2	SR 17	121+55.00	121+70.00	LT	15.00										15	
52, 73	C-3	SR 17	121+70.00	122+49.02	LT	79.02											80
62	C-4	SR 176	226+75.00	228+50.00	LT	175.00				175					175		
62-63	C-5	SR 176	228+50.00	232+21.45	LT	371.45				372					372		
67-68	C-6	RA-18098	0+22.70	5+53.00	RT	530.30				531							531
67	C-7	RA-18098	76+24.94	76+74.94	RT	50.00				50							50
TOTALS CARRIED TO GENERAL SUMMARY									338	1359	155	69	722	25	547	15	693

PAVEMENT SUBSUMMARY

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER
RHB

REVIEWER
CWP 10/07/25

PROJECT ID
120469

SHEET P.20 TOTAL 86

CUY-176-10.65

SHEET NO.	REFERENCE NO.	LOCATION	STATION FROM	STATION TO	SIDE	LENGTH (L1) FT	AVERAGE WIDTH (W1) FT	PAVEMENT REPLACEMENT SURFACE AREA (A1) SF	254 PAVEMENT PLANING, ASPHALT CONCRETE (1.5") SY	254 PAVEMENT PLANING, PORTLAND CEMENT CONCRETE (1.5") SY	407 NON-TRACKING TACK COAT GAL	442 ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (449), AS PER PLAN, PG64-22 CY	618 RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE) FT	618 RUMBLE STRIPS, SHOULDER (CONCRETE) FT
41	RSR-1	SR 176	216+05.00	216+13.00	LT	8.00	12.00	96.00		11	0.99	0.46		
61-62	RS-1	SR 176	216+05.00	224+50.00	LT	845.00								845
61-62	RS-2	SR 176	216+61.00	225+20.00	LT	859.00								859
41	RSR-2	SR 176	217+18.00	217+26.00	LT	8.00	12.00	96.00		11	0.99	0.46		
41	RSR-3	SR 176	218+37.00	218+45.00	LT	8.00	12.00	96.00		11	0.99	0.46		
41	RSR-3	SR 176	218+37.00	218+45.00	LT	8.00	9.00	72.00		8	0.72	0.34		
42	RSR-4	SR 176	219+64.00	219+72.00	LT	8.00	12.00	96.00		11	0.99	0.46		
42	RSR-4	SR 176	219+64.00	219+72.00	LT	8.00	9.00	72.00		8	0.72	0.34		
42	RSR-5	SR 176	220+82.00	220+90.00	LT	8.00	12.00	96.00		11	0.99	0.46		
42	RSR-5	SR 176	220+82.00	220+90.00	LT	8.00	9.00	72.00		8	0.72	0.34		
42	RSR-6	SR 176	221+74.00	221+82.00	LT	8.00	12.00	96.00		11	0.99	0.46		
42	RSR-6	SR 176	221+81.00	221+89.00	LT	8.00	9.00	72.00		8	0.72	0.34		
62	RS-4	SR 176	222+75.00	227+50.00	RT	475.00								475
42	RSR-6A	SR 176	223+19.00	223+27.00	LT	8.00	9.00	72.00		8	0.72	0.34		
42	RSR-6A	SR 176	223+19.00	223+27.00	LT	8.00	9.00	72.00		8	0.72	0.34		
62-63	RS-3	SR 176	223+31.00	230+89.00	RT	758.00								758
42	RSR-7	SR 176	224+39.00	224+47.00	LT	8.00	9.00	72.00		8	0.72	0.34		
42	RSR-7	SR 176	224+43.00	224+51.00	LT	8.00	8.00	64.00		8	0.72	0.34		
42	RSR-7A	SR 176	224+39.00	224+47.00	RT	8.00	8.00	64.00		8	0.72	0.34		
42	RSR-7A	SR 176	224+48.00	224+56.00	RT	8.00	9.00	72.00		8	0.72	0.34		
42	RSR-8A	SR 176	225+71.00	225+79.00	RT	8.00	9.00	72.00		8	0.72	0.34		
42	RSR-8A	SR 176	225+71.00	225+79.00	RT	8.00	6.00	48.00		6	0.54	0.26		
42	RSR-8	SR 176	225+71.00	225+79.00	LT	8.00	5.00	40.00		5	0.45	0.21		
42	RSR-8	SR 176	225+71.00	225+79.00	LT	8.00	11.00	88.00		10	0.90	0.42		
62	RS-5	SR 176	225+95.00	227+13.00	LT	118.00								118
42	RSR-9	SR 176	226+53.00	226+61.00	LT	8.00	9.00	72.00		8	0.72	0.34		
42	RSR-9	SR 176	226+53.00	226+61.00	LT	8.00	6.00	48.00		6	0.54	0.26		
42	RSR-9A	SR 176	226+53.00	226+61.00	RT	8.00	8.00	64.00		8	0.72	0.34		
62	RS-6	SR 176	227+32.00	228+25.00	LT	93.00								93
42	RSR-10	SR 176	228+04.00	228+12.00	RT	8.00	8.00	64.00		8	0.72	0.34		
42	RSR-10	SR 176	228+04.00	228+12.00	LT	8.00	6.00	48.00		6	0.54	0.26		
42	RSR-10A	SR 176	228+05.00	228+13.00	RT	8.00	6.00	48.00		6	0.54	0.26		
42	RSR-10A	SR 176	228+05.00	228+13.00	LT	8.00	9.00	72.00		8	0.72	0.34		
62-63	RS-7	SR 176	228+72.00	233+06.12	LT	434.12								435
43	RSR-11	SR 176	229+32.00	229+40.00	LT	8.00	9.00	72.00		8	0.72	0.34		
43	RSR-11	SR 176	229+32.00	229+40.00	LT	8.00	6.00	48.00		6	0.54	0.26		
43	RSR-11A	SR 176	229+32.00	229+40.00	RT	8.00	8.00	64.00		8	0.72	0.34		
43	RSR-11A	SR 176	229+32.00	229+40.00	RT	8.00	11.00	88.00		10	0.90	0.42		
63	RS-8	SR 176	229+92.00	233+07.00	RT	315.00								315
43	RSR-12	SR 176	230+39.00	230+47.00	LT	8.00	6.00	48.00		6	0.54	0.26		
43	RSR-12	SR 176	230+39.00	230+47.00	LT	8.00	11.00	88.00		10	0.90	0.42		
43	RSR-13	SR 176	230+39.00	230+47.00	RT	8.00	9.00	72.00		8	0.72	0.34		
43	RSR-13	SR 176	230+39.00	230+47.00	RT	8.00	8.00	64.00		8	0.72	0.34		
43	RSR-14	SR 176	231+59.00	231+67.00	LT	8.00	9.00	72.00		8	0.72	0.34		
43	RSR-14	SR 176	231+59.00	231+67.00	LT	8.00	6.00	48.00		6	0.54	0.26		
TOTALS CARRIED TO SHEET 22									0	303	28	13	0	3,898

RUMBLE STRIP SUBSUMMARY

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER RHB
REVIEWER CWP 10/07/25
PROJECT ID 120469
SHEET P.21 TOTAL 86

CUY-176-10.65

RUMBLE STRIP SUBSUMMARY

SHEET NO.	REFERENCE NO.	LOCATION	STATION FROM	STATION TO	SIDE	LENGTH (L1) FT	AVERAGE WIDTH (W1) FT	PAVEMENT REPLACEMENT SURFACE AREA (A1) SF	PAVEMENT PLANING, ASPHALT CONCRETE (1.5") 254 SY	PAVEMENT PLANING, PORTLAND CEMENT CONCRETE (1.5") 254 SY	NON-TRACKING TACK COAT 407 GAL	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (449), AS PER PLAN, PG64-22 442 CY	RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE) 618 FT	RUMBLE STRIPS, SHOULDER (CONCRETE) 618 FT
43	RSR-14A	SR 176	231+59.00	231+67.00	RT	8.00	8.00	64.00		8	0.72	0.34		
43	RSR-14A	SR 176	231+59.00	231+67.00	RT	8.00	9.00	72.00		8	0.72	0.34		
43	RSR-15	SR 176	232+89.00	232+97.00	LT	8.00	9.00	72.00		8	0.72	0.34		
43	RSR-15	SR 176	232+89.00	232+97.00	LT	8.00	9.00	72.00		8	0.72	0.34		
43	RSR-15	SR 176	232+89.00	232+97.00	RT	8.00	9.00	72.00		8	0.72	0.34		
43	RSR-15	SR 176	232+89.00	232+97.00	RT	8.00	9.00	72.00		8	0.72	0.34		
43	RSR-19	SR 176 NB	33+06.00	34+77.23	RT	171.23	2.50	428.08	48		4.32	2.01		
43	RSR-18	SR 176 SB	33+06.00	34+98.00	LT	192.00	2.50	480.00	54		4.86	2.26		
43	RSR-17	SR 176 NB	33+06.00	35+07.00	LT	201.00	2.50	502.50	56		5.04	2.34		
43	RSR-16	SR 176 SB	33+06.00	35+28.00	LT	222.00	2.50	555.00	62		5.58	2.59		
63	RS-9	SR 176 SB	33+07.00	35+06.00	LT	199.00							199	
63	RS-11	SR 176 NB	33+07.00	34+99.71	RT	192.71							193	
63	RS-11A	SR 176 NB	33+07.00	34+75.00	RT	168.00							168	
63	RS-10	SR 176 SB	33+97.96	35+30.95	LT	132.99							133	
63	RS-13	SR 176 NB	36+73.00	38+20.00	RT	147.00							147	
43	RSR-22	SR 176 SB	36+75.00	38+29.00	RT	154.00	2.50	385.00	43		3.87	1.80		
63-64	RS-12	SR 176 SB	36+80.00	46+50.00	LT	970.00							970	
43-45	RSR-23	SR 176 SB	36+84.00	53+65.00	LT	1681.00	2.50	4202.50	467		42.03	19.46		
43-44	RSR-20	SR 176 NB	37+12.00	44+08.00	LT	696.00	2.50	1740.00	194		17.46	8.09		
44	RSR-17	SR 176 SB	40+51.00	45+90.00	RT	539.00	2.50	1347.50	150		13.50	6.26		
64	RS-15	SR 176 NB	40+51.00	44+85.00	RT	434.00							434	
64	RS-14	SR 176 SB	41+65.00	43+26.06	LT	161.06							162	
64	RS-16	SR 176 SB	44+48.00	51+50.00	LT	702.00							702	
64-65	RS-17	SR 176 SB	48+59.00	50+18.00	LT	159.00							159	
44-45	RSR-21	SR 176 NB	44+21.00	49+04.00	LT	483.00	2.50	1207.50	135		12.15	5.63		
64-65	RS-18	SR 176 SB	48+92.00	52+00.00	LT	308.00							308	
64	RS-15A	SR 176 NB	44+81.00	46+89.00	RT	208.00							208	
44-45	RSR-22	SR 176 SB	45+92.00	52+00.00	RT	608.00	2.50	1520.00	169		15.21	7.05		
65	RS-19	SR 176 SB	51+50.00	53+65.00	LT	215.00							215	
66	RS-20	SR 176 NB	61+25.00	61+87.00	RT	62.00							62	
TOTAL THIS SHEET									1,378	48	129	60	4,060	0
TOTALS FROM SHEET 21									0	303	28	13	0	3,898
TOTALS CARRIED TO GENERAL SUMMARY									1,378	351	157	73	4,060	3,898

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER RHB
REVIEWER CWP 10/07/25
PROJECT ID 120469
SHEET P.22 TOTAL 86

CUY-176-10.65

SHEET NO.	REFERENCE NO.	LOCATION	STATION FROM	STATION TO	SIDE	202 PAVEMENT REMOVED	202 CONCRETE BARRIER REMOVED	252 FULL DEPTH PAVEMENT SAWING	625 CONNECTION, UNFUSED PERMANENT	625 DISTRIBUTION CABLE, MISC.: NO. 2 AWG 5000 VOLT DISTRIBUTION CABLE	625 DISCONNECT CIRCUIT
						SY	FT	FT	EACH	FT	EACH
62	L-1	SR 176	226+65	226+85	CL	10	20	52	4	40	1
63	L-2	SR 176	229+40	229+60	CL	10	20	52	4	40	1
TOTAL CARRIED TO GENERAL SUMMARY						20	40	104	8	80	2

LIGHTING SUBSUMMARY

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER
RHB

REVIEWER
CWP 10/07/25

PROJECT ID
120469

SHEET P.23 TOTAL 86

CUY-176-10.65

MODEL: GS001E PAPERSIZE: 34x22 (in.) DATE: 10/7/2025 TIME: 8:28:59 AM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: thomas@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 120469 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\24156 ODOT D12-D3 GES FY2025-26\119814\Task 8 - CUY-176-10.65\120469\400-Engineering\Roadway\Sheets\120469_GS001.dgn

PAVEMENT MARKING SUBSUMMARY NORTH

SHEET NO.	REFERENCE NO.	LOCATION	STATION FROM	STATION TO	SIDE	642 EDGE LINE, 6", TYPE 1, (WHITE) MILE	642 EDGE LINE, 6", TYPE 1, (YELLOW) MILE	642 LANE LINE, 6", TYPE 1 MILE	642 CHANNELIZING LINE, 12", TYPE 1 FT	642 CHEVRON MARKING, TYPE 1 (WHITE) FT	642 DOTTED LINE, 6", TYPE 1, (WHITE), (3' LINE, 9' GAP) FT	642 DOTTED LINE, 12", TYPE 1, (WHITE), (3' LINE, 9' GAP) FT	642 REMOVAL OF PAVEMENT MARKING EACH	642 REMOVAL OF PAVEMENT MARKING FT	642 REMOVAL OF PAVEMENT MARKING MILE	814 INTERSTATE ELONGATED ROUTE SHIELD SYMBOL MARKING, TYPE B125 EACH	814 CARDINAL DIRECTION (NORTH, SOUTH, WEST & EAST) MARKING, TYPE B125 EACH	621 TWO WAY WHITE/RED RPM (CHEVRONS) EACH	621 TWO WAY WHITE/RED RPM (10' SPACING) EACH	621 TWO WAY WHITE/RED RPM (20' SPACING) EACH	621 TWO WAY WHITE/RED RPM (40' SPACING) EACH	621 TWO WAY WHITE/RED RPM (60' SPACING) EACH	621 TWO WAY YELLOW/RED RPM (40' SPACING) EACH	621 TWO WAY YELLOW/RED RPM (80' SPACING) EACH	621 ONE WAY WHITE RPM (40' SPACING) EACH	621 ONE WAY WHITE RPM (120' SPACING) EACH
60-61	CH-11	SR 176 SB	200+80	213+51	LT				1271												32					
60-61	CH-12	SR 176 SB	200+80	213+51	LT				1271												32					
61	CH-13	SR 176 SB	210+64	216+61	LT				597												15					
60-63	EY-2	SR 176 SB	203+80	233+05	LT		0.56																			
63-65	EY-2	SR 176 SB	33+05	53+65	RT		0.40																			
60-61	WDLL-1	SR 176 SB	205+03	210+64	LT							561										10				
61-63	EW-4	SR 176 SB	216+61	233+05	LT	0.32																				
63	EW-4	SR 176 SB	33+05	33+93	LT	0.02																				
61-63	LL-3	SR 176 SB	213+51	233+05	LT			0.38																		17
63-64	LL-3	SR 176 SB	33+05	51+50	LT			0.35																		16
61-63	LL-4	SR 176 SB	213+51	233+05	LT			0.38																		17
63-65	LL-4	SR 176 SB	33+05	51+50	LT			0.35																		16
62	CH-14	SR 176 NB	222+75	228+50	RT				575												15					
62	CH-15	SR 176 NB	222+75	228+50	RT				575												15					
63-64	EW-7	SR 176 SB	33+93	43+24	LT	0.18																				
64	EW-8	RA-18108	0+00	3+39	BL	0.06																				
64-65	EW-8	SR 176 SB	46+53	53+65	LT	0.14																				
62-63	LL-5	SR 176 NB	228+50	233+05	RT			0.09																		4
62-67	LL-5	SR 176 NB	33+05	71+56	RT			0.73																		33
62-63	LL-6	SR 176 NB	228+50	233+05	RT			0.09																		4
62-63	LL-6	SR 176 NB	33+05	71+56	RT			0.73																		33
63	CH-16	RA-18110/SR 176 SB	33+93	37+32	LT				339												9					
63	CH-17	SR 176 SB	33+93	37+32	LT				339												9					
63-64	WDLL-3	SR 176 SB	37+32	41+98	LT						466											8				
62-63	EW-5	SR 176 SB	228+50	233+05	LT	0.09																				
63	EW-5	SR 176 SB	33+05	33+07	LT	0.01																				
63	CH-18	SR 176 NB	33+07	36+20	RT				313												8					
63	CH-19	RA-18109/SR 176 NB	34+25	36+20	LT				195												5					
63-64	EW-6	RA-18109/SR 176 NB	33+67	42+41	RT	0.17																				
63-64	LLD-2	SR 176 NB	36+20	42+16	RT							596										10				
64	CH-22	SR 176 SB	43+24	46+55	LT				331												9					
64	CH-23	RA-18108/SR 176 SB	0+00	3+39	LT				339												9					
64-65	WDLL-4	SR 176 SB	46+55	51+50	LT						495	495														
62-63	EY-3	SR 176 NB	222+75	233+05	RT		0.20																			
63-66	EY-3	SR 176 NB	33+05	68+16	RT		0.67																			
66	EY-3	SR 176 NB	68+16	74+65	RT		0.13																17			
66-68	EY-3	SR 176 NB	74+65	82+00	RT		0.14																			
64	CH-20	SR 176 NB	42+41	46+89	RT				448												12					
64	CH-21	RA-18107/SR 176 NB	10+70	13+89	RT				319												8					
64-65	LLD-3	SR 176 NB	46+89	53+60	RT							671										12				
64	EY-4	RA-18108	3+39	4+39	LT		0.02																			
64	EW-9	RA-18107	10+70	12+51	BL	0.04																				
64-66	EW-9	SR 176 NB	43+70	64+75	RT	0.40																				
66	EW-9	SR 176 NB	64+75	67+82	RT	0.06																			8	
66-67	EW-9	RA-18096	0+00	4+40	RT	0.09																			11	
67	EW-9	RA-18096	4+40	6+20	RT	0.04																				
65	CH-14	SR 176 SB	38+98	41+80	LT				283												8					
65	CH-14	RA-18092	51+50	53+65	LT				215												6					
65	CH-15	SR 176 SB	38+98	41+80	LT				283												8					
65	CH-15	RA-18092	51+50	53+64	LT				214												6					
TOTALS CARRIED TO SHEET 26						1.63	2.12	3.10	7,907	0	961	2,323	0	0	0	0	0	0	0	0	206	40	17	0	19	140

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER
RHB

REVIEWER
CWP 10/07/25

PROJECT ID
120469

SHEET P.24 TOTAL 86

CUY-176-10.65

PAVEMENT MARKING SUBSUMMARY NORTH

SHEET NO.	REFERENCE NO.	LOCATION	STATION FROM	STATION TO	SIDE	642 EDGE LINE, 6", TYPE 1, (WHITE) MILE	642 EDGE LINE, 6", TYPE 1, (YELLOW) MILE	642 LANE LINE, 6", TYPE 1 MILE	642 CHANNELIZING LINE, 12", TYPE 1 FT	642 CHEVRON MARKING, TYPE 1 (WHITE) FT	642 DOTTED LINE, 6", TYPE 1, (WHITE), (3' LINE, 9' GAP) FT	642 DOTTED LINE, 12", TYPE 1, (WHITE), (3' LINE, 9' GAP) FT	642 REMOVAL OF PAVEMENT MARKING EACH	642 REMOVAL OF PAVEMENT MARKING FT	642 REMOVAL OF PAVEMENT MARKING MILE	814 INTERSTATE ELONGATED ROUTE SHIELD SYMBOL MARKING, TYPE B125 EACH	814 CARDINAL DIRECTION (NORTH, SOUTH, WEST & EAST) MARKING, TYPE B125 EACH	621 TWO WAY WHITE/RED RPM (CHEVRONS) EACH	621 TWO WAY WHITE/RED RPM (10' SPACING) EACH	621 TWO WAY WHITE/RED RPM (20' SPACING) EACH	621 TWO WAY WHITE/RED RPM (40' SPACING) EACH	621 TWO WAY WHITE/RED RPM (60' SPACING) EACH	621 TWO WAY YELLOW/RED RPM (40' SPACING) EACH	621 TWO WAY YELLOW/RED RPM (80' SPACING) EACH	621 ONE WAY WHITE RPM (40' SPACING) EACH	621 ONE WAY WHITE RPM (120' SPACING) EACH
67	EW-10	SR 176 NB	73+81	74+41	RT	0.02																				
67-68	EW-10	SR 176 NB		10+50	RT	0.20																				
66	WDLL-5	SR 176 NB	63+75	66+81	RT						306											6				
66	CH-26	RA-18096/SR 176 NB	66+81	67+82	RT				102											6						
66-67	CH-26	RA-18096/SR 176 NB	0+00	69+43	RT				161											9						
67	CH-26	RA-18096/SR 176 NB	69+43	69+95	RT				53									6								
67	CH-26	RA-18096/SR 176 NB		5+00	RT				500									50								
67	CH-26	RA-18096/SR 176 NB	5+00	6+20	RT				120												3					
66-67	CH-27	SR 176 NB	66+81	69+43	RT				263											14						
67	CH-27	SR 176 NB	69+43	72+17	RT				274									28								
67	CH-27	SR 176 NB	72+17	73+81	RT				164												5					
67	CH-28	SR 176 NB	0+00	73+81	RT				225												6					
67	CH-29	SR 176 NB	71+56	81+55	RT				999												25					
67	CH-30	RA-18098		1+91	RT				191												5					
67-68	CH-30	RA-18098	0+00	7+21	RT				531												14					
67	CH-31	RA-18098	0+00	7+21	RT				721												19					
67	LL-7	SR 176 NB	73+81	74+41	RT			0.02																		1
67	LL-7	RA-18098		1+91	RT			0.04																		2
68-69	LL-8	RA-18098	7+21	21+58	RT			0.28																		12
68-69	EY-5	RA-18098	7+21	21+58	RT		0.28																			
68	EW-11	SR 176 NB	81+55	82+00	RT	0.01																				
68-69	CH-32	RA-18098	10+50	15+02	RT				452												12					
69	LLD-3	RA-18098	15+02	22+21	RT							719										12				
69	EW-12	RA-18098	15+02	22+21	RT	0.14																				
67	CM-1	SR 176 NB/RA-18096	69+50	71+55	RT					142							43									
67-68	CM-2	SR 176 NB/RA-18098	74+41	81+10	RT					192																
40-41	MR-1	SR 176 SB SB LL	200+80	210+64	LT										0.19											
40-43	MR-2	SR 176 SB SB LL	200+80	233+05	LT										0.62											
43-45	MR-2	SR 176 SB SB LL	33+05	53+65	LT										0.40											
40-43	MR-3	SR 176 SB SB YELLOW EL	203+80	233+05	LT										0.56											
43-45	MR-3	SR 176 SB SB YELLOW EL	33+05	53+65	LT										0.40											
41	MR-4	SR 176 SB SB WHITE EL RAMP	209+44	216+09	LT										0.13											
41	MR-5	SR 176 SB SB CH RAMP	210+51	216+55	LT									604												
41	MR-5	SR 176 SB SB CH	212+87	216+55	LT									369												
41-43	MR-6	SR 176 SB SB WHITE EL	216+55	233+05	LT										0.32											
43	MR-6	SR 176 SB	33+05	34+00	LT										0.02											
43	MR-7	SR 176 SB SB CH RAMP	33+97	36+56	LT									259												
43	MR-7	SR 176 SB SB CH	33+97	36+56	LT									259												
43-44	MR-8	SR 176 SB WHITE EL	35+18	43+20	LT										0.16											
43-44	MR-9	SR 176 SB DOTTED LINE	36+56	41+62	LT									506												
44	MR-10	SR 176 SB SB CH RAMP	43+20	46+01	LT									281												
44	MR-10	SR 176 SB SB CH	43+20	46+01	LT									281												
44-45	MR-11	SR 176 SB MAIN/RAMP WHITE EL	42+00	53+65	LT										0.23											
44-45	MR-12	SR 176 SB DOTTED LINE	46+01	53+65	LT									764												
45	MR-13	SR 176 SB SB CH RAMP	38+98	41+80	LT									283												
45	MR-13	SR 176 SB SB CH	39+50	41+80	LT									231												
45	MR-14	RA-18092 SB LL	38+98	41+80	LT										0.06											
42-43	MR-15	SR 176 NB NB YELLOW EL	222+75	233+05	RT										0.20											
44	MR-15	SR 176 NB NB YELLOW EL	33+05	82+00	RT										0.93											
42-43	MR-16	SR 176 NB NB LL	222+75	233+05	RT										0.20											
TOTALS CARRIED TO SHEET 26						0.37	0.28	0.34	4,756	334	306	719	0	3,837	4.42	0	0	43	84	29	89	18	0	0	0	15

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER
RHB

REVIEWER
CWP 10/07/25

PROJECT ID
120469

SHEET P.25 TOTAL 86

CUY-176-10.65

PAVEMENT MARKING SUBSUMMARY NORTH

SHEET NO.	REFERENCE NO.	LOCATION	STATION FROM	STATION TO	SIDE	642 EDGE LINE, 6", TYPE 1, (WHITE) MILE	642 EDGE LINE, 6", TYPE 1, (YELLOW) MILE	642 LANE LINE, 6", TYPE 1 MILE	642 CHANNELIZING LINE, 12", TYPE 1 FT	642 CHEVRON MARKING, TYPE 1 (WHITE) FT	642 DOTTED LINE, 6", TYPE 1, (WHITE), (3' LINE, 9' GAP) FT	642 DOTTED LINE, 12", TYPE 1, (WHITE), (3' LINE, 9' GAP) FT	642 REMOVAL OF PAVEMENT MARKING EACH	642 REMOVAL OF PAVEMENT MARKING FT	642 REMOVAL OF PAVEMENT MARKING MILE	814 INTERSTATE ELONGATED ROUTE SHIELD SYMBOL MARKING, TYPE B125 EACH	814 CARDINAL DIRECTION (NORTH, SOUTH, WEST & EAST) MARKING, TYPE B125 EACH	621 TWO WAY WHITE/RED RPM (CHEVRONS) EACH	621 TWO WAY WHITE/RED RPM (10' SPACING) EACH	621 TWO WAY WHITE/RED RPM (20' SPACING) EACH	621 TWO WAY WHITE/RED RPM (40' SPACING) EACH	621 TWO WAY WHITE/RED RPM (60' SPACING) EACH	621 TWO WAY YELLOW/RED RPM (40' SPACING) EACH	621 TWO WAY YELLOW/RED RPM (80' SPACING) EACH	621 ONE WAY WHITE RPM (40' SPACING) EACH	621 ONE WAY WHITE RPM (120' SPACING) EACH
43-47	MR-16	SR 176 NB NB LL	33+05	70+80	RT										0.72											
42	MR-17	SR 176 NB NB LL	222+75	224+70	RT										0.04											
42	MR-18	SR 176 NB MERGE	223+66		RT								1													
42	MR-19	SR 176 NB ARROW	224+60		RT								1													
42-43	MR-20	SR 176 NB NB DOTTED LINE	224+70	230+61	RT									592												
42-43	MR-21	SR 176 NB NB WHITE EL	222+75	233+05	RT										0.20											
43	MR-22	SR 176 NB NB CH	33+05	36+86	RT									382												
43	MR-22	SR 176 NB NB CH RAMP	33+05	36+86	RT									382												
43-44	MR-23	SR 176 NB RAMP/MAIN WHITE EL	36+40	43+70	RT										0.14											
43	MR-23	RA-18019/WHITE EL	8+94	11+74	RT										0.06											
43-44	MR-24	SR 176 NB NB DOTTED LINE	36+86	43+70	RT									684												
44	MR-25	SR 176 NB NB CH	43+80	47+05	RT									325												
44	MR-25	SR 176 NB NB CH RAMP	43+70	47+10	RT									332												
44-46	MR-26	SR 176 NB RAMP/MAIN WHITE EL	43+70	67+82	RT										0.46											
46-47	MR-26	SR 176 NB RAMP/MAIN WHITE EL		4+85	RT										0.10											
44-46	MR-27	SR 176 NB NB DOTTED LINE	47+10	65+75	RT									1865												
46-47	MR-28	SR 176 NB CH	65+75	72+10	RT									635												
47	MR-29	SR 176 NB CH RAMP	2+00	4+00	RT									200												
47	MR-30	SR 176 NB RAMP GORE	2+00	4+00	RT									147												
47	MR-31	SR 176 NB YELLOW EL RAMP	4+00	6+33	LT										0.05											
47-48	MR-32	SR 176 NB CH RAMP	70+80	82+00	RT									1120												
			0+00																							
47-48	MR-33	SR 176 NB GORE/TRANSVERSE	1+90	7+15	RT									282												
47-48	MR-34	SR 176 NB CH RAMP	0+00	7+15	RT									715												
47	MR-35	SR 176 NB WHITE EL	72+10	74+41	RT										0.05											
47-48	MR-35	SR 176 NB WHITE EL		10+50	RT										0.20											
47	MR-36	RA-18098 TRANSVERSE	7+15	18+13	RT									234												
48-49	MR-37	SR 176 NB CH RAMP	10+50	15+01	RT									451												
48-49	MR-38	RA-18098 YELLOW EL	7+15	21+58	RT										0.28											
49	MR-39	SR 176 NB NR RAMP LL	15+01	21+58	RT										0.13											
48-49	MR-40	RA-18093 WHITE EL	10+50	22+22	RT										0.23											
	MR-41	RA-18093 TRANSVERSE	22+09	0+68	RT																					
TOTAL FROM THIS SHEET						0	0	0	0	0	0	0	2	8,346	2.66	0	0	0	0	0	0	0	0	0	0	0
TOTAL CARRIED FROM SHEET 24						1.63	2.12	3.10	7,907	0	961	2,323	0	0	0	0	0	0	0	0	206	40	17	0	19	140
TOTAL CARRIED FROM SHEET 25						0.37	0.28	0.34	4,756	334	306	719	0	3,837	4.42	0	0	43	84	29	89	18	0	0	0	15
SUBTOTALS						2.00	2.40	3.44	12,663	334	1,267	3,042	2	3,837	4.42	0	0	43	84	29	295	58	17	0	19	155
ADD SECOND APPLICATION						2.00	2.40	3.44	12,663	334	1,267	3,042	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS CARRIED TO GENERAL SUMMARY						8.80		6.88	25,326	668	2,534	6,084	2	12,183	7.08	0	0	700								

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER RHB
REVIEWER CWP 10/07/25
PROJECT ID 120469
SHEET P.26 TOTAL 86

CUY-176-10.65

PAVEMENT MARKING SUBSUMMARY SOUTH

SHEET NO.	REFERENCE NO.	LOCATION	STATION FROM	STATION TO	SIDE	646 EDGE LINE, 6", (WHITE) MILE	646 EDGE LINE, 6", (YELLOW) MILE	646 LANE LINE, 6" MILE	646 CHANNELIZING LINE, 12" FT	646 CHEVRON MARKING, (WHITE) FT	646 DOTTED LINE, WHITE 12" (3' LINE, 9' GAP) FT	642 REMOVAL OF PAVEMENT MARKING EACH	642 REMOVAL OF PAVEMENT MARKING FT	642 REMOVAL OF PAVEMENT MARKING MILE	814 INTERSTATE ELONGATED ROUTE SHIELD SYMBOL MARKING, TYPE B125 EACH	814 CARDINAL DIRECTION (NORTH, SOUTH, WEST & EAST) MARKING, TYPE B125 EACH	621 TWO WAY WHITE/RED RPM (CHEVRONS) EACH	621 TWO WAY WHITE/RED RPM (10' SPACING) EACH	621 TWO WAY WHITE/RED RPM (20' SPACING) EACH	621 TWO WAY WHITE/RED RPM (40' SPACING) EACH	621 TWO WAY WHITE/RED RPM (60' SPACING) EACH	621 TWO WAY YELLOW/RED RPM (40' SPACING) EACH	621 TWO WAY YELLOW/RED RPM (80' SPACING) EACH	621 ONE WAY WHITE RPM (20' SPACING) EACH	621 ONE WAY WHITE RPM (40' SPACING) EACH	621 ONE WAY WHITE RPM (120' SPACING) EACH
50, 55	CH-2	RA-18228	35+00	38+84	LT				384											10						
50, 55	CH-3	RA-18228	35+00	38+84	LT				384											10						
50, 55	CH-4	RA-18228	35+00	41+10	LT				610																	6
50, 55	CM-1	RA-18228	35+00	38+16	LT					118																
50	LL-2	RA-18230	37+90	45+56	LT			0.15																		7
50-53	EY-1	RA-18230	38+84	74+07	LT		0.67															89				
50	CH-5	RA-18230	41+10	43+87	RT				277											7						
50	CH-6	RA-18228	41+10	43+82	LT				272											7						
50	CM-3	RA-18230	41+10	43+87	RT					134																
50-53	EW-1	RA-18230	43+87	74+12	RT	0.58																				
50	IS-1	RA-18230	45+00		LT										1											
50	IS-2	RA-18230	45+00		LT										1											
50	CD-1	RA-18230	45+30		LT											1										
50-52	WDLL-1	RA-18230	45+56	60+56	RT						1500										26					
52	IS-3	RA-18230	61+00		LT										1											
52	IS-4	RA-18230	61+00		RT										1											
52	CD-2	RA-18230	61+30		LT											1										
52	CH-3	RA-18230	60+56	63+00	RT				244																7	
52	CH-3	RA-18230	63+00	65+56	RT																			13		
52-53	CH-8	RA-18230	65+56	69+50	RT				394										20							
52-53	CH-9	RA-18230	65+56	69+50	RT				394										20							
52-53	CM-3	RA-18230	65+56	69+50	RT					175							70									
53	EY-2	RA-18230	69+50	74+12	RT		0.09																6			
53-54	EW-2	RA-18230	69+50	82+00	RT	0.24																				
53-54	CH-10	RA-18230	74+07	81+70	LT				763											20						
52	EW-13	SR 17	121+23	122+49	LT	0.03																				
55-56	CH-1	RA-18228	38+00	35+00	LT				300											8						
55-56	CH-1	SR 176 SB	124+95	135+00	LT				1005											26						
55-57	LL-1	SR 176 SB	124+95	151+50	LT			0.51																		23
56-57	WDLL-2	SR 176 SB	135+00	151+50	LT						1650										29					
30, 35	MR-5	SR 176 SB/RAMP CH & EY	121+10	128+13	LT								703													
30, 35	MR-6	SR 176 SB/RAMP CHEVRON	121+75	128+13	LT								309													
30, 35	MR-8	SR 176 SB CH & EW	121+10	128+13	LT								703													
30, 35	MR-7	SR 176 SB RAMP DOTTED	29+50	38+15	LT									0.17												
30-32	MR-9	SR 176 RAMP TRANSVERSE	39+00	60+80	LT								664													
30	MR-10	RA-18228 CH	38+10	43+82	LT								572													
30	MR-11	RA-18230 CH	41+00	43+82	LT								282													
30-34	MR-12	RA-18230 WHITE EL	43+82	82+00	RT									0.73												
30-34	MR-13	RA-18230 YELLOW EL	38+10	81+70	LT									0.83												
32-33	MR-14	RA-18232 WHITE EL	61+87	74+12	RT									0.24												
32-33	MR-15	RA-18232 YELLOW EL	60+64	74+12	RT									0.26												
35-36	MR-4	SR 176 SB SOLID LL	128+13	133+00	LT									0.1												
35-37	MR-2	SR 176 SB LL	130+50	151+50	LT									0.4												
35	MR-3	SR 176 SB DOTTED	133+00	137+00	LT									0.08												
35-37	MR-1	SR 176 SB LL	137+00	151+50	LT									0.28												
SUBTOTALS						0.85	0.76	0.66	5,027	427	3,150	0	3,233	3.09	4	2	70	0	40	88	55	89	6	13	7	36
TOTALS CARRIED TO GENERAL SUMMARY						1.61		0.66	5,027	427	3,150	0	3,233	3.09	4	2	404									

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER
RHB

REVIEWER
CWP 10/07/25

PROJECT ID
120469

SHEET P.27 TOTAL 86

CUY-176-10.65

SHEET NO.	REFERENCE NO.	LOCATION	STATION	SIDE	CODE	SIZE W	SIZE X	SIZE H	625 GROUND ROD EACH	630 GROUND MOUNTED SUPPORT, NO. 3 POST FT	630 SIGN POST REFLECTOR EACH	630 OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 1 EACH	630 SIGN ATTACHMENT ASSEMBLY EACH	630 SIGN, FLAT SHEET SF	630 SIGN, OVERHEAD EXTRUSHEET SF	630 SIGN, TEMPORARY OVERLAY SF	630 COVERING OF SIGN SF	630 RIGID OVERHEAD SIGN SUPPORT FOUNDATION EACH	630 REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL EACH	630 REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL EACH	630 REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL EACH	630 REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL, TYPE TC-12.30 EACH
30	SR-1	RA-18230	41+00.00	LT/RT																	3	
32	SR-2	RA-18232	31+70.00	LT															1	1		
32	SR-3	RA-18232	32+06.00	LT															1	1		
32	SR-4	SR 17	121+23.00	LT																	1	1
32	SR-5	SR 17	126+35.00	LT															3	1		
35	SR-6	SR 176 SB	124+82.00	LT																	3	
36	SR-7	SR 176 SB	138+03.00	LT																	3	
38	SR-8	SR 176 NB	155+37.00	RT																	3	
38	SR-9	SR 176 SB	156+40.00	LT																	3	
40	SR-10	SR 176 SB	203+42.00	LT																	3	
41	SR-11	SR 176 NB	215+99.00	RT																	1	
41	SR-12	SR 176 NB	215+99.00	RT																	1	
41	SR-13	SR 176 NB	215+99.00	RT																	3	
42	SR-14	SR 176 SB	221+15.00	LT															1	2		
44	SR-15	SR 176 NB	41+52.00	RT															1	2		
44	SR-16	SR 176 SB	45+61.00	LT																	3	
45	SR-17	SR 176 NB	51+62.00	RT															1	2		
45	SR-18	SR 176 NB	51+99.00	RT																	3	
45	SR-19	SR 176 SB	53+78.00	LT															1	2		
48	SR-20	RA-18629	80+47.00	RT																	3	
50	S-1	RA-18230	41+00.00	LT/RT		192	X	36								48.0						
				LT/RT		168	X	36								42.0						
				LT/RT	M4-1A	36	X	18						4.5								
				LT/RT	M3-3	36	X	18						4.5								
				LT/RT	M1-1	36	X	36						9.0								
50	S-2	RA-18230	47+00.00	LT/RT		192	X	160	2			1			213.3			2				
50	S-3	RA-18230	47+00.00	LT/RT		156	X	144							156.0							
52	S-4	RA-18230	61+50.00	LT/RT		192	X	160	2			1			213.3			2				
52	S-5	RA-18230	61+50.00	LT/RT		156	X	144							156.0							
55	S-6	SR 176 SB	124+82.00	LT		192	X	36								48.0						
				LT	M4-1A	36	X	18						4.5								
				LT	M3-3	36	X	18						4.5								
				LT	M1-1	36	X	36						9.0								
56	S-7	SR 176 SB	138+03.00	LT		192	X	36								48.0						
				LT	M4-1A	36	X	18						4.5								
				LT	M3-3	36	X	18						4.5								
				LT	M1-1	36	X	36						9.0								
58	S-8	SR 176 NB	155+37.00	RT	M4-1A	36	X	18						4.5								
				RT	M3-1	36	X	18						4.5								
					M1-1	36	X	36						9.0								
58	S-9	SR 176 SB	156+40.00	LT		192	X	36								48.0						
				LT	M4-1A	36	X	18						4.5								
				LT	M3-3	36	X	18						4.5								
				LT	M1-1	36	X	36						9.0								
60	S-10	SR 176 SB	203+42.00	LT	M4-1A	36	X	18						4.5								
				LT	M3-3	36	X	18						4.5								
				LT	M1-1	36	X	36						9.0								
61	S-11	SR 176 NB	215+99.00	RT		120	X	108					2		90.0							
61	S-12	SR 176 NB	215+99.00	RT		108	X	84					2		63.0							
				RT	M4-1A	36	X	18						4.5								
				RT	M3-1	36	X	18						4.5								
				RT	M1-1	36	X	36						9.0								
TOTALS CARRIED TO SHEET 29									4	0	0	2	4	126.0	891.7	234.0	0	4	9	11	33	1

SIGN SUBSUMMARY

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER RHB
REVIEWER CWP 10/07/25
PROJECT ID 120469
SHEET P.28 TOTAL 86

CUY-176-10.65

SHEET NO.	REFERENCE NO.	LOCATION	STATION	SIDE	CODE	SIZE W	SIZE X	SIZE H	625 GROUND ROD EACH	630 GROUND MOUNTED SUPPORT, NO. 3 POST FT	630 SIGN POST REFLECTOR EACH	630 OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 1 EACH	630 SIGN ATTACHMENT ASSEMBLY EACH	630 SIGN, FLAT SHEET SF	630 SIGN, OVERHEAD EXTRUSHEET SF	630 SIGN, TEMPORARY OVERLAY SF	630 COVERING OF SIGN SF	630 RIGID OVERHEAD SIGN SUPPORT FOUNDATION EACH	630 REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL EACH	630 REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL EACH	630 REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL EACH	630 REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL, TYPE TC-12.30 EACH
61	S-13	SR 176 SB	216+00.00	LT	R1-2	60	X	60		36.0	2			10.8								
62	S-14	SR 176 SB	221+15.00	LT	W4-1	48	X	48		32.0				16.0								
62	S-15	SR 176 NB	222+75.00	RT	R2-1	48	X	60		34.0				20.0								
62	S-16	SR 176 NB	223+66.00	RT													112.0					
64	S-17	SR 176 NB	41+52.00	RT	W4-1	48	X	48		34.0				16.0								
64	S-18	SR 176 NB	45+50.00	RT	R1-2	60	X	60		34.0	2			10.8								
64	S-19	SR 176 SB	45+61.00	LT		204	X	36								51.0						
				LT	M4-1A	36	X	18						4.5								
				LT	M3-3	36	X	18						4.5								
				LT	M1-1	36	X	36						9.0								
65	S-20	SR 176 NB	51+62.00	RT	R2-1	48	X	60		36.0				20.0								
65	S-21	SR 176 NB	51+99.00	RT		204	X	36								51.0						
65	S-22	SR 176 NB	51+99.00	RT		156	X	36								39.0						
				RT	M4-1A	36	X	18						4.5								
				RT	M3-3	36	X	18						4.5								
				RT	M1-1	36	X	36						9.0								
65	S-23	SR 176 SB	53+44.00	LT		204	X	36								51.0						
65	S-24	SR 176 SB	53+78.00	LT	R2-1	48	X	60		36.0				20.0								
66	S-25	SR 176 SB	35+74.00	LT		204	X	36								51.0						
66	S-26	SR 176 NB	62+00.00	RT		156	X	36								39.0						
				RT	M4-1A	36	X	18						4.5								
				RT	M3-3	36	X	18						4.5								
				RT	M1-1	36	X	36						9.0								
66	S-27	SR 176 NB	62+00.00	RT		204	X	36								51.0						
67	S-28	SR 176 NB	69+89.00	RT		180	X	24								30.0						
68	S-29	RA-18629	80+47.00	RT		204	X	36								51.0						
				RT	M4-1A	36	X	18						4.5								
				RT	M3-1	36	X	18						4.5								
				RT	M1-1	36	X	36														
68	S-30	RA-18098	7+00.00	RT	W4-1	48	X	48		34.0				16.0								
68	S-31	RA-18098	14+52.00	RT	R1-2	60	X	60		36.0	2			10.8								
TOTAL THIS SHEET									0	312.0	6	0	0	204.0	0	414.0	112.0	0	0	0	0	0
TOTAL CARRIED FROM SHEET 28									4	0	0	2	4	126.0	891.7	234.0	0	4	9	11	33	1
TOTALS CARRIED TO GENERAL SUMMARY									4	312.0	6	2	4	330.0	891.7	648.0	112.0	4	9	11	33	1

SIGN SUBSUMMARY

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER: RHB
REVIEWER: CWP 10/07/25
PROJECT ID: 120469
SHEET: P.29 TOTAL: 86

CUY-176-10.65

MODEL: Plan 5 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 10/7/2025 TIME: 8:29:16 AM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: thomas@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 120469 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\24156 ODOT D12-D3 GES FY2025-26\119814\Task 8 - CUY-176-10.65\120469\400-Engineering\Traffic\Sheets\120469_TP001.dgn

CROSS REFERENCES

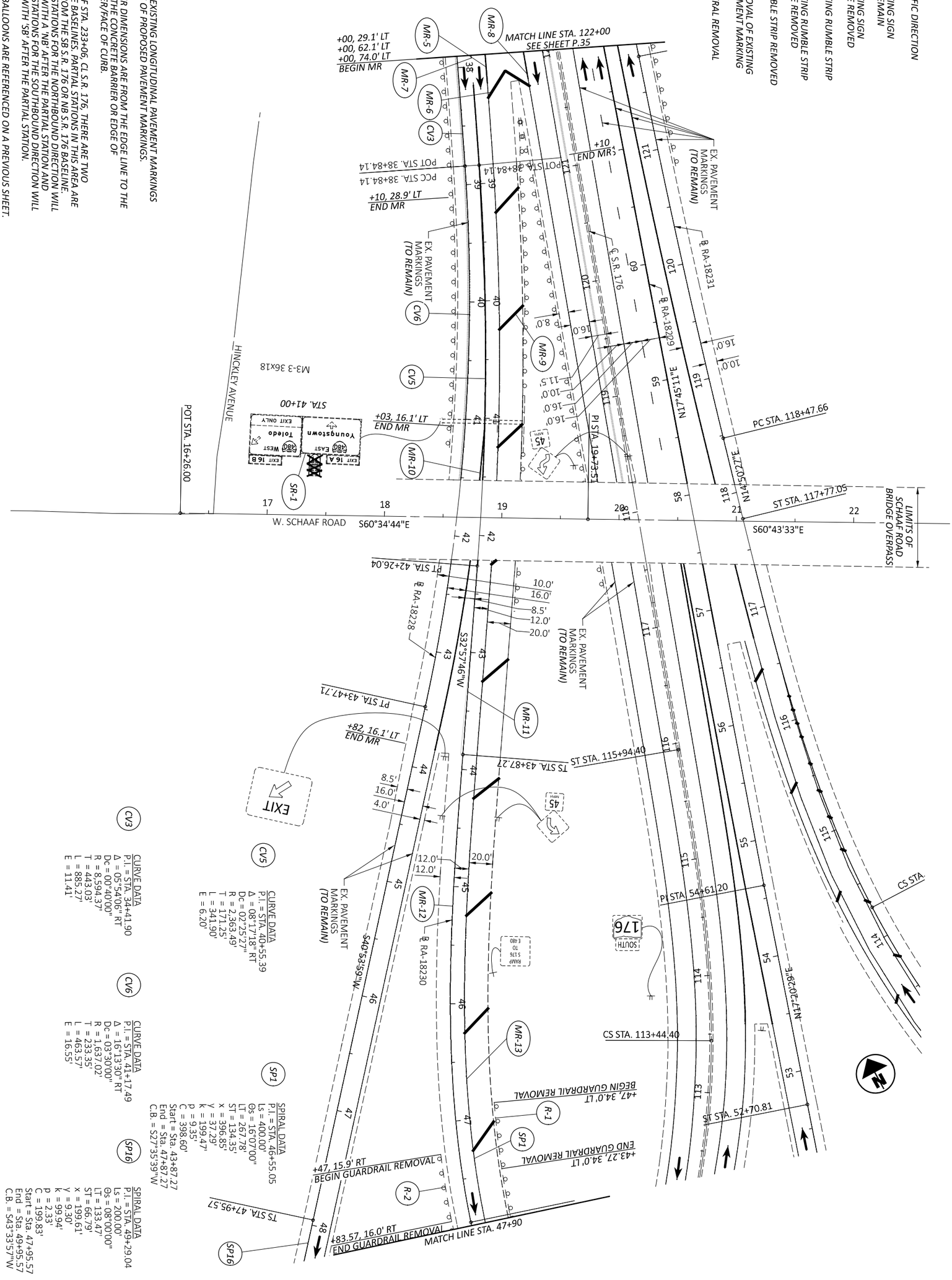
SUBSUMMARIES	P.18	-	P.29
TRAFFIC CONTROL PLAN	P.50	-	P.69
DETAIL PLANS	P.70	-	P.79
DETAIL PLANS-CHANNELIZING LINES	P.80	-	P.84

LEGEND

- TRAFFIC DIRECTION
- EXISTING SIGN TO REMAIN
- EXISTING SIGN TO BE REMOVED
- EXISTING RUMBLE STRIP
- EXISTING RUMBLE STRIP TO BE REMOVED
- RSR — RUMBLE STRIP REMOVED
- MR — REMOVAL OF EXISTING PAVEMENT MARKING
- R — GENERAL REMOVAL

NOTES:

1. REMOVE EXISTING LONGITUDINAL PAVEMENT MARKINGS IN AREAS OF PROPOSED PAVEMENT MARKINGS.
2. SHOULDER DIMENSIONS ARE FROM THE EDGE LINE TO THE BASE OF THE CONCRETE BARRIER OR EDGE OF SHOULDER/FACE OF CURB.
3. NORTH OF STA. 233+06, CL S.R. 176, THERE ARE TWO SEPARATE BASELINES. PARTIAL STATIONS IN THIS AREA ARE GIVEN FROM THE SB S.R. 176 OR NB S.R. 176 BASELINE. PARTIAL STATIONS FOR THE NORTHBOUND DIRECTION WILL APPEAR WITH A 'NB' AFTER THE PARTIAL STATION AND PARTIAL STATIONS FOR THE SOUTHBOUND DIRECTION WILL APPEAR WITH 'SB' AFTER THE PARTIAL STATION.
4. DASHED BALLOONS ARE REFERENCED ON A PREVIOUS SHEET.



DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

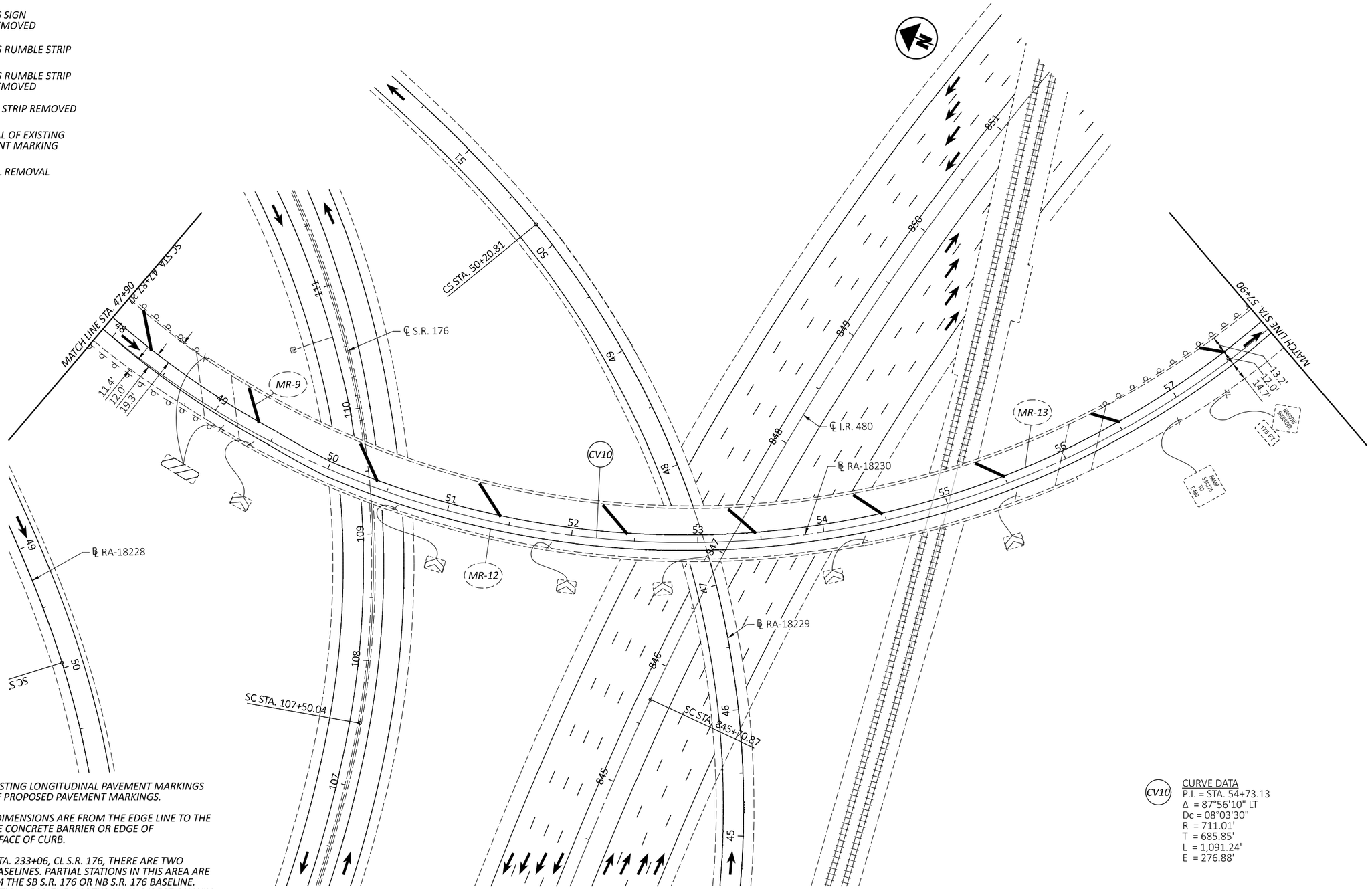
DESIGNER: SHT
REVIEWER: CWP 10/07/25
PROJECT ID: 120469
SHEET: P.30 TOTAL: 86

REMOVAL PLAN - RA-18230 & S.R. 176
S.R. 176 STA. 122+00 TO RA-18230 STA. 47+90

HORIZONTAL SCALE IN FEET
0 20 40 80

LEGEND

- TRAFFIC DIRECTION
- EXISTING SIGN TO REMAIN
- EXISTING SIGN TO BE REMOVED
- EXISTING RUMBLE STRIP
- EXISTING RUMBLE STRIP TO BE REMOVED
- RSR — RUMBLE STRIP REMOVED
- MR — REMOVAL OF EXISTING PAVEMENT MARKING
- R — GENERAL REMOVAL



CROSS REFERENCES			
SUBSUMMARIES	P.18	-	P.29
TRAFFIC CONTROL PLAN	P.50	-	P.69
DETAIL PLANS	P.70	-	P.79
DETAIL PLANS-CHANNELIZING LINES	P.80	-	P.84

NOTES:

1. REMOVE EXISTING LONGITUDINAL PAVEMENT MARKINGS IN AREAS OF PROPOSED PAVEMENT MARKINGS.
2. SHOULDER DIMENSIONS ARE FROM THE EDGE LINE TO THE BASE OF THE CONCRETE BARRIER OR EDGE OF SHOULDER/FACE OF CURB.
3. NORTH OF STA. 233+06, CL S.R. 176, THERE ARE TWO SEPARATE BASELINES. PARTIAL STATIONS IN THIS AREA ARE GIVEN FROM THE SB S.R. 176 OR NB S.R. 176 BASELINE. PARTIAL STATIONS FOR THE NORTHBOUND DIRECTION WILL APPEAR WITH A 'NB' AFTER THE PARTIAL STATION AND PARTIAL STATIONS FOR THE SOUTHBOUND DIRECTION WILL APPEAR WITH 'SB' AFTER THE PARTIAL STATION.
4. DASHED BALLOONS ARE REFERENCED ON A PREVIOUS SHEET.

CV10 CURVE DATA
P.I. = STA. 54+73.13
Δ = 87°56'10" LT
Dc = 08°03'30"
R = 711.01'
T = 685.85'
L = 1,091.24'
E = 276.88'

HORIZONTAL SCALE IN FEET
0 20 40 80

REMOVAL PLAN - RA-18230
STA. 47+90 TO STA. 57+90

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

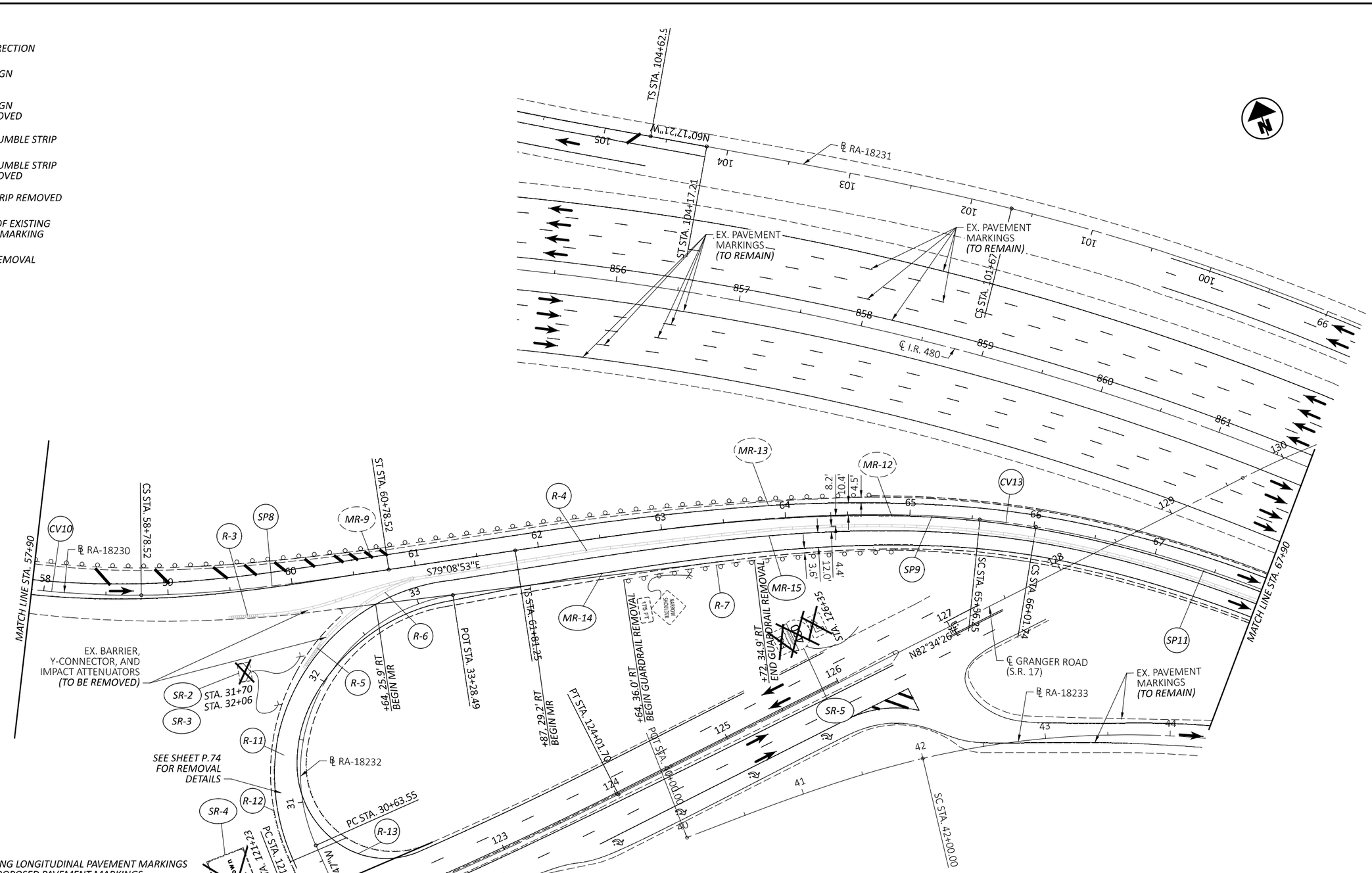
DESIGNER SHT
REVIEWER CWP 10/07/25
PROJECT ID 120469
SHEET P.31 TOTAL 86

CUY-176-10.65

MODEL: Plan 4 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 10/7/2025 TIME: 8:29:20 AM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: thomas@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 120469 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\24156 ODOT D12-D3 GES FY2025-26\119814\Task 8 - CUY-176-10.65\120469\400-Engineering\Traffic\Sheets\120469_TP001.dgn

LEGEND

- TRAFFIC DIRECTION
- EXISTING SIGN TO REMAIN
- EXISTING SIGN TO BE REMOVED
- EXISTING RUMBLE STRIP
- EXISTING RUMBLE STRIP TO BE REMOVED
- RSR — RUMBLE STRIP REMOVED
- MR — REMOVAL OF EXISTING PAVEMENT MARKING
- R — GENERAL REMOVAL



NOTES:

1. REMOVE EXISTING LONGITUDINAL PAVEMENT MARKINGS IN AREAS OF PROPOSED PAVEMENT MARKINGS.
2. SHOULDER DIMENSIONS ARE FROM THE EDGE LINE TO THE BASE OF THE CONCRETE BARRIER OR EDGE OF SHOULDER/FACE OF CURB.
3. NORTH OF STA. 233+06, CL S.R. 176, THERE ARE TWO SEPARATE BASELINES. PARTIAL STATIONS IN THIS AREA ARE GIVEN FROM THE SB S.R. 176 OR NB S.R. 176 BASELINE. PARTIAL STATIONS FOR THE NORTHBOUND DIRECTION WILL APPEAR WITH A 'NB' AFTER THE PARTIAL STATION AND PARTIAL STATIONS FOR THE SOUTHBOUND DIRECTION WILL APPEAR WITH 'SB' AFTER THE PARTIAL STATION.
4. DASHED BALLOONS ARE REFERENCED ON A PREVIOUS SHEET.

CV10 CURVE DATA
P.I. = STA. 54+73.13
Δ = 87°56'10" LT
Dc = 08°03'30"
R = 711.01'
T = 685.85'
L = 1,091.24'
E = 276.88'

SP8 SPIRAL DATA
P.I. = STA. 59+45.31
Ls = 200.00'
Θs = 08°03'30"
LT = 133.47'
ST = 66.79'
x = 198.95'
y = 18.71'
k = 99.93'
p = 2.34'
C = 199.82'
Start = Sta. 58+78.52
End = Sta. 60+78.52
C.B. = S76°27'45"E

SP9 SPIRAL DATA
P.I. = STA. 64+32.08
Ls = 375.00'
Θs = 14°22'30"
LT = 250.83'
ST = 125.75'
x = 372.65'
y = 31.22'
k = 187.11'
p = 7.82'
C = 373.95'
Start = Sta. 61+81.25
End = Sta. 65+56.25
C.B. = S74°21'33"E

CV13 CURVE DATA
P.I. = STA. 65+79.00
Δ = 03°29'15" RT
Dc = 07°40'00"
R = 747.34'
T = 22.75'
L = 45.49'
E = 0.35'

SP11 SPIRAL DATA
P.I. = STA. 67+53.05
Ls = 450.00'
Θs = 17°15'00"
LT = 301.44'
ST = 151.31'
x = 439.19'
y = 89.39'
k = 224.32'
p = 11.25'
C = 448.19'
Start = Sta. 66+01.74
End = Sta. 70+51.74
C.B. = S49°46'51"E

HORIZONTAL SCALE IN FEET
0 20 40 80

REMOVAL PLAN - RA-18230
STA. 57+90 TO STA. 67+90

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

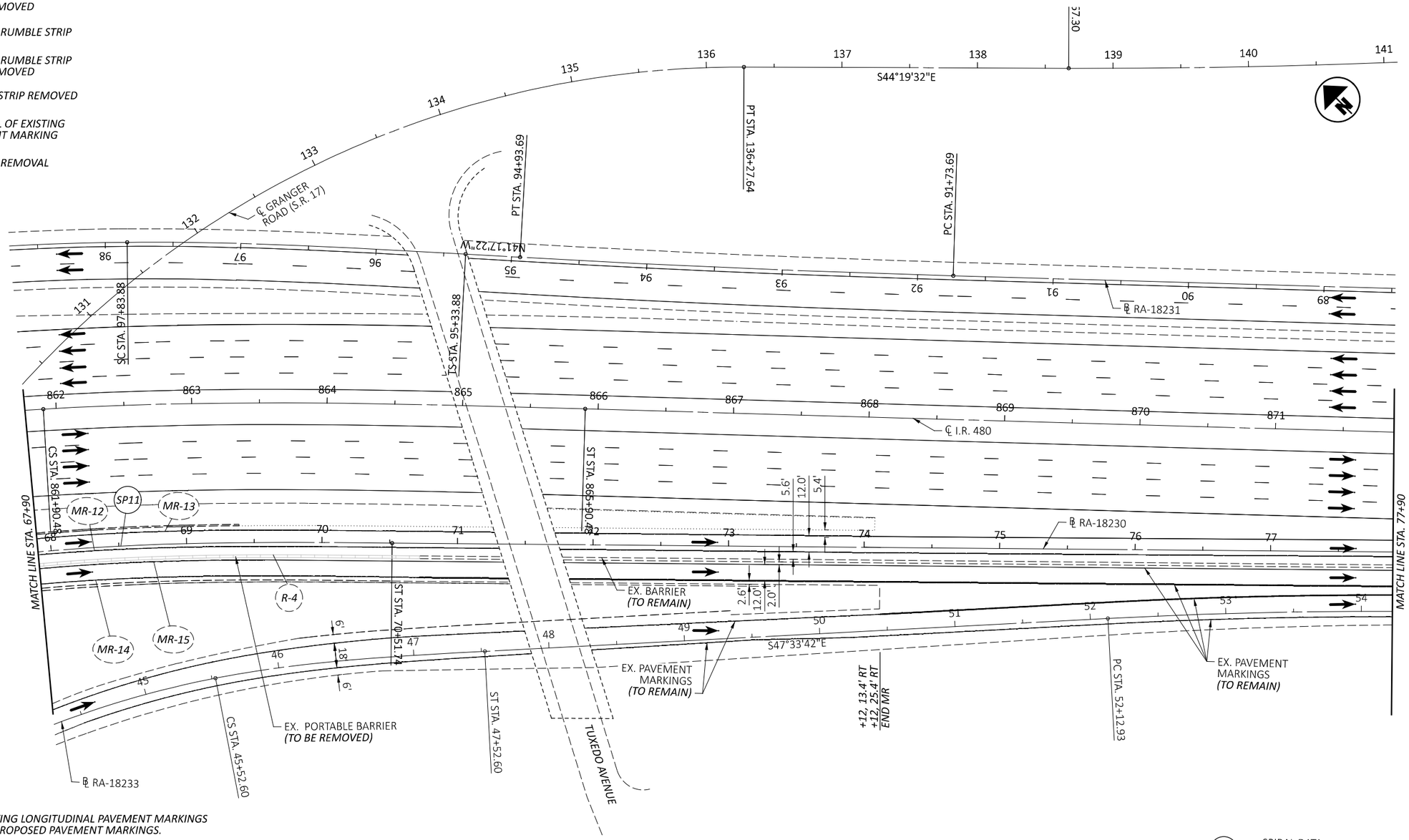
DESIGNER SHT
REVIEWER CWP 10/07/25
PROJECT ID 120469
SHEET P.32 TOTAL 86

CUY-176-10.65

MODEL: Plan 3 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 10/7/2025 TIME: 8:29:24 AM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: thomas@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 120469 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\24156 ODOT D12-D3 GES FY2025-26\119814\Task 8 - CUY-176-10.65\120469\400-Engineering\Traffic\Sheets\120469_TP001.dgn

LEGEND

- TRAFFIC DIRECTION
- EXISTING SIGN TO REMAIN
- EXISTING SIGN TO BE REMOVED
- EXISTING RUMBLE STRIP
- EXISTING RUMBLE STRIP TO BE REMOVED
- RSR — RUMBLE STRIP REMOVED
- MR — REMOVAL OF EXISTING PAVEMENT MARKING
- R — GENERAL REMOVAL



CROSS REFERENCES				
SUBSUMMARIES	P.18	-	P.29	
TRAFFIC CONTROL PLAN	P.50	-	P.69	
DETAIL PLANS	P.70	-	P.79	
DETAIL PLANS-CHANNELIZING LINES	P.80	-	P.84	

NOTES:

1. REMOVE EXISTING LONGITUDINAL PAVEMENT MARKINGS IN AREAS OF PROPOSED PAVEMENT MARKINGS.
2. SHOULDER DIMENSIONS ARE FROM THE EDGE LINE TO THE BASE OF THE CONCRETE BARRIER OR EDGE OF SHOULDER/FACE OF CURB.
3. NORTH OF STA. 233+06, CL S.R. 176, THERE ARE TWO SEPARATE BASELINES. PARTIAL STATIONS IN THIS AREA ARE GIVEN FROM THE SB S.R. 176 OR NB S.R. 176 BASELINE. PARTIAL STATIONS FOR THE NORTHBOUND DIRECTION WILL APPEAR WITH A 'NB' AFTER THE PARTIAL STATION AND PARTIAL STATIONS FOR THE SOUTHBOUND DIRECTION WILL APPEAR WITH 'SB' AFTER THE PARTIAL STATION.
4. DASHED BALLOONS ARE REFERENCED ON A PREVIOUS SHEET.

SP11

SPIRAL DATA
P.I. = STA. 67+53.05
Ls = 450.00'
Θs = 17°15'00"
LT = 301.44'
ST = 151.31'
x = 439.19'
y = 89.39'
k = 224.32'
p = 11.25'
C = 448.19'
Start = Sta. 66+01.74
End = Sta. 70+51.74
C.B. = S49°46'51"E

HORIZONTAL SCALE IN FEET
0 20 40 80

REMOVAL PLAN - RA-18230
STA. 67+90 TO STA. 77+90

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

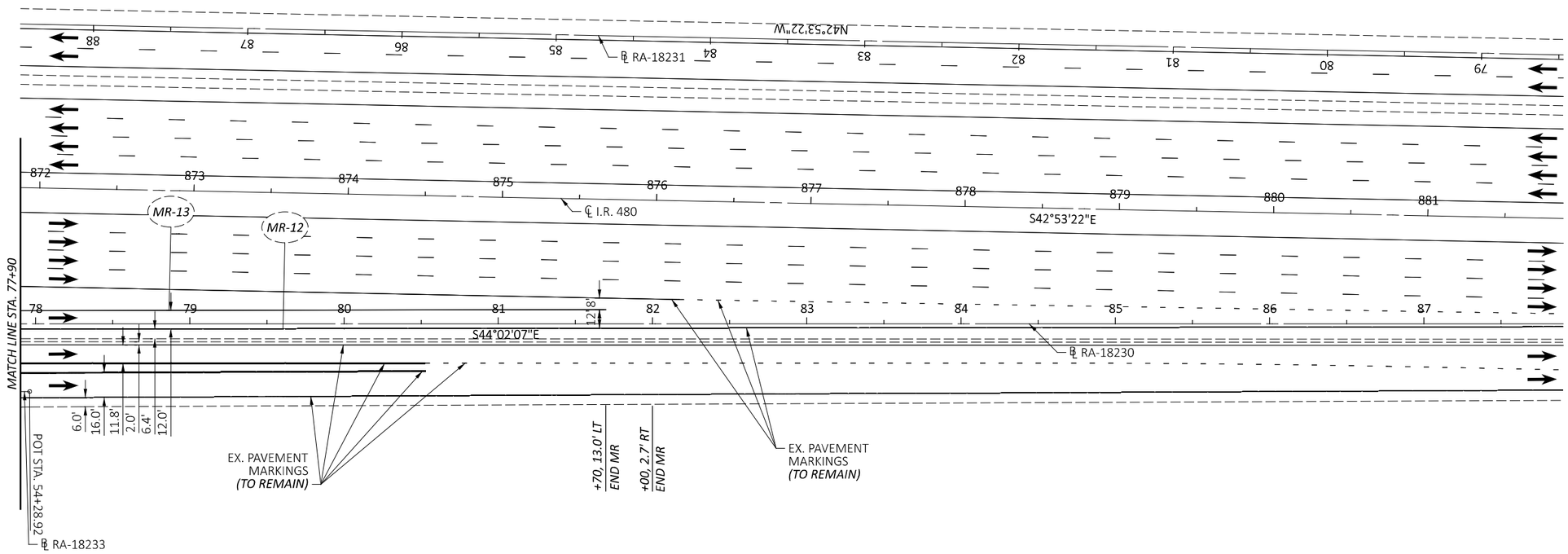
DESIGNER SHT
REVIEWER CWP 10/07/25
PROJECT ID 120469
SHEET P.33 TOTAL 86

CUY-176-10.65

MODEL: Plan 2 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 10/7/2025 TIME: 8:29:29 AM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: thomas@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 120469 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\24156 ODOT D12-D3 GES FY2025-26\119814\Task 8 - CUY-176-10.65\120469\400-Engineering\Traffic\Sheets\120469_TP001.dgn

LEGEND

- TRAFFIC DIRECTION
- EXISTING SIGN TO REMAIN
- EXISTING SIGN TO BE REMOVED
- EXISTING RUMBLE STRIP
- EXISTING RUMBLE STRIP TO BE REMOVED
- RSR — RUMBLE STRIP REMOVED
- MR — REMOVAL OF EXISTING PAVEMENT MARKING
- R — GENERAL REMOVAL



CROSS REFERENCES					
SUBSUMMARIES	P.18	-	P.29		
TRAFFIC CONTROL PLAN	P.50	-	P.69		
DETAIL PLANS	P.70	-	P.79		
DETAIL PLANS-CHANNELIZING LINES	P.80	-	P.84		

NOTES:

1. REMOVE EXISTING LONGITUDINAL PAVEMENT MARKINGS IN AREAS OF PROPOSED PAVEMENT MARKINGS.
2. SHOULDER DIMENSIONS ARE FROM THE EDGE LINE TO THE BASE OF THE CONCRETE BARRIER OR EDGE OF SHOULDER/FACE OF CURB.
3. NORTH OF STA. 233+06, CL S.R. 176, THERE ARE TWO SEPARATE BASELINES. PARTIAL STATIONS IN THIS AREA ARE GIVEN FROM THE SB S.R. 176 OR NB S.R. 176 BASELINE. PARTIAL STATIONS FOR THE NORTHBOUND DIRECTION WILL APPEAR WITH A 'NB' AFTER THE PARTIAL STATION AND PARTIAL STATIONS FOR THE SOUTHBOUND DIRECTION WILL APPEAR WITH 'SB' AFTER THE PARTIAL STATION.
4. DASHED BALLOONS ARE REFERENCED ON A PREVIOUS SHEET.

HORIZONTAL SCALE IN FEET 0 20 40 80

REMOVAL PLAN - RA-18230
STA. 77+90 TO END

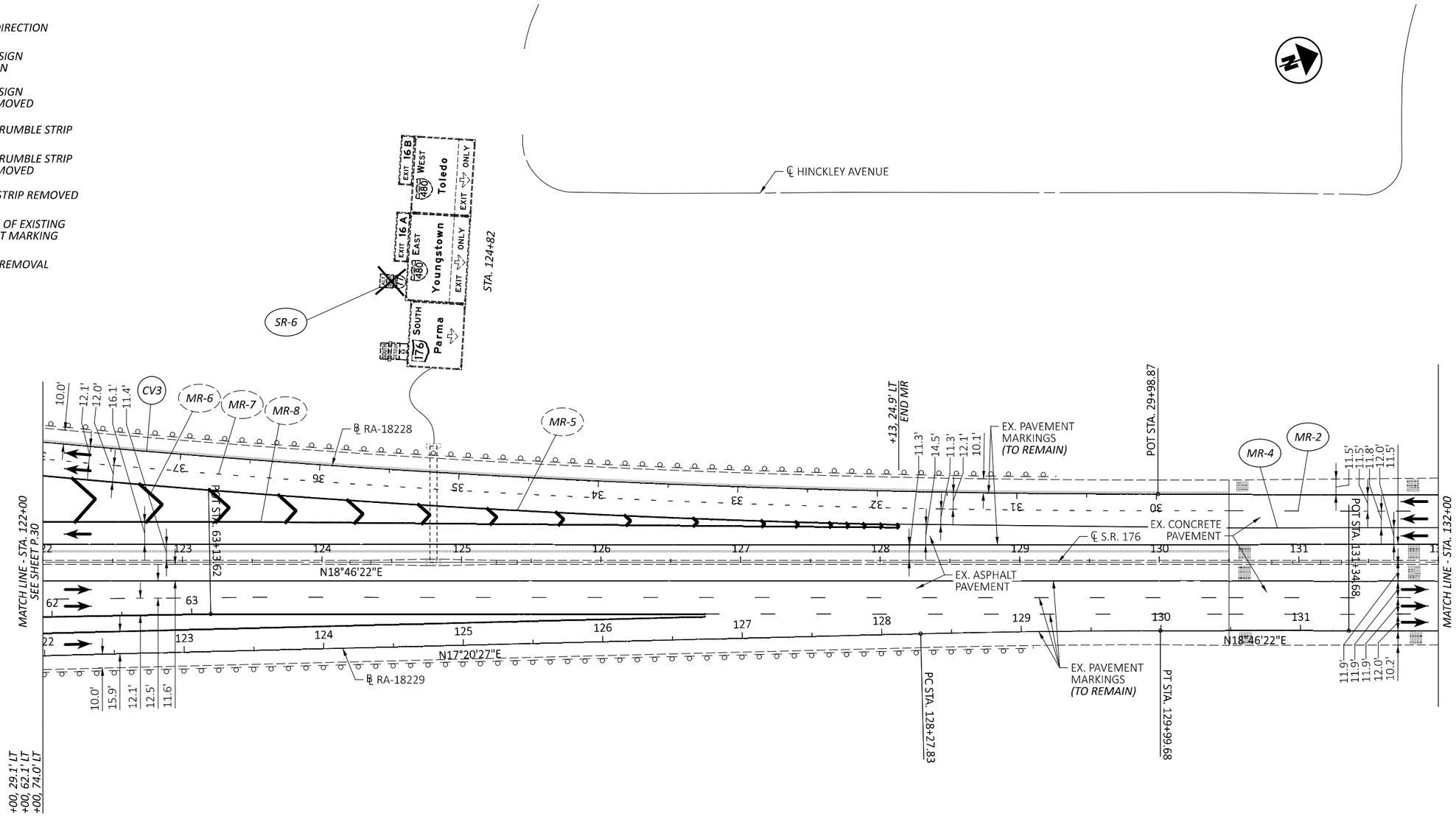
DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER SHT
REVIEWER CWP 10/07/25
PROJECT ID 120469
SHEET P.34 TOTAL 86

CUY-176-10.65

LEGEND

- TRAFFIC DIRECTION
- EXISTING SIGN TO REMAIN
- EXISTING SIGN TO BE REMOVED
- EXISTING RUMBLE STRIP
- EXISTING RUMBLE STRIP TO BE REMOVED
- RSR — RUMBLE STRIP REMOVED
- MR — REMOVAL OF EXISTING PAVEMENT MARKING
- R — GENERAL REMOVAL



CROSS REFERENCES		
SUBSUMMARIES	P.18 - P.29	
TRAFFIC CONTROL PLAN	P.50 - P.69	
DETAIL PLANS	P.70 - P.79	
DETAIL PLANS-CHANNELIZING LINES	P.80 - P.84	

NOTES:

1. REMOVE EXISTING LONGITUDINAL PAVEMENT MARKINGS IN AREAS OF PROPOSED PAVEMENT MARKINGS.
2. SHOULDER DIMENSIONS ARE FROM THE EDGE LINE TO THE BASE OF THE CONCRETE BARRIER OR EDGE OF SHOULDER/FACE OF CURB.
3. NORTH OF STA. 233+06, CL S.R. 176, THERE ARE TWO SEPARATE BASELINES. PARTIAL STATIONS IN THIS AREA ARE GIVEN FROM THE SB S.R. 176 OR NB S.R. 176 BASELINE. PARTIAL STATIONS FOR THE NORTHBOUND DIRECTION WILL APPEAR WITH A 'NB' AFTER THE PARTIAL STATION AND PARTIAL STATIONS FOR THE SOUTHBOUND DIRECTION WILL APPEAR WITH 'SB' AFTER THE PARTIAL STATION.
4. DASHED BALLOONS ARE REFERENCED ON A PREVIOUS SHEET.

CV3

CURVE DATA
P.I. = STA. 34+41.90
Δ = 05°54'06" RT
Dc = 00°40'00"
R = 8,594.37'
T = 443.03'
L = 885.27'
E = 11.41'

REMOVAL PLAN - S.R. 176
STA. 122+00 TO STA. 132+00

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER: SHT
REVIEWER: CWP 10/07/25
PROJECT ID: 120469
SHEET: P.35 TOTAL: 86

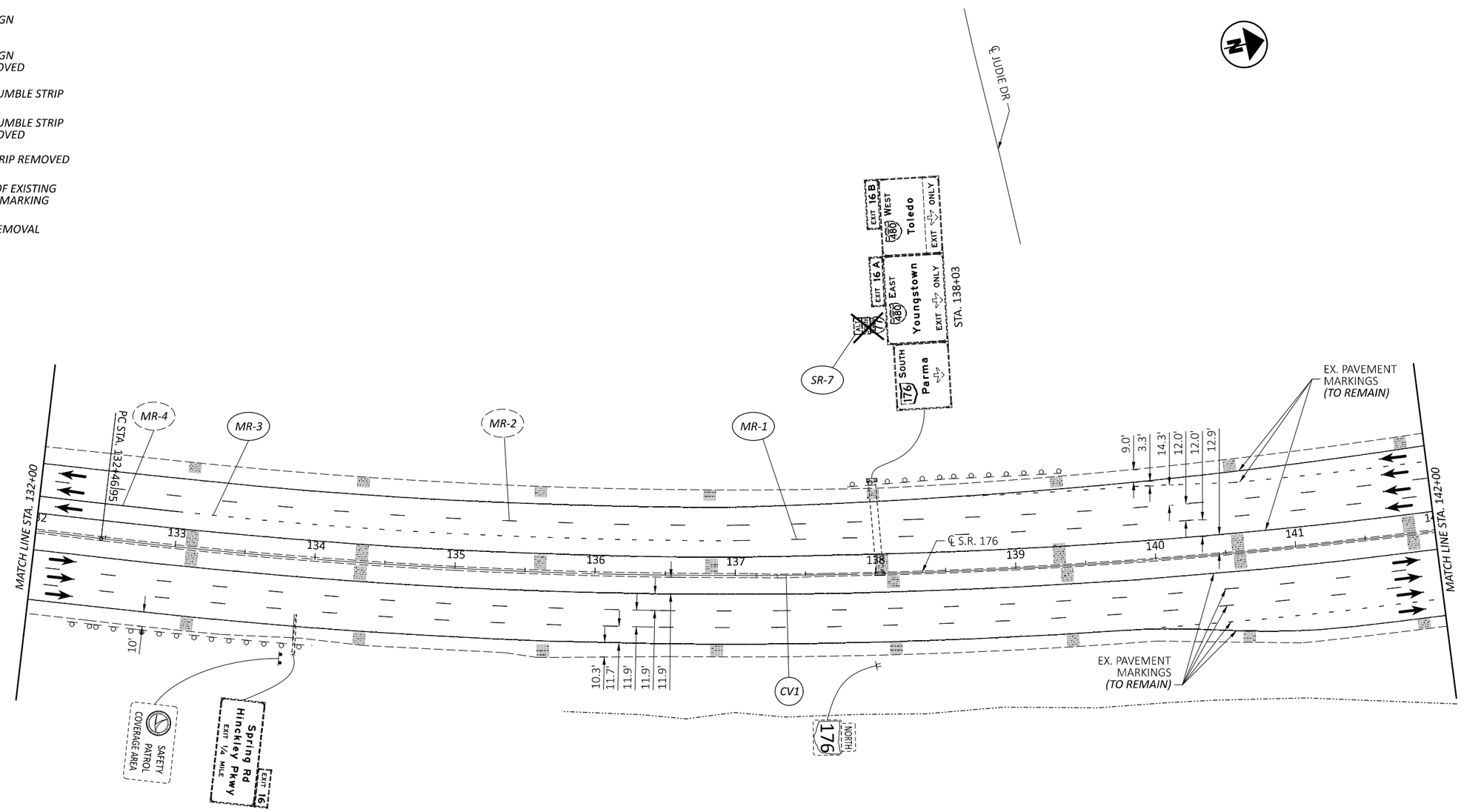
CUY-176-10.65

MODEL: Plan 6 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 10/7/2025 TIME: 8:29:37 AM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: thomas@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 120469 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\24156 ODOT D12-D3 GES FY2025-26\119814\Task 8 - CUY-176-10.65\120469\400-Engineering\Traffic\Sheets\120469_TP001.dgn

LEGEND

- TRAFFIC DIRECTION
- EXISTING SIGN TO REMAIN
- EXISTING SIGN TO BE REMOVED
- EXISTING RUMBLE STRIP
- EXISTING RUMBLE STRIP TO BE REMOVED
- RSR — RUMBLE STRIP REMOVED
- MR — REMOVAL OF EXISTING PAVEMENT MARKING
- R — GENERAL REMOVAL

CROSS REFERENCES				
SUBSUMMARIES	P.18	-	P.29	
TRAFFIC CONTROL PLAN	P.50	-	P.69	
DETAIL PLANS	P.70	-	P.79	
DETAIL PLANS-CHANNELIZING LINES	P.80	-	P.84	



NOTES:

1. REMOVE EXISTING LONGITUDINAL PAVEMENT MARKINGS IN AREAS OF PROPOSED PAVEMENT MARKINGS.
2. SHOULDER DIMENSIONS ARE FROM THE EDGE LINE TO THE BASE OF THE CONCRETE BARRIER OR EDGE OF SHOULDER/FACE OF CURB.
3. NORTH OF STA. 233+06, CL S.R. 176, THERE ARE TWO SEPARATE BASELINES. PARTIAL STATIONS IN THIS AREA ARE GIVEN FROM THE SB S.R. 176 OR NB S.R. 176 BASELINE. PARTIAL STATIONS FOR THE NORTHBOUND DIRECTION WILL APPEAR WITH A 'NB' AFTER THE PARTIAL STATION AND PARTIAL STATIONS FOR THE SOUTHBOUND DIRECTION WILL APPEAR WITH 'SB' AFTER THE PARTIAL STATION.
4. DASHED BALLOONS ARE REFERENCED ON A PREVIOUS SHEET.

CV1

CURVE DATA
P.I. = STA. 142+62.24
Δ = 29°08'14" LT
Dc = 01°28'00"
R = 3,906.53'
T = 1,015.28'
L = 1,986.62'
E = 129.78'

REMOVAL PLAN - S.R. 176
STA. 132+00 TO STA. 142+00

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

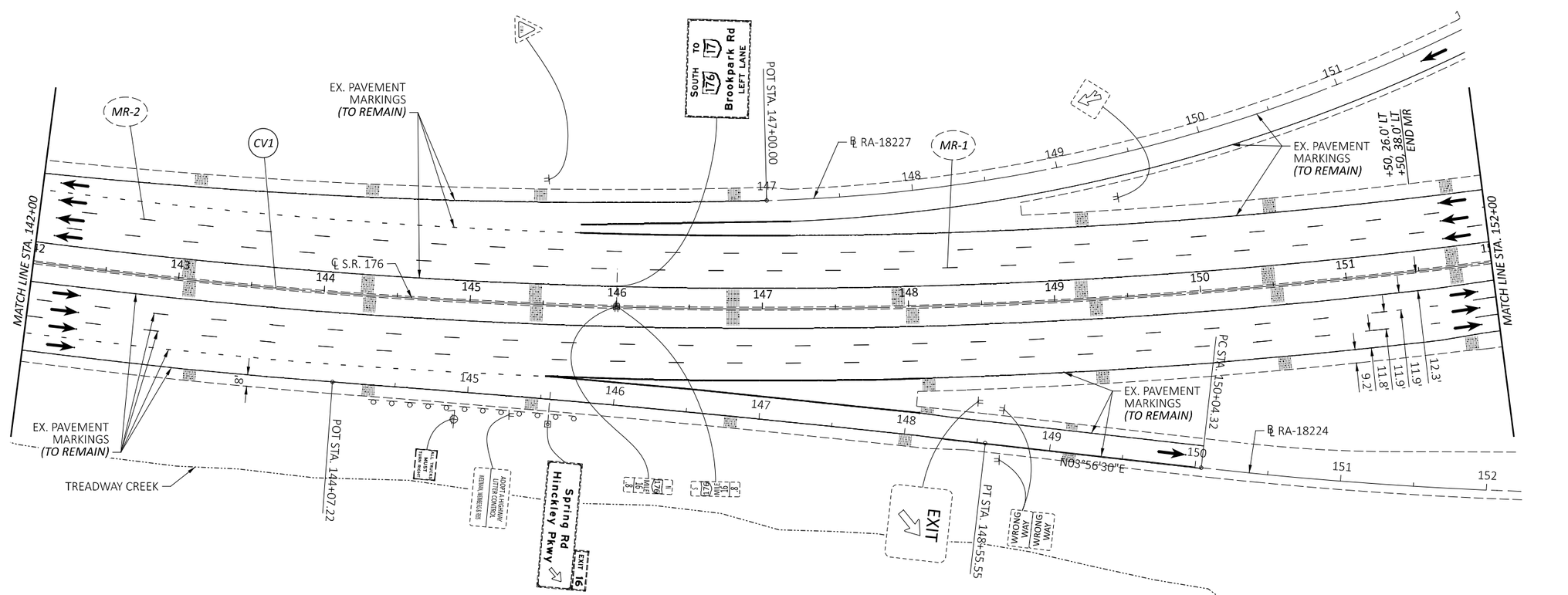
DESIGNER: SHT
REVIEWER: CWP 10/07/25
PROJECT ID: 120469
SHEET: P.36 TOTAL: 86

CUY-176-10.65

CUY-176-10.65

LEGEND

- TRAFFIC DIRECTION
- EXISTING SIGN TO REMAIN
- EXISTING SIGN TO BE REMOVED
- EXISTING RUMBLE STRIP
- EXISTING RUMBLE STRIP TO BE REMOVED
- RSR — RUMBLE STRIP REMOVED
- MR — REMOVAL OF EXISTING PAVEMENT MARKING
- R — GENERAL REMOVAL



CROSS REFERENCES				
SUBSUMMARIES	P.18	-	P.29	
TRAFFIC CONTROL PLAN	P.50	-	P.69	
DETAIL PLANS	P.70	-	P.79	
DETAIL PLANS-CHANNELIZING LINES	P.80	-	P.84	

NOTES:

1. REMOVE EXISTING LONGITUDINAL PAVEMENT MARKINGS IN AREAS OF PROPOSED PAVEMENT MARKINGS.
2. SHOULDER DIMENSIONS ARE FROM THE EDGE LINE TO THE BASE OF THE CONCRETE BARRIER OR EDGE OF SHOULDER/FACE OF CURB.
3. NORTH OF STA. 233+06, CL S.R. 176, THERE ARE TWO SEPARATE BASELINES. PARTIAL STATIONS IN THIS AREA ARE GIVEN FROM THE SB S.R. 176 OR NB S.R. 176 BASELINE. PARTIAL STATIONS FOR THE NORTHBOUND DIRECTION WILL APPEAR WITH A 'NB' AFTER THE PARTIAL STATION AND PARTIAL STATIONS FOR THE SOUTHBOUND DIRECTION WILL APPEAR WITH 'SB' AFTER THE PARTIAL STATION.
4. DASHED BALLOONS ARE REFERENCED ON A PREVIOUS SHEET.

CV1

CURVE DATA
P.I. = STA. 142+62.24
Δ = 29°08'14" LT
Dc = 01°28'00"
R = 3,906.53'
T = 1,015.28'
L = 1,986.62'
E = 129.78'

HORIZONTAL SCALE IN FEET
0 20 40 80

REMOVAL PLAN - S.R. 176
STA. 142+00 TO STA. 152+00

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER
SHT

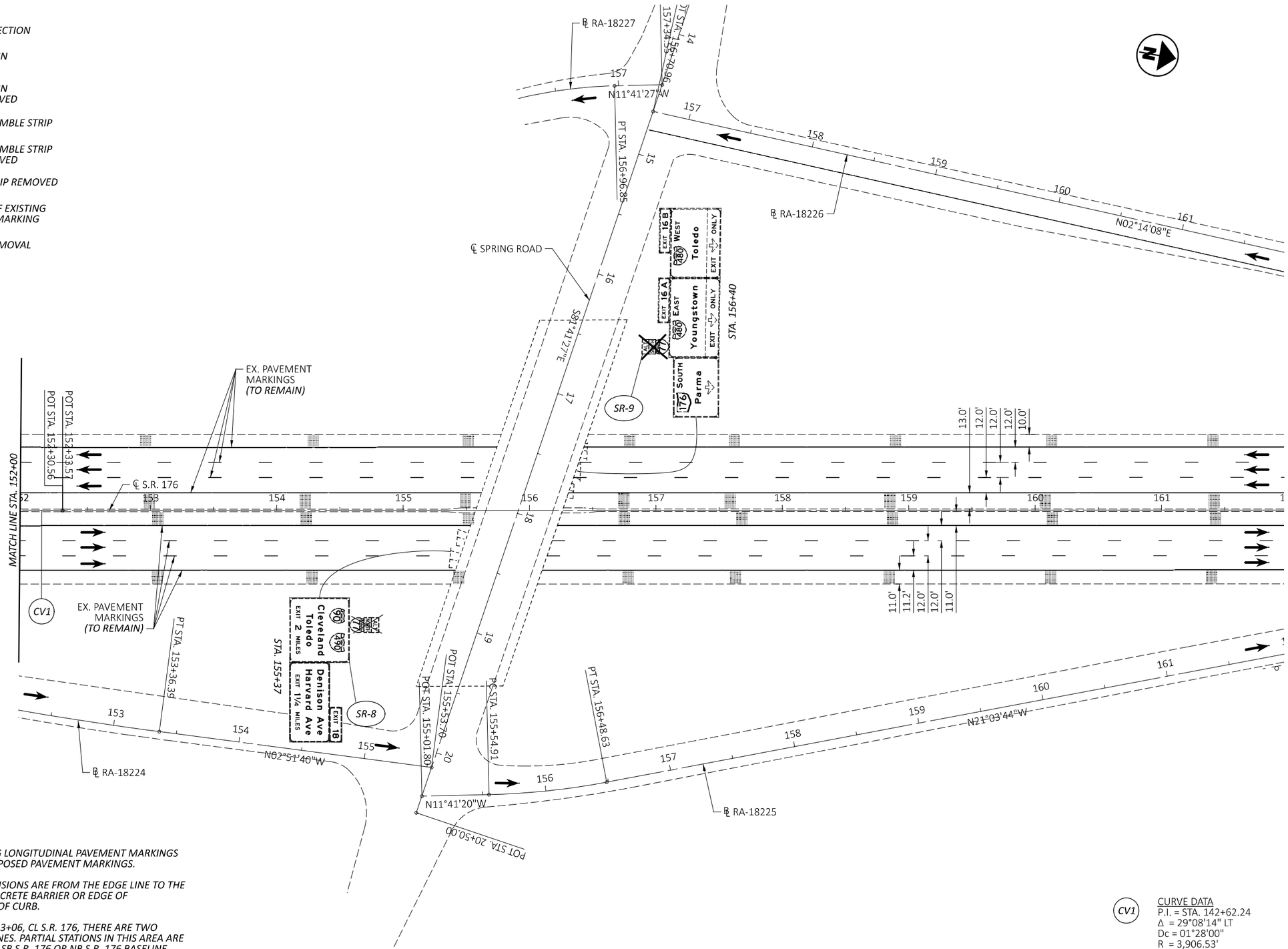
REVIEWER
CWP 10/07/25

PROJECT ID
120469

SHEET P.37 TOTAL 86

LEGEND

- TRAFFIC DIRECTION
- EXISTING SIGN TO REMAIN
- EXISTING SIGN TO BE REMOVED
- EXISTING RUMBLE STRIP
- EXISTING RUMBLE STRIP TO BE REMOVED
- RSR — RUMBLE STRIP REMOVED
- MR — REMOVAL OF EXISTING PAVEMENT MARKING
- R — GENERAL REMOVAL



CROSS REFERENCES				
SUBSUMMARIES	P.18	-	P.29	
TRAFFIC CONTROL PLAN	P.50	-	P.69	
DETAIL PLANS	P.70	-	P.79	
DETAIL PLANS-CHANNELIZING LINES	P.80	-	P.84	

NOTES:

1. REMOVE EXISTING LONGITUDINAL PAVEMENT MARKINGS IN AREAS OF PROPOSED PAVEMENT MARKINGS.
2. SHOULDER DIMENSIONS ARE FROM THE EDGE LINE TO THE BASE OF THE CONCRETE BARRIER OR EDGE OF SHOULDER/FACE OF CURB.
3. NORTH OF STA. 233+06, CL S.R. 176, THERE ARE TWO SEPARATE BASELINES. PARTIAL STATIONS IN THIS AREA ARE GIVEN FROM THE SB S.R. 176 OR NB S.R. 176 BASELINE. PARTIAL STATIONS FOR THE NORTHBOUND DIRECTION WILL APPEAR WITH A 'NB' AFTER THE PARTIAL STATION AND PARTIAL STATIONS FOR THE SOUTHBOUND DIRECTION WILL APPEAR WITH 'SB' AFTER THE PARTIAL STATION.
4. DASHED BALLOONS ARE REFERENCED ON A PREVIOUS SHEET.

CV1 CURVE DATA
P.I. = STA. 142+62.24
Δ = 29°08'14" LT
Dc = 01°28'00"
R = 3,906.53'
T = 1,015.28'
L = 1,986.62'
E = 129.78'

HORIZONTAL SCALE IN FEET 0 20 40 80

REMOVAL PLAN - S.R. 176
STA. 152+00 TO STA. 162+00

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

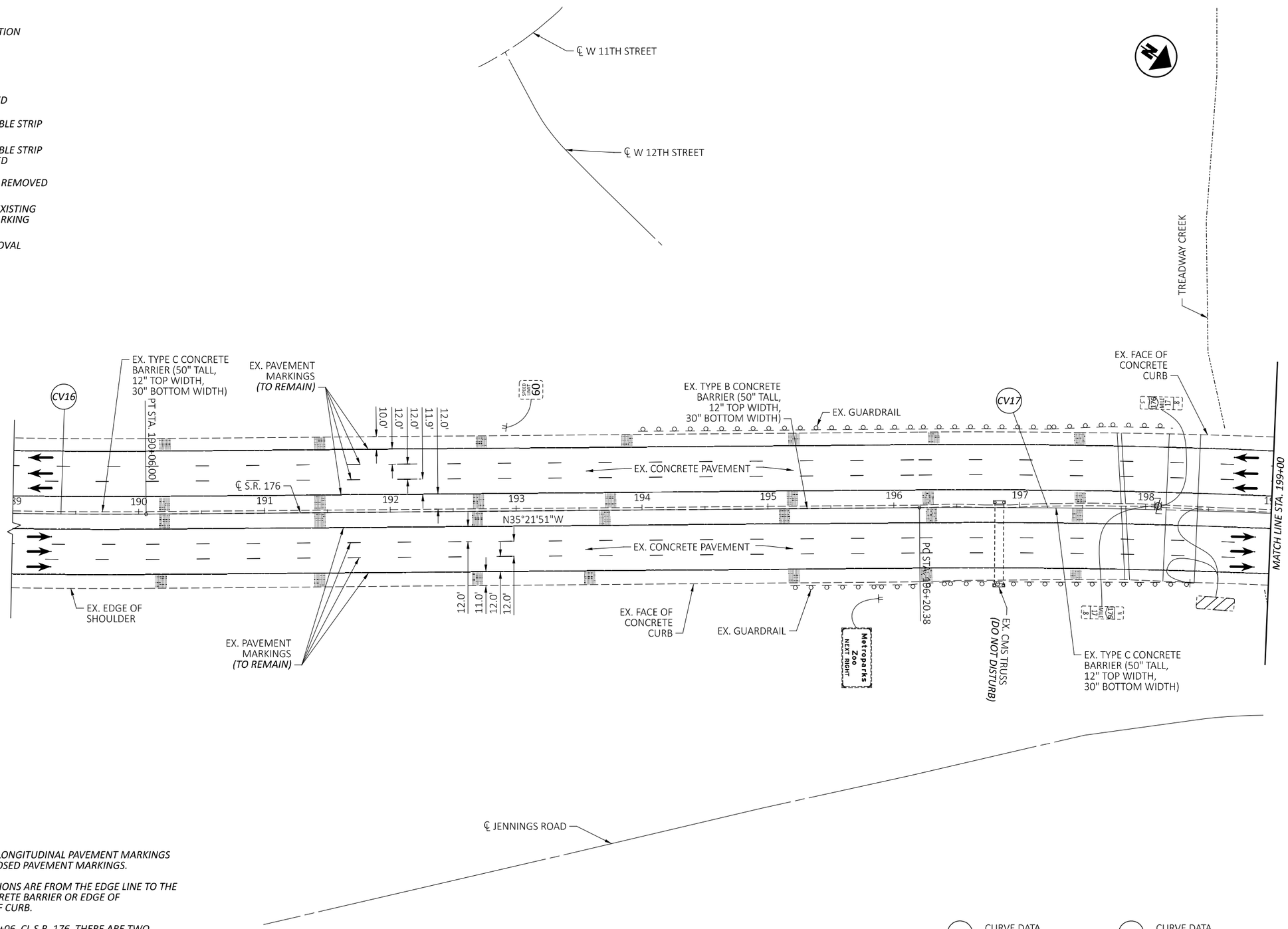
DESIGNER SHT
REVIEWER CWP 10/07/25
PROJECT ID 120469
SHEET P.38 TOTAL 86

CUY-176-10.65

MODEL: Plan 9 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 10/7/2025 TIME: 8:29:49 AM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: thomas@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 120469 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\24156 ODOT D12-D3 GES FY2025-26\119814\Task 8 - CUY-176-10.65\120469\400-Engineering\Traffic\Sheets\120469_TP001.dgn

LEGEND

- TRAFFIC DIRECTION
- EXISTING SIGN TO REMAIN
- EXISTING SIGN TO BE REMOVED
- EXISTING RUMBLE STRIP
- EXISTING RUMBLE STRIP TO BE REMOVED
- RSR — RUMBLE STRIP REMOVED
- MR — REMOVAL OF EXISTING PAVEMENT MARKING
- R — GENERAL REMOVAL



HORIZONTAL SCALE IN FEET
0 20 40 80

CROSS REFERENCES				
SUBSUMMARIES	P.18	-	P.29	
TRAFFIC CONTROL PLAN	P.50	-	P.69	
DETAIL PLANS	P.70	-	P.79	
DETAIL PLANS-CHANNELIZING LINES	P.80	-	P.84	

NOTES:

1. REMOVE EXISTING LONGITUDINAL PAVEMENT MARKINGS IN AREAS OF PROPOSED PAVEMENT MARKINGS.
2. SHOULDER DIMENSIONS ARE FROM THE EDGE LINE TO THE BASE OF THE CONCRETE BARRIER OR EDGE OF SHOULDER/FACE OF CURB.
3. NORTH OF STA. 233+06, CL S.R. 176, THERE ARE TWO SEPARATE BASELINES. PARTIAL STATIONS IN THIS AREA ARE GIVEN FROM THE SB S.R. 176 OR NB S.R. 176 BASELINE. PARTIAL STATIONS FOR THE NORTHBOUND DIRECTION WILL APPEAR WITH A 'NB' AFTER THE PARTIAL STATION AND PARTIAL STATIONS FOR THE SOUTHBOUND DIRECTION WILL APPEAR WITH 'SB' AFTER THE PARTIAL STATION.
4. DASHED BALLOONS ARE REFERENCED ON A PREVIOUS SHEET.

CV16 CURVE DATA
P.I. = STA. 181+67.52
Δ = 25°00'00" LT
Dc = 01°28'00"
R = 3,906.53'
T = 866.05'
L = 1,704.54'
E = 94.85'

CV17 CURVE DATA
P.I. = STA. 213+68.95
Δ = 34°28'30" RT
Dc = 01°01'00"
R = 5,635.65'
T = 1,748.56'
L = 3,390.98'
E = 265.03'

REMOVAL PLAN - S.R. 176
STA. 189+00 TO STA. 199+00

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER: SHT
REVIEWER: CWP 10/07/25
PROJECT ID: 120469
SHEET: P.39 TOTAL: 86

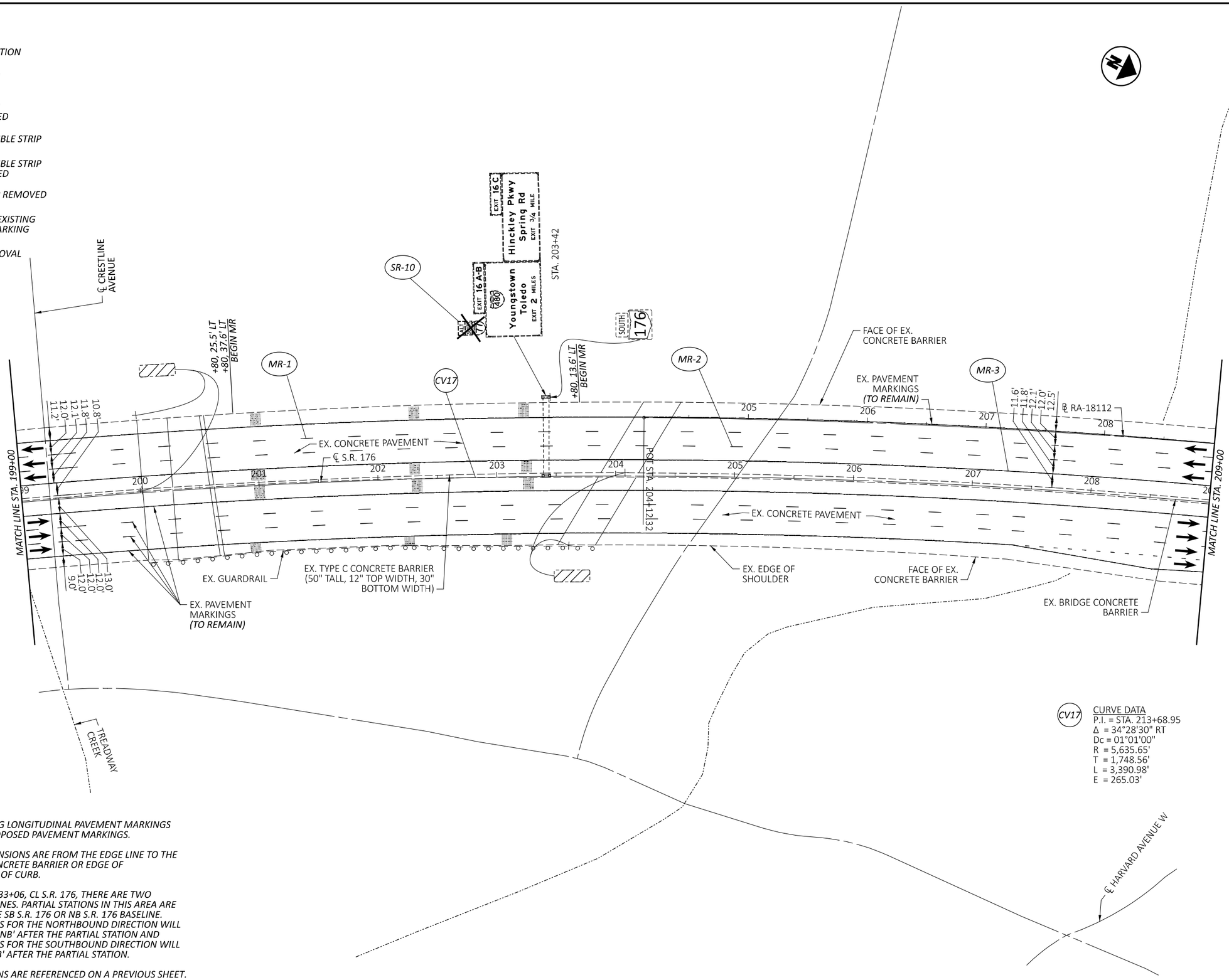
CUY-176-10.65

MODEL: Plan 10 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 10/7/2025 TIME: 8:29:53 AM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: thomas@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 120469 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\24156 ODOT D12-D3 GES FY2025-26\119814\Task 8 - CUY-176-10.65\120469\400-Engineering\Traffic\Sheets\120469_TP001.dgn

CUY-176-10.65

LEGEND

- TRAFFIC DIRECTION
- EXISTING SIGN TO REMAIN
- EXISTING SIGN TO BE REMOVED
- EXISTING RUMBLE STRIP
- EXISTING RUMBLE STRIP TO BE REMOVED
- RSR — RUMBLE STRIP REMOVED
- MR — REMOVAL OF EXISTING PAVEMENT MARKING
- R — GENERAL REMOVAL



CROSS REFERENCES					
SUBSUMMARIES	P.18	-	P.29		
TRAFFIC CONTROL PLAN	P.50	-	P.69		
DETAIL PLANS	P.70	-	P.79		
DETAIL PLANS-CHANNELIZING LINES	P.80	-	P.84		

CURVE DATA

P.I. = STA. 213+68.95
Δ = 34°28'30" RT
Dc = 01°01'00"
R = 5,635.65'
T = 1,748.56'
L = 3,390.98'
E = 265.03'

NOTES:

1. REMOVE EXISTING LONGITUDINAL PAVEMENT MARKINGS IN AREAS OF PROPOSED PAVEMENT MARKINGS.
2. SHOULDER DIMENSIONS ARE FROM THE EDGE LINE TO THE BASE OF THE CONCRETE BARRIER OR EDGE OF SHOULDER/FACE OF CURB.
3. NORTH OF STA. 233+06, CL S.R. 176, THERE ARE TWO SEPARATE BASELINES. PARTIAL STATIONS IN THIS AREA ARE GIVEN FROM THE SB S.R. 176 OR NB S.R. 176 BASELINE. PARTIAL STATIONS FOR THE NORTHBOUND DIRECTION WILL APPEAR WITH A 'NB' AFTER THE PARTIAL STATION AND PARTIAL STATIONS FOR THE SOUTHBOUND DIRECTION WILL APPEAR WITH 'SB' AFTER THE PARTIAL STATION.
4. DASHED BALLOONS ARE REFERENCED ON A PREVIOUS SHEET.

HORIZONTAL SCALE IN FEET 0 20 40 80

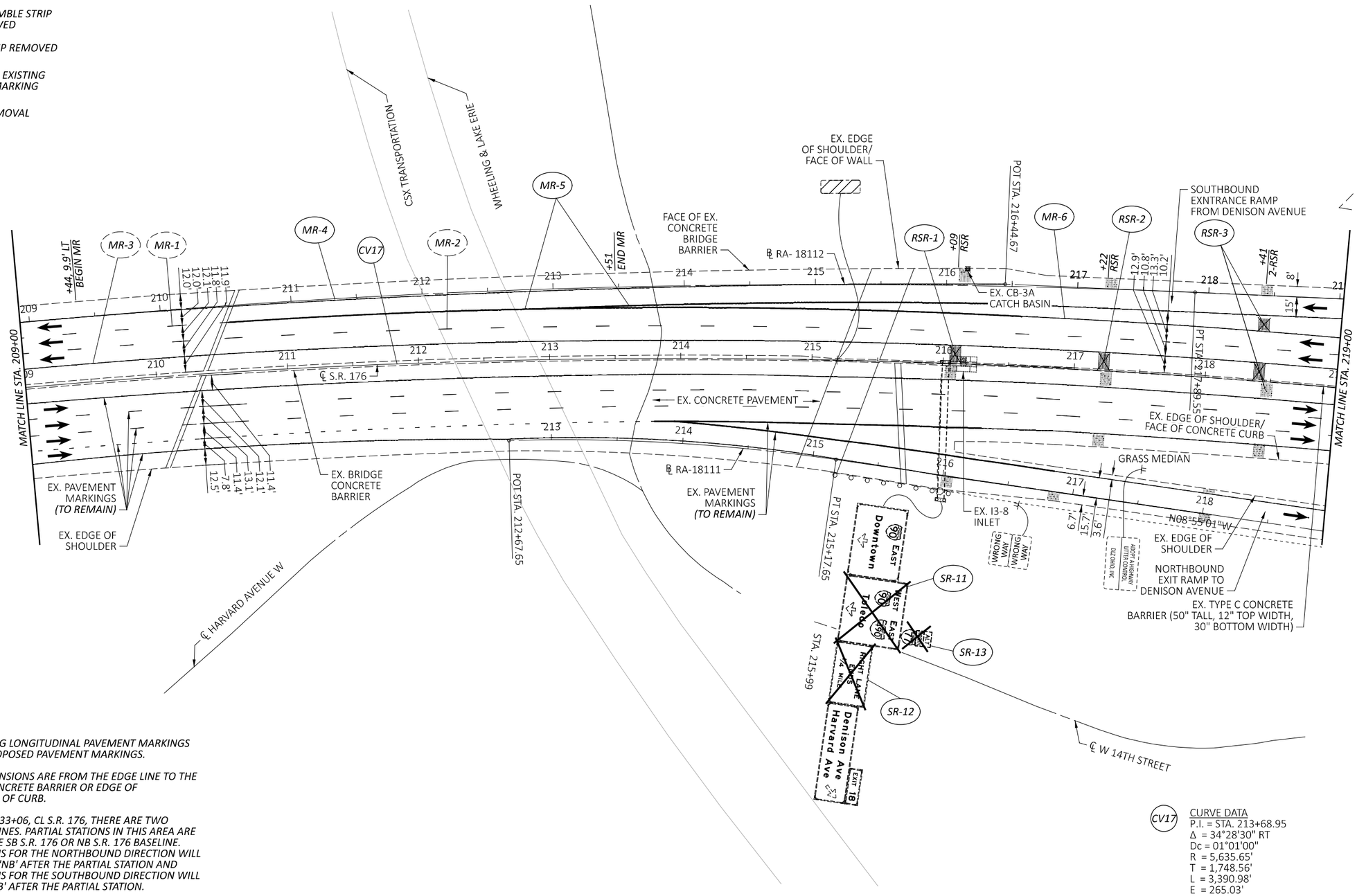
REMOVAL PLAN - S.R. 176
STA. 199+00 TO STA. 209+00

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER SHT
REVIEWER CWP 10/07/25
PROJECT ID 120469
SHEET P.40 TOTAL 86

LEGEND

- TRAFFIC DIRECTION
- EXISTING SIGN TO REMAIN
- EXISTING SIGN TO BE REMOVED
- EXISTING RUMBLE STRIP
- EXISTING RUMBLE STRIP TO BE REMOVED
- RSR — RUMBLE STRIP REMOVED
- MR — REMOVAL OF EXISTING PAVEMENT MARKING
- R — GENERAL REMOVAL



CROSS REFERENCES						
SUBSUMMARIES	P.18	-	P.29			
TRAFFIC CONTROL PLAN	P.50	-	P.69			
DETAIL PLANS	P.70	-	P.79			
DETAIL PLANS-CHANNELIZING LINES	P.80	-	P.84			

NOTES:

1. REMOVE EXISTING LONGITUDINAL PAVEMENT MARKINGS IN AREAS OF PROPOSED PAVEMENT MARKINGS.
2. SHOULDER DIMENSIONS ARE FROM THE EDGE LINE TO THE BASE OF THE CONCRETE BARRIER OR EDGE OF SHOULDER/FACE OF CURB.
3. NORTH OF STA. 233+06, CL S.R. 176, THERE ARE TWO SEPARATE BASELINES. PARTIAL STATIONS IN THIS AREA ARE GIVEN FROM THE SB S.R. 176 OR NB S.R. 176 BASELINE. PARTIAL STATIONS FOR THE NORTHBOUND DIRECTION WILL APPEAR WITH A 'NB' AFTER THE PARTIAL STATION AND PARTIAL STATIONS FOR THE SOUTHBOUND DIRECTION WILL APPEAR WITH 'SB' AFTER THE PARTIAL STATION.
4. DASHED BALLOONS ARE REFERENCED ON A PREVIOUS SHEET.

CV17 CURVE DATA
P.I. = STA. 213+68.95
Δ = 34°28'30" RT
Dc = 01°01'00"
R = 5,635.65'
T = 1,748.56'
L = 3,390.98'
E = 265.03'

HORIZONTAL SCALE IN FEET 0 20 40 80

REMOVAL PLAN - S.R. 176
STA. 209+00 TO STA. 219+00

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER SHT
REVIEWER CWP 10/07/25
PROJECT ID 120469
SHEET P.41 TOTAL 86

CUY-176-10.65

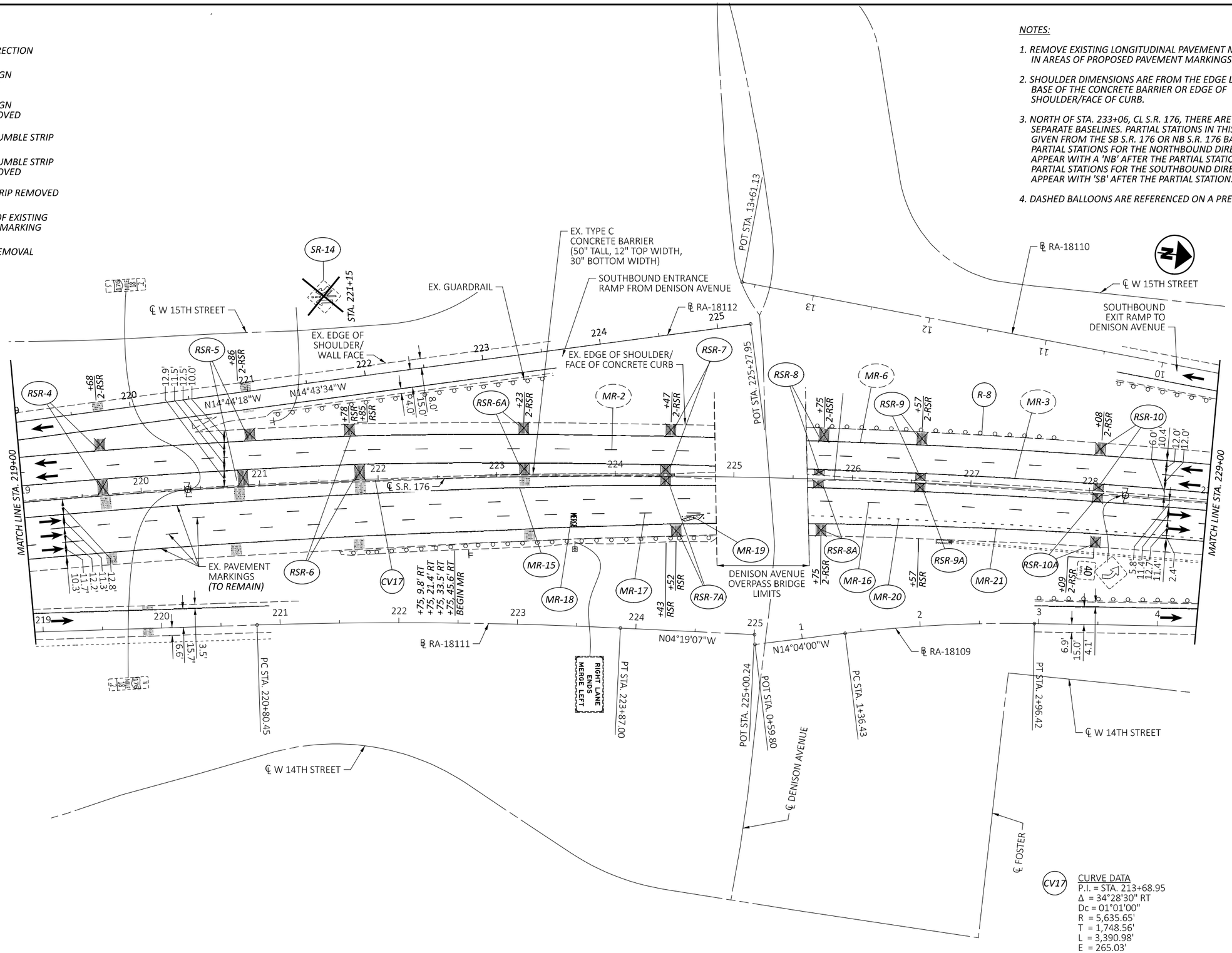
MODEL: Plan 12 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 10/7/2025 TIME: 8:30:02 AM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: thomas@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 120469 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\24156 ODOT D12-D3 GES FY2025-26\119814\Task 8 - CUY-176-10.65\120469\400-Engineering\Traffic\Sheets\120469_TP001.dgn

LEGEND

- TRAFFIC DIRECTION
- EXISTING SIGN TO REMAIN
- EXISTING SIGN TO BE REMOVED
- EXISTING RUMBLE STRIP
- EXISTING RUMBLE STRIP TO BE REMOVED
- RSR — RUMBLE STRIP REMOVED
- MR — REMOVAL OF EXISTING PAVEMENT MARKING
- R — GENERAL REMOVAL

NOTES:

1. REMOVE EXISTING LONGITUDINAL PAVEMENT MARKINGS IN AREAS OF PROPOSED PAVEMENT MARKINGS.
2. SHOULDER DIMENSIONS ARE FROM THE EDGE LINE TO THE BASE OF THE CONCRETE BARRIER OR EDGE OF SHOULDER/FACE OF CURB.
3. NORTH OF STA. 233+06, CL S.R. 176, THERE ARE TWO SEPARATE BASELINES. PARTIAL STATIONS IN THIS AREA ARE GIVEN FROM THE SB S.R. 176 OR NB S.R. 176 BASELINE. PARTIAL STATIONS FOR THE NORTHBOUND DIRECTION WILL APPEAR WITH A 'NB' AFTER THE PARTIAL STATION AND PARTIAL STATIONS FOR THE SOUTHBOUND DIRECTION WILL APPEAR WITH 'SB' AFTER THE PARTIAL STATION.
4. DASHED BALLOONS ARE REFERENCED ON A PREVIOUS SHEET.



CURVE DATA
P.I. = STA. 213+68.95
Δ = 34°28'30" RT
Dc = 01°01'00"
R = 5,635.65'
T = 1,748.56'
L = 3,390.98'
E = 265.03'

CROSS REFERENCES					
SUBSUMMARIES	P.18	-	P.29		
TRAFFIC CONTROL PLAN	P.50	-	P.69		
DETAIL PLANS	P.70	-	P.79		
DETAIL PLANS-CHANNELIZING LINES	P.80	-	P.84		

REMOVAL PLAN - S.R. 176
STA. 219+00 TO STA. 229+00

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER: SHT
REVIEWER: CWP 10/07/25
PROJECT ID: 120469
SHEET: P.42 TOTAL: 86

CUY-176-10.65

MODEL: Plan 13 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 10/7/2025 TIME: 8:30:06 AM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: thomas@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 120469 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\24156 ODOT D12-D3 GES FY2025-26\119814\Task 8 - CUY-176-10.65\120469\400-Engineering\Traffic\Sheets\120469_TP001.dgn

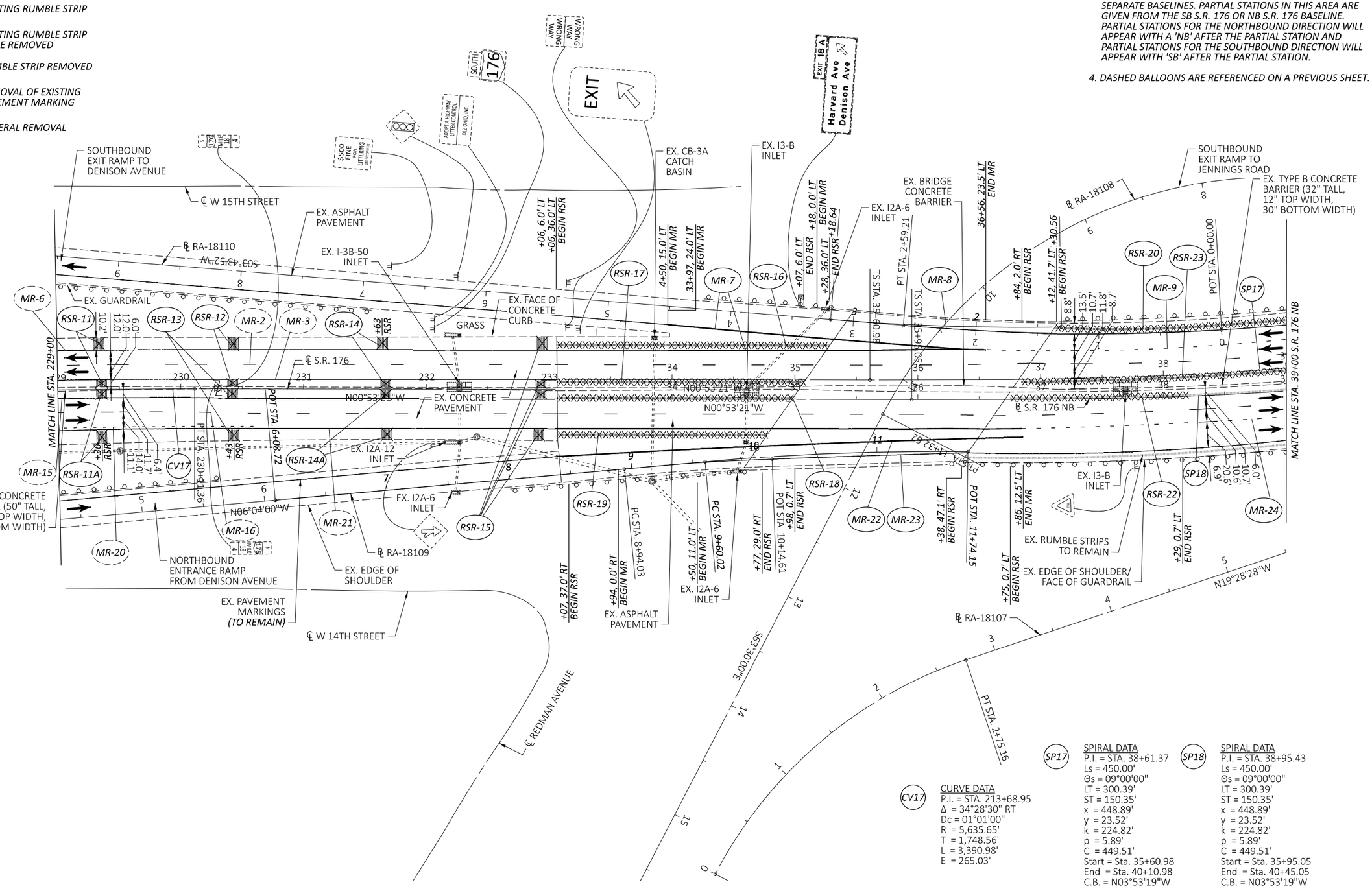
LEGEND

- TRAFFIC DIRECTION
- EXISTING SIGN TO REMAIN
- EXISTING SIGN TO BE REMOVED
- EXISTING RUMBLE STRIP
- EXISTING RUMBLE STRIP TO BE REMOVED
- RSR — RUMBLE STRIP REMOVED
- MR — REMOVAL OF EXISTING PAVEMENT MARKING
- R — GENERAL REMOVAL

NOTES:

1. REMOVE EXISTING LONGITUDINAL PAVEMENT MARKINGS IN AREAS OF PROPOSED PAVEMENT MARKINGS.
2. SHOULDER DIMENSIONS ARE FROM THE EDGE LINE TO THE BASE OF THE CONCRETE BARRIER OR EDGE OF SHOULDER/FACE OF CURB.
3. NORTH OF STA. 233+06, CL S.R. 176, THERE ARE TWO SEPARATE BASELINES. PARTIAL STATIONS IN THIS AREA ARE GIVEN FROM THE SB S.R. 176 OR NB S.R. 176 BASELINE. PARTIAL STATIONS FOR THE NORTHBOUND DIRECTION WILL APPEAR WITH A 'NB' AFTER THE PARTIAL STATION AND PARTIAL STATIONS FOR THE SOUTHBOUND DIRECTION WILL APPEAR WITH 'SB' AFTER THE PARTIAL STATION.
4. DASHED BALLOONS ARE REFERENCED ON A PREVIOUS SHEET.

HORIZONTAL SCALE IN FEET 0 20 40 80



CROSS REFERENCES				
SUBSUMMARIES	P.18	-	P.29	
TRAFFIC CONTROL PLAN	P.50	-	P.69	
DETAIL PLANS	P.70	-	P.79	
DETAIL PLANS-CHANNELIZING LINES	P.80	-	P.84	

CV17 CURVE DATA
P.I. = STA. 213+68.95
Δ = 34°28'30" RT
Dc = 01°01'00"
R = 5,635.65'
T = 1,748.56'
L = 3,390.98'
E = 265.03'

SP17 SPIRAL DATA
P.I. = STA. 38+61.37
Ls = 450.00'
Θs = 09°00'00"
LT = 300.39'
ST = 150.35'
x = 448.89'
y = 23.52'
k = 224.82'
p = 5.89'
C = 449.51'
Start = Sta. 35+60.98
End = Sta. 40+10.98
C.B. = N03°53'19"W

SP18 SPIRAL DATA
P.I. = STA. 38+95.43
Ls = 450.00'
Θs = 09°00'00"
LT = 300.39'
ST = 150.35'
x = 448.89'
y = 23.52'
k = 224.82'
p = 5.89'
C = 449.51'
Start = Sta. 35+95.05
End = Sta. 40+45.05
C.B. = N03°53'19"W

REMOVAL PLAN - S.R. 176
S.R. 176 STA. 229+00 TO S.R. 176 NB STA. 39+00

DESIGN AGENCY: CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER	SHT
REVIEWER	CWP 10/07/25
PROJECT ID	120469
SHEET	P.43
TOTAL	86

CUY-176-10.65

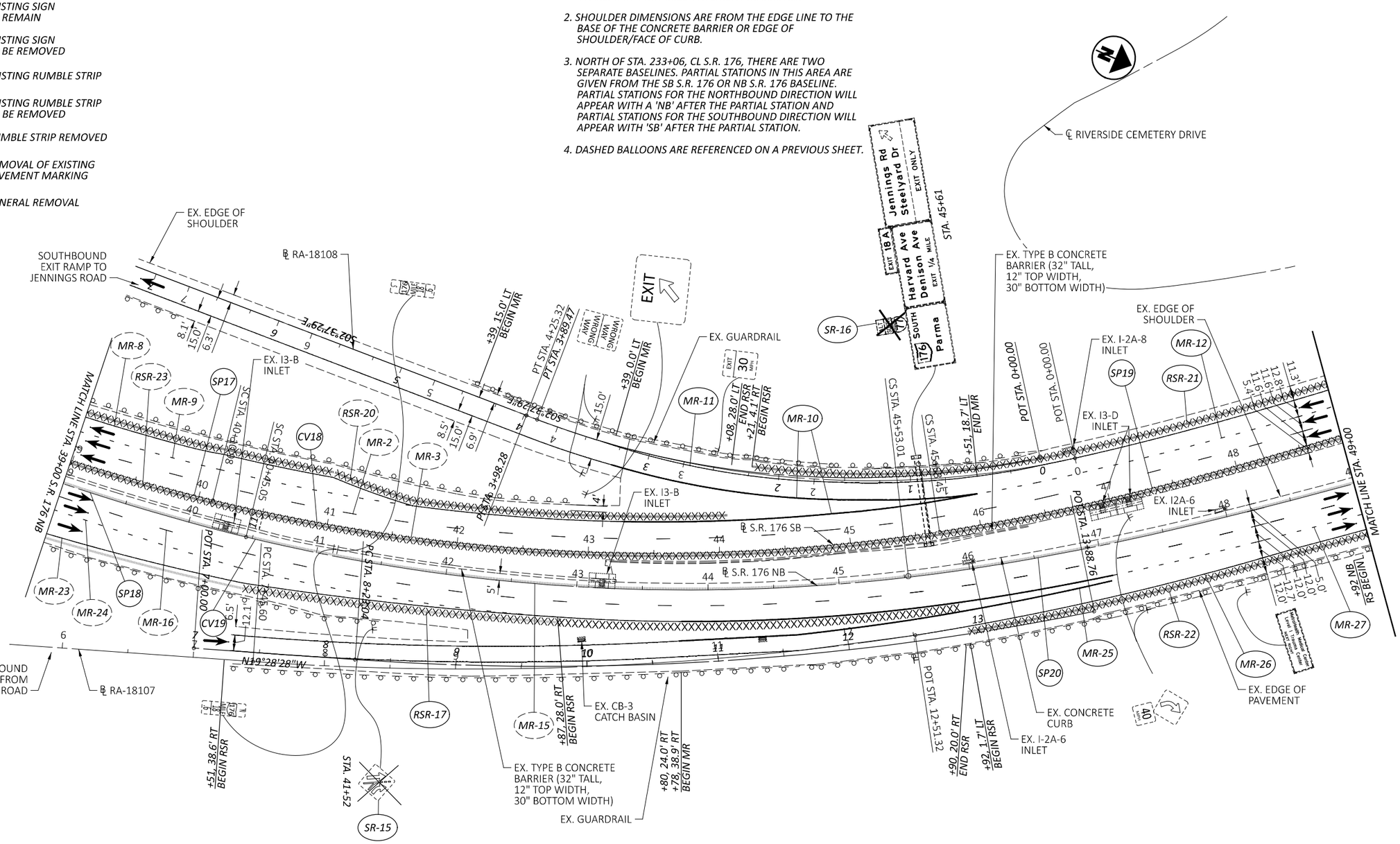
MODEL: Plan 14 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 10/7/2025 TIME: 8:30:10 AM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: thomas@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 120469 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\24156 ODOT D12-D3 GES FY2025-26\119814\Task 8 - CUY-176-10.65\120469\400-Engineering\Traffic\Sheets\120469_TP001.dgn

LEGEND

- TRAFFIC DIRECTION
- EXISTING SIGN TO REMAIN
- EXISTING SIGN TO BE REMOVED
- EXISTING RUMBLE STRIP
- EXISTING RUMBLE STRIP TO BE REMOVED
- RSR — RUMBLE STRIP REMOVED
- MR — REMOVAL OF EXISTING PAVEMENT MARKING
- R — GENERAL REMOVAL

NOTES:

1. REMOVE EXISTING LONGITUDINAL PAVEMENT MARKINGS IN AREAS OF PROPOSED PAVEMENT MARKINGS.
2. SHOULDER DIMENSIONS ARE FROM THE EDGE LINE TO THE BASE OF THE CONCRETE BARRIER OR EDGE OF SHOULDER/FACE OF CURB.
3. NORTH OF STA. 233+06, CL S.R. 176, THERE ARE TWO SEPARATE BASELINES. PARTIAL STATIONS IN THIS AREA ARE GIVEN FROM THE SB S.R. 176 OR NB S.R. 176 BASELINE. PARTIAL STATIONS FOR THE NORTHBOUND DIRECTION WILL APPEAR WITH A 'NB' AFTER THE PARTIAL STATION AND PARTIAL STATIONS FOR THE SOUTHBOUND DIRECTION WILL APPEAR WITH 'SB' AFTER THE PARTIAL STATION.
4. DASHED BALLOONS ARE REFERENCED ON A PREVIOUS SHEET.



CROSS REFERENCES			
SUBSUMMARIES	P.18	-	P.29
TRAFFIC CONTROL PLAN	P.50	-	P.69
DETAIL PLANS	P.70	-	P.79
DETAIL PLANS-CHANNELIZING LINES	P.80	-	P.84

SP18 SPIRAL DATA
P.I. = STA. 38+95.43
Ls = 450.00'
Θs = 09°00'00"
LT = 300.39'
ST = 150.35'
x = 448.89'
y = 23.52'
k = 224.82'
p = 5.89'
C = 449.51'
Start = Sta. 35+95.05
End = Sta. 40+45.05
C.B. = N03°53'19"W

CV18 CURVE DATA
P.I. = STA. 42+93.29
Δ = 22°17'56" LT
Dc = 04°00'00"
R = 1,432.39'
T = 282.31'
L = 557.47'
E = 27.55'

SP19 SPIRAL DATA
P.I. = STA. 47+18.80
Ls = 450.00'
Θs = 09°00'00"
LT = 300.39'
ST = 150.35'
x = 447.04'
y = 46.99'
k = 224.82'
p = 5.89'
C = 449.51'
Start = Sta. 45+68.45
End = Sta. 50+18.45
C.B. = N38°11'19"W

SP17 SPIRAL DATA
P.I. = STA. 38+61.37
Ls = 450.00'
Θs = 09°00'00"
LT = 300.39'
ST = 150.35'
x = 448.89'
y = 23.52'
k = 224.82'
p = 5.89'
C = 449.51'
Start = Sta. 35+60.98
End = Sta. 40+10.98
C.B. = N03°53'19"W

CV19 CURVE DATA
P.I. = STA. 43+01.73
Δ = 20°19'08" LT
Dc = 04°00'00"
R = 1,432.39'
T = 256.68'
L = 507.97'
E = 22.82'

SP20 SPIRAL DATA
P.I. = STA. 47+03.37
Ls = 450.00'
Θs = 09°00'00"
LT = 300.39'
ST = 150.35'
x = 447.04'
y = 46.99'
k = 224.82'
p = 5.89'
C = 449.51'
Start = Sta. 45+53.01
End = Sta. 50+03.01
C.B. = N36°12'31"W

HORIZONTAL SCALE IN FEET 0 20 40 80

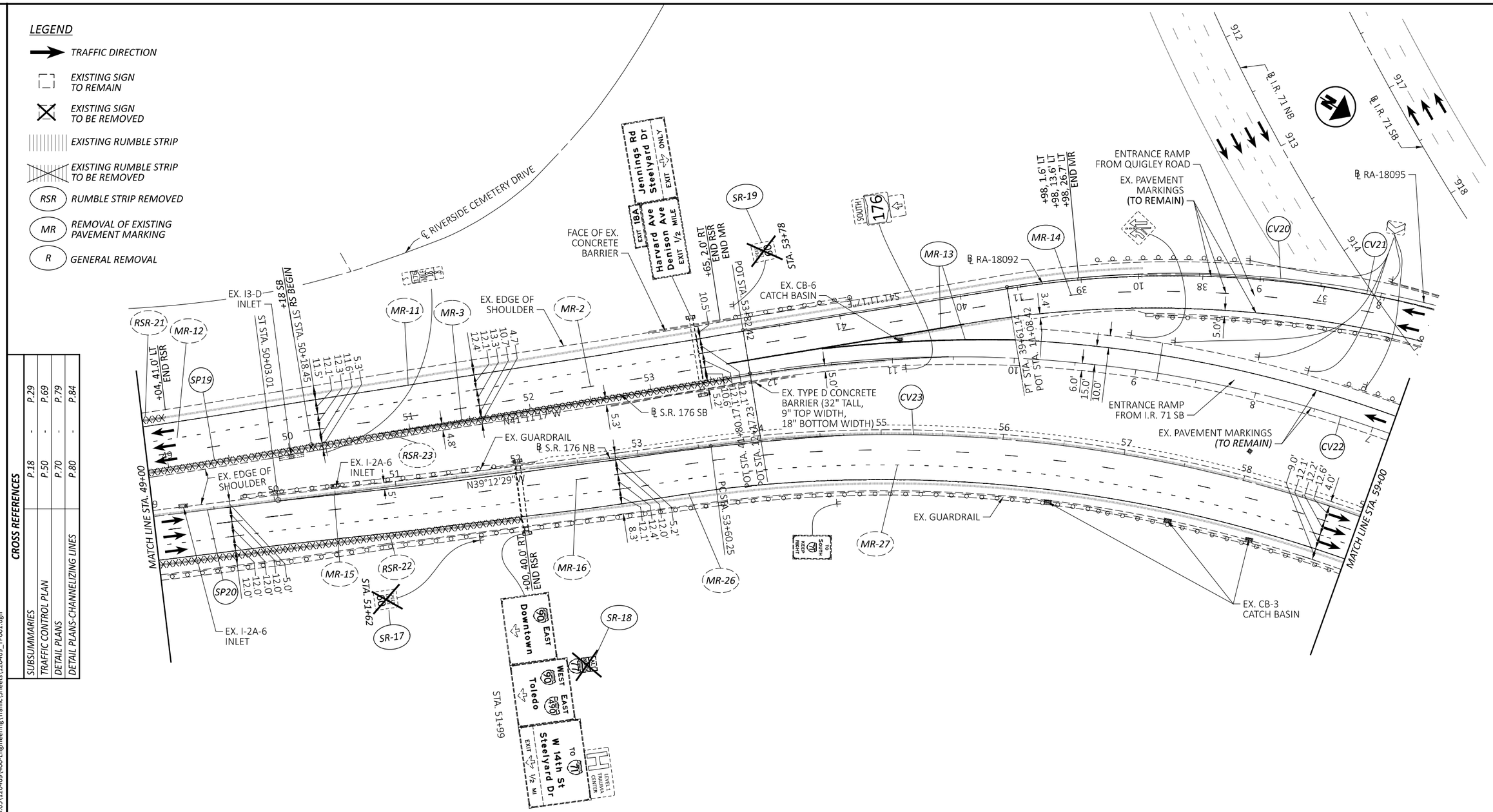
REMOVAL PLAN - S.R. 176
S.R. 176 NB - STA. 39+00 TO STA. 49+00

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER SHT
REVIEWER CWP 10/07/25
PROJECT ID 120469
SHEET P.44 TOTAL 86

CUY-176-10.65

MODEL: Plan 15 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 10/7/2025 TIME: 8:30:15 AM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: thomas@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 120469 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\24156 ODOT D12-D3 GES FY2025-26\119814\Task 8 - CUY-176-10.65\120469\400-Engineering\Traffic\Sheets\120469_TP001.dgn
CVE-176-10.65 Plan 15.dgn



CROSS REFERENCES			
SUBSUMMARIES	P.18	-	P.29
TRAFFIC CONTROL PLAN	P.50	-	P.69
DETAIL PLANS	P.70	-	P.79
DETAIL PLANS-CHANNELIZING LINES	P.80	-	P.84

NOTES:

1. REMOVE EXISTING LONGITUDINAL PAVEMENT MARKINGS IN AREAS OF PROPOSED PAVEMENT MARKINGS.
2. SHOULDER DIMENSIONS ARE FROM THE EDGE LINE TO THE BASE OF THE CONCRETE BARRIER OR EDGE OF SHOULDER/FACE OF CURB.
3. NORTH OF STA. 233+06, CL S.R. 176, THERE ARE TWO SEPARATE BASELINES. PARTIAL STATIONS IN THIS AREA ARE GIVEN FROM THE SB S.R. 176 OR NB S.R. 176 BASELINE. PARTIAL STATIONS FOR THE NORTHBOUND DIRECTION WILL APPEAR WITH A 'NB' AFTER THE PARTIAL STATION AND PARTIAL STATIONS FOR THE SOUTHBOUND DIRECTION WILL APPEAR WITH 'SB' AFTER THE PARTIAL STATION.
4. DASHED BALLOONS ARE REFERENCED ON A PREVIOUS SHEET.

SP19 SPIRAL DATA
P.I. = STA. 47+18.80
Ls = 450.00'
Θs = 09°00'00"
LT = 300.39'
ST = 150.35'
x = 447.04'
y = 46.99'
k = 224.82'
p = 5.89'
C = 449.51'
Start = Sta. 45+68.45
End = Sta. 50+18.45
C.B. = N38°11'19"W

SP20 SPIRAL DATA
P.I. = STA. 47+03.37
Ls = 450.00'
Θs = 09°00'00"
LT = 300.39'
ST = 150.35'
x = 447.04'
y = 46.99'
k = 224.82'
p = 5.89'
C = 449.51'
Start = Sta. 45+53.01
End = Sta. 50+03.01
C.B. = N36°12'31"W

CV20 CURVE DATA
P.I. = STA. 7+77.18
Δ = 46°34'55" LT
Dc = 06°37'00"
R = 865.93'
T = 372.77'
L = 704.01'
E = 76.83'

CV21 CURVE DATA
P.I. = STA. 36+22.27
Δ = 51°07'41" LT
Dc = 07°00'00"
R = 818.51'
T = 391.53'
L = 730.40'
E = 88.82'

CV22 CURVE DATA
P.I. = STA. 7+68.30
Δ = 53°41'21" LT
Dc = 05°30'00"
R = 1,041.74'
T = 527.24'
L = 976.17'
E = 125.82'

CV23 CURVE DATA
P.I. = STA. 58+95.62
Δ = 50°05'00" RT
Dc = 05°00'00"
R = 1,145.92'
T = 535.37'
L = 1,001.67'
E = 118.89'

REMOVAL PLAN - S.R. 176
S.R. 176 NB - STA. 49+00 TO STA. 59+00

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

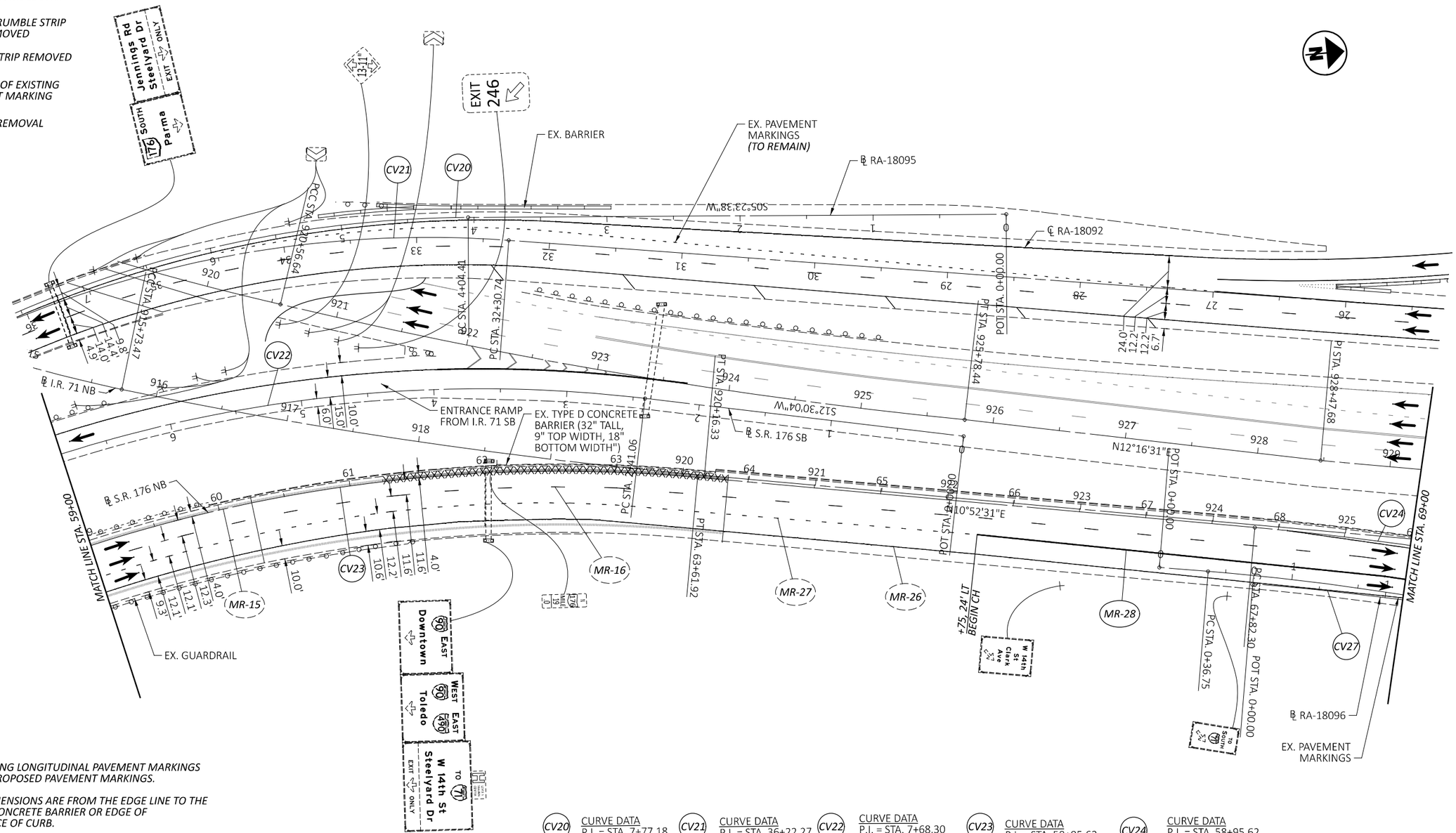
DESIGNER: SHT
REVIEWER: CWP 10/07/25
PROJECT ID: 120469
SHEET: P.45 TOTAL: 86

CUY-176-10.65

MODEL: Plan 16 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 10/7/2025 TIME: 8:30:19 AM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: thomas@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 120469 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\24156 ODOT D12-D3 GES FY2025-26\119814\Task 8 - CUY-176-10.65\120469\400-Engineering\Traffic\Sheets\120469_TP001.dgn

LEGEND

- TRAFFIC DIRECTION
- EXISTING SIGN TO REMAIN
- EXISTING SIGN TO BE REMOVED
- EXISTING RUMBLE STRIP
- EXISTING RUMBLE STRIP TO BE REMOVED
- RSR — RUMBLE STRIP REMOVED
- MR — REMOVAL OF EXISTING PAVEMENT MARKING
- R — GENERAL REMOVAL



NOTES:

1. REMOVE EXISTING LONGITUDINAL PAVEMENT MARKINGS IN AREAS OF PROPOSED PAVEMENT MARKINGS.
2. SHOULDER DIMENSIONS ARE FROM THE EDGE LINE TO THE BASE OF THE CONCRETE BARRIER OR EDGE OF SHOULDER/FACE OF CURB.
3. NORTH OF STA. 233+06, CL S.R. 176, THERE ARE TWO SEPARATE BASELINES. PARTIAL STATIONS IN THIS AREA ARE GIVEN FROM THE SB S.R. 176 OR NB S.R. 176 BASELINE. PARTIAL STATIONS FOR THE NORTHBOUND DIRECTION WILL APPEAR WITH A 'NB' AFTER THE PARTIAL STATION AND PARTIAL STATIONS FOR THE SOUTHBOUND DIRECTION WILL APPEAR WITH 'SB' AFTER THE PARTIAL STATION.
4. DASHED BALLOONS ARE REFERENCED ON A PREVIOUS SHEET.

CV20 CURVE DATA
P.I. = STA. 7+77.18
Δ = 46°34'55" LT
Dc = 06°37'00"
R = 865.93'
T = 372.77'
L = 704.01'
E = 76.83'

CV21 CURVE DATA
P.I. = STA. 36+22.27
Δ = 51°07'41" LT
Dc = 07°00'00"
R = 818.51'
T = 391.53'
L = 730.40'
E = 88.82'

CV22 CURVE DATA
P.I. = STA. 7+68.30
Δ = 53°41'21" LT
Dc = 05°30'00"
R = 1,041.74'
T = 527.24'
L = 976.17'
E = 125.82'

CV23 CURVE DATA
P.I. = STA. 58+95.62
Δ = 50°05'00" RT
Dc = 05°00'00"
R = 1,145.92'
T = 535.37'
L = 1,001.67'
E = 118.89'

CV24 CURVE DATA
P.I. = STA. 58+95.62
Δ = 50°05'00" RT
Dc = 05°00'00"
R = 1,145.92'
T = 535.37'
L = 1,001.67'
E = 118.89'

CROSS REFERENCES

SUBSUMMARIES	P.18 - P.29	
TRAFFIC CONTROL PLAN	P.50 - P.69	
DETAIL PLANS	P.70 - P.79	
DETAIL PLANS-CHANNELIZING LINES	P.80 - P.84	

HORIZONTAL SCALE IN FEET 0 20 40 80

REMOVAL PLAN - S.R. 176
S.R. 176 NB - STA. 59+00 TO STA. 69+00

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER SHT
REVIEWER CWP 10/07/25
PROJECT ID 120469
SHEET P.46 TOTAL 86

CUY-176-10.65

MODEL: Plan 17 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 10/7/2025 TIME: 8:30:24 AM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: thomas@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 120469 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\24156 ODOT D12-D3 GES FY2025-26\119814\Task 8 - CUY-176-10.65\120469\400-Engineering\Traffic\Sheets\120469_TP001.dgn

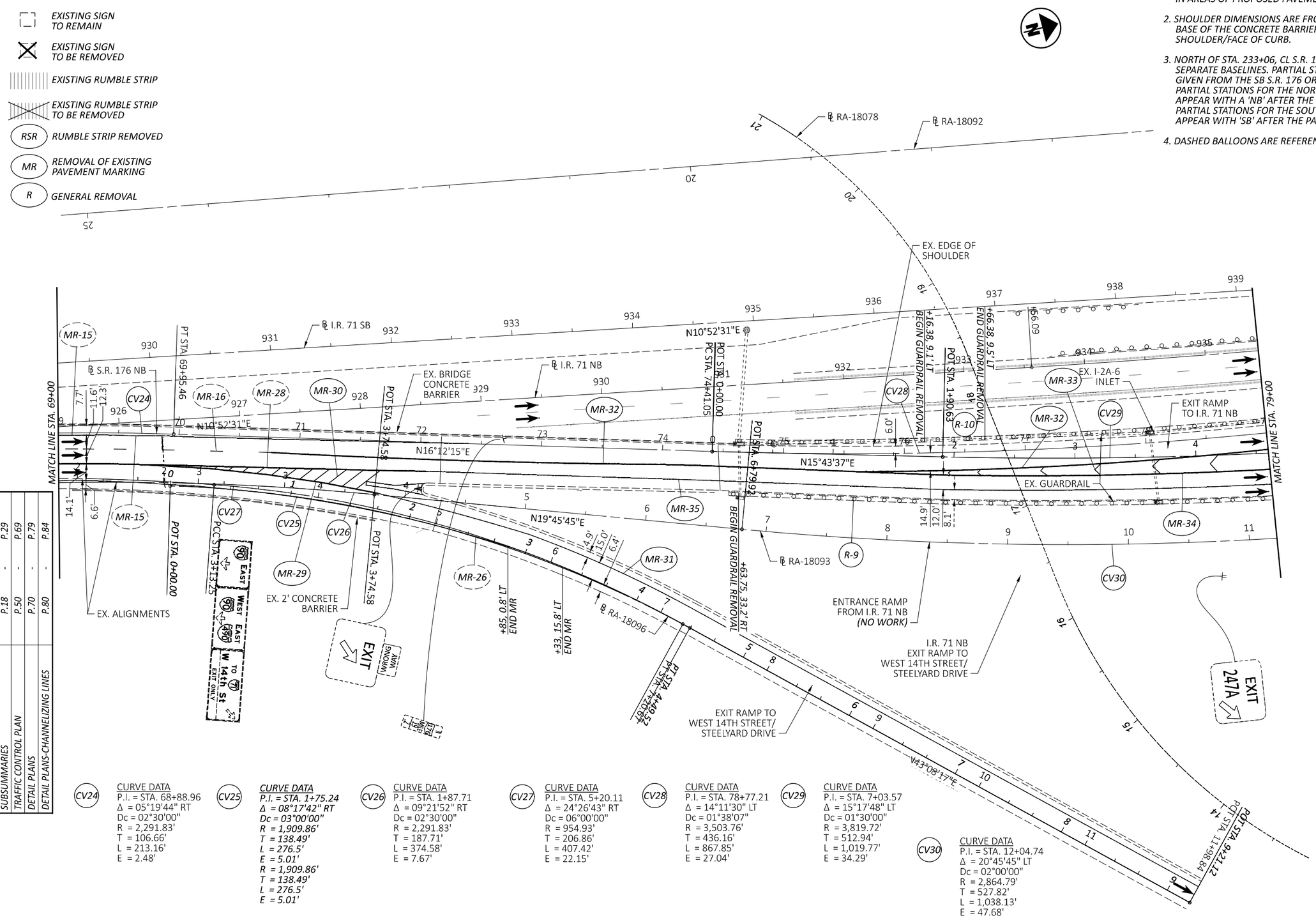
LEGEND

- TRAFFIC DIRECTION
- EXISTING SIGN TO REMAIN
- EXISTING SIGN TO BE REMOVED
- EXISTING RUMBLE STRIP
- EXISTING RUMBLE STRIP TO BE REMOVED
- RSR — RUMBLE STRIP REMOVED
- MR — REMOVAL OF EXISTING PAVEMENT MARKING
- R — GENERAL REMOVAL

NOTES:

1. REMOVE EXISTING LONGITUDINAL PAVEMENT MARKINGS IN AREAS OF PROPOSED PAVEMENT MARKINGS.
2. SHOULDER DIMENSIONS ARE FROM THE EDGE LINE TO THE BASE OF THE CONCRETE BARRIER OR EDGE OF SHOULDER/FACE OF CURB.
3. NORTH OF STA. 233+06, CL S.R. 176, THERE ARE TWO SEPARATE BASELINES. PARTIAL STATIONS IN THIS AREA ARE GIVEN FROM THE SB S.R. 176 OR NB S.R. 176 BASELINE. PARTIAL STATIONS FOR THE NORTHBOUND DIRECTION WILL APPEAR WITH A 'NB' AFTER THE PARTIAL STATION AND PARTIAL STATIONS FOR THE SOUTHBOUND DIRECTION WILL APPEAR WITH 'SB' AFTER THE PARTIAL STATION.
4. DASHED BALLOONS ARE REFERENCED ON A PREVIOUS SHEET.

HORIZONTAL SCALE IN FEET 0 20 40 80



CV24 CURVE DATA
P.I. = STA. 68+88.96
Δ = 05°19'44" RT
Dc = 02°30'00"
R = 2,291.83'
T = 106.66'
L = 213.16'
E = 2.48'

CV25 CURVE DATA
P.I. = STA. 1+75.24
Δ = 08°17'42" RT
Dc = 03°00'00"
R = 1,909.86'
T = 138.49'
L = 276.5'
E = 5.01'
R = 1,909.86'
T = 138.49'
L = 276.5'
E = 5.01'

CV26 CURVE DATA
P.I. = STA. 1+87.71
Δ = 09°21'52" RT
Dc = 02°30'00"
R = 2,291.83'
T = 187.71'
L = 374.58'
E = 7.67'

CV27 CURVE DATA
P.I. = STA. 5+20.11
Δ = 24°26'43" RT
Dc = 06°00'00"
R = 954.93'
T = 206.86'
L = 407.42'
E = 22.15'

CV28 CURVE DATA
P.I. = STA. 78+77.21
Δ = 14°11'30" LT
Dc = 01°38'07"
R = 3,503.76'
T = 436.16'
L = 867.85'
E = 27.04'

CV29 CURVE DATA
P.I. = STA. 7+03.57
Δ = 15°17'48" LT
Dc = 01°30'00"
R = 3,819.72'
T = 512.94'
L = 1,019.77'
E = 34.29'

CV30 CURVE DATA
P.I. = STA. 12+04.74
Δ = 20°45'45" LT
Dc = 02°00'00"
R = 2,864.79'
T = 527.82'
L = 1,038.13'
E = 47.68'

CROSS REFERENCES		
SUBSUMMARIES	P.18 - P.29	
TRAFFIC CONTROL PLAN	P.50 - P.69	
DETAIL PLANS	P.70 - P.79	
DETAIL PLANS-CHANNELIZING LINES	P.80 - P.84	

REMOVAL PLAN - S.R. 176
S.R. 176 NB - STA. 69+00 TO STA. 79+00

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER SHT
REVIEWER CWP 10/07/25
PROJECT ID 120469
SHEET P.47 TOTAL 86

CUY-176-10.65

MODEL: Plan 18 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 10/7/2025 TIME: 8:30:28 AM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: thomas@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 120469 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\24156 ODOT D12-D3 GES FY2025-26\119814\Task 8 - CUY-176-10.65\120469\400-Engineering\Traffic\Sheets\120469_TP001.dgn

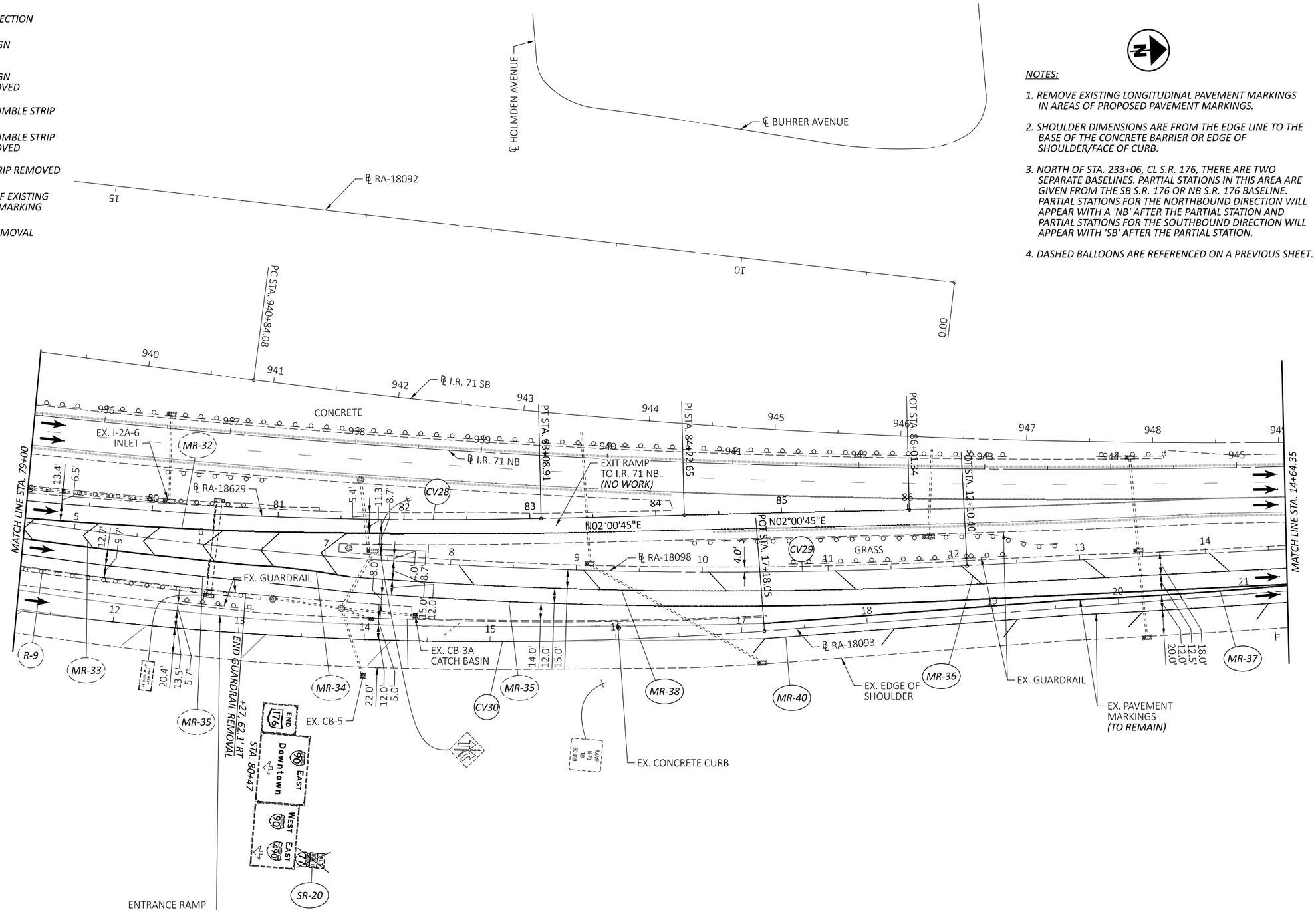
LEGEND

- TRAFFIC DIRECTION
- EXISTING SIGN TO REMAIN
- EXISTING SIGN TO BE REMOVED
- EXISTING RUMBLE STRIP
- EXISTING RUMBLE STRIP TO BE REMOVED
- RSR — RUMBLE STRIP REMOVED
- MR — REMOVAL OF EXISTING PAVEMENT MARKING
- R — GENERAL REMOVAL

NOTES:

1. REMOVE EXISTING LONGITUDINAL PAVEMENT MARKINGS IN AREAS OF PROPOSED PAVEMENT MARKINGS.
2. SHOULDER DIMENSIONS ARE FROM THE EDGE LINE TO THE BASE OF THE CONCRETE BARRIER OR EDGE OF SHOULDER/FACE OF CURB.
3. NORTH OF STA. 233+06, CL S.R. 176, THERE ARE TWO SEPARATE BASELINES. PARTIAL STATIONS IN THIS AREA ARE GIVEN FROM THE SB S.R. 176 OR NB S.R. 176 BASELINE. PARTIAL STATIONS FOR THE NORTHBOUND DIRECTION WILL APPEAR WITH A 'NB' AFTER THE PARTIAL STATION AND PARTIAL STATIONS FOR THE SOUTHBOUND DIRECTION WILL APPEAR WITH 'SB' AFTER THE PARTIAL STATION.
4. DASHED BALLOONS ARE REFERENCED ON A PREVIOUS SHEET.

HORIZONTAL SCALE IN FEET 0 20 40 80



CROSS REFERENCES				
SUBSUMMARIES	P.18	-	P.29	
TRAFFIC CONTROL PLAN	P.50	-	P.69	
DETAIL PLANS	P.70	-	P.79	
DETAIL PLANS-CHANNELIZING LINES	P.80	-	P.84	

CV28 CURVE DATA
P.I. = STA. 78+77.21
Δ = 14°11'30" LT
Dc = 01°38'07"
R = 3,503.76'
T = 436.16'
L = 867.85'
E = 27.04'

CV29 CURVE DATA
P.I. = STA. 7+03.57
Δ = 15°17'48" LT
Dc = 01°30'00"
R = 3,819.72'
T = 512.94'
L = 1,019.77'
E = 34.29'

CV30 CURVE DATA
P.I. = STA. 12+04.74
Δ = 20°45'45" LT
Dc = 02°00'00"
R = 2,864.79'
T = 524.82'
L = 1,038.13'
E = 47.68'

REMOVAL PLAN - S.R. 176 & RA-18098
S.R. 176 NB STA. 79+00 TO RA-18098 STA. 14+64.35

DESIGN AGENCY: CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER: SHT
REVIEWER: CWP 10/07/25
PROJECT ID: 120469
SHEET: P.48 TOTAL: 86

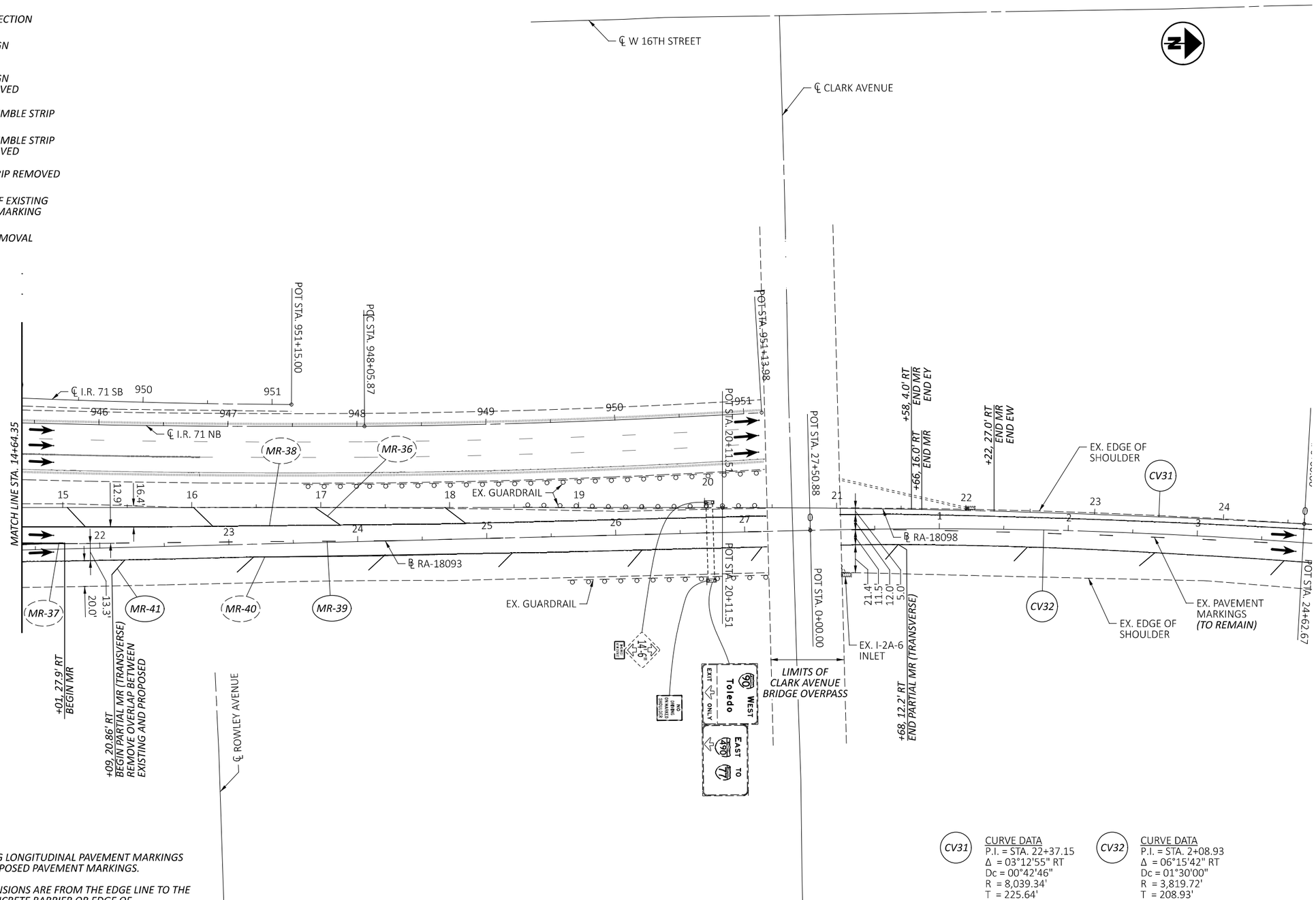
CUY-176-10.65

MODEL: Plan 19 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 10/7/2025 TIME: 8:30:33 AM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: thomas@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 120469 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\24156 ODOT D12-D3 GES FY2025-26\119814\Task 8 - CUY-176-10.65\120469\400-Engineering\Traffic\Sheets\120469_TP001.dgn

CUY-176-10.65

LEGEND

- TRAFFIC DIRECTION
- EXISTING SIGN TO REMAIN
- EXISTING SIGN TO BE REMOVED
- EXISTING RUMBLE STRIP
- EXISTING RUMBLE STRIP TO BE REMOVED
- RSR — RUMBLE STRIP REMOVED
- MR — REMOVAL OF EXISTING PAVEMENT MARKING
- R — GENERAL REMOVAL



CROSS REFERENCES				
SUBSUMMARIES	P.18	-	P.29	
TRAFFIC CONTROL PLAN	P.50	-	P.69	
DETAIL PLANS	P.70	-	P.79	
DETAIL PLANS-CHANNELIZING LINES	P.80	-	P.84	

NOTES:

1. REMOVE EXISTING LONGITUDINAL PAVEMENT MARKINGS IN AREAS OF PROPOSED PAVEMENT MARKINGS.
2. SHOULDER DIMENSIONS ARE FROM THE EDGE LINE TO THE BASE OF THE CONCRETE BARRIER OR EDGE OF SHOULDER/FACE OF CURB.
3. NORTH OF STA. 233+06, CL S.R. 176, THERE ARE TWO SEPARATE BASELINES. PARTIAL STATIONS IN THIS AREA ARE GIVEN FROM THE SB S.R. 176 OR NB S.R. 176 BASELINE. PARTIAL STATIONS FOR THE NORTHBOUND DIRECTION WILL APPEAR WITH A 'NB' AFTER THE PARTIAL STATION AND PARTIAL STATIONS FOR THE SOUTHBOUND DIRECTION WILL APPEAR WITH 'SB' AFTER THE PARTIAL STATION.
4. DASHED BALLOONS ARE REFERENCED ON A PREVIOUS SHEET.

CV31 CURVE DATA
P.I. = STA. 22+37.15
Δ = 03°12'55" RT
Dc = 00°42'46"
R = 8,039.34'
T = 225.64'
L = 451.16'
E = 3.17'

CV32 CURVE DATA
P.I. = STA. 2+08.93
Δ = 06°15'42" RT
Dc = 01°30'00"
R = 3,819.72'
T = 208.93'
L = 417.44'
E = 5.71'

HORIZONTAL SCALE IN FEET 0 20 40 80

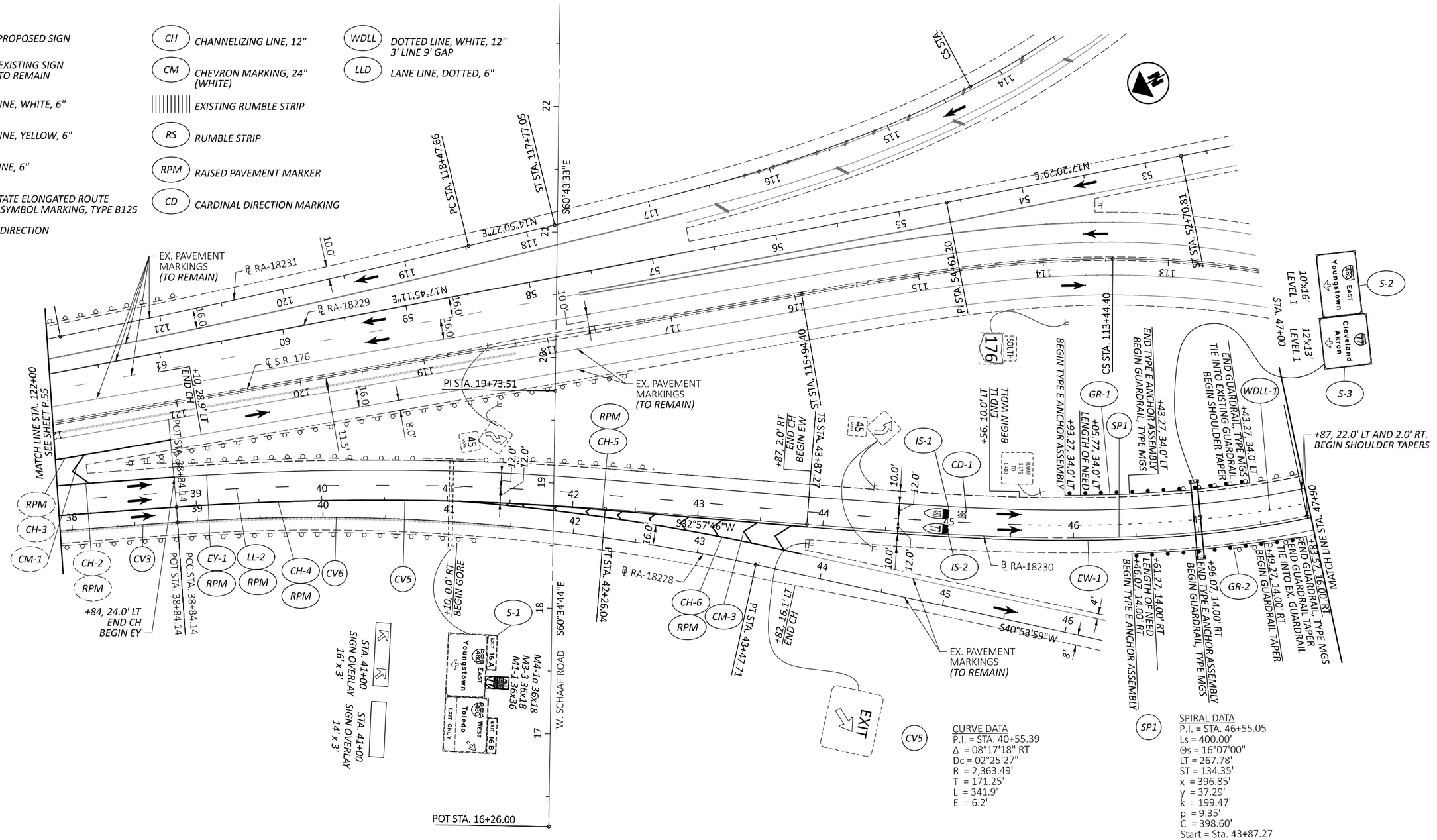
REMOVAL PLAN - RA-18098
STA. 14+64.35 TO END

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER SHT
REVIEWER CWP 10/07/25
PROJECT ID 120469
SHEET P.49 TOTAL 86

LEGEND

- (S) PROPOSED SIGN
- EXISTING SIGN TO REMAIN
- (EW) EDGE LINE, WHITE, 6"
- (EY) EDGE LINE, YELLOW, 6"
- (LL) LANE LINE, 6"
- (IS) INTERSTATE ELONGATED ROUTE SHIELD SYMBOL MARKING, TYPE B125
- TRAFFIC DIRECTION
- (CH) CHANNELIZING LINE, 12"
- (CM) CHEVRON MARKING, 24" (WHITE)
- EXISTING RUMBLE STRIP
- (RS) RUMBLE STRIP
- (RPM) RAISED PAVEMENT MARKER
- (CD) CARDINAL DIRECTION MARKING
- (WDLL) DOTTED LINE, WHITE, 12" 3' LINE 9' GAP
- (LLD) LANE LINE, DOTTED, 6"



CROSS REFERENCES		
SUBSUMMARIES	P.18	- P.29
REMOVAL SHEETS	P.30	- P.49
DETAIL PLANS	P.70	- P.79
DETAIL PLANS-CHANNELIZING LINES	P.80	- P.84

CURVE DATA (CV5)
P.I. = STA. 40+55.39
Δ = 08°17'18" RT
Dc = 02°25'27"
R = 2,363.49'
T = 171.25'
L = 341.9'
E = 6.2'

SPIRAL DATA (SP1)
P.I. = STA. 46+55.05
Ls = 400.00'
Θs = 16°07'00"
LT = 267.78'
ST = 134.35'
x = 396.85'
y = 37.29'
k = 199.47'
p = 9.35'
C = 398.60'
Start = Sta. 43+87.27
End = Sta. 47+87.27
C.B. = S27°35'39"W

CURVE DATA (CV3)
P.I. = STA. 34+41.90
Δ = 05°54'06" RT
Dc = 00°40'00"
R = 8,594.37'
T = 443.03'
L = 885.27'
E = 11.41'

CURVE DATA (CV6)
P.I. = STA. 41+17.49
Δ = 16°13'30" RT
Dc = 03°30'00"
R = 1,637.02'
T = 233.35'
L = 463.57'
E = 16.55'

NOTES:

1. SHOULDER DIMENSIONS ARE FROM THE EDGE LINE TO THE BASE OF THE CONCRETE BARRIER OR EDGE OF SHOULDER/FACE OF CURB.
2. NORTH OF STA. 233+06, CL S.R. 176, THERE ARE TWO SEPARATE BASELINES. PARTIAL STATIONS IN THIS AREA ARE GIVEN FROM THE SB S.R. 176 OR NB S.R. 176 BASELINE. PARTIAL STATIONS FOR THE NORTHBOUND DIRECTION WILL APPEAR WITH A 'NB' AFTER THE PARTIAL STATION AND PARTIAL STATIONS FOR THE SOUTHBOUND DIRECTION WILL APPEAR WITH 'SB' AFTER THE PARTIAL STATION.
3. DASHED BALLOONS ARE REFERENCED ON A PREVIOUS SHEET.

HORIZONTAL SCALE IN FEET 0 20 40 80

TRAFFIC CONTROL PLAN - RA-18230 & S.R. 176
S.R. 176 STA. 122+00 TO RA-18230 STA. 47+90

DESIGN AGENCY: CHAGRIN VALLEY ENGINEERING, LTD.

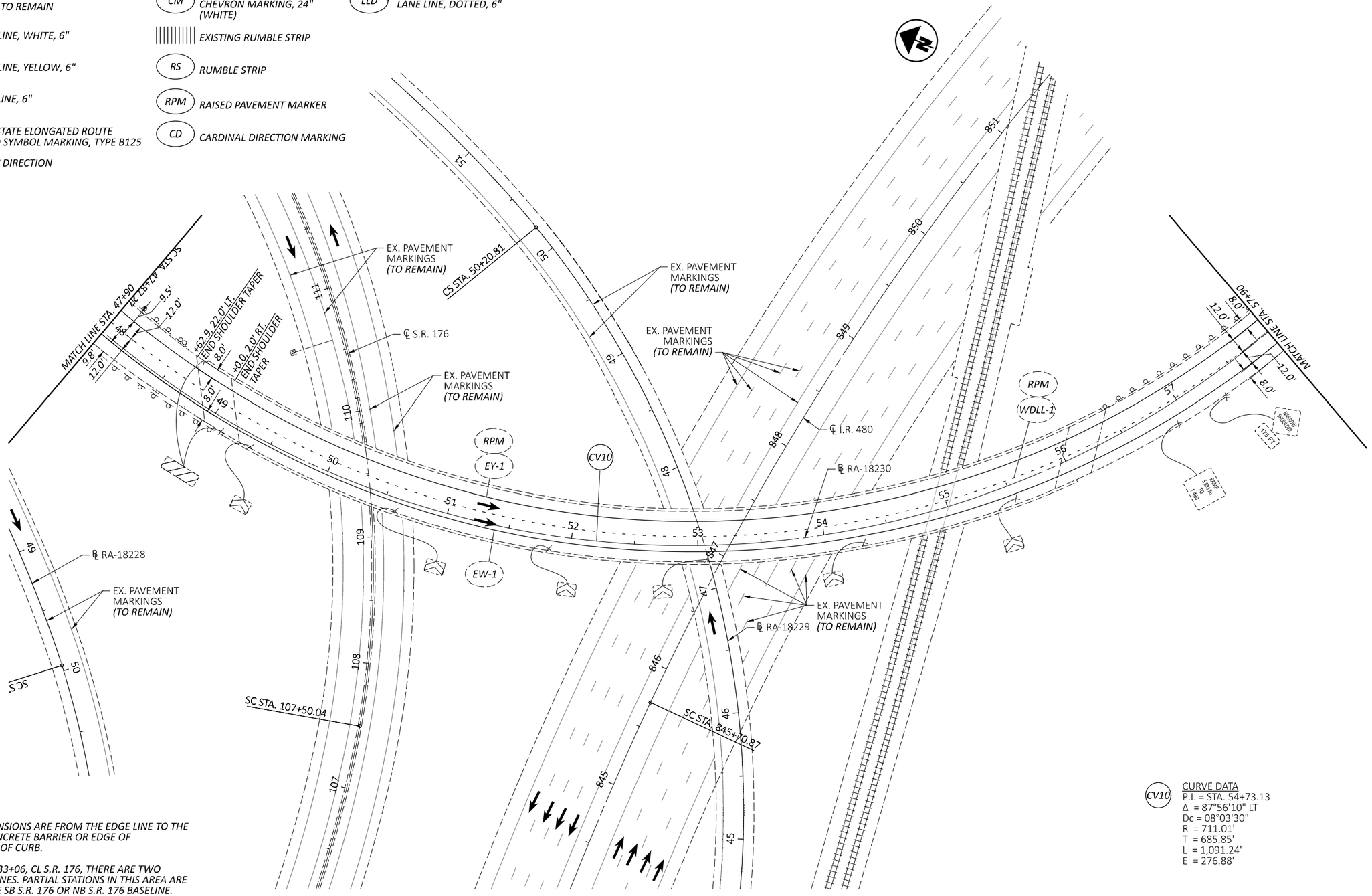
DESIGNER: SHT
REVIEWER: CWP 10/07/25
PROJECT ID: 120469
SHEET: P.50 TOTAL: 86

CUY-176-10.65

MODEL: Plan 5 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 10/7/2025 TIME: 8:30:50 AM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: thomas@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 120469 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\24156 ODOT D12-D3 GES FY2025-26\119814\Task 8 - CUY-176-10.65\120469\400-Engineering\Traffic\Sheets\120469_TP002.dgn

LEGEND

- S — PROPOSED SIGN
- EXISTING SIGN TO REMAIN
- EW — EDGE LINE, WHITE, 6"
- EY — EDGE LINE, YELLOW, 6"
- LL — LANE LINE, 6"
- IS — INTERSTATE ELONGATED ROUTE SHIELD SYMBOL MARKING, TYPE B125
- TRAFFIC DIRECTION
- CH — CHANNELIZING LINE, 12"
- CM — CHEVRON MARKING, 24" (WHITE)
- EXISTING RUMBLE STRIP
- RS — RUMBLE STRIP
- RPM — RAISED PAVEMENT MARKER
- CD — CARDINAL DIRECTION MARKING
- WDLL — DOTTED LINE, WHITE, 12" 3' LINE 9' GAP
- LLD — LANE LINE, DOTTED, 6"



CROSS REFERENCES		
SUBSUMMARIES	P.18	- P.29
REMOVAL SHEETS	P.30	- P.49
DETAIL PLANS	P.70	- P.79
DETAIL PLANS-CHANNELIZING LINES	P.80	- P.84

CV10 CURVE DATA
P.I. = STA. 54+73.13
Δ = 87°56'10" LT
Dc = 08°03'30"
R = 711.01'
T = 685.85'
L = 1,091.24'
E = 276.88'

NOTES:

1. SHOULDER DIMENSIONS ARE FROM THE EDGE LINE TO THE BASE OF THE CONCRETE BARRIER OR EDGE OF SHOULDER/FACE OF CURB.
2. NORTH OF STA. 233+06, CL S.R. 176, THERE ARE TWO SEPARATE BASELINES. PARTIAL STATIONS IN THIS AREA ARE GIVEN FROM THE SB S.R. 176 OR NB S.R. 176 BASELINE. PARTIAL STATIONS FOR THE NORTHBOUND DIRECTION WILL APPEAR WITH A 'NB' AFTER THE PARTIAL STATION AND PARTIAL STATIONS FOR THE SOUTHBOUND DIRECTION WILL APPEAR WITH 'SB' AFTER THE PARTIAL STATION.
3. DASHED BALLOONS ARE REFERENCED ON A PREVIOUS SHEET.

HORIZONTAL SCALE IN FEET 0 20 40 80

TRAFFIC CONTROL PLAN - RA-18230 STA. 47+90 TO STA. 57+90

DESIGN AGENCY: CHAGRIN VALLEY ENGINEERING, LTD.

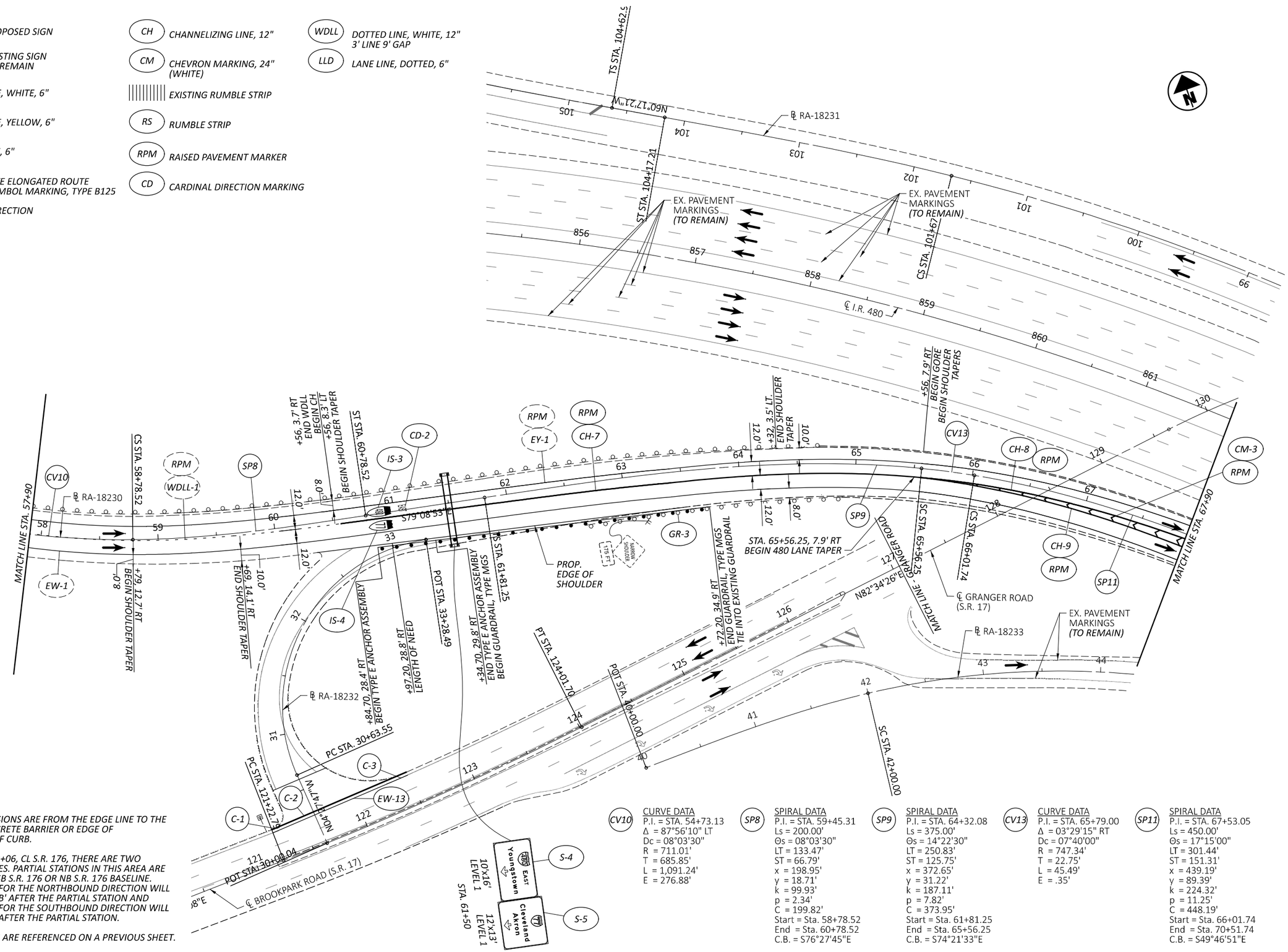
DESIGNER: SHT
REVIEWER: CWP 10/07/25
PROJECT ID: 120469
SHEET: P.51 TOTAL: 86

CUY-176-10.65

MODEL: Plan 4 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 10/7/2025 TIME: 8:30:55 AM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: thomas@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 120469 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\24156 ODOT D12-D3 GES FY2025-26\119814\Task 8 - CUY-176-10.65\120469\400-Engineering\Traffic\Sheets\120469_TP002.dgn

LEGEND

- (S) PROPOSED SIGN
- EXISTING SIGN TO REMAIN
- (EW) EDGE LINE, WHITE, 6"
- (EY) EDGE LINE, YELLOW, 6"
- (LL) LANE LINE, 6"
- (IS) INTERSTATE ELONGATED ROUTE SHIELD SYMBOL MARKING, TYPE B125
- TRAFFIC DIRECTION
- (CH) CHANNELIZING LINE, 12"
- (CM) CHEVRON MARKING, 24" (WHITE)
- EXISTING RUMBLE STRIP
- (RS) RUMBLE STRIP
- (RPM) RAISED PAVEMENT MARKER
- (CD) CARDINAL DIRECTION MARKING
- (WDLL) DOTTED LINE, WHITE, 12" 3' LINE 9' GAP
- (LLD) LANE LINE, DOTTED, 6"



CROSS REFERENCES		
SUBSUMMARIES	P.18	- P.29
REMOVAL SHEETS	P.30	- P.49
DETAIL PLANS	P.70	- P.79
DETAIL PLANS-CHANNELIZING LINES	P.80	- P.84

NOTES:

1. SHOULDER DIMENSIONS ARE FROM THE EDGE LINE TO THE BASE OF THE CONCRETE BARRIER OR EDGE OF SHOULDER/FACE OF CURB.
2. NORTH OF STA. 233+06, CL S.R. 176, THERE ARE TWO SEPARATE BASELINES. PARTIAL STATIONS IN THIS AREA ARE GIVEN FROM THE SB S.R. 176 OR NB S.R. 176 BASELINE. PARTIAL STATIONS FOR THE NORTHBOUND DIRECTION WILL APPEAR WITH A 'NB' AFTER THE PARTIAL STATION AND PARTIAL STATIONS FOR THE SOUTHBOUND DIRECTION WILL APPEAR WITH 'SB' AFTER THE PARTIAL STATION.
3. DASHED BALLOONS ARE REFERENCED ON A PREVIOUS SHEET.

(CV10) CURVE DATA
P.I. = STA. 54+73.13
Δ = 87°56'10" LT
Dc = 08°03'30"
R = 711.01'
T = 685.85'
L = 1,091.24'
E = 276.88'

(SP8) SPIRAL DATA
P.I. = STA. 59+45.31
Ls = 200.00'
Θs = 08°03'30"
LT = 133.47'
ST = 66.79'
x = 198.95'
y = 18.71'
k = 99.93'
p = 2.34'
C = 199.82'
Start = Sta. 58+78.52
End = Sta. 60+78.52
C.B. = S76°27'45"E

(SP9) SPIRAL DATA
P.I. = STA. 64+32.08
Ls = 375.00'
Θs = 14°22'30"
LT = 250.83'
ST = 125.75'
x = 372.65'
y = 31.22'
k = 187.11'
p = 7.82'
C = 373.95'
Start = Sta. 61+81.25
End = Sta. 65+56.25
C.B. = S74°21'33"E

(CV13) CURVE DATA
P.I. = STA. 65+79.00
Δ = 03°29'15" RT
Dc = 07°40'00"
R = 747.34'
T = 22.75'
L = 45.49'
E = .35'

(SP11) SPIRAL DATA
P.I. = STA. 67+53.05
Ls = 450.00'
Θs = 17°15'00"
LT = 301.44'
ST = 151.31'
x = 439.19'
y = 89.39'
k = 224.32'
p = 11.25'
C = 448.19'
Start = Sta. 66+01.74
End = Sta. 70+51.74
C.B. = S49°46'51"E

TRAFFIC CONTROL PLAN - RA-18230
STA. 57+90 TO STA. 67+90

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

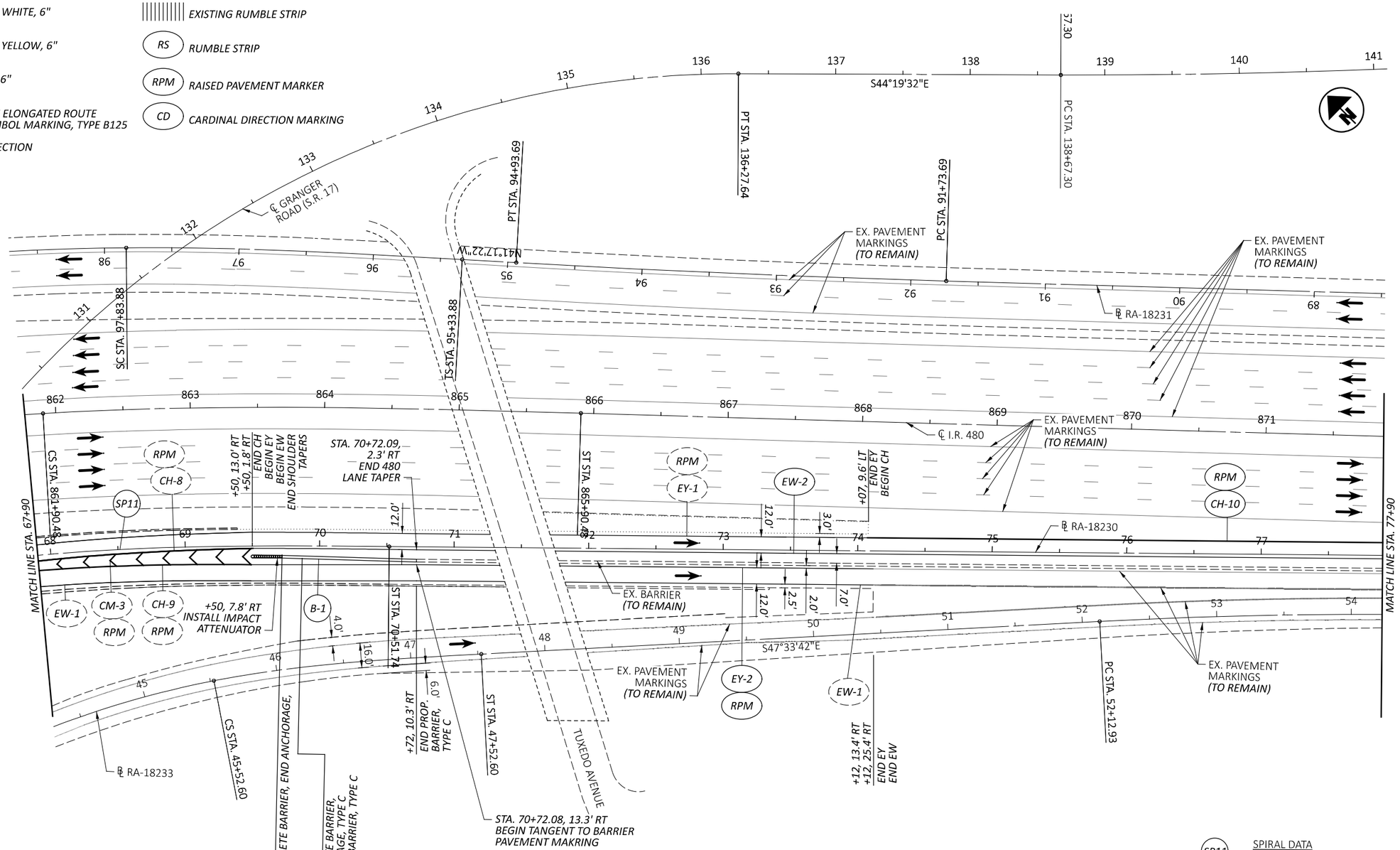
DESIGNER: SHT
REVIEWER: CWP 10/07/25
PROJECT ID: 120469
SHEET P.52 TOTAL 86

CUY-176-10.65

MODEL: Plan 3 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 10/7/2025 TIME: 8:30:59 AM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: thomas@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 120469 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\24156 ODOT D12-D3 GES FY2025-26\119814\Task 8 - CUY-176-10.65\120469\400-Engineering\Traffic\Sheets\120469_TP002.dgn

LEGEND

- (S) PROPOSED SIGN
- EXISTING SIGN TO REMAIN
- (EW) EDGE LINE, WHITE, 6"
- (EY) EDGE LINE, YELLOW, 6"
- (LL) LANE LINE, 6"
- (IS) INTERSTATE ELONGATED ROUTE SHIELD SYMBOL MARKING, TYPE B125
- TRAFFIC DIRECTION
- (CH) CHANNELIZING LINE, 12"
- (CM) CHEVRON MARKING, 24" (WHITE)
- EXISTING RUMBLE STRIP
- (RS) RUMBLE STRIP
- (RPM) RAISED PAVEMENT MARKER
- (CD) CARDINAL DIRECTION MARKING
- (WDLL) DOTTED LINE, WHITE, 12" 3' LINE 9' GAP
- (LLD) LANE LINE, DOTTED, 6"



CROSS REFERENCES		
SUBSUMMARIES	P.18	P.29
REMOVAL SHEETS	P.30	P.49
DETAIL PLANS	P.70	P.79
DETAIL PLANS-CHANNELIZING LINES	P.80	P.84

NOTES:

1. SHOULDER DIMENSIONS ARE FROM THE EDGE LINE TO THE BASE OF THE CONCRETE BARRIER OR EDGE OF SHOULDER/FACE OF CURB.
2. NORTH OF STA. 233+06, CL S.R. 176, THERE ARE TWO SEPARATE BASELINES. PARTIAL STATIONS IN THIS AREA ARE GIVEN FROM THE SB S.R. 176 OR NB S.R. 176 BASELINE. PARTIAL STATIONS FOR THE NORTHBOUND DIRECTION WILL APPEAR WITH A 'NB' AFTER THE PARTIAL STATION AND PARTIAL STATIONS FOR THE SOUTHBOUND DIRECTION WILL APPEAR WITH 'SB' AFTER THE PARTIAL STATION.
3. DASHED BALLOONS ARE REFERENCED ON A PREVIOUS SHEET.

(SP11) SPIRAL DATA
P.I. = STA. 67+53.05
Ls = 450.00'
Θs = 17°15'00"
LT = 301.44'
ST = 151.31'
x = 439.19'
y = 89.39'
k = 224.32'
p = 11.25'
C = 448.19'
Start = Sta. 66+01.74
End = Sta. 70+51.74
C.B. = S49°46'51"E

HORIZONTAL SCALE IN FEET 0 20 40 80

TRAFFIC CONTROL PLAN - RA-18230
STA. 67+90 TO STA. 77+90

DESIGN AGENCY: CHAGRIN VALLEY ENGINEERING, LTD.

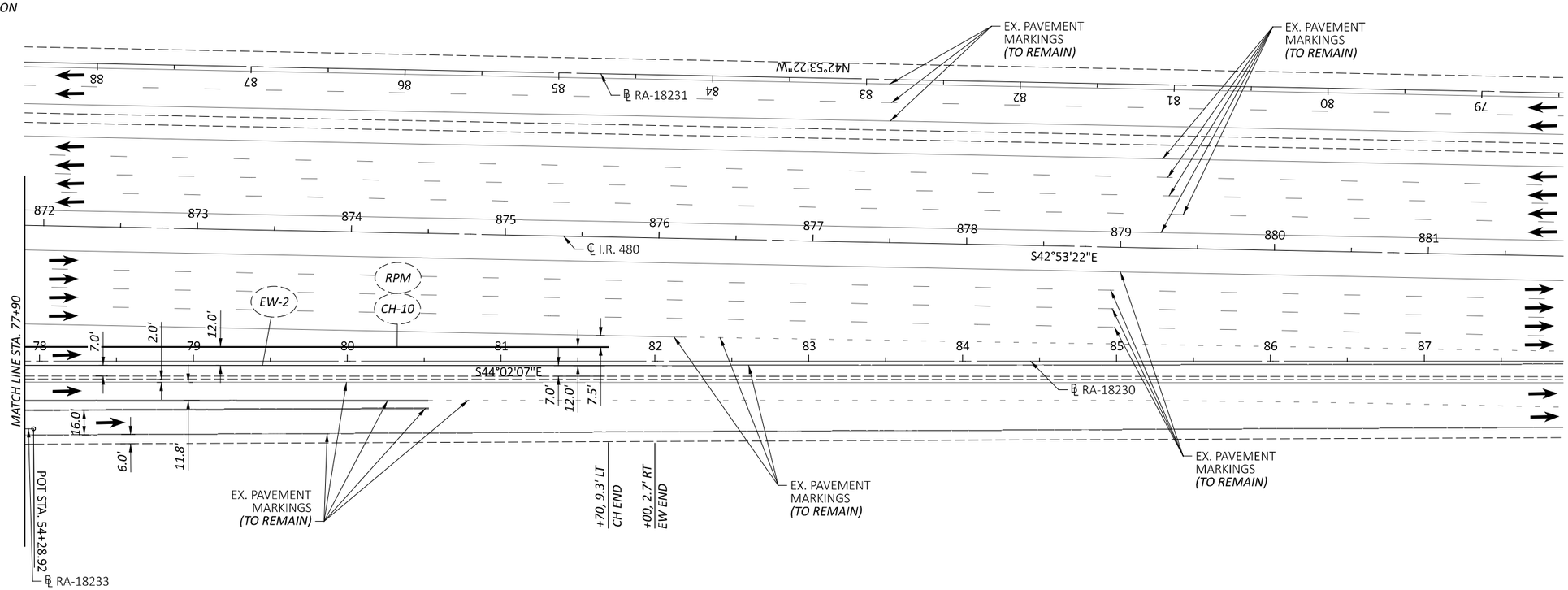
DESIGNER: SHT
REVIEWER: CWP 10/07/25
PROJECT ID: 120469
SHEET P.53 TOTAL 86

CUY-176-10.65

MODEL: Plan 2 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 10/7/2025 TIME: 8:31:04 AM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: thomas@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 120469 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\24156 ODOT D12-D3 GES FY2025-26\119814\Task 8 - CUY-176-10.65\120469\400-Engineering\Traffic\Sheets\120469_TP002.dgn

LEGEND

- S — PROPOSED SIGN
- EXISTING SIGN TO REMAIN
- EW — EDGE LINE, WHITE, 6"
- EY — EDGE LINE, YELLOW, 6"
- LL — LANE LINE, 6"
- IS — INTERSTATE ELONGATED ROUTE SHIELD SYMBOL MARKING, TYPE B125
- TRAFFIC DIRECTION
- CH — CHANNELIZING LINE, 12"
- CM — CHEVRON MARKING, 24" (WHITE)
- EXISTING RUMBLE STRIP
- RS — RUMBLE STRIP
- RPM — RAISED PAVEMENT MARKER
- CD — CARDINAL DIRECTION MARKING
- WDLL — DOTTED LINE, WHITE, 12" 3' LINE 9' GAP
- LLD — LANE LINE, DOTTED, 6"



CROSS REFERENCES		
SUBSUMMARIES	P.18	- P.29
REMOVAL SHEETS	P.30	- P.49
DETAIL PLANS	P.70	- P.79
DETAIL PLANS-CHANNELIZING LINES	P.80	- P.84

HORIZONTAL SCALE IN FEET 0 20 40 80

TRAFFIC CONTROL PLAN - RA-18230
STA. 77+90 TO END

NOTES:

1. SHOULDER DIMENSIONS ARE FROM THE EDGE LINE TO THE BASE OF THE CONCRETE BARRIER OR EDGE OF SHOULDER/FACE OF CURB.
2. NORTH OF STA. 233+06, CL S.R. 176, THERE ARE TWO SEPARATE BASELINES. PARTIAL STATIONS IN THIS AREA ARE GIVEN FROM THE SB S.R. 176 OR NB S.R. 176 BASELINE. PARTIAL STATIONS FOR THE NORTHBOUND DIRECTION WILL APPEAR WITH A 'NB' AFTER THE PARTIAL STATION AND PARTIAL STATIONS FOR THE SOUTHBOUND DIRECTION WILL APPEAR WITH 'SB' AFTER THE PARTIAL STATION.
3. DASHED BALLOONS ARE REFERENCED ON A PREVIOUS SHEET.

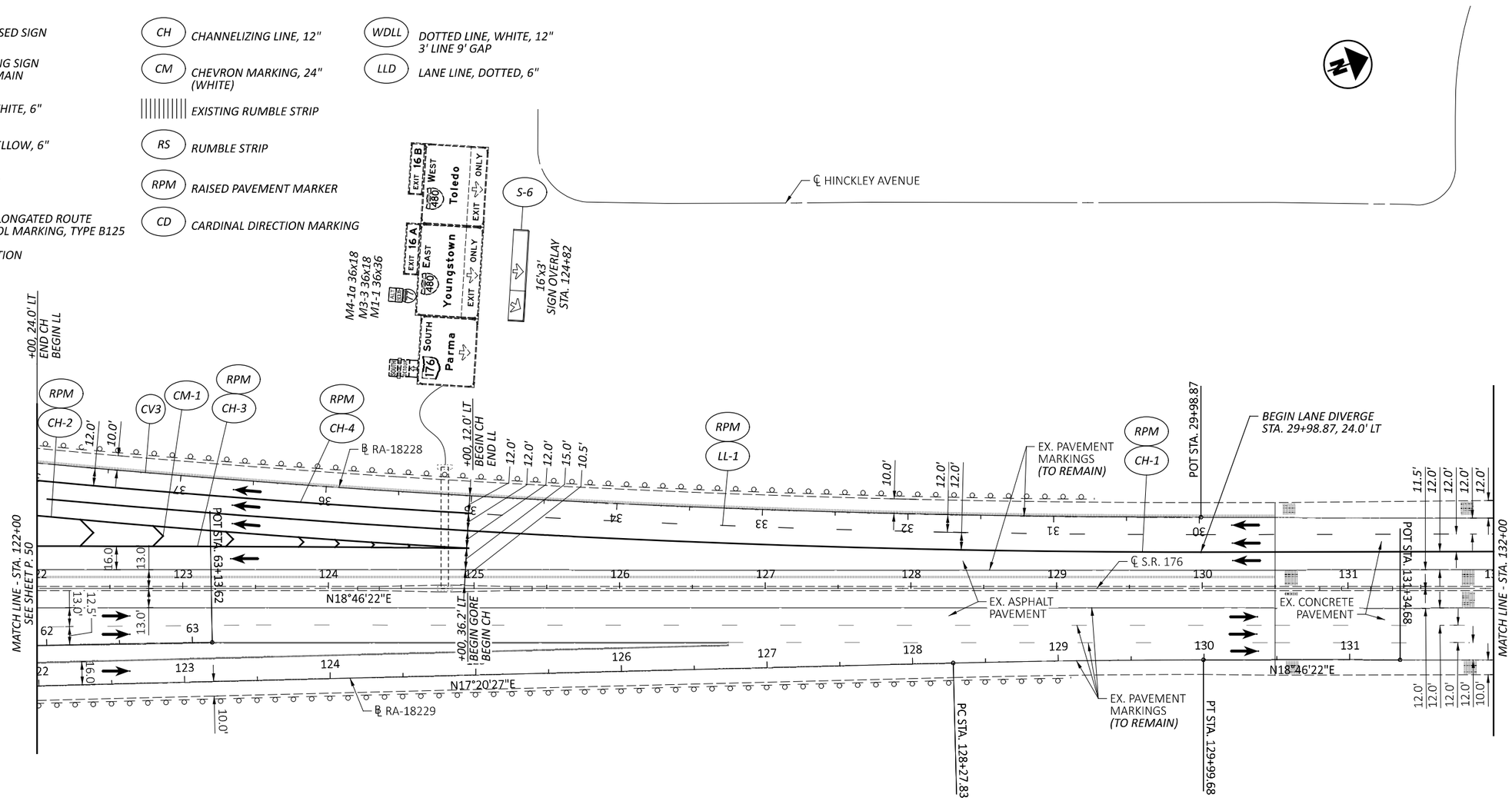
DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER SHT
REVIEWER CWP 10/07/25
PROJECT ID 120469
SHEET P.54 TOTAL 86

CUY-176-10.65

LEGEND

- (S) PROPOSED SIGN
- EXISTING SIGN TO REMAIN
- (EW) EDGE LINE, WHITE, 6"
- (EY) EDGE LINE, YELLOW, 6"
- (LL) LANE LINE, 6"
- (IS) INTERSTATE ELONGATED ROUTE SHIELD SYMBOL MARKING, TYPE B125
- TRAFFIC DIRECTION
- (CH) CHANNELIZING LINE, 12"
- (CM) CHEVRON MARKING, 24" (WHITE)
- EXISTING RUMBLE STRIP
- (RS) RUMBLE STRIP
- (RPM) RAISED PAVEMENT MARKER
- (CD) CARDINAL DIRECTION MARKING
- (WDLL) DOTTED LINE, WHITE, 12" 3' LINE 9' GAP
- (LLD) LANE LINE, DOTTED, 6"



CROSS REFERENCES		
SUBSUMMARIES	P.18	- P.29
REMOVAL SHEETS	P.30	- P.49
DETAIL PLANS	P.70	- P.79
DETAIL PLANS-CHANNELIZING LINES	P.80	- P.84

NOTES:

1. SHOULDER DIMENSIONS ARE FROM THE EDGE LINE TO THE BASE OF THE CONCRETE BARRIER OR EDGE OF SHOULDER/FACE OF CURB.
2. NORTH OF STA. 233+06, CL S.R. 176, THERE ARE TWO SEPARATE BASELINES. PARTIAL STATIONS IN THIS AREA ARE GIVEN FROM THE SB S.R. 176 OR NB S.R. 176 BASELINE. PARTIAL STATIONS FOR THE NORTHBOUND DIRECTION WILL APPEAR WITH A 'NB' AFTER THE PARTIAL STATION AND PARTIAL STATIONS FOR THE SOUTHBOUND DIRECTION WILL APPEAR WITH 'SB' AFTER THE PARTIAL STATION.
3. DASHED BALLOONS ARE REFERENCED ON A PREVIOUS SHEET.

(CV3) CURVE DATA
P.I. = STA. 34+41.90
Δ = 05°54'06" RT
Dc = 00°40'00"
R = 8,594.37'
T = 443.03'
L = 885.27'
E = 11.41'

TRAFFIC CONTROL PLAN - S.R. 176
STA. 122+00 TO STA. 132+00

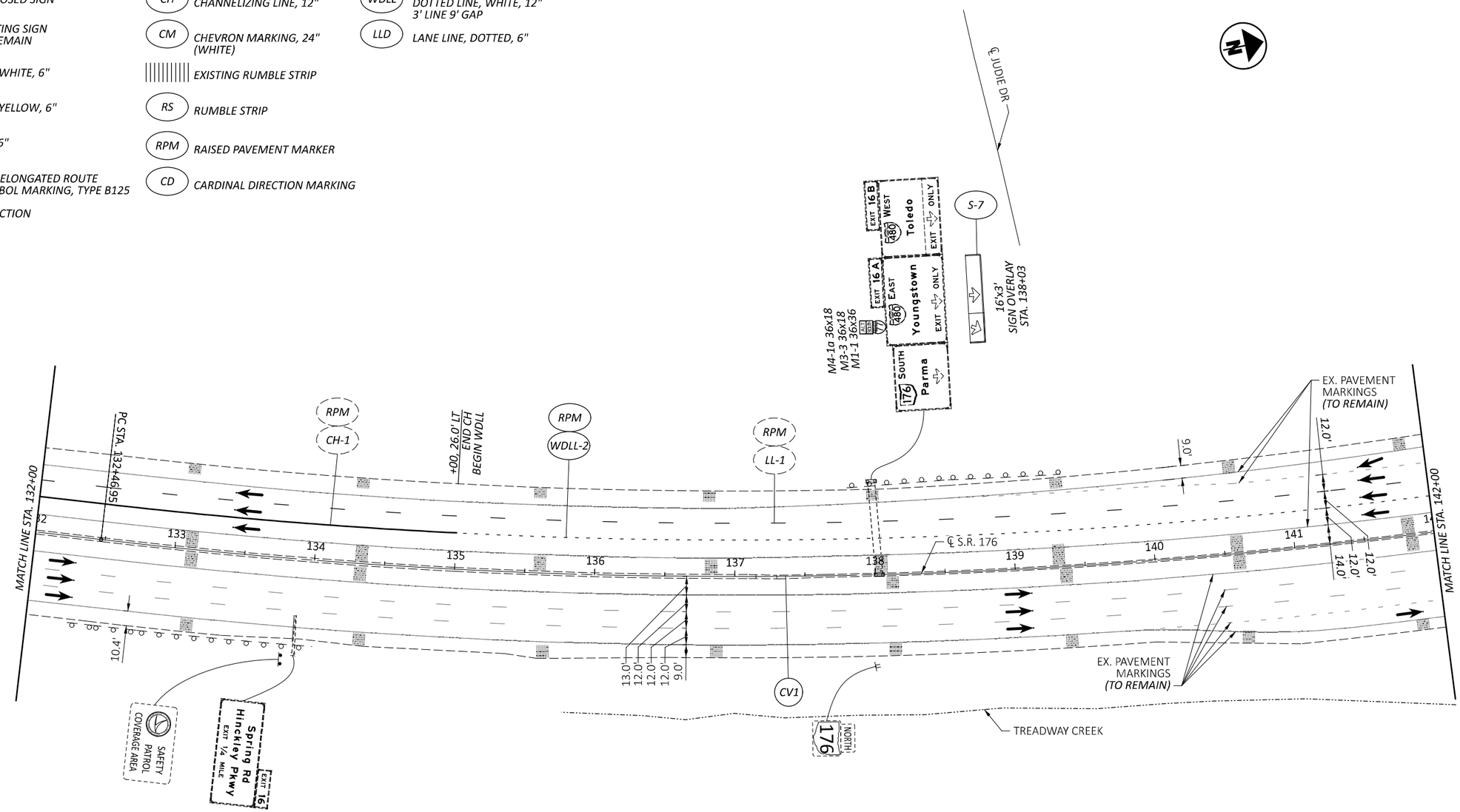
DESIGN AGENCY: CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER: SHT
REVIEWER: CWP 10/07/25
PROJECT ID: 120469
SHEET P.55 TOTAL 86

CUY-176-10.65

LEGEND

- (S) PROPOSED SIGN
- EXISTING SIGN TO REMAIN
- (EW) EDGE LINE, WHITE, 6"
- (EY) EDGE LINE, YELLOW, 6"
- (LL) LANE LINE, 6"
- (IS) INTERSTATE ELONGATED ROUTE SHIELD SYMBOL MARKING, TYPE B125
- TRAFFIC DIRECTION
- (CH) CHANNELIZING LINE, 12"
- (CM) CHEVRON MARKING, 24" (WHITE)
- EXISTING RUMBLE STRIP
- (RS) RUMBLE STRIP
- (RPM) RAISED PAVEMENT MARKER
- (CD) CARDINAL DIRECTION MARKING
- (WDLL) DOTTED LINE, WHITE, 12" 3' LINE 9' GAP
- (LLD) LANE LINE, DOTTED, 6"



CROSS REFERENCES		
SUBSUMMARIES	P.18	- P.29
REMOVAL SHEETS	P.30	- P.49
DETAIL PLANS	P.70	- P.79
DETAIL PLANS-CHANNELIZING LINES	P.80	- P.84

NOTES:

1. SHOULDER DIMENSIONS ARE FROM THE EDGE LINE TO THE BASE OF THE CONCRETE BARRIER OR EDGE OF SHOULDER/FACE OF CURB.
2. NORTH OF STA. 233+06, CL S.R. 176, THERE ARE TWO SEPARATE BASELINES. PARTIAL STATIONS IN THIS AREA ARE GIVEN FROM THE SB S.R. 176 OR NB S.R. 176 BASELINE. PARTIAL STATIONS FOR THE NORTHBOUND DIRECTION WILL APPEAR WITH A 'NB' AFTER THE PARTIAL STATION AND PARTIAL STATIONS FOR THE SOUTHBOUND DIRECTION WILL APPEAR WITH 'SB' AFTER THE PARTIAL STATION.
3. DASHED BALLOONS ARE REFERENCED ON A PREVIOUS SHEET.

(CV1) CURVE DATA
P.I. = STA. 142+62.24
Δ = 29°08'14" LT
Dc = 01°28'00"
R = 3,906.53'
T = 1,015.28'
L = 1,986.62'
E = 129.78'

TRAFFIC CONTROL PLAN - S.R. 176 STA. 132+00 TO STA. 142+00

DESIGN AGENCY: CHAGRIN VALLEY ENGINEERING, LTD.

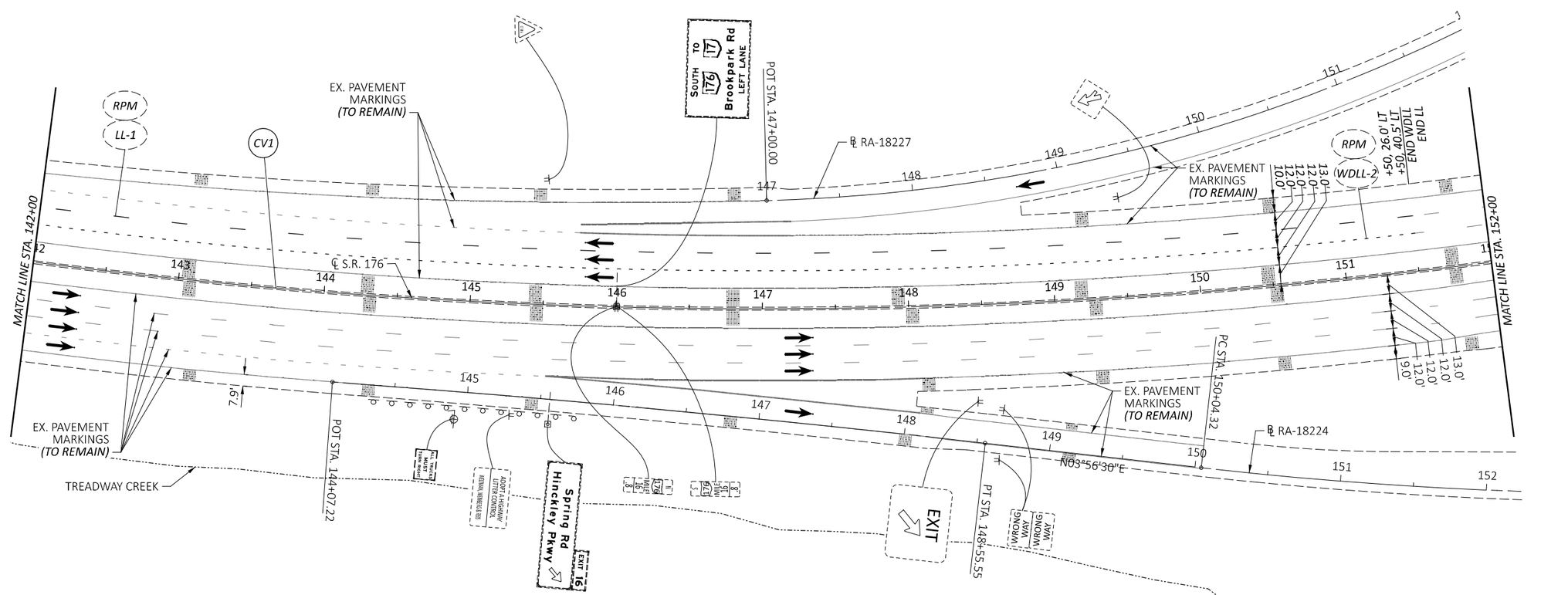
DESIGNER: SHT
REVIEWER: CWP 10/07/25
PROJECT ID: 120469
SHEET: P.56 TOTAL: 86

CUY-176-10.65

MODEL: Plan 7 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 10/7/2025 TIME: 8:31:16 AM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: thomas@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 120469 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\24156 ODOT D12-D3 GES FY2025-26\119814\Task 8 - CUY-176-10.65\120469\400-Engineering\Traffic\Sheets\120469_TP002.dgn

LEGEND

- (S) PROPOSED SIGN
- EXISTING SIGN TO REMAIN
- (EW) EDGE LINE, WHITE, 6"
- (EY) EDGE LINE, YELLOW, 6"
- (LL) LANE LINE, 6"
- (IS) INTERSTATE ELONGATED ROUTE SHIELD SYMBOL MARKING, TYPE B125
- TRAFFIC DIRECTION
- (CH) CHANNELIZING LINE, 12"
- (CM) CHEVRON MARKING, 24" (WHITE)
- EXISTING RUMBLE STRIP
- (RS) RUMBLE STRIP
- (RPM) RAISED PAVEMENT MARKER
- (CD) CARDINAL DIRECTION MARKING
- (WDLL) DOTTED LINE, WHITE, 12" 3' LINE 9' GAP
- (LLD) LANE LINE, DOTTED, 6"



CROSS REFERENCES		
SUBSUMMARIES	P.18	- P.29
REMOVAL SHEETS	P.30	- P.49
DETAIL PLANS	P.70	- P.79
DETAIL PLANS-CHANNELIZING LINES	P.80	- P.84

NOTES:

1. SHOULDER DIMENSIONS ARE FROM THE EDGE LINE TO THE BASE OF THE CONCRETE BARRIER OR EDGE OF SHOULDER/FACE OF CURB.
2. NORTH OF STA. 233+06, CL S.R. 176, THERE ARE TWO SEPARATE BASELINES. PARTIAL STATIONS IN THIS AREA ARE GIVEN FROM THE SB S.R. 176 OR NB S.R. 176 BASELINE. PARTIAL STATIONS FOR THE NORTHBOUND DIRECTION WILL APPEAR WITH A 'NB' AFTER THE PARTIAL STATION AND PARTIAL STATIONS FOR THE SOUTHBOUND DIRECTION WILL APPEAR WITH 'SB' AFTER THE PARTIAL STATION.
3. DASHED BALLOONS ARE REFERENCED ON A PREVIOUS SHEET.

(CV1) CURVE DATA
P.I. = STA. 142+62.24
Δ = 29°08'14" LT
Dc = 01°28'00"
R = 3,906.53'
T = 1,015.28'
L = 1,986.62'
E = 129.78'

HORIZONTAL SCALE IN FEET 0 20 40 80

TRAFFIC CONTROL PLAN - S.R. 176 STA. 142+00 TO STA. 152+00

DESIGN AGENCY: CHAGRIN VALLEY ENGINEERING, LTD.

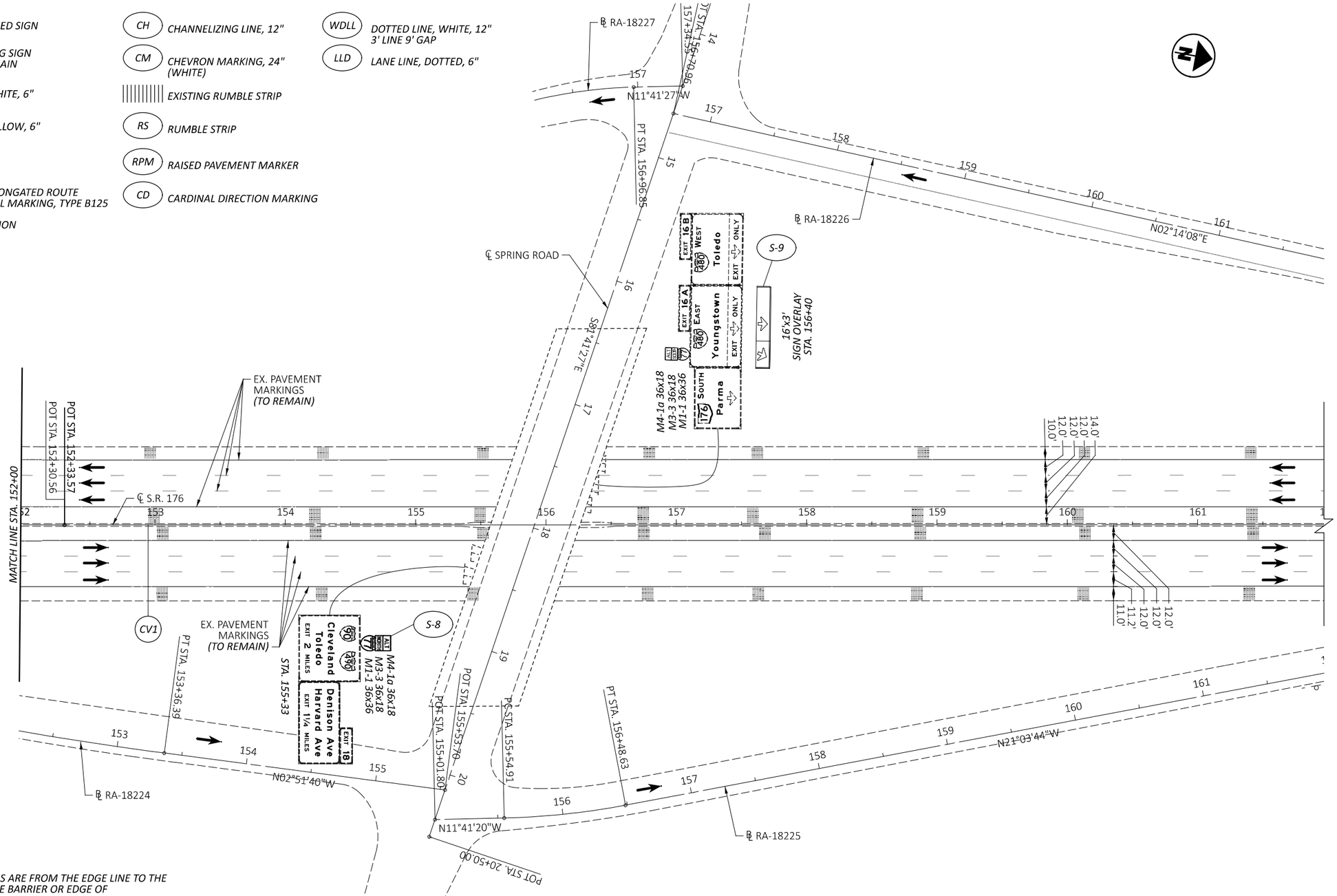
DESIGNER: SHT
REVIEWER: CWP 10/07/25
PROJECT ID: 120469
SHEET: P.57 TOTAL: 86

CUY-176-10.65

MODEL: Plan 8 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 10/7/2025 TIME: 8:31:20 AM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: thomas@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 120469 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\24156 ODOT D12-D3 GES FY2025-26\119814\Task 8 - CUY-176-10.65\120469\400-Engineering\Traffic\Sheets\120469_TP002.dgn

LEGEND

- (S) PROPOSED SIGN
- EXISTING SIGN TO REMAIN
- (EW) EDGE LINE, WHITE, 6"
- (EY) EDGE LINE, YELLOW, 6"
- (LL) LANE LINE, 6"
- (IS) INTERSTATE ELONGATED ROUTE SHIELD SYMBOL MARKING, TYPE B125
- TRAFFIC DIRECTION
- (CH) CHANNELIZING LINE, 12"
- (CM) CHEVRON MARKING, 24" (WHITE)
- EXISTING RUMBLE STRIP
- (RS) RUMBLE STRIP
- (RPM) RAISED PAVEMENT MARKER
- (CD) CARDINAL DIRECTION MARKING
- (WDLL) DOTTED LINE, WHITE, 12" 3' LINE 9' GAP
- (LLD) LANE LINE, DOTTED, 6"



CROSS REFERENCES		
SUBSUMMARIES	P.18	P.29
REMOVAL SHEETS	P.30	P.49
DETAIL PLANS	P.70	P.79
DETAIL PLANS-CHANNELIZING LINES	P.80	P.84

NOTES:

1. SHOULDER DIMENSIONS ARE FROM THE EDGE LINE TO THE BASE OF THE CONCRETE BARRIER OR EDGE OF SHOULDER/FACE OF CURB.
2. NORTH OF STA. 233+06, CL S.R. 176, THERE ARE TWO SEPARATE BASELINES. PARTIAL STATIONS IN THIS AREA ARE GIVEN FROM THE SB S.R. 176 OR NB S.R. 176 BASELINE. PARTIAL STATIONS FOR THE NORTHBOUND DIRECTION WILL APPEAR WITH A 'NB' AFTER THE PARTIAL STATION AND PARTIAL STATIONS FOR THE SOUTHBOUND DIRECTION WILL APPEAR WITH 'SB' AFTER THE PARTIAL STATION.
3. DASHED BALLOONS ARE REFERENCED ON A PREVIOUS SHEET.
4. EXISTING PAVEMENT MARKINGS TO REMAIN FROM STA. 162+00 TO STA. 189+00

(CV1) CURVE DATA
P.I. = STA. 142+62.24
Δ = 29°08'14" LT
Dc = 01°28'00"
R = 3,906.53'
T = 1,015.28'
L = 1,986.62'
E = 129.78'

HORIZONTAL SCALE IN FEET 0 20 40 80

TRAFFIC CONTROL PLAN - S.R. 176 STA. 152+00 TO STA. 162+00

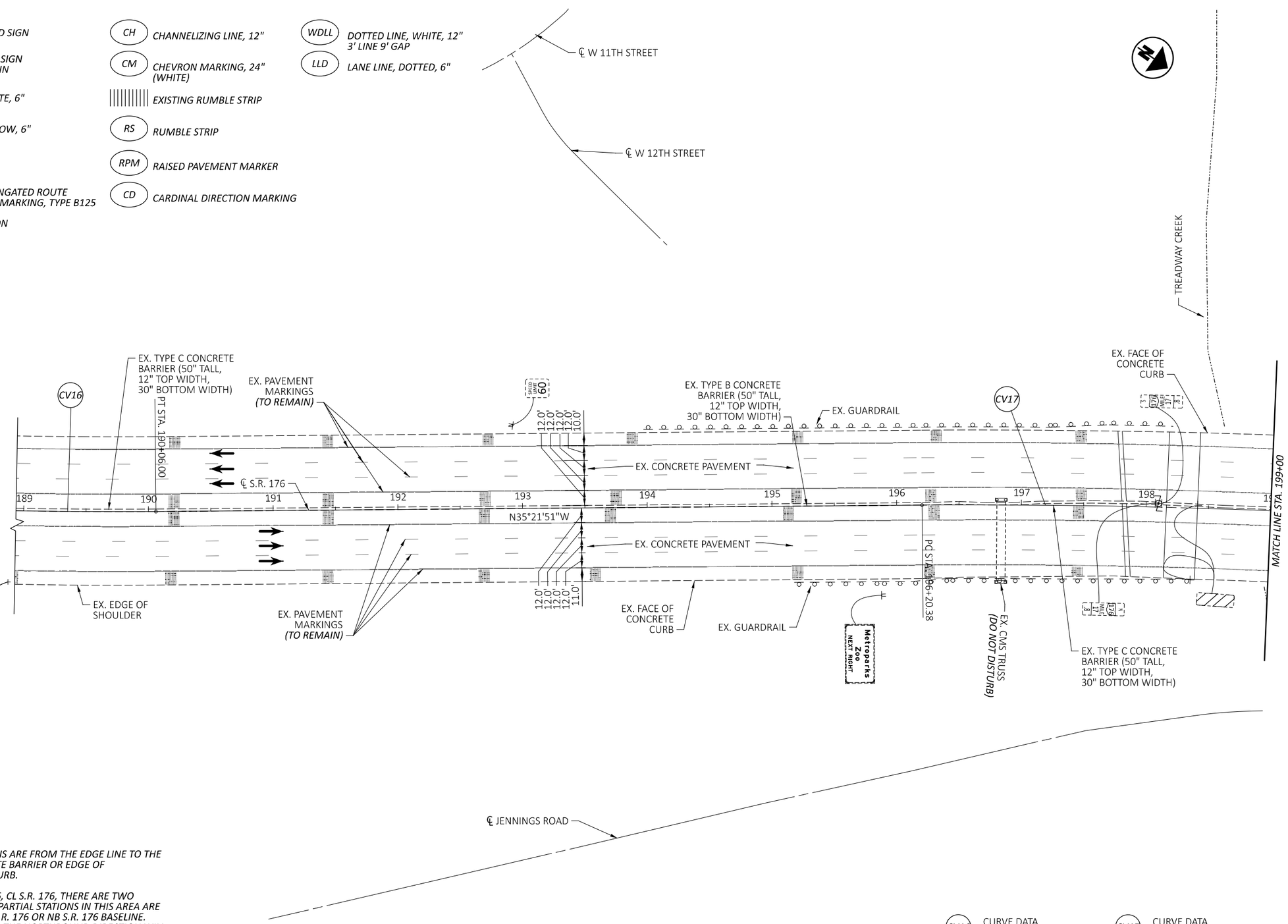
DESIGN AGENCY: CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER	SHT
REVIEWER	CWP 10/07/25
PROJECT ID	120469
SHEET	P.58
TOTAL	86

CUY-176-10.65

LEGEND

- S — PROPOSED SIGN
- EXISTING SIGN TO REMAIN
- EW — EDGE LINE, WHITE, 6"
- EY — EDGE LINE, YELLOW, 6"
- LL — LANE LINE, 6"
- IS — INTERSTATE ELONGATED ROUTE SHIELD SYMBOL MARKING, TYPE B125
- TRAFFIC DIRECTION
- CH — CHANNELIZING LINE, 12"
- CM — CHEVRON MARKING, 24" (WHITE)
- EXISTING RUMBLE STRIP
- RS — RUMBLE STRIP
- RPM — RAISED PAVEMENT MARKER
- CD — CARDINAL DIRECTION MARKING
- WDLL — DOTTED LINE, WHITE, 12" 3' LINE 9' GAP
- LLD — LANE LINE, DOTTED, 6"



CROSS REFERENCES		
SUBSUMMARIES	P.18 - P.29	
REMOVAL SHEETS	P.30 - P.49	
DETAIL PLANS	P.70 - P.79	
DETAIL PLANS-CHANNELIZING LINES	P.80 - P.84	

HORIZONTAL SCALE IN FEET: 0 20 40 80

TRAFFIC CONTROL PLAN - S.R. 176 STA. 189+00 TO STA. 199+00

NOTES:

1. SHOULDER DIMENSIONS ARE FROM THE EDGE LINE TO THE BASE OF THE CONCRETE BARRIER OR EDGE OF SHOULDER/FACE OF CURB.
2. NORTH OF STA. 233+06, CL S.R. 176, THERE ARE TWO SEPARATE BASELINES. PARTIAL STATIONS IN THIS AREA ARE GIVEN FROM THE SB S.R. 176 OR NB S.R. 176 BASELINE. PARTIAL STATIONS FOR THE NORTHBOUND DIRECTION WILL APPEAR WITH A 'NB' AFTER THE PARTIAL STATION AND PARTIAL STATIONS FOR THE SOUTHBOUND DIRECTION WILL APPEAR WITH 'SB' AFTER THE PARTIAL STATION.
3. DASHED BALLOONS ARE REFERENCED ON A PREVIOUS SHEET.
4. EXISTING PAVEMENT MARKINGS TO REMAIN FROM STA. 162+00 TO STA. 189+00

CV16 CURVE DATA
P.I. = STA. 181+67.52
Δ = 25°00'00" LT
Dc = 01°28'00"
R = 3,906.53'
T = 866.05'
L = 1,704.54'
E = 94.85'

CV17 CURVE DATA
P.I. = STA. 213+68.95
Δ = 34°28'30" RT
Dc = 01°01'00"
R = 5,635.65'
T = 1,748.56'
L = 3,390.98'
E = 265.03'

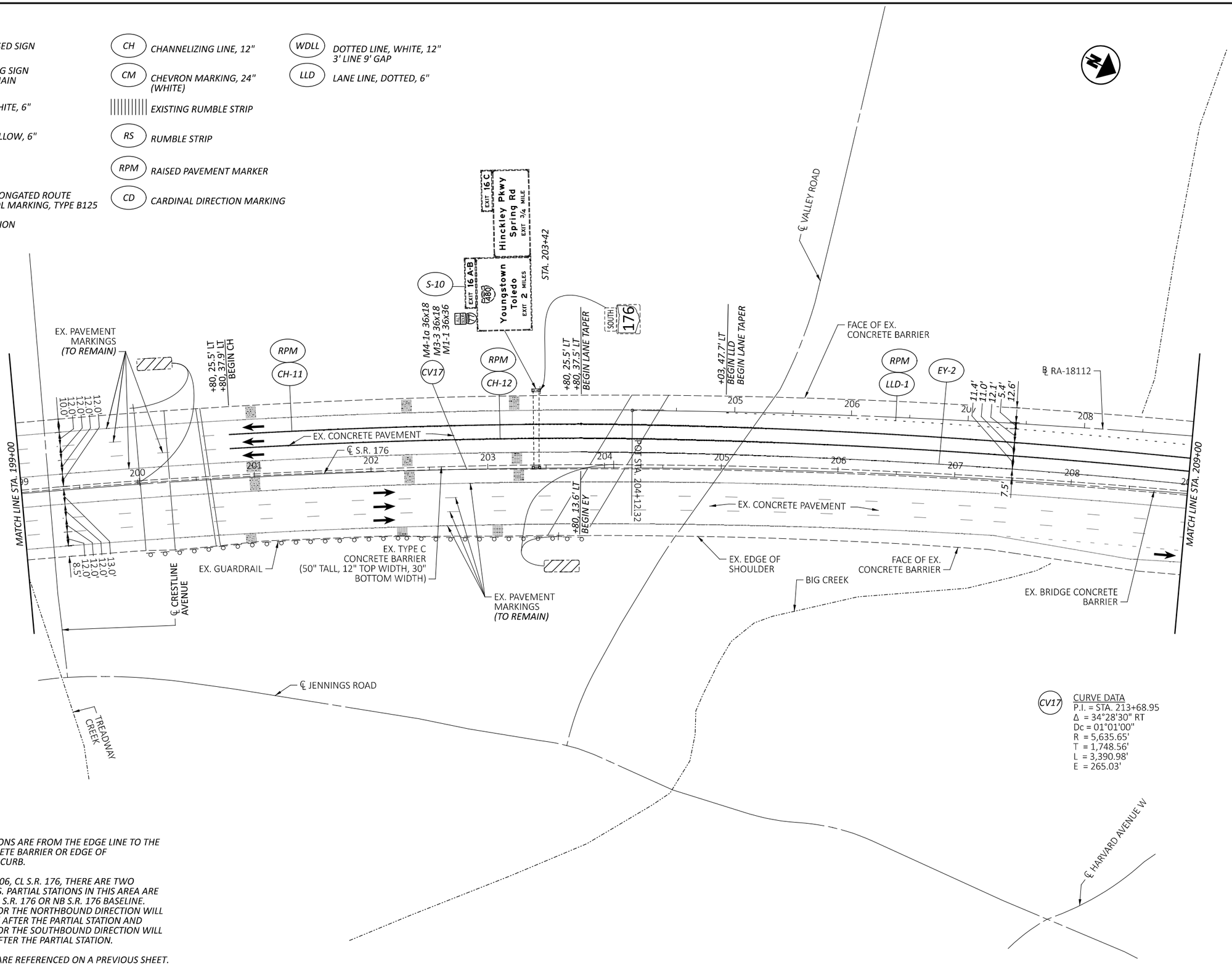
DESIGN AGENCY: CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER: SHT
REVIEWER: CWP 10/07/25
PROJECT ID: 120469
SHEET: P.59 TOTAL: 86

CUY-176-10.65

LEGEND

- S — PROPOSED SIGN
- EXISTING SIGN TO REMAIN
- EW — EDGE LINE, WHITE, 6"
- EY — EDGE LINE, YELLOW, 6"
- LL — LANE LINE, 6"
- IS — INTERSTATE ELONGATED ROUTE SHIELD SYMBOL MARKING, TYPE B125
- TRAFFIC DIRECTION
- CH — CHANNELIZING LINE, 12"
- CM — CHEVRON MARKING, 24" (WHITE)
- EXISTING RUMBLE STRIP
- RS — RUMBLE STRIP
- RPM — RAISED PAVEMENT MARKER
- CD — CARDINAL DIRECTION MARKING
- WDLL — DOTTED LINE, WHITE, 12" 3' LINE 9' GAP
- LLD — LANE LINE, DOTTED, 6"



CROSS REFERENCES		
SUBSUMMARIES	P.18 - P.29	
REMOVAL SHEETS	P.30 - P.49	
DETAIL PLANS	P.70 - P.79	
DETAIL PLANS-CHANNELIZING LINES	P.80 - P.84	

NOTES:

1. SHOULDER DIMENSIONS ARE FROM THE EDGE LINE TO THE BASE OF THE CONCRETE BARRIER OR EDGE OF SHOULDER/FACE OF CURB.
2. NORTH OF STA. 233+06, CL S.R. 176, THERE ARE TWO SEPARATE BASELINES. PARTIAL STATIONS IN THIS AREA ARE GIVEN FROM THE SB S.R. 176 OR NB S.R. 176 BASELINE. PARTIAL STATIONS FOR THE NORTHBOUND DIRECTION WILL APPEAR WITH A 'NB' AFTER THE PARTIAL STATION AND PARTIAL STATIONS FOR THE SOUTHBOUND DIRECTION WILL APPEAR WITH 'SB' AFTER THE PARTIAL STATION.
3. DASHED BALLOONS ARE REFERENCED ON A PREVIOUS SHEET.

HORIZONTAL SCALE IN FEET 0 20 40 80

TRAFFIC CONTROL PLAN - S.R. 176 STA. 199+00 TO STA. 209+00

DESIGN AGENCY: CHAGRIN VALLEY ENGINEERING, LTD.

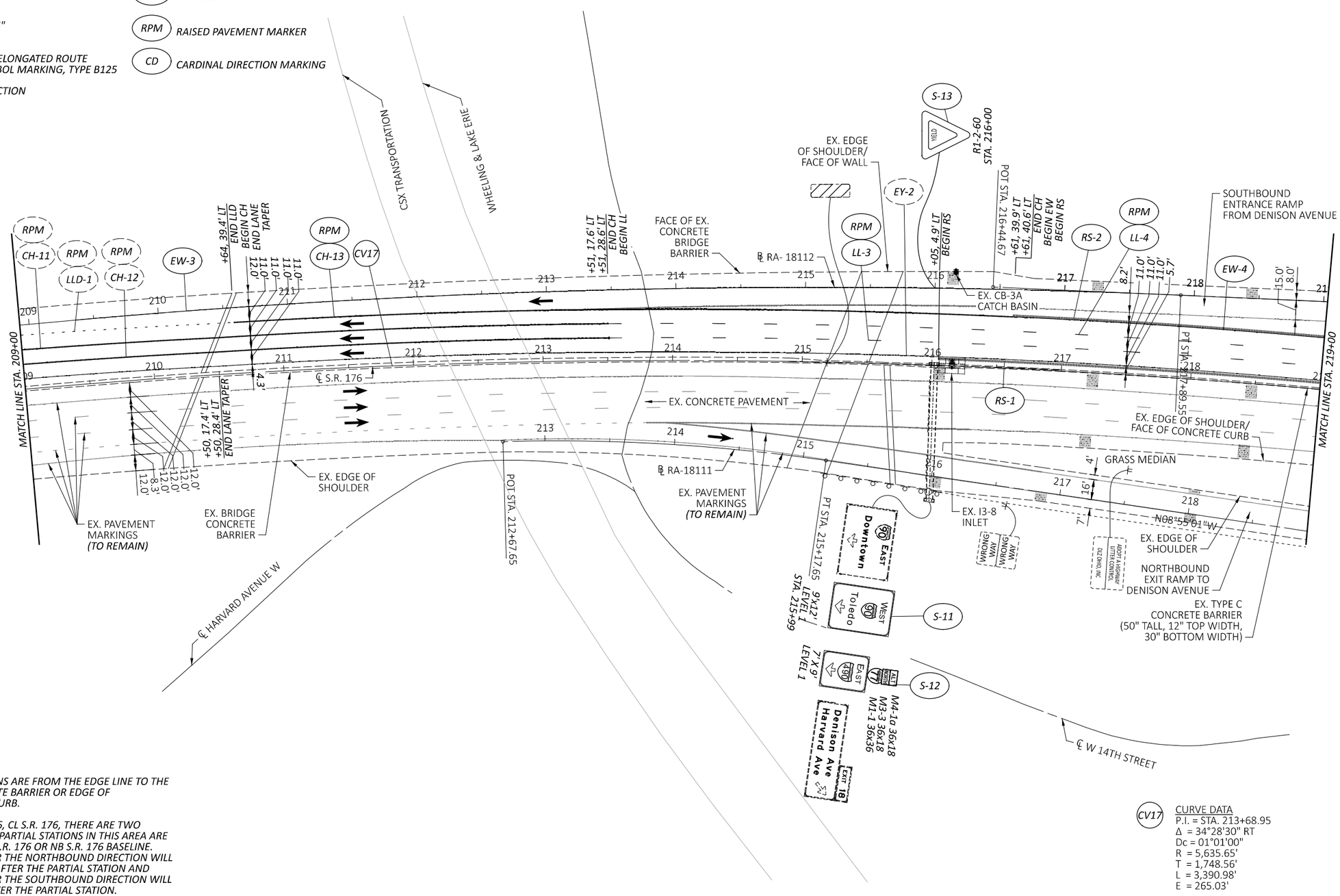
DESIGNER: SHT
REVIEWER: CWP 10/07/25
PROJECT ID: 120469
SHEET: P.60 TOTAL: 86

CUY-176-10.65

LEGEND

- S — PROPOSED SIGN
- EXISTING SIGN TO REMAIN
- EW — EDGE LINE, WHITE, 6"
- EY — EDGE LINE, YELLOW, 6"
- LL — LANE LINE, 6"
- IS — INTERSTATE ELONGATED ROUTE SHIELD SYMBOL MARKING, TYPE B125
- TRAFFIC DIRECTION
- CH — CHANNELIZING LINE, 12"
- CM — CHEVRON MARKING, 24" (WHITE)
- EXISTING RUMBLE STRIP
- RS — RUMBLE STRIP
- RPM — RAISED PAVEMENT MARKER
- CD — CARDINAL DIRECTION MARKING
- WDLL — DOTTED LINE, WHITE, 12" 3' LINE 9' GAP
- LLD — LANE LINE, DOTTED, 6"

HORIZONTAL SCALE IN FEET 0 20 40 80



CROSS REFERENCES		
SUBSUMMARIES	P.18	- P.29
REMOVAL SHEETS	P.30	- P.49
DETAIL PLANS	P.70	- P.79
DETAIL PLANS-CHANNELIZING LINES	P.80	- P.84

NOTES:

1. SHOULDER DIMENSIONS ARE FROM THE EDGE LINE TO THE BASE OF THE CONCRETE BARRIER OR EDGE OF SHOULDER/FACE OF CURB.
2. NORTH OF STA. 233+06, CL S.R. 176, THERE ARE TWO SEPARATE BASELINES. PARTIAL STATIONS IN THIS AREA ARE GIVEN FROM THE SB S.R. 176 OR NB S.R. 176 BASELINE. PARTIAL STATIONS FOR THE NORTHBOUND DIRECTION WILL APPEAR WITH A 'NB' AFTER THE PARTIAL STATION AND PARTIAL STATIONS FOR THE SOUTHBOUND DIRECTION WILL APPEAR WITH 'SB' AFTER THE PARTIAL STATION.
3. DASHED BALLOONS ARE REFERENCED ON A PREVIOUS SHEET.

CV17 CURVE DATA
P.I. = STA. 213+68.95
Δ = 34°28'30" RT
Dc = 01°01'00"
R = 5,635.65'
T = 1,748.56'
L = 3,390.98'
E = 265.03'

TRAFFIC CONTROL PLAN - S.R. 176 STA. 209+00 TO STA. 219+00

DESIGN AGENCY: CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER: SHT
REVIEWER: CWP 10/07/25
PROJECT ID: 120469
SHEET: P.61 TOTAL: 86

CUY-176-10.65

MODEL: Plan 12 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 10/7/2025 TIME: 8:31:38 AM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: thomas@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 120469 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\24156 ODOT D12-D3 GES FY2025-26\119814\Task 8 - CUY-176-10.65\120469\400-Engineering\Traffic\Sheets\120469_TP002.dgn

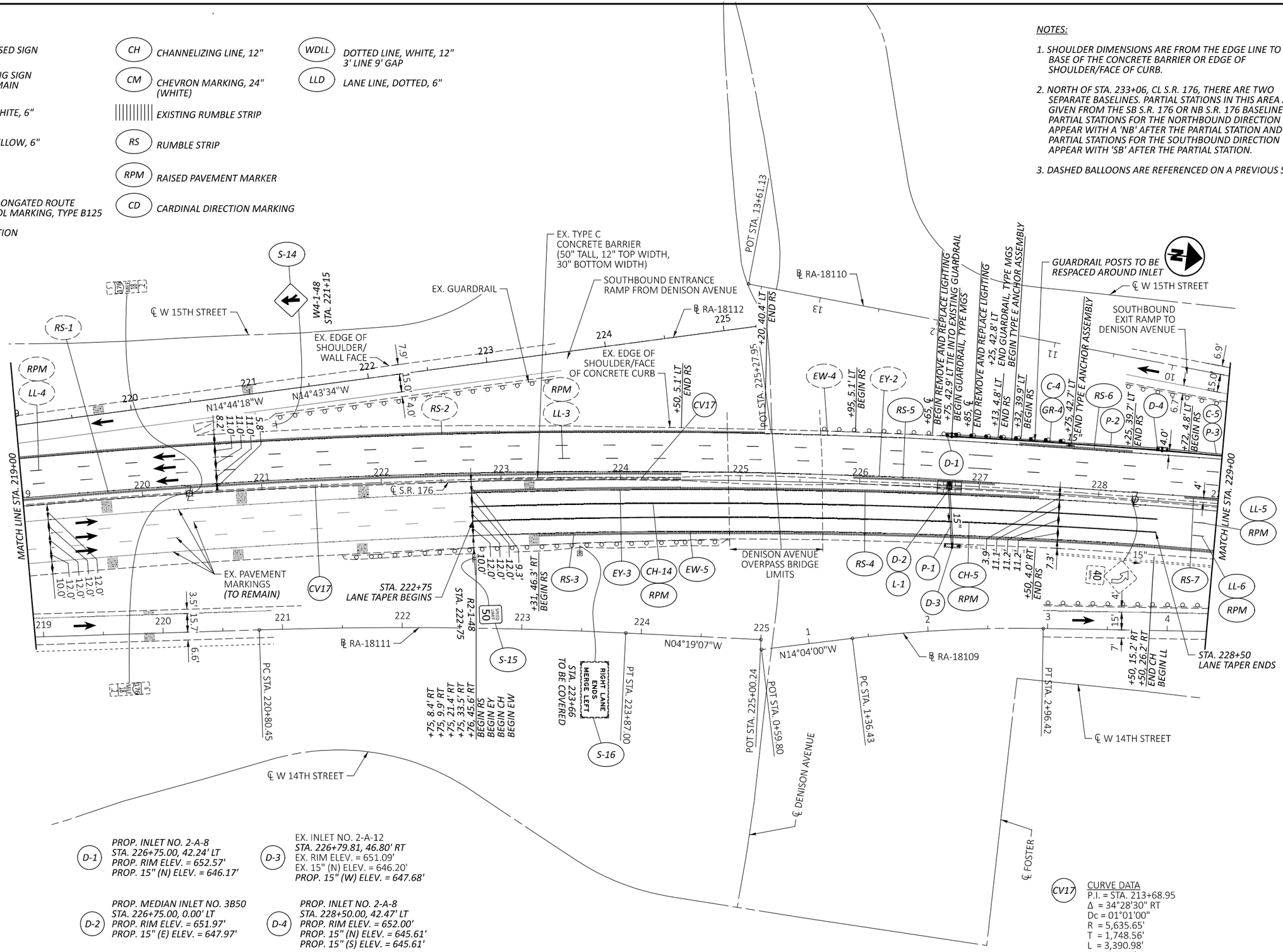
LEGEND

- S — PROPOSED SIGN
- EXISTING SIGN TO REMAIN
- EW — EDGE LINE, WHITE, 6"
- EY — EDGE LINE, YELLOW, 6"
- LL — LANE LINE, 6"
- IS — INTERSTATE ELONGATED ROUTE SHIELD SYMBOL MARKING, TYPE B125
- TRAFFIC DIRECTION
- CH — CHANNELIZING LINE, 12"
- CM — CHEVRON MARKING, 24" (WHITE)
- EXISTING RUMBLE STRIP
- RS — RUMBLE STRIP
- RPM — RAISED PAVEMENT MARKER
- CD — CARDINAL DIRECTION MARKING
- WDLL — DOTTED LINE, WHITE, 12" 3' LINE 9' GAP
- LLD — LANE LINE, DOTTED, 6"

NOTES:

1. SHOULDER DIMENSIONS ARE FROM THE EDGE LINE TO THE BASE OF THE CONCRETE BARRIER OR EDGE OF SHOULDER/FACE OF CURB.
2. NORTH OF STA. 233+06, CL S.R. 176, THERE ARE TWO SEPARATE BASELINES. PARTIAL STATIONS IN THIS AREA ARE GIVEN FROM THE SB S.R. 176 OR NB S.R. 176 BASELINE. PARTIAL STATIONS FOR THE NORTHBOUND DIRECTION WILL APPEAR WITH A 'NB' AFTER THE PARTIAL STATION AND PARTIAL STATIONS FOR THE SOUTHBOUND DIRECTION WILL APPEAR WITH 'SB' AFTER THE PARTIAL STATION.
3. DASHED BALLOONS ARE REFERENCED ON A PREVIOUS SHEET.

HORIZONTAL SCALE IN FEET 0 20 40 80



D-1 PROP. INLET NO. 2-A-8
STA. 226+75.00, 42.24' LT
PROP. RIM ELEV. = 652.57'
PROP. 15" (N) ELEV. = 646.17'

D-3 EX. INLET NO. 2-A-12
STA. 226+79.81, 46.80' RT
EX. RIM ELEV. = 651.09'
EX. 15" (N) ELEV. = 646.20'
PROP. 15" (W) ELEV. = 647.68'

D-2 PROP. MEDIAN INLET NO. 3B50
STA. 226+75.00, 0.00' LT
PROP. RIM ELEV. = 651.97'
PROP. 15" (E) ELEV. = 647.97'

D-4 PROP. INLET NO. 2-A-8
STA. 228+50.00, 42.47' LT
PROP. RIM ELEV. = 652.00'
PROP. 15" (N) ELEV. = 645.61'
PROP. 15" (S) ELEV. = 645.61'

CV17 CURVE DATA
P.I. = STA. 213+68.95
Δ = 34°28'30" RT
Dc = 01°01'00"
R = 5,635.65'
T = 1,748.56'
L = 3,390.98'
E = 265.03'

CROSS REFERENCES		
SUBSUMMARIES	P.18 - P.29	
REMOVAL SHEETS	P.30 - P.49	
DETAIL PLANS	P.70 - P.79	
DETAIL PLANS-CHANNELIZING LINES	P.80 - P.84	

TRAFFIC CONTROL PLAN - S.R. 176
STA. 219+00 TO STA. 229+00

DESIGN AGENCY: CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER: SHT

REVIEWER: CWP 10/07/25

PROJECT ID: 120469

SHEET P.62 TOTAL 86

CUY-176-10.65

MODEL: Plan 13 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 10/7/2025 TIME: 8:31:42 AM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: thomas@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 120469 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\24156 ODOT D12-D3 GES FY2025-26\119814\Task 8 - CUY-176-10.65\120469\400-Engineering\Traffic\Sheets\120469_TP002.dgn

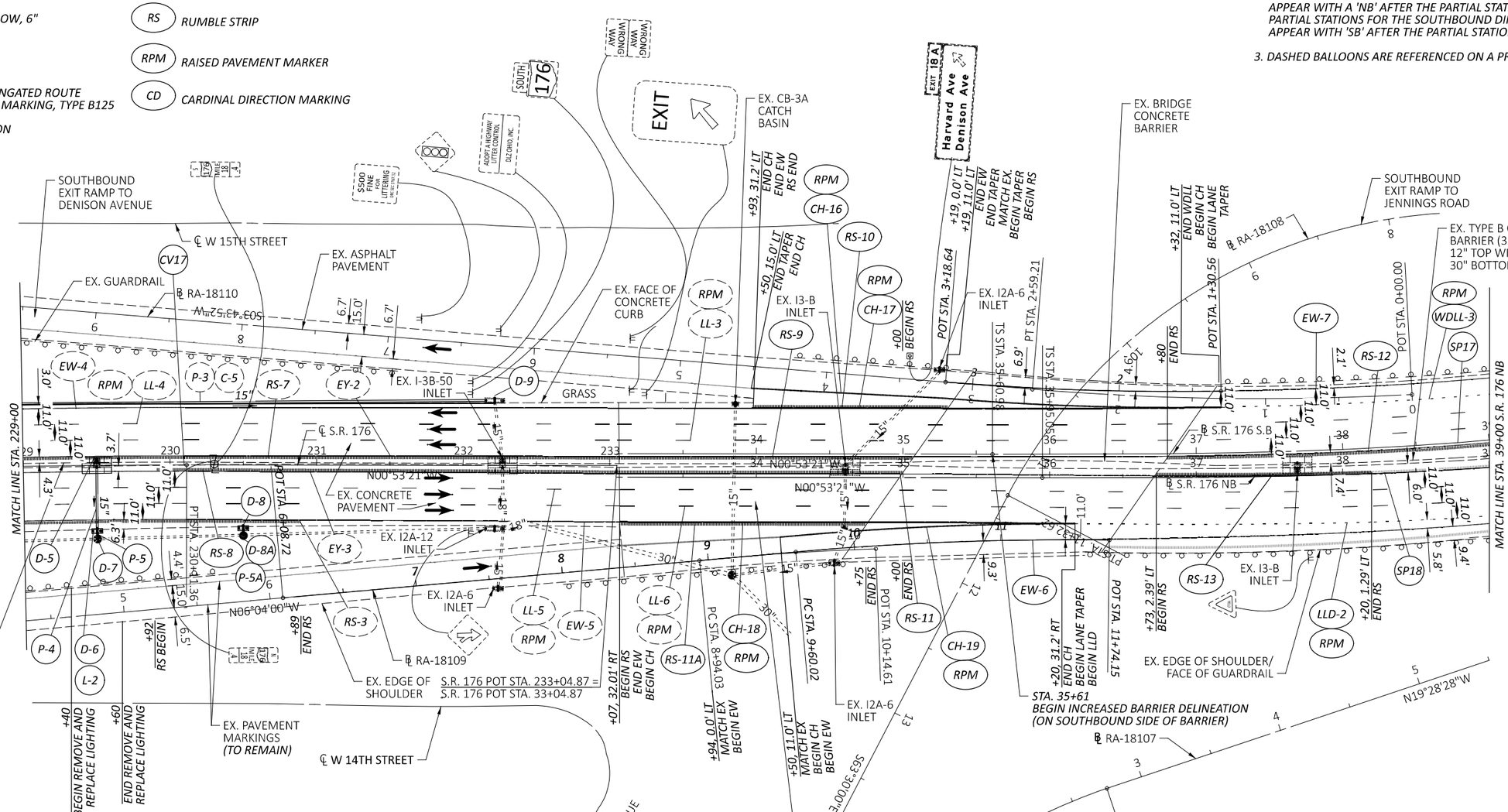
LEGEND

- S — PROPOSED SIGN
- EXISTING SIGN TO REMAIN
- EW — EDGE LINE, WHITE, 6"
- EY — EDGE LINE, YELLOW, 6"
- LL — LANE LINE, 6"
- IS — INTERSTATE ELONGATED ROUTE SHIELD SYMBOL MARKING, TYPE B125
- TRAFFIC DIRECTION
- CH — CHANNELIZING LINE, 12"
- CM — CHEVRON MARKING, 24" (WHITE)
- EXISTING RUMBLE STRIP
- RS — RUMBLE STRIP
- RPM — RAISED PAVEMENT MARKER
- CD — CARDINAL DIRECTION MARKING
- WDLL — DOTTED LINE, WHITE, 12" 3' LINE 9' GAP
- LLD — LANE LINE, DOTTED, 6"

NOTES:

1. SHOULDER DIMENSIONS ARE FROM THE EDGE LINE TO THE BASE OF THE CONCRETE BARRIER OR EDGE OF SHOULDER/FACE OF CURB.
2. NORTH OF STA. 233+06, CL S.R. 176, THERE ARE TWO SEPARATE BASELINES. PARTIAL STATIONS IN THIS AREA ARE GIVEN FROM THE SB S.R. 176 OR NB S.R. 176 BASELINE. PARTIAL STATIONS FOR THE NORTHBOUND DIRECTION WILL APPEAR WITH A 'NB' AFTER THE PARTIAL STATION AND PARTIAL STATIONS FOR THE SOUTHBOUND DIRECTION WILL APPEAR WITH 'SB' AFTER THE PARTIAL STATION.
3. DASHED BALLOONS ARE REFERENCED ON A PREVIOUS SHEET.

HORIZONTAL SCALE IN FEET 0 20 40 80



CROSS REFERENCES				
SUBSUMMARIES	P.18	-	P.29	
REMOVAL SHEETS	P.30	-	P.49	
DETAIL PLANS	P.70	-	P.79	
DETAIL PLANS-CHANNELIZING LINES	P.80	-	P.84	

D-5 PROP. INLET I-3B-50
STA. 229+50, 4.00' LT
PROP. RIM ELEV. = 651.05'
PROP. 15" (E) ELEV. = 647.05'

D-6 PROP. INLET I-2A-6
STA. 229+50, 43.73' RT
PROP. RIM ELEV. = 650.20'
PROP. 15" (E) ELEV. = 646.79'
PROP. 15" (W) ELEV. = 646.79'

D-7 EX. MH
STA. 229+50, 50.24' RT
EX. 15" (S) ELEV. = 646.71'
EX. 15" (N) ELEV. = 646.71'
PROP. 15" (W) ELEV. = 646.71'

D-8 PROP. INLET I-2A-6
STA. 230+50, 41.96' RT
PROP. RIM ELEV. = 650.27'
PROP. 15" (E) ELEV. = 646.85'

D-8A PROP. MH-3
STA. 230+50, 48.33' RT
PROP. RIM ELEV. = 651.27'
PROP. 15" (W) ELEV. = 646.88'
EX. 15" (S) ELEV. = 646.88'
EX. 15" (N) ELEV. = 646.88'

D-9 EX. INLET I-2A-12
STA. 232+21.45, 43.18 ' LT
EX. RIM ELEV. = 650.39'
PROP. 15" (S) ELEV. = 644.00'
EX. 15" (E) ELEV. = 644.00'

CV17 CURVE DATA
P.I. = STA. 213+68.95
Δ = 34°28'30" RT
Dc = 01°01'00"
R = 5,635.65'
T = 1,748.56'
L = 3,390.98'
E = 265.03'

SP17 SPIRAL DATA
P.I. = STA. 38+61.37
Ls = 450.00'
Θs = 09°00'00"
LT = 300.39'
ST = 150.35'
x = 448.89'
y = 23.52'
k = 224.82'
p = 5.89'
C = 449.51'
Start = Sta. 35+60.98
End = Sta. 40+10.98
C.B. = N03°53'19"W

SP18 SPIRAL DATA
P.I. = STA. 38+95.43
Ls = 450.00'
Θs = 09°00'00"
LT = 300.39'
ST = 150.35'
x = 448.89'
y = 23.52'
k = 224.82'
p = 5.89'
C = 449.51'
Start = Sta. 35+95.05
End = Sta. 40+45.05
C.B. = N03°53'19"W

TRAFFIC CONTROL PLAN - S.R. 176
S.R. 176 STA. 229+00 TO S.R. 176 NB STA. 39+00

DESIGN AGENCY: CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER	SHT
REVIEWER	CWP 10/07/25
PROJECT ID	120469
SHEET	P.63
TOTAL	86

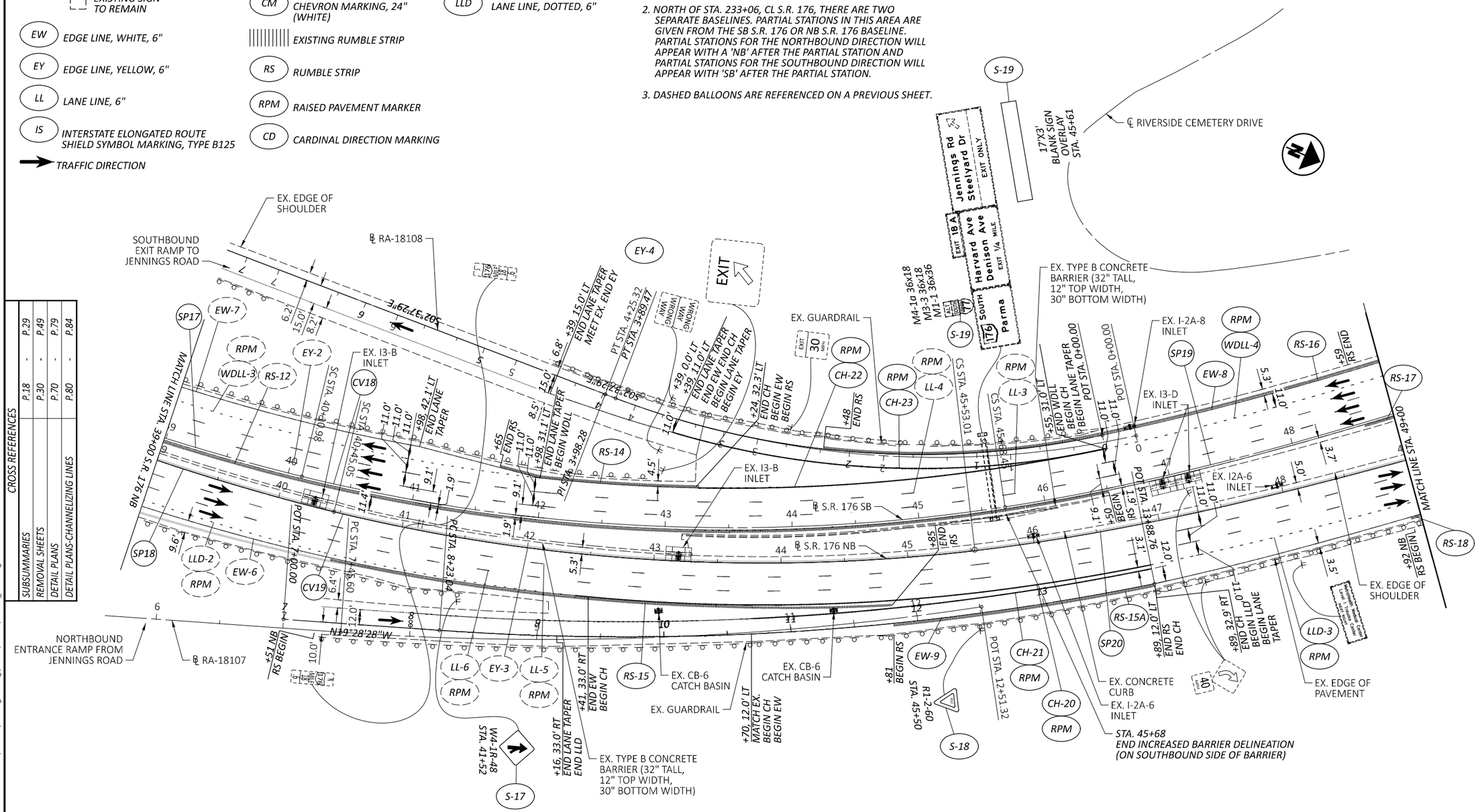
CUY-176-10.65

LEGEND

- (S) PROPOSED SIGN
- EXISTING SIGN TO REMAIN
- (EW) EDGE LINE, WHITE, 6"
- (EY) EDGE LINE, YELLOW, 6"
- (LL) LANE LINE, 6"
- (IS) INTERSTATE ELONGATED ROUTE SHIELD SYMBOL MARKING, TYPE B125
- TRAFFIC DIRECTION
- (CH) CHANNELIZING LINE, 12"
- (CM) CHEVRON MARKING, 24" (WHITE)
- EXISTING RUMBLE STRIP
- (RS) RUMBLE STRIP
- (RPM) RAISED PAVEMENT MARKER
- (CD) CARDINAL DIRECTION MARKING
- (WDLL) DOTTED LINE, WHITE, 12" 3' LINE 9' GAP
- (LLD) LANE LINE, DOTTED, 6"

NOTES:

1. SHOULDER DIMENSIONS ARE FROM THE EDGE LINE TO THE BASE OF THE CONCRETE BARRIER OR EDGE OF SHOULDER/FACE OF CURB.
2. NORTH OF STA. 233+06, CL S.R. 176, THERE ARE TWO SEPARATE BASELINES. PARTIAL STATIONS IN THIS AREA ARE GIVEN FROM THE SB S.R. 176 OR NB S.R. 176 BASELINE. PARTIAL STATIONS FOR THE NORTHBOUND DIRECTION WILL APPEAR WITH A 'NB' AFTER THE PARTIAL STATION AND PARTIAL STATIONS FOR THE SOUTHBOUND DIRECTION WILL APPEAR WITH 'SB' AFTER THE PARTIAL STATION.
3. DASHED BALLOONS ARE REFERENCED ON A PREVIOUS SHEET.



CROSS REFERENCES		
SUBSUMMARIES	P.18 - P.29	
REMOVAL SHEETS	P.30 - P.49	
DETAIL PLANS	P.70 - P.79	
DETAIL PLANS-CHANNELIZING LINES	P.80 - P.84	

(CV18) CURVE DATA
P.I. = STA. 42+93.29
Δ = 22°17'56" LT
Dc = 04°00'00"
R = 1,432.39'
T = 282.31'
L = 557.47'
E = 27.55'

(CV19) CURVE DATA
P.I. = STA. 43+01.73
Δ = 20°19'08" LT
Dc = 04°00'00"
R = 1,432.39'
T = 256.68'
L = 507.97'
E = 22.82'

(SP17) SPIRAL DATA
P.I. = STA. 38+61.37
Ls = 450.00'
Θs = 09°00'00"
LT = 300.39'
ST = 150.35'
x = 448.89'
y = 23.52'
k = 224.82'
p = 5.89'
C = 449.51'
Start = Sta. 35+60.98
End = Sta. 40+10.98
C.B. = N03°53'19"W

(SP18) SPIRAL DATA
P.I. = STA. 38+95.43
Ls = 450.00'
Θs = 09°00'00"
LT = 300.39'
ST = 150.35'
x = 448.89'
y = 23.52'
k = 224.82'
p = 5.89'
C = 449.51'
Start = Sta. 35+95.05
End = Sta. 40+45.05
C.B. = N03°53'19"W

(SP19) SPIRAL DATA
P.I. = STA. 47+18.80
Ls = 450.00'
Θs = 09°00'00"
LT = 300.39'
ST = 150.35'
x = 447.04'
y = 46.99'
k = 224.82'
p = 5.89'
C = 449.51'
Start = Sta. 45+68.45
End = Sta. 50+18.45
C.B. = N38°11'19"W

(SP20) SPIRAL DATA
P.I. = STA. 47+03.37
Ls = 450.00'
Θs = 09°00'00"
LT = 300.39'
ST = 150.35'
x = 447.04'
y = 46.99'
k = 224.82'
p = 5.89'
C = 449.51'
Start = Sta. 45+53.01
End = Sta. 50+03.01
C.B. = N36°12'31"W

HORIZONTAL SCALE IN FEET 0 20 40 80

TRAFFIC CONTROL PLAN - S.R. 176
S.R. 176 NB - STA. 39+00 TO STA. 49+00

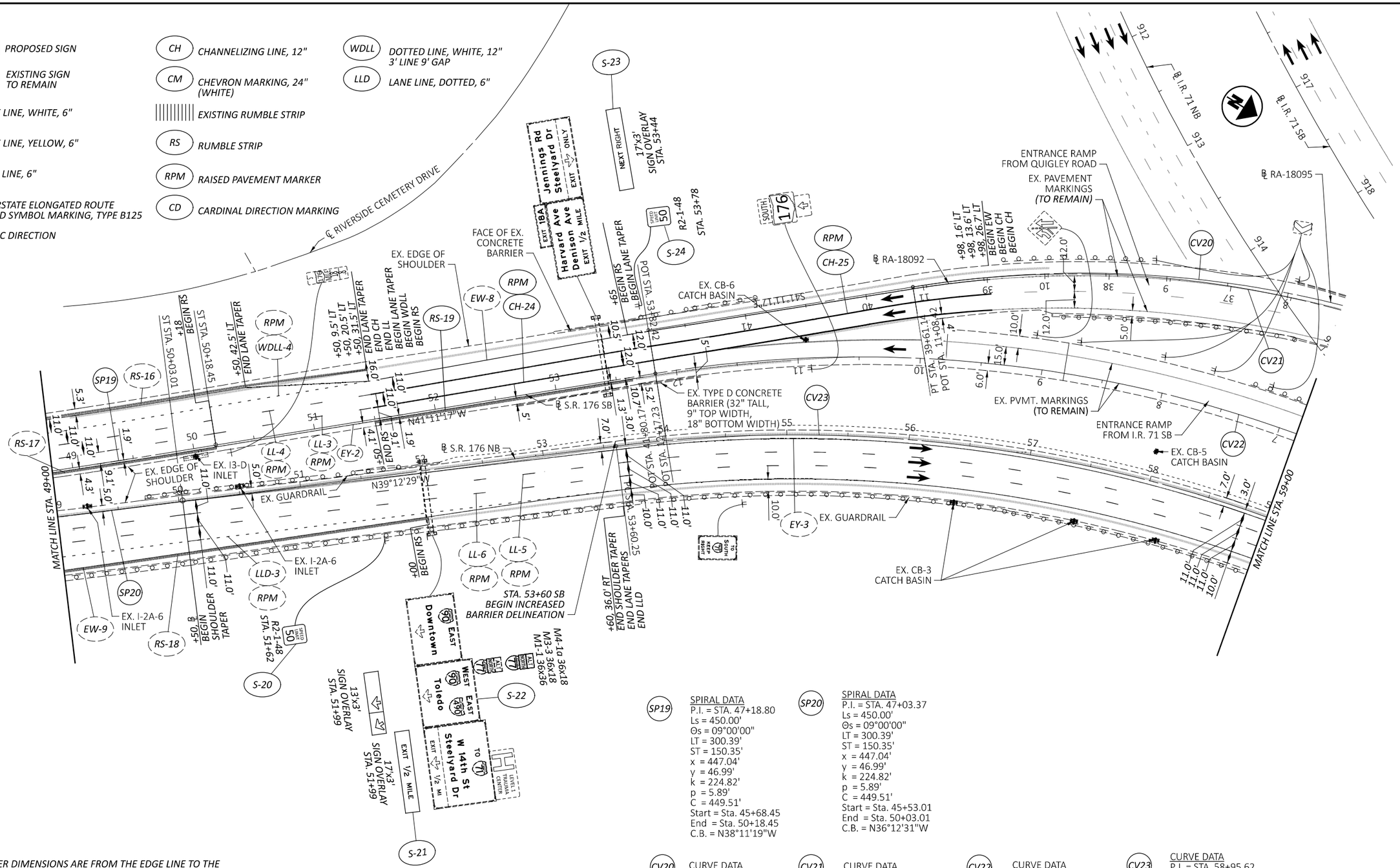
DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER	SHT
REVIEWER	CWP 10/07/25
PROJECT ID	120469
SHEET	P.64
TOTAL	86

CUY-176-10.65

LEGEND

- S — PROPOSED SIGN
- EXISTING SIGN TO REMAIN
- EW — EDGE LINE, WHITE, 6"
- EY — EDGE LINE, YELLOW, 6"
- LL — LANE LINE, 6"
- IS — INTERSTATE ELONGATED ROUTE SHIELD SYMBOL MARKING, TYPE B125
- TRAFFIC DIRECTION
- CH — CHANNELIZING LINE, 12"
- CM — CHEVRON MARKING, 24" (WHITE)
- EXISTING RUMBLE STRIP
- RS — RUMBLE STRIP
- RPM — RAISED PAVEMENT MARKER
- CD — CARDINAL DIRECTION MARKING
- WDLL — DOTTED LINE, WHITE, 12" 3' LINE 9' GAP
- LLD — LANE LINE, DOTTED, 6"



HORIZONTAL SCALE IN FEET 0 20 40 80

CROSS REFERENCES			
SUBSUMMARIES	P.18	-	P.29
REMOVAL SHEETS	P.30	-	P.49
DETAIL PLANS	P.70	-	P.79
DETAIL PLANS-CHANNELIZING LINES	P.80	-	P.84

SP19 SPIRAL DATA
P.I. = STA. 47+18.80
Ls = 450.00'
Θs = 09°00'00"
LT = 300.39'
ST = 150.35'
x = 447.04'
y = 46.99'
k = 224.82'
p = 5.89'
C = 449.51'
Start = Sta. 45+68.45
End = Sta. 50+18.45
C.B. = N38°11'19"W

SP20 SPIRAL DATA
P.I. = STA. 47+03.37
Ls = 450.00'
Θs = 09°00'00"
LT = 300.39'
ST = 150.35'
x = 447.04'
y = 46.99'
k = 224.82'
p = 5.89'
C = 449.51'
Start = Sta. 45+53.01
End = Sta. 50+03.01
C.B. = N36°12'31"W

CV20 CURVE DATA
P.I. = STA. 7+77.18
Δ = 46°34'55" LT
Dc = 06°37'00"
R = 865.93'
T = 372.77'
L = 704.01'
E = 76.83'

CV21 CURVE DATA
P.I. = STA. 36+22.27
Δ = 51°07'41" LT
Dc = 07°00'00"
R = 818.51'
T = 391.53'
L = 730.40'
E = 88.82'

CV22 CURVE DATA
P.I. = STA. 7+68.30
Δ = 53°41'21" LT
Dc = 05°30'00"
R = 1,041.74'
T = 527.24'
L = 976.17'
E = 125.82'

CV23 CURVE DATA
P.I. = STA. 58+95.62
Δ = 50°05'00" RT
Dc = 05°00'00"
R = 1,145.92'
T = 535.37'
L = 1,001.67'
E = 118.89'

NOTES:

1. SHOULDER DIMENSIONS ARE FROM THE EDGE LINE TO THE BASE OF THE CONCRETE BARRIER OR EDGE OF SHOULDER/FACE OF CURB.
2. NORTH OF STA. 233+06, CL S.R. 176, THERE ARE TWO SEPARATE BASELINES. PARTIAL STATIONS IN THIS AREA ARE GIVEN FROM THE SB S.R. 176 OR NB S.R. 176 BASELINE. PARTIAL STATIONS FOR THE NORTHBOUND DIRECTION WILL APPEAR WITH A 'NB' AFTER THE PARTIAL STATION AND PARTIAL STATIONS FOR THE SOUTHBOUND DIRECTION WILL APPEAR WITH 'SB' AFTER THE PARTIAL STATION.
3. DASHED BALLOONS ARE REFERENCED ON A PREVIOUS SHEET.

TRAFFIC CONTROL PLAN - S.R. 176
S.R. 176 NB - STA. 49+00 TO STA. 59+00

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

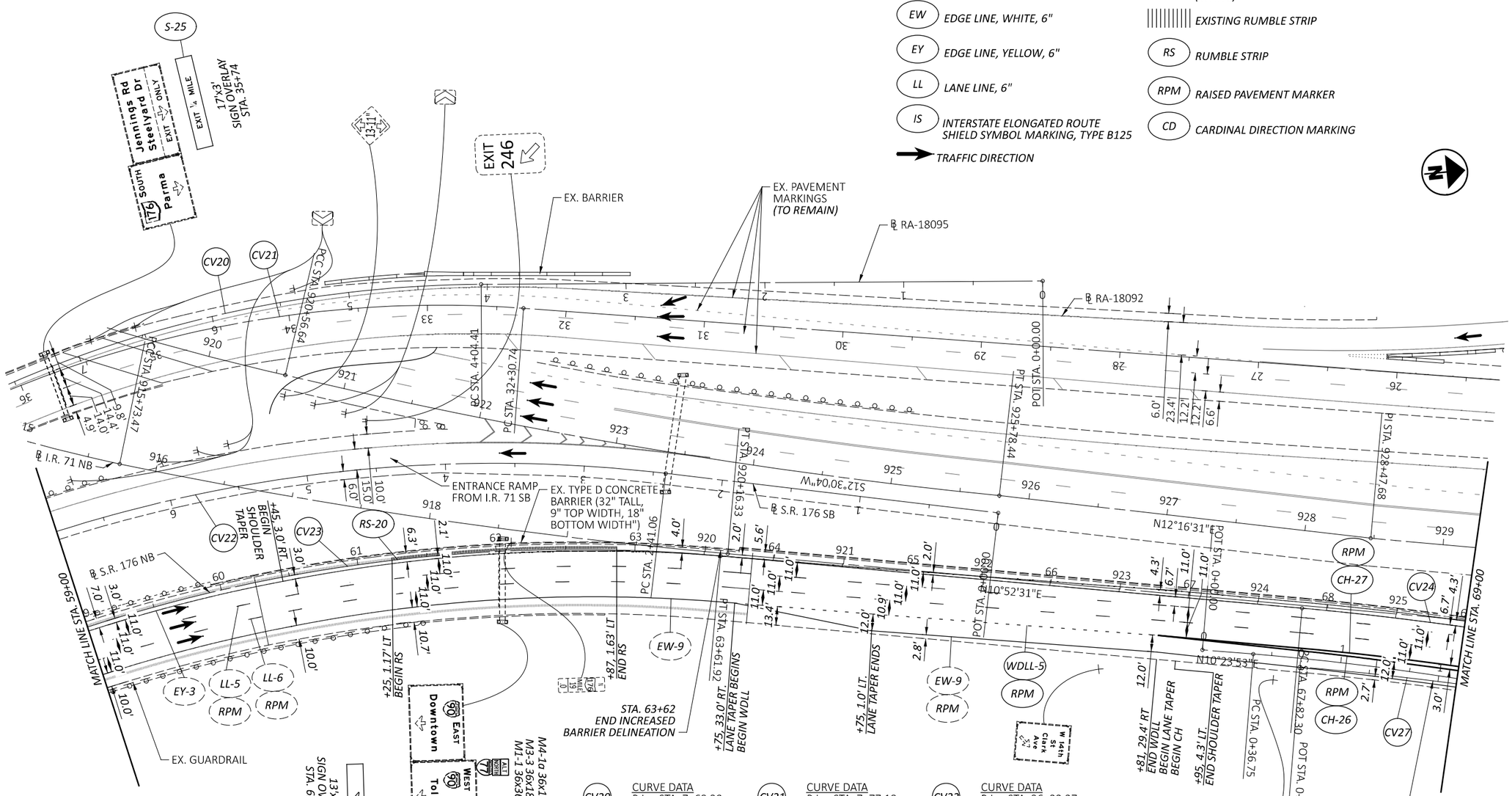
DESIGNER: SHT
REVIEWER: CWP 10/07/25
PROJECT ID: 120469
SHEET: P.65 TOTAL: 86

CUY-176-10.65

MODEL: Plan 16 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 10/7/2025 TIME: 8:31:57 AM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: thomas@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 120469 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\24156 ODOT D12-D3 GES FY2025-26\119814\Task 8 - CUY-176-10.65\120469\400-Engineering\Traffic\Sheets\120469_TP002.dgn

MODEL: Plan 17 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 10/7/2025 TIME: 8:32:02 AM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: thomas@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 120469 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\24156 ODOT D12-D3 GES FY2025-26\119814\Task 8 - CUY-176-10.65\120469\400-Engineering\Traffic\Sheets\120469_TP002.dgn

CROSS REFERENCES			
SUBSUMMARIES	P.18	-	P.29
REMOVAL SHEETS	P.30	-	P.49
DETAIL PLANS	P.70	-	P.79
DETAIL PLANS-CHANNELIZING LINES	P.80	-	P.84



NOTES:

1. SHOULDER DIMENSIONS ARE FROM THE EDGE LINE TO THE BASE OF THE CONCRETE BARRIER OR EDGE OF SHOULDER/FACE OF CURB.
2. NORTH OF STA. 233+06, CL S.R. 176, THERE ARE TWO SEPARATE BASELINES. PARTIAL STATIONS IN THIS AREA ARE GIVEN FROM THE SB S.R. 176 OR NB S.R. 176 BASELINE. PARTIAL STATIONS FOR THE NORTHBOUND DIRECTION WILL APPEAR WITH A 'NB' AFTER THE PARTIAL STATION AND PARTIAL STATIONS FOR THE SOUTHBOUND DIRECTION WILL APPEAR WITH 'SB' AFTER THE PARTIAL STATION.
3. DASHED BALLOONS ARE REFERENCED ON A PREVIOUS SHEET.

CV20 CURVE DATA
P.I. = STA. 7+68.30
Δ = 53°41'21" LT
Dc = 05°30'00"
R = 1,041.74'
T = 527.24'
L = 976.17'
E = 125.82'

CV21 CURVE DATA
P.I. = STA. 7+77.18
Δ = 46°34'55" LT
Dc = 06°37'00"
R = 865.93'
T = 372.77'
L = 704.01'
E = 76.83'

CV22 CURVE DATA
P.I. = STA. 36+22.27
Δ = 51°07'41" LT
Dc = 07°00'00"
R = 818.51'
T = 391.53'
L = 730.40'
E = 88.82'

CV23 CURVE DATA
P.I. = STA. 58+95.62
Δ = 50°05'00" RT
Dc = 05°00'00"
R = 1,145.92'
T = 535.37'
L = 1,001.67'
E = 118.89'

CV24 CURVE DATA
P.I. = STA. 68+88.96
Δ = 05°19'44" RT
Dc = 02°30'00"
R = 2,291.83'
T = 106.66'
L = 213.16'
E = 2.48'

CV27 CURVE DATA
P.I. = STA. 1+87.71
Δ = 09°21'52" RT
Dc = 02°30'00"
R = 2,291.83'
T = 187.71'
L = 374.58'
E = 7.67'

TRAFFIC CONTROL PLAN - S.R. 176
S.R. 176 NB - STA. 59+00 TO STA. 69+00

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER: SHT
REVIEWER: CWP 10/07/25
PROJECT ID: 120469
SHEET: P.66 TOTAL: 86

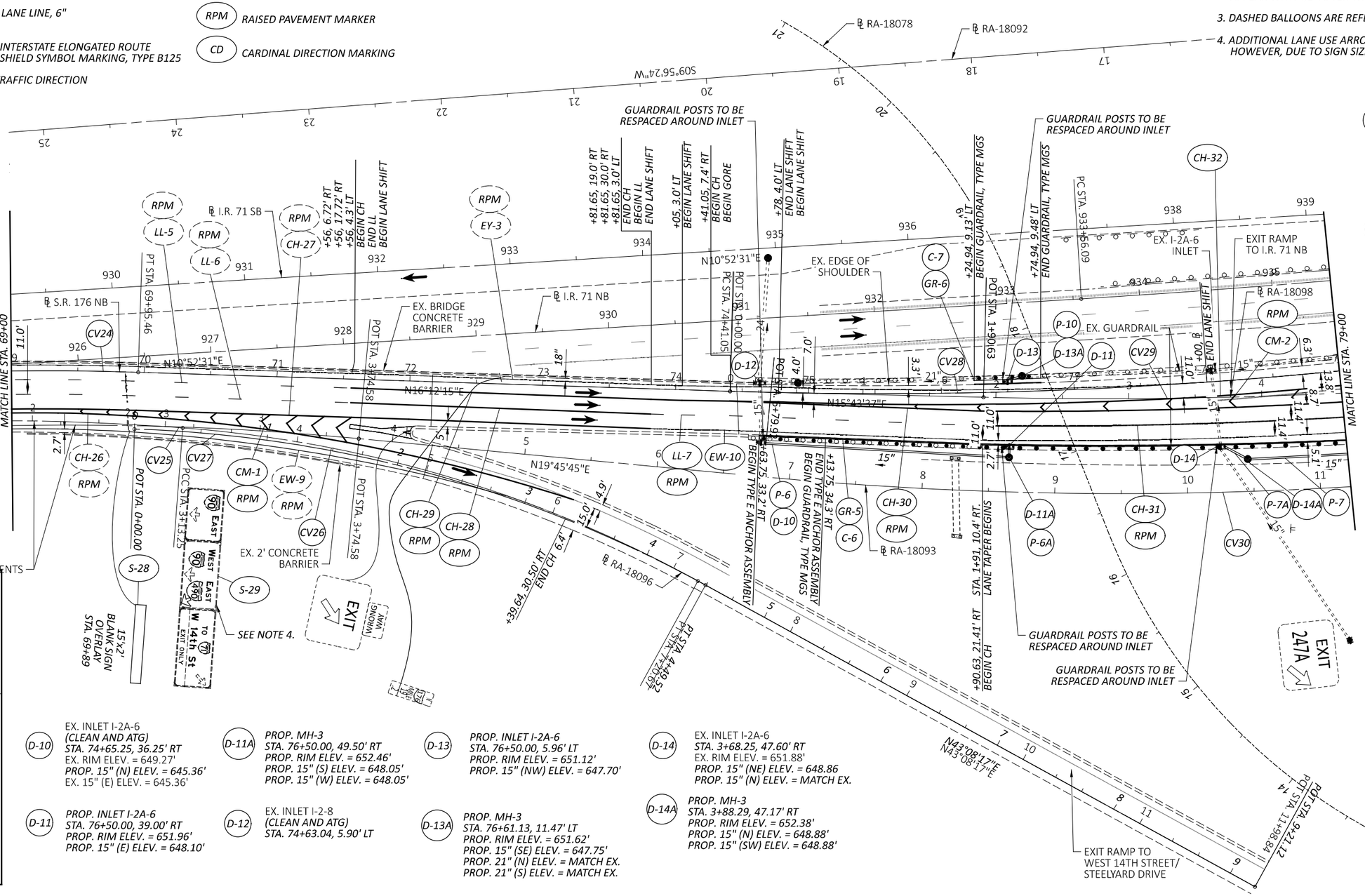
LEGEND

- S — PROPOSED SIGN
- EXISTING SIGN TO REMAIN
- EW — EDGE LINE, WHITE, 6"
- EY — EDGE LINE, YELLOW, 6"
- LL — LANE LINE, 6"
- IS — INTERSTATE ELONGATED ROUTE SHIELD SYMBOL MARKING, TYPE B125
- TRAFFIC DIRECTION
- CH — CHANNELIZING LINE, 12"
- CM — CHEVRON MARKING, 24" (WHITE)
- EXISTING RUMBLE STRIP
- RS — RUMBLE STRIP
- RPM — RAISED PAVEMENT MARKER
- CD — CARDINAL DIRECTION MARKING
- WDLL — DOTTED LINE, WHITE, 12" 3' LINE 9' GAP
- LLD — LANE LINE, DOTTED, 6"

NOTES:

1. SHOULDER DIMENSIONS ARE FROM THE EDGE LINE TO THE BASE OF THE CONCRETE BARRIER OR EDGE OF SHOULDER/FACE OF CURB.
2. NORTH OF STA. 233+06, CL S.R. 176, THERE ARE TWO SEPARATE BASELINES. PARTIAL STATIONS IN THIS AREA ARE GIVEN FROM THE SB S.R. 176 OR NB S.R. 176 BASELINE. PARTIAL STATIONS FOR THE NORTHBOUND DIRECTION WILL APPEAR WITH A 'NB' AFTER THE PARTIAL STATION AND PARTIAL STATIONS FOR THE SOUTHBOUND DIRECTION WILL APPEAR WITH 'SB' AFTER THE PARTIAL STATION.
3. DASHED BALLOONS ARE REFERENCED ON A PREVIOUS SHEET.
4. ADDITIONAL LANE USE ARROW TO BE ADDED TO S-29. HOWEVER, DUE TO SIGN SIZE, MAY NOT BE POSSIBLE.

HORIZONTAL SCALE IN FEET 0 20 40 80



CROSS REFERENCES		
SUBSUMMARIES	P.18 -	P.29
REMOVAL SHEETS	P.30 -	P.49
DETAIL PLANS	P.70 -	P.79
DETAIL PLANS-CHANNELIZING LINES	P.80 -	P.84

D-10 EX. INLET I-2A-6 (CLEAN AND ATG) STA. 74+65.25, 36.25' RT EX. RIM ELEV. = 649.27' PROP. 15" (N) ELEV. = 645.36' EX. 15" (E) ELEV. = 645.36'

D-11 PROP. INLET I-2A-6 STA. 76+50.00, 39.00' RT PROP. RIM ELEV. = 651.96' PROP. 15" (E) ELEV. = 648.10'

D-11A PROP. MH-3 STA. 76+50.00, 49.50' RT PROP. RIM ELEV. = 652.46' PROP. 15" (S) ELEV. = 648.05' PROP. 15" (W) ELEV. = 648.05'

D-12 EX. INLET I-2-8 (CLEAN AND ATG) STA. 74+63.04, 5.90' LT

D-13 PROP. INLET I-2A-6 STA. 76+50.00, 5.96' LT PROP. RIM ELEV. = 651.12' PROP. 15" (NW) ELEV. = 647.70'

D-13A PROP. MH-3 STA. 76+61.13, 11.47' LT PROP. RIM ELEV. = 651.62' PROP. 15" (SE) ELEV. = 647.75' PROP. 21" (N) ELEV. = MATCH EX. PROP. 21" (S) ELEV. = MATCH EX.

D-14 EX. INLET I-2A-6 STA. 3+68.25, 47.60' RT EX. RIM ELEV. = 651.88' PROP. 15" (NE) ELEV. = 648.86 PROP. 15" (N) ELEV. = MATCH EX.

D-14A PROP. MH-3 STA. 3+88.29, 47.17' RT PROP. RIM ELEV. = 652.38' PROP. 15" (N) ELEV. = 648.88' PROP. 15" (SW) ELEV. = 648.88'

CV24 CURVE DATA
P.I. = STA. 68+88.96
Δ = 05°19'44" RT
Dc = 02°30'00"
R = 2,291.83'
T = 106.66'
L = 213.16'
E = 2.48'

CV25 CURVE DATA
P.I. = STA. 1+87.71
Δ = 09°21'52" RT
Dc = 02°30'00"
R = 2,291.83'
T = 187.71'
L = 374.58'
E = 7.67'

CV26 CURVE DATA
P.I. = STA. 5+20.11
Δ = 24°26'43" RT
Dc = 06°00'00"
R = 954.93'
T = 206.86'
L = 407.42'
E = 22.15'

CV27 CURVE DATA
P.I. = STA. 1+75.24
Δ = 08°17'42" RT
Dc = 03°00'00"
R = 1,909.86'
T = 138.49'
L = 276.5'
E = 5.01'
R = 1,909.86'
T = 138.49'
L = 276.5'
E = 5.01'

CV28 CURVE DATA
P.I. = STA. 78+77.21
Δ = 14°11'30" LT
Dc = 01°38'07"
R = 3,503.76'
T = 436.16'
L = 867.85'
E = 27.04'

CV29 CURVE DATA
P.I. = STA. 7+03.57
Δ = 15°17'48" LT
Dc = 01°30'00"
R = 3,819.72'
T = 512.94'
L = 1,019.77'
E = 34.29'

CV30 CURVE DATA
P.I. = STA. 12+04.74
Δ = 20°45'45" LT
Dc = 02°00'00"
R = 2,864.79'
T = 524.82'
L = 1,038.13'
E = 47.68'

TRAFFIC CONTROL PLAN - S.R. 176
S.R. 176 NB - STA. 69+00 TO STA. 79+00

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER SHT
REVIEWER CWP 10/07/25
PROJECT ID 120469
SHEET P.67 TOTAL 86

CUY-176-10.65

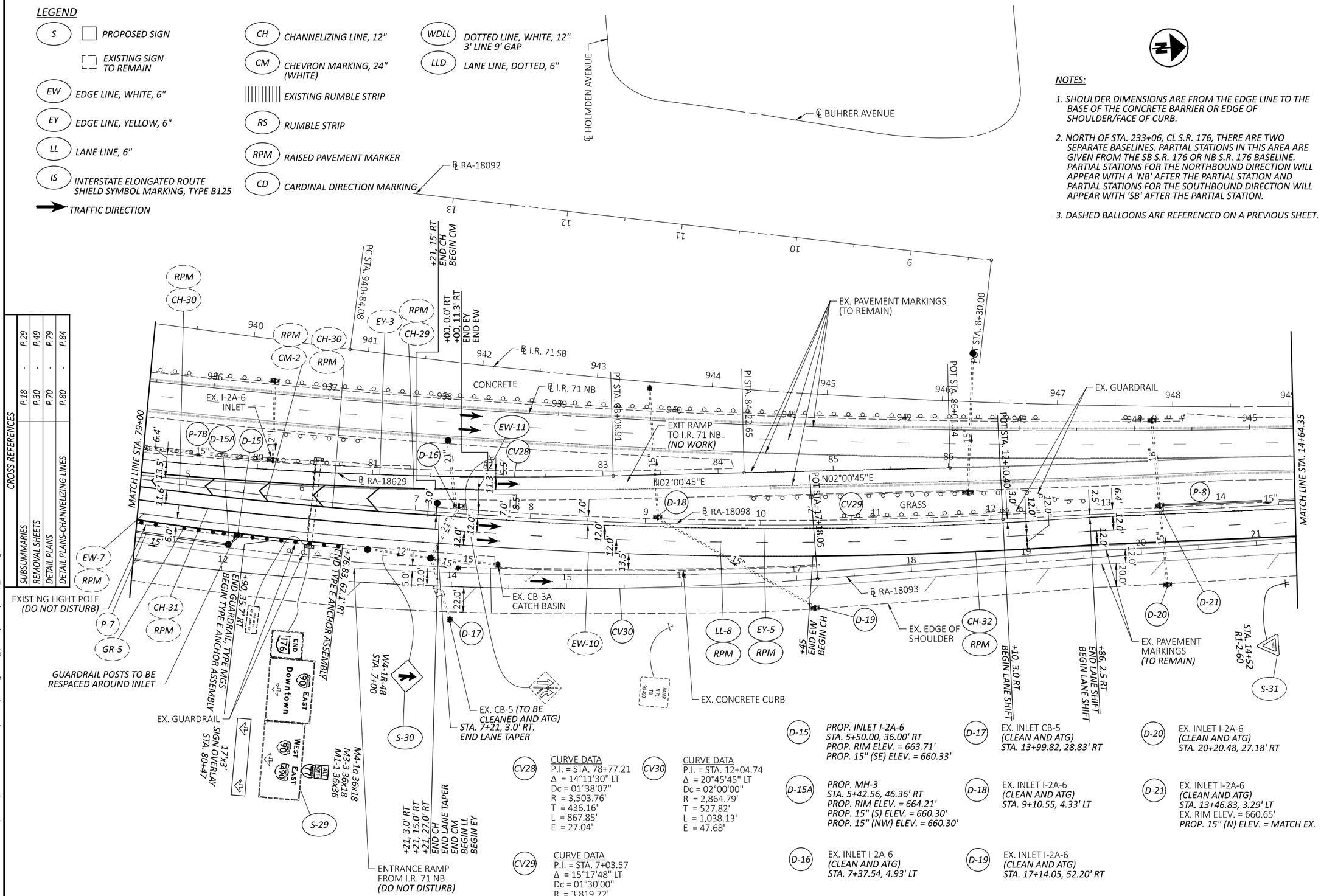
MODEL: Plan 18 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 10/7/2025 TIME: 8:32:07 AM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: thomas@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 120469 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\24156 ODOT D12-D3 GES FY2025-26\119814\Task 8 - CUY-176-10.65\120469\400-Engineering\Traffic\Sheets\120469_TP002.dgn

LEGEND

- S — PROPOSED SIGN
- EXISTING SIGN TO REMAIN
- EW — EDGE LINE, WHITE, 6"
- EY — EDGE LINE, YELLOW, 6"
- LL — LANE LINE, 6"
- IS — INTERSTATE ELONGATED ROUTE SHIELD SYMBOL MARKING, TYPE B125
- TRAFFIC DIRECTION
- CH — CHANNELIZING LINE, 12"
- CM — CHEVRON MARKING, 24" (WHITE)
- EXISTING RUMBLE STRIP
- RS — RUMBLE STRIP
- RPM — RAISED PAVEMENT MARKER
- CD — CARDINAL DIRECTION MARKING
- WDLL — DOTTED LINE, WHITE, 12" 3' LINE 9' GAP
- LLD — LANE LINE, DOTTED, 6"

NOTES:

1. SHOULDER DIMENSIONS ARE FROM THE EDGE LINE TO THE BASE OF THE CONCRETE BARRIER OR EDGE OF SHOULDER/FACE OF CURB.
2. NORTH OF STA. 233+06, CL S.R. 176, THERE ARE TWO SEPARATE BASELINES. PARTIAL STATIONS IN THIS AREA ARE GIVEN FROM THE SB S.R. 176 OR NB S.R. 176 BASELINE. PARTIAL STATIONS FOR THE NORTHBOUND DIRECTION WILL APPEAR WITH A 'NB' AFTER THE PARTIAL STATION AND PARTIAL STATIONS FOR THE SOUTHBOUND DIRECTION WILL APPEAR WITH 'SB' AFTER THE PARTIAL STATION.
3. DASHED BALLOONS ARE REFERENCED ON A PREVIOUS SHEET.



CROSS REFERENCES		
SUBSUMMARIES	P.18	- P.29
REMOVAL SHEETS	P.30	- P.49
DETAIL PLANS	P.70	- P.79
DETAIL PLANS-CHANNELIZING LINES	P.80	- P.84

CURVE DATA (CV28)
P.I. = STA. 78+77.21
Δ = 14°11'30" LT
Dc = 01°38'07"
R = 3,503.76'
T = 436.16'
L = 867.85'
E = 27.04'

CURVE DATA (CV29)
P.I. = STA. 7+03.57
Δ = 15°17'48" LT
Dc = 01°30'00"
R = 3,819.72'
T = 512.94'
L = 1,019.77'
E = 34.29'

CURVE DATA (CV30)
P.I. = STA. 12+04.74
Δ = 20°45'45" LT
Dc = 02°00'00"
R = 2,864.79'
T = 527.82'
L = 1,038.13'
E = 47.68'

(D-15) PROP. INLET I-2A-6
STA. 5+50.00, 36.00' RT
PROP. RIM ELEV. = 663.71'
PROP. 15" (SE) ELEV. = 660.33'

(D-15A) PROP. MH-3
STA. 5+42.56, 46.36' RT
PROP. RIM ELEV. = 664.21'
PROP. 15" (S) ELEV. = 660.30'
PROP. 15" (NW) ELEV. = 660.30'

(D-16) EX. INLET I-2A-6
(CLEAN AND ATG)
STA. 7+37.54, 4.93' LT

(D-17) EX. INLET CB-5
(CLEAN AND ATG)
STA. 13+99.82, 28.83' RT

(D-18) EX. INLET I-2A-6
(CLEAN AND ATG)
STA. 9+10.55, 4.33' LT

(D-19) EX. INLET I-2A-6
(CLEAN AND ATG)
STA. 17+14.05, 52.20' RT

(D-20) EX. INLET I-2A-6
(CLEAN AND ATG)
STA. 20+20.48, 27.18' RT

(D-21) EX. INLET I-2A-6
(CLEAN AND ATG)
STA. 13+46.83, 3.29' LT
EX. RIM ELEV. = 660.65'
PROP. 15" (N) ELEV. = MATCH EX.

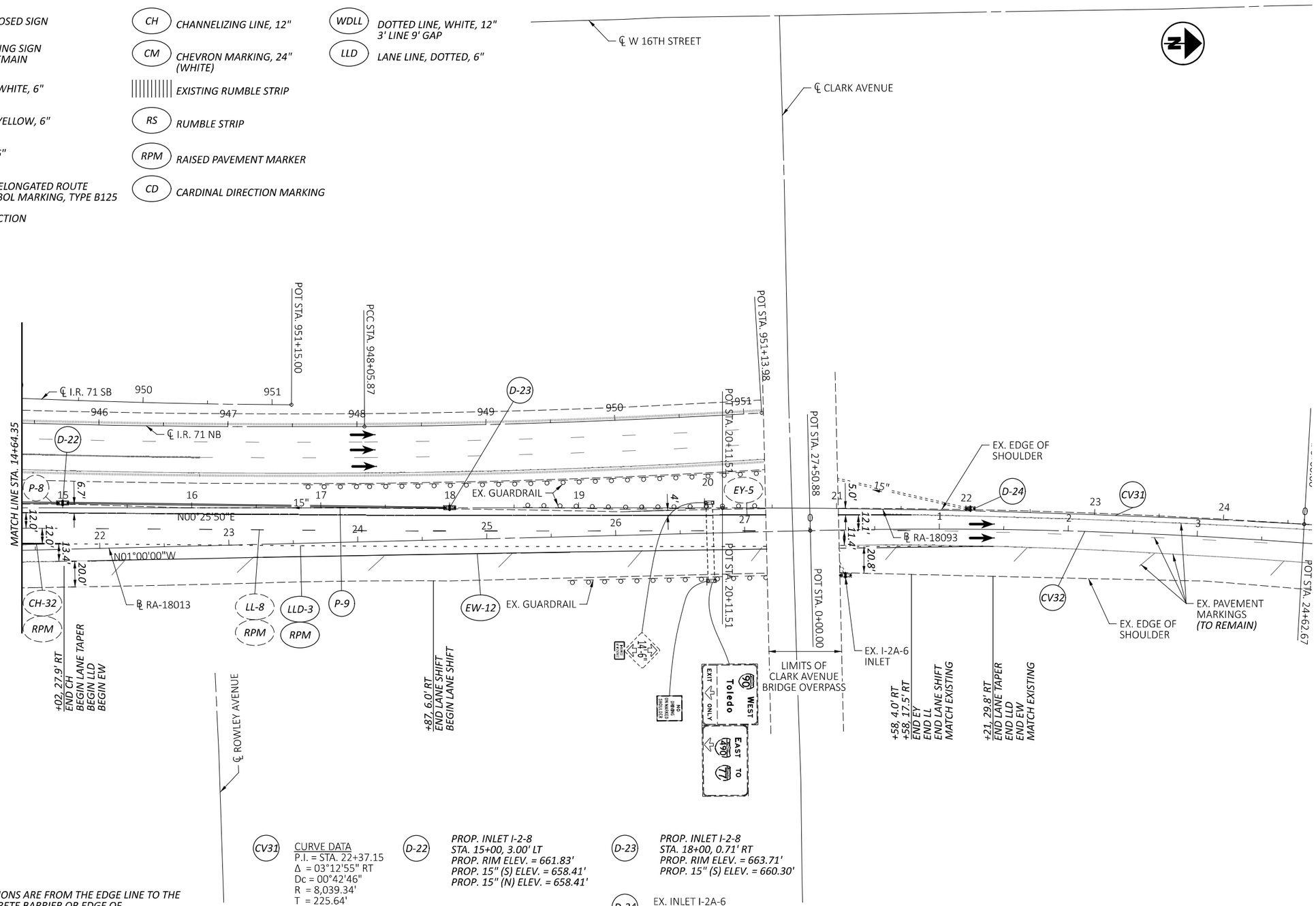
TRAFFIC CONTROL PLAN - S.R. 176 & RA-18098
S.R. 176 NB STA. 79+00 TO RA-18098 STA. 14+64.35

DESIGN AGENCY: CHAGRIN VALLEY ENGINEERING, LTD.
DESIGNER: SHT
REVIEWER: CWP 10/07/25
PROJECT ID: 120469
SHEET: P.68 TOTAL: 86

CUY-176-10.65

LEGEND

- (S) PROPOSED SIGN
- EXISTING SIGN TO REMAIN
- (EW) EDGE LINE, WHITE, 6"
- (EY) EDGE LINE, YELLOW, 6"
- (LL) LANE LINE, 6"
- (IS) INTERSTATE ELONGATED ROUTE SHIELD SYMBOL MARKING, TYPE B125
- TRAFFIC DIRECTION
- (CH) CHANNELIZING LINE, 12"
- (CM) CHEVRON MARKING, 24" (WHITE)
- EXISTING RUMBLE STRIP
- (RS) RUMBLE STRIP
- (RPM) RAISED PAVEMENT MARKER
- (CD) CARDINAL DIRECTION MARKING
- (WDLL) DOTTED LINE, WHITE, 12" 3' LINE 9' GAP
- (LLD) LANE LINE, DOTTED, 6"



CROSS REFERENCES	
SUBSUMMARIES	P.18 - P.29
REMOVAL SHEETS	P.30 - P.49
DETAIL PLANS	P.70 - P.79
DETAIL PLANS-CHANNELIZING LINES	P.80 - P.84

(CV31) CURVE DATA
P.I. = STA. 22+37.15
Δ = 03°12'55" RT
Dc = 00°42'46"
R = 8,039.34'
T = 225.64'
L = 451.16'
E = 3.17'

(CV32) CURVE DATA
P.I. = STA. 2+08.93
Δ = 06°15'42" RT
Dc = 01°30'00"
R = 3,819.72'
T = 208.93'
L = 417.44'
E = 5.71'

(D-22) PROP. INLET I-2-8
STA. 15+00, 3.00' LT
PROP. RIM ELEV. = 661.83'
PROP. 15" (S) ELEV. = 658.41'
PROP. 15" (N) ELEV. = 658.41'

(D-23) PROP. INLET I-2-8
STA. 18+00, 0.71' RT
PROP. RIM ELEV. = 663.71'
PROP. 15" (S) ELEV. = 660.30'

(D-24) EX. INLET I-2A-6
(CLEAN AND ATG)
STA. 22+03.68, 0.98' LT

NOTES:

1. SHOULDER DIMENSIONS ARE FROM THE EDGE LINE TO THE BASE OF THE CONCRETE BARRIER OR EDGE OF SHOULDER/FACE OF CURB.
2. NORTH OF STA. 233+06, CL S.R. 176, THERE ARE TWO SEPARATE BASELINES. PARTIAL STATIONS IN THIS AREA ARE GIVEN FROM THE SB S.R. 176 OR NB S.R. 176 BASELINE. PARTIAL STATIONS FOR THE NORTHBOUND DIRECTION WILL APPEAR WITH A 'NB' AFTER THE PARTIAL STATION AND PARTIAL STATIONS FOR THE SOUTHBOUND DIRECTION WILL APPEAR WITH 'SB' AFTER THE PARTIAL STATION.
3. DASHED BALLOONS ARE REFERENCED ON A PREVIOUS SHEET.

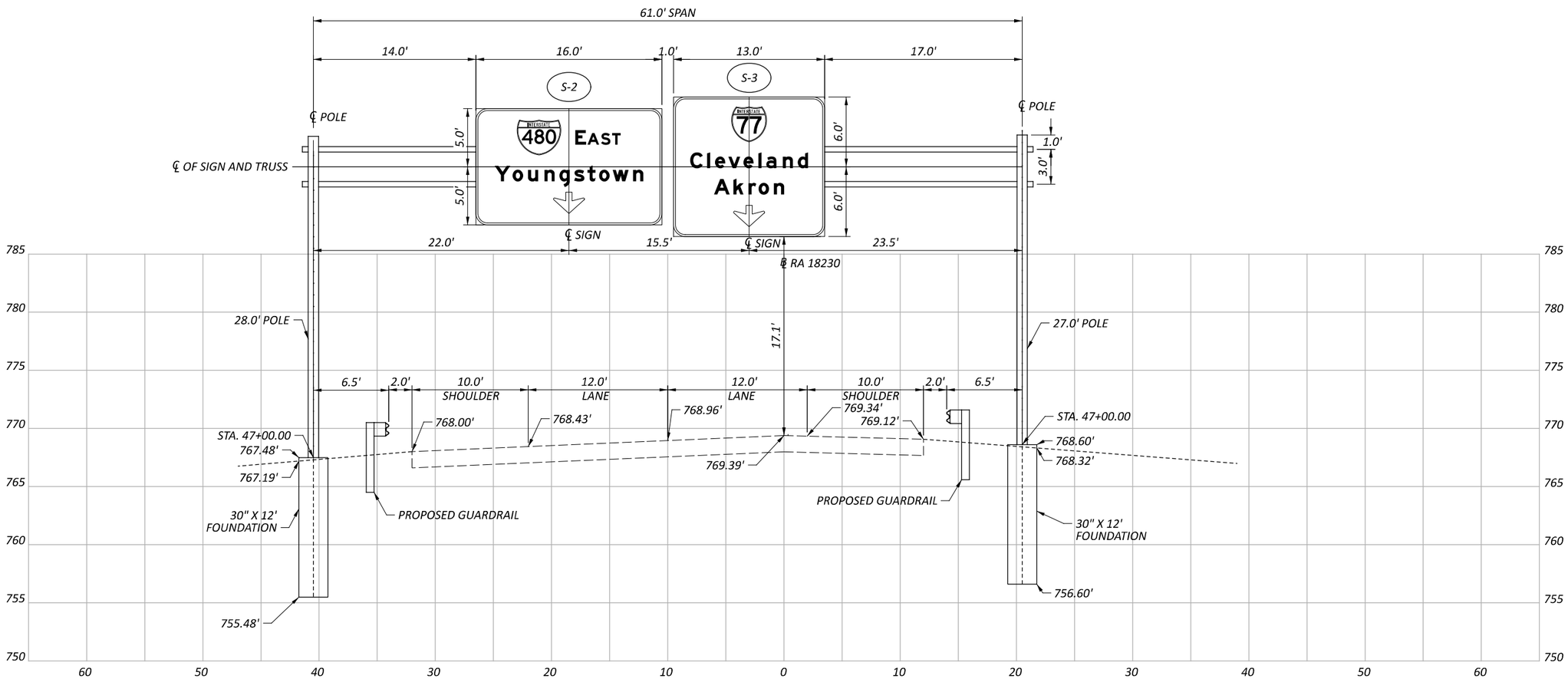
HORIZONTAL SCALE IN FEET 0 20 40 80

TRAFFIC CONTROL PLAN - RA-18098
STA. 14+64.35 TO END

DESIGN AGENCY: CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER: SHT
REVIEWER: CWP 10/07/25
PROJECT ID: 120469
SHEET P.69 TOTAL 86

CUY-176-10.65



S.R. 176 SB
S-2, S-3
STA. 47+00.00
TC-15.116, DESIGN 1
SPAN LENGTH = 61.0'
DESIGN VERTICAL CLEARANCE:
MIN = 17.0'
ACTUAL = 17.1'
LEVEL 1

NOTES:

1. SEE SHEET P.50 FOR PLAN VIEW.

2. ELEVATIONS HAVE BEEN OBTAINED FROM RECORD PLANS.

SIGN ELEVATION VIEWS
S.R. 176 SB - STA. 47+00.00 TRUSS SIGN SUPPORT ELEVATIONS

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

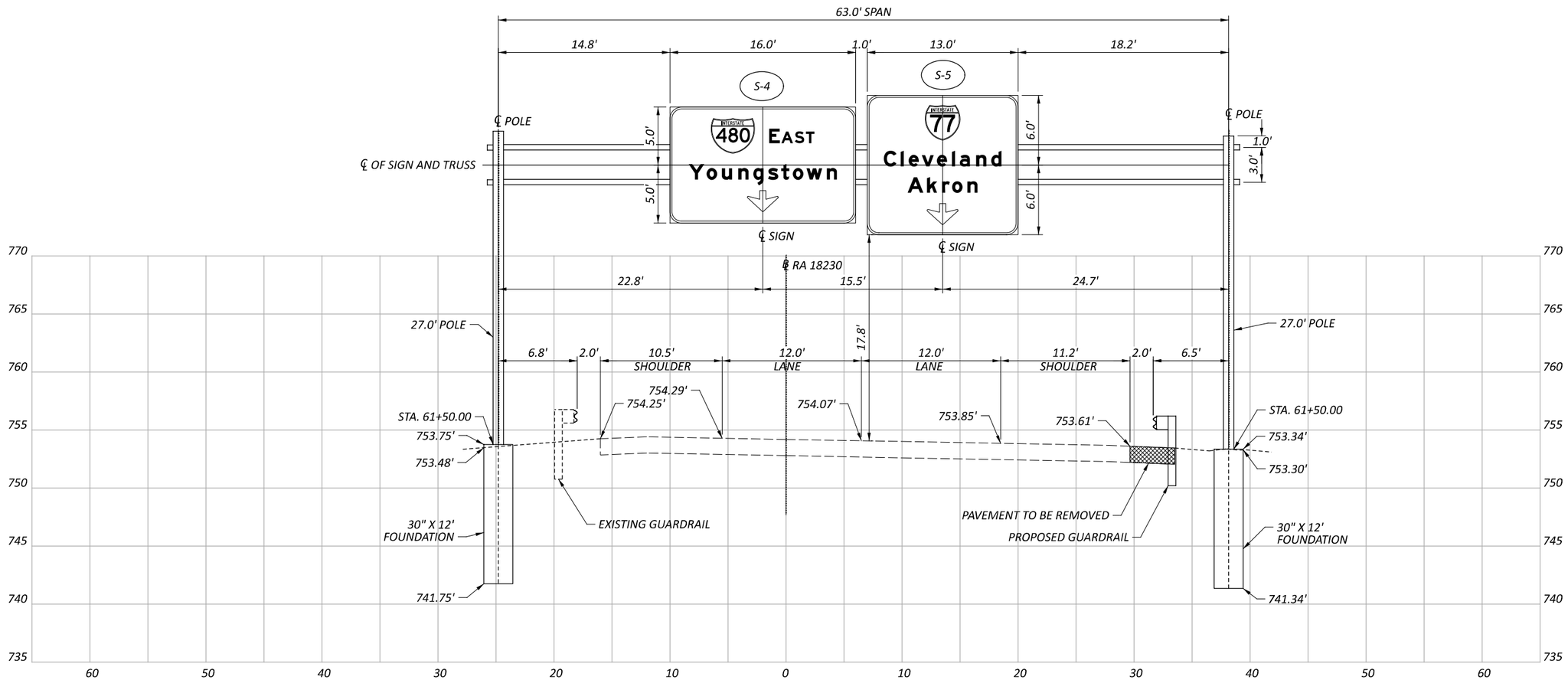
DESIGNER
SAF

REVIEWER
CWP 10/07/25

PROJECT ID
120469

SHEET P.70 TOTAL 86

CUY-176-10.65



RA - 18230
S-4, S-5
STA. 61+50.00
TC-15.116, DESIGN 1
SPAN LENGTH = 63.0'
DESIGN VERTICAL CLEARANCE:
MIN = 17.0'
ACTUAL = 17.8'
LEVEL 1

NOTES:

1. SEE SHEET P.52 FOR PLAN VIEW.

2. ELEVATIONS HAVE BEEN OBTAINED FROM RECORD PLANS.

SIGN ELEVATION VIEWS
RA - 18230 - STA. 61+50.00 TRUSS SIGN SUPPORT ELEVATIONS

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

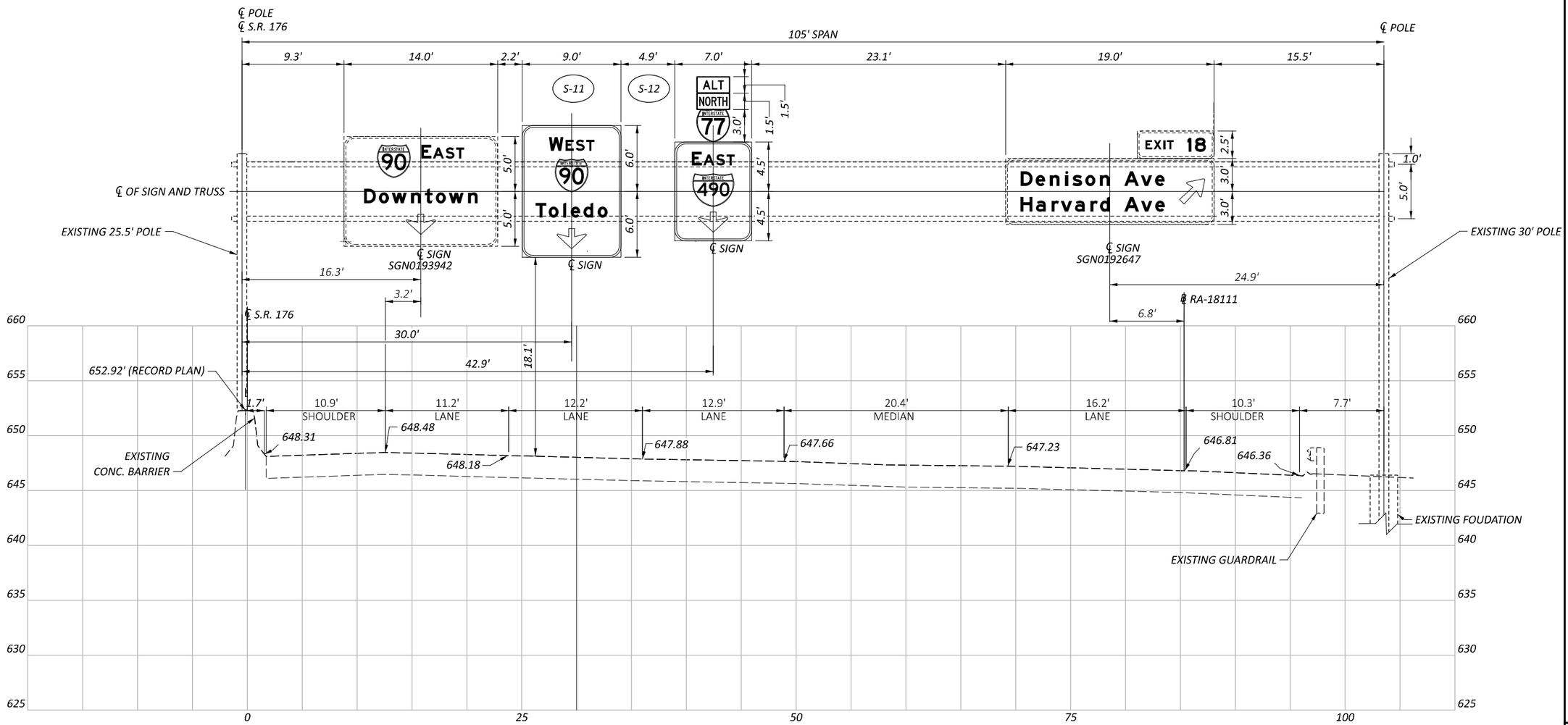
DESIGNER
SAF

REVIEWER
CWP 10/07/25

PROJECT ID
120469

SHEET P.71 TOTAL 86

CUY-176-10.65



CUY-176 NB
S-11, S-12
STA. 215+98.74
OVERHEAD SIGN SUPPORT, TC-15.115
SPAN LENGTH = 105'
DESIGN VERTICAL CLEARANCE:
MIN. = 17.0'
ACTUAL = 18.1'
EXISTING SUPPORT:
SUP0130310 (TO REMAIN)
EXISTING SIGNS:
SGN0193942 (TO REMAIN)
SGN0512958 (REMOVE)
SGN0193502 (REMOVE)
SGN0192647 (TO REMAIN)

NOTES:

1. SEE SHEET P.61 FOR PLAN VIEW.

2. EXISTING SIGNS ARE DRAWN PER SURVEY DATA AND RECORD PLANS. ALL BOTTOM OF SIGN ELEVATIONS ARE FROM SURVEY DATA. THE EXISTING SIGN CENTERLINES MAY NOT ALIGN EXACTLY WITH THE CENTERLINE OF TRUSS AND PROPOSED SIGNS.

SIGN ELEVATION VIEWS
S.R. 176 NB - STA. 215+98.74 - TRUSS SIGN SUPPORT ELEVATIONS

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER	SAF
REVIEWER	CWP 10/07/25
PROJECT ID	120469
SHEET	P.72
TOTAL	86

CUY-176-10.65

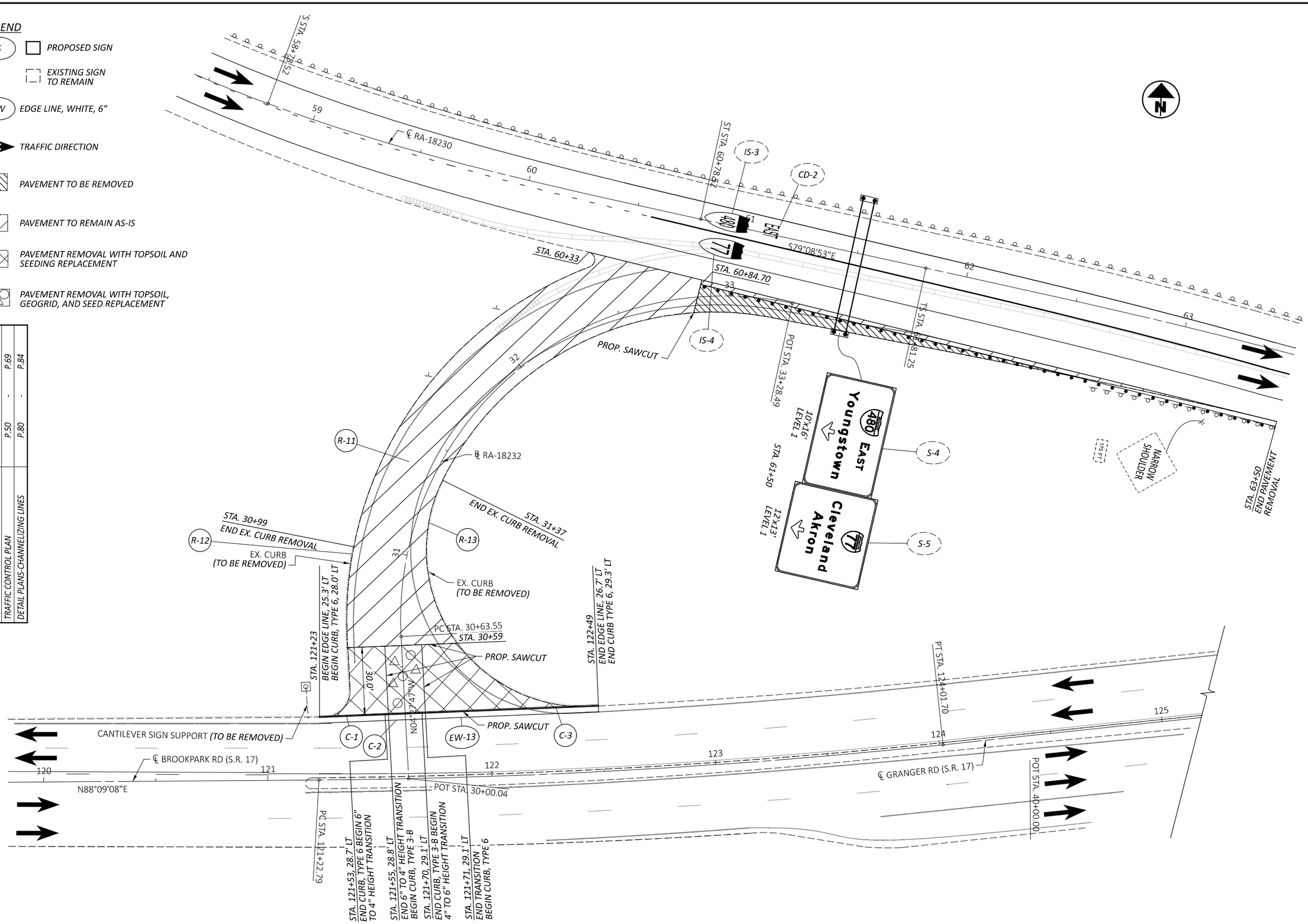
MODEL: Brookpark Ramp Plan PAPERSIZE: 34x22 (in.) DATE: 10/7/2025 TIME: 8:32:32 AM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: thomas@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 120469 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\24156 ODOT D12-D3 GES FY2025-26\119814\Task 8 - CUY-176-10.65\120469\400-Engineering\Traffic\Sheets\120469_TD002.dgn

CUY-176-10.65

LEGEND

- S — PROPOSED SIGN
- EXISTING SIGN TO REMAIN
- EW — EDGE LINE, WHITE, 6"
- TRAFFIC DIRECTION
- PAVEMENT TO BE REMOVED
- PAVEMENT TO REMAIN AS-IS
- PAVEMENT REMOVAL WITH TOPSOIL AND SEEDING REPLACEMENT
- PAVEMENT REMOVAL WITH TOPSOIL, GEOGRID, AND SEED REPLACEMENT

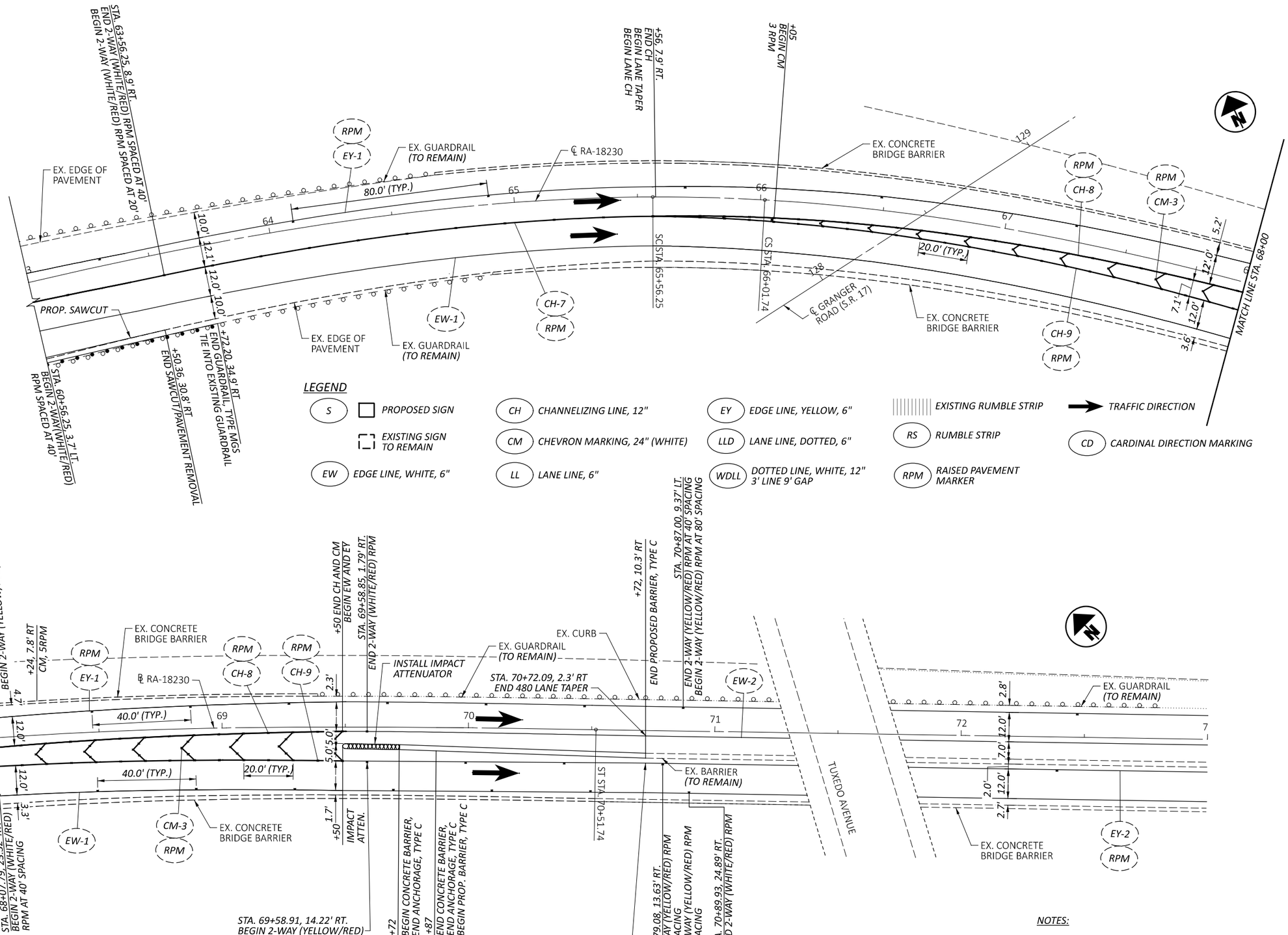
CROSS REFERENCES		
SUBSUMMARIES	P.18 -	P.29
REMOVAL SHEETS	P.30 -	P.49
TRAFFIC CONTROL PLAN	P.50 -	P.69
DETAIL PLANS-CHANNELIZING LINES	P.80 -	P.84



DETAIL PLAN
RA-18232 AND BROOKPARK ROAD/GRANGER ROAD

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER	SHT
REVIEWER	CWP 10/07/25
PROJECT ID	120469
SHEET	P.73
TOTAL	86



CROSS REFERENCES		
SUBSUMMARIES	P.18 - P.29	
REMOVAL SHEETS	P.30 - P.49	
TRAFFIC CONTROL PLAN	P.50 - P.69	
DETAIL PLANS-CHANNELIZING LINES	P.80 - P.84	

DIMENSION DETAIL
RA-18230 STA. 63+00 TO STA. 73+00
(I.R. 480 AND I.R. 77 LANE SPLIT)

NOTES:

1. SHOULDER DIMENSIONS ARE FROM THE EDGE LINE TO THE BASE OF THE CONCRETE BARRIER OR EDGE OF SHOULDER/FACE OF CURB.

HORIZONTAL SCALE IN FEET 0 10 20 40

DETAIL PLAN
RA-18230 - STA. 63+00 TO STA. 73+00

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER SHT
REVIEWER CWP 10/07/25
PROJECT ID 120469
SHEET P.74 TOTAL 86

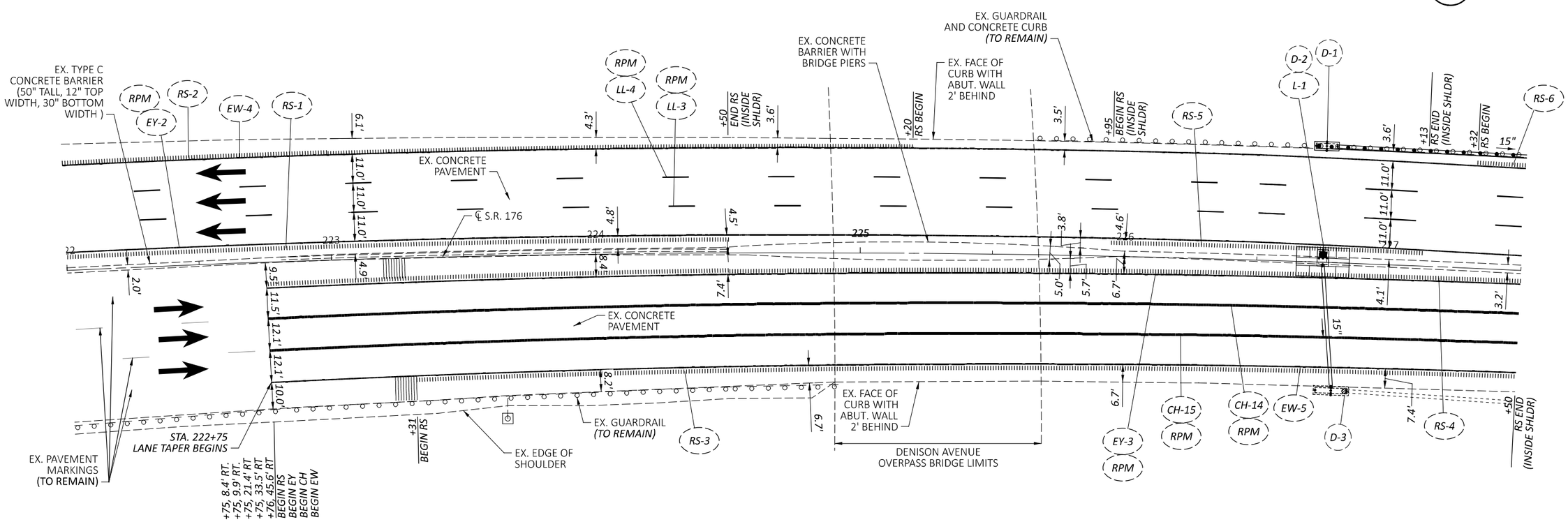
CUY-176-10.65

MODEL: BLX_INOBE - Plan 1 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 10/7/2025 TIME: 8:32:36 AM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: thomas@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 120469 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\24156 ODOT D12-D3 GES FY2025-26\119814\Task 8 - CUY-176-10.65\120469\400-Engineering\Traffic\Sheets\120469_TD004.dgn

CROSS REFERENCES			
SUBSUMMARIES	P.18	-	P.29
REMOVAL SHEETS	P.30	-	P.49
TRAFFIC CONTROL PLAN	P.50	-	P.69
DETAIL PLANS-CHANNELIZING LINES	P.80	-	P.84

LEGEND

- (S) PROPOSED SIGN
- EXISTING SIGN TO REMAIN
- (EW) EDGE LINE, WHITE, 6"
- (EY) EDGE LINE, YELLOW, 6"
- (LL) LANE LINE, 6"
- (LLD) LANE LINE, DOTTED, 6"
- (IS) INTERSTATE ELONGATED ROUTE SHIELD SYMBOL MARKING, TYPE B125
- (CH) CHANNELIZING LINE, 12"
- (CM) CHEVRON MARKING, 24" (WHITE)
- EXISTING RUMBLE STRIP
- (RS) RUMBLE STRIP
- (RPM) RAISED PAVEMENT MARKER
- (CD) CARDINAL DIRECTION MARKING
- TRAFFIC DIRECTION
- (WDLL) DOTTED LINE, WHITE, 12" 3' LINE 9' GAP



NOTES:

1. SHOULDER DIMENSIONS ARE FROM THE EDGE LINE TO THE BASE OF THE CONCRETE BARRIER OR EDGE OF SHOULDER/FACE OF CURB.
2. NORTH OF STA. 233+06, CL S.R. 176, THERE ARE TWO SEPARATE BASELINES. PARTIAL STATIONS IN THIS AREA ARE GIVEN FROM THE SB S.R. 176 OR NB S.R. 176 BASELINE. PARTIAL STATIONS FOR THE NORTHBOUND DIRECTION WILL APPEAR WITH A 'NB' AFTER THE PARTIAL STATION AND PARTIAL STATIONS FOR THE SOUTHBOUND DIRECTION WILL APPEAR WITH 'SB' AFTER THE PARTIAL STATION.
3. DASHED BALLOONS ARE REFERENCED ON A PREVIOUS SHEET.

DIMENSION DETAIL
S.R. 176 STA. 222+00 TO STA. 227+50
(DENISON AVENUE BRIDGE UNDERPASS)

(D-1) PROP. INLET NO. 2-A-8
STA. 226+75, 42.24' LT
PROP. RIM ELEV. = 652.57'
PROP. 15" (N) ELEV. = 646.17'

(D-2) PROP. MEDIAN INLET NO. 3B50
STA. 226+75, 0.00' LT
PROP. RIM ELEV. = 651.97'
PROP. 15" (E) ELEV. = 647.97'

(D-3) EX. INLET NO. 2-A-12
STA. 226+75, 46.80' RT
EX. RIM ELEV. = 651.09'
EX. 15" (N) ELEV. = 646.20'
PROP. 15" (W) ELEV. = 649.15'

HORIZONTAL SCALE IN FEET 0 10 20 40

DETAIL PLAN
S.R. 176 - STA. 222+00 TO STA. 227+50

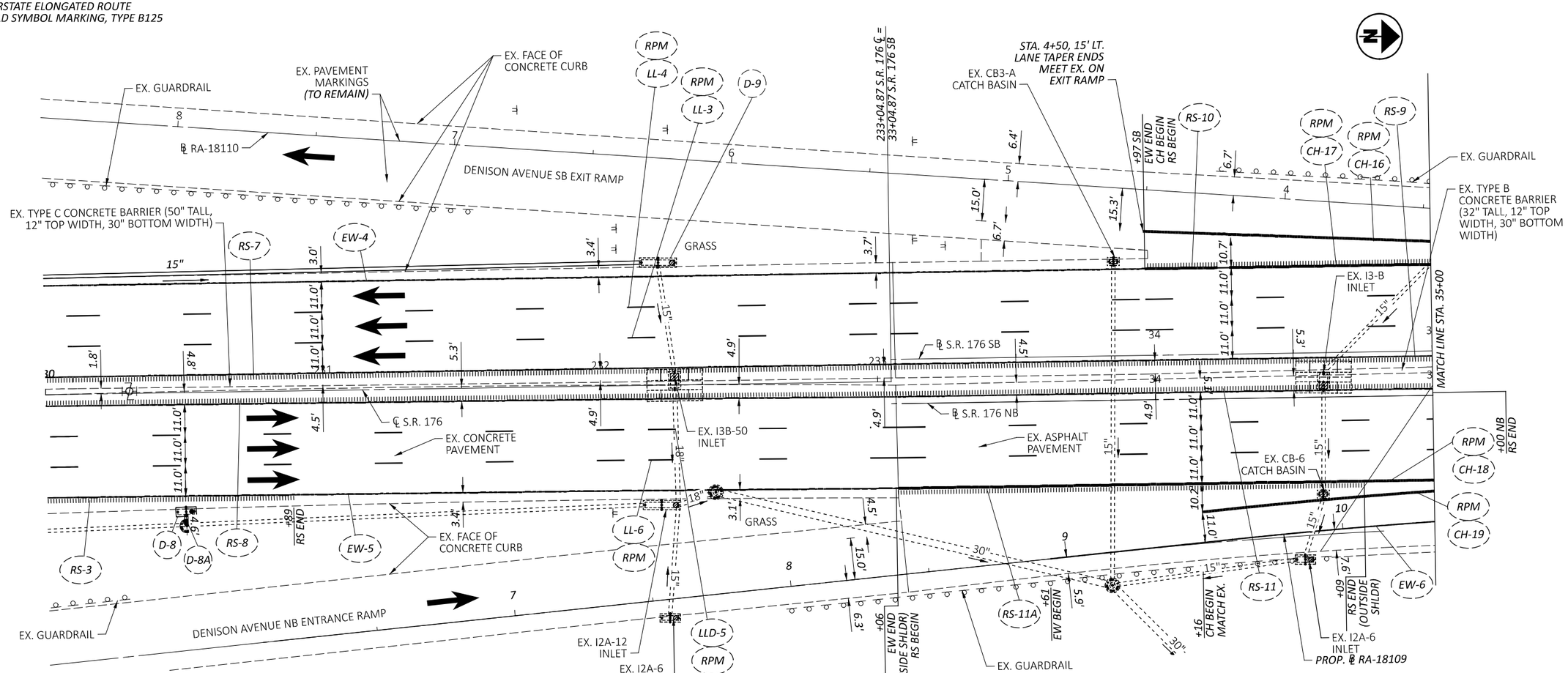
DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER SHT
REVIEWER CWP 10/07/25
PROJECT ID 120469
SHEET P.75 TOTAL 86

CUY-176-10.65

LEGEND

S	PROPOSED SIGN	CH	CHANNELIZING LINE, 12"		TRAFFIC DIRECTION
	EXISTING SIGN TO REMAIN	CM	CHEVRON MARKING, 24" (WHITE)	WDLL	DOTTED LINE, WHITE, 12" 3' LINE 9' GAP
EW	EDGE LINE, WHITE, 6"		EXISTING RUMBLE STRIP		
EY	EDGE LINE, YELLOW, 6"	RS	RUMBLE STRIP		
LL	LANE LINE, 6"	RPM	RAISED PAVEMENT MARKER		
LLD	LANE LINE, DOTTED, 6"	CD	CARDINAL DIRECTION MARKING		
IS	INTERSTATE ELONGATED ROUTE SHIELD SYMBOL MARKING, TYPE B125				



CROSS REFERENCES							
SUBSUMMARIES	P.18	-	P.29				
REMOVAL SHEETS	P.30	-	P.49				
TRAFFIC CONTROL PLAN	P.50	-	P.69				
DETAIL PLANS-CHANNELIZING LINES	P.80	-	P.84				

NOTES:

1. SHOULDER DIMENSIONS ARE FROM THE EDGE LINE TO THE BASE OF THE CONCRETE BARRIER OR EDGE OF SHOULDER/FACE OF CURB.
2. NORTH OF STA. 233+06, CL S.R. 176, THERE ARE TWO SEPARATE BASELINES. PARTIAL STATIONS IN THIS AREA ARE GIVEN FROM THE SB S.R. 176 OR NB S.R. 176 BASELINE. PARTIAL STATIONS FOR THE NORTHBOUND DIRECTION WILL APPEAR WITH A 'NB' AFTER THE PARTIAL STATION AND PARTIAL STATIONS FOR THE SOUTHBOUND DIRECTION WILL APPEAR WITH 'SB' AFTER THE PARTIAL STATION.
3. DASHED BALLOONS ARE REFERENCED ON A PREVIOUS SHEET.

D-8A PROP. INLET I-2A-6
STA. 230+50.00, 48.33' RT
PROP. RIM ELEV. = 651.27'
PROP. 15" (E) ELEV. = 646.88'

D-8 PROP. INLET I-2A-6
STA. 230+50.00, 41.96' RT
PROP. RIM ELEV. = 650.27'
PROP. 15" (E) ELEV. = 646.85'

D-9 PROP. INLET I-2A-12
STA. 232+21.45, 43.18' LT
EX. RIM ELEV. = 650.39'
PROP. 15" (S) ELEV. = 644.00'
EX. 15" (E) ELEV. = 644.00'

DIMENSION DETAIL
SB S.R. 176 STA. 230+00 TO SB S.R. 176 STA. 35+00
(DENISON AVENUE INTERCHANGE)

HORIZONTAL SCALE IN FEET 0 10 20 40

DETAIL PLAN
S.R. 176 - STA. 230+00 TO STA. 35+00

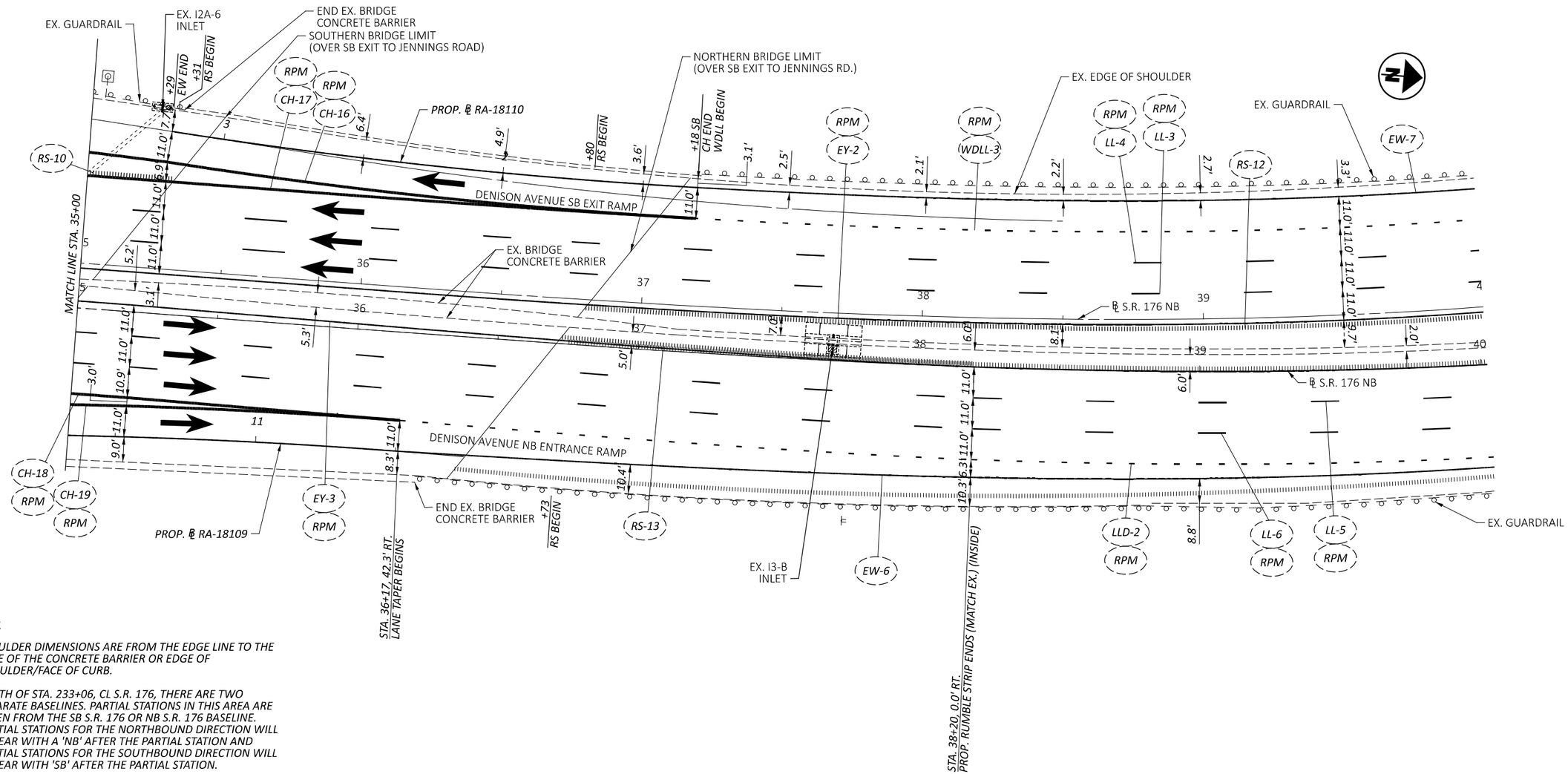
DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER SHT
REVIEWER CWP 10/07/25
PROJECT ID 120469
SHEET P.76 TOTAL 86

CUY-176-10.65

LEGEND

S	PROPOSED SIGN
	EXISTING SIGN TO REMAIN
EW	EDGE LINE, WHITE, 6"
EY	EDGE LINE, YELLOW, 6"
LL	LANE LINE, 6"
LLD	LANE LINE, DOTTED, 6"
IS	INTERSTATE ELONGATED ROUTE SHIELD SYMBOL MARKING, TYPE B125
CH	CHANNELIZING LINE, 12"
CM	CHEVRON MARKING, 24" (WHITE)
	EXISTING RUMBLE STRIP
RS	RUMBLE STRIP
RPM	RAISED PAVEMENT MARKER
CD	CARDINAL DIRECTION MARKING
	TRAFFIC DIRECTION
WDLL	DOTTED LINE, WHITE, 12" 3' LINE 9' GAP



CROSS REFERENCES	
SUBSUMMARIES	P.18 - P.29
REMOVAL SHEETS	P.30 - P.49
TRAFFIC CONTROL PLAN	P.50 - P.69
DETAIL PLANS-CHANNELIZING LINES	P.80 - P.84

NOTES:

1. SHOULDER DIMENSIONS ARE FROM THE EDGE LINE TO THE BASE OF THE CONCRETE BARRIER OR EDGE OF SHOULDER/FACE OF CURB.
2. NORTH OF STA. 233+06, CL S.R. 176, THERE ARE TWO SEPARATE BASELINES. PARTIAL STATIONS IN THIS AREA ARE GIVEN FROM THE SB S.R. 176 OR NB S.R. 176 BASELINE. PARTIAL STATIONS FOR THE NORTHBOUND DIRECTION WILL APPEAR WITH A 'NB' AFTER THE PARTIAL STATION AND PARTIAL STATIONS FOR THE SOUTHBOUND DIRECTION WILL APPEAR WITH 'SB' AFTER THE PARTIAL STATION.
3. DASHED BALLOONS ARE REFERENCED ON A PREVIOUS SHEET.

DIMENSION DETAIL
SB S.R. 176 STA. 35+00 TO STA. 40+00
(NORTHERN END OF DENISON INTERCHANGE)

HORIZONTAL SCALE IN FEET 0 10 20 40

DETAIL PLAN
S.R. 176 - STA. 35+00 TO STA. 40+00

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER SHT
REVIEWER CWP 10/07/25
PROJECT ID 120469
SHEET P.77 TOTAL 86

CUY-176-10.65

MODEL: Sheet 04 PAPERSIZE: 34x22 (in.) DATE: 10/7/2025 TIME: 8:32:51 AM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: thomas@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 120469 PRODUCT: OpenRoadsDesigner 24.00.205
P:\24156 ODOT D12-D3 GES FY2025-26\119814\Task 8 - CUY-176-10.65\120469\400-Engineering\Traffic\Sheets\120469_TD001.dgn

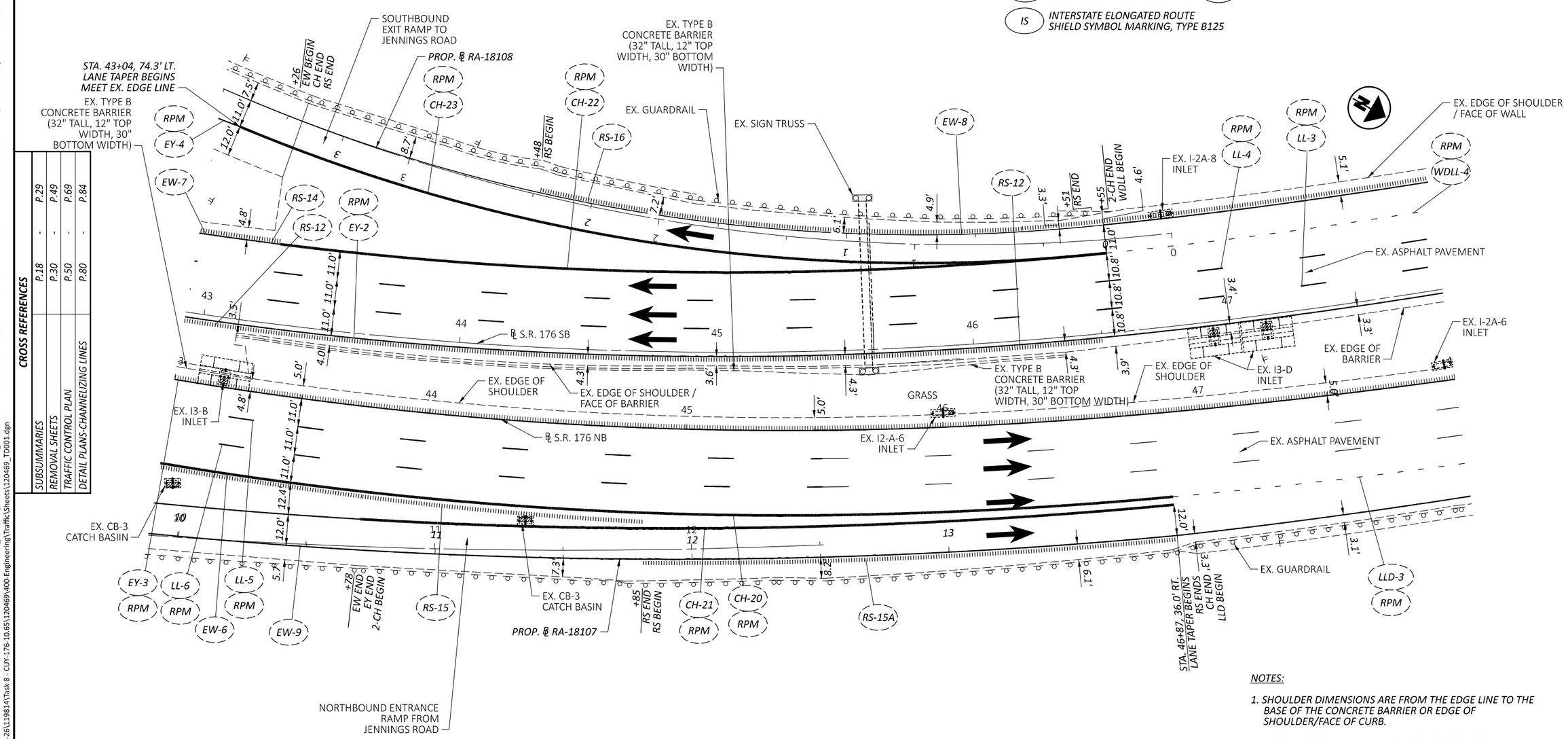
CUY-176-10.65

CROSS REFERENCES		
SUBSUMMARIES	P.18	- P.29
REMOVAL SHEETS	P.30	- P.49
TRAFFIC CONTROL PLAN	P.50	- P.69
DETAIL PLANS-CHANNELIZING LINES	P.80	- P.84

LEGEND

- S — PROPOSED SIGN
- EXISTING SIGN TO REMAIN
- EW — EDGE LINE, WHITE, 6"
- EY — EDGE LINE, YELLOW, 6"
- LL — LANE LINE, 6"
- LLD — LANE LINE, DOTTED, 6"
- IS — INTERSTATE ELONGATED ROUTE SHIELD SYMBOL MARKING, TYPE B125
- CH — CHANNELIZING LINE, 12"
- CM — CHEVRON MARKING, 24" (WHITE)
- EXISTING RUMBLE STRIP
- RS — RUMBLE STRIP
- RPM — RAISED PAVEMENT MARKER
- CD — CARDINAL DIRECTION MARKING
- TRAFFIC DIRECTION
- WDLL — DOTTED LINE, WHITE, 12" 3' LINE 9' GAP

HORIZONTAL SCALE IN FEET 0 10 20 40



DIMENSION DETAIL
NB S.R. 176 STA. 43+00 TO STA. 48+00

NOTES:

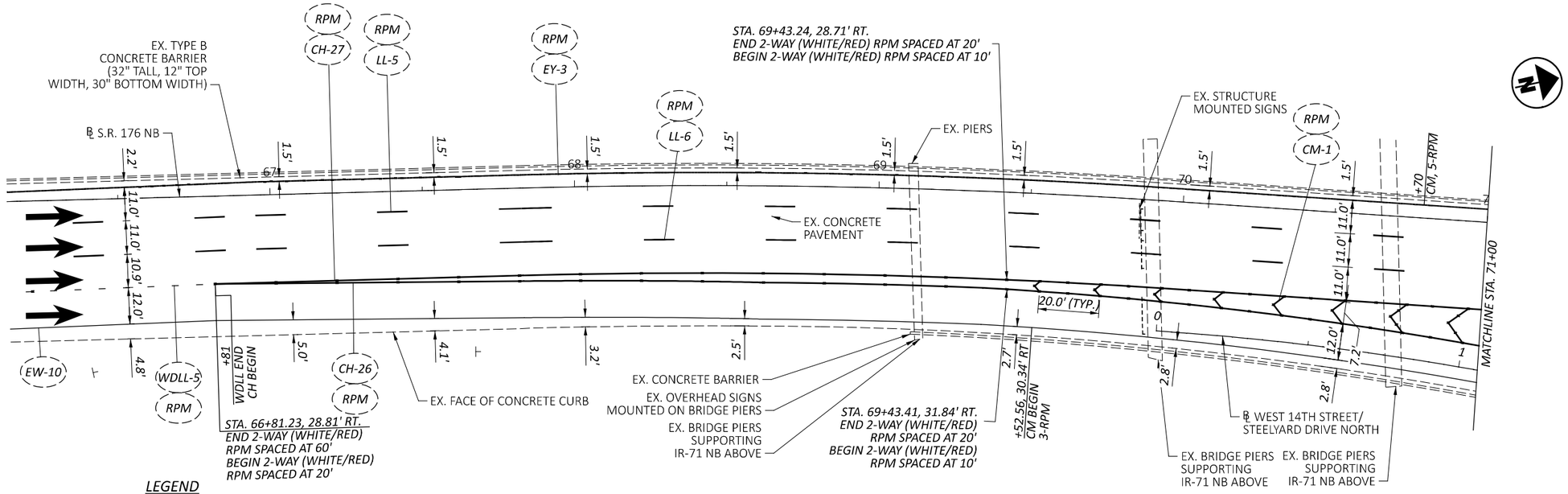
1. SHOULDER DIMENSIONS ARE FROM THE EDGE LINE TO THE BASE OF THE CONCRETE BARRIER OR EDGE OF SHOULDER/FACE OF CURB.
2. NORTH OF STA. 233+06, CL S.R. 176, THERE ARE TWO SEPARATE BASELINES. PARTIAL STATIONS IN THIS AREA ARE GIVEN FROM THE SB S.R. 176 OR NB S.R. 176 BASELINE. PARTIAL STATIONS FOR THE NORTHBOUND DIRECTION WILL APPEAR WITH A 'NB' AFTER THE PARTIAL STATION AND PARTIAL STATIONS FOR THE SOUTHBOUND DIRECTION WILL APPEAR WITH 'SB' AFTER THE PARTIAL STATION.
3. DASHED BALLOONS ARE REFERENCED ON A PREVIOUS SHEET.

DETAIL PLAN
S.R. 176 - STA. 43+00 TO STA. 48+00

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER SHT
REVIEWER CWP 10/07/25
PROJECT ID 120469
SHEET P.78 TOTAL 86

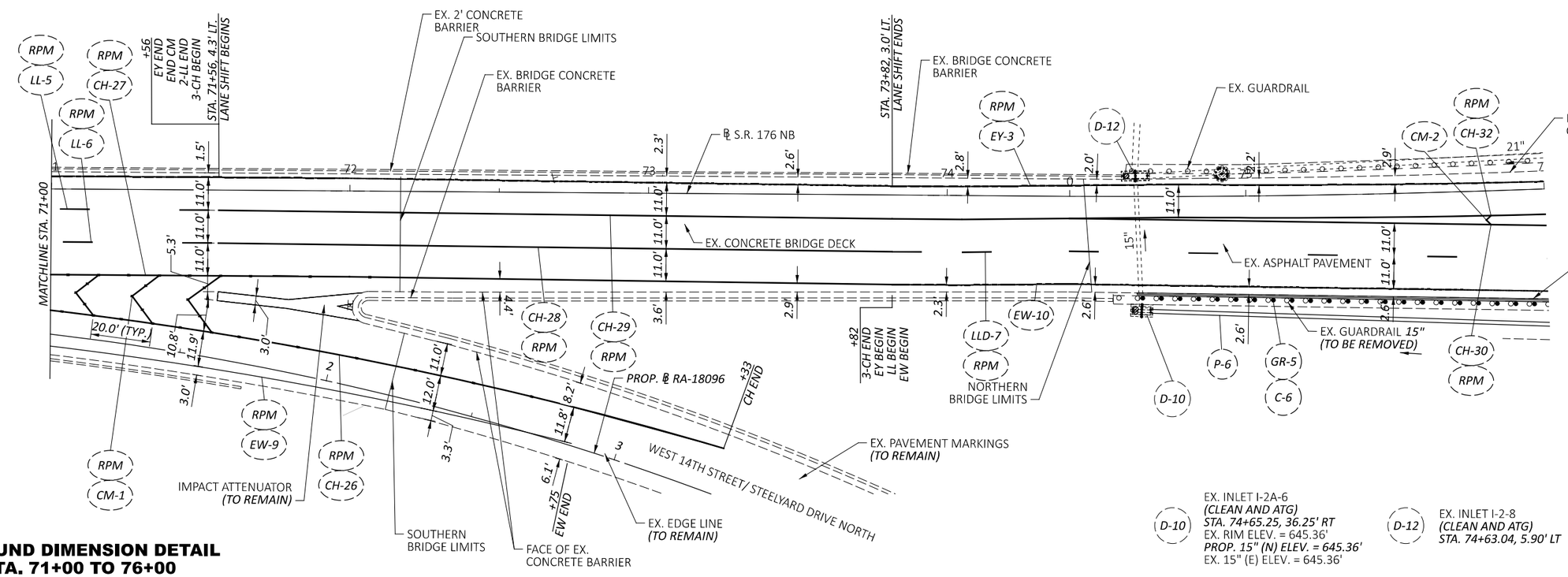
CROSS REFERENCES		
SUBSUMMARIES	P.18 - P.29	
REMOVAL SHEETS	P.30 - P.49	
TRAFFIC CONTROL PLAN	P.50 - P.69	
DETAIL PLANS-CHANNELIZING LINES	P.80 - P.84	



NORTHBOUND DIMENSION DETAIL
S.R. 176 STA. 66+00 TO 71+00
(WEST 14TH STREET/ STEELYARD DRIVE INTERCHANGE)

LEGEND

- S — PROPOSED SIGN
- EXISTING SIGN TO REMAIN
- EW — EDGE LINE, WHITE, 6"
- CH — CHANNELIZING LINE, 12"
- CM — CHEVRON MARKING, 24" (WHITE)
- LLD — LANE LINE, DOTTED, 6"
- EY — EDGE LINE, YELLOW, 6"
- LL — LANE LINE, 6"
- WDLL — DOTTED LINE, WHITE, 12" 3' LINE 9' GAP
- EXISTING RUMBLE STRIP
- RS — RUMBLE STRIP
- RPM — RAISED PAVEMENT MARKER
- TRAFFIC DIRECTION
- CD — CARDINAL DIRECTION MARKING



NORTHBOUND DIMENSION DETAIL
S.R. 176 STA. 71+00 TO 76+00
(WEST 14TH STREET/ STEELYARD DRIVE INTERCHANGE)

D-10 — EX. INLET I-2A-6 (CLEAN AND ATG) STA. 74+65.25, 36.25' RT EX. RIM ELEV. = 645.36' PROP. 15" (N) ELEV. = 645.36' EX. 15" (E) ELEV. = 645.36'

D-12 — EX. INLET I-2-8 (CLEAN AND ATG) STA. 74+63.04, 5.90' LT

HORIZONTAL SCALE IN FEET 0 10 20 40

DETAIL PLAN
S.R. 176 NB - STA. 66+00 TO STA. 76+00

DESIGN AGENCY: CHAGRIN VALLEY ENGINEERING, LTD.

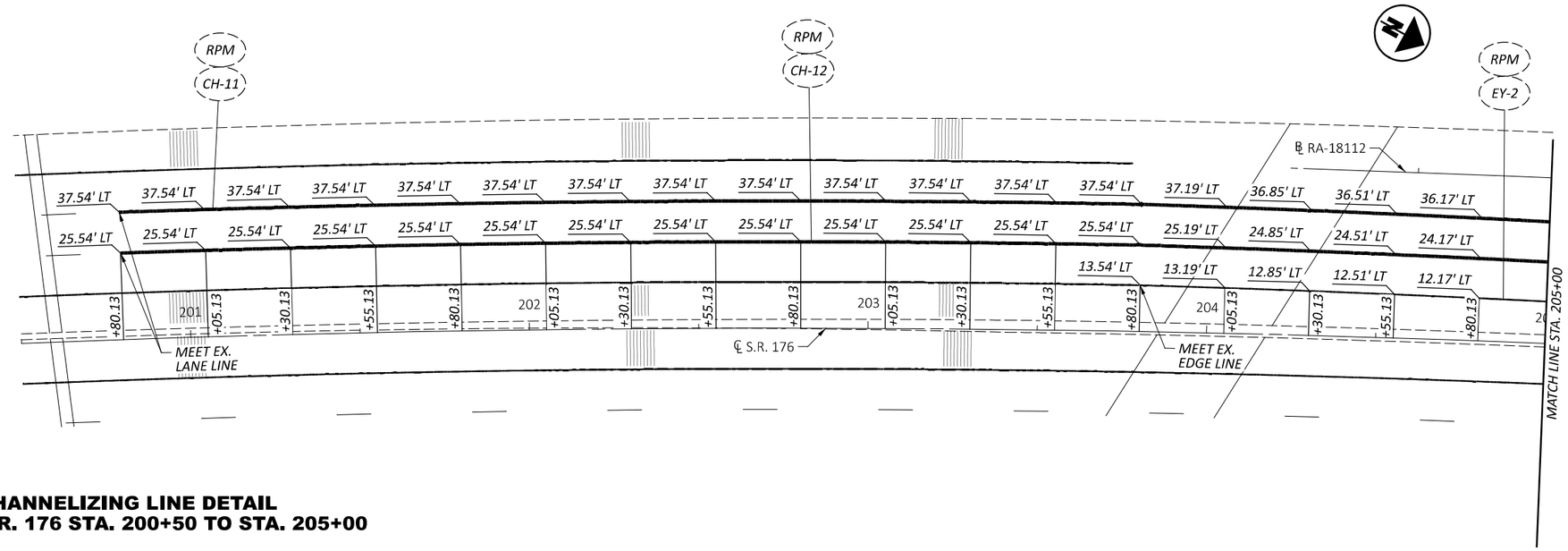
DESIGNER: SHT

REVIEWER: CWP 10/07/25

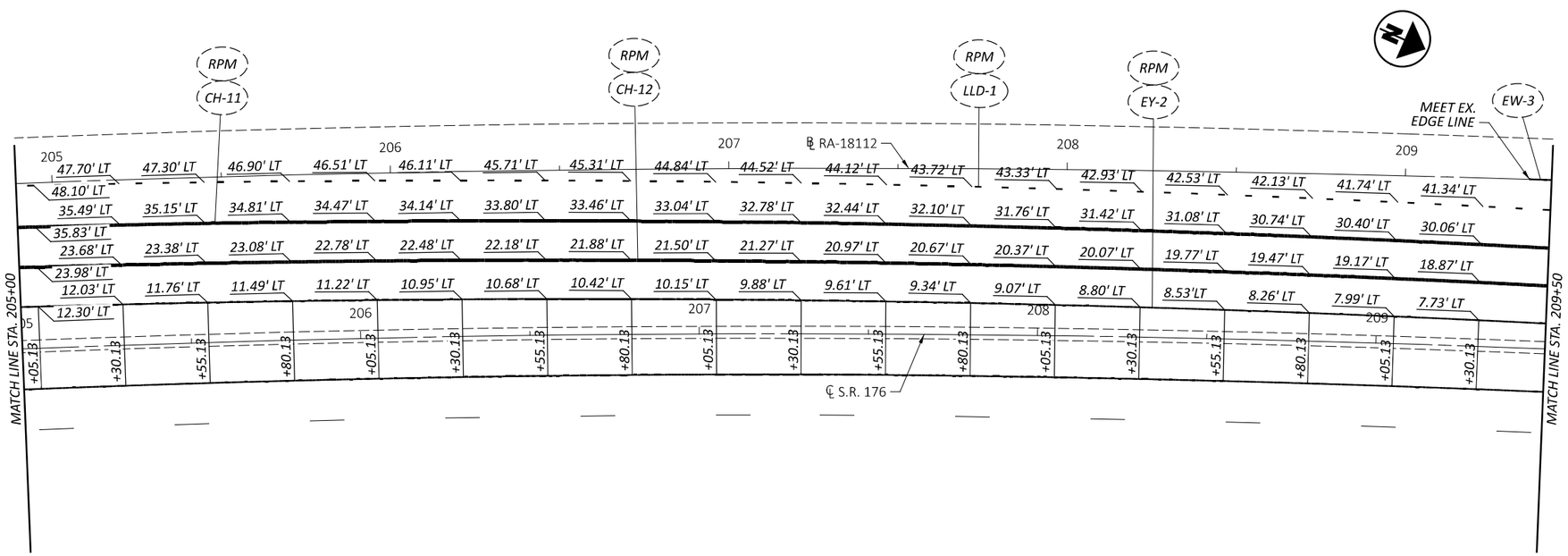
PROJECT ID: 120469

SHEET P.79 TOTAL 86

CUY-176-10.65



CHANNELIZING LINE DETAIL
S.R. 176 STA. 200+50 TO STA. 205+00



CHANNELIZING LINE DETAIL
S.R. 176 STA. 200+50 TO STA. 209+50

CROSS REFERENCES		
SUBSUMMARIES	P.18 -	P.29
REMOVAL SHEETS	P.30 -	P.49
TRAFFIC CONTROL PLAN	P.50 -	P.69
DETAIL PLANS	P.70 -	P.79

HORIZONTAL SCALE IN FEET
0 10 20 40

DETAIL PLAN - CHANNELIZING LINES
S.R. 176 - STA. 200+50 TO STA. 209+50

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

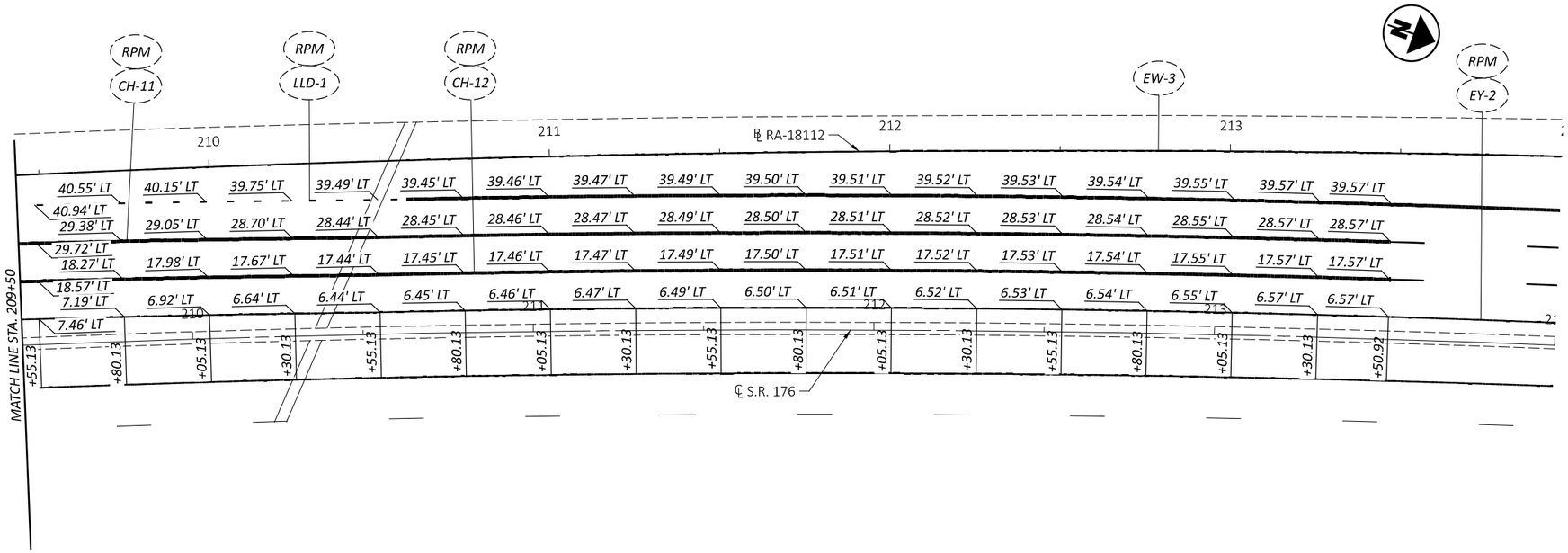
DESIGNER
SHT

REVIEWER
CWP 10/07/25

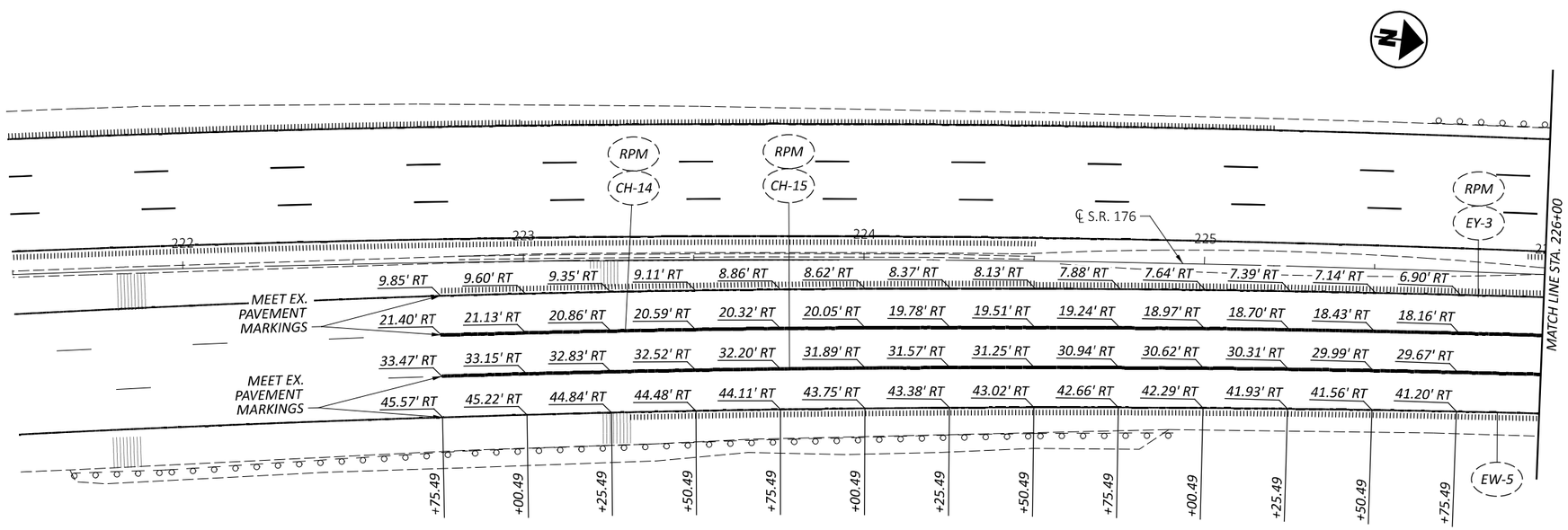
PROJECT ID
120469

SHEET P.80 TOTAL 86

CUY-176-10.65



CHANNELIZING LINE DETAIL
S.R. 176 STA. 209+50 TO STA. 214+00



CHANNELIZING LINE DETAIL
S.R. 176 STA. 221+50 TO STA. 226+00

HORIZONTAL SCALE IN FEET
0 10 20 40

DETAIL PLAN - CHANNELIZING LINES
S.R. 176 - STA. 209+50 TO STA. 214+00 AND STA. 221+50 TO STA. 226+00

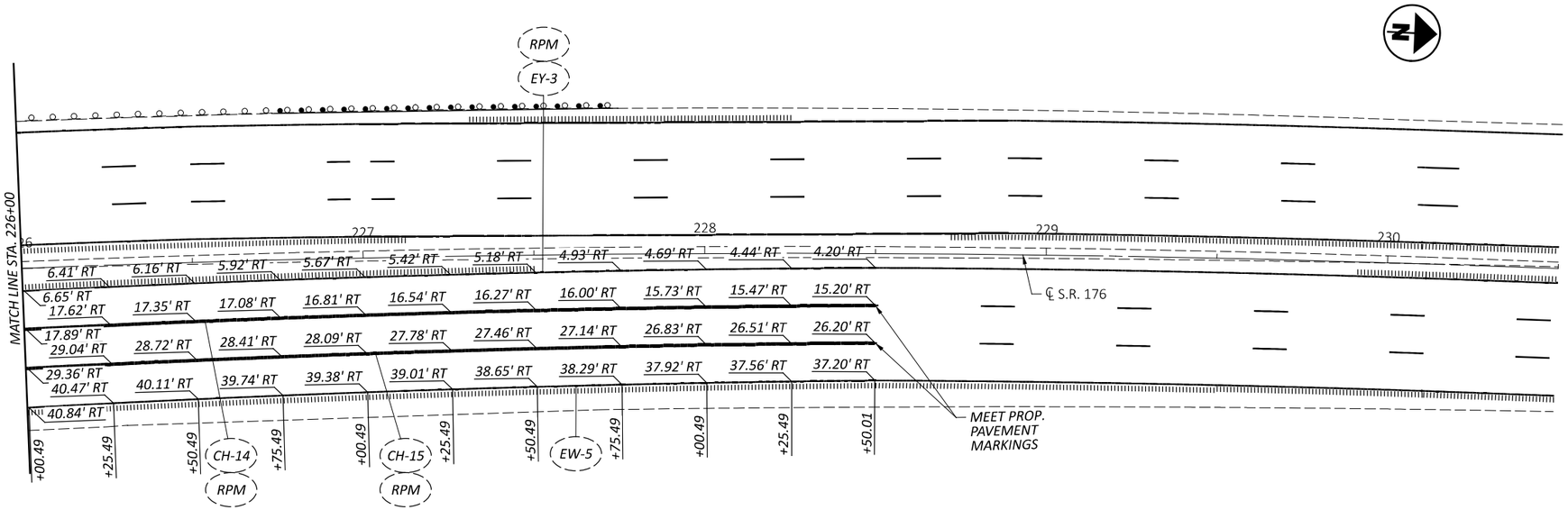
CROSS REFERENCES		
SUBSUMMARIES	P.18	P.29
REMOVAL SHEETS	P.30	P.49
TRAFFIC CONTROL PLAN	P.50	P.69
DETAIL PLANS	P.70	P.79

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER: SHT
REVIEWER: CWP 10/07/25
PROJECT ID: 120469
SHEET: P.81 TOTAL: 86

CUY-176-10.65

MODEL: Sheet 2 PAPERSIZE: 34x22 (in.) DATE: 10/7/2025 TIME: 8:32:57 AM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: thomas@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 120469 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\24156 ODOT D12-D3 GES FY2025-26\119814\Task 8 - CUY-176-10.65\120469\400-Engineering\Traffic\Sheets\120469_TD003.dgn



CHANNELIZING LINE DETAIL
S.R. 176 STA. 226+00 TO STA. 230+50

CROSS REFERENCES		
SUBSUMMARIES	P.18	- P.29
REMOVAL SHEETS	P.30	- P.49
TRAFFIC CONTROL PLAN	P.50	- P.69
DETAIL PLANS	P.70	- P.79

HORIZONTAL SCALE IN FEET
0 10 20 40

DETAIL PLAN - CHANNELIZING LINES
S.R. 176 - STA. 226+00 TO STA. 230+50

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER
SHT

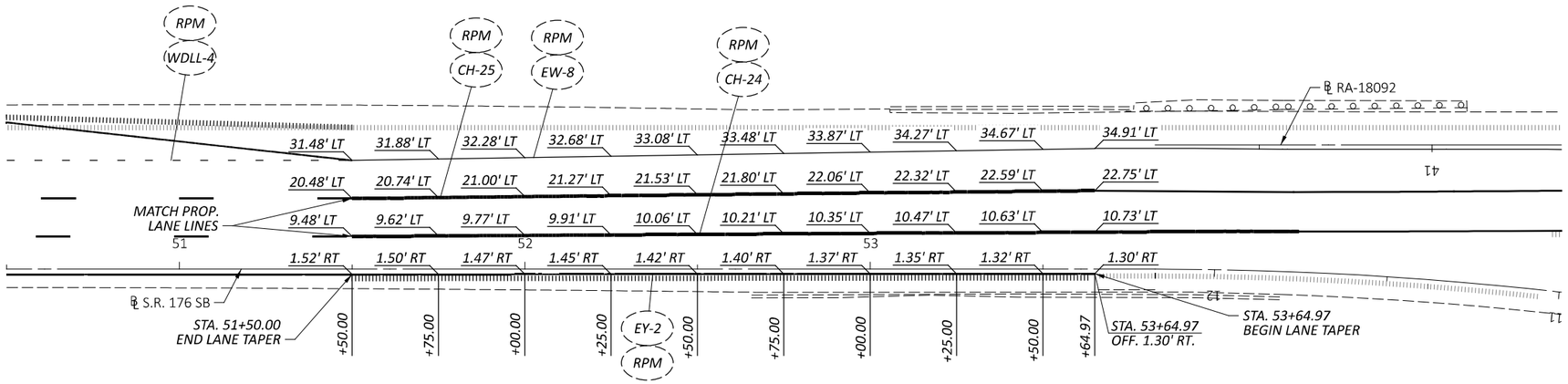
REVIEWER
CWP 10/07/25

PROJECT ID
120469

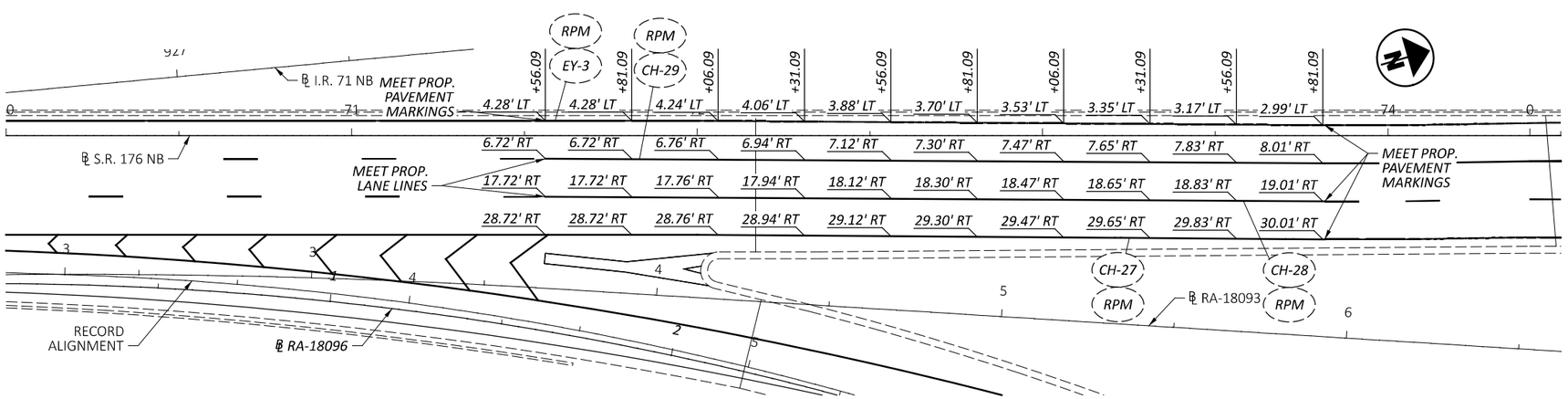
SHEET P.82 TOTAL 86

CUY-176-10.65

MODEL: Sheet 3 PAPERSIZE: 34x22 (in.) DATE: 10/7/2025 TIME: 8:32:59 AM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: thomas@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 120469 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\24156 ODOT D12-D3 GES FY2025-26\119814\Task 8 - CUY-176-10.65\120469\400-Engineering\Traffic\Sheets\120469_TD003.dgn



CHANNELIZING LINE DETAIL
S.R. 176 SB STA. 50+50 TO STA. 53+75



CHANNELIZING LINE DETAIL
S.R. 176 NB STA. 70+00 TO STA. 74+50

CROSS REFERENCES					
SUBSUMMARIES	P.18	-	P.29		
REMOVAL SHEETS	P.30	-	P.49		
TRAFFIC CONTROL PLAN	P.50	-	P.69		
DETAIL PLANS	P.70	-	P.79		

HORIZONTAL SCALE IN FEET
0 10 20 40

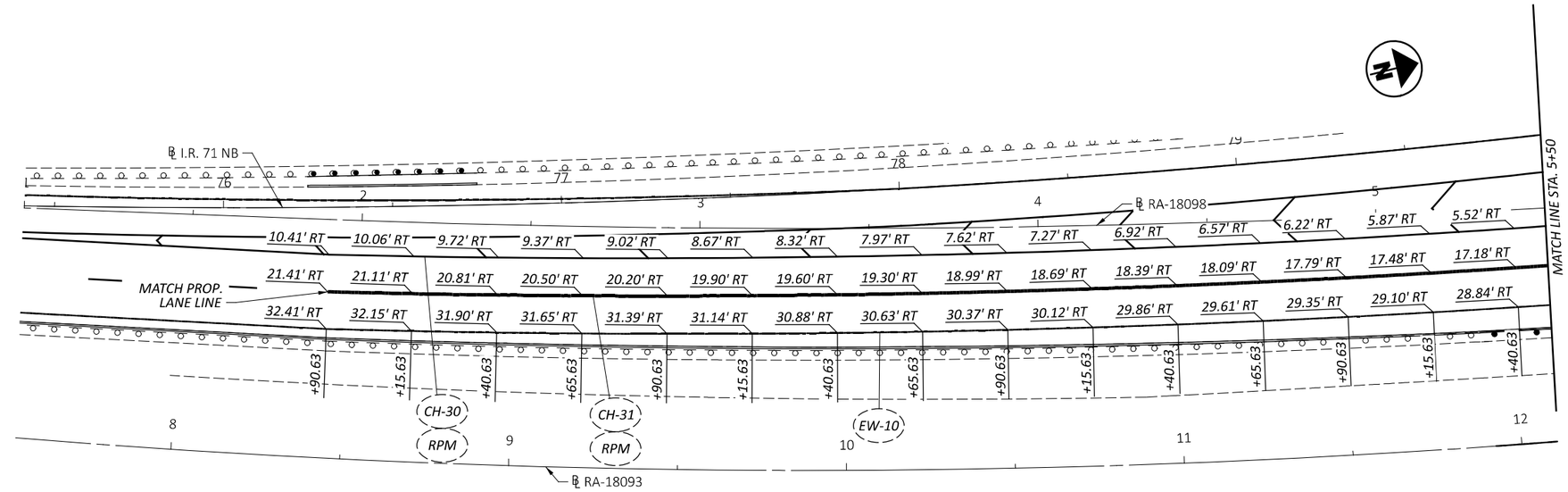
DETAIL PLAN - CHANNELIZING LINES
S.R. 176 SB - STA. 50+50 TO STA. 53+75 AND S.R. 176 NB-STA. 70+00 TO STA. 74+50

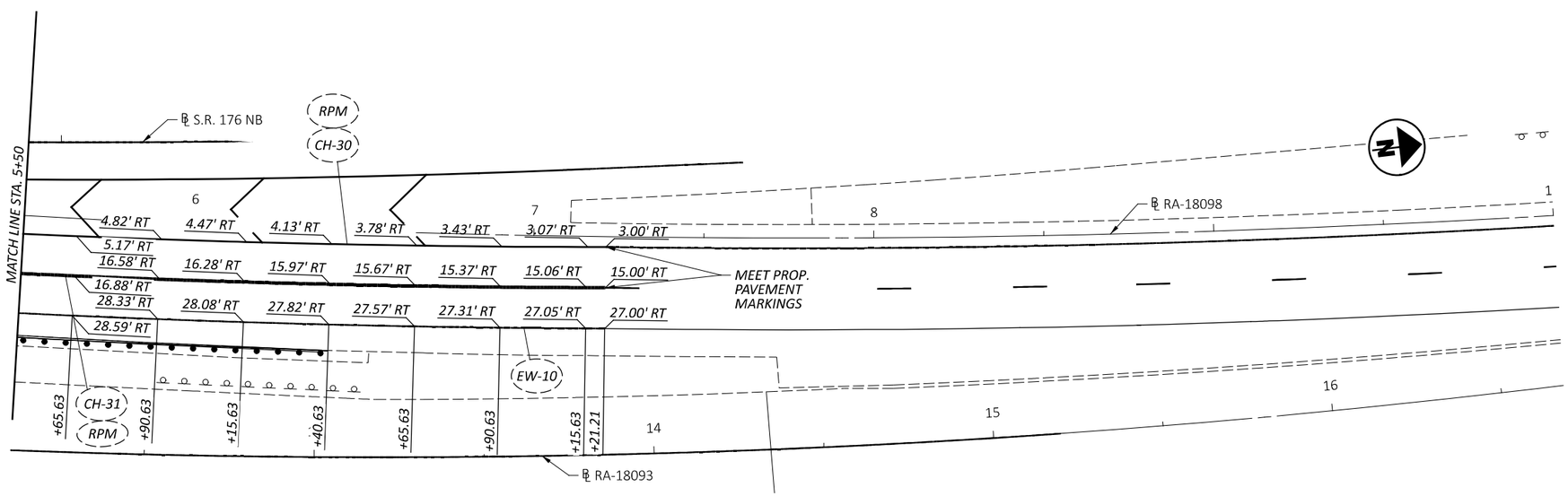
DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER: SHT
REVIEWER: CWP 10/07/25
PROJECT ID: 120469
SHEET: P.83 TOTAL: 86

CUY-176-10.65

MODEL: Sheet 5 PAPERSIZE: 34x22 (in.) DATE: 10/7/2025 TIME: 8:32:59 AM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: thomas@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 120469 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\24156 ODOT D12-D3 GES FY2025-26\119814\Task 8 - CUY-176-10.65\120469\400-Engineering\Traffic\Sheets\120469_TD003.dgn





CROSS REFERENCES		
SUBSUMMARIES	P.18 - P.29	
REMOVAL SHEETS	P.30 - P.49	
TRAFFIC CONTROL PLAN	P.50 - P.69	
DETAIL PLANS	P.70 - P.79	

HORIZONTAL SCALE IN FEET
0 10 20 40

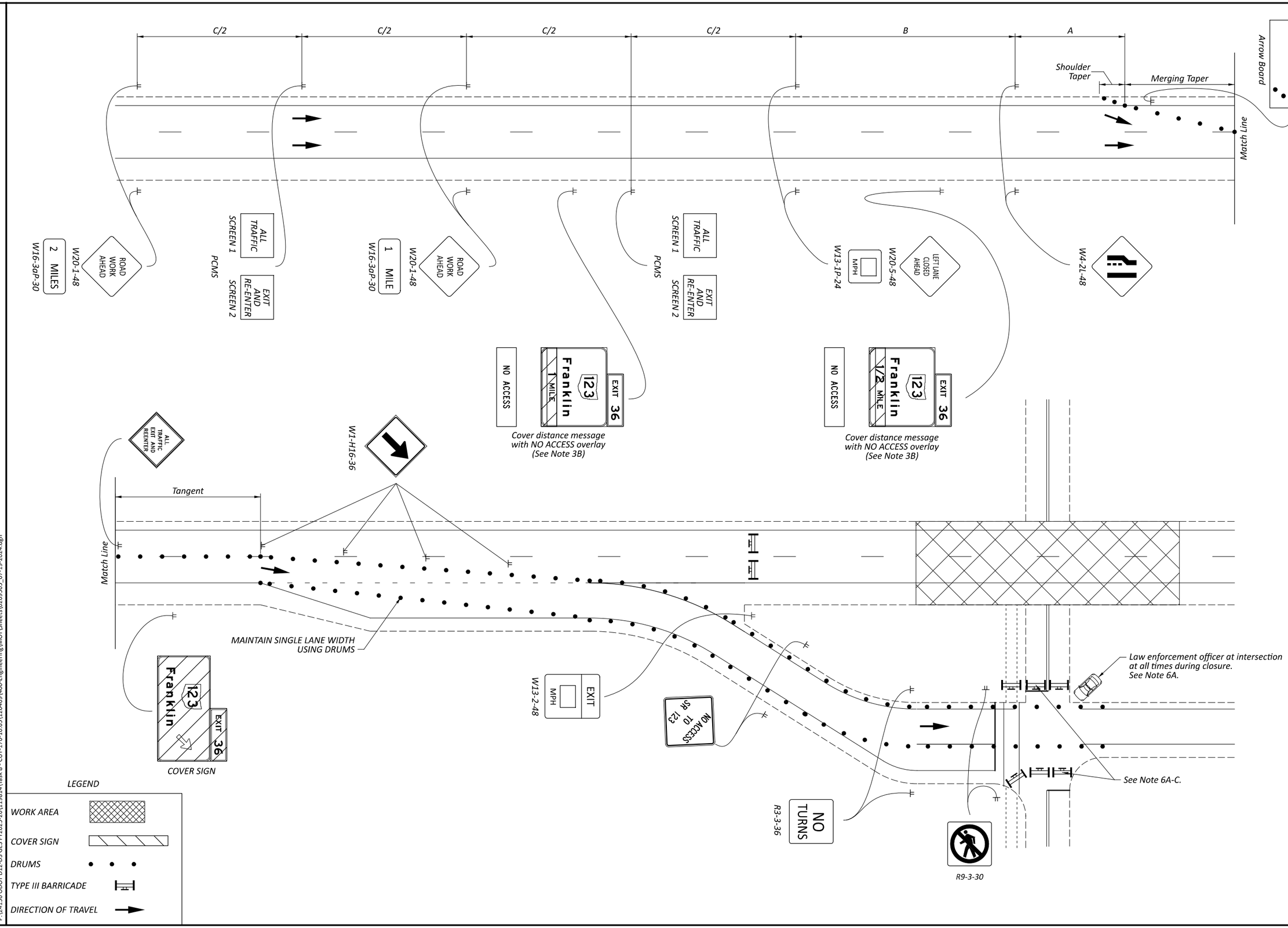
DETAIL PLAN - CHANNELIZING LINES
RA-18098 - STA. 1+00 TO STA. 10+00

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER SHT
REVIEWER CWP 10/07/25
PROJECT ID 120469
SHEET P.84 TOTAL 86

CUY-176-10.65

MODEL: Sheet 7 PAPERSIZE: 34x22 (in.) DATE: 10/7/2025 TIME: 8:33:01 AM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: thomas@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 120469 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\24156 ODOT D12-D3 GES FY2025-26\119814\Task 8 - CUY-176-10.65\120469\400-Engineering\Traffic\Sheets\120469_TD003.dgn



OFFICE OF ROADWAY ENGINEERING

REVISION DATE 07-19-2024

MAINTAINING MAINLINE TRAFFIC USING RAMPS
WEEKEND CLOSURE DETAIL
PIS 209565

DESIGN AGENCY

DESIGNER: PTB

REVIEWER: XXX MM-DD-YY

PROJECT ID: 120469

SUBSET 1 | TOTAL 2

SHEET P.85 | TOTAL 86

CUY-176-10.65

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 10/7/2025 TIME: 8:35:05 AM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: thomas@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 120469 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\24156 ODOT D12-D3 GES FY2025-26\119814\Task 8 - CUY-176-10.65\120469\400-Engineering\MOT\Sheets\0209565_07-19-2024.dgn

TABLE I (SIGN SPACING)

ROAD TYPE	DISTANCE BETWEEN SIGNS (FT)		
	A	B	C
FREEWAY & EXPRESSWAY	1000	1500	2640

TABLE II

SPEED LIMIT (MPH)	MERGING OR SHIFTING TAPER RATE MINIMUM	TANGENT (FT)	SHOULDER TAPER RATE MINIMUM	PB FLARE RATE MINIMUM	MAXIMUM DRUM SPACING (FT)		BUFFER (D) (FT) MINIMUM	CLEAR ZONE WIDTH (FT)
					TAPER SEC.	TANGENT SEC.		
25	11:1	-----	4:1	8:1	25	40	155	15
30	15:1	-----	5:1	8:1	30	40	200	15
35	21:1	-----	7:1	9:1	35	40	250	15
40	27:1	-----	9:1	10:1	40	80	305	15
45	45:1	270	15:1	12:1	45	80	360	19
50	50:1	300	17:1	14:1	50	80	425	19
55	55:1	330	19:1	16:1	55	80	495	23
60	60:1	360	20:1	18:1	60	120	570	30
65	65:1	390	22:1	19:1	65	120	645	30
70	70:1	420	24:1	20:1	70	120	730	30

NOTES:

GENERAL

1A. The use of this plan insert sheet requires MOTEC approval.

1B. This plan insert sheet shall not be used for operations longer than 72 hours.

TAPERS

2. The minimum acceptable length for the shift taper shall be determined by multiplying the width of offset by the shift taper rate. The shift taper rate is provided in Table II.

SIGNING AND SIGNALS

3A. Place the signal in yellow-red flash (yellow for major ramp movement, red for minor movement). Cover pedestrian signal heads and pushbuttons. All other conflicting traffic control signs at the intersection shall be covered if the closure is longer than 24 hours.

3B. A NO ACCESS overlay shall be placed across all extrusheet guide signs pertaining to the exit when the closure is expected to last longer than 24 hours. If the closure is 24 hours or shorter, portable changeable message signs may be used instead.

If the closure is longer than 24 hours, cover all other conflicting signs for the affected interchange (including non-mainline signs) with either a blank overlay or a temporary message as called for in the plans.

3C. Cover the existing Exit Gore sign (E5-H1 series).

3D. Include appropriate detour signing (vehicular and pedestrian) when the closure is longer than 24 hours, or as called for in the plans.

3E. The Advisory Speed (W13-1P) plaque shall be used when specified in the plans.

3F. The Work Zone Increased Penalties (R11-H5a) sign shall be used when called for in the plans.

3G. The ROAD WORK AHEAD (W20-1-48) sign should be provided as shown, if not already within the work zone.

3H. Additional information shall be provided in the form of fixed signs and/ or changeable message signs as called for in the plans.

3I. The spacing between work zone signs, as shown in Table I, are minimums. Maximum spacing should not be greater than 1.5 times the distances shown in Table I.

3J. Sign spacing should be adjusted to avoid conflict with existing signs. Minimum spacing to existing signs shall be 200' for speeds of 45 mph or less and a minimum of 400' for speeds 50 mph or greater.

3K. Sign locations should be adjusted to provide adequate sight distance for the existing vertical and horizontal roadway alignment.

PAVEMENT MARKINGS

4A. Closures in place longer than 3 days require removal of existing markings and raised pavement marker reflectors and placement of work zone pavement markings per CMS 614.11.

4B. Work zone pavement markings which would conflict with the final traffic lanes shall be removable (CMS 740.06, Type I) tape unless the area will be resurfaced prior to project completion.

4C. After completion of the work, pavement markings other than CMS 740.06, Type I shall be removed in accordance with CMS 641.10. The original markings and raised pavement marker reflectors shall be restored at no additional cost unless separately itemized in the plans.

4D. Edge lines shall be of the appropriate color for the direction of travel. If the work zone edge lines are located on the same alignment as existing lines, the work zone lines may be painted over top of the existing lanes.

RUMBLE STRIPS

5. Closures in place longer than 3 days require removal of existing rumble strips that conflict with the temporary alignment. Eliminate the rumble strips with pavement planing and resurfacing.

PORTABLE BARRIER (PB)

6A. PB may be used in lieu of Type III barricades. If PB is used, a law enforcement officer at the intersection is not required.

6B. Portable barrier shall be terminated outside of the clear zone in place of the impact attenuator at locations where the PB can be extended to provide a minimum of two full sections of PB outside of the clear zone for approaching traffic. See Table II for minimum PB flare rates and clear zone widths.

6C. For details on delineation of portable barrier, see Standard Construction Drawing MT-101.70.

SIDE STREET MAINTENANCE OF TRAFFIC

7A. If the closure is longer than 24 hours, cover all conflicting signs for the affected interchange (including non-mainline signs) with either a blank overlay or a temporary message as called for in the plans.

7B. At adjacent intersections, close thru lanes and turn lanes with drums, as applicable.

7C. Include appropriate detour signing (vehicular and pedestrian) when the closure is longer than 24 hours, or as called for in the plans.

MULTIPLE LANE CLOSURES

8. See MT-95.30 for details on closing multiple lanes

OFFICE OF ROADWAY ENGINEERING

REVISION DATE 07-19-2024

MAINTAINING MAINLINE TRAFFIC USING RAMPS
WEEKEND CLOSURE DETAIL
PIS 209565

DESIGN AGENCY

DESIGNER PTB

REVIEWER XXX MM-DD-YY

PROJECT ID 120469

SUBSET 2 TOTAL 2

SHEET P.86 TOTAL 86

CUY-176-10.65

MODEL: Sheet 2 PAPERSIZE: 34x22 (in.) DATE: 10/7/2025 TIME: 8:35:06 AM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: thomas@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 120469 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\24156 ODOT D12-D3 GES FY2025-26\119814\Task 8 - CUY-176-10.65\120469\400-Engineering\MOT\Sheets\0209565_07-19-2024.dgn