



LOCATION MAP

LATITUDE: 39 °13'29" LONGITUDE: -84°26'24"



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

DESIGN DESIGNATION	US42 SOUTH OF COLUMBIA AVE	US42 NORTH OF COLUMBIA AVE
CURRENT ADT (2025)	11,500	16,000
DESIGN YEAR ADT (2045)	11,500	17,500
DESIGN HOURLY VOLUME (2045)	1,300	2,100
DIRECTIONAL DISTRIBUTION	61%	55%
TRUCKS (24 HOUR B&C)	3%	2%
DESIGN SPEED	25 MPH	25 MPH
LEGAL SPEED	25 MPH	25 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	URBAN PRINCIPAL ARTERIAL	URBAN PRINCIPAL ARTERIAL
NHS PROJECT	NO	NO

DESIGN EXCEPTIONS
 NONE REQUIRED
 Still needs to be vetted for minimum lane width of 12'...due to US42 being on the National Trucking Network. Turning movements will not drive the need for a design exception. A WB-62 must simply be able to safely traverse through the US42 through lanes of each intersection.

ADA DESIGN WAIVERS

UNDERGROUND UTILITIES
 Contact Two Working Days Before You Dig

OHIO811.org
 Before You Dig

OHIO 811, 8-1-1, or 1-800-362-2764
 (Non members must be called directly)

PLAN PREPARED BY:
CMT
 CRAWFORD, MURPHY & TILLY, INC.

ENGINEER'S SEAL:
 SIGNED: _____
 DATE: _____

ENGINEER'S SEAL:
 SIGNED: _____
 DATE: _____

INDEX OF SHEETS:

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Provide turning templates for any bump outs as applicable so as to compare existing conditions with proposed.

Using a WB-62 as the design vehicle.

this is not considered a standard drawing, any details would need to be in the plans

STATE OF OHIO
 DEPARTMENT OF TRANSPORTATION
HAM US 42 10.07 READING RD
 HAMILTON, WARREN COUNTY
 CITY OF READING

project is not in Warren Co

REVIEW COMPLETE

PM	Katherine S. DeStefano, P.E.	11/12/2025
BRIDGES		
CONSTRUCT	Chris Tuminello, P.E.	09/23/2025
	Grant Winterkorn, EIT	09/24/2025
DRAINAGE	Tami Brehm, P.E.	10/08/2025
ENVIRON		
GEOTECH	Casey Carriere, P.E.	10/07/2025
ITS		
MOT	Scott Kraus, P.E.	11/11/2025
PAVEMENT	Jennifer Elston,	10/20/2025
ROADWAY	John Otis, P.E.	11/06/2025
R/W	James Zeller	10/21/2025
SURVEY		
TRAFFIC	Teri C. Scanlon, P.E.	10/21/2025
UTILITIES	Lucas W. Braun, P.E.	10/21/2025
OTHER	Alex Genbauffe, P.E.	10/23/2025
OTHER		

FEDERAL PROJECT NUMBER

E250756

RAILROAD INVOLVEMENT

N/A There is a RR within the project limits

PROJECT DESCRIPTION

IMPLEMENT TARGET SPEED PILOT PROGRAM COUNTERMEASURES ON US-42 IN THE CITY OF READING INCLUDING A ROAD DIET, ENHANCED CROSSWALKS, RRFBS, RAISED MEDIANS, IN AN EFFORT TO LOWER TRAVEL SPEEDS AND INCREASE VEHICULAR AND PEDESTRIAN SAFETY.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA:	1.03 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	0.25 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA:	N/A (NOI NOT REQUIRED)*

* ROUTINE MAINTENANCE PROJECT

I really dont think this project qualifies for Routine Maintenance. Is it possible to get the Project EDA below 1.00 acre? If we can be confident in the value, 0.99 would mean that no BMP are needed. If we cannot get below 1.00, then I can check with CO what their thoughts are on if it is Routine Maintenance, but with the long sections of widening and diet, I dont think it will be approved as Routine Maintenance

2023 SPECIFICATIONS

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

Katie - Ellis currently does not have any RR agreement info or RR funding.

Current northern limit in Ellis does not match the limit shown in the plans.

MOT endorsement

STANDARD CONSTRUCTION DRAWINGS						SUPPLEMENTAL SPECIFICATIONS	SPECIAL PROVISIONS
BP-3.1	1/19/24	MT-95.31	7/18/25	TC-52.10	10/18/13	MDG -DWG 4.2	814 7/15/16
BP-5.1	7/18/25	MT-95.32	7/18/25	TC-52.20	1/15/21		832 7/18/25
BP-7.1	7/18/25	MT-95.60	4/19/19	TC-61.10	4/21/23		
		MT-95.61	4/19/19	TC-71.10	7/18/25		800
CB-3	7/19/24	MT-97.12	7/18/25	TC-74.10	7/21/23		
		MT-101.90	7/17/20	TC-81.22	1/17/25		
DM-1.1	1/17/25	MT-110.10	7/19/13	TC-82.10	1/17/25		
DM-4.4	1/15/16			TC-83.10	1/17/20		
		TC-16.22	7/18/25	TC-83.20	7/18/25		
MH-3	7/19/24	TC-21.21	7/18/25	TC-85.10	1/19/24		
		TC-22.10	1/17/25	TC-85.20	4/21/23		
RM-3.1	7/20/18	TC-41.20	10/18/13	TC-87.10	7/18/25		
RM-5.1	7/18/14	TC-41.30	4/21/23				
		TC-41.40	10/18/13				
HL-20.11	7/18/25	TC-41.41	7/19/19				
		TC-42.20	10/18/13				

APPROVED _____
 DATE _____ DISTRICT DEPUTY DIRECTOR

APPROVED _____
 DATE _____ DIRECTOR, DEPARTMENT OF TRANSPORTATION

DESIGN AGENCY
CMT
 CRAWFORD, MURPHY & TILLY, INC.
 1777 WASHINGTON VILLAGE DR
 DAYTON, OHIO 45459
 (937) 233-3300
 www.cmtinc.com

DESIGNER
 LDW

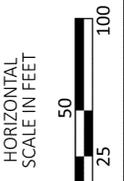
REVIEWER
 JWL 09/18/25

PROJECT ID
 123369

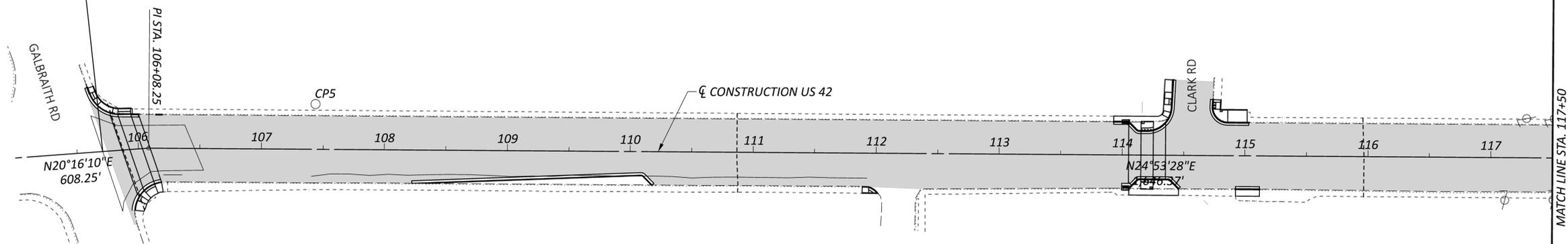
SHEET TOTAL
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POINT NAME	ALIGNMENT	STATION	OFFSET	SIDE	NORTHING	EASTING	ELEVATION	TYPE	NOTE
CP100	CL_CONST_US42	166+69.62	41.397	RT	374283.12	209804.26	570.73	CNPT	¾" Rebar w/ Alum. Cap (Primary Project Control)
CP1	CL_CONST_US42	208+93.09	33.421	LT	378062.98	211684.36	574.98	CNPT	¾" Rebar w/ Alum. Cap (Primary Project Control)
CP2	CL_CONST_US42	189+10.39	79.58	LT	376340.83	210700.92	580.69	CNPT	¾" Rebar w/ Alum. Cap (Primary Project Control)
CP3	CL_CONST_US42	149+57.49	41.037	LT	372767.14	209004.25	565.56	CNPT	¾" Rebar w/ Alum. Cap (Primary Project Control)
CP4	CL_CONST_US42	123+56.65	51.18	RT	370371.13	207988.44	554.77	CNPT	¾" Rebar w/ Alum. Cap (Primary Project Control)
CP5	CL_CONST_US42	107+43.68	36.704	LT	368945.05	207229.77	574.90	CNPT	¾" Rebar w/ Alum. Cap (Primary Project Control)

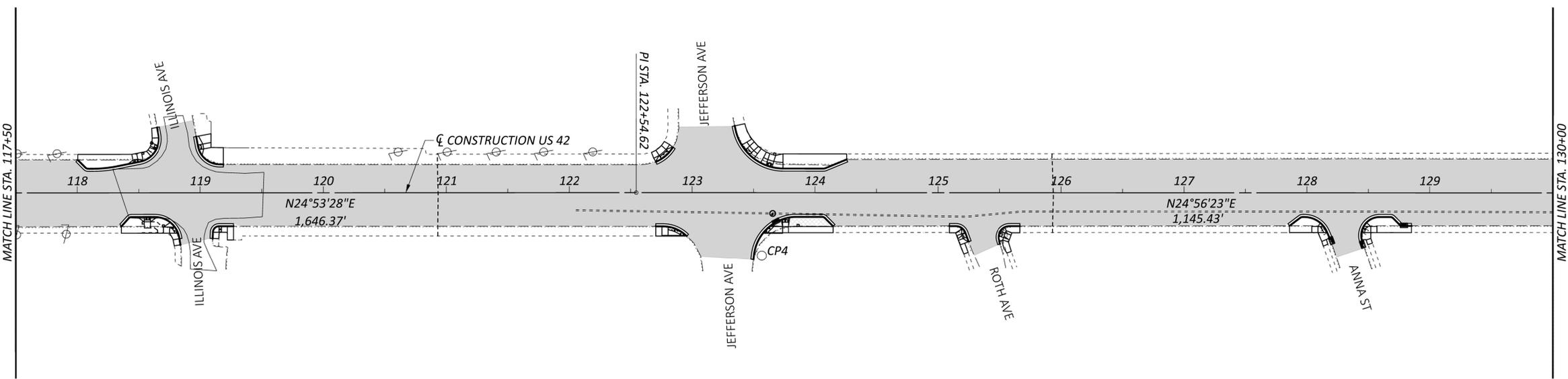
NOTE:
 REFER TO THE SURVEYING PARAMETERS NOTE IN THE
 GENERAL NOTES FOR PROJECT CONTROL INFORMATION



BEGIN WORK
 STA. 105+70.86
 BEGIN PROJECT
 STA. 105+70.86



Define fill /add a legend



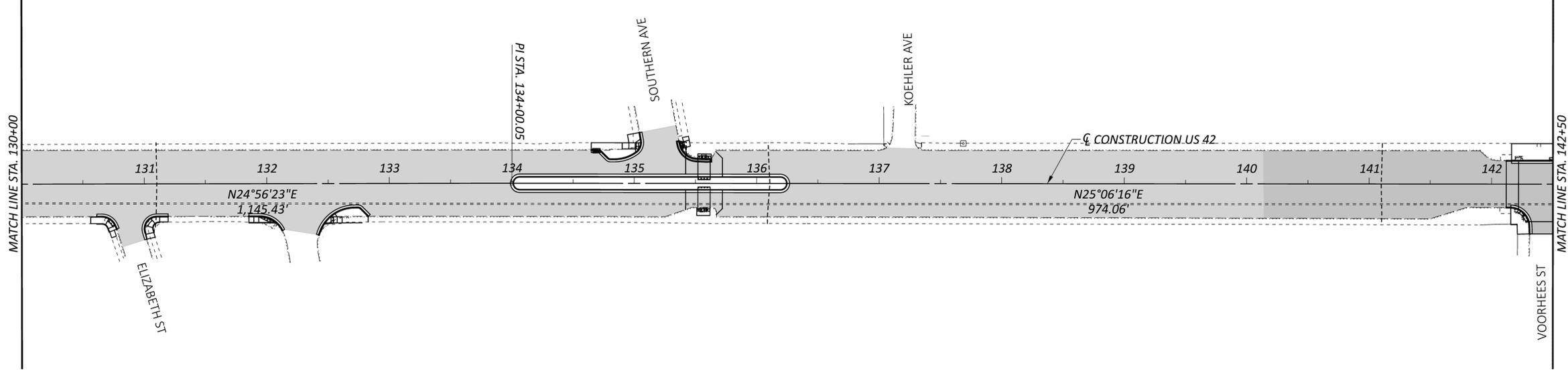
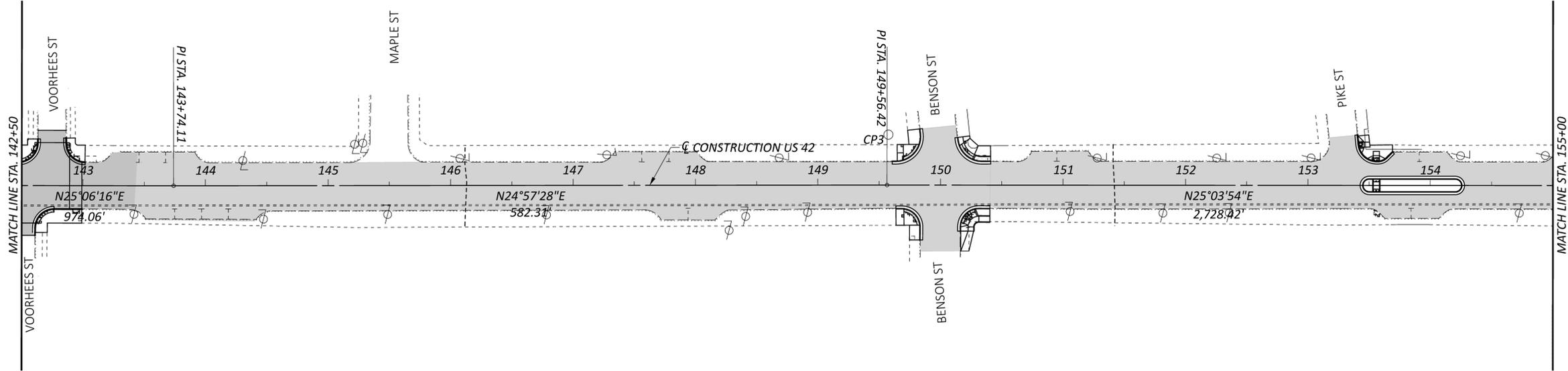
SCHEMATIC PLAN
 STA. 105+70.86 TO STA. 130+00.00

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SHEET	123369
TOTAL	104
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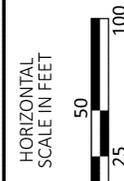
HAM US 42 10.07 READING RD

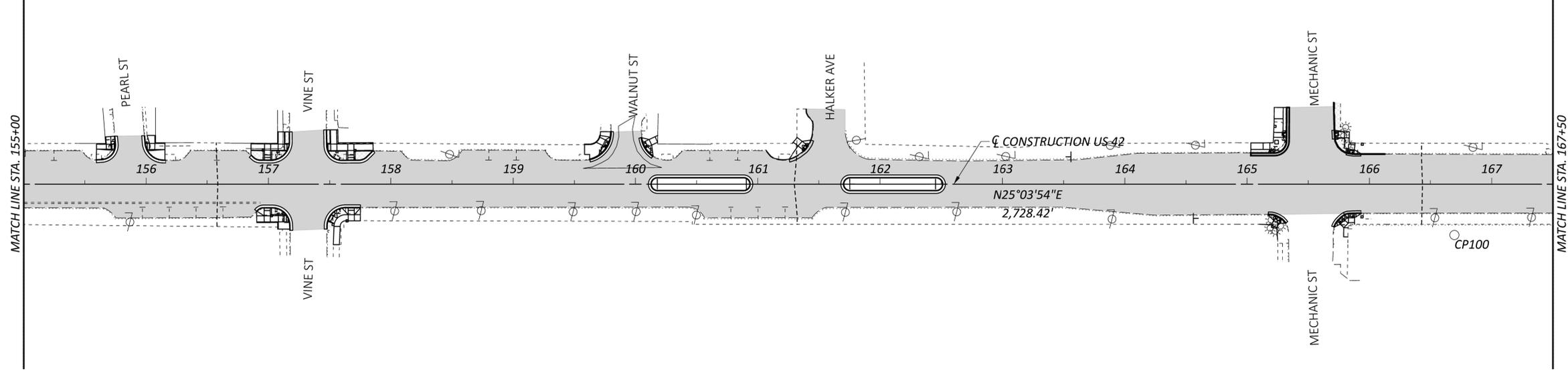
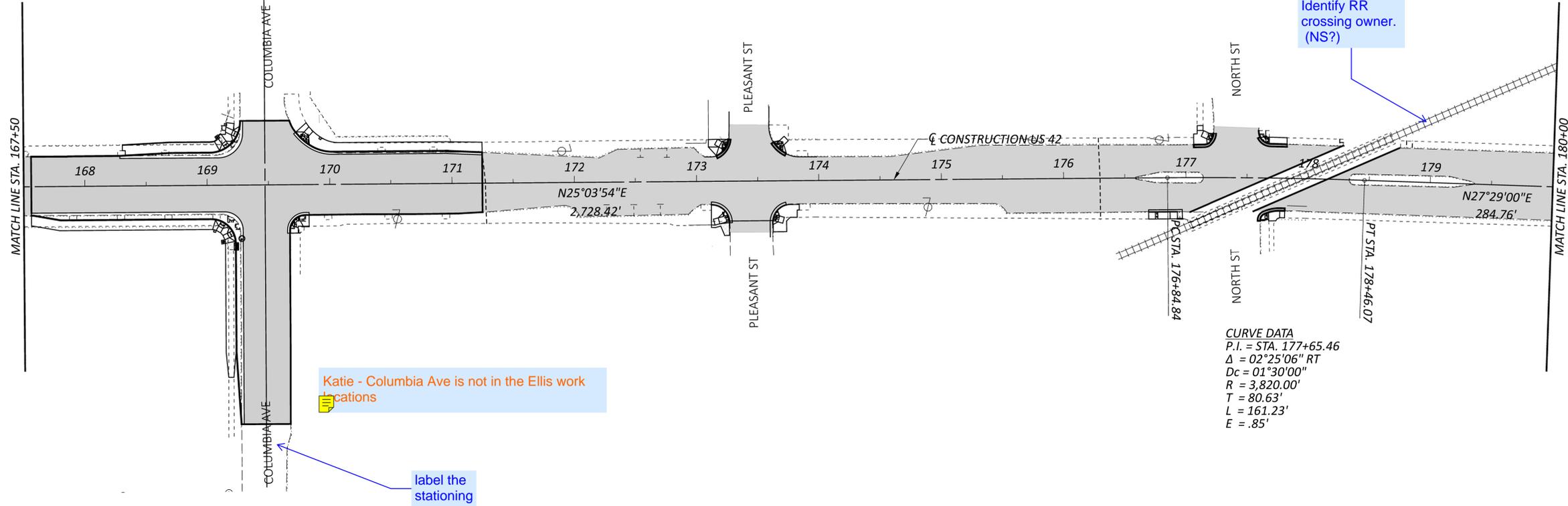
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 PROJECT ID
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 SHEET TOTAL
 P.3 104

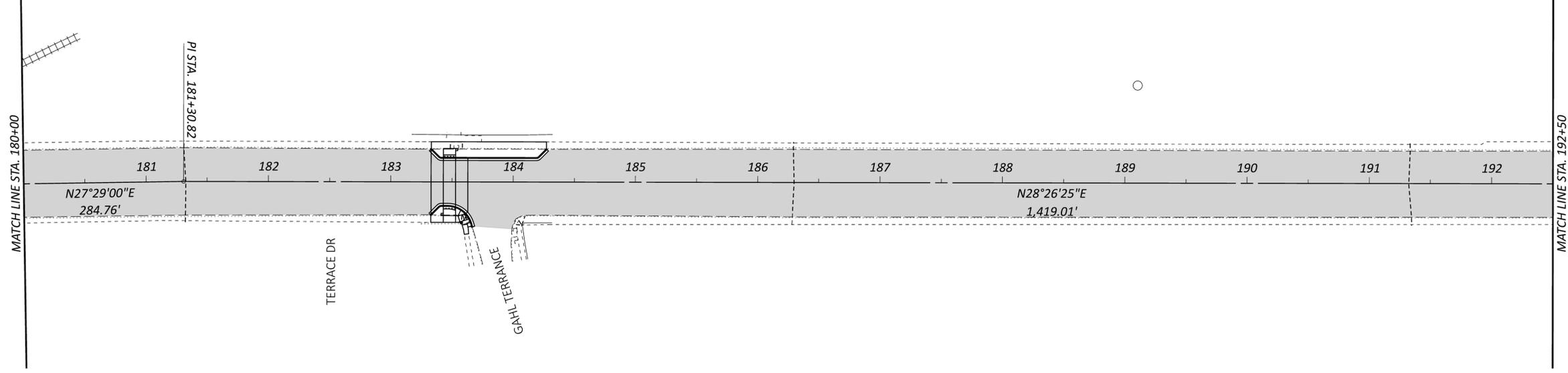
SCHEMATIC PLAN
 STA. 130+00 TO STA. 155+00





HAM US 42 10.07 READING RD

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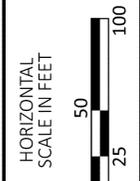
DESIGNER
 LDW

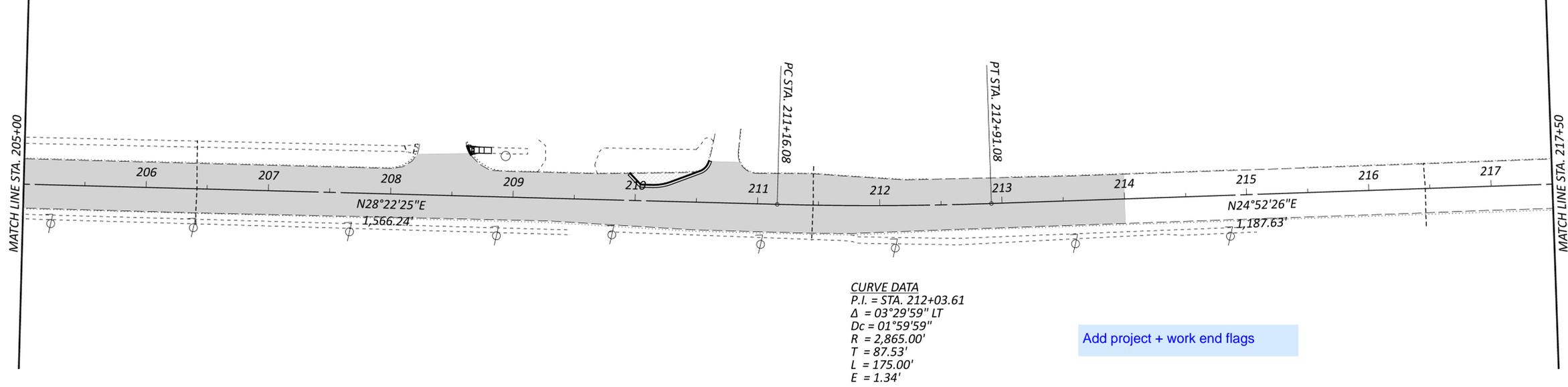
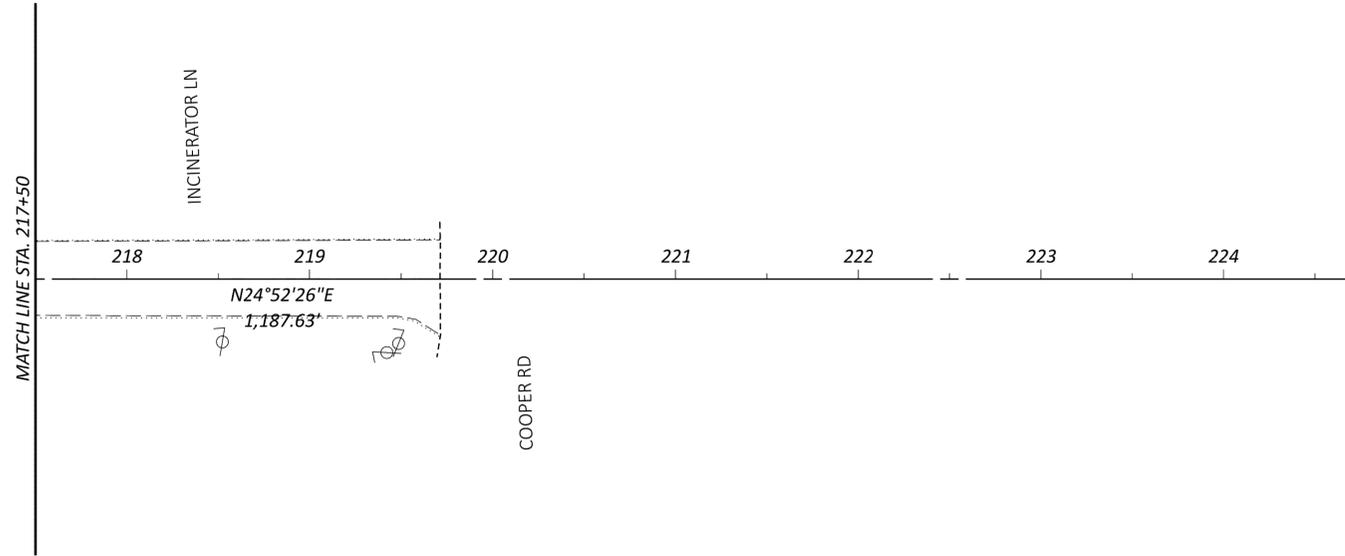
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 123369

SHEET TOTAL
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SCHEMATIC PLAN
 STA. 180+00 TO STA. 205+00





CURVE DATA
 P.I. = STA. 212+03.61
 $\Delta = 03^{\circ}29'59''$ LT
 Dc = $01^{\circ}59'59''$ LT
 R = 2,865.00'
 T = 87.53'
 L = 175.00'
 E = 1.34'

Add project + work end flags



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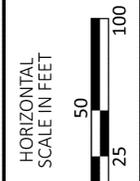
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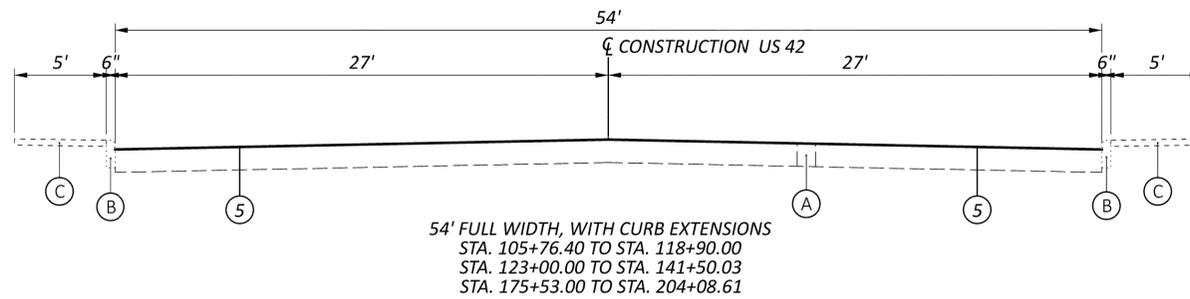
PROJECT ID
 123369

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SCHEMATIC PLAN
 STA. 205+00 TO STA. 224+00

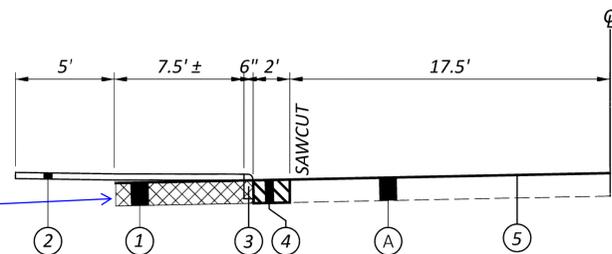


Add a note stating to sawcut to sound pavement.

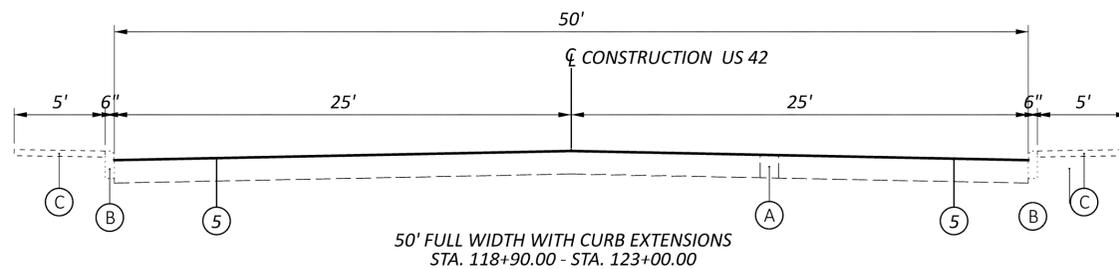
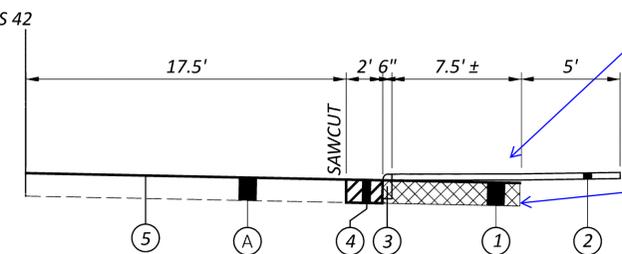


standard walk cross slope is 1.56%

Same comment as right side.



What will replace pavement removed under the new concrete walk. Currently it appears there is a void between 1 and 2.



specify type of pavement being removed

typically this is an item 253 which includes sawcuts. it's paid as CY. buildup will need provided

Separate balloons

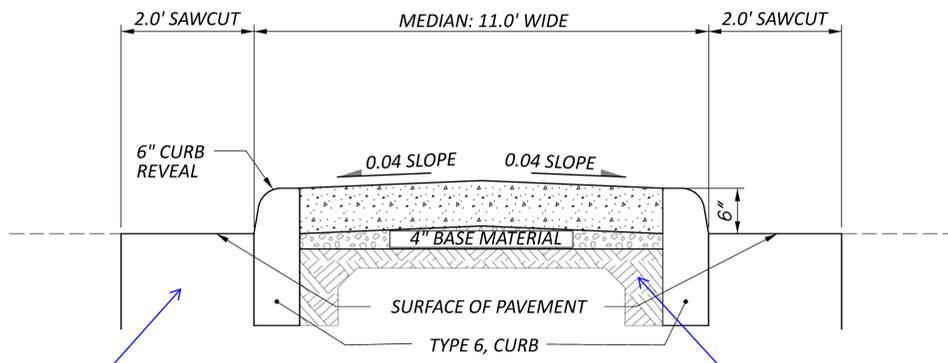
General Comment: Thicknesses of pavement items need to be defined.

LEGEND

- ① ITEM 202 - PAVEMENT REMOVED
- ② ITEM 608 - 4" CONCRETE WALK
- ③ ITEM 609 - CURB, TYPE 4-C
- ④ ITEM 442 - FULL DEPTH PAVEMENT REPAIR
- ⑤ ITEM 421 - MICROSURFACING, SURFACE COURSE
- ⑥ ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE, 1.5"
- ⑥ ITEM 407 - NON-TRACKING TACK COAT
- ⑥ ITEM 441 - ASPHALT CONCRETE, SURFACE COURSE, TYPE 1, (449), PG 64-22
- ⑦ ITEM 301 - ASPHALT CONCRETE BASE, PG64-22, (449)
- ⑧ ITEM 304 - AGGREGATE BASE
- ⑨ ITEM 441 - ASPHALT CONCRETE, SURFACE COURSE, TYPE 1 (449), (PG 64-22)
- ⑩ ITEM 441 - ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1 (449)
- ⑪ ITEM 407 - NON-TRACKING TACK COAT
- ⑫ ITEM 609 - CURB, TYPE 6
- (A) EXISTING PAVEMENT
- (B) EXISTING CURB
- (C) EXISTING WALK

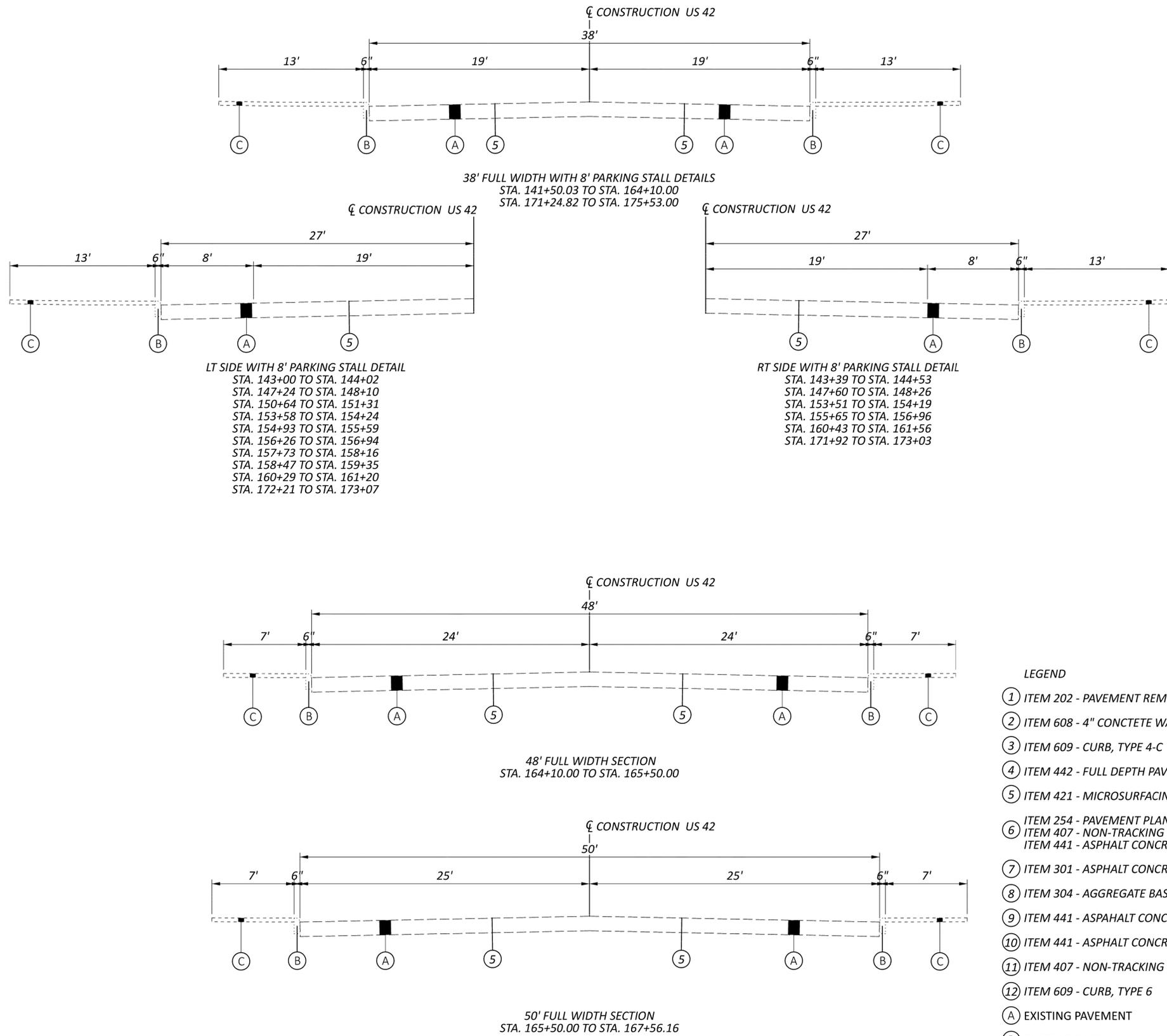
Specify thickness and material. Will need separate sawing item unless making APP.

Define as asphalt, composite?



what is going back?

existing pavement to be removed and replaced with embankment?



LT SIDE WITH 8' PARKING STALL DETAIL
 STA. 143+00 TO STA. 144+02
 STA. 147+24 TO STA. 148+10
 STA. 150+64 TO STA. 151+31
 STA. 153+58 TO STA. 154+24
 STA. 154+93 TO STA. 155+59
 STA. 156+26 TO STA. 156+94
 STA. 157+73 TO STA. 158+16
 STA. 158+47 TO STA. 159+35
 STA. 160+29 TO STA. 161+20
 STA. 172+21 TO STA. 173+07

RT SIDE WITH 8' PARKING STALL DETAIL
 STA. 143+39 TO STA. 144+53
 STA. 147+60 TO STA. 148+26
 STA. 153+51 TO STA. 154+19
 STA. 155+65 TO STA. 156+96
 STA. 160+43 TO STA. 161+56
 STA. 171+92 TO STA. 173+03

- LEGEND
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 - ③ ITEM 609 - CURB, TYPE 4-C
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 - ⑩ ITEM 441 - ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1 (449)
 - ⑪ ITEM 407 - NON-TRACKING TACK COAT
 - ⑫ ITEM 609 - CURB, TYPE 6
 - Ⓐ EXISTING PAVEMENT
 - Ⓑ EXISTING CURB
 - Ⓒ EXISTING WALK

TYPICAL SECTIONS

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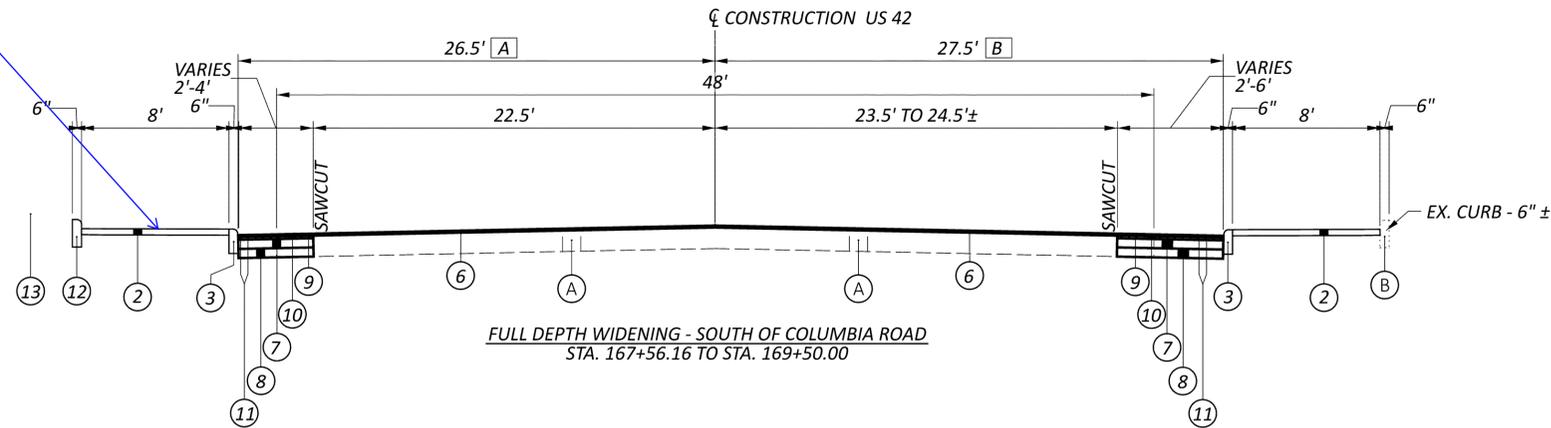
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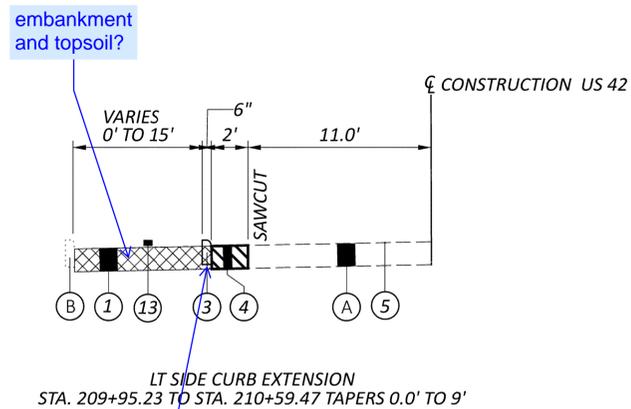
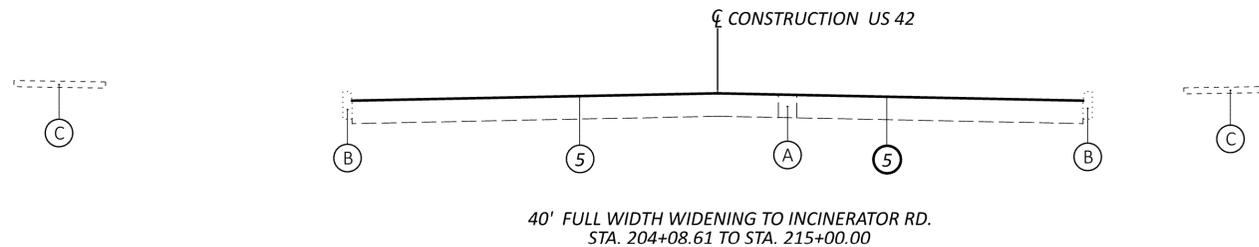
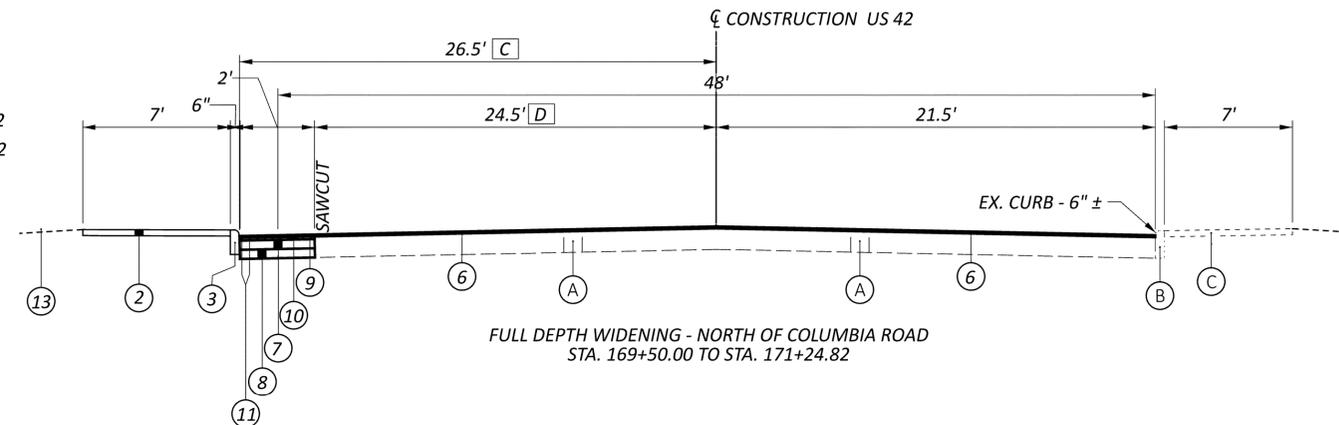
SHEET TOTAL
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1.56% is ODOT standard. Must meet ADA compliance. Typical comment.

- A 24.5' +/- STA. 167+56.16 TO STA. 168+28.70
VARIES FROM 24.48' TO 26.50' FROM STA. 168+28.70 TO 168+69.99
- B 23.5' +/- STA. 167+56.16 TO STA. 167+58.06
VARIES FROM 23.50' TO 27.50' FROM STA. 167+58.06 TO 167+80



- C VARIES FROM 26.50' TO 25.05' FROM STA. 170+95.31 TO STA. 171+24.82
- D VARIES FROM 24.50' TO 23.05' FROM STA. 170+95.31 TO STA. 171+24.82



LT SIDE CURB EXTENSION
STA. 209+95.23 TO STA. 210+59.47 TAPERS 0.0' TO 9'

typically would have aggregate beneath the curb for this type of work. typical comment.

State thicknesses for proposed pavement

- LEGEND
- ① ITEM 202 - PAVEMENT REMOVED
 - ② ITEM 608 - 4" CONCTETE WALK
 - ③ ITEM 609 - CURB, TYPE 4-C
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 - ⑤ ITEM 421 - MICROSURFACING, SURFACE COURSE
 - ⑥ ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE, 1.5"
ITEM 407 - NON-TRACKING TACK COAT
ITEM 441 - ASPHALT CONCRETE, SURFACE COURSE, TYPE 1, (449), PG 64-22
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 - ⑩ ITEM 441 - ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1 (449)
 - ⑪ ITEM 407 - NON-TRACKING TACK COAT
 - ⑫ ITEM 609 - CURB, TYPE 6
 - ⑬ ITEM 659 - SEEDING AND MULCHING
 - (A) EXISTING PAVEMENT
 - (B) EXISTING CURB
 - (C) EXISTING WALK

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DESIGNER
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REVIEWER
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SHEET TOTAL
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ROUNDING

THE ROUNDING AT SLOPE BREAKPOINTS SHOWN ON THE TYPICAL SECTIONS APPLIES TO ALL CROSS-SECTIONS, EVEN THOUGH OTHERWISE SHOWN.

UTILITIES

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

UTILITY OWNER INFORMATION TO BE ADDED IN STAGE 2

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

CONSTRUCTION NOISE

ACTIVITIES AND LAND USE ADJACENT TO THIS PROJECT MAY BE AFFECTED BY CONSTRUCTION NOISE. IN ORDER TO MINIMIZE ANY ADVERSE CONSTRUCTION NOISE IMPACTS, DO NOT OPERATE POWER-OPERATED CONSTRUCTION-TYPE DEVICES BETWEEN THE HOURS OF 9:00 PM AND 7:00 AM. IN ADDITION, DO NOT OPERATE AT ANY TIME ANY DEVICE IN SUCH A MANNER THAT THE NOISE CREATED SUBSTANTIALLY EXCEEDS THE NOISE CUSTOMARILY AND NECESSARILY ATTENDANT TO THE REASONABLE AND EFFICIENT PERFORMANCE OF SUCH EQUIPMENT.

SURVEYING PARAMETERS - OHIO COUNTY COORDINATE SYSTEM (OCCS)

HAM-US.42-10.07-12.37 PID#123369
PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. SEE SHEET ___ 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 RTN, LEICA RTK
MONUMENT TYPE: TYPE B

VERTICAL POSITIONING:
ORTHOMETRIC HEIGHT DATUM: NAVD 88
GEOID: 18A

HORIZONTAL POSITIONING:
REFERENCE FRAME: NAD83 (2011)
ELLIPSOID: GRS-80
COORDINATE SYSTEM: HAMILTON COUNTY (OCCS)
MAP PROJECTION: LAMBERT CONFORMAL CONIC
CENTRAL LATITUDE: N 39° 06' 00"
CENTRAL LONGITUDE: E 275° 24' 00"

FALSE NORTHING: 100000
FALSE EASTING: 50000
PROJECTION SCALE FACTOR: 1.000026

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

UNITS ARE IN U.S. SURVEY FEET.

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.

CONSTRUCT 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. EXCEPT AS INDICATED ON SHEET ____, 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.

CLEARING AND GRUBBING

REMOVE ALL TREES AND STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE CONSTRUCTION LIMITS UNDER THE LUMP SUM BID FOR ITEM 201, CLEARING AND GRUBBING. THE FOLLOWING IS AN APPROXIMATE ESTIMATE OF THE NUMBER OF TREES AND STUMPS TO BE REMOVED.

18" _____

ITEM 204 - PROOF ROLLING

THE FOLLOWING QUANTITY IS PROVIDED IN THE GENERAL SUMMARY TO ADDRESS LOCATIONS REQUIRING PROOF ROLLING. SEE PLAN SHEET NO. ___ FOR ADDITIONAL INFORMATION.
ITEM 204 - PROOF ROLLING _____ HOUR.

ITEM 204 - SUBGRADE COMPACTION AND PROOF ROLLING

CONSTRUCT THE SUBGRADE AS FOLLOWS AND IN THE FOLLOWING SEQUENCE:

1. SHAPE THE SUBGRADE TO WITHIN 0.2 FEET OF THE PLAN SUBGRADE ELEVATION.

2. EXCAVATE AND REPLACE UNSUITABLE SUBGRADE BEFORE PROOF ROLLING. THE EXCAVATION LIMITS ARE SHOWN AND LABELED ON THE CROSS SECTIONS AS UNSUITABLE SUBGRADE. UNSUITABLE SUBGRADE INCLUDES UNSUITABLE SOIL (A-4B, A-2-5, A-5, A-7-5, AND SOIL WITH A LIQUID LIMIT GREATER THAN 65) AND ANY COAL, SHALE, OR ROCK WHICH NEEDS TO BE REMOVED ACCORDING TO SECTION 204.05 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS (C&MS).

IF THERE IS UNSUITABLE SUBGRADE IN A SHALLOW FILL LOCATION, EXCAVATE AND REPLACE THE UNSUITABLE SUBGRADE BEFORE CONSTRUCTING THE SHALLOW FILL AND SHAPING THE SUBGRADE.

3. COMPACT THE SUBGRADE ACCORDING TO C&MS 204.03.

4. APPROXIMATE LIMITS FOR EXCAVATION OF UNSTABLE SUBGRADE ARE SHOWN AND LABELED ON THE CROSS SECTIONS AS UNSTABLE SUBGRADE. THE ENGINEER WILL IDENTIFY THE ACTUAL LIMITS OF EXCAVATION

FOR UNSTABLE SUBGRADE BASED ON THE PROOF ROLLING RESULTS AND VISUAL OBSERVATIONS.

PROOF ROLL THE COMPACTED SUBGRADE ACCORDING TO C&MS 204.06.

5. EXCAVATE UNSTABLE SUBGRADE AS DIRECTED BY THE ENGINEER AND STABILIZE BY REPLACING WITH THE SPECIFIED MATERIALS ACCORDING TO C&MS 204.07. EXCAVATIONS WILL EXTEND 18 INCHES BEYOND THE EDGE OF THE SURFACE OF THE PAVEMENT, PAVED SHOULDERS, OR PAVED MEDIANS.

6. PROOF ROLL THE STABILIZED AREAS ACCORDING TO C&MS 204.06 TO VERIFY STABILITY.

7. FINE GRADE THE SUBGRADE TO THE SPECIFIED GRADE.

THE QUANTITIES FOR EXCAVATING THE UNSUITABLE SUBGRADE AND UNSTABLE SUBGRADE ARE BOTH PAID UNDER ITEM 204, EXCAVATION OF SUBGRADE. 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 301 - ASPHALT CONCRETE BASE, PG64-22 _____ CU. YDS. THE ABOVE QUANTITY IS BASED ON A 301 THICKNESS OF _____ INCHES AND A PAVEMENT RESTORATION WIDTH THAT INCLUDES THE TRENCH WIDTH PLUS TWO FEET ON EACH SIDE OF THE TRENCH.

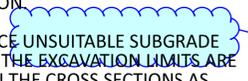
PROVIDE ANY MATERIALS USED OUTSIDE THE LIMITS STATED ABOVE AT NO ADDITIONAL COST.

SEEDING AND MULCHING

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

659, SOIL ANALYSIS TEST	_____	EACH
659, TOPSOIL	_____	CY
659, SEEDING AND MULCHING	_____	SY
659, REPAIR SEEDING AND MULCHING	_____	SY
659, INTER-SEEDING	_____	SY
659, COMMERCIAL FERTILIZER	_____	TON
659, LIME	_____	ACRES
659, WATER	_____	MGAL
659, MOWING	_____	MSF

SEEDING AND MULCHING SHALL BE APPLIED 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.



undercut not detailed in Typical Sections. Pay item needed

May want to modify the plan note to be similar to this one.

SUBGRADE IMPROVEMENT
NO LOCATIONS HAVE BEEN IDENTIFIED FOR REQUIRING SUBGRADE IMPROVEMENT BASED ON COMPLETION OF SOIL BORINGS. IF UNSUITABLE SOILS ARE ENCOUNTERED AS IDENTIFIED BY THE ENGINEER, THE UNSUITABLE SOIL SHALL BE EXCAVATED AND PAID FOR BY ITEM 204 EXCAVATION OF SUBGRADE, A LAYER OF ITEM 204 GEOTEXTILE FABRIC SHALL BE PLACED, AND THE SUBGRADE SHALL BE REPLACED USING ITEM 204 GRANULAR MATERIAL, TYPE B.

THE FOLLOWING QUANTITIES ARE PROVIDED FOR EXCAVATION AND REPLACEMENT OF UNSUITABLE SUBGRADE. THESE ITEMS SHALL NOT BE PERFORMED UNLESS DIRECTED BY THE CITY.

ITEM 204 - EXCAVATION OF SUBGRADE	300 CY
ITEM 204 - GRANULAR MATERIAL, TYPE B	300 CY
ITEM 204 - GEOTEXTILE FABRIC	930 SY



DESIGNER	LDW
REVIEWER	JWL 09/18/25
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NOTE TO REVIEWER - MOT NOTES TO BE ADDED WITH STAGE 2 DESIGN.

A sequence of construction may be helpful to describe plan intent/requirement, including but not limited to the below listed consideration:

Consider temporary markings to implement the road diet - this should allow the contractor to have work area. This could follow the existing markings, except 11' through lanes provided to give 10' lane for contractor. Typical MOT section(s) might be helpful.

Consider identifying which curb ramps/sidewalks can be constructed at the same time. The project will need to maintain 1 sidewalk on either side at all times. Consider identifying the pedestrian detour by map or described in name; signing does not need to be shown if it follows MT-110.10.

Consider how the median curb will be constructed. Maybe this occurs by left lane closure before installing the road diet? If road width doesn't allow this, maybe a directional detour is possible to construct the median curb approximately half at a time. City of Reading will need to have input/concurrence if a block by block detour during working hours is used.

Curb Ramp Locations Requiring ADA Width Checks and Potential RW

1. STA. 111+98.48, 29.24' RT. - SE corner of US42 & Sherman Ave.
2. STA. 128+15.41, 29.65' RT. - SE corner of US42 & Anna St.
4. STA. 130+74.21, 30.53' RT. - SE corner of US42 & Elizabeth St.
5. STA. 132+04.65, 29.28' RT. - SE corner of US42 & JRS Access Rd.
6. STA. 153+56.22, 19.52' RT. - NE corner of US42 & Southern Ave.
7. STA. 177+62.12, 30.75' LT. - NW corner of US42 & North St.
8. STA. 183+62.96, 27.97' RT. - SE corner of US42 & Gahl Terrace St.
9. STA. 195+73.39, 26.84' RT. - NE corner of US42 & Landy Ln.

All potential RW take locations need to be reviewed to confirm whether these locations meet the conditions of the City of Reading's RW Agreement.

MAINTENANCE OF TRAFFIC NOTES



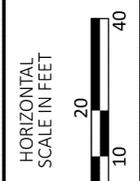
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P.11	

Show legend for differing shaded pavement treatments.



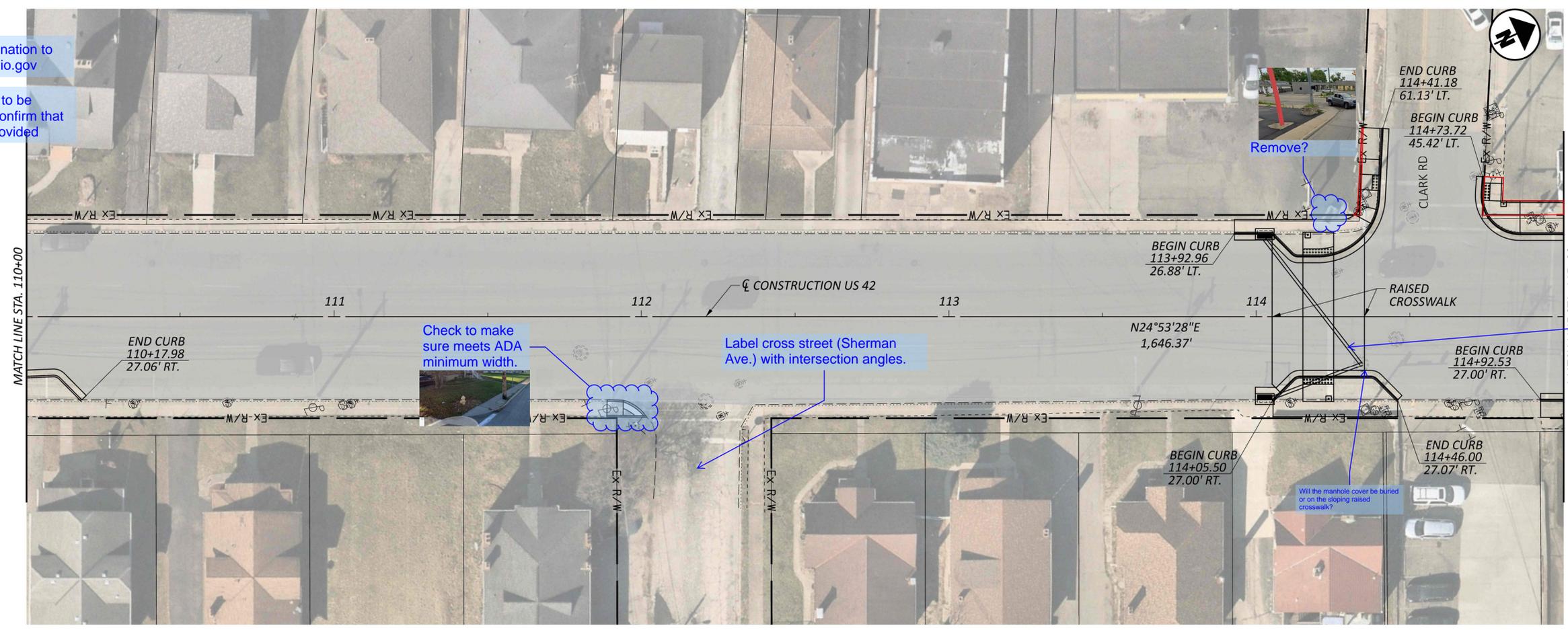
General Comment: Label proposed construction limits. Should be within 3' of proposed RW.

What does this line represent?
Sign DND?



PLAN SHEET
STA. 105+00 TO STA. 115+00

Provide utility coordination to lucas.braun@dot.ohio.gov
If any utilities need to be relocated, please confirm that sufficient R/W is provided



Check to make sure meets ADA minimum width.

Label cross street (Sherman Ave.) with intersection angles.

Remove?

Show utilities

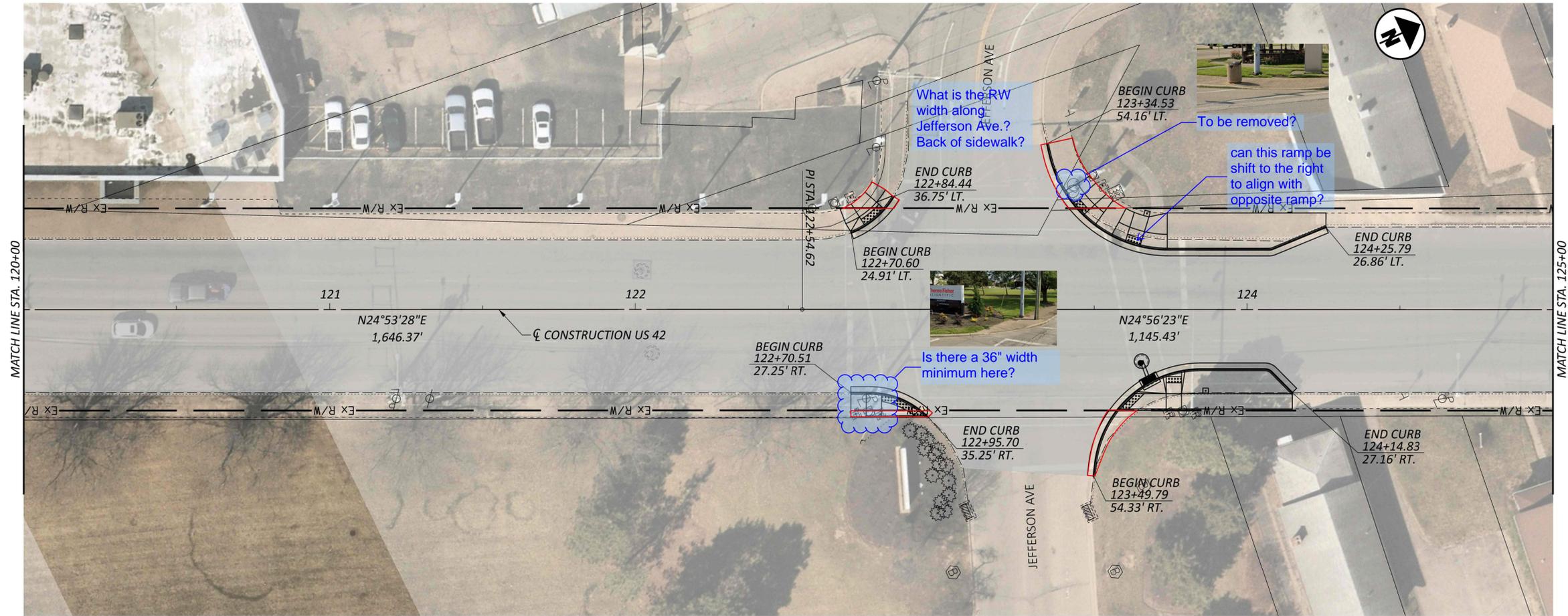
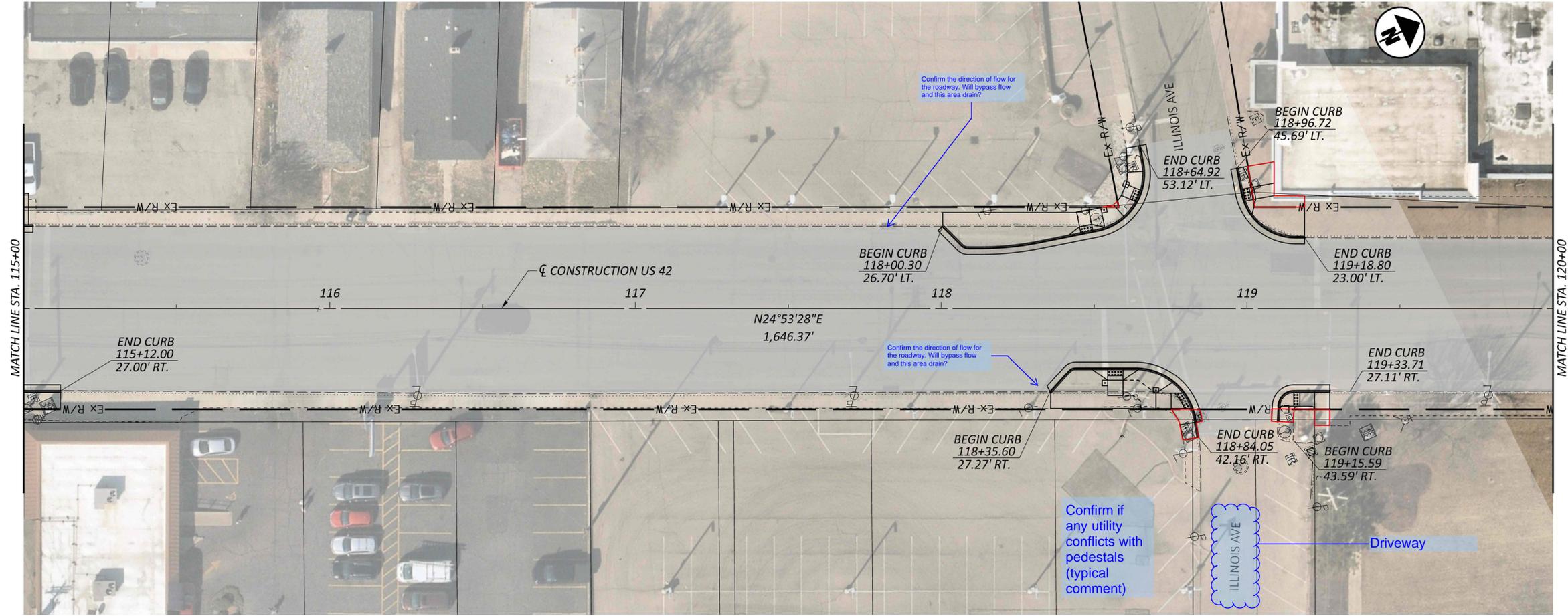
Will proposed storm conflict with any utilities? (typical comment)

Will the manhole cover be buried or on the sloping raised crosswalk?

DESIGN AGENCY

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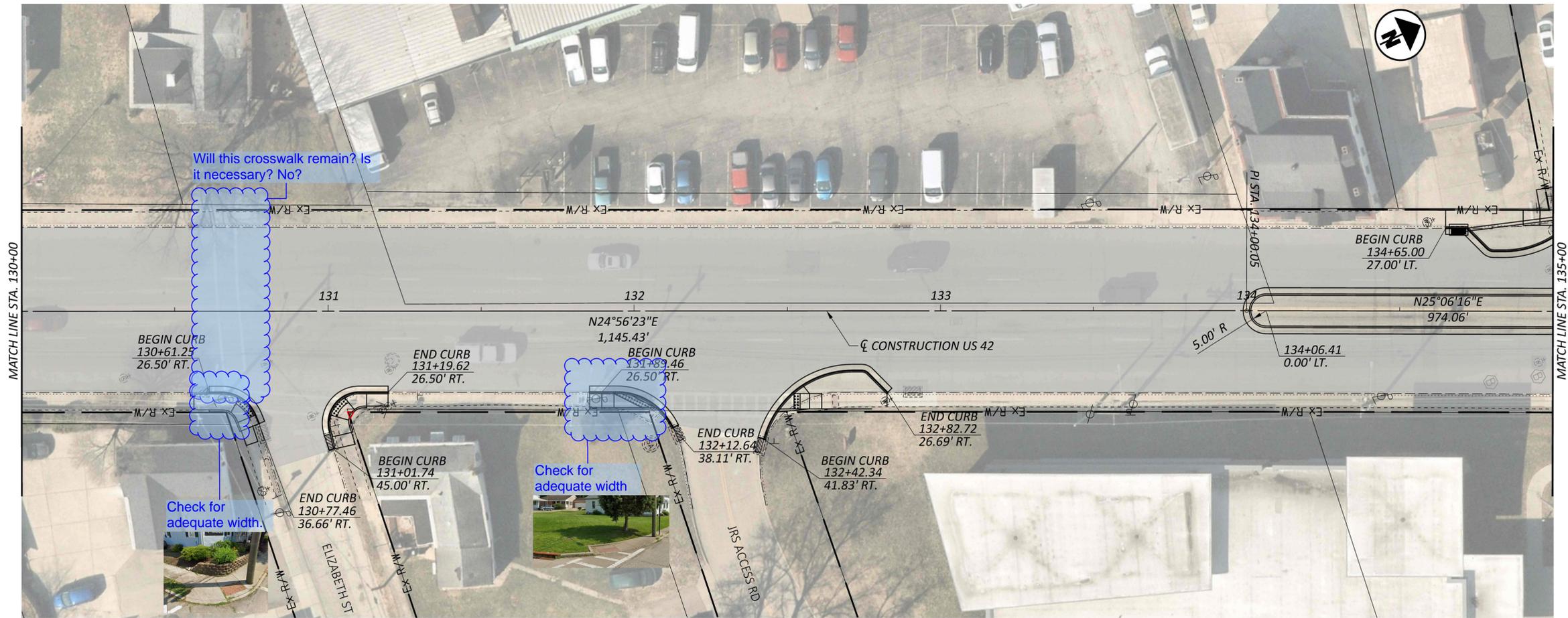
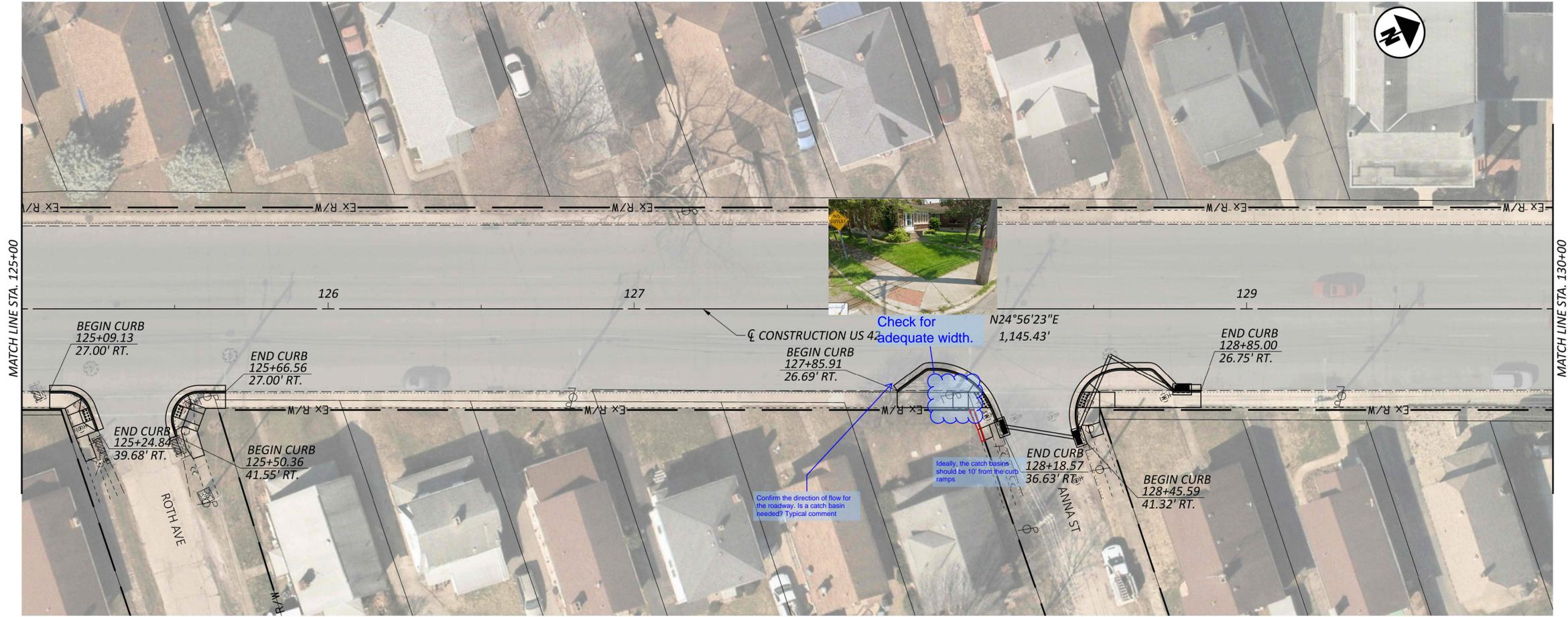
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TOTAL	104



PLAN SHEET
 STA. 115+00 TO STA. STA. 125+00

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DESIGNER
 LDW
 REVIEWER
 JWL 09/18/25
 PROJECT ID
 123369
 SHEET TOTAL
 P.13 104

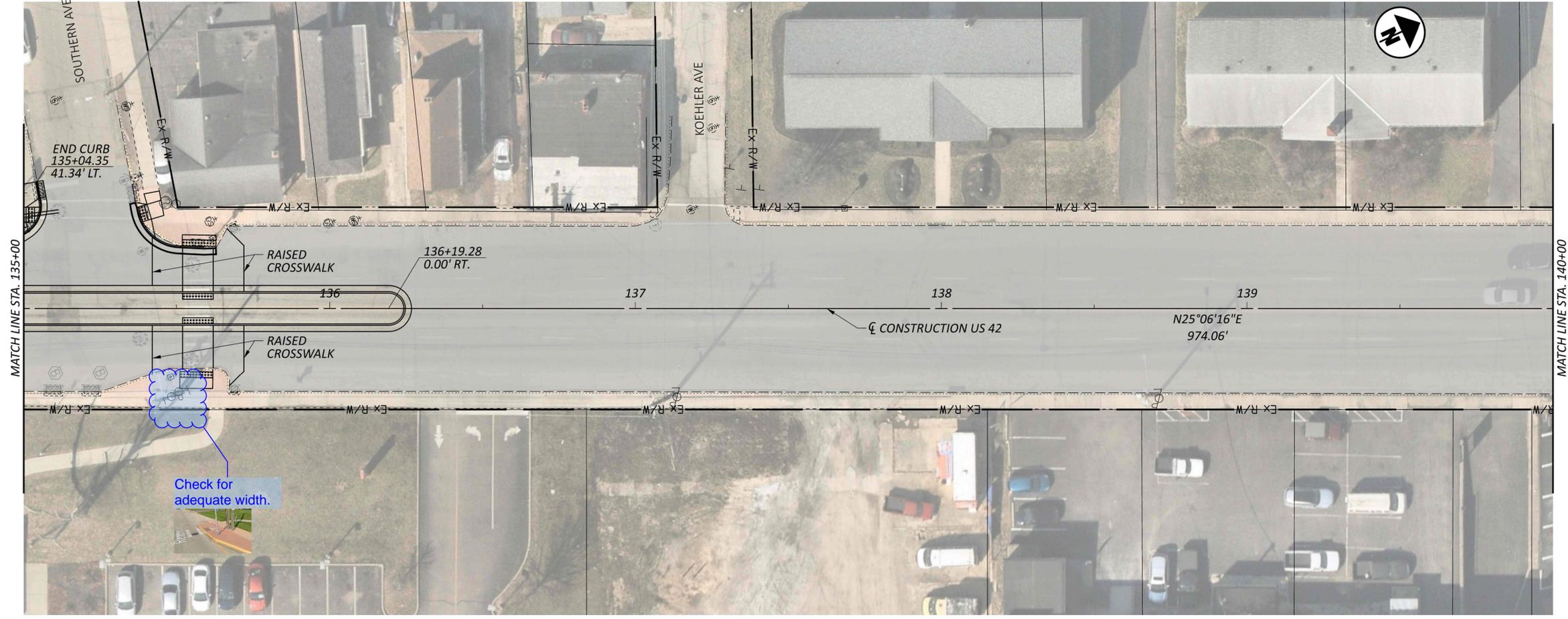
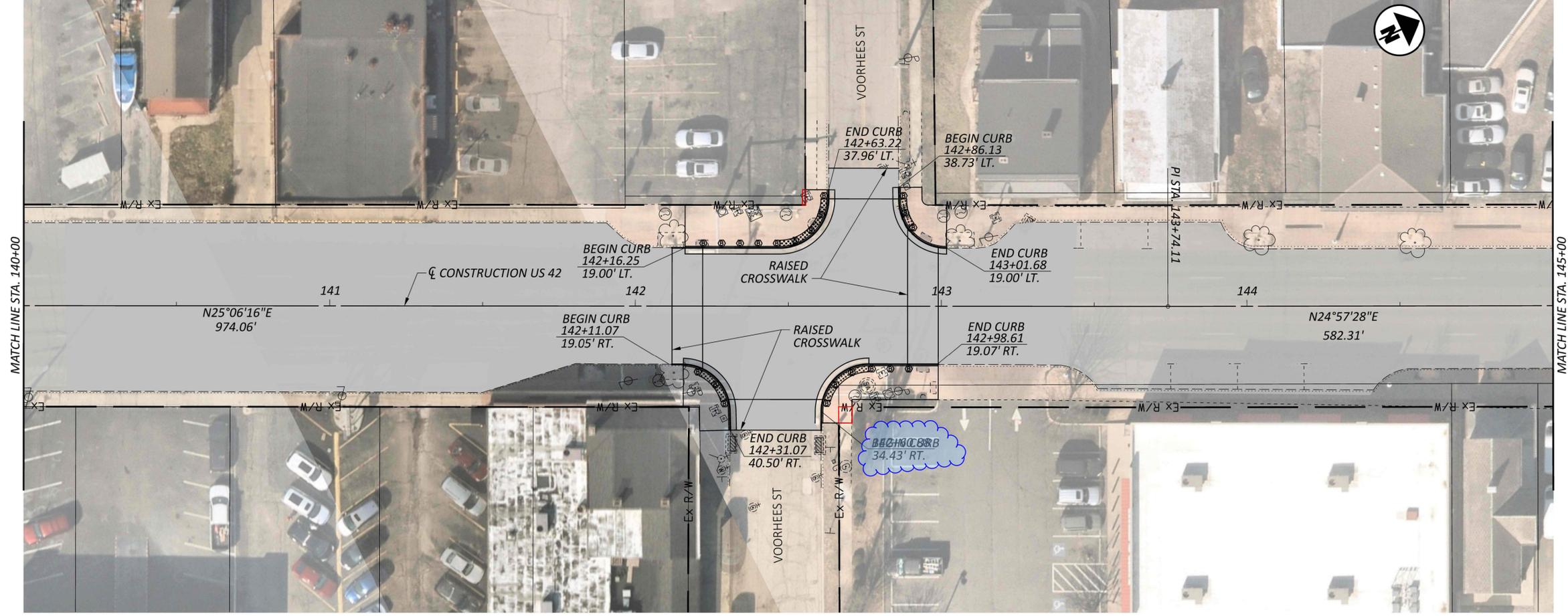


PLAN SHEET
 STA. 125+00 TO STA. 135+00

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123369	
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P.14	104

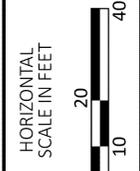
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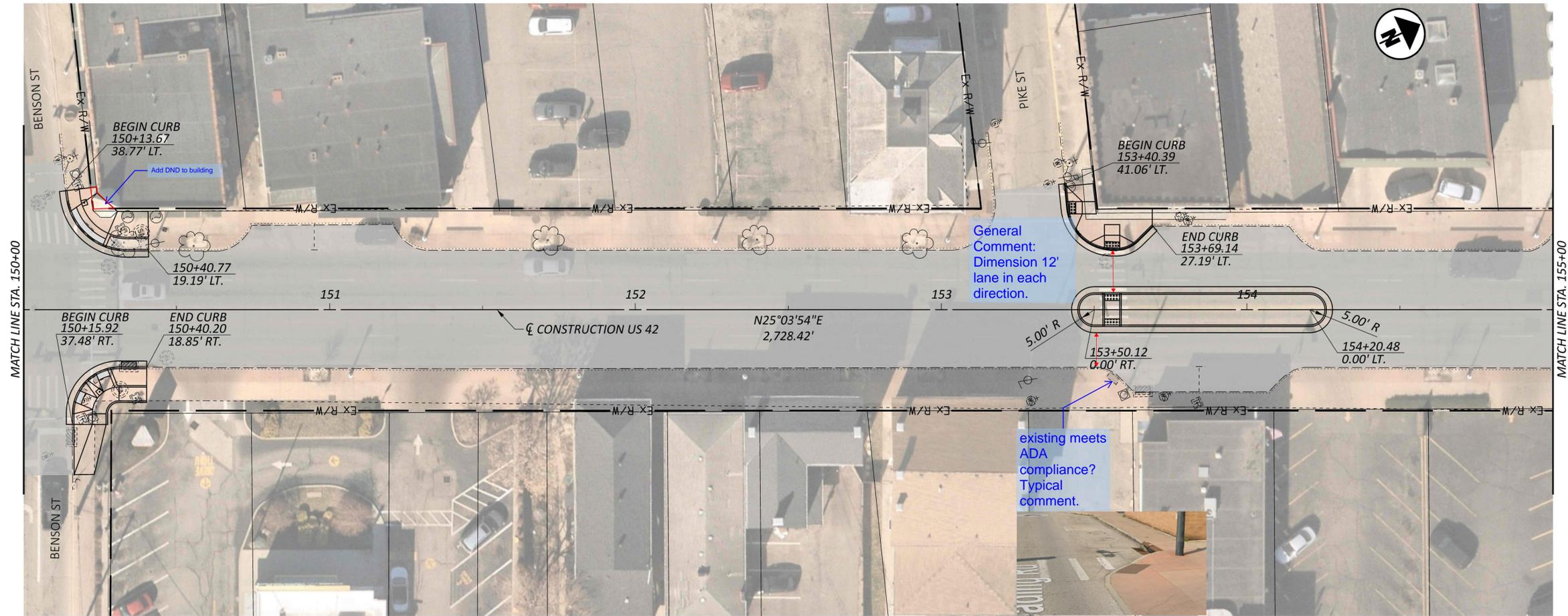
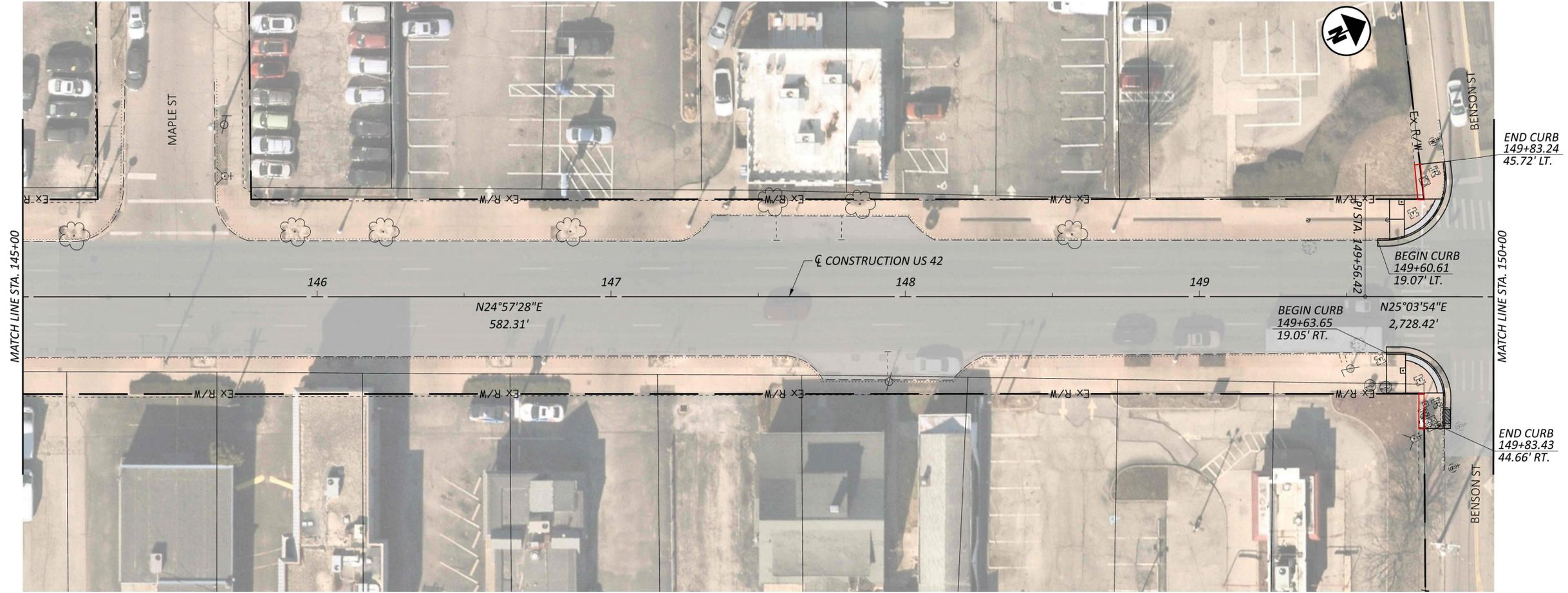
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PLAN SHEET
 STA. 135+00 TO STA. 145+00



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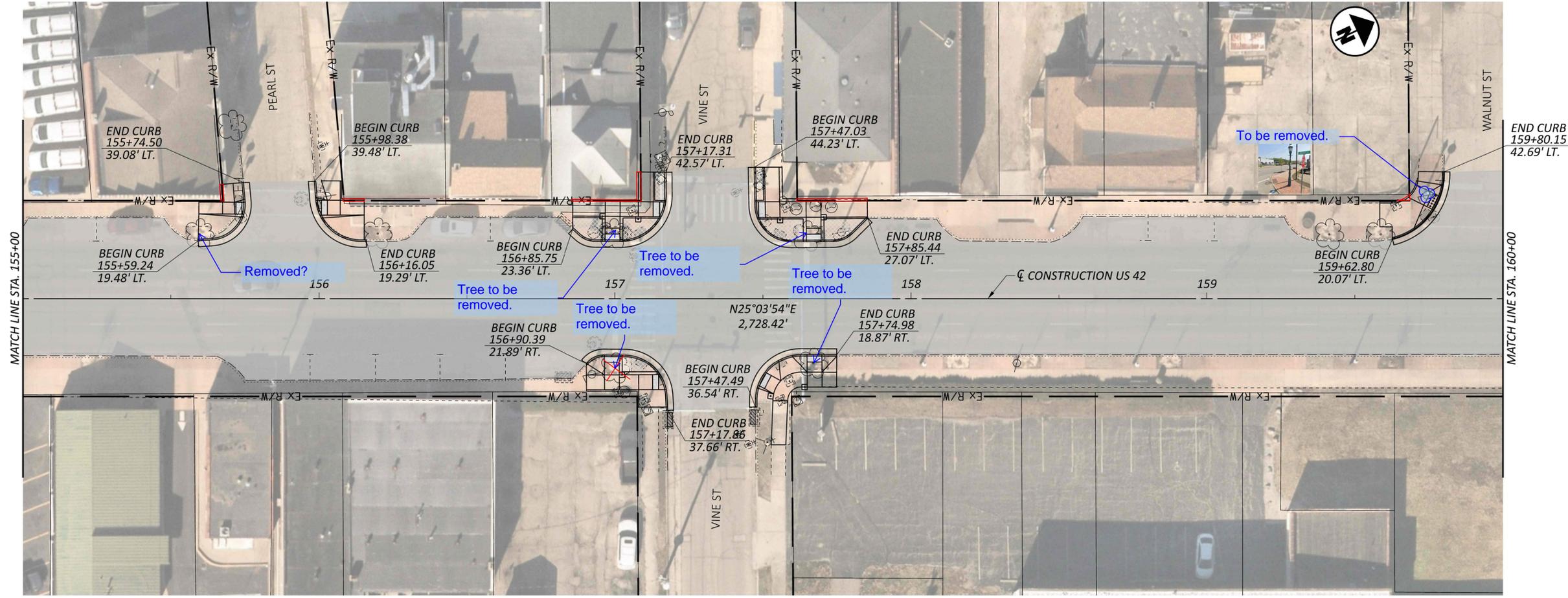
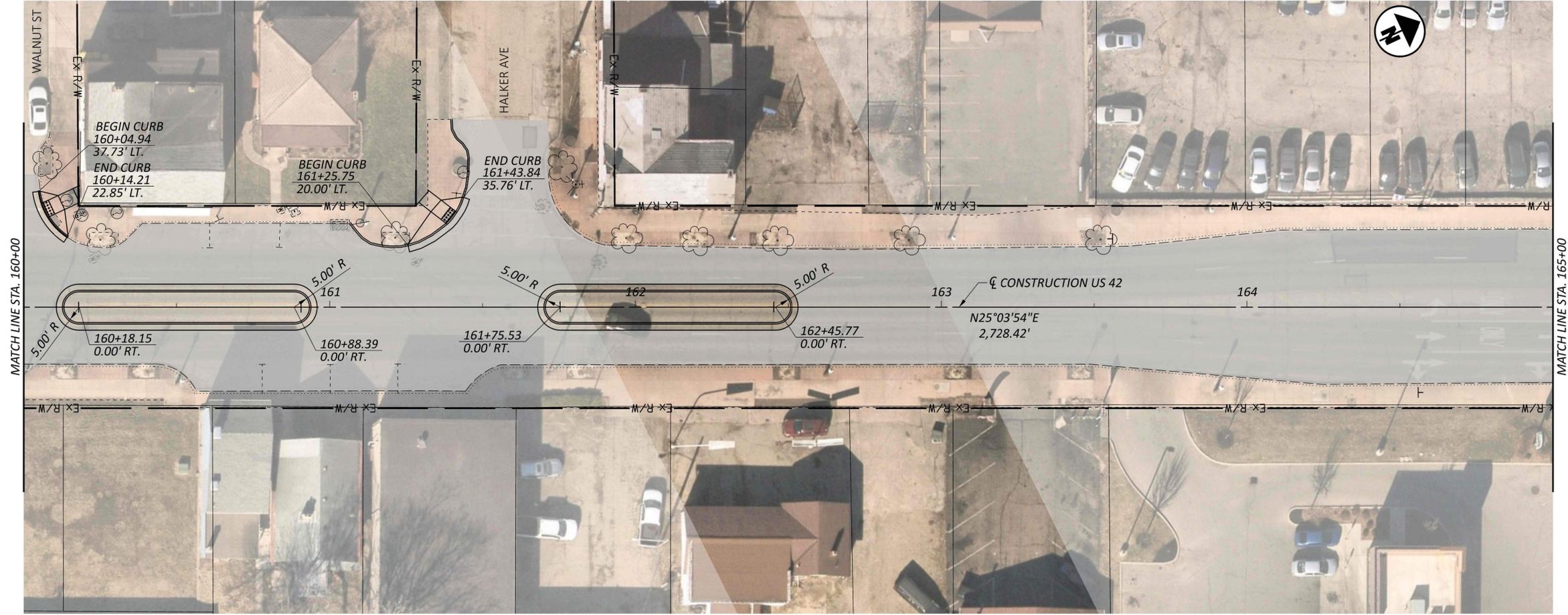
PLAN SHEET
 STA. 145+00 TO STA. 155+00

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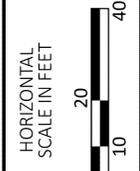
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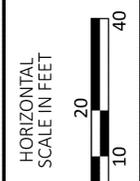
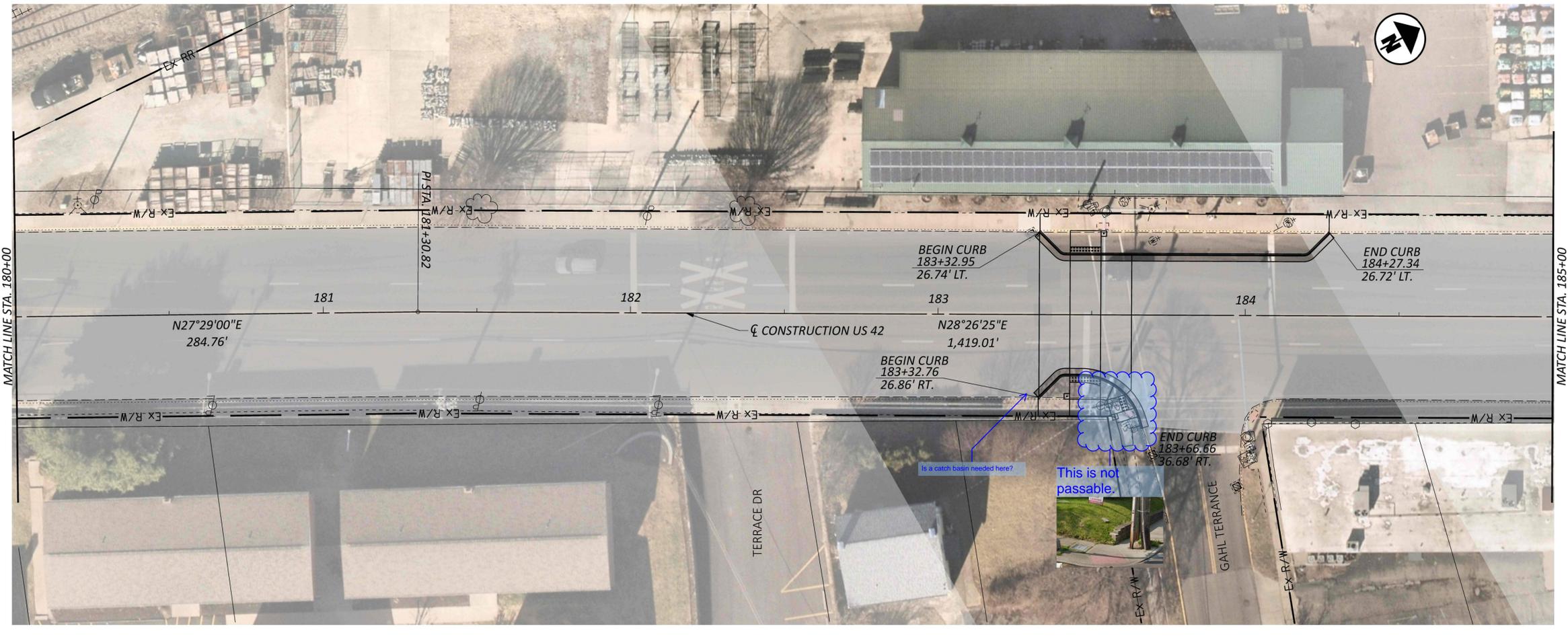
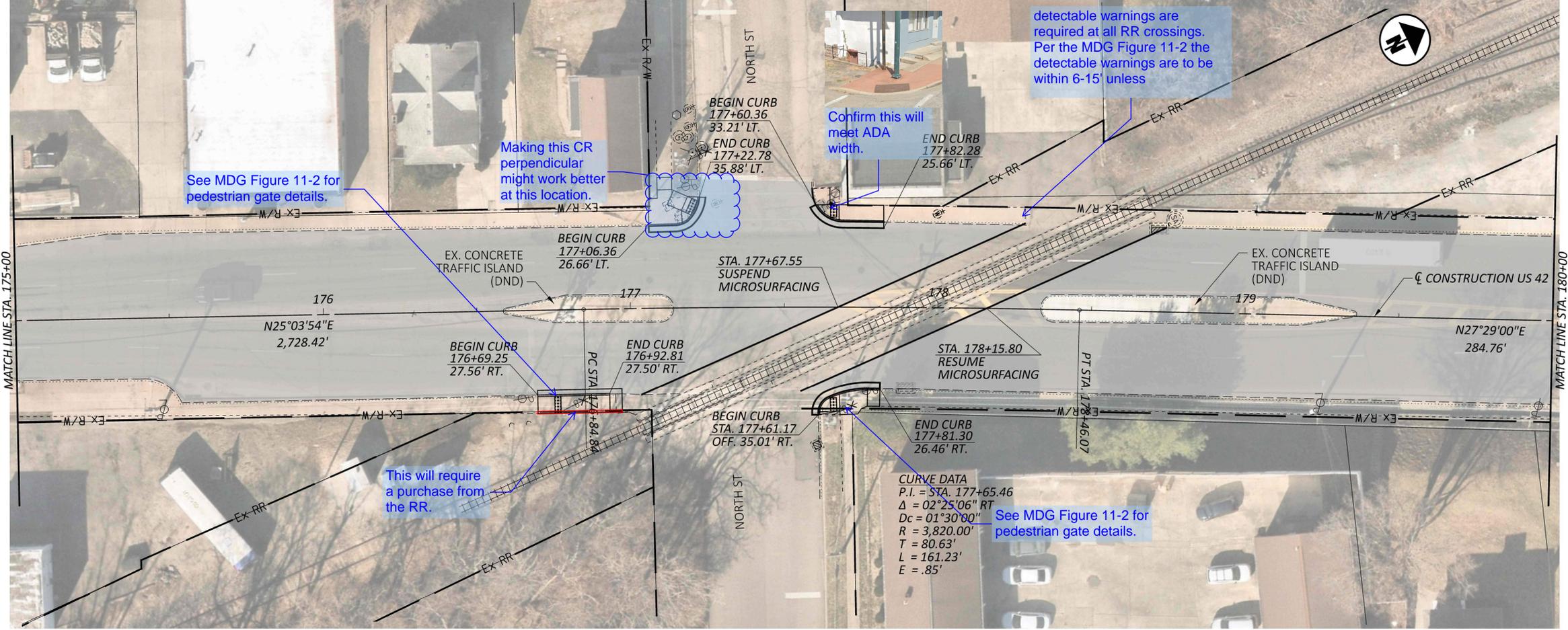
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P.17	104

PLAN SHEET
 STA. 155+00 TO STA. 165+00



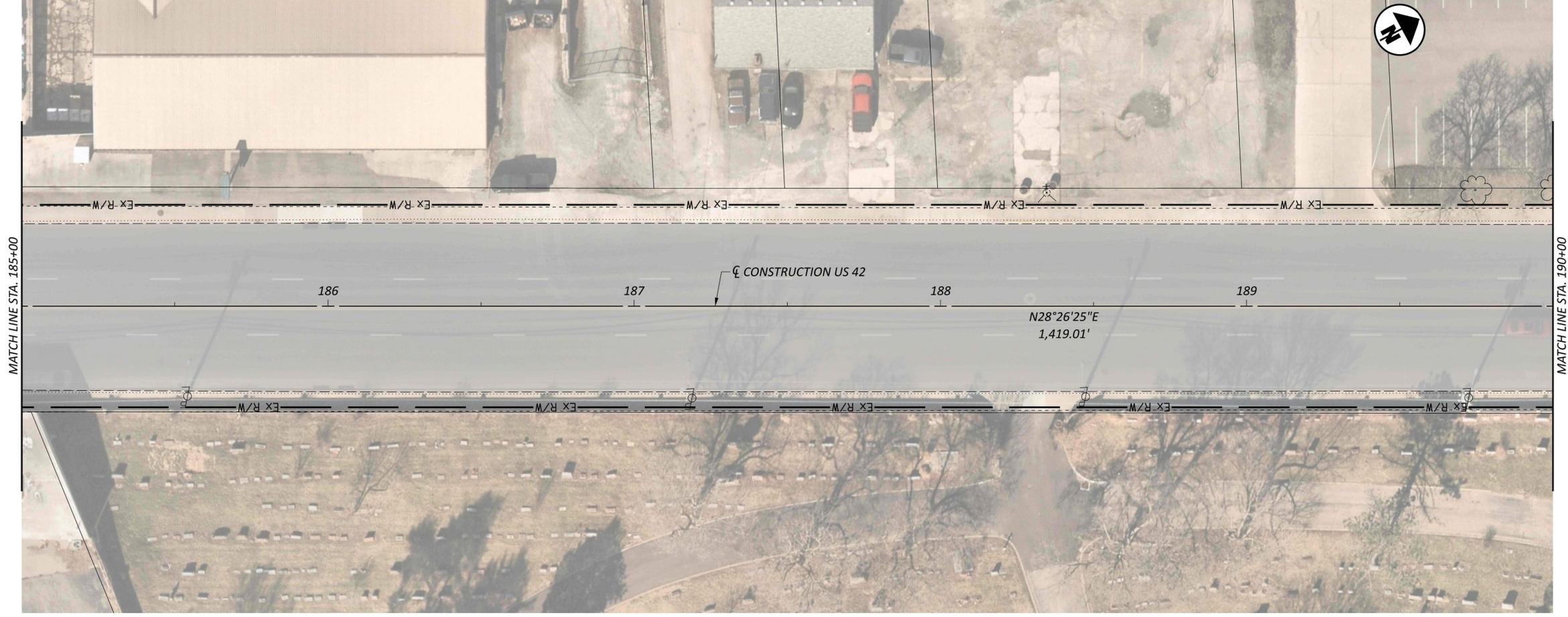
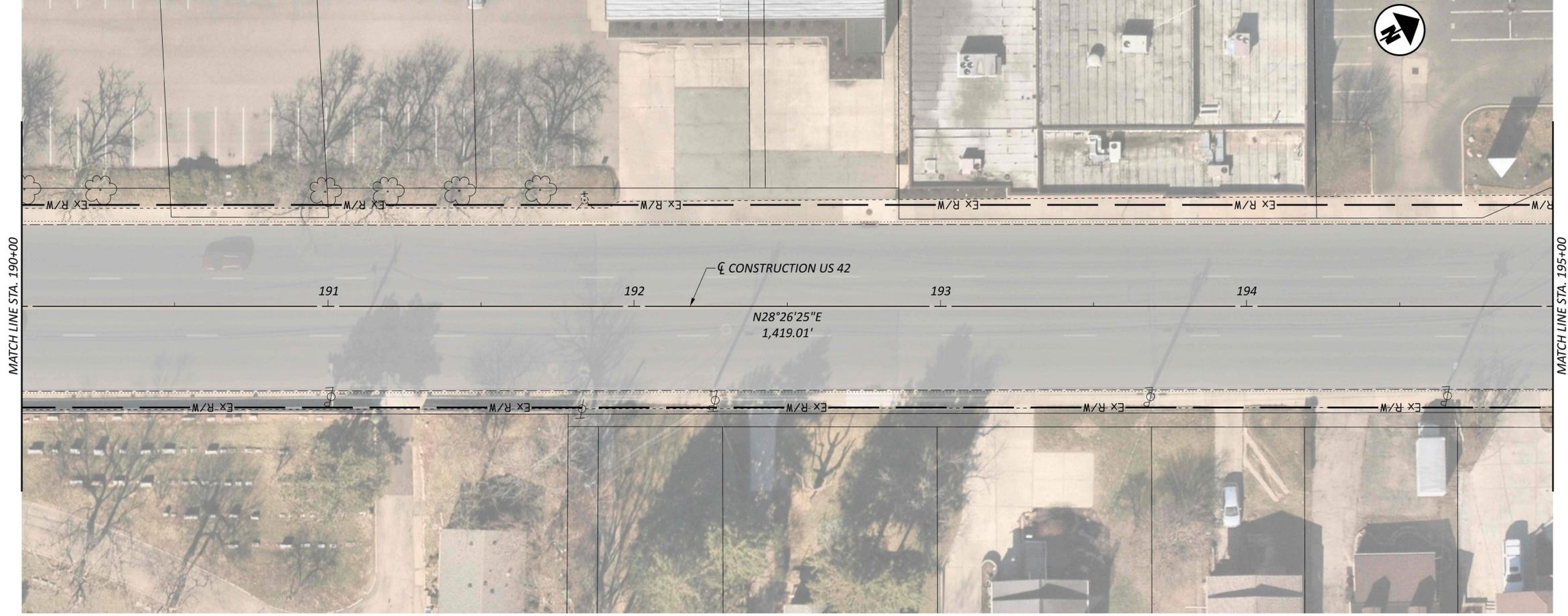


PLAN SHEET
 STA. 175+00 TO STA. STA. 185+00

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SHEET	TOTAL
P.19	105

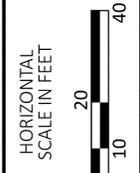
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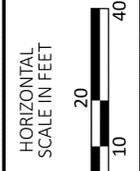
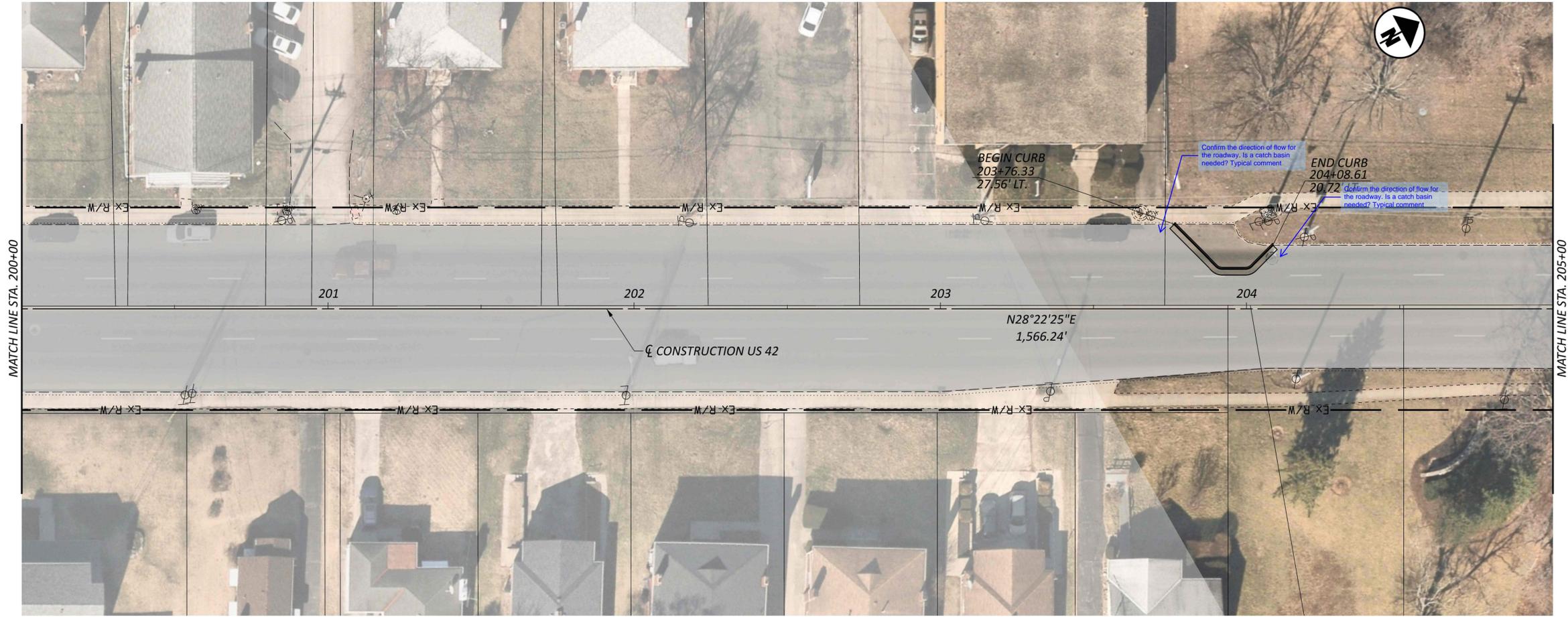
DESIGN AGENCY	
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123369	
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PLAN SHEET
STA. 185+00 TO STA. 195+00



HAM US 42 10.07 READING RD

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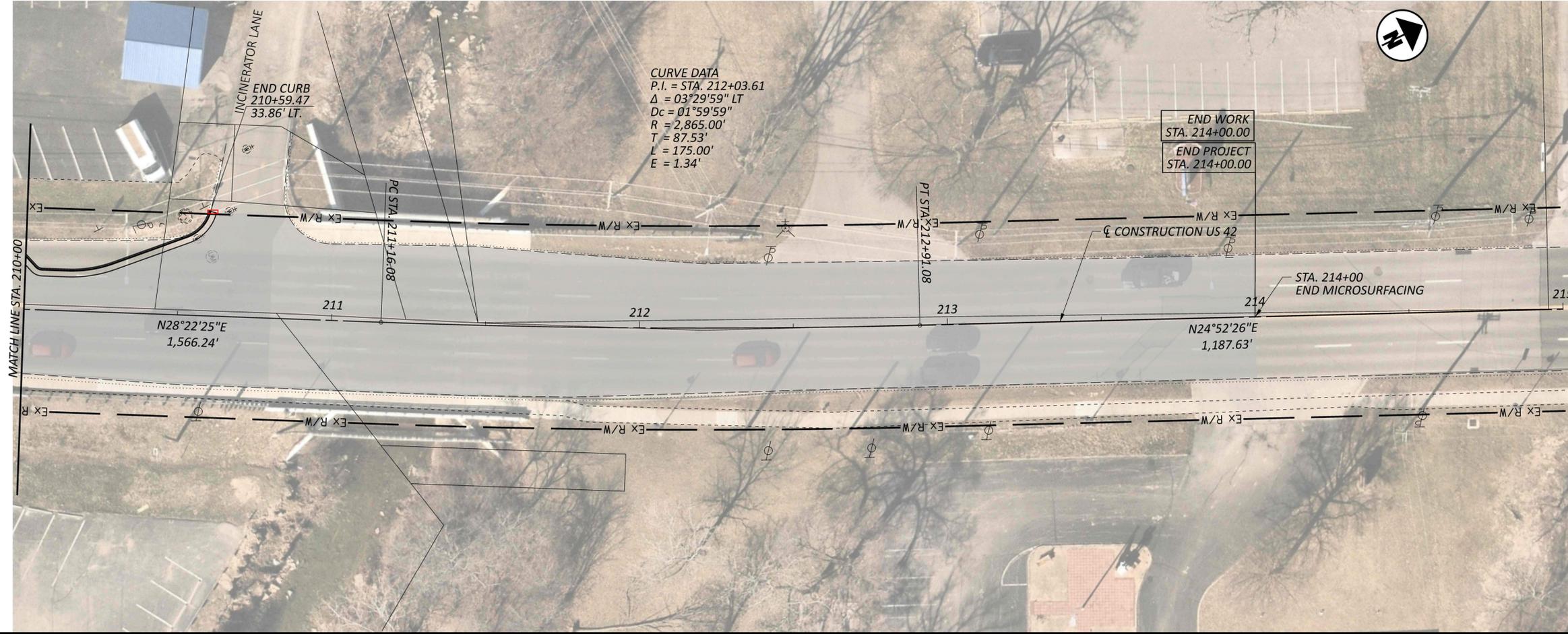


PLAN SHEET
STA. 115+00 TO STA. 125+00

DESIGN AGENCY	
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123369	
SHEET	TOTAL
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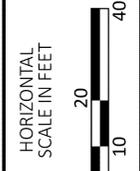
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123369	
SHEET	TOTAL
P.22	104

PLAN SHEET
 STA. 195+00 TO STA. STA. 205+00

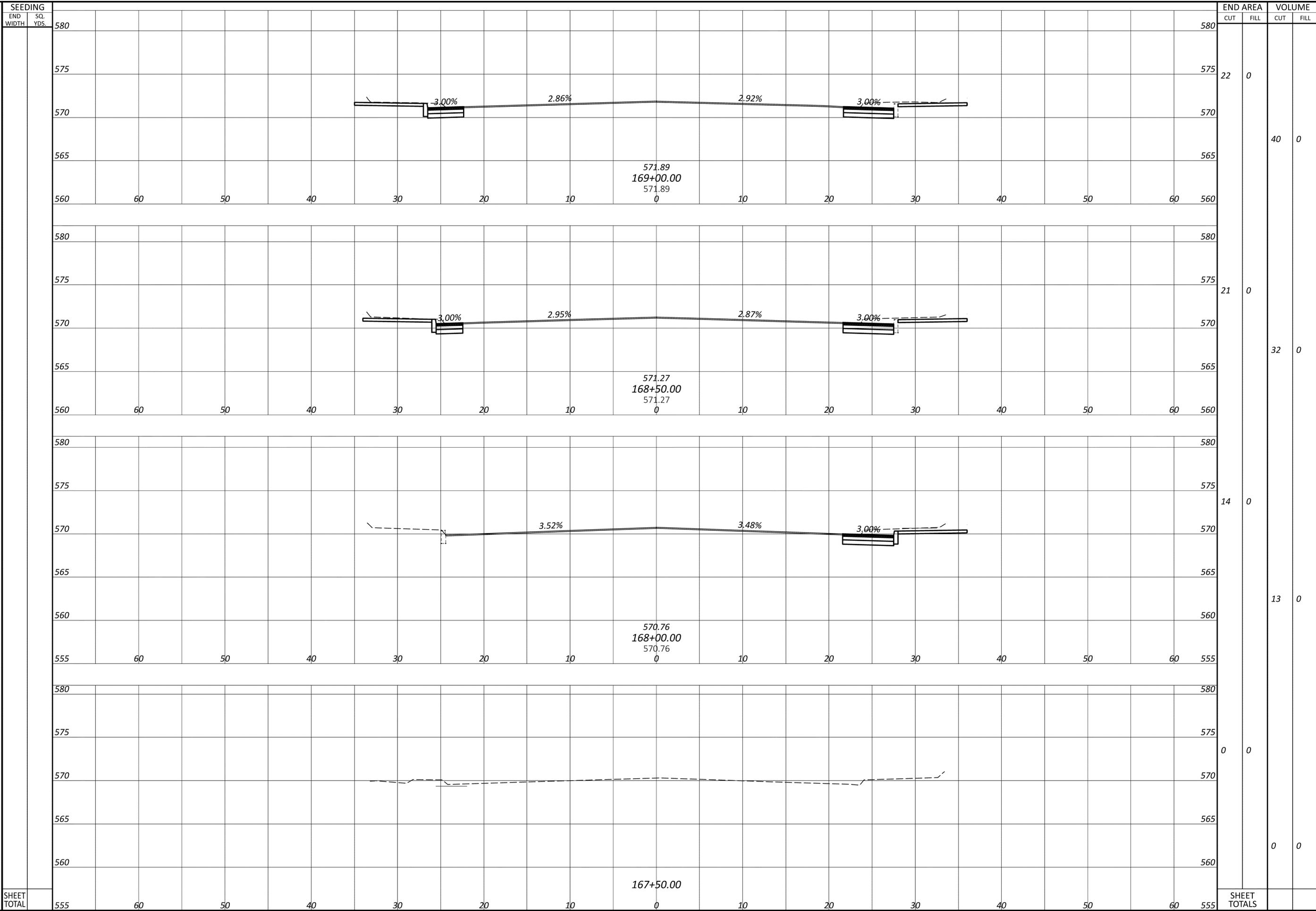


Reference sheet
 number for Matchline



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CROSS SECTIONS
 STA. 167+50 TO STA. 169+00 - READING RD

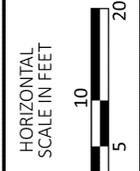
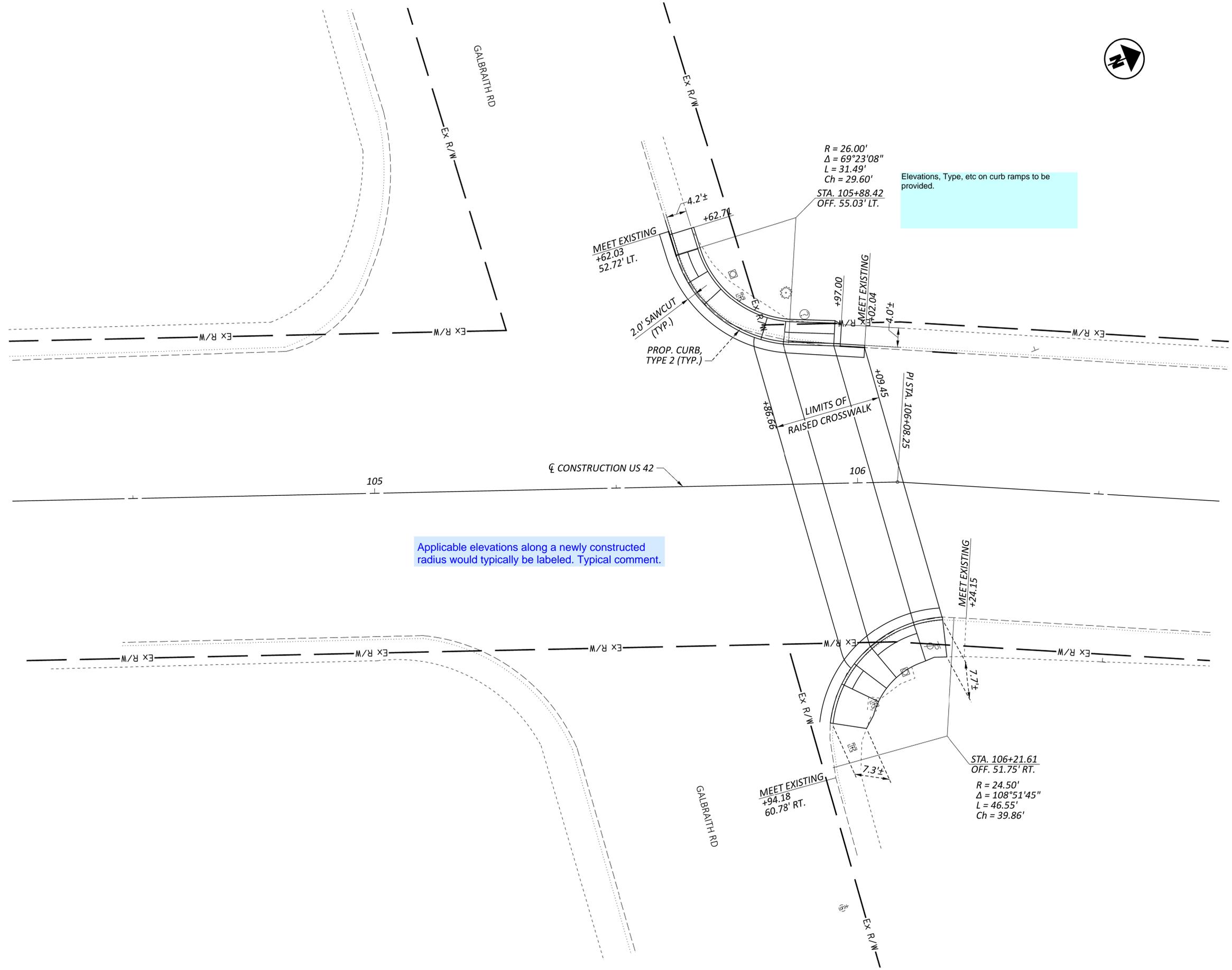
DESIGN AGENCY
CMT
 CIVIL & ENVIRONMENTAL ENGINEERS
 1777 WASHINGTON VILLAGE DR
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DESIGNER
LDW

REVIEWER
JWL 09/18/25

PROJECT ID
123369

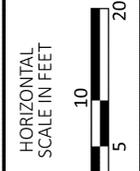
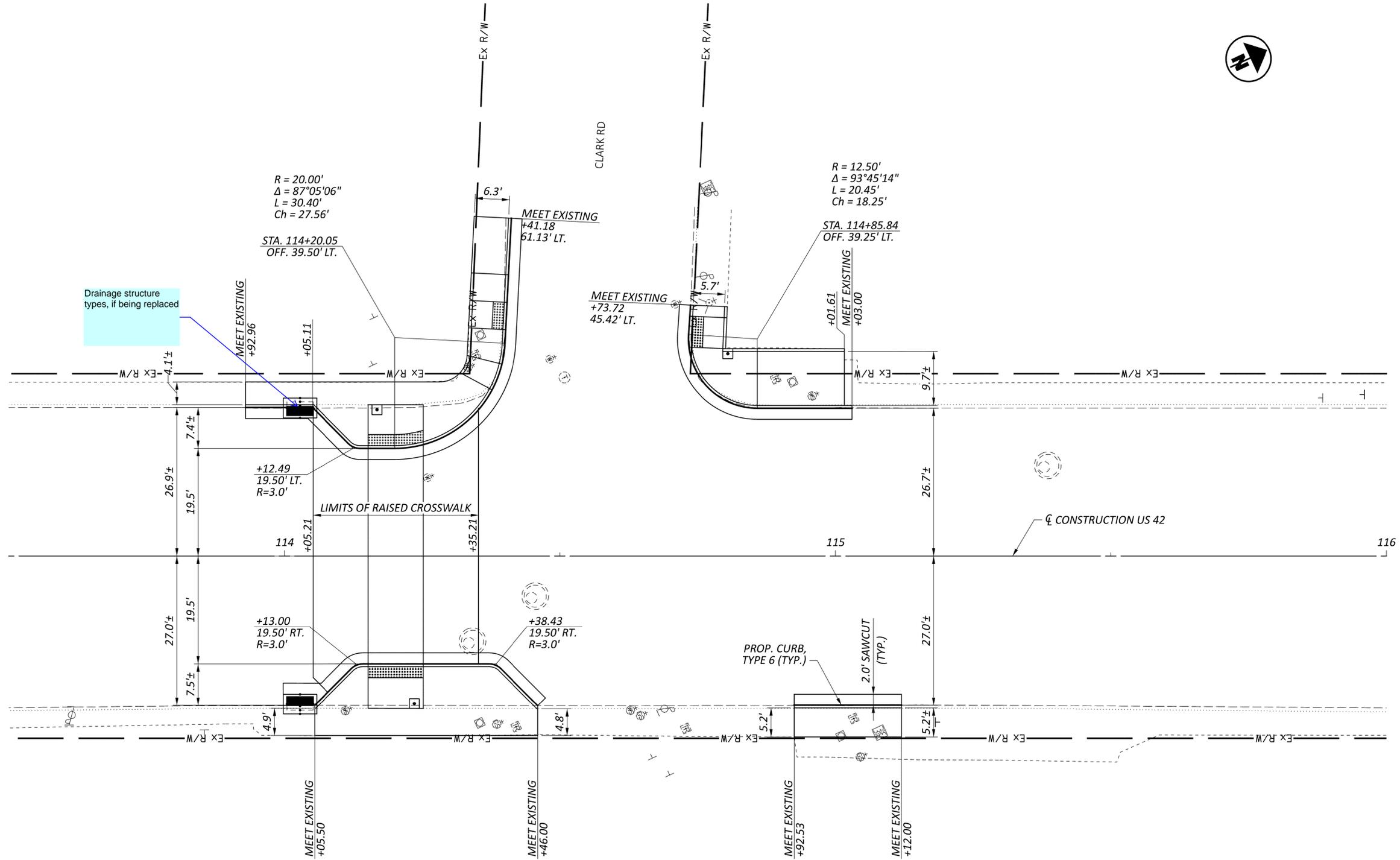
SHEET TOTAL
 P.24 | 104



INTERSECTION DETAILS
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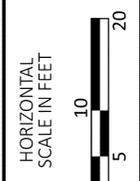
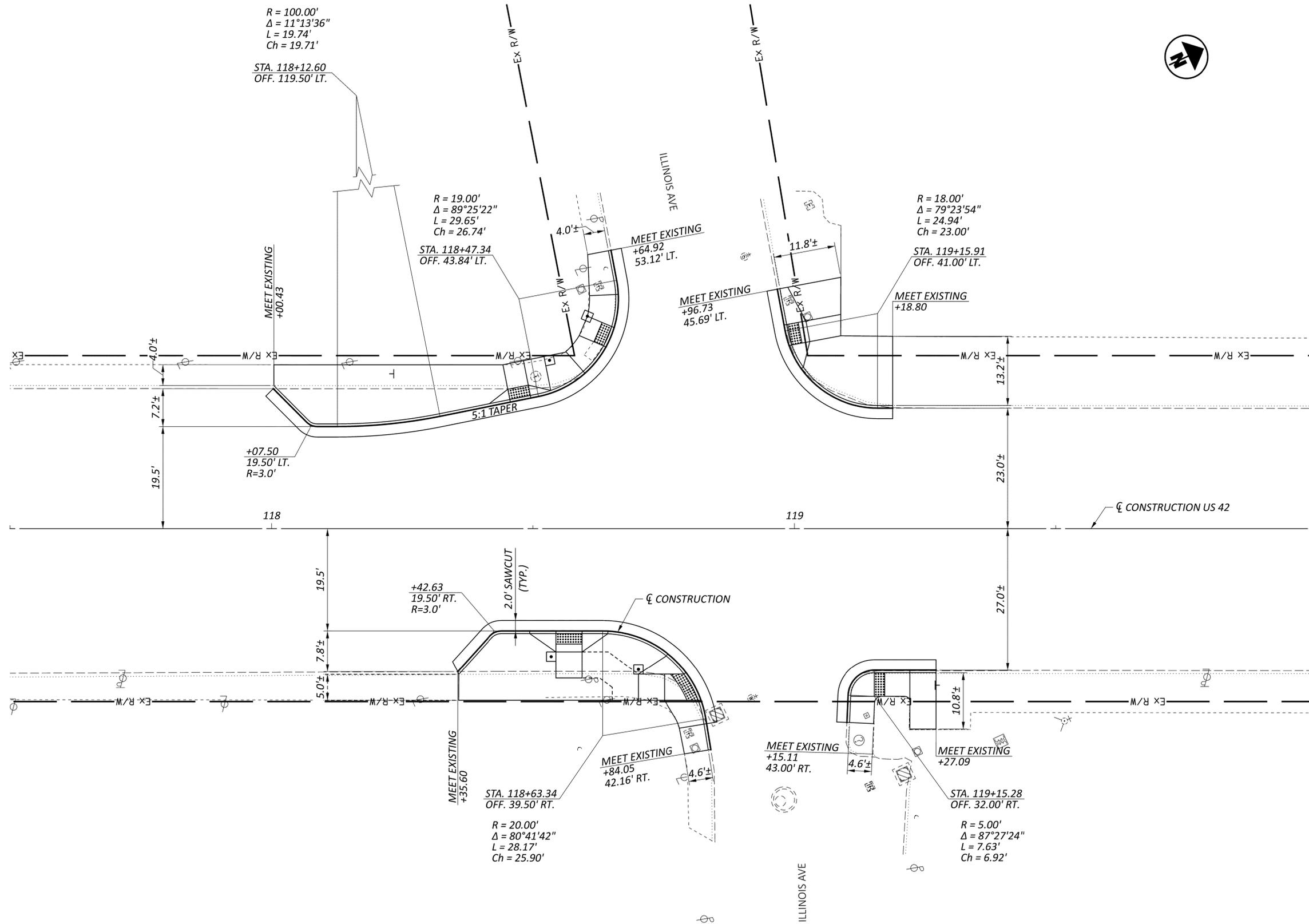
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DESIGNER	LDW
REVIEWER	JWL
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SHEET	P.29
TOTAL	105



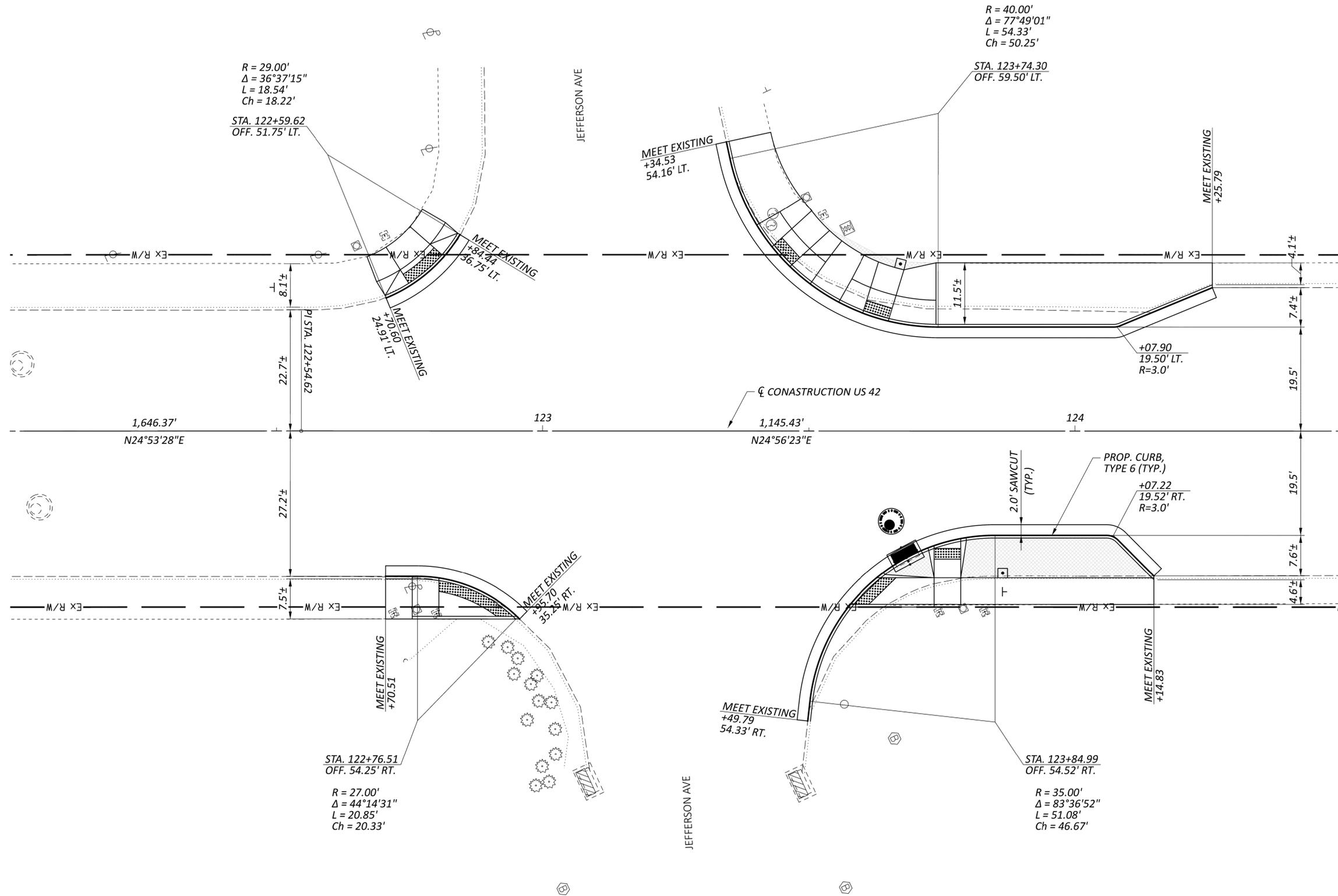
INTERSECTION DETAILS
 READING RD. AT CLARK RD

DESIGN AGENCY	
 CMT CONSULTING & ENGINEERING 1777 WASHINGTON VILLAGE DR DAYTON, OHIO 45459 www.cmtengr.com	
DESIGNER	
LDW	
REVIEWER	
JWL 09/18/25	
PROJECT ID	
123369	
SHEET	TOTAL
P.30	104



INTERSECTION DETAILS
 READING RD. AT ILLINOIS AVE

DESIGN AGENCY	
CMT CIVIL ENGINEERING 1777 WASHINGTON VILLAGE DR DAYTON, OHIO 45459 www.cmtengr.com	
DESIGNER	
LDW	
REVIEWER	
JWL 09/18/25	
PROJECT ID	
123369	
SHEET	TOTAL
P.31	104

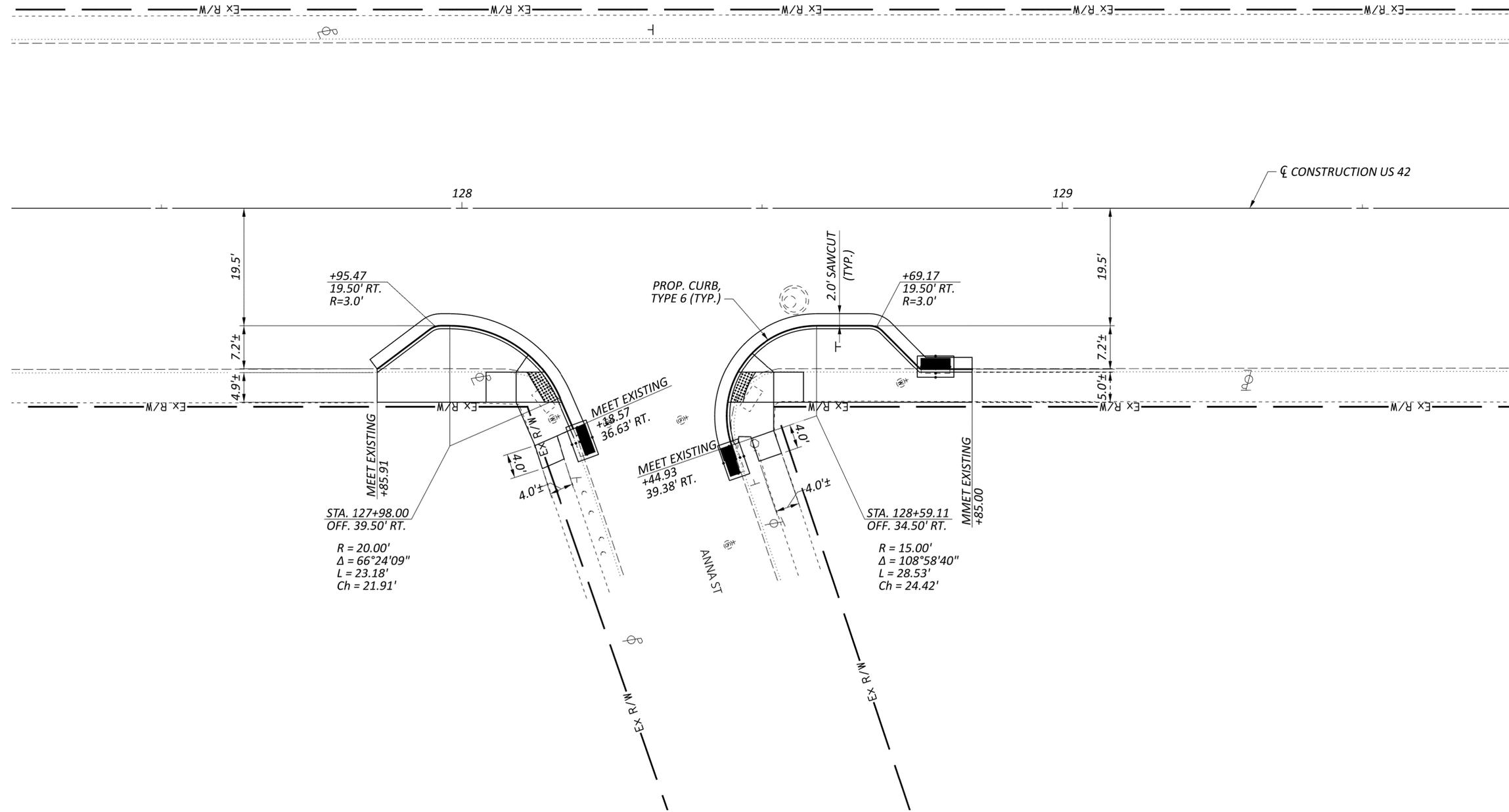


INTERSECTION DETAILS
 READING RD. AT JEFFERSON AVE



DESIGN AGENCY
CMT
 CMT ENGINEERING
 1777 WASHINGTON VILLAGE DR
 DAYTON, OHIO 45459
 www.cmtengr.com

DESIGNER	LDW
REVIEWER	JWL 09/18/25
PROJECT ID	123369
SHEET TOTAL	P.32 104



INTERSECTION DETAILS
 READING RD. AT ANNA ST

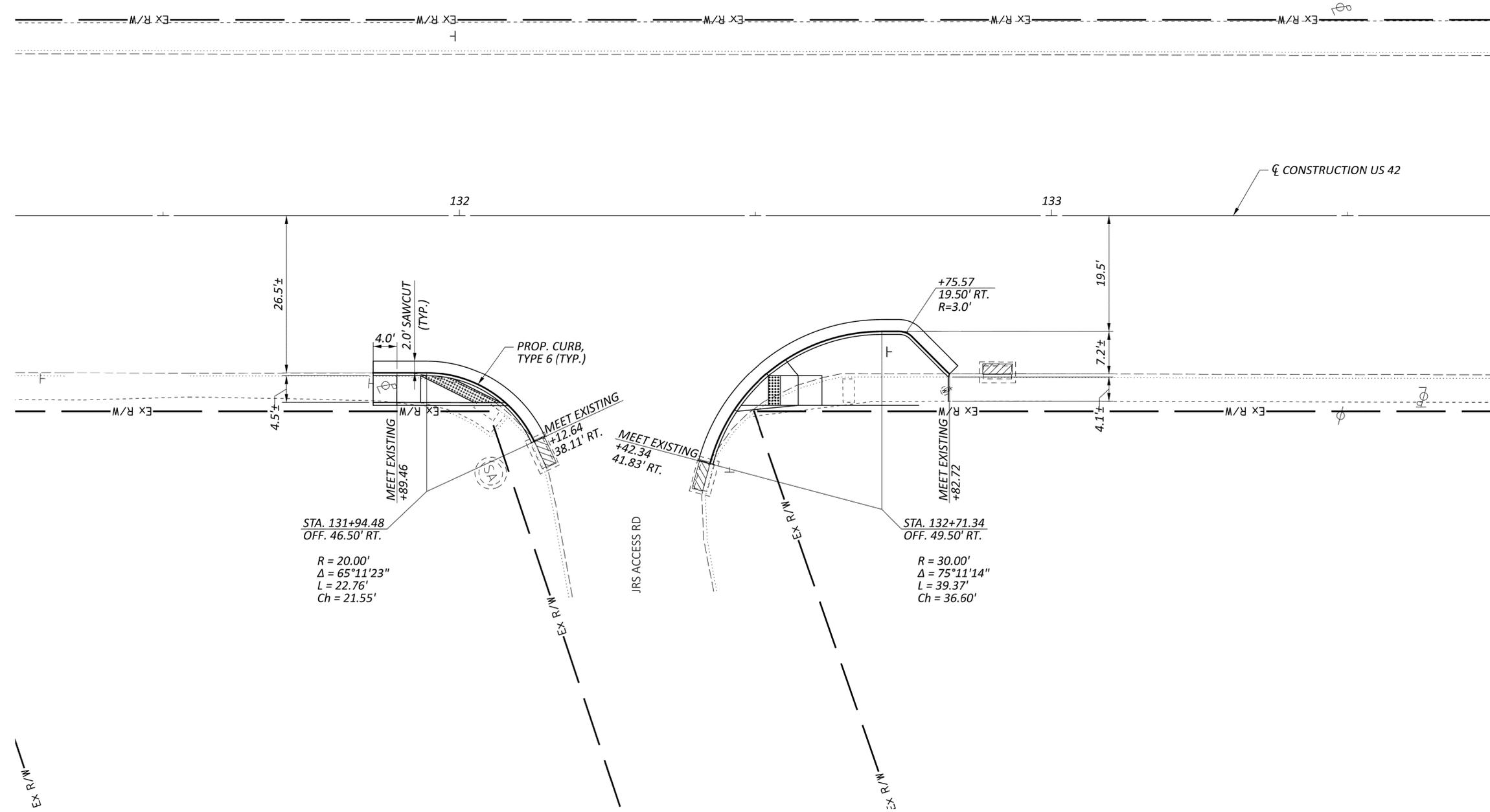


DESIGN AGENCY
CMT
 CMT ENGINEERING
 1777 WASHINGTON VILLAGE DR
 DAYTON, OHIO 45459
 www.cmtengr.com

DESIGNER	LDW
REVIEWER	JWL
DATE	09/18/25
PROJECT ID	123369
SHEET	P.33
TOTAL	104

HAM US 42 10.07 READING RD

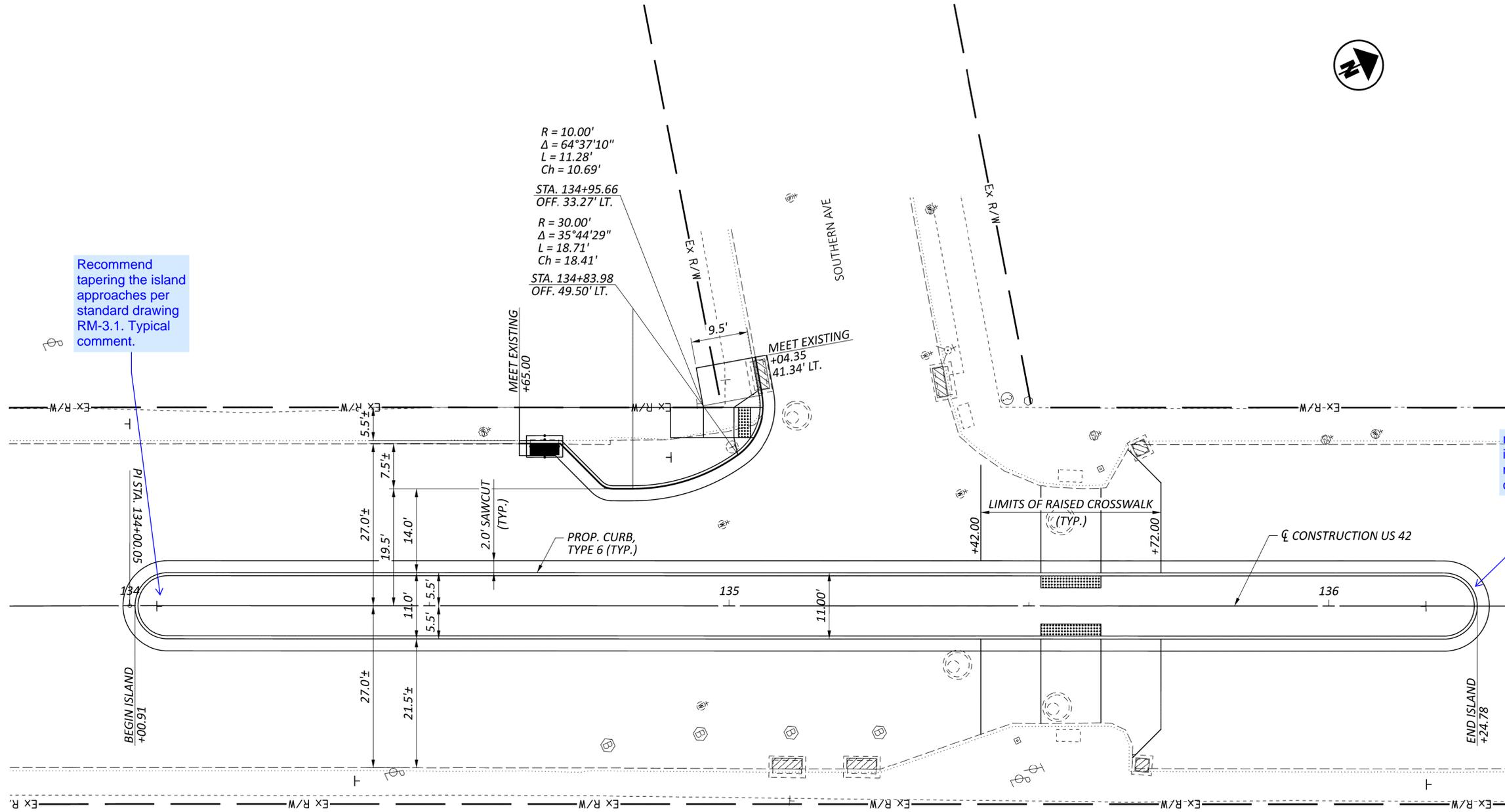
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INTERSECTION DETAILS
 READING RD. AT JRS ACCESS RD



DESIGN AGENCY	
 CMT CIVIL & TRANSPORTATION 1777 WASHINGTON VILLAGE DR DAYTON, OHIO 45459 www.cmtengr.com	
DESIGNER	
LDW	
REVIEWER	
JWL 09/18/25	
PROJECT ID	
123369	
SHEET	TOTAL
P.34	104



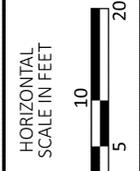
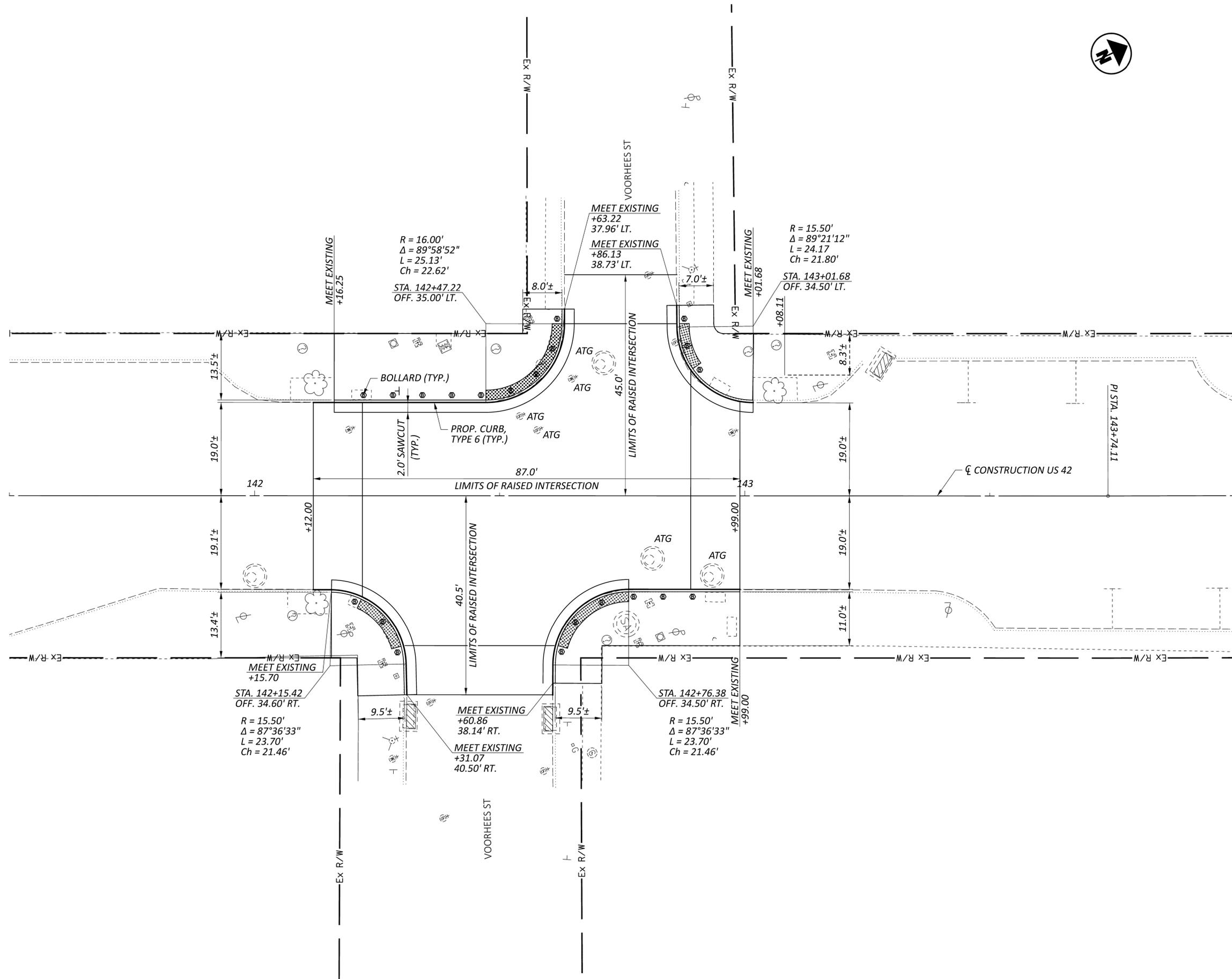
Recommend tapering the island approaches per standard drawing RM-3.1. Typical comment.

radius information missing. typical comment

INTERSECTION DETAILS
 READING RD. AT SOUTHERN AVE

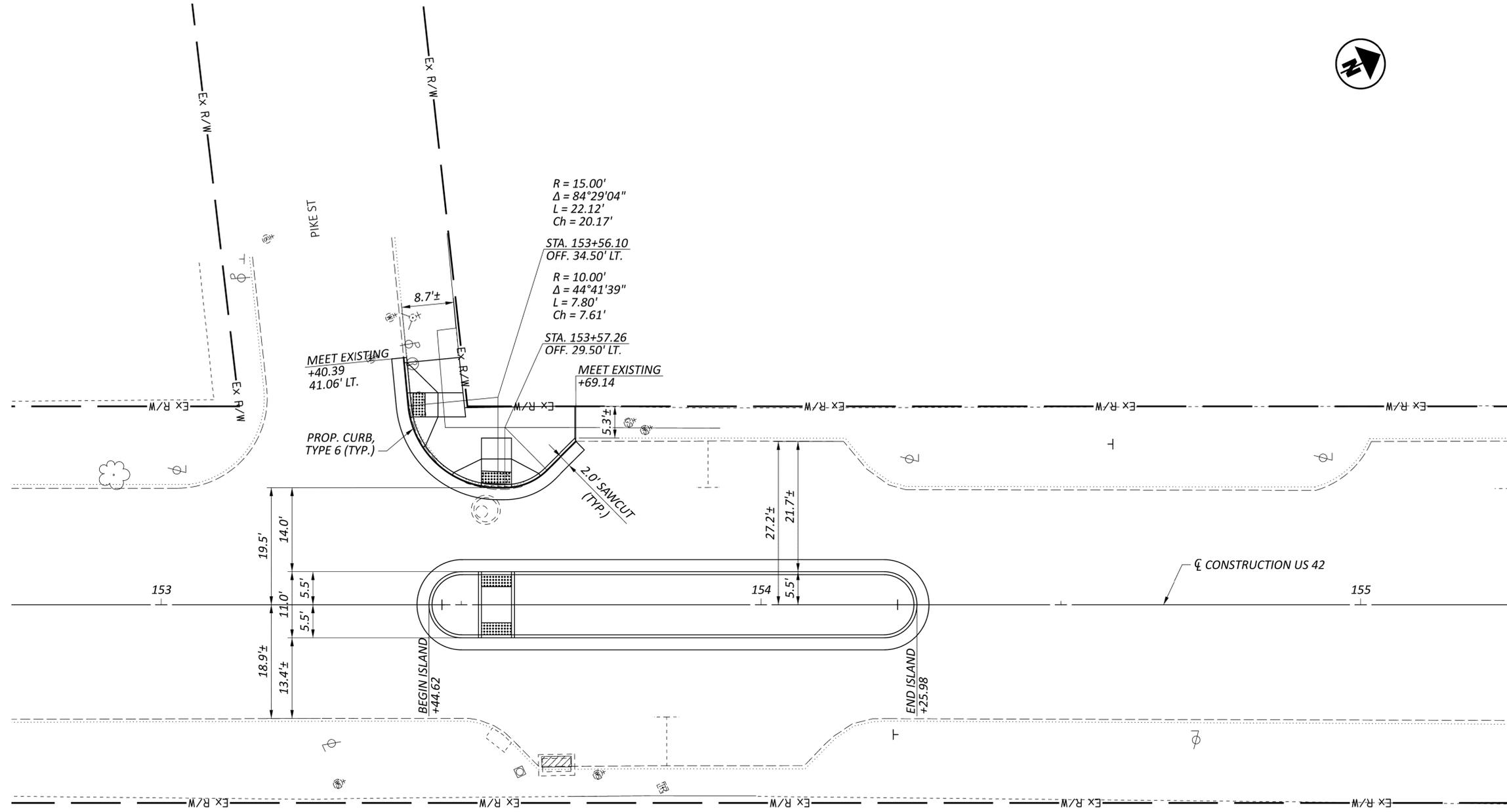


DESIGNER	LDW
REVIEWER	JWL
DATE	09/18/25
PROJECT ID	123369
SHEET	P.35
TOTAL	104



INTERSECTION DETAILS
 READING RD. AT VOORHEES ST

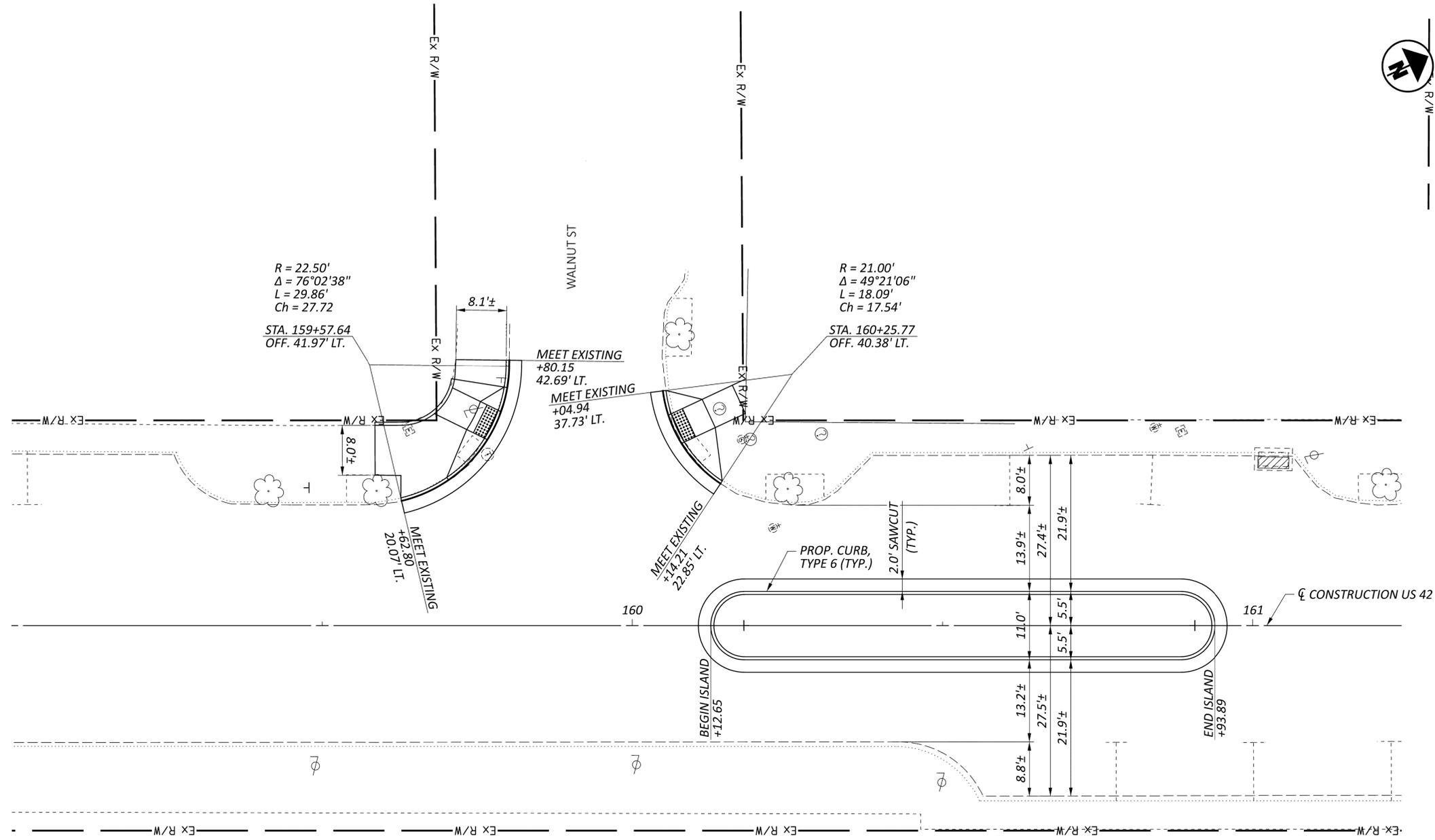
DESIGN AGENCY	
CMT	CONTRACTOR
1777 WASHINGTON VILLAGE DR DAYTON, OHIO 45459 www.cmtengr.com	DESIGNER
LDW	REVIEWER
JWL	09/18/25
PROJECT ID	123369
SHEET	TOTAL
P.36	104



INTERSECTION DETAILS
 READING AT PIKE ST



DESIGNER	LDW
REVIEWER	JWL
DATE	09/18/25
PROJECT ID	123369
SHEET	P.37
TOTAL	104

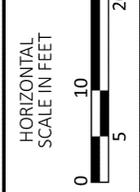
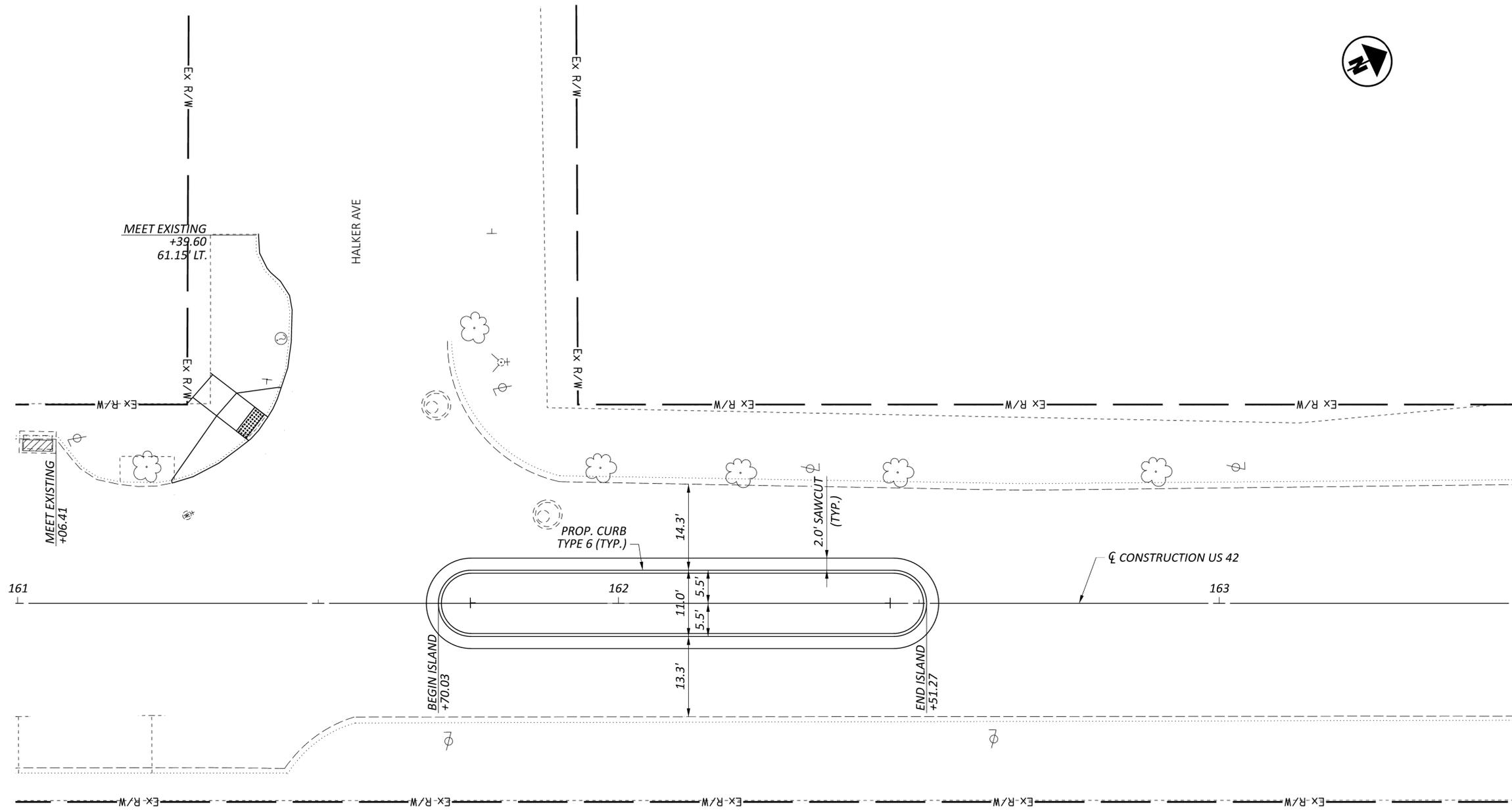


INTERSECTION DETAILS
 READING RD. AT WALNUT ST

<p>DESIGN AGENCY</p> <p>CMT CONSTRUCTION MANAGEMENT TECHNOLOGIES 1777 WASHINGTON VILLAGE DR DAYTON, OHIO 45459 www.cmtengr.com</p>	
DESIGNER	LDW
REVIEWER	JWL
PROJECT ID	09/18/25
SHEET	123369
TOTAL	104
P.38	

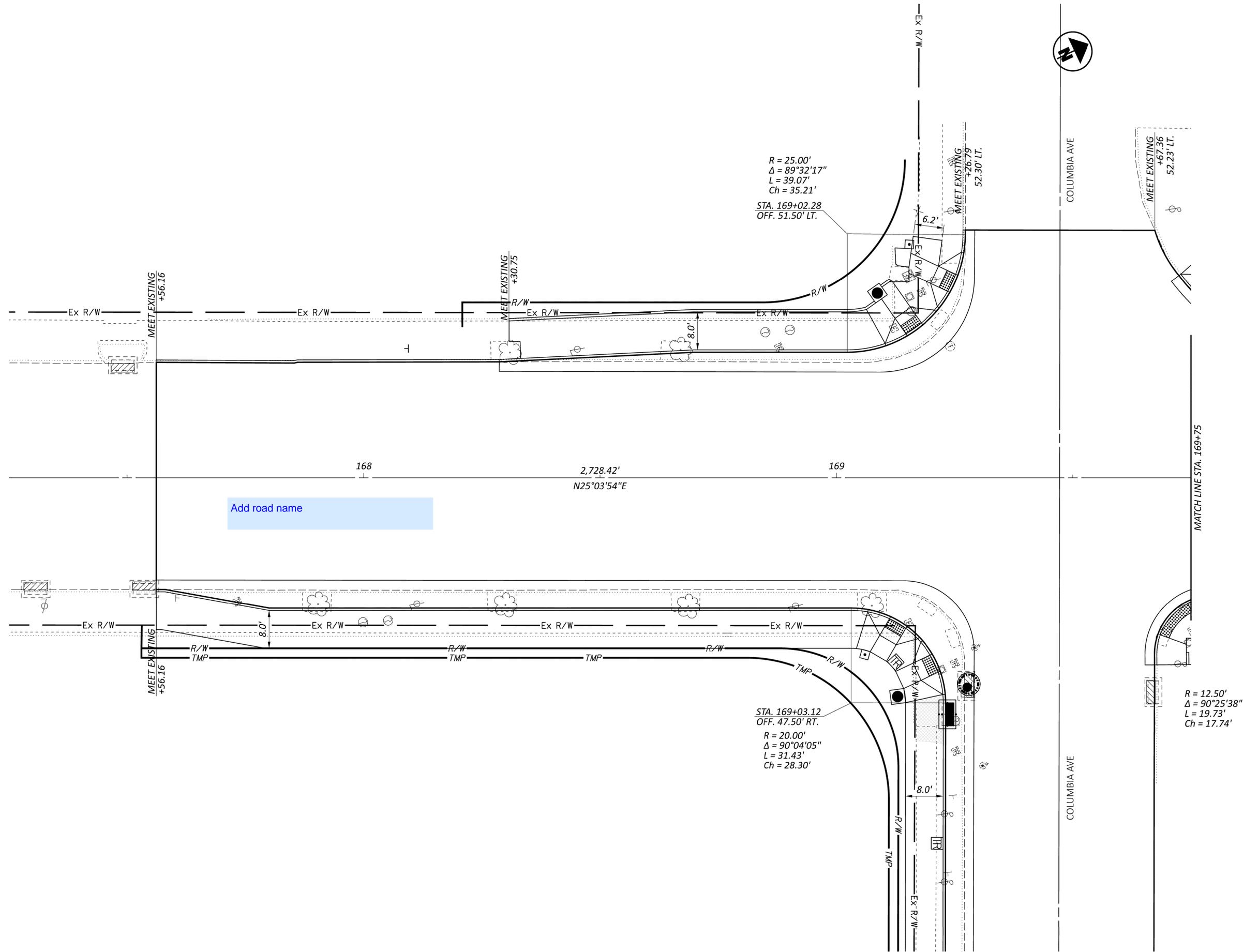
HAM US 42 10.07 READING RD

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**INTERSECTION DETAILS
 READING RD. AT HALKER AVE**

<p>CMT CONSTRUCTION MANAGEMENT TECHNOLOGIES 1777 WASHINGTON VILLAGE DR DAYTON, OHIO 45459 www.cmtengr.com</p>	
DESIGN AGENCY	
DESIGNER	
LDW	
REVIEWER	
JWL 09/18/25	
PROJECT ID	
123369	
SHEET	TOTAL
P.39	104

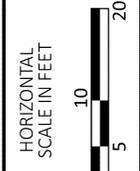


Add road name

$R = 25.00'$
 $\Delta = 89^\circ 32' 17''$
 $L = 39.07'$
 $Ch = 35.21'$
 STA. 169+02.28
 OFF. 51.50' LT.

STA. 169+03.12
 OFF. 47.50' RT.
 $R = 20.00'$
 $\Delta = 90^\circ 04' 05''$
 $L = 31.43'$
 $Ch = 28.30'$

$R = 12.50'$
 $\Delta = 90^\circ 25' 38''$
 $L = 19.73'$
 $Ch = 17.74'$



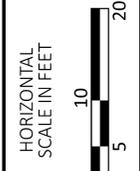
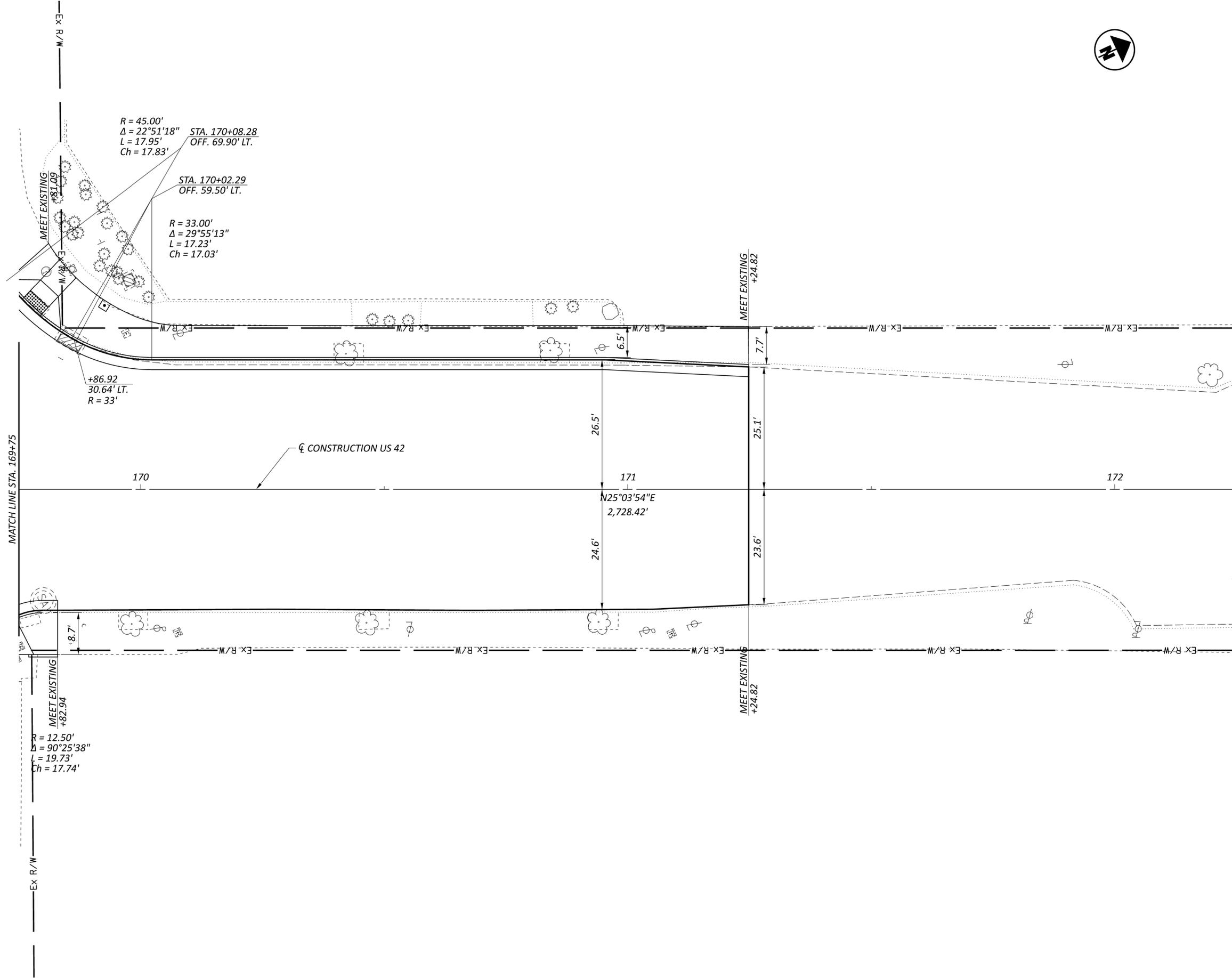
INTERSECTION DETAILS
 READING RD. AT COLUMBIA AVE

DESIGN AGENCY
CMT
 CIVIL & SURVEYING
 1777 WASHINGTON VILLAGE DR
 DAYTON, OHIO 45459
 www.cmtengr.com

DESIGNER	LDW
REVIEWER	JWL 09/18/25
PROJECT ID	123369
SHEET TOTAL	P.40 104

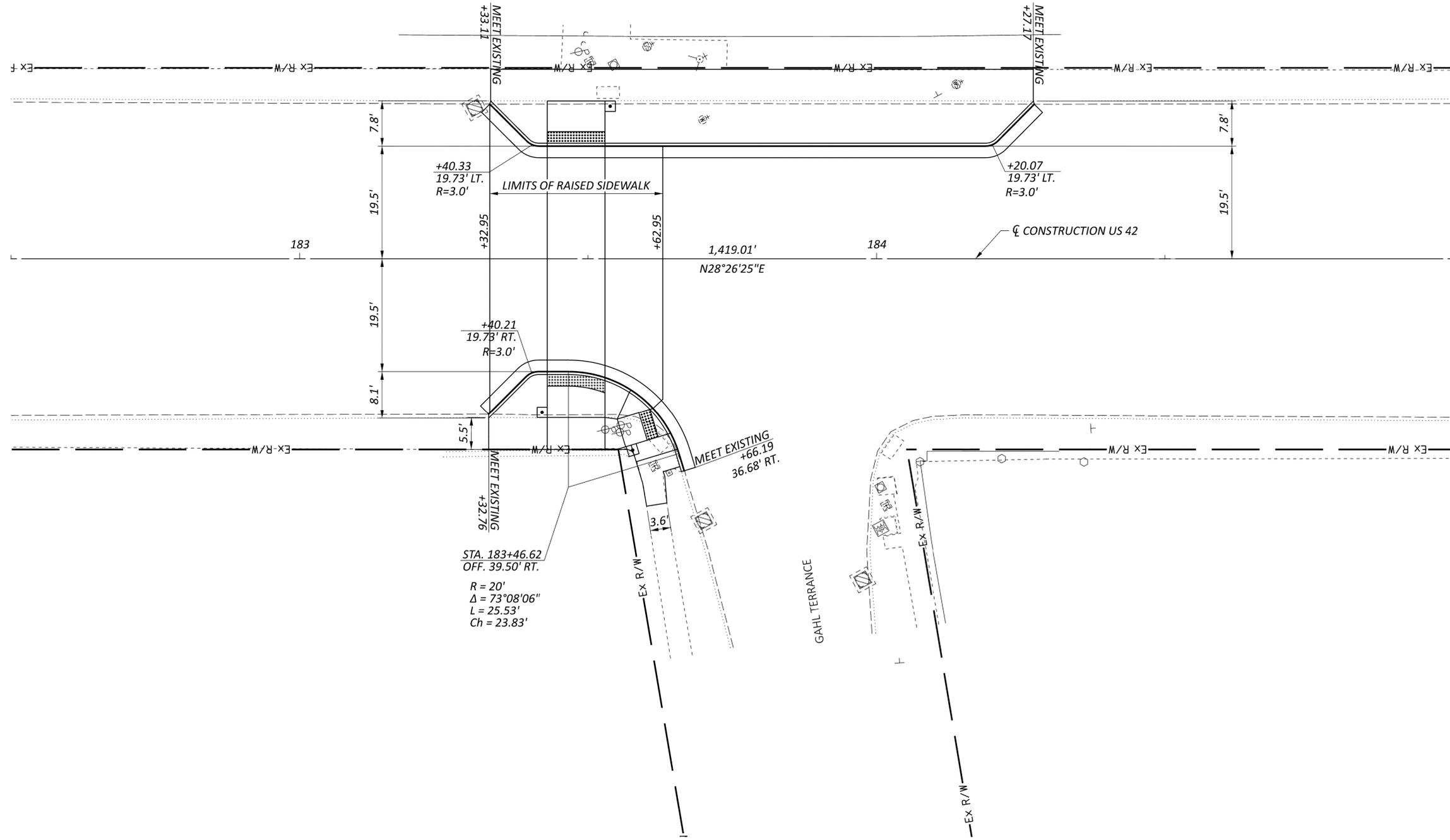
HAM US 42 10.07 READING RD

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INTERSECTION DETAILS
READING RD.

DESIGN AGENCY	
CMT 1777 WASHINGTON VILLAGE DR DAYTON, OHIO 45459 www.cmtengr.com	
DESIGNER	
LDW	
REVIEWER	
JWL 09/18/25	
PROJECT ID	
123369	
SHEET	TOTAL
P.41	104



INTERSECTION DETAILS
 READING AT GAHL TERRACE



DESIGN AGENCY
CMT
 CMT ENGINEERING
 1777 WASHINGTON VILLAGE DR
 DAYTON, OHIO 45459
 www.cmteng.com

DESIGNER
LDW

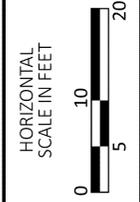
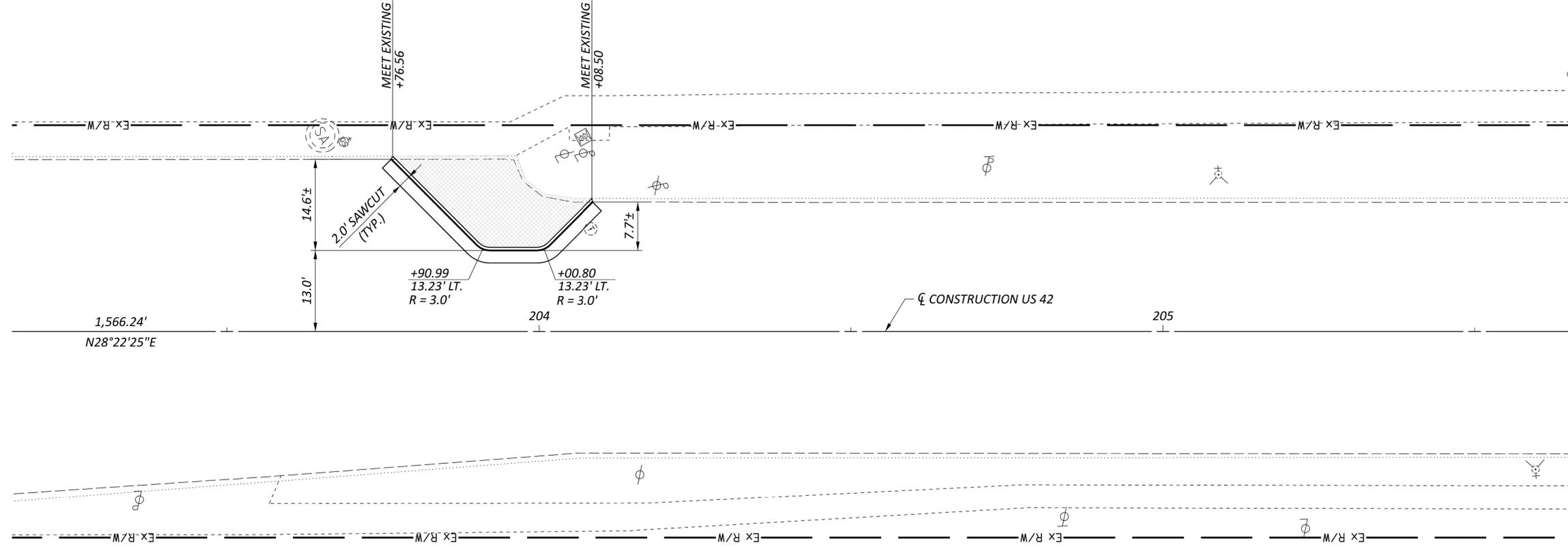
REVIEWER
JWL 09/18/25

PROJECT ID
123369

SHEET TOTAL
P.42 104

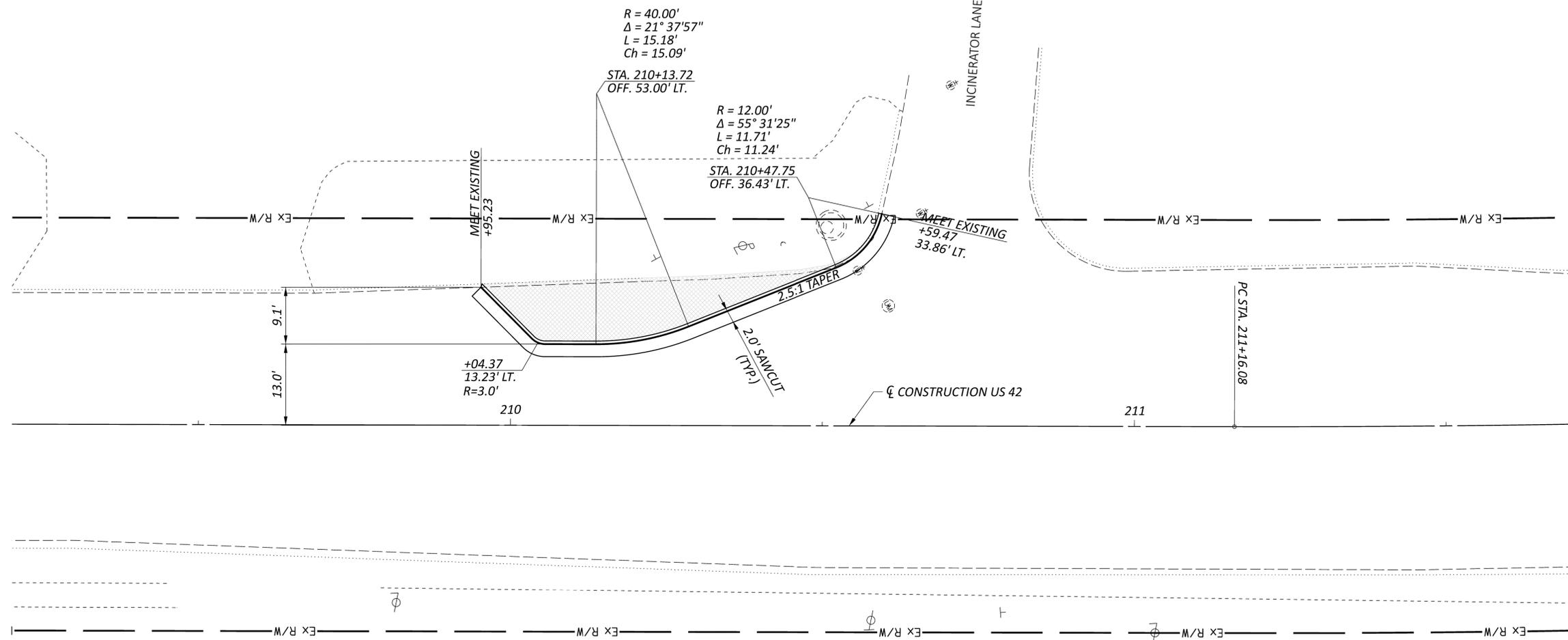
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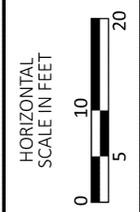


INTERSECTION DETAILS
 READING RD.

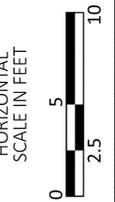
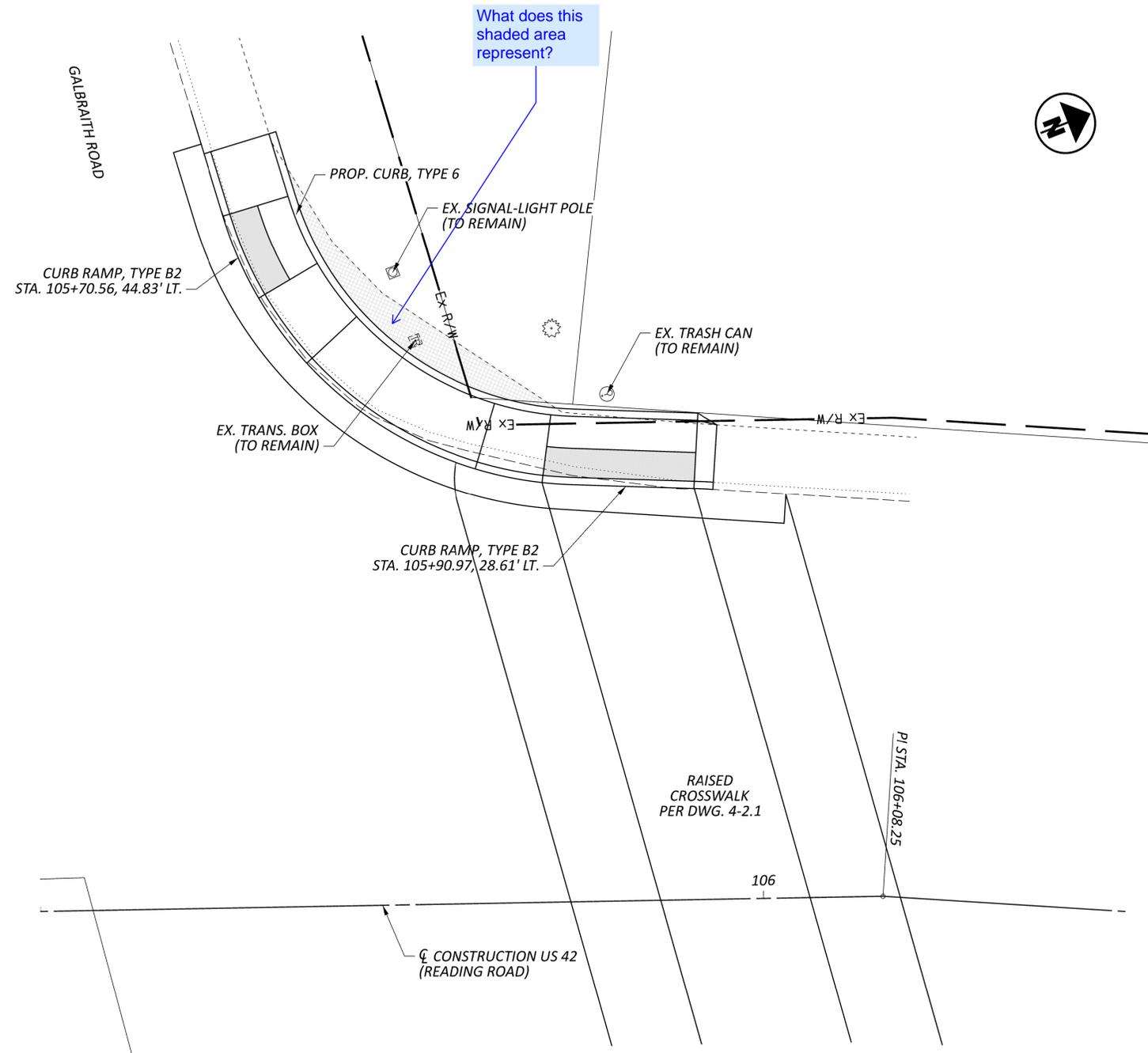
<p>DESIGN AGENCY CMT CONSTRUCTION MANAGEMENT TECHNOLOGIES 1777 WASHINGTON VILLAGE DR DAYTON, OHIO 45459 www.cmtengr.com</p>	
DESIGNER	LDW
REVIEWER	JWL
PROJECT ID	09/18/25
SHEET	123369
TOTAL	104
P.43	



INTERSECTION DETAILS
 READING RD. AT INCINERATOR LN



 DESIGN AGENCY CMT CONSTRUCTION MANAGEMENT TECHNOLOGIES 1777 WASHINGTON VILLAGE DR DAYTON, OHIO 45459 www.cmtengr.com	
DESIGNER	LDW
REVIEWER	JWL
PROJECT ID	09/18/25
SHEET	123369
TOTAL	104
P.44	



CURB RAMP DETAILS
 READING RD. AT GALBRAITH ROAD (NW)

DESIGN AGENCY

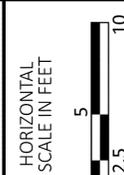
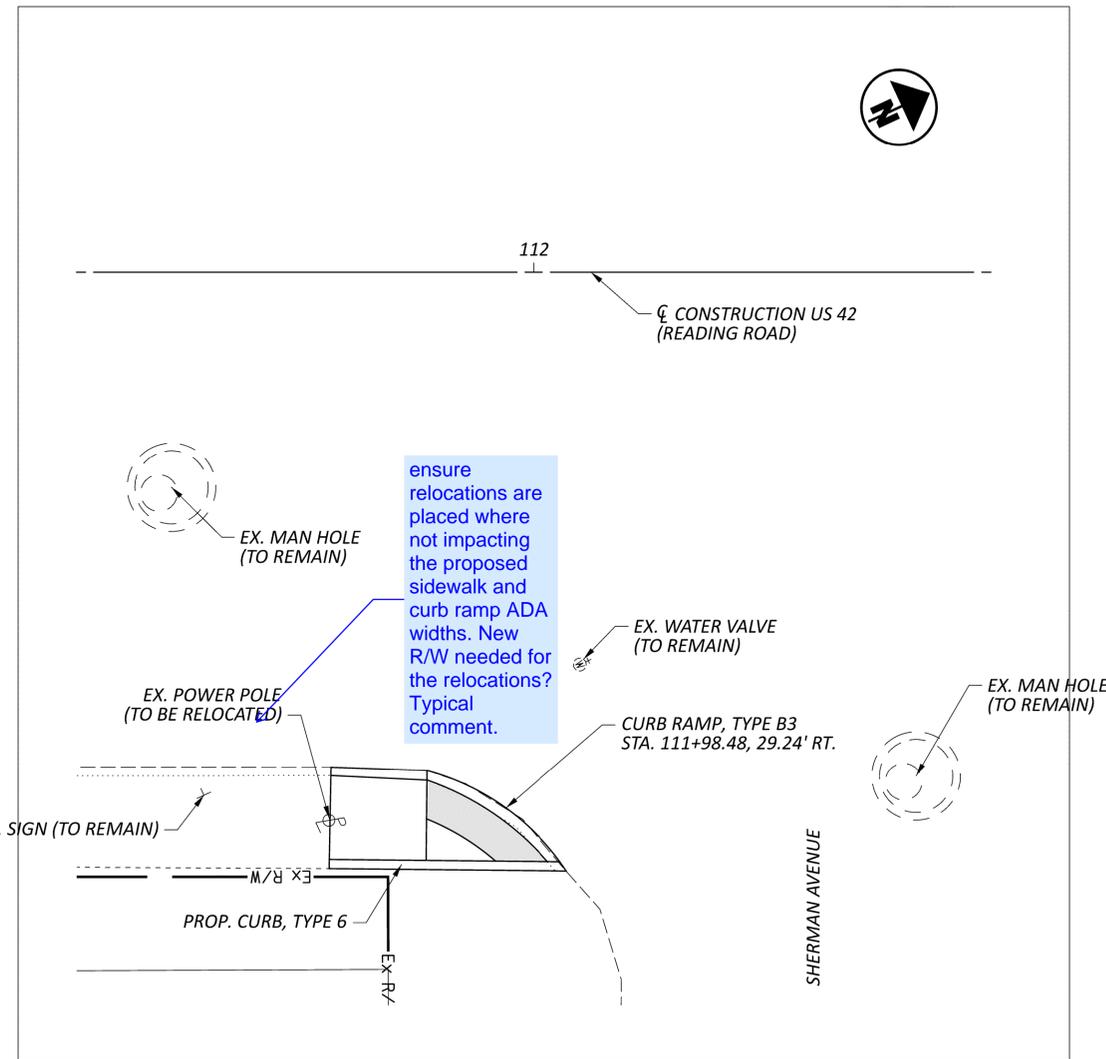
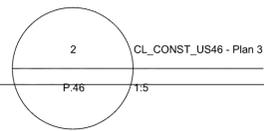
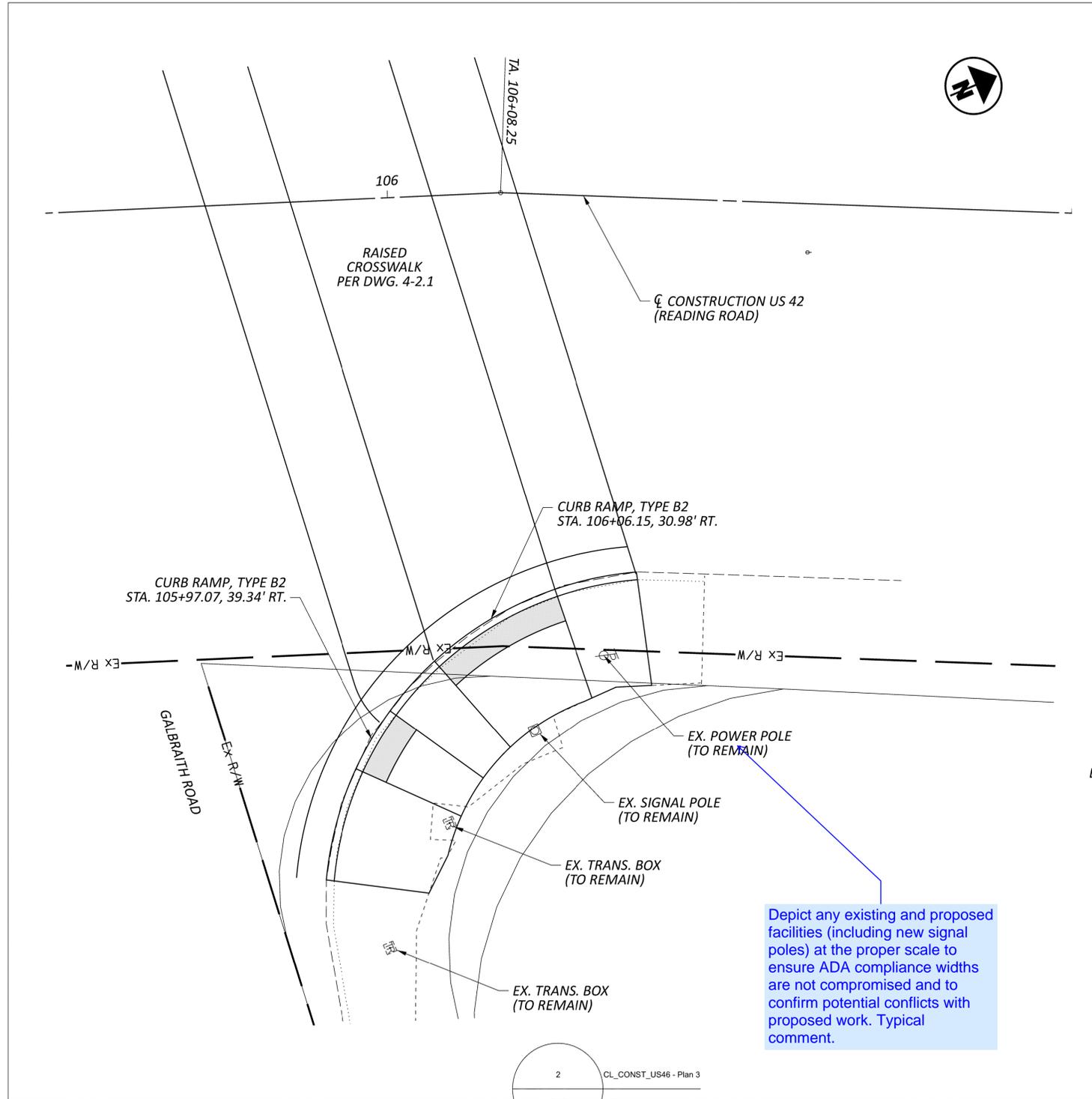


DESIGNER
 DEY

REVIEWER
 AMT 09/18/25

PROJECT ID
 123369

SHEET TOTAL
 P.45 | 104



CURB RAMP DETAILS
 READING RD. AT GALBRAITH ROAD (NE) & SHERMAN AVENUE

DESIGN AGENCY

2LMN

DESIGNER

DEY

REVIEWER

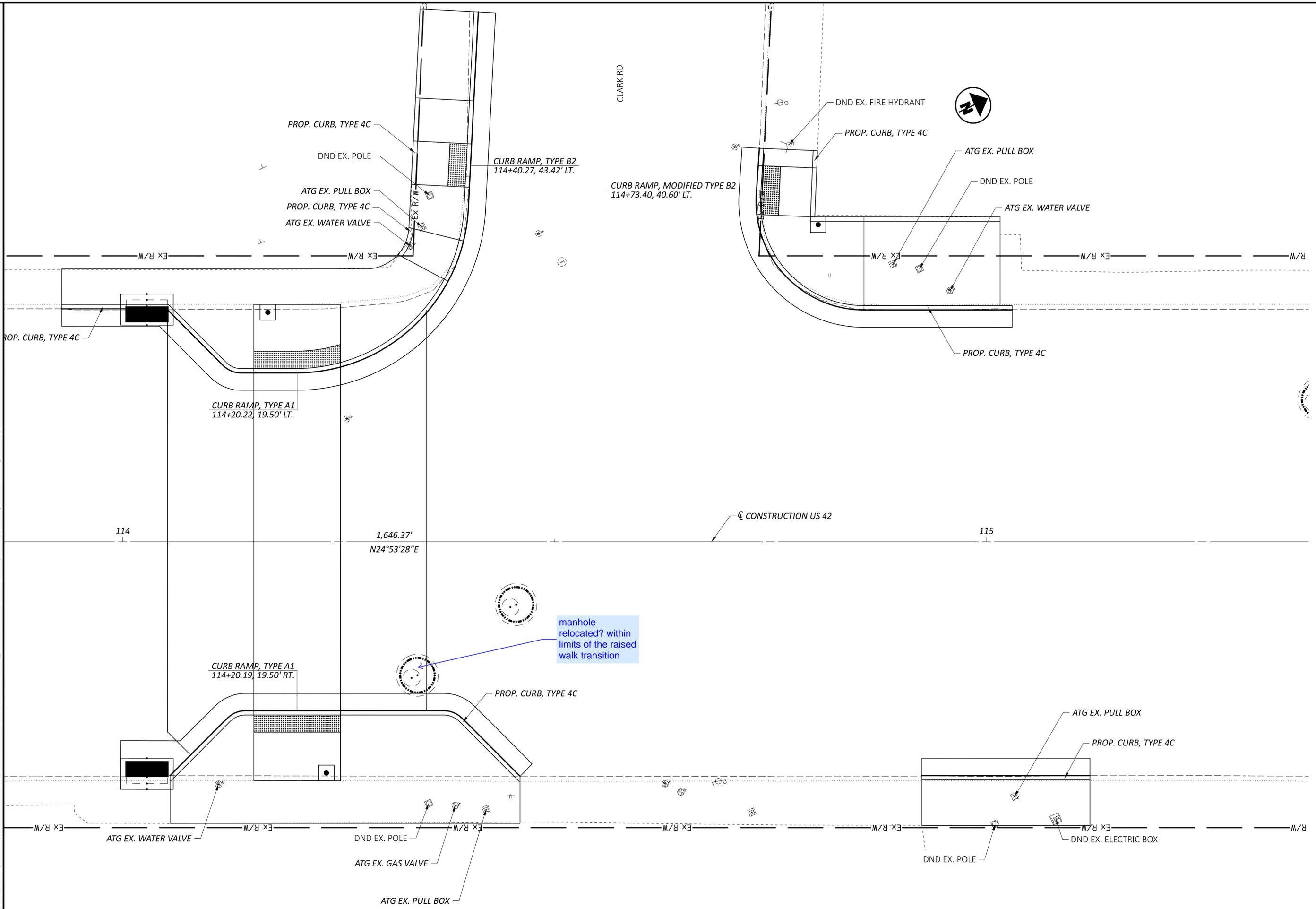
AMT 09/18/25

PROJECT ID

123369

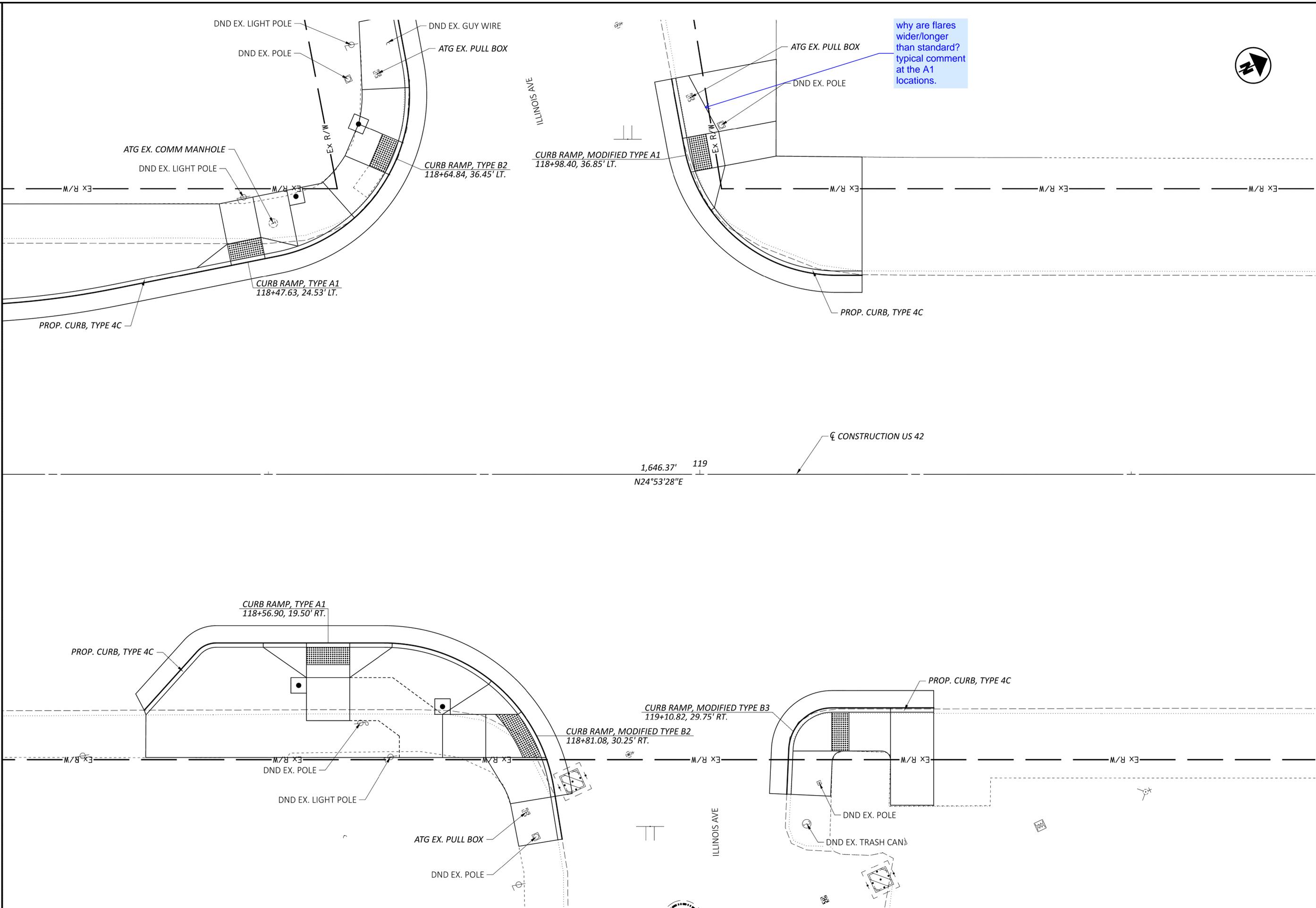
SHEET TOTAL

P.46 104



CURB RAMP DETAILS
 READING RD. AT CLARK RD

DESIGN AGENCY	
 CMT CRAWFORD, MURPHY & CONSULTANTS 1777 WASHINGTON VILLAGE DR DAYTON, OHIO 45459 www.cmtengr.com	
DESIGNER	LDW
REVIEWER	JWL 09/18/25
PROJECT ID	123369
SHEET	TOTAL
P.48	104



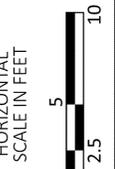
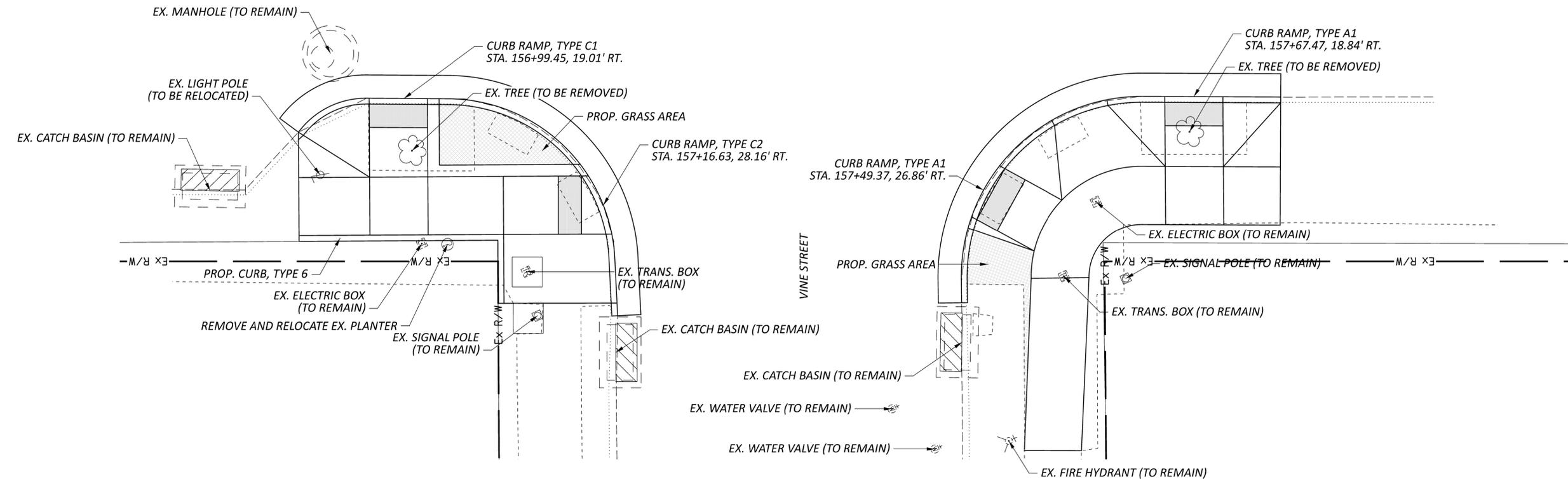
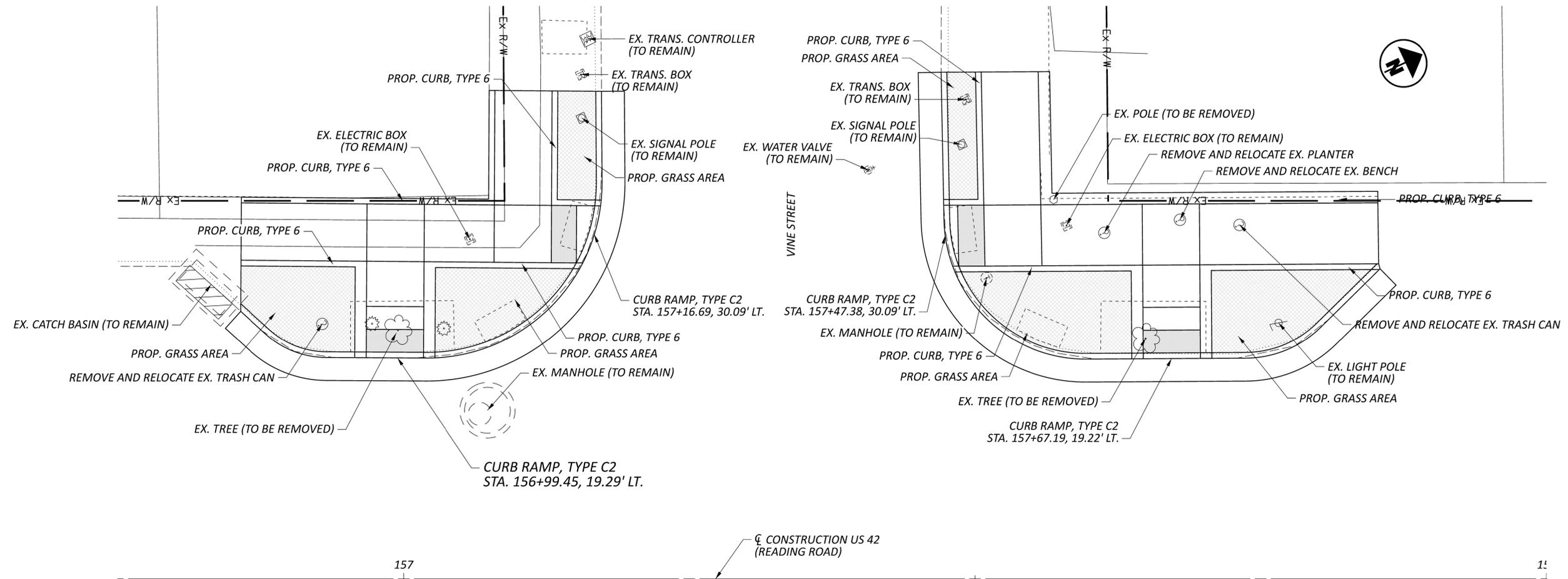
why are flares wider/longer than standard? typical comment at the A1 locations.



CURB RAMP DETAILS
READING RD. AT ILLINOIS AVE

DESIGN AGENCY
CMT
CMT ENGINEERING
1777 WASHINGTON VILLAGE DR
DAYTON, OHIO 45459
www.cmtengr.com

DESIGNER	LDW
REVIEWER	JWL 09/18/25
PROJECT ID	123369
SHEET TOTAL	P.49 104

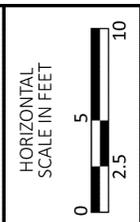
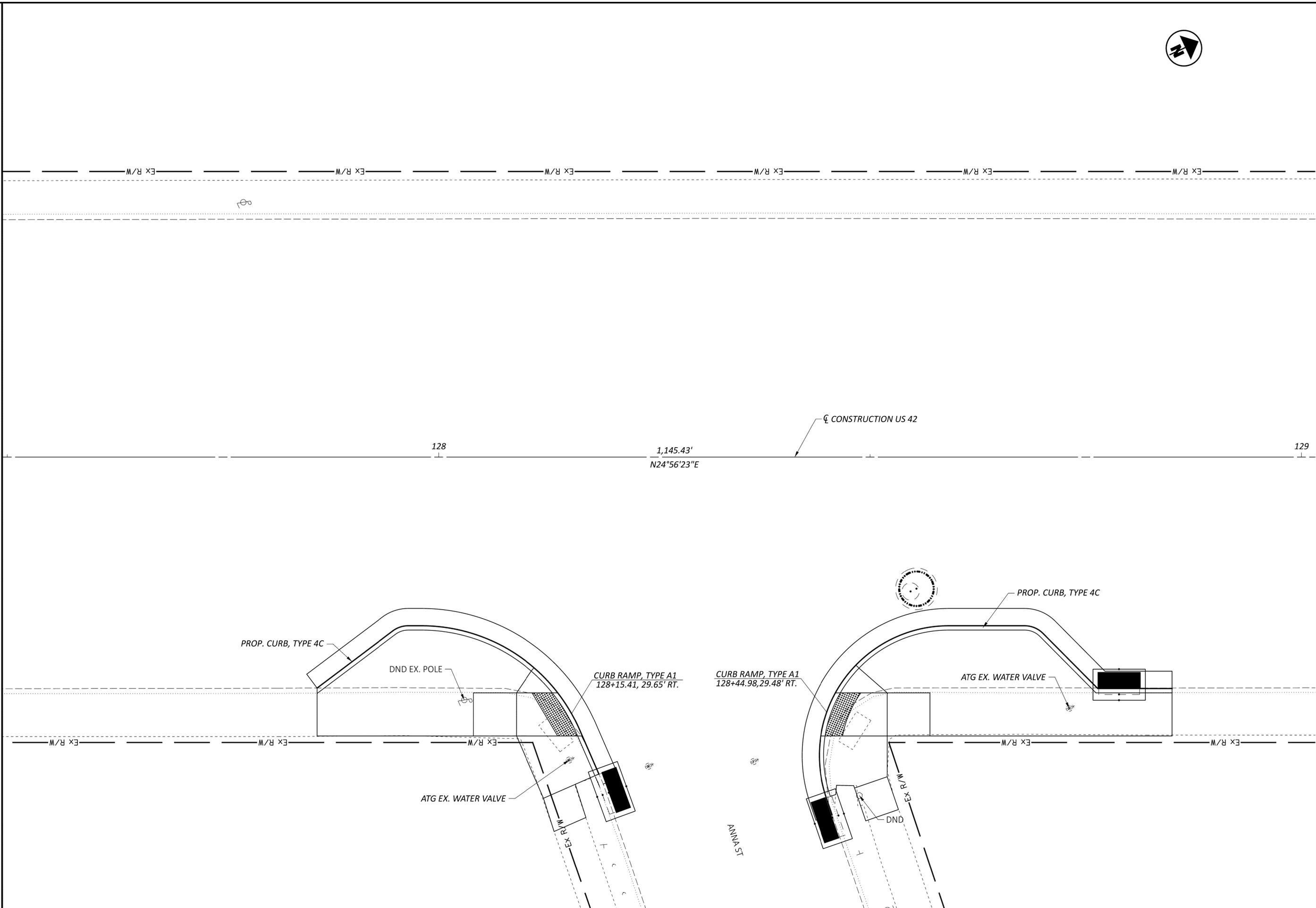


CURB RAMP DETAILS
READING RD. AT VINE ST.

DESIGN AGENCY

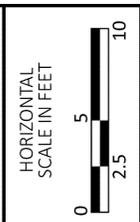
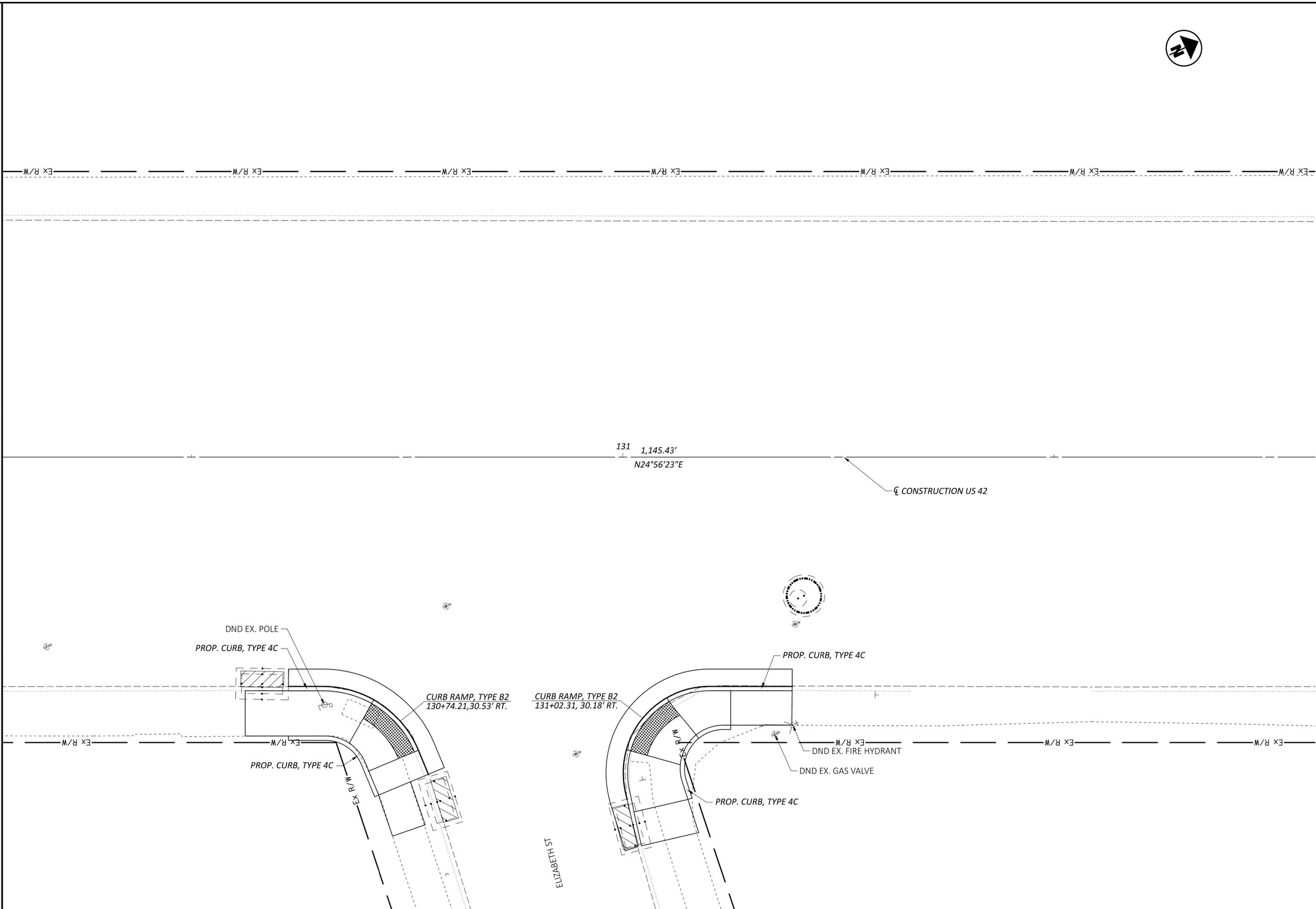


DESIGNER	XXX
REVIEWER	AMT 09/18/25
PROJECT ID	123369
SHEET TOTAL	P.50 104



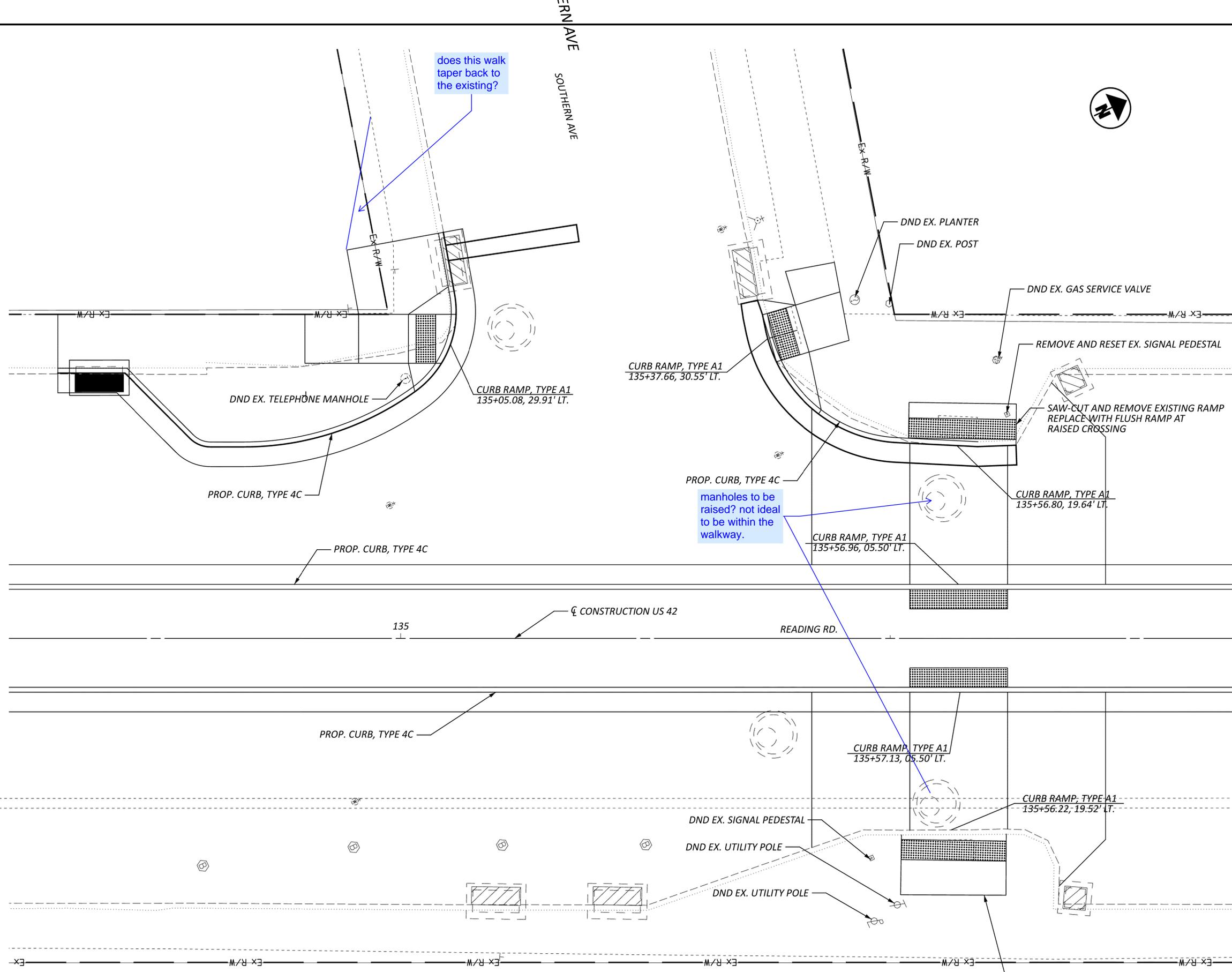
CURB RAMP DETAILS
READING RD. AT ANNA ST

DESIGN AGENCY	
 CMT CONSTRUCTION MANAGEMENT TECHNOLOGIES 1777 WASHINGTON VILLAGE DR DAYTON, OHIO 45459 www.cmtengr.com	
DESIGNER	LDW
REVIEWER	JWL 09/18/25
PROJECT ID	123369
SHEET	TOTAL
P.52	104



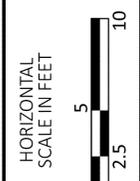
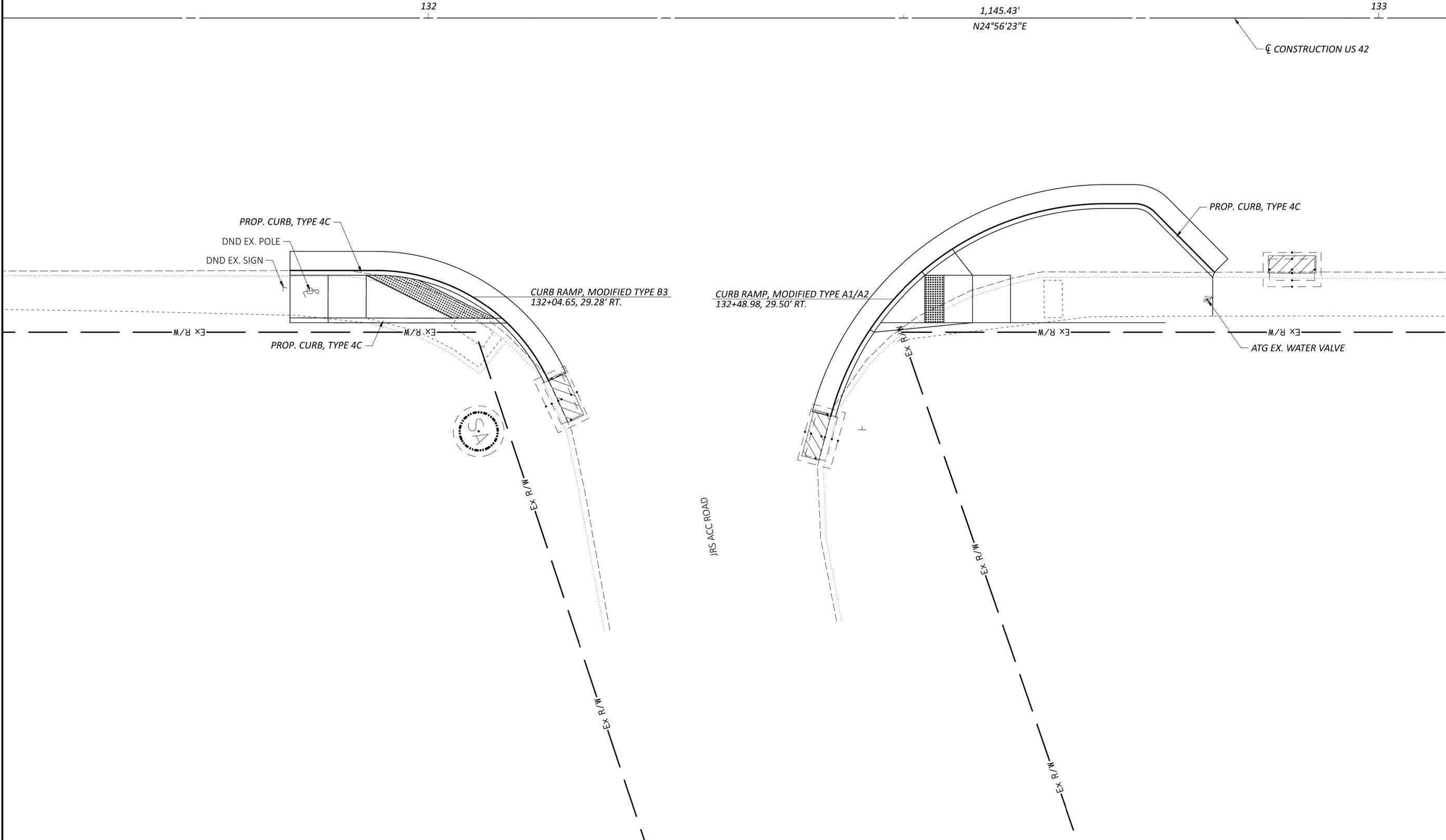
CURB RAMP DETAILS
READING RD. AT ELIZABETH ST

DESIGN AGENCY	
 CMT CRAWFORD, MURPHY & COMPANY 1777 WASHINGTON VILLAGE DR DAYTON, OHIO 45459 www.cmtengr.com	
DESIGNER	
LDW	
REVIEWER	
JWL 09/18/25	
PROJECT ID	
123369	
SHEET	TOTAL
P.53	104



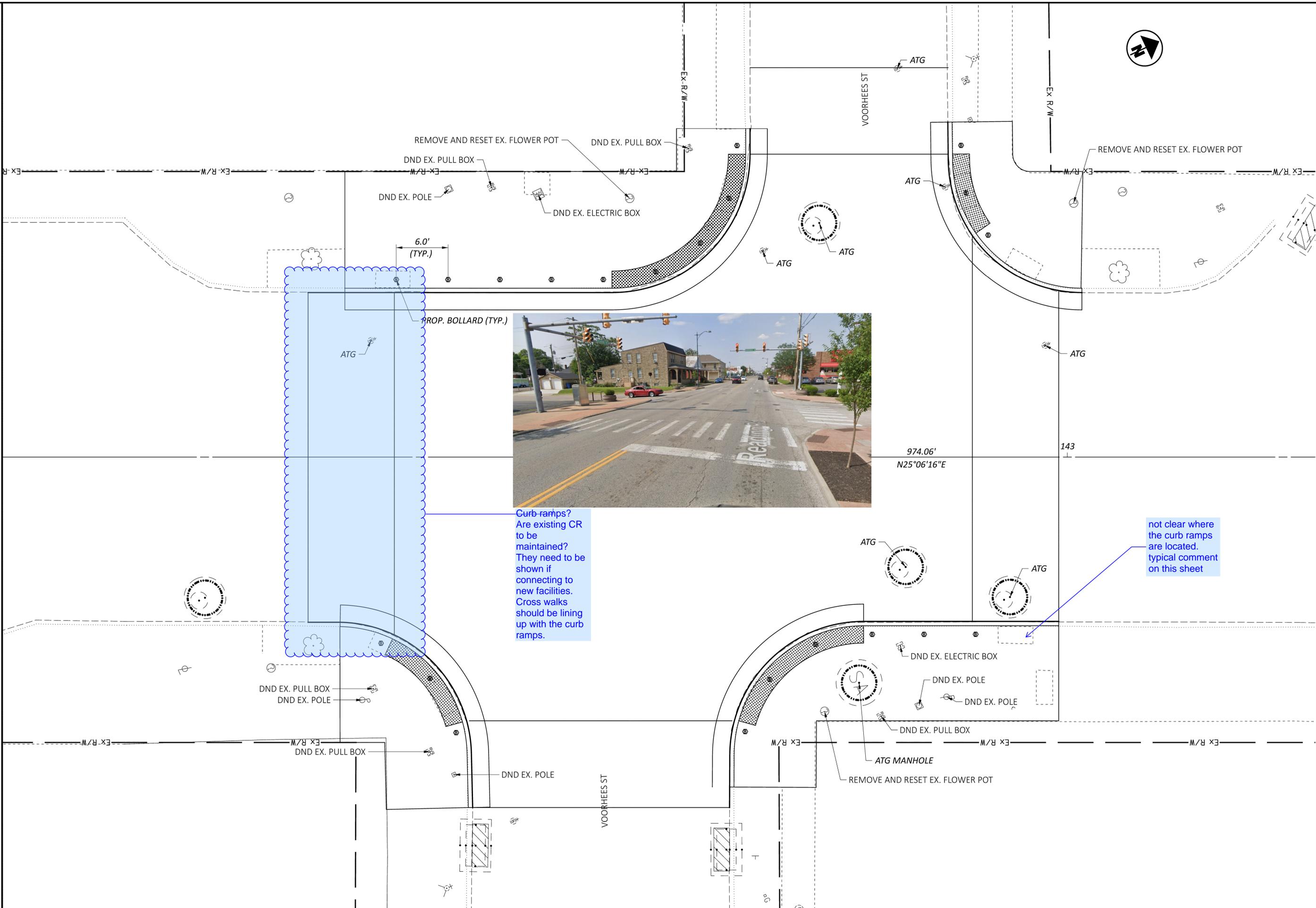
CURB RAMP DETAILS
READING RD. AT SOUTHERN AVE.

DESIGN AGENCY	TOOLE DESIGN
DESIGNER	XXX
REVIEWER	XXX
PROJECT ID	09/18/25
	123369
SHEET	TOTAL
P.54	104



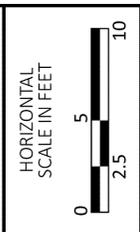
CURB RAMP DETAILS
 READING RD. AT JRS ACCESS RD

DESIGN AGENCY	
CMT CIVIL & TRANSPORTATION 1777 WASHINGTON VILLAGE DR DAYTON, OHIO 45459 www.cmtengr.com	
DESIGNER	
LDW	
REVIEWER	
JWL 09/18/25	
PROJECT ID	
123369	
SHEET	TOTAL
P.55	104



Curb ramps?
Are existing CR
to be
maintained?
They need to be
shown if
connecting to
new facilities.
Cross walks
should be lining
up with the curb
ramps.

not clear where
the curb ramps
are located.
typical comment
on this sheet

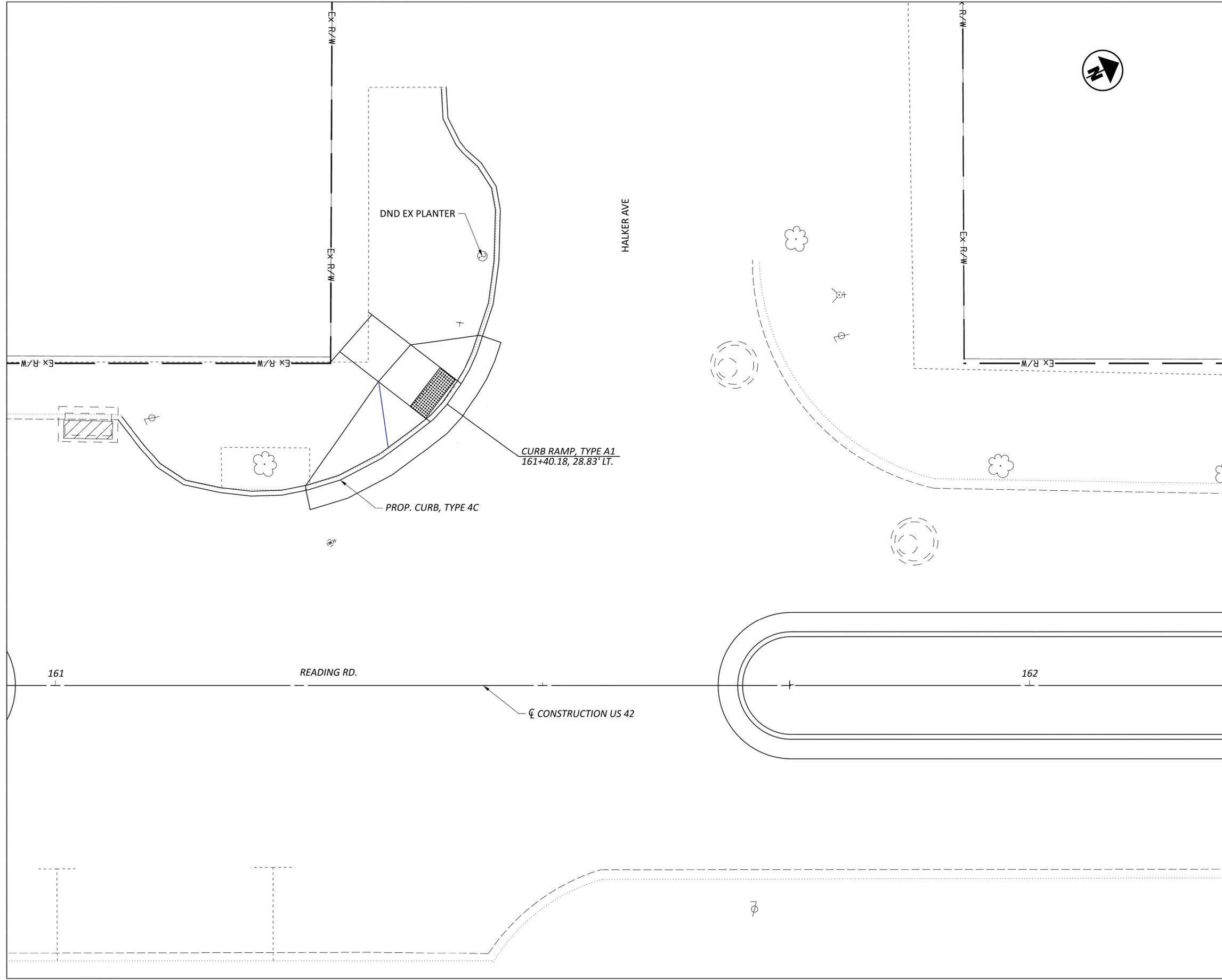


CURB RAMP DETAILS
READING RD. AT VOORHEES ST

DESIGN AGENCY	
 CMT 1777 WASHINGTON VILLAGE DR DAYTON, OHIO 45459 www.cmtengr.com	
DESIGNER	LDW
REVIEWER	JWL 09/18/25
PROJECT ID	123369
SHEET	TOTAL
P.56	104

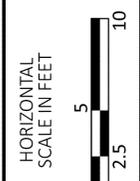
HAM US 42 10.07 READING RD

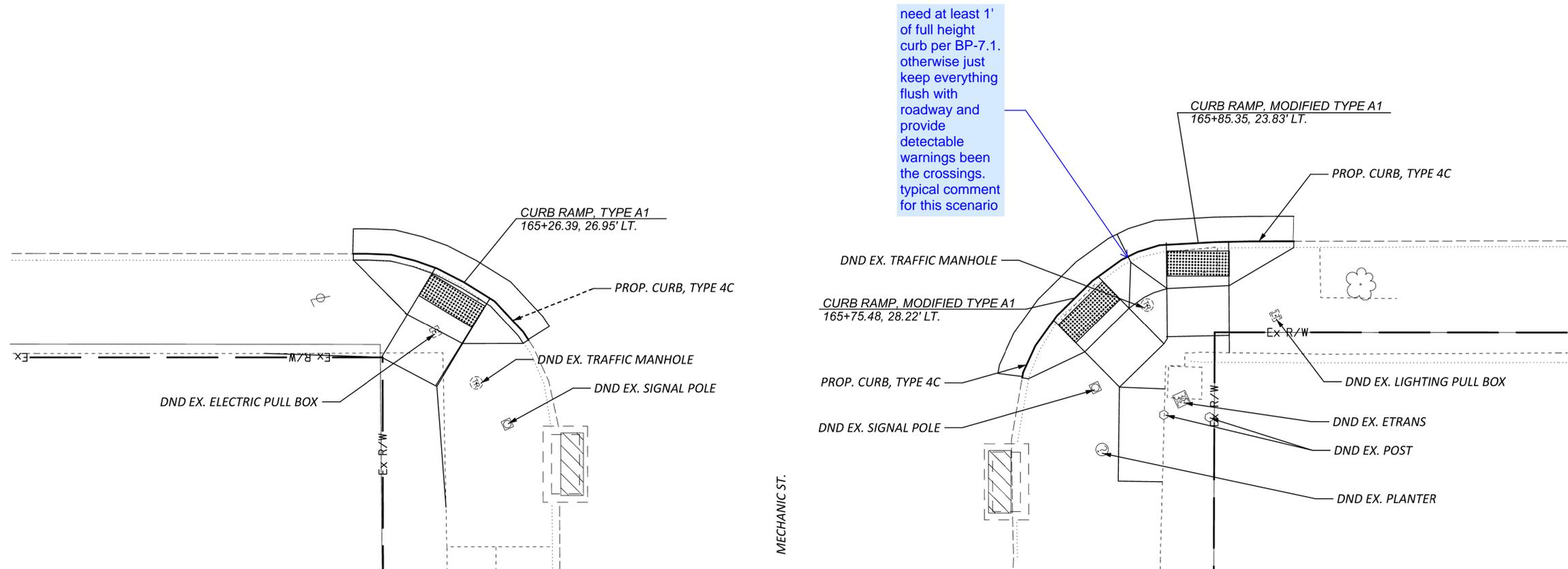
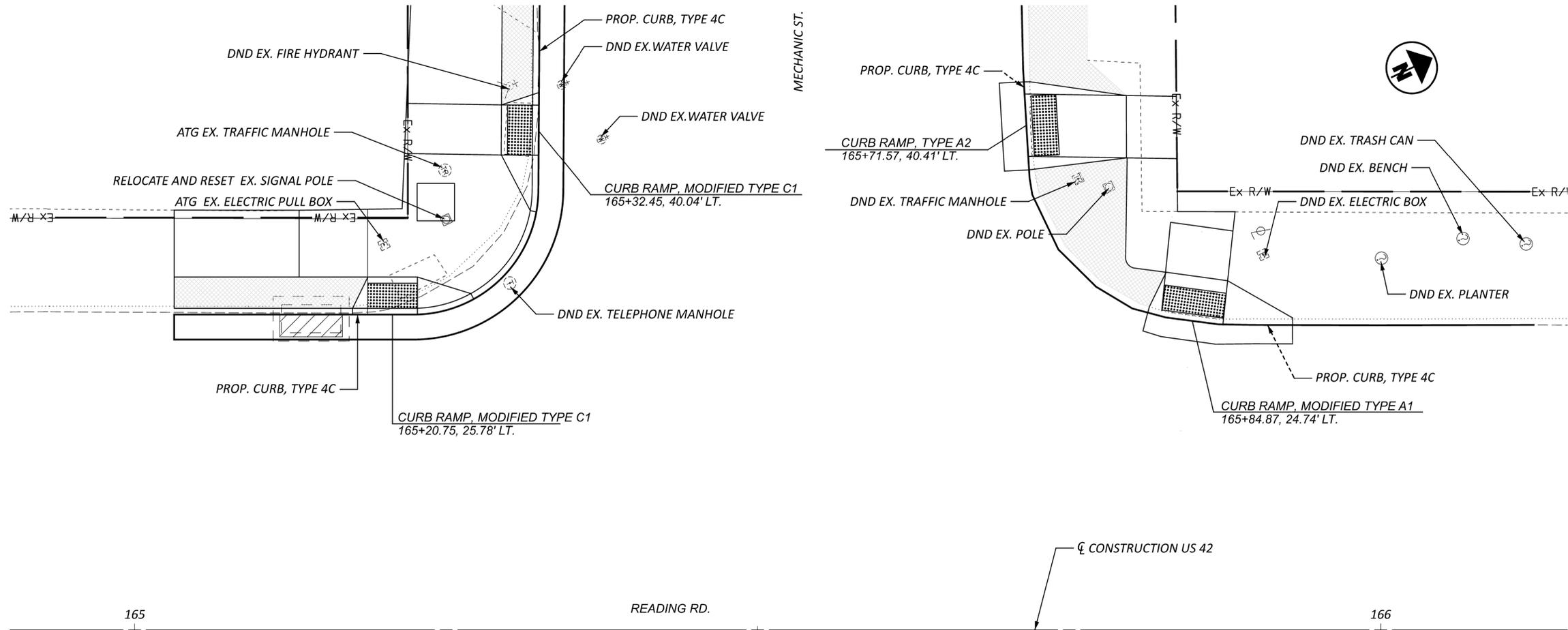
MODEL SHEET - Halker Ave PAPER SIZE: 34x42 (in.) DATE: 9/18/2025 TIME: 3:19:37 PM PLTDRV: OHDOT_PDF.plt USER: jlockhart@cmtegr.com WORKSPACE: ODOT 2024 WORKSET: 123369 PRODUCT: OpenRoadsDesigner 24.00.00.205
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DESIGN AGENCY	
TOOLE DESIGN	
DESIGNER	XXX
REVIEWER	XXX
PROJECT ID	09/18/25
SHEET	123369
TOTAL	104
P.58	

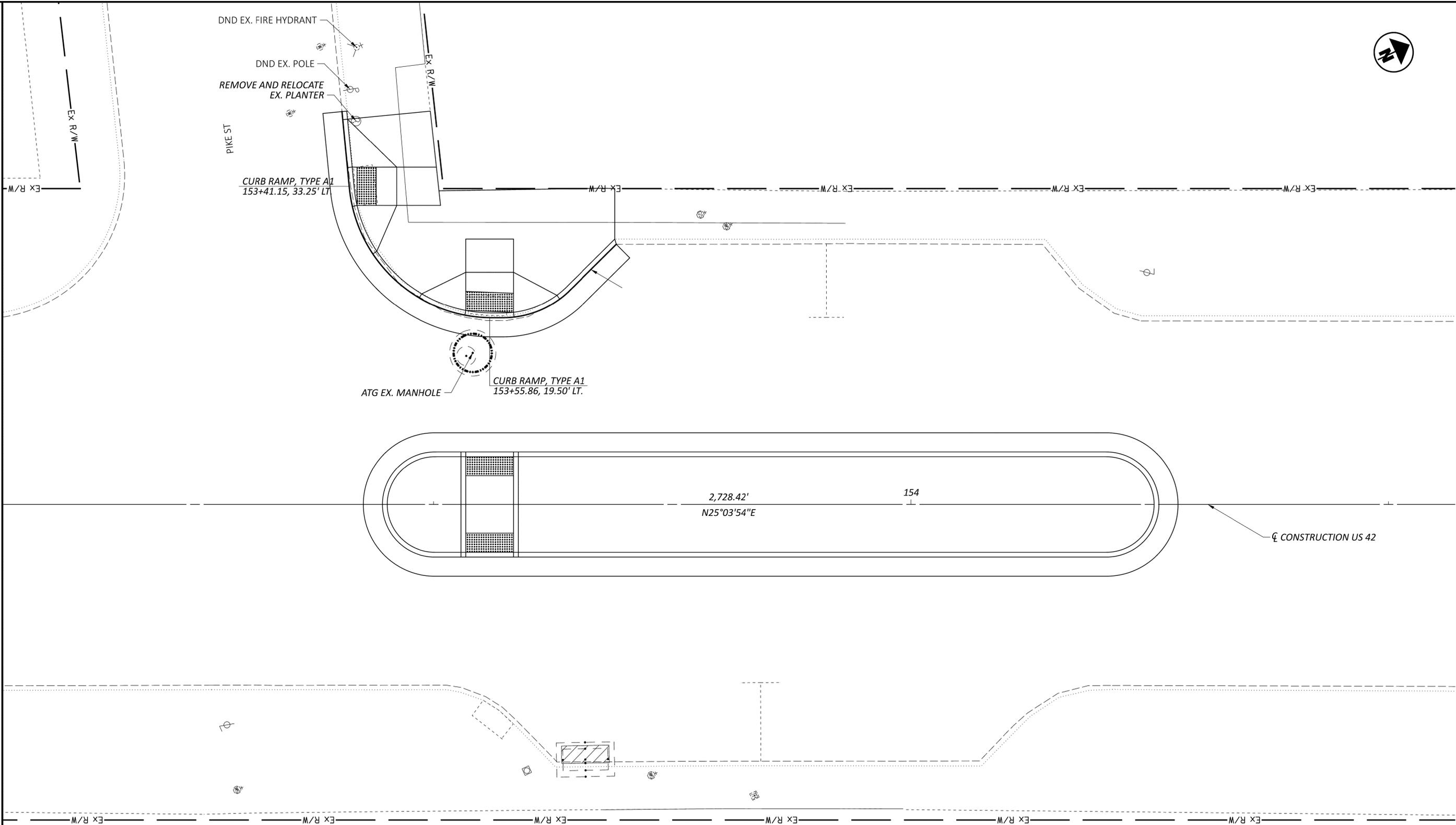
**CURB RAMP DETAILS
 READING RD. AT HALKER AVE.**





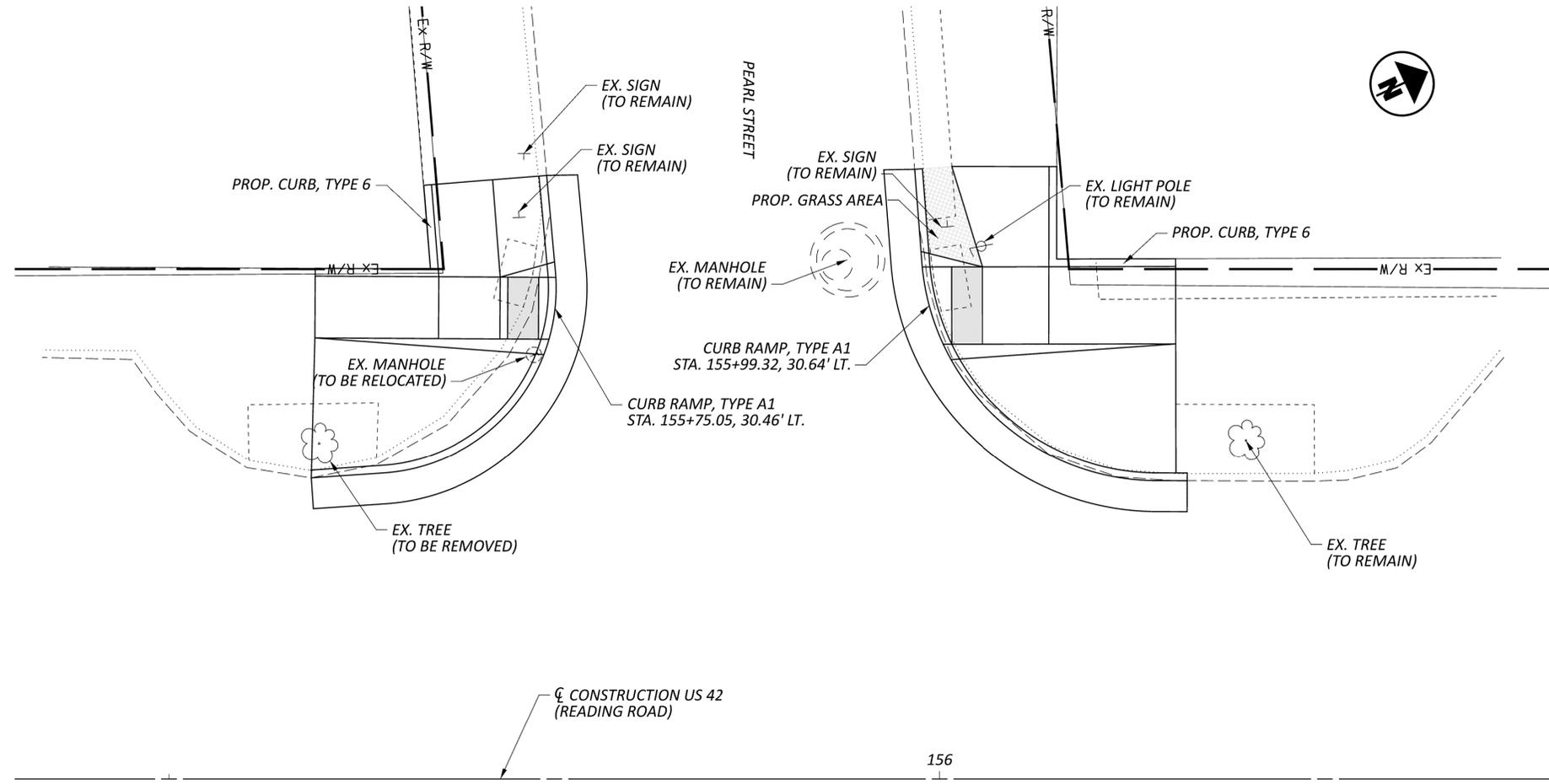
CURB RAMP DETAILS
 READING RD. AT MECHANIC ST.

DESIGN AGENCY	
TOOLE DESIGN	
DESIGNER	XXX
REVIEWER	XXX
PROJECT ID	09/18/25
SHEET	123369
TOTAL	104
P.59	



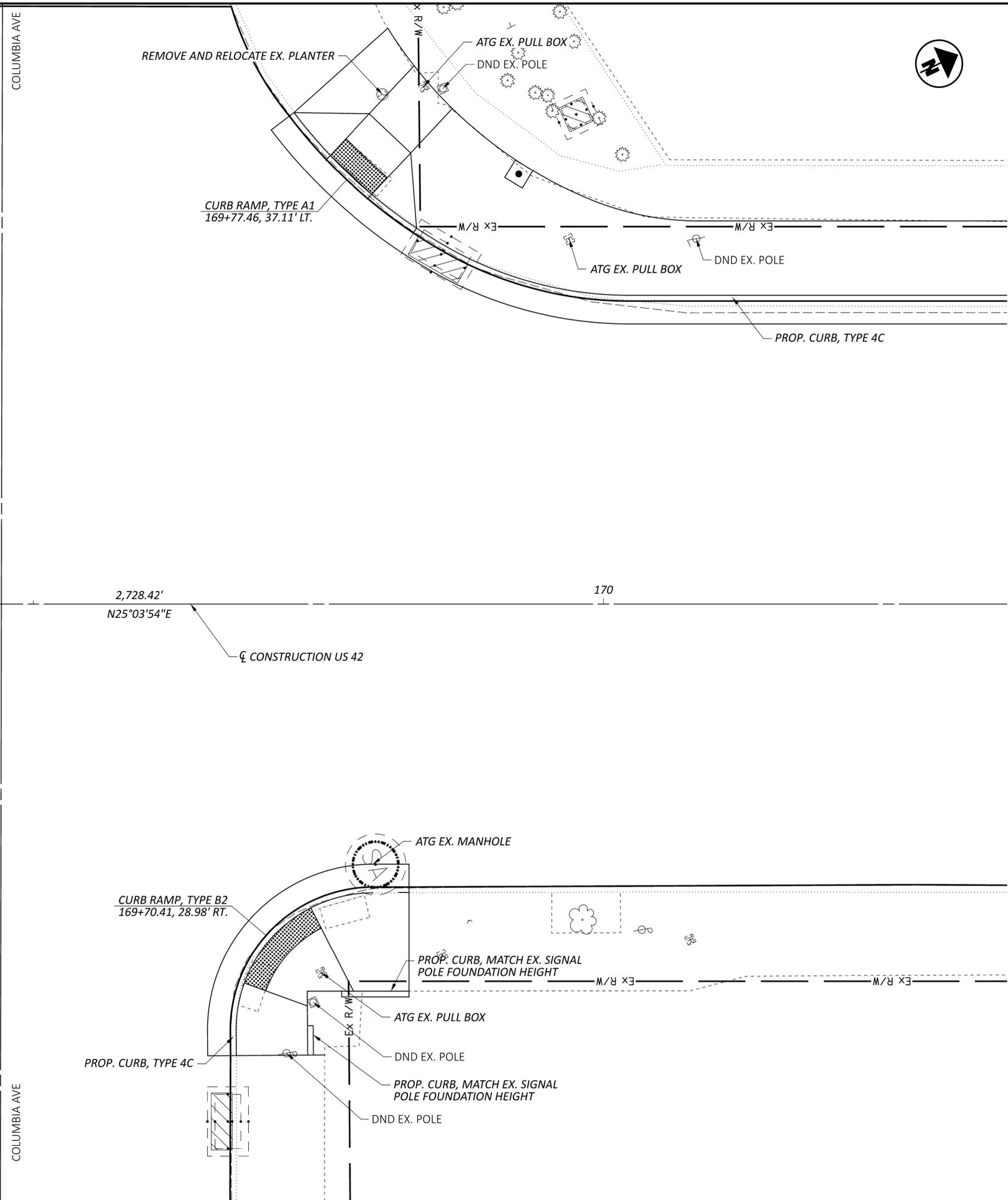
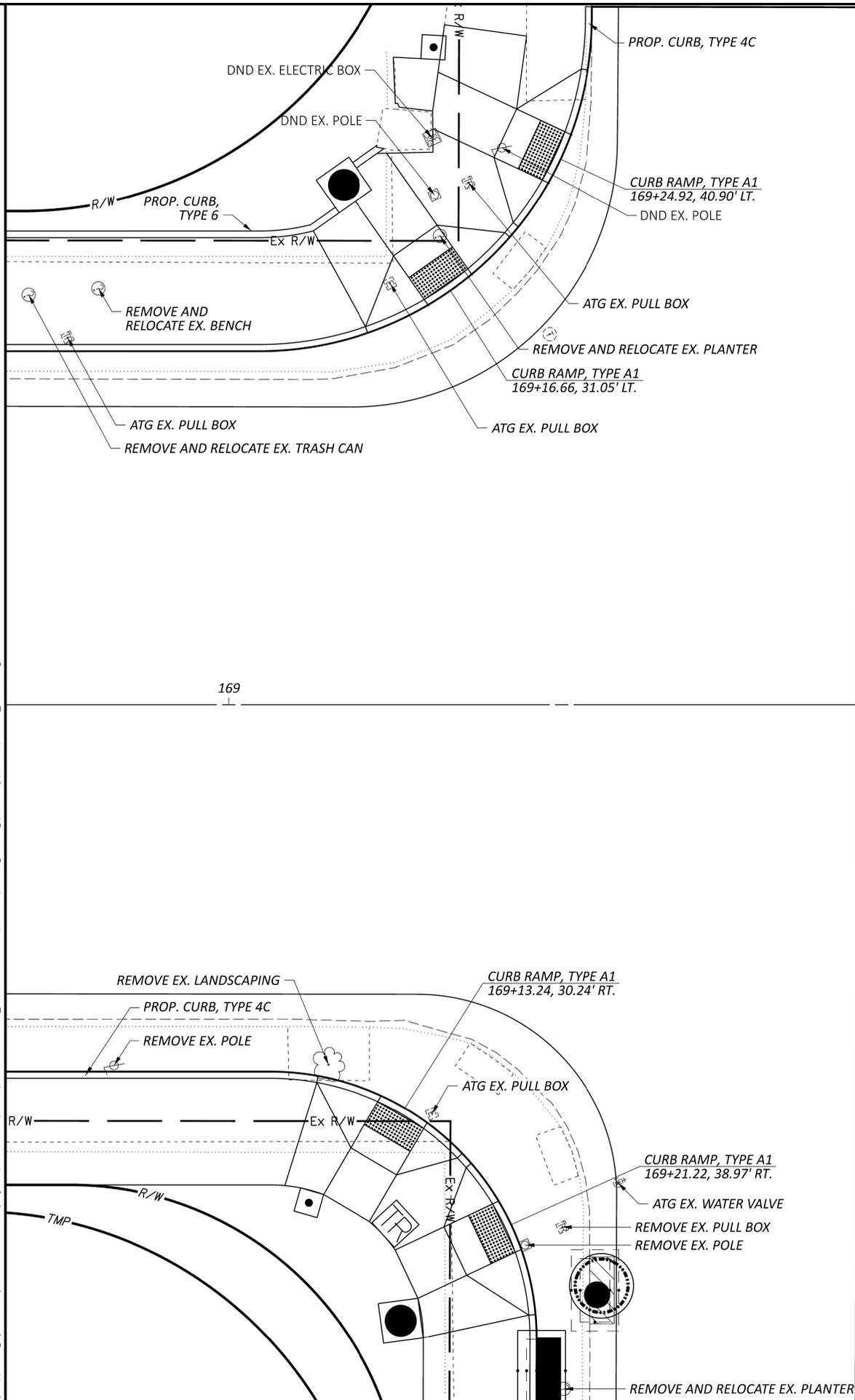
CURB RAMP DETAILS
READING RD. AT PIKE ST

DESIGN AGENCY	
 CMT CONSTRUCTION MANAGEMENT TECHNOLOGIES 1777 WASHINGTON VILLAGE DR DAYTON, OHIO 45459 www.cmtengr.com	
DESIGNER	
LDW	
REVIEWER	
JWL 09/18/25	
PROJECT ID	
123369	
SHEET	TOTAL
P.60	104



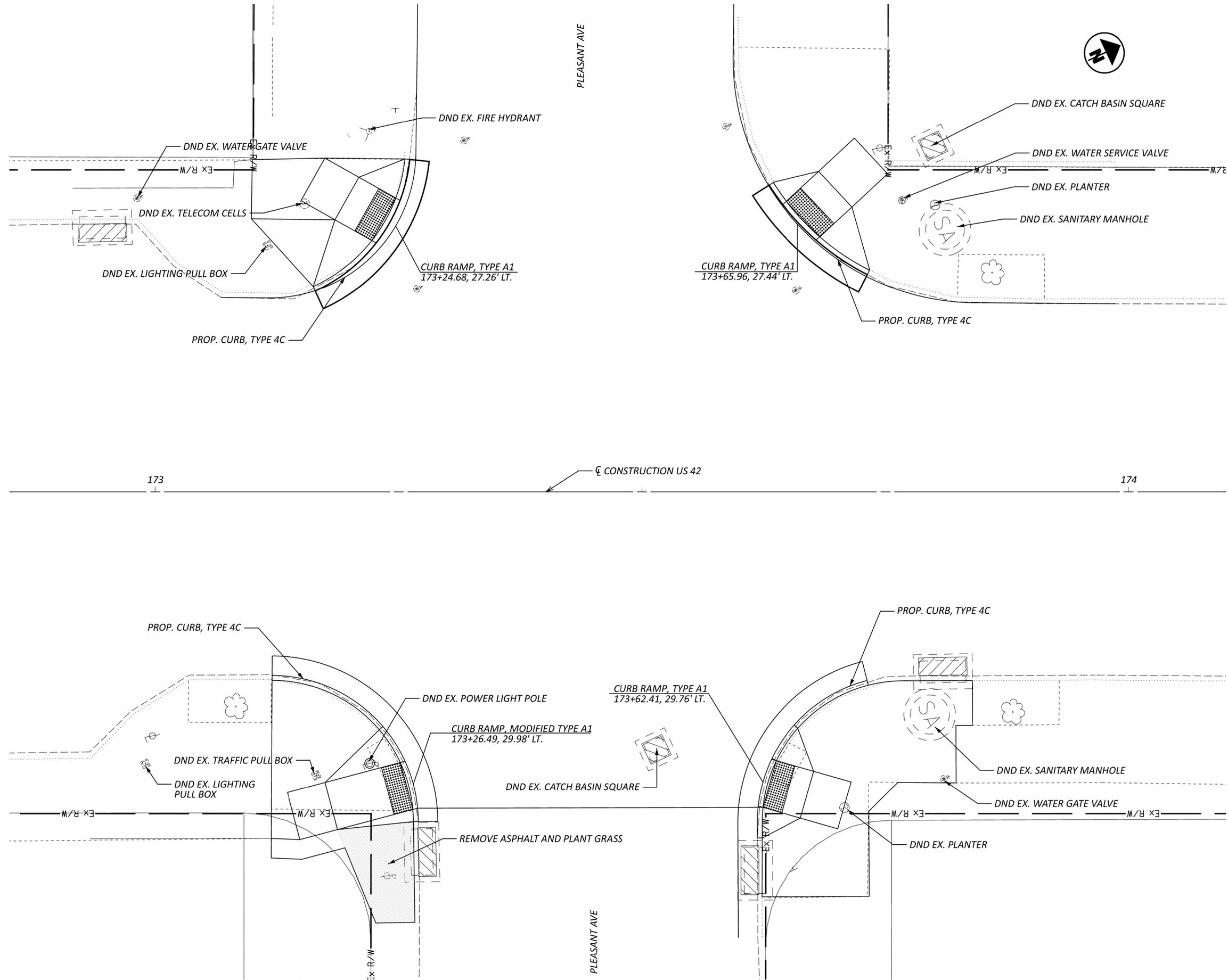
CURB RAMP DETAILS
 READING RD. AT PEARL STREET

DESIGN AGENCY	
DESIGNER	KAZ
REVIEWER	AMT
PROJECT ID	09/18/25
SHEET	123369
TOTAL	104
P.61	



CURB RAMP DETAILS
READING RD. AT COLUMBIA AVE

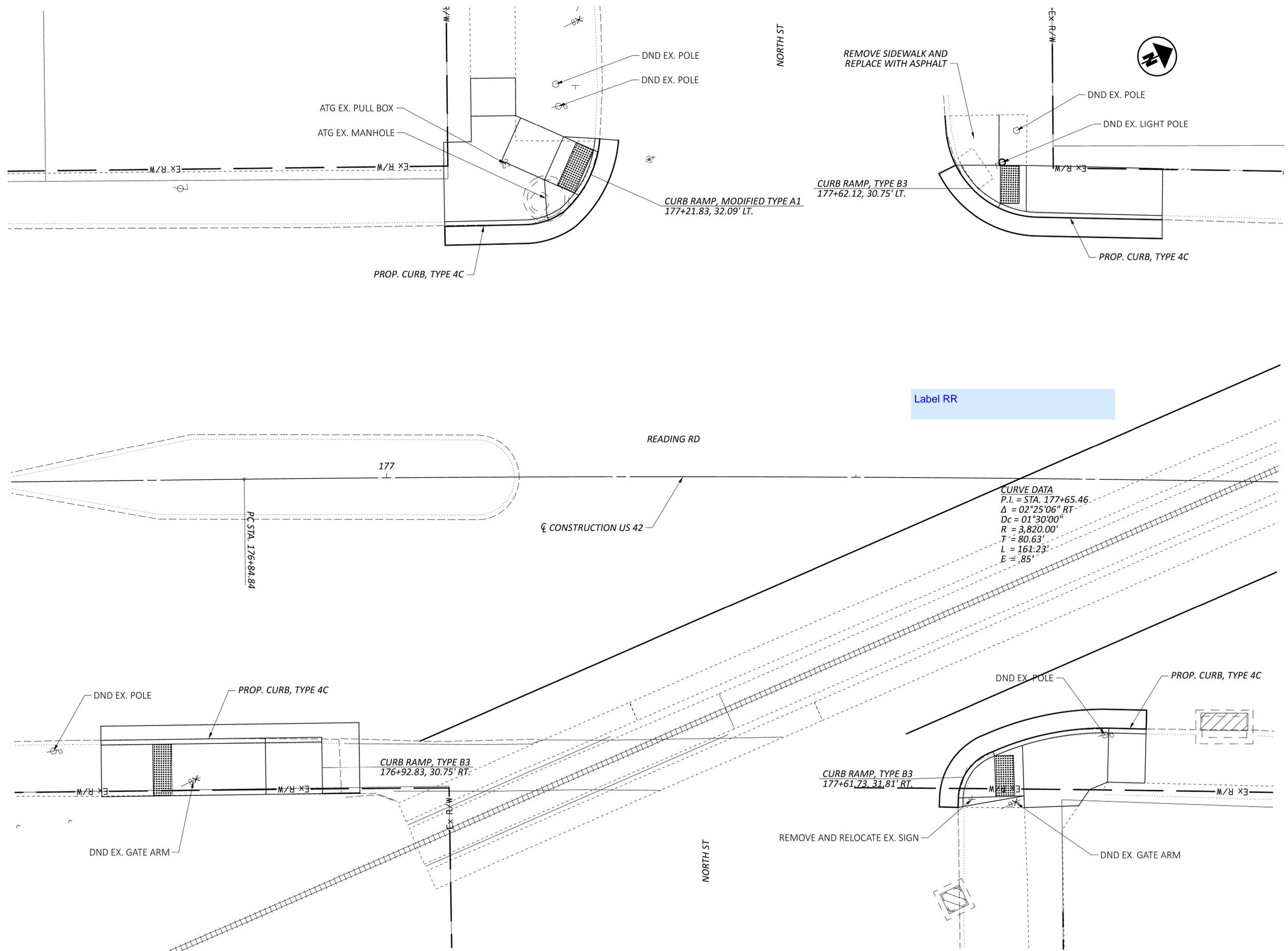
DESIGN AGENCY	
COLUMBIA COUNTY, OHIO 1777 WASHINGTON VILLAGE DR DAYTON, OHIO 45459 www.cmtinc.com	
DESIGNER	
LDW	
REVIEWER	
JWL 09/18/25	
PROJECT ID	
123369	
SHEET	TOTAL
P.62	104



CURB RAMP DETAILS
 READING RD. AT PLEASANT AVE.

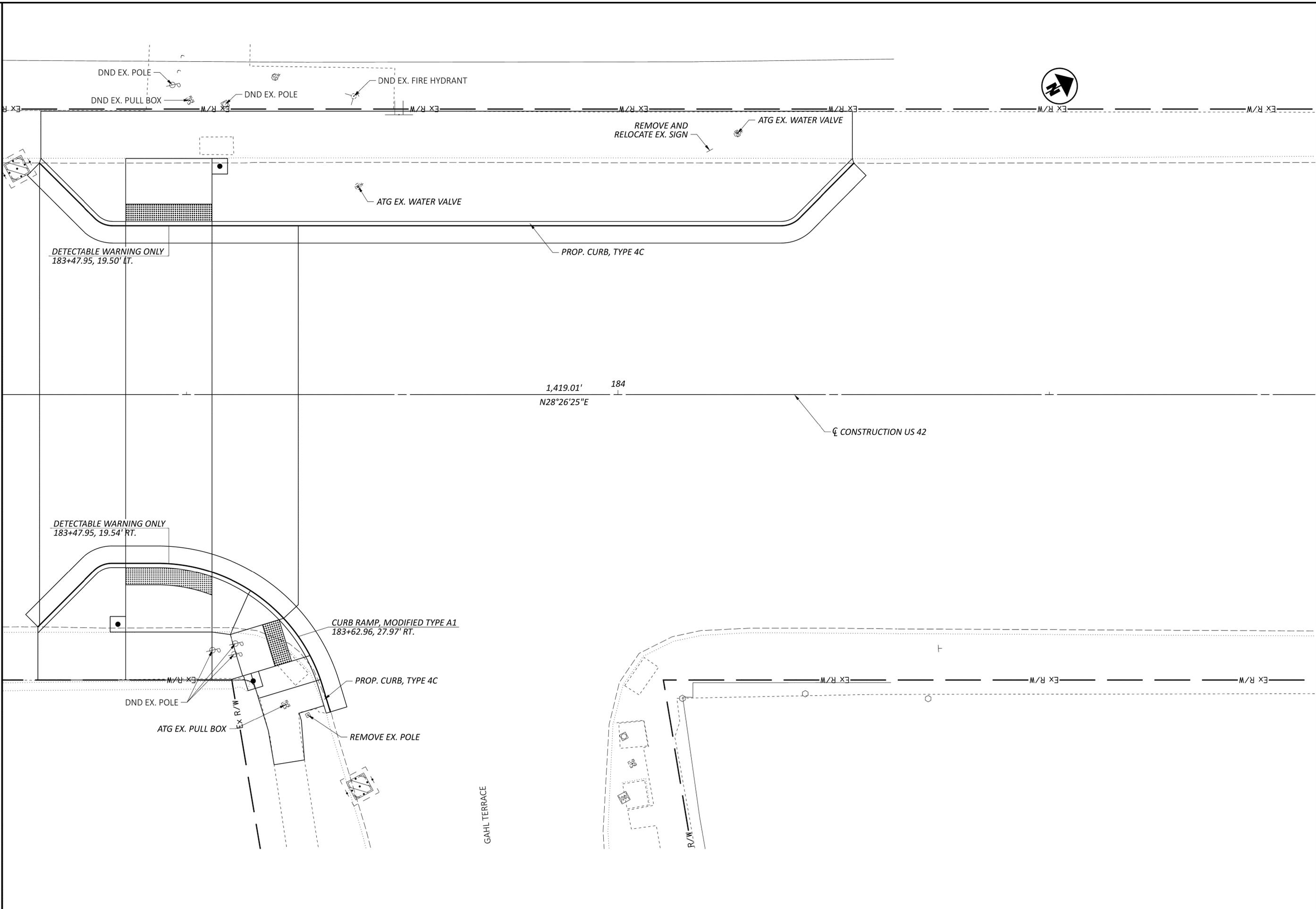


DESIGN AGENCY	
TOOLE DESIGN	
DESIGNER	XXX
REVIEWER	XXX
PROJECT ID	09/18/25
SHEET	123369
TOTAL	P.63 104



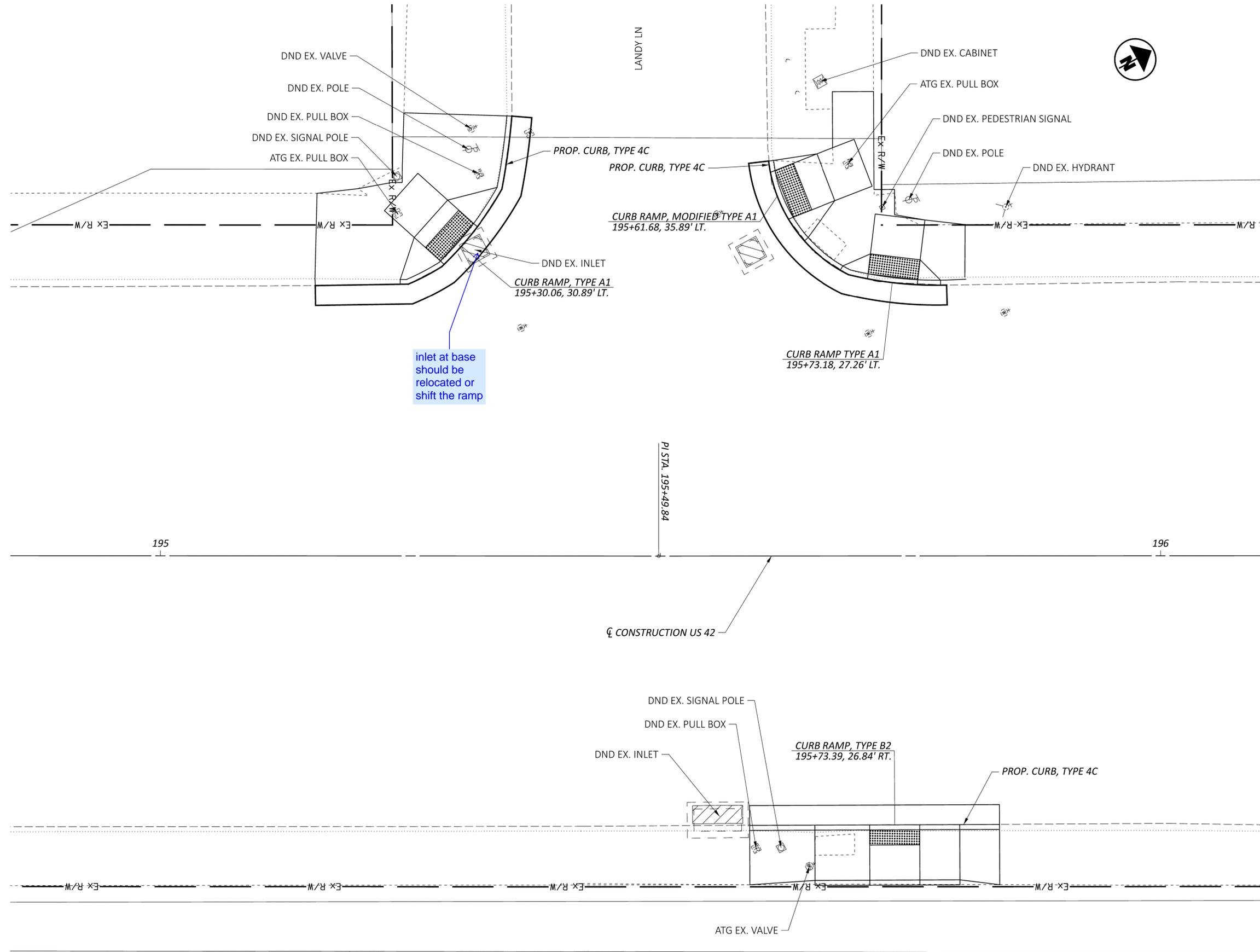
CURB RAMP DETAILS
READING RD. AT NORTH ST.

DESIGN AGENCY	
TOOLE DESIGN	
DESIGNER	XXX
REVIEWER	XXX
PROJECT ID	09/18/25
SHEET	123369
TOTAL	P.64 104



CURB RAMP DETAILS
READING RD. AT GAHL TERRACE

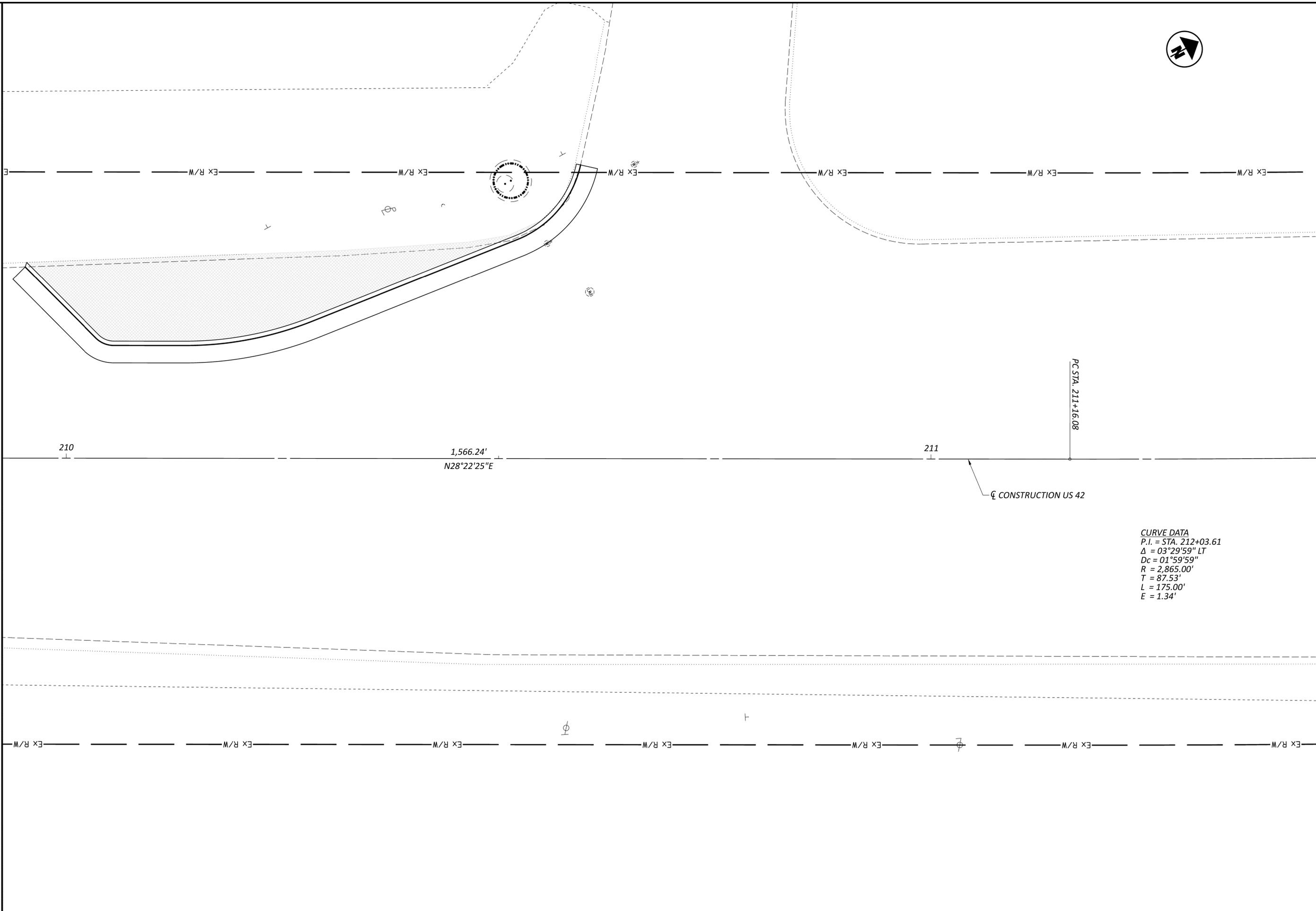
DESIGN AGENCY	
 CMT CIVIL & TRANSPORTATION 1777 WASHINGTON VILLAGE DR DAYTON, OHIO 45459 (937) 233-6900 www.cmtengr.com	
DESIGNER	
LDW	
REVIEWER	
JWL 09/18/25	
PROJECT ID	
123369	
SHEET	TOTAL
P.65	104



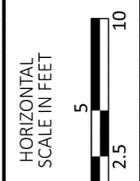
CURB RAMP DETAILS
 READING RD. AT LANDY LN.

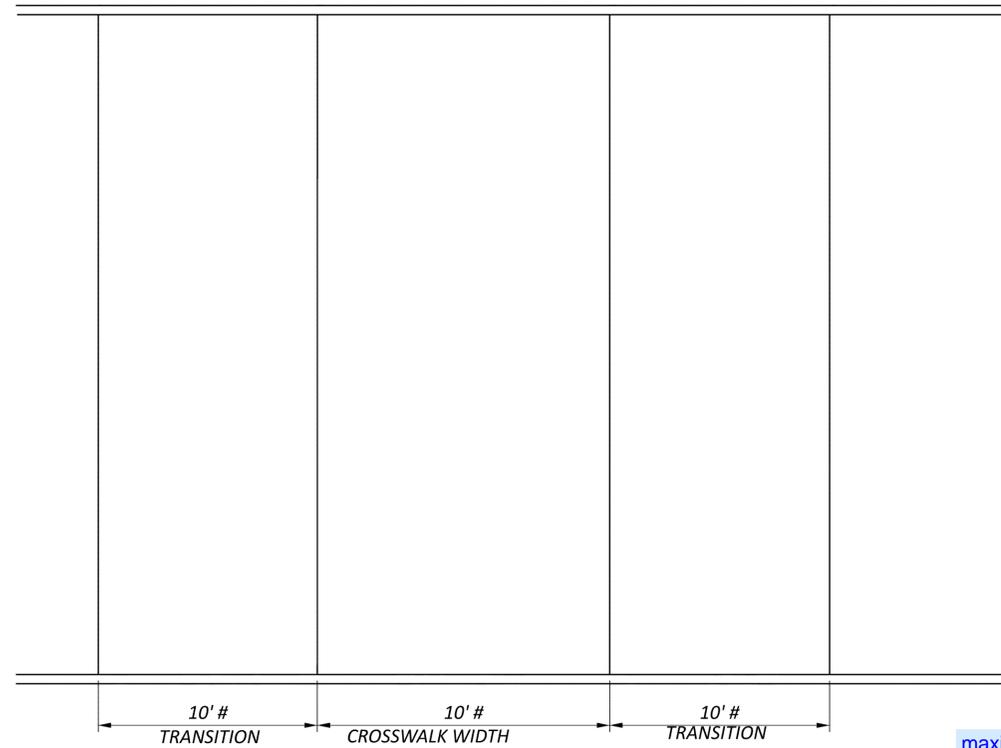


DESIGN AGENCY	
TOOLE DESIGN	
DESIGNER	XXX
REVIEWER	XXX
PROJECT ID	09/18/25
SHEET	123369
TOTAL	104
P.66	



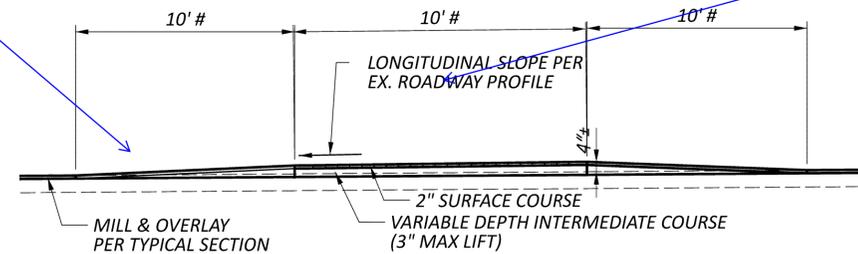
CURB RAMP DETAILS
READING RD. AT INCINERATOR LN





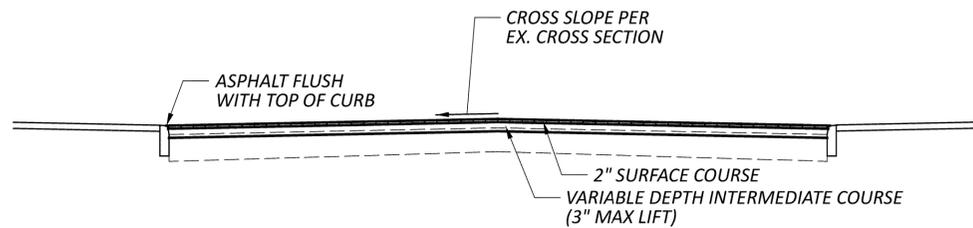
RAISED CROSSWALK DETAIL - PLAN

confirm grade breaks meet the targeted speed. What is the targeted speed?



RAISED CROSSWALK DETAIL - PROFILE

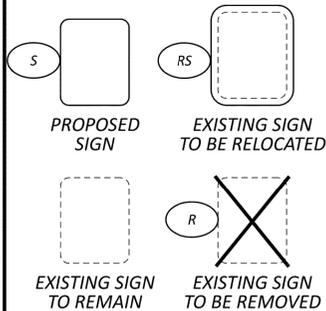
maximum slopes to follow ADA requirements. See MDG drawing 4.2 note 6 for requirements. Each raised cross walk to have it's own specifically designed detail.



RAISED CROSSWALK DETAIL - CROSS SECTION

UNLESS NOTED OTHERWISE

SIGN LEGEND



I'm not aware of any restrictions based on the skew of a raised crosswalk.

John - Is it permissible to have a raised crosswalk that is not perpendicular to approaching traffic?

Thermo is not to be used on microsurface, however 648 spray thermo is permitted. Auxiliary markings would be 642 paint. If existing markings are anything other than 642 paint, they will need to be removed before the microsurfacing is placed. This is paid separately. Existing RPMs will need to be removed and replaced

PAVEMENT MARKING LEGEND

- A ITEM 644, 6' TURN OR TWLTL ARROW
B ITEM 644, SHARED LANE SYMBOL MARKING
C ITEM 644, 12" CHANNELIZING LINE
D ITEM 644, 6" OR 12" DOTTED LINE
E ITEM 644, 6" EDGE LINE (WHITE)
H ITEM 644, 6' SPEED HUMPH MARKING
I ITEM 644, ISLAND MARKING
L ITEM 644, 6" LANE LINE
RR ITEM 644, RAILROAD CROSSING SYMBOL MARKING
TW ITEM 644, 24" TRANSVERSE MARKINGS (WHITE)
TY ITEM 644, 24" TRANSVERSE MARKINGS (YELLOW)
ST ITEM 644, 24" STOP LINE
XA ITEM 644, 12" CROSSWALK LINE
XB ITEM 644, 24" CROSSWALK LINE
W ITEM 644, 6' WORD MARKING
Y ITEM 644, 4" CENTERLINE (DOUBLE YELLOW)
Existing Pavement Marking

PROP. DELINEATORS AS PER PLAN

Delineators will be a maintenance headache. Would a hardened centerline fare better here? If crosswalk was moved back (and squared with roadway), the centerline expansion could also fit

John - US 42 is a FAP route. One lane in each direction should be 12' wide?

PROP. OVERHEAD SIGN SUPPORT, OSP-1, AS PER PLAN TC-16.22, DESIGN 7 STA. 109+23.53, 24.38' RT

Yes, US42 is part of the National Truck Network (NTN). NTN requires 1 12' wide through lane in each direction. If this cannot be provided then a design exception is required. The design exception will need to focus on truck related crashed. A truck movement simulation through the project in each direction will also be required.

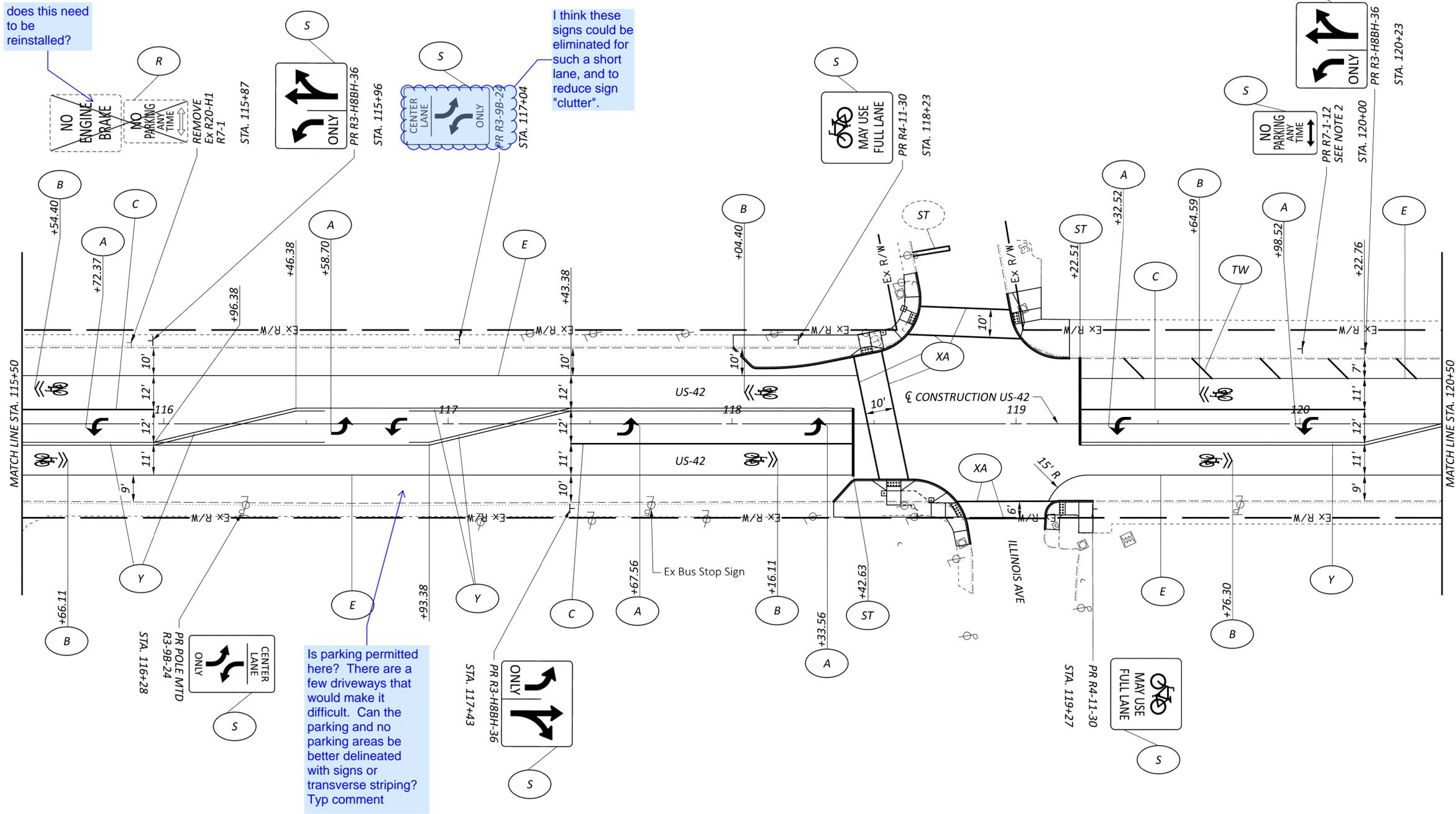
- NOTES:
1. PROPOSED TRANSVERSE AND CHEVRON LINES ARE SPACED AT 12' UNLESS OTHERWISE NOTED ON THE PLANS.
2. PARKING SIGNS SHALL BE MOUNTED AT A 45-DEGREE ANGLE WITH THE LINE OF TRAFFIC PER ODOTCD GUIDANCE.



TRAFFIC CONTROL STA. 105+50 TO STA. 110+50

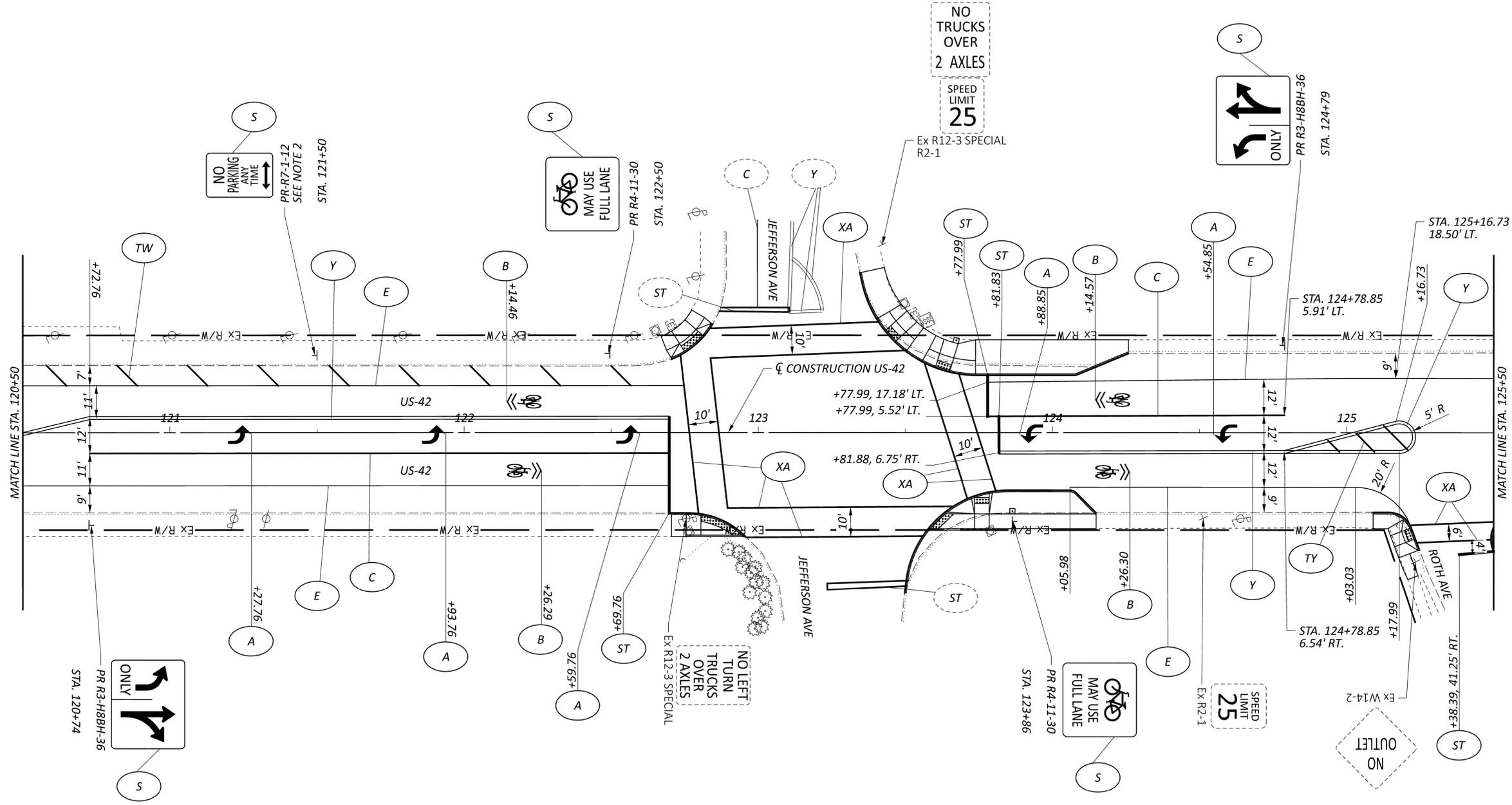
NOTES:

1. PROPOSED TRANSVERSE AND CHEVRON LINES ARE SPACED AT 12' UNLESS OTHERWISE NOTED ON THE PLANS.
2. PARKING SIGNS SHALL BE MOUNTED AT A 45-DEGREE ANGLE WITH THE LINE OF TRAFFIC PER ODOTCD GUIDANCE.



NOTES:

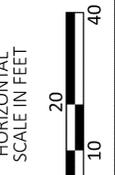
1. PROPOSED TRANSVERSE AND CHEVRON LINES ARE SPACED AT 12' UNLESS OTHERWISE NOTED ON THE PLANS.
2. PARKING SIGNS SHALL BE MOUNTED AT A 45-DEGREE ANGLE WITH THE LINE OF TRAFFIC PER ODOTCD GUIDANCE.

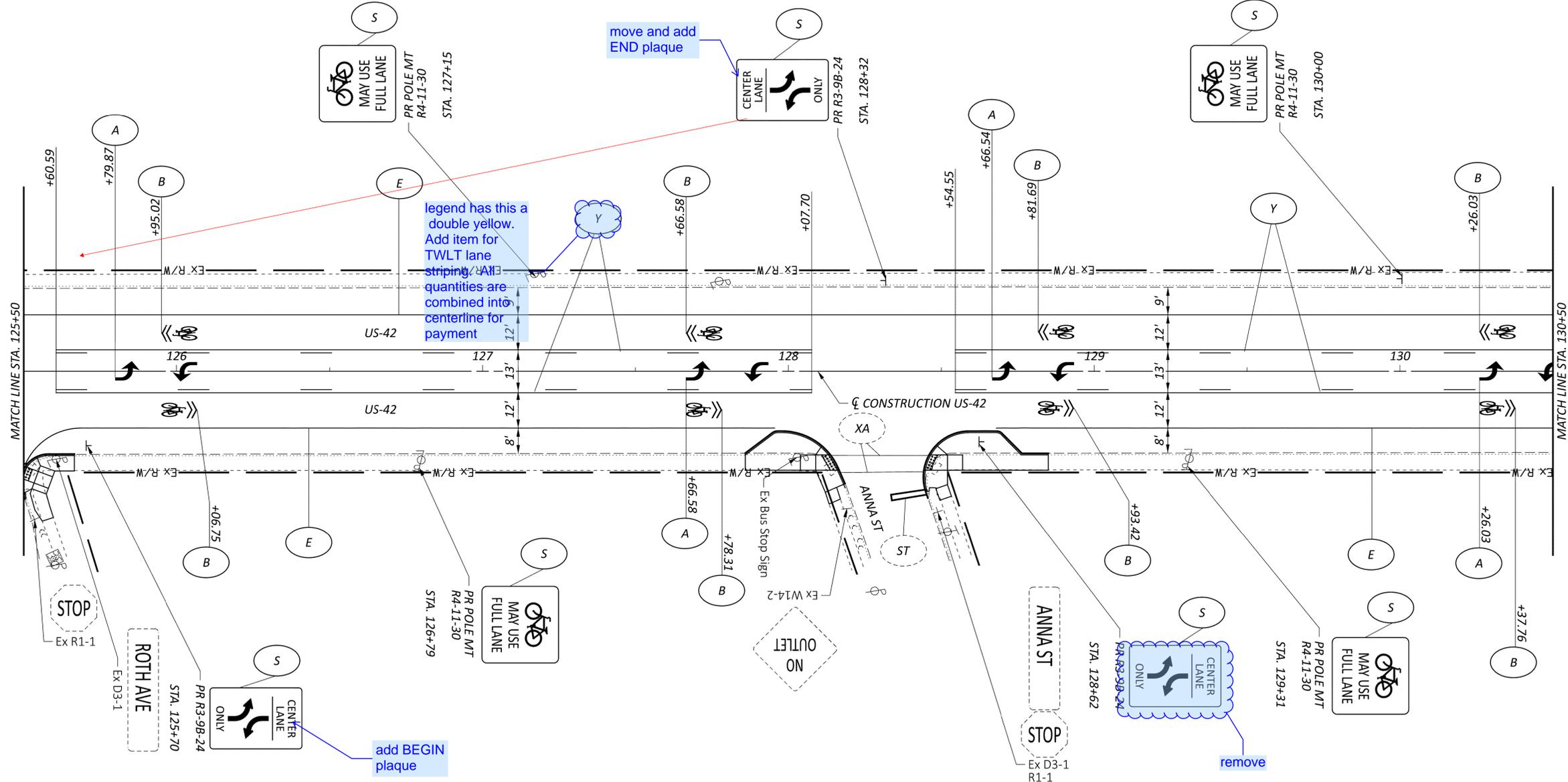


TRAFFIC CONTROL
 STA. 120+50 TO STA 125+50



DESIGNER	GSH
REVIEWER	SAK
PROJECT ID	09/18/25
SHEET	123369
TOTAL	104
P.74	

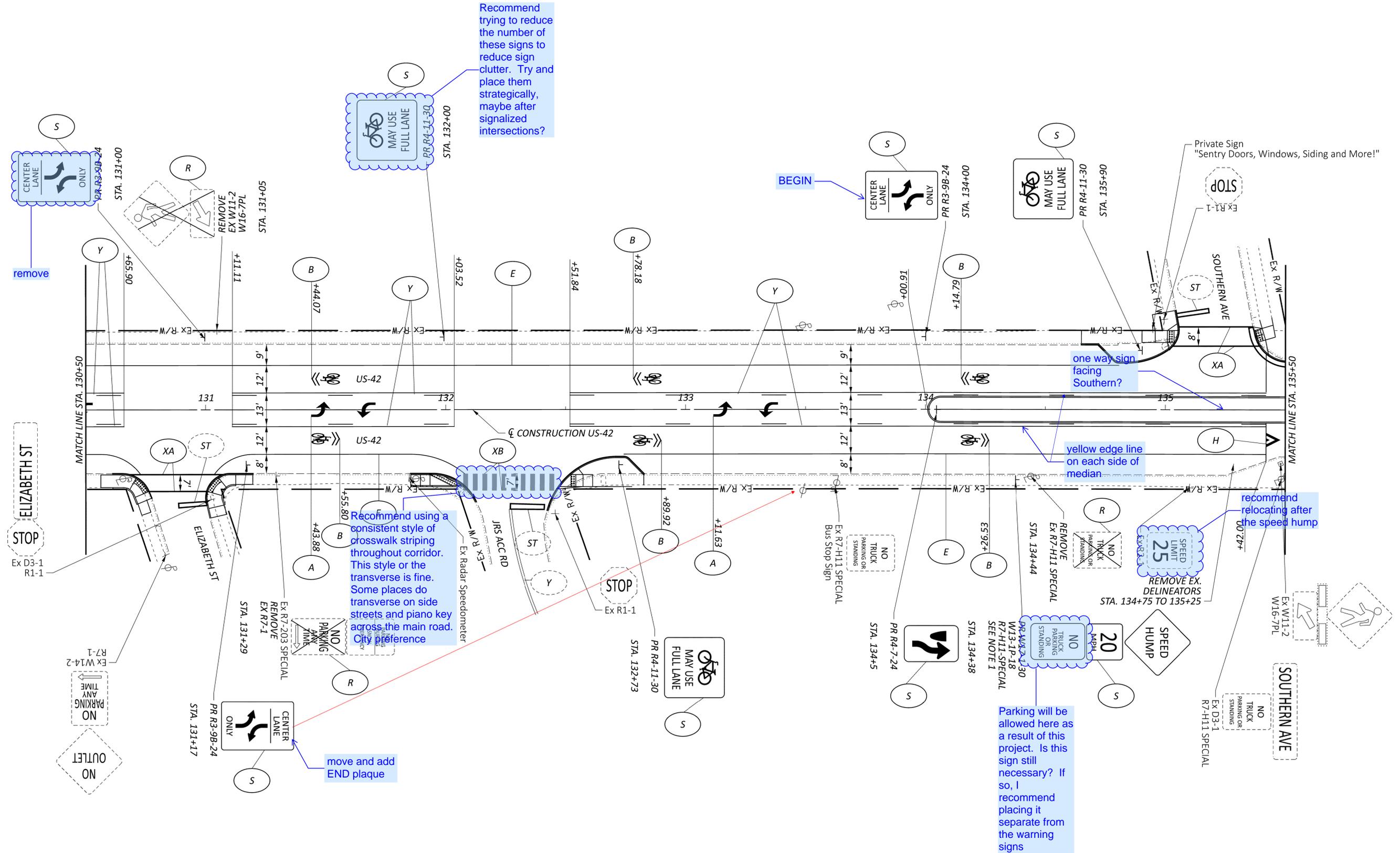




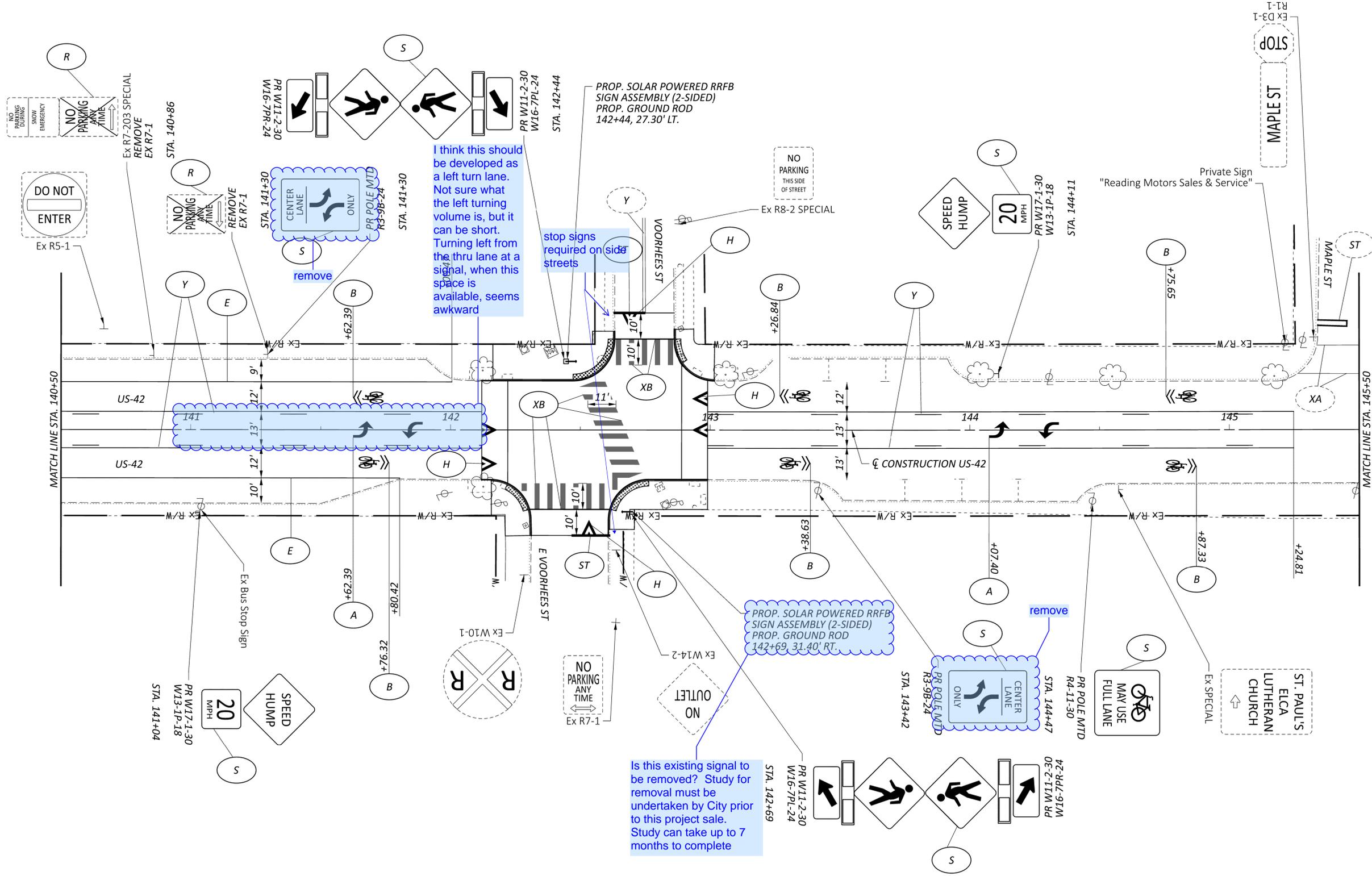
TRAFFIC CONTROL
 STA. 125+50 TO STA. 130+50

DESIGN AGENCY	
 CMT CONSULTING & MANAGEMENT, INC. 1777 WASHINGTON VILLAGE DR DAYTON, OHIO 45459 www.cmtinc.com	
DESIGNER	GSH
REVIEWER	SAK
PROJECT ID	123369
SHEET	TOTAL
P.75	104

NOTES:
1. PARKING SIGNS SHALL BE MOUNTED AT A 45-DEGREE ANGLE WITH THE LINE OF TRAFFIC PER OMUTCD GUIDANCE.

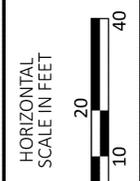


TRAFFIC CONTROL
STA. 130+50 TO STA. 135+50



I think this should be developed as a left turn lane. Not sure what the left turning volume is, but it can be short. Turning left from the thru lane at a signal, when this space is available, seems awkward

Is this existing signal to be removed? Study for removal must be undertaken by City prior to this project sale. Study can take up to 7 months to complete



TRAFFIC CONTROL
 STA. 140+50 TO STA. 145+50

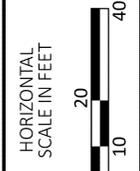
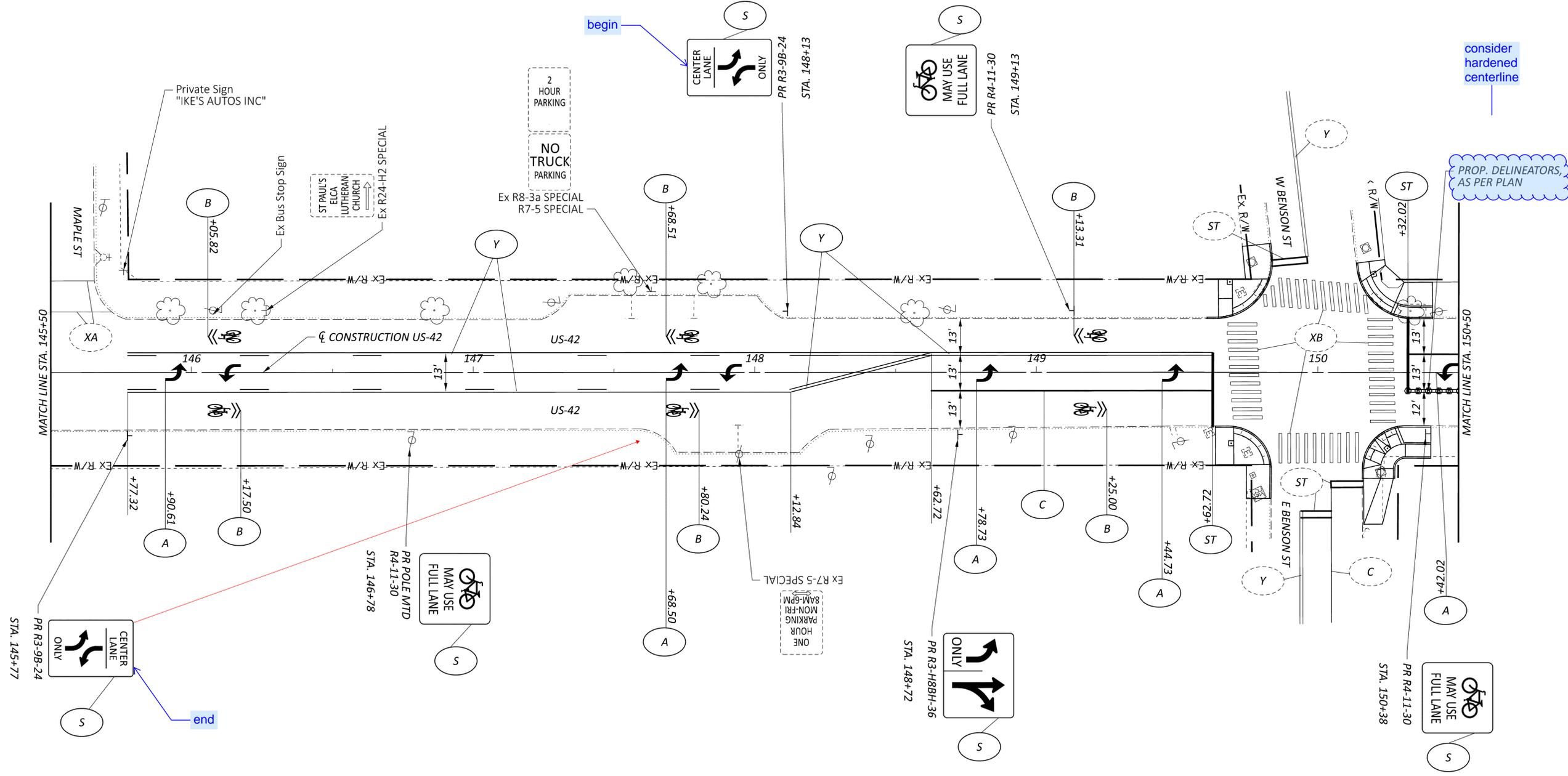
DESIGN AGENCY
CMT
 CMT ENGINEERING
 1777 WASHINGTON VILLAGE DR
 DAYTON, OHIO 45459
 www.cmtengr.com

DESIGNER
 GSH

REVIEWER
 SAK 09/18/25

PROJECT ID
 123369

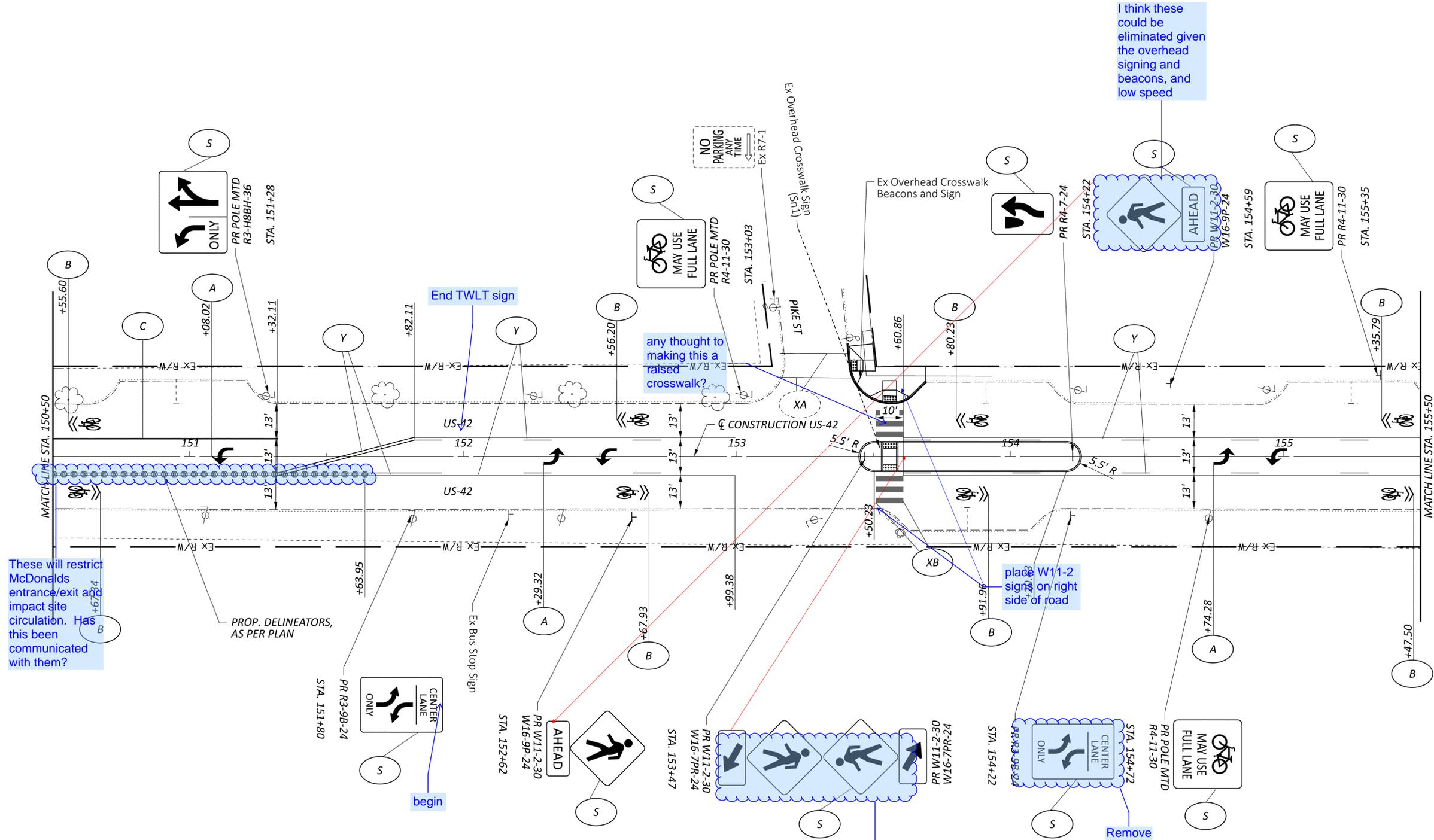
SHEET TOTAL
 P.77 104



TRAFFIC CONTROL
STA. 145+50 TO STA. 150+50

DESIGN AGENCY
CMT
CMT ENGINEERING, INC.
1777 WASHINGTON VILLAGE DR
DAYTON, OHIO 45459
www.cmtengr.com

DESIGNER	GSH
REVIEWER	SAK
PROJECT ID	123369
SHEET	P.78
TOTAL	104



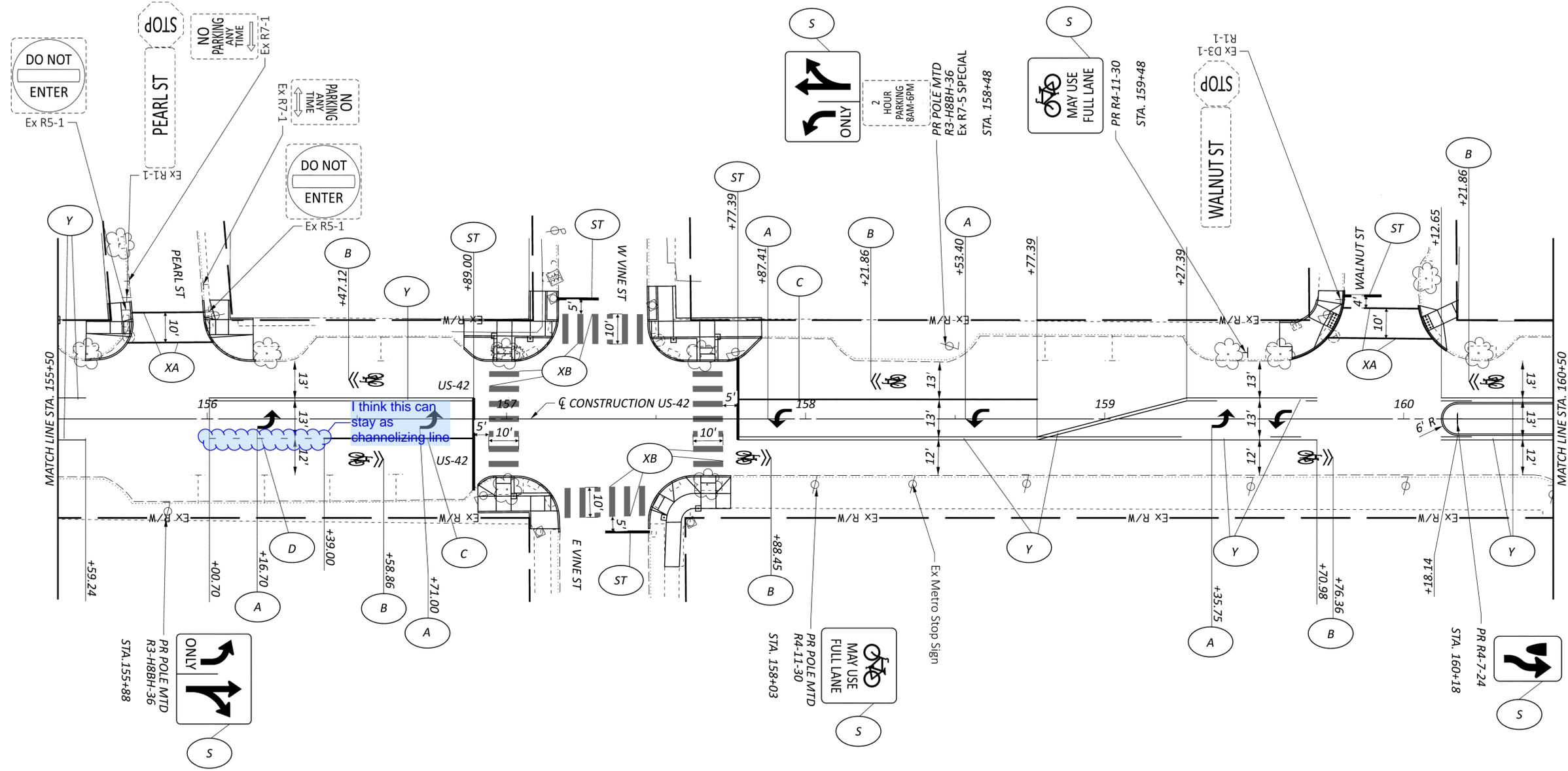
TRAFFIC CONTROL
STA. 150+50 TO STA. 155+50

DESIGN AGENCY
CMT
CMT ENGINEERING, INC.
1777 WASHINGTON VILLAGE DR
DAYTON, OHIO 45459
www.cmtengr.com

DESIGNER	GSH
REVIEWER	SAK
PROJECT ID	123369
SHEET TOTAL	P.79 104

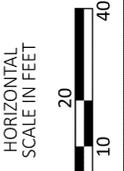
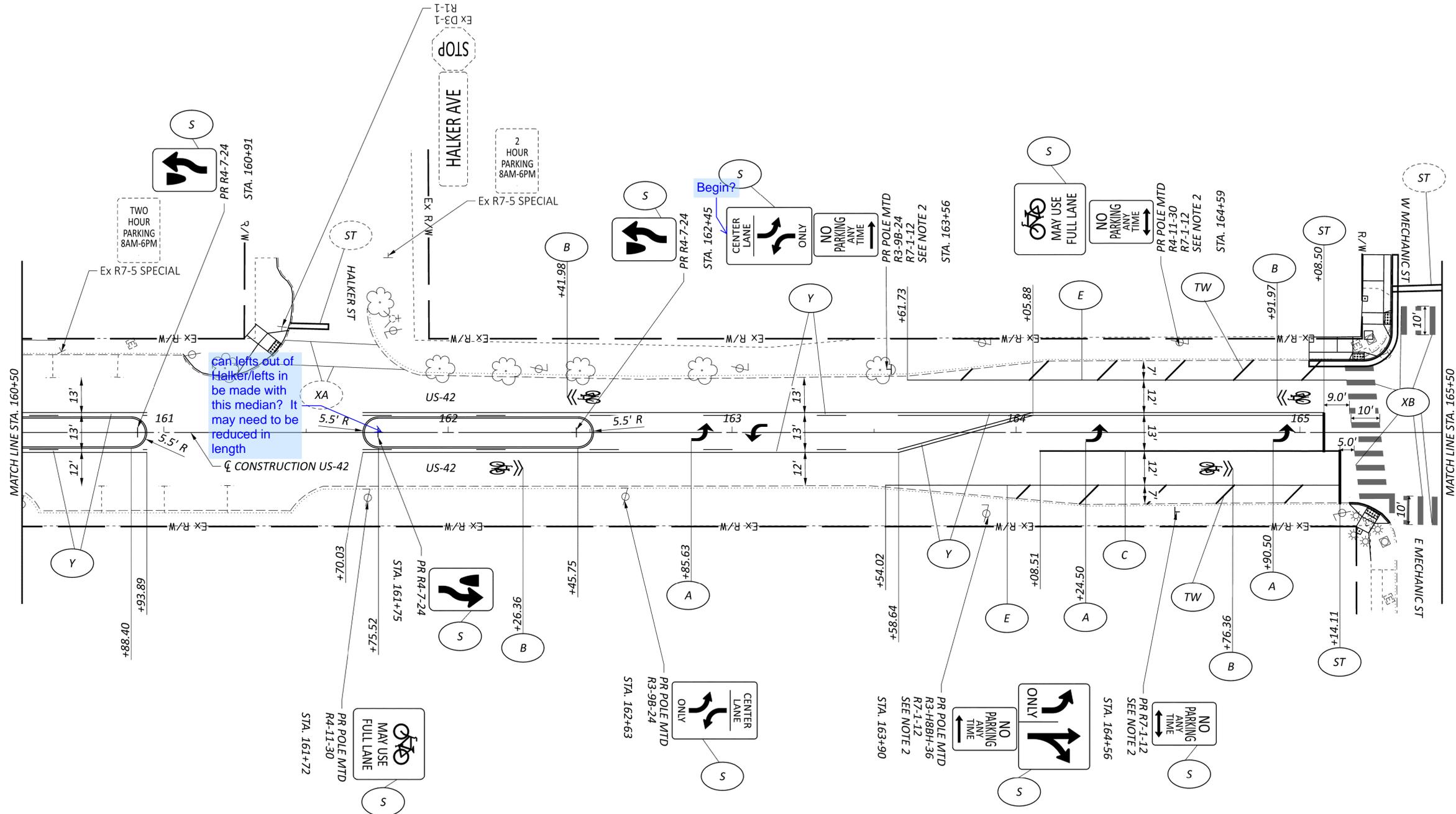
NOTES:

1. PARKING SIGNS SHALL BE MOUNTED AT A 45-DEGREE ANGLE WITH THE LINE OF TRAFFIC PER OMUTCD GUIDANCE.



NOTES:

1. PROPOSED TRANSVERSE AND CHEVRON LINES ARE SPACED AT 12' UNLESS OTHERWISE NOTED ON THE PLANS.
2. PARKING SIGNS SHALL BE MOUNTED AT A 45-DEGREE ANGLE WITH THE LINE OF TRAFFIC PER OMUTCD GUIDANCE.

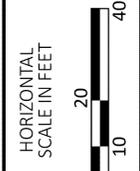
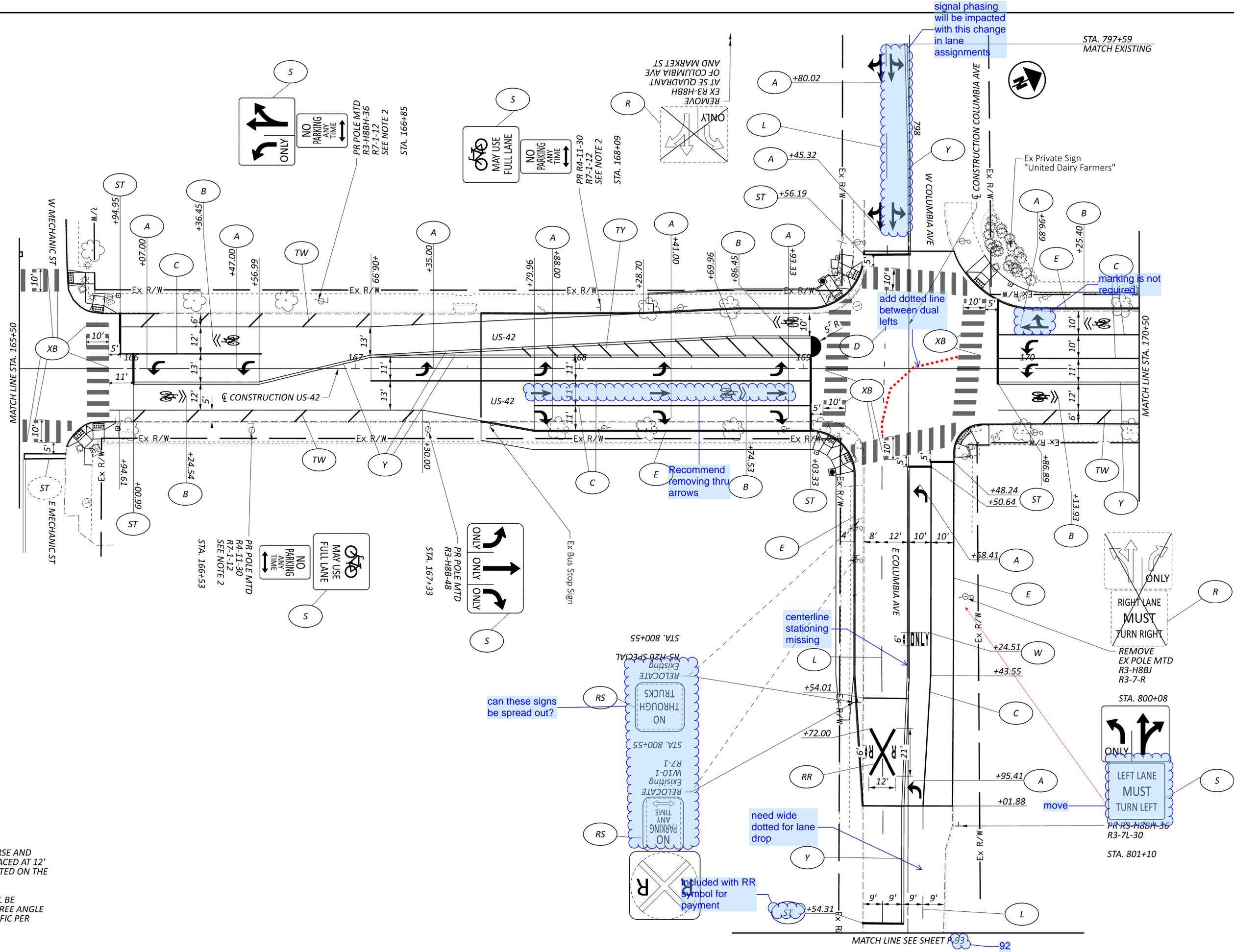


TRAFFIC CONTROL
STA. 160+50 TO STA. 165+50

DESIGN AGENCY	
CMT	CHRISTOPHER MURPHY & TERRY
1777 WASHINGTON VILLAGE DR DAYTON, OHIO 45459 www.cmtengr.com	
DESIGNER	
GSH	
REVIEWER	
SAK 09/18/25	
PROJECT ID	
123369	
SHEET	TOTAL
P.81	104

NOTES:

1. PROPOSED TRANSVERSE AND CHEVRON LINES ARE SPACED AT 12' UNLESS OTHERWISE NOTED ON THE PLANS.
2. PARKING SIGNS SHALL BE MOUNTED AT A 45-DEGREE ANGLE WITH THE LINE OF TRAFFIC PER ODOT GUIDANCE.

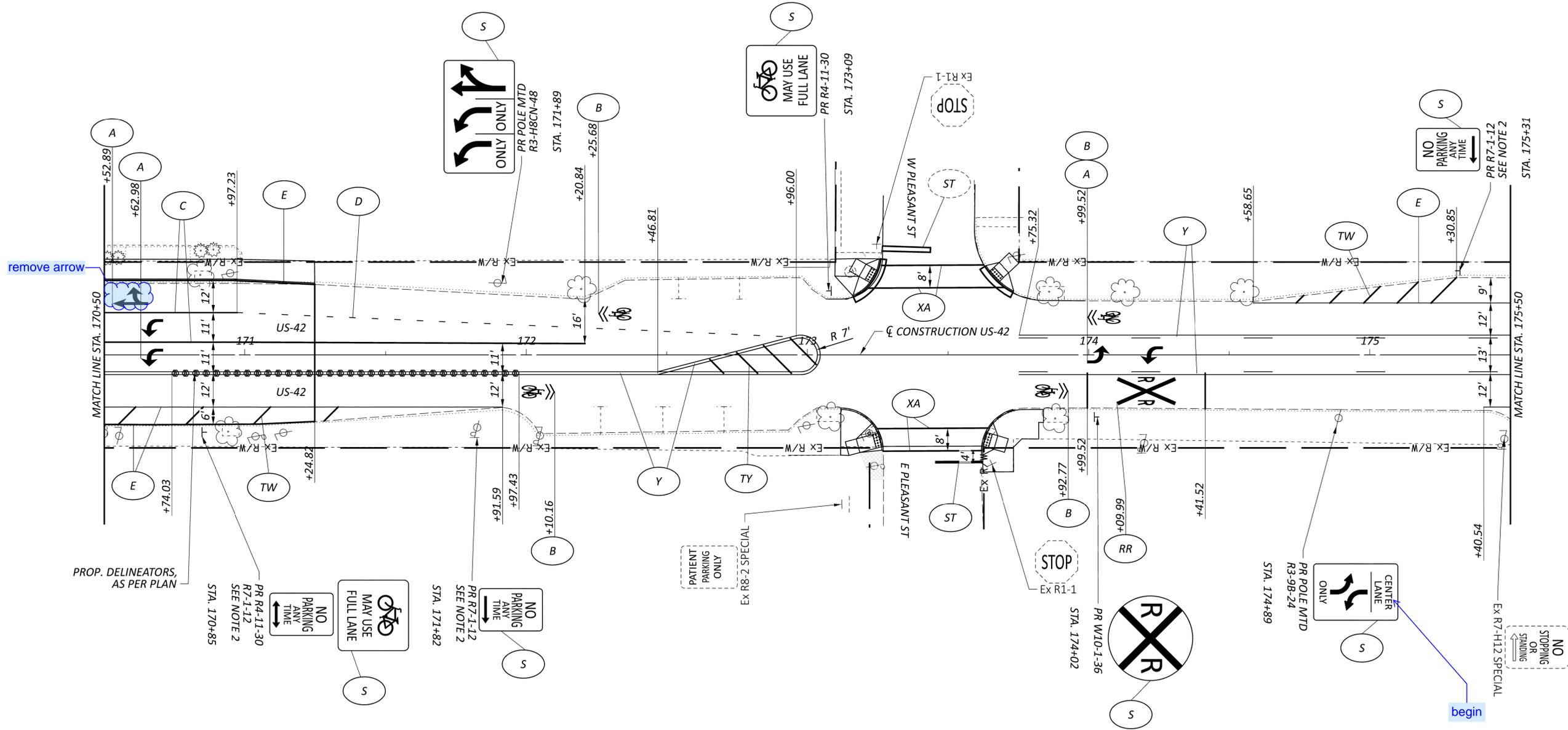


TRAFFIC CONTROL
STA. 165+50 TO STA. 170+50

DESIGN AGENCY	CMT
DESIGNER	GSH
REVIEWER	SAK 09/18/25
PROJECT ID	123369
SHEET	P.83
TOTAL	105

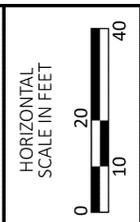
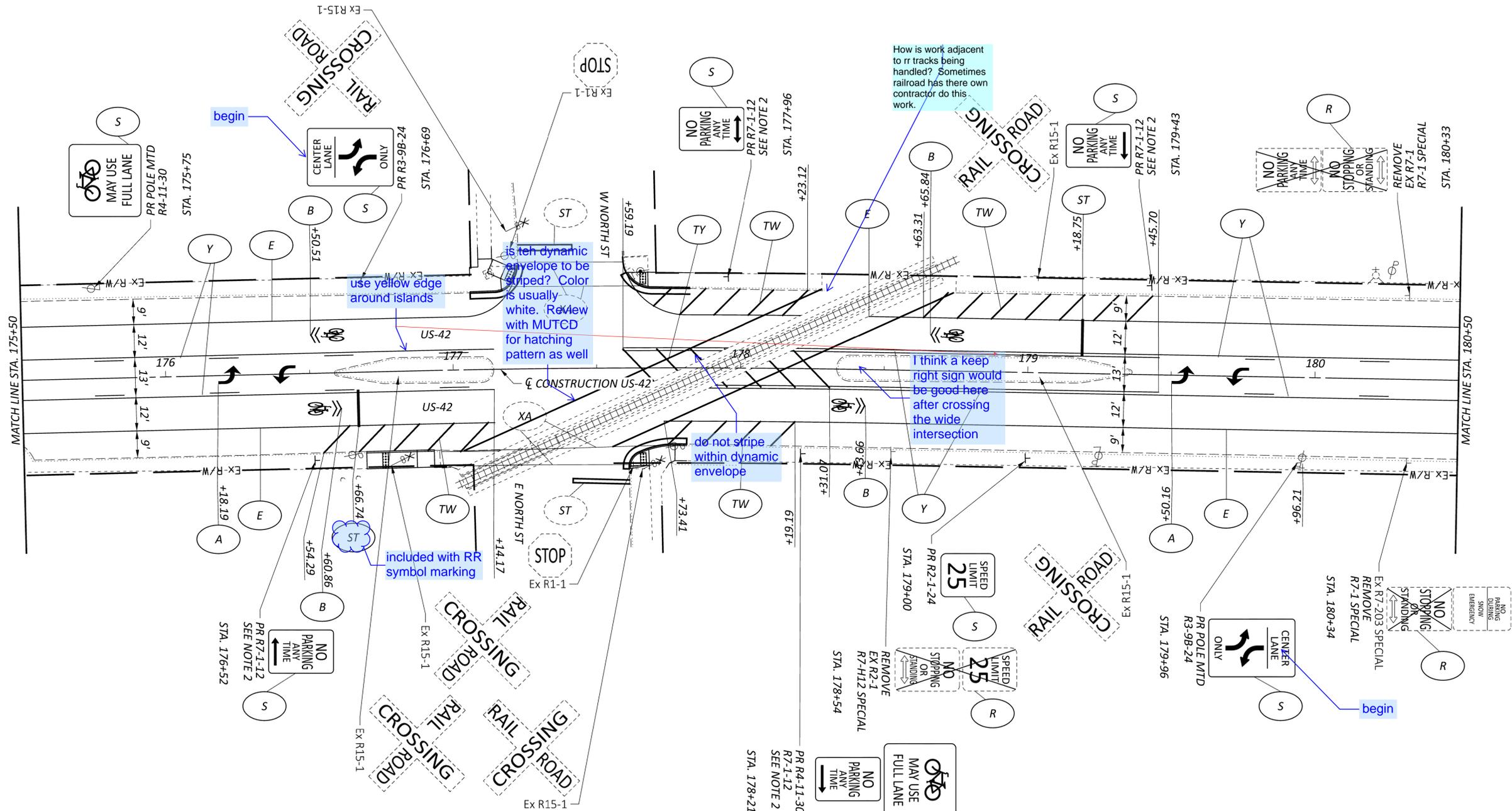
NOTES:

1. PROPOSED TRANSVERSE AND CHEVRON LINES ARE SPACED AT 12' UNLESS OTHERWISE NOTED ON THE PLANS.
2. PARKING SIGNS SHALL BE MOUNTED AT A 45-DEGREE ANGLE WITH THE LINE OF TRAFFIC PER OMTCD GUIDANCE.



NOTES:

1. PROPOSED TRANSVERSE AND CHEVRON LINES ARE SPACED AT 12' UNLESS OTHERWISE NOTED ON THE PLANS.
2. PARKING SIGNS SHALL BE MOUNTED AT A 45-DEGREE ANGLE WITH THE LINE OF TRAFFIC PER OMTCD GUIDANCE.



TRAFFIC CONTROL
 STA. 175+50 TO STA. 180+50

DESIGN AGENCY
CMT
 CONSTRUCTION MANAGEMENT TECHNOLOGIES, INC.
 1777 WASHINGTON VILLAGE DR
 DAYTON, OHIO 45459
 www.cmtengr.com

DESIGNER
 GSH

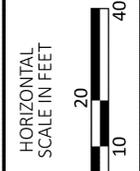
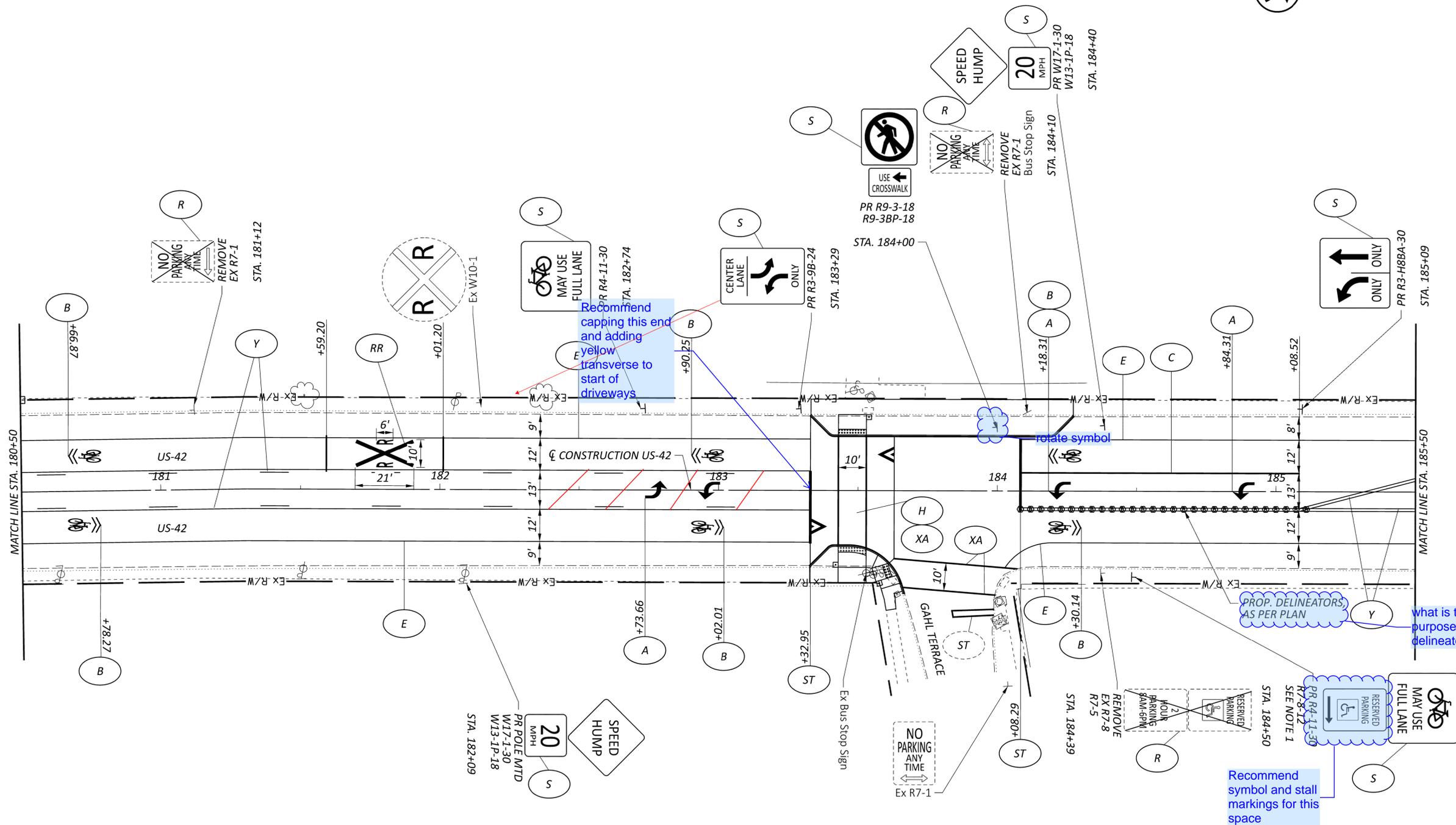
REVIEWER
 SAK 09/18/25

PROJECT ID
 123369

SHEET TOTAL
 P.84 104

NOTES:

1. PARKING SIGNS SHALL BE MOUNTED AT A 45-DEGREE ANGLE WITH THE LINE OF TRAFFIC PER OMUTCD GUIDANCE.

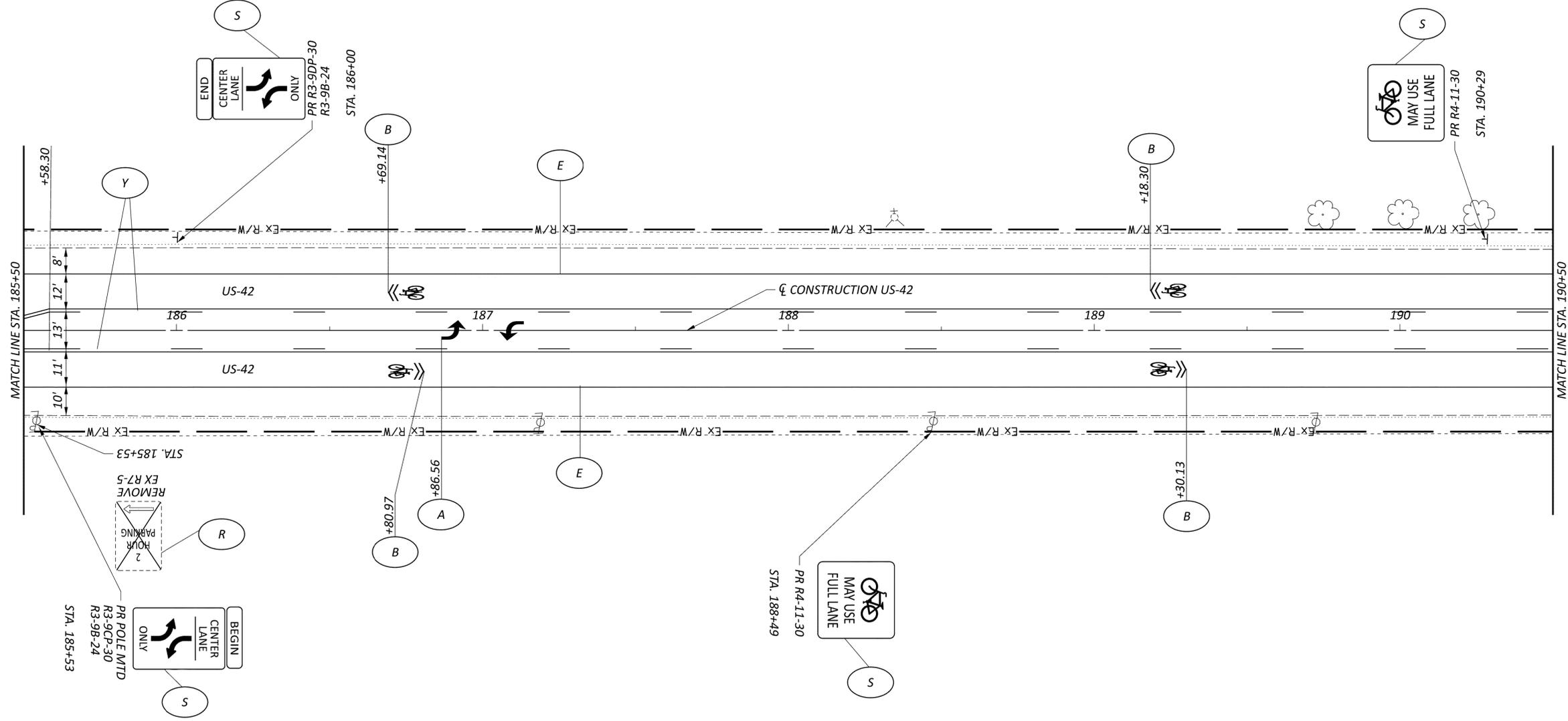


TRAFFIC CONTROL
STA. 180+50 TO STA. 185+50

DESIGN AGENCY	
CMT	CONTRACTOR
CMT ENGINEERING, INC. 1777 WASHINGTON VILLAGE DR DAYTON, OHIO 45459 www.cmtengr.com	
DESIGNER	GSH
REVIEWER	SAK
PROJECT ID	123369
SHEET	TOTAL
P.85	104

HAM US 42 10.07 READING RD

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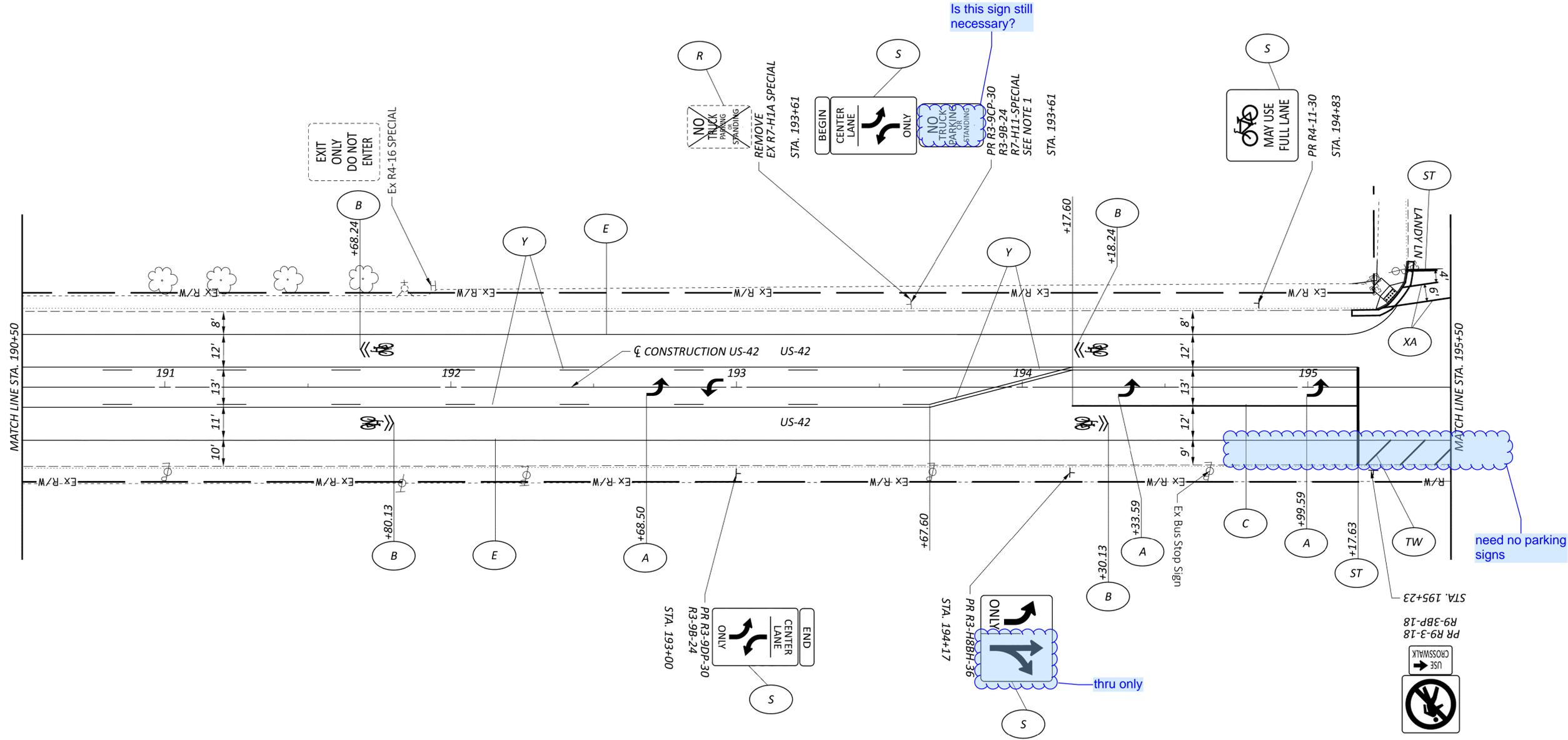


**TRAFFIC CONTROL
 STA. 185+50 TO STA. 190+50**



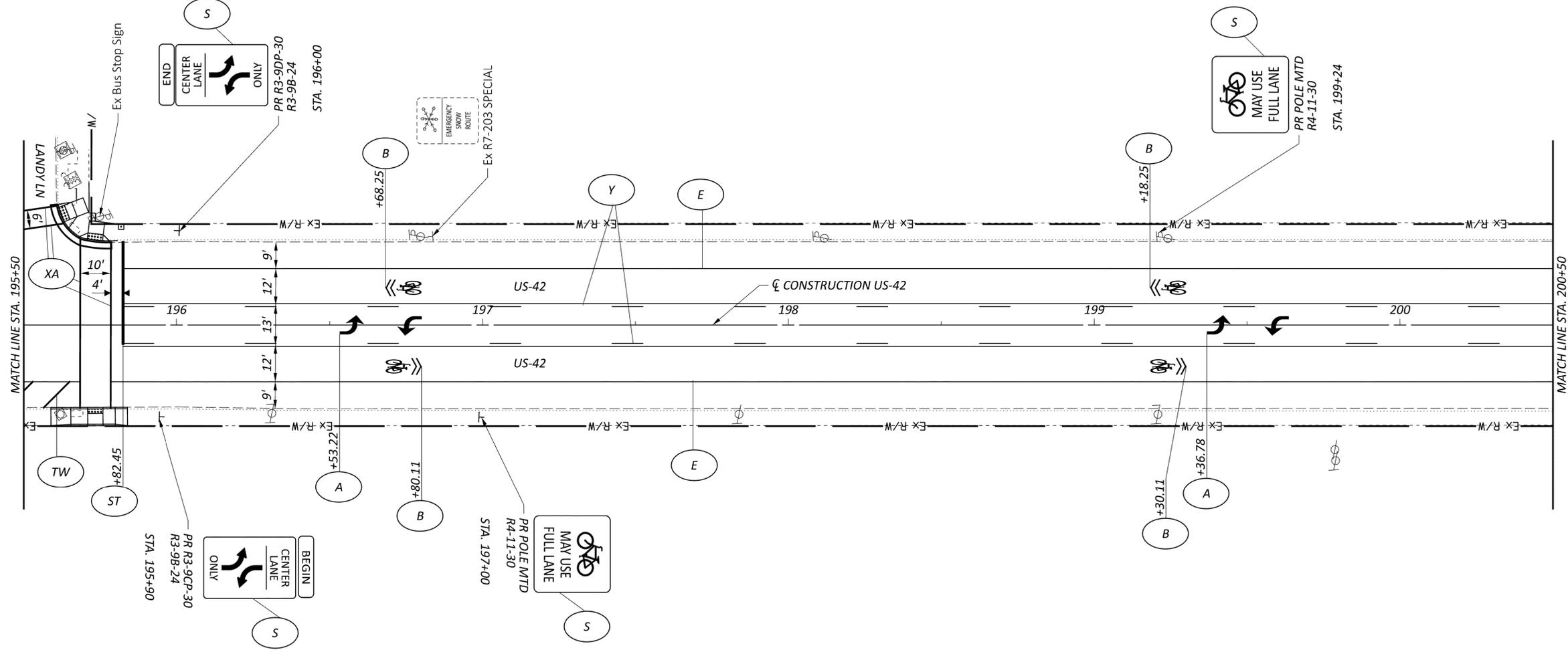
NOTES:

1. PARKING SIGNS SHALL BE MOUNTED AT A 45-DEGREE ANGLE WITH THE LINE OF TRAFFIC PER OMUTCD GUIDANCE.



HAM US 42 10.07 READING RD

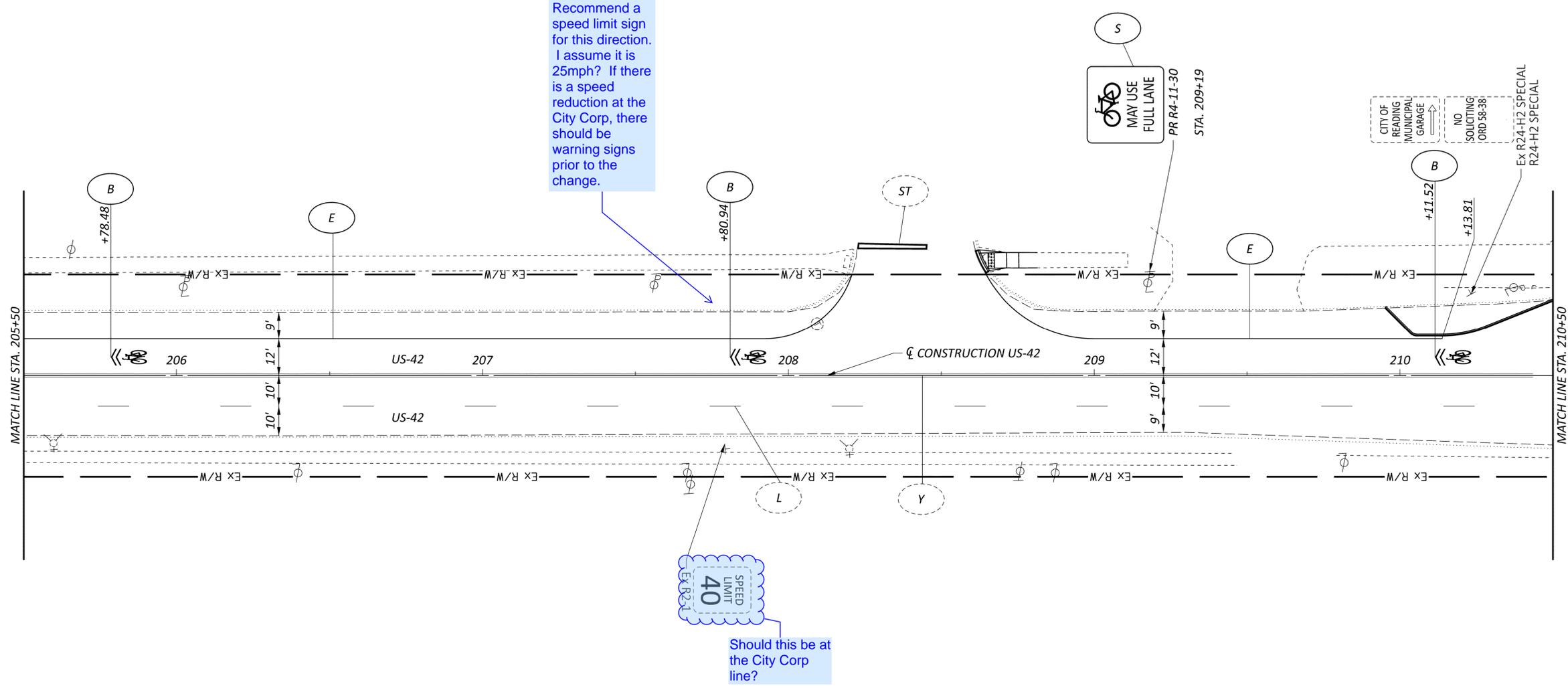
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DESIGNER	GSH
REVIEWER	SAK
PROJECT ID	123369
SHEET	P.89
TOTAL	105

TRAFFIC CONTROL
 STA. 195+50 TO STA. 200+50





TRAFFIC CONTROL
STA. 205+50 TO STA. 210+50



DESIGN AGENCY
CMT
CITY OF READING
1777 WASHINGTON VILLAGE DR
DAYTON, OHIO 45459
www.cmtengr.com

DESIGNER	GSH
REVIEWER	SAK
PROJECT ID	09/18/25
SHEET	123369
TOTAL	90
P.90	104

GENERAL REQUIREMENTS

THE PURPOSE OF THIS SPECIFICATION AND THE ASSOCIATED PLANS IS TO PERFORM TRAFFIC SIGNAL EQUIPMENT ADJUSTMENTS AT NINE (9) EXISTING TRAFFIC SIGNAL LOCATIONS AT THE US ROUTE 42 (READING ROAD) CORRIDOR IN THE CITY OF READING, OHIO. THESE PLANS AND SPECIFICATIONS ARE TO RESULT IN THE COMPLETE INSTALLATION OF FULLY FUNCTIONAL TRAFFIC SIGNALS UTILIZING SIGNAL SUPPORTS (MAST ARMS) AND SHALL OPERATE ACCORDING TO THE REQUIREMENTS OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (OMUTCD).

THE 2023 OHIO DEPARTMENT OF TRANSPORTATION (ODOT) CONSTRUCTION AND MATERIAL SPECIFICATION, LATEST REVISION, SHALL GOVERN THIS PROJECT EXCEPT WHEN OTHERWISE NOTED. ITEMS LISTED SHALL CONFORM TO THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIALS SPECIFICATION MANUAL, TO THE ODOT OFFICE OF ROADWAY ENGINEERING STANDARD CONSTRUCTION DRAWINGS, AND TO ANY SUPPLEMENTAL SPECIFICATIONS AND/OR SPECIFIC REQUIREMENTS NOTED.

BIDDERS SHALL COMPLY WITH ALL APPLICABLE PROVISIONS OF THE OHIO REVISED CODE AND ADMINISTRATIVE CODE.

POWER SUPPLY FOR TRAFFIC SIGNALS (COLUMBIA AVE)

ELECTRIC POWER AT THE US-42 AND COLUMBIA AVE SHALL BE OBTAINED FROM THE EXISTING POWER SOURCE. POWER SUPPLIED SHALL BE 120 VOLTS.

120/240v?

SIGNAL ACTIVATION

PRIOR TO ACTIVATING THE NEW TRAFFIC SIGNAL TO STOP-AND-GO MODE AND/OR REMOVING THE EXISTING TRAFFIC SIGNAL FROM SERVICE, ALL ITEMS IN THE PROPOSED SIGNAL PLAN SHALL BE FULLY COMPLETED, (I.E., VEHICLE DETECTION, PEDESTRIAN SIGNAL HEADS, ETC.). IF THERE ARE CONSTRUCTABILITY ISSUES (I.E., ROADWAY WIDENING, ETC.) THAT PREVENT THE SIGNAL FROM BEING COMPLETED PRIOR TO ACTIVATION, IT SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT ENGINEER AND DISTRICT TRAFFIC ENGINEER. THE DISTRICT TRAFFIC ENGINEER WILL THEN REVIEW, APPROVE OR REJECT PROPOSALS TO ACTIVATE THE TRAFFIC SIGNAL PRIOR TO COMPLETION.

City

City. Revise all instances throughout these notes

THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER AND DISTRICT TRAFFIC ENGINEER AT LEAST 10 WORKING DAYS PRIOR TO SCHEDULING THE FINAL INSPECTION OF THE SIGNAL INSTALLATION. FINAL INSPECTION IS NOT CONSIDERED COMPLETE UNTIL DESIGNATED DISTRICT TRAFFIC PERSONNEL INSPECT THE TRAFFIC SIGNAL AND ISSUE WRITTEN APPROVAL. IF ISSUES ARE FOUND DURING THE FINAL INSPECTION THAT EFFECT THE SAFETY OF THE TRAVELING PUBLIC AND/OR THE EFFICIENCY OF THE INTERSECTION, THE SIGNAL SHALL NOT BE ACTIVATED ON THE PROPOSED DATE. ANY PUNCH LIST ITEMS THAT ARE FOUND SHALL BE CORRECTED AND REINSPECTED BY DISTRICT TRAFFIC PERSONNEL PRIOR TO FINAL ACCEPTANCE. ODOT FORCES SHALL ONLY ASSUME DAY TO DAY MAINTENANCE OF THE TRAFFIC SIGNAL AFTER FINAL WRITTEN ACCEPTANCE HAS BEEN ISSUED.

DETECTION MAINTENANCE

IF VEHICLE DETECTION BECOMES UNEXPECTEDLY DISABLED, REQUIRES MODIFICATION, OR IS SCHEDULED TO BE TEMPORARILY REMOVED DURING THE CONSTRUCTION PROJECT, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE PROJECT ENGINEER AND DISTRICT TRAFFIC ENGINEER.

IF THE LOSS OF VEHICLE DETECTION IS KNOWN PRIOR TO THE START OF CONSTRUCTION, IT SHALL BE DISCUSSED AT THE PRECONSTRUCTION MEETING. AT SUCH TIME, THE DISTRICT TRAFFIC ENGINEER SHALL ADVISE THE PROJECT ENGINEER AND CONTRACTOR ON THE APPROPRIATE ACTION TO RECTIFY ANY LOSS OF VEHICLE DETECTION. THIS MAY INCLUDE PLACING THE TRAFFIC SIGNAL ON MINIMUM OR MAXIMUM RECALL, MODIFYING THE MINIMUM GREEN TIMES, AND REMOVING THE MALFUNCTIONING DETECTION FROM SERVICE. WHERE NON-INTRUSIVE DETECTION (I.E. VIDEO, RADAR) ALREADY EXISTS, THE CONTRACTOR SHALL INSURE THAT DETECTION IS OPERATING AND MAINTAINED BY RECONFIGURING THE DETECTION UNITS ACCORDINGLY DURING ALL CONSTRUCTION PHASES. THIS IS TO AVOID THE SIGNAL FROM MAXING OUT THE EFFECTED SIGNAL PHASE AND CREATING UNNECESSARY DELAYS.

LOCATIONS WHERE NON-INTRUSIVE DETECTION IS PROPOSED AND THE EXISTING VEHICLE DETECTION IS TO BE ABANDON, THE NON-INTRUSIVE VEHICLE DETECTION SHALL BE INSTALLED, CONFIGURED AND MADE FULLY FUNCTIONAL PRIOR TO THE EXISTING DETECTION BEING DISABLED. THE CONTRACTOR SHALL CONTINUE TO MAINTAIN AND MODIFY THE DETECTION UNTIL FINAL ACCEPTANCE OF THE TRAFFIC

SIGNAL. THIS IS TO ENSURE VEHICLE DETECTION REMAINS FULLY FUNCTIONAL THROUGHOUT CONSTRUCTION.

WORK INSPECTION

THE CONTRACTOR SHALL PROVIDE THE PROJECT ENGINEER AND THE CITY OF READING WITH 72 HOUR NOTICE OF ANY SIGNAL WORK TO BE PERFORMED AT THE INTERSECTION SITES SO THAT INSPECTION SERVICES CAN BE SUPPLIED.

ITEM 620 DELINEATOR, POST GROUND MOUNTED, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF C&MS 620, THE CONTRACTOR SHALL INSTALL DELINEATORS MOUNTED ON SEPARATORS AT LOCATIONS NOTED IN THE PLANS.

state colors to be provided, here or on the plan sheet legend

PAYMENT WILL BE MADE AT THE CONTRACT UNIT PRICE BID PER EACH LOCATION REQUIRING ITEM 620 DELINATOR, POST GROUND MOUNTED, AS PER PLAN INSTALLATION, WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS, AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM OF WORK.

ITEM 630 OVERHEAD SIGN SUPPORT, TYPE TC-16.22, (BY DESIGN), AS PER PLAN

IN ADDITION TO PROVISIONS OF THE ODOT C&MS, FURNISH AND INSTALL OVERHEAD SIGN SUPPORT AS SPECIFIED IN THE PLANS.

OVERHEAD SIGN SUPPORTS HAVE BEEN DESIGNED FOLLOWING ODOT SPECIFICATIONS. THE CONTRACTOR SHALL OBTAIN SHOP DRAWINGS FROM THE OVERHEAD SIGN SUPPORT MANUFACTURER VERIFYING THE SUPPORT MEETS THE INTENT OF THE PLANS. THE SHOP DRAWINGS SHALL HAVE AN OHIO PE STAMP AND BE PROVIDED TO THE ENGINEER PRIOR TO ORDERING. NO OVERHEAD SIGN SUPPORTS SHALL BE ORDERED PRIOR TO SUBMITTING THE SHOP DRAWING INFORMATION.

THE SUPPORT SHALL BE A ROUND TAPERED OVERHEAD SIGN SUPPORT CONSISTENT WITH THE ODOT STANDARD CONSTRUCTION DRAWING AND ITEM 630.06B OF THE ODOT C&MS. POLES CONSISTING OF STRAIGHT SECTIONS WITH A TAPERED EFFECT ACCOMPLISHED BY THE USE OF REDUCERS SHALL NOT BE PERMITTED. POLES SHALL BE ROUND IN SHAPE. OCTAGON SHAPED POLES ARE NOT PERMITTED.

THE HORIZONTAL MAST ARM SHALL BE CURVED EXTENDING 6 FEET FROM THE VERTICAL SUPPORT AS SHOWN IN THE OVERHEAD SIGN SUPPORT DETAIL UNLESS OTHERWISE NOTED. THE CURVE OF THE MAST ARM SHALL HAVE A 3'-6" RISE ABOVE THE POINT OF ATTACHMENT TO THE OVERHEAD SIGN SUPPORT. THE POLE HEIGHT SHALL BE NOTED IN THE SIGN ATTACHMENT CHART.

a detail showing this should be provided. This can be done with the elevation views for each structure

PAYMENT FOR ITEM 630 OVERHEAD SIGN SUPPORT, TC-16.22, (BY DESIGN), AS PER PLAN SHALL BE MADE AT THE CONTRACT UNIT PRICE PER EACH COMPLETE AND IN PLACE, AND SHALL INCLUDE ALL DOCUMENTATION, LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO COMPLETE THE WORK.

ITEM 630 SIGN HANGER ASSEMBLY, MAST ARM, AS PER PLAN

IN ADDITION TO ITEM 630, SIGNS SHALL RIGIDLY ATTACHED TO THE MAST ARM INSTEAD OF BEING SUSPENDED FROM THE MAST ARM. THE SIGN SUPPORT ASSEMBLY SHALL COMPLY WITH ITEM 630.06 AND BE FULLY ADJUSTABLE TO ENABLE ORIENTATION OF SIGN FACES PERPENDICULAR TO THE APPROACH LANES. THIS ITEM SHALL INCLUDE ALL NECESSARY HARDWARE FASTENERS THAT ARE CORROSION RESISTANT, AND ACCESSORIES.

PAYMENT SHALL BE MADE AT THE CONTRACT UNIT PRICE BID PER EACH OF ITEM 630 SIGN HANGER ASSEMBLY, MAST ARM, AS PER PLAN IN PLACE.

ITEM 630 SIGNING MISC.: SOLAR-POWERED RECTANGULAR RAPID FLASHING BEACON (RRFB) SIGN ASSEMBLY

THIS WORK SHALL CONSIST OF FURNISHING AND INSTALLING A SOLAR POWERED RECTANGULAR RAPID FLASHING BEACON (RRFB) SIGN ASSEMBLY. THE FLASHING UNIT SHALL BE SOLAR POWERED, PEDESTRIAN ACTIVATED, AND 2-SIDED WITH TWO LED ARRAY BASED YELLOW INDICATIONS ON EACH SIDE. MULTIPLE UNITS SHALL BE WIRELESSLY CONTROLLED AND SYNCHRONIZED. THE UNIT SHALL BE COMPLIANT WITH THE MOST CURRENT OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (OMUTCD).

GENERAL REQUIREMENTS EACH RRFB SHALL CONSIST OF TWO RAPIDLY FLASHED RECTANGULAR-SHAPED YELLOW INDICATIONS HAVING LED ARRAY BASED LIGHT SOURCE.

EACH RRFB SHALL BE A COMPLETE ASSEMBLY, CONSISTING OF BUT NOT LIMITED TO, SIGNAGE, SIGN MOUNTING HARDWARE, INDICATIONS AND ELECTRICAL COMPONENTS (WIRING, SOLID-STATE CIRCUIT BOARDS, ETC.).

edit note to add that signs are to be audible with spoken message. (Accessible icon mean different things to different contractors. Note that the spoken message for RRFB is different than the message for ped signals. May want to add that to the note as well. Use the RRFB pushbutton sign per the MUTCD

EACH RRFB SHALL CONTAIN A PEDESTRIAN INDICATION LIGHT VISIBLE TO THE PEDESTRIAN IN THE DIRECTION OF TRAVEL.

FUNCTIONAL REQUIREMENTS EACH RRFB SHALL UTILIZE SOLAR POWER.

EACH RRFB SHALL BE ACTIVATED BY ADA COMPLIANT ACCESSIBLE PEDESTRIAN PUSHBUTTONS.

THE RRFB SHALL BE NORMALLY DARK, SHALL INITIATE OPERATION ONLY UPON PEDESTRIAN ACTUATION, AND SHALL CEASE OPERATION AFTER A PREDETERMINED TIME LIMIT (BASED ON OMUTCD PROCEDURES).

EACH REMOTE RRFB SHALL BE WIRELESSLY ACTIVATED.

ALL RRFB LIGHT INDICATIONS SHALL BE WIRELESSLY SYNCHRONIZED (ALL LIGHTS WILL TURN ON WITHIN 120 MSEC AND REMAIN SYNCHRONIZED THROUGHOUT THE DURATION OF THE FLASHING CYCLE).

THE UNIT SHALL BE CAPABLE OF RUNNING 14 DAYS WITHOUT SUNLIGHT.

MATERIALS FURNISH A COMPLETE ASSEMBLY, CONSISTING OF BUT NOT LIMITED TO, SIGNAGE, SIGN MOUNTING HARDWARE, INDICATIONS, AND ELECTRICAL COMPONENTS (WIRING, SOLID-STATE CIRCUIT BOARDS, ETC.). THE RRFB ASSEMBLY INCLUDES THE FOLLOWING ITEMS:

- RRFB INDICATIONS
 - EACH RRFB INDICATION LENS SHALL BE A MINIMUM SIZE OF APPROXIMATELY 5" WIDE X 2" HIGH.
 - THE RRFB INDICATIONS SHALL BE ALIGNED HORIZONTALLY, WITH THE LONGER DIMENSION OF THE INDICATION HORIZONTAL. THERE SHALL BE TWO INDICATIONS ON THE FRONT AND TWO INDICATIONS ON THE BACK.
 - EACH RRFB SHALL BE SUPPLIED WITH ALL REQUIRED HARDWARE TO INSTALL ASSEMBLY. ALL EXPOSED HARDWARE SHALL BE ANTI-VANDAL.
 - EACH RRFB SHALL BE LOCATED BETWEEN THE BOTTOM OF THE CROSSING WARNING SIGN AND THE TOP OF THE SUPPLEMENTAL DOWNWARD DIAGONAL ARROW PLAQUE.
 - THE LIGHT INTENSITY OF THE YELLOW INDICATIONS SHALL MEET THE MINIMUM CLASS 1 SPECIFICATIONS OF SOCIETY OF AUTOMOTIVE ENGINEERS (SAE) STANDARD J595 (DIRECTIONAL FLASHING OPTICAL WARNING DEVICES FOR AUTHORIZED EMERGENCY, MAINTENANCE, AND SERVICE VEHICLES) DATED JANUARY, 2005.
 - TO MINIMIZE EXCESSIVE GLARE DURING NIGHTTIME CONDITIONS, AN AUTOMATIC SIGNAL DIMMING DEVICE SHALL BE USED TO REDUCE THE BRILLIANCE OF THE RRFB INDICATIONS.
 - AN LED PEDESTRIAN CONFIRMATION LIGHT DIRECTED AT AND VISIBLE TO PEDESTRIANS IN THE CROSSWALK SHALL BE INSTALLED INTEGRAL TO THE RRFB OR PUSHBUTTON TO GIVE CONFIRMATION THAT THE RRFB IS IN OPERATION.
 - THE PEDESTRIAN CONFIRMATION LIGHT SHALL HAVE A MINIMUM AREA OF 0.5 SQUARE INCHES AND BE CONSPICUOUS TO PEDESTRIANS AT ALL DISTANCES FROM THE BEGINNING OF THE CONTROLLED CROSSWALK TO A POINT 10 FEET FROM THE END OF THE CONTROLLED CROSSWALK DURING BOTH DAY AND NIGHT.
- SIGNS
 - ALL SIGN ASSEMBLIES SHALL USE ANTI-VANDAL FASTENERS TO MOUNT COMPONENTS TO SIGN AND SIGN TO FIXTURE.
 - ACCESSIBLE PEDESTRIAN PUSHBUTTONS SIGNS SHALL BE PROVIDED AND INCLUDE THE LEGEND "PUSH BUTTON FOR WARNING LIGHTS / WAIT FOR GAP IN TRAFFIC". SIGNS SHOULD BE MOUNTED ADJACENT TO OR INTEGRAL WITH EACH PEDESTRIAN PUSHBUTTON.
 - TWO SETS OF SIGNS SHALL BE REQUIRED PER UNIT FOR VIEW FROM EACH APPROACH.
 - ENSURE THE SIGN MEETS THE REQUIREMENTS OF C&MS 630.

- CONTROL CIRCUIT
 - THE CONTROL CIRCUIT SHALL HAVE THE CAPABILITY OF INDEPENDENTLY FLASHING UP TO TWO INDEPENDENT OUTPUTS. THE LED LIGHT OUTPUTS AND FLASH PATTERN SHALL BE COMPLETELY PROGRAMMABLE.
 - THE CONTROL CIRCUIT SHALL BE SEALED WATERTIGHT TO ELIMINATE DIRT CONTAMINATION AND ALLOW FOR SAFE HANDLING IN ALL WEATHER CONDITIONS.
 - THE LEDS SHALL BE SEALED AGAINST DUST AND MOISTURE INTRUSION AS PER THE REQUIREMENTS OF NEMA STANDARD 250-1991 FOR TYPE 4 ENCLOSURE AND TO PROTECT ALL INTERNAL LED AND ELECTRICAL COMPONENTS.

- BATTERY AND SOLAR PANELS
 - BATTERY UNIT SHALL BE A 12VDC, 35 AHR MINIMUM, SEALED GEL OR AGM LEAD ACID BATTERY. BATTERIES SHALL HAVE A WRITTEN TWO-YEAR FULL REPLACEMENT WARRANTY. THE SOLAR PANEL SHALL PROVIDE A MINIMUM OF 40 WATTS OF NET AC TYPICAL OUTPUT.
 - THE SOLAR PANEL SHALL BE MOUNTED TO AN ALUMINUM PLATE AND BRACKET AT AN ANGLE OF 45 DEGREES- 60 DEGREES TO PROVIDE MAXIMUM OUTPUT.
 - FASTENERS USED SHALL BE ANTI-VANDAL.
 - WIRELESS RADIO CONTROL SHALL OPERATE ON A 900 MHZ FREQUENCY HOPPING SPREAD SPECTRUM NETWORK, WI-FI OR APPROVED EQUAL.
 - THE RADIO SHALL INTEGRATE COMMUNICATION OF RRFB CONTROL CIRCUIT TO ACTIVATE SIGN FROM PUSHBUTTON INPUT.
 - THE RADIO SHALL BE SYNCHRONIZED SO ALL OF THE REMOTE RRFB LIGHT INDICATIONS WILL TURN ON WITHIN 120 MSEC OF EACH OTHER AND REMAIN SYNCHRONIZED THROUGH-OUT THE DURATION OF THE FLASHING CYCLE.

- ACCESSIBLE PEDESTRIAN PUSHBUTTON
 - THE PUSHBUTTON SHALL BE CAPABLE OF CONTINUOUS OPERATION OVER A TEMPERATURE RANGE OF -30 DEGREES F TO +165 DEGREES F.
 - PUSHBUTTON SHALL BE ADA COMPLIANT.

- PEDESTAL SHAFT AND BASE - MOUNT ON A STANDARD 4.5-INCH OD ALUMINUM PEDESTAL POLE WITH BREAKAWAY BASE. A 14 FOOT POLE SHALL BE PROVIDED AND FIELD ADJUSTED AND CAPPED TO MAINTAIN THE PROPER SIGN MOUNTING HEIGHTS, UNLESS SPECIFIED OTHERWISE IN THE PLANS. POLE AND BASE MANUFACTURER SHALL BE LISTED ON ODOT'S QUALIFIED PRODUCTS LIST.

CONSTRUCTION THE RRFB SHALL BE ASSEMBLED AND CONSTRUCTED BY THE CONTRACTOR AS SHOWN AND SPECIFIED ON THE PLANS.

WARRANTY WARRANTY SHALL BE TWO YEARS FROM THE DATE OF FINAL ACCEPTANCE.

MEASUREMENT THE DEPARTMENT WILL MEASURE THE ITEM COMPLETE IN PLACE, INCLUDING ALL MATERIALS, TESTING, LABOR AND SOFTWARE FOR A FULLY FUNCTIONAL UNIT.

PAYMENT PAYMENT WILL BE AT THE CONTRACT UNIT PRICE PER EACH FOR ITEM 630 SIGNING MISC.: SOLAR POWERED RECTANGULAR RAPID FLASHING BEACON (RRFB) SIGN ASSEMBLY.

ITEM 644 REMOVAL OF PAVEMENT MARKING

THE MAJORITY OF EXISTING PAVEMENT MARKINGS ON US-42 AND SIDE STREETS WITHIN THE PROJECT LIMITS ARE TO BE REMOVED AND REPLACED WITH PROPOSED PAVEMENT MARKINGS. THE CONTRACTOR SHALL REMOVE ALL PAVEMENT MARKINGS THAT CONFLICT WITH THE PROPOSED PAVEMENT MARKINGS AS SHOWN IN THE PLANS. THE FOLLOWING QUANTITY IS CARRIED TO THE GENERAL SUMMARY FOR PAVEMENT MARKINGS REMOVED WITHIN PROJECT LIMITS:

some markings are removed by each. Add a quantity for this work

ITEM 644 REMOVAL OF PAVEMENT MARKING – 8 MILE

ITEM 632 REMOVAL OF MISCELLANEOUS TRAFFIC SIGNAL ITEM: PUSHBUTTON AND SIGN

IN ADDITION TO THE REQUIREMENTS OF ODOT C&MS 632.26, THE CONTRACTOR SHALL FILL OR PLUG HOLES LEFT BEHIND ON THE SIGNAL OR PEDESTAL SUPPORT DUE TO REMOVING THE PUSHBUTTON AND ASSOCIATED SIGN.

PAYMENT WILL BE MADE AT THE CONTRACT UNIT PRICE BID, PER EACH ITEM 632 REMOVAL OF MISCELLANEOUS TRAFFIC SIGNAL ITEM: PUSHBUTTON AND SIGN, WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS, AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM FOR EACH REMOVED PUSHBUTTON AND SIGN.

and disposal? Does the City want to salvage any equipment?

ITEM 632 REMOVAL OF MISCELLANEOUS TRAFFIC SIGNAL ITEM: PEDESTRIAN SIGNAL HEAD

IN ADDITION TO THE REQUIREMENTS OF ODOT C&MS 632.26, THE CONTRACTOR SHALL FILL OR PLUG HOLES LEFT BEHIND ON THE SIGNAL OR PEDESTAL SUPPORT DUE TO REMOVING THE PEDESTRIAN SIGNAL HEAD.

PAYMENT WILL BE MADE AT THE CONTRACT UNIT PRICE BID, PER EACH ITEM 632 REMOVAL OF MISCELLANEOUS TRAFFIC SIGNAL ITEM: PUSHBUTTON AND SIGN, WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS, AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM FOR EACH REMOVED PUSHBUTTON AND SIGN.

pedestrian signal head



DESIGNER	GSB
REVIEWER	SAK 09/18/25
PROJECT ID	123369
SHEET	TOTAL
P.93	104

ITEM 632 REMOVAL OF TRAFFIC SIGNAL INSTALLATION, AS PER PLAN (COLUMBIA AVE)

A PORTION OF THE TRAFFIC SIGNAL INSTALLATION AT THE US-42 AND COLUMBIA AVE INTERSECTION, INCLUDING SIGNAL HEADS, CABLE, SIGNAL SUPPORTS (SW AND SE QUADRANTS), PULL BOXES, PEDESTRIAN SIGNAL HEADS, PEDESTRIAN PUSHBUTTONS, SIGNS, ETC. SHALL BE REMOVED IN ACCORDANCE WITH C&MS 632.26 AND AS INDICATED ON THE PLANS. POWER SERVICES SHALL BE REMOVED IN ACCORDANCE WITH C&MS 625.21.F. REMOVED ITEMS SHALL BE STORED ON THE PROJECT FOR SALVAGE BY THE CITY OF READING IN ACCORDANCE WITH THE LISTING GIVEN HEREIN.

- ITEMS TO BE STORED:
- PUSHBUTTON (4)
- PUSHBUTTON SIGN (4)
- PED SIGNAL HEAD (8)
- VEH SIGNAL HEAD (8)
- OVERHEAD SIGN (10)
- POWER SERVICE (11)
- SIGNAL SUPPORT (2)

what is salvaged with this?

THE CONTRACTOR SHALL CONTACT CITY OF READING TO DETERMINE A LOCATION AND TIME TO DELIVER THE EQUIPMENT.

IN THE EVENT THE ITEMS STORED ON THE PROJECT FOR SALVAGE BY THE CITY OF READING ARE NOT REMOVED, THE CONTRACTOR SHALL, WHEN DIRECTED BY THE ENGINEER IN WRITING, REMOVE AND DISPOSE OF THE ITEMS AT NO ADDITIONAL COST TO THE PROJECT.

ITEMS NOT SPECIFIED FOR STORAGE SHALL BE DISPOSED OF BY THE CONTRACTOR.

ITEM 632 ACCESSIBLE PEDESTRIAN PUSHBUTTON, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF C&MS 632 AND 732 THE ACCESSIBLE PEDESTRIAN PUSHBUTTON SHALL MEET THE CURRENT REQUIREMENTS OF THE MUTCD AND THE ACCESSIBILITY GUIDELINES FOR PEDESTRIAN FACILITIES IN THE PUBLIC RIGHT OF WAY (PROWAG) REQUIREMENTS. PUSHBUTTONS SHALL BE INSTALLED SUCH THAT ITS FACE IS PARALLEL TO THE CROSSWALK IT IS SERVING.

spoken message?

THIS LINE ITEM SHALL INCLUDE AN APS AUDIBLE BEACON WIRED TO THE ACCESSIBLE PEDESTRIAN PUSHBUTTON. THE AUDIBLE BEACON SHALL BE MOUNTED ON TOP OF THE PEDESTRIAN HEAD FOR THE CORRESPONDING PEDESTRIAN CROSSING.

PAYMENT FOR ITEM 632 ACCESSIBLE PEDESTRIAN PUSHBUTTON, AS PER PLAN SHALL BE MADE FOR THE NUMBER OF COMPLETE ACCESSIBLE PEDESTRIAN PUSHBUTTON FURNISHED AND INSTALLED, INCLUDING ALL LABOR, AUDIBLE BEACON, EQUIPMENT, MATERIALS AND NEW ATTACHMENT HARDWARE.

Specify color of pushbutton

ITEM 632 ACCESSIBLE PEDESTRIAN PUSHBUTTON, AS PER PLAN, AUDIBLE

IN ADDITION TO ITEM 632 ACCESSIBLE PEDESTRIAN PUSHBUTTON, AS PER PLAN, THIS ITEM SHALL INCLUDE THE FOLLOWING FEATURES:

I think that all pushbuttons need to have audible messages to be accessible.

1. THE AUDIBLE MESSAGE SHALL ALERT VISUALLY IMPAIRED PEDESTRIANS OF THE WALK AND FLASH DON'T WALK INDICATIONS USING SPEECH MESSAGES INSTEAD OF AUDIBLE TONES. SAMPLE MESSAGE WORDING: "READING ROAD. WALK SIGN ON TO CROSS READING ROAD." THE SPEECH MESSAGE MAY BE ACCESSED BY AN EXTENDED BUTTON PRESS.

I think the speech should activate with a normal button

2. THE APS DEVICE IS TONEABLE THE PHASE TO REST IN WALK AND THE AUDIBLE WALK MESSAGE BE ACTIVE DURING A PROGRAMMED TIME PERIOD AND THEN REVERT BACK TO THE LOCATOR TONE.

what is this time period?

PAYMENT FOR IT3M 632 ACCESSIBLE PEDESTRIAN PUSHBUTTON, AS PER PLAN, AUDIBLE SHALL BE MADE FOR THE NUMBER OF COMPLETE PUSHBUTTONS FURNISHED AND INSTALLED, INCLUDING ALL LABOR, EQUIPMENT, MATERIALS AND NEW ATTACHMENT HARDWARE.

button should always be activated with a speech message

SIGNAL SUPPORT AND PEDESTAL FOUNDATION ELEVATIONS

ELEVATIONS SHOWN IN THE PLANS FOR STRAIN POLE AND PEDESTAL FOUNDATIONS ARE FOR COMPUTATIONAL PURPOSES ONLY. THE ACTUAL ELEVATION OF THE FOUNDATION SHALL BE IN ACCORDANCE WITH TRAFFIC SCD TC-21.21 PROVIDED THE EXISTING SLOPE IS LESS THAN 6:1.

AT LOCATIONS WHERE THE EXISTING SLOPE IS 6:1 OR GREATER, THE BURIED DEPTH OF FOUNDATION, AS SHOWN IN SCD TC-21.21 SHALL APPLY TO THE LOW SIDE OF THE SLOPE. THE TOP OF THE FOUNDATION SHALL BE SET 2 INCHES ABOVE THE EXISTING SURFACE ON THE HIGH SIDE OF THE SLOPE. THE ADDITIONAL DEPTH OF FOUNDATION NECESSARY TO MEET THESE REQUIREMENTS SHALL BE ADDED TO THE FORMED TOP.

AT LOCATIONS WHERE THE FOUNDATION IS LOCATED ADJACENT TO A SIDEWALK, THE BURIED DEPTH OF FOUNDATION, AS SHOWN IN SCD TC-21.21 SHALL APPLY TO THE LOWEST ELEVATION ABOVE THE GROUND. THE ADDITIONAL DEPTH OF FOUNDATION NECESSARY TO MEET THESE REQUIREMENTS SHALL BE ADDED TO THE FORMED TOP.

THE TOP OF FOUNDATION SHALL BE EQUAL TO THE ELEVATION OF THE PROPOSED SIDEWALK OR RAMP ADJACENT TO THE FOUNDATION. NOTE THAT THE ELEVATION MAY DIFFER DEPENDING UPON ELEVATION OF THE SIDEWALK OR RAMP ADJACENT TO THE FOUNDATION.

SIGNAL, PEDESTAL AND OVERHEAD SIGN SUPPORT FOUNDATION

PRIOR TO ORDERING THE SIGNAL, PEDESTAL, AND OVERHEAD SIGN SUPPORTS, THE CONTRACTOR SHALL CONTACT OUPS TO HAVE ALL THE UTILITIES LOCATED IN THE FIELD. THEN, THE CONTRACTOR SHALL MEET THE PROJECT ENGINEER TO LOCATE THE PROPOSED SUPPORT LOCATIONS TO INSURE THERE ARE NO CONFLICTS WITH UTILITIES. IF THERE ARE ISSUES, THE PROJECT ENGINEER SHALL PROVIDE GUIDANCE AS TO THE RELOCATION OF THE SUPPORTS.

DUE TO THE FURTHER POSSIBILITY OF CONFLICT WITH EXISTING OR PROPOSED UNDERGROUND OBSTRUCTIONS (INCLUDING THE POSSIBILITY OF UNRECORDED OBSTRUCTIONS) WHICH COULD AFFECT THE LOCATION OF THE FOUNDATION FOR THIS ITEM, AND CONSEQUENTLY, THE DESIGN OF THE SUPPORT AND/OR ARMS, THE CONTRACTOR SHALL NOT PLACE FINAL ORDERS FOR THE ITEM UNTIL THE FOUNDATIONS HAVE BEEN INSTALLED, AT FINAL GRADE, AND THE CONTRACTOR HAS RECEIVED, FROM ENGINEER, WRITTEN NOTICE TO PROCEED WITH THE ORDERS FOR THE ITEM.

IF ANY FOUNDATION LOCATIONS MUST BE ADJUSTED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND MAINTAINING AGENCY, WHO WILL DETERMINE THE REVISED LOCATION AND IF NEEDED, THE SUPPORT DESIGN. THE CONTRACTOR WILL NOT BE RESPONSIBLE FOR DETERMINING THE REVISED DESIGN. THE ENGINEER WILL INFORM THE CONTRACTOR OF ANY CHANGES NECESSARY AND AUTHORIZE THE CONTRACTOR TO ORDER THE SUPPORT.

THE CONTRACTOR SHALL, WHEN DEVELOPING THE PROGRESS SCHEDULE, AND THOSE OF SUBCONTRACTORS, ENSURE THAT THE FOUNDATIONS ARE INSTALLED AT THE EARLIEST TIME AS IS FEASIBLE AND PRACTICAL, AND SHALL INCLUDE SUFFICIENT TIME IN THE PROGRESS SCHEDULE FOR ORDERING, MANUFACTURING, DELIVERY, AND INSTALLATION OF THE SUPPORT ITEMS AFTER THE FOUNDATIONS ARE IN PLACE.

NO PAYMENTS FOR DELIVERED MATERIALS FOR THE FOUNDATION OR SUPPORT ITEMS SHALL BE MADE UNTIL THE FOUNDATIONS ARE IN PLACE, AND IF CHANGES IN THE DESIGN OF THIS ITEM ARE REQUIRED, NO PAYMENT SHALL BE MADE FOR THE ITEMS MANUFACTURED TO THE ORIGINAL DESIGN.

PAYMENT WILL BE AT THE CONTRACT UNIT PRICE AND WILL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS, TOOLS, EQUIPMENT AND OTHER INCIDENTALS NECESSARY FOR EACH SUPPORT FURNISHED, IN PLACE, COMPLETE AND ACCEPTED.

ITEM 632 POWER SERVICE, AS PER PLAN

POWER SERVICE SHALL BE AS PER C&MS ITEM 632 AND SCD TC-83.10 WITH THE FOLLOWING EXCEPTIONS:

1. THE METER BASE MOUNTING HEIGHT SHALL BE NO MORE THAN 5 FEET HIGH TO THE CENTER OF THE METER BASE FROM THE GROUND.
2. THE CONTRACTOR SHALL SUPPLY THE NECESSARY METER BASES.
3. ALL POWER SERVICES SHALL BE METERED. THE METER SHALL HAVE A LEVER-OPERATED BYPASS.

DISCONNECT SWITCH ENCLOSURES FURNISHED IN ACCORDANCE WITH CMS ITEM 632 - POWER SERVICE, AS PER PLAN, SHALL INCLUDE A PADLOCK EQUAL TO MASTER NO. 4BKA OR WILSON BOHANNON 660, WITH LOCK BODY OF BRONZE OR BRASS AND KEYING SHALL BE TO THE STATE MASTER.

THE CONTRACTOR SHALL CONTACT THE POWER COMPANY FOR INFORMATION REGARDING THE METER BASE INSTALLATION PRIOR TO ORDERING POLES. THE CONTRACTOR WILL BE RESPONSIBLE FOR REQUESTING AND SCHEDULING ANY INSPECTIONS THE ILLUMINATING MAY REQUIRE FOR THE POWER

SERVICE HOOK UP. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTACT THE POWER COMPANY FOR THE ELECTRICAL SERVICE CONNECTION. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR SPLICE POWER CABLE INTO THE POWER COMPANY'S CIRCUITS. THE VOLTAGE SUPPLIED SHALL BE NOMINALLY 120 VOLTS. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY NECESSARY PERMITS AND THE PAYING OF ALL FEES. THE CONTRACTOR SHALL PAY ALL POWER CHARGES UNTIL THE SIGNAL IS ACCEPTED BY THE CITY OF READING.

THE COST FOR ALL NECESSARY ITEMS AND ASSOCIATED LABOR SHALL BE INCLUDED IN THE CONTRACT BID PRICE FOR ITEM 632 - POWER SERVICE, AS PER PLAN

ITEM 632 REUSE OF TRAFFIC CONTROL ITEM: PULLBOX

EXISTING PULLBOXES THAT ARE NOTED AS BEING REUSED IN THE PLANS ARE EXPECTED TO BE DISTURBED DUE TO NEW CABLE OR CONDUIT INSTALLATION, OR READJUSTED DUE TO PROPOSED SIDEWALK. IN ADDITION TO THE REQUIREMENTS OF ODOT C&MS 632.27 THE FOLLOWING SHALL BE THE REMOVAL OF

old cable to be removed with this item? Or would it be better to readjust as noted in the plans, the contractor shall reuse the existing pullbox by regrading and/or rotating the pull box when necessary, such that the top of pull box elevation equals the elevation of the surrounding sidewalk.

1. REUSED PULLBOXES SHALL BE CLEAR OF DEBRIS AND UNUSED EQUIPMENT PRIOR TO OPERATING THE SIGNAL.
2. AT LOCATIONS WHERE THE PULLBOX HAS BEEN TO READJUSTED AS NOTED IN THE PLANS, THE CONTRACTOR SHALL REUSE THE EXISTING PULLBOX BY REGRADING AND/OR ROTATING THE PULL BOX WHEN NECESSARY, SUCH THAT THE TOP OF PULL BOX ELEVATION EQUALS THE ELEVATION OF THE SURROUNDING SIDEWALK.

COSTS ASSOCIATED WITH THESE REQUIREMENTS SHALL BE INCLUDED IN UNIT PRICE BID OF EACH ITEM 632 REUSE TRAFFIC CONTROL ITEM: PULLBOX.

ITEM 632 REUSE OF VEHICULAR SIGNAL HEAD

IN ADDITION TO THE REQUIREMENTS OF ODOT C&MS 632.06 AND 632.27, THIS LINE ITEM SHALL CONSISTS OF RELOCATING AN EXISTING VEHICULAR SIGNAL HEAD TO THE PROPOSED LOCATION AT THE EXISTING SIGNAL ARM SUPPORT NOTED IN THE PLANS.

AT LOCATIONS WHERE VEHICULAR SIGNAL HEAD IS RELOCATED CLOSER TO THE VERTICAL SUPPORT, THE EXISTING SIGNAL SUPPORT IS EXPECTED TO ACCOMMODATE THE NEW LOAD DUE TO SHORTER RESULTING MOMENT ARM.

EXISTING VEHICULAR SIGNAL HEAD RELOCATED ON THE SAME SIGNAL SUPPORT SHALL REUSE THE EXISTING CABLE.

PAYMENT WILL BE MADE AT THE CONTRACT UNIT PRICE BID PER EACH REUSED VEHICULAR SIGNAL HEAD AND WILL BE FULL COMPENSATION FOR ALL LABOR, TOOLS, EQUIPMENT, AND OTHER INCIDENTALS NECESSARY FOR INSTALLING REUSED VEHICULAR SIGNAL HEAD.

ITEM 633 CONTROLLER ITEM, MISC.: REPROGRAMMING OF EXISTING CONTROLLERS

THIS ITEM WILL COVER ANY REPROGRAMMING OR PHASING MODIFICATIONS REQUIRED FOR EXISTING CONTROLLERS WHICH ARE TO REMAIN IN SERVICE. THE REPROGRAMMING EFFORT SHALL INCLUDE PROGRAMMING OF PEDESTRIAN AND VEHICULAR PHASES, AND UPLOADING PROPOSED SIGNAL TIMING CHANGES AS SHOWN IN THE PLANS.

CONTROLLER REPROGRAMMING WILL BE MEASURED PER EXISTING CONTROLLER PROGRAMMED OR MODIFIED. PAYMENT WILL INCLUDE ALL LABOR, EQUIPMENT AND MATERIALS REQUIRED TO COMPLETE THE WORK TO HAVE THE INTERSECTION OPERATE AS INTENDED.

GUARANTEE

THE CONTRACTOR SHALL GUARANTEE THAT THE TRAFFIC CONTROL SYSTEM INSTALLED AS PART OF THIS CONTRACT SHALL OPERATE SATISFACTORILY FOR A PERIOD OF 180 DAYS FOLLOWING COMPLETION OF THE 10-DAY PERFORMANCE TEST. IN THE EVENT OF UNSATISFACTORY OPERATION, THE CONTRACTOR SHALL CORRECT FAULTY INSTALLATIONS, MAKE REPAIRS AND REPLACE DEFECTIVE PARTS WITH NEW PARTS OF EQUAL OR BETTER QUALITY.

EQUIPMENT, MATERIAL AND LABOR COSTS INCURRED IN CORRECTING AN UNSATISFACTORY OPERATION SHALL BE BORNE BY THE CONTRACTOR.

THE GUARANTEE SHALL COVER THE FOLLOWING ITEMS OF THE TRAFFIC CONTROL SYSTEM: CONTROLLER, CABINET, UNINTERRUPTIBLE POWER SUPPLY, VEHICLE DETECTION EQUIPMENT, LED LAMP UNITS, NETWORK AND COMMUNICATION/ INTERCONNECT EQUIPMENT.

Is any of this being supplied by the contractor? If not, remove.

CUSTOMARY MANUFACTURER'S GUARANTEES FOR THE FOREGOING ITEMS SHALL BE TURNED OVER TO THE STATE OR THE MAINTAINING AGENCY FOLLOWING ACCEPTANCE OF THE EQUIPMENT.

THE COST OF GUARANTEEING THE TRAFFIC CONTROL SYSTEM WILL BE INCIDENTAL TO AND INCLUDED IN THE CONTRACT UNIT PRICE OF THE VARIOUS ITEMS MAKING UP THE SYSTEM.

GROUNDING AND BONDING

THE REQUIREMENTS OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS (C&MS) AND THE TC SERIES OF STANDARD CONSTRUCTION DRAWINGS ARE MODIFIED AS FOLLOWS:

1. ALL METALLIC PARTS CONTAINING ELECTRICAL CONDUCTORS SHALL BE PERMANENTLY JOINED TO FORM AN EFFECTIVE GROUND FAULT CURRENT PATH BACK TO THE GROUNDED CONDUCTOR IN THE POWER SERVICE DISCONNECT SWITCH. A. PROVIDE AN EQUIPMENT GROUNDING CONDUCTOR IN METALLIC CONDUITS (725.04) IN ADDITION TO THE CONDUCTORS SPECIFIED AND BOND THE CONDUIT TO THIS GROUNDING CONDUCTOR.

B. WHEN AN EQUIPMENT GROUNDING CONDUCTOR IS REQUIRED IN PLASTIC CONDUIT (725.05), THE INSTALLATION SHALL INCLUDE A SEPARATE EQUIPMENT GROUNDING CONDUCTOR IN ADDITION TO THE CONDUCTORS SPECIFIED.

C. METALLIC CONDUIT CARRYING THE LOOP WIRES FROM IN THE PAVEMENT TO THE PULL BOX SPLICE LOCATION WILL ONLY BE BONDED AT THE PULL BOX END, AND WILL NOT CONTAIN AN EQUIPMENT GROUNDING CONDUCTOR.

D. IF MULTIPLE CONDUIT RUNS BEGIN AND END AT THE SAME POINTS, ONLY ONE EQUIPMENT GROUNDING CONDUCTOR IS REQUIRED.

E. IF AN EQUIPMENT GROUNDING CONDUCTOR IS NEEDED IN CONDUIT BETWEEN SIGNALIZED INTERSECTIONS FOR UNDERGROUND INTERCONNECT CABLE, THE GROUNDING SYSTEM FOR EACH SIGNALIZED INTERSECTION WILL BE SEPARATED ABOUT MIDWAY BETWEEN THE INTERSECTIONS.

F. THE MESSENGER WIRE AT SIGNALIZED INTERSECTIONS WILL BE USED AS THE CONDUCTIVE PATH FROM CORNER TO CORNER IF CONDUIT IS NOT PROVIDED UNDER THE ROADWAY. WHEN CONDUIT CONNECTS THE CORNERS OF AN INTERSECTION, AN EQUIPMENT GROUNDING CONDUCTOR SHALL BE USED IN THE CONDUIT.

2. CONDUITS. A. THE 725.04 CONDUIT SHALL HAVE GROUNDING BUSHINGS INSTALLED AT ALL TERMINATION POINTS. THE BUSHING MATERIAL SHALL BE COMPATIBLE WITH GALVANIZED STEEL CONDUIT AND THE GROUNDING LUG MATERIAL SHALL BE COMPATIBLE FOR USE WITH COPPER WIRE. THREADED OR COMPRESSION TYPE BUSHINGS MAY BE USED.

B. THE 725.05 CONDUIT SHALL HAVE THE INSIDE AND OUTSIDE DIAMETERS OF THE CONDUIT DEBURRED AT ALL TERMINATION POINTS.

C. BOTH ENDS OF METALLIC CONDUIT SHALL BE BONDED TO THE EQUIPMENT GROUNDING CONDUCTOR.

D. METALLIC CONDUIT MAY BE BONDED TO METALLIC BOXES THROUGH THE USE OF CONDUIT FITTINGS UL APPROVED FOR THIS TYPE OF CONNECTION, WITH THE BOX BONDED TO THE EQUIPMENT GROUNDING CONDUCTOR.

3. WIRE FOR GROUNDING AND BONDING A. USE INSULATED, COPPER WIRE FOR THE EQUIPMENT GROUNDING CONDUCTOR. BONDING JUMPERS IN BOXES AND ENCLOSURES MAY BE BARE OR INSULATED COPPER WIRE. WIRE SIZE SHALL BE AS FOLLOWS:

- I. USE 4 AWG BETWEEN THE POWER SERVICE AND SUPPORTS, POLES, PEDESTALS, CONTROLLER OR FLASHER CABINETS.
- II. USE A MINIMUM 8 AWG BETWEEN LOOP DETECTOR PULL BOXES AND THE FIRST CONDUIT THAT REQUIRES A LARGER SIZE AS SPECIFIED IN 3.A.I ABOVE.
- III. USE A MINIMUM 8 AWG BETWEEN THE "PREPARE TO STOP WHEN FLASHING" INSTALLATION (INCLUDING SUPPORT) AND THE FIRST CONDUIT THAT REQUIRES A LARGER SIZE AS SPECIFIED IN 3.A.I ABOVE.
- IV. THE INSULATION SHALL BE GREEN OR GREEN WITH YELLOW STRIPE(S). FOR 4 AWG OR LARGER, INSULATION MAY ALSO BE BLACK WITH GREEN TAPE/LABELS INSTALLED AT ALL ACCESS POINTS.

B. IN A HIGHWAY LIGHTING SYSTEM, THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE THE SAME WIRE SIZE AS THE DUCT CABLE OR DISTRIBUTION CABLE CIRCUIT CONDUCTORS, WITH THE MINIMUM CONDUCTOR SIZE OF 4 AWG. BONDING JUMPERS WILL BE MINIMUM SIZE 4 AWG.

4. GROUND ROD.
 A. A 3/4-INCH SCHEDULE 40 PVC CONDUIT WILL BE USED IN FOUNDATIONS AND CONCRETE WALLS FOR THE GROUNDING CONDUCTOR (GROUND WIRE) RACEWAY TO THE GROUND ROD. SHOULD METALLIC CONDUIT BE USED, BOTH ENDS OF THE CONDUIT SHALL BE BONDED TO THE GROUNDING CONDUCTOR.

B. THE TYPICAL GROUNDING CONDUCTOR (GROUND WIRE) SHALL BE 4 AWG INSULATED, COPPER.

5. THE GREEN CONDUCTOR IN SIGNAL CABLES (CONDUCTOR No.4) SHALL NOT BE USED TO SUPPLY POWER TO A SIGNAL INDICATION. IT WILL BE CONNECTED TO THE SIGNAL BODY AS AN EQUIPMENT GROUND IN ALUMINUM HEADS AND IT WILL BE UNUSED IN PLASTIC HEADS. UNUSED CONDUCTORS SHALL BE GROUNDED IN THE CABINET. TYPICAL USE OF CONDUCTORS IS AS FOLLOWS:

COND. NO./	COLOR/	VEHICLE SIGNAL/	PED SIGNAL
1/	BLACK/	GREEN BALL/	NO.1 WALK
2/	WHITE/	AC NEUTRAL/	AC NEUTRAL
3/	RED/	RED BALL/	NO.1 DW/FDW
4/	GREEN/	EQUIPMENT GROUND/	EQUIPMENT GROUND
5/	ORANGE/	YELLOW BALL/	NO.2 DW FDW
6/	BLUE/GRN	ARROW/	NO.2 WALK
7/	WHITE W/ BLK STRIPE	YELLOW ARROW/	NOT USED

6. POWER AND DISCONNECT SWITCH.
 A. AT THE POWER SERVICE LOCATION, THE GROUNDING CONDUCTOR (GROUND WIRE) FROM THE DISCONNECT SWITCH NEUTRAL (AC-) BAR TO THE GROUND ROD SHALL BE A CONTINUOUS, UNSPLICED CONDUCTOR. IF SPLICED, IT SHALL BE AN EXOTHERMIC WELD BUTT SPLICE.

B. THE SERVICE NEUTRAL (AC-) SHALL ONLY BE CONNECTED TO GROUND AT THE PRIMARY POWER SERVICE DISCONNECT SWITCH.
 I. NEMA CONTROLLER CABINETS: IF A POWER SERVICE DISCONNECT SWITCH IS LOCATED BEFORE THE CONTROLLER CABINET, THE NEUTRAL (AC-) AND THE GROUNDING BARS IN THE CONTROLLER CABINET SHALL NOT BE CONNECTED TOGETHER AS SHOWN IN NEMA TS-2, FIGURE 5-4.
 II. IF SECONDARY DISCONNECT SWITCHES ARE CONNECTED AFTER THE PRIMARY DISCONNECT SWITCH, THE NEUTRAL (AC-) SHALL ONLY BE GROUNDED AT THE PRIMARY SWITCH. EQUIPMENT GROUNDING CONDUCTORS SHALL BE BROUGHT TO THE PRIMARY SWITCH, BUT SHALL BE GROUNDED AT BOTH SECONDARY AND PRIMARY SWITCHES.

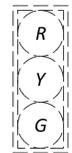
7. PAYMENT – ALL MATERIALS AND WORK REQUIRED TO COMPLETE THE EFFECTIVE GROUND FAULT CURRENT PATH SYSTEM ARE INCIDENTAL TO THE CONDUCTORS INSTALLED BY CONTRACT.

SIGNAL NOTES



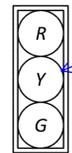
DESIGNER	GSH
REVIEWER	SAK
PROJECT ID	09/18/25
SHEET	123369
TOTAL	P.95 104

SIGNAL HEADS



EX. SIGNAL HEAD

4A, 4B, 8A, 8B



REUSED SIGNAL HEAD (SEE NOTE 1)

2A, 2B, 6A, 6B



EX. PEDESTRIAN SIGNAL HEAD

P2, P5, P6



PR. PEDESTRIAN SIGNAL HEAD

P1, P3, P4

It looks like all heads are mounted on green, do not have backplates and are yellow in color. This may be a typical comment for all signals

For existing heads not impacted by project, why is new head proposed? They look like type D2 countdown already. Typ comment

725.051 PVC can be used, unless this is a City requirement. Typ comment

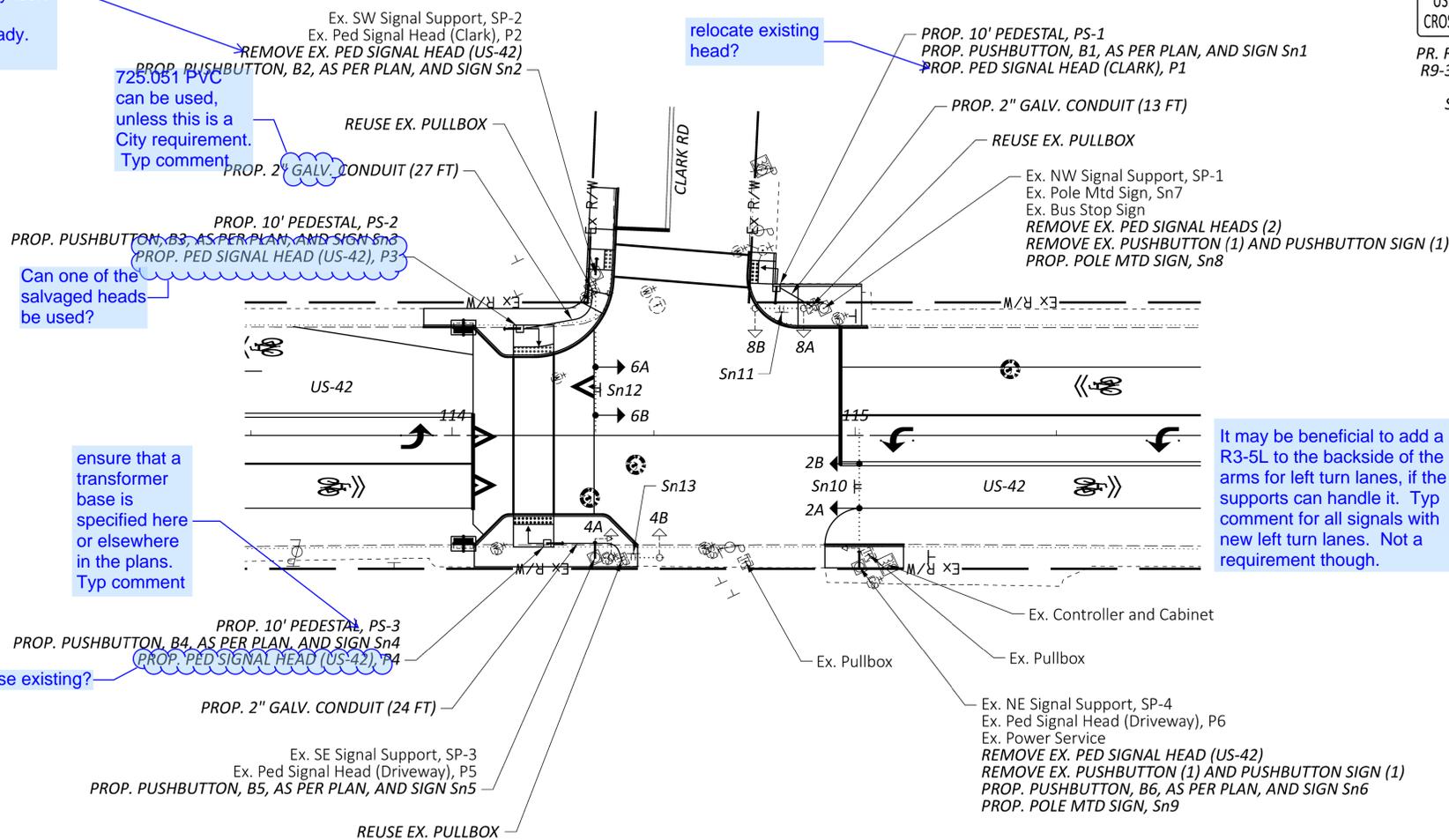
Can one of the salvaged heads be used?

ensure that a transformer base is specified here or elsewhere in the plans. Typ comment

Reuse existing?

relocate existing head?

It may be beneficial to add a R3-5L to the backside of the arms for left turn lanes, if the supports can handle it. Typ comment for all signals with new left turn lanes. Not a requirement though.



NOTES:

1. CONTRACTOR TO RELOCATE EXISTING SIGNAL HEADS TO BE CENTERED ABOVE THE CENTERLINE OR EDGE LINE.
2. EXISTING SIGNAL EQUIPMENT NOT AFFECTED BY SIGNAL WORK SHALL NOT BE DISTURBED UNLESS NOTED OTHERWISE.
3. SIGNAL PHASING SHOWN IS BASED ON RECORD PLANS AND FOR REFERENCE ONLY, EXISTING SIGNAL PHASING SHALL BE RETAINED.

REMOVAL OF TRAFFIC SIGNAL ITEMS FOR STORAGE:

PUSHBUTTON	(2)
PUSHBUTTON SIGN	(2)
PED SIGNAL HEAD	(4)

SIGNS



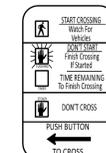
PR. R10-3E-9

Sn3, Sn4, Sn5, Sn6



PR. R9-3-18 R9-3BP-18

Sn8



PR. R10-3E-9

Sn1, Sn2



PR. R9-3-18 R9-3BP-18

Sn9



EX. SPECIAL SIGN

Sn7

READING RD

EX. D3-1

Sn11, Sn13

CLARK RD

REUSED EX. D3-1

Sn10, Sn12

LEGEND

	PR./REUSED	EX.
TRAFFIC SIGNAL, 2 UNIT, 3 UNIT, OR PHB HEAD, 12"		
TRAFFIC SIGNAL, 3 UNIT HEAD, 12", WITH ARROWS		
TRAFFIC SIGNAL, 4 OR 5 UNIT HEAD, 12"		
SIGNAL SUPPORT POLE		
PEDESTRIAN HEAD		
PEDESTRIAN PUSH BUTTON		
PEDESTAL SUPPORT		
CONTROLLER		
TRAFFIC PULL BOX		



**SIGNAL PLAN
US-42 AT CLARK RD**

DESIGN AGENCY
CMT
 CMT ENGINEERING, INC.
 1777 WASHINGTON VILLAGE DR
 DAYTON, OHIO 45424
 www.cmteng.com

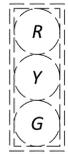
DESIGNER
 GSH

REVIEWER
 SAK 09/18/25

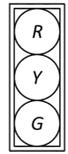
PROJECT ID
 123369

SHEET TOTAL
 P.96 104

SIGNAL HEADS



EX. SIGNAL HEAD
4A, 4B, 8A, 8B



REUSED SIGNAL HEAD (SEE NOTE 1)
2A, 2B, 6A, 6B



EX. PEDESTRIAN SIGNAL HEAD
P1, P2, P5, P6



PR. PEDESTRIAN SIGNAL HEAD
P3, P4

SIGNS



PR. R10-3E-9
Sn1, Sn2, Sn4, Sn5



PR. R10-3E-9
Sn3, Sn6



EX. D3-1
Sn10, Sn12



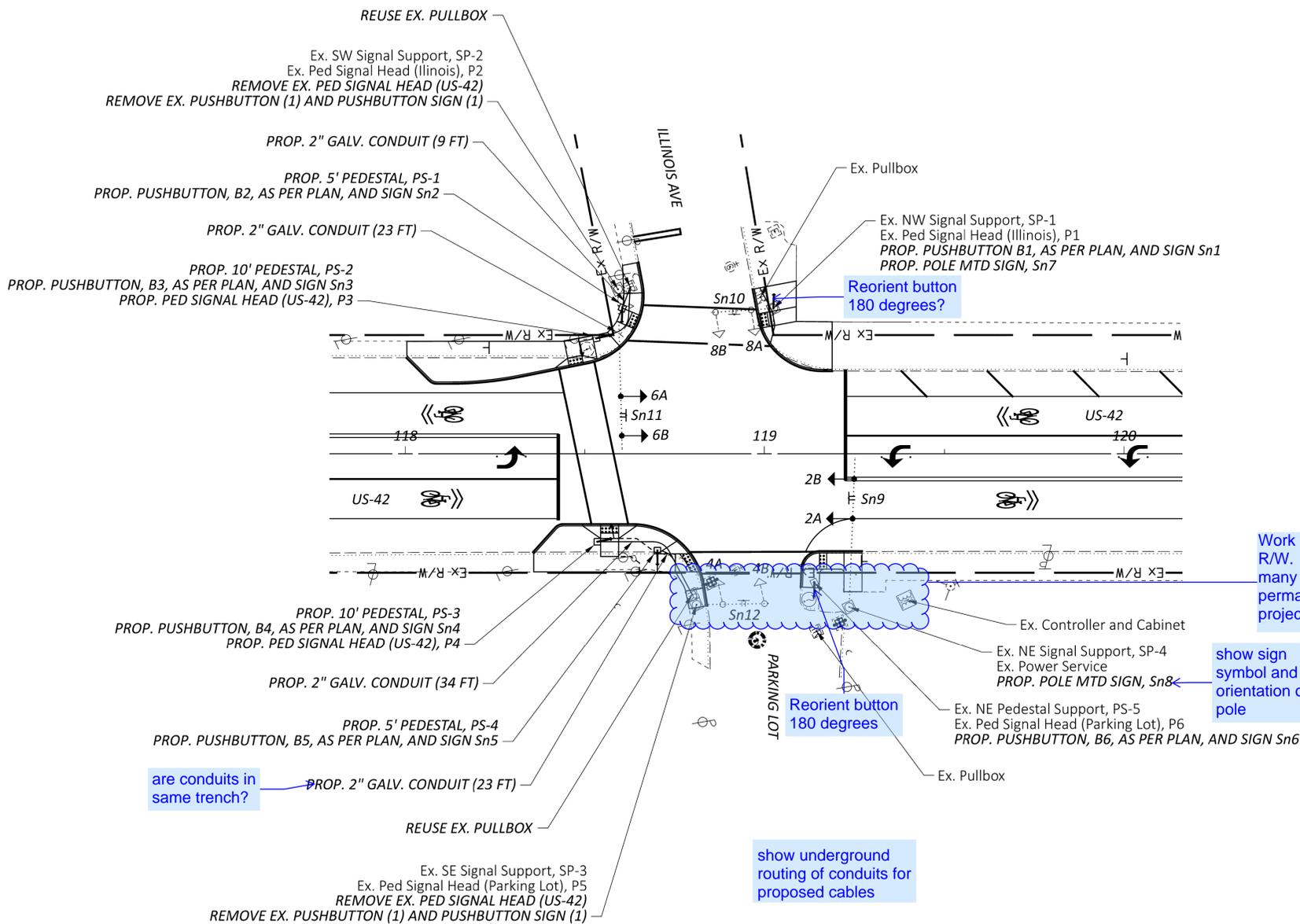
PR. R9-3-18
R9-3BP-18
Sn7



PR. R9-3-18
R9-3BP-18
Sn8



REUSED EX. D3-1
Sn9, Sn11



REMOVAL OF TRAFFIC SIGNAL ITEMS FOR STORAGE:
 PUSHBUTTON (2)
 PUSHBUTTON SIGN (2)
 PED SIGNAL HEAD (2)

Work and existing equipment is outside R/W. This seems to be the case for many signals on the project. Will permanent R/W be purchased with the project? Typ comment

show sign symbol and orientation on pole

show underground routing of conduits for proposed cables

are conduits in same trench?

- NOTES:**
1. CONTRACTOR TO RELOCATE EXISTING SIGNAL HEADS TO BE CENTERED ABOVE THE CENTERLINE OR EDGE LINE.
 2. EXISTING SIGNAL EQUIPMENT NOT AFFECTED BY SIGNAL WORK SHALL NOT BE DISTURBED UNLESS NOTED OTHERWISE.
 3. SIGNAL PHASING SHOWN IS BASED ON RECORD PLANS AND FOR REFERENCE ONLY. EXISTING SIGNAL PHASING SHALL BE RETAINED.

LEGEND

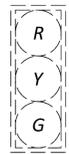
	PR./REUSED	EX.
TRAFFIC SIGNAL, 2 UNIT, 3 UNIT, OR PHB HEAD, 12"		
TRAFFIC SIGNAL, 3 UNIT HEAD, 12", WITH ARROWS		
TRAFFIC SIGNAL, 4 OR 5 UNIT HEAD, 12"		
SIGNAL SUPPORT POLE		
PEDESTRIAN HEAD		
PEDESTRIAN PUSH BUTTON		
PEDESTAL SUPPORT		
CONTROLLER		
TRAFFIC PULL BOX		

SIGNAL PLAN
US-42 AT ILLINOIS AVE

DESIGN AGENCY
CMT
 CMT ENGINEERING
 1777 WASHINGTON VILLAGE DR
 DAYTON, OHIO 45459
 www.cmtengr.com

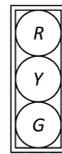
DESIGNER
GSH
 REVIEWER
SAK 09/18/25
 PROJECT ID
123369
 SHEET TOTAL
P.97 104

SIGNAL HEADS



EX. SIGNAL HEAD

4A, 4B, 6C, 8A, 8B



REUSED SIGNAL HEAD (SEE NOTE 1)

2A, 2B, 6A, 6B



EX. PEDESTRIAN SIGNAL HEAD

P1, P2, P3, P4
P5, P6, P7, P8

SIGNS



PR. R10-3E-9

Sn1, Sn3, Sn7



PR. R10-3E-9

Sn2, Sn4, Sn5, Sn6, Sn8



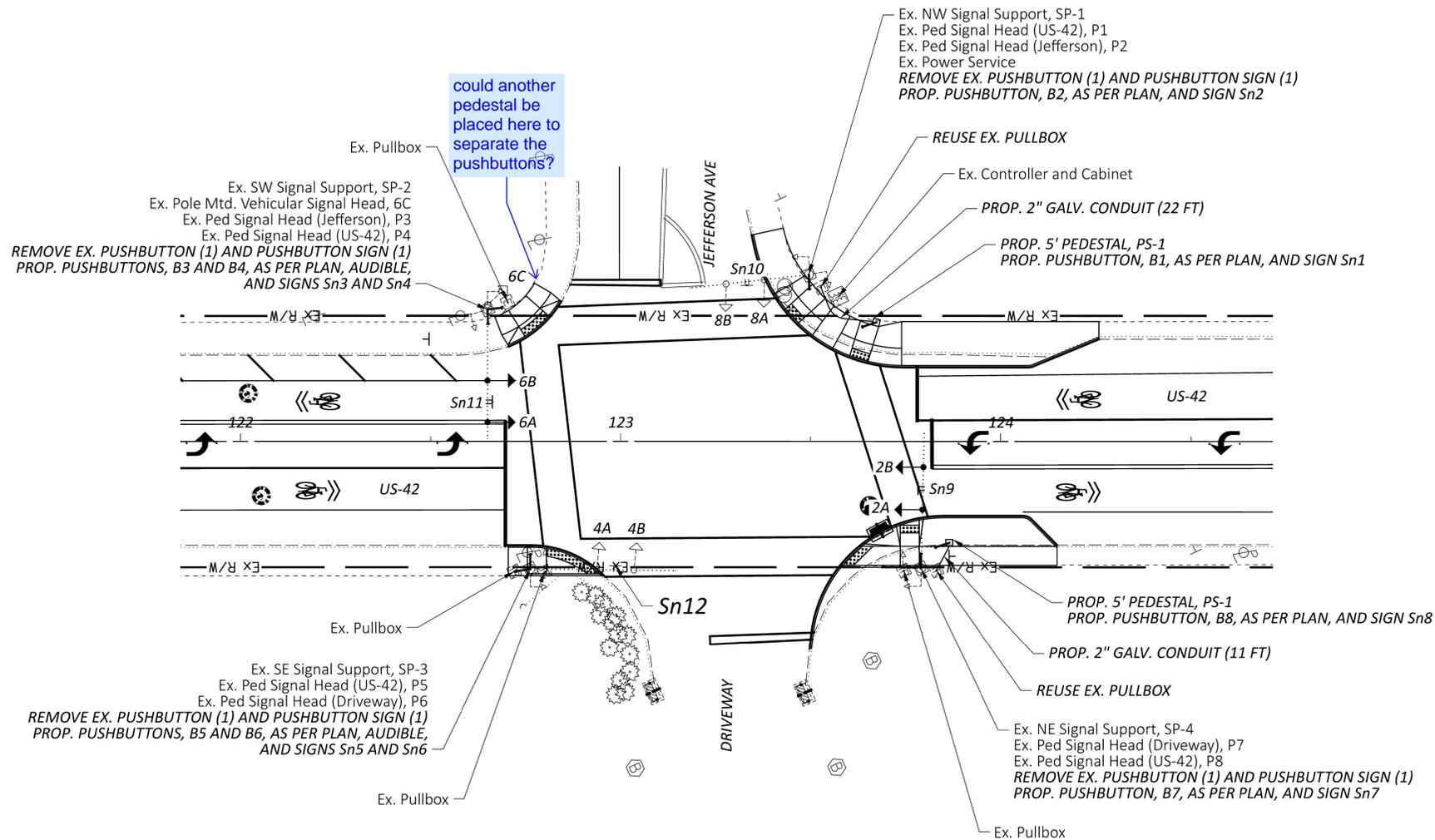
EX. D3-1

Sn10, Sn12



REUSED EX. D3-1

Sn9, Sn11



REMOVAL OF TRAFFIC SIGNAL ITEMS FOR STORAGE:

- PUSHBUTTON (2)
- PUSHBUTTON SIGN (2)

LEGEND

	PR./REUSED	EX.
TRAFFIC SIGNAL, 2 UNIT, 3 UNIT, OR PHB HEAD, 12"	→	○→
TRAFFIC SIGNAL, 3 UNIT HEAD, 12", WITH ARROWS	→	○→
TRAFFIC SIGNAL, 4 OR 5 UNIT HEAD, 12"	→	○→
SIGNAL SUPPORT POLE	■	□
PEDESTRIAN HEAD	↓	○↓
PEDESTRIAN PUSH BUTTON	—	—
PEDESTAL SUPPORT	□	□
CONTROLLER	⊠	⊠
TRAFFIC PULL BOX	⊞	⊞

NOTES:

1. CONTRACTOR TO RELOCATE EXISTING SIGNAL HEADS TO BE CENTERED ABOVE THE CENTERLINE OR EDGE LINE.
2. EXISTING SIGNAL EQUIPMENT NOT AFFECTED BY SIGNAL WORK SHALL NOT BE DISTURBED UNLESS NOTED OTHERWISE.
3. SIGNAL PHASING SHOWN IS BASED ON RECORD PLANS AND FOR REFERENCE ONLY, EXISTING SIGNAL PHASING SHALL BE RETAINED.

SIGNAL PLAN
US-42 AND JEFFERSON AVE

DESIGN AGENCY
CMT
 CIVIL ENGINEERING
 1777 WASHINGTON VILLAGE DR
 DAYTON, OHIO 45459
 www.cmtengr.com

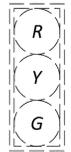
DESIGNER
 GSH

REVIEWER
 SAK 09/18/25

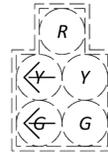
PROJECT ID
 123369

SHEET TOTAL
 P.98 | 104

SIGNAL HEADS



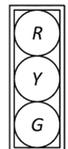
EX. SIGNAL HEAD
4B, 8A



EX. SIGNAL HEAD
4A, 8B

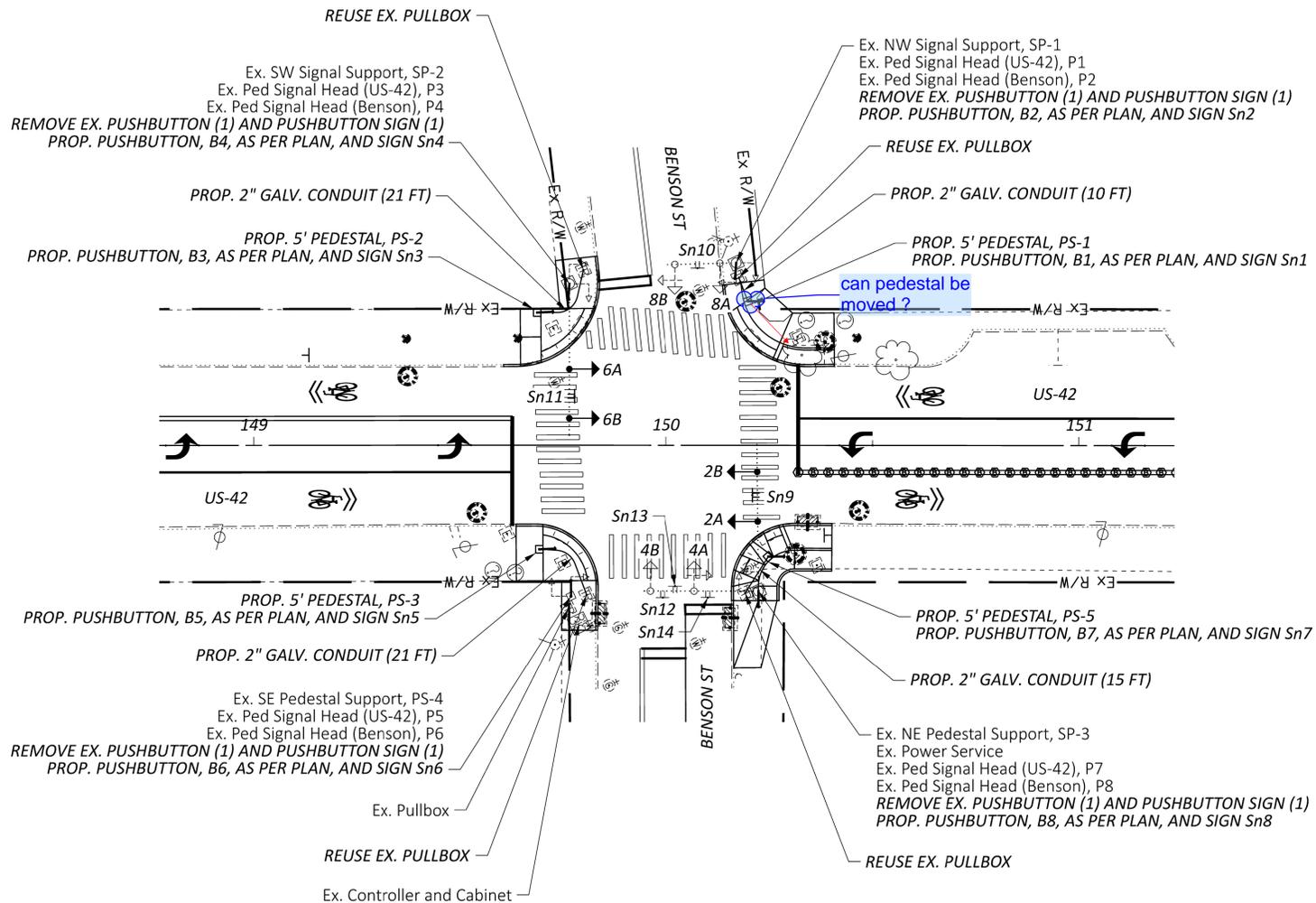


EX. PEDESTRIAN SIGNAL HEAD
P1, P2, P3, P4, P5, P6, P7, P8



REUSED SIGNAL HEAD (SEE NOTE 1)
2A, 2B, 6A, 6B

- NOTES:**
- CONTRACTOR TO RELOCATE EXISTING SIGNAL HEADS TO BE CENTERED ABOVE THE CENTERLINE OR EDGE LINE.
 - EXISTING SIGNAL EQUIPMENT NOT AFFECTED BY SIGNAL WORK SHALL NOT BE DISTURBED UNLESS NOTED OTHERWISE.
 - SIGNAL PHASING SHOWN IS BASED ON RECORD PLANS AND FOR REFERENCE ONLY, EXISTING SIGNAL PHASING SHALL BE RETAINED.



REMOVAL OF TRAFFIC SIGNAL ITEMS FOR STORAGE:

- PUSHBUTTON (4)
- PUSHBUTTON SIGN (4)

SIGNS

PR. R10-3E-9
Sn4, Sn5, Sn7

PR. R10-3E-9
Sn1, Sn2, Sn3, Sn6, Sn8

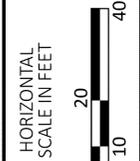
EX. D3-1
Sn10, Sn13

ONLY
EX. R3-5L
Sn12

EX. R3-6R
Sn14

READING RD
EX. D3-1
Sn10, Sn13

BENSON ST
REUSED
EX. D3-1
Sn9, Sn11



**SIGNAL PLAN
US-42 AT BENSON ST**

LEGEND

	PR./REUSED	EX.
TRAFFIC SIGNAL, 2 UNIT, 3 UNIT, OR PHB HEAD, 12"	→	○→
TRAFFIC SIGNAL, 3 UNIT HEAD, 12", WITH ARROWS	→	○→
TRAFFIC SIGNAL, 4 OR 5 UNIT HEAD, 12"	→	○→
SIGNAL SUPPORT POLE	■	□
PEDESTRIAN HEAD	↓	○↓
PEDESTRIAN PUSH BUTTON	—	—
PEDESTAL SUPPORT	□	□
CONTROLLER	⊗	⊗
TRAFFIC PULL BOX	▣	▣

DESIGN AGENCY
CMT
 CMT ENGINEERING & CONSULTING
 1777 WASHINGTON VILLAGE DR
 DAYTON, OHIO 45424
 www.cmteng.com

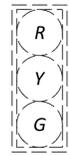
DESIGNER
GSH

REVIEWER
SAK 09/18/25

PROJECT ID
123369

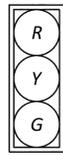
SHEET TOTAL
P.99 | 104

SIGNAL HEADS



EX. SIGNAL HEAD

4A, 4B, 8A, 8B



REUSED SIGNAL HEAD (SEE NOTE 1)

2A, 2B, 6A, 6B



EX. PEDESTRIAN SIGNAL HEAD

P2, P3, P6, P7, P8



PR. PEDESTRIAN SIGNAL HEAD

P1, P4, P5

NOTES:

1. CONTRACTOR TO RELOCATE EXISTING SIGNAL HEADS TO BE CENTERED ABOVE THE CENTERLINE OR EDGE LINE.
2. EXISTING SIGNAL EQUIPMENT NOT AFFECTED BY SIGNAL WORK SHALL NOT BE DISTURBED UNLESS NOTED OTHERWISE.
3. SIGNAL PHASING SHOWN IS BASED ON RECORD PLANS AND FOR REFERENCE ONLY, EXISTING SIGNAL PHASING SHALL BE RETAINED.

SIGNS



PR. R10-3E-9

Sn1, Sn2, Sn8



PR. R10-3E-9

Sn3, Sn4, Sn5, Sn6, Sn7



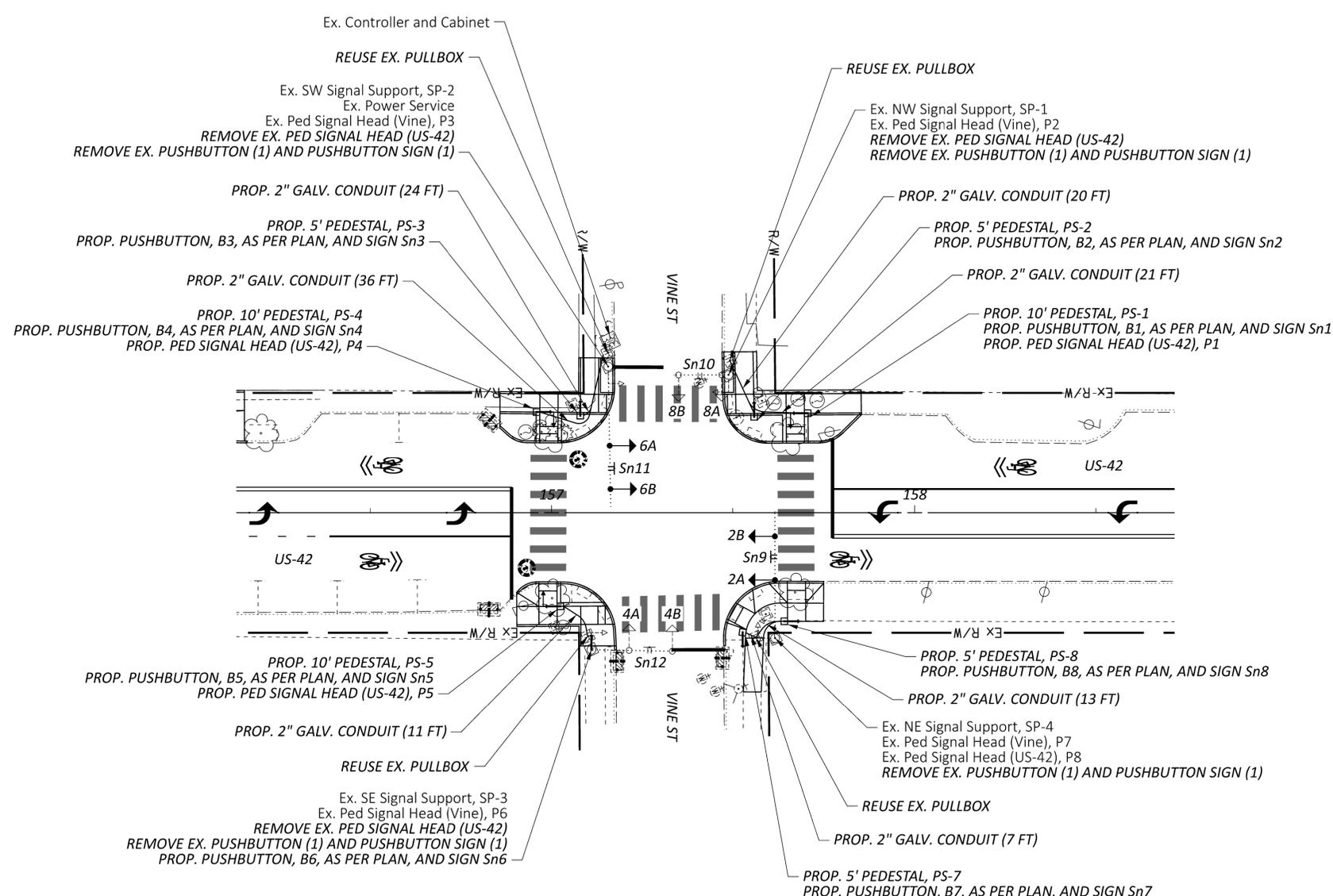
EX. D3-1

Sn10, Sn12



REUSED EX. D3-1

Sn9, Sn11



REMOVAL OF TRAFFIC SIGNAL ITEMS FOR STORAGE:

PUSHBUTTON	(4)
PUSHBUTTON SIGN	(4)
PEDESTAL HEAD	(3)

LEGEND

	PR./REUSED	EX.
TRAFFIC SIGNAL, 2 UNIT, 3 UNIT, OR PHB HEAD, 12"		
TRAFFIC SIGNAL, 3 UNIT HEAD, 12", WITH ARROWS		
TRAFFIC SIGNAL, 4 OR 5 UNIT HEAD, 12"		
SIGNAL SUPPORT POLE		
PEDESTRIAN HEAD		
PEDESTRIAN PUSH BUTTON		
PEDESTAL SUPPORT		
CONTROLLER		
TRAFFIC PULL BOX		

**SIGNAL PLAN
US-42 AT VINE ST**

DESIGN AGENCY
CMT
 CMT ENGINEERING & CONSULTING
 1777 WASHINGTON VILLAGE DR
 DAYTON, OHIO 45459
 www.cmtengr.com

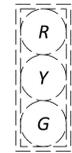
DESIGNER
GSH

REVIEWER
SAK 09/18/25

PROJECT ID
123369

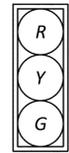
SHEET TOTAL
P.100 | 104

SIGNAL HEADS



EX. SIGNAL HEAD

4A, 4B, 8A, 8B



REUSED SIGNAL HEAD (SEE NOTE 1)

2A, 2B, 6A, 6B



EX. PEDESTRIAN SIGNAL HEAD

P1, P2, P3, P4, P5, P6, P7, P8

SIGNS



PR. R10-3E-9

Sn2, Sn7, Sn8



PR. R10-3E-9

Sn1, Sn3, Sn4, Sn5, Sn6



READING RD

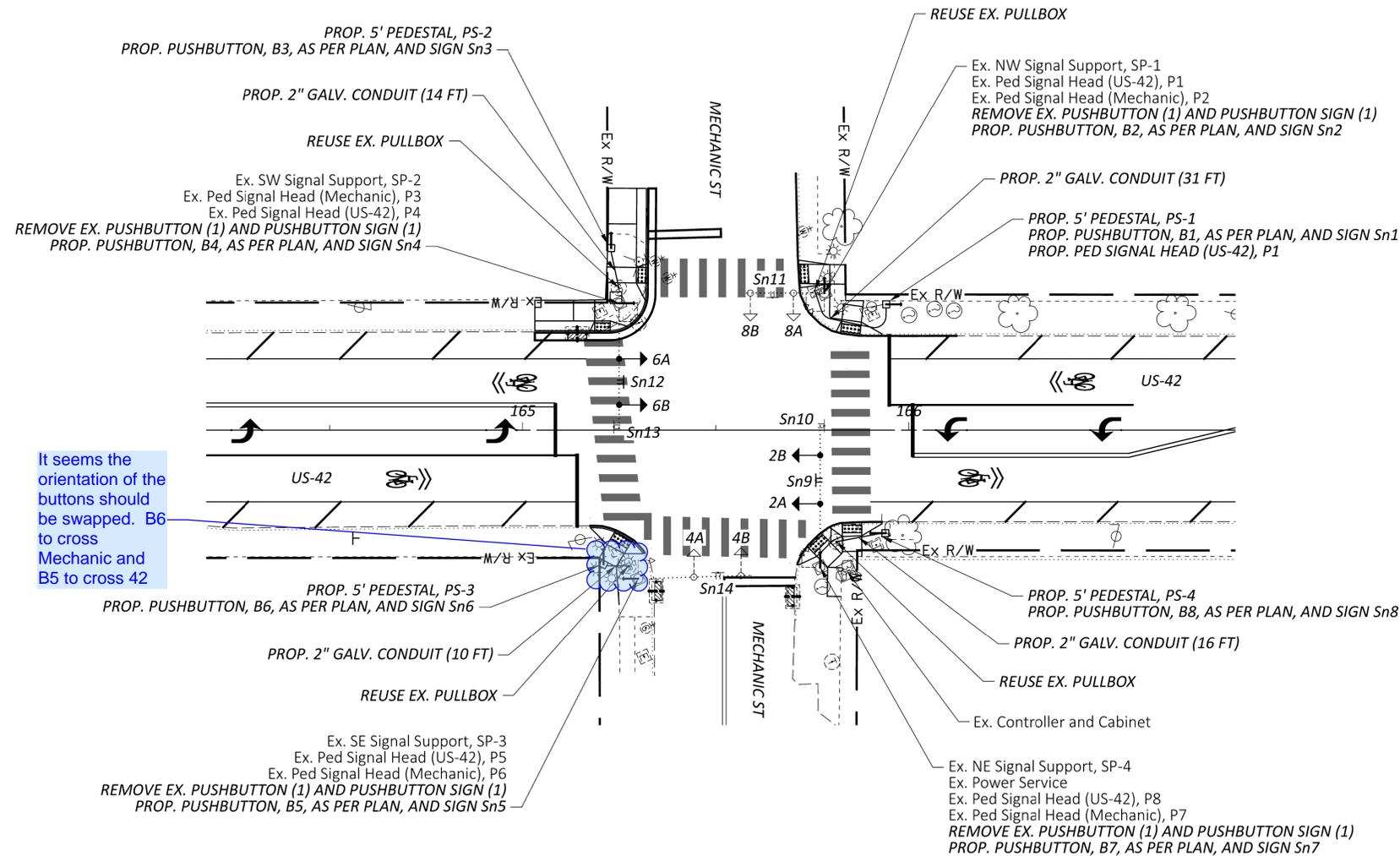
EX. D3-1

Sn11, Sn14

MECHANIC ST

REUSED EX. D3-1

Sn9, Sn12



It seems the orientation of the buttons should be swapped. B6 to cross Mechanic and B5 to cross 42

REMOVAL OF TRAFFIC SIGNAL ITEMS FOR STORAGE:
 PUSHBUTTON (4)
 PUSHBUTTON SIGN (4)

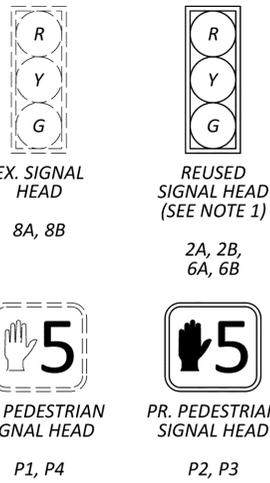
- NOTES:**
1. CONTRACTOR TO RELOCATE EXISTING SIGNAL HEADS TO BE CENTERED ABOVE THE CENTERLINE OR EDGE LINE.
 2. EXISTING SIGNAL EQUIPMENT NOT AFFECTED BY SIGNAL WORK SHALL NOT BE DISTURBED UNLESS NOTED OTHERWISE.
 3. SIGNAL PHASING SHOWN IS BASED ON RECORD PLANS AND FOR REFERENCE ONLY, EXISTING SIGNAL PHASING SHALL BE RETAINED.

LEGEND		
TRAFFIC SIGNAL, 2 UNIT, 3 UNIT, OR PHB HEAD, 12"	PR./REUSED	EX.
TRAFFIC SIGNAL, 3 UNIT HEAD, 12", WITH ARROWS		
TRAFFIC SIGNAL, 4 OR 5 UNIT HEAD, 12"		
SIGNAL SUPPORT POLE		
PEDESTRIAN HEAD		
PEDESTRIAN PUSH BUTTON		
PEDESTAL SUPPORT		
CONTROLLER		
TRAFFIC PULL BOX		

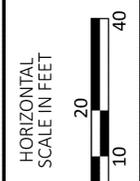
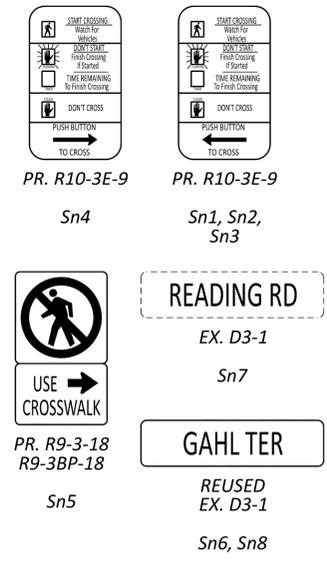
SIGNAL PLAN
 US-42 AT MECHANIC ST

DESIGN AGENCY	CMT
DESIGNER	GSH
REVIEWER	SAK
PROJECT ID	123369
SHEET	P.101
TOTAL	104

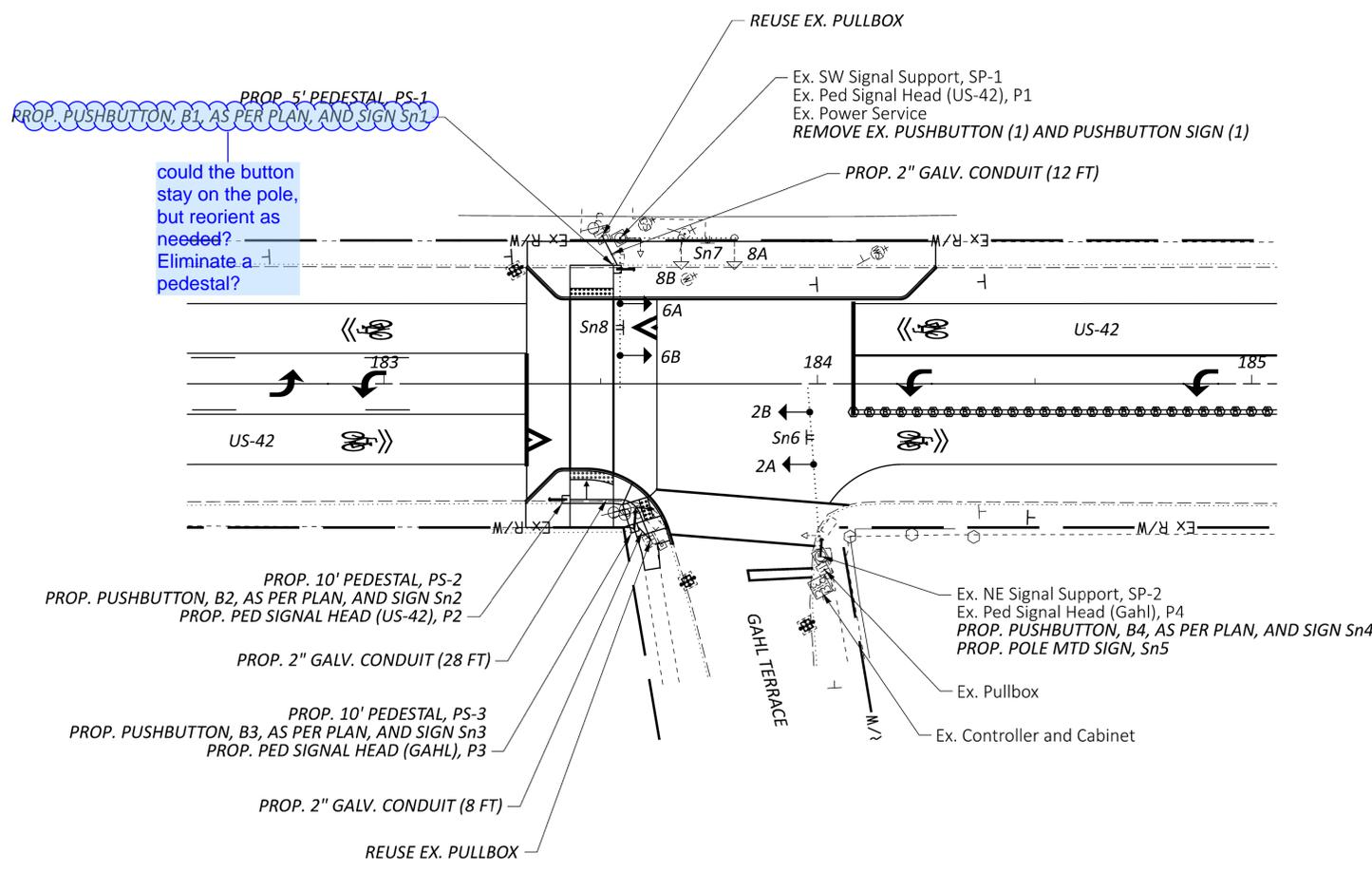
SIGNAL HEADS



SIGNS



- NOTES:**
1. CONTRACTOR TO RELOCATE EXISTING SIGNAL HEADS TO BE CENTERED ABOVE THE CENTERLINE OR EDGE LINE.
 2. EXISTING SIGNAL EQUIPMENT NOT AFFECTED BY SIGNAL WORK SHALL NOT BE DISTURBED UNLESS NOTED OTHERWISE.
 3. SIGNAL PHASING SHOWN IS BASED ON RECORD PLANS AND FOR REFERENCE ONLY, EXISTING SIGNAL PHASING SHALL BE RETAINED.



- REMOVAL OF TRAFFIC SIGNAL ITEMS FOR STORAGE:**
- PUSHBUTTON (2)
 - PUSHBUTTON SIGN (2)
 - PED SIGNAL HEAD (2)
 - PEDSTAL (1)

LEGEND

	PR./REUSED	EX.
TRAFFIC SIGNAL, 2 UNIT, 3 UNIT, OR PHB HEAD, 12"	→	○→
TRAFFIC SIGNAL, 3 UNIT HEAD, 12", WITH ARROWS	→	○→
TRAFFIC SIGNAL, 4 OR 5 UNIT HEAD, 12"	→	○→
SIGNAL SUPPORT POLE	■	□
PEDESTRIAN HEAD	↓	○↓
PEDESTRIAN PUSH BUTTON	—	—
PEDESTAL SUPPORT	□	□
CONTROLLER	⊗	⊗
TRAFFIC PULL BOX	⊞	⊞

**SIGNAL PLAN
US-42 AT GAHL TERRACE**

DESIGN AGENCY
CMT
 CRAWFORD, MURPHY & TAYLOR
 1777 WASHINGTON VILLAGE DR
 DAYTON, OHIO 45459
 www.cmtmtr.com

DESIGNER
GSH

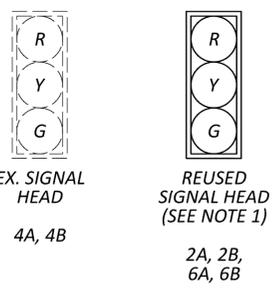
REVIEWER
SAK 09/18/25

PROJECT ID
123369

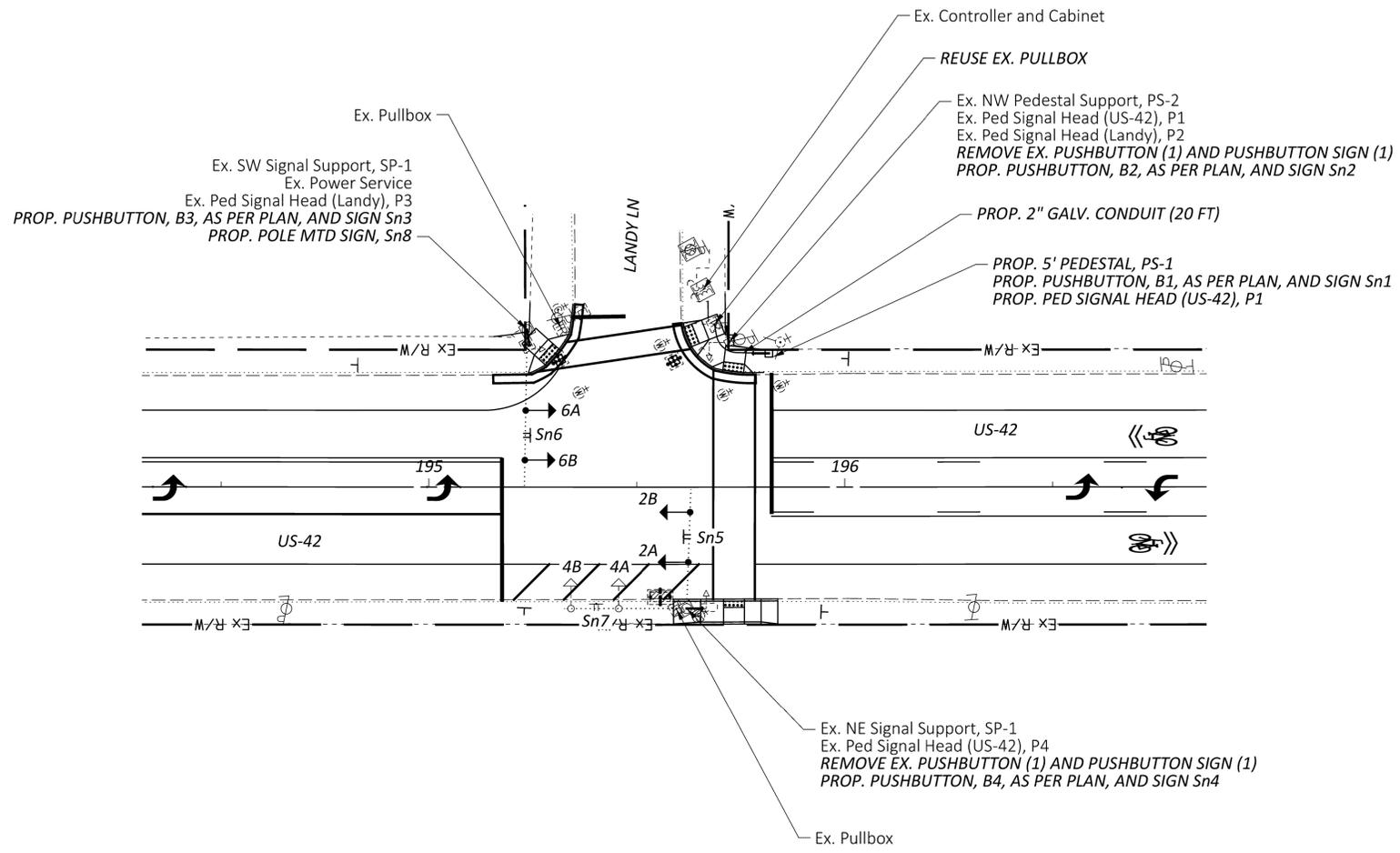
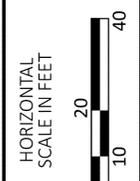
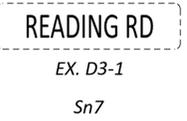
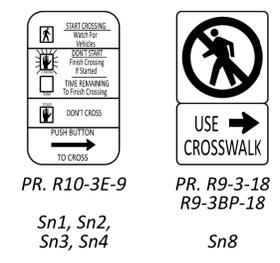
SHEET TOTAL
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MODEL: 123369_CP109 PAPER SIZE: 34x22 (in.) DATE: 9/18/2025 TIME: 3:42:32 PM PLTDRV: OHDOT_PDF.plt PENTBL: OHDOT_Pen.tbl USER: jlockhart@cmtengr.com WORKSPACE: ODOT 2024 WORKSET: 123369_PRODUCT: OpenRoadsDesigner 24.00.00.205
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SIGNAL HEADS



SIGNS



REMOVAL OF TRAFFIC SIGNAL ITEMS FOR STORAGE:

- PUSHBUTTON (2)
- PUSHBUTTON SIGN (2)

- NOTES:**
- CONTRACTOR TO RELOCATE EXISTING SIGNAL HEADS TO BE CENTERED ABOVE THE CENTERLINE OR EDGE LINE.
 - EXISTING SIGNAL EQUIPMENT NOT AFFECTED BY SIGNAL WORK SHALL NOT BE DISTURBED UNLESS NOTED OTHERWISE.
 - SIGNAL PHASING SHOWN IS BASED ON RECORD PLANS AND FOR REFERENCE ONLY, EXISTING SIGNAL PHASING SHALL BE RETAINED.

LEGEND

	PR./REUSED	EX.
TRAFFIC SIGNAL, 2 UNIT, 3 UNIT, OR PHB HEAD, 12"	→	○→
TRAFFIC SIGNAL, 3 UNIT HEAD, 12", WITH ARROWS	→	○→
TRAFFIC SIGNAL, 4 OR 5 UNIT HEAD, 12"	→	○→
SIGNAL SUPPORT POLE	■	■
PEDESTRIAN HEAD	↓	↓
PEDESTRIAN PUSH BUTTON	—	—
PEDESTAL SUPPORT	□	□
CONTROLLER	⊗	⊗
TRAFFIC PULL BOX	⊞	⊞

SIGNAL PLAN
US-42 AT LANDY LN

DESIGN AGENCY

 CMT
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DESIGNER
 GSH

REVIEWER
 SAK 09/18/25

PROJECT ID
 123369

SHEET TOTAL
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