08-02-2024 LETTING ITEM 005

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	1
	ILLINOIS	CONTRACT NO. 61K52		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
PLANS FOR PROPOSED FEDERAL-AID HIGHWAY

MUN ROUTE 1370 (LAKE ROAD)
LAKE WOODBINE BRIDGE
SECTION: 12-00094-00-BR
PROJECT NO.: SEI5(774)
BRIDGE RECONSTRUCTION
LAKE COUNTY
JOB NO.: C-91-253-12

FOR HIGHWAY STANDARDS, SEE SHEETS NO. 2

TRAFFIC DATA

ROADWAY	ADT	
LAKE ROAD	2023 - 325	TRUCK - 0%
	2050 - 340	TRUCK - 0%

ROADWAY	POSTED / DESIGN SPEEDS
LAKE ROAD	25 MPH / 25 MPH
WOODBINE LANE	25 MPH / 25 MPH

ROADWAY	DESIGN DESIGNATION
LAKE ROAD	LOCAL ROAD
WOODBINE LANE	LOCAL ROAD

PROJECT SEALS

HW LOCHNER, INC.
JACOB A. NARDULLI, PE
* 062-068656
DATE: 06-05-2024
SIGNATURE AND SEAL APPLY TO SHEETS WITH COMPANY LOGO ONLY FOR SHEETS 1-21, 30-31, 79-86
EXPIRATION DATE: 11-30-2025
JACOB A. NARDULLI 062-068656 LICENSED PROFESSIONAL ENGINEER OF ILLINOIS

HW LOCHNER, INC.
JIANQING HONG, SE
* 081-006053
DATE: 06-05-2024
SIGNATURE AND SEAL APPLY TO SHEETS WITH COMPANY LOGO ONLY FOR SHEETS 33-71
EXPIRATION DATE: 11-30-2024
JIANQING HONG 081-006053 LICENSED STRUCTURAL ENGINEER OF ILLINOIS

HW LOCHNER, INC.
ANDREW W. McKENNA, PE
* 062-053651
DATE: 06-05-2024
SIGNATURE AND SEAL APPLY TO SHEETS WITH COMPANY LOGO ONLY FOR SHEETS 22-29, 32
EXPIRATION DATE: 11-30-2025
ANDREW W. McKENNA 062-053651 LICENSED PROFESSIONAL ENGINEER OF ILLINOIS

JLK ARCHITECTS
MEG KINDELIN, AIA
* 001-022030
DATE: 06-05-2024
SIGNATURE AND SEAL APPLY TO SHEETS WITH COMPANY LOGO ONLY FOR SHEETS 72-78
EXPIRATION DATE: 11-30-2024
MARGUERITE A. KINDELIN 001-022030 LICENSED ARCHITECT STATE OF ILLINOIS

100' 200' 300'— 1"= 100'
0 10' 20' 30' — 1"= 10'
0 50' 100' — 1"= 50'
0 50' 100' — 1"= 40'
0 50' 100' — 1"= 30'
0 50' 100' — 1"= 20'

FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

FEDERAL AID PROGRAM ENGINEER: CARMEN E. RAMOS, P.E., SCHAUMBURG, IL

SUPERINTENDENT OF ENGINEERING: BYRON KUTZ, P.E.
LAKE FOREST NO. (847) 810–3555
CONTRACT NO. 61K52

END IMPROVEMENT
STA. 305 + 20.00

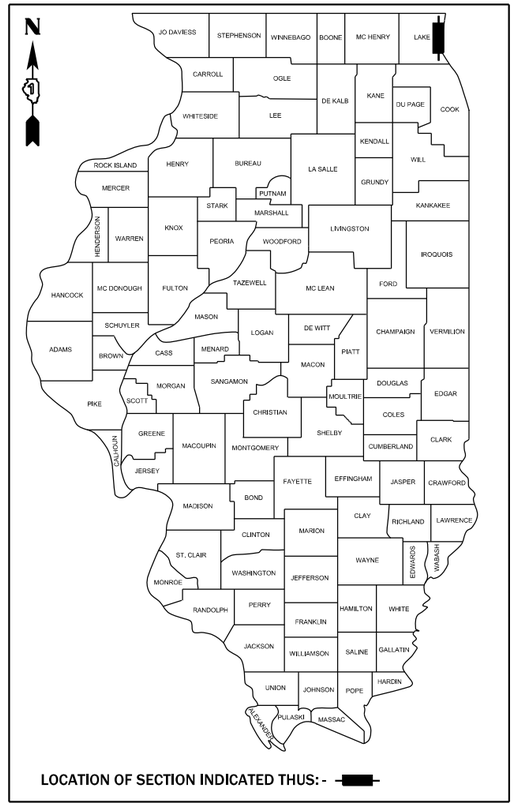
EXISTING S.N. 049–6852
PROPOSED S.N. 049–6851

BEGIN IMPROVEMENT
STA. 302 + 10

R 12 E

LOCATION MAP

GROSS LENGTH = 310 FT. = 0.06 MILES
NET LENGTH = 310 FT. = 0.06 MILES
0 0.2 MI 0.4 MI APPROXIMATE SCALE



LOCATION OF SECTION INDICATED THUS: -

Lochner
225 WEST WASHINGTON STREET 12TH FLOOR
CHICAGO, IL 60606 / 312-372-3011 (P)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

APPROVED 4/22 2024
Byron Kutz
CITY OF LAKE FOREST, SUPERINTENDENT OF ENGINEERING

PASSED May 28 2024
DISTRICT 1 ENGINEER OF LOCAL ROADS & STREETS

RELEASING FOR BID BASED ON LIMITED REVIEW May 28 2024
REGIONAL ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

INDEX OF SHEETS

IDOT HIGHWAY STANDARDS

280001-07	TEMPORARY EROSION CONTROL SYSTEMS
424001-11	PERPENDICULAR CURB RAMPS FOR SIDEWALKS
542301-03	PRECAST REINFORCED CONCRETE FLARED END SECTION
601001-05	PIPE UNDERDRAINS
601101-02	CONCRETE HEADWALL FOR PIPE UNDERDRAINS
602001-02	CATCH BASIN TYPE A
602011-02	CATCH BASIN TYPE C
602401-07	PRECAST MANHOLE TYPE A 4' (1.22 m) DIAMETER
604086-05	FRAME AND GRATE TYPE 23
606001-08	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
640001-01	SIGHT SCREEN CHAIN LINK FENCE
664001-02	CHAIN LINK FENCE
701006-05	OFF-RD OPERATIONS, 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701311-03	LANE CLOSURE 2L, 2W, MOVING OPERATIONS - DAY ONLY
701501-06	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
701801-06	SIDEWALK, CORNER OR CROSSWALK CLOSURE
701901-09	TRAFFIC CONTROL DEVICES

IDOT DISTRICT 1 STANDARDS

BD-51	BENCHING DETAIL FOR EMBANKMENT WIDENING

LAKE FOREST STANDARD DETAILS

2.03	TYPICAL CROSS-SECTION FOR STREET IMPROVEMENTS IN RESIDENTIAL AREAS
2.06	STANDARD CURB SECTIONS
2.07	RESIDENTIAL DRIVE APPROACH
2.08	STANDARD SIDEWALK RAMP
2.12	SIDEWALK DETAIL
2.16	RAISED REFLECTIVE PAVEMENT MARKERS
2.17	TYPICAL CROSSWALK
3.01	TYPE A STORM MANHOLE DETAIL
3.02	TYPE 1 LID AND FRAME FOR STORM MANHOLE
3.03	TYPE 2 FRAME AND GRATE
3.06	CATCH BASIN TYPE A
3.09	STORM SEWER BEDDING DETAIL
11.02	SILT FENCE DETAIL
11.03	STABILIZED CONSTRUCTION ENTRANCE
11.04	TEMPORARY TOPSOIL STOCKPILE

Lochner
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CHICAGO, IL 60606 / 312-372-3011 (P)

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		DRAWN - JN	REVISED -	
PLOT SCALE =		CHECKED - DS	REVISED -	
PLOT DATE = 5/24/2024		DATE - 6/10/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS & HIGHWAY STANDARDS
LAKE WOODBINE BRIDGE

SCALE: N/A | SHEET 1 OF 2 SHEETS | STA. N/A | TO STA. N/A

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	2
		CONTRACT NO. 61K52		
	ILLINOIS	FED. AID PROJECT		

GENERAL NOTES

1. ANY REFERENCE TO A STANDARD THROUGHOUT THE PLANS OR SPECIAL PROVISIONS SHALL BE INTERPRETED TO MEAN THE LATEST EDITION OF THAT STANDARD AS PUBLISHED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION.

2. ALL TRAFFIC CONTROL AND OTHER ADVISORY SIGNS NEEDED FOR CONSTRUCTION ARE TO BE FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH ARTICLE 107.14 OF THE STANDARD SPECIFICATIONS.

3. THE CONTRACTOR SHALL AT ALL TIMES PROVIDE PROTECTION FOR TRAFFIC AS CALLED FOR IN THE APPLICATION OF TRAFFIC CONTROL DEVICES, THE STANDARD SPECIFICATIONS AND THE PLANS.

4. BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR MUST CALL J.U.L.I.E. AT 1-800-892-123 AT FIELD LOCATIONS OF BURIED UTILITIES. A 48 HOUR NOTIFICATION IS REQUIRED.

5. THE LOCATION OF EXISTING DRAINAGE STRUCTURES, STORM SEWERS, WATER MAINS, SANITARY SEWERS, AND ANY OTHER PUBLIC OR PRIVATE UTILITIES AS SHOWN ON THE PLANS IS APPROXIMATE AND THEIR EXACT LOCATION IS TO BE DETERMINED IN THE FIELD BY THE CONTRACTOR.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UNDERGROUND UTILITIES, SURFACE UTILITIES, AND UTILITIES HANGING FROM THE BRIDGE EVEN THOUGH THEY MIGHT NOT BE SHOWN ON THE PLANS. ANY UTILITY PROPERTY DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER.

7. ALL RADII FOR PROPOSED CURB AND GUTTER ARE TO THE EDGE OF PAVEMENT, UNLESS OTHERWISE NOTED. CURB AND GUTTER ELEVATIONS SHOWN ALONG RETURNS AND AT POINTS OF CURVATURE, ETC. ARE TO THE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.

8. OFFSET LOCATIONS GIVEN IN THE PLANS FOR STRUCTURES, EDGE OF PAVEMENT, ETC. ARE FROM THE CENTERLINE AND SURVEY ALIGNMENT.

9. THE OFFSETS FOR DRAINAGE STRUCTURES WITHIN THE CURB ARE MEASURED TO THE EDGE OF PAVEMENT. THE OFFSETS FOR ALL OTHER DRAINAGE STRUCTURES ARE MEASURED TO THE CENTER OF THE STRUCTURE. THE RIM ELEVATIONS FOR DRAINAGE STRUCTURES WITHIN THE CURB ARE AT THE EDGE OF PAVEMENT. THE RIM ELEVATIONS FOR ALL OTHER DRAINAGE STRUCTURES ARE AT THE CENTER OF STRUCTURE (CONCENTRIC STRUCTURE ASSUMED FOR CALCULATIONS OF RIM ELEVATION).

10. ANY LOOSE MATERIAL DEPOSITED IN THE FLOWLINE OF DRAINAGE STRUCTURES, WHICH OBSTRUCTS THE NATURAL FLOW OF WATER SHALL BE REMOVED AT THE CLOSE OF EACH WORKING DAY. PRIOR TO ACCEPTANCE OF THE IMPROVEMENT, ALL DRAINAGE STRUCTURES SHALL BE FREE OF DIRT AND DEBRIS.

11. WHEN EXISTING DRAINAGE FACILITIES ARE DISTURBED, THE CONTRACTOR SHALL PROVIDE AND MAINTAIN, IN AN OPERATING CONDITION, TEMPORARY OUTLETS AND CONNECTIONS FOR ALL DRAINS, SEWERS, AND CATCH BASINS. EXISTING FIELD TILES ENCOUNTERED SHALL BE PERMANENTLY REPAIRED. THE CONTRACTOR SHALL PROVIDE FACILITIES WHICH HAVE THE CAPACITY TO RECEIVE AND DISCHARGE THE STORM WATER FLOW RATES NORMALLY ACCEPTED AND RELEASED BY THE EXISTING DRAINAGE FACILITIES.

12. THE CONTRACTOR IS RESPONSIBLE FOR DIVERTING AND MAINTAINING THE WATER FLOW FROM THE CONSTRUCTION AREA IN ACCORDANCE WITH ARTICLE 540.04.

13. STORM SEWER, WATER MAIN, AND SANITARY SEWER SHALL BE BACKFILLED IN ACCORDANCE WITH ARTICLE 593, THE CONTRACT SPECIAL PROVISIONS, OR AS DIRECTED BY THE ENGINEER. NO SAND TRENCH BACKFILL IS ALLOWED.

14. ALL SIGNS SHALL BE ERECTED IN STRICT CONFORMANCE WITH SECTION 720 OF THE STANDARD SPECIFICATIONS AND BY A CONTRACTOR PREQUALIFIED IN SIGNING WITH THE ILLINOIS DEPARTMENT OF TRANSPORTATION.

15. ALL WORK INVOLVING SIGNS SHALL BE GOVERNED BY THE FOLLOWING REQUIREMENTS:

    SIGNS SHALL NOT BE MOVED UNTIL PROGRESS OF WORK NECESSITATES IT.

    ALL REMOVED SIGNS SHALL BE RETURNED TO THE CITY OF LAKE FOREST AS APPLICABLE.

    LONGER POSTS MAY BE REQUIRED AT SOME TEMPORARY OR PERMANENT SIGN LOCATIONS TO MAINTAIN PROPER SIGN ELEVATIONS.

16. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN EXISTING FIELD CONDITIONS BEFORE BIDDING ON THE CONTRACT AND PRIOR TO ORDERING MATERIALS.

17. WHERE NEW WORK MEETS EXISTING FEATURES TO REMAIN, THE CONTRACTOR SHALL FIELD CHECK ALL DIMENSIONS AND ELEVATIONS PRIOR TO PROCEEDING WITH CONSTRUCTION AND NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.

18. THE CONTRACTOR SHALL BE REQUIRED TO MAINTAIN EXISTING ACCESS TO ABUTTING PROPERTIES AT ALL TIMES DURING CONSTRUCTION OF THE PROJECT.

19. NO WORK SHALL COMMENCE UNTIL TRAFFIC CONTROL REQUIREMENTS ARE MET.

20. ALL SCHOOL DISTRICTS, LOCAL POLICE DEPARTMENTS AND FIRE DEPARTMENTS SHALL BE NOTIFIED BY THE CONTRACTOR AT LEAST TEN (10) DAYS PRIOR TO THE START OF CONSTRUCTION.
    CITY OF LAKE FOREST FIRE DEPARTMENT AND POLICE DEPARTMENT CONTACT:
    PHONE: 847-234-2601

21. THE CONTRACTOR WILL BE REQUIRED TO COMPLY WITH ALL STATE REGULATIONS REGARDING AIR, WATER, AND NOISE POLLUTION. THE CONTRACTOR IS PROHIBITED FROM BURNING ANY MATERIAL WITHIN OR ADJACENT TO THE IMPROVEMENT.

22. THE CONTRACTOR SHALL PREPARE THE SUBGRADE IN ACCORDANCE WITH ARTICLE 301.03 OF THE STANDARD SPECIFICATIONS PRIOR TO THE REMOVAL OF ANY UNSUITABLE MATERIALS.

23. THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON CITY OF LAKE FOREST PROPERTY WITHOUT WRITTEN CONSENT FROM THE CITY OF LAKE FOREST. THE CONTRACTOR IS ALLOWED TO CLOSE THE NORTH BEACH ACCESS ROAD UNTIL 5/1/2025 FOR WORKER PARKING AND MATERIAL STORAGE, BUT MUST MAINTAIN 1 LANE FOR FIRE ACCESS. SEE THE DETOUR PLAN FOR ADDITIONAL LOCATION INFORMATION.

24. ONLY THOSE TREES DESIGNATED BY THE ENGINEER OR LISTED IN THE TREE REMOVAL SCHEDULE SHALL BE REMOVED. THE CONTRACTOR SHALL PROTECT ALL REMAINING TREES FROM DAMAGE DUE TO HIS OPERATIONS.

25. SAW CUTTING WILL BE REQUIRED FOR ALL REMOVAL ITEMS LISTED IN SECTION 440 OF THE STANDARD SPECIFICATIONS, SHOWN IN THE PLANS, AND AS DIRECTED BY THE ENGINEER.

26. ALL FRAMES, GRATES, SIGNS, FENCES AND DELINEATORS, NEW OR EXISTING, DAMAGED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR.

27. ALL NITROGEN, PHOSPHOROUS AND POTASSIUM FERTILIZER NUTRIENTS HAVE BEEN INTENTIONALLY OMITTED FROM THE CONTRACT ON THE SODDING APPLICATION.

28. THE CONTRACTOR SHALL VERIFY ALL PLAN DIMENSIONS AND ELEVATIONS LISTED IN THE PLANS AND SPECIFICATIONS.

29. THE CONSTRUCTION LAYOUT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

30. THE CONTRACTOR IS REQUIRED TO USE ONLY THOSE ROUTES SHOWN IN THE PLANS FOR SITE ACCESS UNLESS OTHERWISE ALLOWED BY THE CITY OF LAKE FOREST.

31. THE ILLINOIS DEPARTMENT OF TRANSPORTATION IS NOT THE OWNER OF RECORD FOR THIS BRIDGE. THOSE SEEKING HISTORIC AS-BUILT OR OTHER RECORD PLANS SHOULD CONTACT THE OWNER OF RECORD. TO MAKE ARRANGEMENTS FOR ACCESS TO THIS INFORMATION PLEASE CONTACT: BYRON KUTZ, P.E. LAKE FOREST SUPERINTENDENT OF ENGINEERING. (847) 810-3555.

32. THOSE SEEKING THE FULL HYDRAULIC REPORT SHOULD CONTACT THE OWNER OF RECORD. TO MAKE ARRANGEMENTS FOR ACCESS TO THIS INFORMATION PLEASE CONTACT: BYRON KUTZ, P.E. LAKE FOREST SUPERINTENDENT OF ENGINEERING. (847) 810-3555.

33. GEOTECHNICAL FABRIC FOR GROUND STABILIZATION AND/OR AGGREGATE SUBGRADE IMPROVEMENT (CU YD) HAS BEEN PROVIDED FOR USE AT THE LOCATIONS INDICATED FOR SOILS THAT TEND TO BE UNSTABLE AND/OR UNSUITABLE. THE ACTUAL NEED FOR REMOVAL AND REPLACEMENT WITH ABOVE ITEM WILL BE DETERMINED IN THE FIELD AT THE TIME OF CONSTRUCTION BY THE GEOTECHNICAL ENGINEER. ALL POTENTIALLY UNSTABLE SOILS SHOULD BE TESTED WITH A STATIC OR DYNAMIC CONE PENETROMETER AND TREATED IN ACCORDANCE WITH ARTICLE 301.04 OF THE SSRBC AND IDOT SUBGRADE STABILITY MANUAL. IF UNSTABLE AND/OR UNSUITABLE SOILS ARE NOT ENCOUNTERED, THEN THE QUANTITY SHALL BE DEDUCTED AND NO ADDITIONAL COMPENSATION WILL BE DUE TO THE CONTRACTOR.

34. ANY AGGREGATE SUBGRADE IMPROVEMENT CONTAMINATED AND/OR DAMAGED BY THE CONTRACTOR'S VEHICLES AND/OR EQUIPMENT IS TO BE REMOVED AND REPLACED AS DIRECTED BY THE ENGINEER AT THE CONTRACTOR'S EXPENSE.

35. THE SUBGRADE STABILITY SHALL BE VERIFIED BY PROOF ROLLING WITH A FULLY LOADED TANDEM-AXLE TRUCK.

36. THE AGGREGATE GRADATION FOR THE AGGREGATE SUBGRADE IMPROVEMENT 12" LOWER LIFT SHALL BE CS 1 OR RR 1.

COMMITMENTS

A. CONSTRUCTION MOCKUP:
A MOCKUP OF THE CONCRETE SHALL BE PROVIDED PRIOR TO CONSTRUCTION OF THE BRIDGE. THE INTENT IS TO REPLICATE THE COLOR, TONE AND TEXTURE OF THE EXISTING BRIDGE TO THE EXTENT POSSIBLE. A BRIGHT, WHITE CONCRETE SHALL BE AVOIDED. SEE THE CONCRETE STRUCTURE FINISH SPECIAL PROVISION FOR MORE INFORMATION.

B. CONTINUED PUBLIC INVOLVEMENT:
PUBLIC NOTICE OF CONSTRUCTION, CONSTRUCTION TRUCK ROUTES, AND DETOUR ROUTES SHALL ALL BE INCLUDED IN THE PRE-CONSTRUCTION PLANNING PROCESS AND COMMUNICATED TO THE COMMUNITY.

C. TREE REMOVAL:
TREE REMOVAL IS NOT ALLOWED FROM APRIL 1 THROUGH SEPTEMBER 30 IN ACCORDANCE WITH IDOT CIRCULAR LETTER 2022-28. TREES IN THE RIGHT-OF-WAY CAN BE REMOVED OR TRIMMED BECAUSE OF SAFETY CONCERNS AT ANY TIME.

Lochner
225 WEST WASHINGTON STREET 12TH FLOOR
CHICAGO, IL 60606 / 312-372-3011 (P)

USER NAME = Personal	DESIGNED - JN	REVISED -	
	DRAWN - JN	REVISED -	
PLOT SCALE =	CHECKED - DS	REVISED -	
PLOT DATE = 5/24/2024	DATE - 6/10/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES
LAKE WOODBINE BRIDGE

SCALE: N/A | SHEET 2 OF 2 SHEETS | STA. N/A | TO STA. N/A

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	3
		CONTRACT NO. 61K52		
		ILLINOIS	FED. AID PROJECT	

					CONSTRUCTION CODE	
					80% FED / 20% LOCAL	
	PAY ITEM NO.	PAY ITEM	UNIT	TOTAL QUANTITY	BRIDGE REPLACEMENT	TRAINEES
					0010	0042
					URBAN	URBAN
	20101000	TEMPORARY FENCE	FOOT	560	560	
*	20101100	TREE TRUNK PROTECTION	EACH	12	12	
*	20101200	TREE ROOT PRUNING	EACH	2	2	
*	20101400	NITROGEN FERTILIZER NUTRIENT	POUND	8	8	
*	20101500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	8	8	
*	20101600	POTASSIUM FERTILIZER NUTRIENT	POUND	8	8	
	20200100	EARTH EXCAVATION	CU YD	50	50	
	20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	40	40	
	20400800	FURNISHED EXCAVATION	CU YD	280	280	
	20800150	TRENCH BACKFILL	CU YD	8	8	
	21001000	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	SQ YD	119	119	
	21101505	TOPSOIL EXCAVATION AND PLACEMENT	CU YD	95	95	
	21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	50	50	
	21400100	GRADING AND SHAPING DITCHES	FOOT	6	6	
*	25100900	TURF REINFORCEMENT MAT	SQ YD	628	628	
*	25200110	SODDING, SALT TOLERANT	SQ YD	578	578	
*	25200200	SUPPLEMENTAL WATERING	UNIT	20	20	
	28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	50	50	
	28000400	PERIMETER EROSION BARRIER	FOOT	258	258	
	28000510	INLET FILTERS	EACH	7	7	

* SPECIALTY ITEM

MODEL: Default
FILE NAME: pw://lochner-pw.bentley.com:lochner-pw-03/Documents/Projects/000020201/6.0 CAD/General/20201-SHT-HWL-GEN-SOQ.dgn

Lochner
225 WEST WASHINGTON STREET 12TH FLOOR
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
LAKE WOODBINE BRIDGE

SCALE: N/A | SHEET 1 OF 6 SHEETS | STA. N/A | TO STA. N/A

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	4
		CONTRACT NO. 61K52		
		ILLINOIS FED. AID PROJECT		

PAY ITEM NO.	PAY ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE 80% FED / 20% LOCAL BRIDGE REPLACEMENT 0010 URBAN	CONSTRUCTION CODE 80% FED / 20% LOCAL TRAINEES 0042 URBAN
28100107	STONE RIPRAP, CLASS A4	SQ YD	8	8	
28200200	FILTER FABRIC	SQ YD	8	8	
30300001	AGGREGATE SUBGRADE IMPROVEMENT	CU YD	40	40	
30300112	AGGREGATE SUBGRADE IMPROVEMENT 12"	SQ YD	554	554	
31101200	SUBBASE GRANULAR MATERIAL, TYPE B 4"	SQ YD	554	554	
35501324	HOT-MIX ASPHALT BASE COURSE, 10"	SQ YD	474	474	
40600275	BITUMINOUS MATERIALS (PRIME COAT)	POUND	1,068	1,068	
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	427	427	
40600370	LONGITUDINAL JOINT SEALANT	FOOT	378	378	
40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	60	60	
40604060	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N50	TON	40	40	
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	466	466	
42400800	DETECTABLE WARNINGS	SQ FT	20	20	
44000100	PAVEMENT REMOVAL	SQ YD	475	475	
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	216	216	
44000600	SIDEWALK REMOVAL	SQ FT	449	449	
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1	1	
50200100	STRUCTURE EXCAVATION	CU YD	135	135	
50300225	CONCRETE STRUCTURES	CU YD	153.3	153.3	
50300255	CONCRETE SUPERSTRUCTURE	CU YD	198.7	198.7	

* SPECIALTY ITEM

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PLOT DATE = 5/31/2024	DATE - 6/10/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
LAKE WOODBINE BRIDGE

SCALE: N/A | SHEET 2 OF 6 SHEETS | STA. N/A | TO STA. N/A

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	5
		CONTRACT NO. 61K52		
	ILLINOIS FED. AID PROJECT			

PAY ITEM NO.	PAY ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
				80% FED / 20% LOCAL	
				BRIDGE REPLACEMENT	TRAINEES
				0010	0042
				URBAN	URBAN
50300260	BRIDGE DECK GROOVING	SQ YD	273	273	
50300300	PROTECTIVE COAT	SQ YD	549	549	
50301350	CONCRETE SUPERSTRUCTURE (APPROACH SLAB)	CU YD	40.4	40.4	
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	186,850	186,850	
50800530	MECHANICAL SPLICERS	EACH	536	536	
51201800	FURNISHING STEEL PILES HP14X73	FOOT	480	480	
51202305	DRIVING PILES	FOOT	480	480	
51203800	TEST PILE STEEL HP14X73	EACH	2	2	
51204650	PILE SHOES	EACH	10	10	
51500100	NAME PLATES	EACH	1	1	
51602000	PERMANENT CASING	FOOT	320	320	
51603000	DRILLED SHAFT IN SOIL	CU YD	171.1	171.1	
54213657	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 12"	EACH	1	1	
550A0050	STORM SEWERS, CLASS A, TYPE 1 12"	FOOT	18	18	
550A0340	STORM SEWERS, CLASS A, TYPE 2 12"	FOOT	69	69	
55100300	STORM SEWER REMOVAL 8"	FOOT	20	20	
58600101	GRANULAR BACKFILL FOR STRUCTURES	CU YD	134	134	
58700300	CONCRETE SEALER	SQ FT	5,434	5,434	
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	58	58	
60100060	CONCRETE HEADWALLS FOR PIPE DRAINS	EACH	2	2	

* SPECIALTY ITEM

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
LAKE WOODBINE BRIDGE

SCALE: N/A | SHEET 3 OF 6 SHEETS | STA. N/A | TO STA. N/A

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	6
		CONTRACT NO. 61K52		
	ILLINOIS	FED. AID PROJECT		

				CONSTRUCTION CODE	
				80% FED / 20% LOCAL	
PAY ITEM NO.	PAY ITEM	UNIT	TOTAL QUANTITY	BRIDGE REPLACEMENT	TRAINEES
				0010	0042
				URBAN	URBAN
60146304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	76	76	
60146305	PIPE UNDERDRAINS FOR STRUCTURES (SPECIAL) 4"	FOOT	22	22	
60201330	CATCH BASINS, TYPE A, 4'-DIAMETER, TYPE 23 FRAME AND GRATE	EACH	1	1	
60207000	CATCH BASINS, TYPE A, TYPE 8 GRATE	EACH	1	1	
60208230	CATCH BASINS, TYPE C, TYPE 23 FRAME AND GRATE	EACH	1	1	
60218400	MANHOLES, TYPE A, 4'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	2	2	
60237460	INLETS, TYPE A, TYPE 23 FRAME AND GRATE	EACH	1	1	
60252800	CATCH BASINS TO BE RECONSTRUCTED	EACH	1	1	
60255500	MANHOLES TO BE ADJUSTED	EACH	2	2	
60260100	INLETS TO BE ADJUSTED	EACH	1	1	
60402210	GRATES, TYPE 8	EACH	1	1	
60404940	FRAMES AND GRATES, TYPE 23	EACH	1	1	
60500050	REMOVING CATCH BASINS	EACH	2	2	
60603800	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	205	205	
* 64000110	SIGHT SCREEN (CHAIN LINK FENCE) 6'	FOOT	314	314	
* 66407600	CHAIN LINK GATES, 6' X 12' DOUBLE	EACH	3	3	
67100100	MOBILIZATION	L SUM	1	1	
72400100	REMOVE SIGN PANEL ASSEMBLY - TYPE A	EACH	2	2	
72400310	REMOVE SIGN PANEL - TYPE 1	SQ FT	5	5	
* 78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	39	39	

* SPECIALTY ITEM

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Lochner
225 WEST WASHINGTON STREET 12TH FLOOR
CHICAGO, IL 60606 / 312-372-3011 (P)

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
LAKE WOODBINE BRIDGE

SCALE: N/A | SHEET 4 OF 6 SHEETS | STA. N/A | TO STA. N/A

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	7
		CONTRACT NO. 61K52		
	ILLINOIS	FED. AID PROJECT		

	PAY ITEM NO.	PAY ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE 80% FED / 20% LOCAL BRIDGE REPLACEMENT 0010 URBAN	CONSTRUCTION CODE 80% FED / 20% LOCAL TRAINEES 0042 URBAN
*	78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	47	47	
*	78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	9	9	
*	78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	2	2	
*	A2001716	TREE, ACER SACCHARUM (SUGAR MAPLE), 2" CALIPER, BALLED AND BURLAPPED	EACH	2	2	
*	A2002516	TREE, CARPINUS CAROLINIANA (AMERICAN HORNBEAM), 2" CALIPER, BALLED AND BURLAPPED	EACH	2	2	
*	A2007816	TREE, TILIA AMERICANA (AMERICAN LINDEN/ BASSWOOD), 2" CALIPER, BALLED AND BURLAPPED	EACH	2	2	
*	A2C05660	TREE, OSTRYA VIRGINIANA (IRONWOOD), 7' HEIGHT, CLUMP FORM, BALLED AND BURLAPPED	EACH	2	2	
	X0325225	BRICK PAVEMENT REMOVAL AND REPLACEMENT	SQ FT	254	254	
	X0327357	CONSTRUCTION VIBRATION MONITORING	L SUM	1	1	
	X0900020	THERMAL INTEGRITY PROFILE TESTING	EACH	8	8	
	X0900044	THERMAL INTEGRITY PROFILE DATA COLLECTION	FOOT	480	480	
	X2130010	EXPLORATION TRENCH (SPECIAL)	FOOT	50	50	
*	X2501800	SEEDING, CLASS 4 (MODIFIED)	ACRE	0.25	0.25	
*	X2511630	EROSION CONTROL BLANKET (SPECIAL)	SQ YD	94	94	
	X4021000	TEMPORARY ACCESS (PRIVATE ENTRANCE)	EACH	2	2	
	X5030289	CONCRETE FINISH	L SUM	1	1	
*	X5090850	ORNAMENTAL RAILING	FOOT	231	231	
	X5510011	PROPOSED STORM SEWER CONNECTION TO EXISTING MANHOLE	EACH	2	2	
	X6026050	SANITARY MANHOLES TO BE ADJUSTED	EACH	3	3	
	X6700407	ENGINEER'S FIELD OFFICE, TYPE A (D1)	CAL MO	10	10	

* SPECIALTY ITEM

Lochner
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
LAKE WOODBINE BRIDGE

SCALE: N/A | SHEET 5 OF 6 SHEETS | STA. N/A | TO STA. N/A

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	8
		CONTRACT NO. 61K52		
	ILLINOIS	FED. AID PROJECT		

PAY ITEM NO.	PAY ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
				80% FED / 20% LOCAL	
				BRIDGE REPLACEMENT	TRAINEES
				0010	0042
				URBAN	URBAN
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1	
Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1	
Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	40	40	
Z0056608	STORM SEWER (WATER MAIN REQUIREMENTS) 12 INCH	FOOT	15	15	
Z0076600	TRAINEES	HOUR	1,500		1,500
Z0076604	TRAINEES TRAINING PROGRAM GRADUATE	HOUR	1,500		1,500
XX009635	FURNISHING AND ERECTING PRECAST CONCRETE ARCH	L SUM	1	1	
XX009636	REMOVE AND RECONSTRUCT WALL - LOCATION 1	FOOT	13	13	
XX009637	REMOVE AND RECONSTRUCT WALL - LOCATION 2	FOOT	17	17	

* SPECIALTY ITEM

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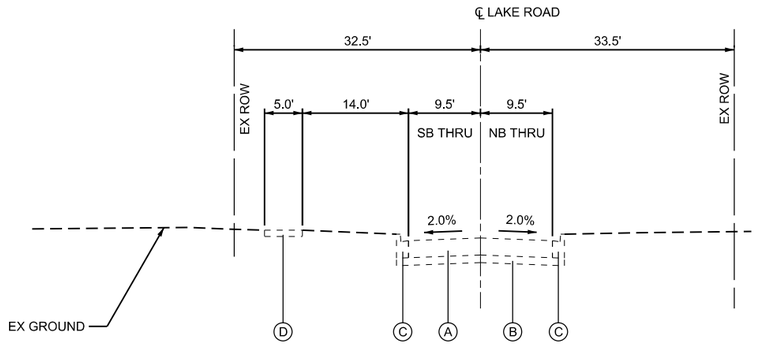
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
LAKE WOODBINE BRIDGE

SCALE: N/A | SHEET 6 OF 6 SHEETS | STA. N/A | TO STA. N/A

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	9
		CONTRACT NO. 61K52		
	ILLINOIS	FED. AID PROJECT		



EXISTING TYPICAL SECTION
LAKE ROAD

SOUTH OF BRIDGE
STA. 302+10 TO STA. 303+10

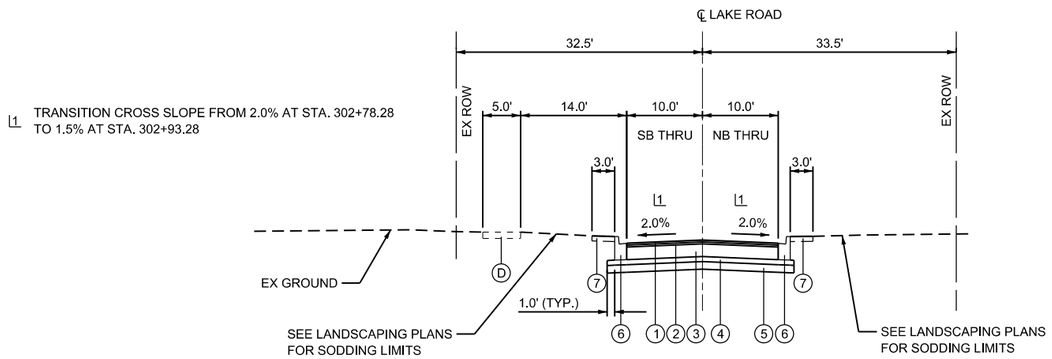
BRIDGE OMISSION STA. 303+10 TO STA. 304+01

EXISTING LEGEND

- (A) EXISTING HMA PAVEMENT 11.5"
- (B) EXISTING SUBBASE 6.5"
- (C) EXISTING COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12
- (D) EXISTING CONCRETE SIDEWALK - 5 INCH

PROPOSED LEGEND

- (1) HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N50 - 1 1/2" (40604060)
- (2) HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50 - 2 1/4" (40603080)
- (3) HOT-MIX ASPHALT BASE COURSE, 10" (35501324)
- (4) SUBBASE GRANULAR MATERIAL, TYPE B 4" (31101200)
- (5) AGGREGATE SUBGRADE IMPROVEMENT 12" (30300112)
- (6) COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12 (60603800)
- (7) TOPSOIL EXCAVATION AND PLACEMENT, 4" (21101505)
- (8) PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH (42400200)
  SUBBASE GRANULAR MATERIAL, TYPE B 4" (INCIDENTAL)



|1 TRANSITION CROSS SLOPE FROM 2.0% AT STA. 302+78.28 TO 1.5% AT STA. 302+93.28

PROPOSED TYPICAL SECTION
LAKE ROAD

SOUTH OF BRIDGE
STA. 302+10.00 TO STA. 302+93.28

APPROACH SLAB / BRIDGE OMISSION STA. 302+93.28 TO STA. 304+14.27

HOT-MIX ASPHALT MIXTURE REQUIREMENTS		
MIXTURE TYPE	AIR VOIDS @ Ndesign	QMP
PAVEMENT RECONSTRUCTION		
1.5" HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N50	4% @ 50 Gyr.	LR1030-2
2.25" HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	4% @ 50 Gyr.	LR1030-2
10" HOT-MIX ASPHALT BASE COURSE (HMA BINDER IL-19.0)	4% @ 50 Gyr.	LR1030-2
QMP DESIGNATIONS: QUALITY CONTROL/QUALITY ASSURANCE (QC/QA) PER LR1030-2.		

THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN.

THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 76-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY THE RECLAIMED MATERIALS SPECIFICATIONS.

THE LONGITUDINAL JOINT SEALANT SHALL BE PLACED BEFORE AND AFTER THE LAST LIFT OF BINDER COURSE.

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CHICAGO, IL 60606 / 312-372-3011 (P)

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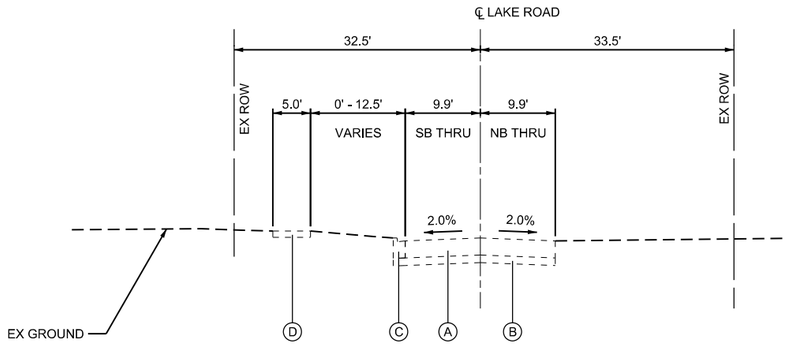
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS
LAKE ROAD

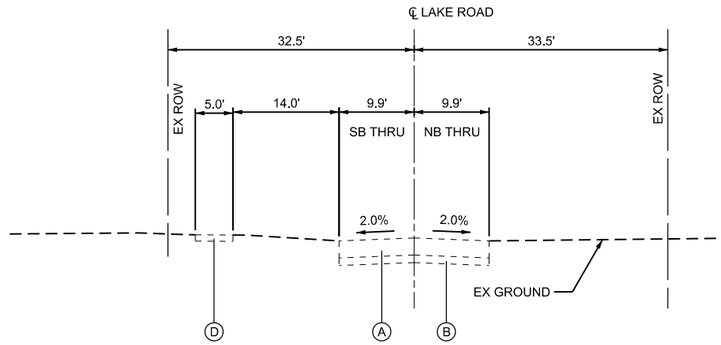
SCALE: 1"=10' | SHEET 1 OF 2 SHEETS | STA. 302+10 | TO STA. 303+10

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	10
		CONTRACT NO. 61K52		
		ILLINOIS	FED. AID PROJECT	



EXISTING TYPICAL SECTION
LAKE ROAD

NORTH OF BRIDGE
STA. 304+01 TO STA. 304+35



EXISTING TYPICAL SECTION
LAKE ROAD

NORTH OF BRIDGE
STA. 304+35 TO STA. 305+20

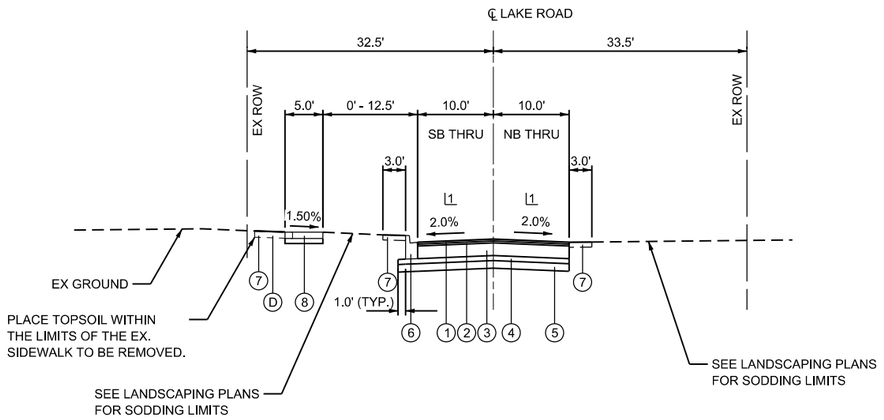
EXISTING LEGEND

- (A) EXISTING HMA PAVEMENT 11.5"
- (B) EXISTING SUBBASE 6.5"
- (C) EXISTING COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12
- (D) EXISTING CONCRETE SIDEWALK - 5 INCH

PROPOSED LEGEND

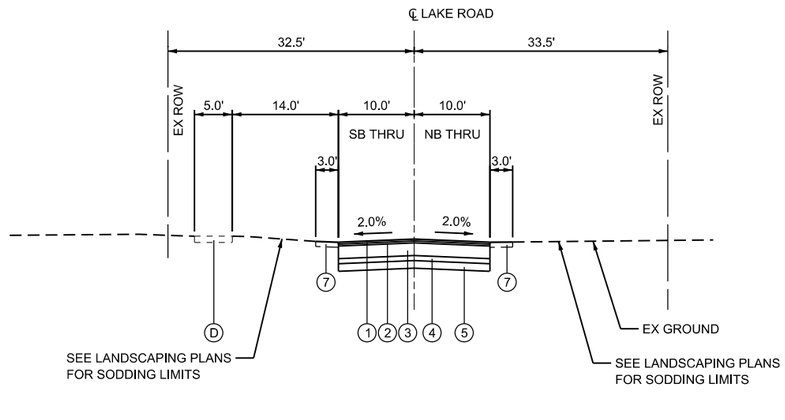
- (1) HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N50 - 1 1/2" (40604060)
- (2) HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50 - 2 1/4" (40603080)
- (3) HOT-MIX ASPHALT BASE COURSE, 10" (35501324)
- (4) SUBBASE GRANULAR MATERIAL, TYPE B 4" (31101200)
- (5) AGGREGATE SUBGRADE IMPROVEMENT 12" (30300112)
- (6) COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12 (60603800)
- (7) TOPSOIL EXCAVATION AND PLACEMENT, 4" (21101505)
- (8) PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH (42400200)
  SUBBASE GRANULAR MATERIAL, TYPE B 4" (INCIDENTAL)

|1 TRANSITION CROSS SLOPE FROM 1.5% AT STA. 304+14.27
TO 2.0% AT STA. 304+29.27



PROPOSED TYPICAL SECTION
LAKE ROAD

NORTH OF BRIDGE
STA. 304+14.27 TO STA. 304+42.24



PROPOSED TYPICAL SECTION
LAKE ROAD

NORTH OF BRIDGE
STA. 304+42.24 TO STA. 305+20.00

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS
LAKE ROAD

SCALE: 1"=10' | SHEET 2 OF 2 SHEETS | STA. 304+01 | TO STA. 305+20

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	11
		CONTRACT NO. 61K52		
		ILLINOIS	FED. AID PROJECT	

EARTHWORK SCHEDULE

	EARTH EX.	EXCAVATION USED AS EMBANKMENT, ADJ. FOR SHRINKAGE (15%)	EMBANKMENT	EARTHWORK BALANCE WASTE (+), SHORTAGE (-)	TOPSOIL EX. AND PLACEMENT
	20200100			20400800	21101505
	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)
STA. 303+10.27 TO STA. 303+97.27	50	43	320	-277	95

NOTE: TOPSOIL EXCAVATION AND PLACEMENT AT ALL DISTURBED AREAS ASSUMED DEPTH OF 4"

20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL				
STA	STA	LT / RT	SQ FT	DEPTH	CU YD
302+10.0	302+95.9	BOTH	539.1	12	20.0
304+14.3	305+20.0	BOTH	527.2	12	19.5
TOTAL					40

ASSUMED QUANTITY EQUAL TO AGGREGATE SUBGRADE IMPROVEMENT

21001000	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION			
STA	STA	LT / RT	SQ FT	SQ YD
302+10.0	302+95.9	BOTH	539.1	60.0
304+14.3	305+20.0	BOTH	527.2	59.0
TOTAL				119

25% OF NEW PAVEMENT AREA

21101615	TOPSOIL FURNISH AND PLACE 4"	
STA	STA	SQ YD
N/A	N/A	50
TOTAL		50

NOMINAL QUANTITY TO BE USED AT THE ENGINEER'S DISCRETION

30300001	AGGREGATE SUBGRADE IMPROVEMENT				
STA	STA	LT / RT	SQ FT	DEPTH	CU YD
302+10.0	302+95.9	BOTH	539.1	12	20.0
304+14.3	305+20.0	BOTH	527.2	12	19.5
TOTAL					40

25% OF NEW PAVEMENT AREA ASSUMED 12" DEPTH

30300112	AGGREGATE SUBGRADE IMPROVEMENT 12"			
STA	STA	LT / RT	SQ FT	SQ YD
302+10.0	302+95.9	BOTH	2607.9	291
304+14.3	305+20.0	BOTH	2183.9	263
TOTAL				554

31101200	SUBBASE GRANULAR MATERIAL, TYPE B 4"			
STA	STA	LT / RT	SQ FT	SQ YD
302+10.0	302+95.9	BOTH	2336	291
304+17.3	305+20.0	BOTH	2081	263
TOTAL				554

35501324	HOT-MIX ASPHALT BASE COURSE, 10"			
STA	STA	LT / RT	SQ FT	SQ YD
302+10.0	302+95.9	BOTH	2,156	240
304+14.3	305+20.0	BOTH	2,109	234
TOTAL				474

40600275	BITUMINOUS MATERIALS (PRIME COAT)					
STA	STA	LT / RT	SQ FT	LIFTS	RATE	POUND
302+10.0	302+95.9	BOTH	2156	1	0.250	540
304+14.3	305+20.0	BOTH	2109	1	0.250	528
TOTAL						1,068

40600290	BITUMINOUS MATERIALS (TACK COAT)					
STA	STA	LT / RT	SQ FT	LIFTS	RATE	POUND
302+10.0	302+95.9	BOTH	2156	4	0.025	216
304+14.3	305+20.0	BOTH	2109	4	0.025	211
TOTAL						427

40600370	LONGITUDINAL JOINT SEALANT				
STA	STA	OFFSET	LIFTS	LENGTH	FOOT
302+10.0	302+93.3	0.0	2	83.0	166
304+14.3	305+20.0	0.0	2	106.0	212
TOTAL					378

PLACE BEFORE AND AFTER THE LAST LIFT OF BINDER COURSE

40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50						
STA	STA	LT / RT	SQ FT	SQ YD	THICK. (IN.)	RATE	TON
302+10.0	302+95.9	BOTH	2156.4	239.6	2 1/4	112	30
304+14.3	305+20.0	BOTH	2108.7	234.3	2 1/4	112	30
TOTAL							60

40604060	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N50						
STA	STA	LT / RT	SQ FT	SQ YD	THICK. (IN.)	RATE	TON
302+10.0	302+95.9	BOTH	2156.4	239.6	1 1/2	112	20
304+14.3	305+20.0	BOTH	2108.7	234.3	1 1/2	112	20
TOTAL							40

42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH		
STA	STA	LT / RT	SQ FT
302+37.3	302+73.5	LT	193
302+94.9	303+08.3	LT	106
304+14.2	304+44.1	LT	167
TOTAL			466

42400800	DETECTABLE WARNINGS		
STA	STA	LT / RT	SQ FT
302+70.2	302+72.7	LT	10
302+94.9	302+97.4	LT	10
TOTAL			20

44000100	PAVEMENT REMOVAL			
STA	STA	LT / RT	SQ FT	SQ YD
302+10.00	302+96.6	BOTH	2,205.7	245
304+14.3	305+20.0	BOTH	2,072.0	230
TOTAL				475

44000500	COMBINATION CURB AND GUTTER REMOVAL				
STA	OFFSET	STA	OFFSET	LT / RT	FOOT
302+10.0	10.9	302+73.0	28.1	LT	72
302+10.0	11.1	302+96.1	8.0	RT	87
302+95.8	28.9	303+05.2	11.9	LT	22
304+01.5	11.3	304+35.8	11.0	LT	35
TOTAL					216

44000600	SIDEWALK REMOVAL		
STA	STA	LT / RT	SQ FT
302+37.3	302+72.1	LT	169
302+95.4	303+05.2	LT	43
304+01.3	304+44.1	LT	237
TOTAL			449

60603800	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12		
STA	STA	LT / RT	FOOT
302+10.0	302+75.3	LT	75
302+10.0	302+93.3	RT	83
302+93.3	302+97.2	LT	19
304+14.3	304+42.2	LT	28
TOTAL			205

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULES OF QUANTITIES
LAKE WOODBINE BRIDGE

SCALE: N/A | SHEET 1 OF 2 SHEETS | STA. N/A | TO STA. N/A

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	12
		CONTRACT NO. 61K52		
		ILLINOIS	FED. AID PROJECT	

64000110	SIGHT SCREEN (CHAIN LINK FENCE) 6'				
STA	OFFSET	STA	OFFSET	LT / RT	FOOT
302+08.9	5.0	302+08.9	32.0	RT	27
302+08.9	7.0	302+80.5	57.7	LT	124
302+92.5	57.7	303+12.7	32.5	LT	68
304+25.5	32.5	305+21.0	7.0	LT	67
305+21.0	5.0	304+55.3	33.2	RT	28
TOTAL					314

66407600	CHAIN LINK GATES, 6' X 12' DOUBLE		
STA	OFFSET	LT / RT	EACH
302+09.0	0.0	BOTH	1
302+87.0	57.7	LT	1
305+21.0	0.0	BOTH	1
TOTAL			3

72400100	REMOVE SIGN PANEL ASSEMBLY - TYPE A		
STA	OFFSET	LT/RT	EACH
302+60.7	15.4	RT	1
304+95.1	15.3	LT	1
TOTAL			2

72400310	REMOVE SIGN PANEL - TYPE 1		
STA	OFFSET	LT/RT	SQ FT
302+60.7	15.4	RT	2.5
304+95.1	15.3	LT	2.5
TOTAL			5

78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"		
STA	STA	LT/RT	FOOT
302+73.2	302+94.5	LT	18
302+73.2	302+94.5	LT	21
TOTAL			39

78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"		
STA	STA	LT/RT	FOOT
302+73.2	302+94.5	LT	47
TOTAL			47

78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"		
STA	STA	LT/RT	FOOT
302+76.0	302+85.0	LT	9
TOTAL			9

78100100	RAISED REFLECTIVE PAVEMENT MARKER		
STA	OFFSET	LT / RT	EACH
302+47.0	5.0	LT	1
302+79.4	19.5	LT	1
TOTAL			2

X0325225	BRICK PAVEMENT REMOVAL AND REPLACEMENT		
STA	STA	LT / RT	SQ FT
302+62.2	302+91.3	RT	154
304+11.0	304+27.8	RT	100
TOTAL			254

X40201000	TEMPORARY ACCESS (PRIVATE ENTRANCE)		
STA	STA	LT / RT	EACH
302+62.2	302+91.3	RT	1
304+11.0	304+27.8	RT	1
TOTAL			2

X6700407	ENGINEER'S FIELD OFFICE, TYPE A	
START	END	CAL MO
1/1/2025	10/31/2025	10
TOTAL		10

Z0030850	TEMPORARY INFORMATION SIGNING	
SHEET	DESCRIPTION	SQ FT
DETOUR PLAN	Lake Road CLOSED NORTH OF E Westminster LOCAL TRAFFIC ONLY	20
DETOUR PLAN	Lake Road CLOSED SOUTH OF Barberry Lane LOCAL TRAFFIC ONLY	20
TOTAL		40

Lochner
225 WEST WASHINGTON STREET 12TH FLOOR
CHICAGO, IL 60606 / 312-372-3011 (P)

USER NAME = Personal		DESIGNED - JN		REVISED -	
		DRAWN - JN		REVISED -	
PLOT SCALE =		CHECKED - DS		REVISED -	
PLOT DATE = 5/24/2024		DATE - 6/10/2024		REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULES OF QUANTITIES
LAKE WOODBINE BRIDGE

SCALE: N/A | SHEET 2 OF 2 SHEETS | STA. N/A | TO STA. N/A

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	13
		CONTRACT NO. 61K52		
	ILLINOIS	FED. AID PROJECT		

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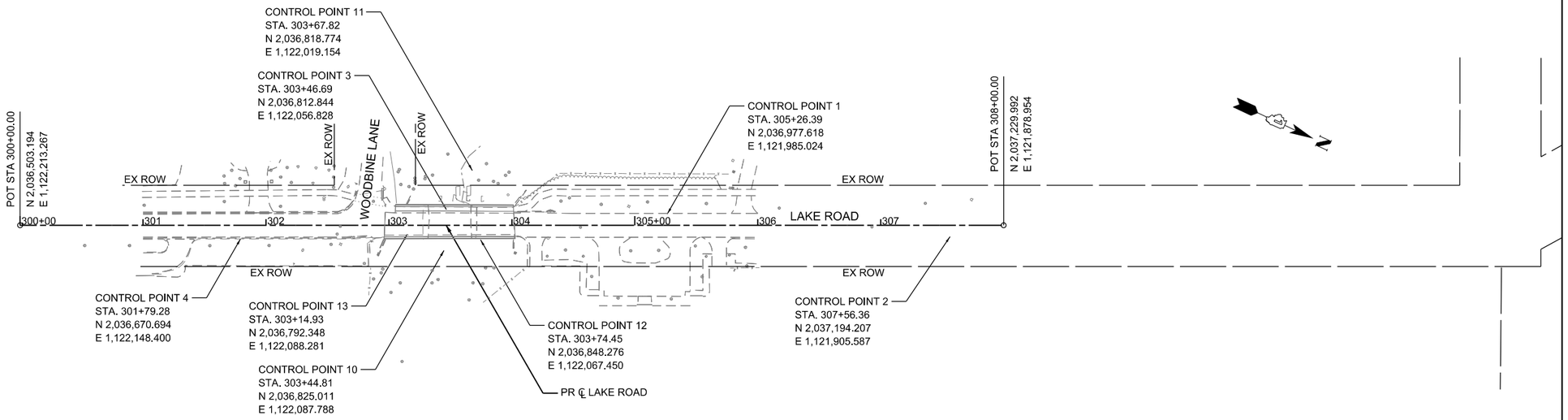
ALIGNMENT COORDINATES				
ALIGNMENT	POINT	STATION	NORTHING	EASTING
PR CENTERLINE LAKE ROAD	POT	300+00.00	2,036,503.194	1,122,213.267
PR CENTERLINE LAKE ROAD	POT	308+00.00	2,037,229.992	1,121,878.954



0 50 100 150

SCALE IN FEET

BENCHMARKS

BM#	NORTHING	EASTING	ELEVATION	DESCRIPTION
7-52	2,036,009.568	1,120,078.288	670.40	CHISELED "X" IN MANHOLE AT THE INTERSECTION OF WESTMINSTER AVE. AND ELM TREE RD.

DATUM NOTE:

HORIZONTAL DATUM SHOWN HEREON ARE ILLINOIS STATE PLANE, EAST ZONE, NAD83(2011) GRID VALUES.

VERTICAL DATUM SHOWN HEREON IS NAVD88 BASED ON 2ND ORDER CONTROL ESTABLISHED BY US COAST AND GEODETIC SURVEY, 1935. APPROXIMATE LATITUDE N 42.25528 LONGITUDE W -87.83162.

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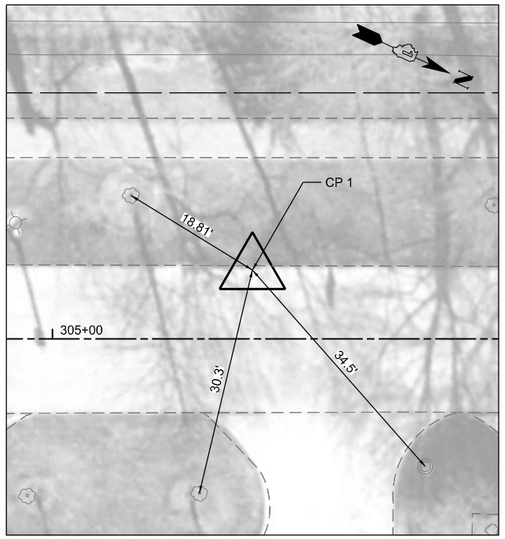
PLOT DATE = 5/24/2024	DATE - 6/10/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ALIGNMENT, TIES, AND BENCHMARKS
LAKE WOODBINE BRIDGE

SCALE: 1"=50' | SHEET 1 OF 2 SHEETS | STA. 300+00 | TO STA. 308+00

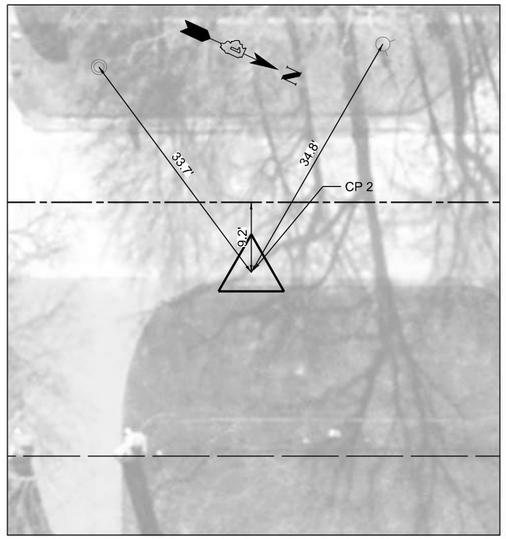
MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	14
		CONTRACT NO. 61K52		
	ILLINOIS	FED. AID PROJECT		



CONTROL POINT 1

STA. 305+26.39, 9.10' LT

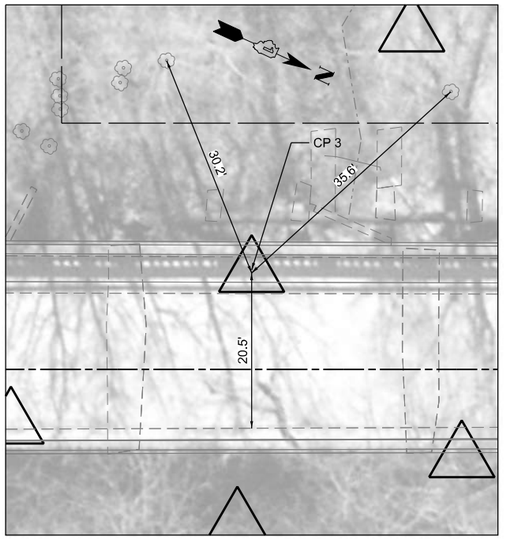
N 2,036,977.618
E 1,121,985.024
ELEV. 653.70



CONTROL POINT 2

STA. 307+56.36, 9.24' RT

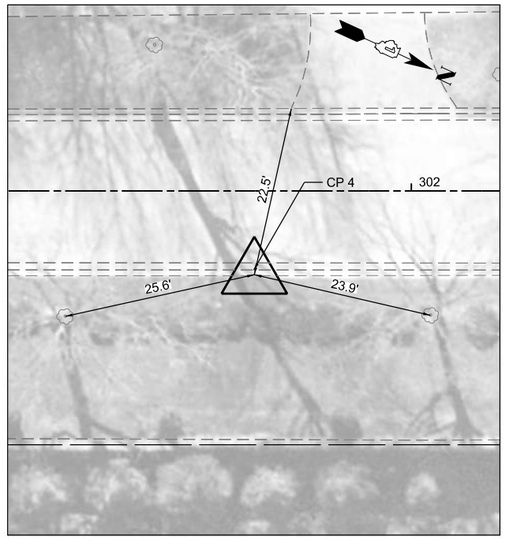
N 2,037,194.207
E 1,121,905.587
ELEV. 659.03



CONTROL POINT 3

STA. 303+46.69, 12.72' LT

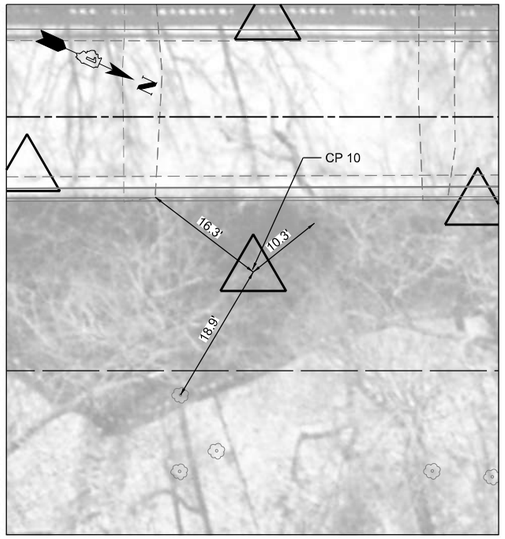
N 2,036,812.844
E 1,122,056.828
ELEV. 652.76



CONTROL POINT 4

STA. 301+79.28, 11.07' RT

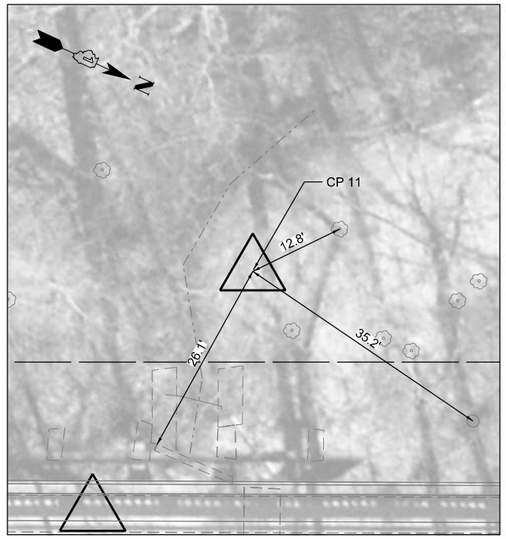
N 2,036,670.694
E 1,122,148.400
ELEV. 651.76



CONTROL POINT 10

STA. 303+44.81, 20.49' RT

N 2,036,825.011
E 1,122,087.788
ELEV. 629.98



CONTROL POINT 11

STA. 303+67.82, 44.47' LT

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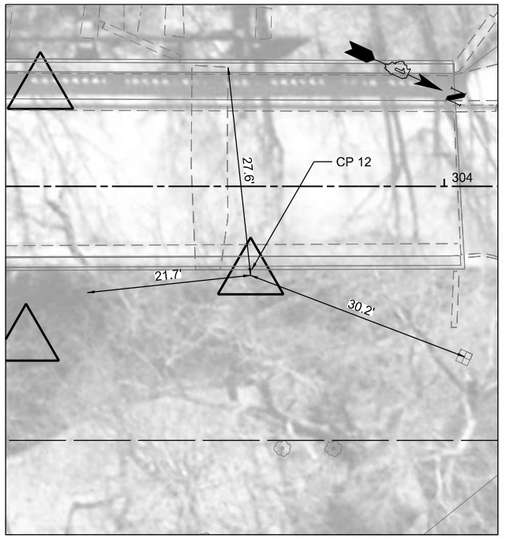
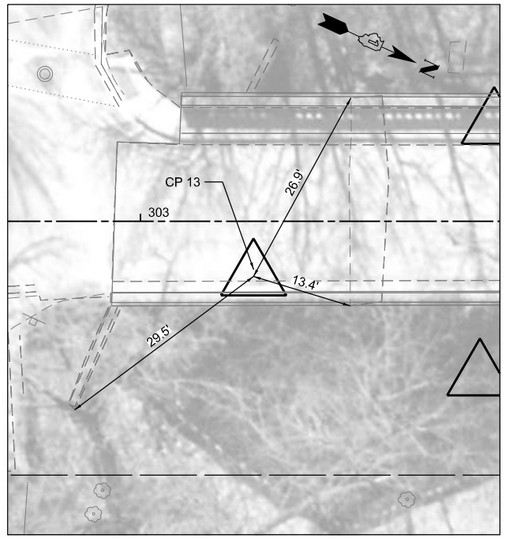
E 1,122,019.154
ELEV. 629.43



CONTROL POINT 12

STA. 303+74.45, 11.73' RT

N 2,036,848.276
E 1,122,067.450
ELEV. 635.45



CONTROL POINT 13

STA. 303+14.93, 7.29' RT

N 2,036,792.348
E 1,122,088.281
ELEV. 640.29

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225 WEST WASHINGTON STREET 12TH FLOOR
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	DRAWN - JN	REVISED -	
PLOT SCALE =	CHECKED - DS	REVISED -	
PLOT DATE = 5/24/2024	DATE - 6/10/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

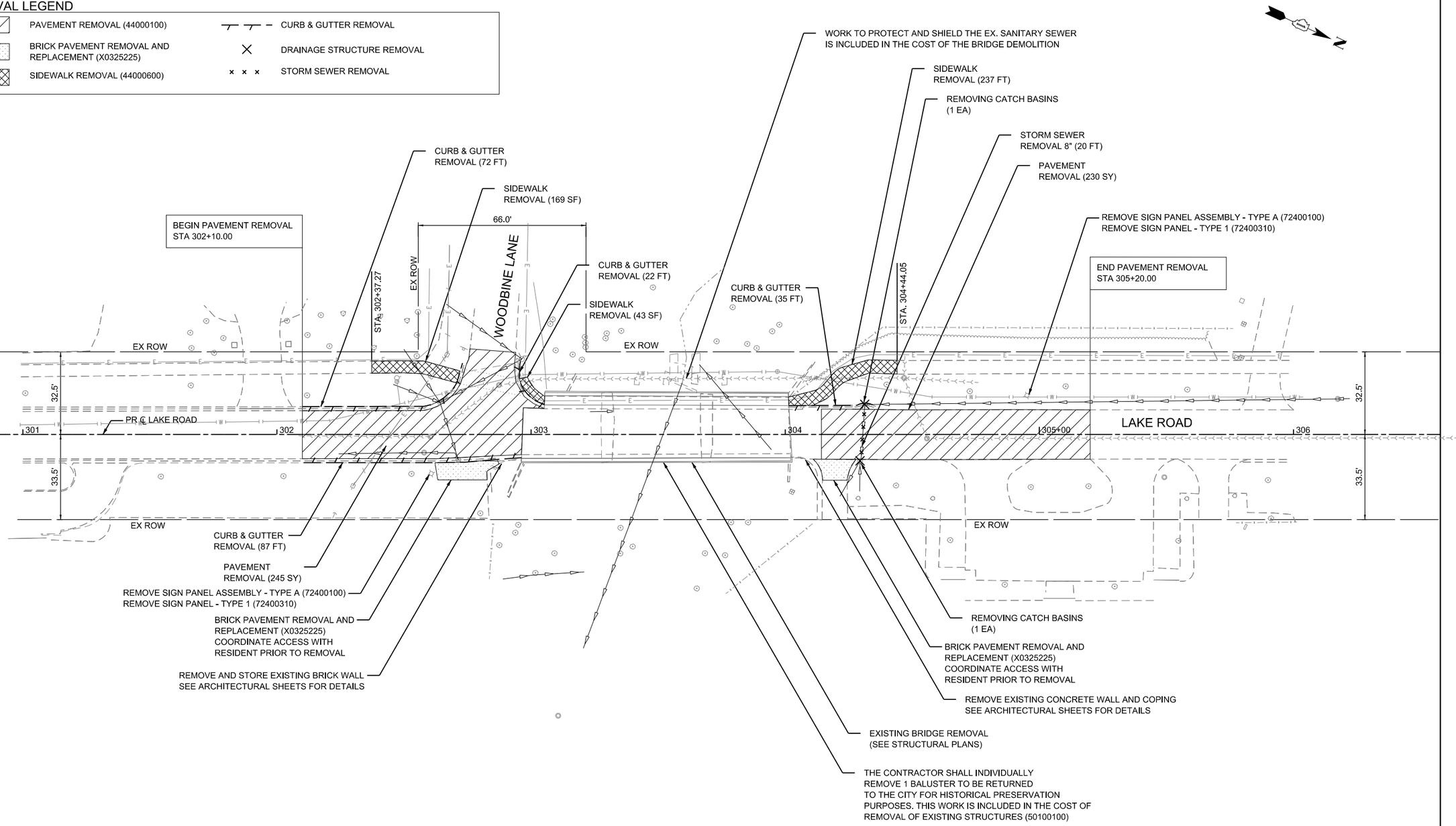
ALIGNMENT, TIES, AND BENCHMARKS
LAKE WOODBINE BRIDGE

SCALE: 1"=10' | SHEET 2 OF 2 SHEETS | STA. N/A | TO STA. N/A

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	15
		CONTRACT NO. 61K52		
	ILLINOIS	FED. AID PROJECT		

REMOVAL LEGEND

- PAVEMENT REMOVAL (44000100)
- BRICK PAVEMENT REMOVAL AND REPLACEMENT (X0325225)
- SIDEWALK REMOVAL (44000600)
- CURB & GUTTER REMOVAL
- DRAINAGE STRUCTURE REMOVAL
- STORM SEWER REMOVAL



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225 WEST WASHINGTON STREET 12TH FLOOR
CHICAGO, IL 60606 / 312-372-3011 (P)

USER NAME = Personal	DESIGNED - JN	REVISED -
	DRAWN - JN	REVISED -
PLOT SCALE =	CHECKED - DS	REVISED -
PLOT DATE = 5/24/2024	DATE - 6/10/2024	REVISED -

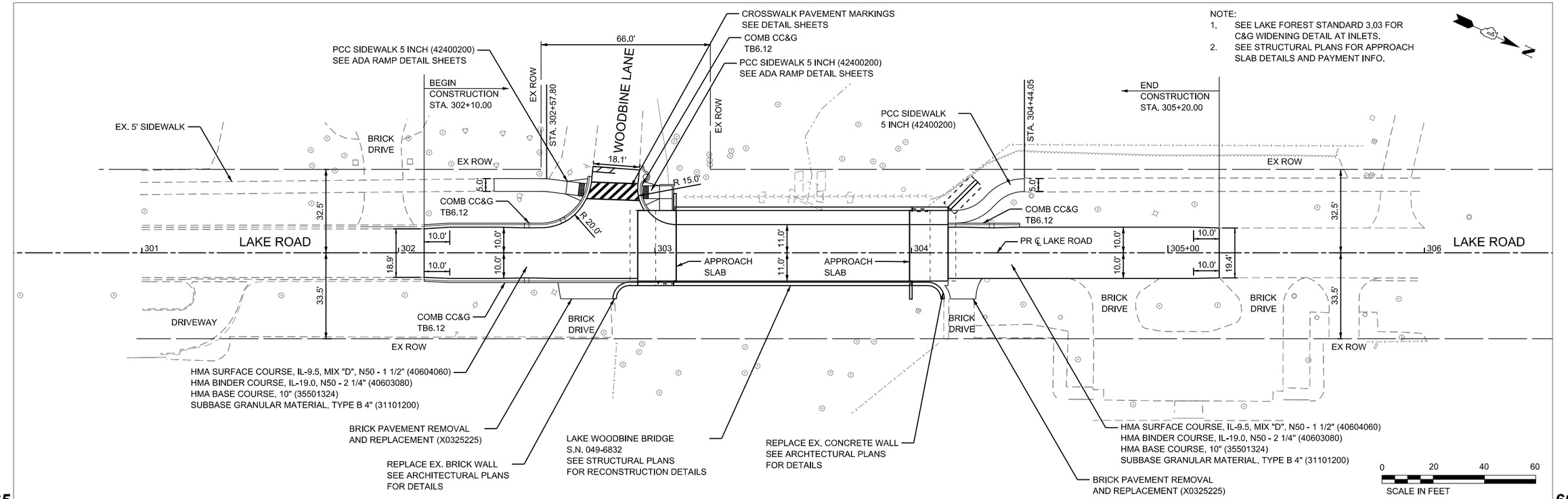
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

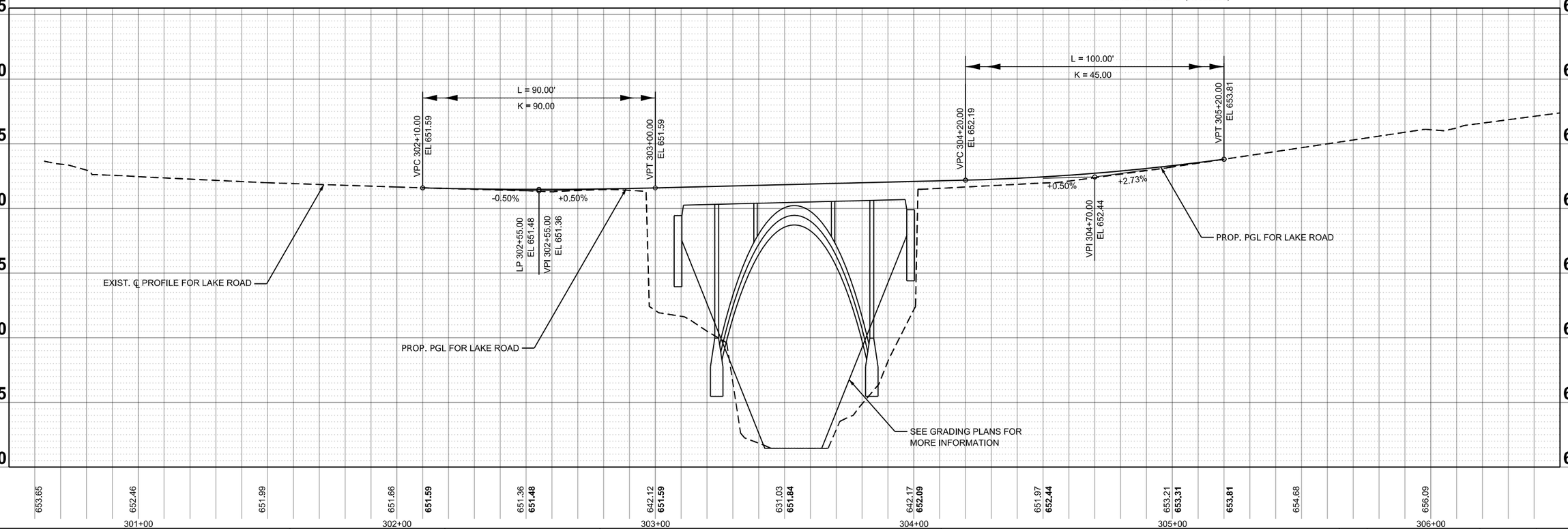
REMOVAL PLAN
LAKE WOODBINE BRIDGE

SCALE: 1"=20' | SHEET 1 OF 3 SHEETS | STA. 302+10 | TO STA. 305+20

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	16
		CONTRACT NO. 61K52		
	ILLINOIS FED. AID PROJECT			

NOTE:
1. SEE LAKE FOREST STANDARD 3.03 FOR C&G WIDENING DETAIL AT INLETS.
2. SEE STRUCTURAL PLANS FOR APPROACH SLAB DETAILS AND PAYMENT INFO.





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PLOT DATE = 5/24/2024	DATE - 6/10/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROADWAY - PLAN AND PROFILE
LAKE WOODBINE BRIDGE

SCALE: 1"=20' | SHEET 2 OF 3 SHEETS | STA. STA. 302+10 | TO STA. STA. 305+20

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	17
		CONTRACT NO. 61K52		
		ILLINOIS	FED. AID PROJECT	

NOTE:
SEE ROADWAY DETAILS FOR PAVEMENT, DRIVEWAY, AND SIDEWALK SLOPES.

66.0'

EX ROW

WOODBINE LANE

USACE JURISDICTIONAL WETLAND

BEGIN CONSTRUCTION STA. 302+10.00

END CONSTRUCTION STA. 305+20.00

EX ROW

EX ROW

32.5'

PR ℄ LAKE ROAD

303

304

LAKE ROAD

305+00

32.5'

645 640 635 635 640 645

647.5 645 640 635 635 640 645 647.9

1:2

1:2

33.5'

33.5'

EX ROW

650

EX ROW

645 640 635 630 630 635 640 645

24" CMP

USACE JURISDICTIONAL WETLAND

0 10 20 30

SCALE IN FEET

MODEL: Default
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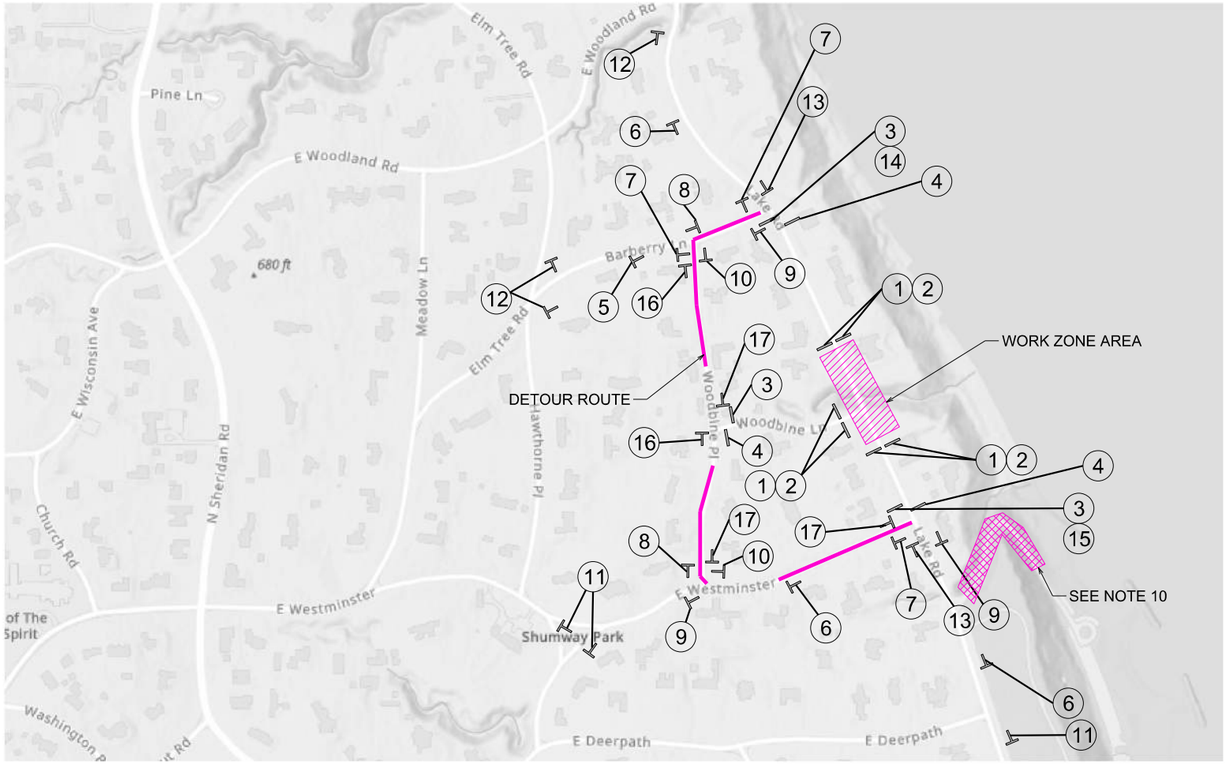
USER NAME = Personal	DESIGNED - JN	REVISED -
	DRAWN - JN	REVISED -
PLOT SCALE =	CHECKED - DS	REVISED -
PLOT DATE = 5/24/2024	DATE - 6/10/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GRADING PLAN
LAKE WOODBINE BRIDGE

SCALE: 1"=10' | SHEET 3 OF 3 SHEETS | STA. 302+10 | TO STA. 305+20

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	18
		CONTRACT NO. 61K52		
	ILLINOIS	FED. AID PROJECT		



DETOUR PLAN LOCATION MAP

APPROXIMATE SCALE

0 333' 667' 1000'

SCALE IN FEET

MAINTENANCE OF TRAFFIC NOTES

1. TYPE III BARRICADES AND R11-2 SIGNS SHALL BE POSITIONED AS SHOWN IN IDOT HIGHWAY STANDARD 701901-09.
2. ALL WARNING SIGNS (W-) SHALL BE POST MOUNTED.
3. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED SLIGHTLY TO FIT FIELD CONDITIONS.
4. ALL WARNING SIGNS SHALL HAVE MINIMUM DIMENSIONS OF 48 INCHES BY 48 INCHES AND HAVE BLACK LEGEND ON AN ORANGE HIGH INTENSITY REFLECTORIZED BACKGROUND.
5. LOW INTENSITY FLASHING LIGHTS SHALL BE USED ON EACH APPROACH IN ADVANCE OF THE WORK AREA DURING HOURS OF DARKNESS AND INSTALLED ABOVE THE FIRST TWO ADVANCE SIGNS.
6. BARRICADES SHALL BE TO THE EDGE OF PAVEMENT, EXCEPT WHEN OTHERWISE DIRECTED BY THE ENGINEER OR SHOWN ON THE DETAILED CONSTRUCTION PLANS.
7. ALL SIGNS SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
8. SEE SPECIAL PROVISIONS FOR TRAFFIC CONTROL PLAN.
9. THE LUMP SUM COST FOR "TRAFFIC CONTROL AND PROTECTION" SHALL INCLUDE ALL WORK, EQUIPMENT, AND LABOR NECESSARY TO INSTALL AND MAINTAIN THE TRAFFIC PROTECTION AND DETOUR ROUTE SIGNED ABOVE FOR THE PROJECT DURATION.
10. THE CONTRACTOR IS ALLOWED TO CLOSE THE NORTH BEACH ACCESS ROAD UNTIL 5/1/2025 FOR WORKER PARKING AND MATERIAL STORAGE, BUT MUST MAINTAIN 1 LANE FOR FIRE ACCESS.
11. ANY ADDITIONAL SIGNAGE SHALL BE PAID FOR AS "TEMPORARY INFORMATION SIGNING (Z0030850)".
12. AT LEAST 30 DAYS PRIOR TO DETOUR INSTALLATION, COORDINATE WITH SHERIDAN ELEMENTARY SCHOOL FOR SCHOOL BUS TRAFFIC. CONTACT MARY KAY HANLON. (847) 234-6299.

FREESTANDING SIGN

TYPE III BARRICADES STAGGERED 30 TO 100 FEET APART WITH TWO AMBER FLASHING LIGHTS EACH AND ONE FLAG

TYPE III BARRICADES WITH TWO AMBER FLASHING LIGHTS EACH AND ONE FLAG (AT ENDS OF CONSTRUCTION AREA)

BILL OF MATERIAL

PAY ITEM NO.	PAY ITEM	UNIT	QUANTITY
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1

DETOUR SIGNAGE LEGEND

1. ROAD CLOSED — *R11-2, 48"X30"*
2. BRIDGE OUT — *R11-2, 48"X30"*
3. ROAD CLOSED TO THRU TRAFFIC — *R11-4, 60"X30"*
4. BRIDGE OUT LOCAL TRAFFIC ONLY — *R11-3b, 60"X30"*
5. DETOUR AHEAD — *W20-2, 48"X48" FLASHING LIGHT*
6. ROAD CLOSED 500 FT — *W20-3, 48"X48"*
7. SOUTH / Lake Road / DETOUR — *M3-3, 24"X12" (BLACK ON ORANGE) D3-1, VARX12" (BLACK ON ORANGE) M4-9R, 30"X24"*
8. SOUTH / Lake Road / DETOUR — *M3-3, 24"X12" (BLACK ON ORANGE) D3-1, VARX12" (BLACK ON ORANGE) M4-9L, 30"X24"*
9. NORTH / Lake Road / DETOUR — *M3-3, 24"X12" (BLACK ON ORANGE) D3-1, VARX12" (BLACK ON ORANGE) M4-9L, 30"X24"*
10. NORTH / Lake Road / DETOUR — *M3-3, 24"X12" (BLACK ON ORANGE) D3-1, VARX12" (BLACK ON ORANGE) M4-9L, 30"X24"*
11. Lake Road CLOSED NORTH OF E Westminster LOCAL TRAFFIC ONLY — PAID FOR AS TEMPORARY INFORMATION SIGNING (Z0030850)
12. Lake Road CLOSED SOUTH OF Barberry Lane LOCAL TRAFFIC ONLY — PAID FOR AS TEMPORARY INFORMATION SIGNING (Z0030850)
13. END DETOUR — *M4-8a, 24"X18"*
14. DETOUR — *M4-10, 48"X18"*
15. DETOUR — *M4-10, 48"X18"*
16. SOUTH / Lake Road / DETOUR — *M3-3, 24"X12" (BLACK ON ORANGE) D3-1, VARX12" (BLACK ON ORANGE) M4-9L, 30"X24"*
17. NORTH / Lake Road / DETOUR — *M3-3, 24"X12" (BLACK ON ORANGE) D3-1, VARX12" (BLACK ON ORANGE) M4-9L, 30"X24"*

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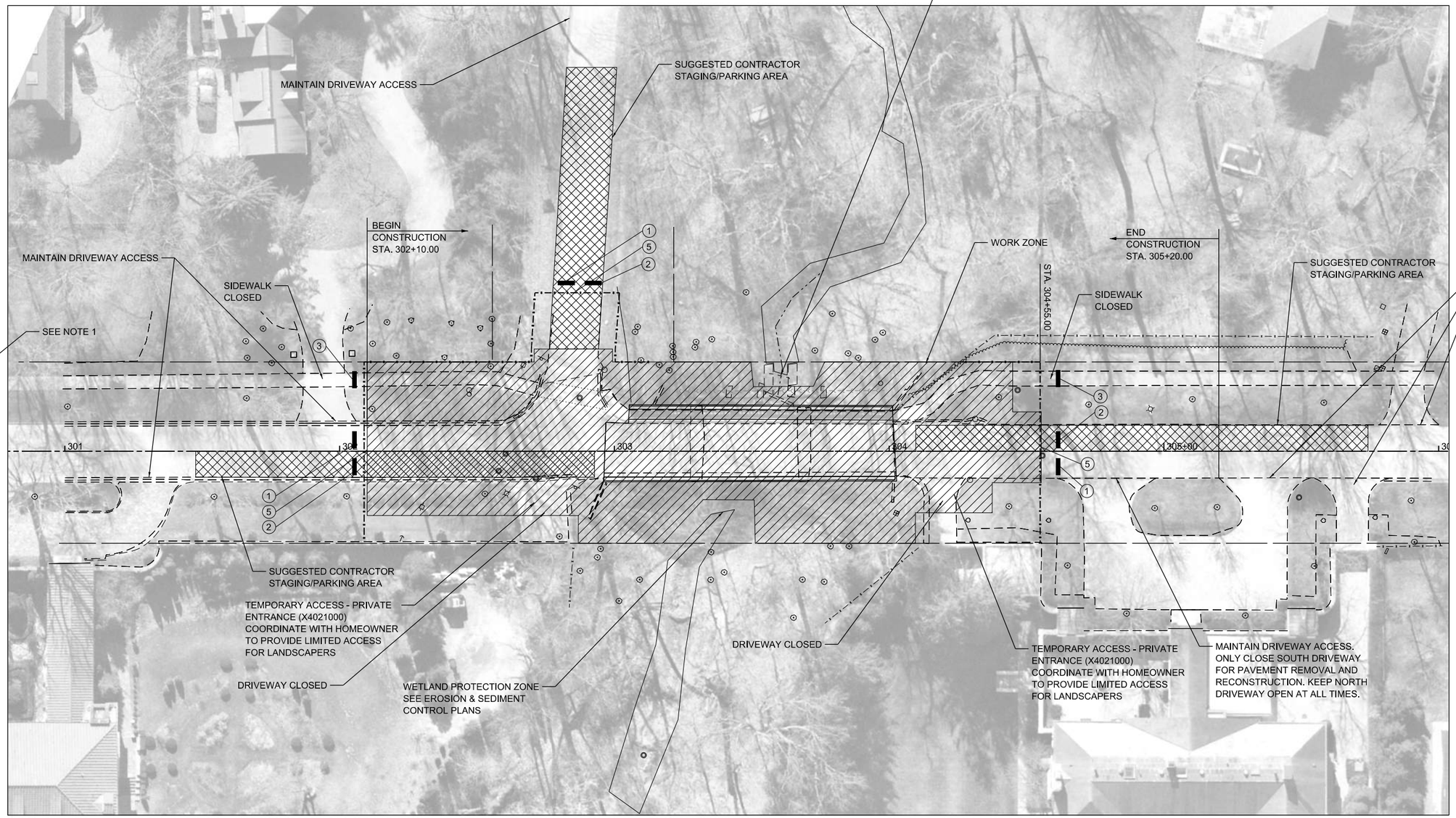
PLOT DATE = 5/24/2024	DATE - 6/10/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETOUR PLAN
LAKE WOODBINE BRIDGE

SCALE: NTS | SHEET 1 OF 3 SHEETS | STA. N/A | TO STA. N/A

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	19
		CONTRACT NO. 61K52		
		ILLINOIS	FED. AID PROJECT	



SUGGESTED STAGING AREA

NOTES:

1. PLACE SIGN AT INTERSECTION OF WESTMINSTER AND LAKE ROAD (NOT SHOWN ON SHEET).
2. PLACE SIGN AT INTERSECTION OF WOODLAND ROAD AND LAKE ROAD (NOT SHOWN ON SHEET).
3. THE CONTRACTOR IS ALSO ALLOWED TO CLOSE THE NORTH BEACH ACCESS ROAD UNTIL 5/1/2025 FOR WORKER PARKING AND MATERIAL STORAGE, BUT MUST MAINTAIN 1 LANE FOR FIRE ACCESS.

MAINTENANCE OF TRAFFIC LEGEND

① ROAD CLOSED — R11-2, 48"X30"

② BRIDGE OUT — R11-2, 48"X30"

③ SIDEWALK CLOSED — R11-I101-2418, 24"X12"

④ SIDEWALK CLOSED AHEAD — W20-1b (MODIFIED) 36"X36" (BLACK ON ORANGE)

⑤ CHAIN LINK GATES, 6' X 12' DOUBLE (66407600)

SIGHT SCREEN (CHAIN LINK FENCE) 6' (64000110)

WORK ZONE

SUGGESTED CONTRACTOR STAGING/PARKING AREA

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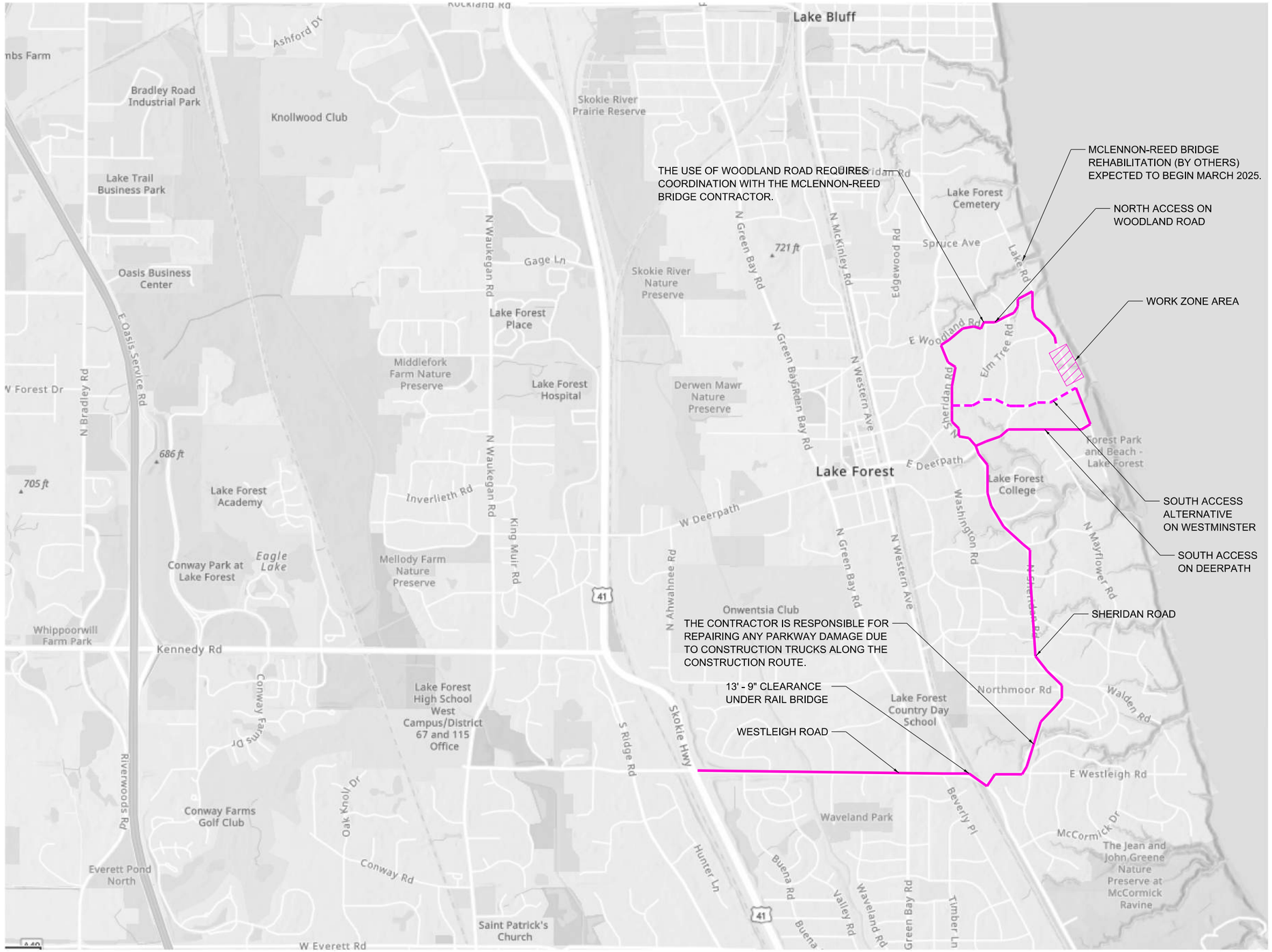
PLOT SCALE =	CHECKED - DS	REVISED -	
PLOT DATE = 5/24/2024	DATE - 6/10/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
LAKE WOODBINE BRIDGE

SCALE: 1"=50' | SHEET 2 OF 3 SHEETS | STA. 302+10 | TO STA. 305+20

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	20
		CONTRACT NO. 61K52		
	ILLINOIS FED. AID PROJECT			



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	DRAWN - JN	REVISED -	
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PLOT DATE = 5/24/2024	DATE - 6/10/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONSTRUCTION ROUTE
LAKE WOODBINE BRIDGE

SCALE: NTS | SHEET 3 OF 3 SHEETS | STA. N/A | TO STA. N/A

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	21
		CONTRACT NO. 61K52		
		ILLINOIS	FED. AID PROJECT	

EROSION AND SEDIMENT CONTROL NOTES

1. UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED TO THE STANDARDS AND SPECIFICATIONS IN THE ILLINOIS URBAN MANUAL, LATEST EDITION, THE CONTRACT SPECIFICATIONS, SECTION 280 OF THE STANDARD SPECIFICATIONS, LAKE COUNTY STORMWATER MANAGEMENT COMMISSION STANDARDS AND AS DIRECTED BY THE ENGINEER.

2. EROSION CONTROL MEASURES AS INDICATED IN THE PLAN OR AS DIRECTED BY THE ENGINEER MUST BE INSTALLED ON THE PROJECT SITE PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY WHICH WILL CREATE POTENTIALLY ERODIBLE CONDITIONS.

3 A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.

4. INSPECTIONS AND DOCUMENTATION SHALL BE PERFORMED, AT A MINIMUM:
   a) UPON COMPLETION OF INITIAL EROSION AND SEDIMENT CONTROL MEASURES, PRIOR TO ANY SOIL DISTURBANCE.
   b) ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM EVENT WITH GREATER THAN 0.5 INCH OF RAINFALL OR LIQUID EQUIVALENT PRECIPITATION.

5. TEMPORARY SEED ALL BARE AND ERODIBLE AREAS EVERY SEVEN DAYS AS DIRECTED BY THE ENGINEER. TEMPORARY MULCH ALL SEEDED AREAS ACCORDING TO ARTICLE 251.03(B) OR ARTICLE 251.03(C). EROSION CONTROL BLANKET CAN BE USED INSTEAD OF MULCH ACCORDING ARTICLE 251.04.

6. INLET FILTERS WILL BE INSTALLED IN ALL CATCH BASINS, INLETS AND OPEN LID MANHOLES AS DIRECTED BY THE ENGINEER. THE FILTERS SHALL BE MAINTAINED IN THE ENTIRE DURATION OF THE PROJECT.

7. A STABILIZED MAT OF CRUSED STONE MEETING IDOT GRADATION CA-1 UNDERLAIN WITH FILTER FABRIC AND IN ACCORDANCE WITH THE ILLINOIS URBAN MANUAL, OR OTHER APPROPRIATE MEASURE(S) AS APPROVED BY THE ENGINEER, SHALL BE INSTALLED AT ANY POINT WHERE TRAFFIC WILL BE ENTERING OR LEAVING A CONSTRUCTION SITE. SEDIMENT OR SOIL REACHING AN IMPROVED PUBLIC RIGHT-OF-WAY, STREET, ALLEY OR PARKING AREA SHALL BE REMOVED BY SCRAPING OR STREET CLEANING AS ACCUMULATIONS WARRANT AND TRANSPORTED TO A CONTROLLED SEDIMENT DISPOSAL AREA.

8. CONCRETE WASHOUT FACILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE ILLINOIS URBAN MANUAL AND SHALL BE INSTALLED PRIOR TO ANY ON SITE CONSTRUCTION ACTIVITIES INVOLVING CONCRETE.

9. SOIL STOCKPILES SHALL, AT A MINIMUM, BE PROTECTED WITH PERIMETER SEDIMENT CONTROLS. SOIL STOCKPILES SHALL NOT BE PLACED IN FLOOD PRONE AREAS OR THEIR BUFFERS. THE STOCKPILE LOCATIONS SHALL BE DETERMINED AT THE TIME OF THE PRECONSTRUCTION MEETING AND ARE SUBJECT TO THE APPROVAL OF THE ENGINEER AND THE CITY OF LAKE FOREST.

10. SEWERS THAT ARE OR WILL BE FUNCTIONING DURING CONSTRUCTION SHALL BE PROTECTED BY APPROPRIATE SEDIMENT CONTROL MEASURES.

12. DISTRUBED AREAS SHALL BE STABILIZED WITH TEMPORARY OR PERMANENT MEASURES WITHIN SEVEN (7) CALENDAR DAYS FOLLOWING THE END OF ACTIVE HYDROLOGIC DISTURBANCE OR REDISTURBANCE.

13. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED AND REPAIRED AS NEEDED ON A YEAR-ROUND BASIS DURING CONSTRUCTION AND ANY PERIODS OF CONSTRUCTION SHUTDOWN UNTIL PERMANENT STABILIZATION IS ACHIEVED.

14. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN THIRTY (30) DAYS AFTER PERMANENT SITE STABILIZATION.

15. THE EROSION AND SEDIMENT CONTROL MEASURES SHOWN ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL MEASURES MAY BE REQUIRED, AS DIRECTED BY THE ENGINEER.

16. SEDIMENT TRAPS, SEDIMENT BASINS, DITCHES, SEDIMENT CONTROL, SILT FENCE, STONE OUTLET STRUCTURES, EARTH BERMS, ETC. SHALL BE MAINTAINED DURING THE CONSTRUCTION SEASON AS WELL AS THE WINTER MONTHS AND OTHER TIMES WHEN THE PROJECT IS CLOSED DOWN. TRAPS WILL BE CLEANED WHEN THEY ARE 50% FILLED, STONE OUTLET STRUCTURES SHALL HAVE SEDIMENT REMOVED WHEN IT REACHES 50% THE HEIGHT OF THE CONTROL DEVICE. PERIMETER BARRIER FENCE SHALL HAVE SEDIMENT REMOVED WHEN IT REACHES ONE-THIRD OF THE BARRIER HEIGHT. THESE SPOILS WILL BE REMOVED TO AN APPROVED SITE.

17. IT IS THE RESPONSIBILITY OF THE LANDOWNER AND/OR GENERAL CONTRACTOR TO INFORM ANY SUB-CONTRACTOR(S), WHO MAY PERFORM WORK ON THIS SITE/PROJECT, OF THE REQUIREMENTS IN IMPLEMENTING AND MAINTAINING THESE EROSION CONTROL PLANS AND ASSURE COMPLIANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS.

18. SOIL DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. IF STRIPPING, CLEARING, GRADING, OR LANDSCAPING ARE TO BE DONE IN PHASES, THE PERMITTEE SHALL PLAN FOR APPROPRIATE SOIL EROSION AND SEDIMENT CONTROL MEASURES.

19. TEMPORARY DIVERSION SHALL BE CONSTRUCTED AS NECESSARY TO DIRECT ALL RUNOFF FROM HYDROLOGICALLY DISTURBED AREAS TO AN APPROPRIATE SEDIMENT TRAP OR BASIN.

20. SLOPES STEEPER THAN 3H:1V SHALL BE STABILIZED WITH APPROPRIATE MEASURES APPROVED BY THE ENGINEER.

21. IF DEWATERING SERVICES ARE USED, ADJOINING PROPERTIES AND DISCHARGE LOCATIONS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION. DISCHARGE SHALL BE ROUTED THROUGH AN APPROVED ANIONIC POLYMER DEWATERING SYSTEM OR A SIMILAR MEASURE AS APPROVED BY THE ENGINEER. DEWATERING SYSTEMS SHOULD BE INSPECTED DAILY DURING OPERATIONAL PERIODS. THE ENGINEER, OR APPROVED REPRESENTATIVE, MUST BE PRESENT AT THE COMMENCEMENT OF DEWATERING ACTIVITIES. DEWATERING MAY BE REQUIRED DURING THE INSTALLATION OF THE BRIDGE DRILLED SHAFTS.

22. IF INSTALLED SOIL EROSION AND SEDIMENT CONTROL MEASURES DO NOT MINIMIZE SEDIMENT LEAVING THE DEVELOPMENT SITE, ADDITIONAL MEASURES SUCH AS ANIONIC POLYMERS OR FILTRATION SYSTEMS MAY BE REQUIRED BY THE ENGINEER.

CONSTRUCTION SEQUENCE NOTES

1. INSTALLATION OF SOIL EROSION AND SEDIMENT CONTROL SE/SC MEASURES
   A. SELECTIVE VEGETATION REMOVAL FOR PERIMETER EROSION BARRIER INSTALLATION
   B. PERIMETER EROSION BARRIER INSTALLATION
   C. CONSTRUCTION FENCING AROUND AREAS NOT TO BE DISTURBED
   D. STABILIZED CONSTRUCTION ENTRANCE

2. TREE REMOVAL WHERE NECESSARY (CLEAR & GRUB)

3. STRIP TOPSOIL, STOCKPILE TOPSOIL AND GRADE SITE

4. TEMPORARILY STABILIZE TOPSOIL STOCKPILES (SEED AND SILT FENCE AROUND TOE OF SLOPE)

5. INSTALL STORM SEWER AND ASSOCIATED INLET & OUTLET PROTECTION

6. TEMPORARILY STABILIZE ALL DISTURBED AREAS THAT HAVE REACHED TEMPORARY GRADE

7. INSTALL ROADWAY & BRIDGE

8. PERMANENTLY STABILIZE DISTRURBED AREAS

9. REMOVE ALL TEMPORARY SE/SC MEASURES AFTER THE SITE IS STABILIZED WITH VEGETATION

* SOIL EROSION AND SEDIMENT CONTROL MAINTENANCE MUST OCCUR EVERY TWO WEEKS AND AFTER EVERY 1/2 INCH OR GREATER RAINFALL EVENT

EROSION AND SEDIMENT CONTROL WETLAND AND WATERS OF THE U.S. NOTES

1. WETLAND AREAS OUTSIDE OF THE WORK ZONE ARE TO BE AVOIDED. IF THE CONTRACTOR SHOULD ENCROACH UPON ANY WETLAND AREA THAT IS NOT WITHIN THE CONSTRUCTION LIMITS AND/OR PERMITTED FOR IMPACT THROUGH THE USACE, THE CONTRACTOR IS SUBJECT TO FINES. CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY WETLAND IMPACTS OUTSIDE OF THE WORK ZONE. IMPACTED AREAS SHALL BE REPAIRED IMMEDIATELY BY THE CONTRACTOR IN COORDINATION WITH AND TO THE SATISFACTION OF THE USACE.

2. ALL WETLANDS, WATERS OF THE U.S. AND OPEN WATER DETENTION FACILITIES ARE SUBJECT TO THE REVIEW AND APPROVAL BY RESOURCE AND REGULATORY AGENCIES. THOSE AGENCIES INCLUDE BUT ARE NOT LIMITED TO THE USACE, THE ILLINOIS DEPARTMENT OF NATURAL RESOURCES, THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY, AND THE COUNTY SOIL AND WATER CONSERVATION DISTRICT.

3. THE CONTRACTOR SHALL ERECT A TEMPORARY FENCE AROUND EXISTING WETLANDS TO ESTABLISH A "WETLAND PROTECTION ZONE" BEFORE ANY WORK BEGINS OR ANY MATERIAL IS DELIVERED TO THE JOBSITE. NO WORK IS TO BE PERFORMED, MATERIALS STORED, OR VEHICLES DRIVEN OR PARKED WITHIN THE "WETLAND PROTECTION ZONE". REMOVE TEMPORARY FENCE ONLY AFTER ALL CONSTRUCTION WORK HAS BEEN COMPLETED.

4. THE CONTRACTOR SHALL ATTACH AN ALUMINUM SIGN WITH THE FOLLOWING TEXT: PROTECT WETLAND NO INTRUSION. THE SIGN(S) SHALL BE ATTACHED TO THE STAKES BY A METHOD APPROVED BY THE ENGINEER. ATTACHING THE SIGN TO THE TEMPORARY FENCE STAKES WILL NOT BE PAID FOR SEPERATELY, BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR TEMPORARY FENCE.

Lochner
225 WEST WASHINGTON STREET 12TH FLOOR
CHICAGO, IL 60606 / 312-372-3011 (P)

USER NAME = Personal	DESIGNED - GG	REVISED -	
	DRAWN - GG	REVISED -	
PLOT SCALE = 99.996 ' / in.	CHECKED - AM	REVISED -	
PLOT DATE = 5/20/2024	DATE - 6/10/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EROSION & SEDIMENT CONTROL GENERAL NOTES
LAKE WOODBINE BRIDGE

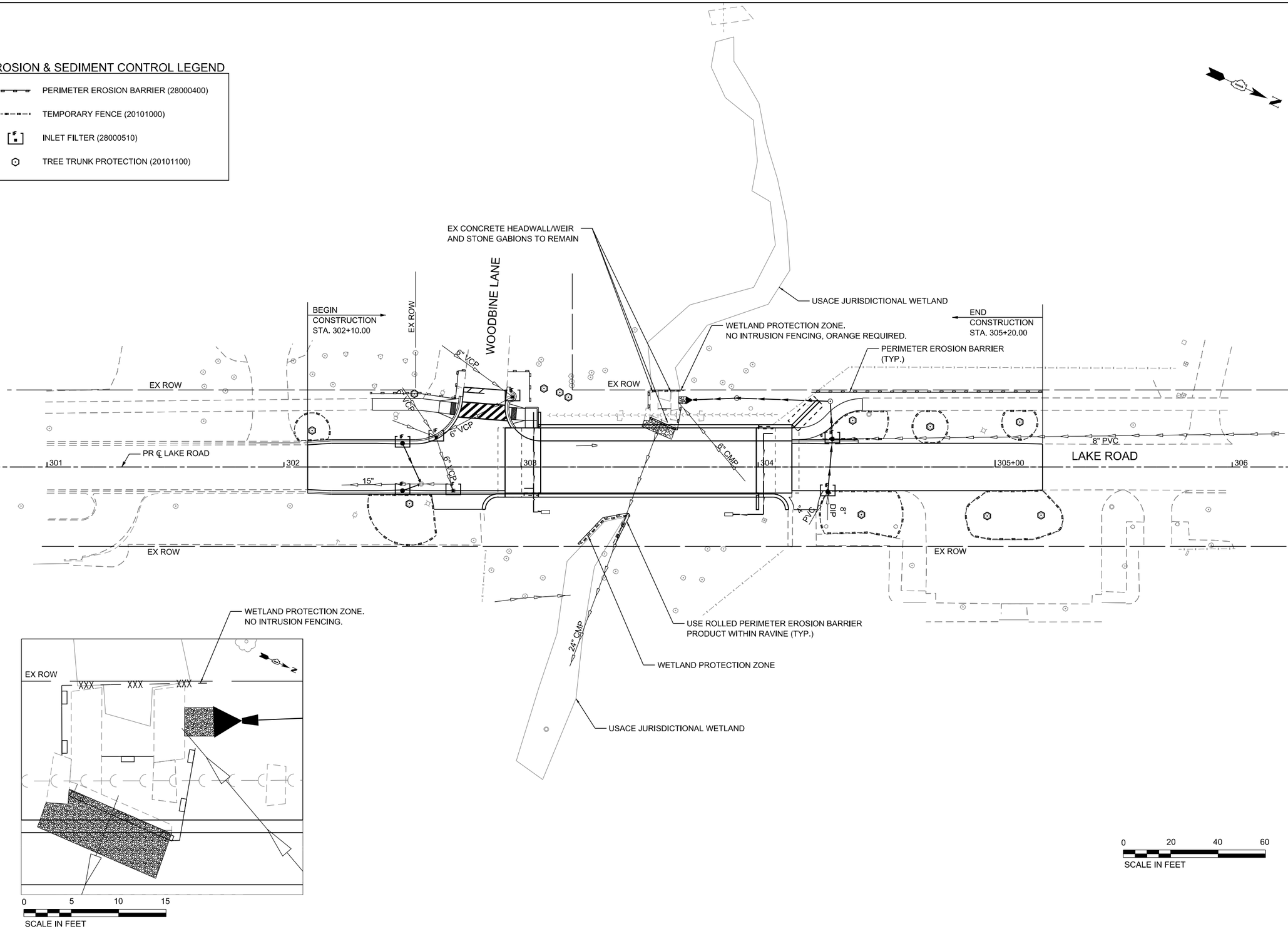
SCALE: N/A | SHEET 1 OF 7 SHEETS | STA. | TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	22
		CONTRACT NO. 61K52		
	ILLINOIS	FED. AID PROJECT		

MODEL: Default
FILE NAME: pw:\\lochner-pw.bentley.com:lochner-pw-01\Documents\Projects\000020201\6.0 CAD\Erosion-Landscape\20201-SHT-HWL-ESC_GEN.dgn

EROSION & SEDIMENT CONTROL LEGEND

- PERIMETER EROSION BARRIER (28000400)
- TEMPORARY FENCE (20101000)
- INLET FILTER (28000510)
- TREE TRUNK PROTECTION (20101100)



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225 WEST WASHINGTON STREET 12TH FLOOR
CHICAGO, IL 60606 / 312-372-3011 (P)

USER NAME = Personal	DESIGNED - GG	REVISED -	
	DRAWN - GG	REVISED -	
PLOT SCALE = 39.999 ' / in.	CHECKED - AM	REVISED -	
PLOT DATE = 5/20/2024	DATE - 6/10/2024	REVISED -	

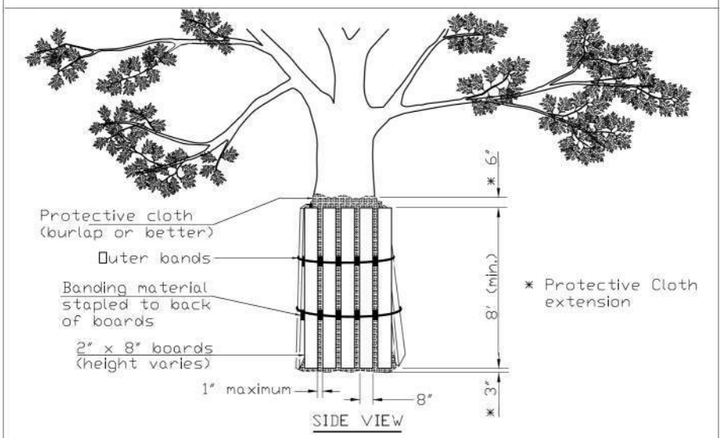
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EROSION & SEDIMENT CONTROL PLAN
LAKE WOODBINE BRIDGE

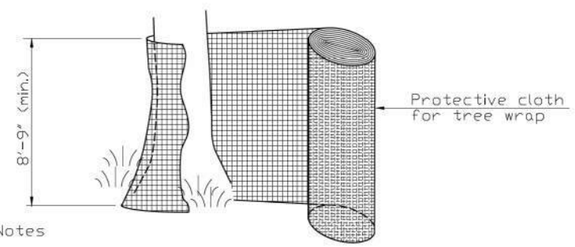
SCALE: 1"=20' | SHEET 2 OF 7 SHEETS | STA. 302+10 TO STA. 305+20

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	23
		CONTRACT NO. 61K52		
	ILLINOIS FED. AID PROJECT			

TREE TRUNK PROTECTION



SIDE VIEW



Notes

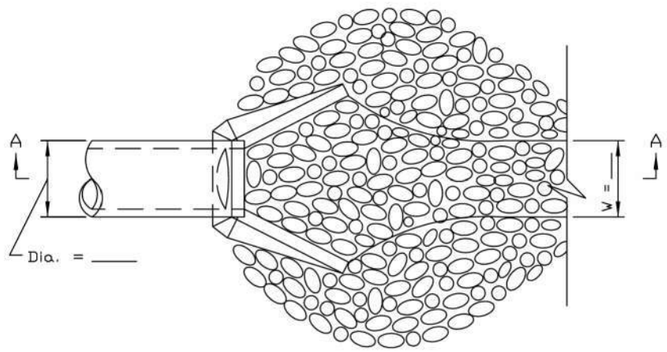
1. The contractor shall provide 2" x 8" boards banded continuously around each trunk with a protective cloth (such as burlap or better) placed between the boards and the tree to prevent scarring of the tree being protected. The height of the boards is variable due to height of tree being protected. Trees to be protected shall be shown in the plans or designated by the Professional Forester or Certified Arborist.

2. The protective cloth shall extend past both the top and bottom of the boards as shown in the detail. Width of wrap material varies. For fabric that does not meet the required height, fabric shall overlap a minimum of 6" and shall be spliced to avoid slippage.

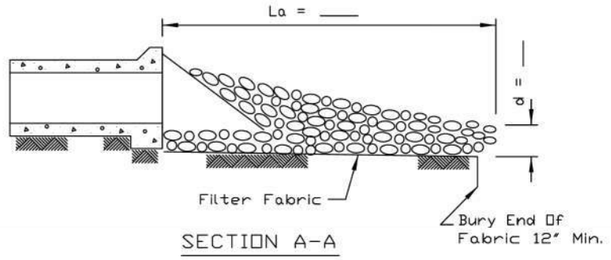
REFERENCE		STANDARD DWG. NO.
Project		IUM-690-C
Designed ____ Date ____		SHEET 1 OF 1
Checked ____ Date ____		DATE 09-14-2017
Approved ____ Date ____		

PIPE OUTLET TO CHANNEL

Pipe Outlet To Well-Defined Channel



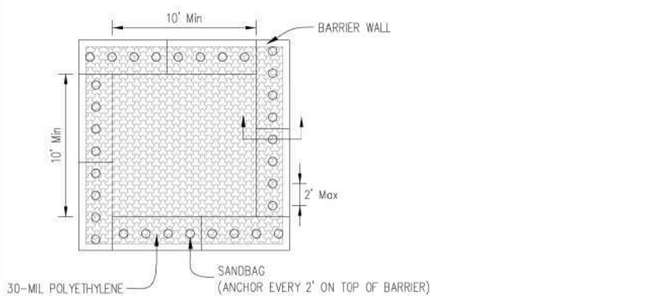
PLAN



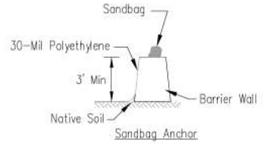
SECTION A-A

NOTES:
1. The filter fabric shall meet the requirements in material specification 592 GEOTEXTILE Table 1 or 2, Class I, II or III.
2. The rock riprap shall meet the IDOT requirements for the following gradation ____ .
3. The riprap shall be placed according to construction specification 61 LOOSE ROCK RIPRAP. The rock may be equipment placed.

REFERENCE		STANDARD DWG. NO.
Project	NRCS	IL-611
Designed ____ Date ____	Natural Resources Conservation Service	SHEET 1 OF 1
Checked ____ Date ____		DATE 8-18-94
Approved ____ Date ____		

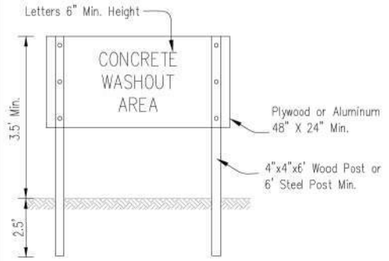


PLAN VIEW



Sandbag Anchor

BARRIER WALL ANCHOR SECTION



SIGN DETAIL

NOTES:

1. Maintaining temporary concrete washout facilities shall include removing and disposing of hardend concrete and/or slurry and returning the faciliities to a functional condition.

2. Facility shall be cleaned or reconstructed in a new area once washout becomes two-thirds full.

	TEMPORARY CONCRETE WASHOUT FACILITY – BARRIER WALL	Designed ____ Date ____
		Drawn B. JOHNSON 6/08
		Checked ____
		Approved ____

MODEL: Detail Sheet 1
FILE NAME: pw://lochner-pw.bentley.com:lochner-pw-01/Documents/Projects/00002020116.0 CAD/Erosion-Landscape/20201-SHT-HWL-ESC_DETAILS.dgn

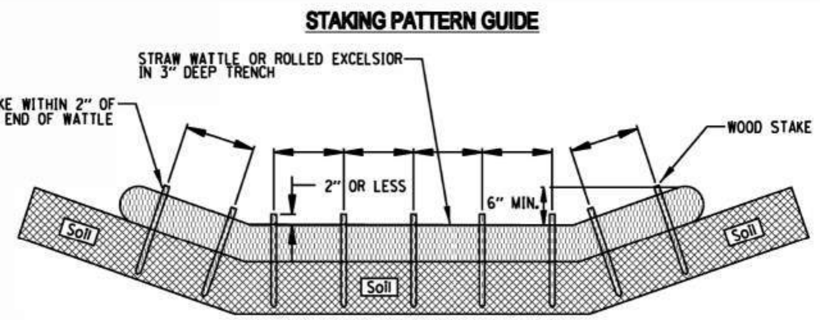
Lochner
225 WEST WASHINGTON STREET 12TH FLOOR
CHICAGO, IL 60606 / 312-372-3011 (P)

USER NAME = Personal	DESIGNED - GG	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EROSION & SEDIMENT CONTROL DETAIL LAKE WOODBINE BRIDGE
	DRAWN - GG	REVISED -		
PLOT SCALE = 99.996 ' / in.	CHECKED - AM	REVISED -		
PLOT DATE = 5/20/2024	DATE - 6/10/2024	REVISED -		SCALE: N/A SHEET 3 OF 7 SHEETS STA. TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	24
		CONTRACT NO. 61K52		
	ILLINOIS FED. AID PROJECT			

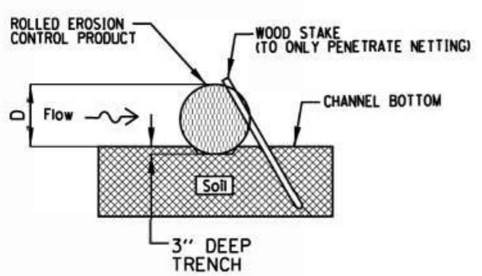
ROLLED EROSION CONTROL PRODUCTS

STAKING PATTERN GUIDE



NOTES:
1. OVERLAP MINIMUM IS THE DIAMETER OF THE ROLL.
2. 4' SPACING FOR WATTLES.
3. 2' SPACING FOR ROLLED EXCELSIOR.
4. OR SPACE ACCORDING TO MANUFACTURER'S SPECIFICATIONS.

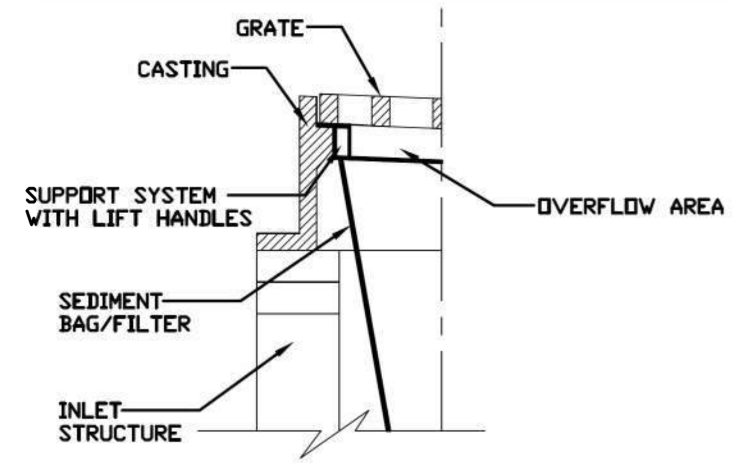
STAKE DETAIL

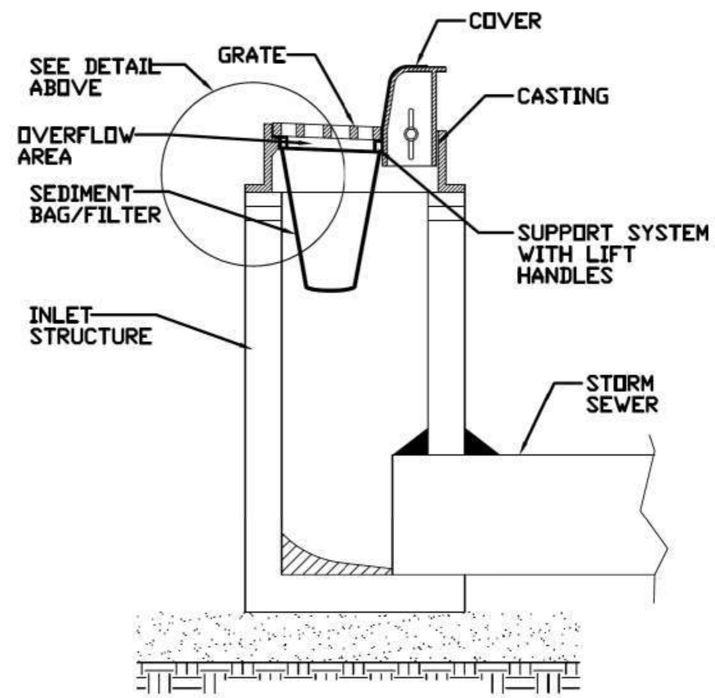


NOTES:
1. DRAWINGS ARE NOT TO SCALE.
2. ENDS OF WATTLES OR ROLLED EXCELSIOR SHALL BE TURNED AT LEAST 6" UPSLOPE.
3. RECOMMENDED STAKES ARE 1 1/8" WIDE x 1 1/8" THICK x 30" LONG.
4. STAKES SHALL NOT EXTEND ABOVE THE STRAW WATTLE MORE THAN 2".
5. SPACING: THE TOE OF THE UPSTREAM DITCH CHECK SHALL CREATE A HORIZONTAL LINE WITH THE TOP OF THE DOWNSTREAM DITCH CHECK.

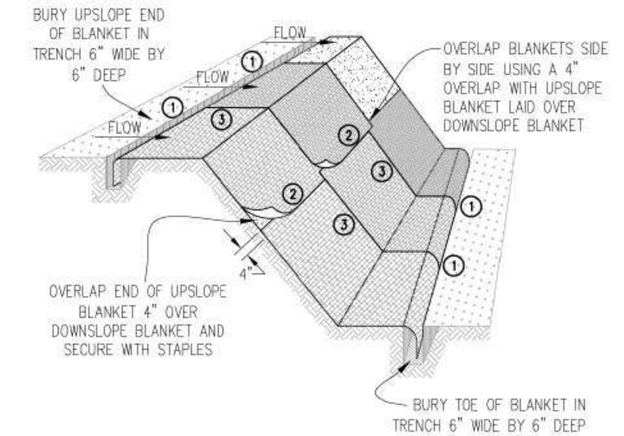
REFERENCE		STANDARD DWG. NO.
Project ______		IUM-514
Designed ______ Date ______		SHEET 1 OF 1
Checked ______ Date ______		
Approved ______ Date ______		DATE 08-2-2019

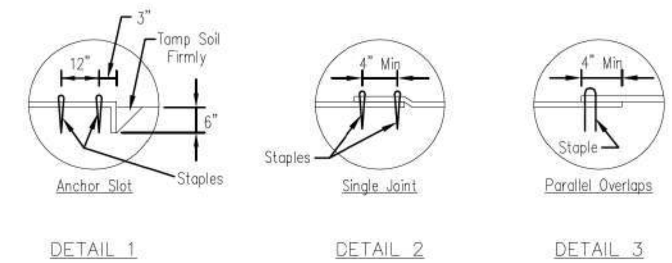
INLET PROTECTION - PAVED AREAS DROP-IN PROTECTION

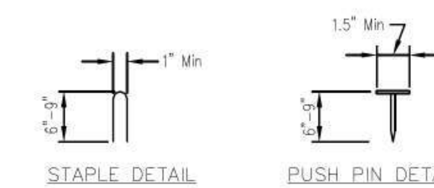




REFERENCE		STANDARD DWG. NO.
Project ______		IUM-561D
Designed ______ Date ______		SHEET 1 OF 1
Checked ______ Date ______		
Approved ______ Date ______		DATE 01-11-11







NOTES:

1. Staples shall be placed in a diamond pattern at 2 per s.y. for stiched blankets. Non-stiched shall use 4 staples per s.y. of material. This equates to 200 staples with stiched blanket and 400 stapels with non-stiched blanket per 100 s.y. of material.
2. Staple or push pin lengths shall be selected based on soil type and conditions. (minimum staple length is 6")
3. Erosion control material shall be placed in contact with the soil over a prepared seedbed.
4. All anchor slots shall be stapled at approximately 12" intervals.

Sheet 1 of 1	Drawing No. IUM-530	EROSION CONTROL BLANKET INSTALLATION DETAILS		Date
			Designed	
			Drawn B. JOHNSON	11/08
			Checked	
			Approved	

MODEL: Detail Sheet 2
FILE NAME: pw://lochner-pw.bentley.com/lochner-pw-01/Documents/Projects/000020201 6.0 CAD/Erosion-Landscape/20201-SHT-HWL-ESC_DETAILS.dgn

Lochner
225 WEST WASHINGTON STREET 12TH FLOOR
CHICAGO, IL 60606 / 312-372-3011 (P)

USER NAME = Personal	DESIGNED - GG	REVISED -
	DRAWN - GG	REVISED -
PLOT SCALE = 99.996 ' / in.	CHECKED - AM	REVISED -
PLOT DATE = 5/20/2024	DATE - 6/10/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EROSION & SEDIMENT CONTROL DETAIL
LAKE WOODBINE BRIDGE

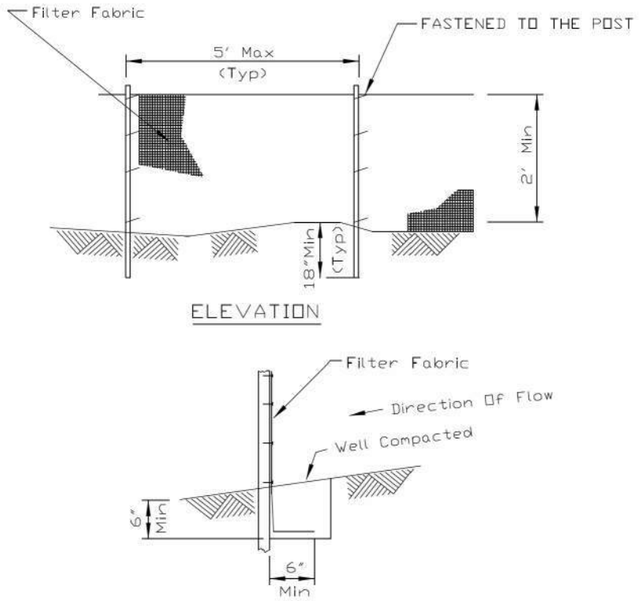
SCALE: N/A | SHEET 4 OF 7 SHEETS | STA. TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	25

CONTRACT NO. 61K52

ILLINOIS | FED. AID PROJECT

SILT FENCE PLAN

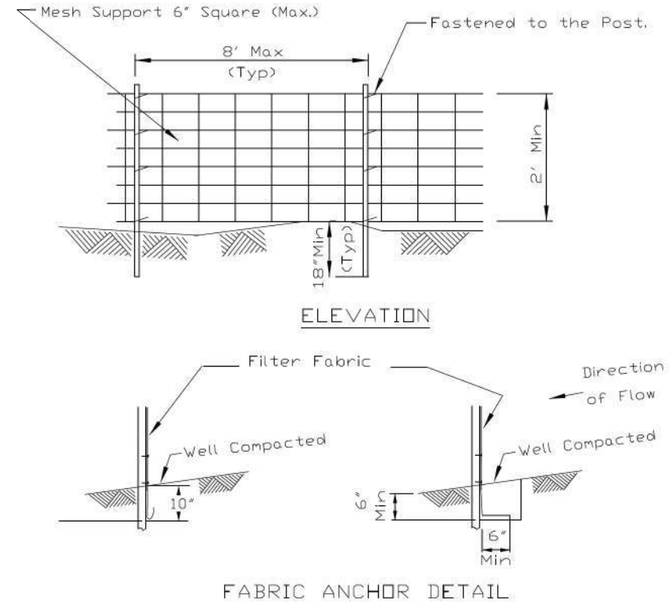


NOTES:

1. Temporary sediment fence shall be installed prior to any grading work in the area to be protected. They shall be maintained throughout the construction period and removed in conjunction with the final grading and site stabilization.
2. Filter fabric shall meet the requirements of material specification 592 Geotextile Table 1, Class 2.
3. Fence posts shall be either standard steel post or wood post 2" X 2" nominal.

REFERENCE		STANDARD DWG. NO.
Project		IUM-620A
Designed ____ Date ____		SHEET 1 OF 2
Checked ____ Date ____		DATE 04-15-2021
Approved ____ Date ____		

SILT FENCE WITH WIRE SUPPORT PLAN



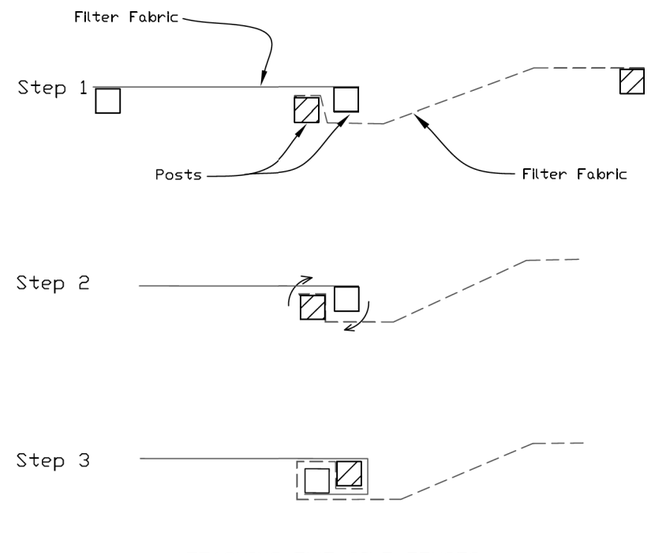
STATIC SLICE INSTALLATION TRENCH INSTALLATION

NOTES:

1. Silt Fence shall be installed prior to any grading work in the area to be protected. They shall be maintained throughout the construction period and removed in conjunction with the final grading and site stabilization. Silt fence shall be placed on the flattest area available.
2. Filter fabric shall meet the requirements of material specification 592 Geotextile Table 1, Class 2.
3. Fence posts shall be either standard steel post or wood post 2"X2" nominal.
4. Wire mesh may be omitted if post spacing is 5' on center or less.

REFERENCE		STANDARD DWG. NO.
Project		IUM-620A(W)
Designed ____ Date ____		SHEET 1 OF 2
Checked ____ Date ____		DATE 4-15-2021
Approved ____ Date ____		

SILT FENCE - SPLICING TWO FENCES



ATTACHING TWO SILT FENCES

1. Place the end post of the second fence inside the end post of the first fence.
2. Rotate both posts at least 180 degrees in a clockwise direction to create a tight seal with the fabric material.
3. Cut the fabric near the bottom of the stakes to accommodate the 6" flap.
4. Drive both posts a minimum of 18 inches into the ground and bury the flap.
5. Compact backfill (particularly at splices) completely to prevent stormwater piping.

REFERENCE		STANDARD DWG. NO.
Project		IUM-620B(W)
Designed ____ Date ____		SHEET 1 OF 1
Checked ____ Date ____		DATE 3-16-2012
Approved ____ Date ____		

MODEL: Detail Sheet 3
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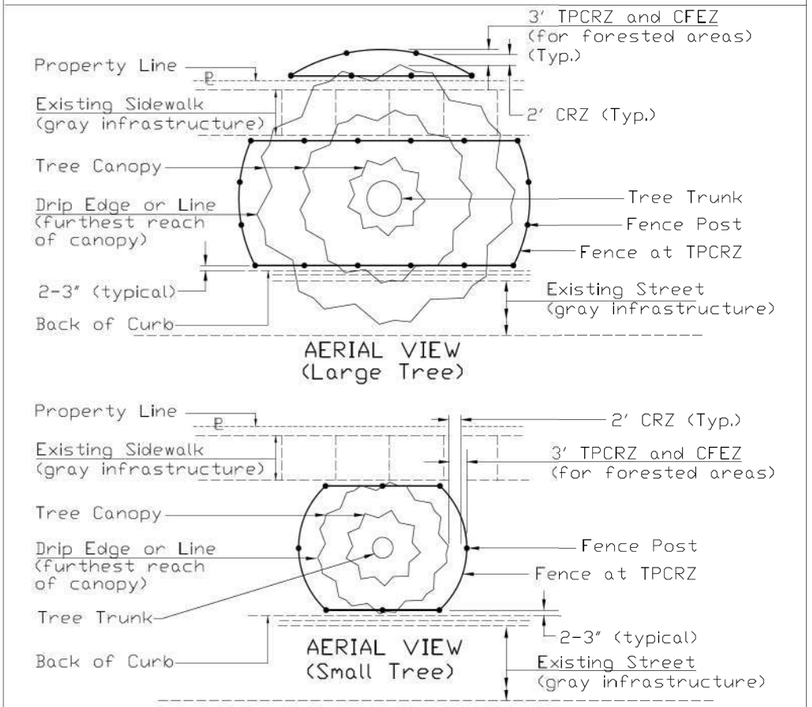
Lochner
225 WEST WASHINGTON STREET 12TH FLOOR
CHICAGO, IL 60606 / 312-372-3011 (P)

USER NAME = Personal	DESIGNED - GG	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EROSION & SEDIMENT CONTROL DETAIL LAKE WOODBINE BRIDGE
	DRAWN - GG	REVISED -		
PLOT SCALE = 99.996 ' / in.	CHECKED - AM	REVISED -		
PLOT DATE = 5/20/2024	DATE - 6/10/2024	REVISED -		SCALE: N/A SHEET 5 OF 7 SHEETS STA. TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	26
		CONTRACT NO. 61K52		
	ILLINOIS	FED. AID PROJECT		

TREE PROTECTION - FENCING
(Highly Urbanized Areas)



Notes:

1. Call J.U.L.I.E. (800-892-0123) for the location of existing utilities 48 hours prior to commencement of work.
2. The CRZ is located 2' from the farthest outreaching branch (drip edge) or the distance as determined by the ISA trunk diameter method or whichever is greater.
3. On sides of the tree not constricted by gray infrastructure, the fence shall be located 1 foot from the Critical Root Zone (CRZ) of the protected tree, thus creating the Tree Protection Critical Root Zone (TPCRZ). The Critical Forest Edge Zone (CFEZ), for forested areas, shall also be located at the TPCRZ.

REFERENCE		STANDARD DWG. NO.
Project		IUM-690-B
Designed ____ Date ____		SHEET 1 OF 2
Checked ____ Date ____		DATE 09-14-2017
Approved ____ Date ____		

TREE PROTECTION - FENCING
(Highly Urbanized Areas)

Notes: (cont.)

4. On sides of the tree where there is gray infrastructure conflict the fence shall be 3 to 4 inches from the structure. Where the structure is a sidewalk and the CRZ goes beyond the sidewalk to the adjoining greenspace, the Tree Protection Fencing shall continue to the CRZ without impeding the flow of the traffic of the sidewalk.
5. Fence Posts shall be either 6' steel posts @ 1.33Lbs./Ft. or 2" x 2" nominal wood posts.
6. A chain link fence with Construction Specification Chain Link Fence IUM 91 or better (as approved by the local Forester per local ordinances singularly or in tandem with the project Engineer) shall be used. Fencing shall be a minimum height of 4'. Metal posts shall be placed 6' on center (OC) and fencing is securely anchored to the ground.
7. Outside the TPCRZ, erosion and sediment control measures shall be installed to prevent sediment reaching the TPCRZ. These measures shall extend out from the fence 10' and shall be continuous around the perimeter of the fence. These measures include, but are not limited to vegetative filter strip, rolled excelsior blankets and woodchip mulch with a 3" to 5" depth. Other methods may be used if approved by the Professional Forester, Certified Arborist or Horticulturalist. Installation shall cause no disturbance to soils.

REFERENCE		STANDARD DWG. NO.
Project		IUM-690-B
Designed ____ Date ____		SHEET 2 OF 2
Checked ____ Date ____		DATE 09-14-2017
Approved ____ Date ____		

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Lochner
225 WEST WASHINGTON STREET 12TH FLOOR
CHICAGO, IL 60606 / 312-372-3011 (P)

USER NAME = Personal		DESIGNED - GG		REVISED -	
		DRAWN - GG		REVISED -	
PLOT SCALE = 99.996 ' / in.		CHECKED - AM		REVISED -	
PLOT DATE = 5/20/2024		DATE - 6/10/2024		REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

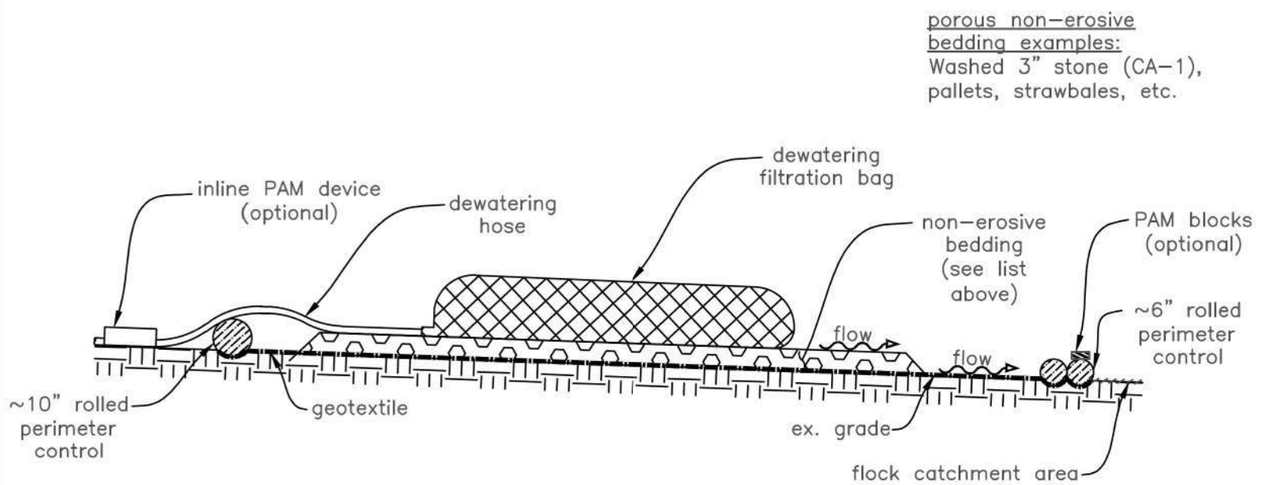
EROSION & SEDIMENT CONTROL DETAIL
LAKE WOODBINE BRIDGE

SCALE: N/A | SHEET 6 OF 7 SHEETS | STA. | TO STA.

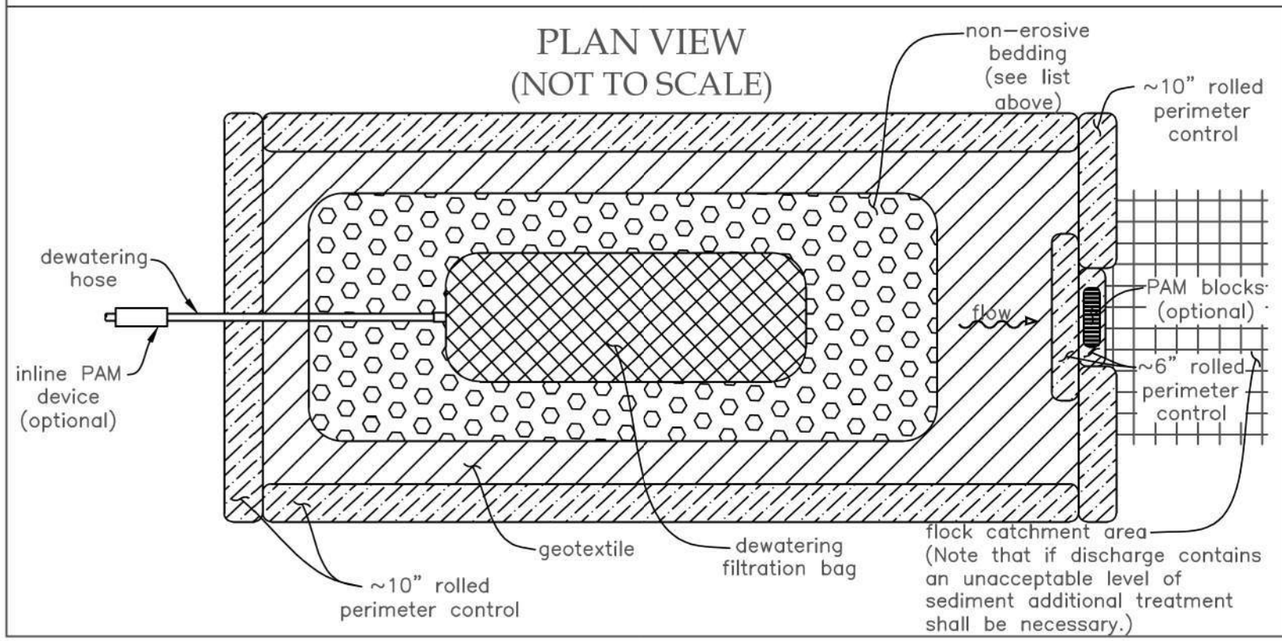
MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	27
		CONTRACT NO. 61K52		
	ILLINOIS FED. AID PROJECT			

SITE DEWATERING DETAIL

CROSS SECTION VIEW
(NOT TO SCALE)



PLAN VIEW
(NOT TO SCALE)



NOTES:

- This detail provides general guidance on dewatering setup options. Site and project specific details, including manufacturer recommendations should be considered. Final dewatering design requires approval by the Enforcement Officer. The Enforcement Officer, or approved representative, must be present at the commencement of dewatering activities.
- Rolled perimeter control must be entrenched and staked in unless the product is self-bedding. [compost sock, fiber rolls, or similar]
- Dewatering bag must be monitored frequently during use, this includes checking on flow and fill capacity.
- Sediment shall be removed from the catchment area and the system restored to its original design when sediment has accumulated to cover half of the catchment area.
- Adjoining properties and discharge locations shall be protected from erosion and sedimentation.
- Ensure proper overlap where rolled perimeter control ends meet.
- Elevate bag on porous non-erosive bedding to properly drain (maximize surface area).

REFERENCES:

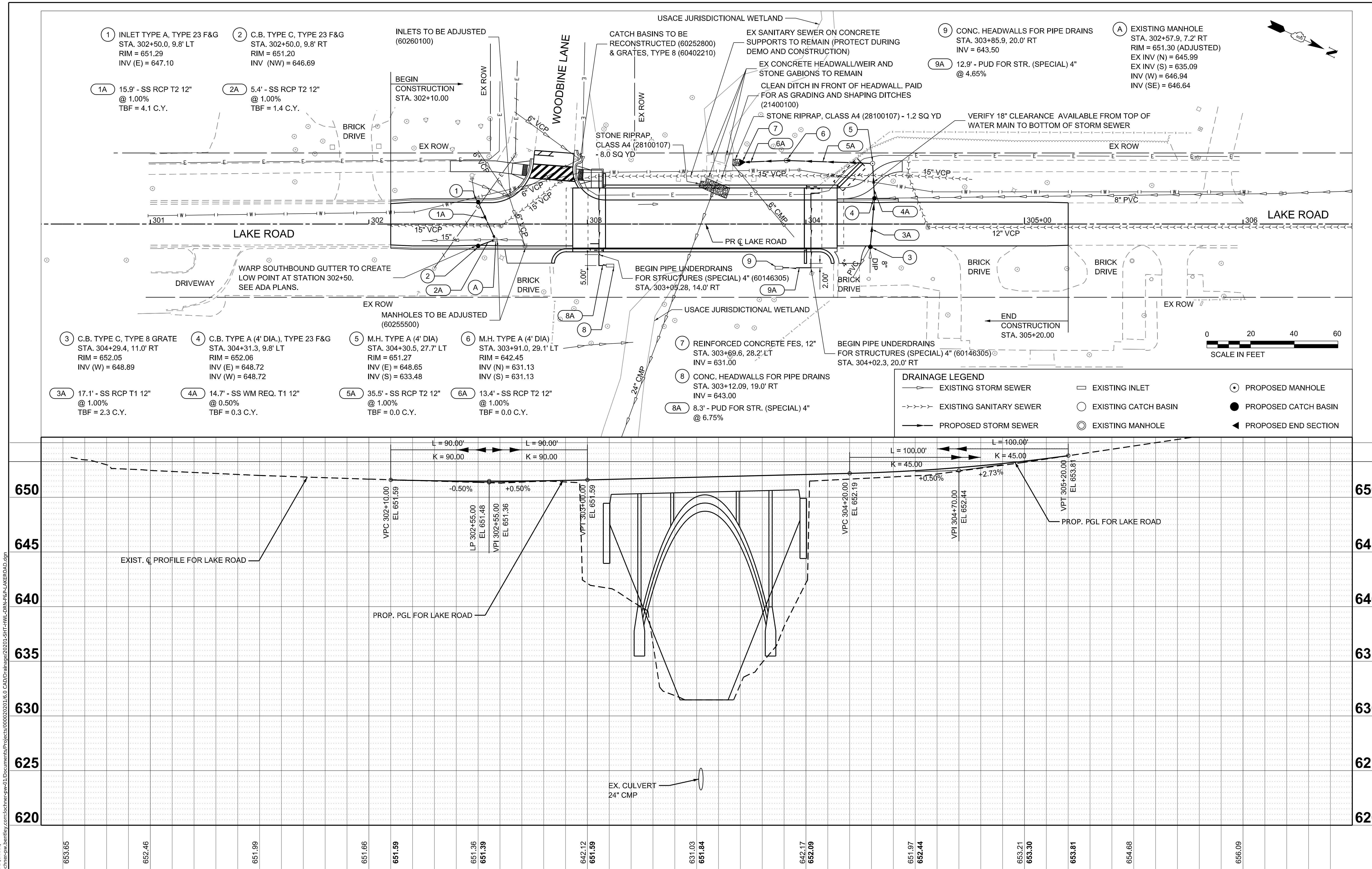
- Dewatering: https://illinoisurbanmanual.org/wp-content/uploads/2019/01/813-Dewatering-9-25-2018.pdf
- PAM (polyacrylamide): https://illinoisurbanmanual.org/wp-content/uploads/2018/08/PAM-for-Turbidity-Reduction-and-Sediment-Control-1.pdf
- SESC Notes: https://www.lakecountyil.gov/DocumentCenter/View/3415/SESC-Construction-Notes-2013-PDF

Date: 10/2022

Lochner
225 WEST WASHINGTON STREET 12TH FLOOR
CHICAGO, IL 60606 / 312-372-3011 (P)

USER NAME = Personal	DESIGNED - GG	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EROSION AND SEDIMENT CONTROL DETAIL LAKE WOODBINE BRIDGE
	DRAWN - GG	REVISED -		
PLOT SCALE = 99.996 ' / in.	CHECKED - AM	REVISED -		SCALE: N/A SHEET 7 OF 7 SHEETS STA. TO STA.
PLOT DATE = 5/20/2024	DATE - 6/10/2024	REVISED -		

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	28
		CONTRACT NO. 61K52		
	ILLINOIS	FED. AID PROJECT		



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Lochner
225 WEST WASHINGTON STREET 12TH FLOOR
CHICAGO, IL 60606 / 312-372-3011 (P)

USER NAME = Personal	DESIGNED - GG	REVISED -
	DRAWN - GG	REVISED -
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PLOT DATE = 5/16/2024	DATE - 6/10/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRAINAGE & UTILITY - PLAN AND PROFILE
LAKE WOODBINE BRIDGE

SCALE: 1" = 20' | SHEET 1 OF 1 SHEETS | STA. 302+10 TO STA. 305+20

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	29

CONTRACT NO. 61K52
ILLINOIS FED. AID PROJECT

THERMOPLASTIC PAVEMENT MARKING - LINE 6" (78000400) AND
THERMOPLASTIC PAVEMENT MARKING - LINE 12" (78000600)
SEE LAKE FOREST STANDARD FOR TYPICAL CROSS WALK

THERMOPLASTIC PAVEMENT MARKING - LINE 24" (78000650)

DETECTABLE WARNINGS (42400800)

WOODBINE LANE

MATCH EXISTING

EL. 651.15

RAISED REFLECTIVE PAVEMENT
MARKER (BLUE) (78100100)
STA. 302+79.40 OFFSET 19.5' LT
SEE LAKE FOREST STANDARD 2.16

EL. 651.25
EL. 651.29
H.P. EL. 651.32
EL. 651.37
EL. 651.70
EL. 651.72
EL. 651.74
EL. 651.76
EL. 651.78
EL. 651.67
EL. 651.65
EL. 651.63
EL. 650.95
EL. 650.92
EL. 651.05
EL. 651.11
DEPRESSED
CURB & GUTTER
EL. 651.68
EL. 651.73
DETECTABLE WARNINGS (42400800)
EL. 651.72
EL. 651.79
EL. 651.67
EL. 651.66
EL. 651.65
EL. 651.64
EL. 651.63
EL. 651.61
EL. 651.59
EL. 651.57
EL. 651.32
DEPRESSED
CURB & GUTTER
EL. 651.27
651.14
651.08
651.20
EL. 651.95
EL. 652.05
EL. 652.02
EL. 651.31
EL. 651.97
EL. 651.47
EL. 651.39
EL. 651.90

RAISED REFLECTIVE PAVEMENT
MARKER (BLUE) (78100100)
STA. 302+47 OFFSET 5.0' LT
SEE LAKE FOREST STANDARD 2.16

L.P. EL. 651.10
(AT EX. INLET
TO REMAIN)

EL. 651.20
EL. 651.28

LAKE ROAD

APPROACH SLAB
EXPANSION JOINT

APPROACH SLAB
FOOTING

PR ℄ LAKE ROAD

EL. 651.51
STA. 302+30.00

EL. 651.31
STA. 302+30.00

EL. 651.48
STA. 302+50.00

EL. 651.48
STA. 302+55.38

EL. 651.48
STA. 302+64.18

EL. 651.49
STA. 302+70.00

L.P. EL. 651.19
STA. 302+50.00

EL. 651.29
STA. 302+70.00

EL. 651.25

EL. 650.88

EL. 651.36

EL. 651.41

EL. 651.56
STA. 302+93.28

EL. 651.63
STA. 303+08.28

APPROACH SLAB
EXPANSION JOINT

EL. 651.59
STA. 303+00.78

EL. 650.10

EX. MANHOLE WITH
OPEN LID TO REMAIN
ELEV. 651.30

DEPRESSED
CURB & GUTTER

MATCH EXISTING

0 5 10 15
SCALE IN FEET

MODEL: Default
FILE NAME: pw:\\lochner-pw.bentley.com:lochner-pw-01\Documents\Projects\000020201\6.0 CAD\Roadway\20201-SHT-HWL-RDY-DETAIL_ADA_01.dgn

Lochner
225 WEST WASHINGTON STREET 12TH FLOOR
CHICAGO, IL 60606 / 312-372-3011 (P)

USER NAME = Personal	DESIGNED - JN	REVISED -	
	DRAWN - JN	REVISED -	
PLOT SCALE =	CHECKED - DS	REVISED -	
PLOT DATE = 5/24/2024	DATE - 6/10/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROADWAY DETAILS
LAKE ROAD AND WOODBINE LANE - ADA DETAIL

SCALE: 1"=5' | SHEET 1 OF 2 SHEETS | STA. 302+13 | TO STA. 303+70

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	30
		CONTRACT NO. 61K52		
		ILLINOIS	FED. AID PROJECT	

MATCH EXISTING

1.50%

1.50%

5.50'

1.50%

EL. 652.03

EL. 653.50

EL. 652.01

APPROACH SLAB
EXPANSION JOINT

APPROACH SLAB
FOOTING

11.00'

1.50%

APPROACH SLAB
EXPANSION JOINT

1.50%

2.00%

10.00'

2.00%

LAKE ROAD

MATCH EXISTING

304

305+00

EL. 652.16
STA. 304+14.27

EL. 652.25
STA. 304+29.27

PR ℄ LAKE ROAD

11.00'

1.50%

1.50%

2.00%

10.00'

2.00%

EL. 652.01

EL. 652.03

EL. 653.62

0.50%

8.00'

0.80%

10.00'

EL. 651.36

EL. 651.44

MATCH EXISTING

0 5 10 15

SCALE IN FEET

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Lochner
225 WEST WASHINGTON STREET 12TH FLOOR
CHICAGO, IL 60606 / 312-372-3011 (P)

USER NAME = Personal		DESIGNED - JN		REVISED -	
		DRAWN - JN		REVISED -	
PLOT SCALE =		CHECKED - DS		REVISED -	
PLOT DATE = 5/24/2024		DATE - 6/10/2024		REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROADWAY DETAILS
LAKE ROAD

SCALE: 1"=5' | SHEET 2 OF 2 SHEETS | STA. 303+83 | TO STA. 305+20

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	31
		CONTRACT NO. 61K52		
	ILLINOIS FED. AID PROJECT			

LANDSCAPING LEGEND

PROPOSED TREE - FINAL SPECIES AND LOCATION TO BE DETERMINED BY CITY FORESTER

SODDING, SALT TOLERANT (25200110)

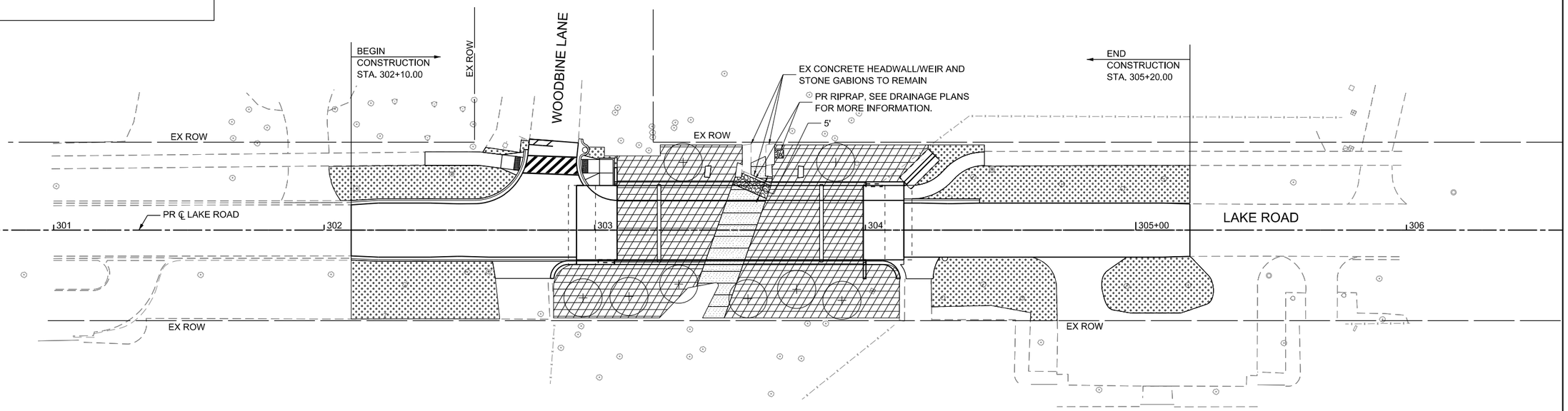
SEEDING, CLASS 4 (MODIFIED) (X2501800) WITH EROSION CONTROL BLANKET (SPECIAL) (X2511630)

SEEDING, CLASS 4 (MODIFIED) (X2501800) WITH TURF REINFORCEMENT MAT (25100900)

NOTES:

1. TURF REINFORCEMENT MAT TO BE USED ON SLOPES STEEPER THAN 3H:1V EROSION CONTROL BLANKET (SPECIAL) MAY BE SUBSTITUTED AT THE DIRECTION OF THE ENGINEER.

2. 50 SQ YD OF SODDING, SALT TOLERANT (25200110) PROVIDED FOR UNFORSEEN RESTORATION.



0 20 40 60

SCALE IN FEET

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Lochner
225 WEST WASHINGTON STREET 12TH FLOOR
CHICAGO, IL 60606 / 312-372-3011 (P)

USER NAME = Personal	DESIGNED - GG	REVISED -	
	DRAWN - GG	REVISED -	
PLOT SCALE = 39.999 ' / in.	CHECKED - AM	REVISED -	
PLOT DATE = 5/24/2024	DATE - 6/10/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LANDSCAPING PLAN
LAKE WOODBINE BRIDGE

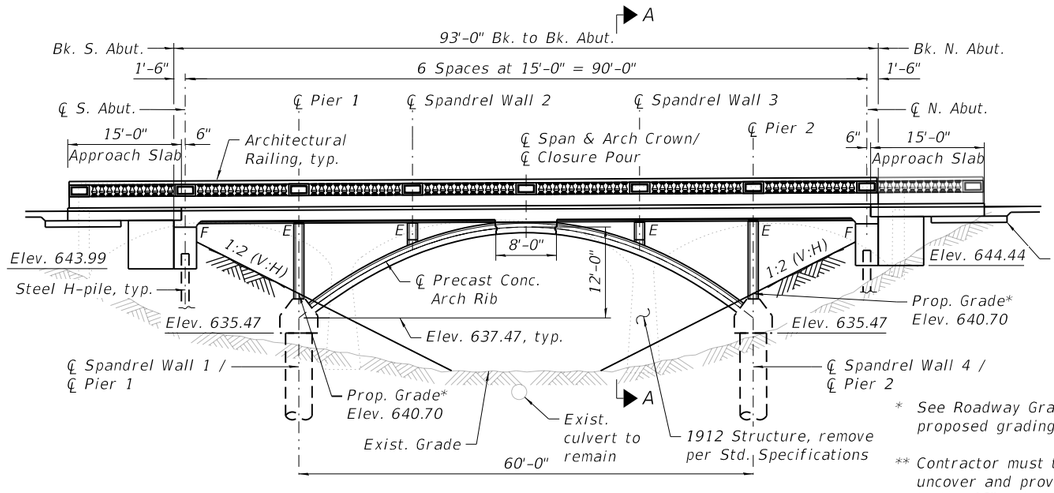
SCALE: 1"=20' | SHEET 1 OF 1 SHEETS | STA. 302+10 TO STA. 305+20

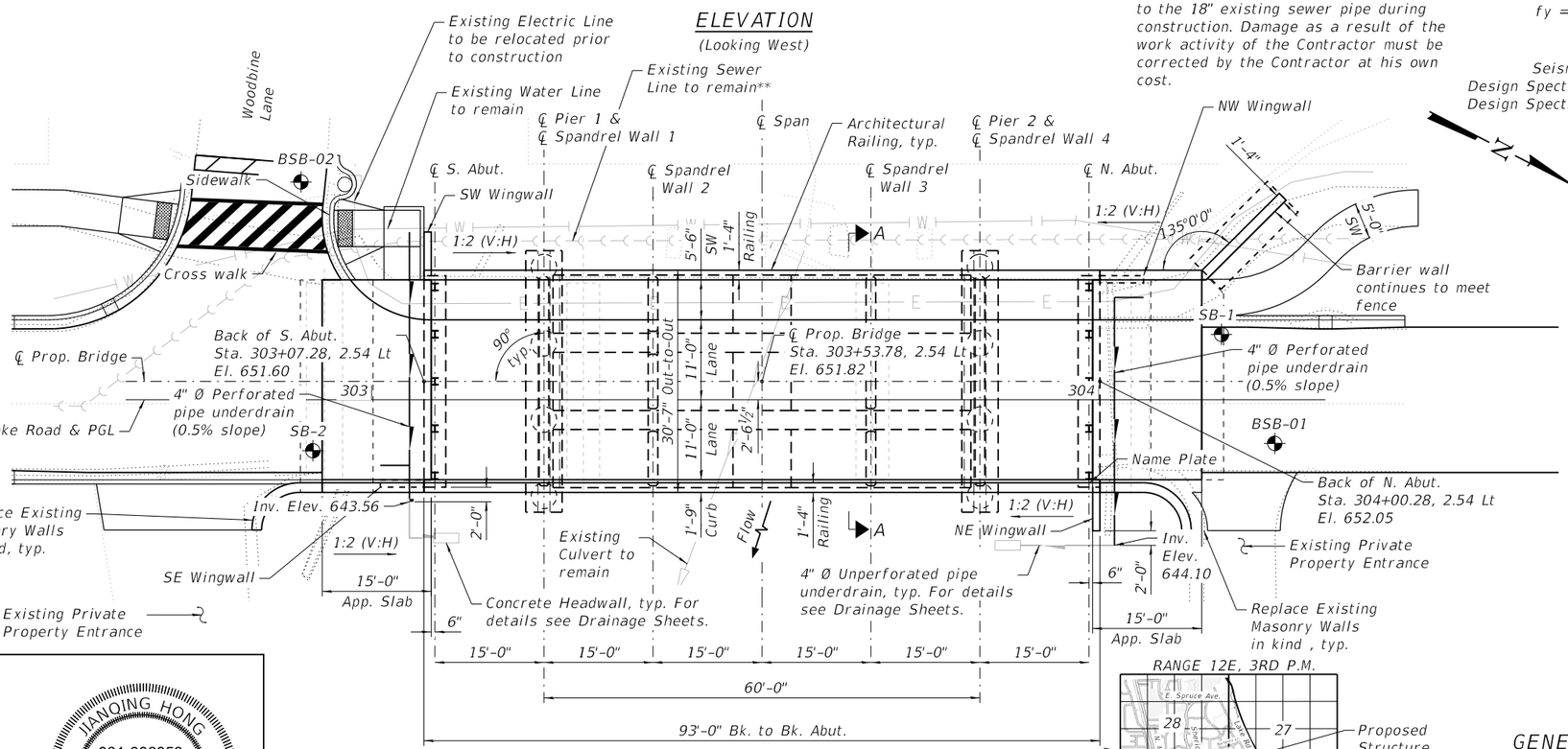
MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	32
		CONTRACT NO. 61K52		
	ILLINOIS FED. AID PROJECT			

Benchmark: (description to be provided by surveyors)

Existing Structure: S.N. 049-6852, continuous three span (±33'-1½", ±39'-9", ±33'-1½"), ±27'-0" o. to o., closed spandrel concrete arch bridge, rise unknown. Built in 1912 under an unknown contract and repaired in 1978. The bridge shall be removed and replaced with a six span cast-in-place continuous slab superstructure on spandrel walls supported by precast arch ribs and integral abutments. Roadway traffic will be detoured during construction.

No salvage.





* See Roadway Grading Plans for proposed grading details.

** Contractor must take extra caution to uncover and provide required protection to the 18" existing sewer pipe during construction. Damage as a result of the work activity of the Contractor must be corrected by the Contractor at his own cost.

DESIGN SPECIFICATIONS

2020 AASHTO LRFD Bridge Design Specifications, 9th Edition

LOADING HL-93

Allow 50#/sq. ft. for future wearing surface
75 psf sidewalk pedestrian live load

DESIGN STRESSES

FIELD UNITS:

(Minimum compressive strength at 14 days for cast-in-place concrete)
f'c = 4,000 psi (Abutment, drilled shaft cap, drilled shaft, wingwall, sidewalk (bridge & approach), railing plinth, barrier wall, approach slab and sleeper slab)
f'c = 5,000 psi (Deck slab and spandrel walls)
f'c = 6,000 psi (cast-in-place arch closure pour)
fy = 60,000 psi (Reinforcement)
fy = 35,000 psi (Permanent casing)

PRECAST UNITS:

(Minimum compressive strength at 28 days for pre-cast concrete)
Arch Ribs
f'c = 6,000 psi
fy = 60,000 psi (Reinforcement)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (S_1) = 0.033g
Design Spectral Acceleration at 0.2 sec. (S_s) = 0.080g
Soil Site Class = C

LEGEND:

Soil Boring Location

H.W. LOCHNER, INC.

JIANQING HONG, S.E.

DATE: 06/05/2024

081-006053

SIGNATURE AND SEAL APPLY TO SHEETS 33-71

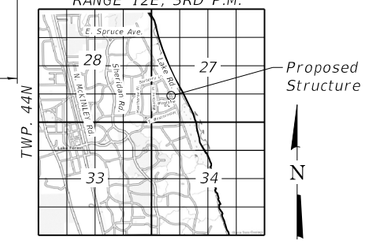
EXP. DATE: 11/30/2024

JIANQING HONG 081-006053 LICENSED STRUCTURAL ENGINEER OF ILLINOIS

Robert Hong

I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with the requirements of the current "AASHTO LRFD Bridge Design Specifications".

PLAN



LOCATION SKETCH

GENERAL PLAN & ELEVATION
LAKE ROAD OVER UNNAMED RAVINE
LAKE COUNTY
SECTION NO. 12-00094-00-BR
STATION 303+53.78
STRUCTURE NO. 049-6851

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Lochner
225 WEST WASHINGTON STREET 12TH FLOOR
CHICAGO, IL 60606 / 312-372-3011 (P)

USER NAME = Personal		DESIGNED - MM	REVISED -	
		DRAWN - MM	REVISED -	
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PLOT DATE = 6/4/2024		DATE - 6/10/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION
STRUCTURE NO. 049-6851

SHEET 1 OF 39 SHEETS STA. TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	33
		CONTRACT NO. 61K52		
		ILLINOIS	FED. AID PROJECT	

GENERAL NOTES

1. Reinforcement bars designated (E) shall be epoxy coated.

2. The Contractor shall make allowance for the deflection of forms, shrinkage and settlement of shoring, in addition to allowance for dead load deflection. Forms for deck slab shall be removed prior to placement of bridge approach slab.

3. A film forming Concrete Sealer shall be applied to the designated areas of the exposed surfaces of abutments, wingwalls, spandrel walls, precast arch and its closure pour.

4. Backfill shall be placed behind the abutment after the superstructure has been poured and shoring removed. See Article 502.10 of the Standard Specifications.

5. The Contractor shall obtain a construction permit from the Illinois Department of Natural Resources (IDNR), Office of Water Resources for any temporary construction activity placed in the water except cofferdams. This shall include the placement of material for run-arounds, causeways, etc. Any permit application by the Contractor shall refer to the IDNR 3704 Floodway Construction permit number allowing permanent construction as shown in the contract plans.

6. Plan dimensions and details relative to existing structure are not available. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

7. The Contractor shall make allowance for the deflection of forms, shrinkage and settlement of shoring, in addition to allowance for dead load deflection. Forms for deck slab shall be removed prior to placement of bridge approach slab.

8. Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure. The Contractor shall sawcut the upper portion of the existing abutment at the stage removal line before Stage I removal to ensure the remaining portion will not be prematurely damaged.

9. Layout of slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.

10. Cast-in-place concrete construction shall conform to Article 503 of the Standard Specifications except the concrete design compressive strengths for various structural elements shall meet the requirements shown on Sheet 33.

11. Cost of cast-in-place concrete used for bridge abutments, drilled shaft caps, spandrel walls, wingwalls, barrier walls and approach slab sleeper slabs is included with CONCRETE STRUCTURES. Cost of cast-in-place concrete used for drilled shafts is included with DRILLED SHAFT IN SOIL. Cost of cast-in-place concrete used for approach slabs is included with CONCRETE SUPERSTRUCTURE (APPROACH SLAB). Cost of cast-in-place concrete used for concrete deck slabs, sidewalks, railing plinth and precast concrete arch center closure pours is included with CONCRETE SUPERSTRUCTURE.

12. The work of grout rubbed finish must conform to project specification requirements of CONCRETE FINISH and shall be applied to all exposed concrete surface with the EXCEPTION of following areas:

    -Vehicle riding surface between the sidewalk curbs on top of deck slab

    -Underside of the deck slab

    The estimated total area of grout rubbed finish is 6,910 Sq. Ft. and its cost is included with CONCRETE FINISH.

13. Apply Integral Color Admixture, ASTM C979, to CONCRETE STRUCTURE, CONCRETE SUPERSTRUCTURE, CONCRETE SUPERSTRUCTURE (APPROACH SLAB), PRECAST CONCRETE ARCH to match existing concrete color per project specification requirements of CONCRETE FINISH.

INDEX OF BRIDGE PLAN SHEETS

GENERAL NOTES (CONT'D)

14. The Contractor is responsible to implement the following noise and vibration control measures in order to reduce disturbance and mitigate the risk of property damage when driving piles. The mitigation plan must be submitted to the City for approval prior to pile driving. Their costs are included with DRIVING PILES.

    -Use low-noise and low-vibration pile driving equipment, including hydraulic hammers or vibratory hammers

    -Apply vibration isolation or damping devices, including but not limited to rubber pads or springs

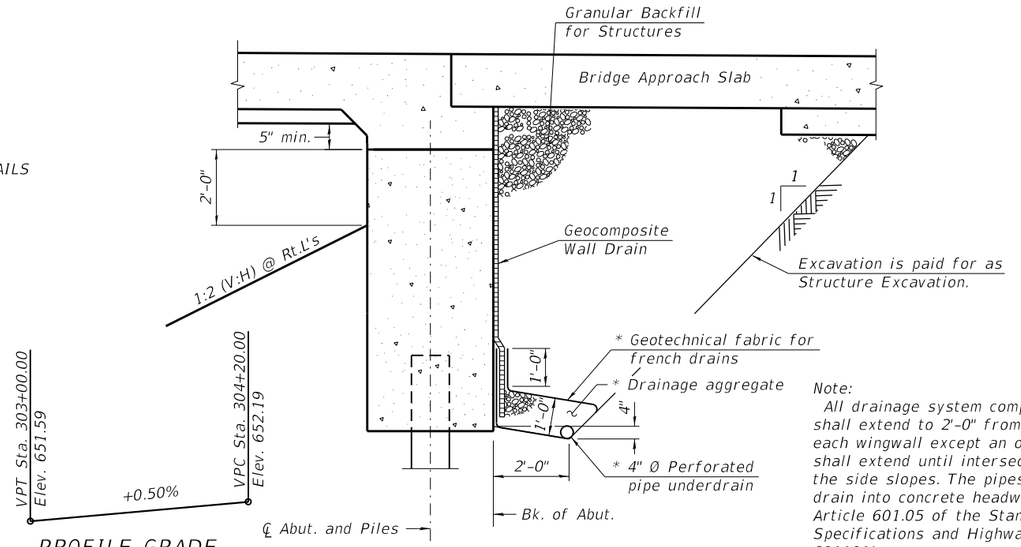
    -Communicating with stakeholders to inform them about the pile driving schedule, expected noise and vibration levels, and mitigation measures taken by the Contractor prior to pile driving

    The noise and vibration levels during pile driving must be monitored with instruments, including but not limited to sound level meters or accelerometers. Its cost is included with CONSTRUCTION VIBRATION MONITORING.

15. The Contractor must take extra caution to not damage newly installed ComEd aerial lines located within the existing right of way. The Contractor must coordinate crane operations with ComEd prior to construction and ensure adequate clearance which satisfies ComEd requirements during construction. Damage as a result of the work activity of the Contractor must be corrected by the Contractor at his own expense.

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub		Total
			Piers	Abuts.	
Removal Of Existing Structures	Each	1	-	-	1
Structure Excavation	Cu. Yd.	-	-	135	135
Concrete Structures	Cu. Yd.	17.6	87.6	48.1	153.3
Concrete Superstructure	Cu. Yd.	198.7	-	-	198.7
Bridge Deck Grooving	Sq. Yd.	273	-	-	273
Protective Coat	Sq. Yd.	549	-	-	549
Concrete Superstructure (Approach Slab)	Cu. Yd.	40.4	-	-	40.4
Reinforcement Bars, Epoxy Coated	Pound	88,590	87,540	10,720	186,850
Mechanical Splicers	Each	-	536	-	536
Furnishing Steel Piles HP14X73	Foot	-	480	-	480
Driving Piles	Foot	-	480	-	480
Test Pile Steel HP14X73	Each	-	2	-	2
Pile Shoes	Each	-	10	-	10
Name Plates	Each	-	1	-	1
Permanent Casing	Foot	-	320	-	320
Drilled Shaft In Soil	Cu. Yd.	-	171.1	-	171.1
Granular Backfill For Structures	Cu. Yd.	-	-	134	134
Concrete Sealer	Sq. Ft.	338	5,096	-	5,434
Geocomposite Wall Drain	Sq. Yd.	-	58	-	58
Pipe Underdrains For Structures 4"	Foot	-	-	76	76
Construction Vibration Monitoring	L Sum	-	-	1	1
Thermal Integrity Profile Testing	Each	-	8	-	8
Thermal Integrity Profile Data Collection	Foot	-	480	-	480
Concrete Finish	L Sum	1	-	-	1
Furnishing And Erecting Precast Concrete Arch	L Sum	1	-	-	1



PROFILE GRADE
Along ℄ Roadway

SECTION THRU INTEGRAL ABUTMENT
(Horiz. dim. at Rt. ℄'s)

* Included in the cost of Pipe Underdrains for Structures. (See Special Provisions)

UNNAMED RAVINE
BUILT 202_ BY
CITY OF LAKE FOREST
SEC. 12-00094-00-BR
STATION 303+53.78
STRUCTURE NO. 049-6851
LOADING HL-93

NAME PLATE
See Std. 515.001

Note:
All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).
Provide geocomposite wall drains and pipe underdrains per detail shown at the back of all wingwalls. See pipe underdrain layout on Sheet 33.

Lochner
225 WEST WASHINGTON STREET 12TH FLOOR
CHICAGO, IL 60606 / 312-372-3011 (P)

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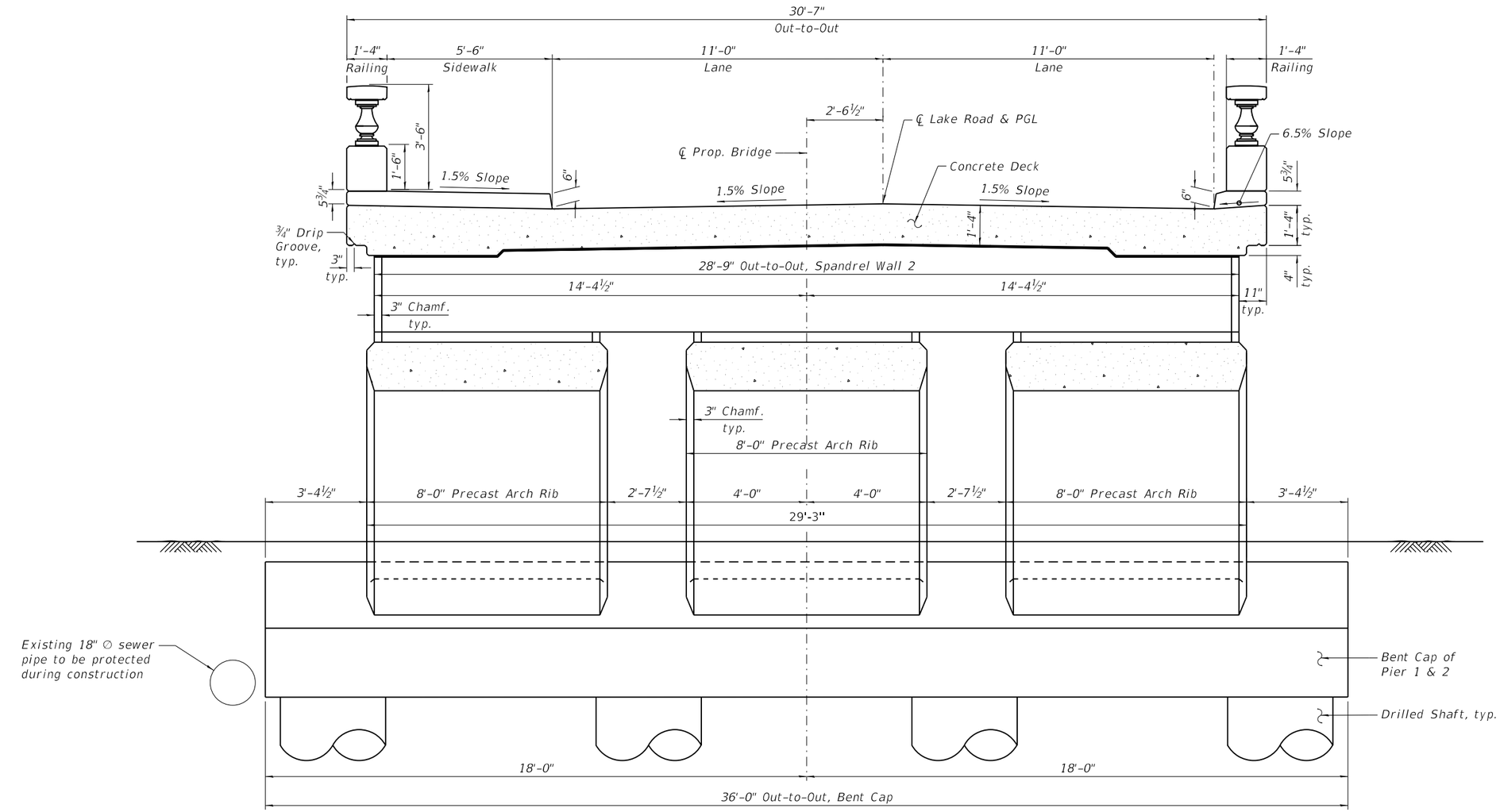
PLOT DATE = 6/4/2024		DATE - 6/10/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES, INDEX OF SHEETS & BILL OF MATERIAL
STRUCTURE NO. 049-6851

SHEET 2 OF 39 SHEETS | STA. | TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	34
		CONTRACT NO. 61K52		
		ILLINOIS	FED. AID PROJECT	



BRIDGE CROSS SECTION – SECTION A-A

(Looking North, See Sheet 33 for locations)

Lochner
225 WEST WASHINGTON STREET 12TH FLOOR
CHICAGO, IL 60606 / 312-372-3011 (P)

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	DRAWN - MM	REVISED -	
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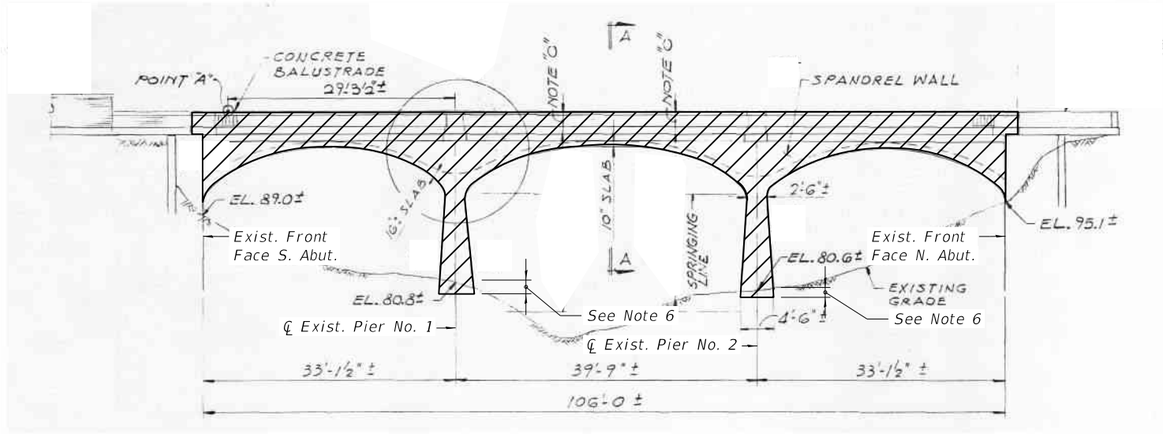
PLOT DATE = 5/16/2024	DATE - 6/10/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

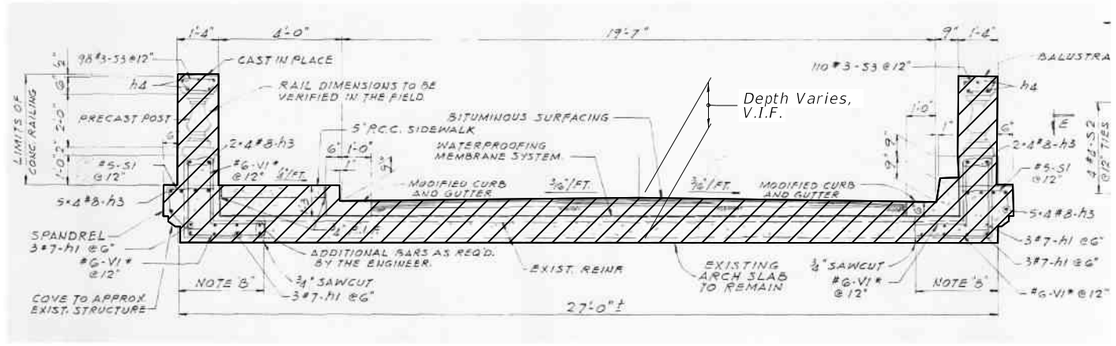
BRIDGE CROSS SECTION
STRUCTURE NO. 049-6851

SHEET 3 OF 39 SHEETS | STA. | TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	35
		CONTRACT NO. 61K52		
	ILLINOIS FED. AID PROJECT			



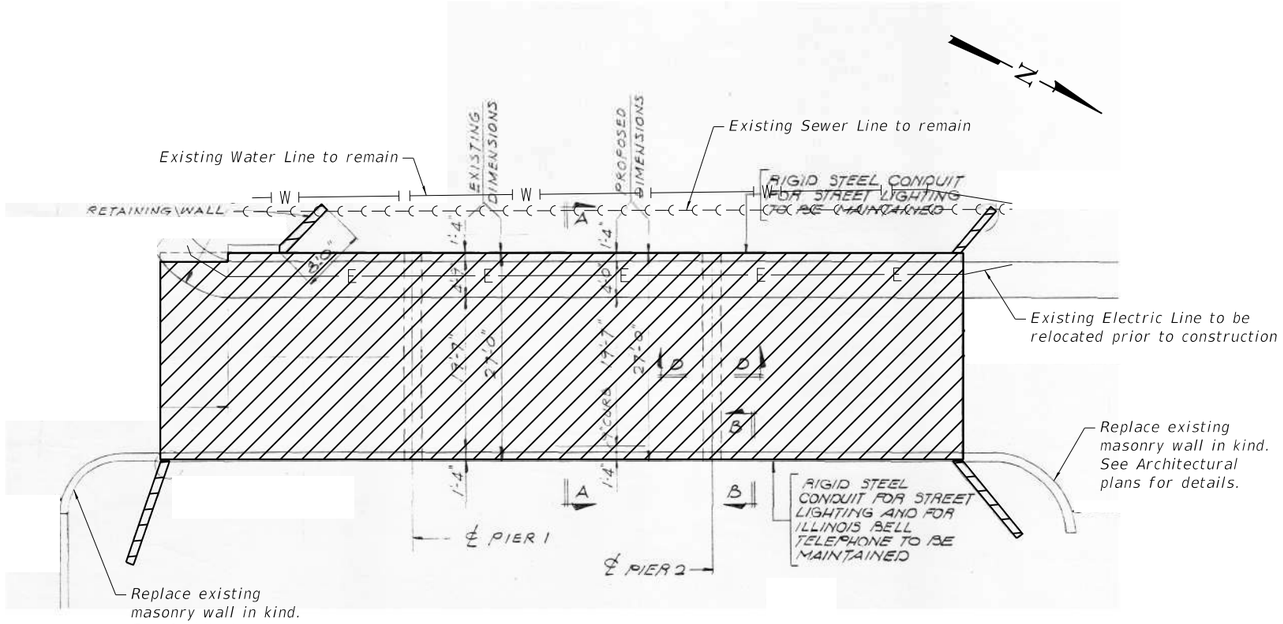
ELEVATION



SECION A–A

NOTES:

1. The existing bridge can be removed in stages depending on the Contractor's proposed sequencing of drilled shaft and steel H-pile construction. Coordinate existing abutment and pier removal with proposed construction.
2. See Specifications for details of the pay item "Removal of Existing Structures".
3. Partial removal of existing retaining/wing walls indicated on this Sheet are included in the pay item "Removal of Existing Structures".
4. Removal of the existing bridge balustrade, sidewalk, curbs, concrete spandrel walls, fill material within, concrete arch slabs and pavement are items included in the pay item "Removal of Existing Structures".
5. Partial removal of existing concrete abutments below the proposed roadway and partial removal of the piers below the proposed grade is included in the pay item "Removal of Existing Structures". Existing abutments, retaining/wing walls and piers shall be removed to 1' below the lowest elevation of the existing grade, proposed grade or bottom of the proposed concrete elements.
6. Design plans of the existing supporting foundations as to size, depth, materials and other possible elements is unknown.
7. Construction information of existing masonry walls at the northeast and southeast corners of the existing bridge to private driveways are unknown.
8. Dimensions and elevations from 1978 rehabilitation details depicted on this Sheet have not been field verified and for information only. Other information called out may not be current.
9. Structural Assessment Reports (SAR) for removal of existing structures, or portions thereof, shall demonstrate that the Contractor's proposed means and methods to accomplish the work do not compromise the structural adequacy of the bridge, or portions thereof that are to remain stable, at anytime during the work activities being performed. Each phase of the operation shall be accounted for, as well as the existing condition of the structure.
10. Contractor is responsible for the means and methods for the protection of adjacent properties near the construction during the removal of existing bridge. Cost of temporary soil retention system or other shoring system will not be paid for separately and they will be included with the pay item "Removal of Existing Structures" if required by the Contractor.
11. If additional concrete removal is required to facilitate the construction access to bottom of ravine per Contractor's means and methods, its cost is included with pay item "Removal of Existing Structures".
12. The cost of additional partial removal of existing concrete abutments required to allow the installation of granular backfill for structures, bridge approach slab and approach footing is included with pay item "Removal of Existing Structures".



PLAN

LEGEND:

▨ – Removal limits of existing structure

VIF – Verify in Field

MODEL: Default
FILE NAME: pw://lochner-pw.bentley.com:lochner-pw-01/Documents/Projects/00002020 1/6.0 CAD/Structures/Sheet/D20201-04-SHT-HWL-STR-DEMO_PLAN.dgn

Lochner
225 WEST WASHINGTON STREET 12TH FLOOR
CHICAGO, IL 60606 / 312-372-3011 (P)

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PLOT DATE = 5/16/2024	DATE - 6/10/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DEMOLITION PLAN & EXISTING FOUNDATION REMOVAL PLAN
STRUCTURE NO. 049-6851

SHEET 4 OF 39 SHEETS STA. TO STA.

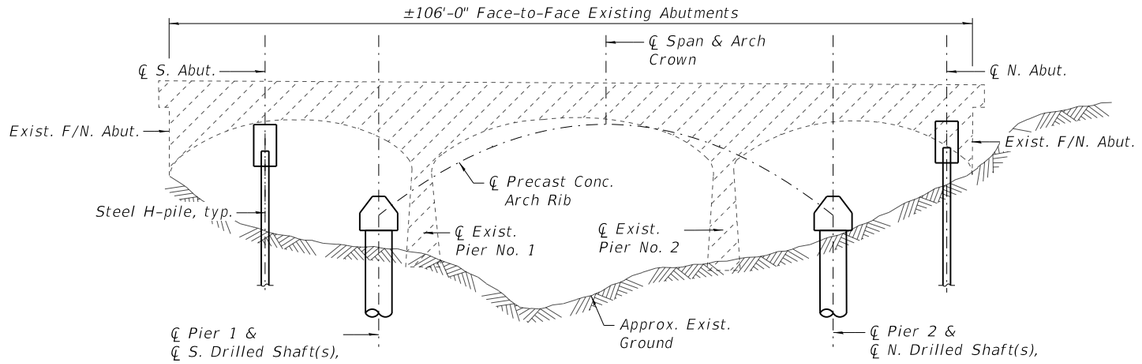
MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	36

CONTRACT NO. 61K52

ILLINOIS FED. AID PROJECT

PHASE 1 CONSTRUCTION ACTIVITIES

1. Verify location of existing foundations and utilities and check for conflicts with proposed drilled shafts and steel H-pile foundations.
2. Install new bent cap beams and abutment pile cap beams.
3. Contractor to coordinate his/her demolition sequence of the existing structure with foundation installation. See Sheet 36.

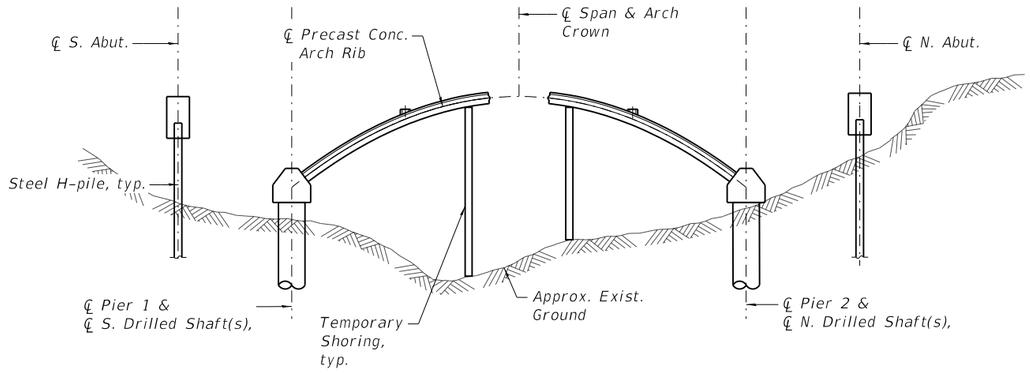


ELEVATION - PHASE 1

(Looking West)

PHASE 2 CONSTRUCTION ACTIVITIES

1. Complete removal of existing bridge structure.
2. Install backfill between existing and proposed abutments, including waterproofing and underdrains.
3. Install temporary shoring between proposed bents. The Contractor is responsible for the structure and foundation design of temporary shoring. Design and calculations must be prepared, signed and sealed by a Structure Engineer licensed in the State of Illinois and submitted to the City for approval prior to precast arch rib erection.
4. Erect precast arch ribs. Estimated weight of precast arch rib piece is 48 kips.

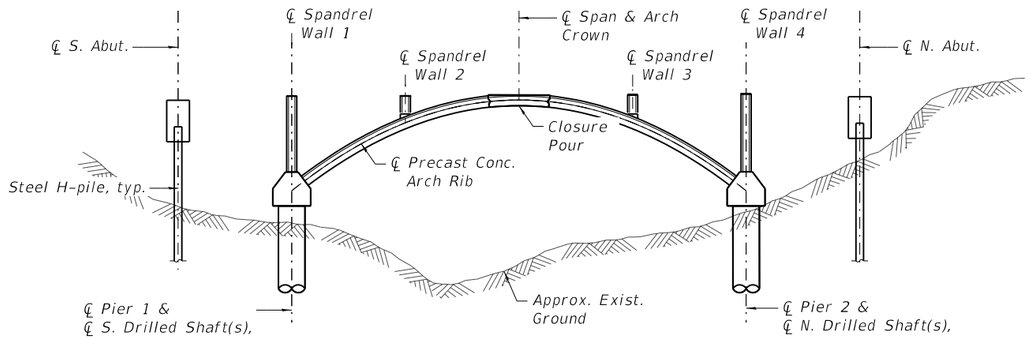


ELEVATION - PHASE 2

(Looking West)

PHASE 3 CONSTRUCTION ACTIVITIES

1. Install shoring and temporary deck to form keystone beam.
2. Cast in place Arch Crown Beam and cure for 7 days.
3. Grout reinforcement splice coupler sleeves between bottom end of precast arch segments and bent grade beams.
4. Relieve shoring of arch segment dead loads.
5. Form and pour spandrel walls, symmetrically about CL of Span. For example, 1 and 4 or 2 and 3.



ELEVATION - PHASE 3

(Looking West)

Lochner
225 WEST WASHINGTON STREET 12TH FLOOR
CHICAGO, IL 60606 / 312-372-3011 (P)

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PLOT DATE = 5/16/2024	DATE - 6/10/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

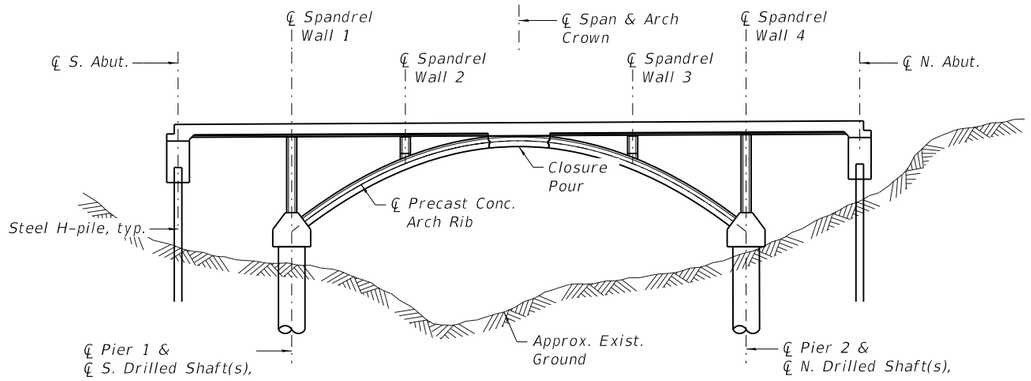
SUGGESTED ERECTION SEQUENCE 1
STRUCTURE NO. 049-6851

SHEET 5 OF 39 SHEETS STA. TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	37
		CONTRACT NO. 61K52		
	ILLINOIS	FED. AID PROJECT		

PHASE 4 CONSTRUCTION ACTIVITIES

1. Install temporary deck and cast deck slab.
2. Form and pour sidewalk and curb.
3. Strip deck slab after 7 calendar day curing period.
4. Form and pour approach slabs (not shown).

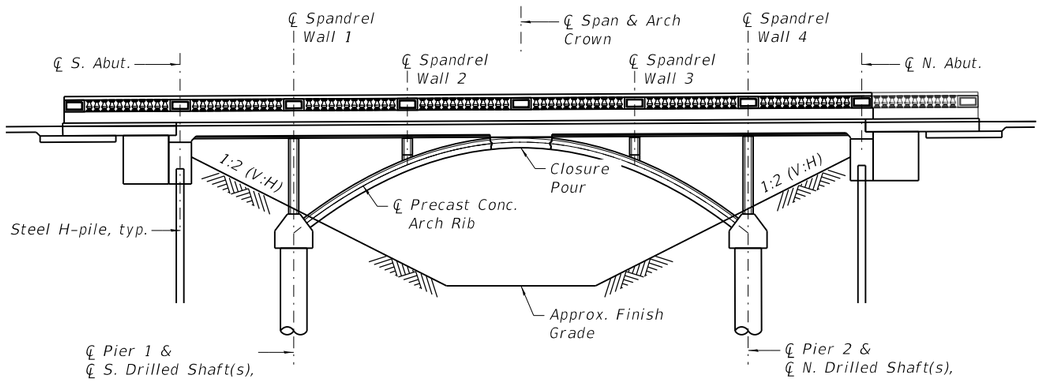


ELEVATION - PHASE 4

(Looking West)

PHASE 5 CONSTRUCTION ACTIVITIES

1. Install precast balustrade.
2. Complete removal of any shoring or temporary sheeting.
3. Complete backfill around bent grade beams.
4. Complete grading and landscaping restoration of ravine side slopes.



ELEVATION - PHASE 5

(Looking West)

Lochner
225 WEST WASHINGTON STREET 12TH FLOOR
CHICAGO, IL 60606 / 312-372-3011 (P)

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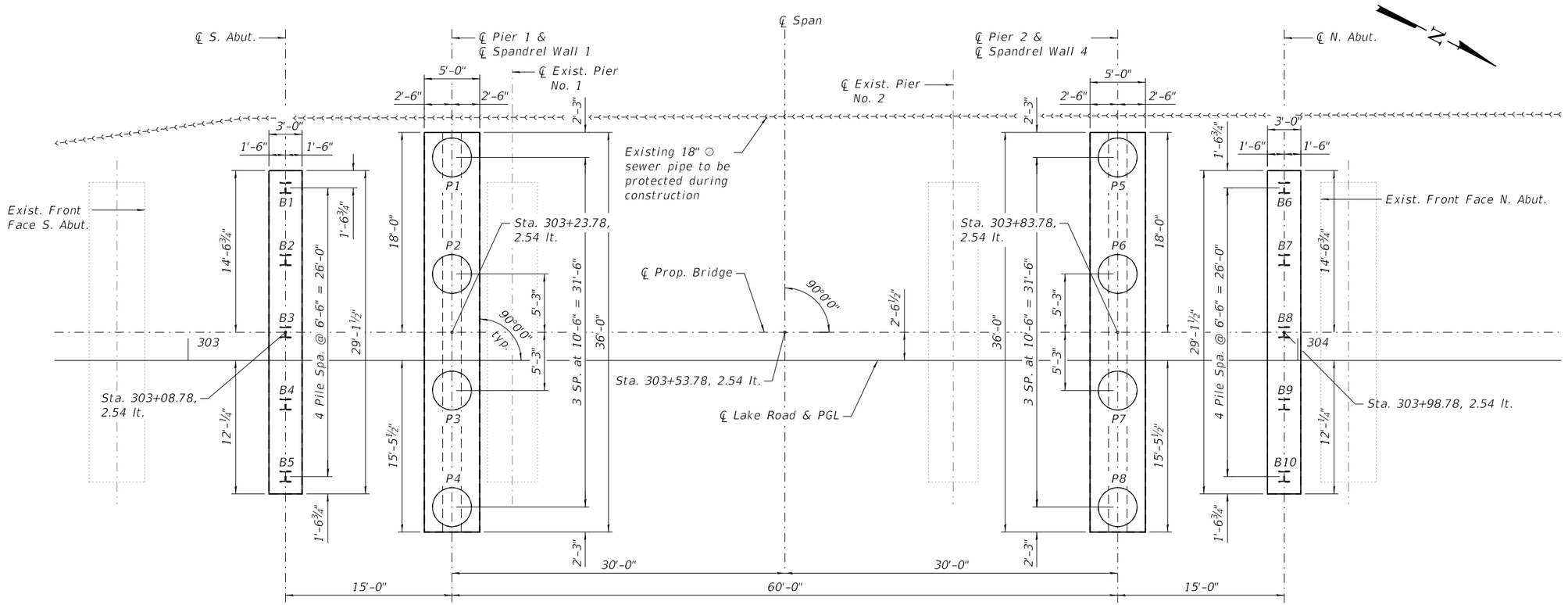
PLOT DATE = 5/16/2024	DATE - 6/10/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUGGESTED ERECTION SEQUENCE 2
STRUCTURE NO. 049-6851

SHEET 6 OF 39 SHEETS STA. TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	38
		CONTRACT NO. 61K52		
	ILLINOIS	FED. AID PROJECT		



FOUNDATION LAYOUT PLAN

LEGEND:

◯ – Indicates new Drilled Shaft

I – Indicates new Steel HP Pile

⬚ – Indicates existing foundation (see Note 10)

V.I.F. – Verify in Field

NOTES:

1. The quantities and reinforcement detailing are based on the estimated elevations shown on the plans. The actual elevations may differ at each shaft and corresponding adjustments shall be made to the drilled shaft and reinforcement quantities and payment limits.
2. The Contractor shall make proper arrangements to maintain clearance of reinforcement for entire depth of drilled shaft.
3. If the bottom of drilled shaft is lowered, the Contractor shall extend the drilled shaft reinforcement by providing additional reinforcement bars of equal size and lapping with minimum splice length shown on plans.
4. In case of raised bottom of drilled shaft, reinforcement bars projecting more than the specified projection above the top of drilled shaft shall be cut off at the straight end to maintain the specified projection.
5. Drilled shafts are sized for a factored unit tip resistance of 18 ksf based on a factored resistance of 0.4. The nominal unit side resistance are provided in Structure Geotechnical Report.
6. Final locations of new drilled shafts may be adjusted slightly in the field by the Contractor, subject to the approval of the Engineer and the City.
7. The Contractor shall conduct all drilled shaft and steel pile construction operations from the roadway level and/or the existing bridge during staged or partial demolition of the superstructure, which may necessitate temporary shoring. The cost of temporary shoring is included in the cost of drilled shafts or steel piles.
8. Existing, modified and proposed wingwalls at the abutment corners are not shown for clarity,
9. Design plans of the existing foundations as to size, depth, materials and other possible support elements is unknown.
10. The Contractor shall proceed with extreme caution before pile driving due to the nature of the historic neighborhood. See Structural General Note #14 for additional information for mitigating noise and vibrations.

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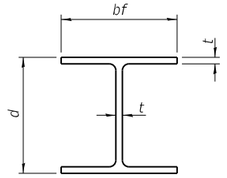
PLOT DATE = 5/16/2024	DATE - 6/10/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FOUNDATION LAYOUT
STRUCTURE NO. 049-6851

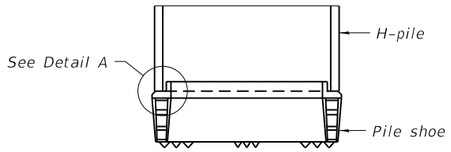
SHEET 7 OF 39 SHEETS STA. TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	39
		CONTRACT NO. 61K52		
	ILLINOIS	FED. AID PROJECT		

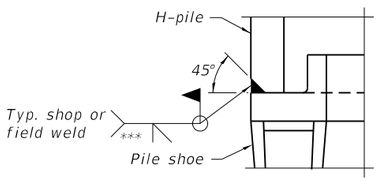


STEEL PILE TABLE

Designation	Depth d	Flange width bf	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	11/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	11/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11 3/4"	12"	7/16"	24"
HP 10x57	10"	10 1/4"	9/16"	24"
x42	9 3/4"	10 1/8"	7/16"	24"
HP 8x36	8"	8 1/8"	7/16"	18"



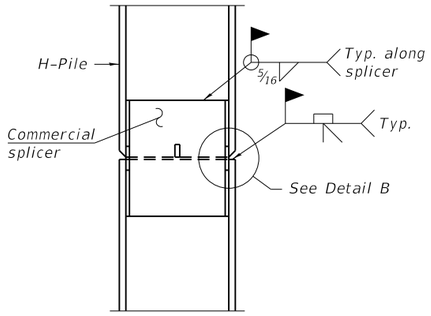
ELEVATION



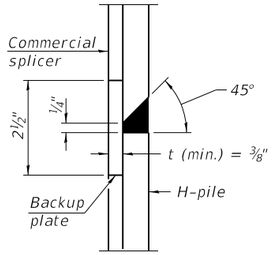
DETAIL A

SHOE ATTACHMENT

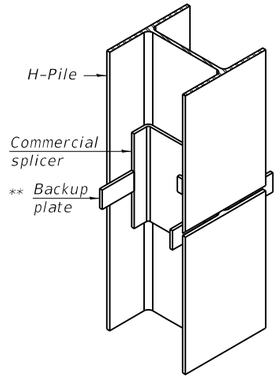
Note:
The steel H-piles shall be according to AASHTO M270 Grade 50.



ELEVATION

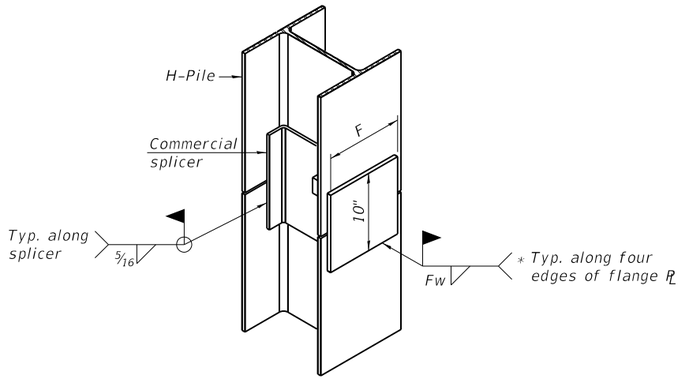


DETAIL "B"



ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



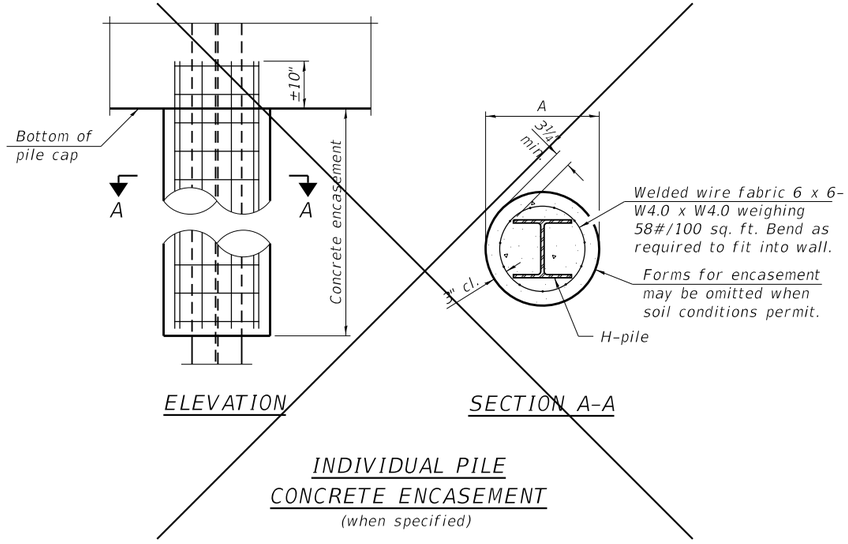
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

* Interrupt welds 1/4" from end of web and/or each flange.

** Remove portions of backup plates that extend outside the flanges.

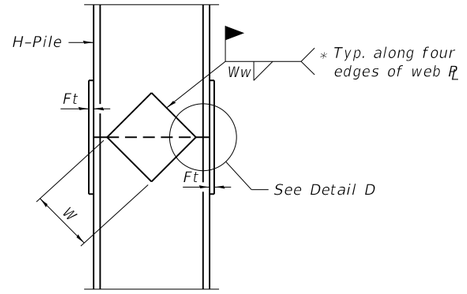
*** Weld size per pile shoe manufacturer (5/16" min.).



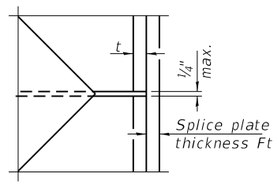
ELEVATION SECTION A-A

INDIVIDUAL PILE CONCRETE ENCASEMENT

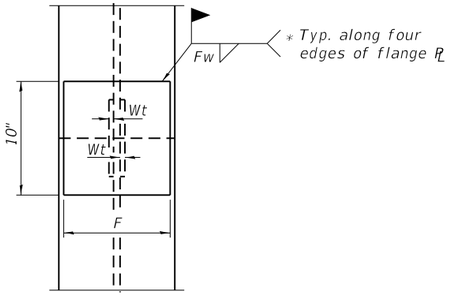
(when specified)



ELEVATION



DETAIL D



END VIEW

Designation	F	Ft	Fw	W	Wt	Ww
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5/8"	1/2"
x89	12 1/2"	3/4"	11/16"	7 3/4"	5/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5/8"	1/2"
HP 12x84	10"	7/8"	11/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	11/16"	6 1/2"	5/8"	1/2"
x63	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5 1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1/2"	3/8"

WELDED PLATE FIELD SPLICE

F-HP 2-1-2023

Lochner
225 WEST WASHINGTON STREET 12TH FLOOR
CHICAGO, IL 60606 / 312-372-3011 (P)

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

HP PILE DETAILS
STRUCTURE NO. 049-6851
SHEET 8 OF 39 SHEETS STA. TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	40
		CONTRACT NO. 61K52		
	ILLINOIS	FED. AID PROJECT		

DRILLED SHAFT INSTALLATION RECORD

Shaft Locations	Shaft Mark	Shaft Dia., ft.	Top of Rock Socket Elev.	Bottom Elev.	Rock				Ratio of Depth to Diameter	Field Bearing Pressure ksf (Note 1)	Permanent Casing Used Length, ft.	Corrugated Metal Line Used Length, ft.	Temporary Casing Used Length, ft.	Remarks
					Description		Qu=Unconfined Compressive Strength, tsf	Moisture Content %						
Pier 1	P1	3'-6"												
Pier 1	P2	3'-6"												
Pier 1	P3	3'-6"												
Pier 1	P4	3'-6"												
Pier 2	P5	3'-6"												
Pier 2	P6	3'-6"												
Pier 2	P7	3'-6"												
Pier 2	P8	3'-6"												

NOTES:

1. Field Bearing Pressure shall be calculated based on Unconfined Compressive Strength and ratio of depth to diameter of shaft. The field bearing pressure shall be 1.5 times Qu if the ratio of the depth of the drilled shaft measured from the top of the drilled shaft to the bottom of the bell (or bottom of shaft if no bell is present) to the diameter of the bell (or shaft if no bell is present) is equal to or greater than 4.0. If the depth to diameter ratio is less than 4.0, the engineer should contact IDOT.

2. All elevations are to be shown in the table using English units.

3. For drilled shaft locations see Sheet 39.

Lochner
225 WEST WASHINGTON STREET 12TH FLOOR
CHICAGO, IL 60606 / 312-372-3011 (P)

MODEL: Default
FILE NAME: pw:\\lochner-pw.bentley.com:lochner-pw-01\Documents\Projects\0000202016.0 CAD\Structures\Sheet\020201-09-SHT-HWL-STR-SHAFT RECORD.dgn

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	DRAWN - MM	REVISED -	
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PLOT DATE = 5/16/2024	DATE - 6/10/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRILLED SHAFT RECORD
STRUCTURE NO. 049-6851

SHEET 9 OF 39 SHEETS STA. TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	41
		CONTRACT NO. 61K52		
	ILLINOIS FED. AID PROJECT			

PILE DRIVING RECORD

Date piles driven:
(Month Year)

Type & size of pile used:

Pile driving equipment used: Energy rating:

Hammer used: Type Stroke Weight

Formula used to calculate capacity:

Pile driving Contractor: Engineer:

Pile Location	Pile No.	Ground Surface Elevation	Cut-off Elevation	Penetration length, ft.	Driving data for the final 5 ft. – Blows							Capacity Tons	Remarks
					5' to 4'	4' to 3'	3' to 2'	2' to 1'	1' to 0'	12" to 6"*	6" to 0"		
S. Abut.	B1												
S. Abut.	B2												
S. Abut.	B3												
S. Abut.	B4												
S. Abut.	B5												
N. Abut.	B6												
N. Abut.	B7												
N. Abut.	B8												
N. Abut.	B9												
N. Abut.	B10												

* For piles driven to refusal, blow count for the last foot shall be recorded in 6-inch increments. Pile damage, obstruction, pile rejection, test piles etc. shall be recorded in remarks column.

NOTES:

1. For pile locations see Sheet 39.

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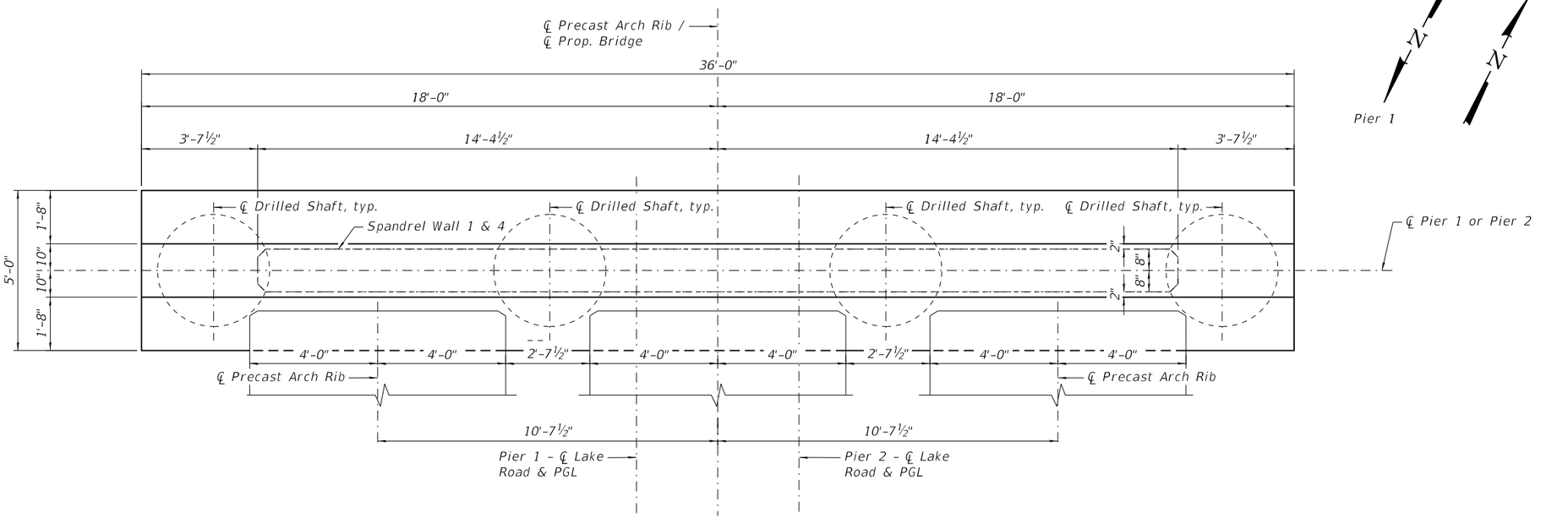
PLOT DATE = 5/16/2024	DATE - 6/10/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

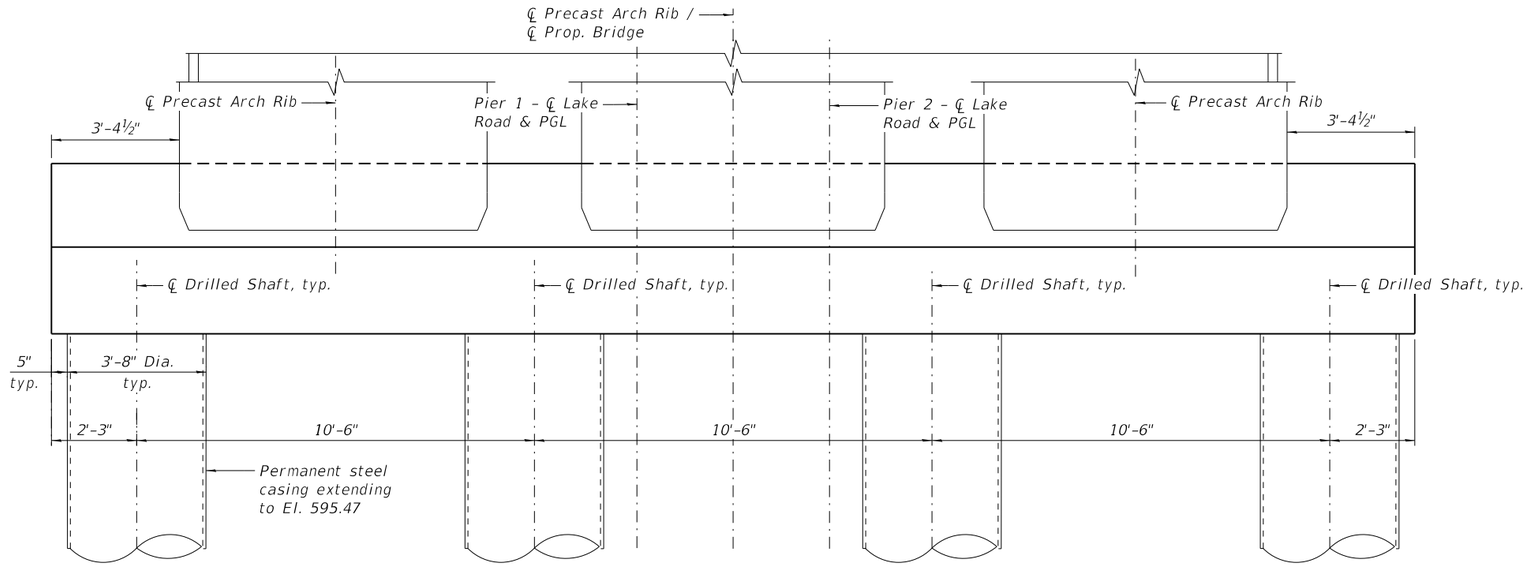
PILE RECORD
STRUCTURE NO. 049-6851

SHEET 10 OF 39 SHEETS STA. TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	42
		CONTRACT NO. 61K52		
	ILLINOIS	FED. AID PROJECT		



PLAN - BENT CAP



ELEVATION

Pier 1 - Looking South
Pier 2 - Looking North

MODEL: Default
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Lochner
225 WEST WASHINGTON STREET 12TH FLOOR
CHICAGO, IL 60606 / 312-372-3011 (P)

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	DRAWN - MM	REVISED -	
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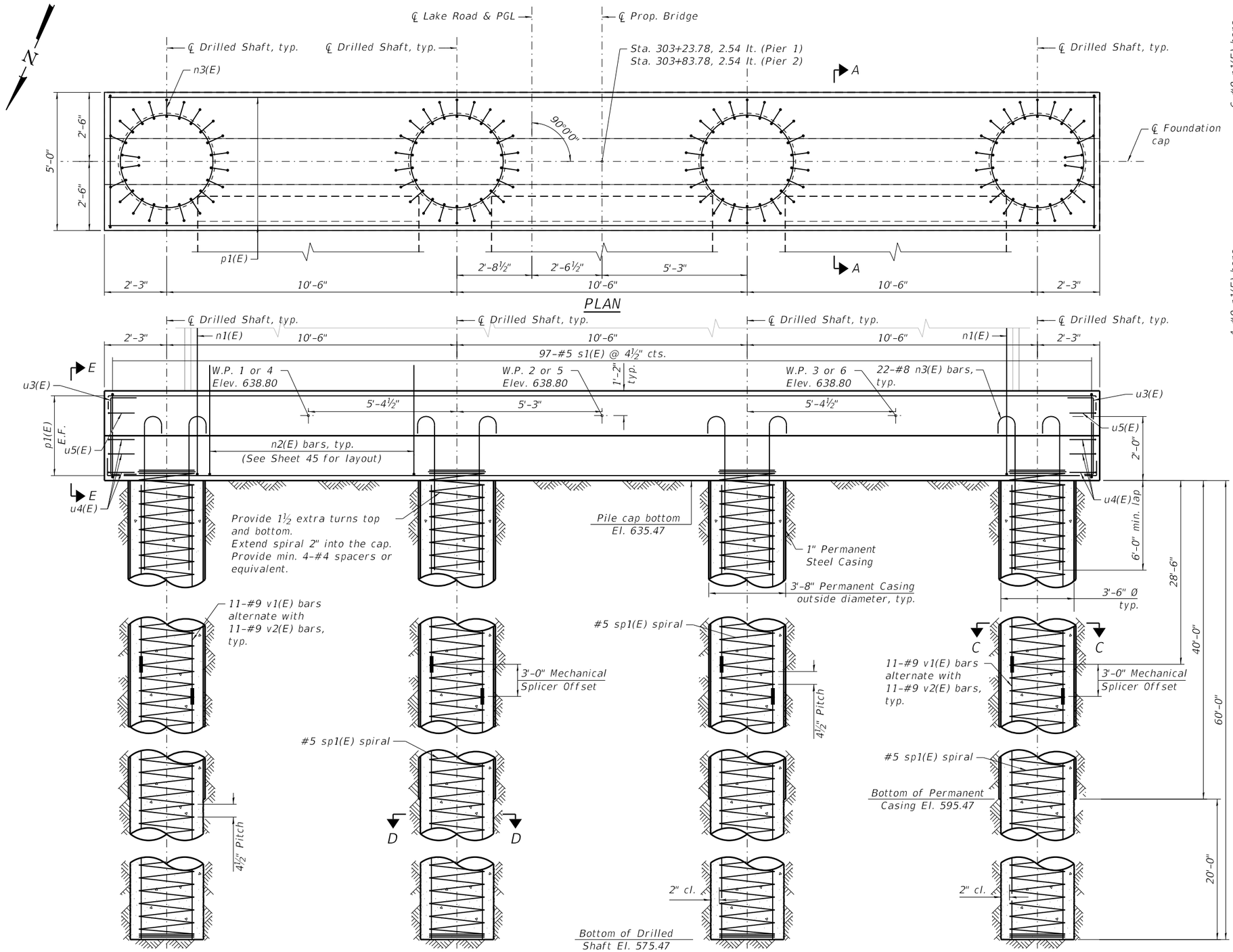
PLOT DATE = 5/16/2024	DATE - 6/10/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER FOUNDATION, SECTIONS & DETAILS
STRUCTURE NO. 049-6851

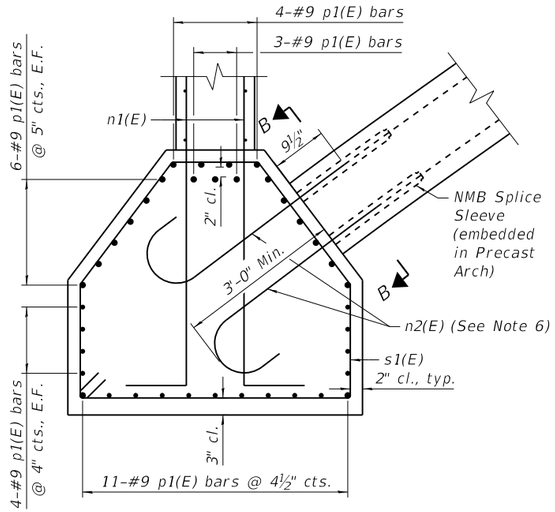
SHEET 11 OF 39 SHEETS STA. TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	43
		CONTRACT NO. 61K52		
	ILLINOIS FED. AID PROJECT			



ELEVATION

(Pier 1 Looking South, Pier 2 Looking North)

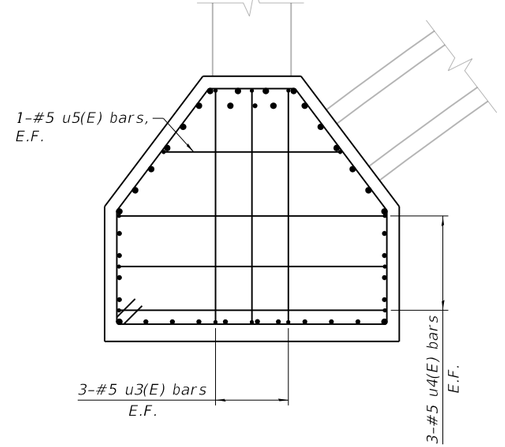


SECTION A-A

For Section B-B, See Note 6

NOTES:

1. See Sheet 39 for foundation layout.
2. Spiral reinforcement shall be provided with 1½ extra turns at each end. Extend spiral 2" into the cap. Provide min. 4-#4 spacers or equivalent.
3. Note about the splice in drilled shaft (Alter between bars).
4. For W.P. Station and Offset see Sheet 48.
5. For Sections B-B, C-C, and D-D see Sheet 45.
6. n2(E) bars must be installed with steel template plate in the field normal to the surface of footing to ensure matching the layout of NMB splice sleeves shown Sheet 49 with precision.



VIEW E-E

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Lochner
225 WEST WASHINGTON STREET 12TH FLOOR
CHICAGO, IL 60606 / 312-372-3011 (P)

USER NAME = Personal
PLOT SCALE = 0.167 ' / in.
PLOT DATE = 5/16/2024

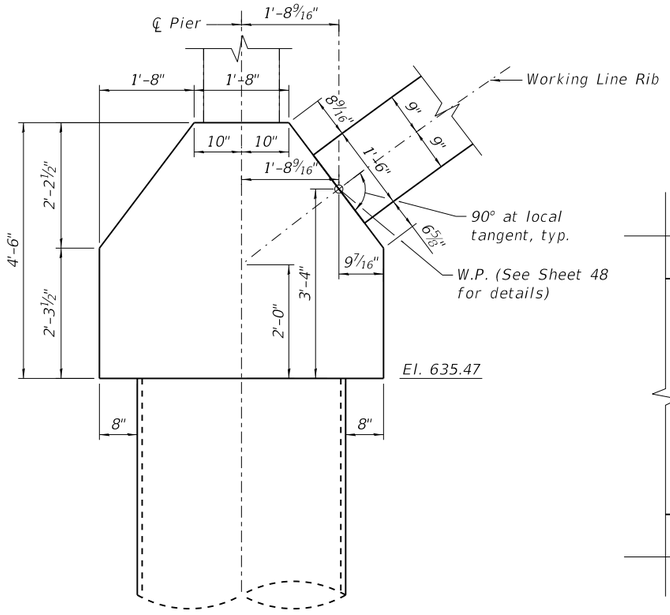
DESIGNED - MM
DRAWN - MM
CHECKED - RH
DATE - 6/10/2024

REVISED -
REVISED -
REVISED -
REVISED -

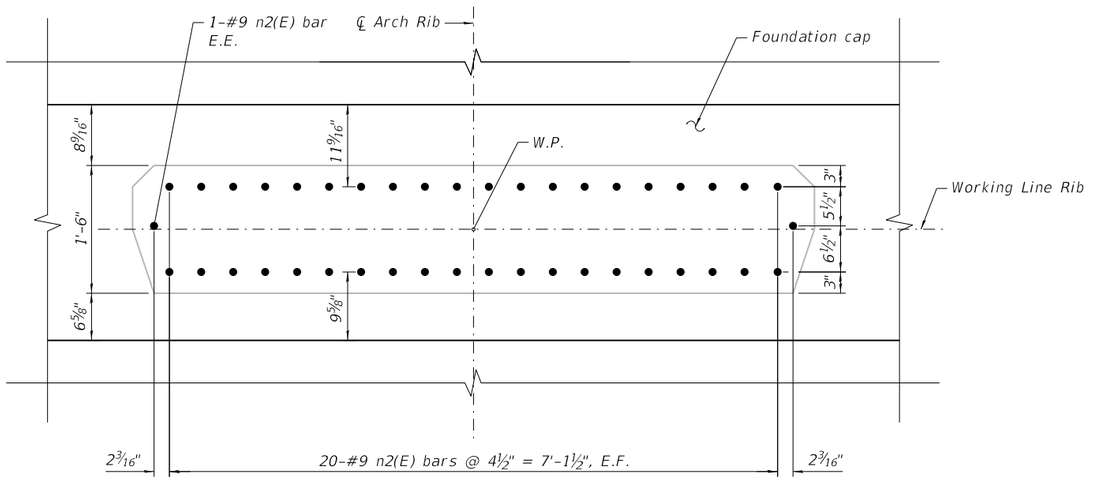
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRILLED SHAFT DETAILS
STRUCTURE NO. 049-6851
SHEET 12 OF 39 SHEETS STA. TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	44
		CONTRACT NO. 61K52		
	ILLINOIS	FED. AID PROJECT		



CAP DETAILS



SECTION B-B

(6 total)

BILL OF MATERIAL

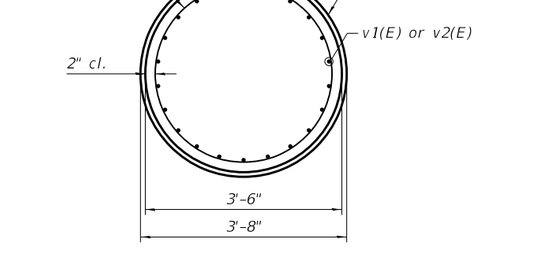
	Bar	No.	Size	Length	Shape
	n1(E)	140	#8	9'-6"	
	n2(E)	252	#9	5'-1"	
	n3(E)	176	#9	9'-3"	
	p1(E)	76	#9	38'-10"	
	s1(E)	194	#5	16'-4"	
**	sp1(E)	8	#5	61'-2"	
	u3(E)	6	#5	5'-8"	
	u4(E)	6	#5	6'-3"	
	u5(E)	2	#5	4'-9"	
	v1(E)	176	#9	28'-6"	
	v2(E)	176	#9	31'-6"	

Concrete Structures	Cu. Yd.	50.2
Reinforcement Bars, Epoxy Coated	Pound	76,060
Mechanical Splicers	Each	176
Permanent Casing	Foot	320
Drilled Shaft in Soil	Cu. Yd.	171.1
Thermal Integrity Profile Testing	Each	8
Thermal Integrity Profile Data Collection	Foot	480

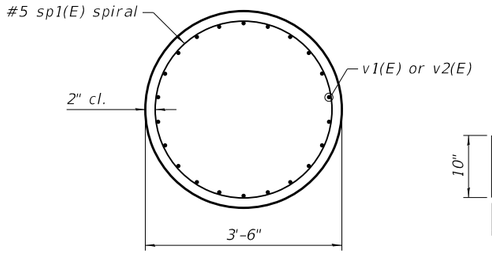
Minimum lap for spirals = 3'-9"
** Length is height of spiral.

NOTES:

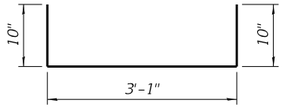
1. For foundation layout see Sheet 39.
2. Bill of materials is for two cap beams.
3. Steel casing shall be ASTM A252, Grade 2.
4. For location of SECTION B-B, see Sheet 44.



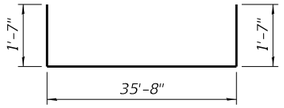
SECTION C-C



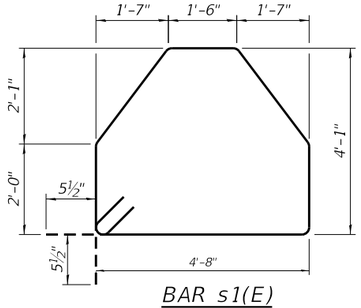
SECTION D-D



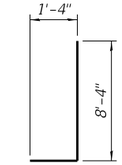
BAR u5(E)



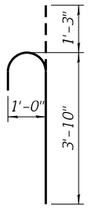
BAR p1(E)



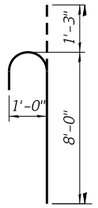
BAR s1(E)



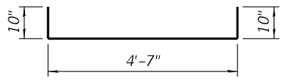
BAR n1(E)



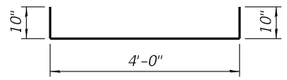
BAR n2(E)



BAR n3(E)



BAR u4(E)



BAR u3(E)

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER DETAILS
STRUCTURE NO. 049-6851

SHEET 13 OF 39 SHEETS STA. TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	45
		CONTRACT NO. 61K52		
	ILLINOIS FED. AID PROJECT			

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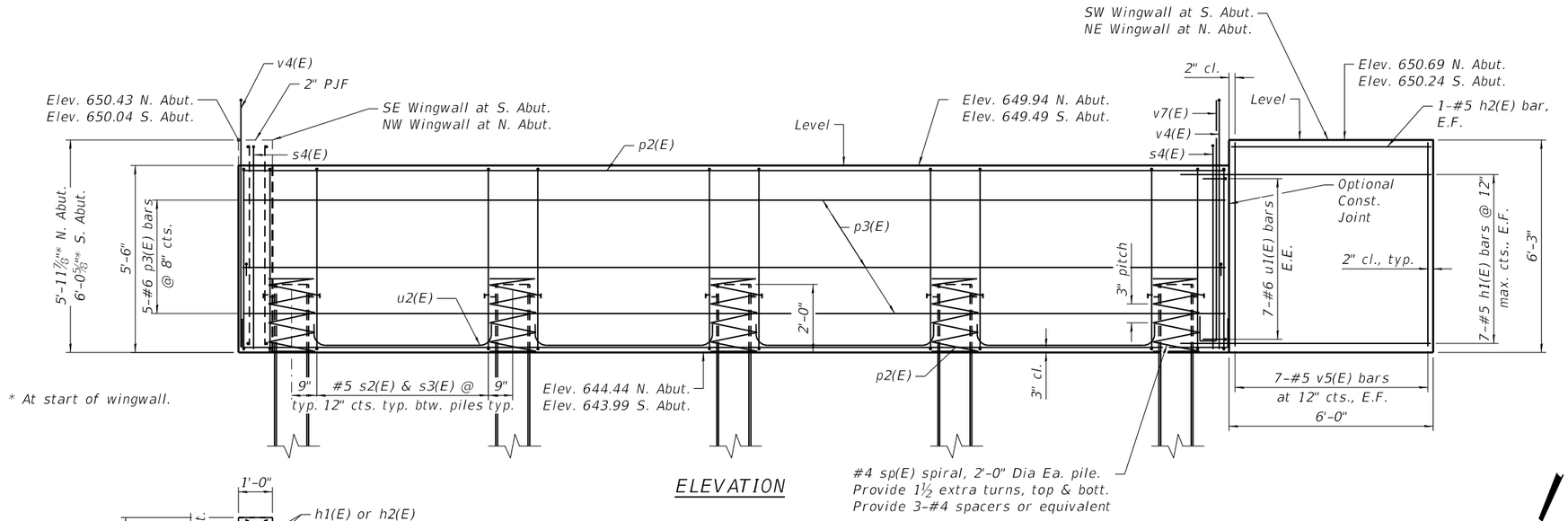
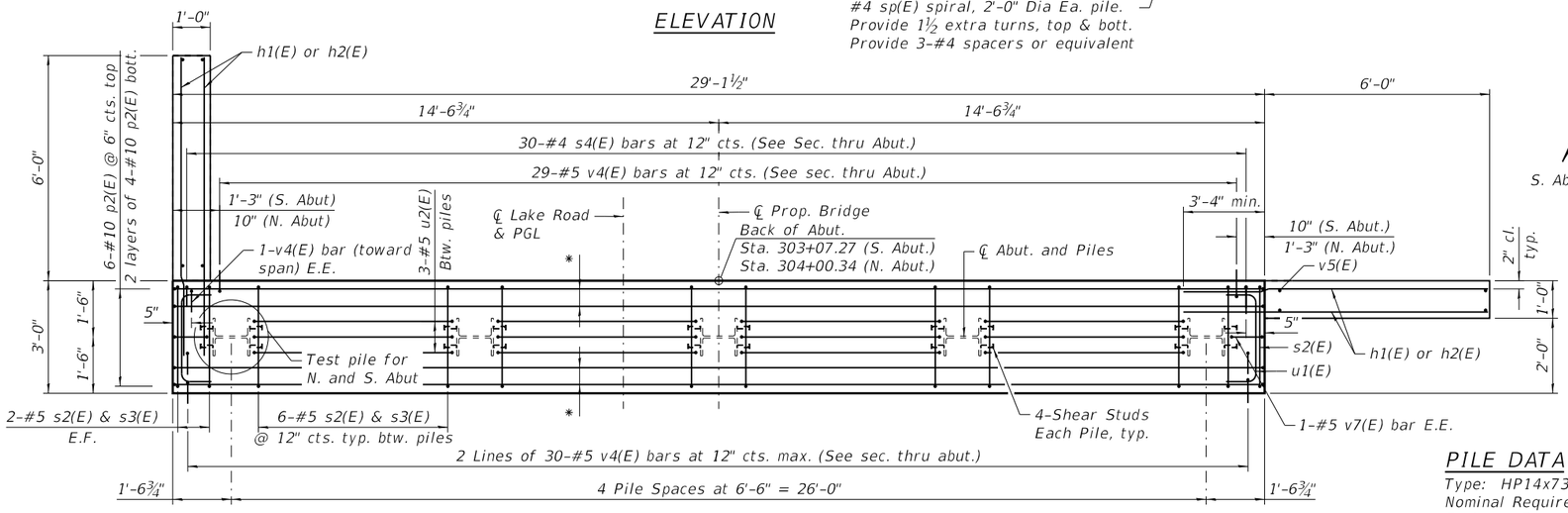


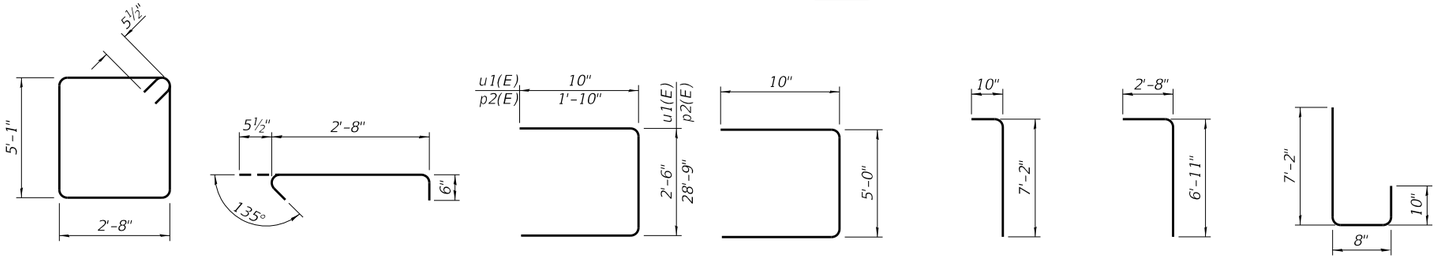
* At start of wingwall.

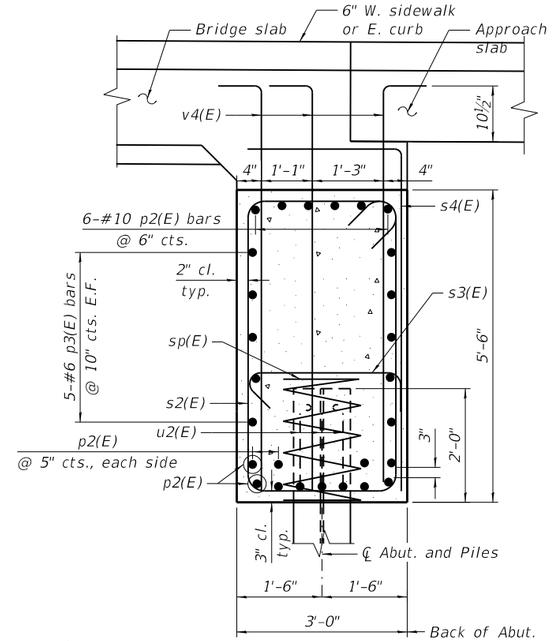
ELEVATION



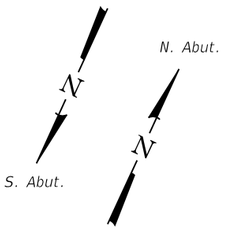
PLAN

* 2 Layers of 2-#10 p2(E) bars each side (See section through abut.)





SEC. THRU ABUT.



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h1(E)	56	#5	9'-2"	
h2(E)	8	#5	5'-8"	
p2(E)	28	#10	32'-5"	
p3(E)	20	#6	28'-10"	
s2(E)	56	#5	16'-5"	
s3(E)	56	#5	3'-8"	
s4(E)	30	#4	9'-7"	
* sp(E)	10	#4	2'-0"	
u1(E)	28	#5	11'-2"	
u2(E)	24	#5	4'-2"	
v4(E)	178	#5	8'-0"	
v5(E)	28	#5	5'-11"	
v6(E)	28	#5	5'-8"	
v7(E)	4	#5	8'-8"	
Structure Excavation	Cu. Yd.		35	
Concrete Structures	Cu. Yd.		41.2	
Reinforcement Bars, Epoxy Coated	Pound		9,430	
Furnishing Steel Pile HP14x73	Foot		480	
Driving Piles	Foot		480	
Test Steel Pile HP14x73	Each		2	

PILE DATA

Type: HP14x73
Nominal Required Bearing: 255 kips
Factored Resistance Available: 140 kips
Est. Length: 60 ft
No. Production Piles: 8
No. Test Piles: 2

PRECORING ELEVATION LIMITS

Abutment	Pre-coring Elevation
N. Abut.	634.44
S. Abut.	633.99

24" Ø holes shall be pre-cored to the elevations shown above or as required by field conditions prior to driving the piles. According to Artical 512.09(C) of the Standard Specifications. The cost of pre-coring shall be included with the cost of Furnishing Steel Piles, HP14x73. Pre-coring holes in the ground shall be backfilled with bentonite with Qu = 1.0 tsf.

For details of piles see Sheet 40.
Bill of material for both South and North abutment.
* Length is height of spiral.

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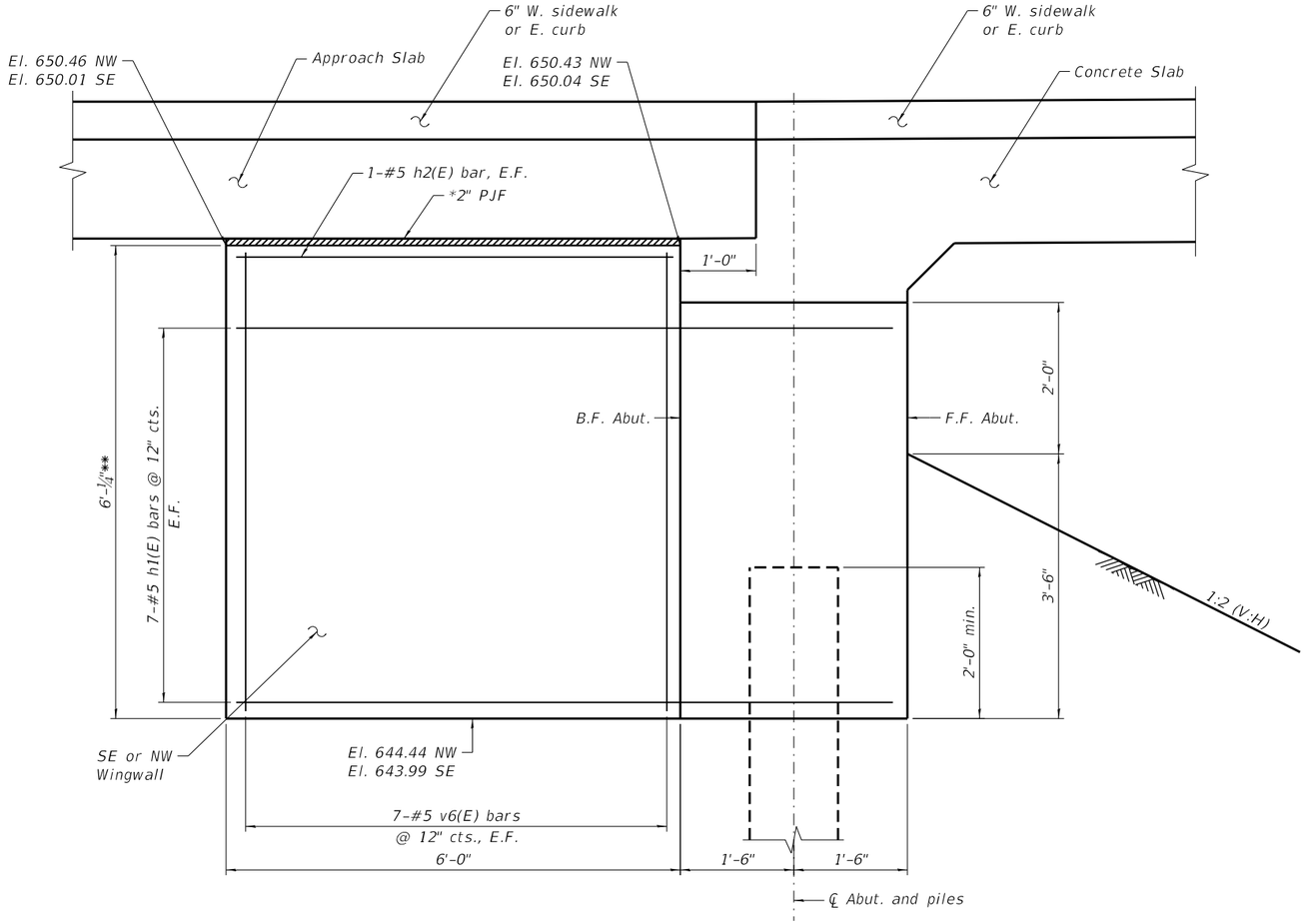
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ABUTMENT PLAN AND ELEVATION
STRUCTURE NO. 049-6851
SHEET 14 OF 39 SHEETS STA. TO STA.

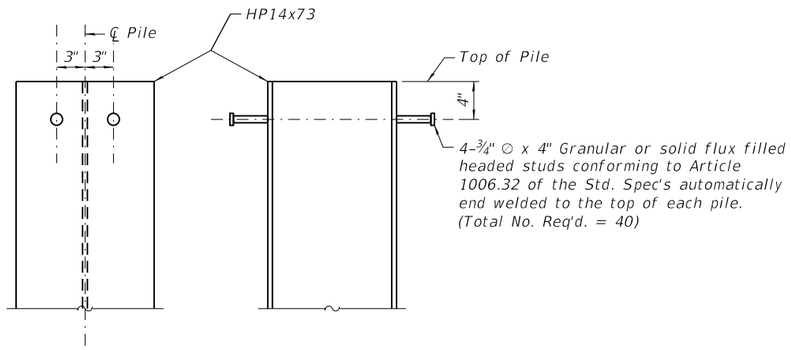
MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	46
		CONTRACT NO. 61K52		
	ILLINOIS	FED. AID PROJECT		

* Adhesive must be compatible with preformed joint material and concrete. Surface preparation shall be conducted in accordance with manufacturer's guidelines. Joint material shall fully extend to surface to prevent concrete pour around joint material.

** At end of wingwall



SE & NW WINGWALLS



PILE SHEAR STUD ANCHORS

Note: The cost of furnishing and installing the shear studs is included with "Furnishing Steel Piles HP14x73".

NOTES:

1. Top of wingwall shall follow vertical profile.

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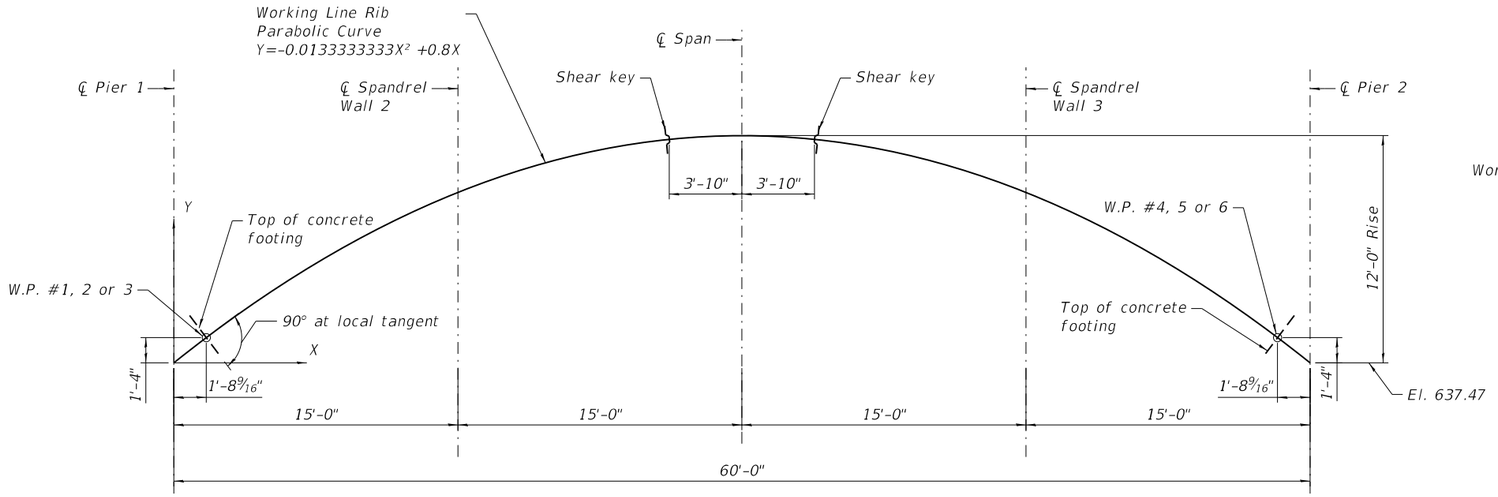
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

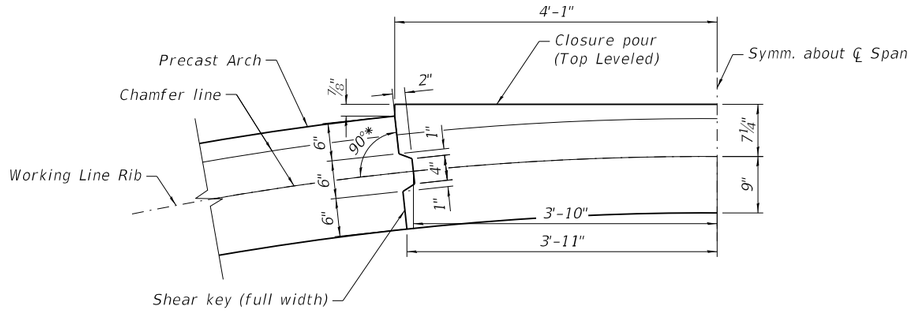
ABUTMENT AND WINGWALL DETAILS
STRUCTURE NO. 049-6851
SHEET 15 OF 39 SHEETS STA. TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	47
		CONTRACT NO. 61K52		
	ILLINOIS FED. AID PROJECT			



ARCH GEOMETRY

Arch profile shown under no load undeflected condition.

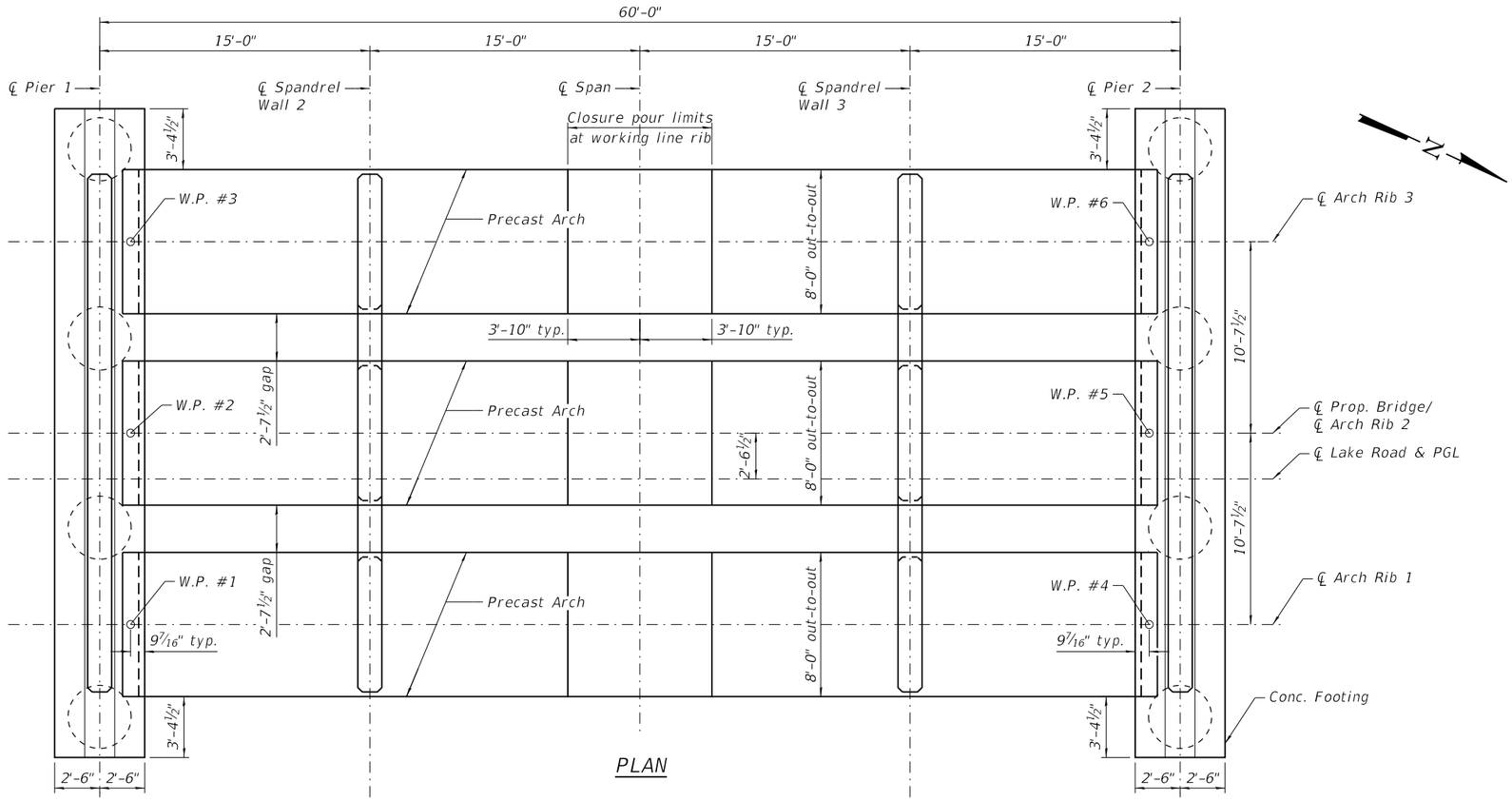


DETAIL 1

* Angle measured from local tangent of the working line rib

WORKING POINT LOCATIONS

W.P.	Station	Offset, ft.	Elevation
W.P. #1	303+25.49	08.08 RT	638.80
W.P. #2	303+25.49	02.54 LT	638.80
W.P. #3	303+25.49	13.17 LT	638.80
W.P. #4	303+82.07	08.08 RT	638.80
W.P. #5	303+82.07	02.54 LT	638.80
W.P. #6	303+82.07	13.17 LT	638.80



PLAN

Lochner
225 WEST WASHINGTON STREET 12TH FLOOR
CHICAGO, IL 60606 / 312-372-3011 (P)

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	DRAWN - MM	REVISED -
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PLOT DATE = 5/16/2024	DATE - 6/10/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PRECAST ARCH RIB DETAILS
STRUCTURE NO. 049-6851

SHEET 16 OF 39 SHEETS STA. TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	48
		CONTRACT NO. 61K52		
	ILLINOIS	FED. AID PROJECT		

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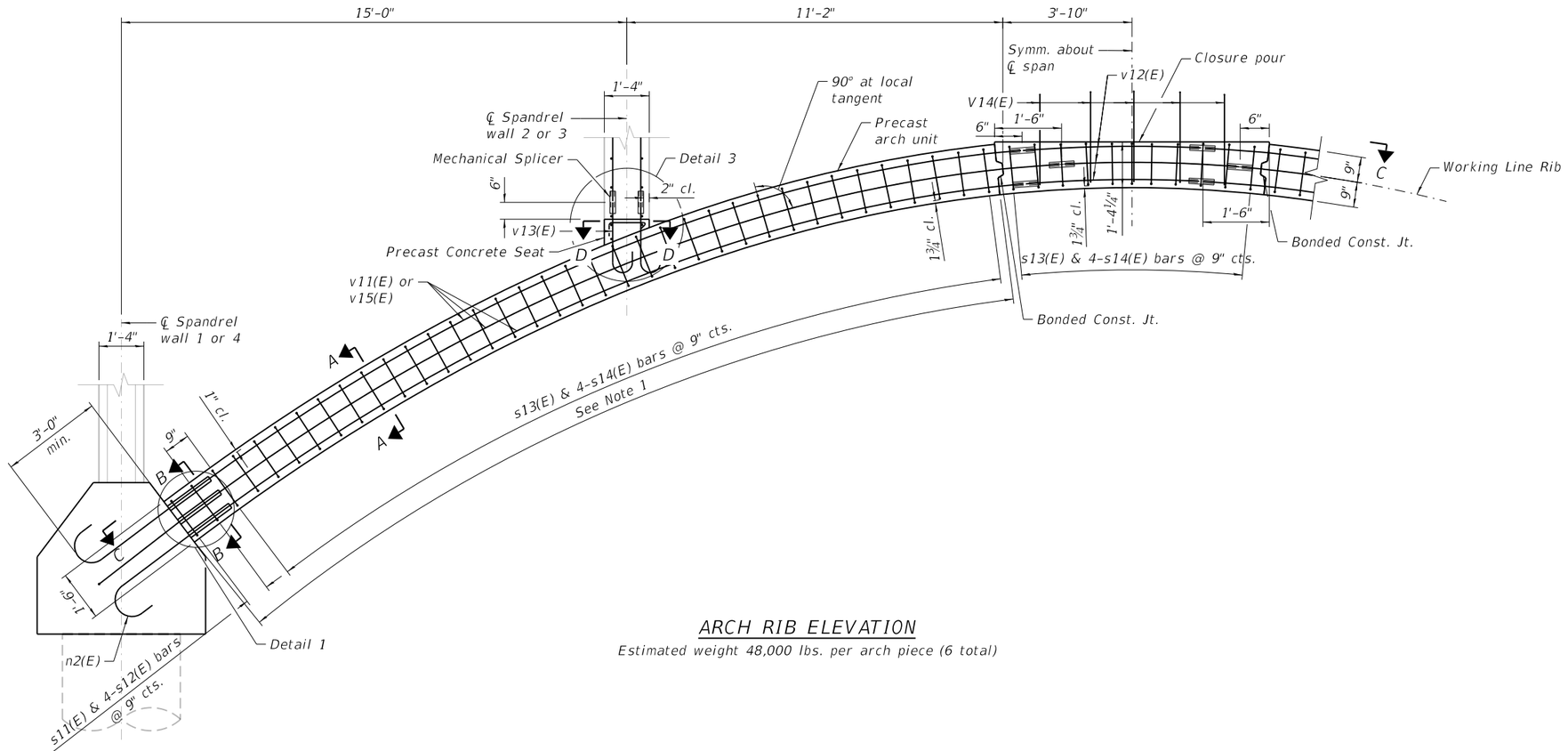
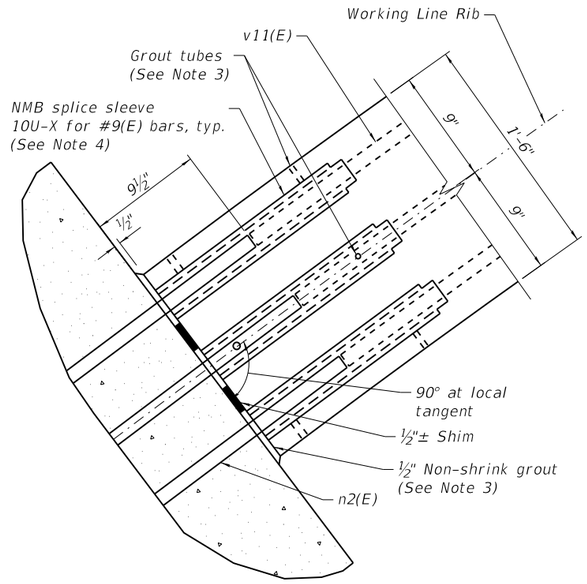
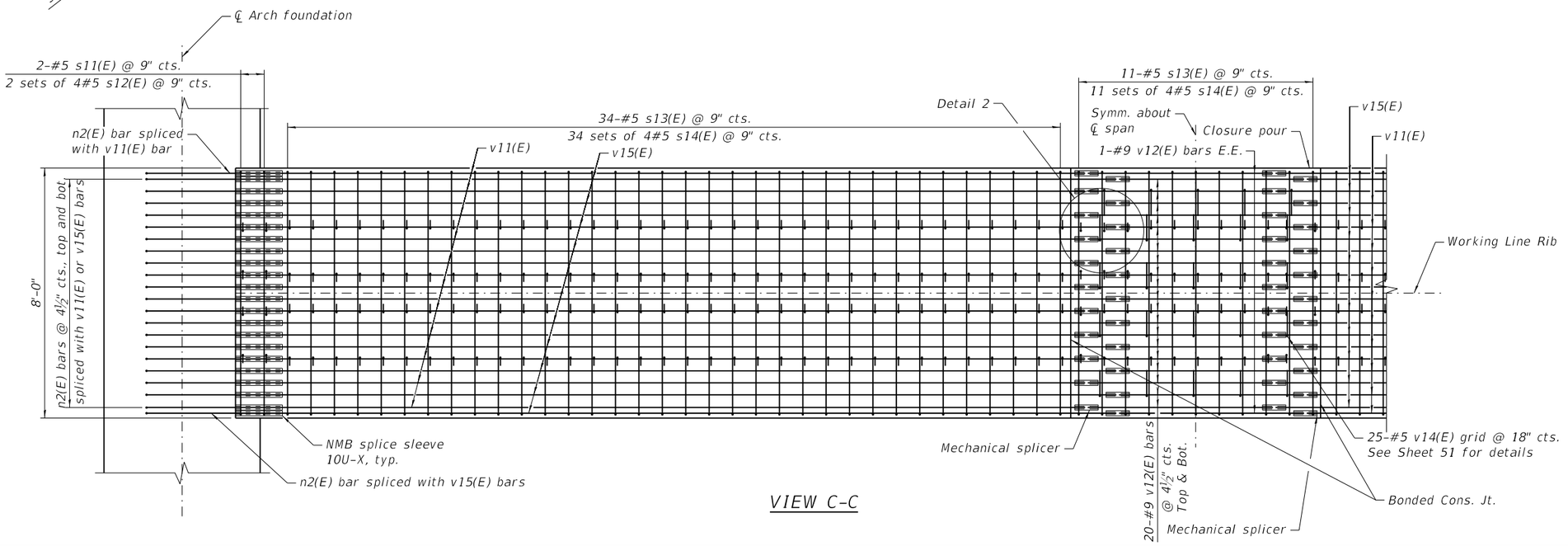


ARCH RIB ELEVATION

Estimated weight 48,000 lbs. per arch piece (6 total)



DETAIL 1



VIEW C-C

NOTES:

1. Cost of precast concrete, epoxy coated reinforcement in the precast arch, NMB splice sleeve 10U-X, shim plates, non-shrink grout and any temporary shoring system required for the precast arch erection are included with FURNISHING AND ERECTING PRECAST CONCRETE ARCH.
2. For Detail 3 see Sheet 51.
3. Non-shrink grout shall conform to ASTM C-1107 with 8,000 psi minimum compressive strength at 28 days.
4. NMB splice sleeves must be placed normal to the end of precast arch in the precise locations per layout shown in SECTION B-B. See Specification FURNISHING AND ERECTING PRECAST CONCRETE ARCH for field grouting requirements.
5. All ends of the precast arch with exposed NMB splice sleeve, v11(E), v13(E) and v15(E) bars must be protected during precast arch being transported.
6. Perform comprehensive survey control over the footing prior to erection of precast arches.
7. Precast arch lifting locations must be identified prior to precast arch fabrication. The structural analysis of arch erection must be signed and sealed by a Structural Engineer licensed in Illinois and submitted to the Engineer for approval.
8. See Sheet 50 for Sections A-A, B-B and D-D and Detail 2.

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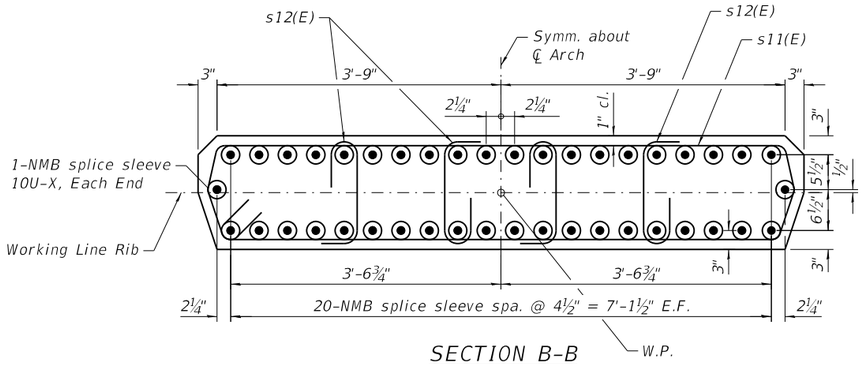
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ARCH PLAN & ELEVATION - 1
STRUCTURE NO. 049-6851

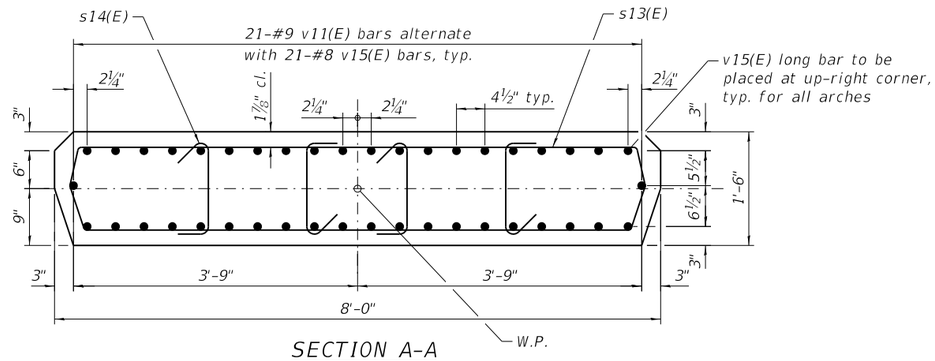
SHEET 17 OF 39 SHEETS STA. TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	49
		CONTRACT NO. 61K52		
		ILLINOIS	FED. AID PROJECT	

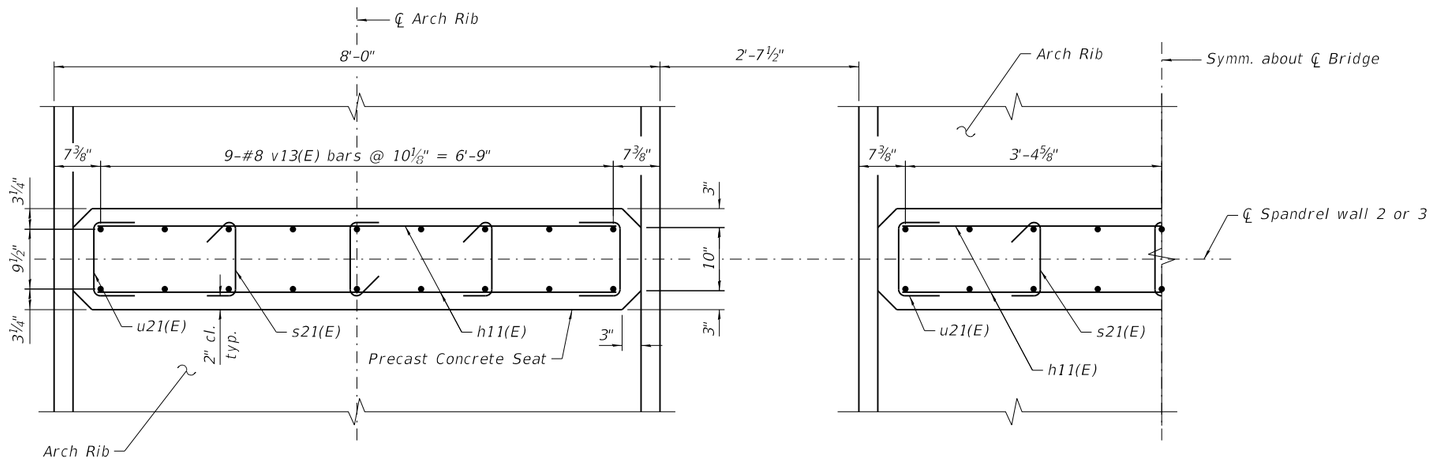


SECTION B-B

* v1(E) Bar centered about NMB splice sleeve 10U-X

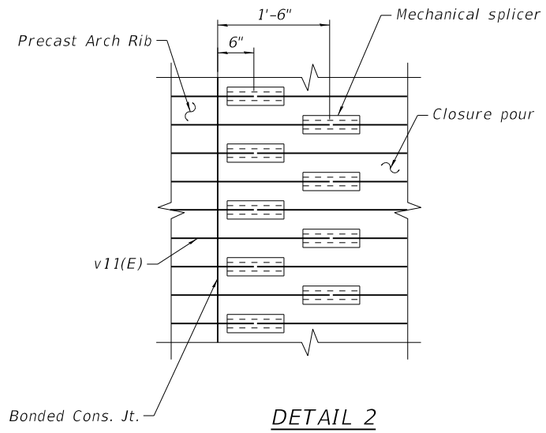


SECTION A-A



SECTION D-D

See location on Sheet 49



DETAIL 2

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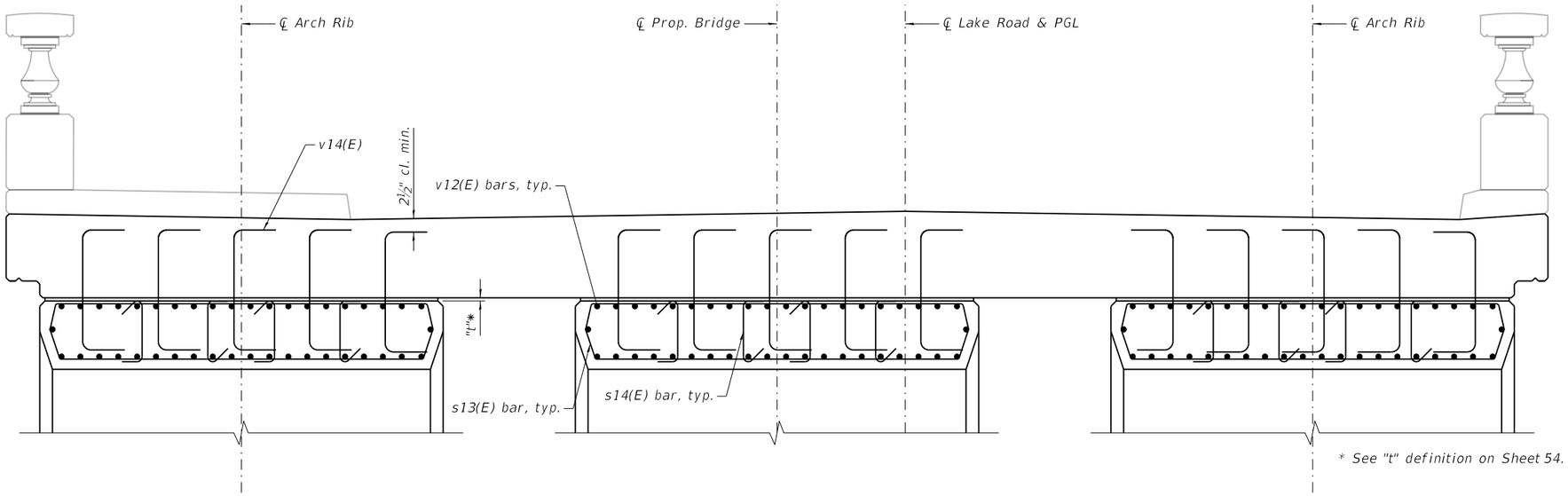
PLOT DATE = 5/16/2024	DATE - 6/10/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ARCH PLAN & ELEVATION - 2
STRUCTURE NO. 049-6851

SHEET 18 OF 39 SHEETS | STA. | TO STA.

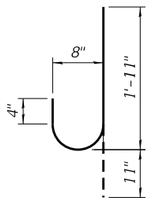
MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	50
		CONTRACT NO. 61K52		
	ILLINOIS	FED. AID PROJECT		



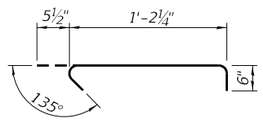
* See "t" definition on Sheet 54.

SECTION THRU CLOSURE POUR

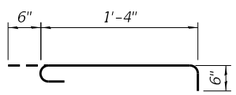
BAR v14(E)



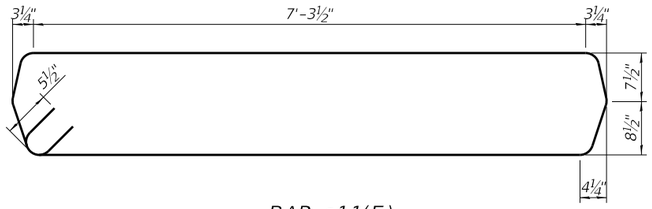
BAR v13(E)



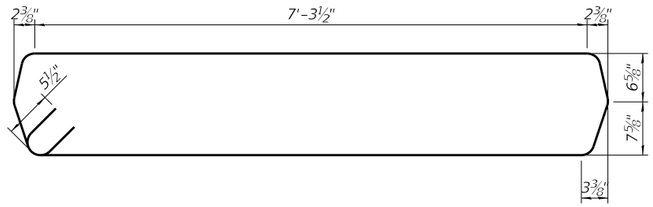
BAR s14(E)



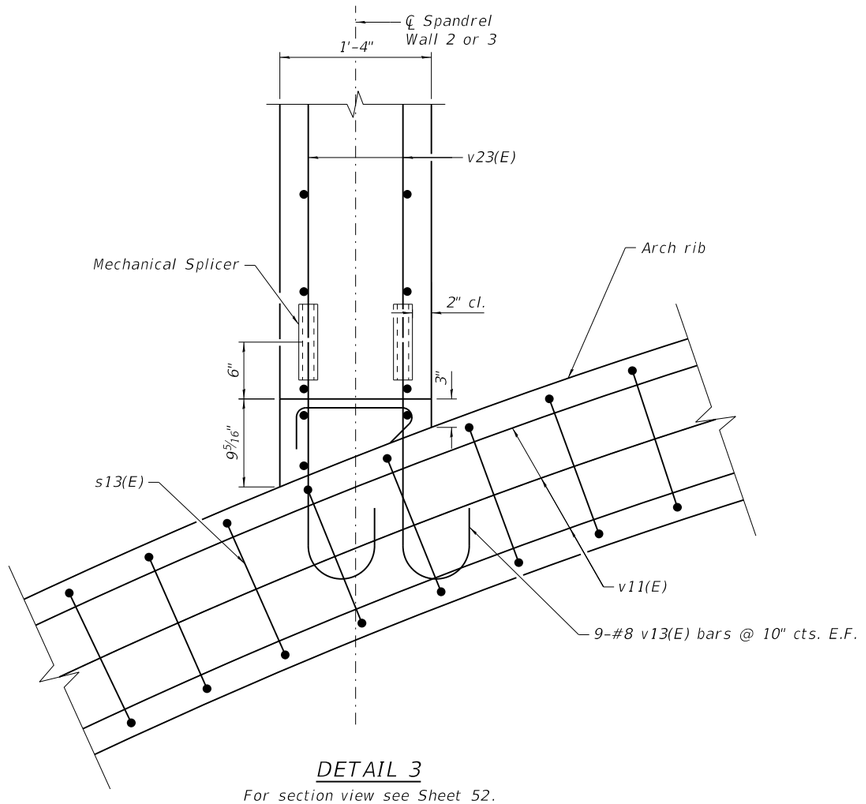
BAR s12(E)



BAR s11(E)



BAR s13(E)



DETAIL 3

For section view see Sheet 52.

BILL OF MATERIAL*

Bar	No.	Size	Length	Shape
s13(E)	33	#5	18'-2"	
s14(E)	132	#5	2'-2"	
v12(E)	126	#9	6'-0"	
v14(E)	25	#5	2'-9"	
Concrete Superstructure			Cu. Yd.	10.7
Reinforcement Bars, Epoxy Coated			Pound	3,570
Mechanical Splicers			Each	252

* Bill of material for cast-in-place closure pour only.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ARCH CROWN CLOSURE POUR DETAILS
STRUCTURE NO. 049-6851

SHEET 19 OF 39 SHEETS STA. TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	51
		CONTRACT NO. 61K52		
	ILLINOIS FED. AID PROJECT			

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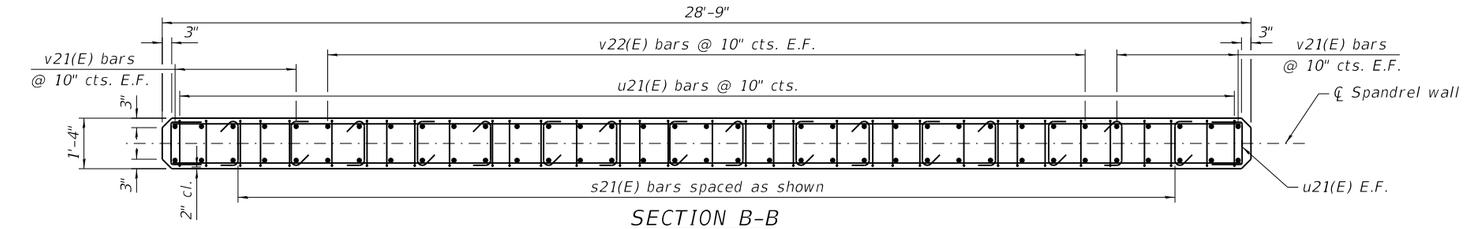
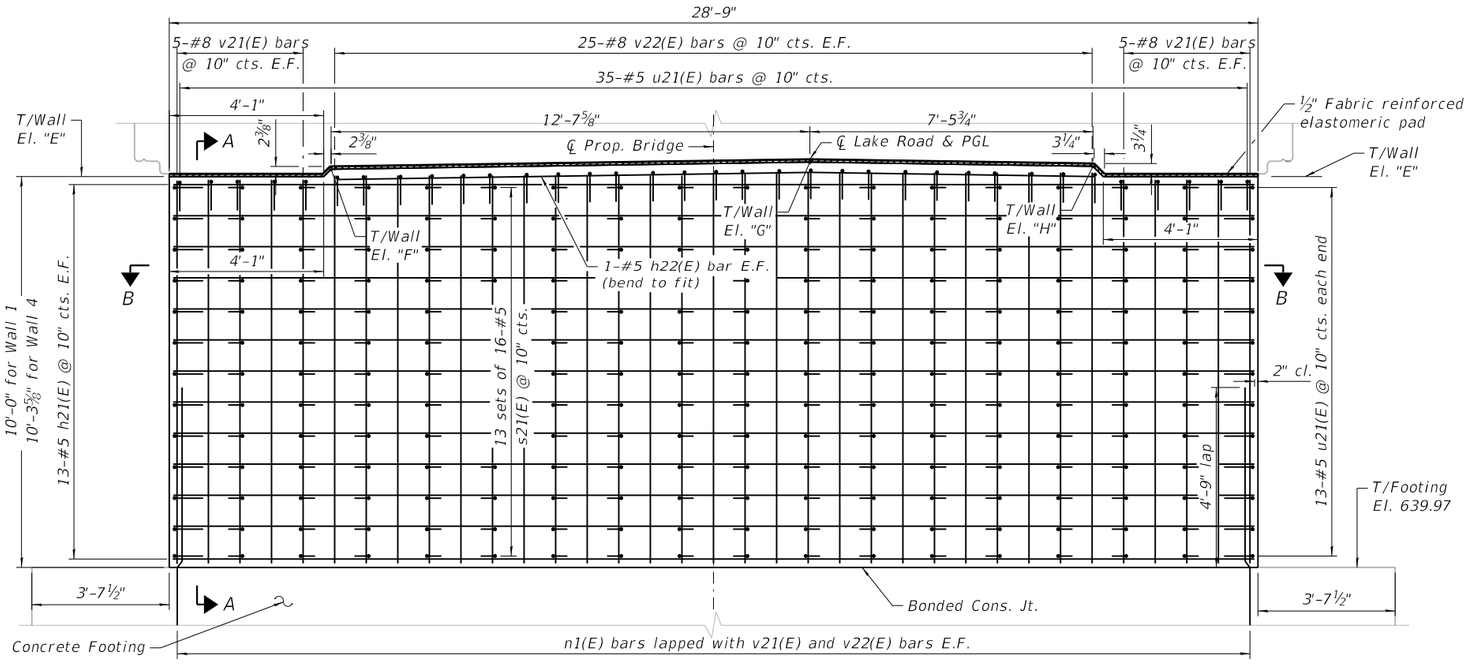
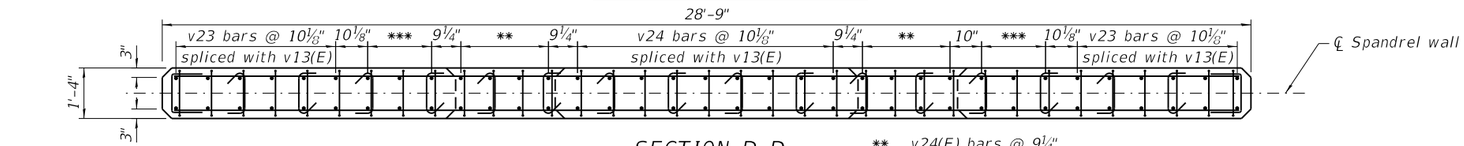


SECTION B-B

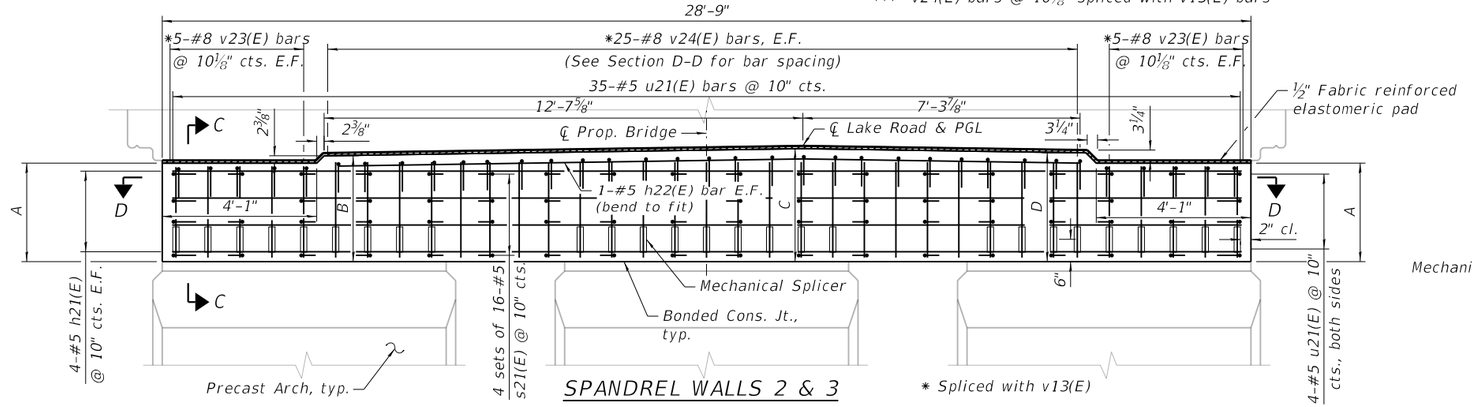


SPANDREL WALLS 1 & 4



SECTION D-D

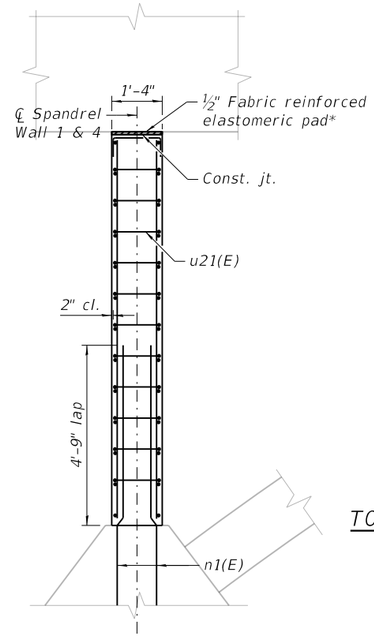
** v24(E) bars @ 9¼"
*** v24(E) bars @ 10⅛" spliced with v13(E) bars



SPANDREL WALLS 2 & 3

* Spliced with v13(E)

* Top concrete surface of the spandrel walls shall be finished smooth and applied with approved 2-system epoxy adhesive (hardener and resin). Allow the adhesive to settle. ½" fabric reinforced elastomeric pad shall be placed on top of applied epoxy resin within the entire top surface of the spandrel walls after the seat conditions are inspected and approved by the Engineer. Place compressive pressure on top of the elastomeric pad per manufacturer requirements until the epoxy is bonded and settled. Cost of furnishing and installing of ½" fabric reinforced elastomeric pad are included with Concrete Structures.



SECTION A-A

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h21(E)	68	#5	28'-5"	
h22(E)	8	#5	20'-3"	
s21(E)	544	#5	2'-0"	
u21(E)	68	#5	2'-0"	
v21(E)	40	#8	10'-0"	
v22(E)	100	#8	10'-2"	
v23(E)	40	#8	1'-7"	
v24(E)	100	#8	1'-10"	
Concrete Structures		Cu. Yd.	37.4	
Mechanical Splicer		Each	108	
Reinforcement Bars, Epoxy Coated		Pound	7,910	

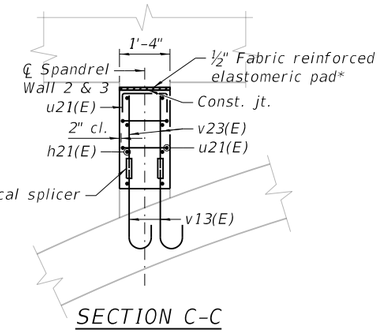
Bill of material for all spandrel walls.

TOP ELEVATION OF SPANDREL WALLS 1 & 4

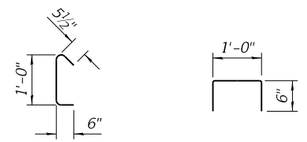
Elev.	Spandrel Wall 1	Spandrel Wall 4
E	649.95	650.25
F	650.15	650.45
G	650.34	650.64
H	650.22	650.52

HEIGHT OF SPANDREL WALLS 2 & 3

Dimm.	Spandrel Wall 2	Spandrel Wall 3
A	2'-2⅜"	2'-4¼"
B	2'-4¾"	2'-6⅝"
C	2'-7"	2'-8⅞"
D	2'-5⅝"	2'-7½"



SECTION C-C



BAR s21(E)

BAR u21(E)

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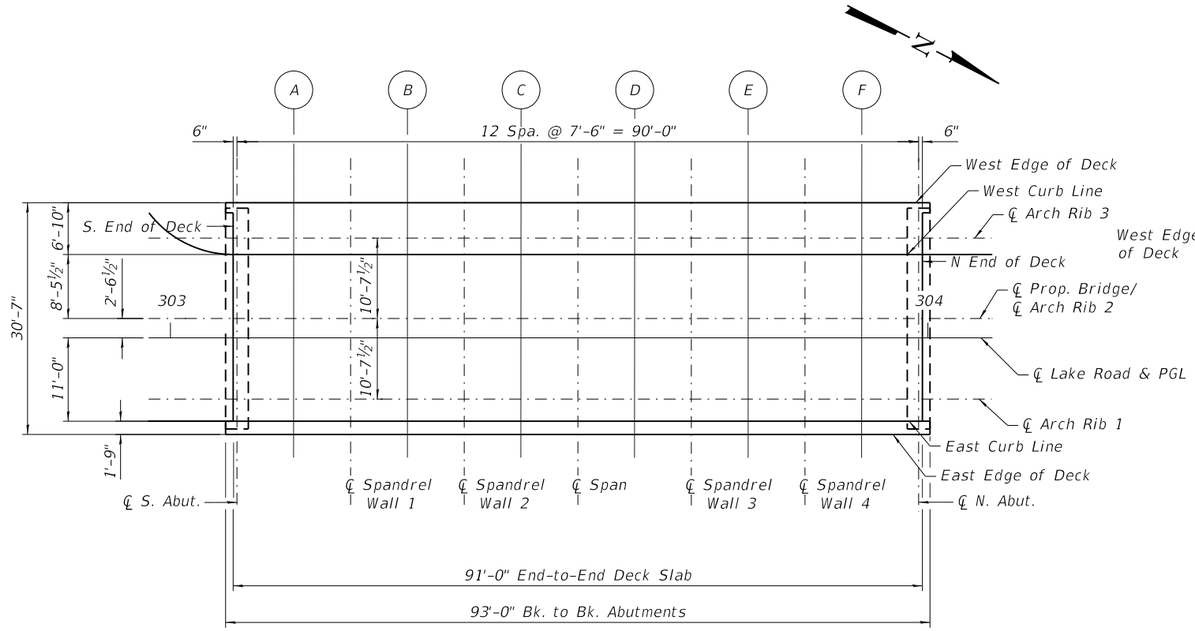
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

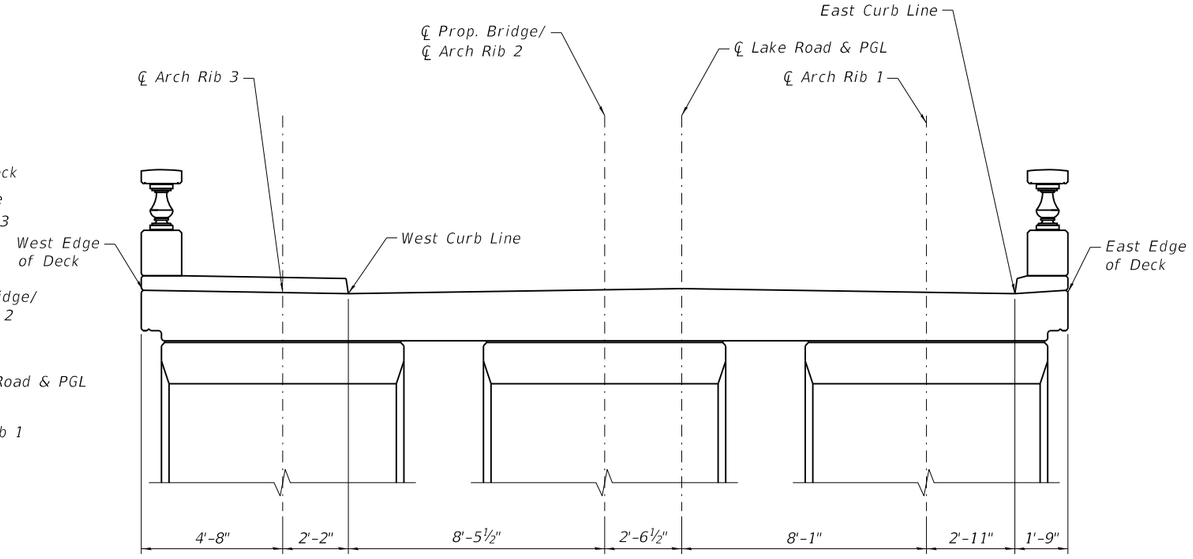
SPANDREL WALL DETAILS
STRUCTURE NO. 049-6851

SHEET 20 OF 39 SHEETS | STA. | TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	52
		CONTRACT NO. 61K52		
		ILLINOIS	FED. AID PROJECT	



DECK PLAN



SECTION THRU DECK

(Looking North)

NOTES:

1. Work this Sheet with Sheets 54 & 55.
2. Offsets are taken from ℄ Lake Road & PGL. Offset of the ℄ Prop. Bridge and PGL are 2'-6½" left of ℄ Prop. Lake Road.
3. The deflection due to the weight of concrete slab and all superimposed dead loads, including weight of sidewalk and concrete ornamental railing, shall be determined by subtracting "Theoretical Grade Elevations" from "Theoretical Grade Elevations Adjusted For Dead Load Deflection".

WEST EDGE OF DECK

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ S. Abut.	303+08.78	17.83' lt.	651.58	651.58
A	303+16.28	17.83' lt.	651.62	651.62
℄ Spandrel Wall 1	303+23.78	17.83' lt.	651.66	651.66
B	303+31.28	17.83' lt.	651.69	651.72
℄ Spandrel Wall 2	303+38.78	17.83' lt.	651.73	651.79
C	303+46.28	17.83' lt.	651.77	651.86
℄ Span	303+53.78	17.83' lt.	651.81	651.90
D	303+61.28	17.83' lt.	651.84	651.93
℄ Spandrel Wall 3	303+68.78	17.83' lt.	651.88	651.94
E	303+76.28	17.83' lt.	651.92	651.95
℄ Spandrel Wall 4	303+83.78	17.83' lt.	651.96	651.96
F	303+91.28	17.83' lt.	651.99	651.99
℄ N. Abut.	303+98.78	17.83' lt.	652.03	652.03

℄ ARCH RIB 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ S. Abut.	303+08.78	13.17' lt.	651.50	651.50
A	303+16.28	13.17' lt.	651.54	651.54
℄ Spandrel Wall 1	303+23.78	13.17' lt.	651.58	651.58
B	303+31.28	13.17' lt.	651.62	651.66
℄ Spandrel Wall 2	303+38.78	13.17' lt.	651.65	651.74
C	303+46.28	13.17' lt.	651.69	651.82
℄ Span	303+53.78	13.17' lt.	651.73	651.87
D	303+61.28	13.17' lt.	651.77	651.90
℄ Spandrel Wall 3	303+68.78	13.17' lt.	651.80	651.89
E	303+76.28	13.17' lt.	651.84	651.88
℄ Spandrel Wall 4	303+83.78	13.17' lt.	651.88	651.88
F	303+91.28	13.17' lt.	651.92	651.92
℄ N. Abut.	303+98.78	13.17' lt.	651.95	651.95

WEST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ S. Abut.	303+08.78	11.00' lt.	651.47	651.47
A	303+16.28	11.00' lt.	651.50	651.50
℄ Spandrel Wall 1	303+23.78	11.00' lt.	651.54	651.54
B	303+31.28	11.00' lt.	651.58	651.61
℄ Spandrel Wall 2	303+38.78	11.00' lt.	651.62	651.67
C	303+46.28	11.00' lt.	651.65	651.74
℄ Span	303+53.78	11.00' lt.	651.69	651.78
D	303+61.28	11.00' lt.	651.73	651.82
℄ Spandrel Wall 3	303+68.78	11.00' lt.	651.77	651.82
E	303+76.28	11.00' lt.	651.80	651.83
℄ Spandrel Wall 4	303+83.78	11.00' lt.	651.84	651.84
F	303+91.28	11.00' lt.	651.88	651.88
℄ N. Abut.	303+98.78	11.00' lt.	651.92	651.92

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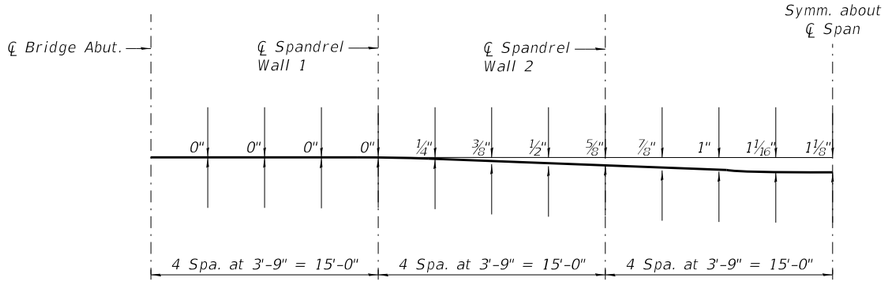
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF DECK ELEVATION PLAN & TABLES 1
STRUCTURE NO. 049-6851

SHEET 21 OF 39 SHEETS | STA. | TO STA.

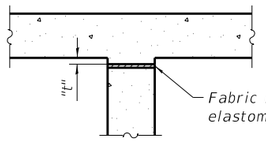
MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	53
		CONTRACT NO. 61K52		
	ILLINOIS	FED. AID PROJECT		

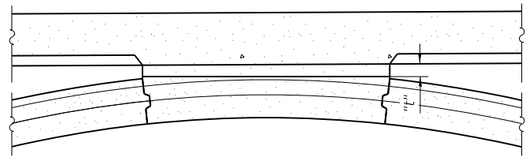


DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete slab, sidewalk and ornamental railing only)

Note:
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown in the tables.





To determine "t": After all precast arches have been erected and Spandrel Wall 2 & 3 and precast arch closure pour have been completed, elevations at top of ½" neoprene sheet placed on top of the spandrel wall 2 & 3, and at top of the arch closure pour shall be surveyed. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown below, minus slab thickness, equals the fillet heights "t" above top of the Spandrel Wall 2 & 3, and at top of the arch closure pour.

FILLET HEIGHTS

NOTES:

1. *Work this Sheet with Sheets 53 &55.*
2. *Offsets are taken from ℄ Lake Road & PGL. Offset of the ℄ Prop. Bridge and PGL are 2'-6½" left of ℄ Prop. Lake Road.*
3. *The deflection due to the weight of concrete slab and all superimposed dead loads, including weight of sidewalk and concrete ornamental railing, shall be determined by subtracting "Theoretical Grade Elevations" from "Theoretical Grade Elevations Adjusted For Dead Load Deflection".*

℄ PROP. BRIDGE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ S. Abut.	303+08.78	2.54' lt.	651.60	651.60
A	303+16.28	2.54' lt.	651.63	651.63
℄ Spandrel Wall 1	303+23.78	2.54' lt.	651.67	651.67
B	303+31.28	2.54' lt.	651.71	651.74
℄ Spandrel Wall 2	303+38.78	2.54' lt.	651.75	651.80
C	303+46.28	2.54' lt.	651.78	651.87
℄ Span	303+53.78	2.54' lt.	651.82	651.91
D	303+61.28	2.54' lt.	651.86	651.95
℄ Spandrel Wall 3	303+68.78	2.54' lt.	651.90	651.95
E	303+76.28	2.54' lt.	651.93	651.96
℄ Spandrel Wall 4	303+83.78	2.54' lt.	651.97	651.97
F	303+91.28	2.54' lt.	652.01	652.01
℄ N. Abut.	303+98.78	2.54' lt.	652.05	652.05

℄ LAKE ROAD & PGL

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ S. Abut.	303+08.78	0	651.63	651.63
A	303+16.28	0	651.67	651.67
℄ Spandrel Wall 1	303+23.78	0	651.71	651.71
B	303+31.28	0	651.75	651.77
℄ Spandrel Wall 2	303+38.78	0	651.78	651.84
C	303+46.28	0	651.82	651.91
℄ Span	303+53.78	0	651.86	651.95
D	303+61.28	0	651.90	651.98
℄ Spandrel Wall 3	303+68.78	0	651.93	651.99
E	303+76.28	0	651.97	652.00
℄ Spandrel Wall 4	303+83.78	0	652.01	652.01
F	303+91.28	0	652.05	652.05
℄ N. Abut.	303+98.78	0	652.08	652.08

℄ ARCH RIB 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ S. Abut.	303+08.78	8.08' rt.	651.51	651.51
A	303+16.28	8.08' rt.	651.55	651.55
℄ Spandrel Wall 1	303+23.78	8.08' rt.	651.59	651.59
B	303+31.28	8.08' rt.	651.63	651.67
℄ Spandrel Wall 2	303+38.78	8.08' rt.	651.66	651.75
C	303+46.28	8.08' rt.	651.70	651.83
℄ Span	303+53.78	8.08' rt.	651.74	651.88
D	303+61.28	8.08' rt.	651.78	651.90
℄ Spandrel Wall 3	303+68.78	8.08' rt.	651.81	651.90
E	303+76.28	8.08' rt.	651.85	651.89
℄ Spandrel Wall 4	303+83.78	8.08' rt.	651.89	651.89
F	303+91.28	8.08' rt.	651.93	651.93
℄ N. Abut.	303+98.78	8.08' rt.	651.96	651.96

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF DECK ELEVATION PLAN & TABLES 2
STRUCTURE NO. 049-6851

SHEET 22 OF 39 SHEETS | STA. | TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	54
		CONTRACT NO. 61K52		
	ILLINOIS	FED. AID PROJECT		

EAST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ S. Abut.	303+08.78	11.00' rt.	651.47	651.47
A	303+16.28	11.00' rt.	651.50	651.50
℄ Spandrel Wall 1	303+23.78	11.00' rt.	651.54	651.54
B	303+31.28	11.00' rt.	651.58	651.61
℄ Spandrel Wall 2	303+38.78	11.00' rt.	651.62	651.67
C	303+46.28	11.00' rt.	651.65	651.74
℄ Span	303+53.78	11.00' rt.	651.69	651.78
D	303+61.28	11.00' rt.	651.73	651.82
℄ Spandrel Wall 3	303+68.78	11.00' rt.	651.77	651.82
E	303+76.28	11.00' rt.	651.80	651.83
℄ Spandrel Wall 4	303+83.78	11.00' rt.	651.84	651.84
F	303+91.28	11.00' rt.	651.88	651.88
℄ N. Abut.	303+98.78	11.00' rt.	651.92	651.92

EAST EDGE OF DECK

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ S. Abut.	303+08.78	12.75' rt.	651.58	651.58
A	303+16.28	12.75' rt.	651.62	651.62
℄ Spandrel Wall 1	303+23.78	12.75' rt.	651.66	651.66
B	303+31.28	12.75' rt.	651.69	651.72
℄ Spandrel Wall 2	303+38.78	12.75' rt.	651.73	651.79
C	303+46.28	12.75' rt.	651.77	651.86
℄ Span	303+53.78	12.75' rt.	651.81	651.90
D	303+61.28	12.75' rt.	651.84	651.93
℄ Spandrel Wall 3	303+68.78	12.75' rt.	651.88	651.94
E	303+76.28	12.75' rt.	651.92	651.95
℄ Spandrel Wall 4	303+83.78	12.75' rt.	651.96	651.96
F	303+91.28	12.75' rt.	651.99	651.99
℄ N. Abut.	303+98.78	12.75' rt.	652.03	652.03

NOTES:

1. Work this Sheet with Sheets 53 & 54.
2. Offsets are taken from ℄ Lake Road & PGL. Offset of the ℄ Prop. Bridge and PGL are 2'-6½" left of ℄ Prop. Lake Road.
3. The deflection due to the weight of concrete slab and all superimposed dead loads, including weight of sidewalk and concrete ornamental railing, shall be determined by subtracting "Theoretical Grade Elevations" from "Theoretical Grade Elevations Adjusted For Dead Load Deflection".

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STATE OF ILLINOIS
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TOP OF DECK ELEVATION PLAN & TABLES 3
STRUCTURE NO. 049-6851

SHEET 23 OF 39 SHEETS STA. TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	55
		CONTRACT NO. 61K52		
	ILLINOIS	FED. AID PROJECT		

WEST EDGE OF SLAB

Location	Station	Offset	Theoretical Grade Elevations
S. End of S. Appr. Pvmt.	302+93.28	16.50' lt.	651.31
A1	303+00.78	16.50' lt.	651.45
N. End of S. Appr. Pvmt. / S. End of Deck	303+08.28	16.50' lt.	651.55

WEST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
S. End of S. Appr. Pvmt.	302+93.28	-	-
A1	303+00.78	13.18' lt	651.40
N. End of S. Appr. Pvmt. / S. End of Deck	303+08.28	11.00' lt	651.47

℄ PROP. BRIDGE

Location	Station	Offset	Theoretical Grade Elevations
S. End of S. Appr. Pvmt.	302+93.28	2.54' lt.	651.52
A1	303+00.78	2.54' lt.	651.56
N. End of S. Appr. Pvmt. / S. End of Deck	303+08.28	2.54' lt.	651.59

℄ LAKE ROAD & PGL

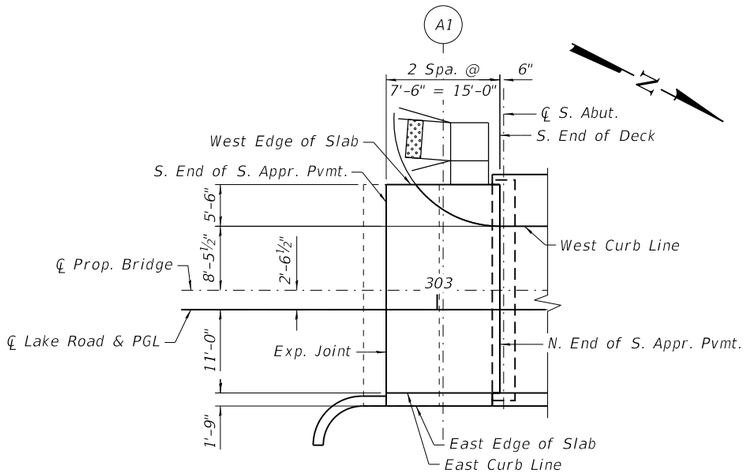
Location	Station	Offset	Theoretical Grade Elevations
S. End of S. Appr. Pvmt.	302+93.28	0	651.56
A1	303+00.78	0	651.59
N. End of S. Appr. Pvmt. / S. End of Deck	303+08.28	0	651.63

EAST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
S. End of S. Appr. Pvmt.	302+93.28	11.00' rt.	651.39
A1	303+00.78	11.00' rt.	651.43
N. End of S. Appr. Pvmt. / S. End of Deck	303+08.28	11.00' rt.	651.46

EAST EDGE OF SLAB

Location	Station	Offset	Theoretical Grade Elevations
S. End of S. Appr. Pvmt.	302+93.28	12.75' rt.	651.50
A1	303+00.78	12.75' rt.	651.54
N. End of S. Appr. Pvmt. / S. End of Deck	303+08.28	12.75' rt.	651.58



PLAN

South Approach

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SOUTH APPROACH SLAB PLAN & TABLES
STRUCTURE NO. 049-6851

SHEET 24 OF 39 SHEETS STA. TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	56
		CONTRACT NO. 61K52		
	ILLINOIS	FED. AID PROJECT		

WEST EDGE OF SLAB

Location	Station	Offset	Theoretical Grade Elevations
S. End of N. Appr. Pvmt. / N. End of Deck	303+99.28	17.83' lt.	652.03
F1	304+06.78	17.83' lt.	652.07
N. End of N. Appr. Pvmt.	304+14.28	17.83' lt.	652.11

WEST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
S. End of N. Appr. Pvmt. / N. End of Deck	303+99.28	11.00' lt.	651.92
F1	304+06.78	11.00' lt.	651.96
N. End of N. Appr. Pvmt.	304+14.28	11.00' lt.	651.99

℄ BRIDGE

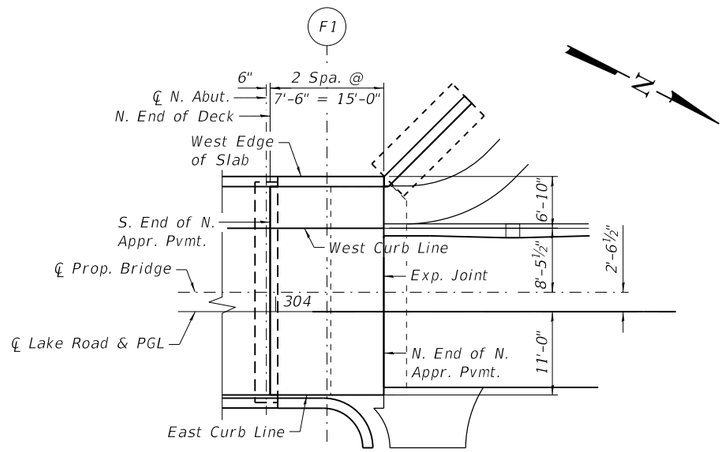
Location	Station	Offset	Theoretical Grade Elevations
S. End of N. Appr. Pvmt. / N. End of Deck	303+99.28	2.54' lt.	652.05
F1	304+06.78	2.54' lt.	652.09
N. End of N. Appr. Pvmt.	304+14.28	2.54' lt.	652.12

℄ LAKE ROAD & PGL

Location	Station	Offset	Theoretical Grade Elevations
S. End of N. Appr. Pvmt. / N. End of Deck	303+99.28	0	652.09
F1	304+06.78	0	652.12
N. End of N. Appr. Pvmt.	304+14.28	0	652.16

EAST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
S. End of N. Appr. Pvmt. / N. End of Deck	303+99.28	11.00' rt.	651.92
F1	304+06.78	11.00' rt.	651.96
N. End of N. Appr. Pvmt.	304+14.28	11.00' rt.	651.99



PLAN

North Approach

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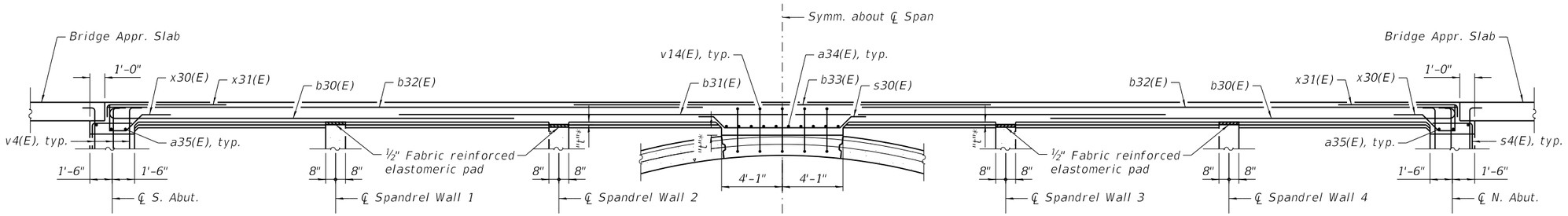
TOP OF NORTH APPROACH SLAB PLAN & TABLES
STRUCTURE NO. 049-6851

SHEET 25 OF 39 SHEETS STA. TO STA.

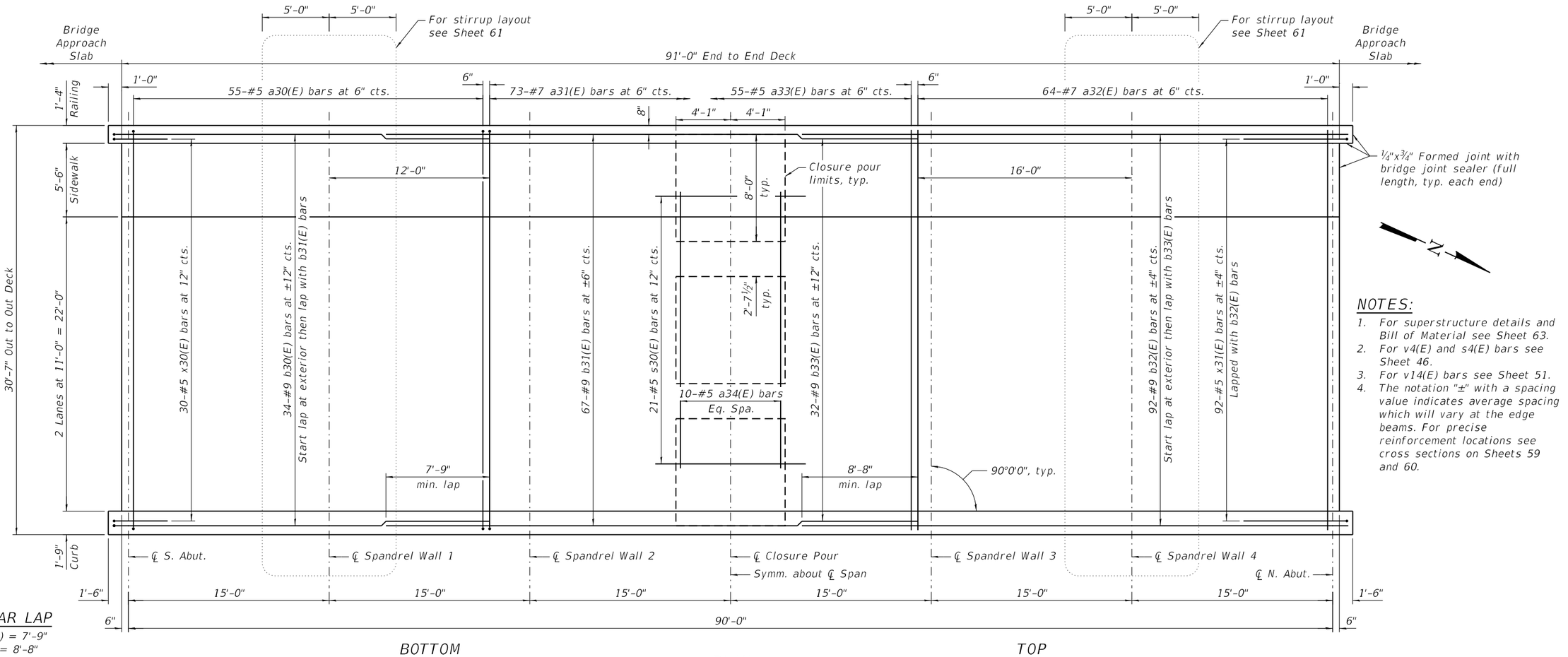
MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	57
		CONTRACT NO. 61K52		
	ILLINOIS	FED. AID PROJECT		



ELEVATION

(a30(E), a31(E), a32(E), a33(E), s31(E), and s32(E) bars not shown for clarity)

* See "t" definition on Sheet 54. A constant dimension to bottom of slab within full wall length at Spandrel Wall 2 & 3; A constant dimension to bottom of slab within closure pour width over each of three closure pours.



MINIMUM BAR LAP

#9 bar (Bottom) = 7'-9"
#9 bar (Top) = 8'-8"

BOTTOM

(Bottom layer reinforcement shown)

PLAN

TOP

(Top layer reinforcement shown)

NOTES:

1. For superstructure details and Bill of Material see Sheet 63.
2. For v4(E) and s4(E) bars see Sheet 46.
3. For v14(E) bars see Sheet 51.
4. The notation "±" with a spacing value indicates average spacing which will vary at the edge beams. For precise reinforcement locations see cross sections on Sheets 59 and 60.

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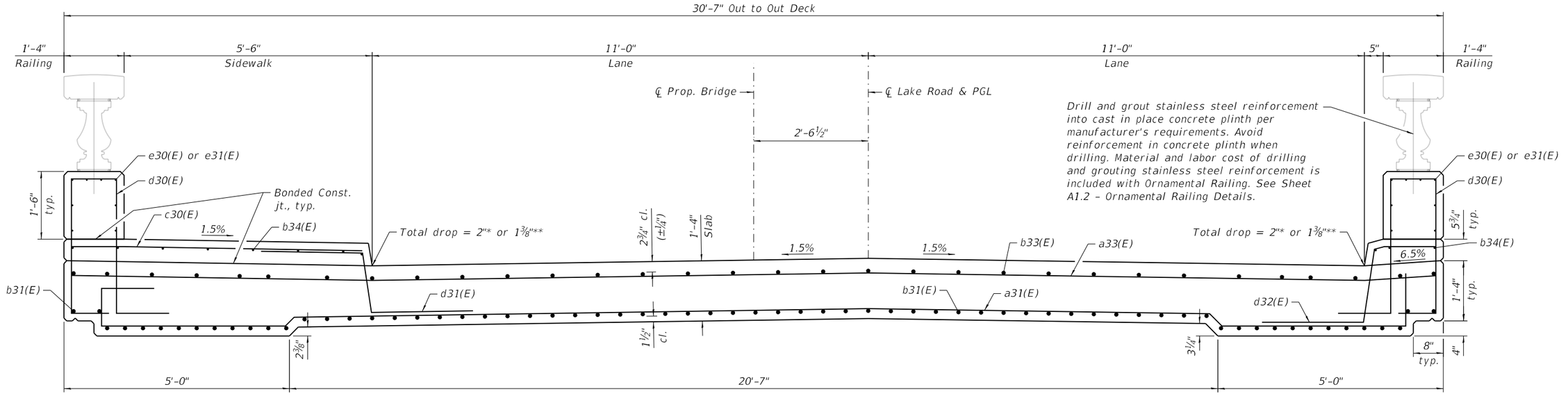
DECK PLAN & CROSS SECTION - 1
STRUCTURE NO. 049-6851

SHEET 26 OF 39 SHEETS STA. TO STA.

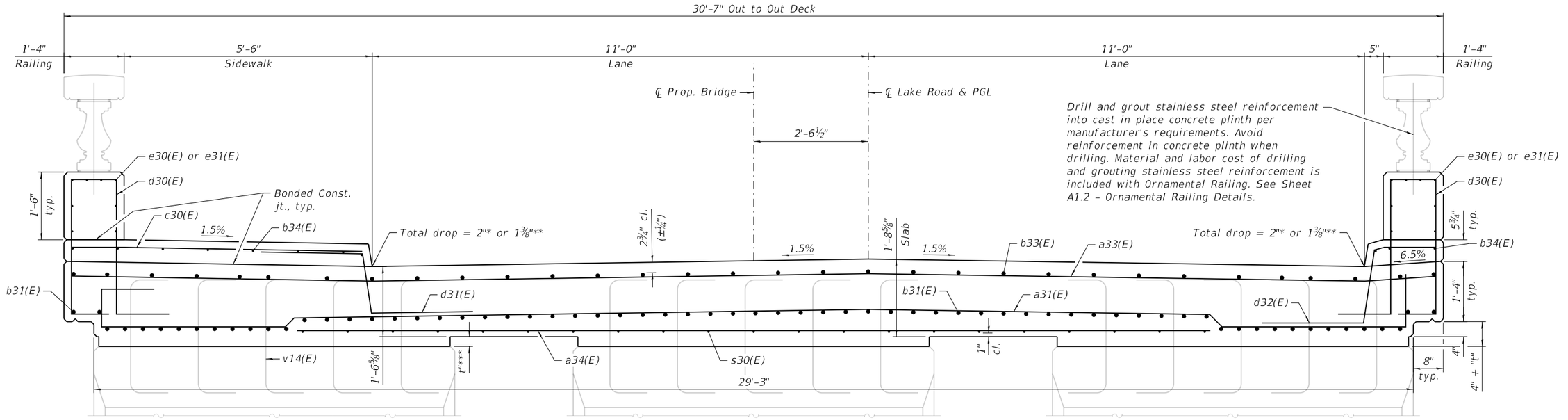
MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	58
		CONTRACT NO. 61K52		
	ILLINOIS	FED. AID PROJECT		



NEAR CLOSURE POUR CROSS SECTION

(Looking North)

* Relative to ℄ Lake Road & PGL
** Relative to Edge of Deck



CLOSURE POUR CROSS SECTION

(Looking North)

* Relative to ℄ Lake Road & PGL
** Relative to Edge of Deck
*** See "t" definition on Sheet 54.

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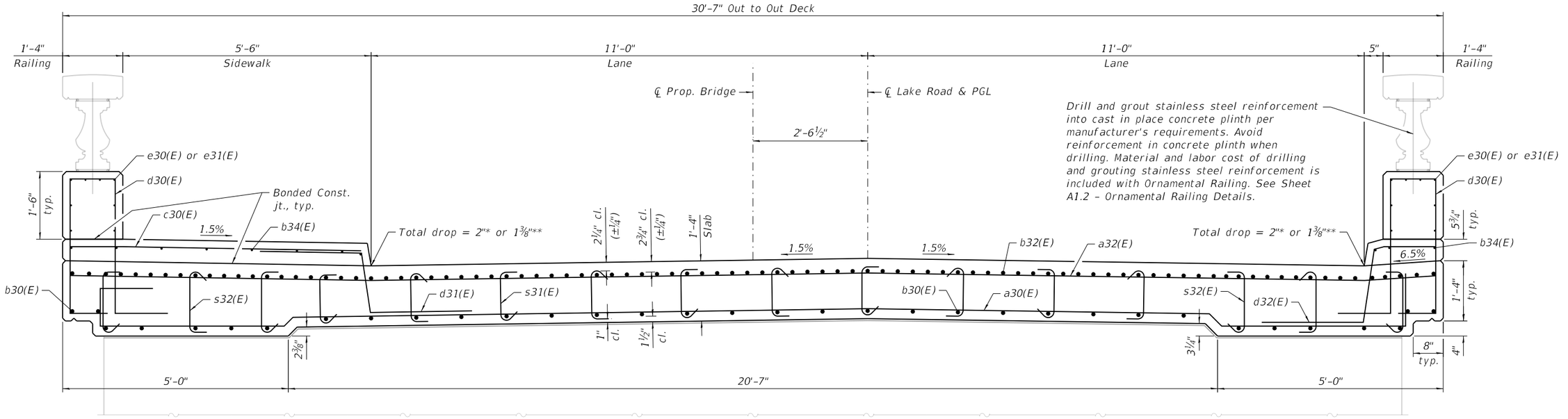
DECK PLAN & CROSS SECTION - 2
STRUCTURE NO. 049-6851
SHEET 27 OF 39 SHEETS STA. TO STA.

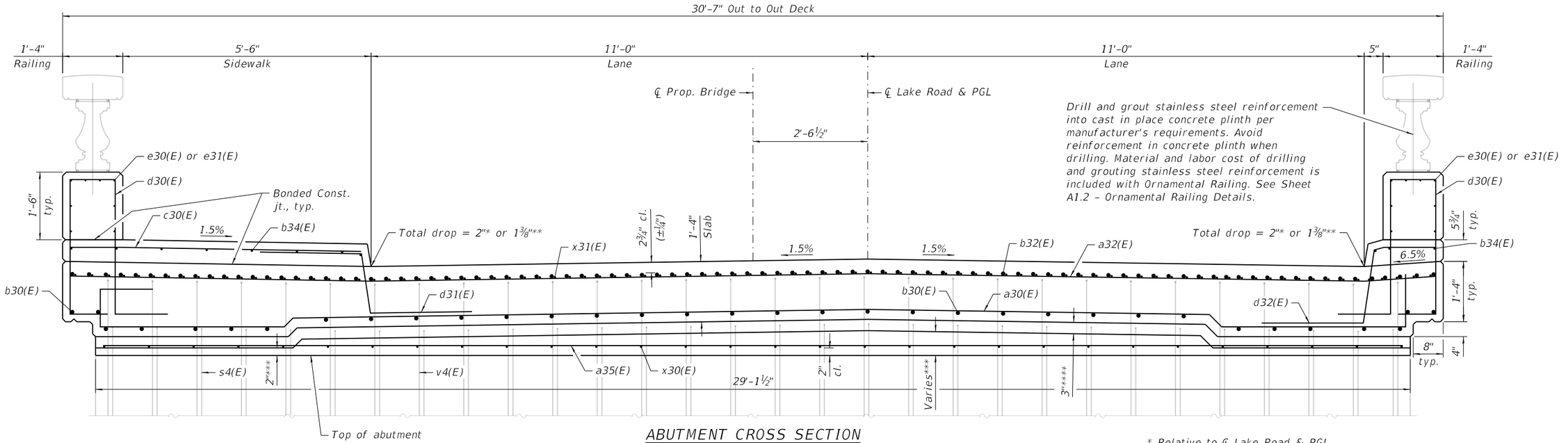
MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	59
		CONTRACT NO. 61K52		
	ILLINOIS	FED. AID PROJECT		



SPANDREL WALL 1 & 4 CROSS SECTION

(Looking North)
(Limits of s31(E) and s32(E) shown on Sheet 61)

* Relative to ℄ Lake Road & PGL
** Relative to Edge of Deck



ABUTMENT CROSS SECTION

(Looking North)

* Relative to ℄ Lake Road & PGL
** Relative to Edge of Deck
*** Vertical chamfer
**** 45° chamfer

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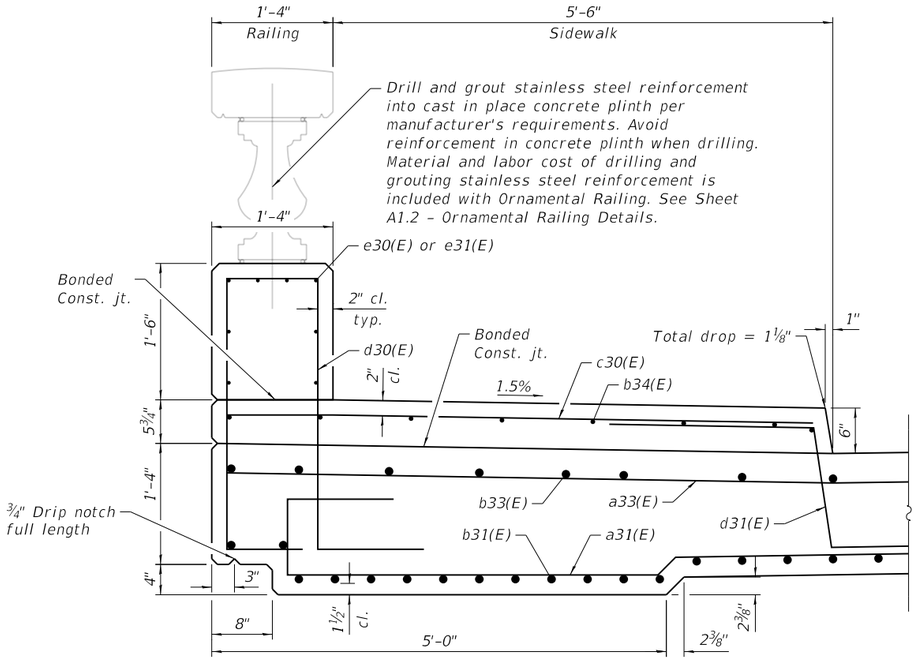
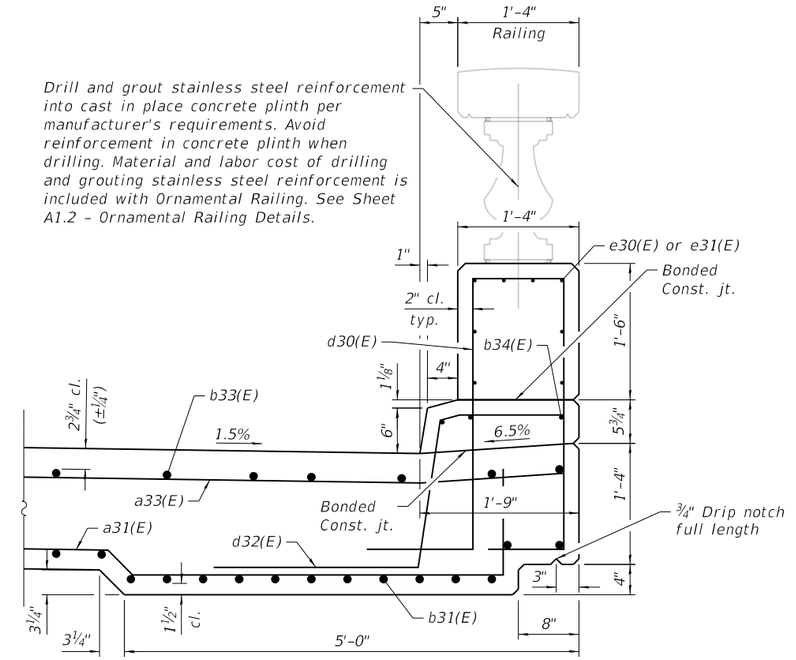
DECK PLAN & CROSS SECTION - 3
STRUCTURE NO. 049-6851
SHEET 28 OF 39 SHEETS STA. TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	60
		CONTRACT NO. 61K52		
	ILLINOIS FED. AID PROJECT			



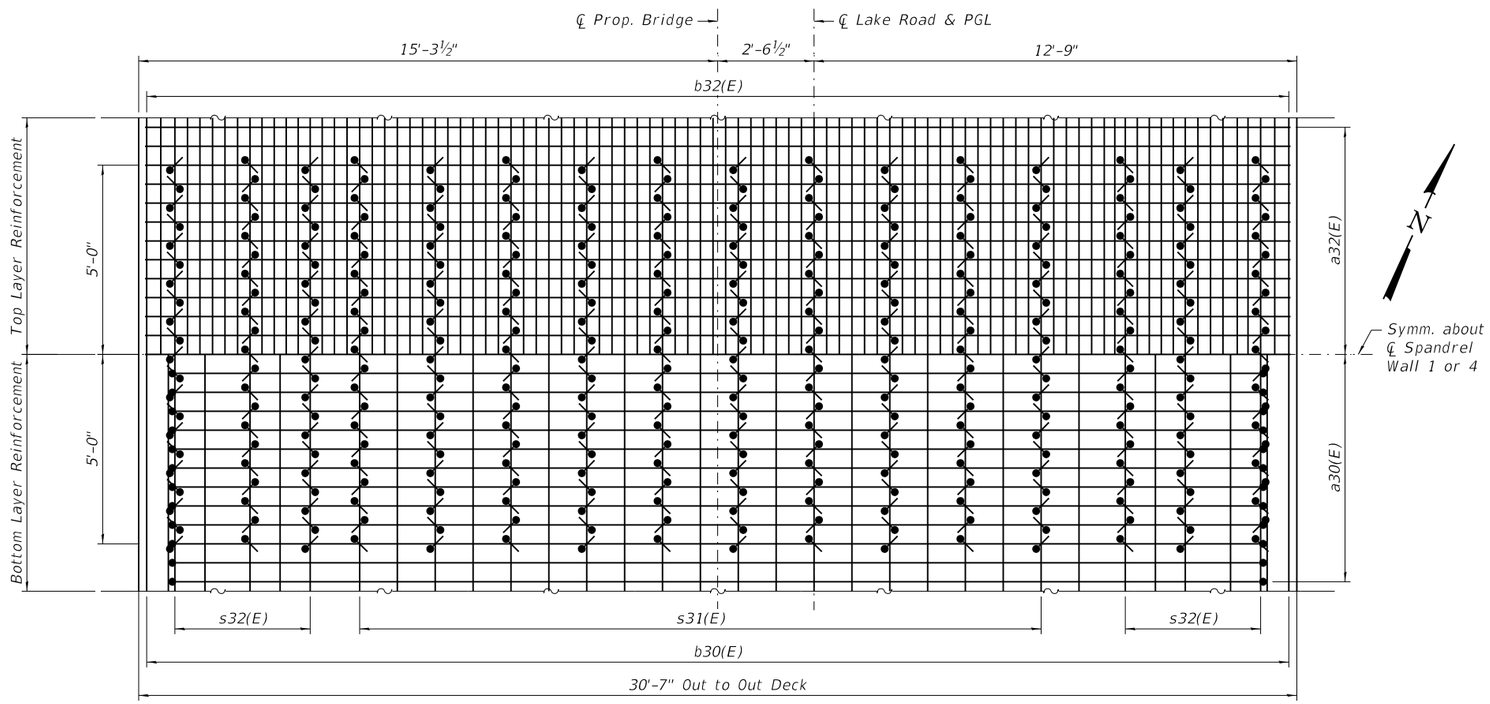
TYPICAL SECTION THRU WEST RAILING

(Reinforcement in slab shown near closure pour)



TYPICAL SECTION THRU EAST RAILING

(Reinforcement in slab shown near closure pour)



STIRRUP PLAN LAYOUT

NOTES:

1. Alternate orientation of s31(E) and s32(E) bars as shown in plan view and cross section on Sheet 60.

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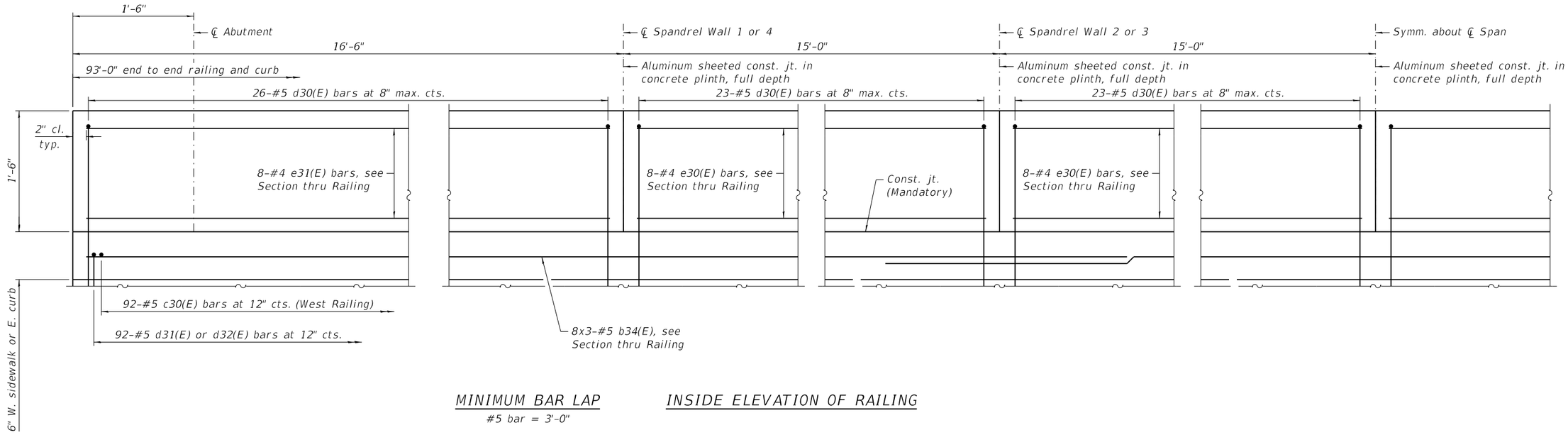
SUPERSTRUCTURE DETAILS - 1
STRUCTURE NO. 049-6851

SHEET 29 OF 39 SHEETS STA. TO STA.

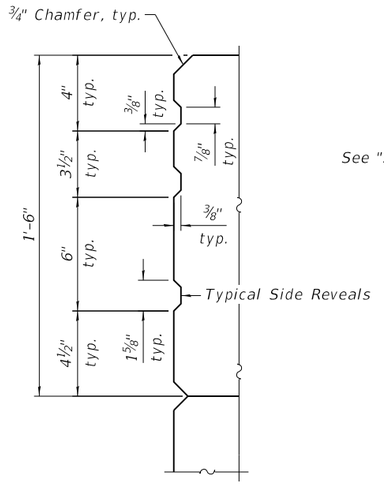
MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	61
		CONTRACT NO. 61K52		
	ILLINOIS	FED. AID PROJECT		



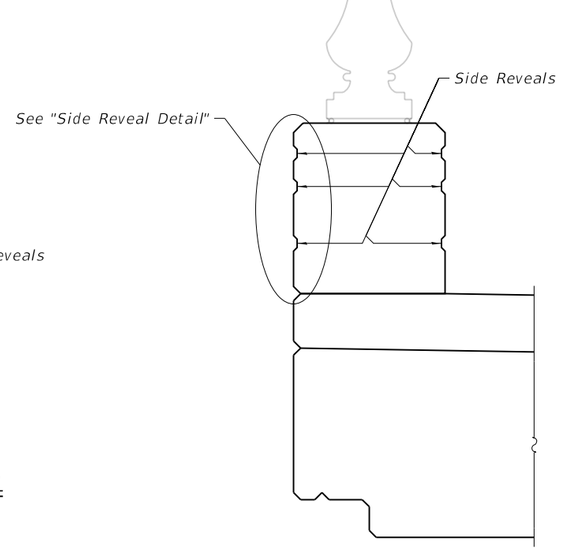
MINIMUM BAR LAP

#5 bar = 3'-0"

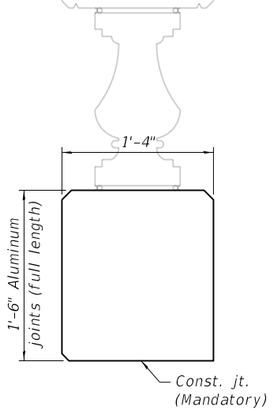
INSIDE ELEVATION OF RAILING



SIDE REVEAL DETAIL



TYPICAL REVEAL LOCATION DETAIL



RAILING JOINT DETAIL

NOTES:

1. Bars indicated thus 8x3-#5 etc. indicates 8 lines of bars with 3 lengths per line.
2. The 3/16" minimum aluminum sheet shall be ASTM B 209 alloy 3003-H14 and coated with 5 mils of either bitumen paint or epoxy paint to minimize reaction with wet concrete. Cost included with Concrete Superstructure.

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SUPERSTRUCTURE DETAILS - 2
STRUCTURE NO. 049-6851

SHEET 30 OF 39 SHEETS | STA. | TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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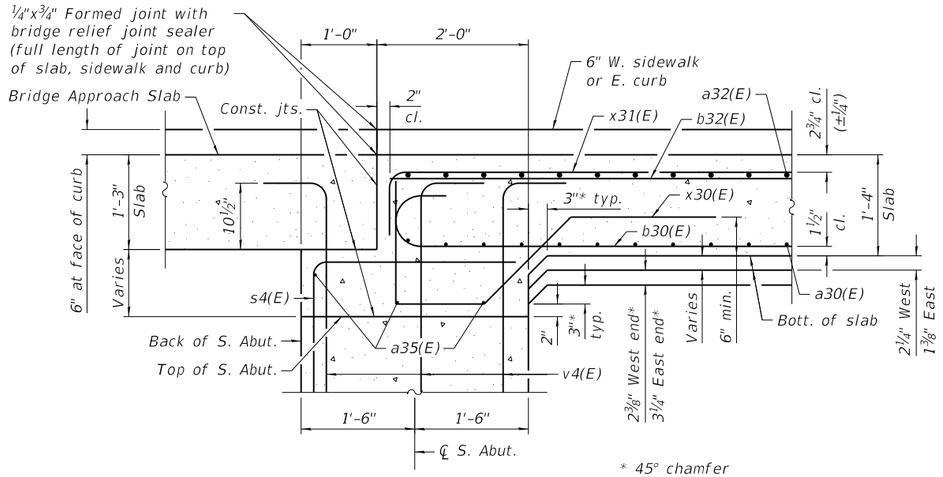
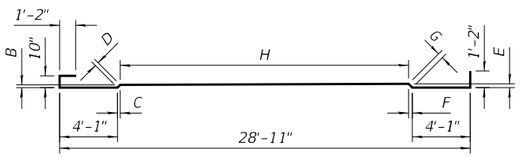
		CONTRACT NO. 61K52		
		ILLINOIS	FED. AID PROJECT	



ABUTMENT SECTION

(South Abutment shown, North Abutment similar)



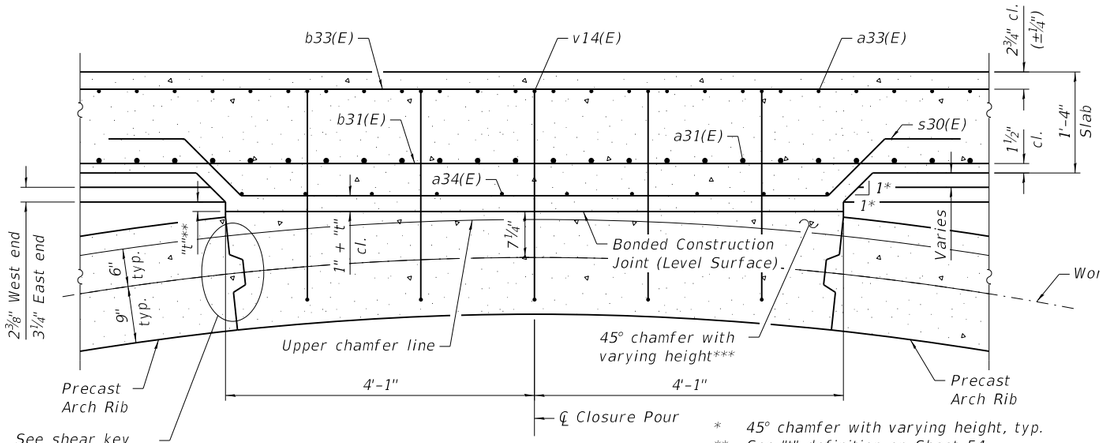
BAR a30(E) & a31(E)

B, C, D, E, F, G & H DIMENSIONS

Bar	B	C	D	E	F	G	H
a30(E)	3"	2⅛"	3⅝"	3⅞"	3"	4⅞"	20'-3⅞"
a31(E)	3½"	1⅞"	3⅜"	4⅜"	2¾"	5¼"	20'-4⅜"

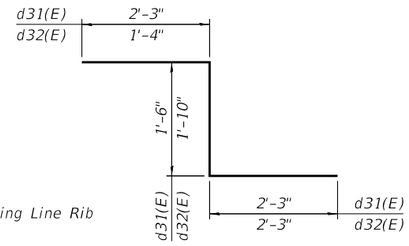
SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a30(E)	110	#5	32'-6"	
a31(E)	73	#7	32'-6"	
a32(E)	128	#7	30'-3"	
a33(E)	55	#5	30'-3"	
a34(E)	10	#5	20'-3"	
a35(E)	6	#4	28'-9"	
b30(E)	68	#9	29'-7"	
b31(E)	67	#9	51'-6"	
b32(E)	184	#9	41'-0"	
b33(E)	32	#9	28'-0"	
b34(E)	33	#5	32'-11"	
c30(E)	92	#5	6'-6"	
d30(E)	288	#5	9'-0"	
d31(E)	92	#5	6'-0"	
d32(E)	92	#5	5'-5"	
e30(E)	64	#4	14'-8"	
e31(E)	32	#4	16'-2"	
s30(E)	21	#5	11'-10"	
s31(E)	420	#4	1'-10"	
s32(E)	252	#4	2'-1"	
x30(E)	60	#5	6'-5"	
x31(E)	184	#5	8'-10"	
Concrete Superstructure			Cu. Yd.	181.7
Bridge Deck Grooving			Sq. Yd.	203
Protective Coat			Sq. Yd.	427
Reinforcement Bars, Epoxy Coated			Pound	75,580

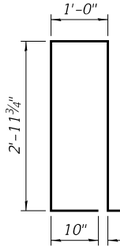


CLOSURE POUR SECTION

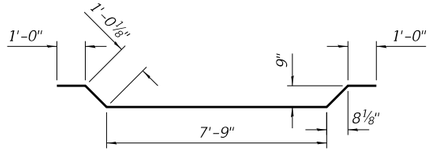
* 45° chamfer with varying height, typ.
** See "t" definition on Sheet 54.
*** Upper chamfer line within closure pour shall follow work line rib profile and match with chamfer line at precast arch.



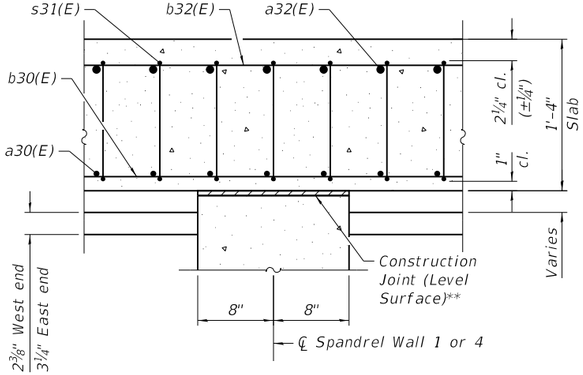
BAR d31(E) & d32(E)



BAR d30(E)

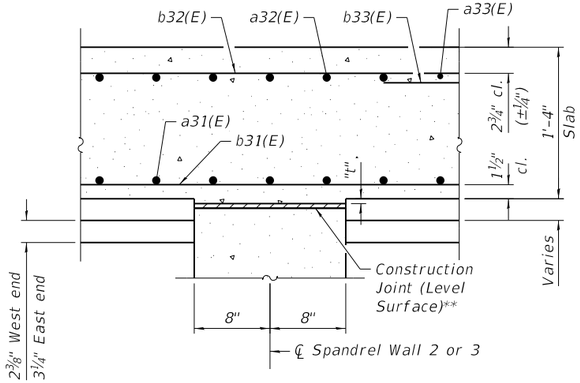


BAR s30(E)

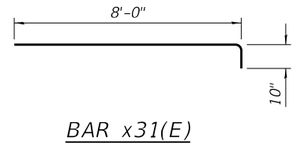


SPANDREL WALL 1 & 4 SECTION

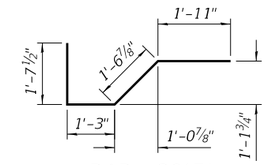
** Top concrete surface of the spandrel walls shall be finished smooth and applied with approved 2-system epoxy adhesive (hardener and resin). Allow the adhesive to settle. ½" fabric reinforced elastomeric pad shall be placed on top of applied epoxy resin within the entire top surface of the spandrel walls after the seat conditions are inspected and approved by the Engineer. Place compressive pressure on top of the elastomeric pad per manufacturer requirements until the epoxy is bonded and settled. Cost of furnishing and installing of ½" fabric reinforced elastomeric pad are included with Concrete Structures.



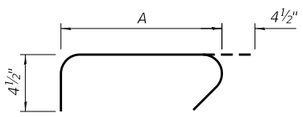
SPANDREL WALL 2 & 3 SECTION



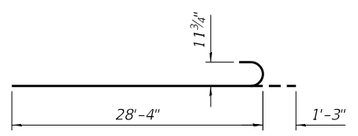
BAR x31(E)



BAR x30(E)



BAR s31(E) & s32(E)



BAR b30(E)

A DIMENSIONS

Bar	A
s31(E)	1'-¾"
s32(E)	1'-4"

NOTES:

1. Place bars a30(E), a31(E), a32(E), and a33(E) parallel to the cross slopes.
2. Place bars x30(E) and x31(E) parallel to ℄ of roadway.
3. Match the bridge seat slope with the approach seat slope.
4. Protective Coat shall be applied to the entire top surface of slab including top and inside vertical face of sidewalk and railings.

Lochner
225 WEST WASHINGTON STREET 12TH FLOOR
CHICAGO, IL 60606 / 312-372-3011 (P)

USER NAME = Personal	DESIGNED - MM	REVISED -	
	DRAWN - MM	REVISED -	
PLOT SCALE = 0:2.000 ':' / in.	CHECKED - RH	REVISED -	
PLOT DATE = 5/16/2024	DATE - 6/10/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS - 3
STRUCTURE NO. 049-6851
SHEET 31 OF 39 SHEETS STA. TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	63
		CONTRACT NO. 61K52		
	ILLINOIS FED. AID PROJECT			

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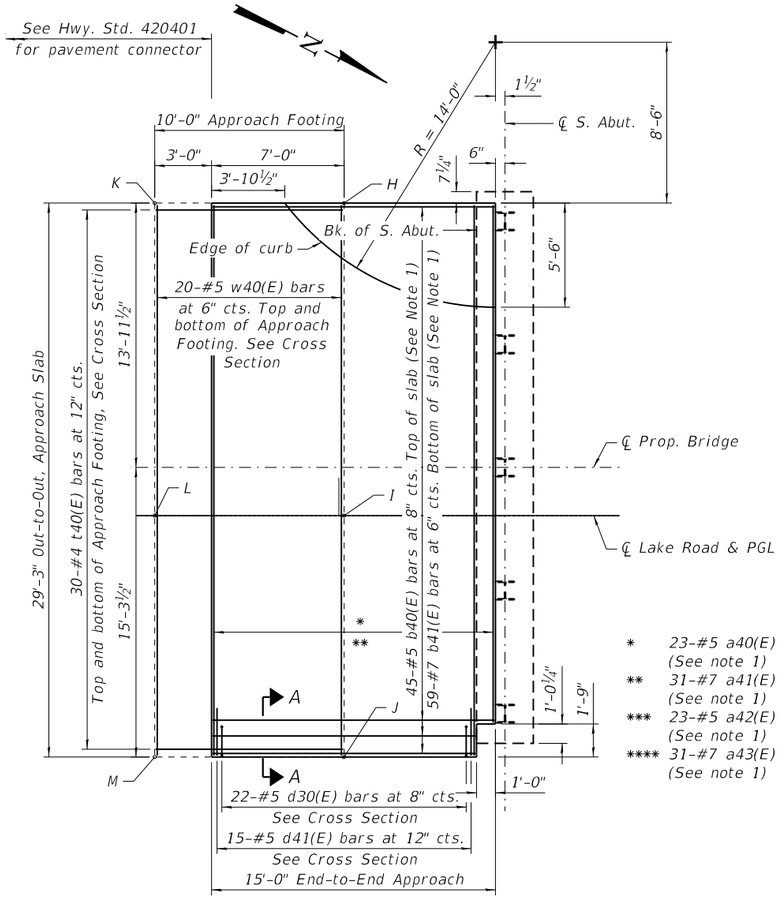
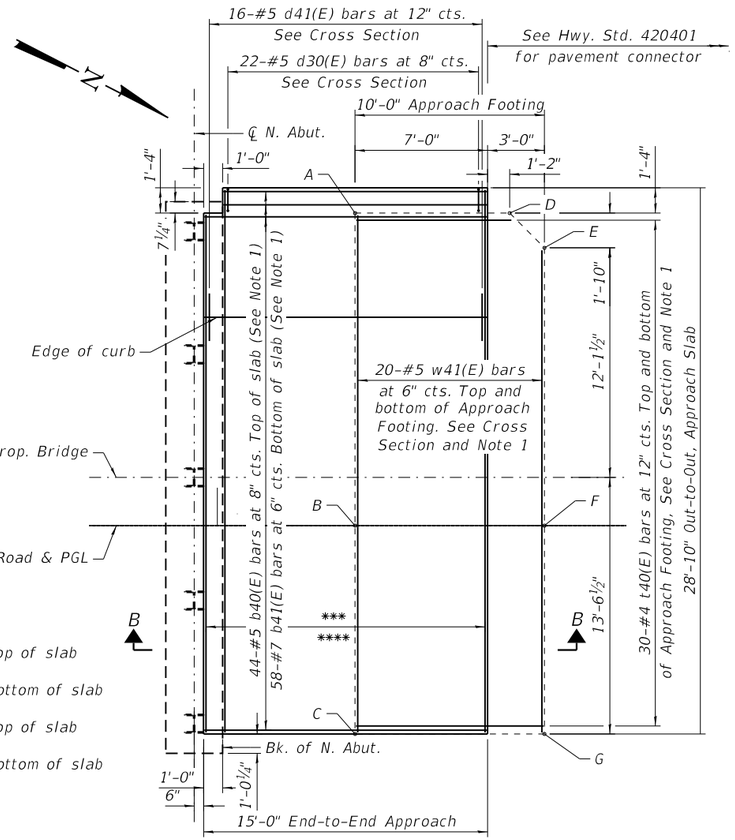


* 23-#5 a40(E) bars at 8" cts. Top of slab (See note 1)
** 31-#7 a41(E) bars at 6" cts. Bottom of slab (See note 1)
*** 23-#5 a42(E) bars at 8" cts. Top of slab (See note 1)
**** 31-#7 a43(E) bars at 6" cts. Bottom of slab (See note 1)

PLAN – SOUTH APPROACH SLAB



PLAN – NORTH APPROACH SLAB

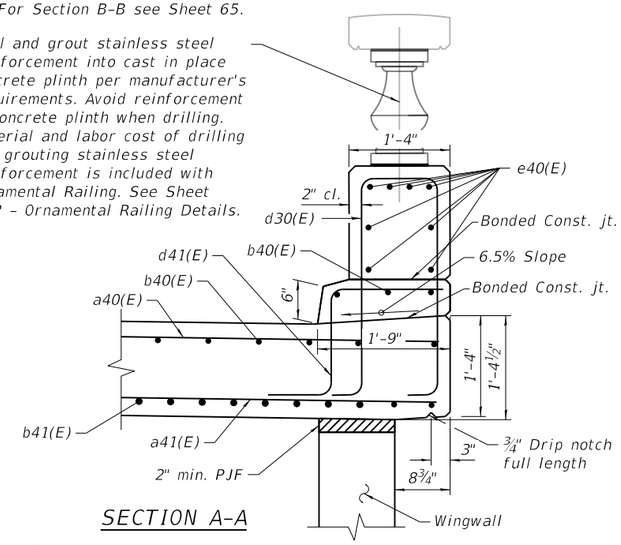
TOP AND BOTTOM ELEVATIONS FOR APPROACH FOOTING

South Approach			North Approach		
Point/ Location	Top	Bottom	Point/ Location	Top	Bottom
H	650.09	649.26	A	650.63	649.80
I	650.34	649.51	B	650.88	650.04
J	650.15	649.42	C	650.71	649.88
K	650.05	649.22	D	650.67	649.84
L	650.30	649.46	E	650.71	649.87
M	650.11	649.27	F	650.93	650.09
			G	650.76	649.93

NOTES:

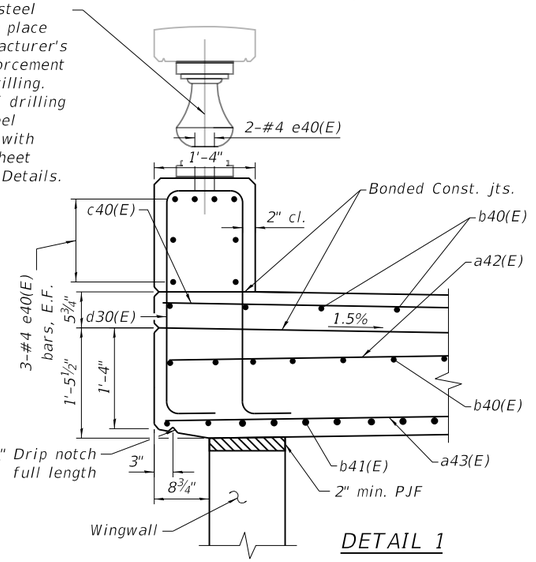
1. Cut to fit a40(E), a41(E), a42(E), a43(E), t40(E), w41(E), b40(E) and b41(E) in the field. Exposed rebar cutting end must be coated with epoxy in the field after rebar cutting.
2. For sidewalk slab details see Sheet 66.
3. For Section B–B see Sheet 65.

Drill and grout stainless steel reinforcement into cast in place concrete plinth per manufacturer's requirements. Avoid reinforcement in concrete plinth when drilling. Material and labor cost of drilling and grouting stainless steel reinforcement is included with Ornamental Railing. See Sheet A1.2 – Ornamental Railing Details.

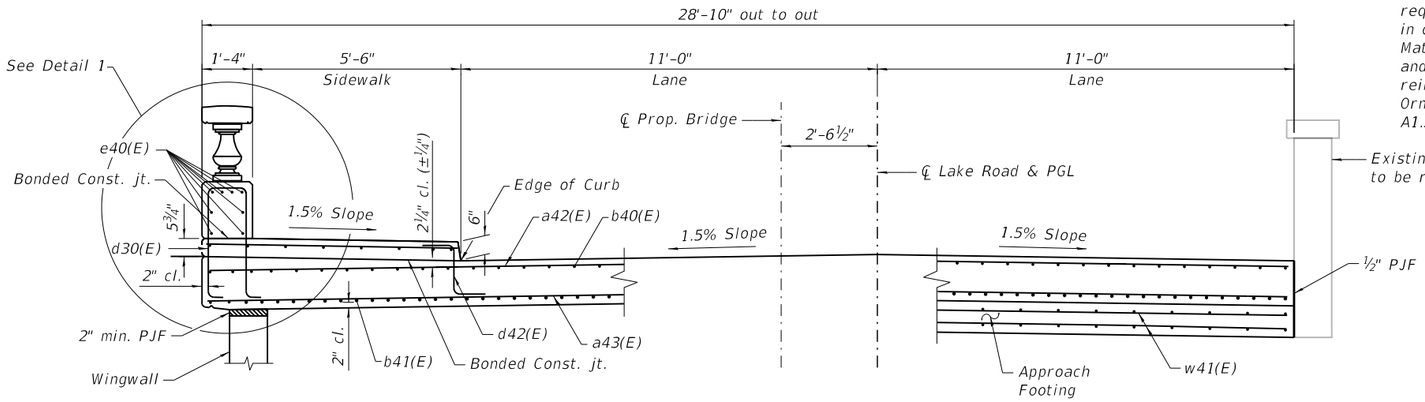


SECTION A–A

Drill and grout stainless steel reinforcement into cast in place concrete plinth per manufacturer's requirements. Avoid reinforcement in concrete plinth when drilling. Material and labor cost of drilling and grouting stainless steel reinforcement is included with Ornamental Railing. See Sheet A1.2 – Ornamental Railing Details.



DETAIL 1



NEAR ABUTMENT AT APPROACH FOOTING

CROSS SECTION THRU N. APPROACH SLAB

(Looking North)

Lochner
225 WEST WASHINGTON STREET 12TH FLOOR
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MODEL: Default
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	DRAWN - MM	REVISED -	
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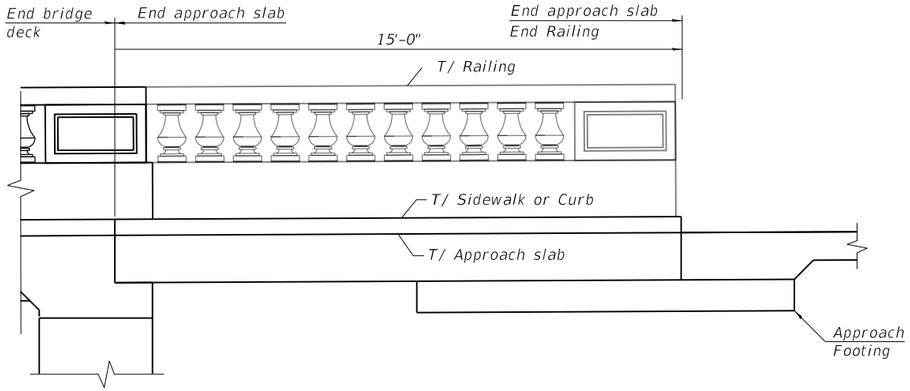
PLOT DATE = 5/16/2024	DATE - 6/10/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

APPROACH SLAB PLAN, SECTION & DETAILS 1
STRUCTURE NO. 049-6851

SHEET 32 OF 39 SHEETS STA. TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	64
		CONTRACT NO. 61K52		
ILLINOIS	FED. AID PROJECT			



INSIDE ELEVATION OF BALUSTRADE AND SIDEWALK OR CURB

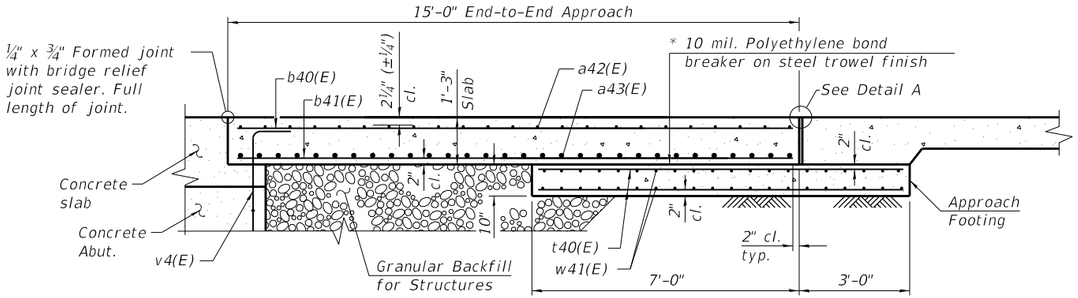
(15'-0" Maximum Length)

NOTES:

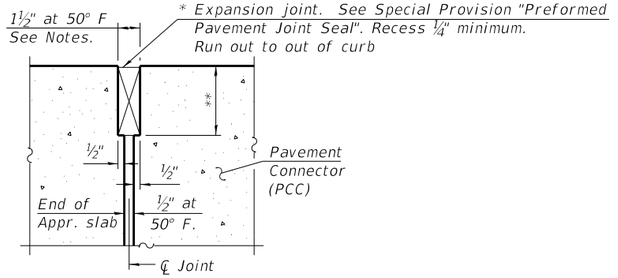
1. The joint opening shall be adjusted for temperature per Article 520.04 of the Standard Specifications. However, since this detail is for jointless structures, the length of bridge used to calculate the adjustment shall be equal to half the total bridge length plus the length of the bridge approach slab.
2. Sidewalk and curb concrete under railing shall be paid for as Concrete Superstructure.
3. Approach slab shall be paid for as Concrete Superstructure (Approach Slab).
4. Approach footing concrete shall be paid for as Concrete Structures.
5. The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
6. Cost of excavation for approach footing included with Concrete Structures.
7. For Granular Backfill for Structures and drainage treatment details, see Sheet 34.
8. Protective Coat shall be applied to the entire top surface of approach slab including top and inside vertical face of sidewalk and railings.

SOUTH APPROACH BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a40(E)	23	#5	28'-11"	
a41(E)	31	#7	28'-11"	
b40(E)	45	#5	14'-8"	
b41(E)	59	#7	14'-8"	
d30(E)	15	#5	9'-0"	
d41(E)	15	#5	4'-11"	
d42(E)	13	#5	5'-10"	
t40(E)	60	#4	9'-8"	
w40(E)	20	#5	28'-11"	
Concrete Structures			Cu. Yd.	9.1
Concrete Superstructure (Approach Slab)			Cu. Yd.	20.4
Reinforcement Bars, Epoxy Coated			Pound	6,280



SECTION B-B

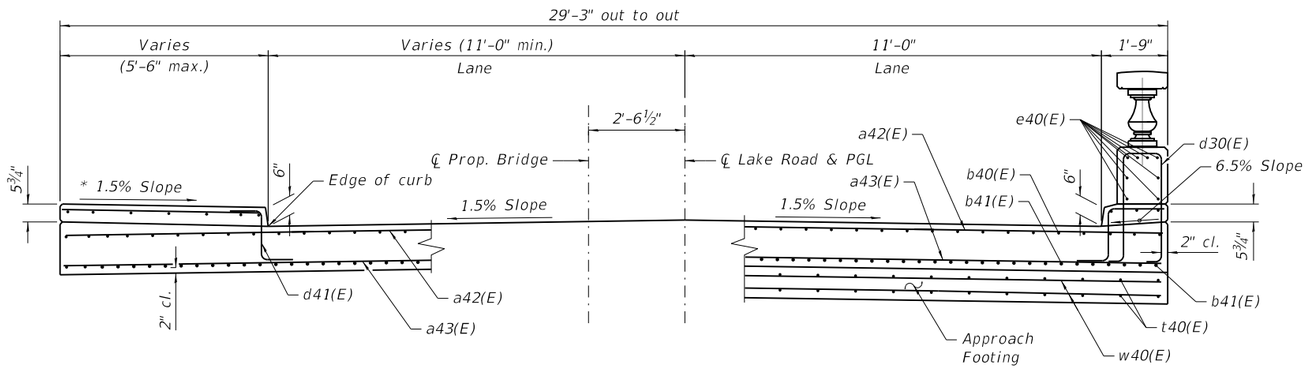


DETAIL A

* Cost included with Concrete Superstructure (Approach Slab).
** Per manufacturer recommendations

NORTH APPROACH BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a42(E)	23	#5	28'-6"	
a43(E)	31	#7	28'-6"	
b40(E)	44	#5	14'-8"	
b41(E)	59	#7	14'-8"	
d30(E)	15	#5	9'-0"	
d42(E)	16	#5	5'-10"	
t40(E)	60	#4	9'-8"	
w41(E)	20	#5	27'-2"	
Concrete Structures			Cu. Yd.	8.5
Concrete Superstructure (Approach Slab)			Cu. Yd.	20.0
Reinforcement Bars, Epoxy Coated			Pound	6,130

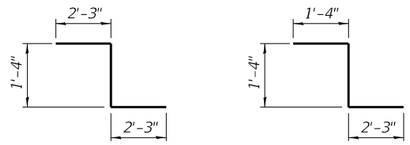


NEAR ABUTMENT — AT APPROACH FOOTING

CROSS SECTION THRU S. APPROACH SLAB

(Looking North)

* Slope along radius



BAR d42(E) — BAR d41(E)

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	DRAWN - MM	REVISED -	
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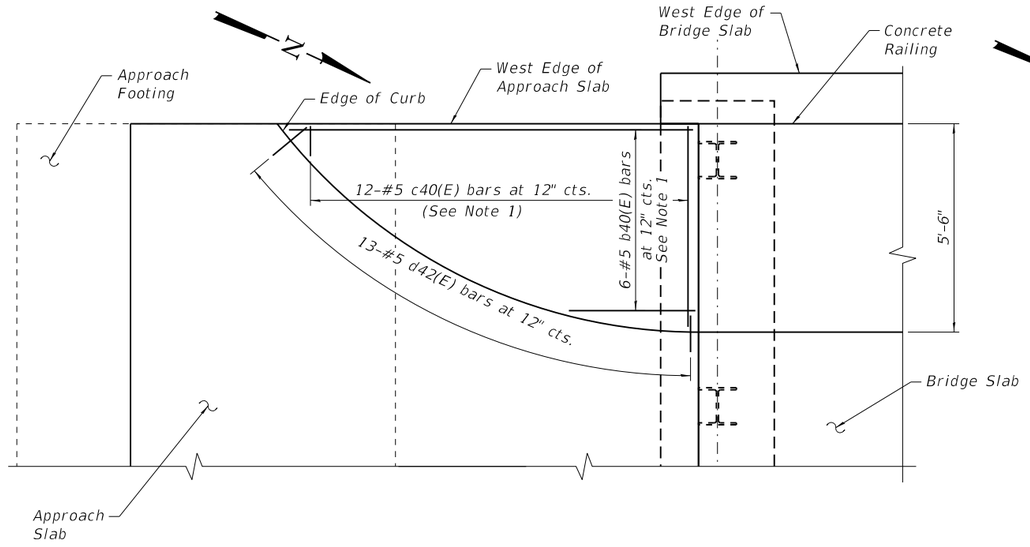
PLOT DATE = 5/16/2024	DATE - 6/10/2024	REVISED -	

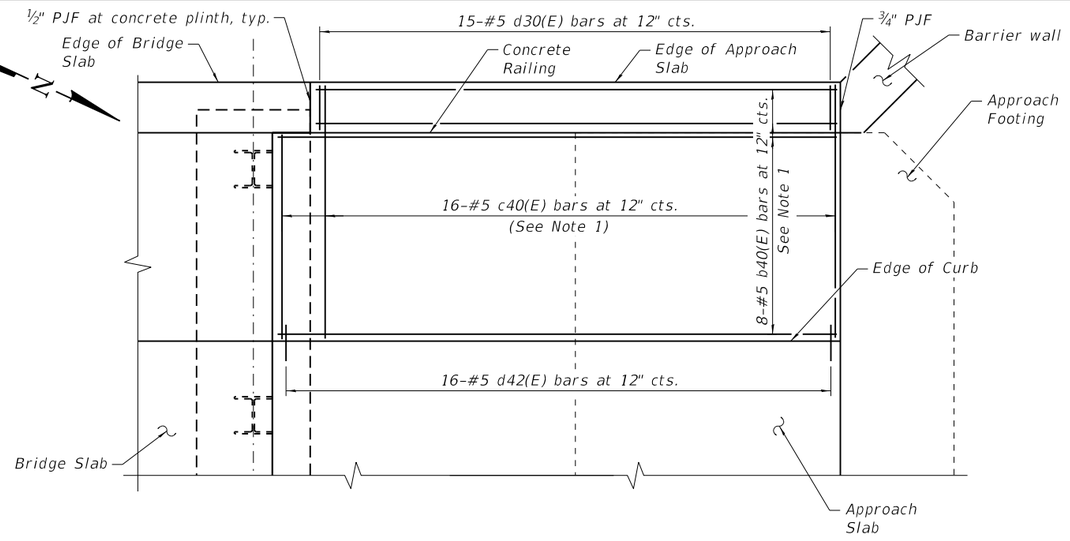
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

APPROACH SLAB PLAN, SECTION & DETAILS 2
STRUCTURE NO. 049-6851

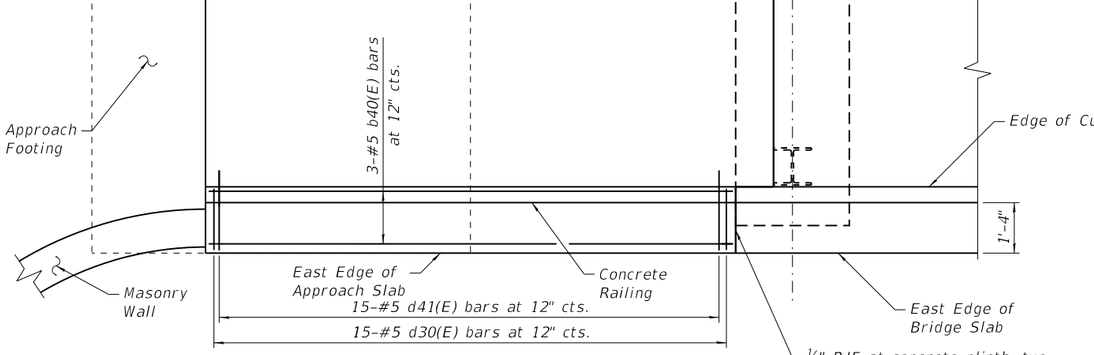
SHEET 33 OF 39 SHEETS | STA. | TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	65
		CONTRACT NO. 61K52		
		ILLINOIS	FED. AID PROJECT	

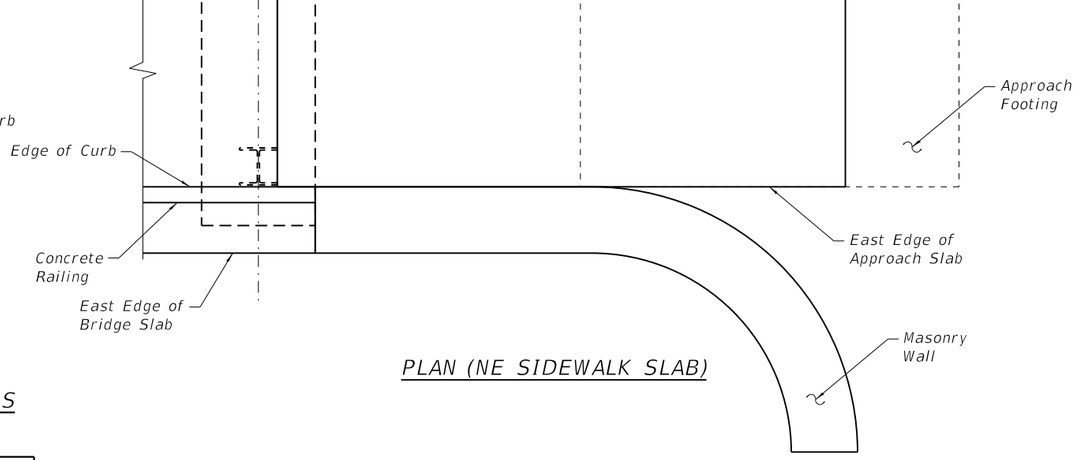




PLAN (SW SIDEWALK SLAB)



PLAN (NW SIDEWALK SLAB)



APPROACH SIDEWALK SLABS BILL OF MATERIAL

Bar	No.	Size	Length	Shape
b40(E)	17	#5	14'-8"	———
c40(E)	28	#5	6'-6"	———
e40(E)	16	#4	13'-8"	———
Concrete Superstructure			Cu. Yd.	6.3
Reinforcement Bars, Epoxy Coated			Pound	600

NOTES:

1. Cut to fit c40(E) and b40(E) bars in the field. Exposed rebar cutting must be coated with epoxy in the field after rebar cutting.

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Lochner
225 WEST WASHINGTON STREET 12TH FLOOR
CHICAGO, IL 60606 / 312-372-3011 (P)

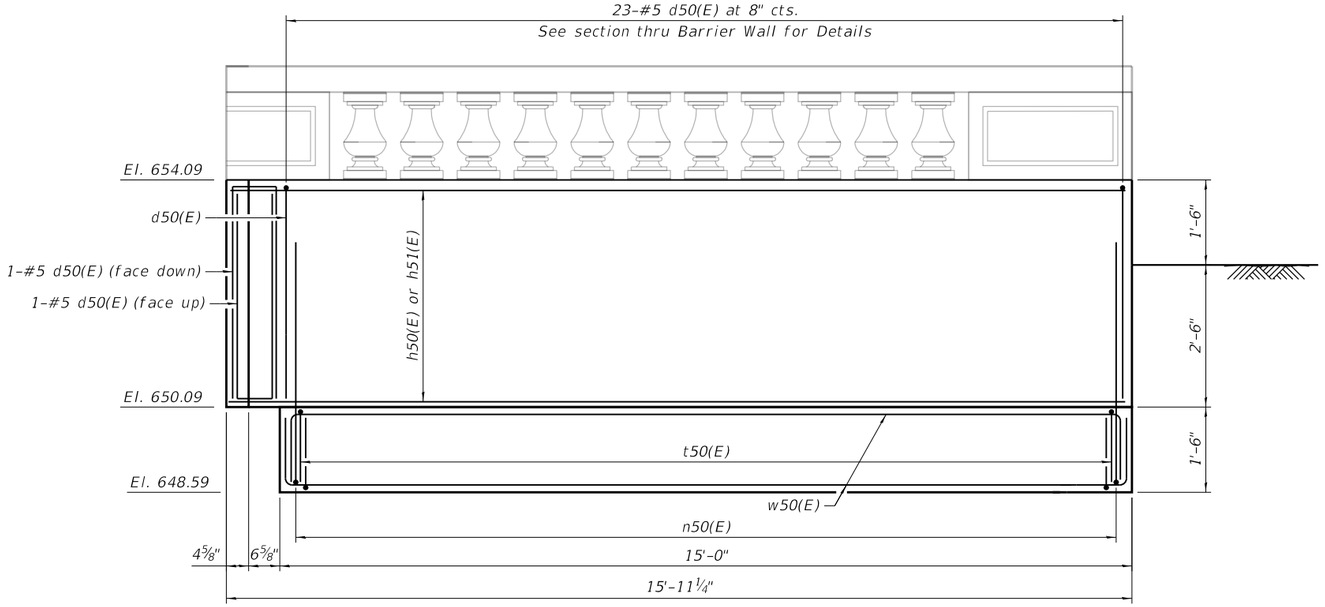
USER NAME = Personal	DESIGNED - MM	REVISED -	
	DRAWN - MM	REVISED -	
PLOT SCALE = 4:0 ':" / in.	CHECKED - RH	REVISED -	
PLOT DATE = 5/16/2024	DATE - 6/10/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

APPROACH SLAB SIDEWALK DETAILS
STRUCTURE NO. 049-6851

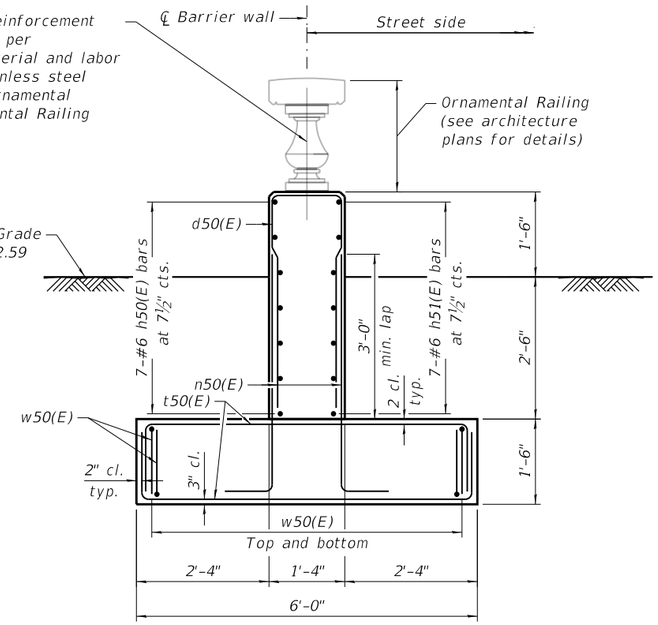
SHEET 34 OF 39 SHEETS STA. TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	66
		CONTRACT NO. 61K52		
	ILLINOIS	FED. AID PROJECT		

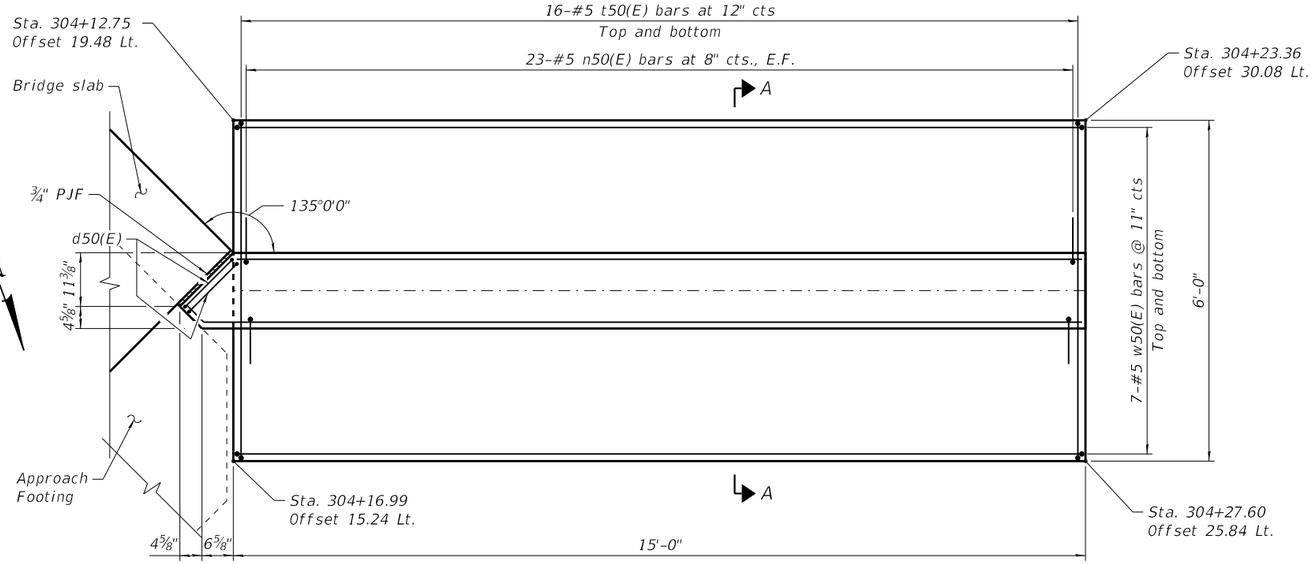


ELEVATION

Drill and grout stainless steel reinforcement into cast in place concrete plinth per manufacturer's requirements. Material and labor cost of drilling and grouting stainless steel reinforcement is included with Ornamental Railing. See Sheet A1.2 – Ornamental Railing Details.



SECTION A-A



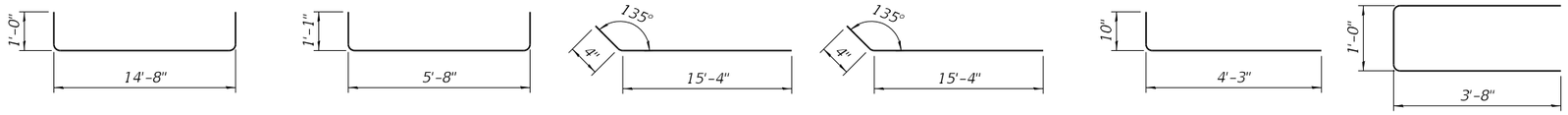
PLAN

BARRIER WALL BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d50(E)	25	#5	8'-4"	
h50(E)	7	#6	15'-0"	
h51(E)	7	#6	15'-8"	
n50(E)	46	#5	5'-1"	
t50(E)	32	#5	7'-10"	
w50(E)	14	#5	16'-8"	
Structure Excavation			Cu. Yd.	10
Concrete Structures			Cu. Yd.	6.9
Reinforcement Bars, Epoxy Coated			Pound	1,290
Granular Backfill For Structures			Cu. Yd.	45

NOTES:

1. All parts of the railing including concrete and reinforcing will be paid for at the contract unit price per foot for Ornamental Railing.
2. Protective Coat shall be applied to the entire top and inside vertical face of barrier wall.



BAR w50(E) BAR t50(E) BAR e51(E) BAR h51(E) BAR n50(E) BAR d50(E)

Lochner
225 WEST WASHINGTON STREET 12TH FLOOR
CHICAGO, IL 60606 / 312-372-3011 (P)

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	DRAWN - MM	REVISED -	
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PLOT DATE = 5/16/2024	DATE - 6/10/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BARRIER WALL DETAILS
STRUCTURE NO. 049-6851
SHEET 35 OF 39 SHEETS STA. TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	67
		CONTRACT NO. 61K52		
	ILLINOIS FED. AID PROJECT			

MODEL: Default
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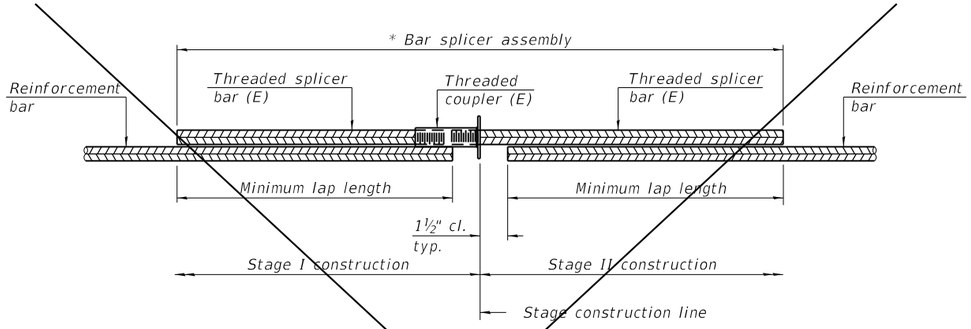


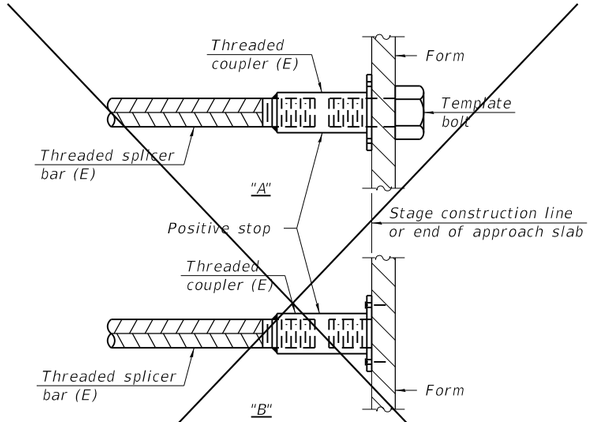
STANDARD BAR SPLICER ASSEMBLY PLAN

Only bar splicer assemblies as presented on the approved QPL list may be used.

Threaded splicer bar length = min. lap length + 1½" + thread length

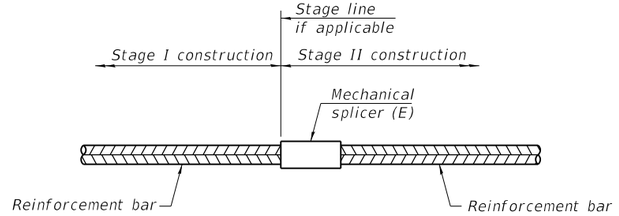
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length



INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
(E) : Indicates epoxy coating.



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required
Drilled Shaft	#9	176
Spandrel Walls 2 & 3	#8	108
Closure pour	#9	252

Notes:

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.

All reinforcement shall be lapped and tied to the splicer bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.

See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1

2-1-2023

Lochner
225 WEST WASHINGTON STREET 12TH FLOOR
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 049-6851

SHEET 36 OF 39 SHEETS STA. TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	68
		CONTRACT NO. 61K52		
	ILLINOIS FED. AID PROJECT			

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MIDLAND STANDARD ENGINEERING & TESTING, INC.

STRUCTURE FOUNDATION BORING LOG

Page 1 of 1

Date 8/22/12

ROUTE Lake DESCRIPTION Bridge LOGGED BY SPE

SECTION 12-00094-00-BR LOCATION Lake Road Bridge

COUNTY Lake STRUCTURE NO. 049-6852 (Exist) X (Prop.)

BORING NO. SB-1 DRILLING METHOD CFA HAMMER TYPE Automatic

Station 304+17
Offset 9' L
Ground Surface Elev. 656.2 (ft.)

Surface Water Elev. none (ft.)
Groundwater Elev.
First Encounter 29.8' (ft.)
Upon Completion 32.9' (ft.)
After ____ Hrs. ____ (ft.)

SOIL DESCRIPTION	ELEV (ft.)	DEPTH (ft.)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)
Pavement: 11-1/2" Bituminous Concrete over 6-1/2" Grey Crushed Limestone	654.7				
			5 2-3	2.5 P	20
Brown CLAY, A-6, stiff to hard		5	3 4-7	1.90 BS	21
			3 5-7	4.12 BS	15
		10	5 7-10	6.71 BS	14
to Brown and Grey	643.2		5 7-7	5.12 BS	16
Grey Silty Clay LOAM, A-6, very stiff to stiff		15	4 6-7	3.10 B	15
			3 4-6	2.95 B	16
		20	3 5-7	2.33 B	16
			3 6-7	3.65 B	19
		25	3 4-4	1.86 B	17
			3 4-4	1.47 B	16
		30	3 4-4	1.86 B	18
	624.7				
Grey Sandy LOAM, A-4					

SOIL DESCRIPTION	ELEV (ft.)	DEPTH (ft.)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)
Grey Sandy LOAM, A-4, medium dense		35	3 5-7	--	12
	619.2				
Grey Sandy LOAM, A-4(1), very stiff					
		40	9 10-12	2.06 BS	12
		45	7 10-12	4.5+ P	9
to CLAY, A-6, very stiff to hard					
		50	10 12-15	3.80 BS	15
		55	10 12-17	5.35 BS	15
	600.2				
Grey Silt LOAM to SILT, A-4, very dense					
	596.2	60	20 22-29	--	15
End of Boring at 60'					

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer).
The Standard Penetration Test (SPT) N Value is per (AASHTO T206)

BBS 137 (9/05)

MIDLAND STANDARD ENGINEERING & TESTING, INC.

STRUCTURE FOUNDATION BORING LOG

Page 1 of 1

Date 8/22/12

ROUTE Lake DESCRIPTION Bridge LOGGED BY SPE

SECTION 12-00094-00-BR LOCATION Lake Road Bridge

COUNTY Lake STRUCTURE NO. 049-6852 (Exist) X (Prop.)

BORING NO. SB-2 DRILLING METHOD CFA HAMMER TYPE Automatic

Station 302+92
Offset 7' R
Ground Surface Elev. 655.7 (ft.)

Surface Water Elev. none (ft.)
Groundwater Elev.
First Encounter 18.0' (ft.)
Upon Completion 18.8' (ft.)
After ____ Hrs. ____ (ft.)

SOIL DESCRIPTION	ELEV (ft.)	DEPTH (ft.)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)
Pavement: 6" Bituminous Concrete over 11" Grey Crushed Limestone	654.3				
			9 4-4	2.68 BS	15
Brown CLAY, A-6, very stiff		5	3 4-7	3.63 BS	15
			5 6-8	5.69 BS	15
		10	7 10-12	5.82 BS	15
to Brown and Grey, hard					
	642.7		5 7-10	4.66 BS	16
Grey Silty Clay LOAM, A-6(6), very stiff to stiff		15	4 4-5	3.45 BS	16
			4 4-5	2.64 B	16
wet sand seam at 18'		20	7 5-4	1.75 B	21
			3 4-5	1.16 B	18
		25	3 4-4	1.75 P	17
			3 4-8	1.94 B	17
		30	4 6-9	2.02 B	16
	624.2				
Grey Sandy Clay LOAM, A-4 to A-6					

SOIL DESCRIPTION	ELEV (ft.)	DEPTH (ft.)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)
Grey Sandy Clay LOAM, A-4 to A-6, hard		35	5 6-8	4.19 B	10
	619.2				
Grey CLAY, A-6, very stiff		40	6 10-12	2.87 B	21
		45	8 9-11	2.75 B	15
Grey SAND, A-2, medium dense	609.7				
		50	8 9-9	--	19
	603.7				
Grey CLAY, A-6, hard		55	8 10-12	4.5 P	13
	599.2				
Grey Silt LOAM to SILT, A-4, dense					
	595.7	60	12 18-27	--	16
End of Boring at 60'					

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer).
The Standard Penetration Test (SPT) N Value is per (AASHTO T206)

BBS 137 (9/05)

NOTES:

1. For locations of borholes, see Sheet 33.

Wang Engineering
wangeng@wangeng.com
1145 N Main Street
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Telephone: 630-953-9928
Fax: 630-953-9928

BORING LOG BSB-01

WEI Job No.: KE235065

Client: H.W. Lochner, Inc.
Project: Lake Woodbine Bridge - Phase II Design
Location: Lake Forest, Illinois

Datum: NAVD 88
Elevation: 651.51 ft
North: 2036891.25 ft
East: 1122041.53 ft
Station: 304+24.32
Offset: 6' R

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	651.1	5-inch thick ASPHALT --PAVEMENT						
	650.5	7-inch thick, gray SANDY GRAVEL --AGGREGATE BASE--						
		Drilled without sampling to 53.5 feet	5					
			10					
			15					
			20					
			25					
			30					
			35					
			40					

GENERAL NOTES

Begin Drilling: 08-18-2023 Complete Drilling: 08-18-2023
Drilling Contractor: WTS Drill Rig: 21GeoA[96%]
Driller: KG&AG Logger: I. Romero Checked by: C. Marin
Drilling Method: 2.25" ID HSA to 10', mud rotary thereafter; backfilled upon completion

WATER LEVEL DATA

While Drilling: NA
At Completion of Drilling: 10' mud
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC KE235065.GPJ WANGENG.GDT 9/22/23

Wang Engineering
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Telephone: 630-953-9928
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BORING LOG BSB-01

WEI Job No.: KE235065

Client: H.W. Lochner, Inc.
Project: Lake Woodbine Bridge - Phase II Design
Location: Lake Forest, Illinois

Datum: NAVD 88
Elevation: 651.51 ft
North: 2036891.25 ft
East: 1122041.53 ft
Station: 304+24.32
Offset: 6' R

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
		--%Silt=50.9-- --%Clay=33.7-- --A-6 (9)-	65		3	14 17 22	6.15 B	14
			70		4	10 12 17	7.79 B	17
	598.0	Hard, gray SILTY CLAY, trace gravel; damp --RDR 2--	55		1	36 21 26	6.15 B	18
			75		5	10 15 19	5.33 B	14
	574.8	Hard, gray SILTY LOAM toSILTY CLAY LOAM, trace gravel; damp --RDR 2--						
		--L_L(%)=26, P_L(%)=13-- --%Gravel=2.9-- --%Sand=12.2--	60		2	9 12 16	7.38 B	13
			80		6	11 16 20	4.43 B	11
	571.5	Boring terminated at 80.00 ft						

GENERAL NOTES

Begin Drilling: 08-18-2023 Complete Drilling: 08-18-2023
Drilling Contractor: WTS Drill Rig: 21GeoA[96%]
Driller: KG&AG Logger: I. Romero Checked by: C. Marin
Drilling Method: 2.25" ID HSA to 10', mud rotary thereafter; backfilled upon completion

WATER LEVEL DATA

While Drilling: NA
At Completion of Drilling: 10' mud
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC KE235065.GPJ WANGENG.GDT 9/22/23

NOTES:

1. For locations of borholes, see Sheet 33.

Wang Engineering

wangeng@wangeng.com
1145 N Main Street
Lombard, IL 60148
Telephone: 630-953-9928
Fax: 630-953-9928

BORING LOG BSB-02

WEI Job No.: KE235065

Client: H.W. Lochner, Inc.
Project: Lake Woodbine Bridge - Phase II Design
Location: Lake Forest, Illinois

Datum: NAVD 88
Elevation: 650.96 ft
North: 2036754.39 ft
East: 1122064.57 ft
Station: 302+90.35
Offset: 30' L

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	650.6	4-inch thick ASPHALT --PAVEMENT--						
	650.5	8-inch thick, gray SANDY GRAVEL --AGGREGATE BASE--						
		Stiff to hard, brown, black, and gray SILTY CLAY LOAM to CLAY LOAM, trace gravel; damp --FILL-- --RDR 2--			1	3 2 4	1.38 B	19
			5		2	3 5 6	3.28 B	15
					3	4 7 8	4.51 B	17
			10		4	4 8 9	4.37 B	16
	640.5	Medium stiff to stiff, gray SILTY CLAY, trace gravel --RDR 2-- --L_L(%)=26, P_I(%)=13-- --%Gravel=4.3-- --%Sand=17.6-- --%Silt=48.9-- --%Clay=29.1-- --A-6 (7)--			5	2 2 6	0.82 B	15
			15		6	3 4 5	1.23 B	19
					7	4 3 5	0.90 B	19
	614.2	Very stiff to hard, gray CLAY to SILTY CLAY, trace gravel; damp --RDR 2--	20		8	3 3 4	1.23 B	18
			25		9	3 4 6	1.23 B	18
					10	3 3 6	1.64 B	18
					11	3 4 5	1.48 B	17
			30		12	3 3 4	1.23 B	18
			35		13	4 6 9	2.46 B	16
			40		14	7 9 14	4.92 B	22

GENERAL NOTES

Begin Drilling: 08-17-2023 Complete Drilling: 08-18-2023
Drilling Contractor: WTS Drill Rig: 21GeoA[96%]
Driller: KG&AG Logger: I. Romero Checked by: C. Marin
Drilling Method: 2.25" ID HSA to 10', mud rotary thereafter; backfilled upon completion

WATER LEVEL DATA

While Drilling: ▽ 49.50 ft
At Completion of Drilling: ▼ 10' mud
Time After Drilling: NA
Depth to Water: ▽ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC KE235065.GPJ WANGENG.GDT 9/22/23

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Fax: 630-953-9928

BORING LOG BSB-02

WEI Job No.: KE235065

Client: H.W. Lochner, Inc.
Project: Lake Woodbine Bridge - Phase II Design
Location: Lake Forest, Illinois

Datum: NAVD 88
Elevation: 650.96 ft
North: 2036754.39 ft
East: 1122064.57 ft
Station: 302+90.35
Offset: 30' L

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
			45		15	8 10 16	5.33 B	22
	591.5	Gray SILT; saturated --RDR 2--	50		16	24 50 50	3.69 S	14
			55		17	14 23 28	3.94 S	15
	594.2	Very stiff to hard, gray SILTY CLAY, trace gravel --RDR 2--	60		18	15 12 19	5.74 B	18
			65		19	9 13 19	5.33 B	15
			70		20	10 14 19	7.38 B	15
			75		21	11 16 23	4.51 B	17
			80		22	8 13 17	5.33 B	18

GENERAL NOTES

Begin Drilling: 08-17-2023 Complete Drilling: 08-18-2023
Drilling Contractor: WTS Drill Rig: 21GeoA[96%]
Driller: KG&AG Logger: I. Romero Checked by: C. Marin
Drilling Method: 2.25" ID HSA to 10', mud rotary thereafter; backfilled upon completion

WATER LEVEL DATA

While Drilling: ▽ 49.50 ft
At Completion of Drilling: ▼ 10' mud
Time After Drilling: NA
Depth to Water: ▽ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC KE235065.GPJ WANGENG.GDT 9/22/23

Wang Engineering

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Lombard, IL 60148
Telephone: 630-953-9928
Fax: 630-953-9928

BORING LOG BSB-02

WEI Job No.: KE235065

Client: H.W. Lochner, Inc.
Project: Lake Woodbine Bridge - Phase II Design
Location: Lake Forest, Illinois

Datum: NAVD 88
Elevation: 650.96 ft
North: 2036754.39 ft
East: 1122064.57 ft
Station: 302+90.35
Offset: 30' L

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	566.7	Hard, gray SILTY LOAM to SILTY CLAY LOAM, trace gravel; damp --RDR 2--	85					
	561.0	Boring terminated at 90.00 ft	90		23	12 18 22	5.74 B	11
			95					
			100					

GENERAL NOTES

Begin Drilling: 08-17-2023 Complete Drilling: 08-18-2023
Drilling Contractor: WTS Drill Rig: 21GeoA[96%]
Driller: KG&AG Logger: I. Romero Checked by: C. Marin
Drilling Method: 2.25" ID HSA to 10', mud rotary thereafter; backfilled upon completion

WATER LEVEL DATA

While Drilling: ▽ 49.50 ft
At Completion of Drilling: ▼ 10' mud
Time After Drilling: NA
Depth to Water: ▽ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC KE235065.GPJ WANGENG.GDT 9/22/23

NOTES:

1. For locations of borholes, see Sheet 33.

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Lochner
225 WEST WASHINGTON STREET 12TH FLOOR
CHICAGO, IL 60606 / 312-372-3011 (P)

USER NAME = Personal	DESIGNED - MM	REVISED -	
	DRAWN - MM	REVISED -	
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PLOT DATE = 5/16/2024	DATE - 6/10/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS - 3
STRUCTURE NO. 049-6851
SHEET 39 OF 39 SHEETS STA. TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	71
		CONTRACT NO. 61K52		
	ILLINOIS	FED. AID PROJECT		

2 VIEW OF SE MASONRY WALL – LOCATION 2

Demolish and replace bridge balustrade

Demolish existing masonry wall including brick, substrate, foundation and footing Reconstruct existing privately-owned masonry wall in-kind to suit modified width of bridge structure

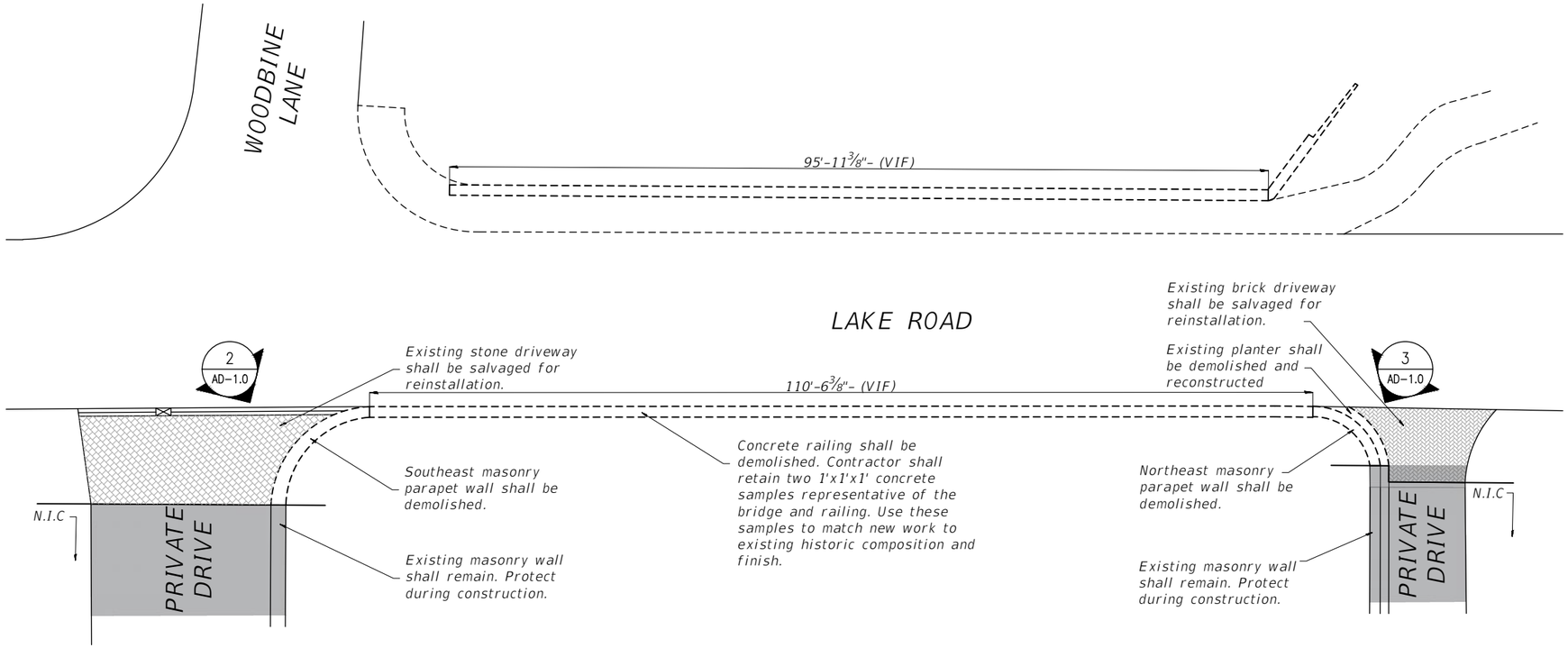
Existing landscaping shall be demolished and reconstructed.

Salvage and reinstall existing private driveway pavers. Assume 20% replacement of damaged pavers. Replacement pavers shall match existing pavers in dimensions, material and color.

3 VIEW OF NE MASONRY WALL – LOCATION 1

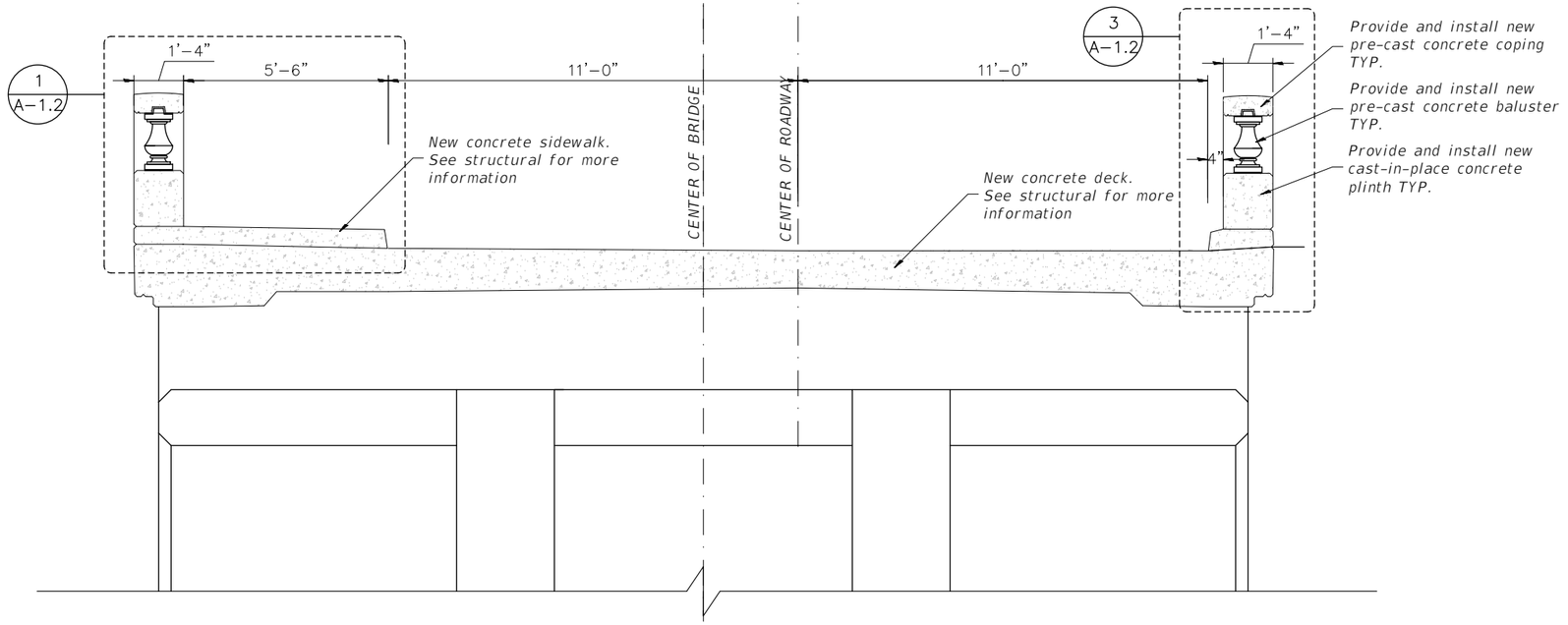
GENERAL DEMOLITION NOTES:

1. Drawings represent the existing plan conditions diagrammatically. Exact locations, sizes, extent and conditions of the existing construction to be removed, salvaged or to remain shall be verified at the site by the contractor.
2. Contractor shall retain two 1' x1'x1' concrete samples representative of the bridge and railing. match new work to existing historic composition and finish.
3. Prior to demolition, contractor shall document drive way and parapet walls at the north and east ends of the bridge for reconstruction.
4. Contractor shall notify adjacent property owners before proceeding with the salvaging of brick drive way.
5. Demolish existing bridge and railing, see structural drawings.

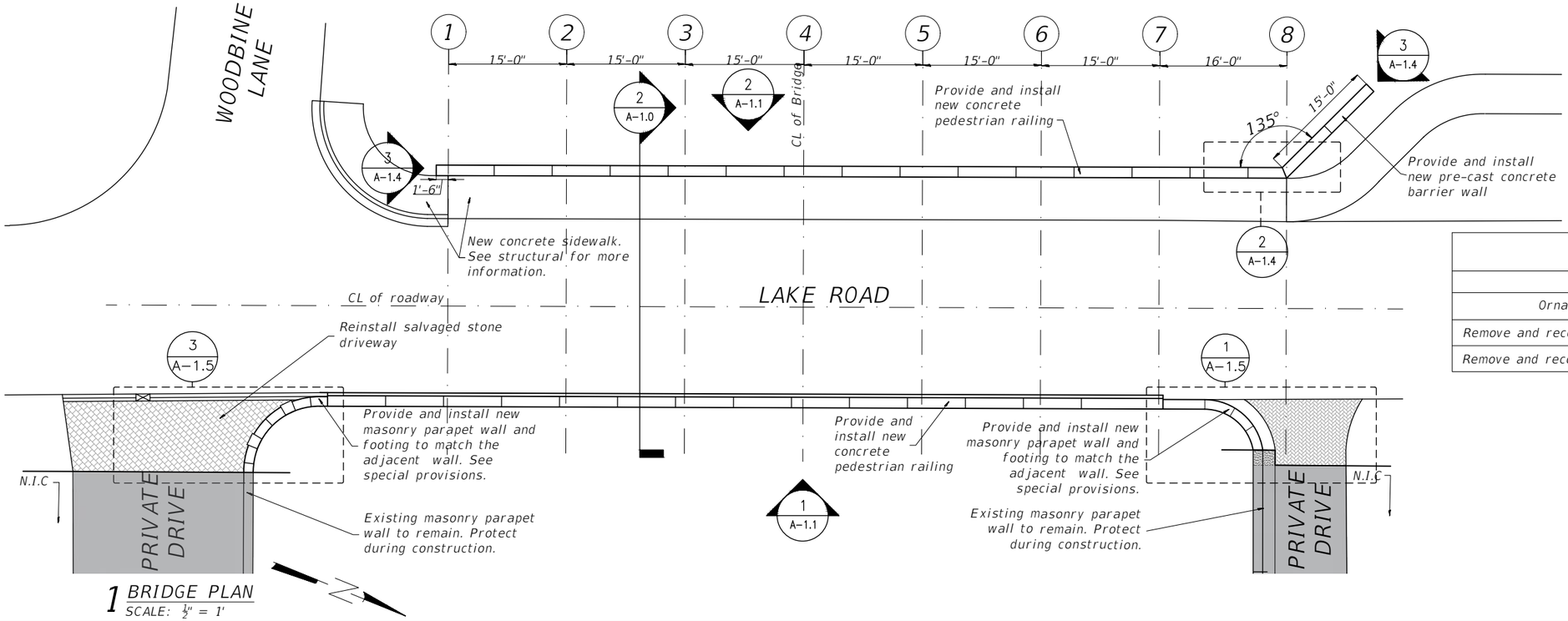


1 DEMO BRIDGE PLAN
SCALE: 1/8" = 1'

JLK ARCHITECTS	USER NAME =		DESIGNED - MK, TS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	AD 1.0 – DEMO PLAN	F.A.P RTE. / SECTION / COUNTY / TOTAL SHEETS / SHEET NO.
			CHECKED - TS, SDT	REVISED -			12-00094-00-BR / LAKE / 86 / 72
	PLOT SCALE = AS SPECIFIED		DRAWN - HB	REVISED -			CONTRACT NO. 61K52
	PLOT DATE = 06/10/2024		DATE - 06-10-2024	REVISED -		SHEET AD 1.0 OF A-1.5 SHEETS	ILLINOIS / FED. AID PROJECT



2 TYPICAL BRIDGE SECTION
SCALE: ½" = 1'



1 BRIDGE PLAN
SCALE: ½" = 1'

GENERAL CONSTRUCTION NOTES:

1. Drawings represent the existing plan conditions diagrammatically. Exact locations, sizes, extent and conditions of the existing construction to be removed, salvaged or to remain shall be verified at the site by the contractor.
2. Contractor shall retain two 1' x1'x1' concrete samples representative of the bridge and railing. match new work to existing historic composition and finish.
3. For dimensions see structural sheet 1.
4. Details shown are intended to be indicative of the profiles and type of detailing required for the work. Conditions not covered by specific details must meet specified design criteria.
5. Details shown may not necessarily graphically included all components necessary to complete the total system. The contractor shall be responsible to coordinate all of the requirements shown on the drawings with those stated in the applicable specifications and project notes to provide a complete system.
6. The contractor shall be responsible for construction means, methods, techniques, sequences, procedures and programs in connection with the work. All work shall meet the quality requirements noted in the contract documents.
7. All existing features to remain shall be protected during construction. All existing features to remain that is damaged by the work of this project shall be patched to match adjacent surfaces in finish, color, and texture unless otherwise indicated.
8. All reinforcement shown is for representation purposes only. See special provisions for more information.
9. See Special Provisions for structural design requirements for ornamental railing.
10. Coordinate with barrier wall details on structural plans.
11. Contractor is responsible for providing all necessary engineering for all pre-cast architectural concrete elements including reinforcing, support and anchoring components.

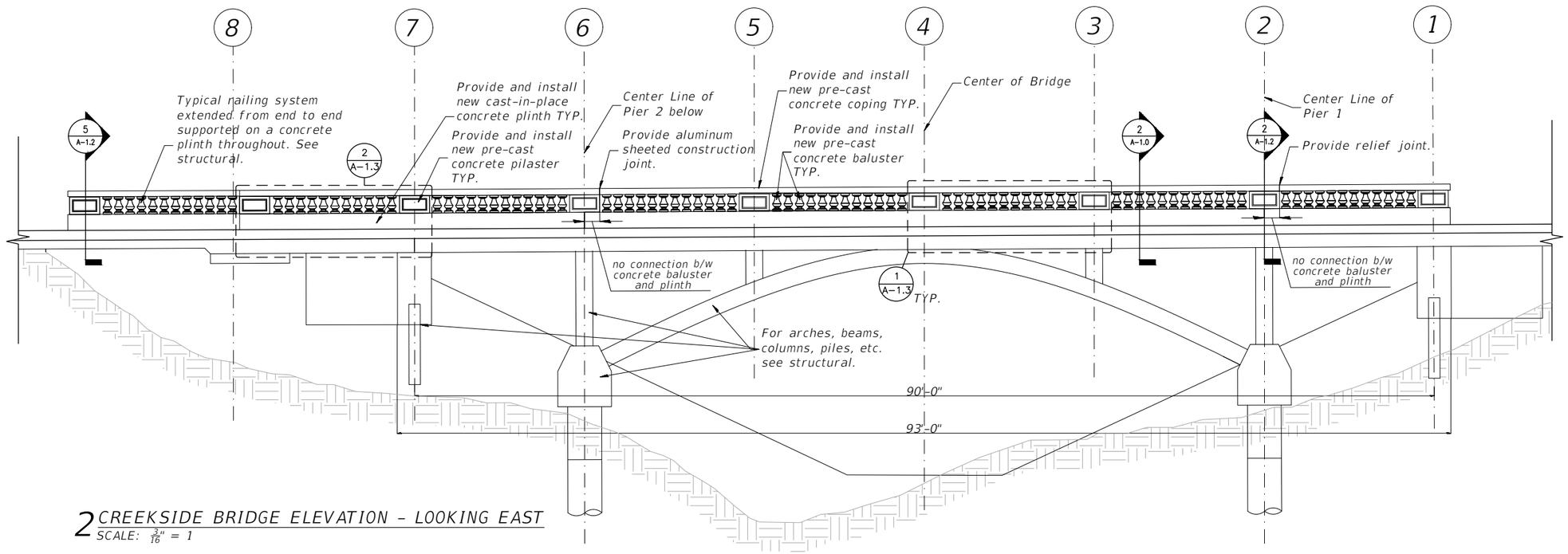
BILL OF MATERIALS

ITEM	UNIT	TOTAL
Ornamental railing	LF	231
Remove and reconstruct wall – location 1	LF	13
Remove and reconstruct wall – location 2	LF	17

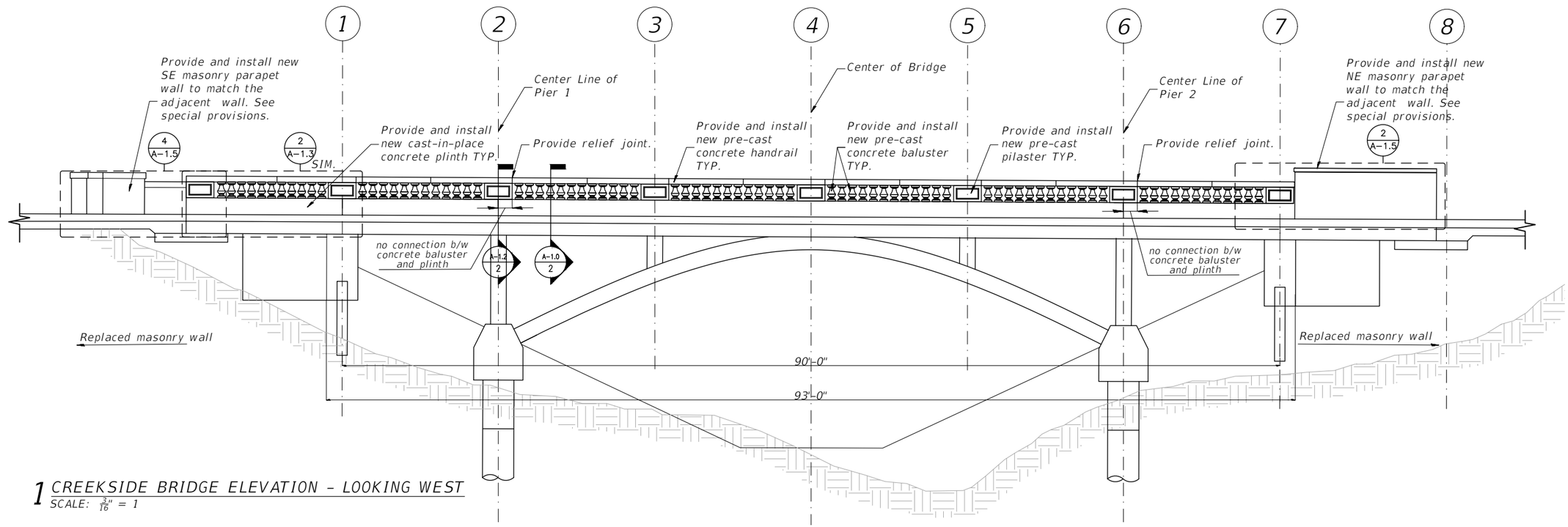
JLK ARCHITECTS

USER NAME	=	DESIGNED - MK, TS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	A1.0 –ARCHITECTURAL BRIDGE PLAN AND SECTION
		CHECKED - TS, SDT	REVISED -		
PLOT SCALE	= AS SPECIFIED	DRAWN - HB	REVISED -		SHEET A1.0 OF A-1.5 SHEETS
PLOT DATE	= 06/10/2024	DATE - 06-10-2024	REVISED -		

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	12-00094-00-BR	LAKE	86	73
		CONTRACT NO. 61K52		
	ILLINOIS FED. AID PROJECT			



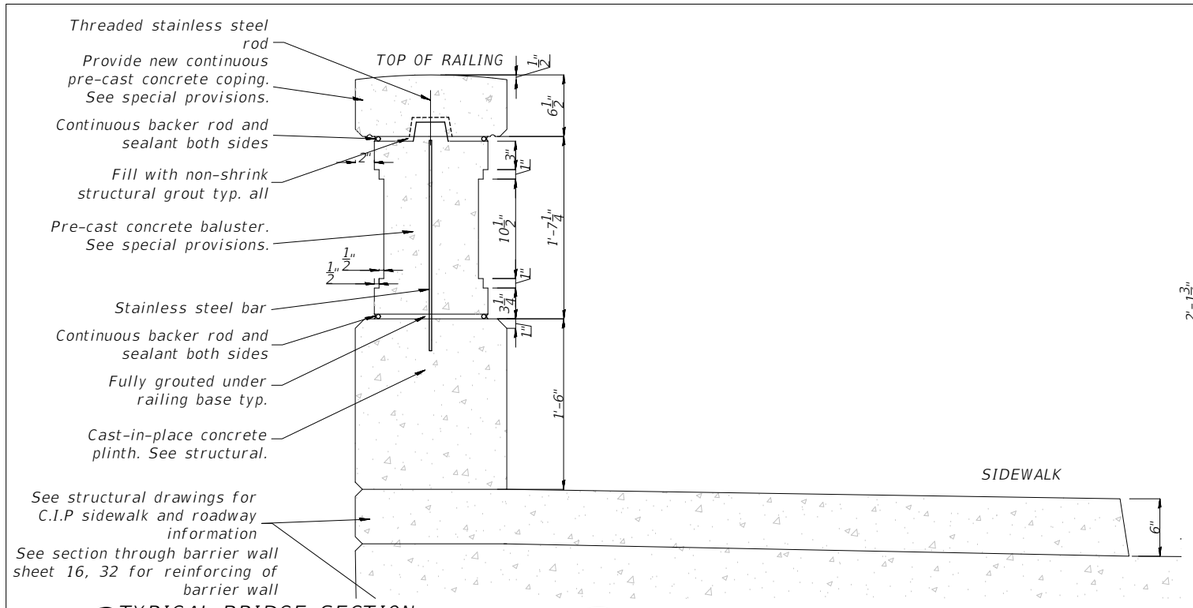
2 CREEKSIDE BRIDGE ELEVATION – LOOKING EAST
SCALE: $\frac{3}{16}$" = 1



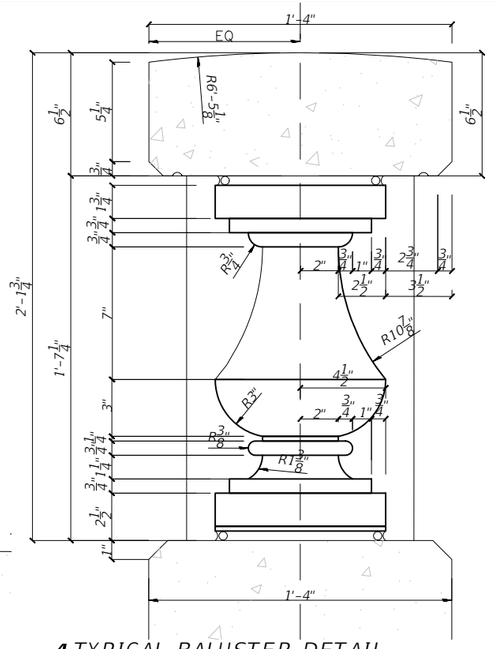
1 CREEKSIDE BRIDGE ELEVATION – LOOKING WEST
SCALE: $\frac{3}{16}$" = 1

JLK ARCHITECTS	USER NAME =	DESIGNED - MK, TS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	A1.1 – BRIDGE ELEVATIONS
		CHECKED - TS, SDT	REVISED -		
	PLOT SCALE = AS SPECIFIED	DRAWN - HB	REVISED -		SHEET A 1.1 OF A-1.5 SHEETS
	PLOT DATE = 06/10/2024	DATE - 06-10-2024	REVISED -		

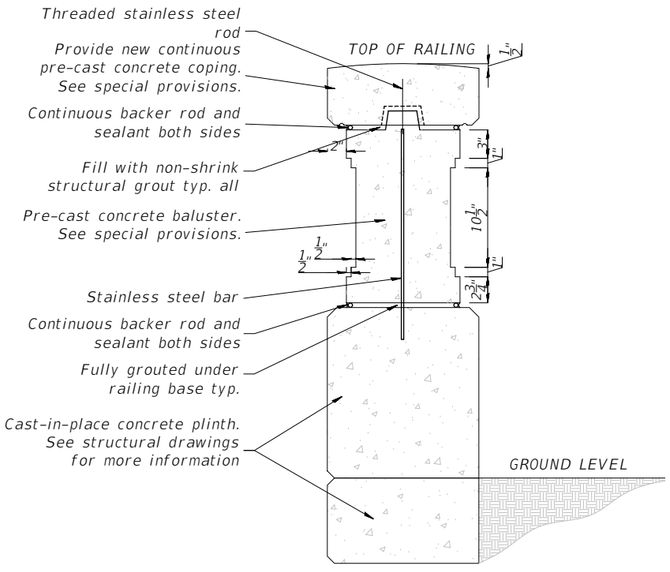
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	12-00094-00-BR	LAKE	86	74
		CONTRACT NO. 61K52		
	ILLINOIS FED. AID PROJECT			



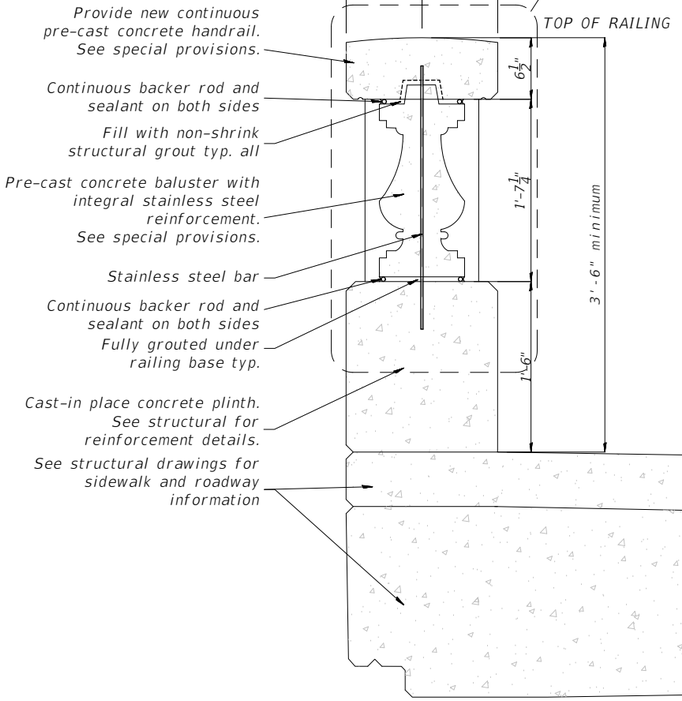
2 TYPICAL BRIDGE SECTION
SCALE: 1-½" = 1'



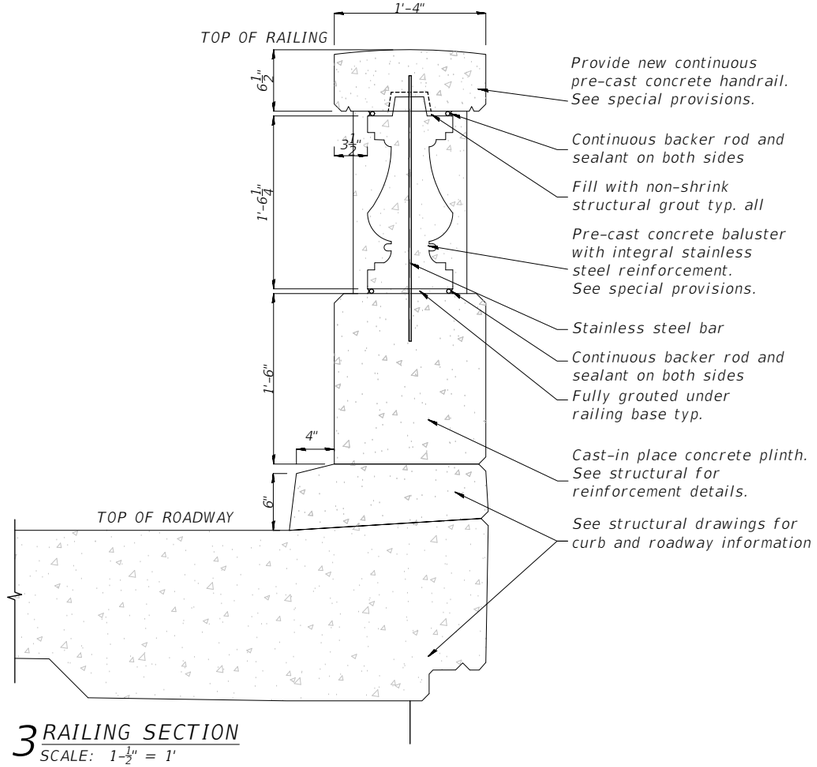
4 TYPICAL BALUSTER DETAIL
SCALE: 3" = 1'



5 SECTION THROUGH PARAPET WALL AT PILASTER
SCALE: 1-½" = 1'



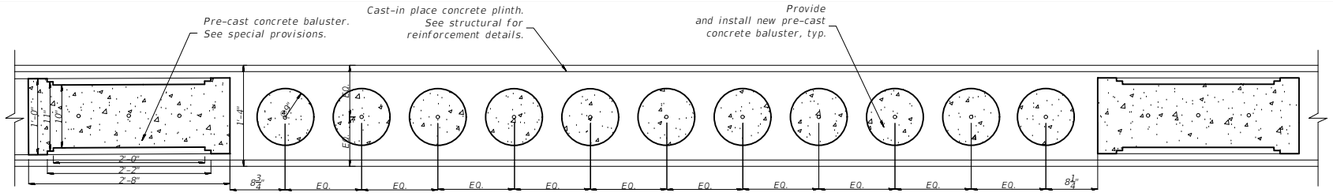
1 RAILING SECTION
SCALE: 1-½" = 1'



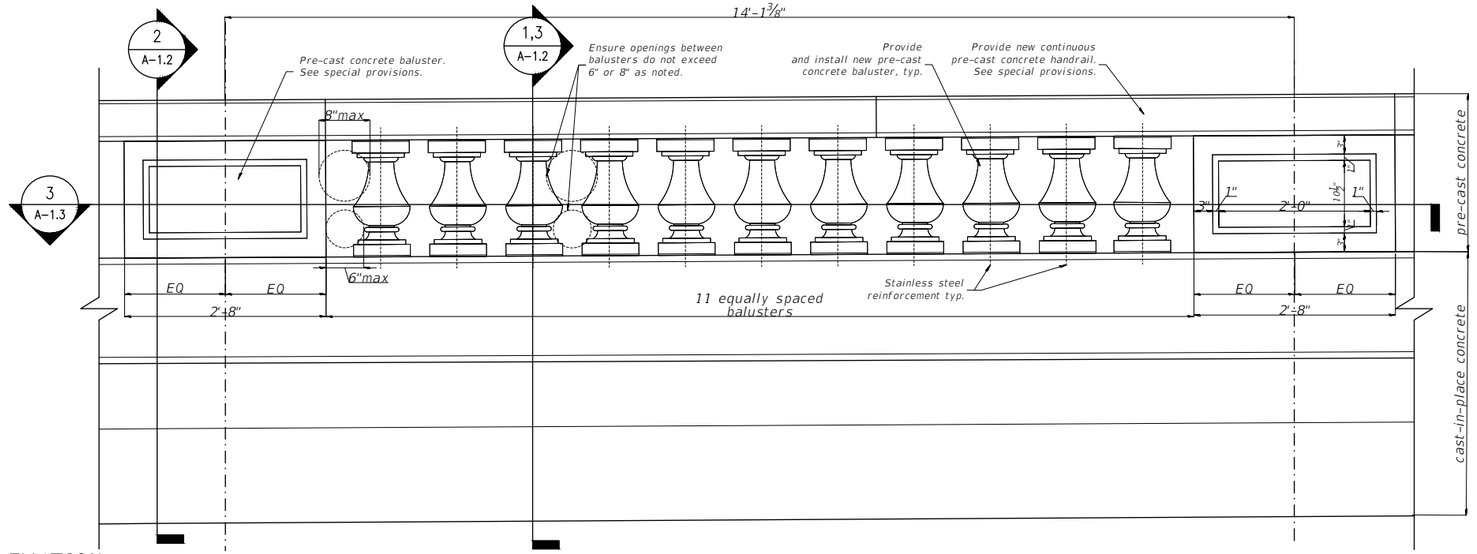
3 RAILING SECTION
SCALE: 1-½" = 1'

JLK ARCHITECTS	USER NAME =	DESIGNED - MK, TS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	A1.2 – ORNAMENTAL RAILING DETAILS
		CHECKED - TS, SDT	REVISED -		SHEET A 1.2 OF A-1.5 SHEETS
	PLOT SCALE = AS SPECIFIED	DRAWN - HB	REVISED -		
	PLOT DATE = 06/10/2024	DATE - 06-10-2024	REVISED -		

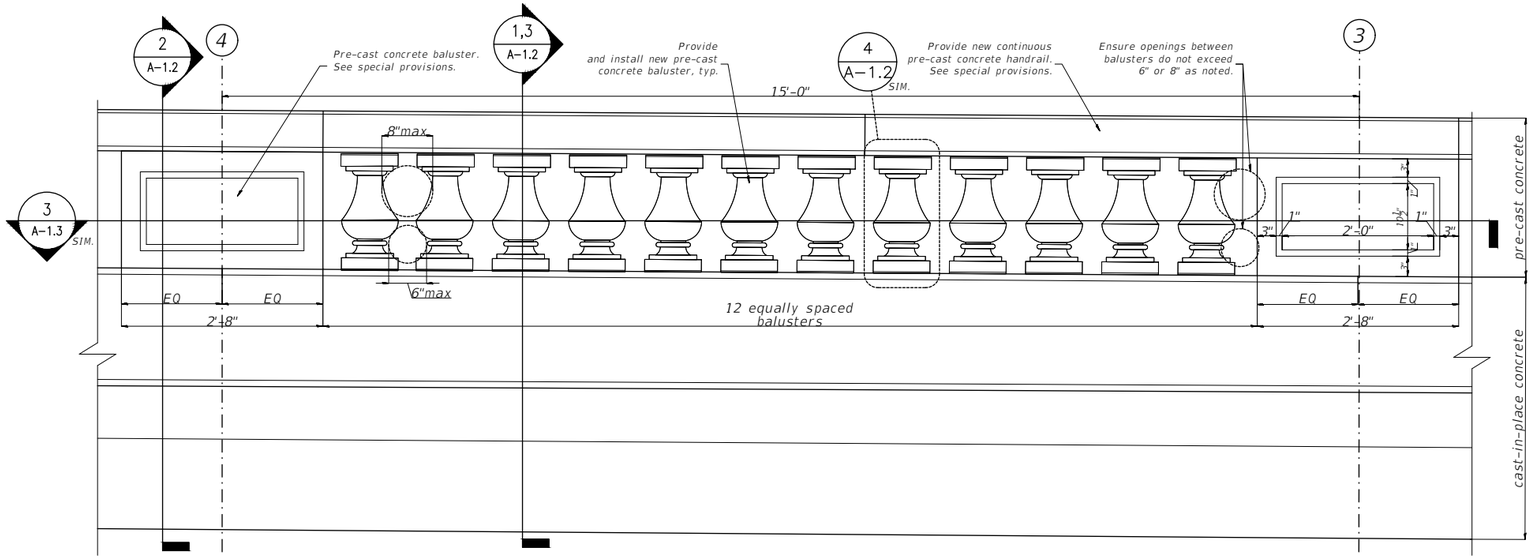
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	12-00094-00-BR	LAKE	86	75
		CONTRACT NO. 61K52		
	ILLINOIS	FED. AID PROJECT		



3 TYPICAL RAILING SECTION
SCALE: 1" = 1'



2 RAILING ELEVATION
SCALE: 1" = 1'



1 TYPICAL RAILING ELEVATION
SCALE: 1" = 1'

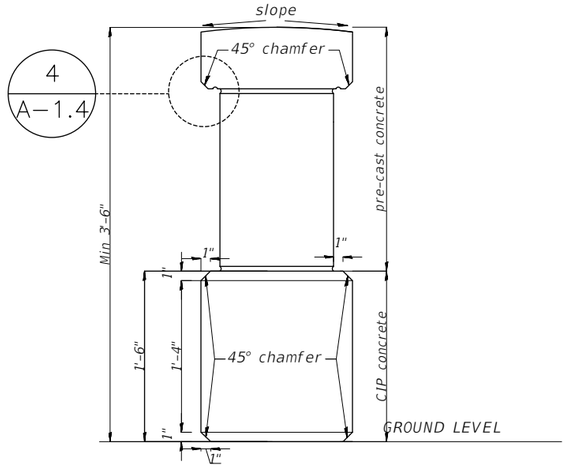
GENERAL CONSTRUCTION NOTES:

1. Drawings represent the existing plan conditions are diagrammatically shown. Exact locations, sizes, extent and conditions of the existing construction to be removed, salvaged or to remain shall be verified at the site by the contractor.
2. Contractor shall retain two 1' x1'x1' concrete samples representative of the bridge and railing. match new work to existing historic composition and finish.
3. For dimensions see structural sheet 1.
4. Details shown are indicative of the profiles and type of detailing required for the work. Conditions are not covered by specific details and must meet specified design criteria.
5. Details shown may not necessarily graphically represent all components required to complete the total system. The contractor shall be responsible to coordinate all of the requirements shown on the drawings with those stated in the applicable specifications and project notes to provide a complete system.
6. The contractor shall be responsible for construction means, methods, techniques, sequences, procedures and programs in connection with the work. All work shall meet the quality requirements noted in the contract documents.
7. All existing features to remain shall be protected during construction. All existing features to remain which are damaged by the work of this project shall be patched to match adjacent surfaces in finish, color, and texture unless otherwise indicated.
8. All reinforcement shown is for representation purposes only. See special provisions for more information.
9. See Special Provisions for structural design requirements for ornamental railing.
10. Coordinate with barrier wall details on structural plans.
11. Contractor is responsible for providing all necessary engineering for all pre-cast architectural concrete elements including reinforcing, support and anchoring components.

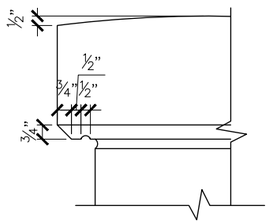
JLK ARCHITECTS

USER NAME =		DESIGNED - MK, TS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	A1.3 – ORNAMENTAL RAILING DETAILS
		CHECKED - TS, SDT	REVISED -		
PLOT SCALE = AS SPECIFIED		DRAWN - HB	REVISED -		
PLOT DATE = 06/10/2024		DATE - 06-10-2024	REVISED -		SHEET A 1.3 OF A-1.5 SHEETS

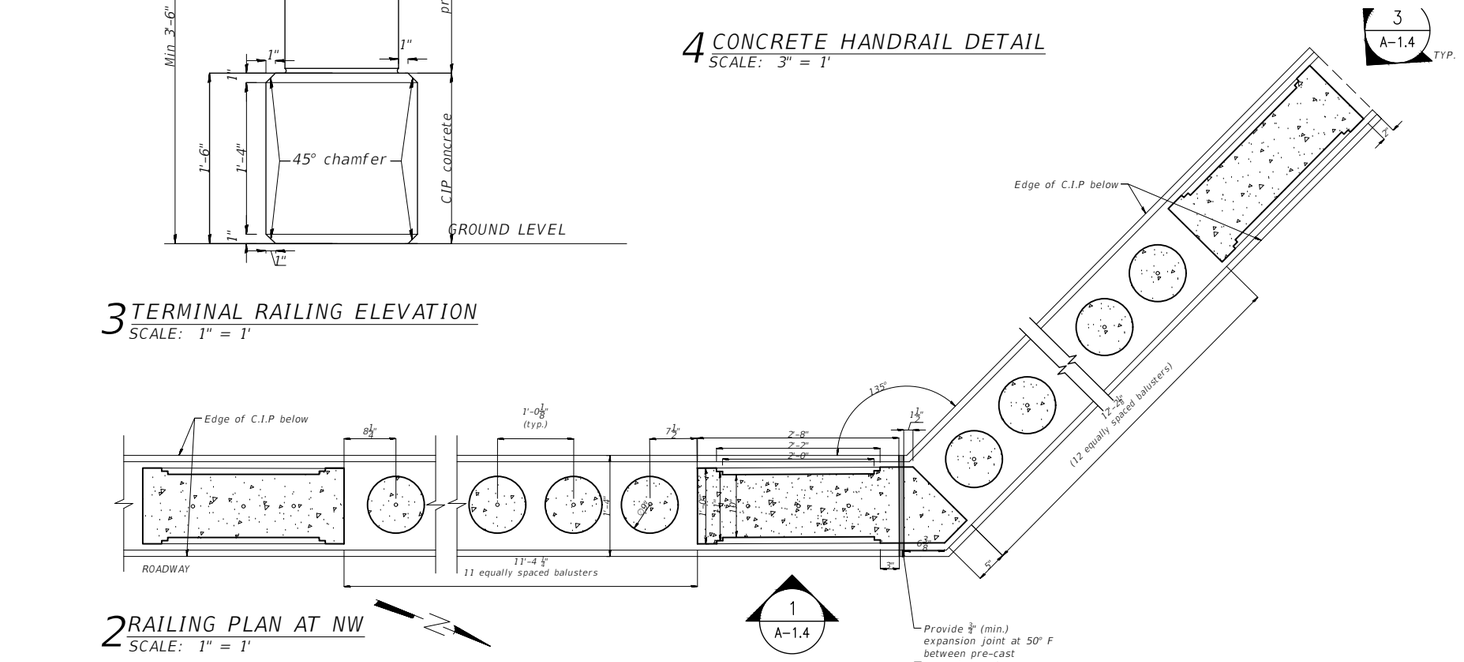
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	12-00094-00-BR	LAKE	86	76
		CONTRACT NO. 61K52		
	ILLINOIS	FED. AID PROJECT		



3 TERMINAL RAILING ELEVATION
SCALE: 1" = 1'



4 CONCRETE HANDRAIL DETAIL
SCALE: 3" = 1'



2 RAILING PLAN AT NW
SCALE: 1" = 1'

1 INTERIOR RAILING ELEVATION AT NE
SCALE: 1" = 1'

GENERAL CONSTRUCTION NOTES:

1. Drawings that represent the existing plan conditions are diagrammatically shown, exact locations, sizes, extent and conditions of the existing construction to be removed, salvaged or to remain shall be verified at the site by the contractor.
2. Contractor shall retain two 1' x1'x1' concrete samples representative of the bridge and railing. match new work to existing historic composition and finish.
3. For dimensions see structural sheet 1.
4. Details shown are intended to be indicative of the profiles and type of detailing required for the work. Conditions are not covered by specific details and must meet specified design criteria.
5. Details shown may not necessarily graphically represent all components necessary to complete the total system. The contractor shall be responsible to coordinate all of the requirements shown on the drawings with those stated in the applicable specifications and project notes to provide a complete system.
6. The contractor will be responsible for construction means, methods, techniques, sequences, procedures and programs in connection with the work. All work shall meet the quality requirements noted in the contract documents.
7. All existing features to remain shall be protected during construction. all existing features to remain damaged by the work of this project shall be patched to match adjacent surfaces in finish, color, and texture unless otherwise indicated.
8. All reinforcement shown is for representation purposes only. See special provisions for more information.
9. See Special Provisions for structural design requirements for ornamental railing.
10. Coordinate with barrier wall details on structural plans.
11. Contractor is responsible for providing all necessary engineering for all pre-cast architectural concrete elements including reinforcing, support and anchoring components.

JLK ARCHITECTS

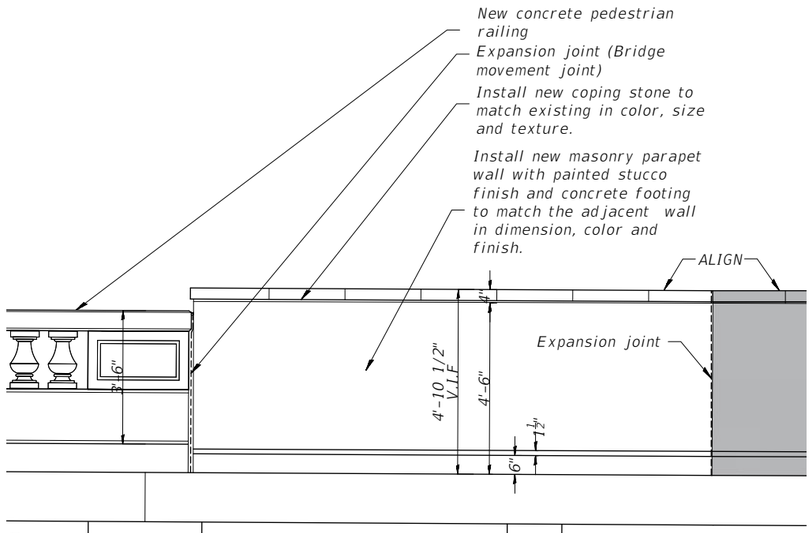
USER NAME	=	DESIGNED -	MK, TS	REVISED	-
		CHECKED -	TS, SDT	REVISED	-
PLOT SCALE	= AS SPECIFIED	DRAWN -	HB	REVISED	-
PLOT DATE	= 06/10/2024	DATE -	06-10-2024	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

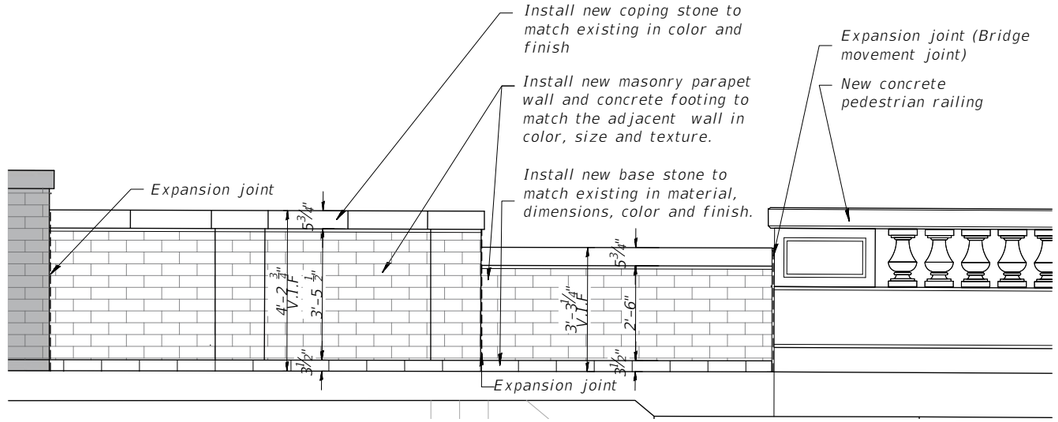
A1.4 – ORNAMENTAL RAILING DETAILS

SHEET A 1.4 OF A-1.5 SHEETS

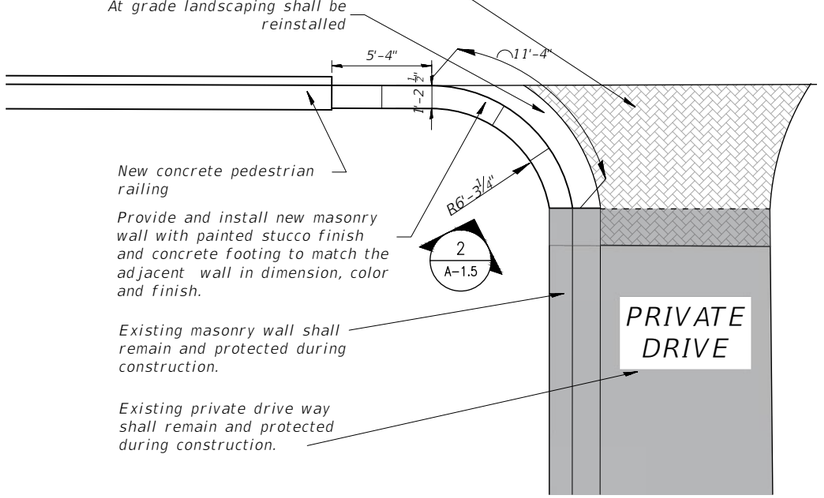
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	12-00094-00-BR	LAKE	86	77
		CONTRACT NO. 61K52		
	ILLINOIS	FED. AID PROJECT		



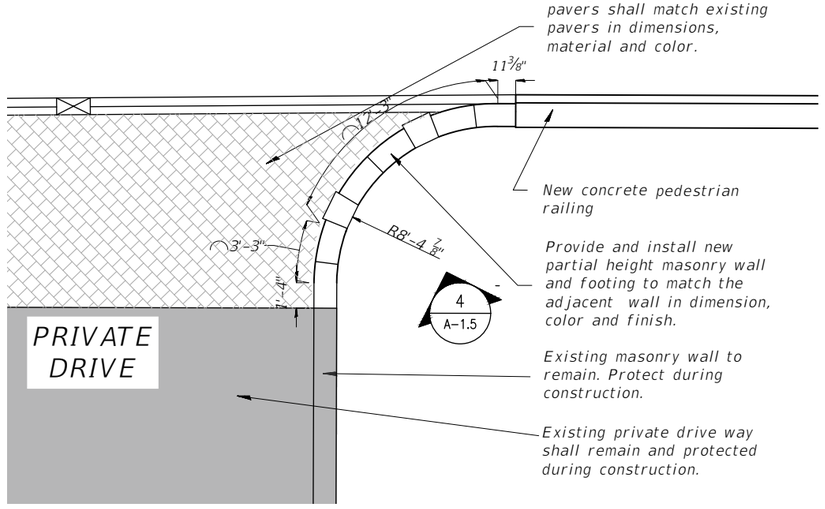
2 ELEVATION OF NORTHEAST PARAPET WALL – LOCATION 1
SCALE: 1/2" = 1'



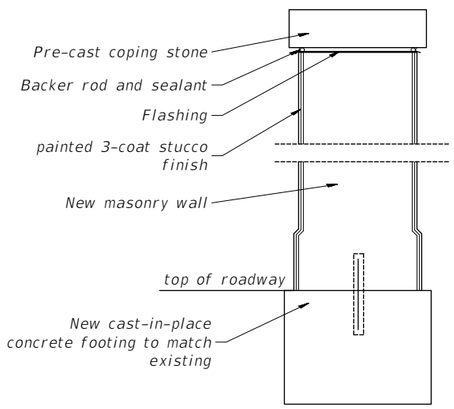
4 ELEVATION OF SOUTHEAST PARAPET WALL – LOCATION 2
SCALE: 1/2" = 1'



1 NEW WORK PLAN – NE PARAPET WALL – LOCATION 1
SCALE: 1/4" = 1'



3 NEW WORK PLAN – SE PARAPET WALL – LOCATION 2
SCALE: 1/4" = 1'



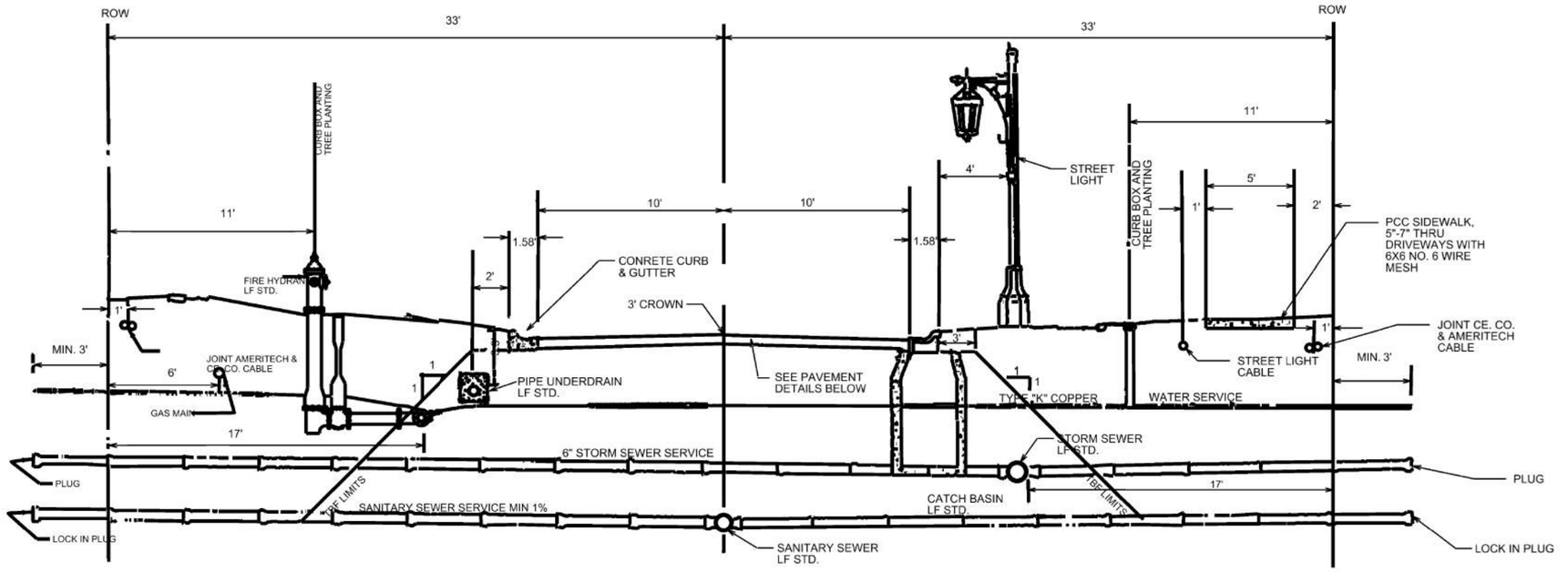
5 MASONRY WALL SECTION AT LOCATION 1
SCALE: 1 1/2" = 1'

GENERAL CONSTRUCTION NOTES:

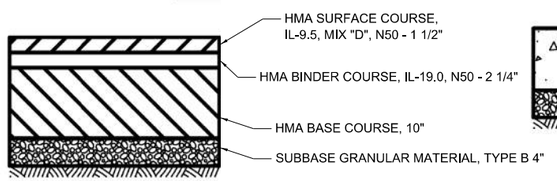
1. Drawings that represent the existing plan conditions are diagrammatically shown, exact locations, sizes, extent and conditions of the existing construction to be removed, salvaged or to remain shall be verified at the site by the contractor.
2. Contractor shall retain two 1' x1'x1' concrete samples representative of the bridge and railing. match new work to existing historic composition and finish.
3. For dimensions see structural sheet 1.
4. Details shown are intended to be indicative of the profiles and type of detailing required for the work. Conditions are not covered by specific details and must meet specified design criteria.
5. Details shown may not necessarily graphically represent all components necessary to complete the total system. The contractor shall be responsible to coordinate all of the requirements shown on the drawings with those stated in the applicable specifications and project notes to provide a complete system.
6. The contractor will be responsible for construction means, methods, techniques, sequences, procedures and programs in connection with the work. All work shall meet the quality requirements noted in the contract documents.
7. All existing features to remain shall be protected during construction. all existing features to remain damaged by the work of this project shall be patched to match adjacent surfaces in finish, color, and texture unless otherwise indicated.
8. All reinforcement shown is for representation purposes only. See special provisions for more information.
9. See Special Provisions for structural design requirements for ornamental railing.
10. Coordinate with barrier wall details on structural plans.
11. Contractor is responsible for providing all necessary engineering for all pre-cast architectural concrete elements including reinforcing, support and anchoring components.

JLK ARCHITECTS	USER NAME =	DESIGNED - MK, TS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	A1.5 – PARAPET WALL DETAILS
		CHECKED - TS, SDT	REVISED -		
	PLOT SCALE = AS SPECIFIED	DRAWN - HB	REVISED -		SHEET A 1.5 OF A-1.5 SHEETS
	PLOT DATE = 06/10/2024	DATE - 06-10-2024	REVISED -		

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	12-00094-00-BR	LAKE	86	78
		CONTRACT NO. 61K52		
	ILLINOIS	FED. AID PROJECT		

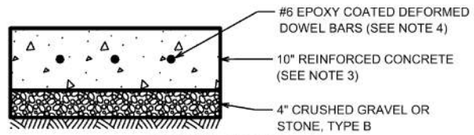


ALTERNATE 1



PAVEMENT DETAIL

ALTERNATE 2



PAVEMENT DETAIL

NOTES:

1. CURB AND GUTTER SHALL BE SHAPED TO FIT CATCH BASIN FROM A POINT 10' EACH SIDE OF BASIN.
2. PARKWAY SHALL BE GRADED AND SEEDED, MIN. SLOPE 1/2" PER FOOT, MAX. SLOPE 4" PER FOOT. WHERE SIDEWALKS ARE TO BE CONSTRUCTED THE MAX. SLOPE WILL BE 1" PER FOOT.
3. PORTLAND CEMENT CONCRETE PAVEMENT SHALL CONFORM TO SECTION 420 OF THE IDOT STANDARD SPECIFICATIONS.
4. #6 EPOXY COATED DOWEL BAR SHALL CONFORM TO ARTICLE 1006.11 OF THE STANDARD SPECIFICATIONS, BE 24" LONG, AND SPACED A MAXIMUM OF 24" APART ALONG ALL JOINTS.

TYPICAL CROSS-SECTION FOR STREET IMPROVEMENTS IN RESIDENTIAL AREAS

LAKE FOREST STANDARD 2.03

APPROVED BY : KMM

DATE : 4/23/2009

G:\Engineer\Standard Details\. . .\X-Section Residential Streets 2-03

MODEL: LF STANDARDS - 1
FILE NAME: pw:\\lochner-pw.bentley.com:lochner-pw-01\Documents\Projects\0000202016.0 CAD\General\20201-SHT-HWL-GEN-STANDARDS.dgn

Lochner
225 WEST WASHINGTON STREET 12TH FLOOR
CHICAGO, IL 60606 / 312-372-3011 (P)

USER NAME = Personal	DESIGNED - GG	REVISED -	
	DRAWN - GG	REVISED -	
PLOT SCALE =	CHECKED - JN	REVISED -	
PLOT DATE = 5/24/2024	DATE - 6/10/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

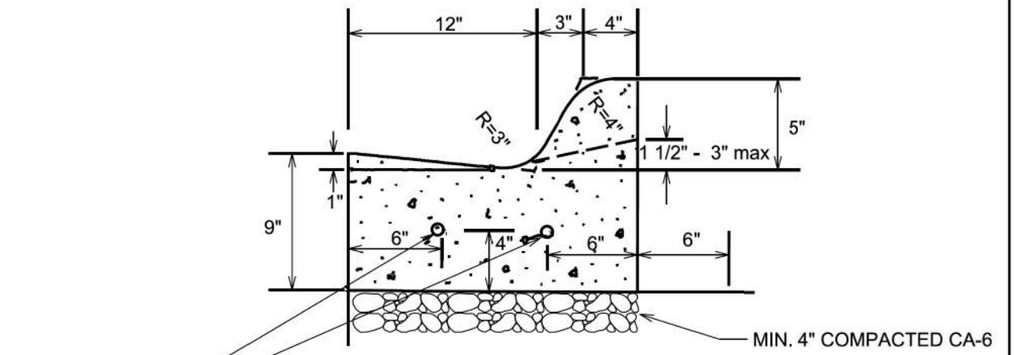
LAKE FOREST STANDARDS
LAKE WOODBINE BRIDGE

SCALE: N/A | SHEET 1 OF 8 SHEETS | STA. N/A | TO STA. N/A

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	79

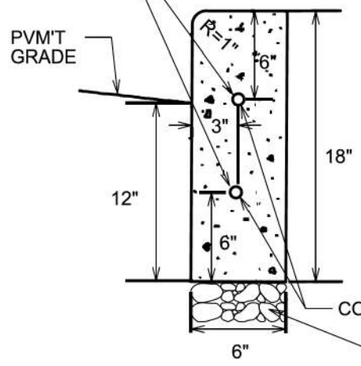
CONTRACT NO. 61K52

ILLINOIS | FED. AID PROJECT

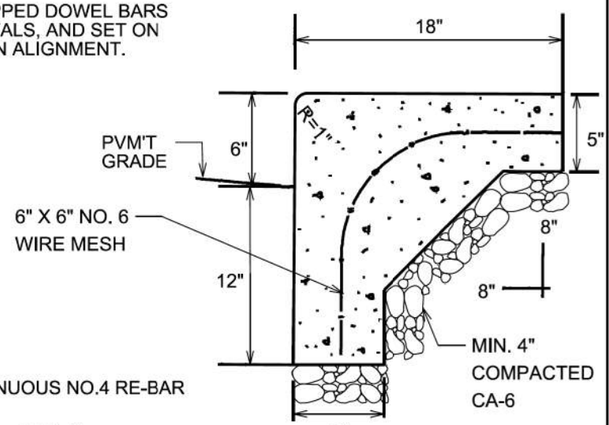


CURB AND GUTTER

3/4" GREASED AND CAPPED DOWEL BARS 24" LONG, AT 50' INTERVALS, AND SET ON CHAIRS TO MAINTAIN ALIGNMENT.



BARRIER CURB

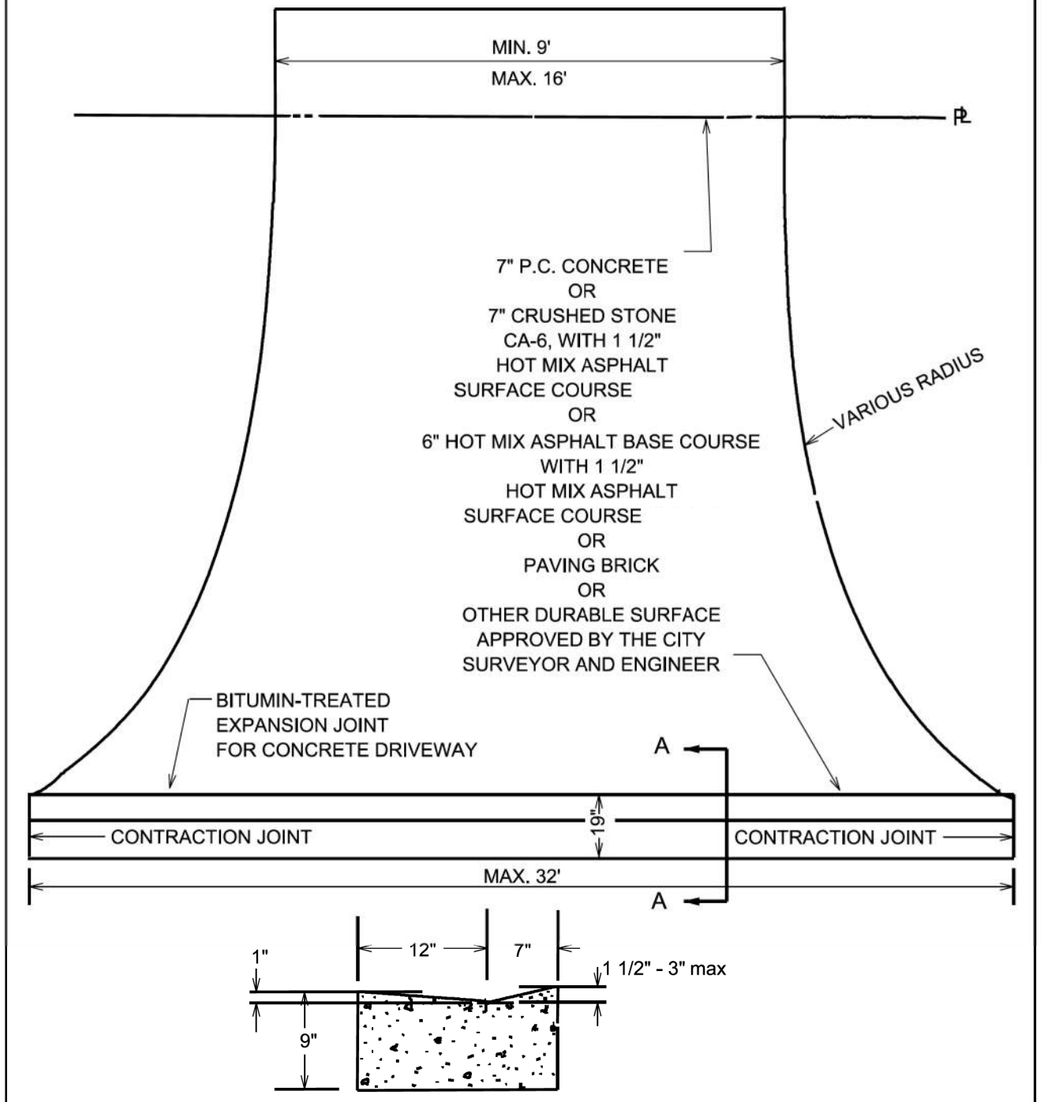


INTEGRAL CURB

1. INSTALL PREFORMED EXPANSION JOINT FILLER, BITUMEN TREATED, CUT TO SHAPE OF CURB AND GUTTER, BARRIER CURB OR INTEGRAL CURB, AT 50' INTERVALS,
2. SAWCUT CONTRACTION JOINTS AT 25' INTERVALS
3. TWO (2) 10 FEET LONG NO. 4 RE-BARS OVER ALL TRENCHES
4. TWO CONTINUOUS NO.4 RE-BARS ARE TO BE INSTALLED IN ALL BARRIER CURB.
5. TWO (2) 24 INCH LONG NO. 4 DOWEL BARS AT ALL CONNECTIONS BETWEEN NEW CURB AND EXISTING CURB AND AT ALL EXPANSION JOINTS.
6. CONTRACTOR MUST CALL FOR AN INSPECTION PRIOR TO POURING THE CURB

STANDARD CURB SECTIONS

LAKE FOREST STANDARD 2.06
APPROVED BY : KMM
DATE : 1/1/2006
G:\Engineer\Standard Details\Standard Curb 2-06



SECTION A - A

RESIDENTIAL DRIVE APPROACH

CONTRACTOR MUST CALL FOR AN INSPECTION PRIOR TO PLACING/POURING THE APPROACH

LAKE FOREST STANDARD 2.07
APPROVED BY : KMM
DATE : 2/19/2009
G:\Engineer\Standard Details\Drive Approach

MODEL: LF STANDARDS - 2
FILE NAME: pw:\lochner-pw.bentley.com:lochner-pw-01\Documents\Projects\0000202014\0 CAD\General\20201-SHT-HWL-GEN-STANDARDS.dgn

Lochner
225 WEST WASHINGTON STREET 12TH FLOOR
CHICAGO, IL 60606 / 312-372-3011 (P)

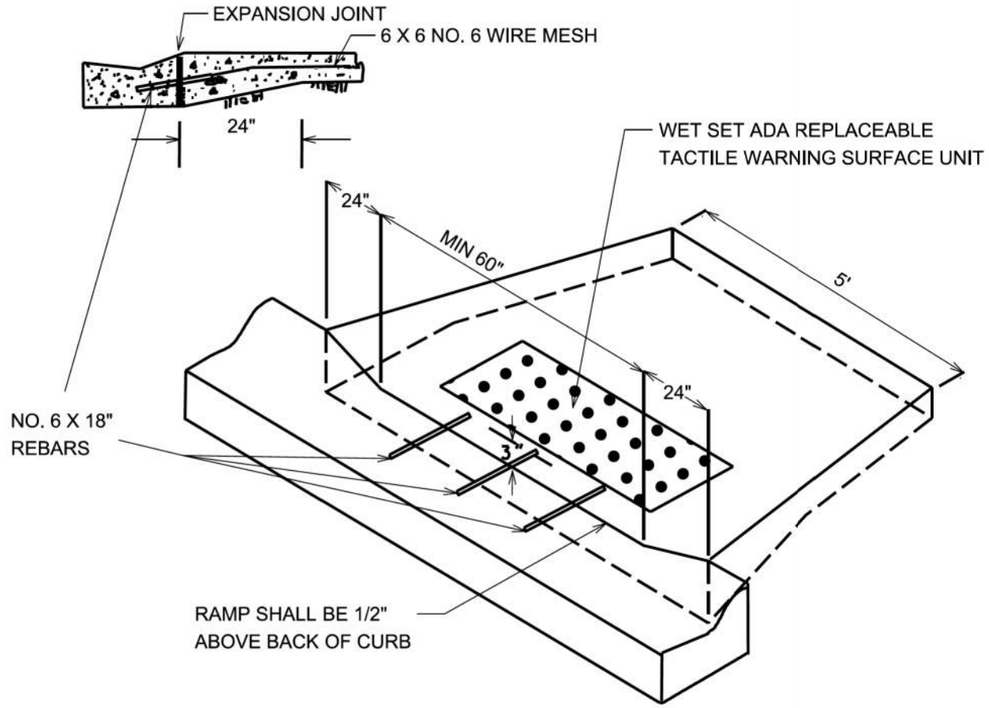
USER NAME = Personal	DESIGNED - GG	REVISED -	
	DRAWN - GG	REVISED -	
PLOT SCALE =	CHECKED - JN	REVISED -	
PLOT DATE = 5/24/2024	DATE - 6/10/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LAKE FOREST STANDARDS
LAKE WOODBINE BRIDGE

SCALE: N/A | SHEET 2 OF 8 SHEETS | STA. N/A | TO STA. N/A

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	80
		CONTRACT NO. 61K52		
		ILLINOIS	FED. AID PROJECT	



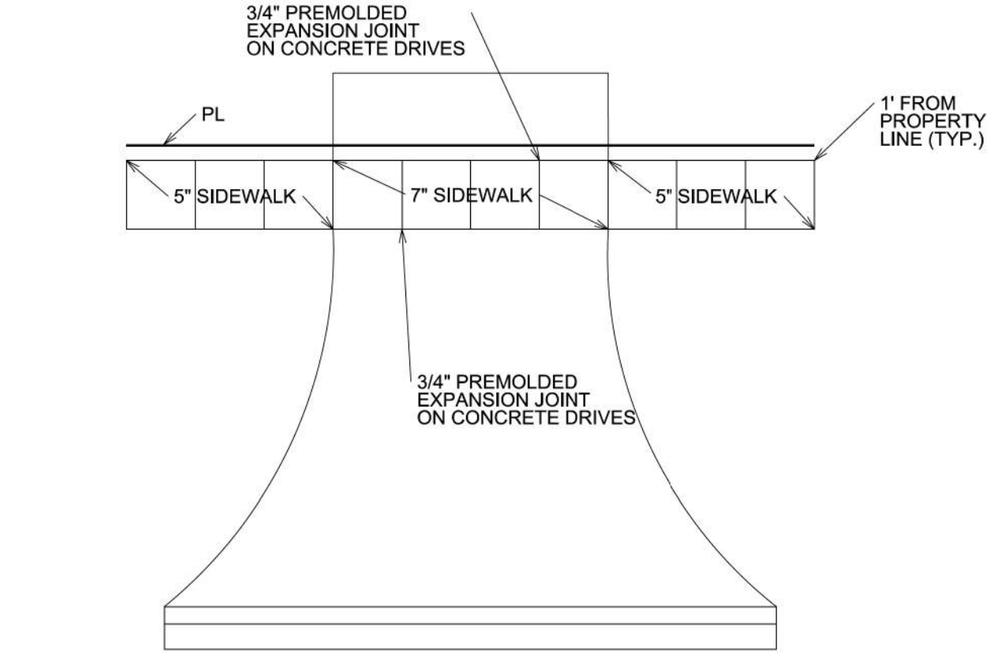
GENERAL NOTES

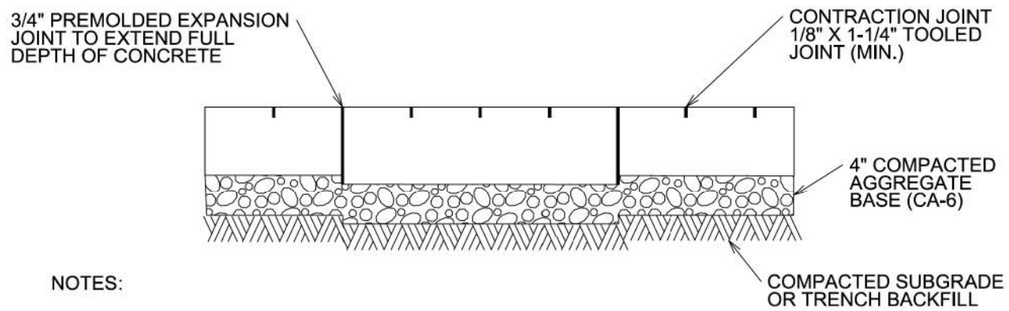
- THE RAMP SHALL HAVE A MAXIMUM SLOPE OF ONE INCH (1") PER FOOT, BE FIVE INCH (5") P.C.C. AND HAVE A TRANSVERSE ROUGH BROOM FINISH.
- A 'WET SET ADA REPLACEABLE TACTILE WARNING SURFACE UNIT' SHALL BE PLACED INTO THE SIDEWALK RAMP. THE INSERT SHALL HAVE OUTSIDE DIMENSIONS OF 24" x 48" AND SHALL HAVE TRUNCATED DOMES WITH A NOMINAL DIAMETER OF 0.9", A NOMINAL HEIGHT OF 0.2", AND A NOMINAL SPACING OF 2.35" CENTER TO CENTER.
- THE SURFACE OF THE INSERT WILL BE RED.
- THE BACK OF CURB, IN THE DEPRESSED SECTION SHALL BE TWO INCHES (2") ABOVE THE FLOW LINE. THE EDGE OF THE SIDEWALK RAMP SHALL BE ONE-HALF OF AN INCH (1/2") ABOVE THE BACK OF CURB.
- PREMOLDED EXPANSION JOINT SHALL BE PLACED BETWEEN THE BACK OF THE CURB AND THE RAMP.
- 6X6 NO. 6 WIRE MESH IN SIDEWALK

STANDARD SIDEWALK RAMP

LAKE FOREST STANDARD 2.08
APPROVED BY : KMM
DATE : 1/1/2011
G:\Engineer\Standard Details\Handicap Ramp 2-08

SIDEWALK DETAIL





NOTES:

1. UNLESS OTHERWISE NOTED ON PLANS, CONTRACTION JOINTS TO BE AT 5' O.C.
2. EXPANSION JOINTS TO BE 50' O.C. MAX. AND AT BACK OF CURB, CHANGE IN DIRECTION, OTHER WALK, UTILITY APPURTENANCE OR FACE OF STRUCTURE.
3. PORTLAND CEMENT CONCRETE SHALL CONFORM TO IDOT CLASS SI

LAKE FOREST STANDARD 2.12
APPROVED BY : KMM
DATE : 2/19/2009
G:\Engineer\Standard Details\Sidewalk

Lochner
225 WEST WASHINGTON STREET 12TH FLOOR
CHICAGO, IL 60606 / 312-372-3011 (P)

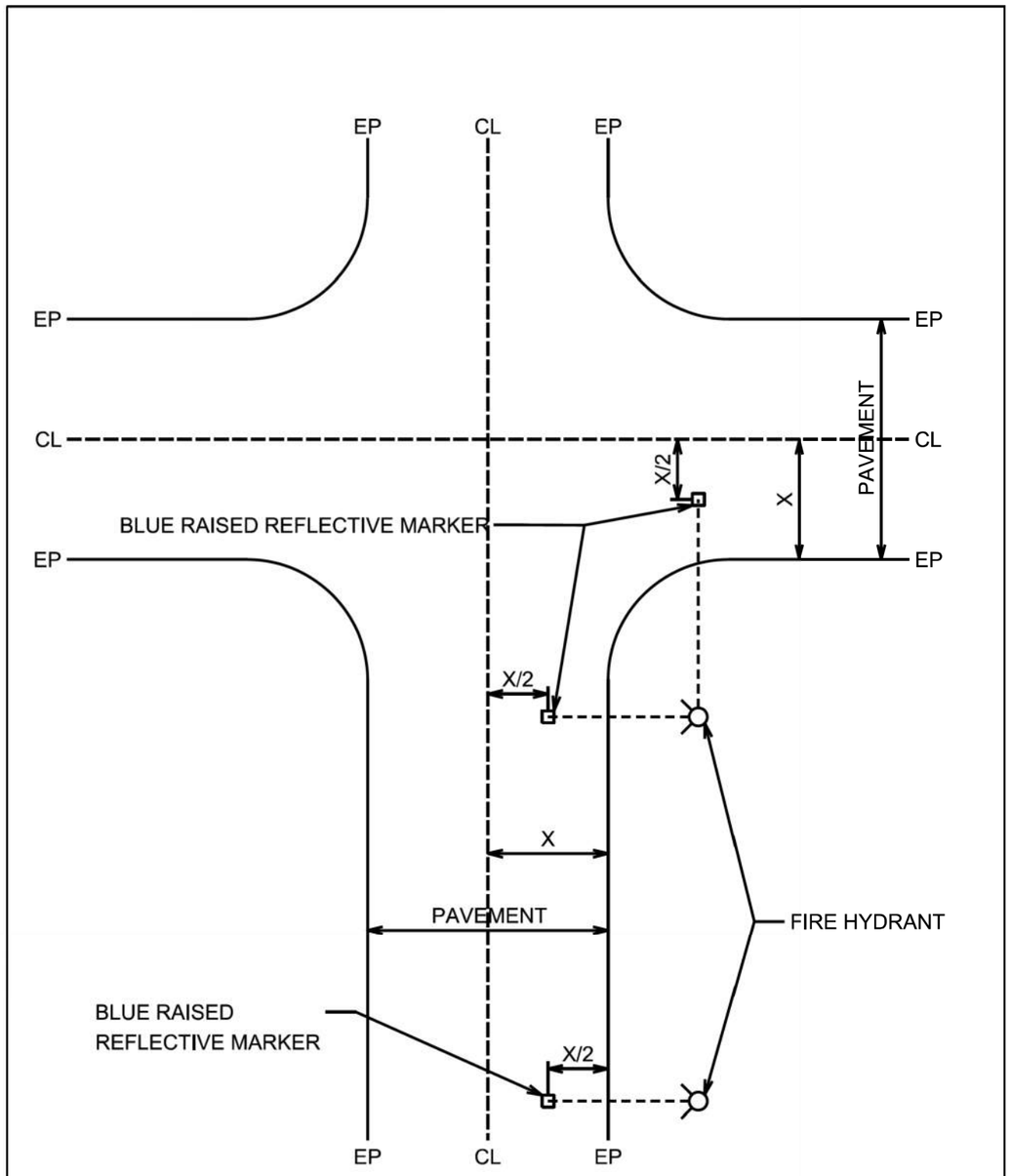
USER NAME = Personal	DESIGNED - GG	REVISED -	
	DRAWN - GG	REVISED -	
PLOT SCALE =	CHECKED - JN	REVISED -	
PLOT DATE = 5/24/2024	DATE - 6/10/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LAKE FOREST STANDARDS
LAKE WOODBINE BRIDGE

SCALE: N/A | SHEET 3 OF 8 SHEETS | STA. N/A | TO STA. N/A

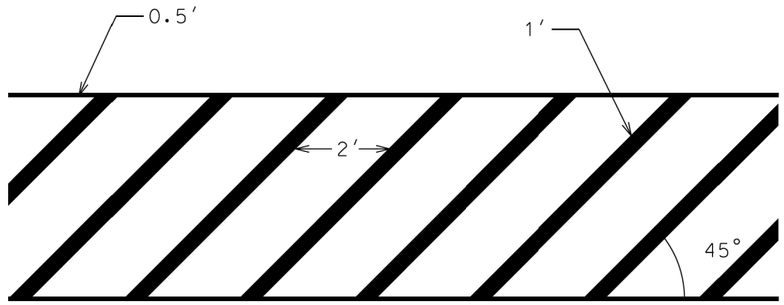
MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	81
		CONTRACT NO. 61K52		
		ILLINOIS	FED. AID PROJECT	



RAISED REFLECTIVE PAVEMENT MARKERS

NTS

LAKE FOREST STANDARD 2.16
APPROVED BY : KMM
DATE : 1/1/2006
G:\Engineer\Standard Details\ Reflective Pavement Markers 2-16



TYPICAL CROSSWALK

NTS

LAKE FOREST STANDARD
APPROVED BY : KMM
DATE : 11/18/2010
G:\Engineer\Standard Details\ Crosswalk

Lochner
225 WEST WASHINGTON STREET 12TH FLOOR
CHICAGO, IL 60606 / 312-372-3011 (P)

USER NAME = Personal	DESIGNED - GG	REVISED -	
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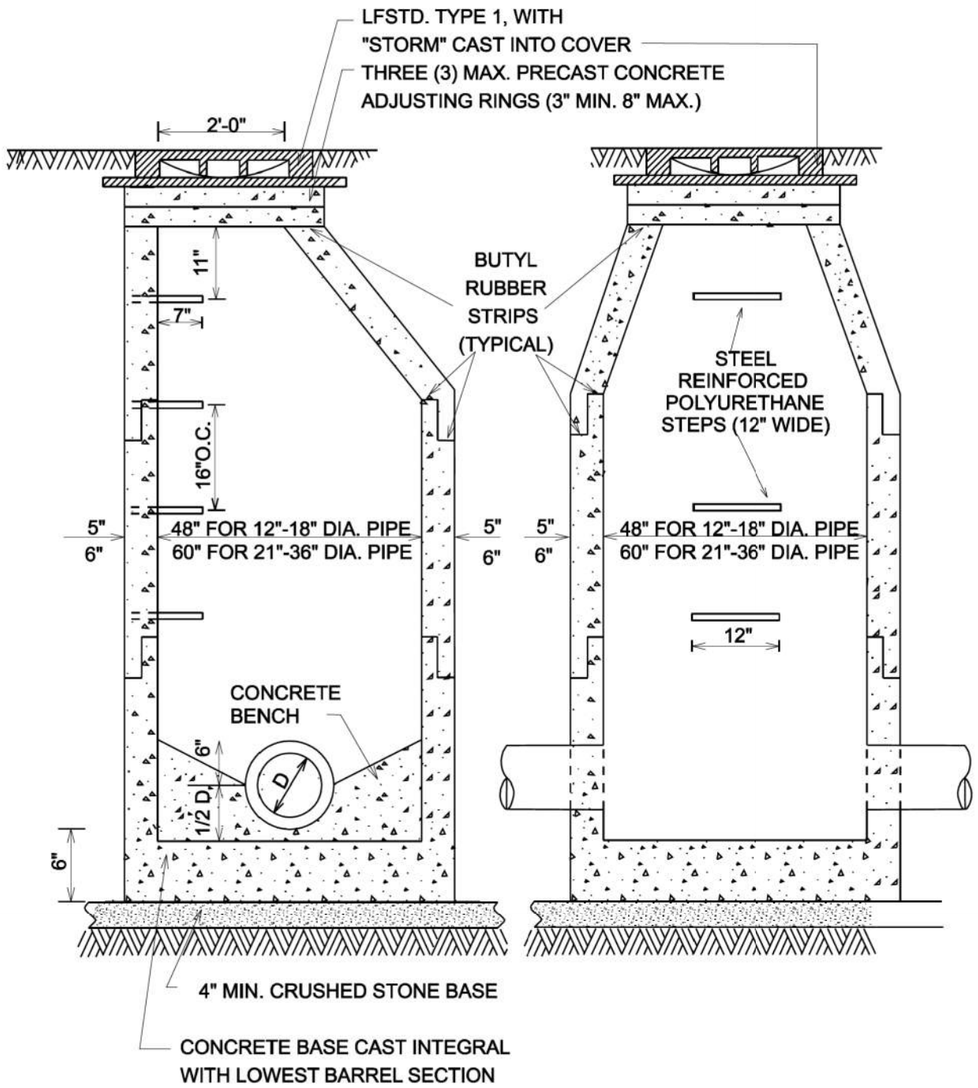
PLOT DATE = 5/24/2024	DATE - 6/10/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LAKE FOREST STANDARDS
LAKE WOODBINE BRIDGE

SCALE: N/A | SHEET 4 OF 8 SHEETS | STA. N/A | TO STA. N/A

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	82
		CONTRACT NO. 61K52		
	ILLINOIS	FED. AID PROJECT		



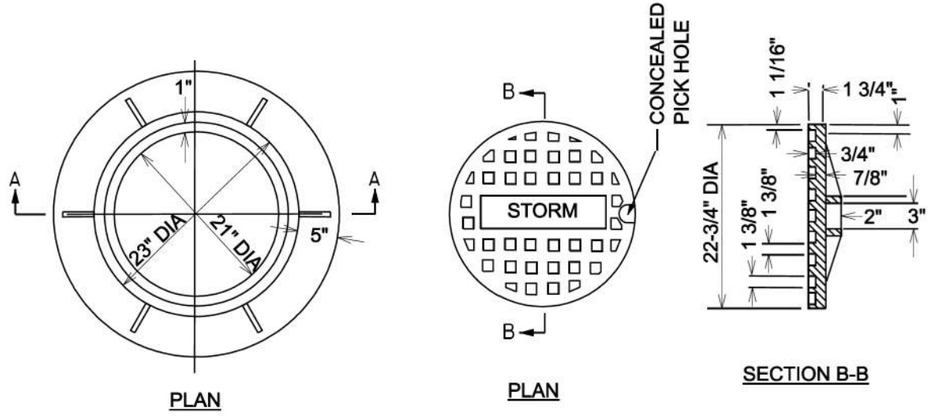
TYPE A STORM MANHOLE DETAIL

NOT TO SCALE

NOTES:

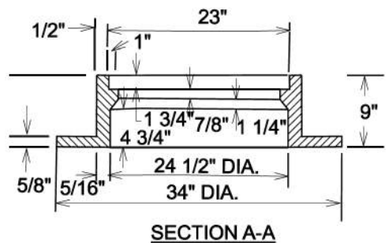
1. MANHOLES MUST CONFORM TO ASTM C-478.
2. MANHOLE SECTIONS TO BE TONGUE AND GROOVED.
3. BENCHES MUST BE PROVIDED IN ALL STORM SEWER MANHOLES.
4. ALL PIPE PENETRATIONS TO BE CORED, AND MORTARED INSIDE AND OUTSIDE OF STRUCTURE WITH HYDRAULIC CEMENT.

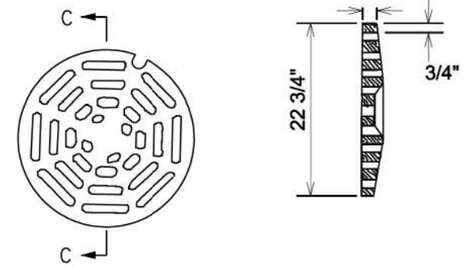
LAKE FOREST STANDARD 3.01
APPROVED BY : KMM
DATE : 1/1/2006
G:\Engineer\Standard Details\Storm Manhole Type A 3-01



SELF SEALING CLOSED LID

DESIGNATION 1-C





OPEN LID

DESIGNATION 1-P

TYPE 1
LID AND FRAME
FOR STORM MANHOLE

LAKE FOREST STANDARD 3.02
APPROVED BY : KMM
DATE : 1/1/2006
G:\Engineer\Standard Details\Storm TY 1 Frame & Grate 3-02

Lochner
225 WEST WASHINGTON STREET 12TH FLOOR
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PLOT SCALE =	CHECKED - AM	REVISED -
PLOT DATE = 5/24/2024	DATE - 6/10/2024	REVISED -

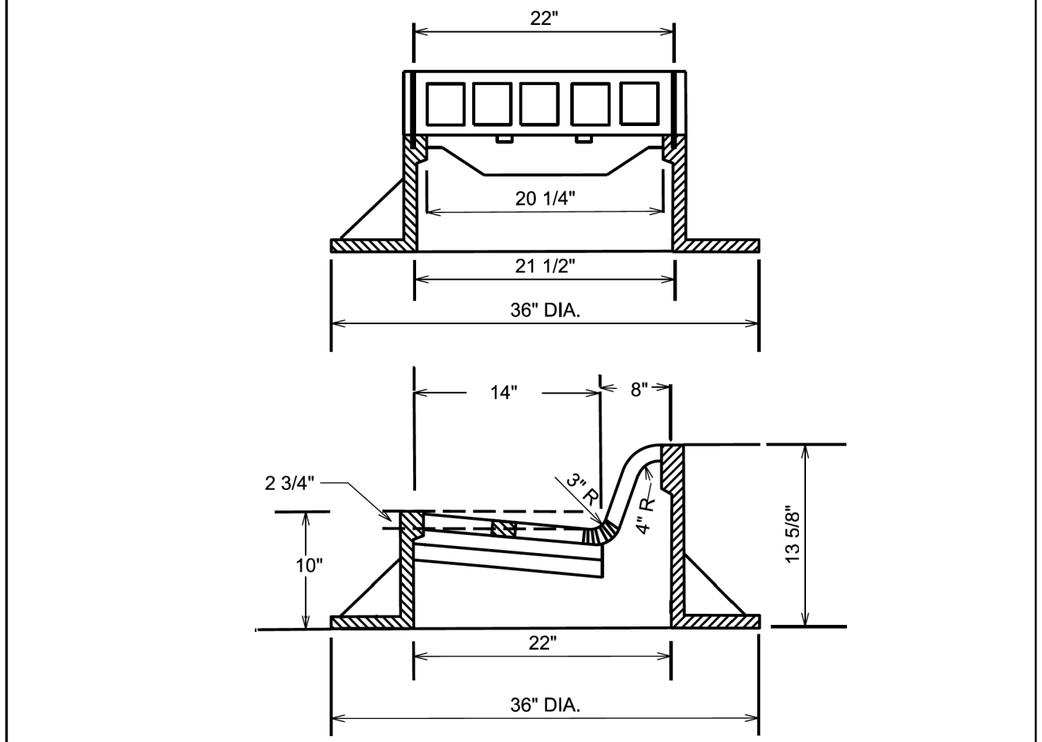
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

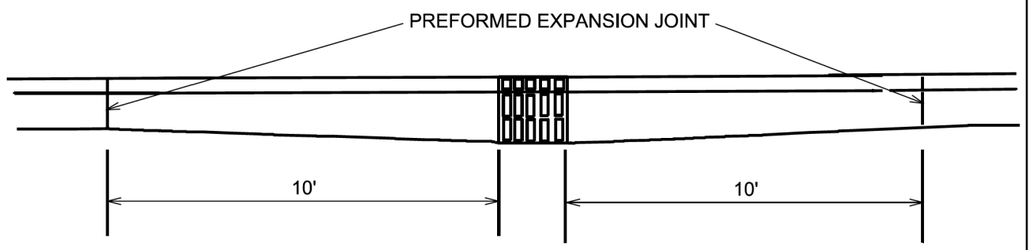
LAKE FOREST STANDARDS
LAKE WOODBINE BRIDGE

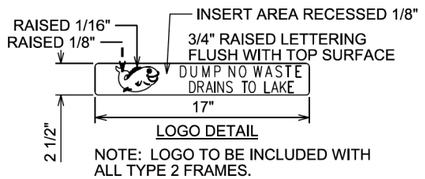
SCALE: N/A | SHEET 5 OF 8 SHEETS | STA. N/A | TO STA. N/A

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	83
		CONTRACT NO. 61K52		
		ILLINOIS	FED. AID PROJECT	

TYPE 2 FRAME AND GRATE FOR L.F. STD. CURB AND GUTTER





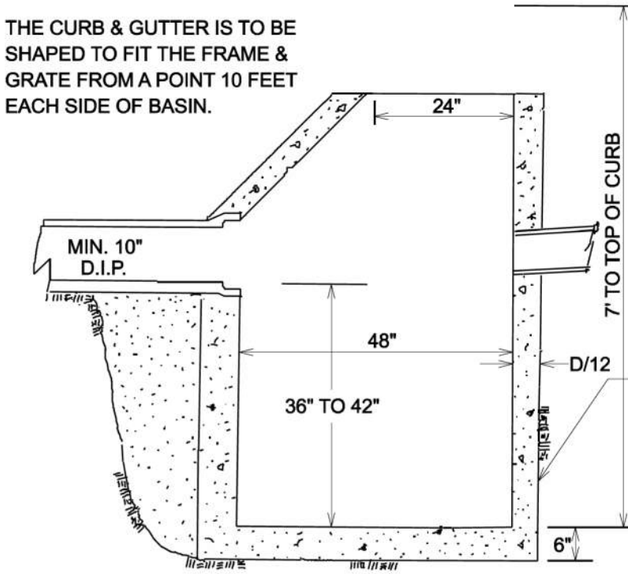


LOGO DETAIL

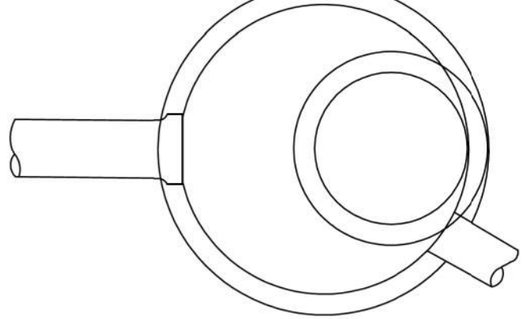
NOTE: LOGO TO BE INCLUDED WITH ALL TYPE 2 FRAMES.

LAKE FOREST STANDARD 3.03
APPROVED BY : KMM
DATE : 2/7/2007
G:\Engineer\Standard Details\Curb Frame 3-03

THE CURB & GUTTER IS TO BE SHAPED TO FIT THE FRAME & GRATE FROM A POINT 10 FEET EACH SIDE OF BASIN.



ALL CATCH BASIN PARTS TO BE PRECAST CONCRETE CONFORMING TO ASTM C-478 WITH BITUMINOUS JOINTS, THE REINFORCED CONC. BASE SHALL BE INTEGRAL WITH THE WALLS



CATCH BASIN TYPE A

LAKE FOREST STANDARD 3.06
APPROVED BY : KMM
DATE : 1/1/2006
G:\Engineer\Standard Details\Catch Basin 3-06

MODEL: LF STANDARDS - 6
FILE NAME: pw:\lochner-pw.bentley.com:lochner-pw-01\Documents\Projects\000020201\6.0 CAD\General\20201-SHT-HWL-GEN-STANDARDS.dgn

Lochner
225 WEST WASHINGTON STREET 12TH FLOOR
CHICAGO, IL 60606 / 312-372-3011 (P)

USER NAME = Personal	DESIGNED - GG	REVISED -	
	DRAWN - GG	REVISED -	
PLOT SCALE =	CHECKED - AM	REVISED -	
PLOT DATE = 5/24/2024	DATE - 6/10/2024	REVISED -	

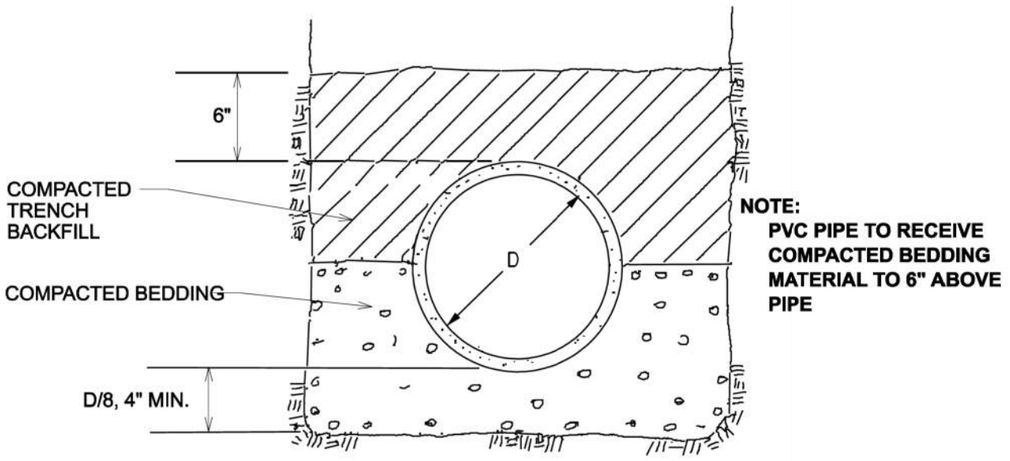
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LAKE FOREST STANDARDS
LAKE WOODBINE BRIDGE

SCALE: N/A | SHEET 6 OF 8 SHEETS | STA. N/A | TO STA. N/A

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	84
		CONTRACT NO. 61K52		
	ILLINOIS	FED. AID PROJECT		

NOTE: SAND TRENCH BACKFILL NOT ALLOWED



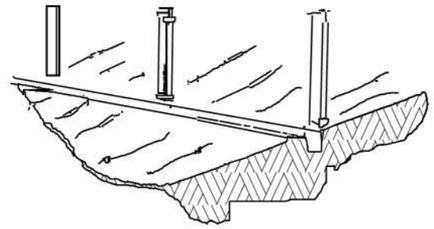
COMPACTED BEDDING SHALL BE CRUSHED GRANULAR MATERIAL MEETING GRADATION CA-6

1. BEDDING AND GRANULAR TRENCH BACKFILL SHALL BE COMPACTED TO A MINUMUM OF 95% STANDARD DENSITY IN ACCORDANCE WITH A.S.T.M. D698
2. EXCAVATED TRENCH BACKFILL SHALL BE COMPACTED TO A MINIMUM OF 90% STANDARD DENSITY IN ACCORDANCE WITH A.S.T.M. D698
3. GRANULAR TRENCH BACKFILL SHALL BE INSTALLED UNDER AND WITHIN THREE (3) FEET OF PROPOSED PAVEMENTS AS SHOWN ON TYPICAL CROSS SECTION. GRANULAR TRENCH BACKFILL SHALL CONFORM TO FA-6 OR CA-6 COMPACTED TO 95% STANDARD DENSITY IN ACCORDANCE WITH ASTM D698. BACKFILL UNDER EXISTING PAVEMENTS, WHERE AN OPEN CUT OF THE PAVEMENT HAS BEEN APPROVED, SHALL BE FLOWABLE FILL WHICH MEETS THE IDOT STANDARDS OF CONTROLLED LOW STRENGTH MATERIAL (CLSM) MIXTURE 1. INSTALL 12" OF COMPACTED GRANULAR TRENCH BACKFILL OVER SEWER BEFORE PLACING THE FLOWABLE FILL

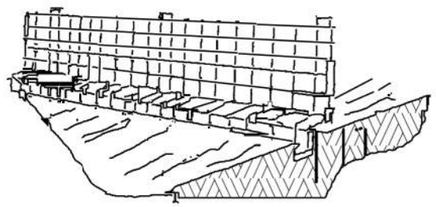
STORM SEWER

BEDDING DETAIL

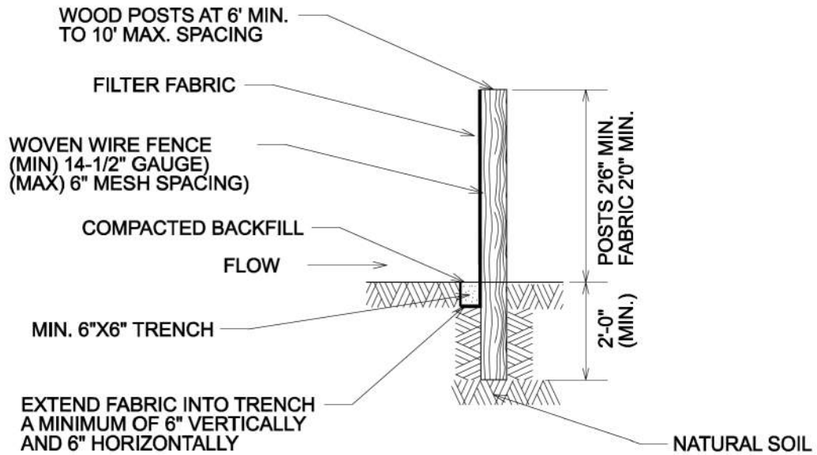
LAKE FOREST STANDARD 3.09
APPROVED BY : KMM
DATE : 1/1/2006
G:\Engineer\Standard Details\Bedding Storm Sewer 3-09



1. SET POSTS AND EXCAVATE A 6"X6" TRENCH UPSLOPE ALONG LINE OF POSTS



2. STAPLE WIRE FENCE TO POSTS, ATTACH FILTER FABRIC TO WIRE FENCE AND EXTEND BOTH INTO THE TRENCH



NOTES:

1. FILTER BARRIERS SHALL BE PLACED AT THOSE LOCATIONS SHOWN ON THE PLANS.
2. OVERLAP FILTER FABRIC BY 6" AND FOLD WHERE 2 SECTIONS ADJOIN.
3. INSPECTION OF SILT FENCES SHALL BE AT LEAST ONCE PER WEEK AND AFTER RAIN EVENTS IN EXCESS OF 1/2". REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
4. SEDIMENT TRAPPED BY THE FENCE SHALL BE REMOVED AND PROMPTLY DISPOSED OF WHENEVER SIGNIFICANT ACCUMULATION OCCURS.
5. BARRIERS SHALL BE MAINTAINED IN PLACE UNTIL COMPLETION OF CONSTRUCTION AND THE UPSLOPE AREA HAS BEEN STABILIZED, AND BE REMOVED ONLY WHEN DIRECTED BY THE CITY.

SILT FENCE DETAIL

LAKE FOREST STANDARD 11.02
APPROVED BY : KMM
DATE : 1/1/2006
G:\Engineer\Standard Details\Silt Fence 11-02

Lochner
225 WEST WASHINGTON STREET 12TH FLOOR
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PLOT SCALE =	CHECKED - AM	REVISED -
PLOT DATE = 5/24/2024	DATE - 6/10/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LAKE FOREST STANDARDS
LAKE WOODBINE BRIDGE

SCALE: N/A | SHEET 7 OF 8 SHEETS | STA. N/A | TO STA. N/A

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	85
		CONTRACT NO. 61K52		
	ILLINOIS	FED. AID PROJECT		

MODEL: LF STANDARDS - 7
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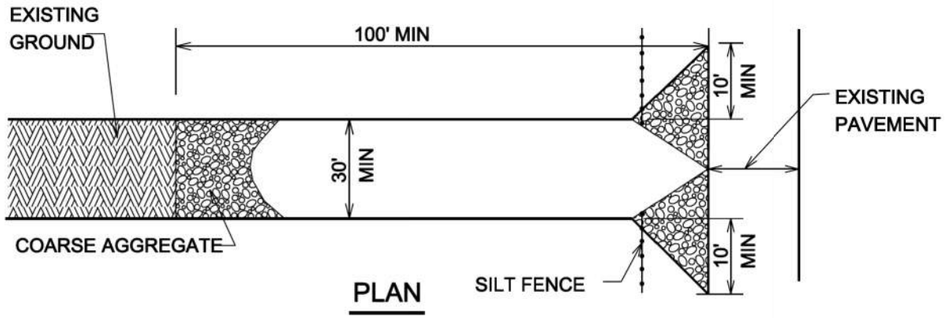
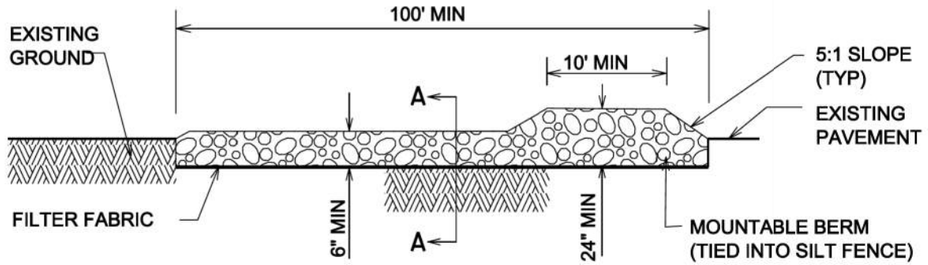
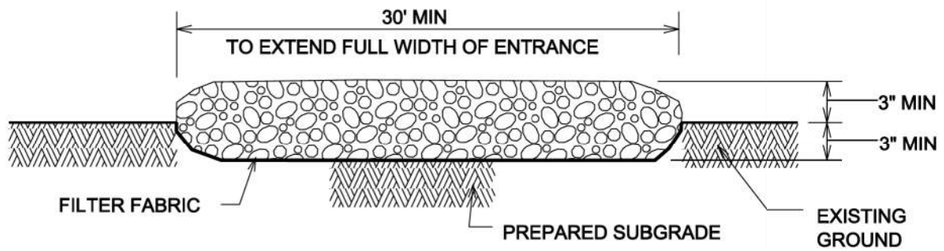


PLAN



ELEVATION



SECTION A-A

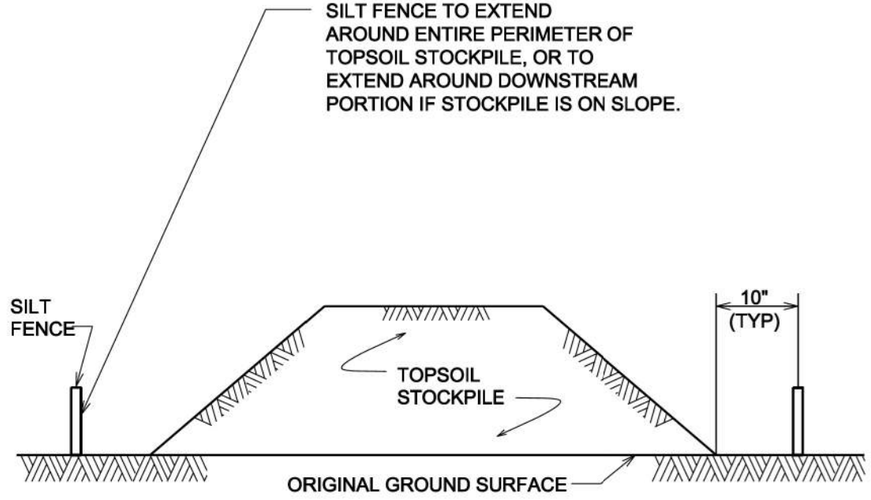
NOTES:

1. GEOTEXTILE FILTER FABRIC SHALL BE PLACED OVER THE CLEARED AREA PRIOR TO PLACING COARSE AGGREGATE
2. COARSE AGGREGATE (OR CRUSHED CONCRETE) SHALL MEET IDOT GRADATION FOR CA-1 CRUSHED AGGREGATE.
3. STABILIZED CONSTRUCTION ENTRANCE SHALL BE INSTALLED, PRIOR TO ONSET OF CONSTRUCTION OPERATIONS AND SHALL BE MAINTAINED THROUGHOUT THE PROJECT.
4. CONSTRUCTION ENTRANCE SHALL BE REMOVED UPON COMPLETION OF CONSTRUCTION AND ONLY WHEN DIRECTED BY THE CITY ENGINEER.

STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE

LAKE FOREST STANDARD 11.03
APPROVED BY : KMM
DATE : 1/1/2006
G:\Engineer\ENGSTDS\Standard Details\ . . . \Construction Entrance 11-03



NOTES:

1. AN ON-SITE DRAINAGE SWALE SHALL BE LOCATED BETWEEN THE TOPSOIL STOCKPILE AND OFF-SITE PROPERTY.
2. REFERENCE IS MADE TO THE SILT FENCE DETAIL FOR MATERIALS AND INSTALLATION METHODS.
3. IF THE STOCKPILE IS TO REMAIN FOR MORE THAN 14 DAYS, IT SHALL BE STABILIZED WITH BURLAP MATTING OR SEEDED WITHIN 7 DAYS OF COMPLETION TO MINIMIZE EROSION.
4. INSPECTION OF SILT FENCES SHALL BE AT LEAST ONCE PER WEEK AND AFTER RAIN EVENTS IN EXCESS OF 1/2". REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
5. SEDIMENT TRAPPED BY THE FENCES SHALL BE REMOVED AND PROPERLY DISPOSED OF WHENEVER SIGNIFICANT ACCUMULATION OCCURS.
6. SILT FENCES SHALL BE MAINTAINED IN PLACE UNTIL TOPSOIL STOCKPILE HAS BEEN ELIMINATED AND SHALL BE REMOVED ONLY WHEN DIRECTED BY THE CITY ENGINEER.

TEMPORARY TOPSOIL STOCKPILE

NOT TO SCALE

LAKE FOREST STANDARD 11.04
APPROVED BY : KMM
DATE : 1/1/2006
G:\Engineer\ENGSTDS\Standard Details\ . . . \Topsoil Stockpile 11-04

Lochner
225 WEST WASHINGTON STREET 12TH FLOOR
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LAKE FOREST STANDARDS
LAKE WOODBINE BRIDGE

SCALE: N/A | SHEET 8 OF 8 SHEETS | STA. N/A | TO STA. N/A

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1370	12-00094-00-BR	LAKE	86	86
		CONTRACT NO. 61K52		
	ILLINOIS	FED. AID PROJECT		

MODEL: LF STANDARDS - 8
FILE NAME: pw:\\lochner-pw.bentley.com:lochner-pw-01\Documents\Projects\000020201\6.0 CAD\General\I20201-SHT-HWL-GEN-STANDARDS.dgn