F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1350	FAU 1350 22 BJ	COOK	56	1
	ILLINOIS	CONTRACT NO. 62T39		

08–04–2023 LETTING ITEM 018

FOR INDEX OF SHEETS, SEE SHEET NO. 2

PROJECT LOCATED IN THE CITY OF DES PLAINES AND THE VILLAGE OF ROSEMONT

TRAFFIC DATA

FUNCTION CLASSIFICATION: MINOR ARTERIAL
ADT = 16,500 (2021)
DESIGN SPEED: 40 MPH
SPEED LIMIT: 40 MPH

RICHARD K. ALLENDER III
062-054436
ILLINOIS PROFESSIONAL ENGINEER
STATE OF ILLINOIS

Expires: 11/30/2023 01/17/2023

1-20, 42-56 PAGES

MICHAEL H SCHRADER
62-48163
REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS

Expires: 11/30/2023 01/17/2023

21-28 PAGES

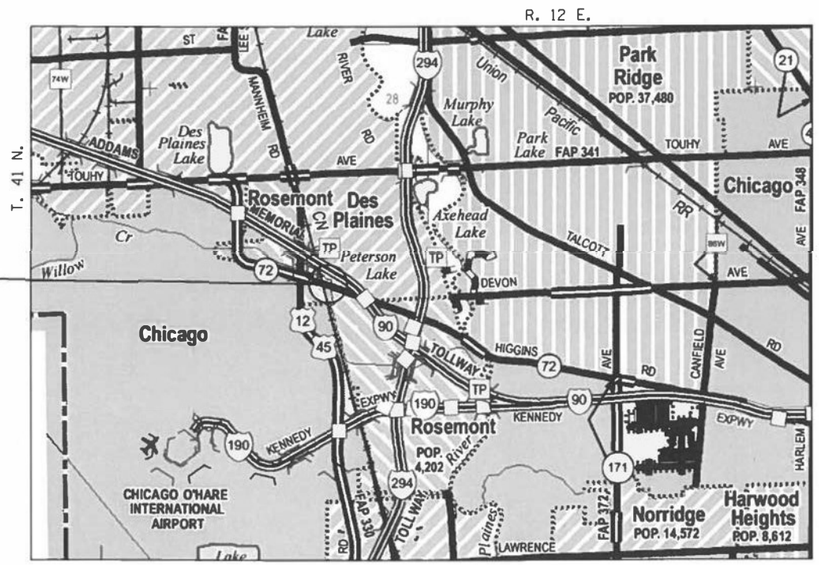
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
PROPOSED
HIGHWAY PLANS

F.A.U. ROUTE 1350
IL 72 (HIGGINS ROAD) OVER WILLOW CREEK
SECTION: FAU 1350 22 BJ
PROJECT: NHPP–0IZT(148)
BRIDGE DECK OVERLAY, BRIDGE JOINT AND SLAB REPAIR
COUNTY: COOK

C–91–346–22

D–91–292–22

LOCATION OF SECTION INDICATED THUS: –



PROJECT BEGINS
STA. 10+54.85

BRIDGE
S.N. 016–2533

PROJECT ENDS
STA. 8+67.09

N

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

design firm no. 184001036
whks
engineers + planners + land surveyors

LOCATION MAP

TOTAL LENGTH =	187.76	FEET	(0.036 MI)
NET LENGTH =	187.76	FEET	(0.036 MI)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED May 8 2023
REGIONAL ENGINEER

June 30, 2023
ENGINEER OF DESIGN AND ENVIRONMENT

June 30, 2023
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

DISTRICT ONE – DESIGN
PROJECT MANAGER : FAWAD AQUEEL, PE, PTOE
PROJECT ENGINEER : VESELIN VELICHKOV (847) 705–4432

CONTRACT NO. 62T39

REV-SEP

INDEX OF SHEETS

HIGHWAY STANDARDS

000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
424001-11	PERPENDICULAR CURB RAMPS FOR SIDEWALKS
424006-05	DIAGONAL CURB RAMPS FOR SIDEWALKS
424021-06	DEPRESSED CORNER FOR SIDEWALKS
515001-04	NAME PLATE FOR BRIDGES
604086-05	FRAME AND GRATE, TYPE 23
606001-08	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
630001-12	STEEL PLATE BEAM GUARDRAIL
630301-09	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631031-18	TRAFFIC BARRIER TERMINAL, TYPE 6
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701311-03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
701427-05	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPERATION, FOR SPEEDS = 40 MPH
701606-10	URBAN SINGLE LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
701611-01	URBAN HALF ROAD CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
701701-10	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701801-06	SIDEWALK, CORNER OR CROSSWALK CLOSURE
701901-08	TRAFFIC CONTROL DEVICES
704001-08	TEMPORARY CONCRETE BARRIER
725001-01	OBJECT AND TERMINAL MARKERS
780001-05	TYPICAL PAVEMENT MARKINGS
781001-04	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS
782006-01	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS
876001-04	PEDESTRIAN PUSH BUTTON POST
878001-11	CONCRETE FOUNDATION DETAILS
886001-01	DETECTOR LOOP INSTALLATIONS
886006-01	TYPICAL LAYOUT FOR DETECTION LOOPS

DISTRICT ONE STANDARDS

BD-32	BUTT JOINTS AND HMA TAPER
TC-10	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS AND DRIVEWAYS
TC-11	RAISED REFLECTIVE PAVEMENT MARKERS (SNOW PLOW RESISTANT)
TC-13	DISTRICT ONE TYPICAL PAVEMENT MARKINGS
TC-16	SHORT-TERM PAVEMENT MARKING LETTERS AND SYMBOLS
TC-22	ARTERIAL ROAD INFORMATION SIGN
TC-26	DRIVEWAY ENTRANCE SIGNING
TS-05	STANDARD TRAFFIC SIGNAL DESIGN DETAILS
TS-07	DETECTOR LOOP INSTALLATION DETAIL FOR ROADWAY RESURFACING

COMMITMENTS

1. CONTRACTOR TO COORDINATE WITH ROSEMONT FIRE STATION NO. 2 , AS ACCESS TO THE STATION HAS TO BE PROVIDED AT ALL TIMES.

GENERAL NOTES

1. FORTY-EIGHT HOURS BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL J.U.L.I.E. (1-800-892-0123) OR 811 TO HAVE THE LOCATION OF EXISTING UTILITIES STAKED.

2 THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS, AS REQUIRED, PRIOR TO COMMENCING WITH CONSTRUCTION.

3. THESE PLANS HAVE BEEN PREPARED FROM NOTES RECEIVED FROM IDOT FIELD MAINTENANCE ENGINEERS.

4. DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.

5. IN ADDITION TO FIELD REVIEW AND AERIAL DATA, PLAN DIMENSIONS AND DETAILS RELATIVE TO THE EXISTING FACILITIES HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY EXISTING DIMENSIONS AND DETAILS AFFECTING NEW CONSTRUCTION AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN THE SCOPE OF THE WORK. HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE BID PRICE FOR THE WORK.

6. THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.

7. SAW CUTTING PRIOR TO ANY REMOVAL ITEMS NOTED ON THE PLANS OR DIRECTED BY THE ENGINEER SHALL BE CONSIDERED INCLUDED IN THE COST OF THE ITEMS BEING REMOVED.

8. THE CONTRACTOR SHALL USE CARE IN REMOVING OR EXCAVATING NEAR ALL EXISTING ITEMS WHICH WILL REMAIN. ANY DAMAGE DONE TO EXISTING ITEMS BY THE CONTRACTOR SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

9. THE CONTRACTOR SHALL CONTACT THE TRAFFIC CONTROL SUPERVISOR AT KALPANA.KANNAN-HOSADURGA@ILLINOIS.GOV A MINIMUM OF 72 HOURS PRIOR TO BEGINNING WORK.

10. THE ENGINEER SHALL CONTACT EMAD ALHUSSEINI, AREA TRAFFIC FIELD ENGINEER, AT EMAD.ALHUSSEINI@ILLINOIS.GOV AT LEAST TWO (2) WEEKS PRIOR TO THE PLACEMENT OF PERMANENT PAVEMENT MARKINGS.

11. ALL DAMAGE TO EXISTING SIGNAGE, PAVEMENT MARKINGS AND REFLECTORS OUTSIDE THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

12. WHEN ARTIFICIAL LIGHTING IS UTILIZED IN NIGHT OPERATIONS, THE CONTRACTOR SHALL EXERCISE THE UTMOST PRECAUTIONS IN PREVENTING ADVERSE VISIBILITY TO THE MOTORING PUBLIC AND ADJOINING RESIDENTIAL AREAS.

13. BEFORE BEGINNING ANY WORK, THE CONTRACTOR SHALL RETAIN AND RECORD FOR FUTURE REFERENCE, ALL EXISTING PAVEMENT MARKING LINES (AND RAISED REFLECTIVE PAVEMENT MARKERS) IN ORDER THAT THESE LOCATIONS CAN BE RE-ESTABLISHED FOR STRIPING. EXACT LOCATIONS OF ALL PAVEMENT MARKINGS SHALL BE AS DIRECTED BY THE ENGINEER.

14. THE CONTRACTOR AND THE ENGINEER SHALL CONTACT THE VILLAGE OF ROSEMONT DIRECTOR OF PUBLIC UTILITIES (LISA DIMATTEO 847-698-3744 OR DIMATTEO@VILLAGEOFROSEMONT.ORG) AT LEAST ONE WEEK PRIOR TO THE PLACEMENT OF ANY TRAFFIC CONTROL DEVICES.

15. THE CONTRACTOR SHALL BE REQUIRED TO KEEP A RECORD OF THE LOCATIONS OF PLATED STRUCTURES BY STATION AND OFFSET LEFT OR RIGHT OF THE CENTERLINE OF THE PAVEMENT.

16. FOR WORK OUTSIDE THE LIMITS OF BRIDGE APPROACH PAVEMENT, ALL REFERENCES IN THE HIGHWAY STANDARDS AND STANDARD SPECIFICATIONS FOR REINFORCEMENT, DOWEL BARS AND TIE BARS IN PAVEMENT, SHOULDERS, CURB, GUTTER, COMBINATION CURB AND GUTTER AND MEDIAN, AND CHAIR SUPPORTS FOR CRC PAVEMENT, SHALL BE EPOXY COATED, UNLESS NOTED ON THE PLANS.

17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE NOTIFICATION OF ALL EMERGENCY SERVICES, SCHOOL DISTRICTS, IDOT'S COMMUNICATION CENTER, SPRINGFIELD TRUCK PERMIT SECTION AND OTHER AGENCIES AFFECTED BY THE CLOSURE. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR POSTING SIGNS THAT WILL INDICATE THE DATES THE CLOSURE WILL BE IN PLACE.

18. THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ACCESS TO ABUTTING PROPERTY AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT.

19. DURING CONSTRUCTION OPERATIONS, LOOSE MATERIAL DEPOSITS THAT OBSTRUCT THE FLOW OF WATER DRAINING AN AREA, SHALL BE REMOVED BEFORE THE END OF EACH WORK DAY.

20. THE CONTRACTOR SHALL PROVIDE MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION (1 EACH PER LOCATION) AT US 12/45 (MANHEIM RD., DEVON CT. (WILLOW CREEK HEALTH CLUB ENTRANCE)) AND SCOTT ST.

design firm no. 184001036 whks engineers + planners + land surveyors	USER NAME = bjohnson	DESIGNED - BJJ	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INDEX OF SHEETS, HIGHWAY STANDARDS, AND GENERAL NOTES IL 72 (HIGGINS ROAD) OVER WILLOW CREEK
		DRAWN - GSJ	REVISED -		
	PLOT SCALE = 100.0000 ' / in.	CHECKED - CWC	REVISED -		
	PLOT DATE = 6/20/2023	DATE - 6/20/2023	REVISED -		SCALE: 1" = 50' | SHEET 1 OF 1 SHEETS | STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1350	FAU 1350 22 BJ	COOK	56	2
		CONTRACT NO.62T39		
	ILLINOIS	FED. AID PROJECT		

CODE NO.	ITEM	UNIT	URBAN TOTAL QUANTITY	CONSTR. CODE 80% FEDERAL 20% STATE BRIDGE 0047 S.N. 016-2533
20200100	EARTH EXCAVATION	CU YD	36	36
21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	40	40
25200110	SODDING, SALT TOLERANT	SQ YD	40	40
28000510	INLET FILTERS	EACH	1	1
31101200	SUBBASE GRANULAR MATERIAL, TYPE B 4"	SQ YD	129	129
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	236	236
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	510	510
40604172	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "E", N70	TON	106	106
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	1591	1591
42400800	DETECTABLE WARNINGS	SQ FT	73	73
44000100	PAVEMENT REMOVAL	SQ YD	12	12
44000156	HOT-MIX ASPHALT SURFACE REMOVAL, 1 3/4"	SQ YD	355	355
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	429	429
44000600	SIDEWALK REMOVAL	SQ FT	1355	1355

* SPECIALTY ITEMS

design firm no. 184001036 whks engineers + planners + land surveyors

USER NAME = gjameson	DESIGNED - BJJ	REVISED -
	DRAWN - GSJ	REVISED -
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PLOT DATE = 4/27/2023	DATE - 4/27/2023	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
IL 72 (HIGGINS ROAD) OVER WILLOW CREEK

SCALE: 1" = 50' | SHEET 1 OF 7 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1350	FAU 1350 22 BJ	COOK	56	3
		CONTRACT NO.62T39		
	ILLINOIS FED. AID PROJECT			

REV-SEP

				CONSTR. CODE
				80% FEDERAL 20% STATE
CODE NO.	ITEM	UNIT	URBAN TOTAL QUANTITY	BRIDGE 0047 S.N. 016-2533
50102400	CONCRETE REMOVAL	CU YD	0.9	0.9
50300100	FLOOR DRAINS	EACH	3	3
50300255	CONCRETE SUPERSTRUCTURE	CU YD	1.6	1.6
50300260	BRIDGE DECK GROOVING	SQ YD	223	223
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	1480	1480
60256930	MANHOLES TO BE ADJUSTED WITH NEW TYPE 23 FRAME AND GRATE	EACH	1	1
60300305	FRAMES AND LIDS TO BE ADJUSTED	EACH	4	4
60600605	CONCRETE CURB, TYPE B	FOOT	22	22
60603800	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	291	291
60605000	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	147	147
* 63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	13	13
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	1	1
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	1	1
63200310	GUARDRAIL REMOVAL	FOOT	38	38

* SPECIALTY ITEMS

	CODE NO.	ITEM	UNIT	URBAN TOTAL QUANTITY	CONSTR. CODE 80% FEDERAL 20% STATE BRIDGE 0047 S.N. 016-2533
*	66900200	NON-SPECIAL WASTE DISPOSAL	CU YD	20	20
*	66900530	SOIL DISPOSAL ANALYSIS	EACH	2	2
*	66901001	REGULATED SUBSTANCES PRE-CONSTRUCTION PLAN	L SUM	1	1
*	66901003	REGULATED SUBSTANCES FINAL CONSTRUCTION REPORT	L SUM	1	1
*	66901006	REGULATED SUBSTANCES MONITORING	CAL DA	2	2
	67100100	MOBILIZATION	L SUM	1	1
	70107025	CHANGEABLE MESSAGE SIGN	CAL DA	90	90
	70300100	SHORT TERM PAVEMENT MARKING	FOOT	384	384
	70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	1701	1701
	70300251	TEMPORARY PAVEMENT MARKING - LINE 8" - PAINT	FOOT	350	350
	70307100	TEMPORARY PAVEMENT MARKING LETTERS AND SYMBOLS - TYPE IV TAPE	SQ FT	104	104
	70307120	TEMPORARY PAVEMENT MARKING - LINE 4" - TYPE IV TAPE	FOOT	2515	2515
	70307130	TEMPORARY PAVEMENT MARKING - LINE 6" - TYPE IV TAPE	FOOT	653	653
	70307160	TEMPORARY PAVEMENT MARKING - LINE 12"- TYPE IV TAPE	FOOT	114	114
	70307210	TEMPORARY PAVEMENT MARKING - LINE 24"- TYPE IV TAPE	FOOT	95	95

* SPECIALTY ITEMS

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
IL 72 (HIGGINS ROAD) OVER WILLOW CREEK

SCALE: 1" = 50' | SHEET 3 OF 7 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1350	FAU 1350 22 BJ	COOK	56	5
		CONTRACT NO.62T39		
	ILLINOIS FED. AID PROJECT			

REV-SEP

	CODE NO.	ITEM	UNIT	URBAN TOTAL QUANTITY	CONSTR. CODE 80% FEDERAL 20% STATE BRIDGE 0047 S.N. 016-2533
	70400100	TEMPORARY CONCRETE BARRIER	FOOT	175	175
	70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	175	175
	70600255	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 2	EACH	2	2
	70600322	IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE, NARROW), TEST LEVEL 2	EACH	2	2
*	72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	2	2
*	78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	104	104
*	78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	2875	2875
*	78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	653	653
*	78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	114	114
*	78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	95	95
*	78004635	PREFORMED PLASTIC PAVEMENT MARKING, TYPE D - STANDARD - LINE 7"	FOOT	20	20
*	78009004	MODIFIED URETHANE PAVEMENT MARKING - LINE 4"	FOOT	97	97
*	78011040	GROOVING FOR RECESSED PAVEMENT MARKING 8"	FOOT	20	20
*	78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	82	82

* SPECIALTY ITEMS

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engineers + planners + land surveyors

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
IL 72 (HIGGINS ROAD) OVER WILLOW CREEK

SCALE: 1" = 50' | SHEET 4 OF 7 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1350	FAU 1350 22 BJ	COOK	56	6
		CONTRACT NO.62T39		
		ILLINOIS FED. AID PROJECT		

REV-SEP

	CODE NO.	ITEM	UNIT	URBAN TOTAL QUANTITY	CONSTR. CODE: 80% FEDERAL 20% STATE; BRIDGE; 0047; S.N. 016-2533
*	78200006	GUARDRAIL REFLECTORS, TYPE B	EACH	8	8
*	78200011	BARRIER WALL REFLECTORS, TYPE C	EACH	14	14
	78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	82	82
	78300202	PAVEMENT MARKING REMOVAL - WATER BLASTING	SQ FT	1589	1589
*	81028200	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	93	93
*	85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	3	3
*	87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	686	686
*	87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	716	716
*	87900200	DRILL EXISTING HANDHOLE	EACH	6	6
*	88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	6	6
*	88600100	DETECTOR LOOP, TYPE I	FOOT	259	259
*	88600600	DETECTOR LOOP REPLACEMENT	FOOT	117	117
*	89000100	TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1	1

* SPECIALTY ITEMS

	CODE NO.	ITEM	UNIT	URBAN TOTAL QUANTITY	CONSTR. CODE 80% FEDERAL 20% STATE BRIDGE 0047 S.N. 016-2533
*	89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	1300	1300
*	89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1	1
	X0320050	CONSTRUCTION LAYOUT (SPECIAL)	L SUM	1	1
*	X1400367	PEDESTRIAN SIGNAL POST, 10 FT.	EACH	6	6
☐	X5537800	STORM SEWERS TO BE CLEANED 12"	FOOT	50	50
	X5870015	BRIDGE DECK CONCRETE SEALER	SQ FT	2826	2826
*	X6330725	STEEL PLATE BEAM GUARDRAIL (SHORT RADIUS)	FOOT	13	13
*	X6330900	VERTICAL ADJUSTMENT OF GUARDRAIL	FOOT	38	38
	X6700407	ENGINEER'S FIELD OFFICE, TYPE A (D1)	CAL MO	6	6
*	X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1
*	X8760200	ACCESSIBLE PEDESTRIAN SIGNALS	EACH	6	6
*	X8780012	CONCRETE FOUNDATION, TYPE A 12-INCH DIAMETER	FOOT	24	24
	Z0001800	APPROACH SLAB REPAIR (PARTIAL DEPTH)	SQ YD	31	31
	Z0004552	APPROACH SLAB REMOVAL	SQ YD	5	5

* SPECIALTY ITEMS

☐ NON-PART 100% STATE

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design firm no. 184001036 — whks engineers + planners + land surveyors

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
IL 72 (HIGGINS ROAD) OVER WILLOW CREEK

SCALE: 1" = 50' | SHEET 6 OF 7 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1350	FAU 1350 22 BJ	COOK	56	8
		CONTRACT NO.62T39		
	ILLINOIS FED. AID PROJECT			

REV-SEP

					CONSTR. CODE
					80% FEDERAL 20% STATE
	CODE NO.	ITEM	UNIT	URBAN TOTAL QUANTITY	BRIDGE 0047 S.N. 016-2533
	Z0006012	BRIDGE DECK LATEX CONCRETE OVERLAY, 2 1/4 INCHES	SQ YD	230	230
	Z0012130	BRIDGE DECK SCARIFICATION 3/4"	SQ YD	232	232
	Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	8	8
	Z0012755	STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 INCHES)	SQ FT	9	9
	Z0016002	DECK SLAB REPAIR (FULL DEPTH, TYPE II)	SQ YD	38	38
□	Z0018500	DRAINAGE STRUCTURES TO BE CLEANED	EACH	1	1
	Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	64.5	64.5
*	Z0033044	RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 1	EACH	1	1
	Z0041895	POLYMER CONCRETE	CU FT	3.8	3.8
	Z0062458	TEMPORARY PAVEMENT (VARIABLE DEPTH)	TON	29	29
*	Z0073510	TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1	1
Ø	Z0076600	TRAINEES	HOURS	500	500
Ø	Z0076604	TRAINEES - TRAINING PROGRAM GRADUATE	HOURS	500	500

* SPECIALTY ITEMS

Ø 0042

□ NON-PART 100% STATE

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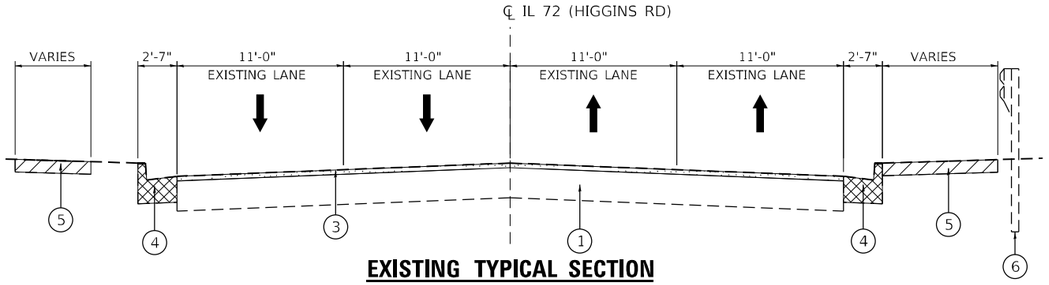
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
IL 72 (HIGGINS ROAD) OVER WILLOW CREEK

SCALE: 1" = 50' | SHEET 7 OF 7 SHEETS | STA. | TO STA.

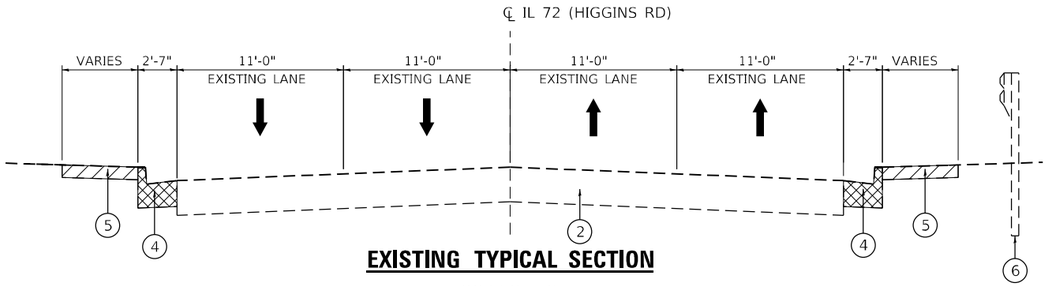
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1350	FAU 1350 22 BJ	COOK	56	9
		CONTRACT NO.62T39		
	ILLINOIS FED. AID PROJECT			

REV-SEP



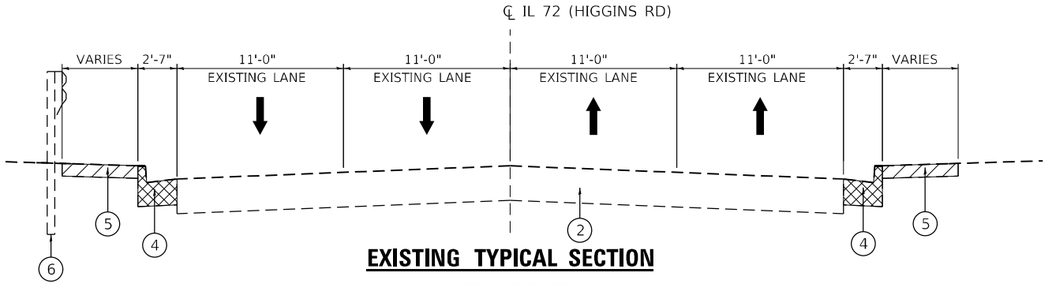
EXISTING TYPICAL SECTION

(LOOKING EAST)
STA. 10+54.85 TO STA. 10+19.85



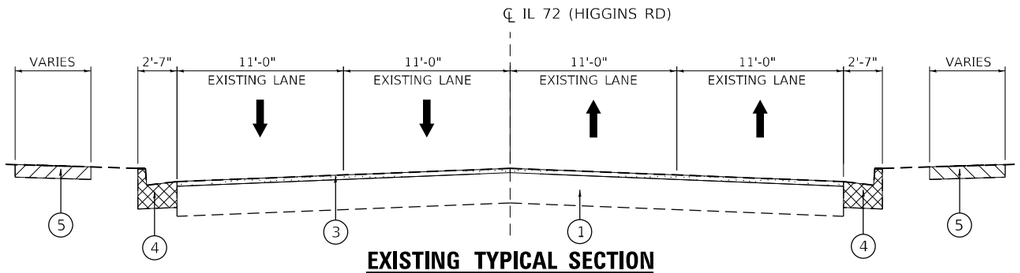
EXISTING TYPICAL SECTION

(LOOKING EAST)
STA. 10+19.85 TO STA. 9+99.85



EXISTING TYPICAL SECTION

(LOOKING EAST)
STA. 9+56.35 TO STA. 9+36.35



EXISTING TYPICAL SECTION

(LOOKING EAST)
STA. 9+36.35 TO STA. 8+67.09

LEGEND

1. EXISTING HMA PAVEMENT
2. EXISTING CONCRETE APPROACH SLAB
3. HMA SURFACE REMOVAL - BUTT JOINT
4. COMBINATION CURB AND GUTTER REMOVAL
5. SIDEWALK REMOVAL
6. EXISTING GUARDRAIL
7. POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "E", N70 (1¾")
8. PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH
9. COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24
10. PAVEMENT MARKING - LINE 4"
11. SUBBASE GRANULAR MATERIAL, TYPE B 4"
12. PROPOSED GUARDRAIL

design firm no. 184001036 whks engineers + planners + land surveyors

USER NAME = gjameson	DESIGNED - BJJ	REVISED -
	DRAWN - GSJ	REVISED -
PLOT SCALE = 120.0000 ' / ft.	CHECKED - CWC	REVISED -
PLOT DATE = 4/27/2023	DATE - 4/27/2023	REVISED -

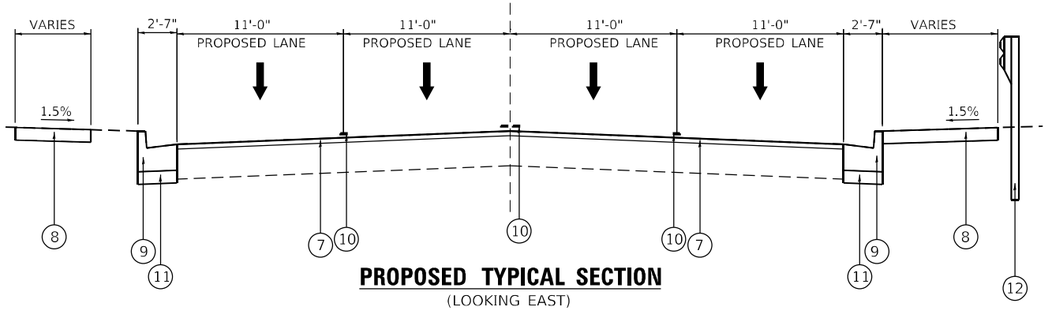
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS
IL 72 (HIGGINS ROAD) OVER WILLOW CREEK

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1350	FAU 1350 22 BJ	COOK	56	10
		CONTRACT NO.62T39		
	ILLINOIS	FED. AID PROJECT		

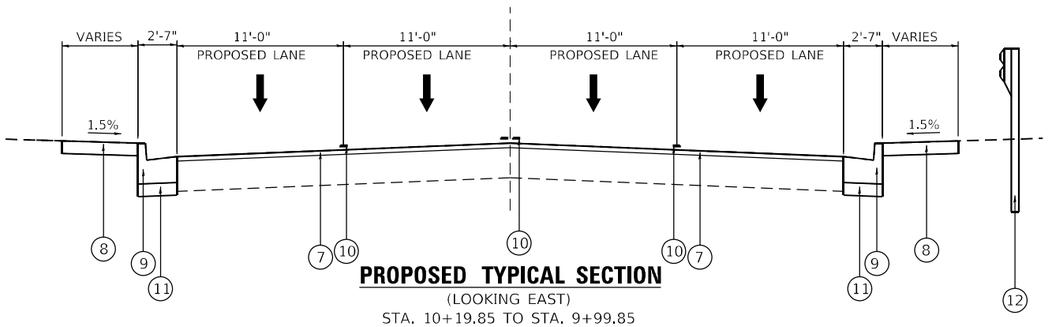
℄ IL 72 (HIGGINS RD)



PROPOSED TYPICAL SECTION

(LOOKING EAST)

STA. 10+54.85 TO STA. 10+19.85

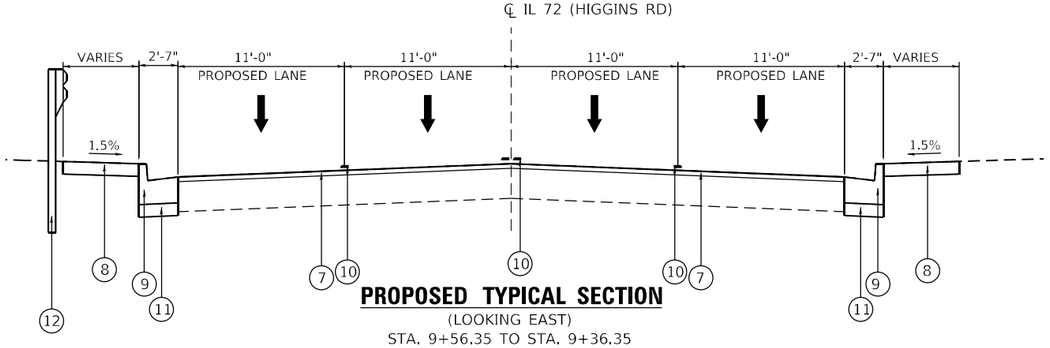


PROPOSED TYPICAL SECTION

(LOOKING EAST)

STA. 10+19.85 TO STA. 9+99.85

℄ IL 72 (HIGGINS RD)

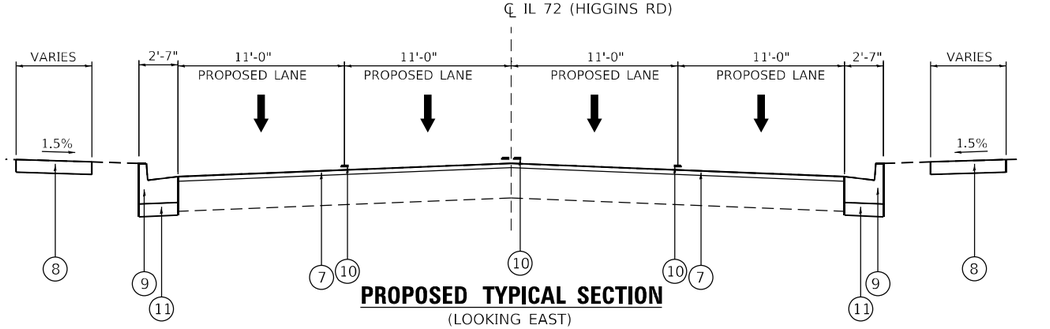


PROPOSED TYPICAL SECTION

(LOOKING EAST)

STA. 9+56.35 TO STA. 9+36.35

℄ IL 72 (HIGGINS RD)



PROPOSED TYPICAL SECTION

(LOOKING EAST)

STA. 9+36.35 TO STA. 8+67.09

LEGEND

1. EXISTING HMA PAVEMENT
2. EXISTING CONCRETE APPROACH SLAB
3. HMA SURFACE REMOVAL - BUTT JOINT
4. COMBINATION CURB AND GUTTER REMOVAL
5. SIDEWALK REMOVAL
6. EXISTING GUARDRAIL
7. POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "E", N70 (1¾")
8. PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH
9. COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24
10. PAVEMENT MARKING - LINE 4"
11. SUBBASE GRANULAR MATERIAL, TYPE B 4"
12. PROPOSED GUARDRAIL

MIXTURE TYPE	AIR VOIDS @ N.	QMP
SURFACE COURSE		
POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "E", N70 (1.75")	4% @ 70 GYR.	QC/QA
TEMPORARY PAVEMENT (VARIABLE DEPTH)		
HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N70	4% @ 70 GYR.	QC/QA
QMP DESIGNATIONS: QUALITY CONTROL/QUALITY ASSURANCE (QC/QA); QUALITY CONTROL FOR PERFORMANCE (QCP); PAY FOR PERFORMANCE (PFP)		

NOTES:

1 THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN.

2 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 RECLAIMED MATERIALS SPECIFICATIONS.

3 SEE BUTT JOINT AND HMA TAPER DETAILS FOR ADDITIONAL NOTES AND DETAILS.

MODEL: Default
FILE NAME: c:\sp\whks & co\obs-spring - projects\IDOT D-118793.21 IL 72 Deck Overlay (WO-42)\CADD\CAD Sheets\D 62T39-dh-TYP.dgn

design firm no. 184001036 whks engineers + planners + land surveyors

USER NAME = gjameson	DESIGNED - BJJ	REVISED -	**STATE OF ILLINOIS**	**TYPICAL SECTIONS**	
	DRAWN - GSJ	REVISED -	**DEPARTMENT OF TRANSPORTATION**	**IL 72 (HIGGINS ROAD) OVER WILLOW CREEK**	
PLOT SCALE = 120.0000 ' / ft.	CHECKED - CWC	REVISED -		SCALE: 1" = 10' | SHEET 2 OF 2 SHEETS | STA. TO STA.	
PLOT DATE = 4/27/2023	DATE - 4/27/2023	REVISED -			

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1350	FAU 1350 22 BJ	COOK	56	11
		CONTRACT NO.62T39		
		ILLINOIS | FED. AID PROJECT		

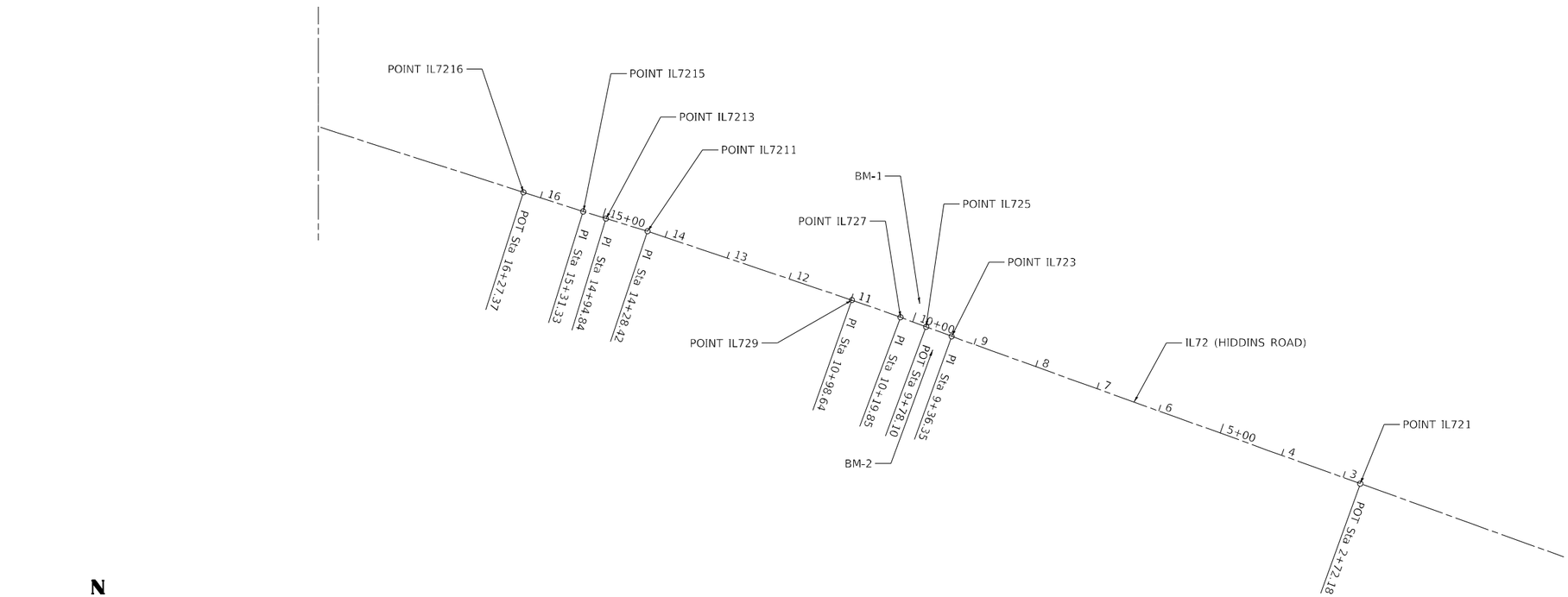
Beginning chain BL_B descriptionBeginning chain IL72 description
Feature: Geom_Ex_Centerline

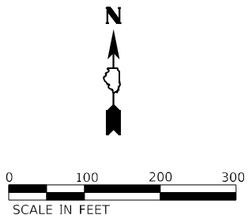
Point IL721	N	1,941,574.725	E	1,108,312.324	Sta 2+72.18
Course from IL721 to IL723 N 70° 10' 15.6" W Dist 664.166					
Point IL723	N	1,941,800.019	E	1,107,687.537	Sta 9+36.35
Course from IL723 to IL725 N 69° 30' 53.9" W Dist 41.750					
Point IL725	N	1,941,814.630	E	1,107,648.427	Sta 9+78.10
Course from IL725 to IL727 N 69° 30' 53.9" W Dist 41.750					
Point IL727	N	1,941,829.241	E	1,107,609.317	Sta 10+19.85
Course from IL727 to IL729 N 70° 30' 52.3" W Dist 78.788					
Point IL729	N	1,941,855.522	E	1,107,535.042	Sta 10+98.64
Course from IL729 to IL7211 N 71° 21' 58.7" W Dist 329.780					
Point IL7211	N	1,941,960.892	E	1,107,222.549	Sta 14+28.42
Course from IL7211 to IL7213 N 73° 03' 36.2" W Dist 66.419					
Point IL7213	N	1,941,980.245	E	1,107,159.012	Sta 14+94.84
Course from IL7213 to IL7215 N 72° 39' 15.0" W Dist 36.491					
Point IL7215	N	1,941,991.124	E	1,107,124.181	Sta 15+31.33
Course from IL7215 to IL7216 N 72° 13' 33.7" W Dist 96.048					
Point IL7216	N	1,942,020.444	E	1,107,032.718	Sta 16+27.37

Ending chain IL72 description

BM -1
STA. 9+99.85, 30.00' RT. IL72 (HIDDINS ROAD)
TOP OF NORTHWEST CORNER OF NORTHWEST PARAPET
ELEV=638.12

BM -2
STA. 9+56.35, 30.00' LT. IL72 (HIDDINS ROAD)
TOP OF SOUTHEAST CORNER OF SOUTHEAST PARAPET
ELEV=638.11





NOTE: HORIZONTAL CONTROL BASED ON ILLNOIS
STATE PLANE COORDINATES, EAST ZONE, NAD83.

MODEL: Default
FILE NAME: c:\sp\whks & co\obs-Spring - Projects\IDOT D-1\18793.21 IL 72 Deck Overlay (WO-42)\CADD\CAD Sheets\ID 62T39-ILH-ATB.dgn

design firm no. 184001036 whks engineers + planners + land surveyors

USER NAME = gjameson		DESIGNED - BJJ		REVISED -	
		DRAWN - GSJ		REVISED -	
PLOT SCALE = 2400.0000 ' / ft.		CHECKED - CWC		REVISED -	
PLOT DATE = 4/27/2023		DATE - 4/27/2023		REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ALIGNMENT LAYOUT
IL 72 (HIGGINS ROAD) OVER WILLOW CREEK

SCALE: 1" = 100' | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1350	FAU 1350 22 BJ	COOK	56	12
		CONTRACT NO.62T39		
	ILLINOIS FED. AID PROJECT			

LEGEND

- HMA SURFACE REMOVAL - BUTT JOINT
- SIDEWALK REMOVAL
- APPROACH SLAB REPAIR (PARTIAL DEPTH)
- COMBINATION CURB & GUTTER REMOVAL
- HMA SURFACE REMOVAL, 1¾
- APPROACH SLAB REMOVAL
- PAVEMENT REMOVAL
- GUARDRAIL REMOVAL
- (A) FRAMES AND LIDS TO BE ADJUSTED

IL 72 (HIGGINS RD)

1700 HIGGINS ENTRANCE

DEVON CT.

WILLOW CREEK

32'-COMBINATION CURB & GUTTER REMOVAL

265 SQ FT SIDEWALK REMOVAL

139 SQ YD HMA SURFACE REMOVAL, 1¾

56'-COMBINATION CURB & GUTTER REMOVAL

38'-VERTICAL ADJUSTMENT OF GUARDRAIL

171 SQ YD HMA SURFACE REMOVAL - BUTT JOINT

78 SQ FT SIDEWALK REMOVAL

5 SQ YD APPROACH SLAB REMOVAL

34'-COMBINATION CURB & GUTTER REMOVAL

150 SQ FT SIDEWALK REMOVAL

90'-COMBINATION CURB & GUTTER REMOVAL

PROJECT ENDS STA. 8+67.09

69.26'

SAWCUT 1¾"

10+00

SN 016-2533 SEE PLANS FOR DETAILS

PROJECT BEGINS STA. 10+54.85

35.00'

SAWCUT 1¾"

STA. 9+46, 17.5' LT

90'-COMBINATION CURB & GUTTER REMOVAL

339 SQ YD HMA SURFACE REMOVAL - BUTT JOINT

37'-COMBINATION CURB & GUTTER REMOVAL

35'-COMBINATION CURB & GUTTER REMOVAL

100 SQ FT SIDEWALK REMOVAL

183 SQ FT SIDEWALK REMOVAL

126 SQ YD HMA SURFACE REMOVAL, 1¾

12 SQ YD PAVEMENT REMOVAL

EARTH EXCAVATION/NON-SPECIAL WASTE DISPOSAL (TYPICAL AT LOCATIONS FOR PCC SIDEWALK, CURB & GUTTER).

302 SQ FT SIDEWALK REMOVAL

38'-GUARDRAIL REMOVAL

55'-COMBINATION CURB & GUTTER REMOVAL

N

0 20 40 60

SCALE IN FEET

MODEL: Default
FILE NAME: C:\SP\WHKS & CO\Idot-Spring - Projects\IDOT D-1\8793.21 IL 72 Deck Overlay (WO-42)\CADD\CAD Sheets\D162T39-sht-pln_EX.dgn

design firm no. 184001036 whks engineers + planners + land surveyors

USER NAME = gjameson	DESIGNED - BJJ	REVISED -	
	DRAWN - GSJ	REVISED -	
PLOT SCALE = 480.0000 ' / ft.	CHECKED - CWC	REVISED -	
PLOT DATE = 4/28/2023	DATE - 4/28/2023	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROADWAY EXISTING CONDITION
IL 72 (HIGGINS ROAD) OVER WILLOW CREEK

SCALE: 1" = 20' | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1350	FAU 1350 22 BJ	COOK	56	13
		CONTRACT NO.62T39		
		ILLINOIS	FED. AID PROJECT	

PAVEMENT ELEVATIONS				
POINT	STATION	OFFSET	EX ELEV	PR ELEV
1	8+67.09	21.89	636.30	636.30
2	8+67.09	0.00	636.20	636.20
3	8+67.09	-22.00	635.52	635.52
4	8+82.77	-22.00	635.44	635.45
5	9+00.00	0.00	636.10	636.11
6	9+36.10	22.00	635.45	635.75
7	9+36.35	0.00	635.88	636.00
8	9+36.35	-22.00	635.40	635.67
9	9+56.35	22.00	635.38	635.62
10	9+56.35	0.00	635.72	635.95
11	9+56.35	-22.00	635.43	635.62
12	09+99.85	22.00	635.38	635.61
13	09+99.85	0.00	635.77	635.94
14	09+99.85	-22.00	635.38	635.61
15	10+19.85	22.00	635.35	635.50
16	10+19.85	0.00	635.84	635.99
17	10+20.23	-22.00	635.30	635.45
18	10+54.85	22.19	635.06	635.06
19	10+54.85	0.00	635.66	635.66
20	10+54.85	-21.33	635.03	635.03

* QUANTITY INTENDED TO REPAIR ANY DAMAGED EXISTING GUARDRAIL. DELETE ITEM IF NOT NEEDED.

1700 HIGGINS ENTRANCE

IL 72 (HIGGINS RD)

SUBBASE GRANULAR MATERIAL, TYPE B 4" (TYP. UNDER PCC CURB & GUTTER).

277 SQ FT P.C.C. SIDEWALK, 5 INCH

56'-COMB CONC CURB & GUTTER, TY B-6.24

POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "E", N70 (1¾") (27 TONS)

*12.5' SPBG (SHORT RADIUS)

33'-COMB CONC CURB & GUTTER, TY B-6.12

GUARDRAIL REFLECTORS, TYPE B

20 SQ FT DETECTABLE WARNINGS

38'-VERTICAL ADJUSTMENT OF GUARDRAIL

113 SQ FT P.C.C. SIDEWALK, 5 INCH

BM-1

POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "E", N70 (1¾") (22 TONS)

39'-COMB CONC CURB & GUTTER, TY B-6.12

22'-CONRETE CURB, TYPE B

10 SQ FT DETECTABLE WARNINGS

183 SQ FT P.C.C. SIDEWALK, 5 INCH

10 SQ FT DETECTABLE WARNINGS

90'-COMB CONC CURB & GUTTER, TY B-6.24

PROJECT ENDS STA. 8+67.09

PROJECT BEGINS STA. 10+54.85

22.19'
35.00'
22.00'
21.26'
22.00'
22.00'
22.00'
69.26'
21.89'
22.00'
22.00'
22.00'
10+00
5.00'
10'
28'
6.00'

317 SQ FT P.C.C. SIDEWALK, 5 INCH

40 SQ YD TOPSOIL FURNISH AND PLACE, 4"
40 SQ YD SODDING, SALT TOLERANT (USED AT LOCATIONS WHERE EXISTING TURF IS DISTURBED)

55'-COMB CONC CURB & GUTTER, TY B-6.24

1 EA-TRAFFIC BARRIER TERMINAL, TYPE 6
12.5' STEEL PLATE BEAM GUARDRAIL
1 EA-TRAFFIC BARRIER TERMINAL, TYPE 1

GUARDRAIL REFLECTORS, TYPE B

BM-2

35'-COMB CONC CURB & GUTTER, TY B-6.12

240 SQ FT P.C.C. SIDEWALK, 5 INCH

13 SQ FT DETECTABLE WARNINGS

90'-COMB CONC CURB & GUTTER, TY B-6.24

POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "E", N70 (1¾") (44 TONS)

10 SQ FT DETECTABLE WARNINGS

40'-COMB CONC CURB & GUTTER, TY B-6.12

162 SQ FT P.C.C. SIDEWALK, 5 INCH

10 SQ FT DETECTABLE WARNINGS

POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "E", N70 (1¾") (13 TONS)

A — MANHOLE TBA WITH NEW TYPE 23 FRAME AND GRATE GUTTER FLOWLINE ELEV. = 635.31

DEVON CT.

WILLOW CREEK

N

0 20 40 60

SCALE IN FEET

MODEL: Default
FILE NAME: C:\SRV\HKS & CO\Jobs-Spring - Projects\IDOT D-18793,21 IL 72 Deck Overlay IWO-12\CADD\CAD Sheets\D162T39-plt-PLN_PR.dgn

design firm no. 184001036 whks engineers + planners + land surveyors

USER NAME = gjameson	DESIGNED - BJJ	REVISED -	**STATE OF ILLINOIS**	**ROADWAY PROPOSED PLAN**
	DRAWN - GSJ	REVISED -	**DEPARTMENT OF TRANSPORTATION**	**IL 72 (HIGGINS ROAD) OVER WILLOW CREEK**
PLOT SCALE = 480.0000 ' / ft.	CHECKED - CWC	REVISED -		SCALE: 1" = 20' | SHEET 1 OF 1 SHEETS | STA. TO STA.
PLOT DATE = 4/28/2023	DATE - 4/28/2023	REVISED -		

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1350	FAU 1350 22 BJ	COOK	56	14
		CONTRACT NO.62T39		
	ILLINOIS	FED. AID PROJECT		

TRAFFIC CONTROL GENERAL NOTES

1. THE CONTRACTOR SHALL NOT MOUNT SIGNS ON EXISTING SIGNS.
2. CONTRACTOR SHALL MAINTAIN SATISFACTORY INGRESS AND EGRESS TO ADJACENT PROPERTIES THROUGHOUT THE CONSTRUCTION.
3. ALL TEMPORARY PAVEMENT MARKINGS SHALL BE PAVEMENT MARKING TAPE, TYPE IV OR AS OTHERWISE NOTED.
4. REMOVAL OF TEMPORARY PAVEMENT MARKINGS SHALL BE PAID FOR AS SHORT TERM PAVEMENT MARKING REMOVAL.
5. EXISTING, CONFLICTING PAVEMENT MARKINGS SHALL BE REMOVED. THIS WORK SHALL BE PAID FOR AS PAVEMENT MARKING REMOVAL - WATER BLASTING.
6. THE EXISTING PAVEMENT MARKINGS THAT HAVE BEEN REMOVED SHALL BE REPLACED. SEE PAVEMENT MARKING PLAN FOR TYPE.
7. A MONO-DIRECTIONAL FLASHING AMBER BEACON SHALL BE MOUNTED ON THE FIRST THREE WARNING SIGNS ON EACH APPROACH.
8. TEMPORARY CONCRETE BARRIER SHALL BE PLACED AS SHOWN ON THE SUGGESTED TRAFFIC CONTROL AND PROTECTION PLAN AND IN CONJUNCTION WITH STANDARD 704001.
9. CHANGEABLE MESSAGE SIGNS SHALL BE INSTALLED TWO WEEKS PRIOR TO ALL TRAFFIC STAGE CHANGES ON EACH APPROACH OF THE EFFECTED ROADWAY TO WARN MOTOTISTS OF THE UPCOMING EVENT. THE SIGN MESSAGES SHALL BE REVISED TWO WEEKS THEREAFTER WITH MESSAGES WARNING TRAFFIC OF POTENTIAL TRAFFIC DELAYS, QUEING AND/OR WITH MESSAGES NOTTIFYING TRAFFIC TO USE ALTERNATE ROUTES. THE SIGN LOCATIONS AND MESSAGES SHALL BE DETERMINED BY THE ENGINEER.

SUGGESTED STAGING AND MAINTENANCE OF TRAFFIC

CONSTRUCTION STAGING

STAGE I
WESBOUND HALF OF BRIDGE: SCARIFY; REPAIR DECK AND APPROACH SLABS; PLACE LATEX CONCRETE OVERLAY. NORTH HALF OF ROADWAY: REMOVE AND REPLACE SIDEWALK AND COMBINATION CONCRETE CURB AND GUTTER.

STAGE II
EASTBOUND HALF OF BRIDGE: SCARIFY; REPAIR DECK, APPROACH SLABS AND BRIDGE JOINTS; PLACE LATEX CONCRETE OVERLAY. SOUTH HALF OF ROADWAY: REMOVE AND REPLACE SIDEWALK AND COMBINATION CONCRETE CURB AND GUTTER.

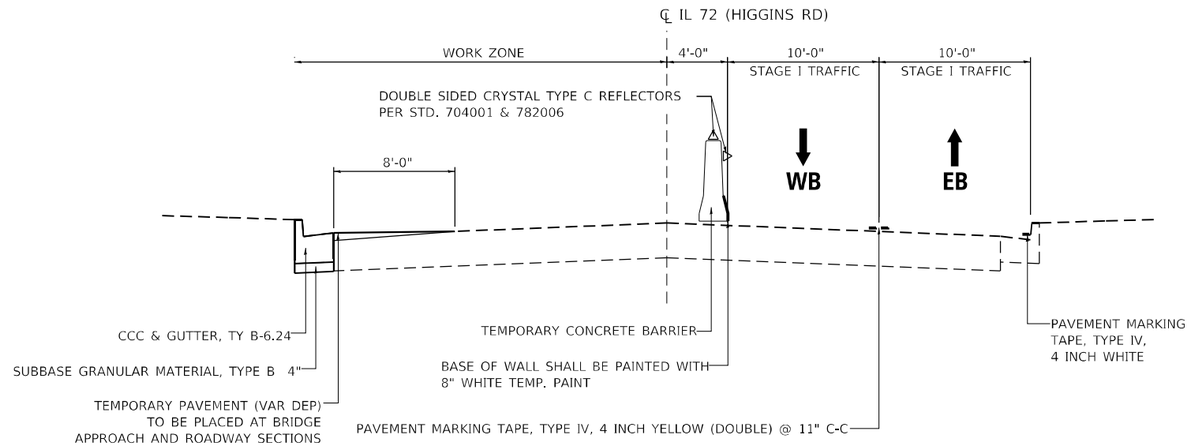
OVERLAY APPROACH SLABS AND EXISTING PAVEMENT AT THE END OF STAGE II.

MAINTENANCE OF TRAFFIC

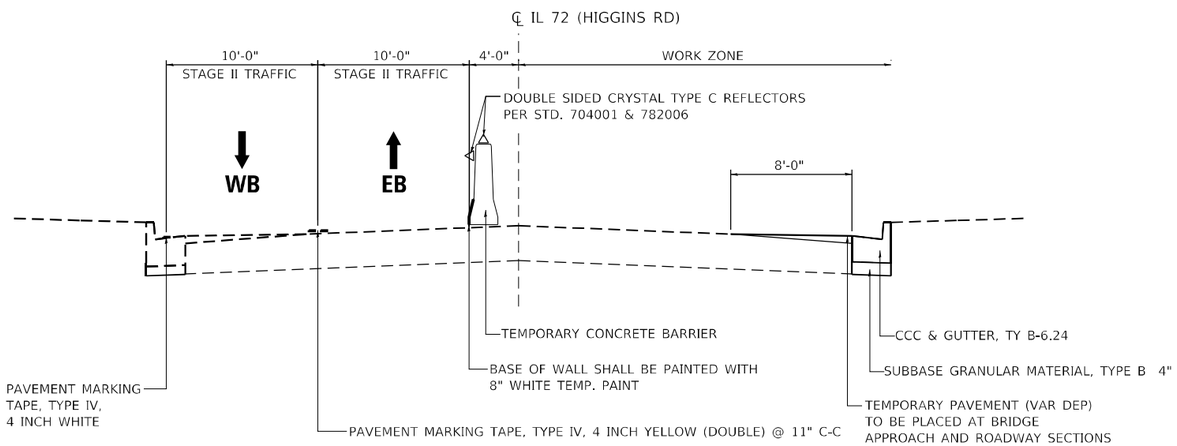
STAGE I
UTILIZE SUGGESTED TRAFFIC CONTROL & PROTECTION - STAGE I PLANS.
MAINTAIN TWO-LANE TWO-WAY TRAFFIC ON EASTBOUND PAVEMENT ACROSS BRIDGE. MAINTAIN SIGNALIZED INTERSECTION.
REMOVE CONFLICTING EXISTING PAVEMENT MARKINGS.
CLOSE SIDEWALK ON NORTH UTILIZING IDOT HIGHWAY STANDARD 701801.

STAGE II
UTILIZE SUGGESTED TRAFFIC CONTROL & PROTECTION - STAGE II PLANS.
MAINTAIN TWO-LANE TWO-WAY TRAFFIC ON WESTBOUND PAVEMENT ACROSS BRIDGE. MAINTAIN SIGNALIZED INTERSECTION.
REMOVE CONFLICTING EXISTING PAVEMENT MARKINGS.
CLOSE SIDEWALK ON SOUTH UTILIZING IDOT HIGHWAY STANDARD 701801.

USE LANE CLOSURES TO OVERLAY APPROACH SLABS AND PAVEMENT AT THE END OF STAGE II UTILIZING IDOT HIGHWAY STANDARD 701606 OR 701701.



MAINTENANCE OF TRAFFIC – STAGE I
(THRU CURBED SECTION)
(LOOKING EAST)



MAINTENANCE OF TRAFFIC – STAGE II
(THRU CURBED SECTION)
(LOOKING EAST)

design firm no. 184001036 whks engineers + planners + land surveyors

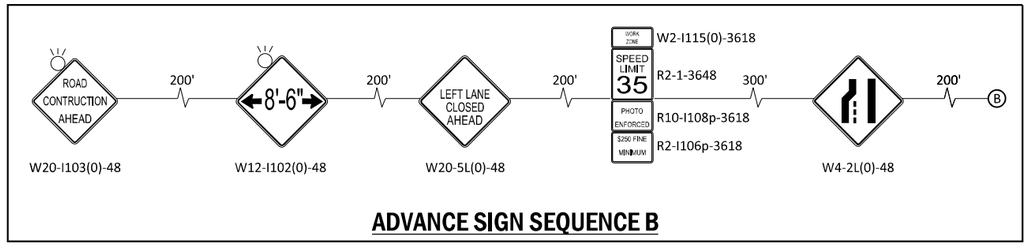
USER NAME = gjameson	DESIGNED - BJJ	REVISED -	
	DRAWN - GSJ	REVISED -	
PLOT SCALE = 1200.0000 ' / ft.	CHECKED - CWC	REVISED -	
PLOT DATE = 6/21/2023	DATE - 6/21/2023	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC NOTES & SEQUENCE OF CONSTRUCTION
IL 72 (HIGGINS ROAD) OVER WILLOW CREEK

SCALE: 1" = 50' | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1350	FAU 1350 22 BJ	COOK	56	15
		CONTRACT NO.62T39		
	ILLINOIS	FED. AID PROJECT		



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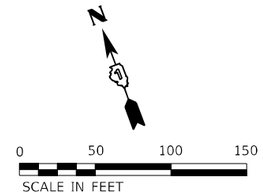
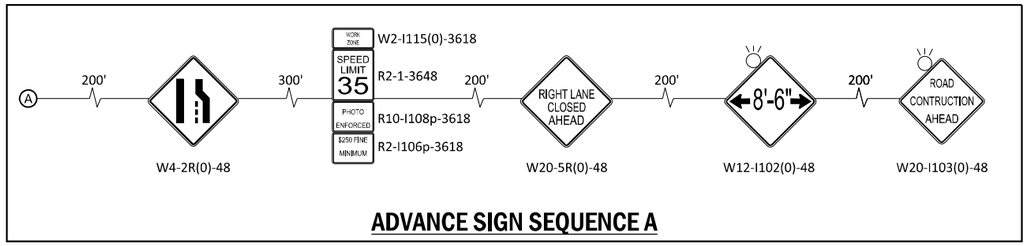
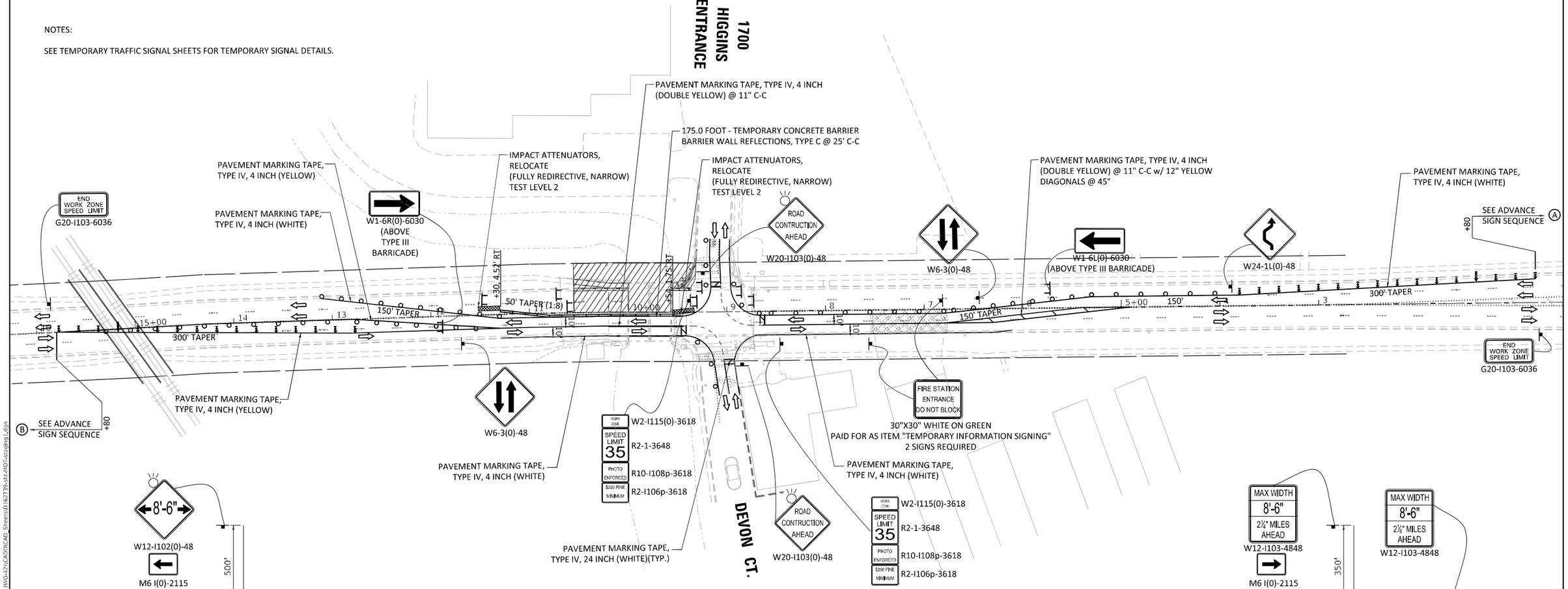




ADVANCE SIGN SEQUENCE A

NOTES:

SEE TEMPORARY TRAFFIC SIGNAL SHEETS FOR TEMPORARY SIGNAL DETAILS.



TRAFFIC CONTROL AND STAGING LEGEND

- DRUMS @ 25 FT CENTERS ALONG TANGENT AND 20 FT CENTERS ALONG TANGENT
- DIRECTION INDICATOR BARRICADES @ 20' C-C WITH STEADY BURN LIGHTS
- TYPE III BARRICADES WITH FLASHING BURNING LIGHTS
- WORK AREA
- ARROW BOARD
- SIGN
- IMPACT ATTENUATOR, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 2
- TEMPORARY CONCRETE BARRIER WALL WITH DOUBLE SIDED TYPE C CRYSTAL MARKERS PER STDS. 704001 & 782006

IL 72 (HIGGINS RD) & US 12/45 (MANHEIM RD)

MAX WIDTH SIGNS SHALL REMAIN INSTALLED UNTIL THE COMPLETION OF STAGE 2

IL 72 (HIGGINS RD) & IL 171 (CUMBERLAND AVE.)

MAX WIDTH SIGNS SHALL REMAIN INSTALLED UNTIL THE COMPLETION OF STAGE 2

MODEL: Default
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design firm no. 184001036 — whks engineers + planners + land surveyors

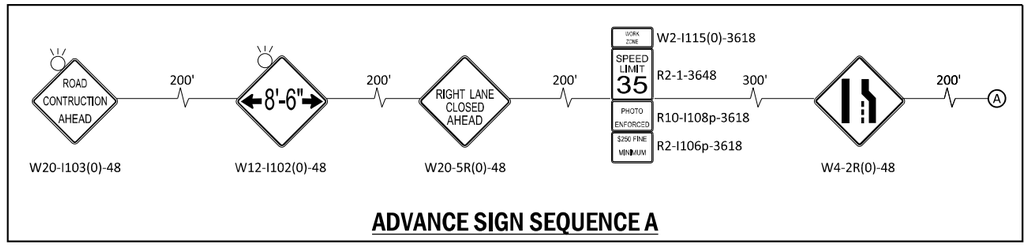
USER NAME = gjameson	DESIGNED - BJJ	REVISED -	
	DRAWN - GSJ	REVISED -	
PLOT SCALE = 1200.0000 ' / in.	CHECKED - CWC	REVISED -	
PLOT DATE = 6/21/2023	DATE - 6/21/2023	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

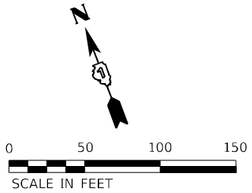
SUGGESTED TRAFFIC CONTROL AND PROTECTION – STAGE I
IL 72 (HIGGINS ROAD) OVER WILLOW CREEK

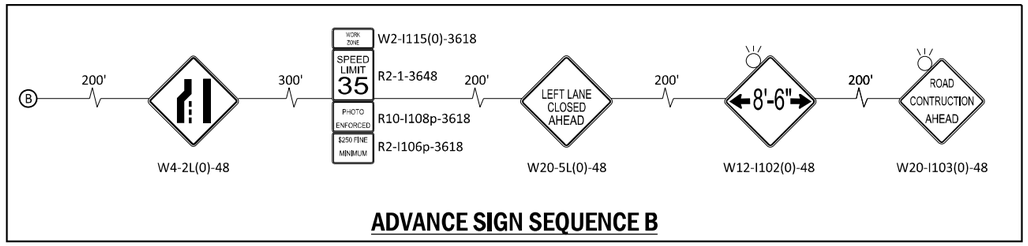
SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1350	FAU 1350 22 BJ	COOK	56	16
		CONTRACT NO.62T39		
		ILLINOIS	FED. AID PROJECT	



ADVANCE SIGN SEQUENCE A





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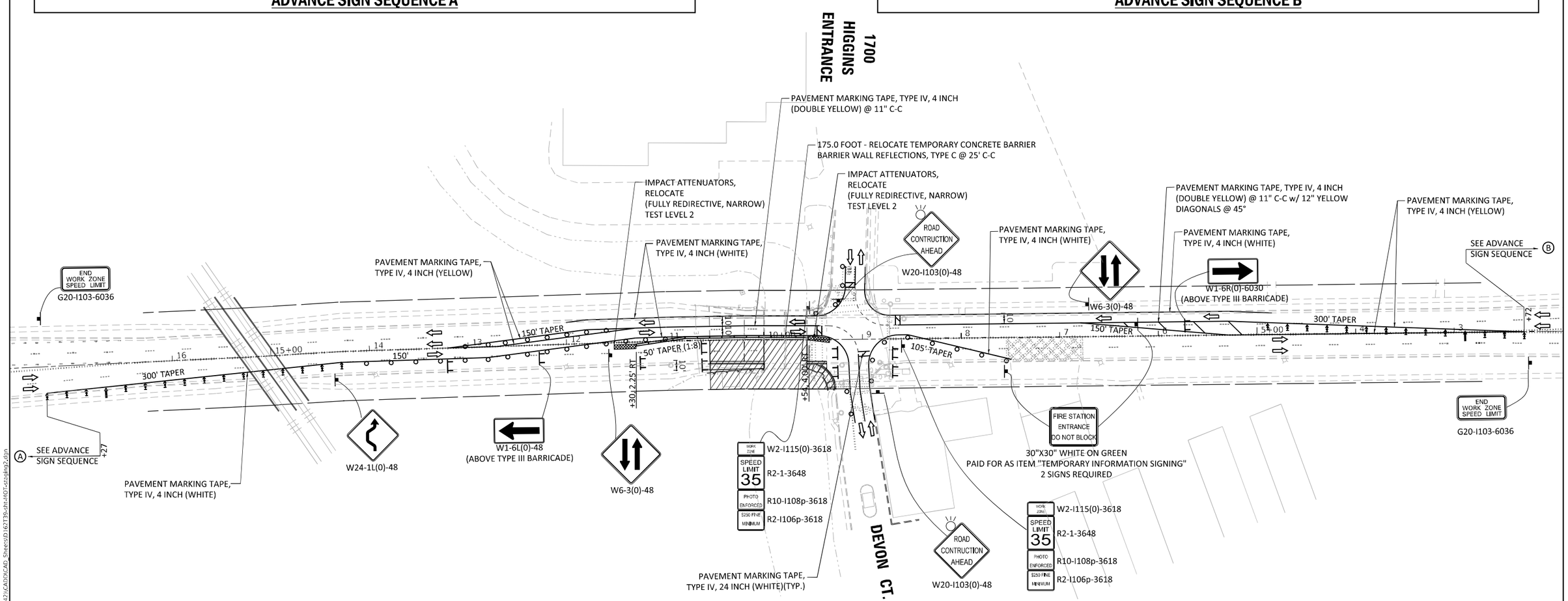

TRAFFIC CONTROL AND STAGING LEGEND

- DRUMS @ 25 FT CENTERS ALONG TANGENT AND 20 FT CENTERS ALONG TANGENT
- DIRECTION INDICATOR BARRICADES @ 20' C-C WITH STEADY BURN LIGHTS
- TYPE III BARRICADES WITH FLASHING BURNING LIGHTS
- WORK AREA
- ARROW BOARD
- SIGN
- IMPACT ATTENUATOR, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 2
- TEMPORARY CONCRETE BARRIER WALL WITH DOUBLE SIDED TYPE C CRYSTAL MARKERS PER STDS. 704001 & 782006

MODEL: Default
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design firm no. 184001036
whks
engineers + planners + land surveyors

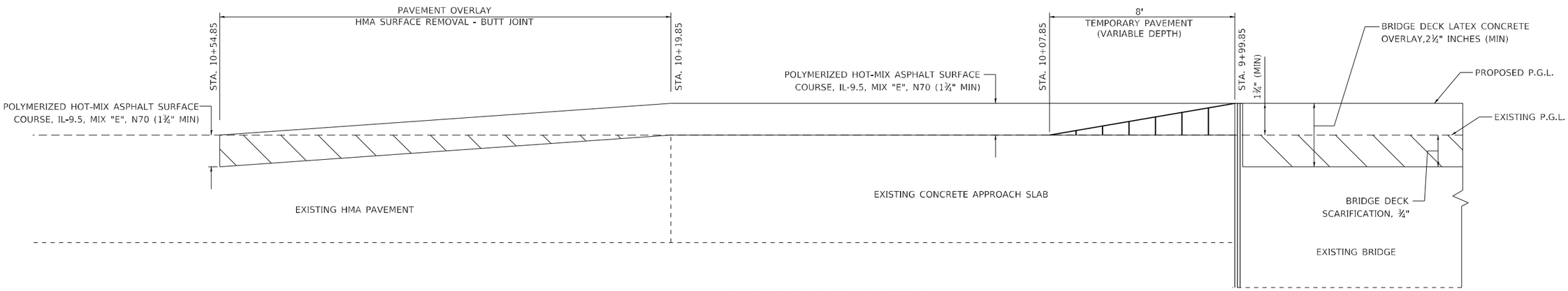
USER NAME = gjameson	DESIGNED - BJJ	REVISED -	
	DRAWN - GSJ	REVISED -	
PLOT SCALE = 1200.0000 ' / ft.	CHECKED - CWC	REVISED -	
PLOT DATE = 6/21/2023	DATE - 6/21/2023	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

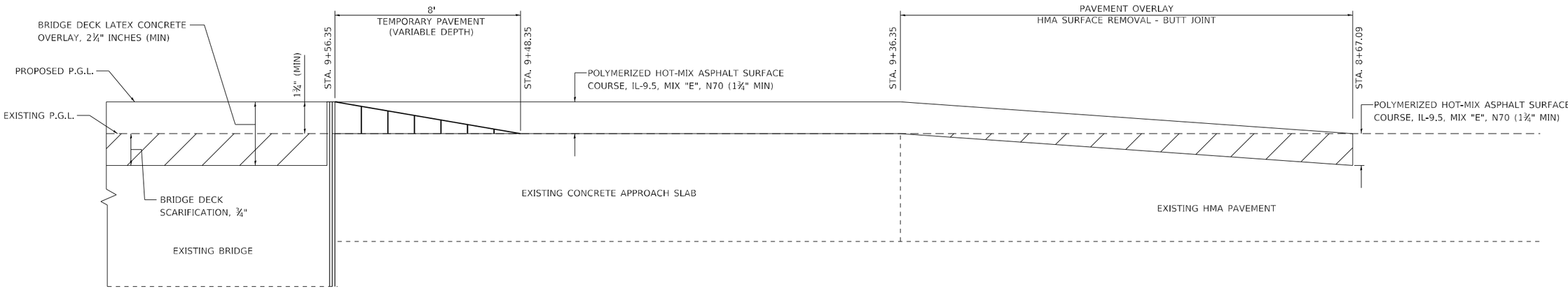
SUGGESTED TRAFFIC CONTROL AND PROTECTION – STAGE II
IL 72 (HIGGINS ROAD) OVER WILLOW CREEK

SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1350	FAU 1350 22 BJ	COOK	56	17
		CONTRACT NO.62T39		
	ILLINOIS	FED. AID PROJECT		



PAVEMENT OVERLAY DETAIL
(WESTSIDE)



PAVEMENT OVERLAY DETAIL
(EASTSIDE)

MODEL: Default
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design firm no. 184001036 — whks engineers + planners + land surveyors

USER NAME = gjameson	DESIGNED - BJJ	REVISED -
	DRAWN - GSJ	REVISED -
PLOT SCALE = 1200.0000 ' / ft.	CHECKED - CWC	REVISED -
PLOT DATE = 4/27/2023	DATE - 4/27/2023	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT OVERLAY DETAIL
IL 72 (HIGGINS ROAD) OVER WILLOW CREEK

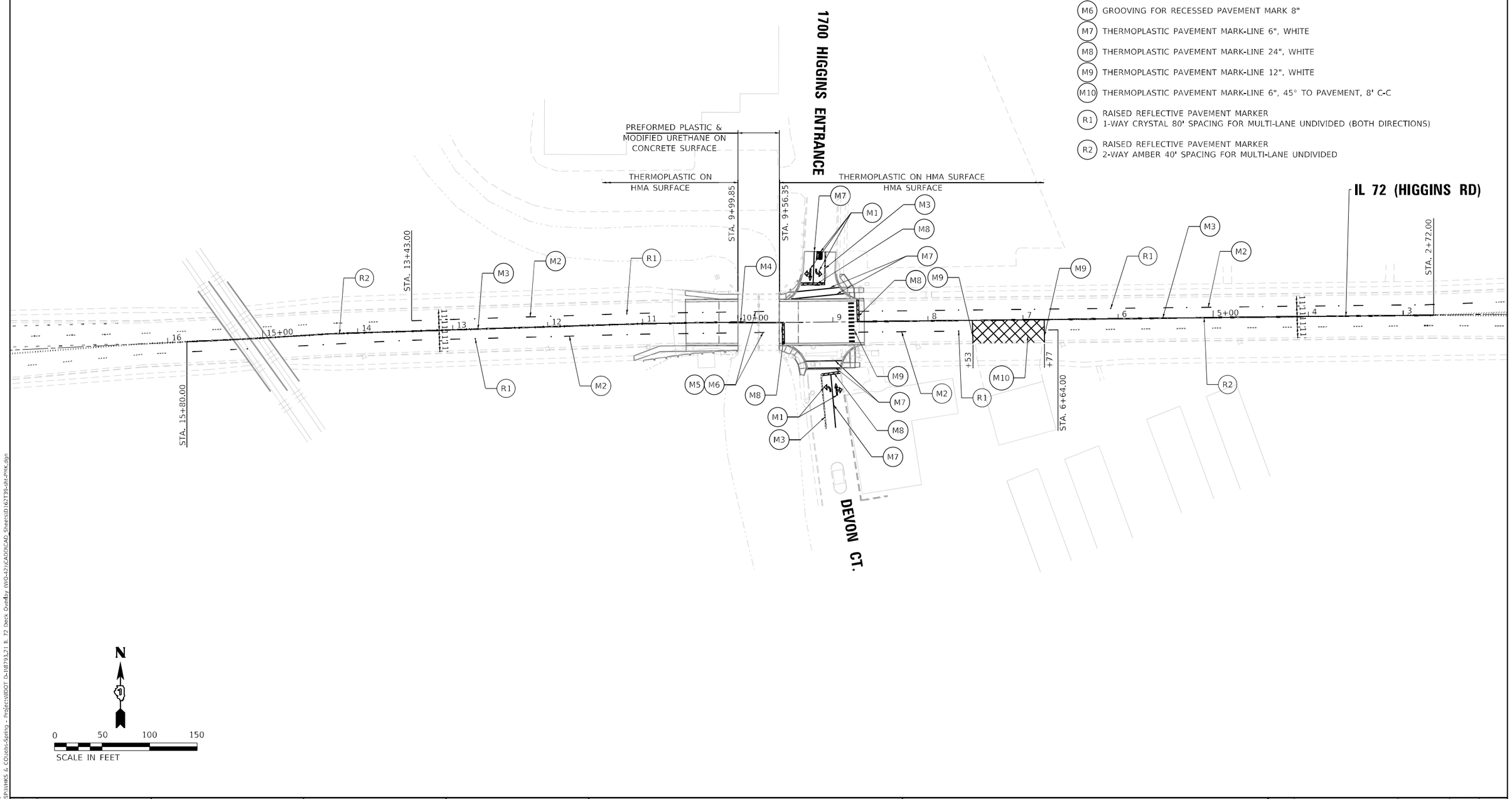
SCALE: 1" = 50' | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1350	FAU 1350 22 BJ	COOK	56	18
		CONTRACT NO.62T39		
	ILLINOIS	FED. AID PROJECT		

NOTE:
RAISED REFLECTIVE PAVEMENT MARKERS SHALL
BE REMOVED AND NOT REPLACED WITHIN BRIDGE LIMITS.

LEGEND

- (M1) THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS
- (M2) THERMOPLASTIC PAVEMENT MARK-LINE 4", WHITE (10' DASH-30' SKIP)
- (M3) THERMOPLASTIC PAVEMENT MARK-LINE 4", YELLOW (DOUBLE SOLID 11" C-C)
- (M4) MODIFIED URETHANE PAVEMENT MARK-LINE 4", YELLOW (DOUBLE SOLID 11" C-C)
- (M5) PREFORMED PLASTIC PAVEMENT MARK, TYPE B-INLAID-LINE 7" WHITE (10' DASH-30' SKIP)
- (M6) GROOVING FOR RECESSED PAVEMENT MARK 8"
- (M7) THERMOPLASTIC PAVEMENT MARK-LINE 6", WHITE
- (M8) THERMOPLASTIC PAVEMENT MARK-LINE 24", WHITE
- (M9) THERMOPLASTIC PAVEMENT MARK-LINE 12", WHITE
- (M10) THERMOPLASTIC PAVEMENT MARK-LINE 6", 45° TO PAVEMENT, 8' C-C
- (R1) RAISED REFLECTIVE PAVEMENT MARKER
  1-WAY CRYSTAL 80' SPACING FOR MULTI-LANE UNDIVIDED (BOTH DIRECTIONS)
- (R2) RAISED REFLECTIVE PAVEMENT MARKER
  2-WAY AMBER 40' SPACING FOR MULTI-LANE UNDIVIDED



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design firm no. 184001036 whks engineers + planners + land surveyors

USER NAME = gjameson	DESIGNED - BJJ	REVISED -	
	DRAWN - GSJ	REVISED -	
PLOT SCALE = 1200.0000 ' / ft.	CHECKED - CWC	REVISED -	
PLOT DATE = 6/20/2023	DATE - 6/20/2023	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

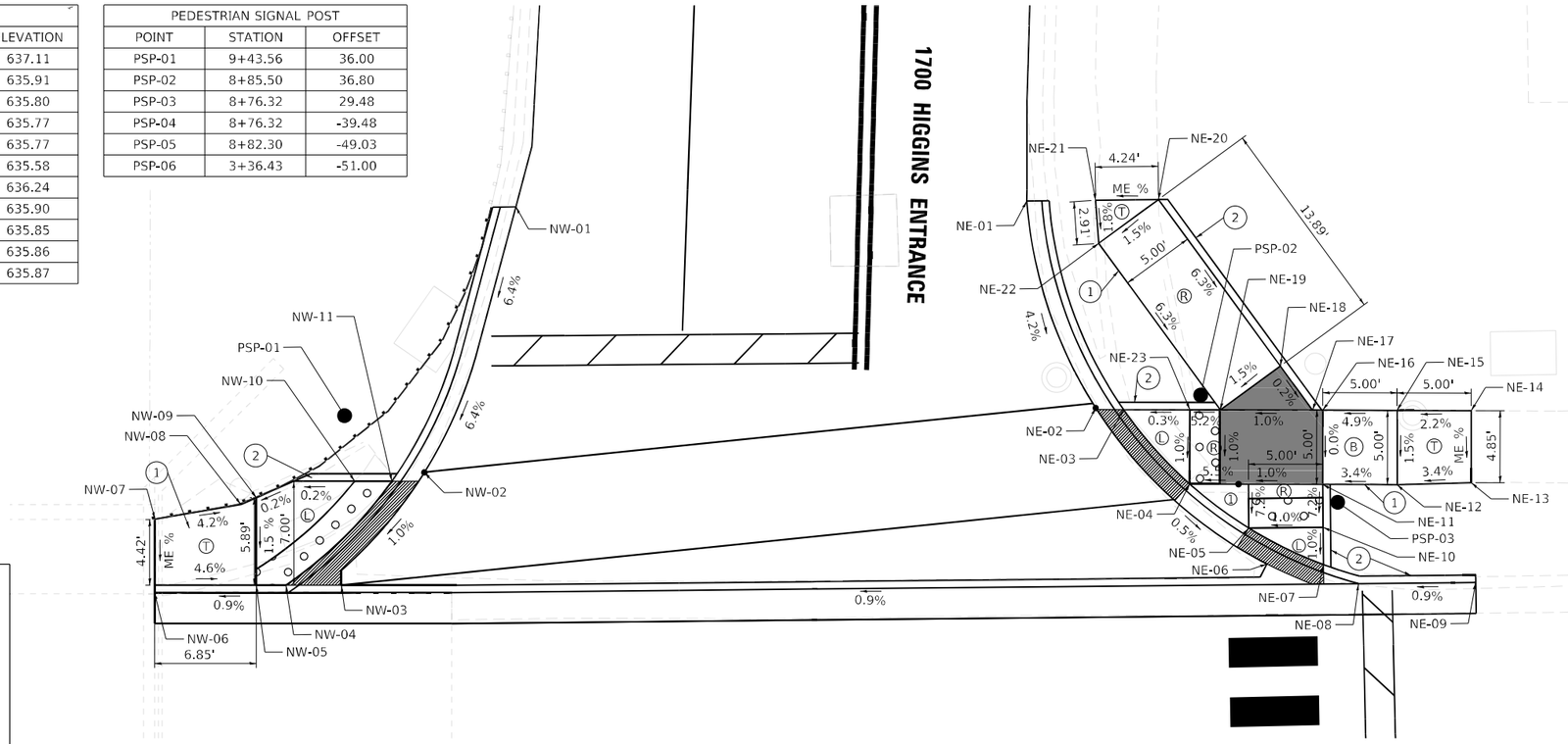
PAVEMENT MARKING PLAN
IL 72 (HIGGINS ROAD) OVER WILLOW CREEK

SCALE: 1" = 50' | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1350	FAU 1350 22 BJ	COOK	56	19
		CONTRACT NO.62T39		
	ILLINOIS FED. AID PROJECT			

NORTHWEST QUADRANT			
POINT	STATION	OFFSET	ELEVATION
NW-01	9+31.46	50.00	637.11
NW-02	9+38.19	32.17	635.91
NW-03	9+43.78	24.58	635.80
NW-04	9+47.51	24.58	635.77
NW-05	9+49.50	24.58	635.77
NW-06	9+56.35	24.08	635.58
NW-07	9+56.33	29.03	636.24
NW-08	9+50.54	30.01	635.90
NW-09	9+49.51	30.47	635.85
NW-10	9+42.88	31.58	635.86
NW-11	9+40.38	31.58	635.87

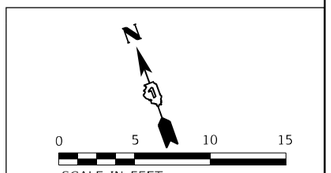
PEDESTRIAN SIGNAL POST		
POINT	STATION	OFFSET
PSP-01	9+43.56	36.00
PSP-02	8+85.50	36.80
PSP-03	8+76.32	29.48
PSP-04	8+76.32	-39.48
PSP-05	8+82.30	-49.03
PSP-06	3+36.43	-51.00



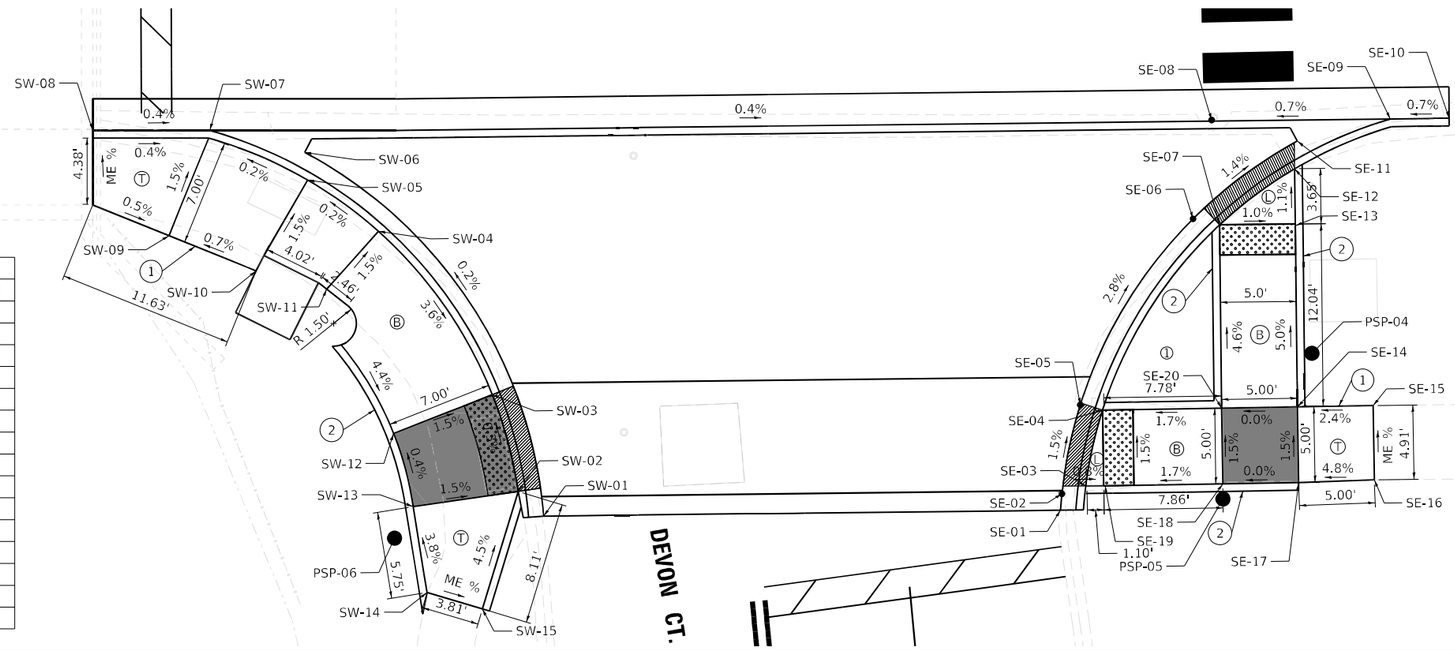
LEGEND

- ① PCC SIDEWALK 5 INCH
- ② TYPE B CURB
- Ⓛ LANDING
- Ⓡ RAMP
- Ⓑ BLENDED TRANSITION
- Ⓣ TRANSITION PANEL
- DETECTABLE WARNING
- DEPRESSED CURB AND GUTTER
- TURNING SPACE
- % PROPOSED FINISHED SLOPE
- ME % MATCH EXISTING SLOPE
- PEDESTRIAN SIGNAL POST

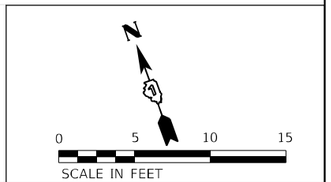
NORTHEAST QUADRANT			
POINT	STATION	OFFSET	ELEVATION
NE-01	8+97.03	50.00	637.08
NE-02	8+92.55	36.02	636.46
NE-03	8+90.67	35.88	636.43
NE-04	8+86.28	30.82	636.40
NE-05	8+82.32	27.80	636.37
NE-06	8+81.13	25.38	636.38
NE-07	8+77.32	25.29	636.40
NE-08	8+74.98	23.98	636.28
NE-09	8+67.09	23.97	636.35
NE-10	8+77.33	27.80	636.42
NE-11	8+77.32	30.69	636.63
NE-12	8+72.33	30.62	636.79
NE-13	8+67.32	30.69	636.96
NE-14	8+67.25	35.55	636.98
NE-15	8+72.25	35.62	636.87
NE-16	8+77.25	35.69	636.63
NE-17	8+77.94	35.70	636.62
NE-18	8+80.08	38.70	636.63
NE-19	8+84.15	35.79	636.55
NE-20	8+88.15	50.00	637.50
NE-21	8+92.39	50.00	637.48
NE-22	8+92.22	47.09	637.43
NE-23	8+86.21	35.82	636.45



SOUTHWEST QUADRANT			
POINT	STATION	OFFSET	ELEVATION
SW-01	9+27.15	-49.65	635.71
SW-02	9+28.83	-48.00	635.69
SW-03	9+30.46	-41.59	635.67
SW-04	9+37.50	-30.75	636.11
SW-05	9+42.17	-27.36	636.10
SW-06	9+42.37	-25.53	635.66
SW-07	9+48.63	-24.08	636.05
SW-08	9+56.35	-24.08	636.58
SW-09	9+51.32	-31.03	636.16
SW-10	9+45.57	-33.36	636.20
SW-11	9+40.91	-34.56	636.19
SW-12	9+36.49	-44.09	635.78
SW-13	9+35.77	-48.92	635.79
SW-14	9+34.92	-54.61	636.00
SW-15	9+31.28	-55.73	636.05



SOUTHEAST QUADRANT			
POINT	STATION	OFFSET	ELEVATION
SE-01	8+93.03	-49.65	636.18
SE-02	8+92.93	-48.56	636.14
SE-03	8+91.35	-48.07	636.11
SE-04	8+90.19	-43.07	636.03
SE-05	8+91.65	-42.71	636.05
SE-06	8+84.07	-30.52	635.64
SE-07	8+82.32	-30.94	635.61
SE-08	8+82.76	-24.01	635.31
SE-09	8+70.98	-24.08	635.39
SE-10	8+67.09	-24.08	635.41
SE-11	8+77.13	-25.47	635.53
SE-12	8+77.32	-27.29	635.52
SE-13	8+77.33	-31.05	635.56
SE-14	8+77.32	-43.01	636.16
SE-15	8+72.33	-42.98	636.28
SE-16	8+72.30	-47.89	636.47
SE-17	8+77.30	-48.01	636.24
SE-18	8+82.30	-48.03	636.24
SE-19	8+90.08	-48.07	636.10
SE-20	8+82.33	-43.03	636.16



design firm no. 184001036 whks engineers + planners + land surveyors

USER NAME = gjameson		DESIGNED - BJJ		REVISED -	
		DRAWN - GSJ		REVISED -	
PLOT SCALE = 120.0000 ' / ft.		CHECKED - CWC		REVISED -	
PLOT DATE = 4/27/2023		DATE - 4/27/2023		REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SIDEWALK DETAILS
IL 72 (HIGGINS ROAD) OVER WILLOW CREEK

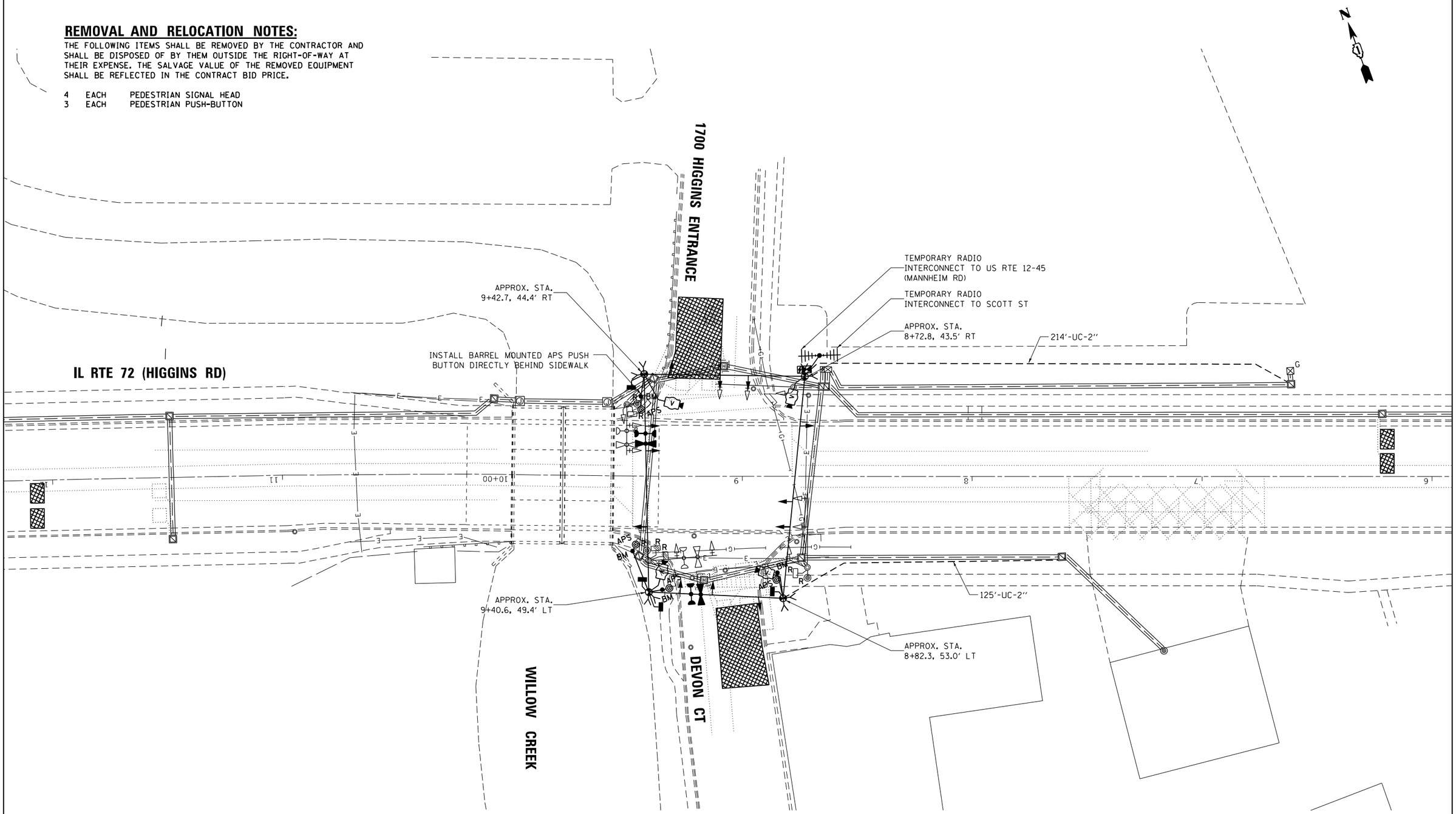
SCALE: 1" = 5' | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1350	FAU 1350 22 BJ	COOK	56	20
		CONTRACT NO.62T39		
	ILLINOIS FED. AID PROJECT			

REMOVAL AND RELOCATION NOTES:

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

4 EACH PEDESTRIAN SIGNAL HEAD
3 EACH PEDESTRIAN PUSH-BUTTON



TS 1102
ECON 146

FILE NAME = K:\PROJECTS\Projects 2022\22-IL72-5085.IL72 PTB189-10W(P43,Millennia WHKS\CADD\Sheets\20_IL Rte 72 @ Willow Creek Health Club Ent_TEMP_INT.dgn

GANDHI AND ASSOCIATES, INC.
ENGINEERS AND PLANNERS
6035 N. NORTHWEST HIGHWAY
SUITE 306
CHICAGO, ILLINOIS 60631 TEL.(773)774-5900

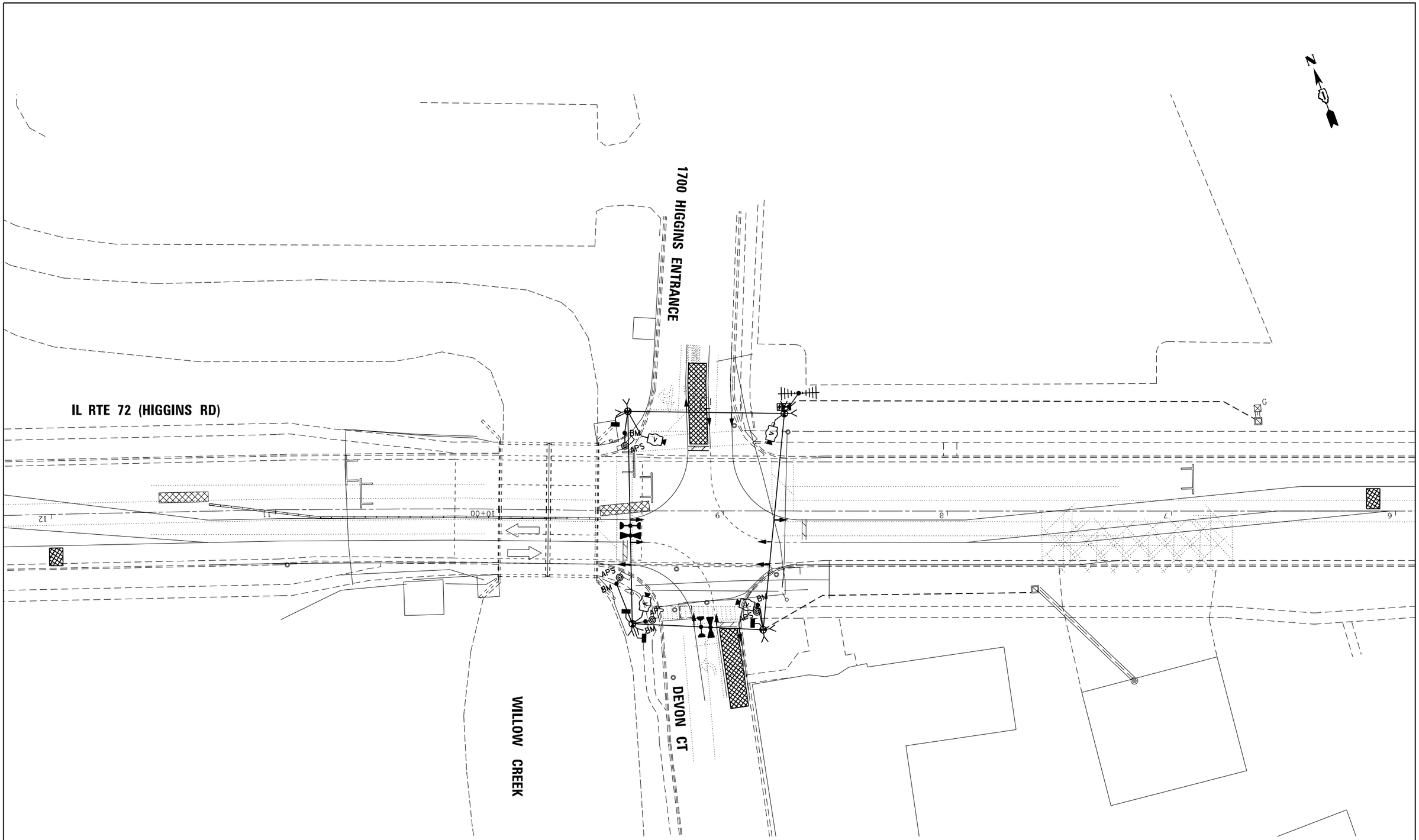
USER NAME = $USER$	DESIGNED - MAA	REVISED -
	DRAWN - MAA	REVISED -
PLOT SCALE = 40.0000 ' / in.	CHECKED - MS	REVISED -
PLOT DATE = $DATE$	DATE - 12/29/2022	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION PLAN AND REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT PLAN
IL RTE 72 (HIGGINS RD) AT DEVON CT

SCALE: 1"=20' | SHEET NO. OF SHEETS | STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1350	FAU 1350 22 BJ	COOK	56	21
		CONTRACT NO. 62T39		
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		



SIGNAL HEAD PLACEMENT FOR STAGE 1

TS 1102
ECON 146

GANDHI AND ASSOCIATES, INC. ENGINEERS AND PLANNERS 6035 N. NORTHWEST HIGHWAY SUITE 306 CHICAGO, ILLINOIS 60631 TEL.(773)774-5900	USER NAME = $USER$	DESIGNED - MAA	REVISED -
		DRAWN - MAA	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED - MS	REVISED -
	PLOT DATE = $DATE$	DATE - 12/29/2022	REVISED -

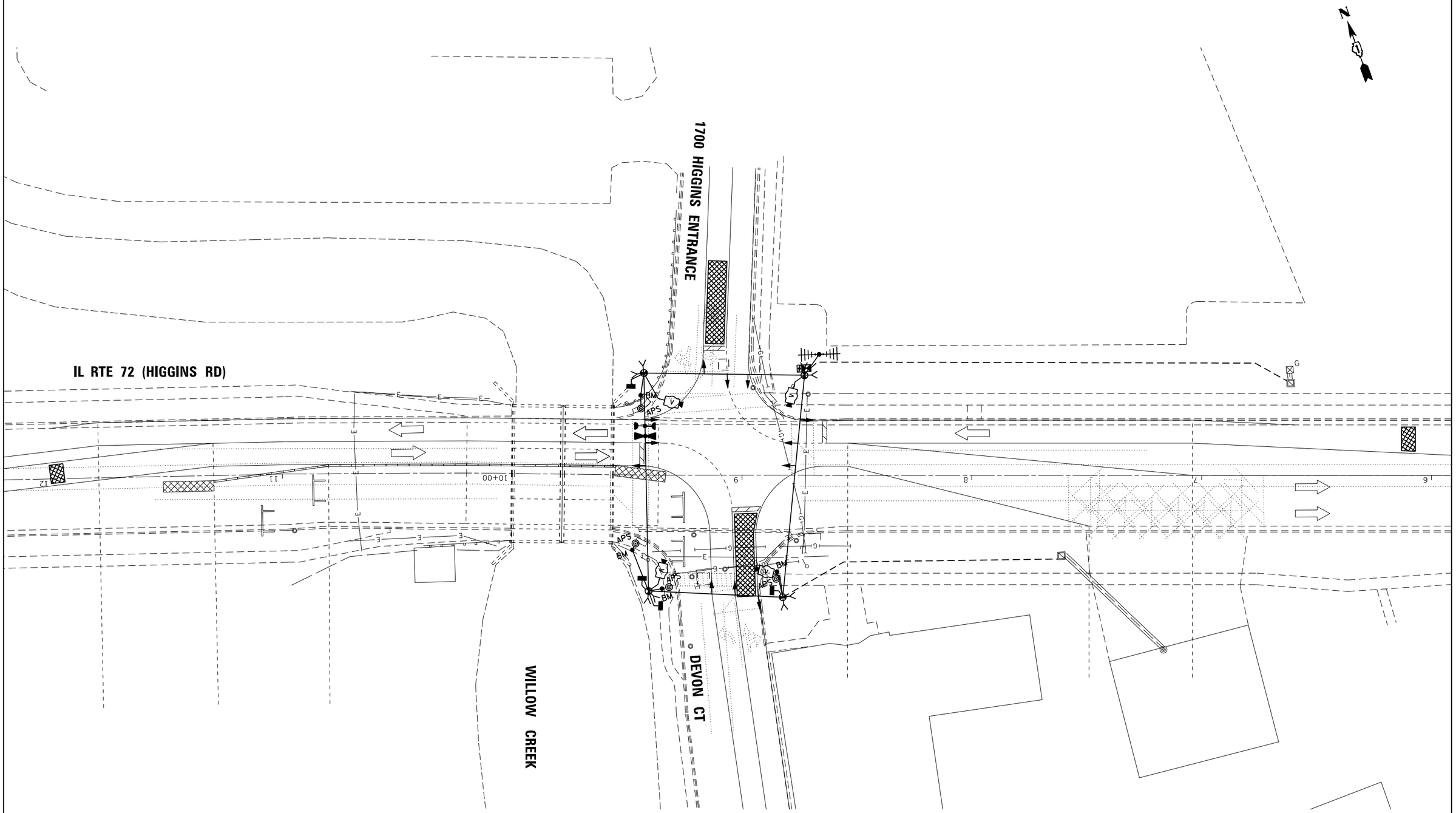
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION PLAN
IL RTE 72 (HIGGINS RD) AT DEVON CT

SCALE: 1"=20' | SHEET NO. OF SHEETS | STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1350	FAU 1350 22 BJ	COOK	56	22
		CONTRACT NO. 62T39		
FED. ROAD DIST. NO. -	ILLINOIS	FED. AID PROJECT		

FILE NAME = K:\PROJECTS\Projects 2022\22-IL72-505_IL72 PTB189-010\043_Millennia WHKS\CADD_Sheets\21_IL Rte 72 @ Willow Creek Health Club Ent_TEMPSI_INT.dgn



SIGNAL HEAD PLACEMENT FOR STAGE 2

TS 1102
ECON 146

GANDHI AND ASSOCIATES, INC. ENGINEERS AND PLANNERS 6035 N. NORTHWEST HIGHWAY SUITE 306 CHICAGO, ILLINOIS 60631 TEL.:773)774-5900	USER NAME = $USER$	DESIGNED - MAA	REVISED -
		DRAWN - MAA	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED - MS	REVISED -
	PLOT DATE = $DATE$	DATE - 12/29/2022	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

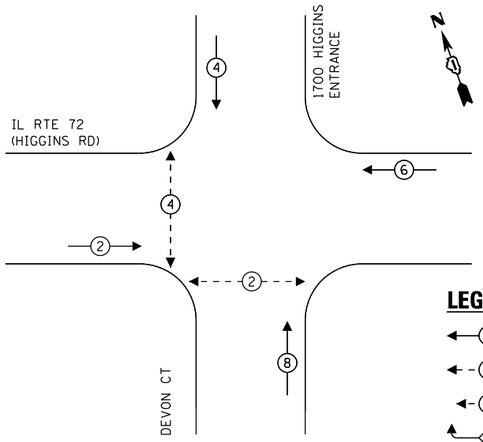
TEMPORARY TRAFFIC SIGNAL INSTALLATION PLAN
IL RTE 72 (HIGGINS RD) AT DEVON CT

SCALE: 1"=20' | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1350	FAU 1350 22 BJ	COOK	56	23
		CONTRACT NO. 62T39		
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

FILE NAME = K:\PROJECTS\Projects 2022\22-IL72-505.IL 72 PTB189-180\0443_Millennia WHKS\CADD_Sheets\22_IL Rte 72 @ Willow Creek Health Club Ent_TEMPS2_INT.dgn

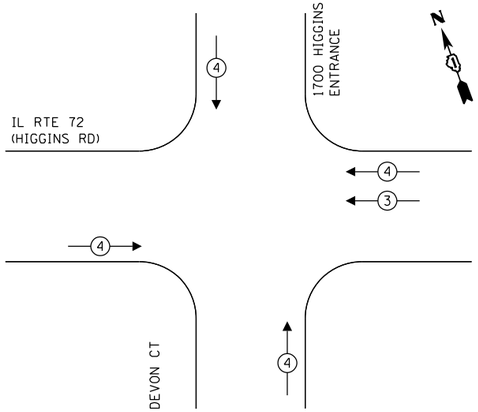
TEMPORARY CONTROLLER SEQUENCE



LEGEND:

- PROTECTED PHASE
- PROTECTED/PERMITTED PHASE
- PEDESTRIAN PHASE
- OL — OVERLAP

TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE



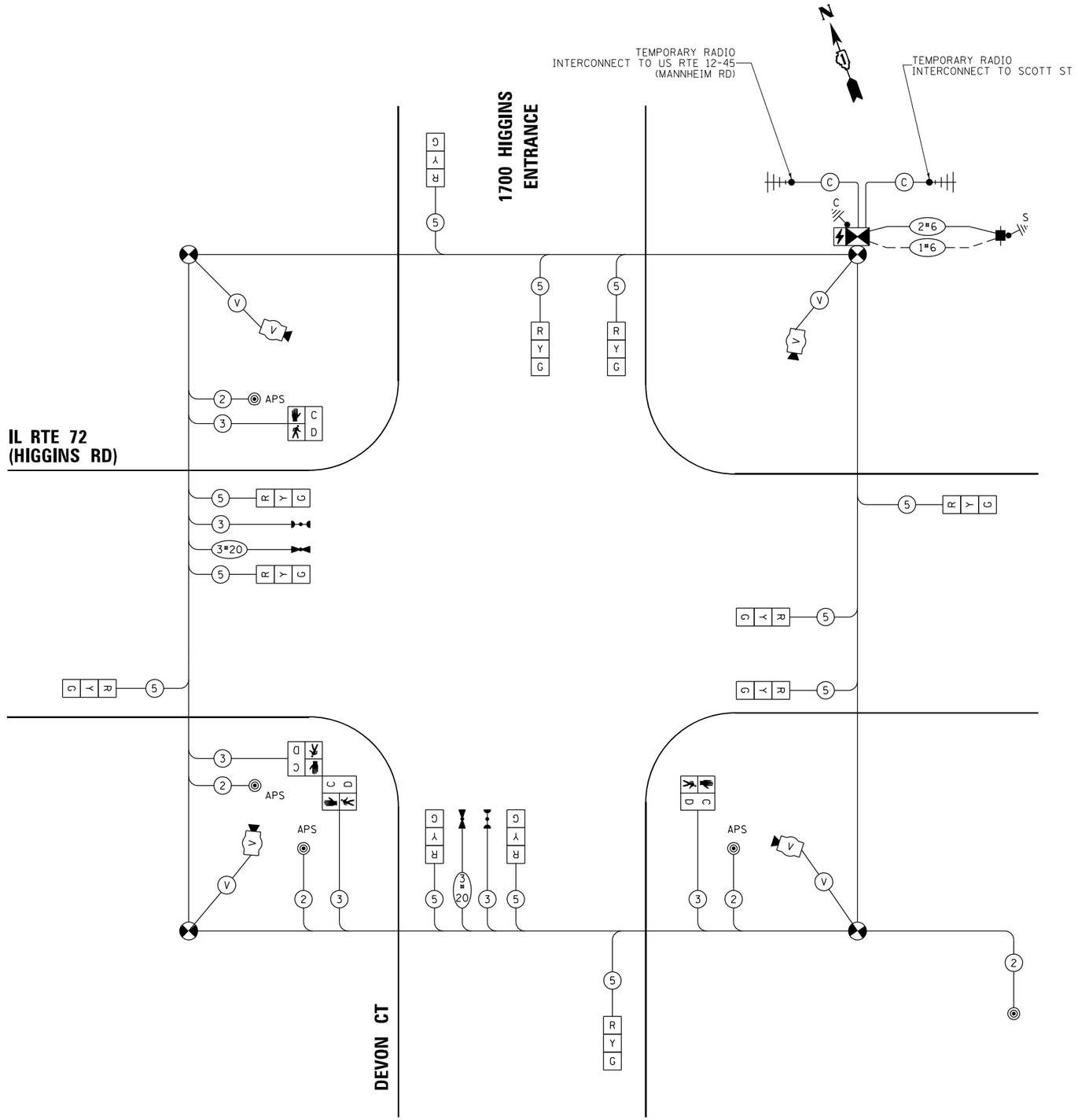
TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	12	11	50	66.0
(YELLOW)	12	20	5	12.0
(GREEN)	12	12	45	64.8
PERMISSIVE ARROW		10	10	8.0
PED. SIGNAL	4	20	100	80.0
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	1	150	100	150.0
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	240	50	-
			TOTAL =	505.8

ENERGY COSTS TO:

ILLINOIS DEPARTMENT OF TRANSPORTATION
201 WEST CENTER COURT
SCHAUMBURG, ILLINOIS 60196-1096

ENERGY SUPPLY: CONTACT: ELLIE SARALLO
PHONE: (630) 424-5124
COMPANY: COMMONWEALTH EDISON
ACCOUNT NUMBER:



TEMPORARY CABLE PLAN

(NOT TO SCALE)

TS 1102
ECON 146

GANDHI AND ASSOCIATES, INC.
ENGINEERS AND PLANNERS
6035 N. NORTHWEST HIGHWAY
SUITE 306
CHICAGO, ILLINOIS 60631 TEL: (773) 774-5900

USER NAME = $USER$	DESIGNED - MAA	REVISED -
	DRAWN - MAA	REVISED -
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PLOT DATE = $DATE$	DATE - 12/29/2022	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM, AND TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE
IL RTE 72 (HIGGINS RD) AT DEVON CT

SCALE: 1"=20' | SHEET NO. OF SHEETS | STA. | TO STA.

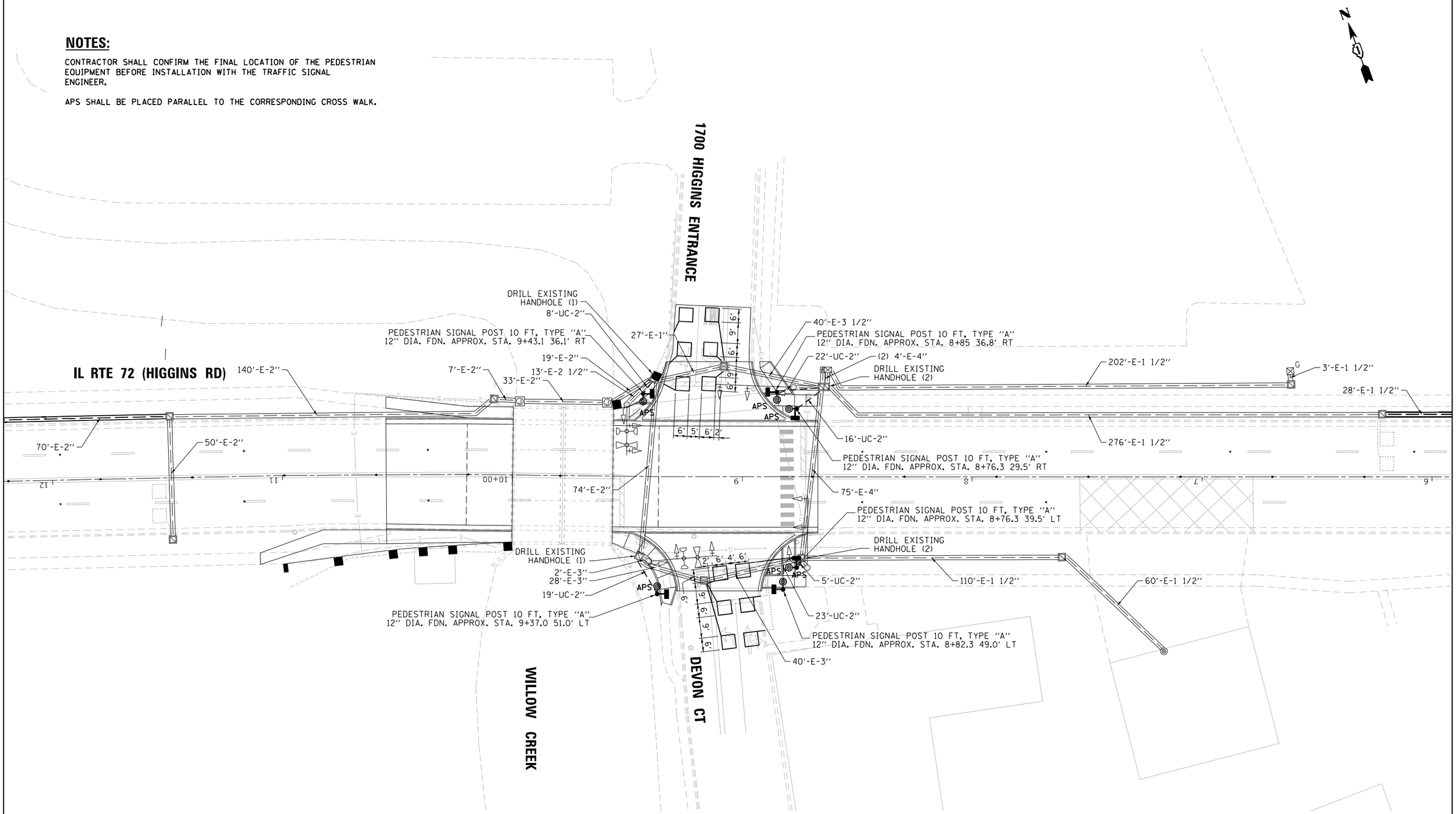
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1350	FAU 1350 22 BJ	COOK	56	24
		CONTRACT NO. 62T39		
FED. ROAD DIST. NO. -	ILLINOIS	FED. AID PROJECT		

FILE NAME = K:\PROJECTS\Projects 2022\22-IL72-5005.IL72 PTB189-10WO#43_Millennia WHKS\CADD_Sheets\23_IL Rte 72 @ Willow Creek Health Club Ent_TEMP_CO.dgn

NOTES:

CONTRACTOR SHALL CONFIRM THE FINAL LOCATION OF THE PEDESTRIAN EQUIPMENT BEFORE INSTALLATION WITH THE TRAFFIC SIGNAL ENGINEER.

APS SHALL BE PLACED PARALLEL TO THE CORRESPONDING CROSS WALK.



TS 1102
ECON 146

GANDHI AND ASSOCIATES, INC. ENGINEERS AND PLANNERS 6035 N. NORTHWEST HIGHWAY SUITE 306 CHICAGO, ILLINOIS 60631 TEL.(773)774-5900	USER NAME = $USER$	DESIGNED - MAA	REVISED -
		DRAWN - MAA	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED - MS	REVISED -
	PLOT DATE = $DATE$	DATE - 12/29/2022	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

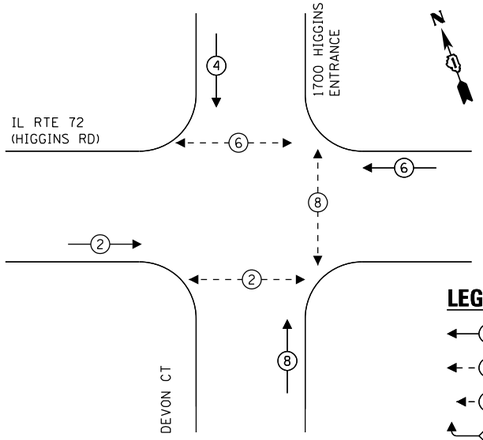
TRAFFIC SIGNAL INSTALLATION PLAN
IL RTE 72 (HIGGINS RD) AT DEVON CT

SCALE: 1"=20' | SHEET NO. OF SHEETS | STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1350	FAU 1350 22 BJ	COOK	56	25
		CONTRACT NO. 62T39		
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

FILE NAME = K:\PROJECTS\Projects 2022\22-IL72-5005.IL72 PTB189-10W(P43,Millennia WHKS\CADD\Sheets\24.IL Rte 72 @ Willow Creek Health Club Ent.INT.dgn

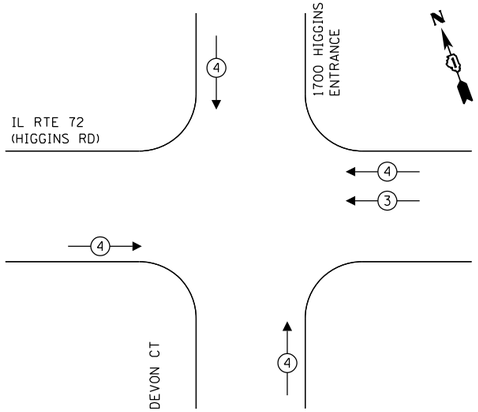
CONTROLLER SEQUENCE



LEGEND:

- PROTECTED PHASE
- PROTECTED/PERMITTED PHASE
- PEDESTRIAN PHASE
- OL — OVERLAP

EMERGENCY VEHICLE PREEMPTION SEQUENCE



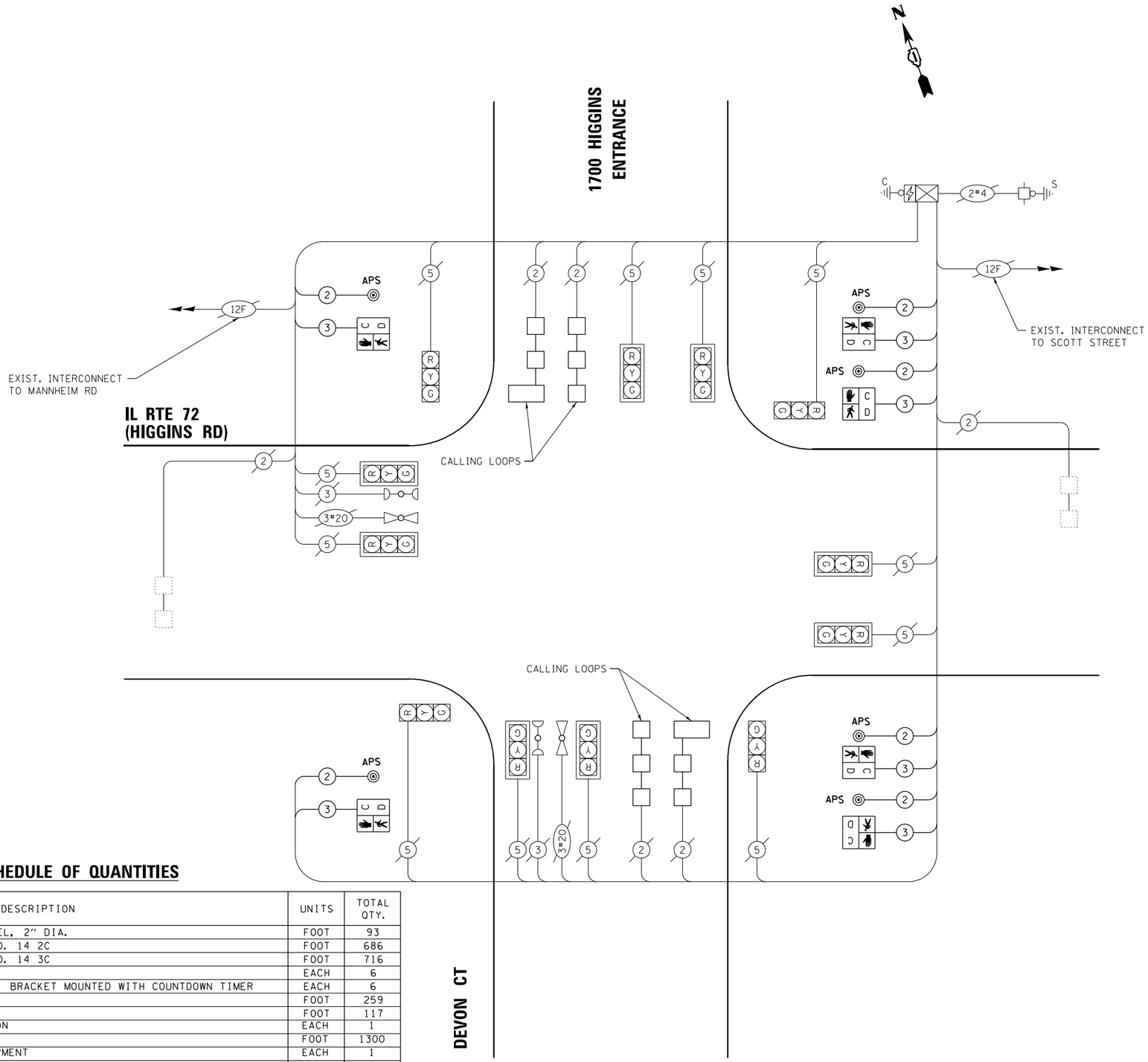
TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	12	11	50	66.0
(YELLOW)	12	20	5	12.0
(GREEN)	12	12	45	64.8
PERMISSIVE ARROW		10	10	8.0
PED. SIGNAL	6	20	100	120.0
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM		150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	240	50	-
			TOTAL =	395.8

ENERGY COSTS TO:

ILLINOIS DEPARTMENT OF TRANSPORTATION
201 WEST CENTER COURT
SCHAUMBURG, ILLINOIS 60196-1096

ENERGY SUPPLY: CONTACT: ELLIE SARALLO
PHONE: (630) 424-5124
COMPANY: COMMONWEALTH EDISON
ACCOUNT NUMBER:



CABLE PLAN
(NOT TO SCALE)

SCHEDULE OF QUANTITIES

ITEM DESCRIPTION	UNITS	TOTAL QTY.
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	93
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	686
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	716
DRILL EXISTING HANDHOLE	EACH	6
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	6
DETECTOR LOOP, TYPE I	FOOT	259
DETECTOR LOOP REPLACEMENT	FOOT	117
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	1300
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
PEDESTRIAN SIGNAL POST, 10 FT	EACH	6
ACCESSIBLE PEDESTRIAN SIGNALS	EACH	6
CONCRETE FOUNDATION, TYPE A 12-INCH DIAMETER	FOOT	24

TS 1102
ECON 146

GANDHI AND ASSOCIATES, INC.
ENGINEERS AND PLANNERS
6035 N. NORTHWEST HIGHWAY
SUITE 306
CHICAGO, ILLINOIS 60631 TEL.(773)774-5900

USER NAME = $USER$	DESIGNED - MAA	REVISED -
	DRAWN - MAA	REVISED -
PLOT SCALE = 40.0000 ' / in.	CHECKED - MS	REVISED -
PLOT DATE = $DATE$	DATE - 12/29/2022	REVISED -

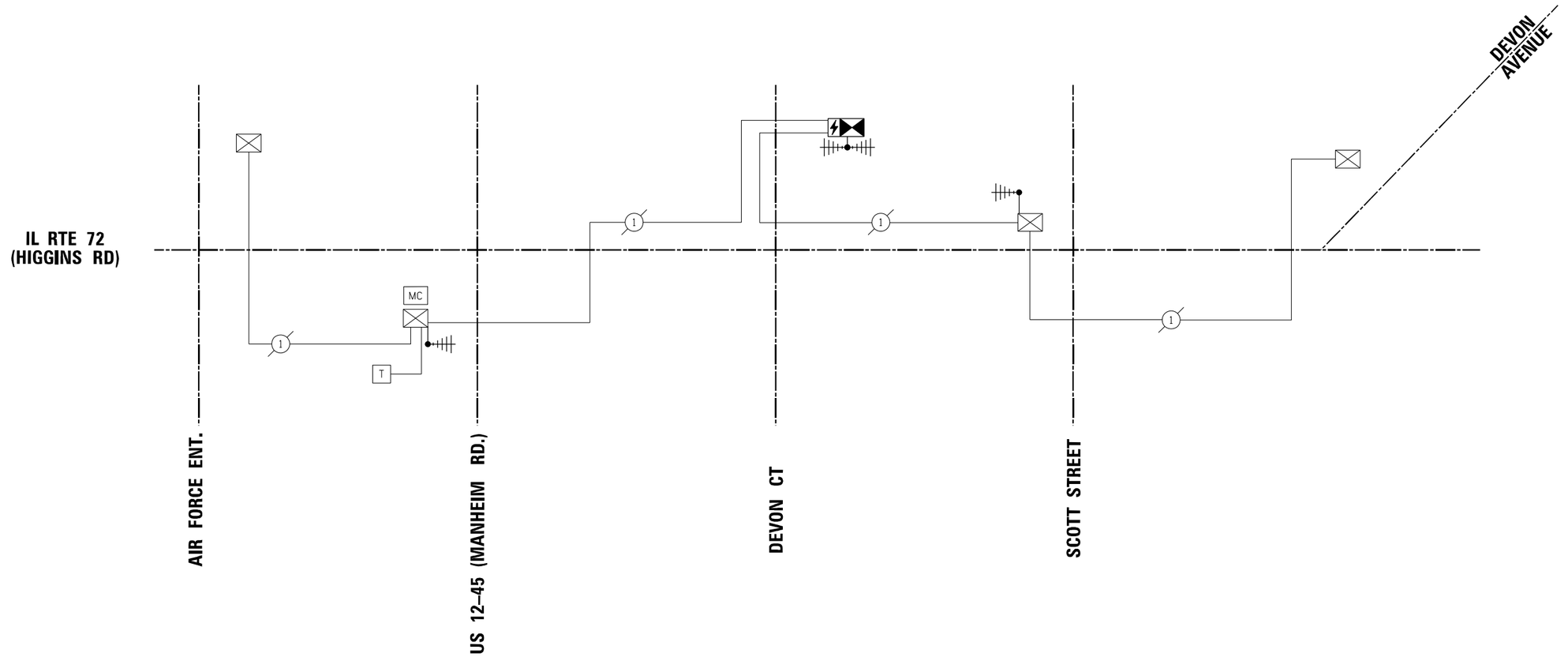
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MODIFIED CABLE PLAN
IL RTE 72 (HIGGINS RD) AT DEVON CT

SCALE: 1"=20' | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1350	FAU 1350 22 BJ	COOK	56	26
		CONTRACT NO. 62T39		
FED. ROAD DIST. NO. -	ILLINOIS	FED. AID PROJECT		

FILE NAME = K:\PROJECTS\Projects 2022\22-IL72-505_IL72 PTB189-180\043_Millennia WHKS\CADD\Sheets\25_IL Rte 72 @ Willow Creek Health Club Ent_CD.dgn



SCHEDULE OF QUANTITIES

ITEM DESCRIPTION	UNITS	TOTAL QTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	3
TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1

TS 1102
ECON 146

FILE NAME = K:\PROJECTS\Projects 2022\22-IL72-505.IL72 PTB189-180\043_Millennia WHKS\CADD_Sheets\26_IL Rte 72_Temp_Schematic.dgn

GANDHI AND ASSOCIATES, INC.
ENGINEERS AND PLANNERS
6035 N. NORTHWEST HIGHWAY
SUITE 306
CHICAGO, ILLINOIS 60631 TEL.:773)774-5900

USER NAME = $USER$	DESIGNED - MAA	REVISED -
	DRAWN - MAA	REVISED -
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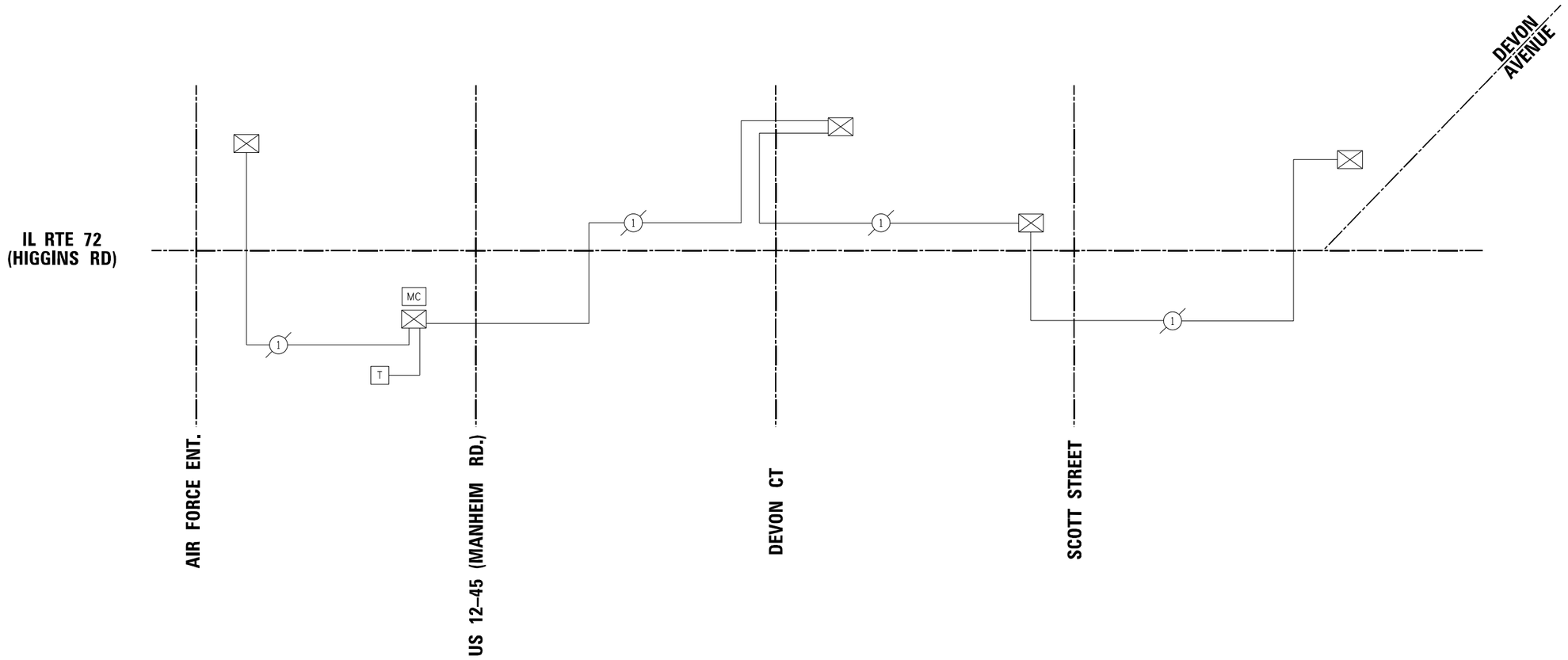
PLOT DATE = $DATE$	DATE - 12/29/2022	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY INTERCONNECT SCHEMATIC
IL RTE 72 (HIGGINS RD)
FROM AIR FORCE ENT TO DEVON AVE

SCALE: N.T.S. | SHEET NO. OF SHEETS | STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1350	FAU 1350 22 BJ	COOK	56	27
		CONTRACT NO. 62T39		
FED. ROAD DIST. NO. -	ILLINOIS	FED. AID PROJECT		



SCHEDULE OF QUANTITIES

ITEM DESCRIPTION	UNITS	TOTAL QTY.
RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 1	EACH	1

TS 1102
ECON 146

GANDHI AND ASSOCIATES, INC.
ENGINEERS AND PLANNERS
6035 N. NORTHWEST HIGHWAY
SUITE 306
CHICAGO, ILLINOIS 60631 TEL.(773)774-5900

USER NAME = $USER$	DESIGNED - ·	REVISED -
	DRAWN - ·	REVISED -
PLOT SCALE = 100.00 ' / in.	CHECKED -	REVISED -
PLOT DATE = $DATE$	DATE - ·	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING INTERCONNECT SCHEMATIC
IL RTE 72 (HIGGINS RD) FROM AIR FORCE ENT TO DEVON AVE

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1350	FAU 1350 22 BJ	COOK	56	28
		CONTRACT NO. 62T39		

FED. ROAD DIST. NO. - | ILLINOIS | FED. AID PROJECT

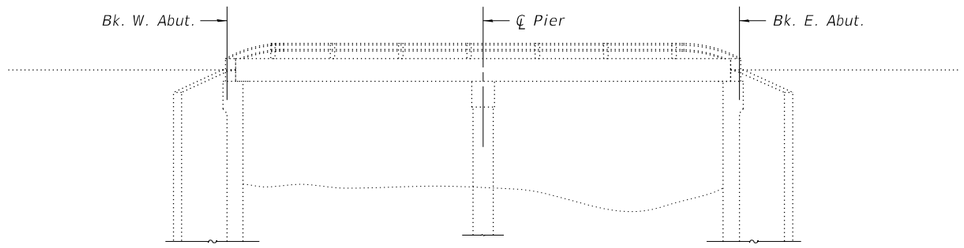
FILE NAME = K:\PROJECTS\Projects 2022\22-IL72-505_IL72 PTB189-010\043_Millennia WHKS\CADD_Sheets\27_IL Rte 72_Prop_Schematic.dgn

Benchmark: BM1, Top of northwest corner of northwest parapet, Elev. 638.12. BM2, Top of southeast corner of southeast parapet, Elev. 638.11

Existing Structure: The existing structure was originally constructed in 1984 as F.A.U. 1350, Section 0101BR(82). The structure is a two span RC slab bridge with closed abutments and a pile bent pier. The bridge measures 44'-0" back to back abutments and 60'-0" out to out. There are 5'-0" sidewalks on both the North and South sides of the bridge.

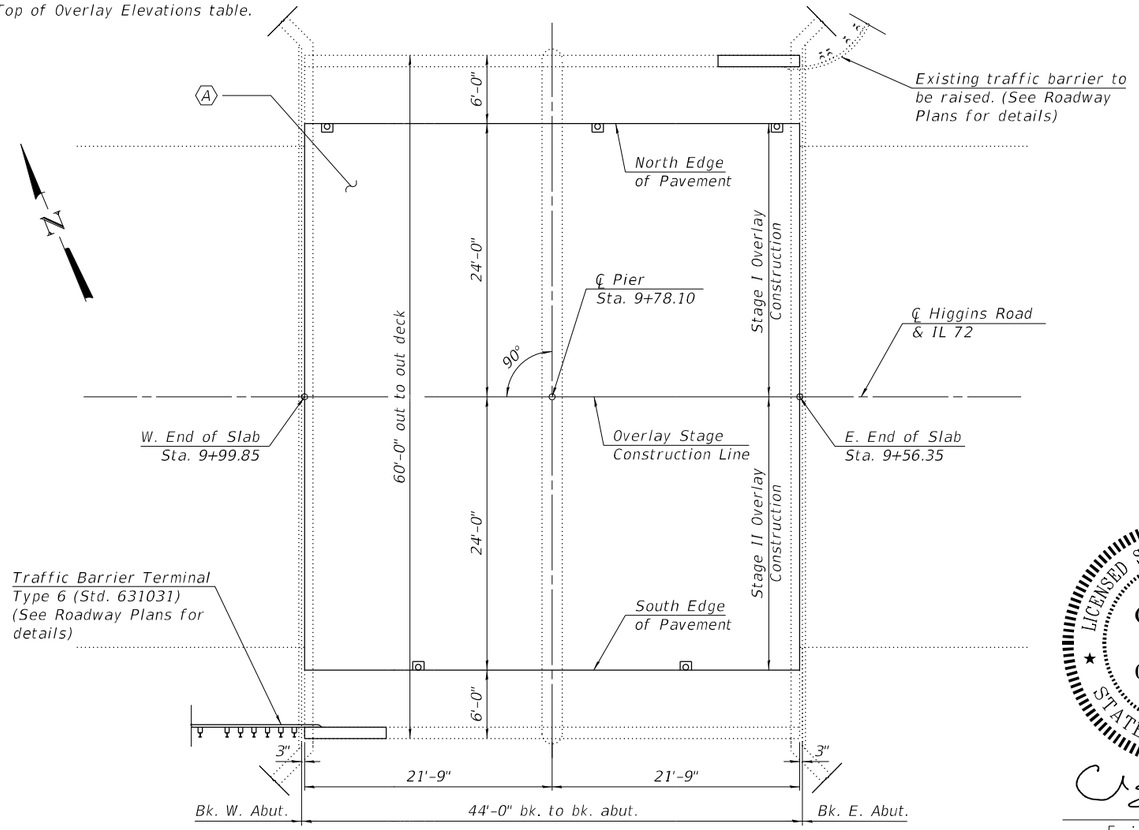
Traffic Control: Bridge to be rehabilitated using staged construction to maintain one lane of traffic in each direction.

Salvage: N/A



ELEVATION

Ⓐ Bridge Deck Scarification, ¾" and Bridge Deck Latex Concrete Overlay, 2¼". See Top of Overlay Elevations table.



PLAN

INDEX OF SHEETS

SCOPE OF WORK

1. Scarify bridge deck ¾" and install Polymer Concrete Nosing and 2¼" Latex Concrete Overlay. Perform deck slab repairs and parapet wall reconstruction as required.
2. Repair abutments as required.
3. Apply Bridge Deck Concrete Sealer.

DESIGN STRESSES

FIELD UNITS - NEW CONSTRUCTION

f'c = 4,000 psi (Superstructure)
fy = 60,000 psi (Reinforcement)

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub	Total
Concrete Removal	Cu. Yd.	0.9		0.9
Floor Drains	Each	3		3
Concrete Superstructure	Cu. Yd.	1.6		1.6
Bridge Deck Grooving	Sq. Yd.	223		223
Reinforcement Bars, Epoxy Coated	Pound	1,480		1,480
Bridge Deck Latex Concrete Overlay, 2¼"	Sq. Yd.	230		230
Bridge Deck Scarification, ¾"	Sq. Yd.	232		232
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq. Ft.		8	8
Structural Repair of Concrete (Depth Greater Than 5 Inches)	Sq. Ft.		9	9
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	38		38
Polymer Concrete	Cu. Ft.	3.8		3.8
Bridge Deck Concrete Sealer	Sq. Ft.	2,826		2,826

TOP OF OVERLAY ELEVATIONS

	North Edge of Pavement	℄ IL 72 & Overlay Stage Construction Line	South Edge of Pavement
W. End of Slab	635.57	635.94	635.57
℄ Pier	635.58	635.95	635.58
E. End of Slab	635.58	635.95	635.58

LICENSED STRUCTURAL ENGINEER
CHAD E. HODEL
081-5938
STATE OF ILLINOIS

Expires: 11/30/2024 4-27-23

Project Location

LOCATION SKETCH

GENERAL PLAN AND ELEVATION
FAU 1350 (IL ROUTE 72)
HIGGINS ROAD OVER WILLOW CREEK
SECTION FAU 1350 22 BJ
COOK COUNTY
STRUCTURE NUMBER 016-2533

FILE NAME: C:\SP\WHKS & CO\Jobs-Spring - Projects\IDOT D-18793.21 IL 72 Deck Overlay (W0-42)\CADD\CAD_Sheets\ZZZ-9160864_D162T39 IM.dgn

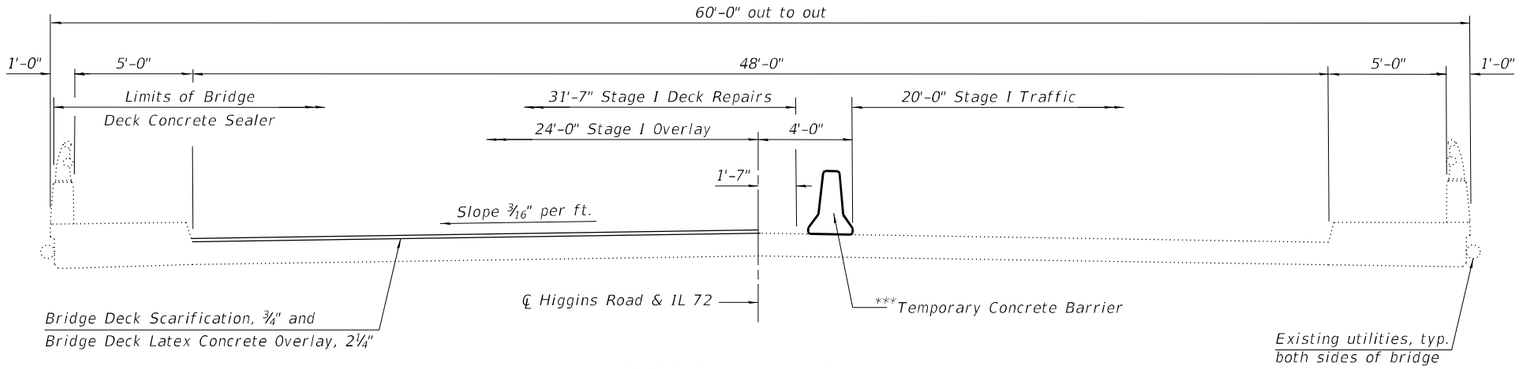
design firm no. 184001036 — whks engineers + planners + land surveyors

USER NAME = gjameson		DESIGNED - CEH		REVISED -	
		CHECKED - JLM		REVISED -	
PLOT DATE = 4/27/2023		DRAWN - JLM		REVISED -	
PLOT DATE = 11:00:22 AM		CHECKED - CEH		REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

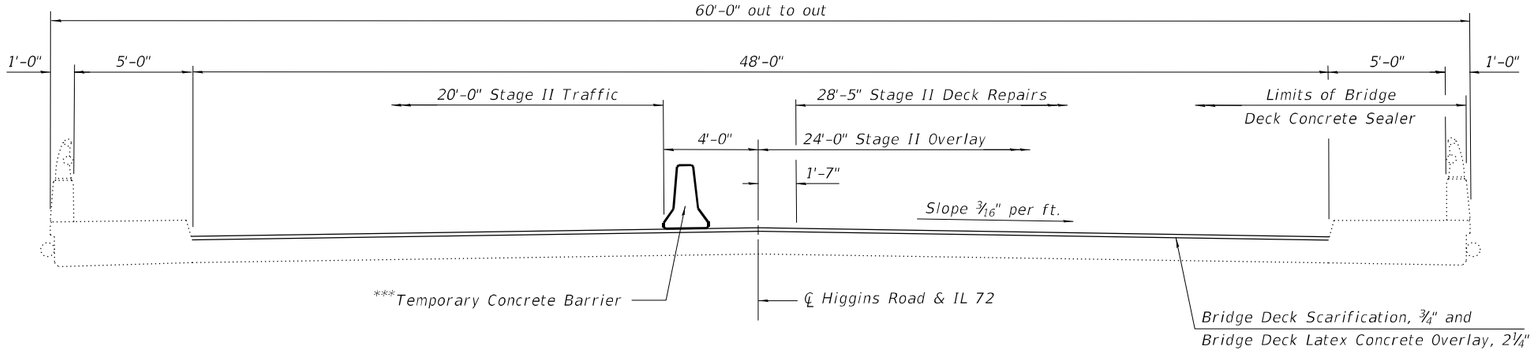
SHEET 1 OF 13 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1350	FAU 1350 22 BJ	COOK	56	29
		CONTRACT NO. 62T39		
		ILLINOIS	FED. AID PROJECT	



CROSS SECTION - STAGE I

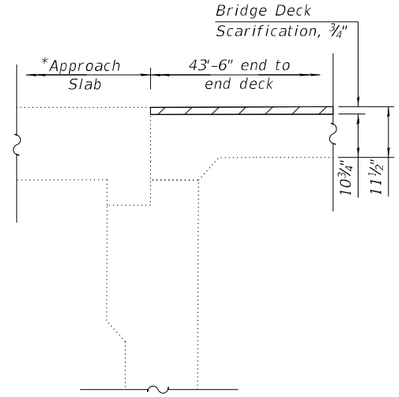
(Looking East)



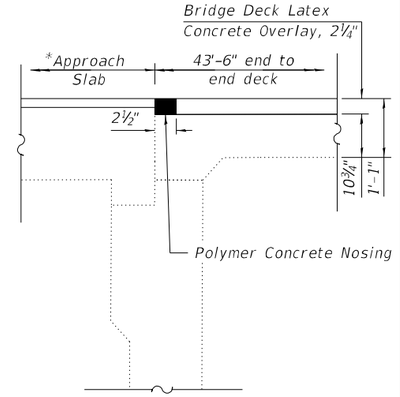
CROSS SECTION - STAGE II

(Looking East)

***See Roadway Plans for required Barrier Wall Reflectors.

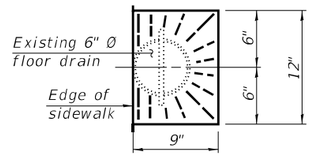


REMOVAL DETAILS NEAR ABUTMENTS



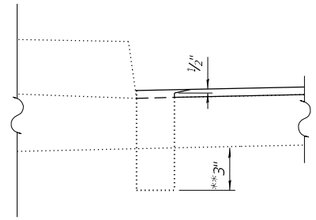
OVERLAY DETAILS NEAR ABUTMENTS

*See Roadway Plans for Approach Slab patching and overlay details



OVERLAY TREATMENT AT DRAINS

(5 drains total)

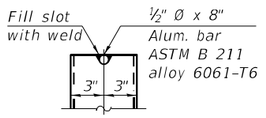


SECTION AT DRAINS

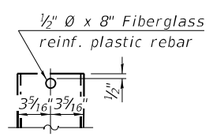
**6" for floor drains being replaced

GENERAL NOTES

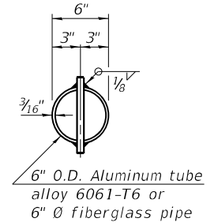
1. Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations 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 work.
2. Polymer Concrete Nosing and Bridge Deck Latex Concrete Overlay shall be placed and finished to the Top of Overlay Elevations provided. Field variations in the top of existing slab elevations may result in the thickness exceeding 2 1/4" at some locations. Concrete placed with the overlay and below the specified thickness will be paid for according to the provisions for additional concrete as described in the Special Provisions for Bridge Deck Latex Concrete Overlay. It is estimated that the thickness will be near 3 1/2" at some locations. The Bureau of Bridges and Structures shall be contacted for further disposition if it is determined during the pre-placement procedure that the thickness of any portion of the overlay exceeds 3 1/2".
3. Reinforcement bars designated (E) shall be epoxy coated.
4. Existing reinforcement extending into the removal area shall be cleaned, straightened, and incorporated into the new construction. Any existing reinforcement bars intended for reuse and damaged during the concrete removal operation shall be repaired or replaced using an approved bar splicer or anchorage system to the satisfaction of the Engineer. Cost included with the associated work.
5. The Contractor shall take appropriate measures to assure that Concrete Sealer is not applied to the floor drains.
6. Dirt and debris shall be cleaned from the floor drains. Cost included with Bridge Deck Scarification, unless noted otherwise.
7. The Contractor shall submit a plan to the Engineer for approval for completing the full depth deck slab repairs including location(s) and type(s) of equipment that will be used on the structure. The plan shall include an evaluation of the capacity of the structure during the full depth repairs for the Contractor's means and methods of construction and shall be sealed by an Illinois Licensed Structural Engineer. Cost included with Deck Slab Repair (Full Depth, Type II).
8. The Contractor shall take proper precautions to protect the utilities attached to both sides of the bridge from damage during construction. Any damage to the utility caused by the Contractor shall be repaired at the Contractor's expense to the satisfaction of the utility owner.



ALUMINUM TUBE



FIBERGLASS PIPE



TOP PLAN

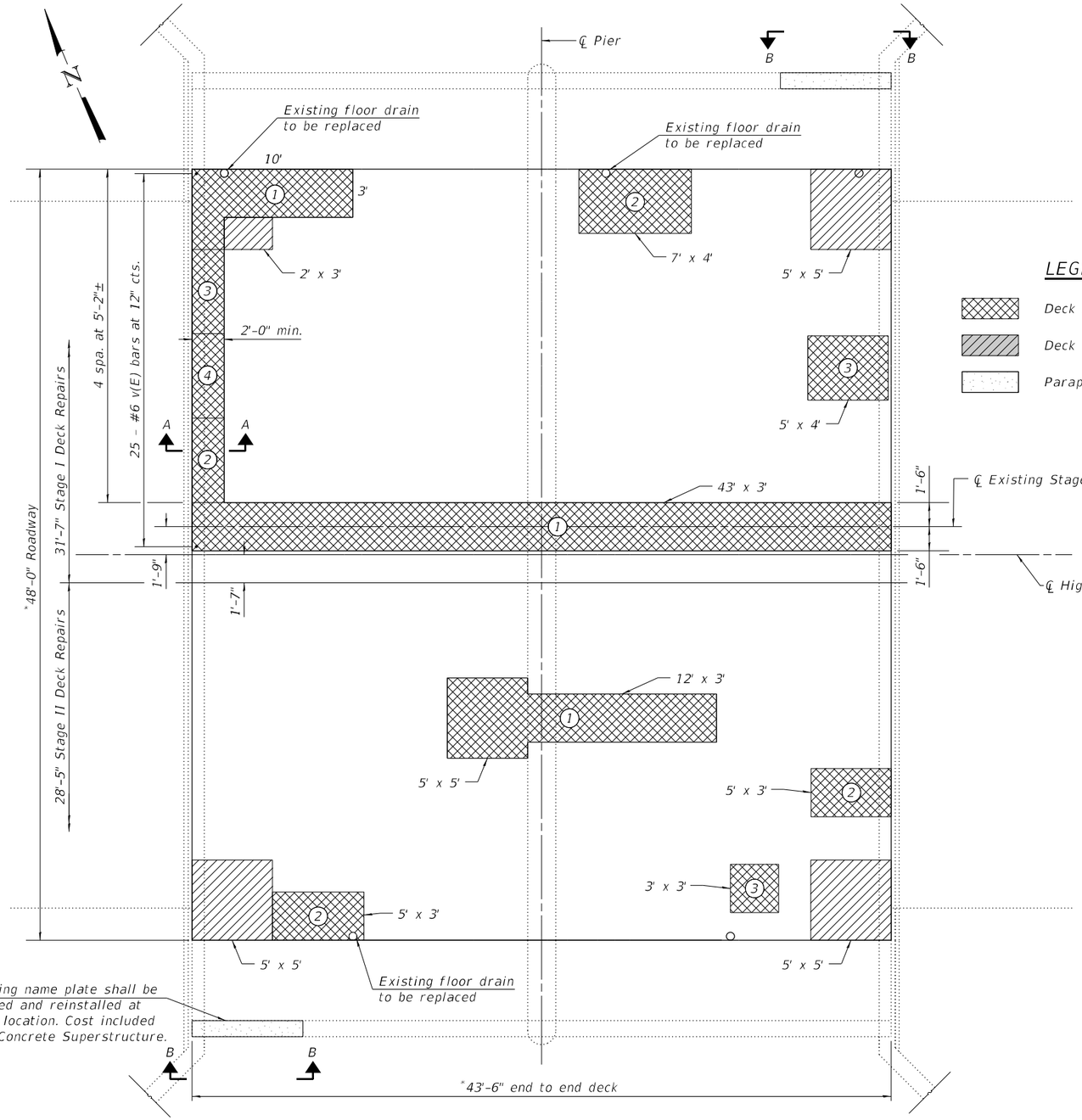
(Showing aluminum tube)

REPLACEMENT FLOOR DRAIN DETAILS

(3 Required)

Notes:

1. Section at Drains and Overlay Treatment at Drains details are shown for existing floor drains being reused. Details are similar for floor drains being replaced. See Sheet 3 of 13 for replacement floor drain locations.
2. Fiberglass pipe shall conform to ASTM D2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.
3. The exterior surfaces of the fiberglass floor drains shall be pigmented by the manufacturer with a color that matches the concrete.
4. The top portion of aluminum floor drains shall be coated to minimize reaction with wet concrete.



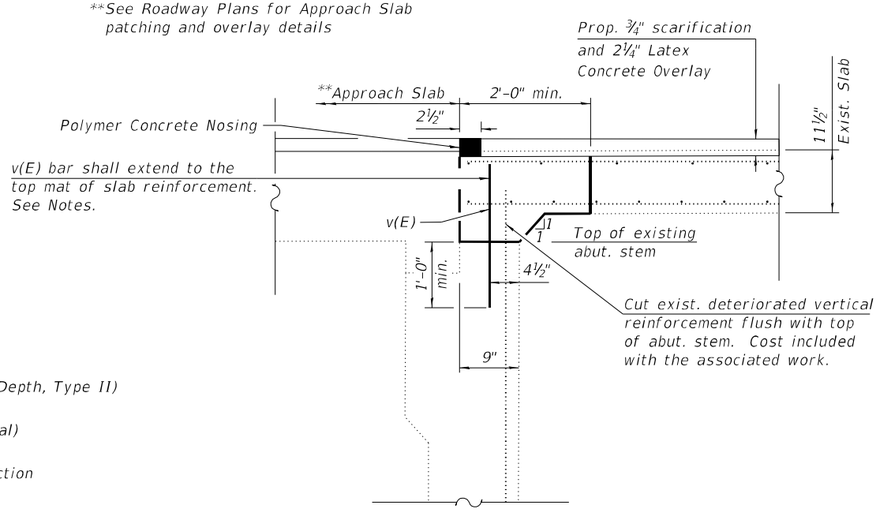
DECK REPAIR PLAN

LEGEND

- Deck Slab Repair (Full Depth, Type II)
- Deck Slab Repair (Partial)
- Parapet Wall Reconstruction

* Bridge Deck Scarification, ¾", Bridge Deck Latex Concrete Overlay, 2¼", and Bridge Deck Grooving

**See Roadway Plans for Approach Slab patching and overlay details



SECTION A-A

Notes:

1. Deck Slab Repair (Partial) locations and quantities are shown for information only and will not be measured for payment but shall be included in the cost of Bridge Deck Latex Concrete Overlay. See special provision for Bridge Deck Latex Concrete Overlay.

2. Deck Slab Repair (Full Depth, Type II) locations and quantities were determined from an inspection by the District in spring of 2022. Actual limits shall be determined in the field by the Engineer during construction. The repair limits determined by the Engineer shall be submitted to the Bureau of Bridges and Structures for evaluation and concurrence with the repair sequence indicated herein, or any needed modifications, prior to commencing any concrete removal. Actual repair limits shall be noted in the As-Built Plans.

3. Class BS concrete shall be used for all full depth deck slab repairs.

4. (X) indicates the sequence for completing the full depth deck slab repairs indicated herein for each stage of construction. Once concrete is poured for a repair sequence, concrete removal shall not commence for the next repair sequence until both of the following requirements are met:

    1. At least 72 hours shall have elapsed from the end of the previous pour.

    2. The concrete strength shall have attained a minimum modulus of rupture of 650 psi or a minimum compressive strength of 3500 psi.

    The Contractor may submit proposed changes to the repair sequence indicated herein to the Engineer for review and approval. The Engineer reserves the right to require the Contractor to retain the services of an Illinois Licensed Structural Engineer at no additional cost to IDOT to assess the impact of the proposed changes to the structural integrity of the bridge.

5. If the hydro-scarification process begins to expose the top mat of reinforcement outside of the Deck Slab Repair areas indicated herein or approved by the Engineer, the hydro-scarification process shall be stopped and the Bureau of Bridges and Structures shall be contacted for further direction.

6. See existing plans for reinforcement bars not shown. Existing reinforcement bars extending into the removal areas that are not shown shall remain.

7. v(E) reinforcement bar shall be drilled and grouted in 12 in. min. deep holes in the existing abutment stem and according to Section 584 of the Standard Specifications. Additionally, proof shall be provided that the chemical adhesive chosen by the Contractor satisfies the ICC-ES AC 308 Table 3.8 test requirements. v(E) bars shall be cut to length in the field so that the top of the bar terminates at the top mat of slab reinforcement. Cost included with the associated work.

FILE NAME: C:\SP\WHKS & CO\Bbb-Spring - Projects\IDOT D-18793.21 IL 72 Deck Overlay (W0-42)\CADD\CAD_Sheets\ZZZ-9160864_D162T39 IM.dgn

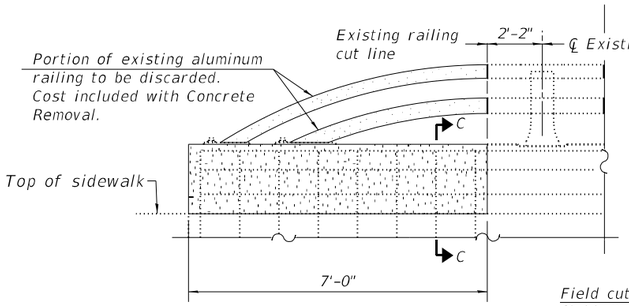
design firm no. 184001036
whks engineers + planners + land surveyors

USER NAME = jmantrey	DESIGNED - CEH	REVISED -
	CHECKED - JLM	REVISED -
PLOT DATE = 6/20/2023	DRAWN - JLM	REVISED -
PLOT DATE = 2:16:19 PM	CHECKED - CEH	REVISED -

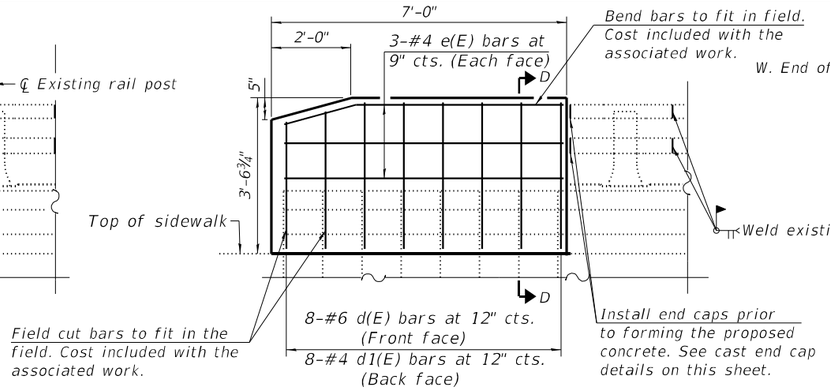
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DECK REPAIR DETAILS
STRUCTURE NO. 016-2533
SHEET 3 OF 13 SHEETS

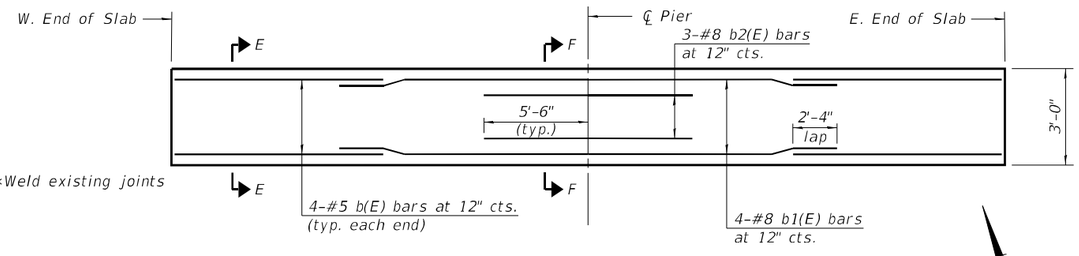
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1350	FAU 1350 22 BJ	COOK	56	31
		CONTRACT NO. 62T39		
	ILLINOIS	FED. AID PROJECT		



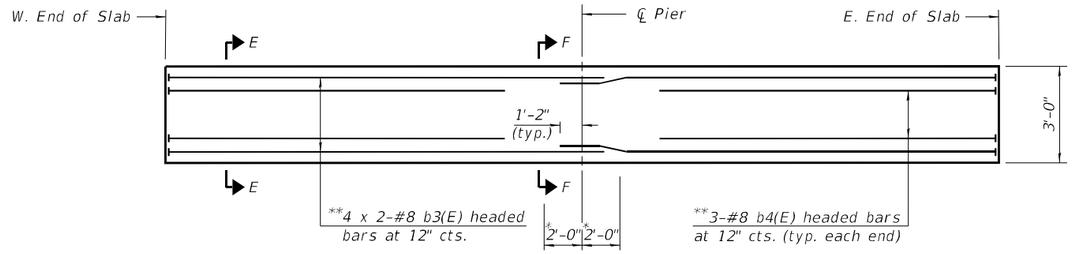
VIEW B-B
(Showing removal)



VIEW B-B
(Showing reconstruction)

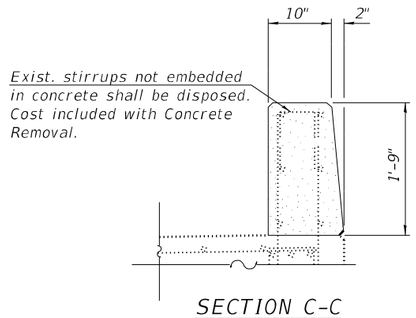


TOP DECK REINFORCEMENT
(Showing Deck Slab Repair near Existing Stage Const. Jt.
See Notes for additional information.)

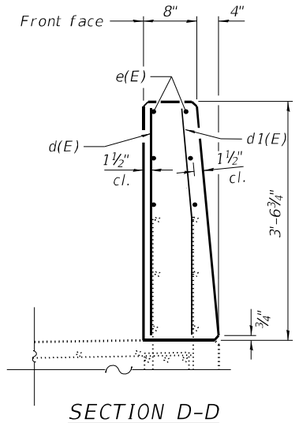


BOTTOM DECK REINFORCEMENT
(Showing Deck Slab Repair near Existing Stage Const. Jt.
See Notes for additional information.)

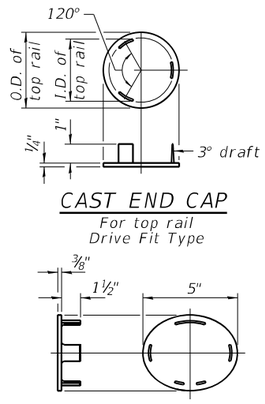
LEGEND
Parapet Wall Reconstruction



SECTION C-C

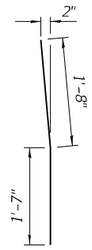


SECTION D-D

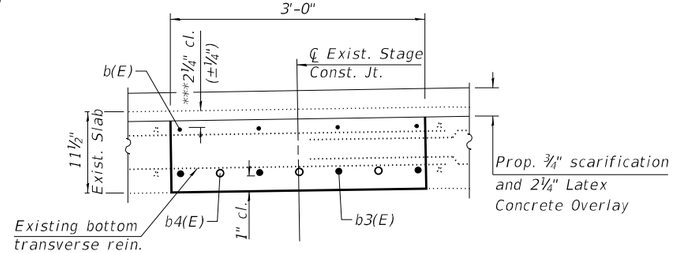


CAST END CAP
For top rail
Drive Fit Type

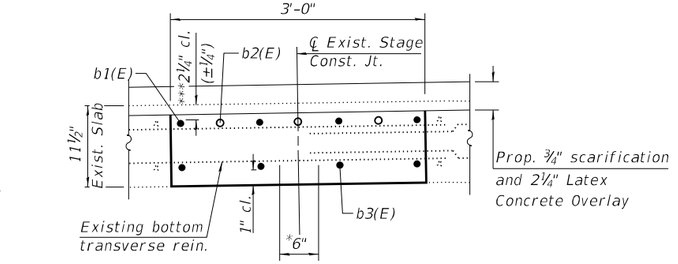
CAST END CAP
For bottom rail
Drive Fit Type



BAR d1(E)



SECTION E-E
(Near Midspan)



SECTION F-F
(Near Pier)

Notes:

1. The Deck Slab Repair near the existing stage construction joint has been detailed to allow existing longitudinal reinforcement that is not embedded in concrete (following concrete removal) to be discarded and replaced with new epoxy coated reinforcement for a slab width of 3 ft (a width of 1'-6" on both sides of the joint). The Bureau of Bridges and Structures shall be contacted for further disposition if the width of the repair area exceeds 3 ft as replacement of additional existing longitudinal reinforcement may be necessary.

2. Headed bars shall conform with threaded attachment; Class HA; and reinforcement bars conforming to ASTM A706. Cost included with Reinforcement Bars, Epoxy Coated.

3. Bars indicated thus 4 x 2-#8 etc. indicates 4 lines of bars with 2 lengths per line.

4. End caps and welding for aluminum railing shall be in accordance with portions of Section 509 applicable to aluminum railings. Existing joints shall be welded closed at the locations shown. Weld thickness shall match the wall thickness of the existing rails and be ground smooth. All costs associated with the end caps and welding shall be included with the cost of Concrete Superstructure.

* The middle 6" of the existing bottom transverse reinforcement may be cut out within the limits shown near the pier to facilitate installation of the proposed b3(E) bars. Cost included with the associated work.

** Bar head is only required for the bar end at the abutment.

*** Clearance shown for top reinforcement is relative to top of existing slab.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
b(E)	8	#5	11'-0"	
b1(E)	4	#8	25'-10"	
b2(E)	3	#8	11'-0"	
b3(E)	8	#8	22'-9"	
b4(E)	6	#8	17'-9"	
d(E)	16	#6	3'-3"	
d1(E)	16	#4	3'-3"	
e(E)	12	#4	6'-8"	
v(E)	25	#6	2'-0"	
Reinforcement Bars, Epoxy Coated			Pound	1,480
Deck Slab Repair (Full Depth, Type II)			Sq. Yd.	38
Concrete Removal			Cu. Yd.	0.9
Concrete Superstructure			Cu. Yd.	1.6

FILE NAME: C:\SP\WHKS & CO\16bb-Spring - Projects\IDOT D-18793.21 IL 72 Deck Overlay (WO-42)\CADD\CAD_Sheets\ZZZ-J1606064_D162T39 (M).dgn

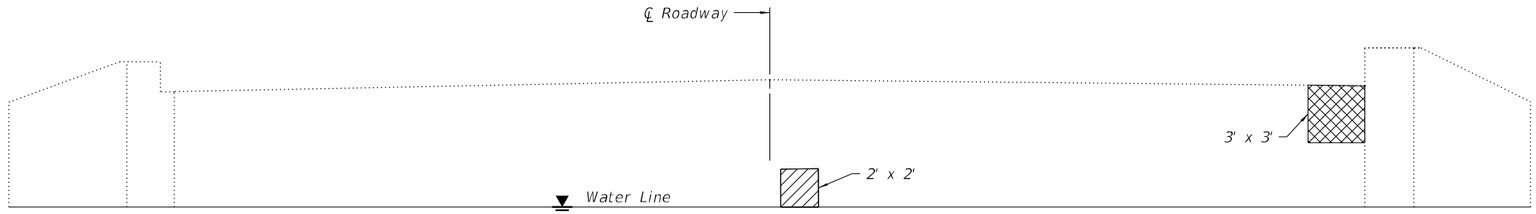
design firm no. 184001036
whks engineers + planners + land surveyors

USER NAME = gjameson	DESIGNED - CEH	REVISED -		
	CHECKED - JLM	REVISED -		
PLOT DATE = 4/27/2023	DRAWN - JLM	REVISED -		
PLOT DATE = 11:00:25 AM	CHECKED - CEH	REVISED -		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

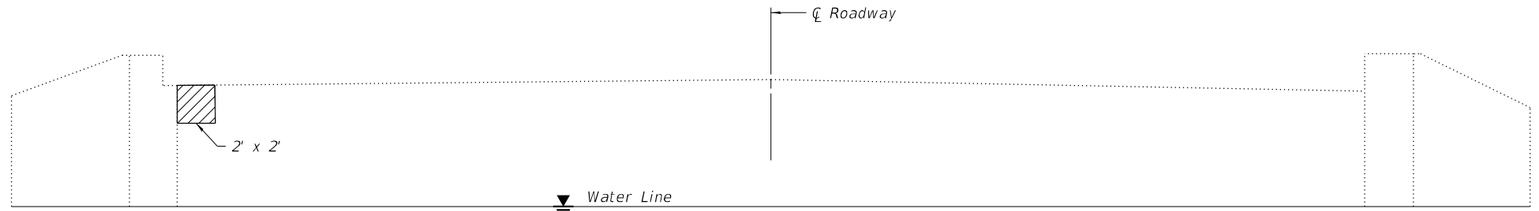
DECK REPAIR DETAILS
STRUCTURE NO. 016-2533
SHEET 4 OF 13 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1350	FAU 1350 22 BJ	COOK	56	32
		CONTRACT NO. 62T39		
		ILLINOIS	FED. AID PROJECT	



WEST ABUTMENT REPAIRS

(Looking West)



EAST ABUTMENT REPAIRS

(Looking East)

LEGEND

Structural Repair of Concrete, ≤ 5"

Structural Repair of Concrete, > 5"

Notes:

Quantities and limits of repairs shown herein are estimated from an inspection by the District in spring of 2022. Actual limits shall be determined in the field and noted in the As-Built Plans.

See special provision for Structural Repair of Concrete.

BILL OF MATERIAL

Item	Unit	Total
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq. Ft.	8
Structural Repair of Concrete (Depth Greater Than 5 Inches)	Sq. Ft.	9

FILE NAME: C:\SP\WHKS & CO\bbb-Spring - Projects\IDOT D-18793.21 IL 72 Dedt Overlay IW0-42\CADD\CAD_Sheets\ZZZ-J160864_D162T39 IM.dgn

design firm no. 184001036

whks engineers + planners + land surveyors

USER NAME = gjameson		DESIGNED - CEH	REVISED -	
		CHECKED - JLM	REVISED -	
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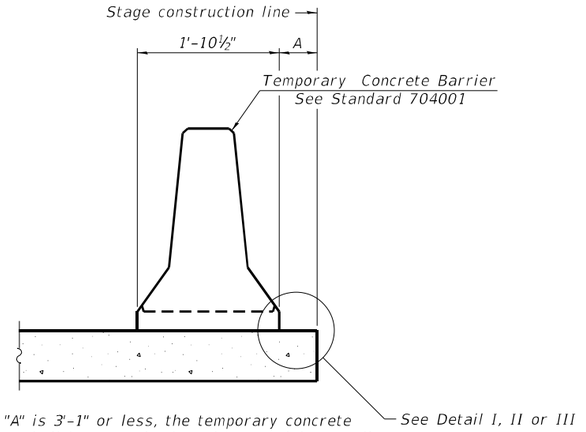
PLOT DATE = 11:00:25 AM		CHECKED - CEH	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ABUTMENT REPAIR DETAILS
STRUCTURE NO. 016–2533

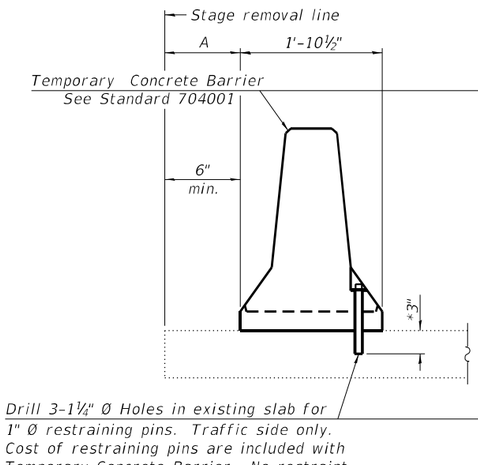
SHEET 5 OF 13 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1350	FAU 1350 22 BJ	COOK	56	33
		CONTRACT NO. 62T39		
	ILLINOIS	FED. AID PROJECT		



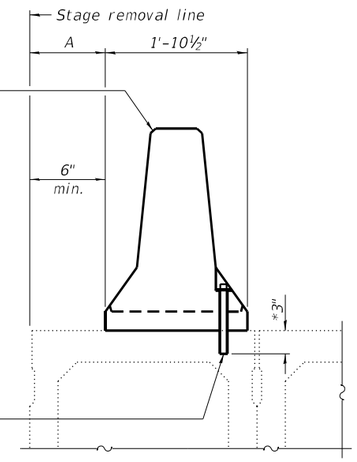
When "A" is 3'-1" or less, the temporary concrete barrier shall be restrained to the new slab according to Detail I, II or III. No restraint is required when "A" is greater than 3'-1".

NEW SLAB OR NEW DECK BEAM



Drill 3-1¼" Ø Holes in existing slab for 1" Ø restraining pins. Traffic side only. Cost of restraining pins are included with Temporary Concrete Barrier. No restraint is required when "A" is greater than 3'-1".

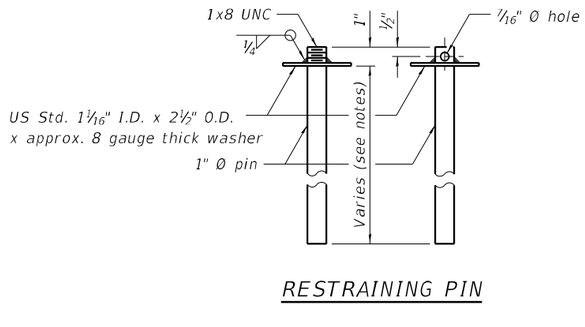
EXISTING SLAB



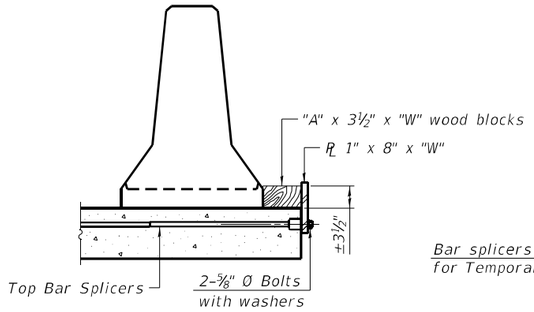
* When hot-mix asphalt wearing surface is present, embedment shall be 3" plus the wearing surface depth.

EXISTING DECK BEAM

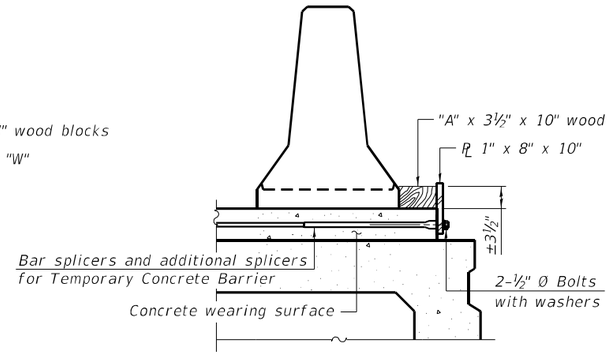
SECTIONS THRU SLAB OR DECK BEAM



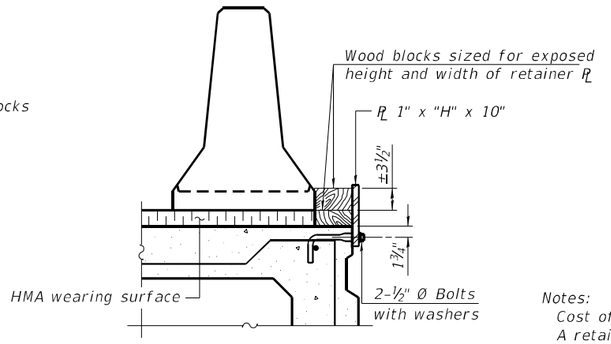
RESTRAINING PIN



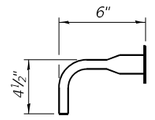
DETAIL I



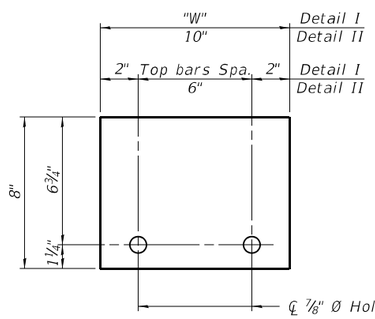
DETAIL II



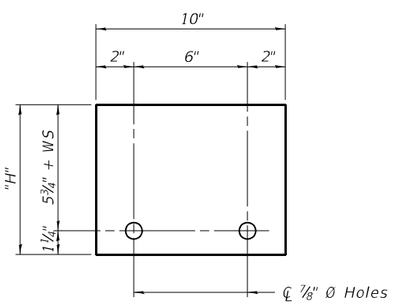
DETAIL III



BAR SPLICER FOR #4 BAR - DETAIL III



STEEL RETAINER PL 1" x 8" x "W"
(Detail I and II)



STEEL RETAINER PL 1" x "H" x 10"
(Detail III)

RAILING CRITERIA

NCHRP 350 Test Level	3
Railing Weight (plf)	440

Notes:

Cost of retainer assembly is included with Temporary Concrete Barrier.

A retainer assembly shall be located at the approximate ℄ of each temporary concrete barrier.

The retainer plate shall not be removed until the concrete on the adjacent stage is ready to be poured. For Detail III applications the retainer plate shall not be removed until just prior to placing the adjacent beam.

When the 'A' dimension is less than 1½", the wood block shall be omitted and the barrier shall be placed in direct contact with the steel retainer plate. For deck beam applications the minimum required 'A' distance is 6" to accommodate the shear key clamping device.

Detail I - Installation for a new bridge deck or bridge slab.

Detail II - Installation for a new deck beam with an initial concrete wearing surface. Additional bar splicers shall be provided at 6'-0" centers and paired with the bar splicers of the concrete wearing surface reinforcement to accommodate the installation of the retainer assemblies. The cost of the additional bar splicers is included with the concrete wearing surface.

Detail III - Installation for a new deck beam with no initial wearing surface or with an initial hot-mix asphalt (HMA) wearing surface present. The deck beam directly beneath the temporary concrete barrier shall be fabricated with bar splicer inserts in the side of the beam, as detailed, to accommodate the installation of the retainer assemblies. A pair of bar splicers, 6" apart, shall be placed at 6'-0" centers along the length of the beam. The cost of the bar splicers is included with the deck beam.

R-27

10-12-2021

FILE NAME: C:\SP\WHKS & COU\bb-Spring - Projects\IDOT D-18793.2 IL 72 Deck Overlay (WO-42)\CADD\CAD_Sheets\ZZZ-9160664_D162T39 (M).dgn

design firm no. 184001036 whks engineers + planners + land surveyors

USER NAME = gjameson	DESIGNED - CEH	REVISED -	
	CHECKED - JLM	REVISED -	
PLOT DATE = 4/27/2023	DRAWN - JLM	REVISED -	
PLOT DATE = 11:00:26 AM	CHECKED - CEH	REVISED -	

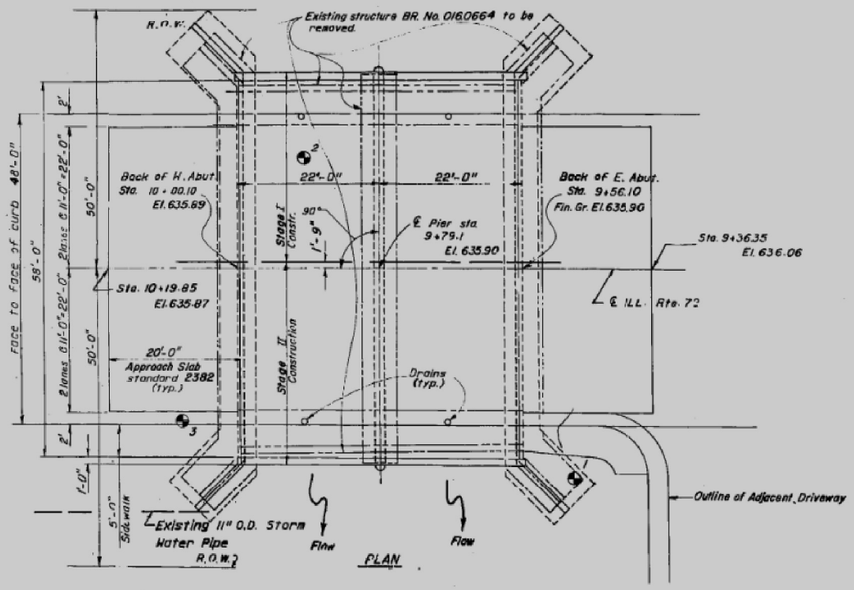
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CONCRETE BARRIER
STRUCTURE NO. 016-2533
SHEET 6 OF 13 SHEETS

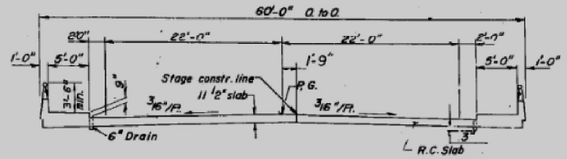
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1350	FAU 1350 22 BJ	COOK	56	34
		CONTRACT NO. 62T39		
	ILLINOIS	FED. AID PROJECT		

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1350 (ILTA)	016-0664	COOK	17	6
STA		TO STA		
FED. ROAD DIST. NO. 7	ILLINOIS	IX-0005 (700) FED. AID PROJECT		

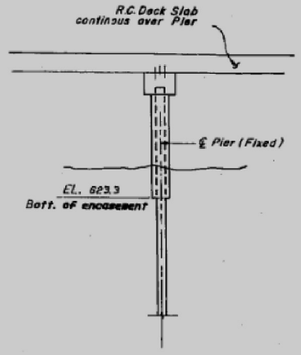
BM. No. 5 Elev. 632.77 - Arrowhead on Fire Hydrant on Southside of Higgins Road, 200'± West of Railroad Bridge over Higgins Road



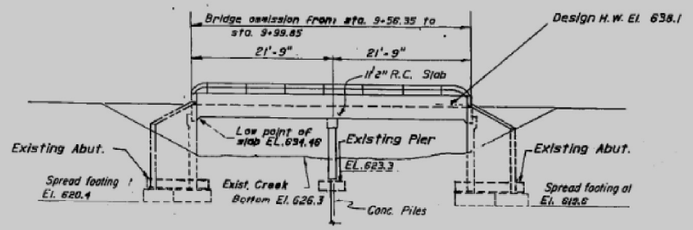
PLAN



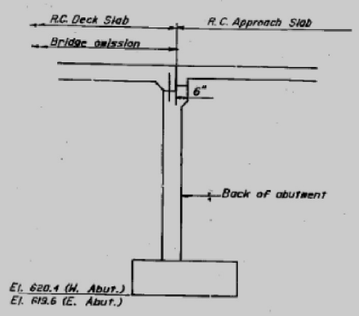
TYPICAL BRIDGE SECTION



PIER CROSS SECTION



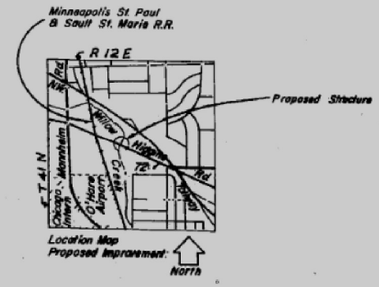
ELEVATION



ABUTMENT SECTION

Bridge No. 016-0664 consists of two simple reinforced concrete slab spans of 21'-0" each. The 1 1/2" thick slabs rest directly on reinforced concrete center pier and closed abutments. The pier consists of a 32" wide cap with a base tapering from 24" to 34" wide. The abutment walls are 12" thick. The bridge was built in 1923, in 1934 the bridge was widened from two to four lanes. The abutments and pier were extended 12' on both ends. At one time, a 6" wide x 37" high concrete shelf was added to the cap area of the west abutment. Overall dimensions of the bridge are 44'-0" back to back abutments, X56'-2", out to out. The bridge carries four 11' lanes and two 5' sidewalks.

Maintain two lane traffic at all times utilizing stage construction. No salvage.



LRS. NO. S-1

Notes :

Specifications :

General :
The Standard Specifications for Road and Bridge Construction, adopted October 1, 1979 along with current supplemental specifications and special provisions.

Design :
1977 A.A.S.H.T.O. Standard Specifications for Highway Bridges, including interim specifications 1978 thru 1982.

Loading :
H.S.20-44, allow 25 Lbs. per sq. foot for future wearing surface.

Design stresses :
Concrete : F'c= 3500 p.s.i.

Fy= 60,000 p.s.i. (All Reinforcement)

- See Proposal for Boring Data.
- Reinforcement bars shall conform to the requirements of AASHTO M-31 or M-53 Grade 60.
- Backfill shall be placed behind the abutment after the superstructure has been poured and the falsework removed. See Article 502.11 of the Standard Specifications.
- The back face of Closed Abutments (or Retaining Walls) shall be waterproofed according to Article 503.11 of the Standard Specifications.
- The Contractor shall make allowance for the deflection of forms, shrinkage and settlement of falsework, in addition to allowance for dead load deflection.
- The contractor shall drive 1 Concrete test pile in a personnel location at Pier as directed by the Engineer before ordering the remainder of piles.

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY SUB	QUANTITY SUPER	QUANTITY TOTAL
Removal of Existing Structure	Each			1
Cofferdam Excavation	Cu Yd	134.4		134.4
Floor Drains	Each		4	4
Class X Concrete	Cu Yd	203.6	115.2	318.8
Aluminum Railing	Lin Ft		83	83
Reinforcement Bars	Pound	20,409	13,716	34,125
Reinforcement Bars (Epoxy Coated)	Pound		11,508	11,508
Concrete Piles	Lin. Ft	219		219
Test Pile, Concrete	Each	1		1
Cofferdams	Each	3		3
Temporary Sheet Piling	Sq. Ft.	990		990
Relocate Temp. Concrete Barrier	Lin. Ft.		44	44
Temporary Bridge Rail	Lin. Ft		44	44
Protective Coat	Sq. Yd.	313		313
Name Plate	Each		1	1

Drainage Area 17 Sq Mi — Overtopping Elev. 634.7 — ℄ Sta.

Flood	Freq Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
Design	50	880	246	246	638.1	0.06	0.06	638.16	638.16
Base	100	1010	246	246	638.6	0.06	0.06	638.66	638.66
Overtopping	<2	500	246	246	634.7	0	0	634.7	634.7
Max. Calc.	500								

WATERWAY INFORMATION

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Engineer of Bridges and Structures

ROLAND H. BERGER 31765 REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS
R. H. Berger 8/25/83

REVISIONS	
NAME	DATE

BYRD, TALLAMY, MACDONALD & LEWIS
CONSULTING ENGINEERS
A DIVISION OF WILBUR SMITH & ASSOCIATES
ROSELLE, IL

ILLINOIS DEPARTMENT OF TRANSPORTATION
HIGGINS RD (ILL 72)

GENERAL PLAN

SCALE: VERT. HORIZ.
DATE
DRAWN BY TFW
CHECKED BY JDLS

FILE NAME: C:\SPWHKS & CO\Jobs-Spring - Projects\DOT D-18793.21 IL 72 Deck Over\By (WD-42)\CAD\DICAD_Sheets\22Z-0160664_D162T39 IM.dgn

design firm no. 184001086 — whks engineers + planners + land surveyors

USER NAME = gjameson	DESIGNED - CEH	REVISED -
	CHECKED - JLM	REVISED -
PLOT DATE = 4/27/2023	DRAWN - JLM	REVISED -
PLOT DATE = 11:00:26 AM	CHECKED - CEH	REVISED -

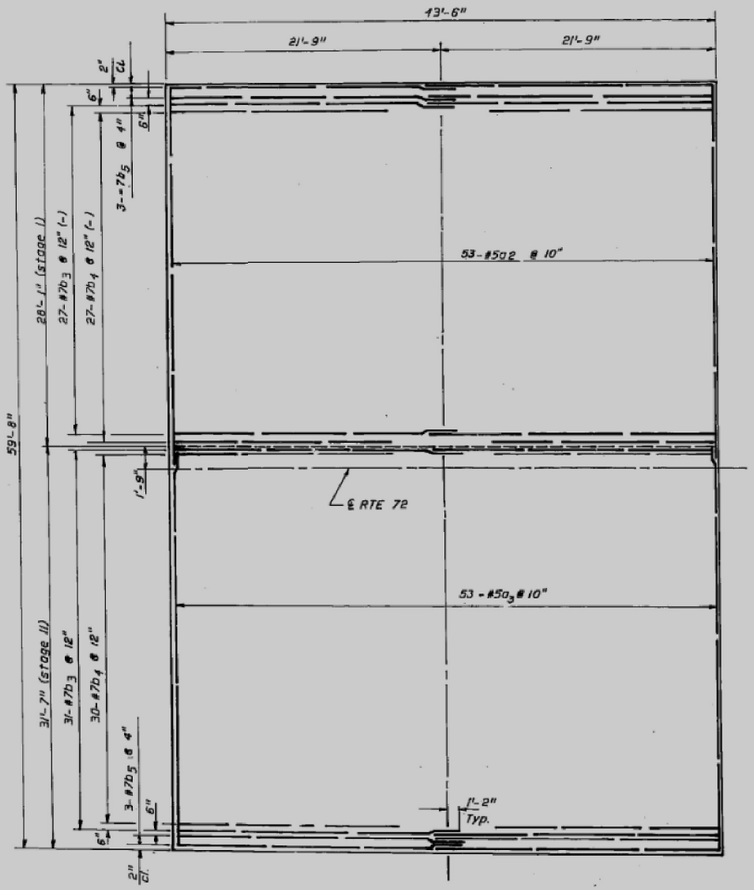
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS (FOR INFORMATION ONLY)
STRUCTURE NO. 016-2533
SHEET 7 OF 13 SHEETS

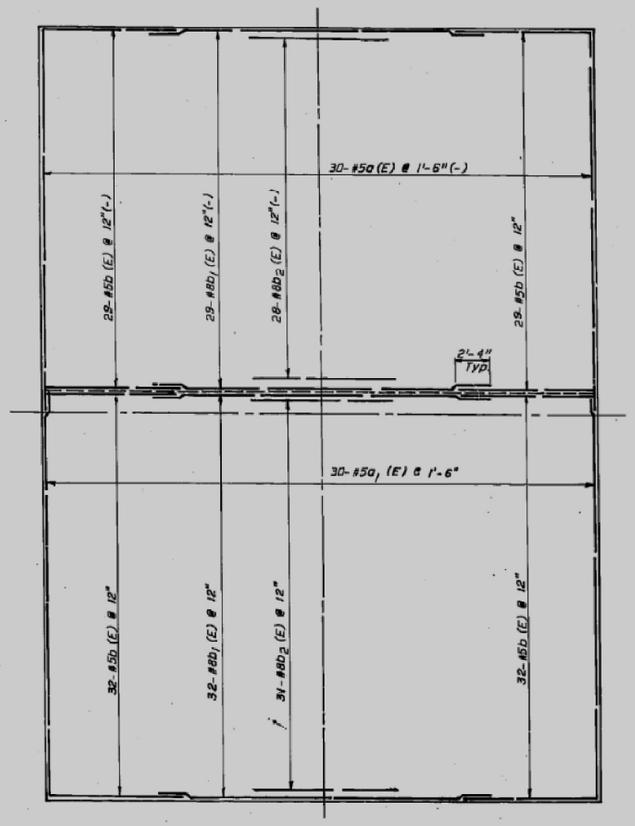
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1350	FAU 1350 22 BJ	COOK	56	35
		CONTRACT NO. 62T39		
	ILLINOIS	FED. AID PROJECT		

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1350	Cook-Bj	Cook	17	7
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS		IR-5005 (750) FED. AID PROJECT	

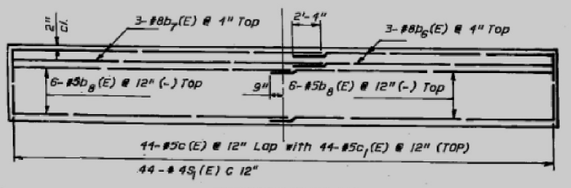
DWG. NO. S-2



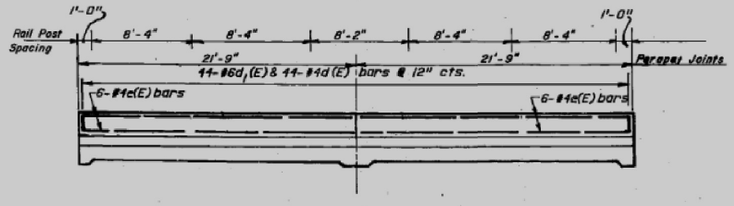
SLAB PLAN - BOTTOM REINFORCEMENT



SLAB PLAN - TOP REINFORCEMENT



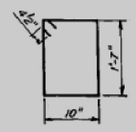
SIDEWALK PLAN



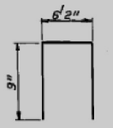
SIDE ELEVATION

BAR LIST

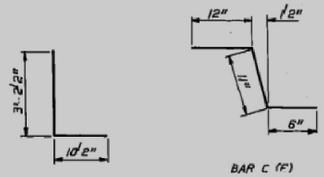
BAR	NO	SIZE	LENGTH	SHAPE
a (E)	30	5	29'-9"	
a_1 (E)	30	5	31'-3"	
a_2	53	5	29'-9"	
a_3	53	5	31'-3"	
b (E)	106	5	11'-0"	
b_1 (E)	53	8	25'-10"	
b_2 (E)	51	8	11'-0"	
b_3	116	7	22'-9"	
b_4	114	7	17'-9"	
b_5	12	7	22'-9"	
b_6 (E)	6	8	17'-0"	
b_7 (E)	6	8	28'-8"	
b_8 (E)	24	5	22'-4"	
c (E)	88	5	2'-5"	
c_1 (E)	88	5	5'-6"	
d	88	4	4'-1"	
d_1 (E)	88	6	4'-1"	
d_2	12	4	21'-0 1/2"	
e (E)	24	4	21'-5"	
s (E)	88	4	5'-9"	



BAR s_1 (E)



BAR d_2 (E)



BAR a(E) & d_1(E)

BAR c (E)

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Class X Concrete	C.Y.	115.2
Reinforcement Bars	Lb.	13716
Reinforcement Bars (Epoxy Coated)	Lb.	11510
Railing	L.F.	83

REVISIONS

NAME	DATE

BYRD, TALLAMY, MACDONALD & LEWIS
CONSULTING ENGINEERS
A DIVISION OF WILBUR SMITH & ASSOCIATES
ROSELLE, IL.

ILLINOIS DEPARTMENT OF TRANSPORTATION
HIGGINS RD (ILL 72)

SUPERSTRUCTURE

SCALE: VERT.
HORIZ.
DATE

DRAWN BY C.H. & S.A.J.
CHECKED BY D.W.S.

A.K. 8-17-83

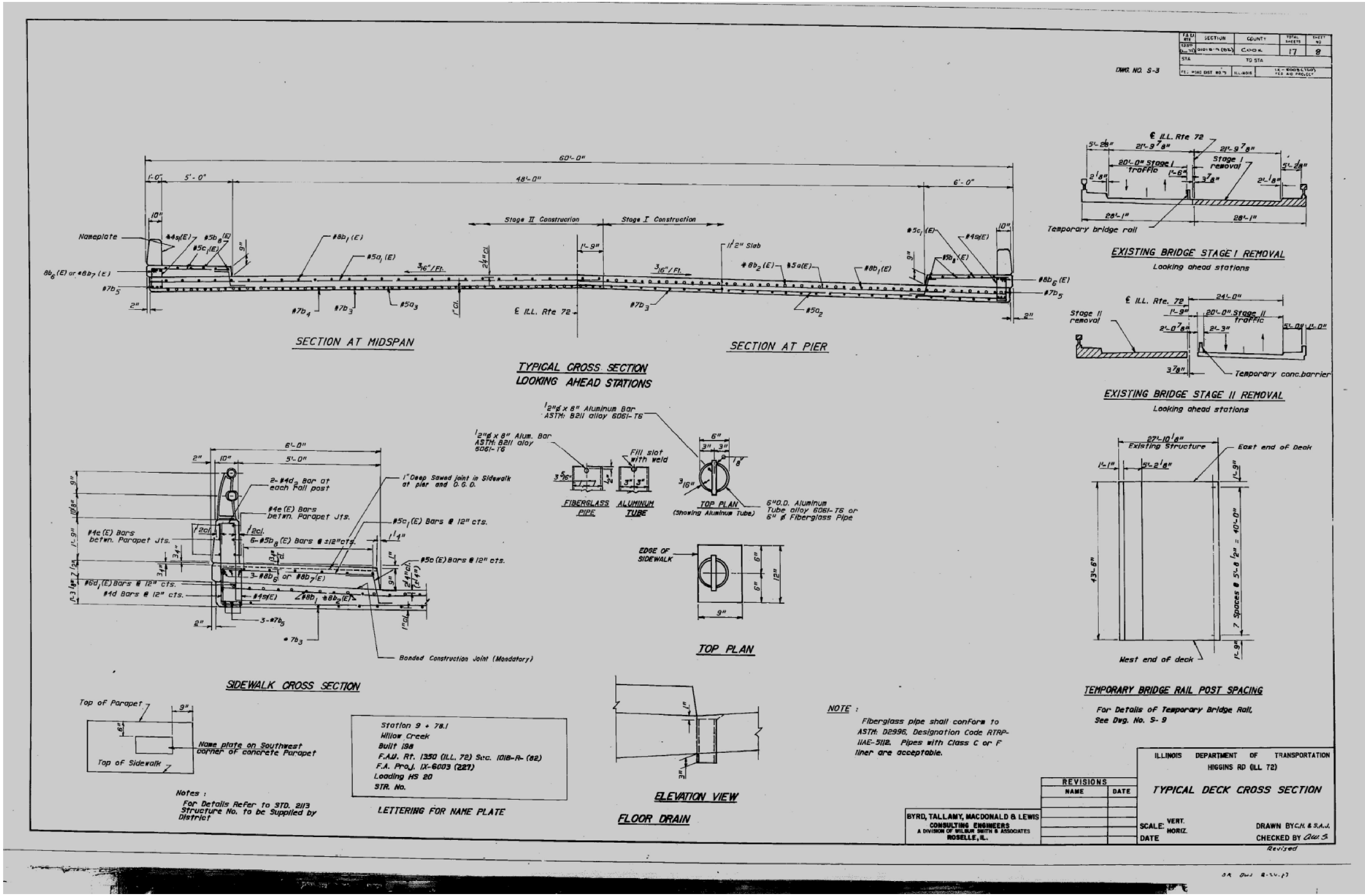
FILE NAME: C:\SP\WHKS & COU\bbs-Spring - Projects\IDOT D-18793.23 IL 72 Deck Overlay (WO-42)\CADD\CAD_Sheets\ZZZ-91610664_D162T39 (M.dgn

design firm no. 184001036	USER NAME = gjameson	DESIGNED - CEH	REVISED -
whks engineers + planners + land surveyors		CHECKED - JLM	REVISED -
	PLOT DATE = 4/27/2023	DRAWN - JLM	REVISED -
	PLOT DATE = 11:00:31 AM	CHECKED - CEH	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS (FOR INFORMATION ONLY)
STRUCTURE NO. 016-2533
SHEET 8 OF 13 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1350	FAU 1350 22 BJ	COOK	56	36
		CONTRACT NO. 62T39		
	ILLINOIS	FED. AID PROJECT		



F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO.
1350 (ILL. 72) | 1018-R (82) | COOK | 17 | 8
STA | TO STA
FED. ROAD DIST. NO. 7 | ILLINOIS | IX-6003(227) FED. AID PROJECT
DWG. NO. S-3
60'-0"
1'-0"
5'-0"
48'-0"
6'-0"
10"
Nameplate
#4s1(E)
#5b8(E)
#5c1(E)
9"
#8b1(E)
#5a1(E)
3/16"/Ft.
2 1/4" Cl.
Stage II Construction
Stage I Construction
1'-9"
1 1/2" Slab
#8b2(E)
#5a(E)
#4s(E)
8b6(E) or #8b7(E)
#8b6(E)
#7b5
2"
#7b4
#7b3
#5a3
1" Cl.
℄ ILL. Rte 72
#5a2
SECTION AT MIDSPAN
SECTION AT PIER
TYPICAL CROSS SECTION
LOOKING AHEAD STATIONS
℄ ILL. Rte 72
5'-2 1/8"
21'-9 7/8"
20'-0" Stage I traffic
Stage I removal
2 1/8"
1'-6"
3 7/8"
28'-1"
Temporary bridge rail
EXISTING BRIDGE STAGE I REMOVAL
Looking ahead stations
℄ ILL. Rte. 72
24'-0"
1'-9"
20'-0" Stage II traffic
Stage II removal
2'-0 7/8"
2'-3"
5'-0"
1'-0"
3 7/8"
Temporary conc. barrier
EXISTING BRIDGE STAGE II REMOVAL
Looking ahead stations
1/2"ø x 8" Aluminum Bar ASTM: B211 alloy 6061-T6
1/2"ø x 8" Alum. Bar ASTM: B211 alloy 6061-T6
Fill slot with weld
3 5/16"
FIBERGLASS PIPE
ALUMINUM TUBE
3/16"
1/8"
TOP PLAN (Showing Aluminum Tube)
6" O.D. Aluminum Tube alloy 6061-T6 or 6" ø Fiberglass Pipe
EDGE OF SIDEWALK
12"
9"
TOP PLAN
27'-10 1/8" Existing Structure
East end of Deck
1'-1"
5'-2 1/8"
43'-6"
7 Spaces @ 5'-8 1/2" = 40'-0"
West end of deck
TEMPORARY BRIDGE RAIL POST SPACING
For Details of Temporary Bridge Rail, See Dwg. No. S-9
2-#4d2 Bar at each Rail post
#4e (E) Bars betwn. Parapet Jts.
1" Deep Sawed joint in Sidewalk at pier and O.G.D.
#5c1(E) Bars @ 12" cts.
6-#5b8(E) Bars @ ±12" cts.
1 1/4"
#5a (E) Bars @ 12" cts.
3-#8b6 or #8b7(E)
#6d1(E) Bars @ 12" cts.
#4d Bars @ 12" cts.
#4s(E)
#8b1 #8b2(E)
3-#7b5
#7b3
Bonded Construction Joint (Mandatory)
SIDEWALK CROSS SECTION
Top of Parapet
Name plate on Southwest corner of concrete Parapet
Top of Sidewalk
Notes :
For Details Refer to STD. 2113
Structure No. to be Supplied by District
Station 9 + 78.1
Willow Creek
Built 198
F.A.U. Rt. 1350 (ILL. 72) Sec. 1018-R-(82)
F.A. Proj. IX-6003 (227)
Loading HS 20
STR. No.
LETTERING FOR NAME PLATE
ELEVATION VIEW
FLOOR DRAIN
NOTE :
Fiberglass pipe shall conform to ASTM: D2996, Designation Code RTRP-11AE-5112. Pipes with Class C or F liner are acceptable.
REVISIONS
NAME
DATE
BYRD, TALLAMY, MACDONALD & LEWIS
CONSULTING ENGINEERS
A DIVISION OF WILBUR SMITH & ASSOCIATES
ROSELLE, IL.
ILLINOIS DEPARTMENT OF TRANSPORTATION
HIGGINS RD (ILL 72)
TYPICAL DECK CROSS SECTION
SCALE: VERT. HORIZ.
DATE
DRAWN BY C.H. & S.A.J.
CHECKED BY
Revised

FILE NAME: C:\SPWHKS & CO\Jobs-Spring - Projects\IDOT D-1\8793.21 IL 72 Deck Overlay (WO-42)\CADD\CAD_Sheets\ZZZ-0160664_D162T39 JM.dgn

design firm no. 184001036	whks engineers + planners + land surveyors

USER NAME = gjameson	DESIGNED - CEH	REVISED -	
	CHECKED - JLM	REVISED -	
PLOT DATE = 4/27/2023	DRAWN - JLM	REVISED -	
PLOT DATE = 11:00:36 AM	CHECKED - CEH	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

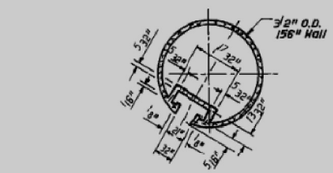
EXISTING PLANS (FOR INFORMATION ONLY)
STRUCTURE NO. 016–2533

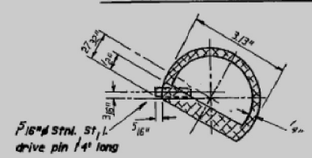
SHEET 9 OF 13 SHEETS

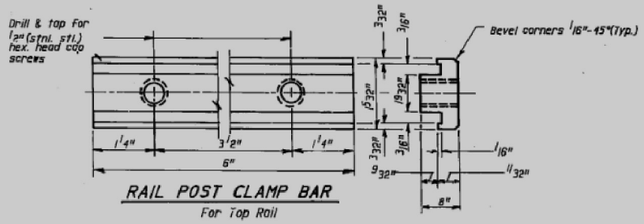
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1350	FAU 1350 22 BJ	COOK	56	37
		CONTRACT NO. 62T39		
	ILLINOIS	FED. AID PROJECT		

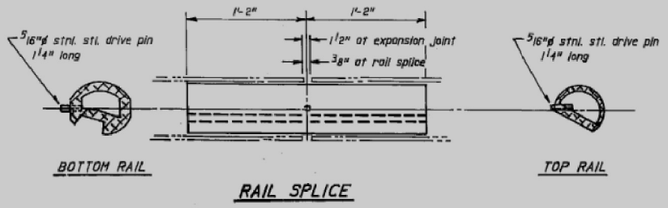
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1350	FAU 1350 22 BJ	COOK	17	9
STA	TO STA			
FED. ROAD DIST. NO. 7	ILLINOIS	(ILL. ROUTE 72) FED. AID PROJECT		

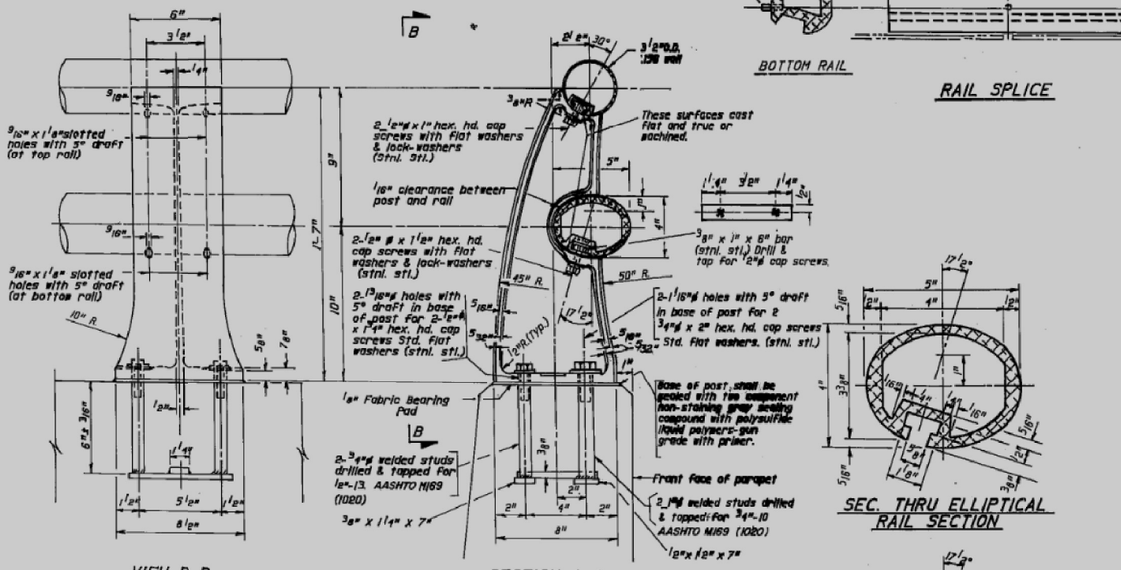
DWG. NO. S-4

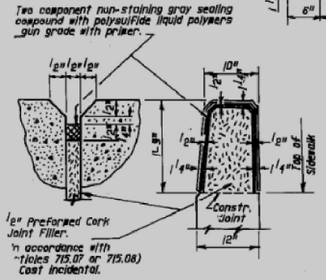


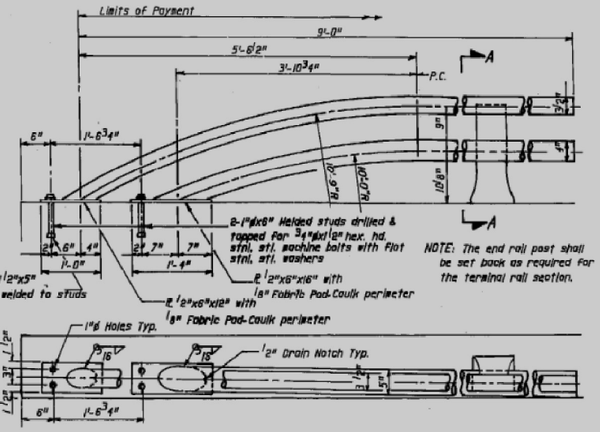












NOTES:

All Posts shall be normal to parapet.

All Aluminum Alloy Extruded Rail shall be supplied in modular lengths of 30 Feet, except of the end of bridge or over open joints in bridge deck where the rail shall be attached to a minimum of 2 posts. If the rail is on a horizontal curve of 2300 Foot radius of less, the modular lengths may be reduced but shall be attached to a minimum of 2 posts.

All joints in rail shall be spliced per detail.

Provide 1-1/8" and 2-1/16" Aluminum Shims for 25% of the Posts. Rail elements shall be parallel to Grade - high spots shall be ground and and low spots shimmed.

Railing shall be in accordance with Section 508 of the Standard Specifications, except as noted, and shall be paid for at the contract unit price per lineal Foot for ALUMINUM RAILING, TYPE L.

Aluminum alloy rail shall conform to ASTM B 221 alloy 6061-T6 or 6351-T5 with min. yield 35 ksi, min. tensile 38 ksi, and elongation of 10% in 2 inches.

BILL of MATERIALS

Item	Unit	Quantity
ALUMINUM RAILING, TYPE L	Lin. Ft.	83

REVISIONS	
NAME	DATE

BYRD, TALLAMY, MACDONALD & LEWIS
CONSULTING ENGINEERS
A DIVISION OF WILBUR SMITH & ASSOCIATES
ROSELLE, IL.

ILLINOIS DEPARTMENT OF TRANSPORTATION
HIGGINS RD (ILL 72)

RAILING DETAILS

SCALE: VERT.
HORIZ.
DATE

DRAWN BY H. CH.
CHECKED BY [illegible]

APR. 2015 8-24-23

FILE NAME: C:\SP\WHKS & COU\Jobs-Spring - Projects\IDOT D-18793.23 IL 72 Deck Overlay (WO-42)\CADD\CAD_Sheets\ZZZ-20160864_D162T39 (M).dgn

design firm no. 184001036
whks
engineers + planners + land surveyors

USER NAME = gjameson	DESIGNED - CEH	REVISED -
	CHECKED - JLM	REVISED -
PLOT DATE = 4/27/2023	DRAWN - JLM	REVISED -
PLOT DATE = 11:00:41 AM	CHECKED - CEH	REVISED -

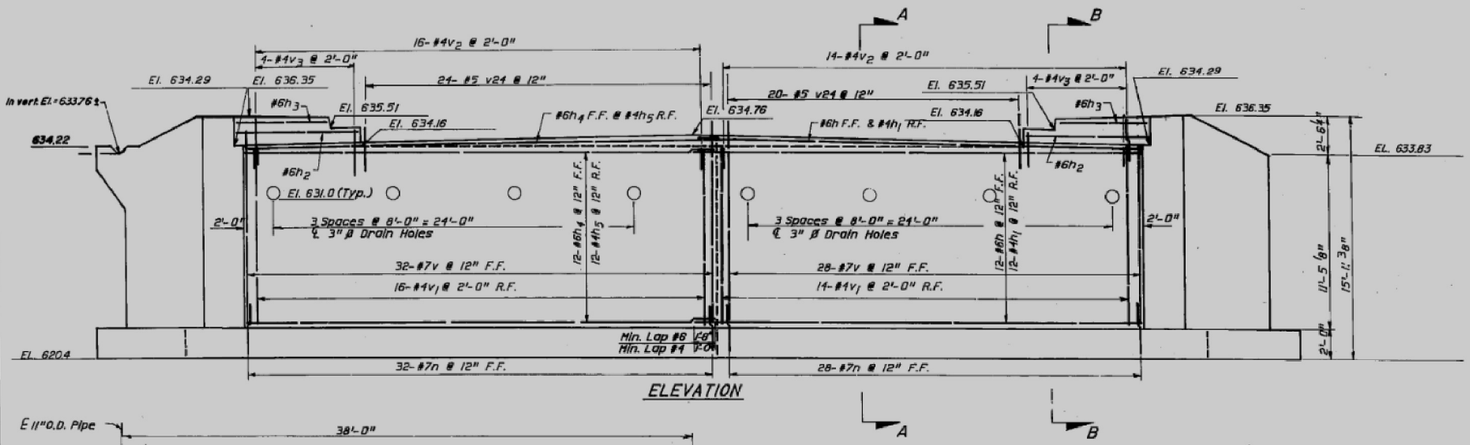
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS (FOR INFORMATION ONLY)
STRUCTURE NO. 016-2533
SHEET 10 OF 13 SHEETS

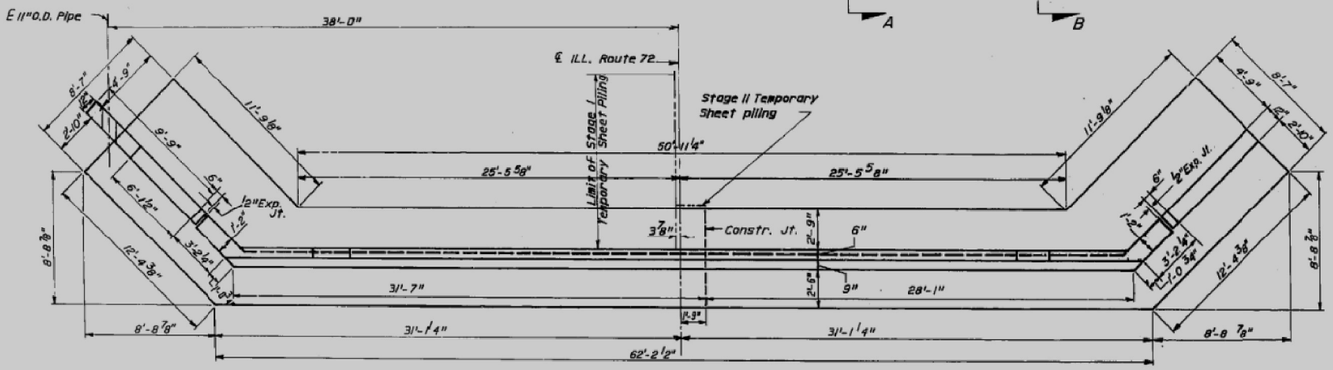
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1350	FAU 1350 22 BJ	COOK	56	38
		CONTRACT NO. 62T39		
	ILLINOIS	FED. AID PROJECT		

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1350	01010-RLAS	Cook	17	10
STA	TO STA			
FED. ROAD DIST. NO. 7	ILLINOIS		FA-3005 S (TIG) FED. AID PROJ.	

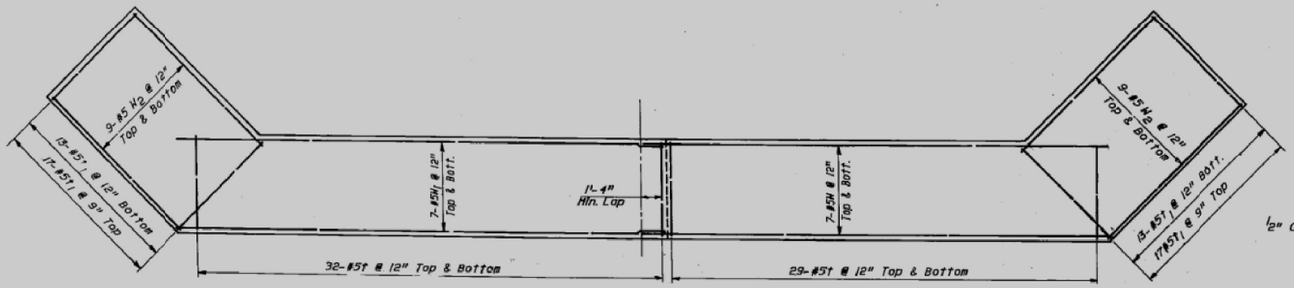
DWG. NO. S-5



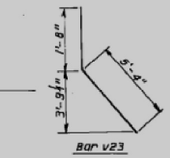
ELEVATION



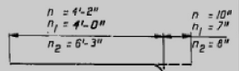
PLAN VIEW



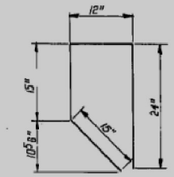
FOOTING PLAN



Bar v23



Bars n, n_1, n_2



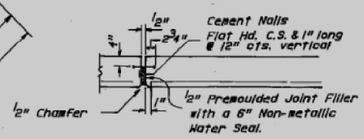
Bar v_2

BAR LIST

BAR	NO.	SIZE	LENGTH	SHAPE
h	13	6	29'-8"	
h_1	13	4	29'-1"	
h_2	2	6	7'-6"	
h_3	2	6	5'-5"	
h_4	13	6	31'-6"	
h_5	13	4	31'-6"	
h_6	36	4	7'-4"	
h_7	10	4	4'-3"	
h_8	2	4	2'-0"	
h_9	4	4	7'-9"	
h_{10}	40	4	3'-5"	
h_{11}	8	4	2'-5"	
n	60	7	5'-0"	
n_1	30	5	4'-7"	
n_2	26	6	6'-11"	
t	122	5	6'-2"	
t_1	60	5	8'-3"	
v24	44	5	21'-6"	
v	60	7	12'-8"	
v_1	30	4	11'-7"	
v_2	30	4	5'-6"	
v_3	8	4	3'-4"	
v_4	8	5	11'-4"	
v_5	8	5	12'-4"	
v_6	14	5	13'-4"	
v_7	2	4	11'-4"	
v_8	2	4	12'-7"	
v_9	8	4	13'-9"	
v23	2	4	7'-0"	
W	14	5	30'-9"	
W_1	14	5	32'-9"	
W_2	36	5	12'-1"	

BILL OF MATERIALS

ITEM	UNIT	QUANTITY
Cofferdam Excavation	C.Y.	53.4
Class X Concrete	C.Y.	81.6
Reinforcement Bars	Lb.	8323
Cofferdam	Ea.	1



EXPANSION JOINT

Notes :
For Limits of Excavation, and temporary Sheet piling See Dwg. S-7

REVISIONS

NAME	DATE

BYRD, TALLAMY, MACDONALD & LEWIS
CONSULTING ENGINEERS
A DIVISION OF WILBUR SMITH & ASSOCIATES
ROSELLE, IL.

ILLINOIS DEPARTMENT OF TRANSPORTATION
HIGGINS RD (ILL 72)

WEST ABUTMENT

SCALE: VERT.
HORIZ.
DATE

DRAWN BY Y.H. & S.A.J.
CHECKED BY D.W.S.

J.R. Dws 8-24-23

FILE NAME: C:\SPW\WHKS & COMBS-Spring - Projects\IDOT D-1187923.21 IL 72 Deck Over\By (WO-42)\CADD\CAD_Sheets\22Z2-0160664_D162T39 JM.dgn

design firm no. 184001036
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engineers + planners + land surveyors

USER NAME = gjameson	DESIGNED - CEH	REVISED -
	CHECKED - JLM	REVISED -
PLOT DATE = 4/27/2023	DRAWN - JLM	REVISED -
PLOT DATE = 11:00:46 AM	CHECKED - CEH	REVISED -

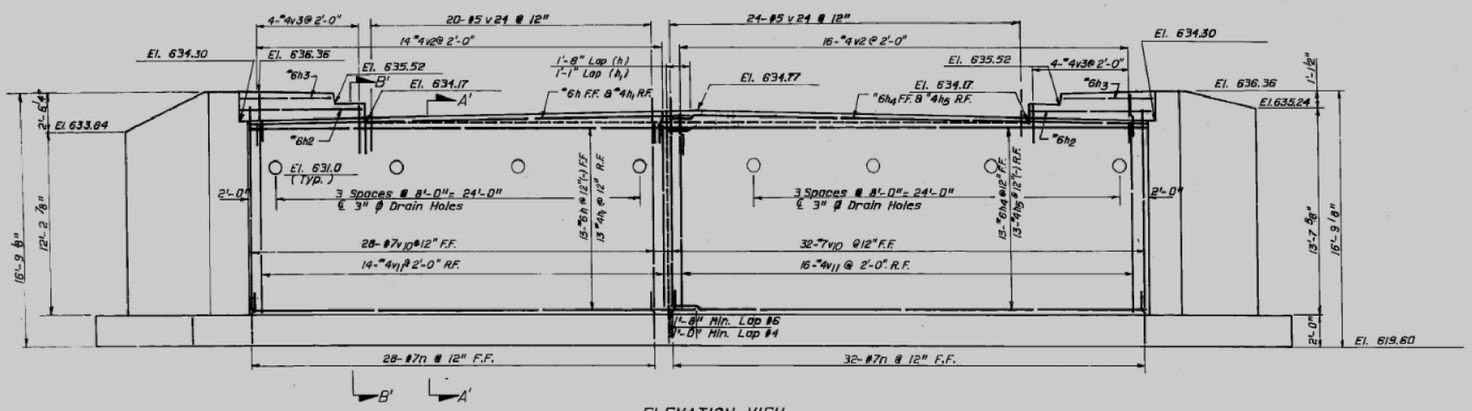
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS (FOR INFORMATION ONLY)
STRUCTURE NO. 016-2533
SHEET 11 OF 13 SHEETS

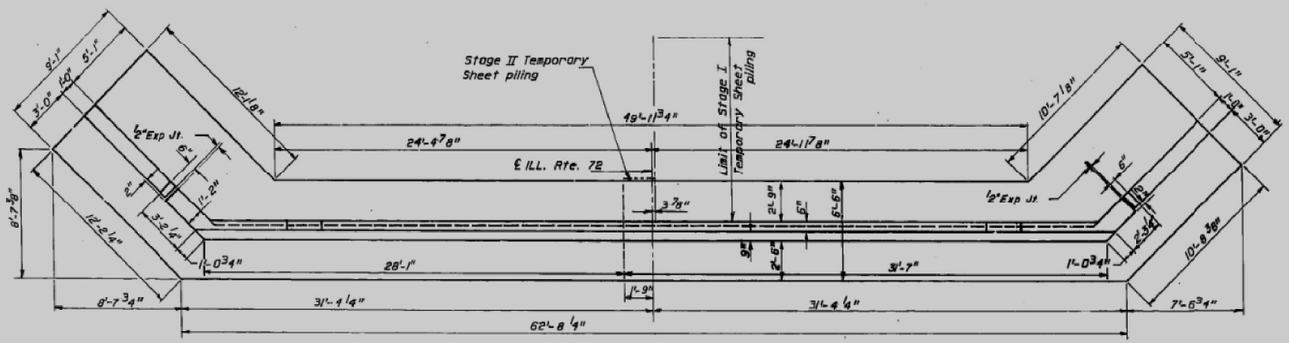
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1350	FAU 1350 22 BJ	COOK	56	39
		CONTRACT NO. 62T39		
	ILLINOIS	FED. AID PROJECT		

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
(1350)	(16)(18)-R (BI)	Cook	17	11
STA	TO STA			
FED. ROAD DIST NO. 7	ILLINOIS	(1,3003 (1350) FED. AID PROJECT		

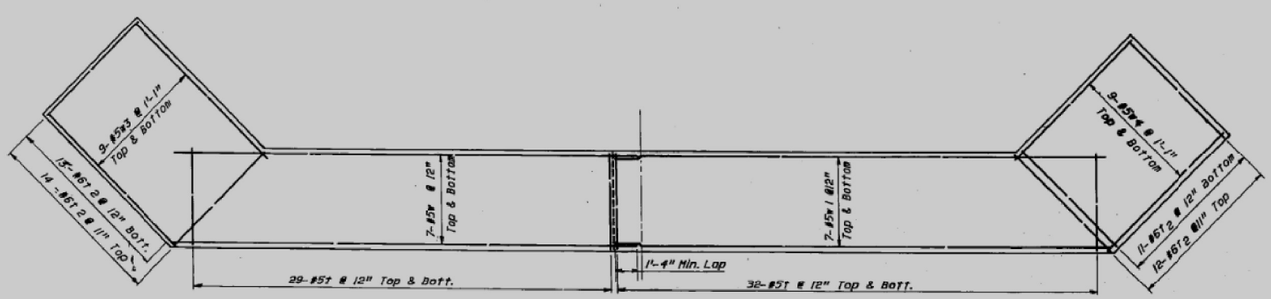
DWG. NO. S-6



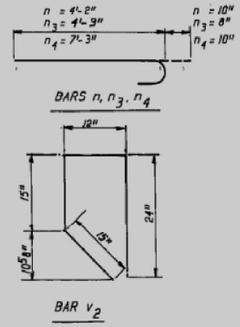
ELEVATION VIEW



PLAN VIEW



FOOTING PLAN



BAR LIST

BAR	NO.	SIZE	LENGTH	SHAPE
h	14	6	29'-8"	—
h_1	14	4	29'-1"	—
h_2	2	6	7'-6"	—
h_3	2	6	5'-5"	—
h_4	14	6	31'-6"	—
h_5	14	4	31'-6"	—
h_6	20	4	7'-4"	—
h_7	1	4	4'-9"	—
h_8	2	4	2'-0"	—
h_9	2	4	7'-9"	—
h_{10}	20	4	3'-5"	—
h_{11}	4	4	2'-5"	—
h_{12}	21	4	6'-11"	—
h_{13}	2	4	7'-0"	—
h_{14}	21	4	2'-6"	—
h_{15}	4	4	1'-6"	—
n	60	7	5'-0"	⊂
n_3	25	6	4'-11"	⊂
n_4	21	7	8'-1"	⊂
t	122	5	6'-2"	—
t_2	50	6	8'-9"	—
v_2	30	4	5'-6"	□
v_3	8	4	3'-4"	—
v_{10}	60	7	18'-6"	—
v_{11}	30	4	12'-4"	—
v_{12}	3	5	12'-1"	—
v_{13}	3	5	13'-1"	—
v_{14}	14	5	14'-0"	—
v_{15}	1	4	12'-1"	—
v_{16}	1	4	13'-5"	—
v_{17}	6	4	14'-7"	—
v_{18}	3	5	13'-6"	—
v_{19}	1	4	13'-8"	—
v_{20}	1	4	14'-3"	—
v_{24}	44	5	2'-6"	—
w	14	5	30'-9"	—
w_1	14	5	32'-9"	—
w_3	18	5	11'-9"	—
w_4	18	5	10'-5"	—

BILL OF MATERIALS

ITEM	UNIT	QUANTITY
Cofferdam Excavation	C.Y.	81.
Class X Concrete	C.Y.	82.9
Reinforcement Bars	Lb.	8616
Cofferdam	Eq.	1

Note :
- For Expansion Joint Detail See Dwg. S-5
- For Limits of Excavation, and Temporary Sheet piling See Dwg. S-7

REVISIONS	
NAME	DATE

BYRD, TALLAMY, MACDONALD & LEWIS
CONSULTING ENGINEERS
A DIVISION OF WILBUR SMITH & ASSOCIATES
ROSELLE, IL.

ILLINOIS DEPARTMENT OF TRANSPORTATION
HIGGINS RD (ILL 72)

EAST ABUTMENT

SCALE: VERT.
HORIZ.
DATE

DRAWN BY K.A.
CHECKED BY D.W.S.

OK 8-24-23

FILE NAME: C:\SPWINKS & COUnbb-Spring • Projects\IDOT D-18793.21 IL 72 Deck Over\By (WO-421\CADD\CAD_Sheets\ZZ-9160664_D162T39 (M.dgn

design firm no. 184001036
whks engineers + planners + land surveyors

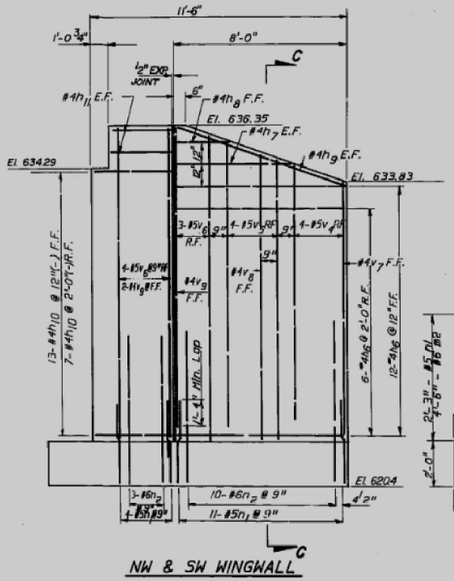
USER NAME = gjameson	DESIGNED - CEH	REVISED -
	CHECKED - JLM	REVISED -
PLOT DATE = 4/27/2023	DRAWN - JLM	REVISED -
PLOT DATE = 11:00:51 AM	CHECKED - CEH	REVISED -

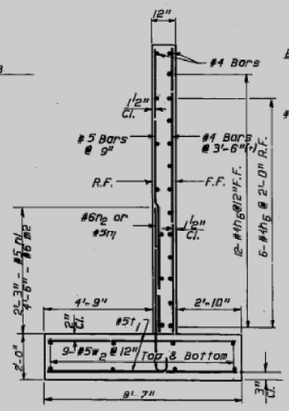
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

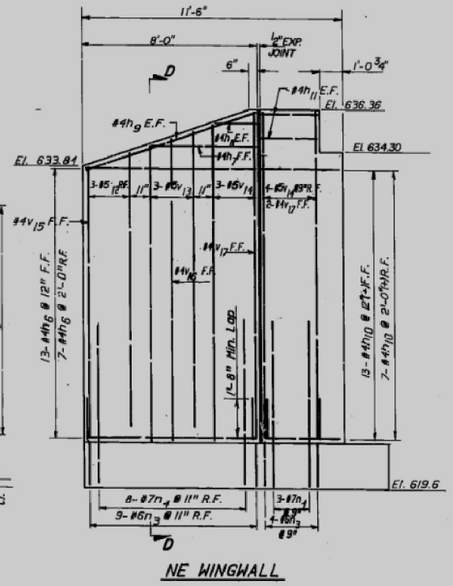
EXISTING PLANS (FOR INFORMATION ONLY)
STRUCTURE NO. 016-2533
SHEET 12 OF 13 SHEETS

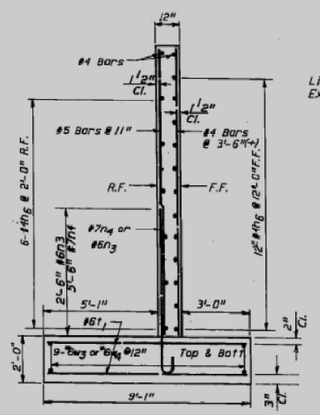
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1350	FAU 1350 22 BJ	COOK	56	40
		CONTRACT NO. 62T39		
	ILLINOIS	FED. AID PROJECT		

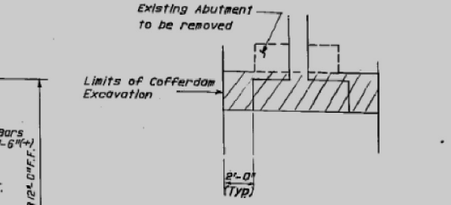
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1350	FAU 1350 22 BJ	Cook	17	12
STA.		TO STA.		
DWG. NO. S-7	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	

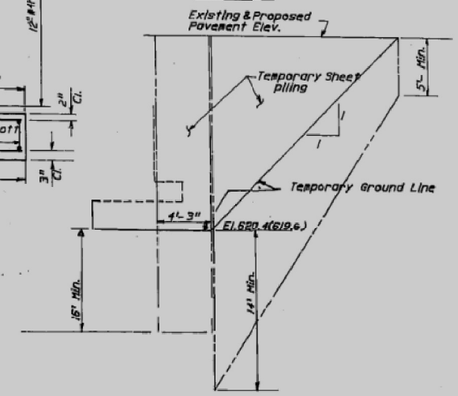


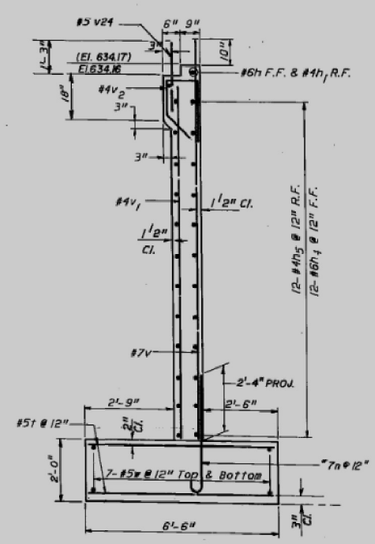


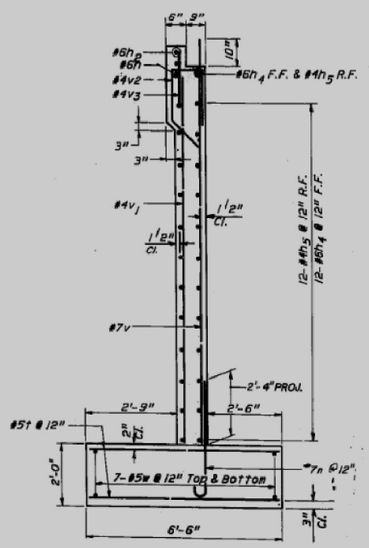




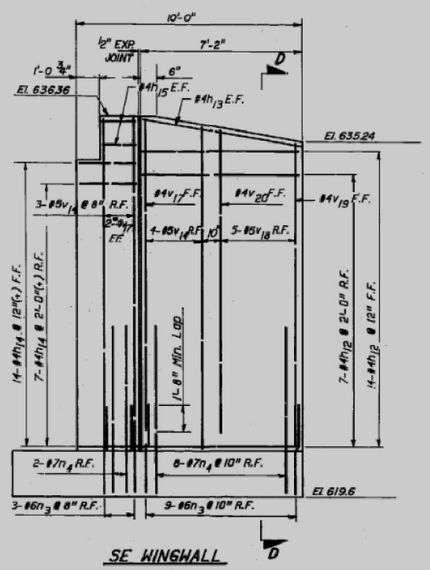


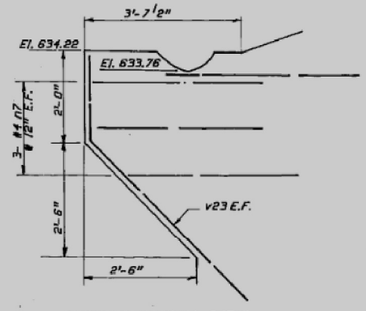






Footing Soil Bearing Pressure
Design : 4.1 KSF
Allowable : 7.0 KSF





REVISIONS	
NAME	DATE

BYRD, TALLAMY, MACDONALD & LEWIS
CONSULTING ENGINEERS
A DIVISION OF WILBUR SMITH & ASSOCIATES
ROSELLE, IL.

ILLINOIS DEPARTMENT OF TRANSPORTATION
HIGGINS RD (ILL 72)

WINGWALLS

SCALE VERT.
DATE HORIZ.

DRAWN BY X.H. & S.A.J.
CHECKED BY D.W.S.

O.K. Dws 8-4-93

FILE NAME: C:\SPWHKS & CO\Dots-Spring - Projects\DOT D-1\8793.21 IL 72 Deck Over\by (W10-42)\CADD\CAD_Sheets\ZZZ-9160864_D162T39 IM.dgn

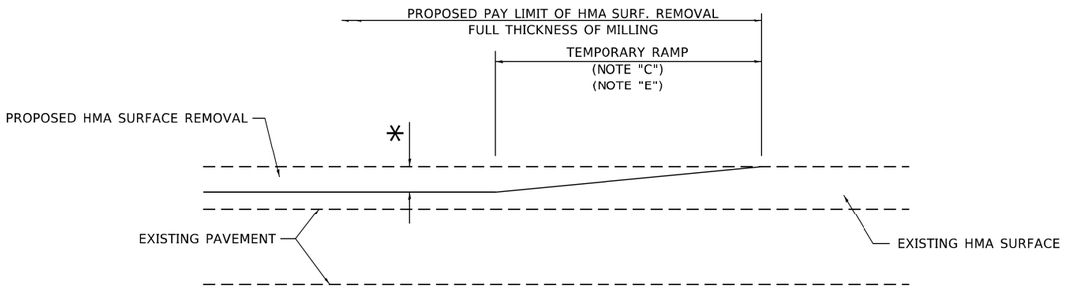
design firm no. 184001036
whks engineers + planners + land surveyors

USER NAME = gjameson	DESIGNED - CEH	REVISED -
	CHECKED - JLM	REVISED -
PLOT DATE = 4/27/2023	DRAWN - JLM	REVISED -
PLOT DATE = 11:00:55 AM	CHECKED - CEH	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS (FOR INFORMATION ONLY)
STRUCTURE NO. 016-2533
SHEET 13 OF 13 SHEETS

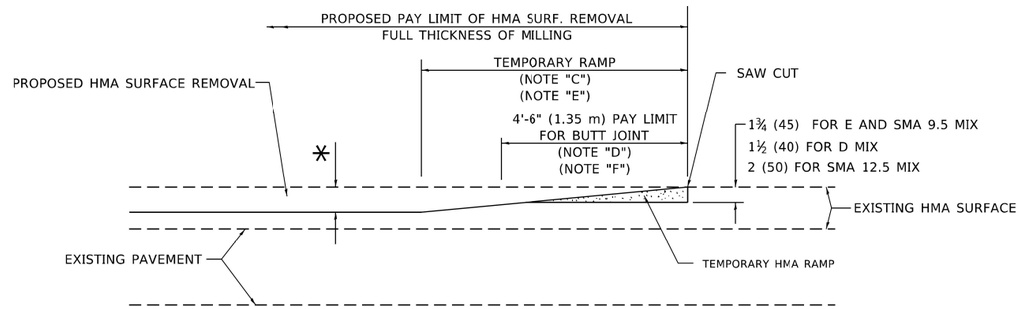
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1350	FAU 1350 22 BJ	COOK	56	41
		CONTRACT NO. 62T39		
	ILLINOIS	FED. AID PROJECT		



MILLED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

OPTION 1

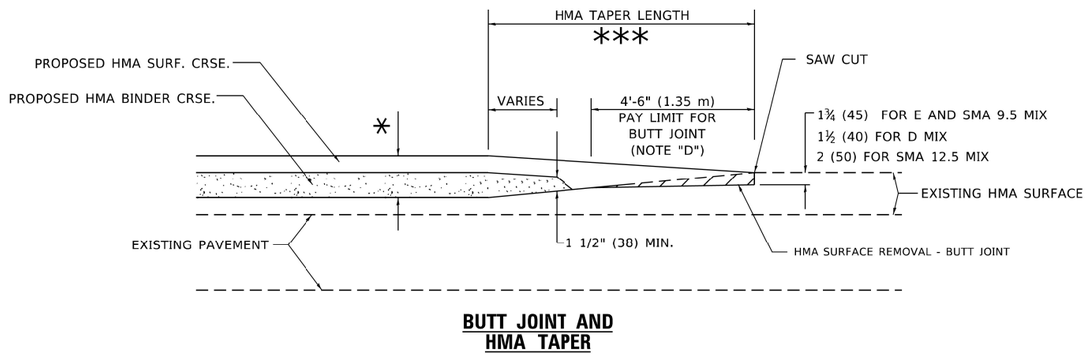


HMA CONSTRUCTED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

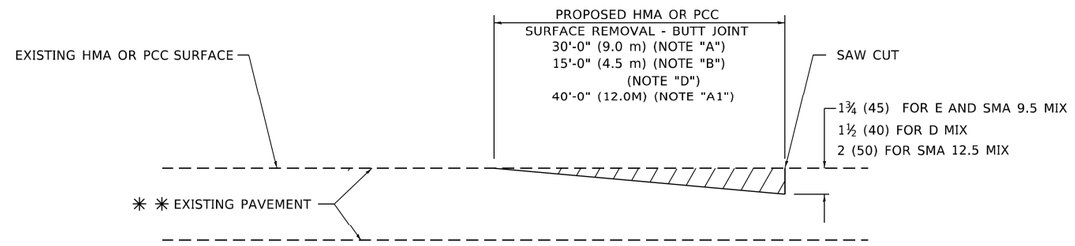
OPTION 2

TYPICAL TEMPORARY RAMP

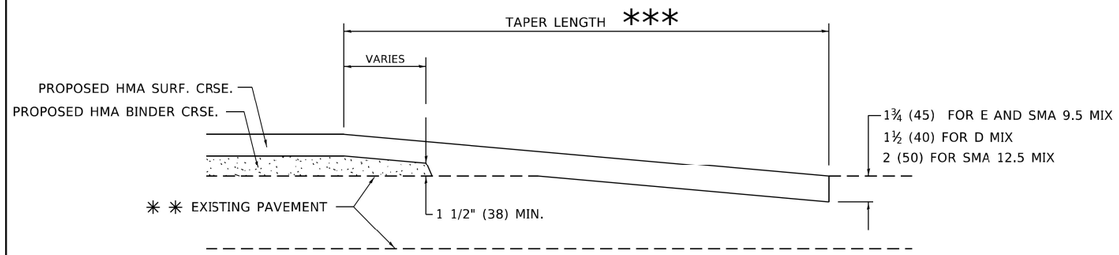


BUTT JOINT AND HMA TAPER

TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING



BUTT JOINT DETAIL



HMA TAPER DETAIL

TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

** PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

GENERAL NOTES

A. MAINLINE ARTERIAL ROADWAYS AND MAJOR SIDE ROADS.

A1. INTERSTATES

B. MINOR SIDE ROADS.

C. THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.

D. THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.

E. TAPER THE TEMP. RAMP AT A RATE OF 3' - 4" (1.02m) PER 1 INCH (25 mm) OF MILLING THICKNESS.

* SEE TYPICAL SECTIONS FOR MILLING THICKNESS.

F. SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".

*** 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

BASIS OF PAYMENT

1. THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL- BUTT JOINT".

2. THE TEMPORARY RAMP AND SAW CUT SHALL BE INCLUDED IN THE UNIT COST FOR HMA OR PCC SURFACE REMOVAL-BUTT JOINT.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

MODEL: Default
FILE NAME: W:\dist\std\22x34\bd32.dgn

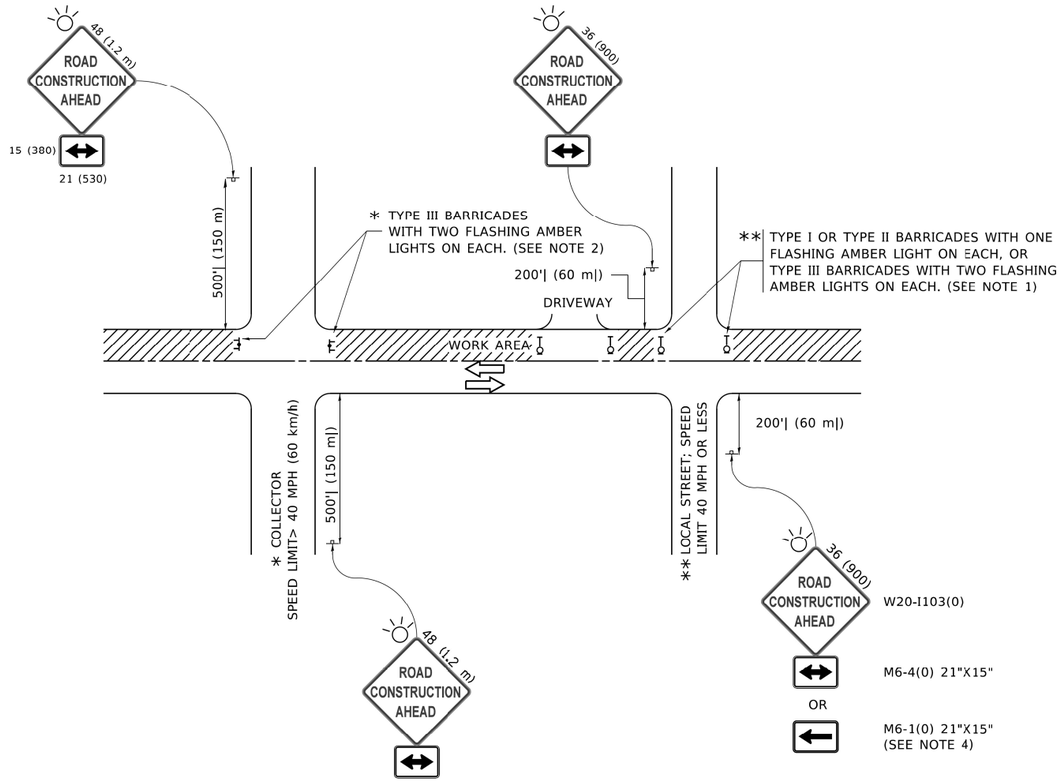
USER NAME = demanchelt	DESIGNED - M. DE YONG	REVISED - A. ABBAS 03-21-97
	DRAWN -	REVISED - M. GOMEZ 04-06-01
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED - R. BORO 01-01-07
PLOT DATE = 2/2/2022	DATE - 06-13-90	REVISED - K. SMITH 02-01-22

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BUTT JOINT AND HMA TAPER DETAILS

SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1350	FAU 1350 22 BJ	COOK	56	42
	BD400-05 BD-32	CONTRACT NO.62T39		
	ILLINOIS FED. AID PROJECT			



NOTES:

1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
   a) ONE "ROAD CONSTRUCTION AHEAD" SIGN 36 x 36 (900x900) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
   b) THE CLOSED PORTICN OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
   a) ONE "ROAD CONSTRUCTION AHEAD" SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
   b) THE CLOSED PORTICN OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
3. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT.
4. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).
5. WHEN WORK IS BEING PERFORMED ON A SIDE ROAD OR DRIVEWAY, FOLLOW THE APPLICABLE STANDARD(S). THE DIRECTIONAL ARROW (M6-1 OR M6-4) SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE TRAFFIC CONTROL SET-UP.
6. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAYS UNLESS OTHERWISE SPECIFIED IN THE PLANS OR BY THE ENGINEER.
7. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

All dimensions are in inches (millimeters) unless otherwise shown.

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	DRAWN -	REVISED - T. RAMMACHER 01-06-00	
PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED - A. SCHUETZE 07-01-13	
PLOT DATE = 3/4/2019	DATE - 06-89	REVISED - A. SCHUETZE 09-15-16	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1350	FAU 1350 22 BJ	COOK	56	43
	TC-10	CONTRACT NO.62T39		
	ILLINOIS FED. AID PROJECT			

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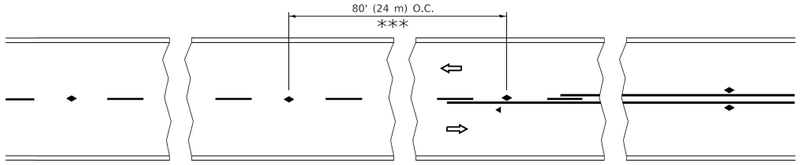
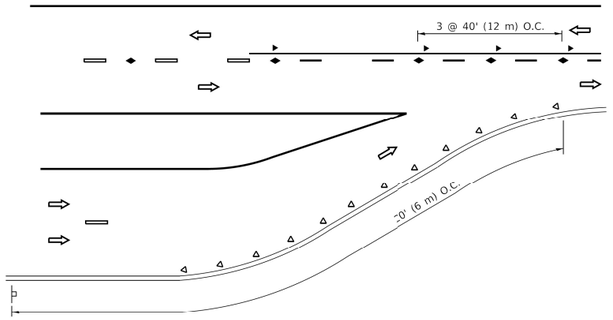


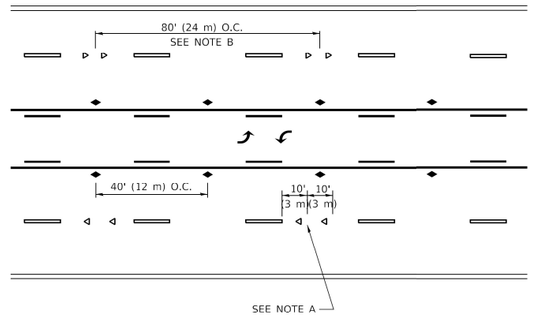
*** REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

TWO–LANE/TWO–WAY

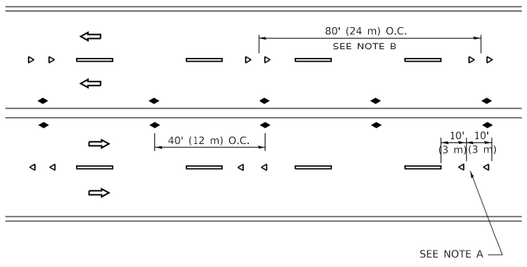
SEE FIGURE 3B-14 MUTCD



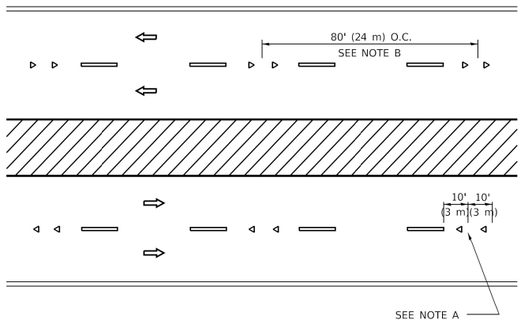
LANE REDUCTION TRANSITION



TWO–WAY LEFT TURN



MULTI–LANE/UNDIVIDED



MULTI–LANE/DIVIDED

GENERAL NOTES

1. MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
3. MARKERS THROUGH TANGENTS LESS THAN 500' (150 m) IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE SPACINGS.
4. MARKERS ARE TO BE USED ADJACENT TO BOTH SOLID WHITE LINES IN DUAL LEFT TURN LANES

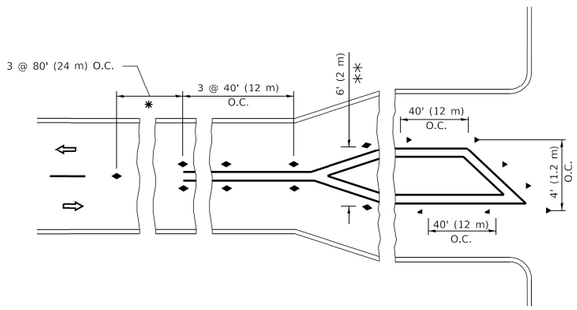
SYMBOLS

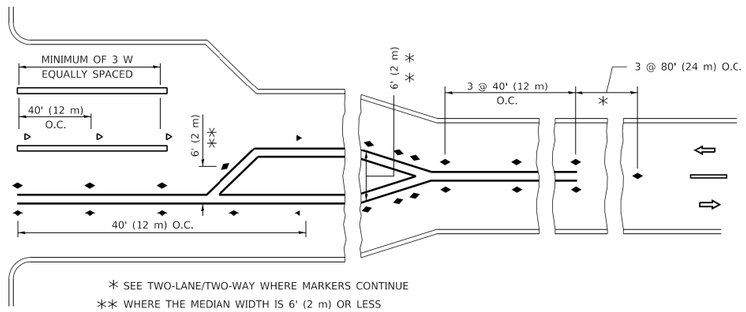
- YELLOW STRIPE
- WHITE STRIPE
- ONE-WAY AMBER MARKER
- ONE-WAY CRYSTAL MARKER (W/O)
- TWO-WAY AMBER MARKER

LANE MARKER NOTES

A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.

B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H (20 km/h) LOWER THAN POSTED SPEEDS.





* SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE

** WHERE THE MEDIAN WIDTH IS 6' (2 m) OR LESS USE TWO-WAY MARKERS.

TURN LANES

DESIGN NOTES

1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHALL BE INCLUDED IN THE PLANS WHEN STANDARD SPECIFICATIONS ARE NOT BEING USED.
4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.

All dimensions are in inches (millimeters) unless otherwise shown.

MODEL: Default
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	DRAWN -	REVISED - T. RAMMACHER 01-06-00	
PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED - C. JUCIUS 09-09-09	
PLOT DATE = 3/4/2019	DATE -	REVISED - C. JUCIUS 07-01-13	

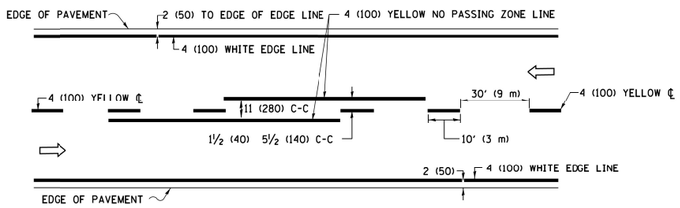
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL APPLICATIONS
RAISED REFLECTIVE PAVEMENT MARKERS (SNOW–PLOW RESISTANT)

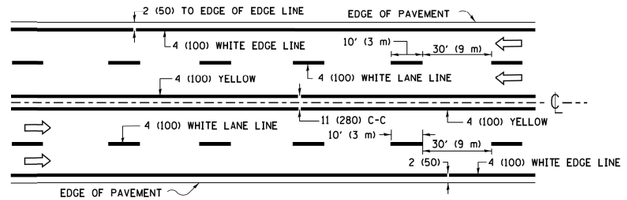
SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1350	FAU 1350 22 BJ	COOK	56	44
	TC–11	CONTRACT NO.62T39		
	ILLINOIS FED. AID PROJECT			

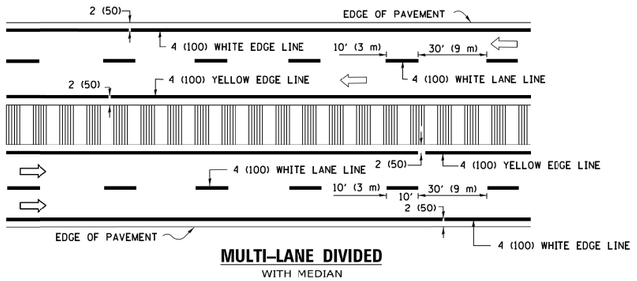
tc11.dgn 3/4/2019 10:29:08 AM User:footemj



2–LANE ROADWAY

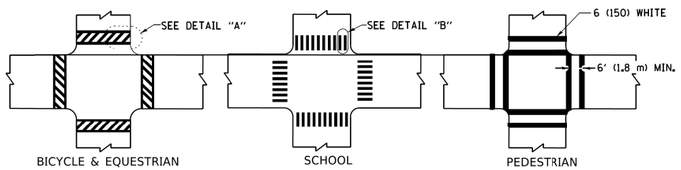


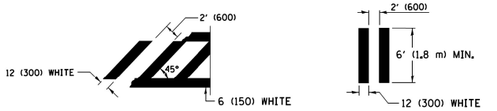
MULTI–LANE UNDIVIDED



MULTI–LANE DIVIDED
WITH MEDIAN

TYPICAL LANE AND EDGE LINE MARKING

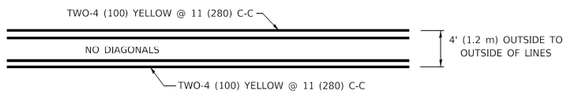




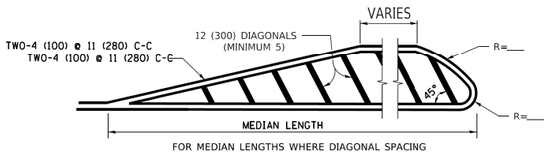
DETAIL "A" **DETAIL "B"**

TYPICAL CROSSWALK MARKING

✳ MARKINGS SHALL BE INSTALLED PARALLEL TO THE CENTERLINE OF THE ROAD WHICH IT CROSSES



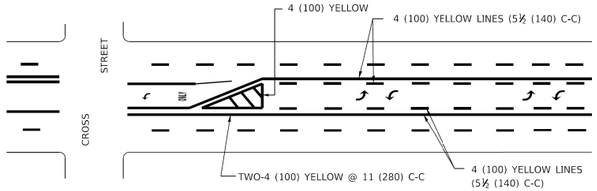
4' (1.2 m) WIDE MEDIANS ONLY



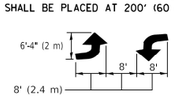
FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.

DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h))
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

MEDIANS OVER 4' (1.2 m) WIDE

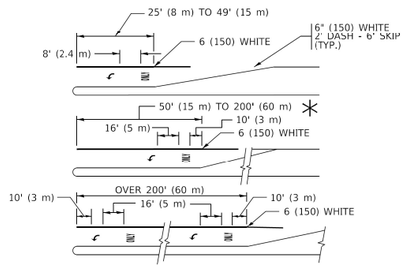


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO–WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

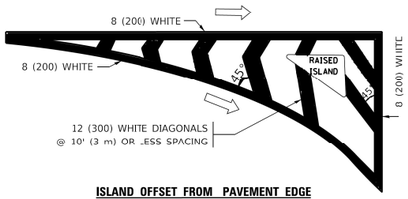


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
↰ AREA = 15.6 SQ. FT. (1.5 m²) **ONLY** AREA = 20.8 SQ. FT. (1.9 m ²

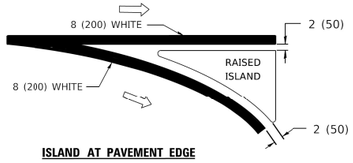
✳ TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING

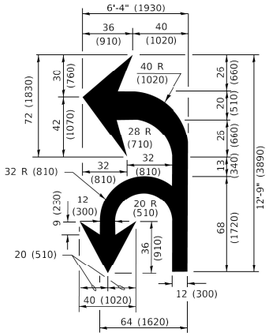


ISLAND OFFSET FROM PAVEMENT EDGE

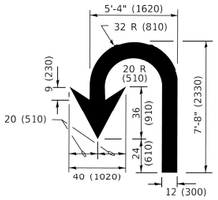


ISLAND AT PAVEMENT EDGE

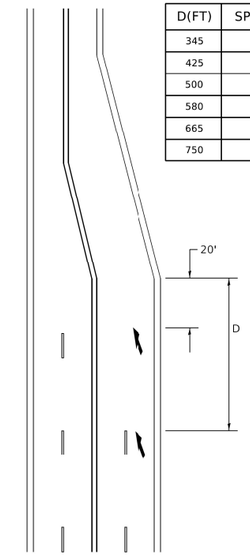
TYPICAL ISLAND MARKING



COMBINATION LEFT AND U–TURN



U–TURN



D(FT)	SPEED LIMIT
345	30
425	35
500	40
580	45
665	50
750	55

LANE REDUCTION TRANSITION

✳ LANE REDUCTION ARROWS REQUIRED AT SPEEDS OF 45 MPH OR GREATER OR WHEN SPECIFIED IN PLANS.

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5½ (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES TURN LANE MARKINGS	4 (100) 6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID SOLID	YELLOW-LEFT WHITE-RIGHT WHITE	OUTLINE MEDIANS IN YELLOW SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5½ (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m ² EACH "X"=54.0 SQ. FT. (5.0 m ²
SHOULDER DIAGONALS (REQUIRED FOR SHOULDERS ≥ 8')	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))
U TURN ARROW	SEE DETAIL	SOLID	WHITE	16.3 SF
2 ARROW COMBINATION LEFT AND U TURN	SEE DETAIL	SOLID	WHITE	30.4 SF

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

All dimensions are in inches (millimeters) unless otherwise shown.

MODEL: Default
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	DRAWN -	REVISED - C. JUCIUS 07-01-13	
PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED - C. JUCIUS 12-21-15	
PLOT DATE = 3/4/2019	DATE - 03-19-90	REVISED - C. JUCIUS 04-12-16	

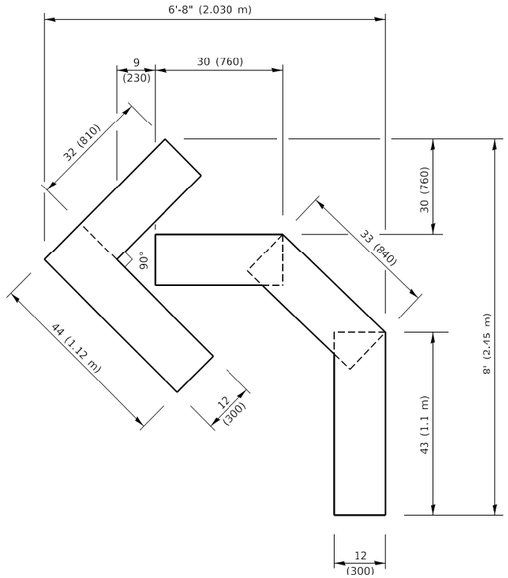
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
TYPICAL PAVEMENT MARKINGS

SCALE: NONE | SHEET 1 OF 2 SHEETS | STA. | TO STA.

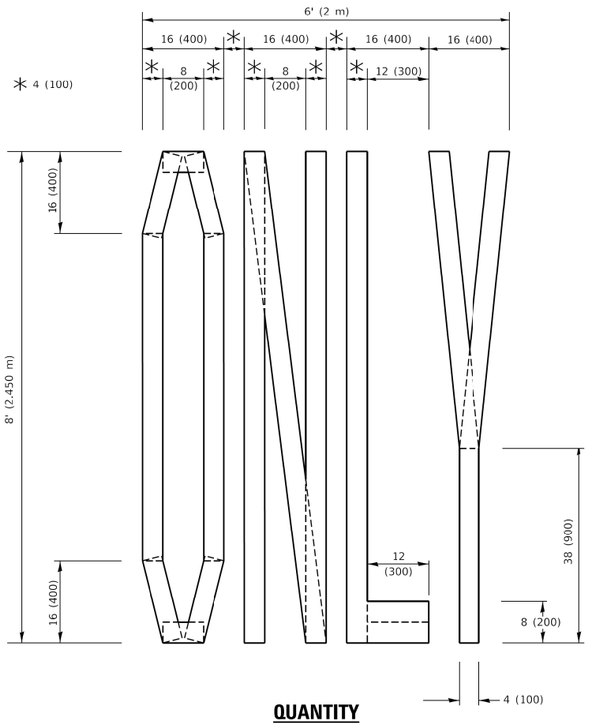
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1350	FAU 1350 22 BJ	COOK	56	45
	TC–13	CONTRACT NO. 62T39		
		ILLINOIS FED. AID PROJECT		

tc13.dgn 3/4/2019 10:34:32 AM User:footemj



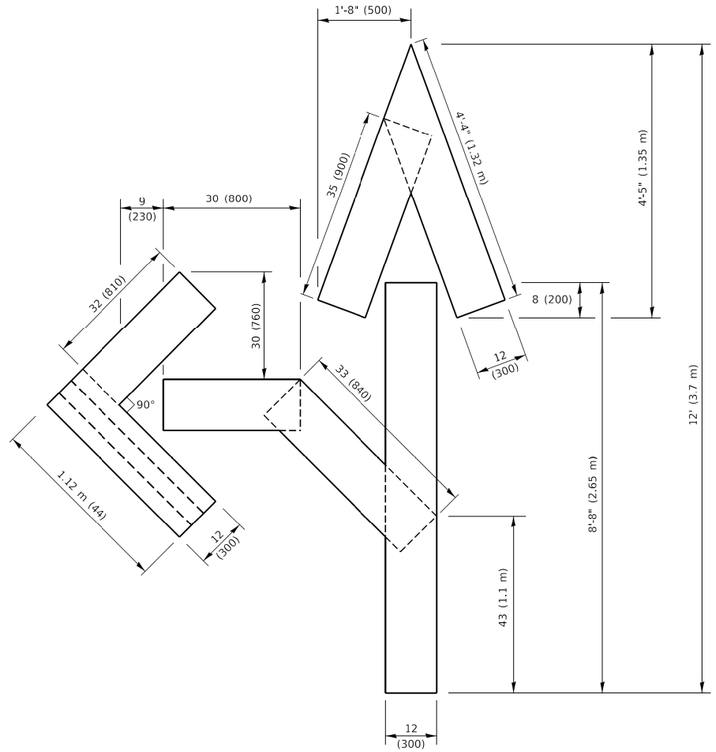
QUANTITY

4 (100) LINE = 45.5 ft. (13.9 m)
15.2 sq. ft. (1.41 sq. m)



QUANTITY

4 (100) LINE = 64.1 ft. (19.5 m)
21.4 sq. ft. (1.99 sq. m)

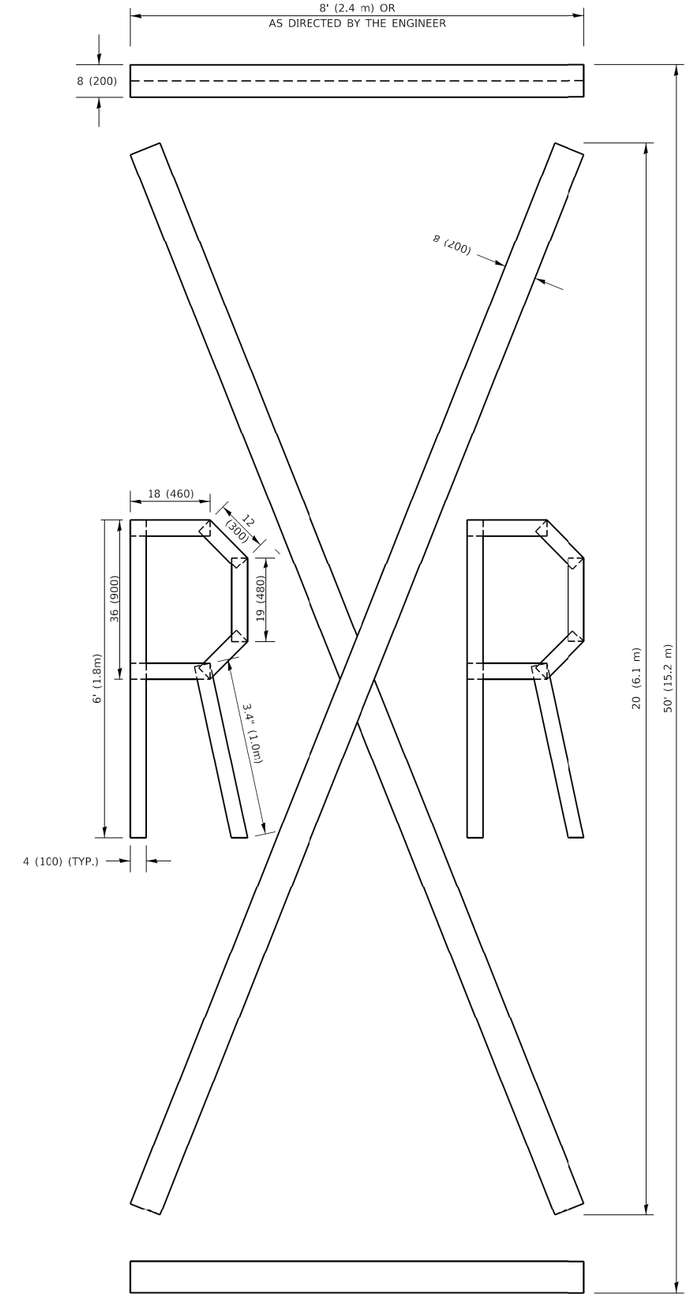


QUANTITY

4 (100) LINE = 82.5 ft. (25.1 m)
27.5 sq. ft. (2.53 sq. m)

NOTE:

ALL QUANTITIES OF PLACEMENT ARE REPRESENTED IN LINEAR FEET OF 4" LINES TO MATCH THE 4" TEMPORARY TAPE PAY ITEM AND REPRESENTS THE TOTAL QUANTITY OF 4" TAPE REQUIRED.



QUANTITY

4 (100) LINE = 225.9 ft. (68.9 m)
75.3 sq. ft. (6.99 sq. m)

All dimensions are in inches (millimeters) unless otherwise shown.

USER NAME = footemj	DESIGNED -		REVISED - T. RAMMACHER 03-02-98
	DRAWN -		REVISED - E. GOMEZ 08-28-00
PLOT SCALE = 50.0068 ' / in.	CHECKED -		REVISED - E. GOMEZ 08-28-00
PLOT DATE = 3/4/2019	DATE -	09-18-94	REVISED - A. SCHUETZE 09-15-16

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHORT TERM PAVEMENT MARKING LETTERS AND SYMBOLS

SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1350	FAU 1350 22 BJ	COOK	56	46
	TC-16	CONTRACT NO. 62T39		
	ILLINOIS FED. AID PROJECT			

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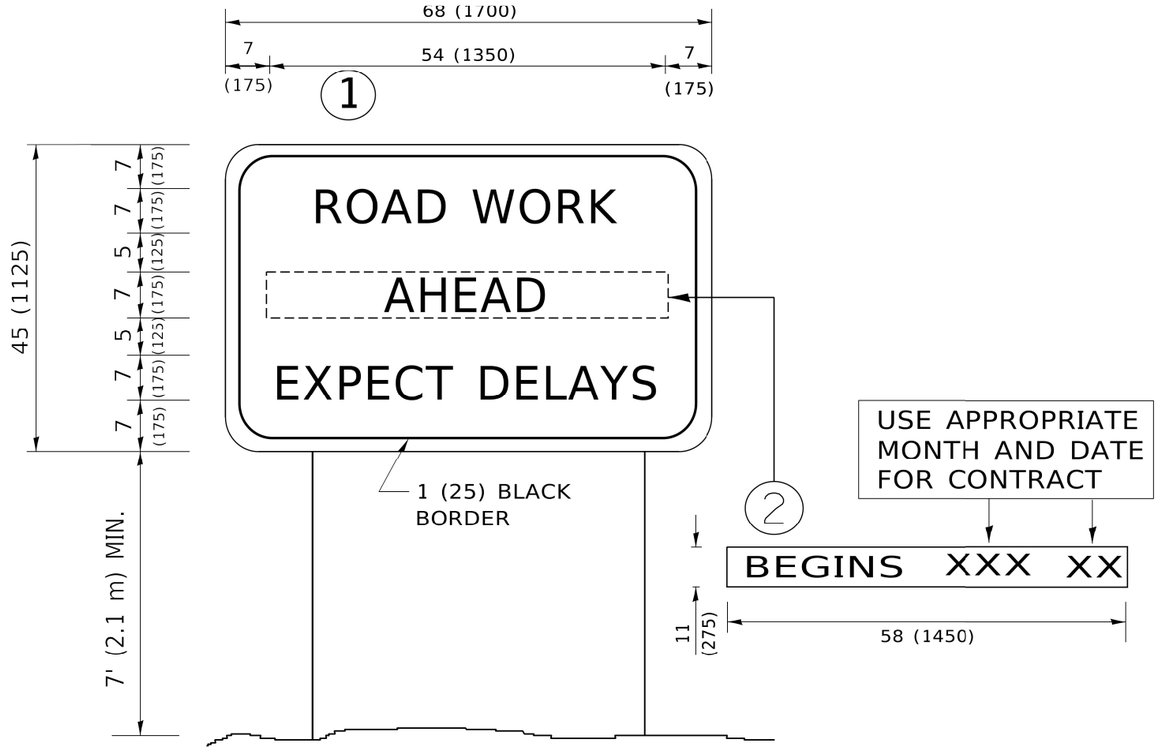
tc16.dgn 3/4/2019 10:37:35 AM User:footemj



NOTES:

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN (1) WITH INSTALLED PANEL (2) ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL (2) SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS)
UNLESS OTHERWISE SHOWN.

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	DRAWN -	REVISED - R. MIRS 12-11-97	
PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED -T. RAMMACHER 02-02-99	
PLOT DATE = 3/4/2019	DATE -	REVISED - C. JUCIUS 01-31-07	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ARTERIAL ROAD
INFORMATION SIGN

SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1350	FAU 1350 22 BJ	COOK	56	47
	TC–22	CONTRACT NO.62T39		
	ILLINOIS FED. AID PROJECT			

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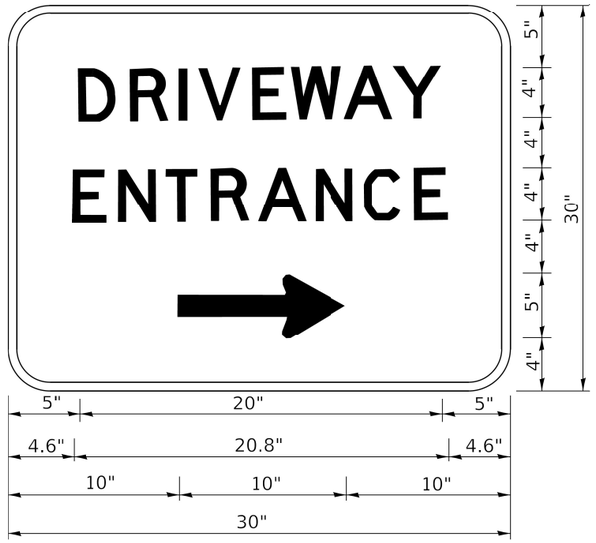

3.0" RADIUS, 0.5" BORDER, WHITE ON GREEN; REFLECTORIZED
"DRIVEWAY" D; "ENTRANCE" D; STANDARD ARROW CUSTOM 12.0" x 5.0"

NOTES:

1. HALF OF THE SIGNS WILL REQUIRE A LEFT HAND FACING ARROW.
2. TWO SIGNS SHALL BE USED AT EACH COMMERCIAL ENTRANCE PLACED BACK-TO-BACK: ONE WITH A RIGHT HAND ARROW (SHOWN) SHALL BE PLACED ON THE NEAR RIGHT SIDE THE DRIVEWAY AND ONE WITH A LEFT HAND ARROW SHALL BE PLACED ON THE FAR LEFT SIDE OF THE DRIVEWAY.
3. SIGNS TO BE PAID FOR AS ITEM "TEMPORARY INFORMATION SIGNING".

USER NAME = leysa	DESIGNED -	REVISED - C. JUCIUS 02-15-07	
	DRAWN -	REVISED -	
PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 8/6/2021	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRIVEWAY ENTRANCE SIGNING

SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1350	FAU 1350 22 BJ	COOK	56	48
	TC–26	CONTRACT NO.62T39		
	ILLINOIS	FED. AID PROJECT		

TRAFFIC SIGNAL LEGEND

(NOT TO SCALE)

ITEM	EXISTING	PROPOSED
CONTROLLER CABINET		
COMMUNICATION CABINET	CC	CC
MASTER CONTROLLER	MC	MC
MASTER MASTER CONTROLLER	MMC	MMC
UNINTERRUPTABLE POWER SUPPLY		
SERVICE INSTALLATION -(P) POLE MOUNTED	P	P
SERVICE INSTALLATION -(G) GROUND MOUNTED -(GM) GROUND MOUNTED METERED	G GM	G GM
TELEPHONE CONNECTION	ET	T
STEEL MAST ARM ASSEMBLY AND POLE		
ALUMINUM MAST ARM ASSEMBLY AND POLE		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE		
SIGNAL POST -(BM) BARREL MOUNTED - TEMPORARY		BM
WOOD POLE		
GUY WIRE		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD OPTICALLY PROGRAMMED	P P	P P
FLASHER INSTALLATION -(FS) SOLAR POWERED	F FS F FS	F FS F FS
PEDESTRIAN SIGNAL HEAD		
PEDESTRIAN PUSH BUTTON -(APS) ACCESSIBLE PEDESTRIAN PUSH BUTTON	APS	APS
RADAR DETECTION SENSOR	R	R
VIDEO DETECTION CAMERA	V	V
RADAR/VIDEO DETECTION ZONE		
PAN, TILT, ZOOM (PTZ) CAMERA	PTZ	PTZ
EMERGENCY VEHICLE LIGHT DETECTOR		
CONFIMATION BEACON		
WIRELESS INTERCONNECT		
WIRELESS INTERCONNECT RADIO REPEATER	ERR	RR

ITEM	EXISTING	PROPOSED
HANDHOLE -SQUARE -ROUND		
HEAVY DUTY HANDHOLE -SQUARE -ROUND	H	H
DOUBLE HANDHOLE		
JUNCTION BOX	J	
RAILROAD CANTILEVER MAST ARM		
RAILROAD FLASHING SIGNAL		
RAILROAD CROSSING GATE		
RAILROAD CROSSBUCK		
RAILROAD CONTROLLER CABINET	RX	RX
UNDERGROUND CONDUIT (UC), GALVANIZED STEEL		
TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE		
SYSTEM ITEM	S	SP
INTERSECTION ITEM	I	IP
REMOVE ITEM		R
RELOCATE ITEM		RL
ABANDON ITEM		A
CONTROLLER CABINET AND FOUNDATION TO BE REMOVED		RCF
MAST ARM POLE AND FOUNDATION TO BE REMOVED		RMF
SIGNAL POST AND FOUNDATION TO BE REMOVED		RPF
DETECTOR LOOP, TYPE I		
PREFORMED DETECTOR LOOP	P	P
SAMPLING (SYSTEM) DETECTOR	S	S
INTERSECTION AND SAMPLING (SYSTEM) DETECTOR	IS	IS
QUEUE AND SAMPLING (SYSTEM) DETECTOR	QS	QS
WIRELESS DETECTOR SENSOR	W	W
WIRELESS ACCESS POINT		

ITEM	EXISTING	PROPOSED
SIGNAL HEAD -(P) PROGRAMMABLE SIGNAL HEAD	P	P
SIGNAL HEAD WITH BACKPLATE -(P) PROGRAMMABLE SIGNAL HEAD -(RB) RETROREFLECTIVE BACKPLATE	P RB	P RB
PEDESTRIAN SIGNAL HEAD AT RAILROAD INTERSECTIONS		
PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN TIMER	CD	CD
ILLUMINATED SIGN "NO LEFT TURN"/"NO RIGHT TURN"		
NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE. ALL DETECTOR LOOP CABLE TO BE SHIELDED	5	5
GROUND CABLE IN CONDUIT, NO. 6 SOLID COPPER (GREEN)	1#G	1#G
ELECTRIC CABLE IN CONDUIT, TRACER NO. 14 1/C	1	1
COAXIAL CABLE	C	C
VENDOR CABLE	V	V
COPPER INTERCONNECT CABLE, NO. 18, 3 PAIR TWISTED, SHIELDED	6#18	6#18
FIBER OPTIC CABLE -NO. 62.5/125, MM12F -NO. 62.5/125, MM12F SM12F -NO. 62.5/125, MM12F SM24F	12F 24F 36F	12F 24F 36F
GROUND ROD -(C) CONTROLLER -(M) MAST ARM -(P) POST -(S) SERVICE	C M P S	C M P S

MODEL: Default
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PLOT DATE = 3/4/2019	DATE - 9/29/2016	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE | SHEET 1 OF 7 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1350	FAU 1350 22 BJ	COOK	56	49
	TS-05	CONTRACT NO.62T39		
		ILLINOIS FED. AID PROJECT		

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LOOP DETECTOR NOTES

1. EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE EMPTY COILABLE NONMETALLIC CONDUIT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). EMPTY COILABLE NONMETALLIC CONDUIT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.

2. THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED BY THE AMPLIFIER MANUFACTURER. ALL ADJACENT SIDES OF THE LOOPS SHALL BE INSTALLED IN SUCH A WAY THAT THE CURRENT FLOW IS IN THE SAME DIRECTION TO REINFORCE ITS MAGNETIC FIELDS FOR SMALL VEHICLE DETECTION.

3. EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP ROTATION (CLOCKWISE/COUNTERCLOCKWISE), LOOP LEAD-IN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINET, AND NUMBER OF TURNS IN THE DETECTOR LOOPS IN WATER PROOF INK AS INDICATED ON THE DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL. THE CONTRACTOR SHALL MARK LOOP LOCATIONS ON RECORD DRAWINGS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER. SEE DETAIL BELOW.

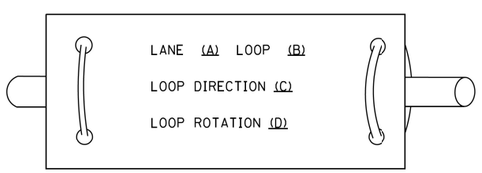
4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.

5. IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVEHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.

6. LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERING OPERATIONS. SEE DETAIL BELOW RIGHT.

7. PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.

LOOP LEAD-IN CABLE TAG

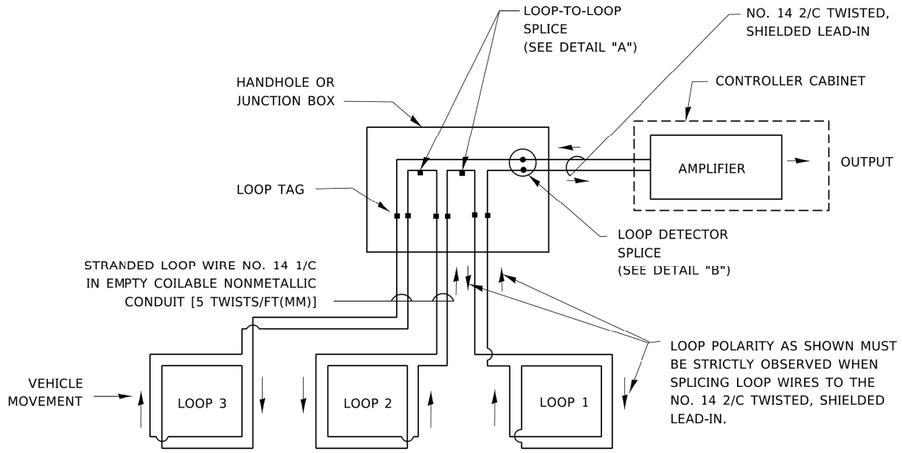


A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY

B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.

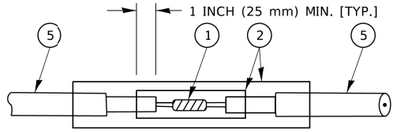
C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".

D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

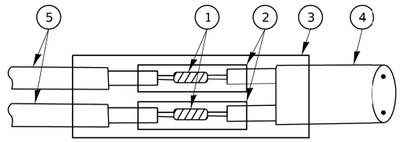


DETECTOR LOOP WIRING SCHEMATIC

- LOOPS SHALL BE SPLICED IN SERIES. SAW-CUTS SHALL BE A MINIMUM WIDTH OF 5/16" (8 mm).
- SAW-CUT DEPTHS SHALL BE 3" (75 mm). IF IN CONCRETE.
- THE SAW-CUT DEPTH SHALL BE TO THE TOP OF THE REINFORCEMENT.
- LOOP CORNERS SHALL BE DRILLED WITH A 2" (50 mm) DIAMETER CORE.

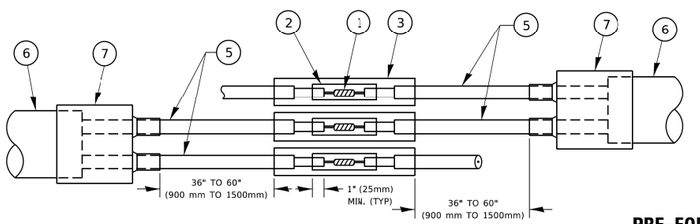


DETAIL "A"
LOOP-TO-LOOP SPLICE



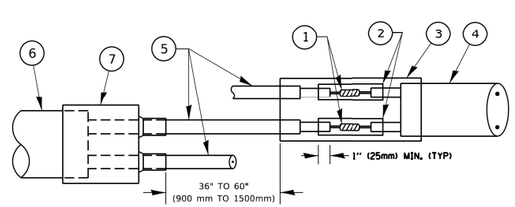
DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

TYPE I LOOP



DETAIL 'A"
LOOP-TO-LOOP SPLICE

PRE-FORMED LOOP



DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

LOOP DETECTOR SPLICE

(1) WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH. THE WESTERN UNION SPLICES SHALL BE STAGGERED.

(2) WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.

(3) WCS 200/750 HEAT SHRINK TUEE, MINIMUM LENGHT 6" (150 mm), UNDERWATER GRADE.

(4) NO. 14 2/C TWISTED, SHIELDED CABLE.

(5) LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE. PRE-FORMED LOOP

(6) XL POLYOLEFIN 2 CONDUCTOR

(7) BREAKOUT SEALS. TYCO CBR-2 OR APPROVED EQUAL

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE | SHEET 2 OF 7 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1350	FAU 1350 22 BJ	COOK	56	50
	TS-05	CONTRACT NO.62T39		
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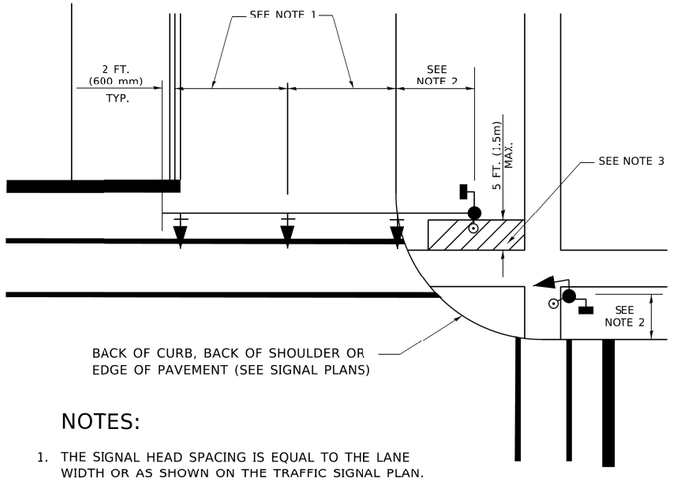
TRAFFIC SIGNAL MAST ARM AND SIGNAL POST

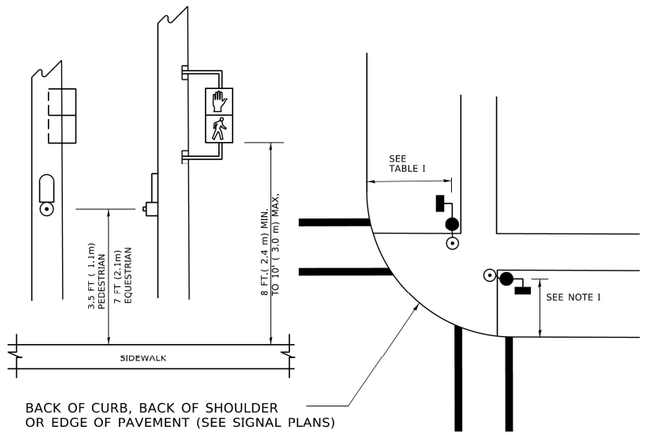
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.



NOTES:

1. THE SIGNAL HEAD SPACING IS EQUAL TO THE LANE WIDTH OR AS SHOWN ON THE TRAFFIC SIGNAL PLAN.
2. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
3. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE MAST ARM SHAFT OR THE SIGNAL POST.
4. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
5. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

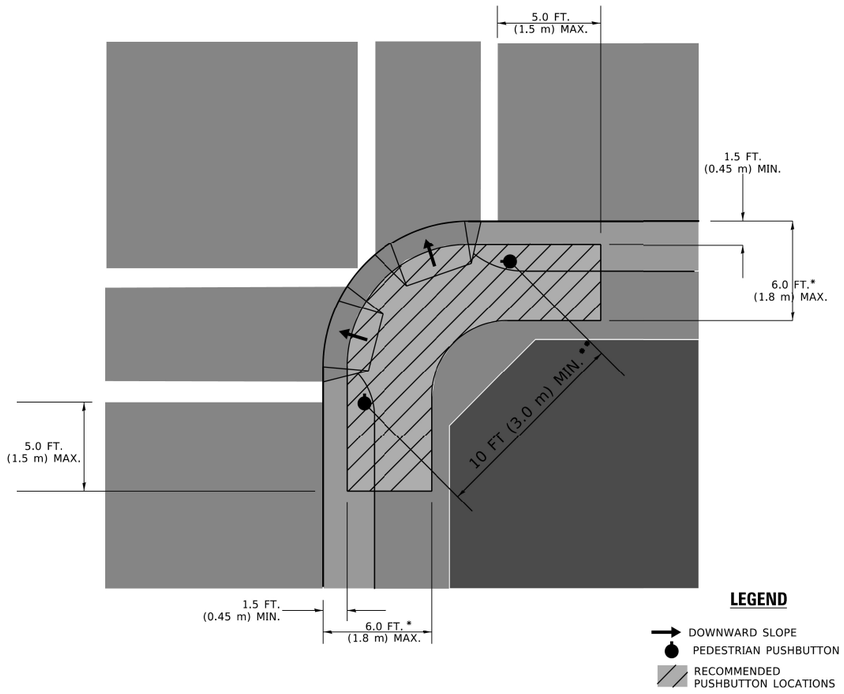
PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST



NOTES:

1. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
2. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE PEDESTRIAN SIGNAL POST OR THE PEDESTRIAN PUSH BUTTON POST.
3. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
4. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

RECOMMENDED PUSHBUTTON LOCATIONS



* WHERE THERE ARE CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON BETWEEN 1.5 FT (0.45 m) AND 6 FT (1.8 m) FROM THE EDGE OF THE CURB, SHOULDER, OR PAVEMENT, IT SHOULD NOT BE FURTHER THAN 10 FT (3 m) FROM THE EDGE OF CURB, SHOULDER, OR PAVEMENT.

** WHERE THERE ARE CONSTRAINTS ON A PARTICULAR CORNER THAT MAKE IT IMPRACTICAL TO PROVIDE THE 10 FT (3 m) SEPERATION BETWEEN THE TWO PEDESTRIAN PUSHBUTTONS, THE PUSHBUTTONS MAY BE PLACED CLOSER TOGETHER OR ON THE SAME POLE.

NOTES:

1. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 8 FT (2.4 m) OR MORE THAN 10 FT (3 m) ABOVE SIDEWALK LEVEL, AND SHALL BE POSITIONED AND ADJUSTED TO PROVIDE MAXIMUM VISIBILITY AT THE BEGINNING OF THE CONTROLLED CROSSWALK.
2. THE BOTTOM OF THE SIGNAL HOUSING (INCLUDING BRACKETS) OF A VEHICULAR SIGNAL FACE THAT IS NOT LOCATED OVER A HIGHWAY SHALL BE AT LEAST 8 FT (2.4 m) BUT NOT MORE THAN 19 FT (5.8 m) ABOVE THE SIDEWALK OR, IF THERE IS NO SIDEWALK, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE ROADWAY.
3. THE BOTTOM OF THE SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001, 877002, 877006, 877011 AND 877012 WITH A MINIMUM OF 16 FT (5.0 m) AND A MAXIMUM OF 18 FT. (5.5 m) FROM THE HIGHEST POINT OF PAVEMENT.
4. THE BOTTOM OF THE TEMPORARY SPAN WIRE MOUNTED SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARD 880001 WITH A MINIMUM OF 17 FT (5.18 m) FROM THE HIGHEST POINT OF PAVEMENT.
5. THE TOP OF THE SIGNAL HOUSING OF A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL NOT BE MORE THAN 25.6 FT (7.8 m) ABOVE THE PAVEMENT.

TRAFFIC SIGNAL EQUIPMENT OFFSET

TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION)	SHOULDER/NON-CURBED AREA (MINIMUM DISTANCE FROM EDGE OF PAVEMENT TO CENTERLINE OF FOUNDATION)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN PUSHBUTTON POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TEMPORARY WOOD POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
CONTROLLER CABINET	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.
SERVICE INSTALLATION, GROUND MOUNT	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.

NOTES:

1. CONTACT THE "AREA TRAFFIC SIGNAL MAINTENANCE AND OPERATIONS ENGINEER" FOR ASSISTANCE IN LOCATING THE TRAFFIC SIGNAL EQUIPMENT WHEN THERE ARE CONFLICTS WITH DITCHES OR THE MINIMUM OFFSET DISTANCES CANNOT BE MET.
2. MINIMUM DISTANCE FROM THE BACK OF CURB TO THE ROADWAY SIDE OF THE FOUNDATION.
3. MINIMUM DISTANCE FROM THE EDGE OF PAVEMENT TOTHE ROADWAY SIDE OF THE FOUNDATION.
4. ANY CHANGES TO THE OFFSETS OF THE FOUNDATIONS, FROM THE MINIMUM DISTANCES LISTED IN THE "TRAFFIC SIGNAL EQUIPMENT OFFSET" CHART AND THE TRAFFIC SIGNAL INSTALLATION PLAN, COULD EFFECT THE PLACEMENT OF THE SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS AND THE PEDESTRIAN PUSHBUTTONS. THE SIGNAL HEAD PLACEMENT ON THE MAST ARMS SHALL REMAIN AS PER THE TRAFFIC SIGNAL INSTALLATION PLAN AND THE "TRAFFIC SIGNAL MAST ARM AND SIGNAL POST" DETAIL ABOVE. THE PROPOSED MAST ARM LENGTHS MAY NEED TO BE REVISED TO MEET THE ABOVE REQUIREMENTS. THE PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS MUST MEET THE REQUIREMENTS UNDER THE DETAILS ON THIS SHEET.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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STANDARD TRAFFIC SIGNAL DESIGN DETAILS

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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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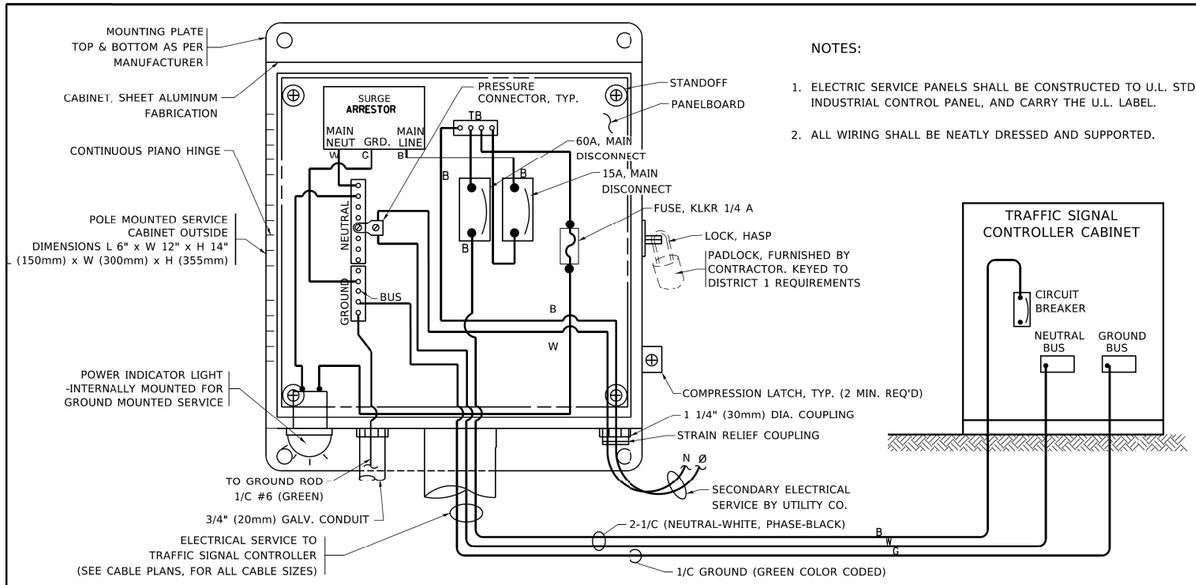


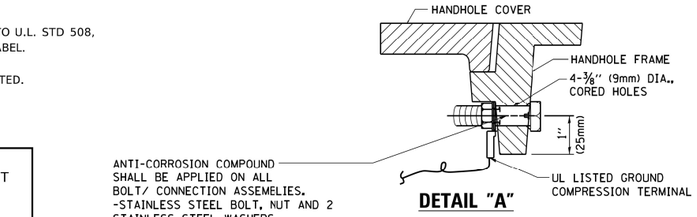
NOTES:

1. ELECTRIC SERVICE PANELS SHALL BE CONSTRUCTED TO U.L. STD 508, INDUSTRIAL CONTROL PANEL, AND CARRY THE U.L. LABEL.
2. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.

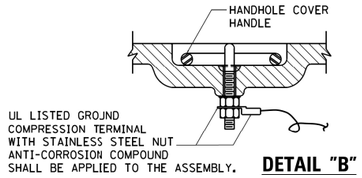
ELECTRICAL SERVICE – PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)

SERVICE INSTALLATION POLE MOUNT (SHOWN)

(NOT TO SCALE)



DETAIL "A"

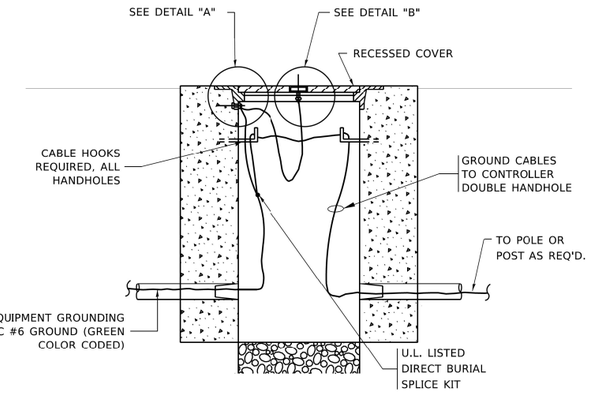


DETAIL "B"

NOTES:

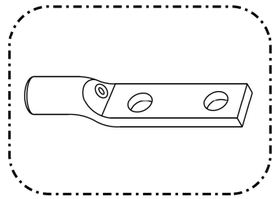
GROUNDING SYSTEM

1. THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE (HANDHOLE, POST, MAST ARM, CONTROLLER, ETC,). GROUND ROD SHALL BE 3/4" DIA. x 10'-0" (20mm x 3.0m) LONG, COPPER CLAD. ONE GROUND ROD SHALL BE INSTALLED AT ALL POST FOUNDATIONS, POLE FOUNDATIONS, CONTROLLER CABINET FOUNDATION AND ELECTRICAL SERVICE INSTALLATION AS INDICATED ON THE CABLE PLAN. IF THERE ARE ANY SPECIAL CONDITIONS SUCH AS SUB-SURFACE CONDITIONS OR INSTALLATION PROBLEMS, THE RESIDENT ENGINEER SHALL BE NOTIFIED OR CONTACT THE BUREAU OF TRAFFIC, ILLINCIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE AT (847) 705-4139.
2. THE NEUTRAL CONDUCTOR AND THE GROUND CONDUCTOR SHALL BE CONNECTED IN THE SERVICE INSTALLATION. AT NO OTHER POINT IN THE TRAFFIC SIGNAL SYSTEM SHALL THE NEUTRAL AND GROUND CONDUCTORS BE CONNECTED.
3. ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
4. THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.



HANDHOLE COVER & FRAME – GROUNDING DETAIL

(NOT TO SCALE)

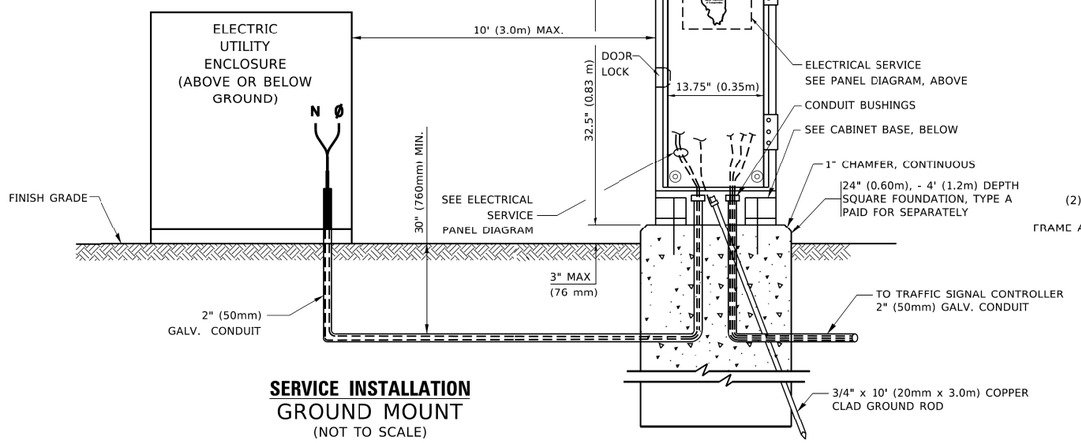


HEAVY-DUTY COMPRESSION TERMINAL (BURNDY TYPE YGHA OR APPROVED EQUAL)

¾" (20mm) HEAVY-DUTY GROUND ROD CLAMP (BURNDY TYPE GRC OR APPROVED EQUAL)

NOTES:

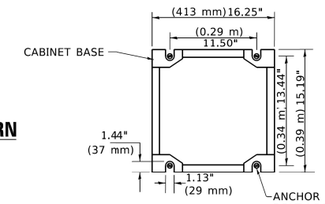
- ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
- GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.



SERVICE INSTALLATION

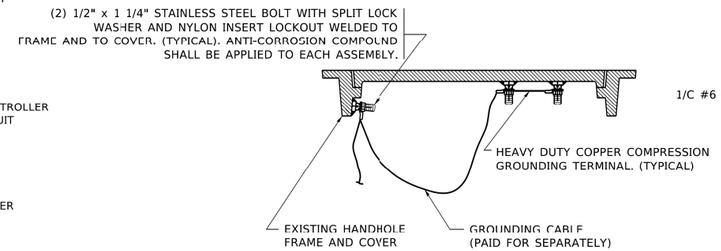
GROUND MOUNT

(NOT TO SCALE)



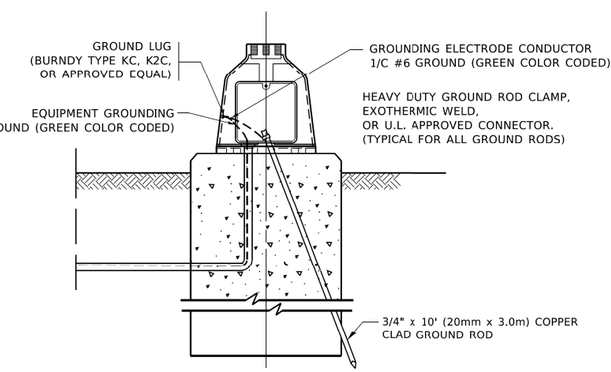
CABINET – BASE BOLT PATTERN

(NOT TO SCALE)



EXISTING HANDHOLE COVER & FRAME – GROUNDING DETAIL

(NOT TO SCALE)



MAST ARM POLE /POST–GROUNDING DETAIL

(NOT TO SCALE)

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STATE OF ILLINOIS
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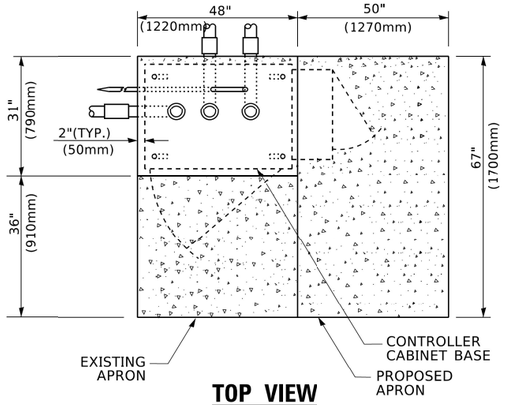
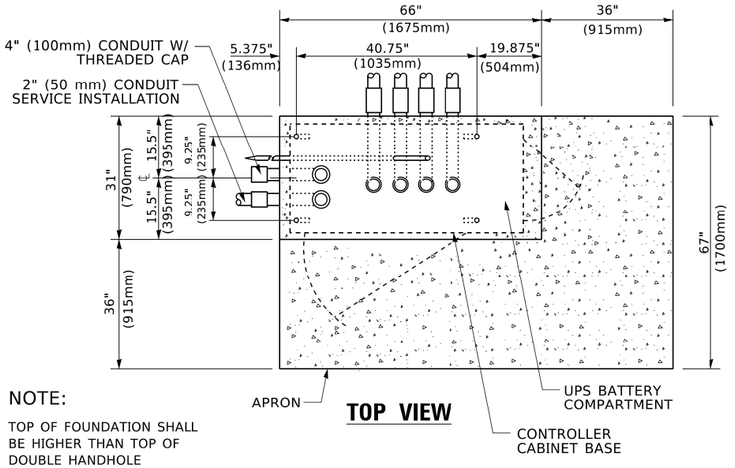


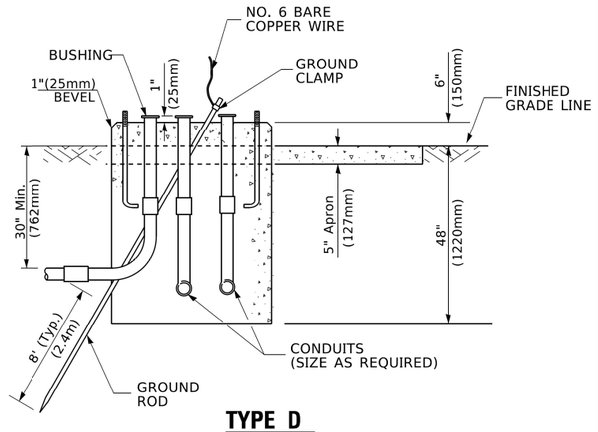
TOP VIEW



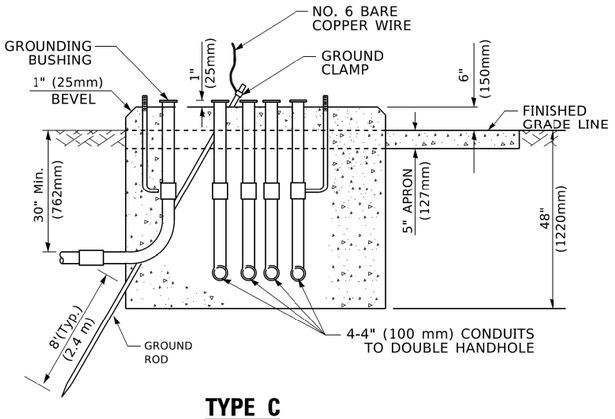
NOTE:

TOP OF FOUNDATION SHALL BE HIGHER THAN TOP OF DOUBLE HANDHOLE

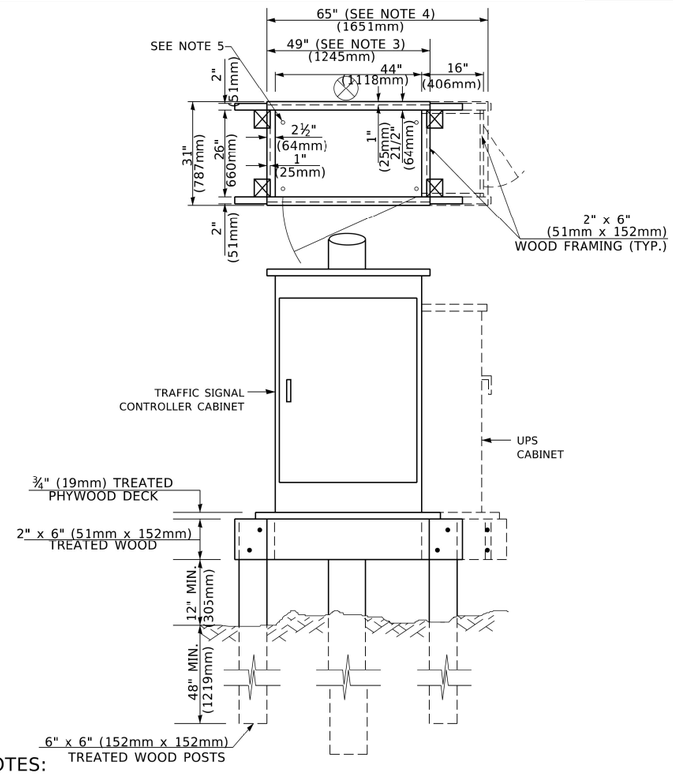
TOP VIEW



TYPE D
FOR GROUND MOUNTED
CONTROLLER CABINET
AND UPS BATTERY CABINET



TYPE C
FOR GROUND MOUNTED
SUPER P (TYPE IV) AND SUPER R (TYPE V)
CONTROLLER CABINETS



NOTES:

1. BASED ON CONTROLLER CABINET TYPE IV WITH BASE DIMENSIONS OF 26" x 44" (660mm x 1118mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED
2. BASED ON UNINTERRUPTIBLE POWER SUPPLY CABINET WITH BASE DIMENSIONS OF 16" x 25" (406mm x 635mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
3. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV.
4. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV AND UNINTERRUPTIBLE POWER SUPPLY CABINET.
5. DRILLED HOLES THROUGH THE PLATFORM BASE TO MATCH THE CONTROLLER CABINET BOLT TEMPLATE. FASTEN THE CONTROLLER CABINET TO THE PLATFORM WITH CARRIAGE BOLTS, WASHERS AND NUTS.
6. FASTEN ALL SUPPORT WOOD FRAMING TO THE WOOD POSTS WITH 2 LAG SCREWS FOR EACH CONNECTION..

TEMPORARY SIGNAL CONTROLLER
WOOD SUPPORT PLATFORM

CABLE SLACK LENGTH	FEET	METER
HANDHOLE	6.5	2.0
DOUBLE HANDHOLE	13.0	4.0
SIGNAL POST	2.0	0.6
MAST ARM	2.0	0.6
CONTROLLER CABINET	1.5	0.5
FIBER OPTIC AT CABINET	13.0	4.0
ELECTRIC SERVICE AT (CABINET OR SERVICE LOCATION)	1.5	0.5
GROUND CABLE (SIGNAL POST, MAST ARM, CABINET)	1.5	0.5
GROUND CABLE (BETWEEN FRAME AND COVER)	5.0	1.6

CABLE SLACK

VERTICAL CABLE LENGTH	FEET	METER
MAST ARM POLE (MAST ARM MOUNTED SIGNAL HEAD) (L = MAST ARM LENGTH - DISTANCE TO SIGNAL HEAD FROM END OF ARM)	20.0+L	6.0+L
BRACKET MOUNTED (MAST ARM POLE OR SIGNAL POLE)	13.0	4.0
PEDESTRIAN PUSH BUTTON	6.0	2.0
SERVICE INSTALLATION POLE MOUNT TO SERVICE DROP	13.5	4.1
SERVICE INSTALLATION POLE MOUNT TO GROUND	13.5	4.1
SERVICE INSTALLATION GROUND MOUNT	6.0	2.0
FOUNDATION (SIGNAL POST, MAST ARM POLE, CONTROLLER CABINET, SERVICE-GROUND MOUNT)	3.0	1.0

VERTICAL CABLE LENGTH

FOUNDATION	DEPTH
TYPE A - Signal Post	4'-0" (1.2m)
TYPE C - CONTROLLER W/ UPS	4'-0" (1.2m)
TYPE D - CONTROLLER	4'-0" (1.2m)
SERVICE INSTALLATION, GROUND MOUNT, TYPE A - SQUARE	4'-0" (1.2m)

DEPTH OF FOUNDATION

Mast Arm Length	① Foundation Depth	Foundation Diameter	Spiral Diameter	Quantity of Rebars	Size of Rebars
Less than 30' (9.1 m)	10'-0" (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 30' (9.1 m) and less than 40' (12.2 m)	13'-6" (4.1 m)	30" (750mm)	24" (600mm)	8	6(19)
	11'-0" (3.4 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	13'-0" (4.0 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	15'-0" (4.6 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 56' (16.8 m) and less than 65' (19.8 m)	21'-0" (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)
Greater than or equal to 65' (19.8 m) and up to 75' (22.9 m)	25'-0" (7.6 m)	42" (1060mm)	36" (900mm)	16	8(25)

NOTES:

1. These foundation depths are for sites which have cohesive soils (clayey silt, sandy clay, etc.) along the length of the shaft, with an average Unconfined Compressive Strength (Qu) > 1.0 tsf (100 kpa). This strength shall be verified by boring data prior to construction or with testing by the Engineer during foundation drilling. The Bureau of Bridges & structures should be contacted for a revised design if other conditions are encountered.
2. Combination mast arm assemblies under 55 feet (16.8 m) shall use 36" (900 mm) diameter foundations.
3. Combination mast arm assemblies under 56 feet (16.8 m) through 75 feet (22.9 m) shall use 42" (1060 mm) diameter foundations
4. For mast arm assemblies with dual arms refer to state standard 878001..

DEPTH OF MAST ARM FOUNDATIONS, TYPE E

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	DRAWN -	REVISED -	
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PLOT DATE = 3/4/2019	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE | SHEET 5 OF 7 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1350	FAU 1350 22 BJ	COOK	56	53
	TS-05	CONTRACT NO. 62T39		
	ILLINOIS FED. AID PROJECT			

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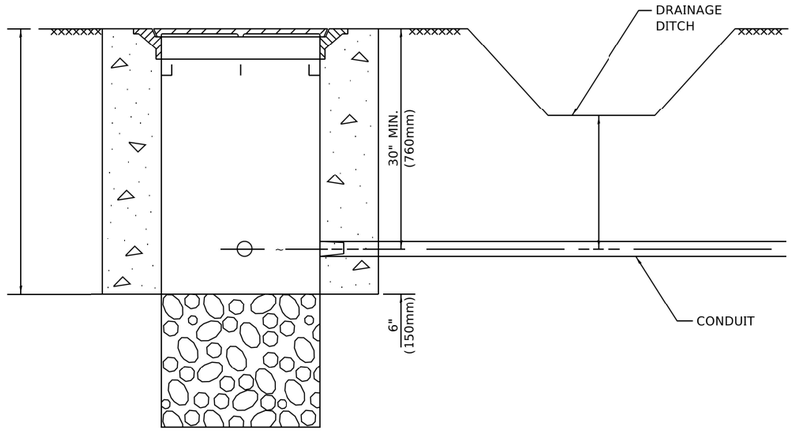
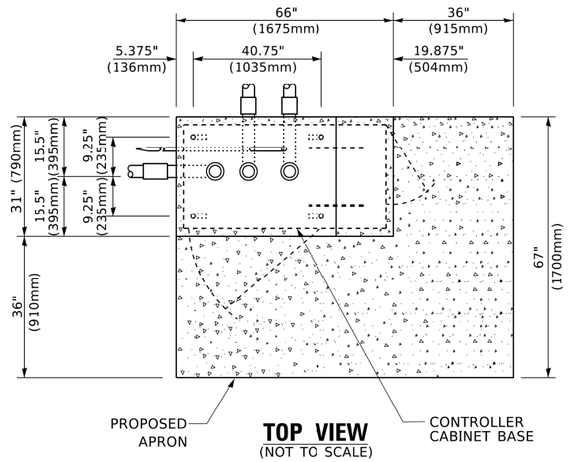


NOTES:

1. CONDUIT DEPTH SHALL BE A MINIMUM OF 30" (760mm) BELOW THE BOTTOM OF THE DRAINAGE DITCH OR ANY SLOPING GROUND
2. THE MINIMUM CONDUIT DEPTH APPLIES TO ALL CONDUIT PLACED UNDER ROADWAY PAVEMENT, MULTI-USE PATHS, SIDEWALKS AND SOIL SURFACES.
3. THE MINIMUM CONDUIT DEPTH APPLIES TO ALL HANDHOLES, HEAVY DUTY HANDHOLES AND DOUBLE HANDHOLES.

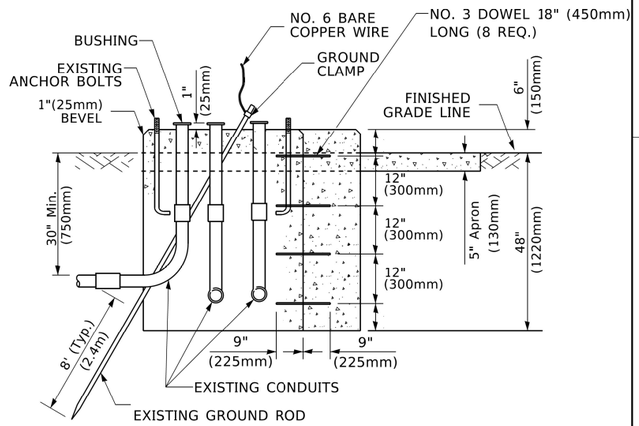
HANDHOLE WITH MINIMUM CONDUIT DEPTH

(NOT TO SCALE)



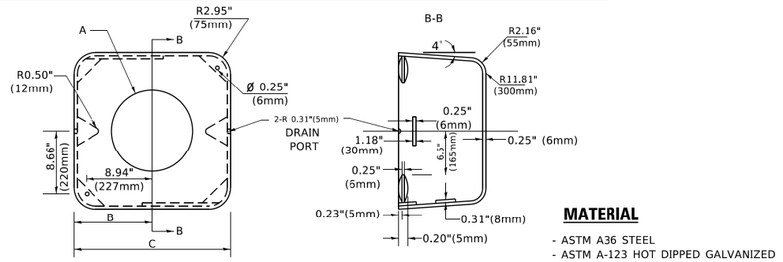
TOP VIEW

(NOT TO SCALE)



MODIFY EXISTING TYPE "D" FOUNDATION TO TYPE "C" FOUNDATION

(NOT TO SCALE)



MATERIAL

- ASTM A36 STEEL
- ASTM A-123 HOT DIPPED GALVANIZED

A	B	C	HEIGHT	WEIGHT
VARIES	9.5"(241mm)	19"(483mm)	7" (178mm) - 12" (300mm)	53 lbs (24kg)
VARIES	10.75"(273mm)	21.5"(546mm)	7" (178mm) - 12" (300mm)	68 lbs (31 kg)
VARIES	13.0"(330mm)	26"(660mm)	7" (178mm) - 12" (300mm)	81 lbs (37 kg)
VARIES	18.5"(470mm)	37"(940mm)	7" (178mm) - 12" (300mm)	126 lbs (57 kg)

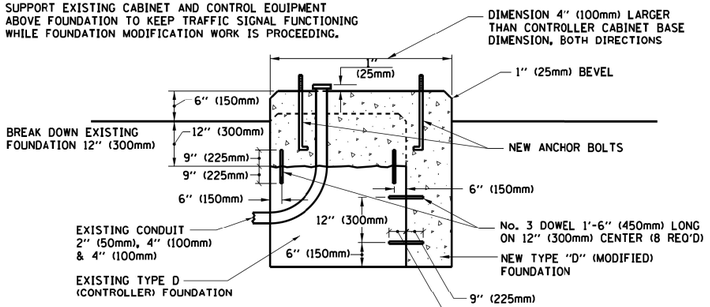
SHROUD

NOTES:

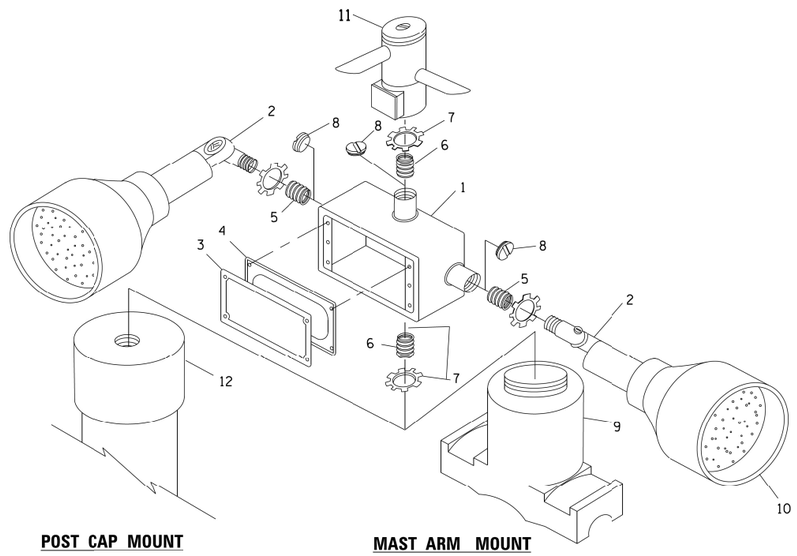
1. DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
2. THE SUPPLIER SHALL VERIFIED THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
3. THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE BASE.

NOTE:

SUPPORT EXISTING CABINET AND CONTROL EQUIPMENT ABOVE FOUNDATION TO KEEP TRAFFIC SIGNAL FUNCTIONING WHILE FOUNDATION MODIFICATION WORK IS PROCEEDING.



MODIFY EXISTING TYPE "D" FOUNDATION



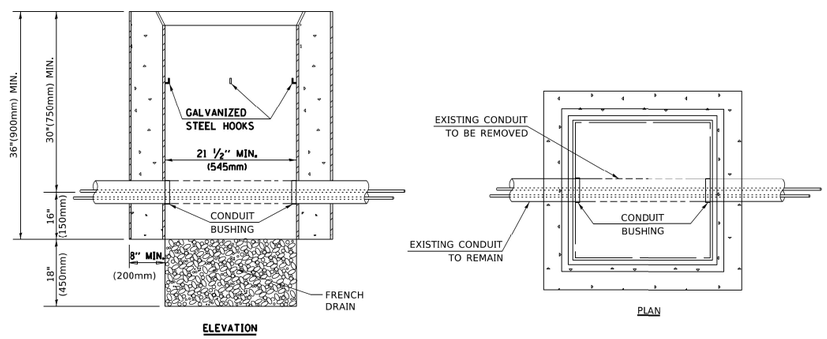
POST CAP MOUNT **MAST ARM MOUNT**

EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL

ITEM NO.	IDENTIFICATION
1	OUTLET BOX- GALV. 21 CU.IN. (0.000344 CU-M)
2	LAMP HOLDER AND COVER
3	OUTLET BOX COVER
4	RUBBER COVER GASKET
5	REDUCING BUSHING
6	¾"(19 mm) CLOSE NIPPLE
7	¾"(19 mm) LOCKNUT
8	¾"(19 mm) HOLE PLUG
9	SADDLE BRACKET - GALV.
10	6 WATT PAR 38 LED FLOOD LAMP
11	DETECTOR UNIT
12	POST CAP [18 FT. (5.4 m) POST MIN.]

NOTES:

1. ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR GALVANIZED
2. ITEM #1- OZ/GEDNEY FSX-1-50 OR EQUIVALENT
   ITEM #2- MULBERRY CON-O-SHADE LAMP SHIELD OR EQUIVALENT
   ITEM #9- "BAND-IT" SADDLE BRACKET OR EQUIVALENT
3. WHEN POST MOUNTING IS SPECIFIED, ITEM #9 SHALL NOT BE REQUIRED. THE DETECTION UNIT SHALL BE MOUNTED DIRECTLY ON TOP OF THE CAP BY DRILLING AND TAPPING A 3/4 "(19 mm) HOLE WITH PIPE THREADS. THE POST CAP SHALL EITHER BE SCREWED TO THE TOP OF THE POST OR A MINIMUM OF 3 TIGHTENING SCREWS SHALL BE REQUIRED ON EACH CAP.



NOTES:

1. HANDHOLE CONSTRUCTED PER STATE STANDARD 814001.
2. REMOVAL OF THE EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHINGS SHALL BE INCLUDED WITH THE COST OF THE HANDHOLE.

HANDHOLE TO INTERCEPT EXISTING CONDUIT

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PLOT DATE = 3/4/2019	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE | SHEET 6 OF 7 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	TS-05	CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

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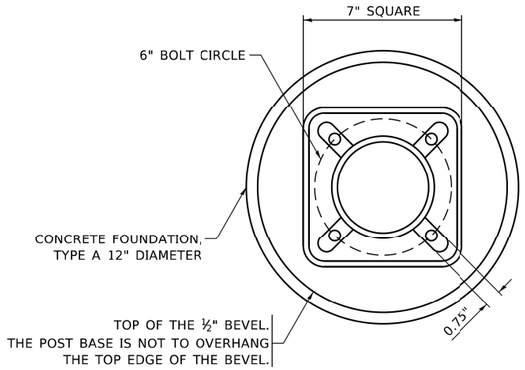
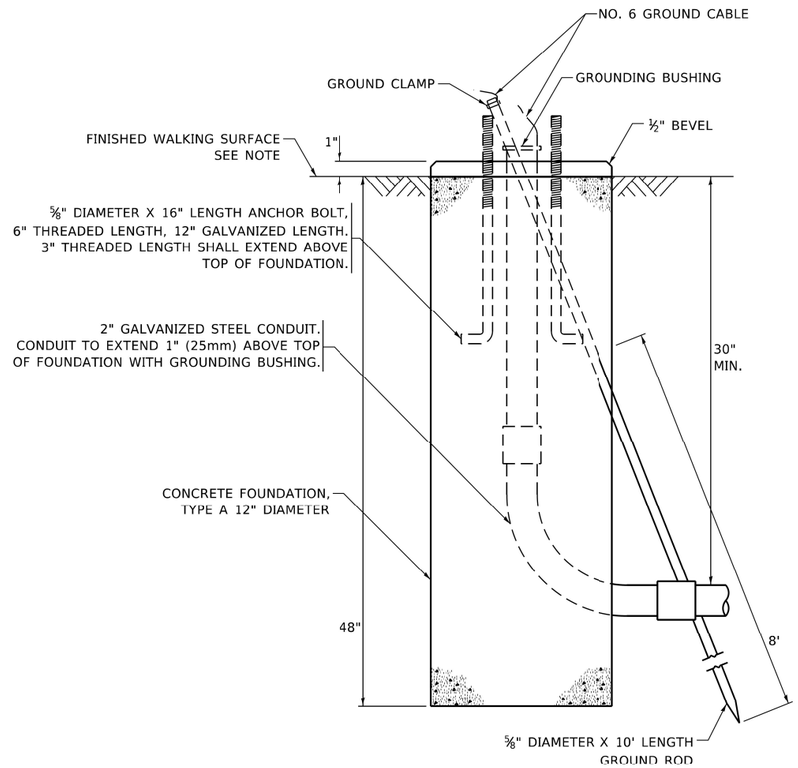


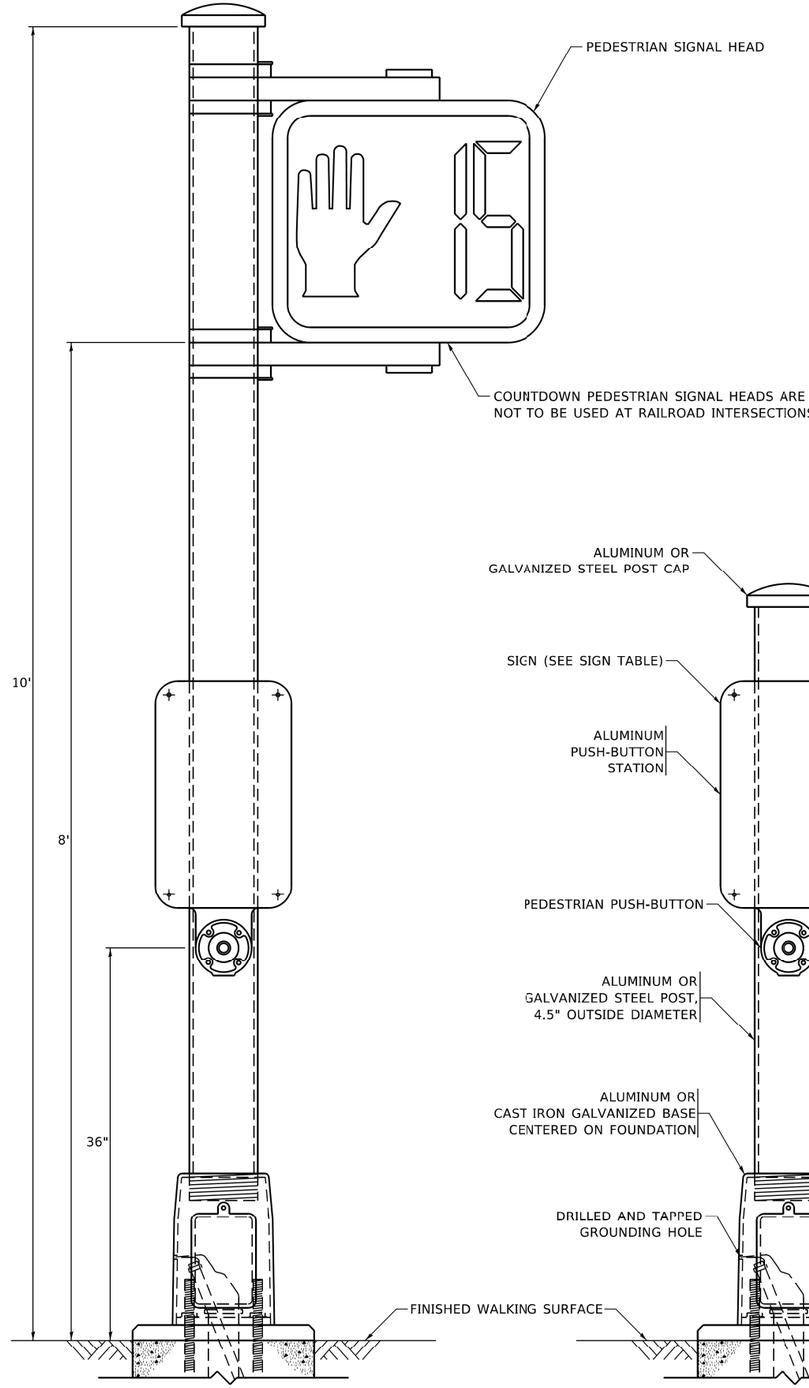
BOLT PATTERN

NOTE:

1. IF THE PEDESTRIAN SIGNAL POST FOUNDATION IS INSTALLED WITHIN OR BEHIND A BARRIER CURB, THE TOP OF THE FOUNDATION SHALL BE INSTALLED FLUSH WITH THE TOP OF THE BARRIER CURB.



CONCRETE FOUNDATION, TYPE A 12–INCH DIAMETER

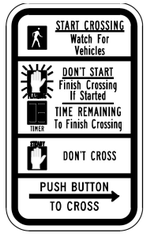


PEDESTRIAN SIGNAL POST, 10 FT.

PEDESTRIAN SIGNAL POST, 5 FT.

R10–3b

R10–3d



R10–3e

SIGN TABLE

SIGN	DIMENSIONS
R10-3b (RAILROAD ONLY)	9" X 12"
R10-3d (RAILROAD ONLY)	9" X 12"
R10-3e	9" X 12"

NOTES:

1. THE SIGN PANELS SHALL BE TYPE AP SHEETING.
2. THE ARROW ON SIGNS FOR PUSH-BUTTONS SERVING TWO DIRECTIONS ON THE SAME PHASE SHALL BE BI-DIRECTIONAL.
3. THE SIGN FOR DUAL-CALL PUSH-BUTTONS SHALL HAVE NO ARROW.

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	DRAWN - IP	REVISED -	
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

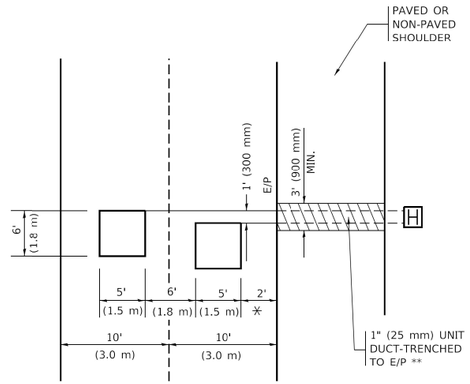
DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE | SHEET 7 OF 7 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1350	FAU 1350 22 BJ	COOK	56	55
	TS–05	CONTRACT NO.62T39		
	ILLINOIS	FED. AID PROJECT		

LOOPS NEXT TO SHOULDERS

PROVIDE A PAVEMENT REPLACEMENT NOTE WHICH SHOULD EQUAL 3' (900 mm) X WIDTH OF PAVED SHOULDER.



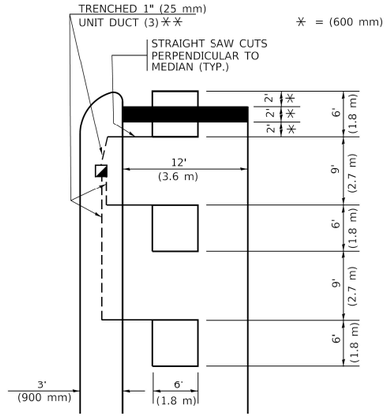
⁎ = (500 mm)

⁎⁎ UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

LEFT TURN LANES WITH MEDIANS

VOLUME DENSITY ("FAR OUT" DETECTION) ON SAME APPROACH (PROTECTED / PERMITTED LEFT TURN PHASING)

HANDHOLE LOCATION MAY VARY DEPENDING ON GEOMETRICS AND DESIGN OF TRAFFIC SIGNALS. HEAVY-DUTY HANDHOLES TO BE USED WHEN THE MEDIAN IS MOUNTABLE. REFER TO STANDARD 814001 TO ENSURE THAT HANDHOLE FITS IN MEDIAN.



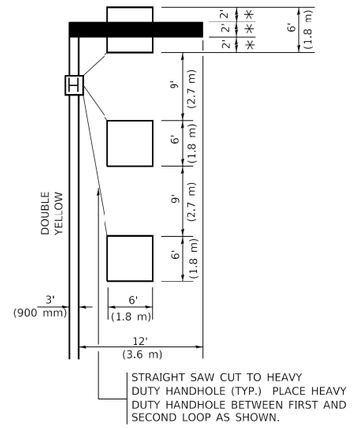
** UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

LEFT TURN LANES WITHOUT MEDIANS

VOLUME DENSITY (''FAR OUT'' DETECTION) ON SAME APPROACH (PROTECTED / PERMITTED LEFT TURN PHASING)

⁎ = (600 mm)



NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

NOTES:

VEHICLES LOOP DETECTORS

⁎ ALL LEAD IN CABLE SHALL BE TWO CONDUCTOR NO. 14 TWISTED, SHIELDED.

⁎ EACH DETECTOR LOOP SHALL HAVE ITS OWN SAW CUT FROM THE LOOP TO THE EDGE OF PAVEMENT OR TO A HANDHOLE IN THE PAVEMENT.

⁎ EACH DETECTOR LOOP SHALL HAVE ITS OWN ONE INCH (25 mm) UNIT DUCT BETWEEN THE EDGE OF PAVEMENT AND THE FIRST HANDHOLE OR JUNCTION BOX. EACH UNIT DUCT RUN SHALL BE SHOWN ON THE PLANS BY THE DESIGNER, BUT SHALL NOT BE PAID FOR SEPARATLY. THIS ITEM IS INCIDENTAL TO THE PAY ITEM FOR DETECTOR LOOPS.

⁎ ONE DIMENSION OF ALL DETECTOR LOOPS SHALL BE SIX FEET (1.8 m)

⁎ EACH LANE OF NON-LOCKING, PRESENCE DETECTION AND EACH LANE OF A DOUBLE LEFT TURN LANE REQUIRES A SEPARATE INDUCTIVE LOOP DETECTOR AND LEAD IN CABLE.

⁎ WHEN NON-LOCKING, PRESENCE DETECTION IS USED, MORE THAN ONE LOOP PER LANE IS REQUIRED BEHIND THE STOP BAR (i.e. 1-1/2, 1-3/4, 2).

⁎ WHEN SYSTEM LOOPS ARE REQUIRED ON AN APPROACH OF AN INTERSECTION, THE LOOPS USED FOR VOLUME DENSITY AND INTERSECTION TIMING SHALL ALSO BE USED AS SYSTEM DETECTORS. EACH ONE OF THESE TYPE OF LOOPS REQUIRES A SEPARATE TWO CONDUCTOR NO. 14 TWISTED SHIELDED CABLE AND A SEPARATE INDUCTIVE LOOP DETECTOR WHEN NEW CONTROLLERS ARE UTILIZED. THE DESIGNER SHALL LABEL THESE TYPES OF LOOPS AS "INTERSECTION AND SAMPLING (SYSTEM) DETECTORS" ON THE SIGNAL LAYOUT, THE INTERCONNECT PLAN AND THE SYSTEM CABLE PLAN. WHEN AN EXISTING CONTROLLER IS UTILIZED FOR THIS TYPE OF DETECTION, THE PAY ITEM "INDUCTIVE LOOP DETECTOR WITH SYSTEM OUTPUT" SHOULD BE USED.

PLACEMENT OF DETECTORS

THE FOLLOWING FIGURES REPRESENT THE MOST COMMON DETECTOR LOOP LOCATIONS AND SIZES. ADJUSTMENTS WILL BE NECESSARY FOR SPECIFIC GEOMETRIC CONSIDERATIONS.

LOCATIONS AND DEMENSIONS OF DETECTOR LOOPS ARE REQUIRED ON ALL SIGNAL LAYOUT PLAN SHEETS.

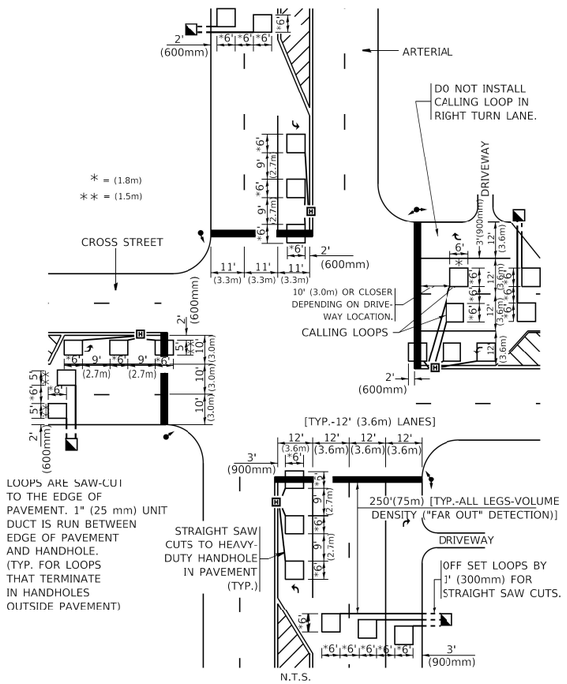
"FAR OUT" DETECTION REFERS TO LOCKING, PRESENCE TYPE DETECTION LOCATED IN THRU LANES, RIGHT TURN LANES, AND RIGHT TURN LANE TAPER AREAS (IF APPLICABLE), USUALLY 250' (75 m) IN ADVANCE OF STOP BARS. "UPTIGHT" DETECTION REFERS TO NON-LOCKING PRESENCE TYPE DETECTION LOCATED IN ALL LANES AND 10'-15' (3.0 m-4.5 m) BEHIND THE CROSSING STREET'S EDGE OF PAVEMENT EXTENDED.

NOTE:

ALL DETAILS AND NOTES SHOWN ARE FROM THE I.D.O.T. DISTRICT 1 TRAFFIC SIGNAL DESIGN GUIDELINES DATED JANUARY 1995

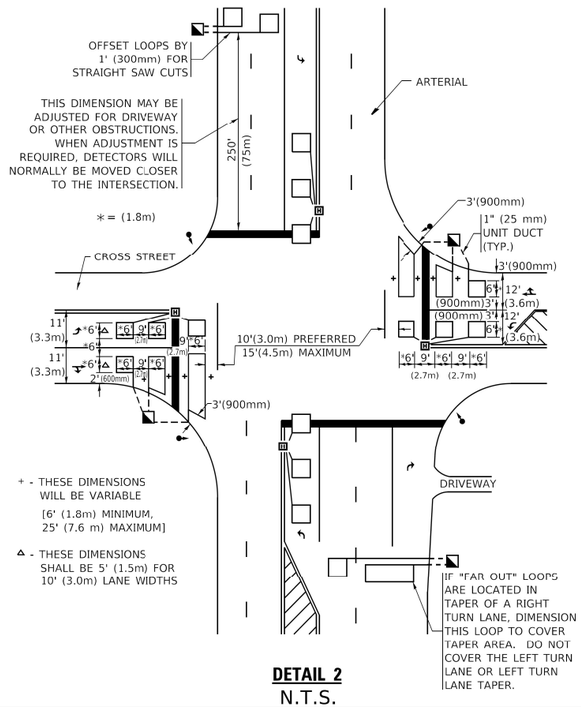
THIS DRAWING HAS BEEN PREPARED TO ASSIST THE RESIDENT ENGINEER FOR ALL ROADWAY RESURFACING OR S.M.A.R.T. PROJECTS WHERE THE DIMENSIONS ARE NOT SHOWN ON THE PLANS AND THE FINAL LOCATIONS FOR CROSSWALKS OR STOP BARS ARE NOT DETERMINED.

ARTERIAL-VOLUME DENSITY ("FAR OUT" DETECTION)
CROSS STREET-NON VOLUME DENSITY ("FAR OUT" DETECTION)



DETAIL 1
N.T.S.

ARTERIAL-VOLUME DENSITY ("FAR OUT" DETECTION)
CROSS STREET-NON VOLUME DENSITY ("UPTIGHT" PRESENCE DETECTION)



DETAIL 2
N.T.S.

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PLOT DATE = 3/4/2019	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT 1 – DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING

SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	TS-07	CONTRACT NO. 62T39		
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