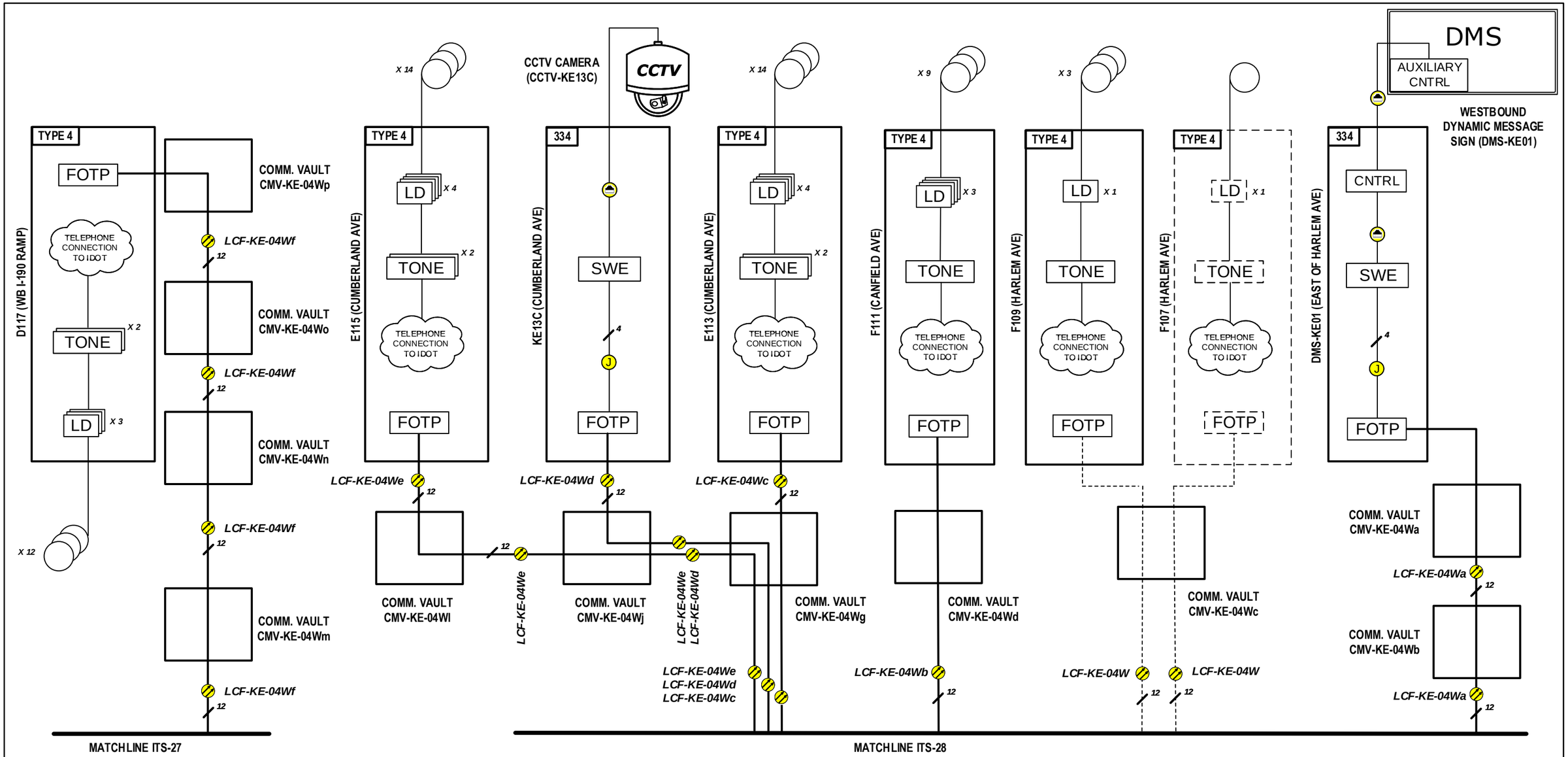


LEGEND

- TWISTED PAIR COPPER CABLE
- UNSHIELDED CAT-5E CABLE
- SHIELDED CAT-5E CABLE
- FIBER OPTIC JUMPER (NO. OF JUMPERS)
- FIBER OPTIC CABLE, SINGLE MODE (STRAND COUNT)
- FIBER OPTIC SPLICE CLOSURE
- FOSE — FIBER OPTIC SPLICE ENCLOSURE
- FOTP — FIBER OPTIC TERMINATION PANEL, 12F OR 24F
- TS — TERMINAL SERVER
- MODEM — CELLULAR MODEM
- TONE — TONE RACK EQUIPMENT
- X 13 — INDUCTION LOOP (NO. OF LOOPS)
- LD X 6 — INDUCTIVE LOOP DETECTOR (NO. OF LOOP DETECTOR UNITS)
- SWE — ETHERNET SWITCH
- CNTRL — DMS CONTROLLER
- RVDS — TEMPORARY VEHICLE DETECTION SYSTEM
- CCTV — CCTV CAMERA

NOTES:
1. DASHED LINES INDICATED EXISITNG EQUIPMENT, CABLES, AND ENCLOSURES

ITS-29

HNTB

USER NAME = $USER$	DESIGNED RAJ	REVISED -
	DRAWN RAJ	REVISED -
PLOT SCALE = $SCALE$	CHECKED YJ	REVISED -
PLOT DATE = $DATE$	DATE 12/21/16	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORATION

FINAL COMMUNICATIONS OVERVIEW PLAN

SCALE: N.T.S. | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	401
		CONTRACT NO. 60Y39		
		ILLINOIS	FED. AID PROJECT	

FILE NAME = $FILE$

LATERAL CABLE FIBER ASSIGNMENTS		
LCF-KE-04Wf - CMV-KE-05e TO FOTP IN D117 (WB I-190 LOOPS)		
FIBER NO.	FUNCTION	CONNECTION
1	TONE EQUIP. FUTURE CONNECTION	LCF-KE-05e, BLU/GRE 3
2	TONE EQUIP. FUTURE CONNECTION	LCF-KE-05e, BLU/BRO 4
3	TONE EQUIP. FUTURE CONNECTION	DCF-KE-05, BLU/GRE 3 EAST
4	TONE EQUIP. FUTURE CONNECTION	DCF-KE-05, BLU/BRO 4 EAST
5	TERMINATED ON PATCH PANEL	CAPPED AND COILED
6	TERMINATED ON PATCH PANEL	CAPPED AND COILED
7	TERMINATED ON PATCH PANEL	CAPPED AND COILED
8	TERMINATED ON PATCH PANEL	CAPPED AND COILED
9	TERMINATED ON PATCH PANEL	CAPPED AND COILED
10	TERMINATED ON PATCH PANEL	CAPPED AND COILED
11	TERMINATED ON PATCH PANEL	CAPPED AND COILED
12	TERMINATED ON PATCH PANEL	CAPPED AND COILED

LATERAL CABLE FIBER ASSIGNMENTS		
LCF-KE-04We - CMV-KE-04k TO FOTP IN E115 (WEST CUMBERLAND LOOPS)		
FIBER NO.	FUNCTION	CONNECTION
1	TONE EQUIP. FUTURE CONNECTION	DCF-KE-04, BLU/GRE 3 WEST
2	TONE EQUIP. FUTURE CONNECTION	DCF-KE-04, BLU/BRO 4 WEST
3	TONE EQUIP. FUTURE CONNECTION	LCF-KE-04Wc, BLU/BLU 1
4	TONE EQUIP. FUTURE CONNECTION	LCF-KE-04Wc, BLU/ORA 2
5	TERMINATED ON PATCH PANEL	CAPPED AND COILED
6	TERMINATED ON PATCH PANEL	CAPPED AND COILED
7	TERMINATED ON PATCH PANEL	CAPPED AND COILED
8	TERMINATED ON PATCH PANEL	CAPPED AND COILED
9	TERMINATED ON PATCH PANEL	CAPPED AND COILED
10	TERMINATED ON PATCH PANEL	CAPPED AND COILED
11	TERMINATED ON PATCH PANEL	CAPPED AND COILED
12	TERMINATED ON PATCH PANEL	CAPPED AND COILED

LATERAL CABLE FIBER ASSIGNMENTS		
LCF-KE-04Wd - CMV-KE-04k TO FOTP IN KE13C (NORTH CUMBERLAND CCTV)		
FIBER NO.	FUNCTION	CONNECTION
1	TONE EQUIP. FUTURE CONNECTION	DCF-KE-04, BLU/BLU 1 WEST
2	TONE EQUIP. FUTURE CONNECTION	DCF-KE-04, BLU/ORA 2 WEST
3	TONE EQUIP. FUTURE CONNECTION	DCF-KE-04, BLU/BLU 3 EAST
4	TONE EQUIP. FUTURE CONNECTION	DCF-KE-04, BLU/ORA 4 EAST
5	TERMINATED ON PATCH PANEL	CAPPED AND COILED
6	TERMINATED ON PATCH PANEL	CAPPED AND COILED
7	TERMINATED ON PATCH PANEL	CAPPED AND COILED
8	TERMINATED ON PATCH PANEL	CAPPED AND COILED
9	TERMINATED ON PATCH PANEL	CAPPED AND COILED
10	TERMINATED ON PATCH PANEL	CAPPED AND COILED
11	TERMINATED ON PATCH PANEL	CAPPED AND COILED
12	TERMINATED ON PATCH PANEL	CAPPED AND COILED

HNTB

USER NAME = $USER$	DESIGNED - JZ	REVISED - -
	DRAWN - JZ	REVISED -
PLOT SCALE = $SCALE$	CHECKED - YJ	REVISED -
PLOT DATE = $DATE$	DATE 01/19/2018	REVISED -

FILE NAME = $FILEL$

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TWELVE FIBER LATERAL CABLE FIBER ASSIGNMENTS

SCALE: N.T.S. | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	402
		CONTRACT NO. 60Y39		
	ILLINOIS FED. AID PROJECT			

LATERAL CABLE FIBER ASSIGNMENTS		
LCF-KE-04Wc - CMV-KE-04k TO FOTP IN E113 (EAST CUMBERLAND LOOPS)		
FIBER NO.	FUNCTION	CONNECTION
1	TONE EQUIP. FUTURE CONNECTION	LCF-KE-04We, BLU/GRE 3
2	TONE EQUIP. FUTURE CONNECTION	LCF-KE-04We, BLU/BRO 4
3	TONE EQUIP. FUTURE CONNECTION	DCF-KE-05, BLU/GRE 3
4	TONE EQUIP. FUTURE CONNECTION	DCF-KE-05, BLU/BRO 4
5	TERMINATED ON PATCH PANEL	CAPPED AND COILED
6	TERMINATED ON PATCH PANEL	CAPPED AND COILED
7	TERMINATED ON PATCH PANEL	CAPPED AND COILED
8	TERMINATED ON PATCH PANEL	CAPPED AND COILED
9	TERMINATED ON PATCH PANEL	CAPPED AND COILED
10	TERMINATED ON PATCH PANEL	CAPPED AND COILED
11	TERMINATED ON PATCH PANEL	CAPPED AND COILED
12	TERMINATED ON PATCH PANEL	CAPPED AND COILED

LATERAL CABLE FIBER ASSIGNMENTS		
LCF-KE-04Wa - CMV-KE-04a TO FOTP IN DMS-KE01 (HARLEM WB DMS)		
FIBER NO.	FUNCTION	CONNECTION
1	ETHERNET SWITCH (DMS-KE01)	DCF-KE-04, BLU/SLA 5
2	ETHERNET SWITCH (DMS-KE01)	DCF-KE-04, BLU/WHI 6
3	TERMINATED ON PATCH PANEL	CAPPED AND COILED
4	TERMINATED ON PATCH PANEL	CAPPED AND COILED
5	TERMINATED ON PATCH PANEL	CAPPED AND COILED
6	TERMINATED ON PATCH PANEL	CAPPED AND COILED
7	TERMINATED ON PATCH PANEL	CAPPED AND COILED
8	TERMINATED ON PATCH PANEL	CAPPED AND COILED
9	TERMINATED ON PATCH PANEL	CAPPED AND COILED
10	TERMINATED ON PATCH PANEL	CAPPED AND COILED
11	TERMINATED ON PATCH PANEL	CAPPED AND COILED
12	TERMINATED ON PATCH PANEL	CAPPED AND COILED

LATERAL CABLE FIBER ASSIGNMENTS		
LCF-KE-04Wb - CMV-KE-04f TO FOTP IN F111 (CANFIELD LOOPS)		
FIBER NO.	FUNCTION	CONNECTION
1	TONE EQUP. FUTURE CONNECTION	DCF-KE-04, BLU/GRE 3 WEST
2	TONE EQUP. FUTURE CONNECTION	DCF-KE-04, BLU/BRO 4 WEST
3	TONE EQUP. FUTURE CONNECTION	DCF-KE-04, BLU/GRE 3 EAST
4	TONE EQUP. FUTURE CONNECTION	DCF-KE-04, BLU/BRO 4 EAST
5	TERMINATED ON PATCH PANEL	CAPPED AND COILED
6	TERMINATED ON PATCH PANEL	CAPPED AND COILED
7	TERMINATED ON PATCH PANEL	CAPPED AND COILED
8	TERMINATED ON PATCH PANEL	CAPPED AND COILED
9	TERMINATED ON PATCH PANEL	CAPPED AND COILED
10	TERMINATED ON PATCH PANEL	CAPPED AND COILED
11	TERMINATED ON PATCH PANEL	CAPPED AND COILED
12	TERMINATED ON PATCH PANEL	CAPPED AND COILED

ITS-30A

HNTB

USER NAME = jblakley	DESIGNED - JZ	REVISED - -
	DRAWN - JZ	REVISED -
PLOT SCALE = 2.00 ' / in.	CHECKED - YJ	REVISED -
PLOT DATE = 6/16/2017	DATE 06/28/2017	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TWELVE FIBER LATERAL CABLE FIBER ASSIGNMENTS

SCALE: N.T.S. | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	403
		CONTRACT NO. 60Y39		
	ILLINOIS	FED. AID PROJECT		

FILE NAME = D160Y39-sht-ITS-30A.dgn

DISTRIBUTION CABLE FIBER ASSIGNMENTS				ORIGINATION	FIBER OPTIC SPLICE CLOSURE FOR KE14		
DISTRIBUTION CABLE DESIGNATION			DCF-KE-05	DESTINATION	FIBER OPTIC SPLICE CLOSURE FOR D124A		
BUFFER TUBE	FIBER	FIBER NO.	ASSIGNMENT	BUFFER TUBE	FIBER	FIBER NO.	ASSIGNMENT
BLUE	Blue 1	1	SPLICE THRU	SLATE	Blue 1	49	UNCUT, PASS THRU
	Orange 2	2	SPLICE THRU		Orange 2	50	UNCUT, PASS THRU
	Green 3	3	LCF-KE-05e, BLU/BLU 1		Green 3	51	UNCUT, PASS THRU
	Brown 4	4	LCF-KE-05e, BLU/ORA 2		Brown 4	52	UNCUT, PASS THRU
	Slate 5	5	SPLICE THRU		Slate 5	53	UNCUT, PASS THRU
	White 6	6	SPLICE THRU		White 6	54	UNCUT, PASS THRU
	Red 7	7	SPLICE THRU		Red 7	55	UNCUT, PASS THRU
	Black 8	8	SPLICE THRU		Black 8	56	UNCUT, PASS THRU
	Yellow 9	9	SPLICE THRU		Yellow 9	57	UNCUT, PASS THRU
	Violet 10	10	SPLICE THRU		Violet 10	58	UNCUT, PASS THRU
	Rose 11	11	SPLICE THRU		Rose 11	59	UNCUT, PASS THRU
	Aqua 12	12	SPLICE THRU		Aqua 12	60	UNCUT, PASS THRU
ORANGE	Blue 1	13	UNCUT, PASS THRU	WHITE	Blue 1	61	UNCUT, PASS THRU
	Orange 2	14	UNCUT, PASS THRU		Orange 2	62	UNCUT, PASS THRU
	Green 3	15	UNCUT, PASS THRU		Green 3	63	UNCUT, PASS THRU
	Brown 4	16	UNCUT, PASS THRU		Brown 4	64	UNCUT, PASS THRU
	Slate 5	17	UNCUT, PASS THRU		Slate 5	65	UNCUT, PASS THRU
	White 6	18	UNCUT, PASS THRU		White 6	66	UNCUT, PASS THRU
	Red 7	19	UNCUT, PASS THRU		Red 7	67	UNCUT, PASS THRU
	Black 8	20	UNCUT, PASS THRU		Black 8	68	UNCUT, PASS THRU
	Yellow 9	21	UNCUT, PASS THRU		Yellow 9	69	UNCUT, PASS THRU
	Violet 10	22	UNCUT, PASS THRU		Violet 10	70	UNCUT, PASS THRU
	Rose 11	23	UNCUT, PASS THRU		Rose 11	71	UNCUT, PASS THRU
	Aqua 12	24	UNCUT, PASS THRU		Aqua 12	72	UNCUT, PASS THRU
GREEN	Blue 1	25	UNCUT, PASS THRU	RED	Blue 1	73	UNCUT, PASS THRU
	Orange 2	26	UNCUT, PASS THRU		Orange 2	74	UNCUT, PASS THRU
	Green 3	27	UNCUT, PASS THRU		Green 3	75	UNCUT, PASS THRU
	Brown 4	28	UNCUT, PASS THRU		Brown 4	76	UNCUT, PASS THRU
	Slate 5	29	UNCUT, PASS THRU		Slate 5	77	UNCUT, PASS THRU
	White 6	30	UNCUT, PASS THRU		White 6	78	UNCUT, PASS THRU
	Red 7	31	UNCUT, PASS THRU		Red 7	79	UNCUT, PASS THRU
	Black 8	32	UNCUT, PASS THRU		Black 8	80	UNCUT, PASS THRU
	Yellow 9	33	UNCUT, PASS THRU		Yellow 9	81	UNCUT, PASS THRU
	Violet 10	34	UNCUT, PASS THRU		Violet 10	82	UNCUT, PASS THRU
	Rose 11	35	UNCUT, PASS THRU		Rose 11	83	UNCUT, PASS THRU
	Aqua 12	36	UNCUT, PASS THRU		Aqua 12	84	UNCUT, PASS THRU
BROWN	Blue 1	37	UNCUT, PASS THRU	BLACK	Blue 1	85	UNCUT, PASS THRU
	Orange 2	38	UNCUT, PASS THRU		Orange 2	86	UNCUT, PASS THRU
	Green 3	39	UNCUT, PASS THRU		Green 3	87	UNCUT, PASS THRU
	Brown 4	40	UNCUT, PASS THRU		Brown 4	88	UNCUT, PASS THRU
	Slate 5	41	UNCUT, PASS THRU		Slate 5	89	UNCUT, PASS THRU
	White 6	42	UNCUT, PASS THRU		White 6	90	UNCUT, PASS THRU
	Red 7	43	UNCUT, PASS THRU		Red 7	91	UNCUT, PASS THRU
	Black 8	44	UNCUT, PASS THRU		Black 8	92	UNCUT, PASS THRU
	Yellow 9	45	UNCUT, PASS THRU		Yellow 9	93	UNCUT, PASS THRU
	Violet 10	46	UNCUT, PASS THRU		Violet 10	94	UNCUT, PASS THRU
	Rose 11	47	UNCUT, PASS THRU		Rose 11	95	UNCUT, PASS THRU
	Aqua 12	48	UNCUT, PASS THRU		Aqua 12	96	UNCUT, PASS THRU

DCF-KE-05 FROM THE WEST

DISTRIBUTION CABLE FIBER ASSIGNMENTS				ORIGINATION	FIBER OPTIC SPLICE CLOSURE FOR KE13A		
DISTRIBUTION CABLE DESIGNATION			DCF-KE-05	DESTINATION	FIBER OPTIC SPLICE CLOSURE FOR D124A		
BUFFER TUBE	FIBER	FIBER NO.	ASSIGNMENT	BUFFER TUBE	FIBER	FIBER NO.	ASSIGNMENT
BLUE	Blue 1	1	SPLICE THRU	SLATE	Blue 1	49	UNCUT, PASS THRU
	Orange 2	2	SPLICE THRU		Orange 2	50	UNCUT, PASS THRU
	Green 3	3	LCF-KE-04Wf, BLU/GRE 3		Green 3	51	UNCUT, PASS THRU
	Brown 4	4	LCF-KE-04Wf, BLU/BRO 4		Brown 4	52	UNCUT, PASS THRU
	Slate 5	5	SPLICE THRU		Slate 5	53	UNCUT, PASS THRU
	White 6	6	SPLICE THRU		White 6	54	UNCUT, PASS THRU
	Red 7	7	SPLICE THRU		Red 7	55	UNCUT, PASS THRU
	Black 8	8	SPLICE THRU		Black 8	56	UNCUT, PASS THRU
	Yellow 9	9	SPLICE THRU		Yellow 9	57	UNCUT, PASS THRU
	Violet 10	10	SPLICE THRU		Violet 10	58	UNCUT, PASS THRU
	Rose 11	11	SPLICE THRU		Rose 11	59	UNCUT, PASS THRU
	Aqua 12	12	SPLICE THRU		Aqua 12	60	UNCUT, PASS THRU
ORANGE	Blue 1	13	UNCUT, PASS THRU	WHITE	Blue 1	61	UNCUT, PASS THRU
	Orange 2	14	UNCUT, PASS THRU		Orange 2	62	UNCUT, PASS THRU
	Green 3	15	UNCUT, PASS THRU		Green 3	63	UNCUT, PASS THRU
	Brown 4	16	UNCUT, PASS THRU		Brown 4	64	UNCUT, PASS THRU
	Slate 5	17	UNCUT, PASS THRU		Slate 5	65	UNCUT, PASS THRU
	White 6	18	UNCUT, PASS THRU		White 6	66	UNCUT, PASS THRU
	Red 7	19	UNCUT, PASS THRU		Red 7	67	UNCUT, PASS THRU
	Black 8	20	UNCUT, PASS THRU		Black 8	68	UNCUT, PASS THRU
	Yellow 9	21	UNCUT, PASS THRU		Yellow 9	69	UNCUT, PASS THRU
	Violet 10	22	UNCUT, PASS THRU		Violet 10	70	UNCUT, PASS THRU
	Rose 11	23	UNCUT, PASS THRU		Rose 11	71	UNCUT, PASS THRU
	Aqua 12	24	UNCUT, PASS THRU		Aqua 12	72	UNCUT, PASS THRU
GREEN	Blue 1	25	UNCUT, PASS THRU	RED	Blue 1	73	UNCUT, PASS THRU
	Orange 2	26	UNCUT, PASS THRU		Orange 2	74	UNCUT, PASS THRU
	Green 3	27	UNCUT, PASS THRU		Green 3	75	UNCUT, PASS THRU
	Brown 4	28	UNCUT, PASS THRU		Brown 4	76	UNCUT, PASS THRU
	Slate 5	29	UNCUT, PASS THRU		Slate 5	77	UNCUT, PASS THRU
	White 6	30	UNCUT, PASS THRU		White 6	78	UNCUT, PASS THRU
	Red 7	31	UNCUT, PASS THRU		Red 7	79	UNCUT, PASS THRU
	Black 8	32	UNCUT, PASS THRU		Black 8	80	UNCUT, PASS THRU
	Yellow 9	33	UNCUT, PASS THRU		Yellow 9	81	UNCUT, PASS THRU
	Violet 10	34	UNCUT, PASS THRU		Violet 10	82	UNCUT, PASS THRU
	Rose 11	35	UNCUT, PASS THRU		Rose 11	83	UNCUT, PASS THRU
	Aqua 12	36	UNCUT, PASS THRU		Aqua 12	84	UNCUT, PASS THRU
BROWN	Blue 1	37	UNCUT, PASS THRU	BLACK	Blue 1	85	UNCUT, PASS THRU
	Orange 2	38	UNCUT, PASS THRU		Orange 2	86	UNCUT, PASS THRU
	Green 3	39	UNCUT, PASS THRU		Green 3	87	UNCUT, PASS THRU
	Brown 4	40	UNCUT, PASS THRU		Brown 4	88	UNCUT, PASS THRU
	Slate 5	41	UNCUT, PASS THRU		Slate 5	89	UNCUT, PASS THRU
	White 6	42	UNCUT, PASS THRU		White 6	90	UNCUT, PASS THRU
	Red 7	43	UNCUT, PASS THRU		Red 7	91	UNCUT, PASS THRU
	Black 8	44	UNCUT, PASS THRU		Black 8	92	UNCUT, PASS THRU
	Yellow 9	45	UNCUT, PASS THRU		Yellow 9	93	UNCUT, PASS THRU
	Violet 10	46	UNCUT, PASS THRU		Violet 10	94	UNCUT, PASS THRU
	Rose 11	47	UNCUT, PASS THRU		Rose 11	95	UNCUT, PASS THRU
	Aqua 12	48	UNCUT, PASS THRU		Aqua 12	96	UNCUT, PASS THRU

DCF-KE-05 FROM THE EAST

ITS-30B

HNTB

USER NAME = jblakley	DESIGNED - JZ	REVISED - -
	DRAWN - JZ	REVISED -
PLOT SCALE = 2.00 '/ in.	CHECKED - YJ	REVISED -
PLOT DATE = 6/16/2017	DATE 06/28/2017	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRIBUTION CABLE FIBER ASSIGNMENTS
FIBER OPTIC SPLICE CLOSURE FOR CMV–KE–05e
(I–190 WB SURV.)

SCALE: N.T.S. | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	404
		CONTRACT NO. 60Y39		
	ILLINOIS	FED. AID PROJECT		

FILE NAME = D160Y39-sht-ITS-30B.dgn

DISTRIBUTION CABLE FIBER ASSIGNMENTS				ORIGINATION	FIBER OPTIC SPLICE CLOSURE FOR KE13B		
DISTRIBUTION CABLE DESIGNATION			DCF-KE-04	DESTINATION	FIBER OPTIC SPLICE CLOSURE FOR E115		
BUFFER TUBE	FIBER	FIBER NO.	ASSIGNMENT	BUFFER TUBE	FIBER	FIBER NO.	ASSIGNMENT
BLUE	Blue 1	1	SPLICE THRU	SLATE	Blue 1	49	UNCUT, PASS THRU
	Orange 2	2	SPLICE THRU		Orange 2	50	UNCUT, PASS THRU
	Green 3	3	LCF-KE-04We, BLU/BLU 1		Green 3	51	UNCUT, PASS THRU
	Brown 4	4	LCF-KE-04We, BLU/ORA 2		Brown 4	52	UNCUT, PASS THRU
	Slate 5	5	SPLICE THRU		Slate 5	53	UNCUT, PASS THRU
	White 6	6	SPLICE THRU		White 6	54	UNCUT, PASS THRU
	Red 7	7	SPLICE THRU		Red 7	55	UNCUT, PASS THRU
	Black 8	8	SPLICE THRU		Black 8	56	UNCUT, PASS THRU
	Yellow 9	9	SPLICE THRU		Yellow 9	57	UNCUT, PASS THRU
	Violet 10	10	SPLICE THRU		Violet 10	58	UNCUT, PASS THRU
	Rose 11	11	SPLICE THRU		Rose 11	59	UNCUT, PASS THRU
	Aqua 12	12	SPLICE THRU		Aqua 12	60	UNCUT, PASS THRU
ORANGE	Blue 1	13	UNCUT, PASS THRU	WHITE	Blue 1	61	UNCUT, PASS THRU
	Orange 2	14	UNCUT, PASS THRU		Orange 2	62	UNCUT, PASS THRU
	Green 3	15	UNCUT, PASS THRU		Green 3	63	UNCUT, PASS THRU
	Brown 4	16	UNCUT, PASS THRU		Brown 4	64	UNCUT, PASS THRU
	Slate 5	17	UNCUT, PASS THRU		Slate 5	65	UNCUT, PASS THRU
	White 6	18	UNCUT, PASS THRU		White 6	66	UNCUT, PASS THRU
	Red 7	19	UNCUT, PASS THRU		Red 7	67	UNCUT, PASS THRU
	Black 8	20	UNCUT, PASS THRU		Black 8	68	UNCUT, PASS THRU
	Yellow 9	21	UNCUT, PASS THRU		Yellow 9	69	UNCUT, PASS THRU
	Violet 10	22	UNCUT, PASS THRU		Violet 10	70	UNCUT, PASS THRU
	Rose 11	23	UNCUT, PASS THRU		Rose 11	71	UNCUT, PASS THRU
	Aqua 12	24	UNCUT, PASS THRU		Aqua 12	72	UNCUT, PASS THRU
GREEN	Blue 1	25	UNCUT, PASS THRU	RED	Blue 1	73	UNCUT, PASS THRU
	Orange 2	26	UNCUT, PASS THRU		Orange 2	74	UNCUT, PASS THRU
	Green 3	27	UNCUT, PASS THRU		Green 3	75	UNCUT, PASS THRU
	Brown 4	28	UNCUT, PASS THRU		Brown 4	76	UNCUT, PASS THRU
	Slate 5	29	UNCUT, PASS THRU		Slate 5	77	UNCUT, PASS THRU
	White 6	30	UNCUT, PASS THRU		White 6	78	UNCUT, PASS THRU
	Red 7	31	UNCUT, PASS THRU		Red 7	79	UNCUT, PASS THRU
	Black 8	32	UNCUT, PASS THRU		Black 8	80	UNCUT, PASS THRU
	Yellow 9	33	UNCUT, PASS THRU		Yellow 9	81	UNCUT, PASS THRU
	Violet 10	34	UNCUT, PASS THRU		Violet 10	82	UNCUT, PASS THRU
	Rose 11	35	UNCUT, PASS THRU		Rose 11	83	UNCUT, PASS THRU
	Aqua 12	36	UNCUT, PASS THRU		Aqua 12	84	UNCUT, PASS THRU
BROWN	Blue 1	37	UNCUT, PASS THRU	BLACK	Blue 1	85	UNCUT, PASS THRU
	Orange 2	38	UNCUT, PASS THRU		Orange 2	86	UNCUT, PASS THRU
	Green 3	39	UNCUT, PASS THRU		Green 3	87	UNCUT, PASS THRU
	Brown 4	40	UNCUT, PASS THRU		Brown 4	88	UNCUT, PASS THRU
	Slate 5	41	UNCUT, PASS THRU		Slate 5	89	UNCUT, PASS THRU
	White 6	42	UNCUT, PASS THRU		White 6	90	UNCUT, PASS THRU
	Red 7	43	UNCUT, PASS THRU		Red 7	91	UNCUT, PASS THRU
	Black 8	44	UNCUT, PASS THRU		Black 8	92	UNCUT, PASS THRU
	Yellow 9	45	UNCUT, PASS THRU		Yellow 9	93	UNCUT, PASS THRU
	Violet 10	46	UNCUT, PASS THRU		Violet 10	94	UNCUT, PASS THRU
	Rose 11	47	UNCUT, PASS THRU		Rose 11	95	UNCUT, PASS THRU
	Aqua 12	48	UNCUT, PASS THRU		Aqua 12	96	UNCUT, PASS THRU

DCF-KE-04 FROM THE WEST

DISTRIBUTION CABLE FIBER ASSIGNMENTS				ORIGINATION	FIBER OPTIC SPLICE CLOSURE FOR KE12		
DISTRIBUTION CABLE DESIGNATION			DCF-KE-04	DESTINATION	FIBER OPTIC SPLICE CLOSURE FOR E115		
BUFFER TUBE	FIBER	FIBER NO.	ASSIGNMENT	BUFFER TUBE	FIBER	FIBER NO.	ASSIGNMENT
BLUE	Blue 1	1	SPLICE THRU	SLATE	Blue 1	49	UNCUT, PASS THRU
	Orange 2	2	SPLICE THRU		Orange 2	50	UNCUT, PASS THRU
	Green 3	3	LCF-KE-04Wc, BLU/GRE 3		Green 3	51	UNCUT, PASS THRU
	Brown 4	4	LCF-KE-04Wc, BLU/BRO 4		Brown 4	52	UNCUT, PASS THRU
	Slate 5	5	SPLICE THRU		Slate 5	53	UNCUT, PASS THRU
	White 6	6	SPLICE THRU		White 6	54	UNCUT, PASS THRU
	Red 7	7	SPLICE THRU		Red 7	55	UNCUT, PASS THRU
	Black 8	8	SPLICE THRU		Black 8	56	UNCUT, PASS THRU
	Yellow 9	9	SPLICE THRU		Yellow 9	57	UNCUT, PASS THRU
	Violet 10	10	SPLICE THRU		Violet 10	58	UNCUT, PASS THRU
	Rose 11	11	SPLICE THRU		Rose 11	59	UNCUT, PASS THRU
	Aqua 12	12	SPLICE THRU		Aqua 12	60	UNCUT, PASS THRU
ORANGE	Blue 1	13	UNCUT, PASS THRU	WHITE	Blue 1	61	UNCUT, PASS THRU
	Orange 2	14	UNCUT, PASS THRU		Orange 2	62	UNCUT, PASS THRU
	Green 3	15	UNCUT, PASS THRU		Green 3	63	UNCUT, PASS THRU
	Brown 4	16	UNCUT, PASS THRU		Brown 4	64	UNCUT, PASS THRU
	Slate 5	17	UNCUT, PASS THRU		Slate 5	65	UNCUT, PASS THRU
	White 6	18	UNCUT, PASS THRU		White 6	66	UNCUT, PASS THRU
	Red 7	19	UNCUT, PASS THRU		Red 7	67	UNCUT, PASS THRU
	Black 8	20	UNCUT, PASS THRU		Black 8	68	UNCUT, PASS THRU
	Yellow 9	21	UNCUT, PASS THRU		Yellow 9	69	UNCUT, PASS THRU
	Violet 10	22	UNCUT, PASS THRU		Violet 10	70	UNCUT, PASS THRU
	Rose 11	23	UNCUT, PASS THRU		Rose 11	71	UNCUT, PASS THRU
	Aqua 12	24	UNCUT, PASS THRU		Aqua 12	72	UNCUT, PASS THRU
GREEN	Blue 1	25	UNCUT, PASS THRU	RED	Blue 1	73	UNCUT, PASS THRU
	Orange 2	26	UNCUT, PASS THRU		Orange 2	74	UNCUT, PASS THRU
	Green 3	27	UNCUT, PASS THRU		Green 3	75	UNCUT, PASS THRU
	Brown 4	28	UNCUT, PASS THRU		Brown 4	76	UNCUT, PASS THRU
	Slate 5	29	UNCUT, PASS THRU		Slate 5	77	UNCUT, PASS THRU
	White 6	30	UNCUT, PASS THRU		White 6	78	UNCUT, PASS THRU
	Red 7	31	UNCUT, PASS THRU		Red 7	79	UNCUT, PASS THRU
	Black 8	32	UNCUT, PASS THRU		Black 8	80	UNCUT, PASS THRU
	Yellow 9	33	UNCUT, PASS THRU		Yellow 9	81	UNCUT, PASS THRU
	Violet 10	34	UNCUT, PASS THRU		Violet 10	82	UNCUT, PASS THRU
	Rose 11	35	UNCUT, PASS THRU		Rose 11	83	UNCUT, PASS THRU
	Aqua 12	36	UNCUT, PASS THRU		Aqua 12	84	UNCUT, PASS THRU
BROWN	Blue 1	37	UNCUT, PASS THRU	BLACK	Blue 1	85	UNCUT, PASS THRU
	Orange 2	38	UNCUT, PASS THRU		Orange 2	86	UNCUT, PASS THRU
	Green 3	39	UNCUT, PASS THRU		Green 3	87	UNCUT, PASS THRU
	Brown 4	40	UNCUT, PASS THRU		Brown 4	88	UNCUT, PASS THRU
	Slate 5	41	UNCUT, PASS THRU		Slate 5	89	UNCUT, PASS THRU
	White 6	42	UNCUT, PASS THRU		White 6	90	UNCUT, PASS THRU
	Red 7	43	UNCUT, PASS THRU		Red 7	91	UNCUT, PASS THRU
	Black 8	44	UNCUT, PASS THRU		Black 8	92	UNCUT, PASS THRU
	Yellow 9	45	UNCUT, PASS THRU		Yellow 9	93	UNCUT, PASS THRU
	Violet 10	46	UNCUT, PASS THRU		Violet 10	94	UNCUT, PASS THRU
	Rose 11	47	UNCUT, PASS THRU		Rose 11	95	UNCUT, PASS THRU
	Aqua 12	48	UNCUT, PASS THRU		Aqua 12	96	UNCUT, PASS THRU

DCF-KE-04 FROM THE EAST

NOTES:

1. LATERAL CABLE FIBERS SPLICED TOGETHER. SEE LATERAL CABLE FIBER ASSIGNMENTS.

ITS-30C

HNTB

USER NAME = jblakley	DESIGNED - RJ	REVISED - -
	DRAWN - RJ	REVISED -
PLOT SCALE = 2.00 '/ in.	CHECKED - YJ	REVISED -
PLOT DATE = 6/16/2017	DATE 06/28/2017	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRIBUTION CABLE FIBER ASSIGNMENTS
FIBER OPTIC SPLICE CLOSURE FOR CMV-KE-04k
(WEST CUMBERLAND SURV.)

SCALE: N.T.S. | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	405
		CONTRACT NO. 60Y39		
	ILLINOIS	FED. AID PROJECT		

FILE NAME = D160Y39-sht-ITS-30C.dgn

DISTRIBUTION CABLE FIBER ASSIGNMENTS				ORIGINATION	FIBER OPTIC SPLICE CLOSURE FOR KE13B		
DISTRIBUTION CABLE DESIGNATION			DCF-KE-04	DESTINATION	FIBER OPTIC SPLICE CLOSURE FOR KE13C		
BUFFER TUBE	FIBER	FIBER NO.	ASSIGNMENT	BUFFER TUBE	FIBER	FIBER NO.	ASSIGNMENT
BLUE	Blue 1	1	LCF-KE-04Wd, BLU/BLU 1	SLATE	Blue 1	49	UNCUT, PASS THRU
	Orange 2	2	LCF-KE-04Wd, BLU/ORA		Orange 2	50	UNCUT, PASS THRU
	Green 3	3	SPLICE THRU		Green 3	51	UNCUT, PASS THRU
	Brown 4	4	SPLICE THRU		Brown 4	52	UNCUT, PASS THRU
	Slate 5	5	SPLICE THRU		Slate 5	53	UNCUT, PASS THRU
	White 6	6	SPLICE THRU		White 6	54	UNCUT, PASS THRU
	Red 7	7	SPLICE THRU		Red 7	55	UNCUT, PASS THRU
	Black 8	8	SPLICE THRU		Black 8	56	UNCUT, PASS THRU
	Yellow 9	9	SPLICE THRU		Yellow 9	57	UNCUT, PASS THRU
	Violet 10	10	SPLICE THRU		Violet 10	58	UNCUT, PASS THRU
	Rose 11	11	SPLICE THRU		Rose 11	59	UNCUT, PASS THRU
	Aqua 12	12	SPLICE THRU		Aqua 12	60	UNCUT, PASS THRU
ORANGE	Blue 1	13	UNCUT, PASS THRU	WHITE	Blue 1	61	UNCUT, PASS THRU
	Orange 2	14	UNCUT, PASS THRU		Orange 2	62	UNCUT, PASS THRU
	Green 3	15	UNCUT, PASS THRU		Green 3	63	UNCUT, PASS THRU
	Brown 4	16	UNCUT, PASS THRU		Brown 4	64	UNCUT, PASS THRU
	Slate 5	17	UNCUT, PASS THRU		Slate 5	65	UNCUT, PASS THRU
	White 6	18	UNCUT, PASS THRU		White 6	66	UNCUT, PASS THRU
	Red 7	19	UNCUT, PASS THRU		Red 7	67	UNCUT, PASS THRU
	Black 8	20	UNCUT, PASS THRU		Black 8	68	UNCUT, PASS THRU
	Yellow 9	21	UNCUT, PASS THRU		Yellow 9	69	UNCUT, PASS THRU
	Violet 10	22	UNCUT, PASS THRU		Violet 10	70	UNCUT, PASS THRU
	Rose 11	23	UNCUT, PASS THRU		Rose 11	71	UNCUT, PASS THRU
	Aqua 12	24	UNCUT, PASS THRU		Aqua 12	72	UNCUT, PASS THRU
GREEN	Blue 1	25	UNCUT, PASS THRU	RED	Blue 1	73	UNCUT, PASS THRU
	Orange 2	26	UNCUT, PASS THRU		Orange 2	74	UNCUT, PASS THRU
	Green 3	27	UNCUT, PASS THRU		Green 3	75	UNCUT, PASS THRU
	Brown 4	28	UNCUT, PASS THRU		Brown 4	76	UNCUT, PASS THRU
	Slate 5	29	UNCUT, PASS THRU		Slate 5	77	UNCUT, PASS THRU
	White 6	30	UNCUT, PASS THRU		White 6	78	UNCUT, PASS THRU
	Red 7	31	UNCUT, PASS THRU		Red 7	79	UNCUT, PASS THRU
	Black 8	32	UNCUT, PASS THRU		Black 8	80	UNCUT, PASS THRU
	Yellow 9	33	UNCUT, PASS THRU		Yellow 9	81	UNCUT, PASS THRU
	Violet 10	34	UNCUT, PASS THRU		Violet 10	82	UNCUT, PASS THRU
	Rose 11	35	UNCUT, PASS THRU		Rose 11	83	UNCUT, PASS THRU
	Aqua 12	36	UNCUT, PASS THRU		Aqua 12	84	UNCUT, PASS THRU
BROWN	Blue 1	37	UNCUT, PASS THRU	BLACK	Blue 1	85	UNCUT, PASS THRU
	Orange 2	38	UNCUT, PASS THRU		Orange 2	86	UNCUT, PASS THRU
	Green 3	39	UNCUT, PASS THRU		Green 3	87	UNCUT, PASS THRU
	Brown 4	40	UNCUT, PASS THRU		Brown 4	88	UNCUT, PASS THRU
	Slate 5	41	UNCUT, PASS THRU		Slate 5	89	UNCUT, PASS THRU
	White 6	42	UNCUT, PASS THRU		White 6	90	UNCUT, PASS THRU
	Red 7	43	UNCUT, PASS THRU		Red 7	91	UNCUT, PASS THRU
	Black 8	44	UNCUT, PASS THRU		Black 8	92	UNCUT, PASS THRU
	Yellow 9	45	UNCUT, PASS THRU		Yellow 9	93	UNCUT, PASS THRU
	Violet 10	46	UNCUT, PASS THRU		Violet 10	94	UNCUT, PASS THRU
	Rose 11	47	UNCUT, PASS THRU		Rose 11	95	UNCUT, PASS THRU
	Aqua 12	48	UNCUT, PASS THRU		Aqua 12	96	UNCUT, PASS THRU

DCF-KE-04 FROM THE WEST

DISTRIBUTION CABLE FIBER ASSIGNMENTS				ORIGINATION	FIBER OPTIC SPLICE CLOSURE FOR KE12		
DISTRIBUTION CABLE DESIGNATION			DCF-KE-04	DESTINATION	FIBER OPTIC SPLICE CLOSURE FOR KE13C		
BUFFER TUBE	FIBER	FIBER NO.	ASSIGNMENT	BUFFER TUBE	FIBER	FIBER NO.	ASSIGNMENT
BLUE	Blue 1	1	LCF-KE-04Wd, BLU/GRE 3	SLATE	Blue 1	49	UNCUT, PASS THRU
	Orange 2	2	LCF-KE-04Wd, BLU/BRO 4		Orange 2	50	UNCUT, PASS THRU
	Green 3	3	SPLICE THRU		Green 3	51	UNCUT, PASS THRU
	Brown 4	4	SPLICE THRU		Brown 4	52	UNCUT, PASS THRU
	Slate 5	5	SPLICE THRU		Slate 5	53	UNCUT, PASS THRU
	White 6	6	SPLICE THRU		White 6	54	UNCUT, PASS THRU
	Red 7	7	SPLICE THRU		Red 7	55	UNCUT, PASS THRU
	Black 8	8	SPLICE THRU		Black 8	56	UNCUT, PASS THRU
	Yellow 9	9	SPLICE THRU		Yellow 9	57	UNCUT, PASS THRU
	Violet 10	10	SPLICE THRU		Violet 10	58	UNCUT, PASS THRU
	Rose 11	11	SPLICE THRU		Rose 11	59	UNCUT, PASS THRU
	Aqua 12	12	SPLICE THRU		Aqua 12	60	UNCUT, PASS THRU
ORANGE	Blue 1	13	UNCUT, PASS THRU	WHITE	Blue 1	61	UNCUT, PASS THRU
	Orange 2	14	UNCUT, PASS THRU		Orange 2	62	UNCUT, PASS THRU
	Green 3	15	UNCUT, PASS THRU		Green 3	63	UNCUT, PASS THRU
	Brown 4	16	UNCUT, PASS THRU		Brown 4	64	UNCUT, PASS THRU
	Slate 5	17	UNCUT, PASS THRU		Slate 5	65	UNCUT, PASS THRU
	White 6	18	UNCUT, PASS THRU		White 6	66	UNCUT, PASS THRU
	Red 7	19	UNCUT, PASS THRU		Red 7	67	UNCUT, PASS THRU
	Black 8	20	UNCUT, PASS THRU		Black 8	68	UNCUT, PASS THRU
	Yellow 9	21	UNCUT, PASS THRU		Yellow 9	69	UNCUT, PASS THRU
	Violet 10	22	UNCUT, PASS THRU		Violet 10	70	UNCUT, PASS THRU
	Rose 11	23	UNCUT, PASS THRU		Rose 11	71	UNCUT, PASS THRU
	Aqua 12	24	UNCUT, PASS THRU		Aqua 12	72	UNCUT, PASS THRU
GREEN	Blue 1	25	UNCUT, PASS THRU	RED	Blue 1	73	UNCUT, PASS THRU
	Orange 2	26	UNCUT, PASS THRU		Orange 2	74	UNCUT, PASS THRU
	Green 3	27	UNCUT, PASS THRU		Green 3	75	UNCUT, PASS THRU
	Brown 4	28	UNCUT, PASS THRU		Brown 4	76	UNCUT, PASS THRU
	Slate 5	29	UNCUT, PASS THRU		Slate 5	77	UNCUT, PASS THRU
	White 6	30	UNCUT, PASS THRU		White 6	78	UNCUT, PASS THRU
	Red 7	31	UNCUT, PASS THRU		Red 7	79	UNCUT, PASS THRU
	Black 8	32	UNCUT, PASS THRU		Black 8	80	UNCUT, PASS THRU
	Yellow 9	33	UNCUT, PASS THRU		Yellow 9	81	UNCUT, PASS THRU
	Violet 10	34	UNCUT, PASS THRU		Violet 10	82	UNCUT, PASS THRU
	Rose 11	35	UNCUT, PASS THRU		Rose 11	83	UNCUT, PASS THRU
	Aqua 12	36	UNCUT, PASS THRU		Aqua 12	84	UNCUT, PASS THRU
BROWN	Blue 1	37	UNCUT, PASS THRU	BLACK	Blue 1	85	UNCUT, PASS THRU
	Orange 2	38	UNCUT, PASS THRU		Orange 2	86	UNCUT, PASS THRU
	Green 3	39	UNCUT, PASS THRU		Green 3	87	UNCUT, PASS THRU
	Brown 4	40	UNCUT, PASS THRU		Brown 4	88	UNCUT, PASS THRU
	Slate 5	41	UNCUT, PASS THRU		Slate 5	89	UNCUT, PASS THRU
	White 6	42	UNCUT, PASS THRU		White 6	90	UNCUT, PASS THRU
	Red 7	43	UNCUT, PASS THRU		Red 7	91	UNCUT, PASS THRU
	Black 8	44	UNCUT, PASS THRU		Black 8	92	UNCUT, PASS THRU
	Yellow 9	45	UNCUT, PASS THRU		Yellow 9	93	UNCUT, PASS THRU
	Violet 10	46	UNCUT, PASS THRU		Violet 10	94	UNCUT, PASS THRU
	Rose 11	47	UNCUT, PASS THRU		Rose 11	95	UNCUT, PASS THRU
	Aqua 12	48	UNCUT, PASS THRU		Aqua 12	96	UNCUT, PASS THRU

DCF-KE-04 FROM THE EAST

ITS-30D

HNTB

USER NAME = jblakley	DESIGNED - RJ	REVISED - -
	DRAWN - RJ	REVISED -
PLOT SCALE = 2.00 '/ in.	CHECKED - YJ	REVISED -
PLOT DATE = 6/16/2017	DATE 06/28/2017	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRIBUTION CABLE FIBER ASSIGNMENTS
FIBER OPTIC SPLICE CLOSURE FOR CMV-KE-04k
(NORTH CUMBERLAND CCTV)

SCALE: N.T.S. | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	406
		CONTRACT NO. 60Y39		
	ILLINOIS	FED. AID PROJECT		

FILE NAME = D160Y39-sht-ITS-30D.dgn

DISTRIBUTION CABLE FIBER ASSIGNMENTS				ORIGINATION	FIBER OPTIC SPLICE CLOSURE FOR KE13B		
DISTRIBUTION CABLE DESIGNATION			DCF-KE-04	DESTINATION	FIBER OPTIC SPLICE CLOSURE FOR E113		
BUFFER TUBE	FIBER	FIBER NO.	ASSIGNMENT	BUFFER TUBE	FIBER	FIBER NO.	ASSIGNMENT
BLUE	Blue 1	1	SPLICE THRU	SLATE	Blue 1	49	UNCUT, PASS THRU
	Orange 2	2	SPLICE THRU		Orange 2	50	UNCUT, PASS THRU
	Green 3	3	LCF-KE-04We, BLU/BLU 1		Green 3	51	UNCUT, PASS THRU
	Brown 4	4	LCF-KE-04We, BLU/ORA 2		Brown 4	52	UNCUT, PASS THRU
	Slate 5	5	SPLICE THRU		Slate 5	53	UNCUT, PASS THRU
	White 6	6	SPLICE THRU		White 6	54	UNCUT, PASS THRU
	Red 7	7	SPLICE THRU		Red 7	55	UNCUT, PASS THRU
	Black 8	8	SPLICE THRU		Black 8	56	UNCUT, PASS THRU
	Yellow 9	9	SPLICE THRU		Yellow 9	57	UNCUT, PASS THRU
	Violet 10	10	SPLICE THRU		Violet 10	58	UNCUT, PASS THRU
	Rose 11	11	SPLICE THRU		Rose 11	59	UNCUT, PASS THRU
	Aqua 12	12	SPLICE THRU		Aqua 12	60	UNCUT, PASS THRU
ORANGE	Blue 1	13	UNCUT, PASS THRU	WHITE	Blue 1	61	UNCUT, PASS THRU
	Orange 2	14	UNCUT, PASS THRU		Orange 2	62	UNCUT, PASS THRU
	Green 3	15	UNCUT, PASS THRU		Green 3	63	UNCUT, PASS THRU
	Brown 4	16	UNCUT, PASS THRU		Brown 4	64	UNCUT, PASS THRU
	Slate 5	17	UNCUT, PASS THRU		Slate 5	65	UNCUT, PASS THRU
	White 6	18	UNCUT, PASS THRU		White 6	66	UNCUT, PASS THRU
	Red 7	19	UNCUT, PASS THRU		Red 7	67	UNCUT, PASS THRU
	Black 8	20	UNCUT, PASS THRU		Black 8	68	UNCUT, PASS THRU
	Yellow 9	21	UNCUT, PASS THRU		Yellow 9	69	UNCUT, PASS THRU
	Violet 10	22	UNCUT, PASS THRU		Violet 10	70	UNCUT, PASS THRU
	Rose 11	23	UNCUT, PASS THRU		Rose 11	71	UNCUT, PASS THRU
	Aqua 12	24	UNCUT, PASS THRU		Aqua 12	72	UNCUT, PASS THRU
GREEN	Blue 1	25	UNCUT, PASS THRU	RED	Blue 1	73	UNCUT, PASS THRU
	Orange 2	26	UNCUT, PASS THRU		Orange 2	74	UNCUT, PASS THRU
	Green 3	27	UNCUT, PASS THRU		Green 3	75	UNCUT, PASS THRU
	Brown 4	28	UNCUT, PASS THRU		Brown 4	76	UNCUT, PASS THRU
	Slate 5	29	UNCUT, PASS THRU		Slate 5	77	UNCUT, PASS THRU
	White 6	30	UNCUT, PASS THRU		White 6	78	UNCUT, PASS THRU
	Red 7	31	UNCUT, PASS THRU		Red 7	79	UNCUT, PASS THRU
	Black 8	32	UNCUT, PASS THRU		Black 8	80	UNCUT, PASS THRU
	Yellow 9	33	UNCUT, PASS THRU		Yellow 9	81	UNCUT, PASS THRU
	Violet 10	34	UNCUT, PASS THRU		Violet 10	82	UNCUT, PASS THRU
	Rose 11	35	UNCUT, PASS THRU		Rose 11	83	UNCUT, PASS THRU
	Aqua 12	36	UNCUT, PASS THRU		Aqua 12	84	UNCUT, PASS THRU
BROWN	Blue 1	37	UNCUT, PASS THRU	BLACK	Blue 1	85	UNCUT, PASS THRU
	Orange 2	38	UNCUT, PASS THRU		Orange 2	86	UNCUT, PASS THRU
	Green 3	39	UNCUT, PASS THRU		Green 3	87	UNCUT, PASS THRU
	Brown 4	40	UNCUT, PASS THRU		Brown 4	88	UNCUT, PASS THRU
	Slate 5	41	UNCUT, PASS THRU		Slate 5	89	UNCUT, PASS THRU
	White 6	42	UNCUT, PASS THRU		White 6	90	UNCUT, PASS THRU
	Red 7	43	UNCUT, PASS THRU		Red 7	91	UNCUT, PASS THRU
	Black 8	44	UNCUT, PASS THRU		Black 8	92	UNCUT, PASS THRU
	Yellow 9	45	UNCUT, PASS THRU		Yellow 9	93	UNCUT, PASS THRU
	Violet 10	46	UNCUT, PASS THRU		Violet 10	94	UNCUT, PASS THRU
	Rose 11	47	UNCUT, PASS THRU		Rose 11	95	UNCUT, PASS THRU
	Aqua 12	48	UNCUT, PASS THRU		Aqua 12	96	UNCUT, PASS THRU

DCF-KE-04 FROM THE WEST

DISTRIBUTION CABLE FIBER ASSIGNMENTS				ORIGINATION	FIBER OPTIC SPLICE CLOSURE FOR KE12		
DISTRIBUTION CABLE DESIGNATION			DCF-KE-04	DESTINATION	FIBER OPTIC SPLICE CLOSURE FOR E113		
BUFFER TUBE	FIBER	FIBER NO.	ASSIGNMENT	BUFFER TUBE	FIBER	FIBER NO.	ASSIGNMENT
BLUE	Blue 1	1	SPLICE THRU	SLATE	Blue 1	49	UNCUT, PASS THRU
	Orange 2	2	SPLICE THRU		Orange 2	50	UNCUT, PASS THRU
	Green 3	3	LCF-KE-04Wc, BLU/GRE 3		Green 3	51	UNCUT, PASS THRU
	Brown 4	4	LCF-KE-04Wc, BLU/BRO 4		Brown 4	52	UNCUT, PASS THRU
	Slate 5	5	SPLICE THRU		Slate 5	53	UNCUT, PASS THRU
	White 6	6	SPLICE THRU		White 6	54	UNCUT, PASS THRU
	Red 7	7	SPLICE THRU		Red 7	55	UNCUT, PASS THRU
	Black 8	8	SPLICE THRU		Black 8	56	UNCUT, PASS THRU
	Yellow 9	9	SPLICE THRU		Yellow 9	57	UNCUT, PASS THRU
	Violet 10	10	SPLICE THRU		Violet 10	58	UNCUT, PASS THRU
	Rose 11	11	SPLICE THRU		Rose 11	59	UNCUT, PASS THRU
	Aqua 12	12	SPLICE THRU		Aqua 12	60	UNCUT, PASS THRU
ORANGE	Blue 1	13	UNCUT, PASS THRU	WHITE	Blue 1	61	UNCUT, PASS THRU
	Orange 2	14	UNCUT, PASS THRU		Orange 2	62	UNCUT, PASS THRU
	Green 3	15	UNCUT, PASS THRU		Green 3	63	UNCUT, PASS THRU
	Brown 4	16	UNCUT, PASS THRU		Brown 4	64	UNCUT, PASS THRU
	Slate 5	17	UNCUT, PASS THRU		Slate 5	65	UNCUT, PASS THRU
	White 6	18	UNCUT, PASS THRU		White 6	66	UNCUT, PASS THRU
	Red 7	19	UNCUT, PASS THRU		Red 7	67	UNCUT, PASS THRU
	Black 8	20	UNCUT, PASS THRU		Black 8	68	UNCUT, PASS THRU
	Yellow 9	21	UNCUT, PASS THRU		Yellow 9	69	UNCUT, PASS THRU
	Violet 10	22	UNCUT, PASS THRU		Violet 10	70	UNCUT, PASS THRU
	Rose 11	23	UNCUT, PASS THRU		Rose 11	71	UNCUT, PASS THRU
	Aqua 12	24	UNCUT, PASS THRU		Aqua 12	72	UNCUT, PASS THRU
GREEN	Blue 1	25	UNCUT, PASS THRU	RED	Blue 1	73	UNCUT, PASS THRU
	Orange 2	26	UNCUT, PASS THRU		Orange 2	74	UNCUT, PASS THRU
	Green 3	27	UNCUT, PASS THRU		Green 3	75	UNCUT, PASS THRU
	Brown 4	28	UNCUT, PASS THRU		Brown 4	76	UNCUT, PASS THRU
	Slate 5	29	UNCUT, PASS THRU		Slate 5	77	UNCUT, PASS THRU
	White 6	30	UNCUT, PASS THRU		White 6	78	UNCUT, PASS THRU
	Red 7	31	UNCUT, PASS THRU		Red 7	79	UNCUT, PASS THRU
	Black 8	32	UNCUT, PASS THRU		Black 8	80	UNCUT, PASS THRU
	Yellow 9	33	UNCUT, PASS THRU		Yellow 9	81	UNCUT, PASS THRU
	Violet 10	34	UNCUT, PASS THRU		Violet 10	82	UNCUT, PASS THRU
	Rose 11	35	UNCUT, PASS THRU		Rose 11	83	UNCUT, PASS THRU
	Aqua 12	36	UNCUT, PASS THRU		Aqua 12	84	UNCUT, PASS THRU
BROWN	Blue 1	37	UNCUT, PASS THRU	BLACK	Blue 1	85	UNCUT, PASS THRU
	Orange 2	38	UNCUT, PASS THRU		Orange 2	86	UNCUT, PASS THRU
	Green 3	39	UNCUT, PASS THRU		Green 3	87	UNCUT, PASS THRU
	Brown 4	40	UNCUT, PASS THRU		Brown 4	88	UNCUT, PASS THRU
	Slate 5	41	UNCUT, PASS THRU		Slate 5	89	UNCUT, PASS THRU
	White 6	42	UNCUT, PASS THRU		White 6	90	UNCUT, PASS THRU
	Red 7	43	UNCUT, PASS THRU		Red 7	91	UNCUT, PASS THRU
	Black 8	44	UNCUT, PASS THRU		Black 8	92	UNCUT, PASS THRU
	Yellow 9	45	UNCUT, PASS THRU		Yellow 9	93	UNCUT, PASS THRU
	Violet 10	46	UNCUT, PASS THRU		Violet 10	94	UNCUT, PASS THRU
	Rose 11	47	UNCUT, PASS THRU		Rose 11	95	UNCUT, PASS THRU
	Aqua 12	48	UNCUT, PASS THRU		Aqua 12	96	UNCUT, PASS THRU

DCF-KE-04 FROM THE EAST

NOTES:

1. LATERAL CABLE FIBER SPLICED TOGETHER. SEE LATERAL CABLE FIBER ASSIGNMENTS.

ITS-30E

HNTB

USER NAME = jblakley	DESIGNED - RJ	REVISED - -
	DRAWN - RJ	REVISED -
PLOT SCALE = 2.00 ' / in.	CHECKED - YJ	REVISED -
PLOT DATE = 6/16/2017	DATE 06/28/2017	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRIBUTION CABLE FIBER ASSIGNMENTS
FIBER OPTIC SPLICE CLOSURE FOR CMV-KE-04k
(EAST CUMBERLAND SURV.)

SCALE: N.T.S. | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	407
		CONTRACT NO. 60Y39		
	ILLINOIS	FED. AID PROJECT		

FILE NAME = D160Y39-sht-ITS-30E.dgn

DISTRIBUTION CABLE FIBER ASSIGNMENTS				ORIGINATION	FIBER OPTIC SPLICE CLOSURE FOR KE12		
DISTRIBUTION CABLE DESIGNATION			DCF-KE-04	DESTINATION	FIBER OPTIC SPLICE CLOSURE FOR F111		
BUFFER TUBE	FIBER	FIBER NO.	ASSIGNMENT	BUFFER TUBE	FIBER	FIBER NO.	ASSIGNMENT
BLUE	Blue 1	1	SPLICE THRU	SLATE	Blue 1	49	UNCUT, PASS THRU
	Orange 2	2	SPLICE THRU		Orange 2	50	UNCUT, PASS THRU
	Green 3	3	LCF-KE-04b, BLU/BLU		Green 3	51	UNCUT, PASS THRU
	Brown 4	4	LCF-KE-04b, BLU/ORA		Brown 4	52	UNCUT, PASS THRU
	Slate 5	5	SPLICE THRU		Slate 5	53	UNCUT, PASS THRU
	White 6	6	SPLICE THRU		White 6	54	UNCUT, PASS THRU
	Red 7	7	SPLICE THRU		Red 7	55	UNCUT, PASS THRU
	Black 8	8	SPLICE THRU		Black 8	56	UNCUT, PASS THRU
	Yellow 9	9	SPLICE THRU		Yellow 9	57	UNCUT, PASS THRU
	Violet 10	10	SPLICE THRU		Violet 10	58	UNCUT, PASS THRU
	Rose 11	11	SPLICE THRU		Rose 11	59	UNCUT, PASS THRU
	Aqua 12	12	SPLICE THRU		Aqua 12	60	UNCUT, PASS THRU
ORANGE	Blue 1	13	UNCUT, PASS THRU	WHITE	Blue 1	61	UNCUT, PASS THRU
	Orange 2	14	UNCUT, PASS THRU		Orange 2	62	UNCUT, PASS THRU
	Green 3	15	UNCUT, PASS THRU		Green 3	63	UNCUT, PASS THRU
	Brown 4	16	UNCUT, PASS THRU		Brown 4	64	UNCUT, PASS THRU
	Slate 5	17	UNCUT, PASS THRU		Slate 5	65	UNCUT, PASS THRU
	White 6	18	UNCUT, PASS THRU		White 6	66	UNCUT, PASS THRU
	Red 7	19	UNCUT, PASS THRU		Red 7	67	UNCUT, PASS THRU
	Black 8	20	UNCUT, PASS THRU		Black 8	68	UNCUT, PASS THRU
	Yellow 9	21	UNCUT, PASS THRU		Yellow 9	69	UNCUT, PASS THRU
	Violet 10	22	UNCUT, PASS THRU		Violet 10	70	UNCUT, PASS THRU
	Rose 11	23	UNCUT, PASS THRU		Rose 11	71	UNCUT, PASS THRU
	Aqua 12	24	UNCUT, PASS THRU		Aqua 12	72	UNCUT, PASS THRU
GREEN	Blue 1	25	UNCUT, PASS THRU	RED	Blue 1	73	UNCUT, PASS THRU
	Orange 2	26	UNCUT, PASS THRU		Orange 2	74	UNCUT, PASS THRU
	Green 3	27	UNCUT, PASS THRU		Green 3	75	UNCUT, PASS THRU
	Brown 4	28	UNCUT, PASS THRU		Brown 4	76	UNCUT, PASS THRU
	Slate 5	29	UNCUT, PASS THRU		Slate 5	77	UNCUT, PASS THRU
	White 6	30	UNCUT, PASS THRU		White 6	78	UNCUT, PASS THRU
	Red 7	31	UNCUT, PASS THRU		Red 7	79	UNCUT, PASS THRU
	Black 8	32	UNCUT, PASS THRU		Black 8	80	UNCUT, PASS THRU
	Yellow 9	33	UNCUT, PASS THRU		Yellow 9	81	UNCUT, PASS THRU
	Violet 10	34	UNCUT, PASS THRU		Violet 10	82	UNCUT, PASS THRU
	Rose 11	35	UNCUT, PASS THRU		Rose 11	83	UNCUT, PASS THRU
	Aqua 12	36	UNCUT, PASS THRU		Aqua 12	84	UNCUT, PASS THRU
BROWN	Blue 1	37	UNCUT, PASS THRU	BLACK	Blue 1	85	UNCUT, PASS THRU
	Orange 2	38	UNCUT, PASS THRU		Orange 2	86	UNCUT, PASS THRU
	Green 3	39	UNCUT, PASS THRU		Green 3	87	UNCUT, PASS THRU
	Brown 4	40	UNCUT, PASS THRU		Brown 4	88	UNCUT, PASS THRU
	Slate 5	41	UNCUT, PASS THRU		Slate 5	89	UNCUT, PASS THRU
	White 6	42	UNCUT, PASS THRU		White 6	90	UNCUT, PASS THRU
	Red 7	43	UNCUT, PASS THRU		Red 7	91	UNCUT, PASS THRU
	Black 8	44	UNCUT, PASS THRU		Black 8	92	UNCUT, PASS THRU
	Yellow 9	45	UNCUT, PASS THRU		Yellow 9	93	UNCUT, PASS THRU
	Violet 10	46	UNCUT, PASS THRU		Violet 10	94	UNCUT, PASS THRU
	Rose 11	47	UNCUT, PASS THRU		Rose 11	95	UNCUT, PASS THRU
	Aqua 12	48	UNCUT, PASS THRU		Aqua 12	96	UNCUT, PASS THRU

DCF-KE-04 FROM THE WEST

DISTRIBUTION CABLE FIBER ASSIGNMENTS				ORIGINATION	LIGHTING CONTROLLER "F"		
DISTRIBUTION CABLE DESIGNATION			DCF-KE-04	DESTINATION	FIBER OPTIC SPLICE CLOSURE FOR F111		
BUFFER TUBE	FIBER	FIBER NO.	ASSIGNMENT	BUFFER TUBE	FIBER	FIBER NO.	ASSIGNMENT
BLUE	Blue 1	1	SPLICE THRU	SLATE	Blue 1	49	UNCUT, PASS THRU
	Orange 2	2	SPLICE THRU		Orange 2	50	UNCUT, PASS THRU
	Green 3	3	LCF-KE-04b, BLU/GRE		Green 3	51	UNCUT, PASS THRU
	Brown 4	4	LCF-KE-04b, BLU/BRO		Brown 4	52	UNCUT, PASS THRU
	Slate 5	5	SPLICE THRU		Slate 5	53	UNCUT, PASS THRU
	White 6	6	SPLICE THRU		White 6	54	UNCUT, PASS THRU
	Red 7	7	SPLICE THRU		Red 7	55	UNCUT, PASS THRU
	Black 8	8	SPLICE THRU		Black 8	56	UNCUT, PASS THRU
	Yellow 9	9	SPLICE THRU		Yellow 9	57	UNCUT, PASS THRU
	Violet 10	10	SPLICE THRU		Violet 10	58	UNCUT, PASS THRU
	Rose 11	11	SPLICE THRU		Rose 11	59	UNCUT, PASS THRU
	Aqua 12	12	SPLICE THRU		Aqua 12	60	UNCUT, PASS THRU
ORANGE	Blue 1	13	UNCUT, PASS THRU	WHITE	Blue 1	61	UNCUT, PASS THRU
	Orange 2	14	UNCUT, PASS THRU		Orange 2	62	UNCUT, PASS THRU
	Green 3	15	UNCUT, PASS THRU		Green 3	63	UNCUT, PASS THRU
	Brown 4	16	UNCUT, PASS THRU		Brown 4	64	UNCUT, PASS THRU
	Slate 5	17	UNCUT, PASS THRU		Slate 5	65	UNCUT, PASS THRU
	White 6	18	UNCUT, PASS THRU		White 6	66	UNCUT, PASS THRU
	Red 7	19	UNCUT, PASS THRU		Red 7	67	UNCUT, PASS THRU
	Black 8	20	UNCUT, PASS THRU		Black 8	68	UNCUT, PASS THRU
	Yellow 9	21	UNCUT, PASS THRU		Yellow 9	69	UNCUT, PASS THRU
	Violet 10	22	UNCUT, PASS THRU		Violet 10	70	UNCUT, PASS THRU
	Rose 11	23	UNCUT, PASS THRU		Rose 11	71	UNCUT, PASS THRU
	Aqua 12	24	UNCUT, PASS THRU		Aqua 12	72	UNCUT, PASS THRU
GREEN	Blue 1	25	UNCUT, PASS THRU	RED	Blue 1	73	UNCUT, PASS THRU
	Orange 2	26	UNCUT, PASS THRU		Orange 2	74	UNCUT, PASS THRU
	Green 3	27	UNCUT, PASS THRU		Green 3	75	UNCUT, PASS THRU
	Brown 4	28	UNCUT, PASS THRU		Brown 4	76	UNCUT, PASS THRU
	Slate 5	29	UNCUT, PASS THRU		Slate 5	77	UNCUT, PASS THRU
	White 6	30	UNCUT, PASS THRU		White 6	78	UNCUT, PASS THRU
	Red 7	31	UNCUT, PASS THRU		Red 7	79	UNCUT, PASS THRU
	Black 8	32	UNCUT, PASS THRU		Black 8	80	UNCUT, PASS THRU
	Yellow 9	33	UNCUT, PASS THRU		Yellow 9	81	UNCUT, PASS THRU
	Violet 10	34	UNCUT, PASS THRU		Violet 10	82	UNCUT, PASS THRU
	Rose 11	35	UNCUT, PASS THRU		Rose 11	83	UNCUT, PASS THRU
	Aqua 12	36	UNCUT, PASS THRU		Aqua 12	84	UNCUT, PASS THRU
BROWN	Blue 1	37	UNCUT, PASS THRU	BLACK	Blue 1	85	UNCUT, PASS THRU
	Orange 2	38	UNCUT, PASS THRU		Orange 2	86	UNCUT, PASS THRU
	Green 3	39	UNCUT, PASS THRU		Green 3	87	UNCUT, PASS THRU
	Brown 4	40	UNCUT, PASS THRU		Brown 4	88	UNCUT, PASS THRU
	Slate 5	41	UNCUT, PASS THRU		Slate 5	89	UNCUT, PASS THRU
	White 6	42	UNCUT, PASS THRU		White 6	90	UNCUT, PASS THRU
	Red 7	43	UNCUT, PASS THRU		Red 7	91	UNCUT, PASS THRU
	Black 8	44	UNCUT, PASS THRU		Black 8	92	UNCUT, PASS THRU
	Yellow 9	45	UNCUT, PASS THRU		Yellow 9	93	UNCUT, PASS THRU
	Violet 10	46	UNCUT, PASS THRU		Violet 10	94	UNCUT, PASS THRU
	Rose 11	47	UNCUT, PASS THRU		Rose 11	95	UNCUT, PASS THRU
	Aqua 12	48	UNCUT, PASS THRU		Aqua 12	96	UNCUT, PASS THRU

DCF-KE-04 FROM THE EAST

ITS–30F

HNTB

USER NAME = jblakley	DESIGNED - RJ	REVISED - -
	DRAWN - RJ	REVISED -
PLOT SCALE = 2.00 '/ in.	CHECKED - YJ	REVISED -
PLOT DATE = 6/16/2017	DATE 06/28/2017	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRIBUTION CABLE FIBER ASSIGNMENTS
FIBER OPTIC SPLICE CLOSURE FOR CMV–KE–04f
(CANFIELD WB SURV.)

SCALE: N.T.S. | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	408
		CONTRACT NO. 60Y39		
	ILLINOIS	FED. AID PROJECT		

FILE NAME = D160Y39-sht-ITS-30F.dgn

DISTRIBUTION CABLE FIBER ASSIGNMENTS				ORIGINATION	FIBER OPTIC SPLICE CLOSURE FOR F116		
DISTRIBUTION CABLE DESIGNATION			DCF-KE-04	DESTINATION	FIBER OPTIC SPLICE CLOSURE FOR DMS-KE01		
BUFFER TUBE	FIBER	FIBER NO.	ASSIGNMENT	BUFFER TUBE	FIBER	FIBER NO.	ASSIGNMENT
BLUE	Blue 1	1	SPLICE THRU	SLATE	Blue 1	49	UNCUT, PASS THRU
	Orange 2	2	SPLICE THRU		Orange 2	50	UNCUT, PASS THRU
	Green 3	3	SPLICE THRU		Green 3	51	UNCUT, PASS THRU
	Brown 4	4	SPLICE THRU		Brown 4	52	UNCUT, PASS THRU
	Slate 5	5	LCF-KE-04a, BLU/BLU 1		Slate 5	53	UNCUT, PASS THRU
	White 6	6	LCF-KE-04a, BLU/ORA 2		White 6	54	UNCUT, PASS THRU
	Red 7	7	SPLICE THRU		Red 7	55	UNCUT, PASS THRU
	Black 8	8	SPLICE THRU		Black 8	56	UNCUT, PASS THRU
	Yellow 9	9	SPLICE THRU		Yellow 9	57	UNCUT, PASS THRU
	Violet 10	10	SPLICE THRU		Violet 10	58	UNCUT, PASS THRU
	Rose 11	11	SPLICE THRU		Rose 11	59	UNCUT, PASS THRU
	Aqua 12	12	SPLICE THRU		Aqua 12	60	UNCUT, PASS THRU
ORANGE	Blue 1	13	UNCUT, PASS THRU	WHITE	Blue 1	61	UNCUT, PASS THRU
	Orange 2	14	UNCUT, PASS THRU		Orange 2	62	UNCUT, PASS THRU
	Green 3	15	UNCUT, PASS THRU		Green 3	63	UNCUT, PASS THRU
	Brown 4	16	UNCUT, PASS THRU		Brown 4	64	UNCUT, PASS THRU
	Slate 5	17	UNCUT, PASS THRU		Slate 5	65	UNCUT, PASS THRU
	White 6	18	UNCUT, PASS THRU		White 6	66	UNCUT, PASS THRU
	Red 7	19	UNCUT, PASS THRU		Red 7	67	UNCUT, PASS THRU
	Black 8	20	UNCUT, PASS THRU		Black 8	68	UNCUT, PASS THRU
	Yellow 9	21	UNCUT, PASS THRU		Yellow 9	69	UNCUT, PASS THRU
	Violet 10	22	UNCUT, PASS THRU		Violet 10	70	UNCUT, PASS THRU
	Rose 11	23	UNCUT, PASS THRU		Rose 11	71	UNCUT, PASS THRU
	Aqua 12	24	UNCUT, PASS THRU		Aqua 12	72	UNCUT, PASS THRU
GREEN	Blue 1	25	UNCUT, PASS THRU	RED	Blue 1	73	UNCUT, PASS THRU
	Orange 2	26	UNCUT, PASS THRU		Orange 2	74	UNCUT, PASS THRU
	Green 3	27	UNCUT, PASS THRU		Green 3	75	UNCUT, PASS THRU
	Brown 4	28	UNCUT, PASS THRU		Brown 4	76	UNCUT, PASS THRU
	Slate 5	29	UNCUT, PASS THRU		Slate 5	77	UNCUT, PASS THRU
	White 6	30	UNCUT, PASS THRU		White 6	78	UNCUT, PASS THRU
	Red 7	31	UNCUT, PASS THRU		Red 7	79	UNCUT, PASS THRU
	Black 8	32	UNCUT, PASS THRU		Black 8	80	UNCUT, PASS THRU
	Yellow 9	33	UNCUT, PASS THRU		Yellow 9	81	UNCUT, PASS THRU
	Violet 10	34	UNCUT, PASS THRU		Violet 10	82	UNCUT, PASS THRU
	Rose 11	35	UNCUT, PASS THRU		Rose 11	83	UNCUT, PASS THRU
	Aqua 12	36	UNCUT, PASS THRU		Aqua 12	84	UNCUT, PASS THRU
BROWN	Blue 1	37	UNCUT, PASS THRU	BLACK	Blue 1	85	UNCUT, PASS THRU
	Orange 2	38	UNCUT, PASS THRU		Orange 2	86	UNCUT, PASS THRU
	Green 3	39	UNCUT, PASS THRU		Green 3	87	UNCUT, PASS THRU
	Brown 4	40	UNCUT, PASS THRU		Brown 4	88	UNCUT, PASS THRU
	Slate 5	41	UNCUT, PASS THRU		Slate 5	89	UNCUT, PASS THRU
	White 6	42	UNCUT, PASS THRU		White 6	90	UNCUT, PASS THRU
	Red 7	43	UNCUT, PASS THRU		Red 7	91	UNCUT, PASS THRU
	Black 8	44	UNCUT, PASS THRU		Black 8	92	UNCUT, PASS THRU
	Yellow 9	45	UNCUT, PASS THRU		Yellow 9	93	UNCUT, PASS THRU
	Violet 10	46	UNCUT, PASS THRU		Violet 10	94	UNCUT, PASS THRU
	Rose 11	47	UNCUT, PASS THRU		Rose 11	95	UNCUT, PASS THRU
	Aqua 12	48	UNCUT, PASS THRU		Aqua 12	96	UNCUT, PASS THRU

DCF-KE-04 FROM THE WEST

DISTRIBUTION CABLE FIBER ASSIGNMENTS				ORIGINATION	FIBER OPTIC SPLICE CLOSURE FOR KE01		
DISTRIBUTION CABLE DESIGNATION			DCF-KE-04	DESTINATION	FIBER OPTIC SPLICE CLOSURE FOR F107		
BUFFER TUBE	FIBER	FIBER NO.	ASSIGNMENT	BUFFER TUBE	FIBER	FIBER NO.	ASSIGNMENT
BLUE	Blue 1	1	LCF-KE-04a, BLU/GRE	SLATE	Blue 1	49	UNCUT, PASS THRU
	Orange 2	2	LCF-KE-04a, BLU/BRO		Orange 2	50	UNCUT, PASS THRU
	Green 3	3	SPLICE THRU		Green 3	51	UNCUT, PASS THRU
	Brown 4	4	SPLICE THRU		Brown 4	52	UNCUT, PASS THRU
	Slate 5	5	SPLICE THRU		Slate 5	53	UNCUT, PASS THRU
	White 6	6	SPLICE THRU		White 6	54	UNCUT, PASS THRU
	Red 7	7	SPLICE THRU		Red 7	55	UNCUT, PASS THRU
	Black 8	8	SPLICE THRU		Black 8	56	UNCUT, PASS THRU
	Yellow 9	9	SPLICE THRU		Yellow 9	57	UNCUT, PASS THRU
	Violet 10	10	SPLICE THRU		Violet 10	58	UNCUT, PASS THRU
	Rose 11	11	SPLICE THRU		Rose 11	59	UNCUT, PASS THRU
	Aqua 12	12	SPLICE THRU		Aqua 12	60	UNCUT, PASS THRU
ORANGE	Blue 1	13	UNCUT, PASS THRU	WHITE	Blue 1	61	UNCUT, PASS THRU
	Orange 2	14	UNCUT, PASS THRU		Orange 2	62	UNCUT, PASS THRU
	Green 3	15	UNCUT, PASS THRU		Green 3	63	UNCUT, PASS THRU
	Brown 4	16	UNCUT, PASS THRU		Brown 4	64	UNCUT, PASS THRU
	Slate 5	17	UNCUT, PASS THRU		Slate 5	65	UNCUT, PASS THRU
	White 6	18	UNCUT, PASS THRU		White 6	66	UNCUT, PASS THRU
	Red 7	19	UNCUT, PASS THRU		Red 7	67	UNCUT, PASS THRU
	Black 8	20	UNCUT, PASS THRU		Black 8	68	UNCUT, PASS THRU
	Yellow 9	21	UNCUT, PASS THRU		Yellow 9	69	UNCUT, PASS THRU
	Violet 10	22	UNCUT, PASS THRU		Violet 10	70	UNCUT, PASS THRU
	Rose 11	23	UNCUT, PASS THRU		Rose 11	71	UNCUT, PASS THRU
	Aqua 12	24	UNCUT, PASS THRU		Aqua 12	72	UNCUT, PASS THRU
GREEN	Blue 1	25	UNCUT, PASS THRU	RED	Blue 1	73	UNCUT, PASS THRU
	Orange 2	26	UNCUT, PASS THRU		Orange 2	74	UNCUT, PASS THRU
	Green 3	27	UNCUT, PASS THRU		Green 3	75	UNCUT, PASS THRU
	Brown 4	28	UNCUT, PASS THRU		Brown 4	76	UNCUT, PASS THRU
	Slate 5	29	UNCUT, PASS THRU		Slate 5	77	UNCUT, PASS THRU
	White 6	30	UNCUT, PASS THRU		White 6	78	UNCUT, PASS THRU
	Red 7	31	UNCUT, PASS THRU		Red 7	79	UNCUT, PASS THRU
	Black 8	32	UNCUT, PASS THRU		Black 8	80	UNCUT, PASS THRU
	Yellow 9	33	UNCUT, PASS THRU		Yellow 9	81	UNCUT, PASS THRU
	Violet 10	34	UNCUT, PASS THRU		Violet 10	82	UNCUT, PASS THRU
	Rose 11	35	UNCUT, PASS THRU		Rose 11	83	UNCUT, PASS THRU
	Aqua 12	36	UNCUT, PASS THRU		Aqua 12	84	UNCUT, PASS THRU
BROWN	Blue 1	37	UNCUT, PASS THRU	BLACK	Blue 1	85	UNCUT, PASS THRU
	Orange 2	38	UNCUT, PASS THRU		Orange 2	86	UNCUT, PASS THRU
	Green 3	39	UNCUT, PASS THRU		Green 3	87	UNCUT, PASS THRU
	Brown 4	40	UNCUT, PASS THRU		Brown 4	88	UNCUT, PASS THRU
	Slate 5	41	UNCUT, PASS THRU		Slate 5	89	UNCUT, PASS THRU
	White 6	42	UNCUT, PASS THRU		White 6	90	UNCUT, PASS THRU
	Red 7	43	UNCUT, PASS THRU		Red 7	91	UNCUT, PASS THRU
	Black 8	44	UNCUT, PASS THRU		Black 8	92	UNCUT, PASS THRU
	Yellow 9	45	UNCUT, PASS THRU		Yellow 9	93	UNCUT, PASS THRU
	Violet 10	46	UNCUT, PASS THRU		Violet 10	94	UNCUT, PASS THRU
	Rose 11	47	UNCUT, PASS THRU		Rose 11	95	UNCUT, PASS THRU
	Aqua 12	48	UNCUT, PASS THRU		Aqua 12	96	UNCUT, PASS THRU

DCF-KE-04 FROM THE EAST

DISTRIBUTION CABLE FIBER ASSIGNMENTS				ORIGINATION	FIBER OPTIC SPLICE CLOSURE FOR KE01		
DISTRIBUTION CABLE DESIGNATION			DCF-KE-04	DESTINATION	FIBER OPTIC SPLICE CLOSURE FOR F109		
BUFFER TUBE	FIBER	FIBER NO.	ASSIGNMENT	BUFFER TUBE	FIBER	FIBER NO.	ASSIGNMENT
BLUE	Blue 1	1	LCF-KE-04a, BLU/GRE	SLATE	Blue 1	49	UNCUT, PASS THRU
	Orange 2	2	LCF-KE-04a, BLU/BRO		Orange 2	50	UNCUT, PASS THRU
	Green 3	3	SPLICE THRU		Green 3	51	UNCUT, PASS THRU
	Brown 4	4	SPLICE THRU		Brown 4	52	UNCUT, PASS THRU
	Slate 5	5	SPLICE THRU		Slate 5	53	UNCUT, PASS THRU
	White 6	6	SPLICE THRU		White 6	54	UNCUT, PASS THRU
	Red 7	7	SPLICE THRU		Red 7	55	UNCUT, PASS THRU
	Black 8	8	SPLICE THRU		Black 8	56	UNCUT, PASS THRU
	Yellow 9	9	SPLICE THRU		Yellow 9	57	UNCUT, PASS THRU
	Violet 10	10	SPLICE THRU		Violet 10	58	UNCUT, PASS THRU
	Rose 11	11	SPLICE THRU		Rose 11	59	UNCUT, PASS THRU
	Aqua 12	12	SPLICE THRU		Aqua 12	60	UNCUT, PASS THRU
ORANGE	Blue 1	13	UNCUT, PASS THRU	WHITE	Blue 1	61	UNCUT, PASS THRU
	Orange 2	14	UNCUT, PASS THRU		Orange 2	62	UNCUT, PASS THRU
	Green 3	15	UNCUT, PASS THRU		Green 3	63	UNCUT, PASS THRU
	Brown 4	16	UNCUT, PASS THRU		Brown 4	64	UNCUT, PASS THRU
	Slate 5	17	UNCUT, PASS THRU		Slate 5	65	UNCUT, PASS THRU
	White 6	18	UNCUT, PASS THRU		White 6	66	UNCUT, PASS THRU
	Red 7	19	UNCUT, PASS THRU		Red 7	67	UNCUT, PASS THRU
	Black 8	20	UNCUT, PASS THRU		Black 8	68	UNCUT, PASS THRU
	Yellow 9	21	UNCUT, PASS THRU		Yellow 9	69	UNCUT, PASS THRU
	Violet 10	22	UNCUT, PASS THRU		Violet 10	70	UNCUT, PASS THRU
	Rose 11	23	UNCUT, PASS THRU		Rose 11	71	UNCUT, PASS THRU
	Aqua 12	24	UNCUT, PASS THRU		Aqua 12	72	UNCUT, PASS THRU
GREEN	Blue 1	25	UNCUT, PASS THRU	RED	Blue 1	73	UNCUT, PASS THRU
	Orange 2	26	UNCUT, PASS THRU		Orange 2	74	UNCUT, PASS THRU
	Green 3	27	UNCUT, PASS THRU		Green 3	75	UNCUT, PASS THRU
	Brown 4	28	UNCUT, PASS THRU		Brown 4	76	UNCUT, PASS THRU
	Slate 5	29	UNCUT, PASS THRU		Slate 5	77	UNCUT, PASS THRU
	White 6	30	UNCUT, PASS THRU		White 6	78	UNCUT, PASS THRU
	Red 7	31	UNCUT, PASS THRU		Red 7	79	UNCUT, PASS THRU
	Black 8	32	UNCUT, PASS THRU		Black 8	80	UNCUT, PASS THRU
	Yellow 9	33	UNCUT, PASS THRU		Yellow 9	81	UNCUT, PASS THRU
	Violet 10	34	UNCUT, PASS THRU		Violet 10	82	UNCUT, PASS THRU
	Rose 11	35	UNCUT, PASS THRU		Rose 11	83	UNCUT, PASS THRU
	Aqua 12	36	UNCUT, PASS THRU		Aqua 12	84	UNCUT, PASS THRU
BROWN	Blue 1	37	UNCUT, PASS THRU	BLACK	Blue 1	85	UNCUT, PASS THRU
	Orange 2	38	UNCUT, PASS THRU		Orange 2	86	UNCUT, PASS THRU
	Green 3	39	UNCUT, PASS THRU		Green 3	87	UNCUT, PASS THRU
	Brown 4	40	UNCUT, PASS THRU		Brown 4	88	UNCUT, PASS THRU
	Slate 5	41	UNCUT, PASS THRU		Slate 5	89	UNCUT, PASS THRU
	White 6	42	UNCUT, PASS THRU		White 6	90	UNCUT, PASS THRU
	Red 7	43	UNCUT, PASS THRU		Red 7	91	UNCUT, PASS THRU
	Black 8	44	UNCUT, PASS THRU		Black 8	92	UNCUT, PASS THRU
	Yellow 9	45	UNCUT, PASS THRU		Yellow 9	93	UNCUT, PASS THRU
	Violet 10	46	UNCUT, PASS THRU		Violet 10	94	UNCUT, PASS THRU
	Rose 11	47	UNCUT, PASS THRU		Rose 11	95	UNCUT, PASS THRU
	Aqua 12	48	UNCUT, PASS THRU		Aqua 12	96	UNCUT, PASS THRU

DCF-KE-04 FROM THE EAST

ITS-30G

HNTB

USER NAME = $USER$	DESIGNED - RJ	REVISED - -
	DRAWN - RJ	REVISED -
PLOT SCALE = $SCALE$	CHECKED - YJ	REVISED -
PLOT DATE = $DATE$	DATE 01/19/2018	REVISED -

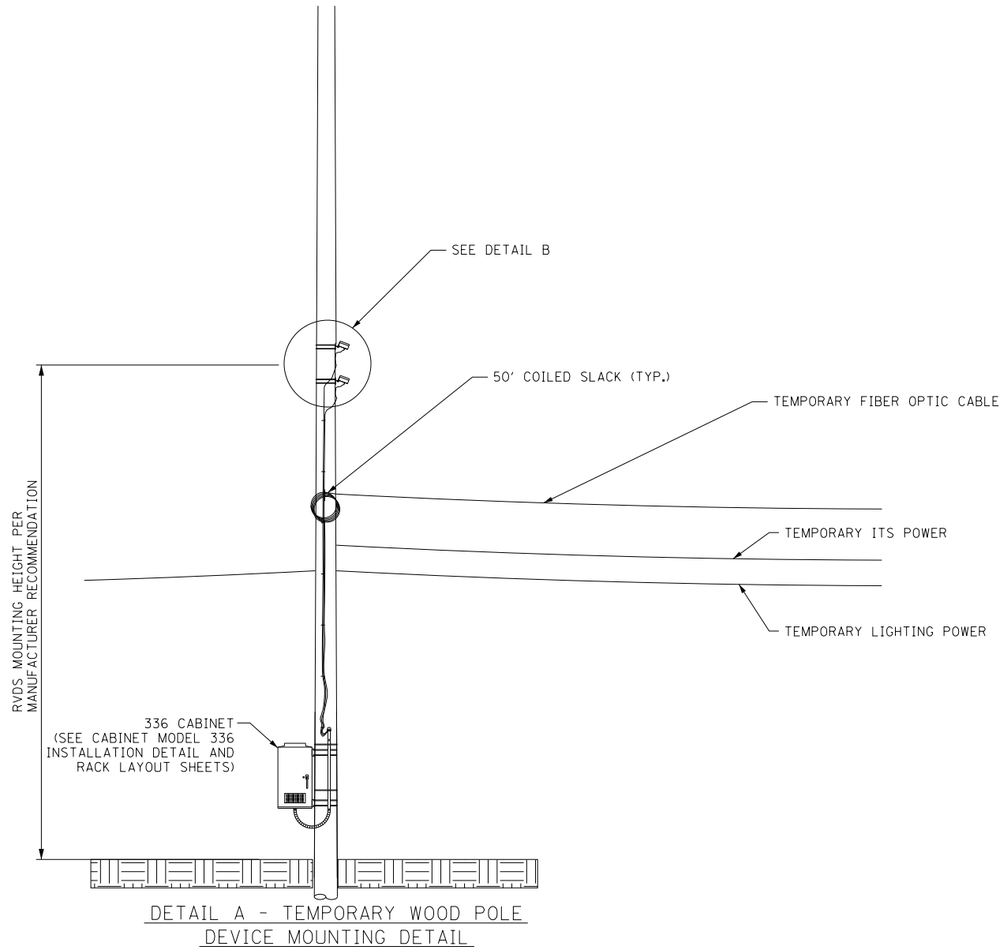
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRIBUTION CABLE FIBER ASSIGNMENTS
FIBER OPTIC SPLICE CLOSURE FOR CMV-KE-04a
(HARLEM WB DMS)

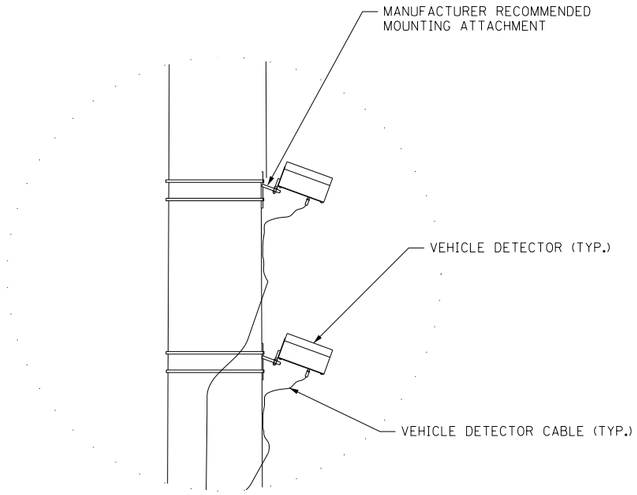
SCALE: N.T.S. | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	409
		CONTRACT NO. 60Y39		
	ILLINOIS FED. AID PROJECT			

FILE NAME = $FILEL$



DETAIL A - TEMPORARY WOOD POLE DEVICE MOUNTING DETAIL



DETAIL B - VEHICLE DETECTOR MOUNTING

ITS-31

HNTB

USER NAME = jblakley	DESIGNED JZ	REVISED - -
	DRAWN - JZ	REVISED -
PLOT SCALE = 1.00 ' / in.	CHECKED - YJ	REVISED -
PLOT DATE = 6/14/2017	DATE 06/28/2017	REVISED -

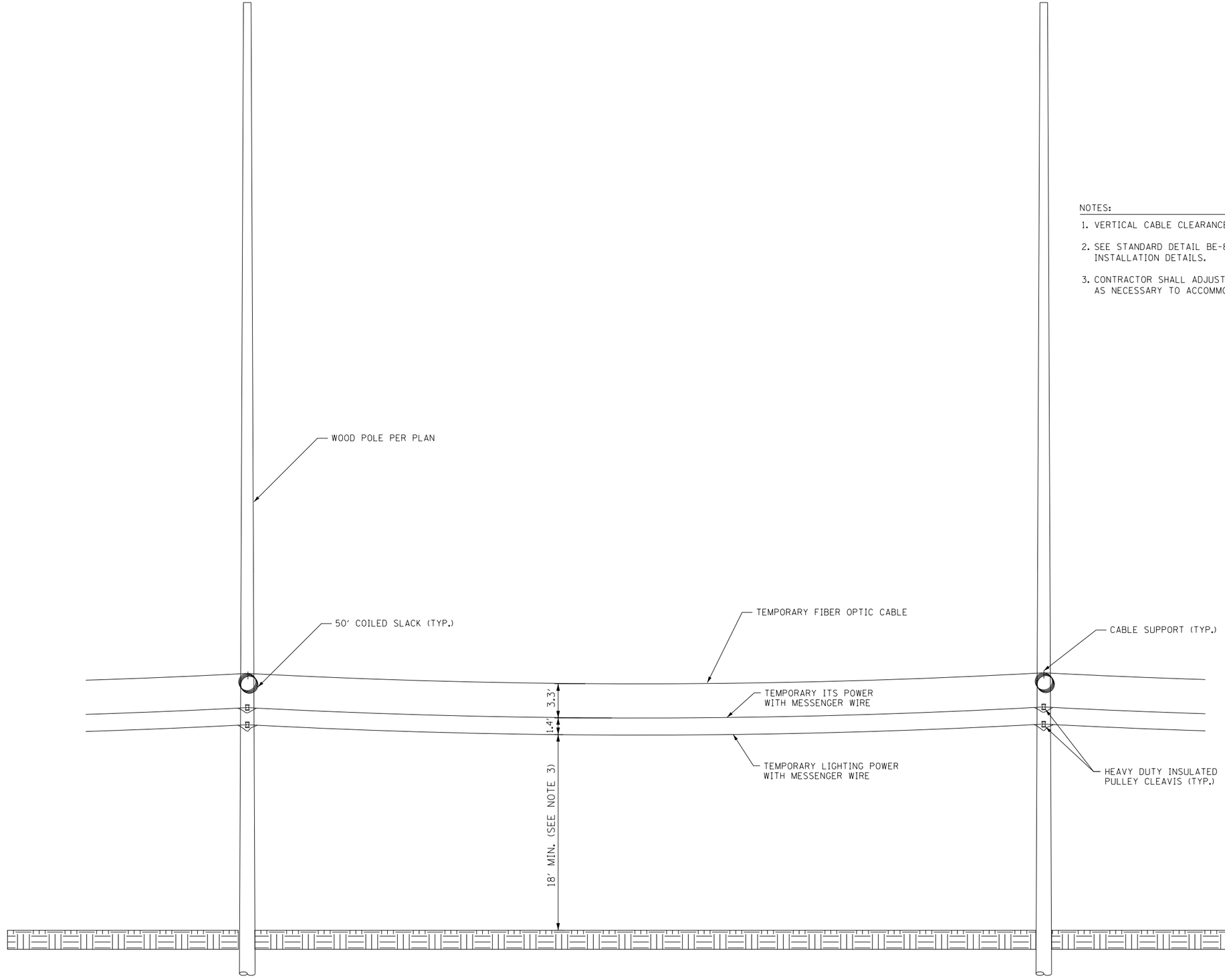
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY RADAR VEHICLE DETECTION SYSTEM INSTALLATION DETAIL

SCALE: N.T.S. | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	410
		CONTRACT NO. 60Y39		
	ILLINOIS	FED. AID PROJECT		

FILE NAME = D160Y39-sht-ITS-31.dgn



NOTES:

1. VERTICAL CABLE CLEARANCES SHOWN ARE MINIMUMS PER NESC.
2. SEE STANDARD DETAIL BE-800 AND BE-801 FOR MESSENGER WIRE INSTALLATION DETAILS.
3. CONTRACTOR SHALL ADJUST THE INSTALLATION HEIGHT AS NECESSARY TO ACCOMMODATE CONSTRUCTION ACTIVITIES.

ITS-32

HNTB

USER NAME = jblakley	DESIGNED - JZ	REVISED - -
	DRAWN - JZ	REVISED -
PLOT SCALE = 1.00 ' / in.	CHECKED - YJ	REVISED -
PLOT DATE = 6/14/2017	DATE 06/28/2017	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY ITS AERIAL CABLE INSTALLATION DETAIL

SCALE: N.T.S. | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	411
		CONTRACT NO. 60Y39		
	ILLINOIS	FED. AID PROJECT		

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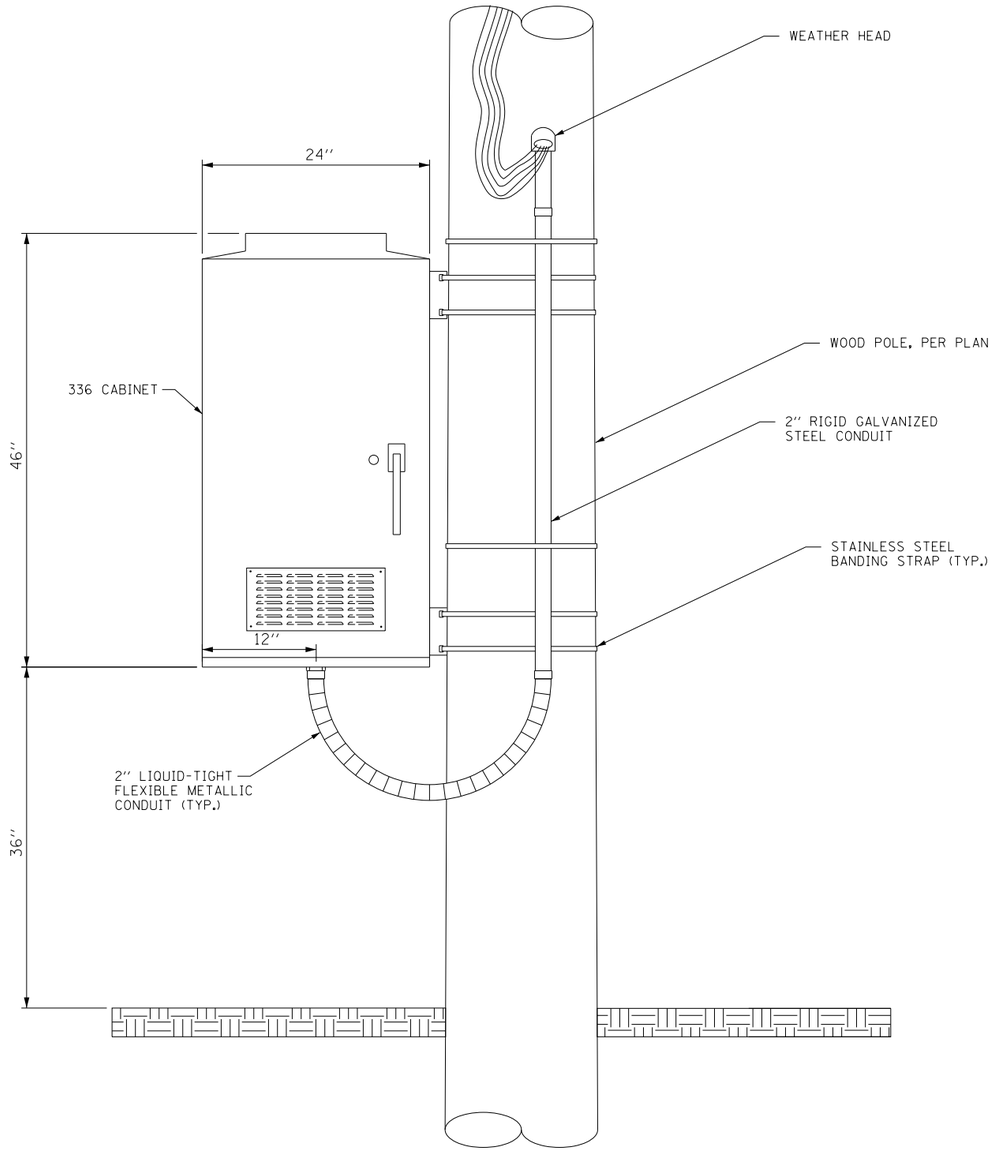
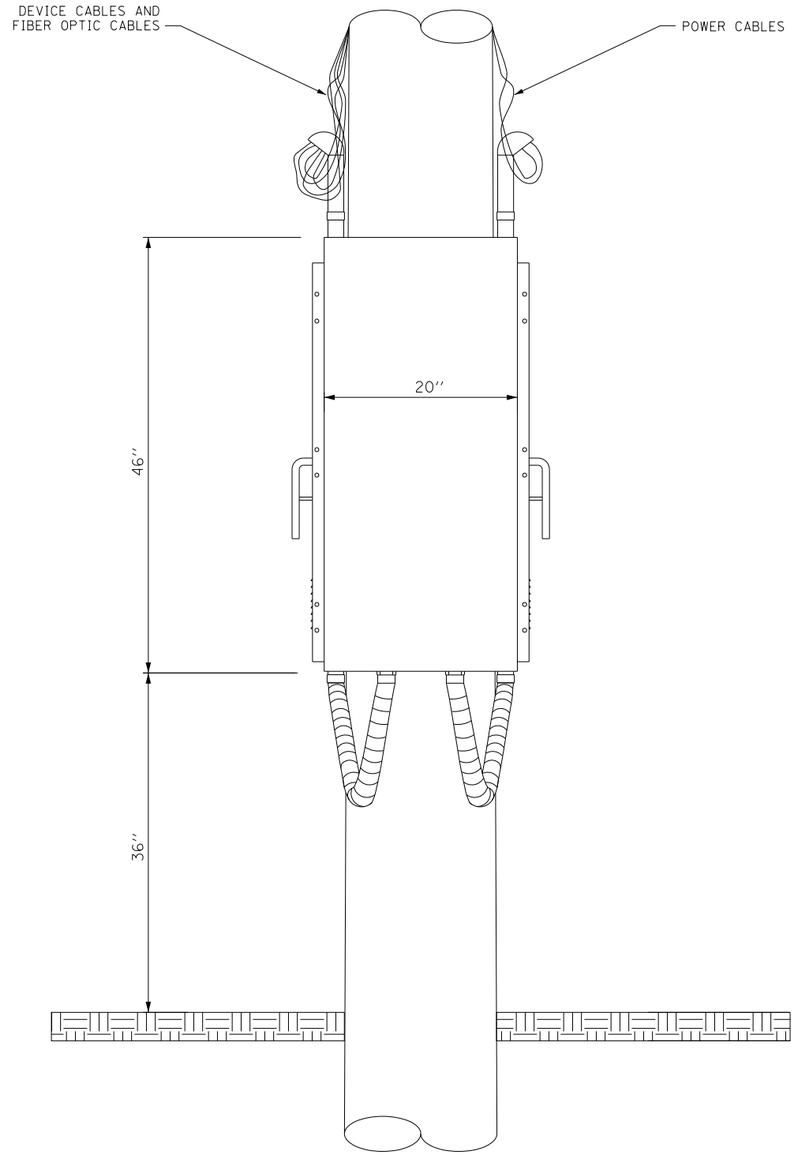


POLE-MOUNTED CABINET
CONDUIT INSTALLATION DETAIL
(SIDE VIEW)



POLE-MOUNTED CABINET
CONDUIT INSTALLATION DETAIL
(FRONT VIEW)

ITS-33

HNTB	USER NAME = jblakley	DESIGNED - JZ	REVISED - -
		DRAWN - JZ	REVISED -
	PLOT SCALE = 1.00 ' / in.	CHECKED - YJ	REVISED -
	PLOT DATE = 6/14/2017	DATE 06/28/2017	REVISED -

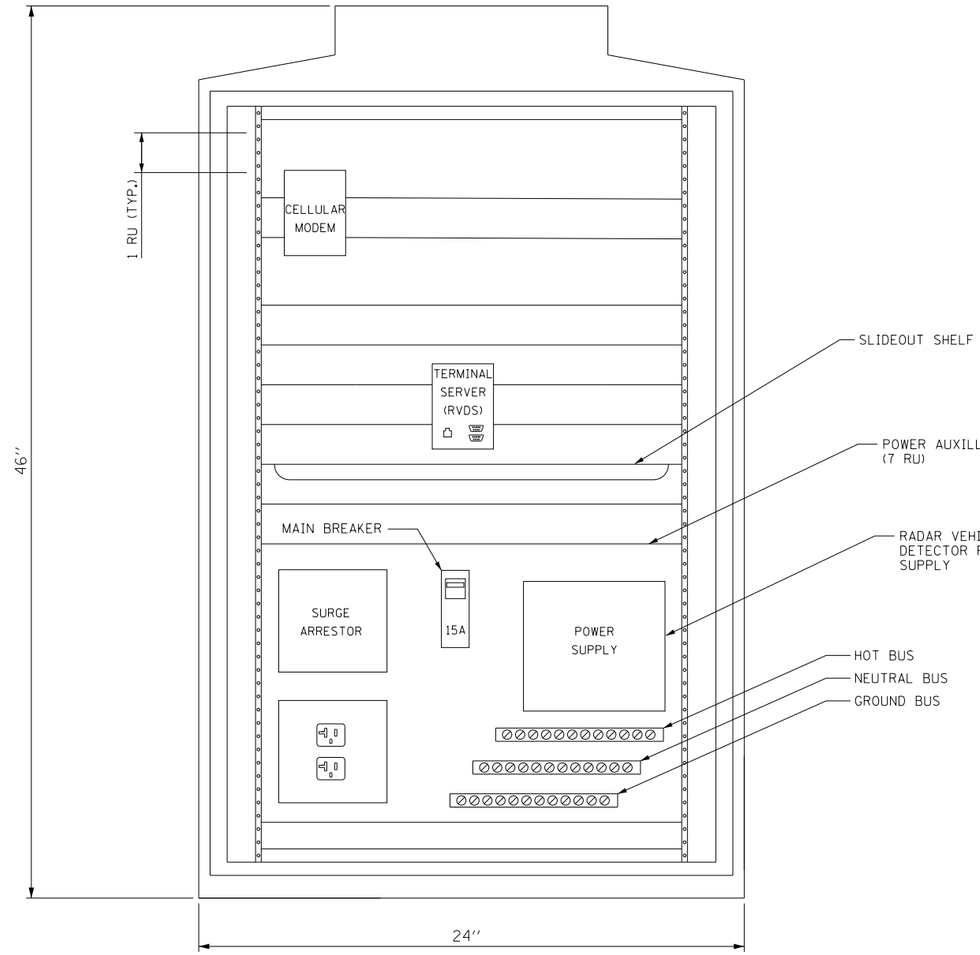
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CABINET, MODEL 336
INSTALLATION DETAIL

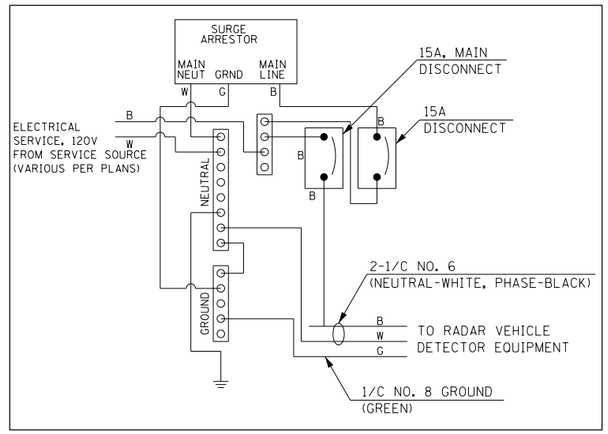
SCALE: N.T.S. | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	412
		CONTRACT NO. 60Y39		
	ILLINOIS	FED. AID PROJECT		

FILE NAME = D160Y39-sht-ITS-33.dgn



SUGGESTED EQUIPMENT LAYOUT



NOTES:

1. CABINET DIMENSIONS ARE ROUNDED TO THE NEAREST INCH.
2. THE CABINET SHALL BE MOUNTED TO THE POLE USING FOUR STAINLESS STEEL STRAPS.
3. CABINET LIGHT AND FAN NOT SHOWN.
4. CELLULAR MODEM EXTERNAL ANTENNA IS NOT SHOWN. IT SHALL BE INSTALLED IF REQUIRED AS DIRECTED BY THE ENGINEER.

HNTB

USER NAME = jblakley	DESIGNED - JZ	REVISED - -
	DRAWN - JZ	REVISED -
PLOT SCALE = 1.00 ' / in.	CHECKED - YJ	REVISED -
PLOT DATE = 6/14/2017	DATE 06/28/2017	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CABINET, MODEL 336
RACK LAYOUT

SCALE: N.T.S. | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	413
		CONTRACT NO. 60Y39		
	ILLINOIS FED. AID PROJECT			

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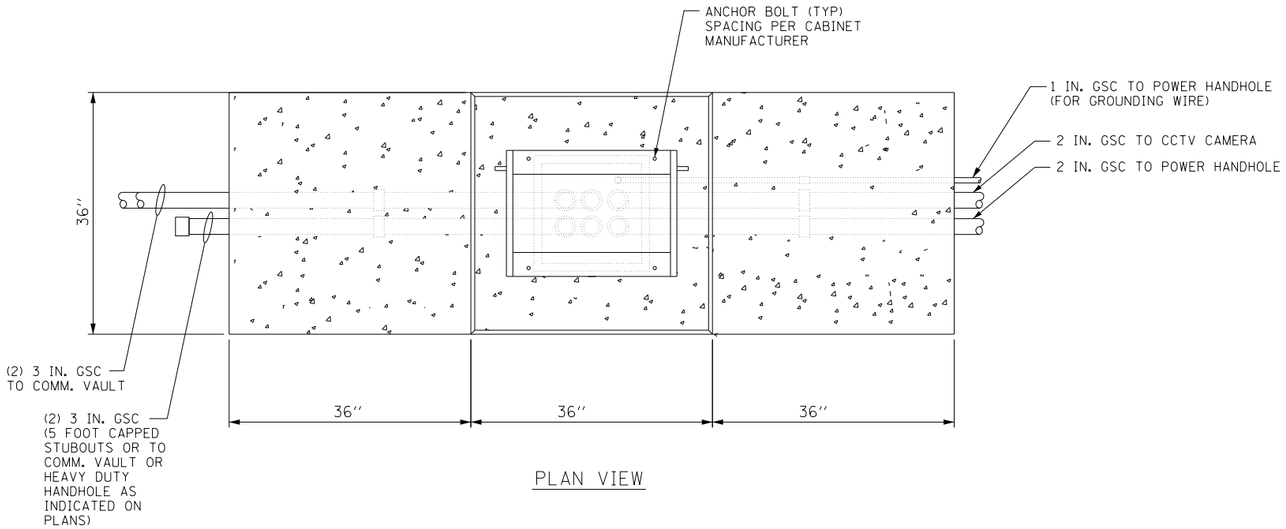
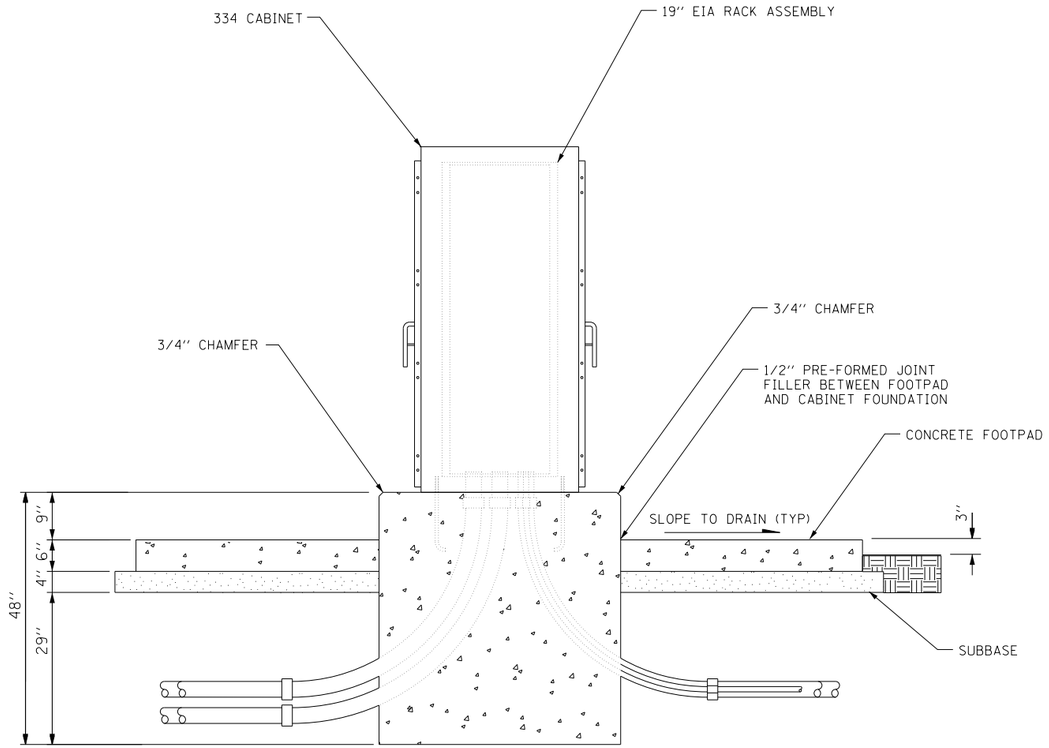


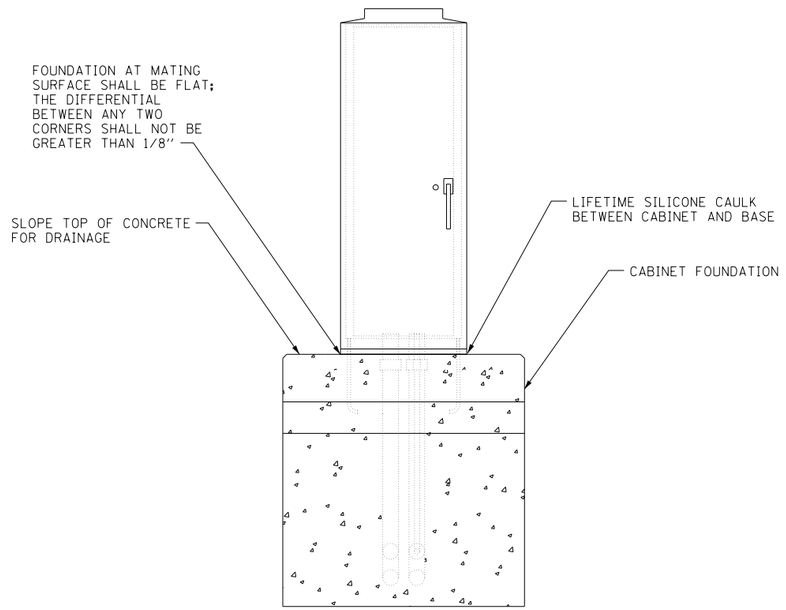
PLAN VIEW

NOTES:

1. ADJUST THE ELEVATIONS OF CONCRETE FOOTPADS TO MEET THE SITE CONDITIONS.
2. COMPACT THE SOIL BENEATH THE CONCRETE FOOTPAD AND AGGREGATE IN PLACE WITH A PLATE COMPACTOR OR OTHER COMPACTION METHOD APPROVED BY THE ENGINEER, PRIOR TO PLACING THE AGGREGATE.
3. INSTALL THE NUMBER, SIZE, AND TYPE OF CONDUIT(S) FOR COMMUNICATIONS AND POWER AS SHOWN IN THE PLANS. DETERMINE THE APPROACH/ENTRY ANGLE TO FOUNDATION BASED ON SITE CONDITIONS. THE NUMBER AND LOCATION OF CONDUIT SWEEPS SHOWN IN THIS DRAWING ARE DIAGRAMMATIC.
4. INSTALL A ¾'' X 10 FT. GROUNDING ROD IN POWER HANDHOLE NEAREST TO THE CABINET. INSTALL AN INSULATED #2 GROUND WIRE FROM THE CABINET TO THE GROUNDING ROD AND EXOTHERMICALLY BOND TO THE GROUND ROD.



ELEVATION (FRONT)



ELEVATION (SIDE)

ITS–35

USER NAME = jblakley	DESIGNED - JZ	REVISED - -	
	DRAWN - JZ	REVISED -	
PLOT SCALE = 1.00 ' / in.	CHECKED - YJ	REVISED -	
PLOT DATE = 6/14/2017	DATE 06/28/2017	REVISED -	

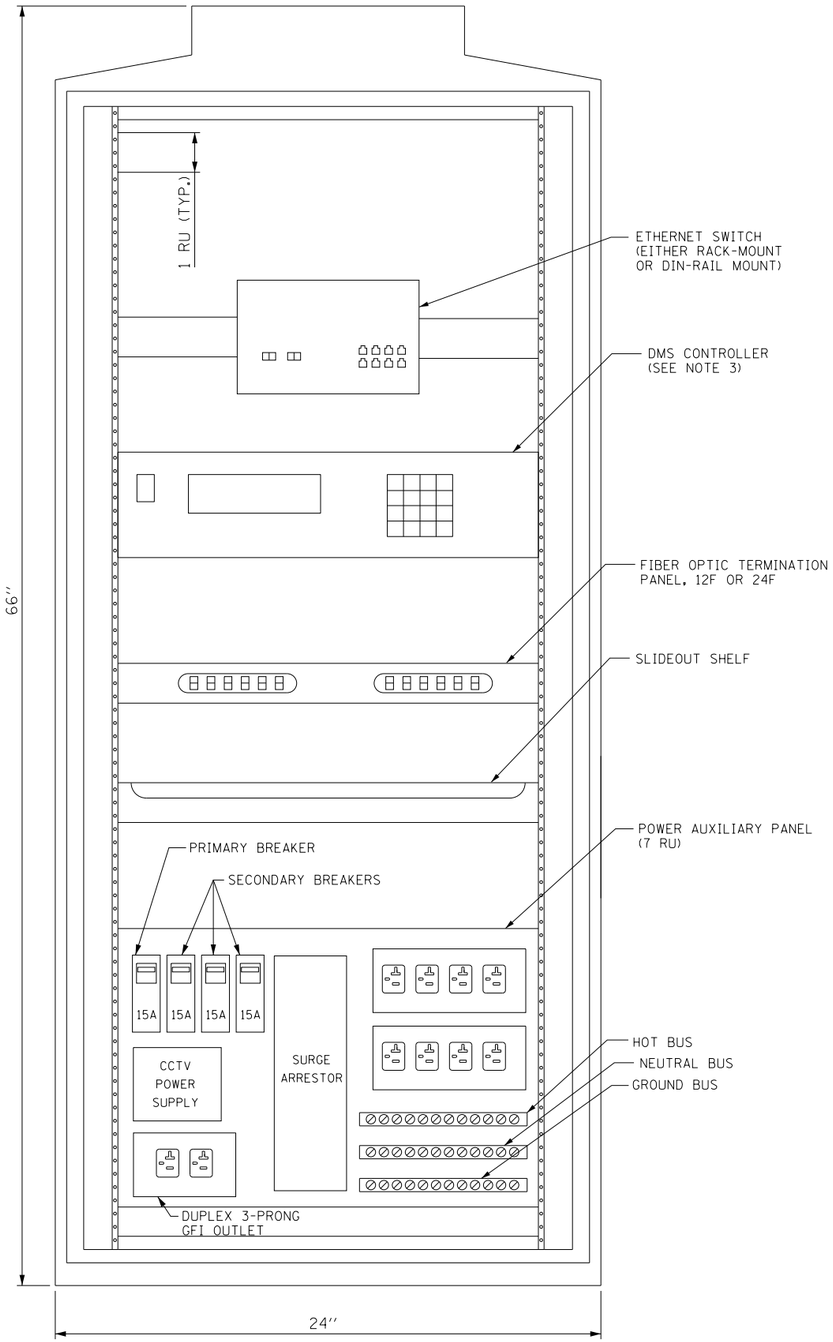
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CABINET, MODEL 334
INSTALLATION DETAIL

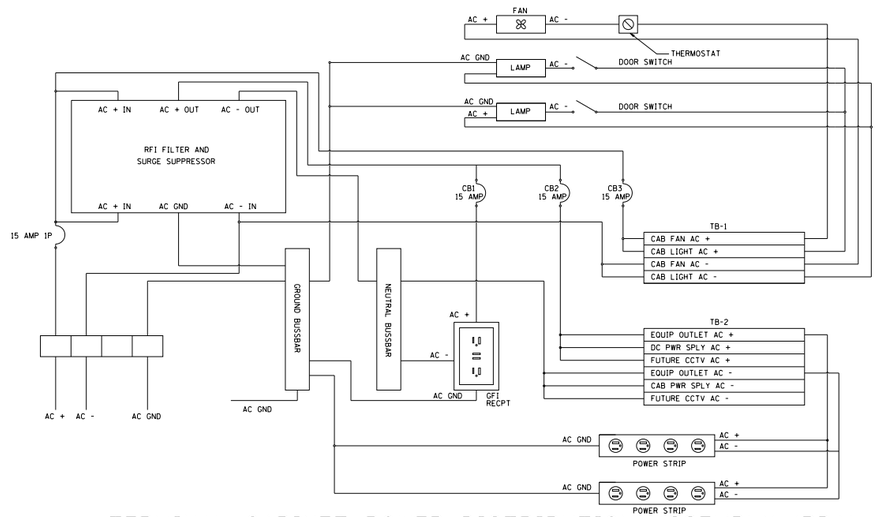
SCALE: N.T.S. | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	414
		CONTRACT NO. 60Y39		
	ILLINOIS	FED. AID PROJECT		

FILE NAME = D160Y39-sht-ITS-35.dgn



SUGGESTED EQUIPMENT LAYOUT



TERMINAL CABINET POWER DISTRIBUTION ASSEMBLY (PDA)

NOT TO SCALE

NOTES:

1. CABINET DIMENSIONS ARE ROUNDED TO THE NEAREST INCH.
2. CABINET LIGHT AND FAN NOT SHOWN.
3. INSTALL DMS CONTROLLER AT DMS SITE ONLY.

HNTB

USER NAME = jblakley	DESIGNED - JZ	REVISED - -
	DRAWN - JZ	REVISED -
PLOT SCALE = 1.00 ' / in.	CHECKED - YJ	REVISED -
PLOT DATE = 6/14/2017	DATE 06/28/2017	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CABINET, MODEL 334
RACK LAYOUT

SCALE: N.T.S. | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	415
		CONTRACT NO. 60Y39		
	ILLINOIS	FED. AID PROJECT		

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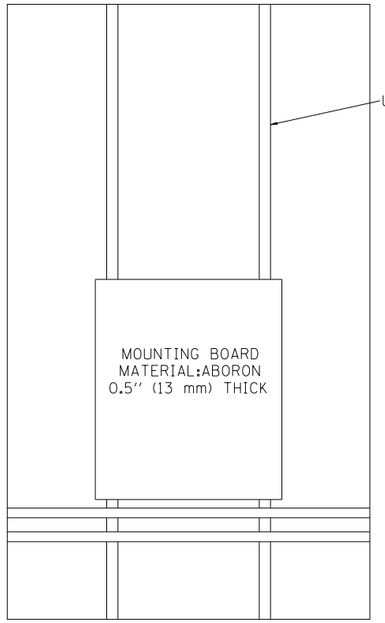
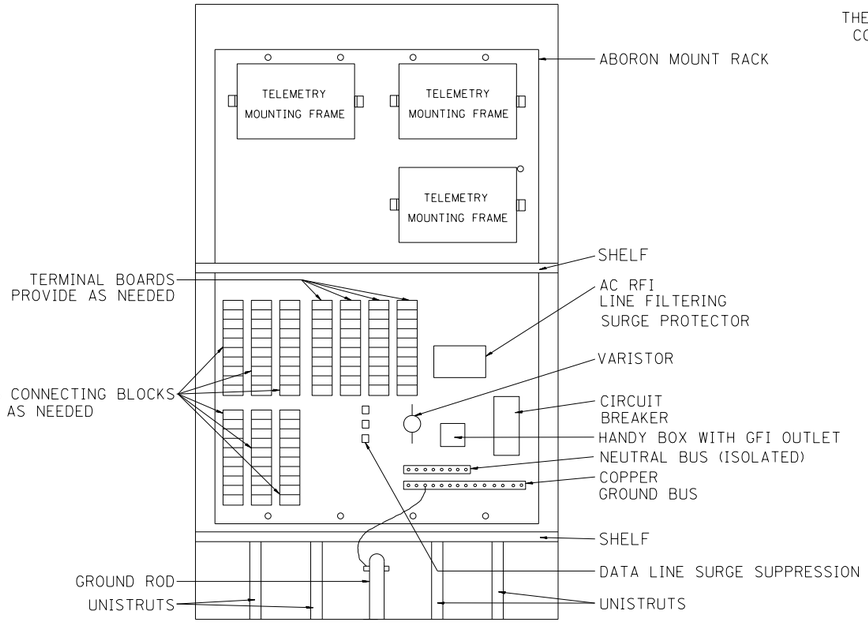
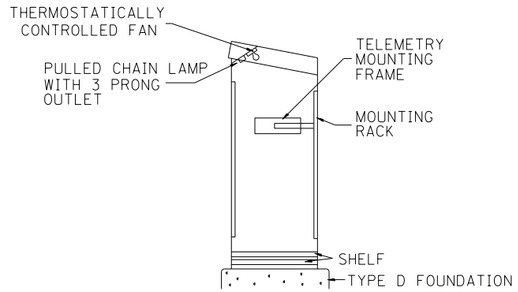


SIDE VIEW ESP 4 CABINET



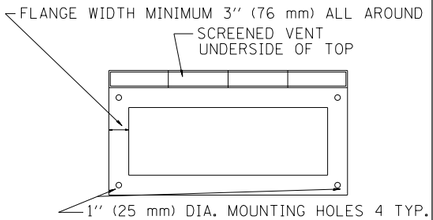
ESP 4 CABINET



ESP 4 CABINET

NOTE: MOUNTING RACK TO BE MOUNTED TO BACK PANEL OF CABINET

PROFILE VIEW



BOTTOM VIEW
MOUNTING PATTERN

TYPICAL CABINET INTERIORS

STANDARD TRAFFIC SYSTEMS CENTER CABINETS

TYPE	MINIMUM DIMENSIONS HEIGHT (IN-m)	WIDTH (IN-m)	DEPTH (IN-mm)	INSIDE THICKNESS (IN-mm)	MATERIAL
ESP4	55'' (1.4 m)	44'' (1.12 m)	26'' (660.4mm)	3/16'' (4.76mm)	FABRICATED ALUMINUM

NOTES:

1. CABINETS, CABINET POSTS AND CABINET PEDESTALS SHALL BE PRIMED AND PAINTED IN ACCORDANCE WITH SECTION T637 OF THE ''STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL ITEMS''. THE FINAL COAT SHALL BE (X) IN COLOR. THE INTERIOR SHALL BE PAINTED WHITE.
2. CABINETS SHALL BE INSTALLED IN ACCORDANCE WITH APPLICABLE PORTIONS OF SECTION T400 OF THE ''STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL ITEMS''.
3. ALL CABINETS WHICH ARE SERVICED BY 117 VOLTS A.C. POWER SHALL BE EQUIPPED WITH A 10 AMP CIRCUIT BREAKER, A.C. R.F.I. LINE FILTERING SURGE PROTECTOR, VARISTOR, DATA SURGE AND LOOP SURGE PROTECTORS AS INCIDENTAL TO THE COST OF THE CABINET.
4. ESP 2/3/4 CABINETS SHALL BE FITTED WITH A THERMOSTATICALLY CONTROLLED FAN. IT SHALL BE MOUNTED AT THE TOP OF THE CABINET. THE FAN SHALL BE CAPABLE OF OPERATING AT 130 CPM AT 160' OF STATIC WATER PRESSURE. A PORCLAIN BASED PULL CHAIN FIXTURE WITH 3 PRONG OUTLET SHALL ALSO BE PROVIDED.
5. INCIDENTAL TO THE COST OF EACH CABINET THE CONTRACTOR SHALL CONSTRUCT A 5 INCN (127 mm) PCC SIDEWALK OF A RECTANGULAR AREA 6 FEET (1.83 m) BY 8 FEET (2.44 m) IMMEDIATELY ADJACENT TO THE CABINET FOUNDATION ON THE SAME SIDE OF THE FOUNDATION AS THE CABINET DOOR TO PROVIDE FOOTING DURING INSTALLATION AND MAINTENANCE
6. ANCHOR BOLTS FOR PEDESTAL AND BASE MOUNTED CABINETS SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE CABINET.
7. ALL CABINETS SHALL HAVE TERMINAL BLOCKS AND SHELVES AS SHOWN. THESE ITEMS SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE CABINET.
8. THE CABINET DOOR SHALL BE HINGED ON THE RIGHT SIDE WHEN FACING THE CABINET. THE DOOR SHALL BE FURNISHED WITH A GASKET THAT SHALL FORM A WEATHER TIGHT SEAL BETWEEN THE CABINET AND DOOR. THE HINGES SHALL BE CONTINUOUS AND BOLTED TO THE CABINET AND DOOR UTILIZING 1/4-20 STAINLESS STEEL CARRIAGE BOLTS AND NY-LOCK NUTS. THE HINGES WILL BE MADE OF STAINLESS STEEL WITH A 0.25 INCH (6.35 mm) DIAMETER STAINLESS STEEL HINGE PIN. THE HINGE PIN SHALL BE CAPPED TOP AND BOTTOM BY WELD TO RENDER IT TAMPER PROOF.
9. THE LATCHING MECHANISM SHALL BE A 3 POINT DRAW ROLLER TYPE. THE CENTER CATCH AND PUSHRODS SHALL BE EITHER CADMIUM OR ZINC PLATED, TYPE II CLASS I. PUSHRODS WILL BE TURNED EDGEWISE AT THE OUTWARD SUPPORTS AND SHALL BE 0.25 INCH (6.35 mm) BY 0.75 INCH (19.05 mm), MINIMUM. ROLLERS SHALL HAVE A MINIMUM DIAMETER OF 0.875 INCH (22.22 mm) AND WILL BE MADE OF NYLON. THE CENTER CATCH SHALL BE FABRICATED FROM 0.14 INCH (3.55 mm) STEEL, MIMIMUM. WHEN THE DOOR IS CLOSED AND LATCHED, IT WILL BE LOCKED. THE LATCHING HANDLE SHALL HAVE A PROVISION FOR PADLOCKING IN THE CLOSED POSITION. AN OPERATING HANDLE SHALL BE FURNISHED WITH EACH LOCK. THE HANDLE WILL BE STAINLESS STEEL WITH A 0.75 INCH (19.05 mm) DIAMETER SHANK.
10. THE ENCLOSURE SHALL BE EQUIPPED WITH TWO ADJUSTABLE ''C'' MOUNTING CHANNELS WELDED ON BOTH SIDE WALLS AND 4 ADJUSTABLE ''C'' MOUNTING CHANNELS WELDED ON THE BACK WALL OF THE ENCLOSURE, ALLOWING VERSATILE POSITIONING OF SHELVES OR PANELS. MOUNTING CHANNELS SHALL BE FACTORY PAINTED SAME COLOR AS INTERIOR OF CABINET.
11. CABINET DOOR SHALL NOT HAVE DOORS OR LOUVERS.
12. ALL FIELD CABINETS SHALL BE FITTED WITH BRASS LOCKS.
13. ESP TYPE 4 CABINET FITTED WITH TWO SHELVES AS SHOWN.
14. THE CONTROL CABINET SHALL BE SET PLUMB ON THE FOUNDATION AND FASTENED TO THE ANCHOR BOLTS WITH NUTS AND WASHERS. FLAT WASHERS SHALL BE INSTALLED BELOW AND ABOVE THE BASE PLATE OF THE CONTROL CABINET. LOCKWASHERS SHALL BE INSTALLED ON TOP OF THE TOP FLAT WASHER.

EDENS	WALNUT *
KENNEDY	BLUE STREAK **
EISENHOWER	CARIBBEAN BLUE *
I-290/IL53/I-355	EVERGREEN **
RYAN	YELLOW STONE II **
I-55	MEDIUM BRONZE *
I-57	RED BARON **
CAL-KING	BLUE STREAK **
LAKE SHORE DR.	GREEN *
I-80	STATUARY BRONZE **

ALL RAMP METERING CABINETS LIME GREEN ***. ALL POSTS, T.S. HEADS AND SERVICES WILL BE PAINTED FEDERAL YELLOW.

* MORTON POWDER PAINT COLOR OR EQUIVALENT.
** O'BRIEN POWDER PAINT COLOR OR EQUIVALENT.
*** BENJAMIN MOORE ENAMEL COLOR OR EQUIVALENT.

NO ADDITIONAL COMPENSATION SHALL BE ALLOWED FOR CONFORMING TO COLOR REQUIREMENTS

ITS-37

HNTB

USER NAME = jblakley	DESIGNED - R.L.	REVISED - 2/1/1998
	DRAWN - G.M.	REVISED - 3/1/1999
PLOT SCALE = 1.00 ' / in.	CHECKED - R.L.	REVISED -
PLOT DATE = 6/14/2017	DATE 06/28/2017	REVISED -

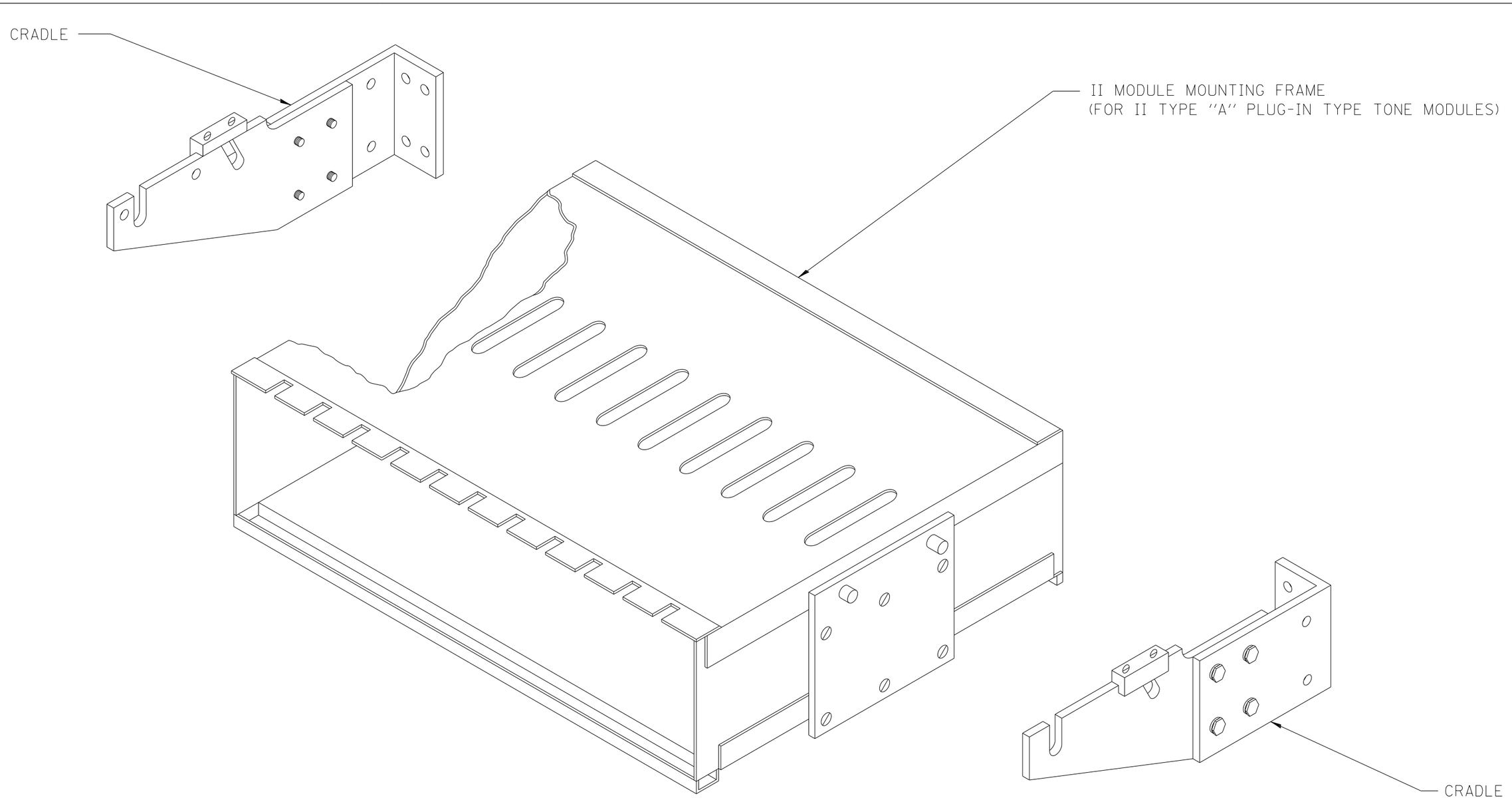
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
TRAFFIC SYSTEMS CENTER

TYPE 4 CABINET DETAIL SHEET

SCALE: N.T.S. | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	416
		CONTRACT NO. 60Y39		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

FILE NAME = D160Y39-sht-ITS-37.dgn



NOTE:

TYPE ''A'' TONE MODULES ARE PLUG
IN UNIT MEASURING 5-7/32'' (132.55 mm) X 1.5'' (38.1 mm) X 13-3/4'' (349.25 mm)

HNTB

USER NAME = jblakley	DESIGNED - R.L.	REVISED - 2/1/1998
	DRAWN - G.M.	REVISED - 3/1/1999
PLOT SCALE = 1.00 ' / in.	CHECKED - R.L.	REVISED -
PLOT DATE = 6/14/2017	DATE 06/28/2017	REVISED -

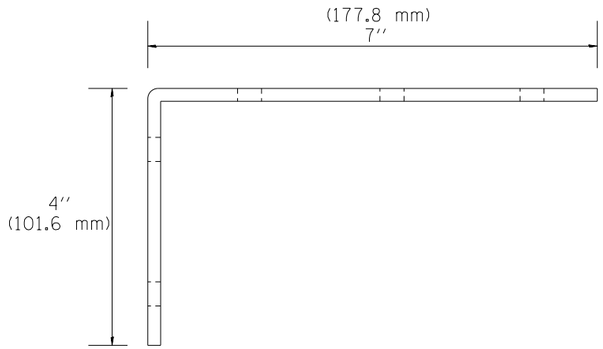
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
TRAFFIC SYSTEMS CENTER

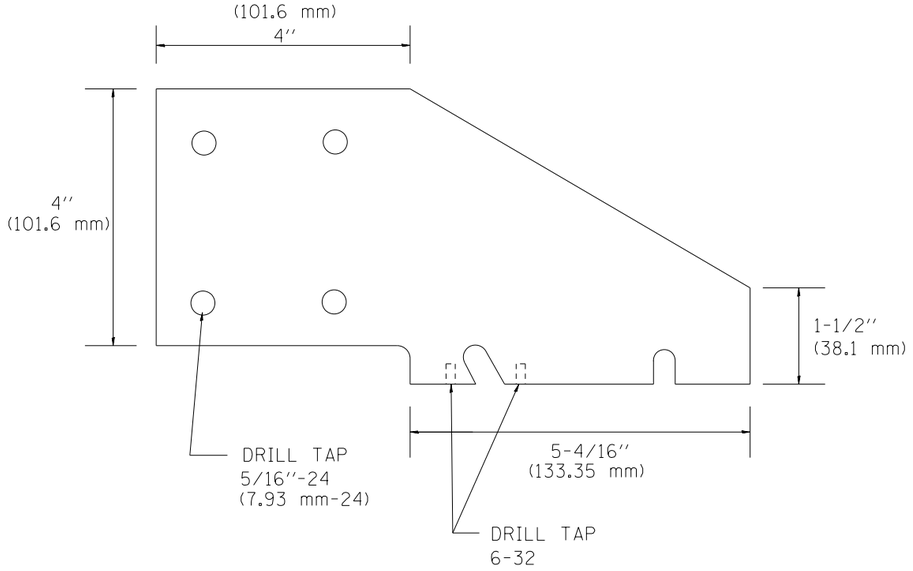
FIELD MOUNTING FRAME
WITH CRADLE ASSEMBLY
(#TY-1TSC-400#6)

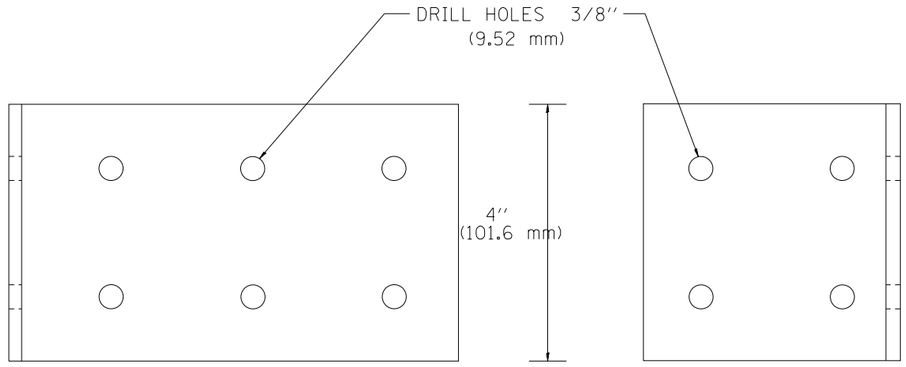
SCALE: N.T.S. | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

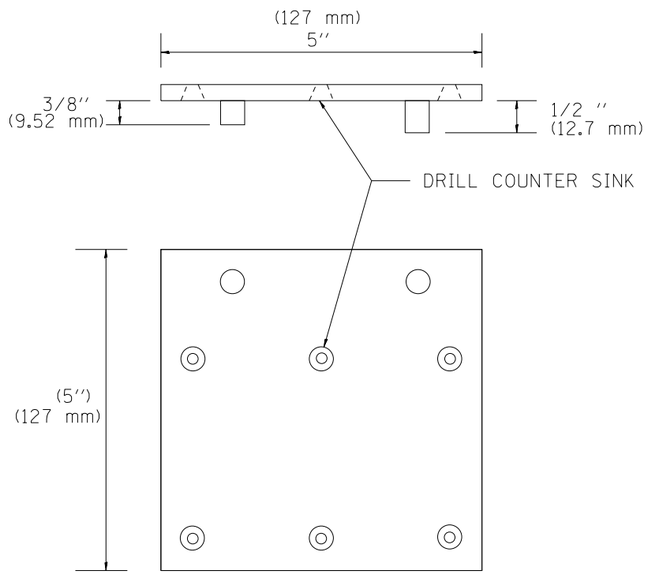
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	417
		CONTRACT NO. 60Y39		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

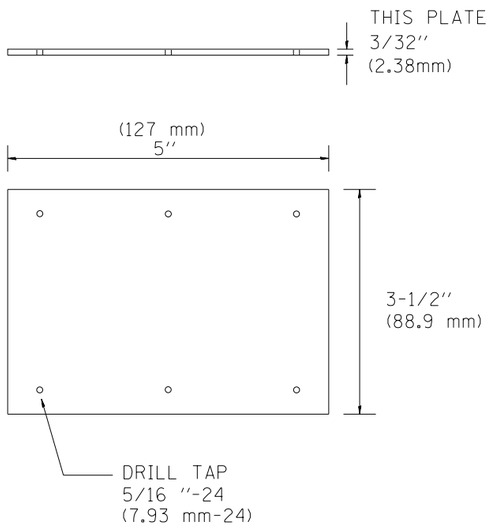
FILE NAME = D160Y39-sht-ITS-38.dgn

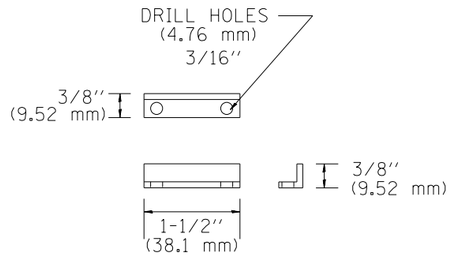












ITS–39

USER NAME = jblakley	DESIGNED - R.L.	REVISED - 2/1/1998	
	DRAWN - G.M.	REVISED - 3/1/1999	
PLOT SCALE = 1.00 ' / in.	CHECKED - R.L.	REVISED -	
PLOT DATE = 6/14/2017	DATE 06/28/2017	REVISED -	

HNTB

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
TRAFFIC SYSTEMS CENTER

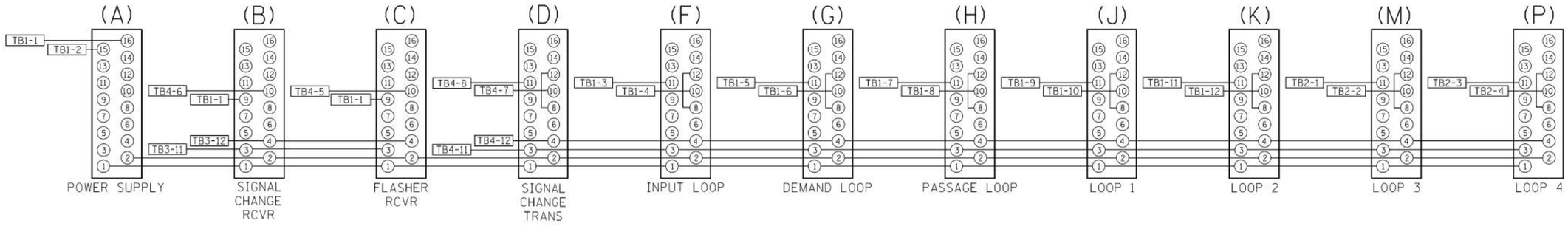
FIELD CRADLE ASSEMBLY
(#TY–1TSC–400#7)

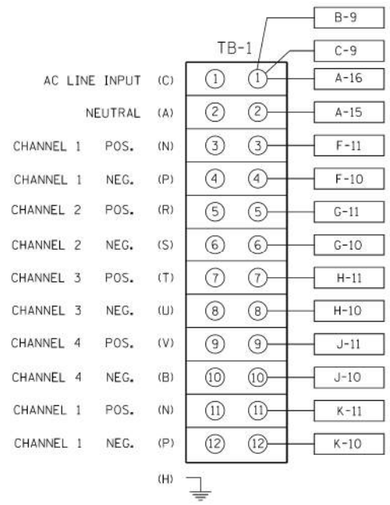
SCALE: N.T.S. | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

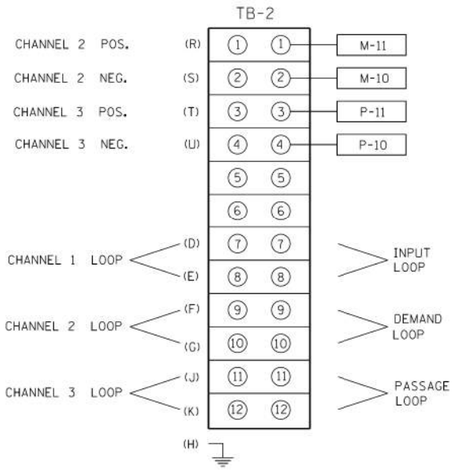
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	418
		CONTRACT NO. 60Y39		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

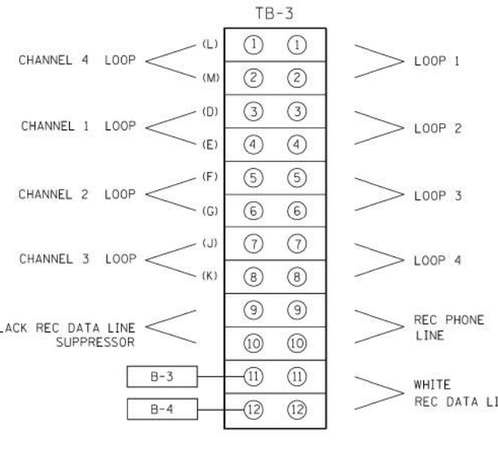
FILE NAME = D160Y39-sht-ITS-39.dgn

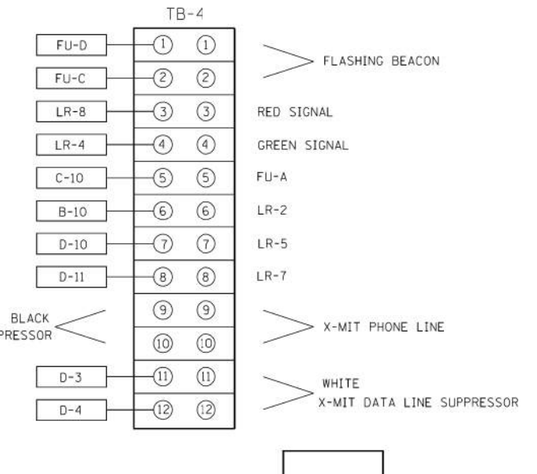
BACK VIEW OF TONE RACK

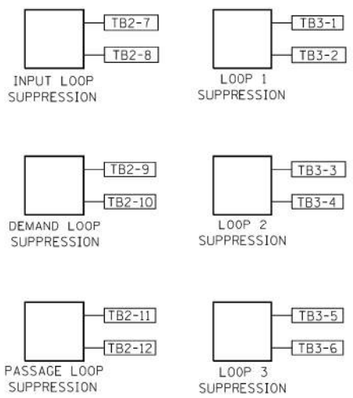


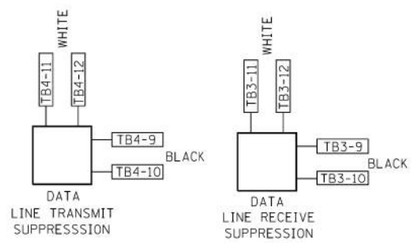


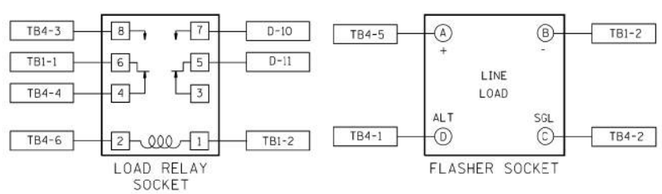


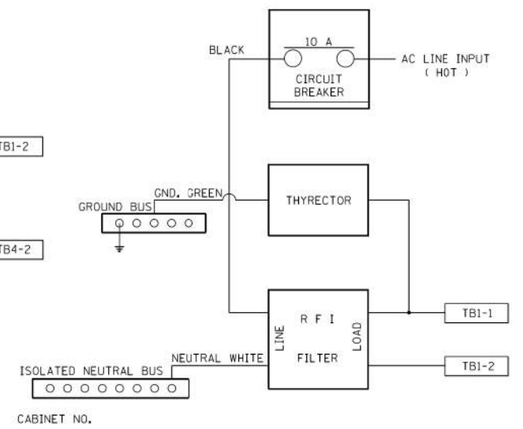








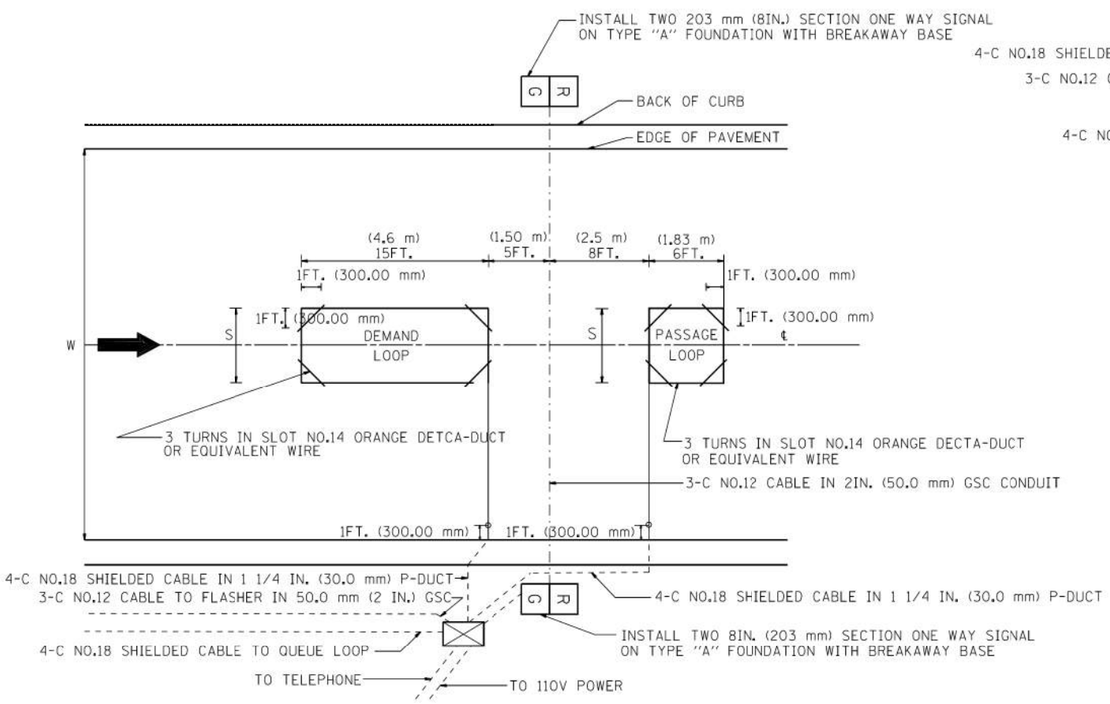




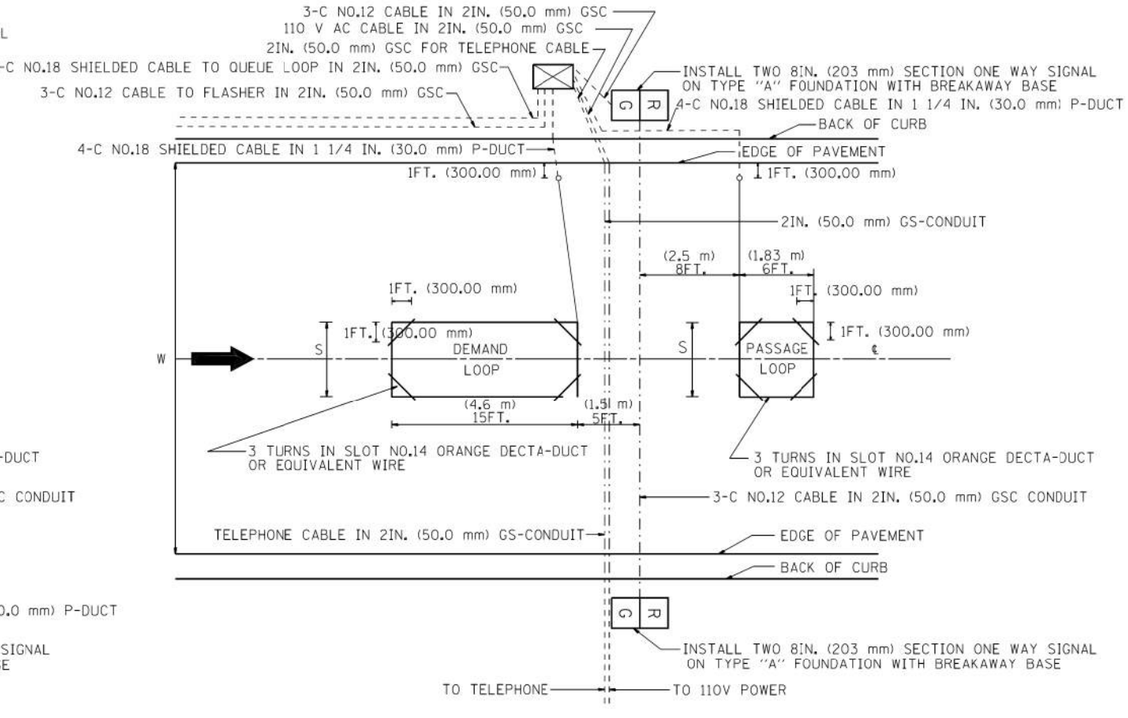
ITS–40

HNTB	USER NAME = jblakley	DESIGNED	REVISED - -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	METERING CABINET WIRING DIAGRAM	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
		DRAWN	REVISED -			90	(1517 & 1415) R-2	COOK	734 / 419
	PLOT SCALE = 1.00 ' / in.	CHECKED	REVISED -						CONTRACT NO. 60Y39
	PLOT DATE = 6/14/2017	DATE 06/28/2017	REVISED -		SCALE: N.T.S. SHEET NO. 1 OF 1 SHEETS STA. TO STA.			ILLINOIS	FED. AID PROJECT

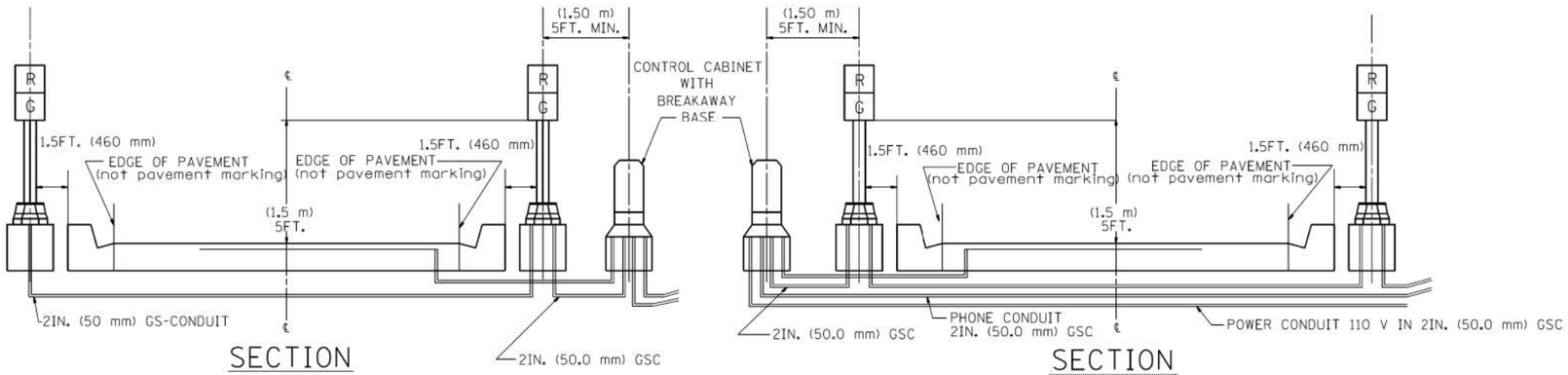
FILE NAME = D160Y39-sht-ITS-40.dgn



TYPICAL SIGNAL AND LOOP LAYOUT (TYPE I)



TYPICAL SIGNAL AND LOOP LAYOUT (TYPE II)



SECTION

SECTION

TABLE 1	
WIDTH (W)	WIDTH (S)
12' (3.7 m)	8' (2.5 m)
13' (4.0 m)	9' (2.8 m)
14' (4.3 m)	10' (3.1 m)
15' (4.6 m)	11' (3.4 m)
16' (4.9 m)	12' (3.7 m)
17' (5.2 m)	13' (4.0 m)
18' (5.5 m)	14' (4.3 m)
19' (5.8 m)	15' (4.6 m)
20' (6.1 m)	18' (4.9 m)
21' (6.4 m)	17' (5.2 m)
22' (6.7 m)	18' (5.5 m)
23' (7.0 m)	19' (5.8 m)
24' (7.3 m)	20' (6.1 m)
25' (7.6 m)	21' (6.4 m)

NOTES:

1. EACH LOOP SHALL BE SPLICED TO A 4-C NO.18 TWISTED SHIELDED LEAD IN WHEN 150FT. (45 m) OR MORE FROM CABINET.
2. LOOPS SHALL BE SPLICED IN HANDHOLES ONLY, OTHERWISE WRITTEN PERMISSION SHALL BE OBTAINED FROM TSC ENGINEER.
3. LOOPS SHALL NOT BE SPLICED IN SERIES.
4. EACH LOOP LEAD IN SHALL BE IDENTIFIED AND PERMANENTLY COLOR CODED IN THE COREHOLE, HANDHOLE & CABINETS THRU WHICH THEY ENTER OR PASS AND TAGGED WITH THE CORRECT NOMENCLATURES.

ITS-41

HNTB

USER NAME = jblakley	DESIGNED R.L.	REVISED - -	
	DRAWN G.M.	REVISED -	
PLOT SCALE = 1.00 ' / in.	CHECKED R.L.	REVISED -	
PLOT DATE = 6/14/2017	DATE 06/28/2017	REVISED -	

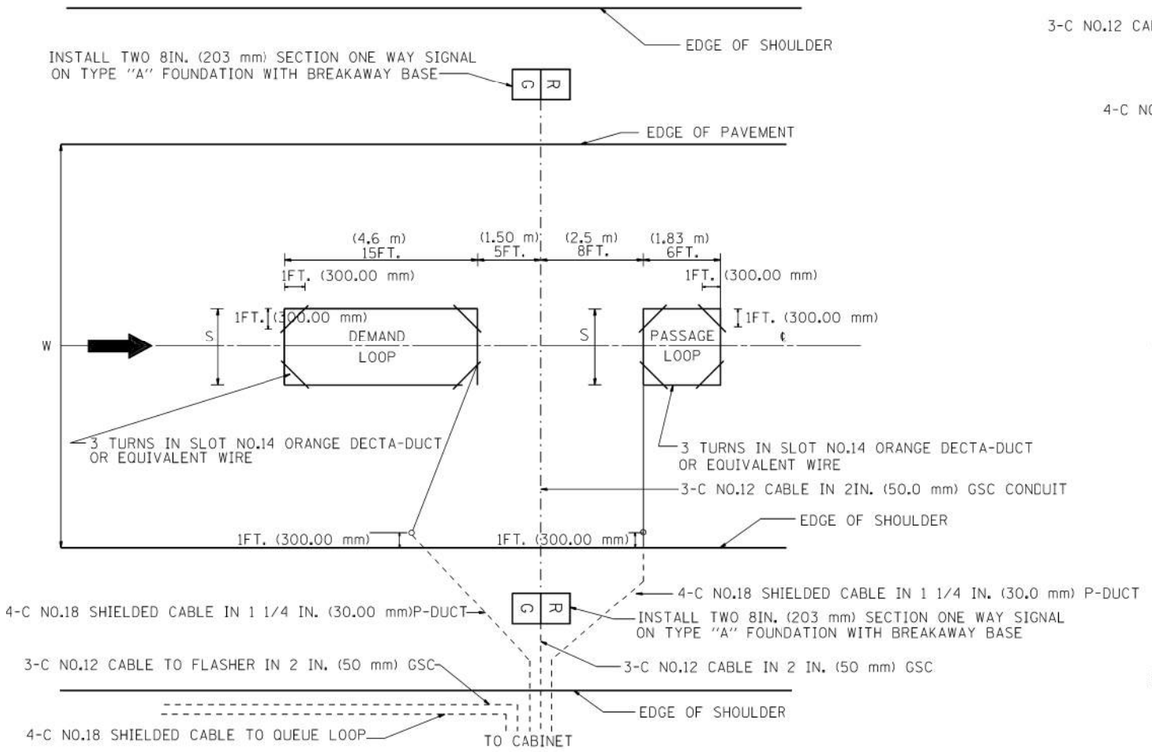
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL RAMP METERING INSTALLATION TYPE I AND II (WITH CURB AND GUTTER)

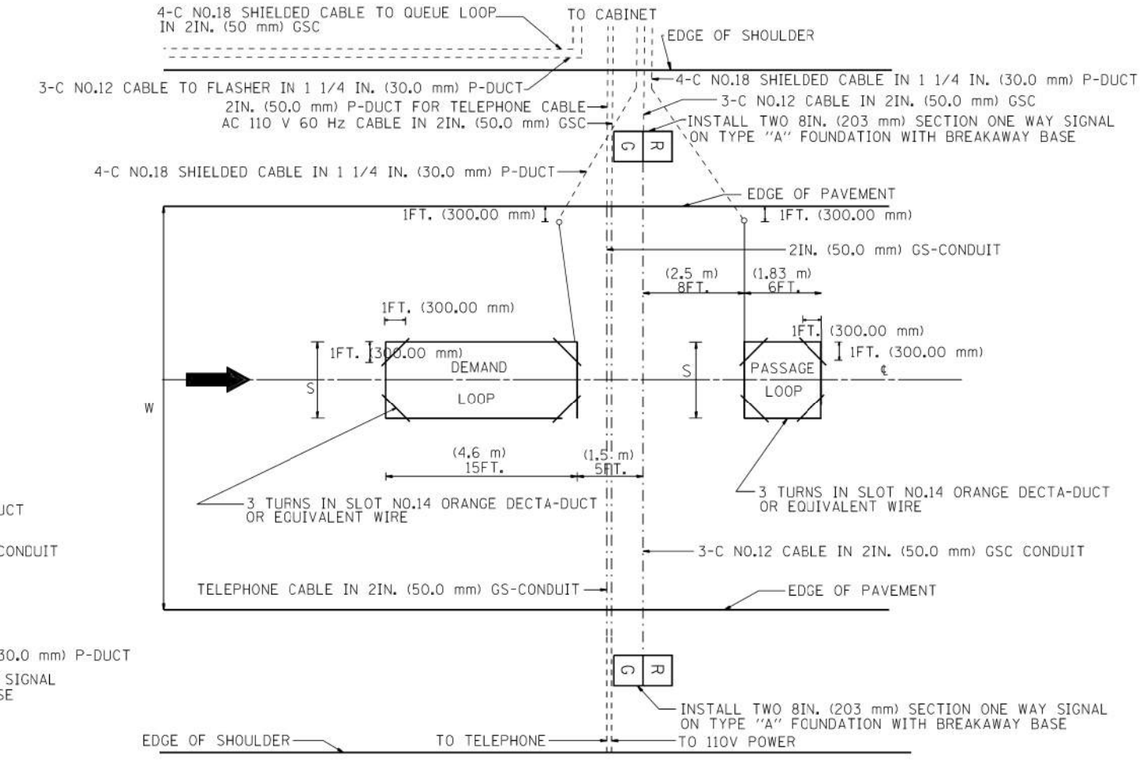
SCALE: N.T.S. | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	420
		CONTRACT NO. 60Y39		
		ILLINOIS	FED. AID PROJECT	

FILE NAME = D160Y39-sht-ITS-41.dgn

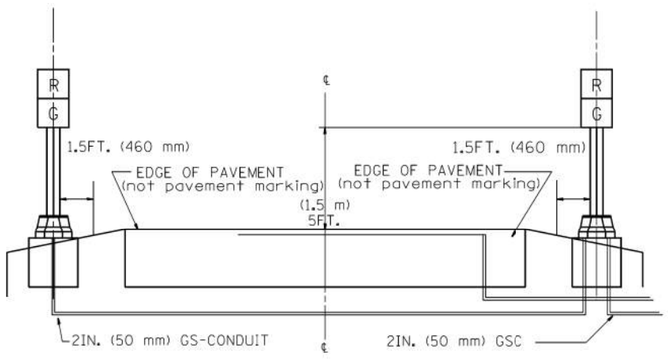


TYPICAL SIGNAL AND LOOP LAYOUT (TYPE I)

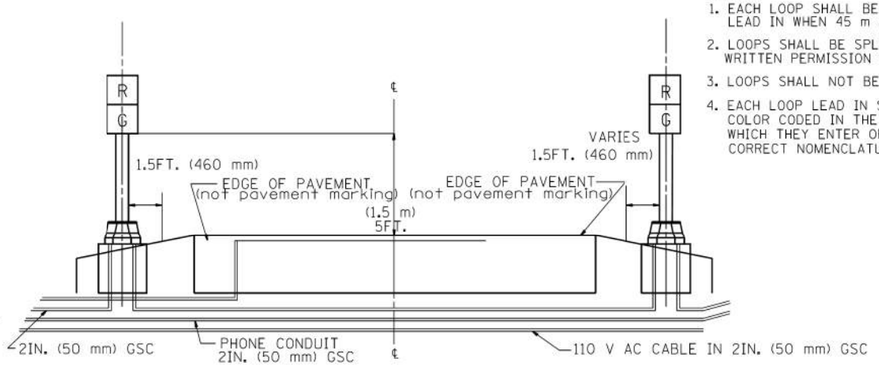


TYPICAL SIGNAL AND LOOP LAYOUT (TYPE II)

NOTE:
ALL SIGNALS & FOUNDATIONS SHALL BE FIELD LOCATED FOR ACTUAL SITE AND TRAFFIC CONDITIONS.



SECTION



SECTION

NOTES
1. EACH LOOP SHALL BE SPLICED TO A 4-C NO.18 TWISTED SHIELDED LEAD IN WHEN 45 m (150FT.) OR MORE FROM CABINET.
2. LOOPS SHALL BE SPLICED IN HANDHOLES ONLY. OTHERWISE WRITTEN PERMISSION SHALL BE OBTAINED FROM TSC ENGINEER.
3. LOOPS SHALL NOT BE SPLICED IN SERIES.
4. EACH LOOP LEAD IN SHALL BE IDENTIFIED AND PERMANENTLY COLOR CODED IN THE COREHOLE, HANDHOLE & CABINETS THRU WHICH THEY ENTER OR PASS AND TAGGED WITH THE CORRECT NOMENCLATURES.

TABLE 1	
WIDTH (W)	WIDTH (S)
12' (3.7 m)	8' (2.5 m)
13' (4.0 m)	9' (2.8 m)
14' (4.3 m)	10' (3.1 m)
15' (4.6 m)	11' (3.4 m)
16' (4.9 m)	12' (3.7 m)
17' (5.2 m)	13' (4.0 m)
18' (5.5 m)	14' (4.3 m)
19' (5.8 m)	15' (4.6 m)
20' (6.1 m)	18' (4.9 m)
21' (6.4 m)	17' (5.2 m)
22' (6.7 m)	18' (5.5 m)
23' (7.0 m)	19' (5.8 m)
24' (7.3 m)	20' (6.1 m)
25' (7.6 m)	21' (6.4 m)

HNTB

USER NAME = jblakley	DESIGNED	REVISED - -
	DRAWN	REVISED -
PLOT SCALE = 1.00 ' / in.	CHECKED	REVISED -
PLOT DATE = 6/14/2017	DATE 06/28/2017	REVISED -

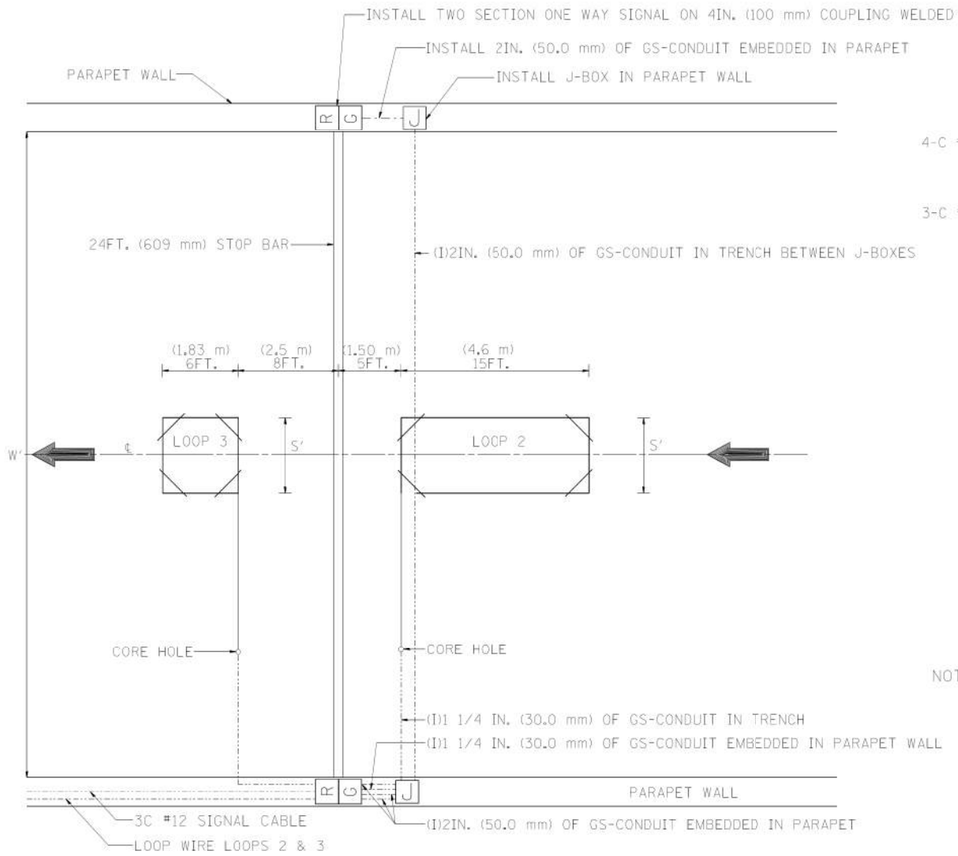
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL RAMP METERING INSTALLATION
TYPE I & II
(FOR RAMPS WITHOUT CURB & GUTTERS)

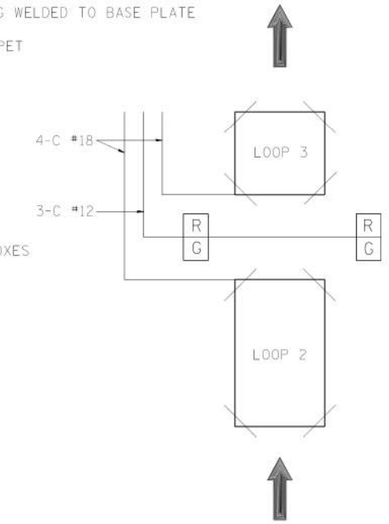
SCALE: N.T.S. | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	421
		CONTRACT NO. 60Y39		
	ILLINOIS	FED. AID PROJECT		

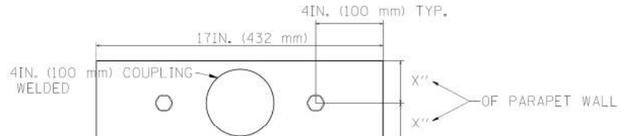
FILE NAME = D160Y39-sht-ITS-42.dgn



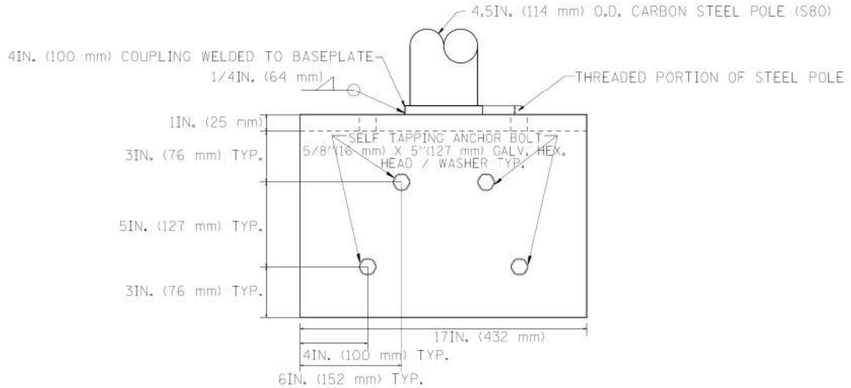
TYPICAL LOOP LAYOUT



WIRING DIAGRAM



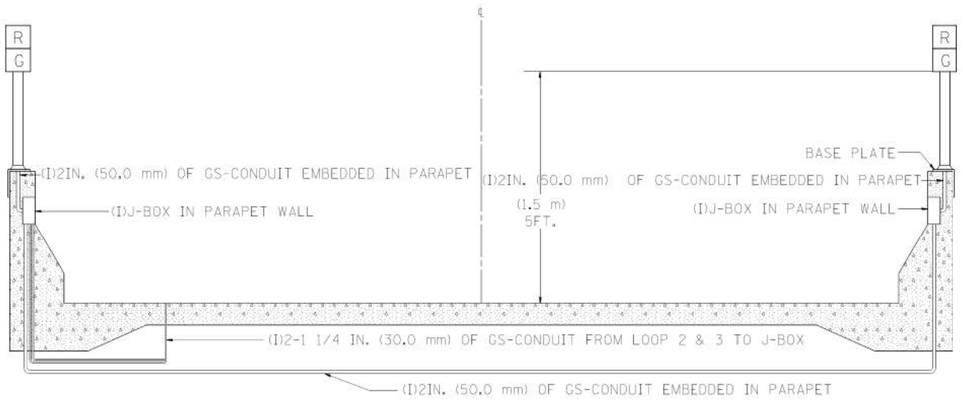
TOP



FRONT

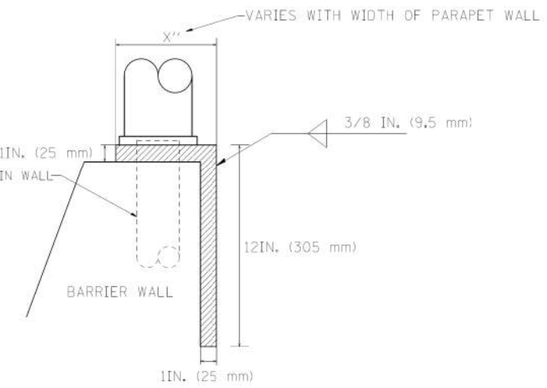
NOTES

1. EACH LOOP SHALL BE SPLICED TO A 4-C NO.18 TWISTED SHIELDED LEAD IN WHEN 150FT. (45 m) OR MORE FROM CABINET.
2. LOOPS SHALL BE SPLICED IN HANDHOLES OR J-BOX ONLY, OTHERWISE WRITTEN PERMISSION SHALL BE OBTAINED FROM TSC ENGINEER.
3. LOOPS SHALL NOT BE SPLICED IN SERIES.
4. EACH LOOP LEAD IN SHALL BE IDENTIFIED AND PERMANENTLY COLOR CODED IN THE COREHOLE, HANDHOLE & CABINETS THRU WHICH THEY ENTER OR PASS AND TAGGED WITH THE CORRECT NOMENCLATURES.



SECTION

TABLE 1	
WIDTH (W)	WIDTH (S)
12' (3.7 m)	8' (2.5 m)
13' (4.0 m)	9' (2.8 m)
14' (4.3 m)	10' (3.1 m)
15' (4.6 m)	11' (3.4 m)
16' (4.9 m)	12' (3.7 m)
17' (5.2 m)	13' (4.0 m)
18' (5.5 m)	14' (4.3 m)
19' (5.8 m)	15' (4.6 m)
20' (6.1 m)	18' (4.9 m)
21' (6.4 m)	17' (5.2 m)
22' (6.7 m)	18' (5.5 m)
23' (7.0 m)	19' (5.8 m)
24' (7.3 m)	20' (6.1 m)
25' (7.6 m)	21' (6.4 m)



SIDE

FOR INFORMATION ONLY

RAMP METER SHALL BE INSTALLED IN PAVEMENT BEHIND GUARDRAIL

ITS-43

HNTB

USER NAME = jblakley	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 1.00 ' / in.	CHECKED -	REVISED -
PLOT DATE = 6/22/2017	DATE 06/28/2017	REVISED -

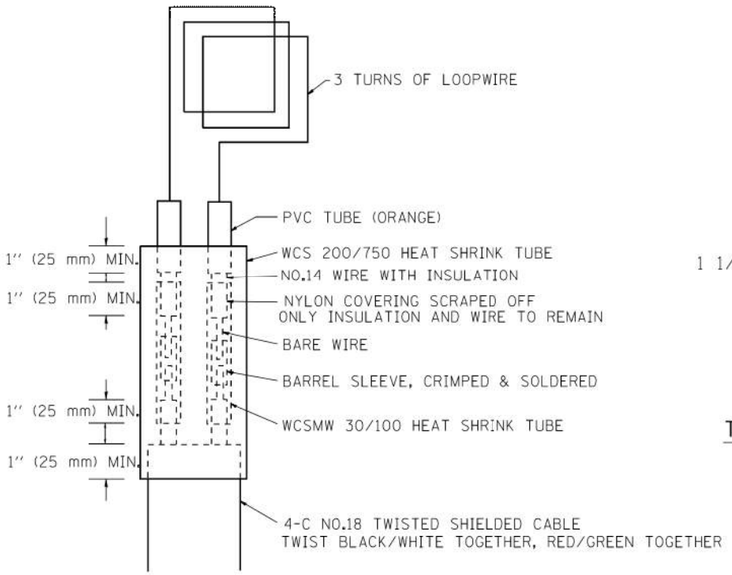
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL RAMP METERING
TYPE 3 BARRIER WALL INSTALLATION
(TY-1TSC-400#3)

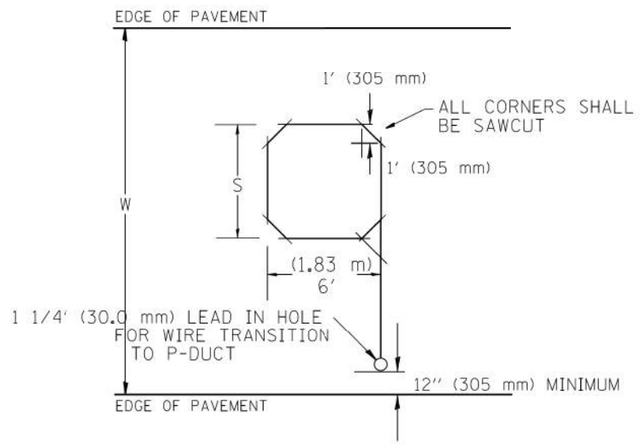
SCALE: N.T.S. | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	422
		CONTRACT NO. 60Y39		
	ILLINOIS FED. AID PROJECT			

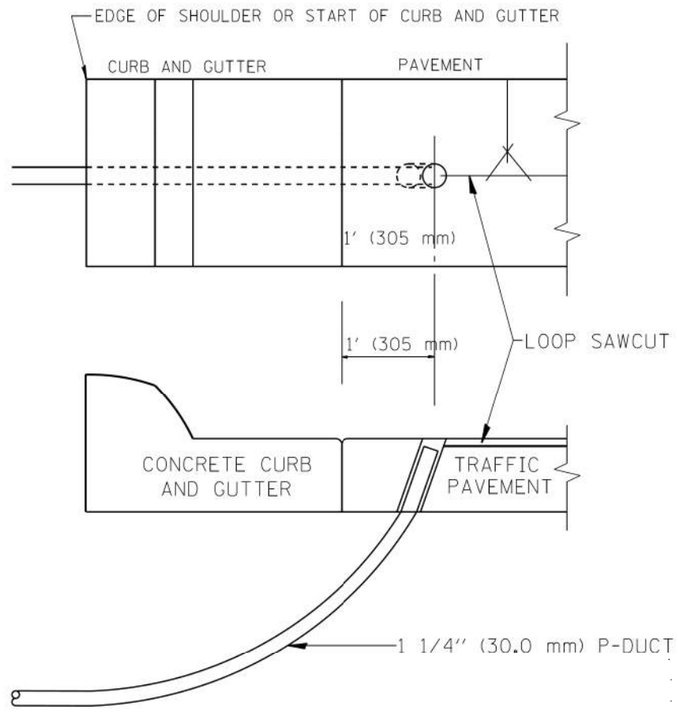
FILE NAME = D160Y39-sht-ITS-43.dgn



LOOP SPLICING REQUIREMENTS



TYPICAL "S" FT. BY 6' (1.83 m) INDUCTION LOOP SAWCUT LAYOUT FOR RAMPS



CURB AND GUTTER LOOP LEAD-IN TRANSITION DETAIL

TABLE 1	
WIDTH (W)	WIDTH (S)
12' (3.7 m)	8' (2.5 m)
13' (4.0 m)	9' (2.8 m)
14' (4.3 m)	10' (3.1 m)
15' (4.6 m)	11' (3.4 m)
16' (4.9 m)	12' (3.7 m)
17' (5.2 m)	13. (4.0 m)
18' (5.5 m)	14' (4.3 m)
19' (5.8 m)	15' (4.6 m)
20' (6.1 m)	18' (4.9 m)
21' (6.4 m)	17' (5.2 m)
22' (6.7 m)	18' (5.5 m)
23' (7.0 m)	19' (5.8 m)
24' (7.3 m)	20' (6.1 m)
25' (7.6 m)	21' (6.4 m)

NOTES

1. EACH LOOP SHALL BE SPLICED TO A 4-C NO.18 TWISTED SHIELDED LEAD IN WHEN 150' (45 m) OR MORE FROM CABINET.
2. LOOPS SHALL BE SPLICED IN HANDHOLES ONLY, OTHERWISE WRITTEN PERMISSION SHALL BE OBTAINED FROM TSC ENGINEER.
3. LOOPS SHALL NOT BE SPLICED IN SERIES.
4. EACH LOOP LEAD IN SHALL BE IDENTIFIED AND PERMANENTLY COLOR CODED IN THE COREHOLE, HANDHOLE & CABINETS THRU WHICH THEY ENTER OR PASS AND TAGGED WITH THE CORRECT NOMENCLATURES.

HNTB

USER NAME = jblakley	DESIGNED	REVISED - -
	DRAWN	REVISED -
PLOT SCALE = 1.00 ' / in.	CHECKED	REVISED -
PLOT DATE = 6/14/2017	DATE 06/28/2017	REVISED -

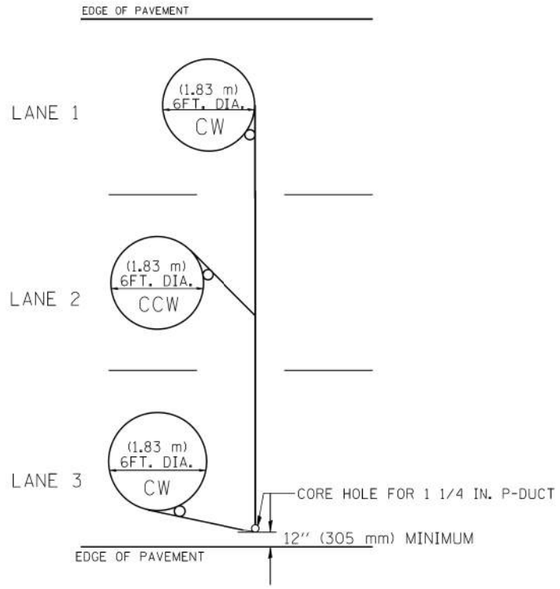
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RECTANGULAR INDUCTION LOOP
TYPICAL
(#TY-1TSC-418#3)

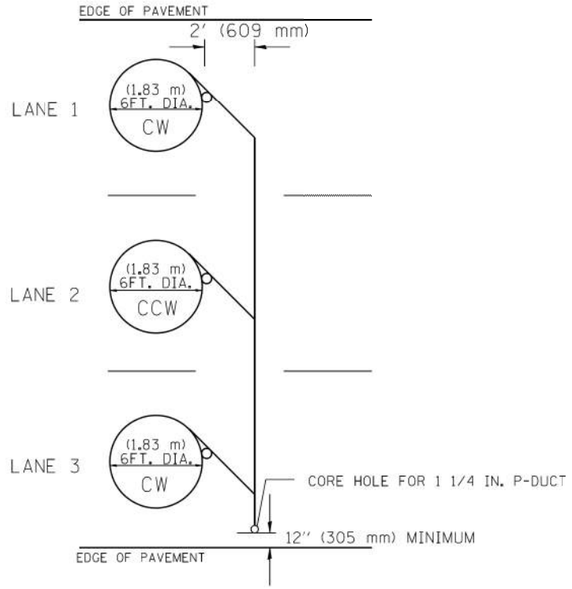
SCALE: N.T.S. | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	423
		CONTRACT NO. 60Y39		
	ILLINOIS FED. AID PROJECT			

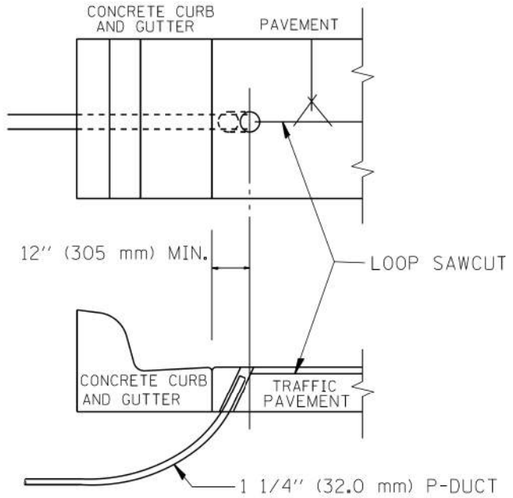
FILE NAME = D160Y39-sht-ITS-44.dgn



TYPICAL 6FT. (1.83 m) DIA. INDUCTION LOOP CORE DRILL
LAYOUT FOR MULTIPLE LANE ROADWAY



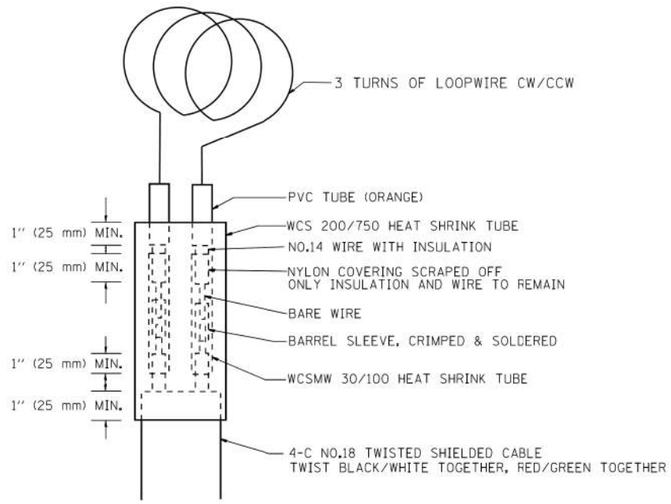
TYPICAL 6FT. (1.83 m) DIA. INDUCTION LOOP CORE DRILL
LAYOUT FOR MULTIPLE LANE ROADWAY



CURB AND GUTTER LOOP LEAD-IN
TRANSITION DETAIL

NOTES

1. EACH LOOP SHALL BE SPLICED TO A 4-C NO.18 TWISTED SHIELDED LEAD IN WHEN 150FT. (45 m) OR MORE FROM CABINET.
2. LOOPS SHALL BE SPLICED IN HANDHOLES ONLY, OTHERWISE WRITTEN PERMISSION SHALL BE OBTAINED FROM TSC ENGINEER.
3. LOOPS SHALL NOT BE SPLICED IN SERIES.
4. EACH LOOP LEAD IN SHALL BE IDENTIFIED AND PERMANENTLY COLOR CODED IN THE COREHOLE, HANDHOLE & CABINETS THRU WHICH THEY ENTER OR PASS AND TAGGED WITH THE CORRECT NOMENCLATURES.



LOOP SPLICING REQUIREMENTS

ITS-45

HNTB

USER NAME = jblakley	DESIGNED	REVISED - -
	DRAWN	REVISED -
PLOT SCALE = 1.00 ' / in.	CHECKED	REVISED -
PLOT DATE = 6/14/2017	DATE 06/28/2017	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

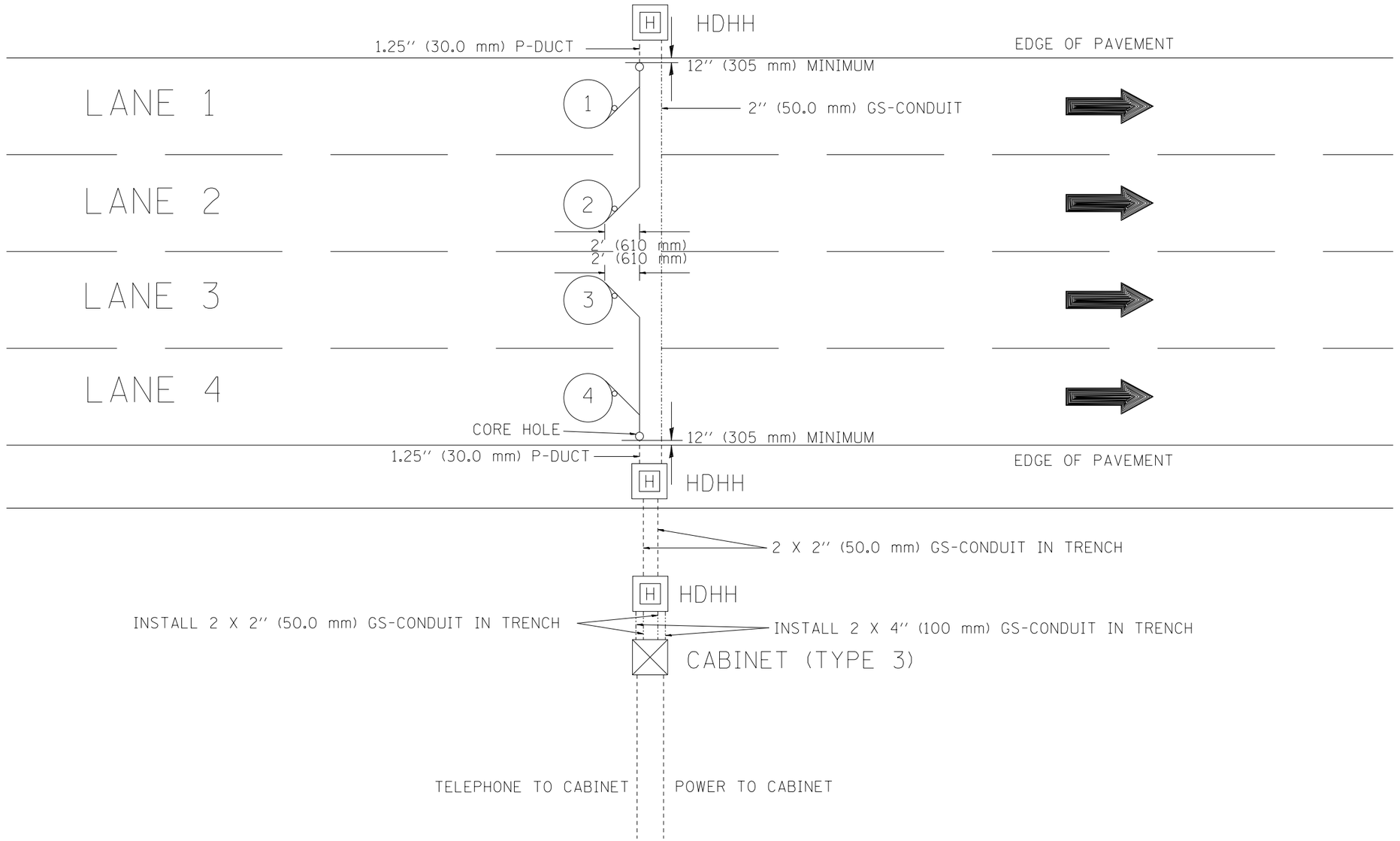
EXISTING ROUND
INDUCTION LOOP TYPICALS
(#TY-TSC-418#2)

SCALE: N.T.S. | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	424
		CONTRACT NO. 60Y39		
	ILLINOIS FED. AID PROJECT			

FILE NAME = D160Y39-sht-ITS-45.dgn

NOTE: ALL MAIN LINE LOOPS ARE ROUND 6' DIA. (1.83 m)



NOTES

1. EACH LOOP SHALL BE SPLICED TO A 4-C NO.18 TWISTED SHIELDED LEAD IN WHEN 150' (45 m) OR MORE FROM CABINET.
2. LOOPS SHALL BE SPLICED IN HANDHOLES ONLY, OTHERWISE WRITTEN PERMISSION SHALL BE OBTAINED FROM TSC ENGINEER.
3. LOOPS SHALL NOT BE SPLICED IN SERIES.
4. EACH LOOP LEAD IN SHALL BE IDENTIFIED AND PERMANENTLY COLOR CODED IN THE COREHOLE, HANDHOLE & CABINETS THRU WHICH THEY ENTER OR PASS AND TAGGED WITH THE CORRECT NOMENCLATURES.

HNTB

USER NAME = jblakley	DESIGNED - R.L.	REVISED - 2/1/1998
	DRAWN - G.M.	REVISED - 3/1/1999
PLOT SCALE = 1.00 ' / in.	CHECKED - R.L.	REVISED -
PLOT DATE = 6/14/2017	DATE 06/28/2017	REVISED -

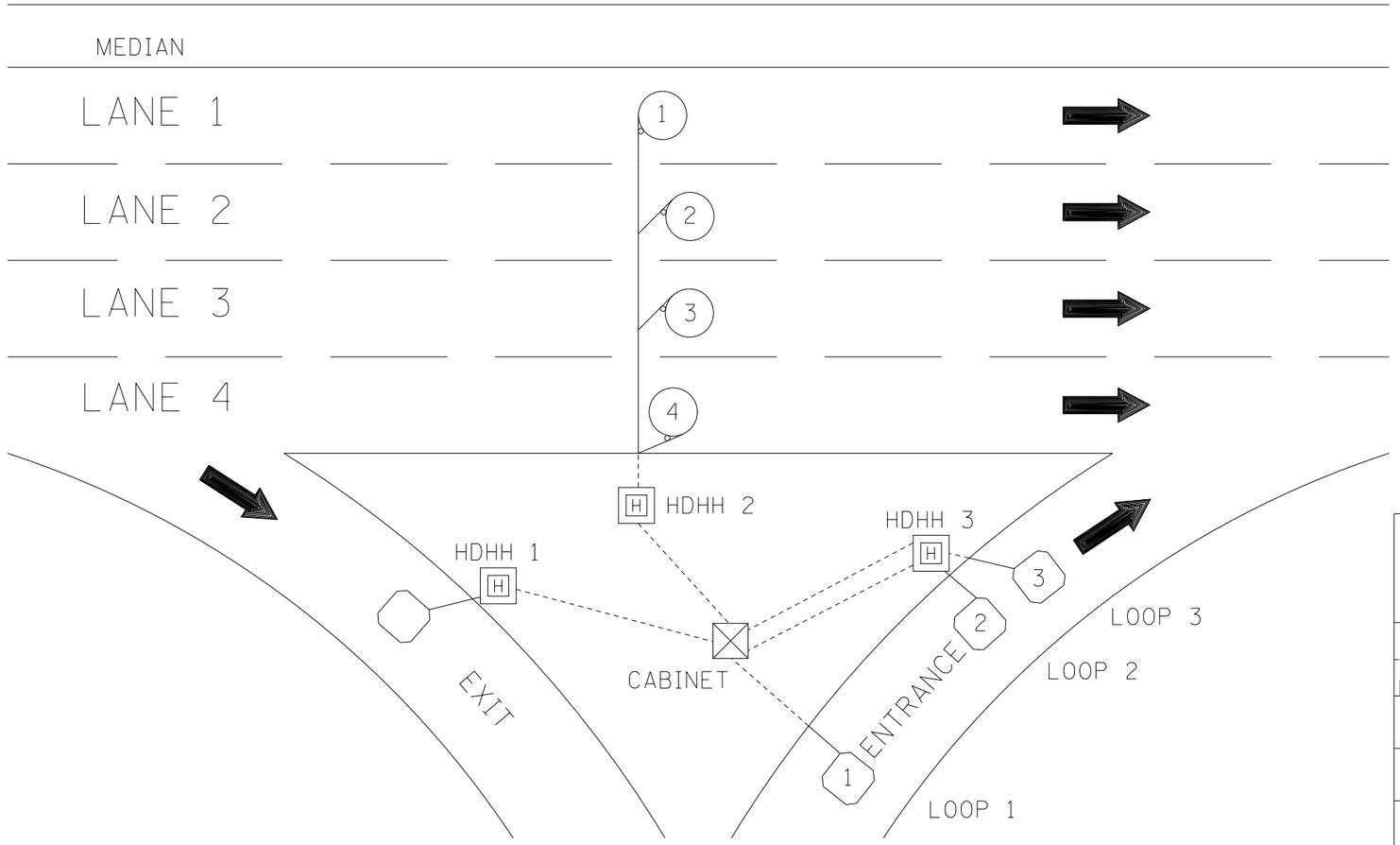
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
TRAFFIC SYSTEMS CENTER

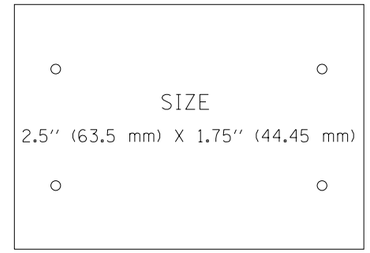
NEW CONSTRUCTION
ROUND INDUCTION LOOP
TYPICAL INSTALLATION

SCALE: N.T.S. | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA. 1

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	425
		CONTRACT NO. 60Y39		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

FILE NAME = D160Y39-sht-ITS-46.dgn





SUGGESTED TAG
PANDUIT
#MP25OW175-C
OR EQUIVALENT

LOOP ANALYZER

LOCATION_____ DATE_____

LOOP LOCATION / LANE DIRECTION	LOOP WIRE MARKED AND CODED	LOOP SIZE	FREQ. INDUCTANCE	INSULATION	LOOP RESISTANCE

HDHH 1 EXAMPLE

IB-EB EXIT
CCW IN/
TO CABINET #____

HDHH 2 EXAMPLE

IB (OB) LANE #___
CCW /OUT
TO CABINET #____

HDHH 3 EXAMPLE

IB-EB ENT.
LOOP #2
CW IN/

NOTE:
EACH LOOP WIRE SHALL BE TAGGED AS ''IN'' OR ''OUT'' AND ''CW'' OR ''CCW''. SHIELDED CABLE WILL BE TAGGED IN EACH HANDHOLE AND CABINET TO MATCH THE CABLE LOG.

HNTB

USER NAME = jblakley	DESIGNED - R.L.	REVISED - 2/1/1998
	DRAWN - G.M.	REVISED - 3/1/1999
PLOT SCALE = 1.00 ' / in.	CHECKED - R.L.	REVISED -
PLOT DATE = 6/14/2017	DATE 06/28/2017	REVISED -

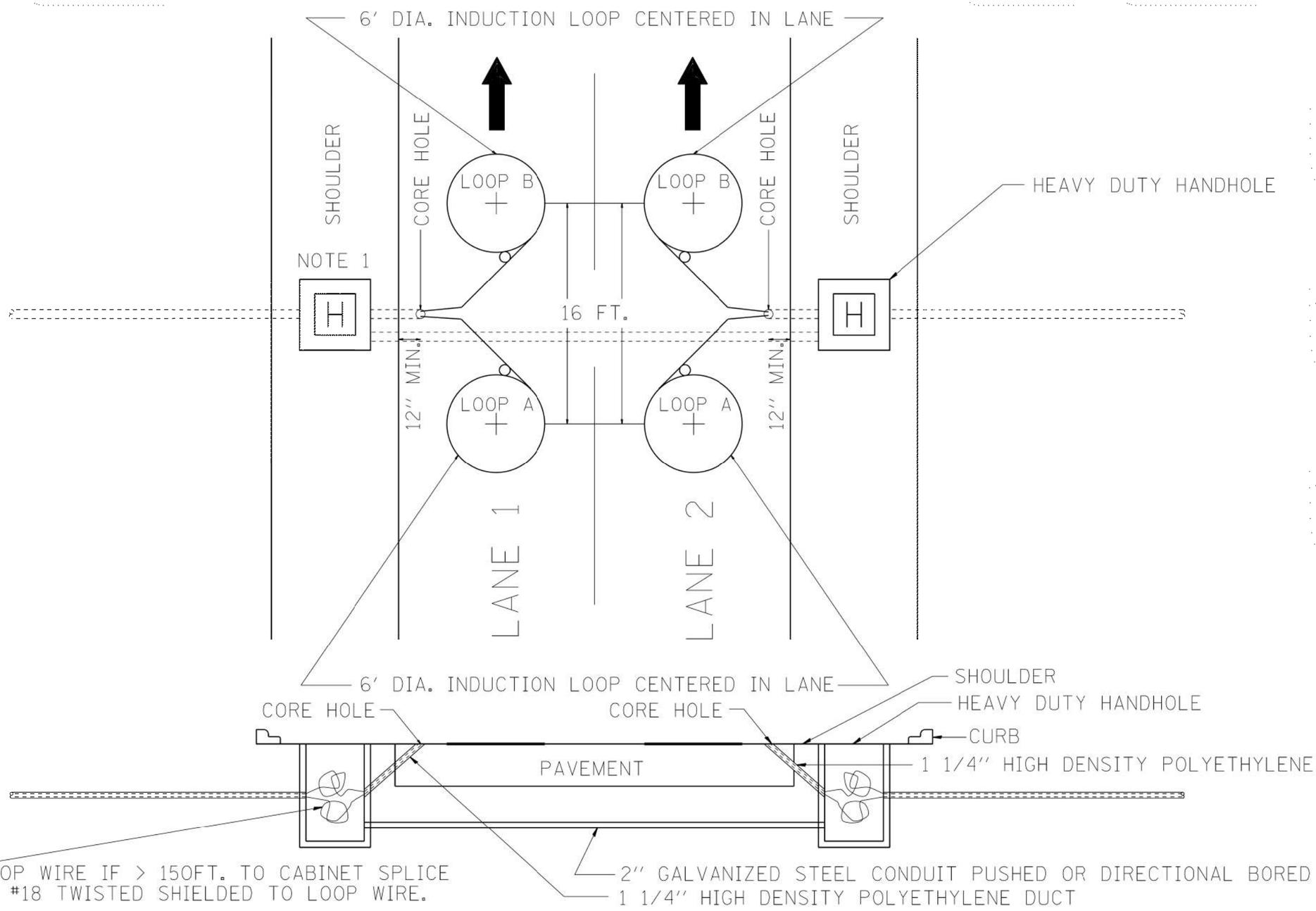
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
TRAFFIC SYSTEMS CENTER

LOOP STATUS REPORT

SCALE: N.T.S. | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	426
		CONTRACT NO. 60Y39		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

FILE NAME = D160Y39-sht-ITS-47.dgn



NOTE 1: IF HDHH NOT POSSIBLE THEN LANE 1 LOOPS USE SAME CORE HOLE AS LANE 2 LOOPS. IN THE OTHER DIRECTION, LANE 2 LOOPS WILL USE SAME CORE HOLE AS LANE 1 LOOPS.

HNTB

USER NAME = jblakley	DESIGNED	REVISED - -
	DRAWN	REVISED -
PLOT SCALE = 1.00 ' / in.	CHECKED	REVISED -
PLOT DATE = 6/14/2017	DATE 06/28/2017	REVISED -

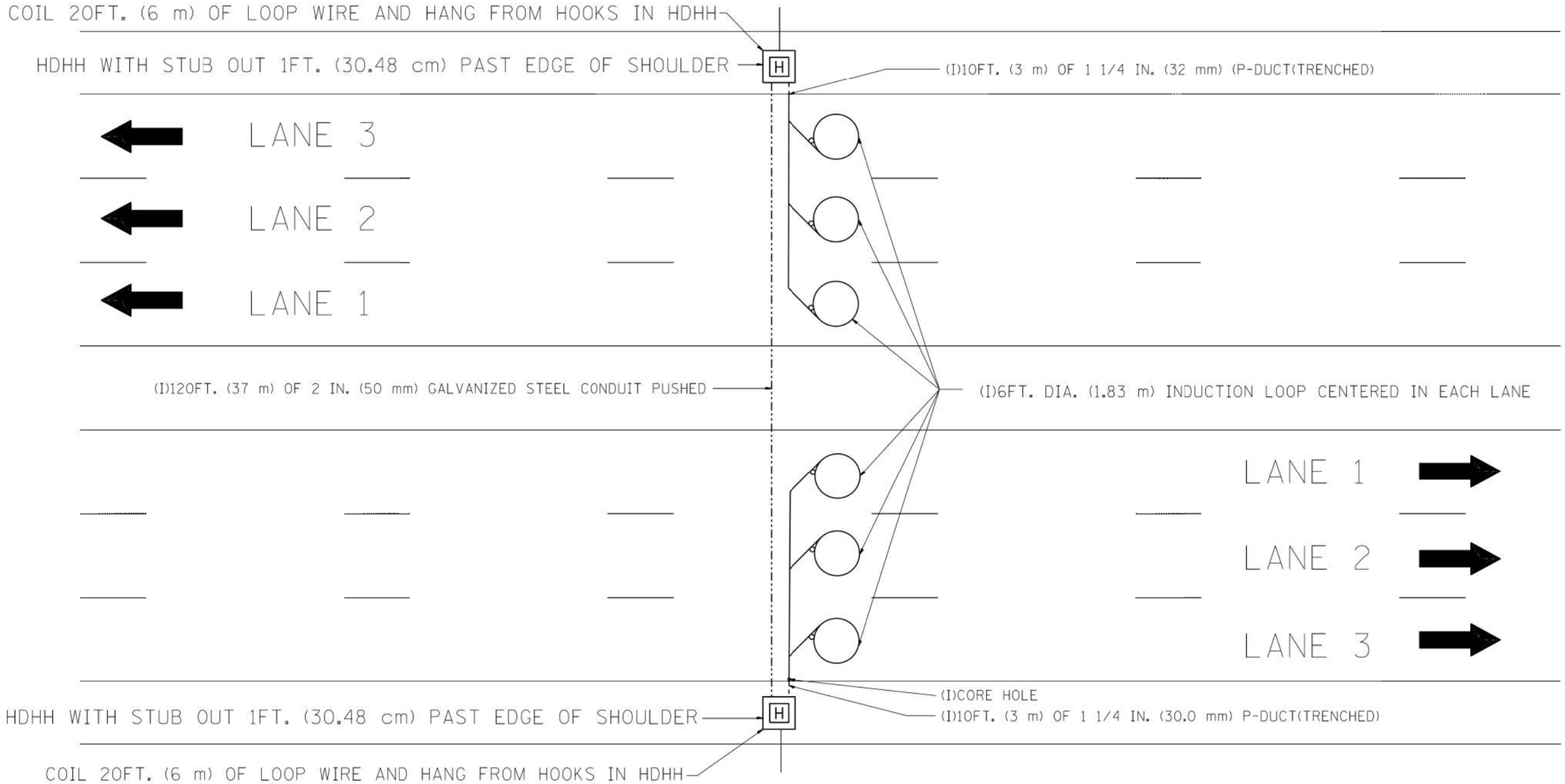
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SURVEILLANCE
2 LANE SPEED, COUNT, CLASSIFICATION STATION

SCALE: N.T.S. | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	427
		CONTRACT NO. 60Y39		
	ILLINOIS FED. AID PROJECT			

FILE NAME = D160Y39-sht-ITS-48.dgn



NOTE:

THE COST OF LOOP WIRE IN HDHH IS INCIDENTAL TO THE INDUCTION LOOP. IT SHALL NOT BE MEASURE FOR PAYMENT.

INSTALL AT STATIONS.

ITS-49

HNTB	USER NAME = jblakley	DESIGNED	REVISED - -
		DRAWN	REVISED -
	PLOT SCALE = 1.00 ' / in.	CHECKED	REVISED -
	PLOT DATE = 6/14/2017	DATE 06/28/2017	REVISED -

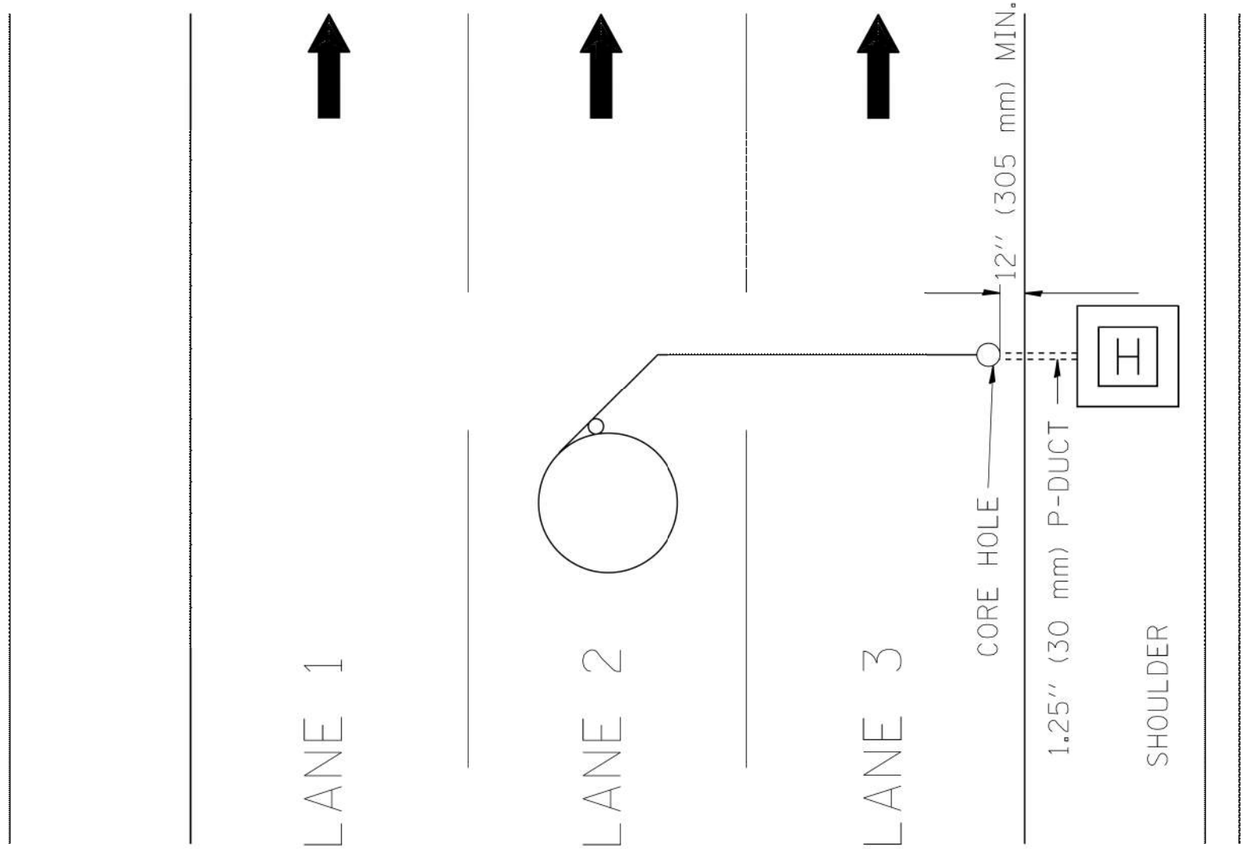
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

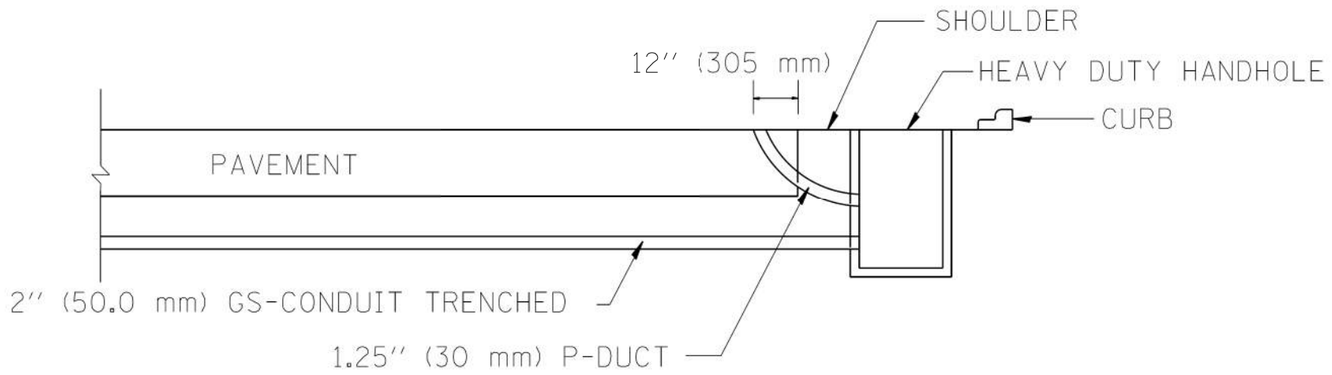
3 LANE COUNT STATION

SCALE: N.T.S. | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	428
		CONTRACT NO. 60Y39		
	ILLINOIS FED. AID PROJECT			

FILE NAME = D160Y39-sht-ITS-49.dgn





HNTB

USER NAME = jblakley	DESIGNED	REVISED - -
	DRAWN	REVISED -
PLOT SCALE = 1.00 ' / in.	CHECKED	REVISED -
PLOT DATE = 6/14/2017	DATE 06/28/2017	REVISED -

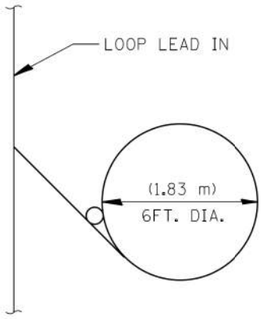
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DIVE HOLE DUCT SYSTEM

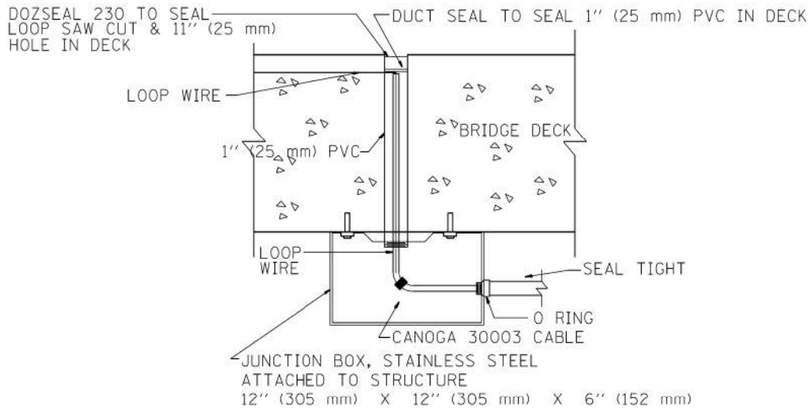
SCALE: N.T.S. | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	429
		CONTRACT NO. 60Y39		
	ILLINOIS	FED. AID PROJECT		

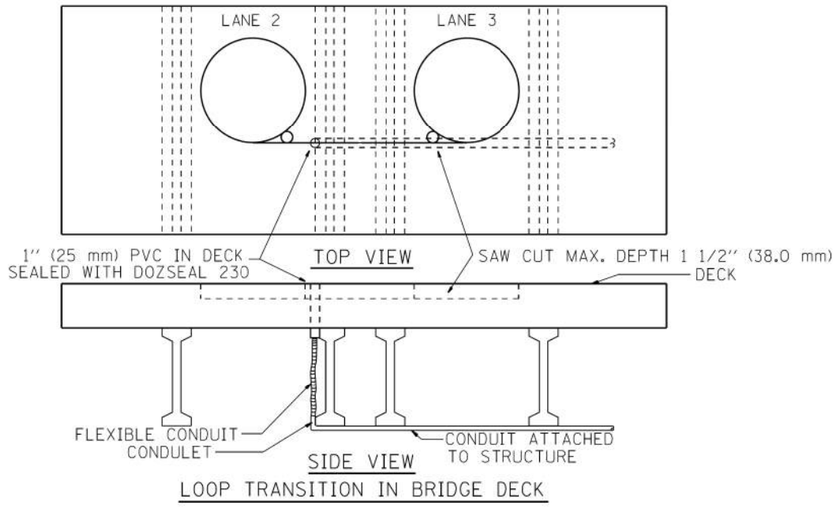
FILE NAME = D160Y39-sht-ITS-50.dgn



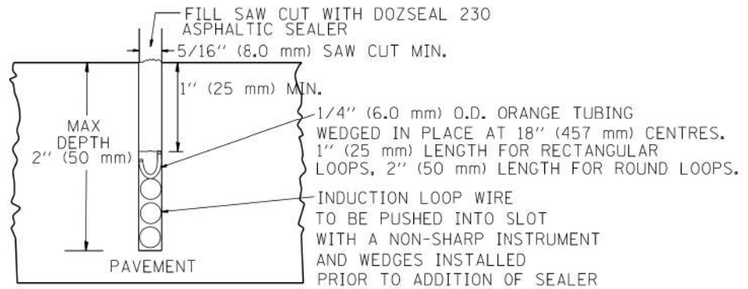
TYPICAL LOOP SAWCUT LAYOUT



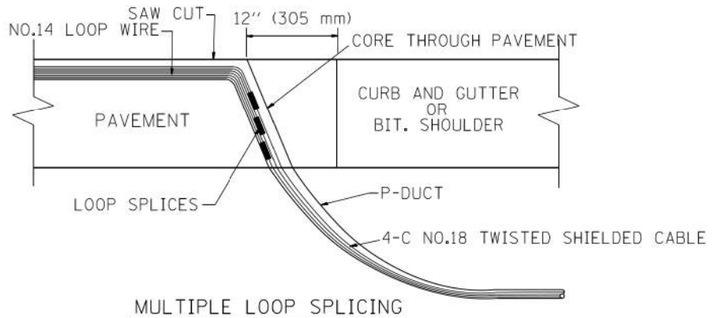
LOOP JUNCTION BOX UNDER BRIDGE DECK



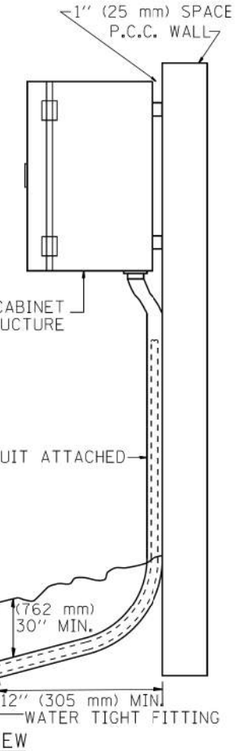
LOOP TRANSITION IN BRIDGE DECK



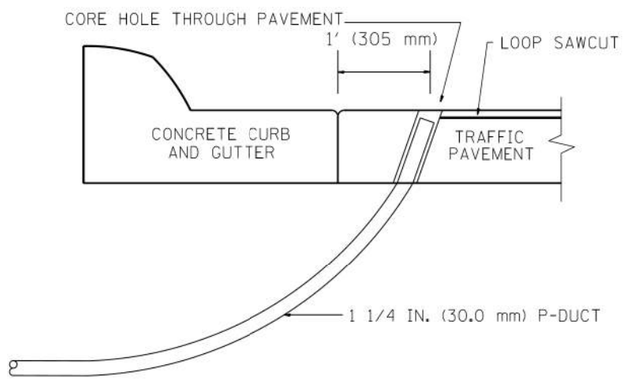
LOOP CROSS SECTION IN PAVEMENT



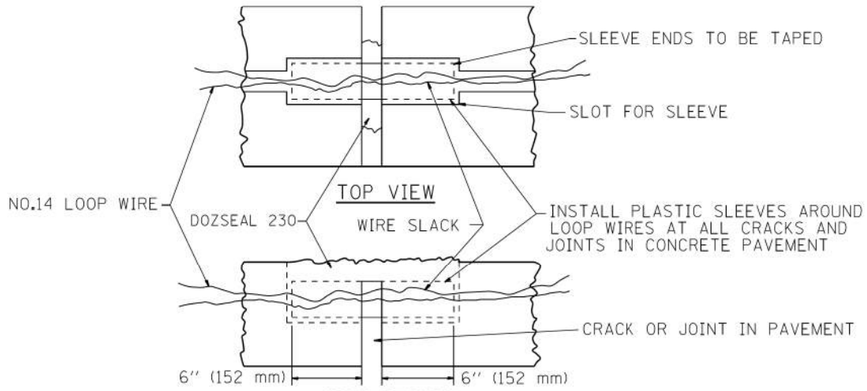
MULTIPLE LOOP SPLICING



POLYETHYLENE DUCT/GS. CONDUIT TRANSITION



SIDE SECTION LOOP LEAD-IN TRANSITION DETAIL



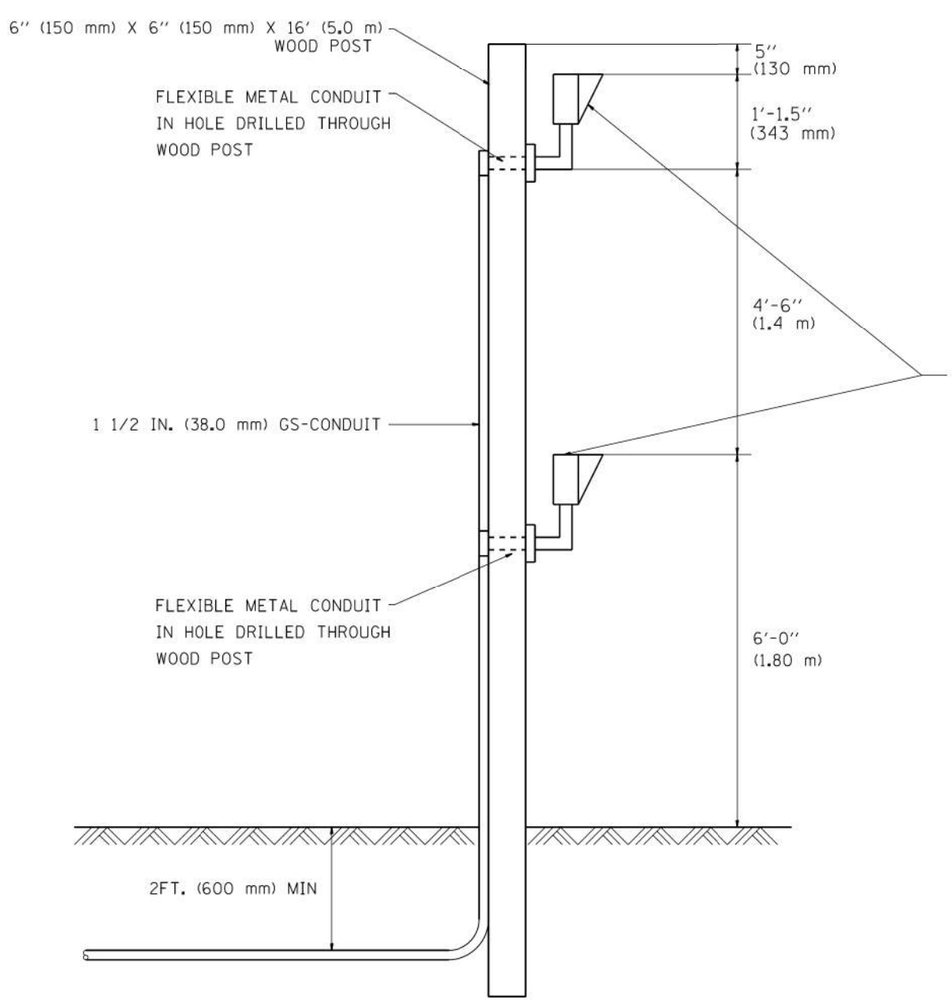
PAVEMENT CRACK TRANSVERSE SLEEVE

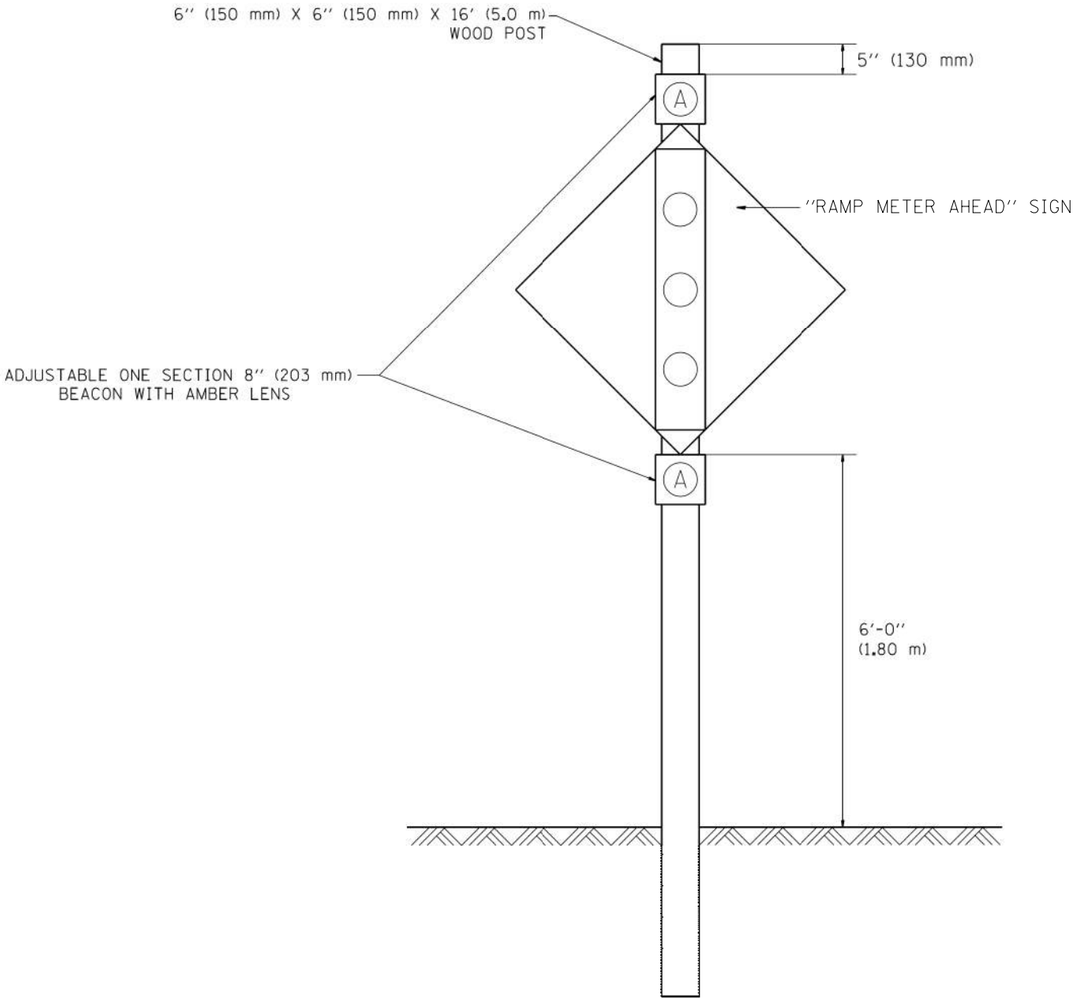
ITS–51

HNTB	USER NAME = jblakley	DESIGNED	REVISED - -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LOOP, CONDUIT & DUCT INSTALLATION DETAILS			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN	REVISED -					90	(1517 & 1415) R-2	COOK	734	430
	PLOT SCALE = 1.00 ' / in.	CHECKED	REVISED -							CONTRACT NO. 60Y39		
	PLOT DATE = 6/14/2017	DATE 06/28/2017	REVISED -		SCALE: N.T.S.	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.			ILLINOIS FED. AID PROJECT		

FILE NAME = D160Y39-sht-ITS-51.dgn

NOT TO SCALE





NOTE:

1) SIGN WILL BE PLACED ON THE FRONT FACE OF WOOD POST BY CONTRACTOR. 4'-6'' (1.4 m) DIMENSION MUST BE KEPT FREE OF CONDUIT AND CONNECTIONS TO PREVENT INTERFERENCE WITH SIGN PLACEMENT.
2) WOOD POST SHALL NOT BE SET IN CONCRETE (REFER TO SPECIAL PROVISIONS).
3) A CLEAR LAMP ESPECIALLY DESIGNED FOR TRAFFIC SIGNAL SERVICE SHALL BE RATED AT 67 WATTS, 120 VOLTS.

ITS-52

HNTB

USER NAME = jblakley	DESIGNED	REVISED - -
	DRAWN	REVISED -
PLOT SCALE = 1.00 ' / in.	CHECKED	REVISED -
PLOT DATE = 6/14/2017	DATE 06/28/2017	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FLASHER DETAIL SHEET

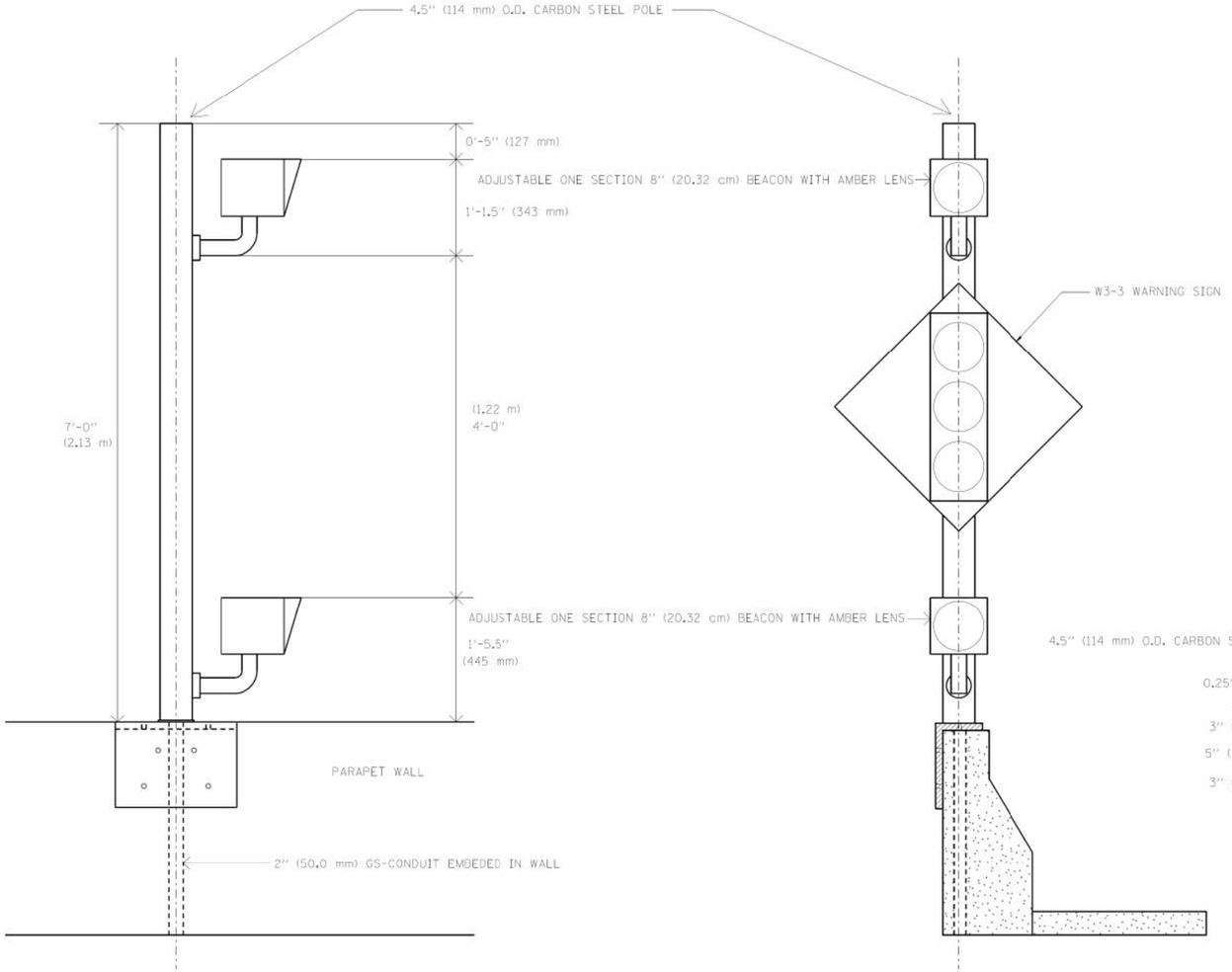
SCALE: N.T.S. | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	431
		CONTRACT NO. 60Y39		
	ILLINOIS FED. AID PROJECT			

FILE NAME = D160Y39-sht-ITS-52.dgn

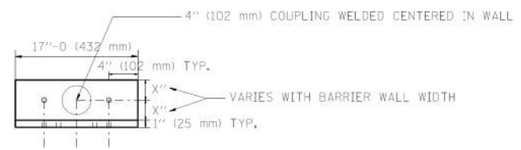
FOR INFORMATION ONLY

FLASHER SIGN SHALL BE INSTALLED IN PAVEMENT BEHIND GUARDRAIL

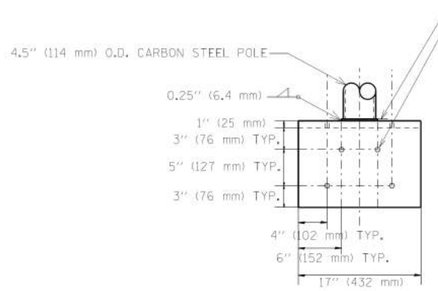


SIDE VIEW

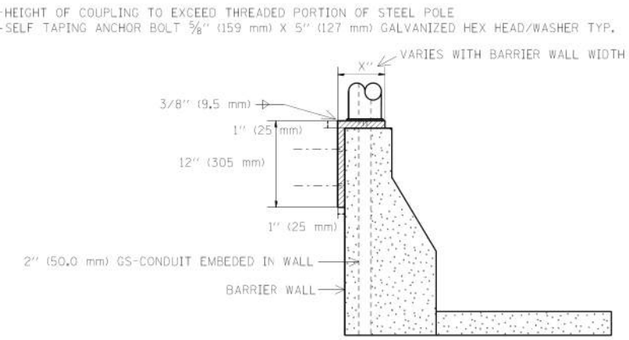
FRONT VIEW



TOP VIEW



FRONT VIEW



SIDE VIEW

FLASHER POST ON BARRIER WALL

SADDLE MOUNTING FOR FLASHER POST

HNTB

USER NAME = jblakley	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 1.00 ' / in.	CHECKED -	REVISED -
PLOT DATE = 6/22/2017	DATE 06/28/2017	REVISED -

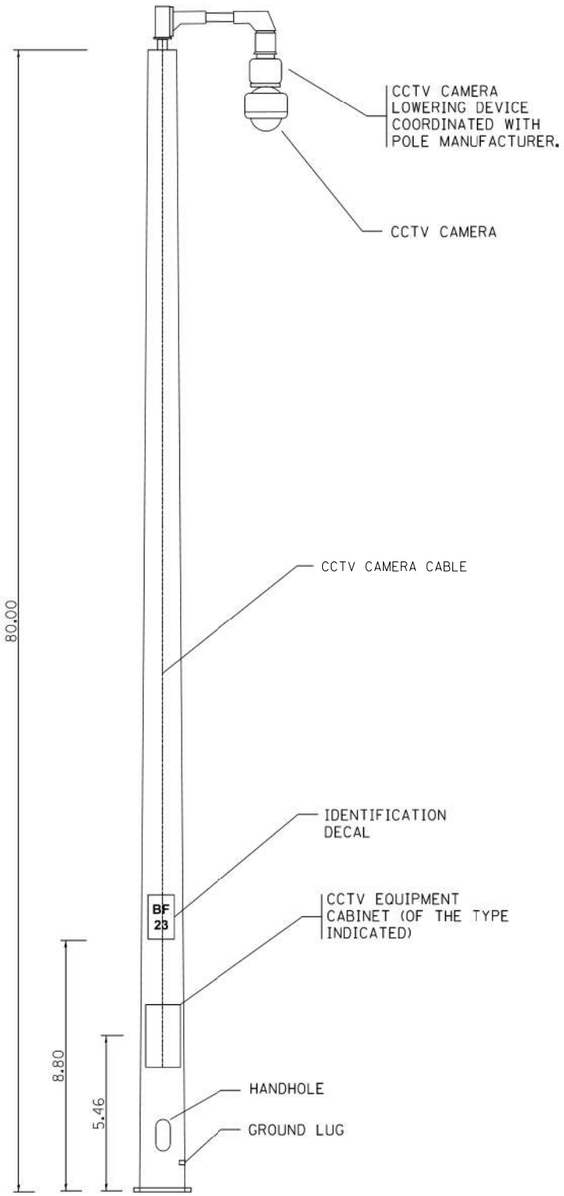
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FLASHER DETAIL
ON BARRIER WALL
(TY-1TSC-400#14)

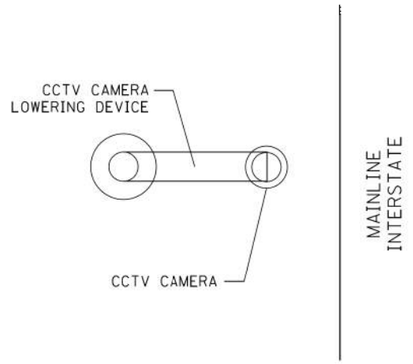
SCALE: N.T.S. | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	432
		CONTRACT NO. 60Y39		
	ILLINOIS	FED. AID PROJECT		

FILE NAME = D160Y39-sht-ITS-53.dgn



ELEVATION



TOP VIEW

GENERAL NOTES

1. LOCATIONS OF THE CCTV CAMERA INSTALLATIONS ARE APPROXIMATE. THE CONTRACTOR MAY ADJUST THE LOCATIONS OF THE INSTALLATIONS TO FACILITATE INSTALLATION WITH WRITTEN APPROVAL OF THE RESIDENT ENGINEER AND THE ELECTRICAL DESIGN SECTION. ALL STANDARD NON-FRANGIBLE SETBACK REQUIREMENTS AS WELL AS CLEAR ZONE REQUIREMENTS SHALL BE MAINTAINED.
2. THE POLE SHALL BE A MAXIMUM OF THREE SECTIONS FOR FIELD ASSEMBLY.
3. THE POLE SHAFTS SHALL BE A ROUND CROSS SECTION. THE BOTTOM SECTION SHALL HAVE A MINIMUM .3125 WALL THICKNESS AND A MINIMUM DIAMETER OF $23\frac{9}{12}$. THE POLE SHALL HAVE A PROVISION FOR VENTING AT THE TOP AND BOTTOM TO PREVENT CONDENSATION BUILDUP ON THE INTERIOR OF THE POLE SHAFT.
4. CABLE SUPPORTS SHALL BE PROVIDED FOR ALL CABLES INSIDE OF POLE SO THAT NO CABLE LOADING IS EXCEEDED. CALCULATIONS SHALL BE SUBMITTED FOR THE CABLES BEING FURNISHED.
5. ALL EQUIPMENT SHALL BE GROUNDED.
6. DOCUMENTATION SHALL BE SUBMITTED THAT THE POLE IS FULLY COORDINATED WITH THE CAMERA LOWERING DEVICE.
7. ALL CABLES, INCLUDING LOWERING DEVICE CABLES, SHALL BE WITHIN THE POLE SHAFT. EXTERNAL CABLING WILL NOT BE PERMITTED.
8. UNLESS OTHERWISE INDICATED, OR AS DIRECTED BY THE ENGINEER, THE CAMERA LOWERING DEVICE SHALL BE ORIENTED PERPENDICULAR TO THE MAINLINE INTERSTATE FOR THE LEAST OBSTRUCTED VIEW OF THE INTERSTATE ROADWAY.

MATERIAL REQUIREMENTS		
COMPONENT	ASTM DESIGNATION	MIN. YIELD (KSI)
POLE SHAFT	A572, OR A1011	50
BASE PLATE	A572, OR A1011	50
POLE TOP PLATE	A572, OR A1011	50
ANCHOR BOLTS	F1554	55
GALVANIZING, STRUCTURE	A123	N/A
GALVANIZING, HARDWARE	A153	N/A

HNTB

USER NAME = jblakley	DESIGNED R.L.	REVISED - -	
	DRAWN G.M.	REVISED -	
PLOT SCALE = 1.00 ' / in.	CHECKED R.L.	REVISED -	
PLOT DATE = 6/14/2017	DATE 06/28/2017	REVISED -	

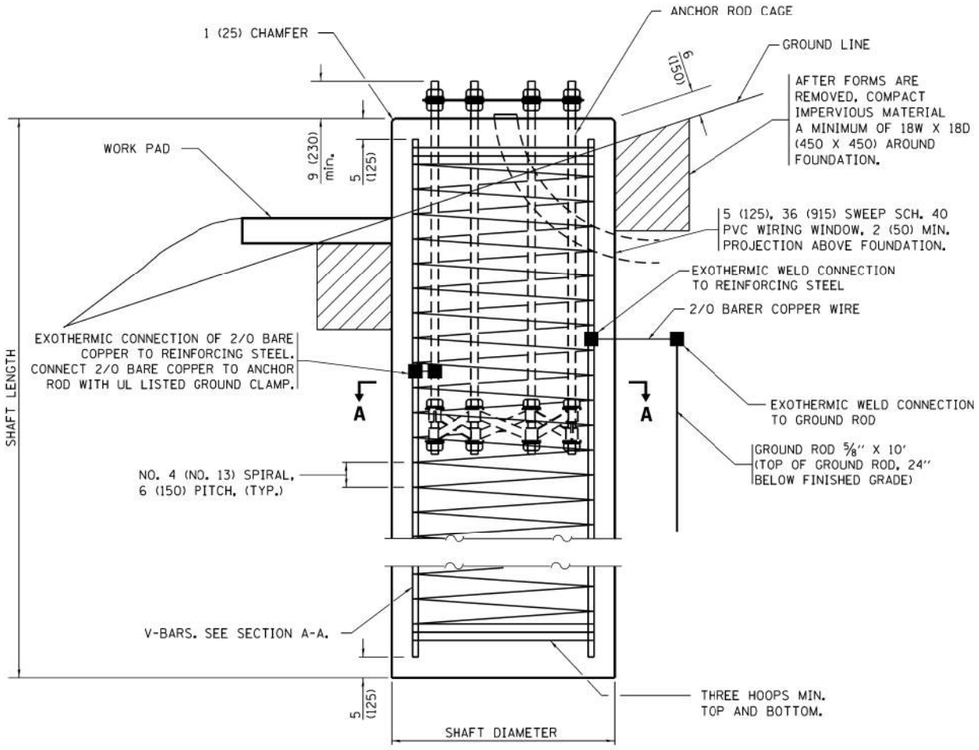
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CCTV CAMERA STRUCTURES
80 FT M.H., GALVANIZED STEEL

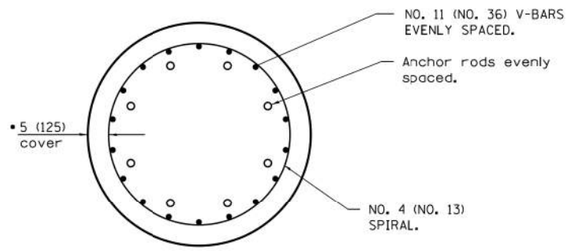
SCALE: N.T.S. | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	433
		CONTRACT NO. 60Y39		
	ILLINOIS	FED. AID PROJECT		

FILE NAME = D160Y39-sht-ITS-54.dgn



FOUNDATION ELEVATION



SECTION A–A

• SEE ROD AND REINFORCEMENT TABLE.

SHAFT LENGTH TABLE			
SOIL CONSISTENCY		AVERAGE STRENGTH	HEIGHT
		Qu in tsf (Qu in kPa)	80' (24 m)
Cohesive	SOFT	< 0.5 (< 50)	20'-6" (6.2 m)
	MEDIUM	0.5 to 1 (50 to 100)	17'-0" (5.1 m)
	STIFF	1 to 2 (100 to 200)	14'-6" (4.4 m)
	VERY STIFF	2 to 4 (200 to 400)	13'-0" (3.8 m)
	HARD	> 4 (> 400)	11'-6" (3.5 m)
		N in BLOWS/FT. (N in BLOWS/0.3m)	
Granular	VERY LOOSE	< 5 (< 5)	16'-6" (5.0 m)
	LOOSE	5 to 10 (5 to 10)	15'-0" (4.6 m)
	MEDIUM	10 to 25 (10 to 25)	14'-6" (4.4 m)
	DENSE	25 to 50 (25 to 50)	14'-0" (4.1 m)
	VERY DENSE	> 50 (> 50)	13'-0" (3.9 m)

HNTB

USER NAME = jblakley	DESIGNED R.L.	REVISED - -
	DRAWN G.M.	REVISED -
PLOT SCALE = 1.00 ' / in.	CHECKED R.L.	REVISED -
PLOT DATE = 6/14/2017	DATE 06/28/2017	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CCTV CAMERA STRUCTURE, 80 FT M.H.,
FOUNDATION SHEET 1 OF 2

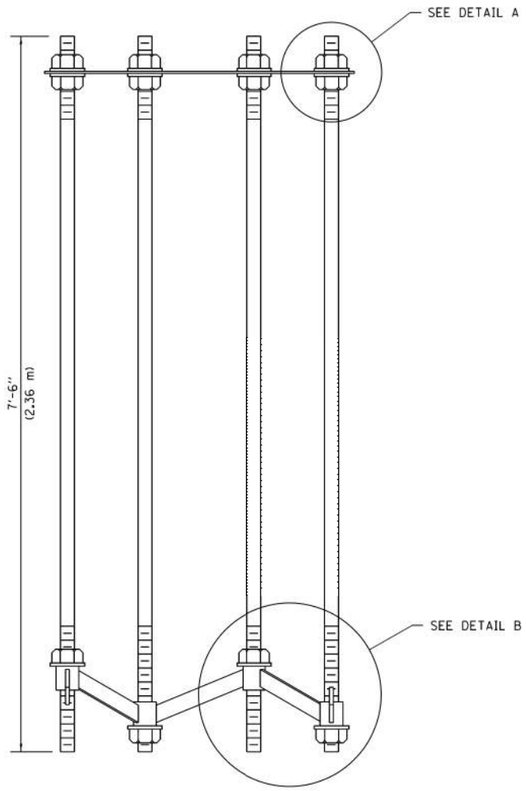
SCALE: N.T.S. | SHEET NO. 1 OF 2 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	434
		CONTRACT NO. 60Y39		
	ILLINOIS FED. AID PROJECT			

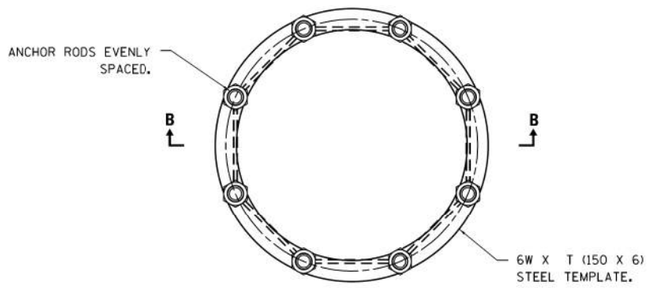
FILE NAME = D160Y39-sht-ITS-55.dgn

ROD AND REINFORCEMENT TABLE					
TOWER HEIGHT	ANCHOR ROD DIAM. (MIN)	ROD CIRCLE DIAM. (MIN)	TOWER BASE DIAM. (MIN)	DRILLED SHAFT DIAM. (1)	V BAR QTY.
80′ (25 m)	1½ (38)	30 (760)	24 (610)	4′-0″ (1.2 m)	14

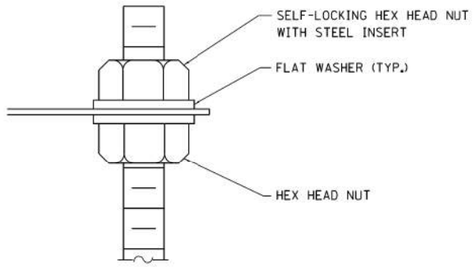
(1) DIAMETER BASED ON A 5 (125) CONC. COVER. THE MIN. COVER SHALL BE 3 (75) IN DRY SHAFT EXCAVATION AND 4 (100) IN A WET HOLE. WHEN ROCK IS ENCOUNTERED A 5 (125) COVER AGAINST SOIL AND A 2 (50) COVER AGAINST ROCK SHALL BE REQUIRED.



SECTION B–B



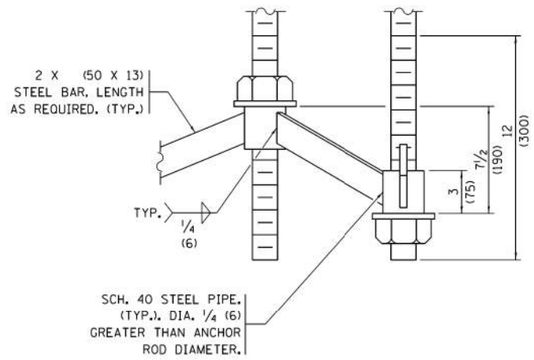
ANCHOR ROD CAGE (PLAN)



DETAIL A

GENERAL NOTES

1. ANCHOR ROD QUANTITY, DIAMETER, AND LENGTH SHALL BE DETERMINED BY THE CCTV STRUCTURE MANUFACTURER AND APPROVED BY THE ENGINEER. EACH FOUNDATION SHALL HAVE A MINIMUM OF 8 ANCHOR RODS.
2. ALL FOUNDATION REINFORCEMENT STEEL SHALL BE EPOXY COATED.
3. THE COST OF REINFORCEMENT SHALL BE INCLUDED IN THE COST OF THE FOUNDATION.
4. STEEL ANCHOR ROD FORMS SHALL NOT BE REMOVED FOR A MINIMUM OF 3 DAYS AFTER CONCRETE IS POURED. THE TOWER SHALL NOT BE SET FOR A MINIMUM OF 7 DAYS OR AS APPROVED BY THE ENGINEER.
5. COORDINATE THE ROD CIRCLE DIAMETER OF THE STRUCTURE WITH THE DIAMETER OF THE ANCHOR ROD CAGE.
6. THE FOUNDATION SHALL BE POURED MONOLITHICALLY AND SHALL HAVE NO CONSTRUCTION JOINTS.
7. GROUNDING ELECTRODES SHALL BE INSTALLED IN AN ACCESS WELL WHEN THERE IS A CONFLICT IN USING THE METHOD SHOWN.
8. ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.



DETAIL B

HNTB

USER NAME = jblakley	DESIGNED R.L.	REVISED - -	
	DRAWN G.M.	REVISED -	
PLOT SCALE = 1.00 ′ / in.	CHECKED R.L.	REVISED -	
PLOT DATE = 6/14/2017	DATE 06/28/2017	REVISED -	

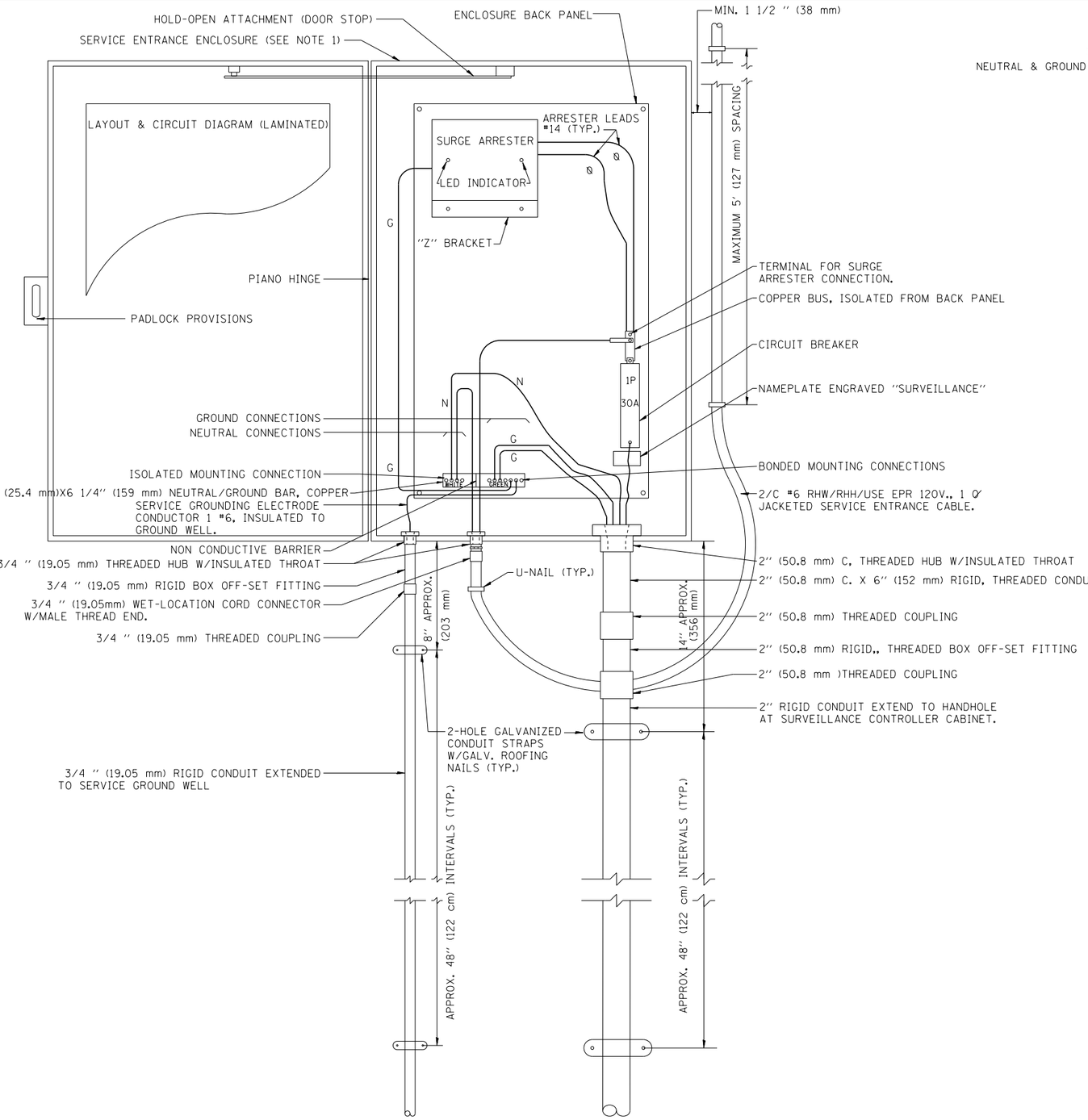
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CCTV CAMERA STRUCTURE, 80 FT M.H., FOUNDATION, SHEET 2 OF 2

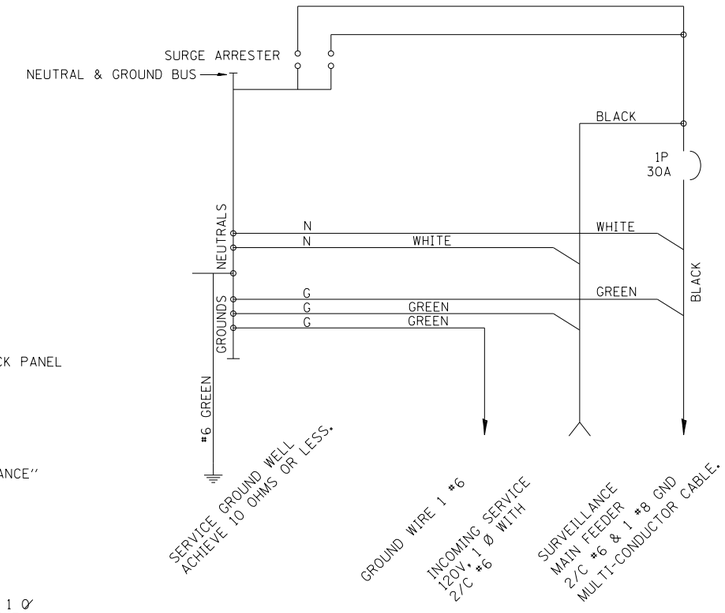
SCALE: N.T.S. | SHEET NO. 2 OF 2 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	435
		CONTRACT NO. 60Y39		
	ILLINOIS FED. AID PROJECT			

FILE NAME = D160Y39-sht-ITS-56.dgn



ELECTRIC SERVICE GENERAL LAYOUT DIAGRAM



SCHEMATIC DIAGRAM

NOTES:

1.- ELECTRIC SERVICE SHALL BE OF THE VOLTAGE INDICATED. WHERE 120-VOLT SERVICE IS INDICATED, SERVICE DROP CABLE SHALL BE INSTALLED ACCORDINGLY AND LIGHTING MAIN FEEDER CABLE SHALL BE OMITTED.

2.- THE ELECTRIC SERVICE BOX SHALL BE NEMA 4X STAINLESS STEEL, NOMINALLY 12" (305 mm) X 18" (457 mm) X 8" (203 mm), WITH PIANO HINGED DOOR, STEEL BACK PANEL, FAST-ACTING STAINLESS STEEL ENCLOSURE CLAMPS, PADLOCK PROVISIONS, DOOR STOP KIT AND STEEL BACK PANEL, HOFFMAN CATALOG A-16H1208SS6LP/A-16P2/A-DSTOPK/C-PMK12, OR APPROVED EQUAL.

3.- THE ELECTRIC SERVICE EQUIPMENT ASSEMBLY SHALL BE UL LABELED, SUITABLE FOR USE AS SERVICE EQUIPMENT.

4.- CIRCUIT BREAKERS SHALL BE THERMAL MAGNETIC BOLT-ON TYPE WITH A MINIMUM INTERRUPTING CAPACITY OF 25,000 SYMMETRICAL AMPERES AT 240 VOLTS. THEY SHALL BE LOCKABLE IN THE "OFF" POSITION FOR COMPLIANCE WITH OSHA LOCK-OUT/TAG-OUT REQUIREMENTS. HANDLES SHALL BE ⚠ TRIP FREE.

5.- THE SURGE PROTECTOR SHALL BE SUITABLE FOR 240/120 VOLT SINGLE PHASE 60HZ AC ELECTRICAL SERVICE, WITH A SURGE ENERGY CAPABILITY OF >3600 JOULES OR BETTER AT 8/20 MICROSECONDS, RATED -40 TO 65 DEGREES C., WITH LED OPERATING INDICATORS, AND SHALL BE UL LISTED PER UL 1449, CUTLER-HAMMER CMOV 230L065XST OR APPROVED EQUAL. SURGE PROTECTOR SHALL BE WIRED FOR 120 V SERVICE. FOLLOW MANUFACTURER RECOMMENDED WIRING SPECIFICATIONS.

6.- BUS BARS, CONNECTORS AND LUGS SHALL BE COPPER, INSULATED AND ISOLATED AND CONFIGURED TO PREVENT SHORTED CONDITIONS FROM TIGHTENING TERMINATIONS, ETC. THE OVERALL BUS SECTION SHALL BE CONFIGURED BEHIND AN INSULATING BARRIER SHIELD WHICH IS REMOVABLE FOR ACCESS TO CONNECTIONS.

7.- THE COMBINATION GROUND AND NEUTRAL BAR SHALL BE CONFIGURED WITH SEPARATE GROUND AND NEUTRAL SECTIONS AND SPARE TERMINALS AS INDICATED. THE HEADS OF GROUND SCREWS SHALL BE PAINTED GREEN. THE HEADS OF NEUTRAL SCREWS SHALL BE PAINTED WHITE.

8.- A PLASTIC LAMINATED LAYOUT AND CIRCUIT DIAGRAM SHALL BE AFFIXED TO THE INTERIOR SIDE OF THE ENCLOSURE DOOR.

9.- A 2-COLOR ENGRAVED PLASTIC NAMEPLATE, ATTACHED WITH SCREWS, AND ENGRAVED AS INDICATED, SHALL BE PROVIDED FOR EACH MAIN BREAKER.

10.- PROVIDE ON LAYOUT AND CIRCUIT DIAGRAM A BILL OF MATERIALS USED WITH CATALOG NUMBERS.

11.- REFER TO T.S.C. TYPICAL DRAWING TY-1TSC-400#20 FOR POLE MOUNTED DISCONNECT MOUNTING DETAILS.

ITS-57

HNTB

USER NAME = jblakley	DESIGNED - R.L.	REVISED - -
	DRAWN - G.M.	REVISED -
PLOT SCALE = 1.00 ' / in.	CHECKED - R.L.	REVISED -
PLOT DATE = 6/14/2017	DATE 06/28/2017	REVISED -

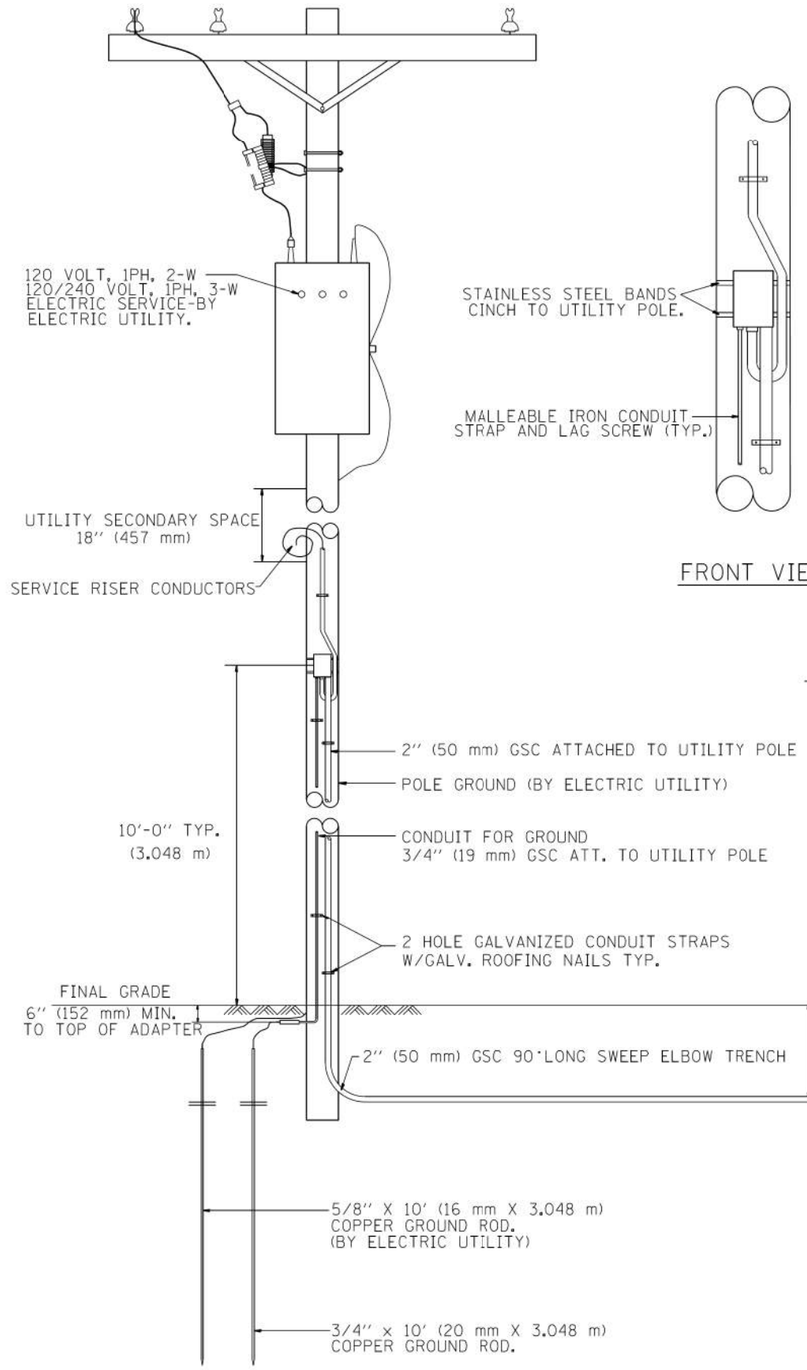
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT 1 SURVEILLANCE POLE-MOUNTED
ELECTRIC SERVICE BOX DETAIL
(#TY-1TSC-400#19)

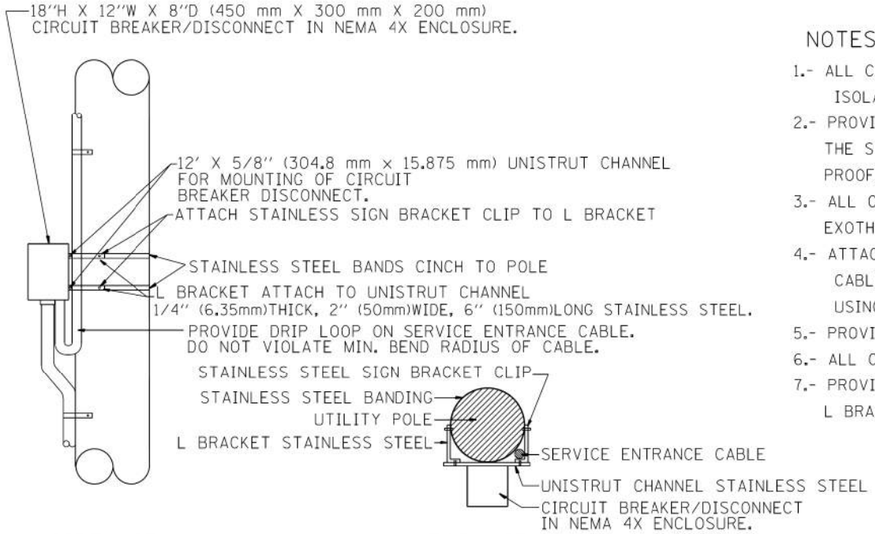
SCALE: N.T.S. | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	436
		CONTRACT NO. 60Y39		
		ILLINOIS	FED. AID PROJECT	

FILE NAME = D160Y39-sht-ITS-57.dgn



FRONT VIEW



SIDE VIEW

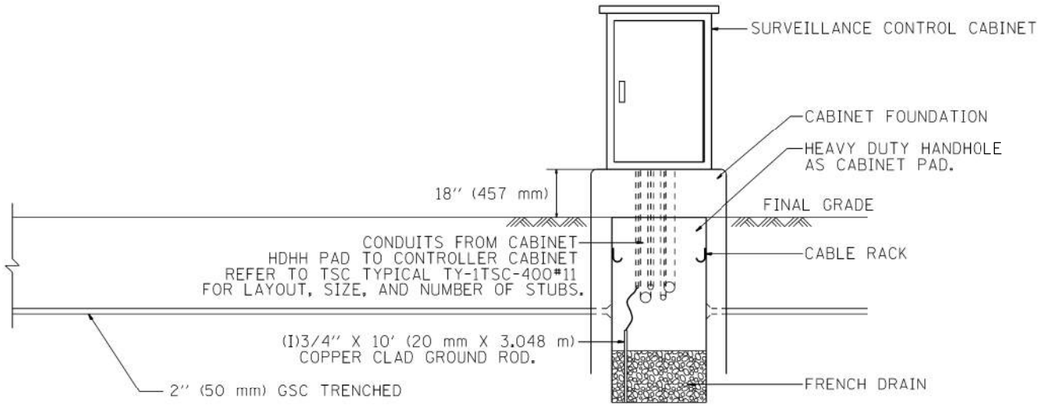
TOP VIEW

NOTES:

1.- ALL CONDUIT BUSHINGS SHALL HAVE AN ISOLATED THROAT.
2.- PROVIDE HEAT SHRINK BOOT AT THE TOP OF THE SERVICE ENTRANCE CABLE FOR MOISTURE PROOFING.
3.- ALL CONNECTIONS TO GROUND RODS SHALL BE EXOTHERMIC UNLESS OTHERWISE NOTED.
4.- ATTACH INCOMING ELECTRIC SERVICE CABLE TO UTILITY POLE EVERY 5 FEET USING INSULATED U-NAIL.
5.- PROVIDE CABLE RACK IN HANDHOLES.
6.- ALL CONDUCTORS SHALL BE COPPER.
7.- PROVIDE STAINLESS STEEL HARDWARE TO ATTACH L BRACKETS TO UNISTRUT AND TO SIGN HANGER.

NTS

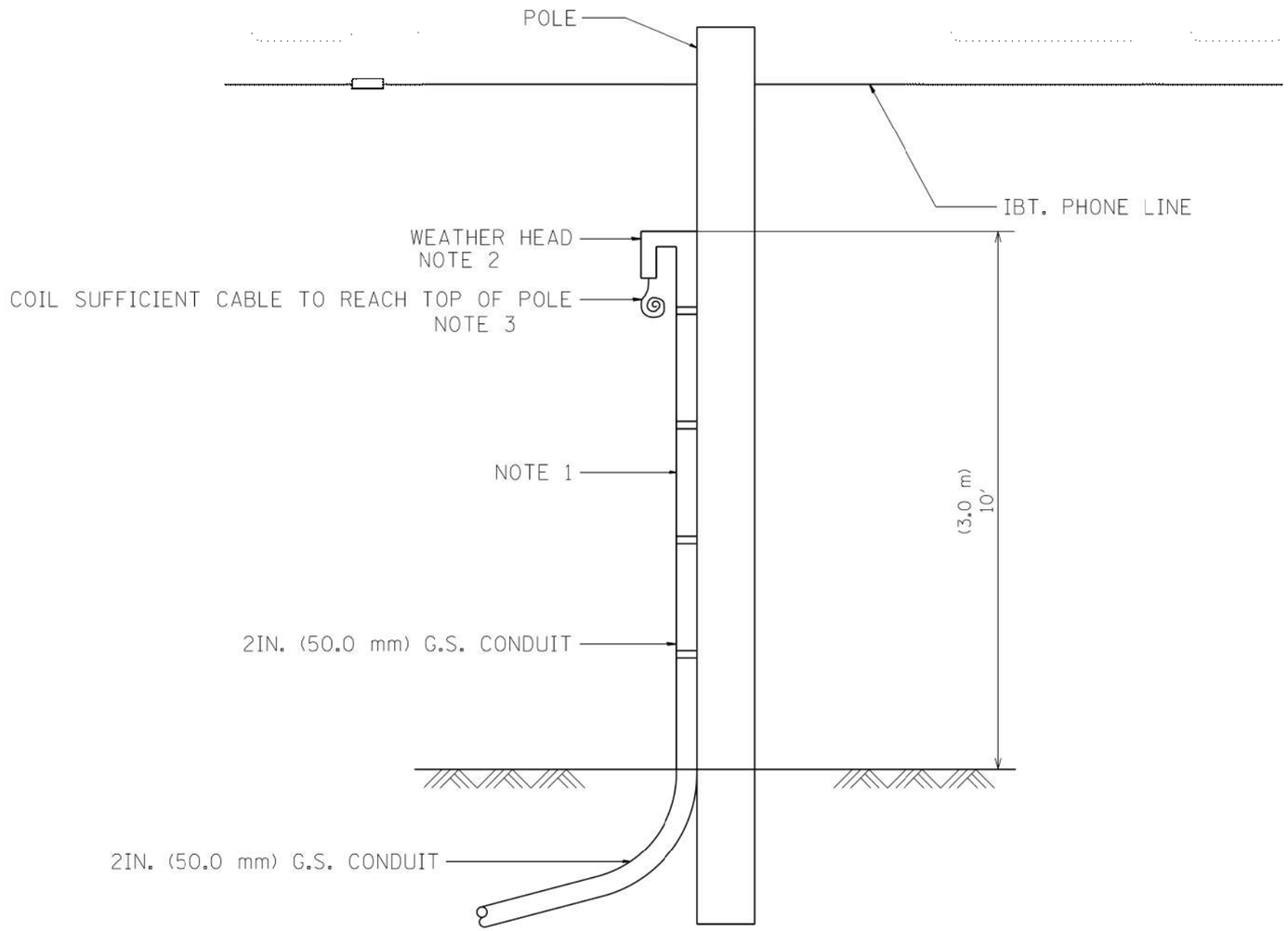
DISCONNECT MOUNTING DETAIL



ITS–58

HNTB	USER NAME = jblakley	DESIGNED	REVISED - -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	POLE MOUNTED DISCONNECT MOUNTING DETAILS (#TY-1TSC-400#20)	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
		DRAWN	REVISED -			90	(1517 & 1415) R-2	COOK	734 / 437
	PLOT SCALE = 1.00 ' / in.	CHECKED	REVISED -					CONTRACT NO. 60Y39	
	PLOT DATE = 6/14/2017	DATE 06/28/2017	REVISED -		SCALE: N.T.S. SHEET NO. 1 OF 1 SHEETS STA. TO STA.			ILLINOIS FED. AID PROJECT	

FILE NAME = D160Y39-sht-ITS-58.dgn



TELEPHONE SERVICE ON POLE

NOTES:

1. 2IN. (50 mm) DIAMETER 10 FT. (3.0 m) LONG G.S. CONDUIT SECTION, FURNISHED AND INSTALLED UNDER PAY ITEM FOR TELEPHONE SERVICE INSTALLATION.
2. WEATHER HEAD SHALL BE CONSIDERED INCIDENTAL TO TELEPHONE SERVICE INSTALLATION PAY ITEM.
3. SEE DRAWINGS FOR CABLE SIZE AND QUANTITY.

ITS–59

HNTB

USER NAME = jblakley	DESIGNED	REVISED - -
	DRAWN	REVISED -
PLOT SCALE = 1.00 ' / in.	CHECKED	REVISED -
PLOT DATE = 6/14/2017	DATE 06/28/2017	REVISED -

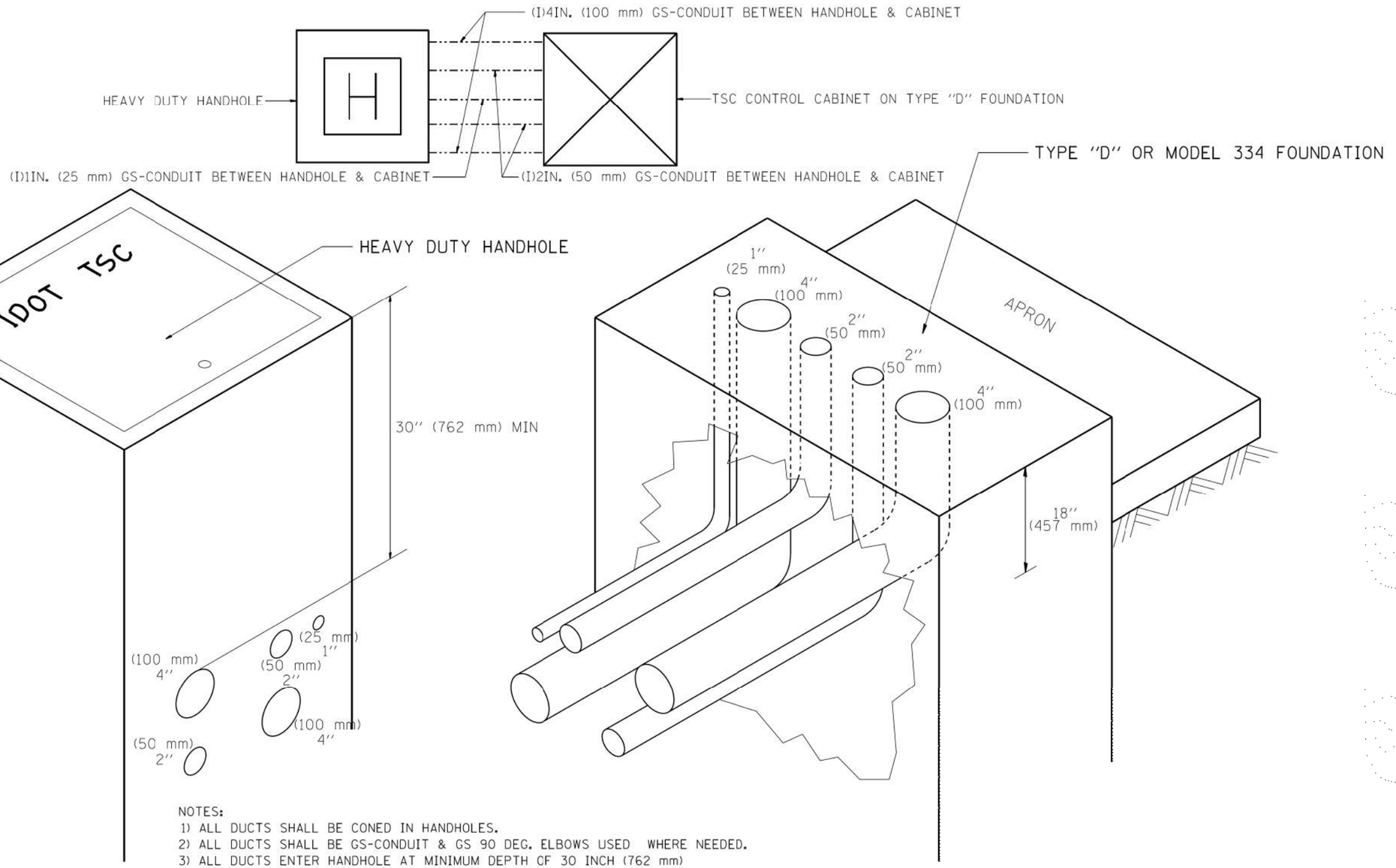
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TELEPHONE INSTALLATION DETAILS

SCALE: N.T.S. | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	438
		CONTRACT NO. 60Y39		
	ILLINOIS	FED. AID PROJECT		

FILE NAME = D160Y39-sht-ITS-59.dgn



NOTES:

1) ALL DUCTS SHALL BE CONED IN HANDHOLES.
2) ALL DUCTS SHALL BE GS-CONDUIT & GS 90 DEG. ELBOWS USED WHERE NEEDED.
3) ALL DUCTS ENTER HANDHOLE AT MINIMUM DEPTH OF 30 INCH (762 mm)
4) ALL HANDHOLE COVERS SHALL READ "IDOT TSC".
5) ALL CABINET HANDHOLES SHALL BE HEAVY DUTY.
6) DUCTS SHALL BE CENTERED IN CABINET FOUNDATION/HANDHOLE AS SHOWN.
7) CONDUITS SHALL BE SPACED 305 mm (1 FOOT) CENTER TO CENTER IN HEAVY DUTY HANDHOLE.
8) INSTALL 3/4" X 10' (20 mm X 3 m) COPPER CLAD STEEL GROUND ROD IN HDHH PROVIDED AS CABINET PAD. EXOTHERMIC WELD CONNECTION FROM GROUND ROD TO #6 GROUND WIRE INSULATED (GREEN).
9) BOND ALL GSC CONDUITS IN CABINET FOUNDATION.
10) INSTALL #6 GROUND WIRE IN 1IN. (25 mm) GSC FROM HANDHOLE TO CABINET.
11) TYPE "D" FOUNDATION SHALL BE 18" FROM TOP OF FOUNDATION TO FINISHED GRADE.

HNTB

USER NAME = jblakley	DESIGNED	REVISED - -
	DRAWN	REVISED -
PLOT SCALE = 1.00 ' / in.	CHECKED	REVISED -
PLOT DATE = 6/14/2017	DATE 06/28/2017	REVISED -

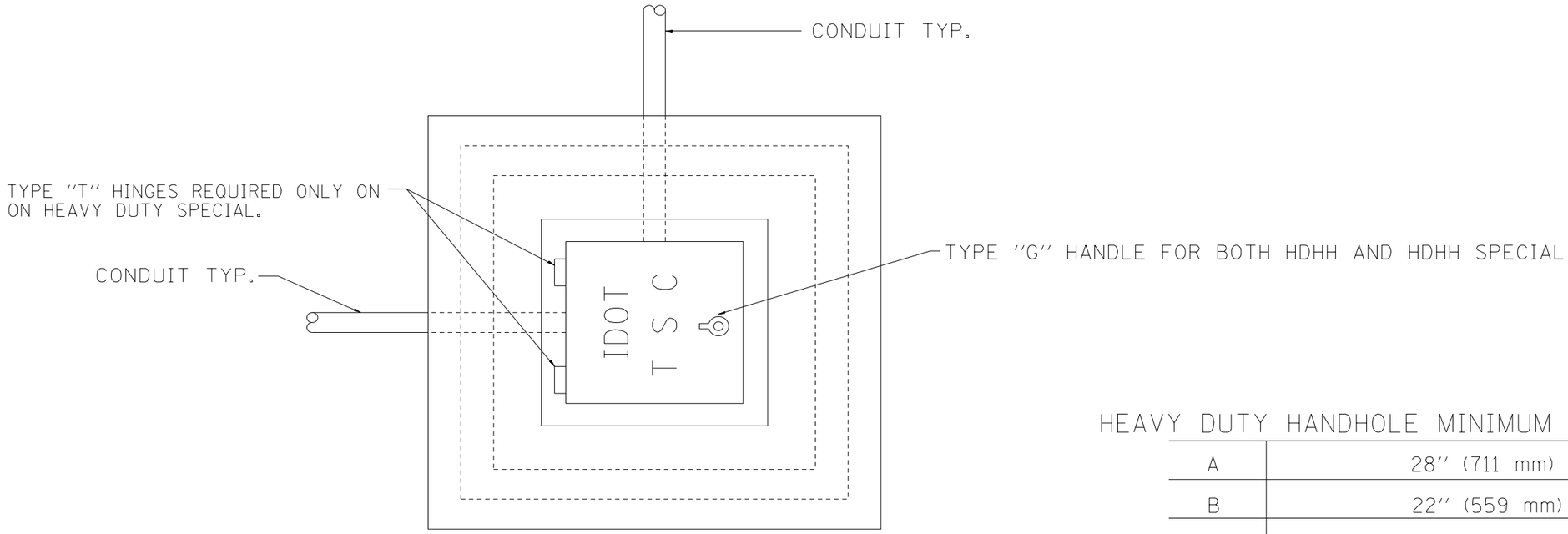
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CABINET – HANDHOLE CONDUIT DETAIL

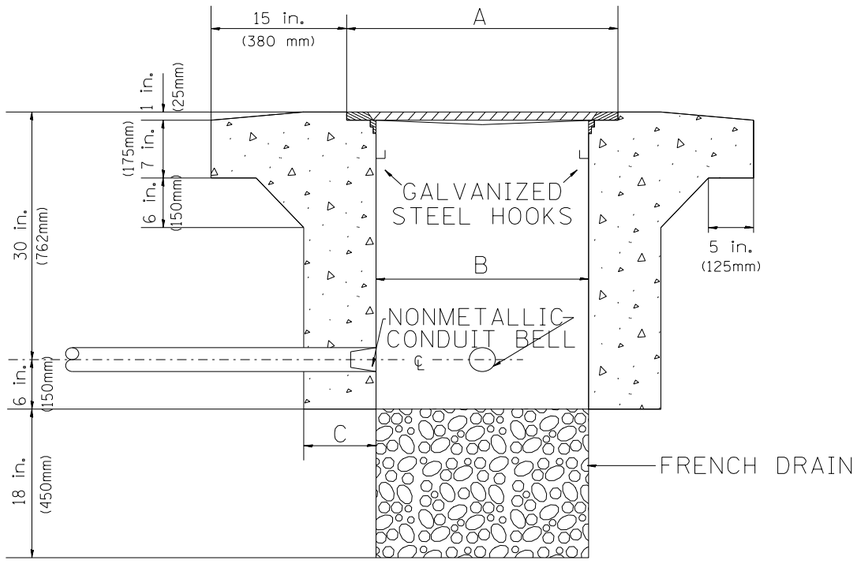
SCALE: N.T.S. | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	439
		CONTRACT NO. 60Y39		
	ILLINOIS FED. AID PROJECT			

FILE NAME = D160Y39-sht-ITS-60.dgn



PLAN



ELEVATION

HEAVY DUTY HANDHOLE MINIMUM DIMENSIONS (UNHINGED)

A	28'' (711 mm)
B	22'' (559 mm)
C	8'' (200 mm)

(FRAME AND COVER 260 LBS. (118 Kg.) MIN.)

HEAVY DUTY HANDHOLE SPECIAL MINIMUM DIMENSIONS

A	31.5'' (800 mm)
B	30.0'' (762 mm)
C	10.0'' (250 mm)

(FRAME AND COVER 405 LBS. (184 Kg. (405))

PC CONCRETE - HEAVY DUTY HAND HOLE

ITS-61

HNTB

USER NAME = jblakley	DESIGNED - R.L.	REVISED - 4/1/1997
	DRAWN - G.M.	REVISED -
PLOT SCALE = 1.00 '/ in.	CHECKED - R.L.	REVISED -
PLOT DATE = 6/14/2017	DATE 06/28/2017	REVISED -

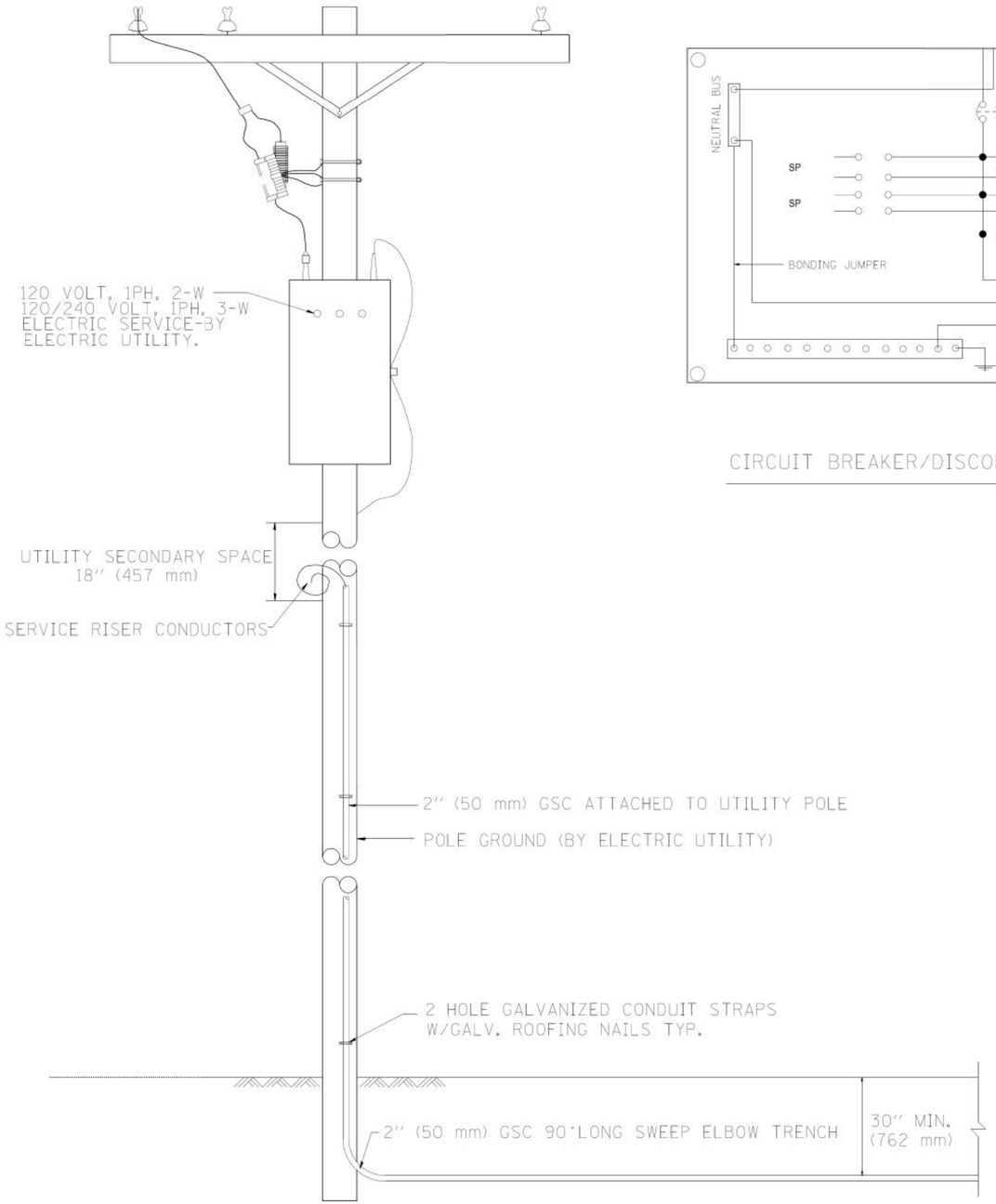
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
TRAFFIC SYSTEMS CENTER

PC CONCRETE – HEAVY DUTY HAND HOLE

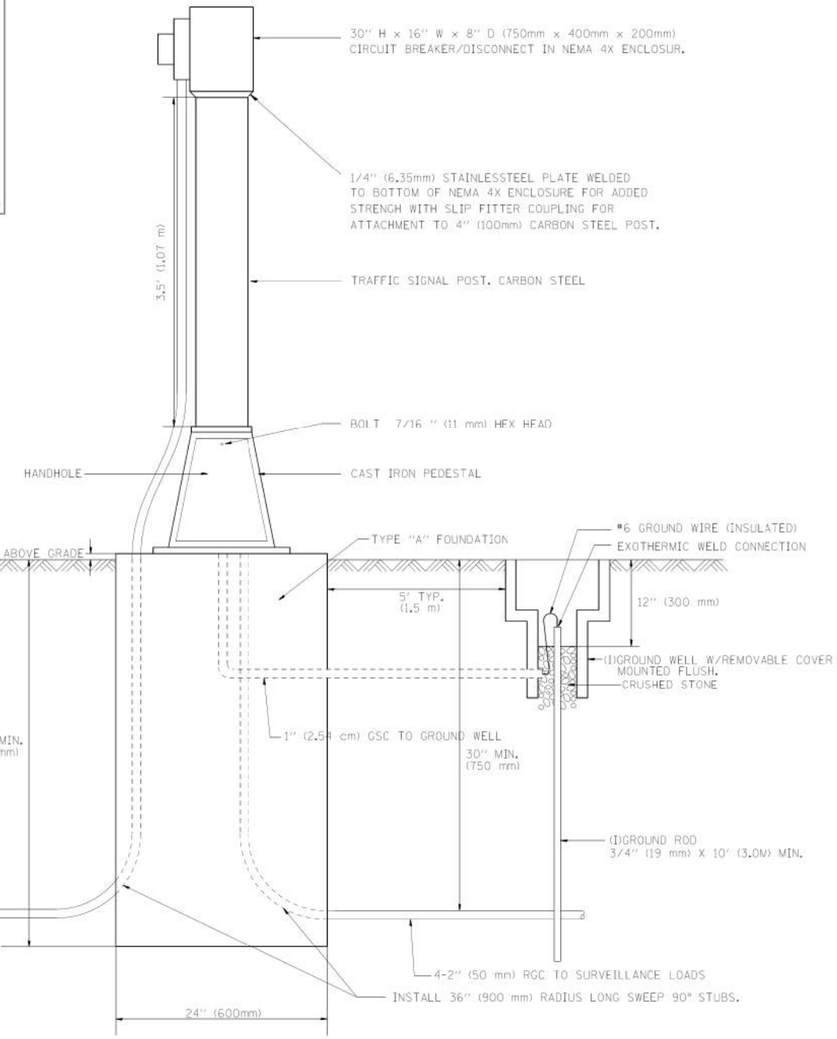
SCALE: N.T.S. | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	440
		CONTRACT NO. 60Y39		
	ILLINOIS FED. AID PROJECT			

FILE NAME = D160Y39-sht-ITS-61.dgn



CIRCUIT BREAKER/DISCONNECT DETAIL



ITS-62

HNTB	USER NAME = jblakley	DESIGNED	REVISED - -
		DRAWN	REVISED -
	PLOT SCALE = 1.00 ' / in.	CHECKED	REVISED -
	PLOT DATE = 6/14/2017	DATE 06/28/2017	REVISED -

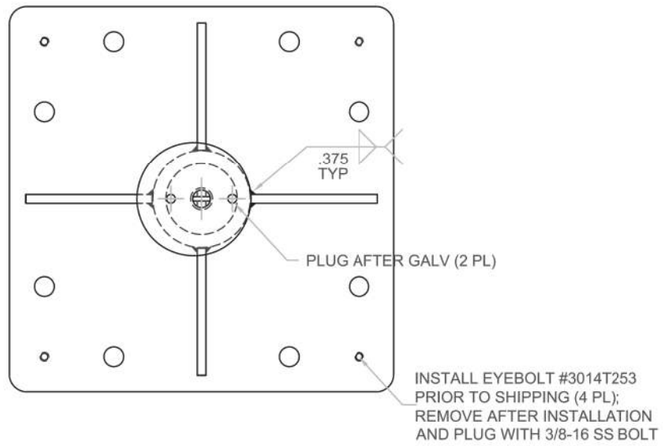
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

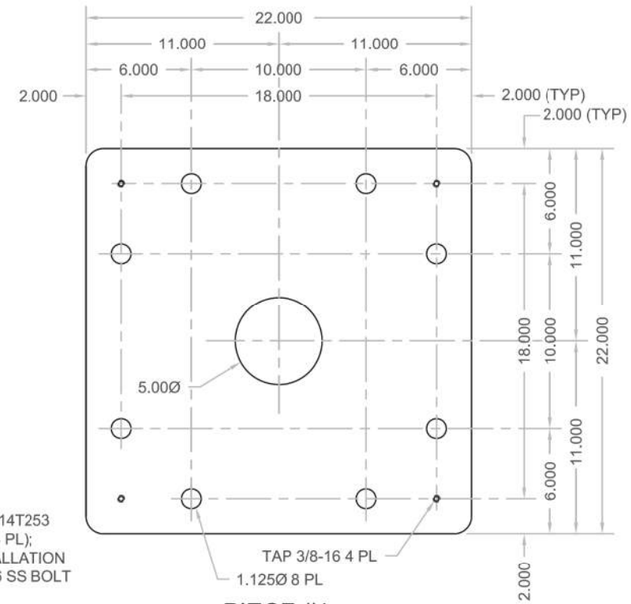
DMS DISCONNECT PEDESTAL

SCALE: N.T.S. | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	441
		CONTRACT NO. 60Y39		
	ILLINOIS	FED. AID PROJECT		

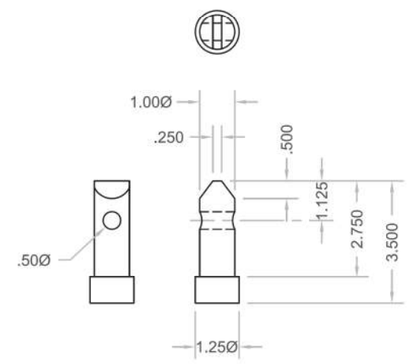
FILE NAME = D160Y39-sht-ITS-62.dgn





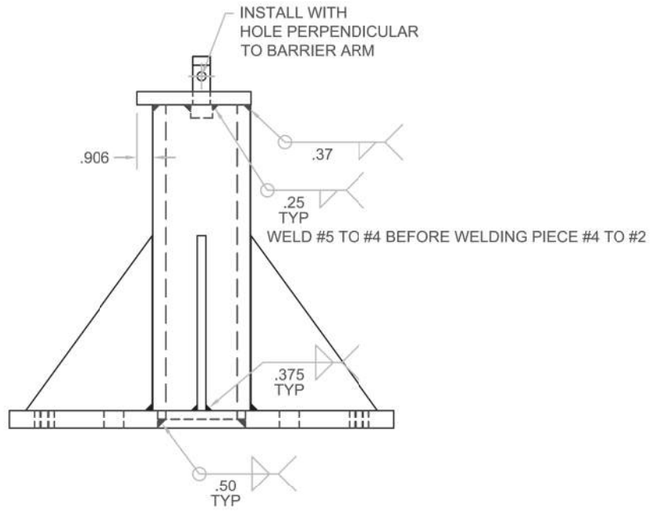
PIECE #1

MAKE FROM 1" A36 HR PLATE



PIECE #5

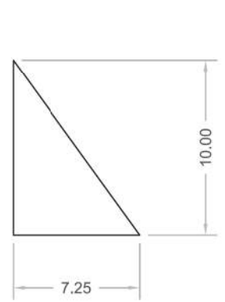
MAKE FROM 1.25"Ø ROUND
INSTALL WITH HOLE PERPENDICULAR TO BARRIER ARM



FITTING AND WELDING

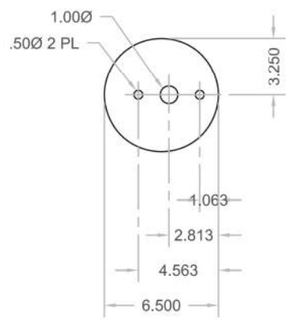
PIECE #2

MAKE FROM 5" DBL X-HVY STEEL PIPE
(5.563 O.D. X .75 WALL)



PIECE #3

MAKE FROM 1/2" A36 HR PLATE
4 REQ'D FOR EACH BOLLARD



PIECE #4

MAKE FROM 3/4" A36 HR PLATE

NOTES:

1. WELDING QUALITY TO BE PER APPROPRIATE AWS CODES
2. FINISH HOT DIP GALV PER APPLICABLE ASTM REQUIREMENTS
3. GALVANIZING TO BE FREE OF BARE SPOTS, INCLUSIONS, ETC.
4. CHASE THREADS AFTER GALVANIZING
5. PLUG GALV DRAIN HOLES IN PIECE #4 AFTER GALV AND TOUCH UP WITH HOT STICK GALV
6. FINISH PAINTED ALUMINUM AFTER GALVANIZING
7. TWO (2) BOLLARD REQUIRED FOR EACH GATE

REV	DESCRIPTION	BY	DATE
-	-	-	-
E	REVISED TITLE BLOCK AND DIMENSIONS	RLU	10-11
D	REVISED WELDS	JWM	2-07
C	REVISED QTY EYEBOLTS TO 4	JWM	9-06
B	PIECE #2 LENGTH (ADD FORMULA)	DCL	8-06
A	ORIGINAL ISSUE	DCL	7-06

REVISIONS

B&B ROADWAY
15191 HIGHWAY 243, RUSSELLVILLE, AL 35654
PH (888) 560-2060 FAX (256) 332-4036

BOLLARD
FOR VR-M3

JOB NUMBER	PART NUMBER	DRAWN	DATE	SCALE	DWG NO	REV
-	BRM-P005	DCL	7/06	1:8	BRM-P005	E

HNTB

USER NAME = jblakley	DESIGNED	REVISED - -
	DRAWN	REVISED -
PLOT SCALE = 1.00 ' / in.	CHECKED	REVISED -
PLOT DATE = 6/14/2017	DATE 06/28/2017	REVISED -

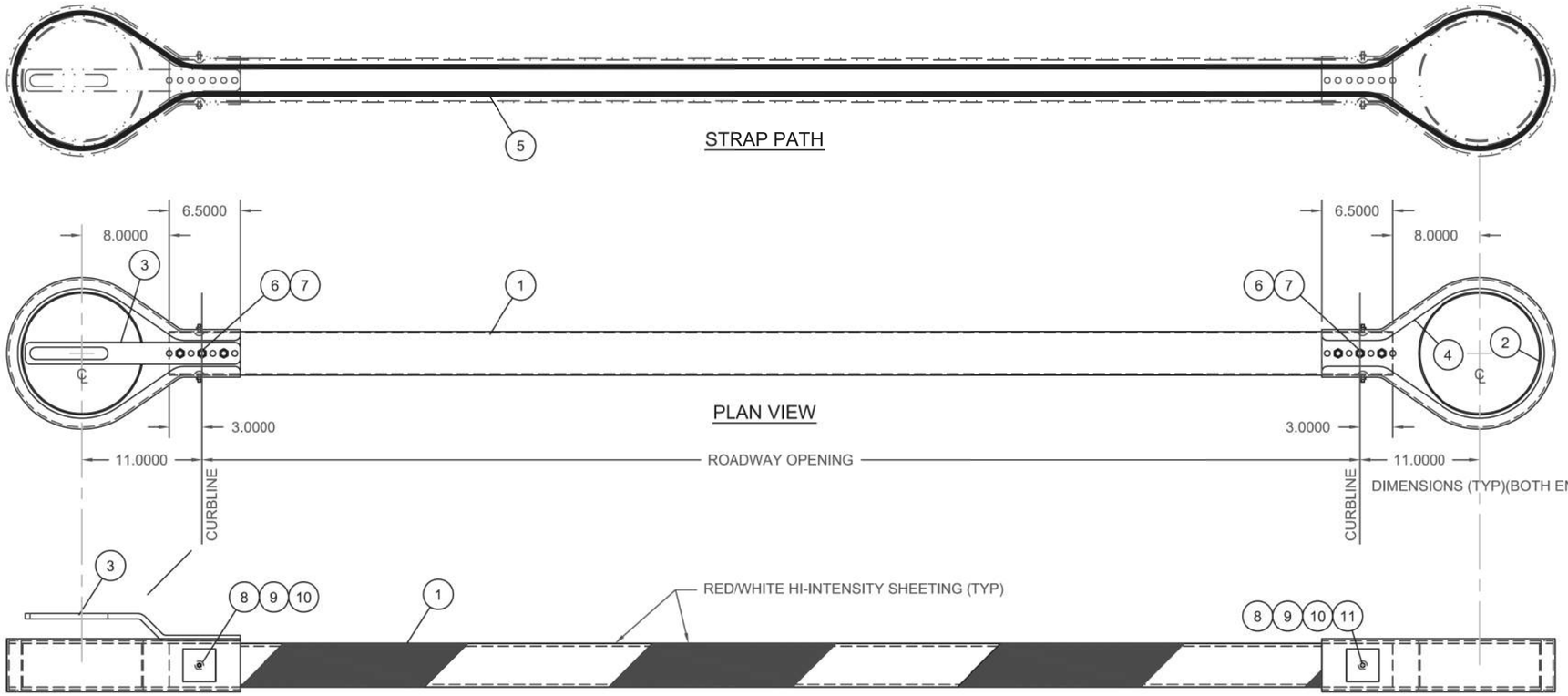
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RAMP GATE REFERENCE INFORMATION
1 OF 3

SCALE: N.T.S. | SHEET NO. 1 OF 3 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	442
		CONTRACT NO. 60Y39		
		ILLINOIS FED. AID PROJECT		

FILE NAME = D160Y39-sht-ITS-63.dgn



ARM ELEVATION

PARTS LIST

ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	AAR-P064	ARM
2	2	AAR-P061	END YOKE
3	1	AAR-P062	PADLOCK HASP
4	2	AAR-P063	WEATHER GUARD
5	VARIES	VARIES	STRAP (SEE CHART)
6	6	BLTAL.5-13X6	BOLT, ALUM, 1/2-13 X 6
7	6	NUTSS.5-13ESNA	NUT, 1/2-13 STAINLESS, ESNA
8	4	BLTSS.25-20X.75P	BOLT, 1/4-20X.75, SS, PAN HD
9	4	NUTSS.25-20ESNA	NUT, 1/4-20, SS ESNA
10	4	FLWSS.25W	FLAT WASHER, WIDE, SS 1/4"
11	4	AAR-P072	WASHER, WEATHER GUARD

STRAP SUGGESTIONS - NYLON CONTINUOUS LOOP

NOMINAL CLEAR OPENING	STRAP LENGTH	CAPACITY				PROJECT
		2000LB 25MPH		4000LB 40MPH		
		QTY	STRAP SPEC	QTY	STRAP SPEC	
17'	23'	1	2" 2-PLY	2	2" 4-PLY	
20'	26'	1	2" 2-PLY	2	2" 4-PLY	
23'	29'	1	2" 2-PLY	2	2" 3-PLY	
25'	31'	1	2" 2-PLY	2	2" 3-PLY	
27'	33'	1	3" 1-PLY	2	2" 3-PLY	
30'	36'	1	3" 1-PLY	1	3" 3-PLY	
21'-5"	27'-5"	1	2" 2-PLY	-	-	MA186
24'-5"	30'-5"	1	2" 2-PLY	-	-	MA186

NOTES:

1. SEE BRM-A001 FOR STANDARD ASSEMBLY OF COMPLETE GATE
2. CONSULT MANUFACTURER FOR ADDITIONAL STRAP OPTIONS
3. USE CARE DURING ASSEMBLY TO AVOID SNAGGING OR DAMAGING STRAP
4. ARRANGE STRAP TO AVOID TWISTS OR KINKS
5. INSPECT STRAP AND WEATHER GUARD PERIODICALLY FOR DETERIORATION

REV	DESCRIPTION	BY	DATE
D	ADDED SPECS FOR 21'-5" CLEAR OPENING	JWM	3/13
C	ADD DIMENSIONS	JWM	4/08
B	ADD WEATHER GUARD WASHER	JWM	1/07
A	ORIGINAL ISSUE	DCL	7/05

REVISIONS

B&B ROADWAY
15191 HIGHWAY 243, RUSSELLVILLE, AL 35654
PH (888) 560-2060 FAX (256) 332-4036

VR-M3 ARM ASSEMBLY

JOB NUMBER	PART NUMBER	DRAWN	DATE	SCALE	DWG NO	REV
		DCL	7-06	1/10	AAR-A006	D

HNTB

USER NAME = jblakley	DESIGNED	REVISED - -
	DRAWN	REVISED -
PLOT SCALE = 1.00 ' / in.	CHECKED	REVISED -
PLOT DATE = 6/14/2017	DATE 06/28/2017	REVISED -

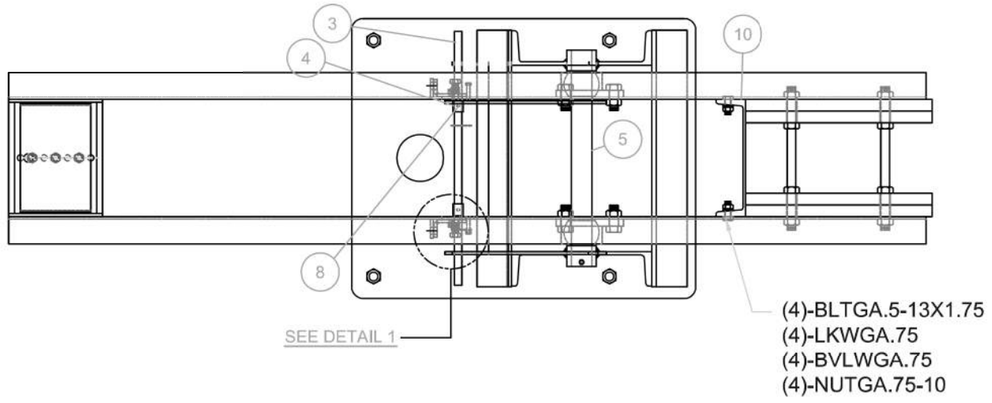
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RAMP GATE REFERENCE INFORMATION
2 OF 3

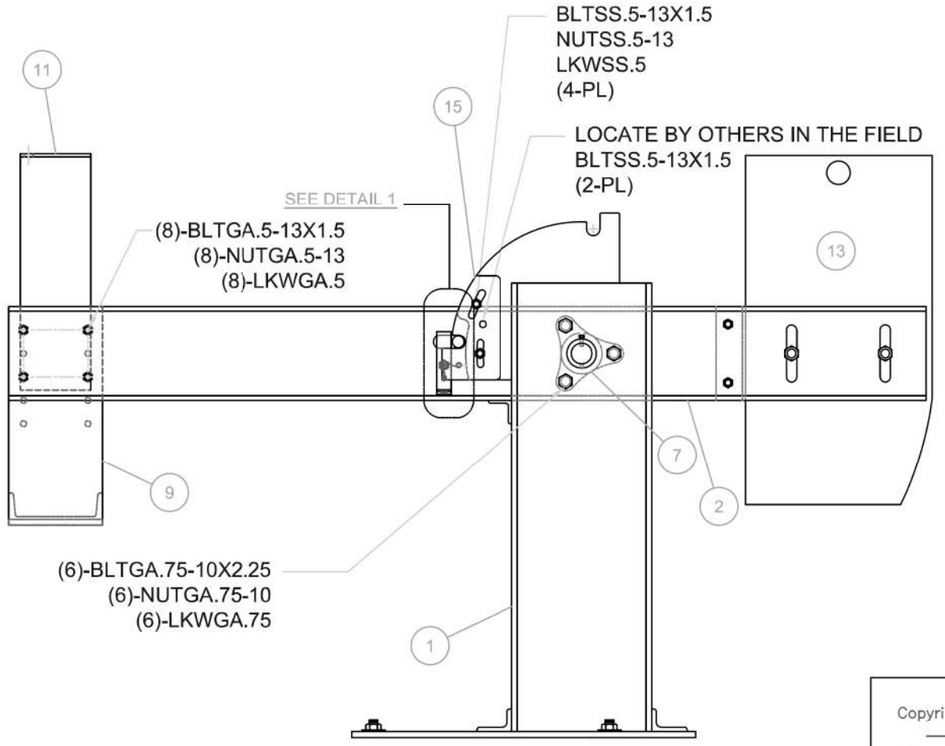
SCALE: N.T.S. | SHEET NO. 2 OF 3 SHEETS | STA. | TO STA.

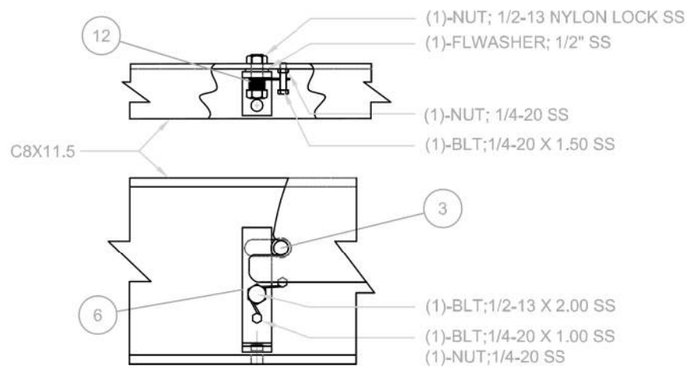
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	443
		CONTRACT NO. 60Y39		
	ILLINOIS	FED. AID PROJECT		

FILE NAME = D160Y39-sht-ITS-64.dgn



PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	BRM-P001	STAND
2	2	BRM-P002	SIDE ARM CHANNELS
3	1	BVM-P003	SS HANDLE
4	2	BVM-P004	SS SLEEVE FOR HANDLE
5	1	BVM-P005	SS PIVOT SLEEVE
6	2	BVM-P006	SPRING LATCH
7	2	BVM-P010	BRONZE BEARING
8	2	PINSS.25X1.2SPR	SPRING PIN, 1/4x1-1/4
9	1	BRM-P011	ARM CARRIER
10	1	BRM-P004	COUNTERWEIGHT BRACE
11	1	AAR-P070	TRUSS CABLE BRACKET
12	1/1	PSP-LT_-078N-4S	SPRING, SS, TORSION, 1-RHAND, 1-LHAND
13	VARIES	ACW-P001	COUNTERWEIGHTS
14	2	BRM-P005	BOLLARDS, (NOT SHOWN)
15	2	BRM-P008	INDEX PLATES
16	1	AAR-A006	ARM, ASSEMBLY, (NOT SHOWN)





DETAIL 1
LATCH MECHANISM
SCALE 2X

NOTES:

1. SEE AAR-A006 FOR ARM ASSEMBLY
2. SEE BRM-P005 FOR BOLLARDS (2 REQUIRED)

REVISIONS			
REV	DESCRIPTION	BY	DATE
E	REVISED ITEM 9 PART NUMBER	JMJ	12/16
D	REVISED TITLE BLOCK ADDED PARTS LIST W/ ATTRIBUTES	RLU	10.11
C	UPDATED PARTS LIST	JWM	7.10
B	REVISED COUNTERWEIGHTS	JWM	9.06
A	ORIGINAL ISSUE	DCL	6.06

B&B ROADWAY
15191 HIGHWAY 243, RUSSELLVILLE, AL 35654
PH (888) 560-2060 FAX (256) 332-4036

VR-M3 MANUAL BARRIER
OPERATOR STAND ASSEMBLY

JOB NUMBER	PART NUMBER	DRAWN	DATE	SCALE	DWG NO	REV
IL133	BRM-A001	DCL	6/06	1/16	BRM-A001	E

ITS-65

HNTB	USER NAME = jblakley	DESIGNED	REVISED - -
		DRAWN	REVISED -
	PLOT SCALE = 1.00 ' / in.	CHECKED	REVISED -
	PLOT DATE = 6/14/2017	DATE 06/28/2017	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RAMP GATE REFERENCE INFORMATION
3 OF 3

SCALE: N.T.S. | SHEET NO. 3 OF 3 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	444
		CONTRACT NO. 60Y39		
	ILLINOIS	FED. AID PROJECT		

FILE NAME = D160Y39-sht-ITS-65.dgn

PLAN
SURVEYED
PLOTTED
J.M. HENRY CHECKED
R.T. OF WAY CHECKED
CADD FILE NAME
NOTE BOOK
NO.
BY
DATE

PROFILE
SURVEYED
PLOTTED
J.M. HENRY CHECKED
R.T. OF WAY CHECKED
STRUCTURE NO'S/ATHS CHKD
NOTE BOOK
NO.
BY
DATE

CB-04
SGB-17
SGB-18
CTA EMERGENCY HATCH
CELL TOWER
CTA PUMP STATION
CONC
MATCHLINE 3005+00
EAST RIVER RD.
CUMBERLAND AVE.
CANFIELD AVE.
ORIOLE AVE.
HARLEM AVE. (IL 43)

VERTICAL SCALE: 1"=5'-0"
HORIZONTAL SCALE: 1"=50'-0"

CB-04
2994+77
70.6' Left
632.5

	N	Qu	W%
PAVEMENT	12		8
CLAY LOAM (FILL)	8	2.0P	21
	13		5
SAND & GRAVEL	22		4
	12	3.5B	20
	15	2.7B	18
CLAY LOAM	13	2.7B	20
	12	2.1B	17
SILTY CLAY	12	0.7B	17

SGB-17
2999+03
69.6' Left
633.6

	N	Qu	W%
PAVEMENT	36		9
CLAY LOAM (FILL)	8	2.0B	15
SAND WITH GRAVEL	10		11
	13		7

EOB

SGB-18
3001+98
70.7' Left
634.4

	N	Qu	W%
PAVEMENT			
CLAY LOAM (FILL)	12	3.6S	17
CLAY	8	2.3B	18
SAND	14		7
SAND WITH GRAVEL	19		6

EOB

EXISTING WB PGL
EXISTING EB PGL
EXISTING WB
EXISTING EB
634.93
635.14
635.15
635.21
635.37
635.42
635.48
635.52
635.65
635.79
635.92
636.01

645 640 635 630 625 620 615

3000+00 3001+00 3002+00 3003+00 3004+00 3005+00

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Aurora Ct. Suite 204
Naperville, Illinois 60565
(630) 355-2838

USER NAME =	DESIGNED	RWC	REVISED
	DRAWN	RWC	REVISED
PLOT SCALE =	CHECKED	AJP	REVISED
PLOT DATE =	DATE	12/15/2016	REVISED

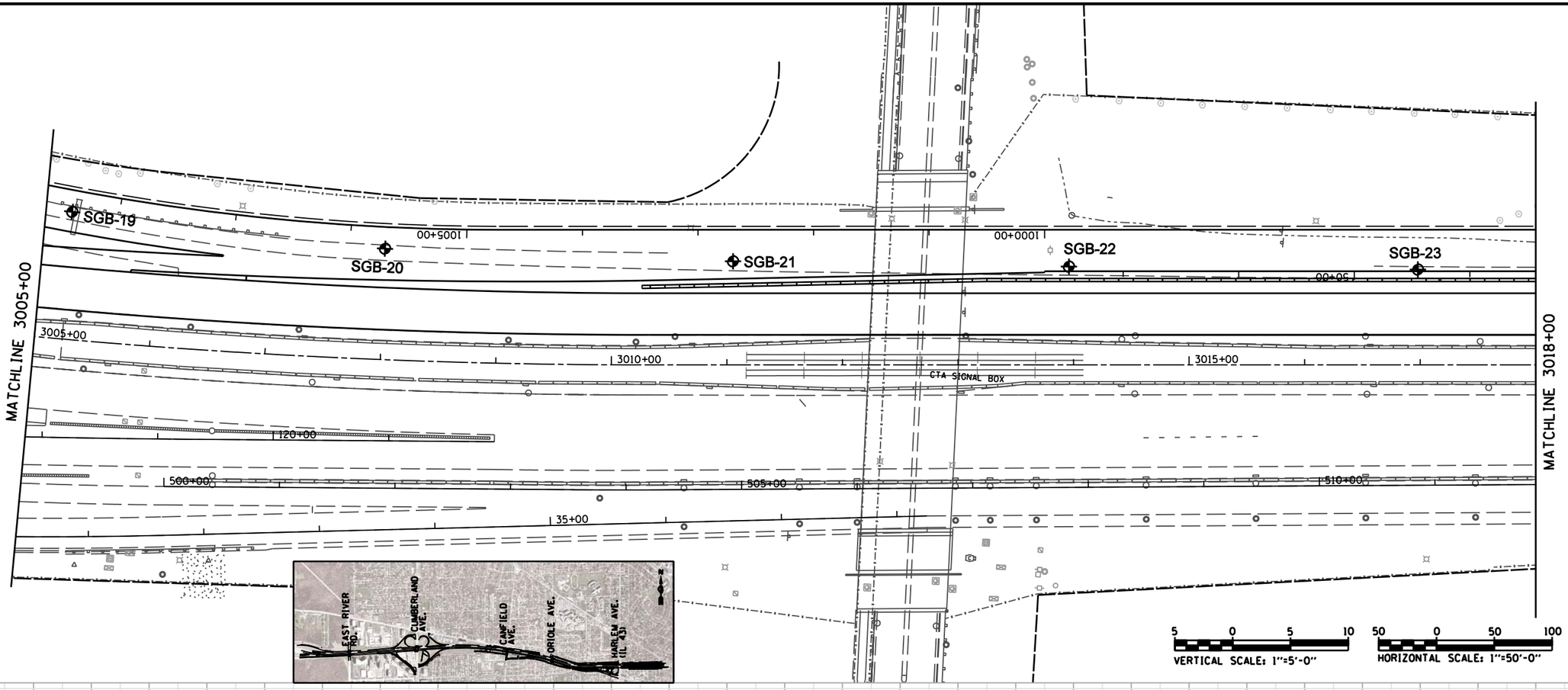
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

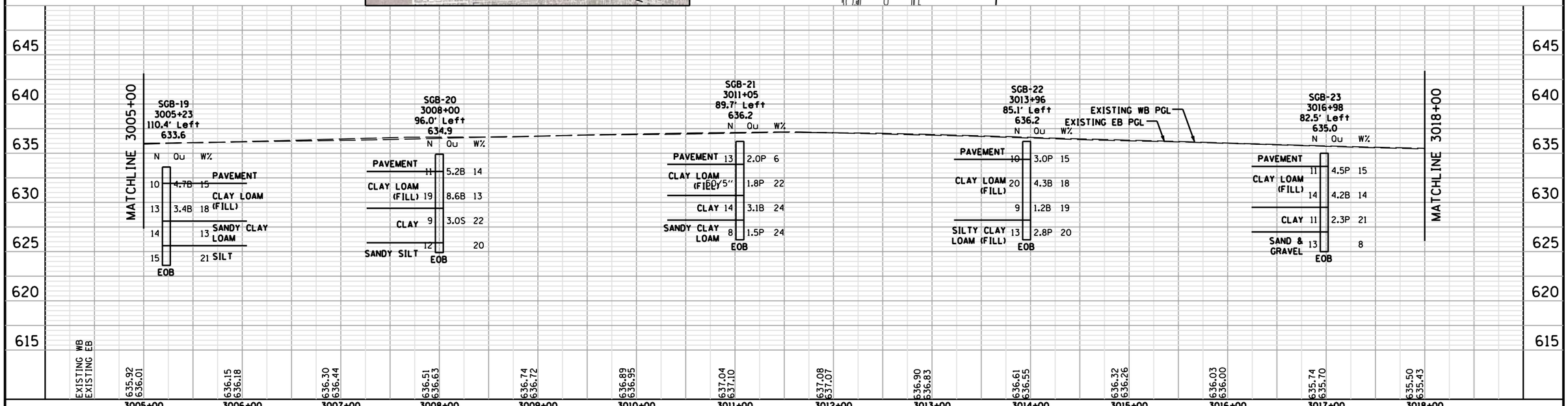
I-90 FROM I-190 TO HARLEM AVE.
WIDENING AND RESURFACING
WB MAINLINE ROADWAY SOIL BORING PLAN & PROFILE
SCALE: 1:50H, 1:5V | SHEET NO. 1 OF 10 SHEETS | STA. 3000+00 TO STA. 3005+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	734	445
		CONTRACT NO. 60Y39		
	ILLINOIS FED. AID PROJECT			

PLAN
SURVEYED
PLOTTED
AUTOMATICALLY CHECKED
R/T. OF WAY CHECKED
CADD FILE NAME
NOTE BOOK
NO.
DATE
BY

PROFILE
SURVEYED
PLOTTED
AUTOMATICALLY CHECKED
S.M. NOTED
STRUCTURE NOTATNS CHKD
NOTE BOOK
NO.
DATE
BY





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Naperville, Illinois 60565
(630) 355-2838

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	DRAWN	RWC	REVISED
PLOT SCALE =	CHECKED	AJP	REVISED
PLOT DATE =	DATE	12/15/2016	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

I-90 FROM I-190 TO HARLEM AVE.
WIDENING AND RESURFACING
WB MAINLINE ROADWAY SOIL BORING PLAN & PROFILE
SCALE: 1:50H, 1:5V | SHEET NO. 2 OF 10 SHEETS | STA. 3005+00 TO STA. 3018+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	734	446
		CONTRACT NO. 60Y39		
		ILLINOIS FED. AID PROJECT		

PLAN

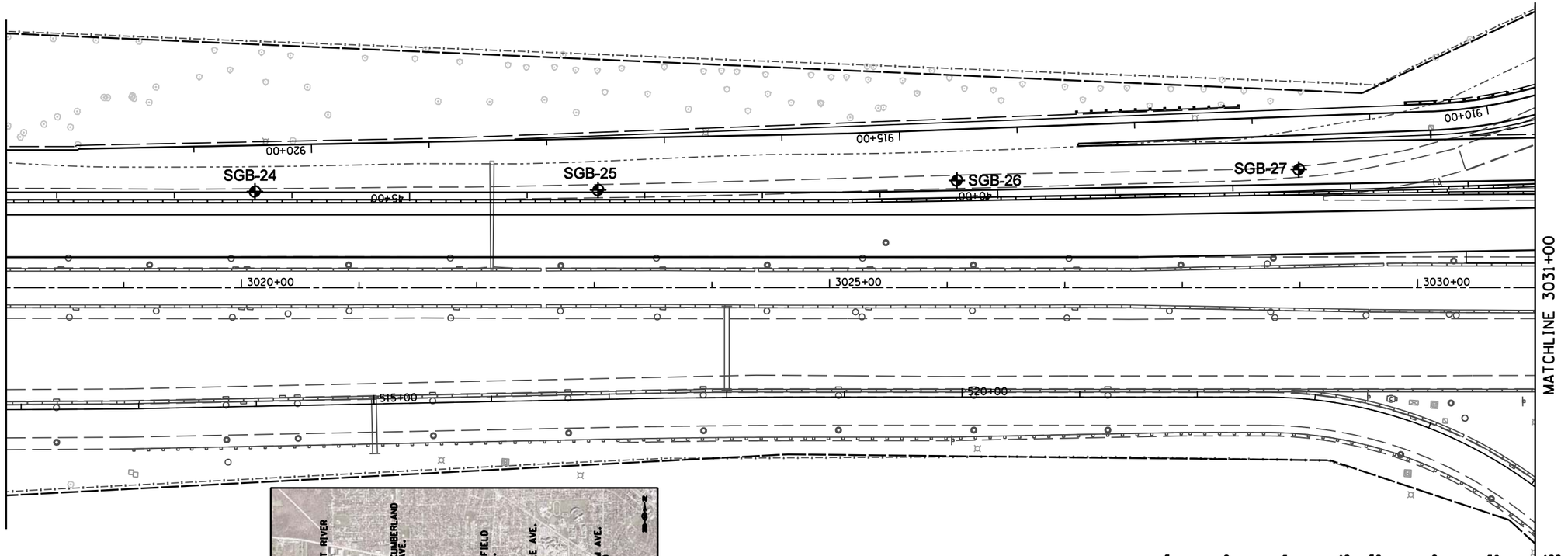
DATE	BY	
		SURVEYED
		PLOTTED
		DRAWN / CHECKED
		ALIGNMENT CHECKED
		RT. OF WAY CHECKED
		CADD FILE NAME

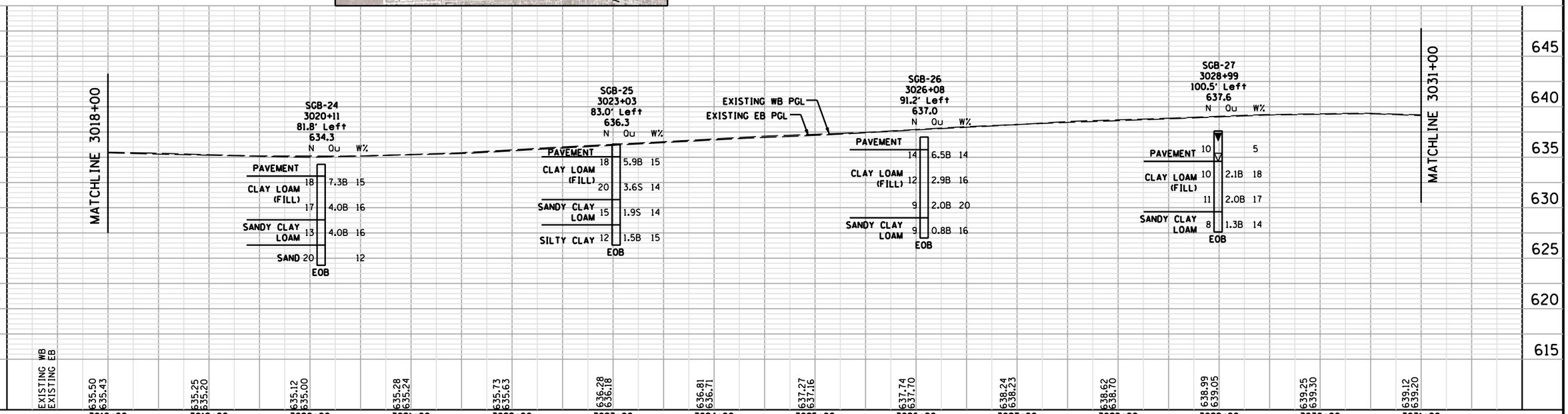
NOTE BOOK
NO.

PROFILE

DATE	BY	
		SURVEYED
		PLOTTED
		DRAWN / CHECKED
		S.M. NOTED
		STRUCTURE NO'S/ATHS CHKD

NOTE BOOK
NO.





USER NAME =	DESIGNED	RWC	REVISED
	DRAWN	RWC	REVISED
PLOT SCALE =	CHECKED	AJP	REVISED
PLOT DATE =	DATE	12/15/2016	REVISED

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Naperville, Illinois 60565
(630) 355-2838

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

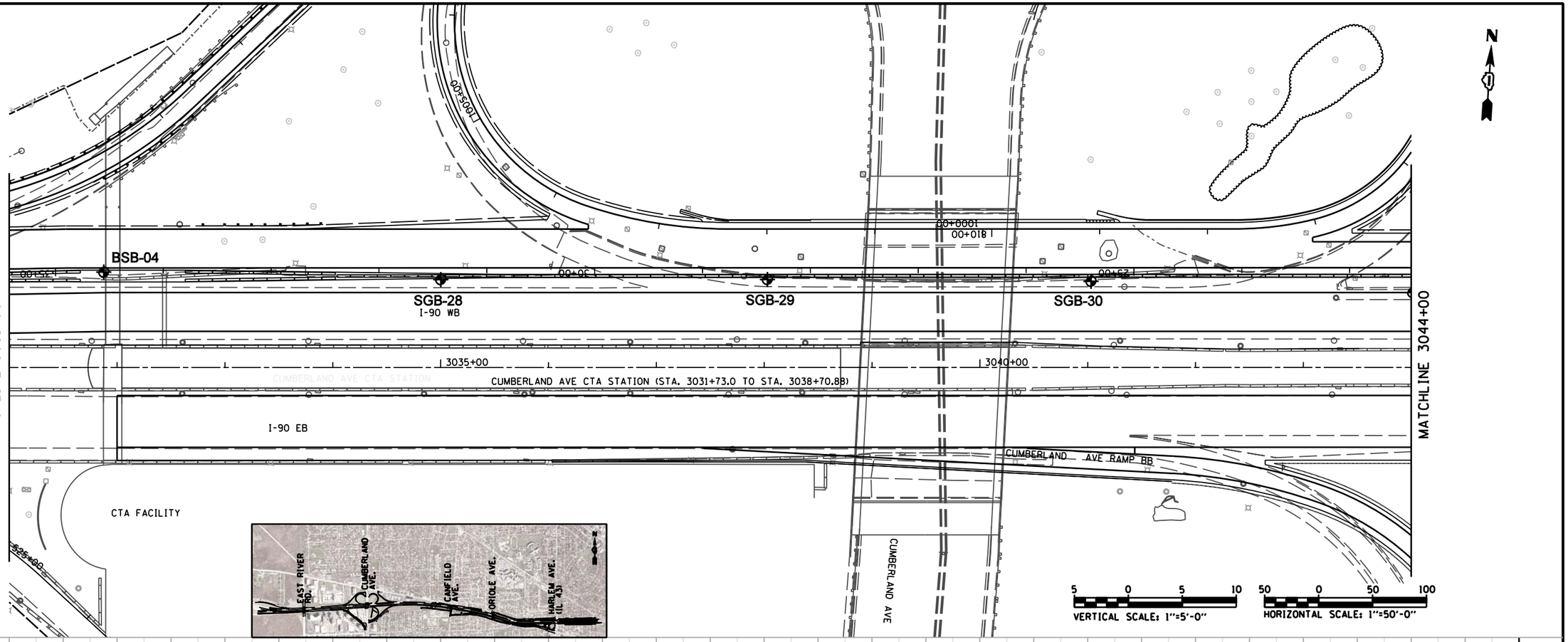
I-90 FROM I-190 TO HARLEM AVE.
WIDENING AND RESURFACING
WB MAINLINE ROADWAY SOIL BORING PLAN & PROFILE

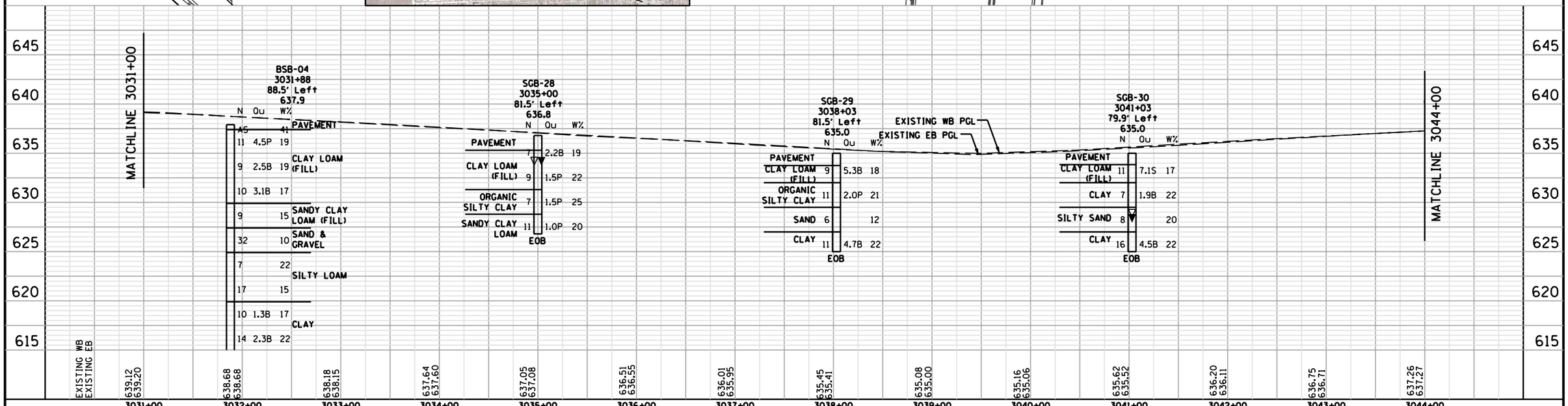
SCALE: 1:50H, 1:5V | SHEET NO. 3 OF 10 SHEETS | STA. 3018+00 TO STA. 3031+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	734	447
		CONTRACT NO. 60Y39		
	ILLINOIS FED. AID PROJECT			

PLAN
SURVEYED
PLOTTED
ALIGNMENT CHECKED
R.T. OF WAY CHECKED
CADD FILE NAME
NOTE BOOK
NO.
BY
DATE

PROFILE
SURVEYED
PLOTTED
GRADES CHECKED
S.M. NOTED
STRUCTURE NOTATNS CHKD
NOTE BOOK
NO.
BY
DATE





USER NAME =	DESIGNED RWC	REVISED	
	DRAWN RWC	REVISED	
PLOT SCALE =	CHECKED AJP	REVISED	
PLOT DATE =	DATE 12/15/2016	REVISED	

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Geotechnical, Environmental & Civil Engineering
805 Ambriar Court, Suite 204
Naperville, Illinois 60565
(630) 355-2838

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

I-90 FROM I-190 TO HARLEM AVE.
WIDENING AND RESURFACING
WB MAINLINE ROADWAY SOIL BORING PLAN & PROFILE

SCALE: 1:50H, 1:5V | SHEET NO. 4 OF 10 SHEETS | STA. 3031+00 TO STA. 3044+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	734	448
		CONTRACT NO. 60Y39		
		ILLINOIS FED. AID PROJECT		

PLAN
SURVEYED
PLOTTED
ALIGNMENT CHECKED
RT. OF WAY CHECKED
CADD FILE NAME
NOTE BOOK
NO.
BY
DATE

PROFILE
SURVEYED
PLOTTED
CROSS SECTIONS CHECKED
BAL. NOTED
STRUCTURE NOTATIONS CHKD
NOTE BOOK
NO.
BY
DATE

MATCHLINE 3044+00

MATCHLINE 3057+00

EX ROW

I 705+00

I 700+00

I 20+00

I 15+00

I 10+00

SGB-31

SGB-32

SGB-33

SGB-34

SGB-35

I-90 WB

I 3045+00

I 3050+00

CTA BLUE LINE

I 3055+00

I-90 EB

CUMBERLAND AVE RAMP B

EX ROW

N

5 0 5 10
VERTICAL SCALE: 1"=5'-0"

50 0 50 100
HORIZONTAL SCALE: 1"=50'-0"

SGB-31
3044+01
69.4' Left
637.0

N	Qu	W%	
			PAVEMENT
11	2.5P	15	CLAY LOAM (FILL)
12	5.0B	14	
10	5.8B	23	CLAY
17	6.5B	22	

EOB

SGB-32
3047+03
69.9' Left
638.6

N	Qu	W%	
			PAVEMENT
11	4.6B	14	CLAY LOAM (FILL)
13	4.7B	17	
11	5.3B	20	CLAY
18	7.0B	24	

EOB

SGB-33
3050+01
70.3' Left
640.2

N	Qu	W%	
			PAVEMENT
12	8.3B	15	CLAY LOAM (FILL)
11	3.7S	20	
9	2.2B	28	CLAY
17	5.2S	14	CLAY LOAM

EOB

SGB-34
3053+04
79.4' Left
641.7

N	Qu	W%	
			PAVEMENT
6	4.0B	18	CLAY LOAM (FILL)
18	6.2B	16	
12	2.7B	24	CLAY
12	4.0B	23	

EOB

EXISTING WB PGL

EXISTING EB PGL

SGB-35
3056+00
70.5' Left
643.4

N	Qu	W%	
			PAVEMENT
14	5.9B	16	CLAY LOAM (FILL)
17	3.7B	24	SILTY CLAY
11	2.8S	22	CLAY
12	4.9B	21	

EOB

650
645
640
635
630
625
620

EXISTING WB: 637.26 637.81 638.39 638.93 639.48 640.01 640.51 641.02 641.59 642.16 642.75 643.34 643.88 644.31
EXISTING EB: 637.27 637.78 638.31 638.83 639.37 639.94 640.49 641.04 641.57 642.06 642.58 643.10 643.70 644.25

3044+00 3045+00 3046+00 3047+00 3048+00 3049+00 3050+00 3051+00 3052+00 3053+00 3054+00 3055+00 3056+00 3057+00

Geo Services, Inc.
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USER NAME =	DESIGNED RWC	REVISED	
	DRAWN RWC	REVISED	
PLOT SCALE =	CHECKED AJP	REVISED	
PLOT DATE =	DATE 12/15/2016	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

I-90 FROM I-190 TO HARLEM AVE.
WIDENING AND RESURFACING
WB MAINLINE ROADWAY SOIL BORING PLAN & PROFILE

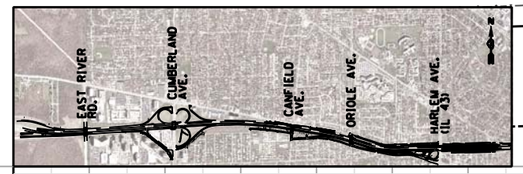
SCALE: 1:50H, 1:5V | SHEET NO. 5 OF 10 SHEETS | STA. 3044+00 TO STA. 3057+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	734	449
		CONTRACT NO. 60Y39		
	ILLINOIS FED. AID PROJECT			

PLAN
SURVEYED
PLOTTED
DRAWN
ALIGNMENT CHECKED
RT. OF WAY CHECKED
CADD FILE NAME
NOTE BOOK
NO.
BY
DATE

PROFILE
SURVEYED
PLOTTED
DRAWN
CROSS SECT. CHECKED
B.M. NOTED
STRUCTURE NO'S/MS CHKD
NOTE BOOK
NO.
BY
DATE

EX ROW
℄ I-90
SGB-36
SGB-37
SGB-38
SGB-39
00+S
00+O
I-90 WB
3060+00
3065+00
CTA BLUE LINE
I-90 EB
MATCHLINE 3057+00
MATCHLINE 3070+00
EX ROW
EX ROW
SERBIAN RD.
EX ROW



5 0 5 10
VERTICAL SCALE: 1"=5'-0"

50 0 50 100
HORIZONTAL SCALE: 1"=50'-0"

SGB-36
3059+99
67.3' Left
645.1
N Qu W%
PAVEMENT
13 4.5P 20
CLAY 21 8.2B 19
16 8.0B 19
19 8.2B 19
EOB

SGB-37
3062+05
66.8' Left
646.7
N Qu W%
PAVEMENT
12 4.9B 19
CLAY X 7.1B 19
20 7.5B 20
22 8.4B 17
EOB

SGB-38
3065+01
67.0' Left
646.2
N Qu W%
PAVEMENT
10 3.7B 21
CLAY 9 2.1S 25
14 6.5B 19
20 5.1B 20
EOB

SGB-39
3068+07
67.2' Left
642.7
N Qu W%
PAVEMENT
9 4.0P 19
CLAY 12 5.3B 22
11 2.9B 21
10 2.1B 20
EOB

EXISTING WB PGL
EXISTING EB PGL

MATCHLINE 3057+00
MATCHLINE 3070+00

655 650 645 640 635 630 625

	3057+00	3058+00	3059+00	3060+00	3061+00	3062+00	3063+00	3064+00	3065+00	3066+00	3067+00	3068+00	3069+00	3070+00
EXISTING WB		644.31		644.79		645.39	645.98	646.50	646.86	647.01	646.85	646.29	645.45	644.27		642.87	641.41	639.92
EXISTING EB		644.25		644.81		645.32	645.87	646.44	646.83	646.94	646.77	646.16	645.28	644.11		642.72	641.29	639.88

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Aurora Ct. Suite 204
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USER NAME =	DESIGNED	RWC	REVISED
	DRAWN	RWC	REVISED
PLOT SCALE =	CHECKED	AJP	REVISED
PLOT DATE =	DATE	8/15/2016	REVISED

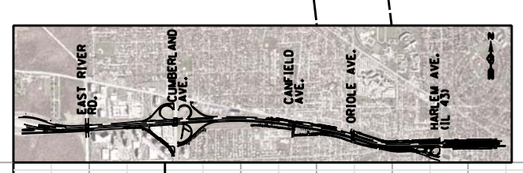
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

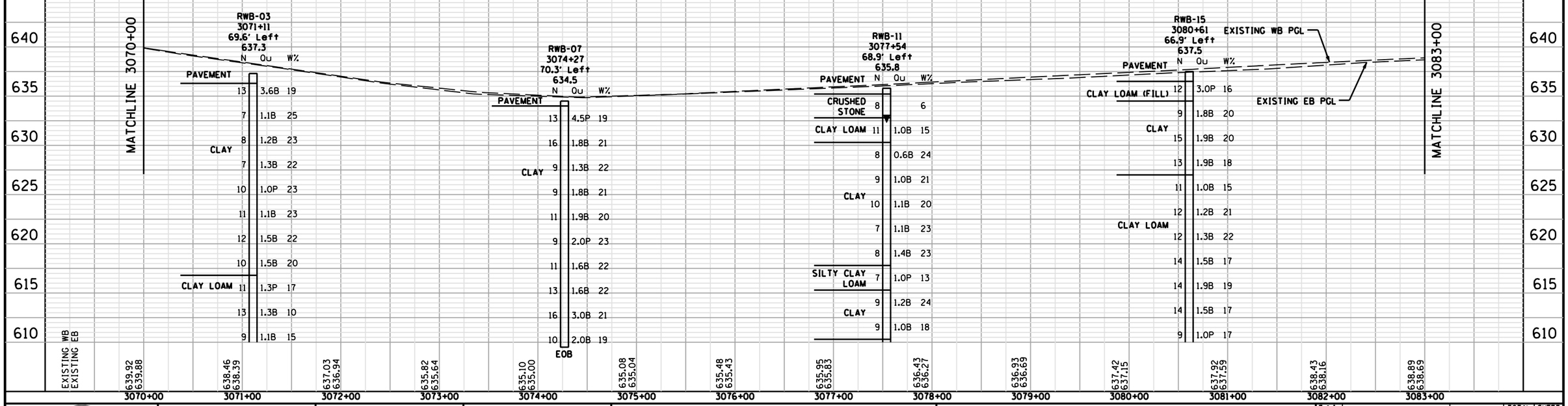
I-90 FROM I-190 TO HARLEM AVE.
WIDENING AND RESURFACING
WB MAINLINE ROADWAY SOIL BORING PLAN & PROFILE
SCALE: 1:50H, 1:5V | SHEET NO. 6 OF 10 SHEETS | STA. 3057+00 TO STA. 3070+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	734	450
		CONTRACT NO. 60Y39		
	ILLINOIS FED. AID PROJECT			

PLAN
SURVEYED
PLOTTED
ALIGNMENT CHECKED
RT. OF WAY CHECKED
CADD FILE NAME
NOTE BOOK
NO.
BY
DATE

PROFILE
SURVEYED
PLOTTED
GRADES CHECKED
B.M. NOTED
STRUCTURE NOTATIONS CHKD
NOTE BOOK
NO.
BY
DATE





Geo Services, Inc. Geotechnical, Environmental & Civil Engineering 805 Ambriar Circle, Suite 204 Naperville, Illinois 60565 (630) 355-2838	USER NAME =	DESIGNED RWC	REVISED
		DRAWN RWC	REVISED
	PLOT SCALE =	CHECKED AJP	REVISED
	PLOT DATE =	DATE 8/6/2016	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

I-90 FROM I-190 TO HARLEM AVE.
WIDENING AND RESURFACING
WB MAINLINE ROADWAY SOIL BORING PLAN & PROFILE
SCALE: 1=50H, 1=5V | SHEET NO. 7 OF 10 SHEETS | STA. 3070+00 TO STA. 3083+00

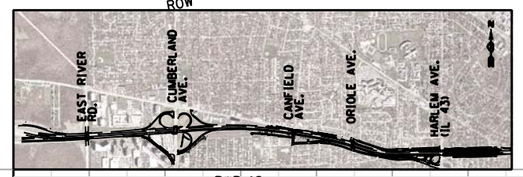
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(151) & (141) R-3	COOK	734	451
		CONTRACT NO. 60Y39		
	ILLINOIS FED. AID PROJECT			

PLAN | SURVEYED | PLOTTED | DRAWN | CHECKED | R.O.W. CHECKED | R/T. OF WAY CHECKED | CADD FILE NAME | NOTE BOOK | NO. | BY | DATE

PROFILE | SURVEYED | PLOTTED | DRAWN | CHECKED | S.M. NOTED | STRUCTURE NO'S/HS CHKD | NOTE BOOK | NO. | BY | DATE

EX ROW
W. HIGGINS RD.
℄ I-90
CANFIELD AVE EXIT RAMP
00+50 | 1 | 05+00
RWB-24
RWB-19
RWB-22
I-90 WB
RWB-28
00+00 | 1 | 00+00
N. ORIOLE AVE.
EX ROW
W. BRYN MAWR AVE.
MATCHLINE 3083+00
3085+00
CTA BLUE LINE
3090+00
RWB-32
I-90 EB
3095+00
CANFIELD AVE ENTRANCE RAMP
EX ROW
W. SEMINOLE ST.
EX ROW
EX ROW
MATCHLINE 3096+00

N



5 0 5 10 VERTICAL SCALE: 1"=5'-0"

50 0 50 100 HORIZONTAL SCALE: 1"=50'-0"

RWB-19
3083+48
67.6' Left
638.9

N	Qu	W%	
			PAVEMENT
10	1.3P	22	
7	1.3B	22	
9	1.2B	20	
10	1.2B	23	
6	1.0P	24	
6	1.3P	22	CLAY
9	0.6B	19	
9	0.7B	17	
7	0.5B	18	
11	1.3B	20	
14	2.0B	23	CLAY LOAM

RWB-22
3085+80
67.7' Left
640.9

N	Qu	W%	
			PAVEMENT
7	0.9B	22	
6	1.6B	22	
9	0.9B	23	
9	1.3B	23	
6	1.2B	22	
9	1.3B	17	
9	1.2B	20	CLAY
10	0.9B	24	
16	1.9B	19	
27	3.2B	18	
19	2.8B	20	
17	2.1B	20	

RWB-24
3088+79
85.1' Left
640.9

N	Qu	W%	
			PAVEMENT
6	~~3.3B~~	~~19~~	
7	2.2B	22	
10	1.4B	22	
9	2.0B	21	CLAY
11	1.8B	21	
11	2.0B	21	
12	1.9B	21	
14	1.8B	20	
12	1.9B	21	
14	2.1B	18	EOB

EXISTING WB PGL
EXISTING EB PGL

RWB-28
3091+70
68.3' Left
639.0

N	Qu	W%	
			PAVEMENT
12		6	CRUSHED STONE
9	1.5P	20	
9	1.2B	22	CLAY
10	1.5B	22	
8	1.4B	22	
9	1.5P	19	
9	1.3B	21	
17		8	CLAYEY SAND & GRAVEL
20	1.5B	20	
20	1.4B	21	CLAY
			EOB

RWB-32
3094+65
67.4' Left
636.2

N	Qu	W%	
			PAVEMENT
11		8	
5	1.4B	23	
6	1.3B	23	CLAY
8	1.5B	23	
8	1.5B	22	
10	1.9B	22	
8	1.5B	20	
12	1.8B	20	SANDY CLAY LOAM
17		10	
12	2.2B	20	CLAY
			EOB

MATCHLINE 3083+00 | MATCHLINE 3096+00

640 635 630 625 620 615 610

EXISTING WB: 638.89 639.31 639.77 640.01 639.96 639.63 639.17 638.66 638.18 637.66 637.11 636.61 636.40 636.81
EXISTING EB: 638.69 639.18 639.60 639.85 639.73 639.36 638.90 638.38 637.91 637.44 637.01 636.50 636.36 636.72

3083+00 3084+00 3085+00 3086+00 3087+00 3088+00 3089+00 3090+00 3091+00 3092+00 3093+00 3094+00 3095+00 3096+00

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Aurora St. Court, Suite 204
Naperville, Illinois 60565
(630) 355-2838

USER NAME =	DESIGNED	RWC	REVISED
	DRAWN	RWC	REVISED
PLOT SCALE =	CHECKED	AJP	REVISED
PLOT DATE =	DATE	12/15/2016	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

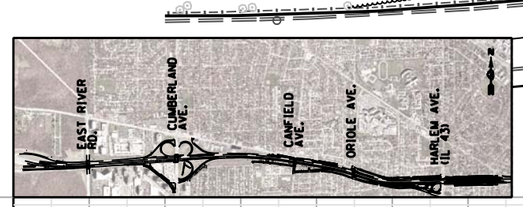
I-90 FROM I-190 TO HARLEM AVE.
WIDENING AND RESURFACING
WB MAINLINE ROADWAY SOIL BORING PLAN & PROFILE

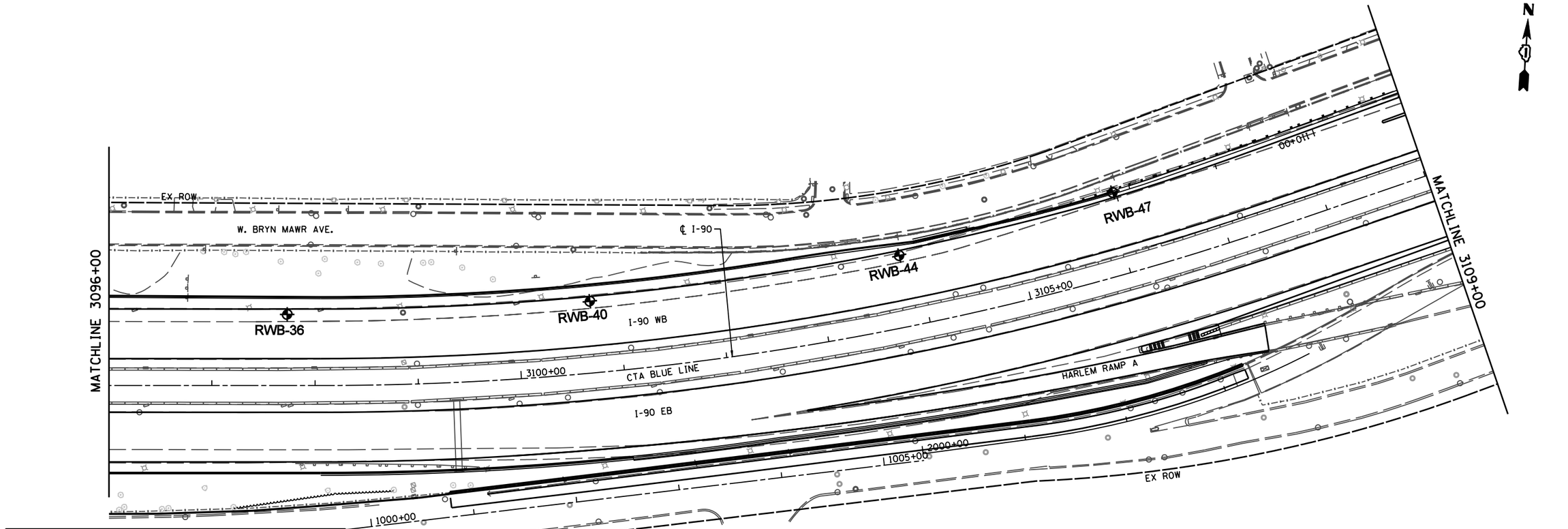
SCALE: 1:50H, 1:5V | SHEET NO. 8 OF 10 SHEETS | STA. 3083+00 TO STA. 3096+00

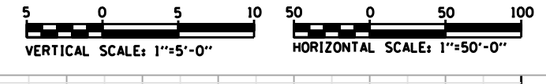
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	734	452
		CONTRACT NO. 60Y39		
	ILLINOIS FED. AID PROJECT			

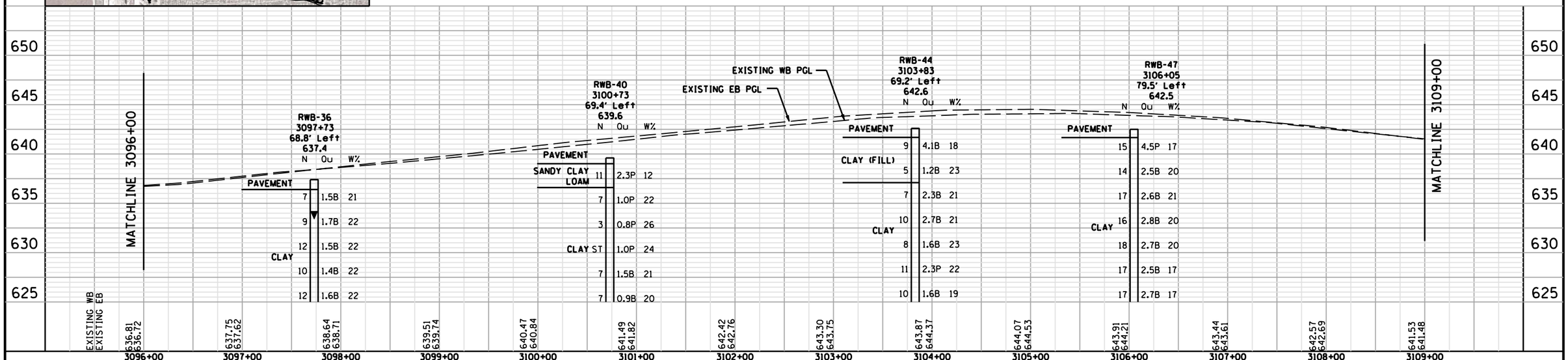
PLAN
SURVEYED
PLOTTED
ALIGNMENT CHECKED
RT. OF WAY CHECKED
CADD FILE NAME
NOTE BOOK
NO.
BY
DATE

PROFILE
SURVEYED
PLOTTED
CROSSES CHECKED
BAL. NOTED
STRUCTURE NOTATNS CHKD
NOTE BOOK
NO.
BY
DATE









Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Aerial Ct., Suite 204
Naperville, Illinois 60563
(630) 355-2838

USER NAME =	DESIGNED	RWC	REVISED
	DRAWN	RWC	REVISED
PLOT SCALE =	CHECKED	AJP	REVISED
PLOT DATE =	DATE	8/15/2016	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

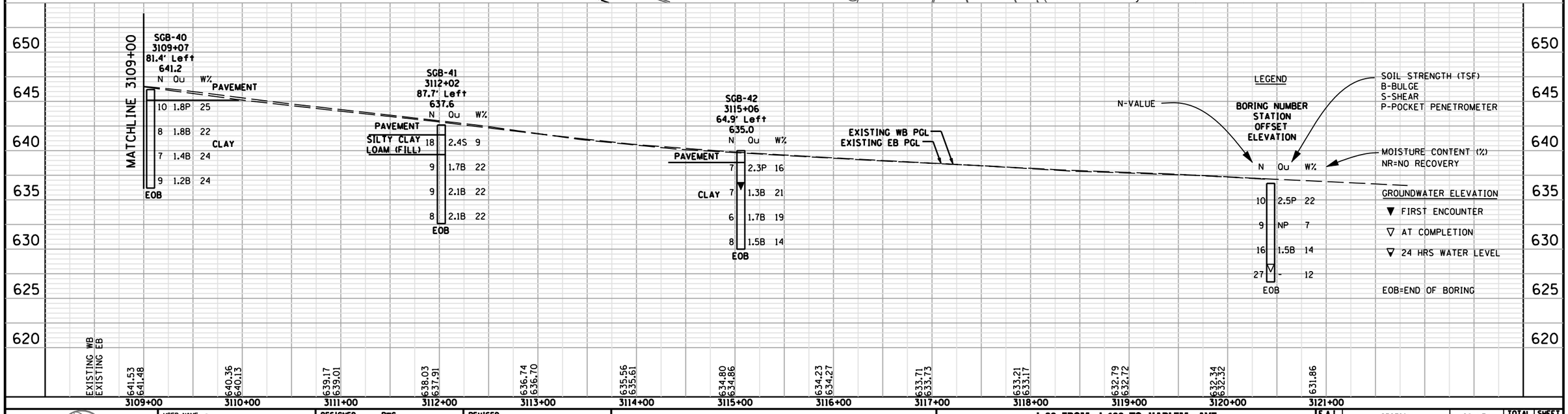
I-90 FROM I-190 TO HARLEM AVE.
WIDENING AND RESURFACING
WB MAINLINE ROADWAY SOIL BORING PLAN & PROFILE

SCALE: 1=50H, 1=5V | SHEET NO. 9 OF 10 SHEETS | STA. 3096+00 TO STA. 3109+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	734	453
		CONTRACT NO. 60Y39		
	ILLINOIS FED. AID PROJECT			

PLAN
DATE
BY
SURVEYED
PLOTTED
ALIGNMENT CHECKED
RT. OF WAY CHECKED
CADD FILE NAME
NOTE BOOK
NO.

PROFILE
DATE
BY
SURVEYED
PLOTTED
CROSS SECTIONS CHECKED
BLM. NOTED
STRUCTURE NO(S)/PINS CHKD
NOTE BOOK
NO.



Geo Services, Inc. Geotechnical, Environmental & Civil Engineering 805 Aurora Ct., Suite 204 Naperville, Illinois 60565 (630) 355-2838	USER NAME =	DESIGNED RWC	REVISED
		DRAWN RWC	REVISED
	PLOT SCALE =	CHECKED AJP	REVISED
	PLOT DATE =	DATE 8/6/2006	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

I-90 FROM I-190 TO HARLEM AVE.
WIDENING AND RESURFACING
WB MAINLINE ROADWAY SOIL BORING PLAN & PROFILE
SCALE: 1:50H, 1:5V | SHEET NO. 10 OF 10 SHEETS | STA. 3109+00 TO STA. 3122+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-3	COOK	734	454
		CONTRACT NO. 60Y39		
	ILLINOIS FED. AID PROJECT			

FOR INDEX OF SHEETS, SEE SHEET NO. 3

TRAFFIC DATA

WB I–90 (PROJECT LIMITS TO I–190)
EXISTING ADT: 135,700 (2014)

WB I–190 (PROJECT LIMITS TO I–90)
EXISTING ADT: 70,000 (2014)

WB I–90 (I–190 INTERCHANGE TO CUMBERLAND RAMP D)
EXISTING ADT: 188,400 (2014)

WB I–90 (CUMBERLAND RAMP D TO CUMBERLAND RAMP DD)
EXISTING ADT: 177,900 (2014)

WB I–90 (CUMBERLAND RAMP DD TO CUMBERLAND RAMP CC)
EXISTING ADT: 182,300 (2014)

WB I–90 (CUMBERLAND RAMP CC TO CUMBERLAND RAMP C)
EXISTING ADT: 172,400 (2014)

WB I–90 (CUMBERLAND RAMP C TO CANFIELD AVE EXIT RAMP)
EXISTING ADT: 187,600 (2014)

WB I–90 (CANFIELD AVE EXIT RAMP TO HARLEM RAMP D)
EXISTING ADT: 194,400 (2014)

WB I–90 (HARLEM RAMP D TO PROJECT LIMITS)
EXISTING ADT: 175,800 (2014)

RETAINING WALLS

RETAINING WALL WB–1
SN 016–Z036
STA. 3067 + 00 TO STA. 3074 + 50, LEFT

RETAINING WALL WB–2
SN 016–Z037
STA. 3076 + 24 TO STA. 3080 + 81, LEFT

RETAINING WALL WB–3
SN 016–2289
3080 + 81 TO STA. 3087 + 04, LEFT

RETAINING WALL WB–4
SN 016–Z038
STA. 106 + 17 TO STA. 100 + 00, LEFT (CANFIELD RAMP)
STA. 3086 + 70 TO STA. 3092 + 82 LEFT

RETAINING WALL WB–5
SN 016–Z039
STA. 3093 + 85 TO STA. 3104 + 00, LEFT

RETAINING WALL WB–6
SN 016–1355
STA. 3038 + 43 TO STA. 3040 + 99, LEFT

RETAINING WALL WB–7
SN 016–Z047
STA. 910 + 70 TO STA. 912 + 10, RIGHT

PROJECT LOCATED IN THE CITY OF CHICAGO

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
DIGGER – CHICAGO UTILITY ALERT NETWORK
1–312–744–7000

PROJECT ENGINEER: ANA ABREU 847–705–4482
PROJECT MANAGER: SERIN KELLER 847–705–4556

CONTRACT NO. 60Y39

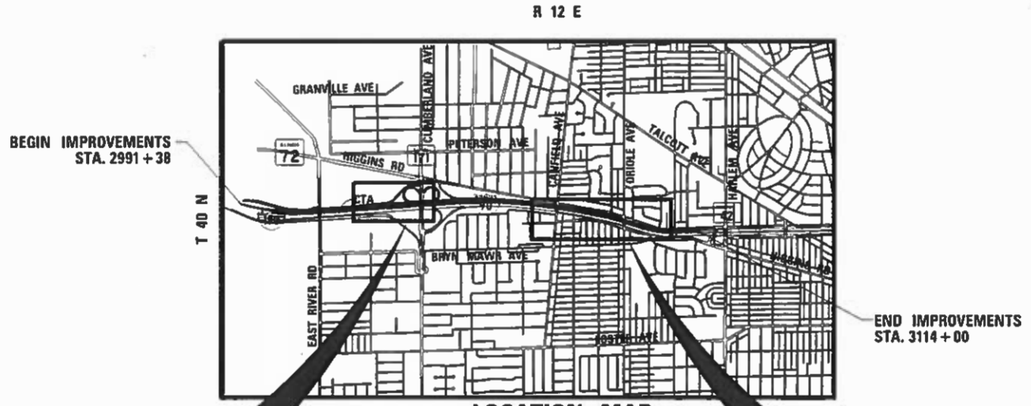
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED HIGHWAY PLANS

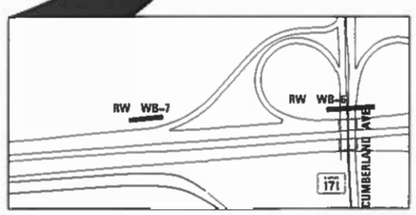
F.A.I. ROUTE 90
FROM I–190
TO IL 43 (HARLEM AVENUE)
SECTION (1517 & 1415) R–2
PROJECT CMAQ–NWQA(467)
RESURFACING, WIDENING, DRAINAGE, LIGHTING, ITS, SIGNING (NEW), RETAINING WALLS
COOK COUNTY

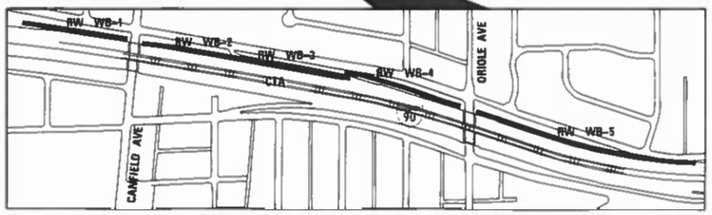
C–91–377–14

R 12 E



LOCATION MAP
N.T.S.
GROSS LENGTH = 12,262 FT, 2.32 MI
NET LENGTH = 19,152 FT, 3.63 MI
NET LENGTH WITH RAMPS = 24,474 FT, 4.64 MI





F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	454A
	ILLINOIS	CONTRACT NO. 60Y39		

VOLUME 2 OF 2

D–91–376–14

LOCATION OF SECTION INDICATED THUS: –

HNTB
ONE SOUTH WACKER DRIVE
SUITE 900
CHICAGO, IL 60606
(312) 930–9119
ILLINOIS PROFESSIONAL DESIGN FIRM
REGISTRATION NO. 184.001306

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED Jan. 12 20 18
Anthony J. Quigley /DSR
REGIONAL ENGINEER
20
ENGINEER OF DESIGN AND ENVIRONMENT
20
DIRECTOR OF PROGRAM DEVELOPMENT

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

HNTB CORPORATION
CIVIL

1/19/2018
DATE

MATTHEW A. MILLER
ILLINOIS REGISTRATION NO: 062-060879
EXP DATE: 11/30/2019
APPLY TO SHEETS:
1-58, 67-85, 91-95, 97-100, 215-226, 270-272, 274-275, 372-454C, 573-574, 603-734

exp U.S. SERVICES INC.
CIVIL

1/19/2018
DATE

PARVIZ BOROUMAND
ILLINOIS REGISTRATION NO: 062-046387
EXP DATE: 11/30/2019
APPLY TO SHEETS:
59-66, 101-207, 227-252A, 575-602

HNTB CORPORATION
ELECTRICAL

1/19/2018
DATE

MATTHEW C. DURNING
ILLINOIS REGISTRATION NO: 062-055699
EXP DATE: 11/30/2019
APPLY TO SHEETS:
315-371

exp U.S. SERVICES, INC.
STRUCTURAL

1/19/2018
DATE

BRIAN L. UMBRIGHT
ILLINOIS REGISTRATION NO: 081-005584
EXP DATE: 11/30/2018
APPLY TO SHEETS:
491-516, 543-572

RUBINOS & MESIA ENGINEERS INC
CIVIL

1/19/2018
DATE

MOHSEN M. FARAHANY
ILLINOIS REGISTRATION NO: 062-43875
EXP DATE: 11/30/2019
APPLY TO SHEETS:
96

AMES ENGINEERING, INC.
CIVIL

1/19/2018
DATE

MIR ALIKHAN
ILLINOIS REGISTRATION NO: 062-054268
EXP DATE: 11/30/2019
APPLY TO SHEETS:
254-269, 273

HNTB CORPORATION
STRUCTURAL

1/19/2018
DATE

JOHANN F. AAKRE
ILLINOIS REGISTRATION NO: 081-006828
EXP DATE: 11/30/2018
APPLY TO SHEETS:
86-90, 276-308

ATLAS ENGINEERING
CIVIL

1/19/2018
DATE

YEMI O. OYEWOLE
ILLINOIS REGISTRATION NO: 062-058164
EXP DATE: 11/30/2019
APPLY TO SHEETS:
206-211, 303-308

HNTB CORPORATION
STRUCTURAL

1/19/2018
DATE

TONY FATJON SHKURTI
ILLINOIS REGISTRATION NO: 081-005902
EXP DATE: 11/30/2018
APPLY TO SHEETS:
459-466, 529-542

RUBINOS & MESIA ENGINEERS INC
STRUCTURAL

1/19/2018
DATE

MOHSEN M. FARAHANY
ILLINOIS REGISTRATION NO: 081-005131
EXP DATE: 11/30/2018
APPLY TO SHEETS:
455-458, 467-490, 517-528

HNTB CORPORATION
ONE SOUTH WACKER DRIVE, SUITE 900
CHICAGO, IL 60606
(312) 930-9119

exp U.S. SERVICES INC.
205 N. MICHIGAN AVE, SUITE 3600
CHICAGO, IL 60601
(312) 616-0000

ATLAS ENGINEERING GROUP LTD.
3100 DUNDEE ROAD, SUITE 502
NORTHBROOK, IL 60062
(847) 753-8020

AMES ENGINEERING, INC.
5413 WALNUT DRIVE, SUITE 2F
DOWNERS GROVE, IL 60515
(630) 737-1987

RUBINOS & MESIA ENGINEERS INC
200 S MICHIGAN AVE, SUITE 1500
CHICAGO, IL 60604
(312) 663-5879

INDEX OF SHEETS

SHEET NO.	TITLE
VOLUME 1	
1	TITLE SHEET
2	SIGNATURE SHEET
3	INDEX OF SHEETS AND STANDARD DETAILS
4	GENERAL NOTES AND PROJECT COMMITMENTS
5	HMA MIXTURE TABLE
6 - 37	SUMMARY OF QUANTITIES
38 - 42	TYPICAL SECTIONS
43 - 58	SCHEDULE OF QUANTITIES
59 - 66	ALIGNMENT & TIES
67 - 72	REMOVAL PLAN
73 - 78	PROPOSED PLAN
79 - 85	PROPOSED PROFILE
86 - 95	ROADWAY DETAILS
96 - 96A	ADA RAMP LAYOUT
97 - 100	PAVEMENT ELEVATION TABLES
101	SUGGESTED STAGING AND TRAFFIC CONTROL - GENERAL NOTES
102	SUGGESTED STAGING AND TRAFFIC CONTROL - STAGING SEQUENCE
103 - 115	SUGGESTED STAGING AND TRAFFIC CONTROL - TYPICAL SECTIONS
116 - 117	SUGGESTED STAGING AND TRAFFIC CONTROL - STAGING ALIGNMENTS
118	SUGGESTED STAGING AND TRAFFIC CONTROL - TEMPORARY RAMP PROFILE
119	SUGGESTED STAGING AND TRAFFIC CONTROL - DETOUR
120 - 144	SUGGESTED STAGING AND TRAFFIC CONTROL - WB PRESTAGE
145 - 176	SUGGESTED STAGING AND TRAFFIC CONTROL - WB STAGE 1
177 - 200	SUGGESTED STAGING AND TRAFFIC CONTROL - WB STAGE 2
201	SUGGESTED STAGING AND TRAFFIC CONTROL - DETAIL
202 - 207	SUGGESTED STAGING AND TRAFFIC CONTROL - TEMP INFO SIGNS
208 - 214	EROSION AND SEDIMENT CONTROL PLAN
215 - 226	EXISTING UTILITIES PLAN
227 - 233	EXISTING DRAINAGE REMOVAL PLAN
234 - 239	PROPOSED DRAINAGE PLAN
240 - 245	PROPOSED DRAINAGE PROFILES
246 - 250	PROPOSED DRAINAGE SCHEDULE
251 - 252A	DRAINAGE DETAILS
253	GRADING PLAN
254 - 257	SIGNING SCHEDULES
258 - 263	PAVEMENT MARKING AND SIGNAGE PLAN
264 - 269	PROPOSED SIGNING DETAILS
270 - 273	OVERHEAD SIGN STRUCTURE LAYOUT
274 - 275	BREAK-AWAY STEEL SIGN POST DETAILS
276 - 308	OVERHEAD SIGN STRUCTURES
309 - 314	LANDSCAPING PLAN
315 - 371	LIGHTING PLANS
372 - 444	ITS PLANS
445 - 454	BORING LAYOUT PLAN AND PROFILE
VOLUME 2	
454A	TITLE SHEET
454B	SIGNATURE SHEET
454C	INDEX OF SHEETS AND STANDARD DETAILS
455 - 458	RETAINING WALL WB-7 STRUCTURE NO. 016 -Z047 PLANS
459 - 466	RETAINING WALL WB-6 STRUCTURE NO. 016-1355 PLANS
467 - 478	RETAINING WALL WB-1 STRUCTURE NO. 016-Z036 PLANS
479 - 490	RETAINING WALL WB-2 STRUCTURE NO. 016-Z037 PLANS
491 - 516	RETAINING WALL WB-3 STRUCTURE NO. 016-2289 PLANS
517 - 528	RETAINING WALL WB-4 STRUCTURE NO. 016-Z038 PLANS
529 - 542	RETAINING WALL WB-5 STRUCTURE NO. 016-Z039 PLANS
543 - 544	EXISTING RETAINING WALL REPAIR PLANS STRUCTURE NO. 016-W754
545 - 548	EXISTING RETAINING WALL REPAIR PLANS STRUCTURE NO. 016-W755
549 - 553	EXISTING RETAINING WALL REPAIR PLANS STRUCTURE NO. 016-2294
554 - 562	EXISTING RETAINING WALL REPAIR PLANS STRUCTURE NO. 016-2295
563 - 571	EXISTING RETAINING WALL REPAIR PLANS STRUCTURE NO. 016-1354
572	SUGGESTED STAGING AND TRAFFIC CONTROL - TEMPORARY SHEET PILING
573 - 574	CROSS SECTION INDEX
575 - 582	CROSS SECTION TEMPORARY: WB I-190
583 - 585	CROSS SECTION TEMPORARY: CUMBERLAND RAMP D
586 - 588	CROSS SECTION TEMPORARY: CUMBERLAND RAMP DD
589 - 593	CROSS SECTION TEMPORARY: CUMBERLAND RAMP CC
594 - 596	CROSS SECTION TEMPORARY: CUMBERLAND RAMP C
597 - 602	CROSS SECTION TEMPORARY: HARLEM RAMP D
603 - 646	CROSS SECTIONS: I-90 WESTBOUND
647 - 650	CROSS SECTIONS: CUMBERLAND RAMP "D"

INDEX OF SHEETS (CONT.)

SHEET NO.	TITLE
651 - 652	CROSS SECTIONS: CUMBERLAND RAMP "DD"
653 - 655	CROSS SECTIONS: CUMBERLAND RAMP "CC"
656	CROSS SECTIONS: CUMBERLAND RAMP "C"
657 - 703	DISTRICT 1 DETAILS
704 - 734	TOLLWAY STANDARDS

IDOT HIGHWAY STANDARDS

STD. NO.	TITLE
000001 - 06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001 - 02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001 - 07	TEMPORARY EROSION CONTROL SYSTEMS
420001 - 09	PAVEMENT JOINTS
482001 - 02	HMA SHOULDER ADJACENT TO FLEXIBILE PAVEMENT
542001 - 06	CONCRETE END SECTIONS FOR PIPE CULVERTS 15" THRU 84" DIA.
601001 - 05	PIPE UNDERDRAINS
601101 - 02	CONCRETE HEADWALL FOR PIPE DRAIN
602001 - 02	CATCH BASIN TYPE A
602301 - 04	INLET - TYPE A
602401 - 04	MANHOLE TYPE A
602406 - 08	MANHOLE TYPE A 6' DIAMETER
602411 - 06	MANHOLE TYPE A 7' DIAMETER
602416 - 06	MANHOLE TYPE A 8' DIAMETER
602421 - 06	MANHOLE TYPE A 9' DIAMETER
602601 - 05	PRECAST REINFORCED FLAT SLAB TOP
602701 - 02	MANHOLE STEPS
604001 - 04	FRAME AND LIDS TYPE 1
604036 - 03	GRATE TYPE 8
604041 - 03	FRAME AND GRATE TYPE 9
604046 - 03	FRAME AND GRATE TYPE 10
604071 - 05	FRAME AND GRATE TYPE 20
604086 - 03	FRAME AND GRATE TYPE 23
606001 - 07	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
606006 - 04	OUTLET FOR CONCRETE CURB AND GUTTER, TYPE B-6.24 (B-15.60)
606101 - 05	TYPE A GUTTER (INLET, OUTLET & ENTRANCE)
606201 - 04	TYPE B GUTTER (INLET, OUTLET & ENTRANCE)
606301 - 04	PC CONCRETE ISLANDS AND MEDIANS
606401 - 02	PAVED DITCH
630001 - 12	STEEL PLATE BEAM GUARDRAIL
630201 - 07	PCC/HMA STABILIZATION AT STEEL PLATE BEAM GUARDRAIL
630301 - 08	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631011 - 10	TRAFFIC BARRIER TERMINAL, TYPE 2
631033 - 07	TRAFFIC BARRIER TERMINAL, TYPE 6B
631046 - 04	TRAFFIC BARRIER TERMINAL, TYPE 10
635001 - 02	DELINEATORS
635006 - 03	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011 - 02	REFLECTOR MARKER AND MOUNTING DETAILS
637001 - 05	CONCRETE BARRIER, DOUBLE FACE, 32IN. (815 mm) HEIGHT
642001 - 02	SHOULDER RUMBLE STRIPS, 16 IN.
643001 - 02	SAND MODULE IMPACT ATTENUATORS
664001 - 02	CHAIN LINK FENCE
701101 - 05	OFF-RD OPERATIONS, MULTILANE, 15' TO 24" FROM PAVEMENT EDGE
701106 - 02	OFF-RD OPERATIONS, MULTILANE, MORE THAN 15' AWAY
701301 - 04	LANE CLOSUTRE, 2L, 2W, SHORT TIME OPERATIONS
701311 - 03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
701400 - 09	APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
701401 - 11	LANE CLOSURE, FREEWAY/EXPRESSWAY
701411 - 09	LANE CLOSURE, MULTILANE, AT ENTRANCE OR EXIT RAMP, FOR SPEEDS >= 45 MPH
701427 - 05	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPERATION, FOR SPEEDS >= 45 MPH
701428 - 01	TRAFFIC CONTROL SETUP AND REMOVAL FREEWAY/EXPRESSWAY
701446 - 09	TWO LANE CLOSURE FREEWAY/EXPRESSWAY
701501 - 06	URBAN LANE CLOSURE, 2L, 2W UNDIVIDED
701601 09	URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NON TRAVERSABLE MEDIAN
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 - 07	TRAFFIC CONTROL DEVICES
704001 - 08	TEMPORARY CONCRETE BARRIER

IDOT HIGHWAY STANDARDS (CONT.)

STD. NO.	
720001 - 01	SIGN PANEL MOUNTING DETAILS
720006 - 04	SIGN PANEL ERECTION DETAILS
720011 - 01	METAL POSTS FOR SIGNS, MARKERS AND DELINEATORS
720021 - 02	SIGN PANELS - EXTRUDED ALUMINUM TYPE
725001 - 01	OBJECT AND TERMINAL MARKERS
728001 - 01	TELESCOPING STEEL SIGN SUPPORT
729001 - 01	APPLICATION FOR TYPES A & B METAL POSTS (FOR SIGNS & MARKERS)
731001 - 01	BASE FOR TELESCOPING STEEL SIGN SUPPORT
780001 - 05	TYPICAL PAVEMENT MARKINGS
781001 - 04	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS
805001 - 01	ELECTRICAL SERVICE INSTALLATION DETAILS
814001 - 03	HANDHOLES

DISTRICT 1 DETAILS

STD. NO.	TITLE
BD-03	OUTLET FOR CONCRETE CURB AND GUTTER
BD-07	STORM SEWER CONNECTION TO EXISTING SEWER
BD-08	FRAMES AND LIDS ADJUSTMENT WITH MILLING; AND FRAMES AND LIDS ADJUSTMENTS WITHOUT MILLING
BD-12	MANHOLE WITH RESTRICTOR PLATE
BD-22	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT
BD-27	CONCRETE BARRIER TRANSITION, GENERAL DETAILS AND CONCRETE BARRIER BASE
BD-29	CONC. BARRIER WALL & PIER SLOPE WALL PROTECTION DETAIL
BD-32	BUTT JOINTS AND HMA TAPER
BD-34	DETAILS FOR DEPRESSED CURB & GUTTER AND SHOULDER TREATMENT AT TBT TY 1 SPL.
BD-37	MANHOLE TYPE A 7 FT. DIAMETER
BD-47	CATCH BASIN, INLET AND MANHOLE DETAILS
BD-58	CITY OF CHICAGO DETECTABLE WARNINGS
BE-205	LIGHTING CONTROLLER, BASE MOUNTED, 480 VOLT, 200 AMP (DUAL) RADIO SCADA
BE-301	LIGHT POLE FOUNDATION - 40 TO 47 1/2' M.H. 15' BOLT CIRCLE
BE-410	DAVIT LIGHT POLE 479"32-69"32 (14.478m) MOUNTING HEIGHT
BE-701	LUMINAIRE SAFETY CABLE ASSEMBLY
BE-702	MISC. ELECTRICAL DETAILS - SHEET A
BE-703	MISC. ELECTRICAL DETAILSB J BOX EMBEDDED IN BARRIER WALL
BE-705	COMMUNICATIONS VAULT, COMPOSITE CONCRETE
BE-800	TEMPORARY LIGHT POLE DETAILS
BE-801	TEMPORARY AERIAL CABLE INSTALLATION
BE-900	SUSPENDED MOUNT UNDERPASS LUMINAIRE INSTALLATION DETAILS
TC-08	ENTRANCE AND EXIT RAMP CLOSURE DETAILS
TC-09	TRAFFIC CONTROL DETAILS FOR FREEWAY SINGLE & MULTI-LANE WEAVE
TC-10	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS
TC-11	RAISED REFLECTIVE PAVEMENT MARKERS (SNOW PLOW RESISTANT)
TC-12	MULTI-LANE FREEWAY PAVEMENT MARKING (2 SHEETS)
TC-13	DISTRICT ONE TYPICAL PAVEMENT MARKING
TC-16	PAVEMENT MARKINGS LETTERS AND SYMBOLS FOR TRAFFIC STAGING
TC-17	TRAFFIC CONTROL FOR SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES
TC-18	SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS
TC-21	DETOUR SIGNING FOR CLOSING STATE HIGHWAYS
TC-22	ARTERIAL ROAD INFORMATION SIGN
TC-26	DRIVEWAY ENTRANCE SIGNING
TC-27	MILE POST MARKERS - GORE SIGNS MAJOR GUIDE SIGN LAYOUT - ARROWS
TS-02	DISTRICT 1 MAST ARM MOUNTED STREET NAME SIGNS
TS-05	STANDARD TRAFFIC SIGNAL DESIGN DETAILS

TOLLWAY STANDARDS

STD. NO.	TITLE
A7-03	PAVEMENT JOINTS
C1-09	GALVANIZED STEEL PLATE BEAM GUARDRAIL
C6-09	SHOULDER WIDENING FOR TRAFFIC TERMINAL TYPE T1 (SPECIAL)
C10-08	TRAFFIC BARRIER TERMINAL, TYPE T6B
C12-07	SHOULDER WIDENING FOR TRAFFIC BARRIER TERMINAL, TYPE T1-A (SPECIAL)
D4-06	DELINEATORS
D5-06	PERMANENT PAVEMENT MARKING
D6-07	PAVEMENT MARKING AND SHOULDER RUMBLE STRIP DETAILS
D8-02	RAISED PAVEMENT LANE MARKER
E1-06	CONSTRUCTION SIGNS
E2-07	LANE CLOSURE DETAILS
E3-06	SHOULDER CLOSURE DETAILS
E6-03	CONTRACTOR ACCESS TO WORK AREA
F9-04	BREAKAWAY SIGN SUPPORT DETAILS

G-02

HNTB

USER NAME = mkirby	DESIGNED MMK	REVISED - -
	DRAWN MMK	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED MAM	REVISED -
PLOT DATE = 1/29/2018	DATE 01/19/2018	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

I-90 WESTBOUND FROM HARLEM AVE TO I-190 INTERCHANGE
INDEX OF DRAWINGS AND HIGHWAY STANDARDS

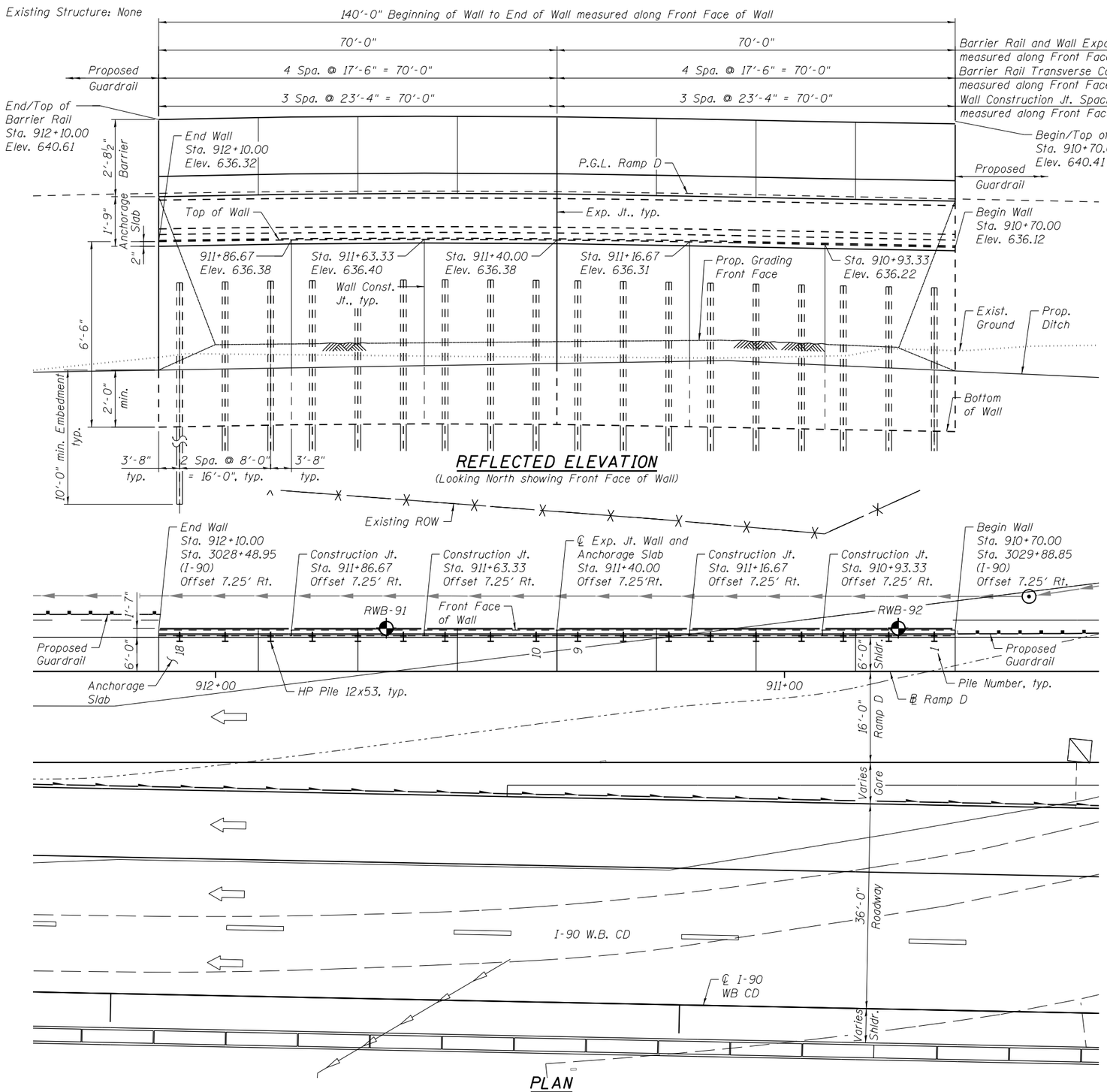
SCALE: N/A | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	454C
		CONTRACT NO. 60Y39		
	ILLINOIS FED. AID PROJECT			

FILE NAME = ...\D160Y39-sht-gennote-02.dgn

Bench Mark: TBM #19 (Elev. 638.00) - Square cut on top of barrier wall by light pole (FC13) mile marker 80.40 on North side WB I-90 just east of Canfield.

Existing Structure: None



REFLECTED ELEVATION
(Looking North showing Front Face of Wall)

PLAN

INDEX OF SHEETS

STATE OF ILLINOIS
MOHSEN M. FARAHANY
081-005131
CHICAGO, ILLINOIS
LICENSED STRUCTURAL ENGINEER

Signed: Mohsen M Farahany
Date: 4/21/2018
Exp: 11/30/2018
Sheets: S-1 to S-4

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Structure Excavation	Cu Yd	29
Concrete Structures	Cu Yd	33.7
Concrete Superstructure	Cu Yd	67.2
Stud Shear Connectors	Each	90
Reinforcement Bars, Epoxy Coated	Pound	16,410
Name Plates	Each	1
Furnishing Soldier Piles (HP section)	Foot	315
Driving Soldier Piles	Foot	315
Untreated Timber Lagging	Sq Ft	700
Concrete Sealer	Sq Ft	528
Geocomposite Wall Drain	Sq Yd	78
Pipe Underdrains for Structures, 4 in	Foot	140

LEGEND:

Existing	Proposed	
▭	▬	Inlet
○	●	Catch Basin
◎	⊙	Manhole
——▷——	——▶——	Storm Sewer
——▷——	——▶——	Pipe Underdrain
⊗	⊙—o	Light Pole
	⊕	Boring

STATION 3028+48.95
BUILT 201_ BY
STATE OF ILLINOIS
F.A.I. RTE. I-90 - SEC. (1517 & 1415) R-2
LOADING HL-93
STRUCTURE NO. 016-XXXX

NAME PLATE
See Std. 515001

GENERAL NOTES

Stations and Offsets are measured from ℄ Ramp D to Front Face of wall u.n.o.

The geometry of the wall follows curvature of the ℄ I-90. The wall may be constructed on chords between expansion/construction joints.

Notes:
1. For the panel details see Sheets S-2 of 4.
2. For Section thru wall, Construction and Expansion joint details and Pile Table see Sheet S-3 of 12.

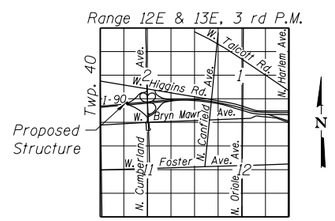
DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
f'c = 4,000 psi (Superstructure Concrete)
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (M270 Grade 50)

DESIGN SPECIFICATIONS

2014 AASHTO LRFD Bridge Design Specifications, 7th Edition, with 2016 Interim Revisions



LOCATION SKETCH

GENERAL PLAN AND ELEVATION
INTERSTATE I-90
F.A.I. RTE. I-90 - SEC. (1517 & 1415) R-2
COOK COUNTY
STA. 3028+48.95 TO 3029+88.95
STRUCTURE NO. 016-Z047

1/16/2018
MODEL: Default
D1580015-SHT-PRWB-7_GP&E01.dgn

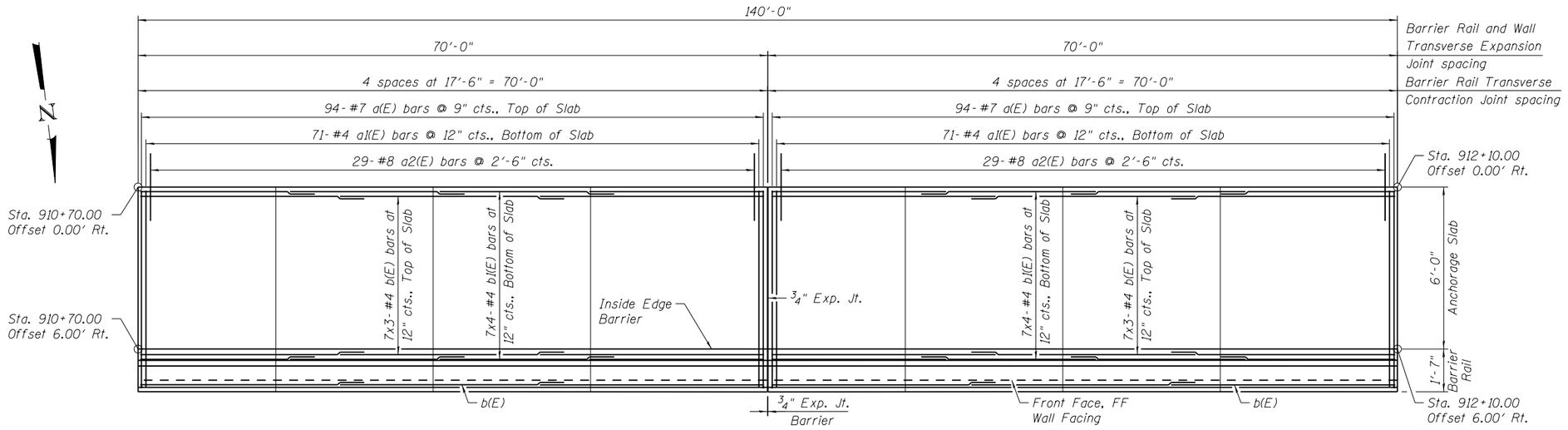
RME Rubinos & Mesia Engineers, Inc.
200 S. Michigan Avenue, Suite 1500, Chicago, IL 60604-2482

USER NAME = PHodina	DESIGNED - EV	REVISED -	
	CHECKED - PAH	REVISED -	
PLOT SCALE =	DRAWN - EV	REVISED -	
PLOT DATE = 01/19/2018	CHECKED - PAH	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

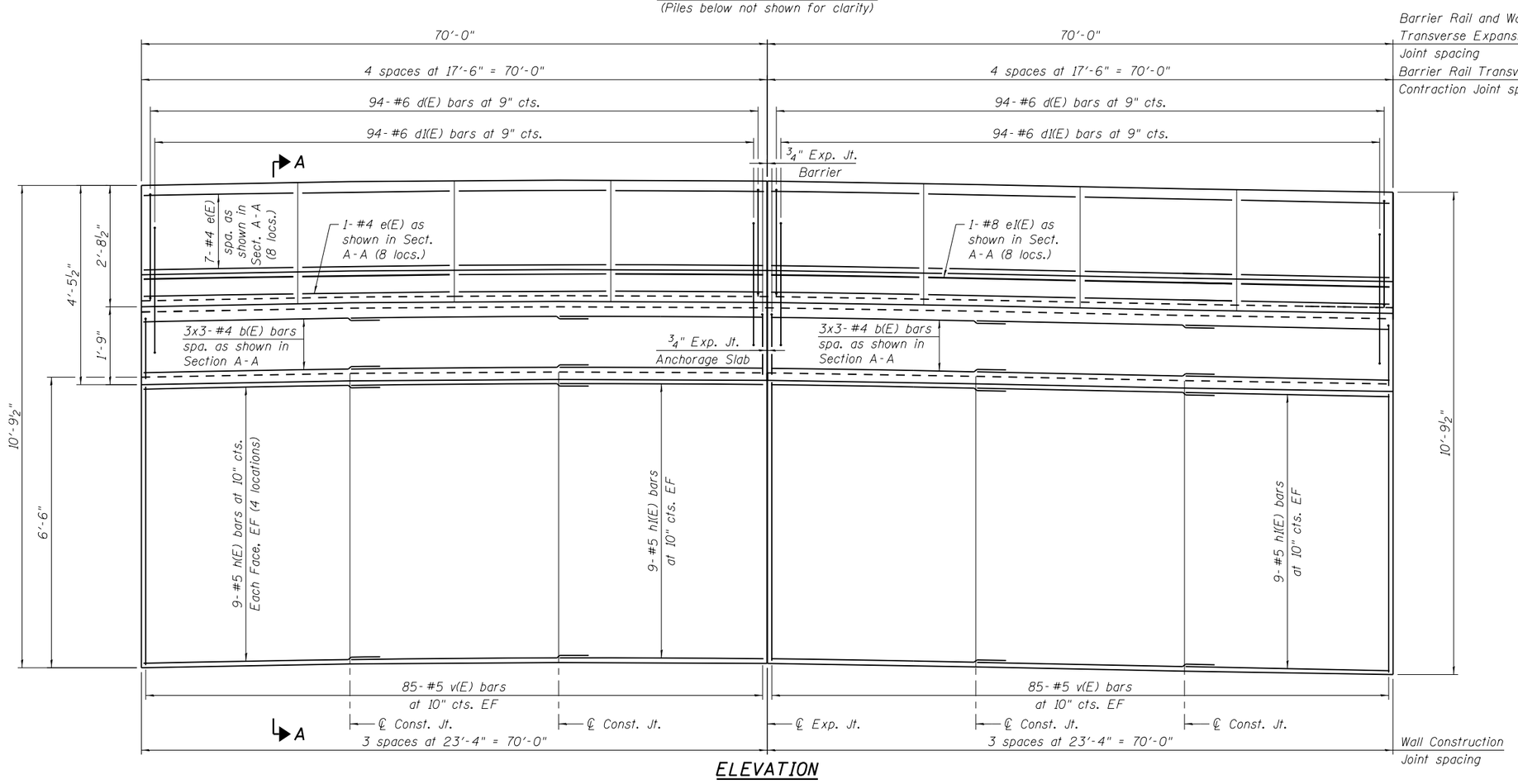
RETAINING WALL WB-7 PLAN & ELEVATION
STRUCTURE NO. 016-Z047
SHEET NO. S-1 OF 4 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	455
		CONTRACT NO. 60Y39		
	ILLINOIS FED. AID PROJECT			



ANCHORAGE SLAB PLAN

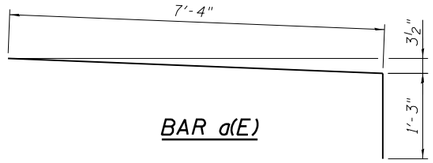
(Piles below not shown for clarity)



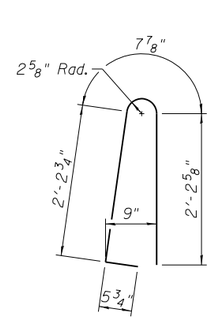
ELEVATION

WALL WB-7 BILL OF MATERIAL

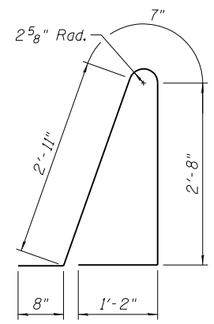
Bar	No.	Size	Length	Shape
a(E)	188	#7	8'-7"	
a1(E)	142	#4	7'-4"	
a2(E)	58	#8	4'-0"	
b(E)	60	#4	25'-2"	
b1(E)	56	#4	19'-6"	
d(E)	188	#6	5'-7"	
d1(E)	188	#6	8'-0"	
e(E)	64	#4	17'-3"	
e1(E)	8	#8	17'-3"	
h(E)	72	#5	26'-11"	
h1(E)	36	#5	23'-2"	
v(E)	340	#5	6'-3"	
Concrete Structures			Cu Yd	33.7
Concrete Superstructure			Cu Yd	67.2
Reinforcement Bars, Epoxy Coated			Each	16,410
Concrete Sealer			Sq Ft	528



BAR a(E)



BAR d(E)



BAR d1(E)

MINIMUM BAR LAP

#4 bar = 2'-8"
#5 bar = 3'-7"

Notes:
1. Elevation shown looking south at Front Face of Wall.
2. Reinforcement spacing shown is to be used as maximum spacing.
3. For Section thru wall, joint details, drain details and Pile Table see Sheet S-3 of 4.

RME Rubinos & Mesia Engineers, Inc.
200 S. Michigan Avenue, Suite 1500, Chicago, IL 60604-2482

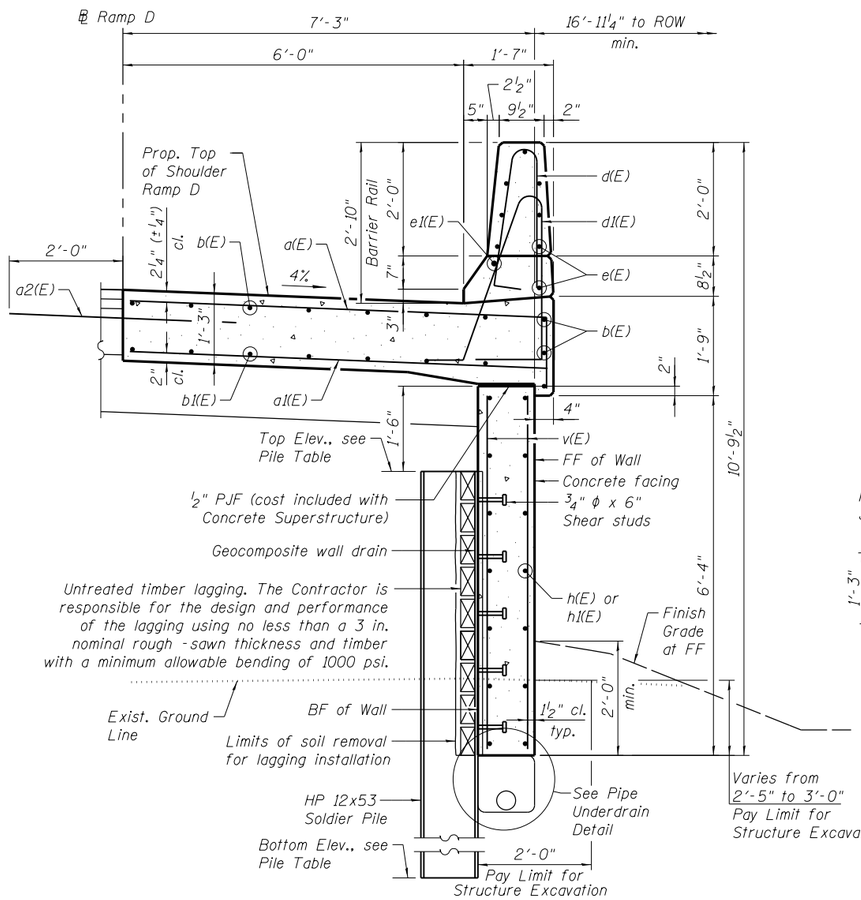
USER NAME = PHodina	DESIGNED - EV	REVISED -	
	CHECKED - PAH	REVISED -	
PLOT SCALE =	DRAWN - EV	REVISED -	
PLOT DATE = 01/19/2018	CHECKED - PAH	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

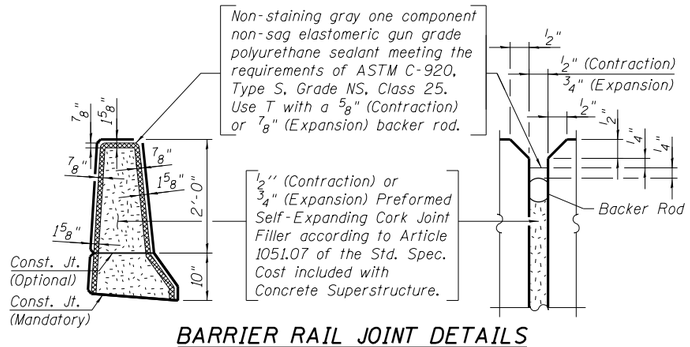
RETAINING WALL WB-7 DETAILS - 1
STRUCTURE NO. 016-Z047
SHEET NO. S-2 OF 4 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	456
		CONTRACT NO. 60Y39		
	ILLINOIS FED. AID PROJECT			

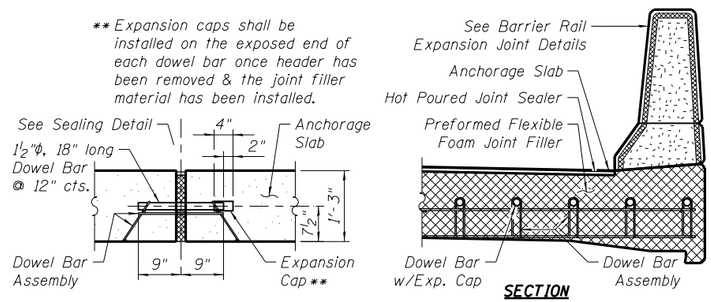
1/16/2018
MODEL: Sheet
D158015-sht-PRWB-7_DET01.dgn



SECTION A-A

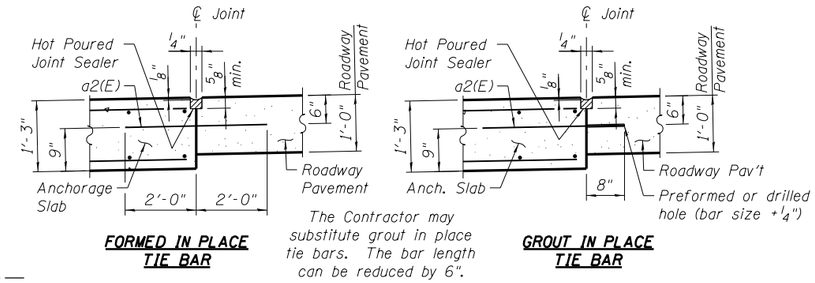


BARRIER RAIL JOINT DETAILS



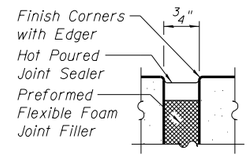
ANCHORAGE SLAB TO ANCHORAGE SLAB TRANSVERSE EXPANSION JOINT

Expansion Joint Filler, Sealer, Dowel Bars, Dowel Bar Assembly, and Expansion Caps included in cost of Concrete Structures

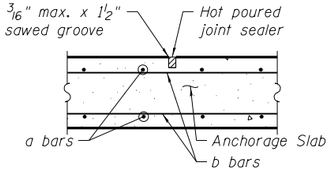


LONGITUDINAL CONSTRUCTION JOINT

See Article 420.05 & 420.12 of the Standard Specifications.

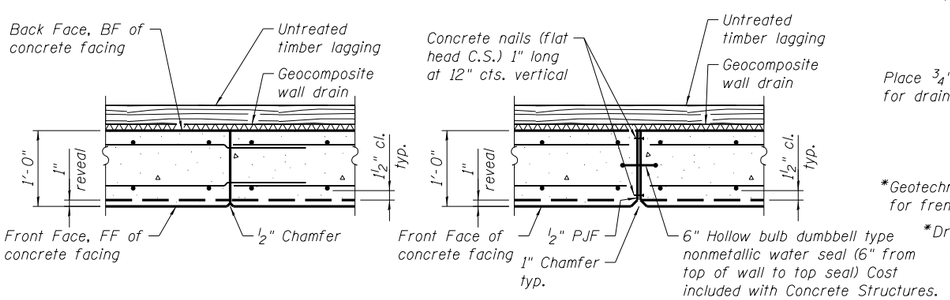


SEALING DETAIL



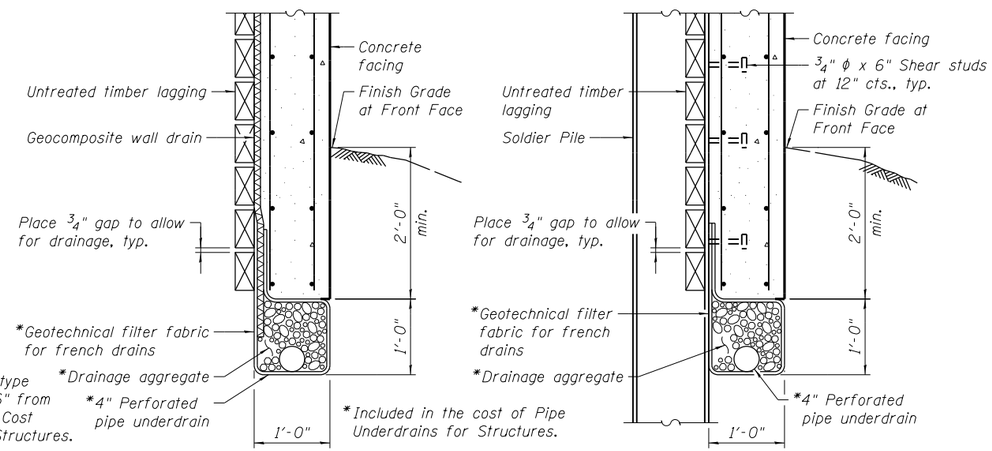
ANCHORAGE SLAB TRANSVERSE CONTRACTION JOINT

See Article 420.05 & 420.12 of the Standard Specifications.



CONSTRUCTION JOINT — EXPANSION JOINT

WALL JOINTS



BETWEEN SOLDIER PILES — AT SOLDIER PILES

UNDERDRAIN DETAIL

PILE TABLE

Pile No.	Size	Top Elev.	Bott. Elev.	Pile Length	Shear Stud
1	HP 12X53	634.64	617.14	17.5	5
2	HP 12X53	634.67	617.17	17.5	5
3	HP 12X53	634.70	617.20	17.5	5
4	HP 12X53	634.73	617.23	17.5	5
5	HP 12X53	634.77	617.27	17.5	5
6	HP 12X53	634.80	617.30	17.5	5
7	HP 12X53	634.82	617.32	17.5	5
8	HP 12X53	634.84	617.34	17.5	5
9	HP 12X53	634.87	617.37	17.5	5
10	HP 12X53	634.88	617.38	17.5	5
11	HP 12X53	634.89	617.39	17.5	5
12	HP 12X53	634.90	617.40	17.5	5
13	HP 12X53	634.90	617.40	17.5	5
14	HP 12X53	634.89	617.39	17.5	5
15	HP 12X53	634.88	617.38	17.5	5
16	HP 12X53	634.87	617.37	17.5	5
17	HP 12X53	634.85	617.35	17.5	5
18	HP 12X53	634.83	617.33	17.5	5

Notes:
1. For panel reinforcement, see Sheets S-2 of 4.

RME Rubinos & Mesia Engineers, Inc.
200 S. Michigan Avenue, Suite 1500, Chicago, IL 60604-2482

USER NAME = PHodina	DESIGNED - EV	REVISED -	
	CHECKED - PAH	REVISED -	
PLOT SCALE =	DRAWN - EV	REVISED -	
PLOT DATE = 01/19/2018	CHECKED - PAH	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RETAINING WALL WB-7 DETAILS - 2
STRUCTURE NO. 016-Z047
SHEET NO. S-3 OF 4 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	457
		CONTRACT NO. 60Y39		
	ILLINOIS FED. AID PROJECT			

1/16/2018
MODEL: Sheet
D:\56015-SHT-PRWB-7_DET02.dgn

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Amherst Court, Suite 204
Naperville, Illinois 60565
(630) 355-0888

SOIL BORING LOG

GSI Job No. 12245-A
Page 1 of 1
Date 3/15/16

ROUTE FAI 90 (I-90 - Kennedy Expressway) DESCRIPTION I-90 Retaining Walls LOGGED BY TZ
SECTION (1517 & 1415) R-3 LOCATION SW 1/4, SEC. 2, TWP. T40N, RNG. R12E, 3rd PM
COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. -
Station -
BORING NO. RWB-91
Station 3028+89
Offset 152.80ft Left
Ground Surface Elev. 632.40 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter 623.4 ft ▼
Upon Completion n/a ft
After ___ Hrs. ___ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Soil Description
				11.0" TOPSOIL-black
631.48			19	
	3			SANDY CLAY LOAM-brown & gray-stiff
	3	1.0	13	
	4	P		
	4			
	4	1.4	15	
-5	4	B		
626.90				
	4			SAND-brown & gray-medium dense
	6		10	
	7			
	6			becoming gray @ -8.5' ▼
	6		20	
-10	9			
621.90				
	4			CLAY-gray-stiff
	4	1.6	21	
	6	B		
	2			silt seams from -13.5' to -15.0'
	3	1.0	26	
-15	4	B		
	4			
	6	1.1	18	
	6	B		
	6			
	6	1.1	22	
-20	7	B		

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Soil Description
				CLAY-gray-stiff *(continued)*
	4			
	6	1.4	21	
	6	B		
	5			
	5	1.5	22	
-25	6	B		
606.90				
	4			CLAY LOAM-gray-stiff to very stiff
	6	1.9	15	
	9	B		
	5			
	7	2.8	13	
-30	11	B		
	6			
	8	2.9	15	
-35	10	B		
595.40				
	15			SILTY CLAY LOAM-gray-dense
	20	4.0	14	
-40	33	B		End Of Boring @ -40.0'. Boring backfilled with cuttings.
592.40				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Z:\PROJECTS\2012\12245-A HNTB, I-90 PHASE I\12245-A BORING LOGS\12245-A_LOG.GPJ 12/13/16

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Amherst Court, Suite 204
Naperville, Illinois 60565
(630) 355-0888

SOIL BORING LOG

GSI Job No. 12245-A
Page 1 of 1
Date 3/15/16

ROUTE FAI 90 (I-90 - Kennedy Expressway) DESCRIPTION I-90 Retaining Walls LOGGED BY TZ
SECTION (1517 & 1415) R-3 LOCATION SW 1/4, SEC. 2, TWP. T40N, RNG. R12E, 3rd PM
COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. -
Station -
BORING NO. RWB-92
Station 3029+79
Offset 156.10ft Left
Ground Surface Elev. 632.30 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter 623.8 ft ▼
Upon Completion n/a ft
After ___ Hrs. ___ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Soil Description
				12.0" TOPSOIL-black
631.30			4	
	3			SANDY CLAY LOAM-brown & gray-stiff
	4	1.8	19	
	4	P		
629.30				
	3			CLAY-gray-stiff
	4	1.5	18	
-5	4	P		
626.80				
	4			SAND-brown & gray-medium dense
	5		12	
	6			
	3			becoming gray @ -8.5' ▼
	6		21	
-10	5			
621.80				
	5			CLAY-gray-stiff to very stiff
	6	1.4	18	
	6	B		
	6			
	7	1.4	18	
-15	8	B		
	5			
	6	2.1	17	
	8	B		
	5			
	7	2.1	21	
-20	7	B		

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Soil Description
				CLAY-gray-stiff to very stiff *(continued)*
	7			silt seams from -21.0' to -22.5'
	8	1.8	18	
	10	B		
609.30				
	6			CLAY LOAM-gray-stiff to very stiff
	7	1.9	16	
-25	9	B		
	7			
	8	1.5	17	
	8	B		
	7			
	10	1.6	16	
-30	10	B		
	8			
	8	2.3	17	
-35	9	P		
595.30				
	13			SILT-gray-very dense
	29		16	
-40	40			End Of Boring @ -40.0'. Boring backfilled with cuttings.
592.30				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Z:\PROJECTS\2012\12245-A HNTB, I-90 PHASE I\12245-A BORING LOGS\12245-A_LOG.GPJ 12/13/16

1/16/2018
MODEL: Sheet
D1580015-sht-PRWB-7_BOR01.dgn

RME Rubinos & Mesia Engineers, Inc.
200 S. Michigan Avenue, Suite 1500, Chicago, IL 60604-2482

USER NAME = PHodina	DESIGNED - EV	REVISED -	
	CHECKED - PAH	REVISED -	
PLOT SCALE =	DRAWN - EV	REVISED -	
PLOT DATE = 01/19/2018	CHECKED - PAH	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RETAINING WALL WB-7 SOIL BORING LOGS
STRUCTURE NO. 016-Z047
SHEET NO. S-4 OF 4 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	458
		CONTRACT NO. 60Y39		
	ILLINOIS FED. AID PROJECT			

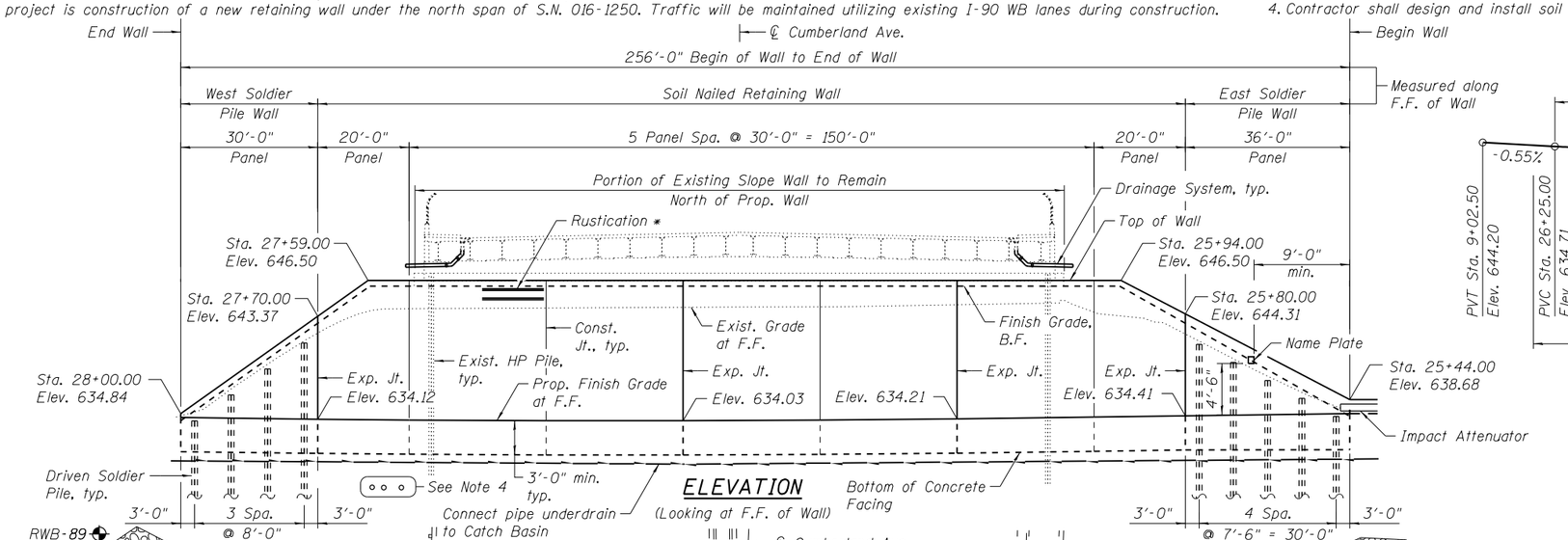
Bench Mark: TBM#22
Chiseled "□" on the top of the concrete barrier wall by light pole EN1 at mile marker 79.72, on the north side of I-90 WB, offset 86.5'± Lt. from ℄ I-90 east of the bridge. Elev. 637.48.

Existing Structure: S.N. 016-1250 was built in 2014 as F.A.U. Rte 2746, Section 16168. Existing structure consists of two span continuous steel girder bridge with reinforced concrete deck, supported by concrete abutments founded on piles and concrete wall pier founded on drilled shafts. Scope of work for this project is construction of a new retaining wall under the north span of S.N. 016-1250. Traffic will be maintained utilizing existing I-90 WB lanes during construction.

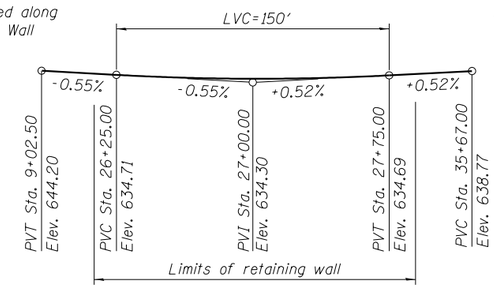
Notes:
1. Offsets are measured from ℄ I-90 WB CD Road to Front Face of Wall.
2. The number and spacing of soil nails, embedment length, anchors, and other design features shall be per Contractor design. Space soil nails to miss existing piles and existing temporary sheet piling left in place from construction of the bridge.
3. Provide temporary concrete barrier for the construction of the wall. (See Roadway Plan).
4. Contractor shall design and install soil nailed retaining wall to avoid proposed lighting cables.

DESIGN STRESSES
FIELD UNITS
f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (M270 Grade 50 for soldier pile)

DESIGN SPECIFICATIONS
2014 AASHTO LRFD Bridge Design Specifications, 7th Edition, with 2016 Interim Revisions

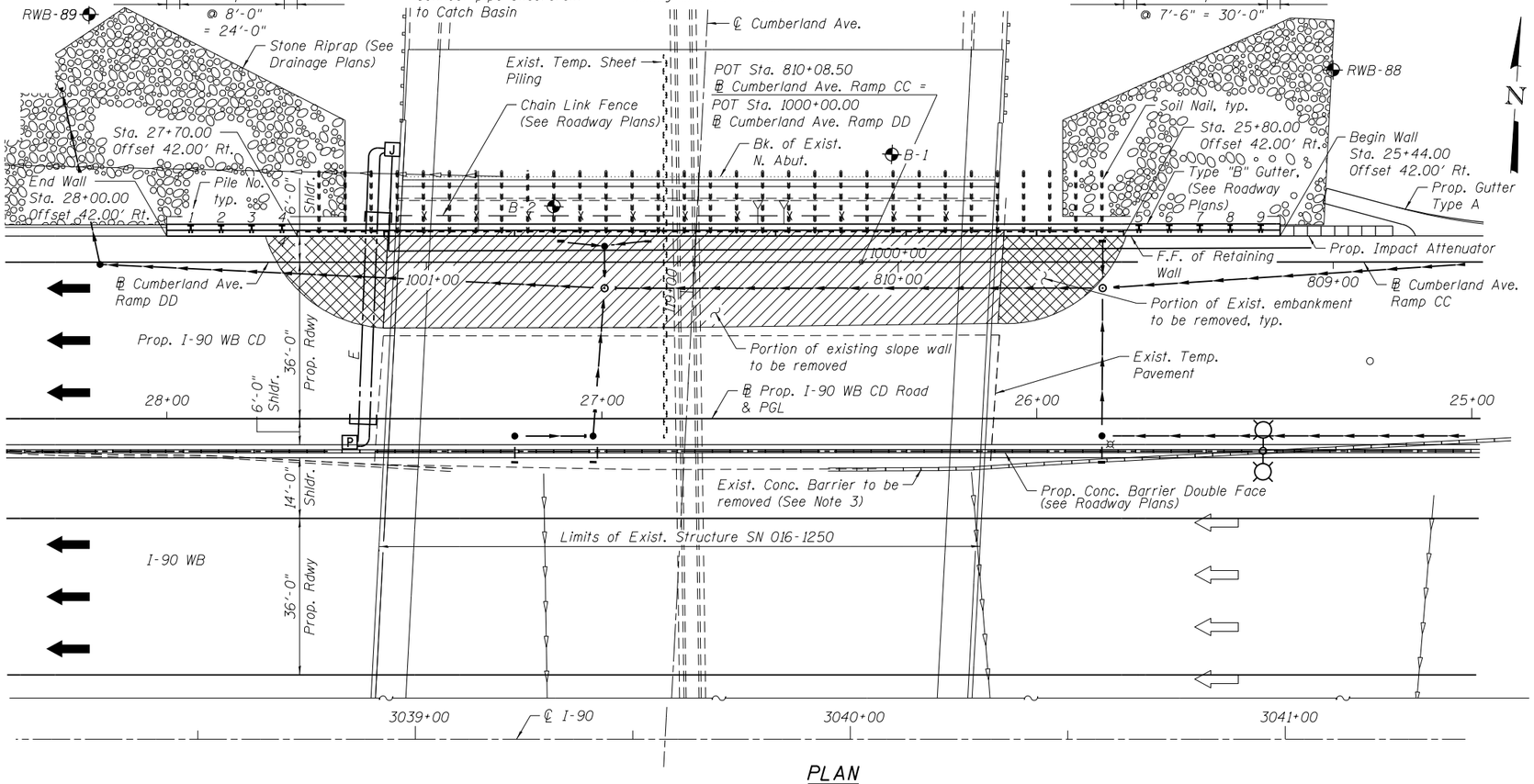


ELEVATION
(Looking at F.F. of Wall)



PROFILE GRADE
(Along ℄ I-90 WB CD Road)

* Rustication for entire wall length

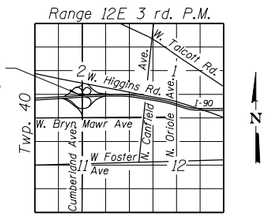


PLAN

LEGEND:

Existing	Proposed	
▭	▬	Inlet
○	●	Catch Basin
◎	⊙	Manhole
◁	◀	End Section
⇨	⟶	Storm Sewer
⇨	⟶	Pipe Underdrain
☼	☼	Light Pole (location to be determined)
	⊕	Boring
⇦	⟵	Direction of Traffic
▨	▨	Slope wall and Embankment Removal
▩	▩	Embankment Removal

F.F. - denotes Front Face
B.F. - denotes Back Face
E.F. - denotes Each Face



LOCATION SKETCH

TONY FATJON SHURTI
081-005902
LICENSED STRUCTURAL ENGINEER
STATE OF ILLINOIS

Signed:
Date: 1/19/2018
Exp: 11/30/2018
Sheets: S-1 thru S-8

GENERAL PLAN AND ELEVATION
IL RTE 171 (CUMBERLAND AVE.)
OVER INTERSTATE 90 (KENNEDY EXPRESSWAY)
F.A.I. RTE. I-90 - SEC. (1517 & 1415) R-2
COOK COUNTY
STATION 25+44.00 TO 28+00.00
STRUCTURE NO. 016-1355

HNTB

USER NAME = lkalita	DESIGNED ACF	REVISED -	
	CHECKED PCA	REVISED -	
PLOT SCALE = 0.16667 ' / in.	DRAWN LK	REVISED -	
PLOT DATE = 1/17/2018	DATE 01/19/2018	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RETAINING WALL WB-6 GENERAL PLAN AND ELEVATION
STRUCTURE NO. 016-1355
SHEET NO. 1 OF 8 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	459
		CONTRACT NO. 60Y39		
	ILLINOIS FED. AID PROJECT			

FILE NAME = 016-1355-60Y39-001-GPE01.dgn

GENERAL NOTES

Reinforcement bars designated (E) shall be epoxy coated.

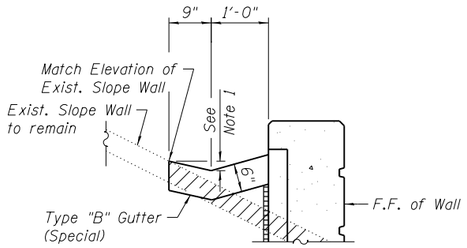
Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall 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 the work.

Concrete Sealer shall be applied to exposed surfaces of the front face and the top of wall.

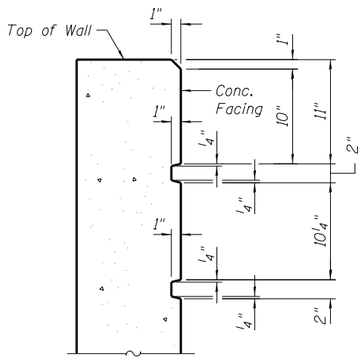
INDEX OF SHEETS

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Removal of Existing Structures	Each	1
Slope Wall Removal	Sq Yd	386
Concrete Structures	Cu Yd	29.4
Stud Shear Connectors	Each	66
Reinforcement Bars, Epoxy Coated	Pound	3,090
Name Plates	Each	1
Furnishing Soldier Piles (HP Section)	Foot	254
Driving Soldier Piles	Foot	254
Untreated Timber Lagging	Sq Ft	324
Concrete Sealer	Sq Ft	3,077
Geocomposite Wall Drain	Sq Yd	340
Drainage System	L Sum	1
Pipe Underdrains for Structures 4"	Foot	276
Soil Nailed Retaining Wall	Sq Ft	2,910



TYPE B GUTTER (SPECIAL)



RUSTICATION DETAIL AT TOP OF WALL

STATION 25+44.00
BUILT 20__ BY
STATE OF ILLINOIS
F.A.I. RT. 90
STR. NO. 016-1355

NAME PLATE

See Std. 515001

Notes:
1. Dimension varies 1/2" to 1 1/2". The flow line depth shall be 1/2" at Sta. 26+77.00, and shall increase to 1 1/2" at Sta. 25+94.00 and Sta. 27+59.00 in order to ensure positive drainage.

HNTB

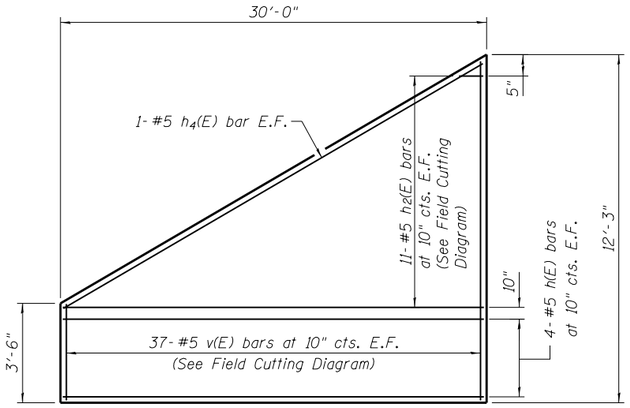
USER NAME = lkalsta	DESIGNED ACF	REVISED -	
	CHECKED MLK	REVISED -	
PLOT SCALE = 0.166666 ' / in.	DRAWN LK	REVISED -	
PLOT DATE = 1/16/2018	DATE 01/19/2018	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

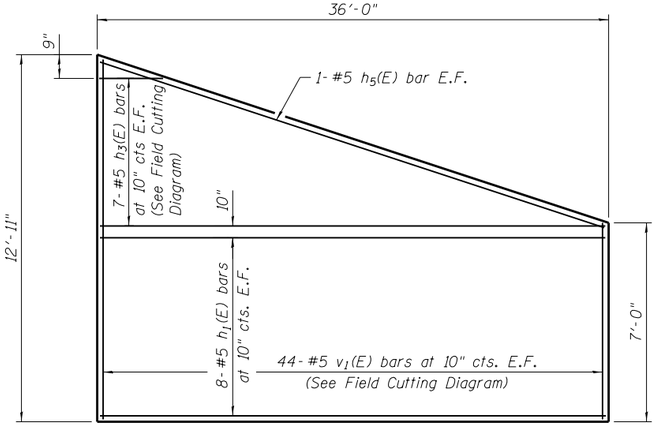
RETAINING WALL WB-6 GENERAL DATA
STRUCTURE NO. 016-1355
SHEET NO. 2 OF 8 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	460
		CONTRACT NO. 60Y39		
	ILLINOIS FED. AID PROJECT			

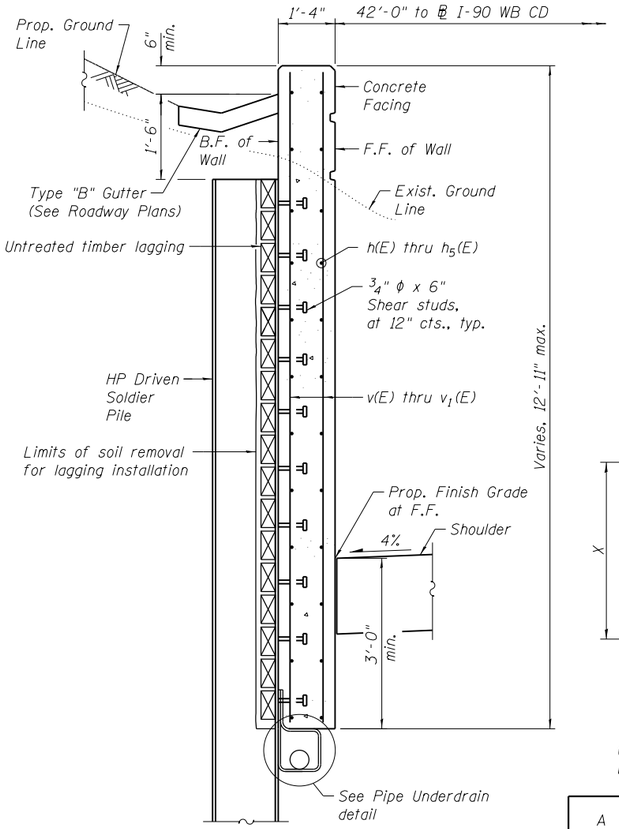
FILE NAME = 016-1355-60Y39-002-GN01.dgn



WEST SOLDIER PILE WALL ELEVATION

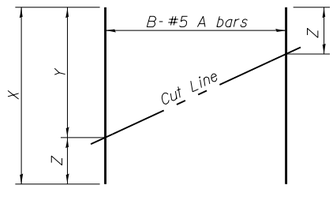


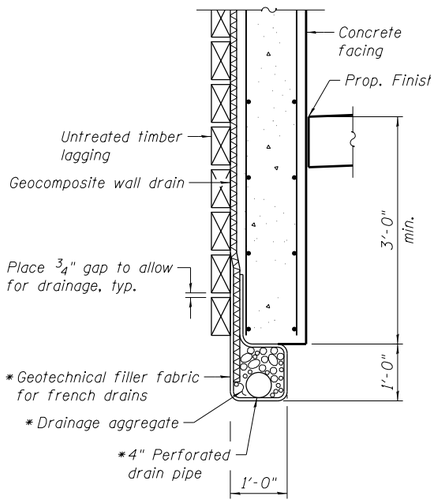
EAST SOLDIER PILE WALL ELEVATION



WALL BILL OF MATERIAL

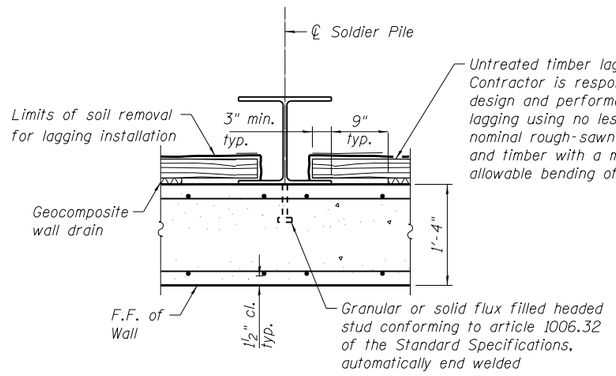
Bar	No.	Size	Length	Shape
h(E)	8	#5	29'-8"	
h_1(E)	16	#5	35'-8"	
h_2(E)	11	#5	30'-7"	
h_3(E)	7	#5	39'-10"	
h_4(E)	2	#5	30'-11"	
h_5(E)	2	#5	36'-1"	
v(E)	37	#5	15'-1"	
v_1(E)	44	#5	19'-3"	
Reinforcement Bars, Epoxy Coated			Pound	3,090
Concrete Structures			Cu Yd	29.4



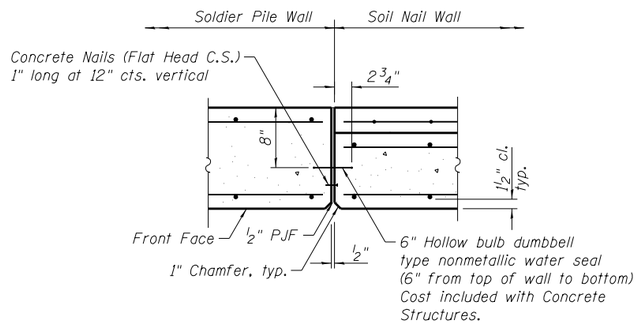


UNDERDRAIN DETAIL BETWEEN SOLDIER PILES

* Included in the cost of Pipe Underdrains for Structures 4"



SECTION THRU SOLDIER PILE



EXPANSION JOINT

TYPICAL WALL SECTION AT SOLDIER PILE WALL

Geocomposite wall drain to be provided between piles.

FIELD CUTTING DIAGRAM

Order bars full length. Cut as shown and use remainder of bars in opposite face.

A	B	X	Y	Z
v(E)	37	15'-1"	11'-11"	3'-2"
v_1(E)	44	19'-3"	12'-7"	6'-8"
h_2(E)	11	30'-7"	29'-8"	11"
h_3(E)	7	39'-10"	35'-8"	4'-2"

PILE TABLE

Pile No.	Size	Top Elev.	Bott. Elev.	Pile Length	Shear Stud
1	HP14x89	633.69	611.28	22.42	3
2	HP14x89	635.97	613.55	22.42	5
3	HP18x181	638.24	604.83	33.42	8
4	HP18x181	640.52	607.10	33.42	10
5	HP18x181	640.94	608.03	32.92	10
6	HP18x181	639.97	607.06	32.92	9
7	HP14X89	639.01	613.76	25.25	8
8	HP14X89	638.04	612.79	25.25	7
9	HP14X89	637.07	611.82	25.25	6

Notes:
1. Slope underdrain to outlet to designated drainage structure, see Proposed Drainage Plans.

HNTB

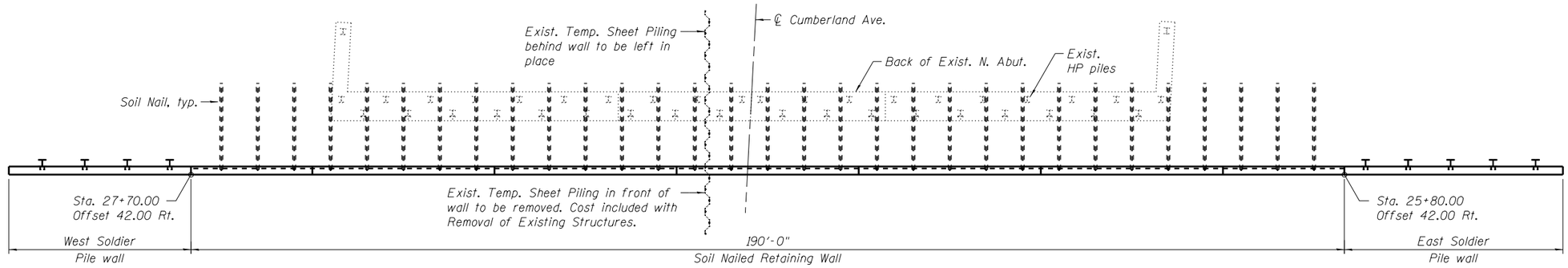
USER NAME = lkalta	DESIGNED ACF	REVISED -	
	CHECKED PCA	REVISED -	
PLOT SCALE = 0.16667 '/ in.	DRAWN LK	REVISED -	
PLOT DATE = 1/16/2018	DATE 01/19/2018	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RETAINING WALL WB-6 DETAILS - 1
STRUCTURE NO. 016-1355
SHEET NO. 3 OF 8 SHEETS

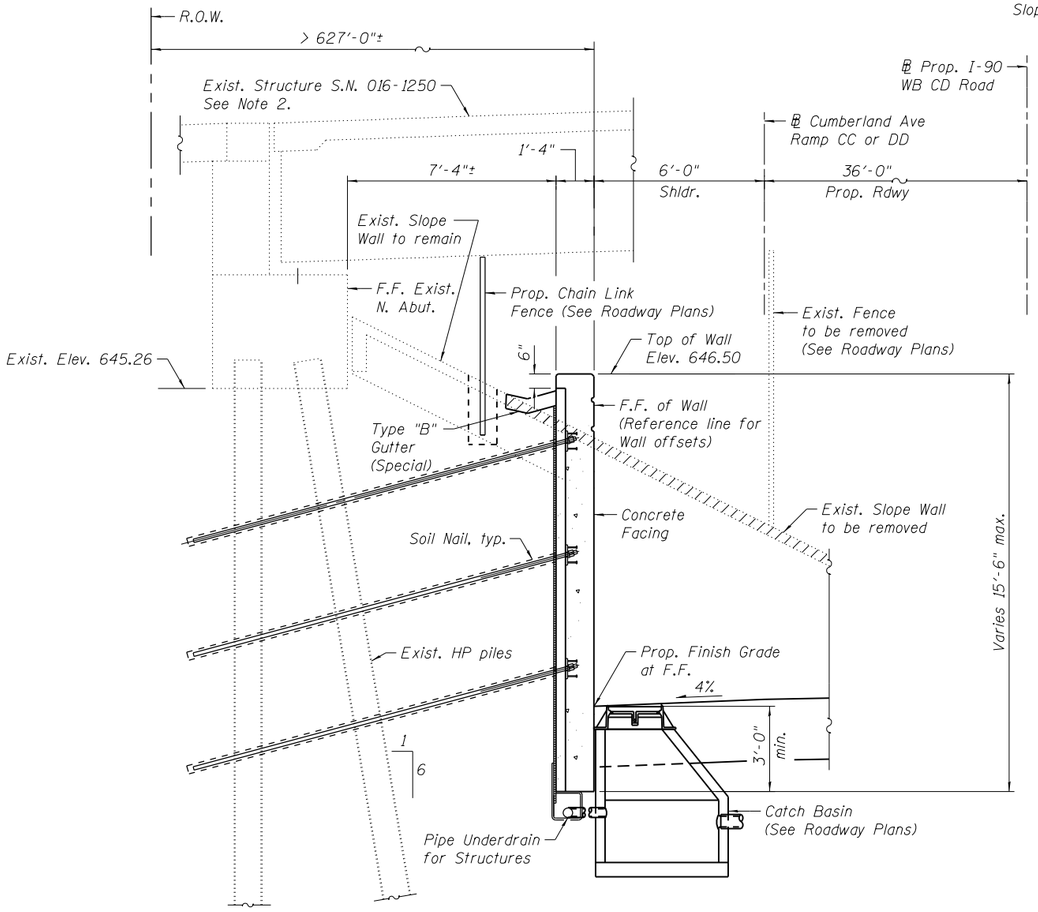
F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	461
		CONTRACT NO. 60Y39		
	ILLINOIS FED. AID PROJECT			

FILE NAME = 016-1355-60Y39-003-DET01.dgn



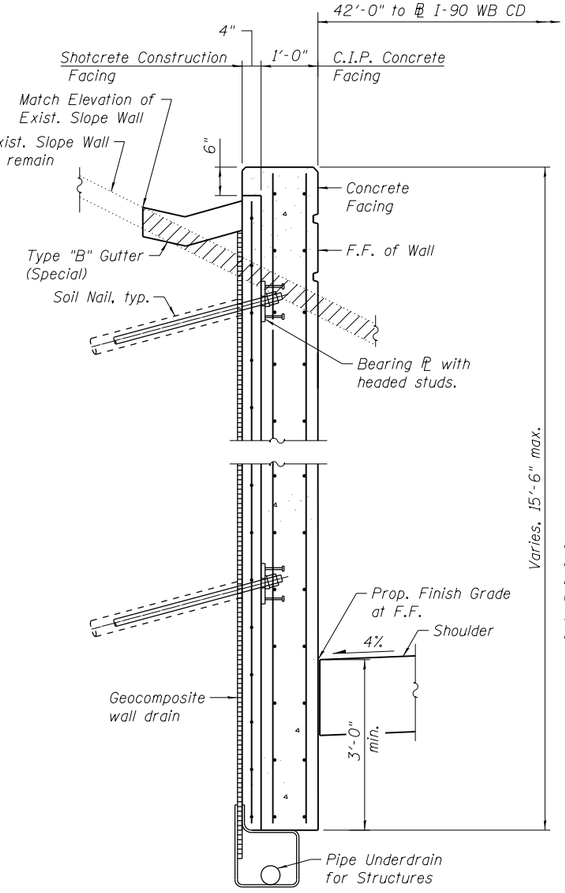
PLAN

Number and spacing of soil nails and embedment length shall be per Contractor design.
Space soil nails to miss existing piles and existing temporary sheet piling left in place.
Slopewall not shown.

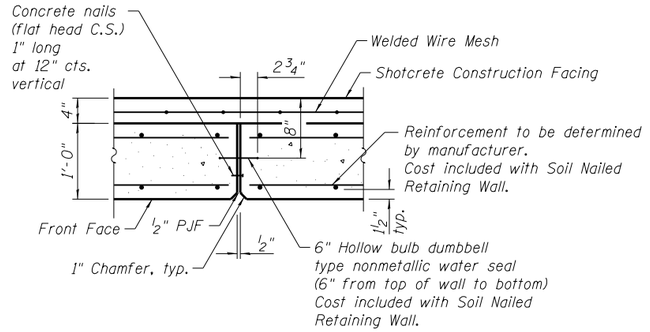


TYPICAL WALL SECTION

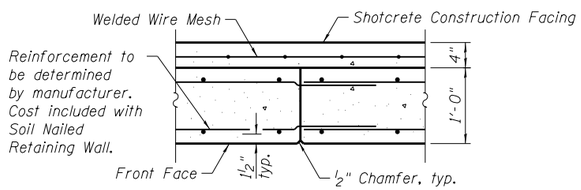
Soil Nailed Retaining Wall shown
Looking East



TYPICAL WALL SECTION AT SOIL NAILED RETAINING WALL



EXPANSION JOINT BETWEEN SOIL NAILED PANELS



CONSTRUCTION JOINT

Notes:

1. Type "B" Gutter (Special) shall be used between Sta. 25+94.00 to 27+59.00. See Sheet 2 of 8 for detail.
2. Existing horizontal load from the Existing Structure S.N. 016-1250 North Abutment shall be determined and considered by the soil nailed wall designer.
3. Suggested sequence of construction:
   a. Create near vertical excavation of the existing soil in lifts, followed by installation of the soil nails, wall drain, and shotcrete facing.
   b. Install pipe underdrain and construct concrete facing.
   c. Install drainage structure to the elevations shown in the plans and connect pipe underdrains.

HNTB

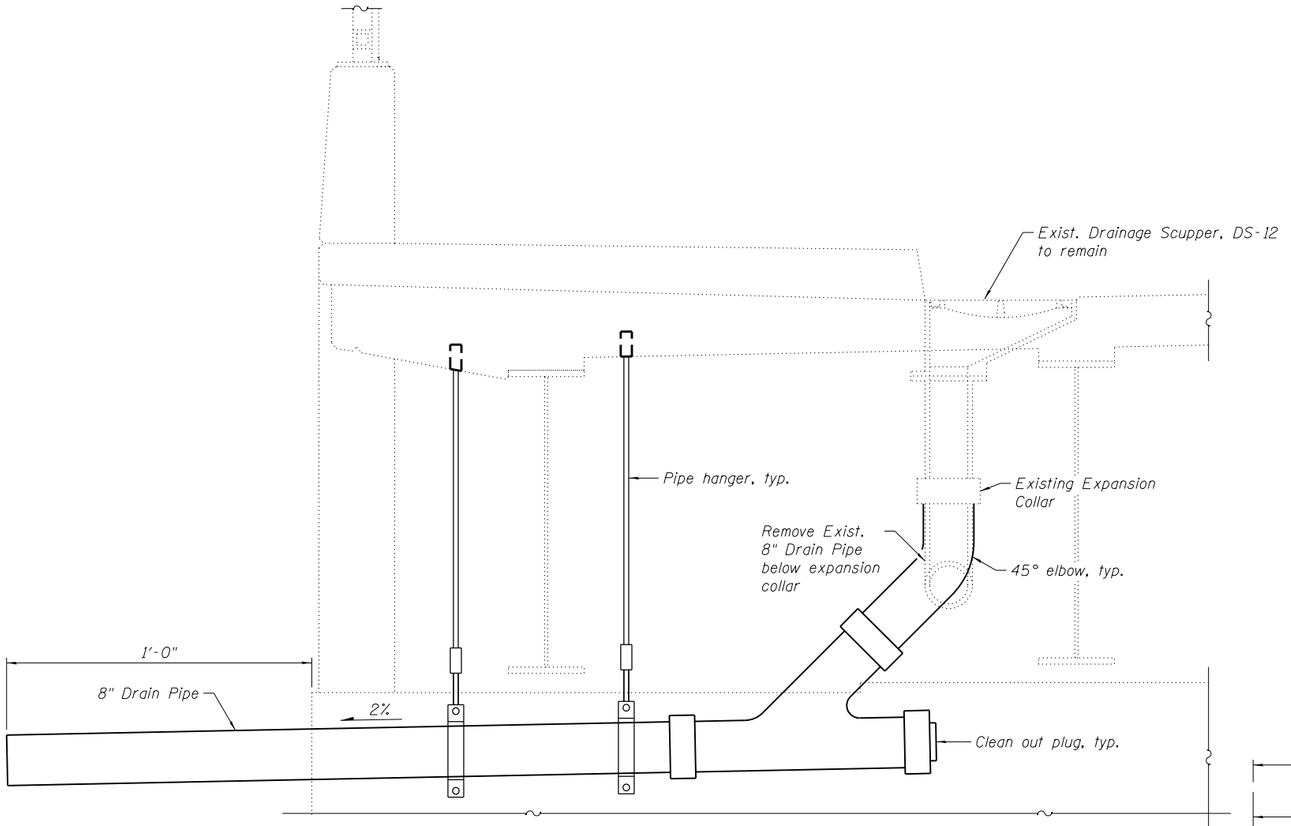
USER NAME = lkalita	DESIGNED ACF	REVISED -	
	CHECKED PCA	REVISED -	
PLOT SCALE = 0.16667 '/ in.	DRAWN LK	REVISED -	
PLOT DATE = 1/16/2018	DATE 01/19/2018	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RETAINING WALL WB-6 DETAILS - 2
STRUCTURE NO. 016-1355
SHEET NO. 4 OF 8 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	462
		CONTRACT NO. 60Y39		
	ILLINOIS FED. AID PROJECT			

FILE NAME = 016-1355-60Y39-004-DET02.dgn

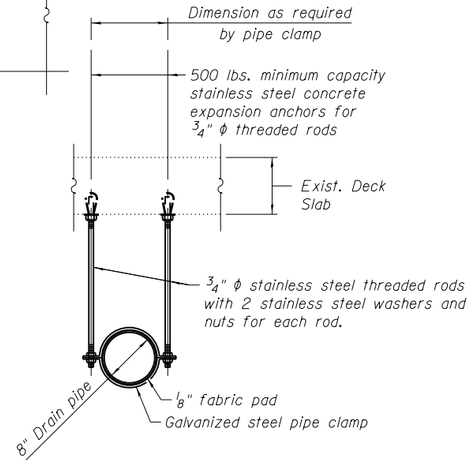


ABUTMENT ELEVATION

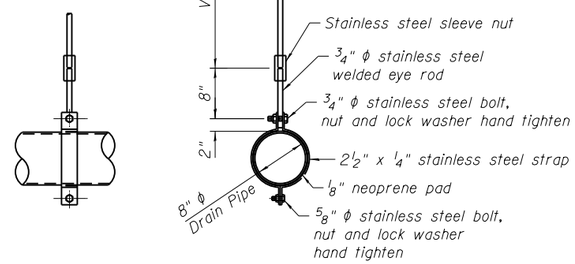
(Looking North)

Notes:

1. Drain pipe and fittings shall be 8" diameter reinforced fiberglass meeting the requirements of the special provision Drainage System.
2. Collector pipe hangers shall have a load capacity of not less than value as shown on this sheet and shall be designed so as not to apply excessive compressive stress to the pipe.
3. Pipe supports shall be provided on all horizontal pipes at each tee, elbow, or change in direction and at intermediate points not more than 5'-0" on centers.



COLLECTOR PIPE HANGER DETAILS



ELEVATION TYPICAL SECTION

ALTERNATE COLLECTOR PIPE HANGER DETAILS

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Drainage System	L Sum	1

USER NAME = lkalita	DESIGNED	ACF	REVISED -
	CHECKED	MLK	REVISED -
PLOT SCALE = 0.166666 '/ in.	DRAWN	LK	REVISED -
PLOT DATE = 1/16/2018	DATE	01/19/2018	REVISED -

HNTB

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RETAINING WALL WB-6 DETAILS - 3
STRUCTURE NO. 016-1355
SHEET NO. 5 OF 8 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	463
			CONTRACT NO. 60Y39	
	ILLINOIS	FED. AID PROJECT		

FILE NAME = 016-1355-60Y39-005-DET03.dgn

BLOOM COMPANIES, LLC. — CHICAGO, ILLINOIS

BORING LOG

JOB NO: BM3-1272 CLIENT: ILLINOIS DEPARTMENT OF TRANSPORTATION — BORING NO: B-1
PROJECT: Bridge Replacement at Cumberland Avenue and I-90 — STATION: 119+34
LOCATION: Bridge North Abutment — OFFSET: 44' RT
BORING RIG & METHOD: Diedrich D-50 w/Hollow Stem Augers — SURF ELEV: 653.3

DEPTH	SAMPLE FROM – TO	ELEV.	SOIL DESCRIPTION	REC.	BLOWS/6"	q_u	STRAIN %	WATER CONTENT %
	0.0–1.0	652.0	15" Bituminous Concrete		Auger			
	1.3–2.8	650.3	FILL: Br Sand A-3	12	4 4-3			13.1
	3.5–5.0			10	2 2-4	1.4	15	19.4
	6.0–7.5			12	2 4-5	2.8	15	18.9
10	8.5–10.0		FILL: Br to Gr Silty Clay A-6, trace Gravel	17	3 4-7	2.4	15	16.8
	11.0–12.5			16	4 4-6	2.4	15	24.2
	13.5–15.0			17	3 4-8	2.9	15	19.1
	16.0–17.5	635.3		16	4 5-10	2.7	15	16.2
20	18.5–20.0		FILL: Green to Black Silty Clay A-7-6, trace Gravel and Organics	15	5 6-9	2.5	15	31.7
	21.0–22.5	631.3		17	4 5-8	2.7	15	22.3
	23.5–25.0		Very Stiff to Hard Green to Gr Silty Clay A-6, trace Gravel	17	3 6-6	2.9	15	23.8
	26.0–27.5	625.3		16	5 9-12	6.0	15	20.9
30	28.5–30.0			17	4 5-6	1.7	15	23.0
	33.5–35.0		Stiff to Very Stiff Gr Silty Clay A-6, trace Gravel	18	3 4-6	1.9	15	23.7
40	38.5–40.0			17	3 4-6	2.0	15	20.5

REMARKS Automatic Hammer Used — ( ) Denotes Calibrated Penetrometer Estimate

WATER	75 FT.	ELEV.	578.3 DURING DRILLING	CORE SIZE	IN.	DATE:	Apr 13, 10
WATER	FT.	ELEV.	AT COMPLETION	CASING LENGTH	FT.	DRILLER:	Shlimon
WATER	caved@36 FT.	ELEV.	617.3 AFTER 26 HRS.	CASING DIAMETER	IN.	INSPECTOR:	Alsalami

BM3-1272-5.GPJ - 1/9/12 EDN

BLOOM COMPANIES, LLC. — CHICAGO, ILLINOIS

BORING LOG

JOB NO: BM3-1272 CLIENT: ILLINOIS DEPARTMENT OF TRANSPORTATION — BORING NO: B-1 (cont.)
PROJECT: Bridge Replacement at Cumberland Avenue and I-90 — STATION: 119+34
LOCATION: Bridge North Abutment — OFFSET: 44' RT
BORING RIG & METHOD: Diedrich D-50 w/Hollow Stem Augers — SURF ELEV: 653.3

DEPTH	SAMPLE FROM – TO	ELEV.	SOIL DESCRIPTION	REC.	BLOWS/6"	q_u	STRAIN %	WATER CONTENT %
	43.5–45.0		Stiff to Very Stiff Gr Silty Clay A-6, trace Gravel	18	4 6-7	2.6	15	22.6
		606.3						
50	48.5–50.0			18	4 5-7	3.9	15	12.7
			Very Stiff to Stiff Gr Silty Clay A-6, trace Gravel					
	53.5–55.0			18	4 5-7	2.5	15	17.2
		596.3						
60	58.5–60.0			18	5 8-10			10.3
	63.5–65.0		Medium Dense to Dense Gr Silt A-4, trace Gravel	18	10 11-20			17.6
70	68.5–70.0			16	12 13-20			11.7
		581.3						
	73.5–75.0		Very Stiff Gr Clay Loam A-6, trace Gravel	18	12 13-17	3.8	15	12.9
		576.3						
	78.5–80.0	573.3	Hard Gr Silty Loam A-6, trace Gravel (Hardpan)	8	22 26-30	(+4.5)		13.5
80			Boring terminated @ 80'					

REMARKS Automatic Hammer Used — ( ) Denotes Calibrated Penetrometer Estimate

WATER	75 FT.	ELEV.	578.3 DURING DRILLING	CORE SIZE	IN.	DATE:	Apr 13, 10
WATER	FT.	ELEV.	AT COMPLETION	CASING LENGTH	FT.	DRILLER:	Shlimon
WATER	caved@36 FT.	ELEV.	617.3 AFTER 26 HRS.	CASING DIAMETER	IN.	INSPECTOR:	Alsalami

BM3-1272-5.GPJ - 1/9/12 EDN

BLOOM COMPANIES, LLC. — CHICAGO, ILLINOIS

BORING LOG

JOB NO: BM3-1272 CLIENT: ILLINOIS DEPARTMENT OF TRANSPORTATION — BORING NO: B-2
PROJECT: Bridge Replacement at Cumberland Avenue and I-90 — STATION: 119+18
LOCATION: Bridge North Abutment — OFFSET: 33' LT
BORING RIG & METHOD: Diedrich D-50 w/Hollow Stem Augers — SURF ELEV: 653.6

DEPTH	SAMPLE FROM – TO	ELEV.	SOIL DESCRIPTION	REC.	BLOWS/6"	q_u	STRAIN %	WATER CONTENT %
	0.0–1.0	652.6	3" Bituminous Concrete 9" P.C. Concrete		Auger			1.5
	1.0–2.5		FILL: Br to Gr Sand A-3, trace Clay	15	4 3-3			18.0
	3.5–5.0	649.1		16	2 3-3	(1.3)		19.4
	6.0–7.5			12	2 2-3	1.2	15	19.3
10	8.5–10.0			16	2 3-5	2.1	15	17.7
	11.0–12.5		FILL: Br to Gr Silty Clay A-6, trace Gravel	17	3 4-7	2.4	15	23.6
	13.5–15.0			17	3 4-7	2.1	15	22.0
	16.0–17.5			3	5 9-10	2.7	15	18.5
20	18.5–20.0	632.1		15	3 3-5	1.0	15	18.3
	21.0–22.5			11	3 3-5	2.0	15	34.7
	23.5–25.0	628.1	FILL: Black to Gr Sand A-3, little Clay, trace Cinders	13	1 1-4			22.8
	26.0–27.5			18	6 8-13	4.7	15	21.4
30	28.5–30.0	621.6	Hard to Very Stiff Gr Clay A-6, trace Gravel	16	3 5-6	2.5	15	19.3
	33.5–35.0	619.1	Stiff Gr Silty Clay A-6, trace Gravel	18	3 6-8	1.1	15	17.3
40	38.5–40.0	613.6	Stiff Gr Clay A-6 (12), trace Gravel	18	2 4-5	1.7	15	20.0

REMARKS Automatic Hammer Used. — ( ) Denotes Calibrated Penetrometer Estimate

WATER	30 FT.	ELEV.	623.6 DURING DRILLING	CORE SIZE	IN.	DATE:	Apr 15, 10
WATER	FT.	ELEV.	AT COMPLETION	CASING LENGTH	FT.	DRILLER:	Shlimon
WATER	Caved@61 FT.	ELEV.	592.6 AFTER 1/4 HRS.	CASING DIAMETER	IN.	INSPECTOR:	Alsalami

BM3-1272-5.GPJ - 1/9/12 EDN

Notes:
1. For location of soil borings, see Sheet 1 of 8.

HNTB

USER NAME = lkalta	DESIGNED	ACF	REVISED
	CHECKED	MLK	REVISED
PLOT SCALE = 0.166666 ' / in.	DRAWN	LK	REVISED
PLOT DATE = 1/16/2018	DATE	01/19/2018	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RETAINING WALL WB-6 SOIL BORING LOGS – 1
STRUCTURE NO. 016-1355
SHEET NO. 6 OF 8 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	464
		CONTRACT NO. 60Y39		
	ILLINOIS FED. AID PROJECT			

FILE NAME = 016-1355-60Y39-006-BOR01.dgn

BLOOM COMPANIES, LLC. CHICAGO, ILLINOIS

BORING LOG

JOB NO: BM3-1272 CLIENT: ILLINOIS DEPARTMENT OF TRANSPORTATION
PROJECT: Bridge Replacement at Cumberland Avenue and I-90
LOCATION: Bridge North Abutment
BORING RIG & METHOD: Diedrich D-50 w/Hollow Stem Augers

BORING NO: B-2 (cont.)
STATION: 119+18
OFFSET: 33' LT
SURF ELEV: 653.6

DEPTH	SAMPLE FROM - TO	ELEV.	SOIL DESCRIPTION	REC.	BLOWS/6"	q_u	STRAIN %	WATER CONTENT %
	43.5-45.0		Very Stiff Gr Clay A-6, trace Gravel	18	3 5-8	2.4	15	21.3
		606.6						
50	48.5-50.0			18	5 6-9	2.7	15	13.1
	53.5-55.0			18	5 6-9	2.3	15	16.4
			Very Stiff Gr Silty Clay A-6, trace Gravel					
60	58.5-60.0			18	4 7-10	3.7	15	14.7
	63.5-65.0			16	12 10-16	3.3	15	15.4
		586.6						
70	68.5-70.0			17	9 12-18			17.1
	73.5-75.0		Dense Gr Silt A-4, trace Gravel	18	10 11-19			11.7
	78.5-80.0			18	11 14-18			11.5
80								

REMARKS Automatic Hammer Used. ( ) Denotes Calibrated Penetrometer Estimate

WATER	30 FT. ELEV.	623.6 DURING DRILLING	CORE SIZE	IN.	DATE:	Apr 15, 10	
WATER	FT. ELEV.	AT COMPLETION	CASING LENGTH	FT.	DRILLER:	Shlimon	
WATER	Caved@61 FT. ELEV.	592.6 AFTER 1/4 HRS.	CASING DIAMETER	IN.	INSPECTOR:	Alsalami	

BM3-1272-5.GPJ 1/8/12

BLOOM COMPANIES, LLC. CHICAGO, ILLINOIS

BORING LOG

JOB NO: BM3-1272 CLIENT: ILLINOIS DEPARTMENT OF TRANSPORTATION
PROJECT: Bridge Replacement at Cumberland Avenue and I-90
LOCATION: Bridge North Abutment
BORING RIG & METHOD: Diedrich D-50 w/Hollow Stem Augers

BORING NO: B-2 (cont.)
STATION: 119+18
OFFSET: 33' LT
SURF ELEV: 653.6

DEPTH	SAMPLE FROM - TO	ELEV.	SOIL DESCRIPTION	REC.	BLOWS/6"	q_u	STRAIN %	WATER CONTENT %
		571.6	Dense Gr Silt A-4, trace Gravel					
	83.5-85.0	568.6	Hard Gr Silty Clay A-6, trace Gravel	17	7 10-15	4.3	15	19.2

Boring terminated @ 85'

REMARKS Automatic Hammer Used. ( ) Denotes Calibrated Penetrometer Estimate

WATER	30 FT. ELEV.	623.6 DURING DRILLING	CORE SIZE	IN.	DATE:	Apr 15, 10	
WATER	FT. ELEV.	AT COMPLETION	CASING LENGTH	FT.	DRILLER:	Shlimon	
WATER	Caved@61 FT. ELEV.	592.6 AFTER 1/4 HRS.	CASING DIAMETER	IN.	INSPECTOR:	Alsalami	

BM3-1272-5.GPJ 1/8/12

Notes:
1. For location of soil borings, see Sheet 1 of 8.

HNTB

USER NAME = lkalsta	DESIGNED ACF	REVISED	
	CHECKED MLK	REVISED	
PLOT SCALE = 0.166666 ' / in.	DRAWN LK	REVISED	
PLOT DATE = 1/16/2018	DATE 01/19/2018	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RETAINING WALL WB-6 SOIL BORING LOGS - 2
STRUCTURE NO. 016-1355
SHEET NO. 7 OF 8 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	465
		CONTRACT NO. 60Y39		
	ILLINOIS FED. AID PROJECT			

FILE NAME = 016-1355-60Y39-007-BOR02.dgn

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Annehill Court, Suite 204
Naperville, Illinois 60565
(630) 355-2818

SOIL BORING LOG

GSI Job No. 12245
Page 1 of 1
Date 12/16/15

ROUTE FAI 90 (I-90 - Kennedy Expressway) DESCRIPTION I-90 Retaining Walls LOGGED BY TZ
SECTION (1517 & 1415) R-3 LOCATION SE 1/4, SEC. 2, TWP. T40N, RNG. R12E, 3rd PM
COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. -
Station -
BORING NO. RWB-88
Station 3041+11
Offset 172.60ft Left
Ground Surface Elev. 635.30 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter Dry ft
Upon Completion Dry ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
14.0" TOPSOIL			
634.13			19
CLAY LOAM-dark brown, gray & black-very stiff (Fill)	4		
	5	2.9	22
	8	B	
632.30			
CLAY LOAM-brown & gray-very stiff	3		
	3	2.9	16
-5	5	B	
629.80			
CLAY-gray-stiff to hard	4		
	9	7.0	20
	11	B	
	3		
	3	3.0	26
-10	5	B	
	2		
	2	1.5	24
	3	B	
	3		
	5	4.1	22
-15	8	B	
	3		
	5	4.3	19
	8	B	
	2		
	3	2.4	21
-20	4	B	

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
CLAY-gray-stiff to hard *(continued)*			
	3		
	4	2.1	23
	6	B	
	3		
-25	4	2.6	24
	7	B	
	3		
	4	3.0	21
	7	B	
	4		
-30	5	2.8	20
	9	B	
603.30			
CLAY LOAM-gray-stiff to very stiff			
	3		
-35	4	1.9	17
	7	B	
	3		
-40	5	2.9	17
	9	B	
End Of Boring @ -40.0'. Boring backfilled with cuttings.			
595.30			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Annehill Court, Suite 204
Naperville, Illinois 60565
(630) 355-2818

SOIL BORING LOG

GSI Job No. 12245
Page 1 of 2
Date 12/16/15

ROUTE FAI 90 (I-90 - Kennedy Expressway) DESCRIPTION I-90 Retaining Walls LOGGED BY TZ
SECTION (1517 & 1415) R-3 LOCATION SW 1/4, SEC. 2, TWP. T40N, RNG. R12E, 3rd PM
COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. -
Station -
BORING NO. RWB-89
Station 3038+25
Offset 185.40ft Left
Ground Surface Elev. 634.30 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter 621.3 ft ▼
Upon Completion n/a ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
6.0" TOPSOIL			
633.80			29
CLAY LOAM-dark brown & gray spotted black-very stiff (Fill)	3		
	3	2.5	22
	5	P	
631.30			
CLAY LOAM-brown & gray-very stiff	4		
	5	1.8	17
-5	6	P	
628.80			
CLAY-gray-stiff to hard	5		
	7	7.0	21
	13	B	
	3		
	7	5.3	18
-10	9	B	
	3		
	4	2.4	22
	6	B	
▼			
	2		
	3	3.1	25
-15	6	B	
	2		
	3	1.3	22
	4	B	
616.30			
SILTY LOAM-gray-loose	3		
	4		17
-20	4		

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SILTY LOAM-gray-loose *(continued)*			
613.80			
CLAY-gray-stiff to very stiff	2		
	2	1.2	19
	4	B	
	2		
-25	3	2.2	22
	5	B	
	3		
	4	2.9	22
	7	B	
	3		
-30	3	2.9	26
	5	B	
602.30			
CLAY LOAM-gray-stiff to very stiff			
	3		
-35	6	1.0	16
	4	B	
	3		
-40	4	3.9	17
	9	B	

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Annehill Court, Suite 204
Naperville, Illinois 60565
(630) 355-2818

SOIL BORING LOG

GSI Job No. 12245
Page 2 of 2
Date 12/16/15

ROUTE FAI 90 (I-90 - Kennedy Expressway) DESCRIPTION I-90 Retaining Walls LOGGED BY TZ
SECTION (1517 & 1415) R-3 LOCATION SW 1/4, SEC. 2, TWP. T40N, RNG. R12E, 3rd PM
COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. -
Station -
BORING NO. RWB-89
Station 3038+25
Offset 185.40ft Left
Ground Surface Elev. 634.30 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter 621.3 ft ▼
Upon Completion n/a ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
CLAY LOAM-gray-stiff to very stiff *(continued)*			
592.30			
SILTY LOAM-gray-medium dense			
	12		
End Of Boring @ -45.0'. Boring backfilled with cuttings.	13		17
589.30 -45	15		
-50			
-55			
-60			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

Notes:
1. For location of soil borings, see Sheet 1 of 8.

USER NAME = lkalita	DESIGNED ACF	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	CHECKED MLK	REVISED -	
PLOT SCALE = 0.166666 ' / in.	DRAWN LK	REVISED -	
PLOT DATE = 1/16/2018	DATE 01/19/2018	REVISED -	

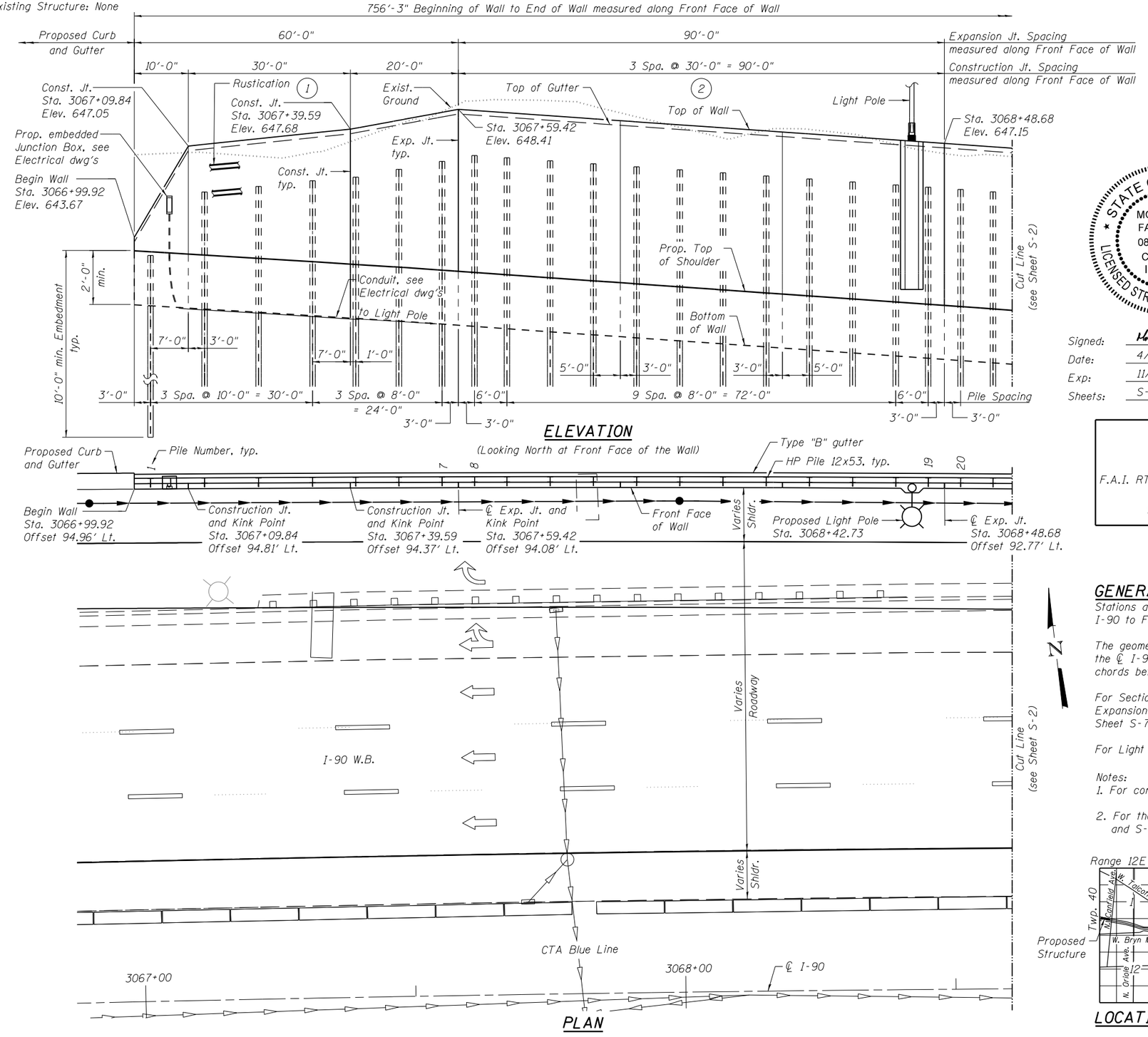
RETAINING WALL WB-6 SOIL BORING LOGS - 3
STRUCTURE NO. 016-1355
SHEET NO. 8 OF 8 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	466
		CONTRACT NO. 60Y39		
	ILLINOIS FED. AID PROJECT			

FILE NAME = 016-1355-60Y39-008-BOR03.dgn

Bench Mark: TBM #19 (Elev. 638.00) - Square cut on top of barrier wall by light pole (FC13) mile marker 80.40 on North side WB I-90 just east of Canfield.

Existing Structure: None



ELEVATION

(Looking North at Front Face of the Wall)

PLAN

INDEX OF SHEETS

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Structure Excavation	Cu Yd	374
Concrete Structures	Cu Yd	215.6
Stud Shear Connectors	Each	745
Reinforcement Bars, Epoxy Coated	Pound	32,740
Name Plates	Each	1
Furnishing Soldier Piles (HP section)	Foot	1,431
Driving Soldier Piles	Foot	1,431
Untreated Timber Lagging	Sq Ft	4,599
Concrete Sealer	Sq Ft	4,995
Geocomposite Wall Drain	Sq Yd	511
Pipe Underdrains for Structures 4 in	Foot	757

STATE OF ILLINOIS
MOHSEN M. FARAHANY
081-005131
CHICAGO, ILLINOIS
LICENSED STRUCTURAL ENGINEER

Signed: Mohsen M Farahany
Date: 4/21/2017
Exp: 11/30/2018
Sheets: S-1 to S-12

STATION 3066+99.92
BUILT 201_ BY
STATE OF ILLINOIS
F.A.I. RTE. I-90 - SEC. (1517 & 1415) R-2
LOADING HL-93
STRUCTURE NO. 016-Z036

NAME PLATE

See Std. 515001

LEGEND:

Existing	Proposed	
▭	▬	Inlet
○	●	Catch Basin
◎	⊙	Manhole
▷	▶	Storm Sewer
▷	◣	Pipe Underdrain
⊗	⊸	Light Pole
	✦	Boring
	(1)	Panel Type

GENERAL NOTES

Stations and Offsets are measured from ℄ I-90 to Front Face of wall.

The geometry of the wall follows curvature of the ℄ I-90. The wall may be constructed on chords between expansion/construction joints.

For Section thru wall, Construction and Expansion joint details and Pile Table see Sheet S-7 of 12.

For Light Pole details see Sheet S-6 of 12.

Notes:
1. For continuation see Sheet S-2 of 12.

2. For the panel details see Sheets S-5 and S-6 of 12.

DESIGN STRESSES

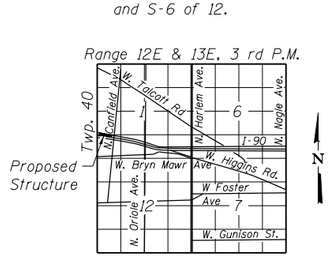
FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (M270 Grade 50)

DESIGN SPECIFICATIONS

2014 AASHTO LRFD Bridge Design Specifications, 7th Edition, with 2016 Interim Revisions

Range 12E & 13E, 3 rd P.M.



LOCATION SKETCH

GENERAL PLAN AND ELEVATION I
INTERSTATE I-90
F.A.I. RTE. I-90 - SEC. (1517 & 1415) R-2
COOK COUNTY
STA. 3066+99.92 TO 3074+50.05
STRUCTURE NO. 016-Z036

1/16/2018
MODEL: Default
D1580015-sht-PRWB-1_GP&E01.dgn

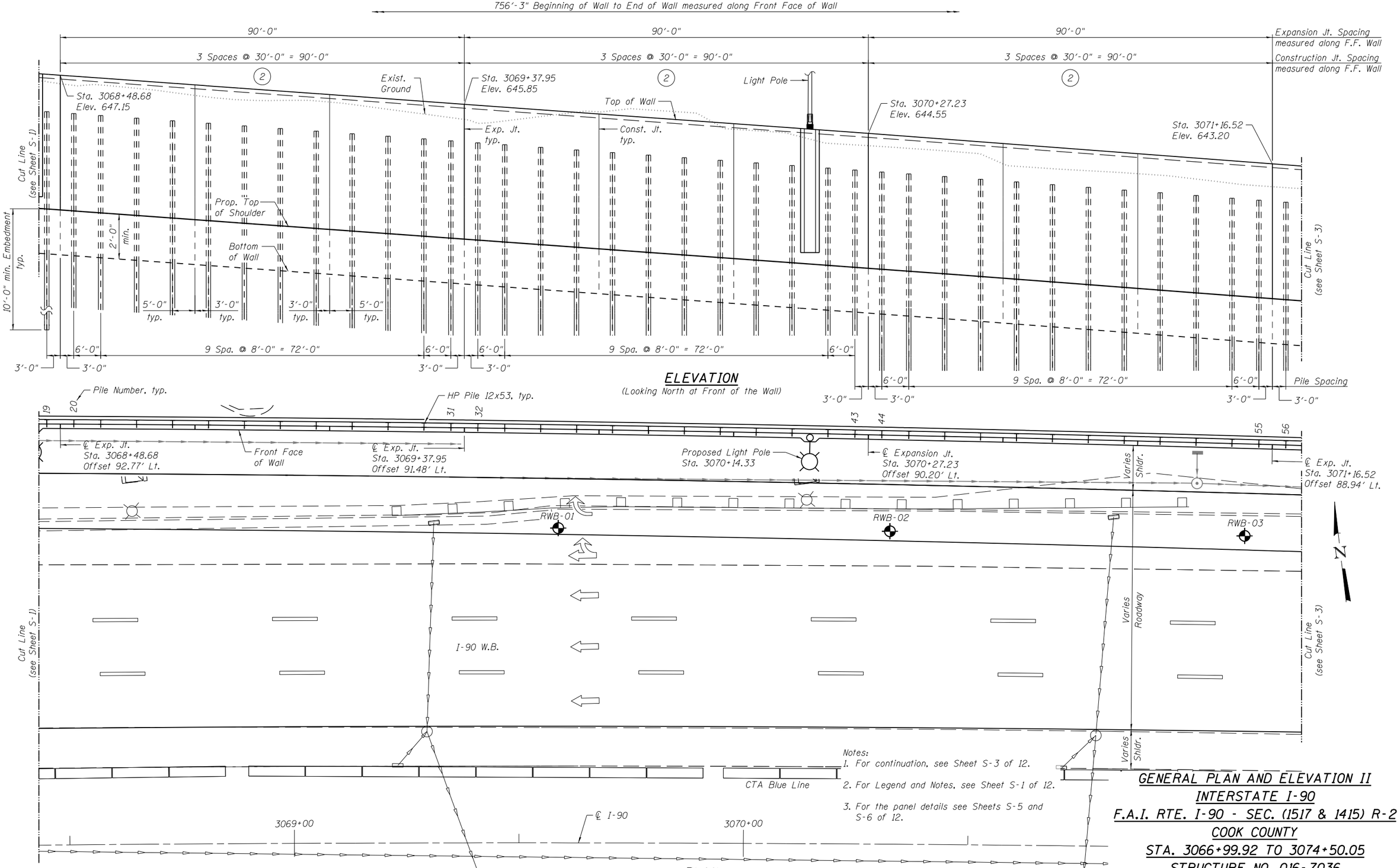
RME Rubinos & Mesia Engineers, Inc.
200 S. Michigan Avenue, Suite 1500, Chicago, IL 60604-2482

USER NAME = PHodina	DESIGNED - EV	REVISED -	
	CHECKED - PAH	REVISED -	
PLOT SCALE =	DRAWN - EV	REVISED -	
PLOT DATE = 01/19/2018	CHECKED - PAH	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RETAINING WALL WB-1 PLAN & ELEVATION - 1
STRUCTURE NO. 016-Z036
SHEET NO. S-1 OF 12 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	467
		CONTRACT NO. 60Y39		
	ILLINOIS FED. AID PROJECT			



Notes:
1. For continuation, see Sheet S-3 of 12.
2. For Legend and Notes, see Sheet S-1 of 12.
3. For the panel details see Sheets S-5 and S-6 of 12.

GENERAL PLAN AND ELEVATION II
INTERSTATE I-90
F.A.I. RTE. I-90 - SEC. (1517 & 1415) R-2
COOK COUNTY
STA. 3066+99.92 TO 3074+50.05
STRUCTURE NO. 016-Z036

RME Rubinos & Mesia Engineers, Inc.
200 S. Michigan Avenue, Suite 1500, Chicago, IL 60604-2482

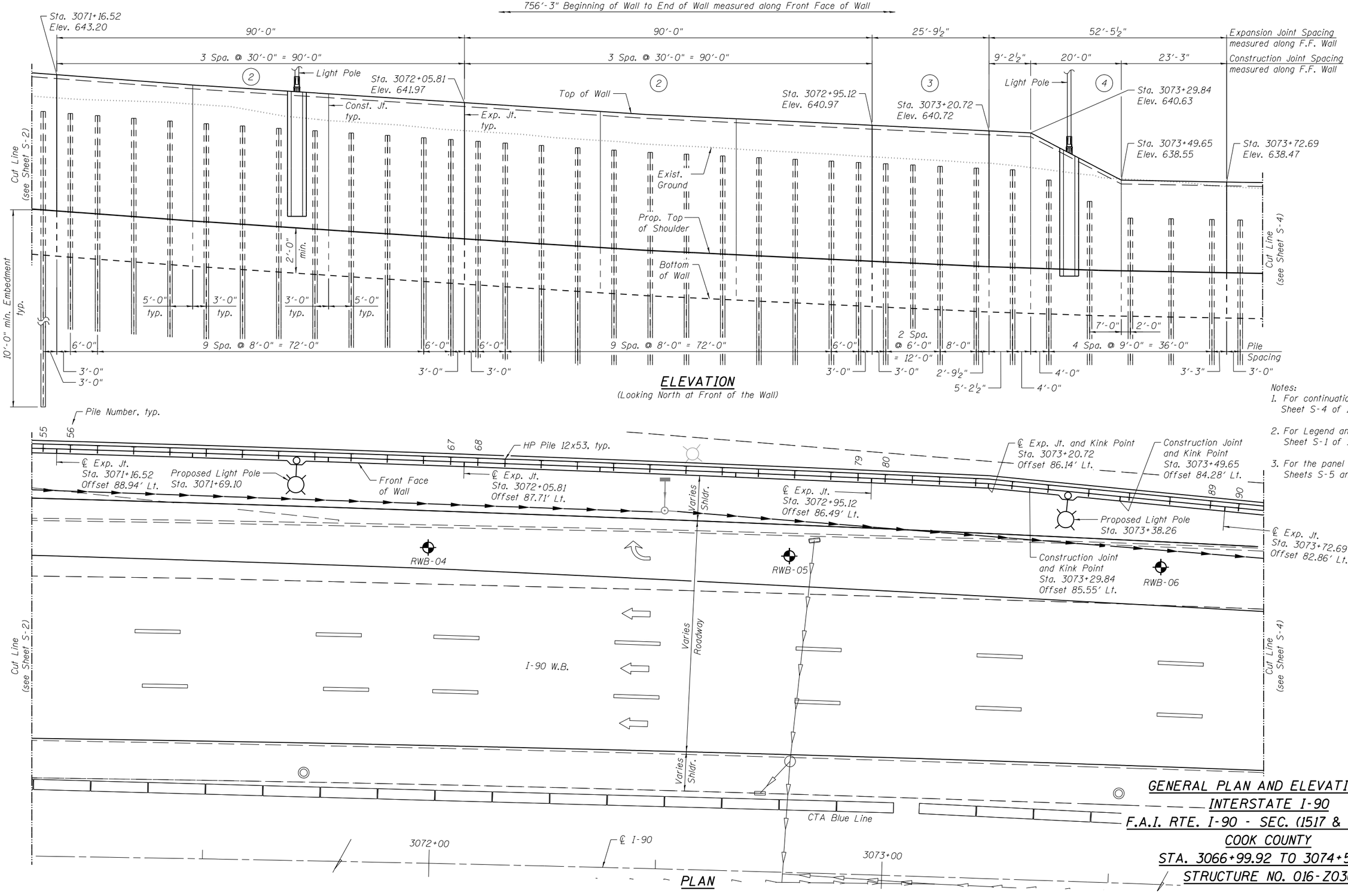
USER NAME = PHodina	DESIGNED - EV	REVISED -	
	CHECKED - PAH	REVISED -	
PLOT SCALE =	DRAWN - EV	REVISED -	
PLOT DATE = 01/19/2018	CHECKED - PAH	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RETAINING WALL WB-1 PLAN & ELEVATION - 2
STRUCTURE NO. 016-Z036
SHEET NO. S-2 OF 12 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	468
		CONTRACT NO. 60Y39		
	ILLINOIS FED. AID PROJECT			

1/16/2018
MODEL: Default
D156015-SHT-PRWB-1_GP&EO2.dgn



Notes:
1. For continuation, see Sheet S-4 of 12.
2. For Legend and Notes, see Sheet S-1 of 12.
3. For the panel details see Sheets S-5 and S-6 of 12.

GENERAL PLAN AND ELEVATION III
INTERSTATE I-90
F.A.I. RTE. I-90 - SEC. (1517 & 1415) R-2
COOK COUNTY
STA. 3066+99.92 TO 3074+50.05
STRUCTURE NO. 016-Z036

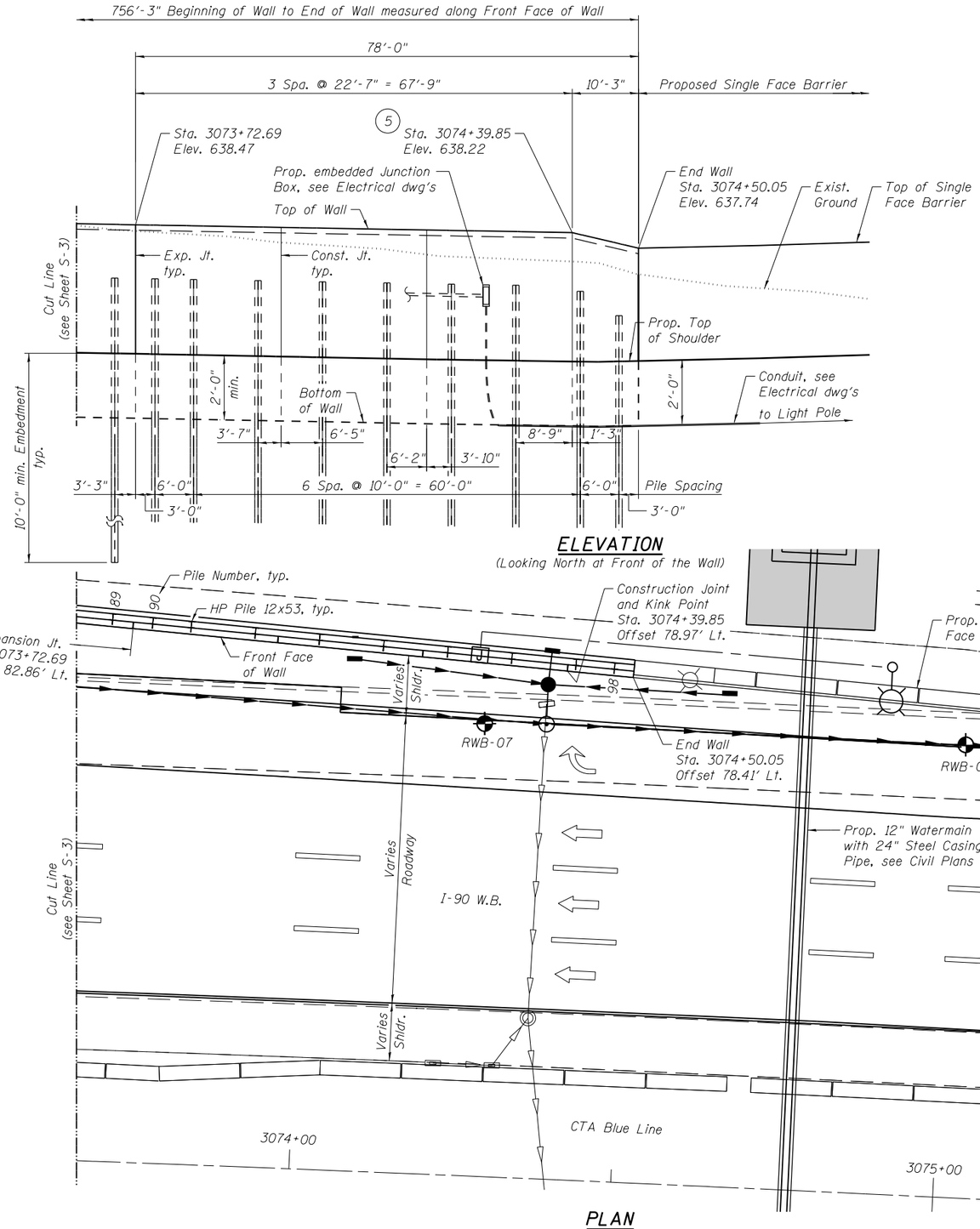
RME Rubinos & Mesia Engineers, Inc. 200 S. Michigan Avenue, Suite 1500, Chicago, IL 60604-2482	USER NAME = PHodina	DESIGNED - EV	REVISED -
		CHECKED - PAH	REVISED -
	PLOT SCALE =	DRAWN - EV	REVISED -
	PLOT DATE = 01/19/2018	CHECKED - PAH	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RETAINING WALL WB-1 PLAN & ELEVATION - 3
STRUCTURE NO. 016-Z036
SHEET NO. S-3 OF 12 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	469
		CONTRACT NO. 60Y39		
	ILLINOIS FED. AID PROJECT			

1/16/2018
MOPE15 default
D1580015 sht-PRWB-1_GP&E03.dgn



Notes:
1. For Legend and Notes, see Sheet S-1 of 12.

2. For the panel details see Sheets S-5 and S-6 of 12.

GENERAL PLAN AND ELEVATION IV
INTERSTATE I-90
F.A.I. RTE. I-90 - SEC. (1517 & 1415) R-2
COOK COUNTY
STA. 3066+99.92 TO 3074+50.05
STRUCTURE NO. 016-Z036

1/16/2018
MODEL: Default
D156015-sht-PRWB-1_GP&E04.dgn

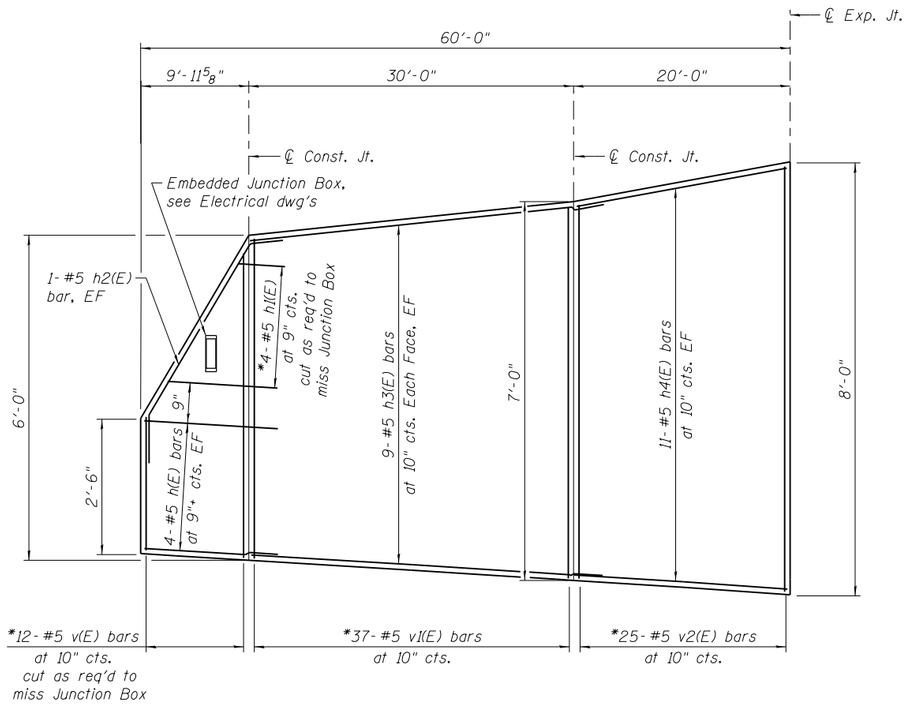
RME Rubinos & Mesia Engineers, Inc.
200 S. Michigan Avenue, Suite 1500, Chicago, IL 60604-2482

USER NAME = PHodina	DESIGNED - EV	REVISED -	
	CHECKED - PAH	REVISED -	
PLOT SCALE =	DRAWN - EV	REVISED -	
PLOT DATE = 01/19/2018	CHECKED - PAH	REVISED -	

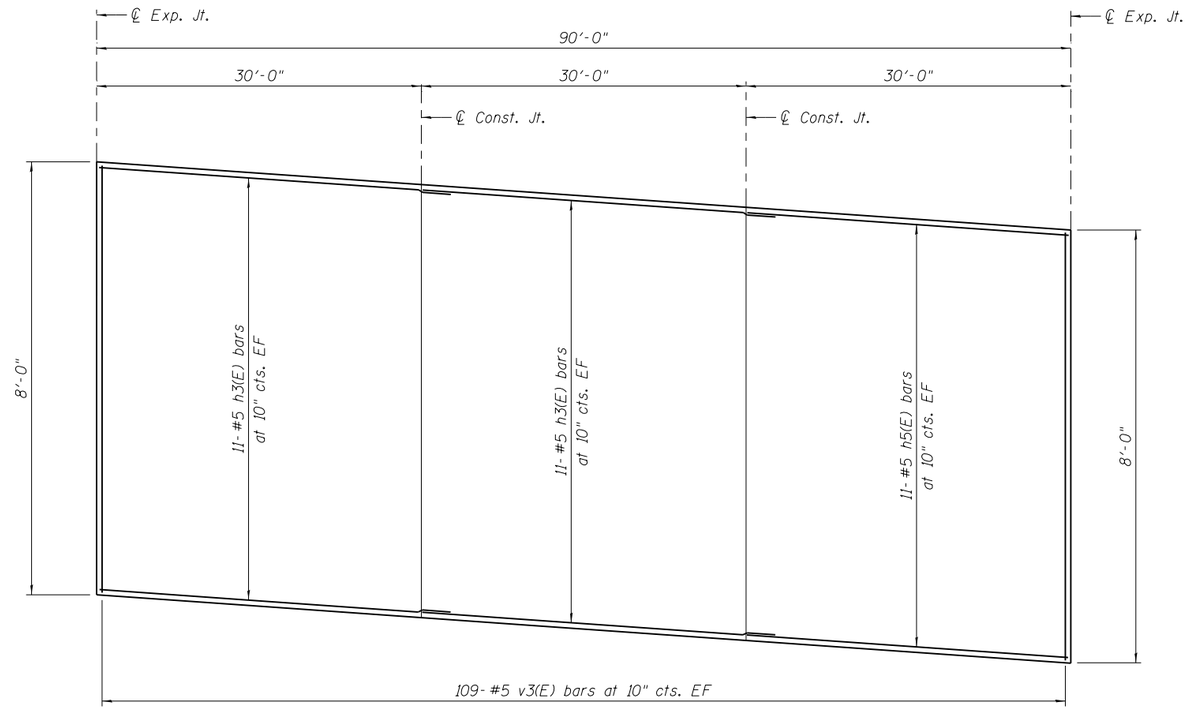
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RETAINING WALL WB-1 PLAN & ELEVATION - 4
STRUCTURE NO. 016-Z036
SHEET NO. S-4 OF 12 SHEETS

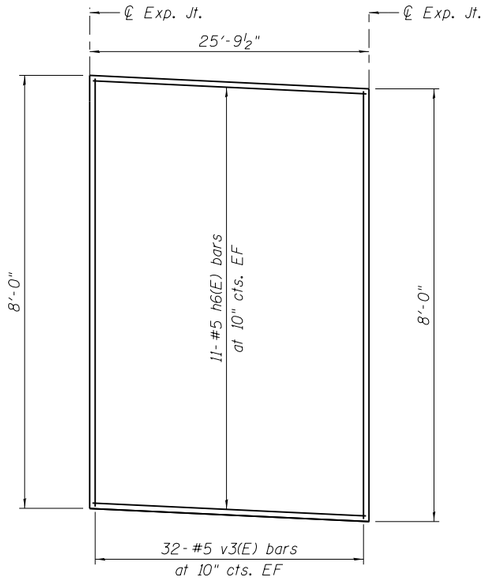
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	470
		CONTRACT NO. 60Y39		
	ILLINOIS FED. AID PROJECT			



TYPE 1
(1 Total)



TYPE 2
(6 Total)



TYPE 3
(1 Total)

*Cut bars as req'd and use remainder in opposite face. See bar cutting diagram, Sheet S-6 of 12.

MINIMUM BAR LAP
#5 bar = 3'-7"

Notes:
1. Panel types shown looking North at the Front Face of Wall.
2. Reinforcement spacing shown is to be used as maximum spacing.
3. For location of panels, see Sheets S-1 to S-4 of 12.
4. For panels Bill of Material see Sheet S-6 of 12.

1/16/2018
MODEL: Sheet
D1580015-sht-PRWB-1_DET01.dgn

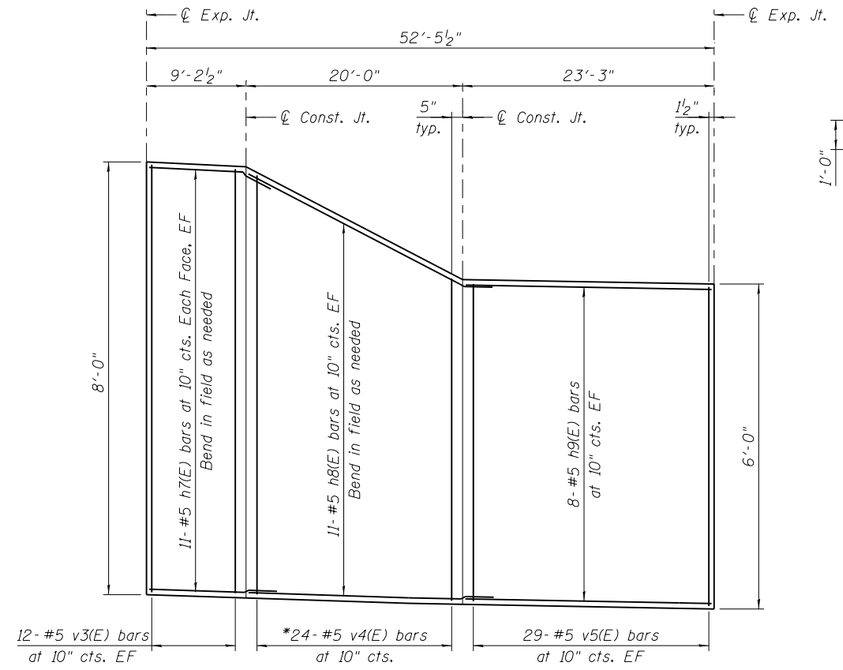
RME Rubinos & Mesia Engineers, Inc.
200 S. Michigan Avenue, Suite 1500, Chicago, IL 60604-2482

USER NAME = PHodina	DESIGNED - EV	REVISED -	
	CHECKED - PAH	REVISED -	
PLOT SCALE =	DRAWN - EV	REVISED -	
PLOT DATE = 01/19/2018	CHECKED - PAH	REVISED -	

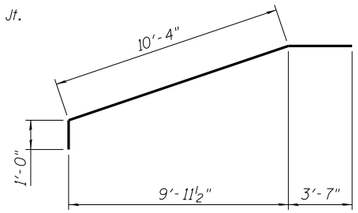
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RETAINING WALL WB-1 DETAILS - 1
STRUCTURE NO. SN 016-Z036
SHEET NO. S-5 OF 12 SHEETS

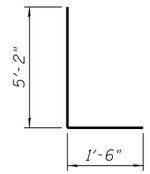
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	471
		CONTRACT NO. 60Y39		
	ILLINOIS FED. AID PROJECT			



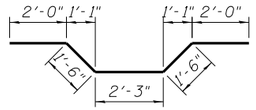
TYPE 4
(1 Total)



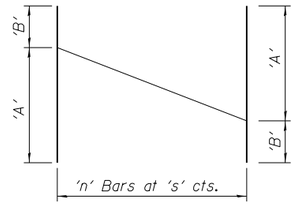
BAR h2(E)



BAR d1(E)



BAR d(E)

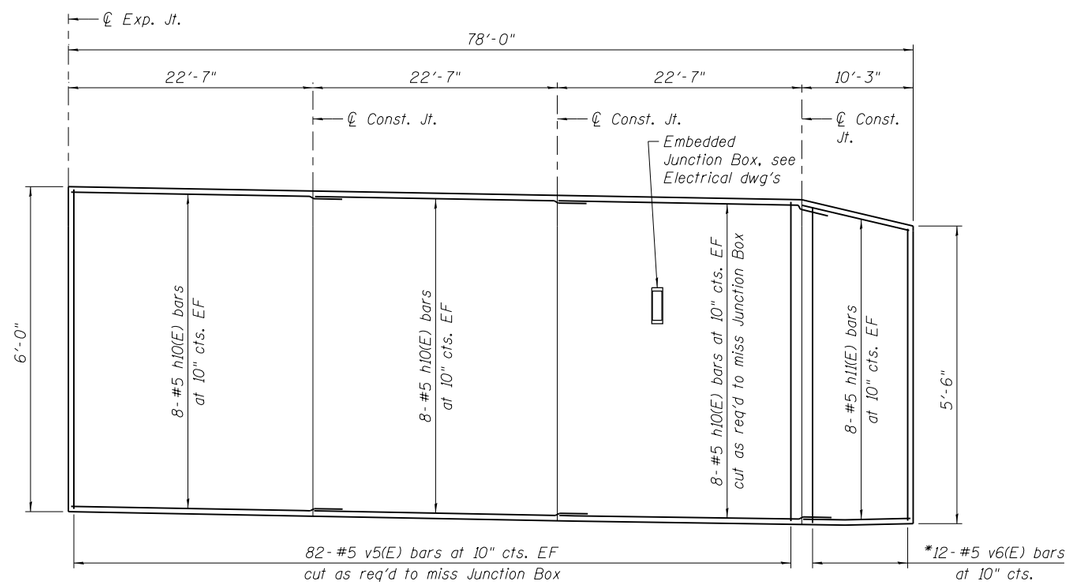


Bar	'A'	'B'	'n'	's'
h1(E)	11'-5"	5'-1"	4	9"
v(E)	5'-9"	2'-3"	12	10"
v1(E)	6'-9"	5'-9"	37	10"
v2(E)	7'-9"	6'-9"	25	10"
v4(E)	7'-9"	5'-9"	24	10"
v6(E)	5'-9"	5'-3"	13	10"

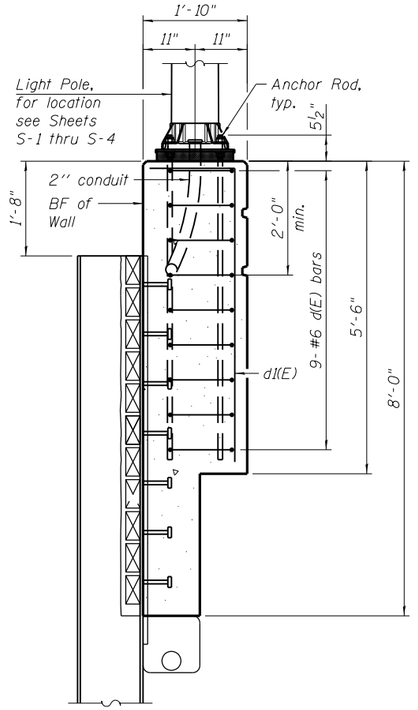
BAR CUTTING DIAGRAMS

WALL WB-1 BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	36	#6	9'-3"	
d1(E)	24	#6	6'-8"	
h(E)	8	#5	13'-7"	
h1(E)	4	#5	16'-6"	
h2(E)	2	#5	14'-11"	
h3(E)	282	#5	33'-7"	
h4(E)	22	#5	19'-10"	
h5(E)	132	#5	29'-10"	
h6(E)	22	#5	25'-6"	
h7(E)	22	#5	12'-8"	
h8(E)	22	#5	23'-7"	
h9(E)	16	#5	23'-1"	
h10(E)	48	#5	26'-2"	
h11(E)	16	#5	10'-1"	
v(E)	12	#5	8'-0"	
v1(E)	37	#5	12'-6"	
v2(E)	25	#5	14'-6"	
v3(E)	1,396	#5	7'-9"	
v4(E)	24	#5	13'-6"	
v5(E)	222	#5	5'-9"	
v6(E)	13	#5	11'-0"	
Concrete Structures			Cu Yd	215.6
Reinforcement Bars, Epoxy Coated			Pound	32,740
Concrete Sealer			Sq Yd	4.995



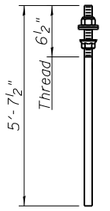
TYPE 5
(1 Total)



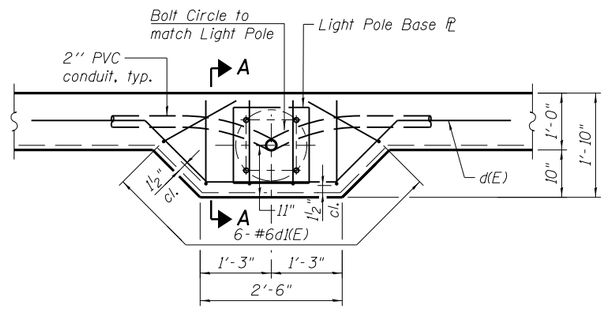
SECTION A-A
h(E) and v(E) bars not shown for clarity

MIN. BAR LAPS
#5 bars = 3'-7"

*Cut bars as req'd and use remainder in opposite face. See bar cutting diagram.



ANCHOR ROD
Diameter as specified for light poles.
(ASTM F 1554 Grade 105)
Cost of Anchor Rod is included in Concrete Structures.



PLAN AT LIGHT POLE
Cost of Anchor Rods is included with Concrete Structures

Notes:
1. Panel types shown looking North at the Front Face of Wall.
2. Reinforcement spacing shown is to be used as maximum spacing.
3. For location of panels, see Sheets S-3 and S-4 of 12.

1/16/2018
MODEL: Sheet
D1580015-sht-PRWB-1_DET02.dgn

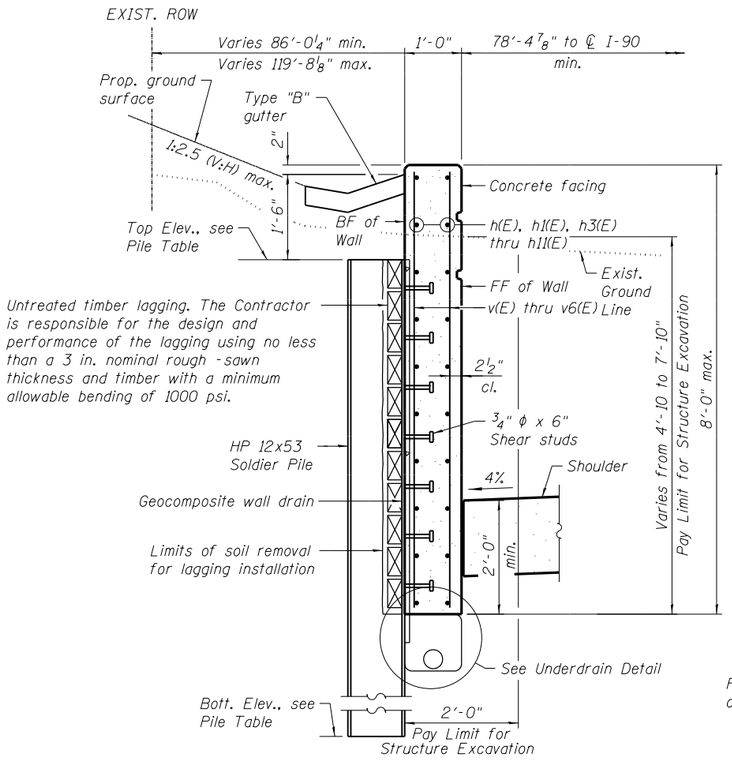
RME Rubinos & Mesia Engineers, Inc.
200 S. Michigan Avenue, Suite 1500, Chicago, IL 60604-2482

USER NAME = PHodina	DESIGNED - EV	REVISED -	
	CHECKED - PAH	REVISED -	
PLOT SCALE =	DRAWN - EV	REVISED -	
PLOT DATE = 01/19/2018	CHECKED - PAH	REVISED -	

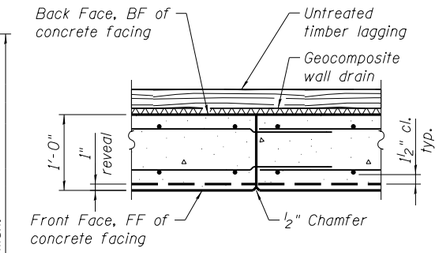
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RETAINING WALL WB-1 DETAILS - 2
STRUCTURE NO. 016-Z036
SHEET NO. S-6 OF 12 SHEETS

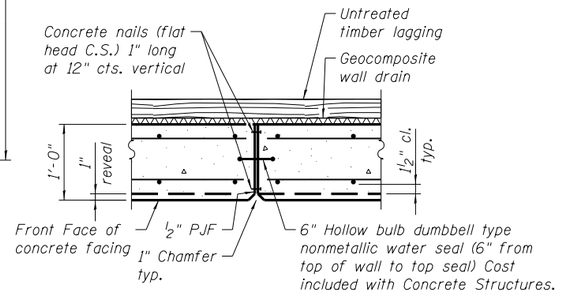
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	472
		CONTRACT NO. 60Y39		
		ILLINOIS FED. AID PROJECT		



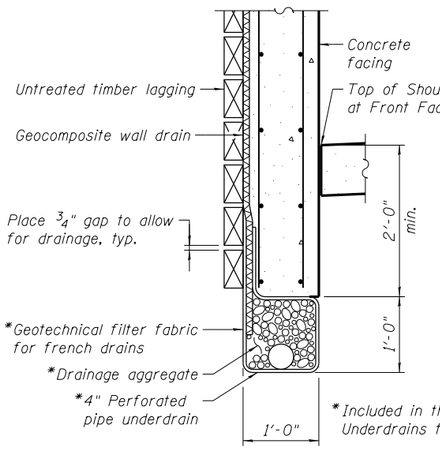
SECTION THRU DRIVEN SOLDIER PILE WALL



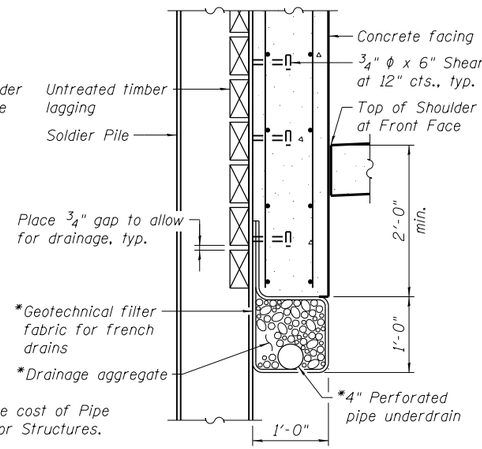
CONSTRUCTION JOINT



EXPANSION JOINT

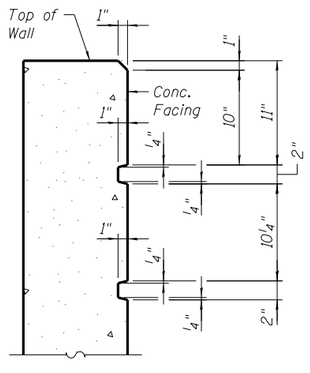


BETWEEN SOLDIER PILES



AT SOLDIER PILES

UNDERDRAIN DETAIL



RUSTICATION DETAIL AT TOP OF WALL

PILE TABLE

Pile No.	Size	Top Elev.	Bott. Elev.	Pile Length	Shear Stud
1	HP 12X53	643.00	633.00	10	3
2	HP 12X53	645.35	632.35	13	6
3	HP 12X53	645.56	632.56	13	6
4	HP 12X53	645.77	631.77	14	7
5	HP 12X53	645.90	631.90	14	7
6	HP 12X53	646.19	632.19	14	7
7	HP 12X53	646.48	631.48	15	8
8	HP 12X53	646.70	631.70	15	8
9	HP 12X53	646.61	631.61	15	8
10	HP 12X53	646.50	631.50	15	8
11	HP 12X53	646.39	631.39	15	8
12	HP 12X53	646.28	631.28	15	8
13	HP 12X53	646.17	631.17	15	8
14	HP 12X53	646.06	631.06	15	8
15	HP 12X53	645.94	630.94	15	8
16	HP 12X53	645.83	630.83	15	8
17	HP 12X53	645.72	630.72	15	8
18	HP 12X53	645.61	630.61	15	8
19	HP 12X53	645.53	630.53	15	8
20	HP 12X53	645.44	630.44	15	8
21	HP 12X53	645.33	630.33	15	8
22	HP 12X53	645.24	630.24	15	8
23	HP 12X53	645.12	630.12	15	8
24	HP 12X53	645.01	630.01	15	8
25	HP 12X53	644.89	629.89	15	8
26	HP 12X53	644.77	629.77	15	8
27	HP 12X53	644.66	629.66	15	8
28	HP 12X53	644.54	629.54	15	8
29	HP 12X53	644.43	629.43	15	8
30	HP 12X53	644.31	629.31	15	8
31	HP 12X53	644.23	629.23	15	8
32	HP 12X53	644.14	629.14	15	8
33	HP 12X53	644.05	629.05	15	8
34	HP 12X53	643.94	628.94	15	8
35	HP 12X53	643.82	628.82	15	8
36	HP 12X53	643.71	628.71	15	8
37	HP 12X53	643.59	628.59	15	8
38	HP 12X53	643.47	628.47	15	8
39	HP 12X53	643.36	628.36	15	8
40	HP 12X53	643.24	628.24	15	8
41	HP 12X53	643.13	628.13	15	8
42	HP 12X53	643.01	628.01	15	8
43	HP 12X53	642.92	627.92	15	8
44	HP 12X53	642.84	627.84	15	8
45	HP 12X53	642.75	627.75	15	8
46	HP 12X53	642.64	627.64	15	8
47	HP 12X53	642.51	627.51	15	8
48	HP 12X53	642.39	627.39	15	8
49	HP 12X53	642.27	627.27	15	8

PILE TABLE

Pile No.	Size	Top Elev.	Bott. Elev.	Pile Length	Shear Stud
50	HP 12X53	642.15	627.15	15	8
51	HP 12X53	642.03	627.03	15	8
52	HP 12X53	641.91	626.91	15	8
53	HP 12X53	641.79	626.79	15	8
54	HP 12X53	641.67	626.67	15	8
55	HP 12X53	641.58	626.58	15	8
56	HP 12X53	641.49	626.49	15	8
57	HP 12X53	641.40	626.40	15	8
58	HP 12X53	641.28	626.28	15	8
59	HP 12X53	641.16	626.16	15	8
60	HP 12X53	641.04	626.04	15	8
61	HP 12X53	640.94	625.94	15	8
62	HP 12X53	640.84	625.84	15	8
63	HP 12X53	640.73	625.73	15	8
64	HP 12X53	640.63	625.63	15	8
65	HP 12X53	640.52	625.52	15	8
66	HP 12X53	640.42	625.42	15	8
67	HP 12X53	640.34	625.34	15	8
68	HP 12X53	640.26	625.26	15	8
69	HP 12X53	640.19	625.19	15	8
70	HP 12X53	640.08	625.08	15	8
71	HP 12X53	639.98	624.98	15	8
72	HP 12X53	639.87	624.87	15	8
73	HP 12X53	639.77	624.77	15	8
74	HP 12X53	639.70	624.70	15	8
75	HP 12X53	639.62	624.62	15	8
76	HP 12X53	639.54	624.54	15	8
77	HP 12X53	639.47	624.47	15	8
78	HP 12X53	639.39	624.39	15	8
79	HP 12X53	639.33	624.33	15	8
80	HP 12X53	639.27	624.27	15	8
81	HP 12X53	639.22	624.22	15	8
82	HP 12X53	639.16	624.16	15	8
83	HP 12X53	639.08	624.08	15	8
84	HP 12X53	639.01	624.01	15	8
85	HP 12X53	638.55	624.55	14	7
86	HP 12X53	637.61	623.61	14	7
87	HP 12X53	636.88	623.88	13	6
88	HP 12X53	636.84	623.84	13	6
89	HP 12X53	636.81	623.81	13	6
90	HP 12X53	636.79	623.79	13	6
91	HP 12X53	636.77	623.77	13	6
92	HP 12X53	636.73	623.73	13	6
93	HP 12X53	636.70	623.70	13	6
94	HP 12X53	636.66	623.66	13	6
95	HP 12X53	636.63	623.63	13	6
96	HP 12X53	636.59	623.59	13	6
97	HP 12X53	636.40	623.40	13	6
98	HP 12X53	635.64	623.64	12	5

Notes:
1. For panel reinforcement, see Sheets S-5 and S-6 of 12.

1/16/2018
MODEL: Sheet
D158015-sht-PRWB-1_DET03.dgn

RME Rubinos & Mesia Engineers, Inc.
200 S. Michigan Avenue, Suite 1500, Chicago, IL 60604-2482

USER NAME = PHodina	DESIGNED - EV	REVISED -	
	CHECKED - PAH	REVISED -	
PLOT SCALE =	DRAWN - EV	REVISED -	
PLOT DATE = 01/19/2018	CHECKED - PAH	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RETAINING WALL WB-1 DETAILS - 3
STRUCTURE NO. 016-Z036
SHEET NO. S-7 OF 12 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	473
		CONTRACT NO. 60Y39		
	ILLINOIS FED. AID PROJECT			

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Amherst Court, Suite 204
Naperville, Illinois 60565
(630) 355-0888

SOIL BORING LOG

GSI Job No. 12245
Page 1 of 1
Date 10/21/13

ROUTE -- DESCRIPTION I-90 Retaining Walls (Canfield Ave. to Harlem Ave.) LOGGED BY CW
SECTION -- LOCATION SW 1/4, SEC. 1, TWP. T40N, RNG. R12E, 3rd PM
COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO.
Station
BORING NO. RWB-01
Station 3069+59
Offset 70.10ft Left
Ground Surface Elev. 640.10 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter Dry ft
Upon Completion Dry ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
6.0" ASPHALT 639.60			
6.0" CRUSHED STONE 639.10			
CLAY-gray-stiff to very stiff	6		
	4	1.8	21
	4	P	
	3		
	4	1.5	20
-5	5	B	
	3		
	4	1.9	22
	5	B	
	3		
	4	1.8	21
-10	5	B	
	3		
	4	1.5	20
	5	B	
	3		
	4	1.3	21
-15	4	B	
	3		
	4	1.4	23
	6	B	
	3		
	4	1.3	22
-20	6	B	
CLAY-gray-stiff to very stiff *(continued)*	3		
	5	1.5	21
	7	B	
	4		
	6	2.0	21
615.10 -25	8	B	
End Of Boring @ -25.0'. Boring backfilled with cuttings.			
-30			
-35			
-40			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
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SOIL BORING LOG

GSI Job No. 12245
Page 1 of 1
Date 10/21/13

ROUTE -- DESCRIPTION I-90 Retaining Walls (Canfield Ave. to Harlem Ave.) LOGGED BY CW
SECTION -- LOCATION SW 1/4, SEC. 1, TWP. T40N, RNG. R12E, 3rd PM
COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO.
Station
BORING NO. RWB-02
Station 3070+32
Offset 69.70ft Left
Ground Surface Elev. 638.90 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter Dry ft
Upon Completion Dry ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
6.0" ASPHALT 638.40			
6.0" CRUSHED STONE 637.90			
CLAY-gray-stiff to very stiff	8		
	6	2.3	20
	6	P	
	3		
	4	1.4	23
-5	5	B	
	3		
	5	1.7	23
	8	B	
	3		
	3	1.2	24
-10	6	B	
	3		
	4	1.4	23
	6	B	
	3		
	4	1.2	21
-15	6	B	
	4		
	4	1.5	23
	6	B	
	3		
	5	1.8	22
-20	7	B	
CLAY-gray-stiff to very stiff *(continued)*	4		
	6	1.7	23
	7	B	
	3		
	5	1.5	20
613.90 -25	7	B	
End Of Boring @ -25.0'. Boring backfilled with cuttings.			
-30			
-35			
-40			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Z:\PROJECTS\2012\12245 HNTB, I-90 FROM I-190 TO HARLEM AVENUE (PTB 162-001)\12245 BORING LOGS\12245_LOG.GPJ 2/7/14

1/16/2018
MODEL: Sheet
D1580I5-sht-PRWB-1.BOR01.dgn

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Amherst Court, Suite 204
Naperville, Illinois 60565
(630) 355-0838

SOIL BORING LOG

GSI Job No. 12245
Page 1 of 2
Date 11/14/13

ROUTE -- DESCRIPTION I-90 Retaining Walls (Canfield Ave. to Harlem Ave.) LOGGED BY TZ
SECTION -- LOCATION SW 1/4, SEC. 1, TWP. T40N, RNG. R12E, 3rd PM
COUNTY Cook DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic

STRUCT. NO.
Station
BORING NO. RWB-03
Station 3071+11
Offset 69.60ft Left
Ground Surface Elev. 637.30 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter Dry To -10.0' ft
Upon Completion n/a ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
12.0" ASPHALT 636.30			
CLAY-gray-stiff to very stiff	4		
	6 7	3.6 B	19
	2		
-5	3 4	1.1 B	25
	2		
	3 5	1.2 B	23
	2		
-10	3 4	1.3 B	22
	3		
	5 5	1.0 P	23
	3		
-15	5 6	1.1 B	23
	3		
	5 7	1.5 B	22
	3		
-20	4 6	1.5 B	20
CLAY-gray-stiff to very stiff 616.80 *(continued)*			
CLAY LOAM-gray-stiff	4		
	5 6	1.3 P	17
	4		
-25	6 7	1.3 B	10
	3		
	4 5	1.1 B	15
	3		
-30	4 5	1.3 P	2
	4		
-35	6 9	1.4 B	38
	3		
-40	5 5	1.2 B	15

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Z:\PROJECTS\2012\12245 HNTB, I-90 FROM I-190 TO HARLEM AVENUE (PTB 162-001)\12245 BORING LOGS\12245_LOG.GPJ 2/7/14

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Amherst Court, Suite 204
Naperville, Illinois 60565
(630) 355-0838

SOIL BORING LOG

GSI Job No. 12245
Page 2 of 2
Date 11/14/13

ROUTE -- DESCRIPTION I-90 Retaining Walls (Canfield Ave. to Harlem Ave.) LOGGED BY TZ
SECTION -- LOCATION SW 1/4, SEC. 1, TWP. T40N, RNG. R12E, 3rd PM
COUNTY Cook DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic

STRUCT. NO.
Station
BORING NO. RWB-03
Station 3071+11
Offset 69.60ft Left
Ground Surface Elev. 637.30 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter Dry To -10.0' ft
Upon Completion n/a ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
CLAY LOAM-gray-stiff *(continued)*			
	4		
End Of Boring @ -45.0'. Boring backfilled with cuttings. 592.30 -45	6 8	1.4 B	17
-50			
-55			
-60			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Z:\PROJECTS\2012\12245 HNTB, I-90 FROM I-190 TO HARLEM AVENUE (PTB 162-001)\12245 BORING LOGS\12245_LOG.GPJ 2/7/14

1/16/2018
MODEL: Sheet
D158015-sht-PRWB-1.BOR02.dgn

RME Rubinos & Mesia Engineers, Inc.
200 S. Michigan Avenue, Suite 1500, Chicago, IL 60604-2482

USER NAME = PHodina	DESIGNED - EV	REVISED -	
	CHECKED - PAH	REVISED -	
PLOT SCALE =	DRAWN - EV	REVISED -	
PLOT DATE = 01/19/2018	CHECKED - PAH	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RETAINING WALL WB-1 SOIL BORING LOGS - 2
STRUCTURE NO. 016-Z036
SHEET NO. S-9 OF 12 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	475
		CONTRACT NO. 60Y39		
	ILLINOIS FED. AID PROJECT			

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Amherst Court; Suite 204
Naperville, Illinois 60565
(630) 355-0838

SOIL BORING LOG

GSI Job No. 12245
Page 1 of 1
Date 10/21/13

ROUTE -- DESCRIPTION I-90 Retaining Walls (Canfield Ave. to Harlem Ave.) LOGGED BY CW
SECTION -- LOCATION SW 1/4, SEC. 1, TWP. T40N, RNG. R12E, 3rd PM
COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO.
Station
BORING NO. RWB-04
Station 3071+98
Offset 69.70ft Left
Ground Surface Elev. 636.50 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter Dry ft
Upon Completion Dry ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
6.0" ASPHALT 636.00			
CLAY LOAM-gray-hard			
	6		
	4	4.4	17
	5	B	
633.50			
CLAY-gray-stiff			
	3		
	3	1.3	24
-5	4	B	
	3		
	3	1.4	22
	5	B	
	3		
-10	3	1.5	22
	5	B	
	3		
	3	1.5	21
	5	P	
	3		
	3	1.5	24
-15	5	B	
	3		
	4	1.5	23
	6	B	
	3		
	5	1.6	22
-20	6	B	

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
CLAY-gray-stiff *(continued)*			
	3		
	4	1.8	20
	6	B	
	5		
	7	1.4	20
611.50 -25	8	B	
End Of Boring @ -25.0'. Boring backfilled with cuttings.			
-30			
-35			
-40			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Amherst Court; Suite 204
Naperville, Illinois 60565
(630) 355-0838

SOIL BORING LOG

GSI Job No. 12245
Page 1 of 1
Date 10/21/13

ROUTE -- DESCRIPTION I-90 Retaining Walls (Canfield Ave. to Harlem Ave.) LOGGED BY CW
SECTION -- LOCATION SW 1/4, SEC. 1, TWP. T40N, RNG. R12E, 3rd PM
COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO.
Station
BORING NO. RWB-05
Station 3072+78
Offset 69.80ft Left
Ground Surface Elev. 635.30 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter Dry ft
Upon Completion Dry ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
6.0" ASPHALT 634.80			
6.0" CRUSHED STONE 634.30			
CLAY-gray-stiff			
	3		
	4	2.5	18
	P		
	2		
	3	1.6	22
-5	4	B	
	4		
	4	1.0	23
	5	B	
	3		
-10	3	1.4	23
	5	B	
	4		
	4	1.9	21
	6	B	
	3		
-15	4	1.2	24
	5	B	
	4		
	6	1.7	23
	7	B	
	4		
-20	5	1.5	22
	6	B	

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
CLAY-gray-stiff *(continued)* 614.80			
SANDY CLAY LOAM-gray-medium dense			
	4		
	6	3.0	12
	8	P	
	4		
	5	1.5	14
610.30 -25	6	P	
End Of Boring @ -25.0'. Boring backfilled with cuttings.			
-30			
-35			
-40			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Z:\PROJECTS\2012\12245 HNTB, I-90 FROM I-190 TO HARLEM AVENUE (PTB 162-001)\12245 BORING LOGS\12245_LOG.GPJ 2/7/14

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Amherst Court, Suite 204
Naperville, Illinois 60565
(630) 355-0888

SOIL BORING LOG

GSI Job No. 12245
Page 1 of 2
Date 11/14/13

ROUTE -- DESCRIPTION I-90 Retaining Walls (Canfield Ave. to Harlem Ave.) LOGGED BY TZ
SECTION -- LOCATION SW 1/4, SEC. 1, TWP. T40N, RNG. R12E, 3rd PM
COUNTY Cook DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic

STRUCT. NO.
Station
BORING NO. RWB-06
Station 3073+59
Offset 70.00ft Left
Ground Surface Elev. 635.00 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter Dry To -10.0' ft
Upon Completion n/a ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Material
				12.0" ASPHALT
634.00				
	4			CLAY LOAM-dark brown, gray & black-stiff (Fill)
	3	1.5	21	
	5	P		
632.00				
				CLAY-gray-stiff to very stiff
	4			
	5	2.7	21	
-5	5	B		
	4			
	5	2.3	21	
	6	B		
	4			
-10	5	2.2	21	
	7	B		
	4			
	6	2.4	21	
	7	B		
	4			
-15	5	2.7	21	
	7	B		
	5			
	7	2.5	23	
	5	P		
	4			
-20	5	1.5	19	
	5	B		
614.50				CLAY-gray-stiff to very stiff (continued)
				CLAY LOAM-gray-stiff
	3			
	4	1.3	13	
	4	P		
612.00				
				CLAY-gray-medium stiff to stiff
	4			
	4	0.9	19	
-25	6	B		
	4			
	5	0.8	20	
	6	B		
	4			
-30	6	1.8	22	
	8	B		
	5			
	6	1.4	24	
-35	10	B		
	4			
	5	1.2	35	
-40	6	B		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Amherst Court, Suite 204
Naperville, Illinois 60565
(630) 355-0888

SOIL BORING LOG

GSI Job No. 12245
Page 2 of 2
Date 11/14/13

ROUTE -- DESCRIPTION I-90 Retaining Walls (Canfield Ave. to Harlem Ave.) LOGGED BY TZ
SECTION -- LOCATION SW 1/4, SEC. 1, TWP. T40N, RNG. R12E, 3rd PM
COUNTY Cook DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic

STRUCT. NO.
Station
BORING NO. RWB-06
Station 3073+59
Offset 70.00ft Left
Ground Surface Elev. 635.00 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter Dry To -10.0' ft
Upon Completion n/a ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Material
				CLAY-gray-medium stiff to stiff (continued)
593.00				
				CLAY LOAM-gray-hard
	4			
	8	4.3	15	End Of Boring @ -45.0'. Boring backfilled with cuttings.
590.00	11	B		
-45				
-50				
-55				
-60				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Z:\PROJECTS\2012\12245 HNTB, I-90 FROM I-190 TO HARLEM AVENUE (PTB 162-001)\12245 BORING LOGS\12245_LOG.GPJ 2/7/14

1/16/2018
MODEL Sheet
D15801S-sht-PRWB-1.BOR04.dgn

RME Rubinos & Mesia Engineers, Inc.
200 S. Michigan Avenue, Suite 1500, Chicago, IL 60604-2482

USER NAME = PHodina	DESIGNED - EV	REVISED -	
	CHECKED - PAH	REVISED -	
PLOT SCALE =	DRAWN - EV	REVISED -	
PLOT DATE = 01/19/2018	CHECKED - PAH	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RETAINING WALL WB-1 SOIL BORING LOGS - 4
STRUCTURE NO. 016-Z036
SHEET NO. S-11 OF 12 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	477
		CONTRACT NO. 60Y39		
	ILLINOIS FED. AID PROJECT			

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Amherst Court, Suite 204
Naperville, Illinois 60565
(630) 355-2838

SOIL BORING LOG

GSI Job No. 12245

Page 1 of 1

Date 11/15/13

ROUTE -- **DESCRIPTION** I-90 Retaining Walls (Canfield Ave. to Harlem Ave.) **LOGGED BY** TZ

SECTION -- **LOCATION** SW 1/4, **SEC.** 1, **TWP.** T40N, **RNG.** R12E, 3rd **PM**

COUNTY Cook **DRILLING METHOD** Hollow Stem Auger **HAMMER TYPE** CME Automatic

STRUCT. NO.
Station

BORING NO. RWB-07
Station 3074+27
Offset 70.30ft Left
Ground Surface Elev. 634.50 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft

Groundwater Elev.:
First Encounter Dry ft
Upon Completion Dry ft
After ____ **Hrs.** ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
634.00 6.0" ASPHALT			
CLAY-gray-stiff to hard			3
	4		
	6 7	4.5 P	19
	6		
	7 9	1.8 B	21
-5			
	3		
	4 5	1.3 B	22
	3		
	4 5	1.8 B	21
-10			
	3		
	4 7	1.9 B	20
	3		
	4 5	2.0 P	23
-15			
	3		
	5 6	1.6 B	22
	3		
	5 8	1.6 B	20
-20			

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
CLAY-gray-stiff to hard *(continued)*			
	6		
	6 10	3.0 B	21
	3		
609.50	4 6	2.0 B	19
-25 End Of Boring @ -25.0'. Boring backfilled with cuttings.			
-30			
-35			
-40			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Amherst Court, Suite 204
Naperville, Illinois 60565
(630) 355-2838

SOIL BORING LOG

GSI Job No. 12245

Page 1 of 1

Date 11/15/13

ROUTE -- **DESCRIPTION** I-90 Retaining Walls (Canfield Ave. to Harlem Ave.) **LOGGED BY** TZ

SECTION -- **LOCATION** SW 1/4, **SEC.** 1, **TWP.** T40N, **RNG.** R12E, 3rd **PM**

COUNTY Cook **DRILLING METHOD** Hollow Stem Auger **HAMMER TYPE** CME Automatic

STRUCT. NO.
Station

BORING NO. RWB-08
Station 3075+02
Offset 70.40ft Left
Ground Surface Elev. 634.80 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft

Groundwater Elev.:
First Encounter 631.3 ft ▼
Upon Completion Dry ft
After ____ **Hrs.** ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
633.97 10.0" ASPHALT			
CRUSHED STONE-loose	4		
	4 5		9
631.80			
CLAY-gray-stiff to very stiff ▼	3		
	3 4	1.0 P	25
-5			
	3		
	3 5	1.5 B	23
	3		
	4 5	1.5 B	23
-10			
	3		
	5 7	1.3 B	22
	3		
	4 6	2.4 B	23
-15			
619.30			
CLAY LOAM-gray-hard	5		
	7 9	5.4 B	12
616.80			
SILTY LOAM-gray-medium dense	7		
	11 16		14
-20			

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
614.30 SILTY LOAM-gray-medium dense *(continued)*			
CLAY LOAM-gray-stiff	5		
	6 10	1.3 B	16
	3		
	4 5	1.5 B	18
609.80 -25 End Of Boring @ -25.0'. Boring backfilled with cuttings.			
-30			
-35			
-40			

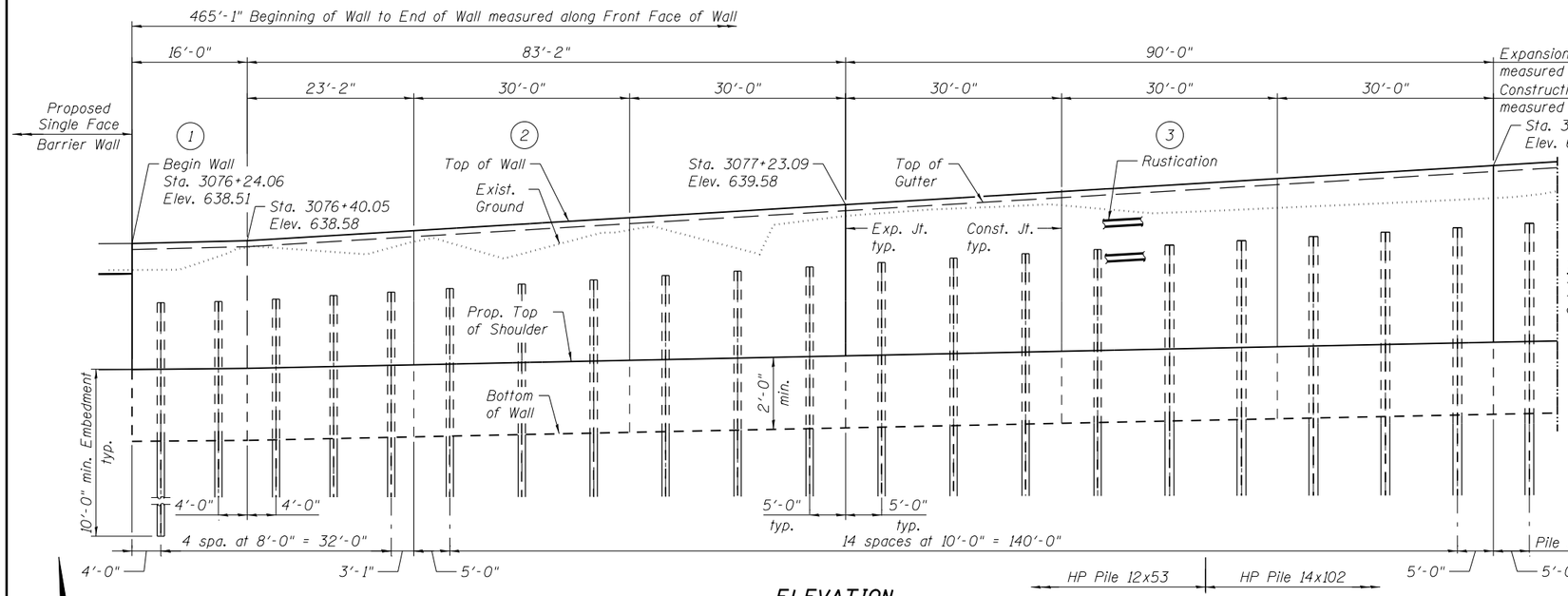
The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Z:\PROJECTS\2012\12245 IHNTB, I-90 FROM I-19 TO HARLEM AVENUE (PTB 162-001)\1\12245 BORING LOGS\12245_LOG.GPJ 2/7/14

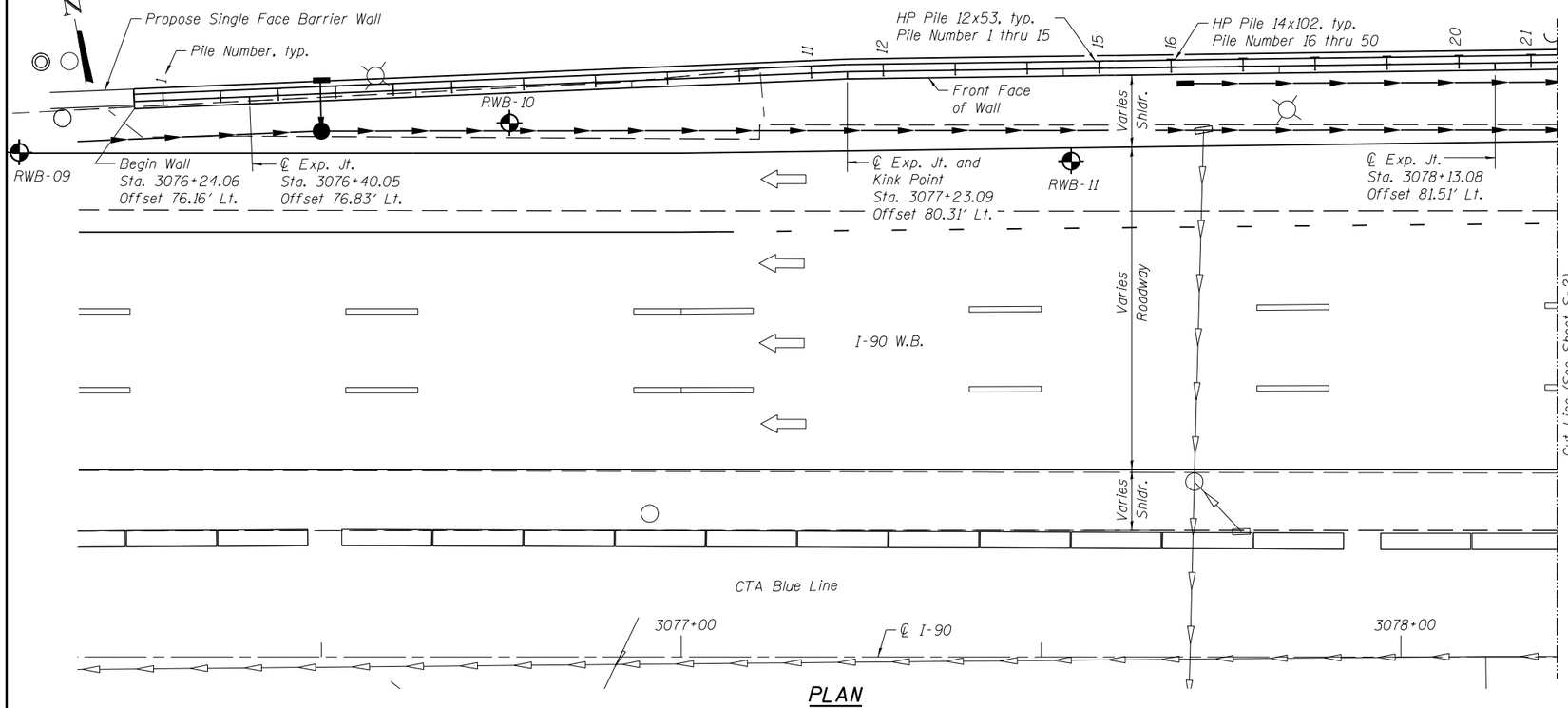
Bench Mark: TBM #19 (Elev. 638.00) - Square cut on top of barrier wall by light pole (FC13) mile marker 80.40 on North side WB I-90 just east of Canfield.

Existing Structure: None



ELEVATION

(Looking North at Front Face of the Wall)



PLAN

INDEX OF SHEETS

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Structure Excavation	Cu Yd	222
Concrete Structures	Cu Yd	121.8
Stud Shear Connectors	Each	341
Reinforcement Bars, Epoxy Coated	Pound	17,720
Name Plates	Each	1
Furnishing Soldier Piles (HP section)	Foot	884
Driving Soldier Piles	Foot	884
Untreated Timber Lagging	Sq Ft	2,498
Concrete Sealer	Sq Ft	2,835
Geocomposite Wall Drain	Sq Yd	290
Pipe Underdrains for Structures, 4 in	Foot	466

STATE OF ILLINOIS
MOHSEN M. FARAHANY
081-005131
CHICAGO, ILLINOIS
LICENSED STRUCTURAL ENGINEER

Signed: Mohsen M Farahany
Date: 4/21/2018
Exp: 11/30/2018
Sheets: S-1 to S-12

LEGEND:

Existing	Proposed	
		Inlet
		Catch Basin
		Manhole
		Storm Sewer
		Pipe Underdrain
		Light Pole
		Boring
		Panel Type

STATION 3076+24.06
BUILT 201_ BY
STATE OF ILLINOIS
F.A.I. RTE. I-90 - SEC. (1517 & 1415) R-2
LOADING HL-93
STRUCTURE NO. 016-Z037

NAME PLATE

See Std. 515001

GENERAL NOTES

Stations and Offsets are measured from ℄ I-90 to Front Face of wall.

The geometry of the wall follows curvature of the ℄ I-90. The wall may be constructed on chords between expansion/construction joints.

For Section thru wall, Construction and Expansion joint details and Pile Table see Sheet S-7 of 12.

Notes:
1. For continuation see Sheet S-2 of 12.

2. For the panel details see Sheet S-4 of 12.

DESIGN STRESSES

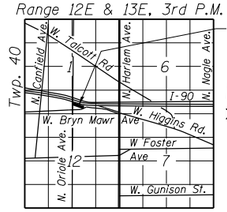
FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (M270 Grade 50)

DESIGN SPECIFICATIONS

2014 AASHTO LRFD Bridge Design Specifications, 7th Edition, with 2016 Interim Revisions

Range 12E & 13E, 3rd P.M.



LOCATION SKETCH

GENERAL PLAN AND ELEVATION I
INTERSTATE I-90
F.A.I. RTE. I-90 - SEC. (1517 & 1415) R-2
COOK COUNTY
STA. 3076+24.06 TO 3080+84.83
STRUCTURE NO. 016-Z037

1/16/2018
MDOT_Default
D1580115_sht-PRWB-2_GP&E01.dgn

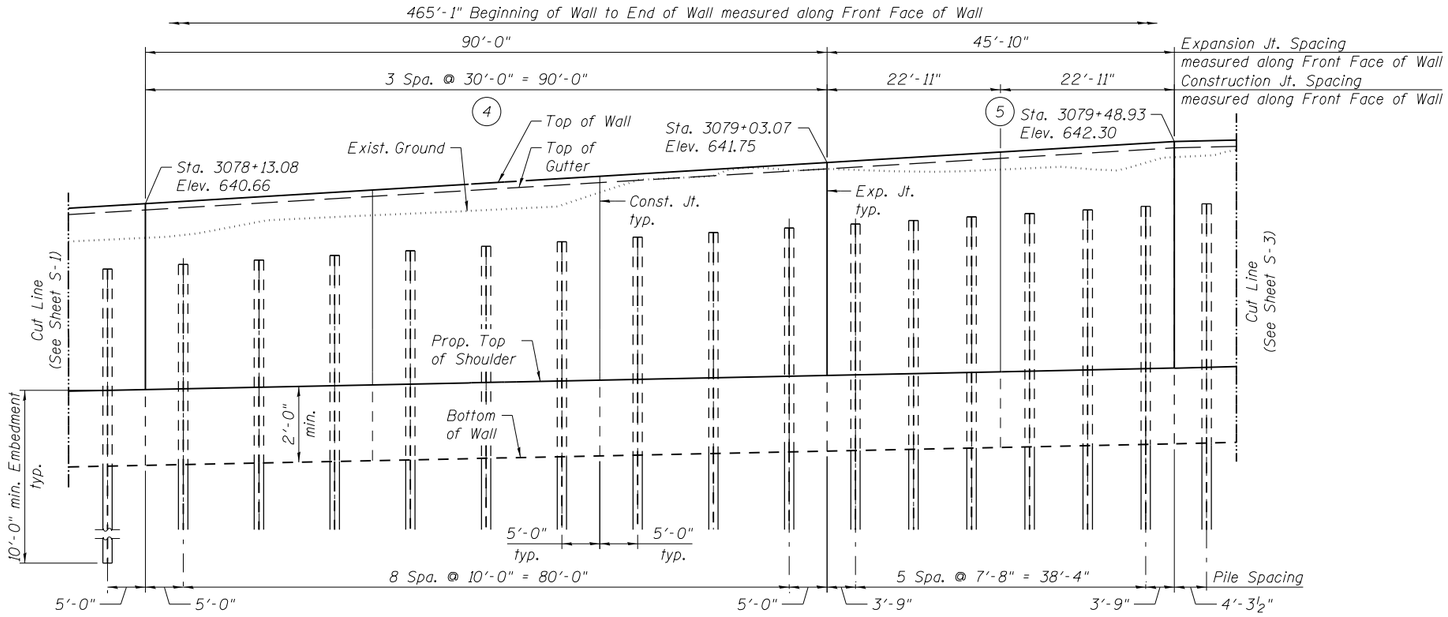
RME Rubinos & Mesia Engineers, Inc.
200 S. Michigan Avenue, Suite 1500, Chicago, IL 60604-2482

USER NAME = PHodina	DESIGNED - EV	REVISED -	
	CHECKED - PAH	REVISED -	
PLOT SCALE =	DRAWN - EV	REVISED -	
PLOT DATE = 01/19/2018	CHECKED - PAH	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

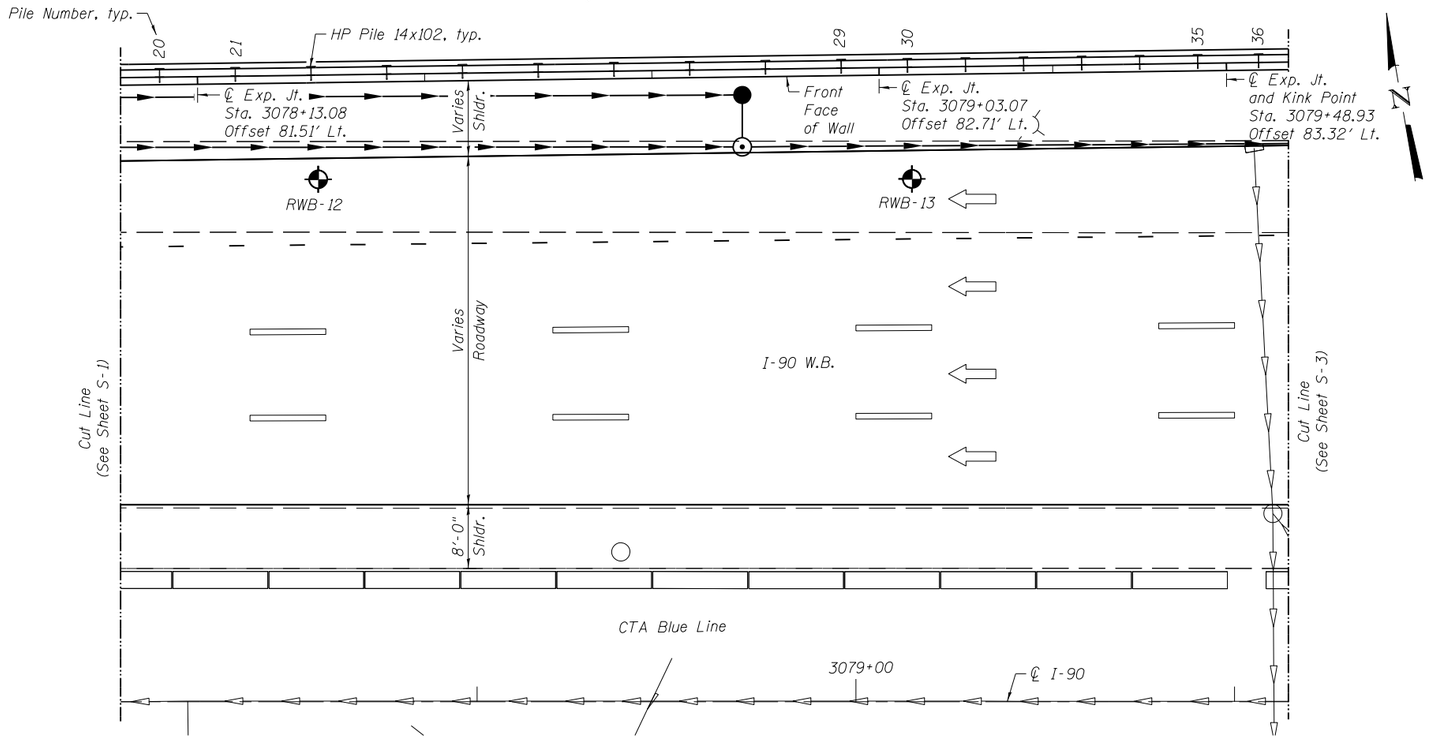
RETAINING WALL WB-2 PLAN AND ELEVATION - 1
STRUCTURE NO. 016-Z037
SHEET NO. S-1 OF 12 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	479
		CONTRACT NO. 60Y39		
	ILLINOIS FED. AID PROJECT			



ELEVATION

(Looking North at Front Face of the Wall)



PLAN

Notes:
1. For continuation see Sheet S-3 of 12.

2. For panel details see Sheet S-5 of 12.

GENERAL PLAN AND ELEVATION II
INTERSTATE I-90
F.A.I. RTE. I-90 - SEC. (1517 & 1415) R-2
COOK COUNTY
STA. 3076+24.06 TO 3080+84.83
STRUCTURE NO. 016-Z037

1/16/2018
MODEL: Default
D156015-Sht-PRWB-2_GP&E02.dgn

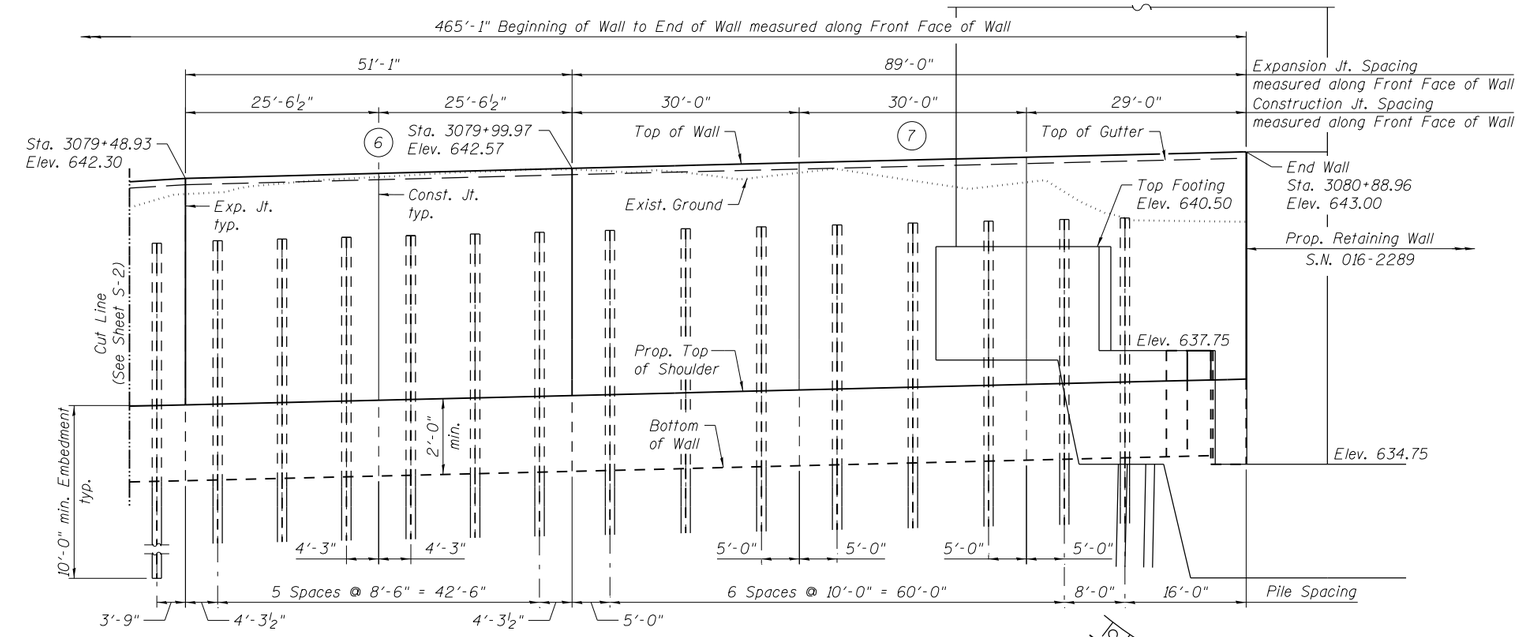
RME Rubinos & Mesia Engineers, Inc.
200 S. Michigan Avenue, Suite 1500, Chicago, IL 60604-2482

USER NAME = PHodina	DESIGNED - EV	REVISED -	
	CHECKED - PAH	REVISED -	
PLOT SCALE =	DRAWN - EV	REVISED -	
PLOT DATE = 01/19/2018	CHECKED - PAH	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

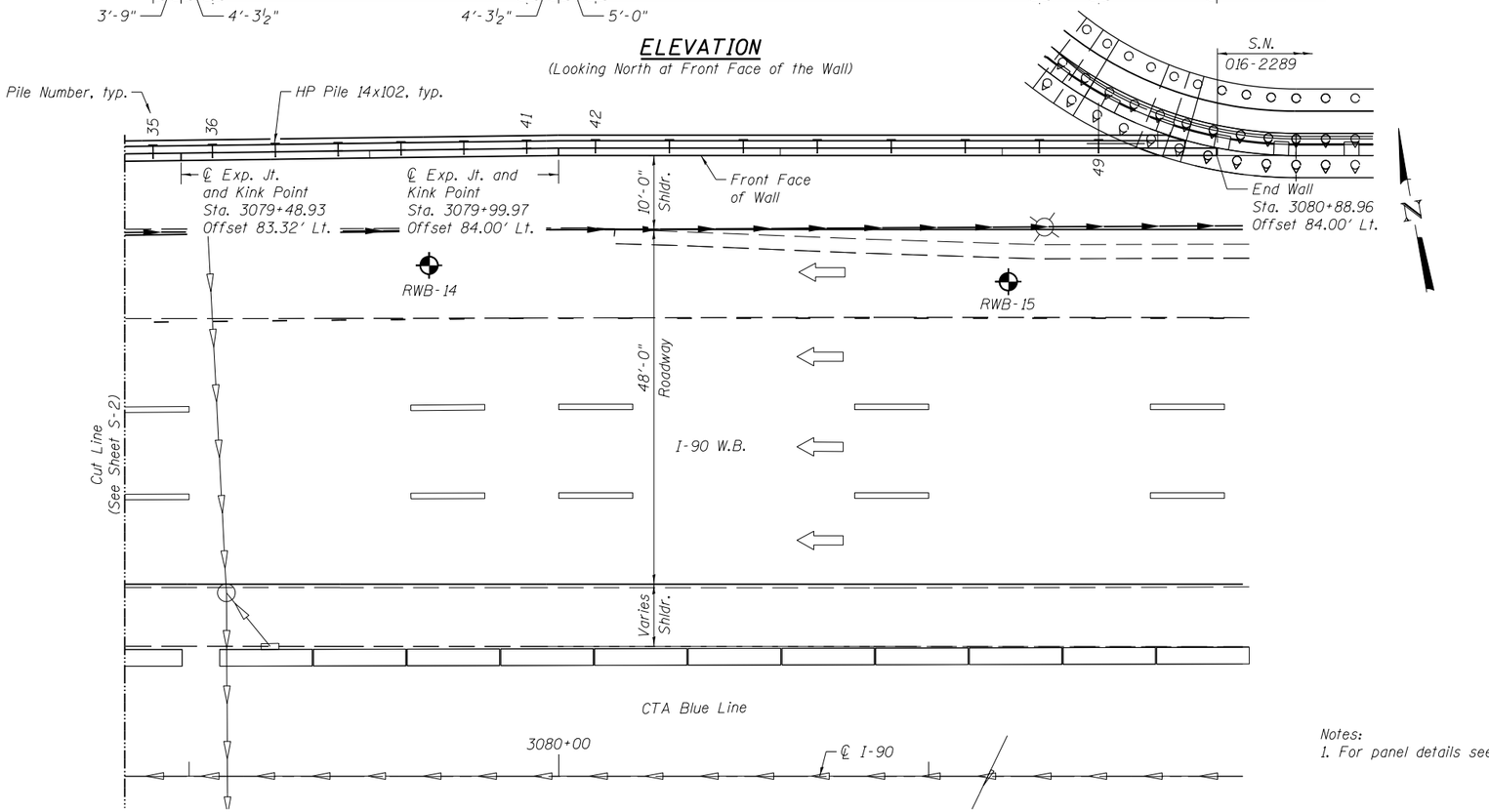
RETAINING WALL WB-2 PLAN AND ELEVATION - 2
STRUCTURE NO. 016-Z037
SHEET NO. S-2 OF 12 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	480
		CONTRACT NO. 60Y39		
	ILLINOIS FED. AID PROJECT			



ELEVATION

(Looking North at Front Face of the Wall)



PLAN

Notes:
1. For panel details see Sheets S-5 and S-6 of 12.

GENERAL PLAN AND ELEVATION III
INTERSTATE I-90
F.A.P. RTE. I-90 - SEC. (1517 & 1415) R-2
COOK COUNTY
STA. 3076+24.06 TO 3080+84.83
STRUCTURE NO. 016-Z037

1/16/2018
MODEL: Default
D1558015-sht-PRWB-2_GP&E03.dgn

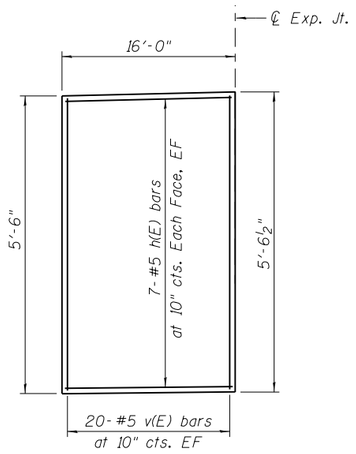
RME Rubinos & Mesia Engineers, Inc.
200 S. Michigan Avenue, Suite 1500, Chicago, IL 60604-2482

USER NAME = PHodina	DESIGNED - EV	REVISED -	
	CHECKED - PAH	REVISED -	
PLOT SCALE =	DRAWN - EV	REVISED -	
PLOT DATE = 01/19/2018	CHECKED - PAH	REVISED -	

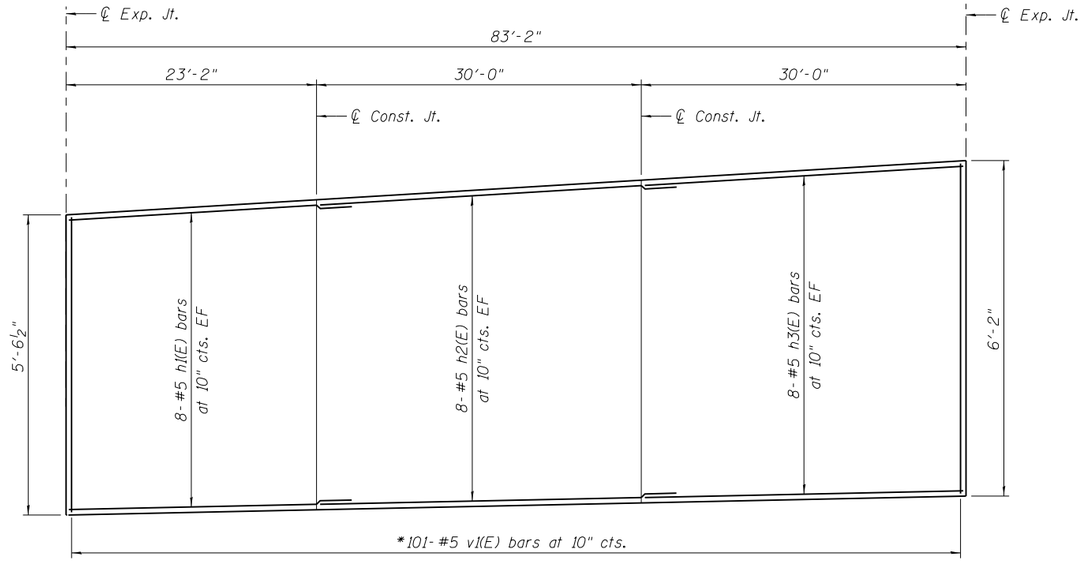
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RETAINING WALL WB-2 PLAN AND ELEVATION - 3
STRUCTURE NO. 016-Z037
SHEET NO. S-3 OF 12 SHEETS

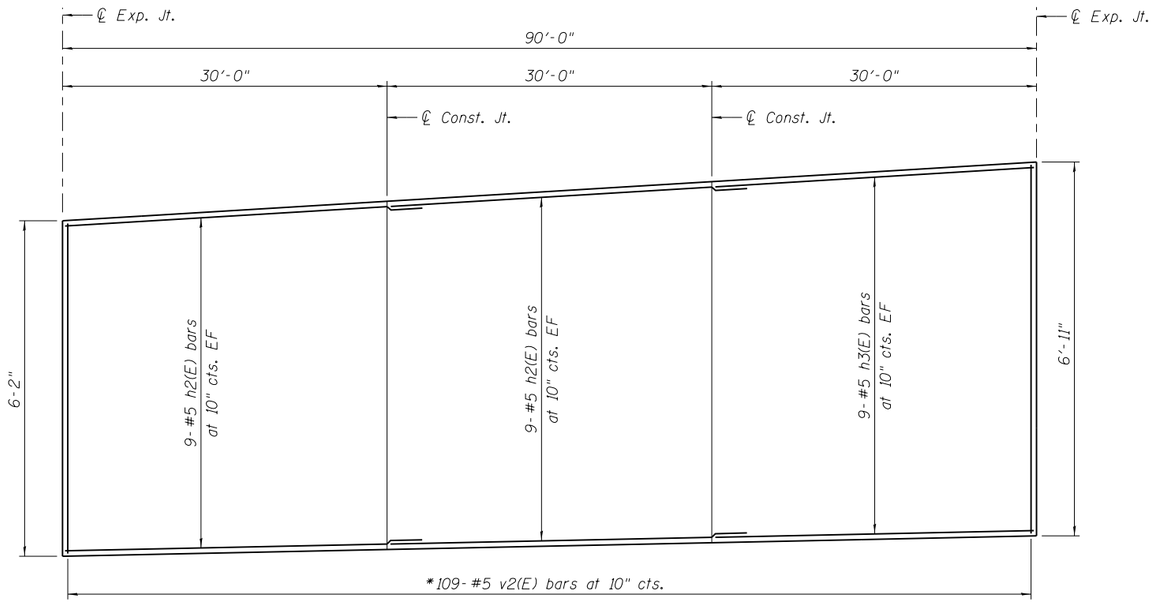
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	481
		CONTRACT NO. 60Y39		
	ILLINOIS FED. AID PROJECT			



TYPE 1
(1 Total)



TYPE 2
(1 Total)



TYPE 3
(1 Total)

*Cut bars as req'd and use remainder in opposite face. See bar cutting diagram, Sheet S-6 of 12.

MINIMUM BAR LAP
#5 bar = 3'-7"

Notes:
1. Panel types shown looking North at Front of the Wall.
2. Reinforcement spacing shown is to be used as maximum spacing.
3. For location of panels, see Sheet S-1 of 12.
4. For panels Bill of Material see Sheet S-6 of 12.

1/16/2018
MODEL: Sheet
D1580015-sht-PRWB-2_DET01.dgn

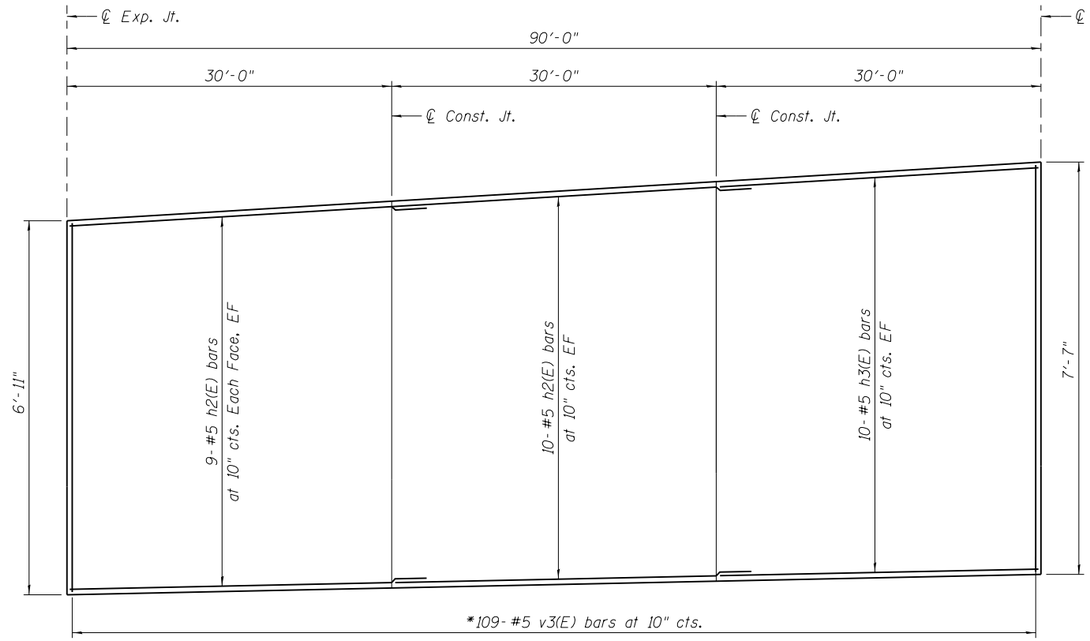
RME Rubinos & Mesia Engineers, Inc.
200 S. Michigan Avenue, Suite 1500, Chicago, IL 60604-2482

USER NAME = PHodina	DESIGNED - EV	REVISED -	
	CHECKED - PAH	REVISED -	
PLOT SCALE =	DRAWN - EV	REVISED -	
PLOT DATE = 01/19/2018	CHECKED - PAH	REVISED -	

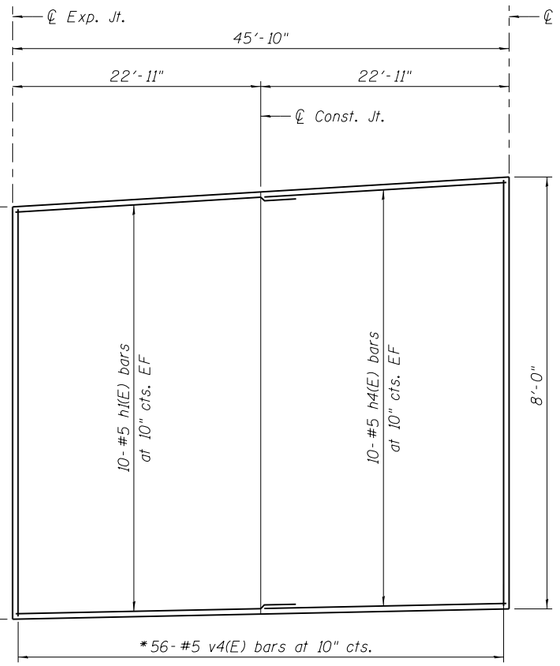
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RETAINING WALL WB-2 DETAILS - 1
STRUCTURE NO. 016-Z037
SHEET NO. S-4 OF 12 SHEETS

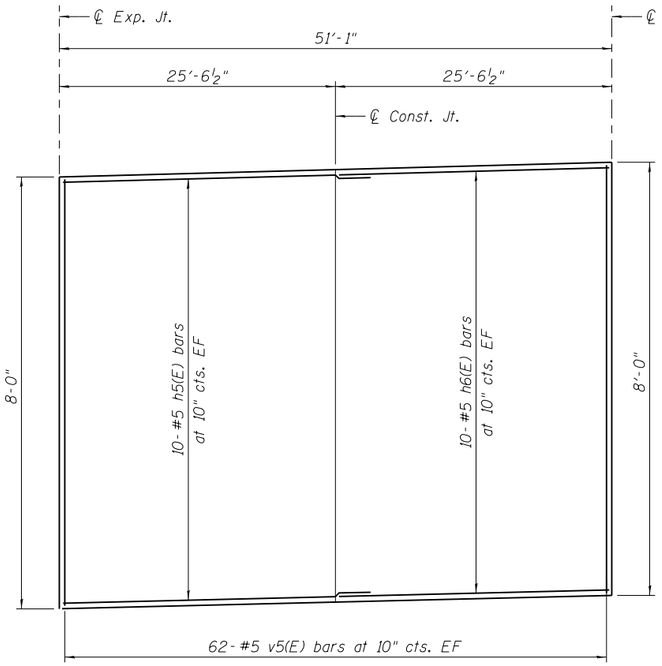
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	482
		CONTRACT NO. 60Y39		
	ILLINOIS FED. AID PROJECT			



TYPE 4
(1 Total)



TYPE 5
(1 Total)



TYPE 6
(1 Total)

*Cut bars as req'd and use remainder in opposite face. See bar cutting diagram, Sheet S-6 of 12.

MINIMUM BAR LAPS
#5 bar = 3'-7"

Notes:
1. Panel types shown looking North at Front of the Wall.
2. Reinforcement spacing shown is to be used as maximum spacing.
3. For location of panels, see Sheets S-2 and S-3 of 12.
4. For panels Bill of Material see Sheet S-6 of 12.

RME Rubinos & Mesia Engineers, Inc.
200 S. Michigan Avenue, Suite 1500, Chicago, IL 60604-2482

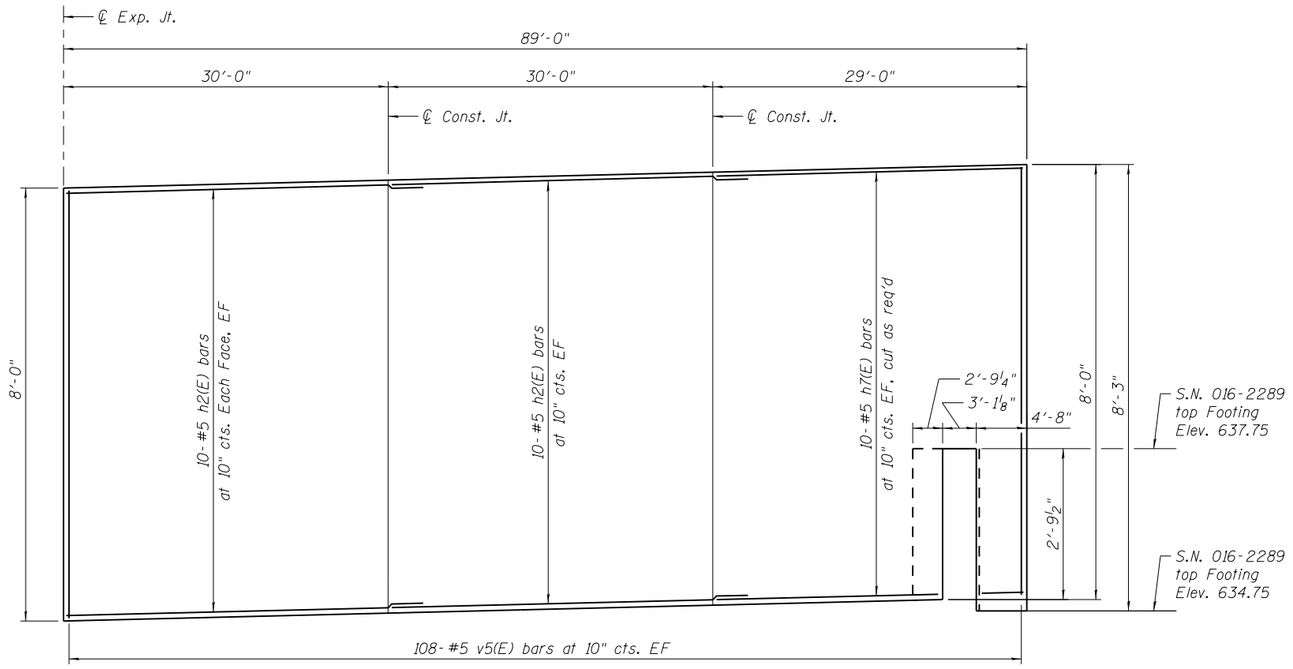
USER NAME = PHodina	DESIGNED - EV	REVISED -
	CHECKED - PAH	REVISED -
PLOT SCALE =	DRAWN - EV	REVISED -
PLOT DATE = 01/19/2018	CHECKED - PAH	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

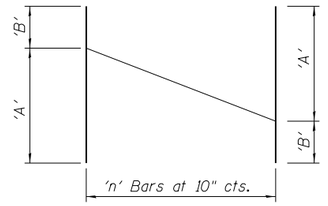
RETAINING WALL WB-2 DETAILS - 2
STRUCTURE NO. 016-Z037
SHEET NO. S-5 OF 12 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	483
		CONTRACT NO. 60Y39		
	ILLINOIS FED. AID PROJECT			

1/16/2018
MODEL: Sheet
D1580015-SHT-PRWB-2_DET02.dgn



TYPE 7
(1 Total)



Bar	'A'	'B'	'n'
v1(E)	5'-11"	5'-3"	101
v2(E)	6'-8"	5'-11"	109
v3(E)	7'-4"	6'-8"	109
v4(E)	7'-9"	7'-4"	56

BAR CUTTING DIAGRAMS

WALL WB-2 BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	14	#5	15'-9"	——
h1(E)	36	#5	26'-9"	——
h2(E)	130	#5	33'-7"	——
h3(E)	54	#5	29'-9"	——
h4(E)	20	#5	22'-9"	——
h5(E)	20	#5	29'-2"	——
h6(E)	20	#5	25'-4"	——
h7(E)	20	#6	28'-8"	——
v(E)	40	#5	5'-3"	——
v1(E)	101	#5	11'-2"	——
v2(E)	109	#5	12'-7"	——
v3(E)	109	#5	14'-0"	——
v4(E)	56	#5	15'-1"	——
v5(E)	340	#5	7'-9"	——
Concrete Structures			Cu Yd	121.8
Reinforcement Bars, Epoxy Coated			Pound	17,720
Concrete Sealer			Sq Ft	2,835

MINIMUM BAR LAPS
#5 bar = 3'-7"

Notes:
1. Panel types shown looking North at Front of the Wall.
2. Reinforcement spacing shown is to be used as maximum spacing.
3. For location of panels, see Sheet S-3 of 12.

RME Rubinos & Mesia Engineers, Inc.
200 S. Michigan Avenue, Suite 1500, Chicago, IL 60604-2482

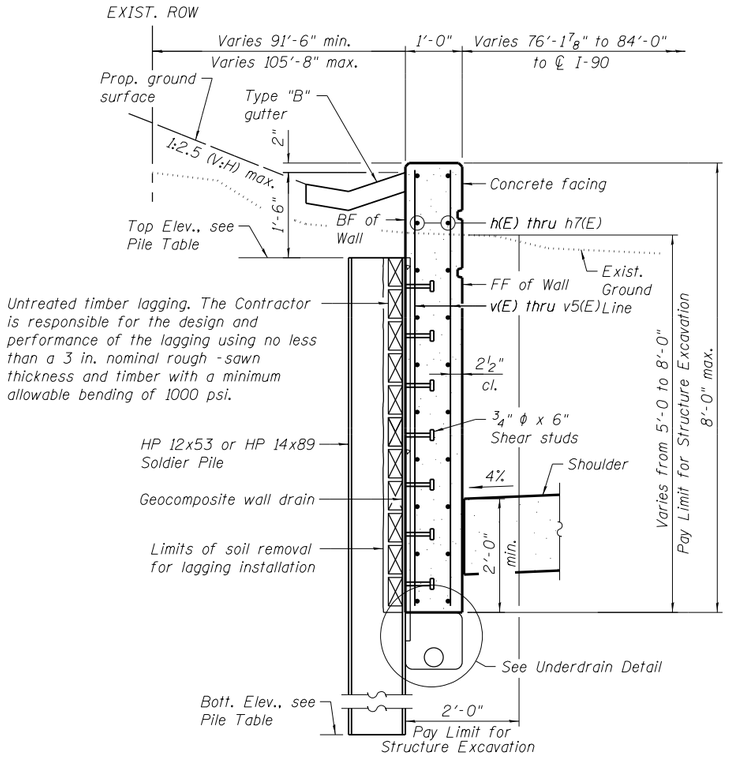
USER NAME = PHodina	DESIGNED - EV	REVISED -	
	CHECKED - PAH	REVISED -	
PLOT SCALE =	DRAWN - EV	REVISED -	
PLOT DATE = 01/19/2018	CHECKED - PAH	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

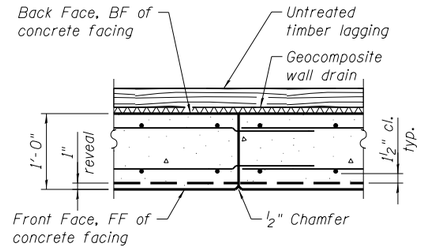
RETAINING WALL WB-2 DETAILS - 3
STRUCTURE NO. 016-Z037
SHEET NO. S-6 OF 12 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	484
		CONTRACT NO. 60Y39		
	ILLINOIS FED. AID PROJECT			

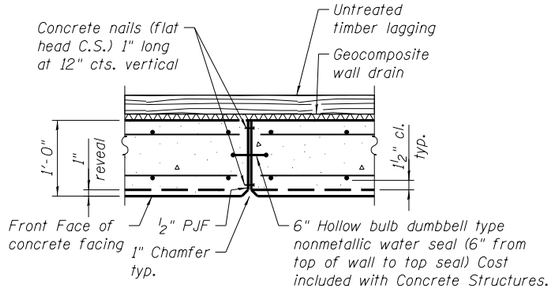
1/16/2018
MODEL: Sheet
D1580015-sht-PRWB-2_DET03.dgn



SECTION THRU DRIVEN SOLDIER PILE WALL



CONSTRUCTION JOINT

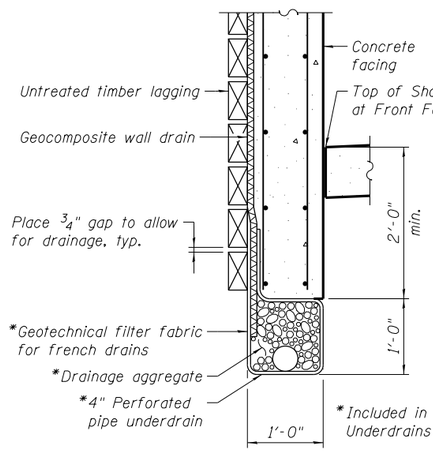


EXPANSION JOINT

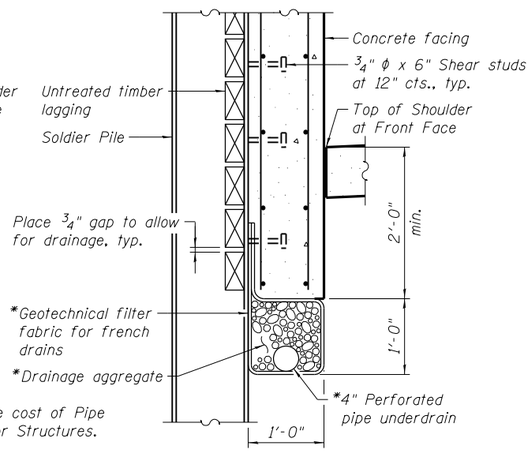
PILE TABLE

Pile No.	Size	Top Elev.	Bott. Elev.	Pile Length	Shear Stud
1	HP 12X53	636.86	622.86	14	5
2	HP 12X53	636.90	622.90	14	5
3	HP 12X53	636.96	622.96	14	5
4	HP 12X53	637.05	623.05	14	5
5	HP 12X53	637.15	622.15	15	6
6	HP 12X53	637.25	622.25	15	6
7	HP 12X53	637.37	622.37	15	6
8	HP 12X53	637.49	622.49	15	6
9	HP 12X53	637.61	622.61	15	6
10	HP 12X53	637.73	622.73	15	6
11	HP 12X53	637.85	622.85	15	6
12	HP 12X53	637.97	622.97	15	6
13	HP 12X53	638.09	623.09	15	6
14	HP 12X53	638.21	623.21	15	6
15	HP 12X53	638.33	623.33	15	6
16	HP 14X102	638.46	620.46	18	6
17	HP 14X102	638.58	620.58	18	6
18	HP 14X102	638.70	619.70	19	7
19	HP 14X102	638.82	619.82	19	7
20	HP 14X102	638.94	619.94	19	7
21	HP 14X102	639.06	620.06	19	7
22	HP 14X102	639.18	620.18	19	7
23	HP 14X102	639.30	620.30	19	7
24	HP 14X102	639.42	620.42	19	7
25	HP 14X102	639.54	620.54	19	7
26	HP 14X102	639.66	620.66	19	7
27	HP 14X102	639.78	620.78	19	7
28	HP 14X102	639.90	620.90	19	7
29	HP 14X102	640.02	621.02	19	7
30	HP 14X102	640.13	621.13	19	7
31	HP 14X102	640.22	620.22	20	8
32	HP 14X102	640.31	620.31	20	8
33	HP 14X102	640.41	620.41	20	8
34	HP 14X102	640.50	620.50	20	8
35	HP 14X102	640.59	620.59	20	8
36	HP 14X102	640.66	620.66	20	8
37	HP 14X102	640.71	620.71	20	8
38	HP 14X102	640.75	620.75	20	8
39	HP 14X102	640.80	620.80	20	8
40	HP 14X102	640.84	620.84	20	8
41	HP 14X102	640.89	620.89	20	8
42	HP 14X102	640.93	620.93	20	8
43	HP 14X102	640.98	620.98	20	8
44	HP 14X102	641.03	621.03	20	8
45	HP 14X102	641.08	621.08	20	8
46	HP 14X102	641.13	621.13	20	8
47	HP 14X102	641.18	621.18	20	8
48	HP 14X102	641.22	621.22	20	8
49	HP 14X102	641.26	621.26	20	8

Notes:
1. For panel reinforcement, see Sheets S-4 through S-6 of 12.



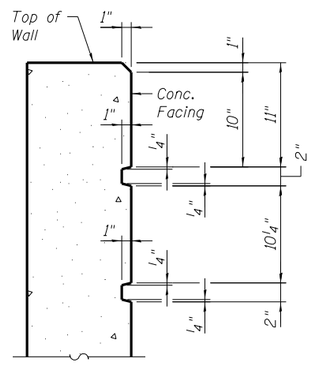
BETWEEN SOLDIER PILES



AT SOLDIER PILES

*Included in the cost of Pipe Underdrains for Structures.

UNDERDRAIN DETAIL



RUSTICATION DETAIL AT TOP OF WALL

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Amherst Court, Suite 204
Naperville, Illinois 60565
(630) 355-0888

SOIL BORING LOG

GSI Job No. 12245
Page 1 of 1
Date 11/15/13

ROUTE -- DESCRIPTION I-90 Retaining Walls (Canfield Ave. to Harlem Ave.) LOGGED BY TZ
SECTION -- LOCATION SW 1/4, SEC. 1, TWP. T40N, RNG. R12E, 3rd PM
COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO.
Station
BORING NO. RWB-09
Station 3075+96
Offset 70.10ft Left
Ground Surface Elev. 635.20 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter 631.7 ft ▼
Upon Completion 617.2 ft ▽
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
4.0" ASPHALT 634.87			
8.0" CONCRETE 634.20			
SAND & GRAVEL-brown-medium dense (Fill)	6		
	7		3
	9		
632.20			
CRUSHED STONE-very dense ▼	3		
	4		15
-5	5		
629.70			
CLAY LOAM-gray-stiff	3		
	4	1.6	22
	5	B	
	3		
	4	1.1	18
-10	4	B	
624.70			
CLAY-gray-stiff	3		
	4	1.3	22
	5	B	
	4		
	5	1.9	22
-15	8	B	
	3		
	7	1.3	22
	8	P	
▽			
	4		
	5	1.9	22
-20	6	B	

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
CLAY-gray-stiff *(continued)* 614.70			
SILTY LOAM-gray-medium dense	6		
	7		18
	8		
612.20			
CLAY-gray-stiff	3		
	5	1.8	24
-25	7	P	
610.20			
End Of Boring @ -25.0'. Boring backfilled with cuttings.			
-30			
-35			
-40			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Amherst Court, Suite 204
Naperville, Illinois 60565
(630) 355-0888

SOIL BORING LOG

GSI Job No. 12245
Page 1 of 1
Date 11/15/13

ROUTE -- DESCRIPTION I-90 Retaining Walls (Canfield Ave. to Harlem Ave.) LOGGED BY TZ
SECTION -- LOCATION SW 1/4, SEC. 1, TWP. T40N, RNG. R12E, 3rd PM
COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO.
Station
BORING NO. RWB-10
Station 3076+76
Offset 74.20ft Left
Ground Surface Elev. 635.50 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter 619.5 ft ▼
Upon Completion Dry ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
7.0" ASPHALT 634.92			
CLAY LOAM-gray-hard	4		
	5	6.1	17
	7	B	
632.50			
CLAY-gray-stiff to very stiff	4		
	4	1.9	23
-5	6	B	
	3		
	4	2.1	22
	4	B	
	3		
	4	1.5	22
-10	5	B	
	3		
	6	2.7	20
	7	B	
	3		
	4	3.0	19
-15	5	P	
620.00			
CLAY LOAM-gray-very stiff ▼	5		
	6	2.7	16
	7	B	
617.50			
CLAY-gray-stiff	4		
	6	1.5	21
-20	7	B	

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
CLAY-gray-stiff *(continued)*			
	5		
	7	1.3	17
	8	B	
	4		
610.50 -25	6	1.3	19
	9	B	
End Of Boring @ -25.0'. Boring backfilled with cuttings.			
-30			
-35			
-40			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Z:\PROJECTS\2012\12245 HNTB, I-90 FROM I-190 TO HARLEM AVENUE (PTB 162-001)\12245 BORING LOGS\12245_LOG.GPJ 2/7/14

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Amherst Court, Suite 204
Naperville, Illinois 60565
(630) 355-0838

SOIL BORING LOG

GSI Job No. 12245
Page 1 of 2
Date 11/18/13

ROUTE -- DESCRIPTION I-90 Retaining Walls (Canfield Ave. to Harlem Ave.) LOGGED BY TZ
SECTION -- LOCATION SW 1/4, SEC. 1, TWP. T40N, RNG. R12E, 3rd PM
COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO.
Station
BORING NO. RWB-11
Station 3077+54
Offset 68.90ft Left
Ground Surface Elev. 635.80 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter 632.3 ft ▼
Upon Completion n/a ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
635.22 7.0" ASPHALT			
CRUSHED STONE-loose	3		
	4		6
632.80	4		
CLAY LOAM-gray-stiff ▼	3		
-5	5	1.0	15
	6	B	
630.30 CLAY-gray-medium stiff to stiff	3		
	4	0.6	24
	4	B	
	3		
-10	4	1.0	21
	5	B	
	3		
	4	1.1	20
	6	B	
	3		
-15	3	1.1	23
	4	B	
	3		
	3	1.4	23
617.80	5	B	
SILTY CLAY LOAM-gray-loose	3		
-20	3	1.0	13
	4	P	
615.30 SILTY CLAY LOAM-gray-loose *(continued)*			
CLAY-gray-stiff	3		
	4	1.2	24
	5	B	
	3		
-25	4	1.0	18
	5	B	
610.30 CLAY LOAM-gray-stiff	4		
	6	1.0	13
	8	P	
	6		
-30	7	1.1	16
	9	B	
603.80 CLAY-gray-very stiff	5		
	7	2.1	22
-35	8	B	
598.80 CLAY LOAM-gray-medium stiff to stiff	6		
	6	0.9	16
-40	7	B	

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Z:\PROJECTS\2012\12245 HNTB, I-90 FROM I-190 TO HARLEM AVENUE (PTB 162-001)\12245 BORING LOGS\12245_LOG.GPJ 2/7/14

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Amherst Court, Suite 204
Naperville, Illinois 60565
(630) 355-0838

SOIL BORING LOG

GSI Job No. 12245
Page 2 of 2
Date 11/18/13

ROUTE -- DESCRIPTION I-90 Retaining Walls (Canfield Ave. to Harlem Ave.) LOGGED BY TZ
SECTION -- LOCATION SW 1/4, SEC. 1, TWP. T40N, RNG. R12E, 3rd PM
COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO.
Station
BORING NO. RWB-11
Station 3077+54
Offset 68.90ft Left
Ground Surface Elev. 635.80 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter 632.3 ft ▼
Upon Completion n/a ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
CLAY LOAM-gray-medium stiff to stiff *(continued)*			
	6		
End Of Boring @ -45.0'. Boring backfilled with cuttings. 590.80	7	1.7	18
-45	9	B	
-50			
-55			
-60			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Z:\PROJECTS\2012\12245 HNTB, I-90 FROM I-190 TO HARLEM AVENUE (PTB 162-001)\12245 BORING LOGS\12245_LOG.GPJ 2/7/14

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Amherst Court; Suite 204
Naperville, Illinois 60565
(630) 355-0888

SOIL BORING LOG

GSI Job No. 12245
Page 1 of 1
Date 10/18/13

ROUTE -- DESCRIPTION I-90 Retaining Walls (Canfield Ave. to Harlem Ave.) LOGGED BY CW
SECTION -- LOCATION SW 1/4, SEC. 1, TWP. T40N, RNG. R12E, 3rd PM
COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO.
Station
BORING NO. RWB-12
Station 3078+29
Offset 69.00ft Left
Ground Surface Elev. 636.30 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter 635.3 ft ▼
Upon Completion 615.3 ft ▽
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
635.80			
6.0" ASPHALT			
635.30 ▼			
6.0" CRUSHED STONE			
	3		
	4	2.1	18
	5	B	
	3		
	4	1.6	22
-5	5	B	
	3		
	3	1.1	14
	5	B	
	3		
	4	1.3	20
-10	5	B	
	4		
	4	1.1	18
	7	B	
	3		
	5	1.7	24
-15	7	B	
	4		
	5	1.5	18
	8	B	
	4		
	5	1.9	22
-20	9	B	

CLAY to CLAY LOAM-gray-stiff to very stiff *(continued)*

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
▽	5		
	7	1.8	21
	10	B	
	4		
	5	1.3	20
611.30 -25	10	P	
End Of Boring @ -25.0'. Boring backfilled with cuttings.			
-30			
-35			
-40			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Geo Services, Inc.
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(630) 355-0888

SOIL BORING LOG

GSI Job No. 12245
Page 1 of 1
Date 10/18/13

ROUTE -- DESCRIPTION I-90 Retaining Walls (Canfield Ave. to Harlem Ave.) LOGGED BY CW
SECTION -- LOCATION SW 1/4, SEC. 1, TWP. T40N, RNG. R12E, 3rd PM
COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO.
Station
BORING NO. RWB-13
Station 3079+07
Offset 69.00ft Left
Ground Surface Elev. 636.80 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter 635.8 ft ▼
Upon Completion n/a ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
636.30			
6.0" ASPHALT			
635.80 ▼			
6.0" CRUSHED STONE			
CLAY to CLAY	5		
LOAM-gray-medium stiff to stiff	4	0.6	17
	4	B	
	3		
	4	1.0	22
-5	4	P	
	4		
	5	1.7	22
	6	B	
	4		
	5	1.7	18
-10	7	B	
	4		
	5	1.4	21
	7	B	
623.80			
SILTY LOAM-gray-medium dense	5		
	7	2.0	17
-15	8	P	
621.30			
SANDY LOAM-gray-medium dense	6		
	7		18
	8		
618.80			
CLAY to CLAY LOAM-gray-stiff	5		
	8	1.4	22
-20	9	B	

CLAY to CLAY LOAM-gray-stiff *(continued)*

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
	6		
	7	1.5	13
	10	B	
	11		
	50/5"	1.5	13
611.80 -25		P	
End Of Boring @ -25.0'. Boring backfilled with cuttings.			
-30			
-35			
-40			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Z:\PROJECTS\2012\12245 HNTB, I-90 FROM I-190 TO HARLEM AVENUE (PTB 162-001)\12245 BORING LOGS\12245_LOG.GPJ 2/7/14

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Amherst Court, Suite 204
Naperville, Illinois 60565
(630) 355-2638

GSI Job No. 12245

SOIL BORING LOG

Page 1 of 1

Date 10/18/13

ROUTE -- **DESCRIPTION** I-90 Retaining Walls (Canfield Ave. to Harlem Ave.) **LOGGED BY** CW

SECTION -- **LOCATION** SW 1/4, **SEC.** 1, **TWP.** T40N, **RNG.** R12E, 3rd **PM**

COUNTY Cook **DRILLING METHOD** Hollow Stem Auger **HAMMER TYPE** CME Automatic

STRUCT. NO.
Station

BORING NO. RWB-14
Station 3079+82
Offset 69.10ft Left
Ground Surface Elev. 637.00 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft

Groundwater Elev.:
First Encounter 615.0 ft ▼
Upon Completion 615.0 ft ▽
After ____ **Hrs.** ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
8.0" ASPHALT 636.33			
4.0" CRUSHED STONE 636.00			
CLAY LOAM-gray-very stiff	3		
	4 7	2.9 B	15
634.00			
CLAY-gray-stiff to very stiff	3		
	6 6	1.9 B	20
-5	4		
	4 6	1.4 B	17
	4		
-10	5 7	2.1 B	20
	4		
	7 11	1.9 B	19
	4		
-15	7 9	2.0 B	20
621.50			
SILTY SAND and GRAVEL-gray-medium dense	5		
	7 10		8
619.00			
CLAY-gray-stiff to very stiff	4		
-20	8 9	2.4 B	21

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
CLAY-gray-stiff to very stiff *(continued)*	7		
▼	11 17	1.5 P	21
	5		
	7 10	2.0 B	18
612.00 -25			
End Of Boring @ -25.0'. Boring backfilled with cuttings.			
-30			
-35			
-40			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Z:\PROJECTS\2012\12245 INTB, I-90 FROM I-190 TO HARLEM AVENUE (PTB 162-001)\12245 BORING LOGS\12245_LOG.GPJ 2/7/14

1/16/2018
MODEL: Sheet
D158015-sht-PRWB-2_BORO4.dgn

RME Rubinos & Mesia Engineers, Inc. 200 S. Michigan Avenue, Suite 1500, Chicago, IL 60604-2482	USER NAME = PHodina	DESIGNED - EV	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	RETAINING WALL WB-2 – SOIL BORING LOGS – 4 STRUCTURE NO. 016-Z037 SHEET NO. S-11 OF 12 SHEETS
		CHECKED - PAH	REVISED -		
	PLOT SCALE =	DRAWN - EV	REVISED -		
	PLOT DATE = 01/19/2018	CHECKED - PAH	REVISED -		

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	489
		CONTRACT NO. 60Y39		
	ILLINOIS FED. AID PROJECT			

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Amherst Court, Suite 204
Naperville, Illinois 60565
(630) 355-0888

SOIL BORING LOG

GSI Job No. 12245
Page 1 of 2
Date 11/13/13

ROUTE -- **DESCRIPTION** I-90 Retaining Walls (Canfield Ave. to Harlem Ave.) **LOGGED BY** TZ

SECTION -- **LOCATION** SW 1/4, **SEC.** 1, **TWP.** T40N, **RNG.** R12E, 3rd **PM**

COUNTY Cook **DRILLING METHOD** Hollow Stem Auger/Rotary **HAMMER TYPE** CME Automatic

STRUCT. NO.
Station

BORING NO. RWB-15
Station 3080+61
Offset 66.90ft Left
Ground Surface Elev. 637.50 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft

Groundwater Elev.:
First Encounter Dry To -10.0' ft
Upon Completion n/a ft
After ___ Hrs. ___ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
				8.0" ASPHALT, 4.0" CRUSHED STONE
				636.50
	4			CLAY LOAM-gray-very stiff (Possible Fill)
	5	3.0	16	
	7	P		
				634.50
				CLAY-gray-stiff
	3			
	4	1.8	20	
-5	5	B		
	4			
	7	1.9	20	
	8	B		
	4			
	6	1.9	18	
-10	7	B		
				627.00
				CLAY to CLAY LOAM-gray-stiff to very stiff
	4			
	5	1.0	15	
	6	B		
	4			
	5	1.2	21	
-15	7	B		
	3			
	5	1.3	22	
	7	B		
	4			
	6	1.5	17	
-20	8	B		
				CLAY to CLAY LOAM-gray-stiff to very stiff *(continued)*
	4			
	5	1.9	19	
	9	B		
	4			
-25	6	1.5	17	
	8	B		
	3			
	4	1.0	17	
	5	P		
	4			
-30	7	1.4	23	
	9	B		
	5			
-35	6	2.7	15	
	8	B		
	7			
	8	3.0	14	
-40	14	B		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Z:\PROJECTS\2012\12245 HNTB, I-90 FROM I-190 TO HARLEM AVENUE (PTB 162-001)\12245 BORING LOGS\12245_LOG.GPJ 2/7/14

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Amherst Court, Suite 204
Naperville, Illinois 60565
(630) 355-0888

SOIL BORING LOG

GSI Job No. 12245
Page 2 of 2
Date 11/13/13

ROUTE -- **DESCRIPTION** I-90 Retaining Walls (Canfield Ave. to Harlem Ave.) **LOGGED BY** TZ

SECTION -- **LOCATION** SW 1/4, **SEC.** 1, **TWP.** T40N, **RNG.** R12E, 3rd **PM**

COUNTY Cook **DRILLING METHOD** Hollow Stem Auger/Rotary **HAMMER TYPE** CME Automatic

STRUCT. NO.
Station

BORING NO. RWB-15
Station 3080+61
Offset 66.90ft Left
Ground Surface Elev. 637.50 ft

Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft

Groundwater Elev.:
First Encounter Dry To -10.0' ft
Upon Completion n/a ft
After ___ Hrs. ___ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
				CLAY to CLAY LOAM-gray-stiff to very stiff *(continued)*
	8			
	10	2.4	15	
	13	B		
				592.50
-45				End Of Boring @ -45.0'. Boring backfilled with cuttings.
-50				
-55				
-60				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Z:\PROJECTS\2012\12245 HNTB, I-90 FROM I-190 TO HARLEM AVENUE (PTB 162-001)\12245 BORING LOGS\12245_LOG.GPJ 2/7/14

1/16/2018
MODEL: Sheet
D158015-sht-PRWB-2_BOR05.dgn

RME Rubinos & Mesia Engineers, Inc.
200 S. Michigan Avenue, Suite 1500, Chicago, IL 60604-2482

USER NAME = PHodina	DESIGNED - EV	REVISED -	
	CHECKED - PAH	REVISED -	
PLOT SCALE =	DRAWN - EV	REVISED -	
PLOT DATE = 01/19/2018	CHECKED - PAH	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RETAINING WALL WB-2 – SOIL BORING LOGS – 5
STRUCTURE NO. 016-Z037
SHEET NO. S-12 OF 12 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	490
		CONTRACT NO. 60Y39		
	ILLINOIS FED. AID PROJECT			

Bench Mark: Square cut on top of barrier wall by light pole "FC13" mile marker 80.40 on north side WB I-90 just east of Canfield.

Existing Structure: Existing structure is a T-type cast-in-place retaining wall on spread footing, constructed in 1958 (No Structure Number assigned). Wall is approximately 538 feet long with a max. exposed height of 15'-7". A chain link fence and light poles are mounted on top of the wall. Existing wall will be removed as part of this reconstruction. Traffic to be maintained using Ramp closure and detour.

Salvage: None

DESIGN SPECIFICATIONS

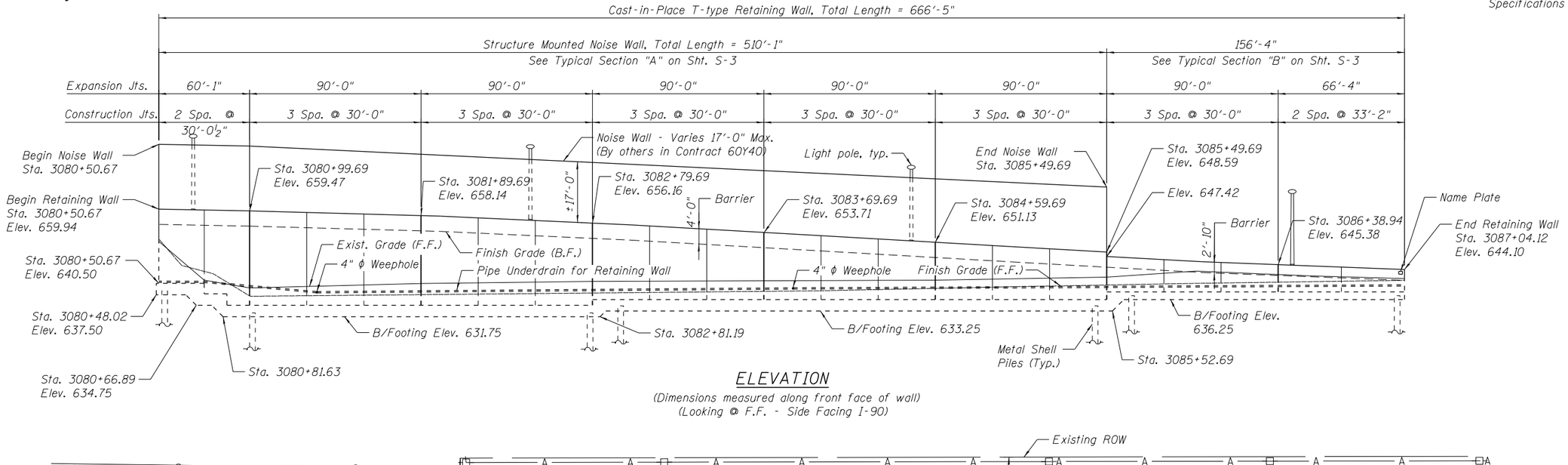
AASHTO LRFD Bridge Design Specifications,
7th Edition (2014) with 2016 Interim Revisions.

DESIGN STRESSES

(Field Units)
f'c = 3,500 psi
f'c = 4,000 psi (Superstructure Concrete)
fy = 60,000 psi (Reinforcement)

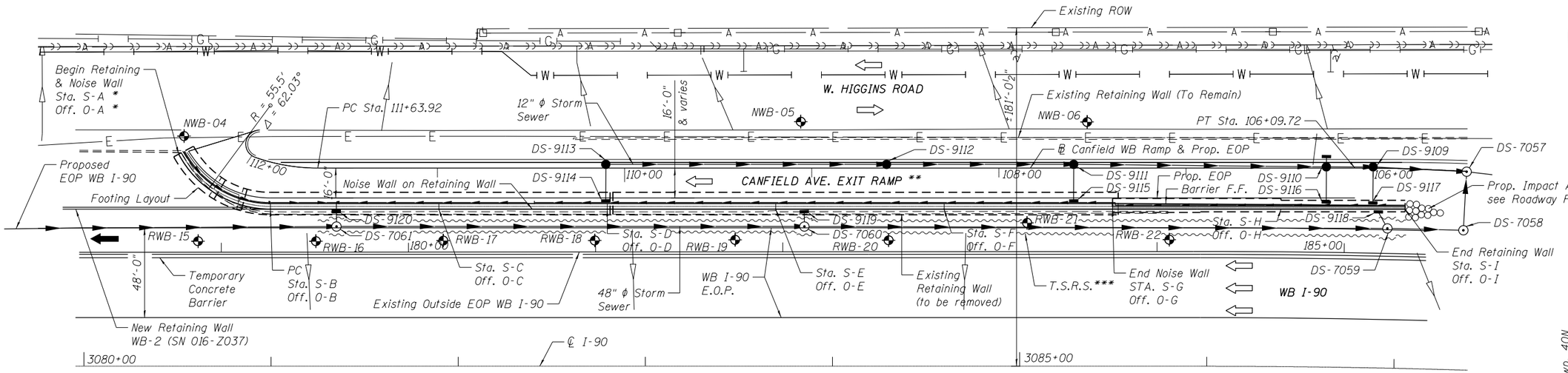
LOADING - NOISE WALL

Allow 35 psf wind load for Structure Mounted Noise Wall.
Maximum Dead Load not to exceed 55 psf of wall face area.
Traffic Impact per AASHTO LRFD Bridge Specifications



ELEVATION

(Dimensions measured along front face of wall)
(Looking @ F.F. - Side Facing I-90)



PLAN

STA. 3080+50.67
TO 3087+04.12
BUILT 201_ BY
STATE OF ILLINOIS
F.A.I. RT. 90
SEC. (1517 & 1415) R-2
LOADING HL93
STR. NO. 016-2289

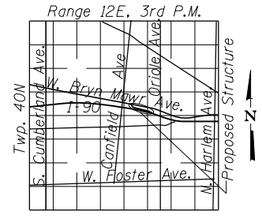
NAME PLATE

See Std. 515001

CURVE DATA

(℄ Prop. Canfield WB Ramp)

PI STA. = 105+50.44
Δ = 6° 48' 03" (LT)
D = 5° 43' 46"
R = 1,000.00'
T = 59.42'
L = 118.70'
E = 1.76'
S.E. RUN = 132'
P.C. STA. = 104+91.02
P.T. STA. = 106+09.72



LOCATION SKETCH

LEGEND

- Boring Location
- E — Exist. Underground Electric
- A — Exist. Aerial Lines
- G — Exist. Underground Gasline
- W — Exist. Underground Water Line
- Exist. Storm Sewer
- Proposed Storm Sewer
- Proposed Traffic Lane
- Existing Traffic Lane
- Temporary Soil Retention System

Notes:

* Stations and Offsets for Control Points are provided on Sht. S-2. Stations and Offsets are provided at front face of the retaining wall. S-A indicates Station at Point A and O-A indicates Offset at Point A, typ.
** Traffic will be maintained using Ramp closure and detour.
*** T.S.R.S. denotes Temporary Soil Retention System.

STATE OF ILLINOIS
BRIAN L. UMBRIGHT
081-005584
CHICAGO, IL
LICENSED STRUCTURAL ENGINEER

Signed: Brian Umbright
Date: 01/19/2018
Exp: 11/30/2018
Sheets: S-1 thru S-26

GENERAL PLAN
INTERSTATE I-90
F.A.I. RTE. I-90 - SECTION (1517 & 1415) R-2
COOK COUNTY
STATION 3080+50.67 TO 3087+04.12
STRUCTURE NO. 016-2289

exp U.S. Services Inc. Chicago, IL
BUILDINGS • EARTH & ENVIRONMENT • ENERGY INDUSTRIAL • INFRASTRUCTURE • SUSTAINABILITY

USER NAME = $USER$	DESIGNED KK	REVISED -	
	CHECKED VCP	REVISED -	
PLOT SCALE = $SCALE$	DRAWN SD	REVISED -	
PLOT DATE = 1-17-2018	DATE 01/19/2018	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RETAINING WALL WB-3
SN 016-2289
GENERAL PLAN AND ELEVATION
SHEET NO. S-1 OF 26 SHEETS

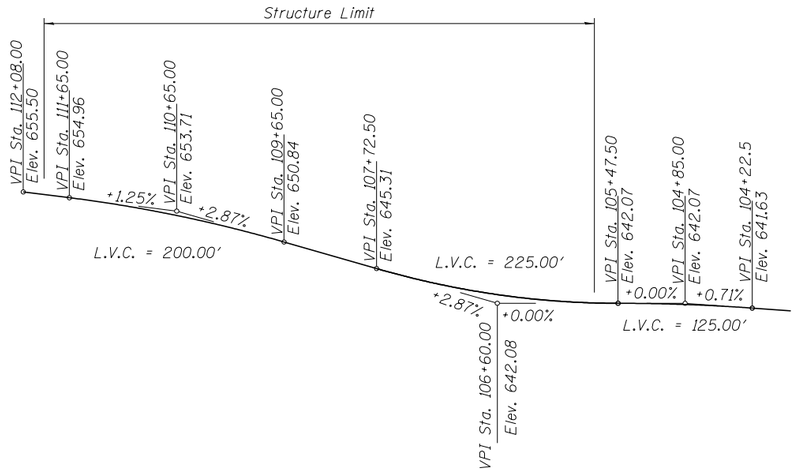
F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-90	(1517 & 1415) R-2	COOK	734	491
		CONTRACT NO. 60Y39		
	ILLINOIS FED. AID PROJECT			

FILE NAME = $FILE$

INDEX OF SHEETS

GENERAL NOTES

1. Reinforcement bar bending dimensions are out to out.
2. Reinforcing bars designated "(E)" shall be epoxy coated.
3. All exposed concrete edges shall have a $\frac{3}{4}$" x 45° chamfer, except where shown otherwise. Chamfer on vertical edges shall be continued a minimum of one foot below finished ground line.
4. Bars noted thus, 3x2-#5 indicates 3 lines of #5 bars with 2 lengths of bars per line.
5. No construction joints except those shown on the plans will be allowed unless otherwise approved by the Engineer.
6. It shall be the Contractor's responsibility to verify the location of all utilities prior to starting construction. Contact J.U.L.I.E., 800-892-0123.
7. Slipforming of barriers is not allowed.



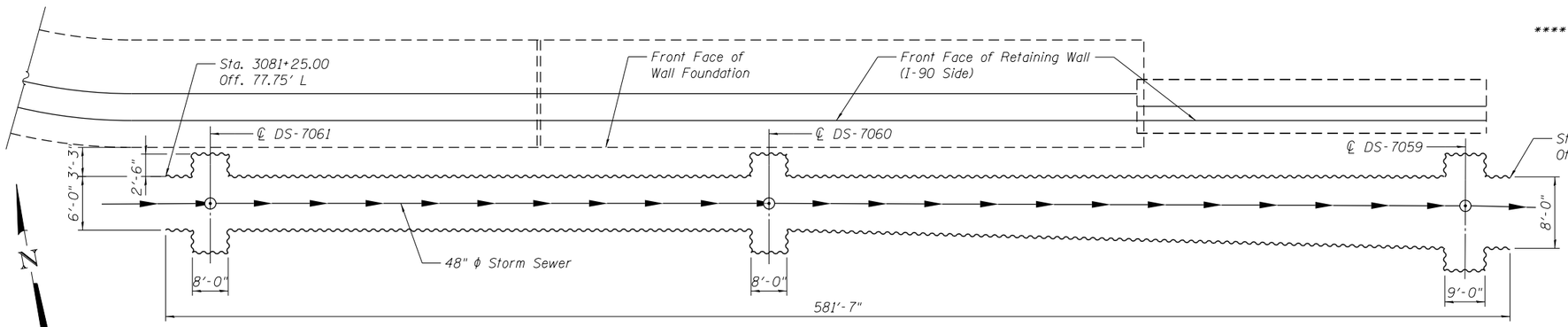
PROFILE GRADE
(℄ Prop. Canfield WB Ramp)

GEOMETRIC CONTROL POINT STATIONS & OFFSETS

	℄ I-90		℄ Canfield WB Ramp	
Location	Station (S)	Offset (O)	Station (S)	Offset (O)
A	3080+50.67	113.47	112+06.37	36.18
B	3080+99.69	84.00	111+84.38	24.60
C	3081+89.69	84.00	110+99.23	22.00
D	3082+79.69	84.00	110+09.23	22.00
E	3083+69.69	84.00	109+19.23	22.00
F	3084+59.69	84.00	108+29.23	22.00
G	3085+49.69	84.00	107+39.23	22.00
H	3086+38.94	84.19	106+49.23	22.00
I	3087+04.12	85.23	105+82.31	21.63

TOTAL BILL OF MATERIAL

	ITEM	UNIT	QUANTITY
	Removal of Existing Structures	Each	1
	Structure Excavation	Cu Yd	5,280
*	Concrete Structures	Cu Yd	1,641.1
**	Concrete Superstructure	Cu Yd	141.0
	Concrete Sealer	Sq Ft	15,495
	Reinforcement Bars, Epoxy Coated	Pound	170,880
***	Furnishing Metal Shell Piles 14" x 0.25"	Foot	19,112
	Driving Piles	Foot	19,112
	Test Pile Metal Shells	Each	2
	Pile Shoes	Each	373
	Name Plates	Each	1
****	Temporary Soil Retention System	Sq Ft	15,665
	Geocomposite Wall Drain	Sq Yd	642
	Pipe Underdrains for Structures 4"	Foot	667
	Granular Backfill for Structures	Cu Yd	1,055
	Noise Abatement Wall Anchor Rod Assembly	Each	39



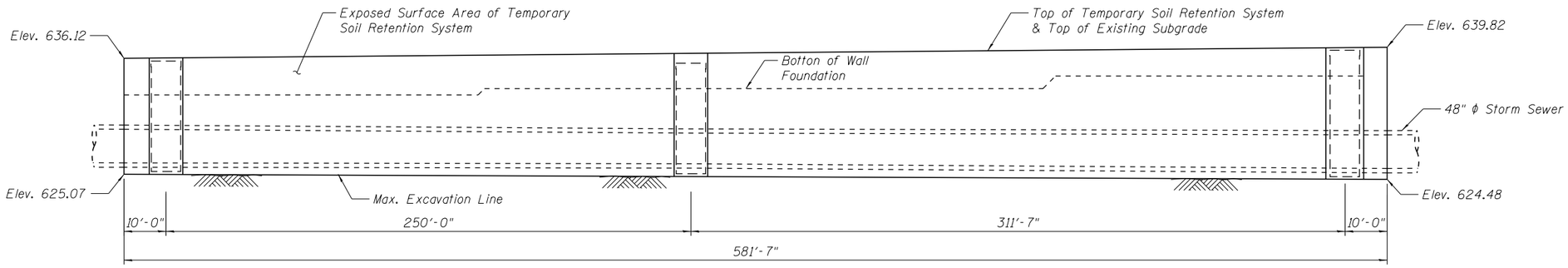
PLAN
(N.T.S)

* Includes concrete foundation and retaining wall below traffic barrier.

** Includes traffic barrier and noisewall pilaster concrete.

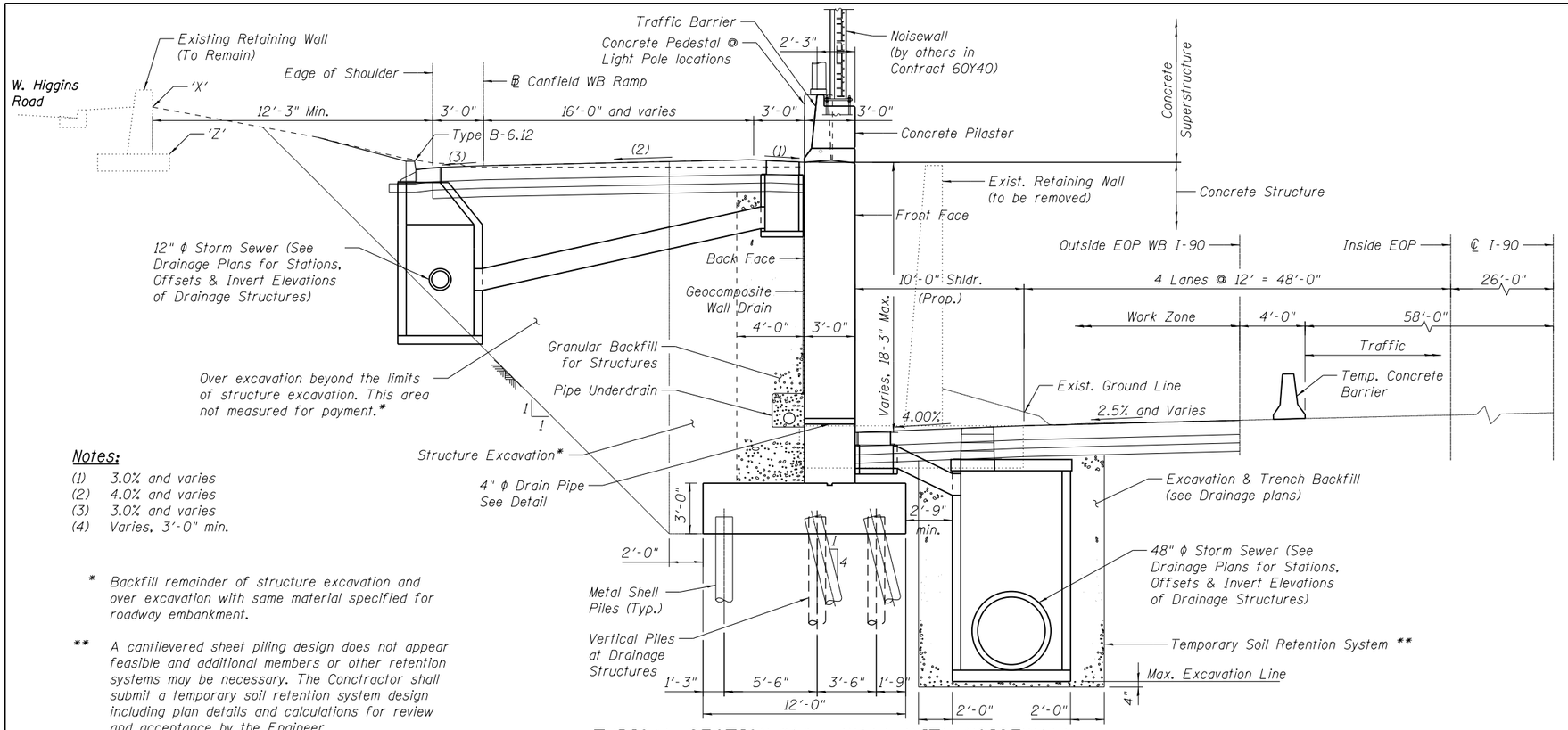
*** Cost of Concrete Filling and Reinforcement for Metal Shell Piles is included in this pay item.

**** Quantity includes exposed surface area of Temporary Soil Retention System on both sides of excavation.



ELEVATION
(N.T.S)

TEMPORARY SOIL RETENTION SYSTEM
(For Storm Sewer)



TYPICAL SECTION "A" - WALL WITH NOISEWALL

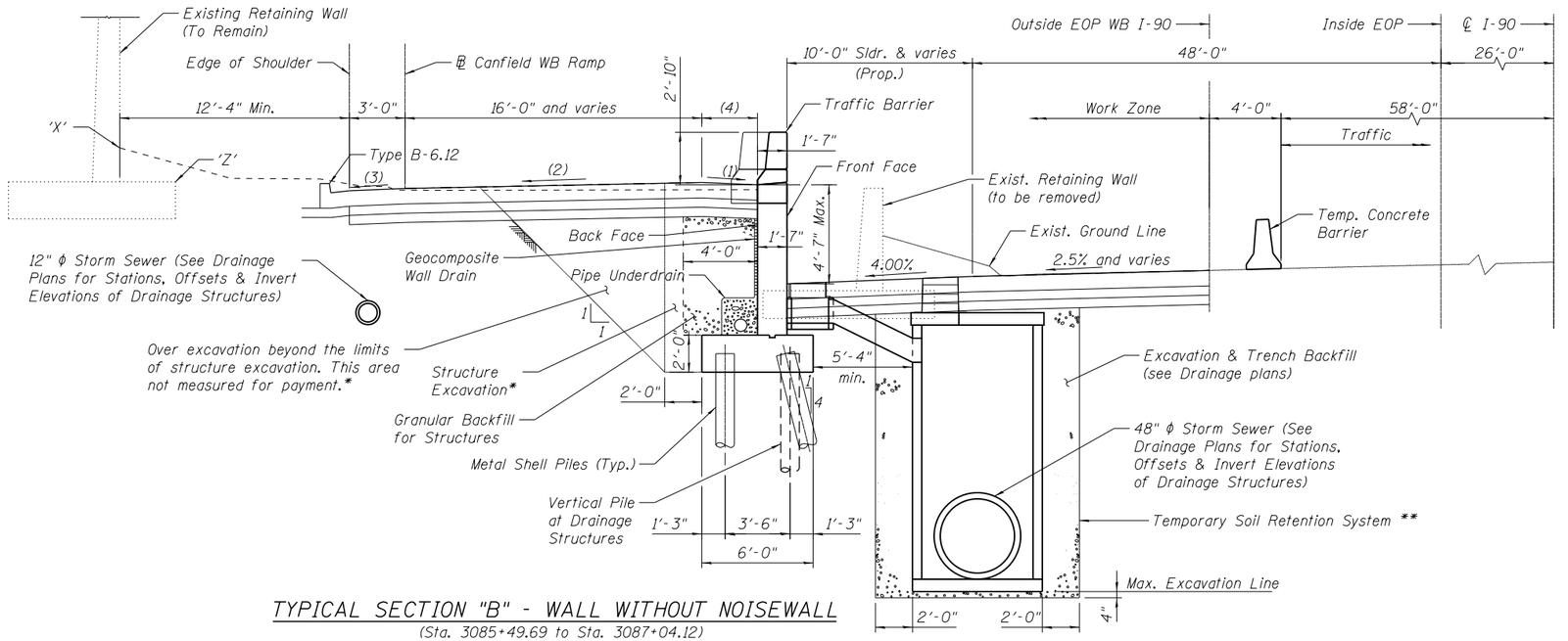
(Sta. 3080+50.67 to Sta. 3085+49.69)

Notes:

(1) 3.0% and varies
(2) 4.0% and varies
(3) 3.0% and varies
(4) Varies, 3'-0" min.

* Backfill remainder of structure excavation and over excavation with same material specified for roadway embankment.

** A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Conctractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.



TYPICAL SECTION "B" - WALL WITHOUT NOISEWALL

(Sta. 3085+49.69 to Sta. 3087+04.12)

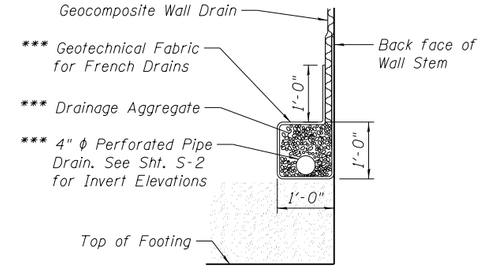
STATIONS, OFFSETS AND ELEVATIONS

(S.No. 016-2294 W. Higgins Road Retaining Wall - For information only)

	'X' - Grade @ Front		'Z' - T/Footing Elevation	
Station	Offset	Elevation	Offset	Elevation
110+27.35	17.50	654.04	16.50	651.25
109+97.35	15.46	653.07	14.21	650.25
109+67.35	15.37	652.18	13.62	648.50
109+07.35	15.26	650.87	13.01	646.75
108+47.35	15.43	649.48	12.80	645.50
107+87.35	15.41	648.17	12.45	643.75
107+27.35	15.33	646.75	12.37	643.75
106+67.35	15.33	645.58	12.38	643.75
106+07.38	15.30	646.26	12.34	644.25
105+48.38	15.26	647.83	12.30	645.50

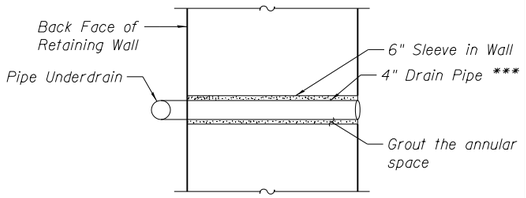
CONSTRUCTION SEQUENCE

1. Excavate at 1:1 slope behind the existing retaining wall along I-90.
2. Install temporary concrete barrier along WB I-90.
3. Remove existing retaining wall along I-90.
4. Drive metal shell piles for the proposed retaining wall.
5. Install 48" dia. storm sewer and manhole, use Temporary Soil Retention System for excavation.
6. Construct new retaining wall.
7. Install 12" dia. storm sewer and Manhole/Inlets in coordination with backfill behind the new retaining wall.
8. Construct traffic barrier. Noisewall will be constructed by others in Contract 60Y40.
9. Construct Canfield ramp pavement and I-90 outer lane pavement and shoulder.



PIPE UNDERDRAIN DETAIL

*** Cost included with "Pipe Underdrains for Structures"



4" ϕ DRAIN PIPE

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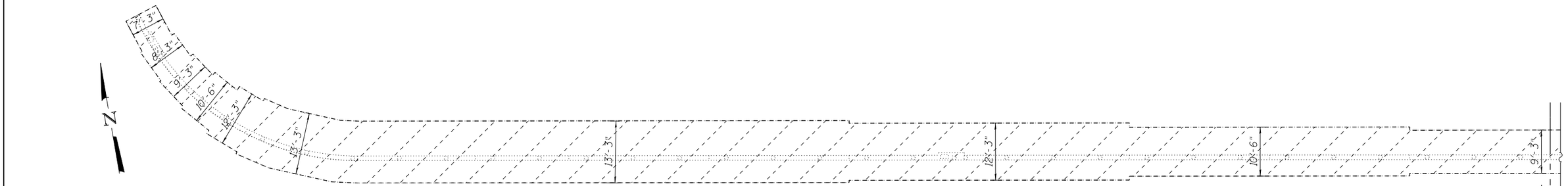
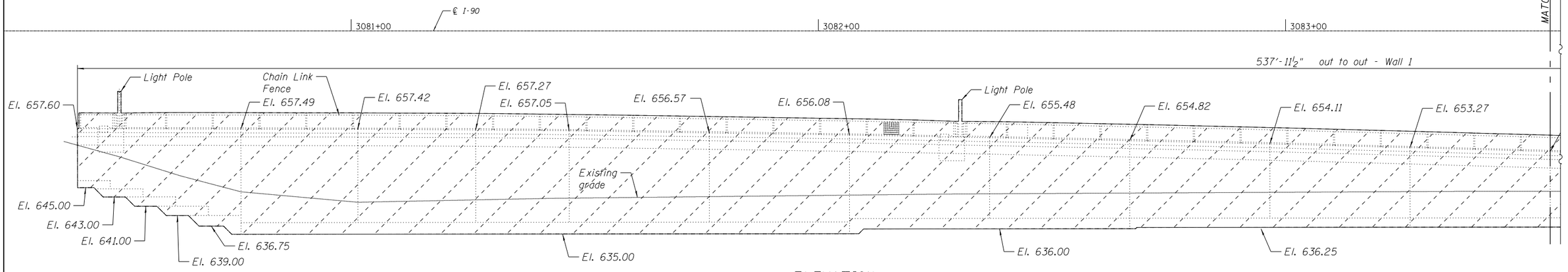
		CHECKED KK	REVISED -		
	PLOT SCALE = $SCALE$	DRAWN STD	REVISED -		
	PLOT DATE = 1-19-2018	DATE 01/19/2018	REVISED -		SHEET NO. S-3 OF 26 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-90	(1517 & 1415) R-2	COOK	734	493
		CONTRACT NO. 60Y39		
	ILLINOIS FED. AID PROJECT			

FILE NAME = $FILE$

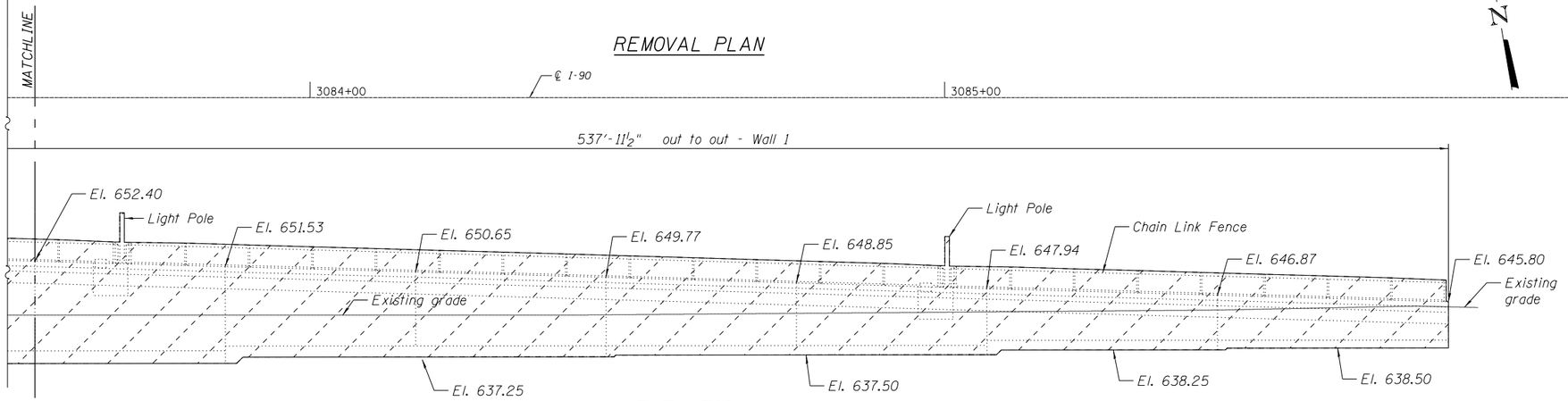


REMOVAL PLAN



ELEVATION

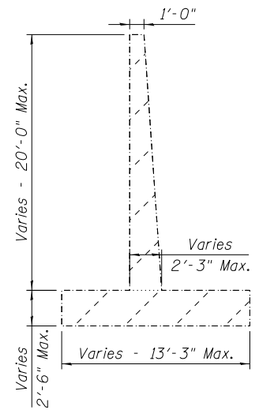
REMOVAL PLAN



ELEVATION

LEGEND

Structure Removal



Notes:

1. Plans for existing structure, dated 1958, are available from IDOT upon request.
2. Refer to existing plans for exact location and dimensions.

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	CHECKED KK	REVISED -	
PLOT SCALE = $SCALE$	DRAWN STD	REVISED -	
PLOT DATE = $DATE$	DATE 01/19/2018	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RETAINING WALL WB-3
SN 016-2289
STRUCTURE REMOVAL
SHEET NO. S-4 OF 26 SHEETS

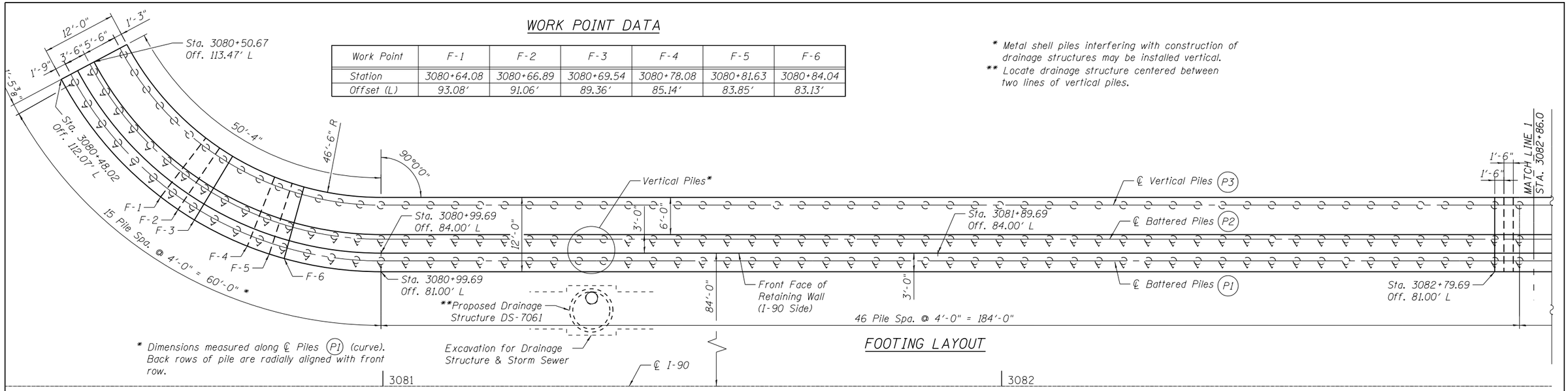
F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-90	(1517 & 1415) R-2	COOK	734	494
		CONTRACT NO. 60Y39		
	ILLINOIS FED. AID PROJECT			

FILE NAME = $FILE$

WORK POINT DATA

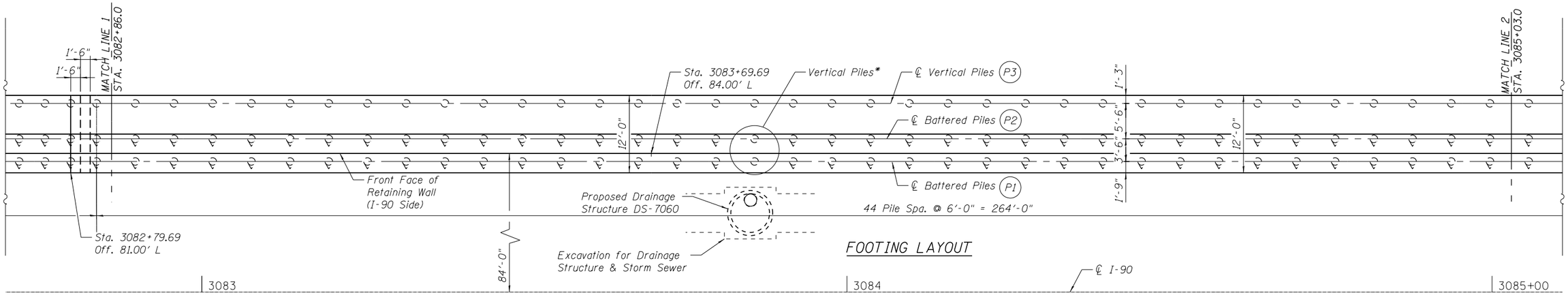
Work Point	F-1	F-2	F-3	F-4	F-5	F-6
Station	3080+64.08	3080+66.89	3080+69.54	3080+78.08	3080+81.63	3080+84.04
Offset (L)	93.08′	91.06′	89.36′	85.14′	83.85′	83.13′

* Metal shell piles interfering with construction of drainage structures may be installed vertical.
** Locate drainage structure centered between two lines of vertical piles.

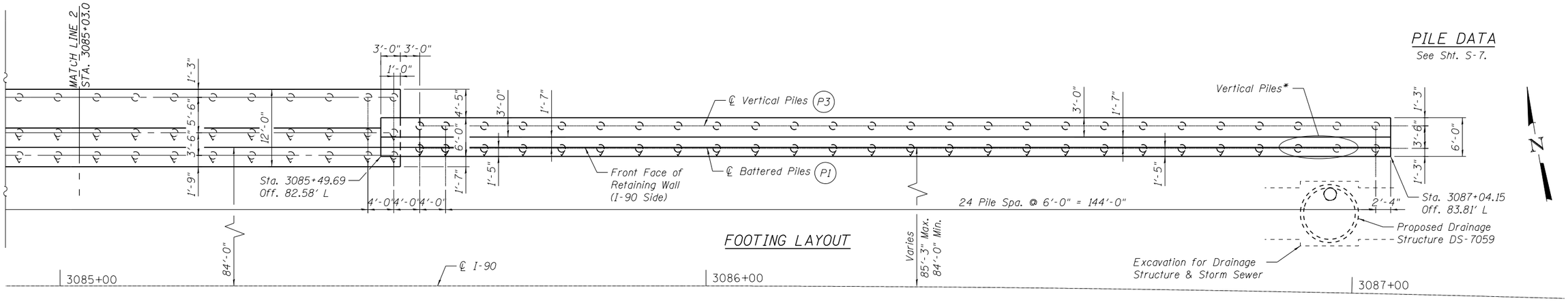


* Dimensions measured along ℄ Piles (P1) (curve). Back rows of pile are radially aligned with front row.

FOOTING LAYOUT



FOOTING LAYOUT



PILE DATA

See Sht. S-7.

N

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		CHECKED KK	REVISED -		
	PLOT SCALE = $SCALE$	DRAWN STD	REVISED -		
	PLOT DATE = $DATE$	DATE 01/19/2018	REVISED -		SHEET NO. S-5 OF 26 SHEETS

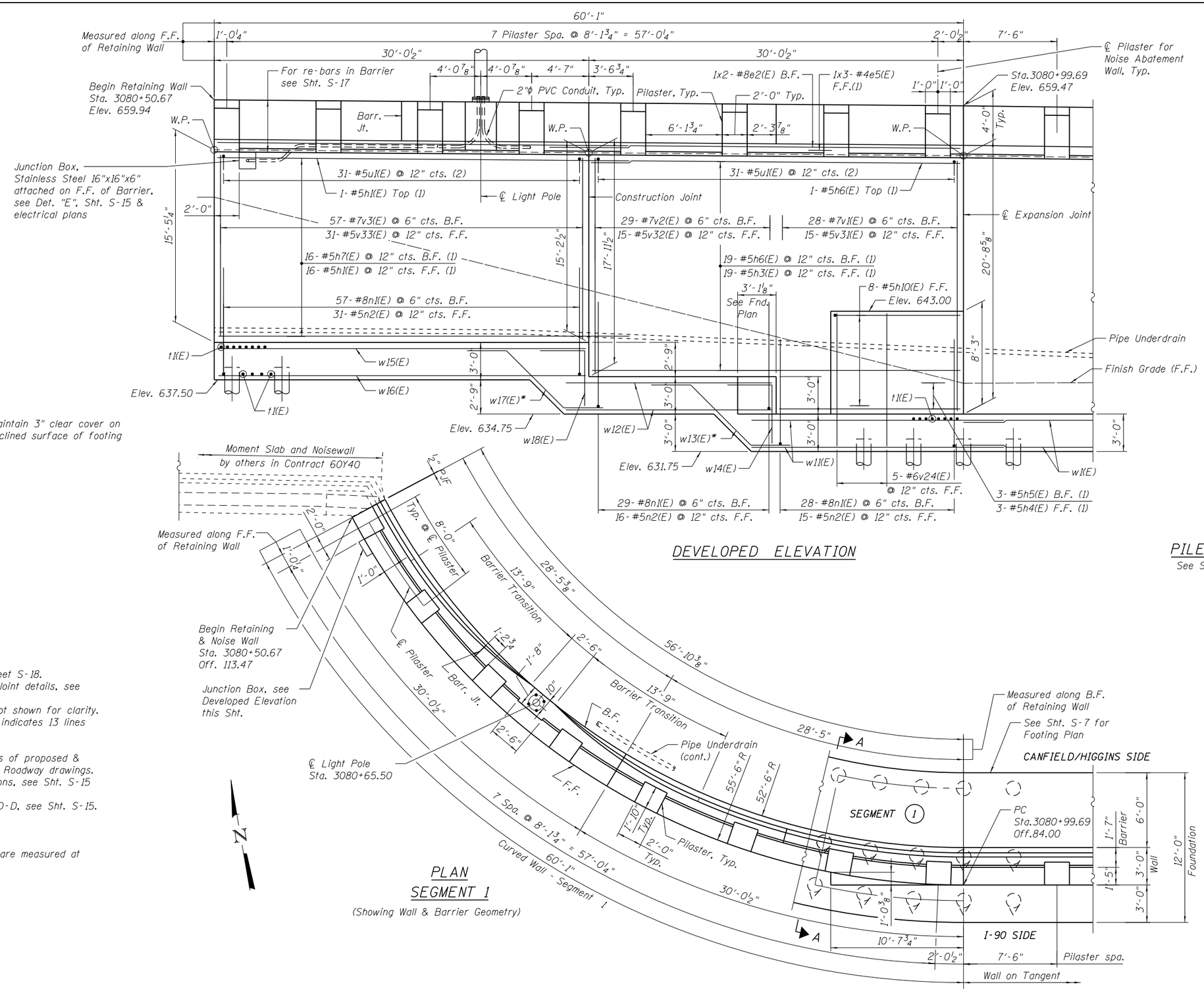
F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-90	(1517 & 1415) R-2	COOK	734	495
		CONTRACT NO. 60Y39		
		ILLINOIS	FED. AID PROJECT	

FILE NAME = $FILE$

Re-bar Notes:

(1) Longitudinal bars shall be sprung in place to be concentrically placed at the spacing noted.

(2) Transverse bars shall be placed radially at the spacing noted.



* Maintain 3" clear cover on inclined surface of footing

DEVELOPED ELEVATION

PILE DATA

See Sht. S-7.

PLAN
SEGMENT 1

(Showing Wall & Barrier Geometry)

Notes:

1. For Barrier Joint details, see Sheet S-18.
2. For Construction and Expansion Joint details, see Sheet S-18.
3. Future Noise Abatement Panels not shown for clarity.
4. Bar indicated thus 13x3-#5 etc. indicates 13 lines of bars with 3 lengths per line.
5. For Bar List, see Sht. S-19.
6. For locations and invert elevations of proposed & existing Drainage structures, see Roadway drawings.
7. W.P. denotes working point locations, see Sht. S-15 & S-16 for details.
8. For Sections A-A, B-B, C-C & D-D, see Sht. S-15.
9. E.F. denotes Each Face
   B.F. denotes Back Face
   F.F. denotes Front Face
10. For Battered piles, the spacings are measured at the bottom of footing.

Minimum Bar Lap (U.N.O.)

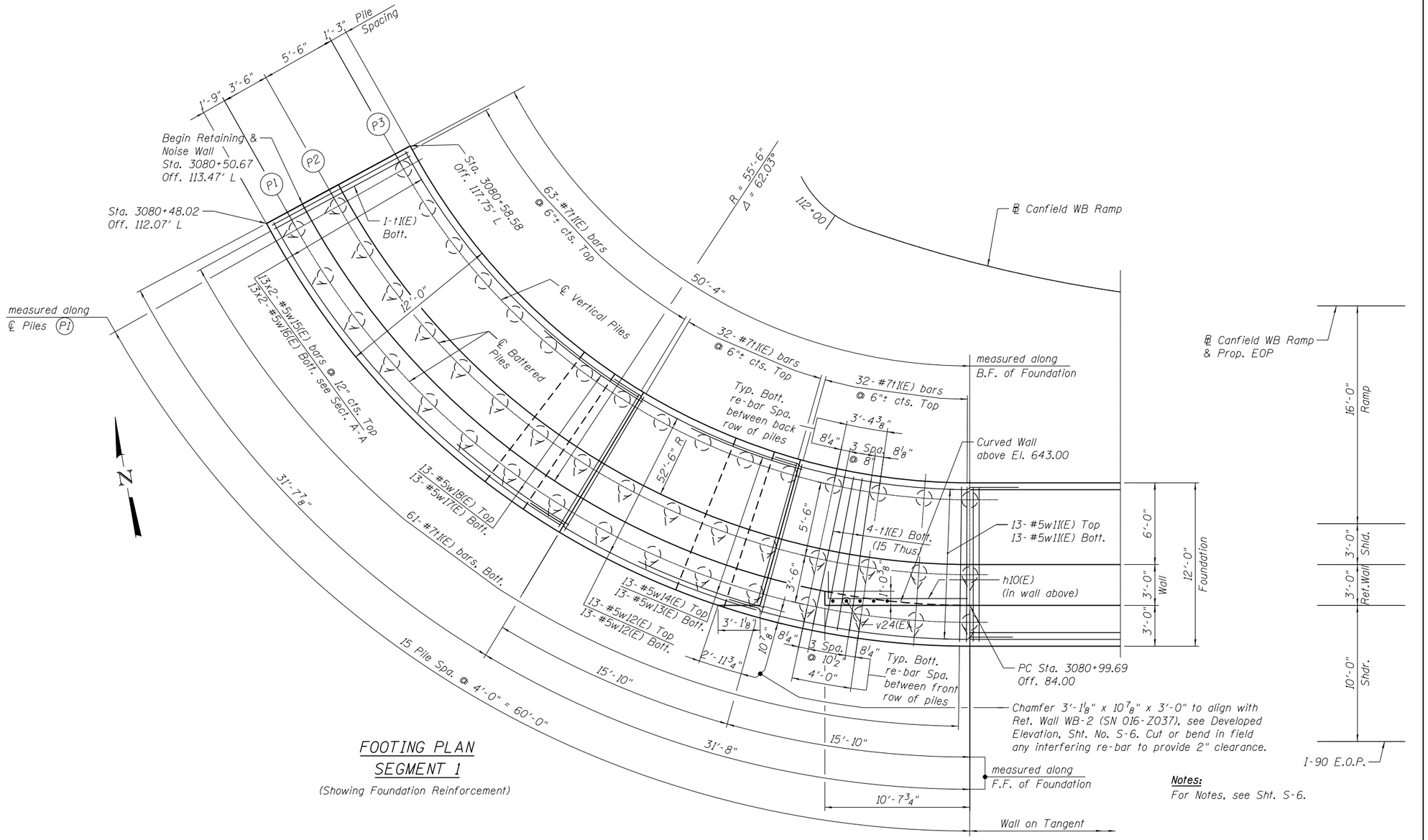
#4 = 2'-11"
#5 = 3'-2"
#6 = 3'-10"
#8 = 6'-4"

PILE DATA

Metal Shell - 14 in. dia. x 0.25 in. walls with pile shoes

Pile Data	Segment 1			Segment 2			Segment 3			Segments 4, 5 & 6			Segment 7 & 8	
	P1	P2	P3	P1	P2	P3	P1	P2	P3	P1	P2	P3	P1	P3
Nominal Required Bearing - kips	305	272		315	202		280	182		313	214		276	
Factored Resistance Available - kips *	168	149	-77	173	111	-78	154	100	-62	172	118	-49	152	-69
Minimum Tip Elevation			578±			573±			563±			579±		576±
Estimated Pile Length - Ft.	41	29	57	44	34	59	59	37	69	67	44	54	46	61
Number of Production Piles	15	15	15	22	23	23	23	23	23	45	46	46	26	26
Number of Test Piles				1						1				

* " - (minus) " indicates Piles in Tension



FOOTING PLAN
SEGMENT 1

(Showing Foundation Reinforcement)

Notes:
For Notes, see Sht. S-6.

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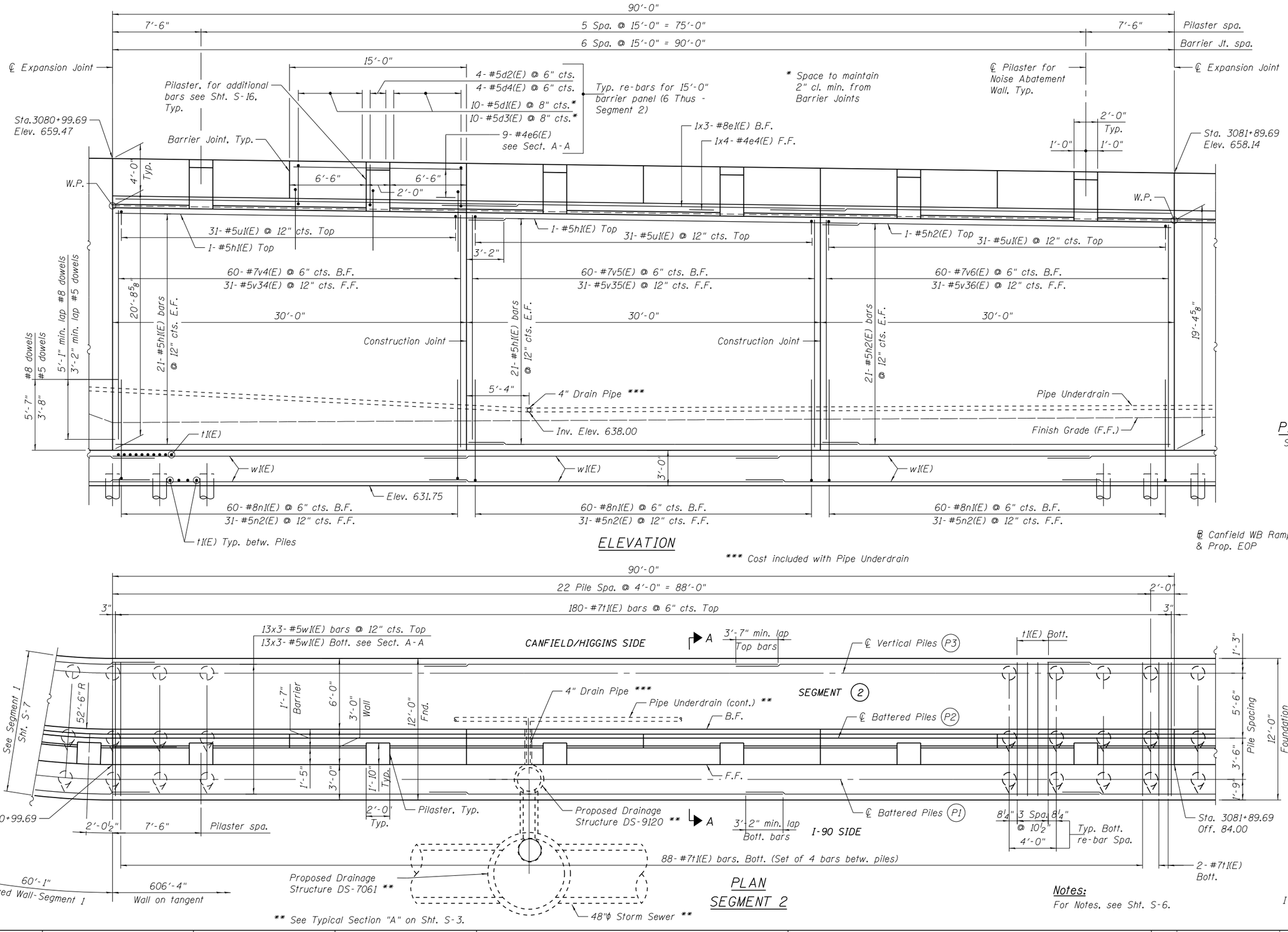
		CHECKED KK	REVISED -			I-90	(1517 & 1415) R-2	COOK	734	497
	PLOT SCALE = $SCALE$	DRAWN STD	REVISED -					CONTRACT NO. 60Y39		
	PLOT DATE = $DATE$	DATE 01/19/2018	REVISED -		SHEET NO. S-7 OF 26 SHEETS			ILLINOIS FED. AID PROJECT		

FILE NAME = $FILE$



** See Typical Section "A" on Sht. S-3.

PILE DATA

See Sht. S-7.

Notes:

For Notes, see Sht. S-6.

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		CHECKED KK	REVISED -		
	PLOT SCALE = $SCALE$	DRAWN HBJ	REVISED -		SHEET NO. S-8 OF 26 SHEETS
	PLOT DATE = $DATE$	DATE 01/19/2018	REVISED -		

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-90	(1517 & 1415) R-2	COOK	734	498
		CONTRACT NO. 60Y39		
	ILLINOIS	FED. AID PROJECT		

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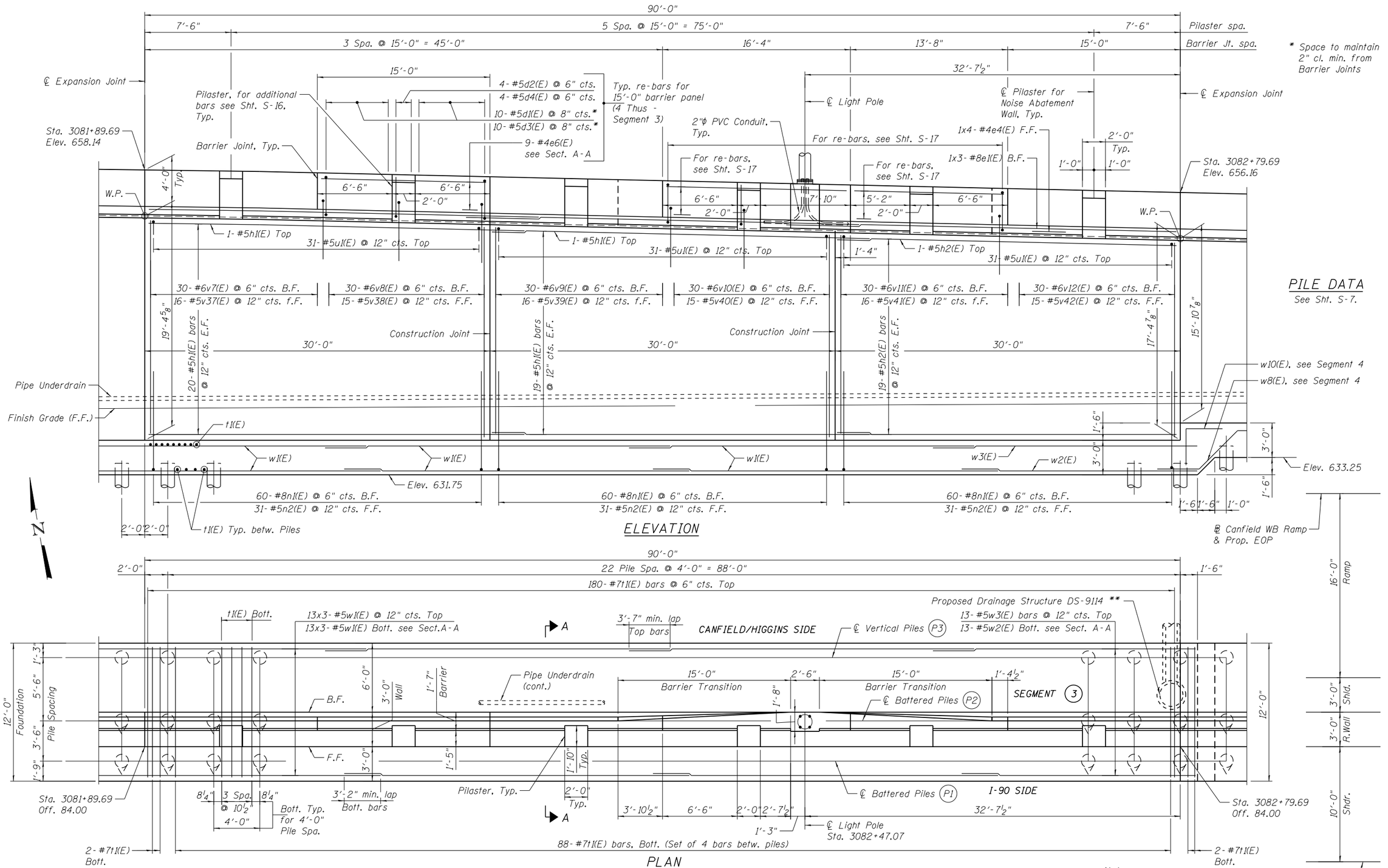

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		CHECKED KK	REVISED -		
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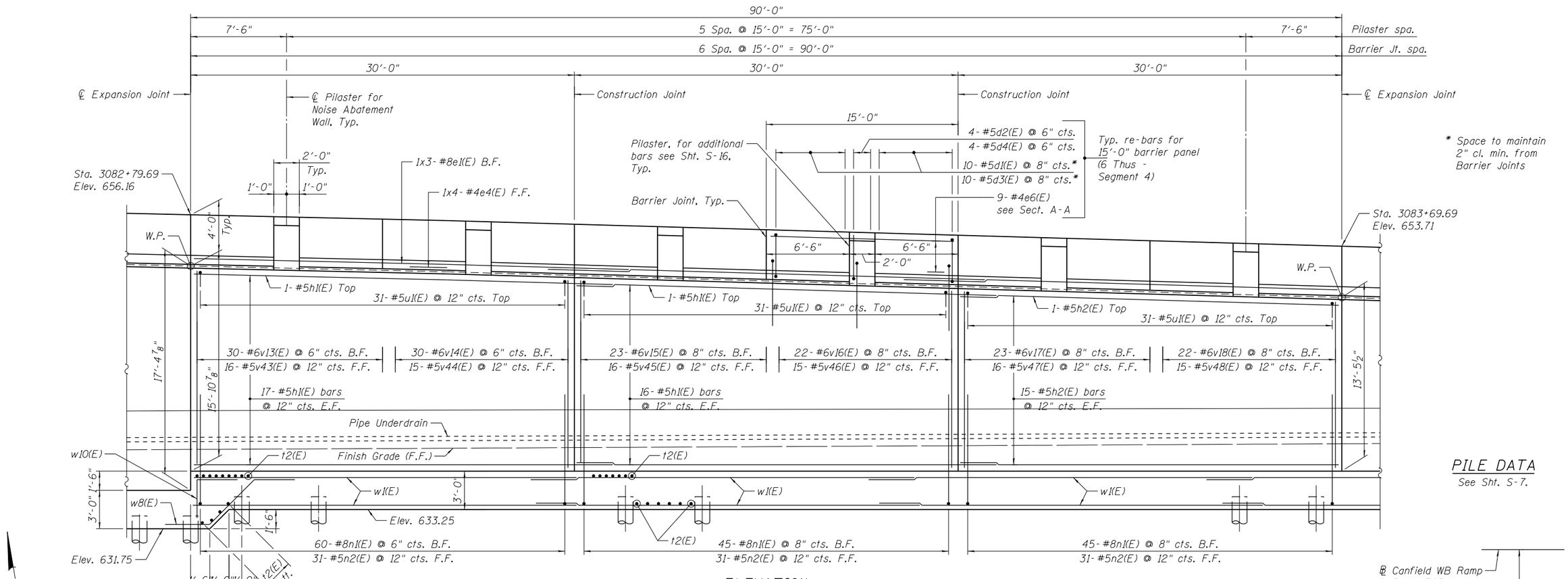
	PLOT DATE = $DATE$	DATE 01/19/2018	REVISED -		

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-90	(1517 & 1415) R-2	COOK	734	499
		CONTRACT NO. 60Y39		
		ILLINOIS FED. AID PROJECT		

FILE NAME = $FILE$



exp U.S. Services Inc. Chicago, IL BUILDINGS·EARTH & ENVIRONMENT·ENERGY INDUSTRIAL·INFRASTRUCTURE·SUSTAINABILITY	USER NAME = $USER$	DESIGNED	STD	REVISED	-
		CHECKED	KK	REVISED	-
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	PLOT DATE = $DATE$	DATE	01/19/2018	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RETAINING WALL WB-3
SN 016-2289
PLAN & ELEVATION - 5 OF 9
SHEET NO.S-10 OF 26 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-90	(1517 & 1415) R-2	COOK	734	500
		CONTRACT NO. 60Y39		
	ILLINOIS FED. AID PROJECT			

FILE NAME = $FILE$