F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
49	(14,16) I & HL	PEO.-TAZ.	29	1
F.H.W.A. REG.	ILLINOIS	PROJECT BR-F-49 (41)		

P-94-156-69

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED FEDERAL AID HIGHWAY

SCALES { PLAN / PROFILE HORIZ. / PROFILE VERT. / CROSS SECTIONS

F.A. ROUTE 49
SECTION (14,16) I & HL
PEORIA - TAZEWELL COUNTIES
PROJECT BR-F-49 (41)

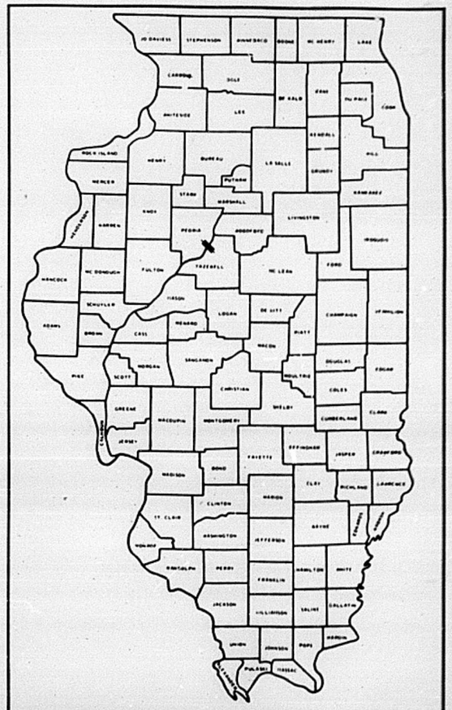
C-94-101-81

INDEX OF SHEETS

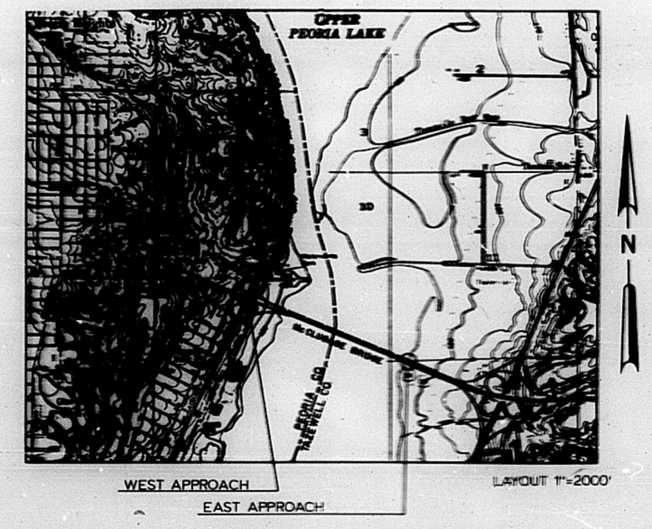
THE PROPOSED IMPROVEMENT INCLUDES:

EAST APPROACH COMPLETE THE CONSTRUCTION OF THE 4-LANE APPROACH ROADWAY TO THE STRUCTURES.

WEST APPROACH COMPLETE CONSTRUCTION OF THE INTERIM RAMP A, RAMP E AND RAMP F, COMPLETE HIGHWAY LIGHTING SYSTEM FOR THE WEST APPROACH, AND THE OVERLAYING OF THE EXISTING ADJACENT STREETS.



LOCATION OF SECTION INDICATED THUS: —



LIST OF STANDARDS

1527-9	2230-13	2323-5
1683-4	2240-5	2324-5
1686-4	2250-1	2333-2
	2251-1	2336-2
2115-7	2298-5	2337-1
2122-8	2299-8	2340-3
2130-6	2300-2	2341-1
2149-11	2306-4	2349
2179-10	2308-3	2350-2
2203-11	2311-5	2353-4
2213-4	2315-5	2385
2228-4	2307-4	
2237-10	2305-4	
	2314-3	

SUBMITTED March 3, 1981 — DIST. DESIGN ENGR.

EXAMINED March 6, 1981 — DIST. CONST. ENGR.

EXAMINED March 3, 1981 — DIST. MAINT. ENGR.

EXAMINED March 3, 1981 — DIST. TRAFFIC ENGR.

Entire section inspected and approved as to policy.

DATE 3-6-81 — DISTRICT ENGINEER

REVIEWED FOR CORRELATION WITH APPROVED DESIGN REPORT AND ENVIRONMENTAL ASSESSMENT

District Engineer of Planning

Date 3/3/81

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED 3-6 19 81 — DISTRICT ENGINEER

EXAMINED 3/27 19 81 — ENGINEER OF PLANS AND CONTRACTS

PASSED 3/27 19 81 — ENGINEER OF DESIGN

APPROVED 3/27 19 81 — DIRECTOR, DIVISION OF HIGHWAYS

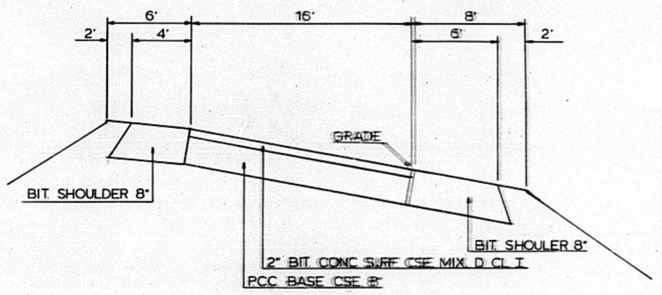
DESIGN DESIGNATION
3996 (94) MAJOR (PCC-20)

CONTRACT NO. 34982

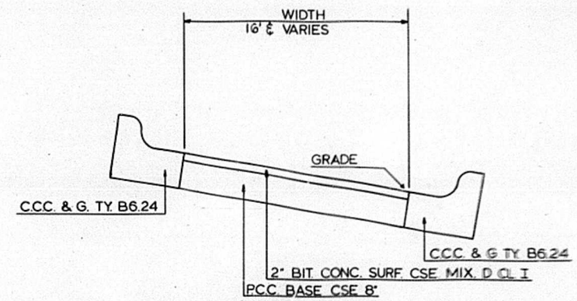
COUNTY SECTION F.A. ROUTE

Revised

FEDERAL AID ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.49	(14,16) I & HL	PEORIA TAZEWELL	29	2
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



RAMP "F"
TYPICAL RAMP SECTION SUPERELEVATED
STA. 10+12 TO STA. 11+10



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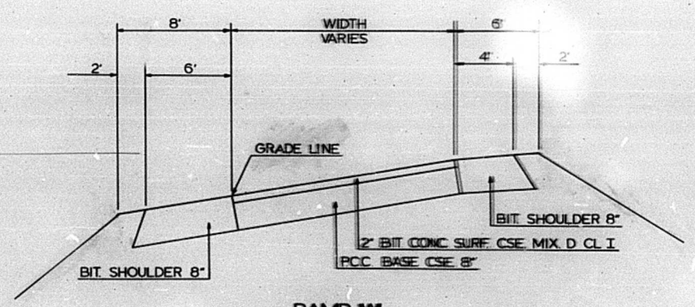
TYPICAL RAMP SECTION SUPERELEVATED
STA. 11+60 TO STA. 13+05



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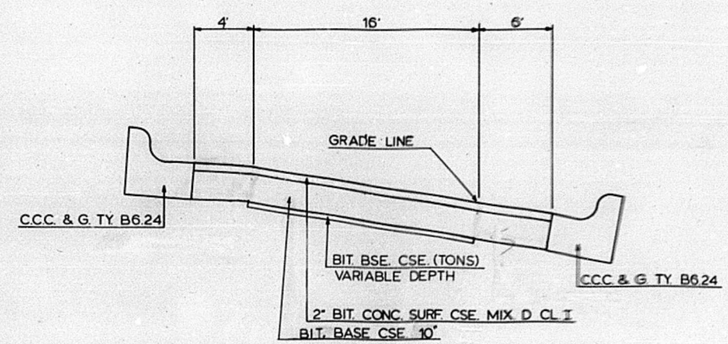
TYPICAL RAMP SECTION SUPERELEVATED



RAMP "E"
TYPICAL RAMP SECTION SUPERELEVATED

TYPICAL SECTIONS

SUMMARY OF QUANTITIES

BOND ISSUE ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 49	(14,16) I+HL	PEORIA TAZEWELL	29	3
STA.		TO STA.		
FHWA REG. No. 4		ILLINOIS FED. AID PROJECT		

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	LIGHTING Y030	EAST APPROACH 7223	WEST APPROACH 6707	RESURFACING 6706
	CONSTRUCTION TYPE CODE						
202001	EARTH EXCAVATION	CU.YD.	2,554		1931	623	
204001	BORROW EXCAVATION	CU.YD.	3,625		3050	575	
209004	POROUS GRANULAR EMBANKMENT SPECIAL	CU.YD.	924			924	
218001	STABILIZED SUB-BASE 4"	SQ.YD.	1,776		1776		
219006	BITUMINOUS SHOULDERS 8"	SQ.YD.	505		181	324	
219008	BITUMINOUS SHOULDERS 10"	SQ.YD.	1256		1256		
304003	PORTLAND CEMENT CONCRETE BASE COURSE 8"	SQ.YD.	1411			1398	13
308007	BITUMINOUS BASE COURSE 10"	SQ.YD.	875		515	360	
406007	BITUMINOUS CONCRETE BINDER COURSE	TON	854				854
406013	BITUMINOUS CONCRETE SURFACE COURSE, MIXTURE D, CLASS I	TON	1,406		425	209	772
408005	PORTLAND CEMENT CONCRETE PAVEMENT 10"	SQ.YD.	1,578		1578		
408012	PAVEMENT FABRIC	SQ.YD.	1,322		1105	217	
408015	P.C. CONCRETE BRIDGE APPROACH SHOULDER PAVEMENT	SQ.YD.	68		43	25	
504003	CLASS X CONCRETE	CU.YD.	88.5			88.5	
511A05	PIPE CULVERTS, TYPE 1, 24" (TEMPORARY)	LIN.FT.	410		410		
511791	STEEL END SECTIONS 12"	EACH	5		2	3	
512001	REINFORCEMENT BARS	POUND	14,166		8840	5326	
603005	STORM SEWERS, TYPE 1 12"	LIN.FT.	188			188	
607065	PIPE DRAINS, BITUMINOUS COATED, CORRUGATED STEEL 12"	LIN.FT.	241		165	76	
612184	MANHOLES, TYPE A, 4'-DIAMETER, TYPE 11 FRAME CLOSED LID	EACH	1			1	
X612E4	INLETS, TYPE B	EACH	1		1		
612468	MEDIAN INLET (2251)	EACH	1		1		
X612R4	TYPE C INLET BOX, STANDARD 2324 (SPECIAL)	EACH	3		2	1	
X612R5	TYPE D INLET BOX, STANDARD 2324 (SPECIAL)	EACH	4		2	2	
612555	MANHOLES TO BE ADJUSTED	EACH	1			1	
612598	MANHOLES TO BE RECONSTRUCTED WITH NEW MEDIAN INLET (2250)	EACH	1			1	
612604	INLETS TO BE ADJUSTED WITH NEW TYPE 11 FRAME, CLOSED LID	EACH	1			1	
612652	INLETS TO BE REMOVED	EACH	7		3	4	
615003	FILLING EXISTING INLETS	EACH	2			2	
616050	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	LIN.FT.	938			938	
616258	ISLAND PAVEMENT (SPECIAL)	SQ.YD.	10			10	
617001	PAVEMENT REMOVAL	SQ.YD.	3453		1866	1587	
617005	COMBINATION CURB AND GUTTER REMOVAL	LIN.FT.	1,466		280	1186	
628031	TRAFFIC BARRIER TERMINAL, TYPE 1	EACH	4		3	1	
628032	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	1		1		
632001	DELINEATORS	EACH	12			12	
633003	STEEL PLATE BEAM GUARD RAIL REMOVAL	LIN.FT.	155		155		
642001	SEEDING, CLASS I	ACRE	3		15	15	
X7123B	FABRIC FORMED CONCRETE REVETMENT MATS	SQ.YD.	90			90	
644001	SODDING	SQ.YD.	425			425	
644002	SUPPLEMENTAL WATERING	UNIT	9			9	
647001	PAVEMENT MARKING TAPE	LIN.FT.	450			450	
X05755	REINFORCED EARTH WALL	SQ.FT.	1,577			1577	
X40810	BRIDGE APPROACH PAVEMENT (STANDARD 25630)	SQ.YD.	267		267		
X61639	CONCRETE BARRIER, SINGLE FACE	LIN.FT.	55			55	
X62837	STEEL PLATE BEAM GUARD RAIL, TYPE A	LIN.FT.	1,029		935	94	
X62844	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	3		2	1	
X62889	TRAFFIC BARRIER TERMINAL, TYPE 6 (SPECIAL)	EACH	2			2	
X07434	REMOVE STEEL SHEET PILING	LIN.FT.	85			85	
G12445	FLUSH INLET BOX FOR MEDIAN (2240) SPECIAL	EACH	1			1	
X612V8	INLET ADJUSTMENT, NEW TYPE V FRAME & GRATE	EACH	1			1	
X07435	SITE GRADING	L.SUM	1			1	
* L00147	CONDUIT PUSHED, 2" DIAMETER, GALVANIZED STEEL	LIN.FT.	88	88			
* L00149	CONDUIT PUSHED, 3" DIAMETER, GALVANIZED STEEL	LIN.FT.	130	130			
* L02200	POLE FOUNDATION	EACH	12	12			
* L02781	ELECTRIC CABLE UNIT DUCT, 2-600 VALP #6, 1 INCH POLYETHYLENE	LIN.FT.	2,147	2147			
* L05180	ELECTRIC CONDUCTOR (BARE ANNEALED COPPER) NO. 6	LIN.FT.	2,187	2187			
* L05493	CONTROL INSTALLATION, TYPE CB, RCS-600-240	EACH	1	1			
* L00006	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	LIN.FT.	65	65			
* L04300	TRENCH AND BACKFILL	LIN.FT.	1,746	1746			

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	LIGHTING Y030	EAST APPROACH 7223	WEST APPROACH 6707	RESURFACING 6706	Y080
	CONSTRUCTION TYPE CODE							
* X04846	ELECTRIC CABLE IN CONDUIT 600V (XLP, TYPE USE), 1/C, NO. 12	LIN.FT.	1,210	1210				
* L06031	POLE, METAL 45 FT. MH, 6 FT. MAST ARM	EACH	11	11				
* X03965	REMOVE & REINSTALL EXISTING LIGHT STANDARD	EACH	1	1				
* L06168	REMOVE EXISTING HIGHWAY LIGHTING SYSTEM	L. SUM	1	1				
* L06169	LUMINAIRE RECTILINEAR TYPE: 400 WATT, H.P.S.	EACH	11	11				
* X04849	LAMP 400 WATT HPS	EACH	11	11				
* X21497	RAISED PAVEMENT MARKERS TYPE 2	EACH	44			44		
* T50101	THERMOPLASTIC PAVEMENT MARKING -- LETTERS & SYMBOLS	SQ.FT.	31			31		
* T50102	THERMOPLASTIC PAVEMENT MARKING-LINE 4"	LIN.FT.	9275			9275		
* T50105	THERMOPLASTIC PAVEMENT MARKING-LINE 8"	LIN.FT.	200			200		
* T50106	THERMOPLASTIC PAVEMENT MARKING-LINE 12"	LIN.FT.	395			395		
* T50202	PAINT PAVEMENT MARKING-LINE 4"	LIN.FT.	11860		8770	3090		
* T50204	PAINT PAVEMENT MARKING-LINE 6"	LIN.FT.	180			180		
* T50107	THERMOPLASTIC PAVEMENT MARKING-LINE 24"	LIN FT	28			28		
X61218	INLETS TYPE A, TYPE V FRAME & GRATE	EACH	6			6		
308012	BITUMINOUS BASE COURSE	TON	15			15		
648018	TRAFFIC CONTROL & PROTECTION (SPECIAL)	L.SUM	1			1		
648005	TRAFFIC CONTROL & PROTECTION STD. 2311	L.SUM	1		1			
648007	TRAFFIC CONTROL & PROTECTION STD. 2315	L.SUM	1		1			
XZ1232	CONCRETE THRUST BLOCKS	EACH	4		2	2		
X04748	MOBILIZATION	L.SUM	1		0.5	0.5		
Z10527	TRAINEES	HOUR	1,000					1,000

* SPECIALTY ITEMS

Revised

ROUTE	SECTION	COUNTY	SHEET TOTAL	SHEET NO.
FA 49	(14,16)I*HL	PEORIA TAZEWELL	29	4
MKD.				
PROJ	STA	TO STA.		

EAST APPROACH

T26N R4W 3RD PM

SECTION 14

PCC BRIDGE APPROACH SHOULDER PAVEMENT	43 SQ.YDS.
TYPE C INLET BOX (STD 2324) SPECIAL	2 EACH
TYPE D INLET BOX (STD 2324) SPECIAL	2 EACH
PIPE DRAINS, BITUMINOUS COATED CORRUGATED STEEL 12"	165 LIN FT.
12" STEEL END SECTION	2 EACH

Sta 253+00
REMOVE EXISTING INLET TY A W/TY 37 GRATE 1 EACH

REPLACE WITH
MEDIAN INLET (2251) 1 EACH
INLET TYPE B 1 EACH
TEMPORARY PIPE CULVERT TY 1 (CSCP) 24" 410 LIN. FT.
(256+00 TO 256+00)

NOTE: SEALING THE HOLES AT INLET TYPE B WITH MASONRY MATERIAL SHALL BE CONSIDERED INCIDENTAL TO THE MEDIAN INLET (2251).

SEEDING CLASS I 1.15 ACRE

10" BITUMINOUS SHOULDER
WESTBOUND 246+58.02 TO 256+00
(8' + 8') 941.98 (1/9) = 1,256 Sq Yds
BITUMINOUS SHOULDER
EASTBOUND 246+53.25 TO 250+60 (LT ONLY)
(4') × 403.75 × (1/9) = 181 Sq Yds
P.C.C. PAVEMENT 10" (70% REINFORCED)
WEST BOUND 247+45.52 TO 253+37.3
1578 SQ. YDS.

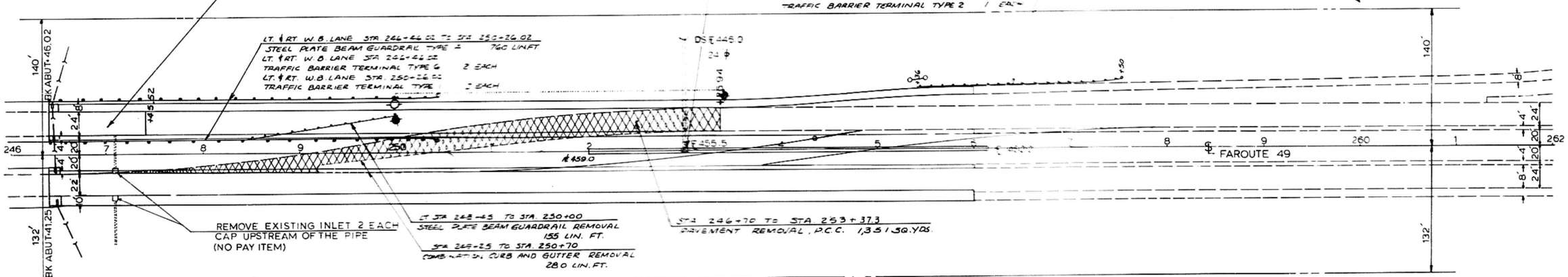
PAVEMENT FABRIC
70% 1105 SQ. YDS.
STABILIZED SUB BASE 4 INCHES
WEST BOUND 247+45.52 TO 253+37.3
1776 SQ. YDS.

BITUMINOUS SURFACE COURSE MIXTURE D CLASS I
2" FOR E.B LANE 246+41.25 to 256+00 = 425 TONS

STA. 246+45.52 TO STA. 247+45.52
BRIDGE APPROACH (STD 2353)
BRIDGE APPROACH PAVEMENT 267 SQ. YDS.
REINFORCEMENT BARS 3340 LBS.

STEEL PLATE BEAM GUARDRAIL TYPE A 175 LIN. FT.
TRAFFIC BARRIER TERMINAL TYPE 1 1 EACH
TRAFFIC BARRIER TERMINAL TYPE 2 1 EACH

LT. & RT. W.B. LANE STA. 246+46.02 TO STA. 250+26.02
STEEL PLATE BEAM GUARDRAIL TYPE 1 760 LIN.FT.
LT. & RT. W.B. LANE STA. 246+46.02
TRAFFIC BARRIER TERMINAL TYPE 6 2 EACH
LT. & RT. W.B. LANE STA. 250+26.02
TRAFFIC BARRIER TERMINAL TYPE 1 1 EACH



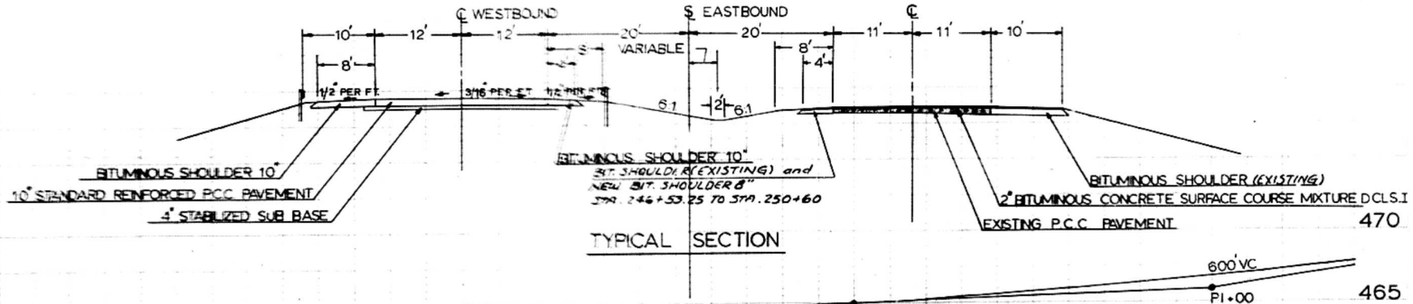
LT STA 248+45 TO STA. 250+00
STEEL PLATE BEAM GUARDRAIL REMOVAL
155 LIN. FT.

STA 249+25 TO STA. 250+70
COMBINATION CURB AND GUTTER REMOVAL
280 LIN. FT.

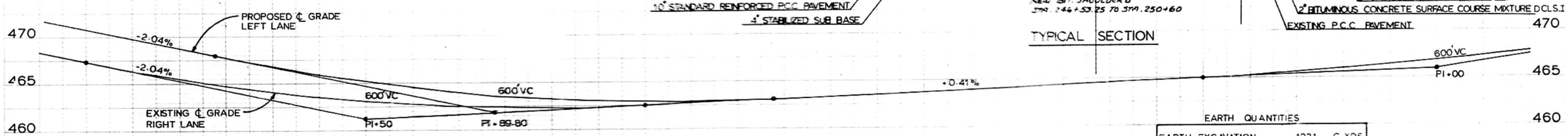
STA 246+70 TO STA 253+37.3
PAVEMENT REMOVAL, P.C.C. 1,351 SQ.YDS.

LT. STA. 250+00
REMOVE AND REINSTALL LIGHT STANDARD 1 EACH
POLE FOUNDATION (4' behind guardrail) 1 EACH
ELECTRIC CABLE UNIT DUCT, 2-600V XLP #6; 1 inch POLYETHYLENE 350 L.F.
ELECTRIC CONDUCTOR (BARE ANNEALED COPPER) No. 6 350 L.F.
TRENCH AND BACKFILL 346 L.F.

SECTION 14



TYPICAL SECTION



EARTH QUANTITIES

EARTH EXCAVATION	1931	C.YDS.
EMBANKMENT	4042	C.YDS.
BORROW EXCAVATION	3050	C.YDS.

	246	7	8	9	P.I. +50	250	+89.80	1	2	3	BASE L"℄" LT AND RT STA. 253+89.80	4	255	6	7	8	9	260	PI 1	2
LT LANE		469.79	467.75 (467.75)	465.96 (465.71)		464.57 (463.67)	643.68 (641.84) 643.50 (641.88)		643.03 (642.29)	642.86 (642.70)										
RT LANE	468.46	466.42 (466.37)	464.79 (464.33)	463.57 (462.29)	463.11 (461.27)	462.75 (461.47)		462.34 (461.88)	462.34 (462.29)	462.70		463.11	463.52	463.93	464.34	464.75	465.25 (465.16)	465.93 (465.57)	466.77 (465.97)	467.81 (467.45)

ROUTE	SECTION	COUNTY	SHEET TOTAL	SHEET NO.
FA 49 MKD.	(14,16)I & HL	PEORIA TAZEWELL	29	5
PROJ.	STA.	TO STA.		

EAST APPROACH

STAGE I -- CONSTRUCT TEMPORARY CROSS-OVER 250+90± TO 257+86

1. USE STD. 2315 (E.B. & W.B.)--MODIFY TAPER E.B. TO FIT CONDITIONS.
2. COVER 2 EXISTING SIGNS "MCCLUGAGE BRIDGE TRAFFIC KEEP LEFT" ALONG W.B. LANES, WHILE WORKING.
3. INSTALL "ROAD CONSTRUCTION AHEAD" SIGNS LT. & RT. ENTRANCE RAMP NEAR GORE AREA OF RAMP CONVERGENCE.

STAGE II -- SWITCH W.B. TRAFFIC TO NEW CROSS-OVER

1. STRIPE AND PLACE BARRELS AS SHOWN BELOW.

STAGE III -- REMOVE EXISTING PAVEMENT LT. OF E.B. LANES, STA. 247+00 TO 253+37±.
REMOVE EXISTING CURB AND GUTTER 249+30± TO 250+60±.

1. USE STD. 2311

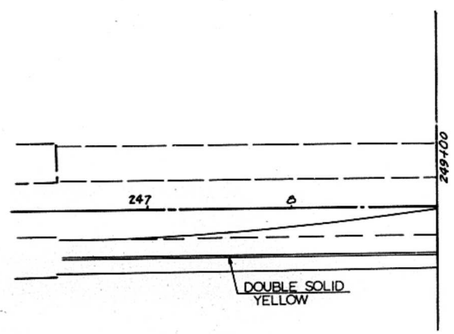
STAGE II
PAINT PAVEMENT MARKING LINE 4"

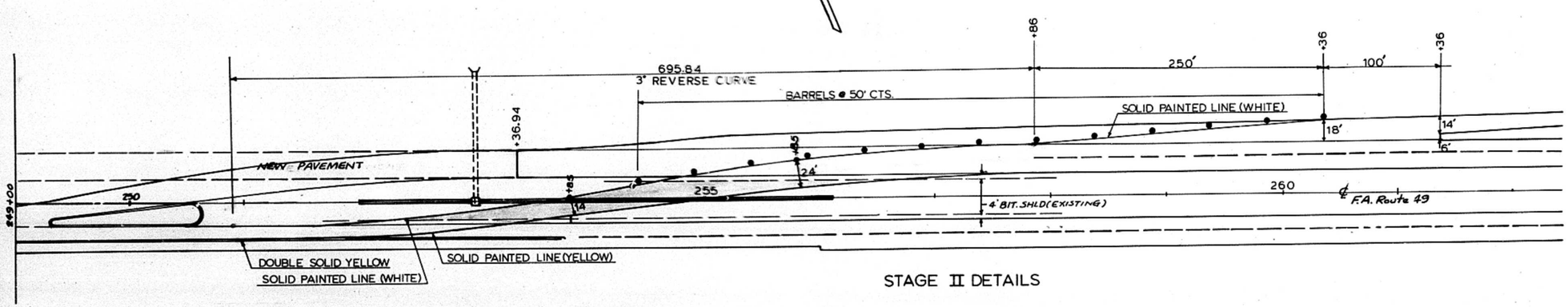
LOCATION	4" WHITE (SOLID)	4" YELLOW (SOLID)	4" WHITE (SKIP)
TEMPORARY CROSS-OVER	1980	2080	0
MAINLINE WESTBOUND	2120	2120	470
TOTALS	4100	4200	470

STAGE IV -- REMOVE TEMPORARY CROSS-OVER

1. USE STD. 2315 (E.B. AND W.B.).
2. RESURFACE E.B. LANES AND SHOULDERS--USE STD. 2315.

NOTE: WHEN USING STD. 2315, BARRICADES AT 50' CTRS. SHALL BE PLACED AT THE EDGE OF BITUMINOUS SHOULDERS IF A DROP OFF OF 3"+ EXISTS, WHEN NO WORK IS IN PROGRESS.





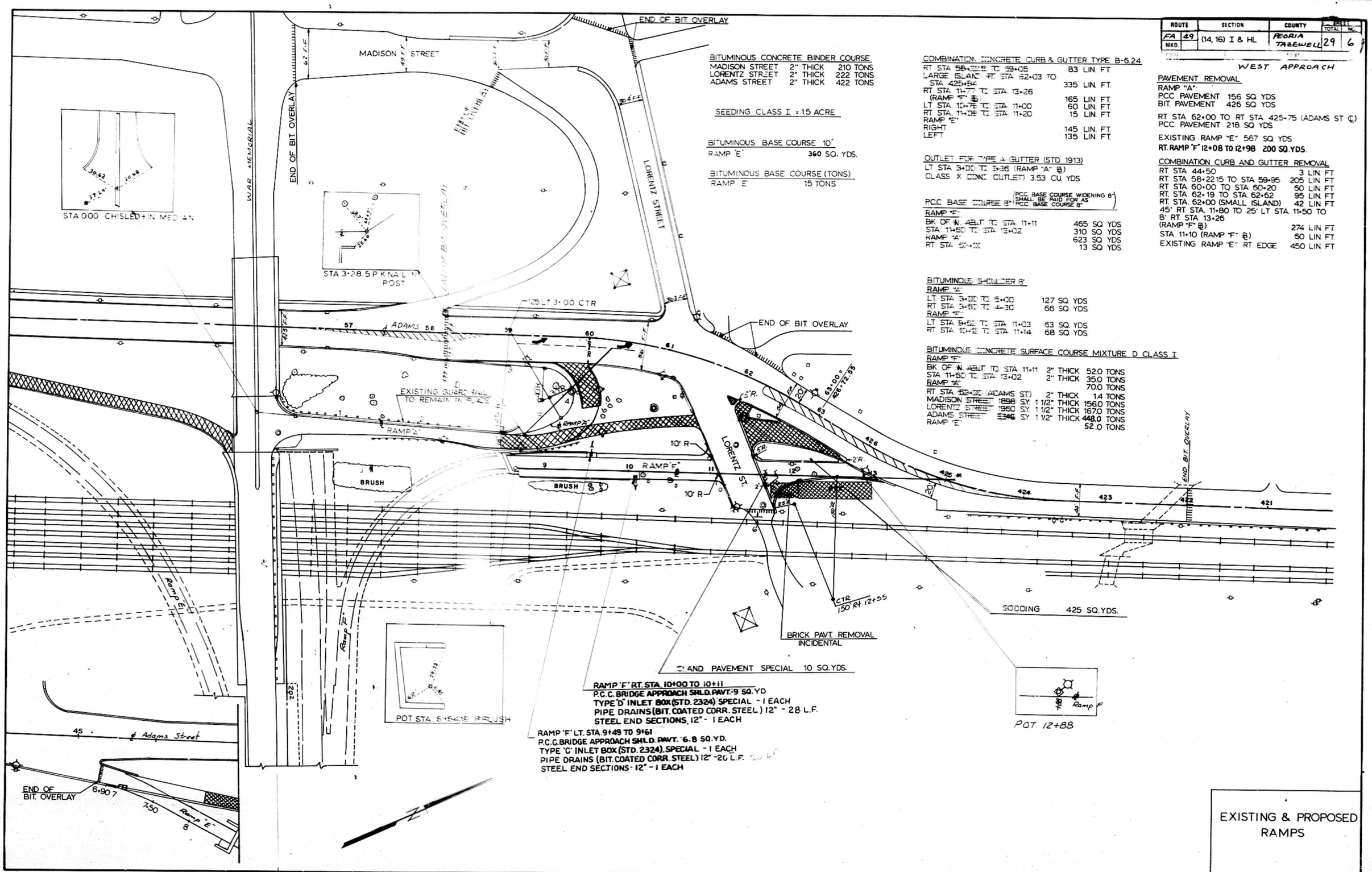
STAGE II DETAILS

BITUMINOUS BASE COURSE 10" 515 Sq. Yds.
PAVEMENT REMOVAL 515 Sq. Yds.

TEMPORARY CROSS-OVER DETAIL
F.A. ROUTE 49
SECTION (14,16)I & HL
TAZEWELL COUNTY
SCALE = 1" = 50'

ROUTE	SECTION	COUNTY	SHEET TOTAL	SHEET NO.
FA 49	(14, 16) I & HL	PEORIA TAZEWELL	29	6
MKD.				

WEST APPROACH



BITUMINOUS CONCRETE BINDER COURSE

MADISON STREET	2" THICK	210 TONS
LORENTZ STREET	2" THICK	222 TONS
ADAMS STREET	2" THICK	422 TONS

SEEDING CLASS I = 1.5 ACRE

BITUMINOUS BASE COURSE 10"

RAMP "E"	360 SQ. YDS.

BITUMINOUS BASE COURSE (TONS)

RAMP "E"	15 TONS

COMBINATION CONCRETE CURB & GUTTER TYPE B-6.24

RT. STA. 58+22.15 TO 59+05	83 LIN. FT.
LARGE ISLAND RT. STA. 62+03 TO STA. 425+54	335 LIN. FT.
RT. STA. 11+77 TO STA. 13+26 (RAMP "F" ⅊)	165 LIN. FT.
LT. STA. 10+75 TO STA. 11+00	60 LIN. FT.
RT. STA. 11+05 TO STA. 11+20	15 LIN. FT.
RAMP "E"	
RIGHT	145 LIN. FT.
LEFT	135 LIN. FT.

OUTLET FOR TYPE A GUTTER (STD. 1913)

LT. STA. 3+00 TO 3+36 (RAMP "A" ⅊)	
CLASS X CONC. (OUTLET)	3.53 CU. YDS.

P.C.C. BASE COURSE 8" (P.C.C. BASE COURSE WIDENING 8" SHALL BE PAID FOR AS P.C.C. BASE COURSE 8")

RAMP "F"	
BK. OF N. ABUT. TO STA. 11+11	465 SQ. YDS.
STA. 11+50 TO STA. 13+02	310 SQ. YDS.
RAMP "A"	623 SQ. YDS.
RT. STA. 59+00	13 SQ. YDS.

BITUMINOUS SHOULDER 8"

RAMP "A"	
LT. STA. 3+00 TO 5+00	127 SQ. YDS.
RT. STA. 3+51 TO 4+30	66 SQ. YDS.
RAMP "E"	
LT. STA. 9+52 TO STA. 11+03	63 SQ. YDS.
RT. STA. 10+72 TO STA. 11+14	68 SQ. YDS.

BITUMINOUS CONCRETE SURFACE COURSE MIXTURE D CLASS I

RAMP "F"		
BK. OF N. ABUT. TO STA. 11+11	2" THICK	52.0 TONS
STA. 11+50 TO STA. 13+02	2" THICK	35.0 TONS
RAMP "A"		70.0 TONS
RT. STA. 59+00 (ADAMS ST.)	2" THICK	1.4 TONS
MADISON STREET 1898 S.Y.	1 1/2" THICK	156.0 TONS
LORENTZ STREET 1950 S.Y.	1 1/2" THICK	167.0 TONS
ADAMS STREET 5346 S.Y.	1 1/2" THICK	448.0 TONS
RAMP "E"		52.0 TONS

PAVEMENT REMOVAL

RAMP "A":

PCC PAVEMENT	156 SQ. YDS.
BIT. PAVEMENT	426 SQ. YDS.

RT. STA. 62+00 TO RT. STA. 425+75 (ADAMS ST. ℄)
PCC PAVEMENT 218 SQ. YDS.

EXISTING RAMP "E" 567 SQ. YDS.

RT. RAMP "F" 12+08 TO 12+98 200 SQ. YDS.

COMBINATION CURB AND GUTTER REMOVAL

RT. STA. 44+50	3 LIN. FT.
RT. STA. 58+22.15 TO STA. 59+95	205 LIN. FT.
RT. STA. 60+00 TO STA. 60+20	60 LIN. FT.
RT. STA. 62+19 TO STA. 62+62	95 LIN. FT.
RT. STA. 62+00 (SMALL ISLAND)	42 LIN. FT.
45' RT. STA. 11+80 TO 25' LT. STA. 11+50 TO 8' RT. STA. 13+26 (RAMP "F" ⅊)	274 LIN. FT.
STA. 11+10 (RAMP "F" ⅊)	60 LIN. FT.
EXISTING RAMP "E" RT. EDGE	450 LIN. FT.

SODDING 425 SQ. YDS.

BRICK PAVT. REMOVAL INCIDENTAL

SIDEWALK PAVEMENT SPECIAL 10 SQ. YDS.

RAMP "F" RT. STA. 10+00 TO 10+11
P.C.C. BRIDGE APPROACH SHLD. PAVT. - 9 SQ. YD.
TYPE "D" INLET BOX (STD. 2324) SPECIAL - 1 EACH
PIPE DRAINS (BIT. COATED CORR. STEEL) 12" - 28 L.F.
STEEL END SECTIONS, 12" - 1 EACH

RAMP "F" LT. STA. 9+49 TO 9+61
P.C.C. BRIDGE APPROACH SHLD. PAVT. - 6.8 SQ. YD.
TYPE "C" INLET BOX (STD. 2324) SPECIAL - 1 EACH
PIPE DRAINS (BIT. COATED CORR. STEEL) 12" - 20 L.F.
STEEL END SECTIONS - 12" - 1 EACH

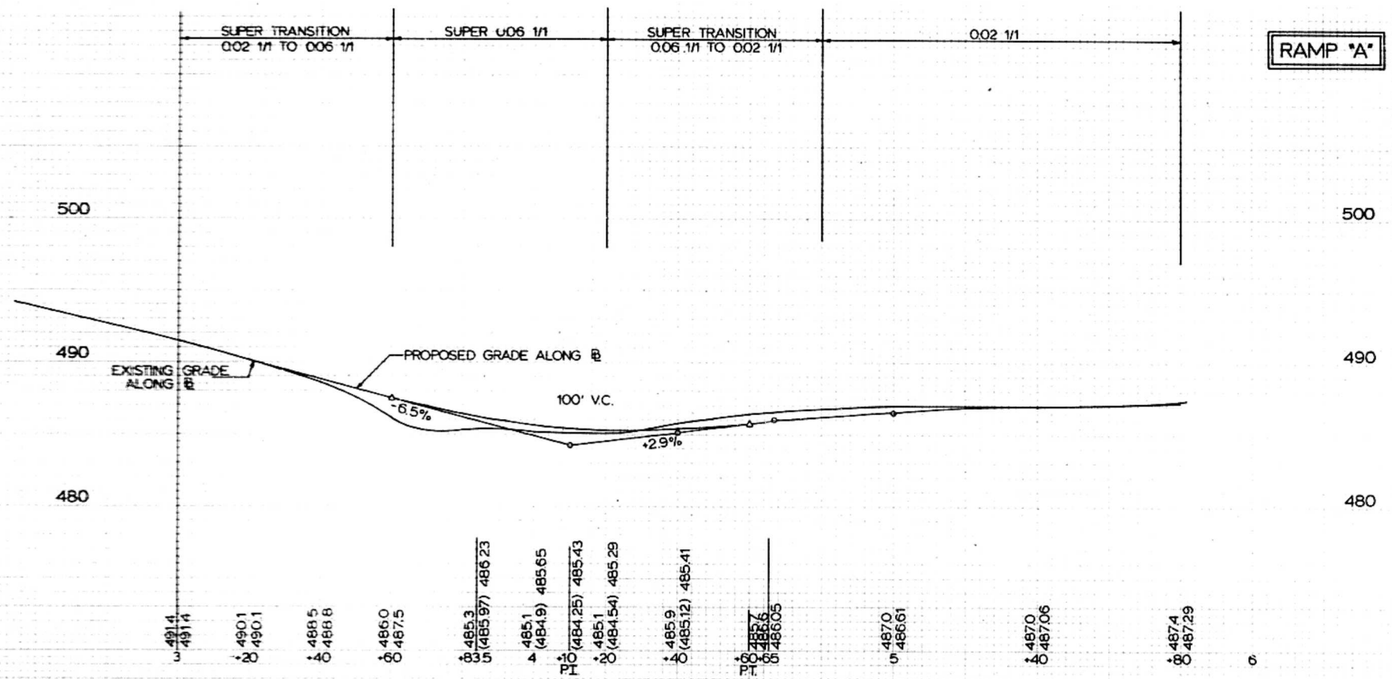
EXISTING & PROPOSED RAMPS

Revised

FEDERAL AID ROUTE NO.	SEC.	COUNTY		
F.A. 49	116,116 I & HL	PEORIA TAZEWELL	29	7
FED. ROAD DIST. NO. 4	ILLINOIS	FIGURES		

EARTH QUANTITIES (C.YDS.)

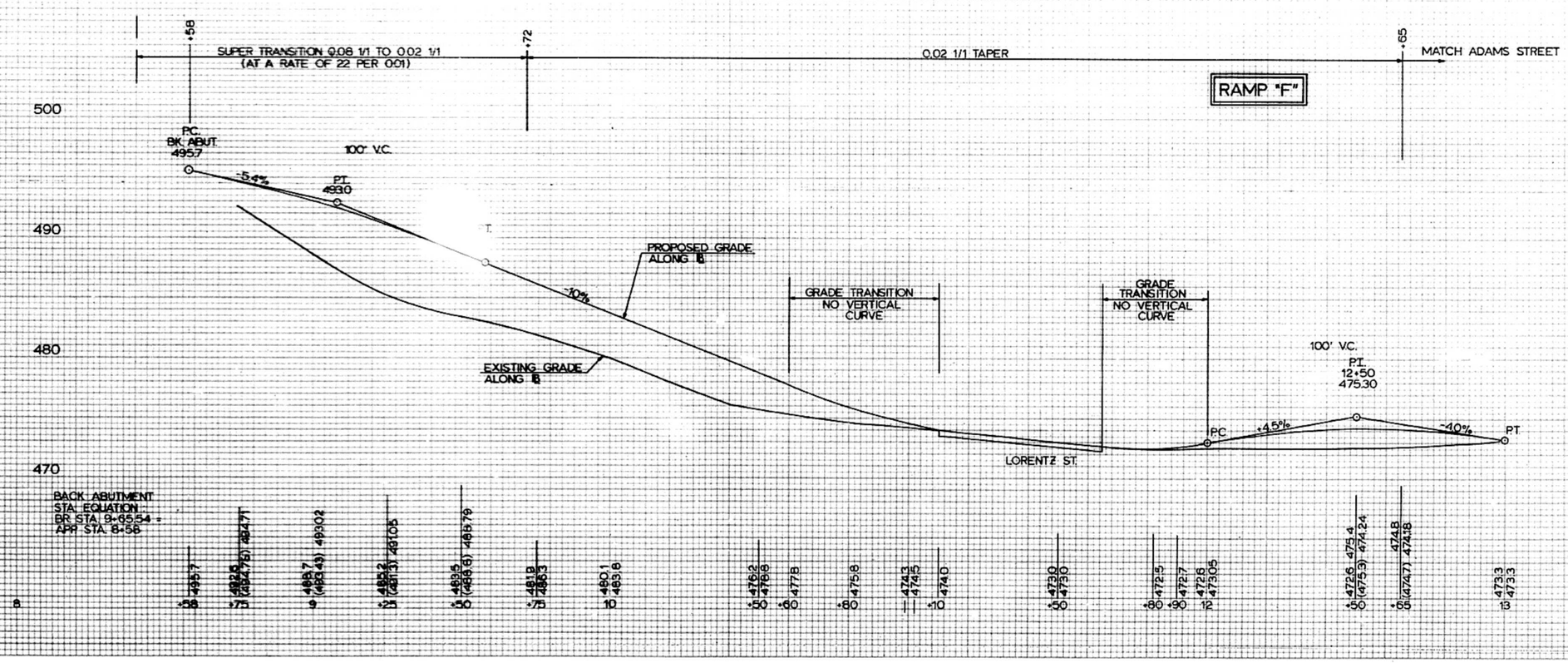
LOCATION	EARTH EX	EMBANKMENT	BORROW
RAMP 'A'	87	147	91
RAMP 'E'	0	282	341
RAMP 'F'	536	561	143



RAMP 'E'

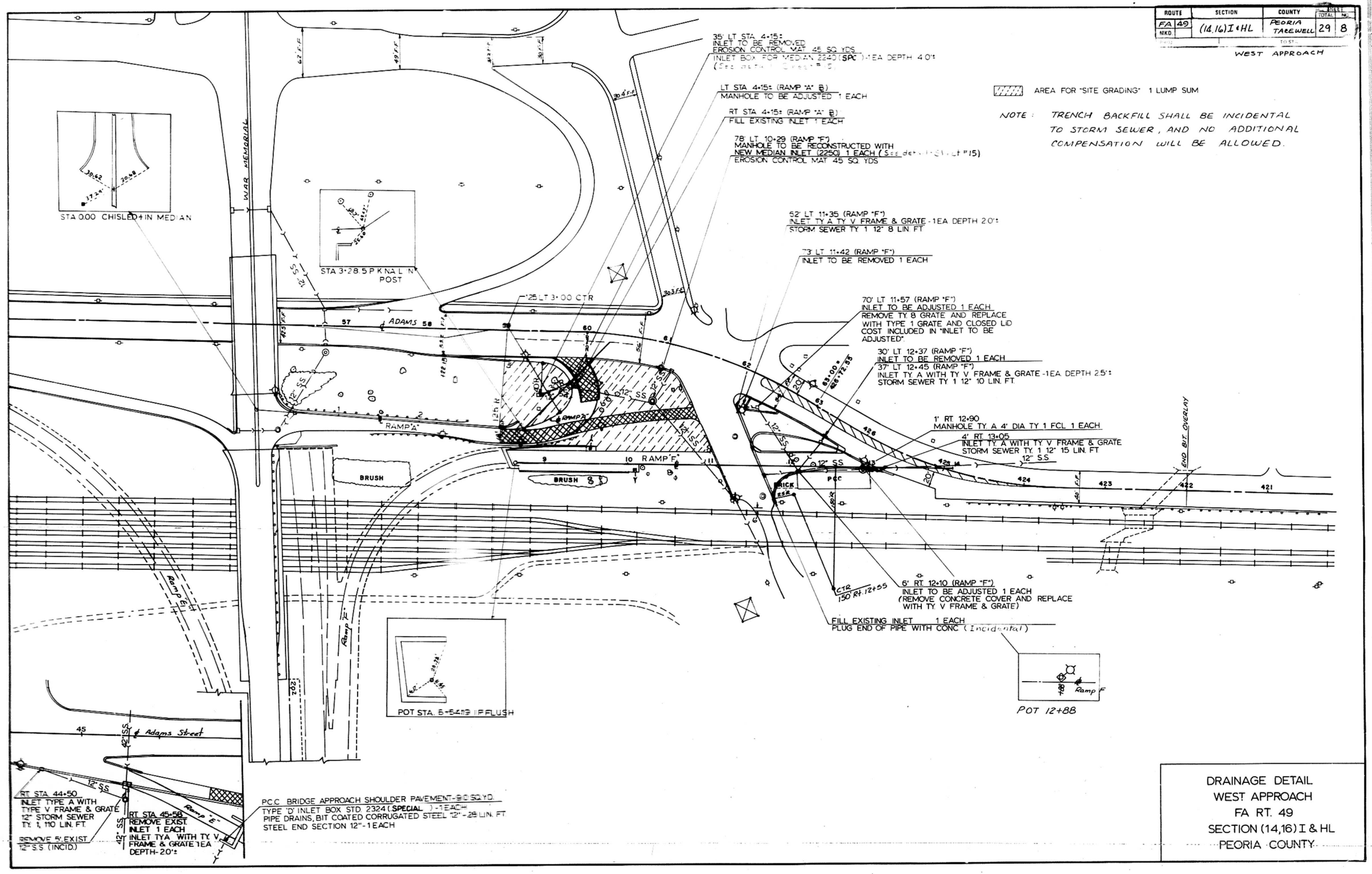
PROFILE ELEVATIONS

STA.	RT. EDGE	LT. EDGE
6+90	492.08	492.28
7+00	492.06	492.33
7+10	492.05	492.38
7+20	492.12	492.51
7+30	492.30	492.76
7+40	492.55	493.07
7+50	492.91	493.50
7+60	493.35	494.00
7+70	493.88	494.59
7+80	494.50	495.28
7+90	495.23	496.07
8+00	496.00	496.91
8+10	496.77	497.74
8+20	497.57	498.60
8+30	498.25	499.35
8+40	498.83	499.99
8+50	499.28	500.51
ABUT. 8+58.5	499.59	500.67



ROUTE	SECTION	COUNTY	SHEET TOTAL	SHEET No.
FA 49	(14,16)I & HL	PEORIA TAZEWELL	29	8
MKD.				

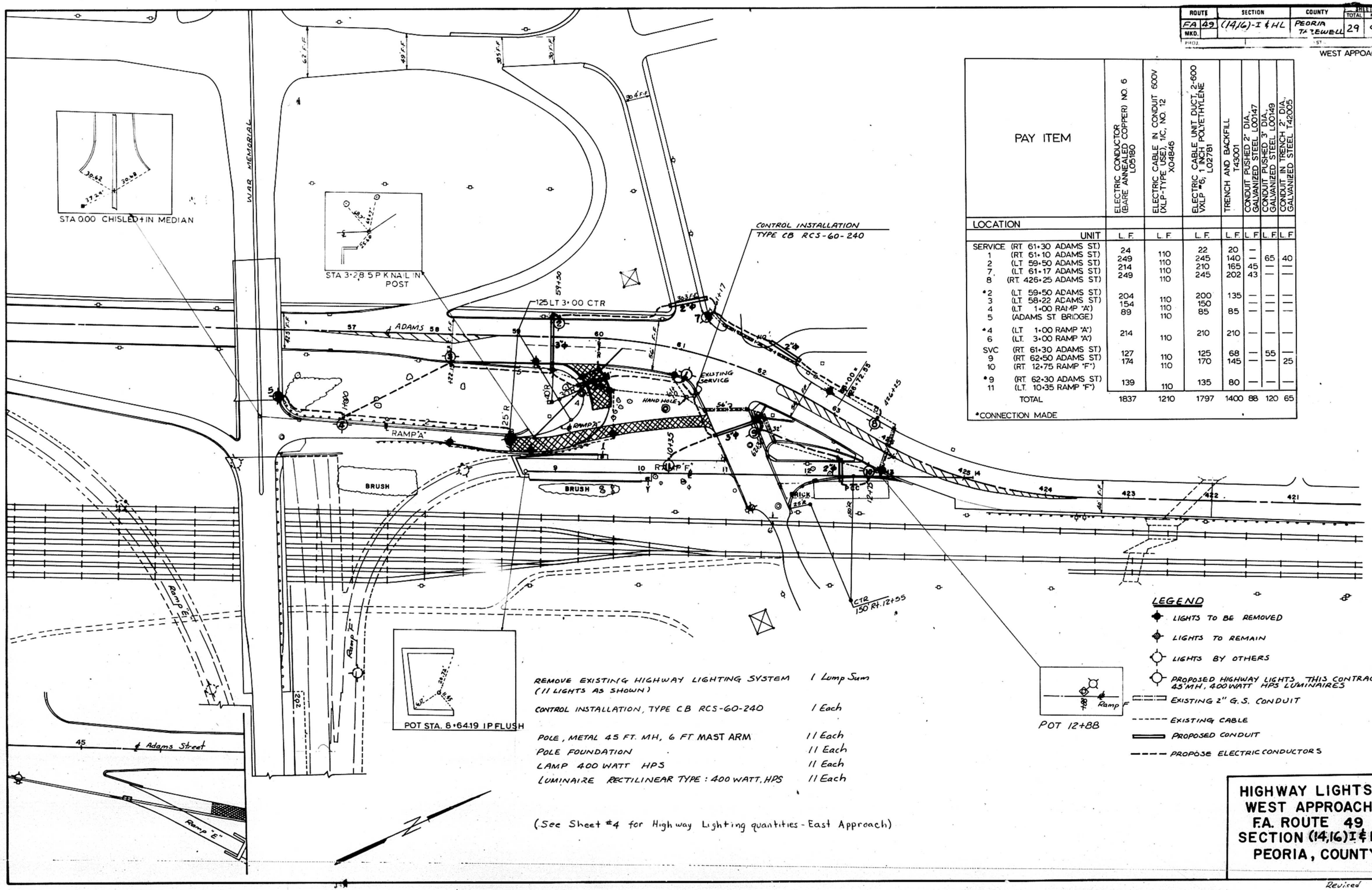
WEST APPROACH



DRAINAGE DETAIL
WEST APPROACH
FA RT. 49
SECTION (14,16) I & HL
PEORIA COUNTY

ROUTE	SECTION	COUNTY	SHEET TOTAL	SHEET NO.
FA 49	(14,16)-I & HL	PEORIA TAZEWELL	29	9
MKD.				
PROJ.		ST.		

WEST APPOACH



PAY ITEM	ELECTRIC CONDUCTOR (BARE ANNEALED COPPER) NO. 6 L05160	ELECTRIC CABLE IN CONDUIT 600V (XLP-TYPE USE), 1/C, NO. 12 X04846	ELECTRIC CABLE UNIT DUCT, 2-600 VXLP #6, 1 INCH POLYETHYLENE L02781	TRENCH AND BACKFILL T43001	CONDUIT PUSHED 2" DIA. GALVANIZED STEEL L00147	CONDUIT PUSHED 3" DIA. GALVANIZED STEEL L00149	CONDUIT IN TRENCH 2" DIA. GALVANIZED STEEL T42005
LOCATION / UNIT	L. F.	L. F.	L. F.	L. F.	L. F.	L. F.	L. F.
SERVICE (RT. 61+30 ADAMS ST.)	24	110	22	20	—		
1 (RT. 61+10 ADAMS ST.)	249	110	245	140	—	65	40
2 (LT. 59+50 ADAMS ST.)	214	110	210	165	45	—	—
7 (LT. 61+17 ADAMS ST.)	249	110	245	202	43	—	—
8 (RT. 426+25 ADAMS ST.)							
*2 (LT. 59+50 ADAMS ST.)	204	110	200	135	—	—	—
3 (LT. 58+22 ADAMS ST.)	154	110	150	—	—	—	—
4 (LT. 1+00 RAMP "A")	89	110	85	85	—	—	—
5 (ADAMS ST. BRIDGE)							
*4 (LT. 1+00 RAMP "A")	214	110	210	210	—	—	—
6 (LT. 3+00 RAMP "A")							
SVC (RT. 61+30 ADAMS ST.)	127	110	125	68	—	55	—
9 (RT. 62+50 ADAMS ST.)	174	110	170	145	—	—	25
10 (RT. 12+75 RAMP "F")							
*9 (RT. 62+30 ADAMS ST.)	139	110	135	80	—	—	—
11 (LT. 10+35 RAMP "F")							
TOTAL	1837	1210	1797	1400	88	120	65

*CONNECTION MADE

REMOVE EXISTING HIGHWAY LIGHTING SYSTEM (11 LIGHTS AS SHOWN)	1 Lump Sum
CONTROL INSTALLATION, TYPE CB RCS-60-240	1 Each
POLE, METAL 45 FT. MH, 6 FT MAST ARM	11 Each
POLE FOUNDATION	11 Each
LAMP 400 WATT HPS	11 Each
LUMINAIRE RECTILINEAR TYPE : 400 WATT, HPS	11 Each

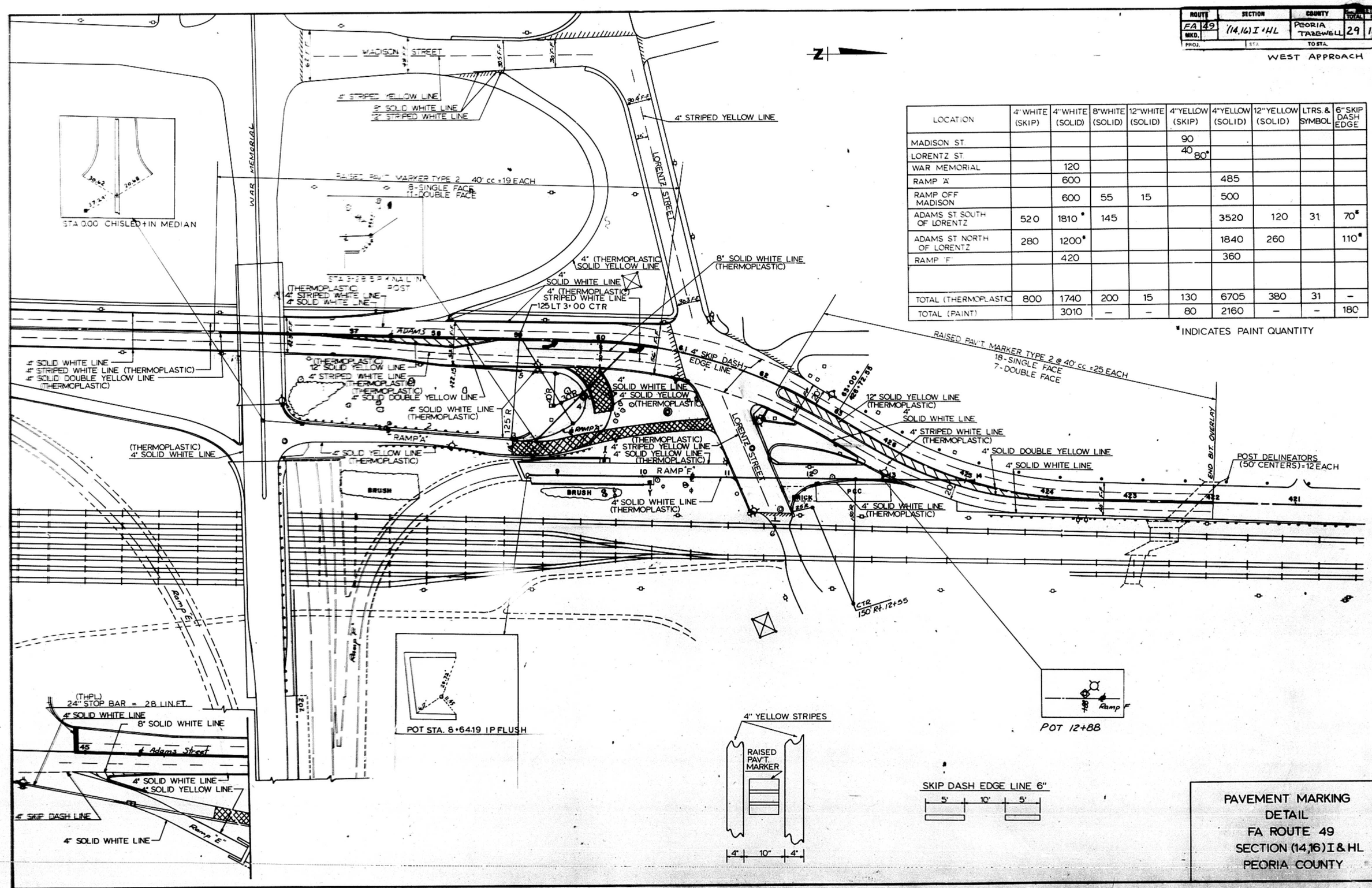
(See Sheet #4 for Highway Lighting quantities - East Approach)

HIGHWAY LIGHTS
WEST APPROACH
F.A. ROUTE 49
SECTION (14,16) I & HL
PEORIA, COUNTY

Revised

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 49	(14,16) I + HL	PEORIA TAZEWELL	29	10
MKD.				
PROJ.	STA.	TO STA.		

WEST APPROACH

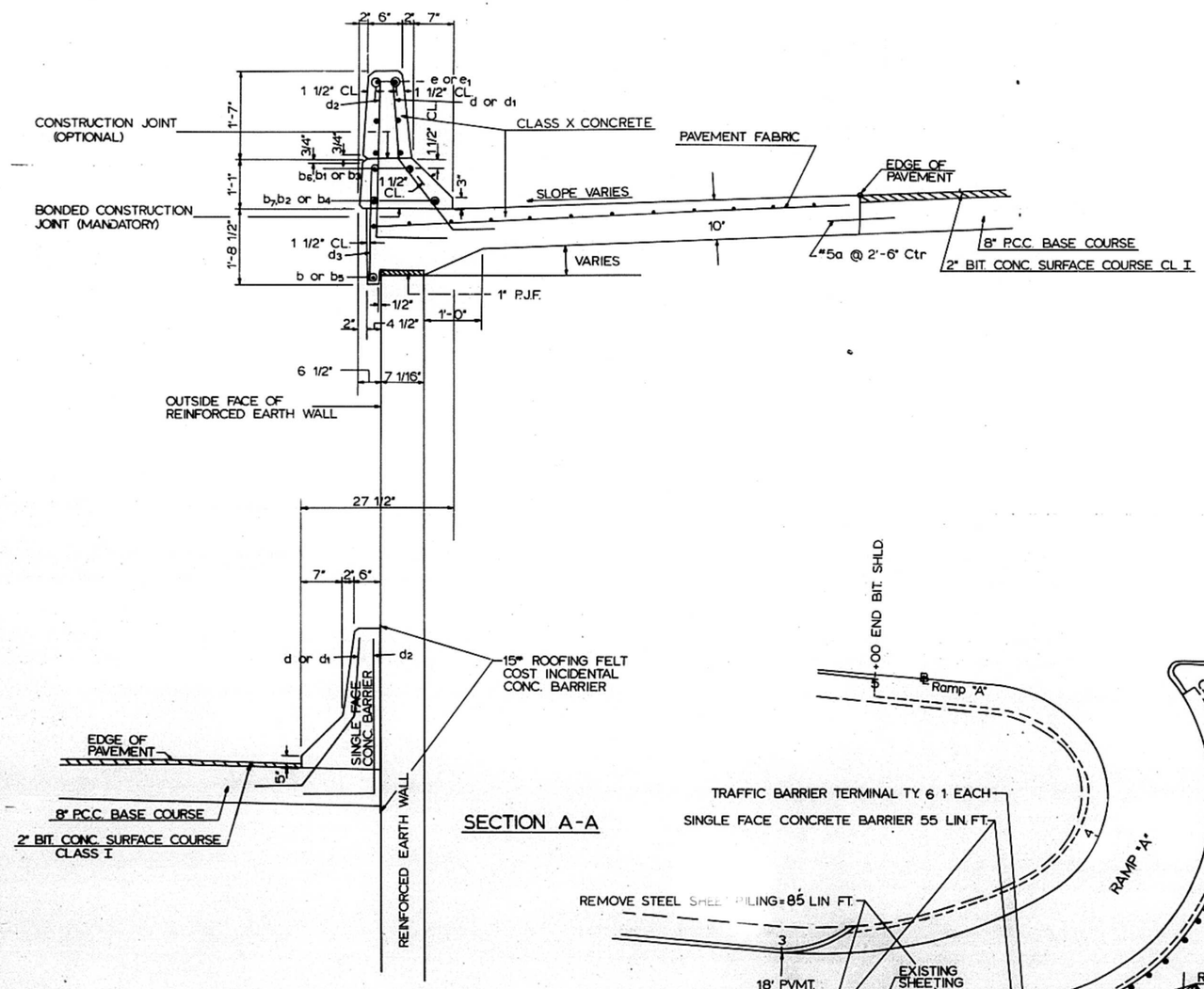


LOCATION	4" WHITE (SKIP)	4" WHITE (SOLID)	8" WHITE (SOLID)	12" WHITE (SOLID)	4" YELLOW (SKIP)	4" YELLOW (SOLID)	12" YELLOW (SOLID)	LTRS. & SYMBOL	6" SKIP DASH EDGE
MADISON ST.					90				
LORENTZ ST.					40 80*				
WAR MEMORIAL		120							
RAMP 'A'		600				485			
RAMP OFF MADISON		600	55	15		500			
ADAMS ST. SOUTH OF LORENTZ	520	1810*	145			3520	120	31	70*
ADAMS ST. NORTH OF LORENTZ	280	1200*				1840	260		110*
RAMP 'F'		420				360			
TOTAL (THERMOPLASTIC)	800	1740	200	15	130	6705	380	31	–
TOTAL (PAINT)		3010	–	–	80	2160	–	–	180

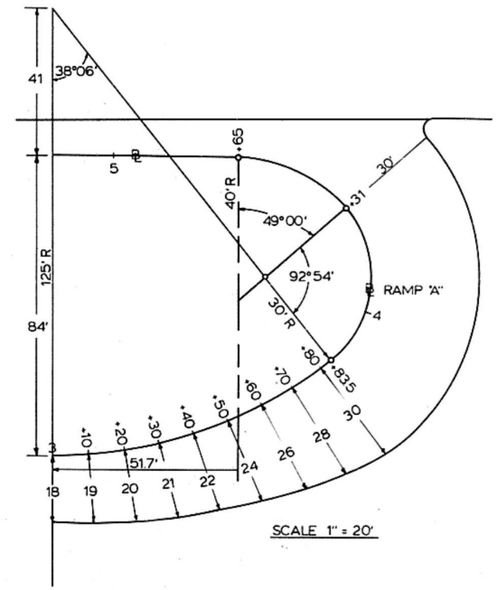
* INDICATES PAINT QUANTITY

PAVEMENT MARKING DETAIL
FA ROUTE 49
SECTION (14,16) I & HL
PEORIA COUNTY

FEDERAL AID ROUTE NO.	SEC.	COUNTY		SHEET NO.
F.A. 49	(14,16) I&HL	PEORIA TAZEWELL	29	11



SECTION A-A



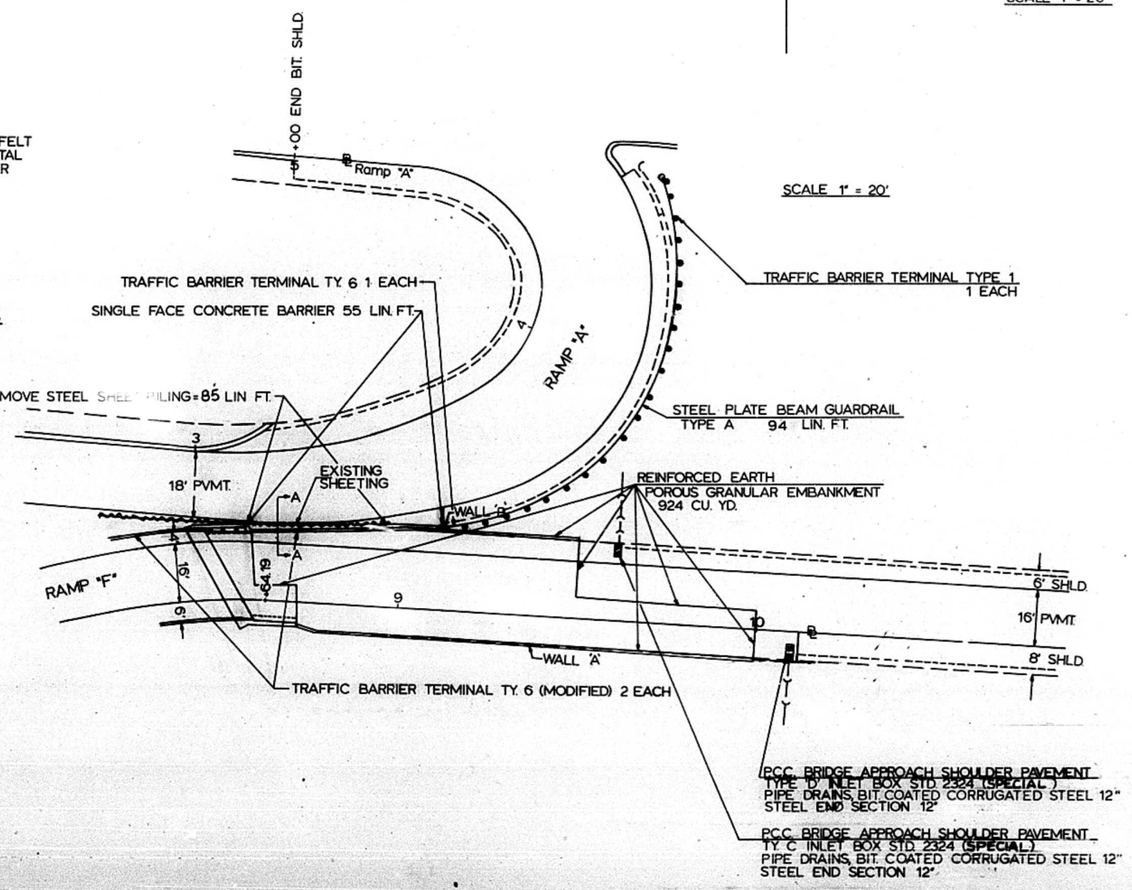
SCALE 1" = 20'

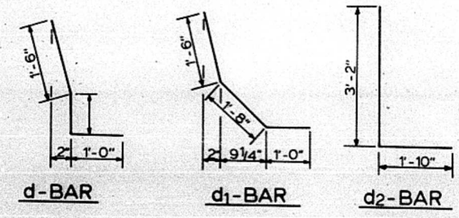
RAMP A PAVEMENT GRADE

STATION	PAVEMENT WIDTH	BASELINE	RT EDGE
3+00	18'	491.40	491.76
3+20	20'	490.10	490.76
3+40	22'	488.80	489.83
3+60	26'	487.50	489.06
3+80	30'	-	-
3+83.5	30'	486.23	488.03
4+00	30'	485.65	487.45
4+20	30'	485.29	487.09
4+31	30'	-	-
4+40	-	485.41	-
4+65	-	486.05	-
5+00	-	486.61	-
5+40	-	487.06	-
5+80	-	487.29	-

MIN. LAP

#4 - 1'-8"
#5 - 2'-2"
#8 - 3'-5"





d-BAR d1-BAR d2-BAR

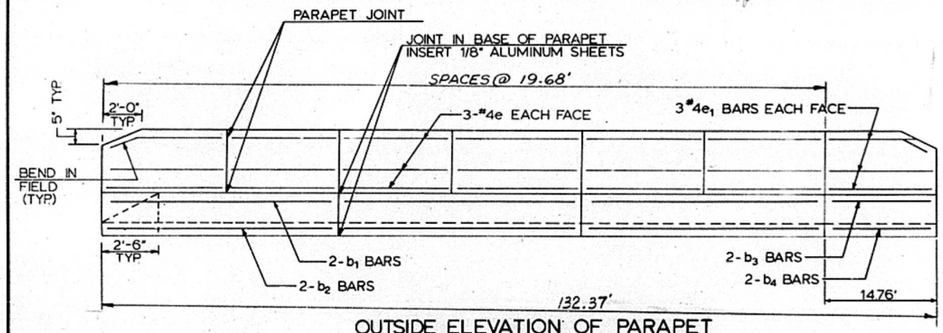
BILL OF MATERIAL

	BAR	SIZE	LENGTH	SHAPE	RAMP "F" WALL B NO.	RAMP "F" WALL A NO.	RAMP "A"
2'-6" Ctr	a	#5	2'-6"		44	62	
	b	#5	23'-10"	—	4	6	—
	b1	#8	21'-3"	—	8	12	—
	b2	#5	20'-7"	—	8	12	—
	b3	#8	14'-6"	—	—	2	—
	b4	#5	14'-6"	—	—	2	—
	b5	#5	11'-6"	—	1	—	—
	b6	#8	19'-5"	—	2	—	—
	b7	#5	19'-5"	—	2	—	—
11" Ctr	d	#5	3'-11"	L	6	6	6
11" Ctr	d1	#4	4'-2"	L	100	137	56
12" Ctr	d2	#4	5'-0"	L	98	132	55
12" Ctr	d3	#4	2'-4"	—	98	132	—
	e	#4	19'-5"	—	30	36	—
	e1	#4	14'-6"	—	—	6	—

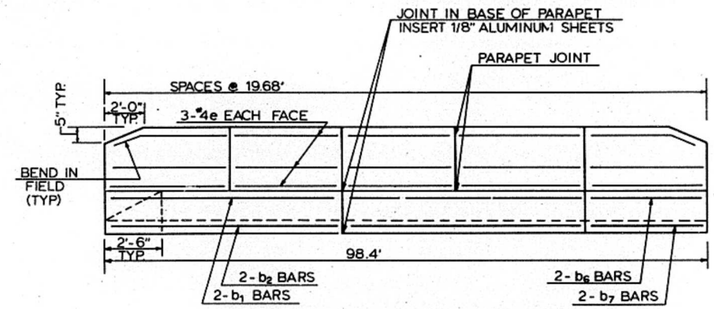
PAY ITEMS	UNIT	QUANTITY
CLASS X CONCRETE	CU. YD.	88.50
REINFORCEMENT BARS	LBS.	5335
PAVEMENT FABRIC	SQ. YD.	217
CONCRETE BARRIER, SINGLE FACE	LIN. FT.	55

DETAIL
PARAPET WALL

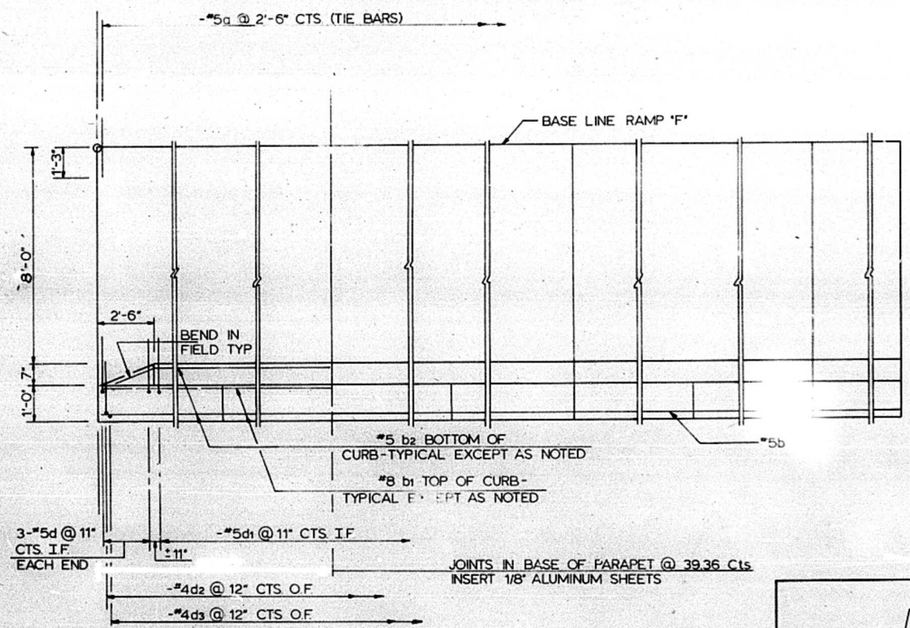
Spaces @ 19.68'



OUTSIDE ELEVATION OF PARAPET
WALL "A"

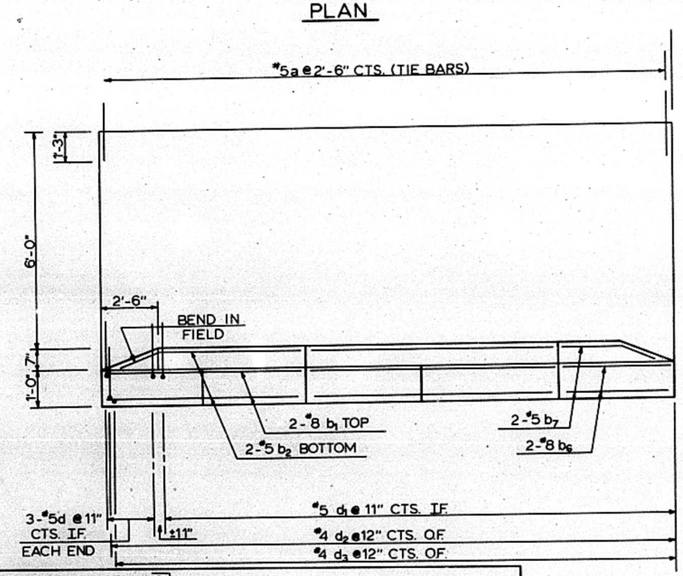


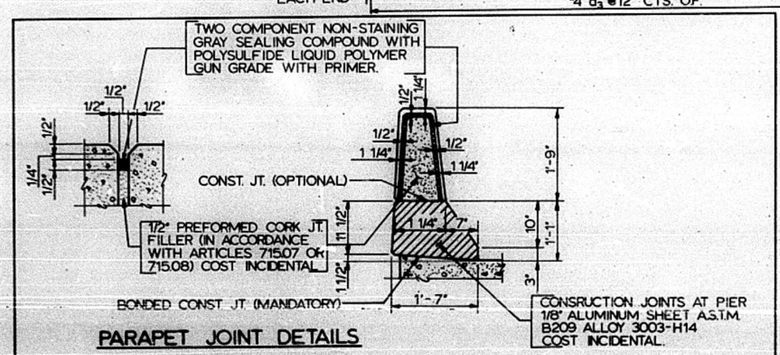
OUTSIDE ELEVATION OF PARAPET
WALL "B"



PLAN

PLAN



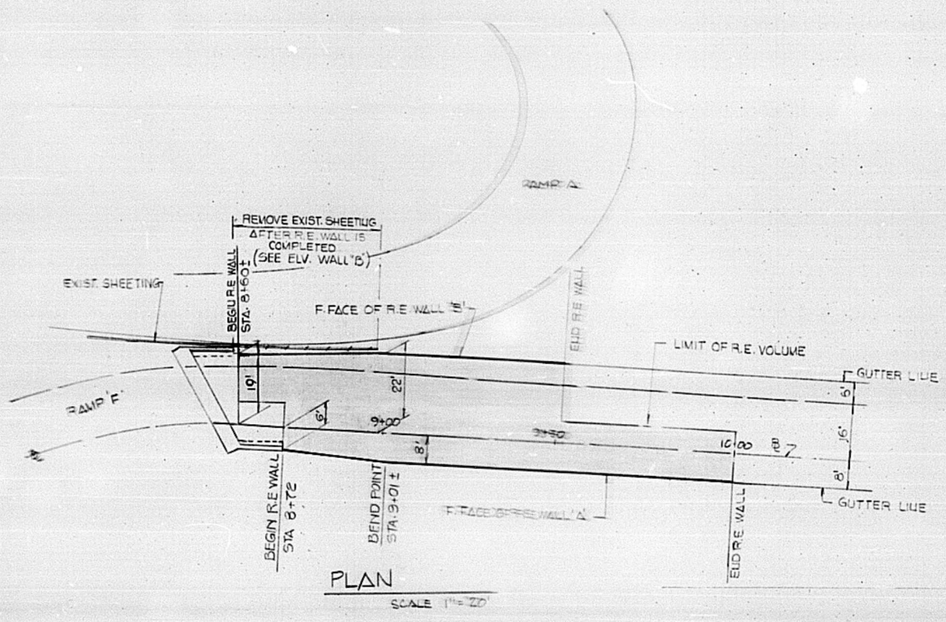


PARAPET JOINT DETAILS

DETAIL
PARAPET WALL

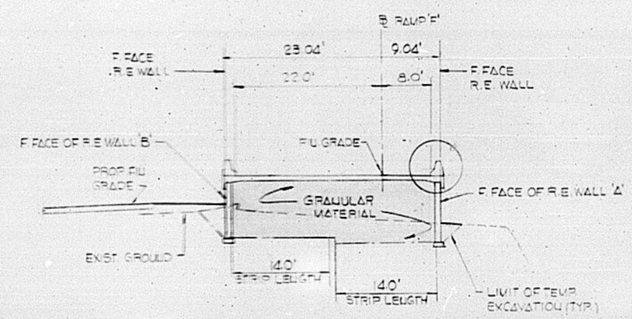
Revised

FEDERAL AID ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 49	(14,16) I & WL	PEORIA TAZEWELL	29	13
F.E.D. ROAD DIV. NO. 4	ILLINOIS	PROJECT -		



PLAN

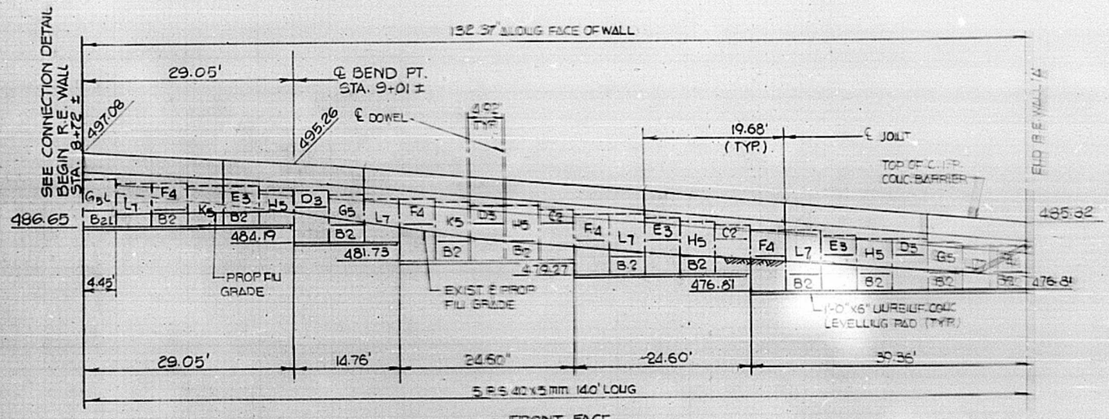
SCALE: 1"=20'



TYPICAL SECTION

STA. 9+25

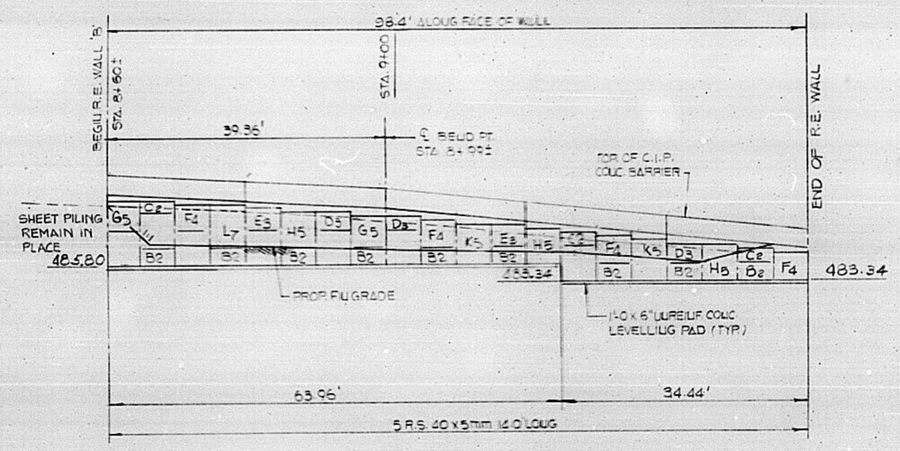
SCALE: 1"=10'-0"



FRONT FACE

ELEVATION WALL 'A'

SCALE: 1"=10'-0"



ELEVATION WALL 'B'

BACK FACE

SCALE: 1"=10'-0"

PANEL SCHEDULE WALLS A & B													
STANDARD												4.45'	
THICKNESS \ TYPE	U2 T.S.	A	B	C	D	E	F	G	H	K	L	GL	BL
7'/6"	2	–	20	5	–	–	–	–	–	–	–	–	1
	3	–	–	–	6	5	–	–	–	–	–	–	–
	4	–	–	–	–	–	9	–	–	–	–	–	–
	5	17	–	–	–	–	–	4	7	4	–	1	–
	7	–	–	–	–	–	–	–	–	–	6	–	–
PANEL SURFACE AREA SQ.FT.		24.2	12.1	8.8	12.1	14.9	17.5	20.9	24.2	27.0	30.0	18.9	10.9

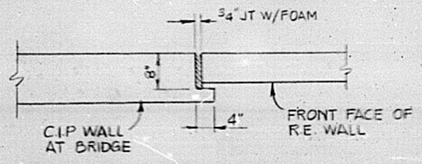
REINFORCED EARTH WALL = 1576.4 SQ.FT.

(SEE SPECIAL PROVISIONS FOR MEASUREMENT FOR PAYMENT)

527 REINF. STRIPS 40 x 5 mm. 14.0 LONG

NOTES:

1. ALL PANELS ARE TYPE 'A' UNLESS OTHERWISE NOTED
2. STA. SHOWN ARE ALONG ℄ RAMP 'F'
3. ALL PANELS AND OTHER RELATED ELEMENTS WILL BE DETAILED ON SHOP DRAWINGS.
4. DESIGN IS BASED ON THE ASSUMPTION THAT THE MATERIAL WITHIN THE REINFORCED EARTH VOLUME, METHODS OF CONSTRUCTION AND QUALITY OF PREFABRICATED MATERIALS SHALL CONFORM TO THE MANUFACTURER'S SPECIFICATIONS.
5. SYMBOLS: H5 — TYPE OF PANEL; U0 — TIE STRIPS; (5) — INDICATES NO. OF TIE STRIPS PER 'A' PANELS ONLY
6. FOR STANDARD PANELS SEE SHT. NO. 2
7. CORK IS NOT REQUIRED BETWEEN CONC. LEVELLING PAD AND LOWER PROJECTING PANELS.



CONNECTION DETAIL

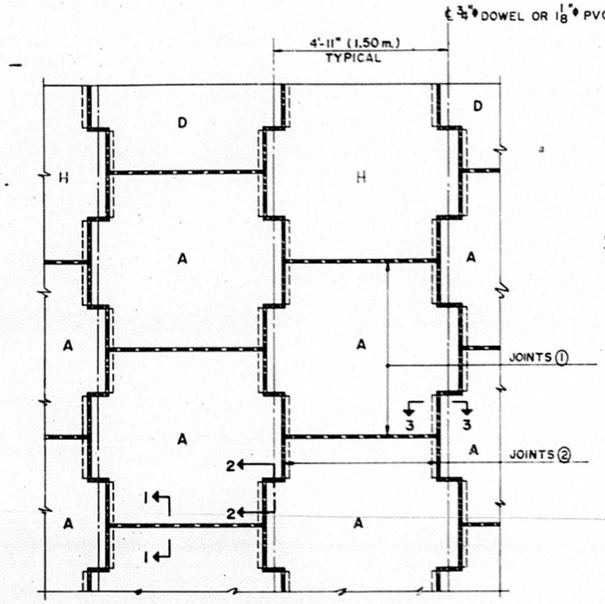
SCALE: 1"=10'-0"

The Reinforced Earth Company
Rosslyn Center, 1700 North Moore Street, Arlington, Virginia 22209
(703) 527-3424

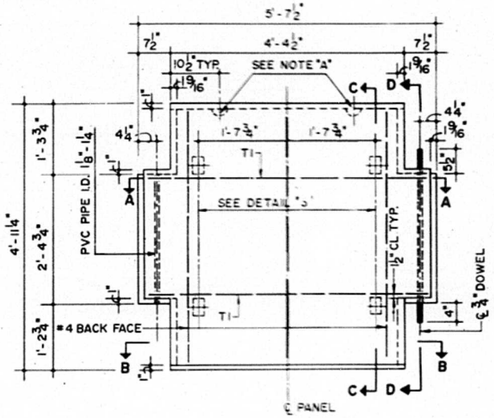
REV. NO.	DATE	DESCRIPTION

Structure	REINFORCED EARTH WALL
Location	PEORIA COUNTY, ILLINOIS
	RAMP "F" APPROACH
Owner	ILLINOIS DEPARTMENT OF TRANS.
Drawn By	L.R.
Checked By	
Date	1-7-81
CONTRACT NO.	RE 837
DRAWING COVERS	PLAN, ELEVATION & SECTION
DRAWING NO.	1 OF 2
SCALE	AS SHOWN

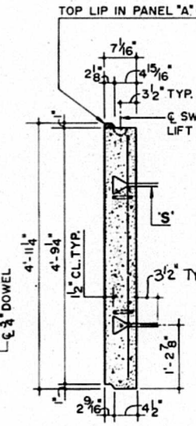
FEDERAL AID ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 49	(18, 16) I & HL	PEORIA TAZEWELL	29	14
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



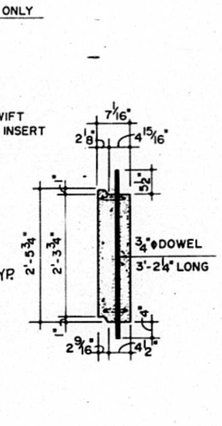
TYPICAL PANEL LAYOUT
SCALE: 1/2"=1'-0"



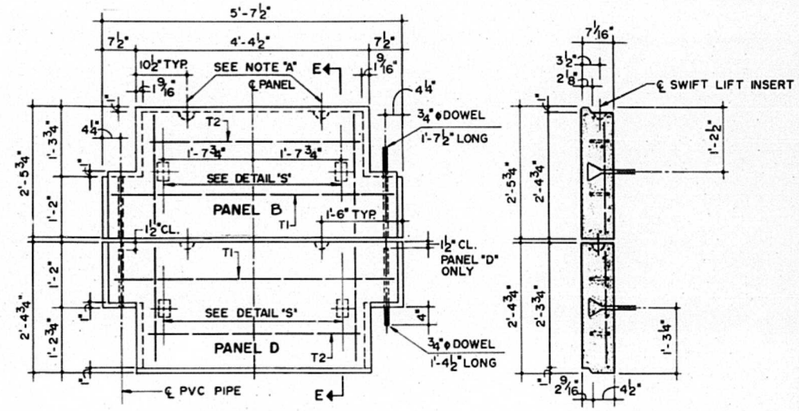
PANEL TYPE A & H
FRONT VIEW



SECTION C-C

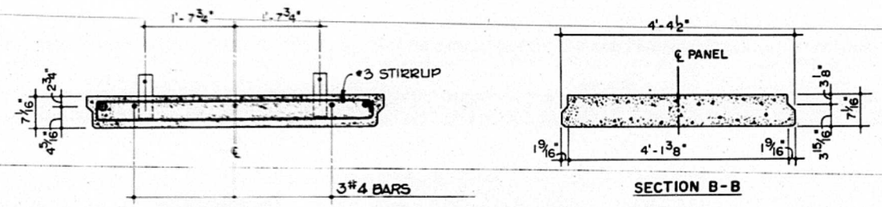


SECTION D-D



HALF PANELS B & D
FRONT VIEW

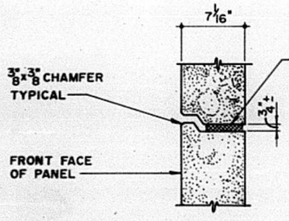
SECTION E-E



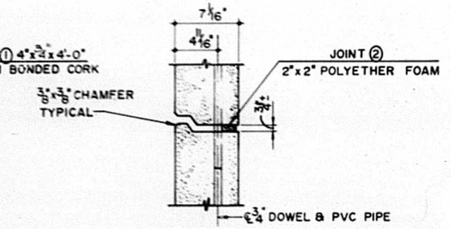
SECTION A-A

SECTION B-B

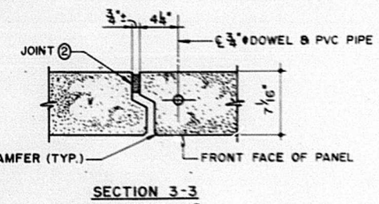
TYPICAL PANEL DETAILS
SCALE: 3/4"=1'-0"



SECTION 1-1

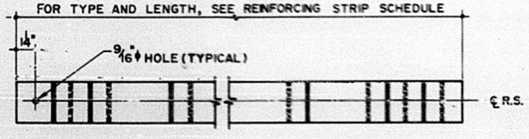


SECTION 2-2

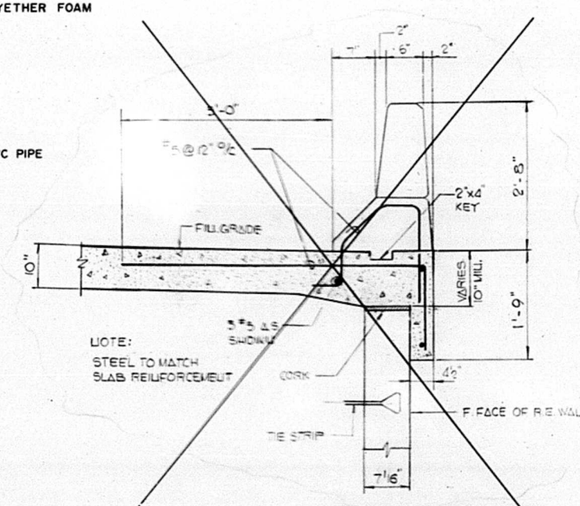


SECTION 3-3
JOINT DETAILS
SCALE: 12"=1'-0"

FOR TYPE AND LENGTH, SEE REINFORCING STRIP SCHEDULE

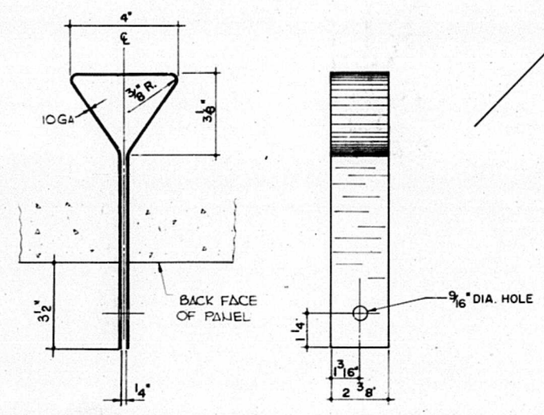


DETAIL OF REINFORCING STRIP
NOT TO SCALE



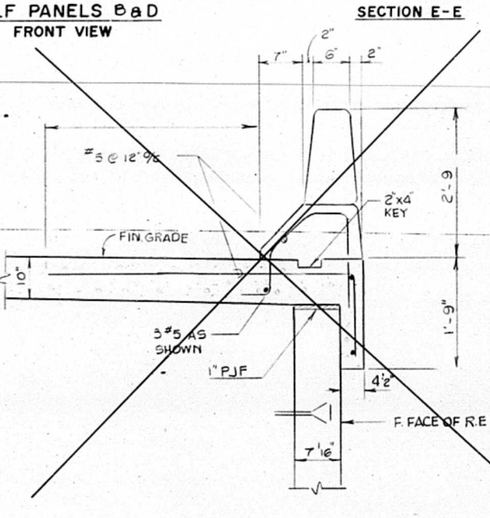
SECTION THRU CONC. BARRIER
SCALE: 1"=1'-0"

SEE SEPARATE DETAIL



TIE STRIP DETAIL "S"
NOT TO SCALE

Coal Tar Epoxy Coating. See Special Provisions



SECTION THRU CONC. BARRIER
SCALE: 1"=10'-0"

NOTE "A"

ONE TON SWIFT LIFT INSERTS 3/8" x 3 3/8" LONG AS MANUFACTURED BY SUPERIOR CONC. ACCESSORIES.

NOTES:

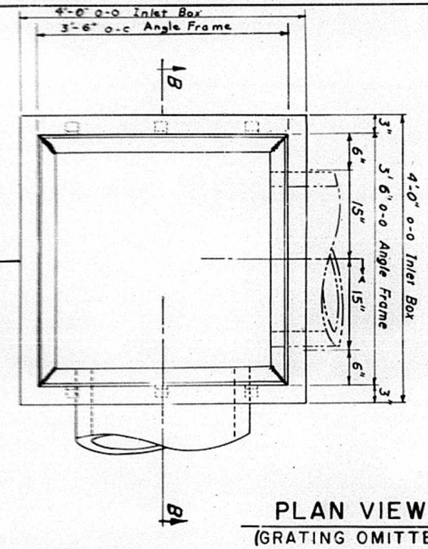
1. REINFORCING BARS SHALL BE STEEL A615 GRADE 40
2. 3/8"x3/8" CHAMFER SHALL BE PROVIDED ON ALL EXPOSED EDGES (FRONT FACE ONLY)
3. ALL PANELS AND OTHER RELATED ELEMENTS WILL BE DETAILED ON SHOP DRAWINGS

The Reinforced Earth Company
1414 22nd St. N.W. Washington, D.C. 20037
Telephone (202) 232-2424 Telex 89400 Re Earth Wsh

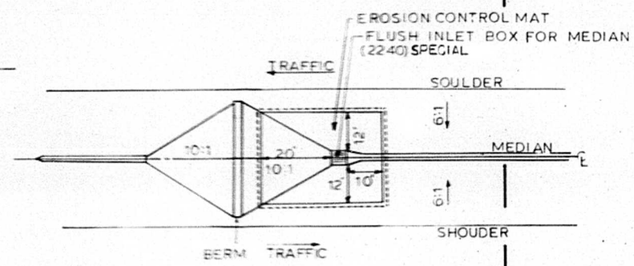
REV. NO.	DATE	DESCRIPTION

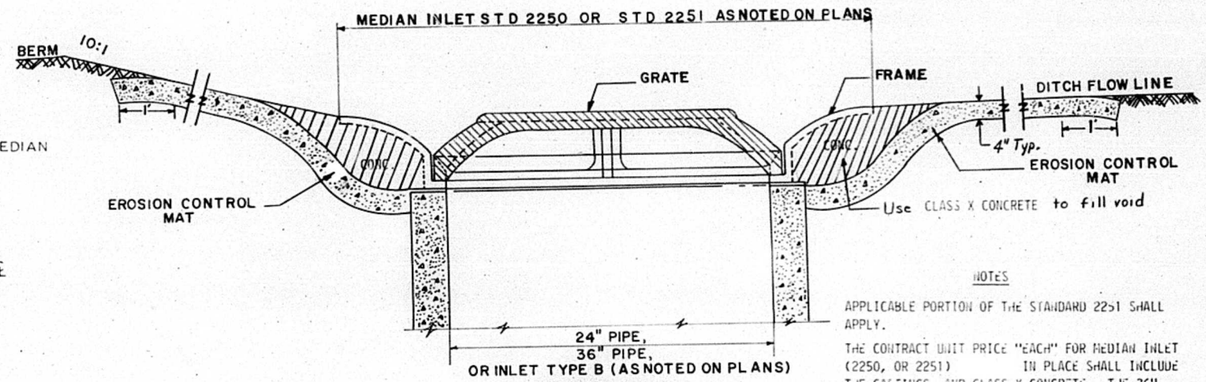
Structure	REINFORCED EARTH WALL
Location	PEORIA COUNTY, ILLINOIS
	RAMP "F" APPROACH
	ILLINOIS DEPT OF TRANS
Drawn by R.D.A. Date 1-7-81	CONTRACT NO. 837
DRAWING TITLE: TYPICAL PANEL DETAILS	DRAWING NO. 2 OF 2
	SCALE AS SHOWN

ROUTE	SECTION	COUNTY	SHEET TOTAL	SHEET NO.
FA 49	(14,16)I&HL	PEORIA TAZEWELL	29	15
MKD.				
PROJ.	STA.	TO STA.		



PLAN VIEW
(GRATING OMITTED)





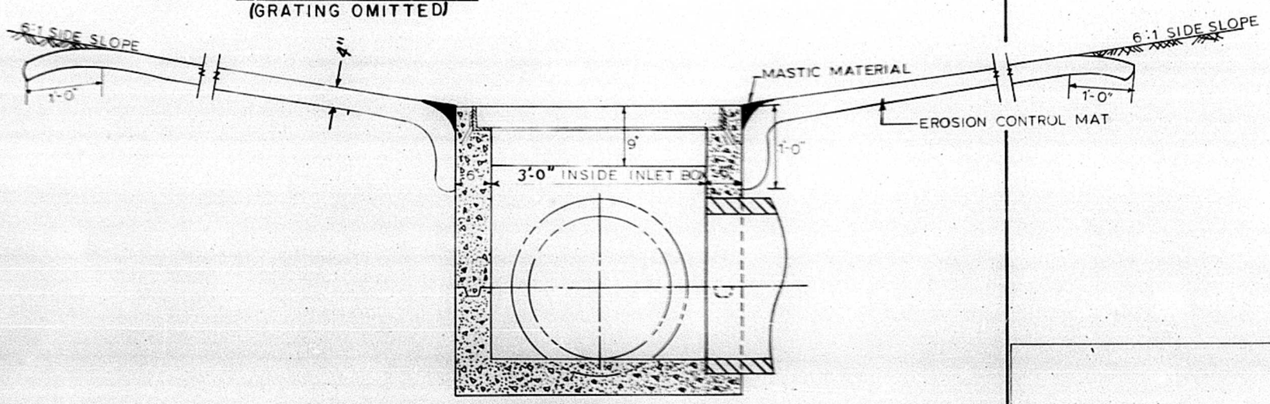
SECTION A-A
SEE LOCATION SKETCH BELOW

NOTES

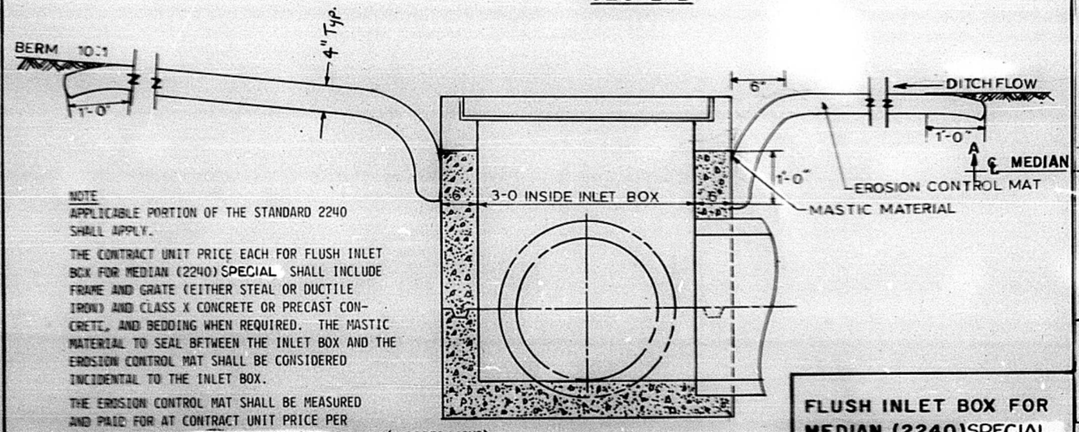
APPLICABLE PORTION OF THE STANDARD 2251 SHALL APPLY.

THE CONTRACT UNIT PRICE "EACH" FOR MEDIAN INLET (2250, OR 2251) IN PLACE SHALL INCLUDE THE CASTINGS, AND CLASS X CONCRETE. THE 36" RCCP, 24" RCCP, OR INLET TYPE B IS NOT INCLUDED IN THE "EACH" PRICE.

THE EROSION CONTROL MAT SHALL BE MEASURED AND PAID FOR AT CONTRACT UNIT PRICE PER SQUARE YARD FOR FABRIC FORMED CONCRETE REVETMENT MATS.(SEE SPECIAL PROVISIONS).
INLET-TYPE B SHALL BE CONSTRUCTED IN ACCORDANCE TO STANDARD 2349, EXCEPT WHEN MEDIAN INLET (STANDARD 2251) IS USED, THE CORBEL FOR 2' OPENING WILL NOT BE REQUIRED.
EXCAVATION & BACKFILL FOR INLET & EROSION CONTROL MAT WILL NOT BE PAID FOR SEPARATELY BUT WILL BE CONSIDERED INCIDENTAL.



SEC B-B



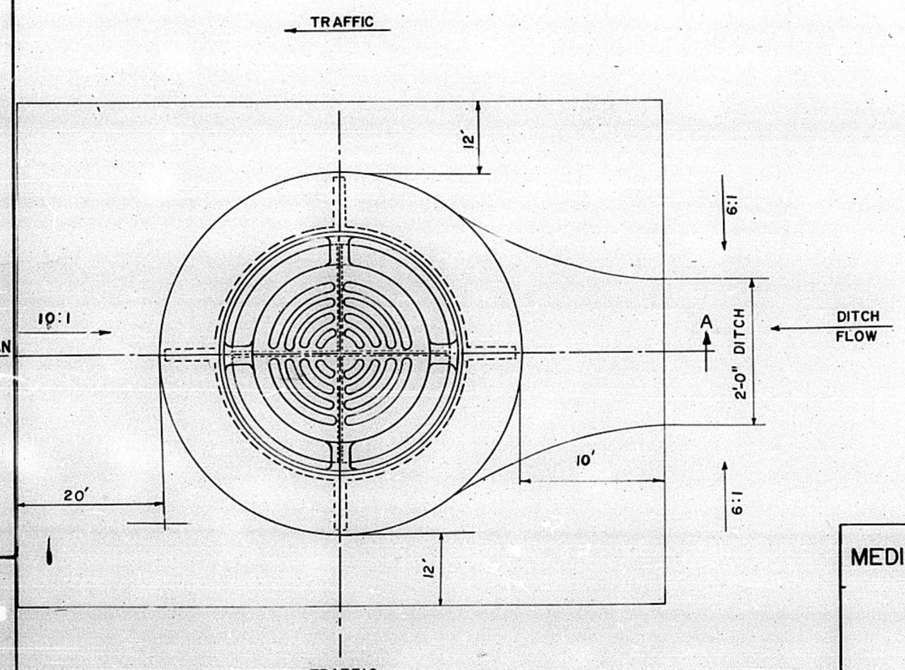
SEC A-A

NOTE
APPLICABLE PORTION OF THE STANDARD 2240 SHALL APPLY.

THE CONTRACT UNIT PRICE EACH FOR FLUSH INLET BOX FOR MEDIAN (2240) SPECIAL SHALL INCLUDE FRAME AND GRATE (EITHER STEAL OR DUCTILE IRON) AND CLASS X CONCRETE OR PRECAST CONCRETE, AND BEDDING WHEN REQUIRED. THE MASTIC MATERIAL TO SEAL BETWEEN THE INLET BOX AND THE EROSION CONTROL MAT SHALL BE CONSIDERED INCIDENTAL TO THE INLET BOX.

THE EROSION CONTROL MAT SHALL BE MEASURED AND PAID FOR AT CONTRACT UNIT PRICE PER SQUARE YARD FOR FABRIC FORMED CONC.REVETM.MATS(SEE SPEC.PROVS.).
EXCAVATION & BACKFILL FOR INLET & EROSION CONTROL MAT WILL NOT BE PAID FOR SEPARATELY BUT WILL BE CONSIDERED AS INCIDENTAL.

FLUSH INLET BOX FOR MEDIAN (2240) SPECIAL

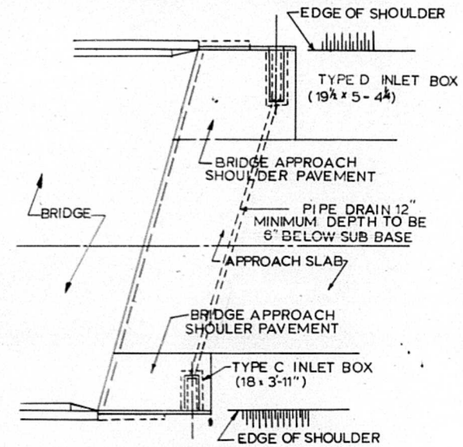


LOCATION SKETCH

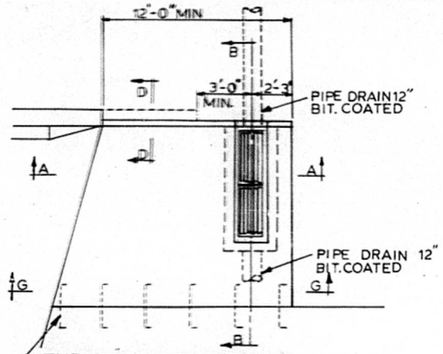
MEDIAN INLET (2250,2251) SPECIAL WITH SLOPE PROTECTION

Revised

ROUTE	SECTION	COUNTY	SHEET TOTAL	SHEET NO.
F.A. 49	(14,16)I&HL	PEORIA TAZEWELL	29	16
MKC:				
PROJ.	STA.	TO STA.		

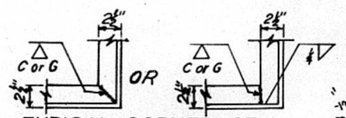


GENERAL PLAN

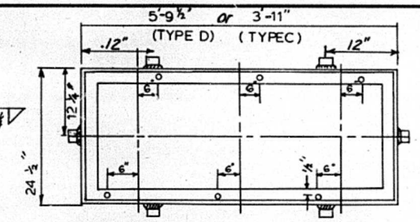


TYPICAL DETAIL PLAN

⅝" ø STEEL TIE BARS 2'6" CTS. SHALL IN ACCORDANCE DETAILS FOR BULKHEADS CONSTRUCTION JOINT SHOWN ON STANDARD 2323

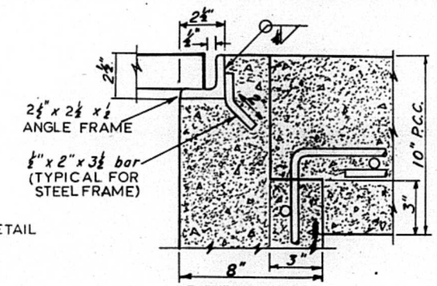


TYPICAL CORNER OF STEEL GRATING FRAME

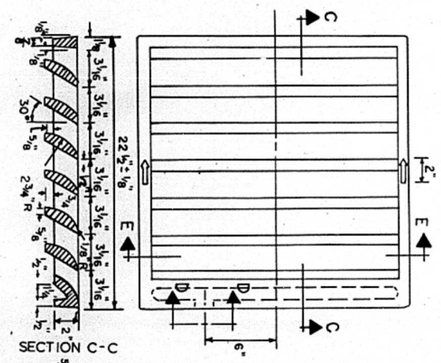


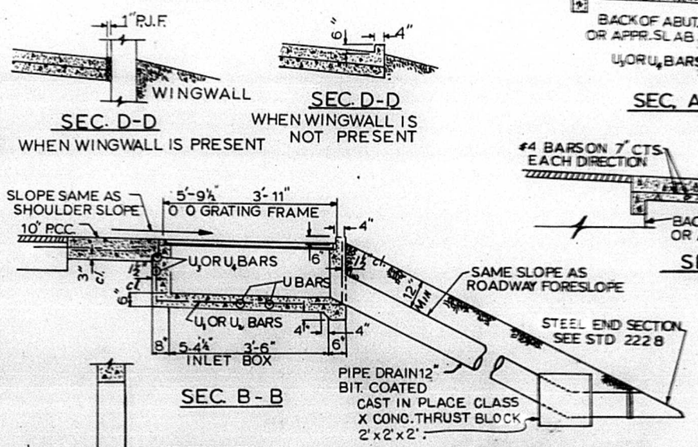
DETAIL OF STEEL FRAME

CAST FRAME TO HAVE SOME BASIC DIMENSIONS



DETAIL A





Material Required for One Type D Inlet Box

Bar	No.	Size
u	8	#4
u_4	3	#4
u_5	4	#4

Material Required for One Type C Inlet Box

Bar	No.	Size
u	6	#4
u_2	3	#4
u_4	4	#4

DETAIL OF GRATING (SEC STD 2385)

TYPE C REQUIRE 2 GRATES
TYPE D REQUIRE 3 GRATES

WT. APPROXIMATELY 160 LBS EACH.

GENERAL NOTES

WHEN INLET BOX OR BOXES ARE NOT REQUIRED, SURFACE OF THE SHOULDER PAVEMENT SHALL BE FINISHED TO PROVIDE A SMOOTH TRANSITION FROM BACK OF THE ABUTMENT TO NORMAL APPROACH ROADWAY SHOULDER.

USE TYPE C INLET BOX FOR 4' AND 6' SHOULDER WIDTHS; USE TYPE D INLET BOX FOR 8' AND WIDER SHOULDER WIDTHS.

FOR PLACEMENT OF DRAINAGE ELEMENTS ON EXISTING CONSTRUCTION WITH EXISTING RIGID APPROACH PAVEMENT, SUBSTITUTE EXPANSION ANCHOR BOLTS FOR TIE BARS. FOR NON-RIGID APPROACHES, SHOULDER PAVEMENT WILL BE AS SHOWN EXCEPT OMIT TIE BARS.

IF A WINGWALL IS PRESENT, MAKE THE LENGTH DIMENSION OF THE SHOULDER PAVEMENT SUCH THAT THE CENTER LINE OF THE 12" DRAIN PIPE WILL BE LOCATED AT LEAST 3 FEET PAST THE END OF THE WINGWALL.

THE MATERIAL FOR PIPE DRAIN 12" SHALL BE ~~EITHER~~ BITUMINOUS COATED CORRUGATED STEEL ~~OR ALUMINUM ALLOY~~ PIPE. COST OF ~~CONCRETE THRUST BLOCKS AND~~ TRENCH BACKFILL TO BE INCIDENTAL TO PIPE DRAIN. BACKFILL UNDER PAVEMENT WITH TRENCH BACKFILL.

THE P.C. CONCRETE USED IN THE SHOULDER SLAB SHALL MEET THE REQUIREMENTS OF SECTION 408 OF THE STANDARD SPECIFICATIONS.

THE LENGTHS OF #4 BARS USED IN THE APPROACH SHOULDER PAVEMENT SHALL BE AS REQUIRED TO ACCOMMODATE THE LENGTH, WIDTH, AND SKEW OF THE SLAB.

CLASS X CONCRETE OR PRECAST CONCRETE SHALL BE USED THROUGHOUT.

PRECAST CONCRETE SHALL BE IN ACCORDANCE WITH SECTIONS 505.01 THRU 505.05 OF THE STANDARD SPECIFICATIONS EXCEPT THAT THE CONCRETE STRENGTH SHALL BE 4000 P.S.I. AFTER 28 DAYS.

EXPOSED EDGES SHALL BE BEVELED 3/4".

SHOP DRAWINGS SHALL NOT BE REQUIRED FOR THESE INLET BOXES.

A 3" DEEP SAND BEDDING CONFORMING TO ARTICLE 703.01 (FA 1 OR FA 2) SHALL BE PROVIDED UNDER FULL LENGTH AND WIDTH OF PRECAST UNITS, AND ALL VOIDS AROUND THE PIPE DRAIN ~~ENTRANCE~~, BOTH INSIDE AND OUTSIDE, SHALL BE SEALED WITH MORTAR.

THE GRATE WILL BE MADE OF DUCTILE IRON CONFORMING TO THE STANDARD SPECIFICATIONS. DUCTILE IRON CASTING SHALL BE GRADE 60-40-18 AND SHALL BE PROOF LOADED IN ACCORDANCE WITH FEDERAL SPECIFICATION RR-F-621B, SECTION 3.8. THE PROOF LOAD SHALL BE 25,000 LBS. ON A 9" X 9" CAST BLOCK.

THE NOTCH IN THE GRATE AND THE 9/16" ø HOLES IN THE FRAME ARE FOR THE FIELD INSERTION OF ONE GALVANIZED 1/2" ø BOLT AND NUT. THE BOLT AND NUT SHALL BE PLACED, AS DIRECTED BY THE ENGINEER, TO PROVIDE FOR CORRECT REPLACEMENT OF THE GRATE DURING MAINTENANCE OPERATIONS.

THE GRATING SHALL SEAT FIRMLY IN THE FRAME BUT SHALL NOT BE SECURED TO THE FRAME.

STEEL FRAMES SHALL CONFORM TO ARTICLE 710.04 OF THE STANDARD SPECIFICATIONS AND SHALL BE GALVANIZED TO AASHTO SPECIFICATION M 111 AFTER FABRICATION.

PIPE DRAINS SHALL BE INSTALLED, MEASURED, AND PAID FOR IN ACCORDANCE WITH SECTION 607 OF THE STANDARD SPECIFICATIONS.

ALL CONNECTING BANDS SHALL HAVE A MINIMUM WIDTH OF 24 INCHES.

STEEL END SECTIONS SHALL BE INSTALLED, MEASURED, AND PAID FOR IN ACCORDANCE WITH SECTION 511 OF THE STANDARD SPECIFICATIONS.

BRIDGE APPROACH SHOULDER PAVEMENT WILL BE MEASURED IN PLACE AND PAID FOR IN SQUARE YARDS AS P.C. CONCRETE BRIDGE APPROACH SHOULDER PAVEMENT WHICH SHALL INCLUDE THE COST OF SUBGRADE PREPARATION, TIE BARS, REINFORCEMENT AND JOINT FILLERS. IN COMPUTING THE AREA FOR PAYMENT, A DEDUCTION WILL BE MADE FOR THE AREA DISPLACED BY THE INLET.

THE CONTRACT UNIT PRICE "EACH" FOR TYPE D INLET BOX, STD. 2324 (SPECIAL) OR TYPE C INLET BOX, STD. 2324 (SPECIAL), IN PLACE, SHALL INCLUDE THE FRAMES AND GRATING, CLASS X OR PRECAST CONCRETE, REINFORCEMENT BARS, EXCAVATION, BEDDING WHEN REQUIRED, AND COMPACTED BACKFILLING.

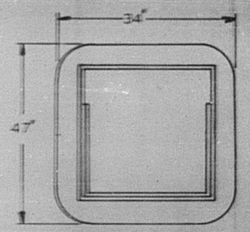
THRUST BLOCKS WILL BE PAID FOR SEPARATELY.

PORTLAND CEMENT CONCRETE BRIDGE APPROACH SHOULDER PAVEMENT

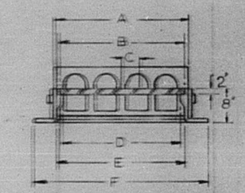
TYPE C & TYPE D (SPECIAL) INLET BOX

FEDERAL AID ROUTE NO.	SEC.	COUNTY	
F.A.4?	(14,16) I & HL	PEORIA TAZEWELL	29
FED. ROAD DIST. NO.	ILLINOIS	PROJECT	

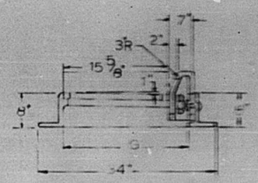
CURB INLET FRAME GRATE AND CURB BOX



PLANS OF FRAME

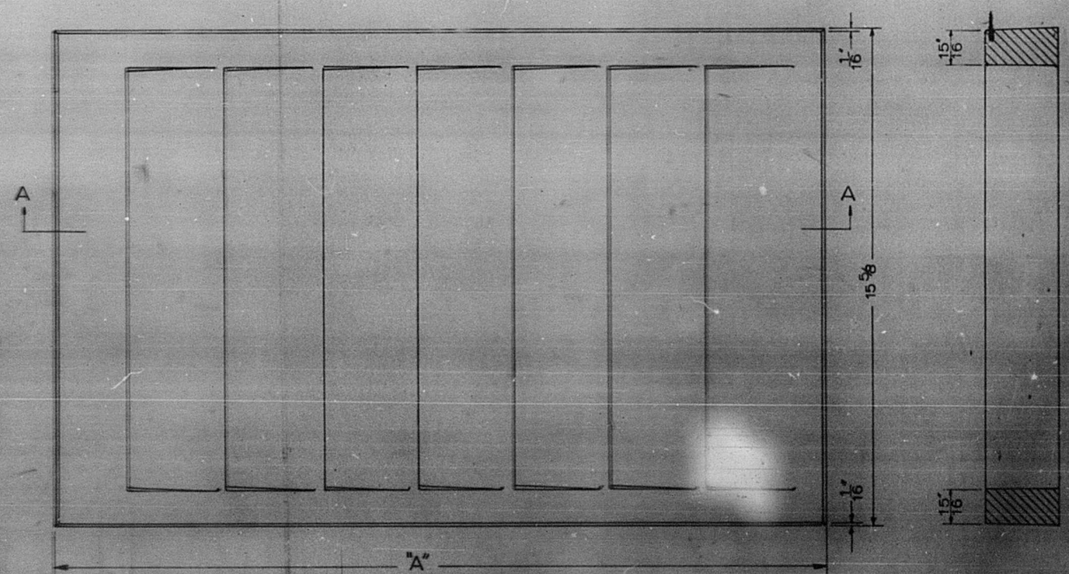


LONGITUDINAL SECTION



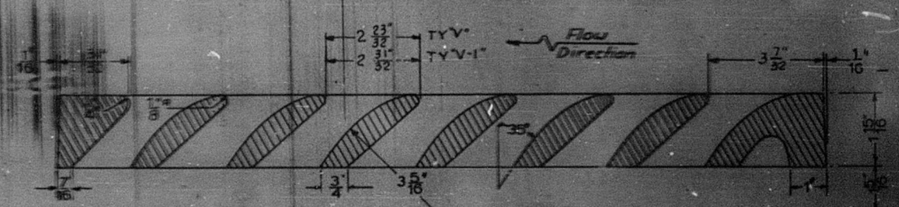
TRANSVERSE SECTION

TYPE "V"	DIMENSION	TYPE "V 1"
23 3/4"	A	36 3/4"
21 5/8"	B	34 5/8"
2 3/4"	C	3 1/4"
20"	D	2 31/32"
22"	E	32 7/8"
34"	F	35 1/4"
22 7/8"	G	47"
540#	WT.	22 1/8"
		765#



PLAN OF GRATE

TYP. SECT.



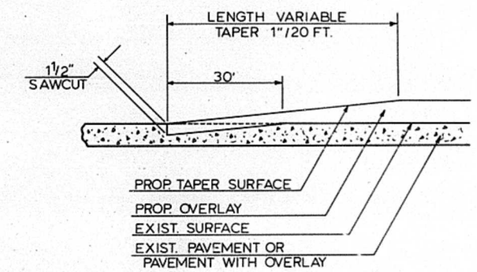
SECTION A-A

GRATE - TYPE "V" AND V-1"

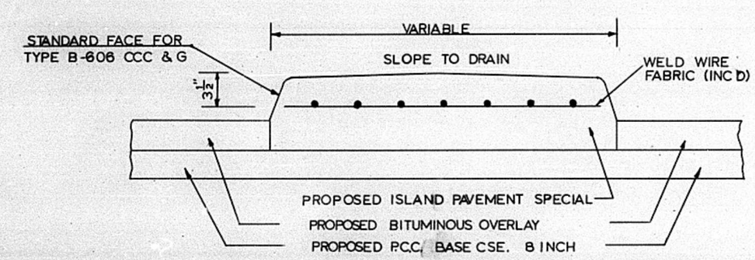
DISTRICT NO. 4 - PEORIA

BUTT JOINT DETAIL

NOT TO SCALE



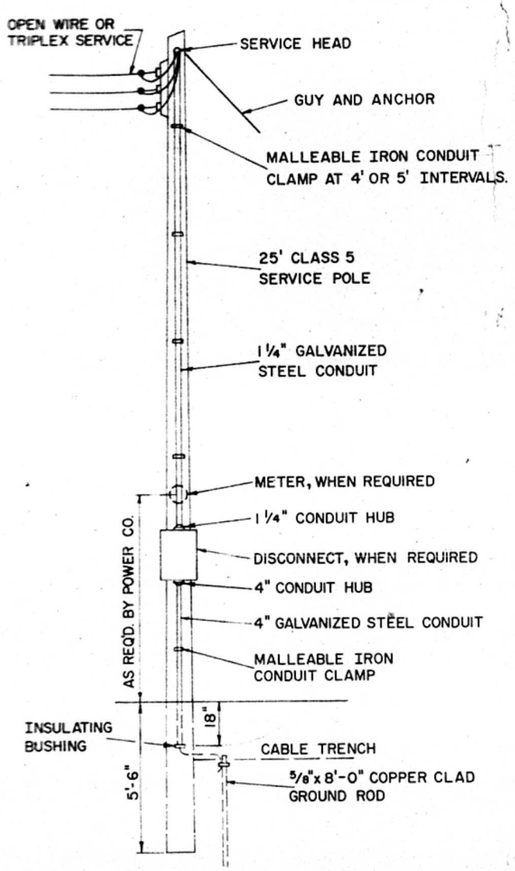
ISLAND PAVEMENT SPECIAL



SPECIAL DETAILS

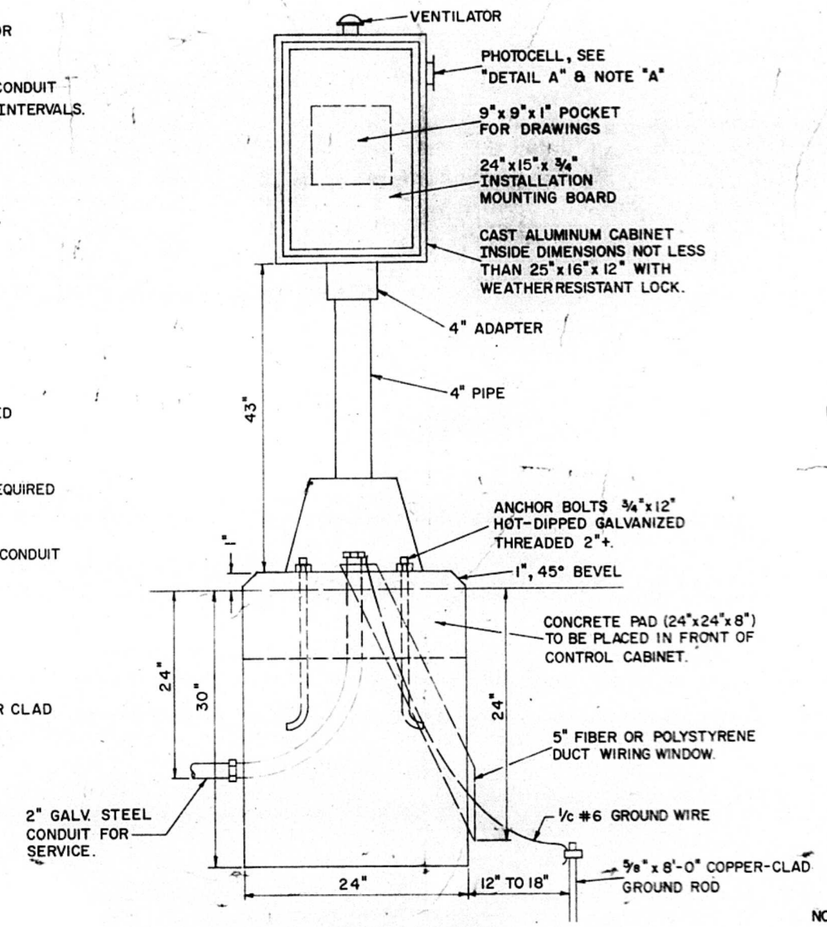
ROUTE	SECTION	COUNTY	TOT. SHTS.	SHEET #
FA 49	(14,16)I & HL	PEORIA-TAZEWELL	29	18

SHEET #
SHEETS

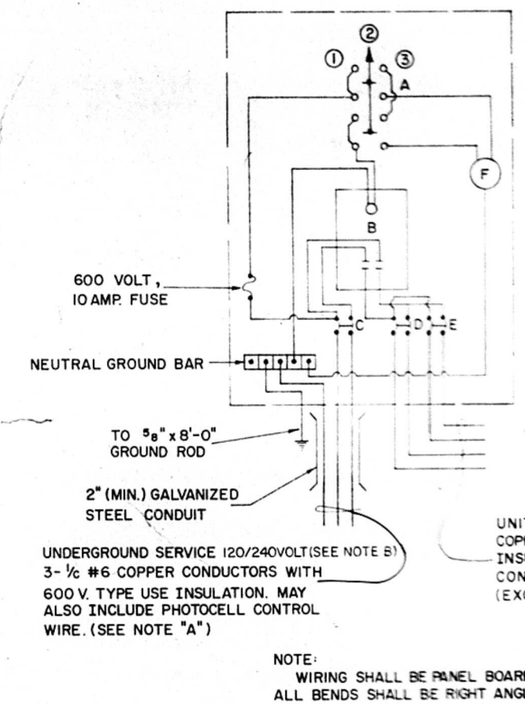


SERVICE POLE (WHEN REQ'D.)

LOCATE ADJACENT TO R.O.W. LINE



CONTROL INSTALLATION

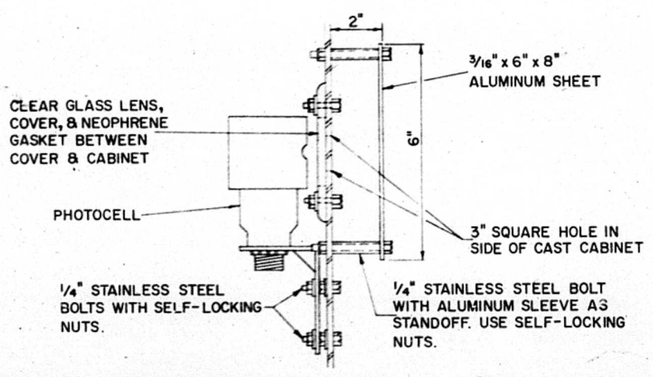


NOTE:
WIRING SHALL BE PANEL BOARD FASHION. ALL BENDS SHALL BE RIGHT ANGLES. ALL RUNS SHALL BE VERTICAL OR PARALLEL TO PANEL BOARD. WIRES SHALL BE GROUPED OR LACED.

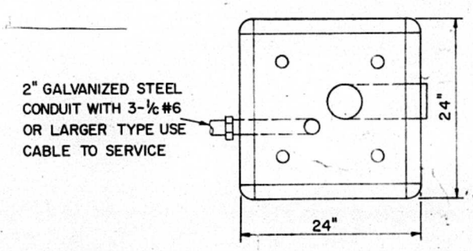
WIRING DIAGRAM

NOTE "A"
WHERE UNMETERED SERVICE IS PROVIDED BY THE POWER COMPANY, THE PHOTOCELL, RECEPT., & WINDOW COVER MAY BE OMITTED. THE CONTRACTOR SHALL FURNISH AND INSTALL 2-1/c #12 AND AERIAL WIRE IF REQUIRED FROM THE CONTROL INSTALLATION TO THE POWER COMPANY'S PHOTOCELL CONTROL AND CONNECT PER WIRING DIAGRAM.

NOTE "B"
THE UNDERGROUND SERVICE SHALL BE 30 FT. MINIMUM AND 150 FT. MAXIMUM. TOTAL AERIAL & UNDERGROUND SERVICE BETWEEN THE CONTROL INSTALLATION AND PRIMARY TRANSFORMER SHALL BE 250 FT.



DETAIL "A"



TOP OF FOUNDATION

DRAWN BY J.L.P. FEBRUARY 16, 1979	
3-28-80	J.L.P.

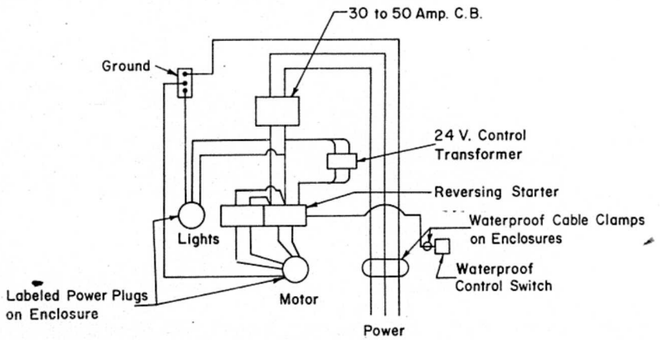
CONTROL INSTALLATION

TYPE CB-RCS-60-240
F.A. ROUTE 49
SECTION (14,16)-I & HL
PEORIA-TAZEWELL COUNTIES

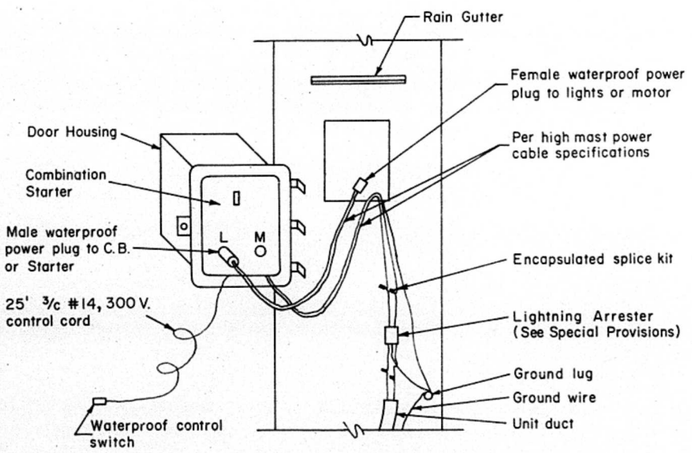
ROUTE	SECTION	COUNTY	Total Shts.	SHEET #
FA 49	(14.16)I & HL	PEORIA-TAZEWELL	29	19
Fed. Rd. Dist. #7	ILLINOIS	Fed. Aid Proj.		

SHEET #

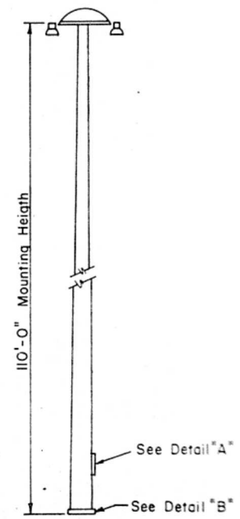
SHEETS



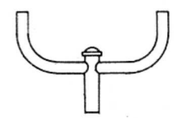
NOTE:
Manufacturer of lowering device shall factory wire the winch drive electrical control system. Cable attachment to plugs and polarity must be observed to prevent faults to ground when plugs are changed between lights and motor circuits. Alternate control schemes shall be approved by the Engineer.



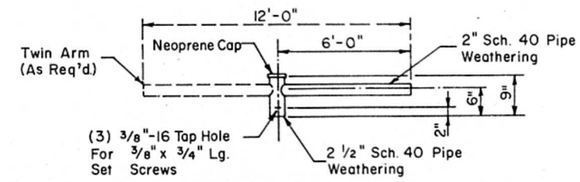
HIGH MAST POLE WIRING DETAILS



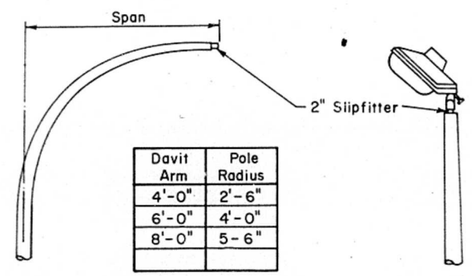
☐ HIGH MAST POLE



☐ TWIN TENON

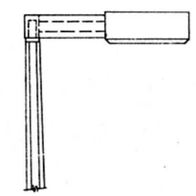


☐ TENON MOUNTED BRACKET ARM

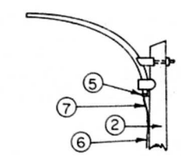


Davit Arm	Pole Radius
4'-0"	2'-6"
6'-0"	4'-0"
8'-0"	5-6"

☒ DAVIT ARM

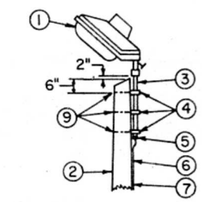


☐ TENON



Tie rod or truss type arm optional

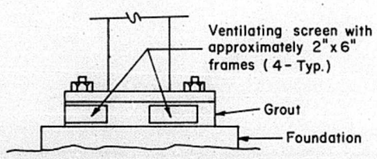
☐ SHORT BRACKET



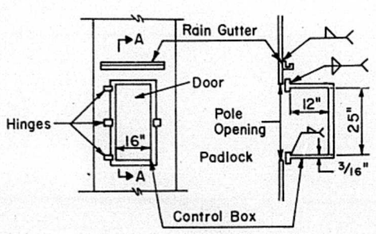
☐ MAST ARM

☐ TENON

1. Luminaire
2. Wood pole, class 3 or better
3. 2 1/2" Galv. steel conduit
4. Single offset pole band
5. Conduit bushing
6. Cable clamps on 2'-0" centers
7. 2/c #12 type USE cable
8. 1" Galv. steel conduit 10'-0" in length
9. 5/8" ϕ hot dipped galvanized bolt with flat washer and locknut (3 Req'd.)
10. Conduit clamps on 3'-0" centers
11. Unit duct
12. Threaded reducer
13. "C" Condulet, threaded
14. 1 1/2" Galv. steel conduit for 1 unit duct or 3" Galv. steel conduit for 2 or 3 unit ducts



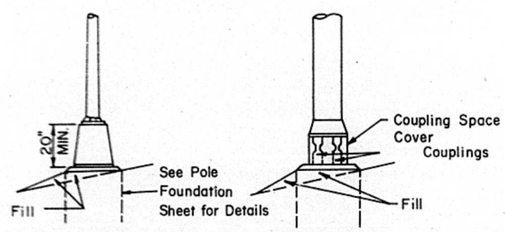
DETAIL "B"



Dimensions are approximate - (See Special Provisions)

DETAIL "A"

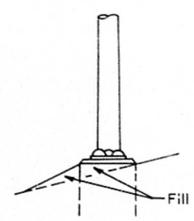
SECTION A-A



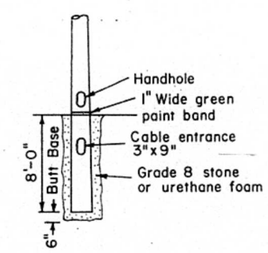
☐ TRANSFORMER BASE

☒ BREAKAWAY COUPLING

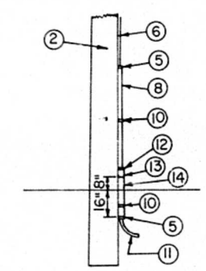
☐ FRANGIBLE



☒ ANCHOR



☐ BUTT BASE



POLE LENGTH	DEPTH IN GROUND
65'	12'
60'	10'
55'	9'
50'	8'
45'	7'
40'	6.5'
35'	6'
30'	5.5'

☐ POLE, WOOD

☒ METAL OR ☐ CONCRETE

Drn. By: J.L.P.
March 20, 1980

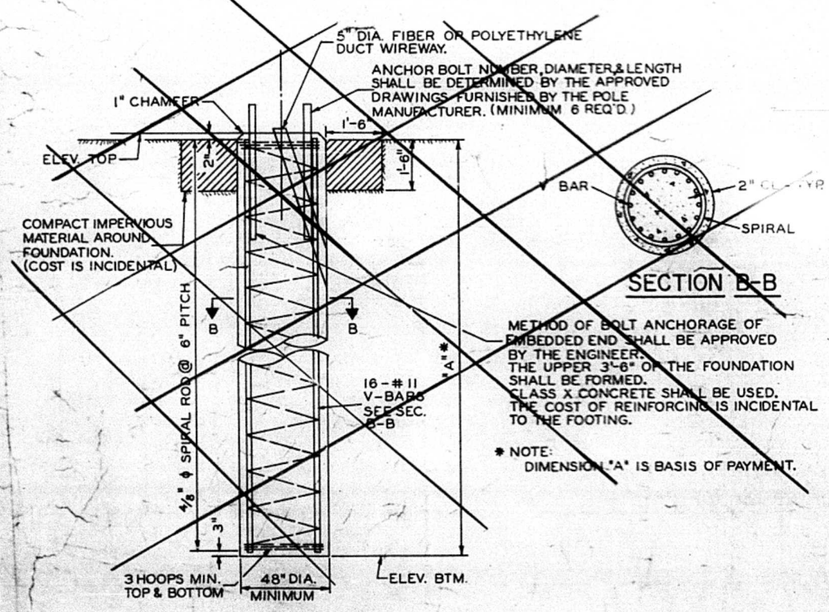
POLE STANDARDS

ROUTE	SECTION	COUNTY	TOT. SHTS	SHEET #
FAI 74	(VA,VG) I & HL	PEORIA-TAZEWELL	29	20
FED. ROD. DIST. #7	ILLINOIS	FED AID PROJ.		

SHEET #
SHEETS

HIGH MAST DESIGN TABLE

TOWER #	STATION #	DIM "A"		ELEV. TOP	ELEV. BTM.

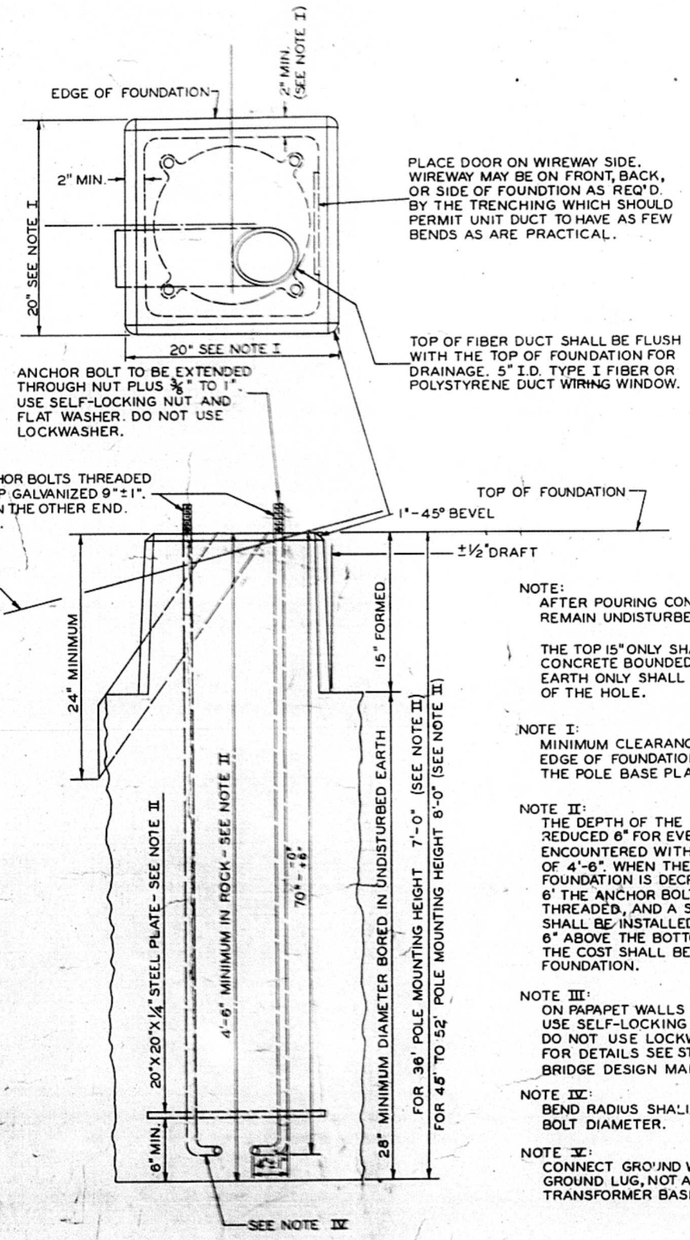


HIGH MAST
POLE FOUNDATION

SECTION B-B

METHOD OF BOLT ANCHORAGE OF EMBEDDED END SHALL BE APPROVED BY THE ENGINEER. THE UPPER 3'-6" OF THE FOUNDATION SHALL BE FORMED. CLASS X CONCRETE SHALL BE USED. THE COST OF REINFORCING IS INCIDENTAL TO THE FOOTING.

* NOTE:
DIMENSION "A" IS BASIS OF PAYMENT.



NOTE:
AFTER POURING CONCRETE, THE FORM SHALL REMAIN UNDISTURBED OVERNIGHT.

THE TOP 15" ONLY SHALL BE FORMED. CONCRETE BOUNDED BY UNDISTURBED EARTH ONLY SHALL FILL THE REMAINDER OF THE HOLE.

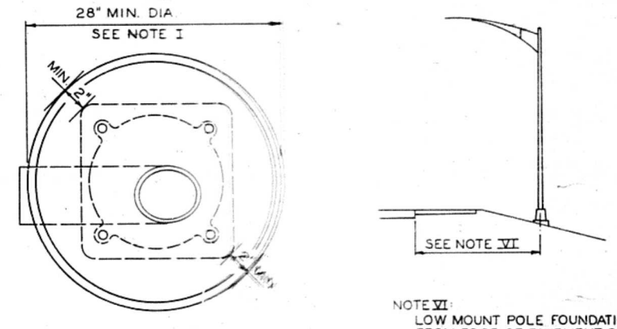
NOTE I:
MINIMUM CLEARANCE FROM THE OUTSIDE EDGE OF FOUNDATION TO ANY PART OF THE POLE BASE PLATE SHALL BE 2".

NOTE II:
THE DEPTH OF THE FOUNDATION MAY BE REDUCED 6" FOR EVERY FOOT OF ROCK ENCOUNTERED WITH A MINIMUM DEPTH OF 4'-6". WHEN THE DEPTH OF THE FOUNDATION IS DECREASED TO LESS THAN 6' THE ANCHOR BOLTS SHALL BE CUT, THREADED, AND A STEEL PLATE 20"X20"X 1/4" SHALL BE INSTALLED ON THE ANCHOR BOLTS 6" ABOVE THE BOTTOM OF THE EXCAVATION. THE COST SHALL BE INCIDENTAL TO THE FOUNDATION.

NOTE III:
ON PAPAPET WALLS USE 1 1/4" ϕ ANCHOR BOLTS. USE SELF-LOCKING NUT AND FLAT WASHER. DO NOT USE LOCKWASHER FOR DETAILS SEE STANDARD III/2.35 OF THE BRIDGE DESIGN MANUAL.

NOTE IV:
BEND RADIUS SHALL BE FOUR TIMES THE BOLT DIAMETER.

NOTE V:
CONNECT GROUND WIRES TO POLE BASE GROUND LUG, NOT ANCHOR BOLTS OR TRANSFORMER BASE.

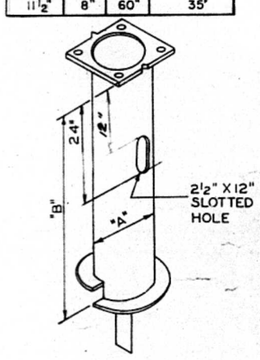


ALTERNATE FOUNDATION

NOTE VI:
LOW MOUNT POLE FOUNDATION SETBACK FROM EDGE OF PAVEMENT SHALL BE 20' MINIMUM FOR BREAKAWAY BASE POLES; 5' BEHIND GUARDRAIL OR OTHER PROTECTIVE BARRIERS UNLESS OTHERWISE SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

DESIGN DATA

BOLT CIRCLE	"A"	"B"	MOUNTING HEIGHT
15"	10"	72"	55'
15"	10"	60"	50'
15"	8"	60"	45'
11 1/2"	8"	60"	35'



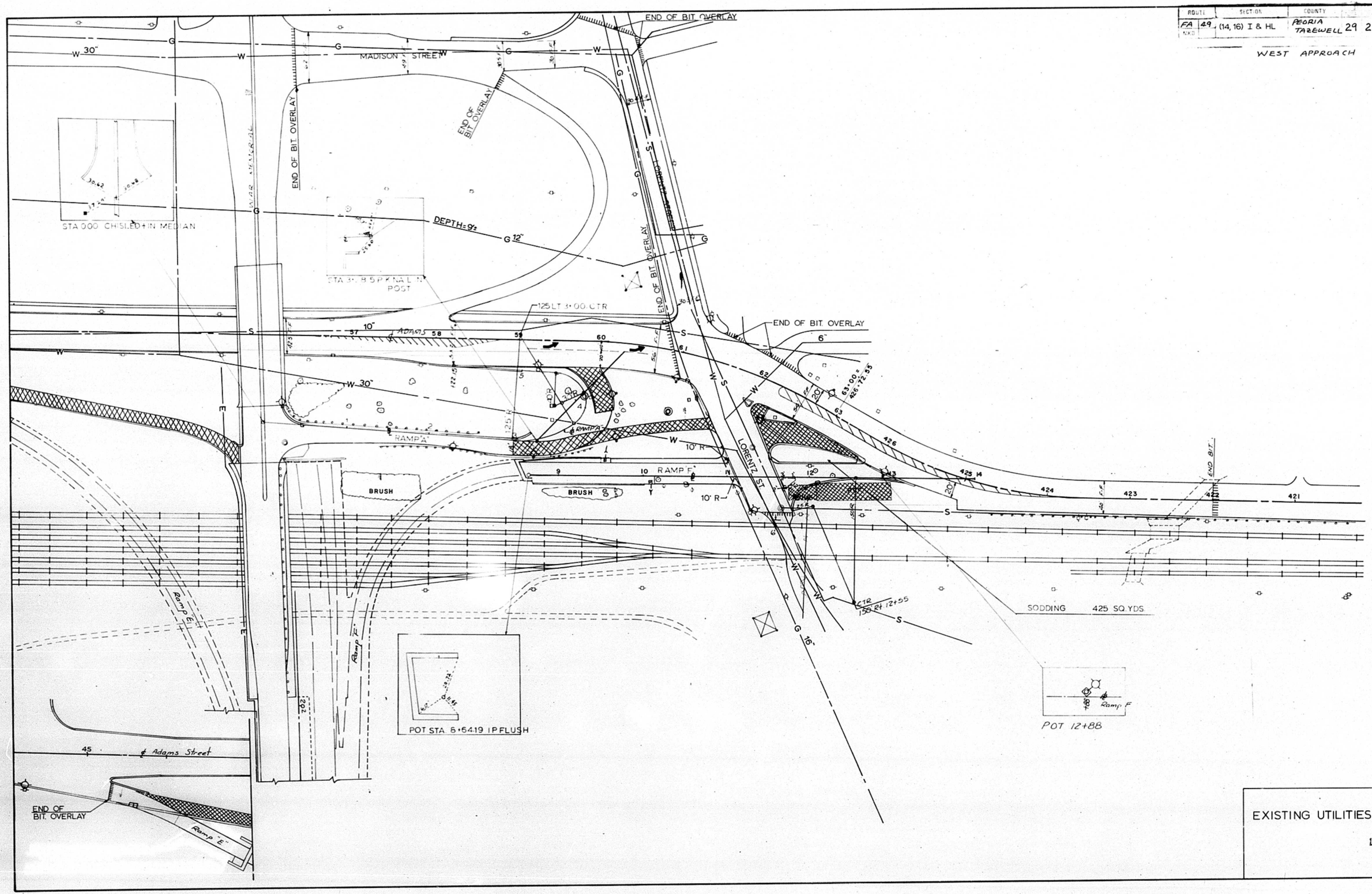
POLE FOUNDATION
STEEL

POLE FOUNDATIONS

DRAWN BY JLP JANUARY 1, 1976	
JLP	10-15-76
JLP	1-1-77
JLP	4-4-77
JLP	3-9-78
JLP	6-6-78
JLP	11-10-79

ROUTE	SECTION	COUNTY
FA 49	(14, 16) I & HL	PEORIA TAZEWELL 29 21

WEST APPROACH

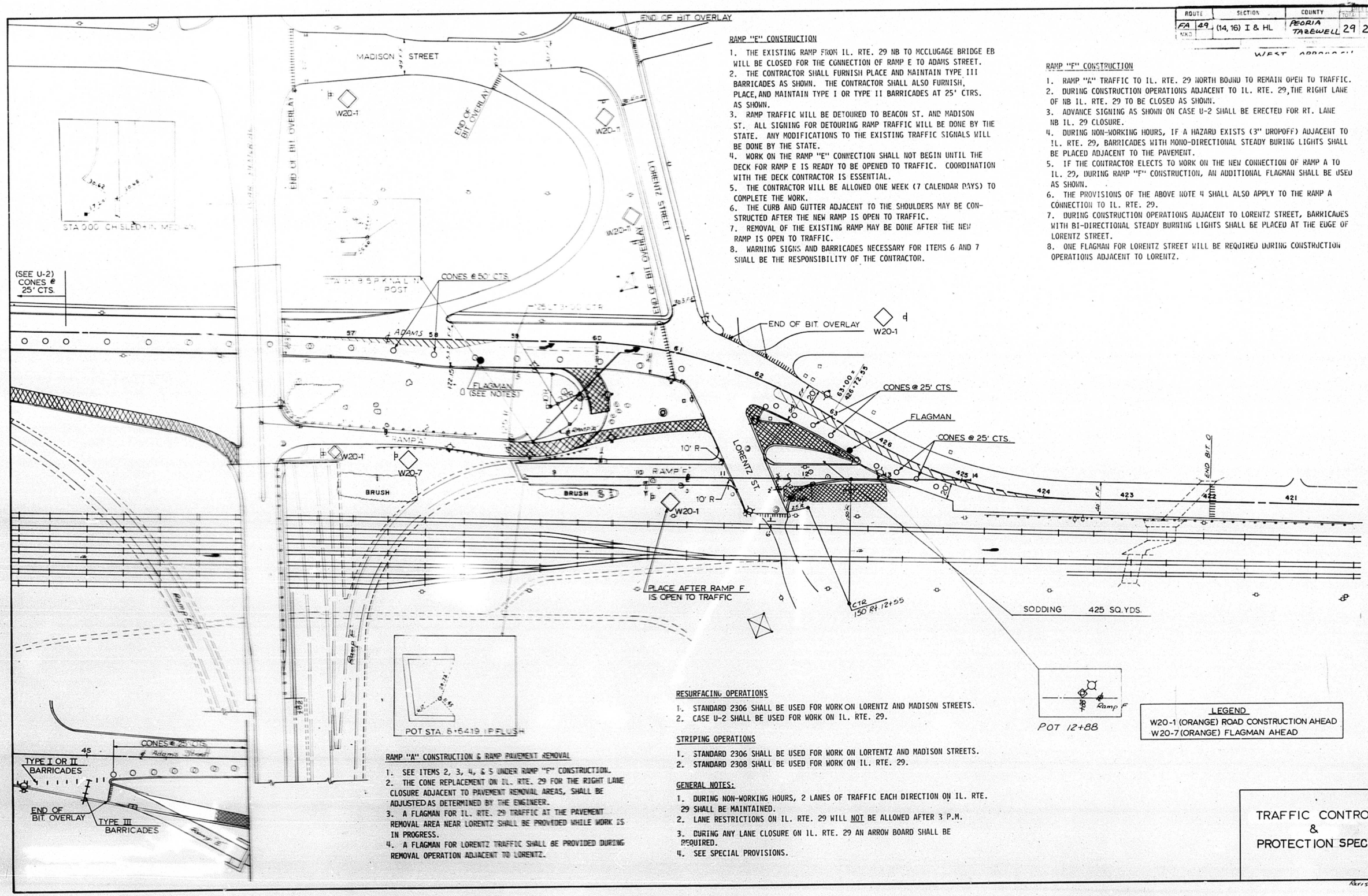


EXISTING UTILITIES

1

ROUTE	SECTION	COUNTY	TOTAL SHEETS
FA 49	(14, 16) I & HL	PEORIA TAZEWELL	29 22

WEST APPROACH



RAMP "E" CONSTRUCTION

1. THE EXISTING RAMP FROM IL. RTE. 29 NB TO MCCLUGAGE BRIDGE EB WILL BE CLOSED FOR THE CONNECTION OF RAMP E TO ADAMS STREET.
2. THE CONTRACTOR SHALL FURNISH PLACE AND MAINTAIN TYPE III BARRICADES AS SHOWN. THE CONTRACTOR SHALL ALSO FURNISH, PLACE, AND MAINTAIN TYPE I OR TYPE II BARRICADES AT 25' CTRS. AS SHOWN.
3. RAMP TRAFFIC WILL BE DETOURED TO BEACON ST. AND MADISON ST. ALL SIGNING FOR DETOURING RAMP TRAFFIC WILL BE DONE BY THE STATE. ANY MODIFICATIONS TO THE EXISTING TRAFFIC SIGNALS WILL BE DONE BY THE STATE.
4. WORK ON THE RAMP "E" CONNECTION SHALL NOT BEGIN UNTIL THE DECK FOR RAMP E IS READY TO BE OPENED TO TRAFFIC. COORDINATION WITH THE DECK CONTRACTOR IS ESSENTIAL.
5. THE CONTRACTOR WILL BE ALLOWED ONE WEEK (7 CALENDAR DAYS) TO COMPLETE THE WORK.
6. THE CURB AND GUTTER ADJACENT TO THE SHOULDERS MAY BE CONSTRUCTED AFTER THE NEW RAMP IS OPEN TO TRAFFIC.
7. REMOVAL OF THE EXISTING RAMP MAY BE DONE AFTER THE NEW RAMP IS OPEN TO TRAFFIC.
8. WARNING SIGNS AND BARRICADES NECESSARY FOR ITEMS 6 AND 7 SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

RAMP "F" CONSTRUCTION

1. RAMP "A" TRAFFIC TO IL. RTE. 29 NORTH BOUND TO REMAIN OPEN TO TRAFFIC.
2. DURING CONSTRUCTION OPERATIONS ADJACENT TO IL. RTE. 29, THE RIGHT LANE OF NB IL. RTE. 29 TO BE CLOSED AS SHOWN.
3. ADVANCE SIGNING AS SHOWN ON CASE U-2 SHALL BE ERECTED FOR RT. LANE NB IL. 29 CLOSURE.
4. DURING NON-WORKING HOURS, IF A HAZARD EXISTS (3" DROPOFF) ADJACENT TO IL. RTE. 29, BARRICADES WITH MONO-DIRECTIONAL STEADY BURING LIGHTS SHALL BE PLACED ADJACENT TO THE PAVEMENT.
5. IF THE CONTRACTOR ELECTS TO WORK ON THE NEW CONNECTION OF RAMP A TO IL. 29, DURING RAMP "F" CONSTRUCTION, AN ADDITIONAL FLAGMAN SHALL BE USED AS SHOWN.
6. THE PROVISIONS OF THE ABOVE NOTE 4 SHALL ALSO APPLY TO THE RAMP A CONNECTION TO IL. RTE. 29.
7. DURING CONSTRUCTION OPERATIONS ADJACENT TO LORENTZ STREET, BARRICADES WITH BI-DIRECTIONAL STEADY BURNING LIGHTS SHALL BE PLACED AT THE EDGE OF LORENTZ STREET.
8. ONE FLAGMAN FOR LORENTZ STREET WILL BE REQUIRED DURING CONSTRUCTION OPERATIONS ADJACENT TO LORENTZ.

RAMP "A" CONSTRUCTION & RAMP PAVEMENT REMOVAL

1. SEE ITEMS 2, 3, 4, & 5 UNDER RAMP "F" CONSTRUCTION.
2. THE CONE REPLACEMENT ON IL. RTE. 29 FOR THE RIGHT LANE CLOSURE ADJACENT TO PAVEMENT REMOVAL AREAS, SHALL BE ADJUSTED AS DETERMINED BY THE ENGINEER.
3. A FLAGMAN FOR IL. RTE. 29 TRAFFIC AT THE PAVEMENT REMOVAL AREA NEAR LORENTZ SHALL BE PROVIDED WHILE WORK IS IN PROGRESS.
4. A FLAGMAN FOR LORENTZ TRAFFIC SHALL BE PROVIDED DURING REMOVAL OPERATION ADJACENT TO LORENTZ.

RESURFACING OPERATIONS

1. STANDARD 2306 SHALL BE USED FOR WORK ON LORENTZ AND MADISON STREETS.
2. CASE U-2 SHALL BE USED FOR WORK ON IL. RTE. 29.

STRIPING OPERATIONS

1. STANDARD 2306 SHALL BE USED FOR WORK ON LORTENTZ AND MADISON STREETS.
2. STANDARD 2308 SHALL BE USED FOR WORK ON IL. RTE. 29.

GENERAL NOTES:

1. DURING NON-WORKING HOURS, 2 LANES OF TRAFFIC EACH DIRECTION ON IL. RTE. 29 SHALL BE MAINTAINED.
2. LANE RESTRICTIONS ON IL. RTE. 29 WILL NOT BE ALLOWED AFTER 3 P.M.
3. DURING ANY LANE CLOSURE ON IL. RTE. 29 AN ARROW BOARD SHALL BE REQUIRED.
4. SEE SPECIAL PROVISIONS.

LEGEND

W20-1 (ORANGE) ROAD CONSTRUCTION AHEAD
W20-7 (ORANGE) FLAGMAN AHEAD

TRAFFIC CONTROL & PROTECTION SPECIAL

Revised

ROUTE	SECTION	COUNTY	SHEET TOTAL	SHEET NO.
FA 49	(14,16)I+HL	PEORIA TAZEWELL	29	23
MKD.				
PROJ.	STA. 246+40 TO STA. 250+00			

EAST APPROACH

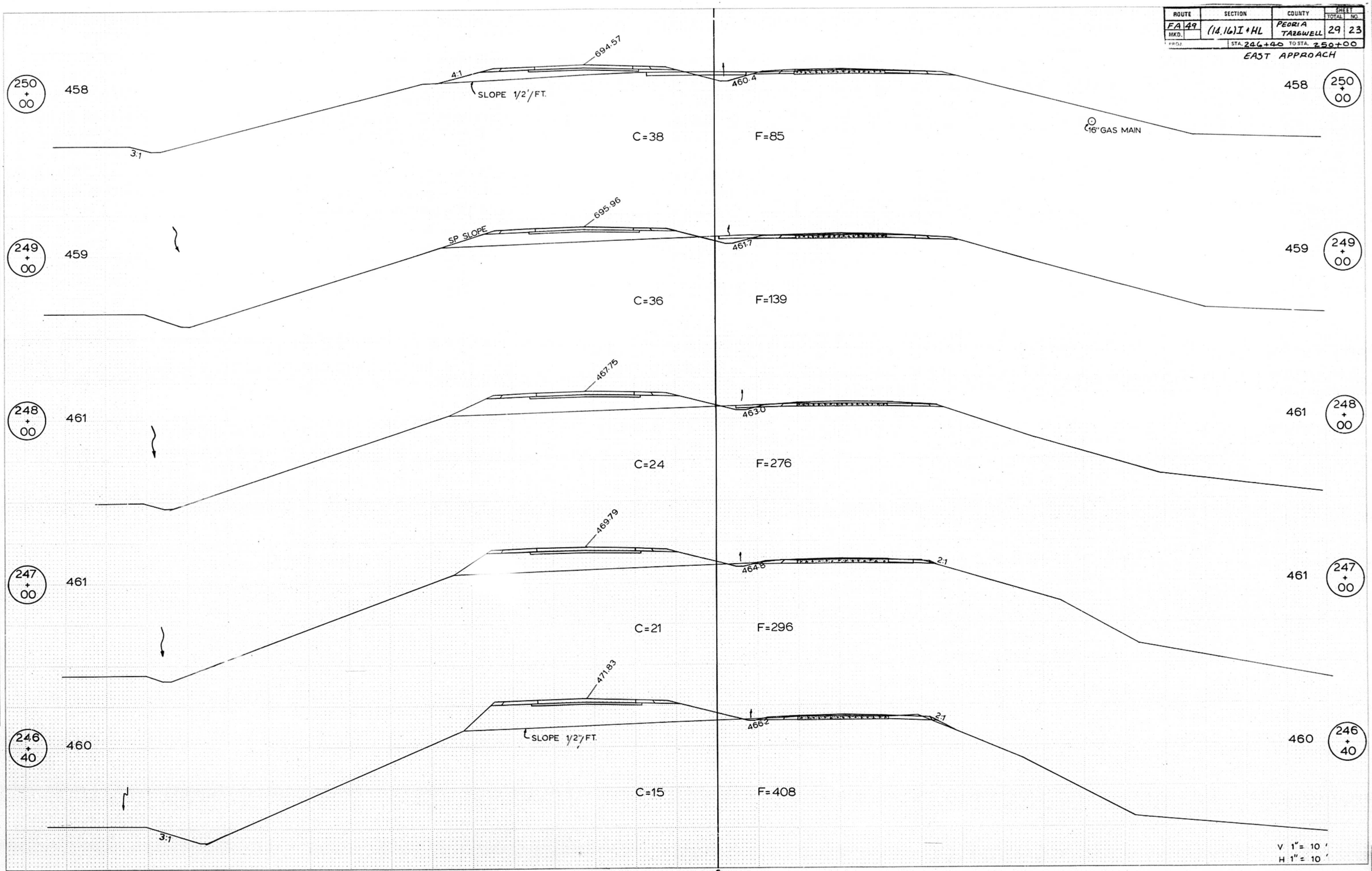


PLATE 3—FULL CROSS SECTION

FINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREA, AREA CHECKED, NOTE BOOK, NO.

ORIGINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREA, AREA CHECKED, NOTE BOOK, NO., BY, DATE

ROUTE	SECTION	COUNTY	SHEET TOTAL	SHEET NO.
FA 49	(14,16)I & HL	PEORIA TAZEWELL	29	24
MKD.				
PROJ.	STA. 251+00 TO STA. 255+00			

EAST APPROACH

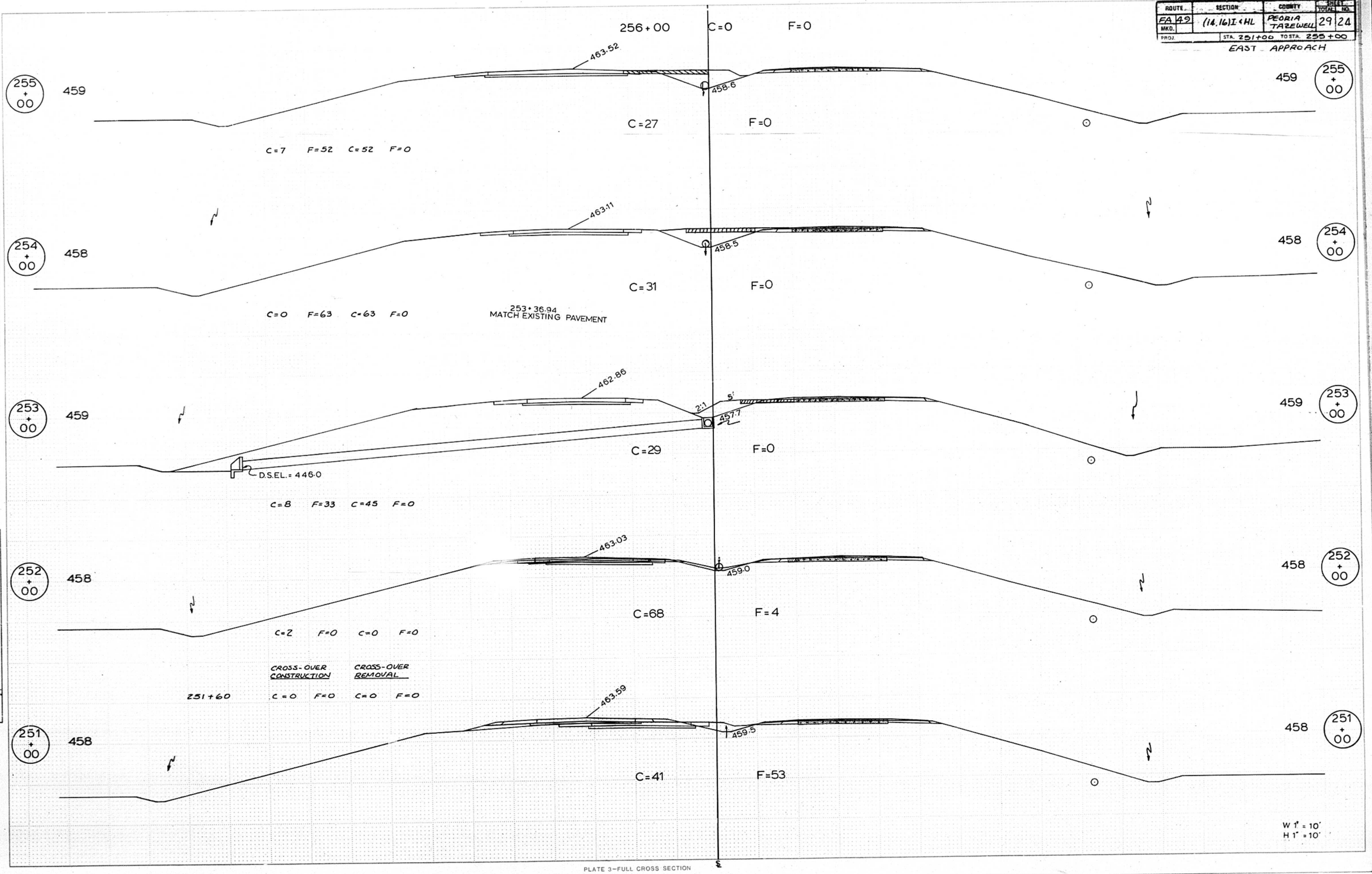


PLATE 3—FULL CROSS SECTION

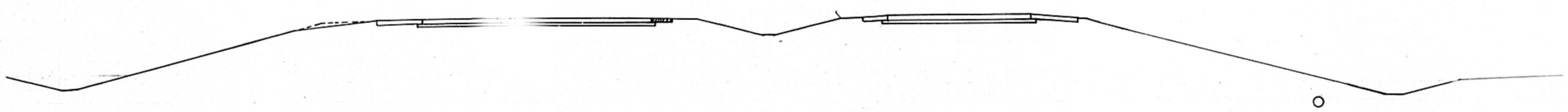
FINAL SURVEY: SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED, NOTE BOOK, NO.

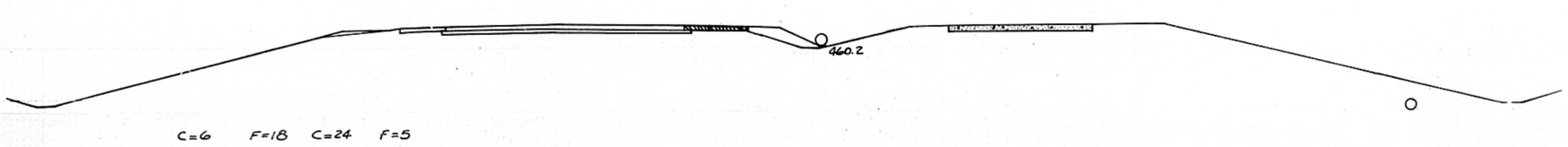
ORIGINAL SURVEY: SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED, NOTE BOOK, NO., BY, DATE

ROUTE	SECTION	COUNTY	SHEET TOTAL	SHEET NO.
FA 149	(14,16)I-HL	PEORIA TAZEWELL	29	25
MKR.	STA. 256+00 TO STA. 257+00			

EAST APPROACH

	CROSS-OVER CONSTRUCTION		CROSS-OVER REMOVAL	
257+60	C=0	F=0	C=0	F=0





V 1" = 10' H 1" = 10'

FINAL SURVEY

ORIGINAL SURVEY

ROUTE	SECTION	COUNTY	SHEET TOTAL	SHEET NO.
FA 49	(14,16)I+HL	PEORIA TAZEWELL	29	26
MKD.				
PROJ.	STA. 3+00	TO STA. 4+00		

WEST APPROACH
Ramp A

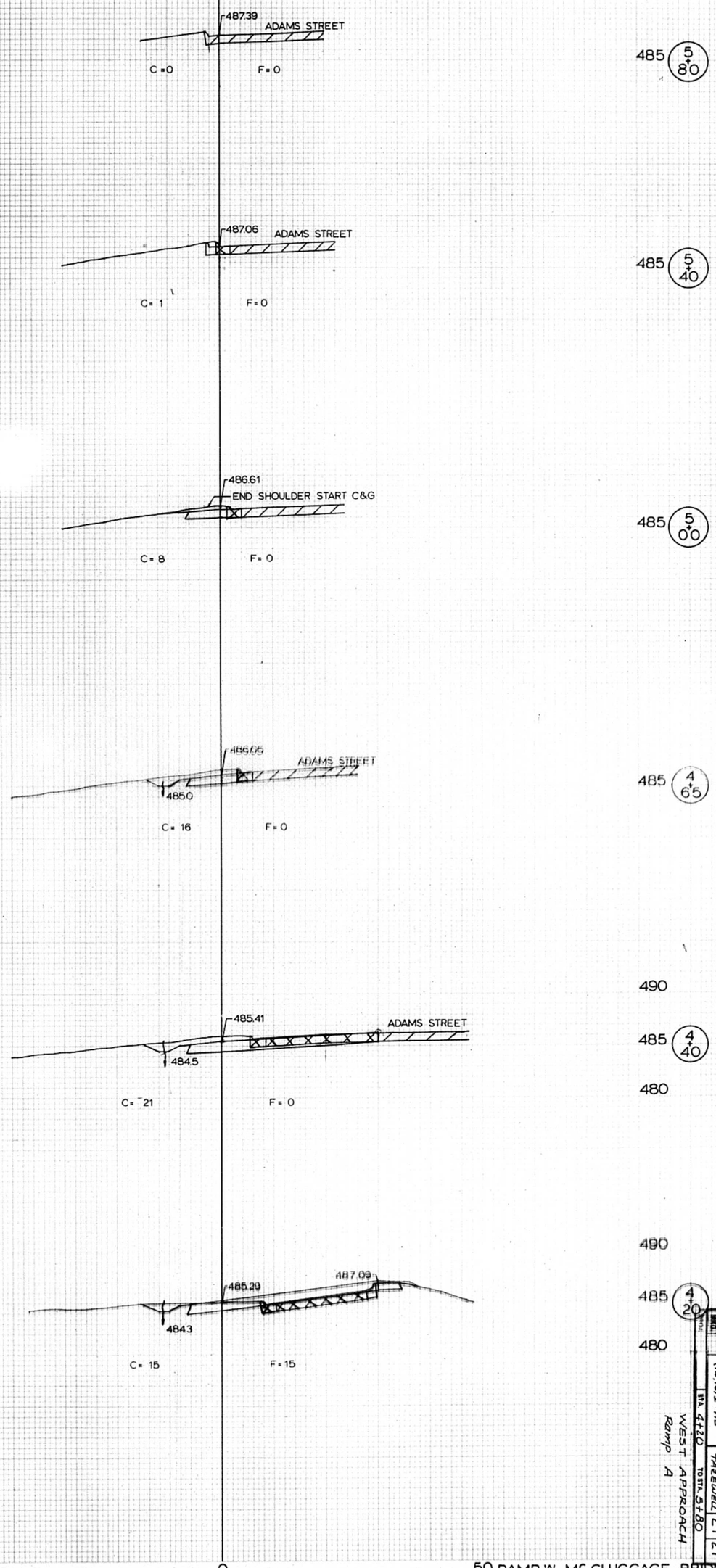
1" = 10' HORIZ.
1" = 5' VERT.

ORIGINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
	TEMPLATE		
NOTE BOOK	AREAS		
NO.	AREAS CHECKED		

FINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
	TEMPLATE		
NOTE BOOK	AREAS		
NO.	AREAS CHECKED		

ORIGINAL SURVEY			
NOTE BOOK	SURVEYED		
	PLOTTED		
	TEMPLATE		
NO.	AREAS		
	AREAS CHECKED		

FINAL SURVEY			
NOTE BOOK	SURVEYED		
	PLOTTED		
	TEMPLATE		
NO.	AREAS		
	AREAS CHECKED		



1" = 10' HORIZ.
1" = 5' VERT.

100 50 0 50 100

RAMP 'A' McCLUGGAGE BRIDGE

ROUTE	SECTION	COUNTY	SHEET TOTAL	SHEET NO.
FA 259	(14,16) I-74 IL	PEORIA TAZEWELL	29	27

STA. 4+20 TO STA. 5+80

WEST APPROACH Ramp A

ROUTE	SECTION	COUNTY	SHEET TOTAL	SHEET NO.
FA 49	(14,16)I+HL	PEORIA TAZEWELL	29	28
MKD.				
PROJ.	STA. 8+75	TO STA. 10+50		

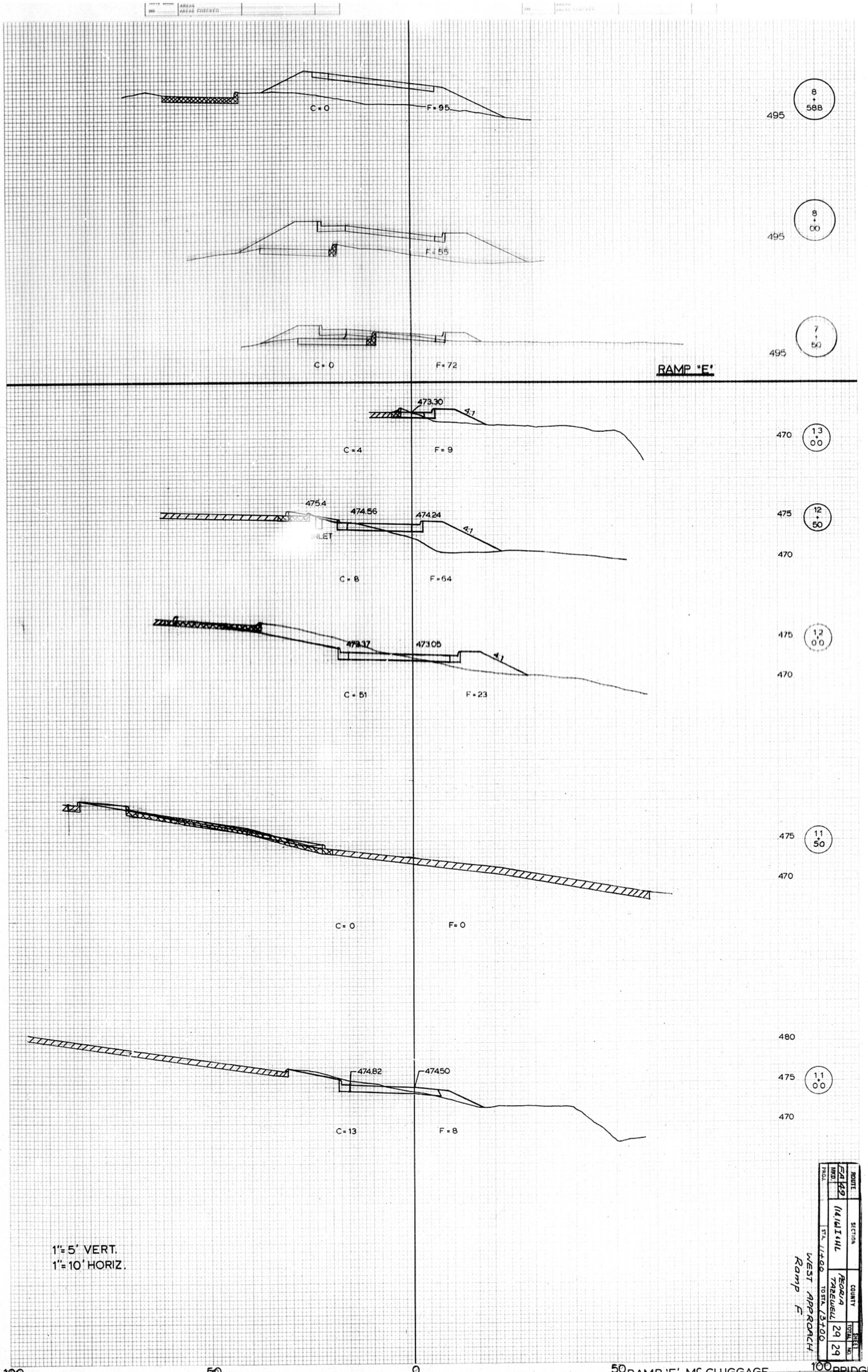
WEST APPROACH
Ramp F

1"= 5' VERT.
1"= 10' HORIZ.

50 RAMP 'F' MC CHIGGAGE BRIDGE 100

ORIGINAL SURVEY		BY	DATE
	SURVEYED		
	PLOTTED		
	TRAVERSE		
	NOTE BOOK	AREAS	
	NO.	AREAS CHECKED	

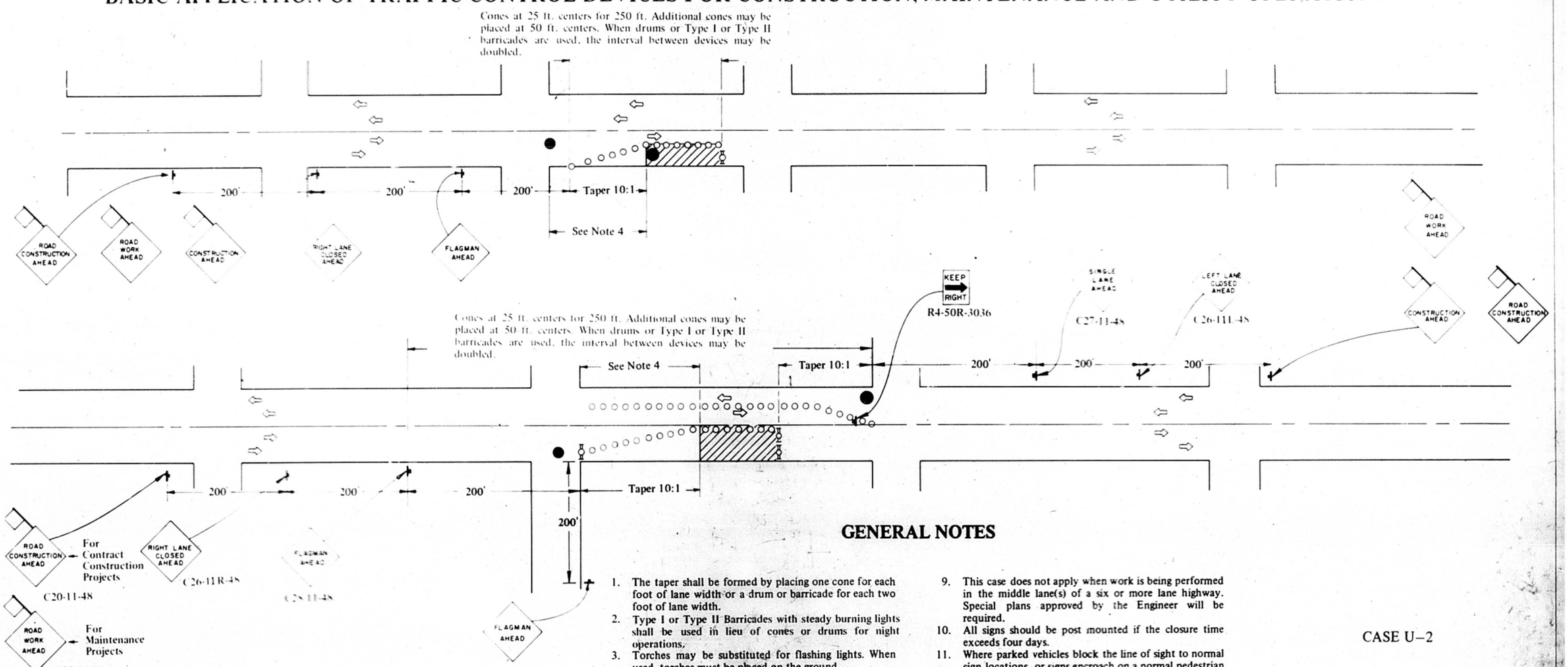
FINAL SURVEY
SURVEYED
PLOTTED
TRAVERSE
NOTE BOOK
NO.
AREAS
AREAS CHECKED


C = 0
F = 95
495
8 + 588
F = 55
495
8 + 00
C = 0
F = 72
495
7 + 50
RAMP "E"
473.30
4:1
C = 4
F = 9
470
1.3 + 00
475.4
474.56
474.24
4:1
INLET
C = 8
F = 64
475
470
12 + 50
473.17
473.05
4:1
C = 51
F = 23
475
470
1.2 + 00
C = 0
F = 0
475
470
1.1 + 50
474.82
474.50
C = 13
F = 8
480
475
470
1.1 + 00
1" = 5' VERT.
1" = 10' HORIZ.
100
50
0
50
100
RAMP 'E' MC CLUGGAGE
BRIDGE
ROUTE
FA 149
SECTION
114,141+HL
COUNTY
PEORIA
TAZEWELL
TOTAL SHEETS
29
29
FROM STA. 11+00
TO STA. 13+00
WEST APPROACH
Ramp F

SECTION NO.	ROUTE	COUNTY	TOTAL SHEETS	SHEET NO.
FA 49	(14,19) F.H.L.	Peoria Tazewell	29	29A

FED. ROAD DIST. NO. 7 | ILLINOIS | PROJECT

BASIC APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION, MAINTENANCE AND UTILITY OPERATIONS



SYMBOLS

Work Area.

Sign with 18 in. by 18 in. (minimum) orange flag attached.

Cone, Drum (55 or 30 gallon), Type I or Type II Barricade.

Sign on portable or permanent support.

Flagman with Traffic Control sign.

Type I or Type II Barricade with flashing light.

GENERAL NOTES

1. The taper shall be formed by placing one cone for each foot of lane width or a drum or barricade for each two foot of lane width.
2. Type I or Type II Barricades with steady burning lights shall be used in lieu of cones or drums for night operations.
3. Torches may be substituted for flashing lights. When used, torches must be placed on the ground.
4. For operations within 50 ft. of an intersection, traffic control plans shall be approved by the Engineer.
5. Where the work area extends through the intersection, barricades and adequate warning signs shall be erected on the cross street.
6. If the work area is in the parking lane and the parking exists during work hours a ROAD CONSTRUCTION AHEAD or ROAD WORK AHEAD or CONSTRUCTION AHEAD sign shall be installed 200 ft. in advance of the work area and the area protected with cones or barricades.
7. When there is no work being performed, the FLAGMAN AHEAD sign(s) and the flagman will not be required. A ONE LANE ROAD AHEAD sign(s) shall be installed in place of the FLAGMAN AHEAD sign(s).
8. If the work operation is performed between 9:00 a.m. and 3:00 p.m. and does not exceed 15 minutes, traffic protection shall be as shown for Case VII. Signs, when required, shall be installed at 200 ft. spacing.
9. This case does not apply when work is being performed in the middle lane(s) of a six or more lane highway. Special plans approved by the Engineer will be required.
10. All signs should be post mounted if the closure time exceeds four days.
11. Where parked vehicles block the line of sight to normal sign locations, or signs encroach on a normal pedestrian walkway, the signs shall be post mounted with the bottom not less than 7 ft. above the edge of the roadway.
12. High intensity flashing lights shall be used on each approach in advance of the work area during hours of darkness and installed above the first two signs in each series.
13. Longitudinal dimensions may be adjusted to fit field conditions. The lateral placement of the flagmen may be varied from that shown.
14. All warning signs shall have black legend and border on an orange reflectorized background. When the posted speed limit is 35 or 40 M.P.H. all warning signs shall have minimum dimensions of 48 in. by 48 in., or with the approval of the Engineer 36 in. by 36 in. If the posted speed limit is 30 M.P. H. or less all warning signs shall have minimum dimensions of 36 in. by 36 in. All signs other than warning signs shall have as a minimum the dimensions shown and shall have a black legend and border on a white reflectorized background.
15. All vehicles, equipment, men and their activities are restricted at all times to one side of the pavement unless otherwise authorized by the Engineer.
16. Form BT 725 is required.

CASE U–2

MULTILANE TWO WAY TRAFFIC, UNDIVIDED URBAN OR MULTILANE TWO WAY TRAFFIC, DIVIDED URBAN WITH MOUNTABLE MEDIAN, DAY OR NIGHT OPERATION

Where, at any time, any vehicle, equipment, men or their activities encroach on the pavement requiring the closure of at least one traffic lane in an area where the posted speed limit is 40 M.P.H. or less.